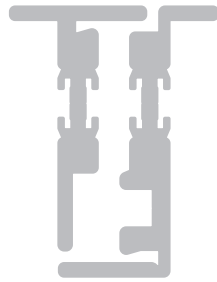


OTTOSTUMM | **mogs**

FerroFinestra®  
W75 TB - D75 TB





FerroFinestra®  
W75 TB - D75 TB

| <b>Content</b>                                            | <b>Sommario</b>                                         | <b>Índice</b>                                                  |            |
|-----------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------|------------|
| <b>System</b>                                             | <b>Sistema</b>                                          | <b>Sistema</b>                                                 | <b>1.0</b> |
| System description                                        | Descrizione del sistema                                 | Descripción del sistema                                        | 1.1        |
| Performances                                              | Performance                                             | Características de prestación                                  | 1.2        |
| Type overview and dimensional limits                      | Tipologie e limiti dimensionali                         | Resumen de modelos y dimensiones                               | 1.3        |
| <b>Profile Range</b>                                      | <b>Gamma profili</b>                                    | <b>Gama de perfiles</b>                                        | <b>2.0</b> |
| Profiles                                                  | Profili                                                 | Perfiles                                                       | 2.1        |
| Glazing beads                                             | Profili fermavetro                                      | Junquillos                                                     | 2.2        |
| Glazing table                                             | Tabella vetrazioni                                      | Tabla de acristalamiento                                       | 2.3        |
| <b>Accessories</b>                                        | <b>Accessori</b>                                        | <b>Accesorios</b>                                              | <b>3.0</b> |
| Opening scheme                                            | Schema di apertura                                      | Diagrama de apertura                                           |            |
| Surface finishes                                          | Finiture                                                | Acabados de superficie                                         |            |
| Gaskets                                                   | Guarnizioni                                             | Juntas de sellado                                              | 3.1        |
| System accessories                                        | Accessori di sistema                                    | Accesorios del sistema                                         | 3.2        |
| Hinges                                                    | Cerniere                                                | Bisagras                                                       | 3.3        |
| Flush bolts                                               | Catenacci                                               | Pasador de canto                                               | 3.4        |
| General fittings                                          | Ferramenta generale                                     | Herrajes generales                                             | 3.5        |
| Locks                                                     | Serrature                                               | Cerraduras                                                     | 3.6        |
| Screws                                                    | Viti                                                    | Tornillos                                                      | 3.7        |
| Assembling tools                                          | Utensili di assemblaggio                                | Herramientas de montaje                                        | 3.8        |
| Multipoint steel rods, with Graz                          | Multipoint aste in acciaio, con Graz                    | Multipoint varillas de acero, con Graz                         | 3.9        |
| Multipoint aluminum rods, with Graz and Mono              | Multipoint aste in alluminio, con Graz e Mono           | Multipoint varillas de aluminio, con Graz y Mono               | 3.10       |
| Multipoint aluminum rods, with lever handle               | Multipoint aste in alluminio, con cariglione            | Multipoint varillas de aluminio, con manija de bloqueo         | 3.11       |
| Tilt&Turn window                                          | Finestra anta ribalta                                   | Ventana oscilante                                              | 3.12       |
| <b>Examples</b>                                           | <b>Esempi</b>                                           | <b>Ejemplos</b>                                                | <b>4.0</b> |
| Window details                                            | Sezioni finestre                                        | Detalles de ventanas                                           | 4.1        |
| Door details                                              | Sezioni porte                                           | Detalles de puertas                                            | 4.2        |
| Details, structural connections                           | Dettagli di costruzione                                 | Detalles de construcción                                       | 4.3        |
| Wall connections                                          | Attacchi a muro                                         | Cierres constructivos                                          | 4.4        |
| <b>Processing</b>                                         | <b>Lavorazioni</b>                                      | <b>Procesamiento</b>                                           | <b>5.0</b> |
| Health and safety                                         | Prevenzione e sicurezza                                 | Prevención y seguridad                                         | 5.1        |
| Cutting                                                   | Taglio                                                  | Corte                                                          | 5.2        |
| Welding                                                   | Saldatura                                               | Soldadura                                                      | 5.3        |
| Accessories installation                                  | Montaggio accessori                                     | Montaje accesorios                                             | 5.4        |
| Multipoint steel rods installation, with Graz             | Montaggio Multipoint aste in acciaio, con Graz          | Montaje Multipoint varillas de acero, con Graz                 | 5.5        |
| Multipoint aluminum rods installation, with Graz and Mono | Montaggio Multipoint aste in alluminio, con Graz e Mono | Montaje Multipoint varillas de aluminio, con Graz y Mono       | 5.6        |
| Multipoint aluminum rods installation, with lever handle  | Montaggio Multipoint aste in alluminio, con cariglione  | Montaje Multipoint varillas de aluminio, con manija de bloqueo | 5.7        |
| Installation Tilt&Turn fittings                           | Montaggio accessori finestra anta ribalta               | Montaje accesorios ventana oscilante                           | 5.8        |
| Pivot window installation                                 | Montaggio sistema pivot                                 | Montaje sistema de pivote                                      | 5.9        |
| Glazing                                                   | Vetrazione                                              | Acristalamiento                                                | 5.10       |

|                                        |                                           |                                         |            |
|----------------------------------------|-------------------------------------------|-----------------------------------------|------------|
| <b>General technical instructions</b>  | <b>Indicazioni tecniche generali</b>      | <b>Instrucciones técnicas generales</b> | <b>6.0</b> |
| Ventilation glazing rebate             | Ventilazione vetrocamera                  | Ventilación del acristalamiento         | 6.1        |
| Bending radius                         | Raggi di curvatura                        | Radios de curvatura                     | 6.2        |
| Coating                                | Verniciatura                              | Pintura                                 | 6.3        |
| <br>                                   |                                           |                                         |            |
| <b>General information</b>             | <b>Informazioni generali</b>              | <b>Información general</b>              | <b>7.0</b> |
| Foreword                               | Premessa                                  | Prólogo                                 | 7.1        |
| Materials                              | Materiali                                 | Materiales                              | 7.2        |
| European standards                     | Norme Europee                             | Normas europeas                         | 7.3        |
| Orders                                 | Ordini                                    | Pedido                                  | 7.4        |
| Transport and storage                  | Trasporto e stoccaggio                    | Transporte y almacenamiento             | 7.5        |
| Processing:                            | Lavorazioni:                              | Procesamiento:                          | 7.6        |
| - general                              | - aspetti generali                        | - generalidades                         | 7.6.1      |
| - sawing                               | - taglio a sega                           | - corte con sierra                      | 7.6.2      |
| - drilling                             | - foratura                                | - taladrado                             | 7.6.3      |
| - thread cutting                       | - filettatura                             | - corte roscado                         | 7.6.4      |
| - milling                              | - fresatura                               | - fresado                               | 7.6.5      |
| - welding                              | - saldatura                               | - soldadura                             | 7.6.6      |
| - welding station                      | - postazione di saldatura                 | - puesto de soldadura                   | 7.6.7      |
| - straightening work                   | - interventi di rettifica                 | - enderezamiento                        | 7.6.8      |
| - cleaning                             | - pulitura                                | - limpieza                              | 7.6.9      |
| Surface treatment:                     | Trattamento superficiale:                 | Tratamiento de superficie:              | 7.7        |
| - general notes, coating               | - aspetti generali, la verniciatura       | - generalidades, la pintura             | 7.7.1      |
| - procedure                            | - procedura                               | - procedimiento                         | 7.7.2      |
| - weld seam area                       | - area del cordone di saldatura           | - zona de cordón de soldadura           | 7.7.3      |
| - cleaning the surfaces                | - pulizia delle superfici                 | - limpieza de las superficies           | 7.7.4      |
| - mechanical roughening of the surface | - preparazione meccanica della superficie | - raspado mecánico de la superficie     | 7.7.5      |
| - chemical surface treatment           | - trattamento chimico della superficie    | - tratamiento químico de la superficie  | 7.7.6      |
| - types of coating                     | - tipi di verniciatura                    | - tipos de pintura                      | 7.7.7      |
| - Cor-Ten profile oxidation            | - ossidazione su profili Cor-Ten          | - oxidación en perfiles Cor-Ten         | 7.7.8      |
| Installation on site:                  | Posa in opera:                            | Montaje:                                | 7.8        |
| - glazing                              | - vetrazione                              | - acristalamientos                      | 7.8.1      |
| - joint sealing                        | - sigillatura giunti                      | - sellado de juntas                     | 7.8.2      |
| - damage prevention on site            | - prevenzione dei danni in cantiere       | - prevención de daños en el sitio       | 7.8.3      |
| - cleaning                             | - pulizia                                 | - limpieza                              | 7.8.4      |
| - use and maintenance                  | - uso e manutenzione                      | - uso y mantenimiento                   | 7.8.5      |
| <br>                                   |                                           |                                         |            |
| Technical services                     | Consulenza tecnica                        | Apoyo técnico                           | 7.9        |
| Disclaimer                             | Avvertenze                                | Descargo                                | 7.10       |



**System**

**Sistema**

**Sistema**

**1.0**

System description  
Performances  
Type overview and  
dimensional limits

Descrizione del sistema  
Performance  
Tipologie e limiti dimensionali

Descripción del sistema  
Características de prestación  
Resumen de modelos y  
dimensiones

**1.1**  
**1.2**  
**1.3**





**System description**

**Descrizione del sistema**

**Descripción del sistema**

**1.1**

## System description

The new FerroFinestra W75 TB system is the most recent development from OTTOSTUMM I Mogs. Like the entire FerroFinestra range, its design recalls the simple, rational and clean lines of early 20th century European architecture. The system, consists of 25 profile sections and represents the most technologically advanced thermally insulated steel system in our portfolio.

A profile construction depth of 75 mm allows the incorporation of highly energy-efficient insulating glazing of up to 52 mm. The glass fiber reinforced insulator made of polyamide guarantees excellent thermal insulation in combination with highest stability for elegant transparency. W75 TB is ideally suited for projects in climatically challenging regions where the requirements of energy-saving regulations are extremely high. With minimum face widths of 27 mm (frame) and 49 mm (leaf-frame combination), flush Tilt&Turn windows (for Euronut fittings) as well as overlapping windows and loft doors can be realized. In addition, and for the first time in OTTOSTUMM I Mogs steel system, a further profile series - D75 TB - is available for multifunctional doors (anti-panic, security protection, etc.) in face widths of 87 mm (leaf-frame combination) and 140 mm (center sash – double leaf).

In addition to the classic continuously hot dip galvanizing, we also offer the versions bright steel, Cor-Ten steel and stainless steel (AISI 316L). The assortment is rounded off by a wide range of exclusive fittings and accessories, which are based on original designs of the modern age. This enables the design of all common opening types, both inward and outward opening.

## Descrizione del sistema

Il nuovo FerroFinestra W75 TB - il più recente prodotto di OTTOSTUMM I Mogs - va ad ampliare la fortunata famiglia FerroFinestra nella versione a taglio termico, mantenendone le caratteristiche di esilità, semplicità e razionalità delle linee, tanto care all'architettura dei primi del Novecento. Nella doppia serie per porte e per finestre, il nuovo sistema prevede anche il meccanismo di apertura ad alta ribalta. Il sistema è composto da 25 geometrie di profilo e rappresenta il sistema in acciaio a taglio termico più avanzato del nostro portfolio. La profondità del profilo di 75 mm consente l'alloggiamento di vetri isolanti ad alta efficienza energetica fino a 52 mm. L'isolante in poliammide rinforzato con fibra di vetro garantisce un'eccellente isolamento termico. Il sistema W75 TB risponde così ai progetti più esigenti, con altissimi requisiti di isolamento.

Con un ingombro visivo minimo di 27 mm (cassa) e 49 mm (cassa+anta), il W75 TB permette di realizzare aperture ad anta ribalta e complanare (per Euronut X), porte e finestre con estetica a sormonto. Inoltre, è stata aggiunta la serie per porte D75 TB (porte anti panico, porte di sicurezza, ecc) con un ingombro visivo di 87 mm (cassa + anta) e 140 mm (nodo centrale a doppia anta). Disponibile in acciaio decapato, acciaio zincato, acciaio inox AISI 316L e acciaio Cor-Ten, il nuovo FerroFinestra W75 TB permette la realizzazione di porte e finestre di raffinata eleganza, in particolare nel ricercato stile industriale.

## Descripción del sistema

El nuevo sistema FerroFinestra W75 TB es el desarrollo más reciente de OTTOSTUMM I Mogs. Como toda la gama FerroFinestra, su diseño recuerda las líneas simples, racionales y limpias de la arquitectura europea de principios del siglo XX. El sistema, que consta de 25 secciones de perfil, representa el sistema de acero con aislamiento térmico más avanzado tecnológicamente de nuestra gama. Una profundidad de construcción del perfil de 75 mm permite la incorporación de acristalamientos aislantes de alta eficiencia energética de hasta 52 mm. El aislante reforzado con fibra de vidrio hecho de poliamida garantiza un excelente aislamiento térmico en combinación con la máxima estabilidad para una elegante transparencia.

W75 TB es ideal para proyectos en regiones climáticamente rigurosas donde los requerimientos normativos en ahorro de energía son extremadamente altos.

Con anchos de cara mínimos de 27 mm (marco) y 49 mm (combinación de hoja-marco), se pueden realizar ventanas oscilantes y batientes (para accesorios Euronut), así como ventanas practicables y puertas deslizantes. Además, y por primera vez en sistema de acero OTTOSTUMM I Mogs, está disponible otra serie de perfiles, la D75 TB, para puertas multifuncionales (anti-pánico, protección de seguridad, etc.) en anchos de cara de 87 mm (combinación hoja-marco) y 140 mm (hoja central - doble hoja). Además del clásico galvanizado continuo en caliente, también ofrecemos las versiones acero bruto, acero Cor-Ten y acero inoxidable (AISI 316L). La gama se completa con una amplia selección de herrajes y accesorios exclusivos, que se basan en diseños originales de la época moderna. Esto permite el diseño de todos los tipos de apertura comunes, tanto hacia adentro como hacia afuera.

**System description**

Fixed glazing, side hung single and double leaf windows, opening inwards and outwards. Tilt&Turn, Bottom hung and top-hung/ projecting windows. Single and double leaf doors open inward and outward.

Wet and dry glazing;

Glass thickness from 26 to 56 mm;

System fittings with screw-on and weld-on hinges;

Classic and modern fittings.

**Descrizione del sistema**

Vetrature fisse, finestre a una o due ante battenti, anta ribalta e a sporgere, con apertura interna o esterna. Porte a una o due ante battenti, con apertura interna o esterna.

Vetrocamera sigillato con silicone o con guarnizioni a secco;

Spessore del vetrocamera da 26 a 56 mm;

Ferramenta con cerniere ad avvitare e a saldare;

Ferramenta classica e moderna.

**Descripción del sistema**

Acristalamientos fijos, ventanas de una y dos hojas, batientes, con apertura hacia adentro y hacia afuera, así como ventanas oscilobatientes y proyectantes que se abren hacia adentro, puertas de una y dos hojas apertura interna o externa.

Acristalamiento húmedo en seco;

Espesor de vidrio de 26 a 56 mm;

Herrajes del sistema con bisagras para atornillar y soldar;

Herrajes clásicos y modernos.

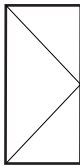
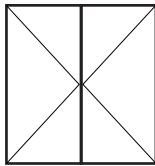
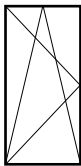
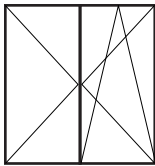
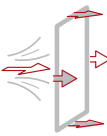


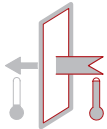


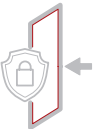


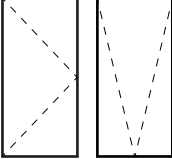
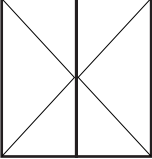
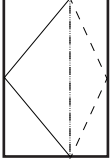
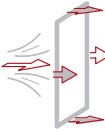

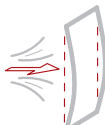
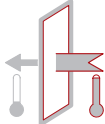

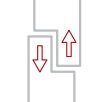
**Performances**

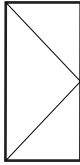
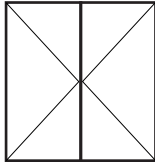

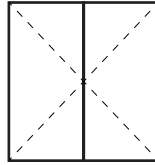
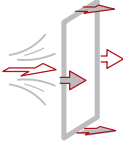
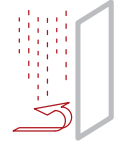

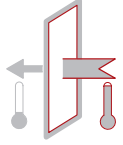
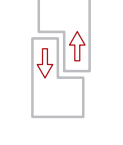
**Performance**

**Características de prestación**

**1.2**

| Standard Norme Normas                                                                             | Test Controlli Ensayos                                                                                        |      |      |     |    |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                   |                                                                                                               | Open in window<br>Finestra apertura interna<br>Apertura hacia dentro                  | Open in window<br>Finestra apertura interna<br>Apertura hacia dentro                  | Tilt&Turn window<br>Finestra apertura anta ribalta<br>Ventana hacia arriba            | Tilt&Turn window<br>Finestra apertura anta ribalta<br>Ventana hacia arriba            |
|  EN12207         | Air permeability<br>Permeabilità all'aria<br>Permeabilidad al aire                                            | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa       | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa       | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa       | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa       |
|  EN12208         | Water tightness<br>Tenuta all'acqua<br>Estanquidad al agua                                                    | up to class 9A - 600 Pa<br>fino alla classe 9A - 600 Pa<br>hasta clase 9A - 600 Pa    | up to class 9A - 600 Pa<br>fino alla classe 9A - 600 Pa<br>hasta clase 9A - 600 Pa    | up to class 9A - 600 Pa<br>fino alla classe 9A - 600 Pa<br>hasta clase 9A - 600 Pa    | up to class 8A - 450 Pa<br>fino alla classe 8A - 450 Pa<br>hasta clase 8A - 450 Pa    |
|  EN12210       | Resistance to wind load<br>Resistenza al carico del vento<br>Resistencia a la presión del viento              | up to class C5 - 2000 Pa<br>fino alla classe C5 - 2000 Pa<br>hasta clase C5 - 2000 Pa | up to class B4 - 1600 Pa<br>fino alla classe B4 - 1600 Pa<br>hasta clase B4 - 1600 Pa | up to class C5 - 2000 Pa<br>fino alla classe C5 - 2000 Pa<br>hasta clase C5 - 2000 Pa | up to class C3 - 1200 Pa<br>fino alla classe C3 - 1200 Pa<br>hasta clase C3 - 1200 Pa |
|  EN ISO10077-1 | Heat transfer coefficient<br>Coefficiente di trasmittanza termica<br>Coeficiente de transmisión térmica       | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                            | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                            | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                            | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                            |
|  EN ISO10140   | Sound insulation<br>Isolamento acustico<br>Absorción acústica                                                 | up to 44 dB (-2;-5)<br>fino a 44 dB (-2;-5)<br>hasta 44 dB (-2;-5)                    |                                                                                       | up to 44 dB (-2;-5)<br>fino a 44 dB (-2;-5)<br>hasta 44 dB (-2;-5)                    |                                                                                       |
|  EN14024       | Metal profile with thermal barrier<br>Profili metallici a taglio termico<br>Perfiles metálicos rotura térmica | CW / TC2                                                                              | CW / TC2                                                                              | CW / TC2                                                                              | CW / TC2                                                                              |
|  EN1627        | Burglary resistance<br>Antieffrazione<br>Antirrobo                                                            |                                                                                       |                                                                                       |                                                                                       | RC2                                                                                   |

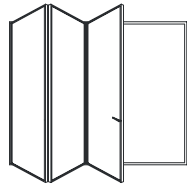
| Standard<br>Norme<br>Normas                                                         | Test<br>Controlli<br>Ensayos                                                                                             |      |                            |      |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|                                                                                     |                                                                                                                          | Open out window<br>Finestra apertura esterna<br>Apertura hacia fuera                  | Open in window (Multipoint)<br>Finestra apertura interna (Multipoint)<br>Apertura hacia dentro (Multipoint) | Pivot window (Multipoint)<br>Finestra pivot (Multipoint)<br>Ventana pivote (Multipoint) |
|    | EN12207<br>Air permeability<br>Permeabilità all'aria<br>Permeabilidad al aire                                            | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa       | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa                             | up to class 4 - 600 Pa<br>fino alla classe 4 - 600 Pa<br>hasta clase 4 - 600 Pa         |
|    | EN12208<br>Water tightness<br>Tenuta all'acqua<br>Estanquidad al agua                                                    | up to class 9A - 600 Pa<br>fino alla classe 9A - 600 Pa<br>hasta clase 9A - 600 Pa    | up to class 8A - 450 Pa<br>fino alla classe 8A - 450 Pa<br>hasta clase 8A - 450 Pa                          | up to class 7A - 300 Pa<br>fino alla classe 7A - 300 Pa<br>hasta clase 7A - 300 Pa      |
|  | EN12210<br>Resistance to wind load<br>Resistenza al carico del vento<br>Resistencia a la presión del viento              | up to class C5 - 2000 Pa<br>fino alla classe C5 - 2000 Pa<br>hasta clase C5 - 2000 Pa | up to class C2 - 800 Pa<br>fino alla classe C2 - 800 Pa<br>hasta clase C2 - 800 Pa                          | up to class C3 - 1200 Pa<br>fino alla classe C3 - 1200 Pa<br>hasta clase C3 - 1200 Pa   |
|  | EN ISO10077-1<br>Heat transfer coefficient<br>Coefficiente di trasmittanza termica<br>Coeficiente de transmisión térmica | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                            | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                                                  | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                              |
|  | EN ISO10140<br>Sound insulation<br>Isolamento acustico<br>Absorción acústica                                             | up to 44 dB (-2;-5)<br>fino a 44 dB (-2;-5)<br>hasta 44 dB (-2;-5)                    |                                                                                                             |                                                                                         |
|  | EN14024<br>Metal profile with thermal barrier<br>Profili metallici a taglio termico<br>Perfiles metálicos rotura térmica | CW / TC2                                                                              | CW / TC2                                                                                                    | CW / TC2                                                                                |

| Standard<br>Norme<br>Normas                                                         | Test<br>Controlli<br>Ensayos                                                                                  |   |   |  |  |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                     |                                                                                                               | Open in door<br>Porta apertura interna<br>Apertura hacia dentro                    | Open in door<br>Porta apertura interna<br>Apertura hacia dentro                    | Open out door<br>Porta apertura esterna<br>Apertura hacia fuera                    | Open out door<br>Porta apertura esterna<br>Apertura hacia fuera                     |
| <b>EN12207</b>                                                                      | Air permeability<br>Permeabilità all'aria<br>Permeabilidad al aire                                            | up to class 3 - 600 Pa<br>fino alla classe 3 - 600 Pa<br>hasta clase 3 - 600 Pa    | up to class 3 - 600 Pa<br>fino alla classe 3 - 600 Pa<br>hasta clase 3 - 600 Pa    | up to class 3 - 600 Pa<br>fino alla classe 3 - 600 Pa<br>hasta clase 3 - 600 Pa    | up to class 2 - 600 Pa<br>fino alla classe 2 - 600 Pa<br>hasta clase 2 - 600 Pa     |
|    |                                                                                                               |                                                                                    |                                                                                    |                                                                                    |                                                                                     |
| <b>EN12208</b>                                                                      | Water tightness<br>Tenuta all'acqua<br>Estanquidad al agua                                                    | up to class 6A - 250 Pa<br>fino alla classe 5A - 200 Pa<br>hasta clase 5A - 200 Pa | up to class 6A - 250 Pa<br>fino alla classe 5A - 200 Pa<br>hasta clase 5A - 200 Pa | up to class 9A - 600 Pa<br>fino alla classe 9A - 600 Pa<br>hasta clase 9A - 600 Pa |                                                                                     |
|   |                                                                                                               |                                                                                    |                                                                                    |                                                                                    |                                                                                     |
| <b>EN12210</b>                                                                      | Resistance to wind load<br>Resistenza al carico del vento<br>Resistencia a la presión del viento              | up to class C2 - 800 Pa<br>fino alla classe C2 - 800 Pa<br>hasta clase C2 - 800 Pa | up to class C2 - 800 Pa<br>fino alla classe C2 - 800 Pa<br>hasta clase C2 - 800 Pa | up to class C2 - 800 Pa<br>fino alla classe C2 - 800 Pa<br>hasta clase C2 - 800 Pa | up to class B1 - 600 Pa<br>fino alla classe B1 - 600 Pa<br>hasta clase B1 - 600 Pa  |
|  |                                                                                                               |                                                                                    |                                                                                    |                                                                                    |                                                                                     |
| <b>EN ISO10077-1</b>                                                                | Heat transfer coefficient<br>Coefficiente di trasmittanza termica<br>Coeficiente de transmisión térmica       | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                         | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                         | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                         | from > 1.00 W/m²K<br>da > 1.00 W/m²K<br>desde > 1.00 W/m²K                          |
|  |                                                                                                               |                                                                                    |                                                                                    |                                                                                    |                                                                                     |
| <b>EN14024</b>                                                                      | Metal profile with thermal barrier<br>Profili metallici a taglio termico<br>Perfiles metálicos rotura térmica | CW / TC2                                                                           | CW / TC2                                                                           | CW / TC2                                                                           | CW / TC2                                                                            |
|  |                                                                                                               |                                                                                    |                                                                                    |                                                                                    |                                                                                     |



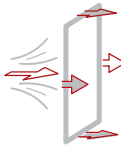
**Standard  
Norme  
Normas**

**Test  
Controlli  
Ensayos**



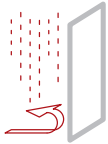
Bi-folding door - open in  
Sistema di porte a libro - apertura interna  
Sistema de puerta plegable - apertura hacia dentro

EN12207



Air permeability up to class 2 - 600 Pa  
Permeabilità all'aria fino alla classe 2 - 600 Pa  
Permeabilidad al aire hasta clase 2 - 600 Pa

EN12208



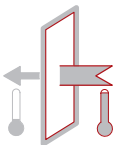
Water tightness up to class 5A - 200 Pa  
Tenuta all'acqua fino alla classe 5A - 200 Pa  
Estanquidad al agua hasta clase 5A - 200 Pa

EN12210



Resistance to wind load up to class C2 - 800 Pa  
Resistenza al carico del vento fino alla classe C2 - 800 Pa  
Resistencia a la presión del viento hasta clase C2 - 800 Pa

EN ISO10077-1



Heat transfer coefficient from > 1.00 W/m²K  
Coefficiente di trasmittanza termica da > 1.00 W/m²K  
Coeficiente de transmisión térmica desde > 1.00 W/m²K

EN14024



Metal profile with thermal barrier CW / TC2  
Profili metallici a taglio termico  
Perfiles metálicos rotura térmica

**U<sub>f</sub> value**

Performances according to EN 10077-2

**Valore U<sub>f</sub>**

Prestazioni secondo EN 10077-2

**Valor U<sub>f</sub>**

Características de prestación conforme EN 10077-2

|                              | T = 24 mm | T = 36 mm | T = 45 mm |  |
|------------------------------|-----------|-----------|-----------|--|
| FT 7512HK-02<br>FT 7512ZK-02 | 2.3       | 2.3       | 2.2       |  |
| FT 7512HK-05<br>FT 7512ZK-05 | 2.2       | 2.3       | 2.1       |  |
| FT 7512HK-07<br>FT 7512ZK-07 | 2.5       | 2.5       | 2.3       |  |
| FT 7512HK-12<br>FT 7512ZK-12 | 2.3       | 2.3       | 2.2       |  |
| FT 7512HK-02<br>FT 7512TK-02 | 2.5       | 2.4       | 2.2       |  |
| FT 7512HK-05<br>FT 7512TK-05 | 2.4       | 2.3       | 2.1       |  |
| FT 7512HK-07<br>FT 7512TK-07 | 2.4       | 2.5       | 2.4       |  |
| FT 7512HK-12<br>FT 7512TK-12 | 2.5       | 2.4       | 2.2       |  |
| FT 7512TK-02<br>FT 7512ZK-02 | 3.2       | 2.8       | 2.6       |  |
| FT 7512TK-05<br>FT 7512ZK-05 | 3.1       | 2.7       | 2.5       |  |
| FT 7512TK-07<br>FT 7512ZK-07 | 3.3       | 2.9       | 2.7       |  |
| FT 7512TK-12<br>FT 7512ZK-12 | 3.2       | 2.8       | 2.6       |  |
| FT 7512H-02<br>FT 7512Z-02   | 2.5       | 2.4       | 2.3       |  |
| FT 7512H-05<br>FT 7512Z-05   | 2.4       | 2.3       | 2.2       |  |
| FT 7512H-07<br>FT 7512Z-07   | 2.6       | 2.5       | 2.4       |  |
| FT 7512H-12<br>FT 7512Z-12   | 2.5       | 2.4       | 2.3       |  |

T = Glazing thickness  
According to EN 10077-2:  
U<sub>f</sub> = U<sub>f</sub> value in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Spessore vetro  
Secondo EN 10077-2:  
U<sub>f</sub> = valore U<sub>f</sub> in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Espesores de vidrio  
U<sub>f</sub> = valor U<sub>f</sub> en [W/m²K]  
Conforme EN 10077-2:  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

**U<sub>f</sub> value**

Performances according to EN 10077-2

**Valore U<sub>f</sub>**

Prestazioni secondo EN 10077-2

**Valor U<sub>f</sub>**

Características de prestación conforme EN 10077-2

|                              | T = 24 mm | T = 36 mm | T = 45 mm |  |
|------------------------------|-----------|-----------|-----------|--|
| FT 7512HR-02<br>FT 8312ZR-02 | 3.0       | 2.9       | 2.8       |  |
| FT 7512HR-05<br>FT 8312ZR-05 | 2.8       | 2.8       | 2.6       |  |
| FT 7512HR-07<br>FT 8312ZR-07 | 3.0       | 3.0       | 2.8       |  |
| FT 7512HR-12<br>FT 8312ZR-12 | 3.0       | 2.9       | 2.8       |  |
| FT 7512H-02<br>FT 7512T-02   | 2.7       | 2.5       | 2.4       |  |
| FT 7512H-05<br>FT 7512T-05   | 2.6       | 2.4       | 2.3       |  |
| FT 7512H-07<br>FT 7512T-07   | 2.8       | 2.6       | 2.5       |  |
| FT 7512H-12<br>FT 7512T-12   | 2.7       | 2.5       | 2.4       |  |
| FT 8312TZ-02<br>FT 7512Z-02  | 3.3       | 2.9       | 2.7       |  |
| FT 8312TZ-05<br>FT 7512Z-05  | 3.2       | 2.8       | 2.6       |  |
| FT 8312TZ-07<br>FT 7512Z-07  | 3.5       | 3.0       | 2.8       |  |
| FT 8312TZ-12<br>FT 7512Z-12  | 3.3       | 2.9       | 2.7       |  |
| FT 7512TR-02<br>FT 8312ZR-02 | 3.7       | 3.2       | 3.0       |  |
| FT 7512TR-05<br>FT 8312ZR-05 | 3.5       | 3.0       | 2.8       |  |
| FT 7512TR-07<br>FT 8312ZR-07 | 4.0       | 3.5       | 3.2       |  |
| FT 7512TR-12<br>FT 8312ZR-12 | 3.7       | 3.2       | 3.0       |  |

T = Glazing thickness  
According to EN 10077-2:  
U<sub>f</sub> = U<sub>f</sub> value in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Spessore vetro  
Secondo EN 10077-2:  
U<sub>f</sub> = valore U<sub>f</sub> in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Espesores de vidrio  
U<sub>f</sub> = valor U<sub>f</sub> en [W/m²K]  
Conforme EN 10077-2:  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

**U<sub>f</sub> value**

Performances according to EN 10077-2

**Valore U<sub>f</sub>**

Prestazioni secondo EN 10077-2

**Valor U<sub>f</sub>**

Características de prestación conforme EN 10077-2

|                            | T = 24 mm | T = 36 mm | T = 45 mm |  |
|----------------------------|-----------|-----------|-----------|--|
| FT 7512L-02                | 2.8       | 2.6       | 2.4       |  |
| FT 7512L-05                | 2.7       | 2.5       | 2.3       |  |
| FT 7512L-07                | 2.9       | 2.8       | 2.4       |  |
| FT 7512L-12                | 2.8       | 2.6       | 2.4       |  |
| FT 7512H-02                | 2.1       | 1.9       | 1.8       |  |
| FT 7512H-05                | 2.0       | 1.9       | 1.7       |  |
| FT 7512H-07                | 2.2       | 2.1       | 1.9       |  |
| FT 7512H-12                | 2.1       | 1.9       | 1.8       |  |
| FT 7512T-02                | 2.8       | 2.5       | 2.1       |  |
| FT 7512T-05                | 2.6       | 2.4       | 2.0       |  |
| FT 7512T-07                | 2.9       | 2.7       | 2.1       |  |
| FT 7512T-12                | 2.8       | 2.5       | 2.1       |  |
| FT 7512L-02<br>FT 7512L-02 | 3.0       | 2.6       | 2.4       |  |
| FT 7512L-05<br>FT 7512L-05 | 3.0       | 2.5       | 2.4       |  |
| FT 7512L-07<br>FT 7512L-07 | 3.2       | 2.8       | 2.6       |  |
| FT 7512L-12<br>FT 7512L-12 | 3.0       | 2.6       | 2.4       |  |

T = Glazing thickness  
According to EN 10077-2:  
U<sub>f</sub> = U<sub>f</sub> value in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Spessore vetro  
Secondo EN 10077-2:  
U<sub>f</sub> = valore U<sub>f</sub> in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Espesores de vidrio  
U<sub>f</sub> = valor U<sub>f</sub> en [W/m²K]  
Conforme EN 10077-2:  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

**U<sub>f</sub> value**

Performances according to EN 10077-2

**Valore U<sub>f</sub>**

Prestazioni secondo EN 10077-2

**Valor U<sub>f</sub>**

Características de prestación conforme EN 10077-2

|                            | T = 24 mm | T = 36 mm | T = 45 mm |  |
|----------------------------|-----------|-----------|-----------|--|
| FT 7550LF-02               | 2.8       | 2.5       | 2.3       |  |
| FT 7550LF-05               | 2.6       | 2.4       | 2.2       |  |
| FT 7550LF-07               | 3.0       | 2.8       | 2.5       |  |
| FT 7550LF-12               | 2.8       | 2.5       | 2.3       |  |
| FT 7550TF-02               | 2.6       | 2.3       | 1.9       |  |
| FT 7550TF-05               | 2.4       | 2.1       | 1.8       |  |
| FT 7550TF-07               | 2.9       | 2.7       | 2.2       |  |
| FT 7550TF-12               | 2.6       | 2.3       | 1.9       |  |
| FT 7550L-02<br>FT 7550Z-02 | 2.5       | 2.3       | 2.2       |  |
| FT 7550L-05<br>FT 7550Z-05 | 2.2       | 2.1       | 2.0       |  |
| FT 7550L-07<br>FT 7550Z-07 | 2.7       | 2.6       | 2.5       |  |
| FT 7550L-12<br>FT 7550Z-12 | 2.5       | 2.3       | 2.2       |  |
| FT 7550L-02<br>FT 7550T-02 | 2.5       | 2.3       | 2.4       |  |
| FT 7550L-05<br>FT 7550T-05 | 2.5       | 2.3       | 2.2       |  |
| FT 7550L-07<br>FT 7550T-07 | 3.0       | 2.7       | 2.6       |  |
| FT 7550L-12<br>FT 7550T-12 | 2.5       | 2.3       | 2.4       |  |

T = Glazing thickness  
According to EN 10077-2:  
U<sub>f</sub> = U<sub>f</sub> value in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Spessore vetro  
Secondo EN 10077-2:  
U<sub>f</sub> = valore U<sub>f</sub> in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Espesores de vidrio  
U<sub>f</sub> = valor U<sub>f</sub> en [W/m²K]  
Conforme EN 10077-2:  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

**U<sub>f</sub> value**

Performances according to EN 10077-2

**Valore U<sub>f</sub>**

Prestazioni secondo EN 10077-2

**Valor U<sub>f</sub>**

Características de prestación conforme EN 10077-2

|                            | T = 24 mm | T = 36 mm | T = 45 mm |  |
|----------------------------|-----------|-----------|-----------|--|
| FT 7550Z-02<br>FT 7550T-02 | 2.8       | 2.4       | 2.2       |  |
| FT 7550Z-05<br>FT 7550T-05 | 2.5       | 2.2       | 2.0       |  |
| FT 7550Z-07<br>FT 7550T-07 | 3.1       | 2.7       | 2.5       |  |
| FT 7550Z-12<br>FT 7550T-12 | 2.8       | 2.4       | 2.2       |  |
| FT 7512H-02                | 2.8       | 2.6       | 2.4       |  |
| FT 7512H-05                | 2.8       | 2.5       | 2.3       |  |
| FT 7512H-07                | 3.1       | 2.8       | 2.6       |  |
| FT 7512H-12                | 2.8       | 2.6       | 2.4       |  |
| FT 7550HF-02               | 2.5       | 2.3       | 2.1       |  |
| FT 7550HF-05               | 2.3       | 2.1       | 1.9       |  |
| FT 7550HF-07               | 2.8       | 2.6       | 2.3       |  |
| FT 7550HF-12               | 2.5       | 2.3       | 2.1       |  |

T = Glazing thickness  
According to EN 10077-2:  
U<sub>f</sub> = U<sub>f</sub> value in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Spessore vetro  
Secondo EN 10077-2:  
U<sub>f</sub> = valore U<sub>f</sub> in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Espesores de vidrio  
U<sub>f</sub> = valor U<sub>f</sub> en [W/m²K]  
Conforme EN 10077-2:  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

**U<sub>f</sub> value**  
Performances according  
to EN 10077-2

**Valore U<sub>f</sub>**  
Prestazioni secondo  
EN 10077-2

**Valor U<sub>f</sub>**  
Características de prestación  
conforme EN 10077-2

|                             | T = 24 mm | T = 36 mm | T = 45 mm |  |
|-----------------------------|-----------|-----------|-----------|--|
| FT 7550Z-02<br>FT 6712LB-05 | 3.4       | 3.3       | 3.2       |  |
| FT 7550Z-05<br>FT 6712LB-05 | 3.3       | 3.2       | 3.0       |  |
| FT 7550Z-07<br>FT 6712LB-05 | 3.6       | 3.5       | 3.3       |  |
| FT 7550Z-12<br>FT 6712LB-05 | 3.4       | 3.3       | 3.2       |  |
| FT 7550T-02<br>FT 6712LB-05 | 2.9       | 2.6       | 2.5       |  |
| FT 7550T-05<br>FT 6712LB-05 | 2.6       | 2.4       | 2.3       |  |
| FT 7550T-07<br>FT 6712LB-05 | 3.1       | 2.8       | 2.7       |  |
| FT 7550T-12<br>FT 6712LB-05 | 2.9       | 2.6       | 2.5       |  |

T = Glazing thickness  
According to EN 10077-2:  
U<sub>f</sub> = U<sub>f</sub> value in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Spessore vetro  
Secondo EN 10077-2:  
U<sub>f</sub> = valore U<sub>f</sub> in [W/m²K]  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]

T = Espesores de vidrio  
U<sub>f</sub> = valor U<sub>f</sub> en [W/m²K]  
Conforme EN 10077-2:  
T = 24 mm, λ=0.035 [W/(m·K)]  
T = 36 mm, λ=0.035 [W/(m·K)]





**Type overview and  
dimensional limits**

**Tipologie e limiti  
dimensionali**

**Resumen de modelos  
y dimensiones**

**1.3**

**Legend**

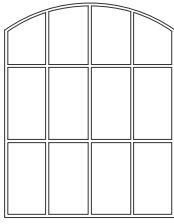
+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm

**Leyenda**

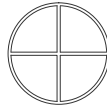
+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm



Fixed glazing

Vetrature fisse

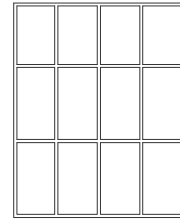
Acristalamientos fijos



Fixed glazing

Vetrature fisse

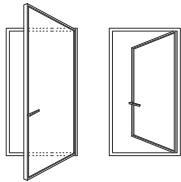
Acristalamientos fijos



Fixed glazing

Vetrature fisse

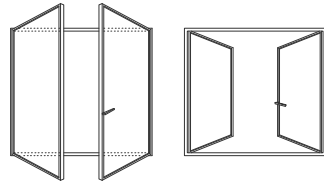
Acristalamientos fijos



Single leaf open in or open out side hung window

Finestra a un battente apertura interna o esterna

Ventana batiente de una hoja que se abre hacia dentro o fuera



Double leaf open in or open out side hung window

Finestra a due battenti apertura interna o esterna

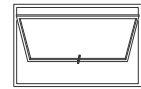
Ventana batiente de dos hojas que se abre hacia dentro o fuera



Open in bottom hung window

Finestra vasistas apertura interna

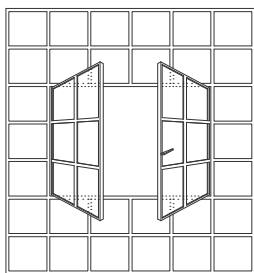
Ventana oscilante que se abre hacia dentro



Open out top hung projecting window

Finestra a sporgere apertura esterna

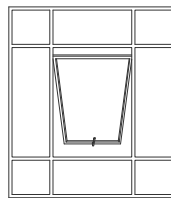
Ventana proyectante que se abre hacia fuera



Double leaf open in side hung window in fixed glazing

Finestra a due battenti apertura interna in vetratura fissa

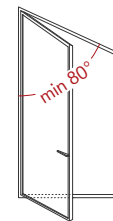
Ventana doble batiente que se abre hacia dentro en acristalamiento



Open out top hung projecting window

Finestra a sporgere apertura esterna

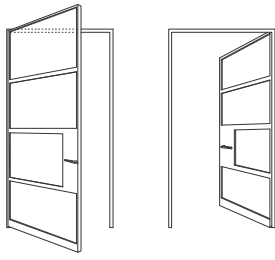
Ventana proyectante que se abre hacia fuera



For trapezoidal windows, the minimum angle on the hinges side is 80°

Per finestre trapezoidali, l'angolo minimo lato cerniere è di 80°

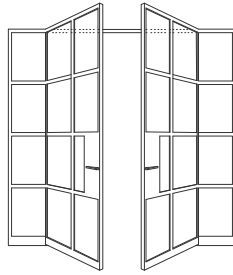
Para ventanas trapezoidales, el ángulo mínimo en el lado de la bisagras es de 80°



Single leaf door  
open in or open out

Porta a un battente  
apertura interna o esterna

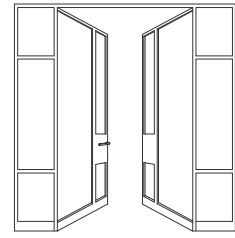
Puerta batiente de una hoja  
que se abre hacia dentro o fuera



Double leaf door open in  
with side lights

Porta a due battenti apertura interna  
con fissi laterali

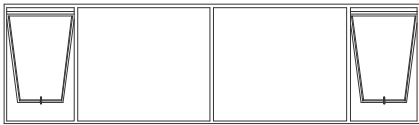
Puerta doble batiente que se abre hacia  
dentro con fijos laterales



Double leaf door open out  
with side lights

Porta a due battenti apertura esterna  
con fissi laterali

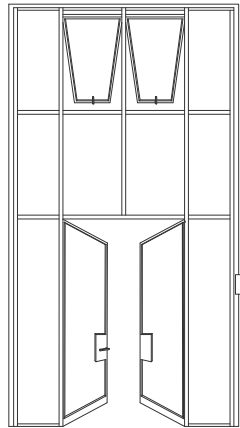
Puerta doble batiente que se abre hacia  
fuera con fijos laterales



Fixed glazing with single leaf door open in  
and top hung windows

Vetratura fissa con porta batiente apertura interna  
e finestre a sporgere

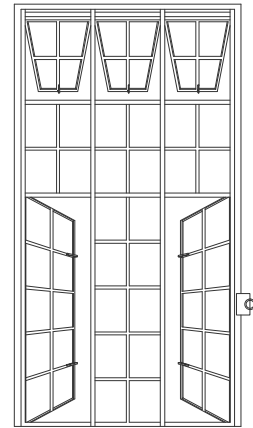
Acristalamiento con puerta batiente que se abre  
hacia dentro y ventana proyectante



Curtain wall with double leaf door  
and top hung windows

Facciata con porta a due battenti  
e finestre a sporgere

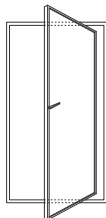
Fachadas con puerta batiente  
y ventana proyectante



Industrial sidewall windows  
and historical curtain walls

Facciate e vetrate fisse  
stile industrial

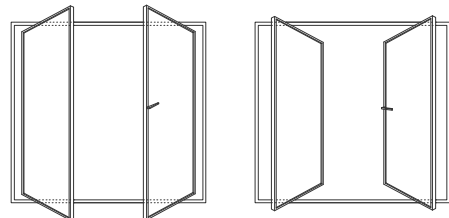
Fachadas y acristalamientos  
de diseño industrial



Single leaf pivot window open in and open out

Finestra pivot a un battente apertura interna ed esterna

Ventana pivote de una hoja que se abre hacia dentro y fuera



Double leaf pivot window open in and open out

Finestra pivot a due battenti apertura interna ed esterna

Ventana pivote de dos hojas que se abre hacia dentro y fuera

**Dimensions**

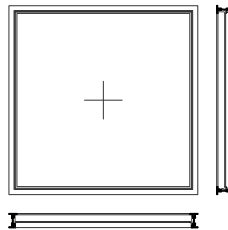
W75 TB - Windows

**Dimensioni**

W75 TB - Finestre

**Dimensiones**

W75 TB - Ventanas




---

Fixed window (windows and doors)

---

Finestra fissa (serramenti esterni)

---

Ventana fija (ventanas y puertas)

---

**min. dimensions**    **400 x 400**  
**max. dimensions**    **2400 x 2600**

**Dimensions**

W75 TB - Windows

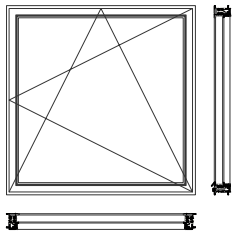
**Dimensioni**

W75 TB - Finestre

**Dimensiones**

W75 TB - Ventanas

Tilt&Turn window - hardware with concealed hinges  
Finestra apertura anta ribalta - ferramenta con cerniere a scomparsa  
Ventana que se abre hacia arriba - herrajes con bisagras ocultas

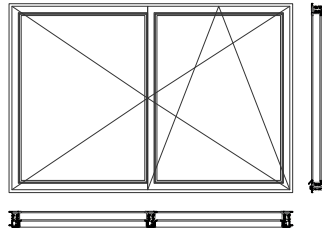


Single leaf Tilt&Turn window

Finestra a un battente apertura anta ribalta

Ventana de una hoja que se abre hacia arriba

See dimensions at page [5.8.33](#)

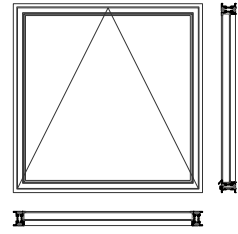


Double leaf Tilt&Turn window

Finestra a due battenti apertura anta ribalta

Ventana de dos hojas que se abre hacia arriba

See dimensions at page [5.8.33](#)



Bottom hung window open in

Finestra vasistas apertura interna

Ventana oscilante que se abre hacia dentro

See dimensions at page [5.8.82](#)

**Dimensions**

W75 TB - Windows

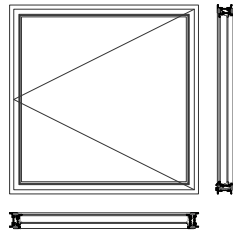
**Dimensioni**

W75 TB - Finestre

**Dimensiones**

W75 TB - Ventanas

Side hung window - overlapped profiles - hardware with concealed hinges (\*)  
Finestra battente - profili a sormonto - ferramenta con cerniere a scomparsa (\*)  
Ventana batiente - perfiles superpuestos - herrajes con bisagras ocultas (\*)

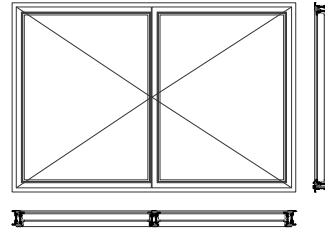


Single leaf window open in

Finestra a un battente apertura interna

Ventana de una hoja que se abre hacia dentro

[See dimensions at page 5.8.65](#)



Double leaf window open in

Finestra a due battenti apertura interna

Ventana de dos hojas que se abre hacia dentro

[See dimensions at page 5.8.65](#)

(\*) Only with FT 8312ZR-nn leaf profile

(\*) Solo con il profilo anta FT 8312ZR-nn

(\*) Solo con perfil de hoja FT 8312ZR-nn

**Dimensions**

W75 TB - Windows

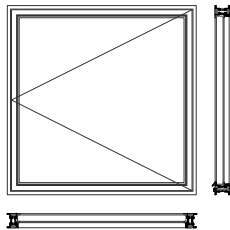
**Dimensioni**

W75 TB - Finestre

**Dimensiones**

W75 TB - Ventanas

Side hung window - flush and overlapped profiles - with weld-on or screw-on hinges  
Finestra battente - profili complanari e a sormonto - con cerniere a saldare o ad avvitare  
Ventana batiente - perfiles coplanarios y superpuestos - con bisagras de soldadura o atornillable



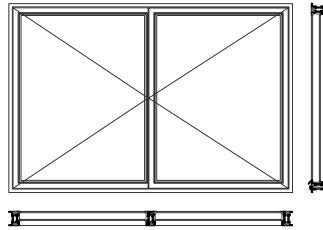
Single leaf window open in

Finestra a un battente apertura interna

Ventana de una hoja que se abre hacia dentro

**min. dimensions** 400 x 700  
**max. dimensions** 1200 x 3000

**max. leaf weight: 190 kg**



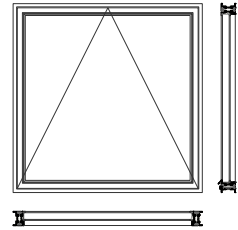
Double leaf window open in

Finestra a due battenti apertura interna

Ventana de dos hojas que se abre hacia dentro

**min. dimensions** 800 x 700  
**max. dimensions** 2400 x 3000

**max. leaf weight: 190 kg**



Bottom hung window open in

Finestra vasistas apertura interna

Ventana oscilante que se abre hacia dentro

**min. dimensions** 500 x 450  
**max. dimensions** 1800 x 1800

**max. leaf weight: 110 kg (\*)**

(\*) related accessory E99205-05

**NOTE:**

Indicative dimensional limits that may have more restrictive constraints depending on the hardware used. Check the detailed drawings.

**NOTA:**

Limiti dimensionali indicativi che possono avere vincoli più restrittivi in funzione della ferramenta utilizzata. Verificare i disegni di dettaglio.

**NOTA:**

Límites dimensionales orientativos que pueden tener condicionantes más restrictivos en función del hardware utilizado. Compruebe los dibujos detallados.

**Dimensions**

W75 TB - Windows

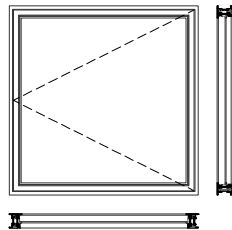
**Dimensioni**

W75 TB - Finestre

**Dimensiones**

W75 TB - Ventanas

Side hung window - flush and overlapped profiles - with weld-on or screw-on hinges  
Finestra battente - profili complanari e a sormonto - con cerniere a saldare o ad avvitare  
Ventana batiente - perfiles coplanarios y superpuestos - con bisagras de soldadura o atornillable



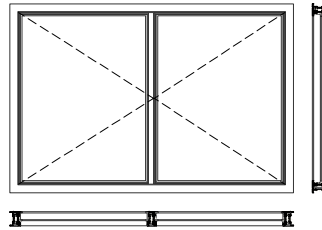
Single leaf window open out

Finestra a un battente apertura esterna

Ventana de una hoja que se abre hacia fuera

**min. dimensions** 400 x 700  
**max. dimensions** 1200 x 3000

**max. leaf weight: 190 kg**



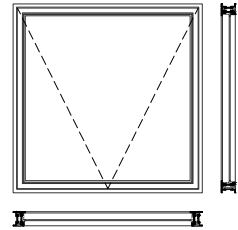
Double leaf window open out

Finestra a due battenti apertura esterna

Ventana de dos hojas que se abre hacia fuera

**min. dimensions** 800 x 700  
**max. dimensions** 2400 x 3000

**max. leaf weight: 190 kg**



Top hung projecting window open out

Finestra a sporgere apertura esterna

Ventana proyectante que se abre hacia fuera

**min. dimensions** 600 x 450  
**max. dimensions** 1800 x 1800

**max. leaf weight: 110 kg (\*\*)**

(\*\*) related accessory E99203-05

**NOTE:**

Indicative dimensional limits that may have more restrictive constraints depending on the hardware used. Check the detailed drawings.

**NOTA:**

Limiti dimensionali indicativi che possono avere vincoli più restrittivi in funzione della ferramenta utilizzata. Verificare i disegni di dettaglio.

**NOTA:**

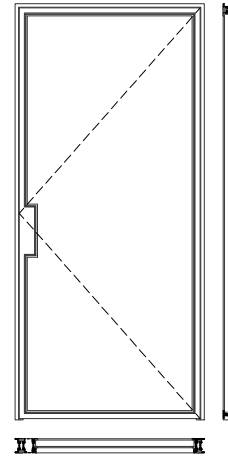
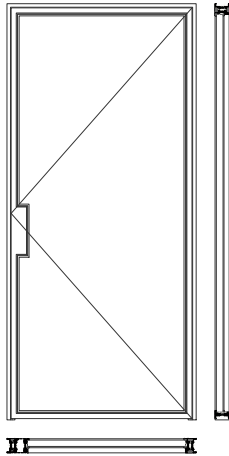
Límites dimensionales orientativos que pueden tener condicionantes más restrictivos en función del hardware utilizado. Compruebe los dibujos detallados.



**Dimensions**  
W75 TB - Doors

**Dimensioni**  
W75 TB - Porte

**Dimensiones**  
W75 TB - Puertas



Single leaf door open in with locking box

Single leaf door open out with locking box

Porta a un battente apertura interna con scatola serratura

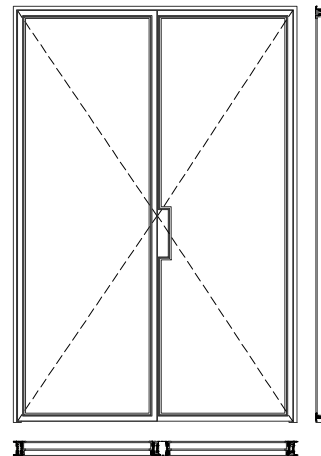
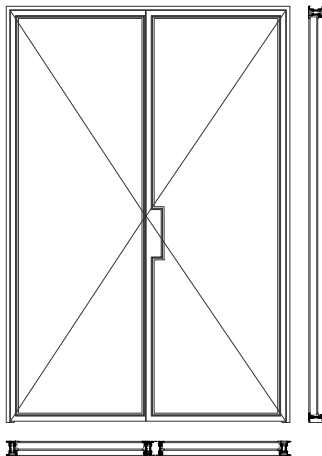
Porta a un battente apertura esterna con scatola serratura

Puerta abatible de una hoja que se abre hacia dentro con caja de cerradura

Puerta abatible de una hoja que se abre hacia fuera con caja de cerradura

**min. dimensions** 700 x 1800  
**max. dimensions** 1200 x 3000  
**max. leaf weight:** 190 kg

**min. dimensions** 700 x 1800  
**max. dimensions** 1200 x 3000  
**max. leaf weight:** 190 kg



Double leaf door open in with locking box

Double leaf door open out with locking box

Porta a due battenti apertura interna con scatola serratura

Porta a due battenti apertura esterna con scatola serratura

Puerta abatible de dos hojas que se abre hacia dentro con caja de cerradura

Puerta abatible de dos hojas que se abre hacia fuera con caja de cerradura

**min. dimensions** 1400 x 1800  
**max. dimensions** 2400 x 3000  
**max. leaf weight:** 190 kg

**min. dimensions** 1400 x 1800  
**max. dimensions** 2400 x 3000  
**max. leaf weight:** 190 kg

**Dimensions**

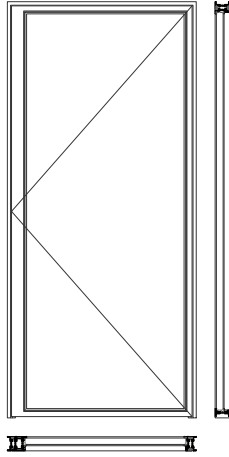
W75 TB - Doors

**Dimensioni**

W75 TB - Porte

**Dimensiones**

W75 TB - Puertas



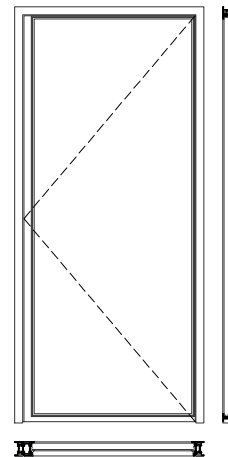
Single leaf door open in with widening  
on complete height on lock side

Porta a un battente con montante maggiorato  
lato serratura apertura interna

Puerta de una hoja con mayor posición vertical  
en el lado de la cerradura que se abre hacia dentro

**min. dimensions 700 x 1800**  
**max. dimensions 1200 x 3000**

**max. leaf weight: 190 kg**



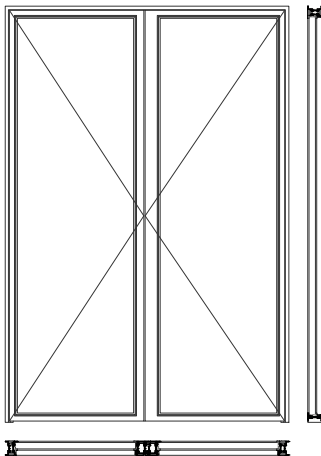
Single leaf door open out with widening  
on complete height on lock side

Porta a un battente con montante maggiorato  
lato serratura apertura esterna

Puerta de una hoja con mayor posición vertical  
en el lado de la cerradura que se abre hacia fuera

**min. dimensions 700 x 1800**  
**max. dimensions 1200 x 3000**

**max. leaf weight: 190 kg**



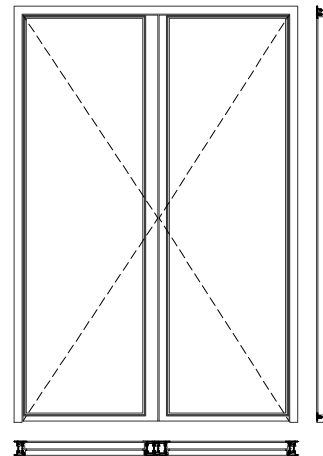
Double leaf door open in

Porta a due battenti apertura interna

Puerta de dos hojas que se abre hacia dentro

**min. dimensions 1400 x 1800**  
**max. dimensions 2400 x 3000**

**max. leaf weight: 190 kg**



Double leaf door open out

Porta a due battenti apertura esterna

Puerta de dos hojas que se abre hacia fuera

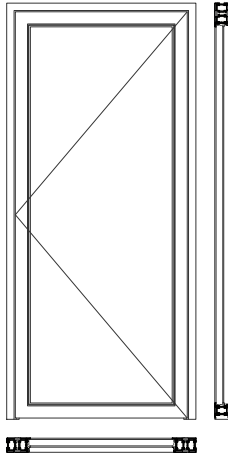
**min. dimensions 1400 x 1800**  
**max. dimensions 2400 x 3000**

**max. leaf weight: 190 kg**

**Dimensions**  
D75 TB - Doors

**Dimensioni**  
D75 TB - Porte

**Dimensiones**  
D75 TB - Puertas

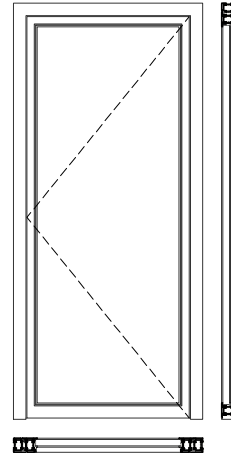


Single leaf door open in

Porta a un battente apertura interna

Puerta abatible de una hojas que se abre hacia dentro

**min. dimensions** 700 x 1800  
**max. dimensions** 1200 x 3000  
**max. leaf weight:** 230 kg

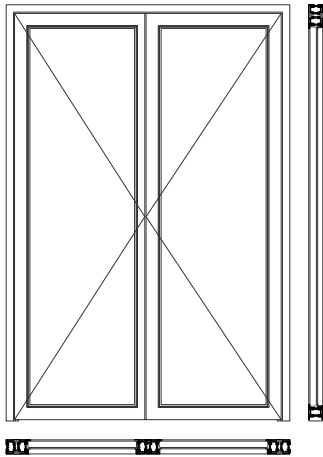


Single leaf door open out

Porta a un battente apertura esterna

Puerta abatible de una hojas que se abre hacia fuera

**min. dimensions** 700 x 1800  
**max. dimensions** 1200 x 3000  
**max. leaf weight:** 230 kg

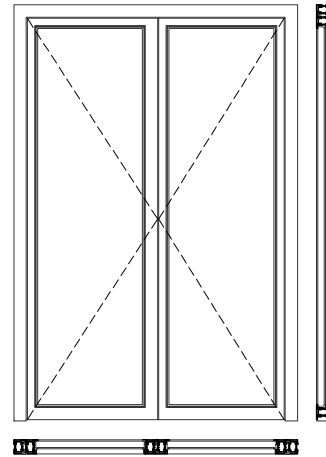


Double leaf door open in

Porta a due battenti apertura interna

Puerta abatible de dos hojas que se abre hacia dentro

**min. dimensions** 1400 x 1800  
**max. dimensions** 2400 x 3000  
**max. leaf weight:** 230 kg



Double leaf door open out

Porta a due battenti apertura esterna

Puerta abatible de dos hojas que se abre hacia fuera

**min. dimensions** 1400 x 1800  
**max. dimensions** 2400 x 3000  
**max. leaf weight:** 230 kg

**Dimensions**

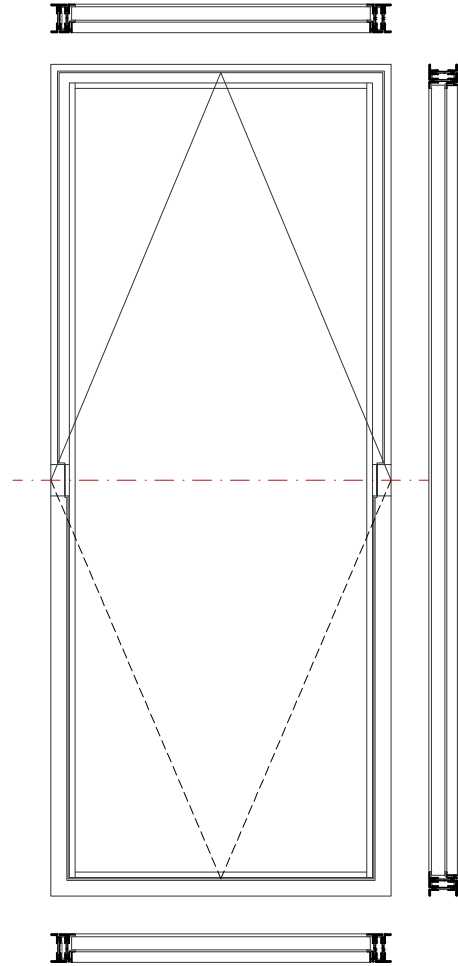
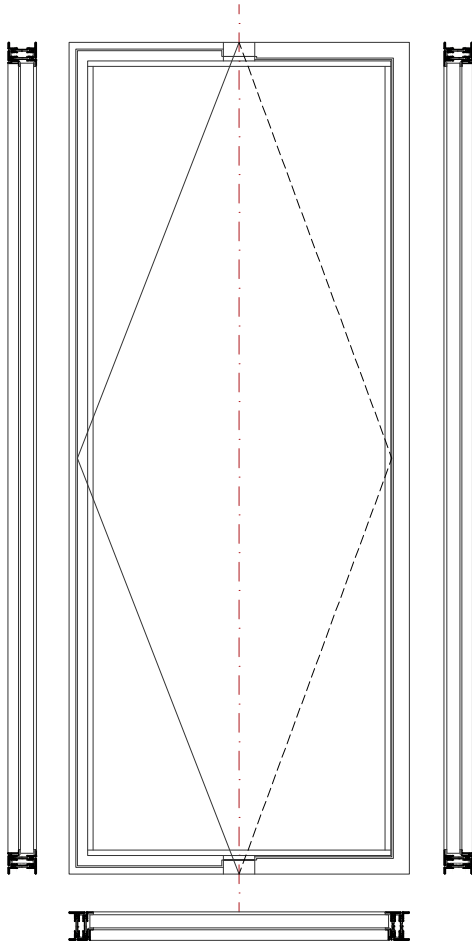
Pivot window system

**Dimensioni**

Finestre sistema pivot

**Dimensiones**

Sistema de ventana pivote



Single leaf pivot window open in and open out

Finestra pivot a un battente apertura interna ed esterna

Ventana pivote de una hoja que se abre hacia dentro y fuera

**min. dimensions** 600 x 600  
**max. dimensions** 2000 x 3000

**Vertical pivot**  
**max. leaf weight: 300 kg**

Single leaf pivot window open in and open out

Finestra pivot a un battente apertura interna ed esterna

Ventana pivote de una hoja que se abre hacia dentro y fuera

**min. dimensions** 600 x 600  
**max. dimensions** 1500 x 2000

**Horizontal pivot**  
**max. leaf weight: 200 kg**

**Profile range**

**Gamma profili**

**Gama de perfiles**

**2.0**

Profiles  
Glazing beads  
Glazing table

Profili  
Profili fermavetro  
Tabella vetrazioni

Perfiles  
Junquillos  
Tabla de acristalamiento

**2.1**  
**2.2**  
**2.3**



**Profiles**

**Profili**

**Perfiles**

2.1

**Legend**

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1  
G = Weight  
U = Coated surface

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1  
G = Peso  
U = Superficie in vista

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1  
G = Peso  
U = Superficie recubierta

**Profiles**

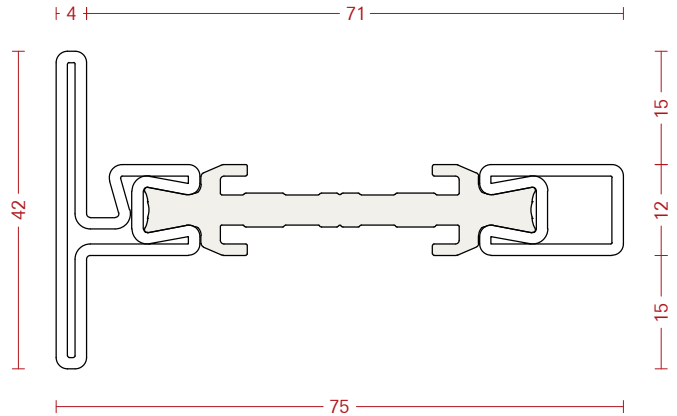
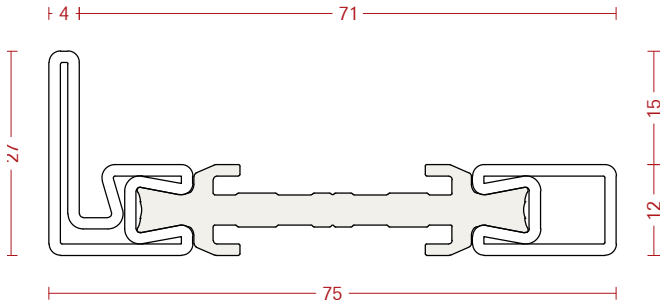
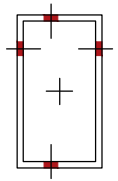
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

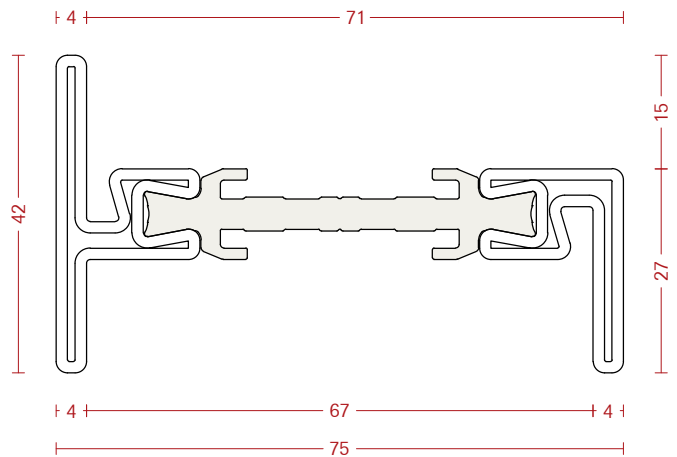
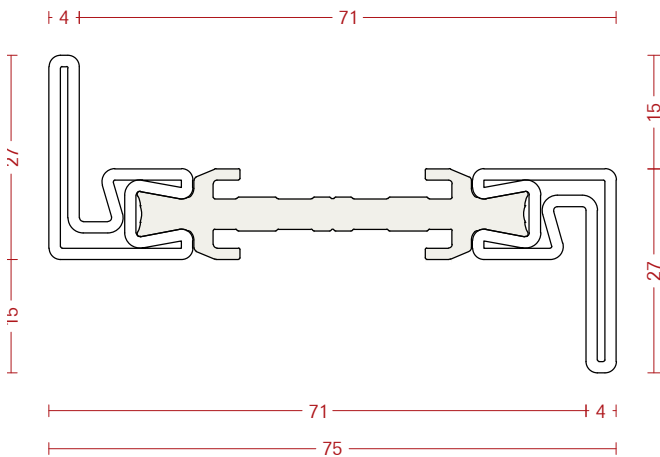
**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



|             |     |          |                   |
|-------------|-----|----------|-------------------|
| FT 7512L-nn | -02 | G = 2.50 | U = 0.264         |
|             | -05 | G = 2.54 | U = 0.264         |
|             | -07 | G = 2.50 | U = 0.264         |
|             | -12 | G = 2.50 | U = 0.264         |
|             |     | kg/m     | m <sup>2</sup> /m |

|             |     |          |                   |
|-------------|-----|----------|-------------------|
| FT 7512T-nn | -02 | G = 2.84 | U = 0.293         |
|             | -05 | G = 2.88 | U = 0.293         |
|             | -07 | G = 2.84 | U = 0.293         |
|             | -12 | G = 2.84 | U = 0.293         |
|             |     | kg/m     | m <sup>2</sup> /m |



|             |     |          |                   |
|-------------|-----|----------|-------------------|
| FT 7512Z-nn | -02 | G = 3.00 | U = 0.307         |
|             | -05 | G = 3.05 | U = 0.307         |
|             | -07 | G = 3.00 | U = 0.307         |
|             | -12 | G = 3.00 | U = 0.307         |
|             |     | kg/m     | m <sup>2</sup> /m |

|             |     |          |                   |
|-------------|-----|----------|-------------------|
| FT 7512H-nn | -02 | G = 3.34 | U = 0.337         |
|             | -05 | G = 3.40 | U = 0.337         |
|             | -07 | G = 3.34 | U = 0.337         |
|             | -12 | G = 3.34 | U = 0.337         |
|             |     | kg/m     | m <sup>2</sup> /m |



**Profiles**

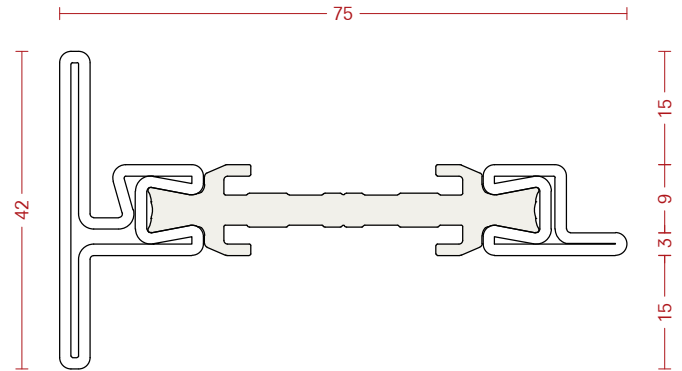
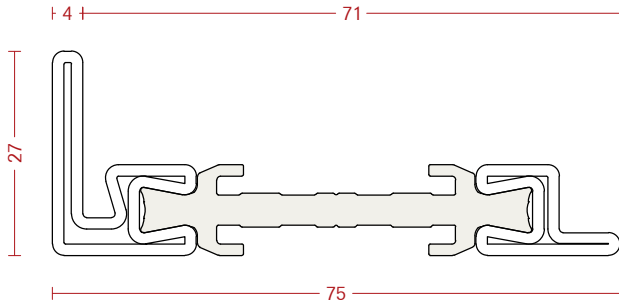
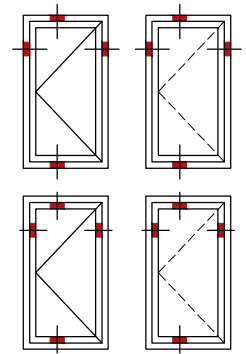
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

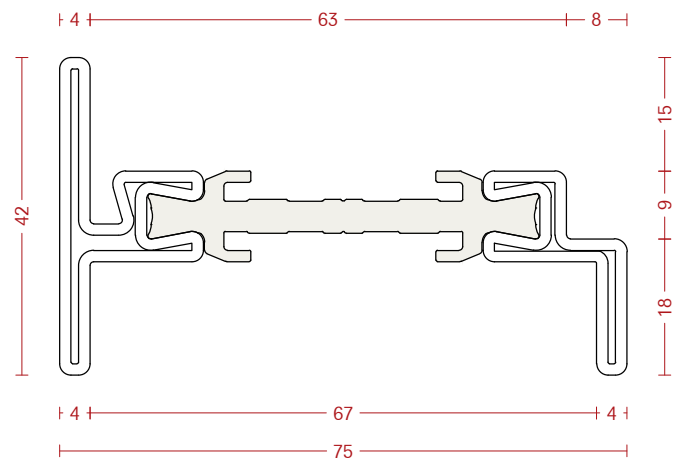
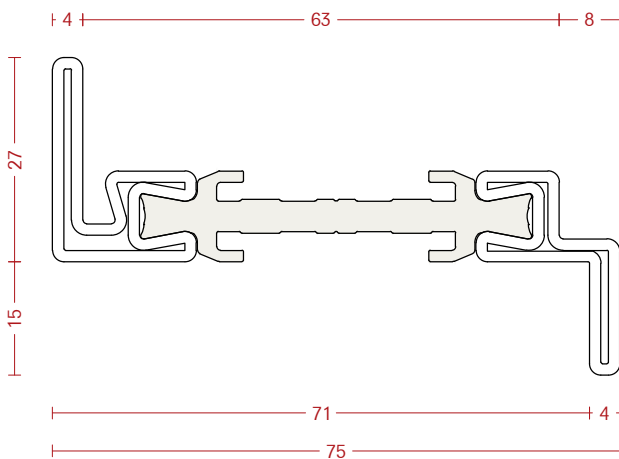
**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512LK-nn | -02 | G = 2.48 | U = 0.263         |
|              | -05 | G = 2.52 | U = 0.263         |
|              | -07 | G = 2.48 | U = 0.263         |
|              | -12 | G = 2.48 | U = 0.263         |
|              |     | kg/m     | m <sup>2</sup> /m |

|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512TK-nn | -02 | G = 2.74 | U = 0.292         |
|              | -05 | G = 2.78 | U = 0.292         |
|              | -07 | G = 2.74 | U = 0.292         |
|              | -12 | G = 2.74 | U = 0.292         |
|              |     | kg/m     | m <sup>2</sup> /m |



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512ZK-nn | -02 | G = 2.74 | U = 0.261         |
|              | -05 | G = 2.78 | U = 0.261         |
|              | -07 | G = 2.74 | U = 0.261         |
|              | -12 | G = 2.74 | U = 0.261         |
|              |     | kg/m     | m <sup>2</sup> /m |

|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512HK-nn | -02 | G = 3.16 | U = 0.321         |
|              | -05 | G = 3.21 | U = 0.321         |
|              | -07 | G = 3.16 | U = 0.321         |
|              | -12 | G = 3.16 | U = 0.321         |
|              |     | kg/m     | m <sup>2</sup> /m |

**Profiles**

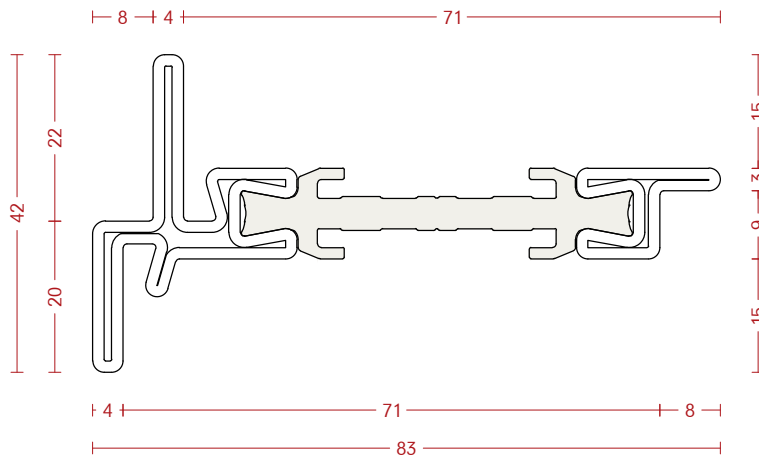
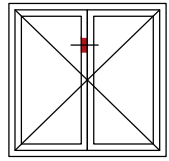
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 8312TZ-nn | -02 | G = 3.16 | U = 0.320         |
|              | -05 | G = 3.21 | U = 0.320         |
|              | -07 | G = 3.16 | U = 0.320         |
|              | -12 | G = 3.16 | U = 0.320         |
|              |     | kg/m     | m <sup>2</sup> /m |

**Profiles**

BAR LENGTH: 5800 mm

MATERIALS:

- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm

MATERIALI:

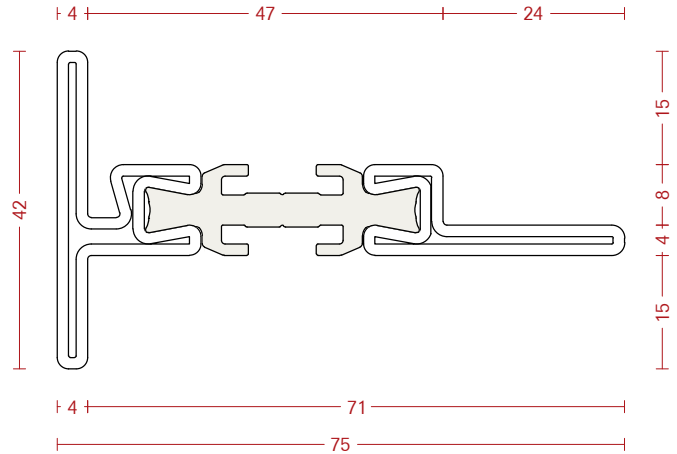
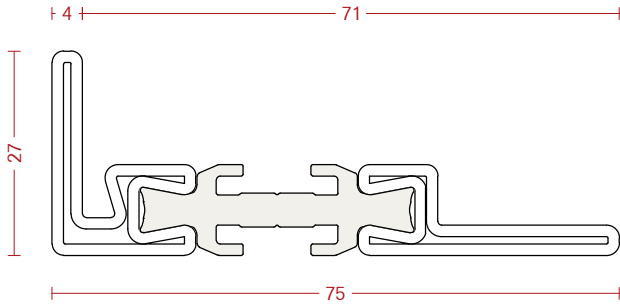
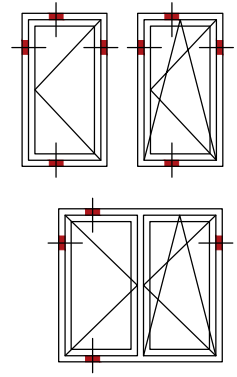
- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Perfiles**

LONGITUD DE LA BARRA: 5800 mm

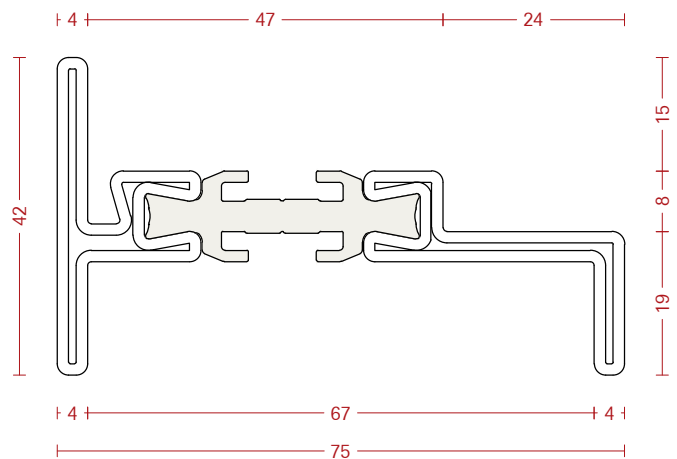
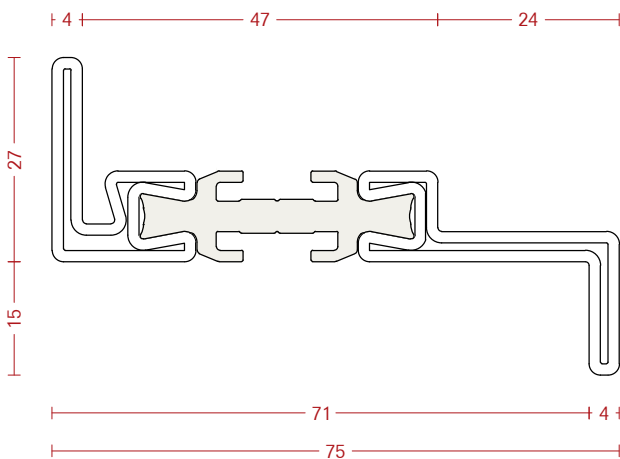
MATERIALES:

- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512LR-nn | -02 | G = 2.77 | U = 0.320         |
|              | -05 | G = 2.81 | U = 0.320         |
|              | -07 | G = 2.77 | U = 0.320         |
|              | -12 | G = 2.77 | U = 0.320         |
|              |     | kg/m     | m <sup>2</sup> /m |

|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512TR-nn | -02 | G = 3.10 | U = 0.291         |
|              | -05 | G = 3.16 | U = 0.291         |
|              | -07 | G = 3.10 | U = 0.291         |
|              | -12 | G = 3.10 | U = 0.291         |
|              |     | kg/m     | m <sup>2</sup> /m |



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512ZR-nn | -02 | G = 3.10 | U = 0.291         |
|              | -05 | G = 3.16 | U = 0.291         |
|              | -07 | G = 3.10 | U = 0.291         |
|              | -12 | G = 3.10 | U = 0.291         |
|              |     | kg/m     | m <sup>2</sup> /m |

|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7512HR-nn | -02 | G = 3.44 | U = 0.262         |
|              | -05 | G = 3.50 | U = 0.262         |
|              | -07 | G = 3.44 | U = 0.262         |
|              | -12 | G = 3.44 | U = 0.262         |
|              |     | kg/m     | m <sup>2</sup> /m |

**Profiles**

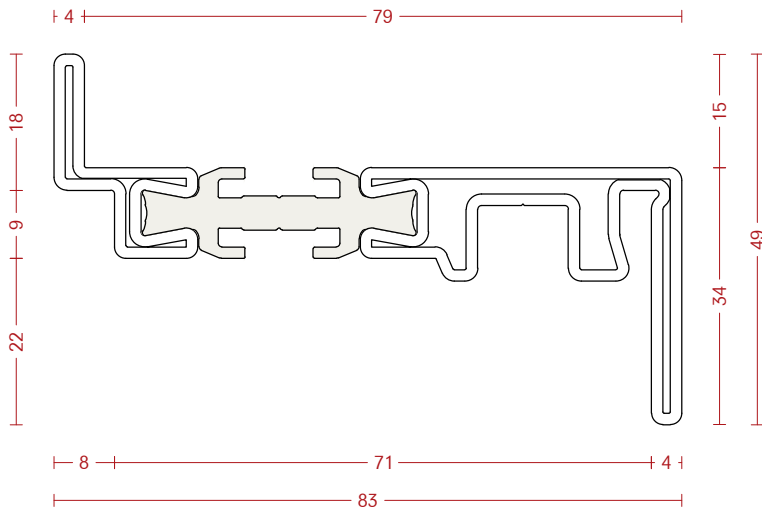
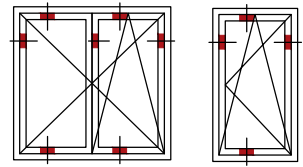
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

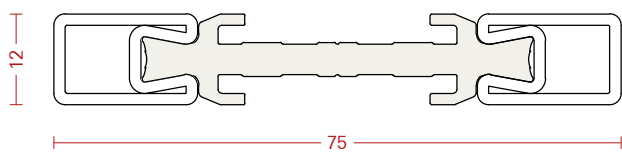
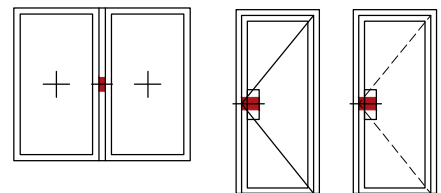
LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

**Perfiles**

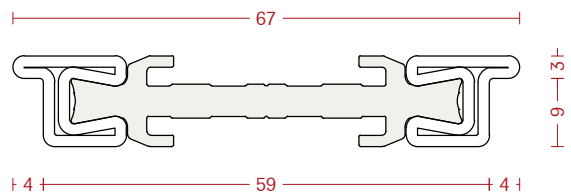
LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



| FT 8312ZR-nn |                   | G =  | U =   |
|--------------|-------------------|------|-------|
| -02          | kg/m              | 3.77 | 0.349 |
| -05          | m <sup>2</sup> /m | 3.84 | 0.349 |
| -07          |                   | 3.77 | 0.349 |
| -12          |                   | 3.77 | 0.349 |



| FT 7512PU-nn |                   | G =  | U =   |
|--------------|-------------------|------|-------|
| -02          | kg/m              | 1.99 | 0.220 |
| -05          | m <sup>2</sup> /m | 2.03 | 0.220 |
| -07          |                   | 1.99 | 0.220 |
| -12          |                   | 1.99 | 0.220 |



| FT 6712LB-nn |                   | G =  | U =   |
|--------------|-------------------|------|-------|
| -05          | kg/m              | 1.71 | 0.171 |
| -07          | m <sup>2</sup> /m | 1.68 | 0.171 |
| -12          |                   | 1.68 | 0.171 |

**NOTE:**

FT 6712LB-05 can be used with galvanized steel (-02) and stainless steel (-05) profiles; FT 6712LB-07 can be used with Cor-Ten steel profiles (-07); FT 6712LB-12 can be used with galvanized steel (-02) and bright steel (-12) profiles.

**NOTA:**

FT 6712LB-05 è utilizzabile con profili in acciaio zincato (-02) e acciaio inox (-05); FT 6712LB-07 è utilizzabile con profili in acciaio Cor-Ten (-07); FT 6712LB-12 è utilizzabile con profili in acciaio zincato (-02) e acciaio decapato (-12).

**NOTA:**

FT 6712LB-05 se puede utilizar con perfiles de acero galvanizado (-02) y acero inoxidable (-05); FT 6712LB-07 se puede utilizar con perfiles de acero Cor-Ten (-07); FT 6712LB-12 se puede utilizar con perfiles de acero galvanizado (-02) acero bruto (-12).

**Profiles**

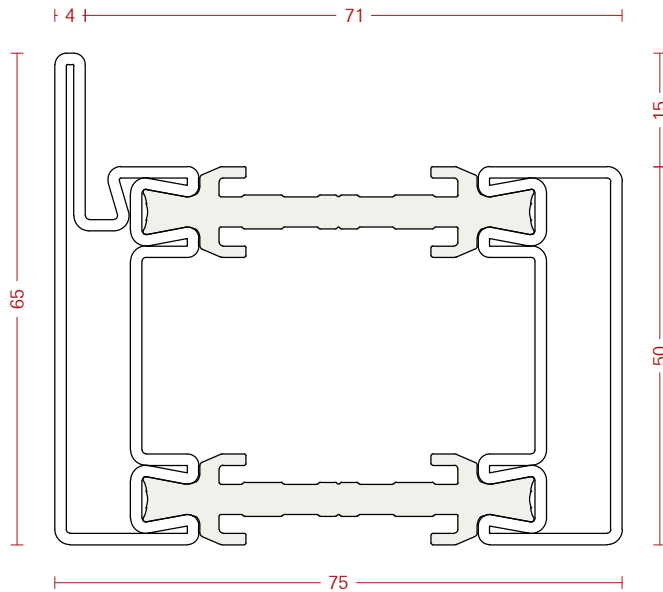
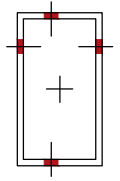
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

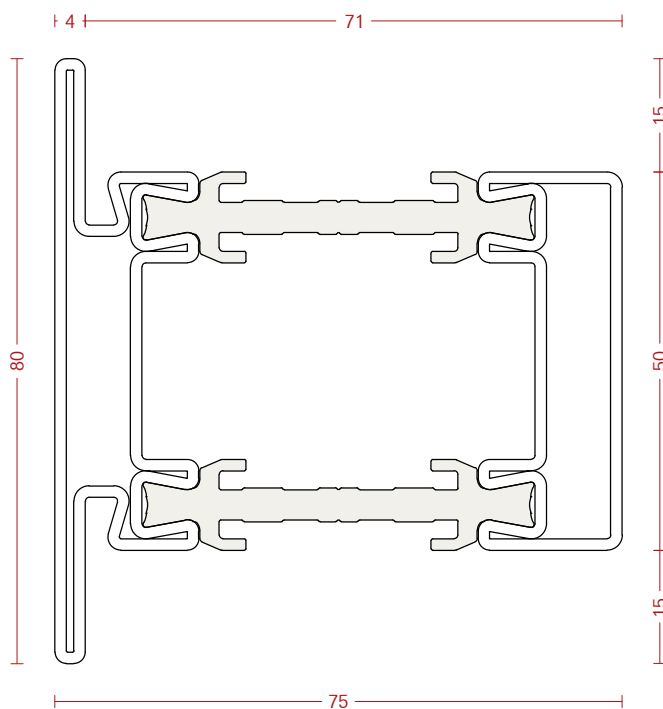
LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7550LF-nn | -02 | G = 5.30 | U = 0.339         |
|              | -05 | G = 5.39 | U = 0.339         |
|              | -07 | G = 5.30 | U = 0.339         |
|              | -12 | G = 5.30 | U = 0.339         |
|              |     | kg/m     | m <sup>2</sup> /m |



|              |     |          |                   |
|--------------|-----|----------|-------------------|
| FT 7550TF-nn | -02 | G = 5.80 | U = 0.383         |
|              | -05 | G = 5.90 | U = 0.383         |
|              | -07 | G = 5.80 | U = 0.383         |
|              | -12 | G = 5.80 | U = 0.383         |
|              |     | kg/m     | m <sup>2</sup> /m |

**Profiles**

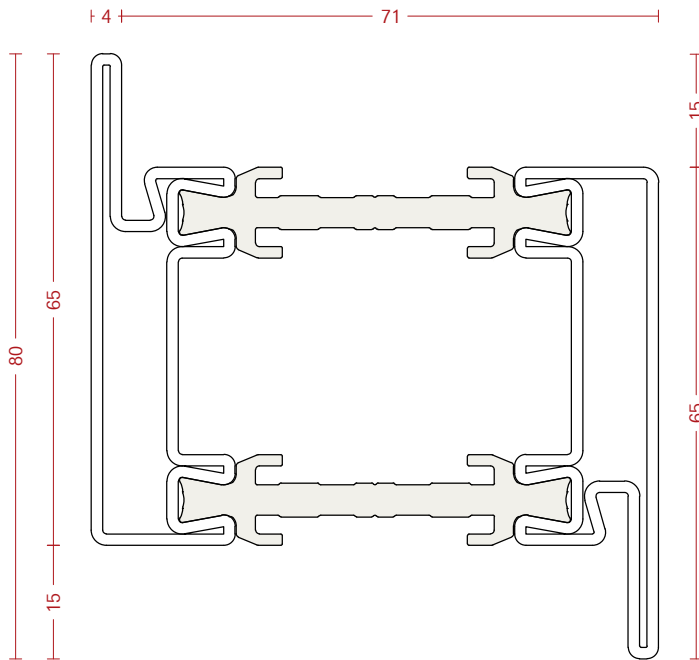
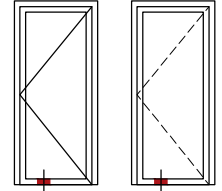
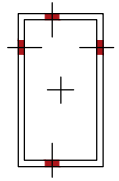
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

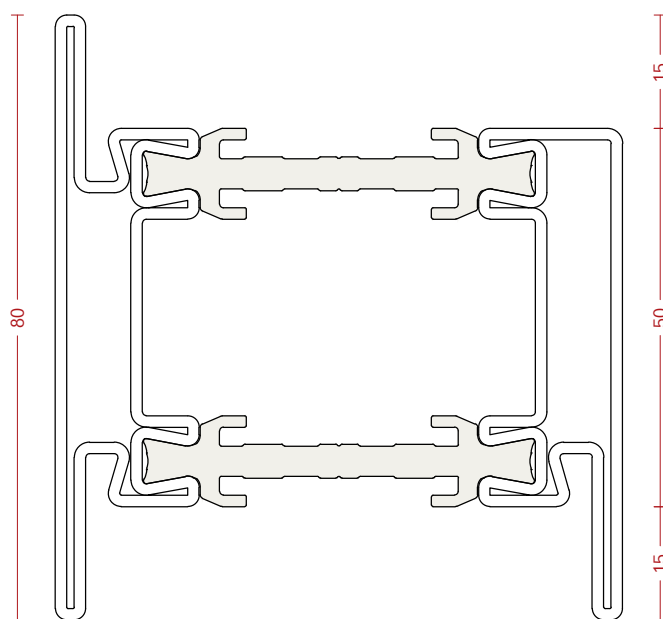
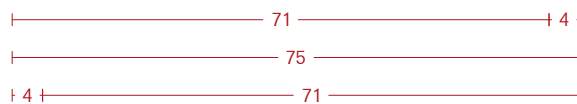
**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



FT 7550ZF-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 5.81 | U = 0.383         |
| -05 | G = 5.90 | U = 0.383         |
| -07 | G = 5.81 | U = 0.383         |
| -12 | G = 5.81 | U = 0.383         |
|     | kg/m     | m <sup>2</sup> /m |



FT 7550HF-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 6.31 | U = 0.427         |
| -05 | G = 6.31 | U = 0.427         |
| -07 | G = 6.41 | U = 0.427         |
| -12 | G = 6.31 | U = 0.427         |
|     | kg/m     | m <sup>2</sup> /m |

**Profiles**

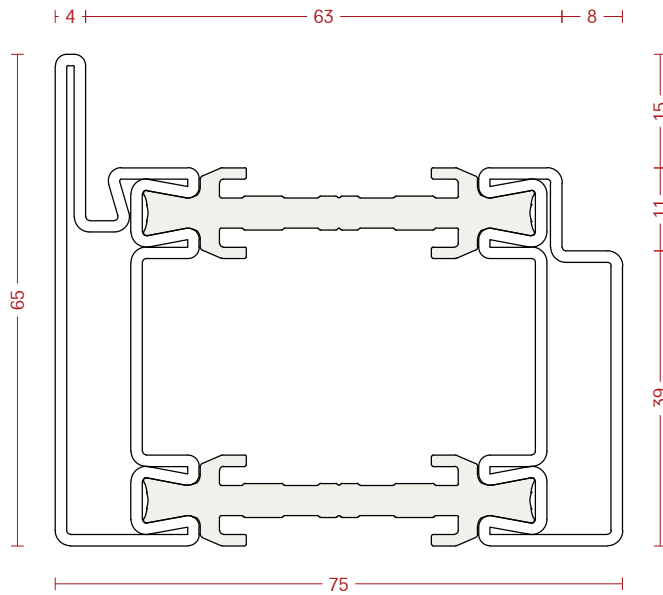
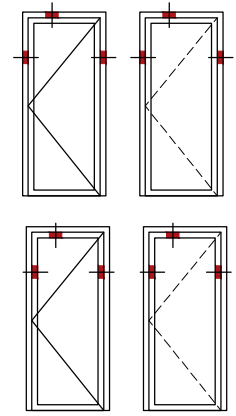
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

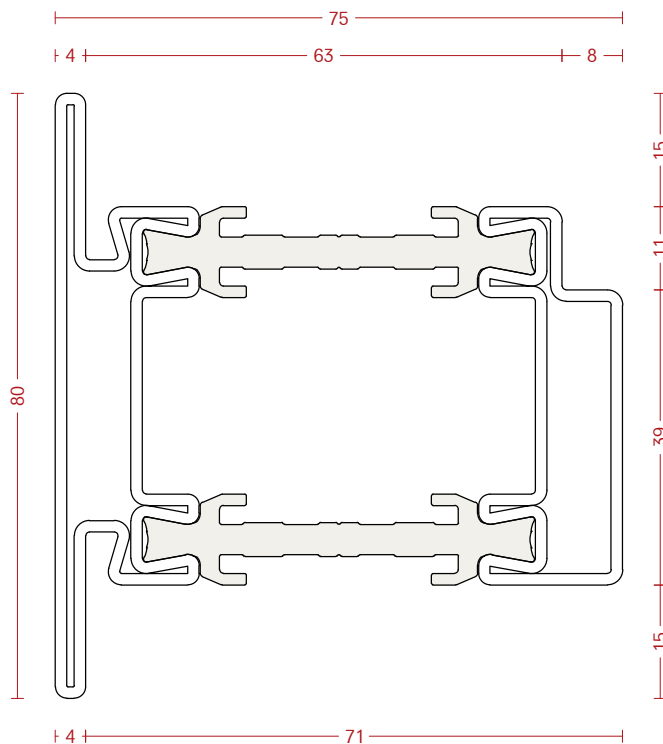
**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



FT 7550L-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 5.28 | U = 0.338         |
| -05 | G = 5.37 | U = 0.338         |
| -07 | G = 5.28 | U = 0.338         |
| -12 | G = 5.28 | U = 0.338         |
|     | kg/m     | m <sup>2</sup> /m |



FT 7550T-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 5.78 | U = 0.382         |
| -05 | G = 5.88 | U = 0.382         |
| -07 | G = 5.78 | U = 0.382         |
| -12 | G = 5.78 | U = 0.382         |
|     | kg/m     | m <sup>2</sup> /m |

**Profiles**

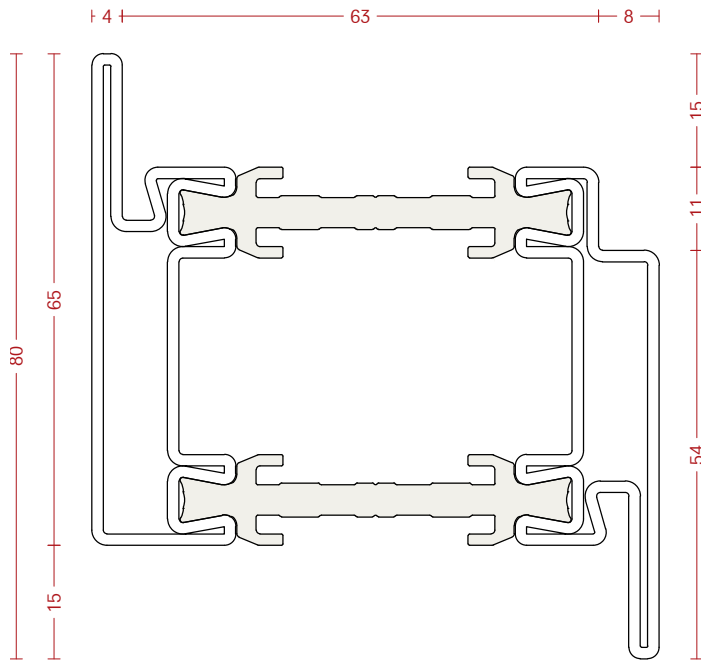
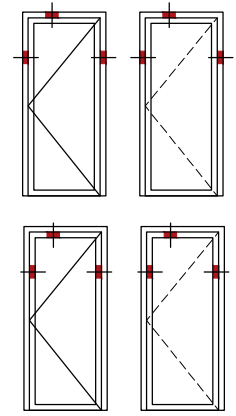
BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

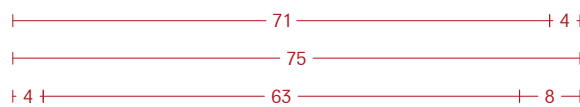
**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



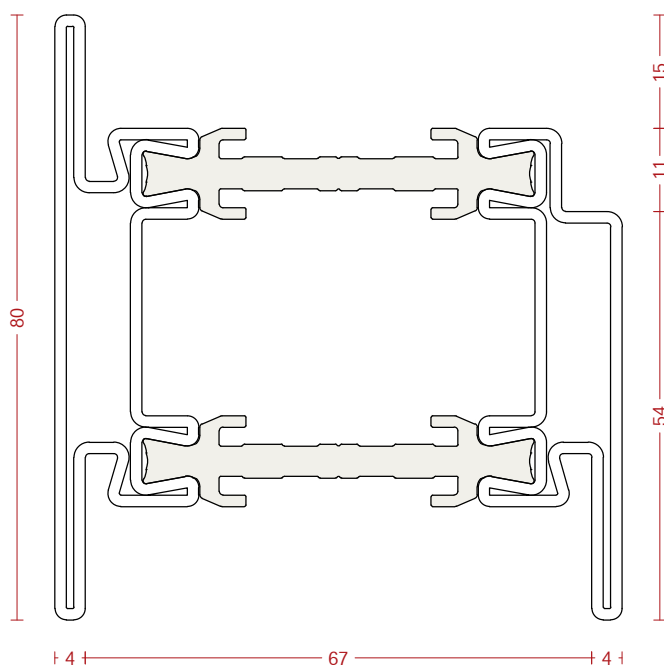
FT 7550Z-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 5.79 | U = 0.382         |
| -05 | G = 5.89 | U = 0.382         |
| -07 | G = 5.79 | U = 0.382         |
| -12 | G = 5.79 | U = 0.382         |
|     | kg/m     | m <sup>2</sup> /m |



FT 7550H-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 6.29 | U = 0.426         |
| -05 | G = 6.39 | U = 0.426         |
| -07 | G = 6.29 | U = 0.426         |
| -12 | G = 6.29 | U = 0.426         |
|     | kg/m     | m <sup>2</sup> /m |





**Profiles**

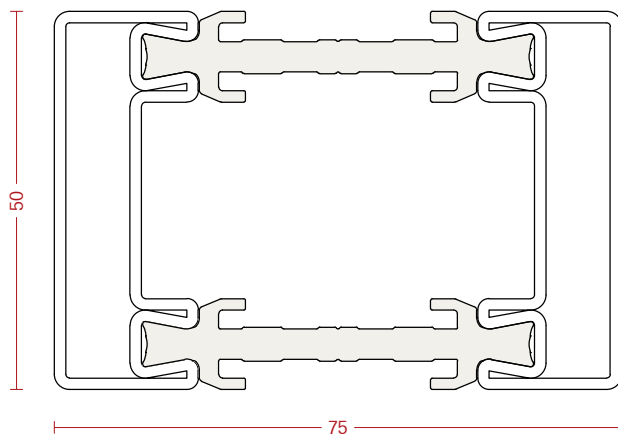
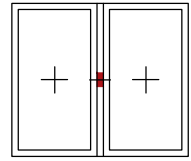
BAR LENGTH: 5800 mm  
 MATERIALS:  
 02 - Galvanized steel  
 05 - Stainless steel AISI 316L 2B  
 07 - Cor-Ten steel  
 12 - Bright steel

**Profili**

LUNGHEZZA BARRA: 5800 mm  
 MATERIALI:  
 02 - Acciaio zincato  
 05 - Acciaio inox AISI 316L 2B  
 07 - Acciaio Cor-Ten  
 12 - Acciaio decapato

**Perfiles**

LONGITUD DE LA BARRA: 5800 mm  
 MATERIALES:  
 02 - Acero galvanizado  
 05 - Acero inoxidable AISI 316L 2B  
 07 - Acero Cor-Ten  
 12 - Acero bruto




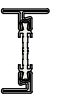
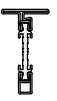

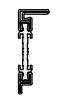
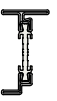
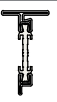
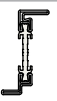




FT 7550PU-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 4.80 | U = 0.295         |
| -05 | G = 4.88 | U = 0.295         |
| -07 | G = 4.80 | U = 0.295         |
| -12 | G = 4.80 | U = 0.295         |
|     | kg/m     | m <sup>2</sup> /m |

**Inertia values**  
according to EN14024

**Valori di inerzia**  
conforme a norma EN14024

**Valores de inercia**  
conforme a EN14024

|              |                                                                                     | ly<br>(cm <sup>4</sup> ) | Wy<br>(cm <sup>3</sup> ) | Ix<br>(cm <sup>4</sup> )<br>SPAN L1 | Ix<br>(cm <sup>4</sup> )<br>SPAN L2 | Ix<br>(cm <sup>4</sup> )<br>SPAN L3 | Wx<br>(cm <sup>3</sup> )<br>SPAN L1 | Wx<br>(cm <sup>3</sup> )<br>SPAN L2 | Wx<br>(cm <sup>3</sup> )<br>SPAN L3 |
|--------------|-------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| FT 7512L-nn  |    | 1.182                    | 0.629                    | 14.060                              | 18.230                              | 20.300                              | 3.083                               | 3.998                               | 4.452                               |
| FT 7512H-nn  |    | 3.057                    | 1.353                    | 19.560                              | 27.310                              | 31.640                              | 4.713                               | 6.581                               | 7.624                               |
| FT 7512T-nn  |    | 2.233                    | 1.063                    | 15.340                              | 20.190                              | 22.650                              | 3.105                               | 4.087                               | 4.585                               |
| FT 7512Z-nn  |    | 2.233                    | 1.063                    | 17.830                              | 24.360                              | 27.870                              | 4.755                               | 6.496                               | 7.432                               |
| FT 7512LK-nn |    | 1.202                    | 0.626                    | 13.350                              | 17.290                              | 19.250                              | 2.883                               | 3.734                               | 4.158                               |
| FT 7512HK-nn |   | 2.991                    | 1.300                    | 18.130                              | 24.860                              | 28.510                              | 4.111                               | 5.637                               | 6.465                               |
| FT 7512TK-nn |  | 2.211                    | 1.033                    | 14.590                              | 19.170                              | 21.490                              | 2.930                               | 3.849                               | 4.315                               |
| FT 7512ZK-nn |  | 2.209                    | 1.037                    | 16.550                              | 22.250                              | 25.250                              | 4.127                               | 5.549                               | 6.297                               |
| FT 7512LR-nn |  | 1.337                    | 0.668                    | 11.840                              | 15.480                              | 17.400                              | 2.596                               | 3.395                               | 3.816                               |
| FT 7512HR-nn |  | 3.011                    | 1.298                    | 17.120                              | 23.250                              | 26.750                              | 3.900                               | 5.296                               | 6.093                               |
| FT 7512TR-nn |  | 2.265                    | 1.039                    | 12.980                              | 17.330                              | 19.690                              | 2.654                               | 3.544                               | 4.027                               |
| FT 7512ZR-nn |  | 2.265                    | 1.039                    | 15.690                              | 20.790                              | 23.590                              | 3.884                               | 5.146                               | 5.839                               |

**Legend**

G = Weight  
U = Coated surface  
Wx / Wy = Flexural strength module  
about one axis  
Ix / Iy = Moment of inertia  
about one axis  
SPAN = profile length between  
two fixtures

For any additional information  
please contact our technical office.

**Legenda**

G = Peso  
U = Superficie in vista  
Wx / Wy = Modulo di resistenza alla  
flessione lungo un asse  
Ix / Iy = Momento d'inerzia  
lungo un asse  
SPAN = lunghezza del profilo  
fra due fissaggi

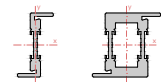
Per ulteriori informazioni contattare  
l'ufficio tecnico.














**Leyenda**

G = Peso  
U = Superficie recubierta  
Wx / Wy = Módulo de resistencia  
a la flexión sobre un eje  
Ix / Iy = Momento de inercia  
sobre un eje  
SPAN = longitud del perfil  
entre dos fijaciones

Para más información contactar la  
nuestra oficina técnica.

SPAN L1 2500 mm  
SPAN L2 4000 mm  
SPAN L3 5800 mm



|              |                                                                                     | ly<br>(cm <sup>4</sup> ) | Wy<br>(cm <sup>3</sup> ) | Ix<br>(cm <sup>4</sup> )<br>SPAN L1 | Ix<br>(cm <sup>4</sup> )<br>SPAN L2 | Ix<br>(cm <sup>4</sup> )<br>SPAN L3 | Wx<br>(cm <sup>3</sup> )<br>SPAN L1 | Wx<br>(cm <sup>3</sup> )<br>SPAN L2 | Wx<br>(cm <sup>3</sup> )<br>SPAN L3 |
|--------------|-------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| FT 7512PU-nn |    | 0.392                    | 0.653                    | 11.220                              | 14.030                              | 15.340                              | 2.992                               | 3.741                               | 4.091                               |
| FT 7550L-nn  |    | 20.374                   | 5.492                    | 21.570                              | 32.620                              | 39.800                              | 5.185                               | 7.841                               | 9.567                               |
| FT 7550H-nn  |    | 31.471                   | 7.353                    | 25.150                              | 39.710                              | 49.970                              | 6.149                               | 9.709                               | 12.218                              |
| FT 7550T-nn  |    | 26.443                   | 6.578                    | 22.910                              | 35.200                              | 43.420                              | 5.125                               | 7.875                               | 9.714                               |
| FT 7550Z-nn  |    | 26.443                   | 6.578                    | 23.680                              | 36.720                              | 45.580                              | 6.265                               | 9.714                               | 12.058                              |
| FT 7550LF-nn |    | 20.807                   | 5.639                    | 22.060                              | 33.340                              | 40.690                              | 5.341                               | 8.073                               | 9.852                               |
| FT 7550HF-nn |   | 32.079                   | 7.530                    | 25.540                              | 40.390                              | 50.830                              | 6.291                               | 9.948                               | 12.520                              |
| FT 7550TF-nn |  | 26.971                   | 6.743                    | 23.420                              | 35.960                              | 44.380                              | 5.275                               | 8.099                               | 9.995                               |
| FT 7550ZF-nn |  | 26.971                   | 6.743                    | 24.100                              | 37.350                              | 46.380                              | 6.427                               | 9.960                               | 12.368                              |
| FT 7550PU-nn |  | 15.805                   | 6.322                    | 20.200                              | 29.860                              | 35.910                              | 5.387                               | 7.963                               | 9.576                               |
| FT 6712LB-nn |  | 0.300                    | 0.461                    | 8.380                               | 10.320                              | 11.190                              | 2.501                               | 3.081                               | 3.340                               |
| FT 8312TZ-nn |  | 2.346                    | 1.102                    | 17.180                              | 22.600                              | 25.390                              | 3.176                               | 4.177                               | 4.693                               |
| FT 8312ZR-nn |  | 3.772                    | 1.392                    | 23.330                              | 30.620                              | 34.750                              | 4.901                               | 6.433                               | 7.300                               |

**Legend**

G = Weight  
 U = Coated surface  
 Wx / Wy = Flexural strength module  
 about one axis  
 Ix / Iy = Moment of inertia  
 about one axis  
 SPAN = profile length between  
 two fixtures

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**Legenda**

G = Peso  
 U = Superficie in vista  
 Wx / Wy = Modulo di resistenza alla  
 flessione lungo un asse  
 Ix / Iy = Momento d'inertzia  
 lungo un asse  
 SPAN = lunghezza del profilo  
 fra due fissaggi

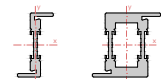
Per ulteriori informazioni contattare  
 l'ufficio tecnico.

**Leyenda**

G = Peso  
 U = Superficie recubierta  
 Wx / Wy = Módulo de resistencia  
 a la flexión sobre un eje  
 Ix / Iy = Momento de inercia  
 sobre un eje  
 SPAN = longitud del perfil  
 entre dos fijaciones

Para más información contactar la  
 nuestra oficina técnica.

SPAN L1 2500 mm  
 SPAN L2 4000 mm  
 SPAN L3 5800 mm





Glazing beads

Profili fermavetro

Junquillos

2.2

### Legend

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1  
G = Weight  
U = Coated surface

### Legenda

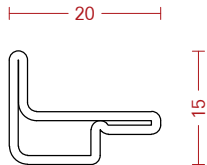
+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1  
G = Peso  
U = Superficie in vista

### Leyenda

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1  
G = Peso  
U = Superficie recubierta

### Glazing beads

BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

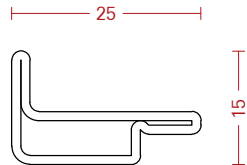


FV 1520E-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.58 | U = 0.067         |
| -05 | G = 0.59 | U = 0.067         |
| -07 | G = 0.58 | U = 0.067         |
| -12 | G = 0.58 | U = 0.067         |
|     | kg/m     | m <sup>2</sup> /m |

### Fermavetri

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

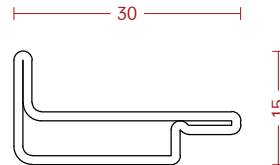


FV 1525E-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.67 | U = 0.077         |
| -05 | G = 0.69 | U = 0.077         |
| -07 | G = 0.67 | U = 0.077         |
| -12 | G = 0.67 | U = 0.077         |
|     | kg/m     | m <sup>2</sup> /m |

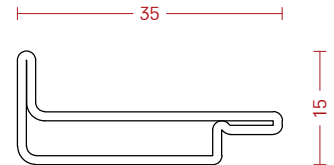
### Junquillos

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



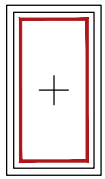
FV 1530E-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.77 | U = 0.087         |
| -05 | G = 0.78 | U = 0.087         |
| -07 | G = 0.77 | U = 0.087         |
| -12 | G = 0.77 | U = 0.087         |
|     | kg/m     | m <sup>2</sup> /m |



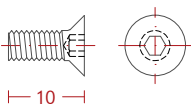
FV 1535E-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.86 | U = 0.097         |
| -05 | G = 0.88 | U = 0.097         |
| -07 | G = 0.86 | U = 0.097         |
| -12 | G = 0.86 | U = 0.097         |
|     | kg/m     | m <sup>2</sup> /m |



### Fixing screw

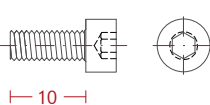
PU: 100 pc  
MATERIAL: Stainless steel A2



D99880-03  
M4 x 10 mm

### Vite di fissaggio

UV: 100 pezzi  
MATERIALE: Acciaio inox A2



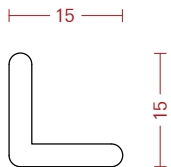
D99882-03  
M4 x 10 mm

### Tornillo de fijación

CANTIDAD: 100 uds.  
MATERIAL: Acero inoxidable A2

### Glazing beads

BAR LENGTH: 5800 mm  
MATERIALS:  
01 - Hot Rolled Steel  
02 - Galvanized steel

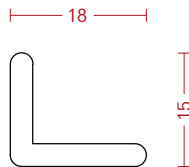


FV 1515A-02

-02 G = 0.62 U = 0.057  
kg/m m<sup>2</sup>/m

### Fermavetri

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
01 - Acciaio laminato a caldo  
02 - Acciaio zincato

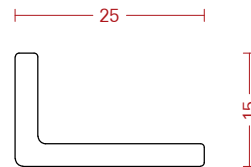


FV 1815A-02

-02 G = 0.69 U = 0.063  
kg/m m<sup>2</sup>/m

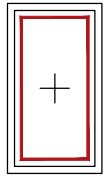
### Junquillos

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
01 - Acero laminado en caliente  
02 - Acero galvanizado



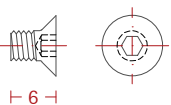
FV 1525A-01

-01 G = 0.85 U = 0.078  
kg/m m<sup>2</sup>/m



### Fixing screw

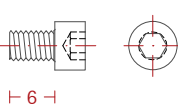
PU: 100 pc  
MATERIAL: Stainless steel A2



D99867-03  
M4 x 6 mm

### Vite di fissaggio

UV: 100 pezzi  
MATERIALE: Acciaio inox A2



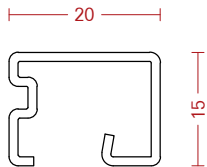
D99866-03  
M4 x 6 mm

### Tornillo de fijación

CANTIDAD: 100 uds.  
MATERIAL: Acero inoxidable A2

### Glazing beads

BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
05 - Stainless steel AISI 316L 2B  
07 - Cor-Ten steel  
12 - Bright steel

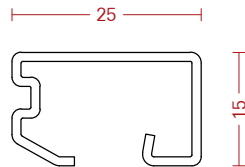


FV 1520R-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.56 | U = 0.125         |
| -05 | G = 0.57 | U = 0.125         |
| -07 | G = 0.56 | U = 0.125         |
| -12 | G = 0.56 | U = 0.125         |
|     | kg/m     | m <sup>2</sup> /m |

### Fermavetri

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
05 - Acciaio inox AISI 316L 2B  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato

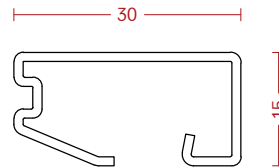


FV 1525R-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.64 | U = 0.141         |
| -05 | G = 0.69 | U = 0.141         |
| -07 | G = 0.64 | U = 0.141         |
| -12 | G = 0.64 | U = 0.141         |
|     | kg/m     | m <sup>2</sup> /m |

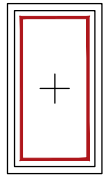
### Junquillos

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
05 - Acero inoxidable AISI 316L 2B  
07 - Acero Cor-Ten  
12 - Acero bruto



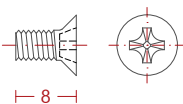
FV 1530R-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.72 | U = 0.159         |
| -05 | G = 0.73 | U = 0.159         |
| -07 | G = 0.72 | U = 0.159         |
| -12 | G = 0.72 | U = 0.159         |
|     | kg/m     | m <sup>2</sup> /m |



### Fixing screw

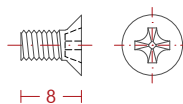
PU: 100 pc  
MATERIALS:  
02 - Galvanized Steel  
03 - Stainless steel A2



D99980-02  
M4 x 8 mm  
for FV15XXR-02, FV15XXR-12  
per FV15XXR-02, FV15XXR-12  
para FV15XXR-02, FV15XXR-12

### Vite di fissaggio

UV: 100 pezzi  
MATERIALI:  
02 - Acciaio zincato  
03 - Acciaio inox A2



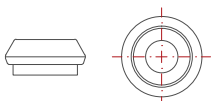
D99980-03  
M4 x 8 mm  
for FV15XXR-05, FV15XXR-07  
per FV15XXR-05, FV15XXR-07  
para FV15XXR-05, FV15XXR-07

### Tornillo de fijación

CANTIDAD: 100 uds.  
MATERIALES:  
02 - Acero galvanizado  
03 - Acero inoxidable A2

### Fixing bushings

PU: 50 pc  
MATERIAL: Stainless steel A2



F99063-03

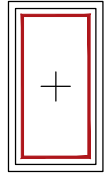
### Boccole di fissaggio

UV: 50 pezzi  
MATERIALE: Acciaio inox A2

### Bujes de fijación

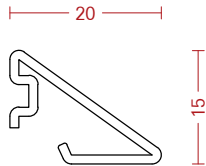
CANTIDAD: 50 uds.  
MATERIAL: Acero inoxidable A2





### Glazing beads

BAR LENGTH: 5800 mm  
MATERIALS:  
02 - Galvanized steel  
06 - Satin stainless steel AISI 316L  
07 - Cor-Ten steel  
12 - Bright steel

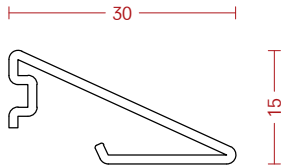


FV 1520S-nn

|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.49 | U = 0.061         |
| -06 | G = 0.50 | U = 0.061         |
| -07 | G = 0.49 | U = 0.061         |
| -12 | G = 0.49 | U = 0.061         |
|     | kg/m     | m <sup>2</sup> /m |

### Fermavetri

LUNGHEZZA BARRA: 5800 mm  
MATERIALI:  
02 - Acciaio zincato  
06 - Acciaio inox satinato AISI 316L  
07 - Acciaio Cor-Ten  
12 - Acciaio decapato



FV 1530S-nn

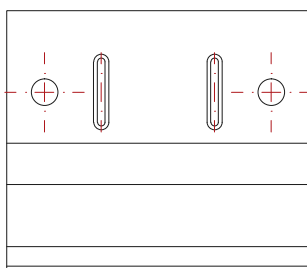
|     |          |                   |
|-----|----------|-------------------|
| -02 | G = 0.62 | U = 0.079         |
| -06 | G = 0.63 | U = 0.079         |
| -07 | G = 0.62 | U = 0.079         |
| -12 | G = 0.62 | U = 0.079         |
|     | kg/m     | m <sup>2</sup> /m |

### Junquillos

LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
02 - Acero galvanizado  
06 - Acero inoxidable satinado AISI 316L  
07 - Acero Cor-Ten  
12 - Acero bruto

### Glazing bead - clips

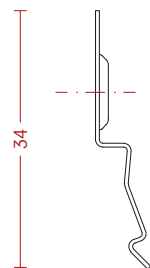
PU: 100 pc  
MATERIAL:  
Stainless steel AISI 304 2B



F99020-03

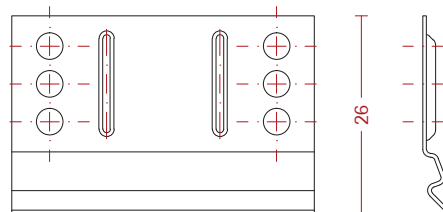
### Fermavetri - clips

UV: 100 pezzi  
MATERIALE:  
Acciaio inox AISI 304 2B



### Clips para junquillos

CANTIDAD: 100 uds.  
MATERIAL:  
Acero inoxidable AISI 304 2B

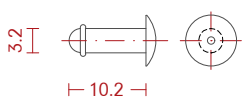


F99021-03

Compatible only with profiles FT 7512LR-nn, FT 7512TR-nn, FT 7512ZR-nn, FT 7512HR-nn and FT 8312ZR-nn  
Compatibile solo con i profili FT 7512LR-nn, FT 7512TR-nn, FT 7512ZR-nn, FT 7512HR-nn e FT 8312ZR-nn  
Compatible solo con perfiles FT 7512LR-nn, FT 7512TR-nn, FT 7512ZR-nn, FT 7512HR-nn y FT 8312ZR-nn

### Fixture - clips

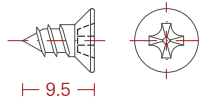
PU: 100 pc  
MATERIAL: Stainless steel A2



D99950-03  
Ø3.2 x 8 mm

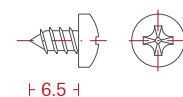
### Fissaggio clips

UV: 100 pezzi  
MATERIALE: Acciaio inox A2



### Fijacion - clips

CANTIDAD: 100 uds.  
MATERIAL: Acero inoxidable A2



D99801-03  
Ø3.5 x 6.5 mm

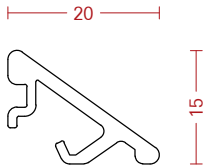
### Glazing beads

BAR LENGTH: 5800 mm

MATERIALS:

00 - Aluminium

Suitable on galvanized steel (-02) and bright steel (-12) profiles.



FV 1520S-00

G = 0.19 U = 0.063

kg/m m<sup>2</sup>/m

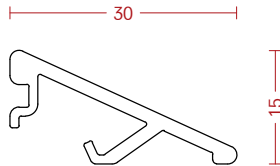
### Fermavetri

LUNGHEZZA BARRA: 5800 mm

MATERIALE:

00 - Alluminio

Utilizzabile su profili in acciaio zincato (-02) e decapato (-12).



FV 1530S-00

G = 0.23 U = 0.078

kg/m m<sup>2</sup>/m

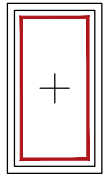
### Junquillos

LONGITUD DE LA BARRA: 5800 mm

MATERIALES:

00 - Aluminio

Utilizable en perfiles en acero galvanizado (-02) y bruto (-12).



### Glazing bead - clips

PU: 100 pc

MATERIAL:

Stainless steel AISI 304 2B

### Fermavetri - clips

UV: 100 pezzi

MATERIALE:

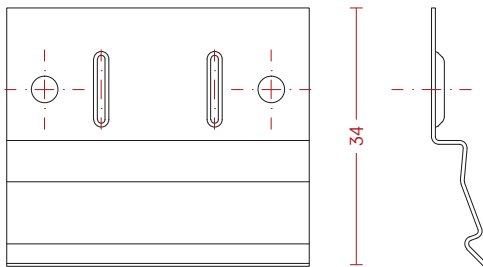
Acciaio inox AISI 304 2B

### Clips para junquillos

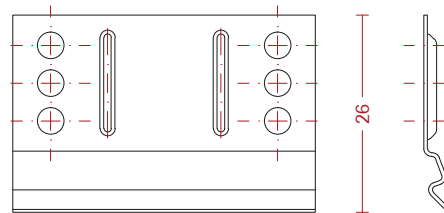
CANTIDAD: 100 uds.

MATERIAL:

Acero inoxidable AISI 304 2B



F99020-03



F99021-03

Compatible only with profiles FT 7512LR-nn, FT 7512TR-nn, FT 7512ZR-nn, FT 7512HR-nn and FT 8312ZR-nn  
 Compatibile solo con i profili FT 7512LR-nn, FT 7512TR-nn, FT 7512ZR-nn, FT 7512HR-nn e FT 8312ZR-nn  
 Compatible solo con perfiles FT 7512LR-nn, FT 7512TR-nn, FT 7512ZR-nn, FT 7512HR-nn y FT 8312ZR-nn

### Fixture - clips

PU: 100 pc

MATERIAL: Stainless steel A2

### Fissaggio clips

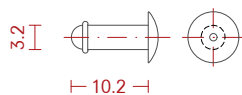
UV: 100 pezzi

MATERIALE: Acciaio inox A2

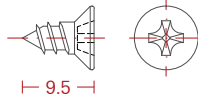
### Fijacion - clips

CANTIDAD: 100 uds.

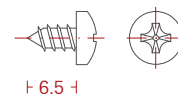
MATERIAL: Acero inoxidable A2



D99950-03  
Ø3.2 x 8 mm



D99815-03  
Ø4.2 x 9.5 mm  
See glazing table page



D99801-03  
Ø3.5 x 6.5 mm

### Glazing beads

BAR LENGTH: 5800 mm

MATERIALS:

00 - Aluminium

Suitable on galvanized steel (-02)  
and bright steel (-12) profiles.

### Fermavetri

LUNGHEZZA BARRA: 5800 mm

MATERIALI:

00 - Alluminio

Utilizzabile su profili in acciaio  
zincato (-02) e decapato (-12).

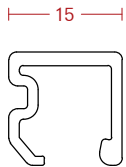
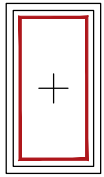
### Junquillos

LONGITUD DE LA BARRA: 5800 mm

MATERIALES:

00 - Aluminio

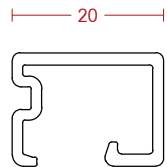
Utilizable en perfiles en acero  
galvanizado (-02) y bruto (-12).



FV 1515R-00

G = 0.22 U = 0.113

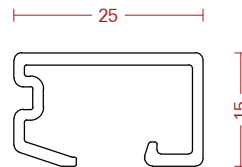
kg/m m<sup>2</sup>/m



FV 1520R-00

G = 0.24 U = 0.119

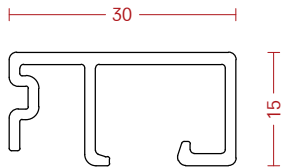
kg/m m<sup>2</sup>/m



FV 1525R-00

G = 0.28 U = 0.136

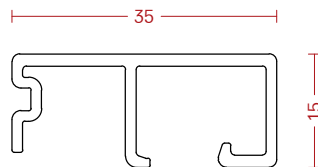
kg/m m<sup>2</sup>/m



FV 1530R-00

G = 0.33 U = 0.161

kg/m m<sup>2</sup>/m



FV 1535R-00

G = 0.35 U = 0.171

kg/m m<sup>2</sup>/m

### Fixing screw

PU: 100 pc

MATERIALS:

02 - Galvanized Steel

03 - Stainless steel A2

### Vite di fissaggio

UV: 100 pezzi

MATERIALE:

02 - Acciaio zincato

03 - Acciaio inox A2

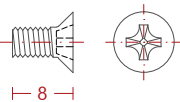
### Tornillo de fijación

CANTIDAD: 100 uds.

MATERIALES:

02 - Acero galvanizado

03 - Acero inoxidable A2



D99980-02  
D99980-03  
M4 x 8 mm

### Fixing bushings

PU: 50 pc

MATERIAL: Stainless steel A2

### Boccole di fissaggio

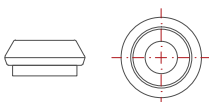
UV: 50 pezzi

MATERIALE: Acciaio inox A2

### Bujes de fijación

CANTIDAD: 50 uds.

MATERIAL: Acero inoxidable A2

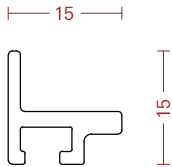


F99063-03

### Glazing beads

BAR LENGTH: 5800 mm  
MATERIALS:  
00 - Aluminium

Suitable on galvanized steel (-02)  
and bright steel (-12) profiles.



FV 1515E-00  
G = 0.22 U = 0.113  
kg/m m<sup>2</sup>/m

### Fermavetri

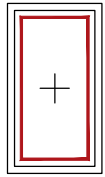
LUNGHEZZA BARRA: 5800 mm  
MATERIALE:  
00 - Alluminio

Utilizzabile su profili in acciaio  
zincato (-02) e decapato (-12).

### Junquillos

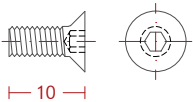
LONGITUD DE LA BARRA: 5800 mm  
MATERIALES:  
00 - Aluminio

Utilizable en perfiles en acero  
galvanizado (-02) y bruto (-12).



### Fixing screw

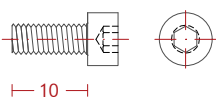
PU: 100 pc  
MATERIAL: Stainless steel A2



D99880-03  
M4 x 10 mm

### Vite di fissaggio

UV: 100 pezzi  
MATERIALE: Acciaio inox A2



D99882-03  
M4 x 10 mm

### Tornillo de fijación

CANTIDAD: 100 uds.  
MATERIAL: Acero inoxidable A2

**Glazing table****Tabella vetrazioni****Tabla de acristalamiento****2.3****Important notes:**

The glazing tables and sealing guidelines are based on the nominal sizes of the profiles and glazing. Due to the production tolerances (profiles, glazing beads, panes) we advise double checking your selection.

**Note importanti:**

Le tabelle vetrazioni si riferiscono alle misure nominali dei profili e delle vetrate. A causa delle tolleranze di produzione (profili, profili fermavetro, spessori) è preferibile effettuare una seconda verifica della selezione.

**Notas importantes:**

Las tablas de acristalamiento hacen referencia a las medidas nominales de los perfiles y los acristalamientos. Debido a las tolerancias de fabricación (perfiles, junquillos y espesores de vidrio), debe comprobarse la gama en caso necesario.

**Legend**

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1  
A = External gaskets  
B = Internal gaskets  
C = Glazing bead  
D = Screw connection  
E = Offset

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1  
A = Guarnizioni esterne  
B = Guarnizioni interne  
C = Fermavetro  
D = Vite di fissaggio  
E = Scarto

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1  
A = Juntas exteriores  
B = Juntas interiores  
C = Junquillo  
D = Tornillo de fijación  
E = Residuos

**Glazing table**




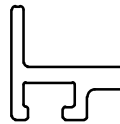
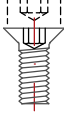
**Tabella vetrazioni**

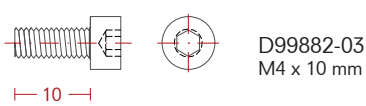
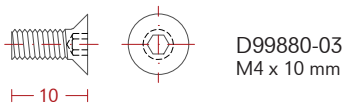
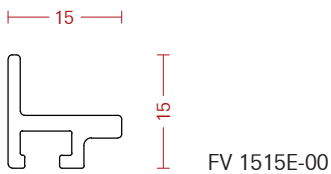
**Tabla de acristamiento**

00 - Aluminium

00 - Alluminio

00 - Aluminio

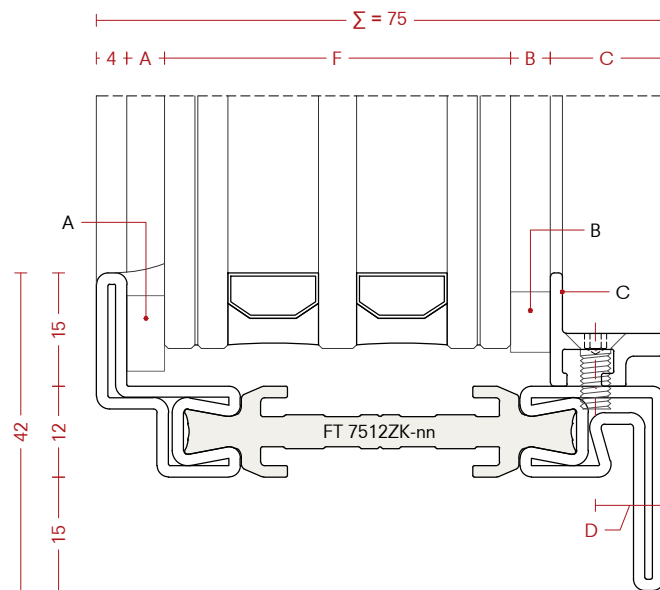
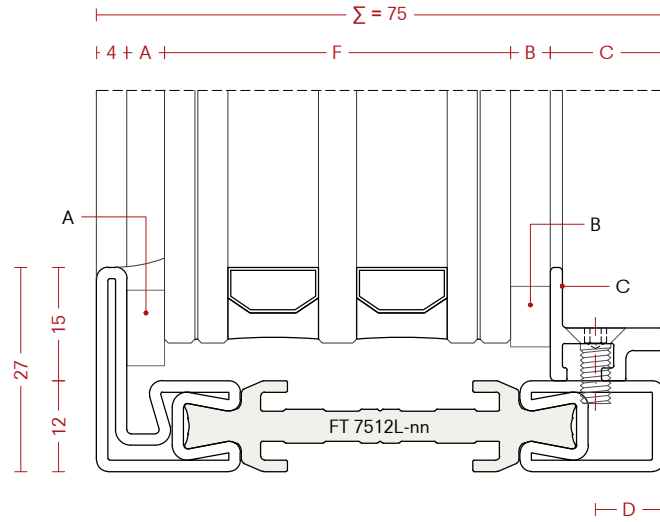
| <br>F<br>mm | <br>A<br>code      mm |           | <br>B<br>code      mm |           | <br>C<br>mm | <br>D<br>mm |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                              | 46                                                                                                     | G99103-62 | 5                                                                                                      | G99204-61 |                                                                                                |                                                                                                |
| 47                                                                                           | G99103-62                                                                                              | 5         | G99203-61                                                                                              | 4.5       | 15                                                                                             | 9                                                                                              |
| 48                                                                                           | G99102-61                                                                                              | 3         | G99204-61                                                                                              | 5.5       | 15                                                                                             | 9                                                                                              |
| 49                                                                                           | G99102-61                                                                                              | 3         | G99203-61                                                                                              | 4.5       | 15                                                                                             | 9                                                                                              |
| 50                                                                                           | G99102-61                                                                                              | 3         | G99202-61                                                                                              | 3.5       | 15                                                                                             | 9                                                                                              |
| 51                                                                                           | G99102-61                                                                                              | 3         | G99201-61                                                                                              | 2.5       | 15                                                                                             | 9                                                                                              |



\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

\* Mesa de acristamiento para perfiles de 75 mm de profundidad.



**Glazing table**




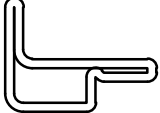
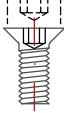
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

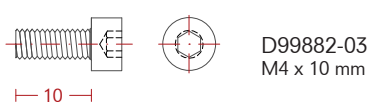
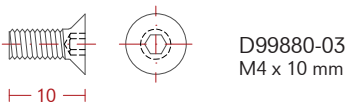
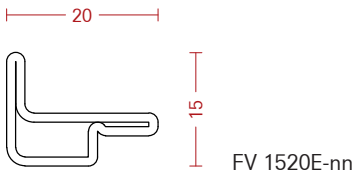
**Tabella vetrazioni**

- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristalamiento**

- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

| <br>F<br>mm | <br>A |    | <br>B |     | <br>C<br>mm | <br>D<br>mm |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                              | code                                                                                   | mm | code                                                                                   | mm  |                                                                                                |                                                                                                |
| 41                                                                                           | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 20                                                                                             | 13.5                                                                                           |
| 42                                                                                           | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 20                                                                                             | 13.5                                                                                           |
| 43                                                                                           | G99102-61                                                                              | 3  | G99204-61                                                                              | 5.5 | 20                                                                                             | 13.5                                                                                           |
| 44                                                                                           | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 20                                                                                             | 13.5                                                                                           |
| 45                                                                                           | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 20                                                                                             | 13.5                                                                                           |
| 46                                                                                           | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 20                                                                                             | 13.5                                                                                           |

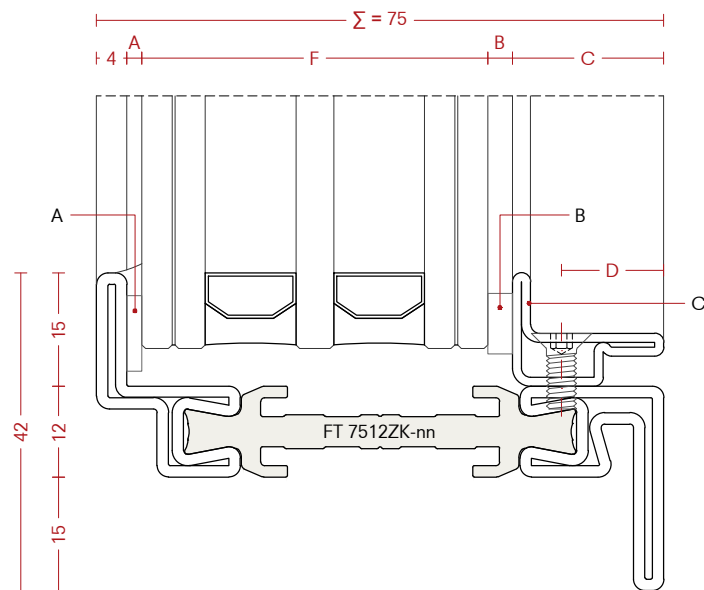
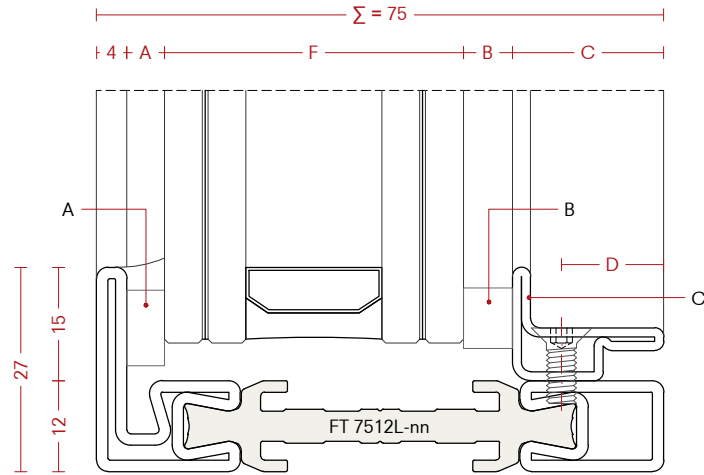


\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

\* Mesa de acristalamiento para perfiles de 75 mm de profundidad.





**Glazing table**




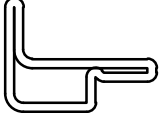
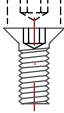
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

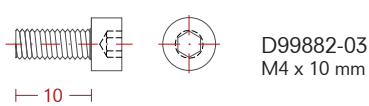
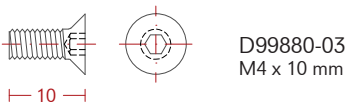
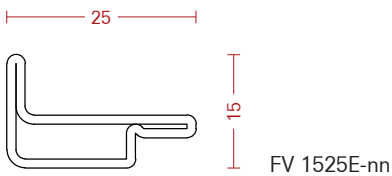
**Tabella vetrazioni**

- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristalamiento**

- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

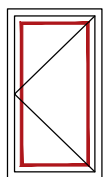
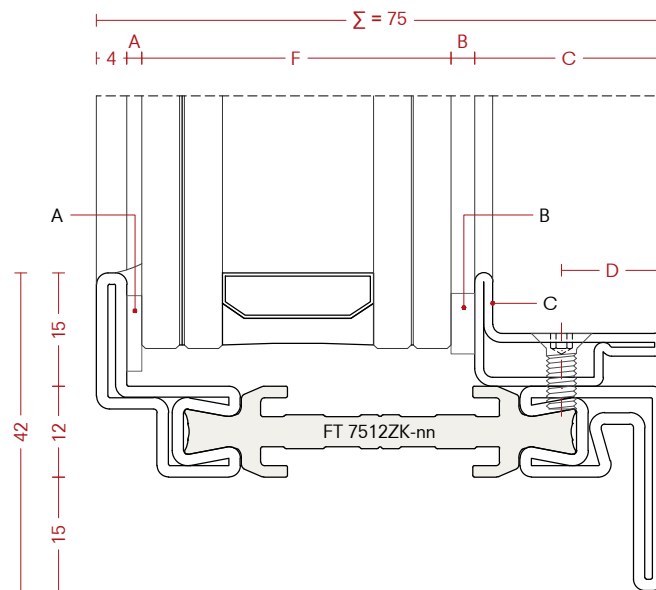
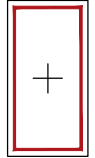
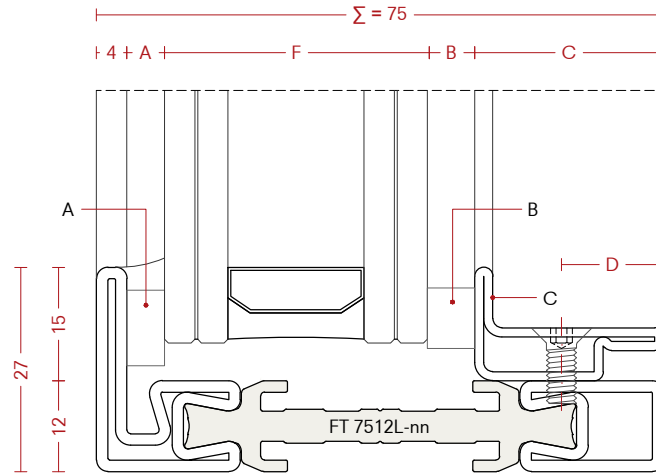
| <br>F | <br>A |    | <br>B |     | <br>C | <br>D |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| mm                                                                                     | code                                                                                   | mm | code                                                                                   | mm  | mm                                                                                       | mm                                                                                       |
| 36                                                                                     | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 25                                                                                       | 13.5                                                                                     |
| 37                                                                                     | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 25                                                                                       | 13.5                                                                                     |
| 38                                                                                     | G99102-61                                                                              | 3  | G99204-61                                                                              | 5.5 | 25                                                                                       | 13.5                                                                                     |
| 39                                                                                     | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 25                                                                                       | 13.5                                                                                     |
| 40                                                                                     | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 25                                                                                       | 13.5                                                                                     |
| 41                                                                                     | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 25                                                                                       | 13.5                                                                                     |



\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

\* Mesa de acristalamiento para perfiles de 75 mm de profundidad.



**Glazing table**




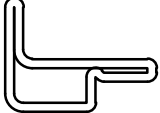
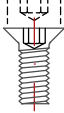
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

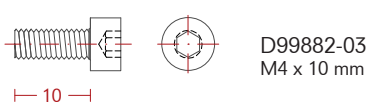
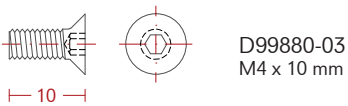
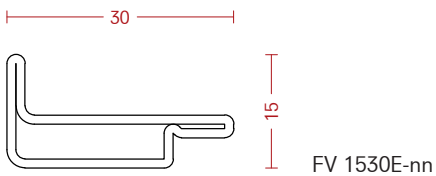
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**Tabla de acristamiento**

- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

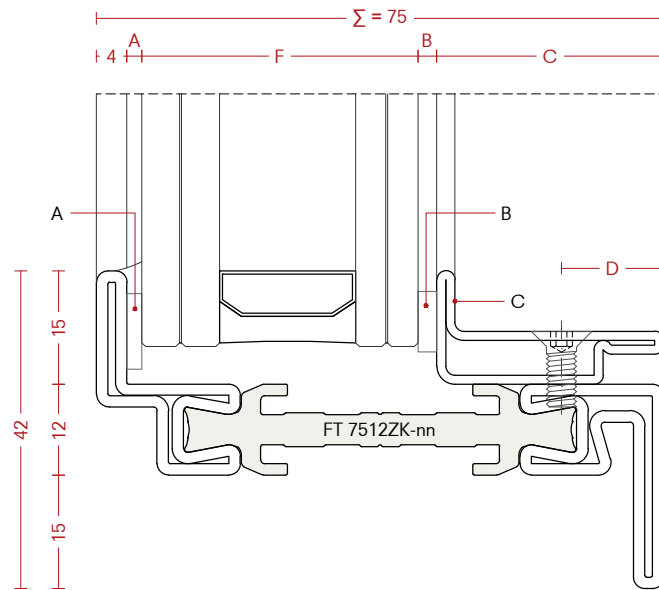
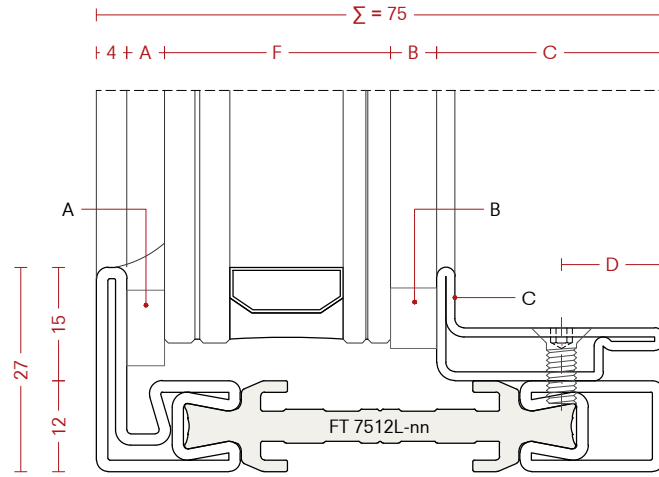
| <br>F<br>mm | <br>A<br>code      mm |           | <br>B<br>code      mm |           | <br>C<br>mm | <br>D<br>mm |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                              | 31                                                                                                     | G99103-62 | 5                                                                                                      | G99204-61 |                                                                                                |                                                                                                |
| 32                                                                                           | G99103-62                                                                                              | 5         | G99203-61                                                                                              | 4.5       | 30                                                                                             | 13.5                                                                                           |
| 33                                                                                           | G99102-61                                                                                              | 3         | G99204-61                                                                                              | 5.5       | 30                                                                                             | 13.5                                                                                           |
| 34                                                                                           | G99102-61                                                                                              | 3         | G99203-61                                                                                              | 4.5       | 30                                                                                             | 13.5                                                                                           |
| 35                                                                                           | G99102-61                                                                                              | 3         | G99202-61                                                                                              | 3.5       | 30                                                                                             | 13.5                                                                                           |
| 36                                                                                           | G99102-61                                                                                              | 3         | G99201-61                                                                                              | 2.5       | 30                                                                                             | 13.5                                                                                           |



\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

\* Mesa de acristamiento para perfiles de 75 mm de profundidad.



**Glazing table**




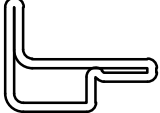
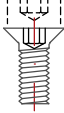
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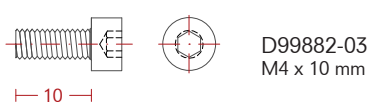
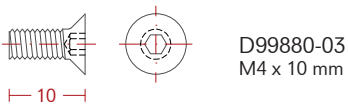
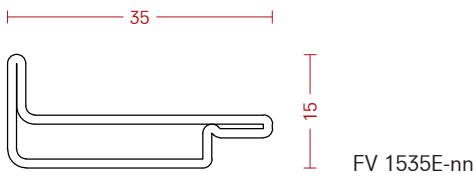
**Tabella vetrazioni**

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**Tabla de acristalamiento**

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- 12 - Acero bruto

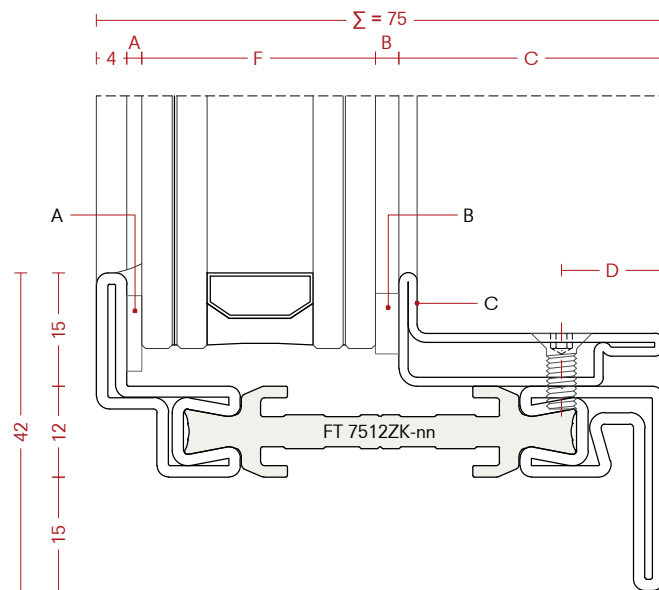
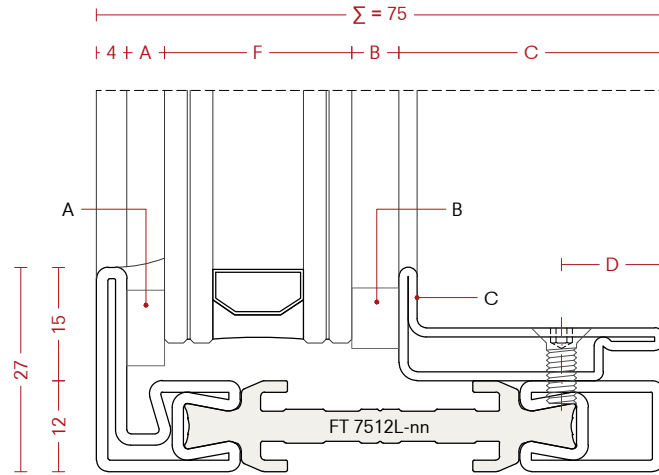
| <br>F<br>mm | <br>A<br>code | mm | <br>B<br>code | mm  | <br>C<br>mm | <br>D<br>mm |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 26                                                                                           | G99103-62                                                                                      | 5  | G99204-61                                                                                      | 5.5 | 35                                                                                             | 13.5                                                                                           |
| 27                                                                                           | G99103-62                                                                                      | 5  | G99203-61                                                                                      | 4.5 | 35                                                                                             | 13.5                                                                                           |
| 28                                                                                           | G99102-61                                                                                      | 3  | G99204-61                                                                                      | 5.5 | 35                                                                                             | 13.5                                                                                           |
| 29                                                                                           | G99102-61                                                                                      | 3  | G99203-61                                                                                      | 4.5 | 35                                                                                             | 13.5                                                                                           |
| 30                                                                                           | G99102-61                                                                                      | 3  | G99202-61                                                                                      | 3.5 | 35                                                                                             | 13.5                                                                                           |
| 31                                                                                           | G99102-61                                                                                      | 3  | G99201-61                                                                                      | 2.5 | 35                                                                                             | 13.5                                                                                           |



\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

\* Mesa de acristalamiento para perfiles de 75 mm de profundidad.



**Glazing table**




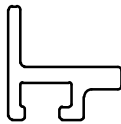
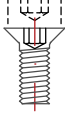
**Tabella vetrazioni**

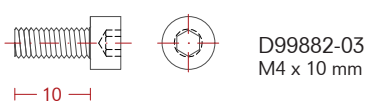
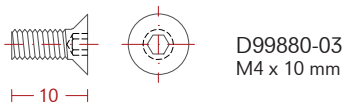
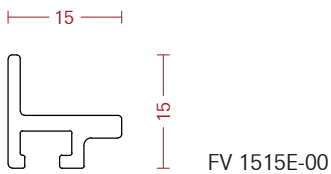
**Tabla de acristalamiento**

00 - Aluminium

00 - Alluminio

00 - Aluminio

| <br>F<br>mm | <br>A |    | <br>B |     | <br>C<br>mm | <br>D<br>mm | E<br>mm |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|
|                                                                                              | code                                                                                   | mm | code                                                                                   | mm  |                                                                                               |                                                                                                |         |
| 51                                                                                           | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 15                                                                                            | 12                                                                                             | 3       |
| 52                                                                                           | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 15                                                                                            | 12                                                                                             | 3       |
| 53                                                                                           | G99102-61                                                                              | 3  | G99204-61                                                                              | 5.5 | 15                                                                                            | 12                                                                                             | 3       |
| 54                                                                                           | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 15                                                                                            | 12                                                                                             | 3       |
| 55                                                                                           | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 15                                                                                            | 12                                                                                             | 3       |
| 56                                                                                           | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 15                                                                                            | 12                                                                                             | 3       |

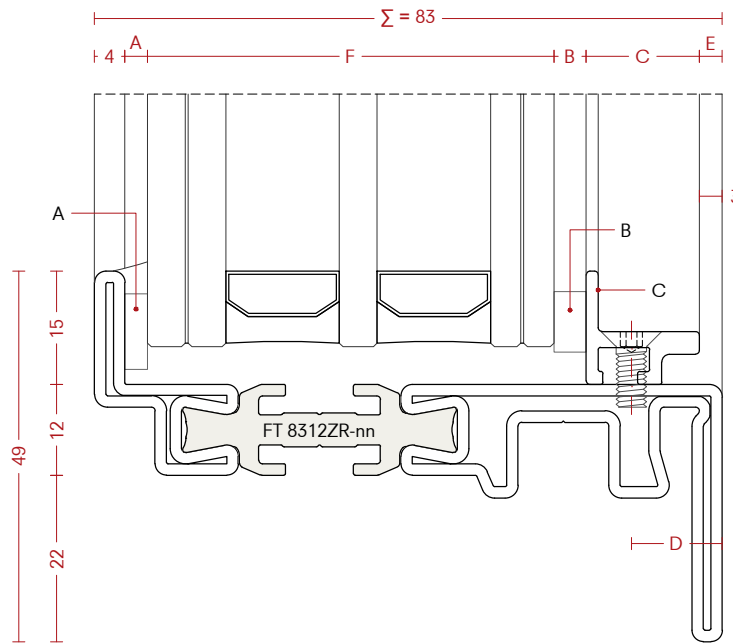
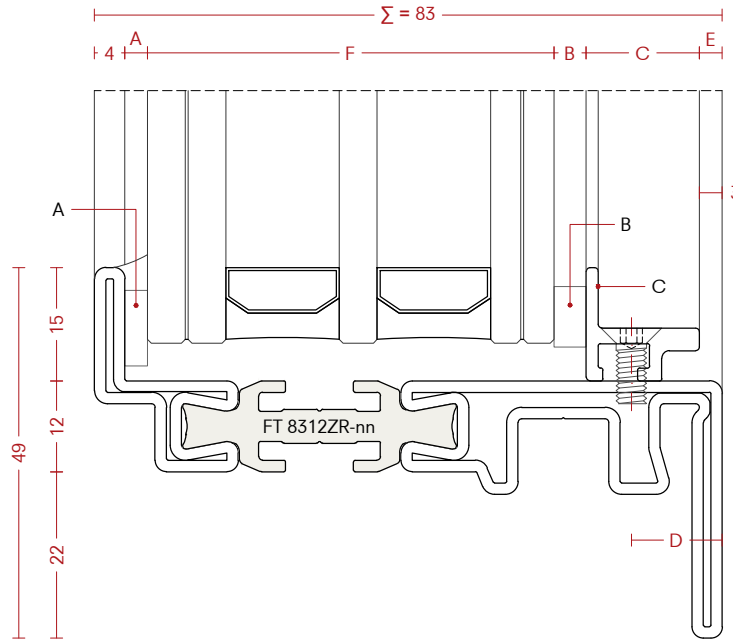


\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristalamiento para perfiles de 83 mm de profundidad.





**Glazing table**




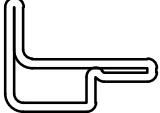
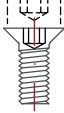
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

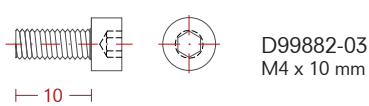
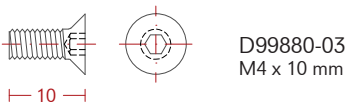
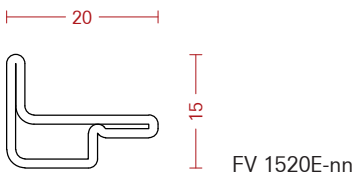
**Tabella vetrazioni**

- 02 - Acciaio zincato
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**Tabla de acristalamiento**

- 02 - Acero galvanizado
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- 07 - Acero Cor-Ten
- 12 - Acero bruto

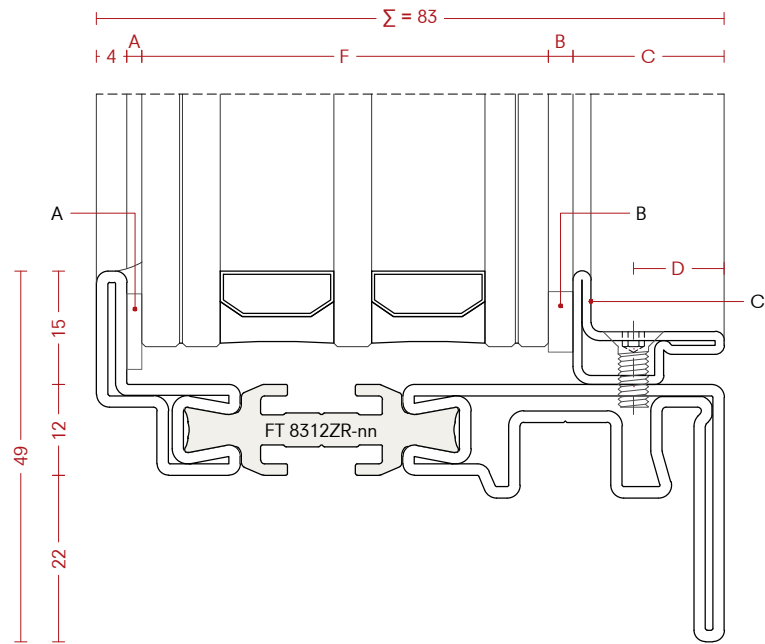
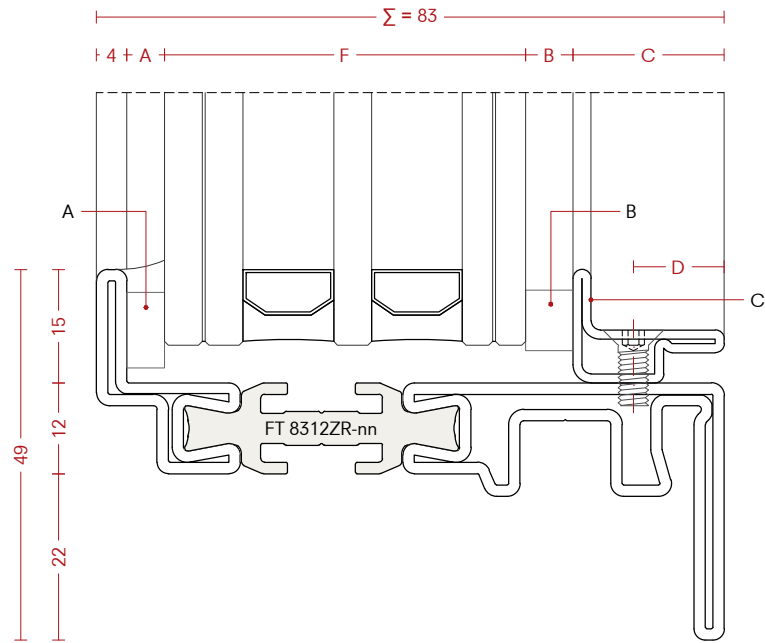
| <br>F<br>mm | <br>A |    | <br>B |     | <br>C<br>mm | <br>D<br>mm |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                              | code                                                                                   | mm | code                                                                                   | mm  |                                                                                                |                                                                                                |
| 49                                                                                           | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 20                                                                                             | 12                                                                                             |
| 50                                                                                           | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 20                                                                                             | 12                                                                                             |
| 51                                                                                           | G99102-61                                                                              | 3  | G99204-61                                                                              | 5.5 | 20                                                                                             | 12                                                                                             |
| 52                                                                                           | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 20                                                                                             | 12                                                                                             |
| 53                                                                                           | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 20                                                                                             | 12                                                                                             |
| 54                                                                                           | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 20                                                                                             | 12                                                                                             |



\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristalamiento para perfiles de 83 mm de profundidad.



**Glazing table**




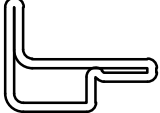
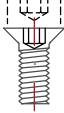
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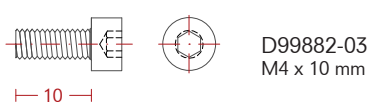
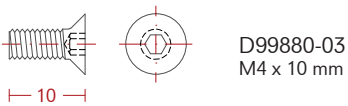
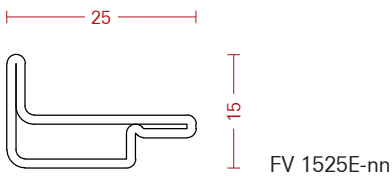
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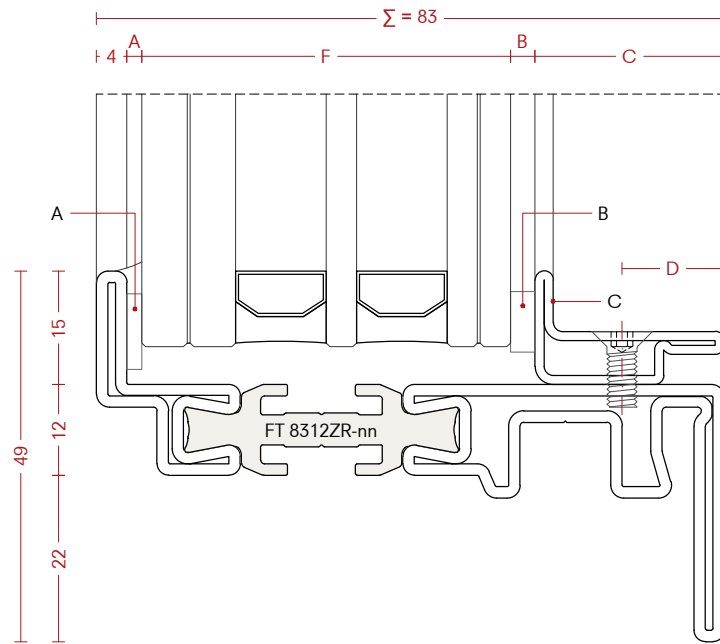
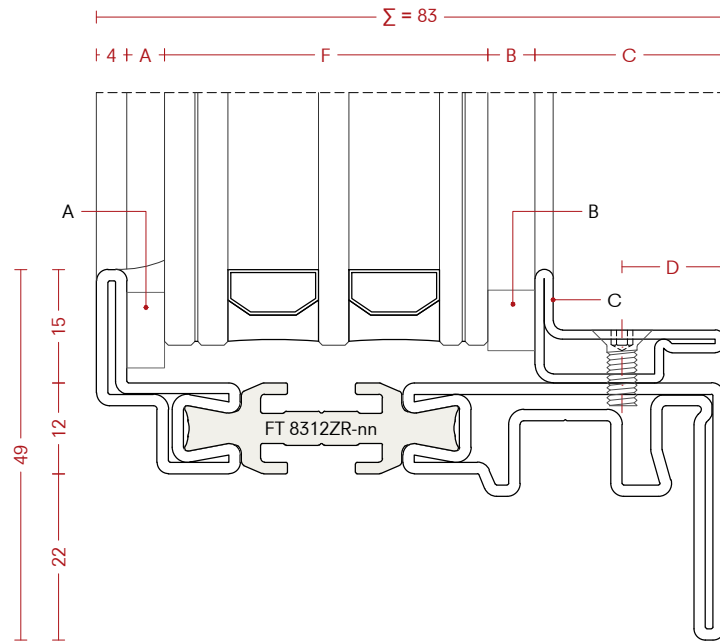
| <br>F<br>mm | <br>A<br>code | mm | <br>B<br>code | mm  | <br>C<br>mm | <br>D<br>mm |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 44                                                                                           | G99103-62                                                                                      | 5  | G99204-61                                                                                      | 5.5 | 25                                                                                             | 13.5                                                                                           |
| 45                                                                                           | G99103-62                                                                                      | 5  | G99203-61                                                                                      | 4.5 | 25                                                                                             | 13.5                                                                                           |
| 46                                                                                           | G99102-61                                                                                      | 3  | G99204-61                                                                                      | 5.5 | 25                                                                                             | 13.5                                                                                           |
| 47                                                                                           | G99102-61                                                                                      | 3  | G99203-61                                                                                      | 4.5 | 25                                                                                             | 13.5                                                                                           |
| 48                                                                                           | G99102-61                                                                                      | 3  | G99202-61                                                                                      | 3.5 | 25                                                                                             | 13.5                                                                                           |
| 49                                                                                           | G99102-61                                                                                      | 3  | G99201-61                                                                                      | 2.5 | 25                                                                                             | 13.5                                                                                           |



\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristamiento para perfiles de 83 mm de profundidad.



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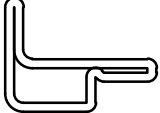
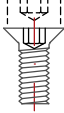
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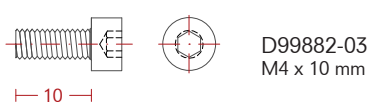
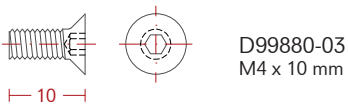
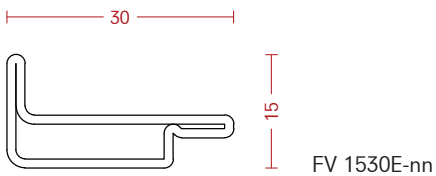
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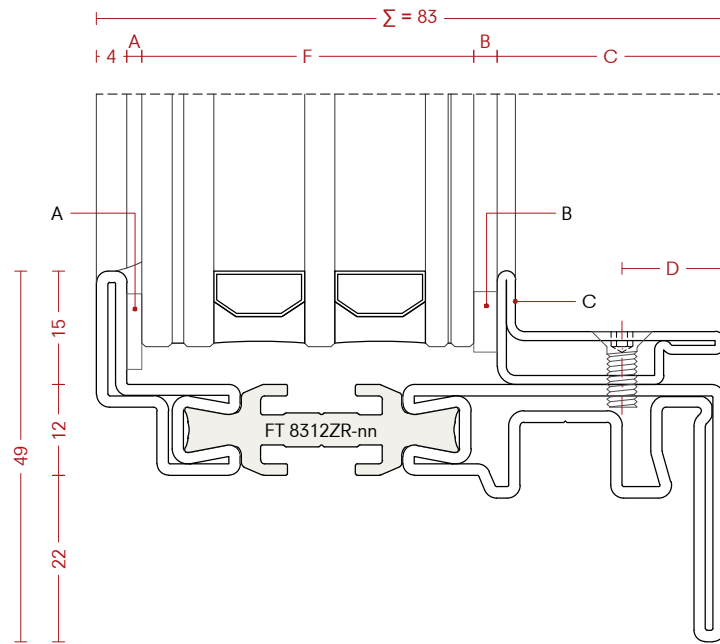
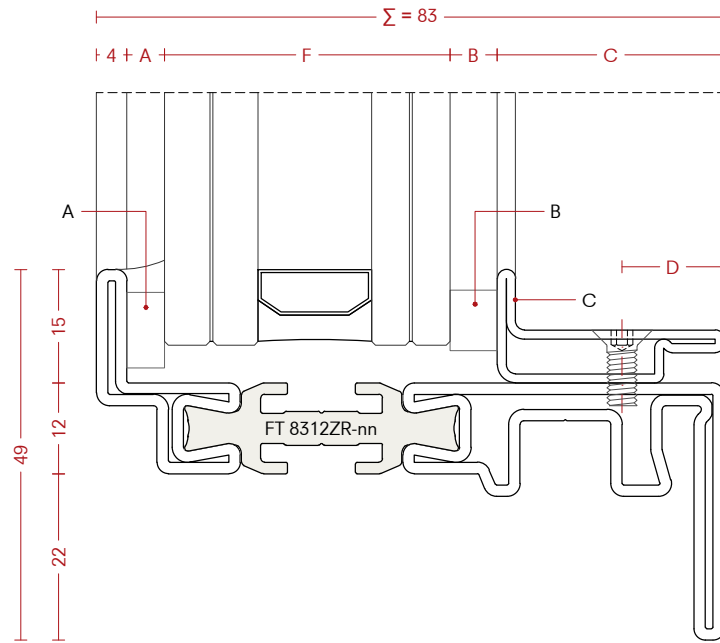
| <br>F | <br>A |    | <br>B |     | <br>C | <br>D |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| mm                                                                                     | code                                                                                   | mm | code                                                                                   | mm  | mm                                                                                       | mm                                                                                       |
| 39                                                                                     | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 30                                                                                       | 13.5                                                                                     |
| 40                                                                                     | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 30                                                                                       | 13.5                                                                                     |
| 41                                                                                     | G99102-61                                                                              | 3  | G99204-61                                                                              | 5.5 | 30                                                                                       | 13.5                                                                                     |
| 42                                                                                     | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 30                                                                                       | 13.5                                                                                     |
| 43                                                                                     | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 30                                                                                       | 13.5                                                                                     |
| 44                                                                                     | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 30                                                                                       | 13.5                                                                                     |



\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristamiento para perfiles de 83 mm de profundidad.



**Glazing table**




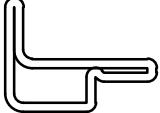
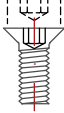
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

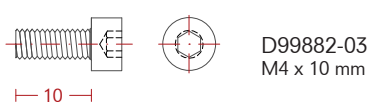
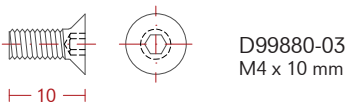
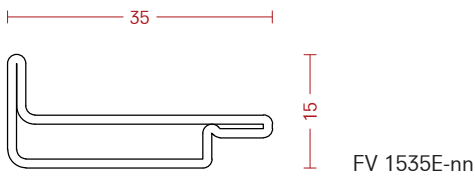
**Tabella vetrazioni**

- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristalamiento**

- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

| <br>F | <br>A |    | <br>B |     | <br>C | <br>D |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| mm                                                                                     | code                                                                                   | mm | code                                                                                   | mm  | mm                                                                                       | mm                                                                                       |
| 34                                                                                     | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 35                                                                                       | 13.5                                                                                     |
| 35                                                                                     | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 35                                                                                       | 13.5                                                                                     |
| 36                                                                                     | G99102-61                                                                              | 3  | G99204-61                                                                              | 5.5 | 35                                                                                       | 13.5                                                                                     |
| 37                                                                                     | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 35                                                                                       | 13.5                                                                                     |
| 38                                                                                     | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 35                                                                                       | 13.5                                                                                     |
| 39                                                                                     | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 35                                                                                       | 13.5                                                                                     |

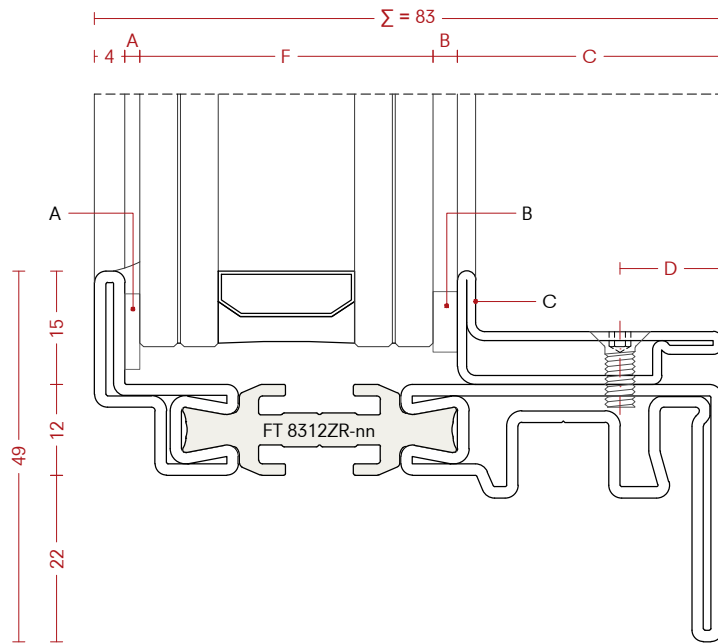
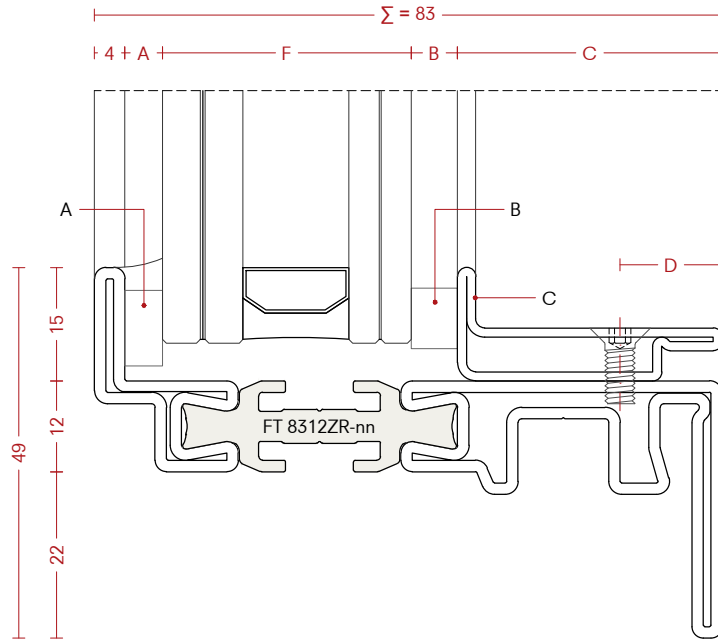


\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristalamiento para perfiles de 83 mm de profundidad.





**Glazing table**




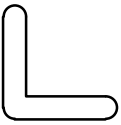
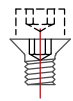
**Tabella vetrazioni**

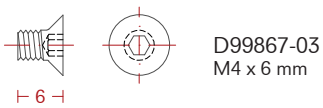
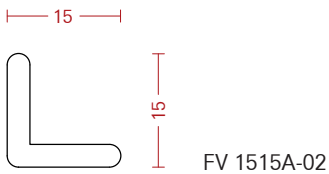
**Tabla de acristamiento**

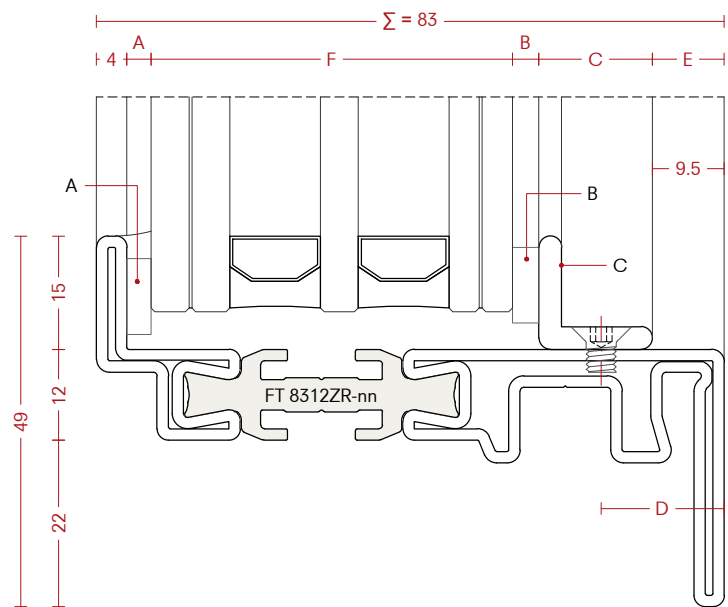
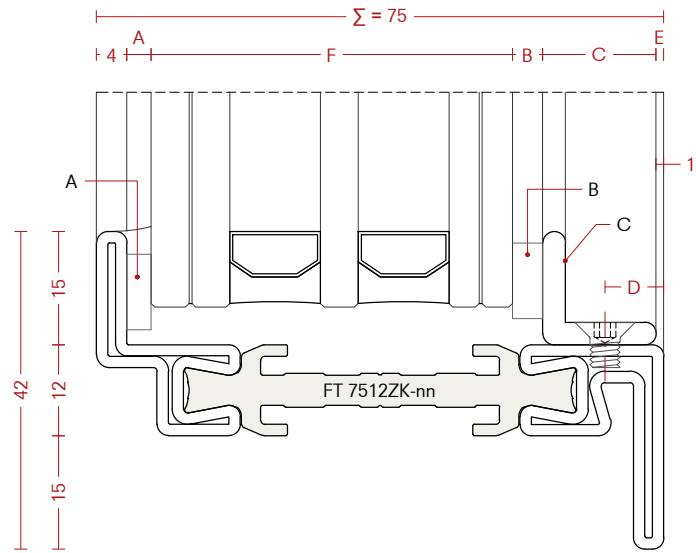
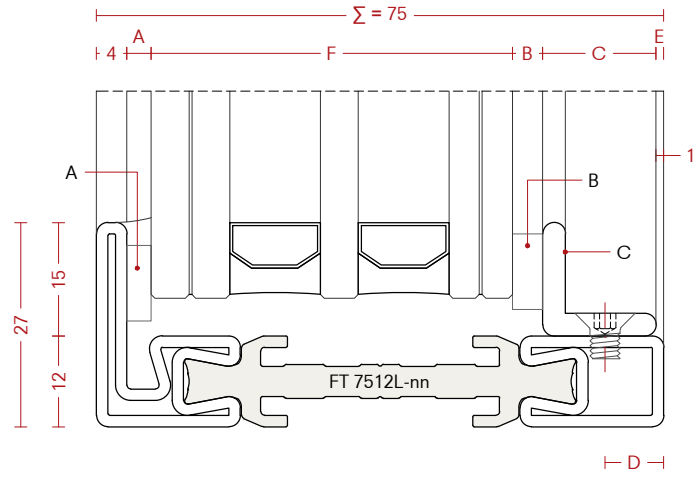
02 - Galvanized steel

02 - Acciaio zincato

02 - Acero galvanizado

|  |  |    |  |     |  |  |         |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|
| F                                                                                 | A                                                                                 |    | B                                                                                 |     | C                                                                                   | D                                                                                   | E       |
| mm                                                                                | code                                                                              | mm | code                                                                              | mm  | mm                                                                                  | mm                                                                                  | mm      |
| 44                                                                                | G99103-62                                                                         | 5  | G99204-61                                                                         | 5.5 | 15                                                                                  | 7.8 / 16.2                                                                          | 1 / 9.5 |
| 45                                                                                | G99103-62                                                                         | 5  | G99203-61                                                                         | 4.5 | 15                                                                                  | 7.8 / 16.2                                                                          | 1 / 9.5 |
| 46                                                                                | G99102-61                                                                         | 5  | G99202-61                                                                         | 3.5 | 15                                                                                  | 7.8 / 16.2                                                                          | 1 / 9.5 |
| 47                                                                                | G99102-61                                                                         | 3  | G99203-61                                                                         | 4.5 | 15                                                                                  | 7.8 / 16.2                                                                          | 1 / 9.5 |
| 48                                                                                | G99102-61                                                                         | 3  | G99202-61                                                                         | 3.5 | 15                                                                                  | 7.8 / 16.2                                                                          | 1 / 9.5 |
| 49                                                                                | G99102-61                                                                         | 3  | G99201-61                                                                         | 2.5 | 15                                                                                  | 7.8 / 16.2                                                                          | 1 / 9.5 |





**Glazing table**






**Tabella vetrazioni**

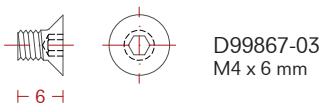
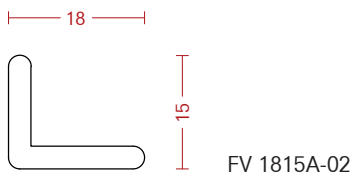
**Tabla de acristamiento**

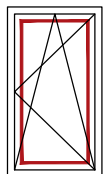
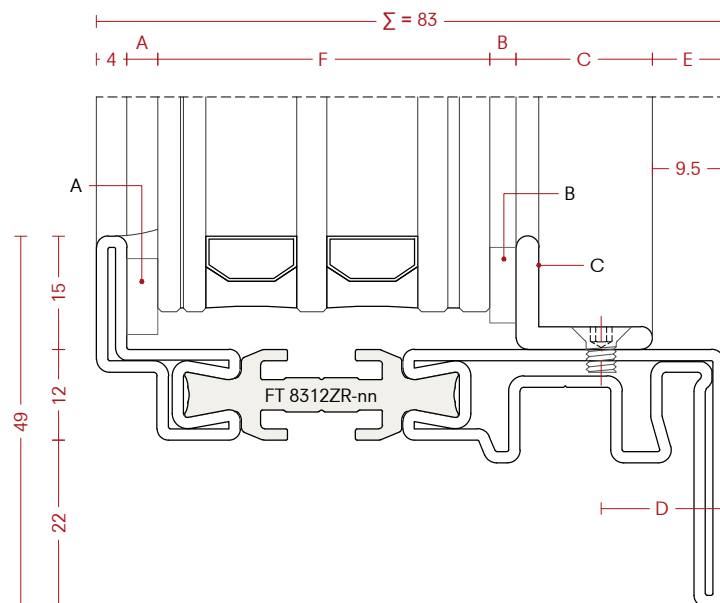
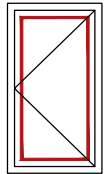
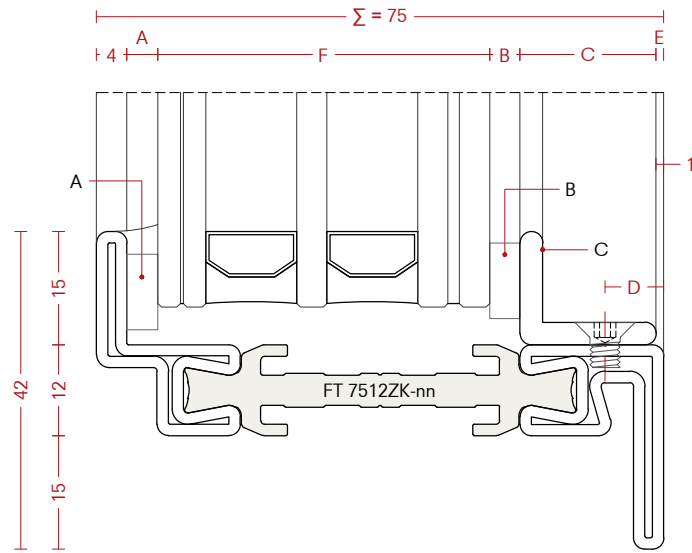
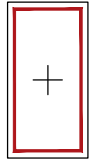
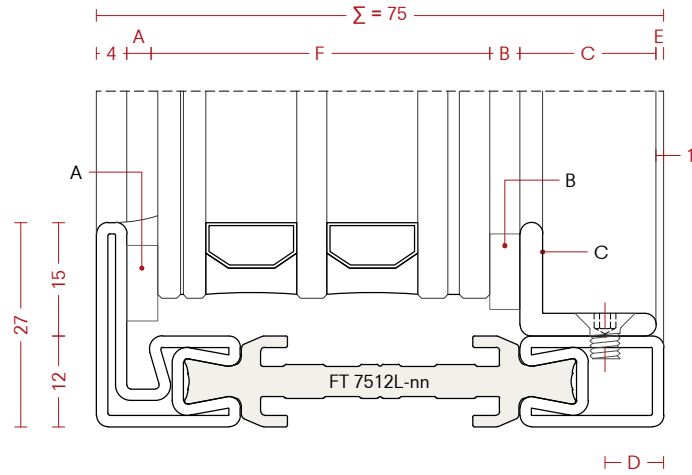
02 - Galvanized steel

02 - Acciaio zincato

02 - Acero galvanizado

| <br>F<br>mm | <br>A<br>code      mm |           | <br>B<br>code      mm |           | <br>C<br>mm | <br>D<br>mm | E<br>mm |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|
|                                                                                              | 41                                                                                                     | G99103-62 | 5                                                                                                      | G99204-61 |                                                                                               |                                                                                                |         |
| 42                                                                                           | G99103-62                                                                                              | 5         | G99203-61                                                                                              | 4.5       | 18                                                                                            | 7.8 / 16.2                                                                                     | 1 / 9.5 |
| 43                                                                                           | G99102-61                                                                                              | 5         | G99202-61                                                                                              | 3.5       | 18                                                                                            | 7.8 / 16.2                                                                                     | 1 / 9.5 |
| 44                                                                                           | G99102-61                                                                                              | 3         | G99203-61                                                                                              | 4.5       | 18                                                                                            | 7.8 / 16.2                                                                                     | 1 / 9.5 |
| 45                                                                                           | G99102-61                                                                                              | 3         | G99202-61                                                                                              | 3.5       | 18                                                                                            | 7.8 / 16.2                                                                                     | 1 / 9.5 |
| 46                                                                                           | G99102-61                                                                                              | 3         | G99201-61                                                                                              | 2.5       | 18                                                                                            | 7.8 / 16.2                                                                                     | 1 / 9.5 |





**Glazing table**





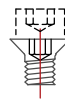
**Tabella vetrazioni**

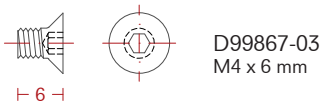
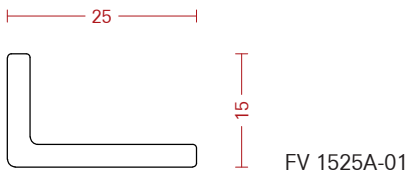
**Tabla de acristamiento**

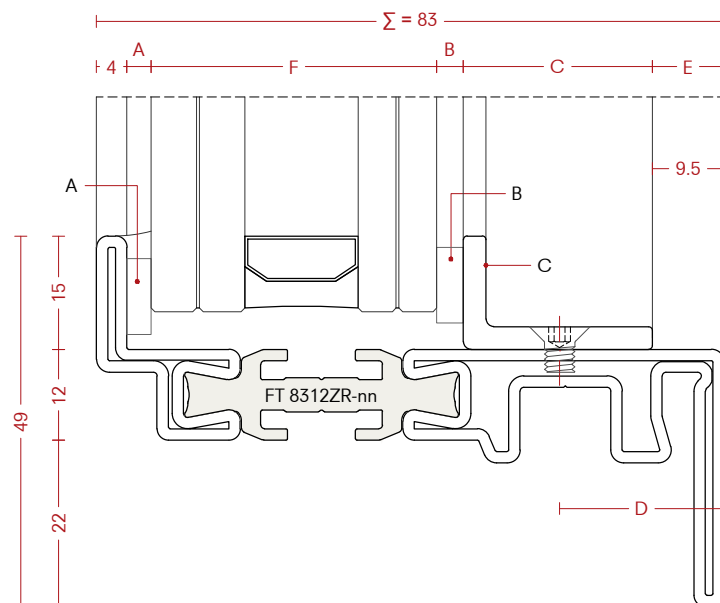
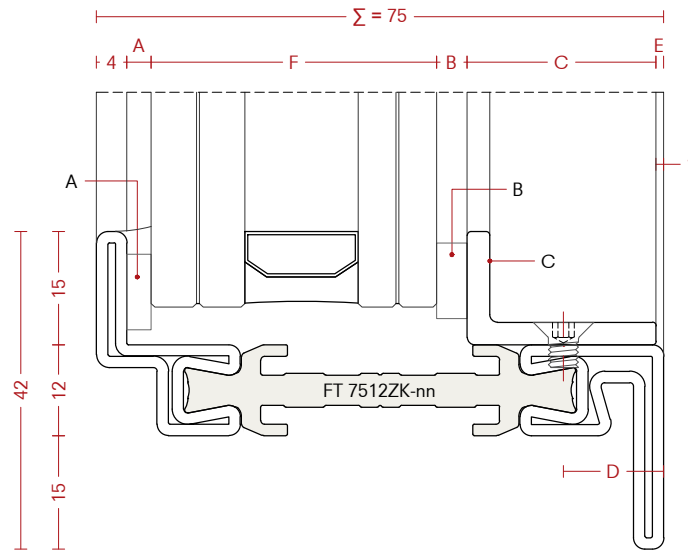
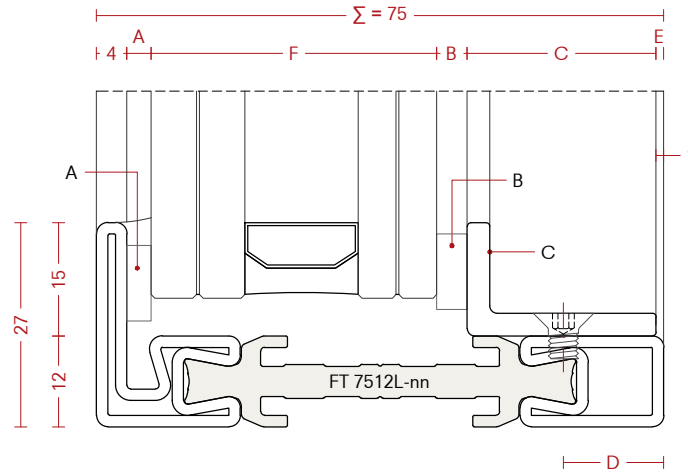
01 - Hot Rolled Steel

01 - Acciaio laminato a caldo

01 - Acero laminado en caliente

| <br>F<br>mm | <br>A |    | <br>B |     | <br>C<br>mm | <br>D<br>mm | E<br>mm |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|
|                                                                                              | code                                                                                   | mm | code                                                                                   | mm  |                                                                                               |                                                                                                |         |
| 34                                                                                           | G99103-62                                                                              | 5  | G99204-61                                                                              | 5.5 | 25                                                                                            | 13.3 / 21.8                                                                                    | 1 / 9.5 |
| 35                                                                                           | G99103-62                                                                              | 5  | G99203-61                                                                              | 4.5 | 25                                                                                            | 13.3 / 21.8                                                                                    | 1 / 9.5 |
| 36                                                                                           | G99102-61                                                                              | 5  | G99202-61                                                                              | 3.5 | 25                                                                                            | 13.3 / 21.8                                                                                    | 1 / 9.5 |
| 37                                                                                           | G99102-61                                                                              | 3  | G99203-61                                                                              | 4.5 | 25                                                                                            | 13.3 / 21.8                                                                                    | 1 / 9.5 |
| 38                                                                                           | G99102-61                                                                              | 3  | G99202-61                                                                              | 3.5 | 25                                                                                            | 13.3 / 21.8                                                                                    | 1 / 9.5 |
| 39                                                                                           | G99102-61                                                                              | 3  | G99201-61                                                                              | 2.5 | 25                                                                                            | 13.3 / 21.8                                                                                    | 1 / 9.5 |





**Glazing table**

- 00 - Aluminium
- 02 - Galvanized steel
- 06 - Satin stainless steel AISI 316L
- 07 - Cor-Ten steel
- 12 - Bright steel

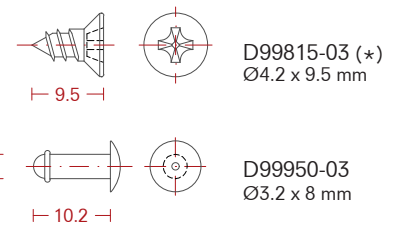
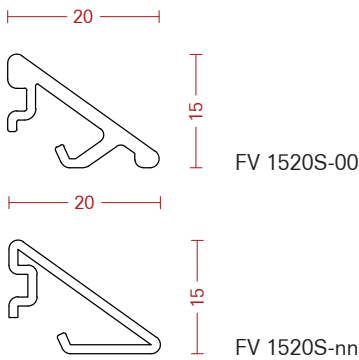
**Tabella vetrazioni**

- 00 - Alluminio
- 02 - Acciaio zincato
- 06 - Acciaio inox satinato AISI 316L
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 06 - Acero inoxidable satinado AISI 316L
- 07 - Acero Cor-Ten
- 12 - Acero bruto

| F<br>mm | A         |    | B         |    | C<br>mm | D    |    | E<br>mm |
|---------|-----------|----|-----------|----|---------|------|----|---------|
|         | code      | mm | code      | mm |         | mm   | mm |         |
| 29      | G99103-62 | 5  | G99218-60 | 6  | 20      | 42.5 | 11 |         |
| 30      | G99103-62 | 5  | G99217-60 | 5  | 20      | 42.5 | 11 |         |
| 31      | G99103-62 | 5  | G99216-60 | 4  | 20      | 42.5 | 11 |         |
| 32      | G99102-61 | 3  | G99217-60 | 5  | 20      | 42.5 | 11 |         |
| 33      | G99102-61 | 3  | G99216-60 | 4  | 20      | 42.5 | 11 |         |
| 34      | G99102-61 | 3  | G99215-60 | 3  | 20      | 42.5 | 11 |         |
| 34      | G99103-62 | 5  | G99218-60 | 6  | 20      | 37.5 | 6  |         |
| 35      | G99103-62 | 5  | G99217-60 | 5  | 20      | 37.5 | 6  |         |
| 36      | G99103-62 | 5  | G99216-60 | 4  | 20      | 37.5 | 6  |         |
| 37      | G99102-61 | 3  | G99217-60 | 5  | 20      | 37.5 | 6  |         |
| 38      | G99102-61 | 3  | G99216-60 | 4  | 20      | 37.5 | 6  |         |
| 39      | G99102-61 | 3  | G99215-60 | 3  | 20      | 37.5 | 6  |         |
| 39      | G99103-62 | 5  | G99218-60 | 6  | 20      | 32.5 | 1  |         |
| 40      | G99103-62 | 5  | G99217-60 | 5  | 20      | 32.5 | 1  |         |
| 41      | G99103-62 | 5  | G99216-60 | 4  | 20      | 32.5 | 1  |         |
| 42      | G99102-61 | 3  | G99217-60 | 5  | 20      | 32.5 | 1  |         |
| 43      | G99102-61 | 3  | G99216-60 | 4  | 20      | 32.5 | 1  |         |
| 44      | G99102-61 | 3  | G99215-60 | 3  | 20      | 32.5 | 1  |         |



\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

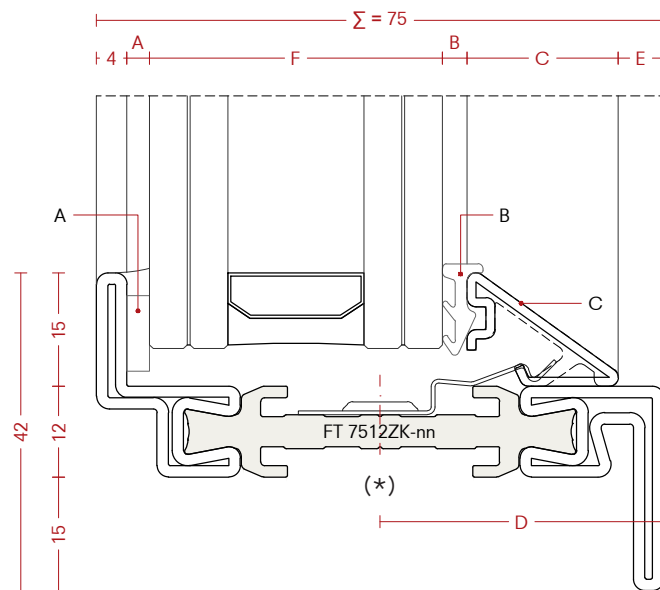
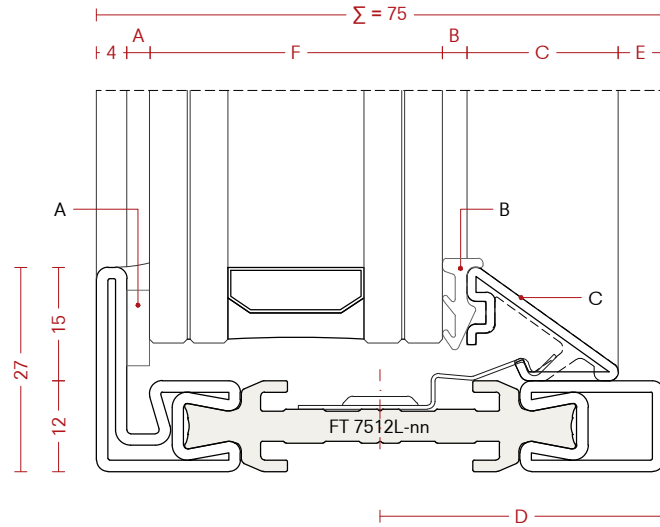
\* Mesa de acristamiento para perfiles de 75 mm de profundidad.

(\*) Only in case of multipoint lock installation use externally installed screw D99815-03.

(\*) Solamente nel caso di installazione chiusura multipoint usare vite D99815-03 installata dall'esterno.

(\*) Solo en caso de instalación de bloqueo multipunto, utilice el tornillo D99815-03 instalado externamente.





(\*) Only in case of multipoint lock installation use externally installed screw D99815-03.

(\*) Solamente nel caso di installazione chiusura multipoint usare vite D99815-03 installata dall'esterno.

(\*) Solo en caso de instalación de bloqueo multipunto, utilice el tornillo D99815-03 instalado externamente.

**Glazing table**

- 00 - Aluminium
- 02 - Galvanized steel
- 06 - Satin stainless steel AISI 316L
- 07 - Cor-Ten steel
- 12 - Bright steel

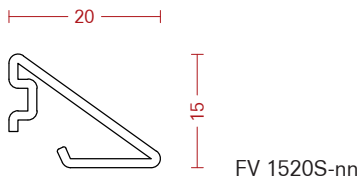
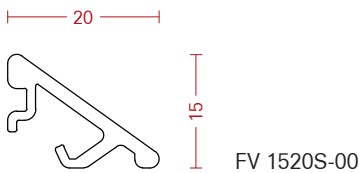
**Tabella vetrazioni**

- 00 - Alluminio
- 02 - Acciaio zincato
- 06 - Acciaio inox satinato AISI 316L
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 06 - Acero inoxidable satinado AISI 316L
- 07 - Acero Cor-Ten
- 12 - Acero bruto

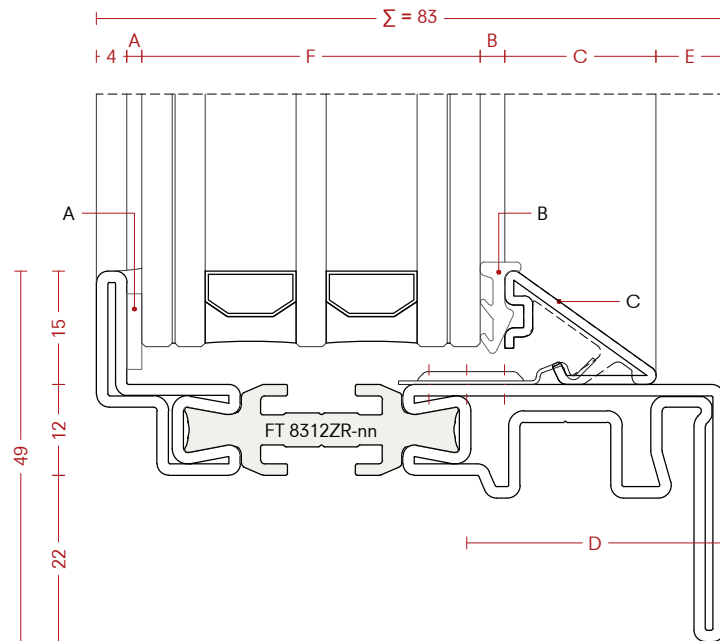
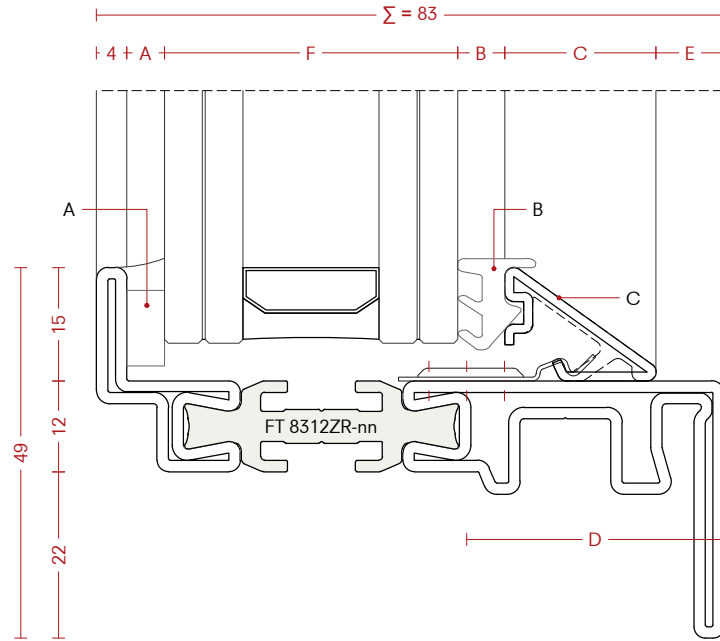
| F<br>mm | A         |    | B         |    | C<br>mm | D   E |    |
|---------|-----------|----|-----------|----|---------|-------|----|
|         | code      | mm | code      | mm |         | mm    | mm |
| 34      | G99103-62 | 5  | G99218-60 | 6  | 20      | 39    | 14 |
| 35      | G99103-62 | 5  | G99217-60 | 5  | 20      | 39    | 14 |
| 36      | G99103-62 | 5  | G99216-60 | 4  | 20      | 39    | 14 |
| 37      | G99102-61 | 3  | G99217-60 | 5  | 20      | 39    | 14 |
| 38      | G99102-61 | 3  | G99216-60 | 4  | 20      | 39    | 14 |
| 39      | G99102-61 | 3  | G99215-60 | 3  | 20      | 39    | 14 |
| 39      | G99103-62 | 5  | G99218-60 | 6  | 20      | 39    | 9  |
| 40      | G99103-62 | 5  | G99217-60 | 5  | 20      | 39    | 9  |
| 41      | G99103-62 | 5  | G99216-60 | 4  | 20      | 39    | 9  |
| 42      | G99102-61 | 3  | G99217-60 | 5  | 20      | 39    | 9  |
| 43      | G99102-61 | 3  | G99216-60 | 4  | 20      | 39    | 9  |
| 44      | G99102-61 | 3  | G99215-60 | 3  | 20      | 39    | 9  |



\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristamiento para perfiles de 83 mm de profundidad.



**Glazing table**

- 00 - Aluminium
- 02 - Galvanized steel
- 06 - Satin stainless steel AISI 316L
- 07 - Cor-Ten steel
- 12 - Bright steel

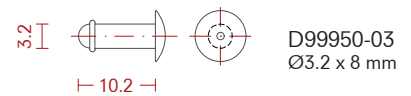
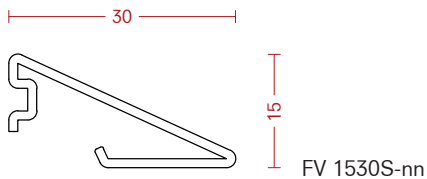
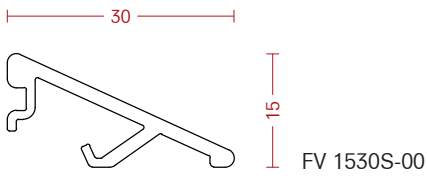
**Tabella vetrazioni**

- 00 - Alluminio
- 02 - Acciaio zincato
- 06 - Acciaio inox satinato AISI 316L
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 06 - Acero inoxidable satinado AISI 316L
- 07 - Acero Cor-Ten
- 12 - Acero bruto

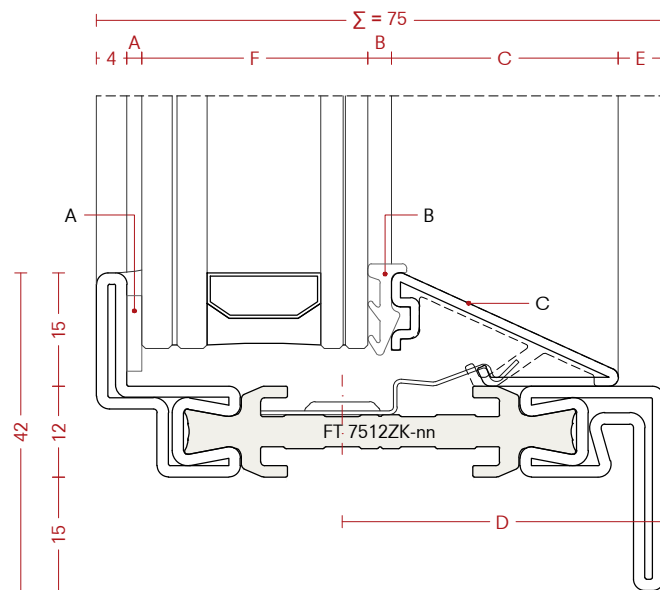
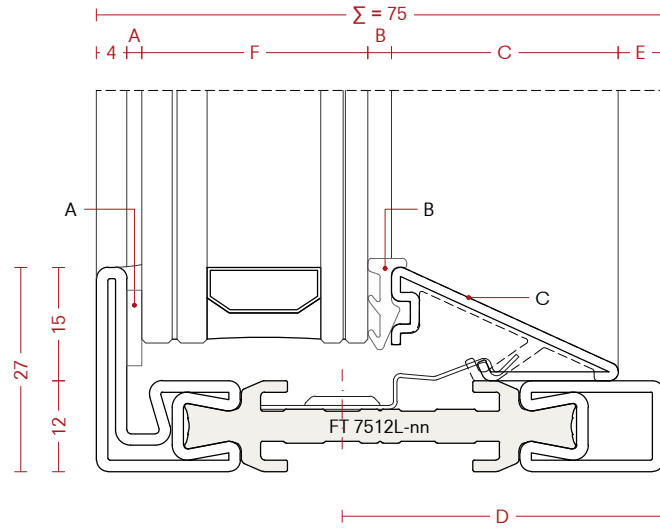
| F<br>mm | A         |    | B         |    | C<br>mm | D    |    | E<br>mm |
|---------|-----------|----|-----------|----|---------|------|----|---------|
|         | code      | mm | code      | mm |         | mm   | mm |         |
| 24      | G99103-62 | 5  | G99218-60 | 6  | 30      | 42.5 | 6  |         |
| 25      | G99103-62 | 5  | G99217-60 | 5  | 30      | 42.5 | 6  |         |
| 26      | G99103-62 | 5  | G99216-60 | 4  | 30      | 42.5 | 6  |         |
| 27      | G99102-61 | 3  | G99217-60 | 5  | 30      | 42.5 | 6  |         |
| 28      | G99102-61 | 3  | G99216-60 | 4  | 30      | 42.5 | 6  |         |
| 29      | G99102-61 | 3  | G99215-60 | 3  | 30      | 42.5 | 6  |         |
| 29      | G99103-62 | 5  | G99218-60 | 6  | 30      | 37.5 | 1  |         |
| 30      | G99103-62 | 5  | G99217-60 | 5  | 30      | 37.5 | 1  |         |
| 31      | G99103-62 | 5  | G99216-60 | 4  | 30      | 37.5 | 1  |         |
| 32      | G99102-61 | 3  | G99217-60 | 5  | 30      | 37.5 | 1  |         |
| 33      | G99102-61 | 3  | G99216-60 | 4  | 30      | 37.5 | 1  |         |
| 34      | G99102-61 | 3  | G99215-60 | 3  | 30      | 37.5 | 1  |         |



\* Glazing table for 75 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 75 mm

\* Mesa de acristamiento para perfiles de 75 mm de profundidad.



**Glazing table**

- 00 - Aluminium
- 02 - Galvanized steel
- 06 - Satin stainless steel AISI 316L
- 07 - Cor-Ten steel
- 12 - Bright steel

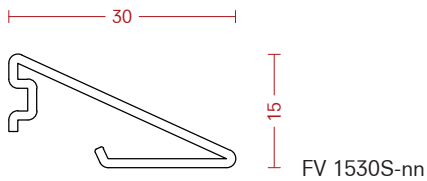
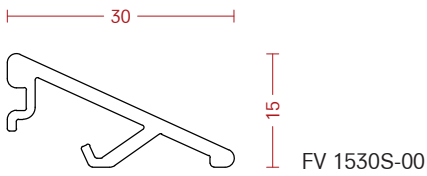
**Tabella vetrazioni**

- 00 - Alluminio
- 02 - Acciaio zincato
- 06 - Acciaio inox satinato AISI 316L
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 06 - Acero inoxidable satinado AISI 316L
- 07 - Acero Cor-Ten
- 12 - Acero bruto

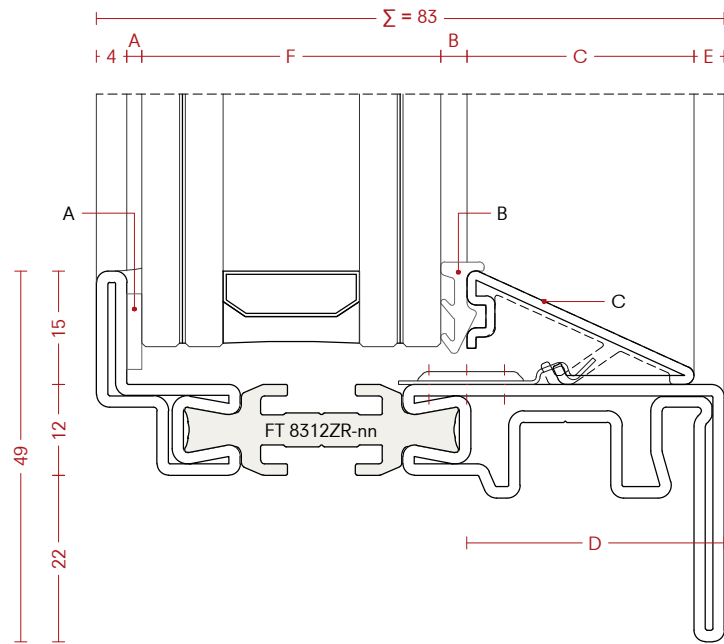
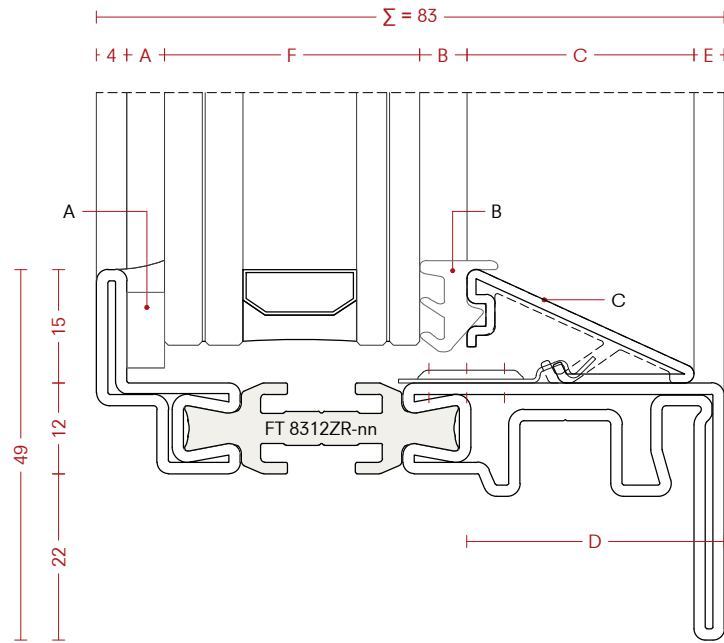
| F<br>mm | A         |    | B         |    | C<br>mm | D<br>mm | E<br>mm |
|---------|-----------|----|-----------|----|---------|---------|---------|
|         | code      | mm | code      | mm |         |         |         |
| 29      | G99103-62 | 5  | G99218-60 | 6  | 30      | 39      | 9       |
| 30      | G99103-62 | 5  | G99217-60 | 5  | 30      | 39      | 9       |
| 31      | G99103-62 | 5  | G99216-60 | 4  | 30      | 39      | 9       |
| 32      | G99102-61 | 3  | G99217-60 | 5  | 30      | 39      | 9       |
| 33      | G99102-61 | 3  | G99216-60 | 4  | 30      | 39      | 9       |
| 34      | G99102-61 | 3  | G99215-60 | 3  | 30      | 39      | 9       |
| 34      | G99103-62 | 5  | G99218-60 | 6  | 30      | 39      | 4       |
| 35      | G99103-62 | 5  | G99217-60 | 5  | 30      | 39      | 4       |
| 36      | G99103-62 | 5  | G99216-60 | 4  | 30      | 39      | 4       |
| 37      | G99102-61 | 3  | G99217-60 | 5  | 30      | 39      | 4       |
| 38      | G99102-61 | 3  | G99216-60 | 4  | 30      | 39      | 4       |
| 39      | G99102-61 | 3  | G99215-60 | 3  | 30      | 39      | 4       |



\* Glazing table for 83 mm depth profiles.

\* Tabella vetrazioni per profili di profondità 83 mm

\* Mesa de acristamiento para perfiles de 83 mm de profundidad.



**Glazing table**


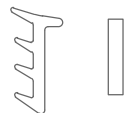

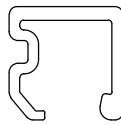

**Tabella vetrazioni**

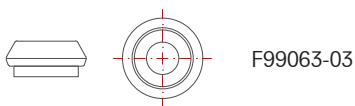
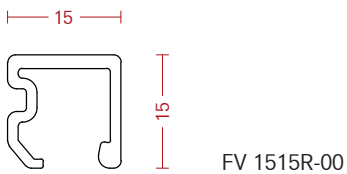
**Tabla de acristalamiento**

00 - Aluminium

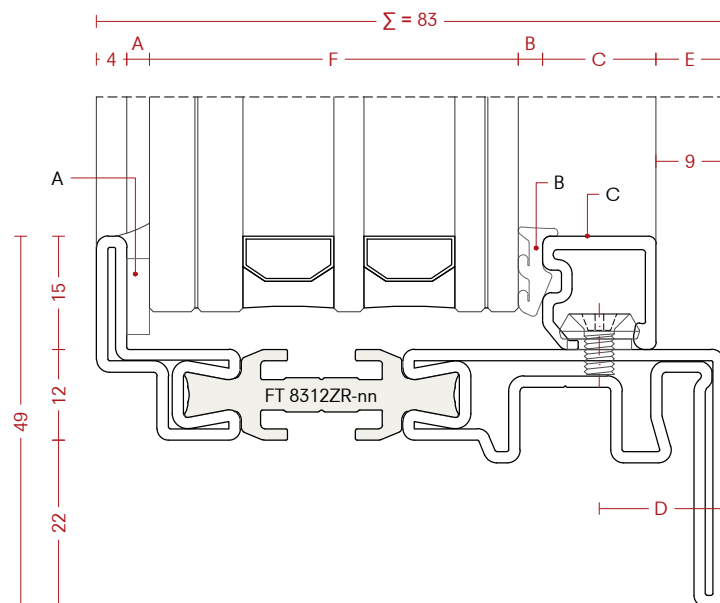
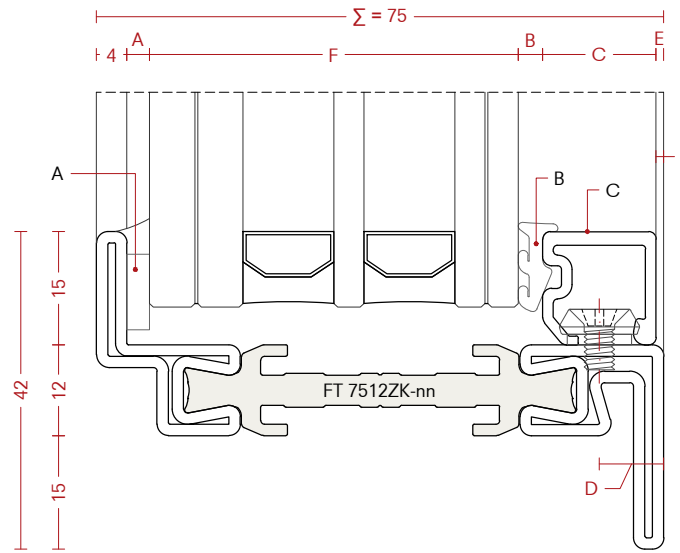
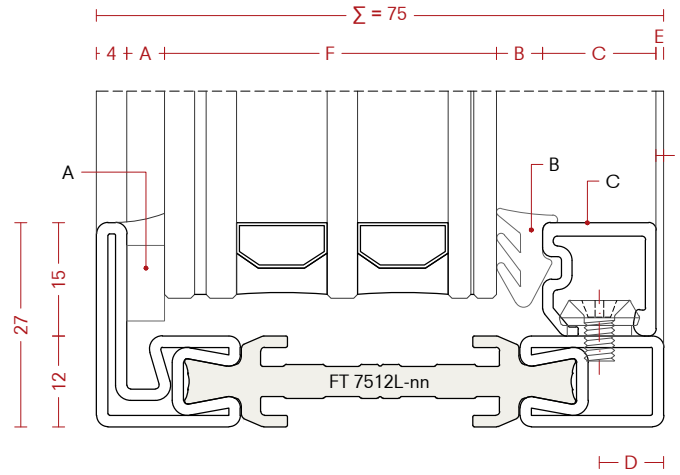
00 - Alluminio

00 - Aluminio

| <br>F<br>mm | <br>A<br>code      mm |                       | <br>B<br>code      mm |           | <br>C<br>mm | <br>D<br>mm | E<br>mm    |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------|
|                                                                                              | 44                                                                                                     | G99108-60 / G99103-62 |                                                                                                        | G99218-60 |                                                                                               | 15                                                                                             | 8.5 / 16.5 |
| 45                                                                                           | G99103-62                                                                                              |                       | G99217-60                                                                                              |           | 15                                                                                            | 8.5 / 16.5                                                                                     | 1 / 9      |
| 46                                                                                           | G99107-60 / G99102-61                                                                                  |                       | G99218-60                                                                                              |           | 15                                                                                            | 8.5 / 16.5                                                                                     | 1 / 9      |
| 47                                                                                           | G99107-60 / G99102-61                                                                                  |                       | G99217-60                                                                                              |           | 15                                                                                            | 8.5 / 16.5                                                                                     | 1 / 9      |
| 48                                                                                           | G99107-60 / G99102-61                                                                                  |                       | G99216-60                                                                                              |           | 15                                                                                            | 8.5 / 16.5                                                                                     | 1 / 9      |
| 49                                                                                           | G99107-60 / G99102-61                                                                                  |                       | G99215-60                                                                                              |           | 15                                                                                            | 8.5 / 16.5                                                                                     | 1 / 9      |







**Glazing table**

- 00 - Aluminium
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

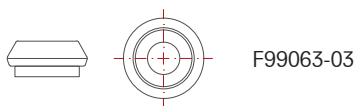
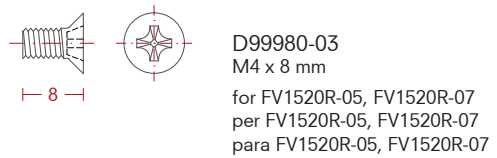
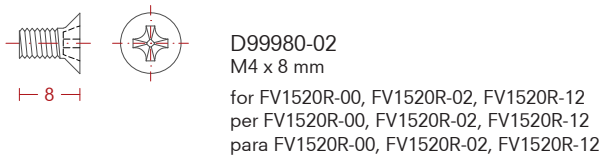
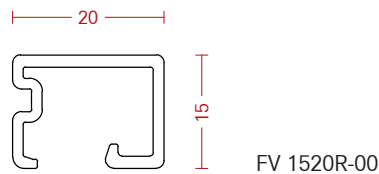
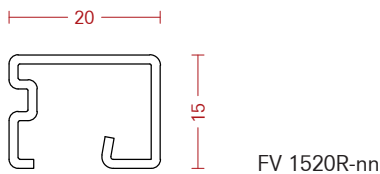
**Tabella vetrazioni**

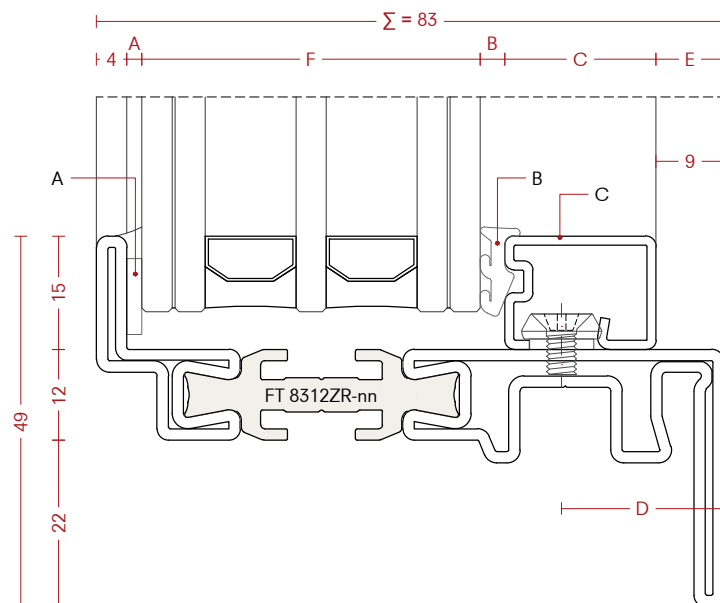
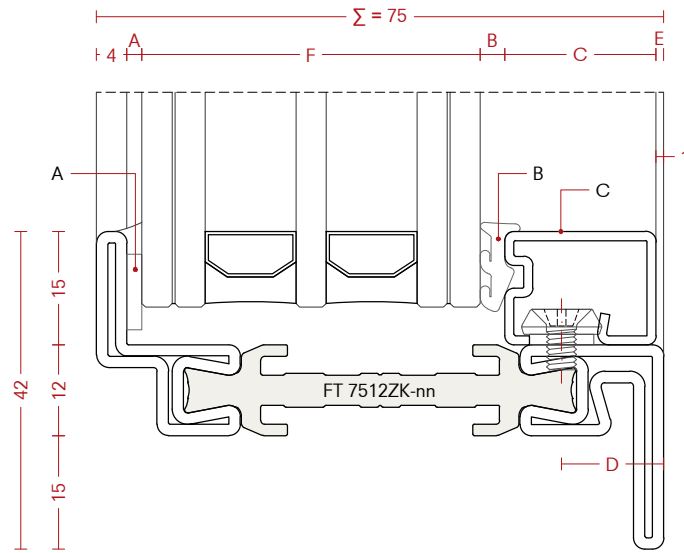
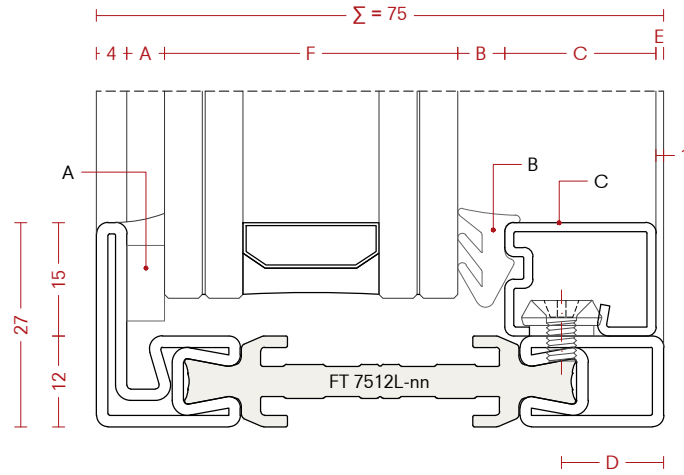
- 00 - Alluminio
- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristalamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

| F<br>mm | A                     |    | B         |    | C<br>mm | D<br>mm     | E<br>mm |
|---------|-----------------------|----|-----------|----|---------|-------------|---------|
|         | code                  | mm | code      | mm |         |             |         |
| 39      | G99108-60 / G99103-62 | 5  | G99218-60 | 6  | 20      | 13.5 / 21.5 | 1 / 9   |
| 40      | G99103-62             | 5  | G99217-60 | 5  | 20      | 13.5 / 21.5 | 1 / 9   |
| 41      | G99107-60 / G99102-61 | 3  | G99218-60 | 6  | 20      | 13.5 / 21.5 | 1 / 9   |
| 42      | G99107-60 / G99102-61 | 3  | G99217-60 | 5  | 20      | 13.5 / 21.5 | 1 / 9   |
| 43      | G99107-60 / G99102-61 | 3  | G99216-60 | 4  | 20      | 13.5 / 21.5 | 1 / 9   |
| 44      | G99107-60 / G99102-61 | 3  | G99215-60 | 3  | 20      | 13.5 / 21.5 | 1 / 9   |





**Glazing table**




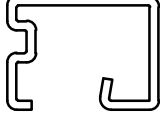


- 00 - Aluminium
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

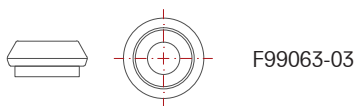
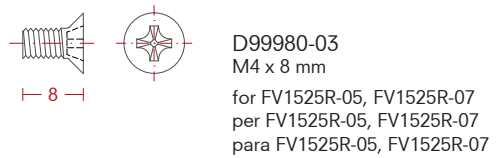
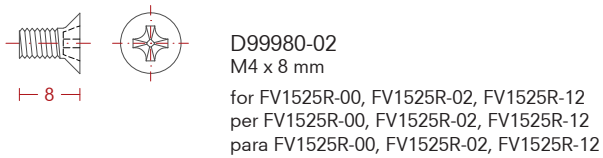
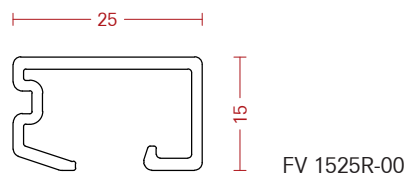
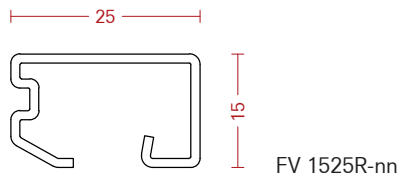
**Tabella vetrazioni**

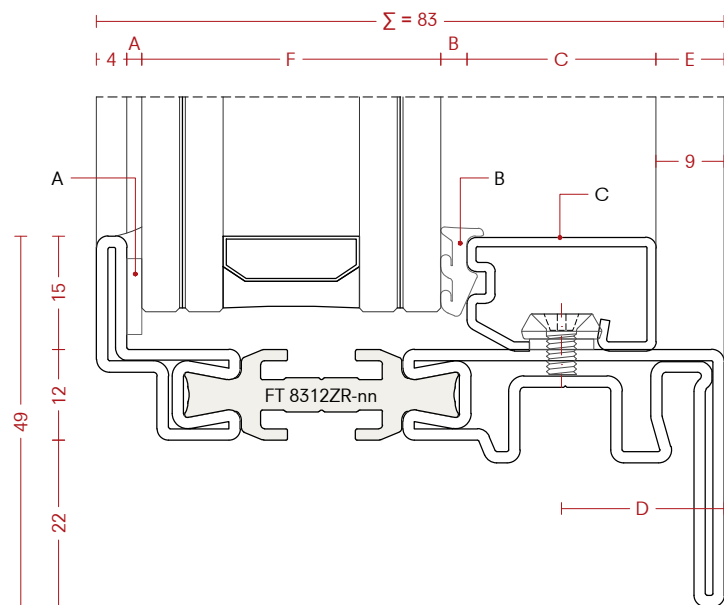
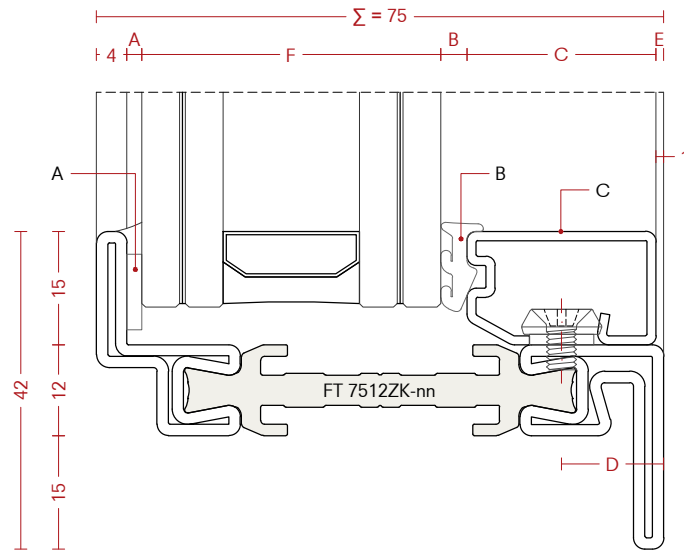
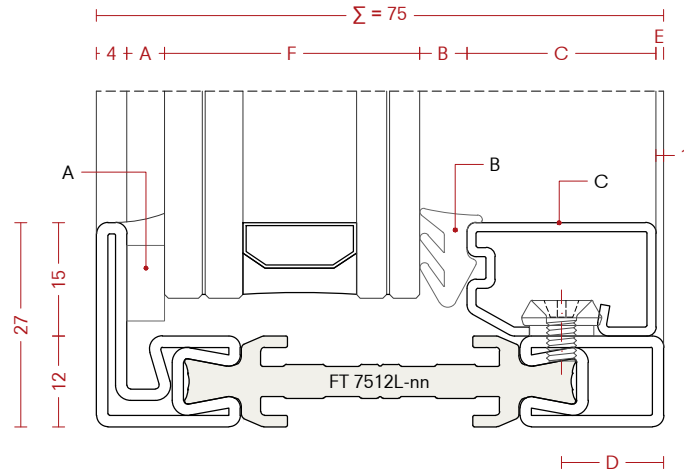
- 00 - Alluminio
- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristalamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

|  |  |    |  |    |  |  |  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                   | F                                                                                 | A  | B                                                                                 | C  |                                                                                    |                                                                                     |                                                                                     |
| mm                                                                                | code                                                                              | mm | code                                                                              | mm | mm                                                                                 | mm                                                                                  | mm                                                                                  |
| 34                                                                                | G99108-60 / G99103-62                                                             | 5  | G99218-60                                                                         | 6  | 25                                                                                 | 13.5 / 21.5                                                                         | 1 / 9                                                                               |
| 35                                                                                | G99103-62                                                                         | 5  | G99217-60                                                                         | 5  | 25                                                                                 | 13.5 / 21.5                                                                         | 1 / 9                                                                               |
| 36                                                                                | G99107-60 / G99102-61                                                             | 3  | G99218-60                                                                         | 6  | 25                                                                                 | 13.5 / 21.5                                                                         | 1 / 9                                                                               |
| 37                                                                                | G99107-60 / G99102-61                                                             | 3  | G99217-60                                                                         | 5  | 25                                                                                 | 13.5 / 21.5                                                                         | 1 / 9                                                                               |
| 38                                                                                | G99107-60 / G99102-61                                                             | 3  | G99216-60                                                                         | 4  | 25                                                                                 | 13.5 / 21.5                                                                         | 1 / 9                                                                               |
| 39                                                                                | G99107-60 / G99102-61                                                             | 3  | G99215-60                                                                         | 3  | 25                                                                                 | 13.5 / 21.5                                                                         | 1 / 9                                                                               |





**Glazing table**

- 00 - Aluminium
- 02 - Galvanized steel
- 05 - Stainless steel AISI 316L 2B
- 07 - Cor-Ten steel
- 12 - Bright steel

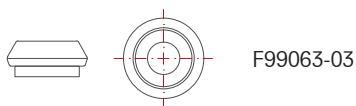
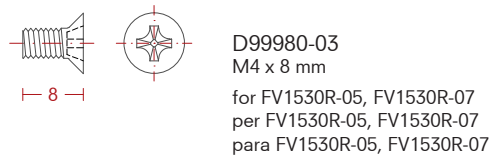
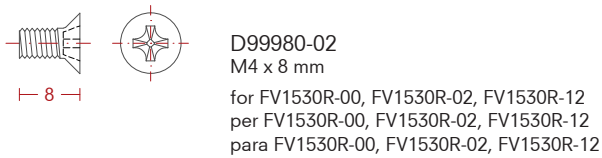
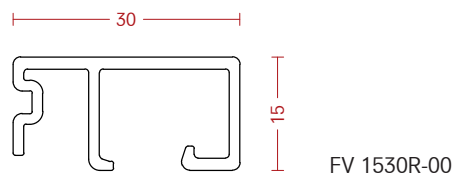
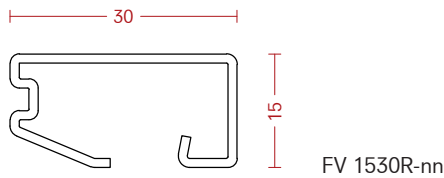
**Tabella vetrazioni**

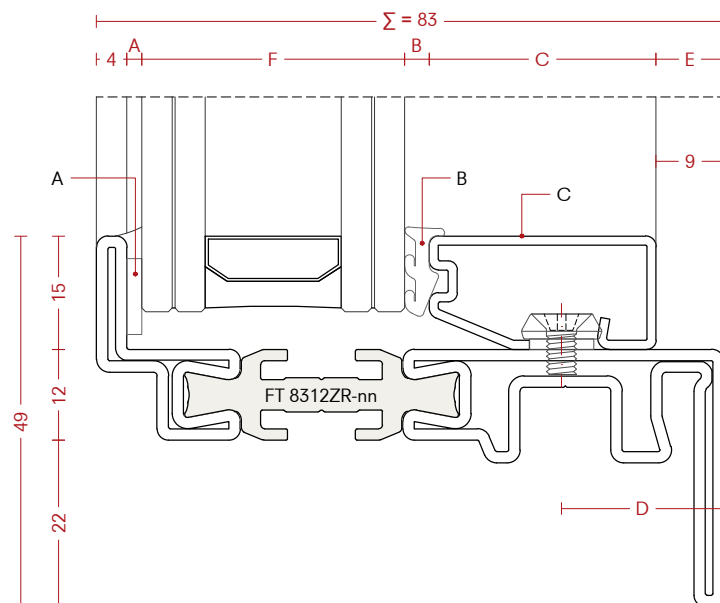
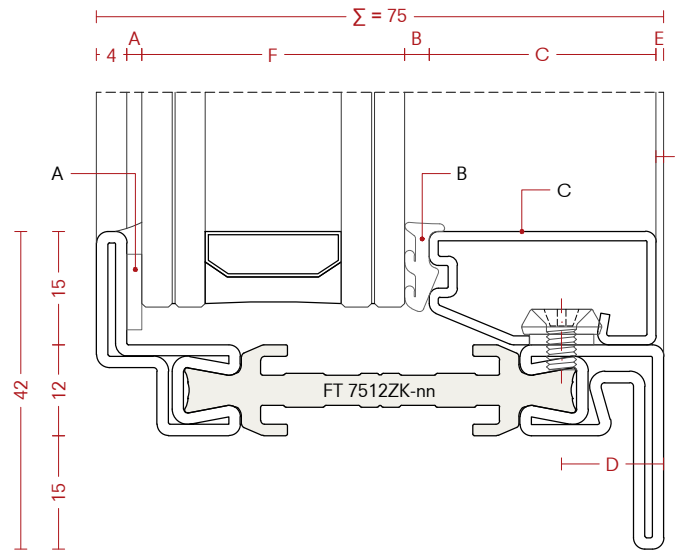
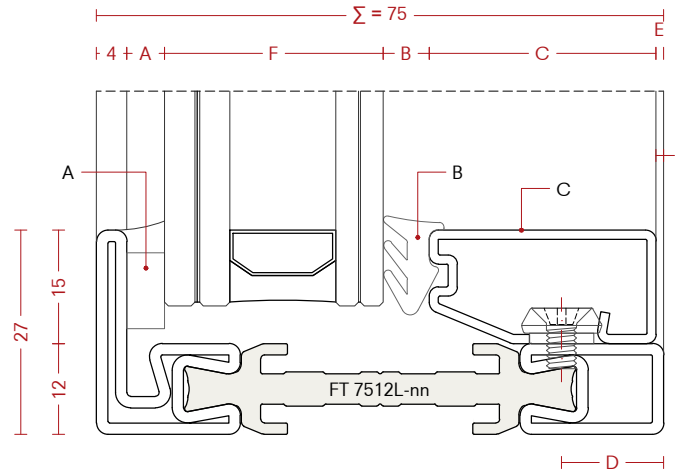
- 00 - Alluminio
- 02 - Acciaio zincato
- 05 - Acciaio inox AISI 316L 2B
- 07 - Acciaio Cor-Ten
- 12 - Acciaio decapato

**Tabla de acristamiento**

- 00 - Aluminio
- 02 - Acero galvanizado
- 05 - Acero inoxidable AISI 316L 2B
- 07 - Acero Cor-Ten
- 12 - Acero bruto

| F<br>mm | A                     |    | B         |    | C<br>mm | D<br>mm     | E<br>mm |
|---------|-----------------------|----|-----------|----|---------|-------------|---------|
|         | code                  | mm | code      | mm |         |             |         |
| 29      | G99108-60 / G99103-62 | 5  | G99218-60 | 6  | 30      | 13.5 / 21.5 | 1 / 9   |
| 30      | G99103-62             | 5  | G99217-60 | 5  | 30      | 13.5 / 21.5 | 1 / 9   |
| 31      | G99107-60 / G99102-61 | 3  | G99218-60 | 6  | 30      | 13.5 / 21.5 | 1 / 9   |
| 32      | G99107-60 / G99102-61 | 3  | G99217-60 | 5  | 30      | 13.5 / 21.5 | 1 / 9   |
| 33      | G99107-60 / G99102-61 | 3  | G99216-60 | 4  | 30      | 13.5 / 21.5 | 1 / 9   |
| 34      | G99107-60 / G99102-61 | 3  | G99215-60 | 3  | 30      | 13.5 / 21.5 | 1 / 9   |





**Glazing table**

**Tabella vetrazioni**

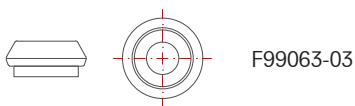
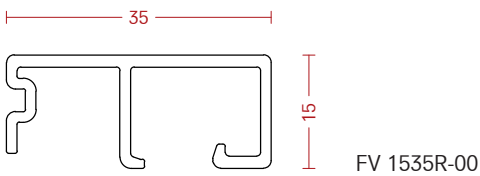
**Tabla de acristamiento**

00 - Aluminium

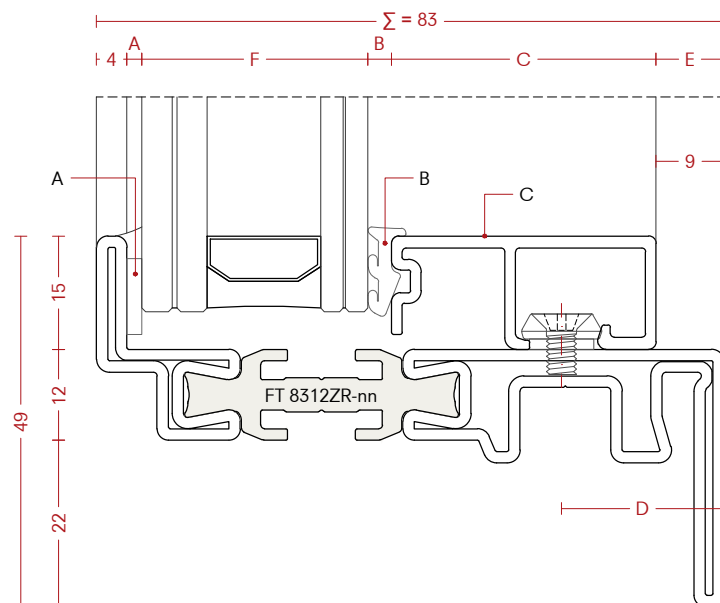
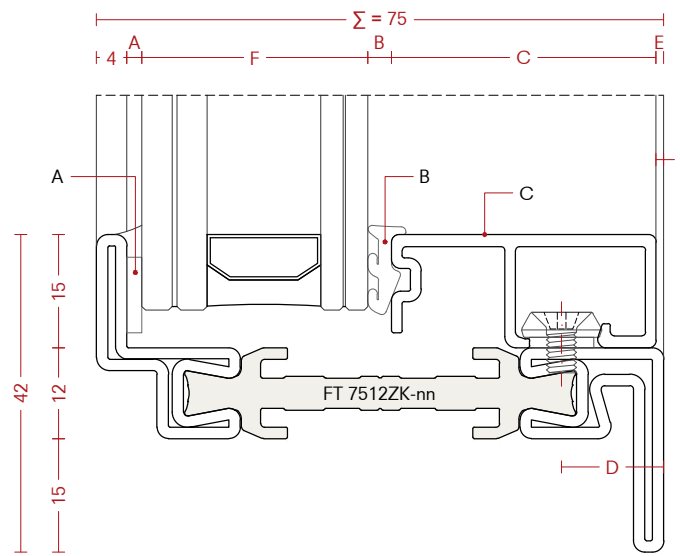
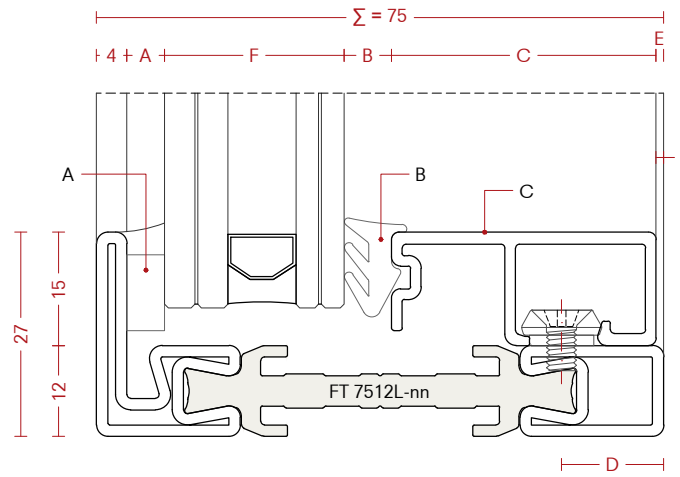
00 - Alluminio

00 - Aluminio

| F  | A                     |    | B         |    | C  | D           | E     |
|----|-----------------------|----|-----------|----|----|-------------|-------|
| mm | code                  | mm | code      | mm | mm | mm          | mm    |
| 24 | G99108-60 / G99103-62 | 5  | G99218-60 | 6  | 35 | 13.5 / 21.5 | 1 / 9 |
| 25 | G99103-62             | 5  | G99217-60 | 5  | 35 | 13.5 / 21.5 | 1 / 9 |
| 26 | G99107-60 / G99102-61 | 3  | G99218-60 | 6  | 35 | 13.5 / 21.5 | 1 / 9 |
| 27 | G99107-60 / G99102-61 | 3  | G99217-60 | 5  | 35 | 13.5 / 21.5 | 1 / 9 |
| 28 | G99107-60 / G99102-61 | 3  | G99216-60 | 4  | 35 | 13.5 / 21.5 | 1 / 9 |
| 29 | G99107-60 / G99102-61 | 3  | G99215-60 | 3  | 35 | 13.5 / 21.5 | 1 / 9 |









**Accessories****Accessori****Accesorios****3.0**Opening scheme  
Surface finishesSchema di apertura  
FinitureDiagrama de apertura  
Acabados de superficieGaskets  
System accessories  
Hinges  
Flush bolts  
General fittings  
Locks  
Screws  
Assembling tools  
Multipoint steel rods,  
with Graz  
Multipoint aluminum rods,  
with Graz and Mono  
Multipoint aluminum rods,  
with lever handle  
Tilt&Turn windowGuarnizioni  
Accessori di sistema  
Cerniere  
Catenacci  
Ferramenta generale  
Serrature  
Viti  
Utensili di assemblaggio  
Multipoint aste in acciaio,  
con Graz  
Multipoint aste in alluminio,  
con Graz e Mono  
Multipoint aste in alluminio,  
con cariglione  
Finestra anta ribaltaJuntas de sellado  
Accesorios del sistema  
Bisagras  
Pasador de canto  
Herrajes generales  
Cerraduras  
Tornillos  
Herramientas de montaje  
Multipoint varillas de acero,  
con Graz  
Multipoint varillas de aluminio,  
con Graz y Mono  
Multipoint varillas de aluminio,  
con manija de bloqueo  
Ventana oscilante**3.1**  
**3.2**  
**3.3**  
**3.4**  
**3.5**  
**3.6**  
**3.7**  
**3.8**  
**3.9**  
**3.10**  
**3.11**  
**3.12**

**Opening scheme**

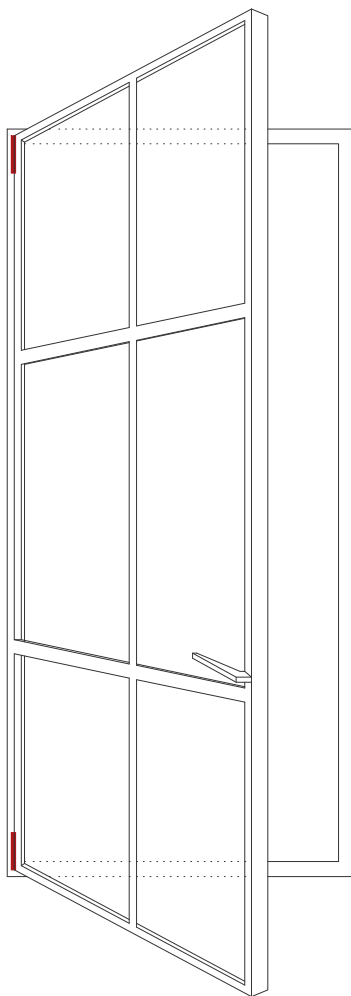
A window or a door is defined as "left opening" or "right opening" when, viewed from the opening side, the hinges are respectively on the left or on the right.

**Schema di apertura**

Una finestra o una porta si definiscono "apertura sinistra" o "apertura destra" quando, vista dalla parte del verso di apertura, le cerniere si trovano rispettivamente a sinistra o a destra.

**Diagrama de apertura**

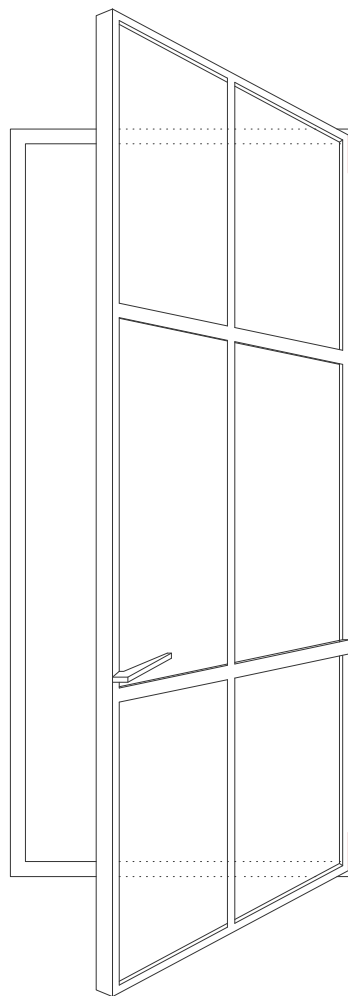
Una ventana o puerta se llama "apertura izquierda" o "apertura derecha" cuando, en la dirección de apertura, las bisagras están respectivamente a la izquierda o a la derecha.



Left opening

Apertura sinistra

Apertura izquierda



Right opening












Apertura destra

Apertura derecha

**Surface finishes**

**Finiture superfici**

**Acabados de superficie**

|                       |                               |                           |       |                                                                                       |
|-----------------------|-------------------------------|---------------------------|-------|---------------------------------------------------------------------------------------|
| Satin chrome          | Cromo satinato                | Cromo mate cepillado      | SC 15 |    |
| Dark bronze           | Bronzo anticato               | Bronce oscuro             | DB 17 |    |
| Oil-rubbed bronze     | Bronzo brunito cerato         | Bronce engrasado          | OB 18 |    |
| Satin brass           | Ottone satinato               | Latón satinado            | SB 20 |  |
| Polished brass        | Ottone lucidato               | Latón pulido              | PB 23 |  |
| Antique nickel        | Nichel anticato               | Níquel antiguo            | AN 24 |  |
| Satin stainless steel | Acciaio inossidabile satinato | Acero inoxidable satinado | SS 26 |  |
| Polished nickel       | Nichel lucidato               | Niquelado pulido          | PN 28 |  |
| Satin nickel          | Nichel satinato               | Niquelado satinado        | SN 29 |  |
| Gun metal             | Grigio canna di fucile        | Gris oscuro               | GM 42 |  |
| Matt black            | Nero opaco                    | Negro mate                | MB 43 |  |



**Gaskets**

**Guarnizioni**

**Juntas de sellado**

**3.1**

**Internal/External  
rebate gasket**

-60 = EPDM black  
-77 = EPDM white

PU = 50 m

**Guarnizione di battuta  
interna/esterna**

-60 = EPDM nero  
-77 = EPDM bianco

UV = 50 m

**Junta de tope  
interior/exterior**

-60 = EPDM negro  
-77 = EPDM blanco

CANTIDAD = 50 m



G99021-nn

**Internal/External  
rebate gasket**

-60 = EPDM black  
-77 = EPDM white

PU = 50 m

**Guarnizione di battuta  
interna/esterna**

-60 = EPDM nero  
-77 = EPDM bianco

UV = 50 m

**Junta de tope  
interior/exterior**

-60 = EPDM negro  
-77 = EPDM blanco

CANTIDAD = 50 m



G99022-nn

**Internal/External  
rebate gasket**

-60 = EPDM black  
-77 = EPDM white

PU = 50 m

**Guarnizione di battuta  
interna/esterna**

-60 = EPDM nero  
-77 = EPDM bianco

UV = 50 m

**Junta de tope  
interior/exterior**

-60 = EPDM negro  
-77 = EPDM blanco

CANTIDAD = 50 m



G99023-nn



**External glazing gasket**

EPDM, black, self-adhesive, 3 mm

PU = 50 m

**Guarnizione vetro esterna**

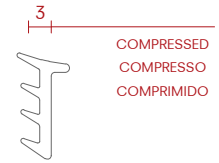
EPDM, nero, autoadesivo, 3 mm

UV = 50 m

**Junta de acristalamiento exterior**

EPDM, color negro, autoadhesiva, 3 mm

CANTIDAD = 50 m



G99107-60

**External glazing gasket**

EPDM, black, self-adhesive, 5 mm

PU = 100 m

**Guarnizione vetro esterna**

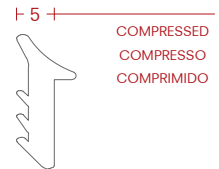
EPDM, nero, autoadesivo, 5 mm

UV = 100 m

**Junta de acristalamiento exterior**

EPDM, color negro, autoadhesiva, 5 mm

CANTIDAD = 100 m



G99108-60

**External tape seals**

Neoprene, black, self-adhesive, 3 mm

PU = 20 m

**Nastro autoadesivo esterno**

Neoprene, nero, autoadesivo, 3 mm

UV = 20 m

**Cinta exterior**

Neopreno, color negro, autoadhesiva, 3 mm

CANTIDAD = 20 m



G99102-61

**External tape seals**

PVC, black, self-adhesive, 5 mm

PU = 15 m

**Nastro autoadesivo esterno**

PVC, nero, autoadesivo, 5 mm

UV = 15 m

**Cinta exterior**

PVC, color negro, autoadhesiva, 5 mm

CANTIDAD = 15 m



G99103-62

**Internal tape seals**

Neoprene, black,  
self-adhesive, 3 mm

PU = 20 m

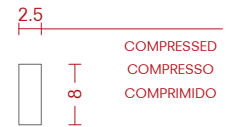
**Nastro autoadesivo interno Cinta interior**

Neoprene, nero,  
autoadesivo, 3 mm

UV = 20 m

Neopreno, color negro,  
autoadhesiva, 3 mm

CANTIDAD = 20 m



G99201-61

**Internal tape seals**

Neoprene, black,  
self-adhesive, 4 mm

PU = 20 m

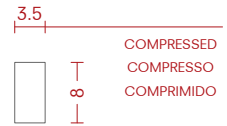
**Nastro autoadesivo interno Cinta interior**

Neoprene, nero,  
autoadesivo, 4 mm

UV = 20 m

Neopreno, color negro,  
autoadhesiva, 4 mm

CANTIDAD = 20 m



G99202-61

**Internal tape seals**

Neoprene, black,  
self-adhesive, 5 mm

PU = 20 m

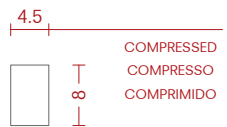
**Nastro autoadesivo interno Cinta interior**

Neoprene, nero,  
autoadesivo, 5 mm

UV = 20 m

Neopreno, color negro,  
autoadhesiva, 5 mm

CANTIDAD = 20 m



G99203-61

**Internal tape seals**

Neoprene, black,  
self-adhesive, 6 mm

PU = 20 m

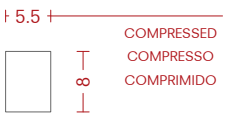
**Nastro autoadesivo interno Cinta interior**

Neoprene, nero,  
autoadesivo, 6 mm

UV = 20 m

Neopreno, color negro,  
autoadhesiva, 6 mm

CANTIDAD = 20 m



G99204-61

**Internal glazing gasket**

EPDM, black, 3 mm,  
light blue printed line.

PU = 50 m

**Guarnizione vetro interna**

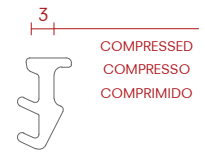
EPDM, nero, 3 mm,  
linea azzurra stampata.

UV = 50 m

**Junta de acristalamiento interior**

EPDM, color negro, 3 mm,  
línea azul claro impresa.

CANTIDAD = 50 m



G99215-60

**Internal glazing gasket**

EPDM, black, 4 mm,  
red printed line.

PU = 50 m

**Guarnizione vetro interna**

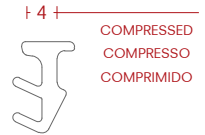
EPDM, nero, 4 mm,  
linea rossa stampata.

UV = 50 m

**Junta de acristalamiento interior**

EPDM, color negro, 4 mm,  
línea roja impresa.

CANTIDAD = 50 m



G99216-60

**Internal glazing gasket**

EPDM, black, 5 mm,  
green printed line.

PU = 50 m

**Guarnizione vetro interna**

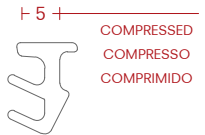
EPDM, nero, 5 mm,  
linea verde stampata.

UV = 50 m

**Junta de acristalamiento interior**

EPDM, color negro, 5 mm,  
línea verde impresa.

CANTIDAD = 50 m



G99217-60

**Internal glazing gasket**

EPDM, black, 6 mm,  
yellow printed line.

PU = 50 m

**Guarnizione vetro interna**

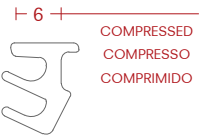
EPDM, nero, 6 mm,  
linea gialla stampata.

UV = 50 m

**Junta de acristalamiento interior**

EPDM, color negro, 6 mm,  
línea amarilla impresa.

CANTIDAD = 50 m



G99218-60



**System accessories**

**Accessori di sistema**

**Accesorios del sistema**

**3.2**

**Weather bar**

Aluminium.  
 Installation only on galvanized steel (-02) and bright steel (-12) profiles.

L = 5800 mm

**Gocciolatoio**

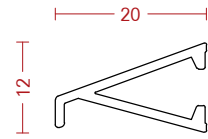
Alluminio.  
 Montaggio solo su profili in acciaio zincato (-02) e acciaio decapato (-12).

L = 5800 mm

**Vierteaguas**

Aluminio.  
 Montaje solo para perfiles en acero galvanizado (-02) y en acero bruto (-12).

L = 5800 mm



A99001-00

**Fixing screw**

Fixing screw weather bar  
 A99001-00, M4x9 mm DIN84

PU = 50 pieces

**Vite di fissaggio**

Vite di fissaggio gocciolatoio  
 A99001-00, M4x9 mm DIN84

UV = 50 pezzi

**Cabezal de fijación**

Tornillo de fijación vierteaguas  
 A99001-00, M4x9 mm DIN84

CANTIDAD = 50 unidades



D99901-02

**Weather bar**

-02 = Galvanized steel  
 -06 = Stainless steel AISI 316L  
 -07 = Cor-Ten steel

L = 3000 mm

**Gocciolatoio**

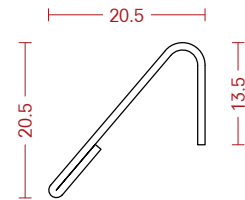
-02 = Acciaio zincato  
 -06 = Acciaio inox AISI 316L  
 -07 = Acciaio Cor-Ten

L = 3000 mm

**Vierteaguas**

-02 = Acero galvanizado  
 -06 = Acero inoxidable AISI 316L  
 -07 = Acero Cor-Ten

L = 3000 mm



A99008-nn

**End pieces**

For open in and open out double  
 leaf window, 2nd leaf.

B = black  
 W = white

PU = 1 set

**Terminali**

Per finestra doppia anta, apertura  
 interna ed esterna, 2a anta.

B = nero  
 W = bianco

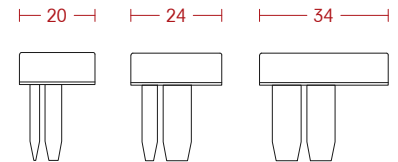
UV = 1 set

**Pieza final**

Ventana de dos hojas que se  
 abre hacia dentro y fuera,  
 2do hoja.

B = negro  
 W = blanco

CANTIDAD = 1 conjunto



K99022 B  
 K99025 W

**Drainage gasket**

Water drainage gasket.  
 EPDM, black

Compatible only with profiles  
 FT 7512LR-nn, FT 7512TR-nn,  
 FT 7512ZR-nn and FT 7512HR-nn

L = 50 m

**Guarnizione di drenaggio**

Guarnizione di drenaggio acqua.  
 EPDM, nero

Compatibile solo con i profili  
 FT 7512LR-nn, FT 7512TR-nn,  
 FT 7512ZR-nn e FT 7512HR-nn

L = 50 m

**Junta de drenaje**

Junta de drenaje de agua.  
 EPDM, color negro

Compatible solo con perfiles  
 FT 7512LR-nn, FT 7512TR-nn,  
 FT 7512ZR-nn y FT 7512HR-nn

L = 50 m



G99312-60

**Drainage gasket**

Water drainage gasket.  
 EPDM, black

NOT compatible with profiles  
 FT 7512LR-nn, FT 7512TR-nn,  
 FT 7512ZR-nn and FT 7512HR-nn

L = 50 m

**Guarnizione di drenaggio**

Guarnizione di drenaggio acqua.  
 EPDM, nero

NON compatibile con i profili  
 FT 7512LR-nn, FT 7512TR-nn,  
 FT 7512ZR-nn e FT 7512HR-nn

L = 50 m

**Junta de drenaje**

Junta de drenaje de agua.  
 EPDM, color negro

NO es compatible con perfiles  
 FT 7512LR-nn, FT 7512TR-nn,  
 FT 7512ZR-nn y FT 7512HR-nn

L = 50 m



G99313-60

**Cover cap**

Plastic, black, for drainage holes.

PU = 10 pieces

**Tappo scarico acqua**

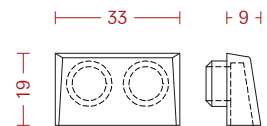
Plastica, nero, per chiusura  
 fori drenaggio.

UV = 10 pezzi

**Tapa**

Plastico, negro, para  
 orificios de drenaje.

CANTIDAD = 10 unidades



A99201-35

**Cover cap**

Stainless steel  
 for drainage holes.

PU = 4 pieces

**Tappo scarico acqua**

Acciaio inox, per chiusura  
 fori drenaggio.

UV = 4 pezzi

**Tapa**

Acero inoxidable para  
 orificios de drenaje.

CANTIDAD = 4 unidades



K99071





**Hinges**

**Cerniere**

**Bisagras**

**3.3**

**Weld-on hinge**

Bright steel, Ø10 mm, length 60 mm, with fixed pin and brass intermediate washer.

Capacity: 38 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Acciaio decapato, Ø10 mm, lunghezza 60 mm, con perno fisso e rondella intermedia in ottone.

Portata: 38 kg (coppia=2 pezzi)

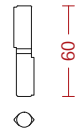
UV = 1 pezzo

**Bisagra de soldadura**

Acero bruto, diámetro de Ø10 mm, longitud de 60 mm, con perno fijo y anillo intermedio de latón.

Capacidad de carga: 38 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99000-12

**Weld-on hinge**

Bright steel, Ø12 mm, length 80 mm, with fixed pin and brass intermediate washer.

Capacity: 50 kg (pair=2 pc)

-03 = Stainless steel  
-12 = Bright steel

PU = 1 piece

**Cerniera a saldare**

Acciaio decapato, Ø12 mm, lunghezza 80 mm, con perno fisso e rondella intermedia in ottone.

Portata: 50 kg (coppia=2 pezzi)

-03 = Acciaio inossidabile  
-12 = Acciaio decapato

UV = 1 pezzo

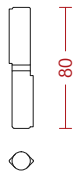
**Bisagra de soldadura**

Acero bruto, diámetro de Ø12 mm, longitud de 80 mm, con perno fijo y anillo intermedio de latón.

Capacidad de carga: 50 kg (par=2 unidades)

-03 = Acero inoxidable  
-12 = Acero bruto

CANTIDAD = 1 unidad



C99001-nn

**Weld-on hinge**

Bright steel, Ø14 mm, length 100 mm, with fixed pin and brass intermediate washer.

Capacity: 80 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Acciaio decapato, Ø14 mm, lunghezza 100 mm, con perno fisso e rondella intermedia in ottone.

Portata: 80 kg (coppia=2 pezzi)

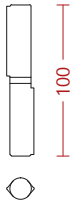
UV = 1 pezzo

**Bisagra de soldadura**

Acero bruto, diámetro de Ø14 mm, longitud de 100 mm, con perno fijo y anillo intermedio de latón.

Capacidad de carga: 80 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99002-12

**Weld-on hinge**

Bright steel, Ø16 mm, length 120 mm, with fixed pin and brass intermediate washer.

Capacity: 100 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Acciaio decapato, Ø16 mm, lunghezza 120 mm, con perno fisso e rondella intermedia in ottone.

Portata: 100 kg (coppia=2 pezzi)

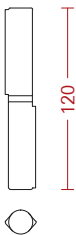
UV = 1 pezzo

**Bisagra de soldadura**

Acero bruto, diámetro de Ø16 mm, longitud de 120 mm, con perno fijo y anillo intermedio de latón.

Capacidad de carga: 100 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99003-12

**Weld-on hinge**

Bright steel, Ø16 mm, length 140 mm, with fixed pin and brass intermediate washer.

Capacity: 140 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Acciaio decapato, Ø16 mm, lunghezza 140 mm, con perno fisso e rondella intermedia in ottone.

Portata: 140 kg (coppia=2 pezzi)

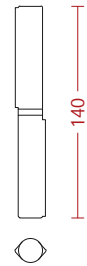
UV = 1 pezzo

**Bisagra de soldadura**

Acero bruto, diámetro de Ø16 mm, longitud de 140 mm, con perno fijo y anillo intermedio de latón.

Capacidad de carga: 140 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99004-12

**Weld-on hinge**

Galvanized steel, Ø16 mm, length 140 mm, with galvanized pin and intermediate washer with "loose" pin.

Capacity: 200 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Acciaio zincato, Ø16 mm, lunghezza 140 mm, con perno zincato sfilabile e rondella intermedia.

Portata: 200 kg (coppia=2 pezzi)

UV = 1 pezzo

**Bisagra de soldadura**

Acero galvanizado, diámetro de Ø16 mm, longitud de 140 mm, con perno galvanizado y anillo intermedio con pasador "suelto".

Capacidad de carga: 200 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99005-02

**Weld-on hinge**

Galvanized steel, Ø12 mm, length 80 mm, with galvanized pin and intermediate washer with "loose" pin.

Capacity: 100 kg (pair=2 pc)

-02 = Galvanized steel  
-03 = Stainless steel

PU = 1 piece

**Cerniera a saldare**

Acciaio zincato, Ø12 mm, lunghezza 80 mm, con perno zincato sfilabile e rondella intermedia.

Portata: 100 kg (coppia=2 pezzi)

-02 = Acciaio zincato  
-03 = Acciaio inossidabile

UV = 1 pezzo

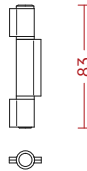
**Bisagra de soldadura**

Acero galvanizado, diámetro de Ø12 mm, longitud de 80 mm, con perno galvanizado y anillo intermedio con pasador "suelto".

Capacidad de carga: 100 kg (par=2 unidades)

-02 = Acero galvanizado  
-03 = Acero inoxidable

CANTIDAD = 1 unidad



C99006-nn

**Weld-on hinge**

Galvanized steel, Ø16 mm, length 140 mm, 3 pc with galvanized pin and intermediate washer with "loose" pin.

Capacity: 230 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Acciaio zincato, Ø16 mm, lunghezza 140 mm, a tre elementi con perno zincato sfilabile e rondella intermedia.

Portata: 230 kg (coppia=2 pezzi)

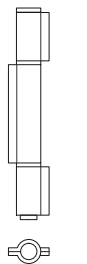
UV = 1 pezzo

**Bisagra de soldadura**

Acero galvanizado, diámetro de Ø16 mm, longitud de 140 mm, 3 piezas con perno galvanizado y anillo intermedio con pasador "suelto".

Capacidad de carga: 230 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99007-02

### 3D Weld-on hinge

3-dimensional adjustable hinge for windows and doors.

Length 122 mm, Ø16 mm, with low-maintenance bushes made of brass, eccentric spindle and screw plug made from stainless steel AISI 304

Adjustability:  
Height ±2 mm;  
Lateral contact pressure ±1 mm

Capacity: 160 kg (pair=2 pc)

-04 = Satin stainless steel AISI 304  
-12 = Bright steel  
(End caps in galvanized steel. In case of Cor-Ten finishing needed n°2 Q99966-12).

PU = 1 piece

### Cerniera a saldare regolabile 3D

Cerniera regolabile su tre dimensioni, per finestre o porte. Lunghezza 122 mm, Ø16 mm, con boccole in ottone, perno eccentrico e vite di chiusura in acciaio inox AISI 304

Regolazione:  
Altezza ±2 mm;  
Laterale ±1 mm

Portata: 160 kg (coppia=2 pezzi)

-04 = Acciaio Inox AISI 304 satinato  
-12 = Acciaio decapato  
(Tappi di chiusura in acciaio zincato. In caso di finitura Cor-Ten necessari n°2 Q99966-12).

UV = 1 pezzo

### Bisagra de soldadura en 3D

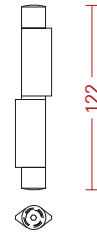
Bisagra ajustable en 3 dimensiones para ventanas y puertas. Longitud de 122 mm, diámetro de Ø16 mm, con cojinete de deslizamiento de escaso mantenimiento de bronce arquitectónico, perno excéntrico y tornillo de cierre de acero inoxidable AISI 304

Ajustabilidad:  
Altura ±2 mm;  
Laterales ±1 mm

Capacidad de carga: 160 kg (par=2 unidades)

-04 = Acero inoxidable AISI 304 satinado  
-12 = Acero bruto  
(Tapas en acero galvanizado. En caso de acabado Cor-Ten se requieren n°2 Q99966-12).

CANTIDAD = 1 unidad



C99008-nn

### End caps for hinges

For Ø16 mm 3D weld-on hinge.

-02 = Galvanized steel  
-04 = Satin Stainless steel AISI 304  
-12 = Bright steel

PU = 1 piece

### Tappi di chiusura per cerniere

Per cerniera a saldare regolabile 3D Ø16 mm

-02 = Acciaio zincato  
-04 = Acciaio Inox AISI 304 satinato  
-12 = Acciaio decapato

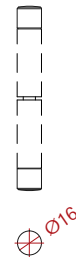
UV = 1 pezzo

### Tapas para bisagras

Para bisagra de soldadura en 3 dimensiones Ø16 mm

-02 = Acero galvanizado  
-04 = Acero inoxidable AISI 304 satinado  
-12 = Acero bruto

CANTIDAD = 1 unidad



Q99966-nn

### 3D Weld-on hinge

3-dimensional adjustable hinge for windows and doors.

Length 178 mm, Ø20 mm, with low-maintenance bushes made of brass, eccentric spindle and screw plug made from stainless steel AISI 304

Adjustability:  
Height ±2 mm;  
Lateral contact pressure ±1 mm

Capacity: 210 kg (pair=2 pc)

-04 = Satin stainless steel AISI 304  
-12 = Bright steel  
(End caps in galvanized steel. In case of Cor-Ten finishing needed n°2 Q99965-12).

PU = 1 piece

### Cerniera a saldare regolabile 3D

Cerniera regolabile su tre dimensioni, per finestre o porte. Lunghezza 178 mm, Ø20 mm, con boccole in ottone, perno eccentrico e vite di chiusura in acciaio inox AISI 304

Regolazione:  
Altezza ±2 mm;  
Laterale ±1 mm

Portata: 210 kg (coppia=2 pezzi)

-04 = Acciaio Inox AISI 304 satinato  
-12 = Acciaio decapato  
(Tappi di chiusura in acciaio zincato. In caso di finitura Cor-Ten necessari n°2 Q99965-12).

UV = 1 pezzo

### Bisagra de soldadura en 3D

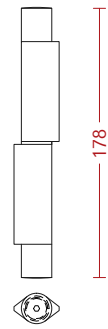
Bisagra ajustable en 3 dimensiones para ventanas y puertas. Longitud de 178 mm, diámetro de Ø20 mm, con cojinete de deslizamiento de bronce mantenimiento de bronce arquitectónico, perno excéntrico y tornillo de cierre de acero inoxidable AISI 304

Ajustabilidad:  
Altura ±2 mm;  
Laterales ±1 mm

Capacidad de carga: 210 kg (par=2 unidades)

-04 = Acero inoxidable AISI 304 satinado  
-12 = Acero bruto  
(Tapas en acero galvanizado. En caso de acabado Cor-Ten se requieren n°2 Q99965-12).

CANTIDAD = 1 unidad



C99009-nn

### End caps for hinges

For Ø20 mm 3D weld-on hinge.

-02 = Galvanized steel  
-04 = Satin Stainless steel AISI 304  
-12 = Bright steel

PU = 1 piece

### Tappi di chiusura per cerniere

Per cerniera a saldare regolabile 3D Ø20 mm

-02 = Acciaio zincato  
-04 = Acciaio Inox AISI 304 satinato  
-12 = Acciaio decapato

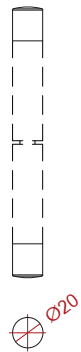
UV = 1 pezzo

### Tapas para bisagras

Para bisagra de soldadura en 3 dimensiones Ø20 mm

-02 = Acero galvanizado  
-04 = Acero inoxidable AISI 304 satinado  
-12 = Acero bruto

CANTIDAD = 1 unidad



Q99965-nn

**Weld-on hinge**

Weld-on hinge, bright steel, Ø20 mm, length 178 mm, 2-dimensional adjustable.

Capacity: 260 kg (pair=2 pc)

PU = 1 piece

**Cerniera a saldare**

Cerniera a saldare, acciaio decapato, Ø20 mm, lunghezza 178 mm, regolabile su due dimensioni.

Portata: 260 kg (coppia=2 pezzi)

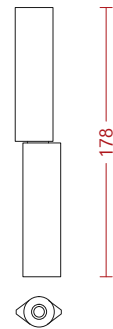
UV = 1 pezzo

**Bisagra de soldadura**

Bisagra de soldadura, acero bruto, Ø20 mm, longitud 178 mm, tres elementos, ajustable en 2 dimensiones, coplanar.

Capacidad de carga: 260 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99120-12

**Screw-on hinge**

Screw-on hinge, Ø17 mm, length 152 mm, 3-wings, not adjustable, for flush profiles.

Capacity: 140 kg (pair=2 pc)

- 02 = Galvanized steel
- 04 = Satin stainless steel AISI 304
- 12 = Bright steel

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø17 mm, lunghezza 152 mm, a tre elementi, non regolabile, per profili complanare.

Portata: 140 kg (coppia=2 pezzi)

- 02 = Acciaio zincato
- 04 = Acciaio Inox AISI 304 satinato
- 12 = Acciaio decapato

UV = 1 pezzo

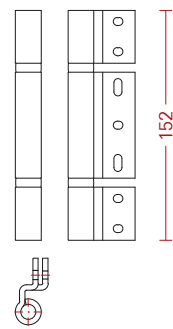
**Bisagra atornillable**

Bisagra para atornillar, Ø17 mm, longitud 152 mm, tres elementos, no regulable, para perfiles coplanar.

Capacidad de carga: 140 kg (par=2 unidades)

- 02 = Acero galvanizado
- 04 = Acero inoxidable AISI 304 satinado
- 12 = Acero bruto

CANTIDAD = 1 unidad



C99121-nn

**Screw-on hinge**

Screw-on hinge, Ø17 mm, length 182 mm, 3-wings, not adjustable, for flush profiles.

Capacity: 160 kg (pair=2 pc)

- 02 = Galvanized steel
- 04 = Satin stainless steel AISI 304
- 12 = Bright steel

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø17 mm, lunghezza 182 mm, a tre elementi, non regolabile, complanare.

Portata: 160 kg (coppia=2 pezzi)

- 02 = Acciaio zincato
- 04 = Acciaio Inox AISI 304 satinato
- 12 = Acciaio decapato

UV = 1 pezzo

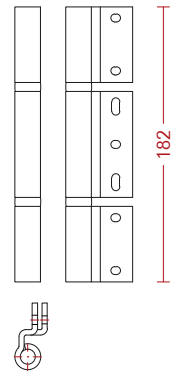
**Bisagra atornillable**

Bisagra para atornillar, Ø17 mm, longitud 182 mm, tres elementos, no regulable, para perfiles coplanar.

Capacidad de carga: 160 kg (par=2 unidades)

- 02 = Acero galvanizado
- 04 = Acero inoxidable AISI 304 satinado
- 12 = Acero bruto

CANTIDAD = 1 unidad



C99122-nn

**Screw-on hinge**

Screw-on hinge, Ø17 mm, length 152 mm, 3-wings, not adjustable, for overlapped profiles.

Capacity: 140 kg (pair=2 pc)

- 02 = Galvanized steel
- 04 = Satin stainless steel AISI 304
- 12 = Bright steel

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø17 mm, lunghezza 152 mm, a tre elementi, non regolabile, per profili a sormonto.

Portata: 140 kg (coppia=2 pezzi)

- 02 = Acciaio zincato
- 04 = Acciaio Inox AISI 304 satinato
- 12 = Acciaio decapato

UV = 1 pezzo

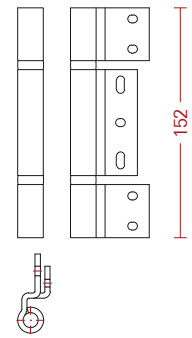
**Bisagra atornillable**

Bisagra para atornillar, Ø17 mm, longitud 152 mm, tres elementos, no regulable, para perfiles superpuestos.

Capacidad de carga: 140 kg (par=2 unidades)

- 02 = Acero galvanizado
- 04 = Acero inoxidable AISI 304 satinado
- 12 = Acero bruto

CANTIDAD = 1 unidad



C99123-**nn**

**Screw-on hinge**

Screw-on hinge, Ø17 mm, length 182 mm, 3-wings, not adjustable, for overlapped profiles.

Capacity: 160 kg (pair=2 pc)

- 02 = Galvanized steel
- 04 = Satin stainless steel AISI 304
- 12 = Bright steel

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø17 mm, lunghezza 182 mm, a tre elementi, non regolabile, per profili a sormonto.

Portata: 160 kg (coppia=2 pezzi)

- 02 = Acciaio zincato
- 04 = Acciaio Inox AISI 304 satinato
- 12 = Acciaio decapato

UV = 1 pezzo

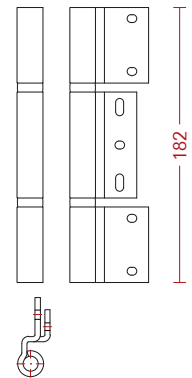
**Bisagra atornillable**

Bisagra para atornillar, Ø17 mm, longitud 182 mm, tres elementos, no regulable, para perfiles superpuestos.

Capacidad de carga: 160 kg (par=2 unidades)

- 02 = Acero galvanizado
- 04 = Acero inoxidable AISI 304 satinado
- 12 = Acero bruto

CANTIDAD = 1 unidad



C99124-**nn**

**Screw-on hinge**

Screw-on hinge, Ø17 mm, length 152 mm, 3-wings, 1-dimensional adjustable, for Tilt&Turn profiles.

Capacity: 140 kg (pair=2 pc)

- 02 = Galvanized steel
- 04 = Satin stainless steel AISI 304
- 12 = Bright steel

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø17 mm, lunghezza 152 mm, a tre elementi, regolabile su una dimensione, per profili anta ribalta.

Portata: 140 kg (coppia=2 pezzi)

- 02 = Acciaio zincato
- 04 = Acciaio Inox AISI 304 satinato
- 12 = Acciaio decapato

UV = 1 pezzo

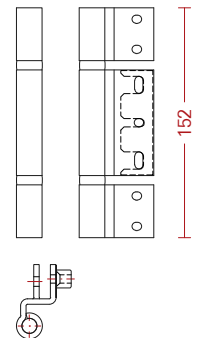
**Bisagra atornillable**

Bisagra para atornillar, Ø17 mm, longitud 152 mm, tres elementos, ajustable en 1 dimensión, para perfiles de ventana oscilante.

Capacidad de carga: 140 kg (par=2 unidades)

- 02 = Acero galvanizado
- 04 = Acero inoxidable AISI 304 satinado
- 12 = Acero bruto

CANTIDAD = 1 unidad



C99127-**nn**

**Screw-on hinge**

Screw-on hinge, Ø17 mm, length 182 mm, 3-wings, 1-dimensional adjustable, for Tilt&Turn profiles.

Capacity: 160 kg (pair=2 pc)

- 02 = Galvanized steel
- 04 = Satin stainless steel AISI 304
- 12 = Bright steel

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø17 mm, lunghezza 182 mm, a tre elementi, regolabile su una dimensione, per profili anta ribalta.

Portata: 160 kg (coppia=2 pezzi)

- 02 = Acciaio zincato
- 04 = Acciaio Inox AISI 304 satinato
- 12 = Acciaio decapato

UV = 1 pezzo

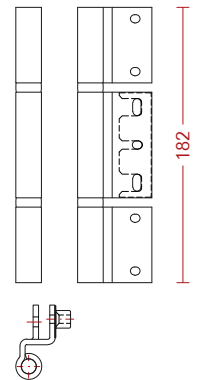
**Bisagra atornillable**

Bisagra para atornillar, Ø17 mm, longitud 182 mm, tres elementos, ajustable en 1 dimensión, para perfiles de ventana oscilante.

Capacidad de carga: 160 kg (par=2 unidades)

- 02 = Acero galvanizado
- 04 = Acero inoxidable AISI 304 satinado
- 12 = Acero bruto

CANTIDAD = 1 unidad



C99128-**nn**

**Screw-on hinge**

Screw-on hinge, Ø15 mm, length 90 mm, 3-wings, 2-dimensional adjustable, for flush and overlapped profiles.

Capacity: 100 kg (pair=2 pc)

-02 = Galvanized steel  
-04 = Satin Stainless steel AISI 304

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø15 mm, lunghezza 90 mm, a tre elementi, regolabile su due dimensioni, per profili complanari e a sormonto.

Portata: 100 kg (coppia=2 pezzi)

-02 = Acciaio zincato  
-04 = Acciaio Inox AISI 304 satinato

UV = 1 pezzo

**Bisagra atornillable**

Bisagra para atornillar, Ø15 mm, longitud 90 mm, tres elementos, ajustable en 2 dimensiones, para perfiles coplanar y superpuestos.

Capacidad de carga: 100 kg (par=2 unidades)

-02 = Acero galvanizado  
-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



C99154-nn

**Screw-on hinge**

Screw-on hinge, Ø22.5 mm, length 160 mm, 3-wings, 2-dimensional adjustable, for flush profiles.

Capacity: 150 kg (pair=2 pc)

-02 = Galvanized steel  
-04 = Satin stainless steel AISI 304

PU = 1 piece

**Cerniera ad avvitare**

Cerniera ad avvitare, Ø22.5 mm, lunghezza 160 mm, a tre elementi, regolabile su due dimensioni, per profili complanari.

Portata: 150 kg (coppia=2 pezzi)

-02 = Acciaio zincato  
-04 = Acciaio Inox AISI 304 satinato

UV = 1 pezzo

**Bisagra atornillable**

Bisagra para atornillar, Ø22.5 mm, longitud 160 mm, tres elementos, ajustable en 2 dimensiones, para perfiles coplanar.

Capacidad de carga: 150 kg (par=2 unidades)

-02 = Acero galvanizado  
-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



C99155-nn

**Screw-on hidden hinge**

Concealed hinge, black cataphoresis, for door profiles. Maximum opening 90°.

Capacity: 160 kg (pair=2 pc)

PU = 1 piece

**Cerniera ad avvitare a scomparsa**

Cerniera a scomparsa in cataforesi nera, per profili porta. Apertura massima 90°.

Portata: 160 kg (coppia=2 pezzi)

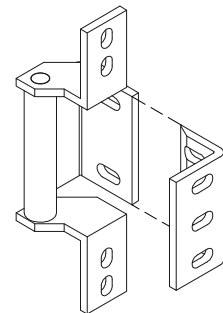
UV = 1 pezzo

**Bisagra oculta atornillable**

Bisagra oculta en cataforesis negra, para perfiles de puerta. Apertura máxima de 90°.

Capacidad de carga: 160 kg (par=2 unidades)

CANTIDAD = 1 unidad



C99403-46

**Pivot hinge**

Capacity: vertical pivot: max weight 300 kg  
horizontal pivot: max weight 200 kg

-05 = Stainless steel AISI 316L 2B compatible with galvanized steel (-02) and stainless steel (-05) profiles.

-12 = Bright steel compatible with Cor-Ten steel (-07) and bright steel (-12) profiles.

PU = 1 piece

**Cerniera pivot**

Portata: bilico verticale: peso max 300 kg  
bilico orizzontale: peso max 200 kg

-05 = Acciaio inox AISI 316L 2B compatibile con i profili in acciaio zincato (-02) e acciaio inox (-05).

-12 = Acciaio decapato compatibile con i profili in acciaio Cor-Ten (-07) e acciaio decapato (-12).

UV = 1 pezzo

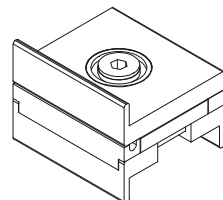
**Bisagra pivote**

Capacidad de carga: pivote vertical: peso máximo 300 kg  
pivote horizontal: peso máximo 200 kg

-05 = Acero inoxidable AISI 316L 2B compatible con perfiles en acero galvanizado (-02) y acero inoxidable (-05).

-12 = Acero bruto compatible con perfiles en acero Cor-Ten (-07) y acero bruto (-12).

CANTIDAD = 1 unidad



C99327-nn



**Friction stay (projecting)**

Stainless steel AISI 316, for open out top hung projecting windows with adjustable opening angles.

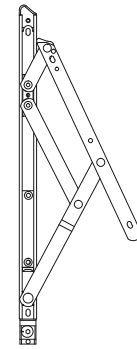
**Bracci portanti a sporgere**

Acciaio inox AISI 316, per finestra a sporgere apertura esterna con angolo di apertura regolabile.

**Bisagra proyectante**

Acero inoxidable AISI 316, para ventana proyectante que se abre hacia fuera con ángulo de apertura ajustable.

| Code<br>Codice<br>Code | Capacity<br>Portata<br>Capacidad<br>[kg] | H size<br>H dimensione<br>H tamaño<br>[mm] | Opening angle<br>Angolo di apertura<br>Ángulo de apertura<br>[°] |
|------------------------|------------------------------------------|--------------------------------------------|------------------------------------------------------------------|
| C99201-05              | 40                                       | 270-640                                    | 50                                                               |
| C99202-05              | 50                                       | 640-800                                    | 50                                                               |
| C99203-05              | 65                                       | 800-1100                                   | 50                                                               |
| C99204-05              | 100                                      | 600-1100                                   | 30                                                               |
| C99205-05              | 100                                      | 1100-1500                                  | 45                                                               |
| C99206-05              | 100                                      | 1500-2000                                  | 20                                                               |
| C99207-05              | 180                                      | 2000-2500                                  | 20                                                               |



C9920X-05

PU = 1 pair

UV = 1 coppia

CANTIDAD = 1 par

**Friction stay (turn)**

Stainless steel AISI 316, for open in or open out side hung windows.

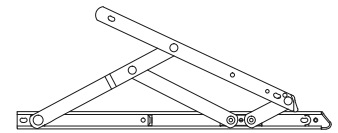
**Bracci portanti anta battente**

Acciaio inox AISI 316, per finestra battente ad apertura verso l'interno o l'esterno.

**Bisagra abatible**

Acero inoxidable AISI 316, para ventana abatible que se abre hacia dentro o hacia fuera.

| Code<br>Codice<br>Code | Capacity<br>Portata<br>Capacidad<br>[kg] | H size<br>H dimensione<br>H tamaño<br>[mm] | Opening angle<br>Angolo di apertura<br>Ángulo de apertura<br>[°] |
|------------------------|------------------------------------------|--------------------------------------------|------------------------------------------------------------------|
| C99210-05              | 22                                       | 300-600                                    | 80                                                               |
| C99211-05              | 24                                       | 400-700                                    | 90                                                               |
| C99212-05              | 38                                       | 300-660                                    | 85                                                               |
| C99213-05              | 55                                       | 450-840                                    | 60                                                               |



C9921X-05

PU = 1 pair

UV = 1 coppia

CANTIDAD = 1 par



**Flush bolts**

**Catenacci**

**Pasador de canto**

**3.4**

**Flush bolt  
for windows**

Concealed.

Finishings:

15 17 18 42 43

PU = 1 piece

**Catenaccio  
per finestra**

Interno.

Finiture:

15 17 18 42 43

UV = 1 pezzo

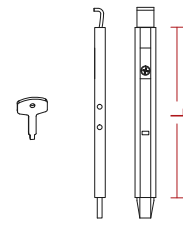
**Pasador de canto  
para ventanas**

Oculto.

Acabados:

15 17 18 42 43

CANTIDAD = 1 unidad



code L  
E99001-nn 150 mm  
E99002-nn 300 mm  
E99003-nn 450 mm

**Extension**

Extension for flush bolt E99001-nn, E99002-nn, E99003-nn

Finishings:

15 17 18 42 43

PU = 1 piece

**Prolunga**

Prolunga per catenacci E99001-nn, E99002-nn, E99003-nn

Finiture:

15 17 18 42 43

UV = 1 pezzo

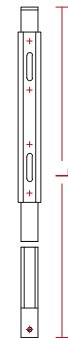
**Extensión**

Extensión para pasador de canto E99001-nn, E99002-nn, E99003-nn

Acabados:

15 17 18 42 43

CANTIDAD = 1 unidad



code L  
E99004-nn 424 mm

**Flush bolt  
for windows**

Visible.

Finishings:

15 17 18 42 43

PU = 1 piece

**Catenaccio  
per finestra**

A vista.

Finiture:

15 17 18 42 43

UV = 1 pezzo

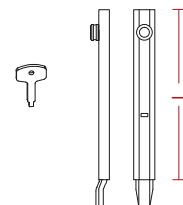
**Pasador de canto  
para ventanas**

Visible.

Acabados:

15 17 18 42 43

CANTIDAD = 1 unidad



code L  
E99005-nn 150 mm  
E99006-nn 300 mm  
E99007-nn 450 mm

**Flush bolt with lever  
for doors**

Concealed.

PU = 1 piece

**Catenaccio con leva  
per porte**

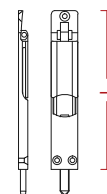
Interno.

UV = 1 pezzo

**Pasador de canto  
para puertas**

Oculto.

CANTIDAD = 1 unidad



code L  
E99021-35 140 mm  
E99022-35 220 mm  
E99023-35 450 mm  
E99024-35 650 mm

**Strike plate**

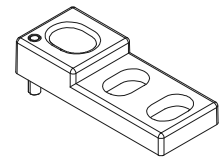
PU = 1 piece

**Riscontro**

UV = 1 pezzo

**Chapa de cierre**

CANTIDAD = 1 unidad



E99012-11

**Floor recess plate**

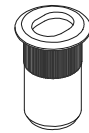
PU = 1 piece

**Pozzetto**

UV = 1 pezzo

**Cavidad en el suelo**

CANTIDAD = 1 unidad



E99013-05

**Strike plate**

Fastening with screws  
M4x10 mm ISO7380

PU = 1 piece

**Riscontro**

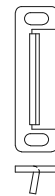
Fissaggio con viti  
M4x10 mm ISO7380

UV = 1 pezzo

**Pieza de bloqueo**

Fijación con tornillos  
M4x10 mm ISO7380

CANTIDAD = 1 unidad



E99116-03

**Shoot bolt for door**

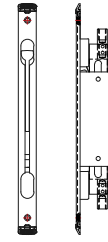
PU = 1 piece

**Catenaccio per porte**

UV = 1 pezzo

**Pasador de canto para puertas**

CANTIDAD = 1 unidad



E99035-02

**Rod guide**

Lower rod guide door shoot bolt.

-03 = Stainless steel AISI 304 2B

PU = 1 piece

**Guida asta**

Guida asta inferiore catenaccio per porte.

-03 = Acciaio inossidabile AISI 304 2B

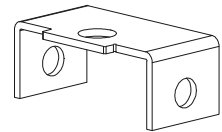
UV = 1 pezzo

**Guía de subasta**

Guía de pasador de canto inferior para puertas.

-03 = Acero inoxidable AISI 304 2B

CANTIDAD = 1 unidad



E99036-03

**Rod guide**

Upper rod guide door shoot bolt.

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Guida asta**

Guida asta superiore catenaccio per porte.

-04 = Acciaio Inox AISI 304 satinato

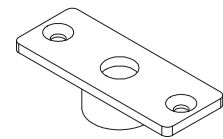
UV = 1 pezzo

**Guía de subasta**

Guía de pasador de canto superior para puertas.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99037-04

**Rod guide**

Middle rod guide door shoot bolt.

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Guida asta**

Guida asta intermedio catenaccio per porte.

-04 = Acciaio Inox AISI 304 satinato

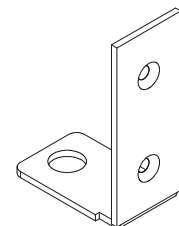
UV = 1 pezzo

**Guía de subasta**

Guía de pasador de canto intermedio para puertas.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99038-04

**Strike plate**

Upper strike rod door shoot bolt.

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Riscontro**

Riscontro superiore catenaccio per porte.

-04 = Acciaio Inox AISI 304 satinato

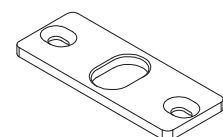
UV = 1 pezzo

**Pieza de bloqueo**

Pieza de pasador de canto superior para puertas.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99039-04

**Upper and lower long shoot bolt**

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Catenaccio lungo superiore e inferiore**

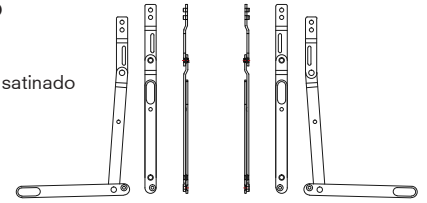
-04 = Acciaio Inox AISI 304 satinato

UV = 1 pezzo

**Pasador de canto largo superior y inferior**

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99040-04  
E99041-04

**Strike plate**

Strike plate for long shoot bolt.

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Riscontro**

Riscontro per catenaccio lungo.

-04 = Acciaio Inox AISI 304 satinato

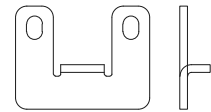
UV = 1 pezzo

**Pieza de bloqueo**

Pieza de pasador de canto largo.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99052-04

**Strike plate**

Strike plate for long shoot bolt.

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Riscontro**

Riscontro per catenaccio lungo.

-04 = Acciaio Inox AISI 304 satinato

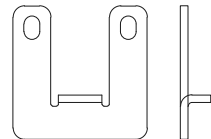
UV = 1 pezzo

**Pieza de bloqueo**

Pieza de pasador de canto largo.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99053-04

**Rod**

Rod for long shoot bolt.

E99042-04 L = 720 mm  
E99043-04 L = 1360 mm  
E99044-04 L = 2000 mm

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Asta**

Asta per catenaccio lungo.

E99042-04 L = 720 mm  
E99043-04 L = 1360 mm  
E99044-04 L = 2000 mm

-04 = Acciaio Inox AISI 304 satinato

UV = 1 pezzo

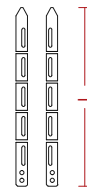
**Subasta**

Subasta para pasador de canto largo.

E99042-04 L = 720 mm  
E99043-04 L = 1360 mm  
E99044-04 L = 2000 mm

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E9904X-04

**Reinforcement rod**

Reinforcement rod for long shoot bolt.

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Asta di rinforzo**

Asta di rinforzo per catenaccio lungo.

-04 = Acciaio Inox AISI 304 satinato

UV = 1 pezzo

**Subasta de reforzamiento**

Subasta de reforzamiento para pasador de canto largo.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



E99045-04





**General fittings**

**Ferramenta generale**

**Herrajes generales**

**3.5**

**Opening restrictor**

Concealed opening restrictor, right/left, fastening with screws.

-02 = Galvanized steel

PU = 1 pair

**Limitatore di apertura**

Limitatore di apertura a scomparsa con apertura destra/sinistra, fissaggio con viti.

-02 = Acciaio zincato

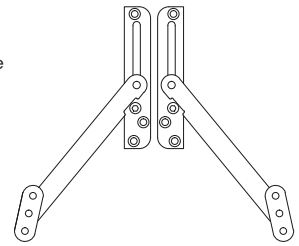
UV = 1 coppia

**Limitador de apertura**

Limitador de apertura oculto que se abre hacia la derecha/izquierda, fijación con tornillos.

-02 = Acero galvanizado

CANTIDAD = 1 par



E99201-02

**Opening restrictor**

Concealed opening restrictor, top-hung windows, open in and open out.

-05 = Stainless steel AISI 316L 2B

Capacity: 110 kg (pair)

PU = 1 pair

**Limitatore di apertura**

Limitatore di apertura a scomparsa, finestra a sporgere, apertura interna ed esterna.

-05 = Acciaio inox AISI 316L 2B

Portata: 110 kg (coppia)

UV = 1 coppia

**Limitador de apertura**

Limitador de apertura oculto, ventana proyectante, apertura hacia dentro y hacia fuera.

-05 = Acero inoxidable AISI 316L 2B

Capacidad de carga: 110 kg (par)

CANTIDAD = 1 par



E99203-05

**Opening restrictor**

Opening restrictor for ironmongery groove profiles. Galvanized steel.

PU = 1 piece

**Limitatore di apertura**

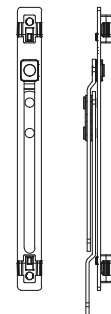
Limitatore apertura per profili cava ferramenta. Acciaio zincato.

UV = 1 pezzo

**Limitador de apertura**

Limitador de apertura para perfiles ranurados de ferretería. Acero galvanizado.

CANTIDAD = 1 unidad



K88033

**Opening restrictor**

Concealed opening restrictor, bottom hung windows, open in and open out.

-05 = Stainless steel AISI 316L 2B

Capacity: 110 kg (pair)

PU = 1 pair

**Limitatore di apertura**

Limitatore di apertura a scomparsa, vasistas, apertura interna ed esterna.

-05 = Acciaio inox AISI 316L 2B

Portata: 110 kg (coppia)

UV = 1 coppia

**Limitador de apertura**

Limitador de apertura oculto, ventana batiente, apertura hacia dentro y hacia fuera.

-05 = Acero inoxidable AISI 316L 2B

Capacidad de carga: 110 kg (par)

CANTIDAD = 1 par



E99205-05

**Automatic drop seal**

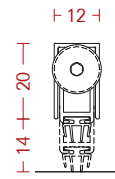
Automatic drop seal with 14 mm lift height, floor compensation.

**Guarnizione a ghigliottina**

Guarnizione a ghigliottina (14 mm compensazione), automatica a pavimento.

**Junta de suelo automática**

Junta de suelo descendente con un desplazamiento de 14 mm, descenso paralelo con compensación de suelo automática.



G995XX-62

| Code<br>Codice<br>Code | Length<br>Lunghezza<br>Tamaño | Can be shortened<br>Accorciabile<br>Reducible |
|------------------------|-------------------------------|-----------------------------------------------|
| G99501-62              | 330 mm                        | 50 mm                                         |
| G99502-62              | 430 mm                        | 135 mm                                        |
| G99503-62              | 530 mm                        | 200 mm                                        |
| G99504-62              | 630 mm                        | 200 mm                                        |
| G99505-62              | 730 mm                        | 200 mm                                        |
| G99506-62              | 830 mm                        | 200 mm                                        |
| G99507-62              | 930 mm                        | 200 mm                                        |
| G99508-62              | 1030 mm                       | 200 mm                                        |
| G99509-62              | 1130 mm                       | 200 mm                                        |
| G99510-62              | 1230 mm                       | 200 mm                                        |

PU = 1 piece

UV = 1 pezzo

CANTIDAD = 1 unidad

**Lateral cover cap for automatic drop seal**

-35 = black  
 -41 = RAL 7035 grey

PU = 1 pair

**Tappo laterale per guarnizione a ghigliottina**

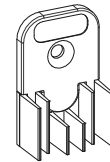
-35 = nero  
 -41 = grigio RAL 7035

UV = 1 coppia

**Tapa lateral para junta de suelo automática**

-35 = negro  
 -41 = gris RAL 7035

CANTIDAD = 1 par



G99511-nn

**Handle and cremone  
 for round rods**

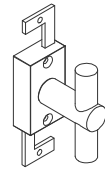
PU = 1 piece

**Maniglia e cremonese  
 a ridosso per aste tonde**

UV = 1 pezzo

**Manilla y falleba  
 para varillas redondas**

CANTIDAD = 1 unidad



H99026-26

**Pass through guide  
 for round rods**

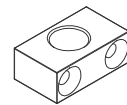
27x16 mm

**Passante asta  
 cremonese tonda**

27x16 mm

**Guía de paso  
 para varillas redondas**

27x16 mm



E99144-26

**Strike plate  
 for round rod**

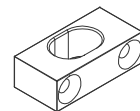
32x16 mm

**Riscontro per asta  
 cremonese tonda**

32x16 mm

**Chapa de cierre  
 para varillas redondas**

32x16 mm



E99145-26

**Strike plate  
 for round rod**

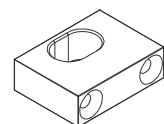
32x24 mm

**Riscontro per asta  
 cremonese tonda**

32x24 mm

**Chapa de cierre  
 para varillas redondas**

32x24 mm



E99148-26

**Round cremone rod**

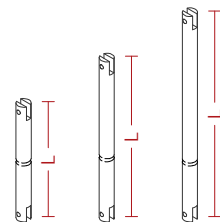
E99141-26 L = 1000 mm  
 E99142-26 L = 1500 mm  
 E99143-26 L = 3000 mm

**Asta cremonese tonda**

E99141-26 L = 1000 mm  
 E99142-26 L = 1500 mm  
 E99143-26 L = 3000 mm


**Varilla de falleba redonda**

E99141-26 L = 1000 mm  
 E99142-26 L = 1500 mm  
 E99143-26 L = 3000 mm




E9914X-26


**Handle spindle**

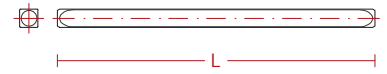
-02 = Galvanized Steel  
 8 mm L=140 mm  
 PU = 1 piece

**Quadro maniglia**

-02 = Acciaio zincato  
 8 mm L=140 mm  
 UV = 1 pezzo

**Pasador de la manilla**

 8 mm L=140 mm  
 CANTIDAD = 1 unidad




E99551-02


**Reducing sleeve  
 8 mm to 7 mm**

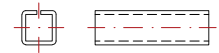
-02 = Galvanized Steel  
 7 mm  
 PU = 1 piece

**Riduttore quadro  
 da 8 mm a 7 mm**

-02 = Acciaio zincato  
 7 mm  
 UV = 1 pezzo

**Manguito reductor  
 de 8 mm a 7 mm**

-02 = Acero galvanizado  
 7 mm  
 CANTIDAD = 1 unidad



E99531-02

**Adjustment bush  
 for fixing**

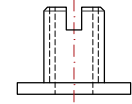
M8x10 + 15x1 Ø5  
 -02 = Galvanized steel  
 -03 = Stainless steel AISI 304 2B  
 PU = 50 pieces

**Bussola di regolazione  
 per fissaggio**

M8x10 + 15x1 Ø5  
 -02 = Acciaio zincato  
 -03 = Acciaio inossidabile AISI 304 2B  
 UV = 50 pezzi

**Cojinete de regulación  
 para arreglar**

M8x10 + 15x1 Ø5  
 -02 = Acero galvanizado  
 -03 = Acero inoxidable AISI 304 2B  
 CANTIDAD = 50 unidades



F99065-nn

**Gasket  
 for lever handle**

Gasket for lever handle H99001-nn,  
 140x16.5x6 mm  
 -63 = Polyethylene  
 PU = 1 piece

**Guarnizione  
 per cariglione**

Guarnizione per cariglione  
 H99001-nn, 140x16.5x6 mm  
 -63 = Polietilene  
 UV = 1 pezzo

**Junta para manija  
 de bloqueo**

Junta para manija de bloqueo  
 H99001-nn, 140x16.5x6 mm  
 -63 = Polietileno  
 CANTIDAD = 1 unidad



G99407-63



**Locks**

**Serrature**

**Cerraduras**

**3.6**

### Mortise lock

Single latch and deadbolt, faceplate 24x6 mm, backset 35 mm, galvanized steel strike plate 24x6 mm included, handle/lock distance 92 mm

-02 = Galvanized steel

PU = 1 piece

### Serratura con scrocco e mandata

Serratura con scrocco e mandata, frontale 24x6 mm, entrata 35 mm, riscontro in acciaio zincato 24x6 mm incluso, interasse maniglia/cilindro 92 mm

-02 = Acciaio zincato

UV = 1 pezzo

### Cerradura de pestillo y cerrojo

Cerradura empotrable 24x6 mm, medida de aguja de 35 mm, chapa de cierre de acero galvanizado 24x6 mm incluido, distancia manilla/cilindro 92 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99015-02

### Multi-point locking

3-point locking device with black faceplate 24x7 mm, latch and deadbolt, locking upwards and downwards, backset 35 mm, galvanized steel strike plate 25x3 mm, handle/lock distance 85 mm

-02 = Galvanized steel

PU = 1 piece

### Serratura multipunto

Serratura a tre punti di chiusura con scrocco e mandata, frontale colore nero 24x7 mm, chiusura alto e basso, entrata 35 mm, riscontro in acciaio zincato 25x3 mm, interasse maniglia/cilindro 85 mm

-02 = Acciaio zincato

UV = 1 pezzo

### Cerradura múltiple

Bloqueo de 3 puntos con pestillo y cerrojo de color negro 24x7 mm, bloqueo hacia arriba y hacia abajo, medida de aguja de 35 mm, chapa de acero galvanizado de 25x3 mm, distancia manilla/cilindro 85 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99111-02

### Lock extension

Extension for multi-point lock B99170-02 and B99171-02, galvanized steel faceplate 24x6 mm

-02 = Galvanized steel

PU = 1 piece

### Prolunga serratura

Prolunga per serratura multipunto B99170-02 e B99171-02, frontale in acciaio zincato 24x6 mm

-02 = Acciaio zincato

UV = 1 pezzo

### Extensión de bloqueo

Prolongación para cerradura multipunto B99170-02 y B99171-02, frontal en acero galvanizado 24x6 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99169-02

### Multi-point locking

3-point locking device with black faceplate 24x7 mm, latch and deadbolt, locking upwards and downwards, backset 35 mm, handle/lock distance 85 mm, extendable lock.

-02 = Galvanized steel

PU = 1 piece

### Serratura multipunto

Serratura a tre punti di chiusura con scrocco e mandata, frontale colore nero 24x7 mm, chiusura alto e basso, entrata 35 mm, interasse maniglia/cilindro 85 mm, serratura estensibile.

-02 = Acciaio zincato

UV = 1 pezzo

### Cerradura múltiple

Bloqueo de 3 puntos con pestillo y cerrojo de color negro 24x7 mm, bloqueo hacia arriba y hacia abajo, medida de aguja de 35 mm, distancia manilla/cilindro 85 mm, cerradura extensible.

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99170-02



**Multi-point locking**

3-point locking device with black faceplate 24x6 mm, latch and deadbolt, locking upwards and downwards, backset 35 mm, handle/lock distance 92 mm, automatic latchbolts, extendable lock.

-02 = Galvanized steel

PU = 1 piece

**Serratura multipunto**

Serratura a tre punti di chiusura con scrocco e mandata, frontale colore nero 24x6 mm, chiusura alto e basso, entrata 35 mm, interasse maniglia/cilindro 92 mm, serratura estensibile.

-02 = Acciaio zincato

UV = 1 pezzo

**Cerradura múltiple**

Bloqueo de 3 puntos con pestillo y cerrojo de color negro 24x6 mm, bloqueo hacia arriba y hacia abajo, medida de aguja de 35 mm, distancia manilla/cilindro 92 mm, cerradura extensible.

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99171-02

**Multi-point locking**

3-point locking device with black faceplate 24x6 mm, latch and deadbolt, locking upwards and downwards, backset 35 mm, handle/lock distance 92 mm, automatic latchbolts, extendable lock.

-02 = Galvanized steel

PU = 1 piece

**Serratura multipunto**

Serratura a tre punti di chiusura con scrocco e mandata, frontale colore nero 24x6 mm, chiusura alto e basso, entrata 35 mm, interasse maniglia/cilindro 92 mm, scroccchi automatici, serratura estensibile.

-02 = Acciaio zincato

UV = 1 pezzo

**Cerradura múltiple**

Bloqueo de 3 puntos con pestillo y cerrojo de color negro 24x6 mm, bloqueo hacia arriba y hacia abajo, medida de aguja de 35 mm, distancia manilla/cilindro 92 mm, pestillos automáticos, cerradura extensible.

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99173-02

**Multi-point locking**

5-point locking device, deadbolt and head locking, faceplate 24x6 mm, backset 45 mm, handle/lock distance 92 mm, extendable lock, minimum vent height 1950 mm

-02 = Galvanized steel

PU = 1 piece

**Serratura multipunto**

Serratura a cinque punti di chiusura con scrocco, mandata e ganci, frontale 24x6 mm, entrata 45 mm, interasse maniglia/cilindro 92 mm, serratura estensibile, altezza minima anta 1950 mm

-02 = Acciaio zincato

UV = 1 pezzo

**Cerradura múltiple**

Bloqueo de 5 puntos 24x6 mm, mandril + bloqueo de gancho, medida de aguja de 45 mm, distancia manilla/cilindro 92 mm, cerradura extensible, altura mínima hoja 1950 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99174-02

### Multi-point locking

5-point locking device, deadbolt and head locking, faceplate 24x6 mm, backset 80 mm, handle/lock distance 92 mm, extendable lock, minimum vent height 1950 mm

-02 = Galvanized steel

PU = 1 piece

### Serratura multipunto

Serratura a cinque punti di chiusura con scrocco, mandata e ganci, frontale 24x6 mm, entrata 80 mm, interasse maniglia/cilindro 92 mm, serratura estensibile, altezza minima anta 1950 mm

-02 = Acciaio zincato

UV = 1 pezzo

### Cerradura múltiple

Bloqueo de 5 puntos 24x6 mm, mandril + bloqueo de gancho, medida de aguja de 80 mm, distancia manilla/cilindro 92 mm, cerradura extensible, altura mínima hoja 1950 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99175-02

### French casement drive gear

French casement drive gear for B99171-02 lock, faceplate 24x6 mm, H 2150 mm

-02 = Galvanized steel

R = Right opening

PU = 1 piece

### Asta a leva cava

Asta a leva per serratura B99171-02, frontale 24x6 mm, H 2150 mm

-02 = Acciaio zincato

R = Apertura destra

UV = 1 pezzo

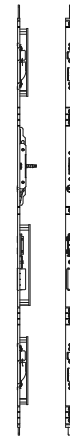
### Varilla de palanca

Varilla de palanca para cerradura B99171-02, frente 24x6 mm, H 2150 mm

-02 = Acero galvanizado

R = Apertura derecha

CANTIDAD = 1 unidad



B99162-02

### French casement drive gear

French casement drive gear for B99171-02 lock, faceplate 24x6 mm, H 2150 mm

-02 = Galvanized steel

L = Left opening

PU = 1 piece

### Asta a leva cava

Asta a leva per serratura B99171-02, frontale 24x6 mm, H 2150 mm

-02 = Acciaio zincato

L = Apertura sinistra

UV = 1 pezzo

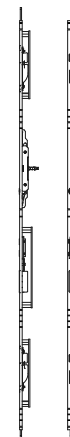
### Varilla de palanca

Varilla de palanca para cerradura B99171-02, frente 24x6 mm, H 2150 mm

-02 = Acero galvanizado

L = Apertura izquierda

CANTIDAD = 1 unidad



B99163-02

**Extension**

Extension for french casement drive gear B99162-02 and B99163-02, faceplate 24x6 mm, L 700 mm

-02 = Galvanized steel

PU = 1 piece

**Prolunga**

Prolunga per asta a leva B99162-02 e B99163-02, frontale 24x6 mm, L 700 mm

-02 = Acciaio zincato

UV = 1 pezzo

**Extensión**

Extensión para varilla de palanca B99162-02 y B99163-02, frente 24x6 mm, L 700 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99164-02

**Shoot bolt**

Shoot bolt for french casement drive gear B99162-02 and B99163-02, faceplate 24x6 mm, L 530 mm

-02 = Galvanized steel

PU = 1 piece

**Puntale**

Puntale per asta a leva B99162-02 e B99163-02, frontale 24x6 mm, L 530 mm

-02 = Acciaio zincato

UV = 1 pezzo

**Pasador de canto**

Pasador de canto para varilla de palanca B99162-02 y B99163-02, frente 24x6 mm, L 530 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99165-02

**Strike plate**

PU = 1 piece

**Riscontro**

UV = 1 pezzo

**Pieza de bloqueo**

CANTIDAD = 1 unidad



B99201-11

**Central strike plate**

Central strike plate for 3-point locking device B99170-02, B99171-02, B99173-02, 22x6 mm

-02 = Galvanized steel

R = Right opening  
L = Left opening

PU = 1 piece

**Riscontro centrale**

Riscontro centrale per serratura a 3 punti di chiusura B99170-02, B99171-02, B99173-02, 22x6 mm

-02 = Acciaio zincato

R = Apertura destra  
L = Apertura sinistra

UV = 1 pezzo

**Chapa de cierre central**

Chapa de cierre central para bloqueo de 3 puntos B99170-02, B99171-02, B99173-02, 22x6 mm

-02 = Acero galvanizado

R = Apertura derecha  
L = Apertura izquierda

CANTIDAD = 1 unidad



B99203-02 R  
B99204-02 L

**Strike plate**

Upper and lower strike plate for B99170-02, B99171-02, B99173-02 locks and B99169-02 extension, 22x6 mm

-02 = Galvanized steel

PU = 1 piece

**Riscontro**

Riscontro superiore e inferiore per serratura B99170-02, B99171-02, B99173-02 e prolunga B99169-02, 22x6 mm

-02 = Acciaio zincato

UV = 1 pezzo

**Chapa de cierre**

Chapa de cierre superior y inferior para cerraduras B99170-02, B99171-02, B99173-02 y extensión B99169-02, 22x6 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99205-02

**Central strike plate**

Central strike plate for mortise lock device B99111-02, 25x3 mm

-02 = Galvanized steel

PU = 1 piece

**Riscontro centrale**

Riscontro centrale per serratura B99111-02, 25x3 mm

-02 = Acciaio zincato

UV = 1 pezzo

**Chapa de cierre central**

Chapa de cierre central para cerradura B99111-02, 25x3 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99206-02

**Central strike plate**

Central strike plate for mortise lock device B99015-02, 24x6 mm

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Riscontro centrale**

Riscontro centrale per serratura B99015-02, 24x6 mm

-04 = Acciaio inox AISI 304 satinato

UV = 1 pezzo

**Chapa de cierre central**

Chapa de cierre central para cerradura B99015-02, 24x6 mm

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



B99207-04

**Central strike plate**

Central strike plate for mortise lock device B99174-02 and B99175-02, 22x6 mm

-02 = Galvanized steel

R = Right opening  
L = Left opening

PU = 1 piece

**Riscontro centrale**

Riscontro centrale per serratura B99174-02 e B99175-02, 22x6 mm

-02 = Acciaio zincato

R = Apertura destra  
L = Apertura sinistra

UV = 1 pezzo

**Chapa de cierre central**

Chapa de cierre central para cerradura B99174-02 y B99175-02, 22x6 mm

-02 = Acero galvanizado

R = Apertura derecha  
L = Apertura izquierda

CANTIDAD = 1 unidad



B99209-02 R  
B99210-02 L

**Plate**

Stainless steel cut out covering for flush profiles system.

-04 = Satin stainless steel AISI 304

PU = 4 pieces

**Piastra**

Stampato finitura fresate in acciaio inox per sistema profili coplanari.

-04 = Acciaio Inox AISI 304 satinato

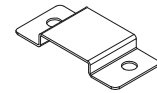
UV = 4 pezzi

**Plato**

Plato en acero inoxidable para fresadora de sistema perfiles coplanarios.

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 4 unidades



E99134-04

**Plate**

Only for double leaf door with B99111-02 lock + E9902X-35 flush bolt.

-03 = Stainless steel AISI 304 2B

PU = 2 pieces

**Piastra**

Solo per porta a due ante con serratura B99111-02 + catenaccio E9902X-35

-03 = Acciaio inossidabile AISI 304 2B

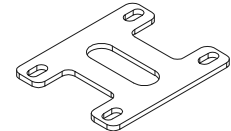
UV = 2 pezzi

**Plato**

Solo para puerta de dos hojas con cerradura B99111-02 + pasador de canto E9902X-35

-03 = Acero inoxidable AISI 304 2B

CANTIDAD = 2 unidades



E99015-03

**Lock extension**

Extension for multi-point lock B99174-02 and B99175-02, stainless steel faceplate 24x6 mm; without pawls.

-02 = Galvanized steel

PU = 1 piece

**Prolunga serratura**

Prolunga per serratura multipunto B99174-02 e B99175-02, frontale in acciaio inox 24x6 mm; senza nottolini.

-02 = Acciaio zincato

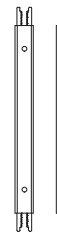
UV = 1 pezzo

**Extensión de bloqueo**

Prolongación para cerradura multipunto B99174-02 y B99175-02, frontal en acero inoxidable 24x6 mm; sin trinquetes.

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99156-02

**Lock extension**

Extension for multi-point lock B99174-02 and B99175-02, stainless steel faceplate 24x6 mm, n°2 studs.

-02 = Galvanized steel

PU = 1 piece

**Prolunga serratura**

Prolunga per serratura multipunto B99174-02 e B99175-02, frontale in acciaio inox 24x6 mm, n°2 nottolini.

-02 = Acciaio zincato

UV = 1 pezzo

**Extensión de bloqueo**

Prolongación para cerradura multipunto B99174-02 y B99175-02, frontal en acero inoxidable 24x6 mm, n°2 alfileres.

-02 = Acero galvanizado

CANTIDAD = 1 unidad



B99157-02

**Rebate protection for latchbolt**

Rebate protection for latchbolt, for open in and open out door, 60x17.8x0.8 mm

-04 = Satin stainless steel AISI 304

PU = 1 piece

**Protezione battuta per scrocco**

Protezione battuta per scrocco, per porta apertura interna ed esterna, 60x17.8x0.8 mm

-04 = Acciaio Inox AISI 304 satinato

UV = 1 pezzo

**Protección de parada para pestillo**

Protección de parada para pestillo, para puerta que se abre hacia dentro y fuera, 60x17.8x0.8 mm

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



D99157-04



**Screws**

**Viti**

**Tornillos**

**3.7**

**Screw**

Hexagon recessed countersunk screw  
stainless steel A2 M4x10 mm  
DIN7991 / ISO10642

PU = 100 pieces

**Vite**

Vite testa svasata piana esagono incassato,  
acciaio inox A2 M4x10 mm  
DIN7991 / ISO10642

UV = 100 pezzi

**Tornillo**

Tornillo cabeza plana avellanada con hexágono interior,  
acero inoxidable A2 M4x10 mm  
DIN7991 / ISO10642

CANTIDAD = 100 unidades



D99880-03

**Screw**

Hexagon recessed cap head screw  
stainless steel A2 M4x10 mm  
DIN912 / ISO4762

PU = 100 pieces

**Vite**

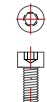
Vite testa cilindrica esagono incassato,  
acciaio inox A2 M4x10 mm  
DIN912 / ISO4762

UV = 100 pezzi

**Tornillo**

Tornillo cilindrico con hexágono interior, acero inoxidable A2 M4x10 mm  
DIN912 / ISO4762

CANTIDAD = 100 unidades



D99882-03

**Screw**

Cross recessed countersunk head screw, M4x8 mm  
DIN7982 / ISO7050

-02 = Galvanized steel  
-03 = Stainless steel A2

PU = 100 pieces

**Vite**

Vite testa svasata intaglio a croce, M4x8 mm  
DIN7982 / ISO7050

-02 = Acciaio zincato  
-03 = Acciaio inox A2

UV = 100 pezzi

**Tornillo**

Tornillo avellanado y de chapa con ranura en cruz, M4x8 mm  
DIN7982 / ISO7050

-02 = Acero galvanizado  
-03 = Acero inoxidable A2

CANTIDAD = 100 unidades



D99980-nn

**Screw**

Hexagon recessed countersunk screw  
stainless steel A2 M4x6 mm  
DIN7991 / ISO10642

PU = 100 pieces

**Vite**

Vite testa svasata piana esagono incassato,  
acciaio inox A2 M4x6 mm  
DIN7991 / ISO10642

UV = 100 pezzi

**Tornillo**

Tornillo cabeza plana avellanada con hexágono interior,  
acero inoxidable A2 M4x6 mm  
DIN7991 / ISO10642

CANTIDAD = 100 unidades



D99867-03

**Screw**

Hexagon recessed cap head screw  
stainless steel A2 M4x6 mm  
DIN912 / ISO4762

PU = 100 pieces

**Vite**

Vite testa cilindrica esagono incassato,  
acciaio inox A2 M4x6 mm  
DIN912 / ISO4762

UV = 100 pezzi

**Tornillo**

Tornillo cilindrico con hexágono interior, acero inoxidable A2 M4x6 mm  
DIN912 / ISO4762

CANTIDAD = 100 unidades



D99866-03

**Screw**

Cross recessed countersunk head screw, stainless steel A2 Ø4.2x9.5 mm  
DIN 7982 / ISO 7050

PU = 100 pieces

**Vite**

Vite testa svasata intaglio a croce, acciaio inox A2 Ø4.2x9.5 mm  
DIN 7982 / ISO 7050

UV = 100 pezzi

**Tornillo**

Tornillo avellanado y de chapa con ranura en cruz, acero inoxidable A2 Ø4.2x9.5 mm  
DIN 7982 / ISO 7050

CANTIDAD = 100 unidades



D99815-03

**Note:**

All uncoded screws are the responsibility of the customer.

**Nota:**

Tutte le viti non codificate sono a carico del cliente.

**Nota:**

Todos los tornillos no codificados son responsabilidad del cliente.



**Screw**

Cross recessed pan head screw, stainless steel A2 Ø3.5x6.5 mm DIN 7981 / ISO 7049

PU = 100 pieces

**Vite**

Vite testa bombata intaglio croce, acciaio inox A2 Ø3.5x6.5 mm DIN 7981 / ISO 7049

UV = 100 pezzi

**Tornillo**

Tornillo alomado y de chapa con ranura en cruz, acero inoxidable A2 Ø3.5x6.5 mm DIN 7981 / ISO 7049

CANTIDAD = 100 unidades



D99801-03

**Rivet**

Button-head rivet, stainless steel A2 Ø3.2x8 mm DIN7337 / ISO15973

PU = 100 pieces

**Rivetto**

Rivetto testa tonda acciaio inox A2 Ø3.2x8 mm DIN7337 / ISO15973

UV = 100 pezzi

**Remache**

Remache semiesférico, acero inoxidable A2 Ø3.2x8 mm DIN7337 / ISO15973

CANTIDAD = 100 unidades



D99950-03

**Bushing**

M5 brass bushing.

PU = 20 pieces

**Boccola**

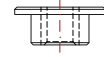
Boccola in ottone M5.

UV = 20 pezzi

**Casquillo**

Casquillo en latón M5.

CANTIDAD = 20 unidades



D99702-08

**Bushing**

M4 brass bushing.

PU = 20 pieces

**Boccola**

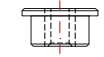
Boccola in ottone M4.

UV = 20 pezzi

**Casquillo**

Casquillo en latón M4.

CANTIDAD = 20 unidades



D99704-08

**Bushing**

M5 stainless steel bushing.

PU = 20 pieces

**Boccola**

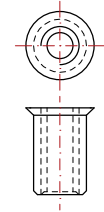
Boccola in acciaio inox M5.

UV = 20 pezzi

**Casquillo**

Casquillo en acero inoxidable M5.

CANTIDAD = 20 unidades



D99705-03

**Bonding**

Adhesive for rebate gaskets.

PU = 1 piece

**Adesivo**

Adesivo per guarnizione di battuta.

UV = 1 pezzo

**Pegamento**

Pegamento para juntas de encaje.

CANTIDAD = 1 unidad



OS 364991

**Primer**

Primer for double adhesive tape, powder coating

PU = 1 piece

**Primer**

Primer per nastro biadesivo, verniciatura a polveri

UV = 1 pezzo

**Primer**

Primer para cinta de doble cara, recubrimiento en polvo

CANTIDAD = 1 unidad



199005-75

**Note:**

All uncoded screws are the responsibility of the customer.

**Nota:**

Tutte le viti non codificate sono a carico del cliente.

**Nota:**

Todos los tornillos no codificados son responsabilidad del cliente.



**Assembling tools**

**Utensili di assemblaggio**

**Herramientas de montaje**

**3.8**



**Alignment pin**

For welding of hinge  
C99008-nn

PU = 1 piece

**Spina di allineamento**

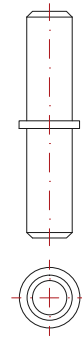
Per saldatura cerniera  
C99008-nn

UV = 1 pezzo

**Pasador de posicionamiento**

Pasador de posicionamiento para  
soldadura de bisagra C99008-nn

CANTIDAD = 1 unidad



D99401-31

**Adjusting tool**

Adjusting tool for 3D hinge  
C99008-nn

PU = 1 piece

**Chiave di regolazione**

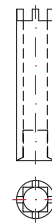
Chiave di regolazione per cerniera  
3D C99008-nn

UV = 1 pezzo

**Llave**

Llave de ajuste para calibrar  
bisagras 3D C99008-nn

CANTIDAD = 1 unidad



D99501-31

**Alignment pin**

For welding of hinge  
C99009-nn

PU = 1 piece

**Spina di allineamento**

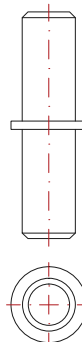
Per saldatura cerniera  
C99009-nn

UV = 1 pezzo

**Pasador de posicionamiento**

Pasador de posicionamiento para  
soldadura de bisagra C99009-nn

CANTIDAD = 1 unidad



D99402-31

**Adjusting tool**

Adjusting tool for 3D hinge  
C99009-nn

PU = 1 piece

**Chiave di regolazione**

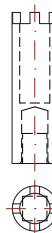
Chiave di regolazione per cerniera  
3D C99009-nn

UV = 1 pezzo

**Llave**

Llave de ajuste para calibrar  
bisagras 3D C99009-nn

CANTIDAD = 1 unidad



D99502-31

**Scissors**

Seal-cutting scissor,  
15°, 30°, 45°, 90° cutting angle.

PU = 1 piece

**Forbici**

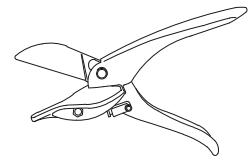
Forbici per guarnizioni,  
taglio 15°, 30°, 45°, 90°.

UV = 1 pezzo

**Cizallas**

Cizalla para juntas,  
corte de 15°, 30°, 45°, 90°.

CANTIDAD = 1 unidad



D99540-02

**Scissors  
Spare parts**

Blades for scissor D99540-02

PU = 1 pair

**Forbici  
Pezzi di ricambio**

Lame per forbici D99540-02

UV = 1 coppia

**Cizallas  
Piezas de repuesto**

Cuchillas por cizalla D99540-02

CANTIDAD = 1 par



Q99540C-99

**Scissors**

Seal-cutting scissor,  
45° cutting angle.

PU = 1 piece

**Forbici**

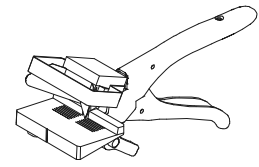
Forbici per guarnizioni,  
taglio 45°.

UV = 1 pezzo

**Cizallas**

Cizalla para juntas,  
corte de 45°.

CANTIDAD = 1 unidad



D99543-02

**Scissors  
Spare parts**

Base for scissor D99543-02

PU = 1 piece

**Forbici  
Pezzi di ricambio**

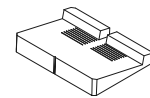
Base per forbici D99543-02

UV = 1 pezzo

**Cizallas  
Piezas de repuesto**

Soporte por cizalla D99543-02

CANTIDAD = 1 unidad



Q99543A-99

**Scissors  
Spare parts**

Blades retainer with blades and  
safety bracket for scissor  
D99543-02

PU = 1 piece

**Forbici  
Pezzi di ricambio**

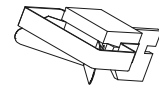
Porta lame con lame e protezione  
per forbici D99543-02

UV = 1 pezzo

**Cizallas  
Piezas de repuesto**

Portacuchillas completo con cuchillas  
por cizalla D99543-02

CANTIDAD = 1 unidad



Q99543B-99

**Scissors  
Spare parts**

Blades for scissor D99543-02

PU = 4 pieces

**Forbici  
Pezzi di ricambio**

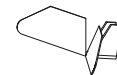
Lame per forbici D99543-02

UV = 4 pezzi

**Cizallas  
Piezas de repuesto**

Cuchillas por cizalla D99543-02

CANTIDAD = 4 unidades



Q99543C-99

**Scissors  
Spare parts**

Locking lever for scissor  
D99543-02

PU = 1 pair

**Forbici  
Pezzi di ricambio**

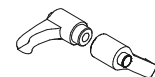
Leva di bloccaggio per forbici  
D99543-02

UV = 1 coppia

**Cizallas  
Piezas de repuesto**

Palanca de bloqueo por cizalla  
D99543-02

CANTIDAD = 1 par



Q99543D-99

**Cutting templates**

Aluminum, supports for cutting profiles, length 300 mm

PU = 1 piece

**Dime di taglio**

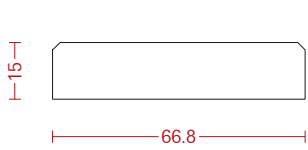
Alluminio, per il taglio dei profili, lunghezza 300 mm

UV = 1 pezzo

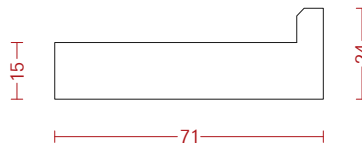
**Plantilla de corte**

Aluminio, base para serrar los perfiles, longitud de 300 mm

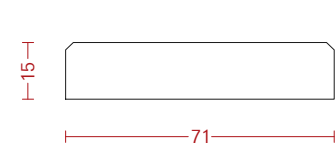
CANTIDAD = 1 unidad



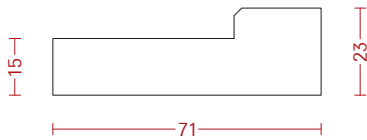
D99418-00



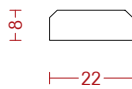
D99419-00



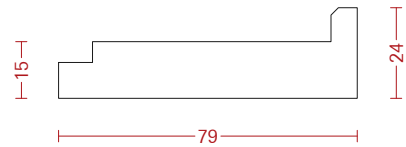
D99420-00



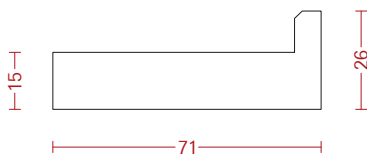
D99421-00



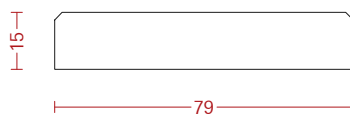
D99422-00



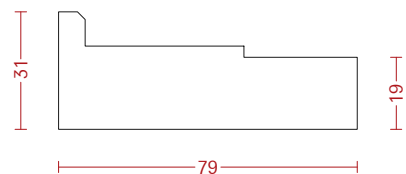
D99423-00



D99424-00

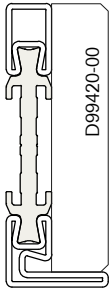


D99425-00

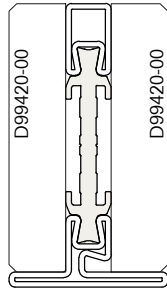


D99426-00

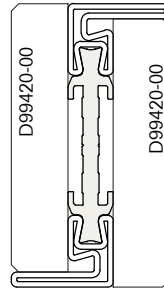




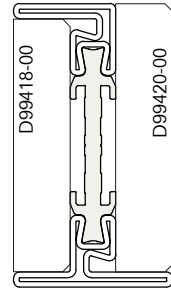
FT 7512L-nn



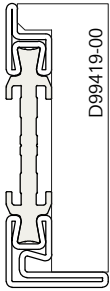
FT 7512T-nn



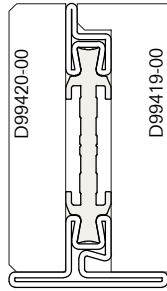
FT 7512Z-nn



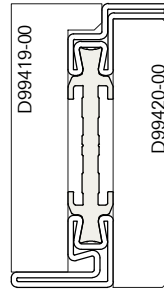
FT 7512H-nn



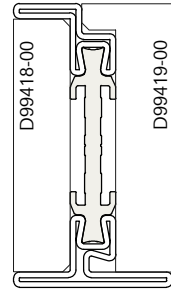
FT 7512LK-nn



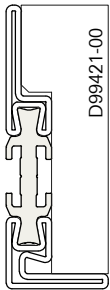
FT 7512TK-nn



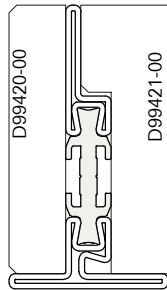
FT 7512ZK-nn



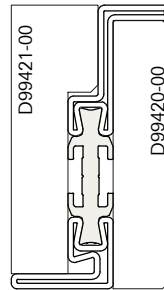
FT 7512HK-nn



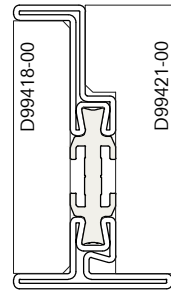
FT 7512LR-nn



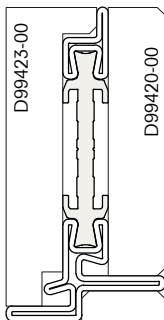
FT 7512TR-nn



FT 7512ZR-nn

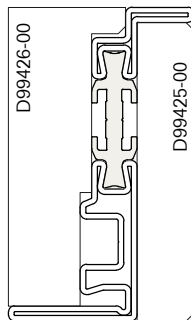


FT 7512HR-nn

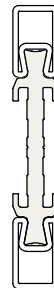


FT 8312TZ-nn

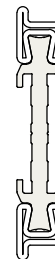
D99422-00 \*



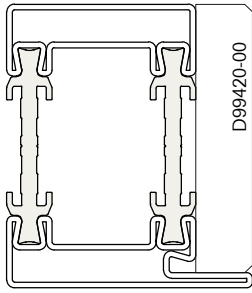
FT 8312ZR-nn



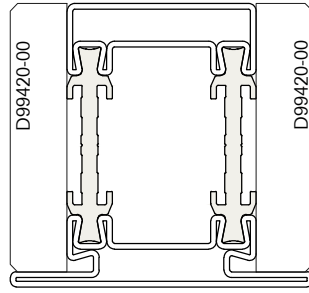
FT 7512PU-nn



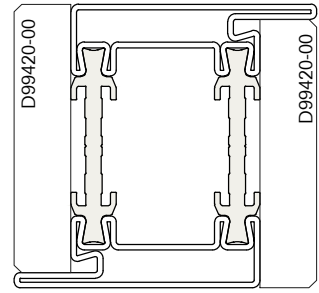
FT 6712LB-nn



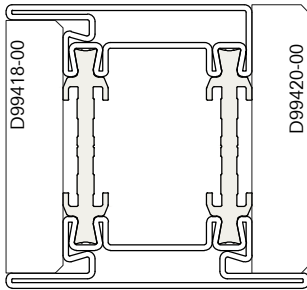
FT 7550LF-nn



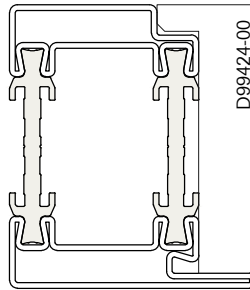
FT 7550TF-nn



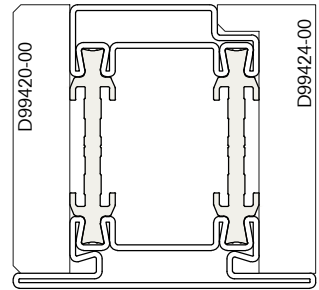
FT 7550ZF-nn



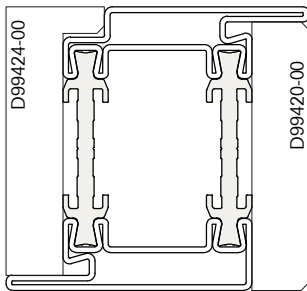
FT 7550HF-nn



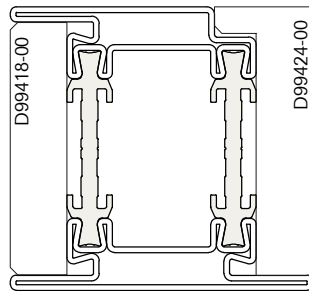
FT 7550L-nn



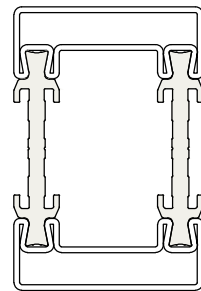
FT 7550T-nn



FT 7550Z-nn



FT 7550H-nn



FT 755PU-nn

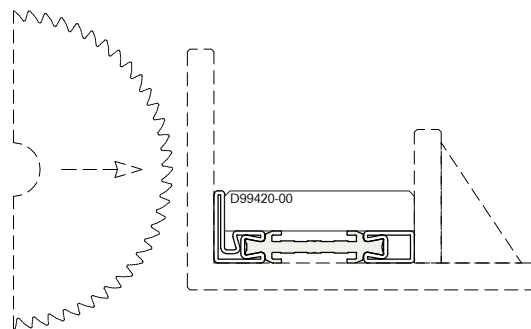
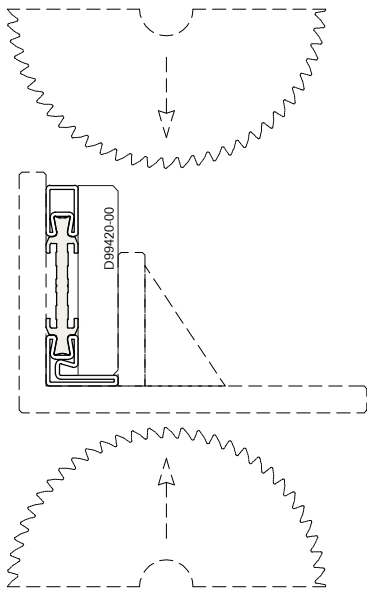
**Profile cutting**

**Taglio dei profili**

**Corte de Perfil**

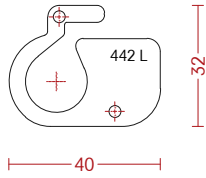
|                  |
|------------------|
| Top cut          |
| Taglio dall'alto |
| Corte vertical   |

|                  |
|------------------|
| Side cut         |
| Taglio dal lato  |
| Corte horizontal |

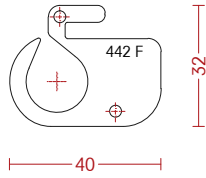


**Templates for weld-on hinges C99008-nn**

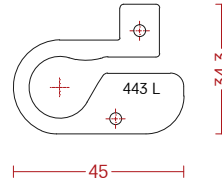
See installation page [5.4.56](#)



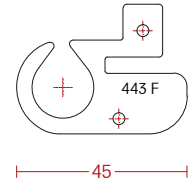
D99442-03  
Flush profiles  
Profili complanari  
Perfiles coplanarios



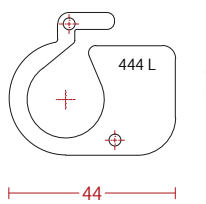
**Plantilla para bisagra de soldadura C99008-nn**



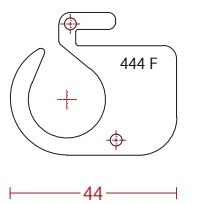
D99443-03  
Overlapped profiles  
Profili a sormonto  
Perfiles superpuestos



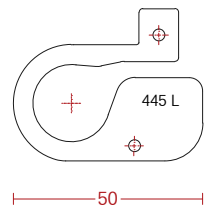
**Templates for weld-on hinges C99009-nn**



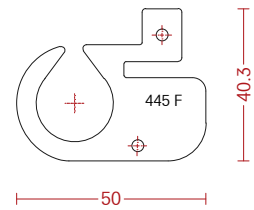
D99444-03  
Flush profiles  
Profili complanari  
Perfiles coplanarios



**Plantilla para bisagra de soldadura C99009-nn**



D99445-03  
Overlapped profiles  
Profili a sormonto  
Perfiles superpuestos



**Templates for weld-on hinges**

D75 TB - Door profiles

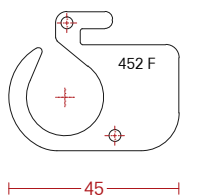
**Dime per cerniere a saldare**

D75 TB - Profili porta

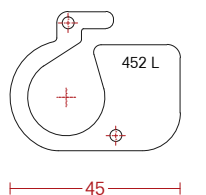
**Plantilla para bisagra de soldadura**

D75 TB - Perfiles puertas

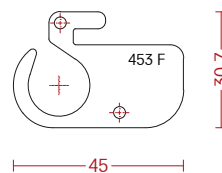
**C99009-nn**



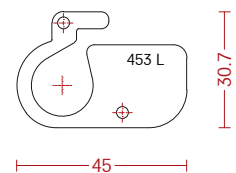
D99452-03  
Flush profiles  
Profili complanari  
Perfiles coplanarios



**C99008-nn**



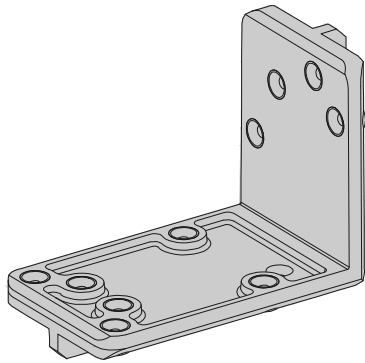
D99453-03  
Overlapped profiles  
Profili a sormonto  
Perfiles superpuestos



**Templates for  
Tilt&Turn fittings**

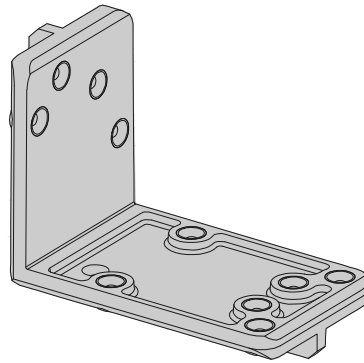
**Dime per ferramenta  
anta ribalta**

**Plantilla para herrajes  
para ventana oscilante**



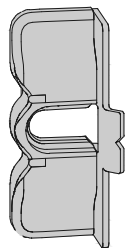
MC 217092

See installation page [5.8.123](#)



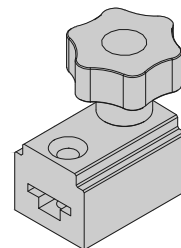
MC 217093

See installation page [5.8.123](#)



MC 229643

See installation page [5.8.123](#)



MC 463153

See installation page [5.8.109](#)



**Multipoint  
steel rods,  
with Graz**

**Multipoint  
aste in acciaio,  
con Graz**

**Multipoint  
varillas de acero,  
con Graz**

**3.9**

**Multipoint steel rods parts, with Graz**  
 Open in  
 Right and left opening

**Multipoint aste in acciaio componenti, con Graz**  
 Apertura interna  
 Apertura destra e sinistra

**Multipoint varillas de acero componentes, con Graz**  
 Que se abre hacia dentro  
 Apertura derecha y izquierda

**Short rod**

**Asta corta**

**Varilla corta**



E99379-03

**Long rod**

**Asta lunga**

**Varilla largo**



E99378-03

**Locking set**

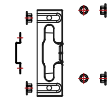
E99134-04 - Cutout cover  
 Q99182-11 - Strike plate  
 D99702-08 - n°04 M5 brass bushing  
 D99706-08 - n°02 collars

**Punto di chiusura**

E99134-04 - Copertura fresata  
 Q99182-11 - Riscontro  
 D99702-08 - n°04 boccole in ottone M5  
 D99706-08 - n°02 collari

**Punto de cierre**

E99134-04 - Cubierta molida  
 Q99182-11 - Chapa de cierre  
 D99702-08 - n°04 casquillo en latón M5  
 D99706-08 - n°02 collares



**Additional locking set**

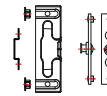
E99134-04 - Cutout cover  
 Q99182-11 - Strike plate  
 D99702-08 - n°02 M5 brass bushing  
 E99353-03 - Single additional point

**Punto aggiuntivo**

E99134-04 - Copertura fresata  
 Q99182-11 - Riscontro  
 D99702-08 - n°02 boccole in ottone M5  
 E99353-03 - Punto singolo addizionale

**Punto adicional**

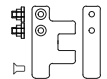
E99134-04 - Cubierta molida  
 Q99182-11 - Chapa de cierre  
 D99702-08 - n°02 casquillo en latón M5  
 E99353-03 - Punto único adicional



**Drive block**

**Blocco guida**

**Bloque de guía**



K99100

**Cremone gear Graz**

E99652-03 (Left opening)  
 E99653-03 (Right opening)

[See configuration page.](#)

**Graz**

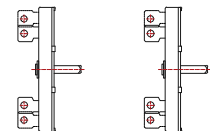
E99652-03 (Apertura sinistra)  
 E99653-03 (Apertura destra)

[Vedi pagina configurazione.](#)

**Graz**

E99652-03 (Apertura izquierda)  
 E99653-03 (Apertura derecha)

[Ver página del configurador.](#)



E9965X-03

**Note:**

For handle selection, consult the handles catalog.

**Note:**

Per scelta maniglia consultare il catalogo maniglie.

**Nota:**

Para la selección de manillas consultar el catálogo de manillas.



**Multipoint steel rods parts, with Graz**  
 Open out  
 Right and left opening

**Multipoint aste in acciaio componenti, con Graz**  
 Apertura esterna  
 Apertura destra e sinistra

**Multipoint varillas de acero componentes, con Graz**  
 Que se abre hacia fuera  
 Apertura derecha y izquierda

**Short rod**

**Asta corta**

**Varilla corta**



E99379-03

**Long rod**

**Asta lunga**

**Varilla largo**



E99378-03

**Locking set**

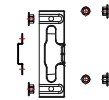
E99134-04 - Cutout cover  
 Q99182-11 - Strike plate  
 D99702-08 - n°04 M5 brass bushing  
 D99706-08 - n°02 collars

**Punto di chiusura**

E99134-04 - Copertura fresata  
 Q99182-11 - Riscontro  
 D99702-08 - n°04 boccole in ottone M5  
 D99706-08 - n°02 collari

**Punto de cierre**

E99134-04 - Cubierta molida  
 Q99182-11 - Chapa de cierre  
 D99702-08 - n°04 casquillo en latón M5  
 D99706-08 - n°02 collares



**Additional locking set**

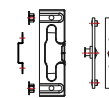
E99134-04 - Cutout cover  
 Q99182-11 - Strike plate  
 D99702-08 - n°02 M5 brass bushing  
 E99353-03 - Single additional point

**Punto aggiuntivo**

E99134-04 - Copertura fresata  
 Q99182-11 - Riscontro  
 D99702-08 - n°02 boccole in ottone M5  
 E99353-03 - Punto singolo addizionale

**Punto adicional**

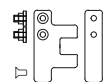
E99134-04 - Cubierta molida  
 Q99182-11 - Chapa de cierre  
 D99702-08 - n°02 casquillo en latón M5  
 E99353-03 - Punto único adicional



**Drive block**

**Blocco guida**

**Bloque de guía**



K99100

**Cremone gear Graz**

E99652-03 (Left opening)  
 E99653-03 (Right opening)

[See configuration page.](#)

**Graz**

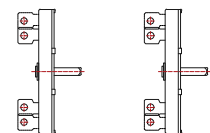
E99652-03 (Apertura sinistra)  
 E99653-03 (Apertura destra)

[Vedi pagina configurazione.](#)

**Graz**

E99652-03 (Apertura izquierda)  
 E99653-03 (Apertura derecha)

[Ver página del configurador.](#)



E9965X-03

**Handle for 1st leaf**

-06 = Stainless steel AISI 316L  
 -12 = Bright steel

**Maniglia per 1a anta**

-06 = Acciaio inox AISI 316L  
 -12 = Acciaio decapato

**Manija para 1er hoja**

-06 = Acero inoxidable AISI 316L  
 -12 = Acero bruto



H99020-nn

**Note:**

Consult the handles catalog available for the Graz.

**Note:**

Consultare il catalogo maniglie disponibili per il Graz.

**Nota:**

Consulta el catálogo de manija disponibles para el Graz.



**Multipoint  
aluminum rods,  
with Graz and Mono**

**Multipoint  
aste in alluminio,  
con Graz e Mono**

**Multipoint  
varillas de aluminio,  
con Graz y Mono**

**3.10**

**Multipoint aluminum rods parts, with Graz and Mono**

Open in  
 Right and left opening

**Multipoint aste in alluminio componenti, con Graz e Mono**

Apertura interna  
 Apertura destra e sinistra

**Multipoint varillas de aluminio componentes, con Graz y Mono**

Que se abre hacia dentro  
 Apertura derecha y izquierda

**Rod**

**Asta**

**Varilla**

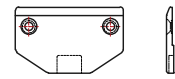


E99383-53

**Cremone gear connection**

**Connettore**

**Conector**



E99391-87

**Strike plate**

**Riscontro**

**Chapa de cierre**



E99389-11

**Stud**

**Nottolino**

**Alfiler**



E99397-03

**Note:**

For handle selection, consult the handles catalog.

**Note:**

Per scelta maniglia consultare il catalogo maniglie.

**Nota:**

Para la selección de manillas consultar el catálogo de manillas.

**Kit for shoot bolt**

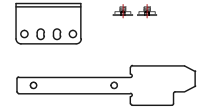
QK99108B-02 - Strike plate  
 QD99713A-02 - n°02 M4 bushing  
 QK99108A-02 - Shoot bolt

**Kit puntale**

QK99108B-02 - Riscontro  
 QD99713A-02 - n°02 boccole M4  
 QK99108A-02 - Puntale

**Kit para cerrojo**

QK99108B-02 - Chapa de cierre  
 QD99713A-02 - n°02 casquillo M4  
 QK99108A-02 - Consejo



K99108

**Cremone gear Graz**

E99652-03 (Left opening)  
 E99653-03 (Right opening)

[See configuration page.](#)

**Graz**

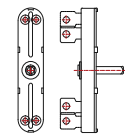
E99652-03 (Apertura sinistra)  
 E99653-03 (Apertura destra)

[Vedi pagina configurazione.](#)

**Graz**

E99652-03 (Apertura izquierda)  
 E99653-03 (Apertura derecha)

[Ver página del configurador.](#)

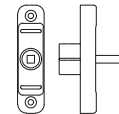


E9965X-03

**Cremone gear Mono**

**Mono**

**Mono**



E99658-11

**Note:**

For handle selection, consult the handles catalog.

**Note:**

Per scelta maniglia consultare il catalogo maniglie.

**Nota:**

Para la selección de manillas consultar el catálogo de manillas.

**Multipoint aluminum rods parts, with Graz and Mono**

Open out  
 Right and left opening

**Multipoint aste in alluminio componenti, con Graz e Mono**

Apertura esterna  
 Apertura destra e sinistra

**Multipoint varillas de aluminio componentes, con Graz y Mono**

Que se abre hacia fuera  
 Apertura derecha y izquierda

**Rod**

**Asta**

**Varilla**

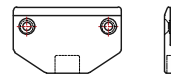


E99383-53

**Cremone gear connection**

**Connettore**

**Conector**



E99391-87

**Strike plate**

**Riscontro**

**Chapa de cierre**



E99389-11

**Stud**

**Nottolino**

**Alfiler**

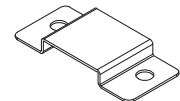


E99397-03

**Coutout cover**

**Copertura fresata**

**Cubierta molida**



E99134-04

**Note:**

For handle selection, consult the handles catalog.

**Note:**

Per scelta maniglia consultare il catalogo maniglie.

**Nota:**

Para la selección de manillas consultar el catálogo de manillas.

**Kit for shoot bolt**

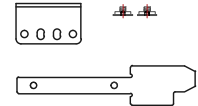
QK99108B-02 - Strike plate  
 QD99713A-02 - n°02 M4 bushing  
 QK99108A-02 - Shoot bolt

**Kit puntale**

QK99108B-02 - Riscontro  
 QD99713A-02 - n°02 boccole M4  
 QK99108A-02 - Puntale

**Kit para cerrojo**

QK99108B-02 - Chapa de cierre  
 QD99713A-02 - n°02 casquillo M4  
 QK99108A-02 - Consejo



K99108

**Cremone gear Graz**

E99652-03 (Left opening)  
 E99653-03 (Right opening)

[See configuration page.](#)

**Graz**

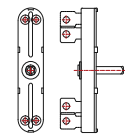
E99652-03 (Apertura sinistra)  
 E99653-03 (Apertura destra)

[Vedi pagina configurazione.](#)

**Graz**

E99652-03 (Apertura izquierda)  
 E99653-03 (Apertura derecha)

[Ver página del configurador.](#)

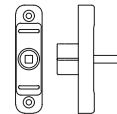


E9965X-03

**Cremone gear Mono**

**Mono**

**Mono**



E99658-11

**Handle for 1st leaf**

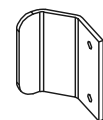
-06 = Stainless steel AISI 316L  
 -12 = Bright steel

**Maniglia per 1a anta**

-06 = Acciaio inox AISI 316L  
 -12 = Acciaio decapato

**Manija para 1er hoja**

-06 = Acero inoxidable AISI 316L  
 -12 = Acero bruto



H99020-nn

**Note:**

For handle selection, consult the handles catalog.

**Note:**

Per scelta maniglia consultare il catalogo maniglie.

**Nota:**

Para la selección de manillas consultar el catálogo de manillas.





**Multipoint aluminum rods  
parts, with lever handle**

**Multipoint aste in  
alluminio componenti,  
con cariglione**

**Multipoint varillas de  
aluminio componentes,  
con manija de bloqueo**

**3.11**

**Multipoint aluminum rods parts, with lever handle**  
 Right and left opening

**Multipoint aste in alluminio componenti, con cariglione**  
 Apertura destra e sinistra

**Multipoint varillas de aluminio componentes, con manija de bloqueo**  
 Apertura derecha y izquierda

**Rod**

**Asta**

**Varilla**

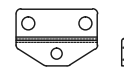


E99383-53

**Cremone gear connection**

**Connettore**

**Conector**



E99398-02

**Strike plate**

**Riscontro**

**Chapa de cierre**

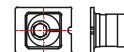


E99389-11

**Stud**

**Nottolino**

**Alfiler**



E99397-03

**Bush**

**Boccola**

**Casquillo**



D99714-02

**Kit for shoot bolt**

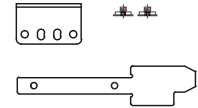
QK99108B-02 - Strike plate  
 QD99713A-02 - n°02 M4 bushing  
 QK99108A-02 - Shoot bolt

**Kit puntale**

QK99108B-02 - Riscontro  
 QD99713A-02 - n°02 boccole M4  
 QK99108A-02 - Puntale

**Kit para cerrojo**

QK99108B-02 - Chapa de cierre  
 QD99713A-02 - n°02 casquillo M4  
 QK99108A-02 - Consejo



K99108

**Lever handle**

Lever handle with concealed connecting rods, front installation.

Finishings:

18 20 23 24 28 29 43

PU = 1 piece

**Cariglione**

Maniglia a leva, fissaggio frontale.

Finiture:

18 20 23 24 28 29 43

UV = 1 pezzo

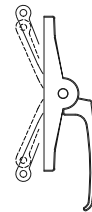
**Manija de bloqueo**

Palanca con barras de empuje ocultas, fijación frontal.

Acabados:

18 20 23 24 28 29 43

CANTIDAD = 1 unidad



H99001-nn

**Lever handle lockable**

Lever handle with concealed connecting rods, front installation, lockable with key.

Finishings:

18 20 23 24 28 29 43

PU = 1 piece

**Cariglione con chiave**

Maniglia a leva, fissaggio frontale, con chiusura a chiave.

Finiture:

18 20 23 24 28 29 43

UV = 1 pezzo

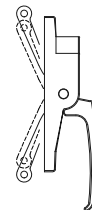
**Manija de bloqueo bloqueable**

Palanca con barras de empuje ocultas, fijación frontal, bloqueable con llave.

Acabados:

18 20 23 24 28 29 43

CANTIDAD = 1 unidad



H99003-nn

**Handle for 1st leaf**

For open out windows.

-06 = Stainless steel AISI 316L  
 -12 = Bright steel

**Maniglia per 1a anta**

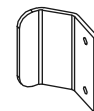
Per finestra apertura esterna.

-06 = Acciaio inox AISI 316L  
 -12 = Acciaio decapato

**Manija para 1er hoja**

Para ventana que se abre hacia fuera.

-06 = Acero inoxidable AISI 316L  
 -12 = Acero bruto



H99020-nn



**Tilt&Turn window**

**Finestra anta ribalta**

**Ventana oscilante**

**3.12**

**Stabilising scissor stay**

Stabilising scissor stay case Euro-channel 18 mm, silver.

PU = 1 piece

**Scontro per forcice supplementare**

Scontro per forcice supplementare battuta liscia 18 mm, argento.

UV = 1 pezzo

**Cerradero compás adicional**

Cerradero compás adicional base 18 mm, plata.

CANTIDAD = 1 unidad



MC 52794

**Turn restrictor**

Turn restrictor Euro-channel L=187 mm, silver.

PU = 1 piece

**Delimitatore d'apertura**

Delimitatore d'apertura battuta liscia L=187 mm, argento.

UV = 1 pezzo

**Delimitador de apertura**

Delimitador de apertura base lisa L=187 mm, plata.

CANTIDAD = 1 unidad



MC 103623

**Load transfer**

Load transfer for FT 24 mm R, silver.

R = Right opening

PU = 1 piece

**Asta di sostegno**

Asta di sostegno per PB 24 mm R, argento.

R = Apertura destra

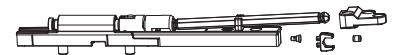
UV = 1 pezzo

**Varilla de soporte**

Varilla de soporte para FT 24 mm R, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 105336

**Load transfer**

Load transfer for FT 24 mm L, silver.

L = Left opening

PU = 1 piece

**Asta di sostegno**

Asta di sostegno per PB 24 mm L, argento.

L = Apertura sinistra

UV = 1 pezzo

**Varilla de soporte**

Varilla de soporte para FT 24 mm L, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 105339

### Adaptor

Adaptor with contact sensor KVS, grey.

PU = 1 piece

### Nottolino magnetico

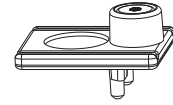
Nottolino magnetico a clips, grigio.

UV = 1 pezzo

### Adaptador

Adaptador con bulón magnético KVS, gris.

CANTIDAD = 1 unidad



MC 200906

### Faceplate extension

Faceplate extension, extendable 235 mm with 1 i.S., silver.

PU = 1 piece

### Prolunga frontale

Prolunga frontale prolungabile 235 mm con 1 fungo, argento.

UV = 1 pezzo

### Prolongador frontal

Prolongador frontal prolongable 235 mm con 1 bulón i.S., plata.

CANTIDAD = 1 unidad



MC 201750

### Centre lock

Centre lock 1280 mm with 1 i.S. HBB/LBB 801-1280 mm, silver.

PU = 1 piece

### Chiusura centrale

Chiusura centrale 1280 mm con 1 fungo HBB/LBB 801-1280 mm, argento.

UV = 1 pezzo

### Cierre central

Cierre central 1280 mm con 1 bulón i.S. HBB/LBB 801-1280 mm, plata.

CANTIDAD = 1 unidad



MC 201751

### Centre lock

Centre lock 1500 mm with 1 i.S. HBB/LBB 1281-1500 mm, silver.

PU = 1 piece

### Chiusura centrale

Chiusura centrale 1500 mm con 1 fungo HBB/LBB 1281-1500 mm, argento.

UV = 1 pezzo

### Cierre central

Cierre central 1500 mm con 1 bulón i.S. HBB/LBB 1281-1500 mm, plata.

CANTIDAD = 1 unidad



MC 201752

**Centre lock**

Centre lock extendable 1500V with 1 i.S. HBB/LBB 1281-1500 mm, silver.

PU = 1 piece

**Chiusura centrale**

Chiusura centrale prolungabile 1500V con 1 fungo HBB/LBB 1281-1500 mm, argento.

UV = 1 pezzo

**Cierre central**

Cierre central prolongable 1500V con 1 bulón i.S. HBB/LBB 1281-1500 mm, plata.

CANTIDAD = 1 unidad



MC 201753

**Centre lock extendable**

Centre lock extendable 2200V with 2 i.S. HBB/LBB 1701-2200 mm, silver.

PU = 1 piece

**Chiusura centrale**

Chiusura centrale prolungabile 2200V con 2 funghi HBB/LBB 1701-2200 mm, argento.

UV = 1 pezzo

**Cierre central**

Cierre central prolongable 2200V con 2 bulones i.S. HBB/LBB 1701-2200 mm, plata.

CANTIDAD = 1 unidad



MC 201754

**Centre lock extendable**

Centre lock extendable 1280V with 1 i.S. HBB/LBB 801-1280 mm, silver.

PU = 1 piece

**Chiusura centrale**

Chiusura centrale prolungabile 1280V con 1 fungo HBB/LBB 801-1280 mm, argento.

UV = 1 pezzo

**Cierre central**

Cierre central prolongable 1280V con 1 bulón i.S. HBB/LBB 801-1280 mm, plata.

CANTIDAD = 1 unidad



MC 201840

**Tilt&Turn drive gear**

Tilt&Turn drive gear 2250 mm, BS 6.5 mm, variabel with 3 i.S. HBB 1751-2250 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 2250 mm, E 6.5 mm, variabile con 3 funghi HBB 1751-2250 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 2250 mm, EM 6.5 mm, cota variable con 3 bulones i.S. HBB 1751-2250 mm, plata.

CANTIDAD = 1 unidad



MC 202205



**Turn-only drive gear**

Turn-only drive gear 660 mm, BS 6.5 mm, fixed handle height HBB 455-660 mm, HH 190 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 660 mm, E 6.5 mm, fix con 1 fungo HBB 455-660 mm, HH 190 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB sin elevador 660 mm, EM 6.5 mm, fijo HBB 455-660 mm, HH 190 mm, plata.

CANTIDAD = 1 unidad



MC 202206

**Tilt&Turn drive gear**

Tilt&Turn drive gear 840 mm, BS 6.5 mm, fixed handle height with 1 i.S. HBB 661-840 mm, HH 300mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 840 mm, E 6.5 mm, fix con 1 fungo HBB 661-840 mm, HH 300 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 840 mm, EM 6.5 mm, fijo con 1 bulón i.S. HBB 661-840 mm, HH 300 mm, plata.

CANTIDAD = 1 unidad



MC 202207

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1090 mm, BS 6.5 mm, fixed handle height with 1 i.S. HBB 841-1090 mm, HH 400 mm, silver.

PU = 1 piece

**Supporto cerniera**

Cremonese 1090 mm, E 6.5 mm, fix con 1 fungo HBB 841-1090 mm, HH 400 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1090 mm, EM 6.5 mm, fijo con 1 bulón i.S. HBB 841-1090 mm, HH 400 mm, plata.

CANTIDAD = 1 unidad



MC 202208

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1340 mm, BS 6.5 mm, fixed handle height with 1 i.S. HBB 1091-1340 mm, HH 500 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 1340 mm, E 6.5 mm, fix con 1 fungo HBB 1091-1340 mm, HH 500 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1340 mm, EM 6.5 mm, fijo con 1 bulón i.S. HBB 1091-1340 mm, HH 500 mm, plata.

CANTIDAD = 1 unidad



MC 202209

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1590 mm, BS 6.5 mm, fixed handle height with 2 i.S. HBB 1341-1590 mm, HH 600 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 1590 mm, E 6.5 mm, fix con 2 funghi HBB 1341-1590 mm, HH 600 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1590 mm, EM 6.5mm, fijo con 2 bulones i.S. HBB 1341-1590 mm, HH 600 mm, plata.

CANTIDAD = 1 unidad



MC 202216

**Turn-only drive gear**

Turn-only drive gear 800 mm, BS 6.5 mm, variabel HBB 530-800 mm, silver.

PU = 1 piece

**Cremonese A-B**

Cremonese A-B 800 mm E 6.5 mm, variabile HBB 530-800 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB sin elevador 800 mm, EM 6.5 mm, cota variable HBB 530-800 mm, plata.

CANTIDAD = 1 unidad



MC 202491

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1250 mm, BS 6.5 mm, variabel with 1 i.S. HBB 801-1250 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 1250 mm, E 6.5 mm, variabile con 1 fungo HBB 801-1250 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1250 mm, EM 6.5 mm, cota variable con 1 bulón i.S. HBB 801-1250 mm, plata.

CANTIDAD = 1 unidad



MC 202492

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1750 mm, BS 6.5 mm, variabel with 2 i.S. HBB 1251-1750 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 1750 mm, E 6.5 mm, variabile con 2 funghi HBB 1251-1750 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1750 mm, EM 6.5 mm, cota variable con 2 bulones i.S. HBB 1251-1750 mm, plata.

CANTIDAD = 1 unidad



MC 202494

**Turn-only drive gear**

Turn-only drive gear 2250 mm, BS 6.5 mm, variabel with 3 i.S. HBB 1751-2250 mm, silver.

PU = 1 piece

**Cremonese A-B**

Cremonese A-B 2250 mm, E 6.5 mm, variabile con 3 funghi HBB 1751-2250 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB sin elevador 2250 mm, EM 6.5 mm, cota variable con 3 bulones i.S. HBB 1751-2250 mm, plata.

CANTIDAD = 1 unidad



MC 202497

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1950 mm, BS 6.5 mm, fixed handle height with 3 i.S. HBB 1701-1950 mm, HH 1050 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 1950 mm, E 6.5 mm, fix con 3 funghi HBB 1701-1950 mm, HH 1050 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1950 mm, EM 6.5 mm, fijo con 3 bulones i.S. HBB 1701-1950 mm, HH 1050 mm, plata.

CANTIDAD = 1 unidad



MC 202737

**Tilt&Turn drive gear**

Tilt&Turn drive gear 2200 mm, BS 6.5 mm, fixed handle height with 3 i.S. HBB 1951-2200 mm, HH 1050 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 2200 mm E 6.5 mm, fix con 3 funghi HBB 1951-2200 mm, HH 1050 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 2200 m, EM 6.5 mm, fijo con 3 bulones i.S. HBB 1951-2200 mm, HH 1050 mm, plata.

CANTIDAD = 1 unidad



MC202738

**Faceplate extension**

Faceplate extension, extendable 140 mm, silver.

PU = 1 piece

**Prolunga frontale**

Prolunga frontale prolungabile 140 mm, argento.

UV = 1 pezzo

**Prolongador frontal**

Prolongador frontal prolongable 140 mm, plata.

CANTIDAD = 1 unidad



MC 206630

**Corner element**

Corner element horizontally extendable short for variable espagnolettes with 1 i.S. LBB 320-1800 mm, silver.

PU = 1 piece

**Movimento angolare**

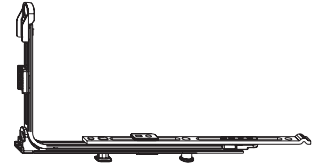
Movimento angolare prolungabile orizzontalmente corto per cremonese variabile con 1 fungo LBB 320-1800 mm, argento.

UV = 1 pezzo

**Mov.angular**

Mov.angular corto para CV piv. horizontal prolong. con 1 bulón i.S. LBB 320-1800 mm, plata.

CANTIDAD = 1 unidad



MC 206860

**Tilt&Turn drive gear**

Tilt&Turn drive gear 1700 m, BS 6.5 mm, fixed handle height with 2 i.S. HBB 1591-1700 mm, HH 700 mm, silver.

PU = 1 piece

**Cremonese**

Cremonese 1700 mm, E 6.5 mm, fix con 2 funghi HBB 1591-1700 mm, HH 700 mm, argento.

UV = 1 pezzo

**Falleba OB**

Falleba OB 1700 mm, EM 6.5 mm, fijo con 2 bulones i.S. HBB 1591-1700 mm, HH 700 mm, plata.

CANTIDAD = 1 unidad



MC 207305

**Espagnolette - centred handle**

Espagnolette - centred handle height 500 mm, BS 6.5 mm, with 2 i.S., silver.

PU = 1 piece

**Asta rulli centrale**

Asta rulli centrale 500 mm, E 6.5 mm, con 2 funghi, argento.

UV = 1 pezzo

**Falleba practicable**

Falleba practicable 1 hoja centrada 500 mm, EM 6.5 mm, con 2 bulones i.S., plata.

CANTIDAD = 1 unidad



MC 208323

**Espagnolette - centred handle**

Espagnolette - centred handle height 700 mm, BS 6.5 mm, with 2 i.S., silver.

PU = 1 piece

**Asta rulli centrale**

Asta rulli centrale 700 mm, E 6.5 mm, con 2 funghi, argento.

UV = 1 pezzo

**Falleba practicable**

Falleba practicable 1 hoja centrada 700 mm, EM 6.5 mm, con 2 bulones i.S., plata.

CANTIDAD = 1 unidad



MC 208324

**Espagnolette - centred handle**

Espagnolette - centred handle height 1000 mm, BS 6.5 mm, with 2 i.S., silver.

PU = 1 piece

**Asta rulli centrale**

Asta rulli centrale 1000 mm, E 6.5 mm, con 2 funghi, argento.

UV = 1 pezzo

**Falleba praticable**

Falleba praticable 1 hoja centrada 1000 mm, EM 6.5 mm, con 2 bulones i.S., plata.

CANTIDAD = 1 unidad



MC 208325

**Espagnolette - centred handle**

Espagnolette - centred handle height 1400 mm, BS 6.5 mm, with 3 i.S., silver.

PU = 1 piece

**Asta rulli centrale**

Asta rulli centrale 1400 mm, E 6.5 mm, con 3 funghi, argento.

UV = 1 pezzo

**Falleba praticable**

Falleba praticable 1 hoja centrada 1400 mm, EM 6.5 mm, con 3 bulones i.S., plata.

CANTIDAD = 1 unidad



MC 208326

**Espagnolette - centred handle**

Espagnolette - centred handle height 1800 mm, BS 6.5 mm, with 3 i.S., silver.

PU = 1 piece

**Asta rulli centrale**

Asta rulli centrale 1800 mm, E 6.5 mm, con 3 funghi, argento.

UV = 1 pezzo

**Falleba praticable**

Falleba praticable 1 hoja centrada 1800 mm, EM 6.5 mm, con 3 bulones i.S., plata.

CANTIDAD = 1 unidad



MC 208327

**End piece**

End piece bottom and top 180° with 1 i.S., silver.

PU = 1 piece

**Terminale**

Terminale 180° inferiore e superiore con 1 fungo, argento.

UV = 1 pezzo

**Terminal**

Terminal 180° inferior y superior con 1 bulón i.S., plata.

CANTIDAD = 1 unidad



MC 212211

### Stabilizing scissor stay

Stabilizing scissor stay mounted without night-vent, silver.

PU = 1 piece

### Forbice supplementare

Forbice supplementare premontata senza aerazione, argento.

UV = 1 pezzo

### Compás adicional

Compás adicional premontado sin microventilación, plata.

CANTIDAD = 1 unidad



MC 213043

### Bullet catch timber

Bullet catch 18 mm, rebate depth 9 mm offset and 22 mm rebate depth 13 mm offset, silver.

PU = 1 piece

### Scrocco rullo

Scrocco rullo PB18 mm, scostamento 9 mm e PB 22 mm scostamento 13 mm, argento.

UV = 1 pezzo

### Retenedor madera Base

Retenedor base 18 mm, desperdicio 9 mm y Base 22 mm desperdicio 13 mm, plata.

CANTIDAD = 1 unidad



MC 213461

### French casement lock

Extendable french casement lock with flat fixing tab, with 1 i.S. LBB 240-1650 mm, silver.

PU = 1 piece

### Catenaccio orizzontale

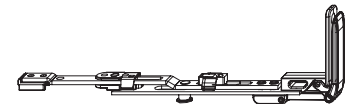
Catenaccio orizzontale prolungabile per nodo centrale liscio con 1 fungo LBB 240-1650 mm, argento.

UV = 1 pezzo

### Pasador horizontal

Pasador horizontal prolongable para montante central de base lisa con 1 bulón i.S. LBB 240-1650 mm, plata.

CANTIDAD = 1 unidad



MC 215336

### Concealed compression lock ES

Concealed compression lock ES for Eurogroove sash component with lateral adjustment, silver.

PU = 1 piece

### Cerniera aggiuntiva a scomparsa

Cerniera centrale a scomparsa regolabile per cava ferramenta parte anta, argento.

UV = 1 pezzo

### Cierre de presión

Cierre de presión oculto regulable para canal de herraje parte hoja, plata.

CANTIDAD = 1 unidad



MC 215577

**Corner support**

Corner support 13 mm offset R, silver.

R = Right opening

PU = 1 piece

**Piastra cerniera**

Angolo cerniera scostamento 13 mm R, argento.

R = Apertura destra

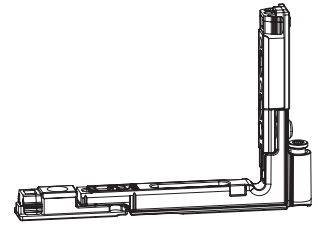
UV = 1 pezzo

**Bisagra angular**

Bisagra angular desperdicio 13 mm R, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 215804

**Corner support**

Corner support 13 mm offset L, silver.

L = Left opening

PU = 1 piece

**Braccio cerniera superiore**

Angolo cerniera scostamento 13 mm L, argento.

L = Apertura sinistra

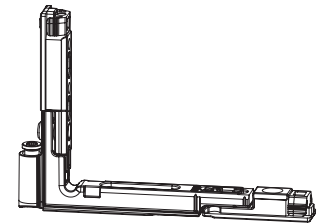
UV = 1 pezzo

**Bisagra angular**

Bisagra angular desperdicio 13 mm L, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 215805

**Pivot post**

Pivot post R, 24 mm rebate depth 13 mm offset, silver.

R = Right opening

PU = 1 piece

**Cerniere angolare**

Cerniere angolare PB 24 mm scostamento 13 mm R, argento.

R = Apertura destra

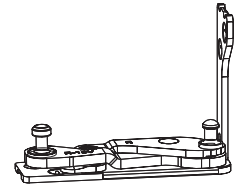
UV = 1 pezzo

**Soporte bisagra**

Soporte bisagra base 24 mm desperdicio 13 mm R, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 215810

**Pivot post**

Pivot post L, 24 mm rebate depth 13 mm offset, silver.

L = Left opening

PU = 1 piece

**Supporto cerniera**

Cerniere angolare PB 24 mm scostamento 13mm L, argento.

L = Apertura sinistra

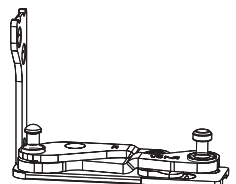
UV = 1 pezzo

**Soporte bisagra**

Soporte bisagra base 24 mm desperdicio 13 mm L, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 215811

**Tilt&Turn/tilt-first scissor**

Tilt&Turn/tilt-first scissor stay  
faceplate 600 mm,  
LBB 465-600 mm, silver.

PU = 1 piece

**Frontale a forbice**

Frontale forbice A-R/R-A 600 mm,  
LBB 465-600 mm, argento.

UV = 1 pezzo

**Frontal compás**

Frontal compás para OB y apertura  
lógica 600 mm, LBB 465-600 mm,  
plata.

CANTIDAD = 1 unidad



MC 217346

**Tilt&Turn/tilt-first scissor**

Tilt&Turn/tilt-first scissor stay  
faceplate 800 mm,  
LBB 601-800 mm, silver.

PU = 1 piece

**Frontale a forbice**

Frontale forbice A-R/R-A 800 mm,  
LBB 601-800 mm, argento.

UV = 1 pezzo

**Frontal compás**

Frontal compás para OB y apertura  
lógica 800 mm, LBB 601-800 mm,  
plata.

CANTIDAD = 1 unidad



MC 217347

**Tilt&Turn/tilt-first scissor**

Tilt&Turn/tilt-first scissor stay  
faceplate 1050 mm,  
LBB 801-1050 mm, with 1 i.S.,  
silver.

PU = 1 piece

**Frontale a forbice**

Frontale forbice A-R/R-A 1050 mm,  
LBB 801-1050 mm, con 1 fungo,  
argento.

UV = 1 pezzo

**Frontal compás**

Frontal compás para OB y apertura  
lógica 1050 mm, LBB 801-1050  
mm, con 1 bulón i.S., plata.

CANTIDAD = 1 unidad



MC 217348

**Tilt&Turn/tilt-first scissor**

Tilt&Turn/tilt-first scissor stay  
faceplate 1300 mm,  
LBB 1051-1300 mm, with 1 i.S.,  
silver.

PU = 1 piece

**Frontale a forbice**

Frontale forbice A-R/R-A 1300 mm,  
LBB 1051-1300 mm, con 1 fungo,  
argento.

UV = 1 pezzo

**Frontal compás**

Frontal compás para OB y apertura  
lógica 1300 mm, LBB 1051-1300  
mm, con 1 bulón i.S., plata.

CANTIDAD = 1 unidad



MC 217349



**Tilt&Turn scissor stay**

Tilt&Turn scissor stay arm with bearing 600/800 mm, 24 mm rebate depth 13 mm offset R, LBB 370-800 mm, silver.

R = Right opening

PU = 1 piece

**Braccio a forbice A-R**

Braccio forbice A-R con supporto 600/800 mm, PB 24 mm scostamento 13 mm R, LBB 370-800 mm, argento.

R = Apertura destra

UV = 1 pezzo

**Brazo compás OB**

Brazo compás OB con soporte 600/800 mm, Base 24 mm desperdicio 13 mm R, LBB 370-800 mm, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 217470

**Tilt&Turn scissor stay**

Tilt&Turn scissor stay arm with bearing 600/800 mm, 24 mm rebate depth 13 mm offset L, LBB 370-800 mm, silver.

L = Left opening

PU = 1 piece

**Braccio a forbice A-R**

Braccio forbice A-R con supporto 600/800 mm, PB 24 mm scostamento 13 mm L, LBB 370-800 mm, argento.

L = Apertura sinistra

UV = 1 pezzo

**Brazo compás OB**

Brazo compás OB con soporte 600/800 mm, Base 24 mm desperdicio 13 mm L, LBB 370-800 mm, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 217471

**Tilt&Turn scissor stay**

Tilt&Turn scissor stay arm with bearing 1050/1300 mm, 24 mm rebate depth 13 mm offset R, LBB 801-1300 mm, silver.

R = Right opening

PU = 1 piece

**Braccio a forbice A-R**

Braccio forbice A-R con supporto 1050/1300 mm, PB 24 mm scostamento 13 mm R, LBB 801-1300 mm, argento.

R = Apertura destra

UV = 1 pezzo

**Brazo compás OB**

Brazo compás OB con soporte 1050/1300 mm, Base 24 mm desperdicio 13 mm R, LBB 801-1300 mm, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 217474

**Tilt&Turn scissor stay**

Tilt&Turn scissor stay arm with bearing 1050/1300 mm, 24 mm rebate depth 13 mm offset L, LBB 801-1300 mm, silver.

L = Left opening

PU = 1 piece

**Braccio a forbice A-R**

Braccio forbice A-R con supporto 1050/1300 mm, PB 24 mm scostamento 13 mm L, LBB 801-1300 mm, argento.

L = Apertura sinistra

UV = 1 pezzo

**Soporte bisagra**

Brazo compás OB con soporte 1050/1300 Base 24 mm desperdicio 13 mm L, LBB 801-1300 mm, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 217475

**Turn-only hinge arm**

Turn-only hinge arm with hinge V2 R, 24 mm rebate depth LBB 255-1400 mm, 13 mm offset, silver.

R = Right opening

PU = 1 piece

**Braccio cerniera A-B**

Braccio cerniera A-B con supporto (V2) R, PB 24 mm LBB 255-1400 mm, scostamento 13 mm, argento.

R = Apertura destra

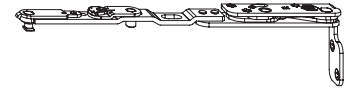
UV = 1 pezzo

**Brazo falso compás**

Brazo falso compás con soporte V2 R, base 24 mm LBB 255-1400 mm, desperdicio 13 mm, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 217691

**Turn-only hinge arm**

Turn-only hinge arm with hinge V2 L, 24 mm rebate depth, LBB 255-1400 mm, 13 mm offset, silver.

L = Left opening

PU = 1 piece

**Braccio cerniera A-B**

Braccio cerniera A-B con supporto (V2) L, PB 24 mm LBB 255-1400 mm, scostamento 13 mm, argento.

L = Apertura sinistra

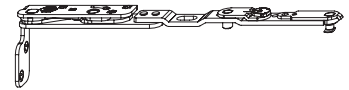
UV = 1 pezzo

**Cerradero compás**

Brazo falso compás con soporte V2 L, base 24 mm LBB 255-1400 mm, desperdicio 13 mm, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 217692

**Tilt-only hinge arm**

Tilt-only hinge arm with hinge V2 R, 24 mm rebate depth 13 mm offset, silver.

R = Right opening

PU = 1 piece

**Braccio ribalta**

Braccio ribalta con supporto (V2) R, PB 24 mm scostamento 13 mm, argento.

R = Apertura destra

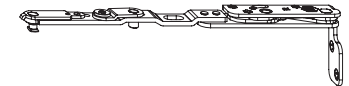
UV = 1 pezzo

**Brazo abatible**

Brazo abatible con soporte V2 R, Base 24 mm desperdicio 13 mm, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 217723

**Tilt-only hinge arm**

Tilt-only hinge arm with hinge V2 L, 24 mm rebate depth 13 mm offset, silver.

L = Left opening

PU = 1 piece

**Braccio ribalta**

Braccio ribalta con supporto (V2) L, PB 24 mm scostamento 13 mm, argento.

L = Apertura sinistra

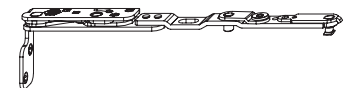
UV = 1 pezzo

**Brazo abatible**

Brazo abatible con soporte V2 L, Base 24 mm desperdicio 13 mm, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 217724

**Tilt-only hinge and turn-only hinge**

Turn-only and tilt-only faceplate  
FHH V2, LBB 255-1400 mm, silver.

PU = 1 piece

**Cerniera AB/ ribalta**

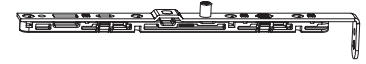
Cerniera AB/ ribalta parte anta (V2),  
LBB 255-1400 mm, argento.

UV = 1 pezzo

**Falso compás**

Falso compás practicable y  
abatible fijo V2, LBB 255-1400 mm,  
plata.

CANTIDAD = 1 unidad



MC 217729

**Corner element**

Corner element with 1 i.S.  
LBB 320-1800 mm, silver.

PU = 1 piece

**Movimento angolare**

Movimento angolare con 1 fungo  
LBB 320-1800 mm, argento.

UV = 1 pezzo

**Mov.angular**

Mov.angular con 1 bulón i.S.  
LBB 320-1800 mm, plata.

CANTIDAD = 1 unidad



MC 222201

**Corner element**

Corner element short with 1 i.S.  
LBB 220-319 mm, silver.

PU = 1 piece

**Movimento angolare**

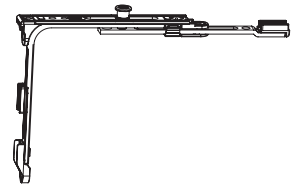
Movimento angolare corto con 1  
fungo LBB 220-319 mm, argento.

UV = 1 pezzo

**Mov.angular**

Mov.angular corta con 1 bulón i.S.  
LBB 220-319 mm, plata.

CANTIDAD = 1 unidad



MC 222203

**Corner element**

Corner element horizontally  
extendable with 1 i.S.  
LBB 320-1800 mm, silver.

PU = 1 piece

**Movimento angolare**

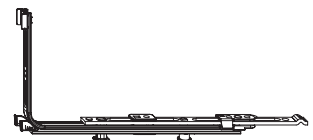
Movimento angolare prolungabile  
orizzontalmente con 1 fungo  
LBB 320-1800 mm, argento.

UV = 1 pezzo

**Mov.angular**

Mov.angular para CF piv.horizontal  
prolong. con 1 bulón i.S.  
LBB 320-1800 mm, plata.

CANTIDAD = 1 unidad



MC 222205

**Corner element**

Corner element horizontally extendable for variable drive gear with 1 i.S. LBB 320-1800 mm, silver.

PU = 1 piece

**Movimento angolare**

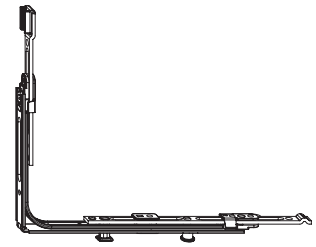
Movimento angolare prolungabile orizzontalmente per cremonese variabile con 1 fungo LBB 320-1800 mm, argento.

UV = 1 pezzo

**Mov.angular**

Mov.angular para CV piv.horizontal prolong. con 1 bulón i.S. LBB 320-1800 mm, plata.

CANTIDAD = 1 unidad



MC 222206

**Corner element**

Corner element vertically extendable with 1 i.S. HBB 750-2800 mm, silver.

PU = 1 piece

**Movimento angolare**

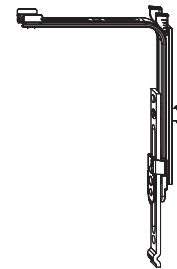
Movimento angolare prolungabile verticalmente con 1 fungo HBB 750-2800 mm, argento.

UV = 1 pezzo

**Esquina angular**

Mov.angular de conexión rápida prolong. con 1 bulón i.S. HBB 750-2800 mm, plata.

CANTIDAD = 1 unidad



MC 222209

**Travel restriction**

90° Travel restriction surface-mounted, silver.

PU = 1 piece

**Delimitatore di ribalta**

Delimitatore di ribalta su movimento angolare, argento.

UV = 1 pezzo

**Tapón delimitador**

Tapón delimitador 90° atornillable, plata.

CANTIDAD = 1 unidad



MC 357081

**Lifting component**

Lifting component R, silver.

R = Right opening

PU = 1 piece

**Scontro alza anta**

Scontro alza anta R, argento.

R = Apertura destra

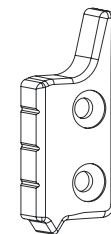
UV = 1 pezzo

**Cerradero elevador**

Cerradero elevador R, plata.

R = Apertura derecha

CANTIDAD = 1 unidad



MC 361004

### Lifting component

Lifting component L, silver.

L = Left opening

PU = 1 piece

### Scontro alza anta

Scontro alza anta sinistro, argento.

L = Apertura sinistra

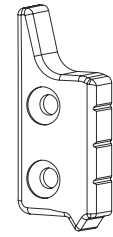
UV = 1 pezzo

### Cerradero elevador

Cerradero elevador IZQ, plata.

L = Apertura izquierda

CANTIDAD = 1 unidad



MC 361005

### Packer for bullet

Packer for bullet catch for Eurogroove 2.2x15.9x30 mm, silver.

PU = 1 piece

### Spessore per scrocco

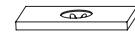
Spessore per scrocco rullo per cava ferramenta 2.2x15.9x30 mm, argento.

UV = 1 pezzo

### Calce para

Calce para rodillo para canal de herraje 2.2x15.9x30 mm, plata.

CANTIDAD = 1 unidad



MC 362059

### Bullet-catch

Bullet-catch roll steel, silver.

PU = 1 piece

### Rullino scrocco anta

Rullino scrocco anta semifissa acciaio, argento.

UV = 1 pezzo

### Tetón para retenedor

Tetón para retenedor de hoja semi fija acero, plata.

CANTIDAD = 1 unidad



MC 362446

### Striker plate

Striker plate i.S., silver.

PU = 1 pieceww

### Scontro fungo

Scontro fungo, argento.

UV = 1 pezzo

### Cerradero de seguridad

Cerradero de seguridad, plata.

CANTIDAD = 1 unidad



MC 364310

**Strike plate for concealed compression**

Strike plate for concealed compression lock ES Euro-channel 24 mm rebate depth 13 mm offset frame component, pearl light grey RAL9022.

PU = 1 piece

**Riscontro per cerniera centrale**

Riscontro per cerniera centrale a scomparsa regolabile battuta liscia PB 24 mm scostamento 13 mm parte telaio, grigio chiaro perlato RAL9022.

UV = 1 pezzo

**Pieza de bloqueo para cierre de presión**

Pieza de bloqueo para cierre de presión oculto regulable base lisa 24 mm parte marco desperdicio 13 mm, gris claro perla RAL9022.

CANTIDAD = 1 unidad



MC 365161

**Flat magnet contact**

Flat magnet contact for surface safety class 2 cable 3 m, light grey RAL7035.

PU = 1 piece

**Contatto magnetico**

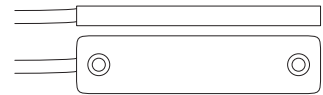
Contatto magnetico piatto per superficie grado protezione 2 cavo 3 m, grigio luce RAL7035.

UV = 1 pezzo

**Contacto magnético**

Contacto magnético plano superficial GR 2 cable 3 m, gris luminoso RAL7035.

CANTIDAD = 1 unidad



MC 473010



**Basic kits for Tilt&Turn windows**

**Kit base per finestra anta ribalta**

**Kits básicos para ventana oscilante**

**K88001**  
Standard windows

LBB = 465 - 1400 mm  
HBB = 455 - 2800 mm

MC 222201 n°01 piece  
MC 222209 n°01 piece  
MC 364310 n°02 pieces

**K88001**  
Finestre standard

LBB = 465 - 1400 mm  
HBB = 455 - 2800 mm

**K88001**  
Ventanas estándar

LBB = 465 - 1400 mm  
HBB = 455 - 2800 mm



**K88002**

LBB = 370 - 464 mm  
HBB = 455 - 2800 mm

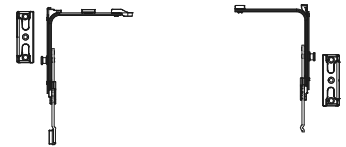
MC 222203 n°01 piece  
MC 222209 n°01 piece  
MC 364310 n°02 pieces

**K88002**

LBB = 370 - 464 mm  
HBB = 455 - 2800 mm

**K88002**

LBB = 370 - 464 mm  
HBB = 455 - 2800 mm



**K88002**  
Short corner  
for low windows

LBB = 465 - 815 mm  
HBB = 370 - 454 mm

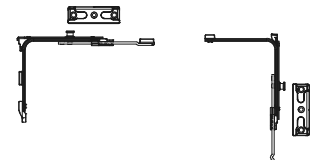
MC 222203 n°01 piece  
MC 222209 n°01 piece  
MC 364310 n°02 pieces

**K88002**  
Angolo ridotto  
per finestre basse

LBB = 465 - 815 mm  
HBB = 370 - 454 mm

**K88002**  
Esquina corta  
para ventanas bajas

LBB = 465 - 815 mm  
HBB = 370 - 454 mm





**Gear kits**

**Kit cremonese**

**Kits de equipo**

K88003

HH = 190 mm  
HBB = 340 - 1608 mm

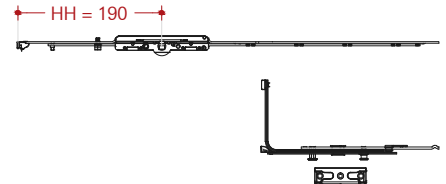
MC 202206 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°01 piece

K88003

HH = 190 mm  
HBB = 340 - 1608 mm

K88003

HH = 190 mm  
HBB = 340 - 1608 mm



K88004

HH = 300 mm  
HBB = 661 - 1790 mm

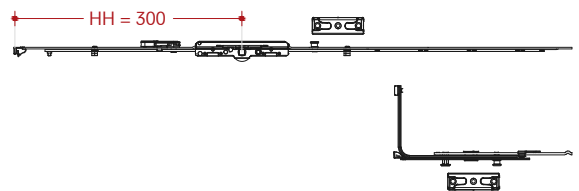
MC 202207 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

K88004

HH = 300 mm  
HBB = 661 - 1790 mm

K88004

HH = 300 mm  
HBB = 661 - 1790 mm



K88005

HH = 400 mm  
HBB = 841 - 2040 mm

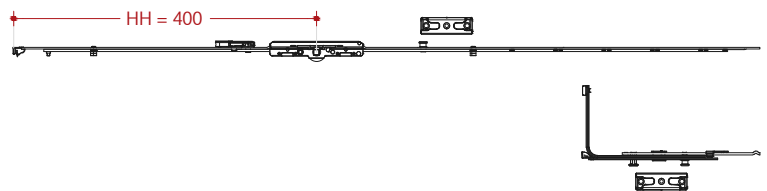
MC 202208 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

K88005

HH = 400 mm  
HBB = 841 - 2040 mm

K88005

HH = 400 mm  
HBB = 841 - 2040 mm



K88006

HH = 500 mm  
HBB = 1091 - 2290 mm

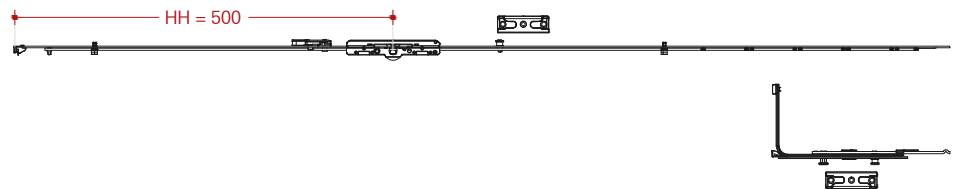
MC 202209 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

K88006

HH = 500 mm  
HBB = 1091 - 2290 mm

K88006

HH = 500 mm  
HBB = 1091 - 2290 mm



**Gear kits**

**Kit cremonese**

**Kits de equipo**

**K88007**

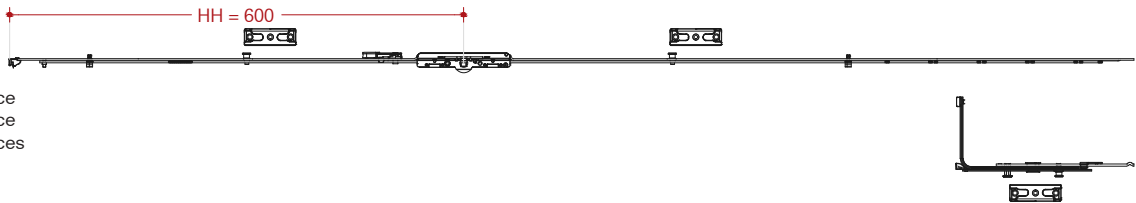
HH = 600 mm  
HBB = 1341 - 2540 mm

**K88007**

HH = 600 mm  
HBB = 1341 - 2540 mm

**K88007**

HH = 600 mm  
HBB = 1341 - 2540 mm



MC 202216 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces

**K88008**

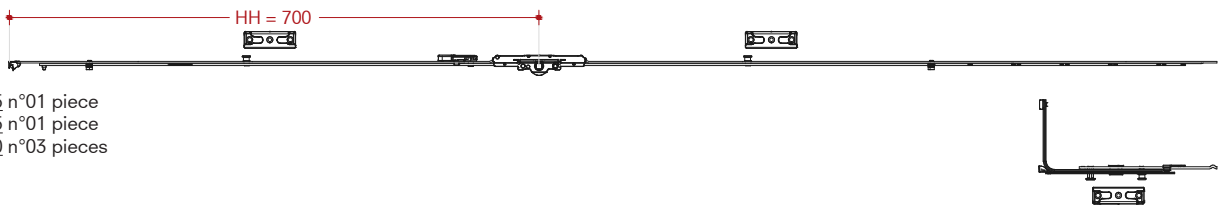
HH = 700 mm  
HBB = 1591 - 2650 mm

**K88008**

HH = 700 mm  
HBB = 1591 - 2650 mm

**K88008**

HH = 700 mm  
HBB = 1591 - 2650 mm



MC 207305 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces

**K88009**

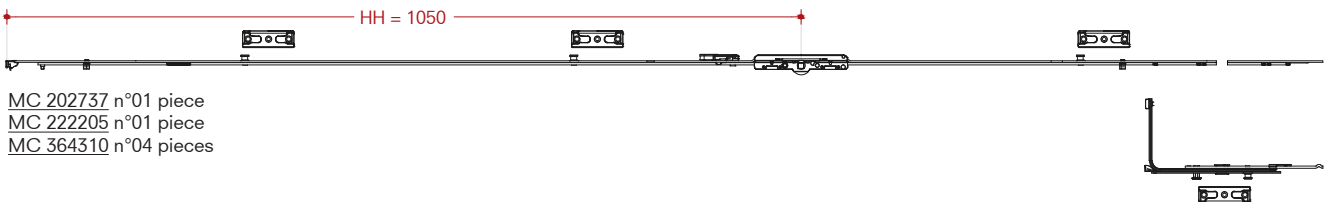
HH = 1050 mm  
HBB = 1701 - 2900 mm

**K88009**

HH = 1050 mm  
HBB = 1701 - 2900 mm

**K88009**

HH = 1050 mm  
HBB = 1701 - 2900 mm



MC 202737 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces

**K88010**

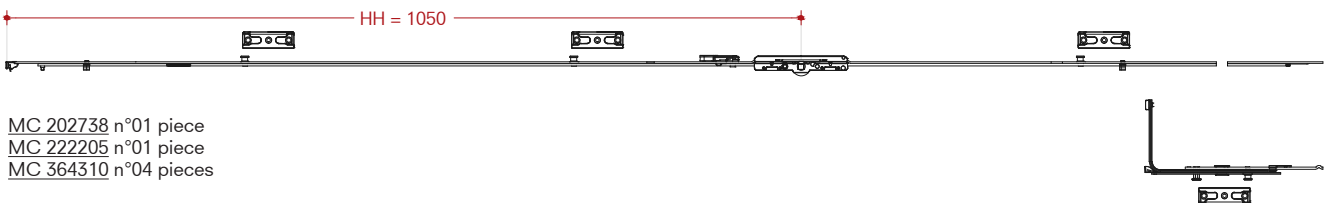
HH = 1050 mm  
HBB = 1951 - 3150 mm

**K88010**

HH = 1050 mm  
HBB = 1951 - 3150 mm

**K88010**

HH = 1050 mm  
HBB = 1951 - 3150 mm



MC 202738 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces

**Extension kits**

**Kit prolunga**

**Kits extensión**

K88011

0 - 140 mm

MC 206630 n°01 piece

K88011

0 - 140 mm

K88011

0 - 140 mm



K88012

141 - 235 mm

MC 201750 n°01 piece  
MC 364310 n°01 piece

K88012

141 - 235 mm

K88012

141 - 235 mm



K88059

236 - 375 mm

MC 201750 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88059

236 - 375 mm

K88059

236 - 375 mm



K88013

376 - 470 mm

MC 201840 n°01 piece  
MC 364310 n°01 piece

K88013

376 - 470 mm

K88013

376 - 470 mm



**Extension kits**

**Kit prolunga**

**Kits extensión**

K88014

471 - 610 mm

MC 201840 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88014

471 - 610 mm

K88014

471 - 610 mm



K88015

611 - 705 mm

MC 201750 n°01 piece  
MC 201840 n°01 piece1  
MC 364310 n°02 pieces

K88015

611 - 705 mm

K88015

611 - 705 mm



K88060

706 - 845 mm

MC 206630 n°01 piece  
MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88060

706 - 845 mm

K88060

706 - 845 mm



K88016

846 - 940 mm

MC 201840 n°02 pieces  
MC 364310 n°02 pieces

K88016

846 - 940 mm

K88016

846 - 940 mm



**Scissors and hinges kits**  
Right opening

**Kit forbice e cerniere**  
Apertura destra

**Kits de cizallas y bisagras**  
Apertura derecha

K88017

LBB = 370 - 600 mm

MC 217470 n°01 piece  
MC 217346 n°01 piece  
MC 215804 n°01 piece  
MC 215810 n°01 piece  
MC 361004 n°01 piece

K88017

LBB = 370 - 600 mm

K88017

LBB = 370 - 600 mm



K88018

LBB = 601 - 800 mm

MC 217470 n°01 piece  
MC 217347 n°01 piece  
MC 215804 n°01 piece  
MC 215810 n°01 piece  
MC 361004 n°01 piece

K88018

LBB = 601 - 800 mm

K88018

LBB = 601 - 800 mm



K88019

LBB = 801 - 1050 mm

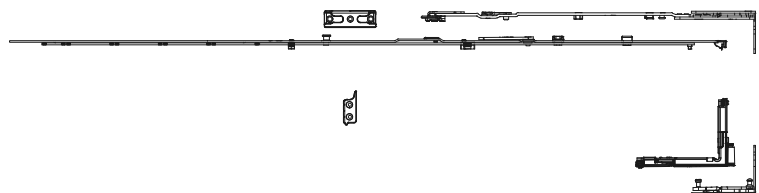
MC 217474 n°01 piece  
MC 217348 n°01 piece  
MC 215804 n°01 piece  
MC 215810 n°01 piece  
MC 361004 n°01 piece  
MC 364310 n°01 piece

K88019

LBB = 801 - 1050 mm

K88019

LBB = 801 - 1050 mm



**Scissors and hinges kits**  
Right opening

**Kit forbice e cerniere**  
Apertura destra

**Kits de cizallas y bisagras**  
Apertura derecha

K88020

LBB = 1051 - 1285 mm

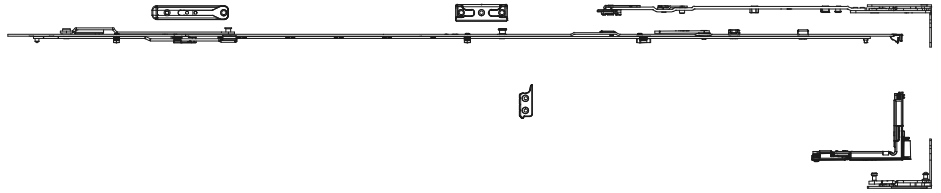
- MC 217474 n°01 piece
- MC 217348 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece
- MC 364310 n°01 piece

K88020

LBB = 1051 - 1285 mm

K88020

LBB = 1051 - 1285 mm



K88021

LBB = 1286 - 1400 mm

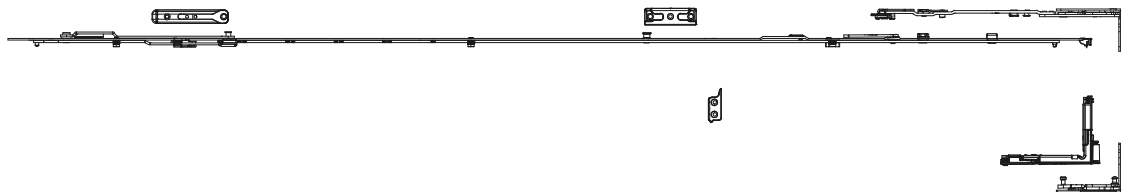
- MC 217474 n°01 piece
- MC 217349 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece
- MC 364310 n°01 piece

K88021

LBB = 1286 - 1400 mm

K88021

LBB = 1286 - 1400 mm



**Scissors and hinges kits**  
Left opening

**Kit forbice e cerniere**  
Apertura sinistra

**Kits de cizallas y bisagras**  
Apertura izquierda

K88022

LBB = 370 - 600 mm

MC 217471 n°01 piece  
MC 217346 n°01 piece  
MC 215805 n°01 piece  
MC 215811 n°01 piece  
MC 361005 n°01 piece

K88022

LBB = 370 - 600 mm

K88022

LBB = 370 - 600 mm



K88023

LBB = 601 - 800 mm

MC 217471 n°01 piece  
MC 217347 n°01 piece  
MC 215805 n°01 piece  
MC 215811 n°01 piece  
MC 361005 n°01 piece

K88023

LBB = 601 - 800 mm

K88023

LBB = 601 - 800 mm



K88024

LBB = 801 - 1050 mm

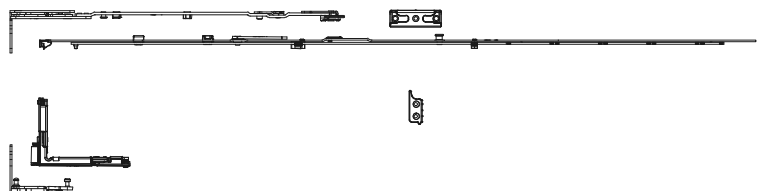
MC 217475 n°01 piece  
MC 217348 n°01 piece  
MC 215805 n°01 piece  
MC 215811 n°01 piece  
MC 361005 n°01 piece  
MC 364310 n°01 piece

K88024

LBB = 801 - 1050 mm

K88024

LBB = 801 - 1050 mm



**Scissors and hinges kits**  
Left opening

**Kit forbice e cerniere**  
Apertura sinistra

**Kits de cizallas y bisagras**  
Apertura izquierda

K88025

LBB = 1051 - 1285 mm

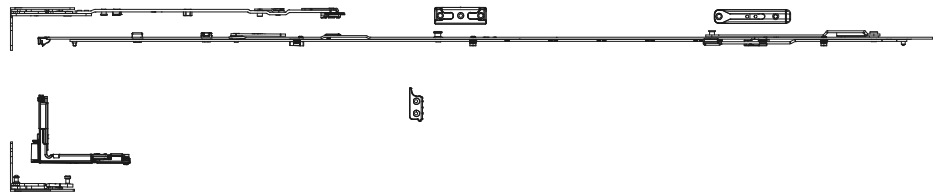
- MC 217475 n°01 piece
- MC 217348 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece
- MC 364310 n°01 piece

K88025

LBB = 1051 - 1285 mm

K88025

LBB = 1051 - 1285 mm



K88026

LBB = 1286 - 1400 mm

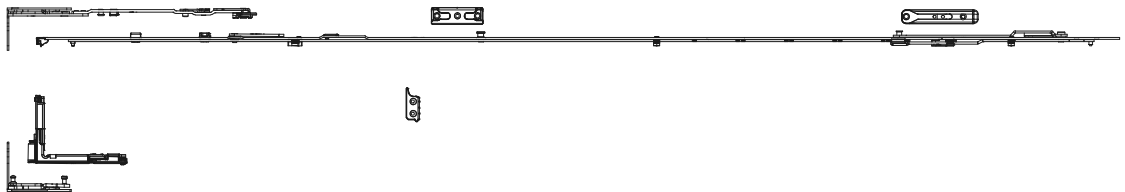
- MC 217475 n°01 piece
- MC 217349 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece
- MC 364310 n°01 piece

K88026

LBB = 1286 - 1400 mm

K88026

LBB = 1286 - 1400 mm





**Additional hinge side locking point**

**Punto di chiusura aggiuntivo lato cerniera**

**Punto de bloqueo adicional lado de la bisagra**

K88027

HBB = 801 - 1280 mm

MC 201751 n°01 piece  
MC 364310 n°01 piece

K88027

HBB = 801 - 1280 mm

K88027

HBB = 801 - 1280 mm



K88028

HBB = 1281 - 1500 mm

MC 201752 n°01 piece  
MC 364310 n°01 piece

K88028

HBB = 1281 - 1500 mm

K88028

HBB = 1281 - 1500 mm



K88029

HBB = 1501 - 1700 mm

MC 201840 n°01 piece  
MC 201753 n°01 piece  
MC 364310 n°02 pieces

K88029

HBB = 1501 - 1700 mm

K88029

HBB = 1501 - 1700 mm



K88030

HBB = 1701 - 2800 mm

MC 201754 n°01 piece  
MC 364310 n°02 pieces

K88030

HBB = 1701 - 2800 mm

K88030

HBB = 1701 - 2800 mm



**Additional hinge bottom side  
locking point**

**Punto di chiusura aggiuntivo  
lato inferiore cerniera**

**Punto de bloqueo adicional  
lado inferior de la bisagra**

K88031

LBB = 801 - 1280 mm

MC 201751 n°01 piece  
MC 364310 n°01 piece

K88031

LBB = 801 - 1280 mm

K88031

LBB = 801 - 1280 mm



K88032

LBB = 1281 - 1400 mm

MC 201752 n°01 piece  
MC 364310 n°01 piece

K88032

LBB = 1281 - 1400 mm

K88032

LBB = 1281 - 1400 mm



**Hinges kits**  
2nd leaf

**Kit cerniere**  
2a anta

**Kits de bisagras**  
2do hoja

K88034

Right hinges

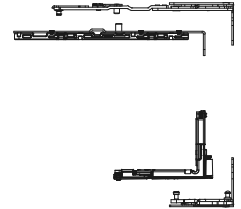
MC 217691 n°01 piece  
MC 217729 n°01 piece  
MC 215804 n°01 piece  
MC 215810 n°01 piece

K88034

Cerniere destre

K88034

Derecha bisagras



K88035

Left hinges

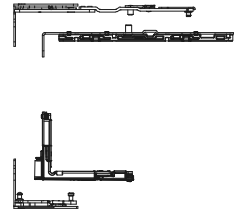
MC 217692 n°01 piece  
MC 217729 n°01 piece  
MC 215805 n°01 piece  
MC 215811 n°01 piece

K88035

Cerniere sinistre

K88035

Izquierda bisagras



**Concealed compression locks kits**

**Kit cerniere centrali a scomparsa**

**Kits de bisagras ocultas centrales**

K88036

HBB = 1280 - 2000 mm

MC 215577 n°01 piece  
MC 365161 n°01 piece

K88036

HBB = 1280 - 2000 mm

K88036

HBB = 1280 - 2000 mm



K88037

HBB = 2001 - 2800 mm

MC 215577 n°01 piece  
MC 365161 n°01 piece

K88037

HBB = 2001 - 2800 mm

K88037

HBB = 2001 - 2800 mm



**French casement lock extendable**

**Catenacci angolari estendibili**

**Cerradura abatible francesa extensible**

K88038

LBB = 370 - 800 mm

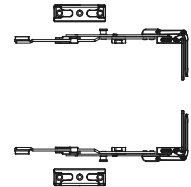
MC 215336 n°02 pieces  
MC 364310 n°02 pieces

K88038

LBB = 370 - 800 mm

K88038

LBB = 370 - 800 mm



K88039

LBB = 801 - 1400 mm

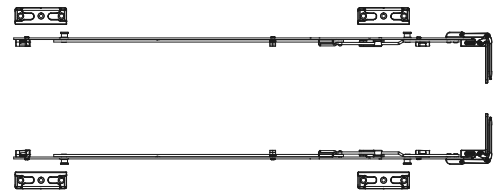
MC 215336 n°02 pieces  
MC 201751 n°02 pieces  
MC 364310 n°04 pieces

K88039

LBB = 801 - 1400 mm

K88039

LBB = 801 - 1400 mm



**Roller snap catch**

**Scrocco a rullo**

**Pestillo de rodillo**

K88201

MC 213461 n°02 pieces  
MC 362059 n°02 pieces  
MC 362446 n°02 pieces

K88201

K88201



**Extendable french casement lock + upper roller snap catch**

**Serratura anta francese estensibile + scrocco a rullo superiore**

**Cerradura de marco francés extensible + cierre de presión de rodillo superior**

K88041

LBB = 370 - 800 mm

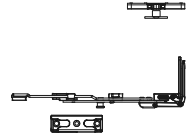
[MC 213461](#) n°01 piece  
[MC 362059](#) n°01 piece  
[MC 362446](#) n°01 piece  
[MC 215336](#) n°01 piece  
[MC 364310](#) n°01 piece

K88041

LBB = 370 - 800 mm

K88041

LBB = 370 - 800 mm



K88042

LBB = 801 - 1280 mm

[MC 213461](#) n°01 piece  
[MC 362059](#) n°01 piece  
[MC 362446](#) n°01 piece  
[MC 215336](#) n°01 piece  
[MC 201751](#) n°01 piece  
[MC 364310](#) n°02 pieces

K88042

LBB = 801 - 1280 mm

K88042

LBB = 801 - 1280 mm



**Door catch**

**Scrocco porta**

**Pestillo de puerta**

K88061

HBB = 661 - 2800 mm

MC 201168 n°01 piece

K88061

HBB = 661 - 2800 mm

K88061

HBB = 661 - 2800 mm



**Opening restrictor**

**Limitatore di apertura**

**Limitador de apertura**

K88033

LBB = 490 - 1400 mm

MC 103623 n°01 piece

K88033

LBB = 490 - 1400 mm

K88033

LBB = 490 - 1400 mm



**Flush bolt**

**Catenaccio**

**Pasador de canto**

E99030-02

Flush bolt for two leaves, pair, with strike plate, galvanized steel.

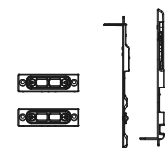
MC 55167 n°01 piece  
MC 214293 n°01 piece  
MC 210279 n°02 pieces

E99030-02

Catenaccio, coppia, con riscontro, per due ante, acciaio zincato.

E99030-02

Pasador de canto, par, con pieza de bloqueo, para dos hojas, acero galvanizado.



**Load transfer 180 kg**

**Asta di sostegno 180 kg**

**Varilla de soporte 180 kg**

E99510-02

Right

MC 105336 n°01 piece

E99510-02

Destro

E99510-02

Derecha



E99511-02

Left

MC 105339 n°01 piece

E99511-02

Sinistro

E99511-02

Izquierda



**Alarm contact**

**Contatto allarme**

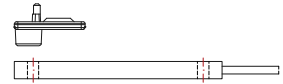
**Contacto de alarma**

K99062

MC 200906 n°01 piece  
MC 473010 n°01 piece

K99062

K99062



**Basic kits for side hung windows**

**Kit base per finestre battenti**

**Kits básicos para ventana batiente**

K88043

Standard windows

LBB = 465 - 1400 mm  
HBB = 455 - 2800 mm

MC 222201 n°01 piece  
MC 357081 n°01 piece  
MC 364310 n°01 piece

K88043

Finestre standard

LBB = 465 - 1400 mm  
HBB = 455 - 2800 mm

K88043

Ventanas estándar

LBB = 465 - 1400 mm  
HBB = 455 - 2800 mm



K88044

LBB = 370 - 464 mm  
HBB = 455 - 2800 mm

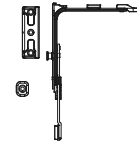
MC 222203 n°01 piece  
MC 357081 n°01 piece  
MC 364310 n°01 piece

K88044

LBB = 370 - 464 mm  
HBB = 455 - 2800 mm

K88044

LBB = 370 - 464 mm  
HBB = 455 - 2800 mm



K88044

Short corner  
for low windows

LBB = 465 - 815 mm  
HBB = 370 - 454 mm

MC 222203 n°01 piece  
MC 357081 n°01 piece  
MC 364310 n°01 piece

K88044

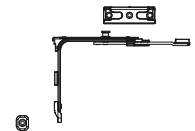
Angolo ridotto  
per finestre basse

LBB = 465 - 815 mm  
HBB = 370 - 454 mm

K88044

Esquina corta  
para ventanas bajas

LBB = 465 - 815 mm  
HBB = 370 - 454 mm





**Gear kits**

**Kit cremonese**

**Kits de equipo**

**K88003**

HH = 190 mm  
HBB = 340 - 1608 mm

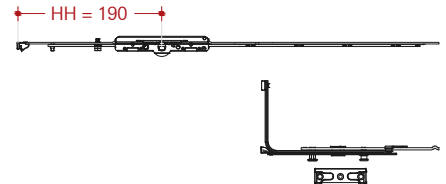
MC 202206 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°01 piece

**K88003**

HH = 190 mm  
HBB = 340 - 1608 mm

**K88003**

HH = 190 mm  
HBB = 340 - 1608 mm



**K88004**

HH = 300 mm  
HBB = 661 - 1790 mm

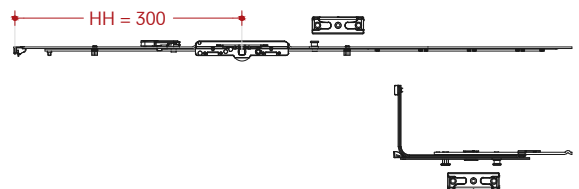
MC 202207 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88004**

HH = 300 mm  
HBB = 661 - 1790 mm

**K88004**

HH = 300 mm  
HBB = 661 - 1790 mm



**K88005**

HH = 400 mm  
HBB = 841 - 2040 mm

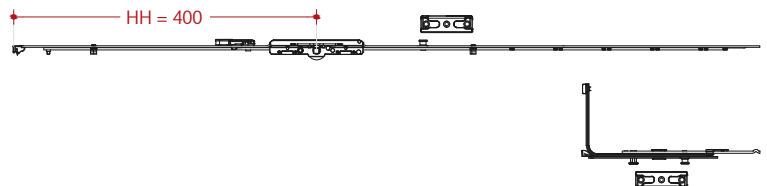
MC 202208 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88005**

HH = 400 mm  
HBB = 841 - 2040 mm

**K88005**

HH = 400 mm  
HBB = 841 - 2040 mm



**K88006**

HH = 500 mm  
HBB = 1091 - 2290 mm

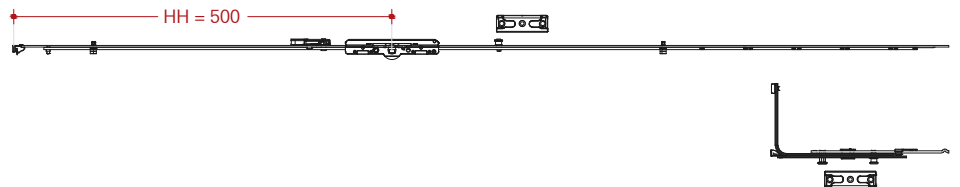
MC 202209 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88006**

HH = 500 mm  
HBB = 1091 - 2290 mm

**K88006**

HH = 500 mm  
HBB = 1091 - 2290 mm



**Gear kits**

**Kit cremonese**

**Kits de equipo**

K88007

HH = 600 mm  
HBB = 1341 - 2540 mm

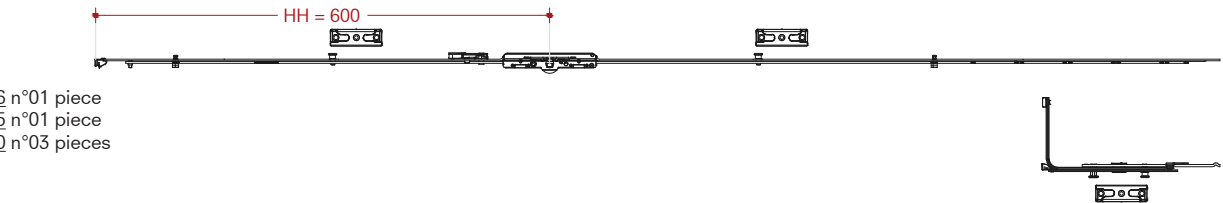
K88007

HH = 600 mm  
HBB = 1341 - 2540 mm

K88007

HH = 600 mm  
HBB = 1341 - 2540 mm

MC 202216 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces



K88008

HH = 700 mm  
HBB = 1591 - 2650 mm

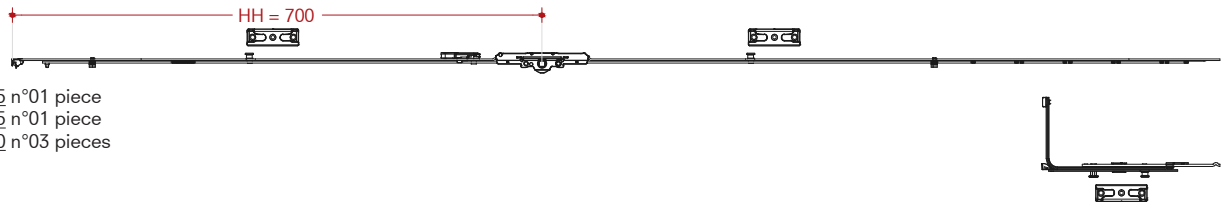
K88008

HH = 700 mm  
HBB = 1591 - 2650 mm

K88008

HH = 700 mm  
HBB = 1591 - 2650 mm

MC 207305 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces



K88009

HH = 1050 mm  
HBB = 1701 - 2900 mm

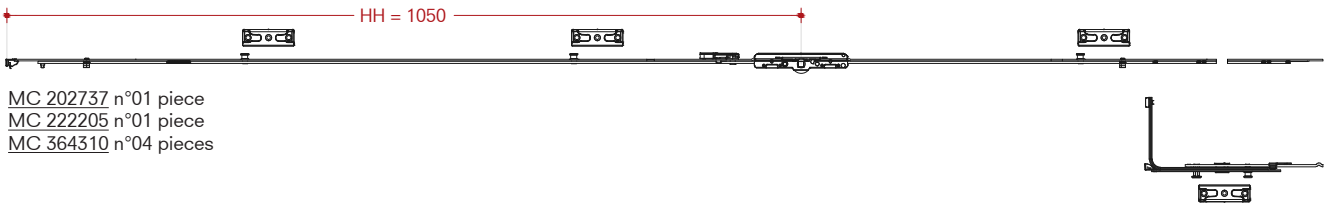
K88009

HH = 1050 mm  
HBB = 1701 - 2900 mm

K88009

HH = 1050 mm  
HBB = 1701 - 2900 mm

MC 202737 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces



K88010

HH = 1050 mm  
HBB = 1951 - 3150 mm

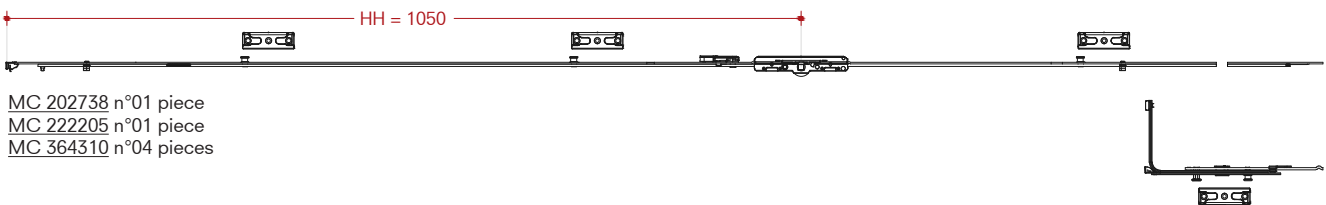
K88010

HH = 1050 mm  
HBB = 1951 - 3150 mm

K88010

HH = 1050 mm  
HBB = 1951 - 3150 mm

MC 202738 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces



**Extension kits**

**Kit prolunga**

**Kits extensión**

K88011

0 - 140 mm

MC 206630 n°01 piece

K88011

0 - 140 mm

K88011

0 - 140 mm



K88012

141 - 235 mm

MC 201750 n°01 piece  
MC 364310 n°01 piece

K88012

141 - 235 mm

K88012

141 - 235 mm



K88059

236 - 375 mm

MC 201750 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88059

236 - 375 mm

K88059

236 - 375 mm



K88013

376 - 470 mm

MC 201840 n°01 piece  
MC 364310 n°01 piece

K88013

376 - 470 mm

K88013

376 - 470 mm



**Extension kits**

**Kit prolunga**

**Kits extensión**

K88014

471 - 610 mm

MC 201840 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88014

471 - 610 mm

K88014

471 - 610 mm



K88015

611 - 705 mm

MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88015

611 - 705 mm

K88015

611 - 705 mm



K88060

706 - 845 mm

MC 206630 n°01 piece  
MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88060

706 - 845 mm

K88060

706 - 845 mm



K88016

846 - 940 mm

MC 201840 n°02 pieces  
MC 364310 n°02 pieces

K88016

846 - 940 mm

K88016

846 - 940 mm



**Hinges kits**

**Kit cerniere**

**Kits de bisagras**

K88034

Right hinges

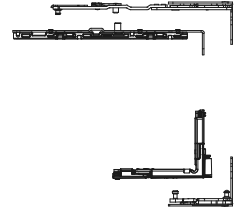
MC 217691 n°01 piece  
MC 217729 n°01 piece  
MC 215804 n°01 piece  
MC 215810 n°01 piece

K88034

Cerniere destre

K88034

Derecha bisagras



K88035

Left hinges

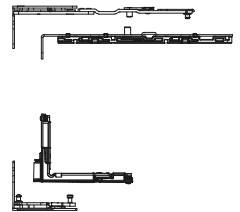
MC 217692 n°01 piece  
MC 217729 n°01 piece  
MC 215805 n°01 piece  
MC 215811 n°01 piece

K88035

Cerniere sinistre

K88035

Izquierda bisagras



**Concealed compression locks kits**

**Kit cerniere centrali a scomparsa**

**Kits de bisagras ocultas centrales**

K88036

HBB = 1280 - 2000 mm

MC 215577 n°01 piece  
MC 365161 n°01 piece

K88036

HBB = 1280 - 2000 mm

K88036

HBB = 1280 - 2000 mm



K88037

HBB = 2001 - 2800 mm

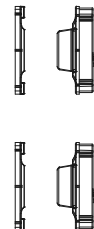
MC 215577 n°01 piece  
MC 365161 n°01 piece

K88037

HBB = 2001 - 2800 mm

K88037

HBB = 2001 - 2800 mm



**Additional top and bottom locking point**

**Punto di chiusura aggiuntivo superiore e inferiore**

**Superior e inferior adicionales punto de bloqueo**

K88045

LBB = 801 - 1280 mm

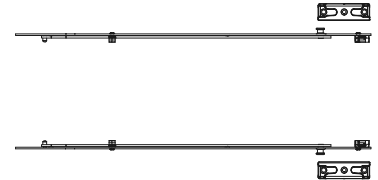
MC 201751 n°02 pieces  
MC 364310 n°02 pieces

K88045

LBB = 801 - 1280 mm

K88045

LBB = 801 - 1280 mm



K88046

LBB = 1281 - 1400 mm

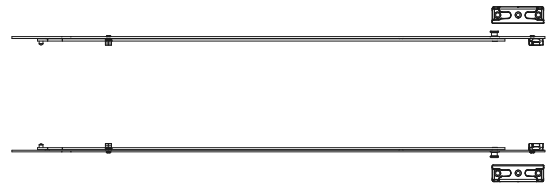
MC 201752 n°02 pieces  
MC 364310 n°02 pieces

K88046

LBB = 1281 - 1400 mm

K88046

LBB = 1281 - 1400 mm



**Lifting component**

**Componente di sollevamento**

**Componente de elevación**

K88047

Right

MC 361004 n°01 piece

K88047

Destra

K88047

Derecha



K88048

Left

MC 361005 n°01 piece

K88048

Sinistra

K88048

Izquierda



**French casement lock extendable**

**Catenacci angolari estendibili**

**Cerradura abatible francesa extensible**

K88038

LBB = 370 - 800 mm

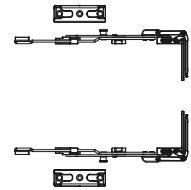
MC 215336 n°02 pieces  
MC 364310 n°02 pieces

K88038

LBB = 370 - 800 mm

K88038

LBB = 370 - 800 mm



K88039

LBB = 801 - 1400 mm

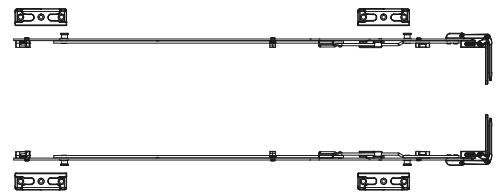
MC 215336 n°02 pieces  
MC 201751 n°02 pieces  
MC 364310 n°04 pieces

K88039

LBB = 801 - 1400 mm

K88039

LBB = 801 - 1400 mm



**Roller snap catch**

**Scrocco a rullo**

**Pestillo de rodillo**

K88201

MC 213461 n°02 pieces  
MC 362059 n°02 pieces  
MC 362446 n°02 pieces

K88201

K88201



**Extendable french casement lock + upper roller snap catch**

**Serratura anta francese estensibile + scrocco a rullo superiore**

**Cerradura de marco francés extensible + cierre de presión de rodillo superior**

K88041

LBB = 370 - 800 mm

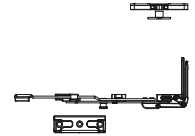
[MC 213461](#) n°01 piece  
[MC 362059](#) n°01 piece  
[MC 362446](#) n°01 piece  
[MC 215336](#) n°01 piece  
[MC 364310](#) n°01 piece

K88041

LBB = 370 - 800 mm

K88041

LBB = 370 - 800 mm



K88042

LBB = 801 - 1280 mm

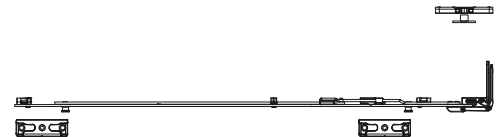
[MC 213461](#) n°01 piece  
[MC 362059](#) n°01 piece  
[MC 362446](#) n°01 piece  
[MC 215336](#) n°01 piece  
[MC 201751](#) n°01 piece  
[MC 364310](#) n°01 piece

K88042

LBB = 801 - 1280 mm

K88042

LBB = 801 - 1280 mm



**Door catch**

**Scrocco porta**

**Pestillo de puerta**

K88061

HBB = 661 - 2800 mm

[MC 201168](#) n°01 piece

K88061

HBB = 661 - 2800 mm

K88061

HBB = 661 - 2800 mm



**Opening restrictor**

**Limitatore di apertura**

**Limitador de apertura**

K88033

LBB = 490 - 1400 mm

[MC 103623](#) n°01 piece

K88033

LBB = 490 - 1400 mm

K88033

LBB = 490 - 1400 mm





**Load transfer 180 kg**

**Asta di sostegno 180 kg**

**Varilla de soporte 180 kg**

E99510-02

Right

MC 105336 n°01 piece

E99510-02

Destro

E99510-02

Derecha



E99511-02

Left

MC 105339 n°01 piece

E99511-02

Sinistro

E99511-02

Izquierda



**Alarm contact**

**Contatto allarme**

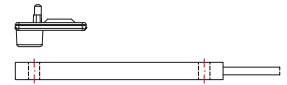
**Contacto de alarma**

K99062

MC 200906 n°01 piece  
MC 473010 n°01 piece

K99062

K99062



**Kits for bottom hung windows**

**Kit per finestre vasistas**

**Kits para ventana oscilante**

**Gear kits**

**Kit cremonese**

**Kits de equipo**

K88049

LBB = 390 - 500 mm

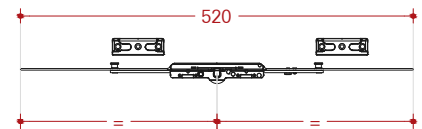
MC 208323 n°01 piece  
MC 364310 n°02 pieces

K88049

LBB = 390 - 500 mm

K88049

LBB = 390 - 500 mm



K88050

LBB = 501 - 700 mm

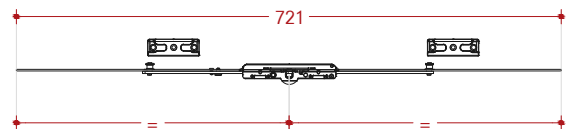
MC 208324 n°01 piece  
MC 364310 n°02 pieces

K88050

LBB = 501 - 700 mm

K88050

LBB = 501 - 700 mm



K88051

LBB = 701 - 1000 mm

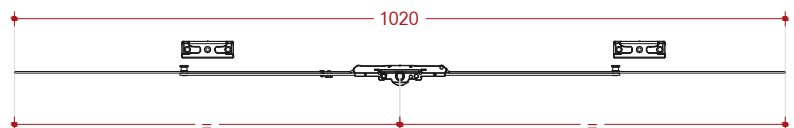
MC 208325 n°01 piece  
MC 364310 n°02 pieces

K88051

LBB = 701 - 1000 mm

K88051

LBB = 701 - 1000 mm



**Gear kits**

**Kit cremonese**

**Kits de equipo**

K88052

LBB = 1001 - 1400 mm

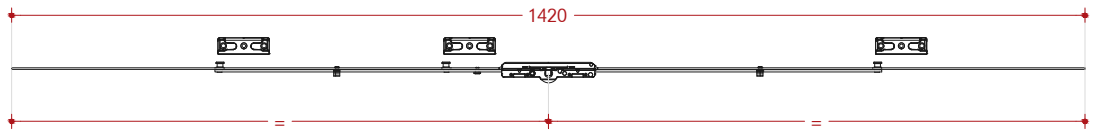
MC 208326 n°01 piece  
MC 364310 n°03 pieces

K88052

LBB = 1001 - 1400 mm

K88052

LBB = 1001 - 1400 mm



K88053

LBB = 1401 - 1800 mm

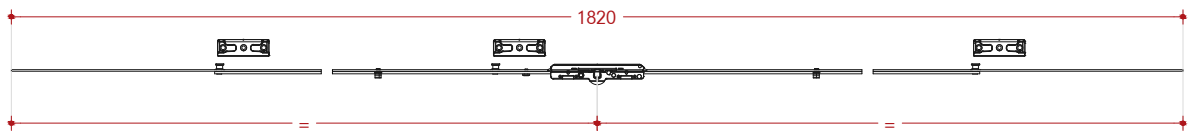
MC 208327 n°01 piece  
MC 364310 n°03 pieces

K88053

LBB = 1401 - 1800 mm

K88053

LBB = 1401 - 1800 mm



K88054

LBB = 1801 - 2250 mm

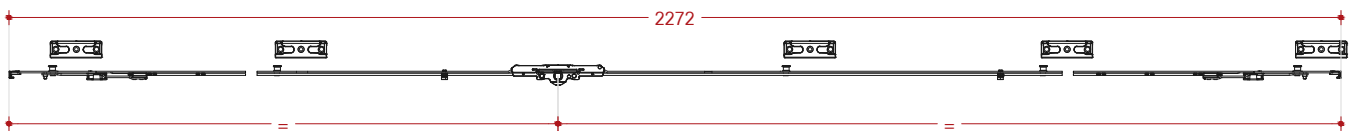
MC 202497 n°01 piece  
MC 212211 n°02 pieces  
MC 364310 n°05 pieces

K88054

LBB = 1801 - 2250 mm

K88054

LBB = 1801 - 2250 mm



**Hinges kits**

**Kit cerniere**

**Kits de bisagras**

K88055

LBB = 390 - 1000 mm

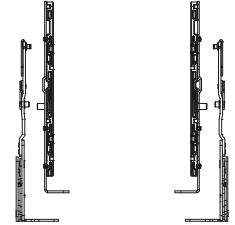
MC 217723 n°01 piece  
MC 217724 n°01 piece  
MC 217729 n°02 pieces

K88055

LBB = 390 - 1000 mm

K88055

LBB = 390 - 1000 mm



K88056

LBB = 1001 - 1400 mm

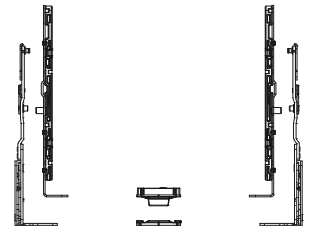
MC 215577 n°01 piece  
MC 365161 n°01 piece  
MC 217723 n°01 piece  
MC 217724 n°01 piece  
MC 217729 n°02 pieces

K88056

LBB = 1001 - 1400 mm

K88056

LBB = 1001 - 1400 mm



K88057

LBB = 1401 - 1800 mm

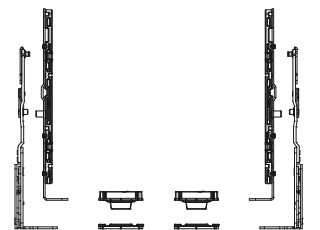
MC 215577 n°02 pieces  
MC 365161 n°02 pieces  
MC 217723 n°01 piece  
MC 217724 n°01 piece  
MC 217729 n°02 pieces

K88057

LBB = 1401 - 1800 mm

K88057

LBB = 1401 - 1800 mm



K88058

LBB = 1801 - 2250 mm

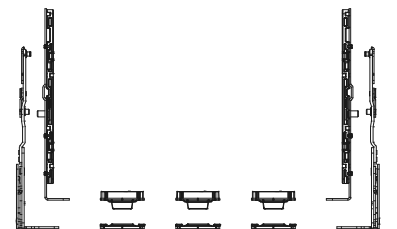
MC 215577 n°03 pieces  
MC 365161 n°03 pieces  
MC 217723 n°01 piece  
MC 217724 n°01 piece  
MC 217729 n°02 pieces

K88058

LBB = 1801 - 2250 mm

K88058

LBB = 1801 - 2250 mm



**Opening restrictor**

**Limitatore di apertura**

**Limitador de apertura**

E99205-05

With clicks.  
HBB = 400 - 1200 mm

n°02 pieces

E99205-05

Con scatti.  
HBB = 400 - 1200 mm

n°02 pezzi

E99205-05

Con clics.  
HBB = 400 - 1200 mm

n°02 unidades



E99206-03

HBB = 400 - 1200 mm

n°02 pieces

E99206-03

HBB = 400 - 1200 mm

n°02 pezzi

E99206-03

HBB = 400 - 1200 mm

n°02 unidades



K88107

HBB = 520 - 620 mm

n°02 pieces

K88107

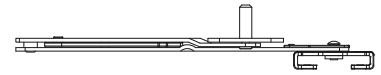
HBB = 520 - 620 mm

n°02 pezzi

K88107

HBB = 520 - 620 mm

n°02 unidades



K88108

HBB = 621 - 1200 mm

n°02 pieces

K88108

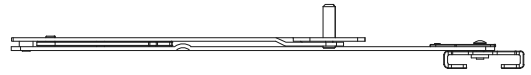
HBB = 621 - 1200 mm

n°02 pezzi

K88108

HBB = 621 - 1200 mm

n°02 unidades



**Alarm contact**

**Contatto allarme**

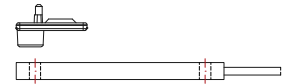
**Contacto de alarma**

K99062

MC 200906 n°01 piece  
MC 473010 n°01 piece

K99062

K99062





**Examples**

**Esempi**

**Ejemplos**

**4.0**

Window details  
Door details  
Details, structural connections  
Wall connections

Sezioni finestre  
Sezioni porte  
Dettagli di costruzione  
Attacchi a muro

Detalles de ventanas  
Detalles de puertas  
Detalles de construcción  
Cierres constructivos

**4.1**  
**4.2**  
**4.3**  
**4.4**





**Window details****Sezioni finestre****Detalles de ventanas****4.1****Legend**

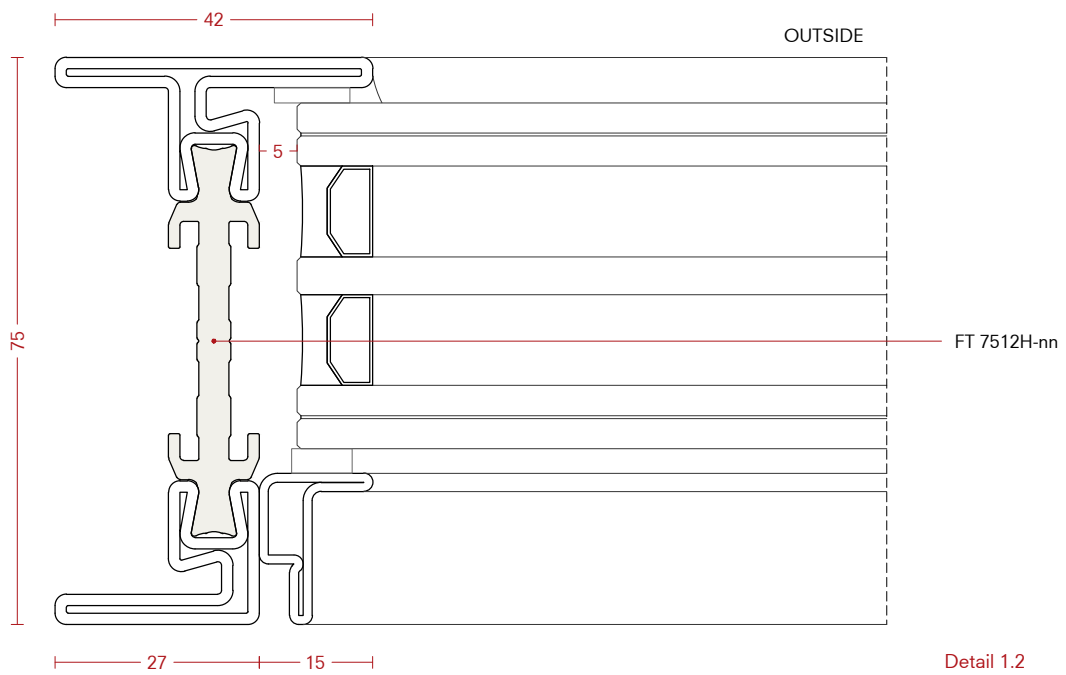
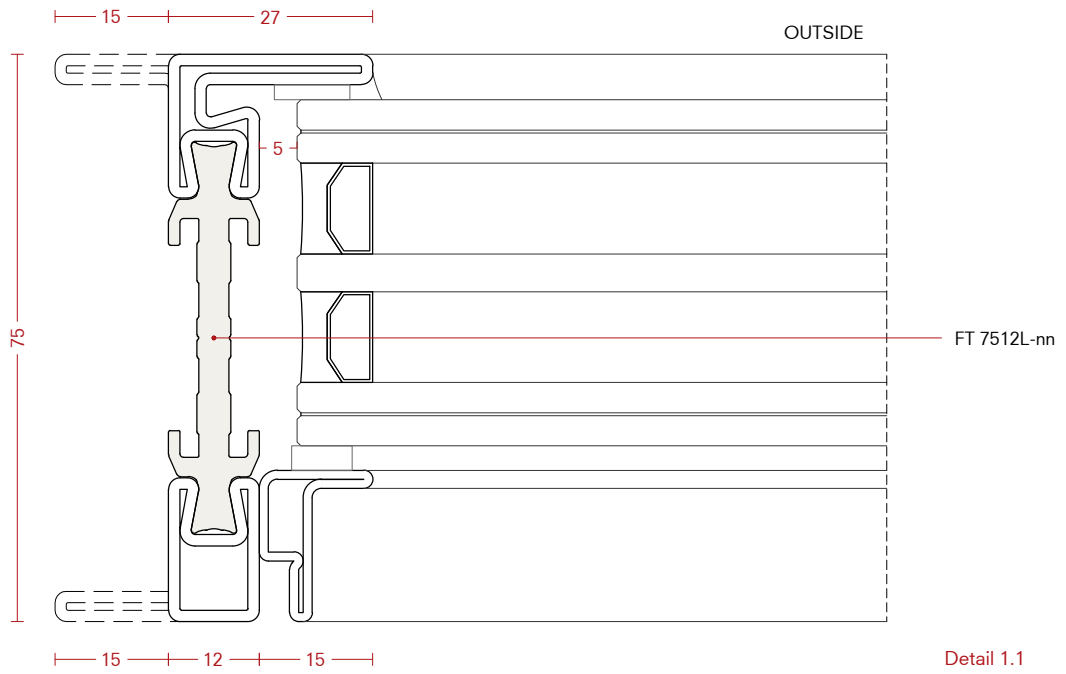
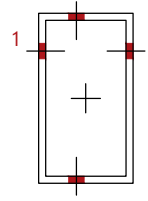
+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1 - 1:2

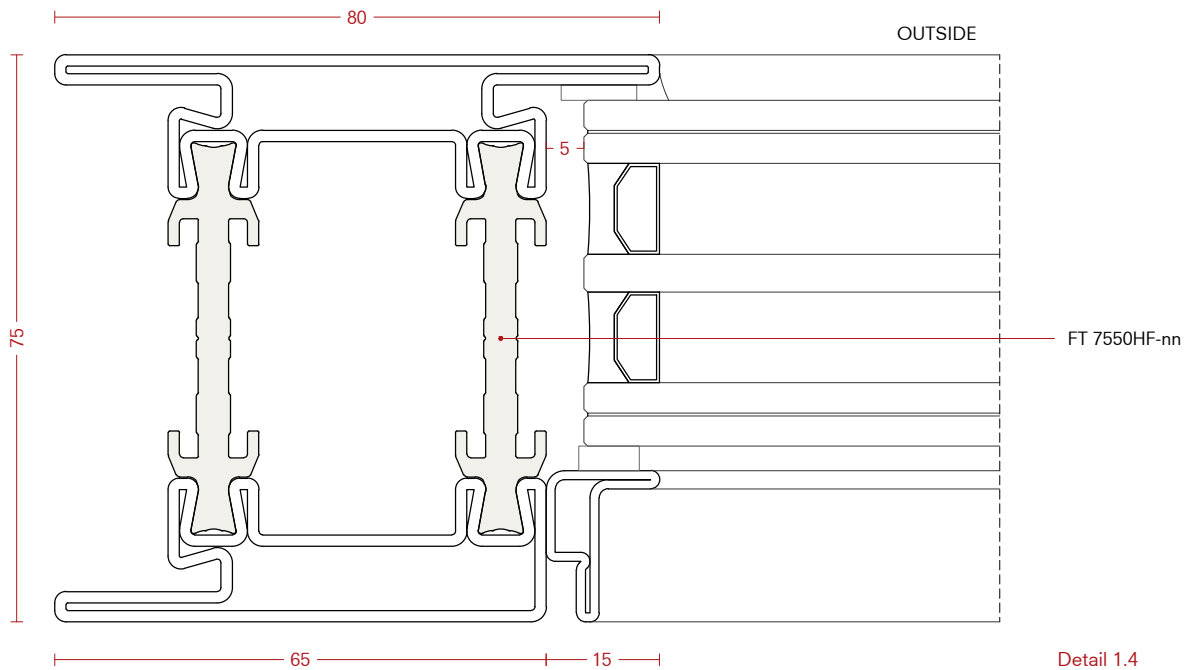
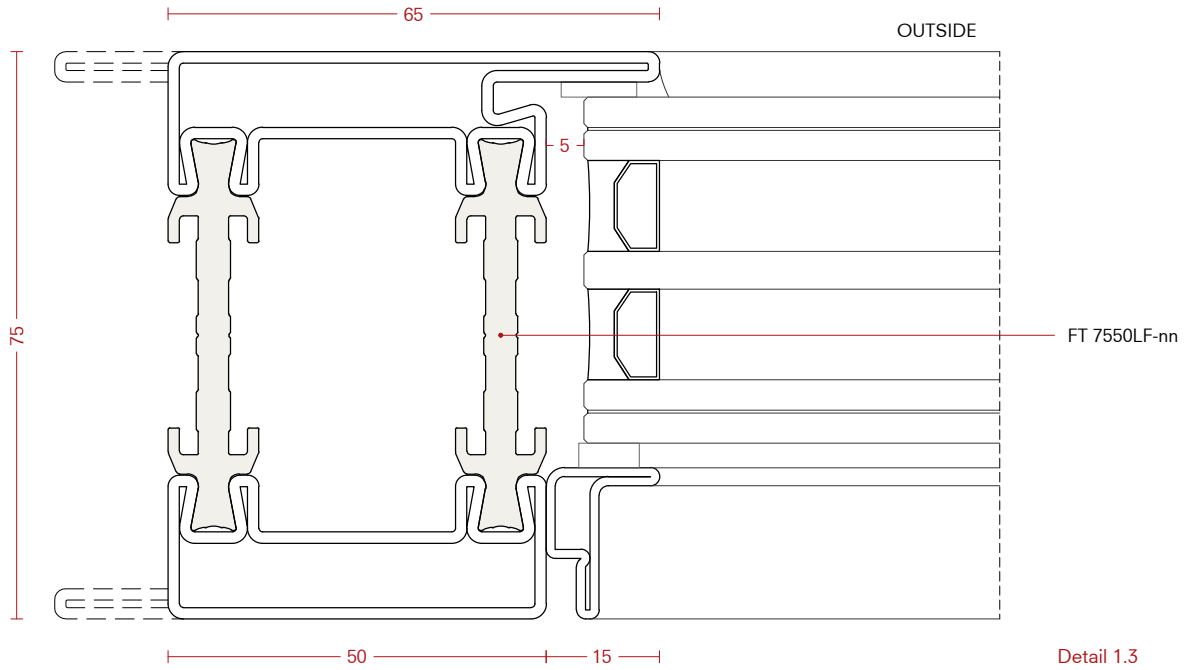
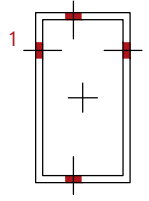
**Legenda**

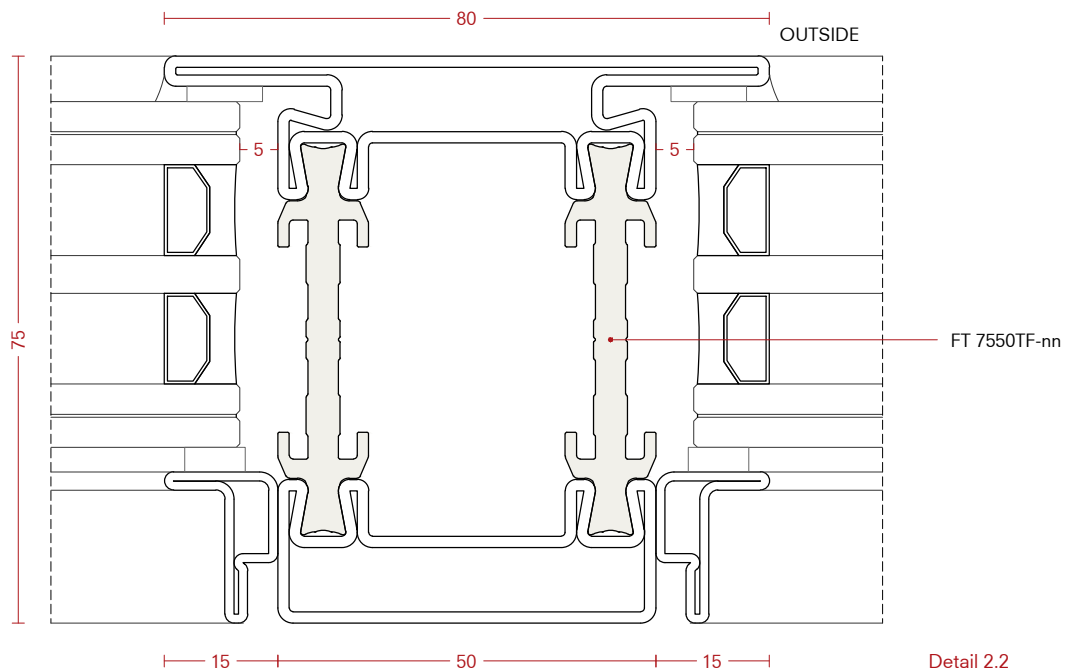
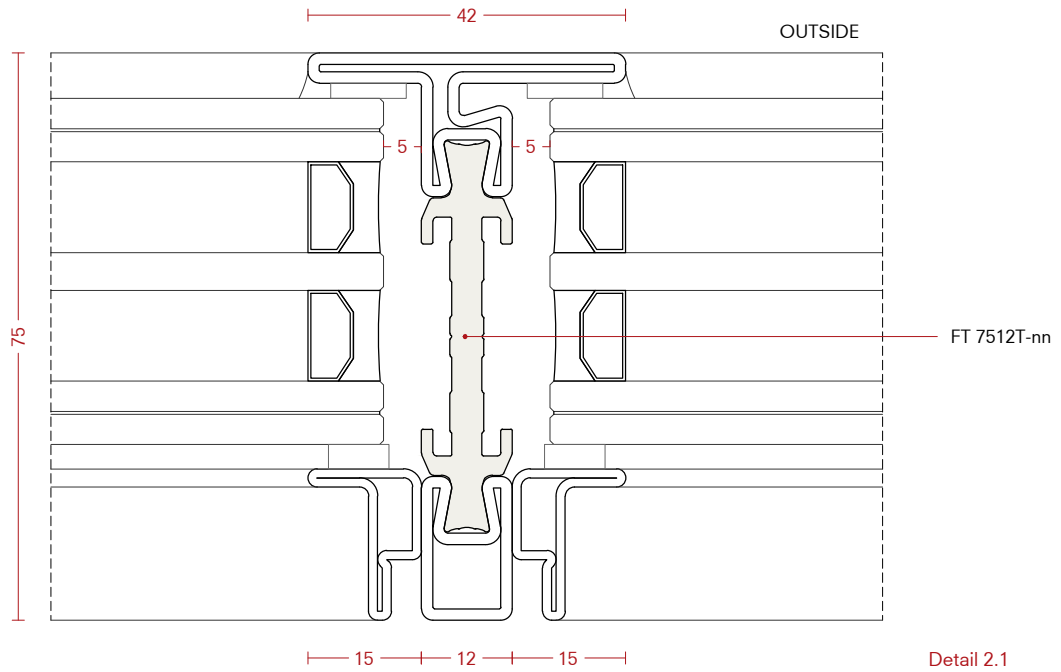
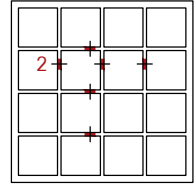
+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1 - 1:2

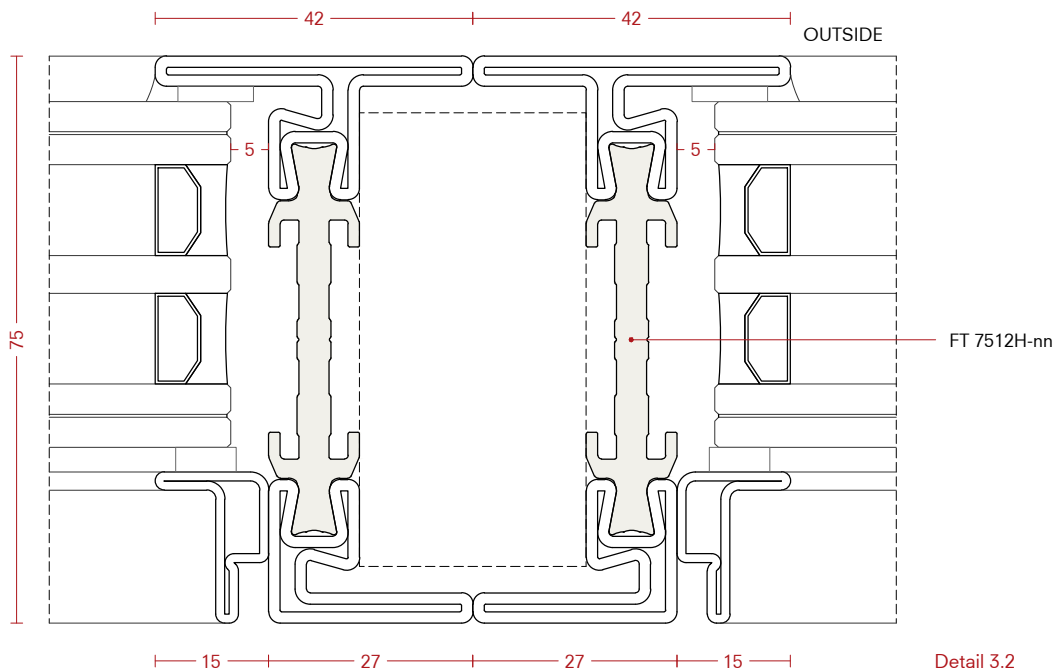
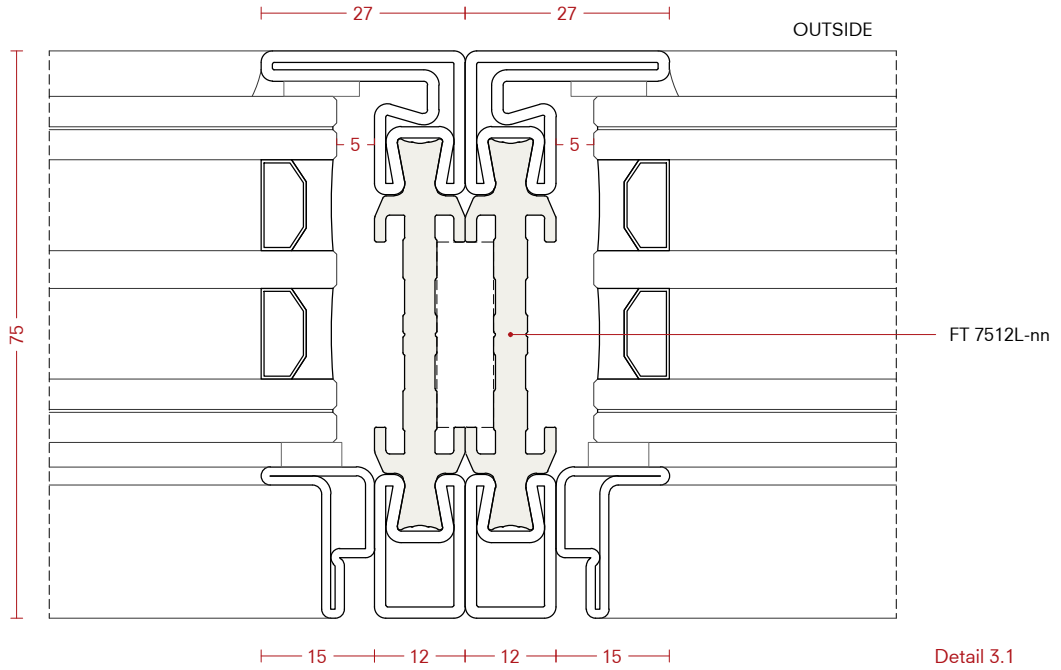
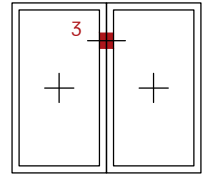
**Leyenda**

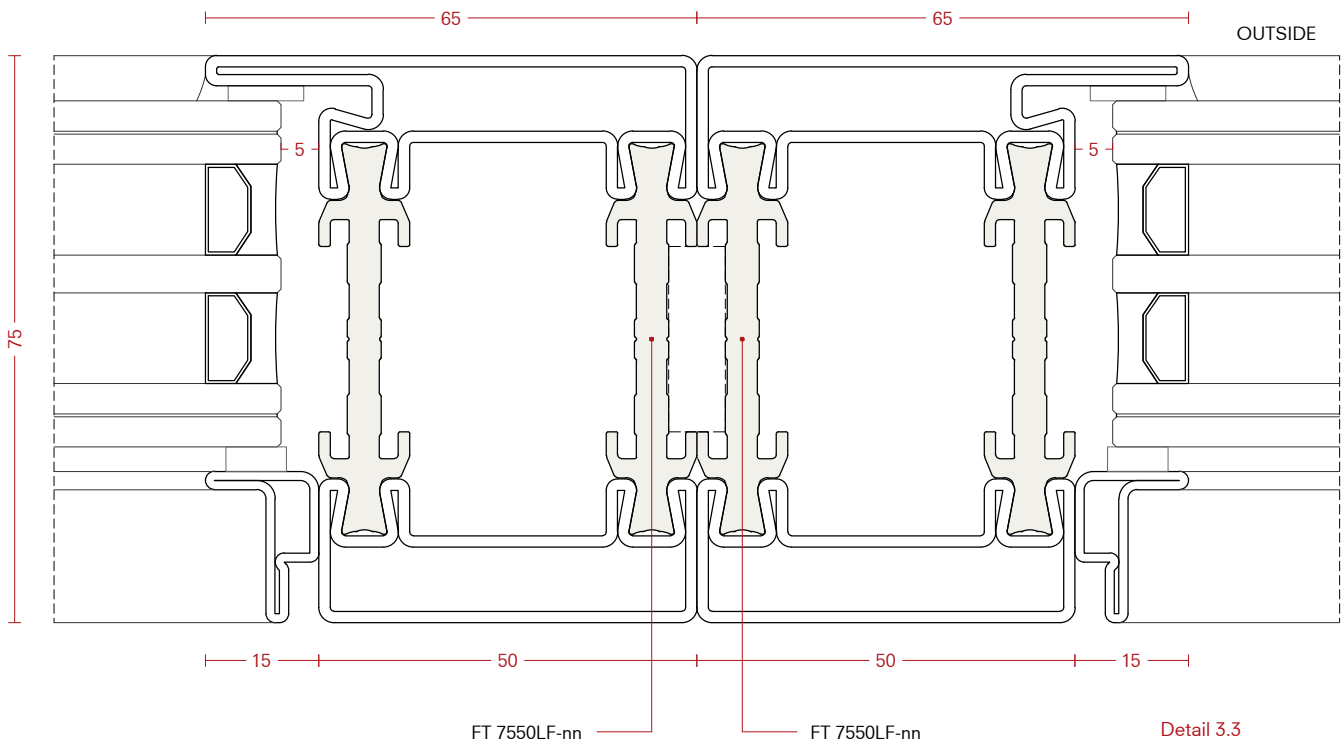
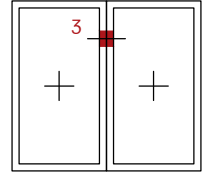
+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1 - 1:2



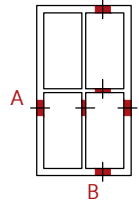




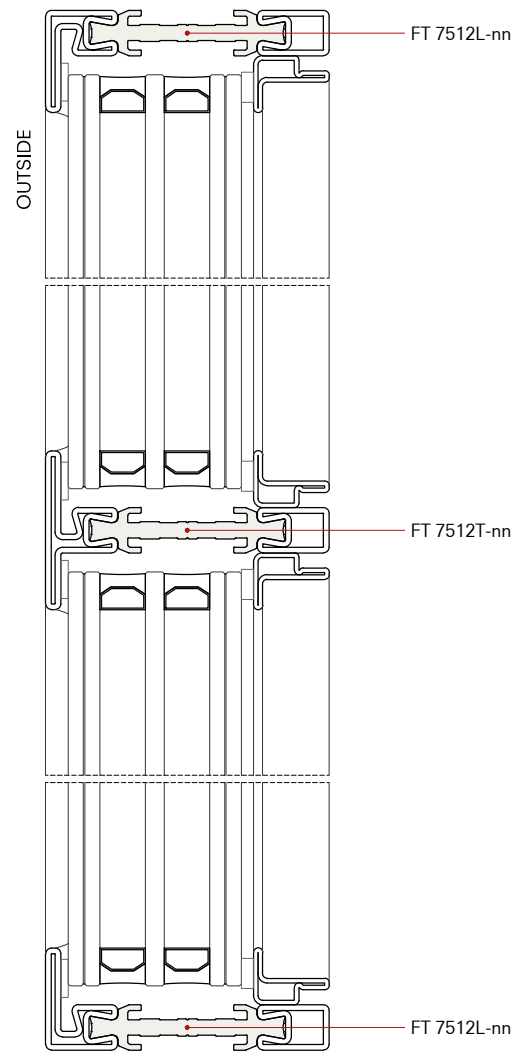
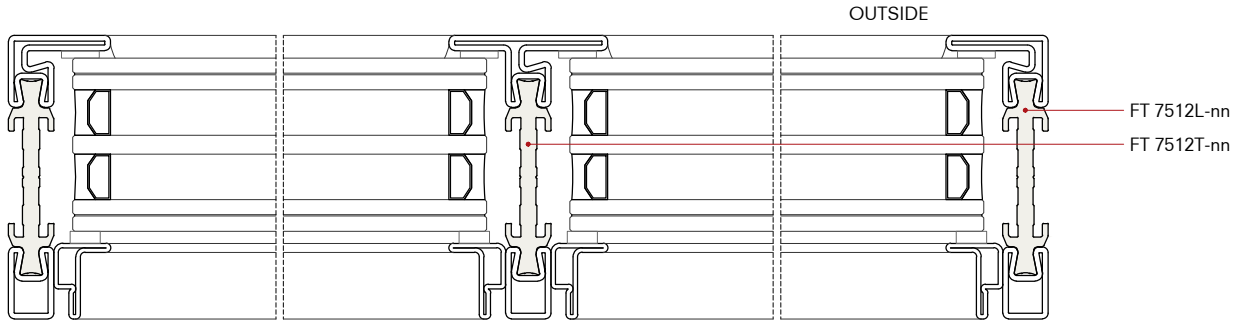






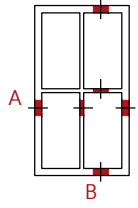


A

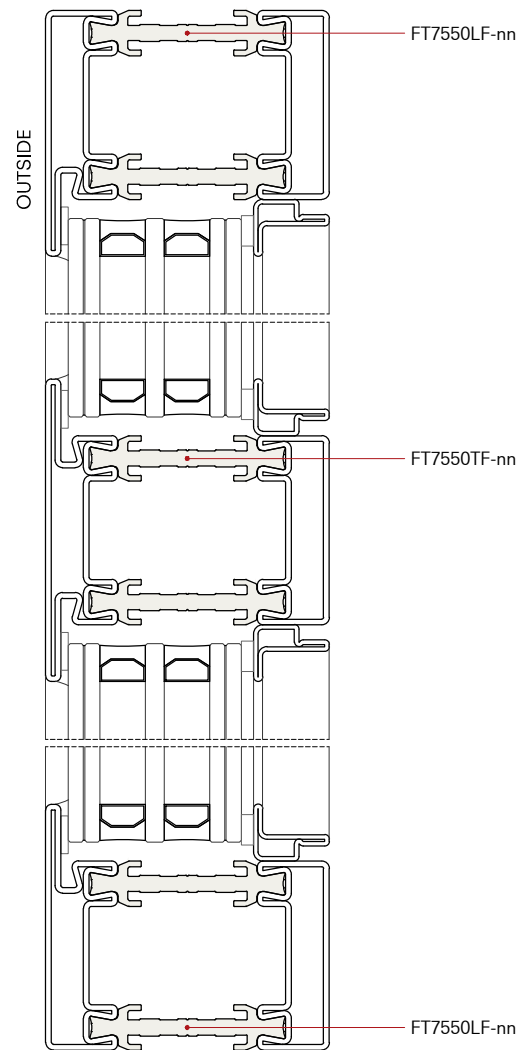
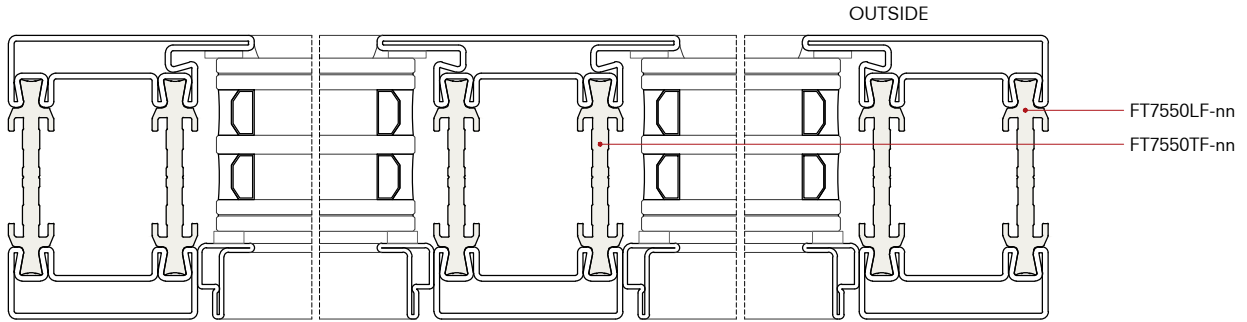


B

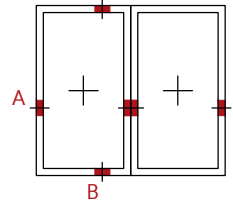




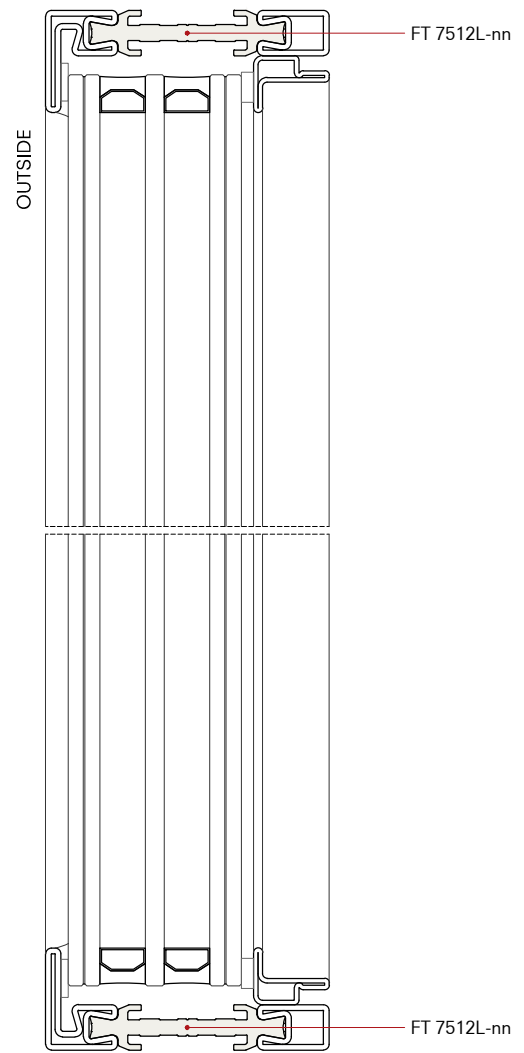
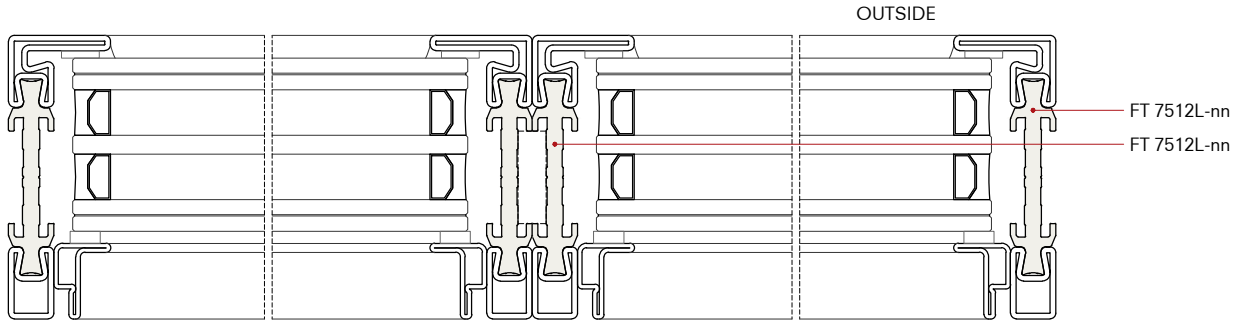
A



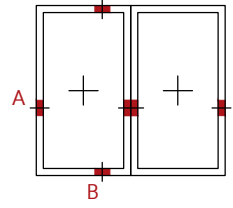
B



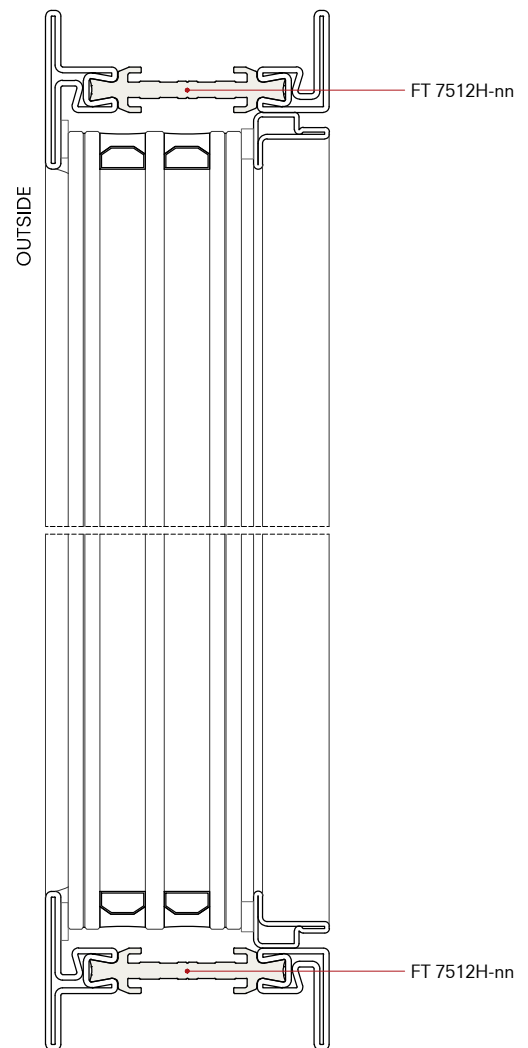
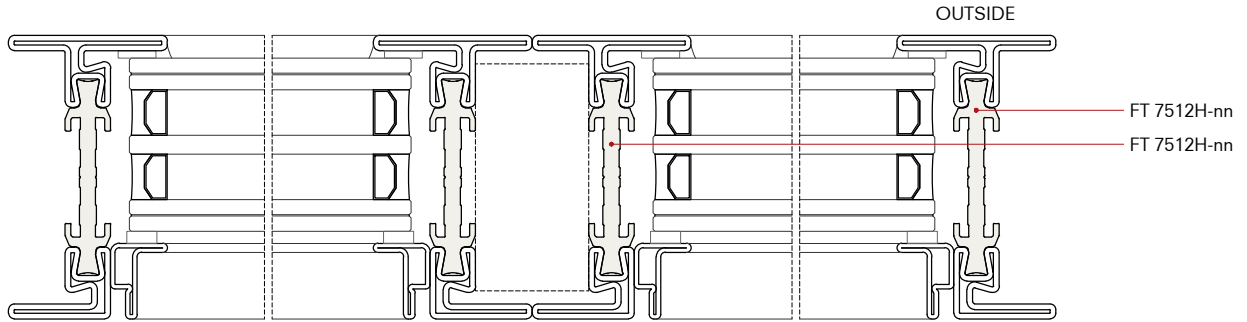
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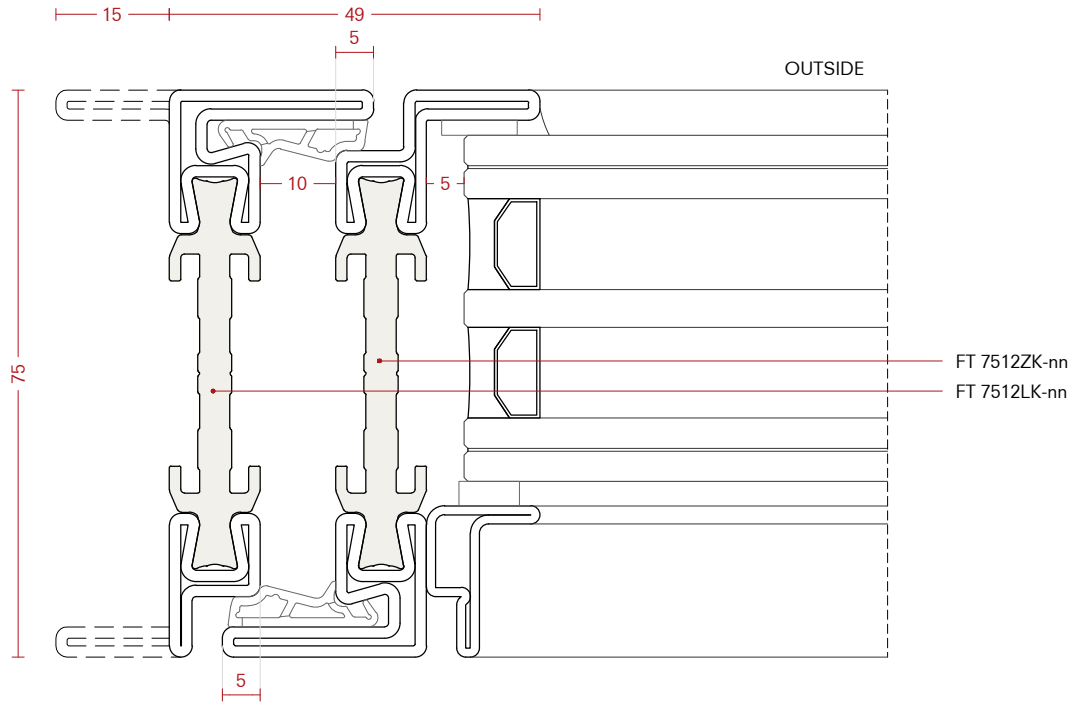
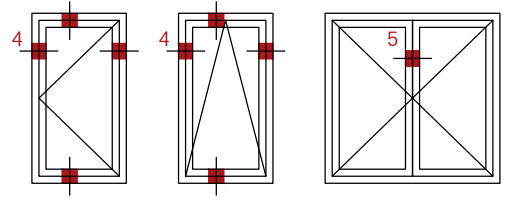
B



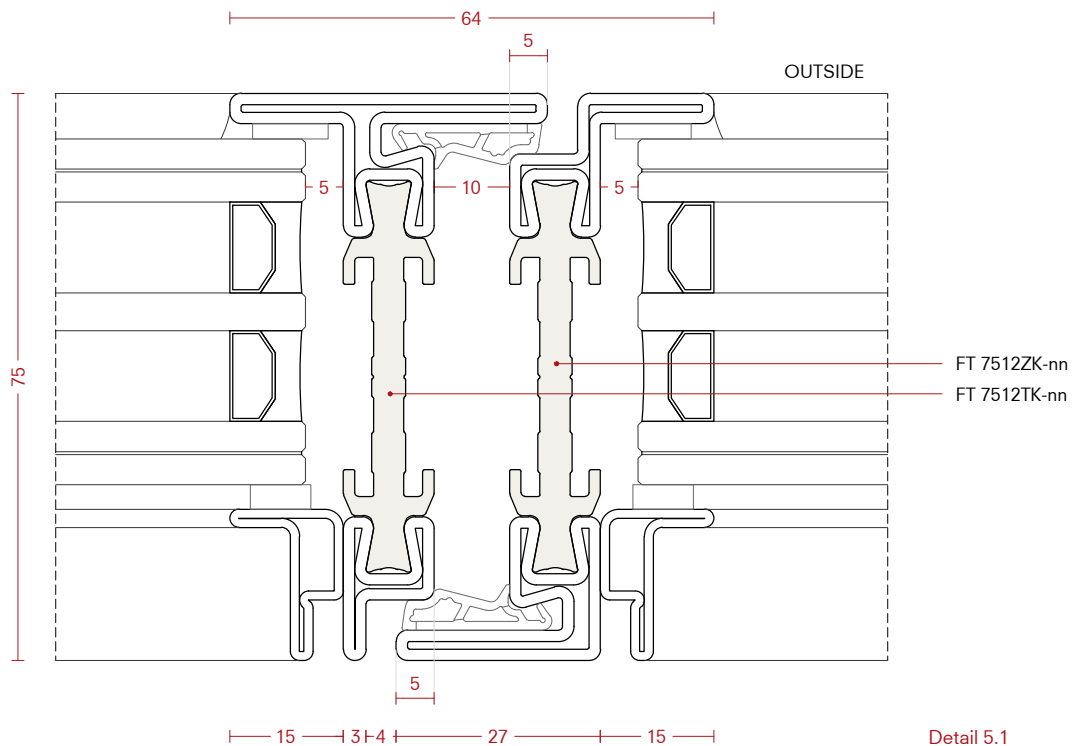
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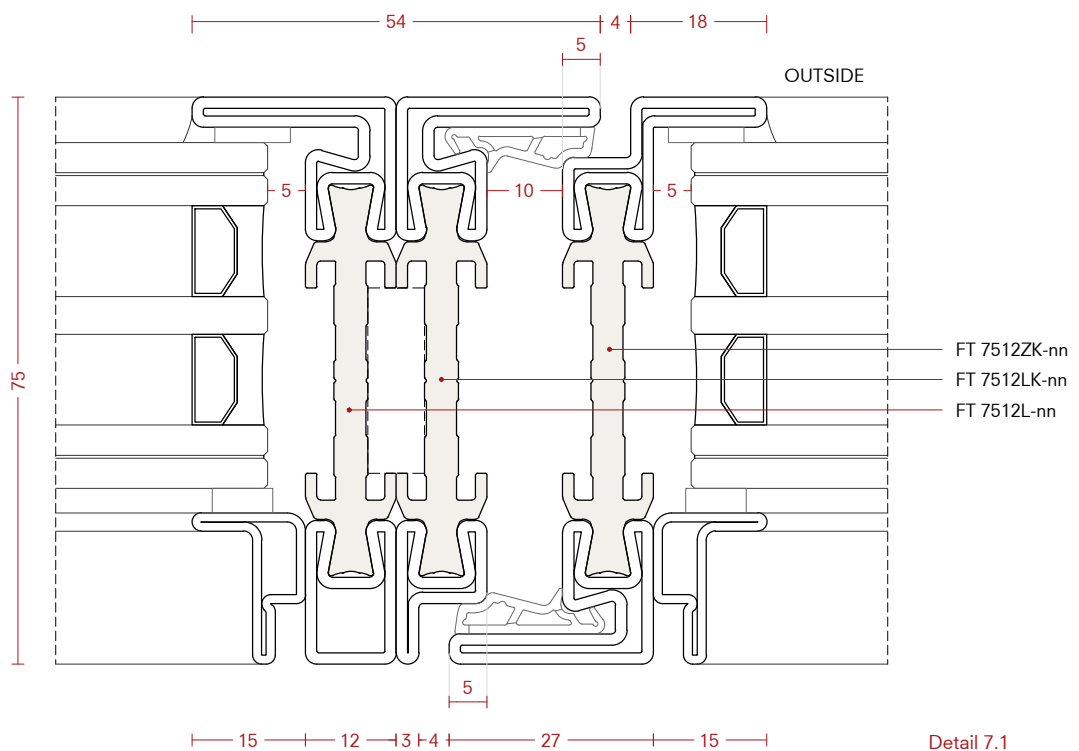
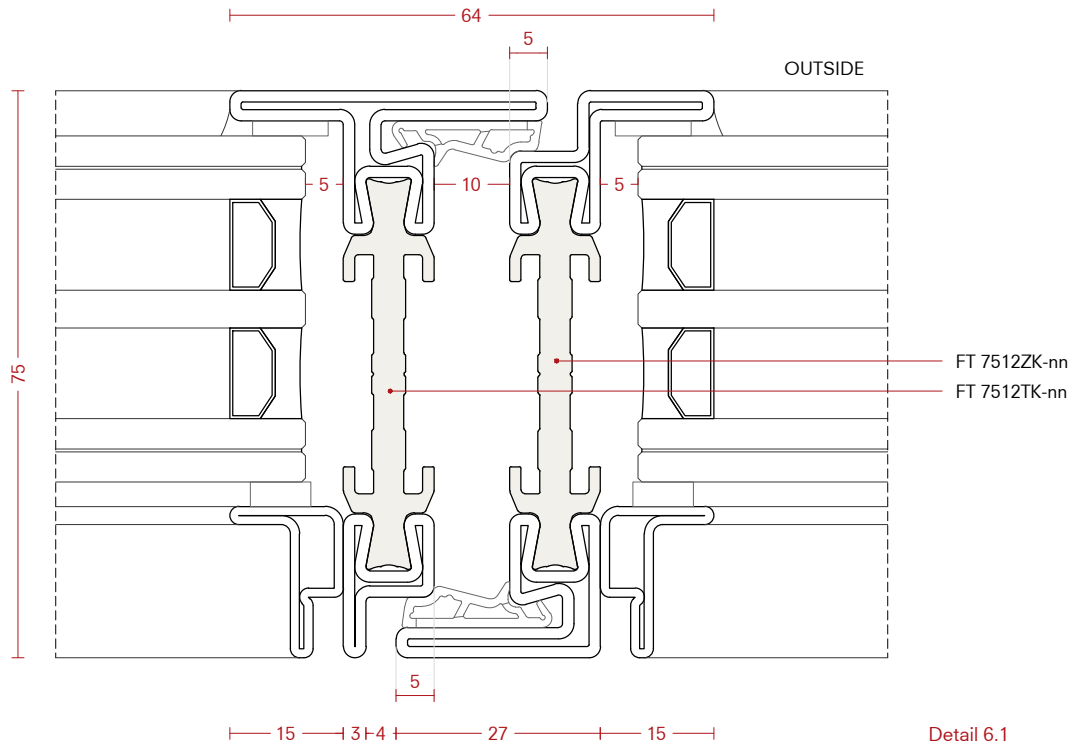
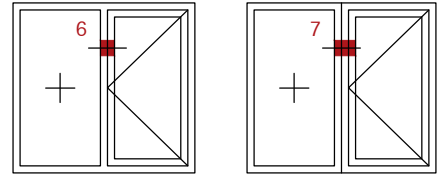
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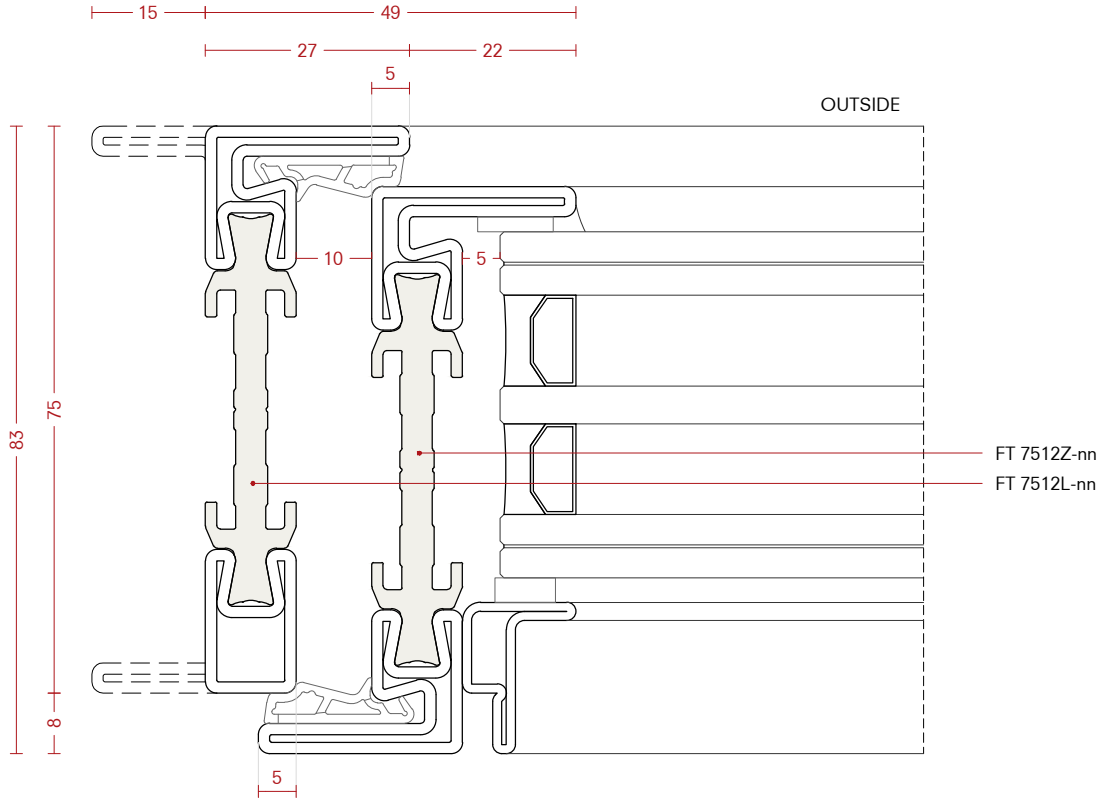
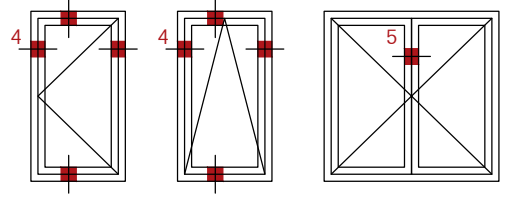


Detail 4.1

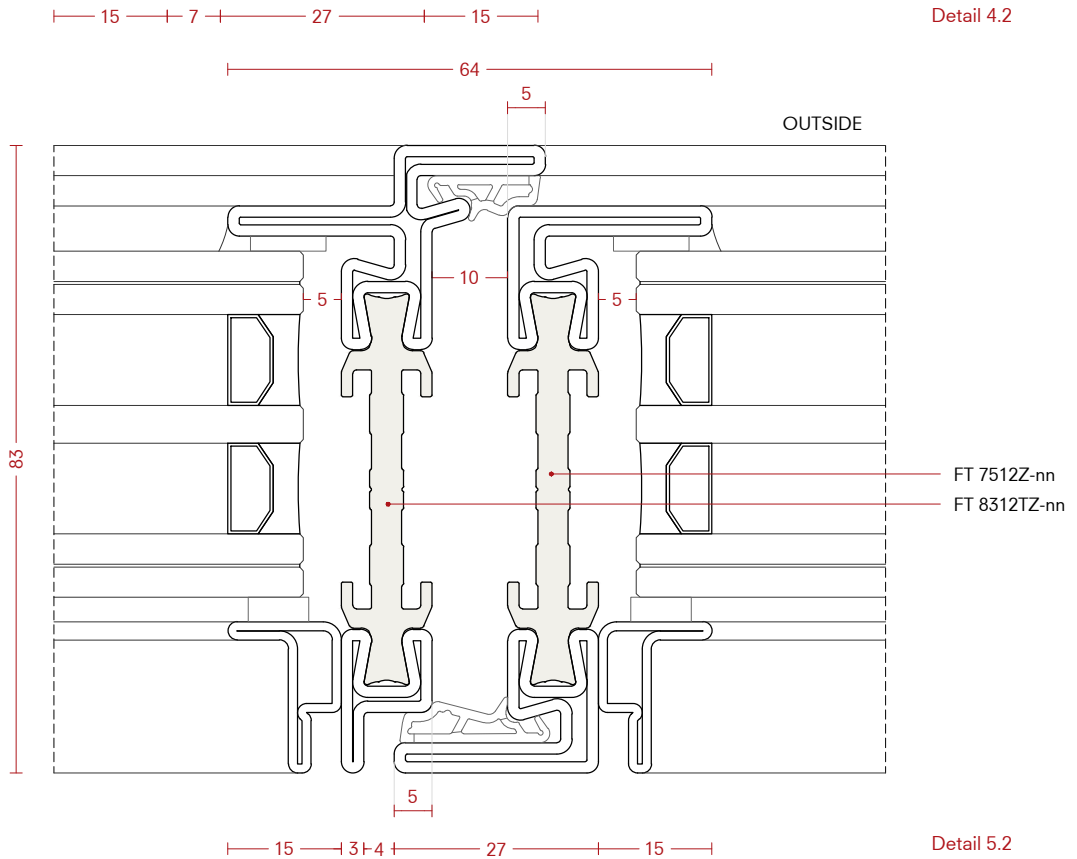


Detail 5.1

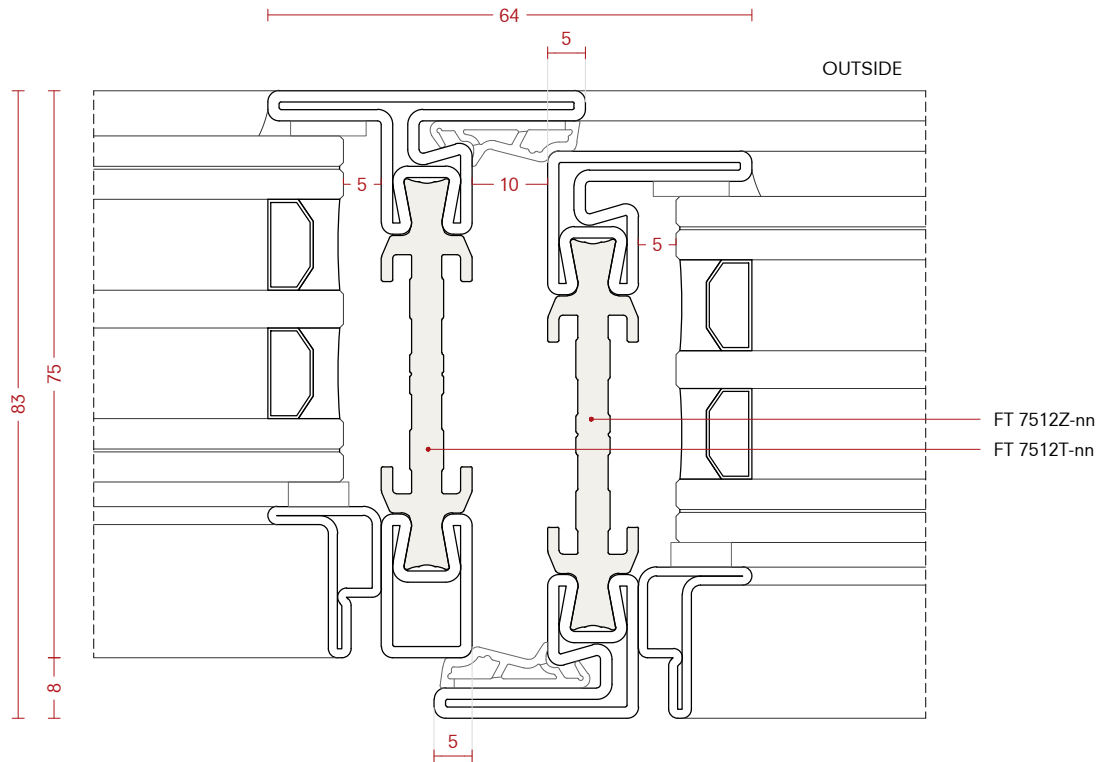
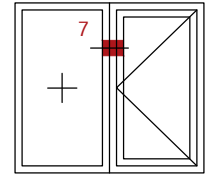
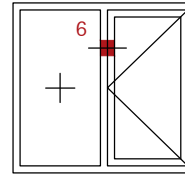




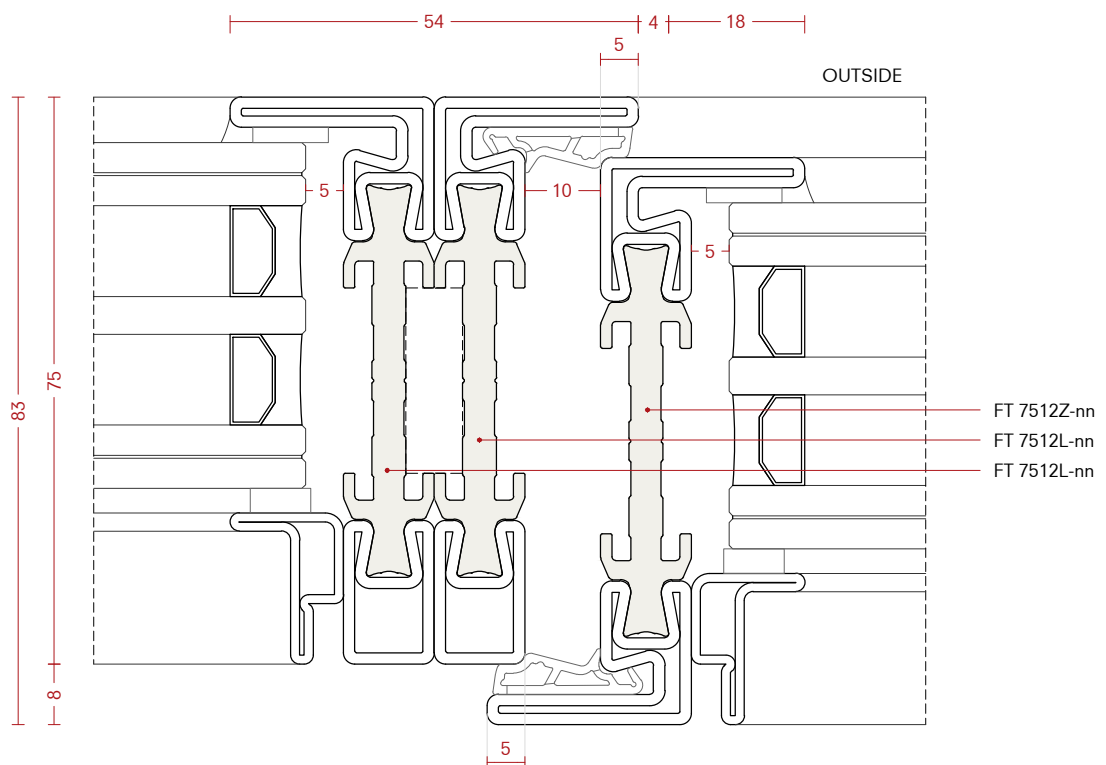
Detail 4.2



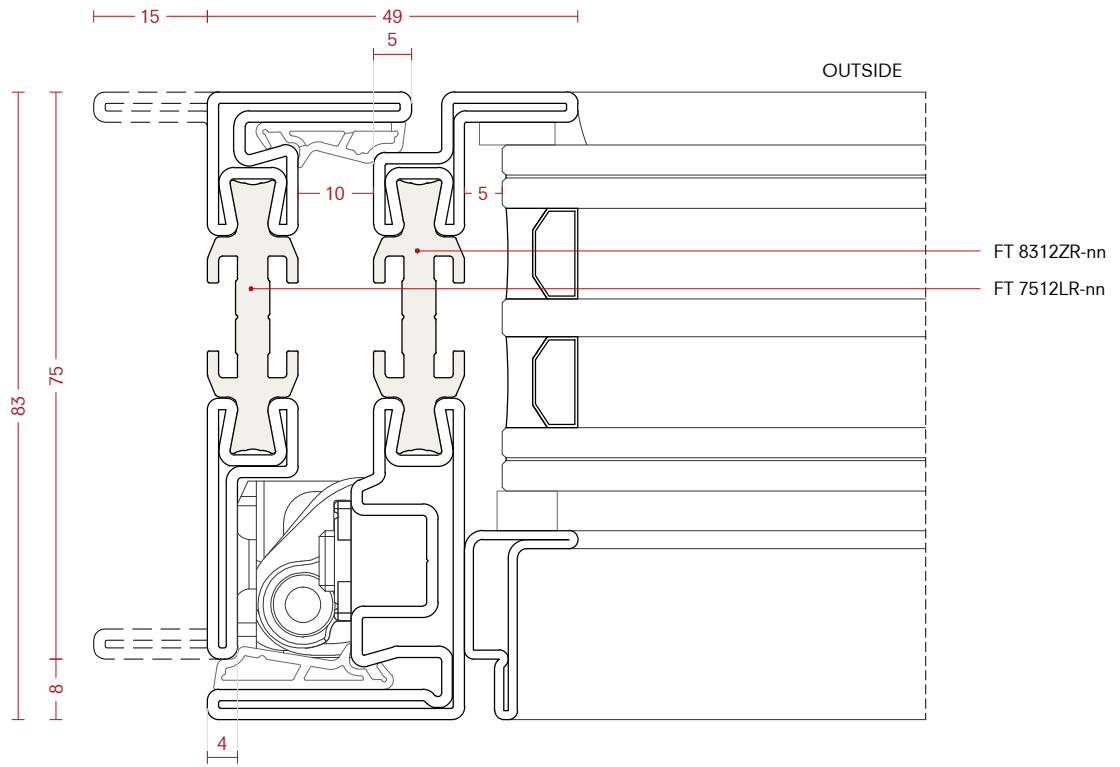
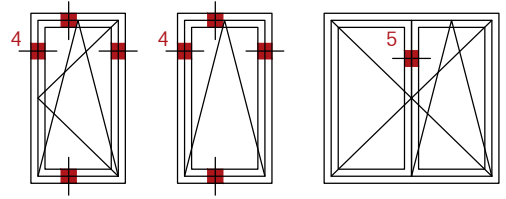
Detail 5.2



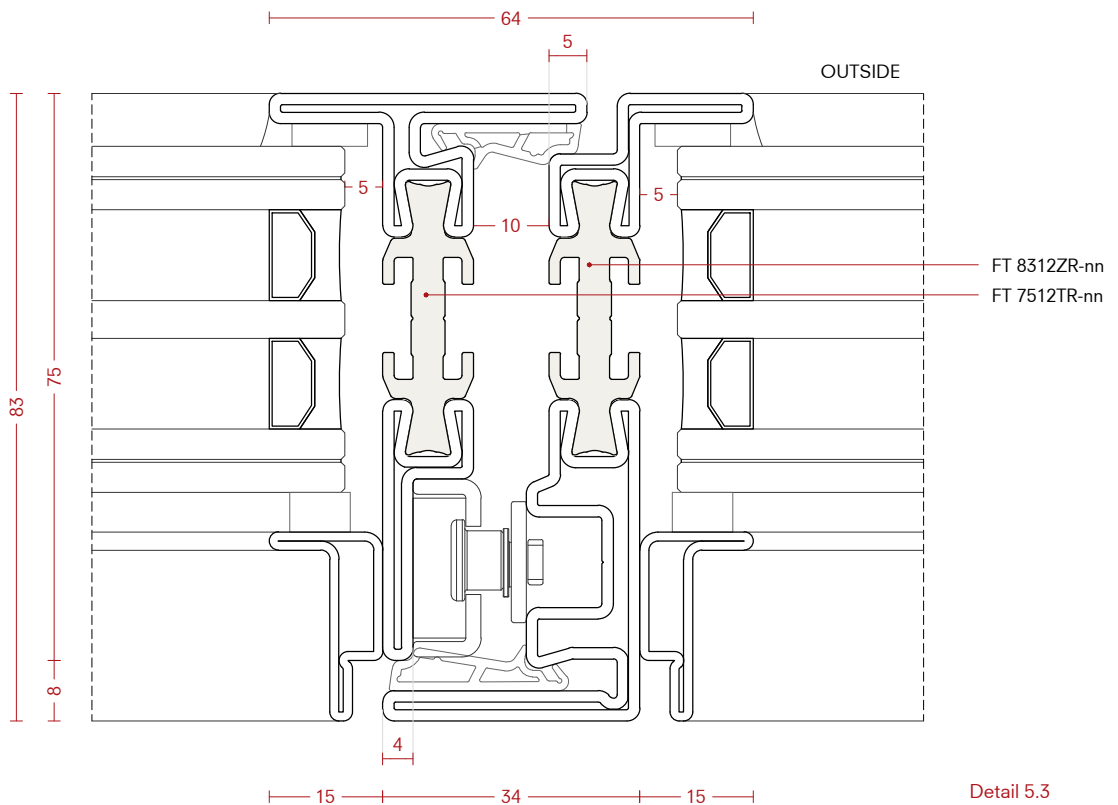
Detail 6.2



Detail 7.2

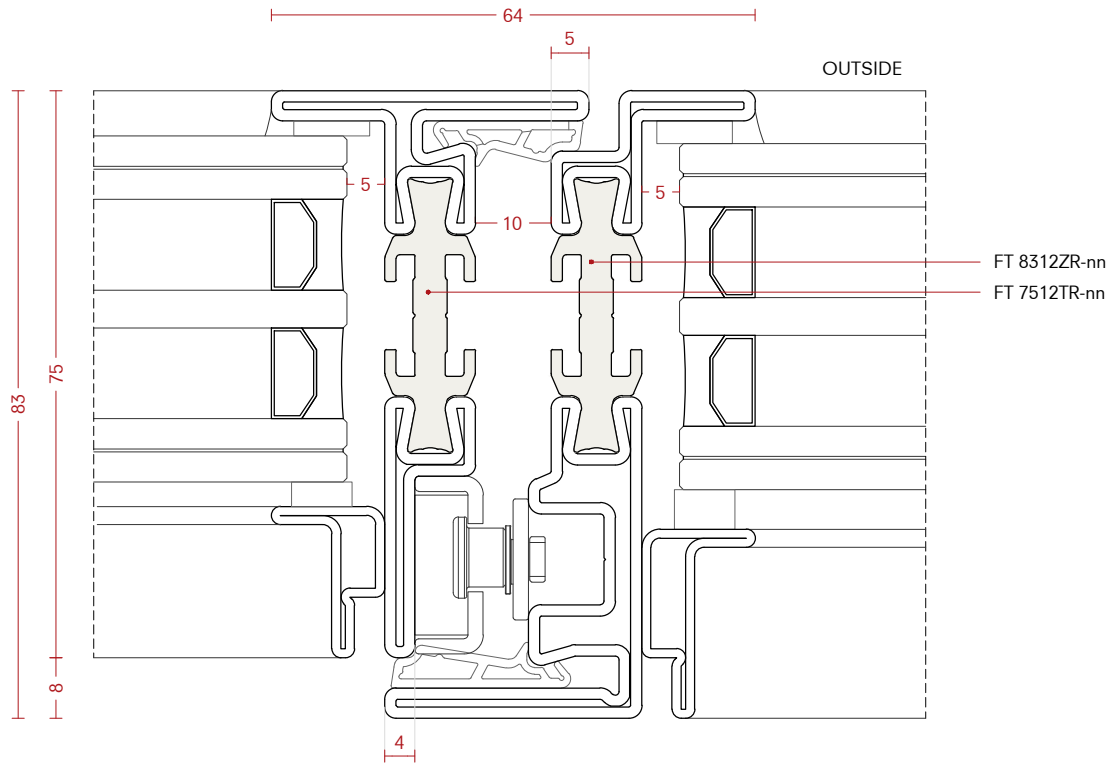
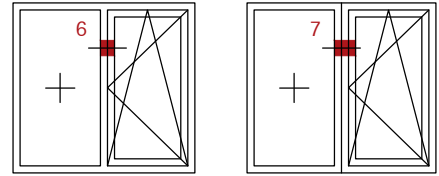


Detail 4.3

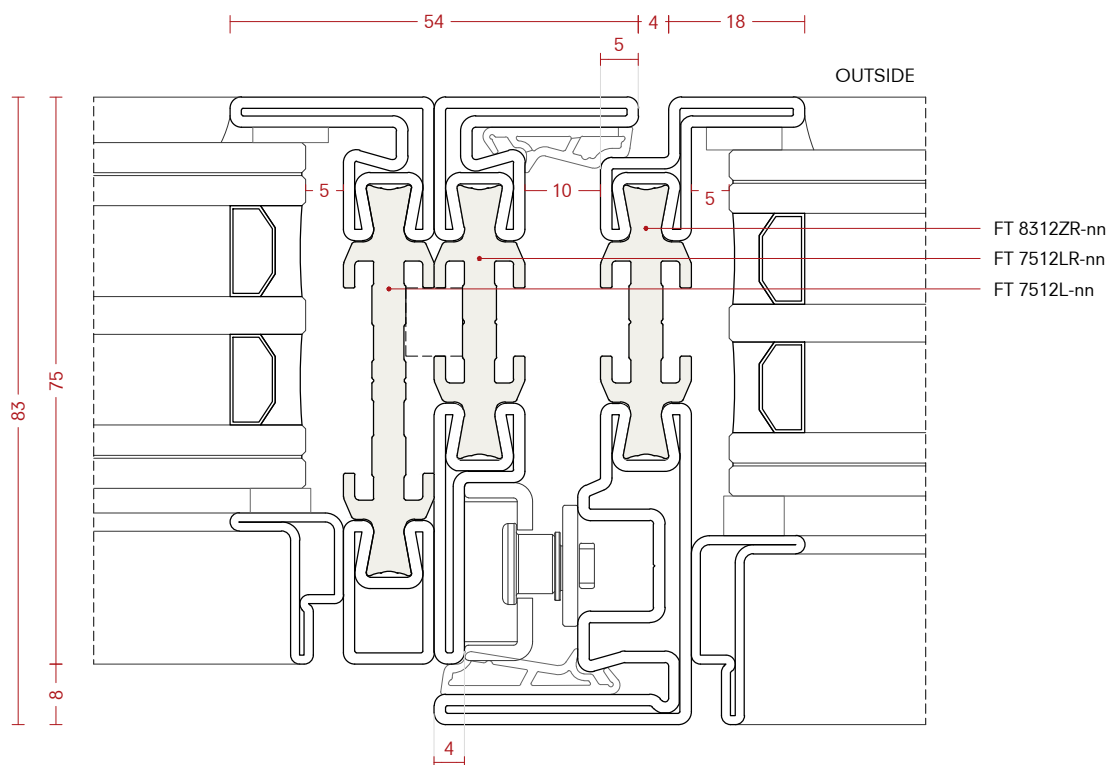


Detail 5.3

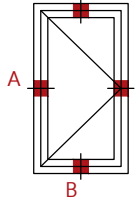




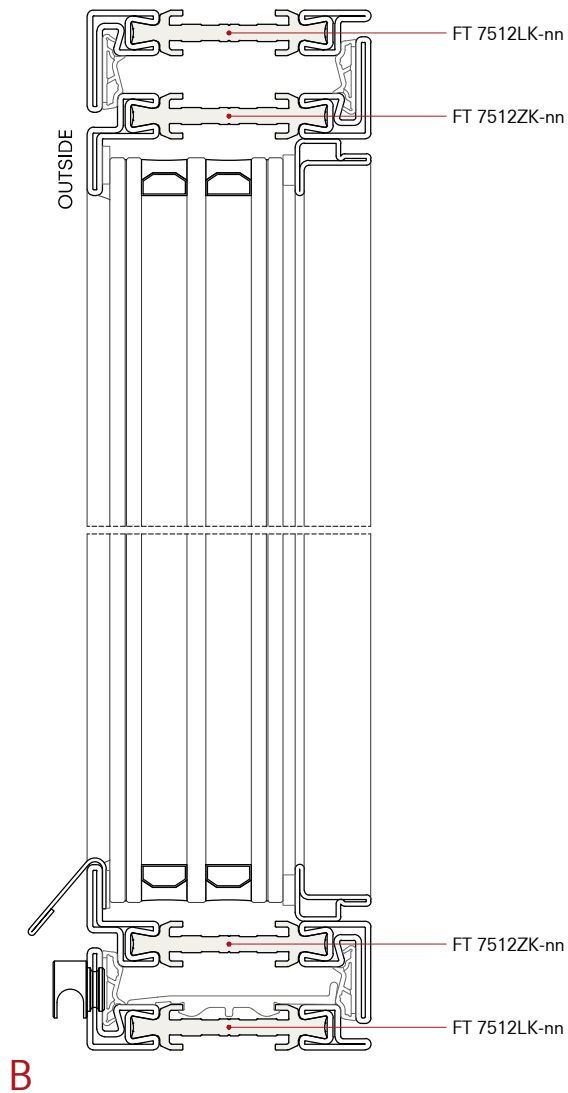
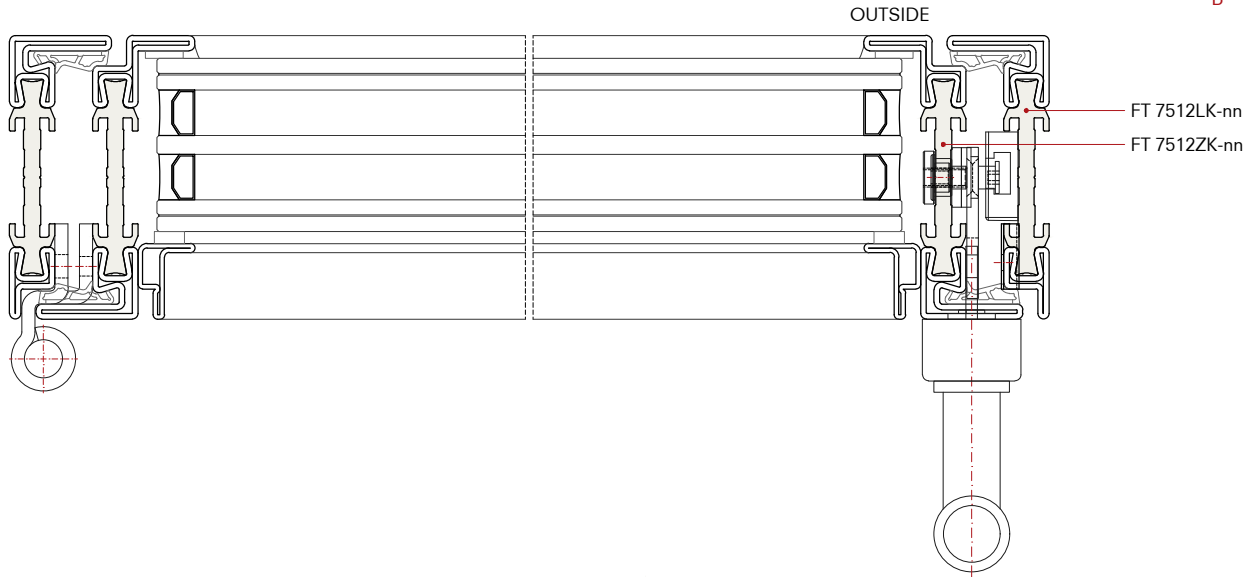
Detail 6.3



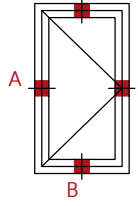
Detail 7.3



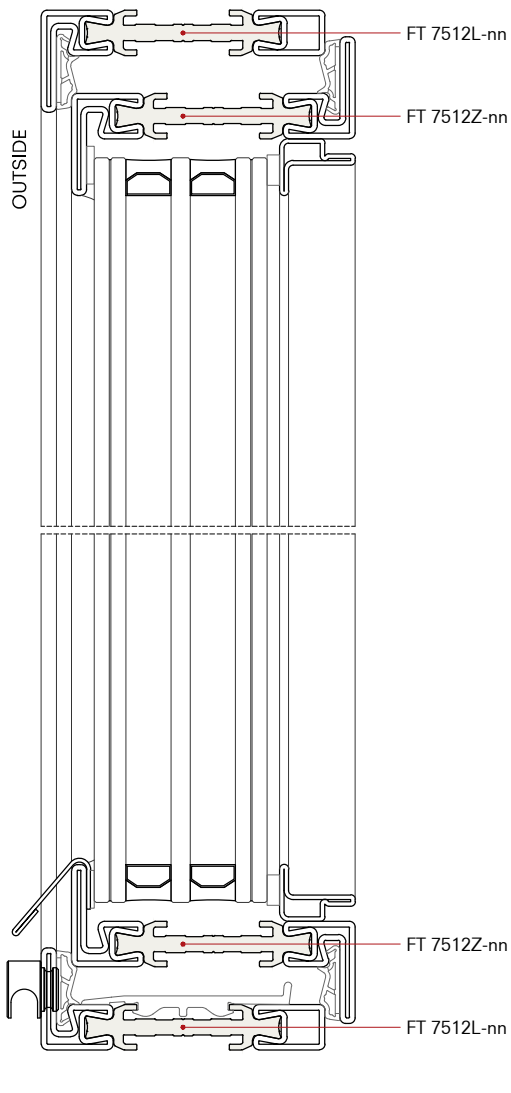
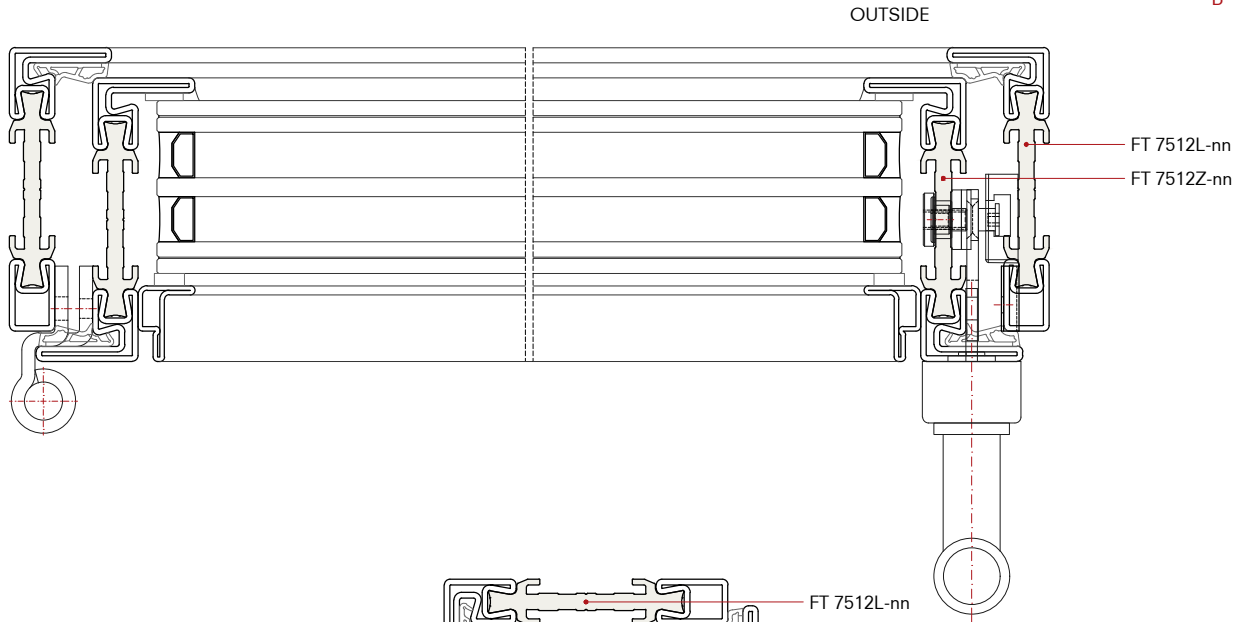
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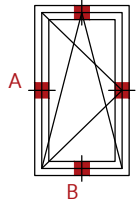
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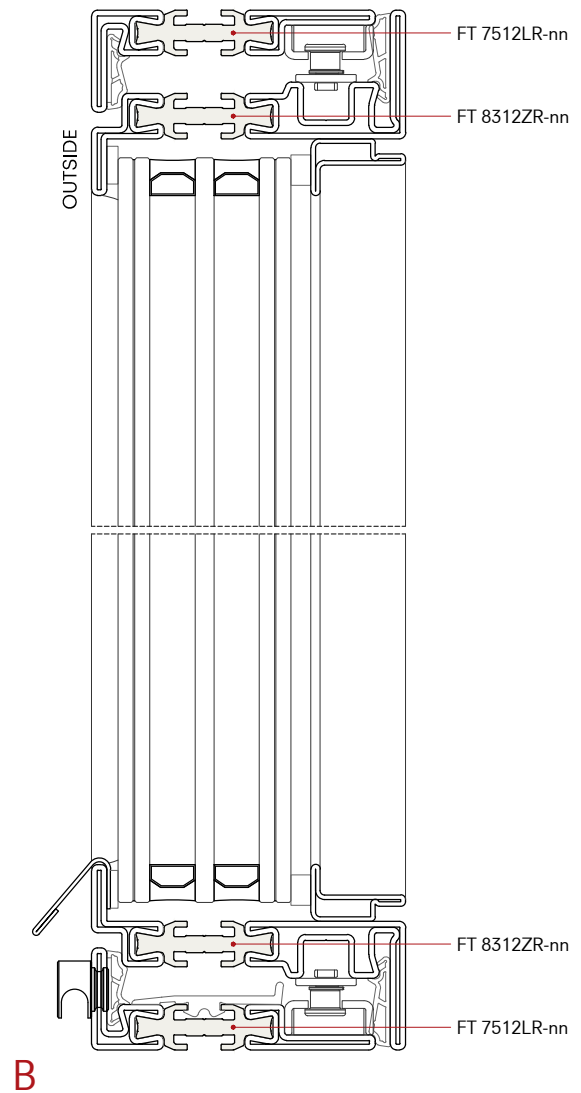
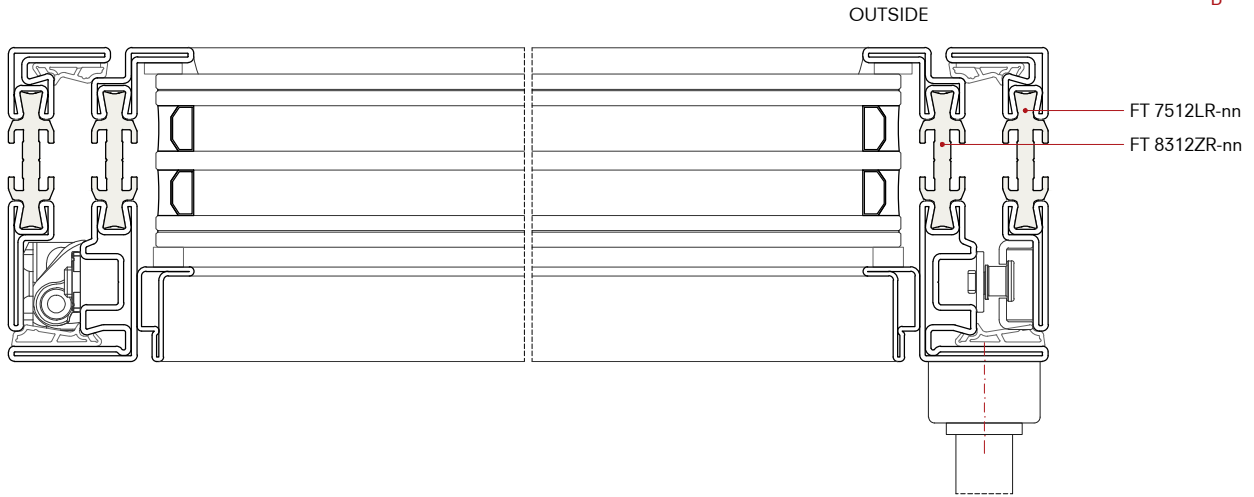
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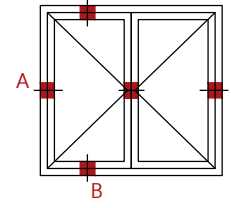
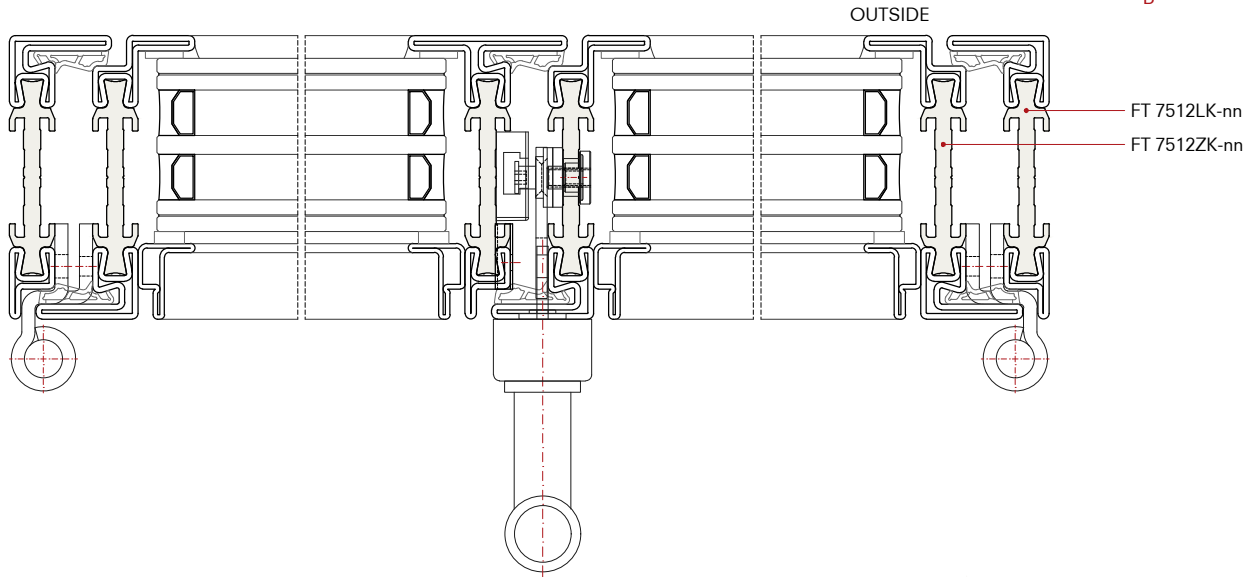
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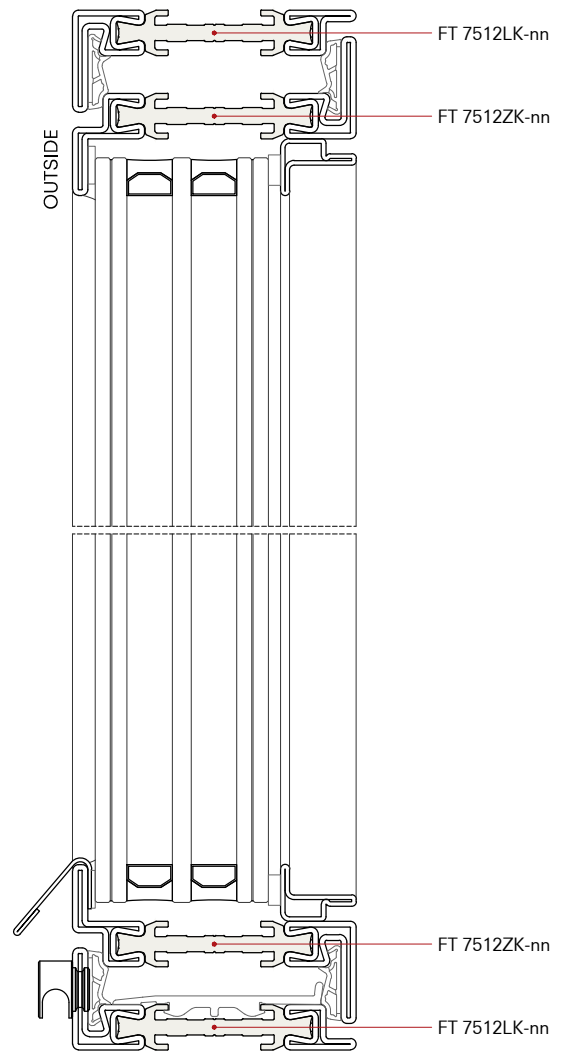
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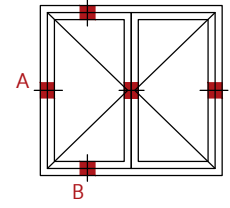


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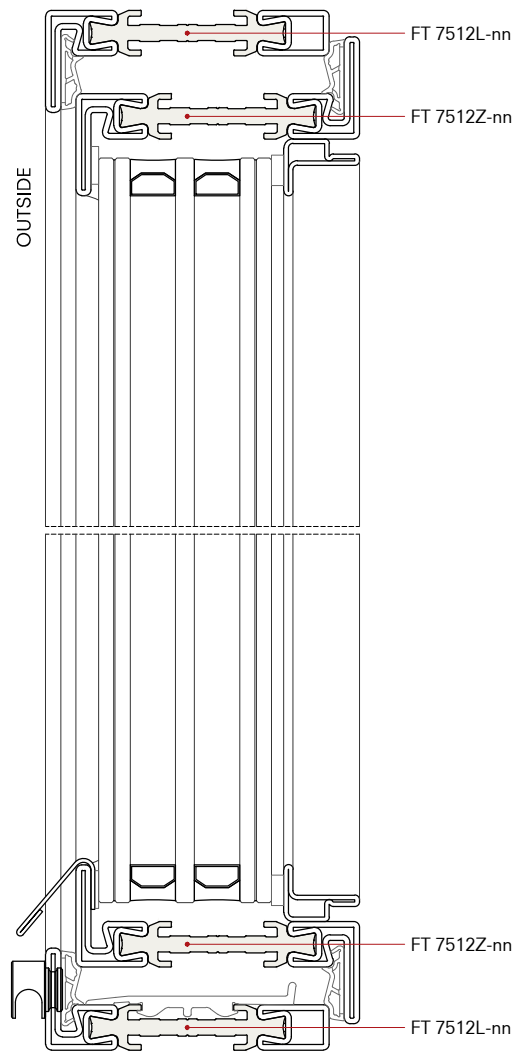
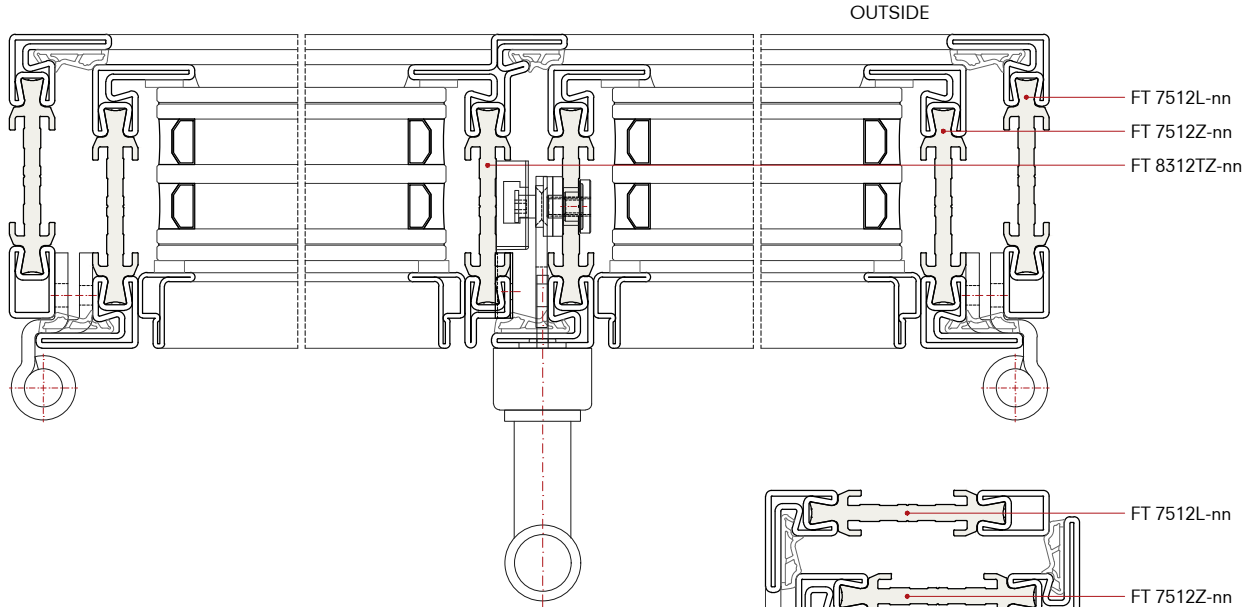


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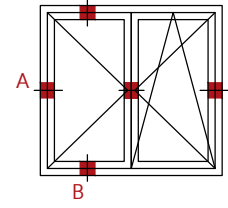


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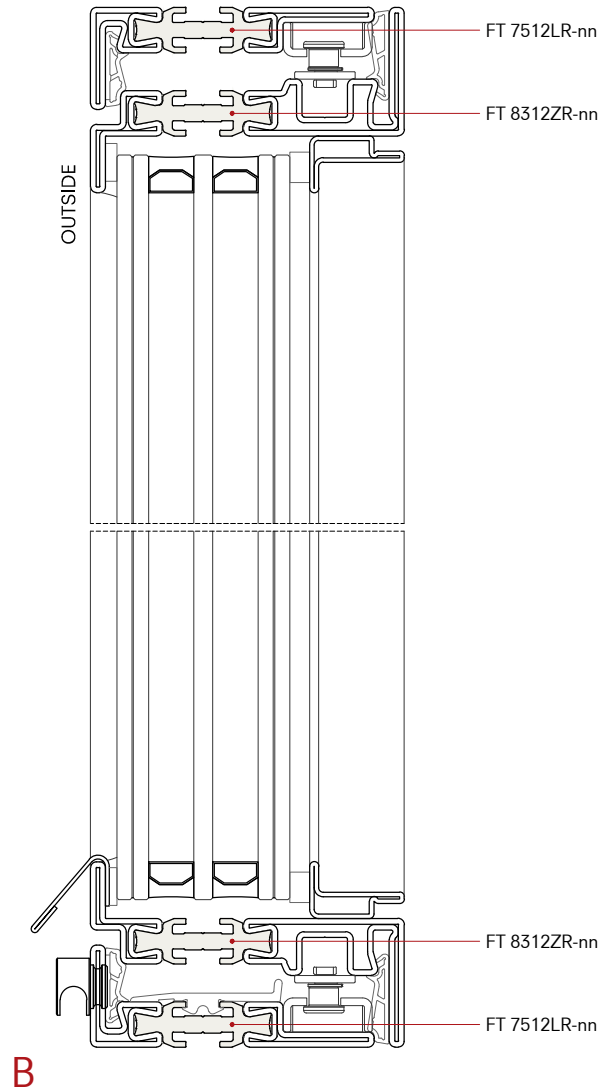
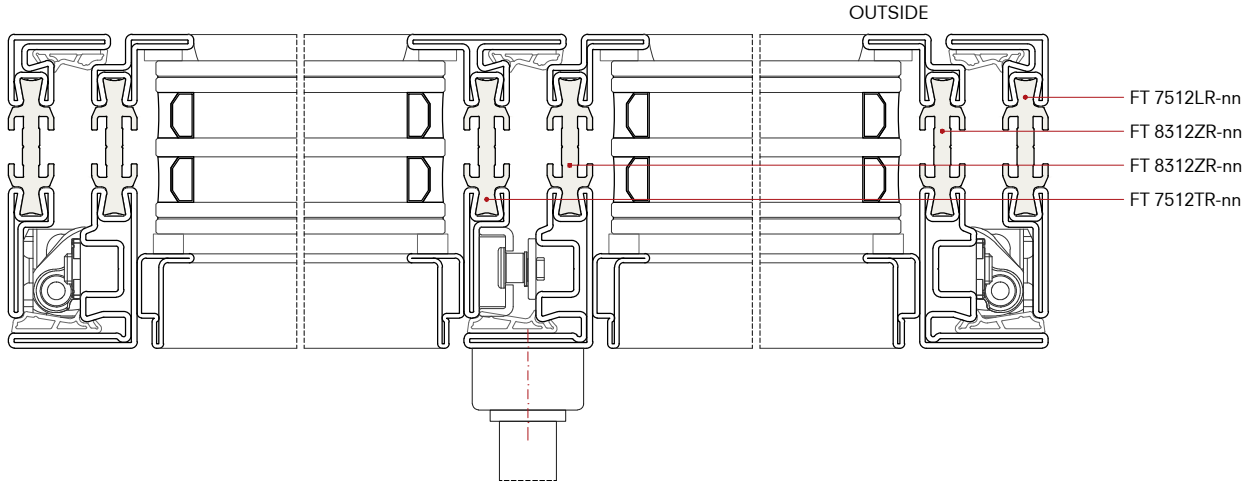


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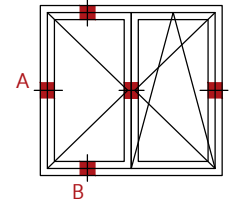


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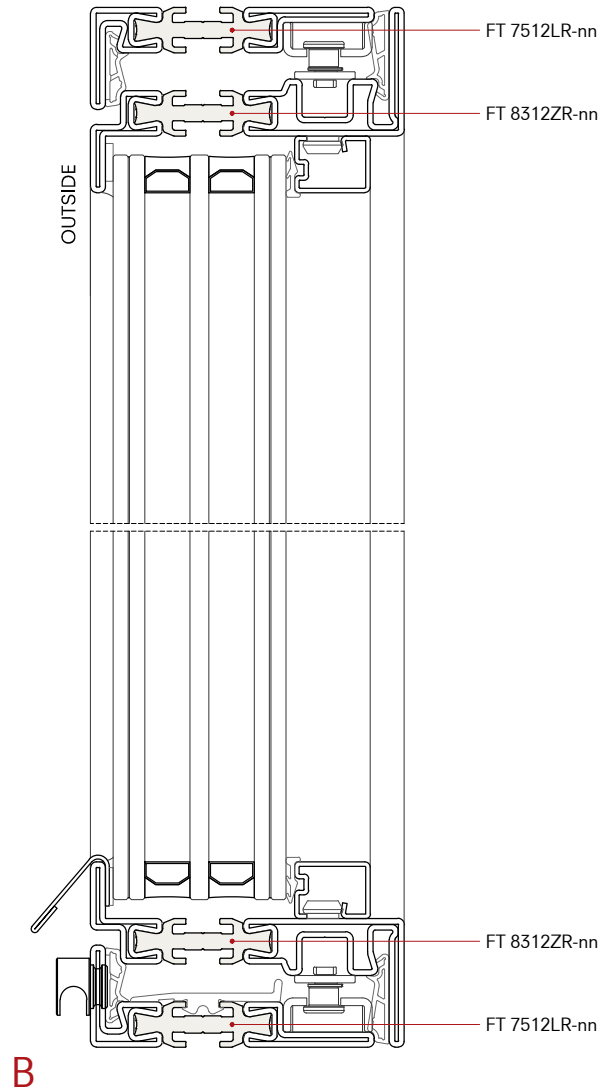
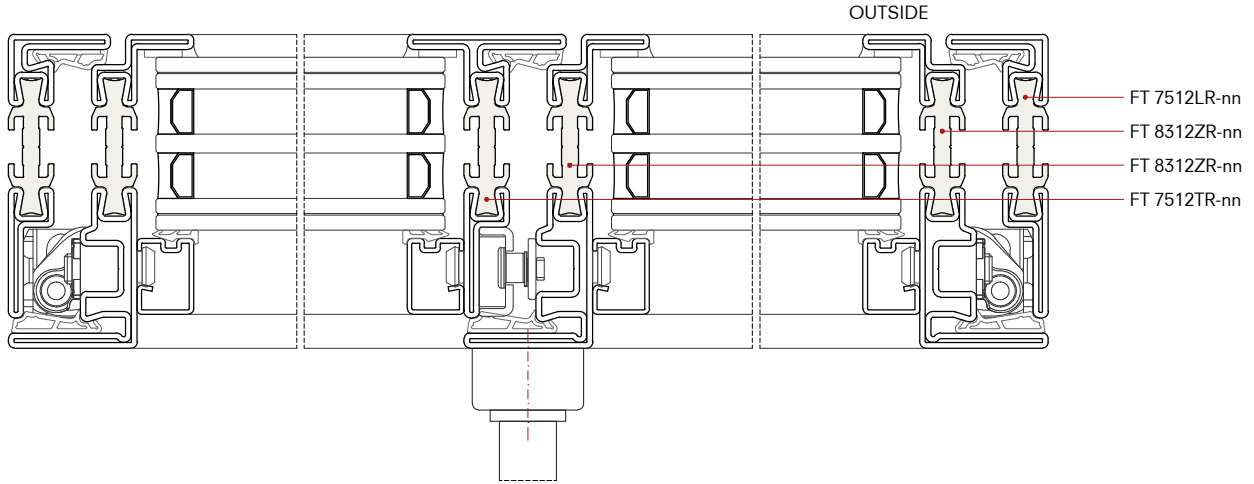


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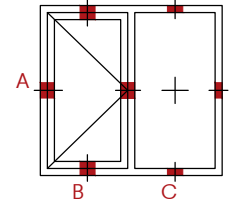




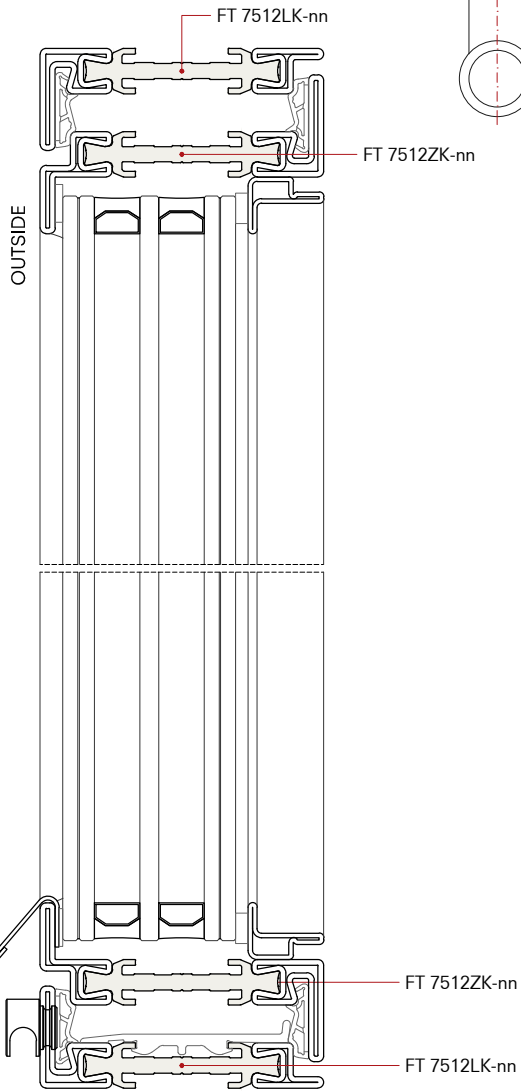
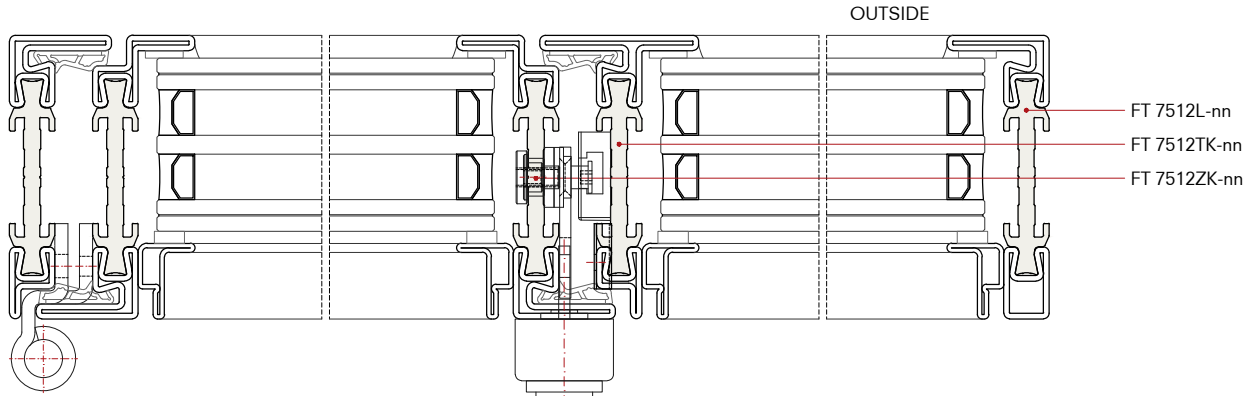
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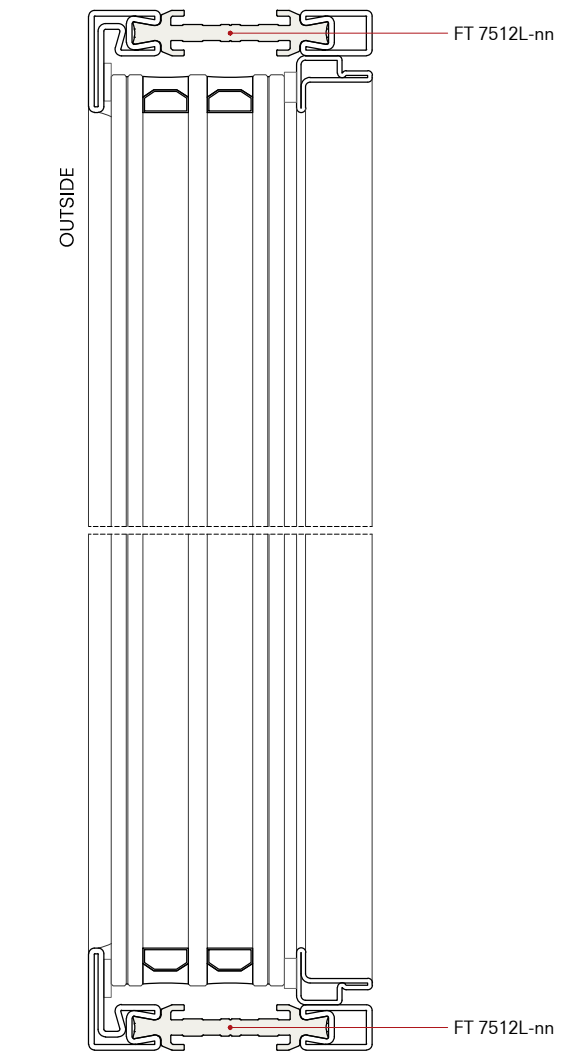
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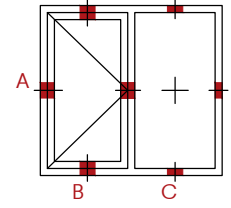
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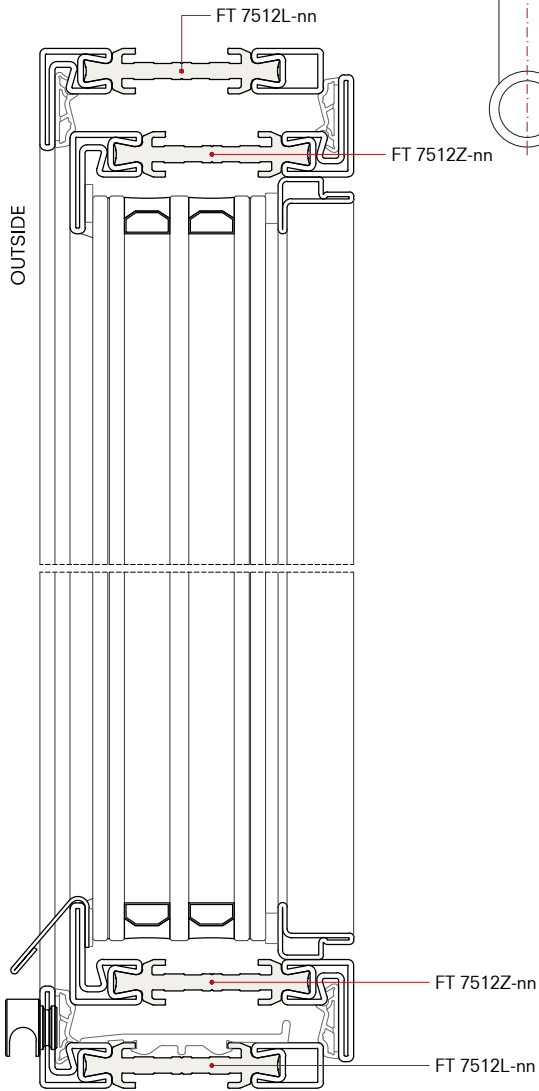
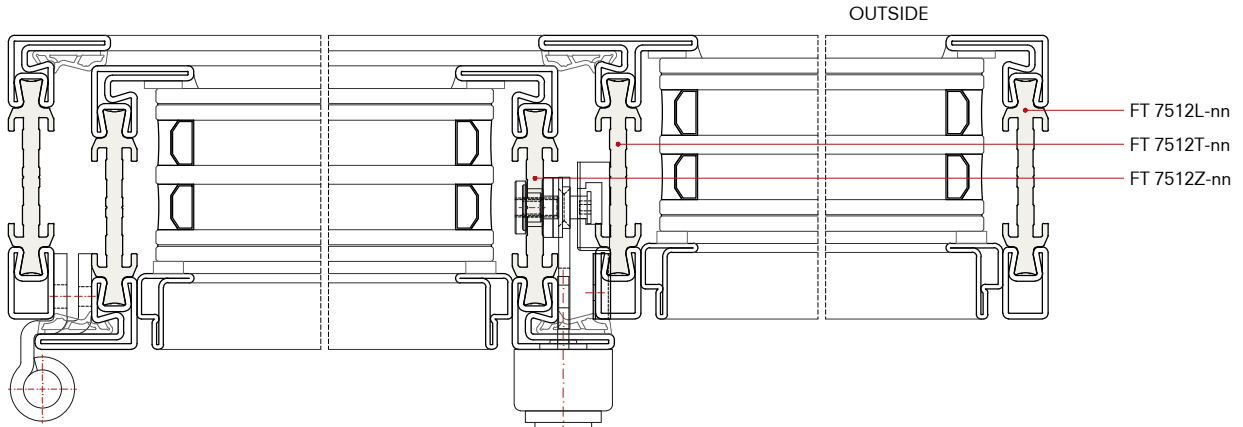
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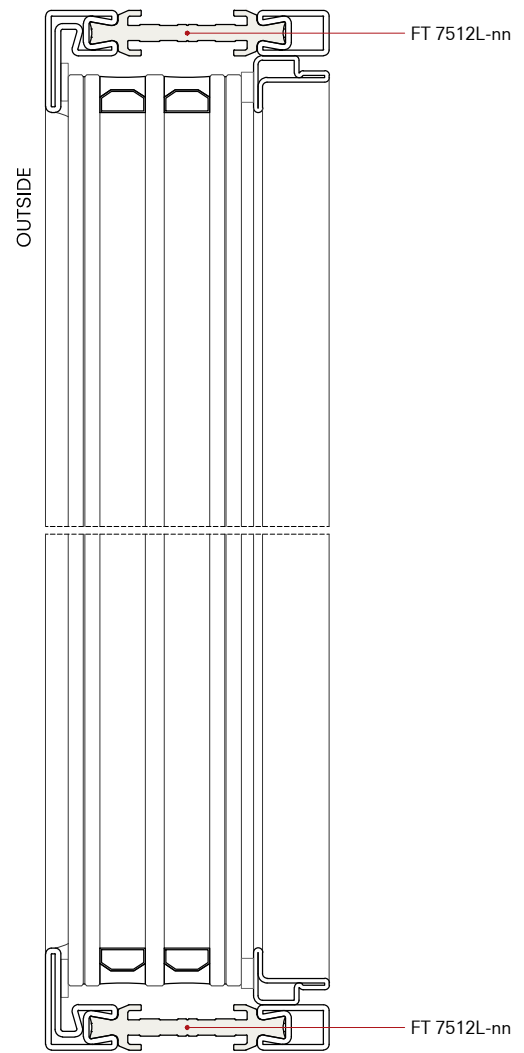
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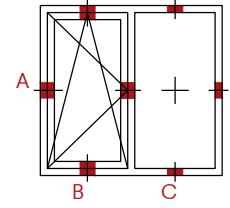
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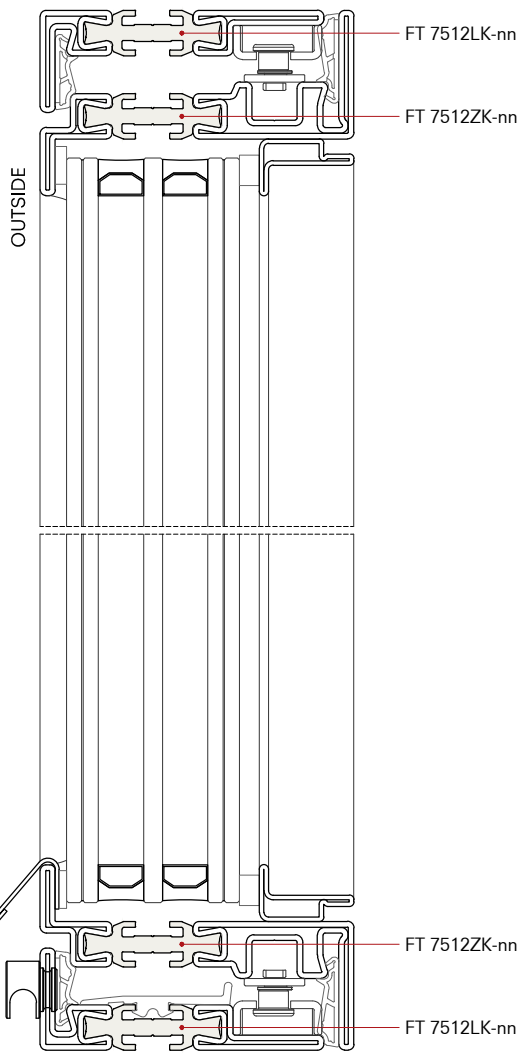
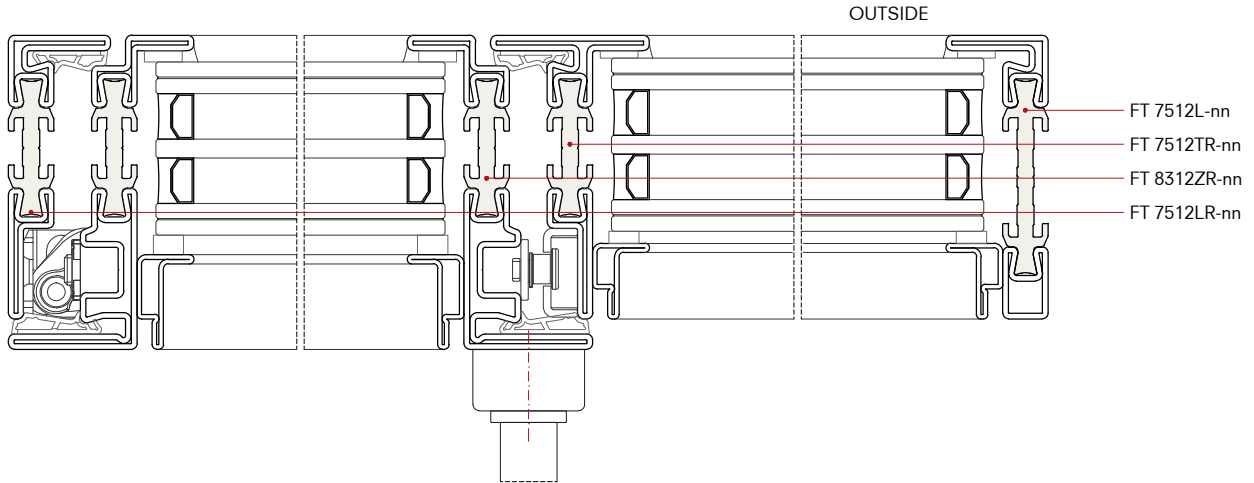
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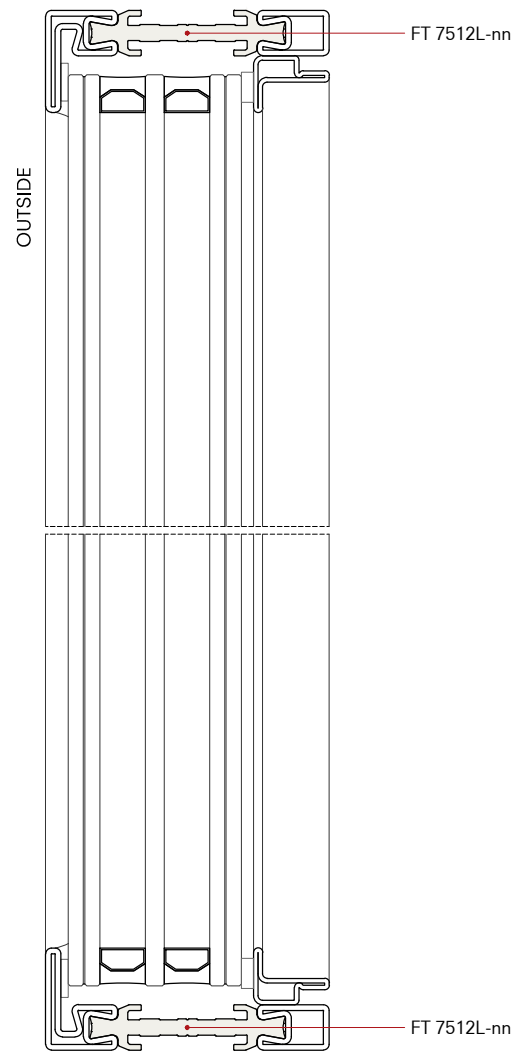
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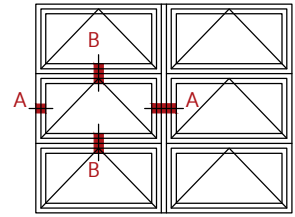
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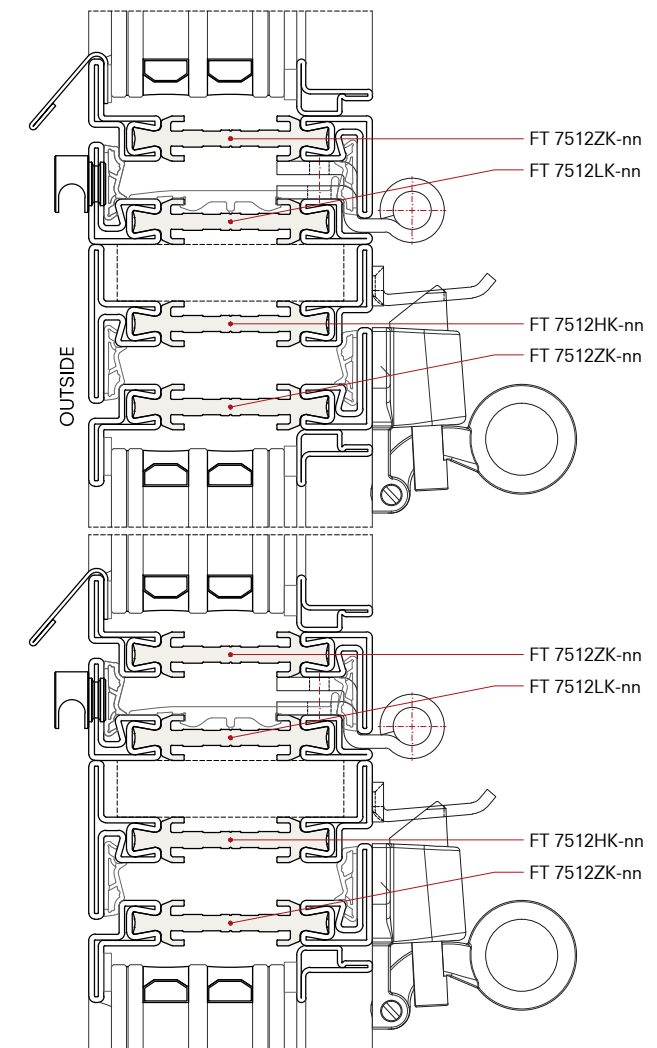
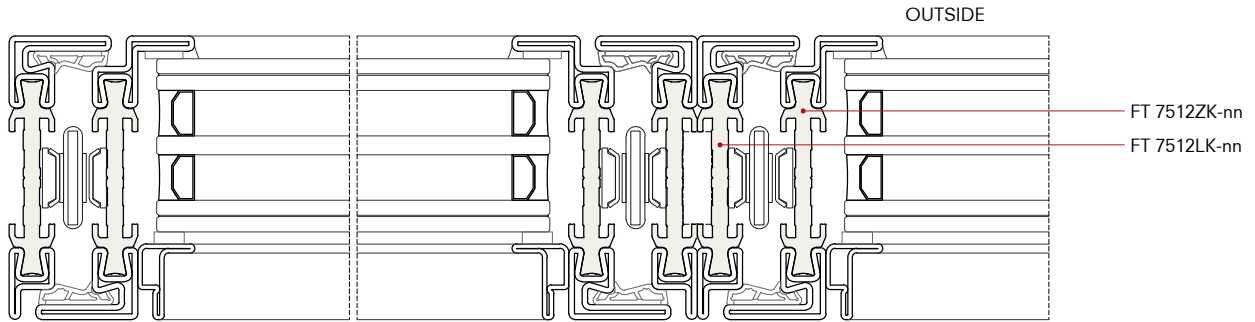
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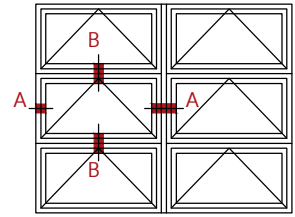
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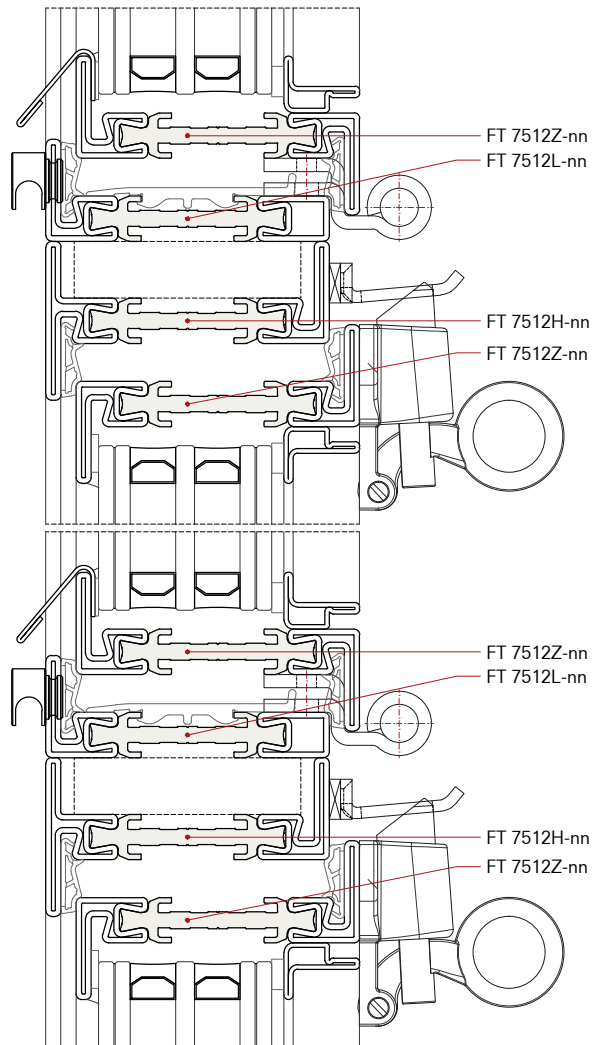
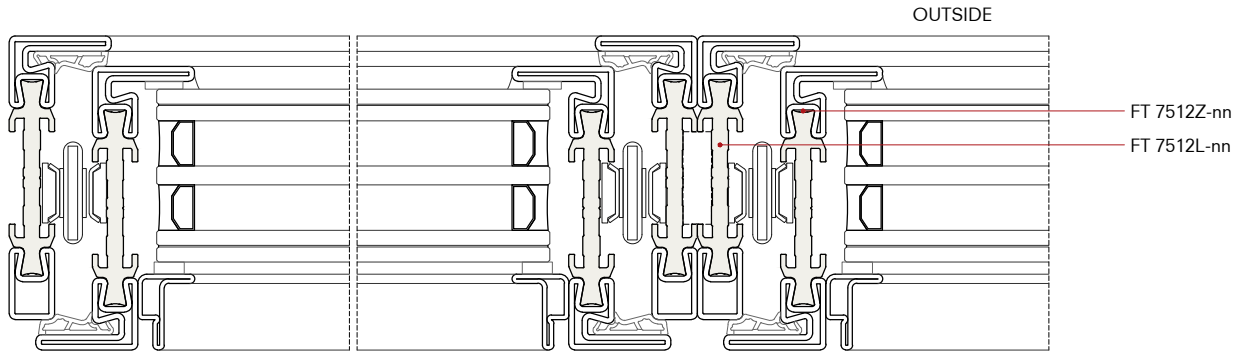
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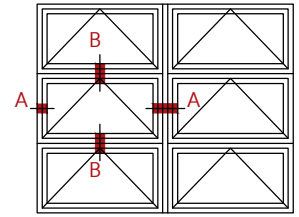
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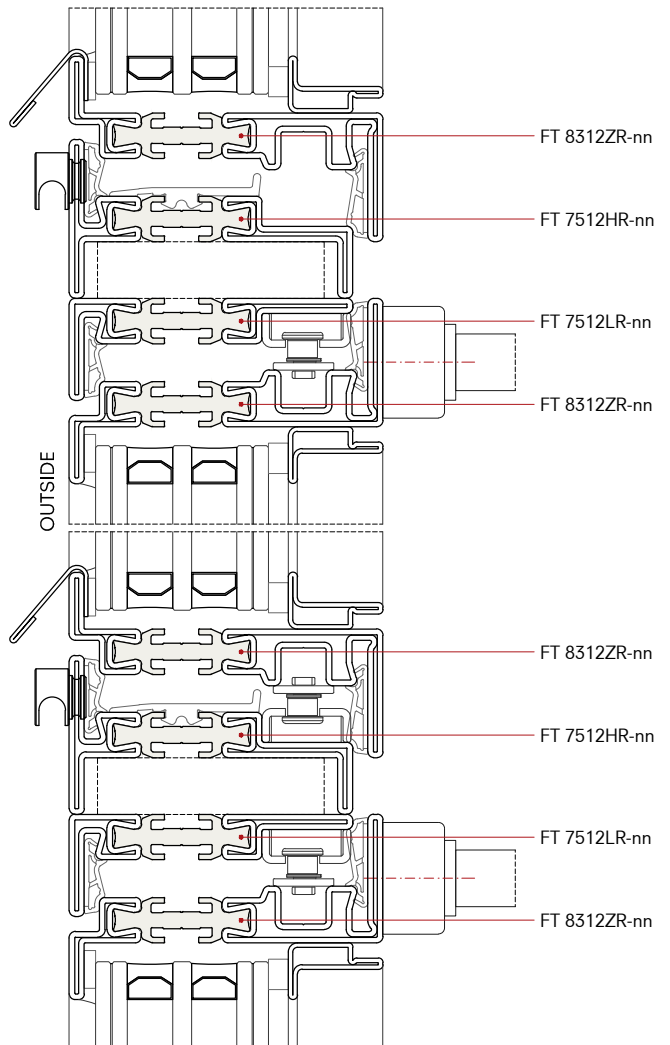
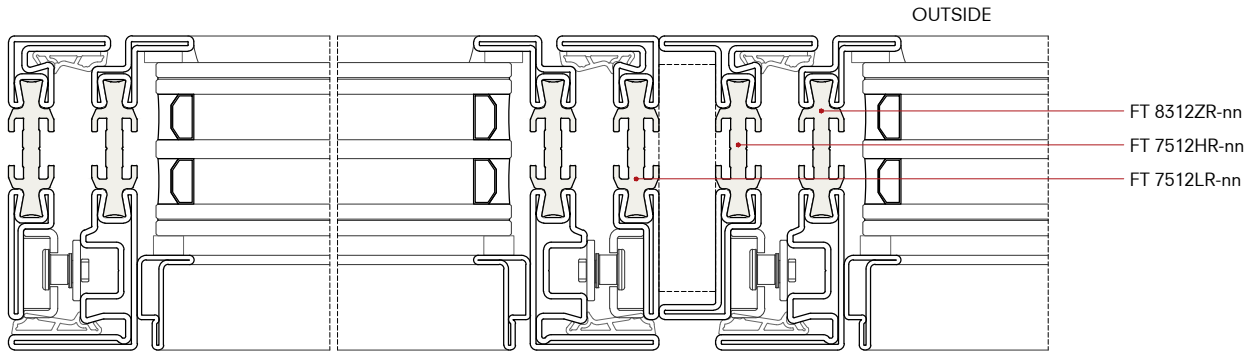
A



B

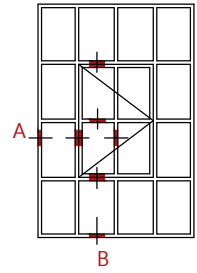
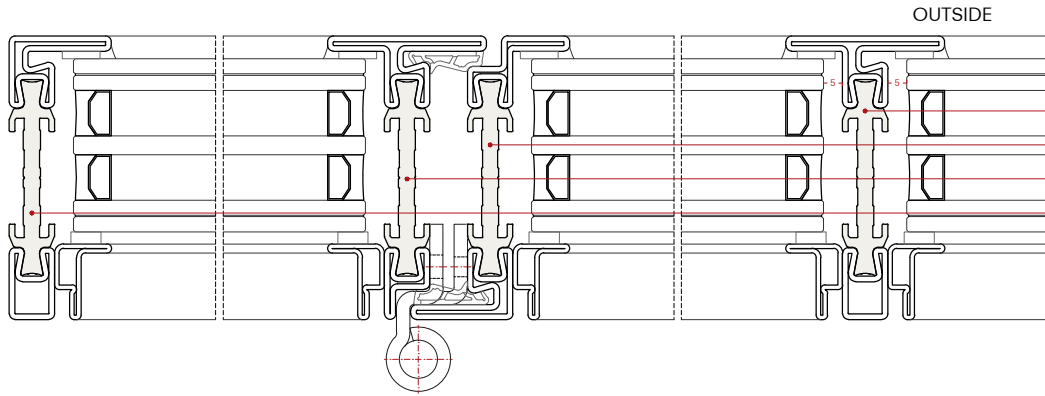


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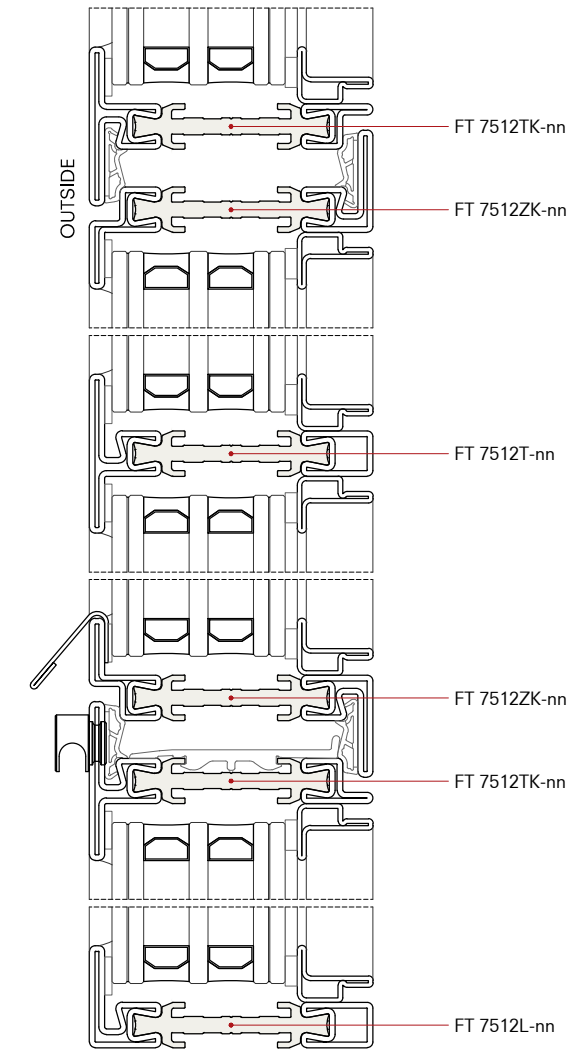


B

A



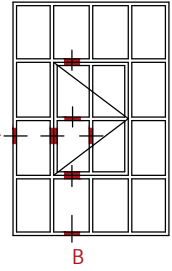
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- FT 7512ZK-nn
- FT 7512TK-nn
- FT 7512L-nn



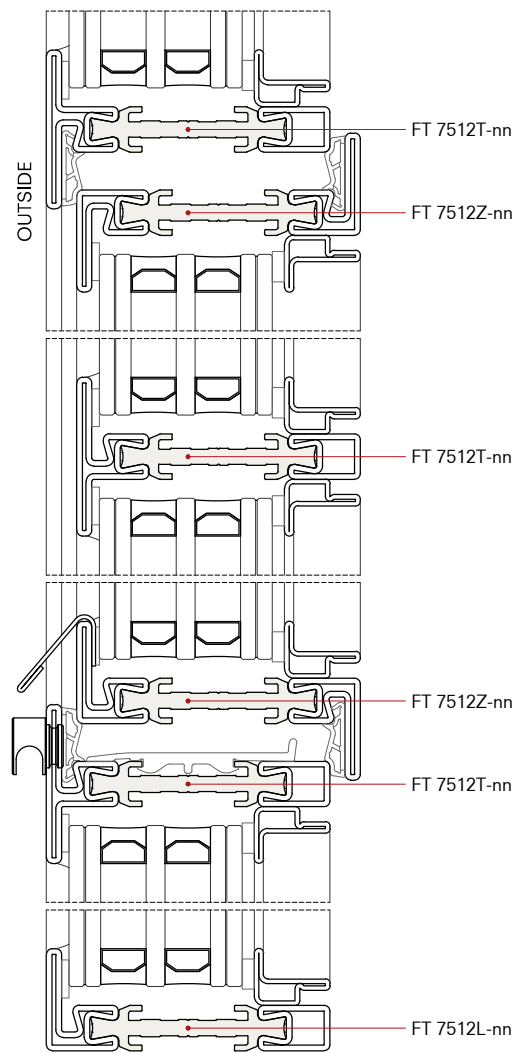
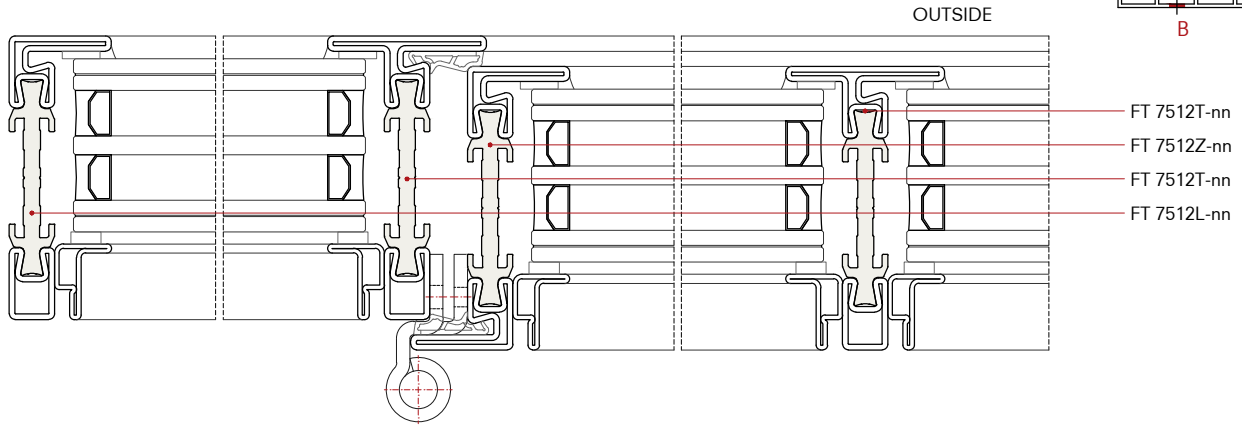
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- FT 7512ZK-nn
- FT 7512T-nn
- FT 7512ZK-nn
- FT 7512TK-nn
- FT 7512L-nn

B



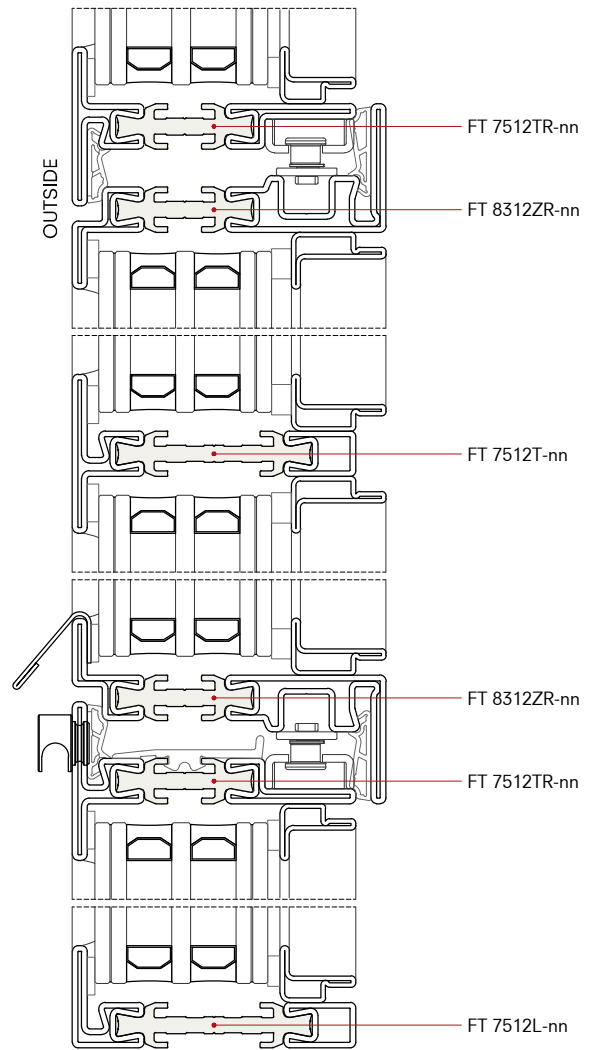
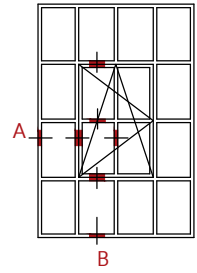
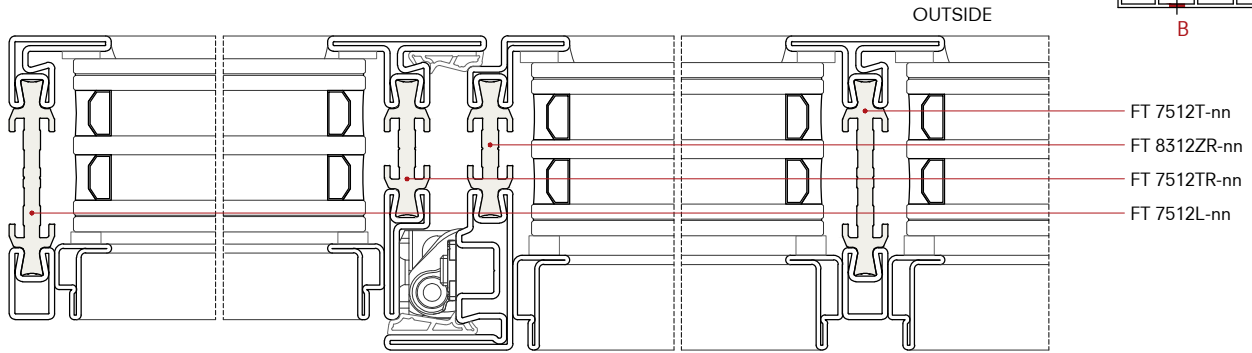


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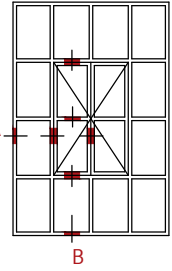


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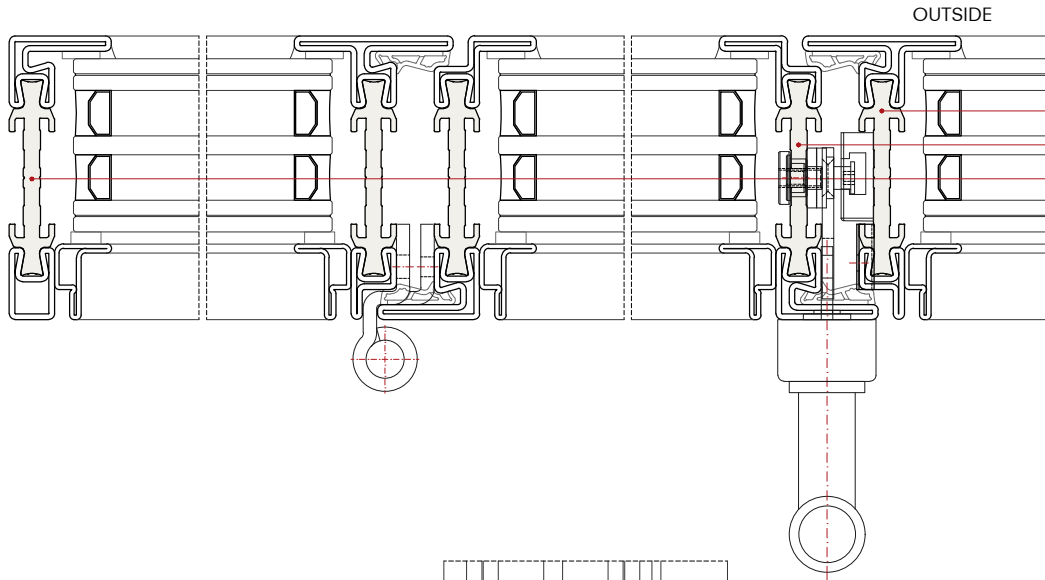
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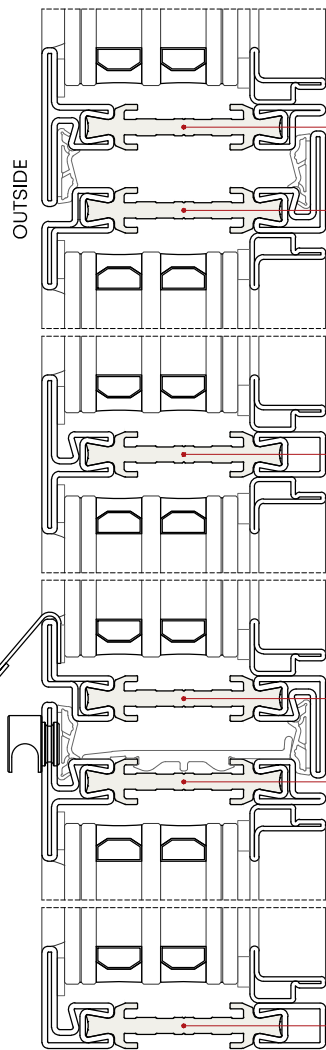
B



A

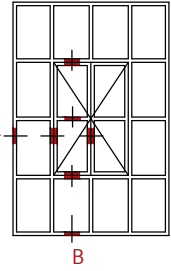


- FT 7512TK-nn
- FT 8312ZK-nn
- FT 7512L-nn

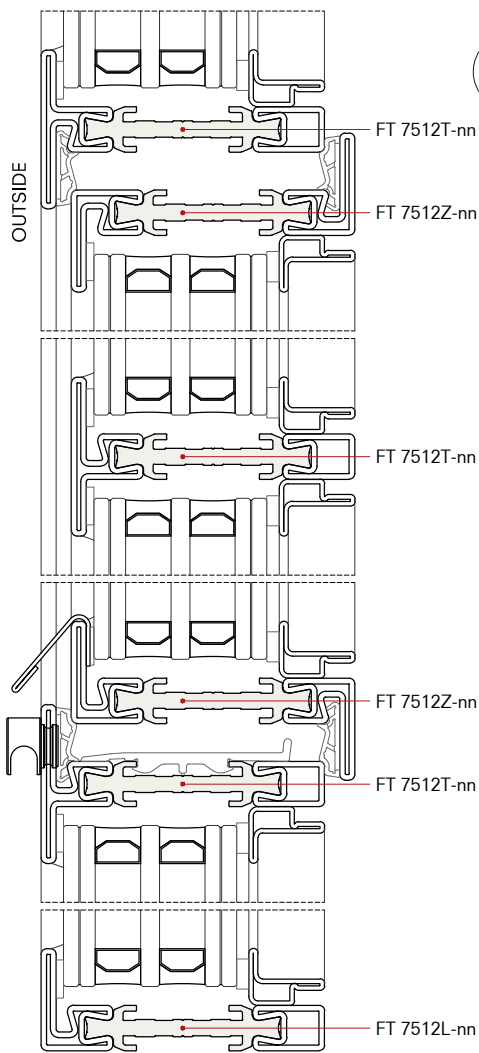
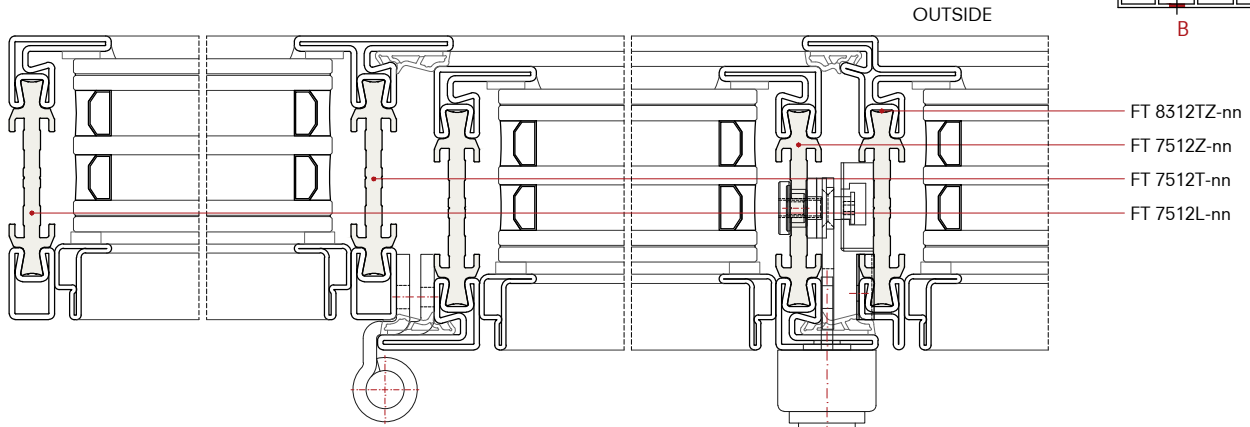


- FT 7512TK-nn
- FT 7512ZK-nn
- FT 7512T-nn
- FT 7512ZK-nn
- FT 7512TK-nn
- FT 7512L-nn

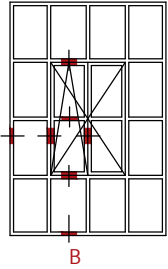
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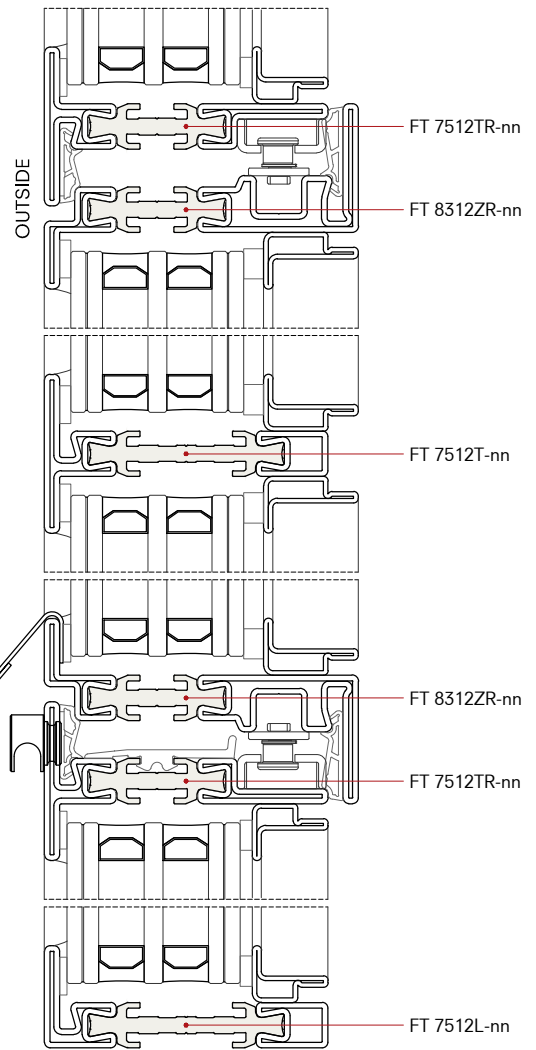
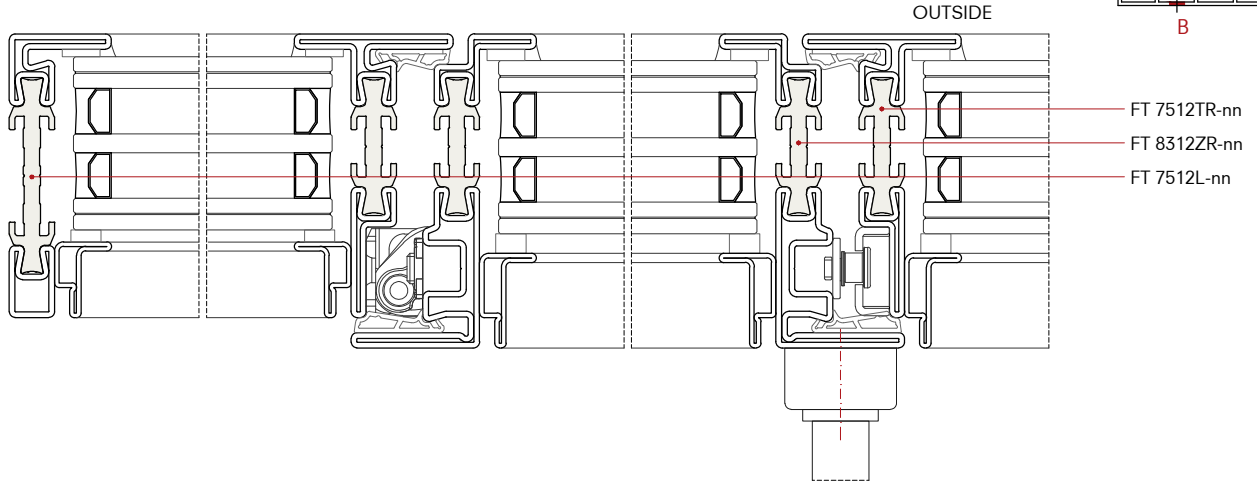
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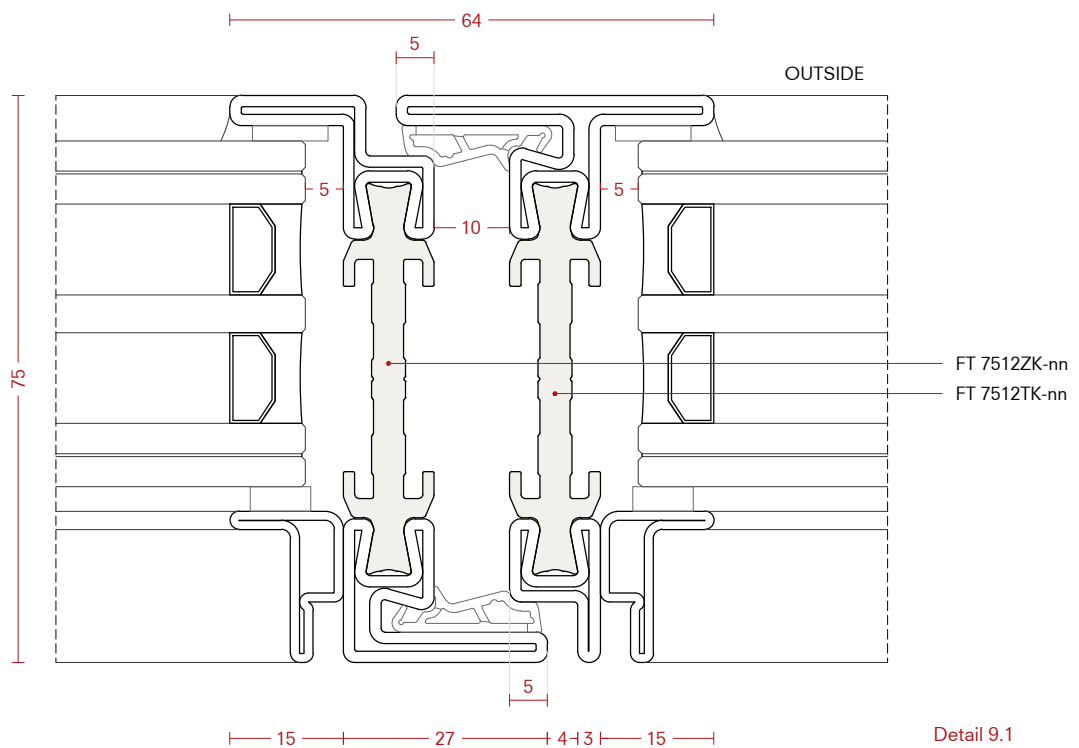
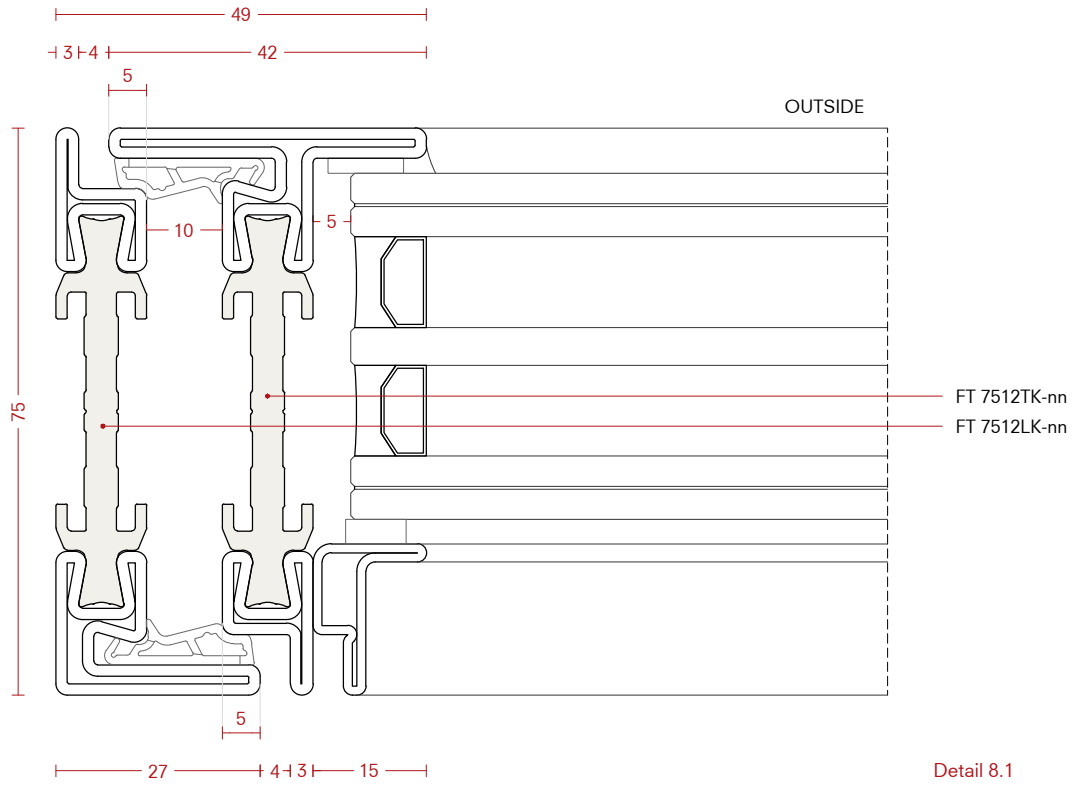
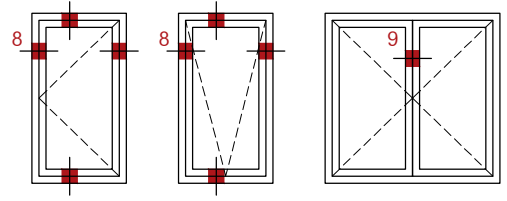
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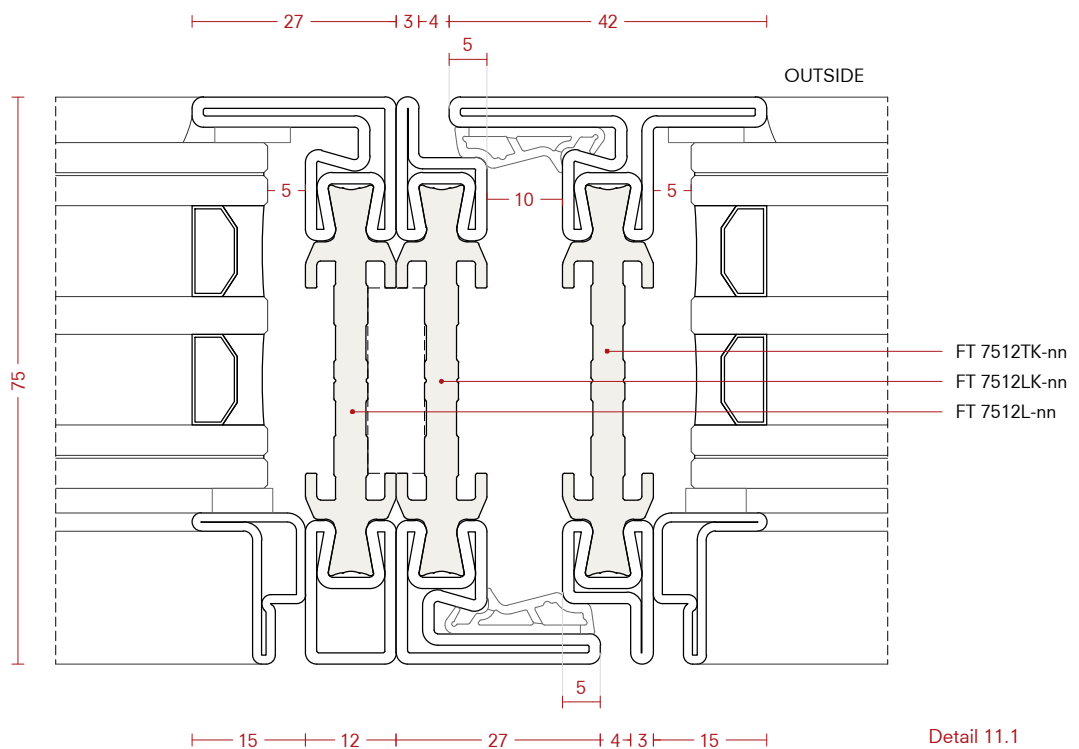
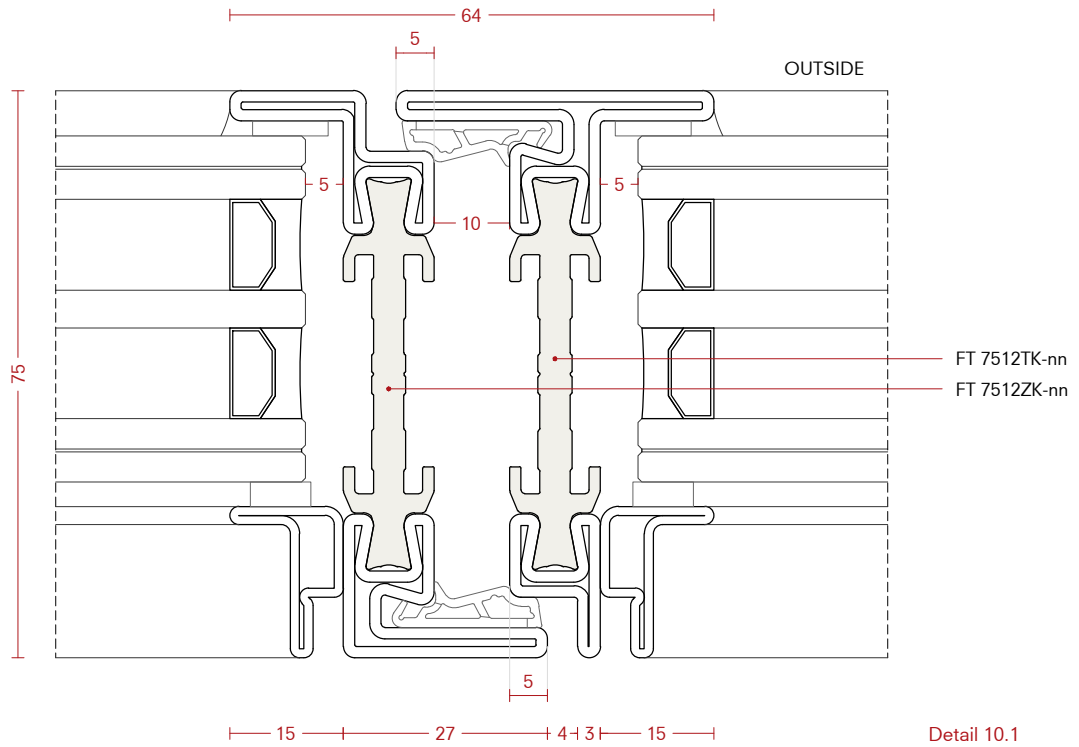
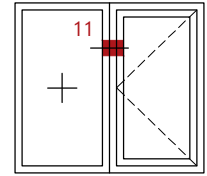
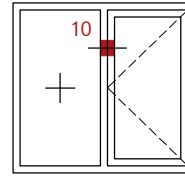


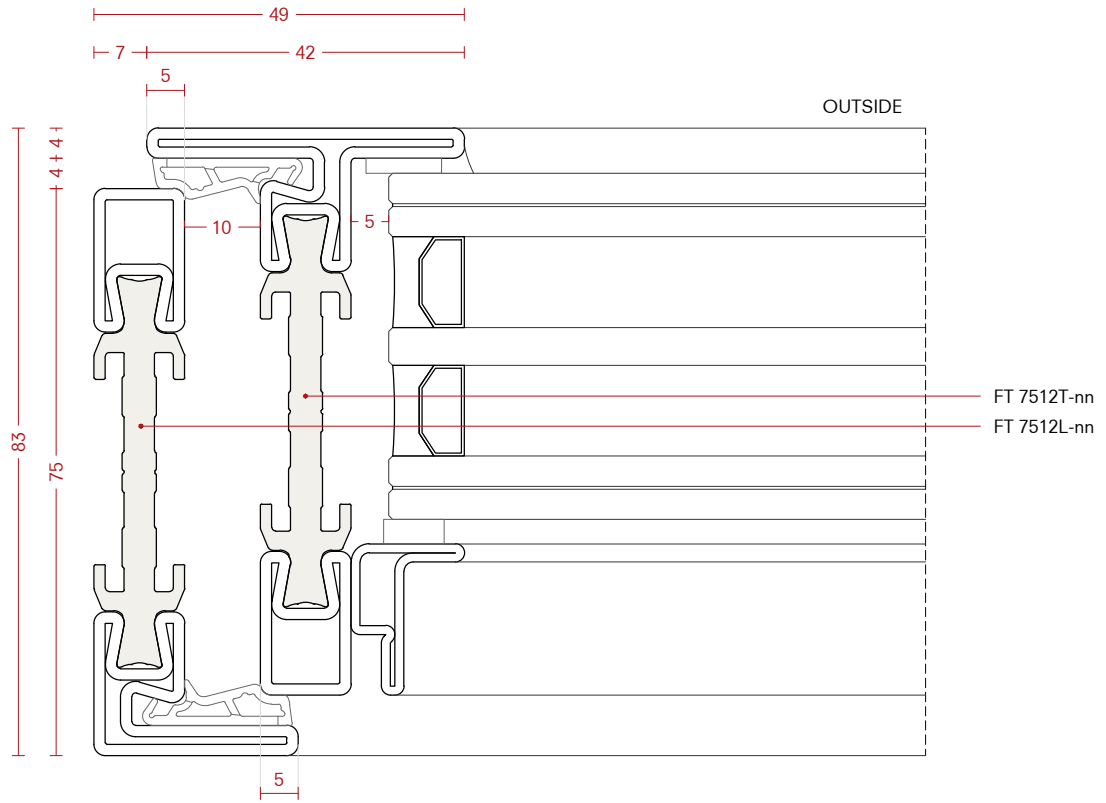
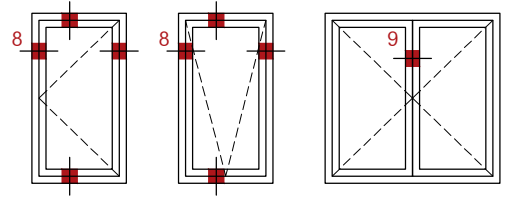
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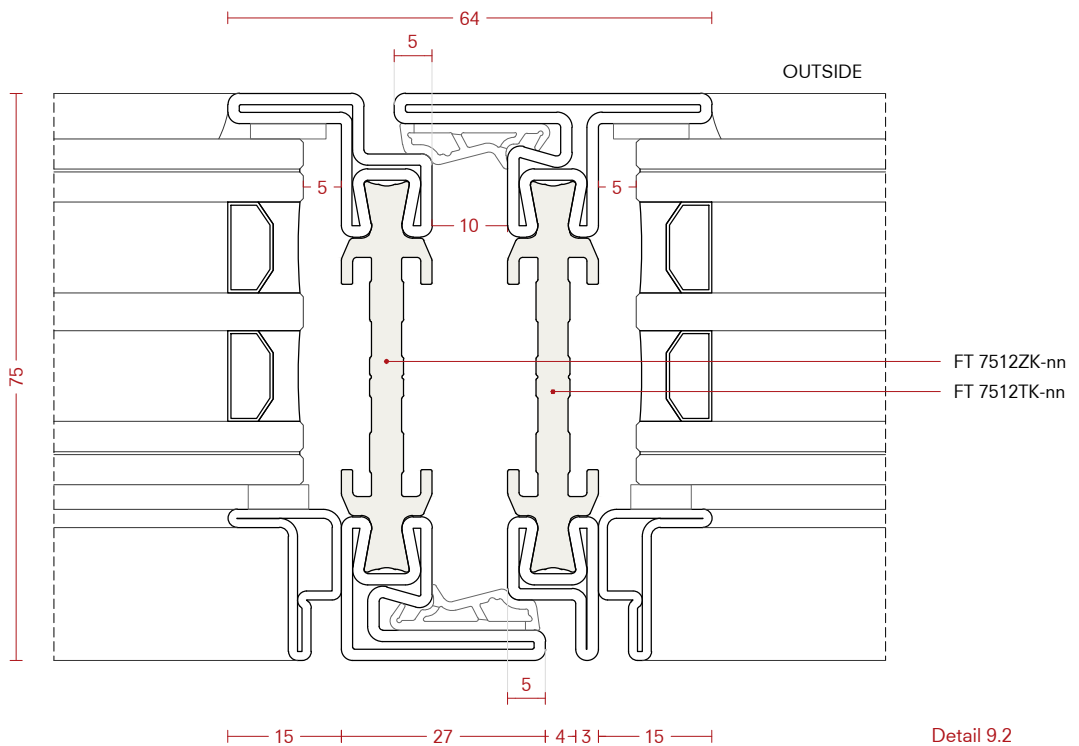
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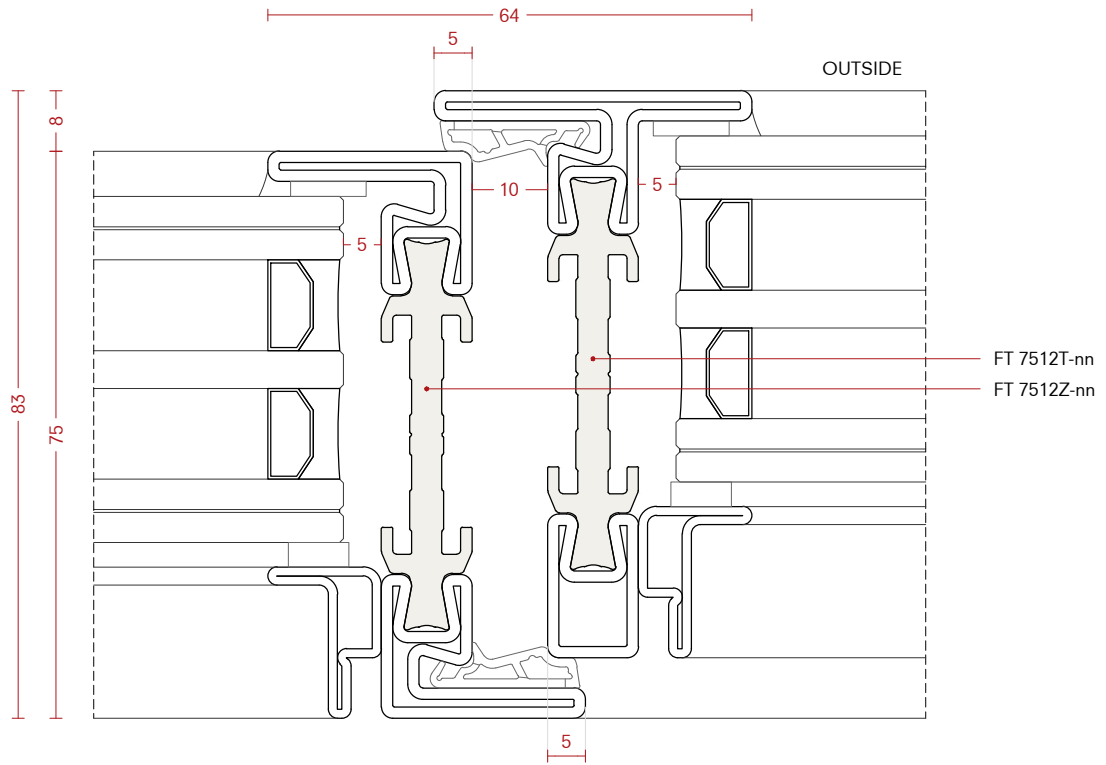
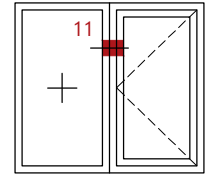
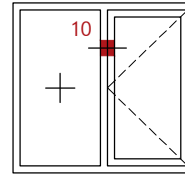


Detail 8.2

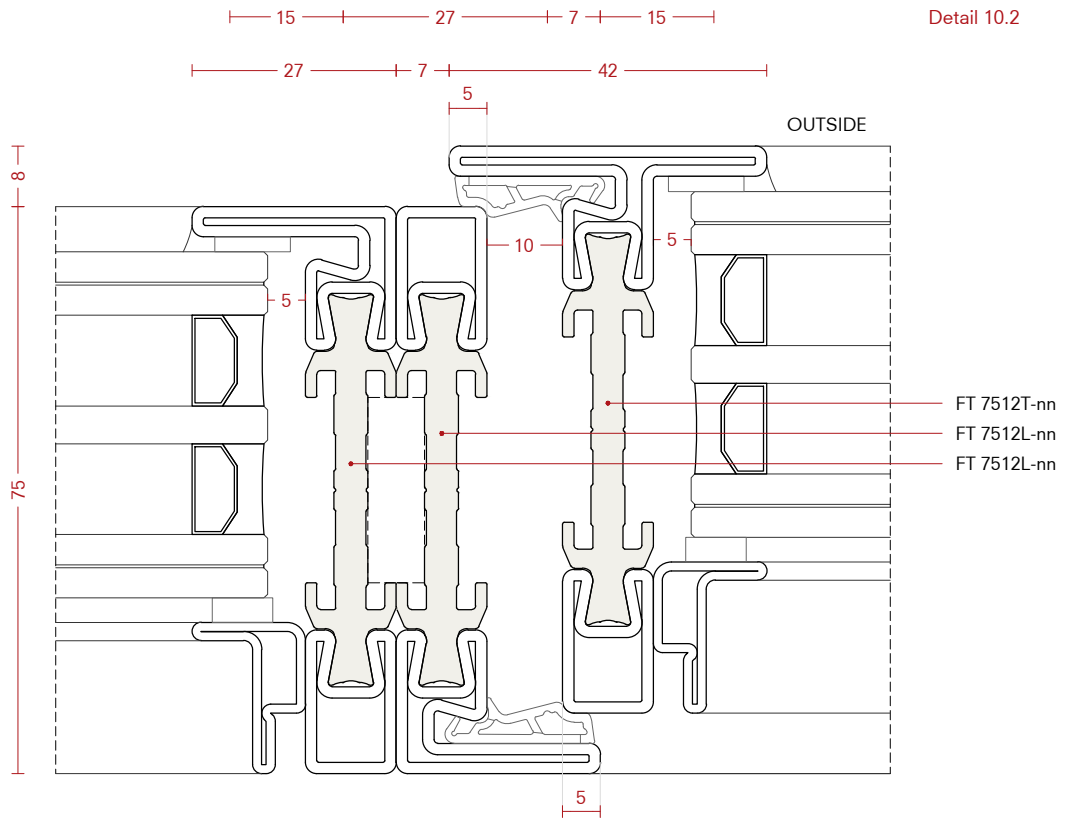


Detail 9.2

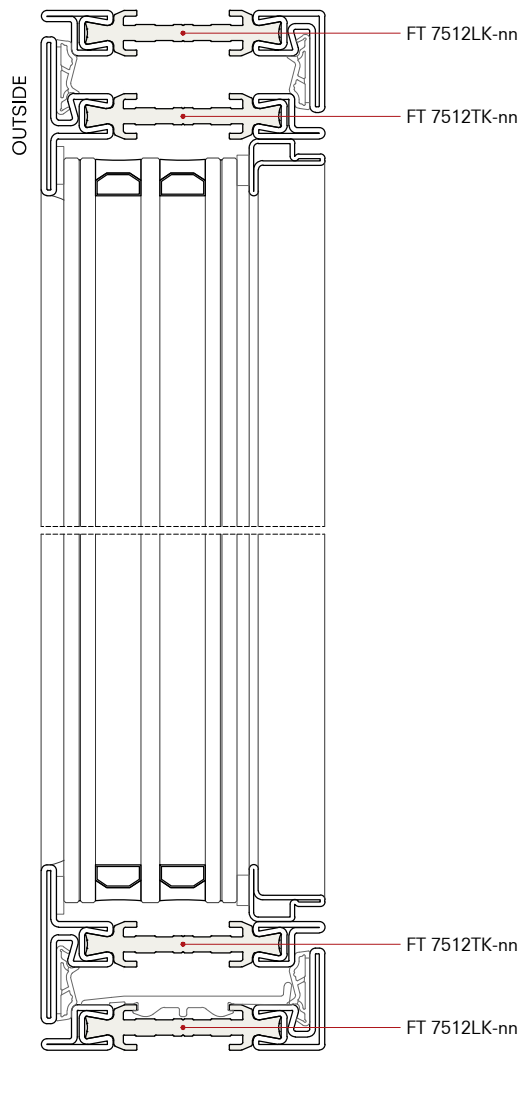
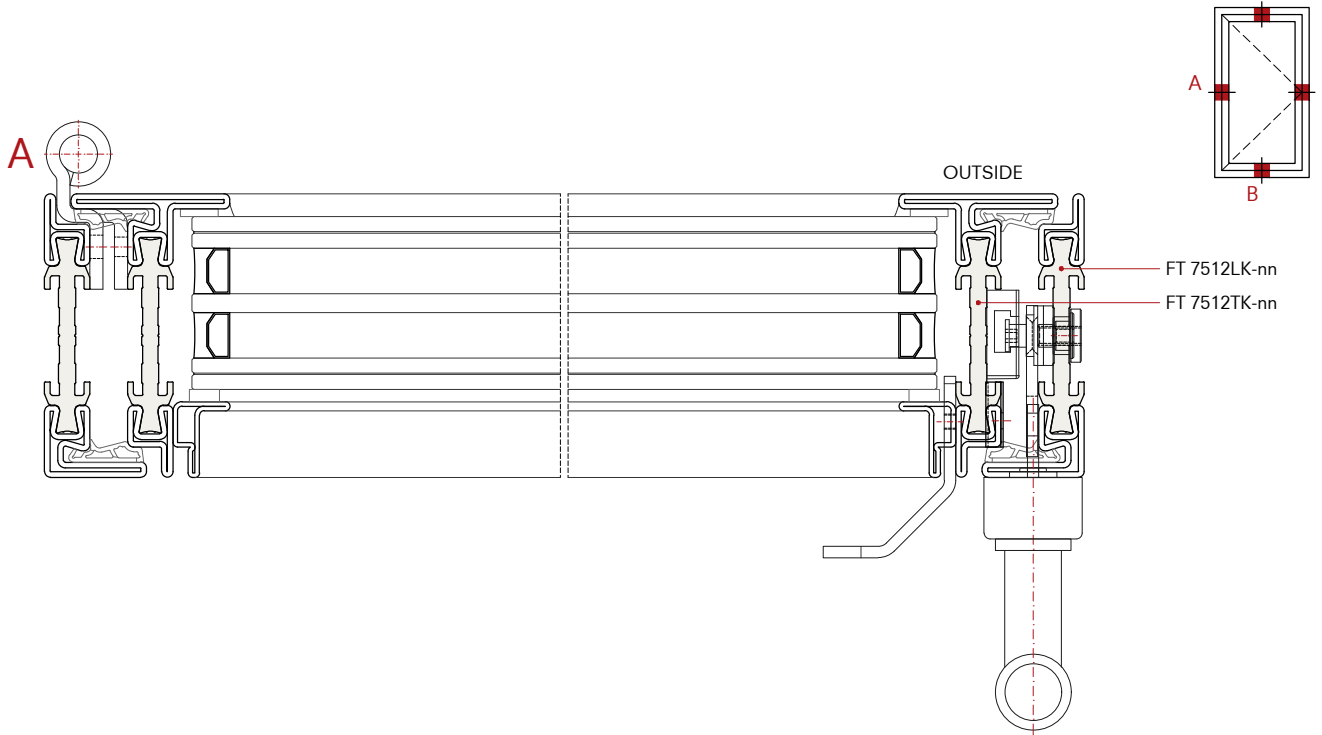


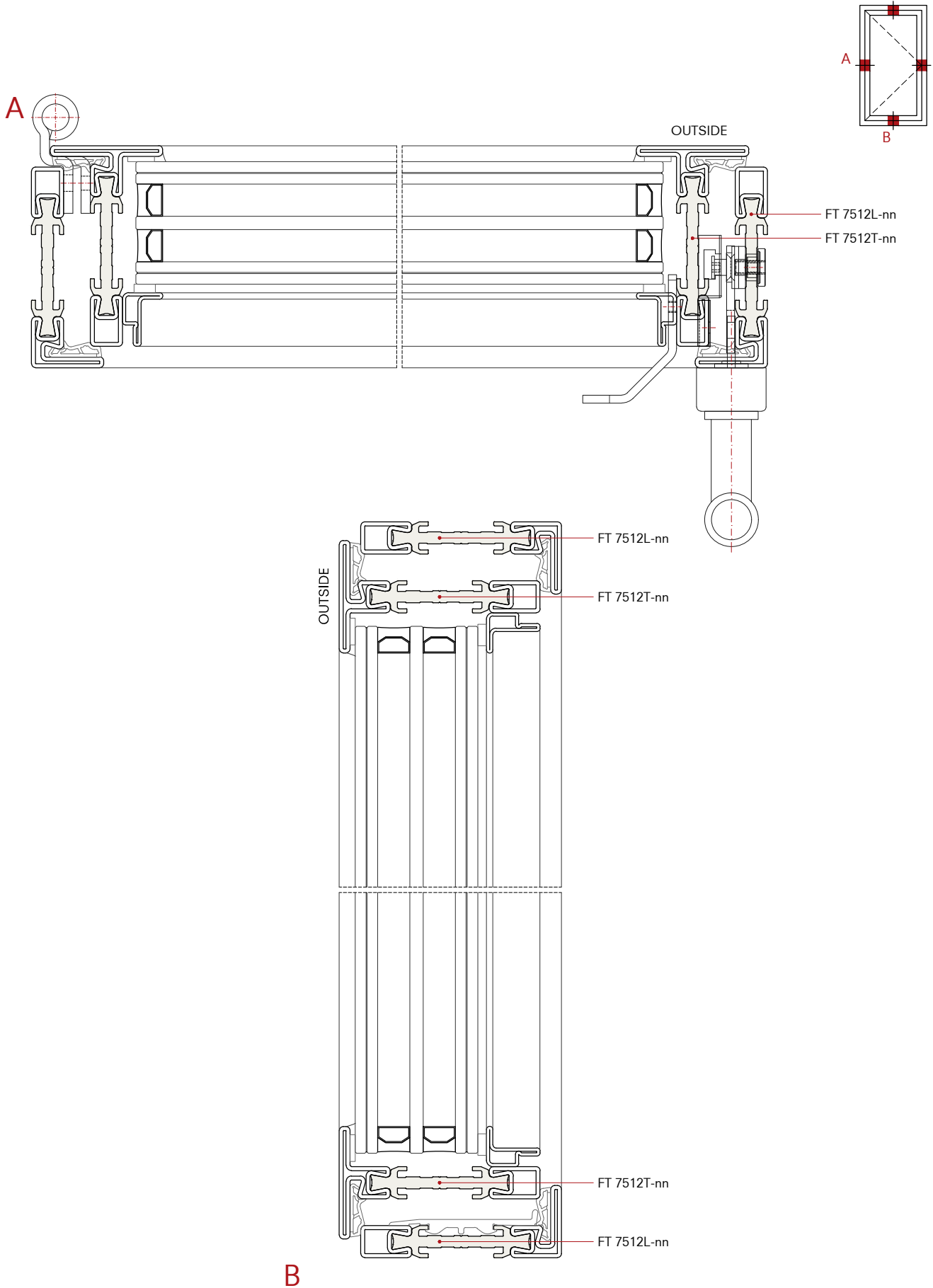


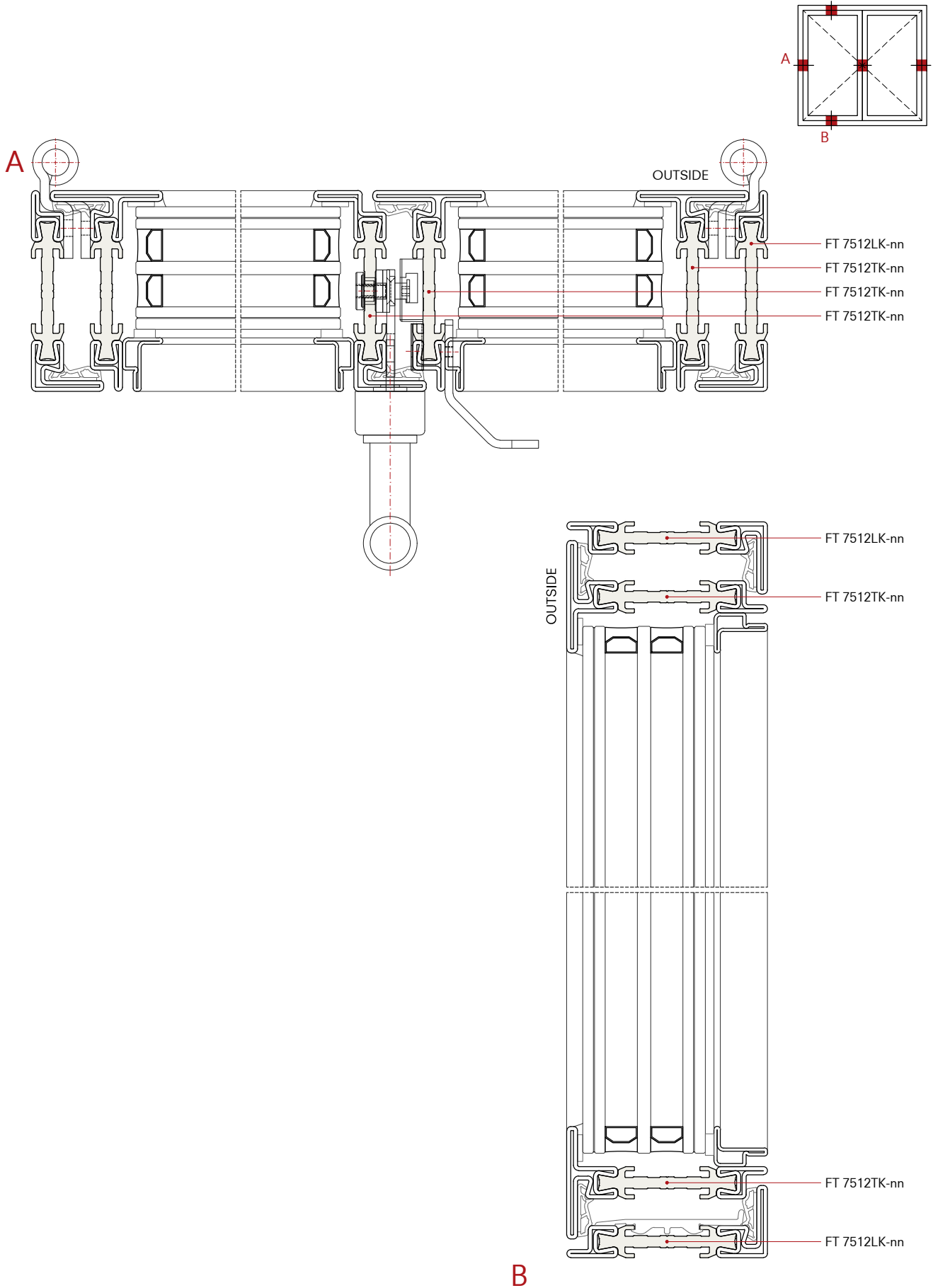
Detail 10.2

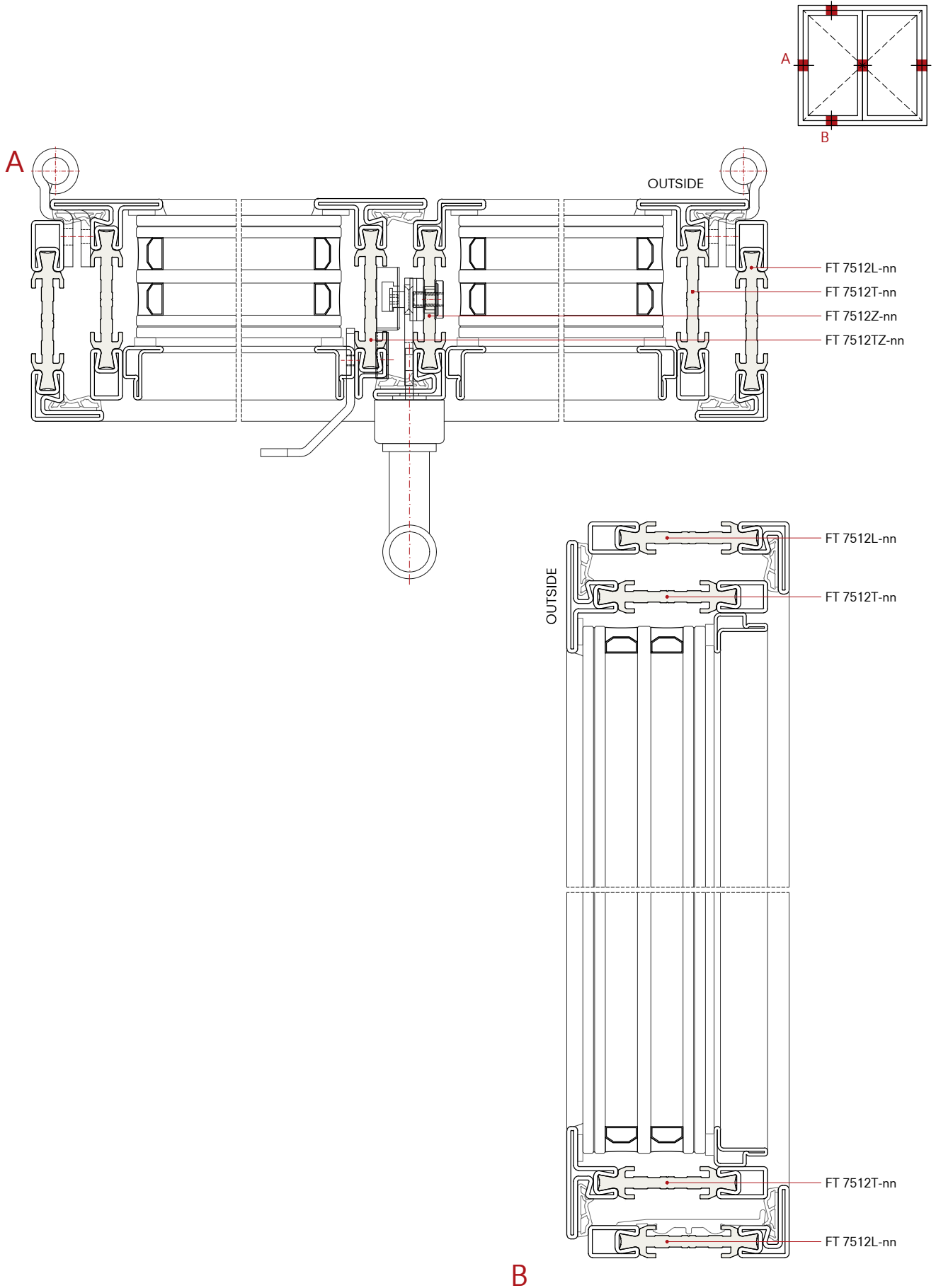


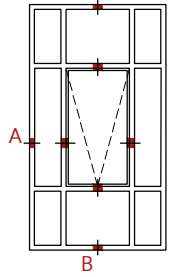
Detail 11.2



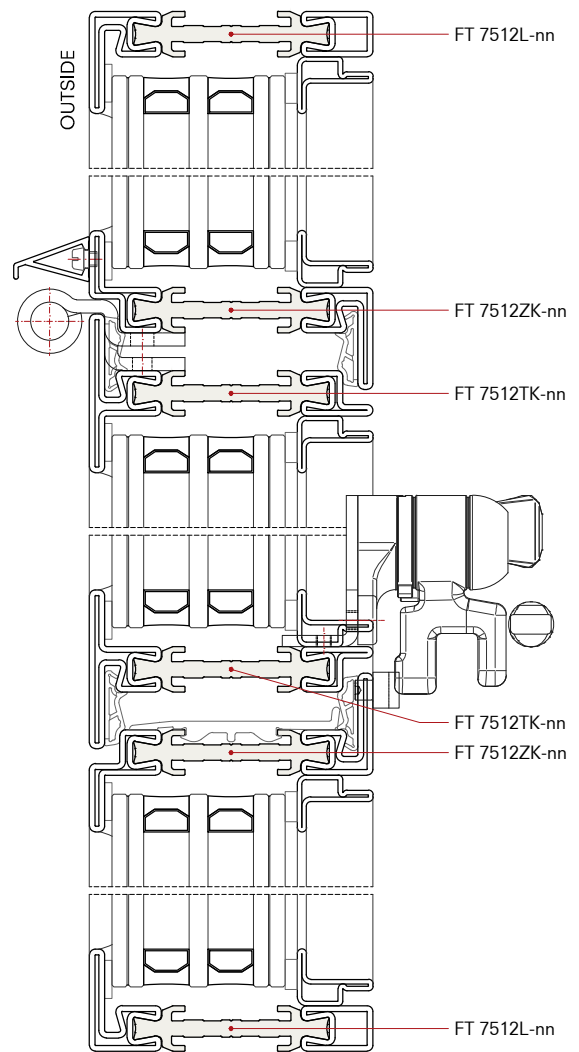
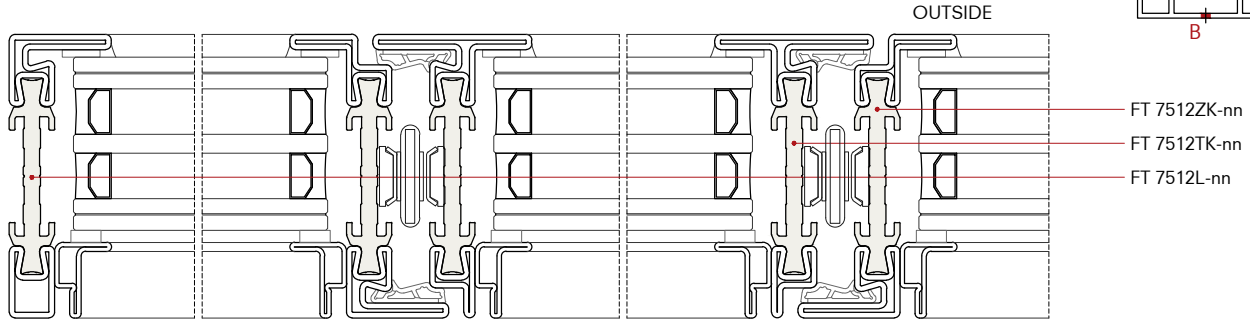




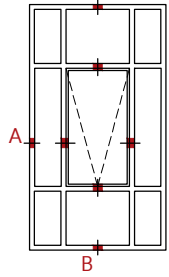




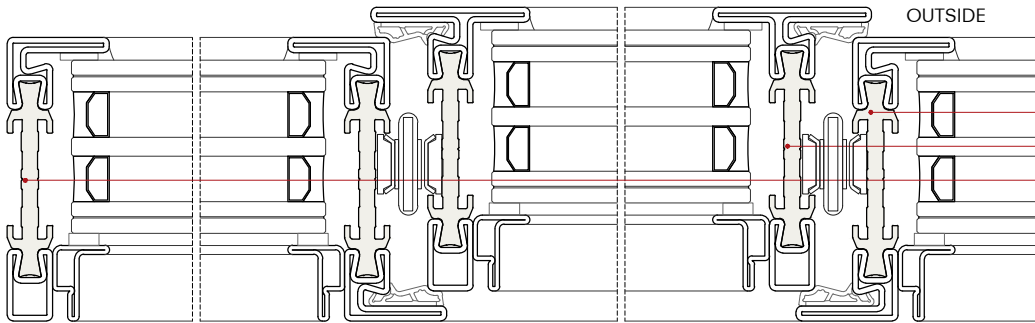
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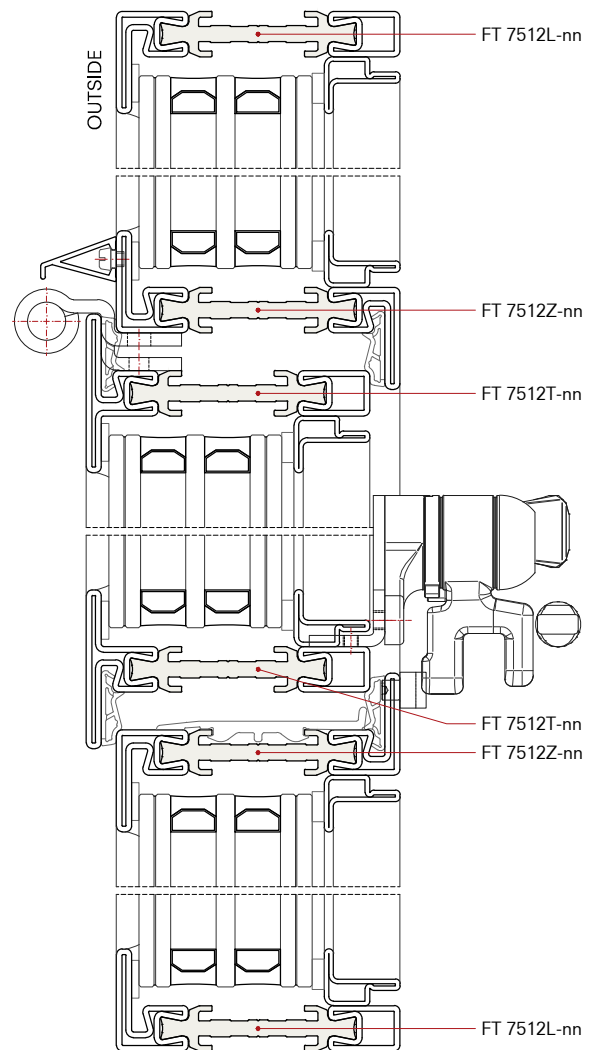
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A

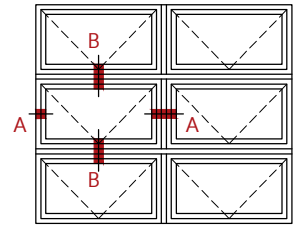


- FT 7512Z-nn
- FT 7512T-nn
- FT 7512L-nn

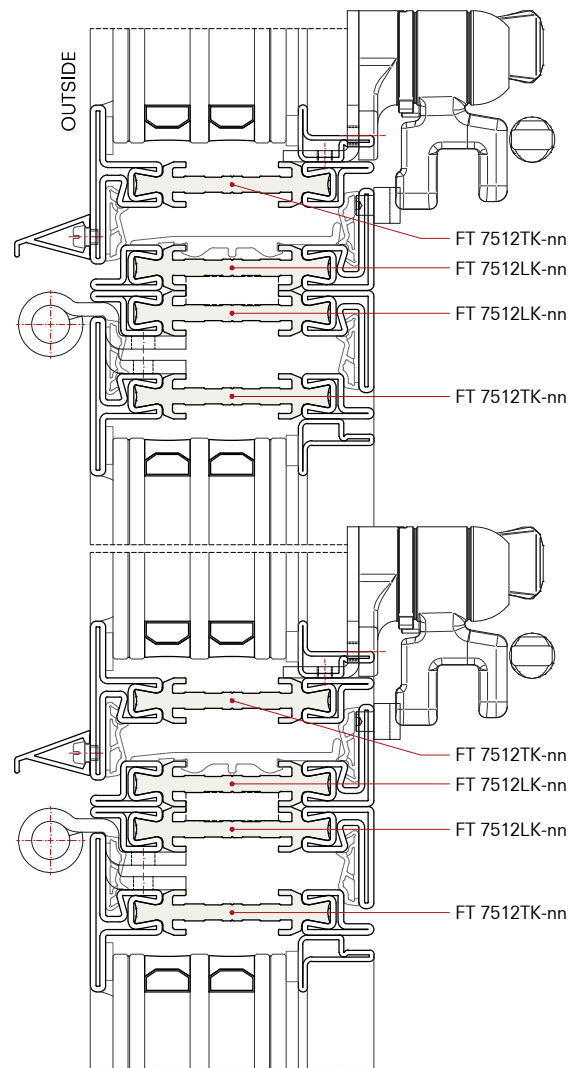
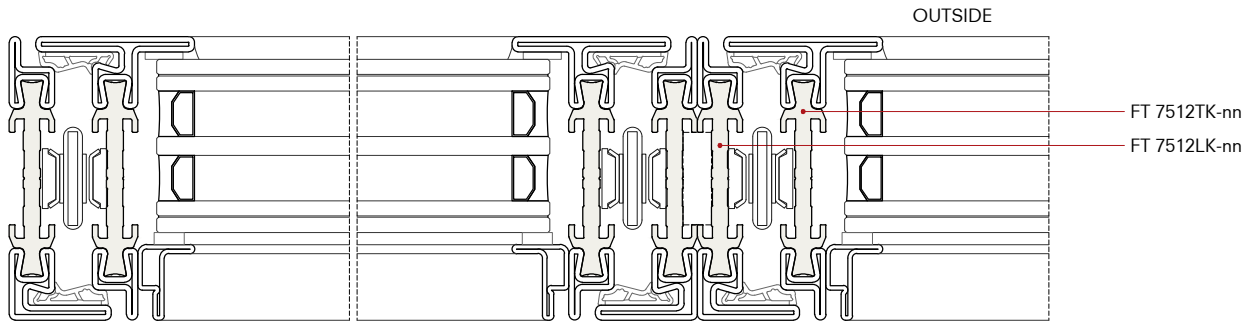


- FT 7512L-nn
- FT 7512Z-nn
- FT 7512T-nn
- FT 7512T-nn
- FT 7512Z-nn
- FT 7512L-nn

B

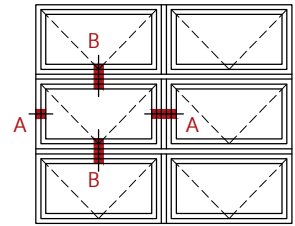


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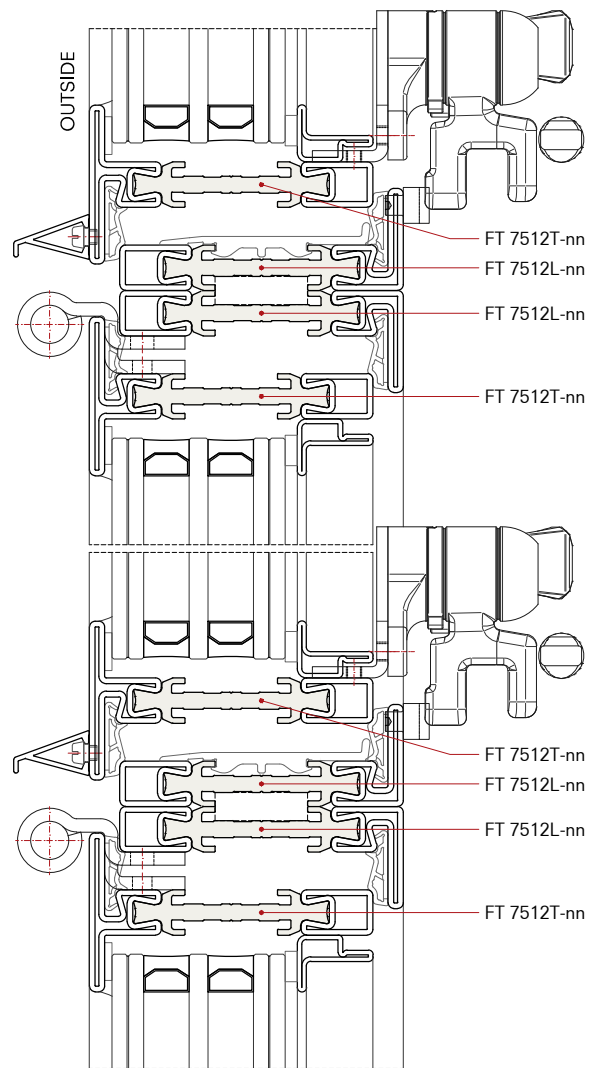
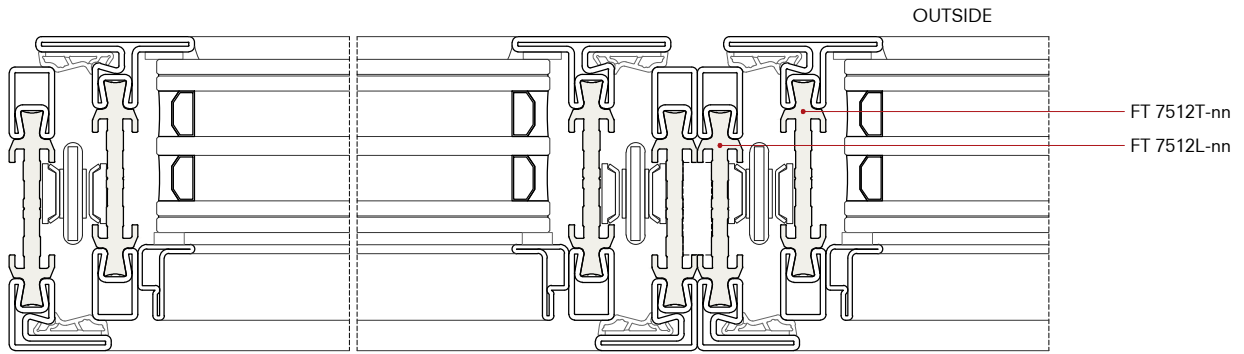


B





A

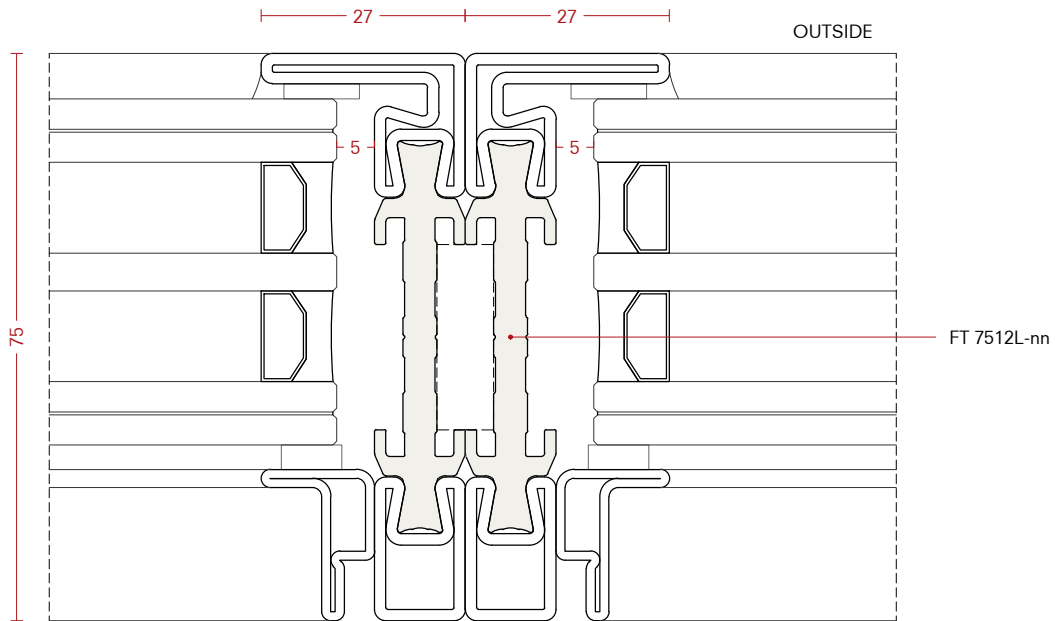
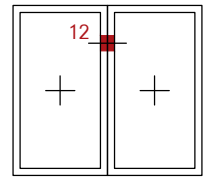


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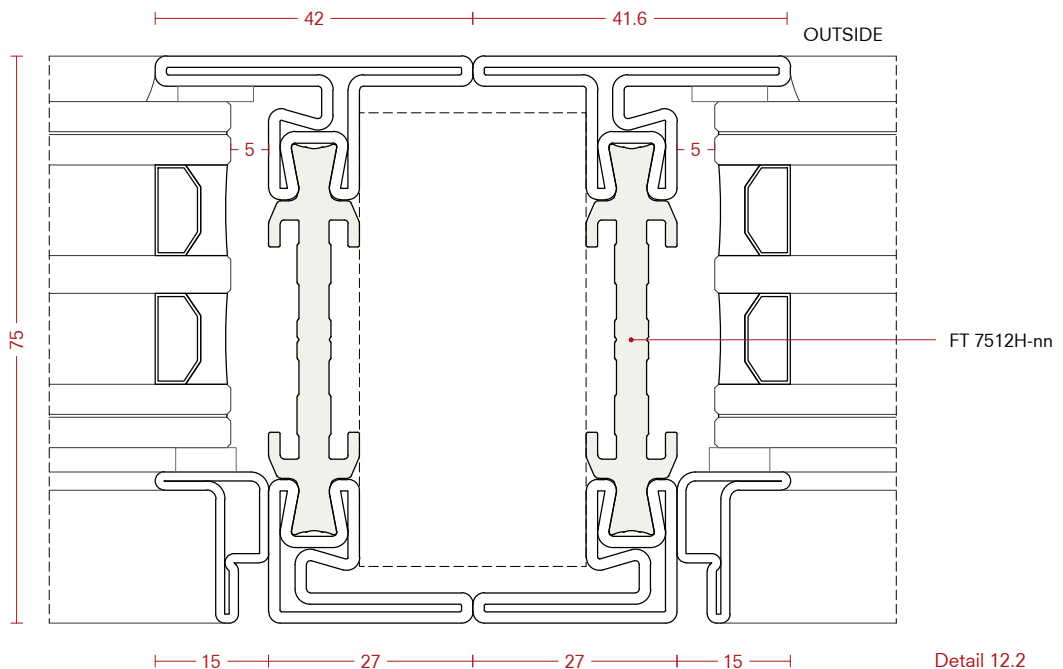
Profile matching

Accostamento telai

Combinación de marcos



Detail 12.1



Detail 12.2

**Note:**

For the cutting list, consider the appropriate machining and welding tolerances in relation to the laying areas and the sealing chosen.

**Nota:**

Per la distinta di taglio considerare le opportune tolleranze di lavorazione e saldatura in relazione alle arie di posa e alle sigillature scelte.

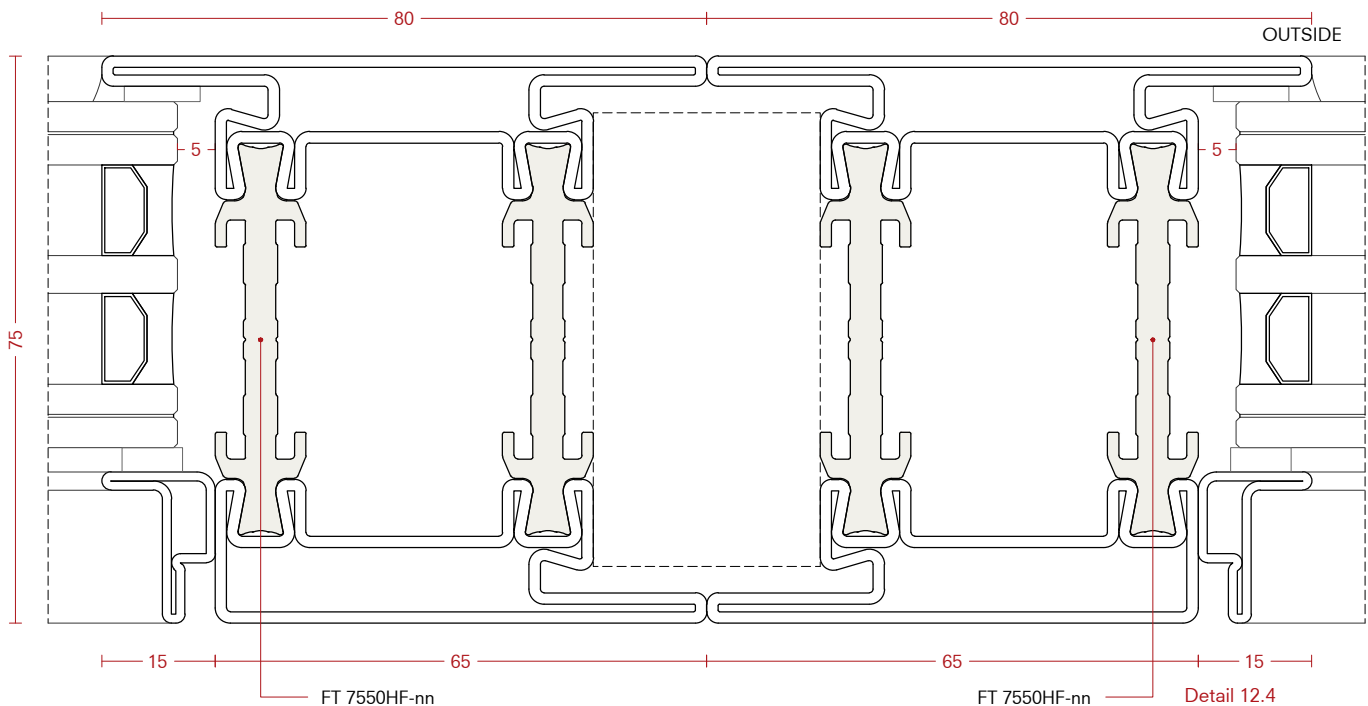
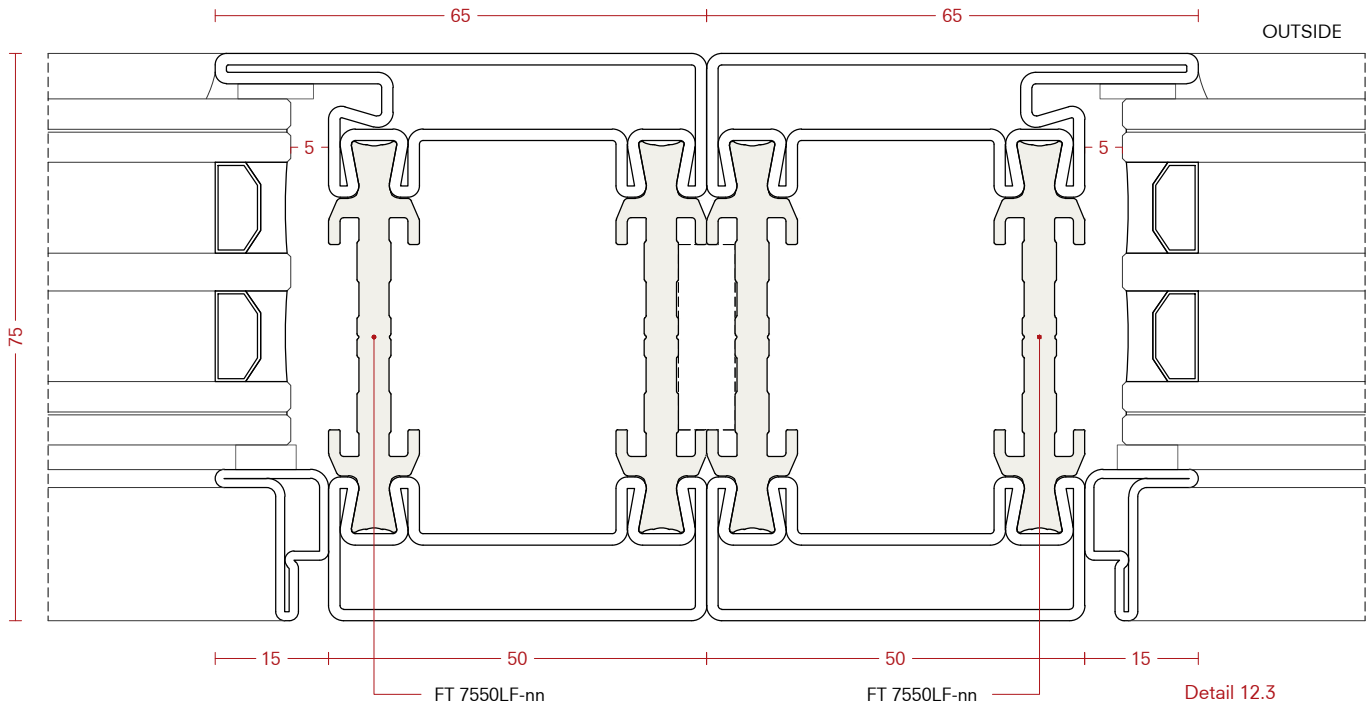
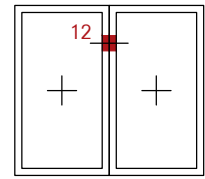
**Nota:**

Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

Accostamento telai

Combinación de marcos



Note:

For the cutting list, consider the appropriate machining and welding tolerances in relation to the laying areas and the sealing chosen.

Nota:

Per la distinta di taglio considerare le opportune tolleranze di lavorazione e saldatura in relazione alle arie di posa e alle sigillature scelte.

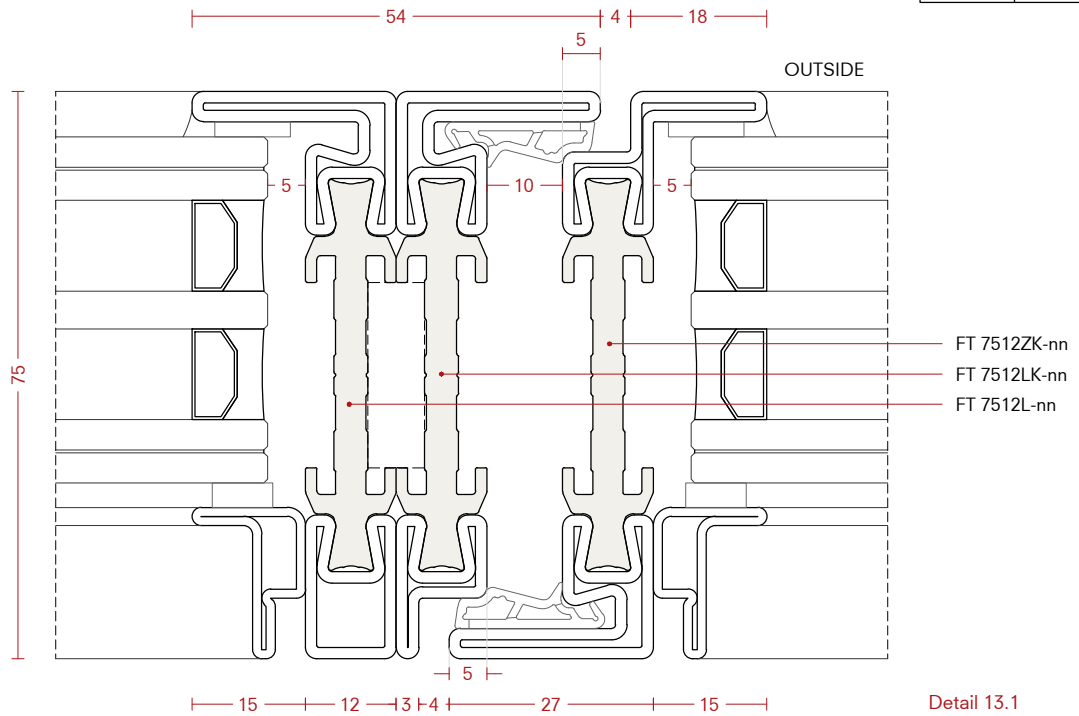
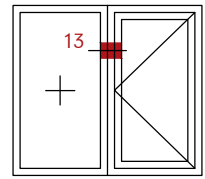
Nota:

Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

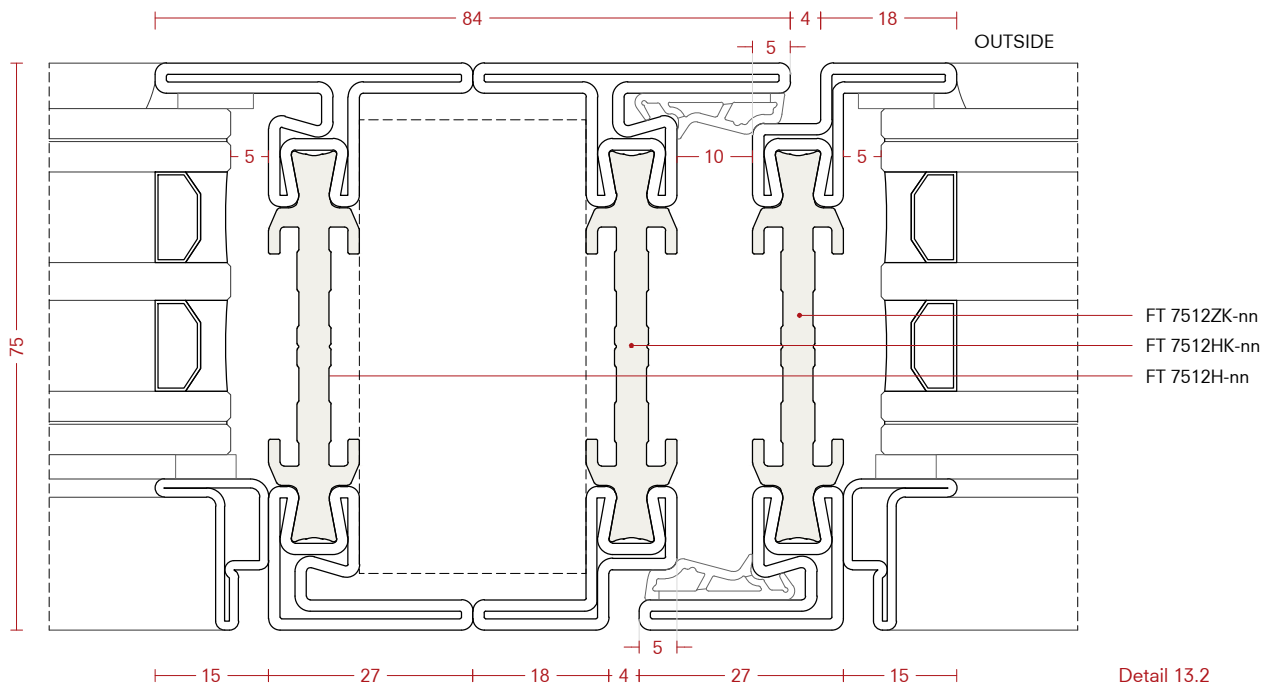
Profile matching

Accostamento telai

Combinación de marcos



Detail 13.1



Detail 13.2

**Note:**

For the cutting list, consider the appropriate machining and welding tolerances in relation to the laying areas and the sealing chosen.

**Nota:**

Per la distinta di taglio considerare le opportune tolleranze di lavorazione e saldatura in relazione alle arie di posa e alle sigillature scelte.

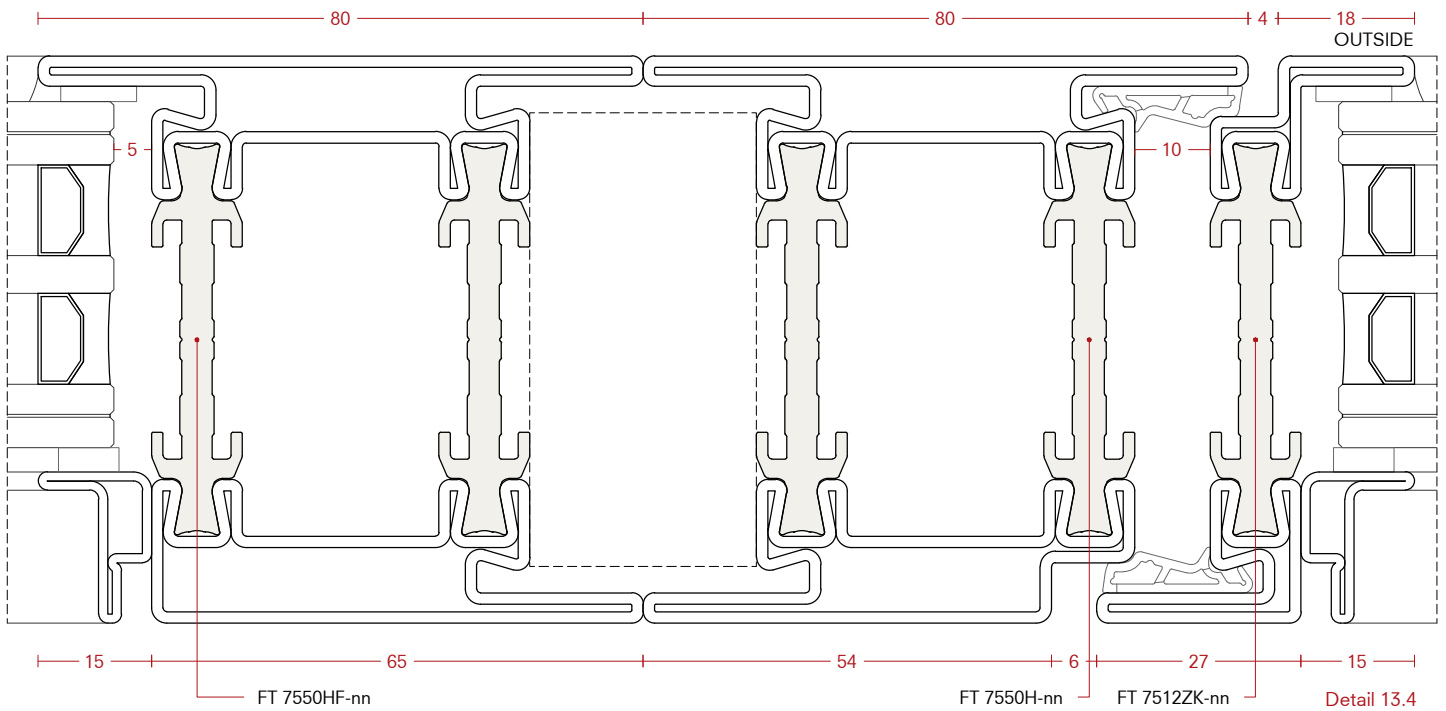
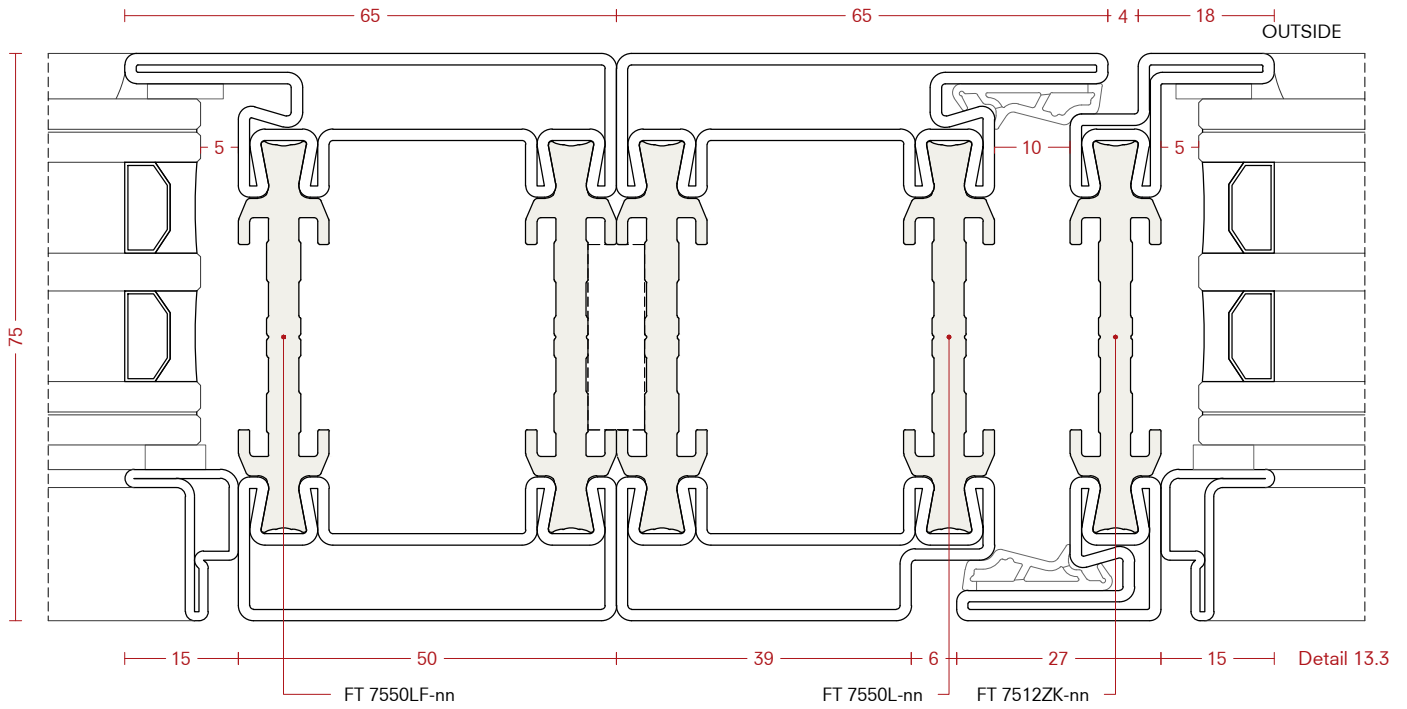
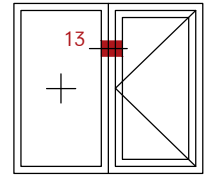
**Nota:**

Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

Accostamento telai

Combinación de marcos



**Note:**

For the cutting list, consider the appropriate machining and welding tolerances in relation to the laying areas and the sealing chosen.

**Nota:**

Per la distinta di taglio considerare le opportune tolleranze di lavorazione e saldatura in relazione alle arie di posa e alle sigillature scelte.

**Nota:**

Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

**Profile matching**

**Accostamento telai**

**Combinación de marcos**

**Note:**

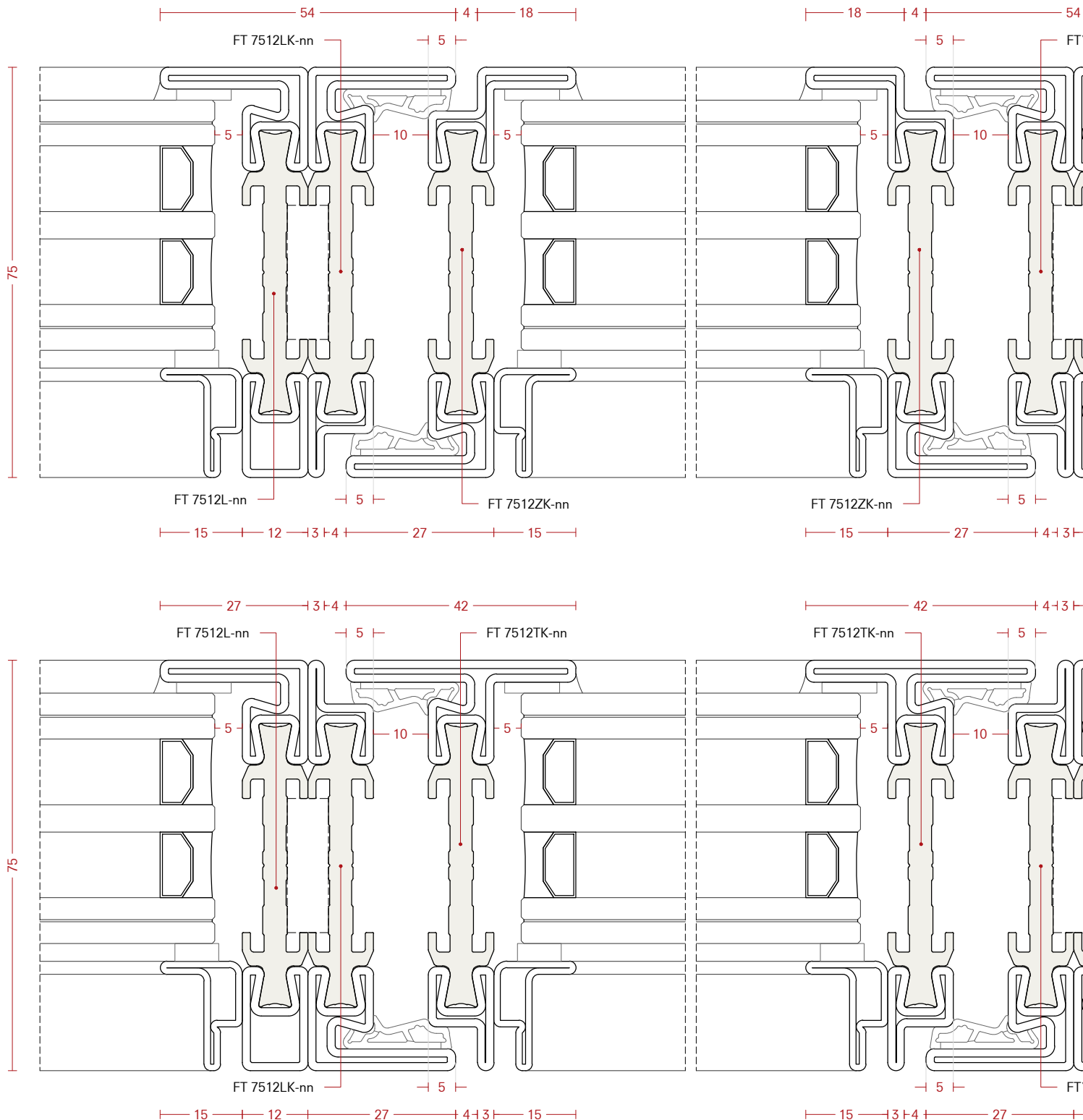
For the cutting list, consider the relevant machining and welding tolerances taking into account the necessary gaps in the installation of frames and the chosen sealing.

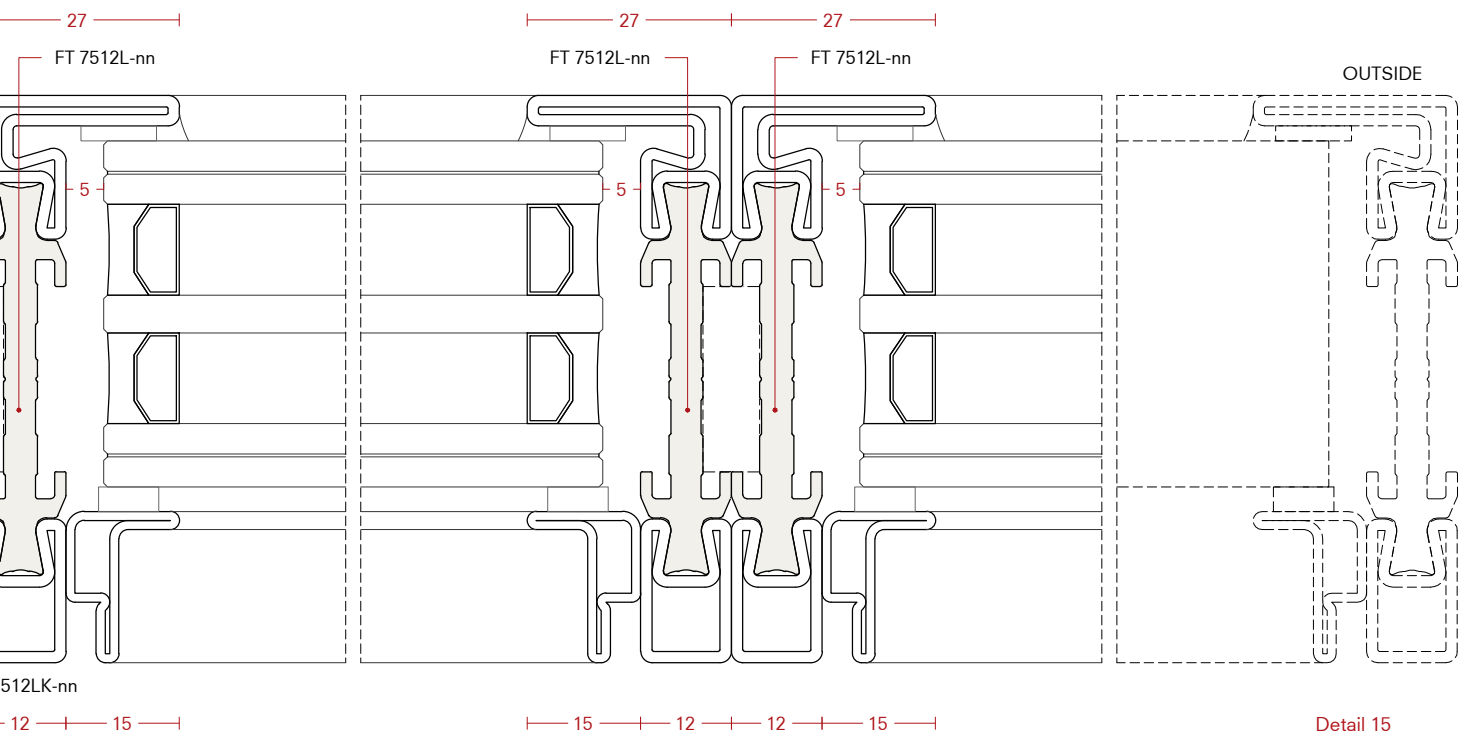
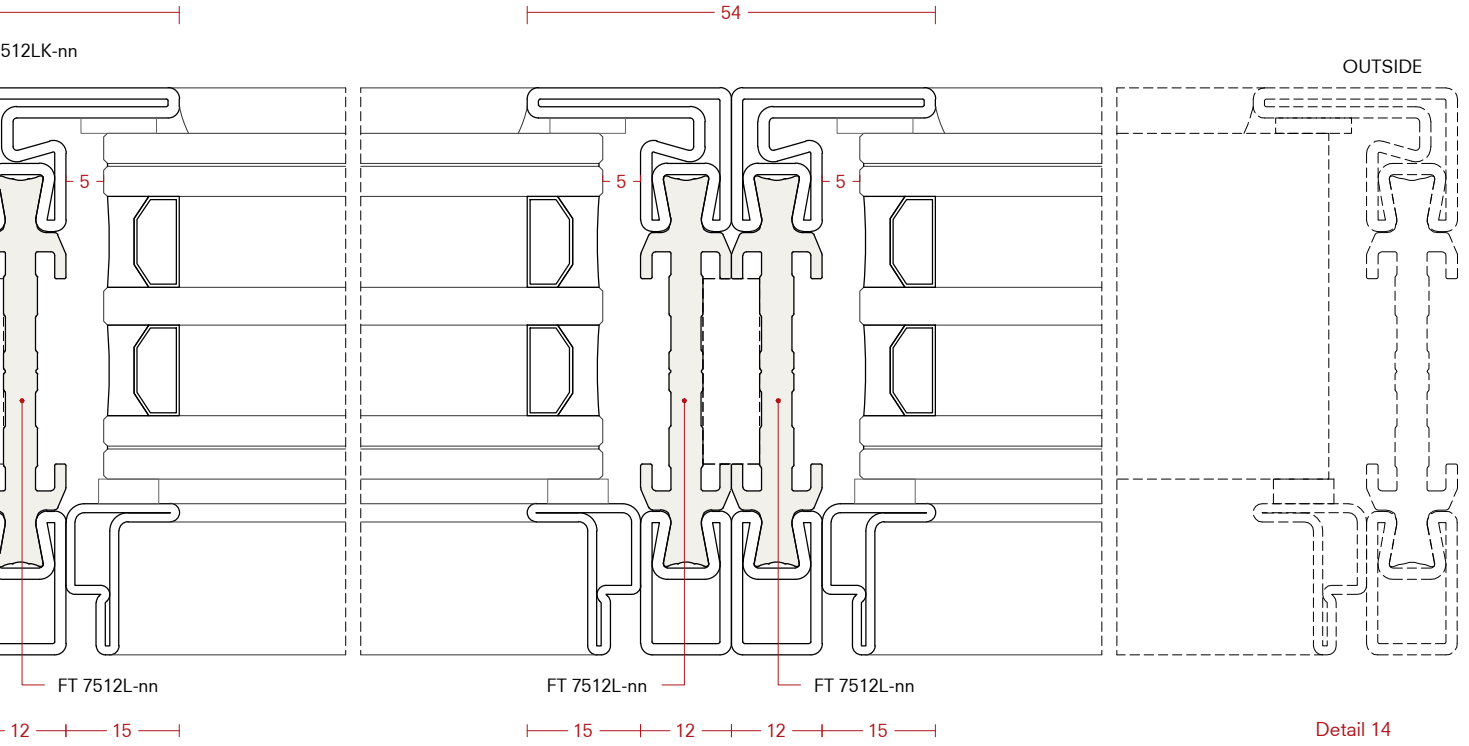
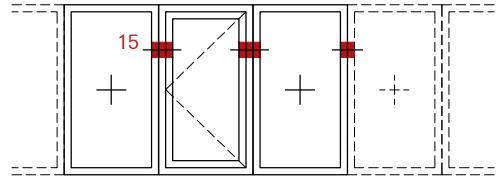
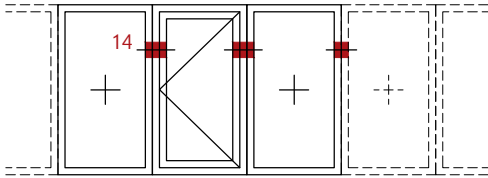
**Nota:**

Per la distinta di taglio, considerare le corrette tolleranze di lavorazione e saldatura, in relazione all'aria necessaria nell'installazione e alla sigillatura scelta.

**Nota:**

Para la lista de cortes, considere las correctas tolerancias de mecanizado y soldadura, en relación al aire requerido en la instalación y el sello elegido.









Door details

Sezioni porte

Detalles de puertas

4.2

**Legend**

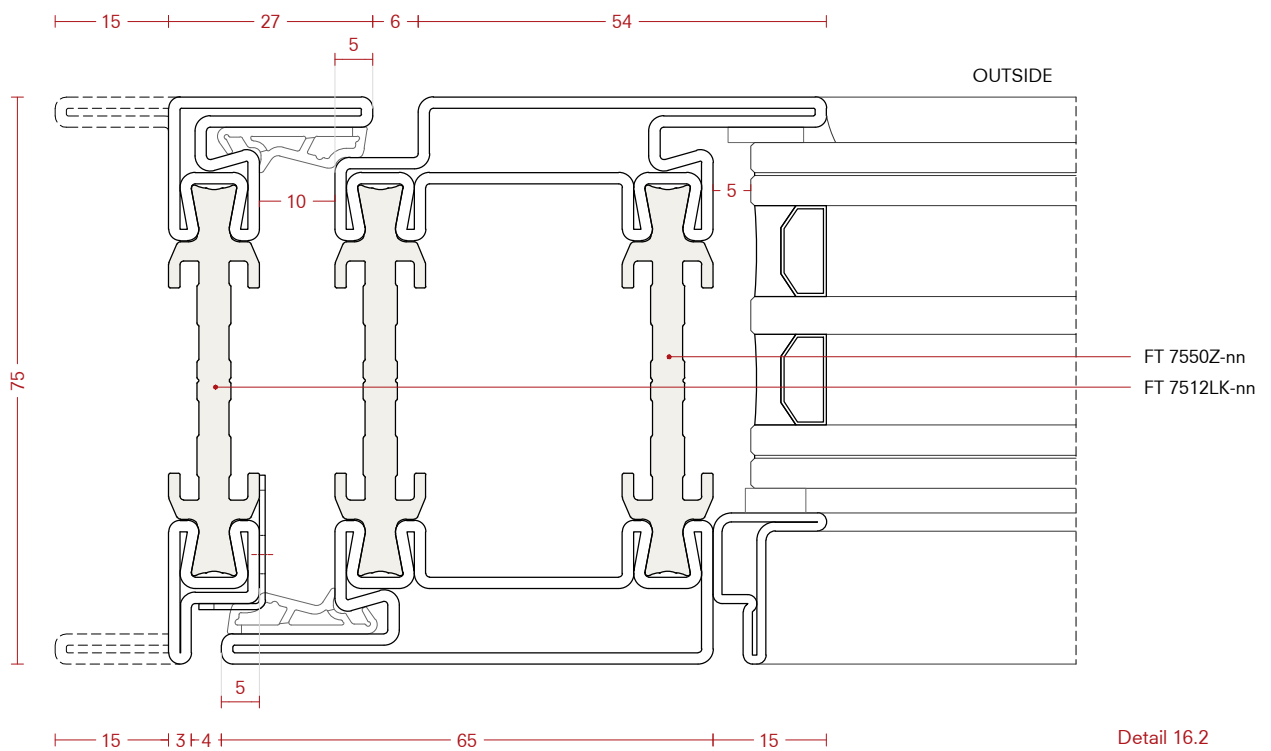
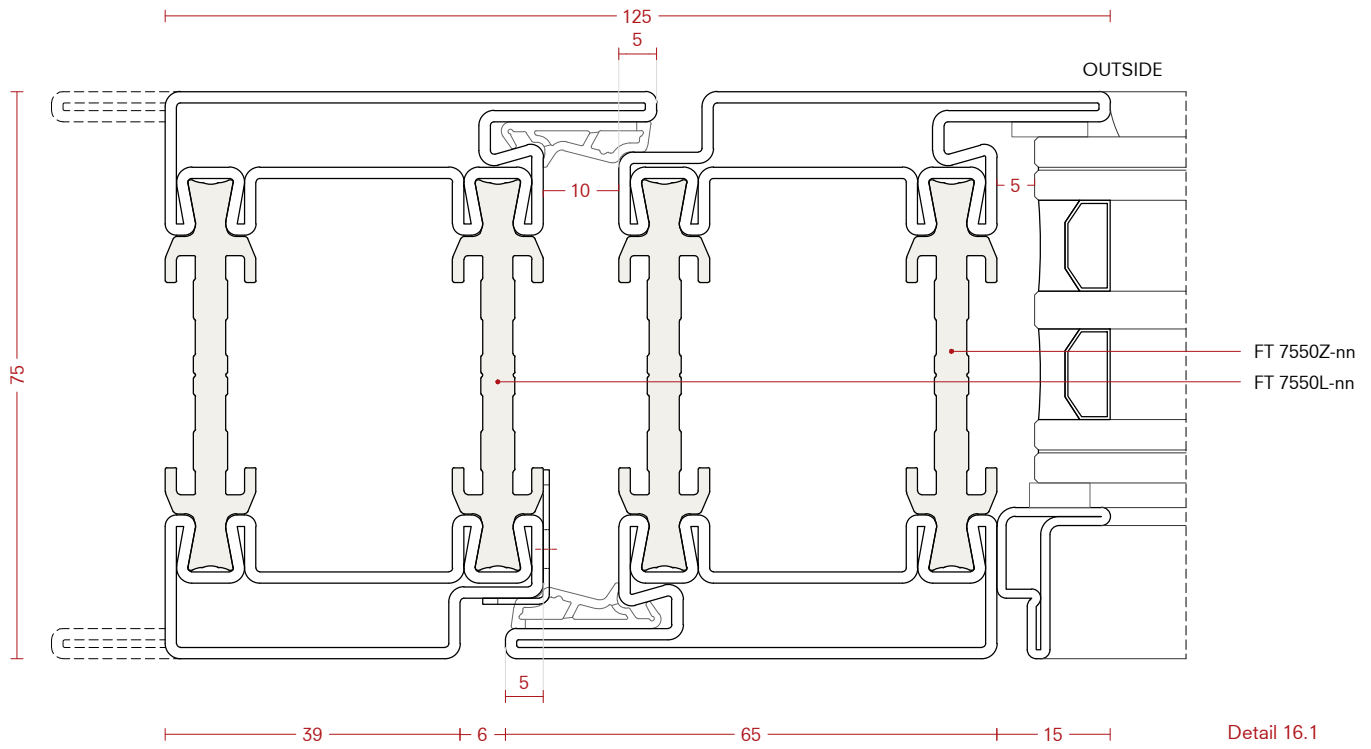
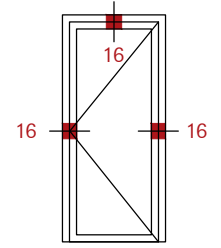
+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1 - 1:2

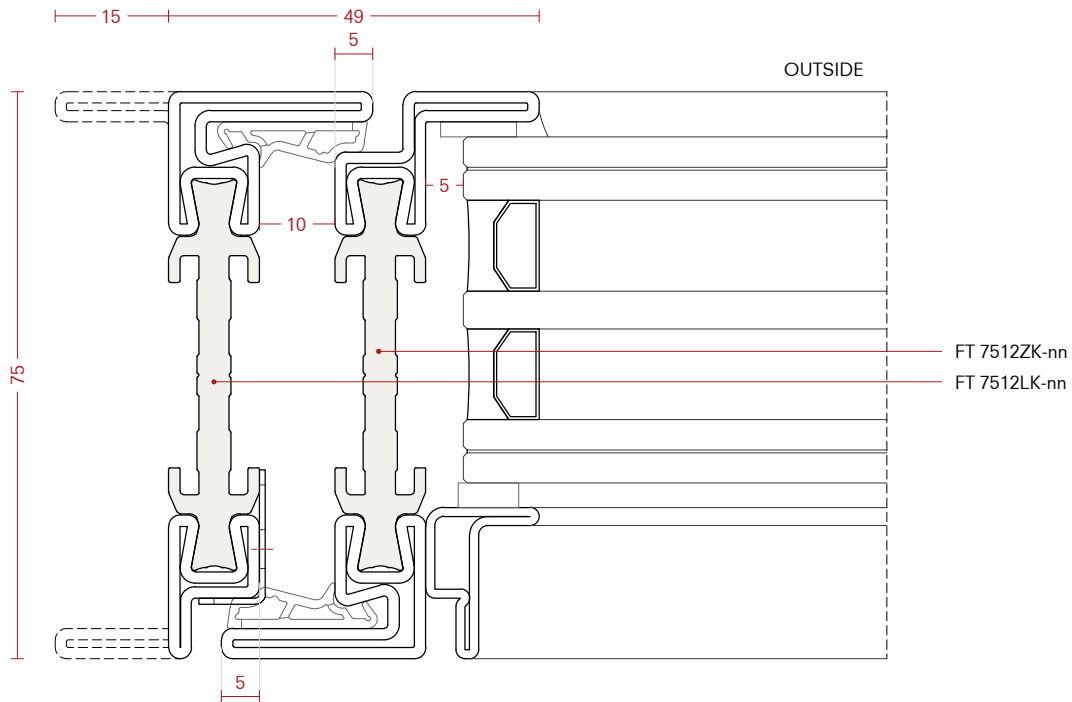
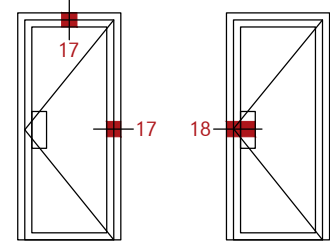
**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1 - 1:2

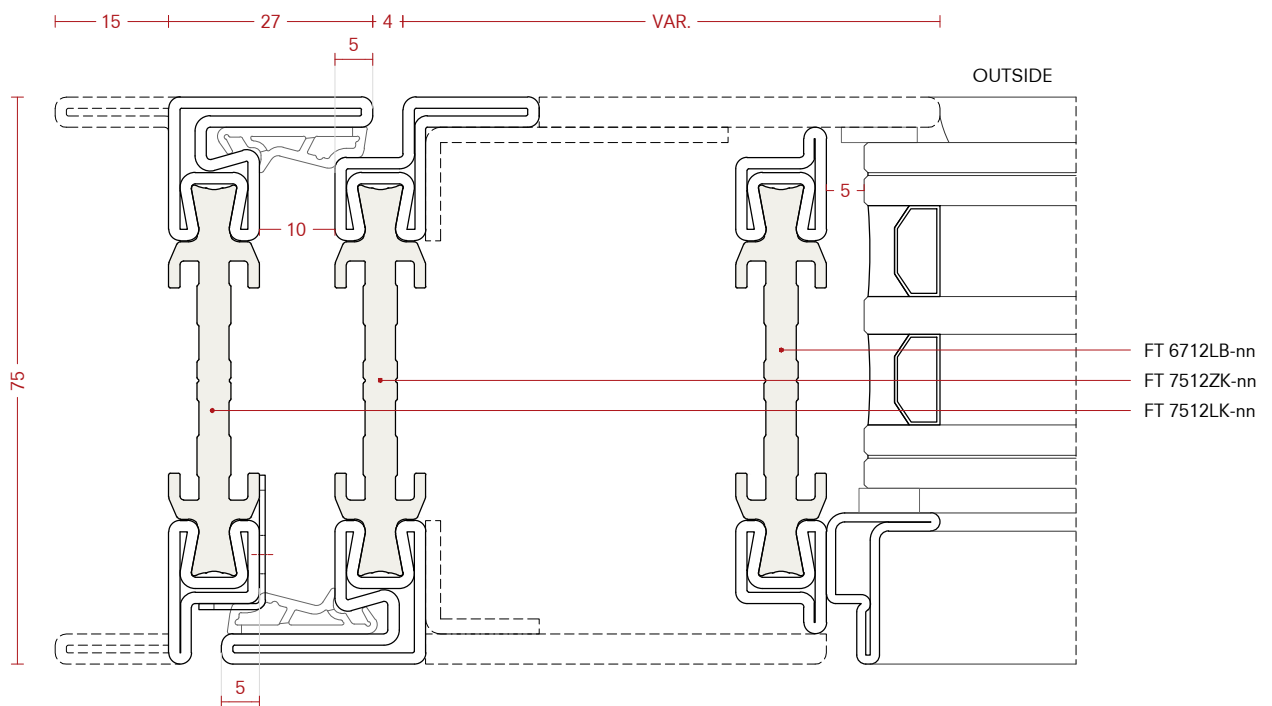
**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1 - 1:2

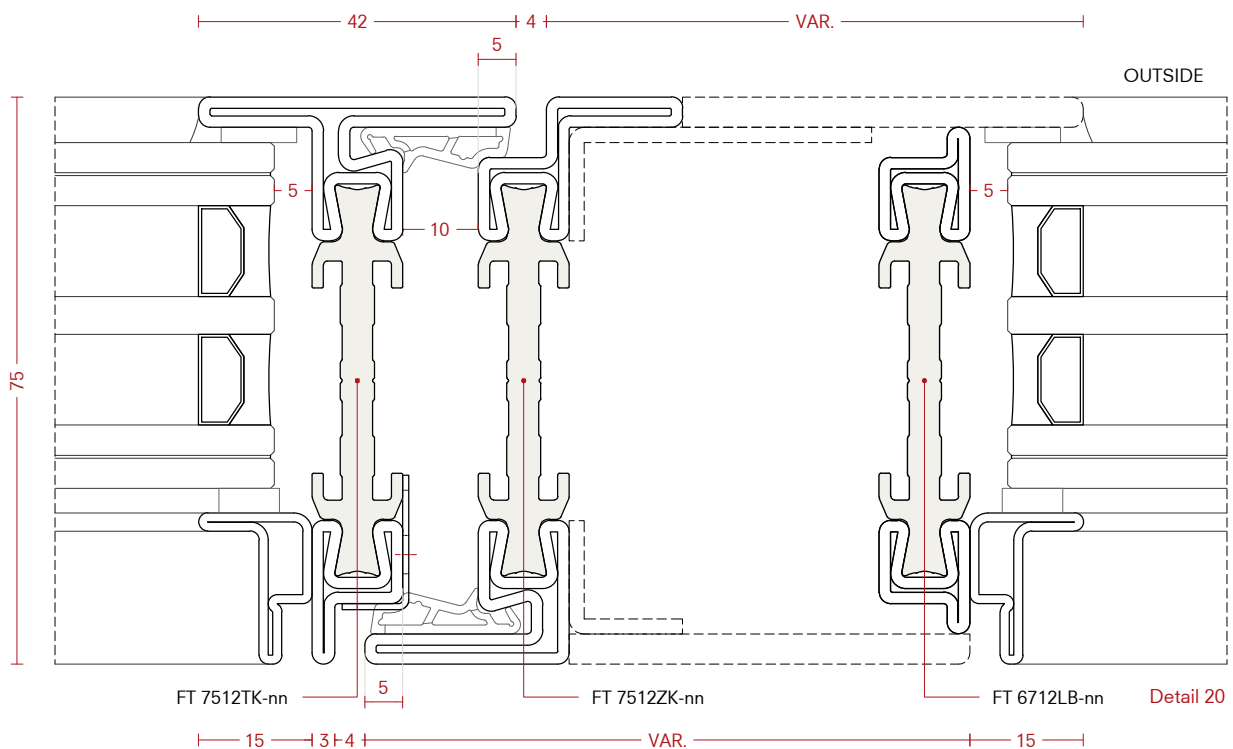
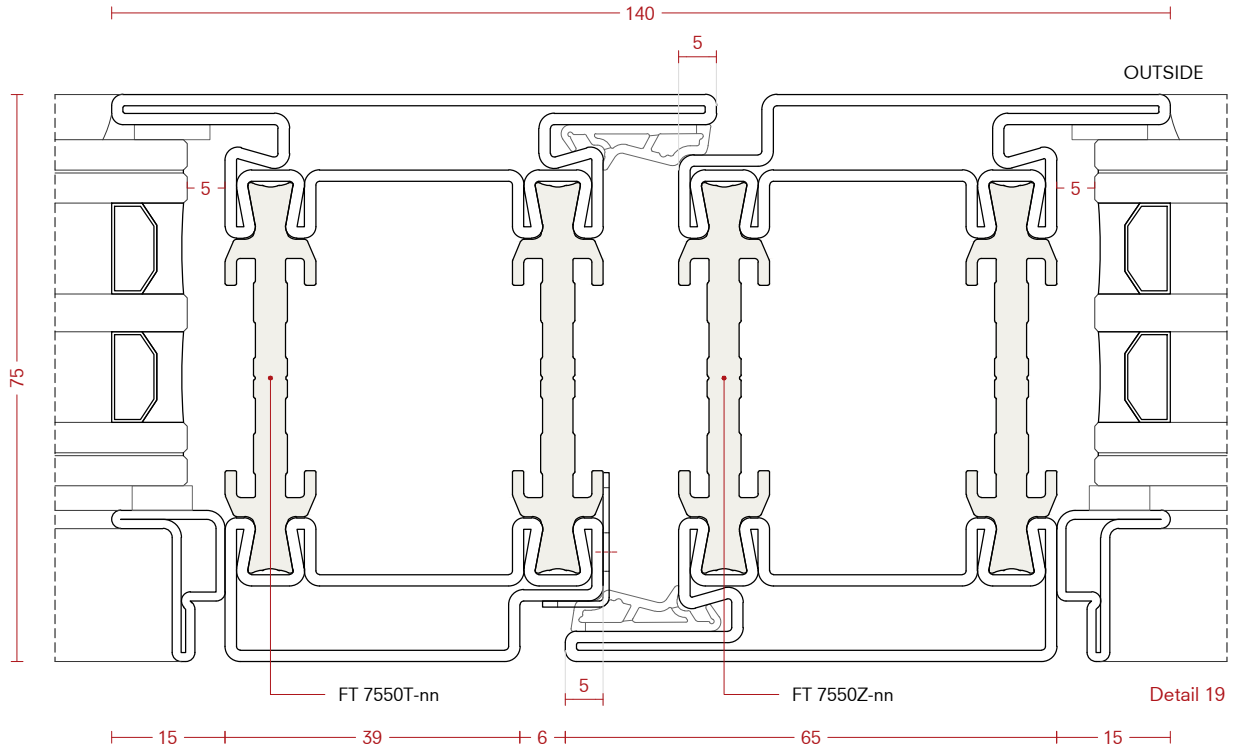
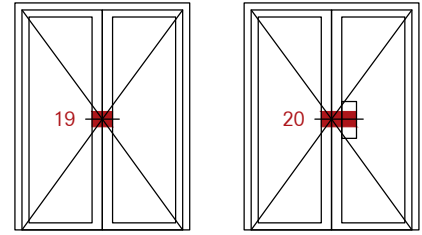


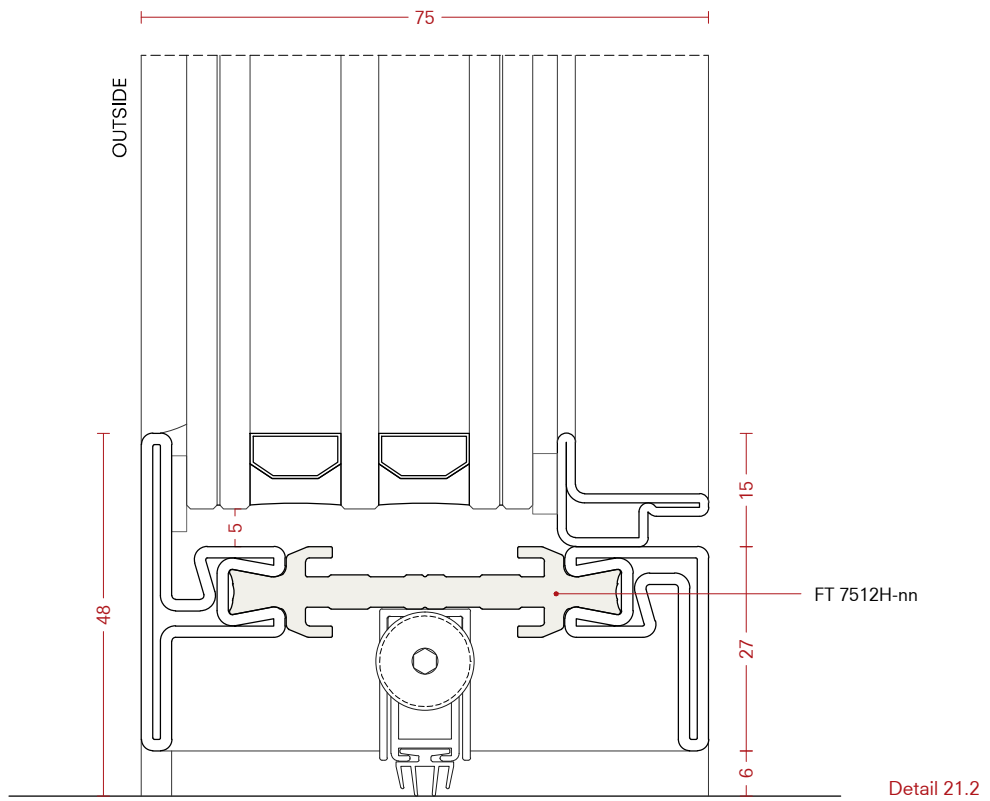
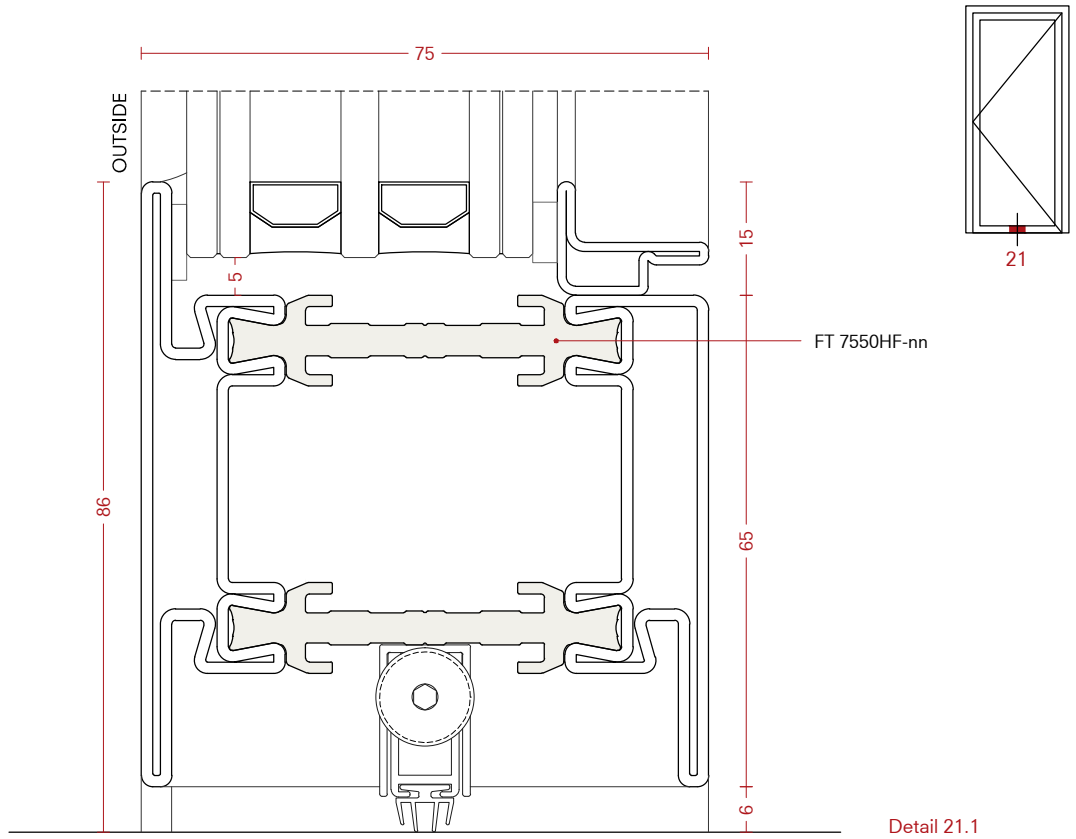


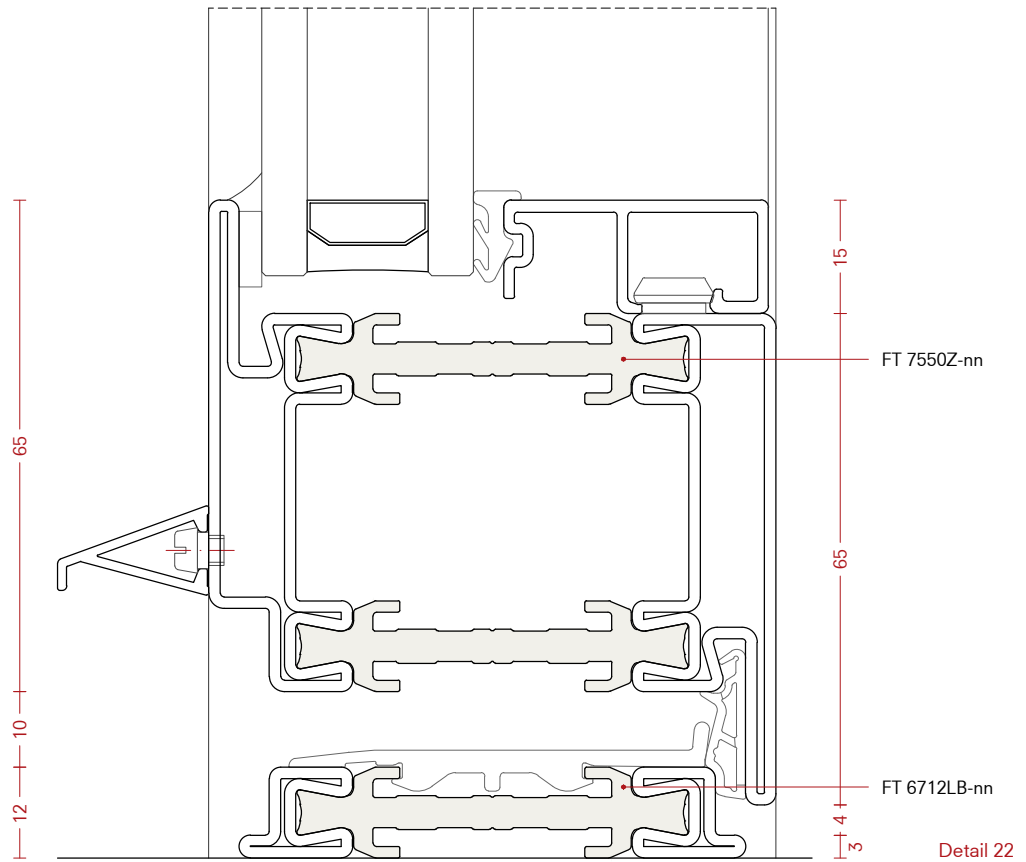
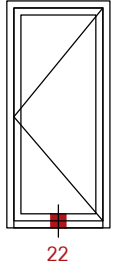
Detail 17

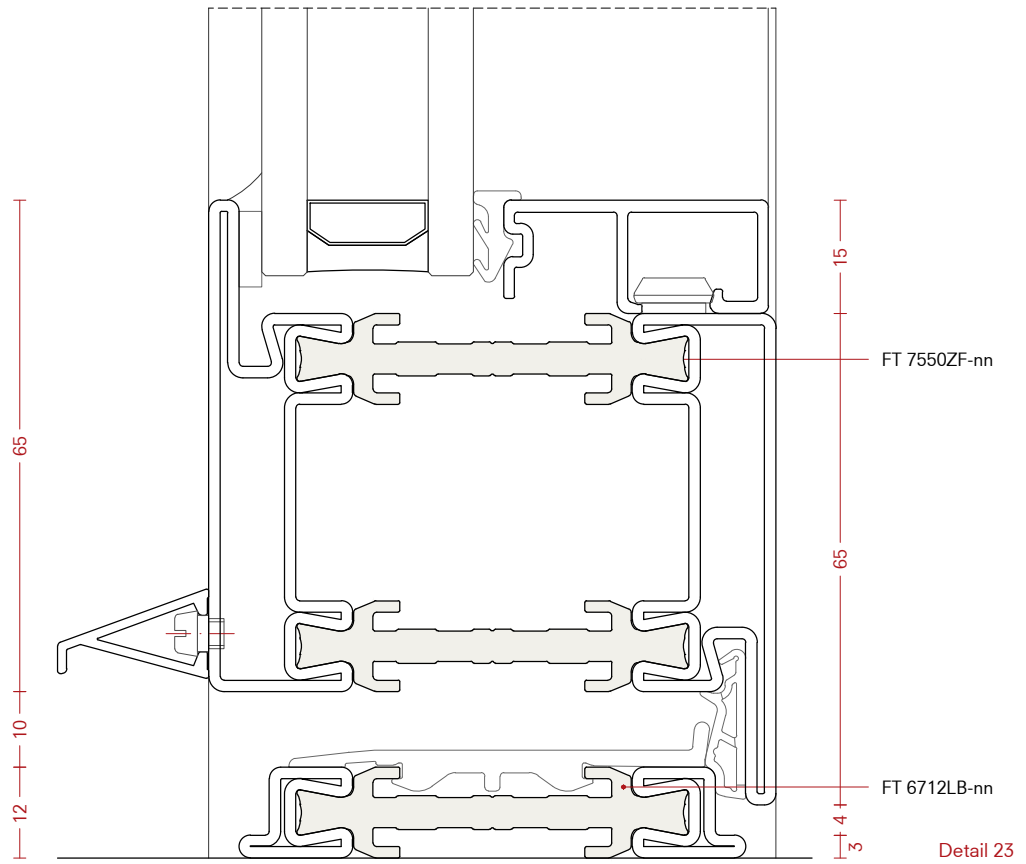
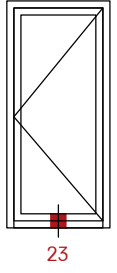


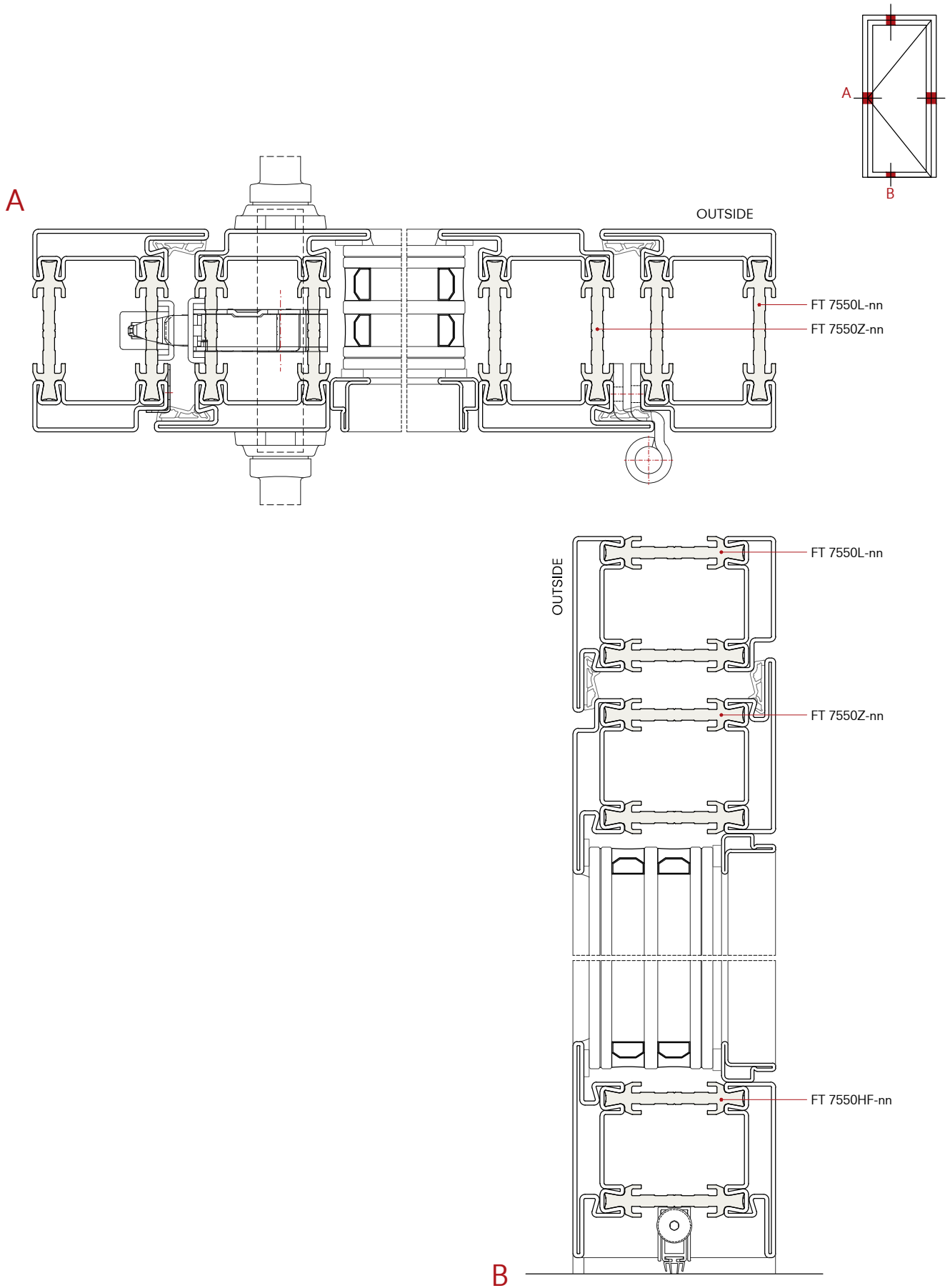
Detail 18



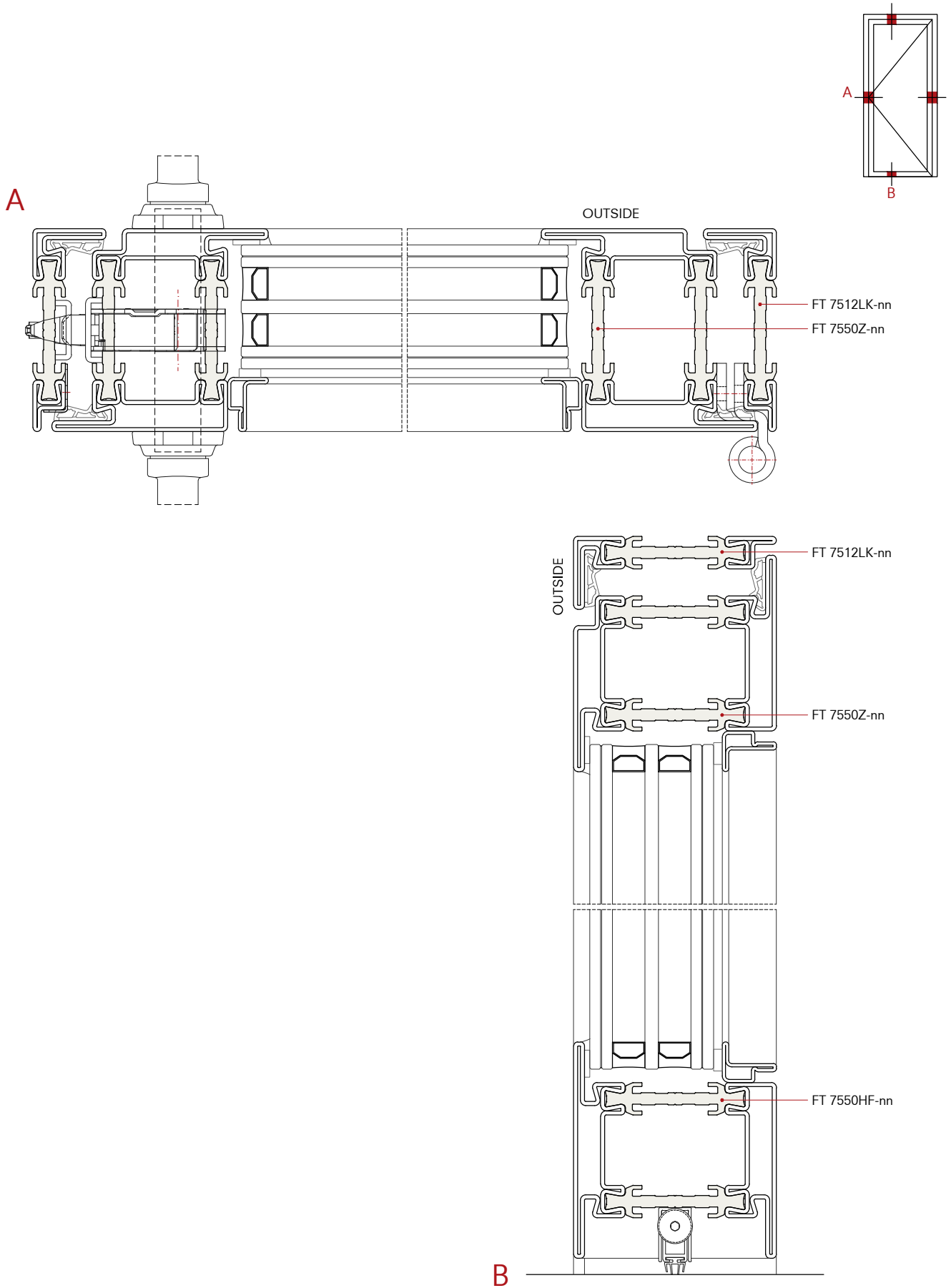


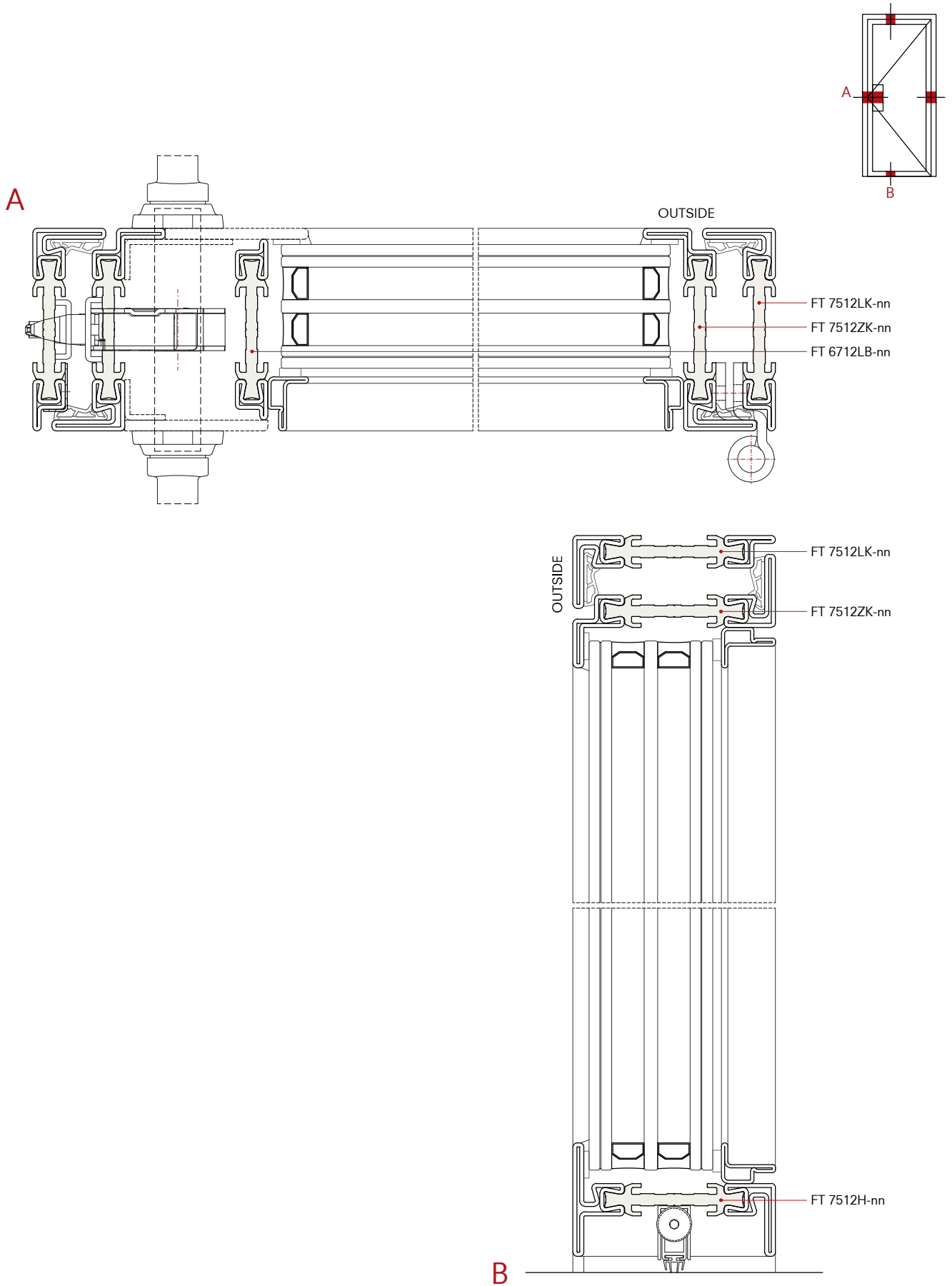


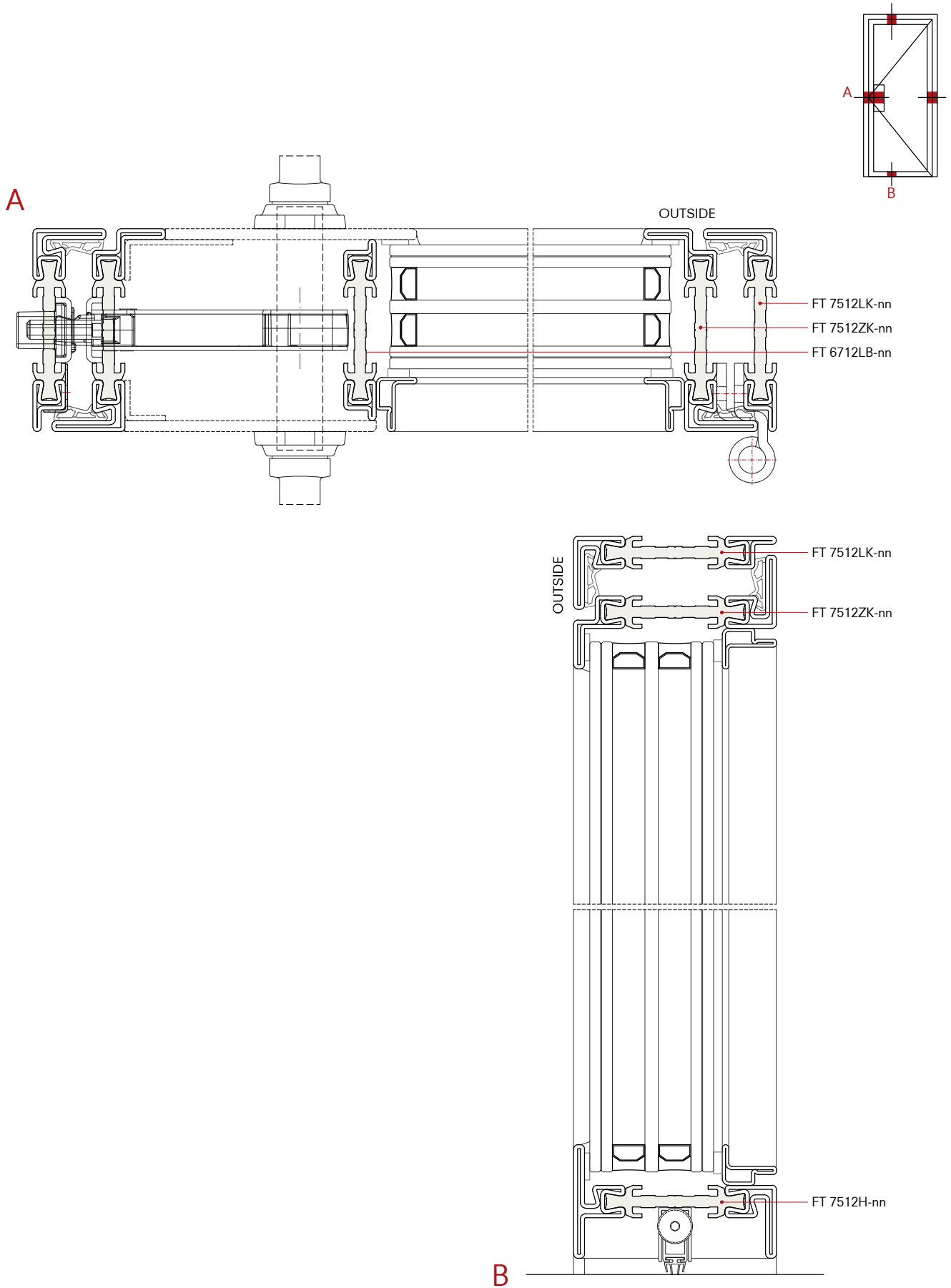


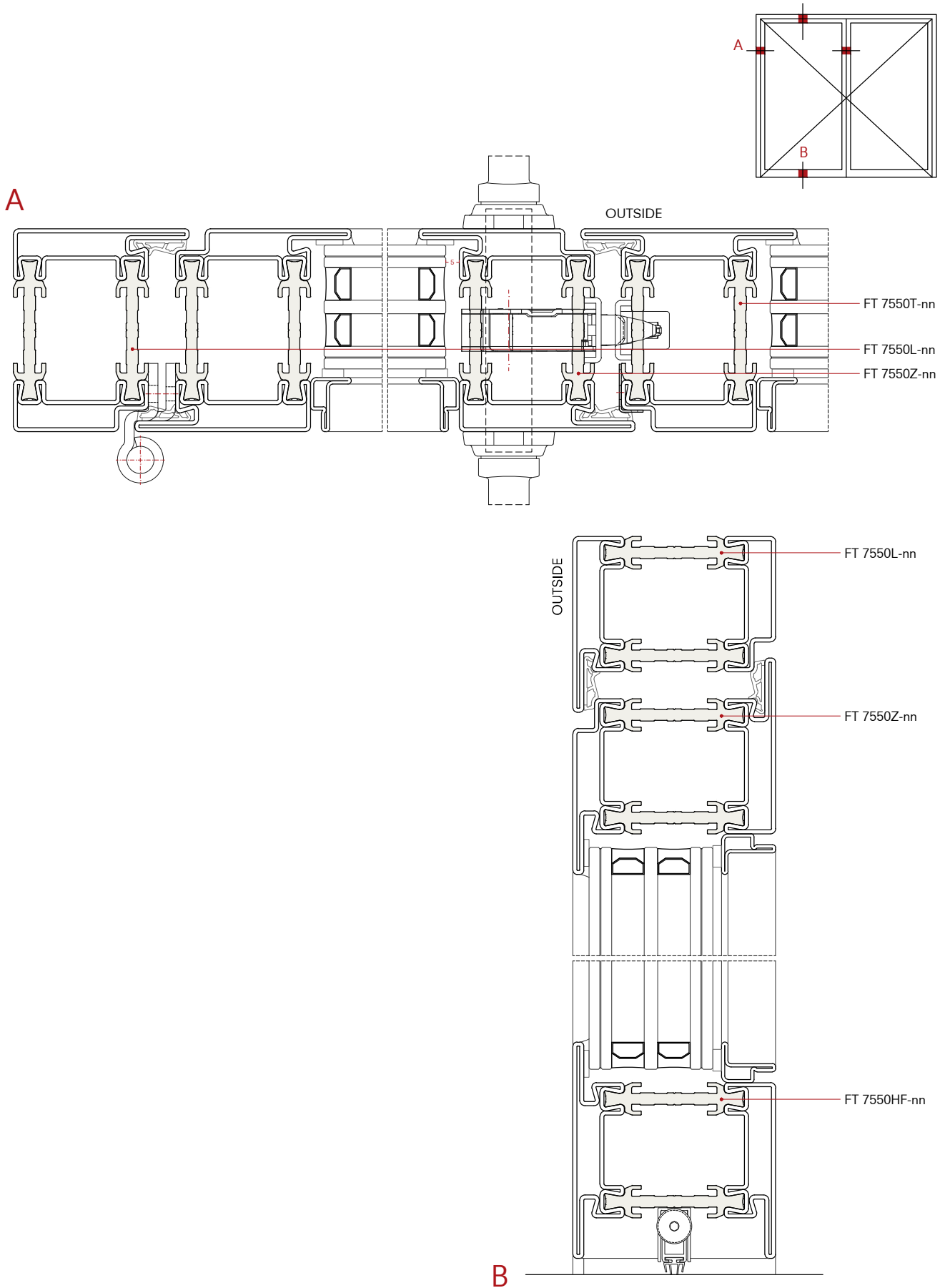


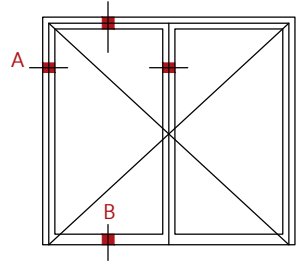




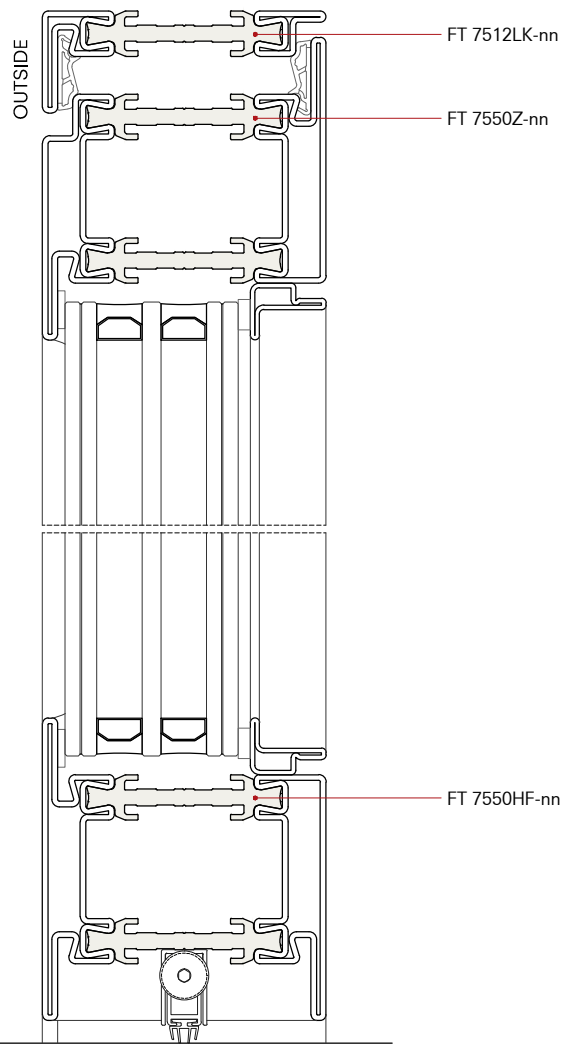
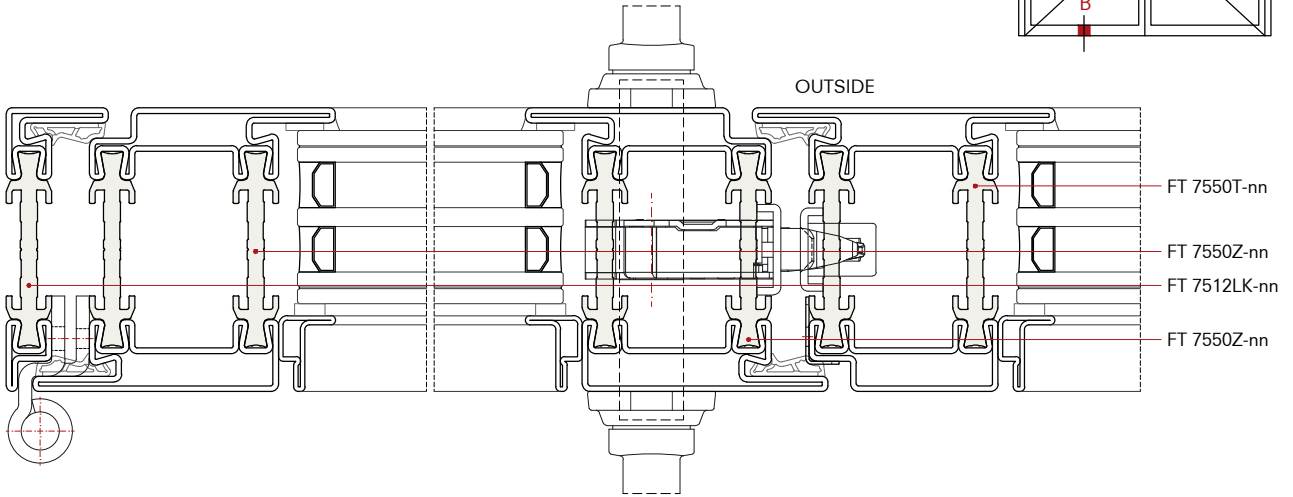






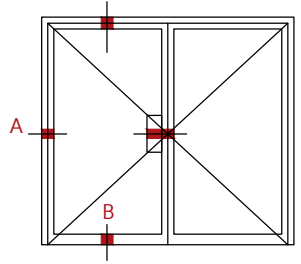
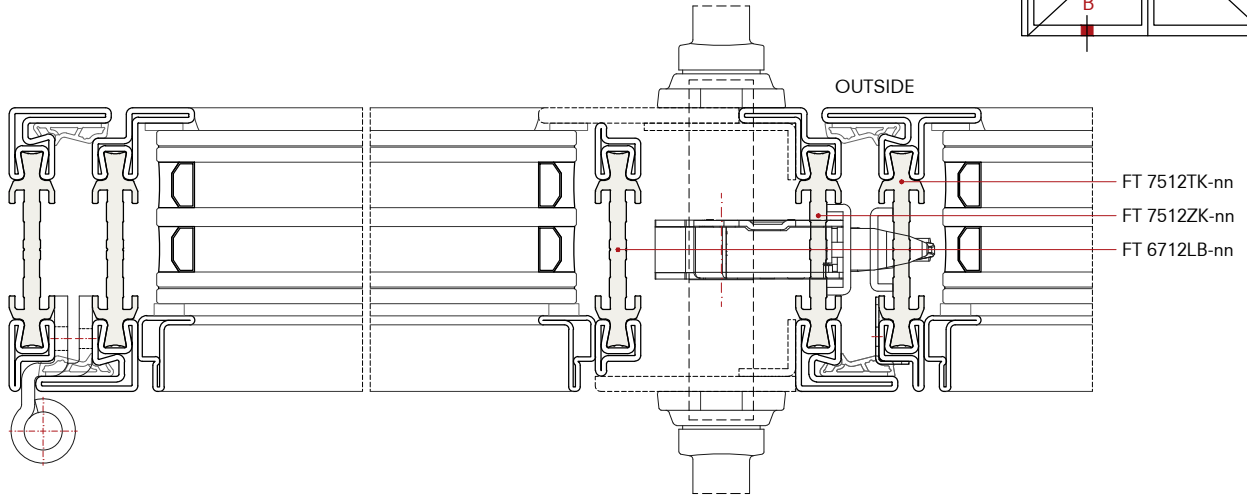


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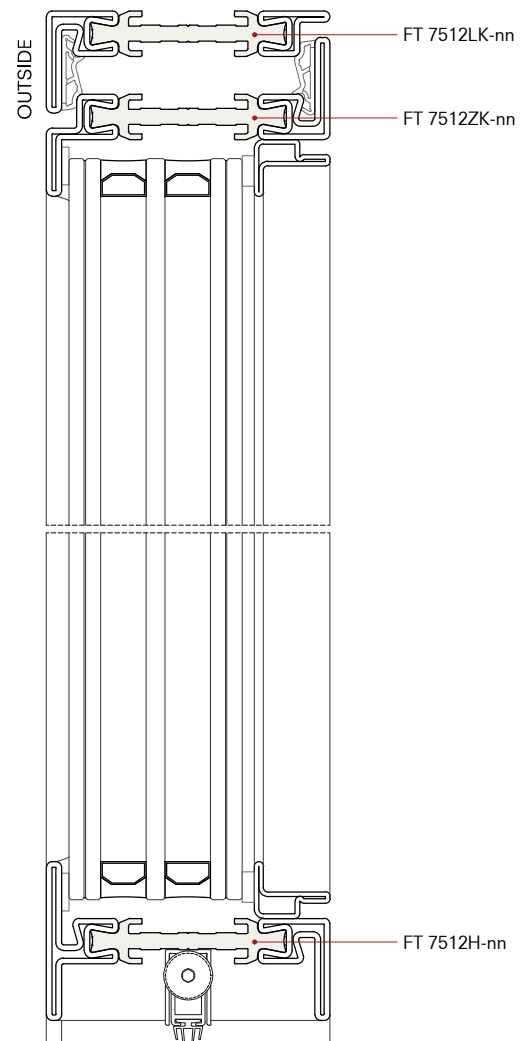


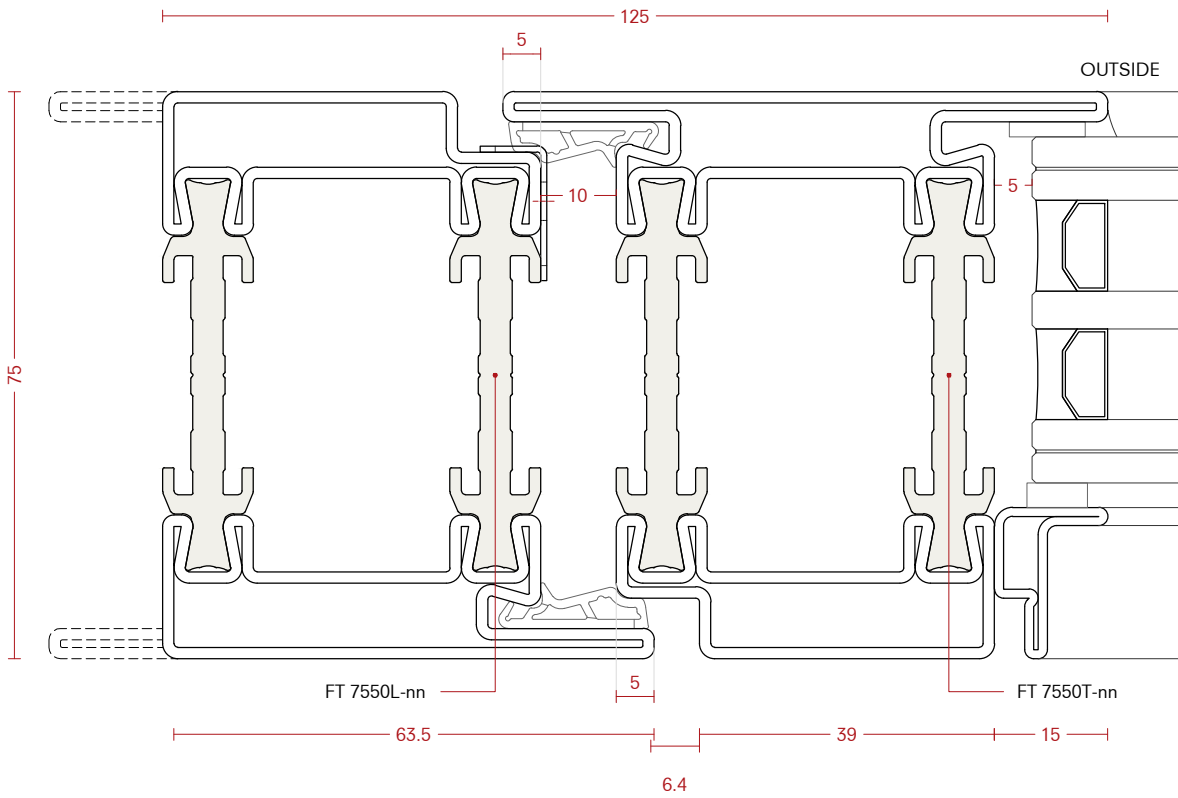
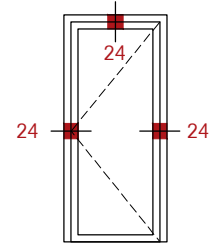
B

A

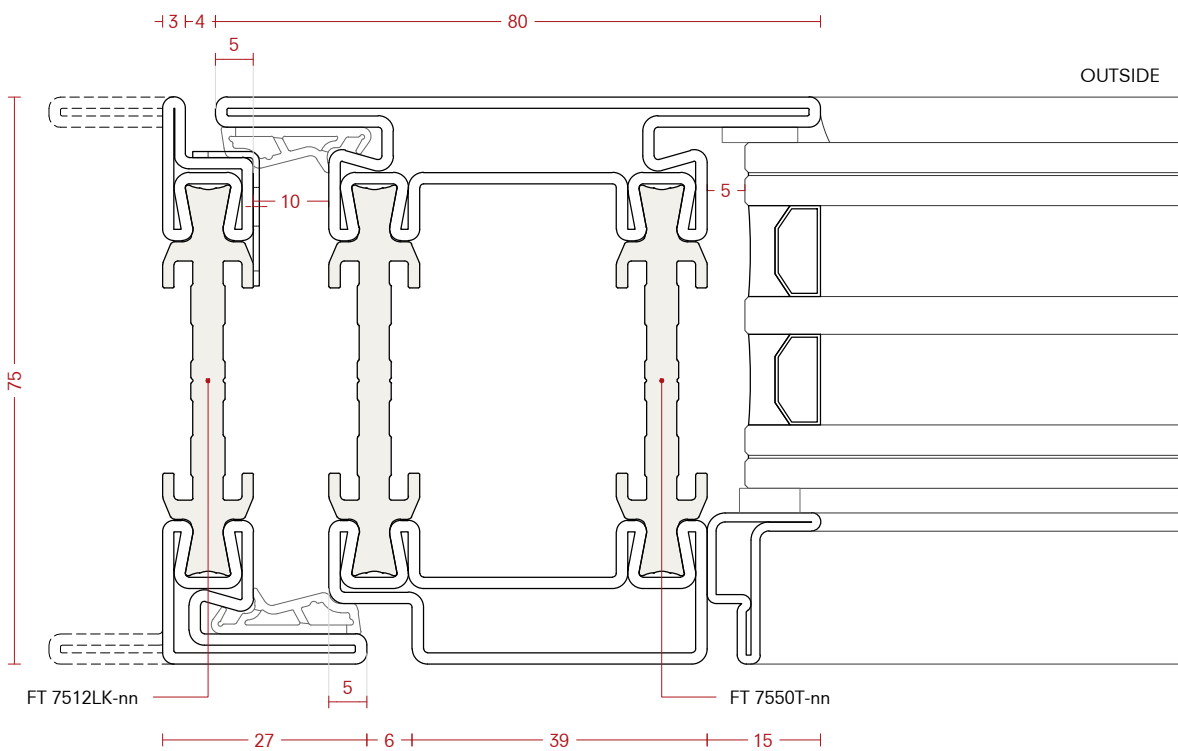


B

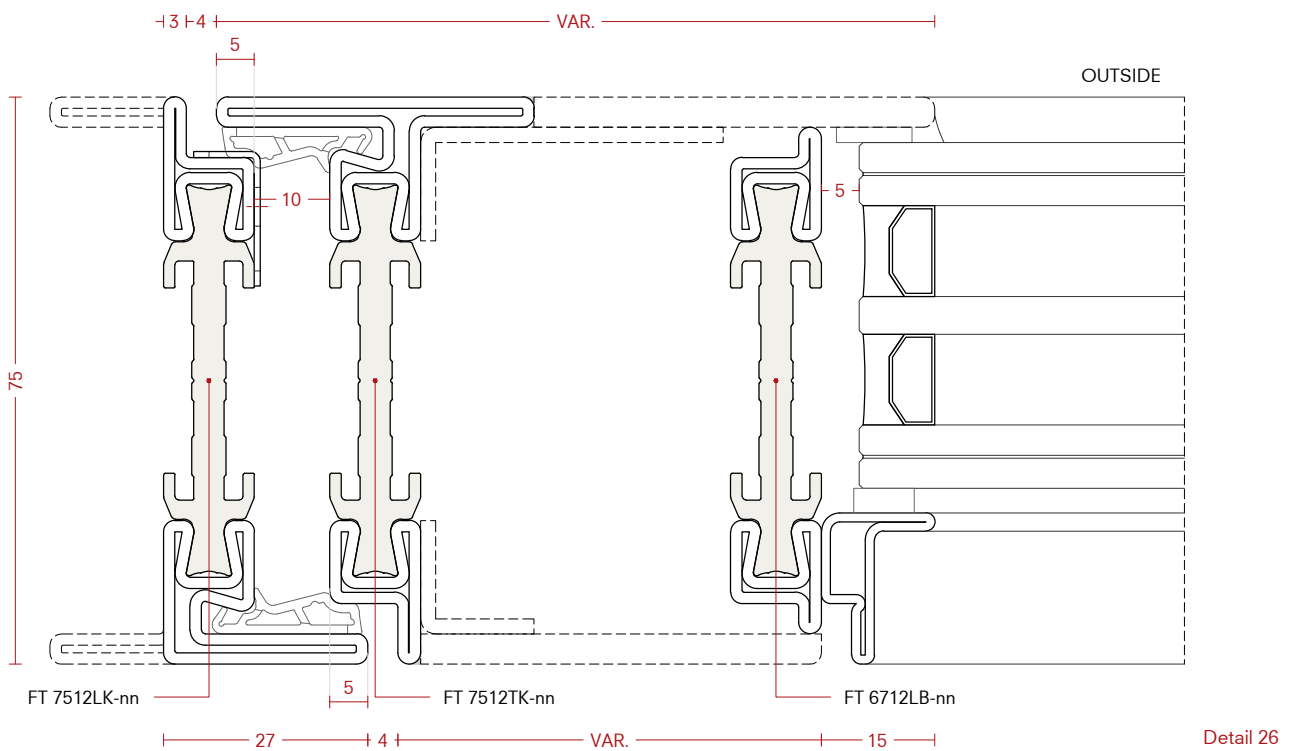
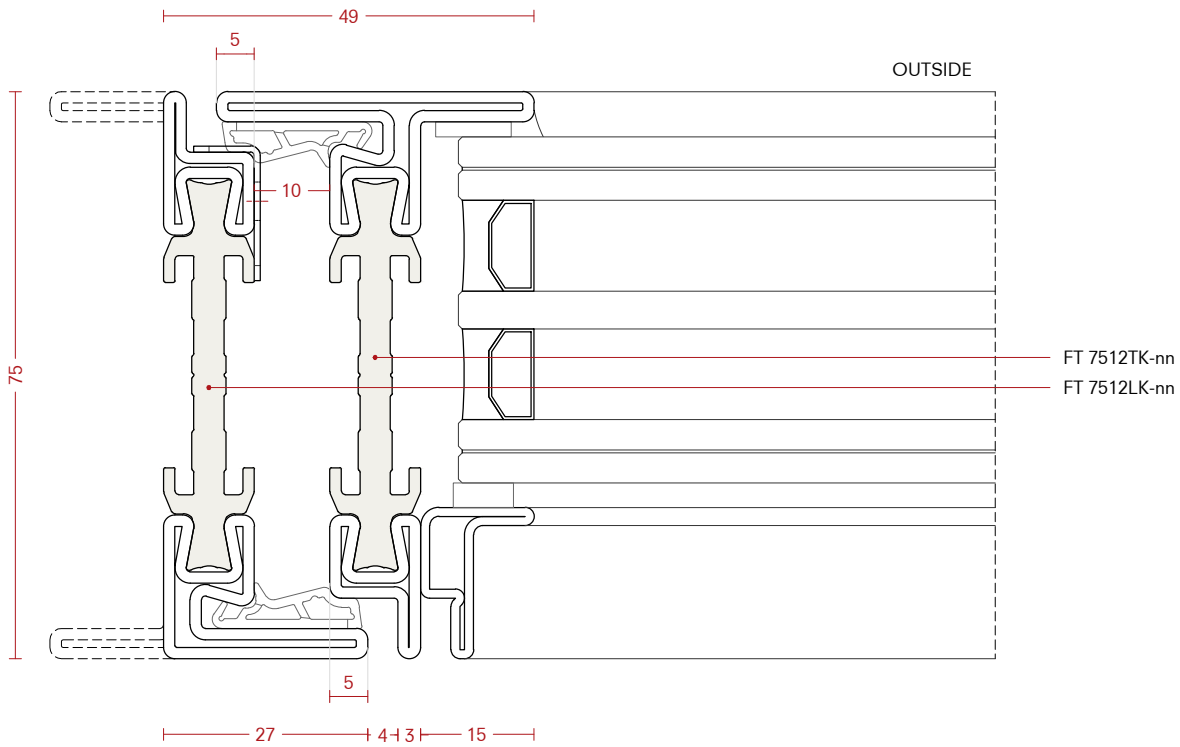
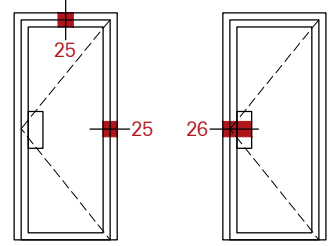




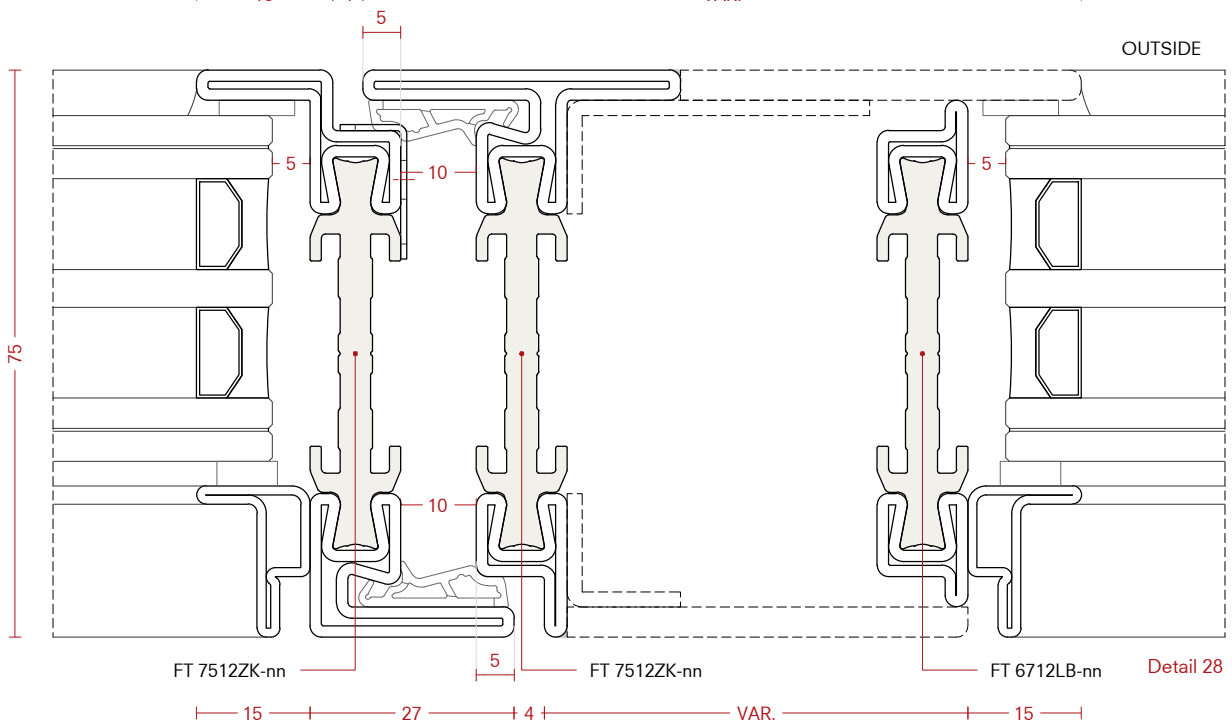
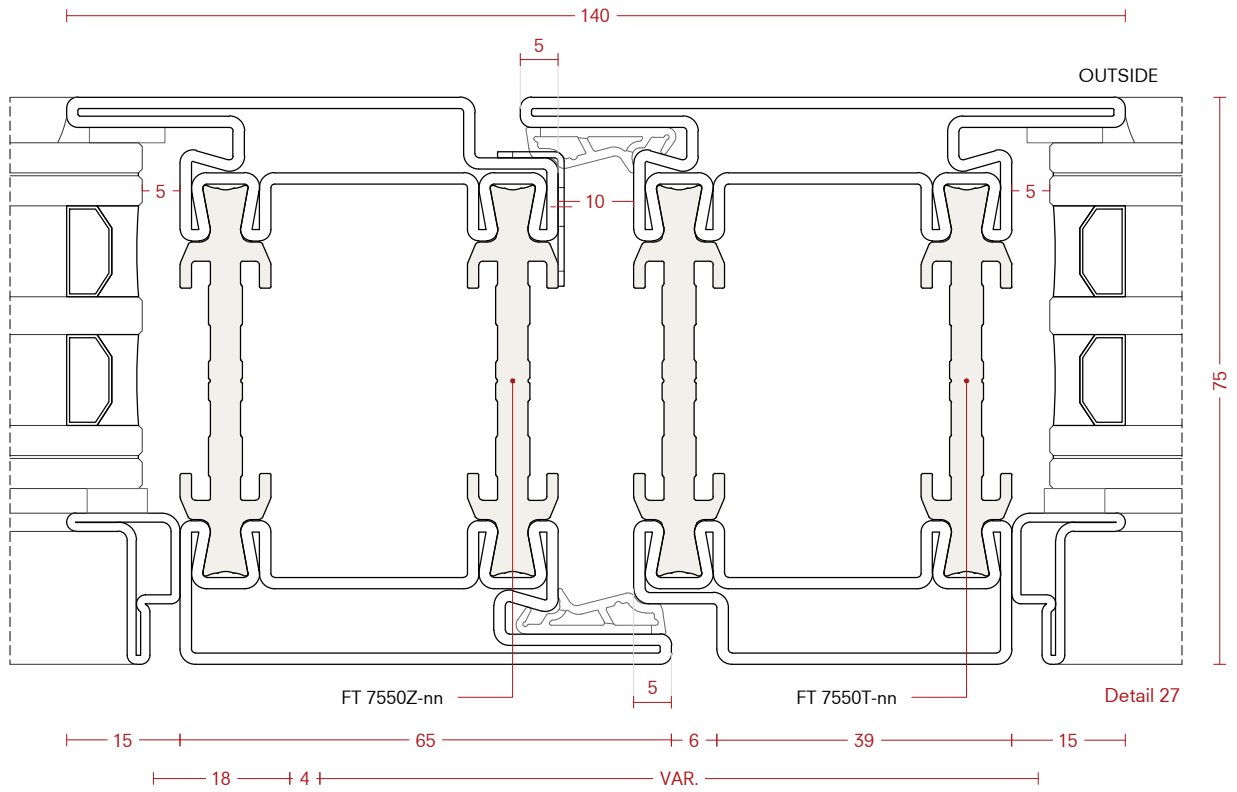
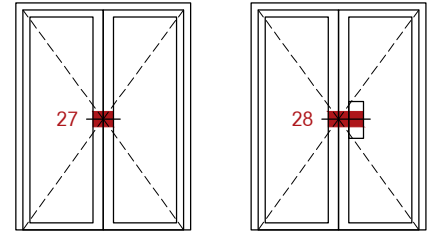
Detail 24

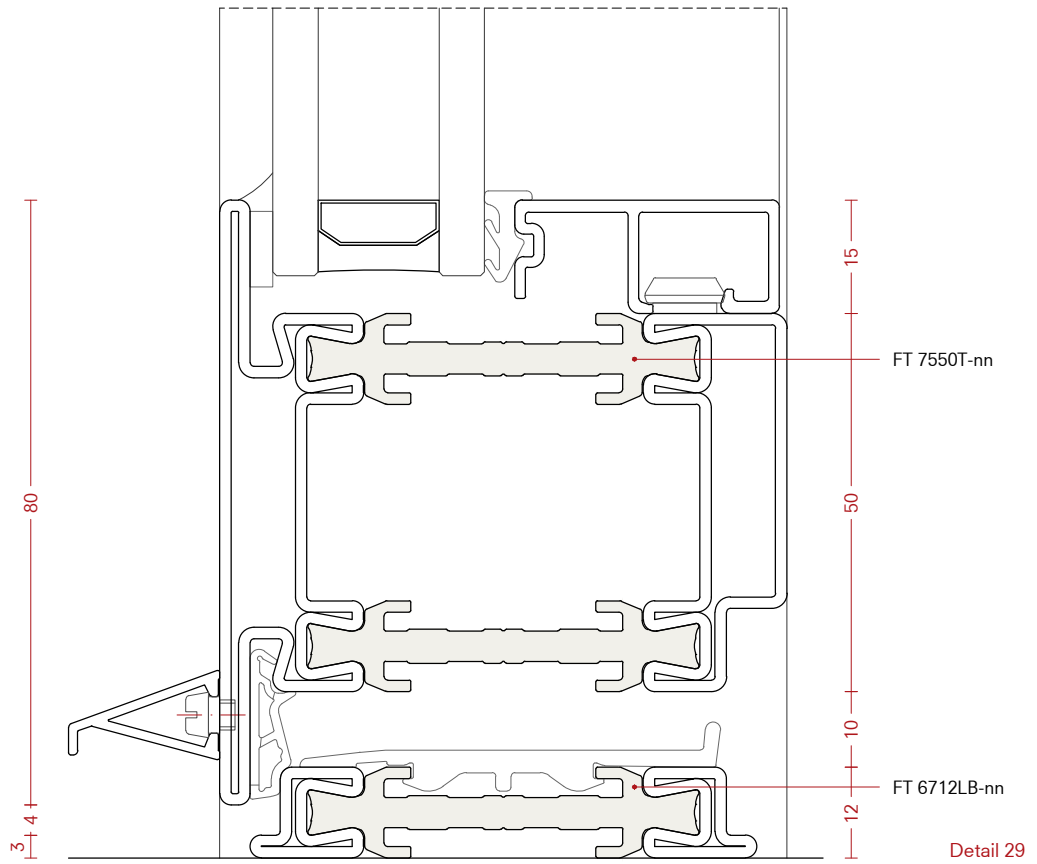
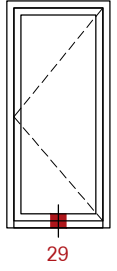


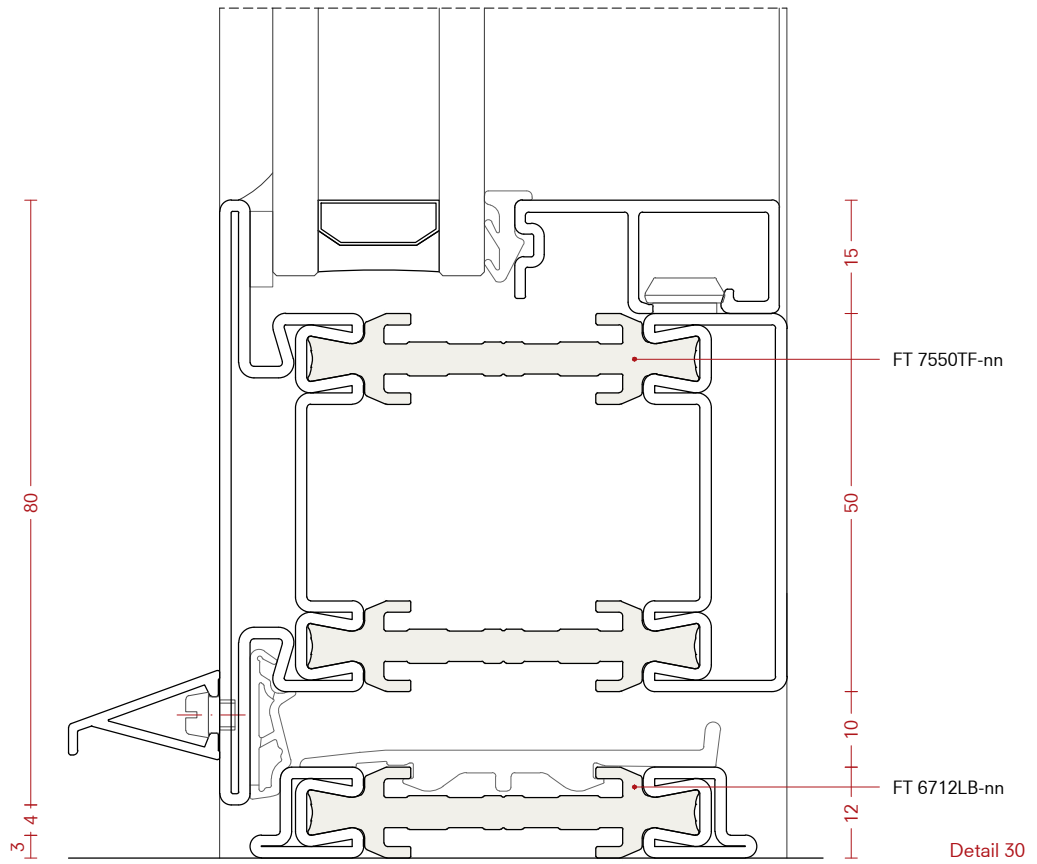
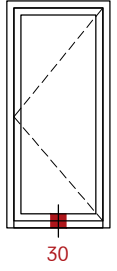
Detail 24

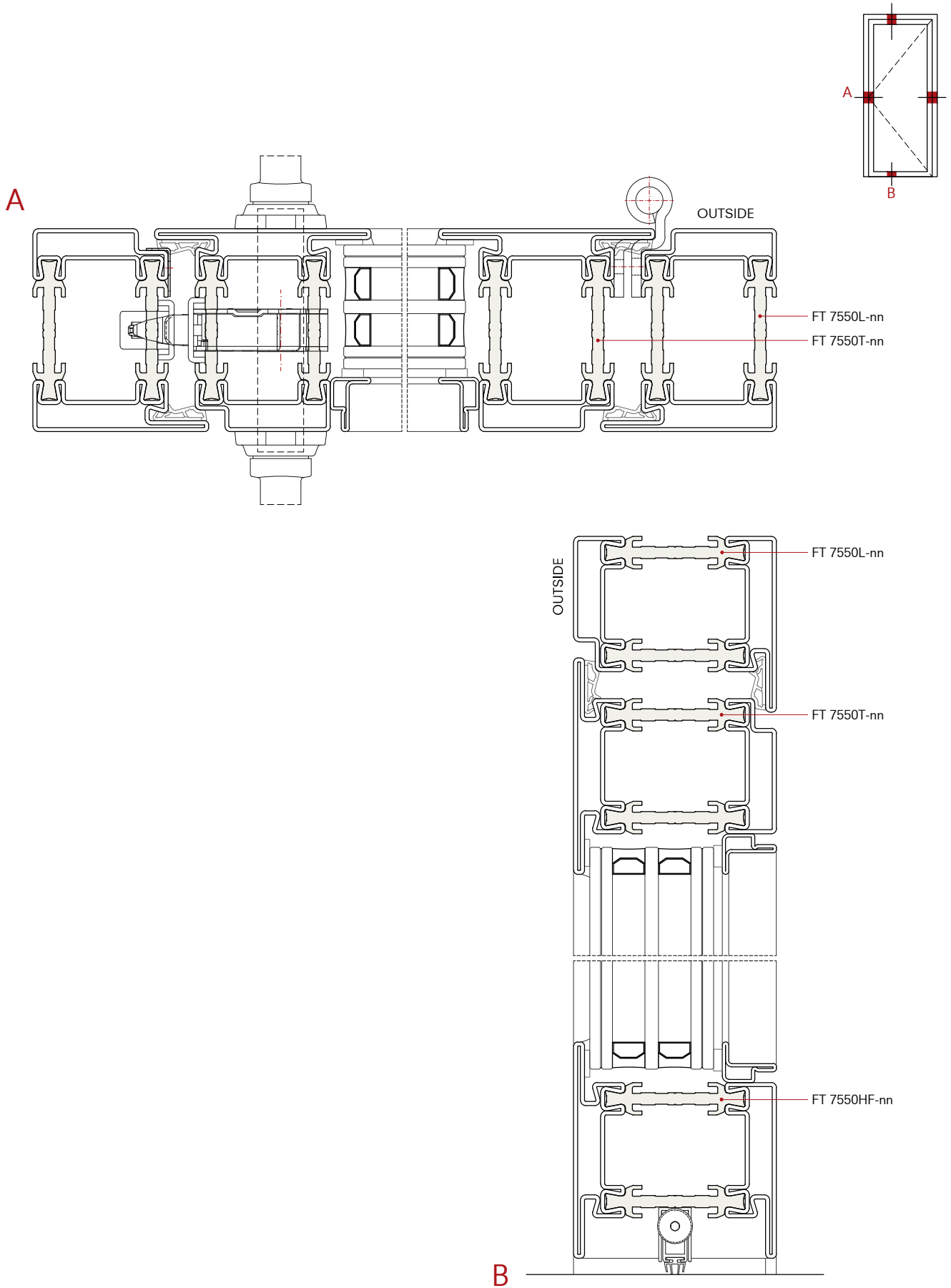


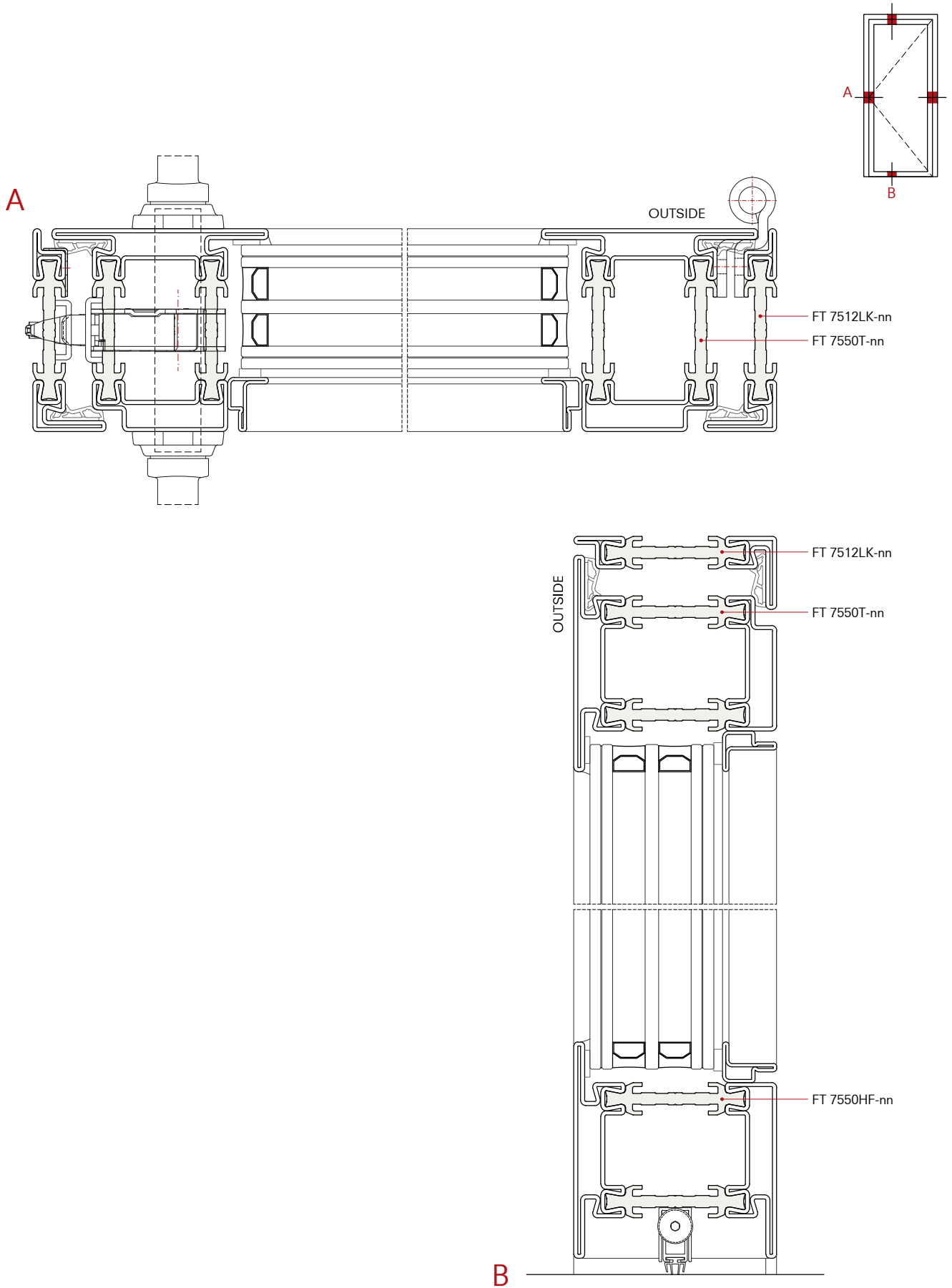


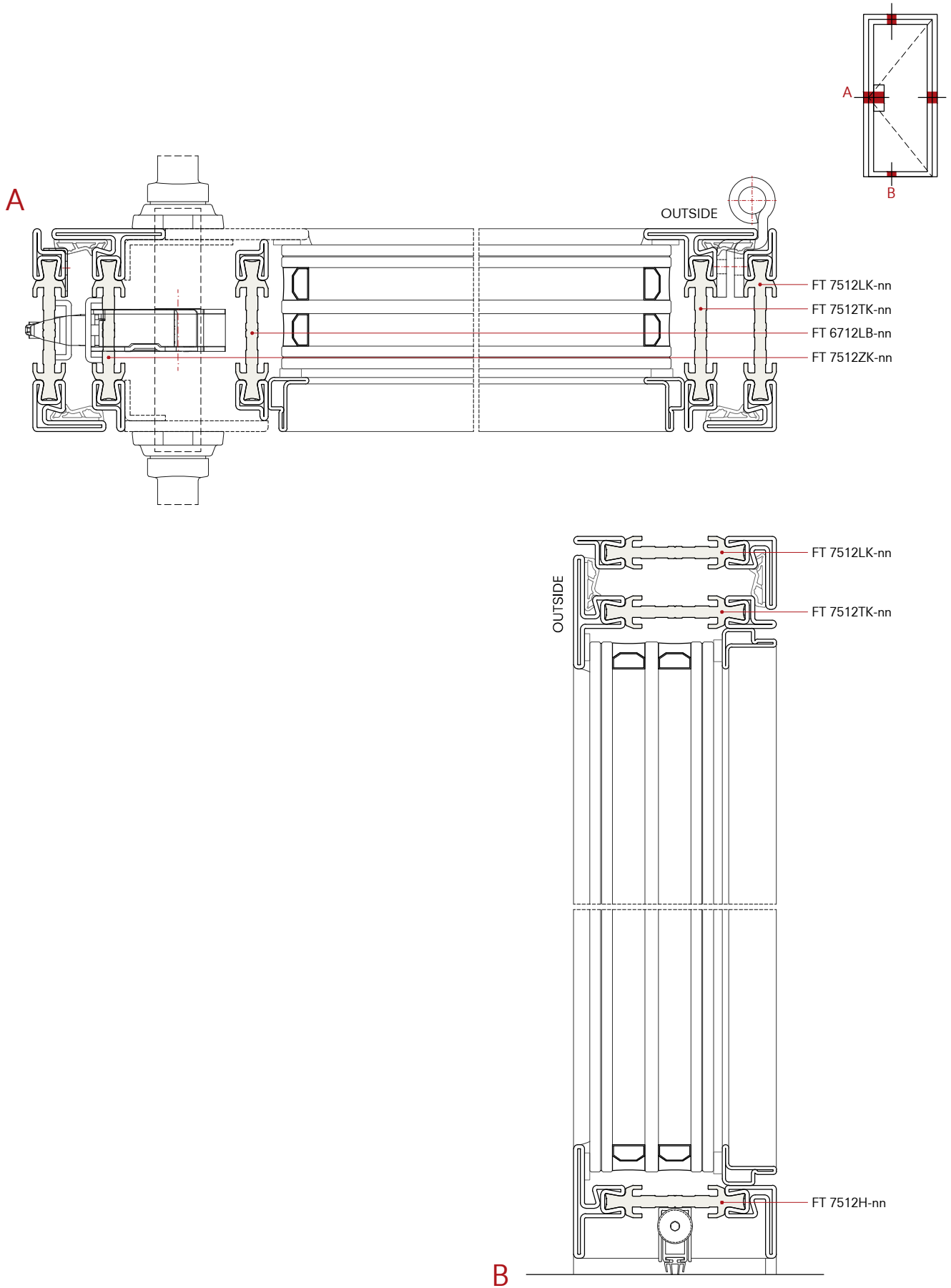


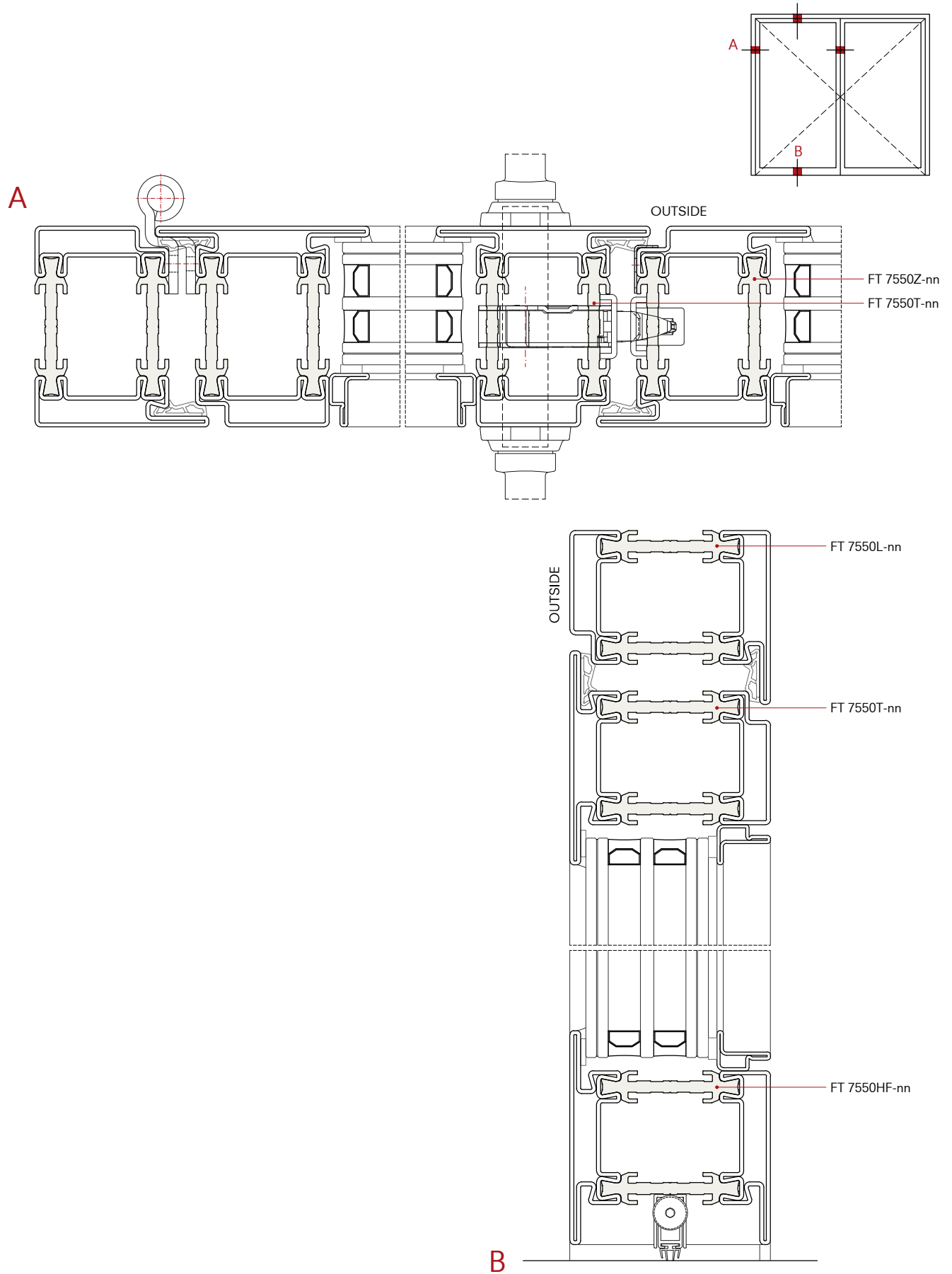


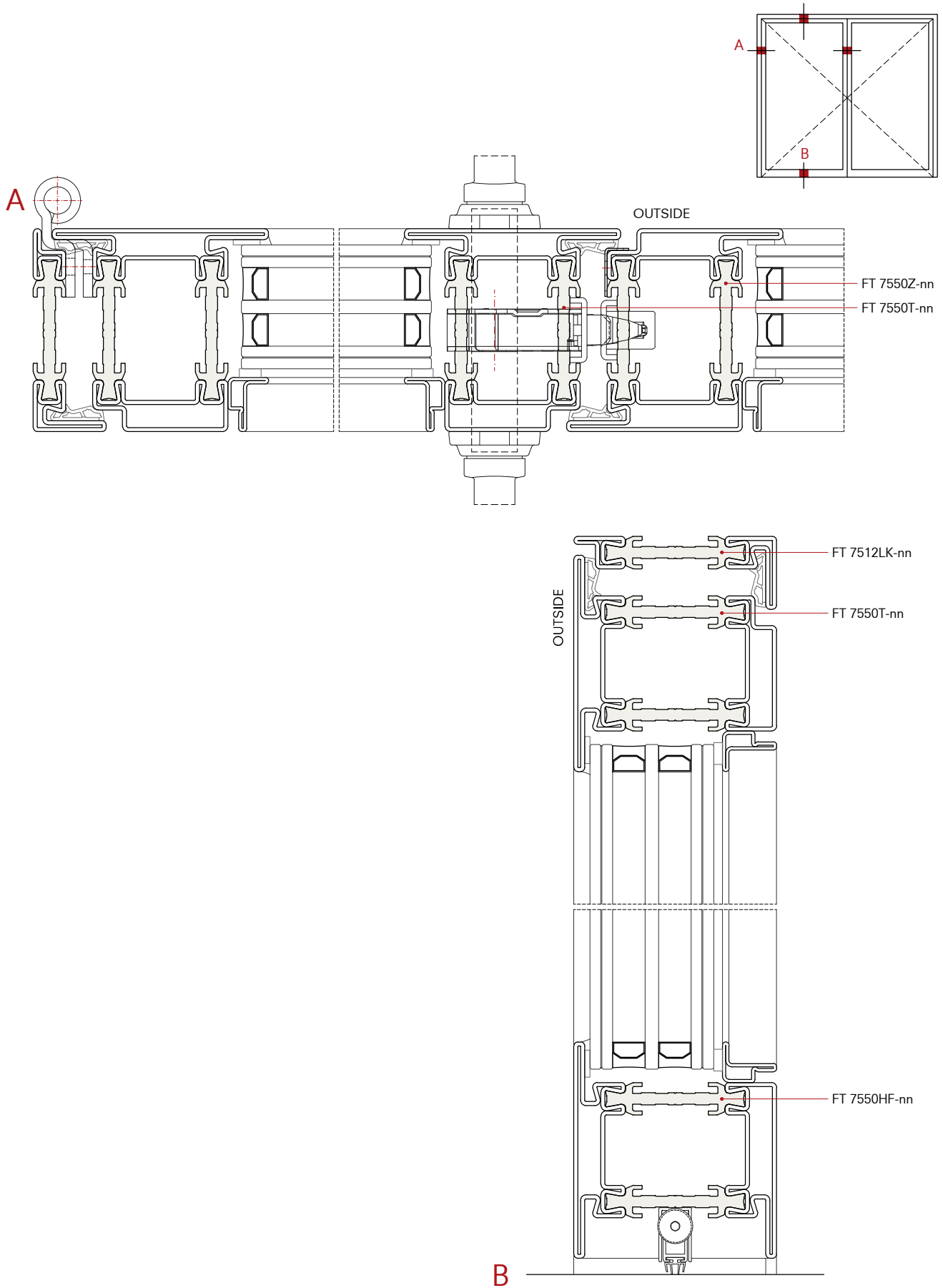




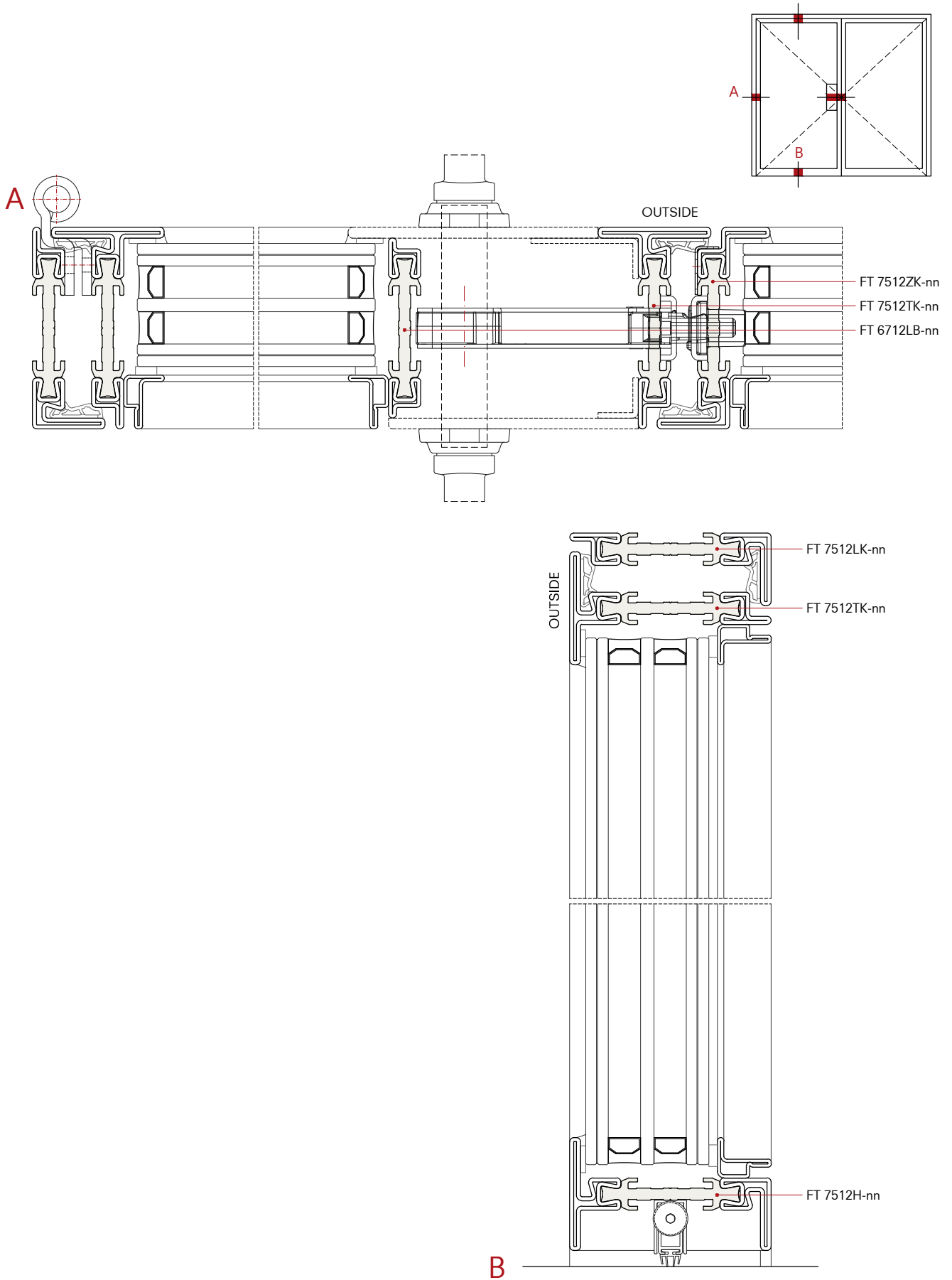














**Details, structural  
connections**

**Dettagli di costruzione  
giunti d'angolo**

**Detalles de construcción**

**4.3**

**Legend**

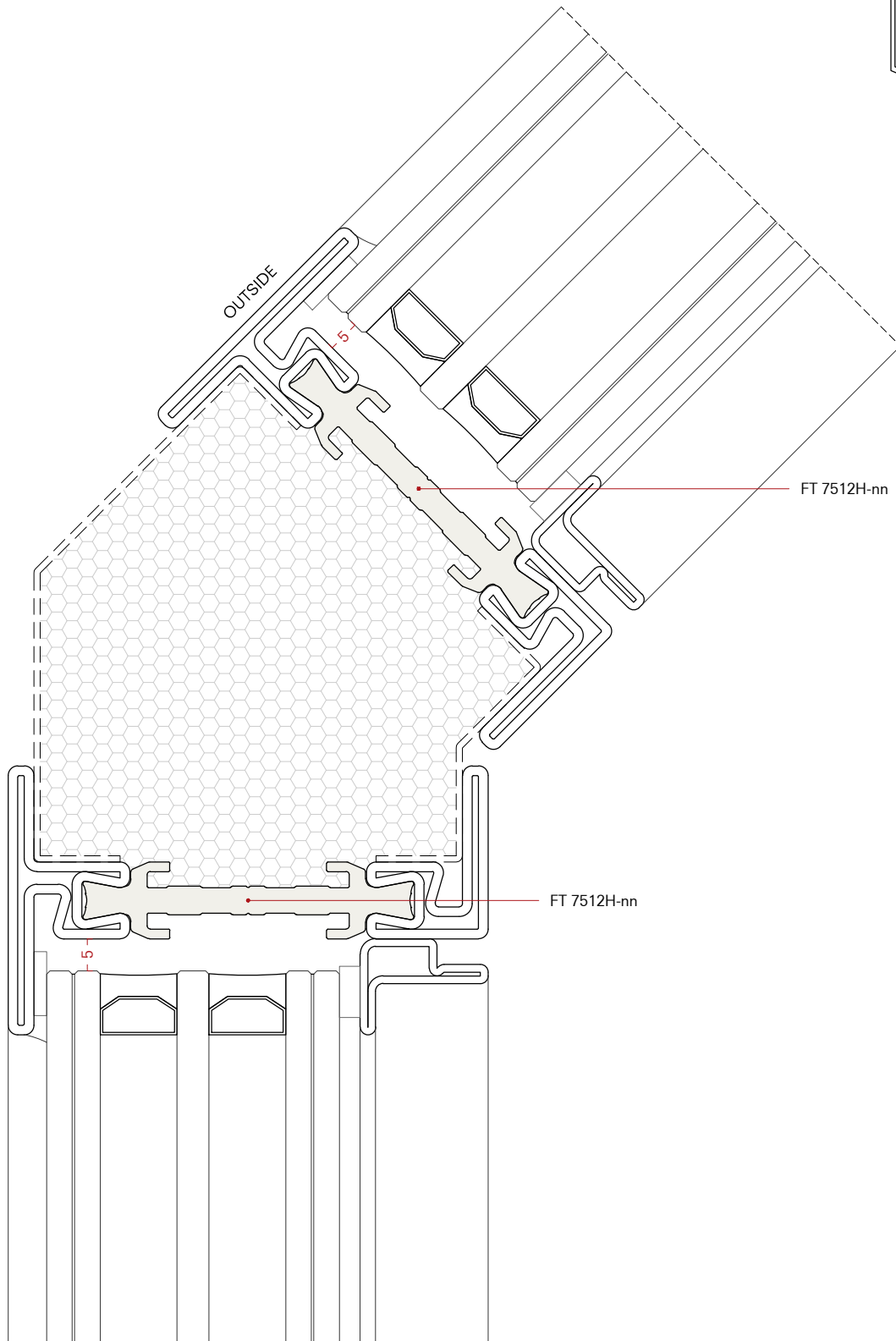
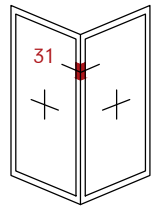
+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1

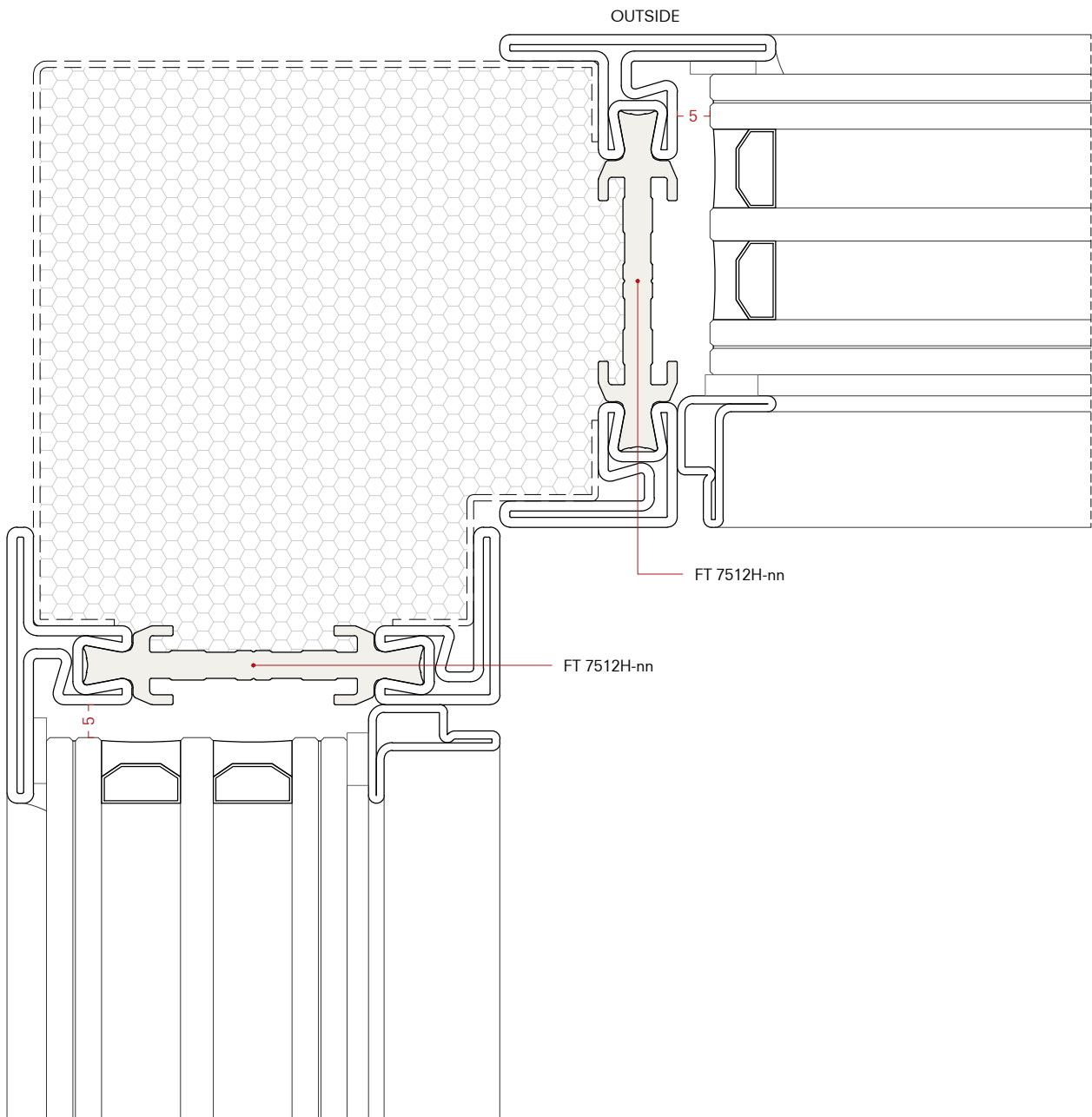
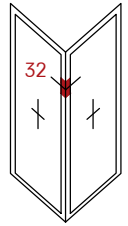
**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1







**Wall connections**

**Attacchi a muro**

**Cierres constructivos**

**4.4**

**Legend**

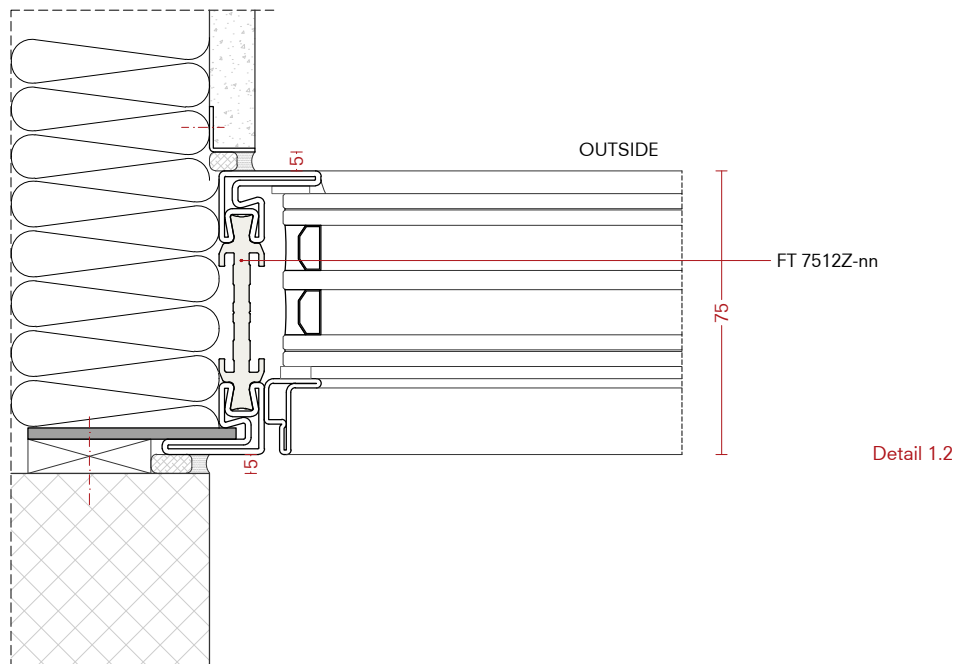
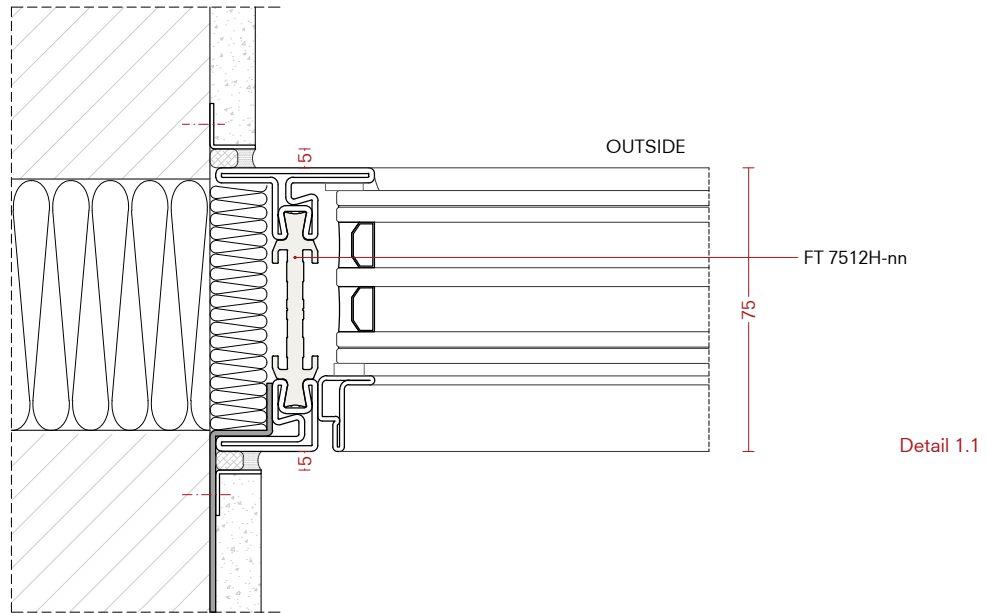
+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:2

**Legenda**

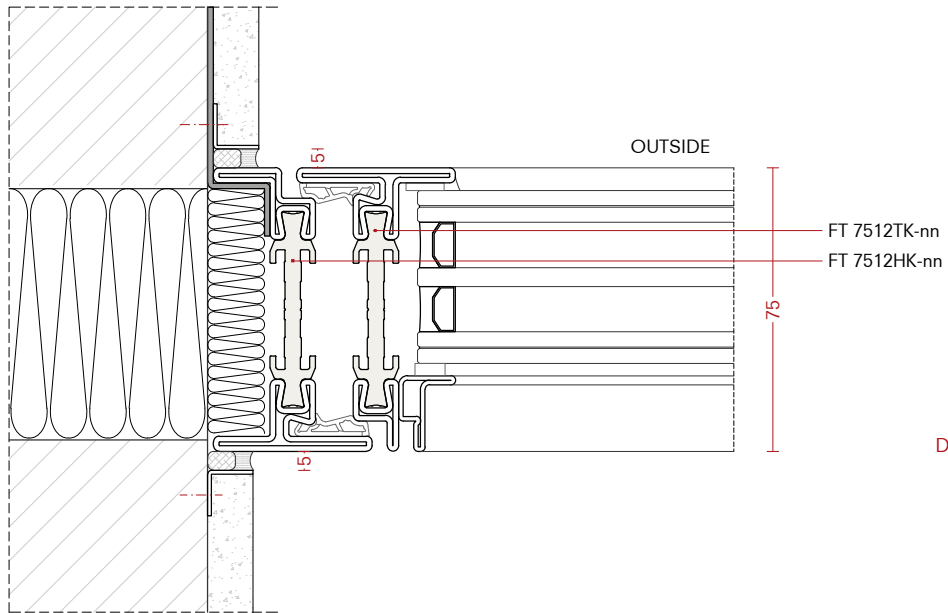
+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:2

**Leyenda**

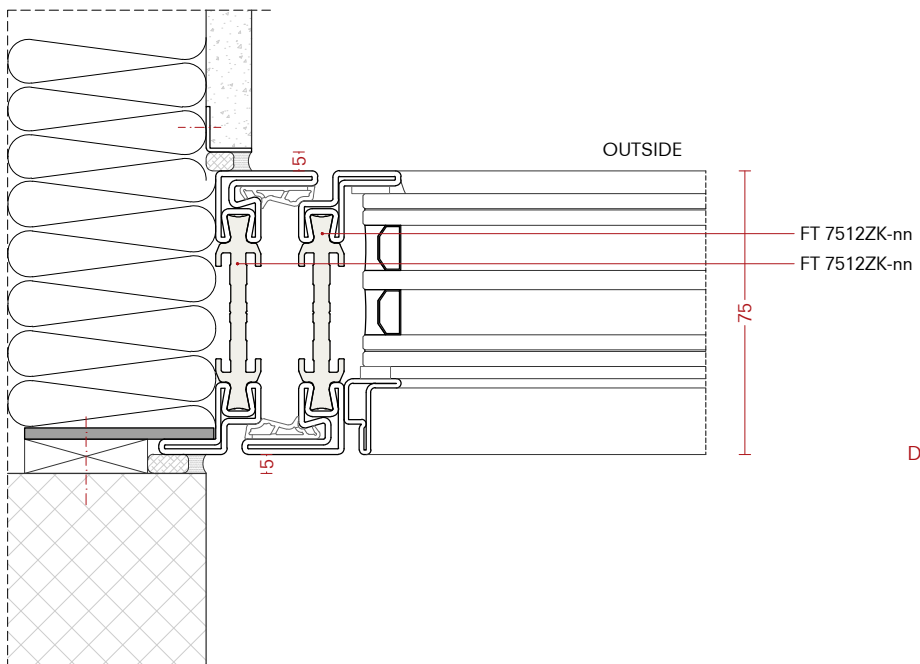
+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:2



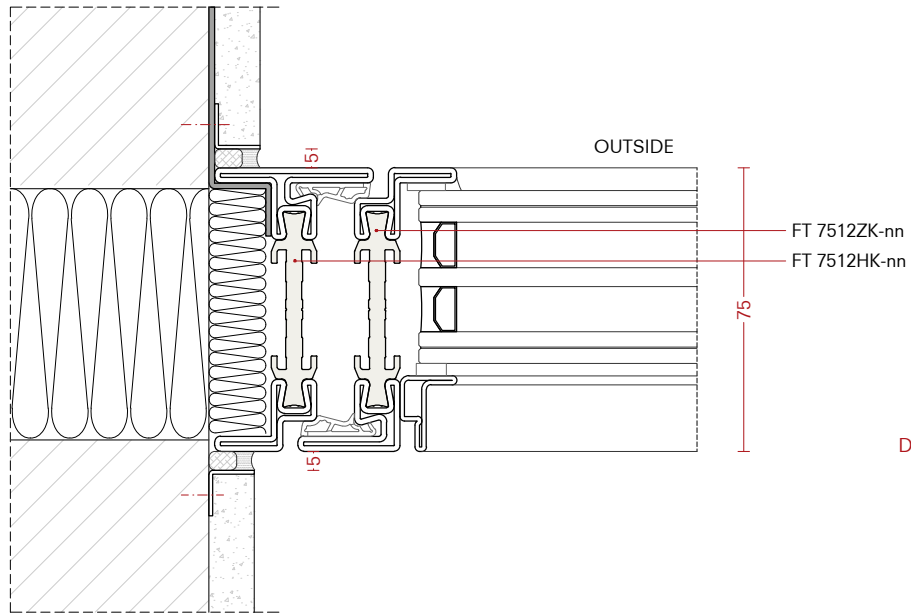




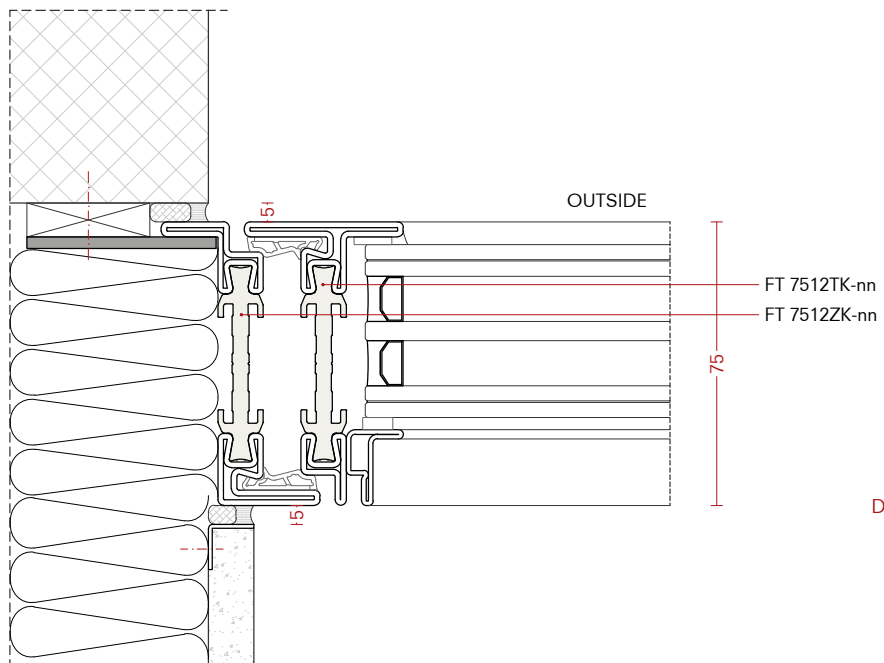
Detail 2.1



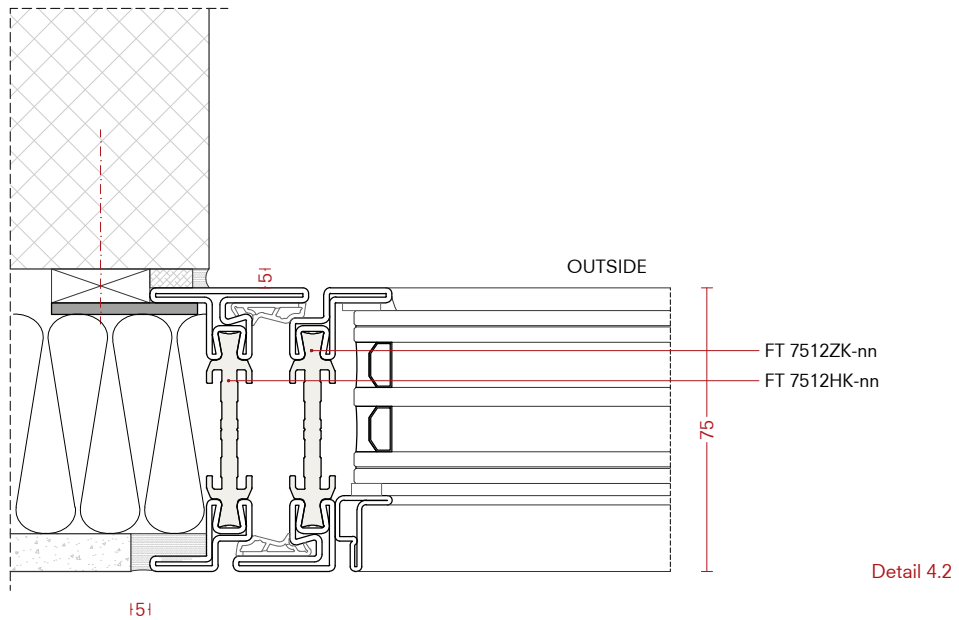
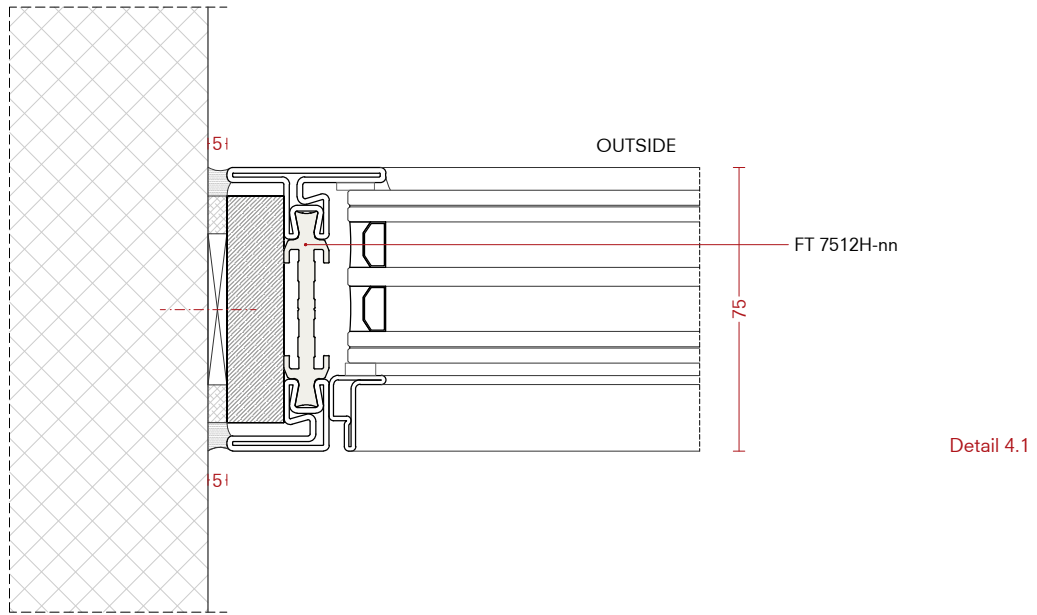
Detail 2.2

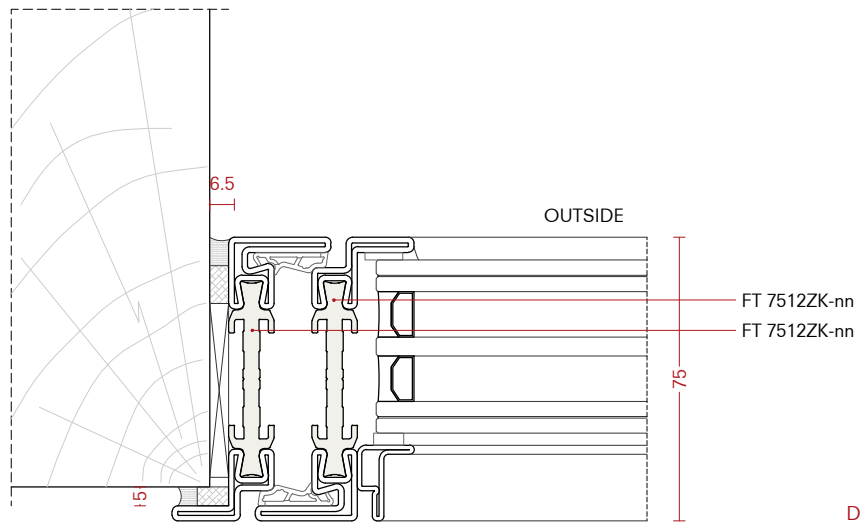
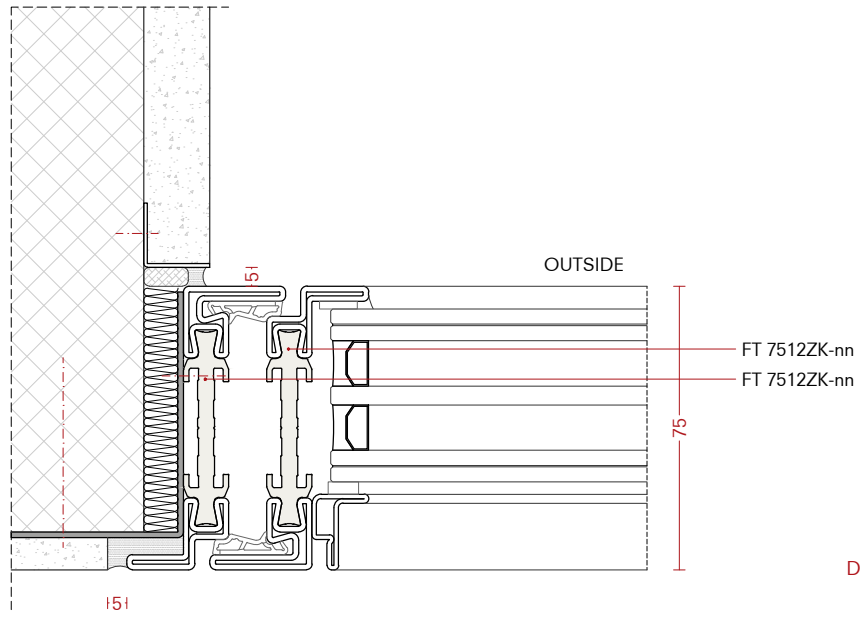


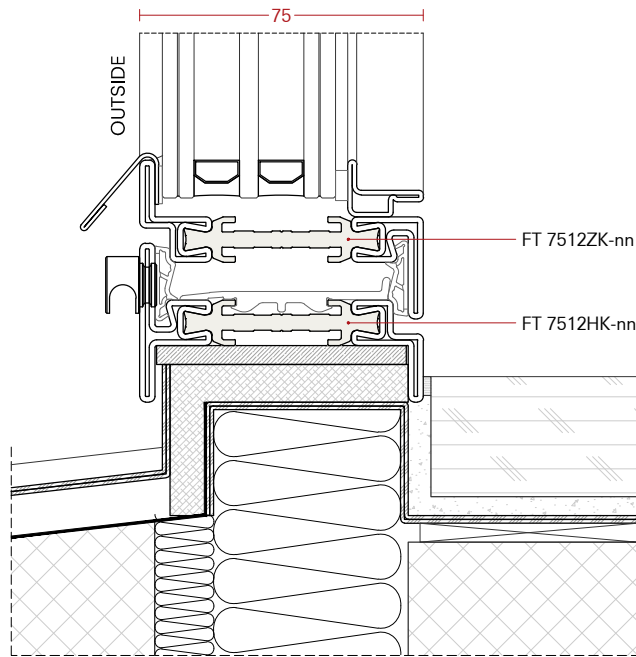
Detail 3.1



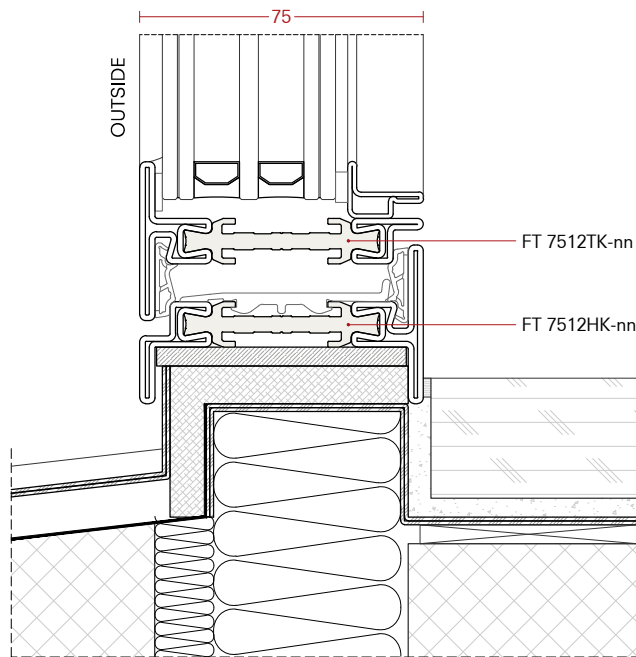
Detail 3.2



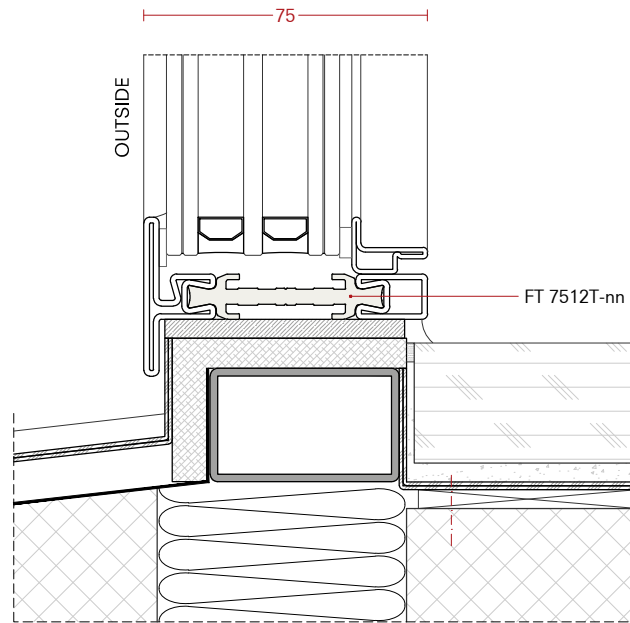




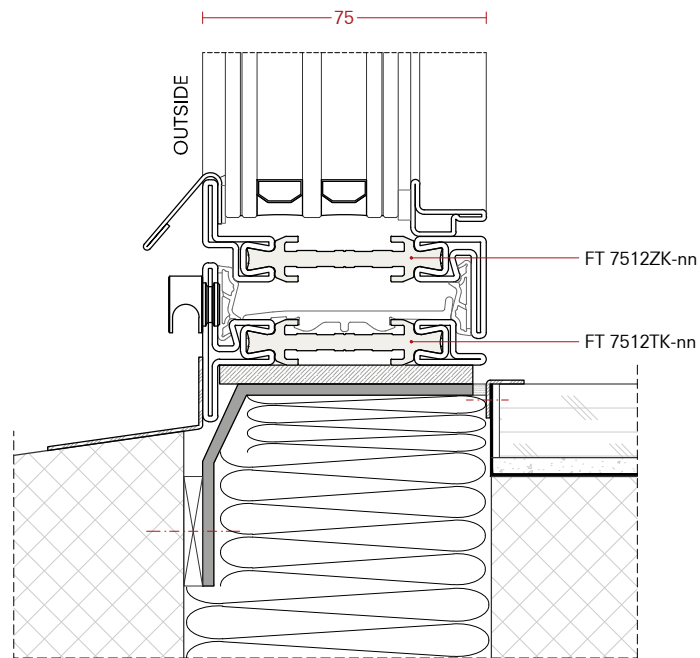
Detail 6.1



Detail 6.2



Detail 7.1



Detail 7.2







| <b>Processing</b>                                         | <b>Lavorazioni</b>                                      | <b>Procesamiento</b>                                           | <b>5.0</b>  |
|-----------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------|-------------|
| Health and safety                                         | Prevenzione e sicurezza                                 | Prevención y seguridad                                         | <b>5.1</b>  |
| Cutting                                                   | Taglio                                                  | Corte                                                          | <b>5.2</b>  |
| Welding                                                   | Saldatura                                               | Soldadura                                                      | <b>5.3</b>  |
| Accessories installation                                  | Montaggio accessori                                     | Montaje accesorios                                             | <b>5.4</b>  |
| Multipoint steel rods installation, with Graz             | Montaggio Multipoint aste in acciaio, con Graz          | Montaje Multipoint varillas de acero, con Graz                 | <b>5.5</b>  |
| Multipoint aluminum rods installation, with Graz and Mono | Montaggio Multipoint aste in alluminio, con Graz e Mono | Montaje Multipoint varillas de aluminio, con Graz y Mono       | <b>5.6</b>  |
| Multipoint aluminum rods installation, with lever handle  | Montaggio Multipoint aste in alluminio, con cariglione  | Montaje Multipoint varillas de aluminio, con manija de bloqueo | <b>5.7</b>  |
| Installation Tilt&Turn fittings                           | Montaggio accessori finestra anta ribalta               | Montaje accesorios ventana oscilante                           | <b>5.8</b>  |
| Pivot window installation                                 | Montaggio sistema pivot                                 | Montaje sistema de pivote                                      | <b>5.9</b>  |
| Glazing                                                   | Vetrazione                                              | Acristalamiento                                                | <b>5.10</b> |

**Important notes:**

All processes are considered glazed-in except where specified.

**Note importanti:**

Tutte le lavorazioni si intendono glazed-in tranne dove specificato.

**Notas importantes:**

Todos los procesos se consideran acristalados, excepto donde se especifique.



**Health and safety**

**Prevenzione e sicurezza**

**Prevención y seguridad**

**5.1**



## Health and safety

W75 TB - D75 TB profiles with polyamide thermal barrier can generally be processed the same way as other thermal barrier steel window profile systems.

No special machines or process for fabrication are required. The standard fabrication processes, such as welding and grinding, can be carried out easily. While drilling, sawing or machining the polyamide web a dust, similar to wood dust, is released. This dust does not require dedicated filters or extractors. However, we recommend to protect eyes and airways according to country specific health and safety regulations.

Heating any polyamide items releases gaseous substances. For this reason is recommended to weld with the special personal protective equipment suggested and in areas with sufficient ventilation and fume-disposing systems.

## Prevenzione e sicurezza

I profili W75 TB - D75 TB a taglio termico con poliammide possono generalmente essere lavorati analogamente ad altri profili per finestre a taglio termico in acciaio.

Non sono necessarie macchine speciali o processi particolari per la fabbricazione. I processi di fabbricazione standard, come saldatura e rettifica, possono essere eseguiti facilmente. Durante la foratura, il taglio o la lavorazione dell'anima in poliammide viene rilasciata una polvere, simile alla polvere di legno. Questa polvere non richiede filtri o aspiratori dedicati. Tuttavia, raccomandiamo di proteggere gli occhi e le vie respiratorie secondo le norme specifiche di salute e sicurezza del Paese.

L'eventuale surriscaldamento del poliammide libera sostanze gassose: per questa ragione si consiglia di saldare con appositi DPI previsti e in zone con sufficiente aerazione e comunque in presenza di sistema per l'evacuazione dei fumi.

## Salud y seguridad

Los Perfiles W75 TB - D75 TB con separadores de poliamida generalmente se pueden procesar de la misma manera que otros sistemas de perfiles de ventana de acero con barrera térmica.

No se requieren máquinas especiales o medidas para la fabricación. Los procesos de fabricación estándar, como la soldadura y el pulido, se pueden llevar a cabo fácilmente. Al perforar, aserrar o mecanizar la banda de poliamida se libera un polvo similar al polvo de madera. Este polvo no requiere filtros o extractores dedicados. Sin embargo, recomendamos proteger los ojos y las vías respiratorias de acuerdo con las normas de salud y seguridad específicas del país. Cualquier sobrecalentamiento del poliamida libera sustancias gaseosas: por esta razón es aconsejable soldar con el EPP adecuado y en áreas con suficiente ventilación y en cualquier caso en presencia de un sistema de extracción de humos.



**Cutting**

**Taglio**

**Corte**

**5.2**

### Cutting

W75 TB - D75 TB profiles can be cut with conventional steel saws. However, when cutting and, in particular, when creating mitre cuts, cutting templates (D994XX-00) have to be used to ensure that the profiles are securely fixed. The feed rate on saws have to be reduced compared to conventional tubular steel profiles. We recommend a proper lubrication during cutting operations.

For further information, see also the chapter "General Information".

### Taglio

I profili W75 TB - D75 TB possono essere tagliati con seghe per acciaio convenzionali. Tuttavia, durante il taglio e, in particolare durante la creazione di tagli obliqui utilizzare dime di taglio adeguate (D994XX-00) per garantire che i profili siano fissati in modo sicuro. La velocità di avanzamento delle seghe deve essere ridotta rispetto a quella comunemente usata per i convenzionali profili tubolari in acciaio. Raccomandiamo una lubrificazione adeguata durante le operazioni di taglio.

Per ulteriori indicazioni, vedere anche il Capitolo "informazioni generali".

### Cutting

Los perfiles W75 TB - D75 TB se pueden cortar con sierras para metales convencionales. Sin embargo, al cortar y, sobre todo, al cortar con ingletes, deben utilizarse bases de fijación adecuadas (D994XX-00) para garantizar un tensado estable del perfil. Dado que los perfiles presentan muchas filigranas, la velocidad de avance al serrar debe reducirse en comparación con los perfiles tubulares de acero convencionales. Recomendamos utilizar una lubricación de micropulverización para cortar los perfiles.

Para más información, véase también el capítulo "Información general".

### Legend

+ = Fixed  
 — = Open in  
 - - - = Open out  
 Dimensions in: mm  
 Scale 1:1 - 1:2  
 V = View  
 R = Reference cut length peak/peak  
 CL = Cutting Length  
 HF = Height Frame  
 HG = Height Glass  
 HL = Height Leaf  
 WF = Width Frame  
 WG = Width Glass  
 WL = Width Leaf

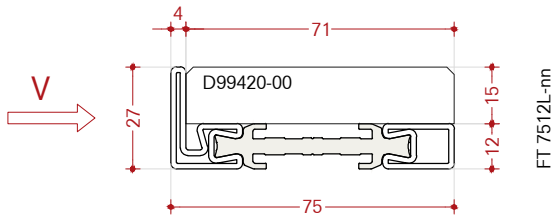
### Legenda

+ = Anta fissa  
 — = Apertura interna  
 - - - = Apertura esterna  
 Misure in: mm  
 Scala 1:1 - 1:2  
 V = Vista  
 R = Riferimento lunghezza di taglio  
 CL = Lunghezza di taglio  
 HF = Altezza telaio  
 HG = Altezza vetro  
 HL = Altezza anta  
 WF = Larghezza telaio  
 WG = Larghezza vetro  
 WL = Larghezza anta

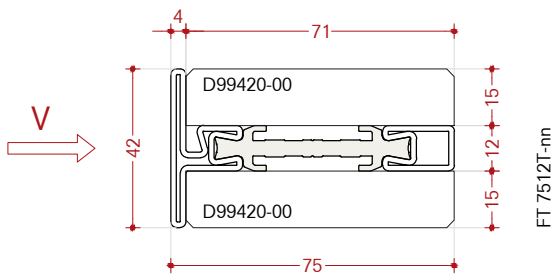
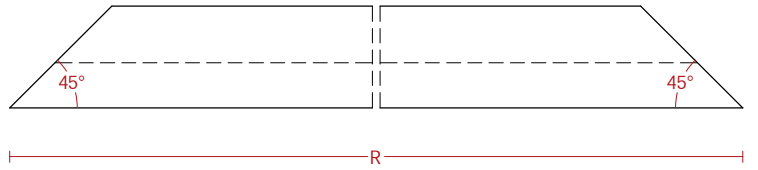
### Leyenda

+ = Fijo  
 — = Apertura interna  
 - - - = Apertura externa  
 Medidas en: mm  
 Escala 1:1 - 1:2  
 V = Vista  
 R = Referencia de la longitud de corte de los extremos  
 CL = Longitud de corte  
 HF = Altura marco  
 HG = Altura vidrio  
 HL = Altura hoja  
 WF = Longitud marco  
 WG = Longitud vidrio  
 WL = Longitud hoja

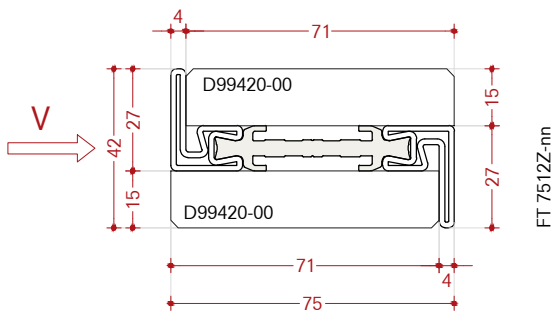
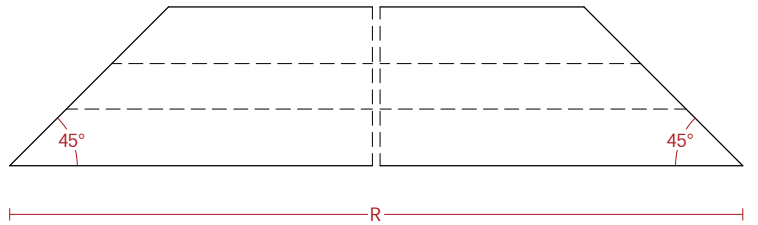




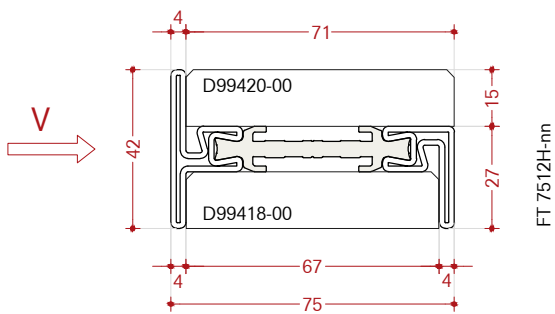
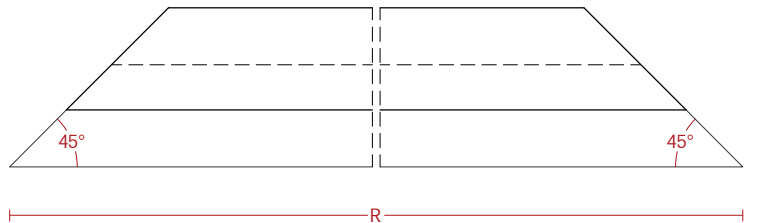
FT 7512L-nn



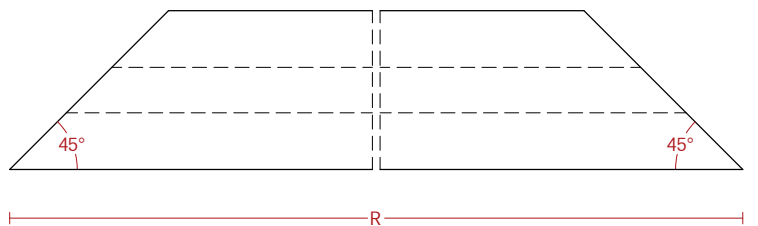
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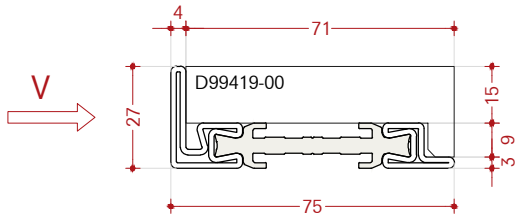


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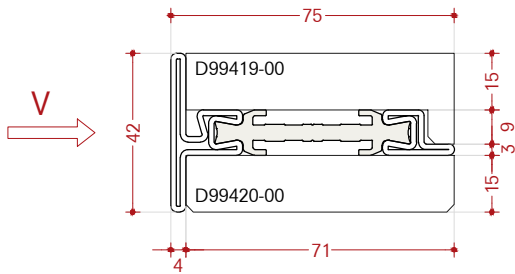
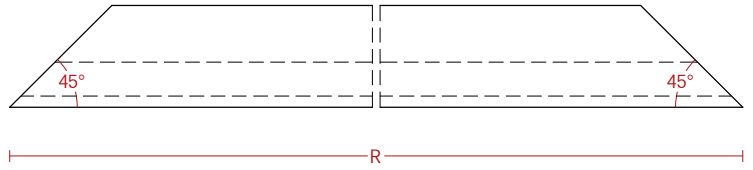


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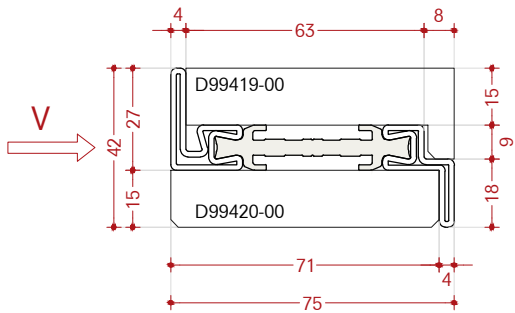
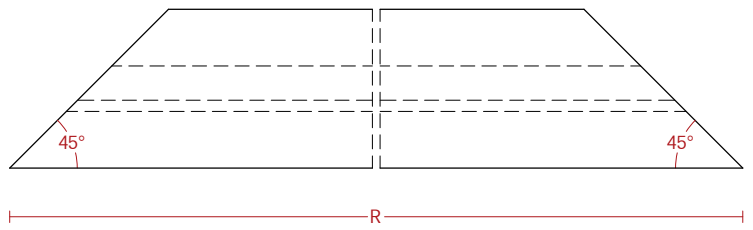




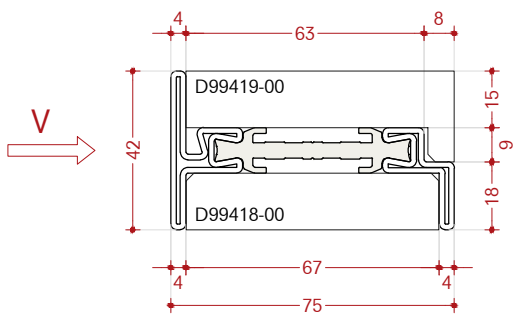
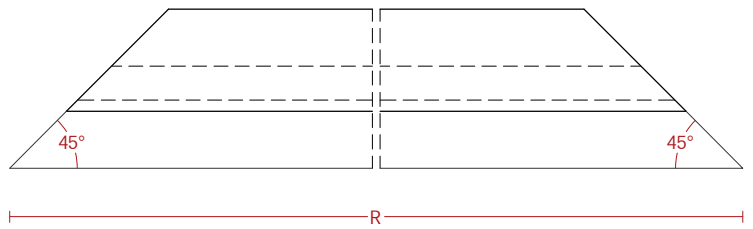
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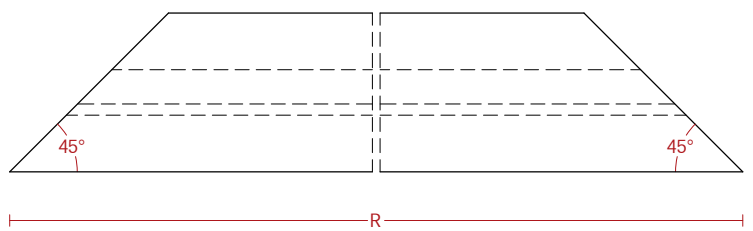
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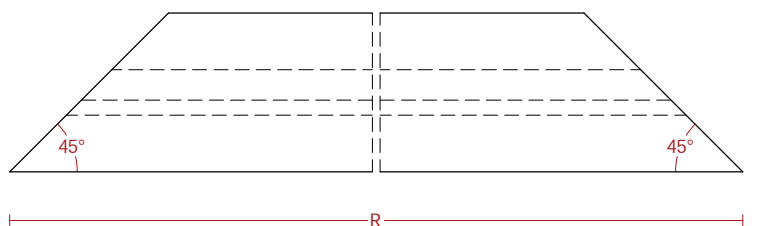
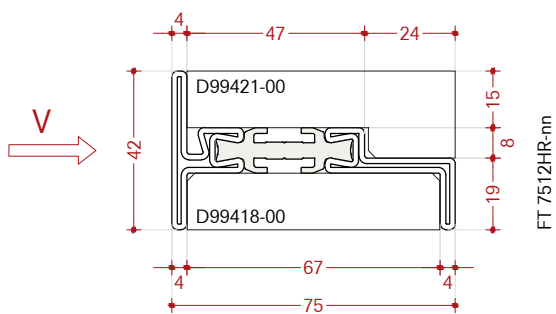
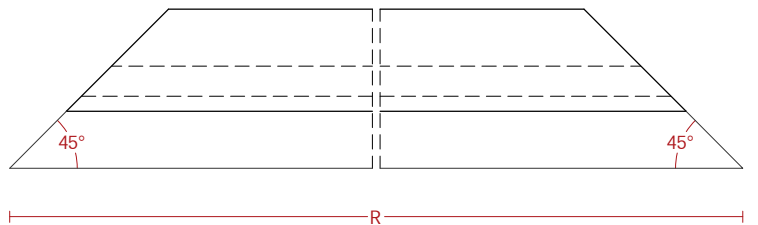
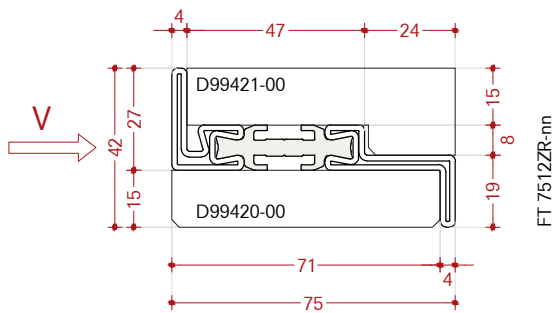
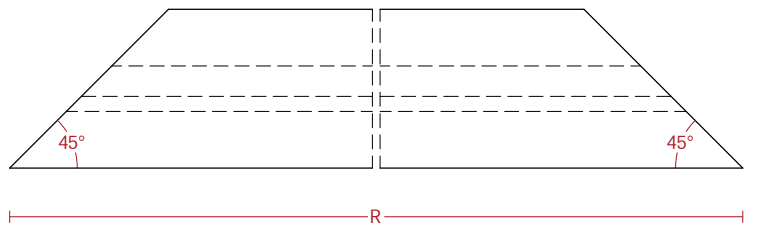
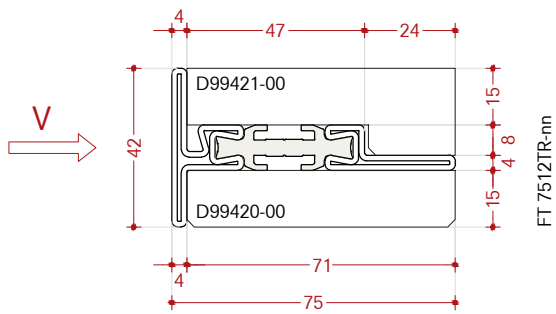
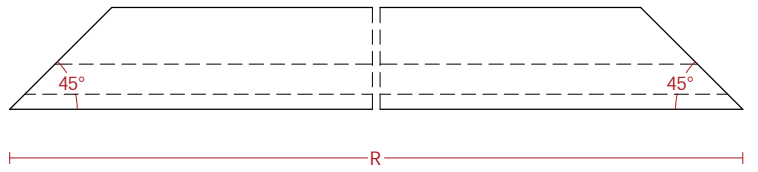
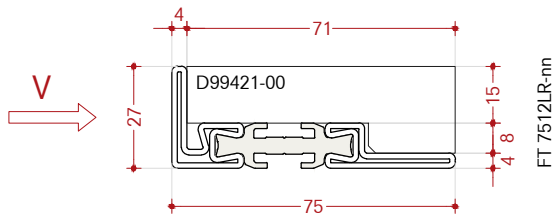


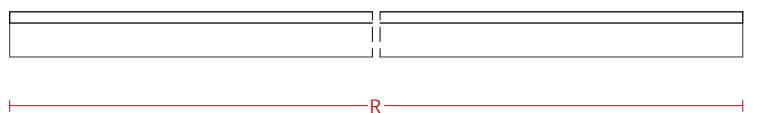
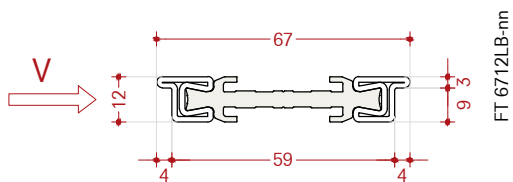
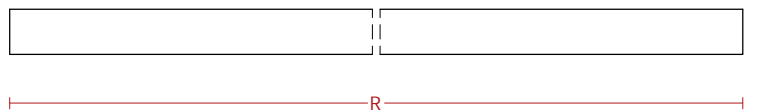
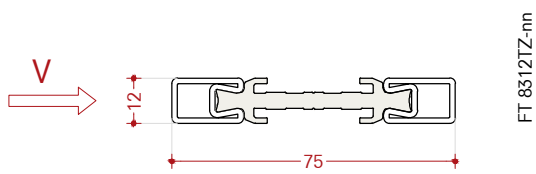
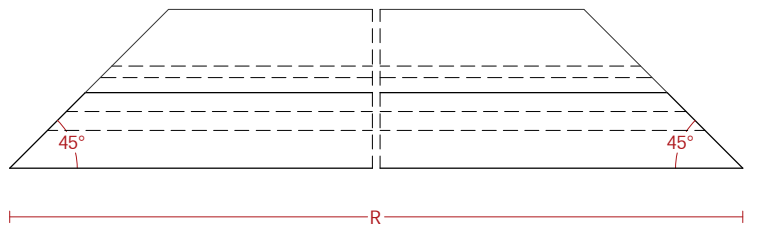
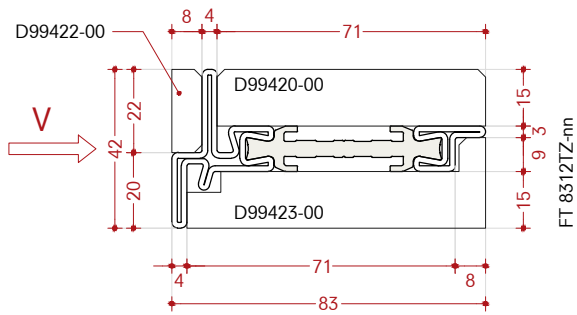
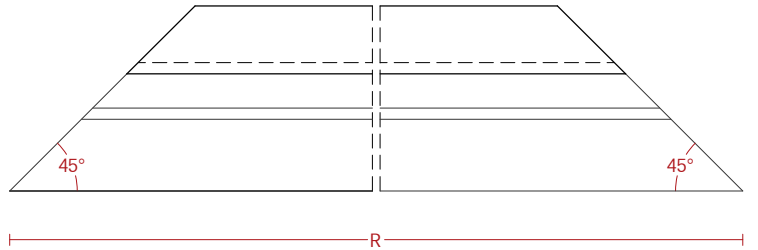
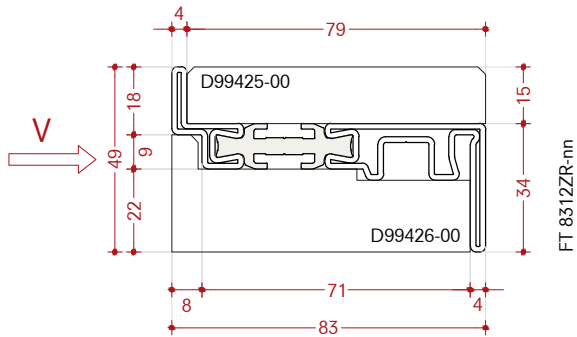
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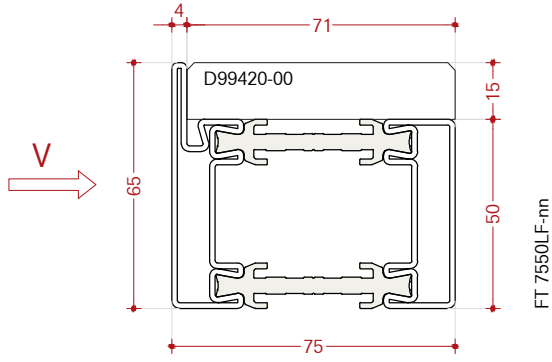


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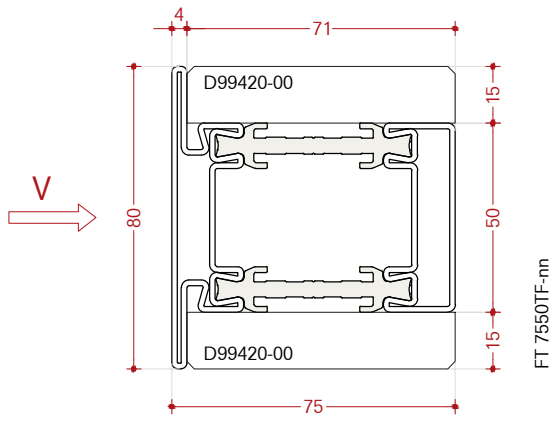
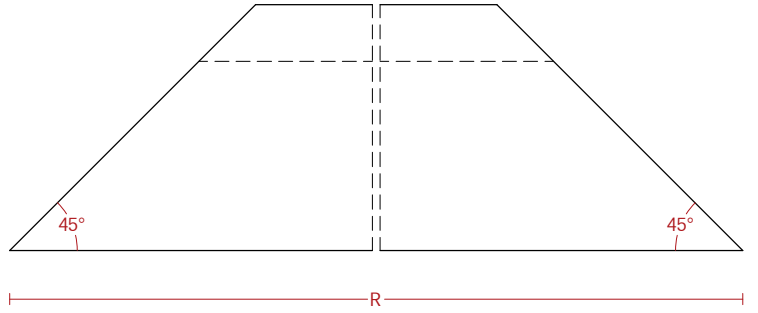




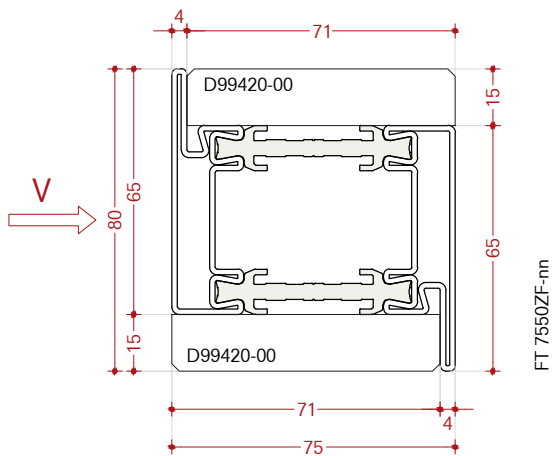
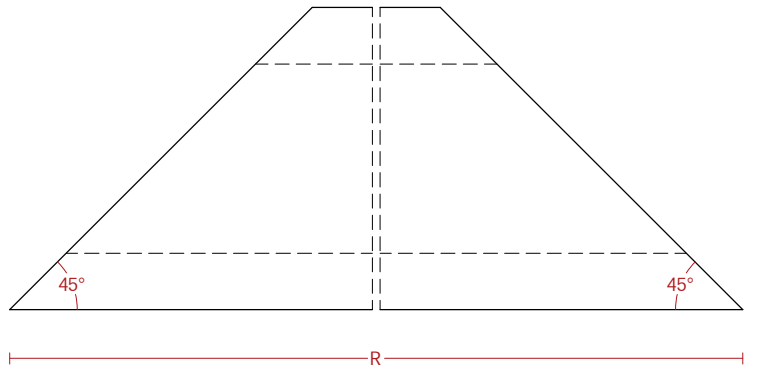




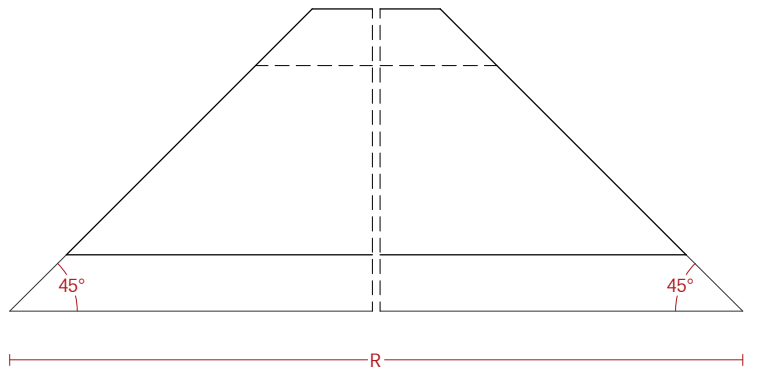
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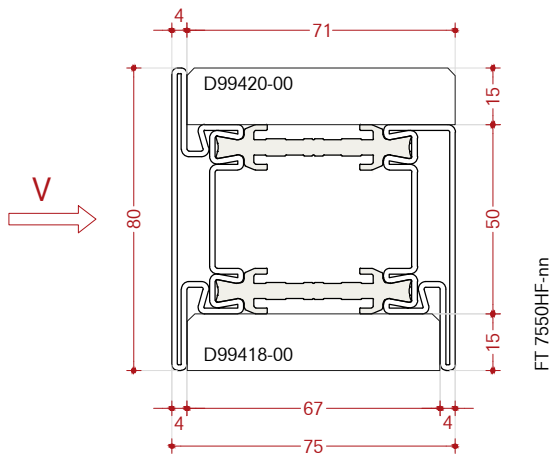


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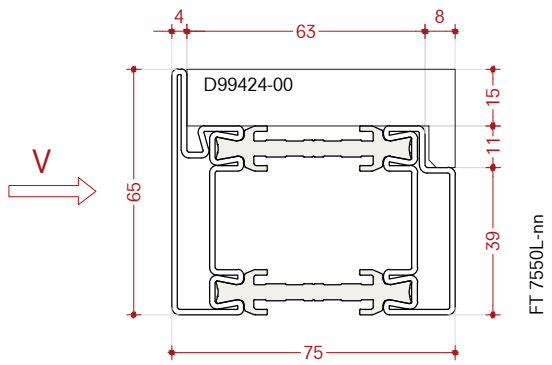
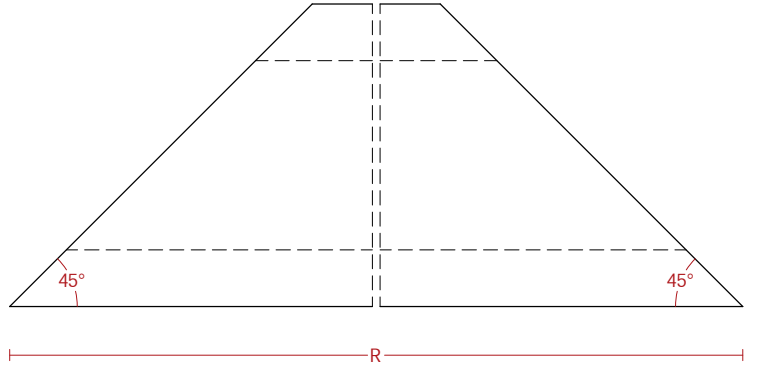


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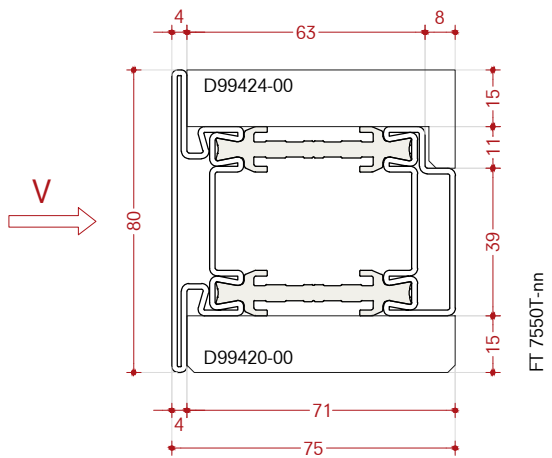
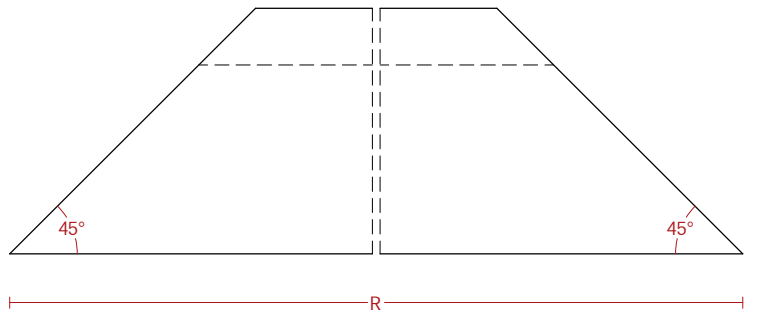




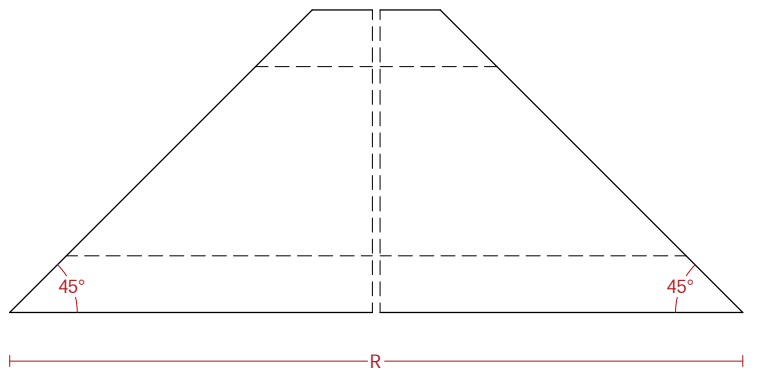
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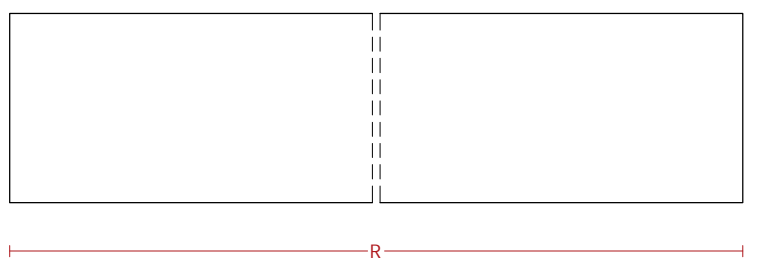
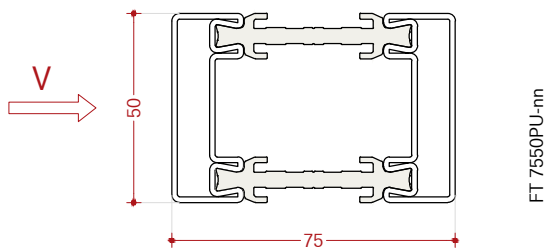
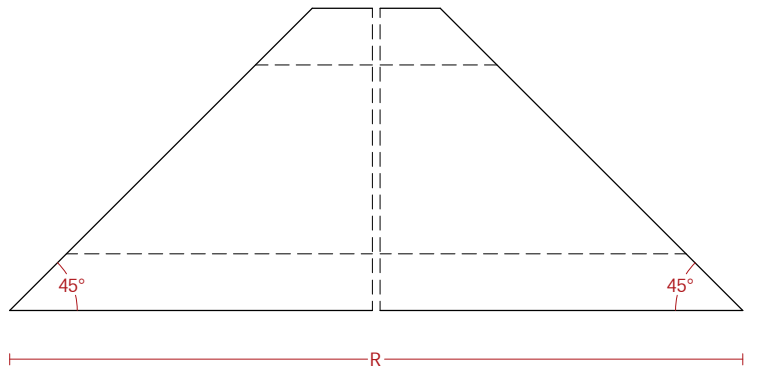
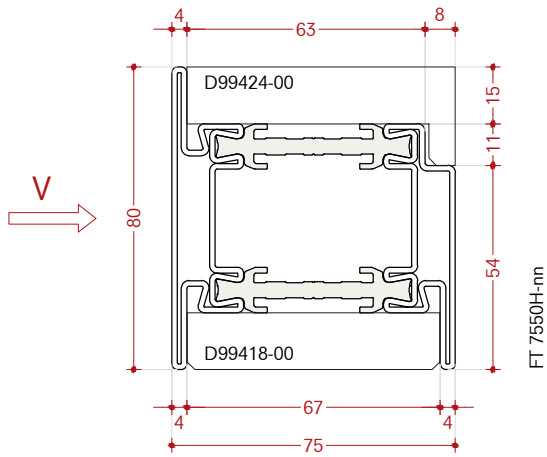
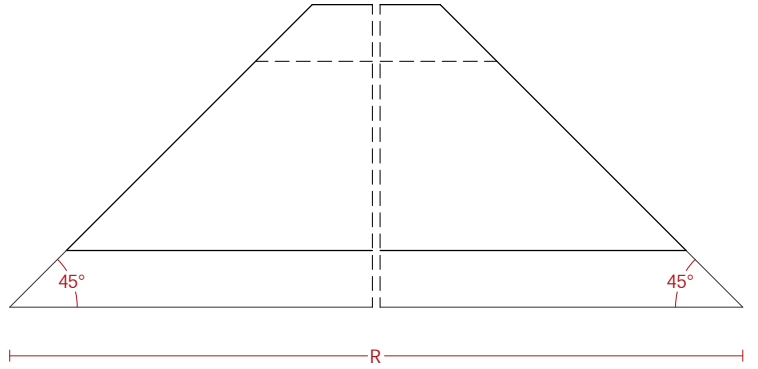
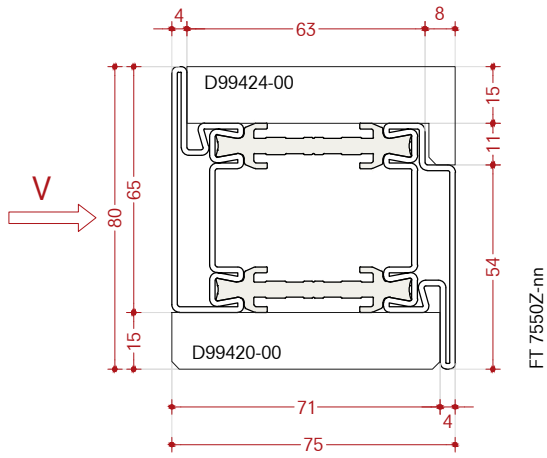


FT 7550L-nn



FT 7550T-nn





**Cutting length**

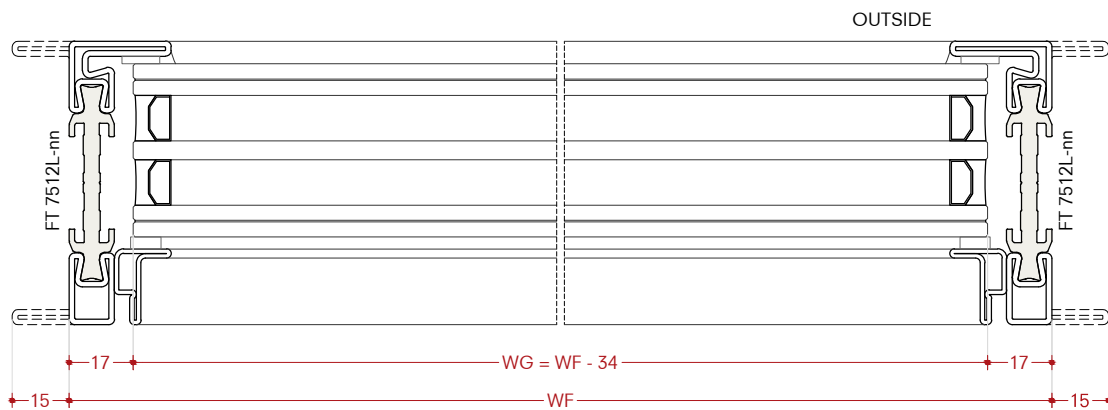
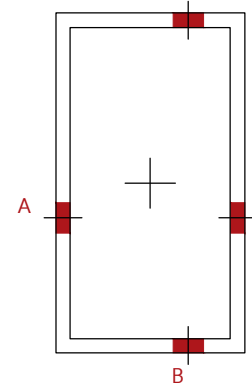
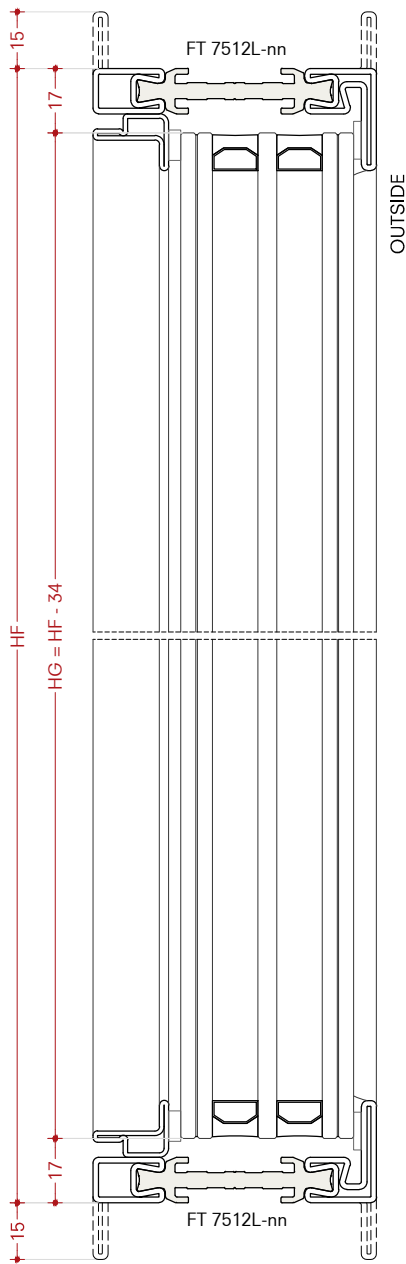
FT 7512L-nn  
Fixed frame

**Liste di taglio**

FT 7512L-nn  
Anta fissa

**Longitud de corte**

FT 7512L-nn  
Ventana fija





**Cutting length**

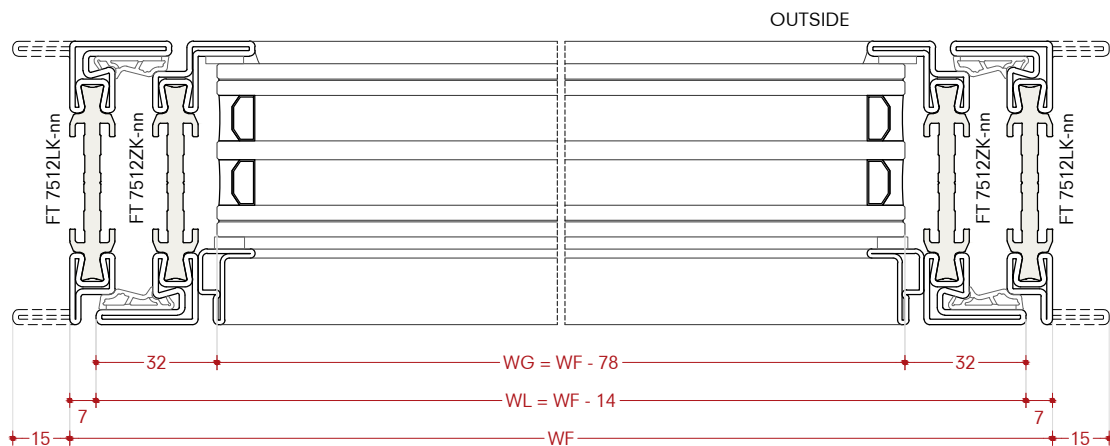
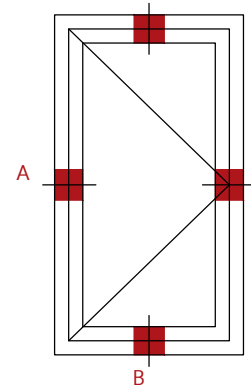
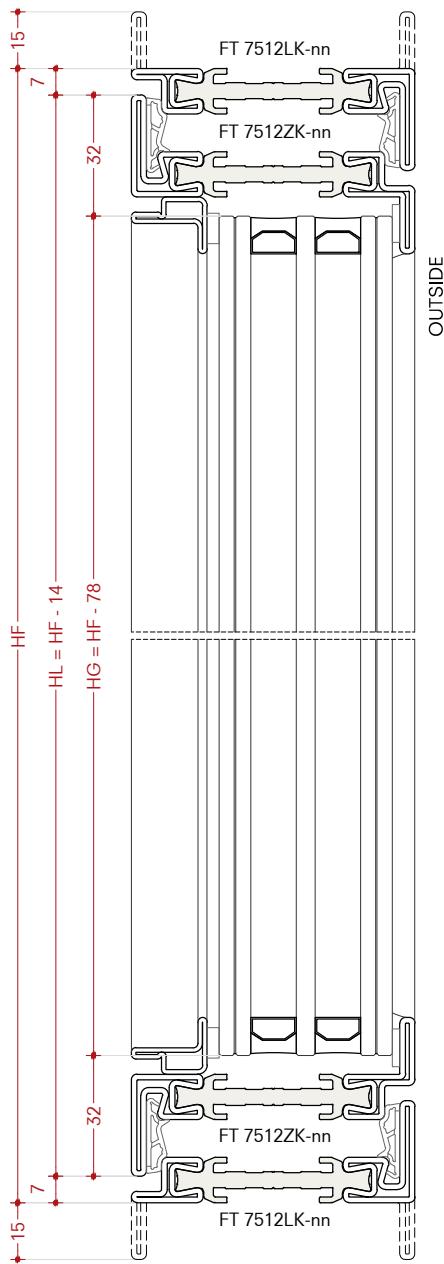
Single leaf window  
Open in  
Flush profiles

**Liste di taglio**

Finestra a un battente  
Apertura interna  
Profili complanari

**Longitud de corte**

Ventana de una hoja  
Que se abre hacia dentro  
Perfiles coplanarios



**Cutting length**

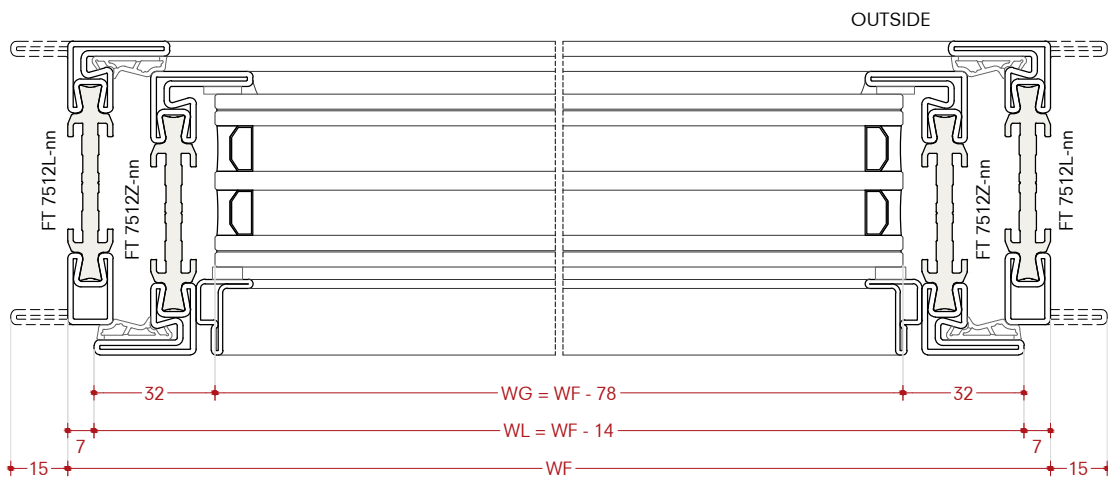
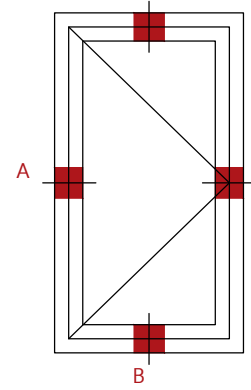
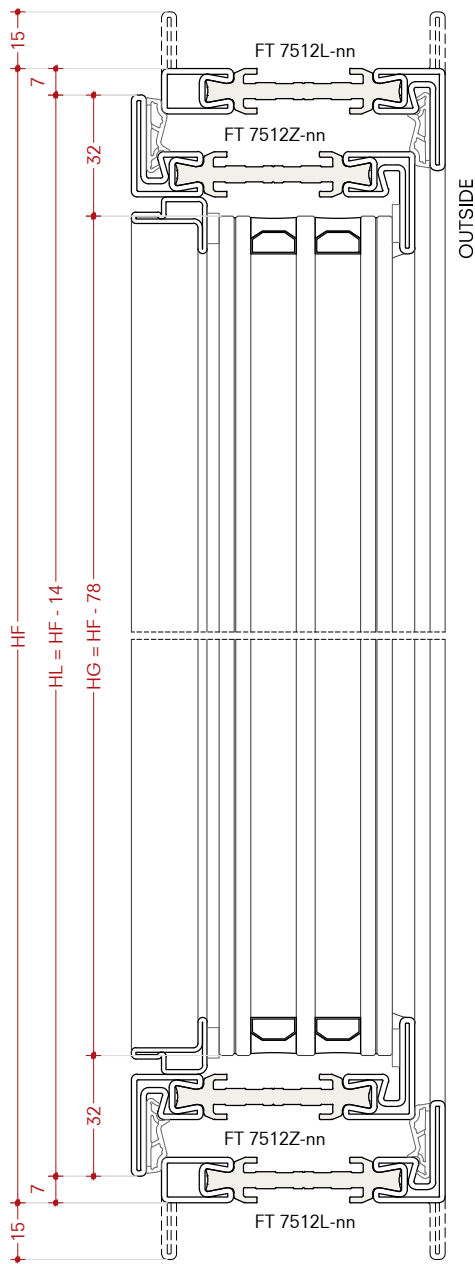
Single leaf window  
Open in  
Overlapped profiles

**Liste di taglio**

Finestra a un battente  
Apertura interna  
Profili a sormonto

**Longitud de corte**

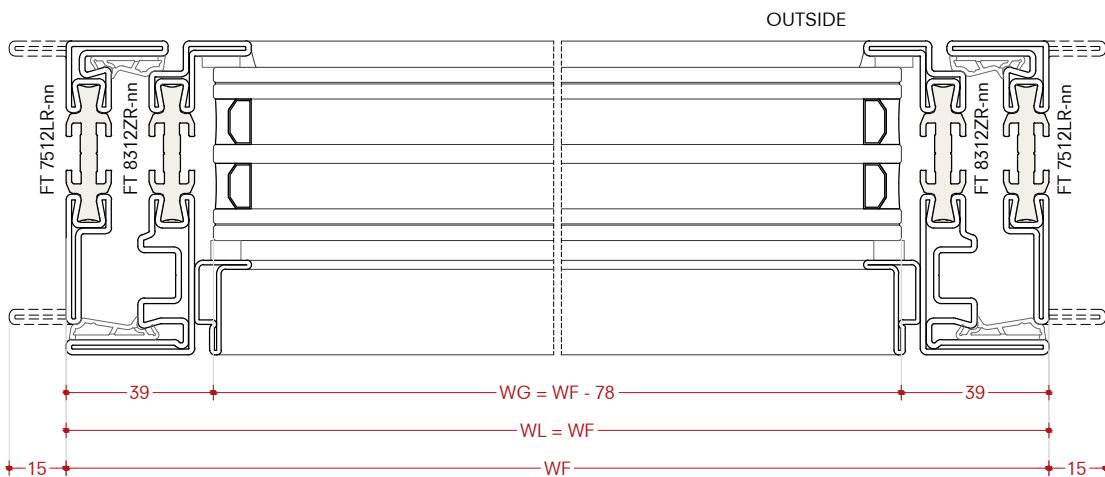
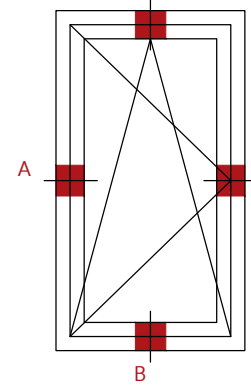
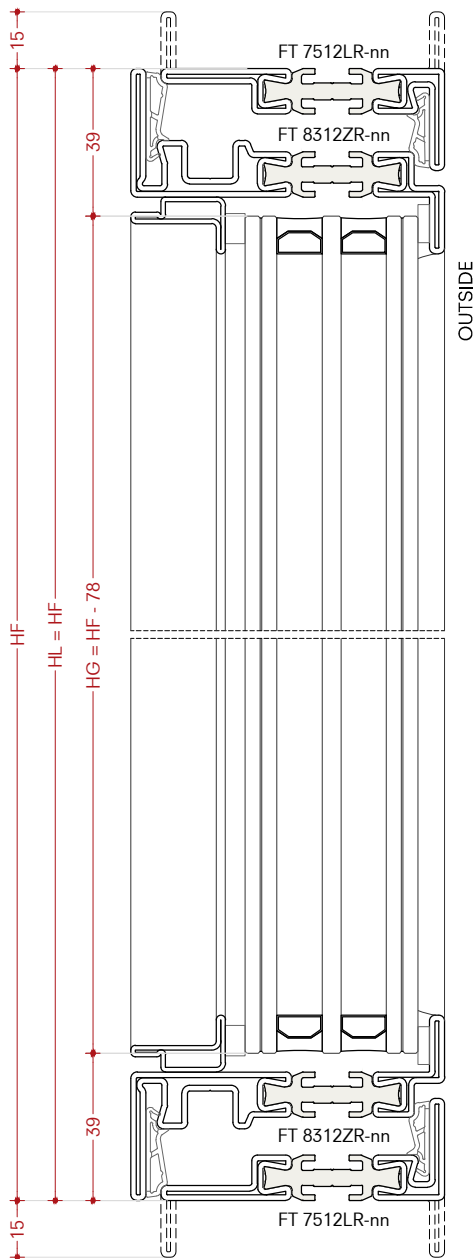
Ventana de una hoja  
Que se abre hacia dentro  
Perfiles superpuestos



**Cutting length**  
Tilt&Turn profiles  
Open in

**Liste di taglio**  
Finestra anta ribalta  
Apertura interna

**Longitud de corte**  
Ventana oscilante  
Que se abre hacia dentro



**Cutting length**

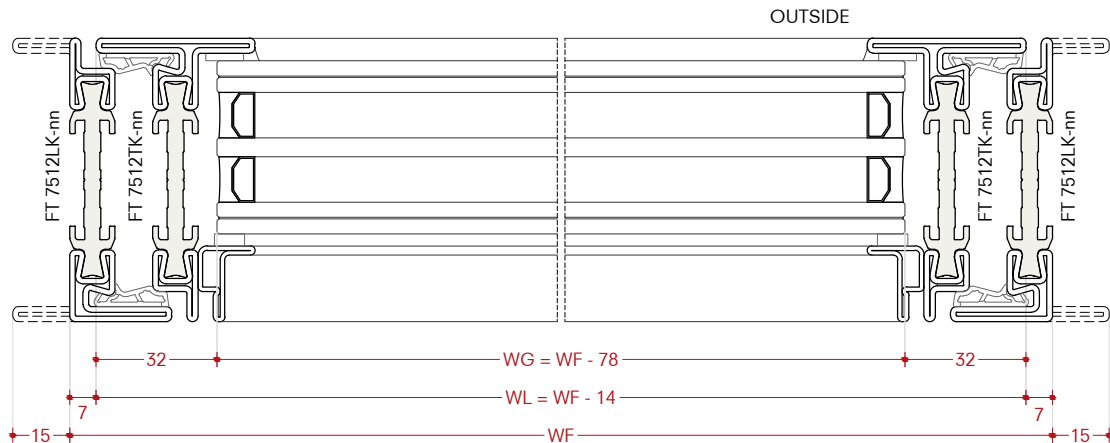
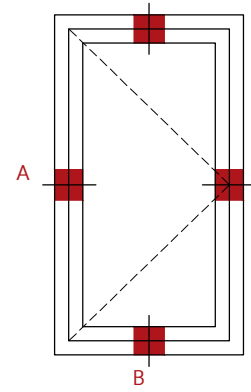
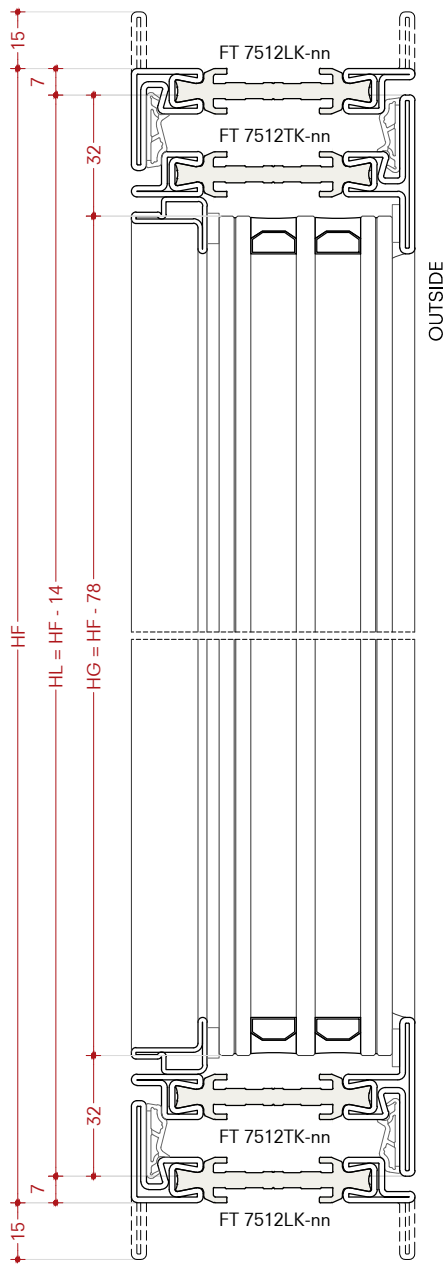
Single leaf window  
Open out  
Flush profiles

**Liste di taglio**

Finestra a un battente  
Apertura esterna  
Profili complanari

**Longitud de corte**

Ventana de una hoja  
Que se abre hacia fuera  
Perfiles coplanarios



**Cutting length**

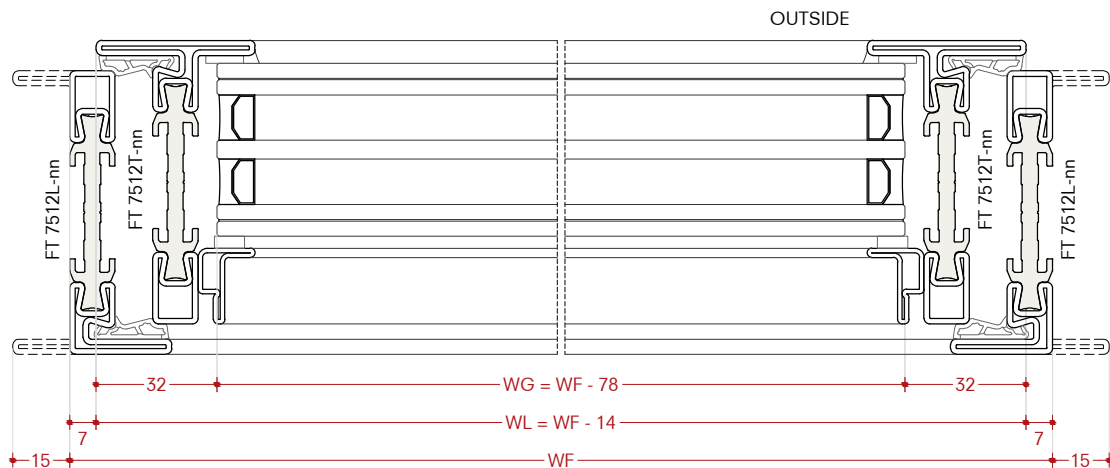
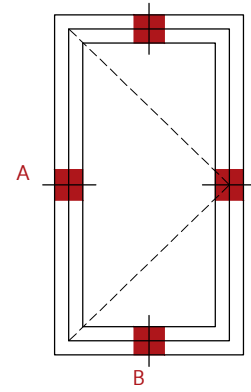
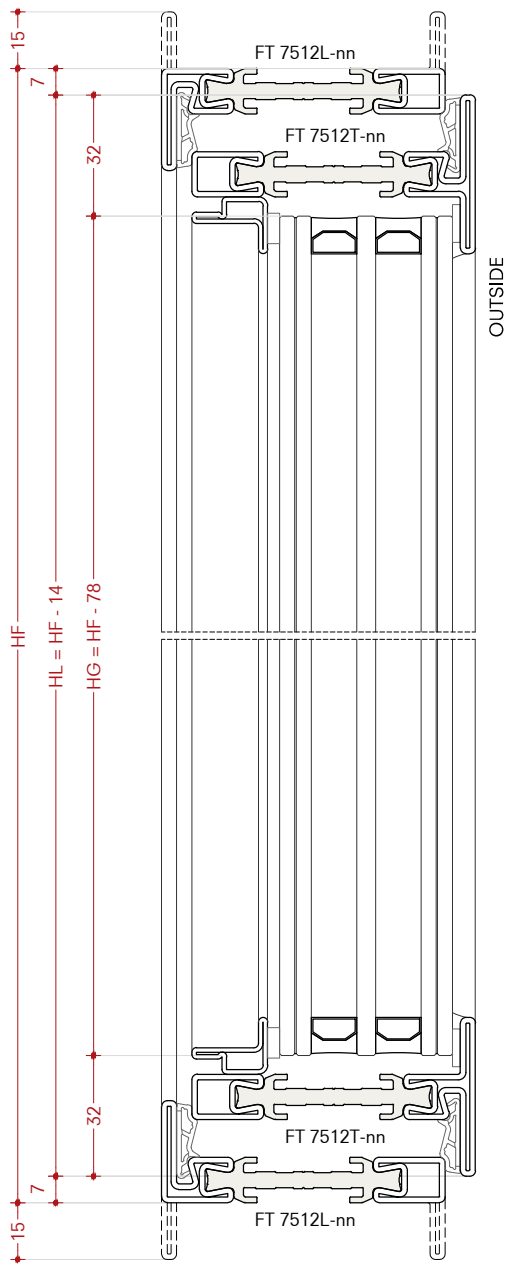
Single leaf window  
Open out  
Overlapped profiles

**Liste di taglio**

Finestra a un battente  
Apertura esterna  
Profili a sormonto

**Longitud de corte**

Ventana de una hoja  
Que se abre hacia fuera  
Perfiles superpuestos



**Cutting length**

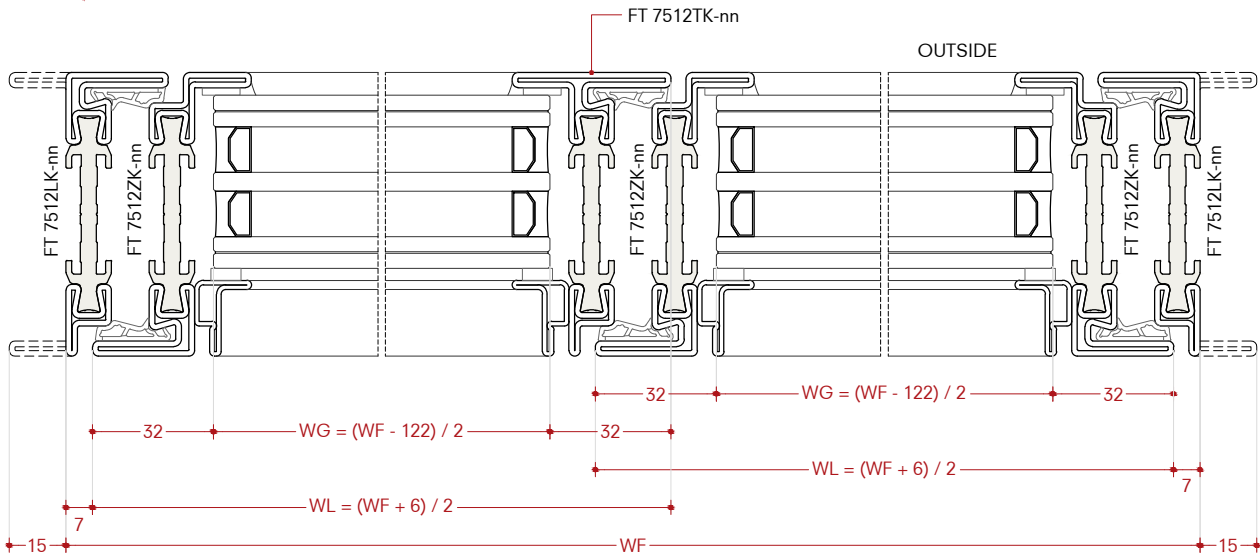
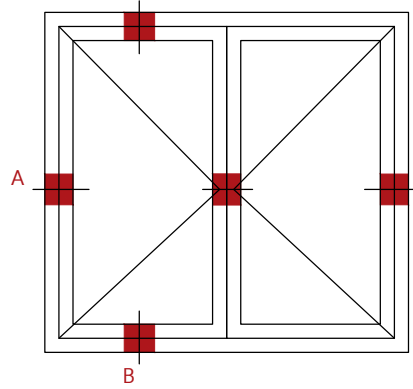
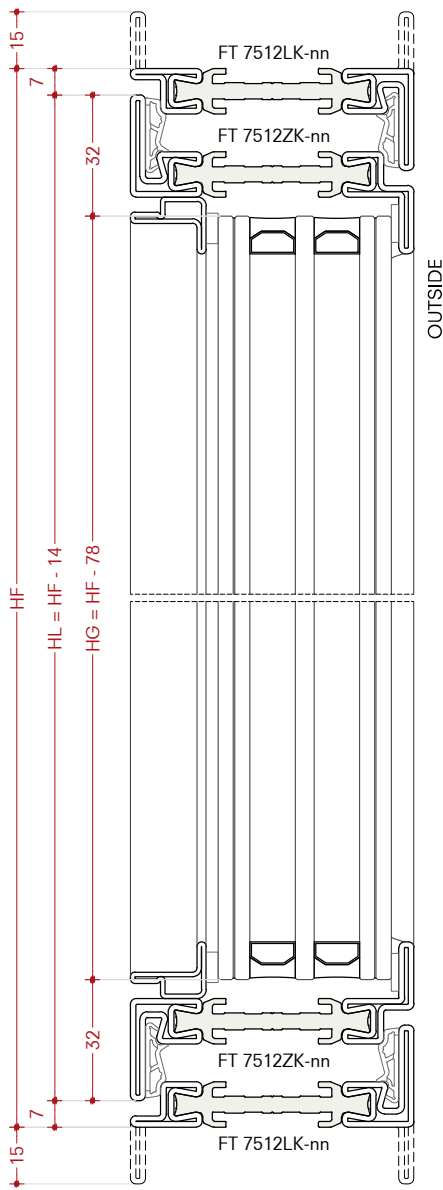
Double leaf window  
Open in  
Flush profiles

**Liste di taglio**

Finestra a due battenti  
Apertura interna  
Profili complanari

**Longitud de corte**

Ventana de dos hojas  
Que se abre hacia dentro  
Perfiles coplanarios



**Cutting length**

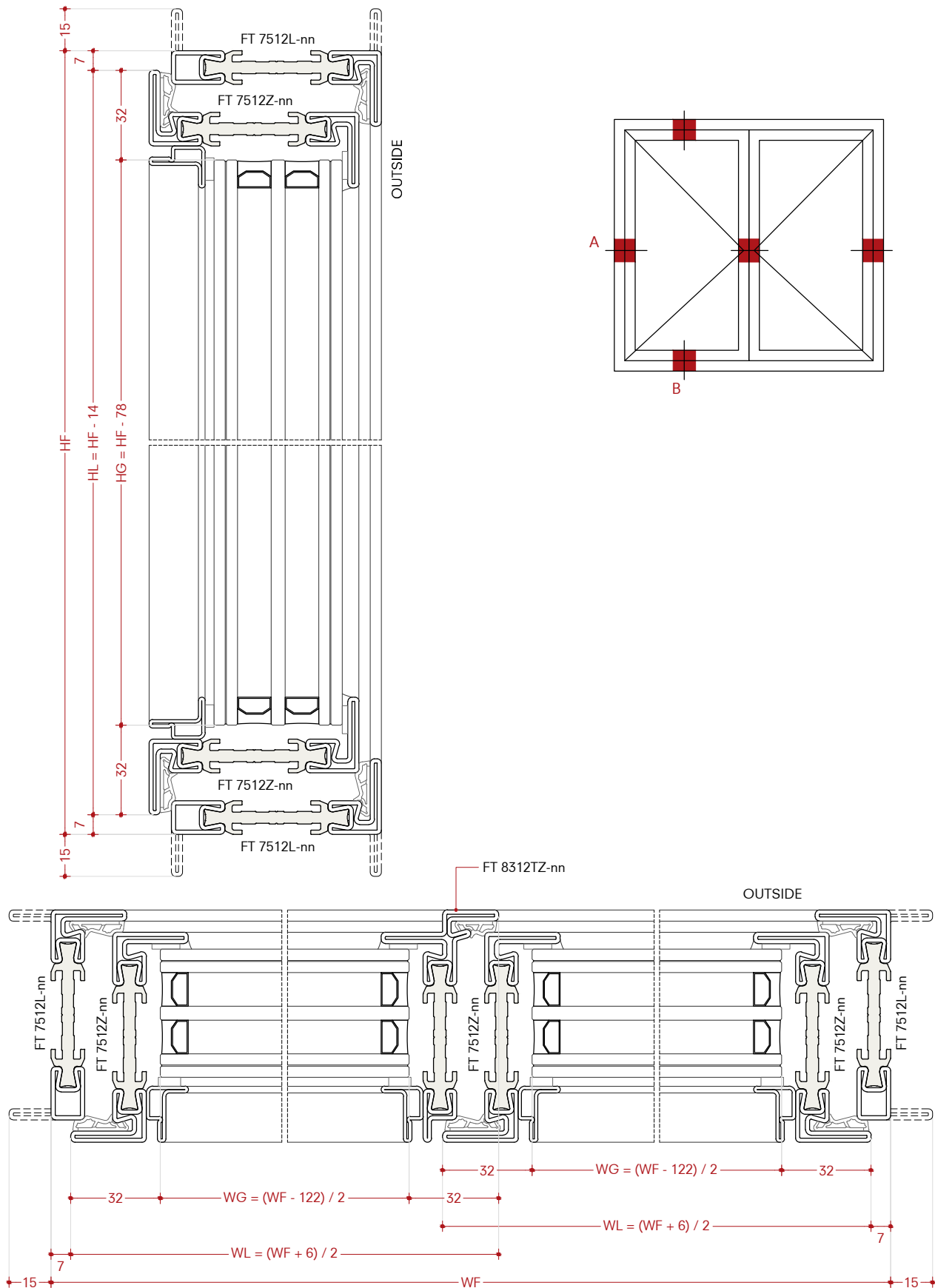
Double leaf window  
Open in  
Overlapped profiles

**Liste di taglio**

Finestra a due battenti  
Apertura interna  
Profili a sormonto

**Longitud de corte**

Ventana de dos hojas  
Que se abre hacia dentro  
Perfiles superpuestos



**Cutting length**

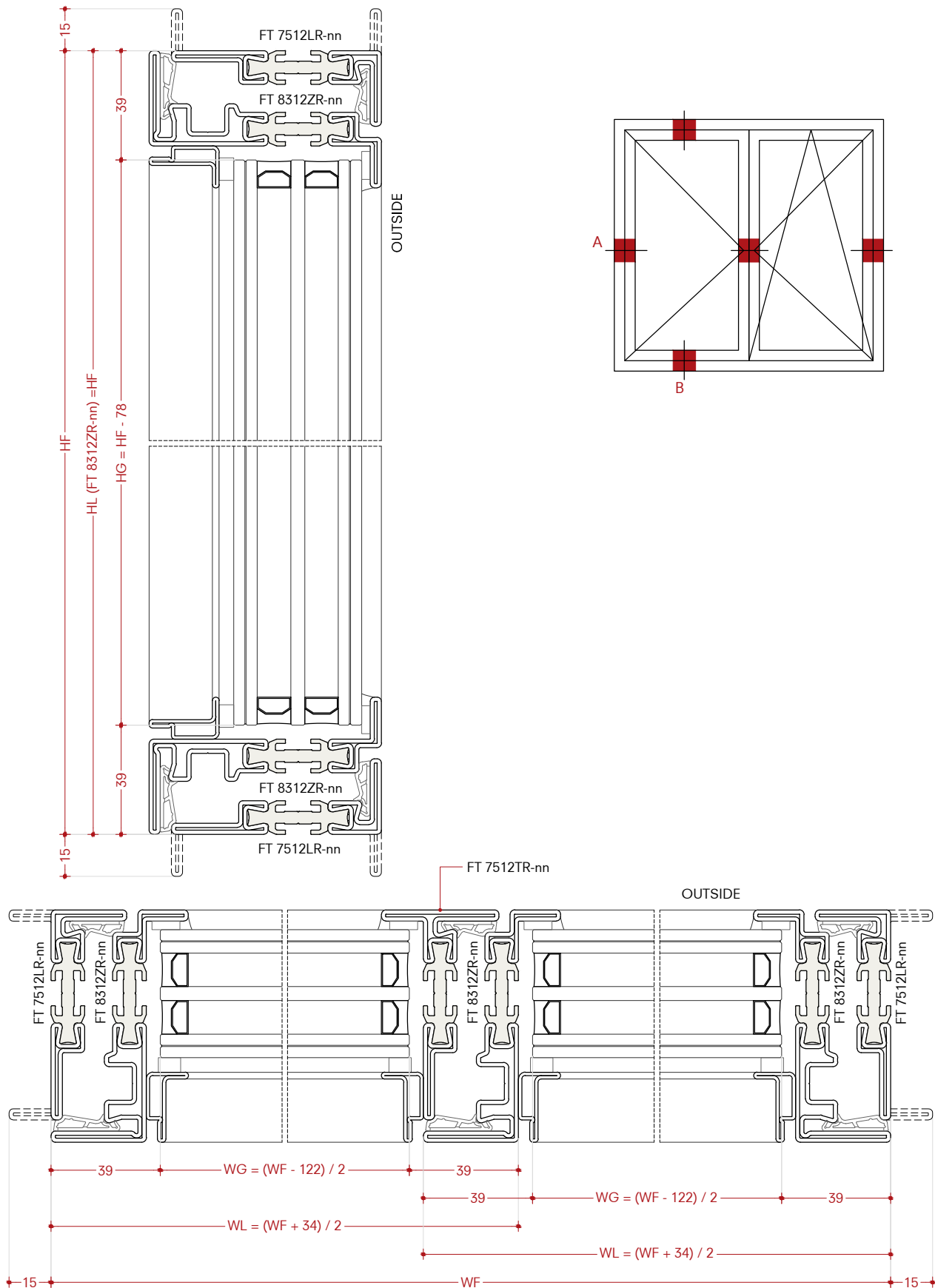
Double leaf and Tilt&Turn window  
Open in  
Overlapped profiles

**Liste di taglio**

Finestra a due battenti e anta ribalta  
Apertura interna  
Profili a sormonto

**Longitud de corte**

Ventana de dos hojas y oscilante  
Que se abre hacia dentro  
Perfiles superpuestos





**Cutting length**

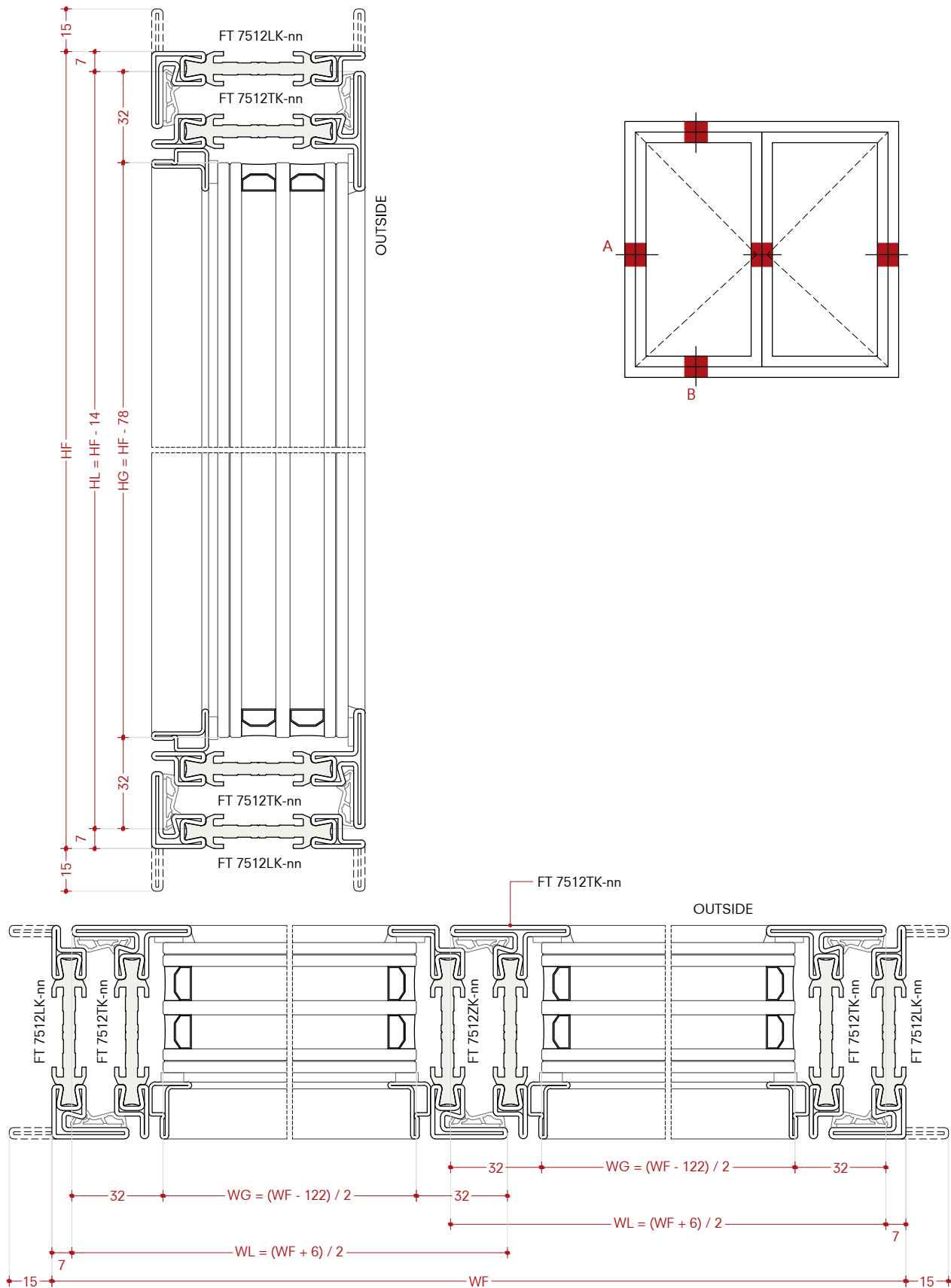
Double leaf window  
Open out  
Flush profiles

**Liste di taglio**

Finestra a due battenti  
Apertura esterna  
Profili complanari

**Longitud de corte**

Ventana de dos hojas  
Que se abre hacia fuera  
Perfiles coplanarios



**Cutting length**

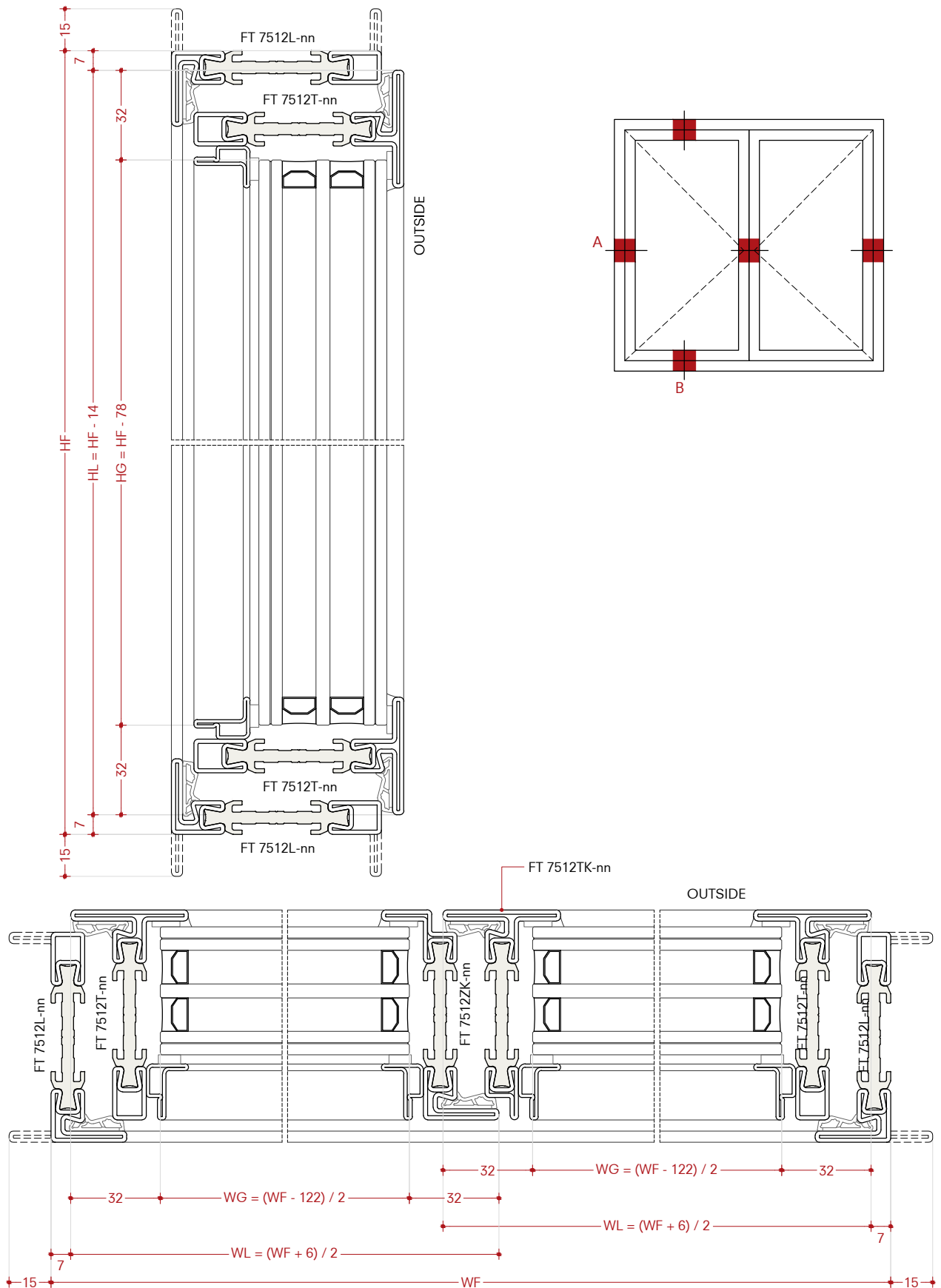
Double leaf window  
Open out  
Overlapped profiles

**Liste di taglio**

Finestra a due battenti  
Apertura esterna  
Profili a sormonto

**Longitud de corte**

Ventana de dos hojas  
Que se abre hacia fuera  
Perfiles superpuestos



**Cutting length**

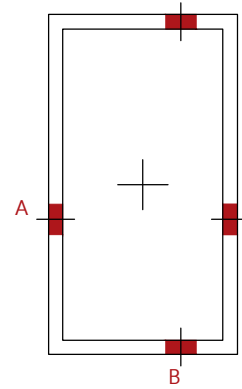
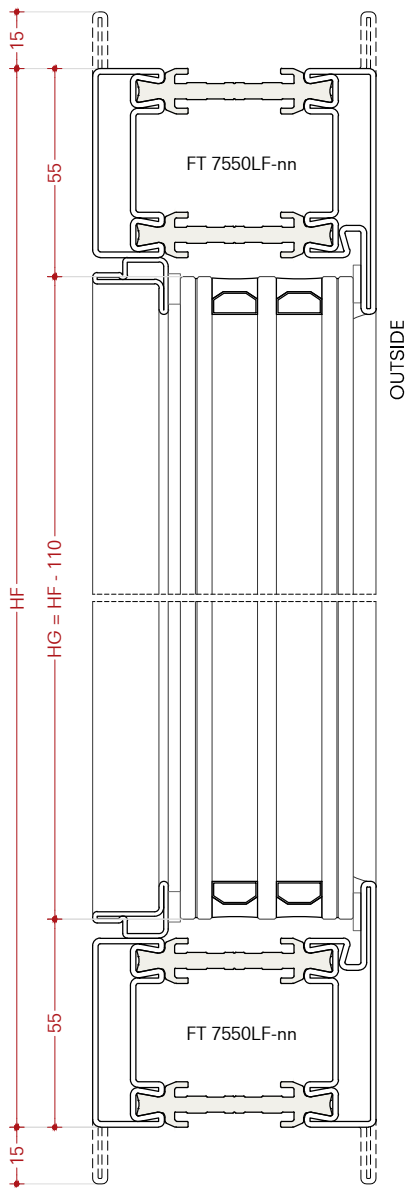
FT 7550LF-nn  
Fixed frame

**Liste di taglio**

FT 7550LF-nn  
Anta fissa

**Longitud de corte**

FT 7550LF-nn  
Ventana fija



**Cutting length**

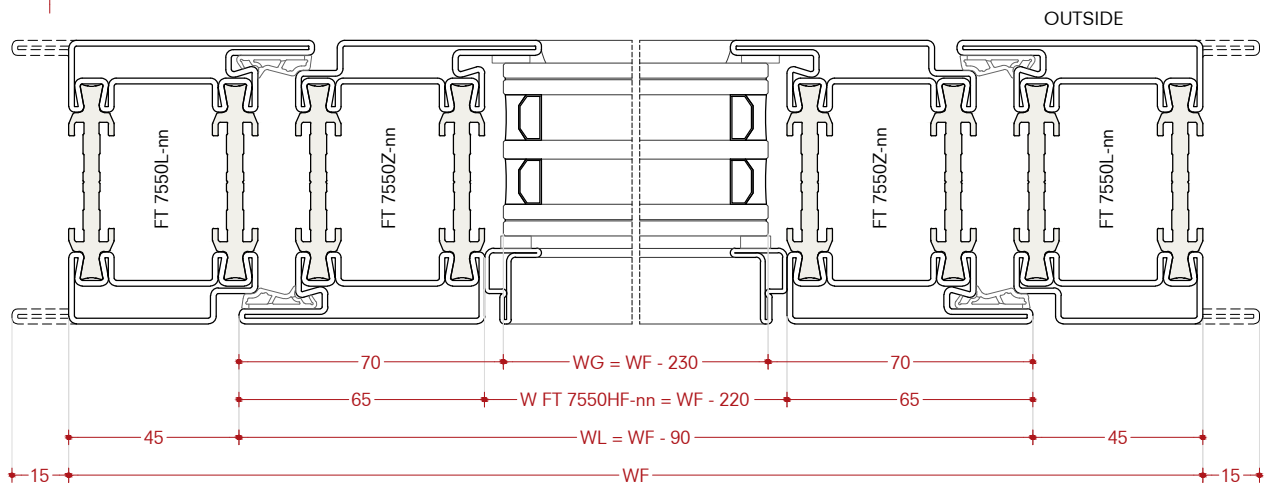
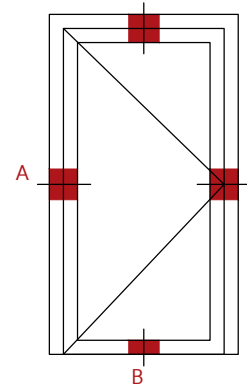
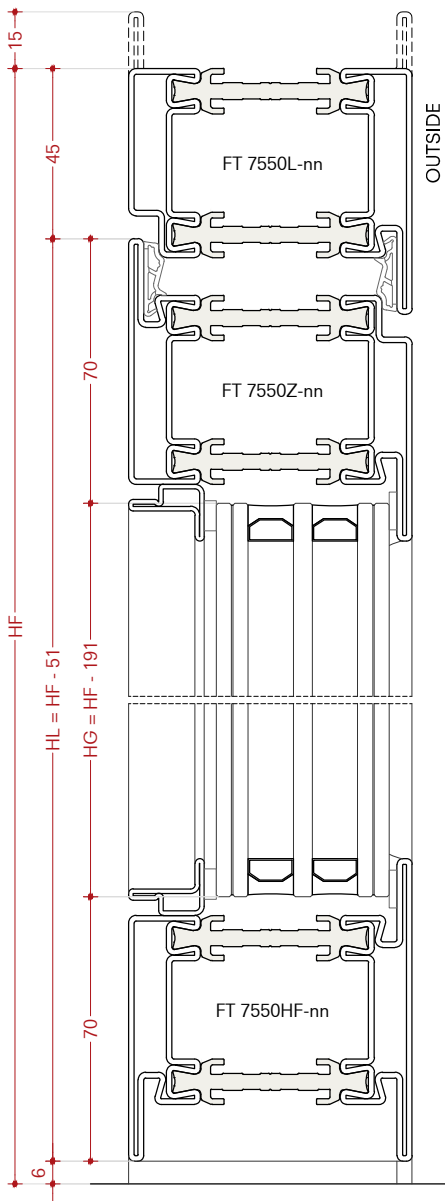
Single leaf door  
Open in

**Liste di taglio**

Porta a un battente  
Apertura interna

**Longitud de corte**

Puerta abatible de una hoja  
Que se abre hacia dentro



**Cutting length**

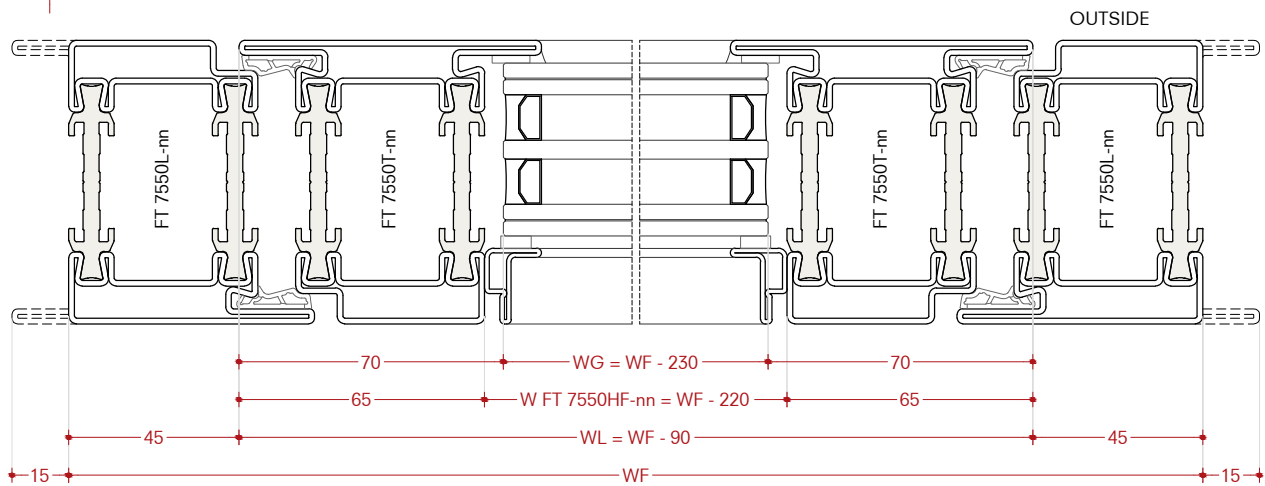
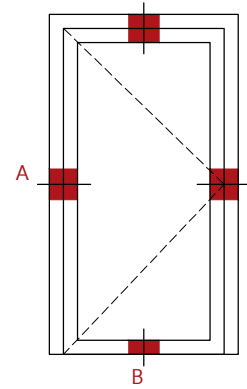
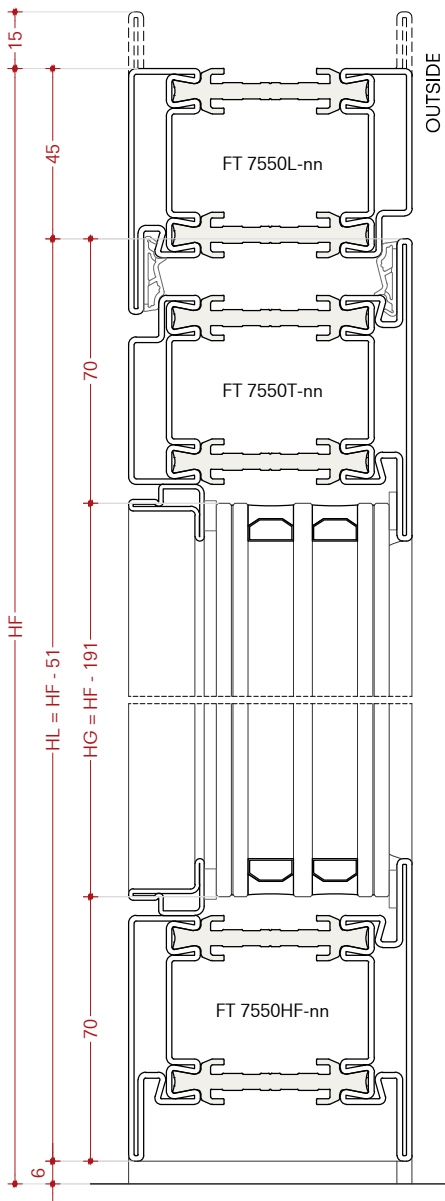
Single leaf door  
Open out

**Liste di taglio**

Porta a un battente  
Apertura esterna

**Longitud de corte**

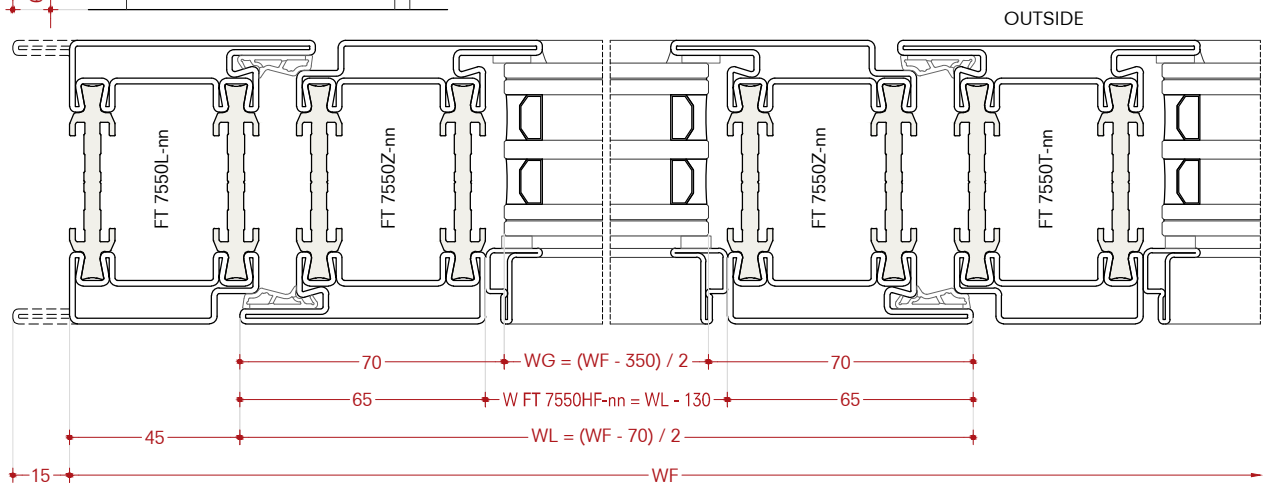
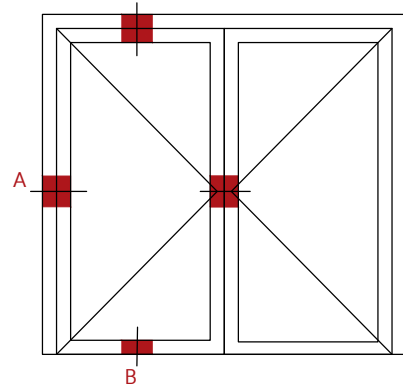
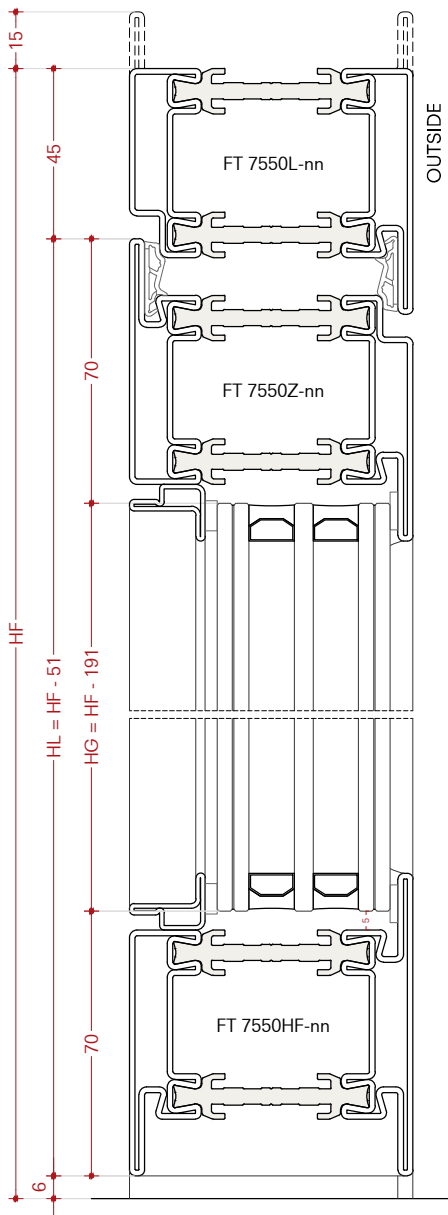
Puerta abatible de una hoja  
Que se abre hacia fuera



**Cutting length**  
Double leaf door  
Open in

**Liste di taglio**  
Porta a due battenti  
Apertura interna

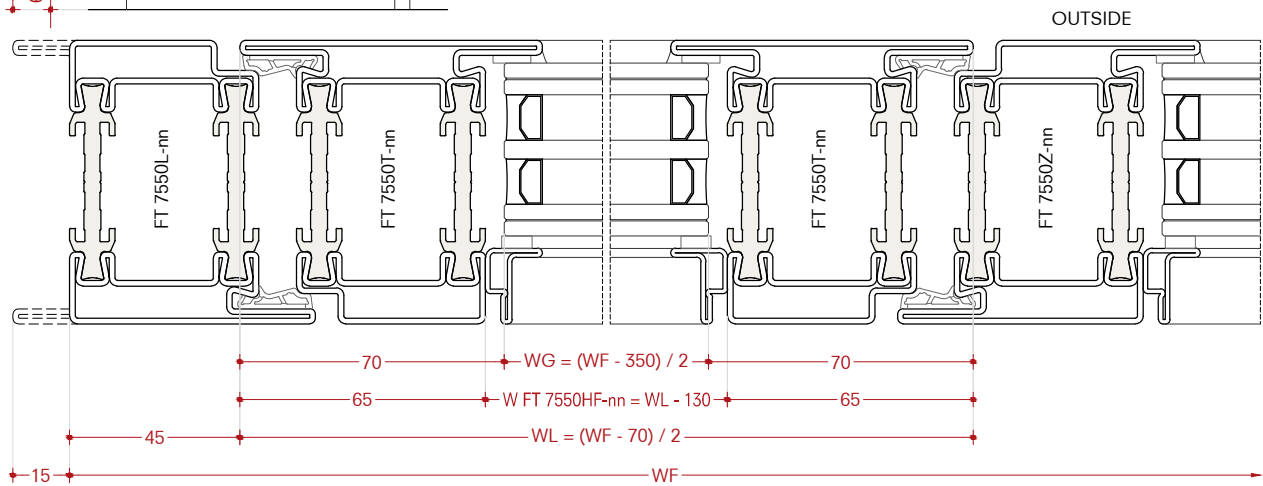
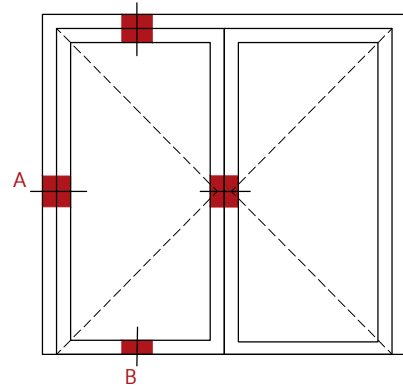
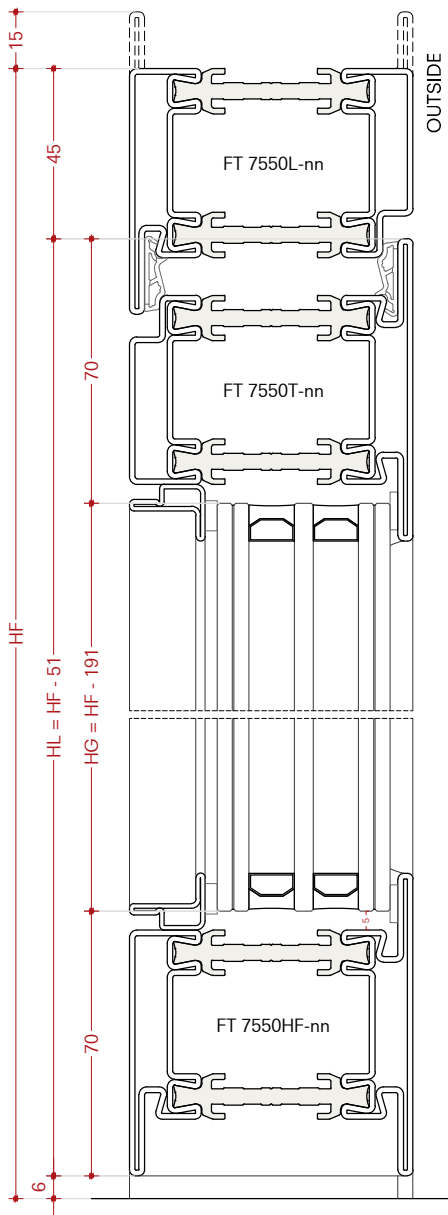
**Longitud de corte**  
Puerta abatible de dos hojas  
Que se abre hacia dentro



**Cutting length**  
Double leaf door  
Open out

**Liste di taglio**  
Porta a due battenti  
Apertura esterna

**Longitud de corte**  
Puerta abatible de dos hojas  
Que se abre hacia fuera



**Cutting length**

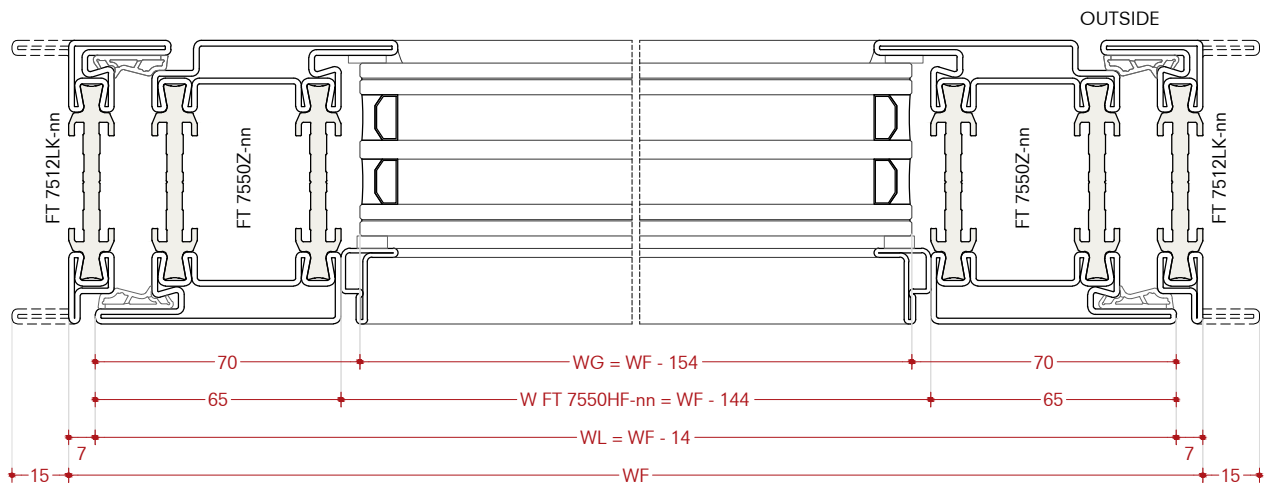
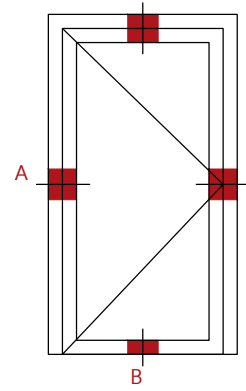
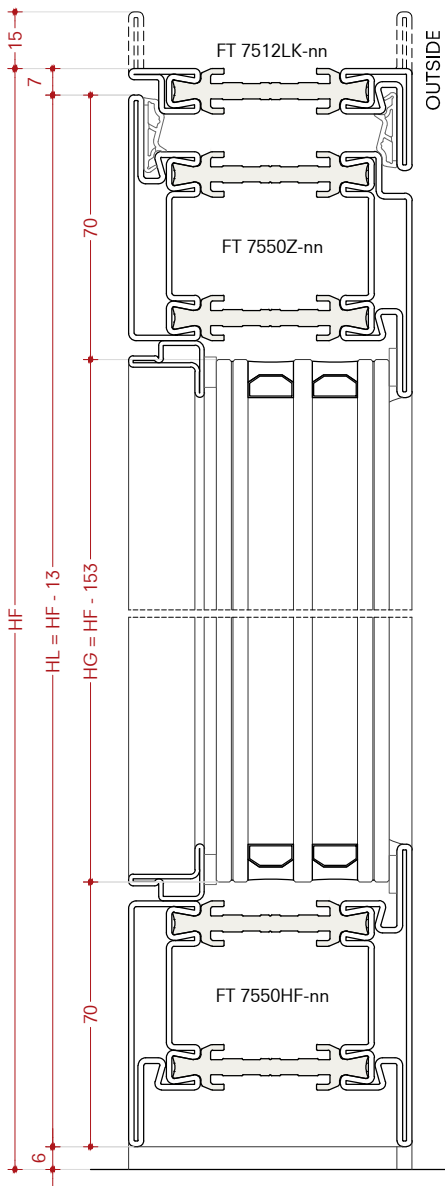
Single leaf door  
Open in

**Liste di taglio**

Porta a un battente  
Apertura interna

**Longitud de corte**

Puerta abatible de una hoja  
Que se abre hacia dentro





**Cutting length**

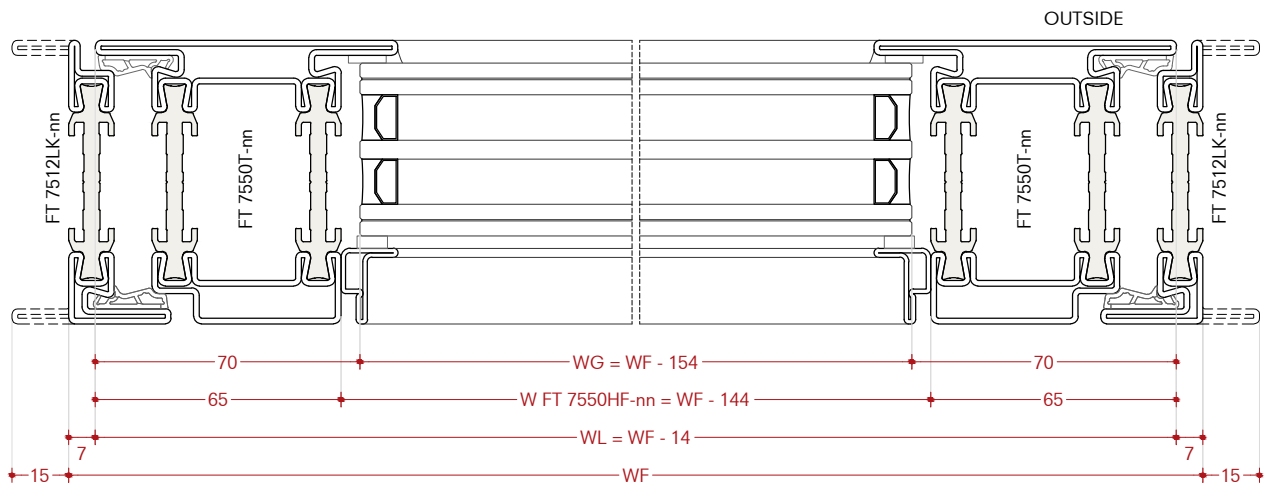
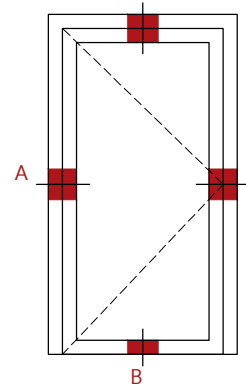
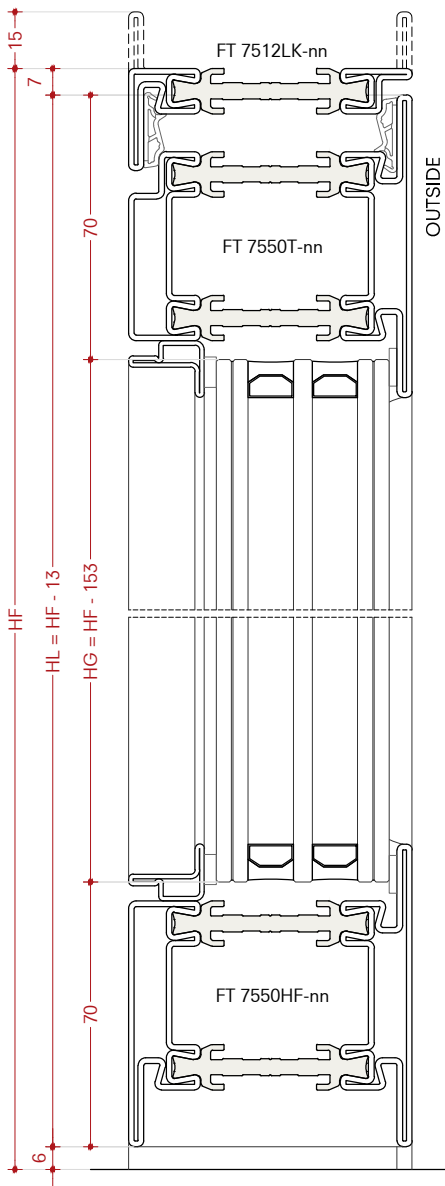
Single leaf door  
Open out

**Liste di taglio**

Porta a un battente  
Apertura esterna

**Longitud de corte**

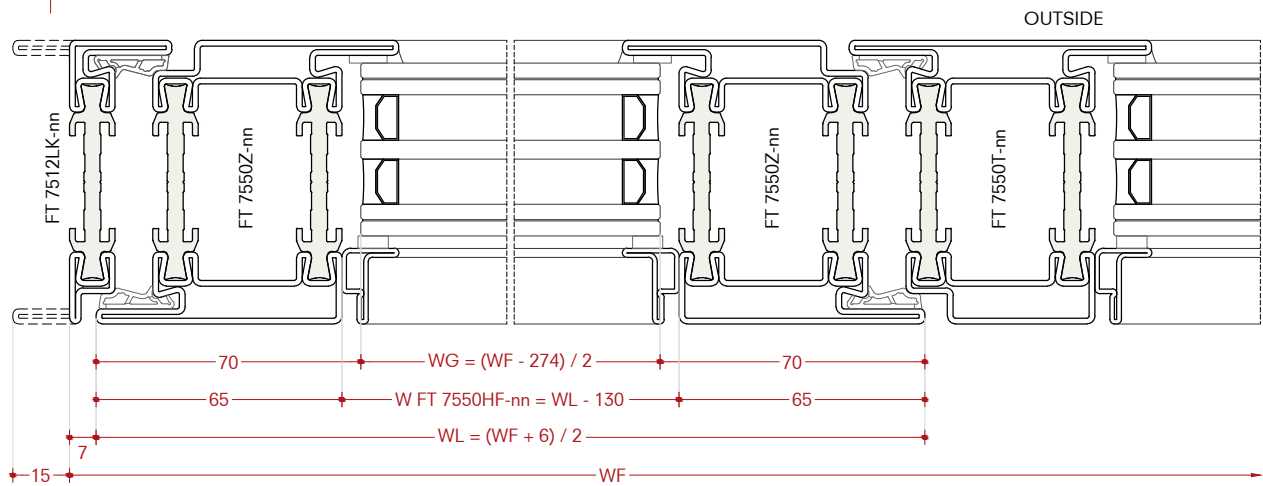
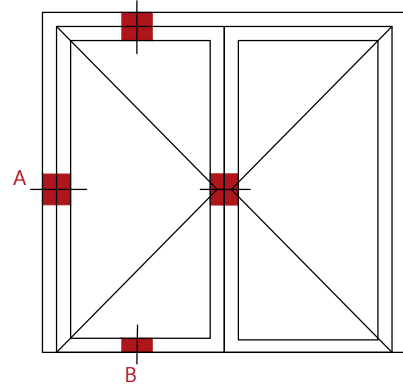
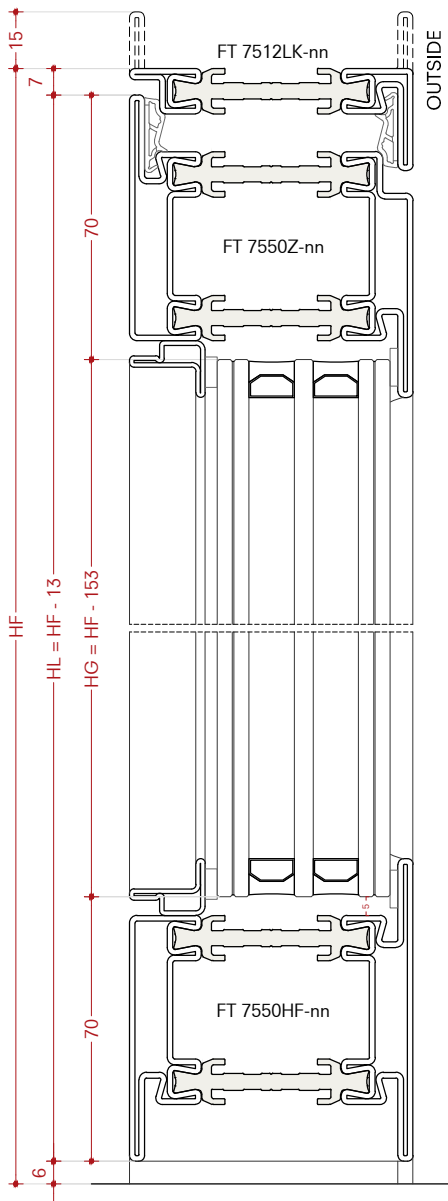
Puerta abatible de una hoja  
Que se abre hacia fuera



**Cutting length**  
Double leaf door  
Open in

**Liste di taglio**  
Porta a due battenti  
Apertura interna

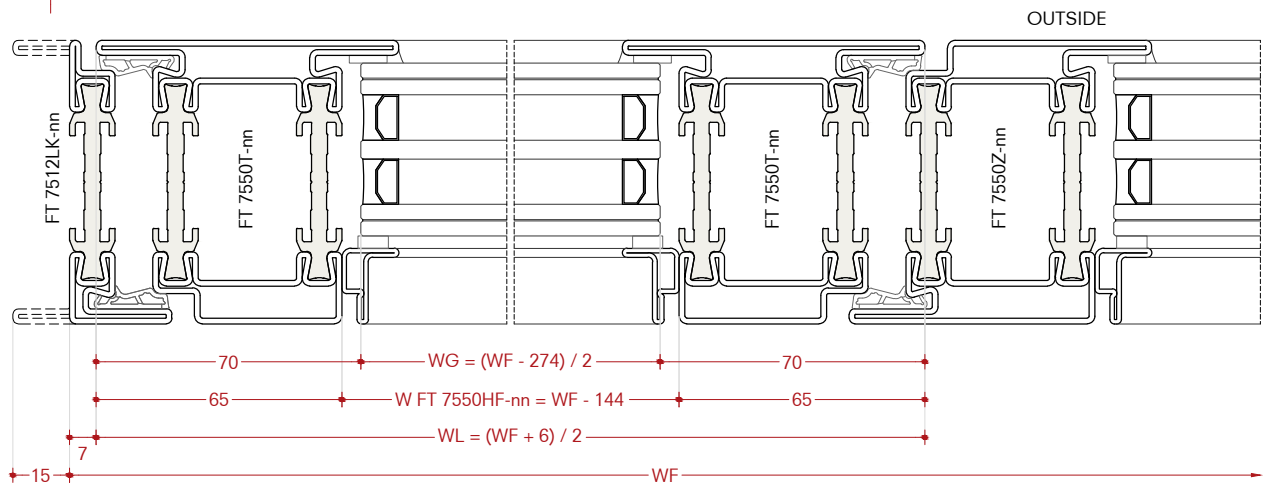
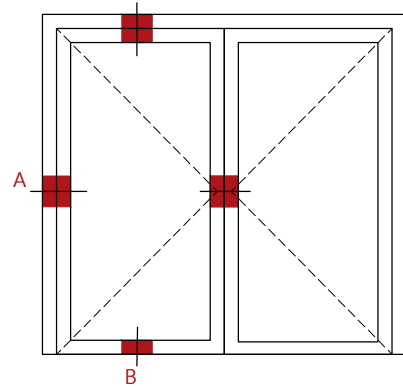
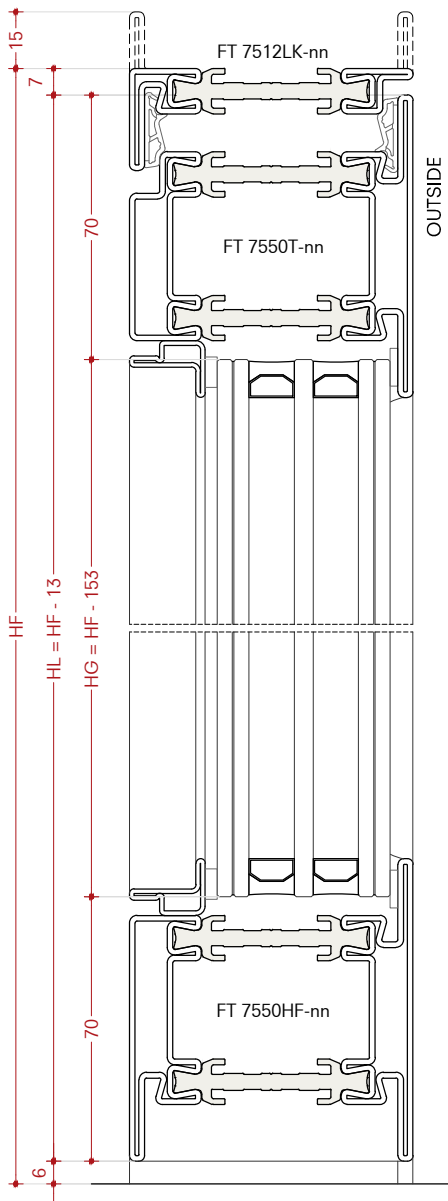
**Longitud de corte**  
Puerta abatible de dos hojas  
Que se abre hacia dentro



**Cutting length**  
Double leaf door  
Open out

**Liste di taglio**  
Porta a due battenti  
Apertura esterna

**Longitud de corte**  
Puerta abatible de dos hojas  
Que se abre hacia fuera



**Cutting length**

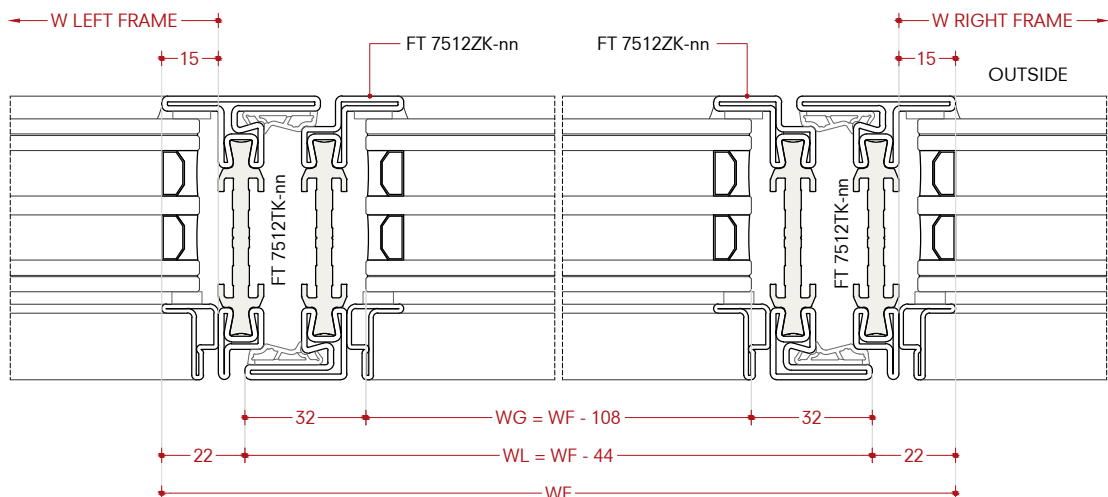
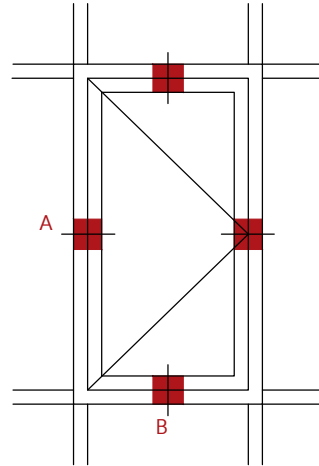
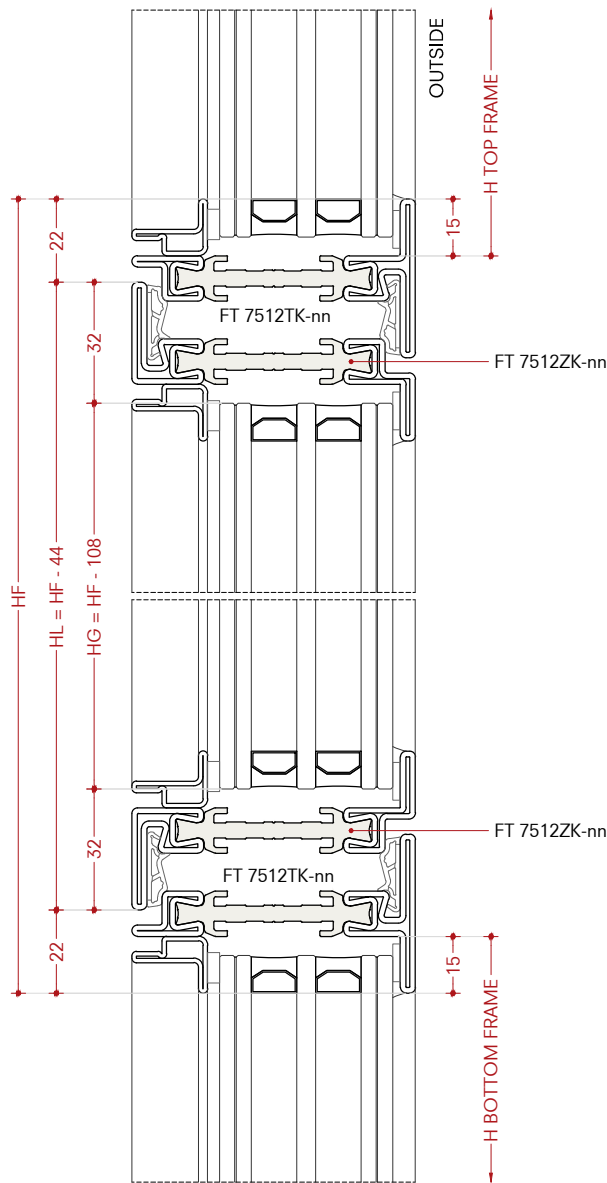
Single leaf in fixed frame  
Open in  
Flush profiles

**Liste di taglio**

Anta singola su telaio fisso  
Apertura interna  
Profili complanari

**Longitud de corte**

Hoja en marco fijo  
Que se abre hacia dentro  
Perfiles coplanarios



**Cutting length**

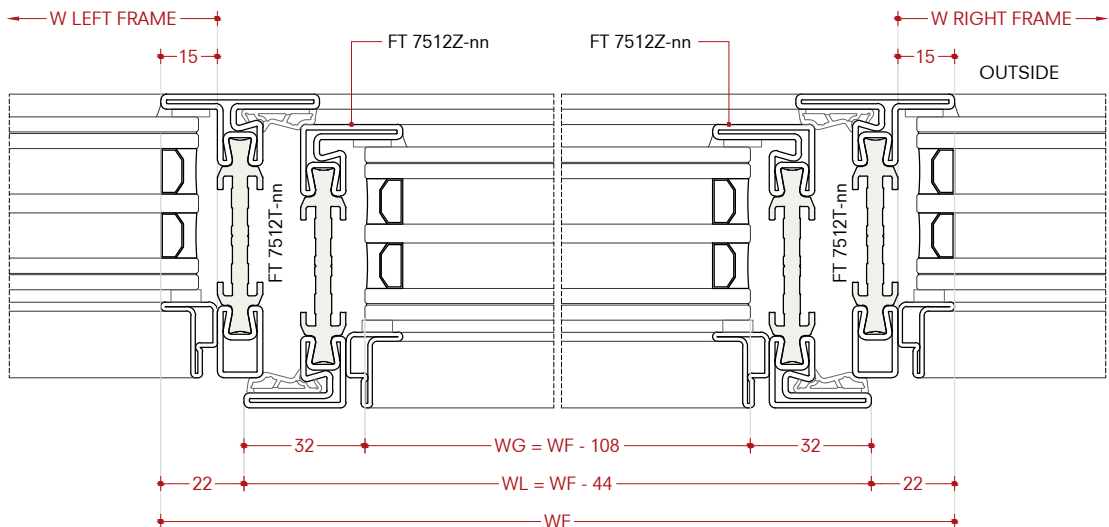
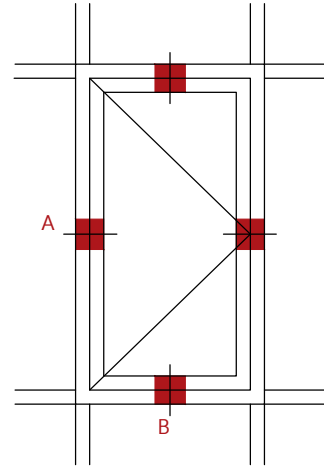
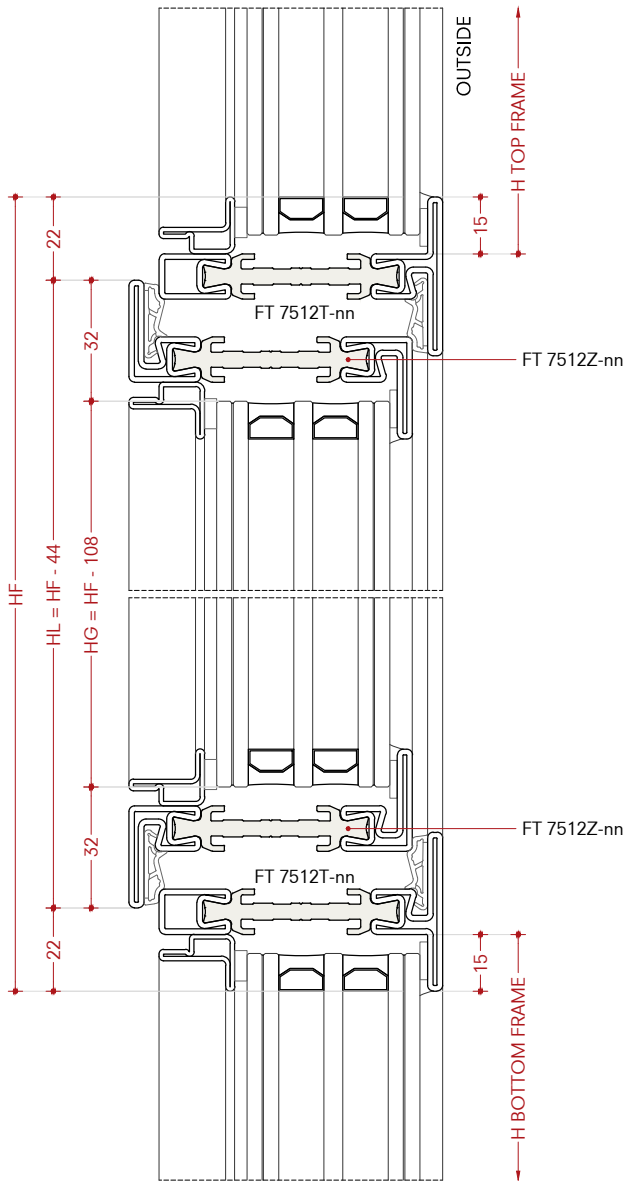
Single leaf in fixed frame  
Open in  
Overlapped profiles

**Liste di taglio**

Anta singola su telaio fisso  
Apertura interna  
Profili a sormonto

**Longitud de corte**

Hoja en marco fijo  
Que se abre hacia dentro  
Perfiles superpuestos



**Cutting length**

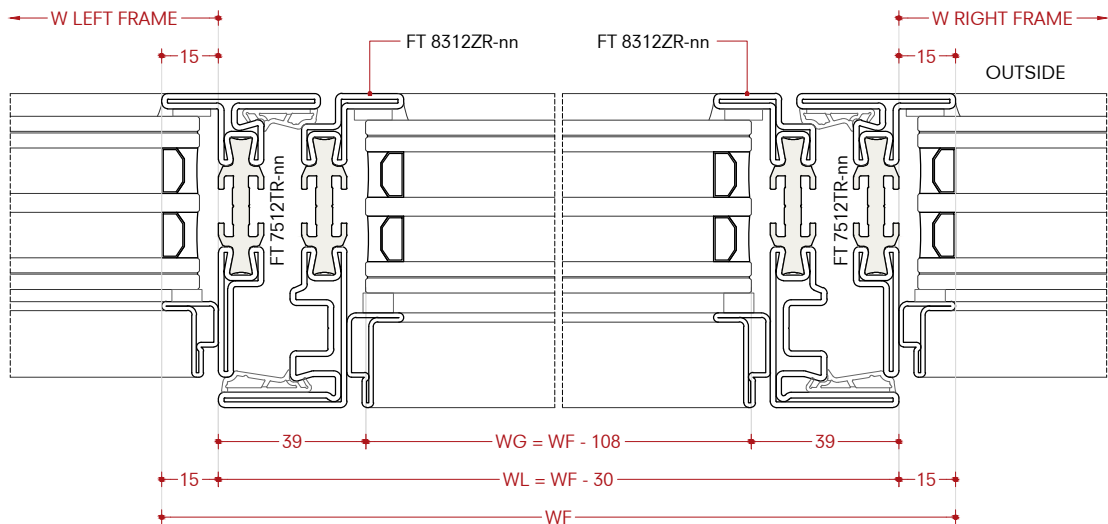
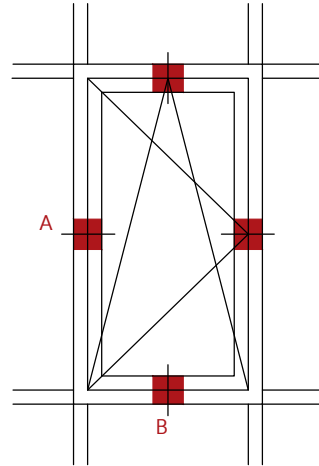
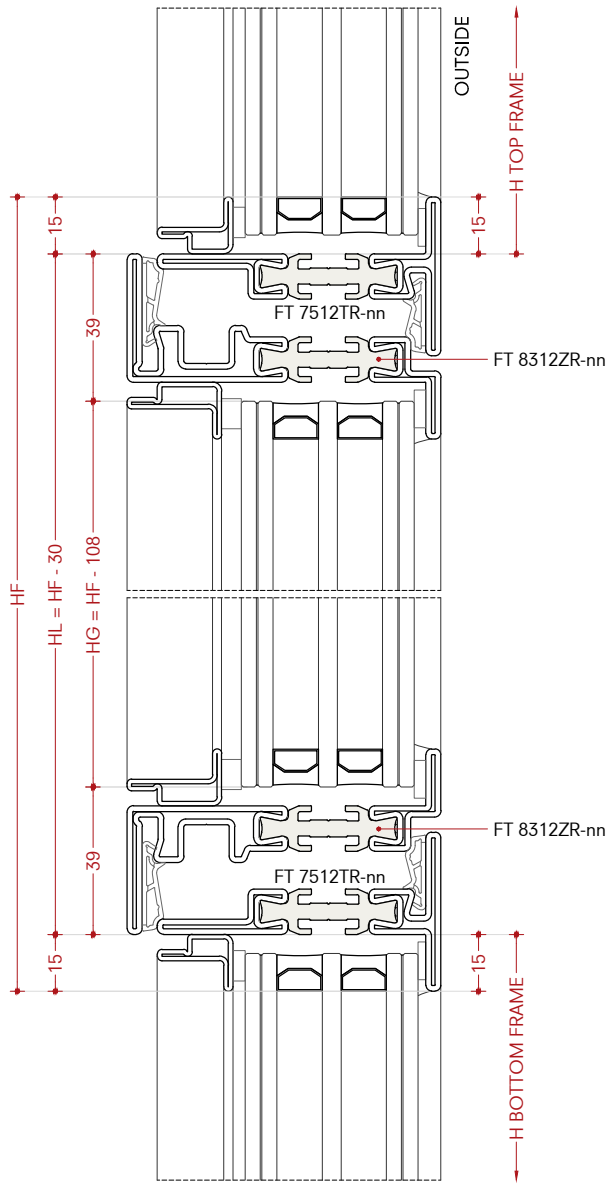
Single leaf in fixed frame and Tilt&Turn window - Open in Overlapped profiles

**Liste di taglio**

Anta singola su telaio fisso e anta ribalta - Apertura interna Profili a sormonto

**Longitud de corte**

Hoja en marco fijo y ventana oscilante Que se abre hacia dentro Perfiles superpuestos



**Cutting length**

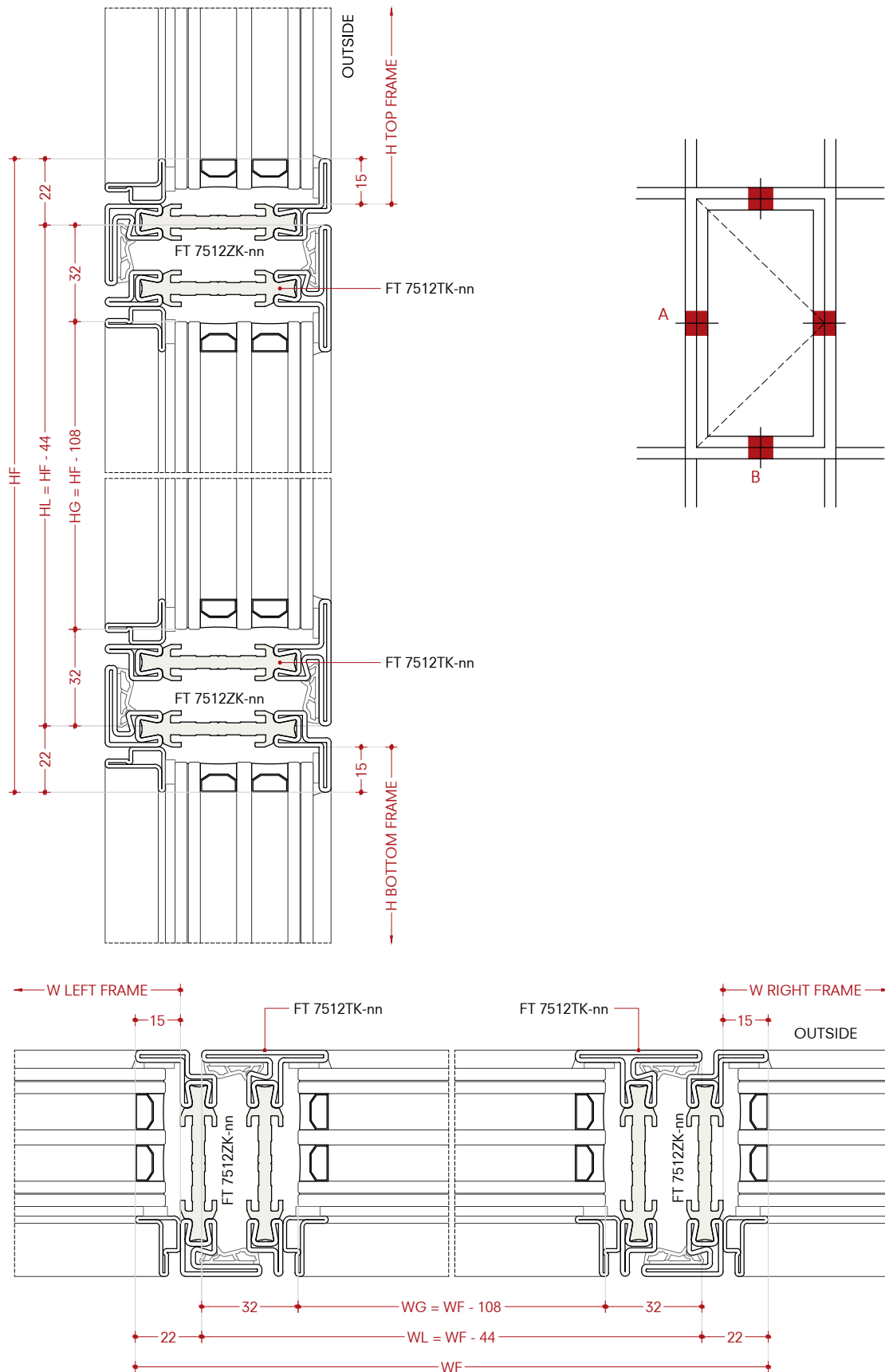
Single leaf in fixed frame  
Open out  
Flush profiles

**Liste di taglio**

Anta singola su telaio fisso  
Apertura esterna  
Profili complanari

**Longitud de corte**

Hoja en marco fijo  
Que se abre hacia fuera  
Perfiles coplanarios



**Cutting length**

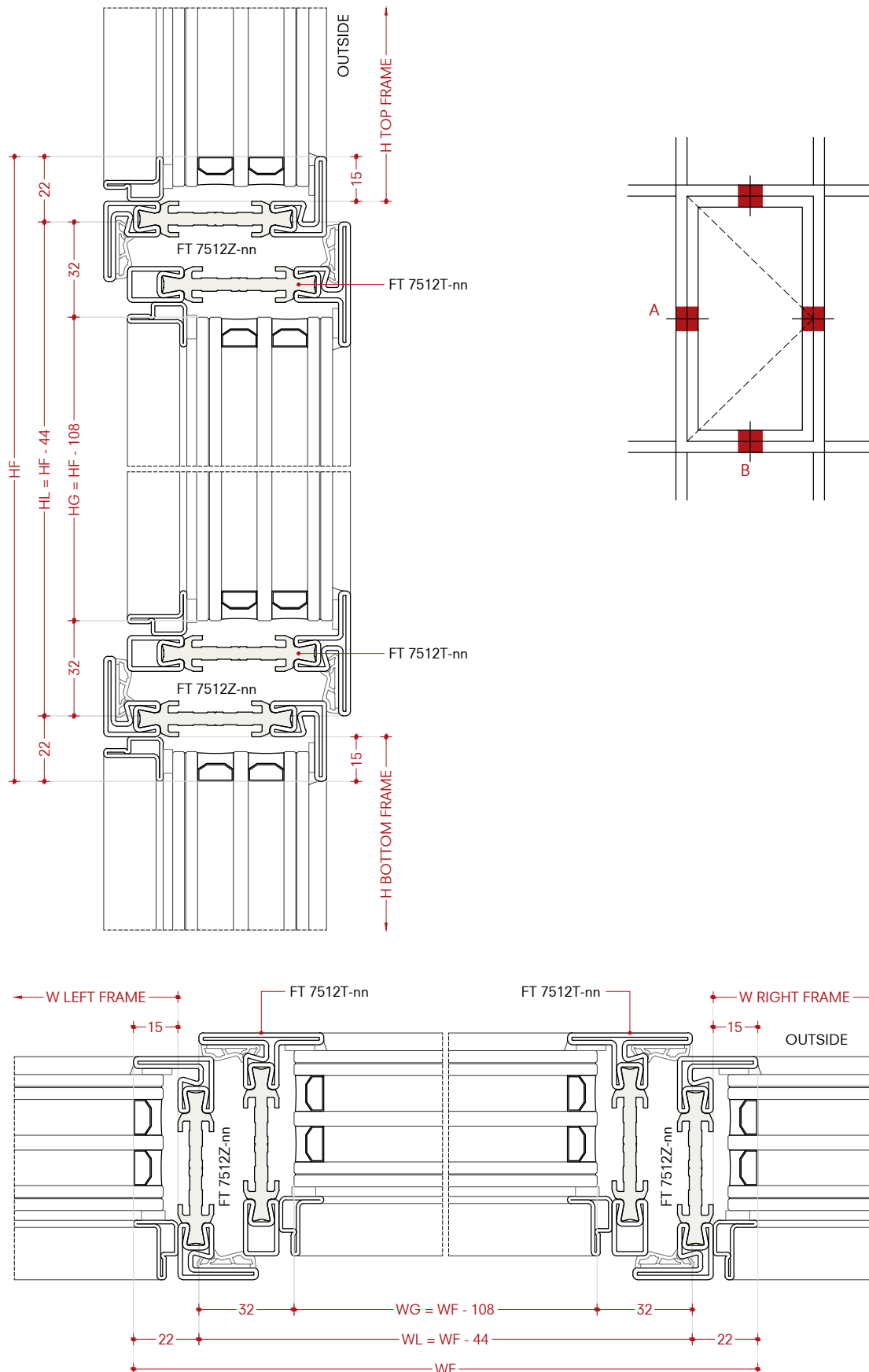
Single leaf in fixed frame  
Open out  
Overlapped profiles

**Liste di taglio**

Anta singola su telaio fisso  
Apertura esterna  
Profili a sommonte

**Longitud de corte**

Hoja en marco fijo  
Que se abre hacia fuera  
Perfiles superpuestos











**Welding**

**Saldatura**

**Soldadura**



5.3

**Legend**

+ = Fixed  
 — = Open in  
 - - - = Open out  
 Dimensions in: mm  
 Scale 1:1 - 1:2  
 = Spot weld  
 = Welding



CL = Cutting Length  
 HF = Height Frame  
 HG = Height Glass  
 HL = Height Leaf  
 WF = Width Frame  
 WG = Width Glass  
 WL = Width Leaf

**Legenda**

+ = Anta fissa  
 — = Apertura interna  
 - - - = Apertura esterna  
 Misure in: mm  
 Scala 1:1 - 1:2  
 = Punto saldatura  
 = Saldatura

CL = Lunghezza di taglio  
 HF = Altezza telaio  
 HG = Altezza vetro  
 HL = Altezza anta  
 WF = Larghezza telaio  
 WG = Larghezza vetro  
 WL = Larghezza anta

**Leyenda**

+ = Fijo  
 — = Apertura interna  
 - - - = Apertura externa  
 Medidas en: mm  
 Escala 1:1 - 1:2  
 = Punto soldadura  
 = Soldadura

CL = Longitud de corte  
 HF = Altura marco  
 HG = Altura vidrio  
 HL = Altura hoja  
 WF = Longitud marco  
 WG = Longitud vidrio  
 WL = Longitud hoja



## Welding

W75 TB - D75 TB profiles can be welded without taking any particular precautions, using the welding procedure according to the material to be welded:

- MAG or CMT welding for galvanized steel.
- TIG welding for stainless steel.
- MAG welding for Cor-Ten and bright steel.

We recommend using a smoke extraction system and ensuring sufficient ventilation of the room. Ensure the welding is thorough and clean.

Only W75 TB - D75 TB galvanized steel profiles (finishing -02) are coated with a special zinc-magnesium coating, which is suitable for welding and avoids unwanted pore formation.

The heat generated during welding of profiles and hinges must be dissipated using brass, copper and aluminium welding attachments.

Keep minimum 3 mm distance from welding seam to polyamide web.

## Frame welding

1. Deburr and bevel bar ends.
2. Assemble the frame on the welding table.
3. Check frame dimensions.
4. Check angularity.
5. Check diagonal dimensions.
6. Fix position with small welding spots.
7. Recheck diagonal dimensions.
8. Carry out the welding alternating from the inside to the outside.
9. Recheck diagonal dimensions.
10. Grind the corners, creating a flat and smooth surface.

## Saldatura

I profili W75 TB - D75 TB possono essere saldati senza particolari precauzioni, utilizzando la procedura di saldatura in base al materiale da saldare:

- Per l'acciaio zincato utilizzare la saldatura tramite MAG o CMT.
- Per l'acciaio inox utilizzare saldatura tramite TIG.
- Per l'acciaio Cor-Ten e decapato utilizzare la saldatura tramite MAG.

Raccomandiamo di utilizzare un sistema di aspirazione fumi e di garantire una ventilazione sufficiente della stanza. Assicurarsi che la saldatura sia accurata e pulita.

Solamente i profili W75 TB - D75 TB zincati (finitura -02) sono rivestiti con uno speciale rivestimento in zinco-magnesio, che è adatto alla saldatura ed evita la formazione indesiderata di pori.

Il calore prodotto durante la saldatura dei profili e cerniere può essere disperso utilizzando controsagome in ottone, rame, alluminio.

Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliammide.

## Saldatura del telaio

1. Sbavare e smussare l'estremità della barra.
2. Assemblare il telaio su di un tavolo di saldatura.
3. Controllare le dimensioni del telaio.
4. Controllare gli angoli.
5. Controllare le dimensioni delle diagonali.
6. Fissare la posizione con piccoli punti di saldatura.
7. Ricontrollare le dimensioni delle diagonali.
8. Eseguire la saldatura procedendo dall'interno verso l'esterno dell'angolo.
9. Ricontrollare le dimensioni delle diagonali.
10. Rettificare i cordoni di saldatura, creando una superficie piana e liscia.

## Soldadura

Los perfiles W75 TB - D75 TB pueden procesarse utilizando el procedimiento de soldadura según el material a soldar:

- Para acero galvanizado, use soldadura MAG o CMT.
- Para acero inoxidable, use soldadura TIG.
- Para acero Cor-Ten y bruto, use soldadura MAG.

Durante la soldadura, recomendamos utilizar un extractor de humos y garantizar la ventilación adecuada de la sala. Garantizar una soldadura concienzuda y limpia.

Solo perfiles galvanizados W75 TB - D75 TB (acabado -02) cuentan con un revestimiento especial de cinc y magnesio que reduce los poros.

El calor generado durante la soldadura de perfiles y bisagras se debe disipar utilizando accesorios de soldadura de latón, cobre y aluminio.

Mantenga una distancia mínima de 3 mm desde la costura de soldadura hasta la banda de poliamida.

## Soldadura del marco

1. Desbarbar y biselar los extremos de las barras.
2. Montar el marco sobre la mesa de soldadura.
3. Comprobar las dimensiones del marco.
4. Comprobar los ángulos.
5. Comprobar las diagonales.
6. Fijar la posición del marco con pequeños puntos de soldadura.
7. Volver a comprobar las diagonales.
8. Ejecutar la soldadura desde el lado interior al lado exterior, alternándolos.
9. Volver a comprobar las diagonales.
10. Rectificar en plano las costuras de soldadura en las esquinas.

**Welding thermal break profiles made of zinc-magnesium steel, stainless steel, Cor-Ten steel.**

The best results were achieved using the following welding procedures:

**MAG (metal-arc active gas)**

Inert gas: CAR 18 (18% CO<sub>2</sub> and 82% Argon sec. EN 439 M21)  
Welding rod for galvanized steel profiles (-02):  
- DT-ZiRo, Ø0.8 mm (Dratec).  
- TS Zn Al, Ø0.8 mm - Arroweld (C: 0.060; Si: 0.500; Mn: 1.100; Ti: 0.100; Zr: 0.090; Al 0.100).

Preparation of profile cut: bevel bar ends (ca. 1-1.5 mm x 45°). Do not bevel the last 5 mm of the outermost point in order to avoid burning away the sharp edge. Spot-weld the inner and outer corners, then draw a weld seam from the inside outward. When welding galvanized steel, tiny weld pores can occur occasionally. In the case that these pores need to be sealed for aesthetic reasons, we do not recommend secondary TIG welding. Instead, filling should be done using the TIG procedure or a temperature-resistant polyester putty (200°C). Excessive welding temperatures can be avoided by leaning special copper, brass or aluminium plates in the area surrounding the welding area.

**MAG (metal-arc active gas)**

Inert gas: CAR 18 (18% CO<sub>2</sub> and 82% Argon sec. EN 439 M21)  
Welding rod for bright steel profiles (-12):  
- NI-CO, Ø0.8 mm - Arroweld.  
- ECO BRONZ, Ø0.8 mm - Arroweld (C: 0.070; Si: 0.850; Mn: 1.450; P: <0.020; S: <0.020).

Preparation of profile cut: bevel bar ends (ca. 1-1.5 mm x 45°). Do not bevel the last 5 mm of the outermost point in order to avoid burning away the sharp edge. Spot-weld the inner and outer corners, then draw a weld seam from the inside outward. Excessive welding temperatures can be avoided by leaning special copper, brass or aluminium plates in the areas surrounding the welding area.

**MAG (metal-arc active gas)**

Inert gas: CAR 18 (18% CO<sub>2</sub> and 82% Argon sec. EN 439 M21)  
Welding rod for Cor-Ten steel profiles (-07):  
- CORTEN, Ø0.8 mm - Arroweld (C: 0.080; Si: 0.800; Mn: 1.500; Cr: 0.300; Ni: 0.400; Cu: 0.500).

Preparation of profile cut: bevel bar ends (ca. 1-1.5 mm x 45°). Do not bevel the last 5 mm of the outermost point in order to avoid burning away the sharp edge. Spot-weld the inner and outer corners, then draw a weld seam from the inside outward. Excessive welding temperatures can be avoided by leaning special copper, brass or aluminium plates in the areas surrounding the welding area.

**Saldatura di profili a taglio termico in acciaio, zincati zinco-magnesio, inox, Cor-Ten.**

I migliori risultati di saldatura si raggiungono con i seguenti metodi:

**MAG (metal-arc active gas)**

Tipo di gas: miscela CAR 18 (18% CO<sub>2</sub> e 82% Argon sec. EN 439 M21)  
Materiale di riempimento per profili in acciaio zincato (-02):  
- DT-ZiRo, Ø0.8 mm (es. Dratec).  
- TS Zn Al, Ø0.8 mm - Arroweld (C: 0.060; Si: 0.500; Mn: 1.100; Ti: 0.100; Zr: 0.090; Al 0.100).

Preparazione dell'angolo: creare uno smusso di ca. 1-1.5 mm x 45° su entrambe le facce esterne del profilo. Non smussare gli ultimi 5 mm della punta esterna per mantenere inalterata la forma dello spigolo. Fissare l'angolo con un punto di saldatura sui due lati del bordo, quindi eseguire la saldatura. Durante la saldatura MAG di acciaio zincato occasionalmente potrebbero verificarsi piccoli fori o pori nel cordone di saldatura. Se per ragioni estetiche è ritenuto opportuno chiudere questi pori si consiglia di ritoccare con punti al TIG. In alternativa al TIG, e nel caso di successiva verniciatura a polvere, si può usare uno stucco epossidico adatto. Eccessive temperature di saldatura possono essere evitate usando apposite piastre di rame, ottone o alluminio appoggiate nelle aree circostanti la zona di saldatura.

**MAG (metal-arc active gas)**

Tipo di gas: miscela CAR 18 (18% CO<sub>2</sub> e 82% Argon sec. EN 439 M21)  
Materiale di riempimento per profili in acciaio decapato (-12):  
- NI-CO, Ø0.8 mm - Arroweld.  
- ECO BRONZ, Ø0.8 mm - Arroweld (C: 0.070; Si: 0.850; Mn: 1.450; P: <0.020; S: <0.020).

Preparazione dell'angolo: creare uno smusso di ca. 1-1.5 mm x 45° su entrambe le facce esterne del profilo. Non smussare gli ultimi 5 mm della punta esterna per mantenere inalterata la forma dello spigolo. Fissare l'angolo con un punto di saldatura sui due lati del bordo, quindi eseguire la saldatura. Eccessive temperature di saldatura possono essere evitate usando apposite piastre di rame, ottone o alluminio appoggiate nelle aree circostanti la zona di saldatura.

**MAG (metal-arc active gas)**

Tipo di gas: miscela CAR 18 (18% CO<sub>2</sub> e 82% Argon sec. EN 439 M21)  
Materiale di riempimento per profili in acciaio Cor-Ten (-07):  
- CORTEN, Ø0.8 mm - Arroweld (C: 0.080; Si: 0.800; Mn: 1.500; Cr: 0.300; Ni: 0.400; Cu: 0.500).

Preparazione dell'angolo: creare uno smusso di ca. 1-1.5 mm x 45° su entrambe le facce esterne del profilo. Non smussare gli ultimi 5 mm della punta esterna per mantenere inalterata la forma dello spigolo. Fissare l'angolo con un punto di saldatura sui due lati del bordo, quindi eseguire la saldatura. Eccessive temperature di saldatura possono essere evitate usando apposite piastre di rame, ottone o alluminio appoggiate nelle aree circostanti la zona di saldatura.

**Soldadura de perfiles con rotura térmica en acero con capa de zinc y magnesio, inoxidable, Cor-Ten.**

Con los siguientes procedimientos de soldadura se consiguen los mejores resultados:

**MAG (metal-arc active gas)**

Gas de protección: CAR 18 (18% de CO<sub>2</sub> y 82% de argón, de acuerdo con EN 439 M21). Cordón de soldadura para perfiles en acero galvanizado (-02):  
- DT-ZiRo, Ø0.8 mm (es. Dratec).  
- TS Zn Al, Ø0.8 mm - Arroweld (C: 0.060; Si: 0.500; Mn: 1.100; Ti: 0.100; Zr: 0.090; Al 0.100).

Preparación de los cortes del perfil: biselar los extremos de las barras (aprox. 1-1.5 mm x 45°). No biselar los últimos 5 mm del extremo exterior para evitar la abrasión del borde afilado. Puntear las esquinas interiores y exteriores; luego, tirar de la costura de soldadura desde dentro hacia fuera. En la soldadura de acero galvanizado es posible que, ocasionalmente, aparezcan pequeños poros de soldadura. En el caso de que estos poros debieran cerrarse por motivos estéticos, recomendamos no hacer el repaso mediante el procedimiento TIG, sino con el TIG; o bien rellenarlos con una espátula de poliéster con la suficiente resistencia térmica (200°C). Las temperaturas de soldadura excesivas se pueden evitar utilizando placas especiales de cobre, latón o aluminio colocadas en las áreas que rodean el área de soldadura.

**MAG (metal-arc active gas)**

Gas de protección: CAR 18 (18% de CO<sub>2</sub> y 82% de argón, de acuerdo con EN 439 M21). Cordón de soldadura para perfiles en acero bruto (-12):  
- NI-CO, Ø0.8 mm - Arroweld.  
- ECO BRONZ, Ø0.8 mm - Arroweld (C: 0.070; Si: 0.850; Mn: 1.450; P: <0.020; S: <0.020).

Preparación de los cortes del perfil: biselar los extremos de las barras (aprox. 1-1.5 mm x 45°). No biselar los últimos 5 mm del extremo exterior para evitar la abrasión del borde afilado. Puntear las esquinas interiores y exteriores; luego, tirar de la costura de soldadura desde dentro hacia fuera. Las temperaturas de soldadura excesivas se pueden evitar utilizando placas especiales de cobre, latón o aluminio colocadas en las áreas que rodean el área de soldadura.

**MAG (metal-arc active gas)**

Gas de protección: CAR 18 (18% de CO<sub>2</sub> y 82% de argón, de acuerdo con EN 439 M21). Cordón de soldadura para perfiles en acero Cor-Ten (-07):  
- CORTEN, Ø0.8 mm - Arroweld (C: 0.080; Si: 0.800; Mn: 1.500; Cr: 0.300; Ni: 0.400; Cu: 0.500).

Preparación de los cortes del perfil: biselar los extremos de las barras (aprox. 1-1.5 mm x 45°). No biselar los últimos 5 mm del extremo exterior para evitar la abrasión del borde afilado. Puntear las esquinas interiores y exteriores; luego, tirar de la costura de soldadura desde dentro hacia fuera. Las temperaturas de soldadura excesivas se pueden evitar utilizando placas especiales de cobre, latón o aluminio colocadas en las áreas que rodean el área de soldadura.

**CMT (cold metal transfer)**

Type of gas: 100% Argon

Welding rod for galvanized steel profiles (-02):

- CuSi<sub>3</sub>, Ø0.8 mm - Dratec (Cu: Basis; Sn: 0.100; Si: 3.000; Mn: 1.000; Zn: 0.100; Fe: 0.070).
- DT-ZiRo, Ø0.8 mm - Dratec. TS Zn Al, Ø0.8 mm - Arroweld (C: 0.060; Si: 0.500; Mn: 1.100; Ti: 0.100; Zr: 0.090; Al 0.100).

Preparation of profile cut: bevel bar ends (ca. 1-1.5 mm x 45°). Do not bevel the last 5 mm of the outermost point in order to avoid burning away the sharp edge. Spot-weld the inner and outer corners, then draw a weld seam from the inside outward. The CMT welding procedure is well suited to welding thermal break steel profiles made of galvanized steel. Assuming the equipment (Fronius) is properly adjusted, neither splatter nor pores occur. One advantage of the CuSi<sub>3</sub> welding rod is that weld seams can be ground flat in a significantly shorter amount of time. This kind of rod also proves especially advantageous when dealing with stepped flanges. The mechanical resistance of CuSi<sub>3</sub> filling material is lower than that of DT-ZiRo/TS Zn Al, which means that it should not be used with very large casement windows or doors. The resistance of CuSi<sub>3</sub> corners is roughly comparable to welded architectural bronze or brass windows. Smaller and medium size window leaves can be welded with CuSi<sub>3</sub>. However, steel hinges should be welded only with DT-ZiRo/TS Zn Al filling material. Excessive welding temperatures can be avoided by leaning special copper, brass or aluminium plates in the areas surrounding the welding area.

**TIG (tungsten inert gas)**

Type of gas: 100% Argon

Welding rod for stainless steel profiles (-05):

- stainless steel bars AISI 316L, Ø1.6mm

Preparation of profile cut: bevel bar ends (ca. 1.5 mm x 45°). Do not bevel the last 5 mm of the outermost point in order to avoid burning away the sharp edge. Spot-weld the inner and outer corners, then draw a weld seam from the inside outward. Excessive welding temperatures can be avoided by leaning special copper, brass or aluminium plates in the areas surrounding the welding area.

**CMT (cold metal transfer)**

Tipo di gas: 100% Argon

Materiale di riempimento per profili in acciaio zincato (-02):

- CuSi<sub>3</sub>, Ø0.8 mm - Dratec (Cu: Basis; Sn: 0.100; Si: 3.000; Mn: 1.000; Zn: 0.100; Fe: 0.070).
- DT-ZiRo, Ø0.8 mm - Dratec. TS Zn Al, Ø0.8 mm - Arroweld (C: 0.060; Si: 0.500; Mn: 1.100; Ti: 0.100; Zr: 0.090; Al 0.100).

Preparazione dell'angolo: creare uno smusso di ca. 1-1.5 mm x 45° su entrambe le facce esterne del profilo. Non smussare gli ultimi 5 mm della punta esterna per mantenere inalterata la forma dello spigolo. Fissare l'angolo con un punto di saldatura sui due lati del bordo, quindi eseguire la saldatura. La saldatura CMT è particolarmente adatta per la saldatura di profili in acciaio zincato a taglio termico. Con una corretta regolazione dell'attrezzatura (es. Fronius) la saldatura avviene senza schizzi e senza formazione di fori o pori nella giuntura. Il filo CuSi<sub>3</sub> ha il vantaggio di poter rettificare le saldature in pochissimo tempo. La resistenza meccanica del riempitivo CuSi<sub>3</sub> è inferiore a quella del filler DT-ZiRo/TS Zn Al, quindi non dovrebbe essere utilizzato su ante molto grandi. La resistenza meccanica del giunto realizzato in CuSi<sub>3</sub> è paragonabile a quella delle finestre di bronzo architettonico. Per tale motivo, questo tipo di riempitivo può tranquillamente essere utilizzato su porte e finestre di dimensioni piccole e medie. Inoltre, le cerniere devono essere sempre saldate solo con riempimento DT-ZiRo/TS Zn Al. Excessive temperature di saldatura possono essere evitate usando apposite piastre di rame, ottone o alluminio appoggiate nelle aree circostanti la zona di saldatura.

**TIG (tungsten inert gas)**

Tipo di gas: 100% Argon

Materiale di riempimento per profili in acciaio inox (-05):

- Bacchette inox AISI 316L, Ø1.6 mm

Preparazione dell'angolo: creare uno smusso di ca. 1.5 mm x 45° su entrambe le facce esterne del profilo. Non smussare gli ultimi 5 mm della punta esterna per mantenere inalterata la forma dello spigolo. Fissare l'angolo con un punto di saldatura sui due lati del bordo, quindi eseguire la saldatura. Excessive temperature di saldatura possono essere evitate usando apposite piastre di rame, ottone o alluminio appoggiate nelle aree circostanti la zona di saldatura.

**CMT (cold metal transfer)**

Gas de protección: 100% Argón

Cordón de soldadura para perfiles en acero galvanizado (-02):

- CuSi<sub>3</sub>, Ø0.8 mm - Dratec (Cu: Basis; Sn: 0.100; Si: 3.000; Mn: 1.000; Zn: 0.100; Fe: 0.070).
- DT-ZiRo, Ø0.8 mm - Dratec. TS Zn Al, Ø0.8 mm - Arroweld (C: 0.060; Si: 0.500; Mn: 1.100; Ti: 0.100; Zr: 0.090; Al 0.100).

Preparación de los cortes del perfil: Biselar los extremos de las barras (aprox. 1-1.5 mm x 45°). No biselar los últimos 5 mm del extremo exterior para evitar la abrasión del borde afilado. Puntear las esquinas interiores y exteriores; luego, tirar de la costura de soldadura desde dentro hacia fuera. El procedimiento de soldadura CMT es muy apropiado para soldar perfiles de acero galvanizado separados térmicamente. Si se emplean correctamente los equipos (Fronius), no habrá proyecciones ni poros. Una ventaja del cordón de soldadura CuSi<sub>3</sub> es que permite realizar el rectificado plano de las costuras de soldadura en un periodo de tiempo considerablemente reducido. Este cordón más blando resulta particularmente útil y beneficioso para las bridas escalonadas. En comparación con el material de relleno DT-ZiRo/TS Zn Al, el agarre mecánico del material de relleno CuSi<sub>3</sub> es menor, por lo que no debe utilizarse para ventanas o puertas abatibles particularmente grandes. El agarre de las esquinas corresponde aprox. al de las ventanas de bronce arquitectónico o latón soldados. Las hojas de ventana más pequeñas y medianas se pueden soldar de forma segura con el cordón CuSi<sub>3</sub>. Sin embargo, para la soldadura de bisagras de acero solo debe utilizarse el material de relleno DT-ZiRo/TS Zn Al.

**TIG (tungsten inert gas)**

Gas de protección: 100% Argón

Cordón de soldadura para perfiles en acero inoxidable (-05):

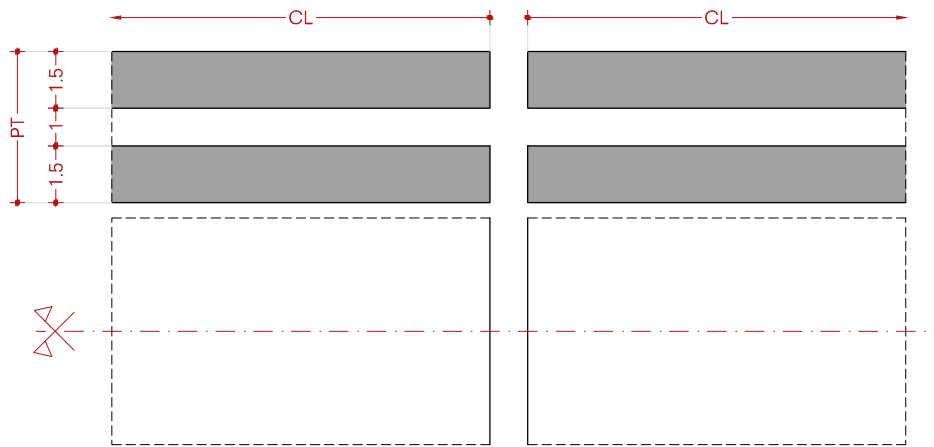
- Barras en acero inoxidable AISI 316L, Ø1.6 mm

Preparación de los cortes del perfil: biselar los extremos de las barras (aprox. 1.5 mm x 45°). No biselar los últimos 5 mm del extremo exterior para evitar la abrasión del borde afilado. Puntear las esquinas interiores y exteriores; luego, tirar de la costura de soldadura desde dentro hacia fuera. Las temperaturas de soldadura excesivas se pueden evitar utilizando placas especiales de cobre, latón o aluminio colocadas en las áreas que rodean el área de soldadura.

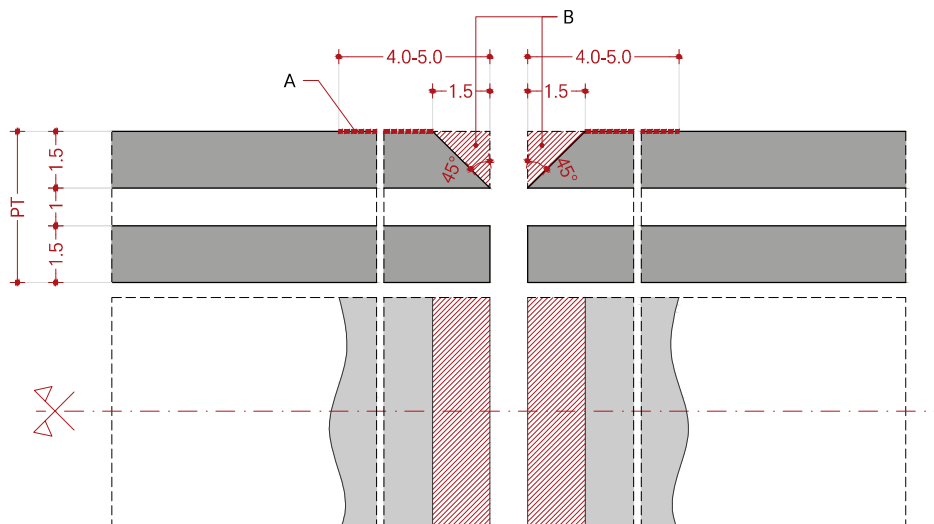
Welding instructions

Istruzioni saldatura

Instrucciones de soldadura

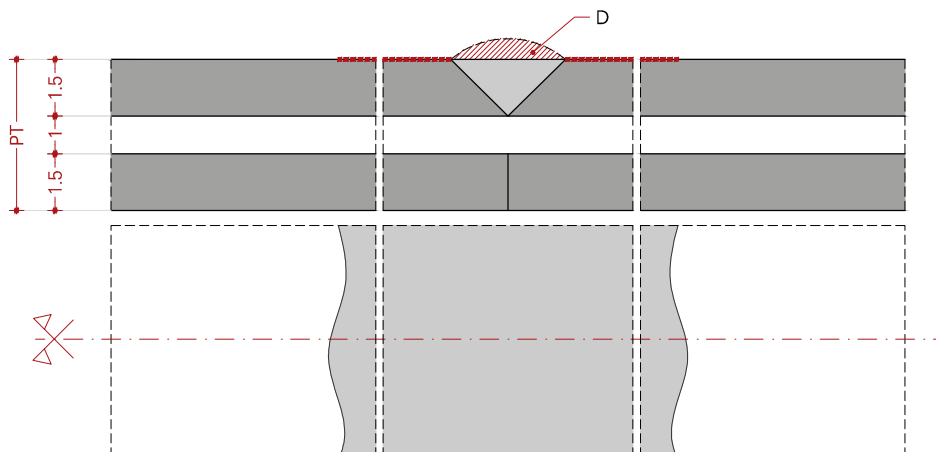
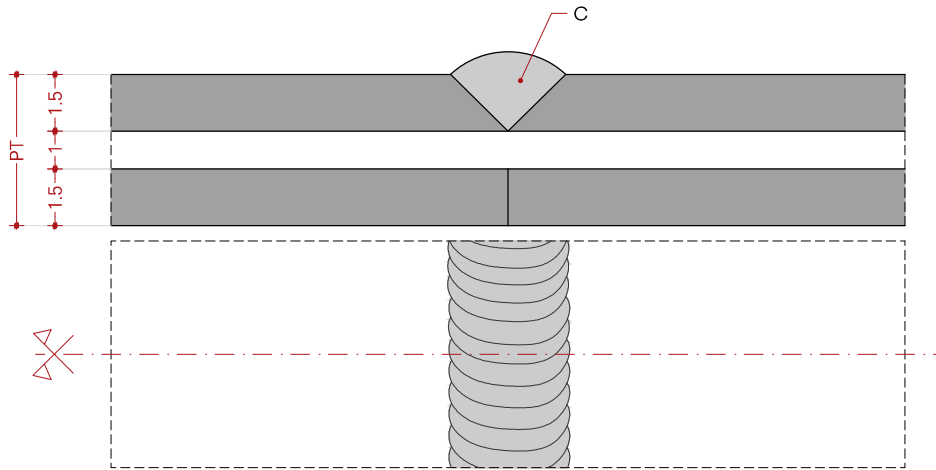


1



2





PT = Profile thickness

- A) Grind the parts adjacent to the weld
- B) Chamfer
- C) Welding
- D) Grind excess part

PT = Spessore profilo

- A) Smerigliare le parti adiacenti la saldatura
- B) Smussare
- C) Saldatura
- D) Smerigliare parte in eccesso

PT = Espesor de perfil

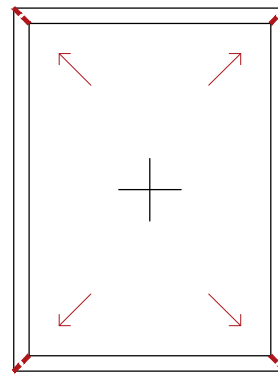
- A) Moler las partes adyacentes a la soldadura
- B) Chaflán
- C) Soldadura
- D) Esmerilar la parte sobrante

**FT 7512L-nn / FT 7512L-nn**

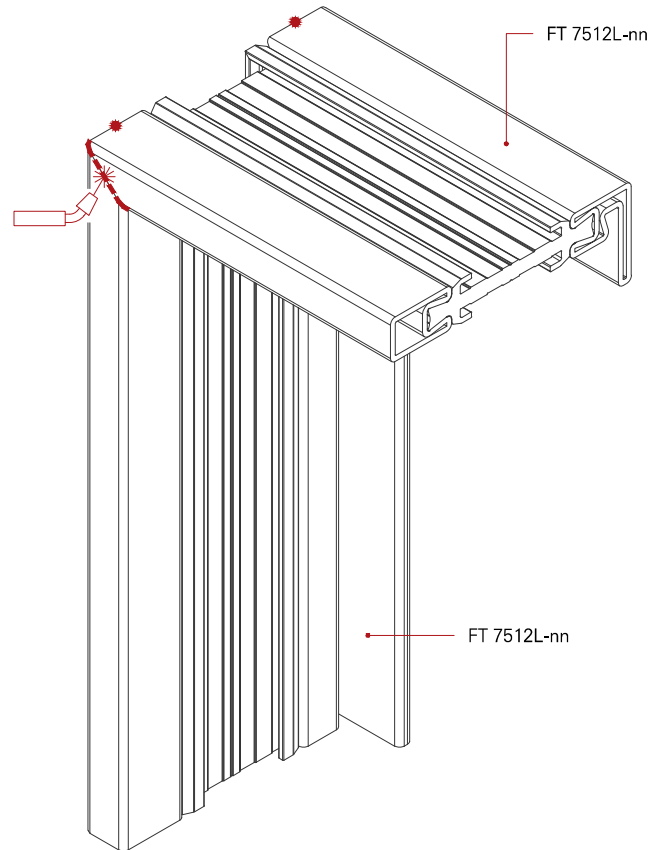
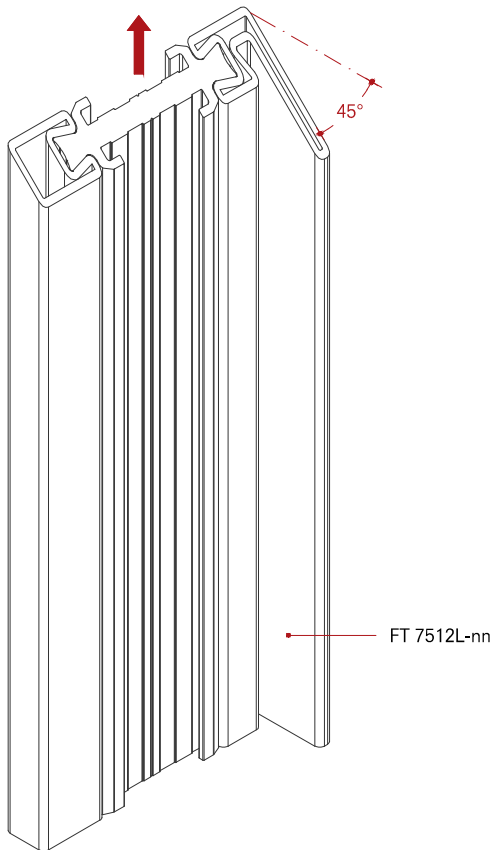
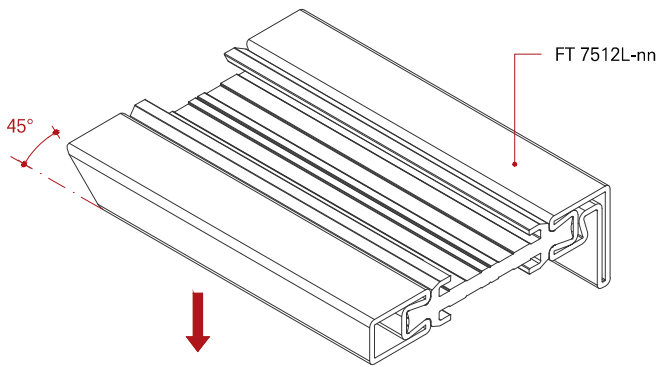
Fixed partition

Finestra telaio fisso

Ventana fija



Internal view  
Vista interna  
Vista interna

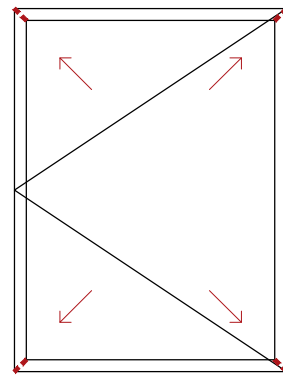


**FT 7512Z-nn / FT 7512Z-nn**

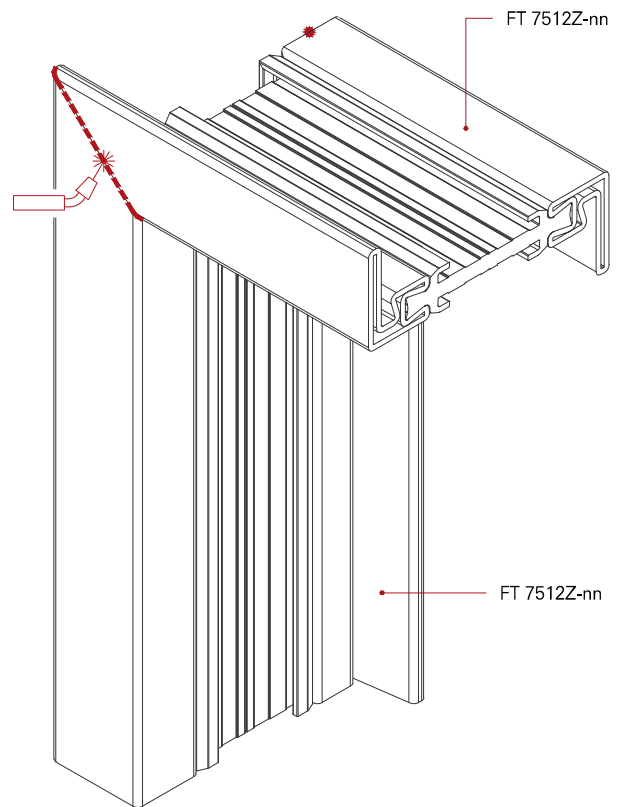
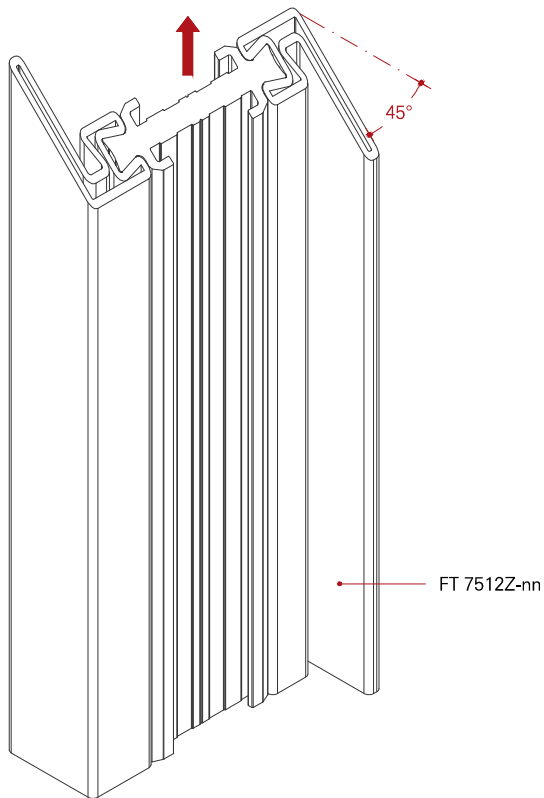
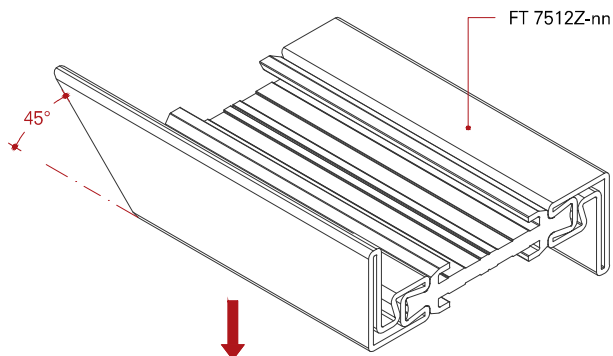
Single leaf window open in

Finestra a un battente apertura interna

Ventana de una hoja que se abre hacia dentro



Internal view  
Vista interna  
Vista interna

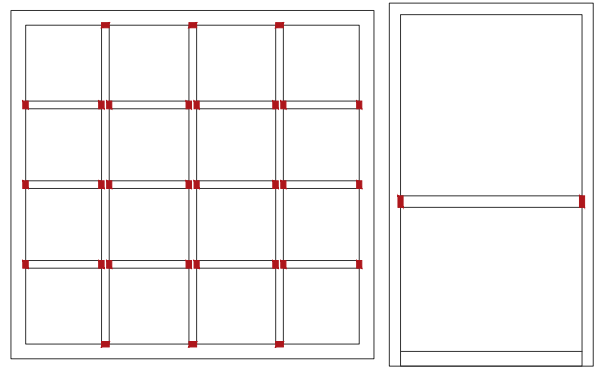


**FT 7512L-nn / FT 7512T-nn**

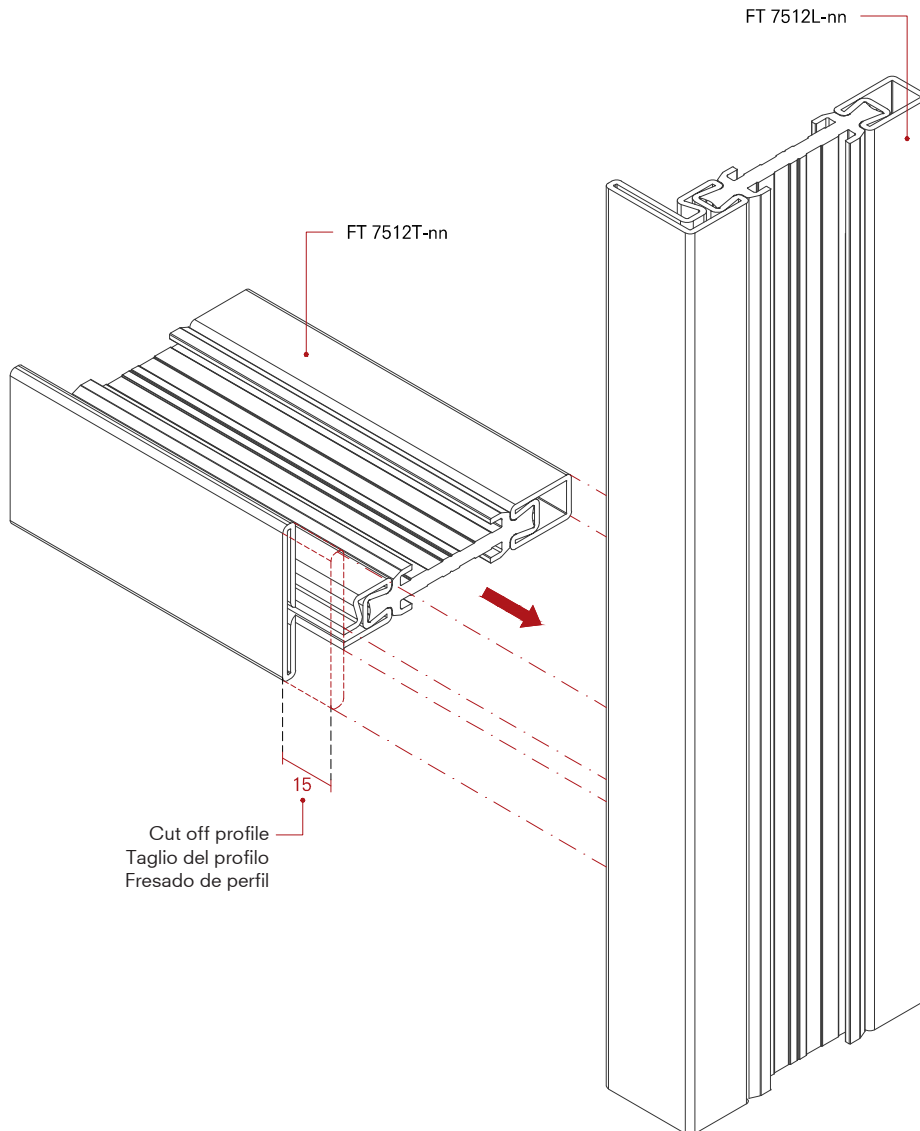
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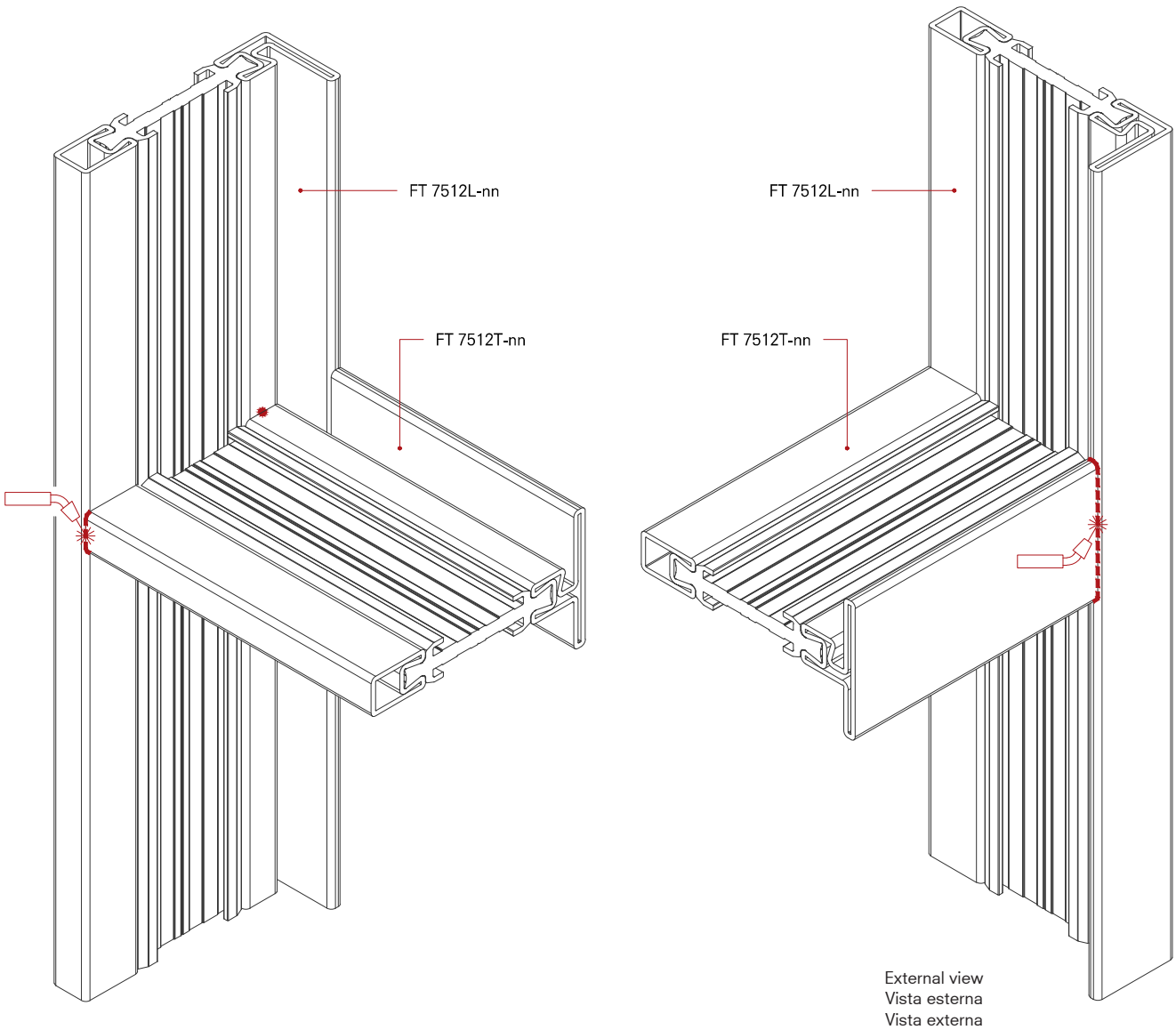
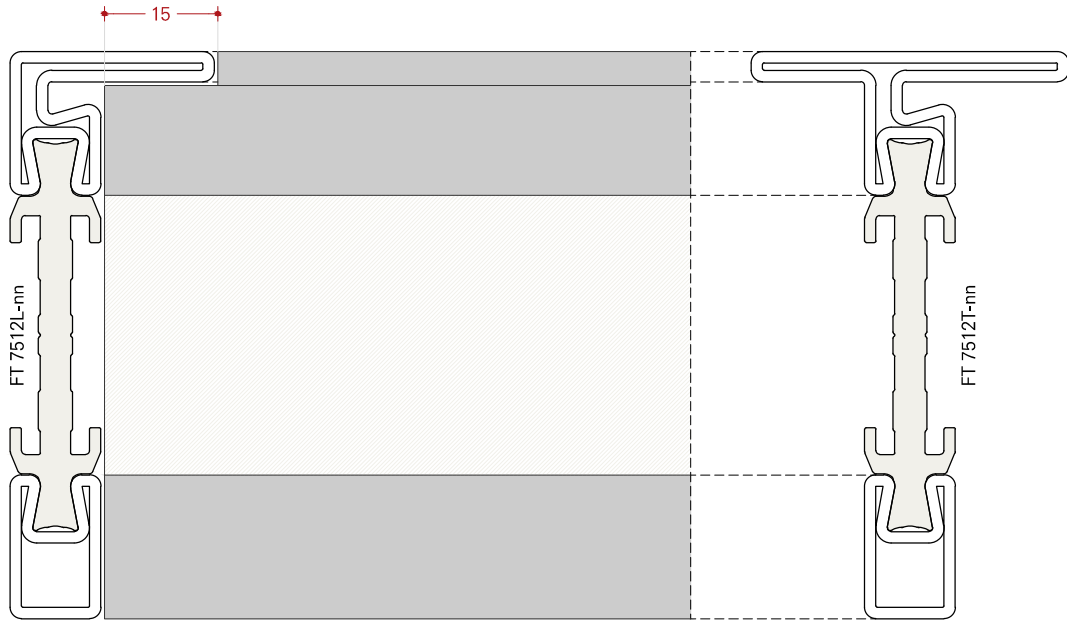
Finestra telaio fisso

Ventana fija



Internal view  
Vista interna  
Vista interna



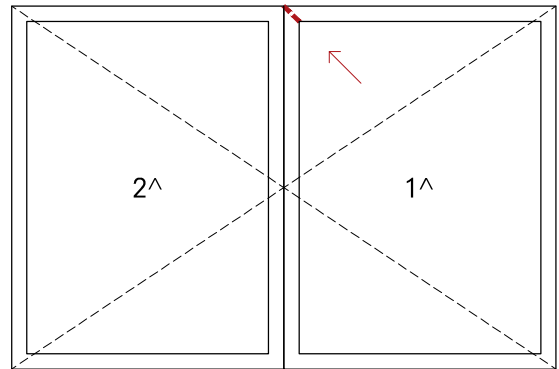


**FT 7512TK-nn / FT 7512TK-nn**

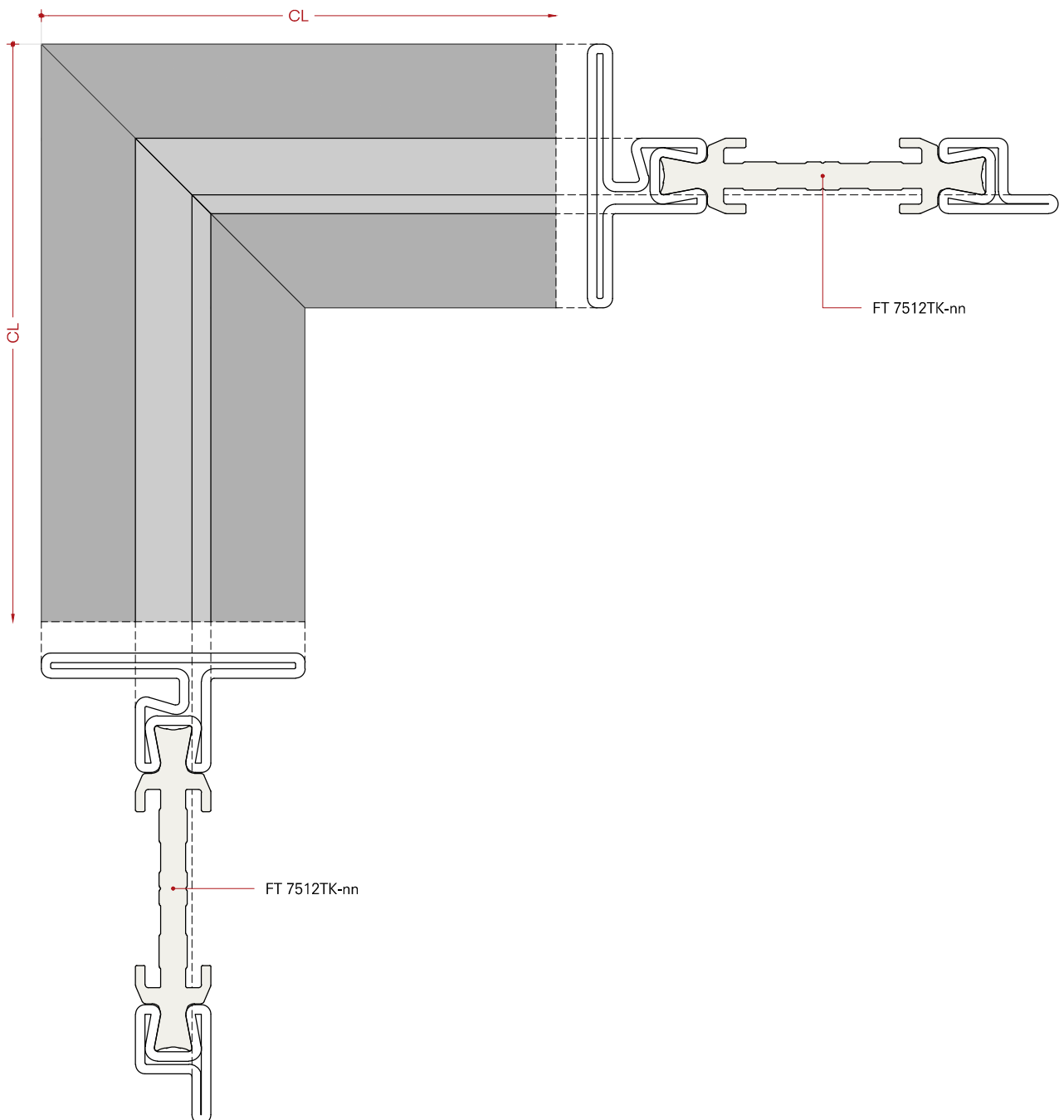
Double leaf window open out - Flush profiles

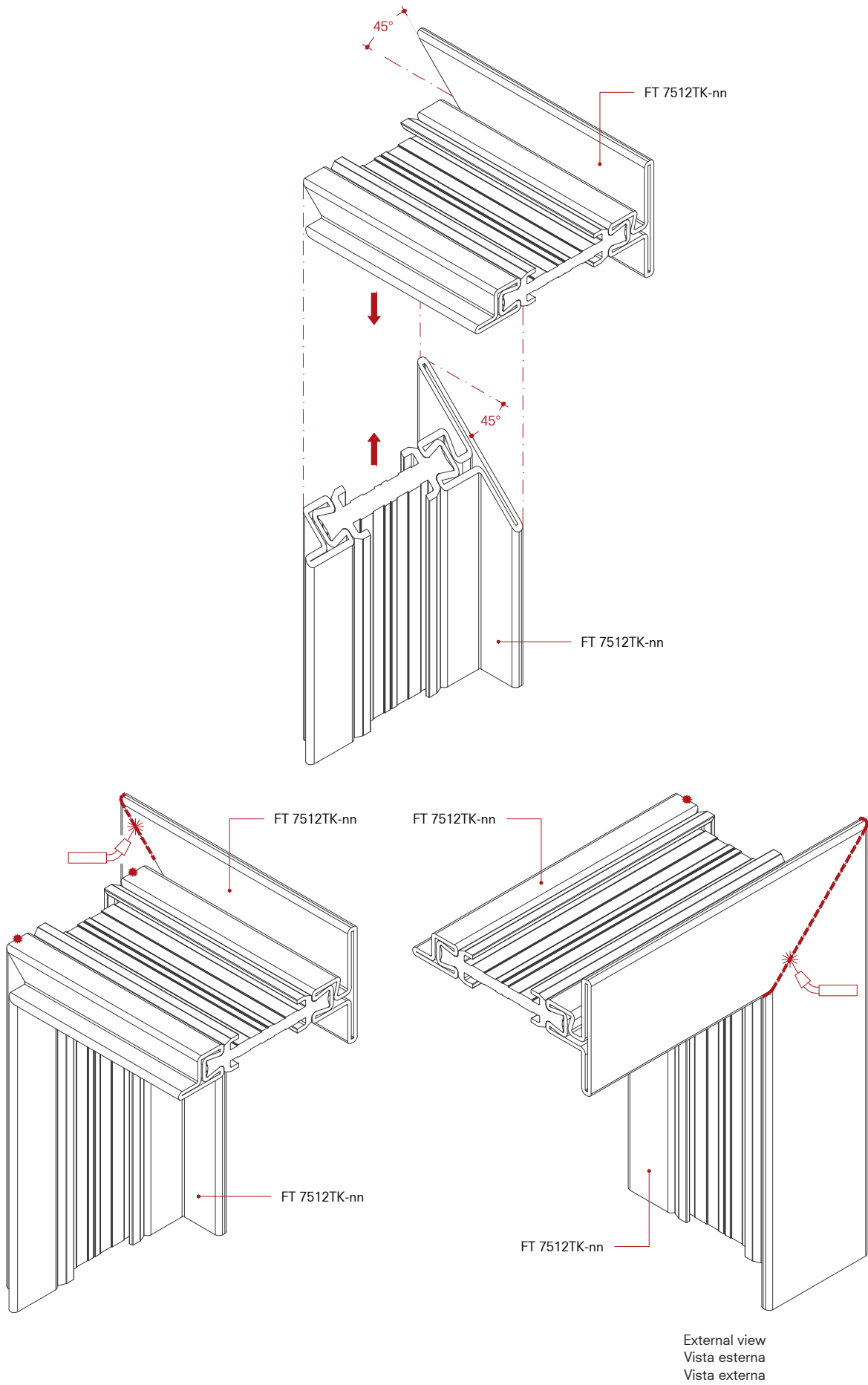
Finestra doppia anta apertura esterna - Profili complanari

Doble ventana que se abre hacia fuera - Perfiles coplanarios



Internal view  
Vista interna  
Vista interna



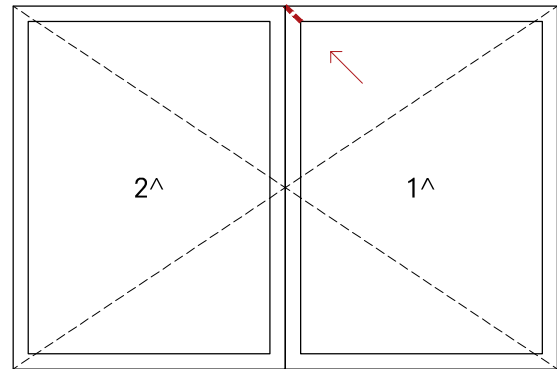


**FT 7550T-nn / FT 7550T-nn**

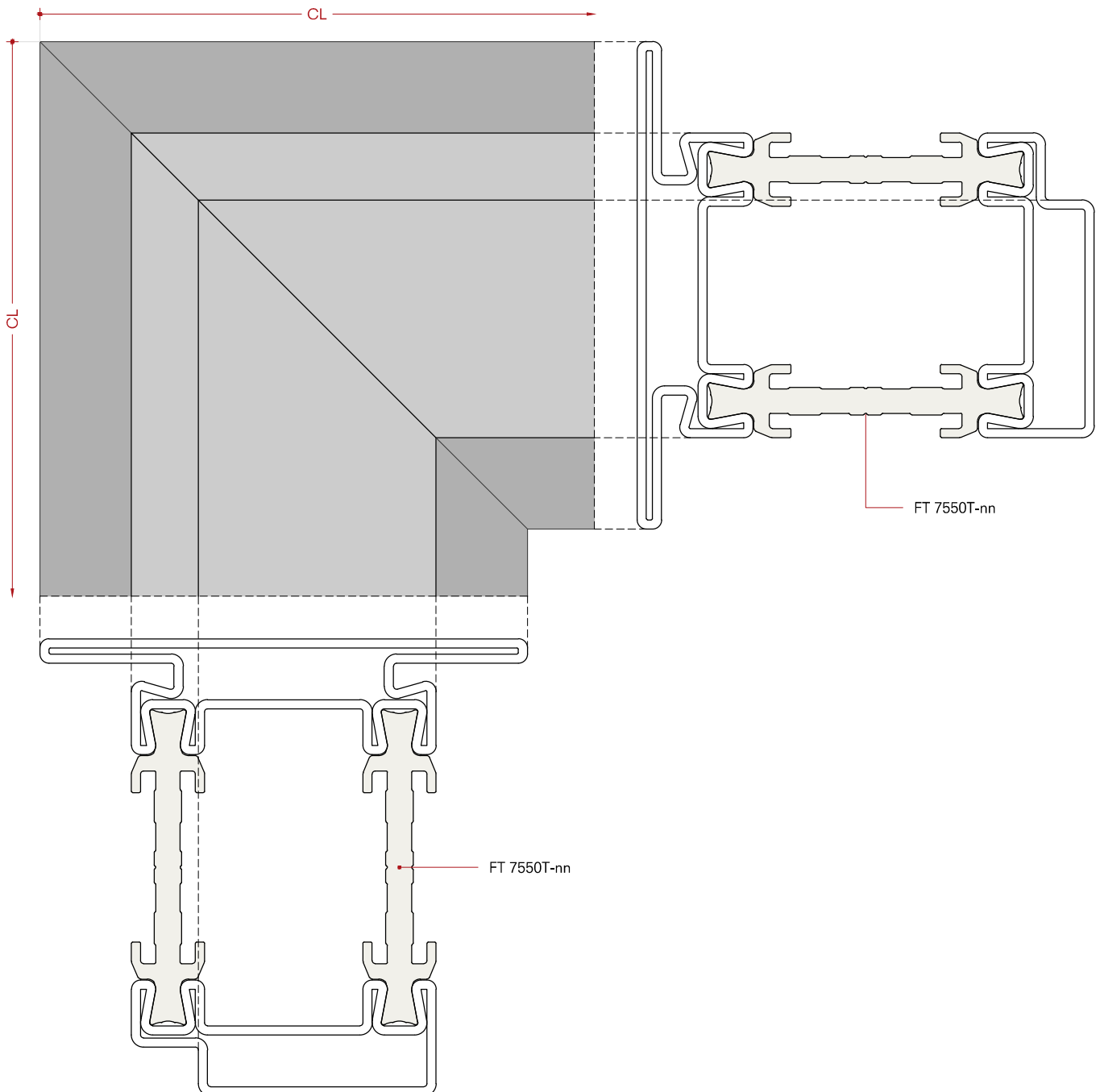
Double leaf open out - Door profiles

Doppia anta apertura esterna - Profili porta

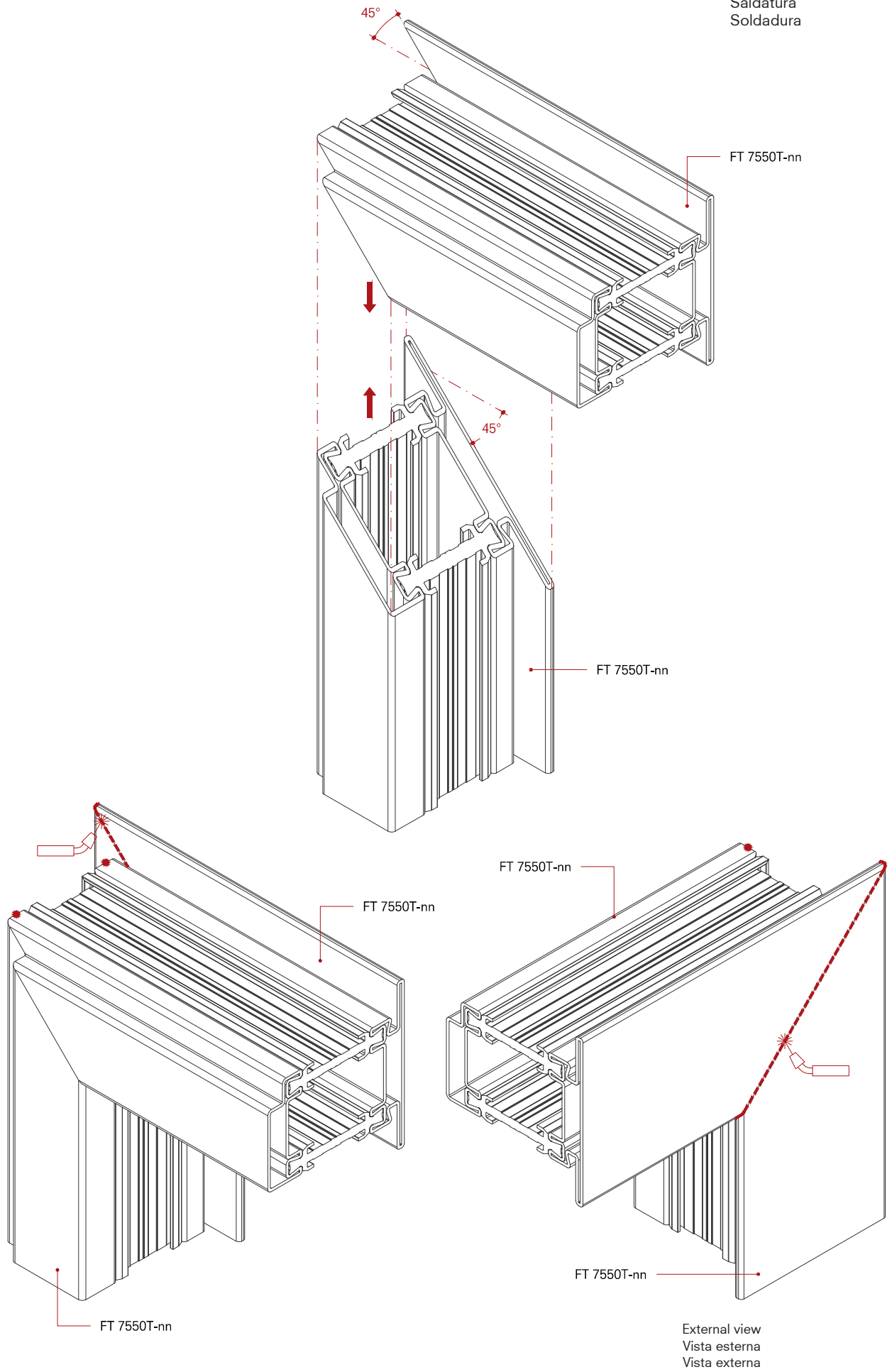
Doble ventana que se abre hacia fuera - Perfiles puerta



Internal view  
Vista interna  
Vista interna





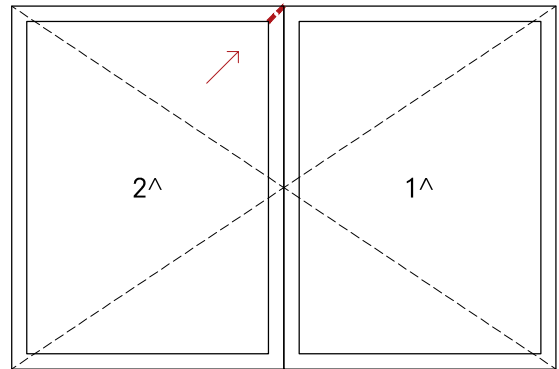


**FT 7512TK-nn / FT 7512ZK-nn**

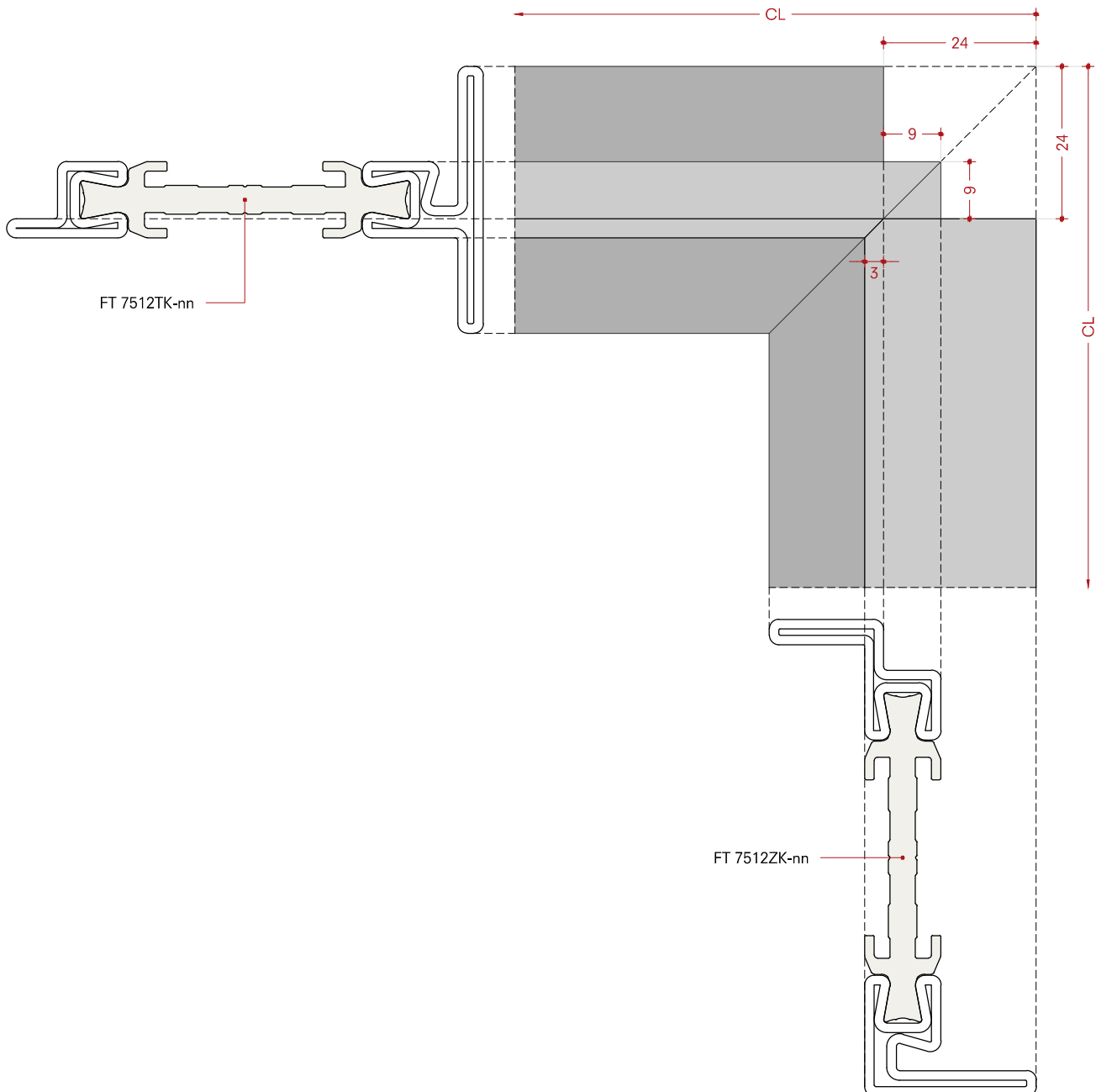
Double leaf window open out - Flush profiles

Finestra doppia anta apertura esterna - Profili complanari

Doble ventana que se abre hacia fuera - Perfiles coplanarios

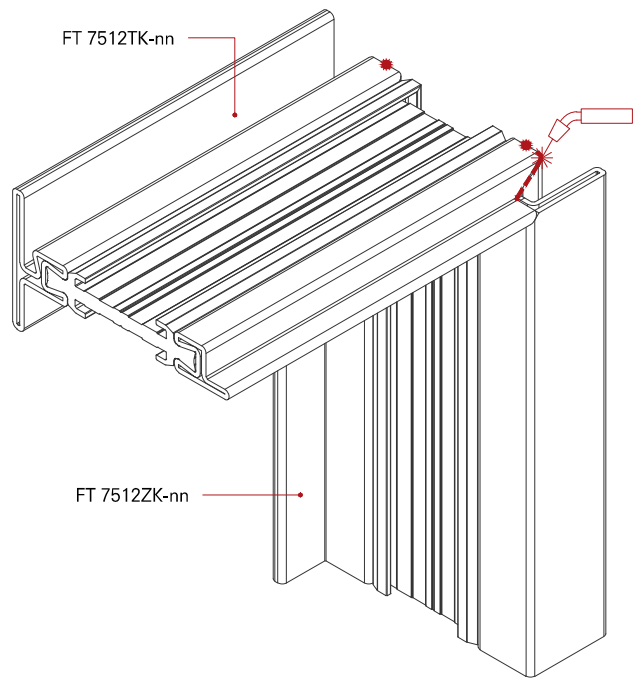
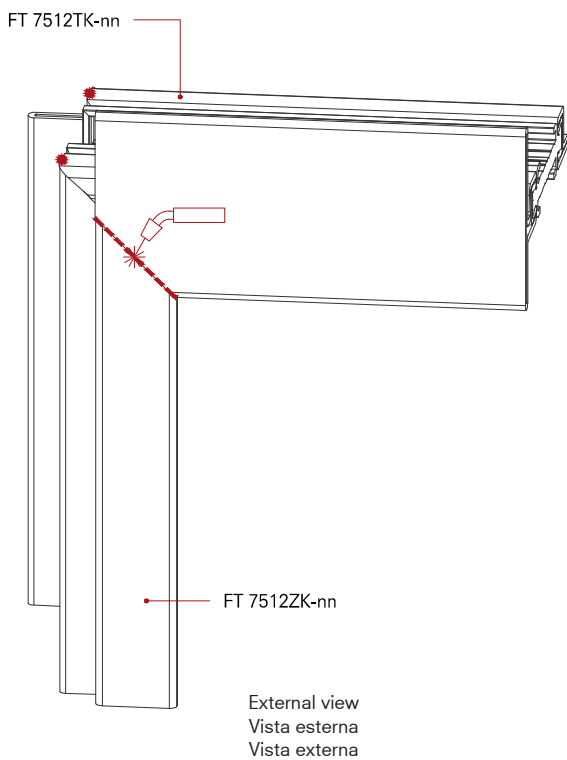
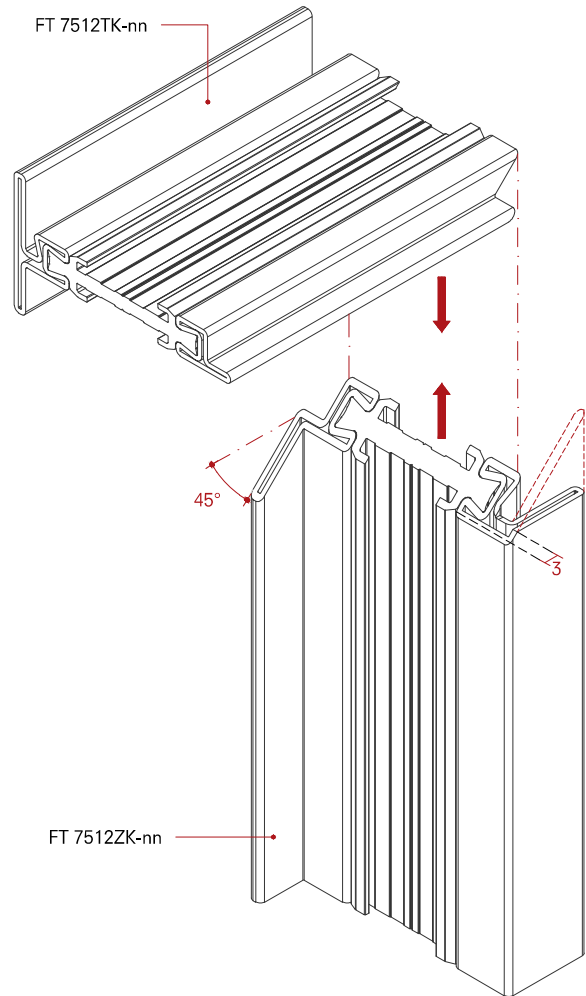
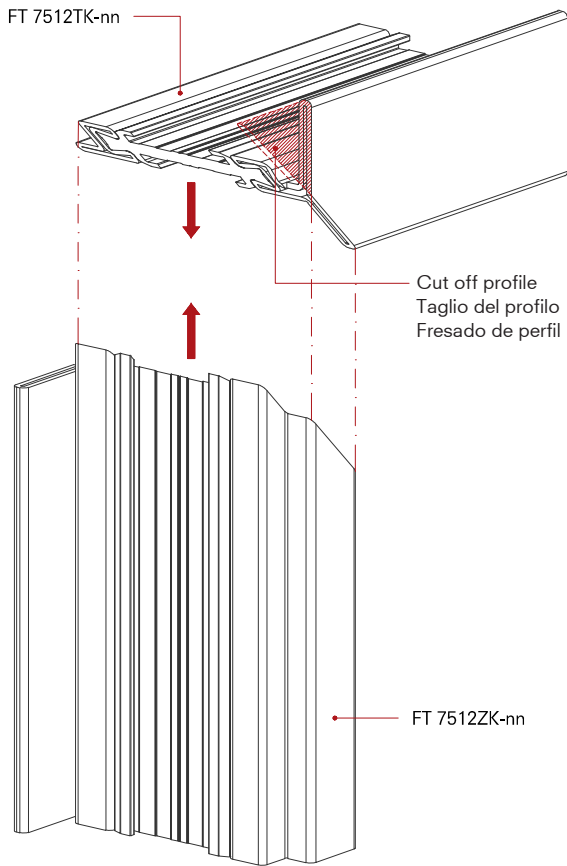


Internal view  
Vista interna  
Vista interna



FT 7512TK-nn

FT 7512ZK-nn

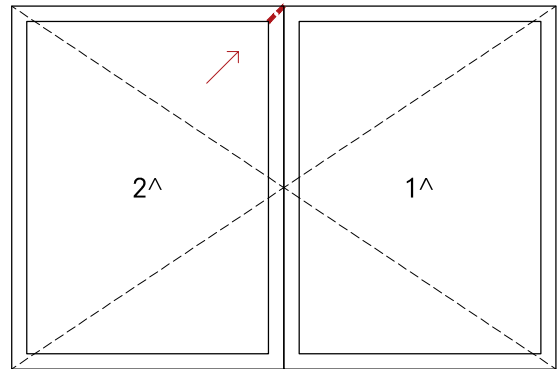


**FT 7512T-nn / FT 7512Z-nn**

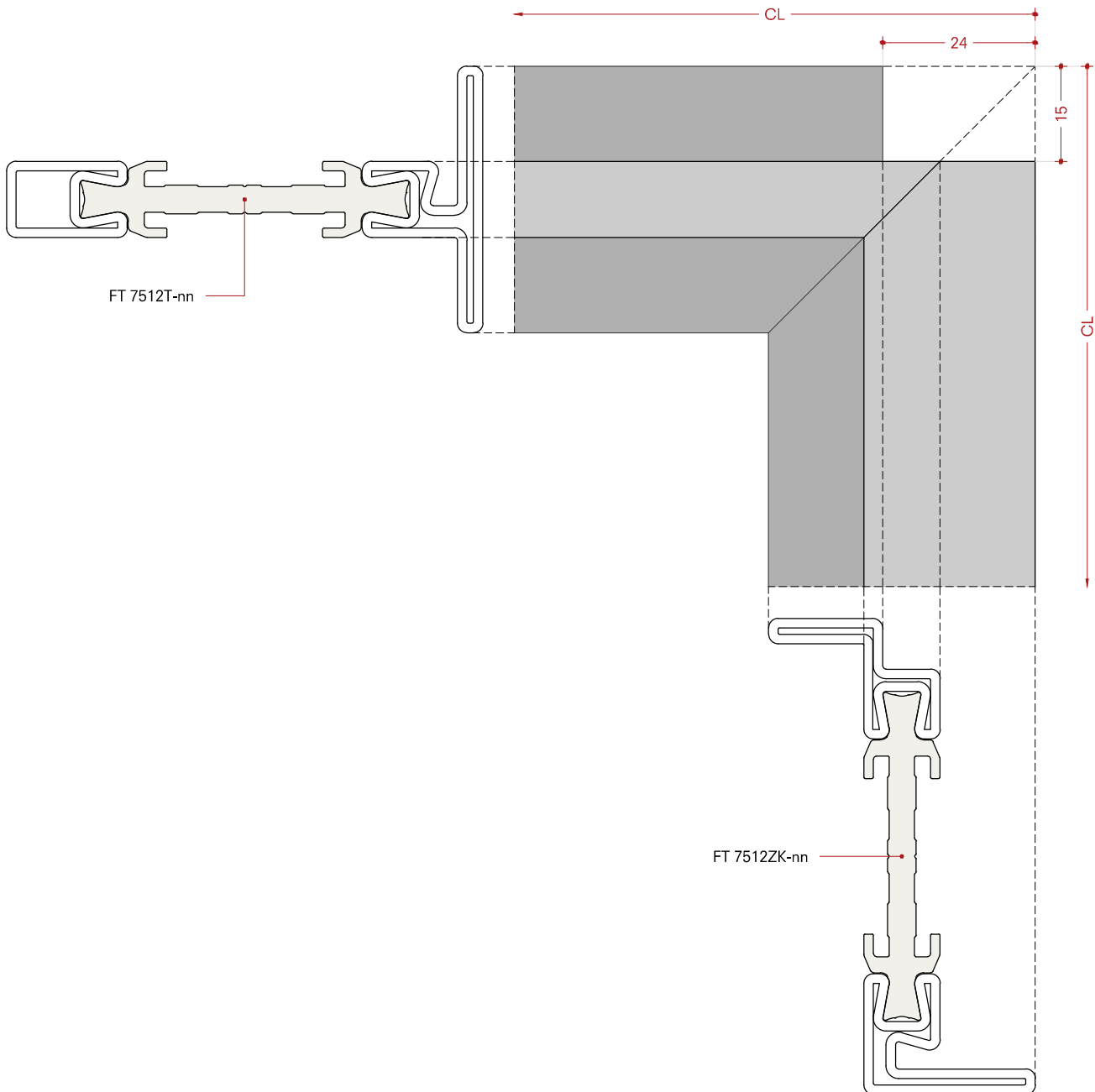
Double leaf window open out - Overlapped profiles

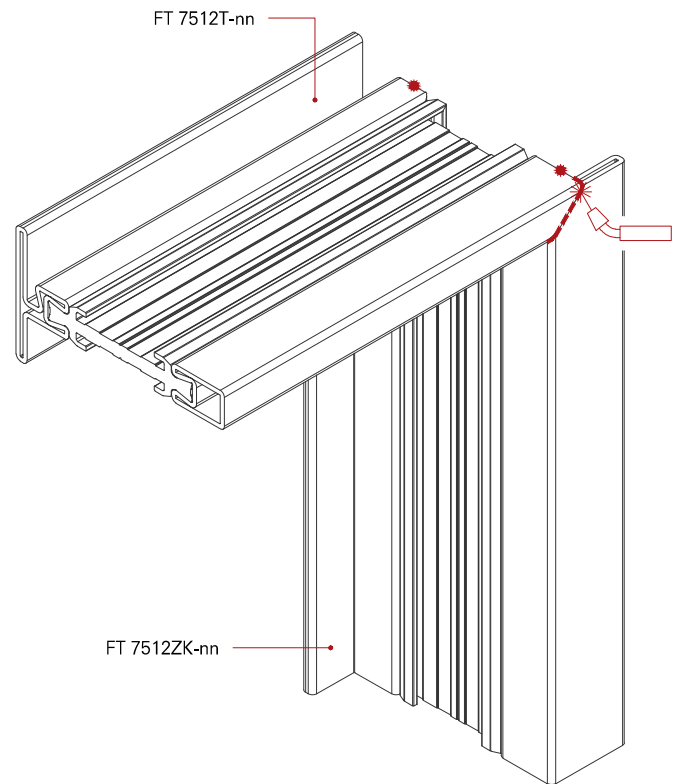
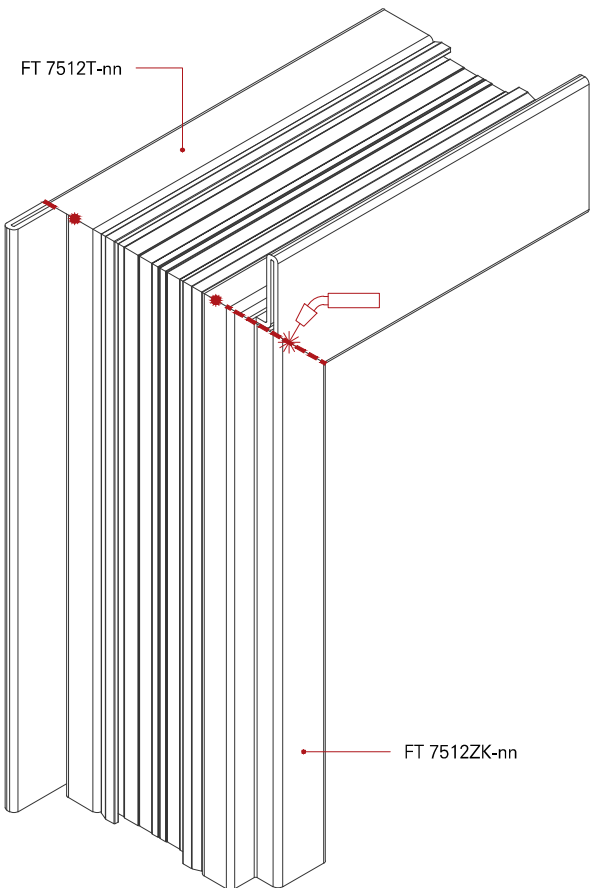
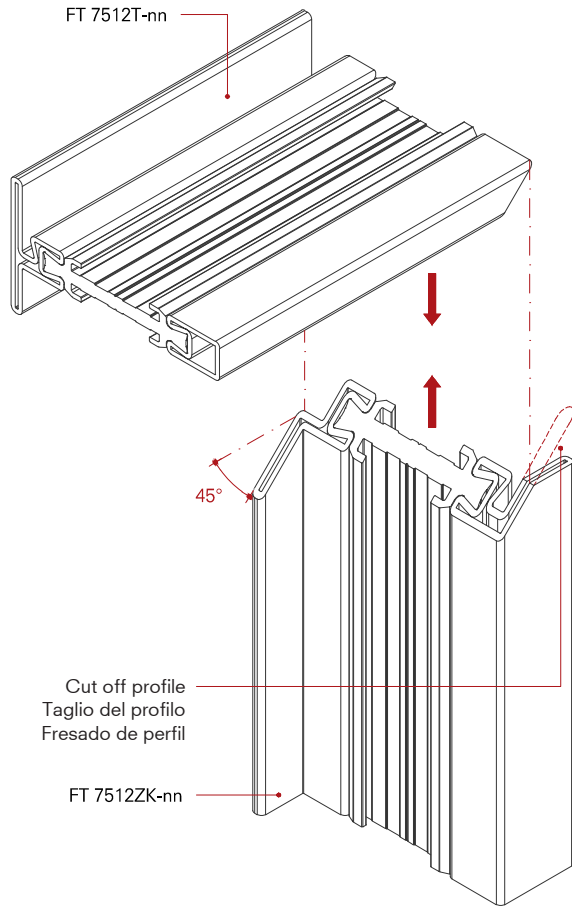
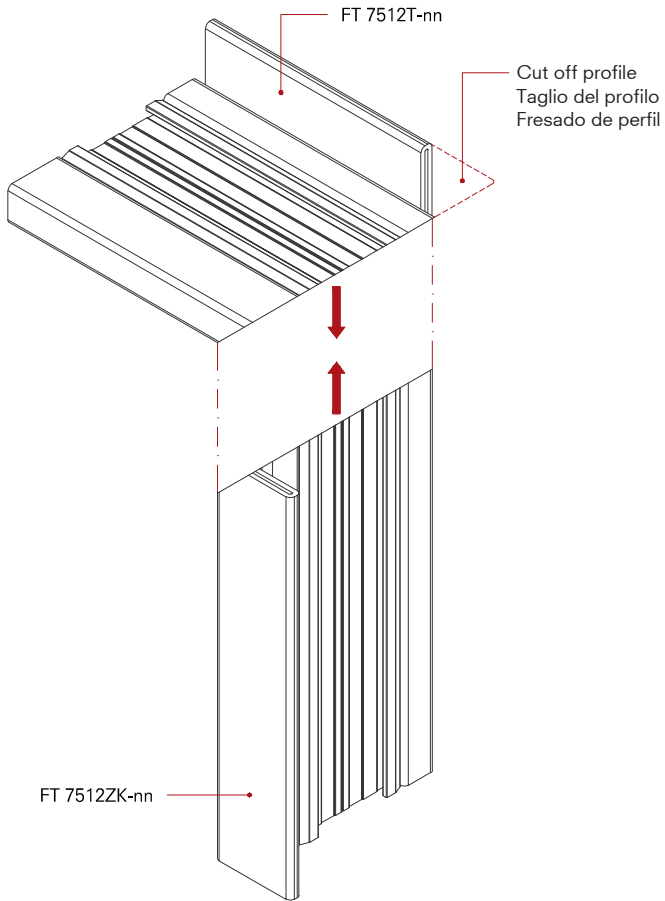
Finestra doppia anta apertura esterna - Profili a sormonto

Doble ventana que se abre hacia fuera - Perfiles superpuestos



Internal view  
Vista interna  
Vista interna





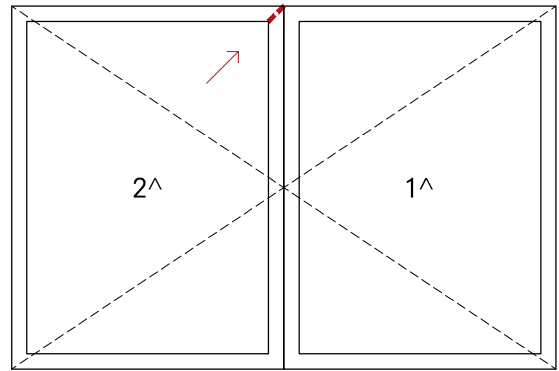
External view  
Vista esterna  
Vista externa

**FT 7550T-nn / FT 7550Z-nn**

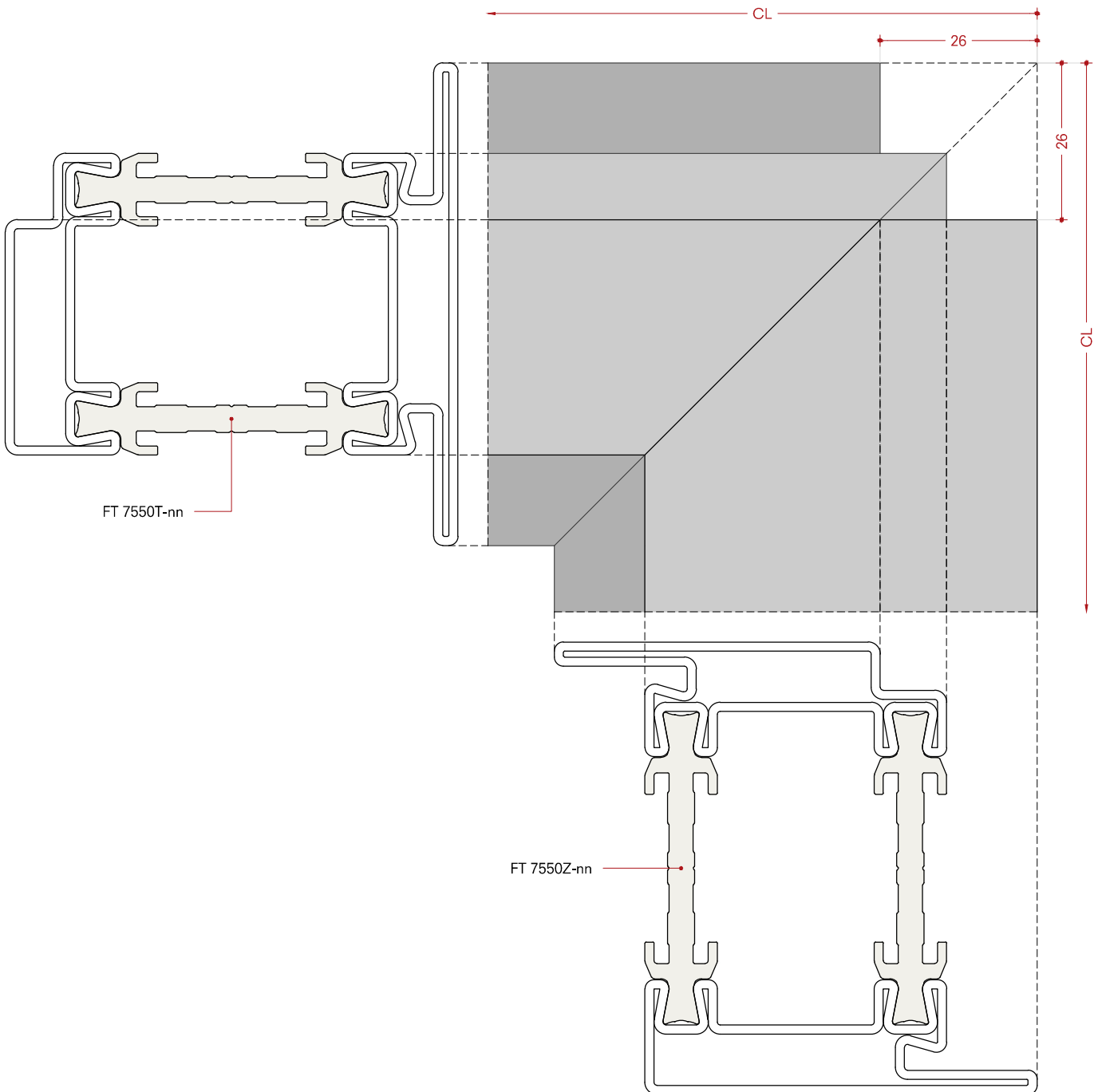
Double leaf open out - Door profiles

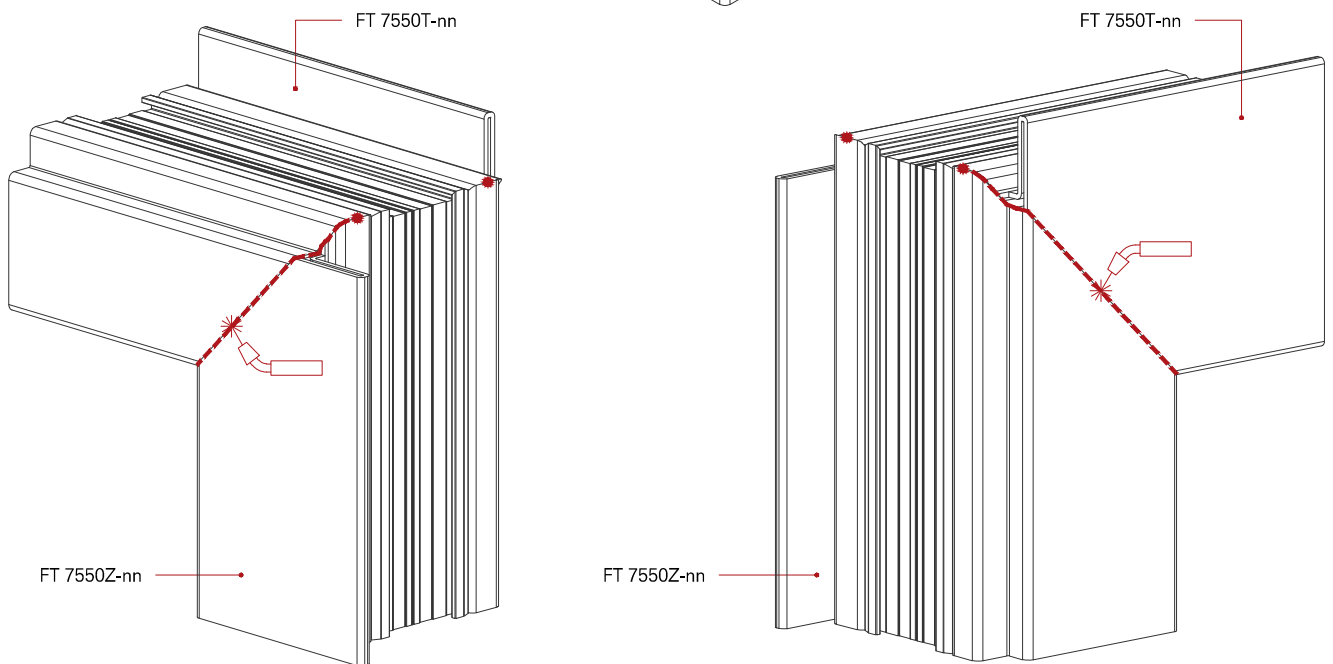
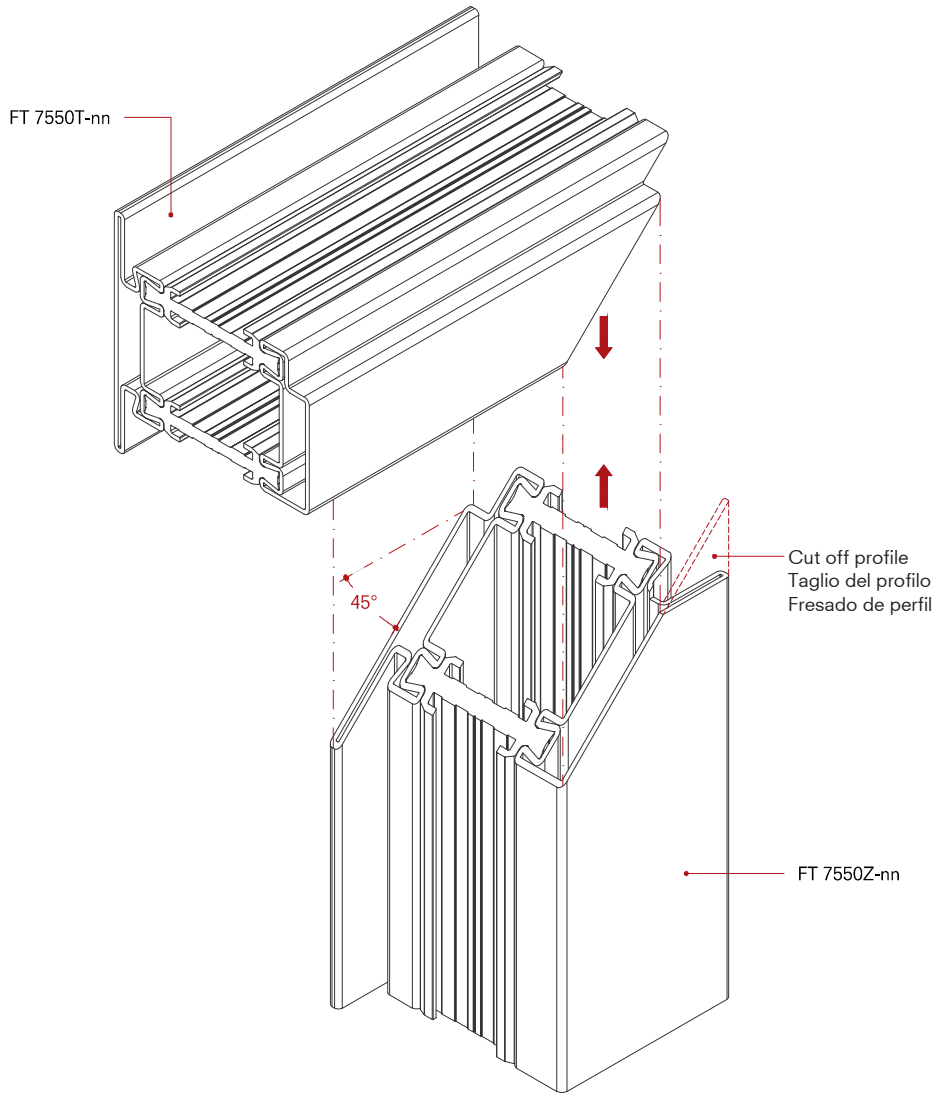
Doppia anta apertura esterna - Profili porta

Doble ventana que se abre hacia fuera - Perfiles puerta



Internal view  
Vista interna  
Vista interna





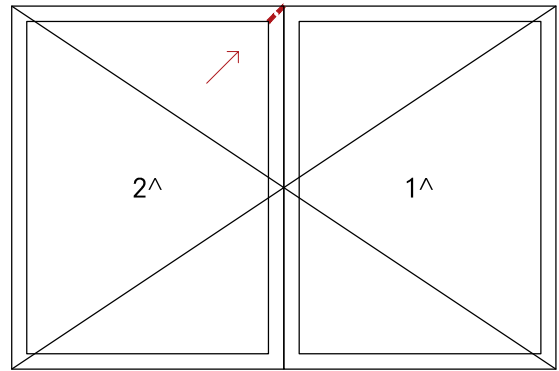
External view  
Vista esterna  
Vista externa

**FT 7512ZK-nn / FT 7512TK-nn**

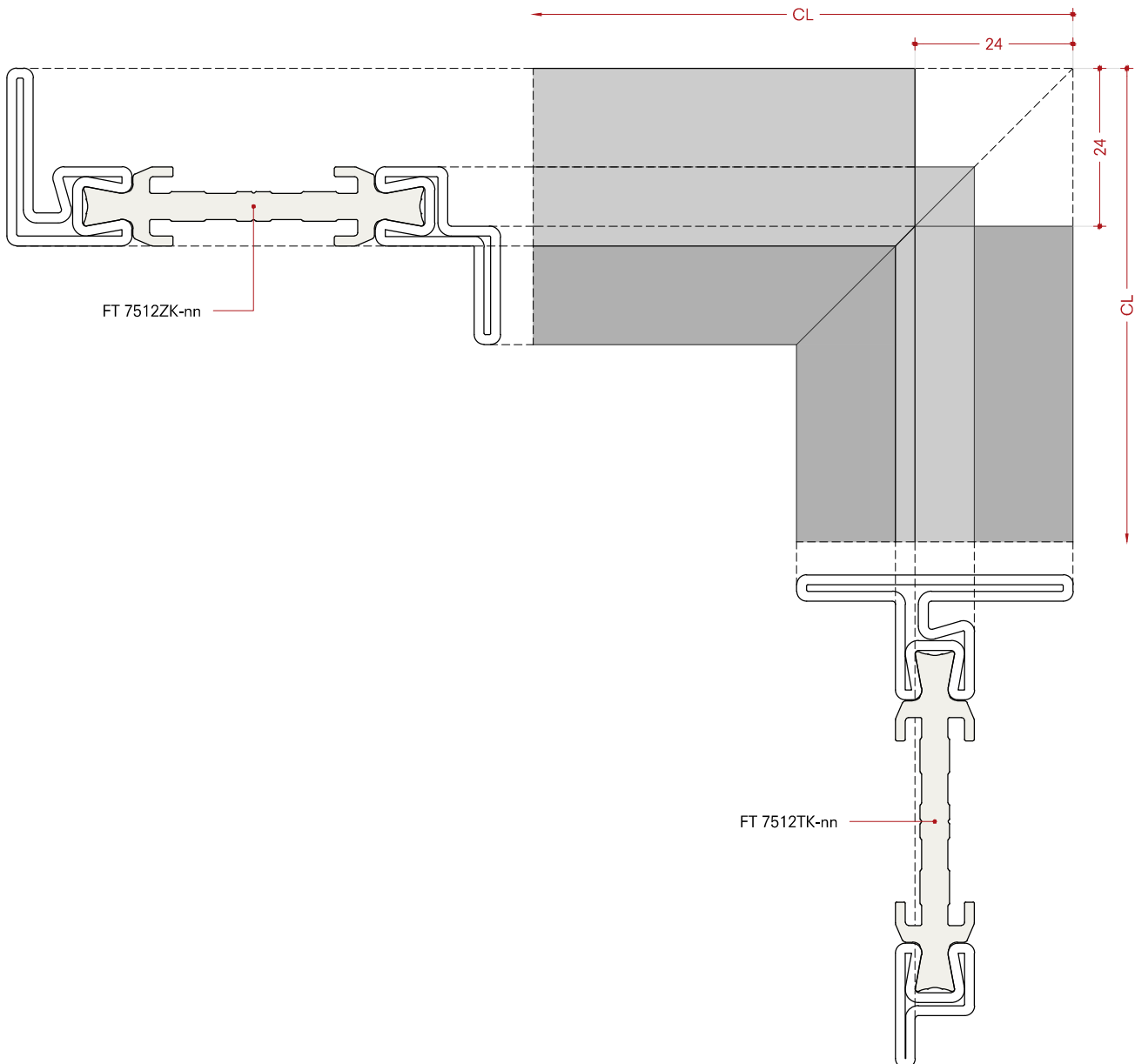
Double leaf window open in - Flush profiles

Finestra doppia anta apertura interna - Profili complanari

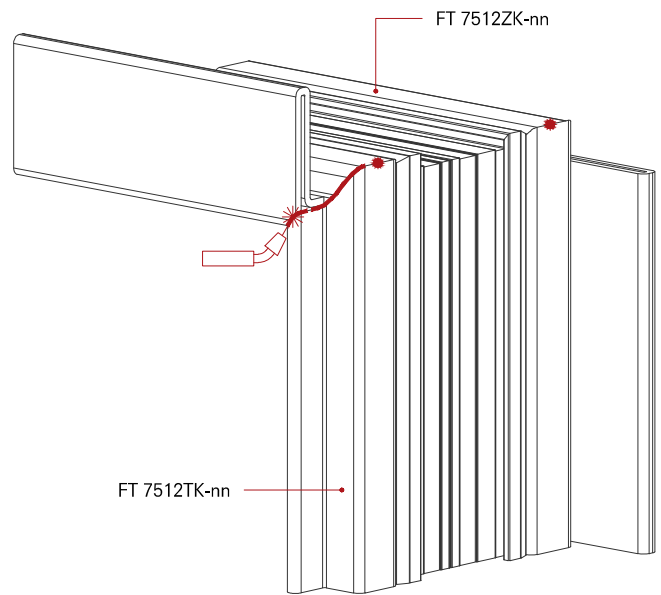
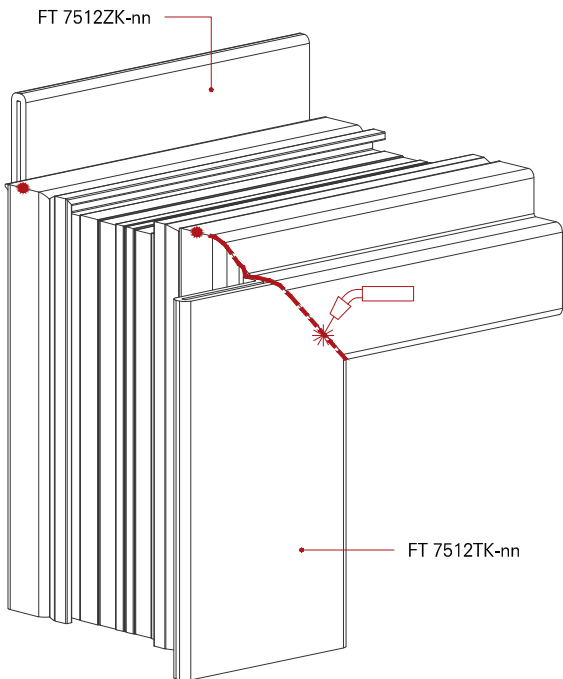
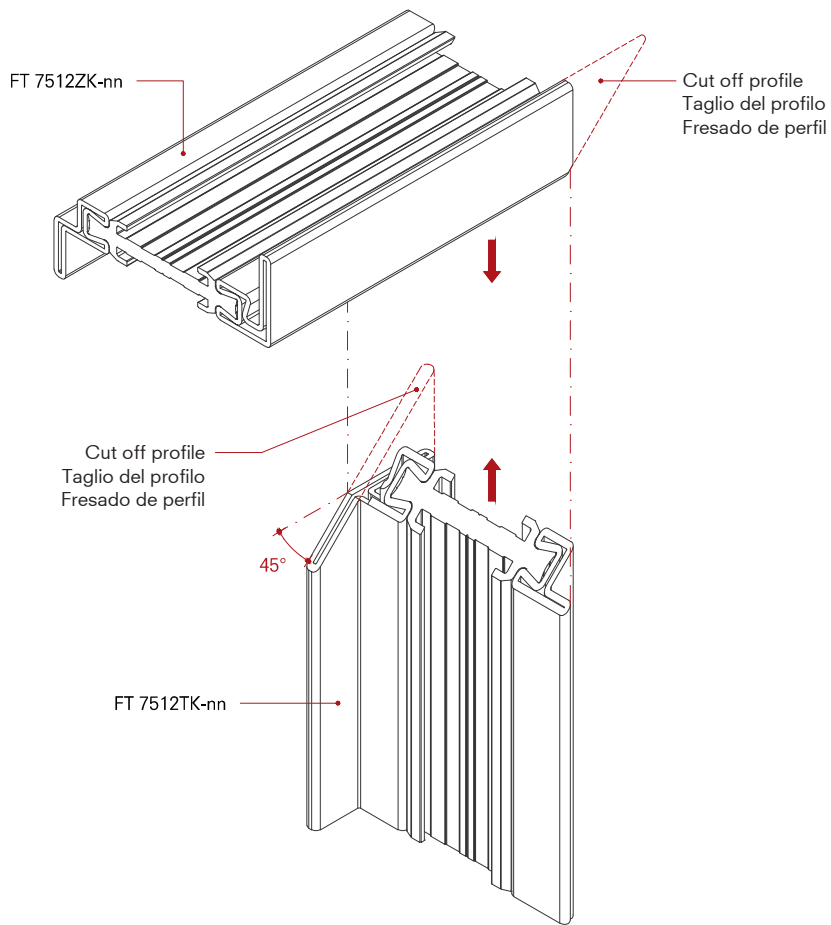
Doble ventana que se abre hacia dentro - Perfiles coplanarios



Internal view  
Vista interna  
Vista interna







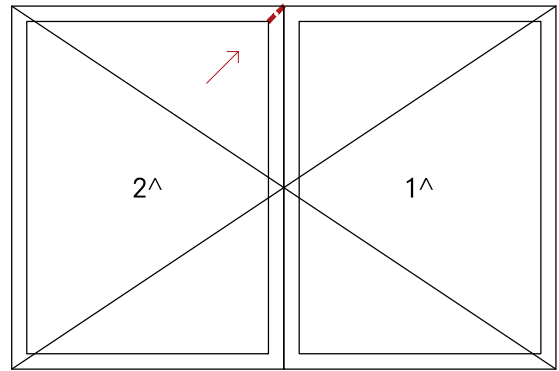
External view  
Vista esterna  
Vista externa

**FT 7512Z-nn / FT 8312TZ-nn**

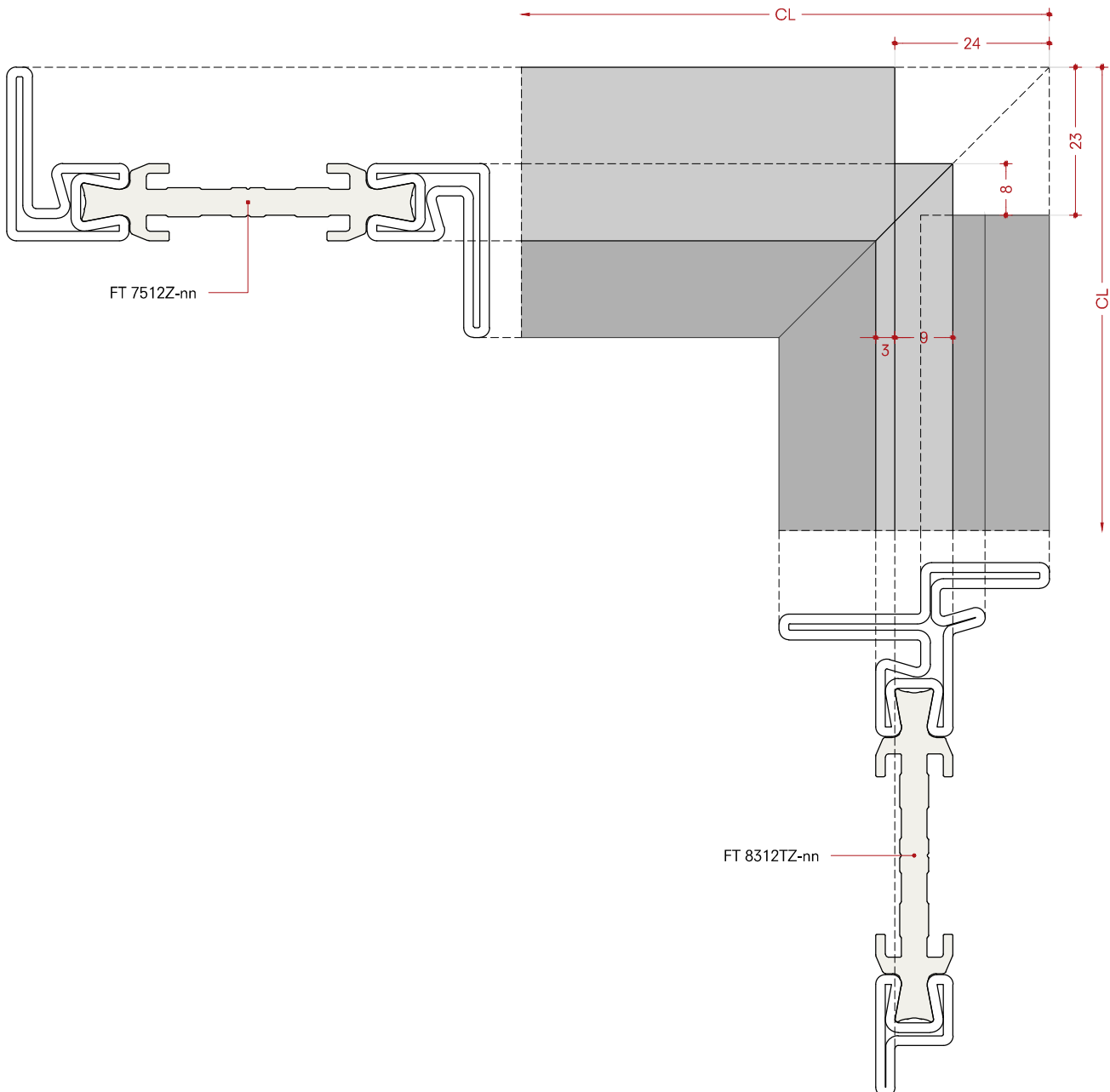
Double leaf window open in - Overlapped profiles

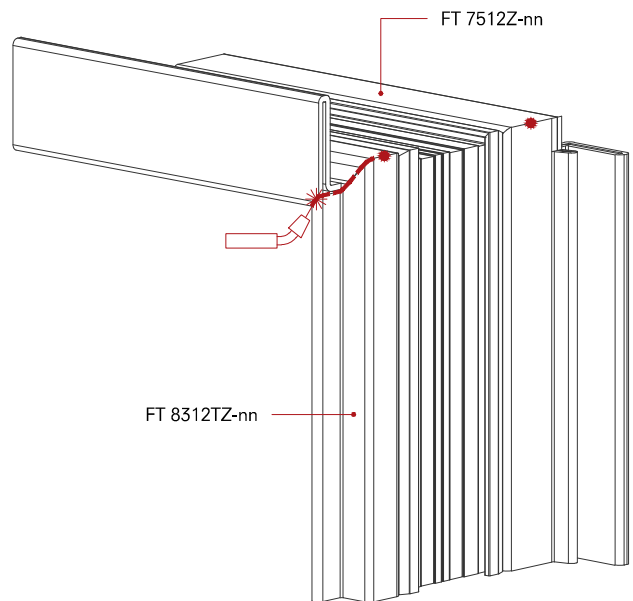
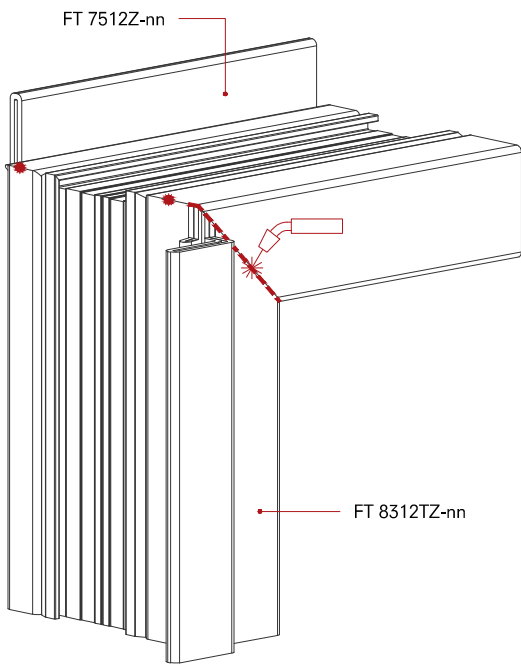
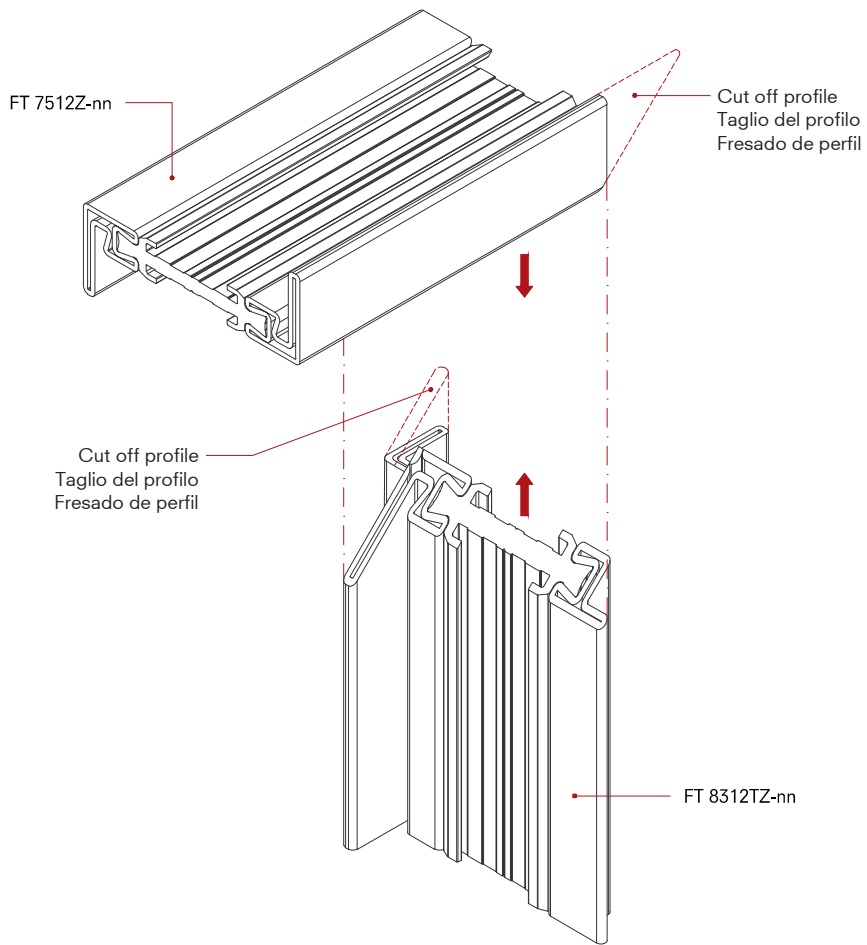
Finestra doppia anta apertura interna - Profili a sormonto

Doble ventana que se abre hacia dentro - Perfiles superpuestos



Internal view  
Vista interna  
Vista interna





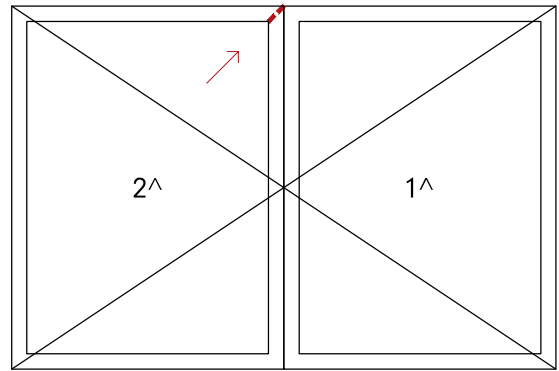
External view  
Vista esterna  
Vista externa

**FT 8312ZR-nn / FT 7512TR-nn**

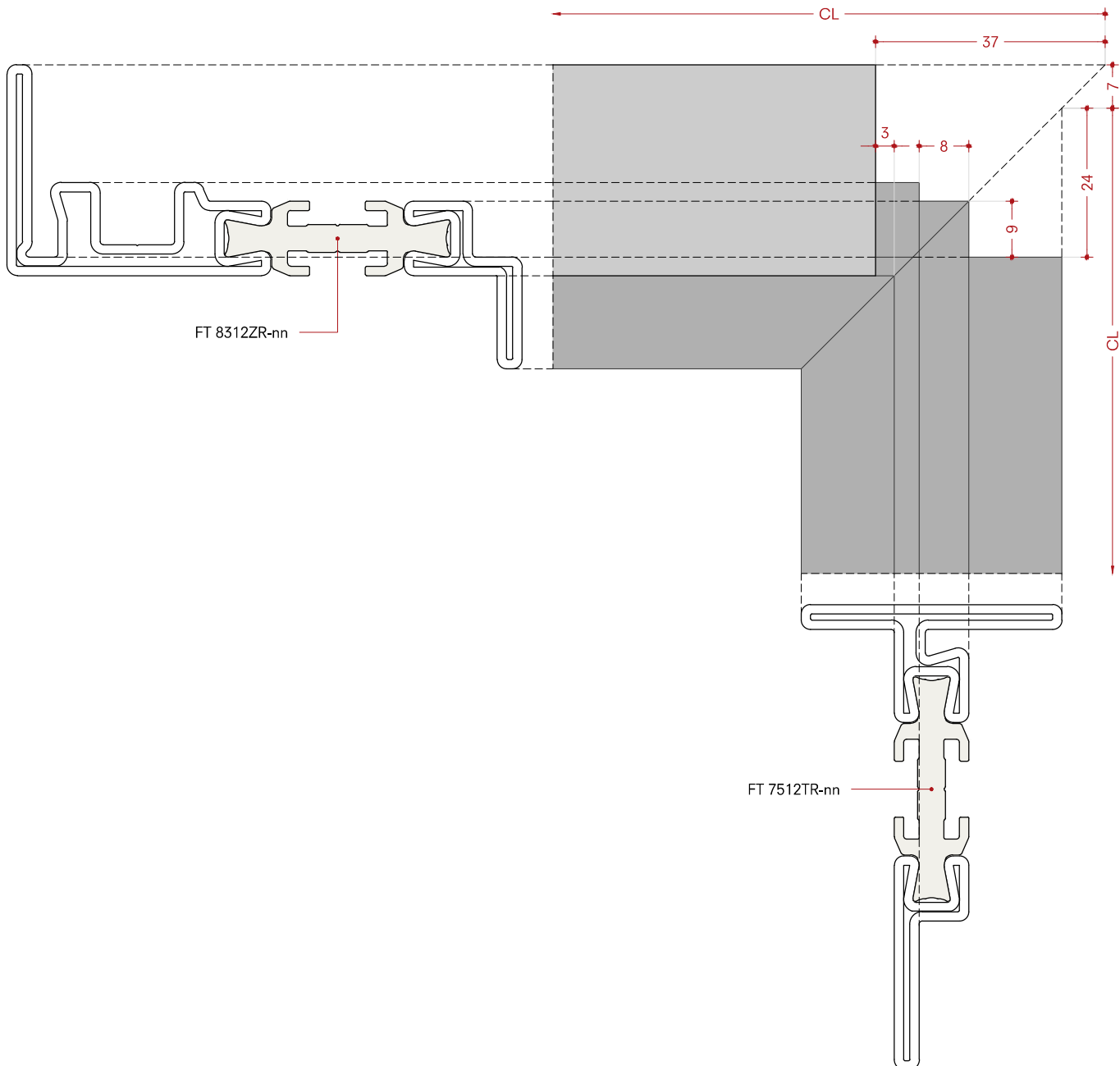
Double leaf window open in - Tilt&Turn window

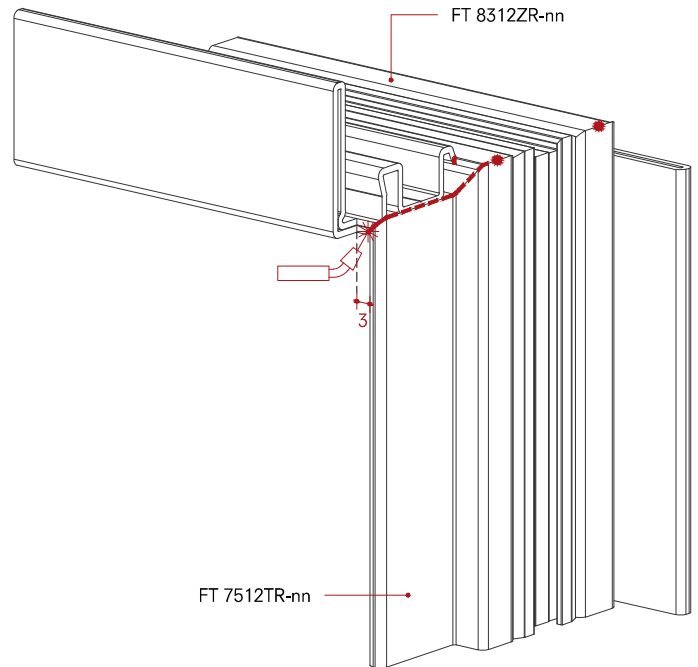
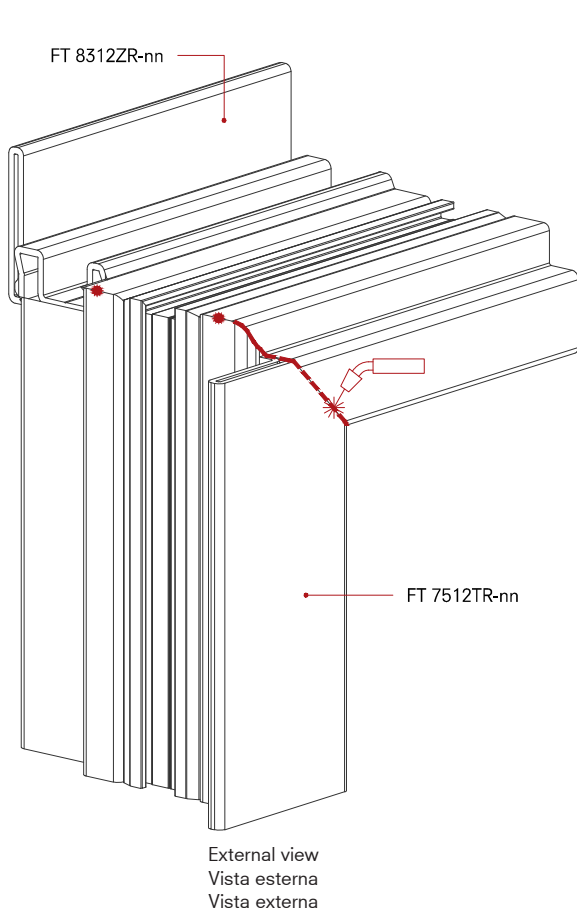
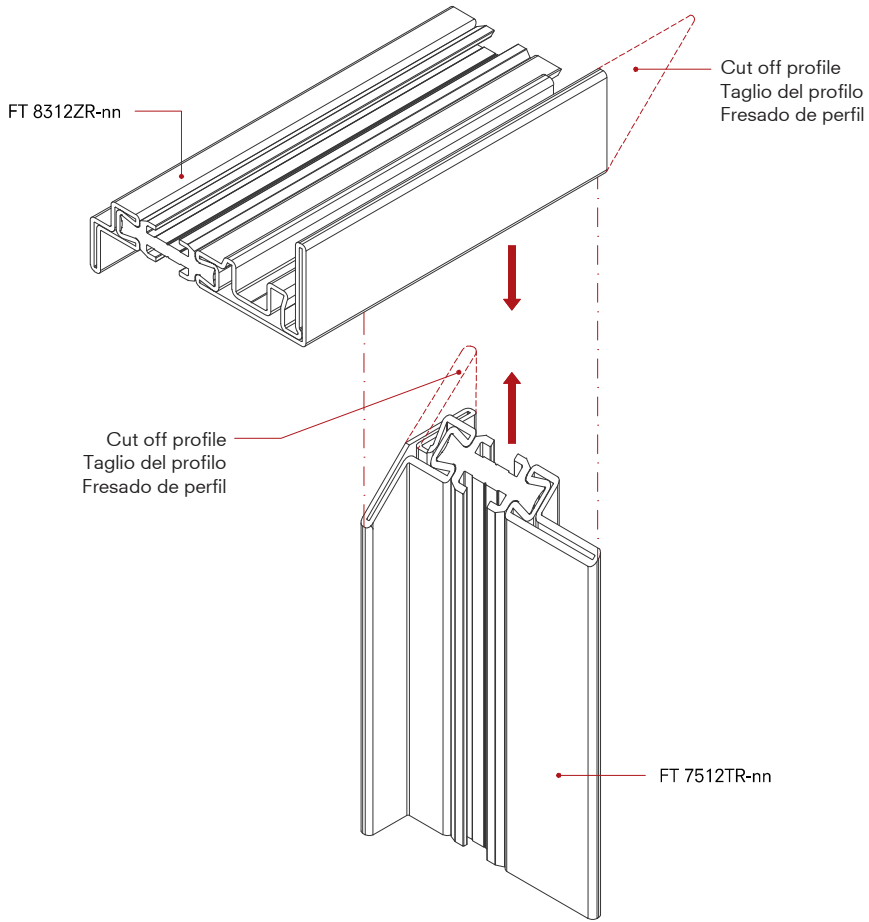
Finestra doppia anta apertura interna - Finestra anta ribalta

Doble ventana que se abre hacia dentro - Ventana oscilante



Internal view  
Vista interna  
Vista interna



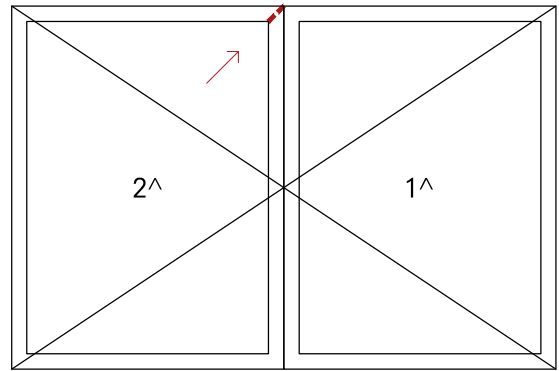


**FT 7550Z-nn / FT 7550T-nn**

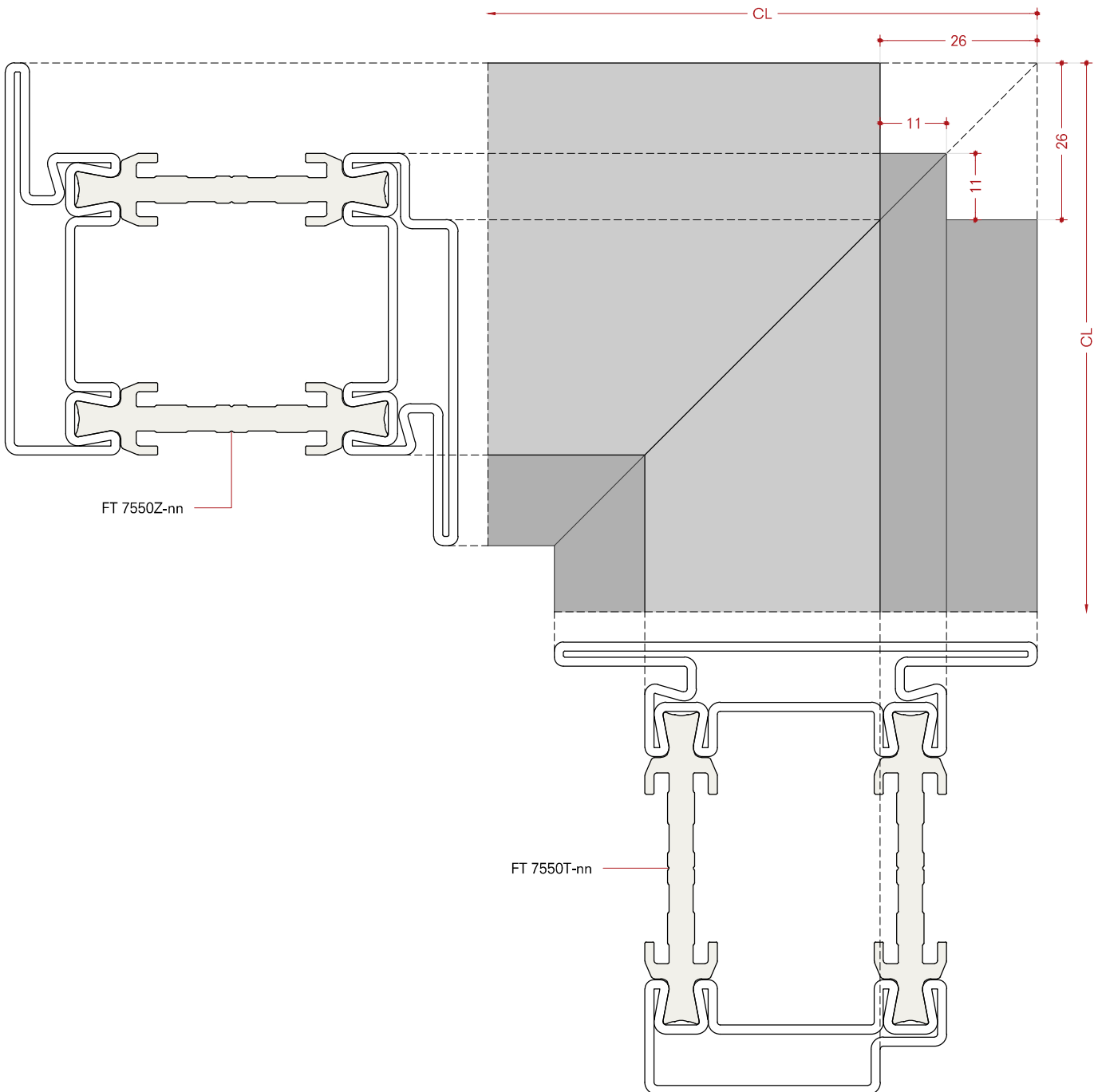
Double leaf open in - Door profiles

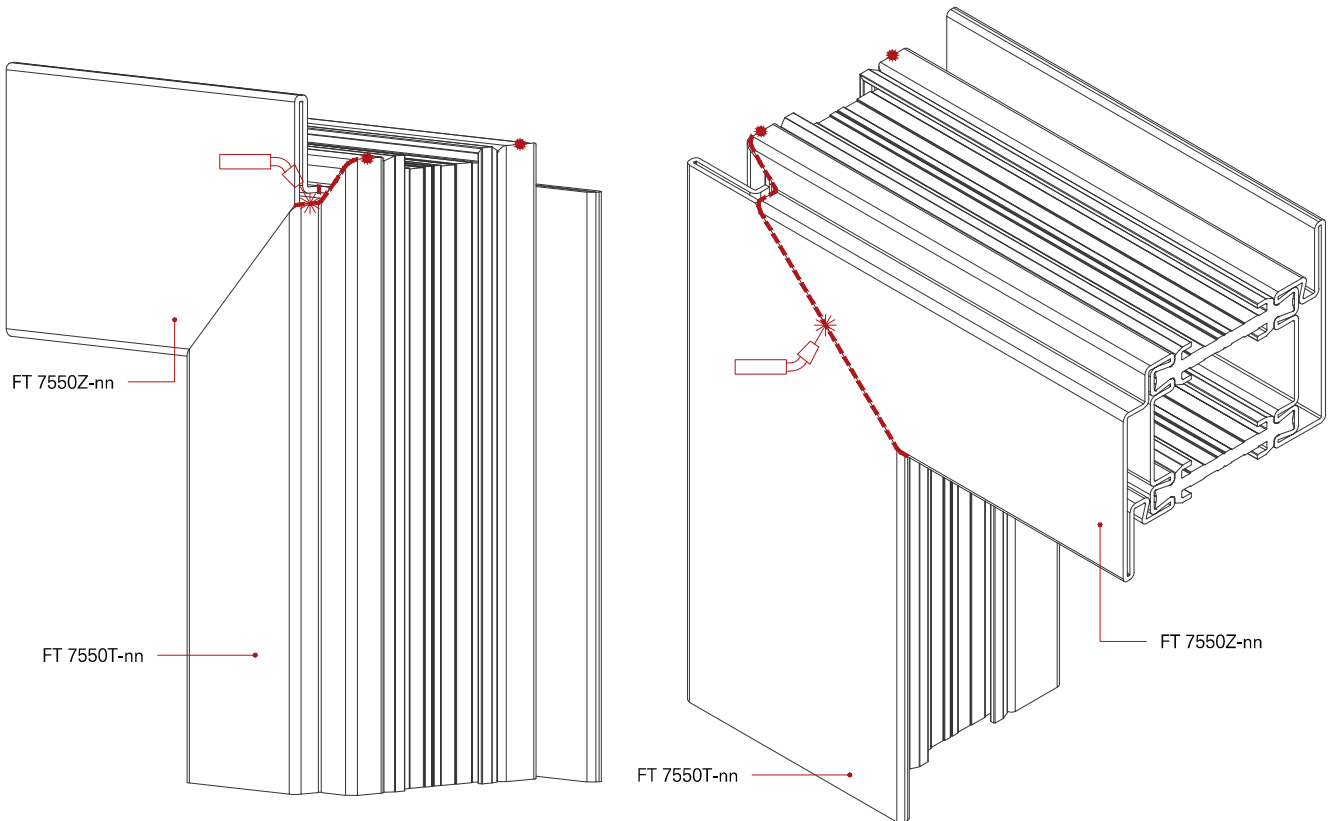
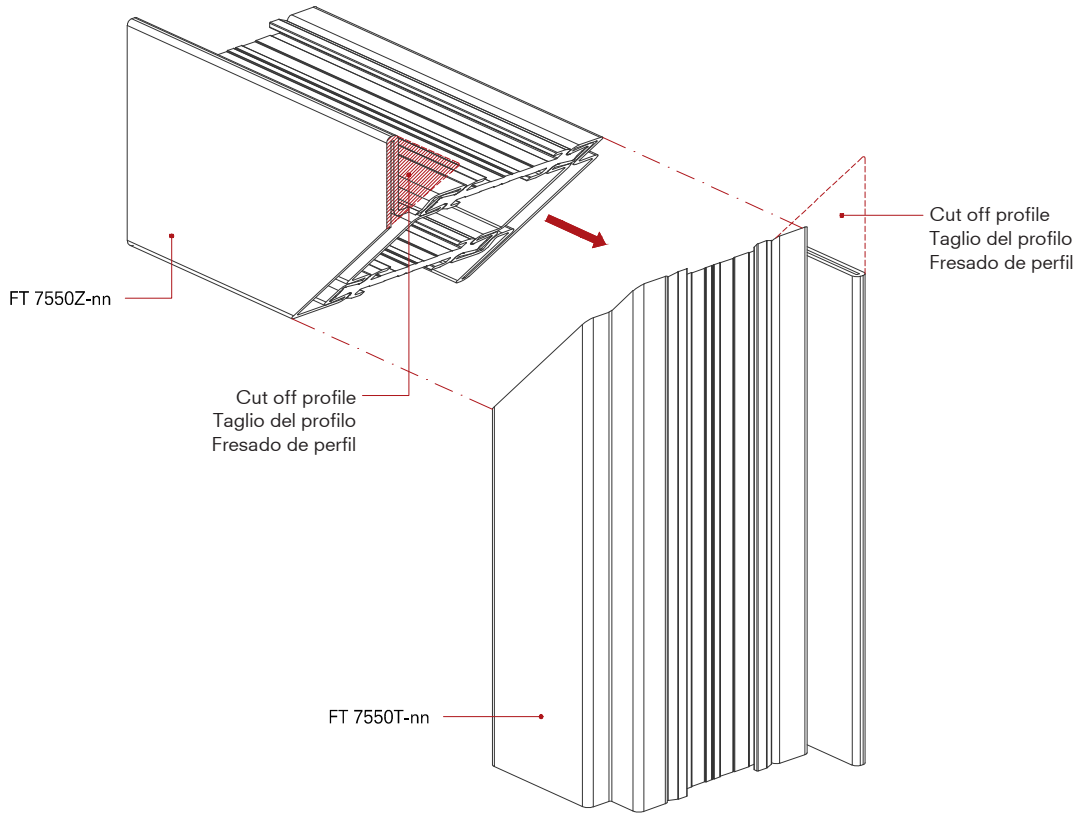
Doppia anta apertura interna - Profili porta

Doble ventana que se abre hacia dentro - Perfiles puerta



Internal view  
Vista interna  
Vista interna





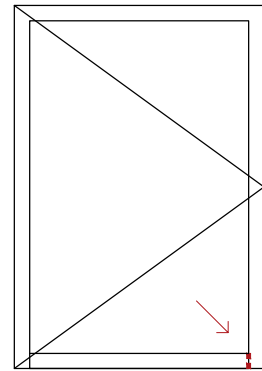
External view  
Vista esterna  
Vista externa

**FT 7512ZK-nn / FT 7512H-nn**

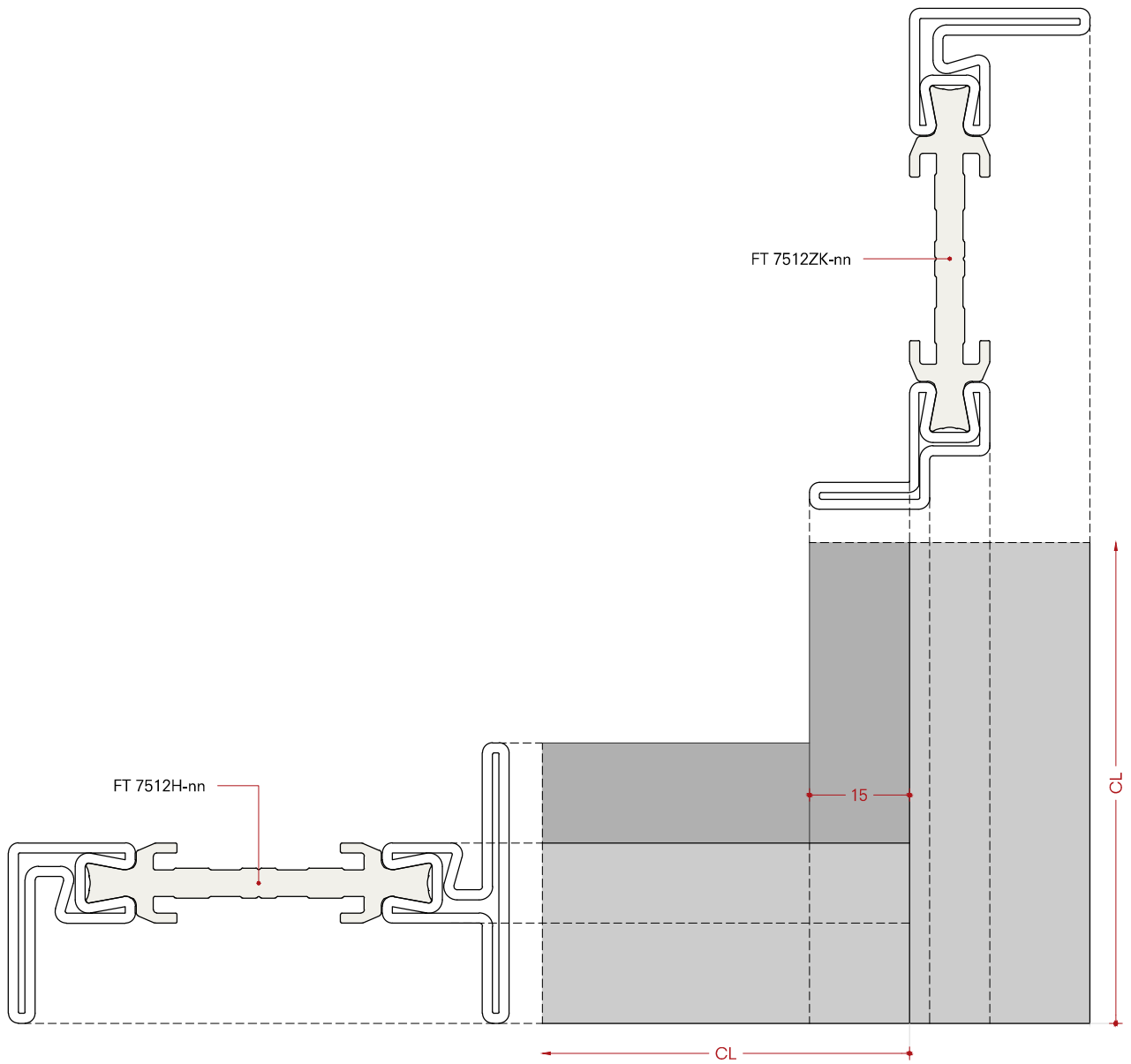
Single leaf door open in

Porta a un battente apertura interna

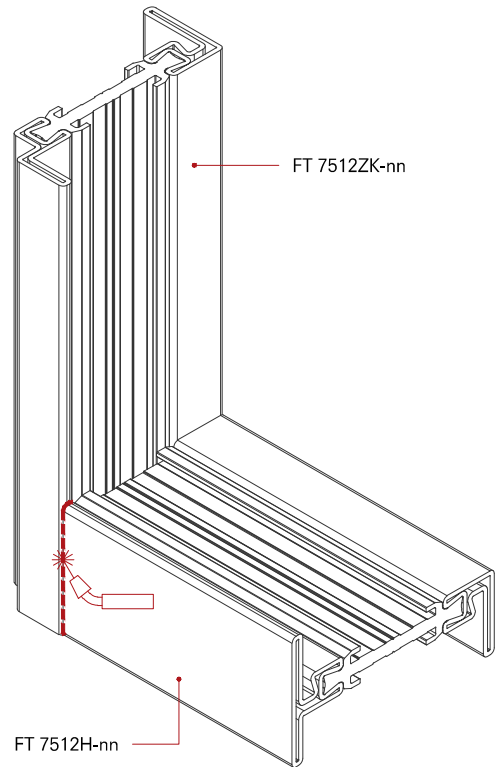
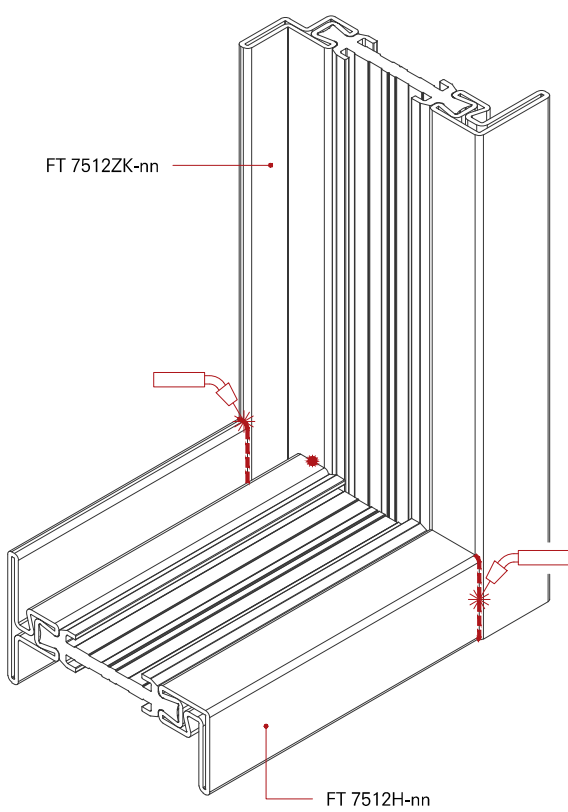
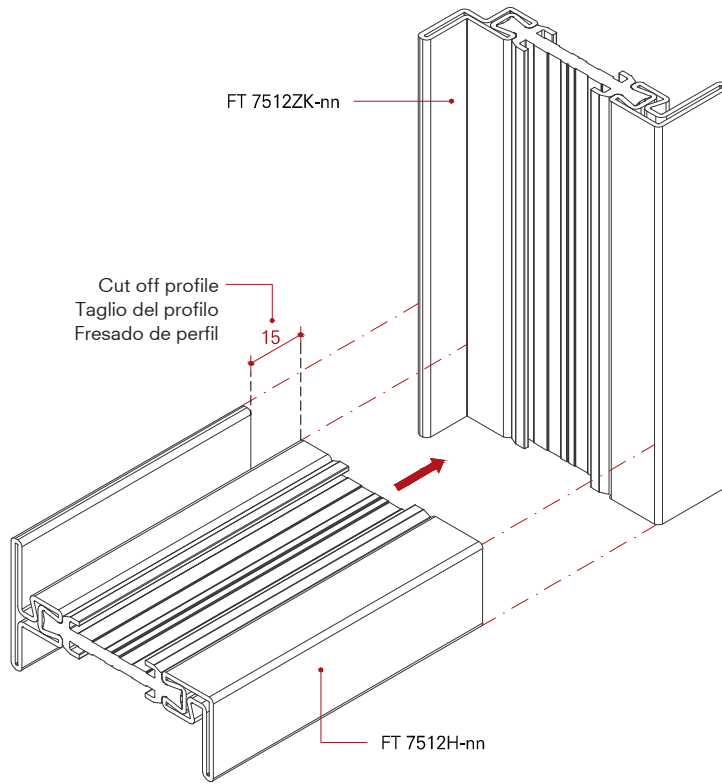
Puerta de una hoja apertura hacia dentro



Internal view  
Vista interna  
Vista interna







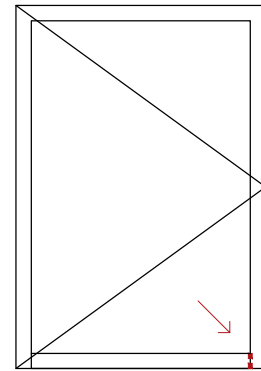
External view  
Vista esterna  
Vista externa

**FT 7550Z-nn / FT 7550HF-nn**

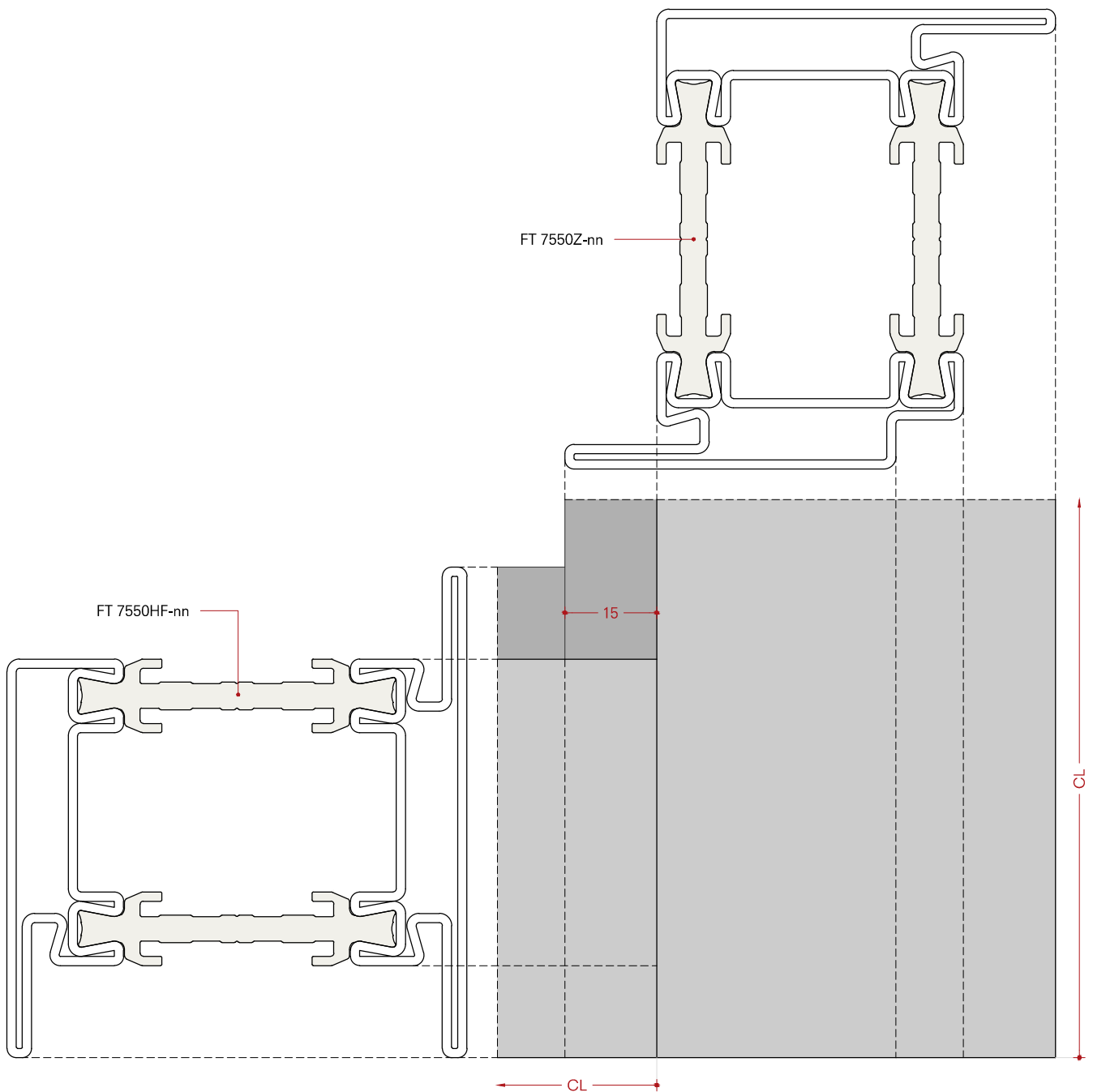
Single leaf door open in

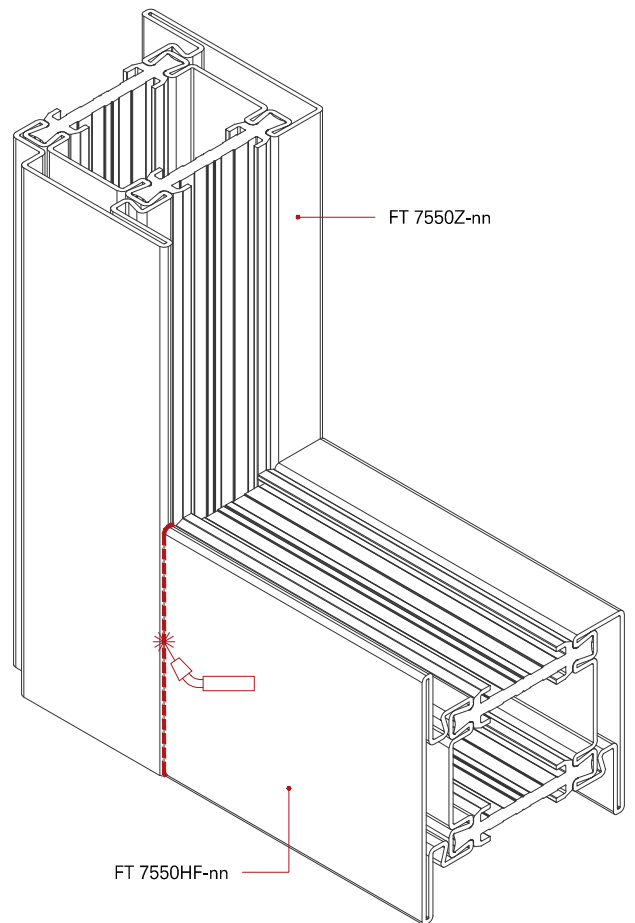
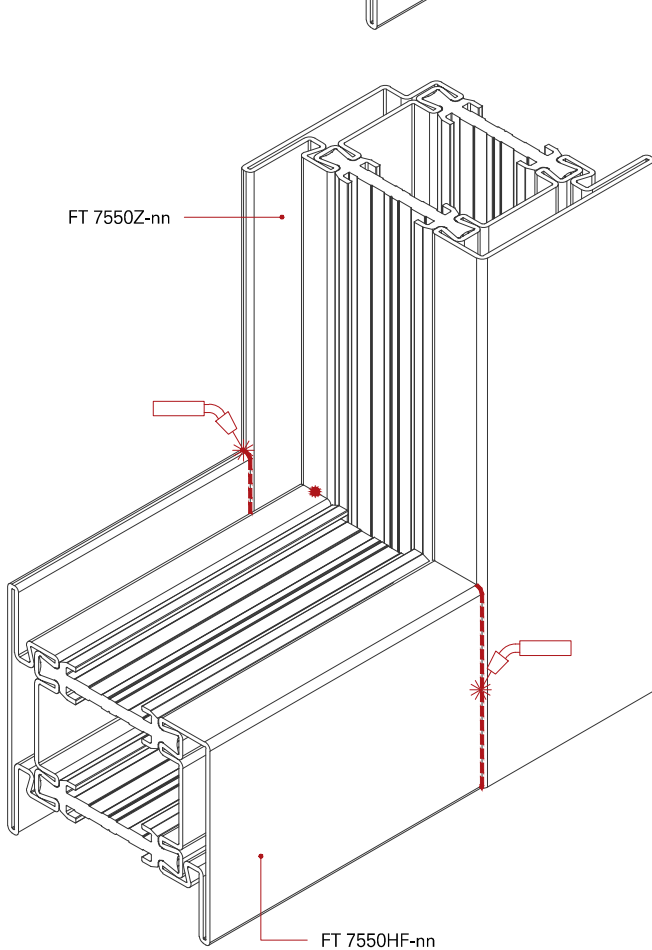
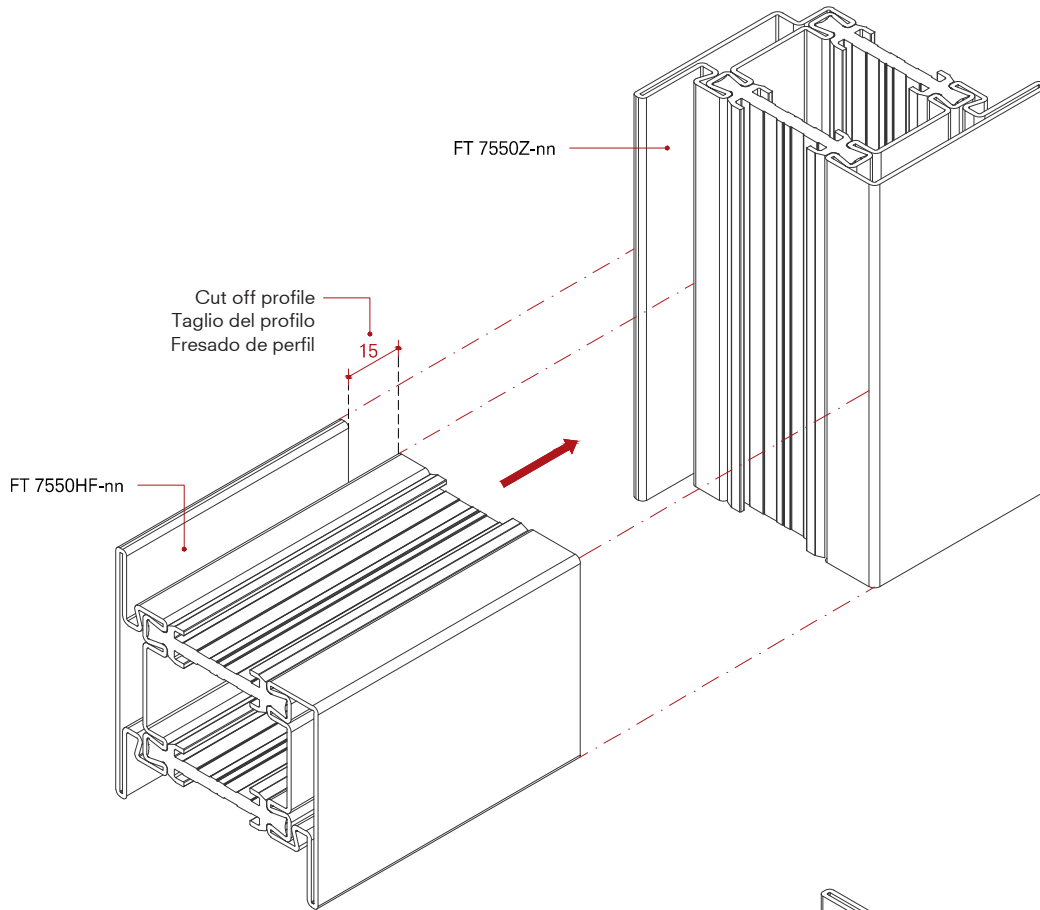
Porta a un battente apertura interna

Puerta de una hoja apertura hacia dentro



Internal view  
Vista interna  
Vista interna





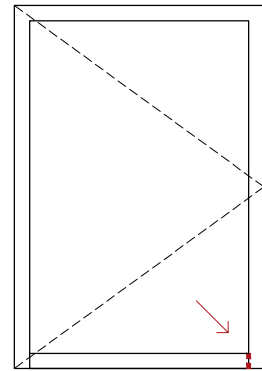
External view  
Vista esterna  
Vista externa

**FT 7512TK-nn / FT 7512H-nn**

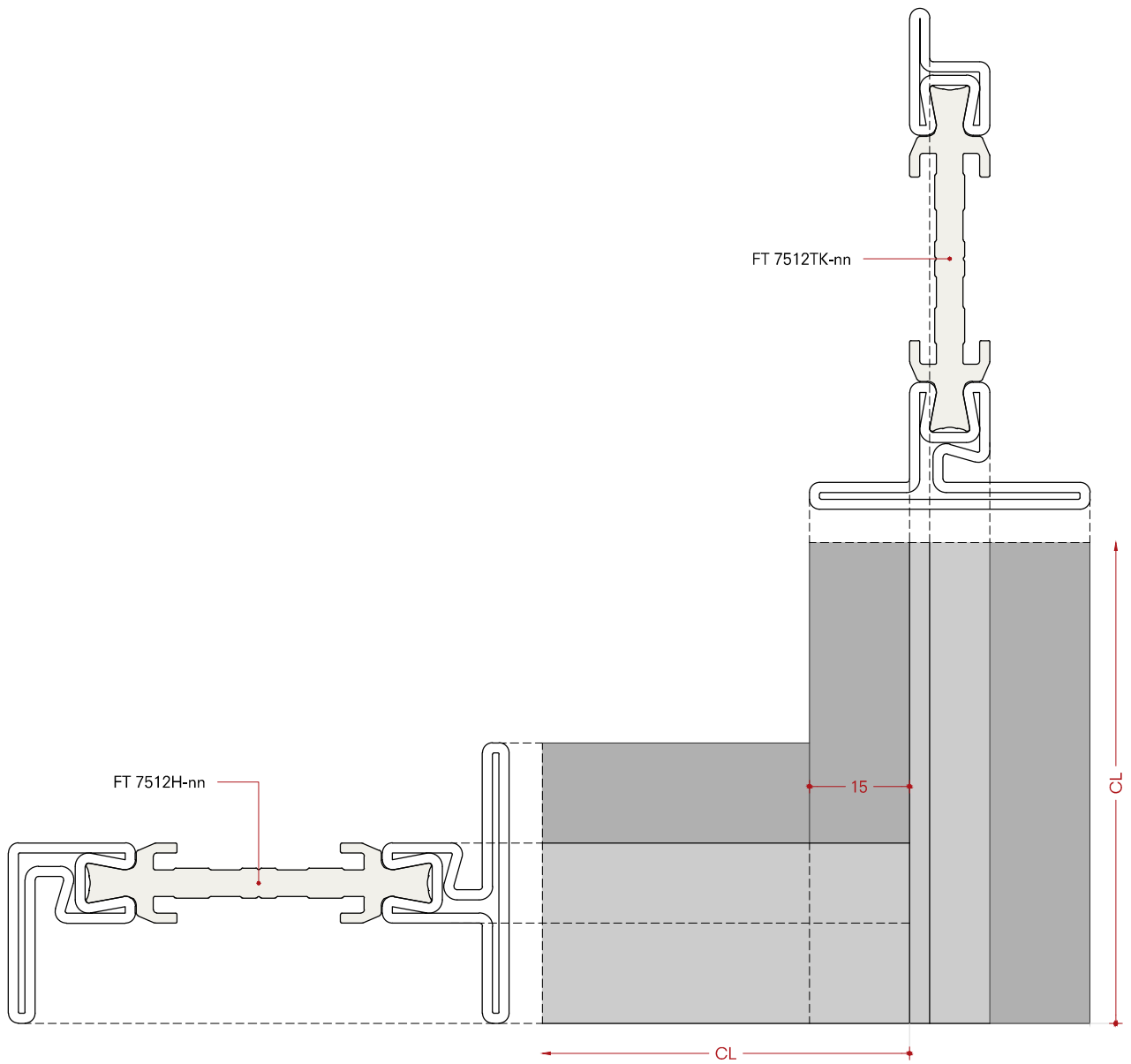
Single leaf door open out

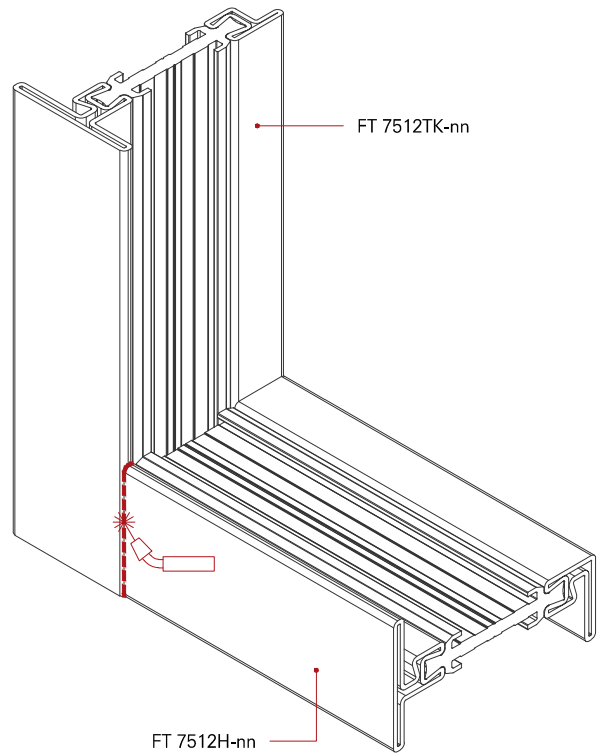
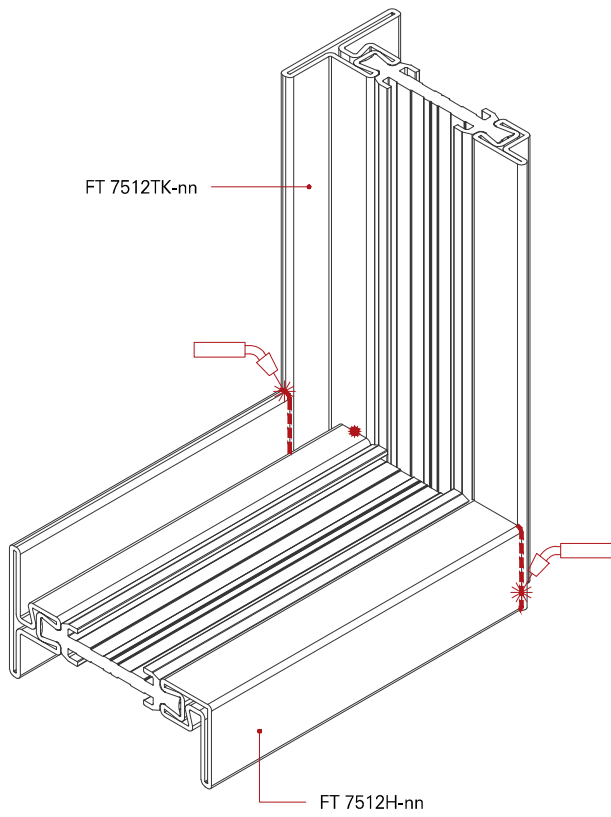
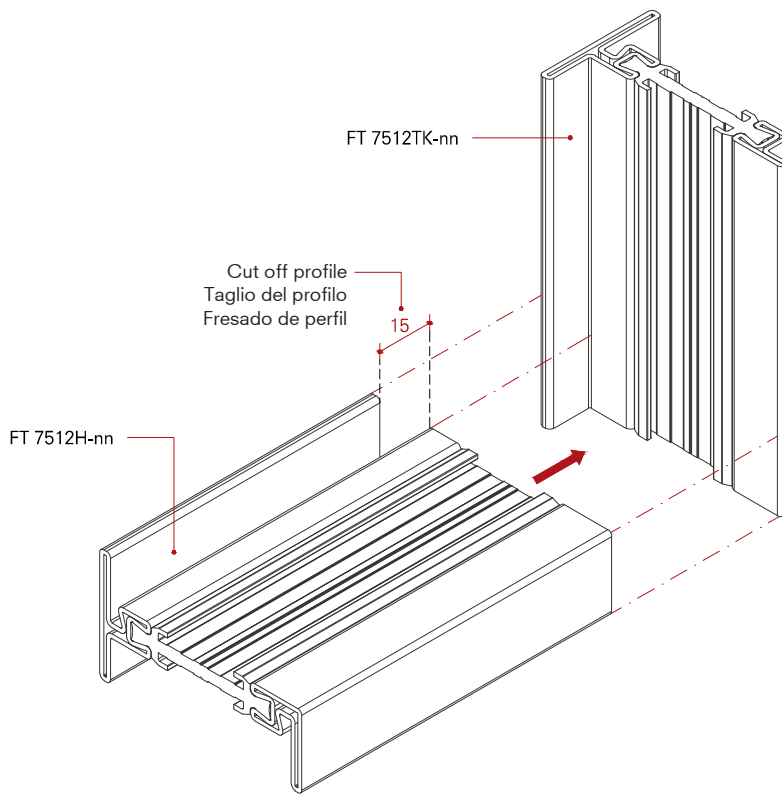
Porta a un battente apertura esterna

Puerta de una hoja apertura hacia fuera



Internal view  
Vista interna  
Vista interna





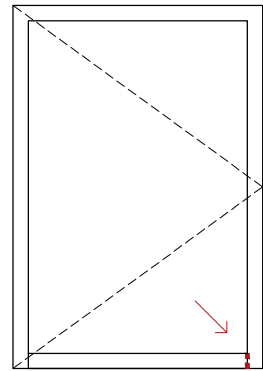
External view  
Vista esterna  
Vista externa

**FT 7550T-nn / FT 7550HF-nn**

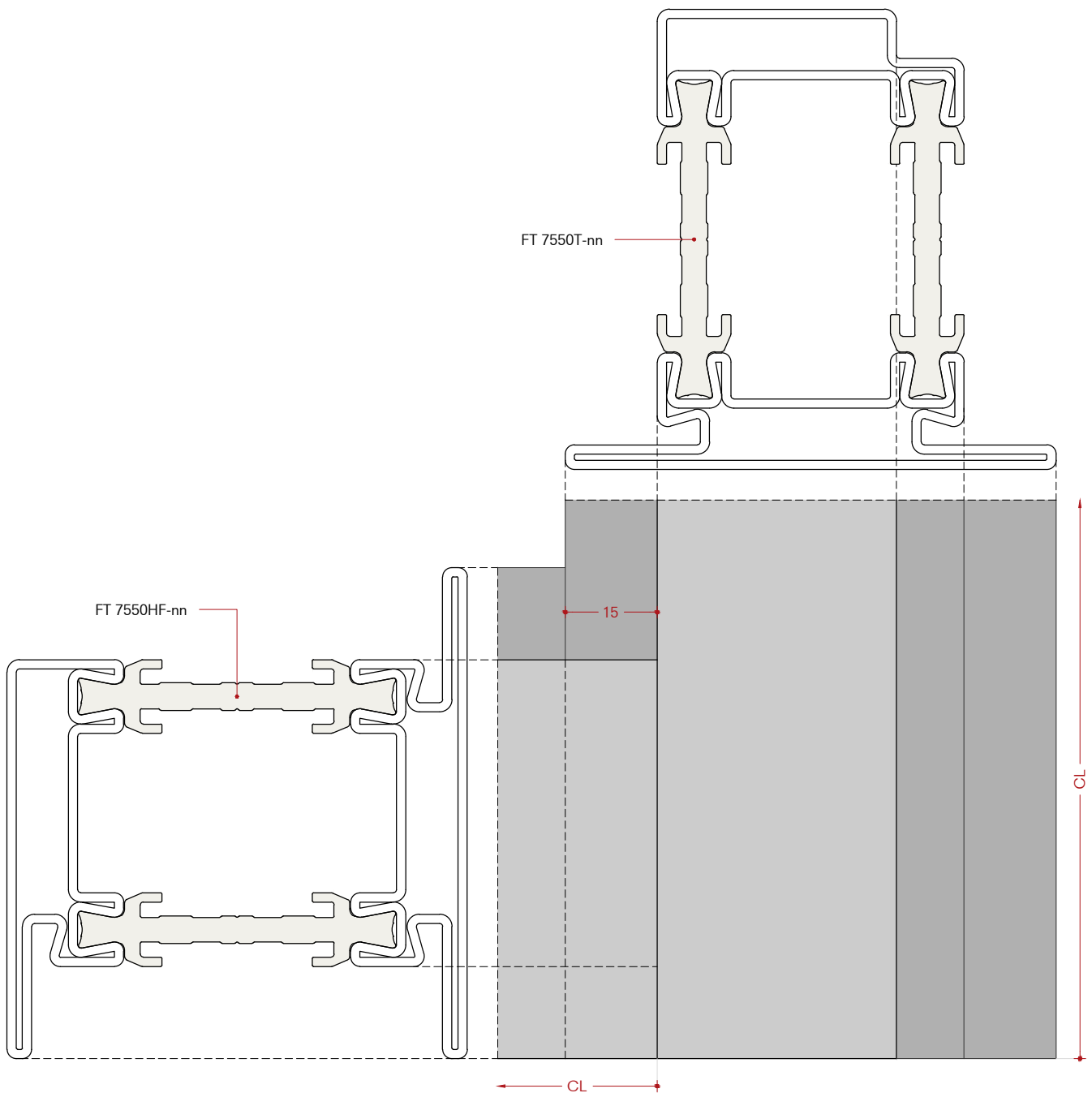
Single leaf door open out

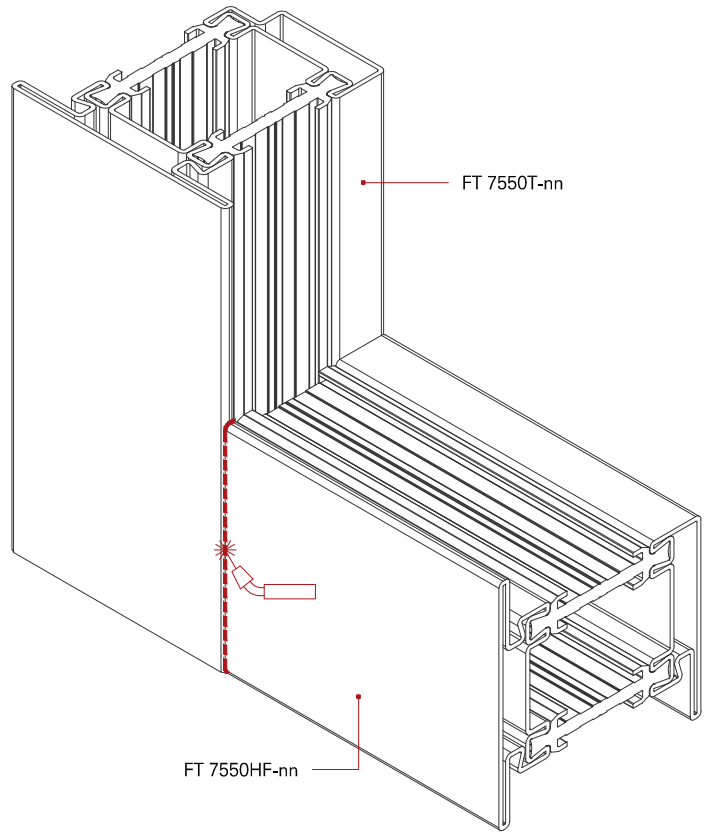
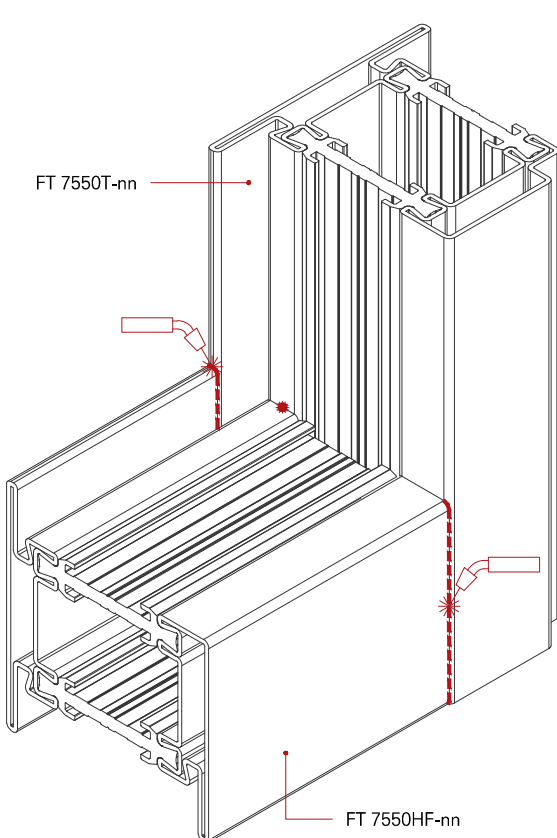
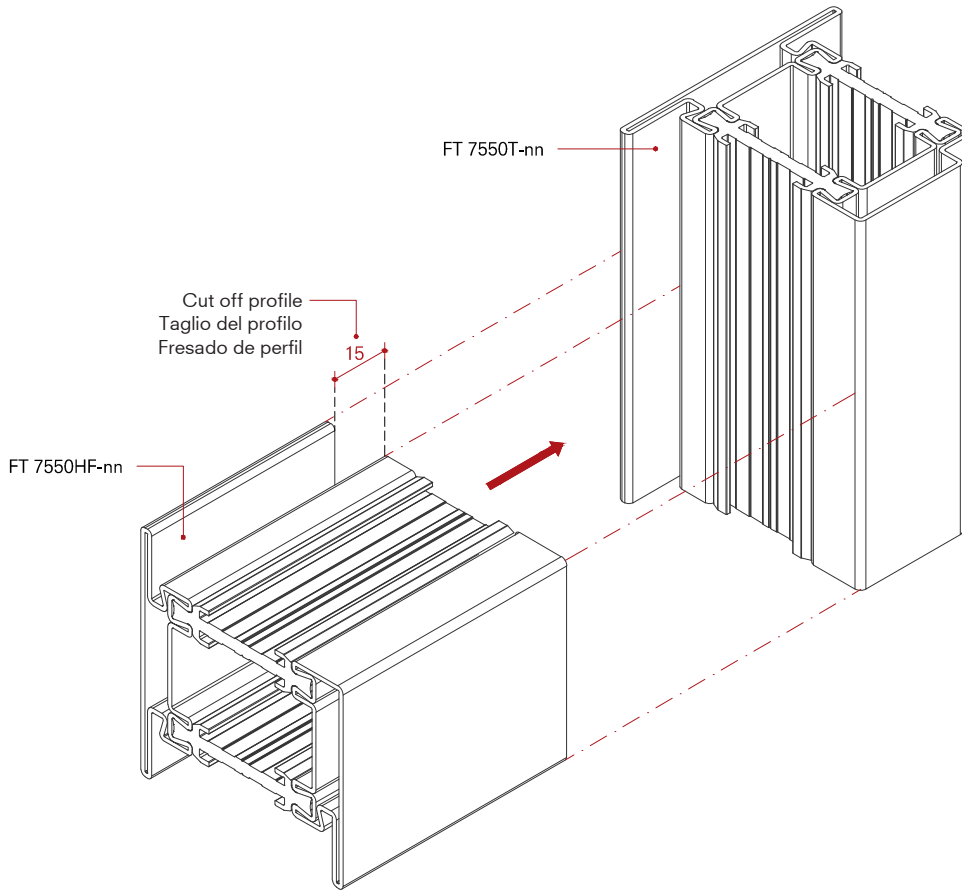
Porta a un battente apertura esterna

Puerta de una hoja apertura hacia fuera



Internal view  
Vista interna  
Vista interna





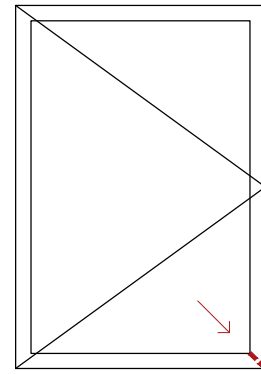
External view  
Vista esterna  
Vista externa

**FT 7550Z-nn / FT 7550Z-nn**

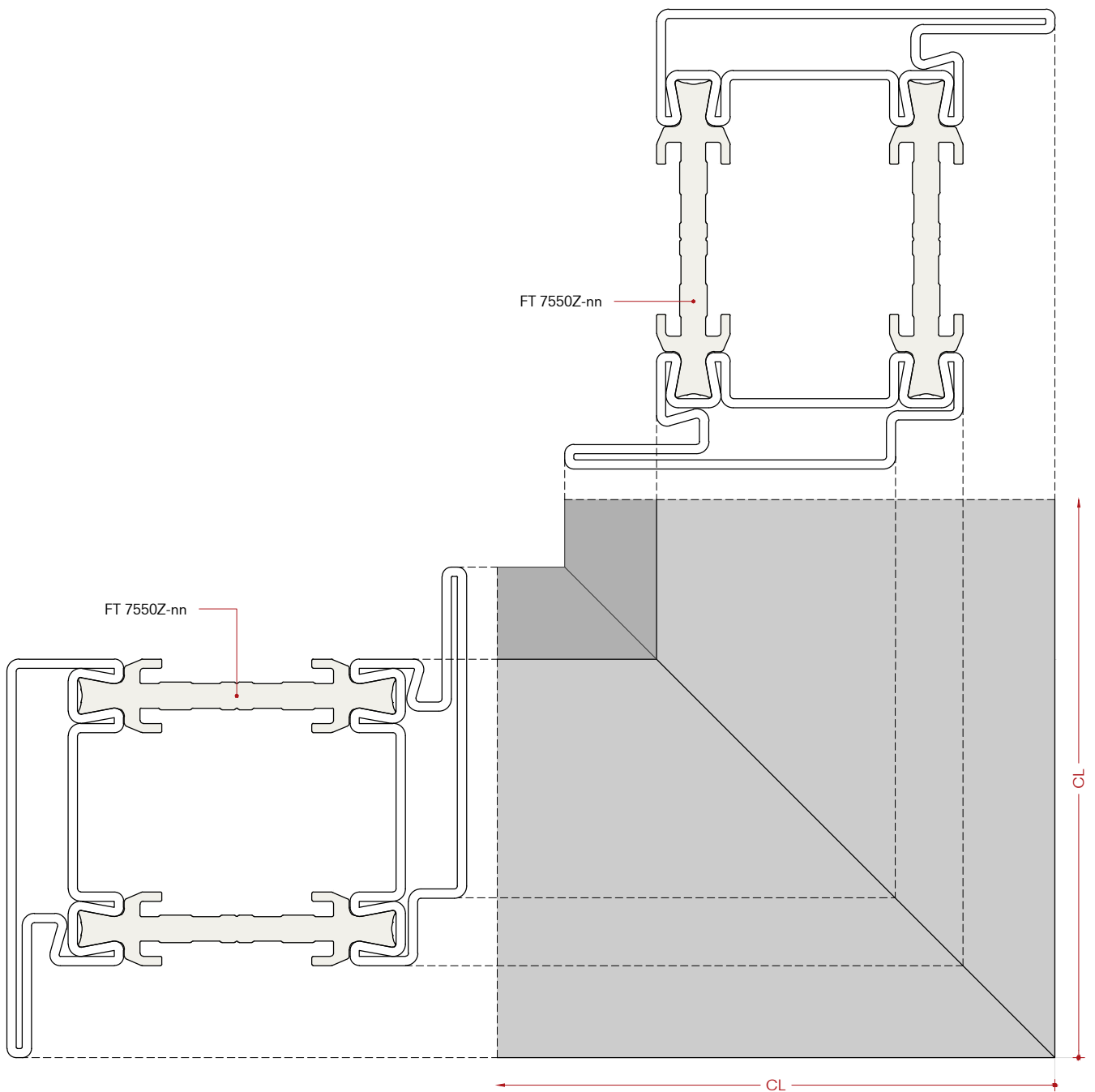
Single leaf door open in

Porta a un battente apertura interna

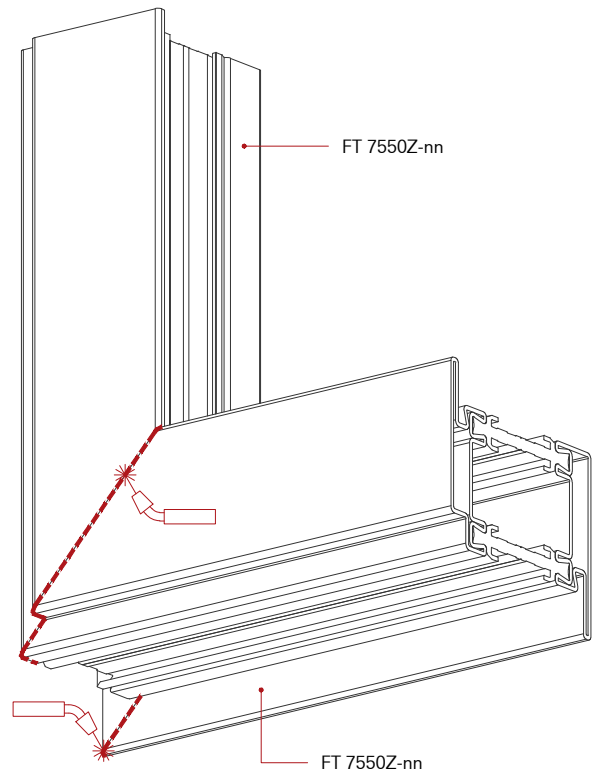
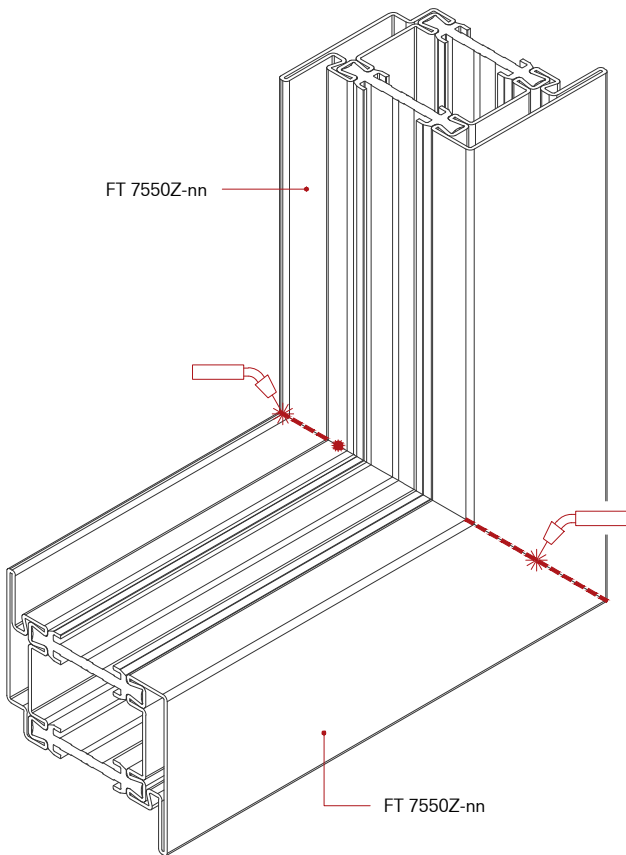
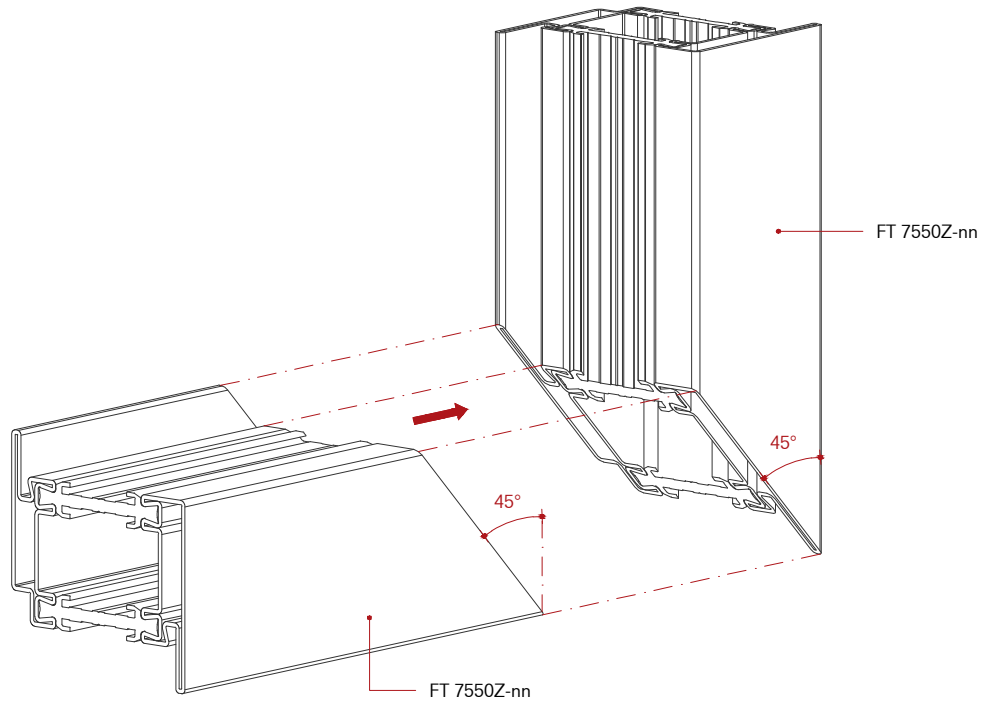
Puerta de una hoja apertura hacia dentro



Internal view  
Vista interna  
Vista interna







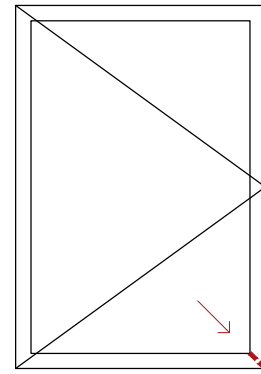
External view  
Vista esterna  
Vista externa

**FT 7550Z-nn / FT 7550ZF-nn**

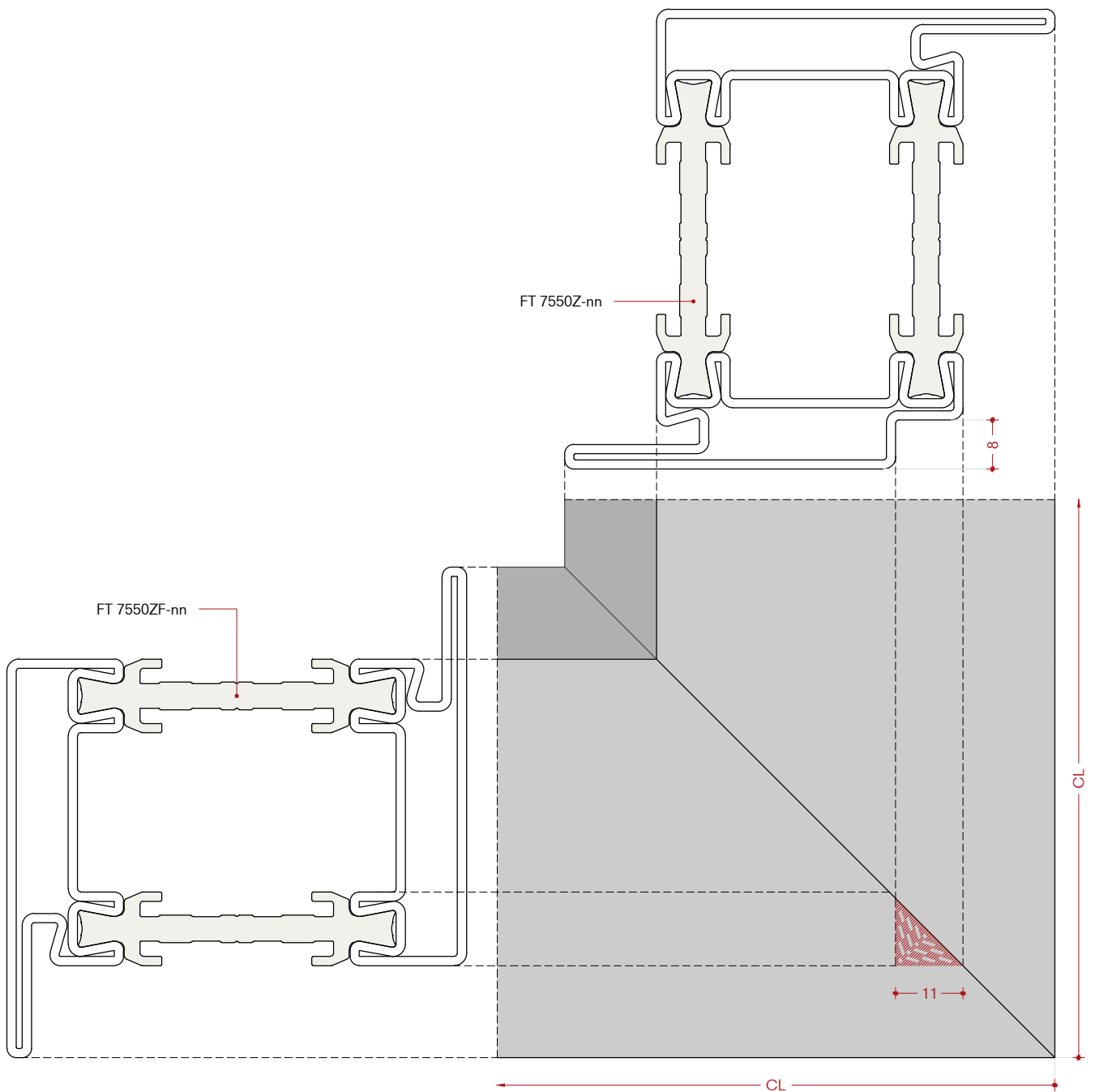
Single leaf door open in

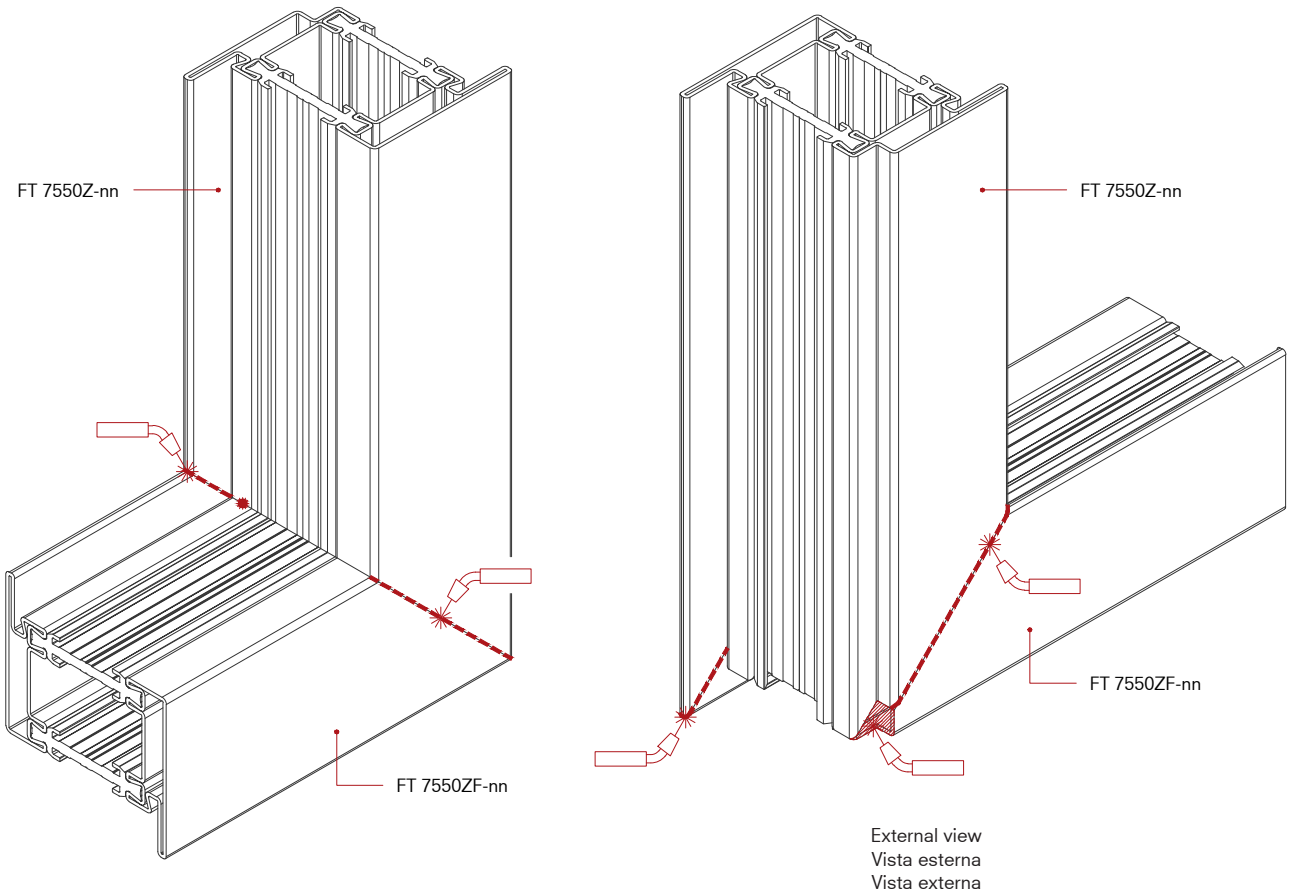
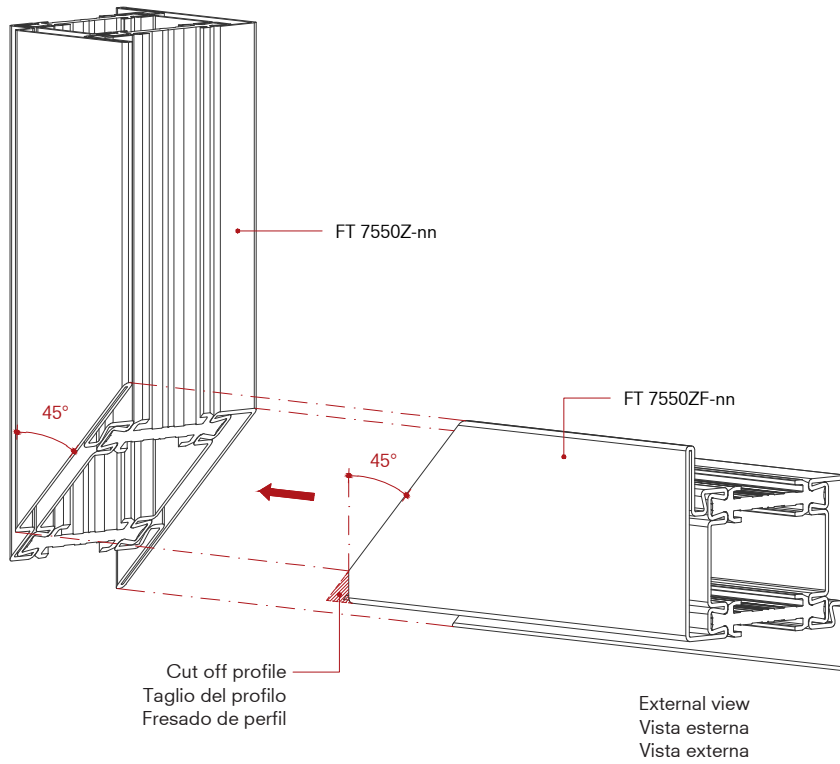
Porta a un battente apertura interna

Puerta de una hoja apertura hacia dentro



Internal view  
Vista interna  
Vista interna



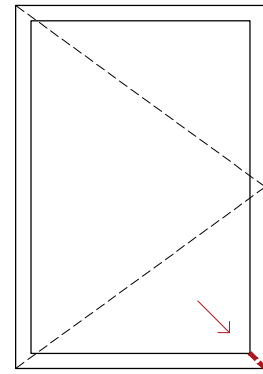


**FT 7550T-nn / FT 7550T-nn**

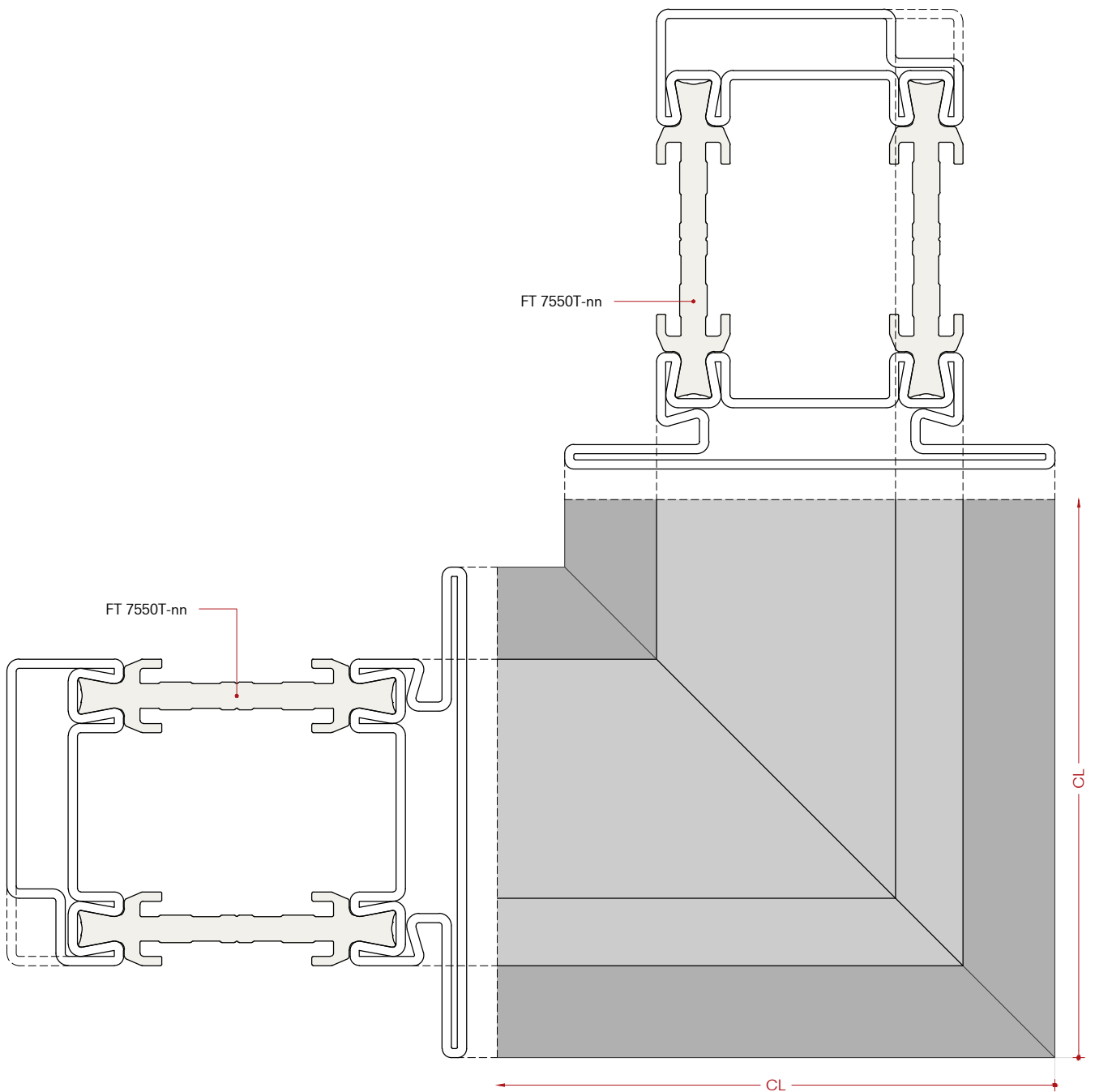
Single leaf door open out

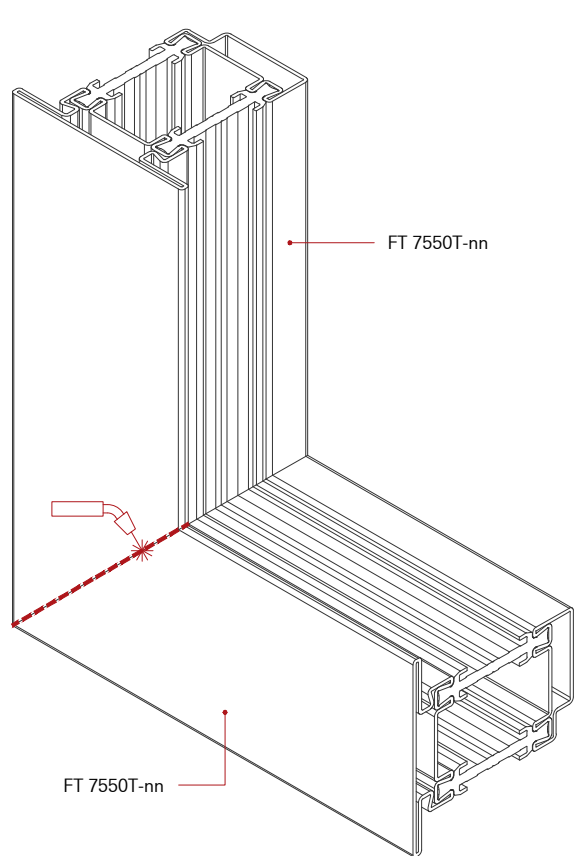
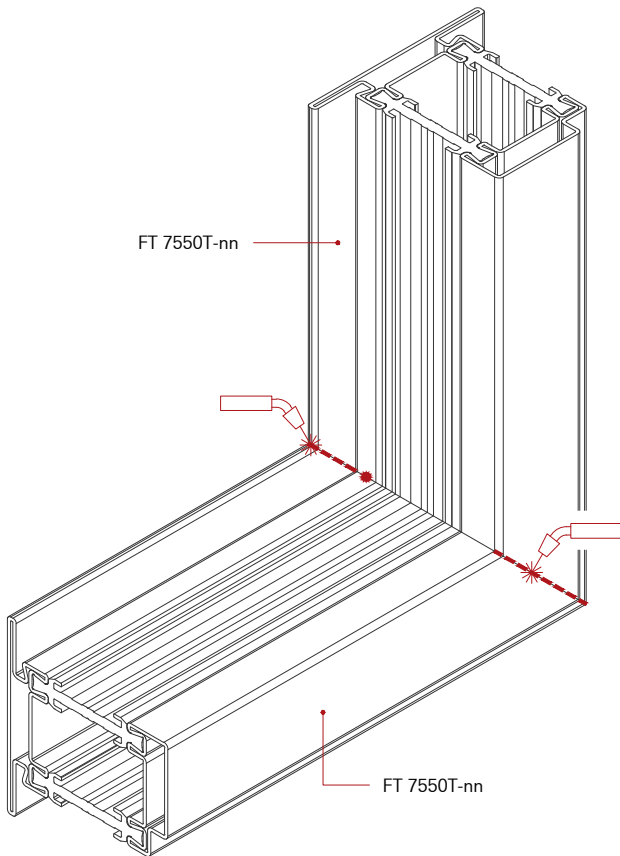
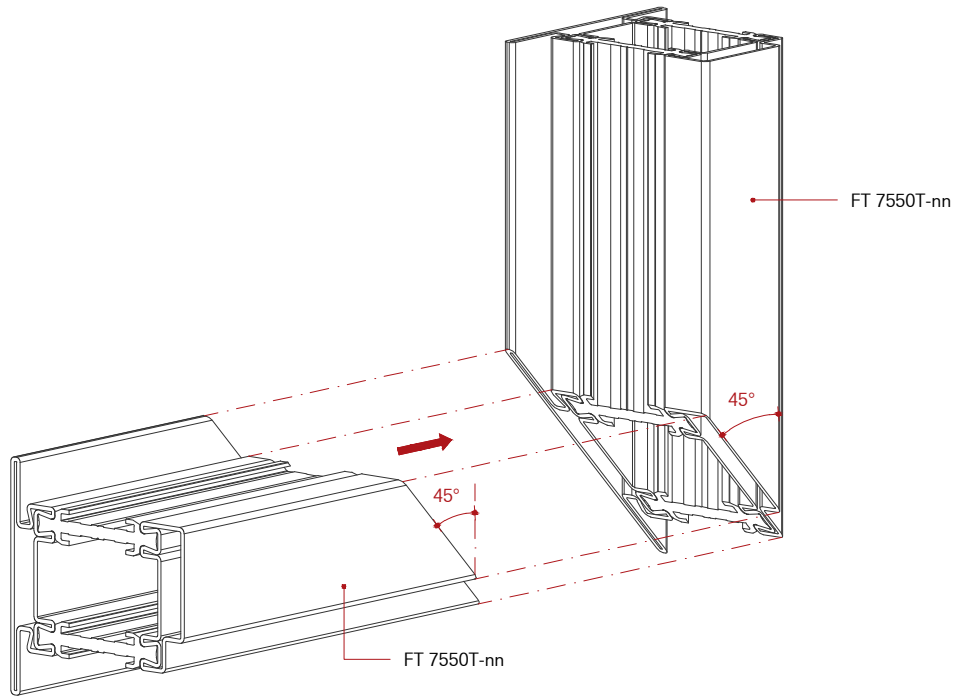
Porta a un battente apertura esterna

Puerta de una hoja apertura hacia fuera



Internal view  
Vista interna  
Vista interna





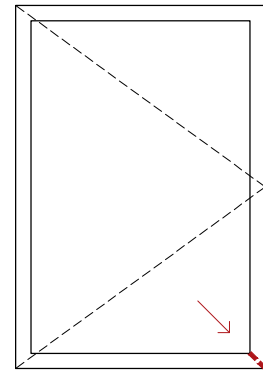
External view  
Vista esterna  
Vista externa

**FT 7550T-nn / FT 7550TF-nn**

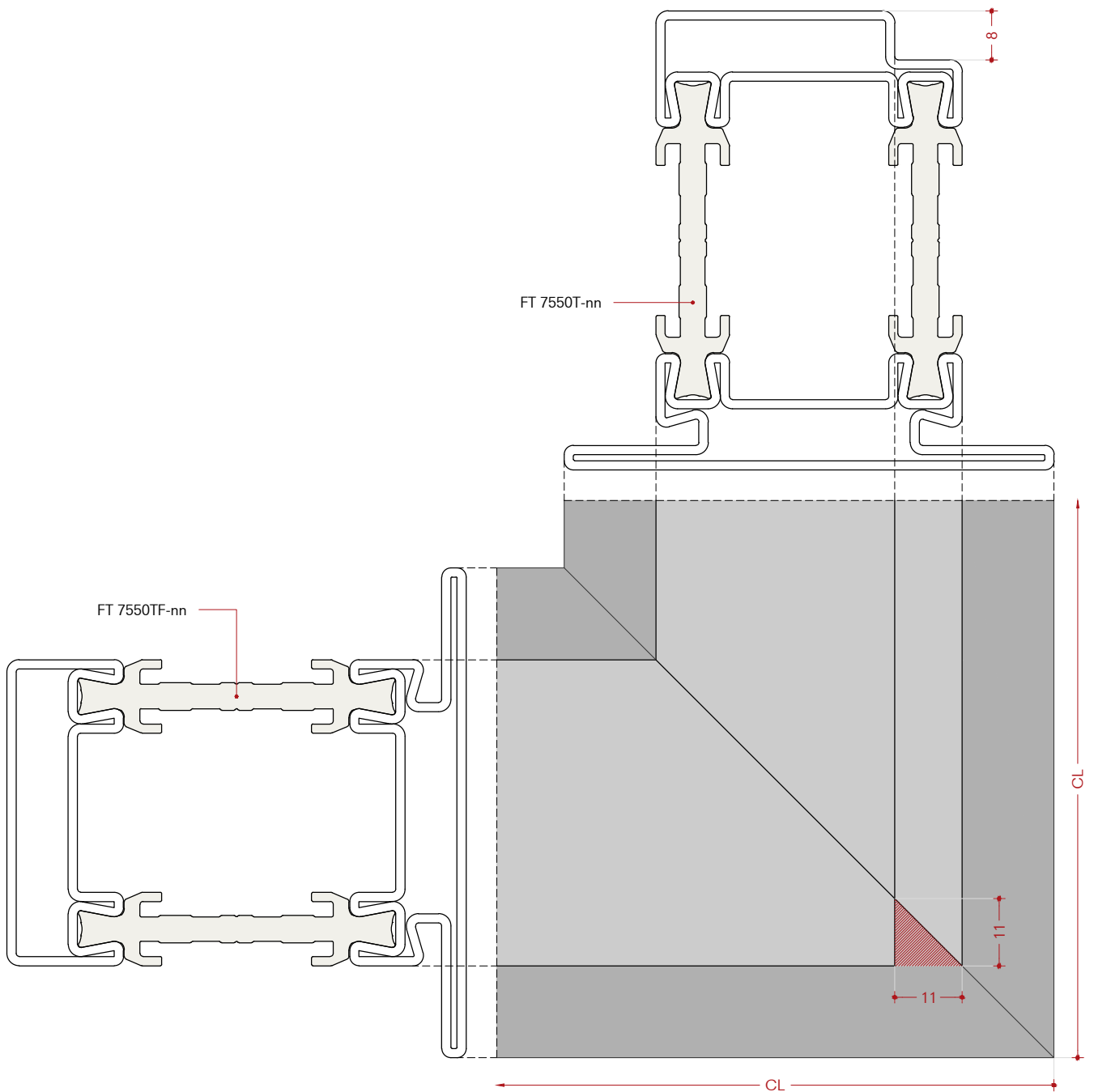
Single leaf door open out

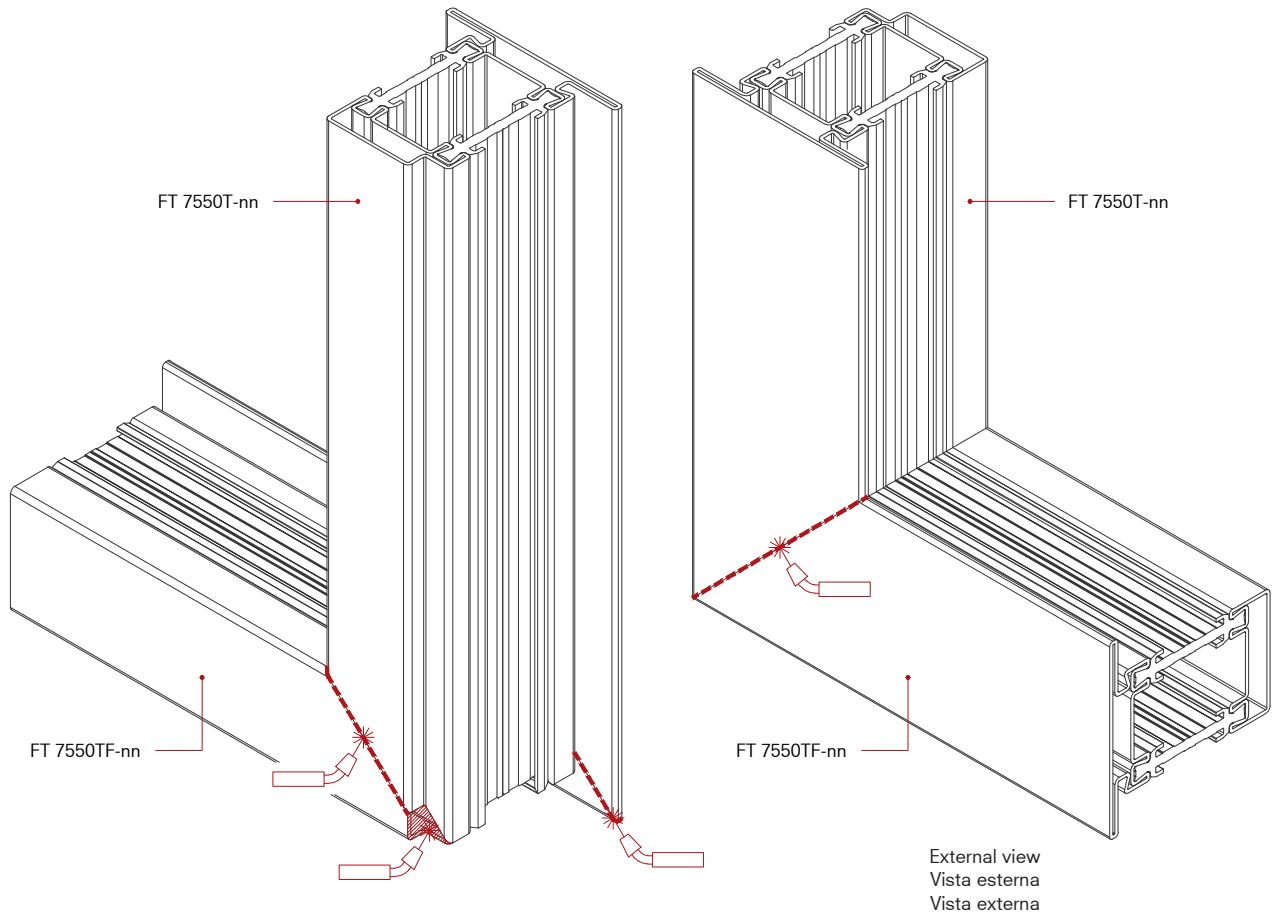
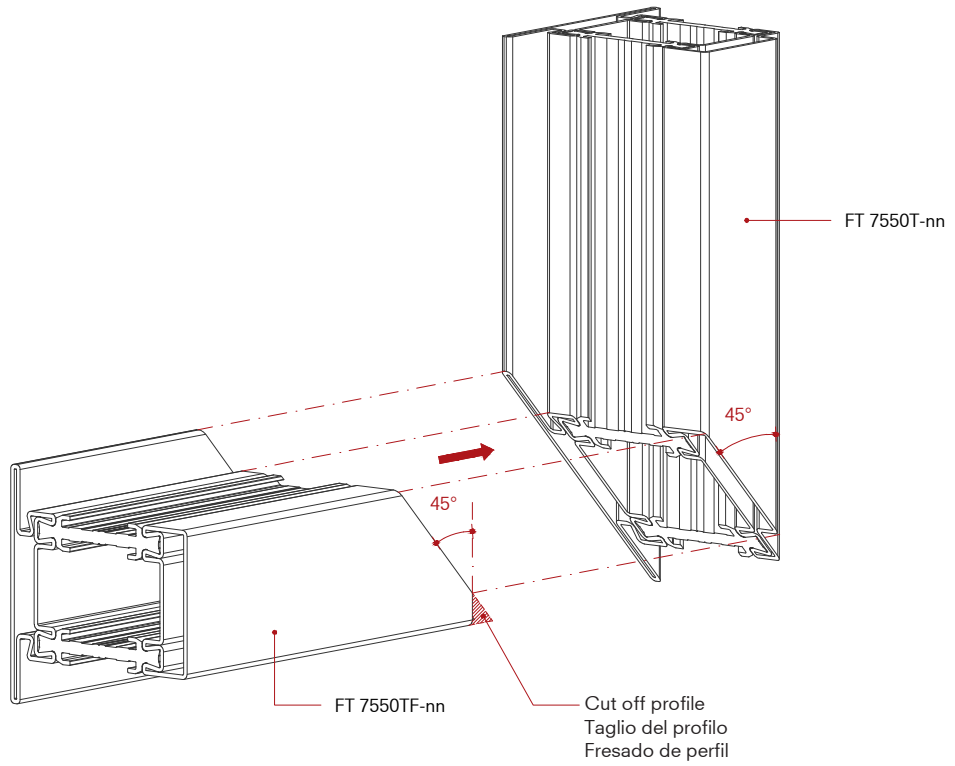
Porta a un battente apertura esterna

Puerta de una hoja apertura hacia fuera



Internal view  
Vista interna  
Vista interna



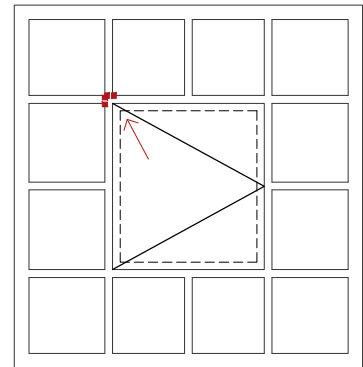


**FT 7512TK-nn / FT 7512T-nn**

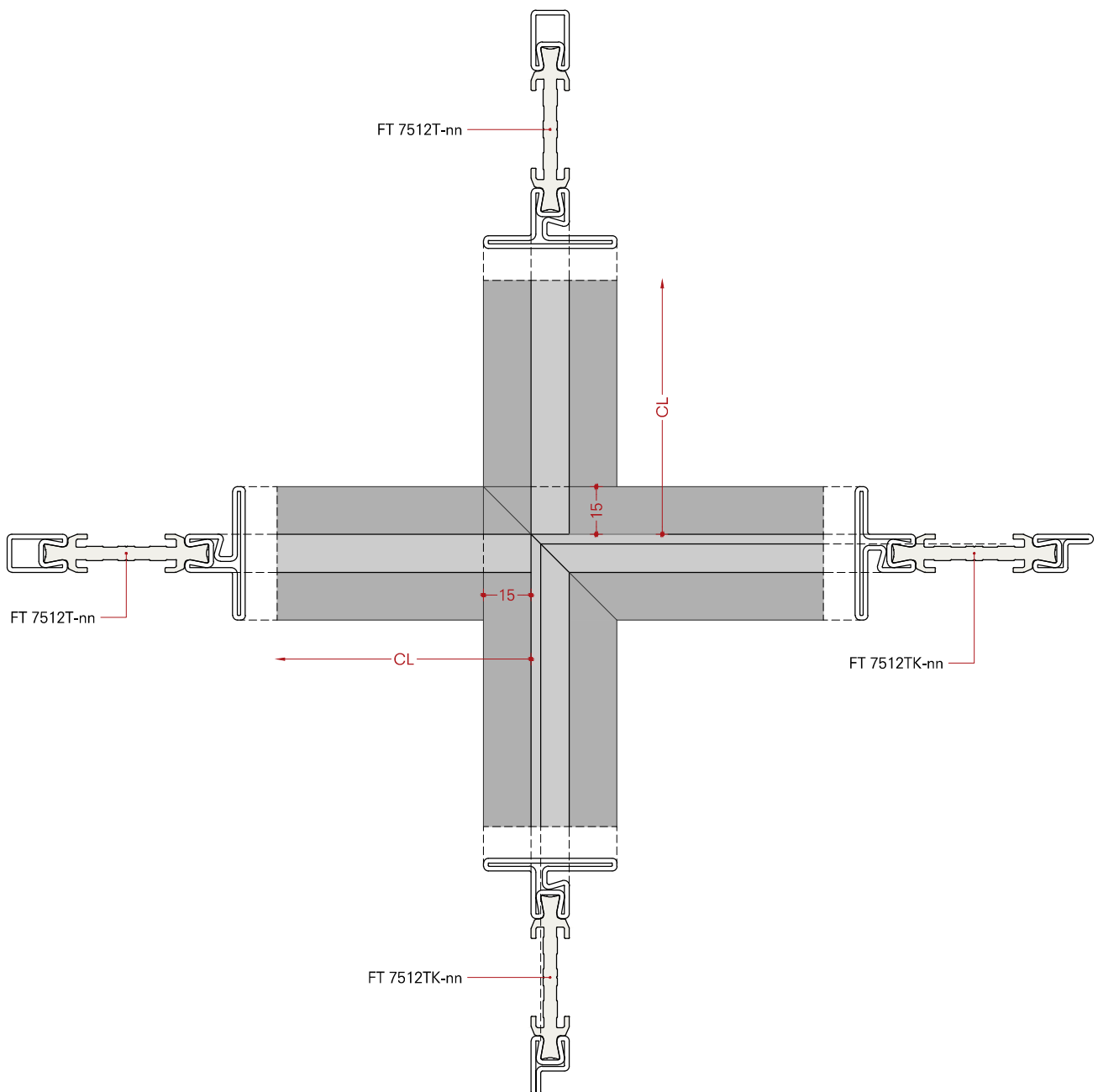
Window open in fixed partitions

Finestra su partizioni fisse apertura interna

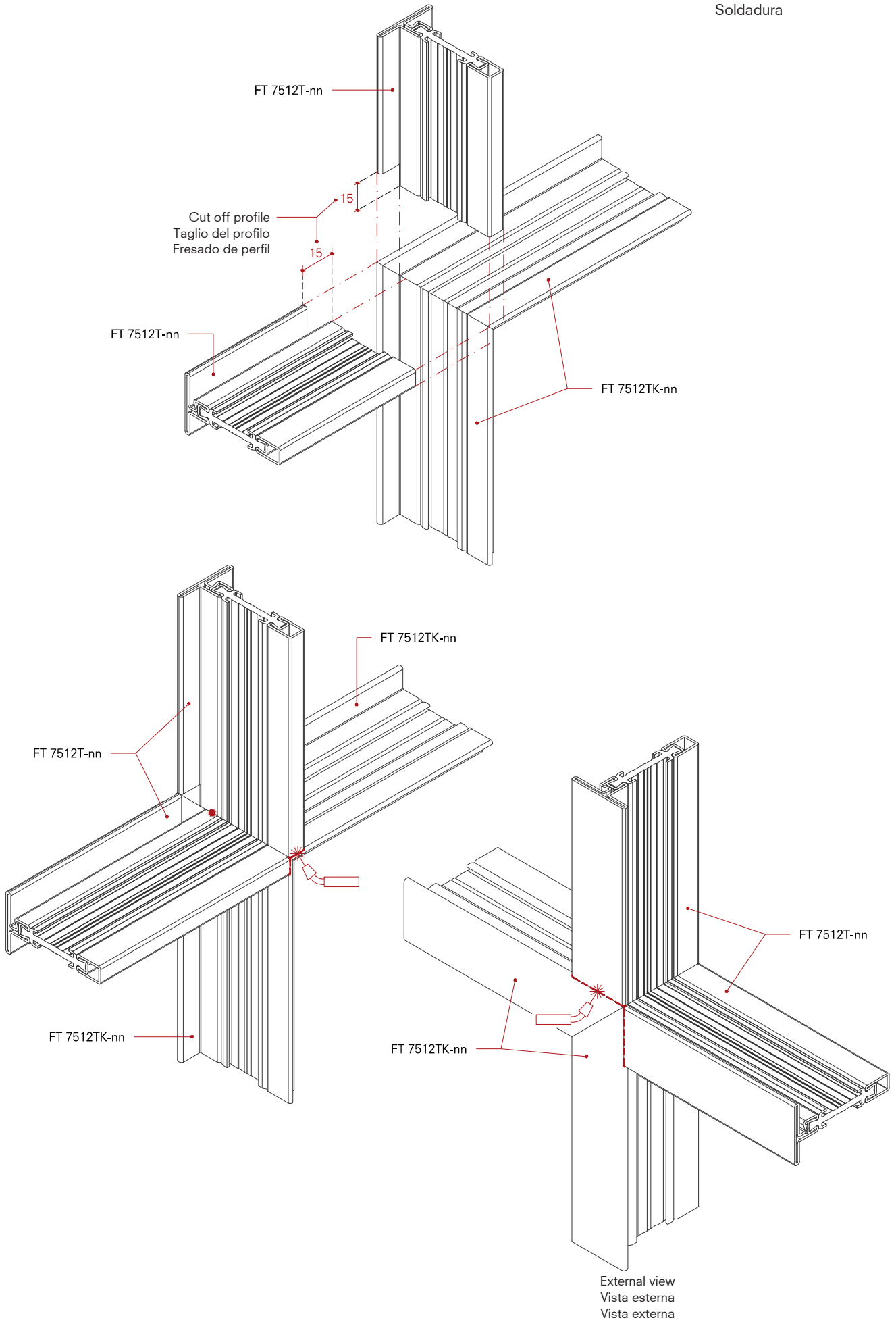
Ventana su particiones apertura hacia dentro



Internal view  
Vista interna  
Vista interna





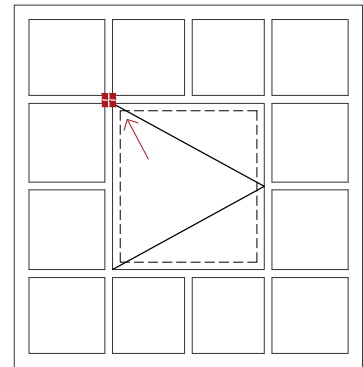


**FT 7512T-nn / FT 7512T-nn**

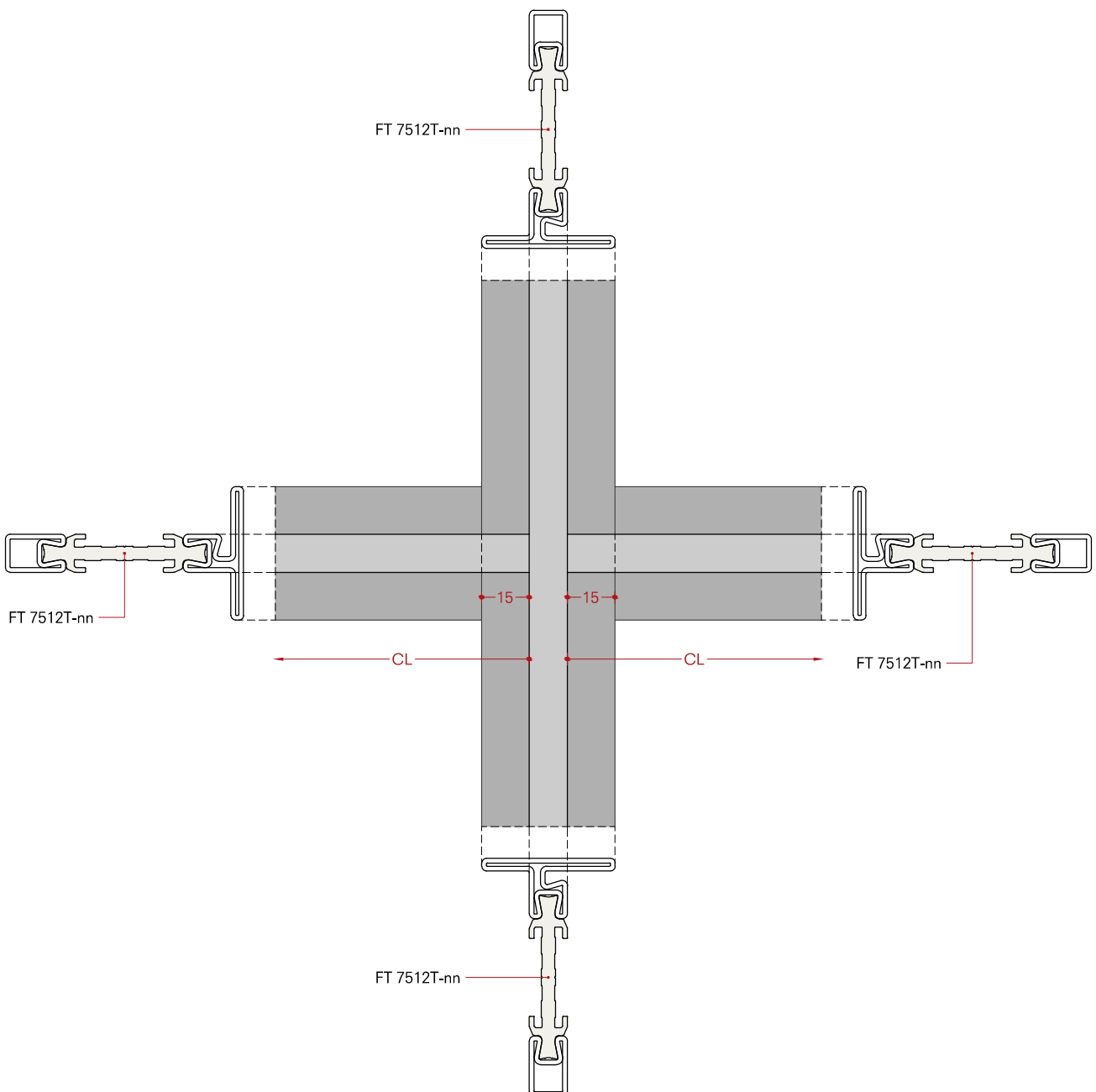
Window open in fixed partitions

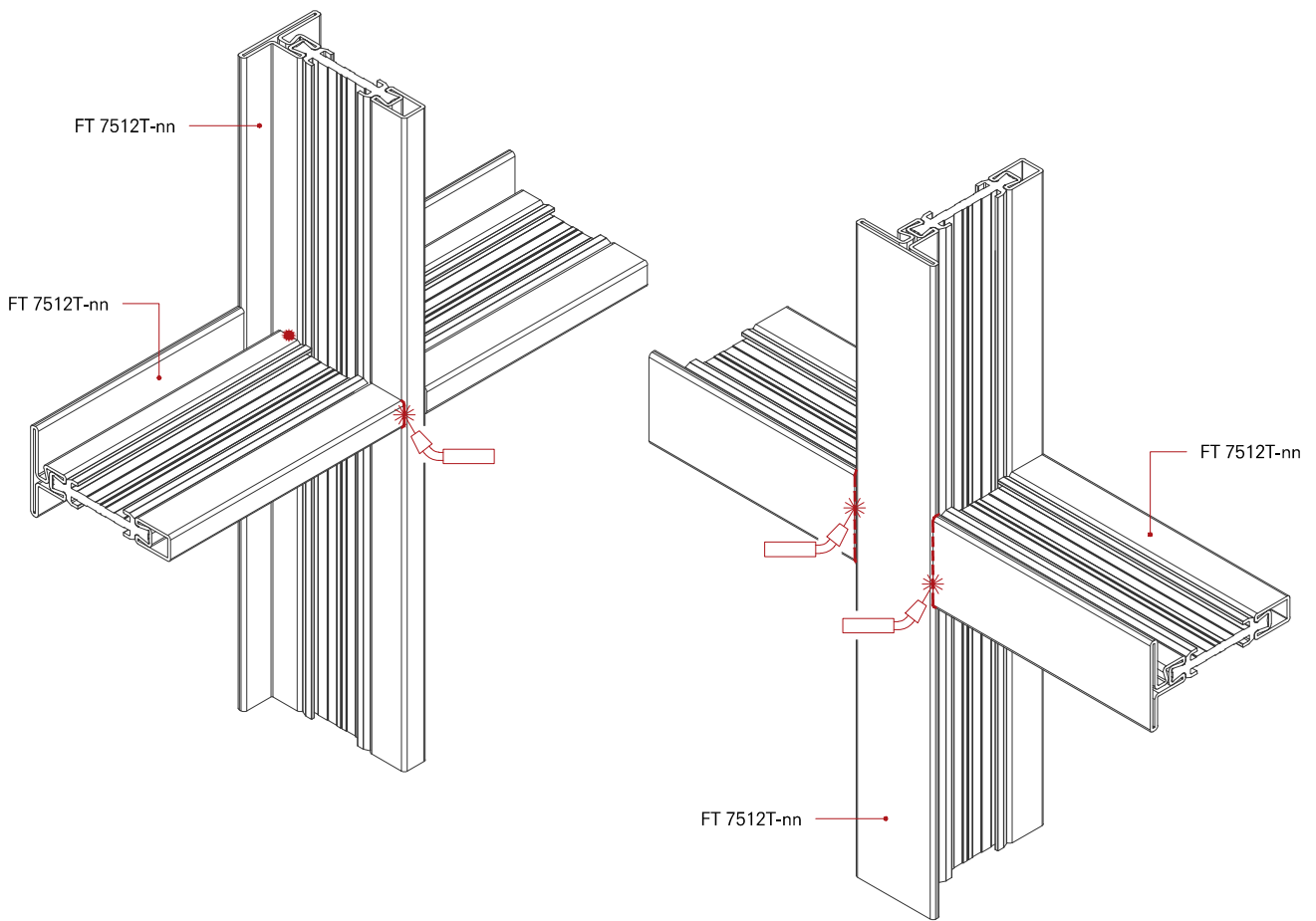
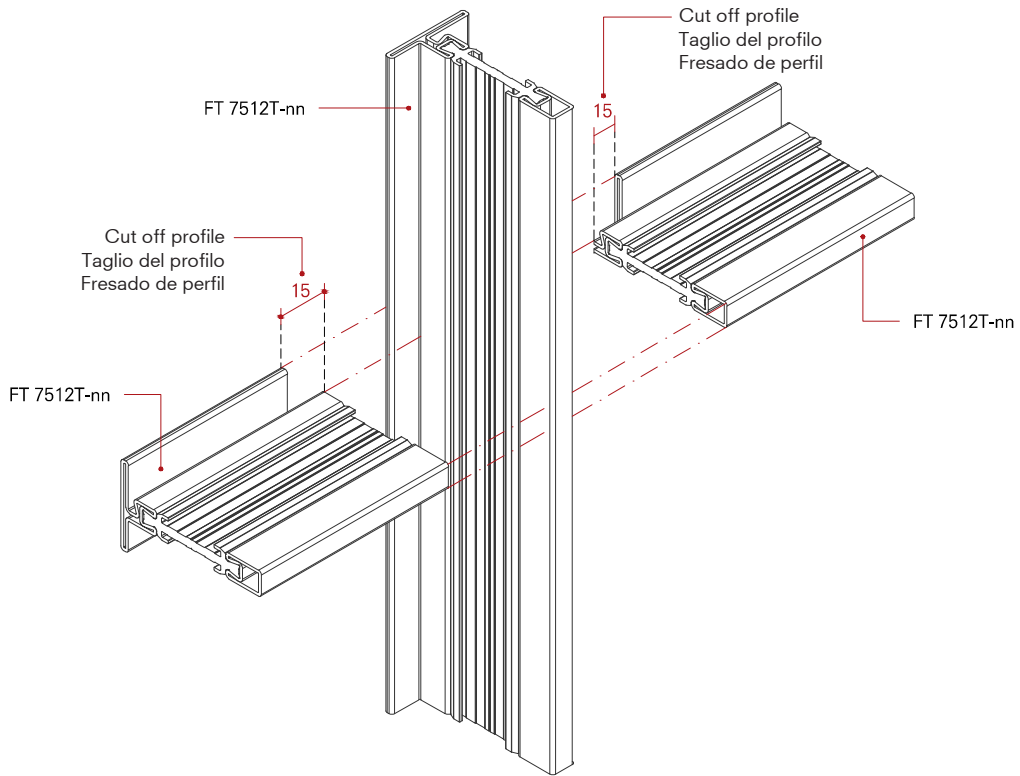
Finestra su partizioni fisse apertura interna

Ventana su particiones apertura hacia dentro



Internal view  
Vista interna  
Vista interna



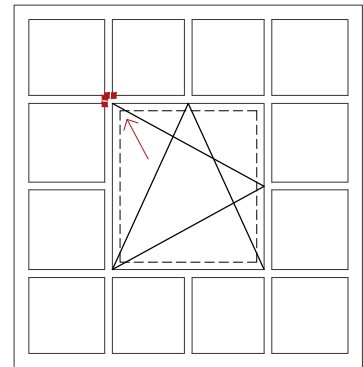


**FT 7512TR-nn / FT 7512T-nn**

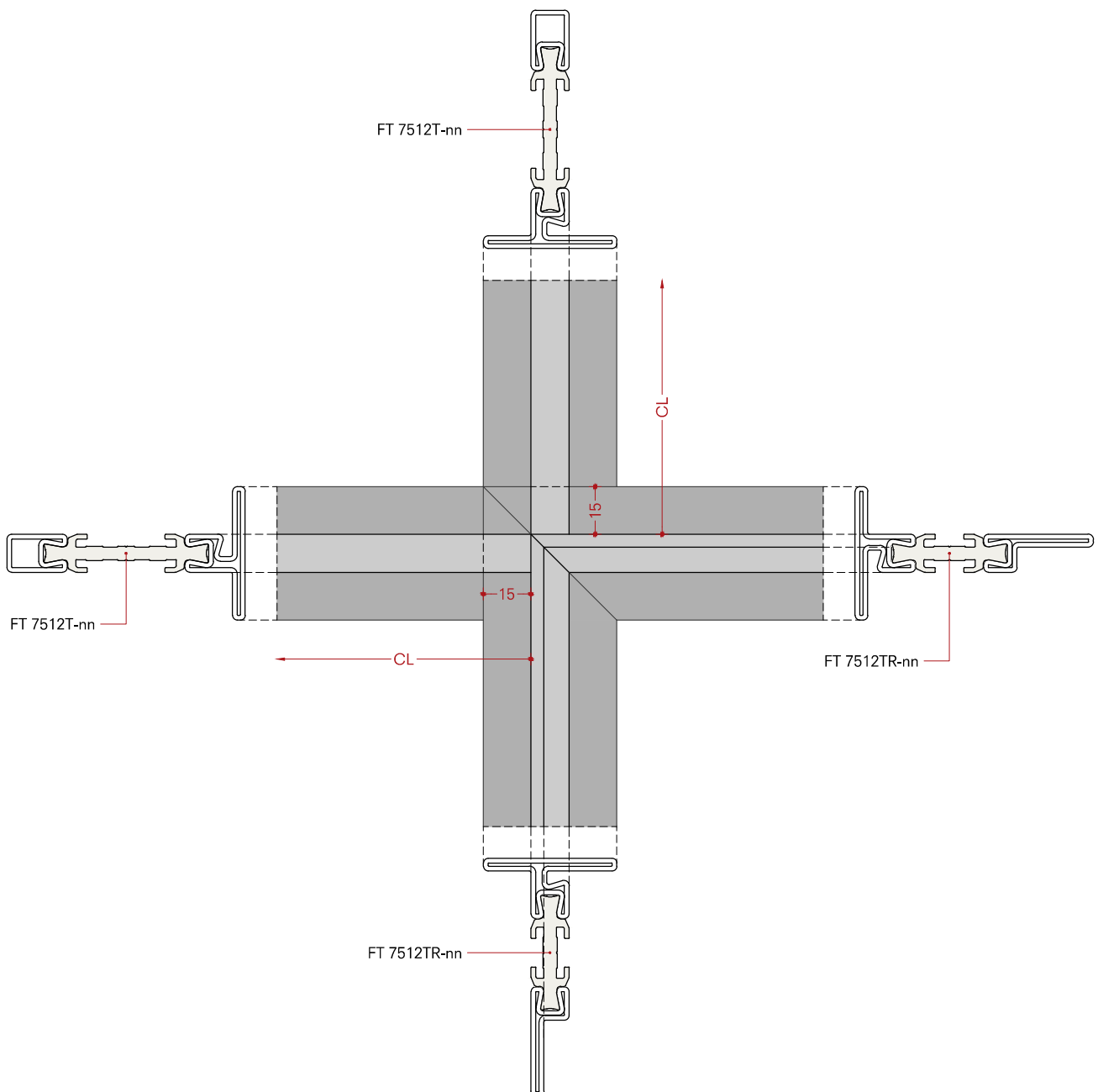
Window open in fixed partitions

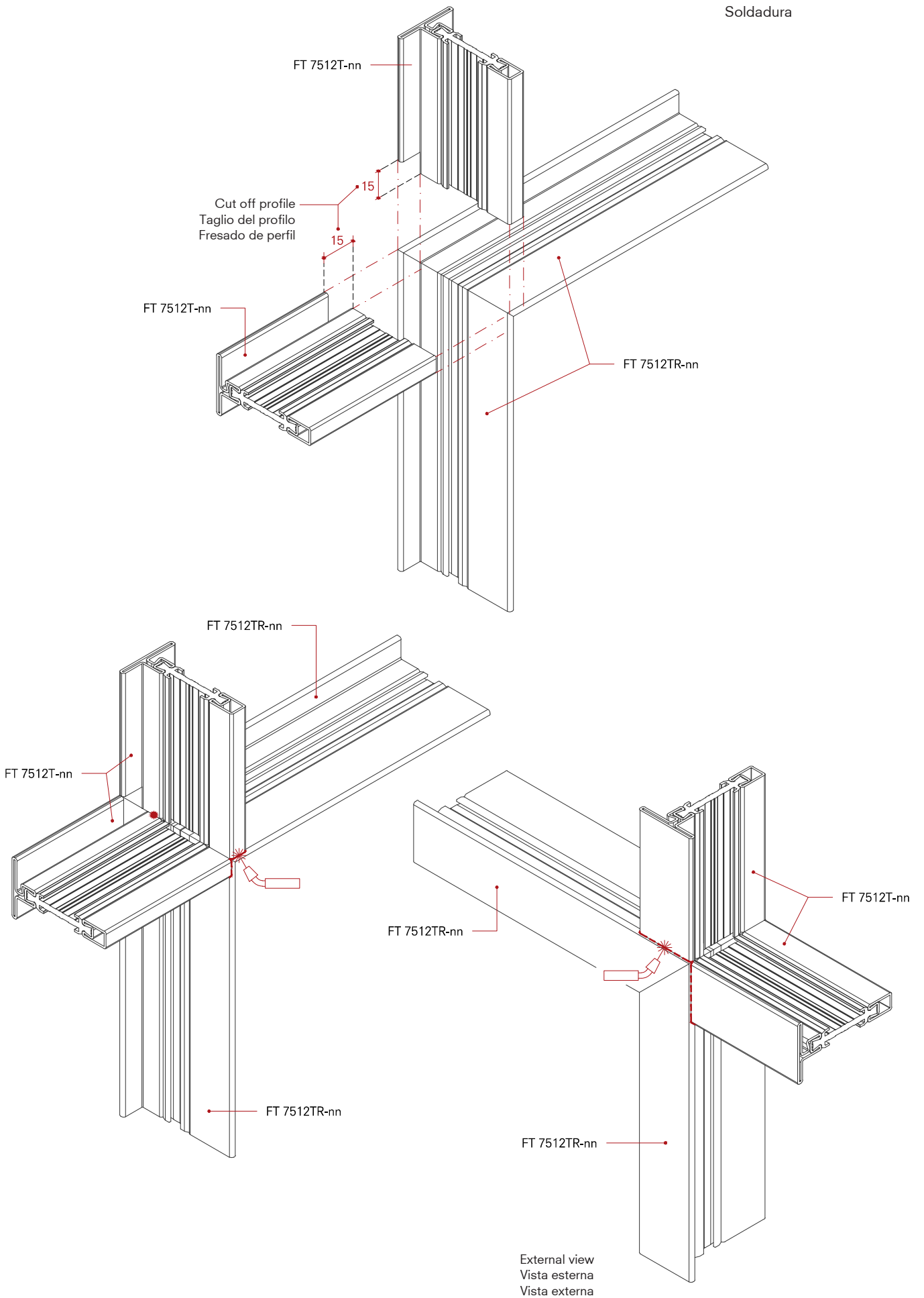
Finestra su partizioni fisse apertura interna

Ventana su particiones apertura hacia dentro



Internal view  
Vista interna  
Vista interna



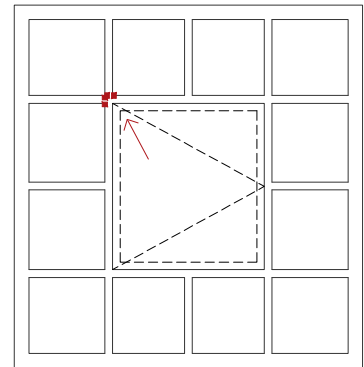


**FT 7512ZK-nn / FT 7512T-nn**

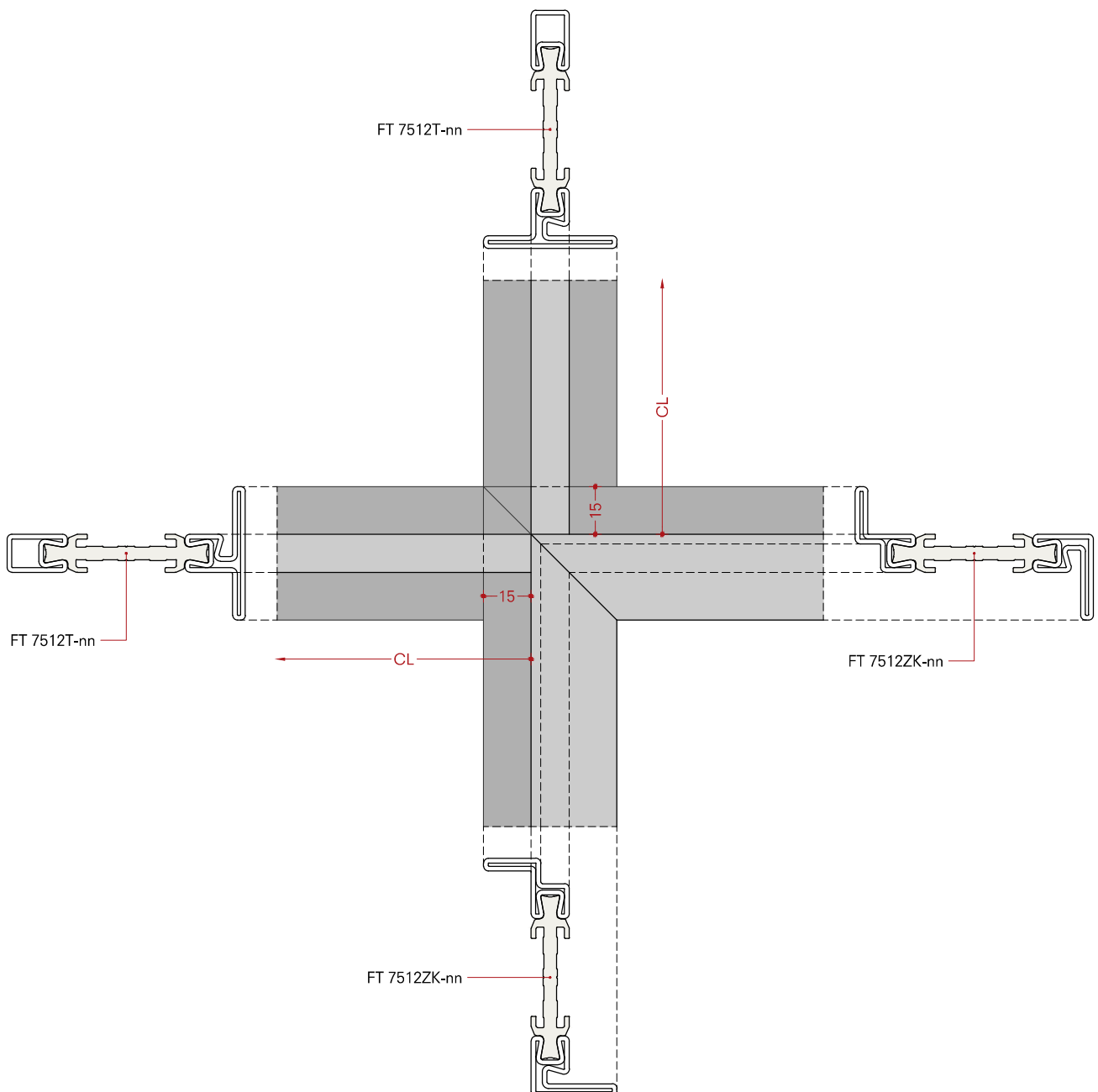
Window open out fixed partitions

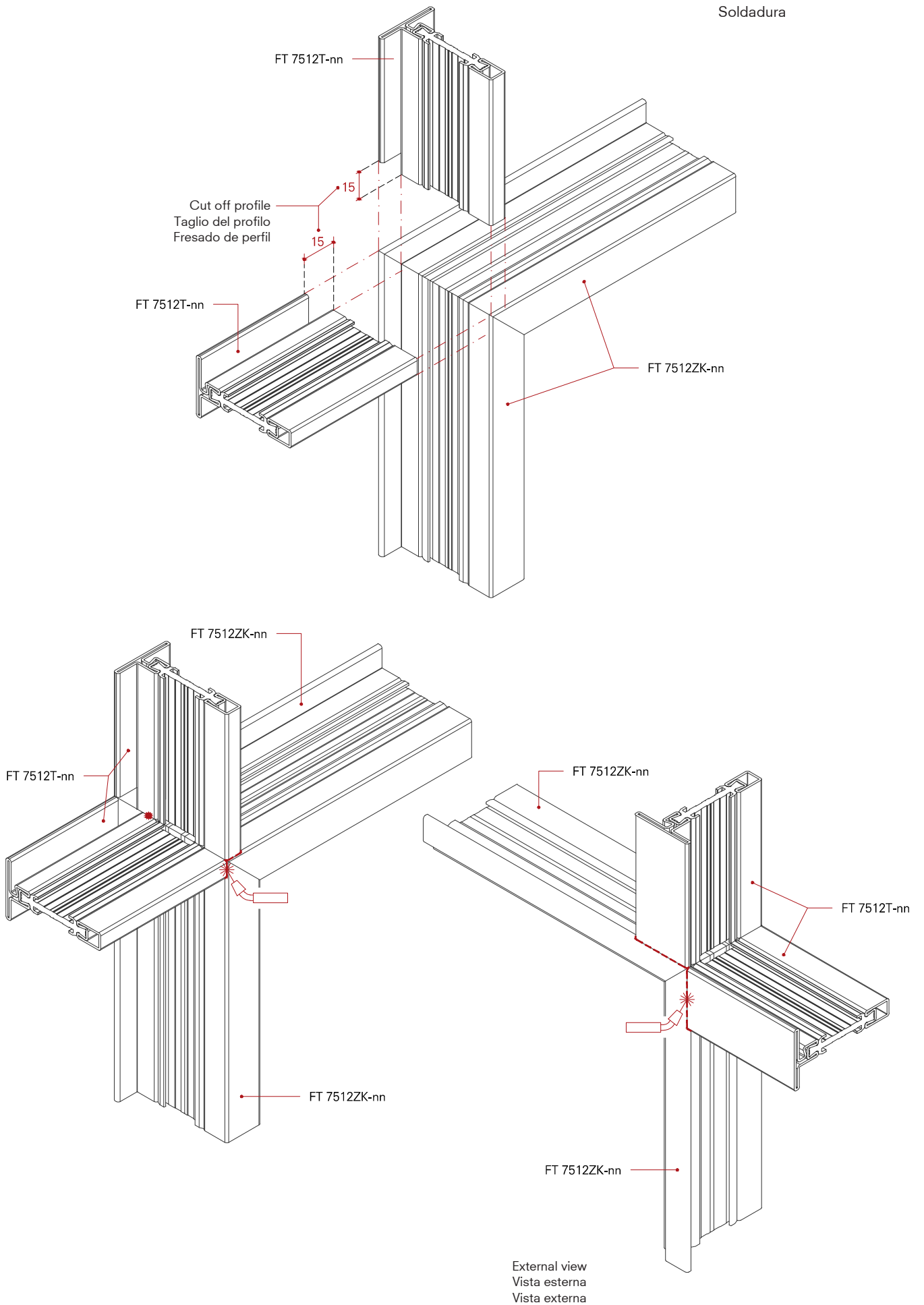
Finestra su partizioni fisse apertura esterna

Ventana su particiones apertura hacia fuera



Internal view  
Vista interna  
Vista interna



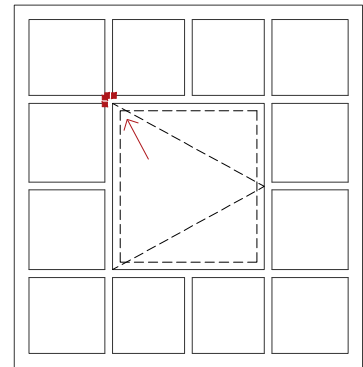


**FT 7512Z-nn / FT 7512T-nn**

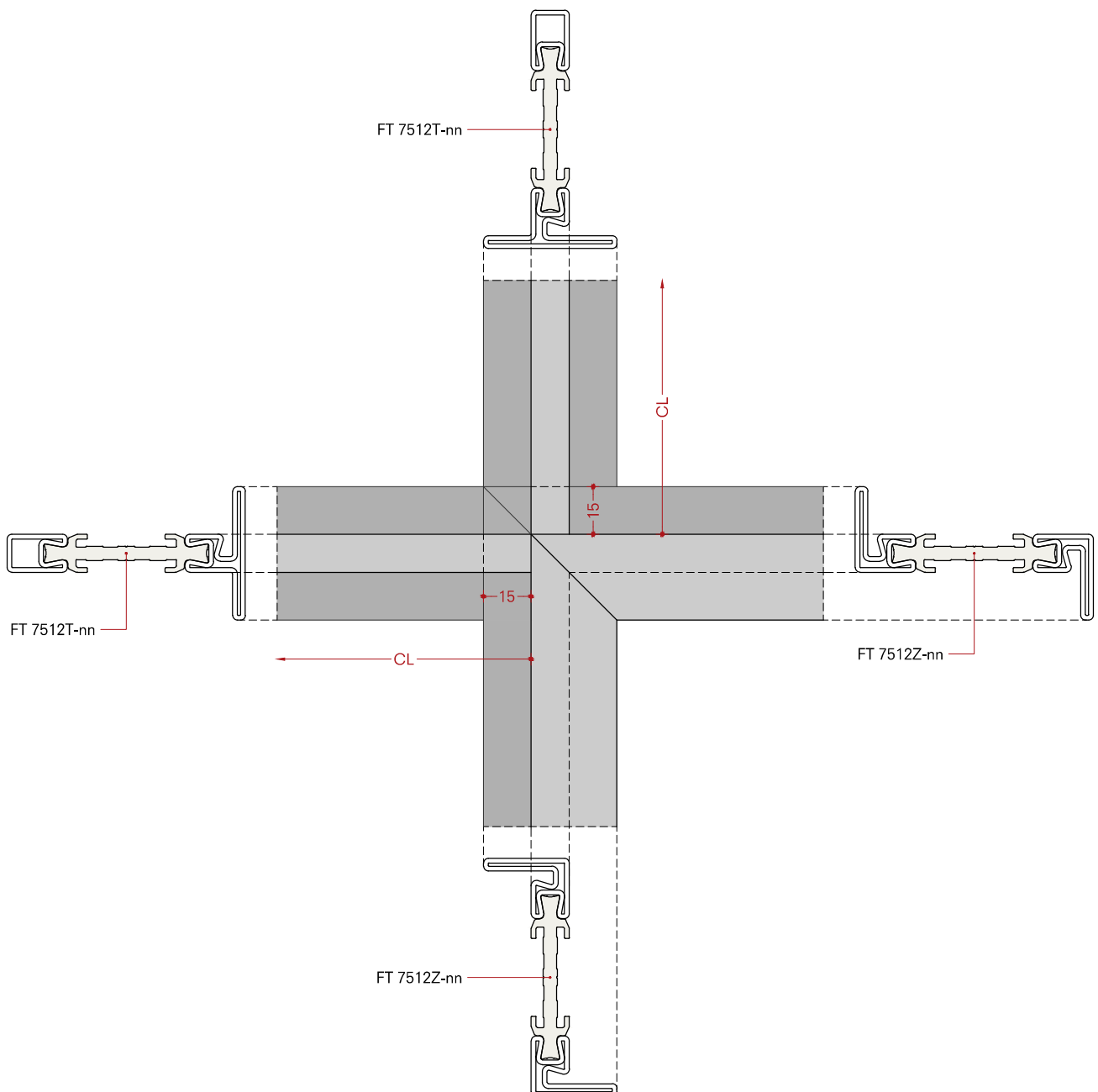
Window open out fixed partitions

Finestra su partizioni fisse apertura esterna

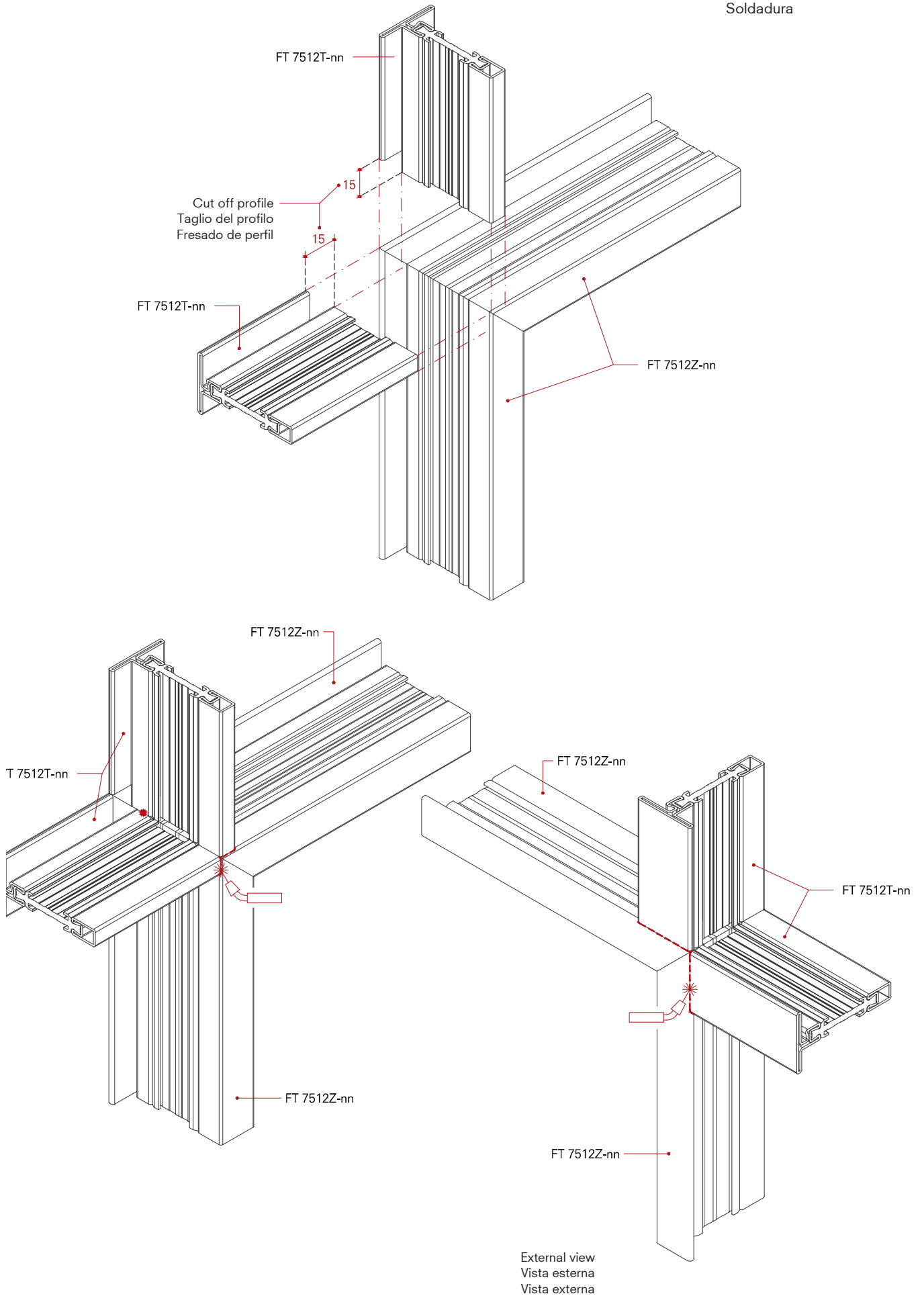
Ventana su particiones apertura hacia fuera



Internal view  
Vista interna  
Vista interna





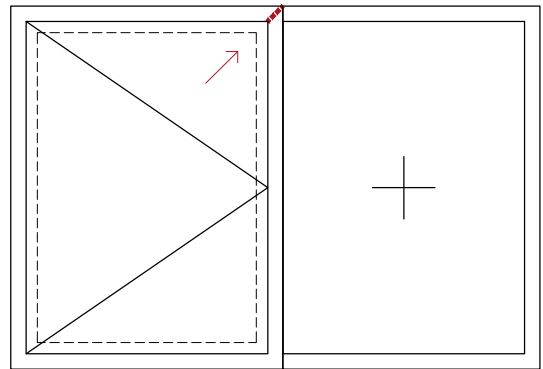


**FT 7512TK-nn / FT 7512LK-nn / FT 7512L-nn**

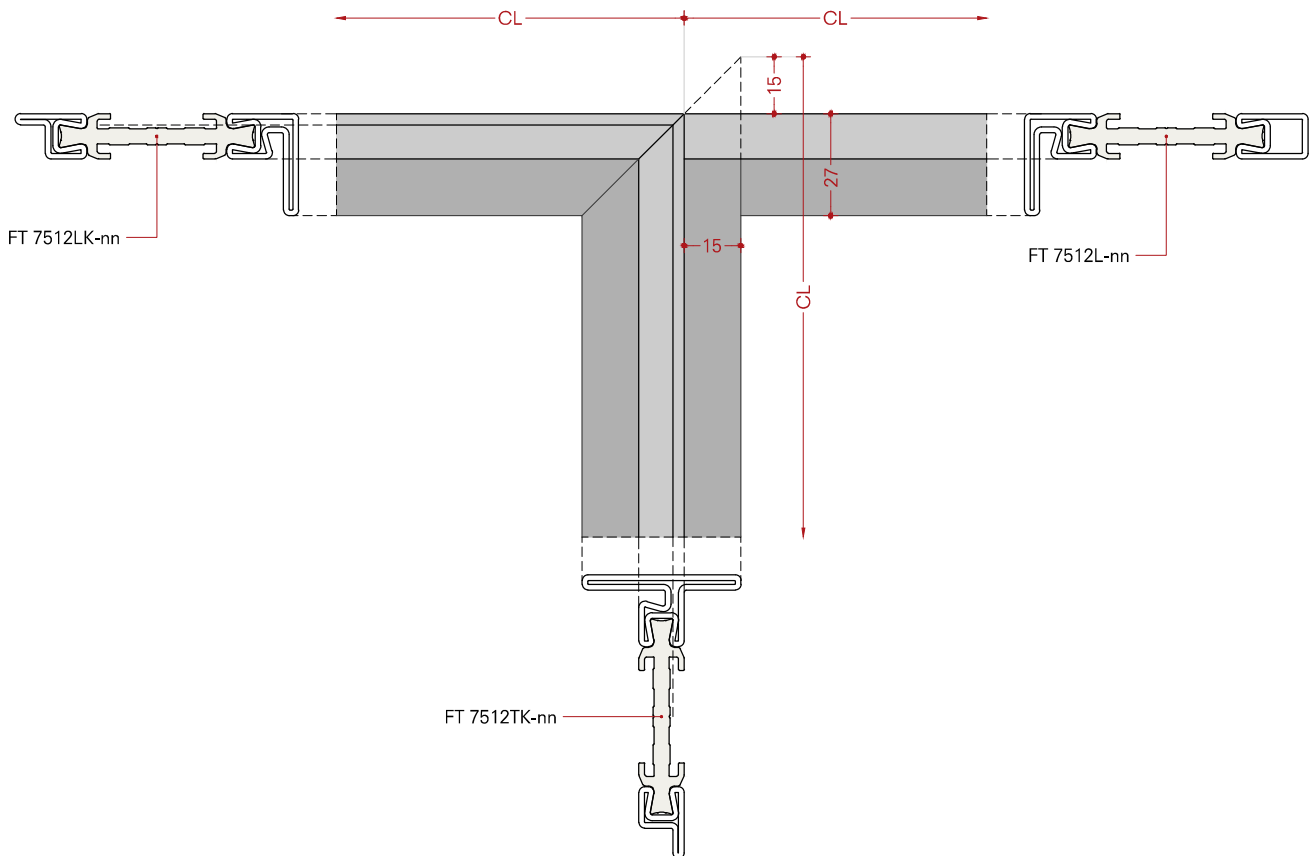
Window open in fixed partitions

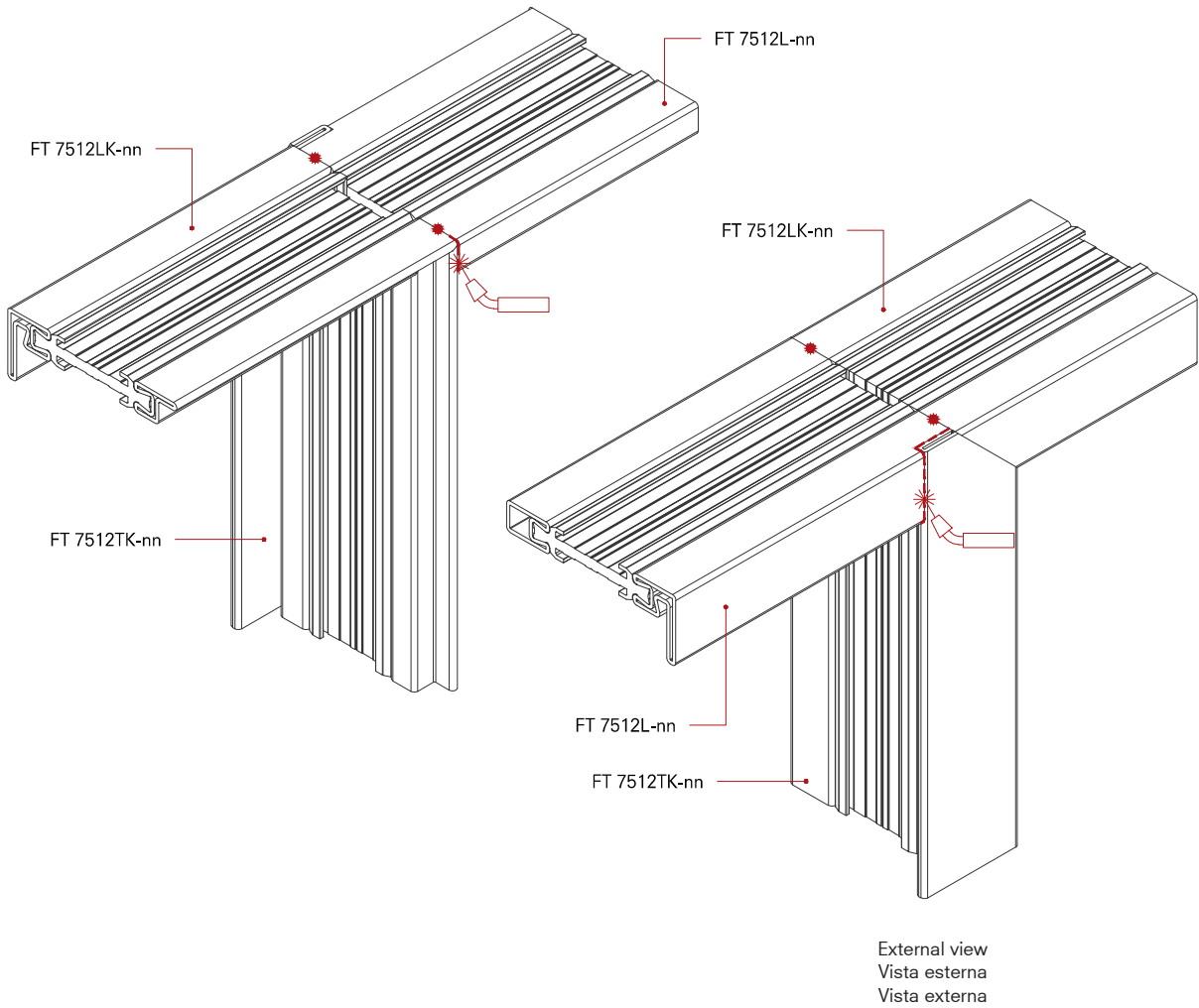
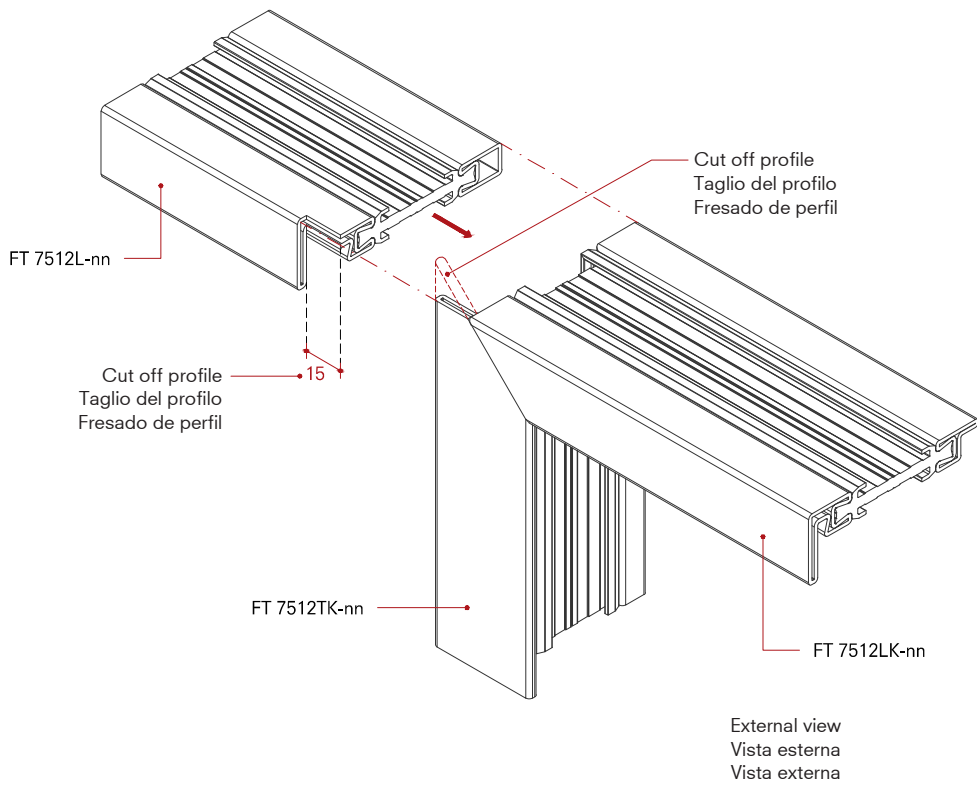
Finestra su partizioni fisse apertura interna

Ventana su particiones fijas apertura hacia dentro



Internal view  
Vista interna  
Vista interna



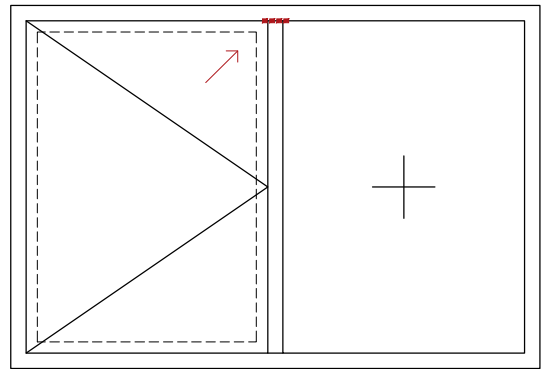


**FT 7512T-nn / FT 7512L-nn**

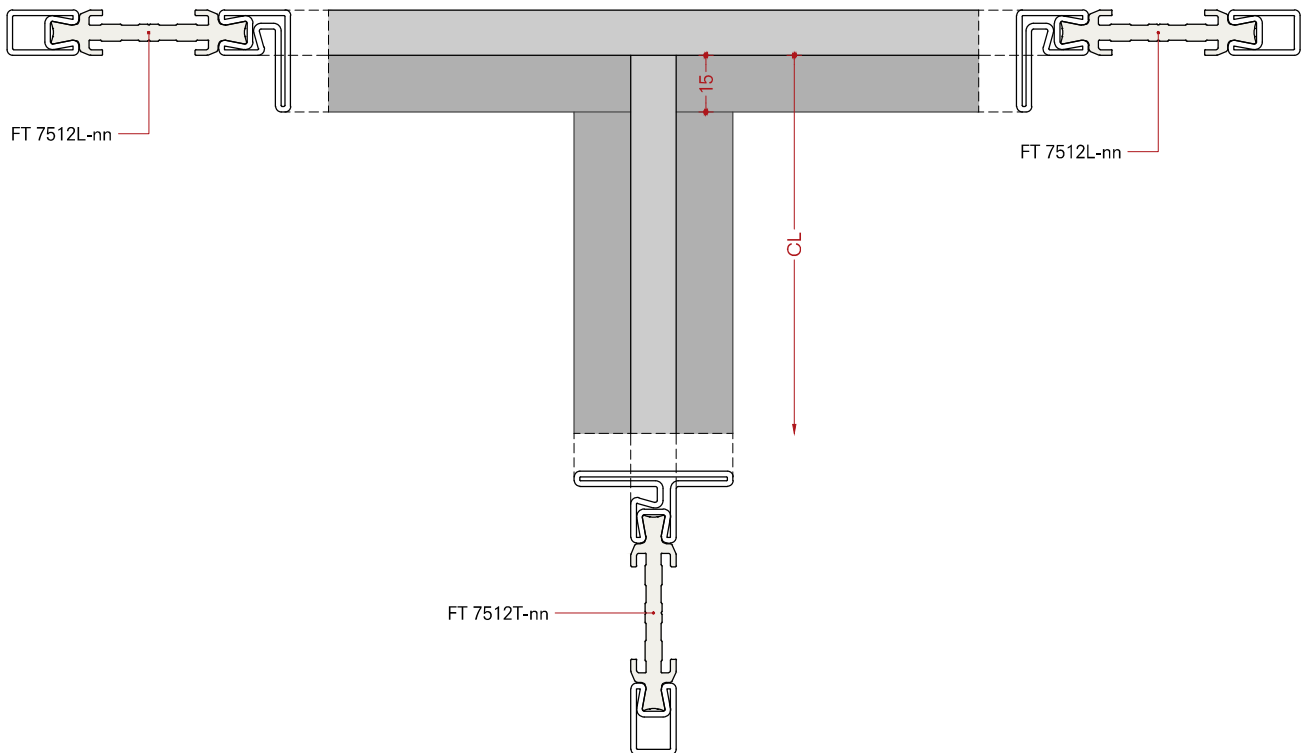
Window open in fixed partitions

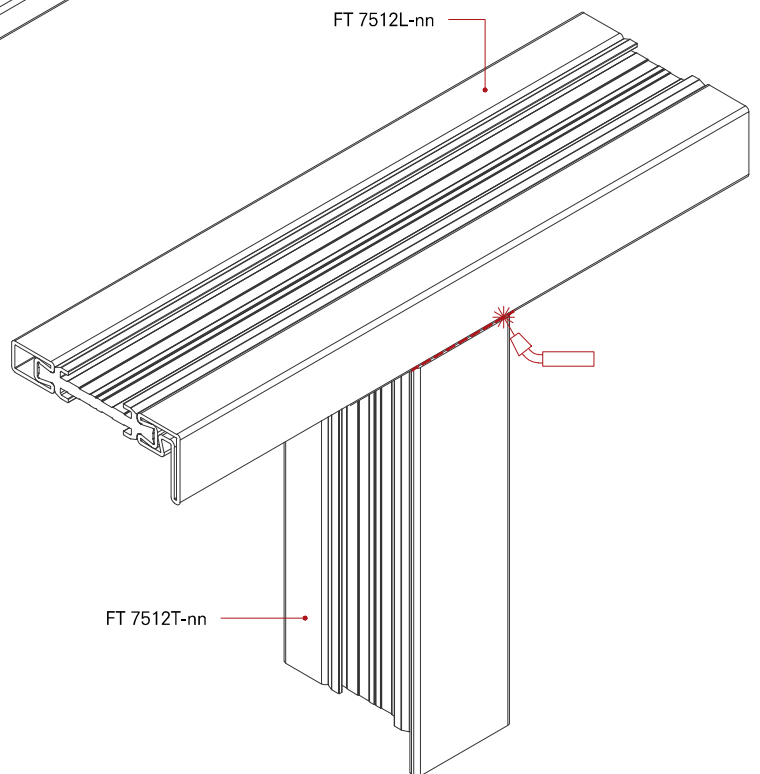
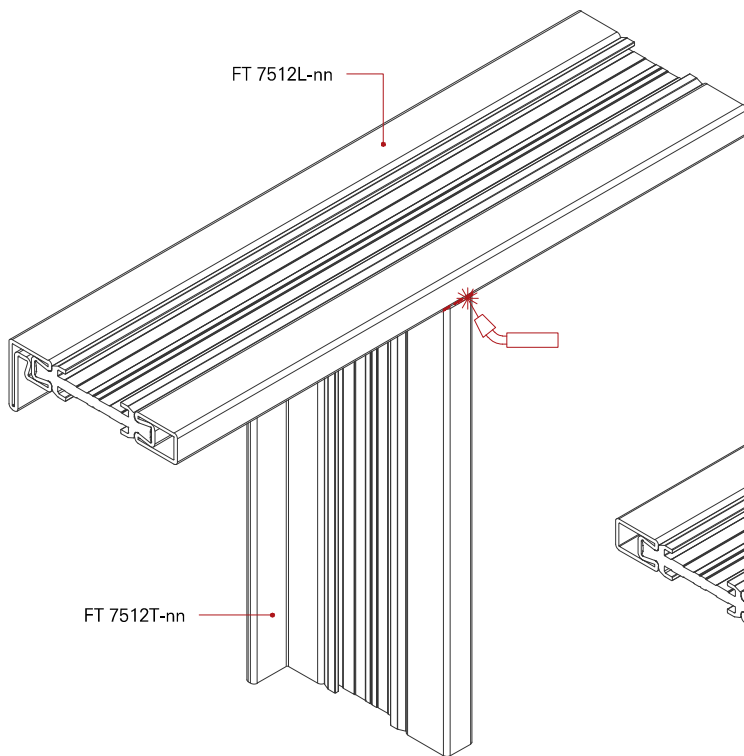
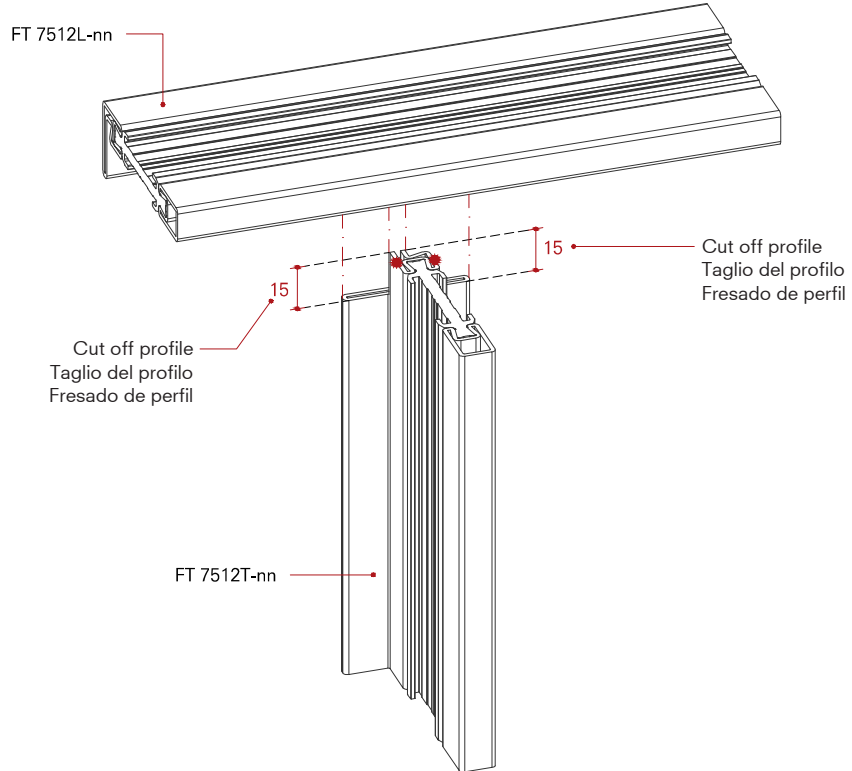
Finestra su partizioni fisse apertura interna

Ventana su particiones aperturas hacia dentro



Internal view  
Vista interna  
Vista interna





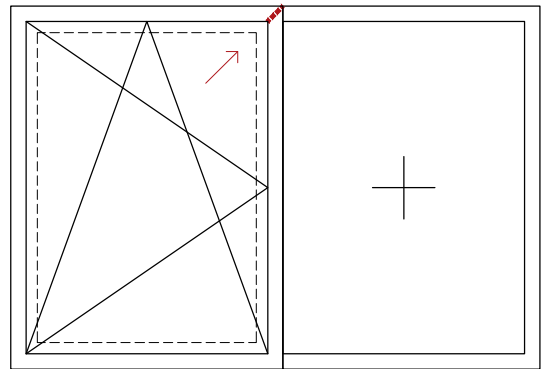
External view  
Vista esterna  
Vista externa

**FT 7512TR-nn / FT 7512LR-nn / FT 7512L-nn**

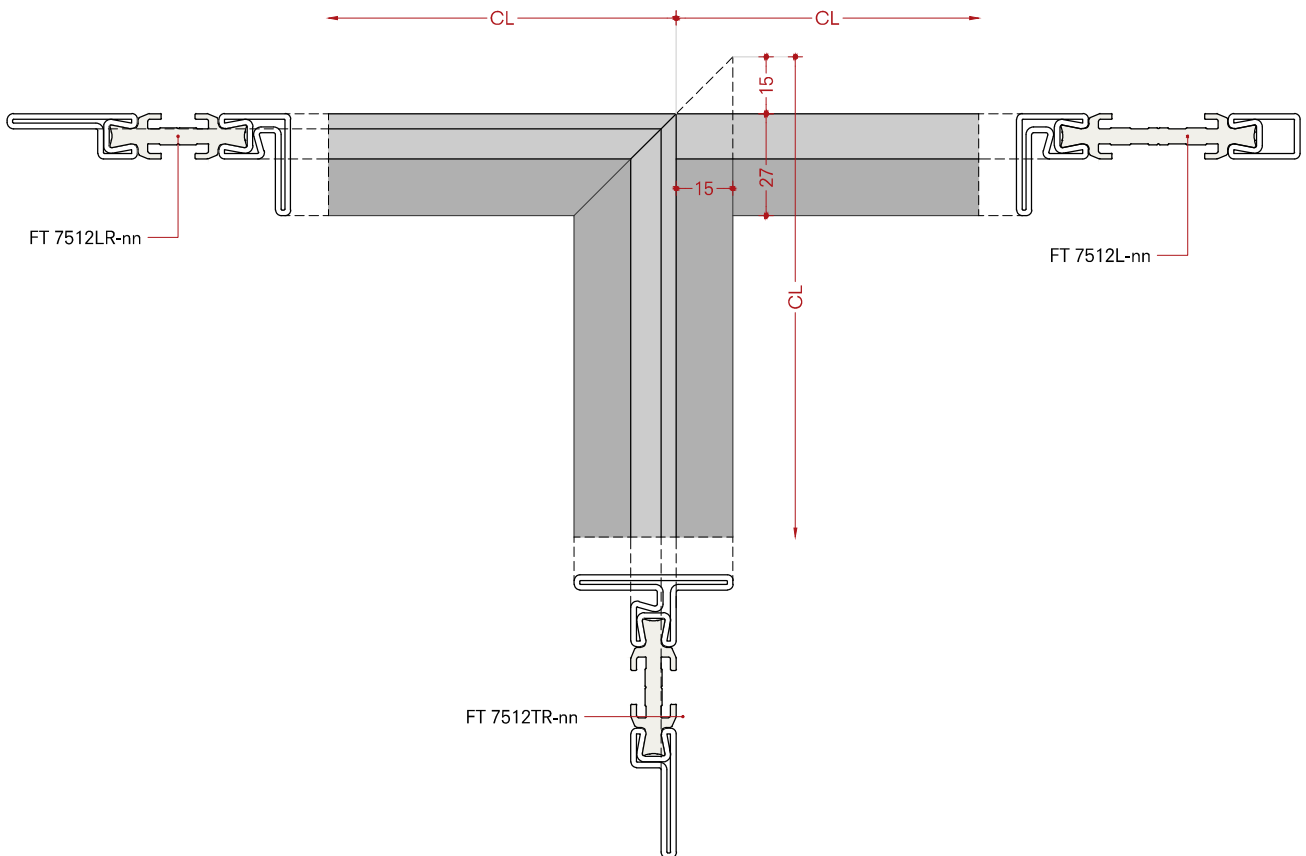
Window open in fixed partitions

Finestra su partizioni fisse apertura interna

Ventana su particiones fijas apertura hacia dentro



Internal view  
Vista interna  
Vista interna



Cut off profile  
Taglio del profilo  
Fresado de perfil

15

FT 7512L-nn

FT 7512LR-nn

FT 7512TR-nn

FT 7512L-nn

FT 7512LR-nn

FT 7512LR-nn

FT 7512TR-nn

FT 7512L-nn

FT 7512TR-nn

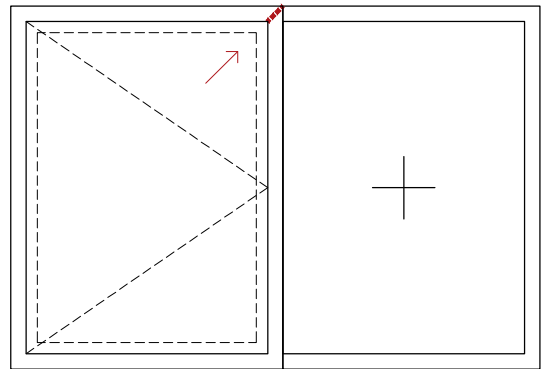
External view  
Vista esterna  
Vista externa

**FT 7512ZK-nn / FT 7512LK-nn / FT 7512L-nn**

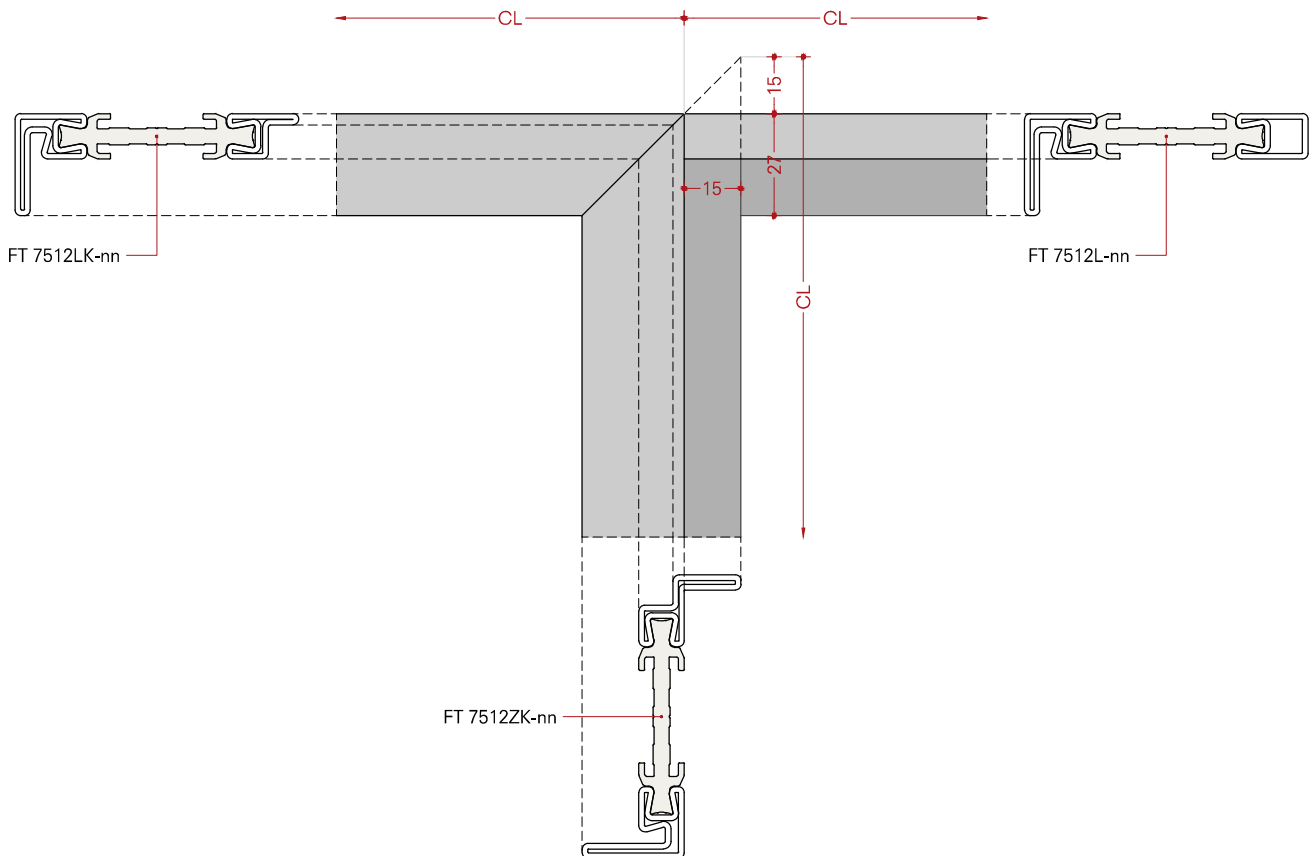
Window open out fixed partitions

Finestra su partizioni fisse apertura esterna

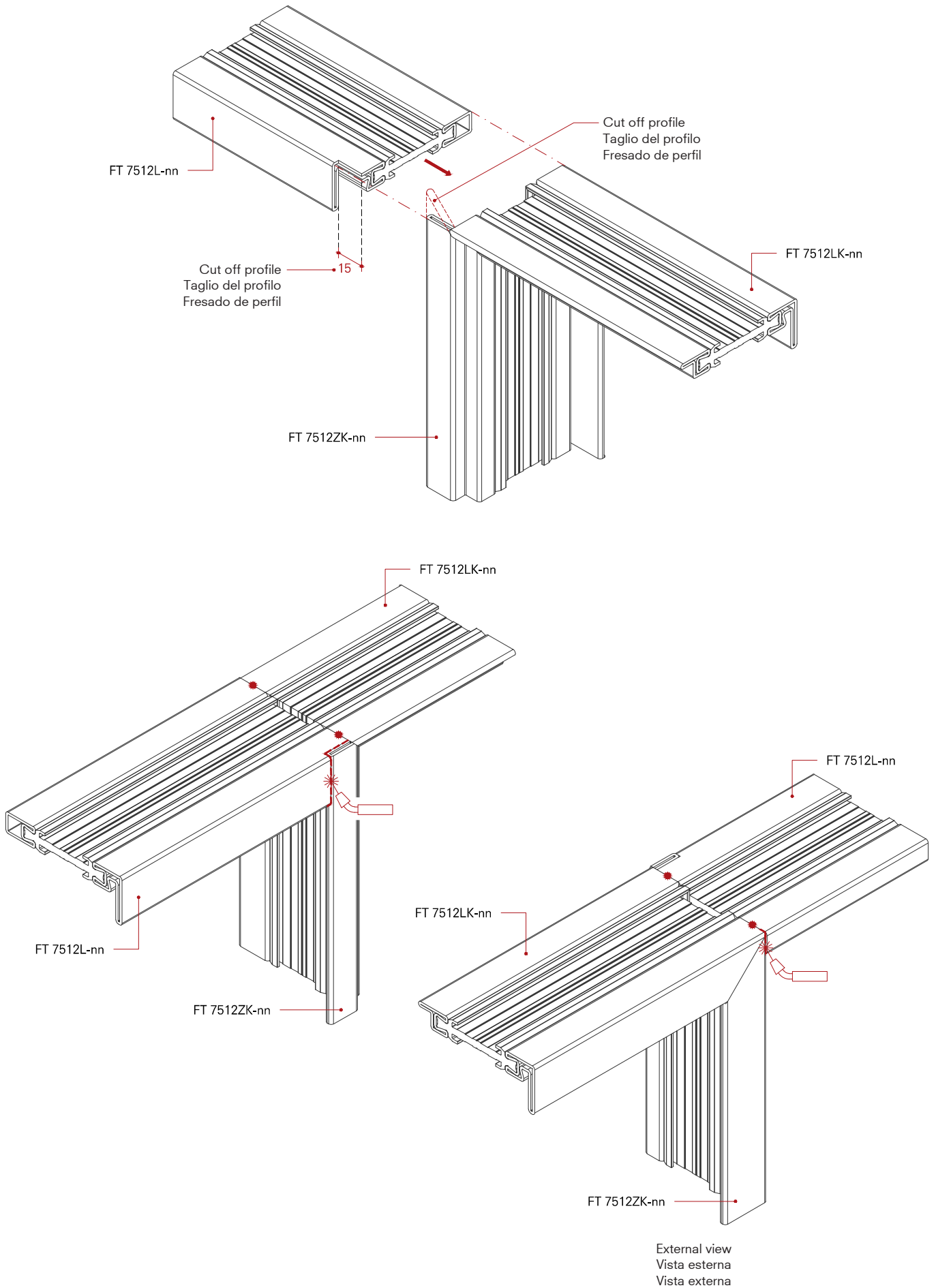
Ventana su particiones fijas apertura hacia fuera



Internal view  
Vista interna  
Vista interna





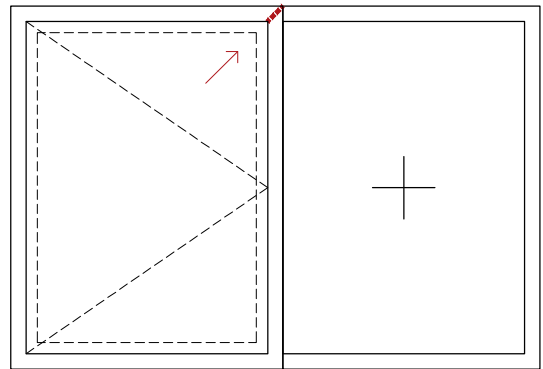


**FT 7512Z-nn / FT 7512L-nn / FT 7512L-nn**

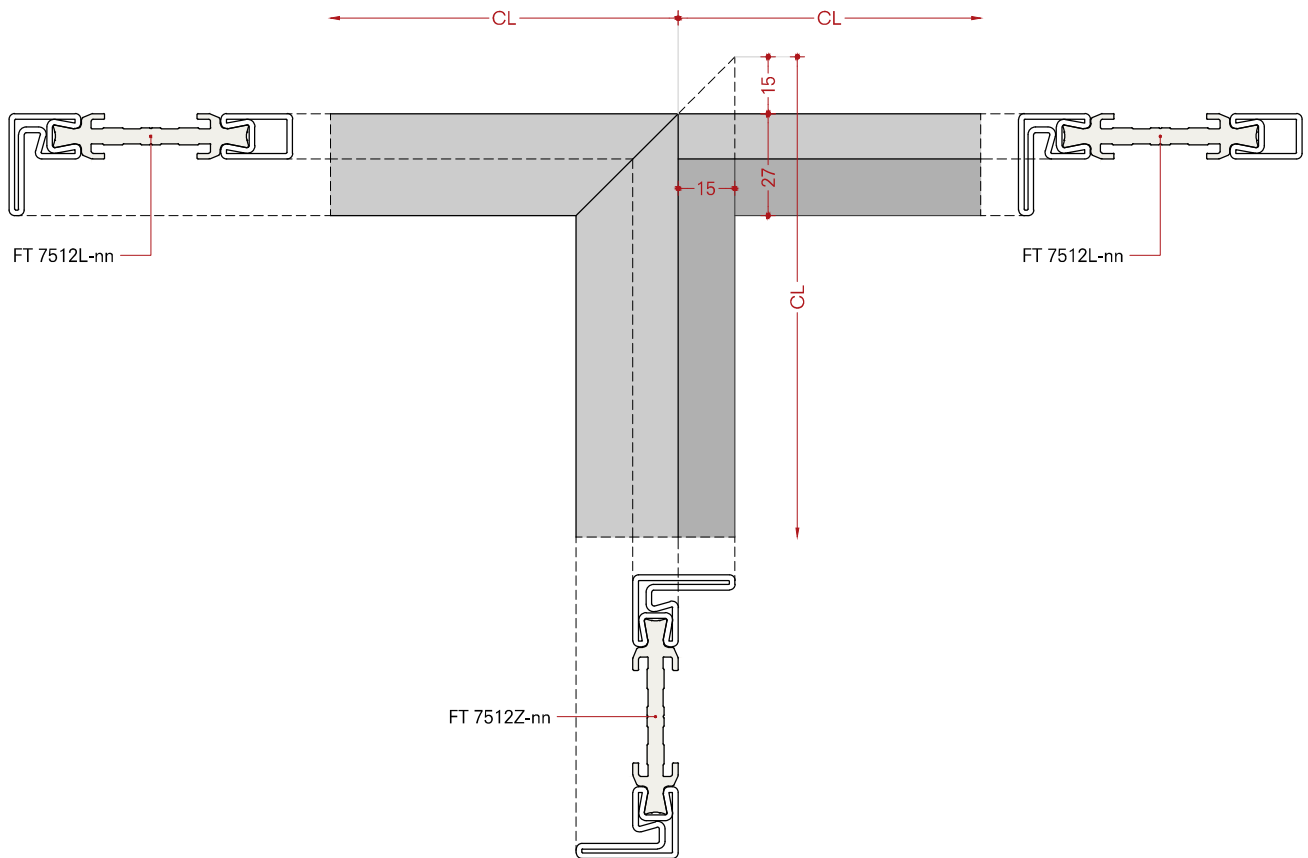
Window open out fixed partitions

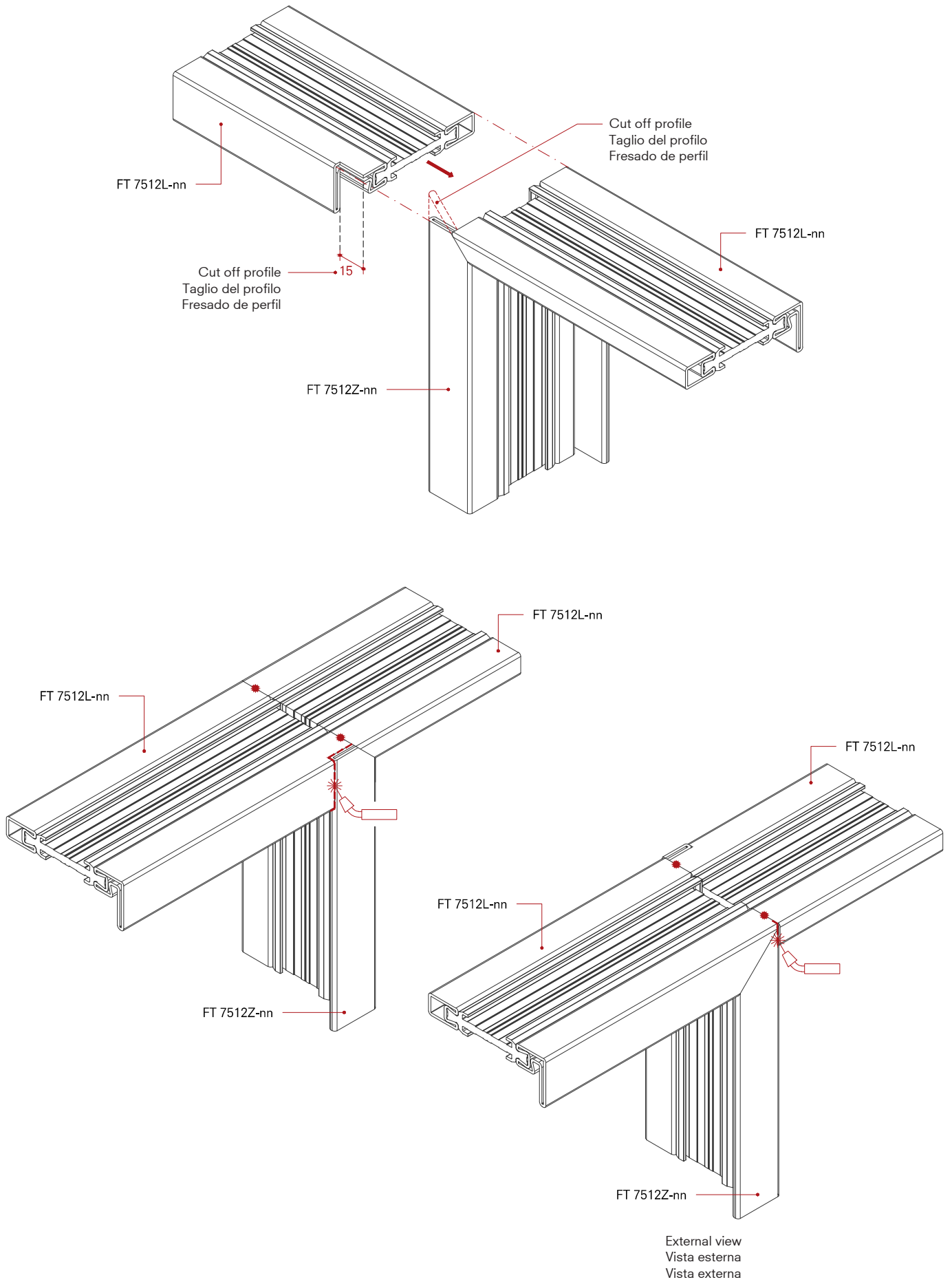
Finestra su partizioni fisse apertura esterna

Ventana su particiones fijas apertura hacia fuera



Internal view  
Vista interna  
Vista interna



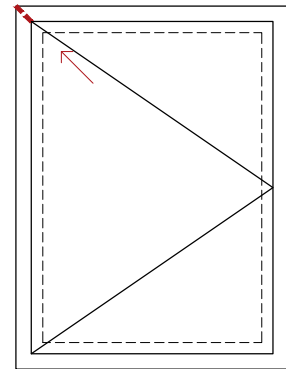


**FT 7512LK-nn / FT 7512LK-nn**

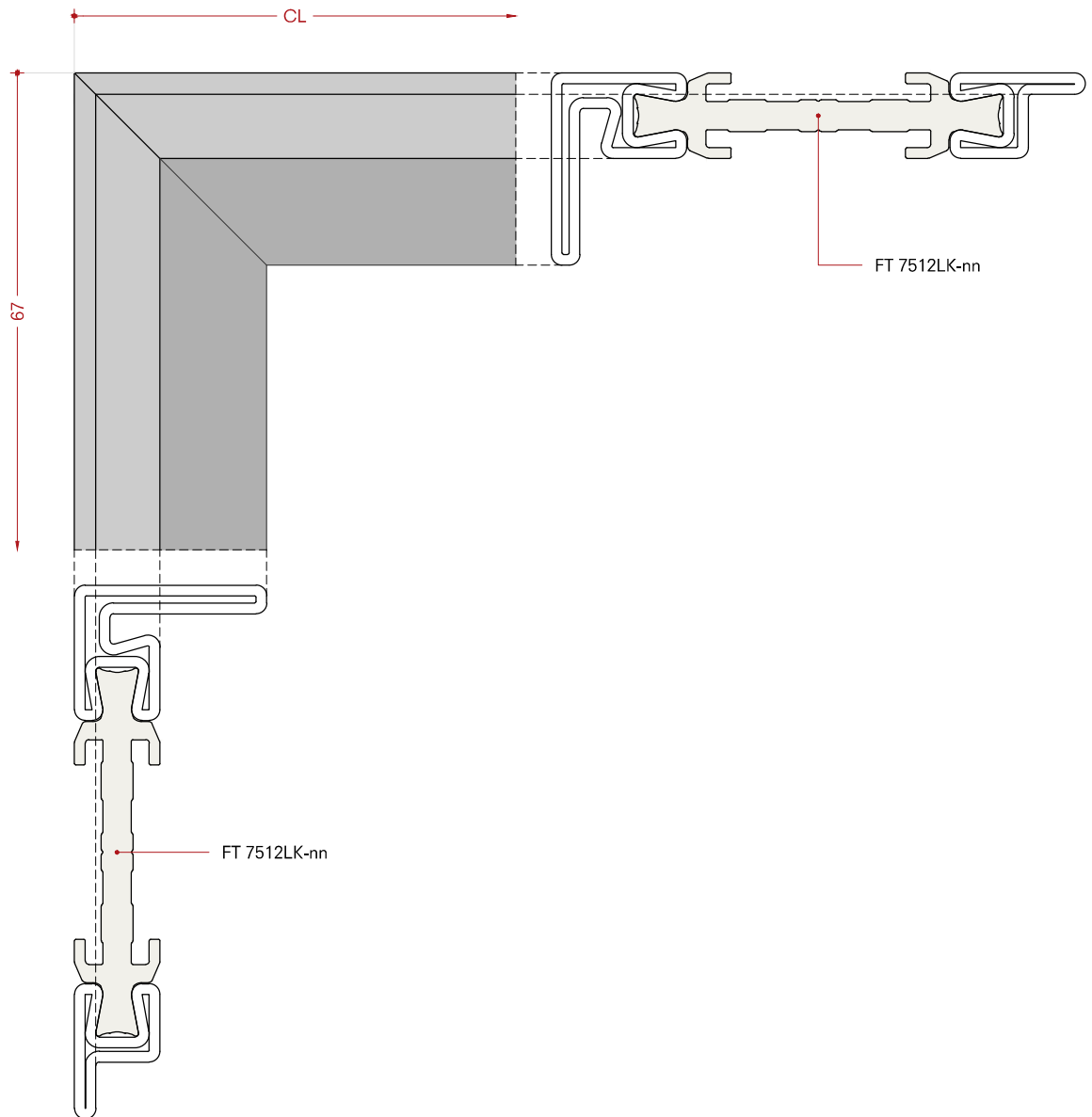
Window open in

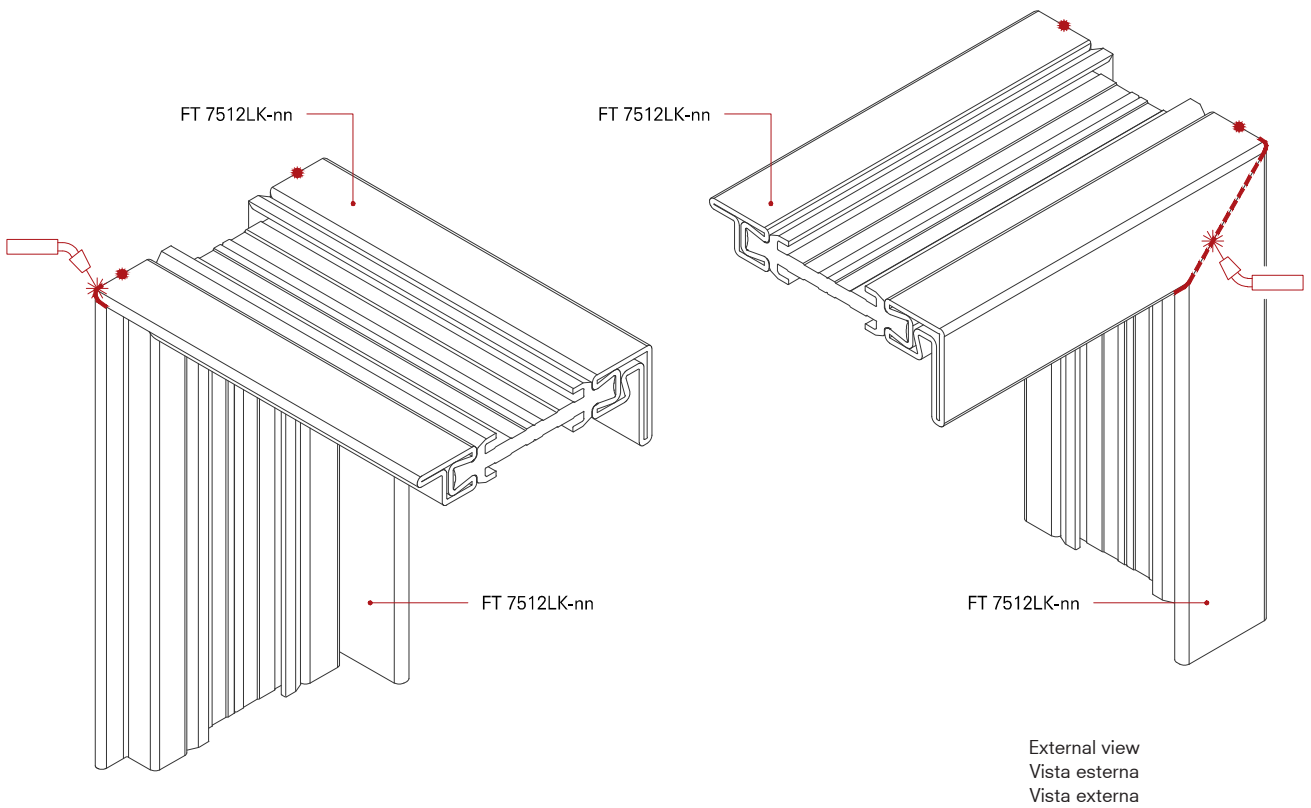
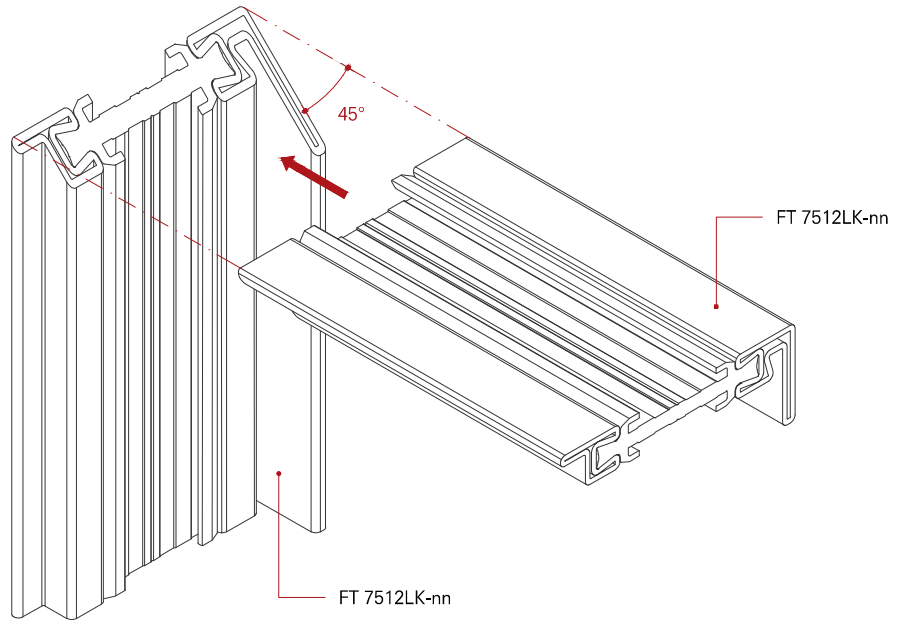
Finestra apertura interna

Ventana apertura hacia dentro



Internal view  
Vista interna  
Vista interna



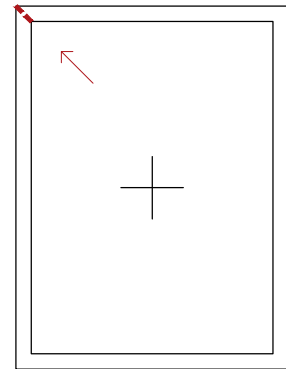


**FT 7512L-nn / FT 7512L-nn**

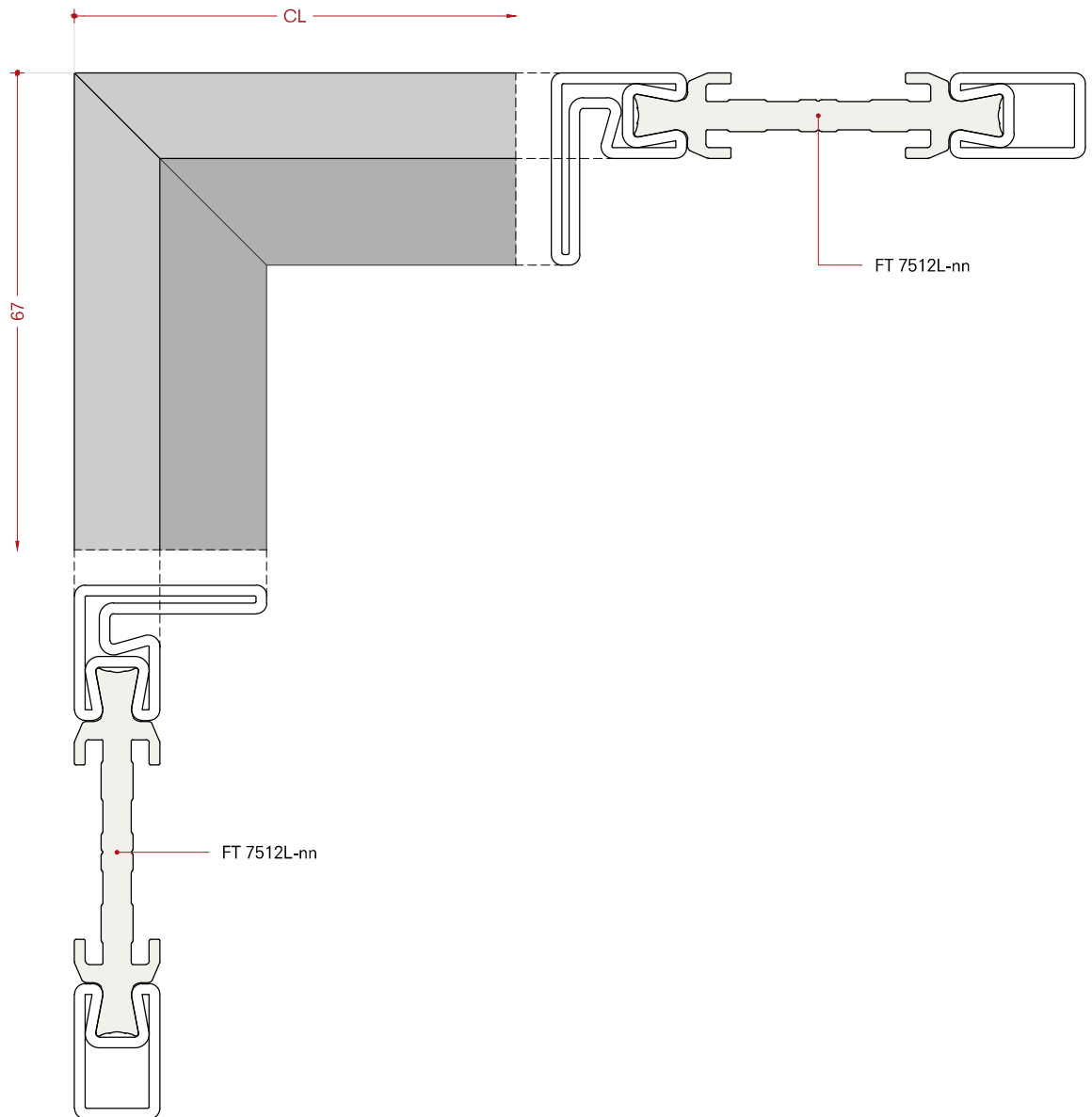
Fixed partition

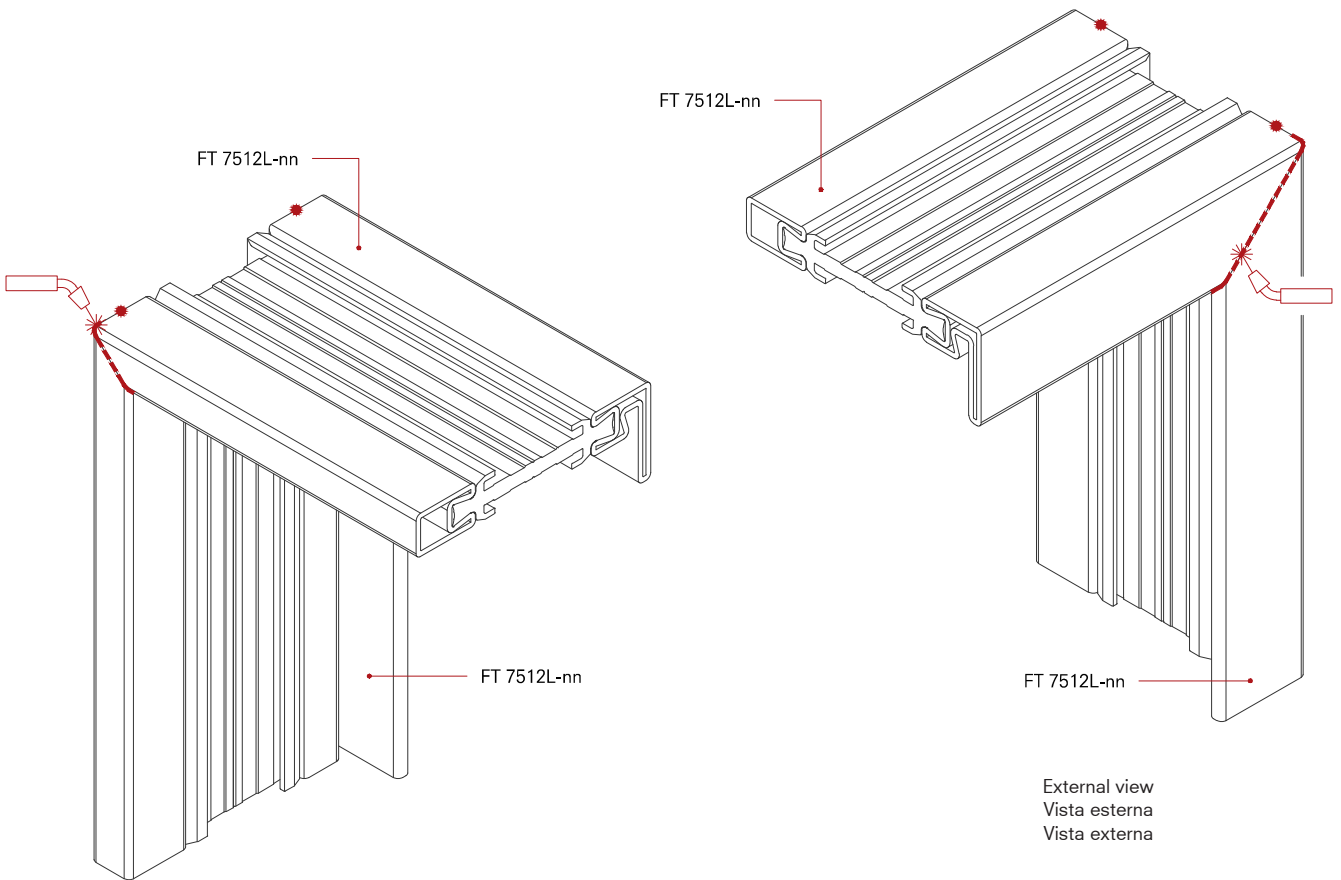
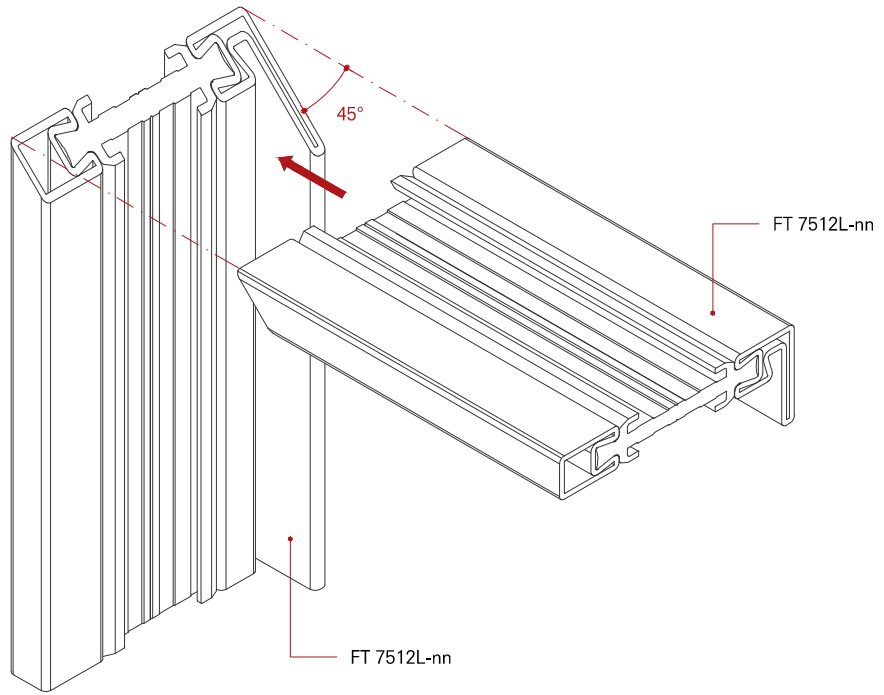
Finestra telaio fisso

Ventana fija



Internal view  
Vista interna  
Vista interna



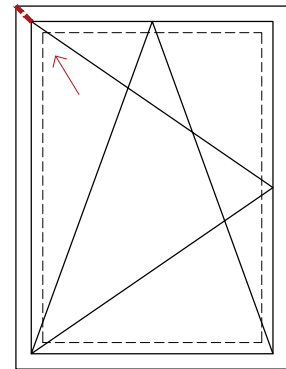


**FT 7512LR-nn / FT 7512LR-nn**

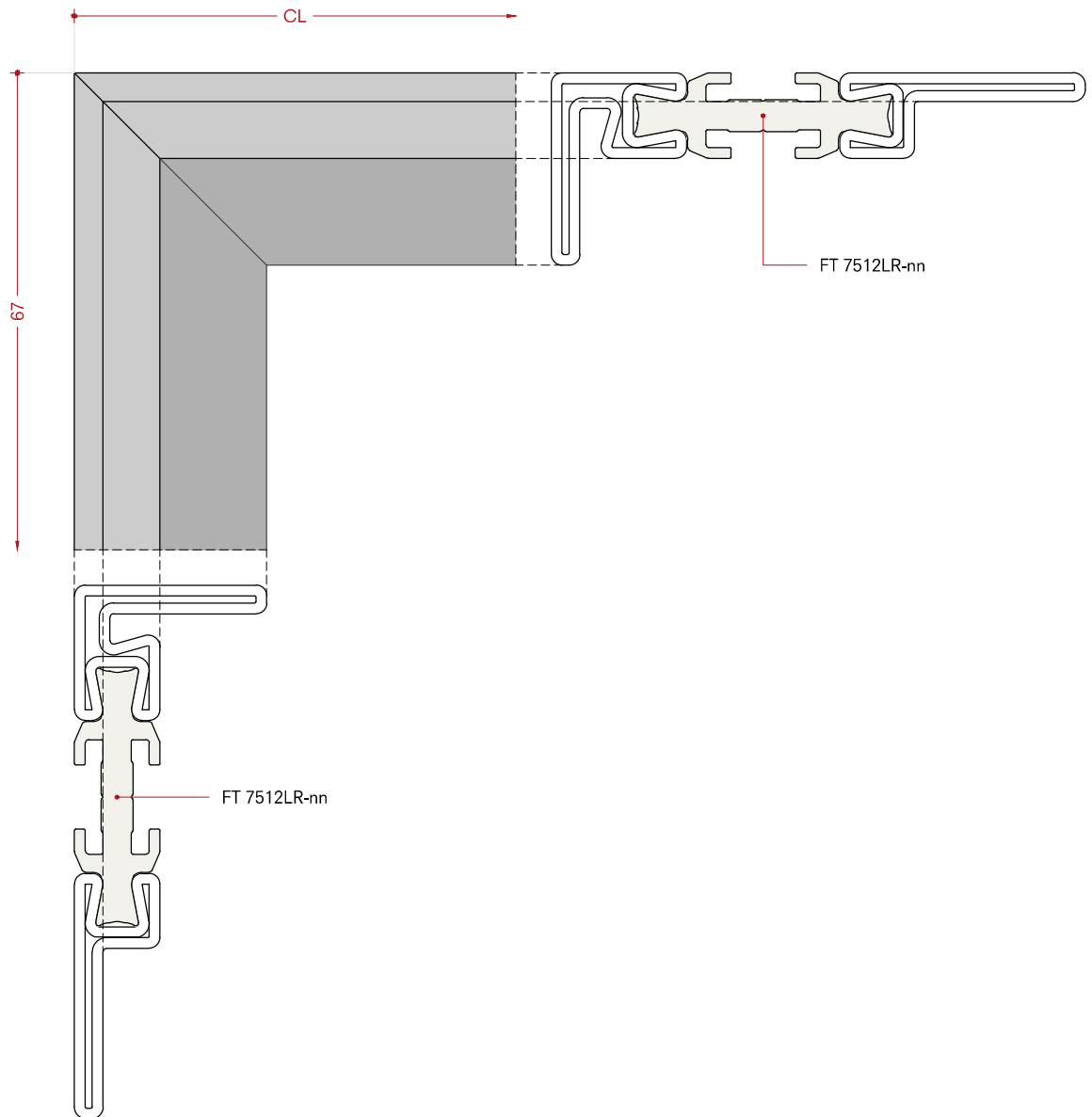
Window open in

Finestra apertura interna

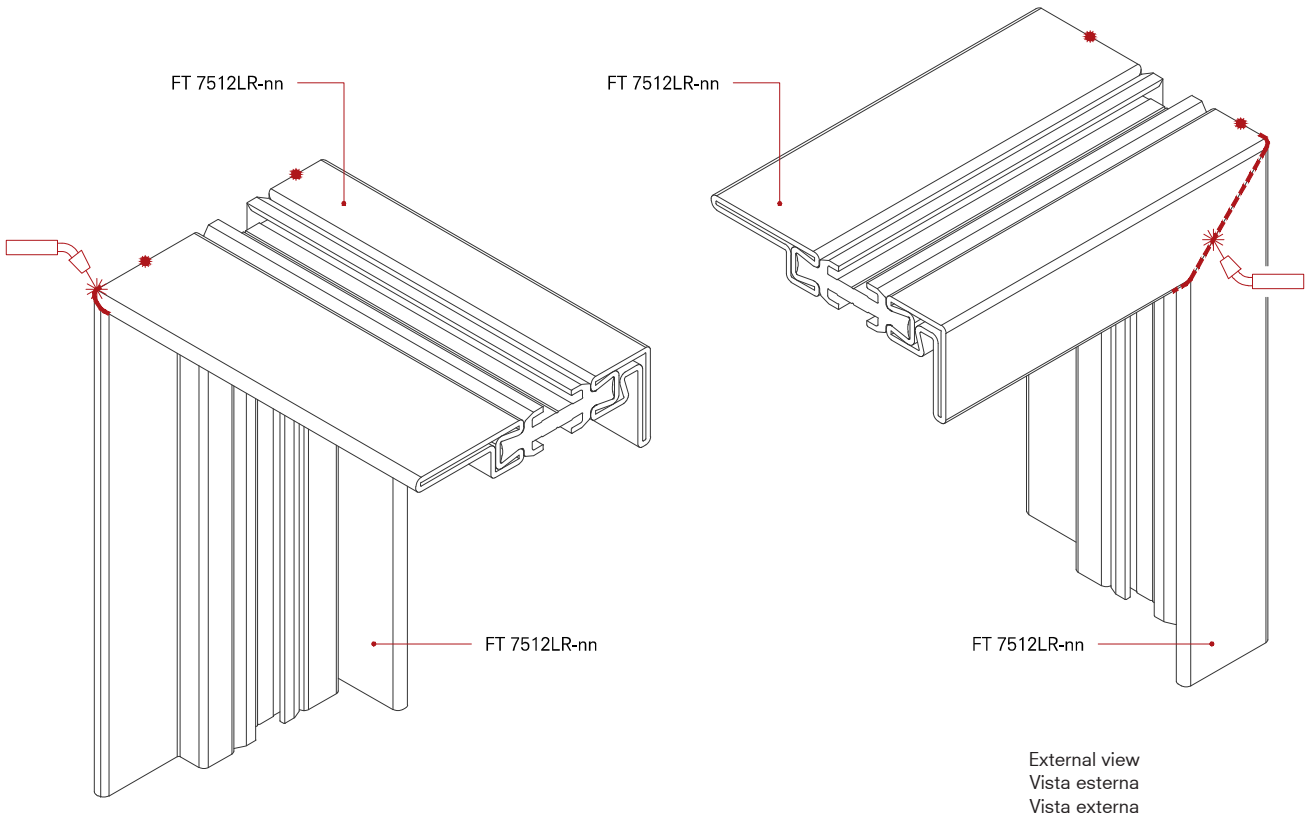
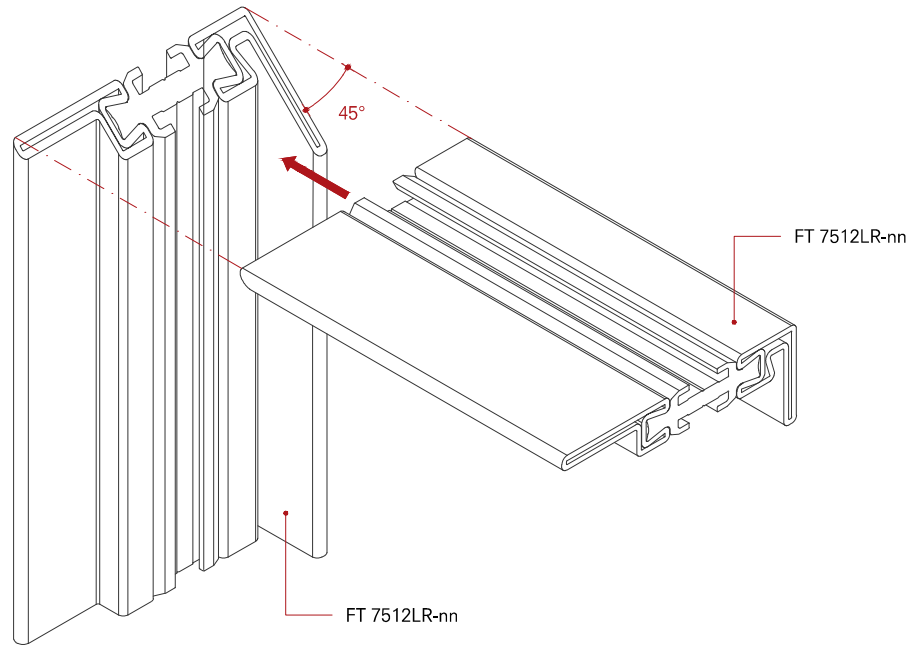
Ventana apertura hacia dentro



Internal view  
Vista interna  
Vista interna





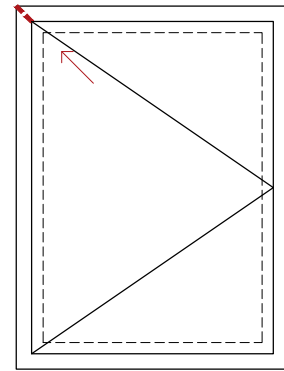


**FT 7512TK-nn / FT 7512LK-nn**

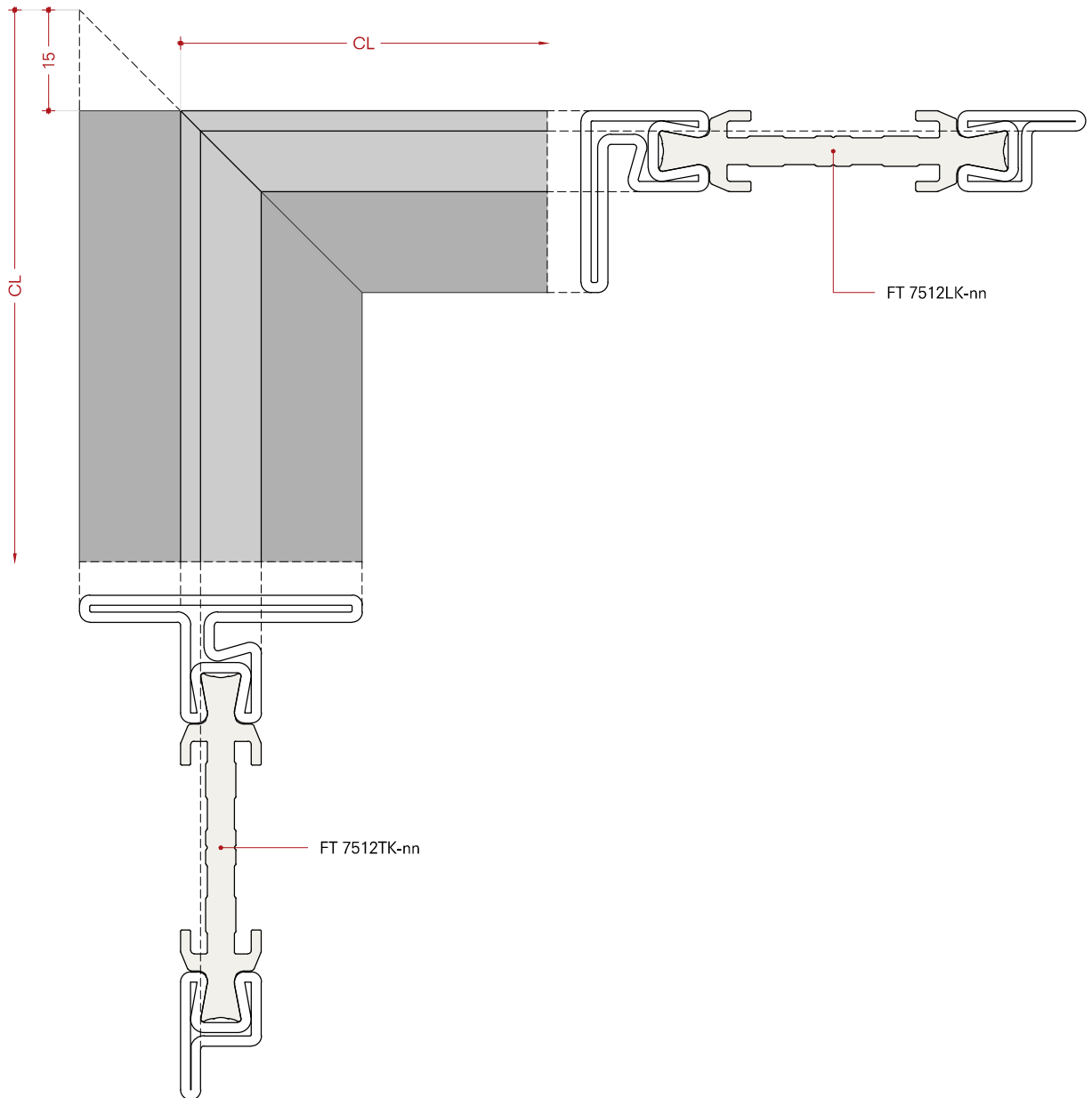
Window open in

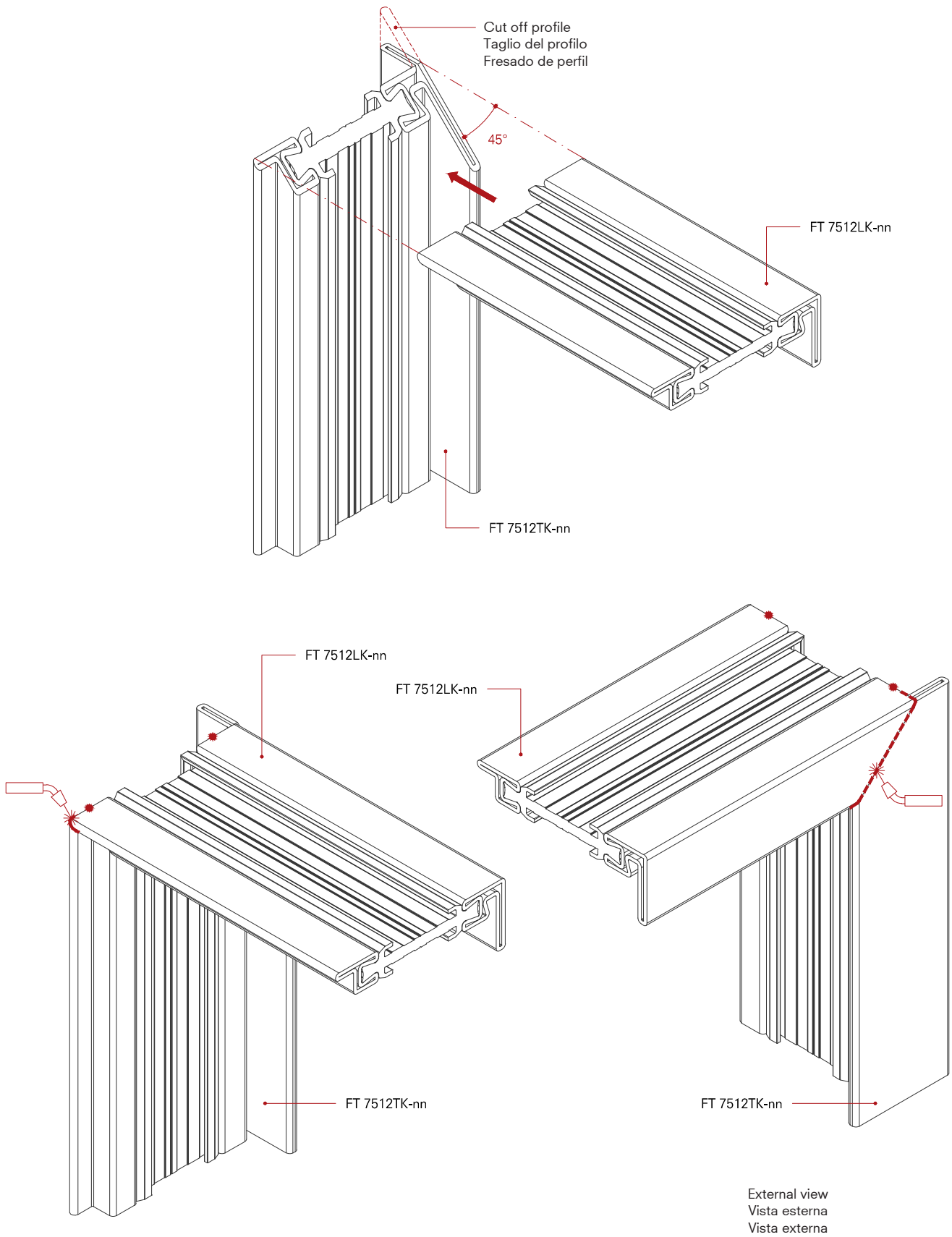
Finestra apertura interna

Ventana apertura hacia dentro



Internal view  
Vista interna  
Vista interna



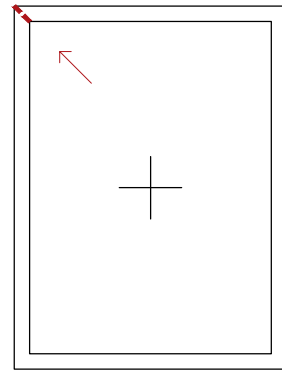


**FT 7512T-nn / FT 7512L-nn**

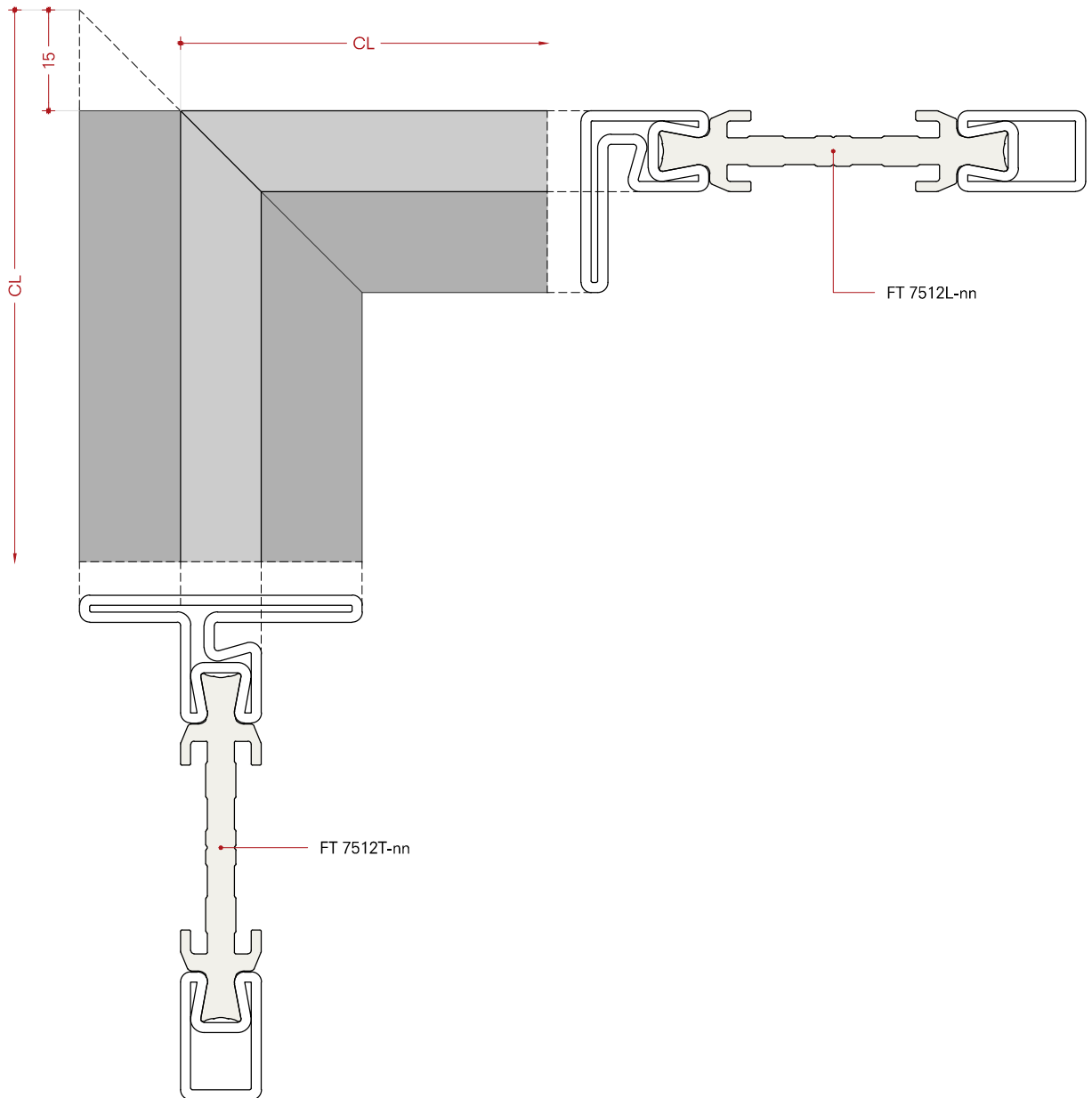
Fixed partition

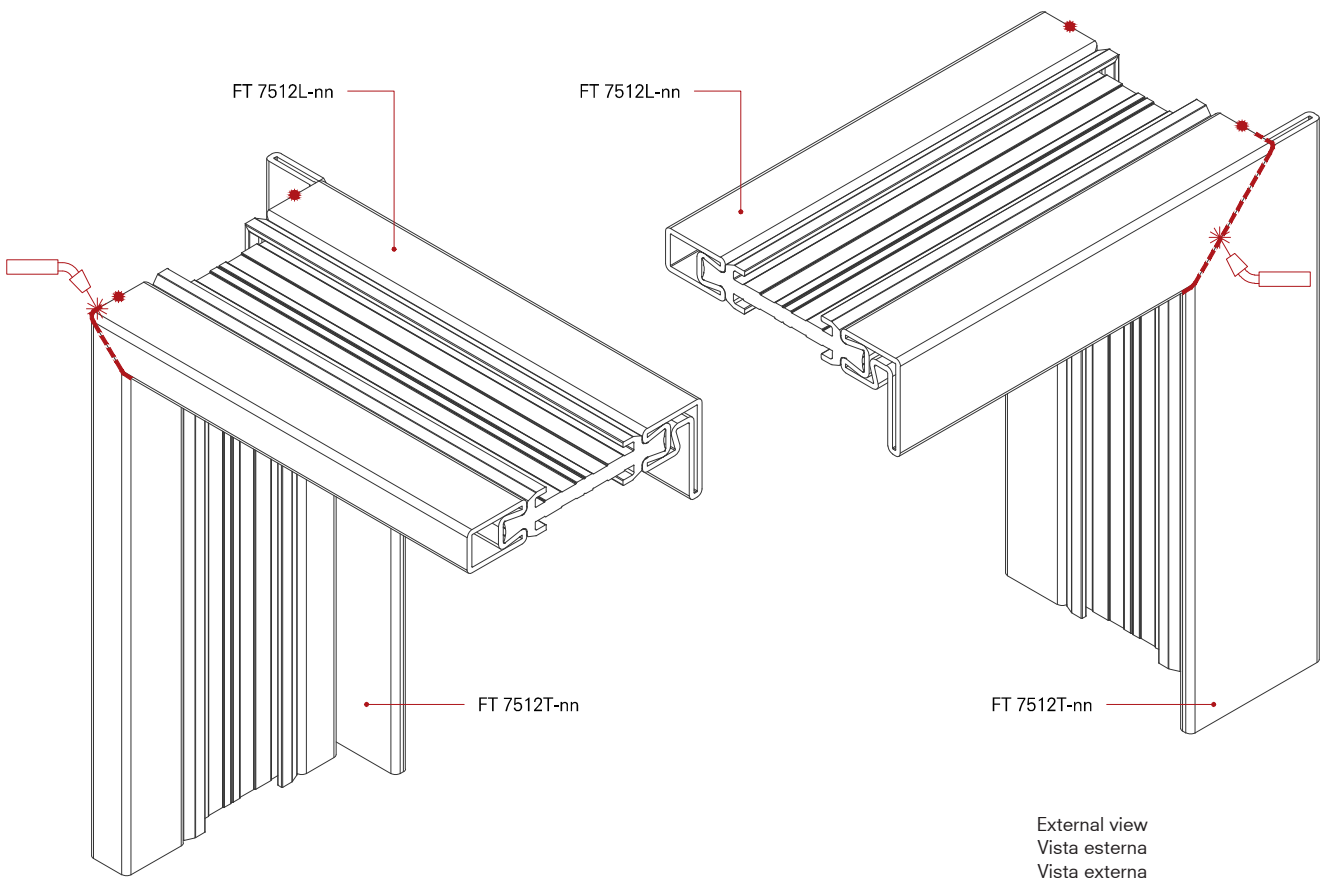
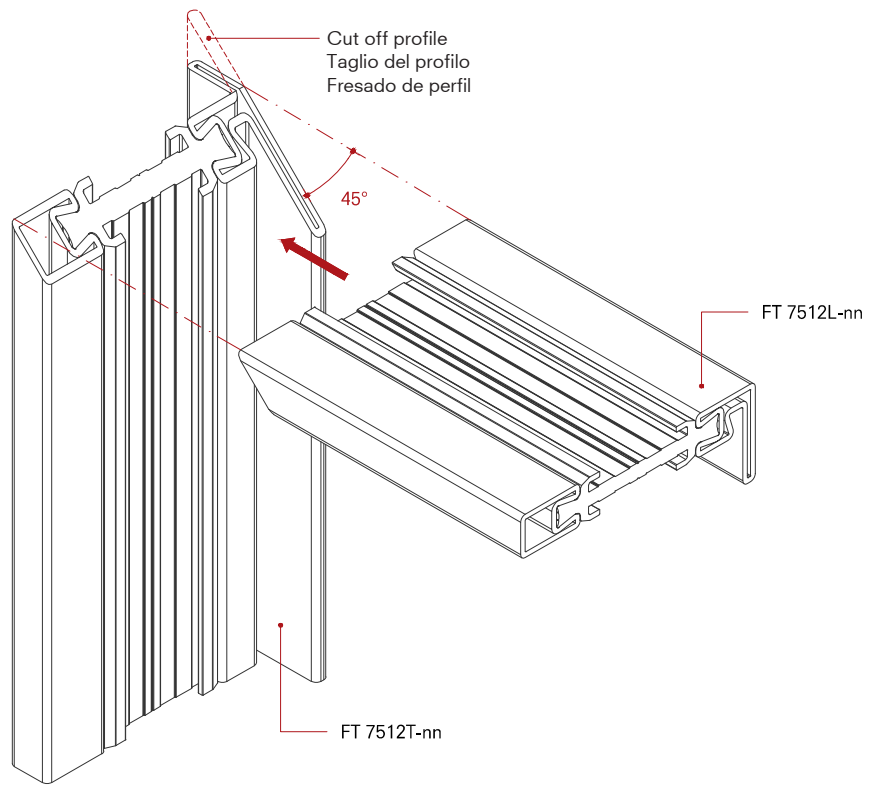
Finestra telaio fisso

Ventana fija



Internal view  
Vista interna  
Vista interna



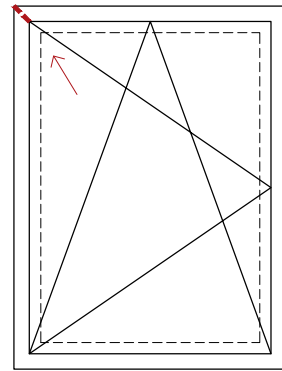


**FT 7512LR-nn / FT 7512LR-nn**

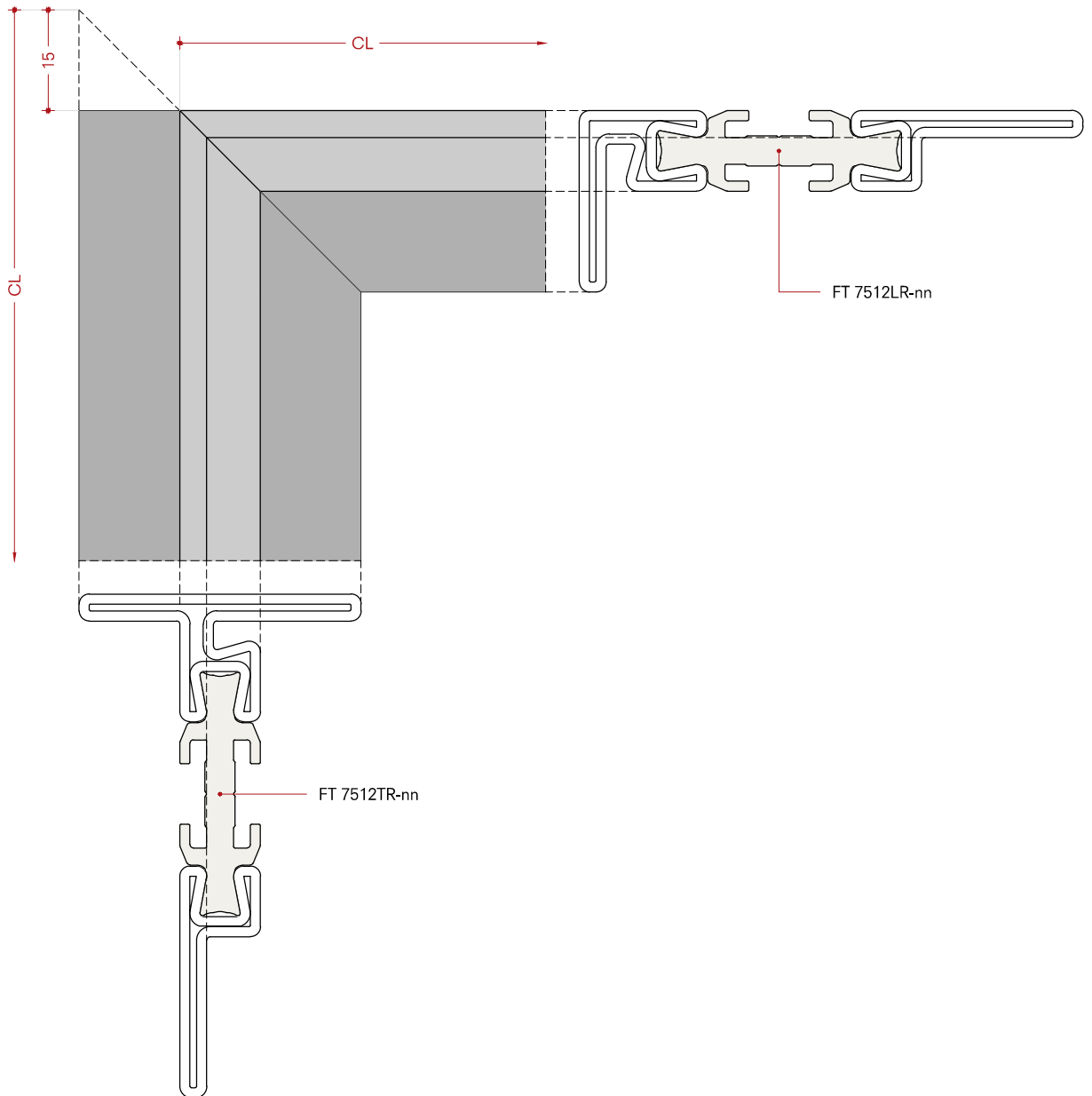
Window open in

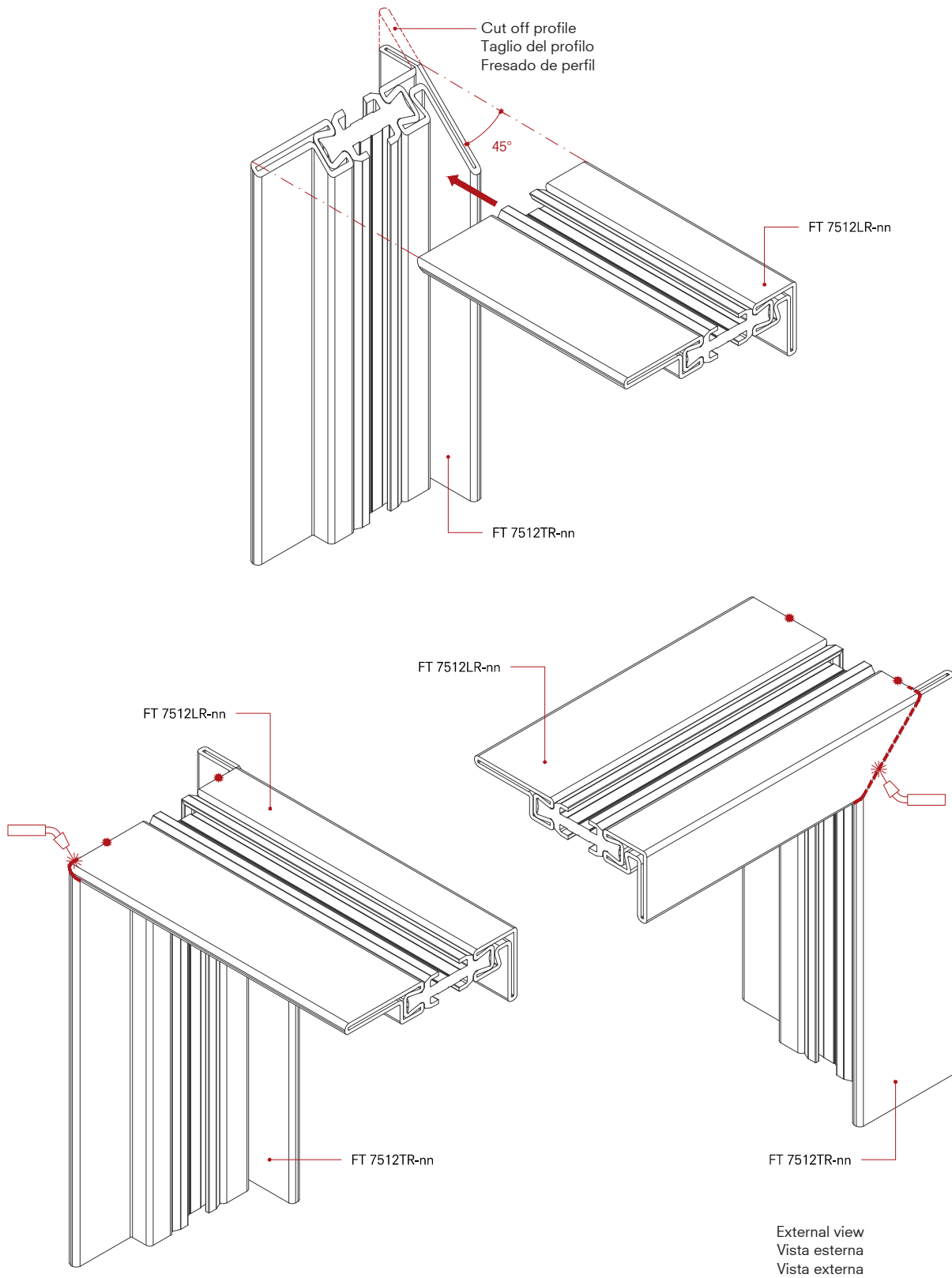
Finestra apertura interna

Ventana apertura hacia dentro



Internal view  
Vista interna  
Vista interna



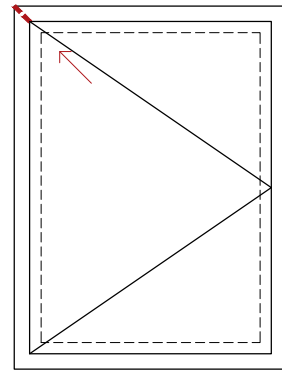


**FT 7512ZK-nn / FT 7512LK-nn**

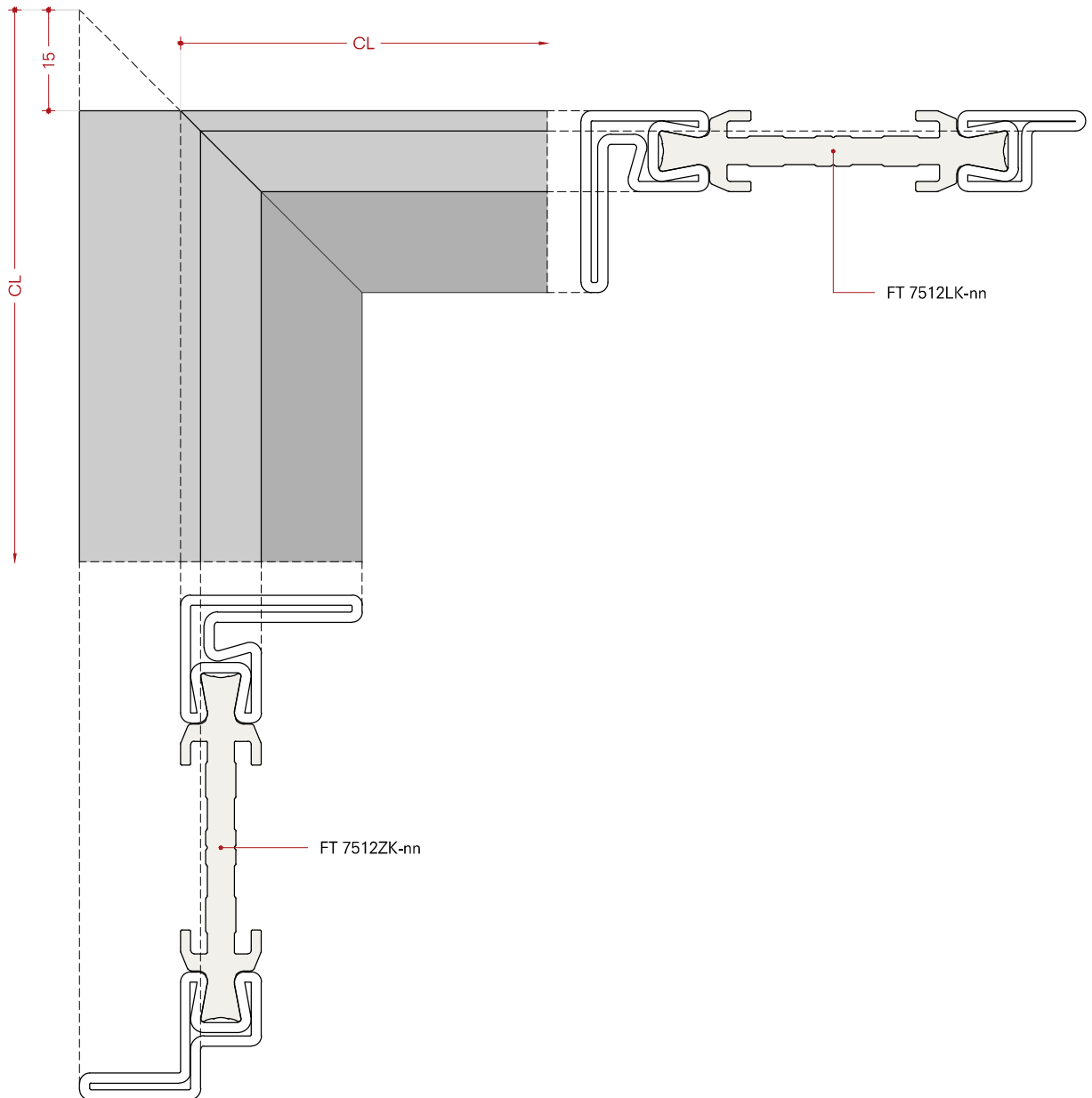
Window open in

Finestra apertura interna

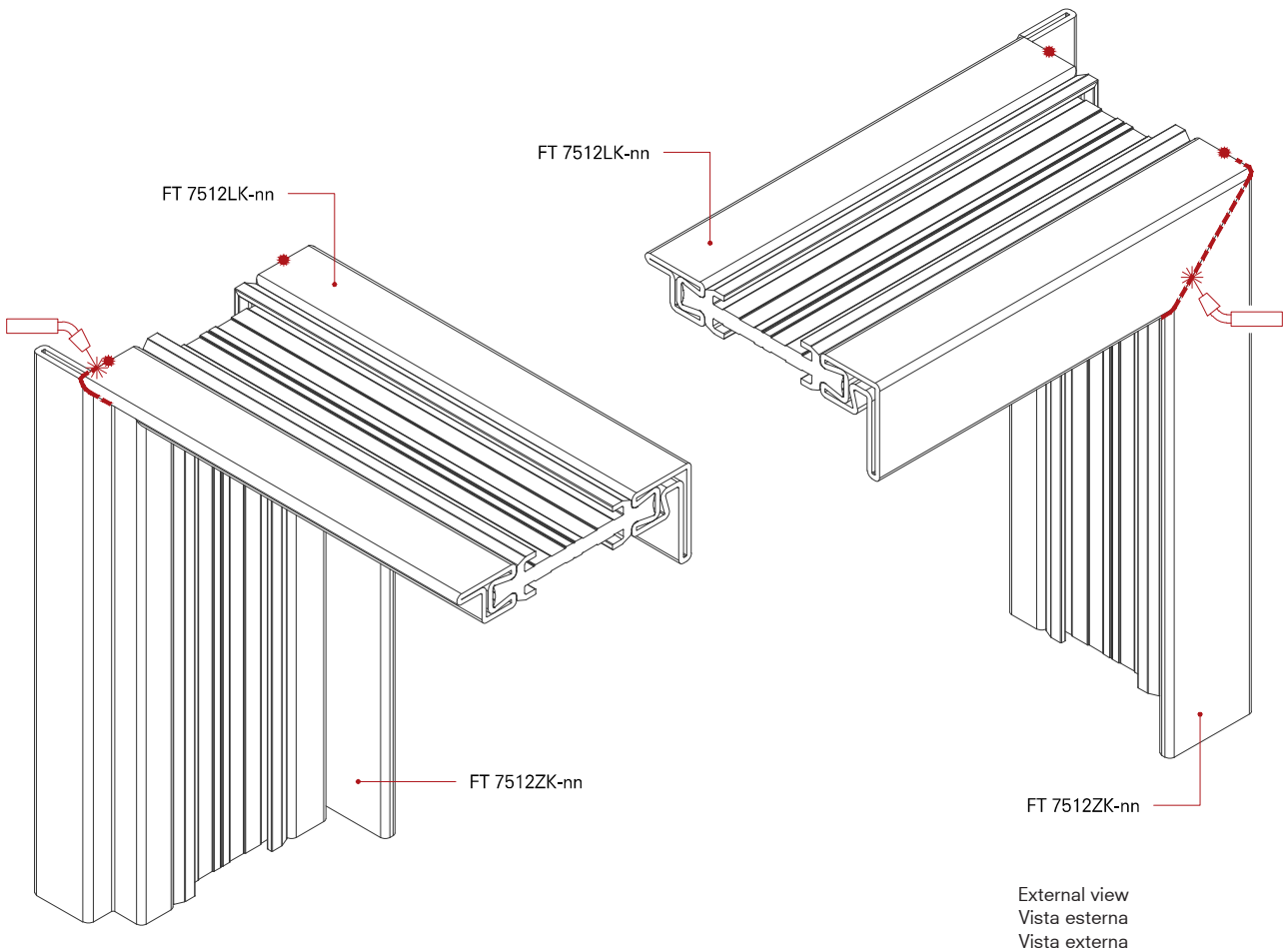
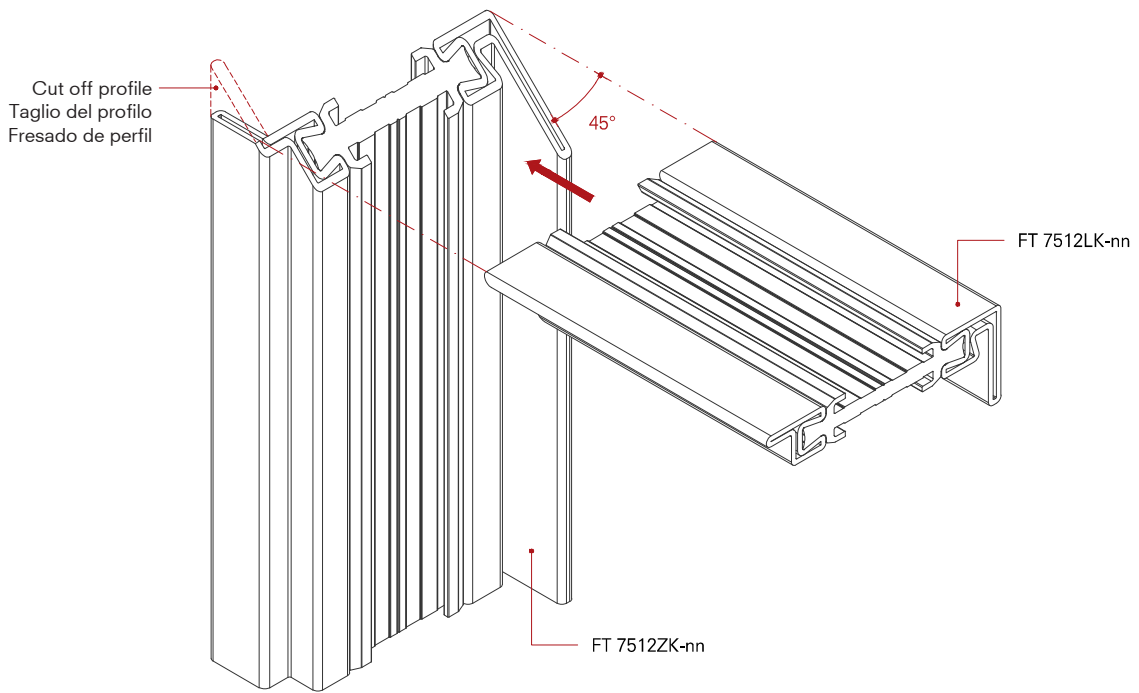
Ventana apertura hacia dentro



Internal view  
Vista interna  
Vista interna





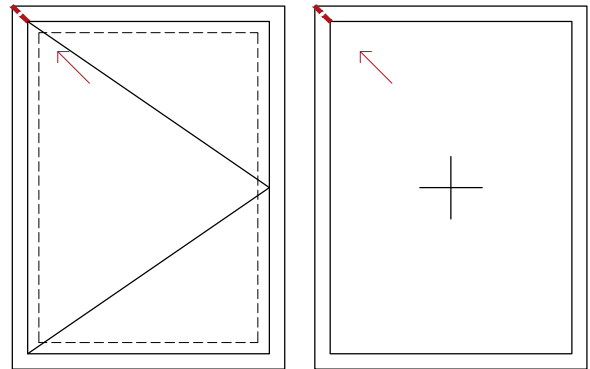


**FT 7512Z-nn / FT 7512L-nn**

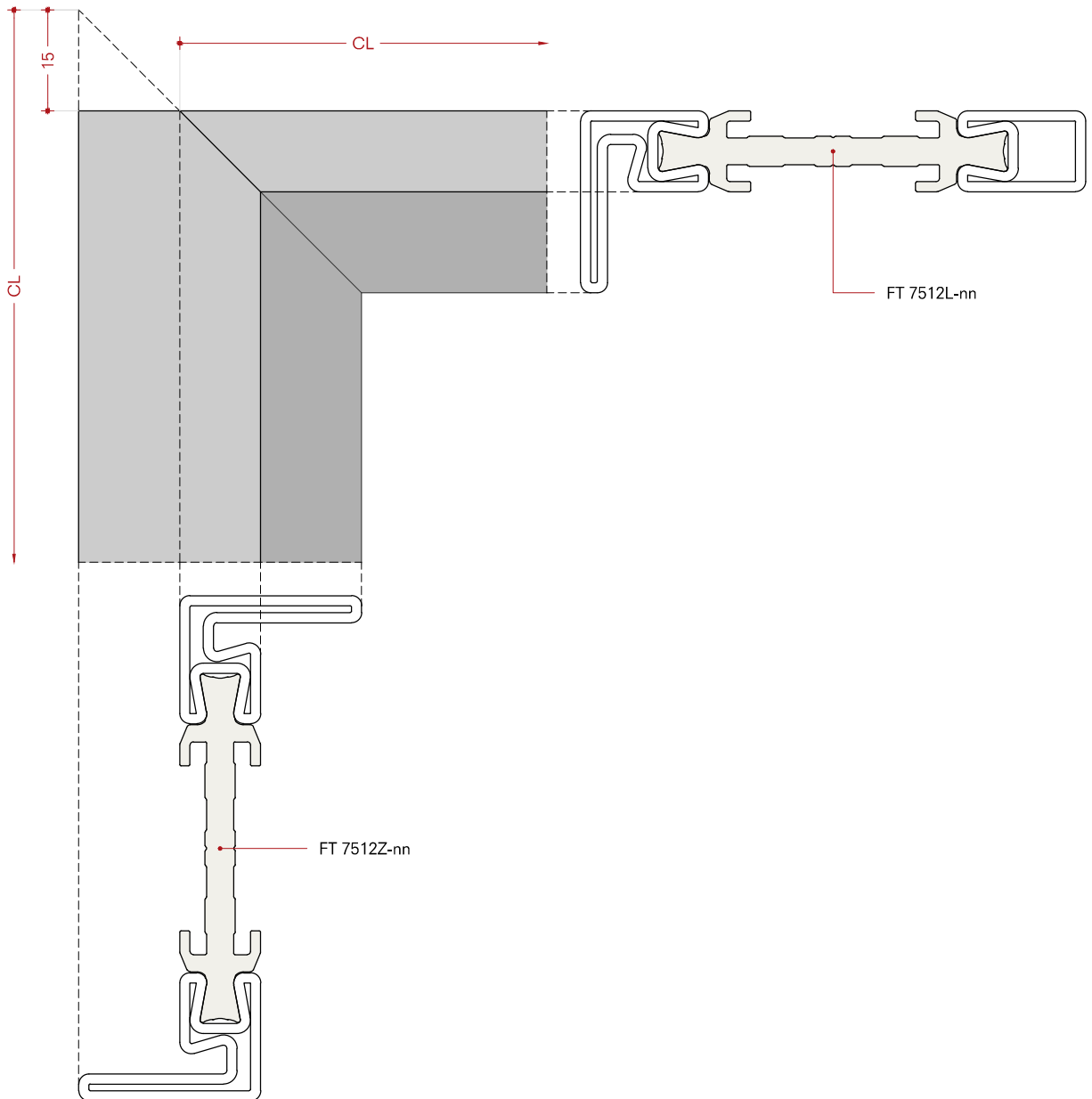
Window open in, fixed partition

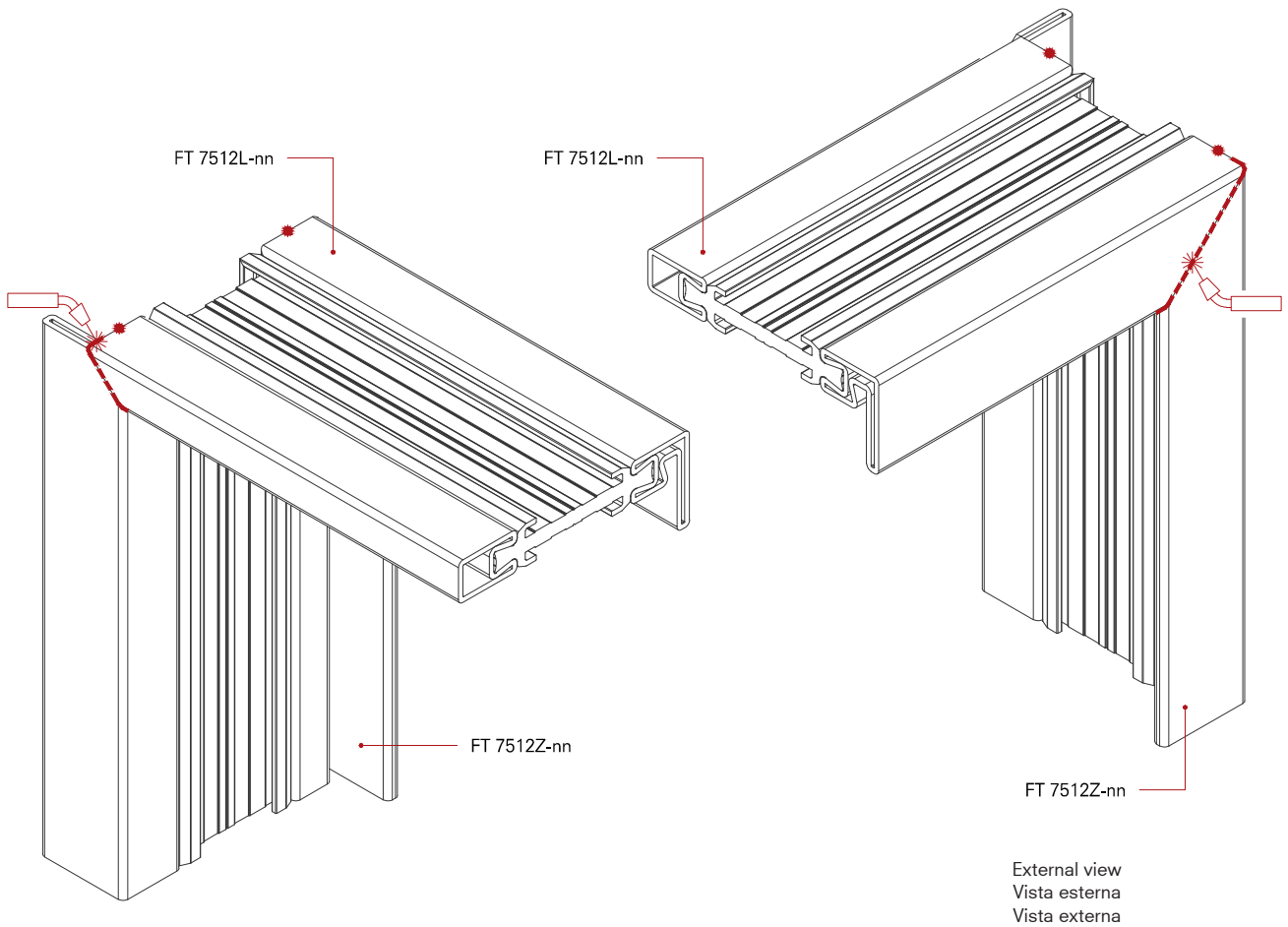
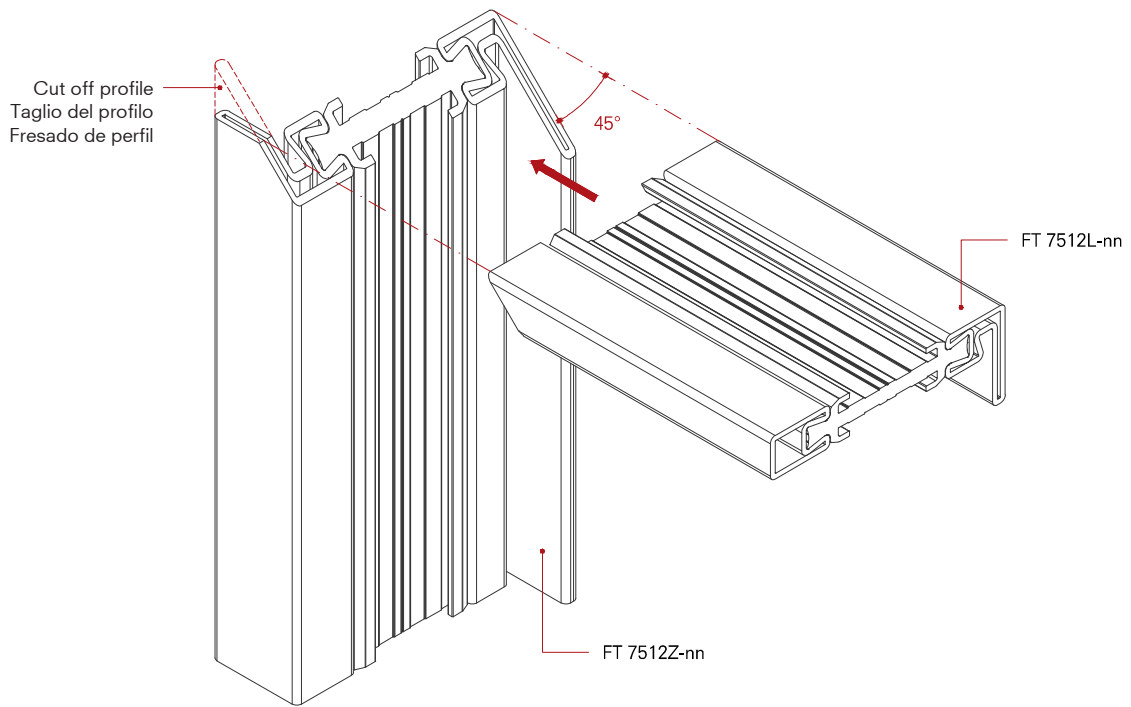
Finestra apertura interna, finestra telaio fisso

Ventana apertura hacia dentro, ventana fija



Internal view  
Vista interna  
Vista interna



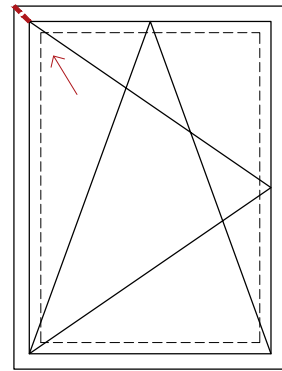


**FT 7512ZR-nn / FT 7512LR-nn**

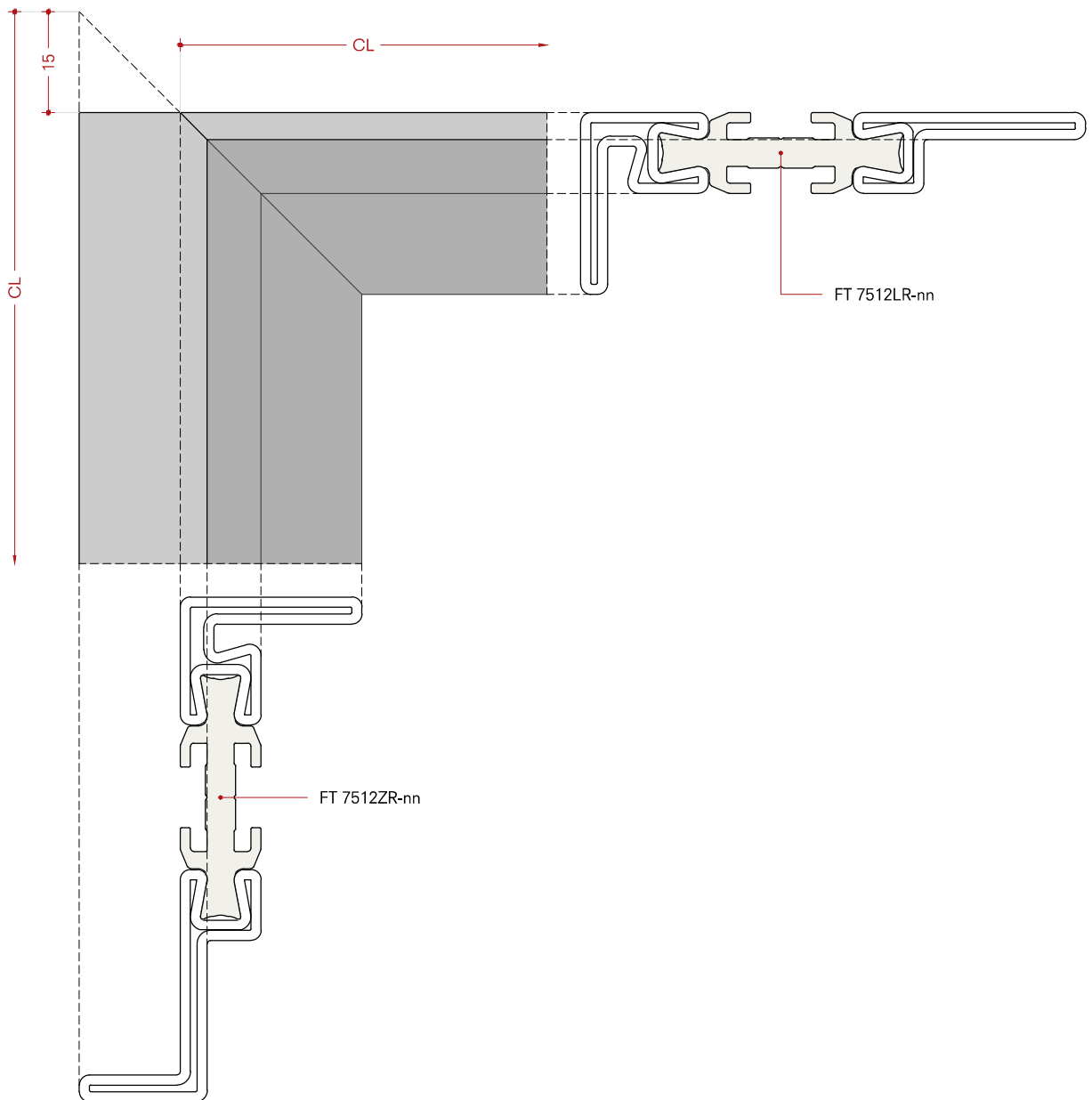
Window open in

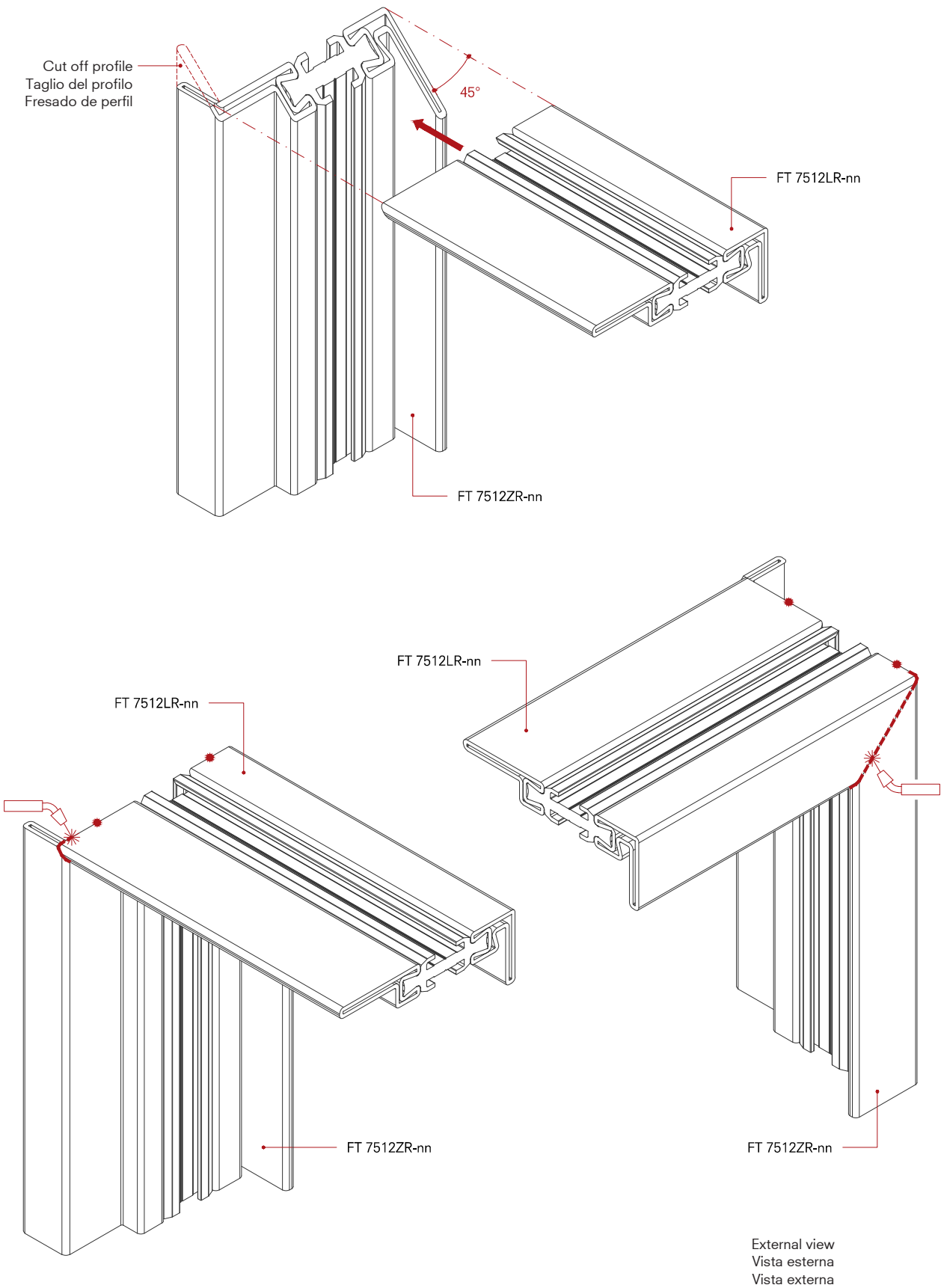
Finestra apertura interna

Ventana apertura hacia dentro



Internal view  
Vista interna  
Vista interna







**Accessories installation**

**Montaggio accessori**

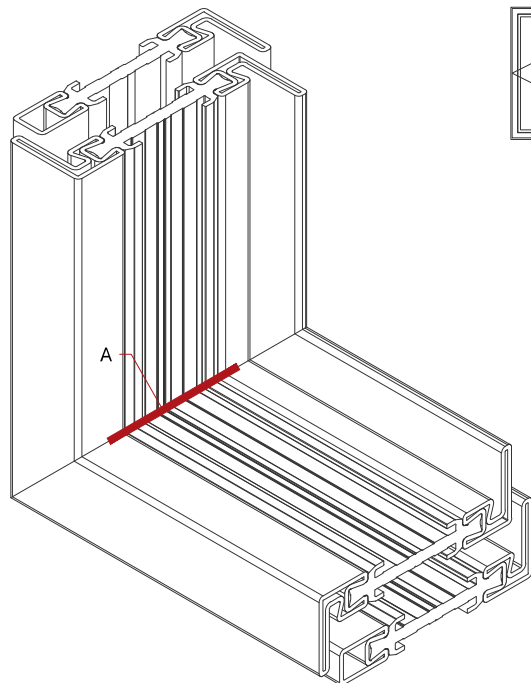
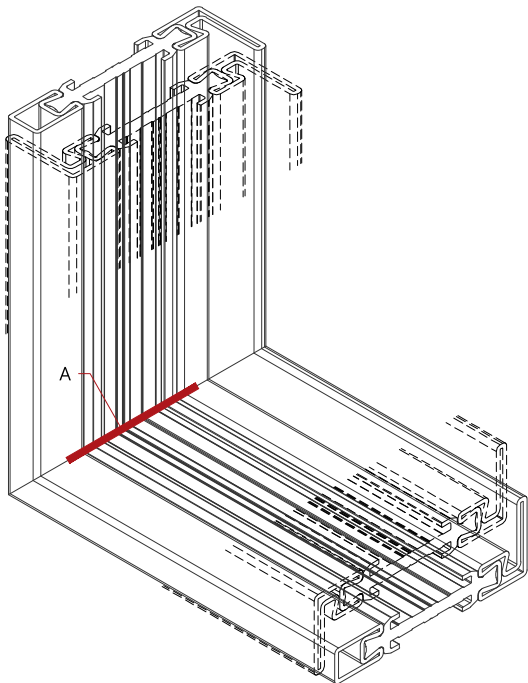
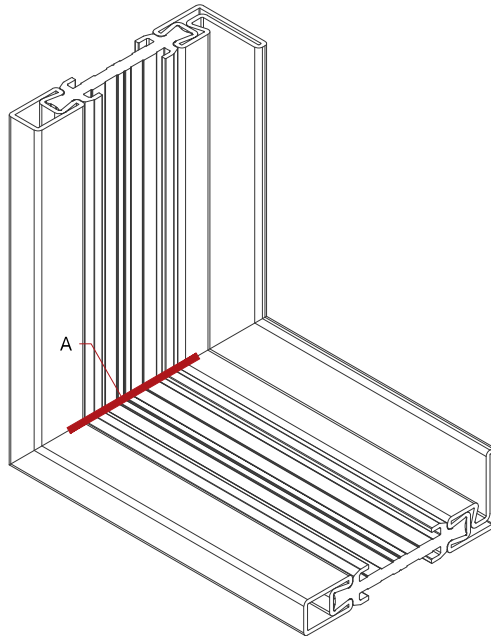
**Montaje accesorios**

**5.4**

**Sealing frame connections**  
 Examples

**Sigillatura profili**  
 Esempi

**Sellado de perfiles**  
 Ejemplos

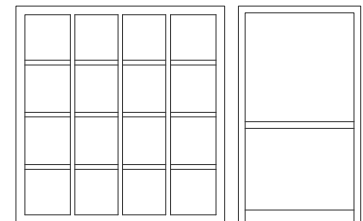
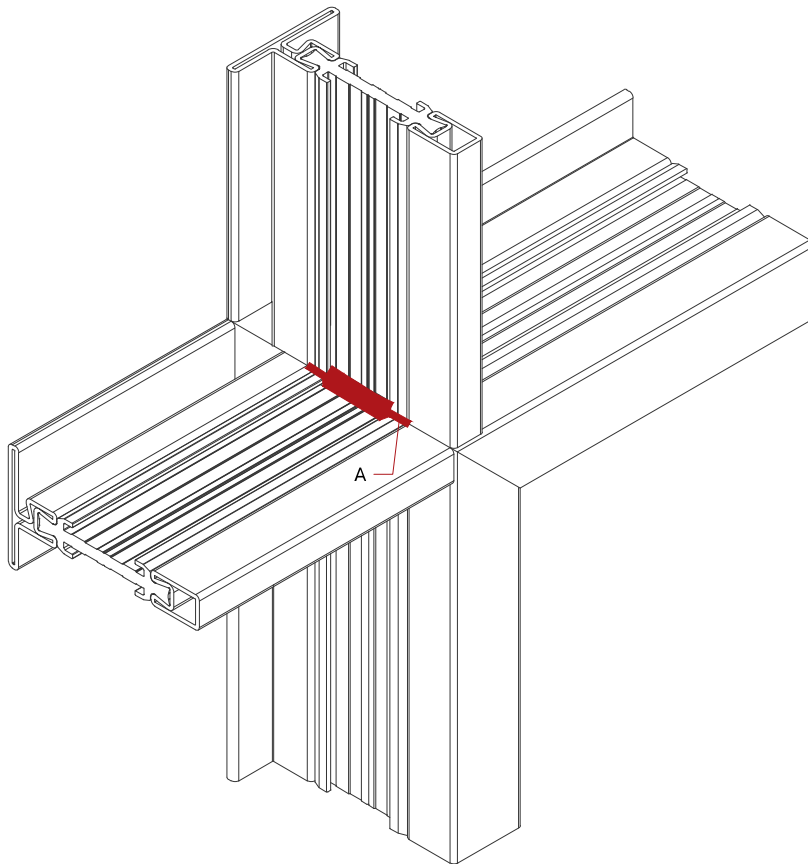
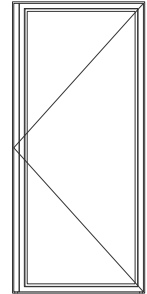
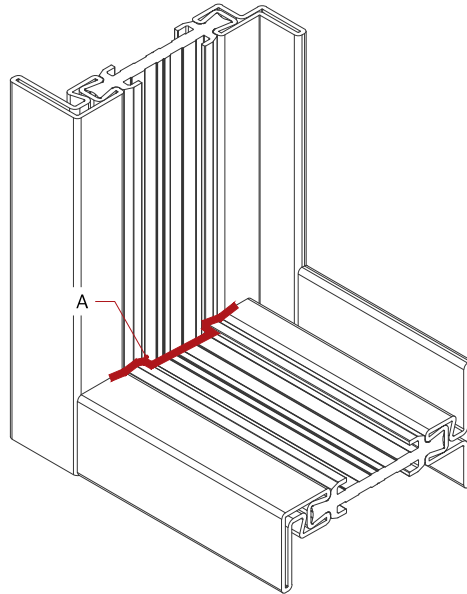


A) For the sealing of the zones not closed by welding in joined frame connections, we strongly recommend using a narrow joint sealant on thermal break, for 45° and 90° cuttings after the painting.

A) Per la chiusura delle fughe in corrispondenza delle giunzioni del telaio che non vengono saldate è necessario l'utilizzo di un apposito sigillante per fughe sottili sul taglio termico in poliuretano, per tagli a 45° e 90°, da eseguire dopo la verniciatura.

A) Para cerrar zonas de fuga cerradas mediante procesos distintos a la soldadura en el caso de las uniones de marcos (45° e 90°) recomendamos encarecidamente el uso del agente sellante para fugas sobre poliamida después de la pintura.





A) For the sealing of the zones not closed by welding in joined frame connections, we strongly recommend using a narrow joint sealant on thermal break, for 45° and 90° cuttings after the painting.

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**Cutting**

Rebate gasket G04021-60,  
 G04022-60, G04023-60 at 45°  
 Open in and open out

**Taglio**

Guarnizione di battuta G04021-60,  
 G04022-60, G04023-60 a 45°  
 Apertura interna ed esterna

**Corte**

Junta de tope G04021-60,  
 G04022-60, G04023-60 en 45°  
 Apertura interna ed externa



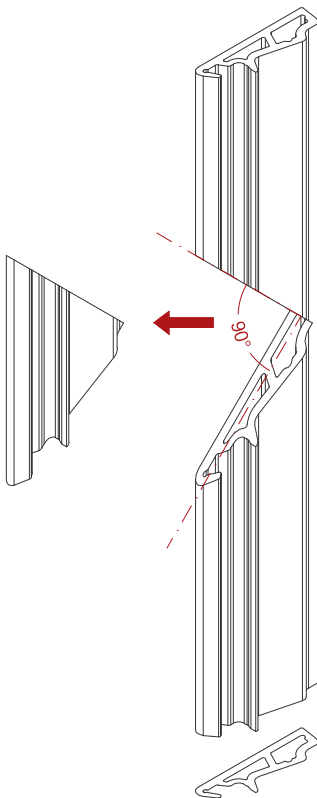
G99021-60



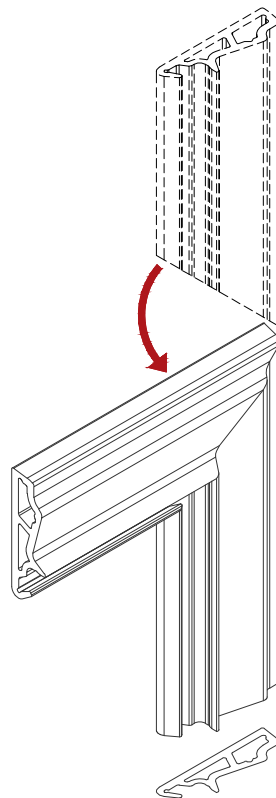
G99022-60



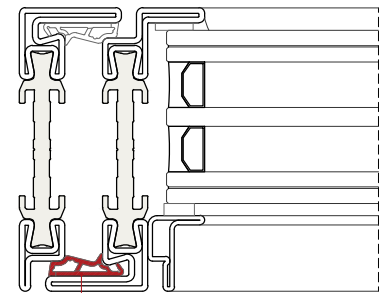
G99023-60



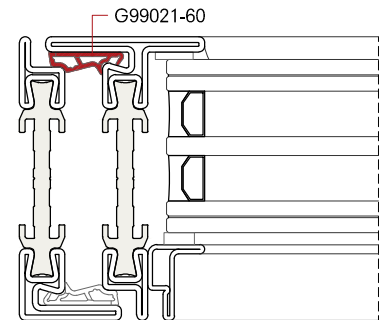
2



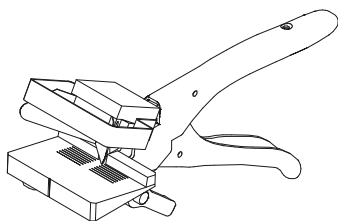
3



G99021-60



G99021-60



- 1) Clean surface and apply primer I99005-75
- 2) Use seal scissor D99543-02
- 3) Glue with sealant OS 364991

- 1) Pulire superficie e stendere primer I99005-75
- 2) Utilizzare la forbice per guarnizioni D99543-02
- 3) Incollare con sigillante OS 364991

- 1) Limpiar la superficie y aplicar el Primer I99005-75
- 2) Use las tijeras para juntas D99543-02
- 3) Pegar con adherente OS 364991

**Cutting**

Rebate gasket G04021-60,  
 G04022-60, G04023-60 at 45°  
 Open in and open out

**Taglio**

Guarnizione di battuta G04021-60,  
 G04022-60, G04023-60 a 45°  
 Apertura interna ed esterna

**Corte**

Junta de tope G04021-60,  
 G04022-60, G04023-60 en 45°  
 Apertura interna ed externa



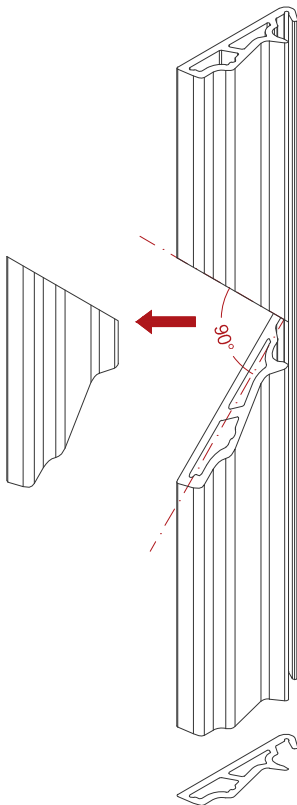
G99021-60



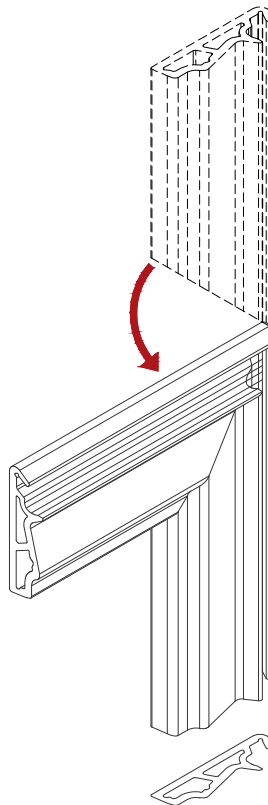
G99022-60



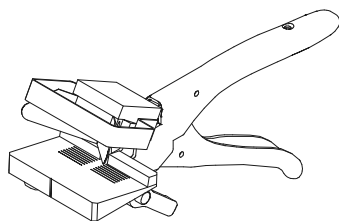
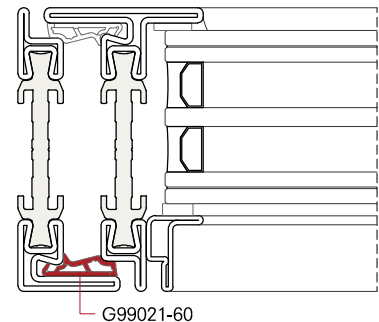
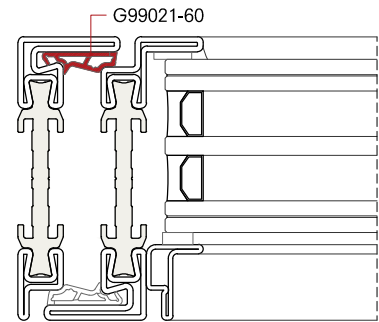
G99023-60



2



3



- 1) Clean surface and apply primer I99005-75
- 2) Use seal scissor D99543-02
- 3) Glue with sealant OS 364991

- 1) Pulire superficie e stendere primer I99005-75
- 2) Utilizzare la forbice per guarnizioni D99543-02
- 3) Incollare con sigillante OS 364991

- 1) Limpiar la superficie y aplicar el Primer I99005-75
- 2) Use las tijeras para juntas D99543-02
- 3) Pegar con adherente OS 364991

**Profile processing**

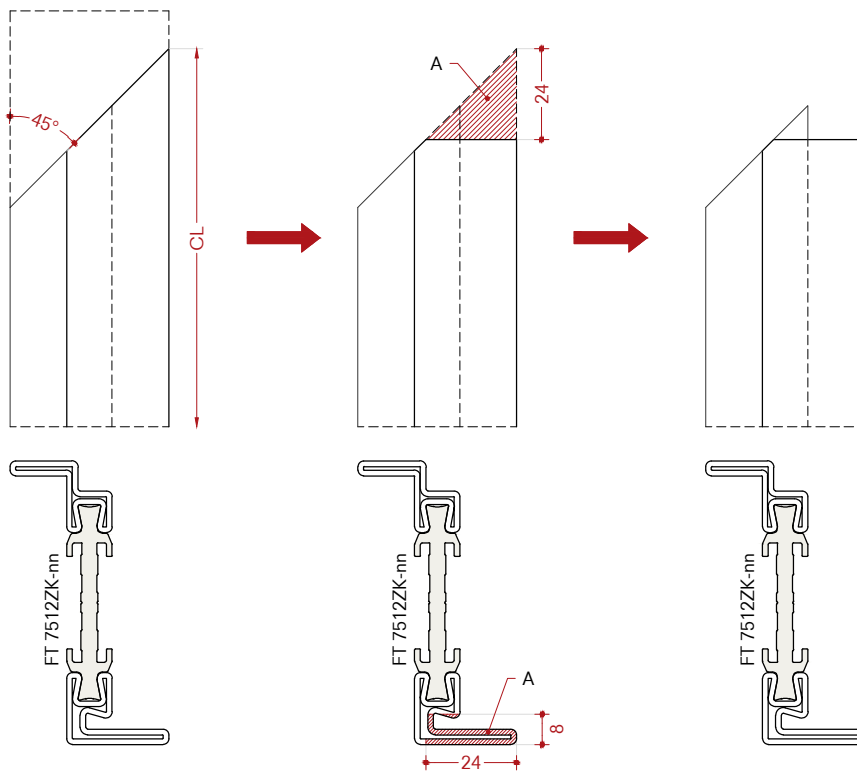
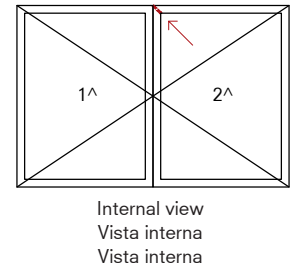
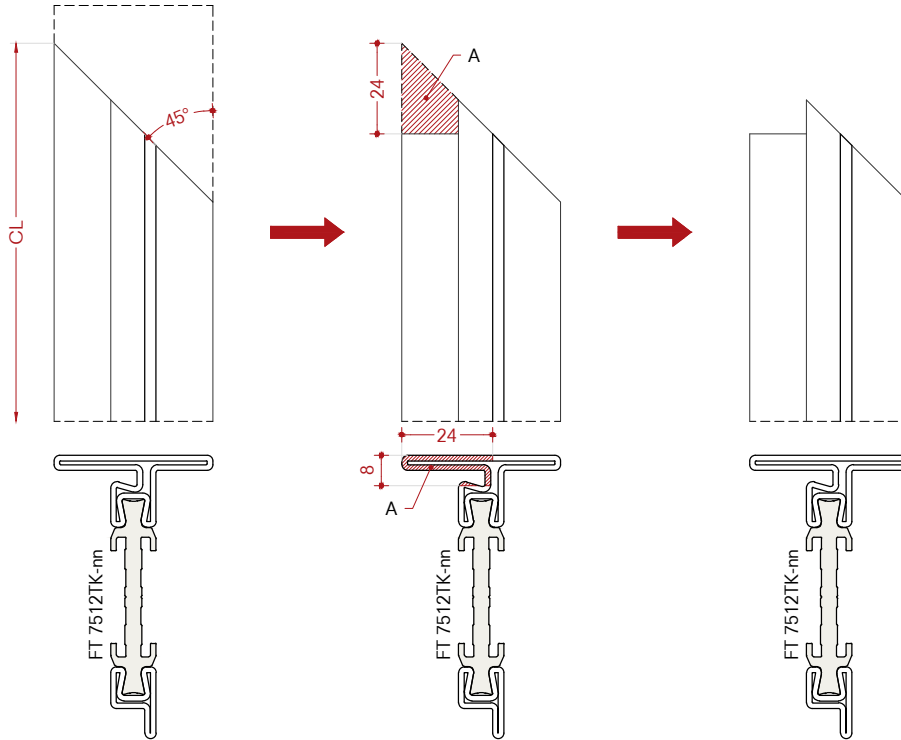
FT 7512TK-nn + FT 7512ZK-nn  
 Double leaf window  
 Open in  
 Flush profiles

**Lavorazione del profilo**

FT 7512TK-nn + FT 7512ZK-nn  
 Finestra a due battenti  
 Apertura interna  
 Profili complanari

**Mecanizado de perfil**

FT 7512TK-nn + FT 7512ZK-nn  
 Ventana de dos hojas  
 Que se abre hacia dentro  
 Perfiles coplanarios



CL = Cutting length

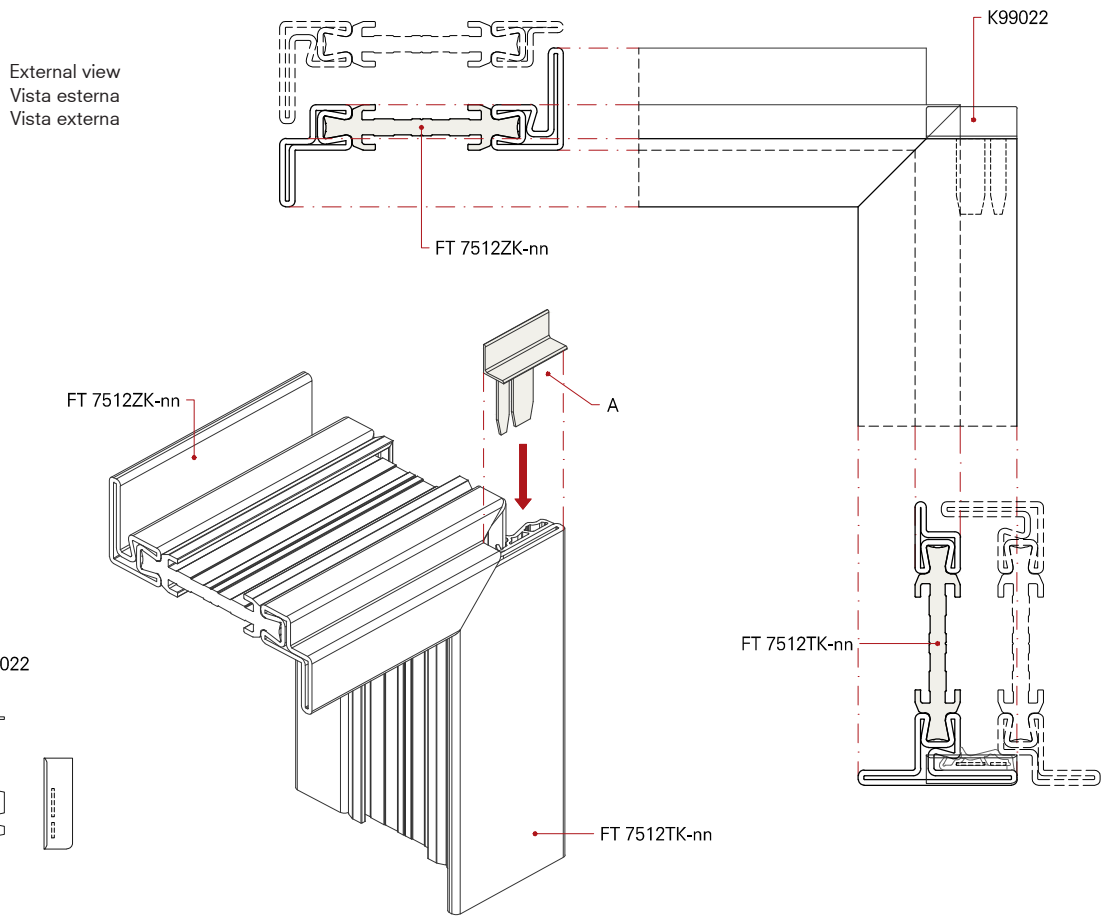
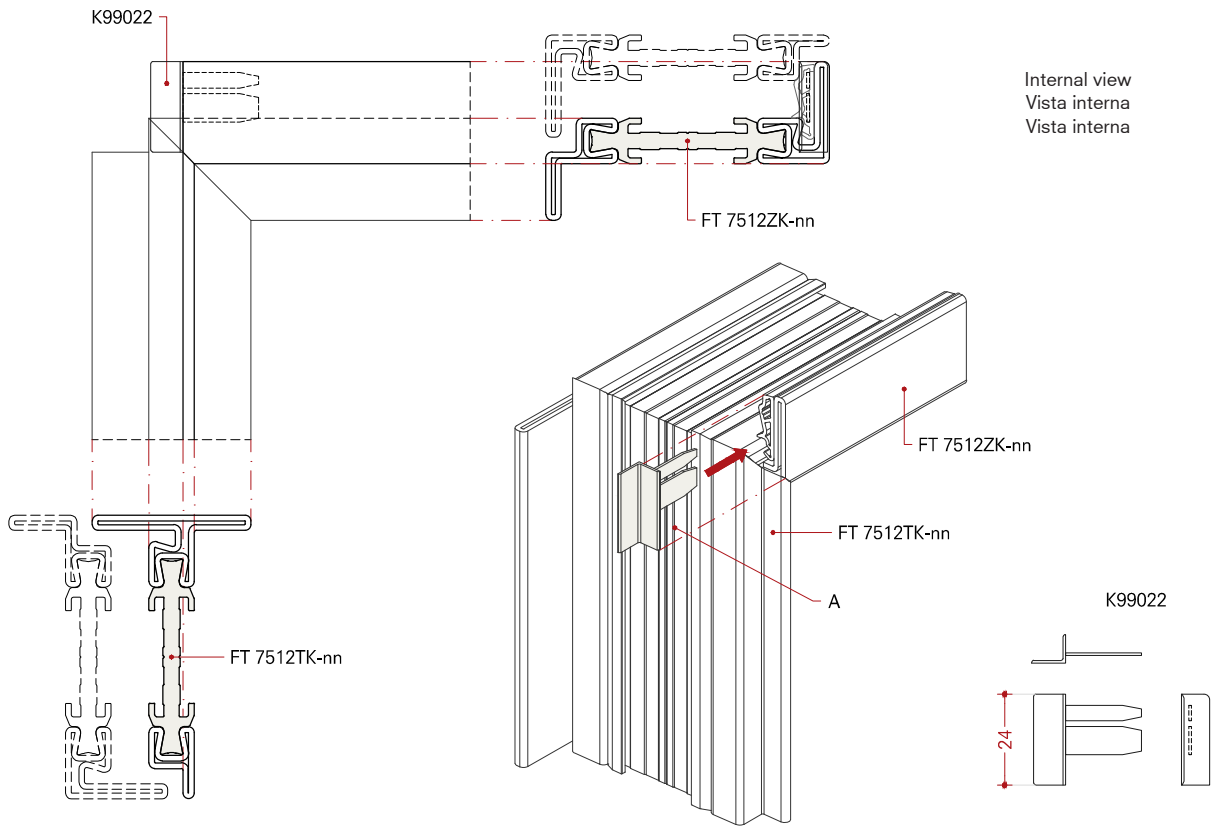
A) Cut outs

CL = Lunghezza di taglio

A) Fresate

CL = Longitud de corte

A) Fresado



A) Provide sealant for thin joints also on surfaces in support of K99022

A) Prevedere sigillante per fughe sottili anche su superfici in appoggio dell'articolo K99022

A) Proporciono sellador para juntas delgadas también en superficies en apoyo de K99022

**Profile processing**

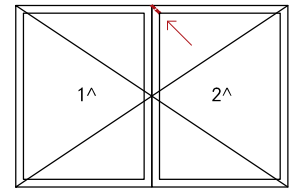
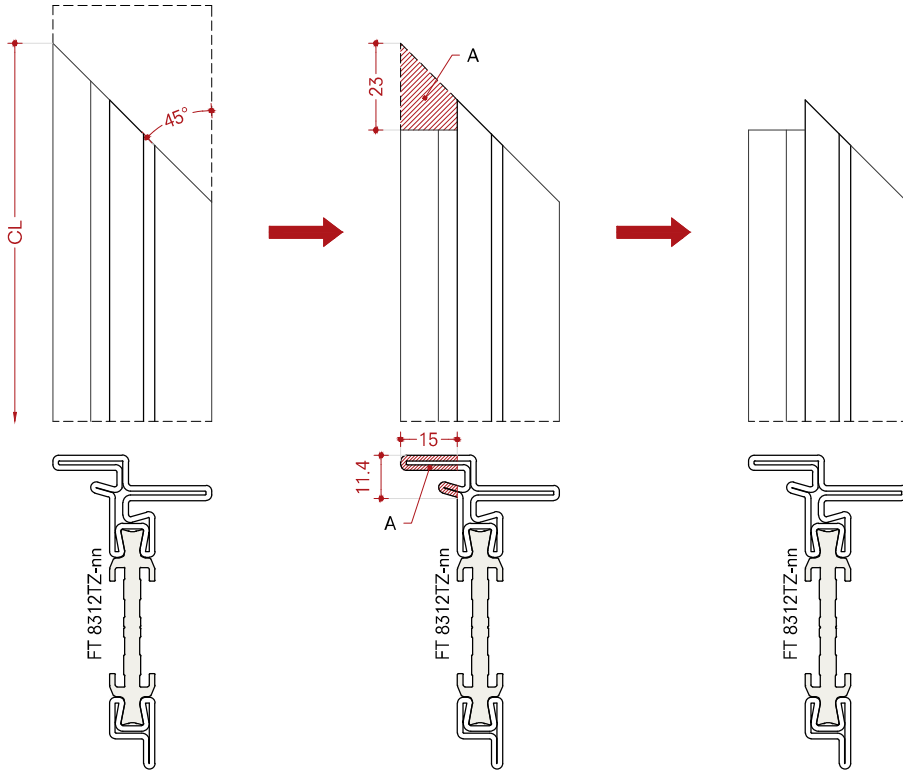
FT 8312TZ-nn + FT 7512Z-nn  
 Double leaf window  
 Open in  
 Overlapped profiles

**Lavorazione del profilo**

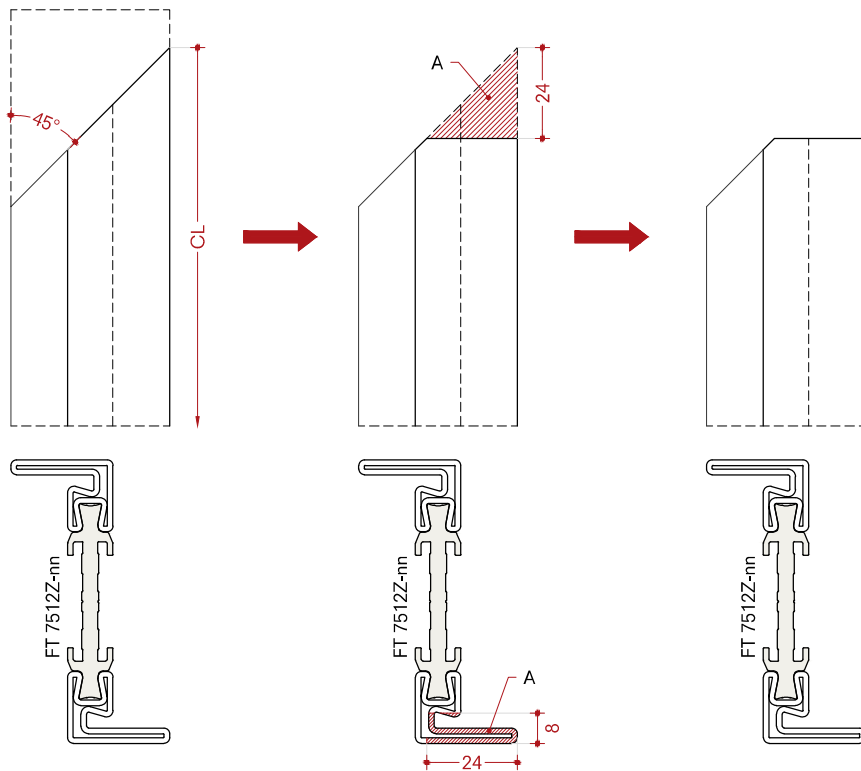
FT 8312TZ-nn + FT 7512Z-nn  
 Finestra a due battenti  
 Apertura interna  
 Profili a sormonto

**Mecanizado de perfil**

FT 8312TZ-nn + FT 7512Z-nn  
 Ventana de dos hojas  
 Que se abre hacia dentro  
 Perfiles superpuestos



Internal view  
 Vista interna  
 Vista interna



CL = Cutting length

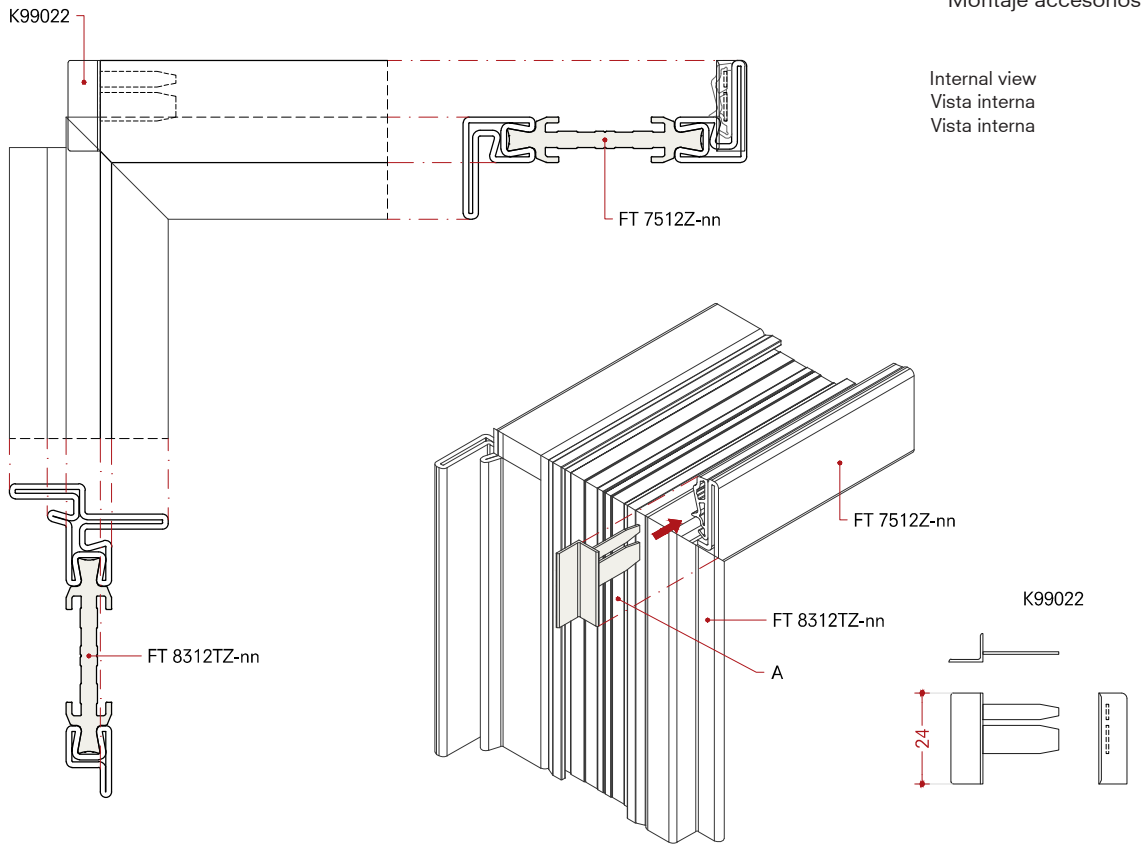
A) Cut outs

CL = Lunghezza di taglio

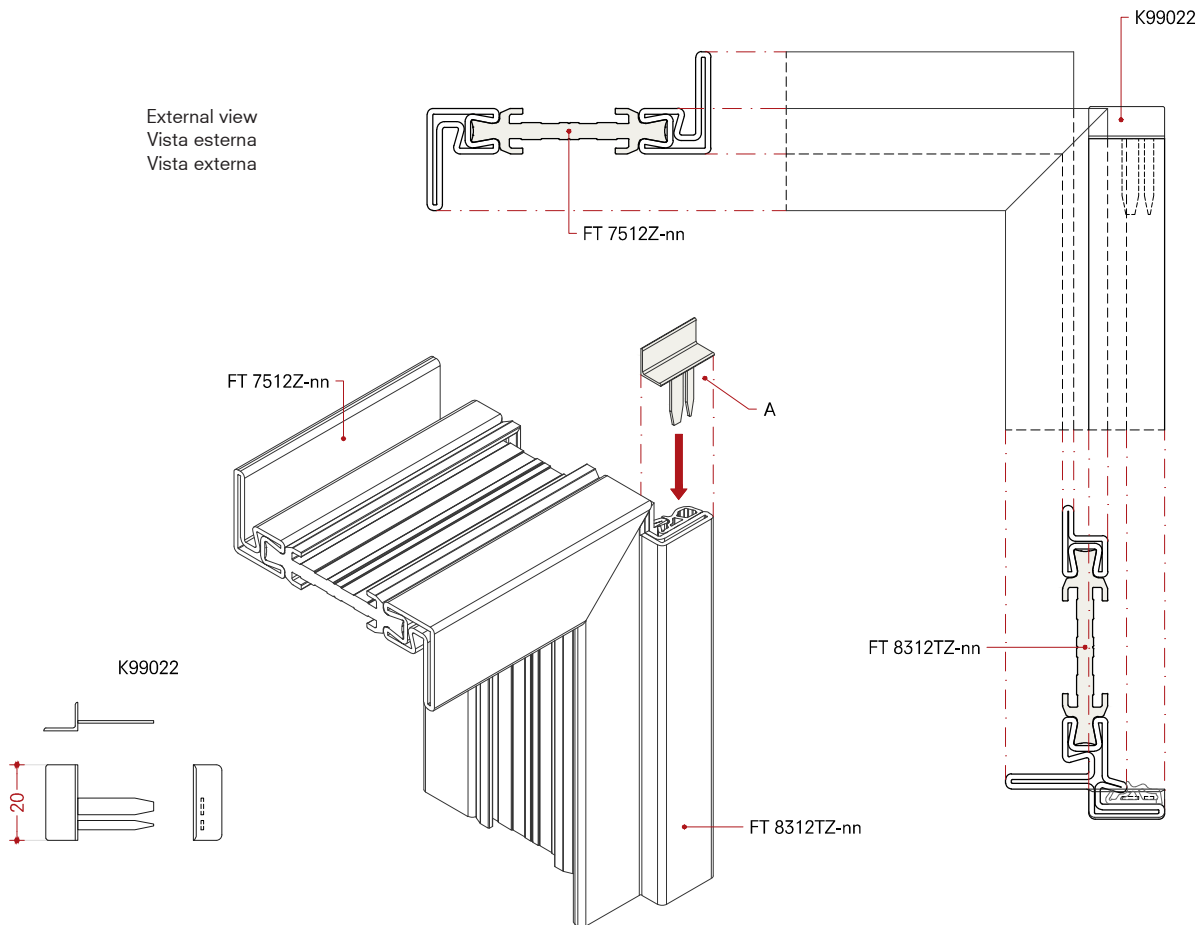
A) Fresate

CL = Longitud de corte

A) Fresado



External view  
 Vista esterna  
 Vista externa



A) Provide sealant for thin joints also on surfaces in support of K99022

A) Prevedere sigillante per fughe sottili anche su superfici in appoggio dell'articolo K99022

A) Proporciono sellador para juntas delgadas también en superficies en apoyo de K99022

**Profile processing**

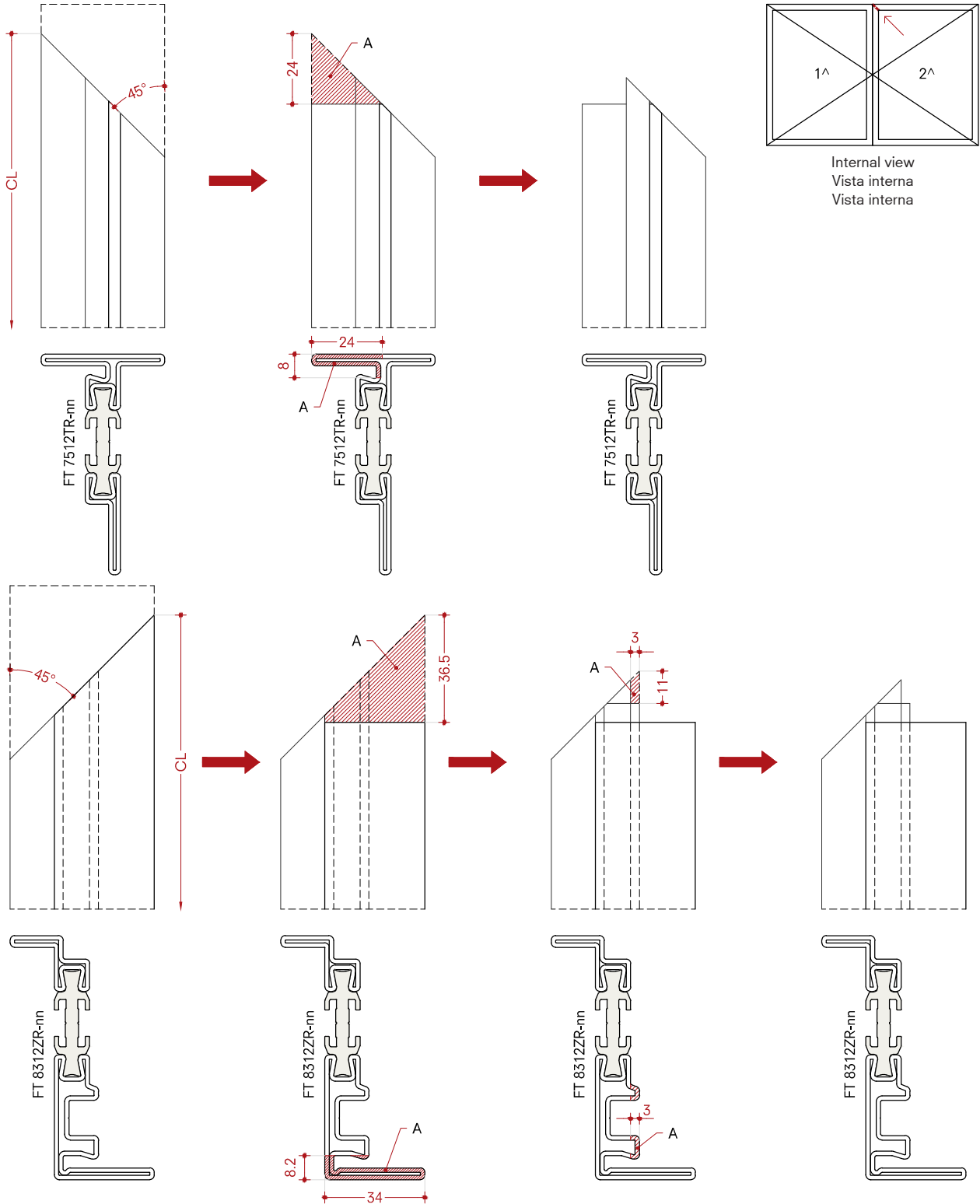
FT 7512TR-nn + FT 8312ZR-nn  
 Double leaf window  
 Open in  
 Tilt&Turn window

**Lavorazione del profilo**

FT 7512TR-nn + FT 8312ZR-nn  
 Finestra a due battenti  
 Apertura interna  
 Finestra anta ribalta

**Mecanizado de perfil**

FT 7512TR-nn + FT 8312ZR-nn  
 Ventana de dos hojas  
 Que se abre hacia dentro  
 Ventana oscilante



Internal view  
 Vista interna  
 Vista interna

CL = Cutting length

A) Cut outs

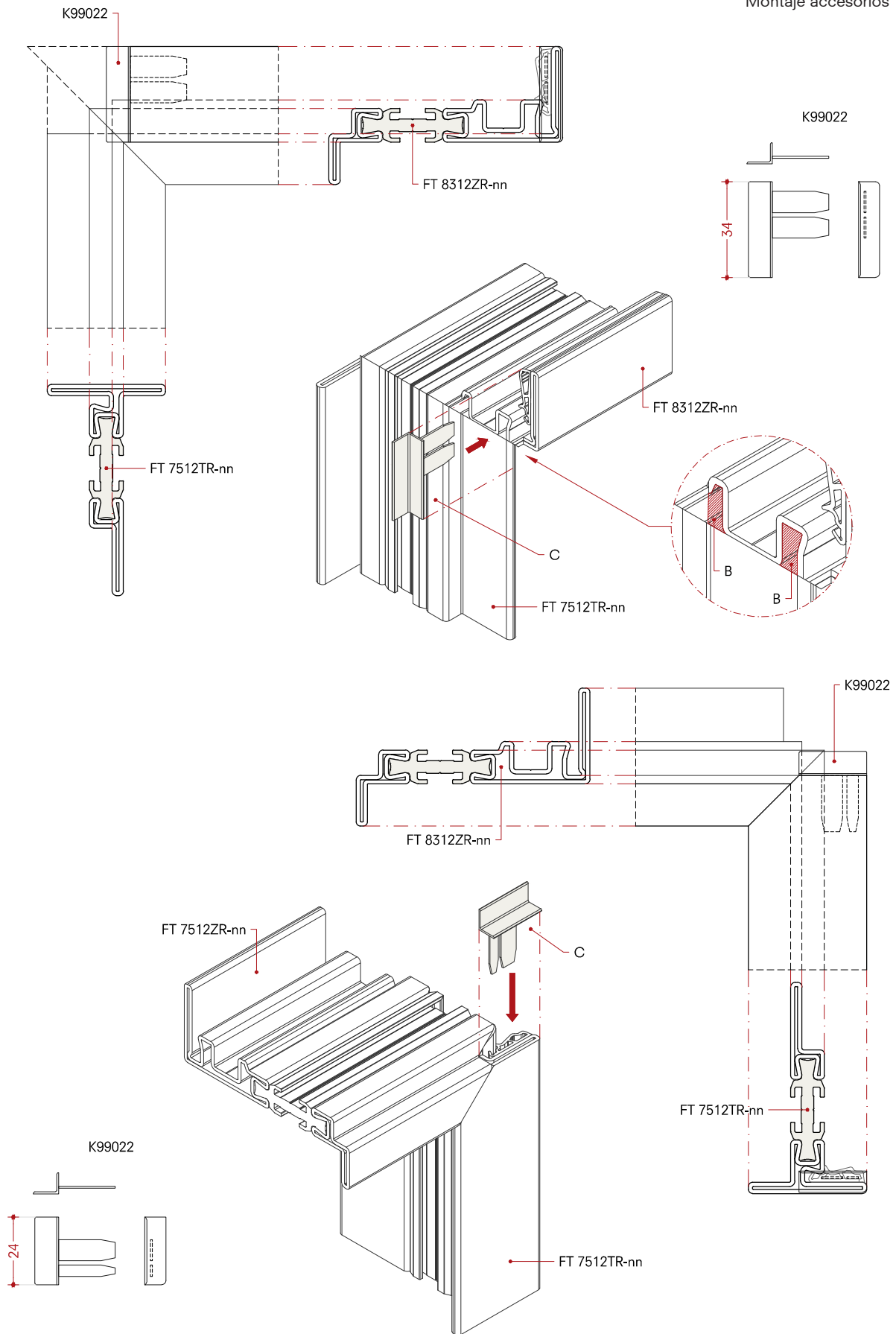
CL = Lunghezza di taglio

A) Fresate

CL = Longitud de corte

A) Fresado





B) Sealant at corners  
 C) Provide sealant for thin joints also on surfaces in support of K99022

B) Sigillante negli angoli  
 C) Prevedere sigillante per fughe sottili anche su superfici in appoggio dell'articolo K99022

B) Agente sellante en las esquinas  
 C) Proporciono sellador para juntas delgadas también en superficies en apoyo de K99022

**Installation**

Weather bar A99001-00  
 Open in  
 Single-leaf and double-leaf windows

**Montaggio**

Gocciolatoio A99001-00  
 Apertura interna  
 Finestre a uno e due battenti

**Montaje**

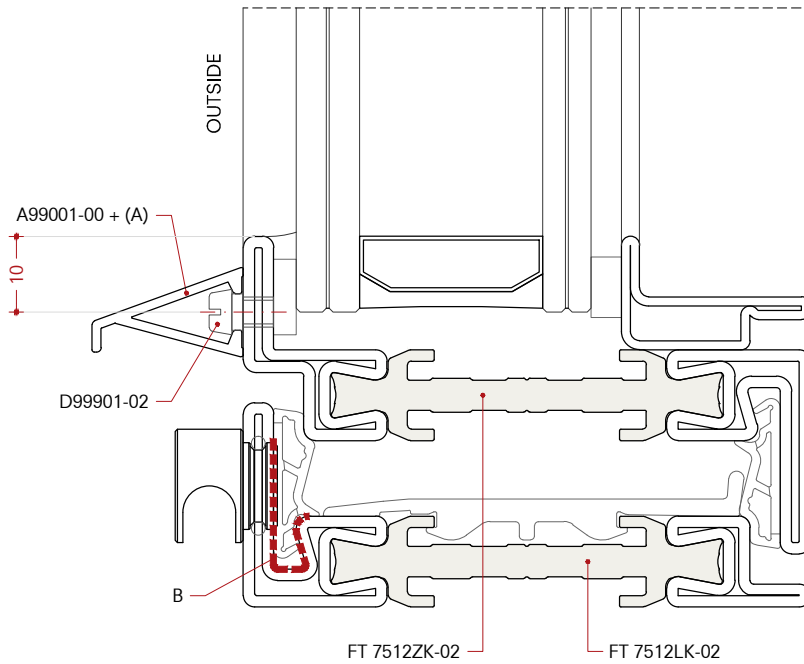
Vierteaguas A99001-00  
 Apertura interna  
 Ventanas de 1 y 2 hojas

Installation only for galvanized steel (-02) and bright steel (-12) profiles

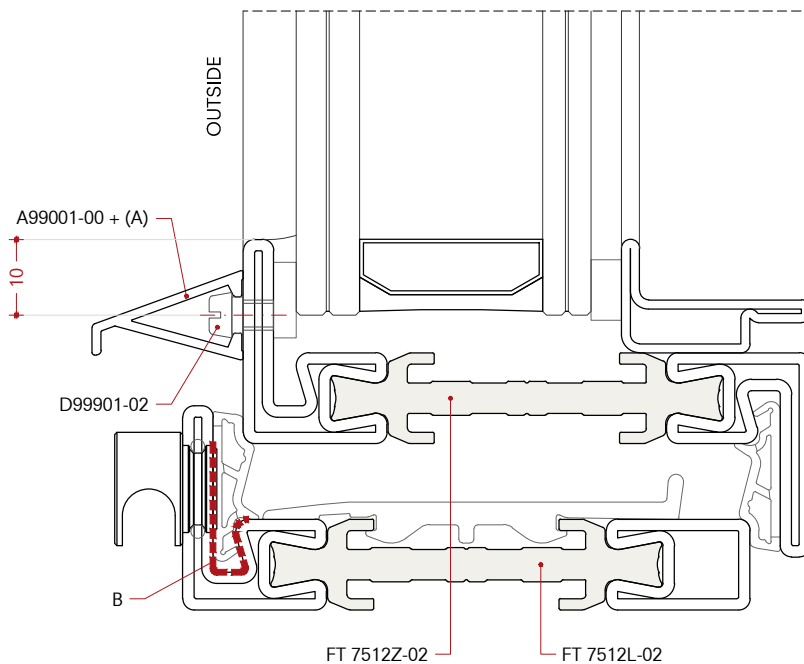
Montaggio solo per profili in acciaio zincato (-02) e acciaio decapato (-12)

Montaje solo para perfiles en acero galvanizado (-02) y acero bruto (-12)

Flush profiles  
 Profili complanari  
 Perfiles coplanarios



Overlapped profiles  
 Profili a sormonto  
 Perfiles superpuestos



A) Cut the screw  
 B) Sealant

A) Accorciare la vite  
 B) Sigillante

A) Recortar tornillo  
 B) Agente sellante

**Installation**

Weather bar A99001-00  
 Open in  
 Single-leaf and double-leaf windows

Installation only for galvanized steel (-02) and bright steel (-12) profiles

**Montaggio**

Gocciolatoio A99001-00  
 Apertura interna  
 Finestre a uno e due battenti

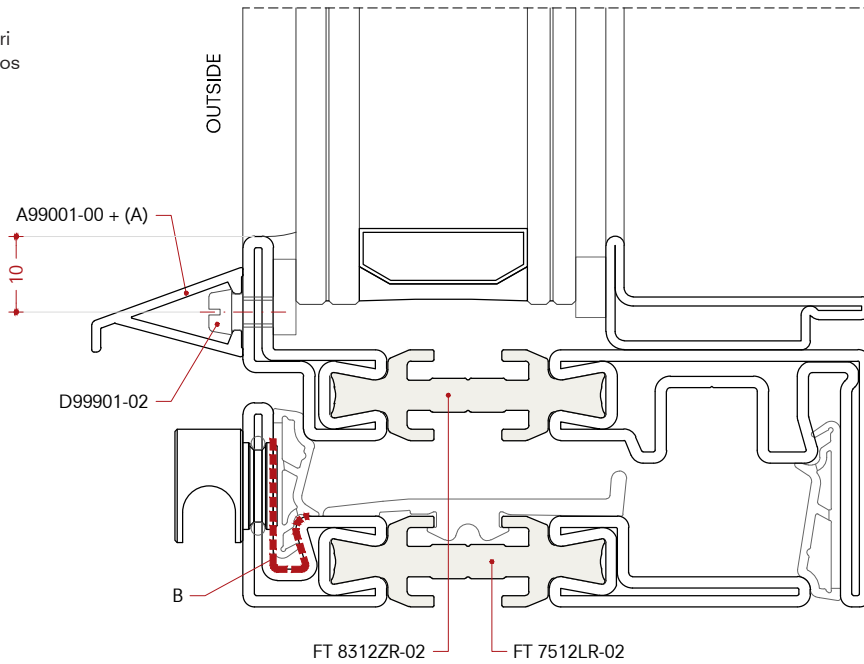
Montaggio solo per profili in acciaio zincato (-02) e acciaio decapato (-12)

**Montaje**

Vierteaguas A99001-00  
 Apertura interna  
 Ventanas de 1 y 2 hojas

Montaje solo para perfiles en acero galvanizado (-02) y acero bruto (-12)

Flush profiles  
 Profili complanari  
 Perfiles coplanarios



A) Cut the screw  
 B) Sealant

A) Accorciare la vite  
 B) Sigillante

A) Recortar tornillo  
 B) Agente sellante

**Installation**

Weather bar A99001-00  
 Open in  
 Single-leaf and double-leaf windows

**Montaggio**

Gocciolatoio A99001-00  
 Apertura interna  
 Finestre a uno e due battenti

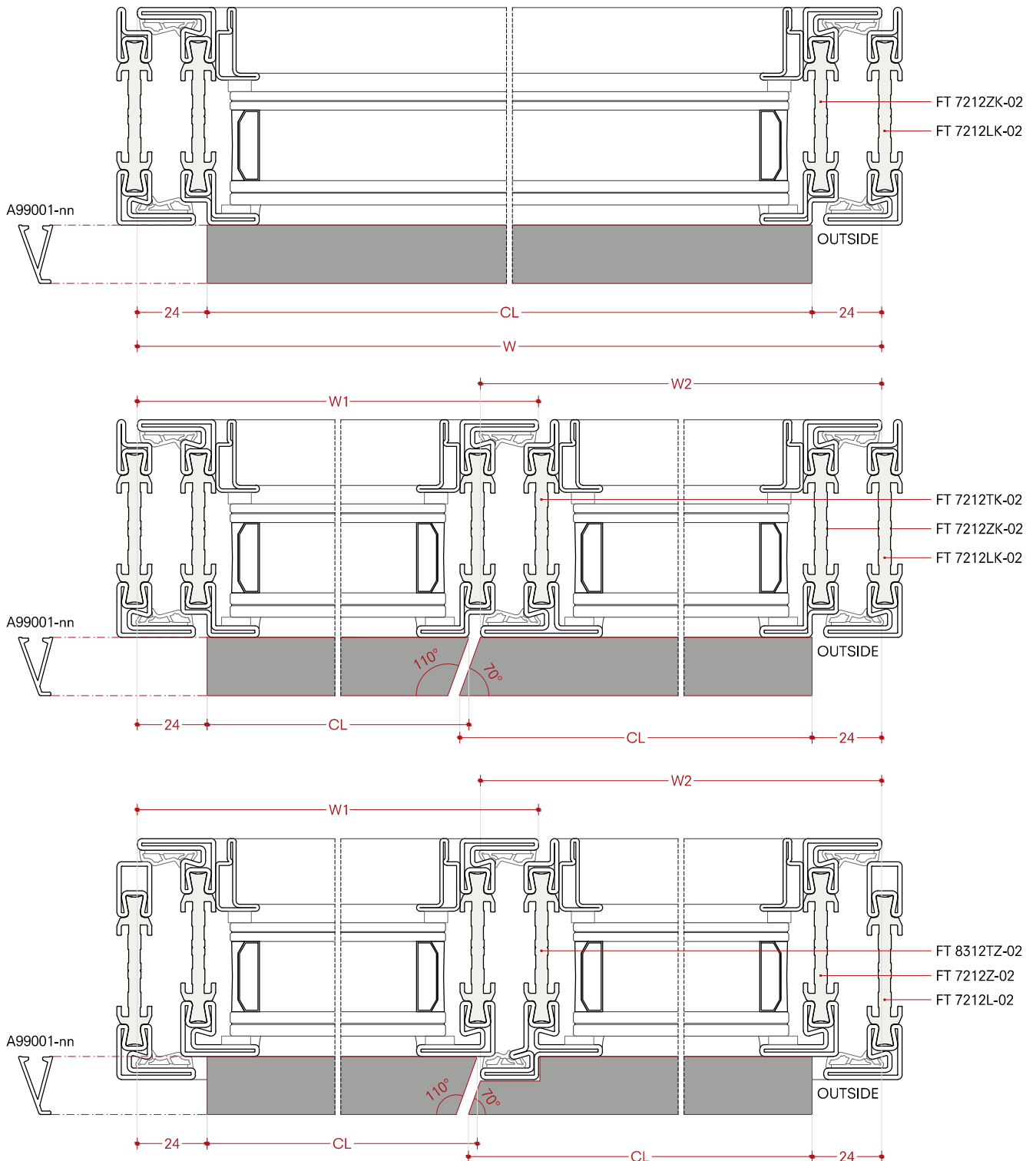
**Montaje**

Vierteaguas A99001-00  
 Apertura interna  
 Ventanas de 1 y 2 hojas

Installation only for galvanized steel (-02) and bright steel (-12) profiles

Montaggio solo per profili in acciaio zincato (-02) e acciaio decapato (-12)

Montaje solo para perfiles en acero galvanizado (-02) y acero bruto (-12)



**Installation**

Weather bar A99008-nn  
 Open in  
 Single-leaf and double-leaf windows

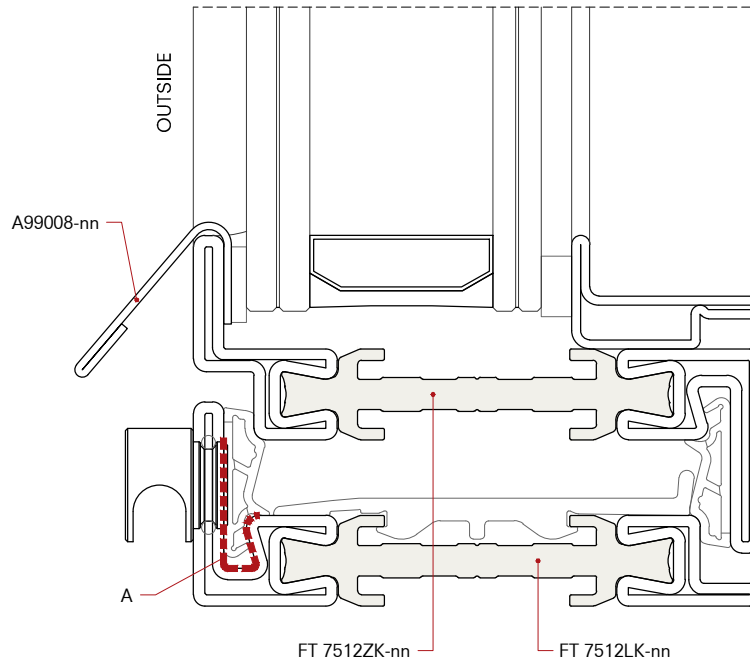
**Montaggio**

Gocciolatoio A99008-nn  
 Apertura interna  
 Finestre a uno e due battenti

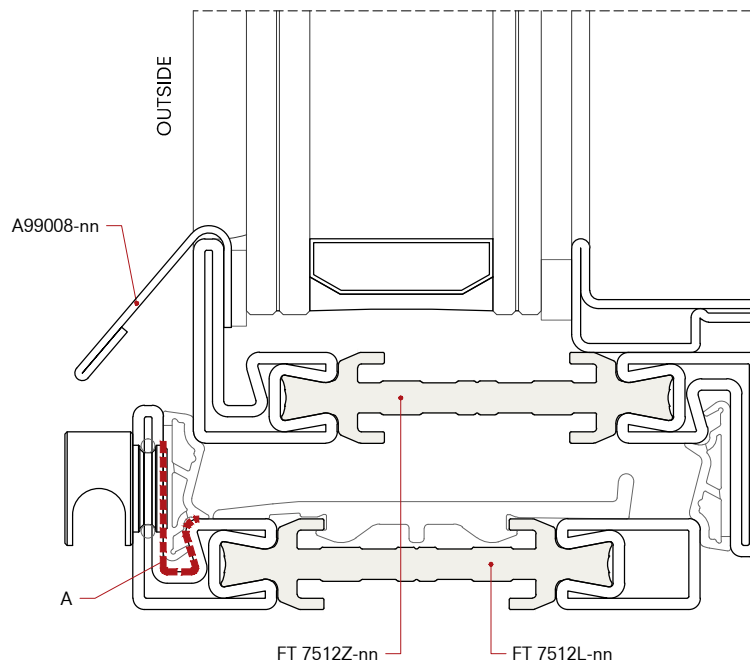
**Montaje**

Vierteaguas A99008-nn  
 Apertura interna  
 Ventanas de 1 y 2 hojas

Flush profiles  
 Profili complanari  
 Perfiles coplanarios



Overlapped profiles  
 Profili a sormonto  
 Perfiles superpuestos



A) Sealant

A) Sigillante

A) Agente sellante

**Installation**

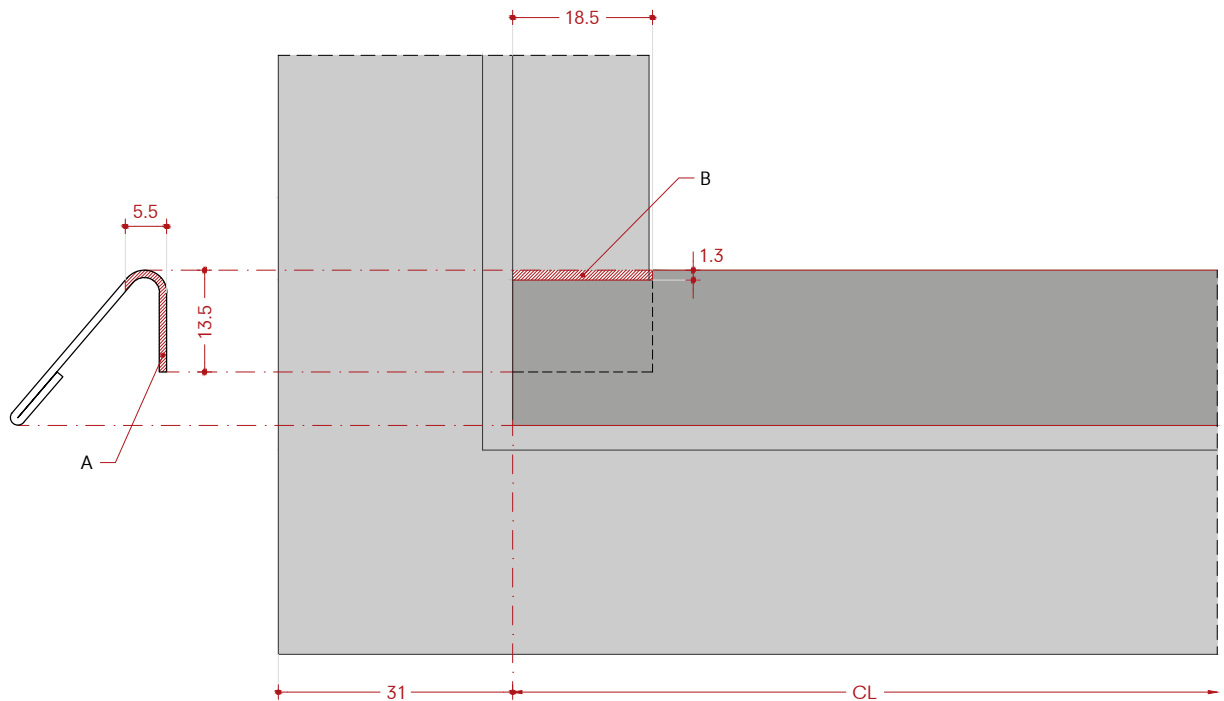
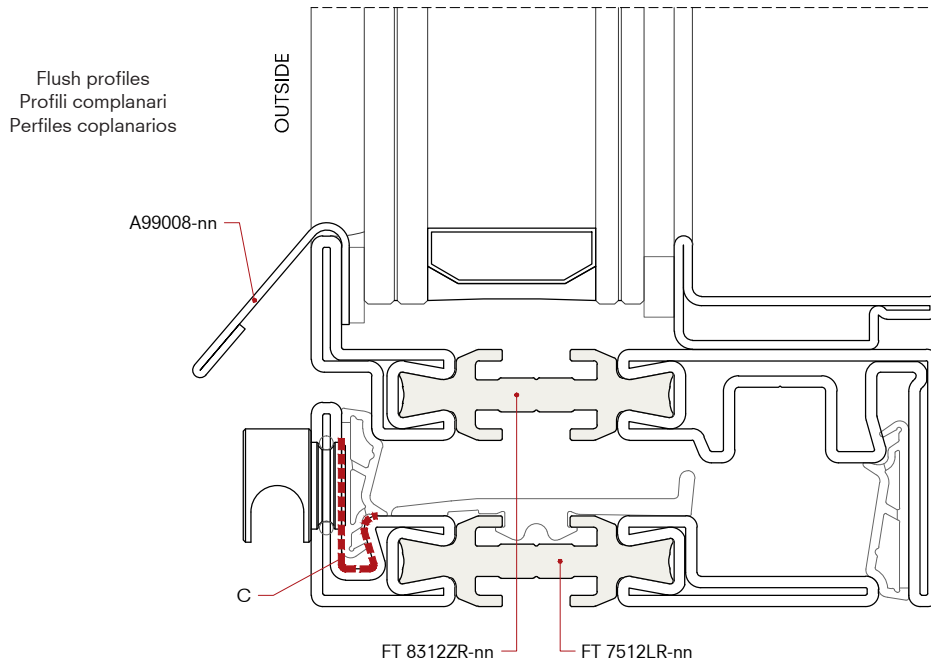
Weather bar A99008-nn  
 Open in  
 Single-leaf and double-leaf windows

**Montaggio**

Gocciolatoio A99008-nn  
 Apertura interna  
 Finestre a uno e due battenti

**Montaje**

Vierteaguas A99008-nn  
 Apertura interna  
 Ventanas de 1 y 2 hojas



CL = Cutting length

- A) Cut out 5.5x13.5 mm
- B) 18.5x1.3 mm cut out of weather bar A99008-nn
- C) Sealant

CL = Lunghezza di taglio

- A) Fresata 5.5x13.5 mm
- B) Fresata 18.5x1.3 mm su gocciolatoio A99008-nn
- C) Sigillante

CL = Longitud de corte

- A) Fresado 5.5x13.5 mm
- B) Hendiduras fresadas 18.5x1.3 mm en vierteaguas A99008-nn
- C) Agente sellante

**Installation**

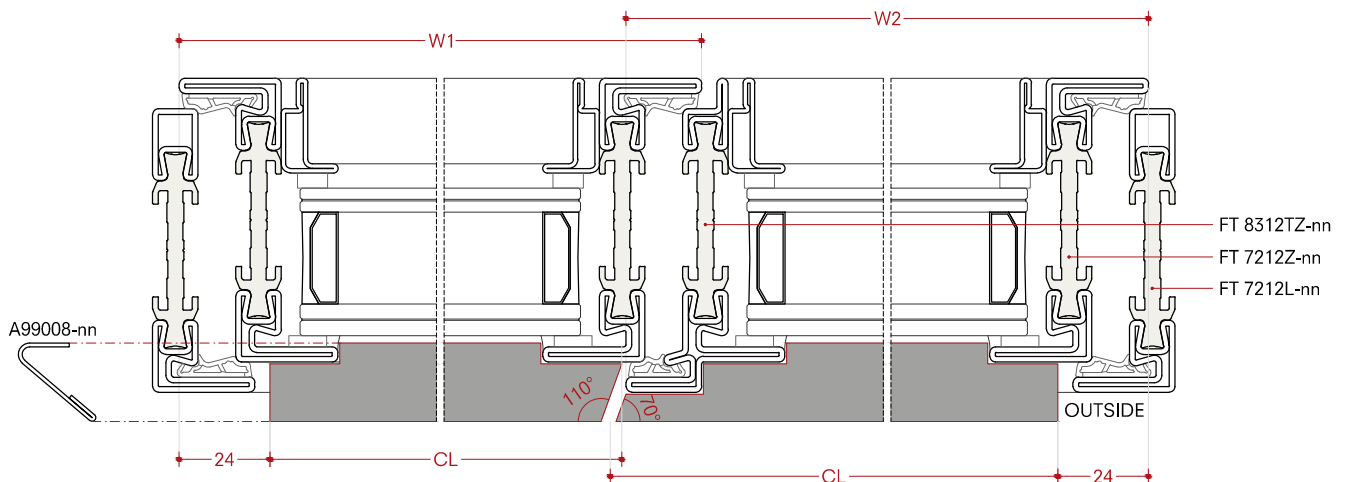
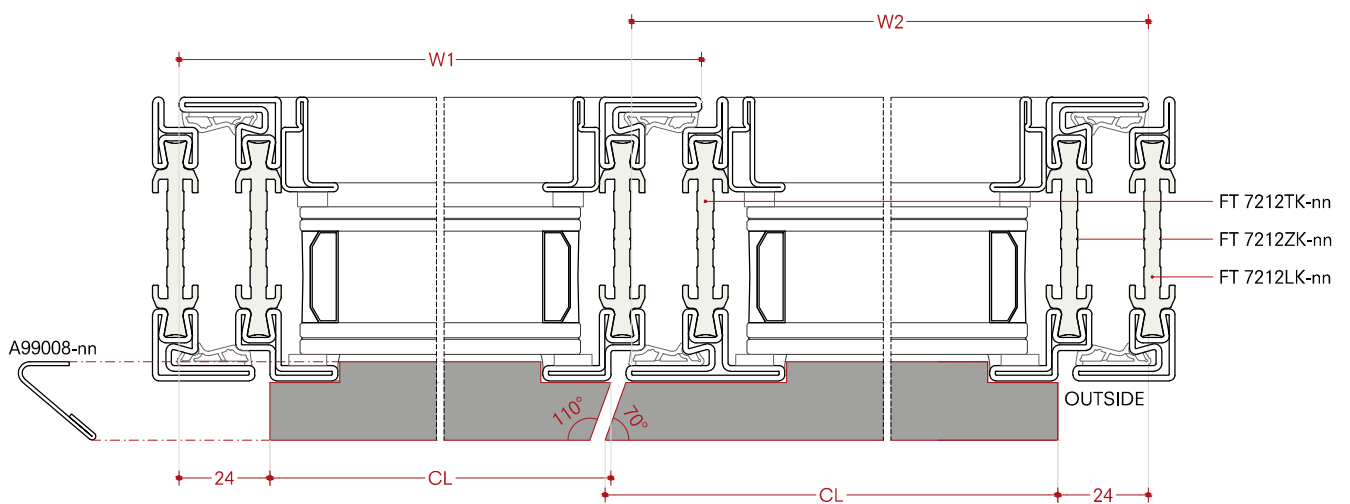
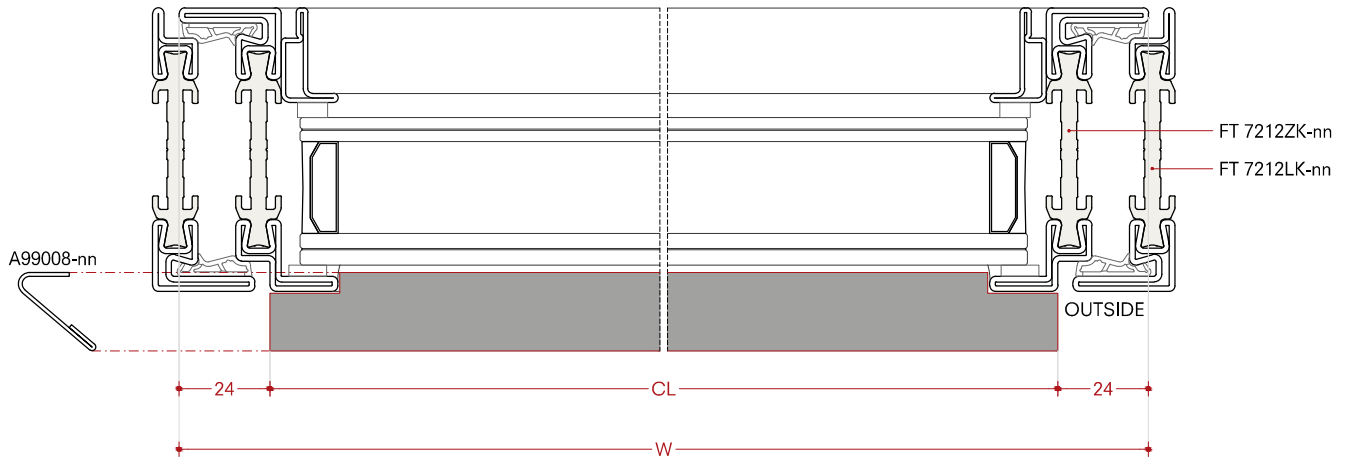
Weather bar A99008-nn  
 Open in  
 Single-leaf and double-leaf windows

**Montaggio**

Gocciolatoio A99008-nn  
 Apertura interna  
 Finestre a uno e due battenti

**Montaje**

Vierteaguas A99008-nn  
 Apertura interna  
 Ventanas de 1 y 2 hojas



**Assembling**

Cover cap A99201-35  
 Open in  
 Flush profiles  
 Drain holes with cover caps.

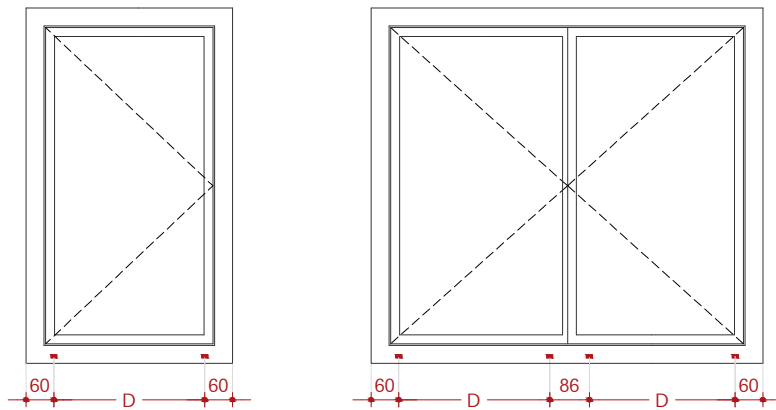
**Schema di montaggio**

Tappo scarico acqua A99201-35  
 Apertura interna  
 Profili complanari  
 Fori di drenaggio con tappi di copertura.

**Diagrama de montaje**

Tapa de cubierta A99201-35  
 Ventana que se abre hacia dentro  
 Perfiles coplanarios  
 Orificios de desagüe con tapas de cubierta.

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes/cover caps  
 For single leaf window

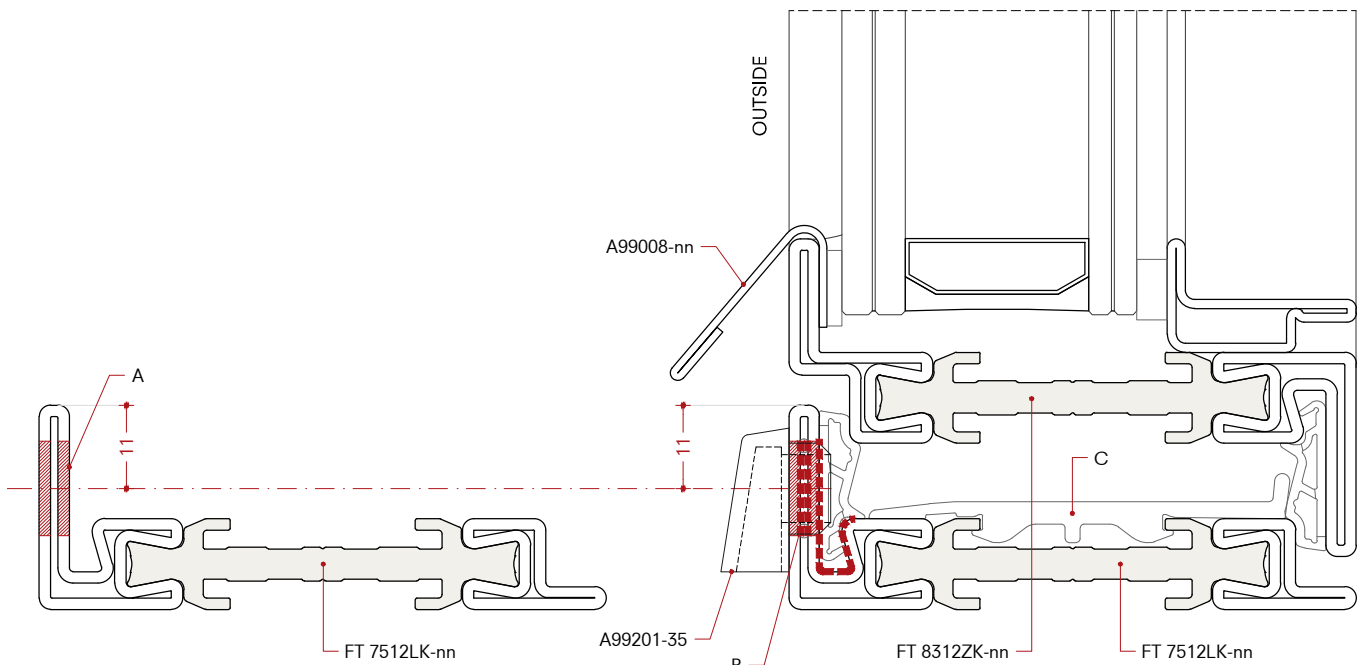
Minimo n°02 fori/tappi di scarico  
 Per finestra anta singola

Minimo n°02 orificios/tapas de cubierta  
 Para ventana de una hoja

Min. n°04 drain holes/cover caps  
 For double leaf window

Minimo n°04 fori/tappi di scarico  
 Per finestra anta doppia

Minimo n°04 orificios/tapas de cubierta  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) n°02 holes Ø12.5 mm frame profile
- B) Sealing between cover cap and frame profile
- C) G99313-60 water drainage gasket
- D) Max. distance between cover caps 1000 mm

**Note:**

Da sigillare dopo verniciatura.

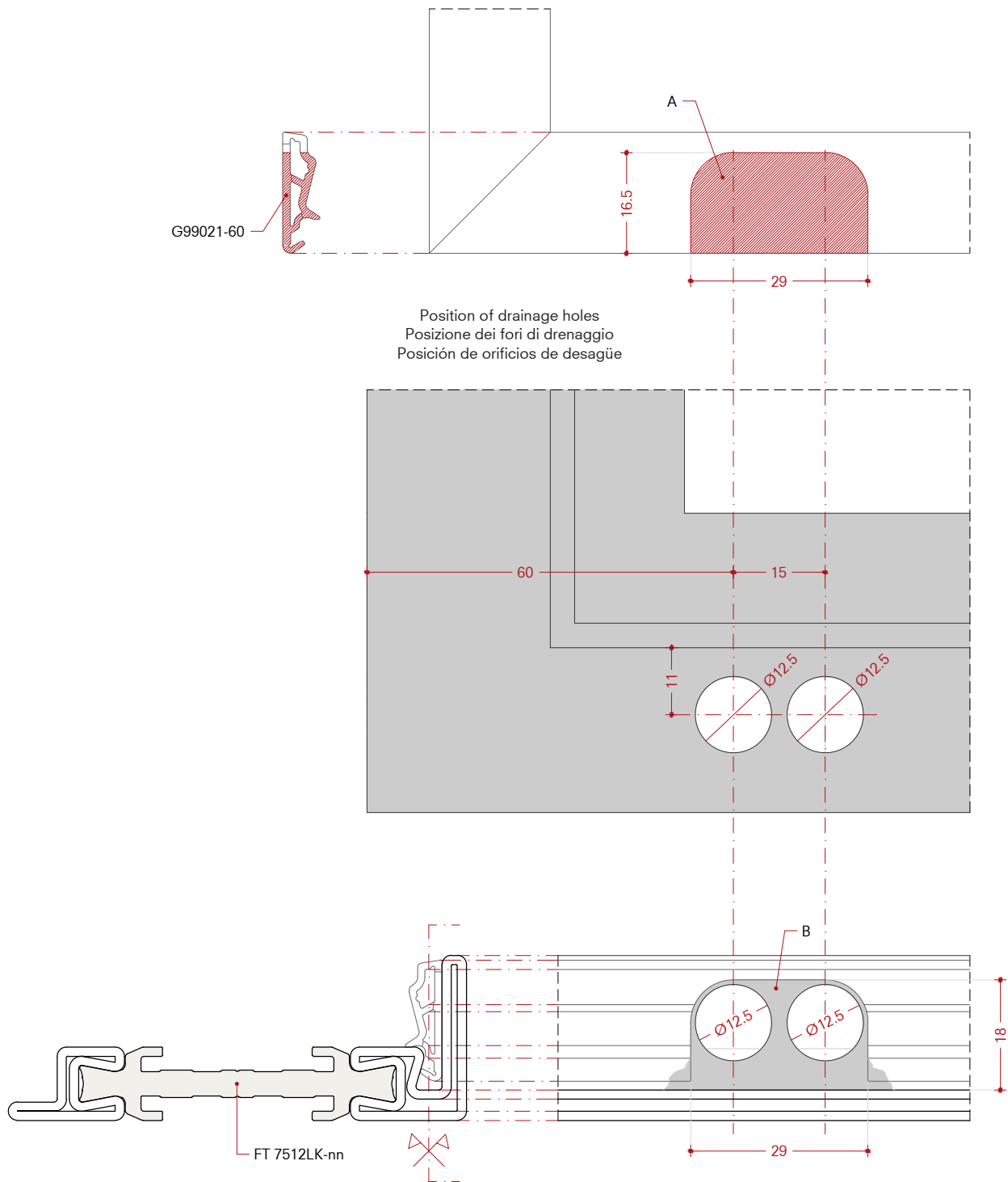
- A) n°02 fori Ø12.5 mm sul profilo telaio
- B) Sigillatura tra tappo di scarico acqua e profilo telaio
- C) G99313-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i tappi 1000 mm

**Nota:**

Para ser sellado después de pintar

- A) n°02 orificios Ø12.5 mm en perfil de marco
- B) Agente sellante entre tapa de cubierta y perfil de marco
- C) G99313-60 junta de drenaje de agua
- D) Distancia máxima entre tapas 1000 mm





**Note:**

At least 2 cover caps up to leaf width of 1000 mm  
 At least 4 cover caps up to leaf of 2000 mm

- A) Cut out 29x16.5 mm on gasket G99021-60
- B) Sealant

**Nota:**

Almeno 2 tappi di drenaggio per larghezza anta fino a 1000 mm  
 Almeno 4 tappi di drenaggio per larghezza anta fino a 2000 mm

- A) Fresata 29x16.5 mm su guarnizione G99021-60
- B) Sigillante

**Nota:**

Al menos 2 tapas hasta 1000 mm de ancho de hoja  
 Al menos 4 tapas hasta 2000 mm de ancho de hoja

- A) Hendiduras fresadas 29x16.5 mm en junta G99021-60
- B) Agente sellante

**Assembling**

Cover cap A99201-35  
 Open in  
 Overlapped profiles  
 Drain holes with cover caps.

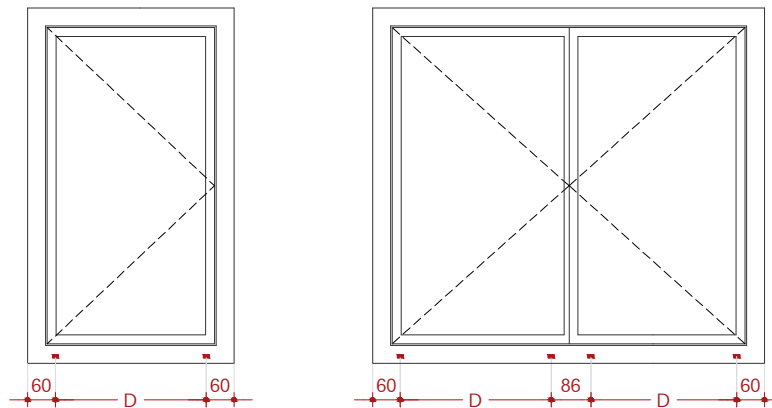
**Schema di montaggio**

Tappo scarico acqua A99201-35  
 Apertura interna  
 Profili a sormonto  
 Fori di drenaggio con tappi di copertura.

**Diagrama de montaje**

Tapa de cubierta A99201-35  
 Ventana que se abre hacia dentro  
 Perfiles superpuestos  
 Orificios de desagüe con tapas de cubierta.

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes/cover caps  
 For single leaf window

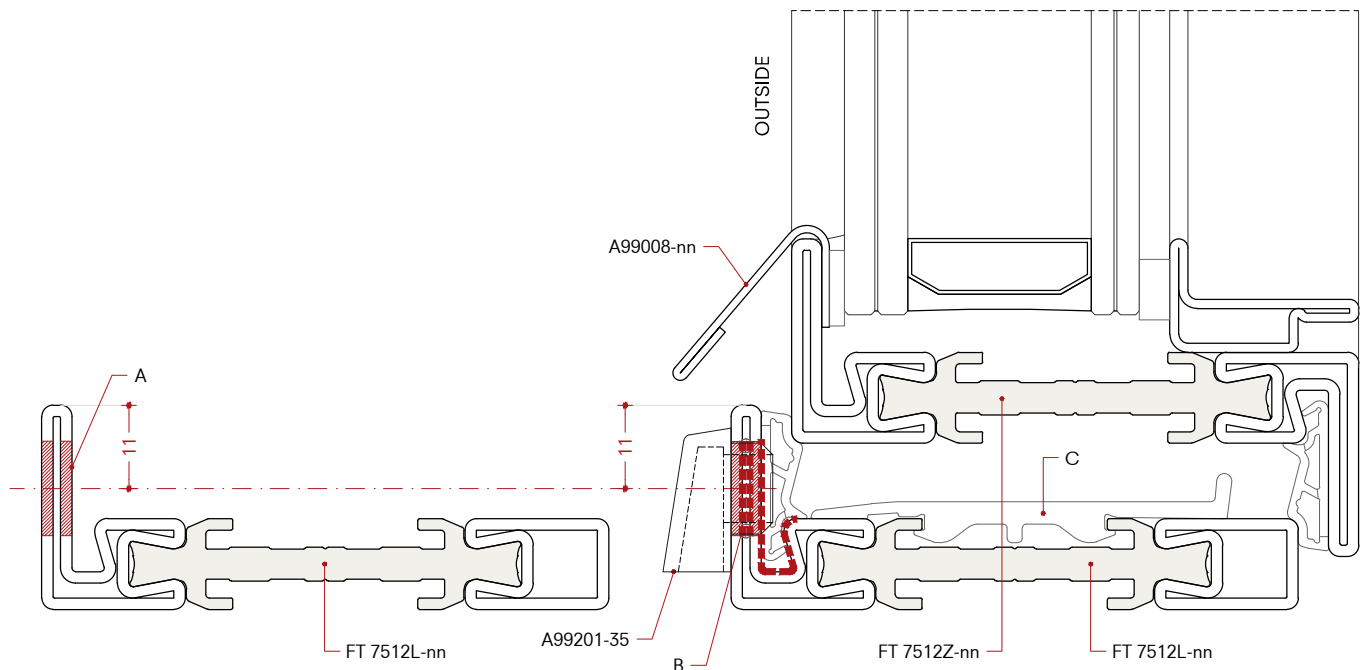
Minimo n°02 fori/tappi di scarico  
 Per finestra anta singola

Minimo n°02 orificios/tapas de cubierta  
 Para ventana de una hoja

Min. n°04 drain holes/cover caps  
 For double leaf window

Minimo n°04 fori/tappi di scarico  
 Per finestra anta doppia

Minimo n°04 orificios/tapas de cubierta  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) n°02 holes Ø12.5 mm frame profile
- B) Sealing between cover cap and frame profile
- C) G99313-60 water drainage gasket
- D) Max. distance between cover caps 1000 mm

**Note:**

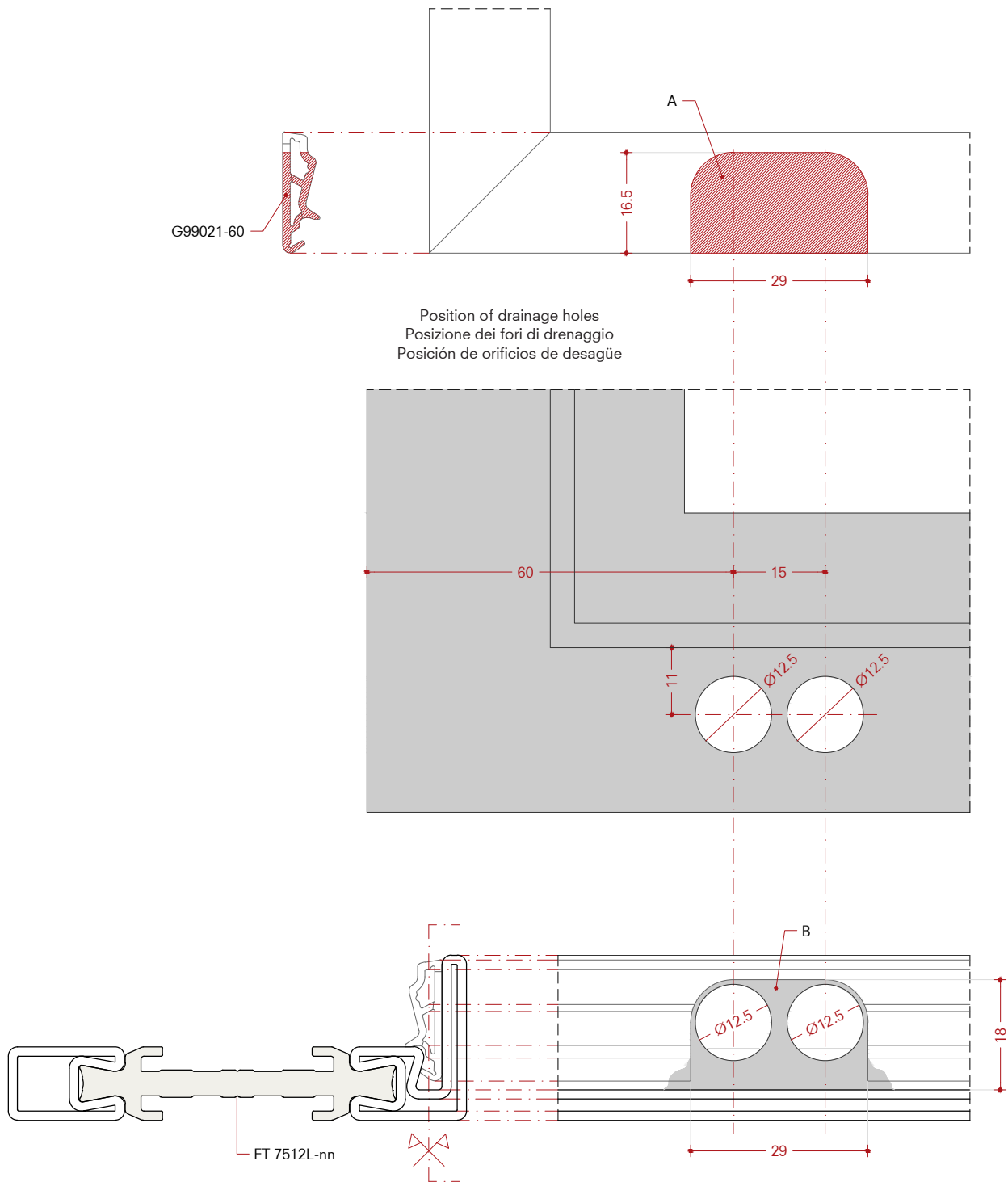
Da sigillare dopo verniciatura.

- A) n°02 fori Ø12.5 mm sul profilo telaio
- B) Sigillatura tra tappo di scarico acqua e profilo telaio
- C) G99313-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i tappi 1000 mm

**Nota:**

Para ser sellado después de pintar

- A) n°02 orificios Ø12.5 mm en perfil de marco
- B) Agente sellante entre tapa de cubierta y perfil de marco
- C) G99313-60 junta de drenaje de agua
- D) Distancia máxima entre tapas 1000 mm



**Note:**

At least 2 cover caps up to leaf width of 1000 mm  
 At least 4 cover caps up to leaf of 2000 mm

- A) Cut out 29x16.5 mm on gasket G99021-60
- B) Sealant

**Nota:**

Almeno 2 tappi di drenaggio per larghezza anta fino a 1000 mm  
 Almeno 4 tappi di drenaggio per larghezza anta fino a 2000 mm

- A) Fresata 29x16.5 mm su guarnizione G99021-60
- B) Sigillante

**Nota:**

Al menos 2 tapas hasta 1000 mm de ancho de hoja  
 Al menos 4 tapas hasta 2000 mm de ancho de hoja

- A) Hendiduras fresadas 29x16.5 mm en junta G99021-60
- B) Agente sellante

**Assembling**

Cover cap A99201-35  
 Open in  
 Flush profiles  
 Drain holes with cover caps.

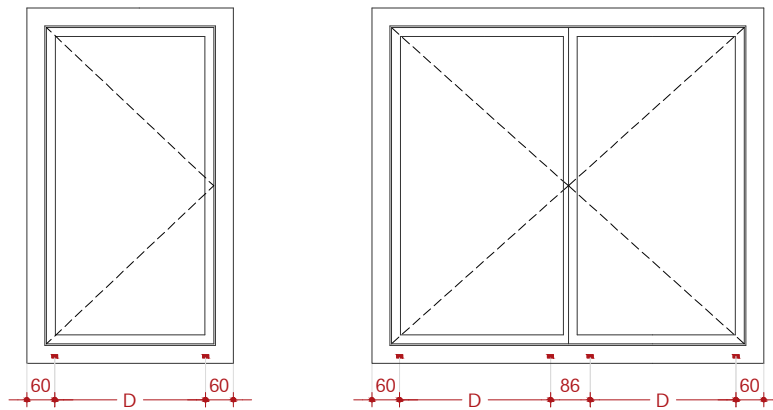
**Schema di montaggio**

Tappo scarico acqua A99201-35  
 Apertura interna  
 Profili complanari  
 Fori di drenaggio con tappi di copertura.

**Diagrama de montaje**

Tapa de cubierta A99201-35  
 Ventana que se abre hacia dentro  
 Perfiles coplanarios  
 Orificios de desagüe con tapas de cubierta.

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes/cover caps  
 For single leaf window

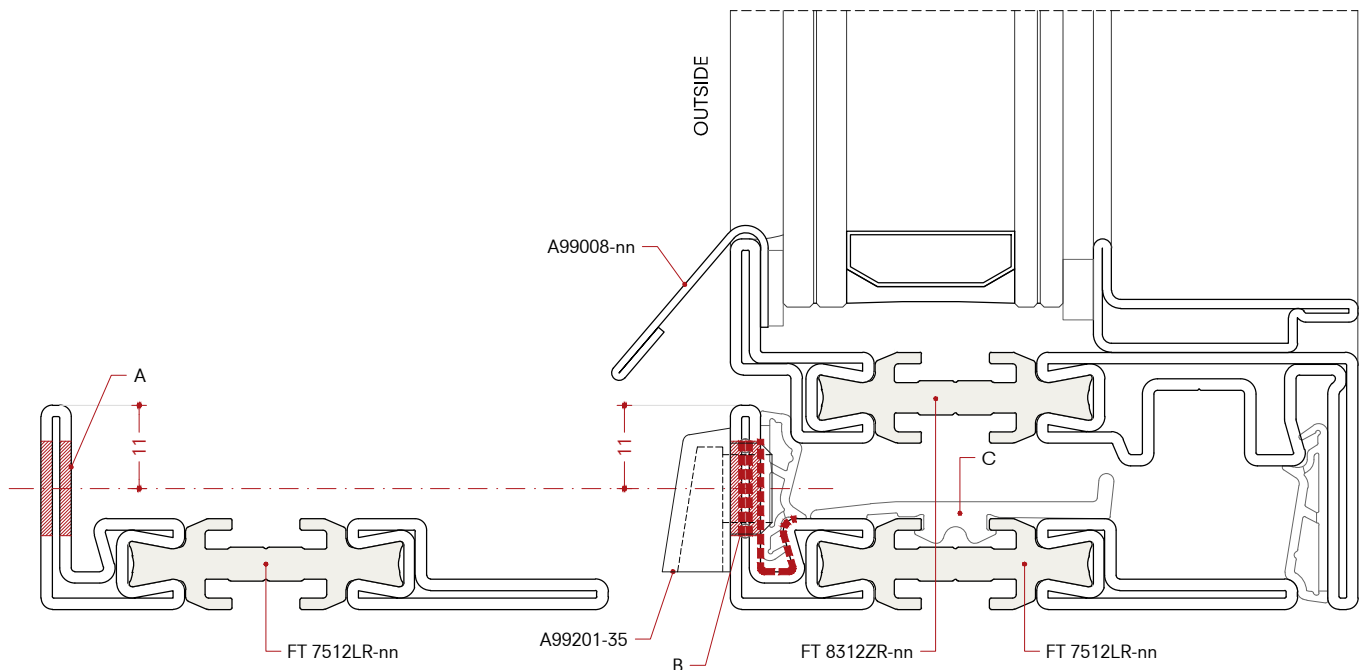
Minimo n°02 fori/tappi di scarico  
 Per finestra anta singola

Minimo n°02 orificios/tapas de cubierta  
 Para ventana de una hoja

Min. n°04 drain holes/cover caps  
 For double leaf window

Minimo n°04 fori/tappi di scarico  
 Per finestra anta doppia

Minimo n°04 orificios/tapas de cubierta  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) n°02 holes Ø12.5 mm frame profile
- B) Sealing between cover cap and frame profile
- C) G99312-60 water drainage gasket
- D) Max. distance between cover caps 1000 mm

**Note:**

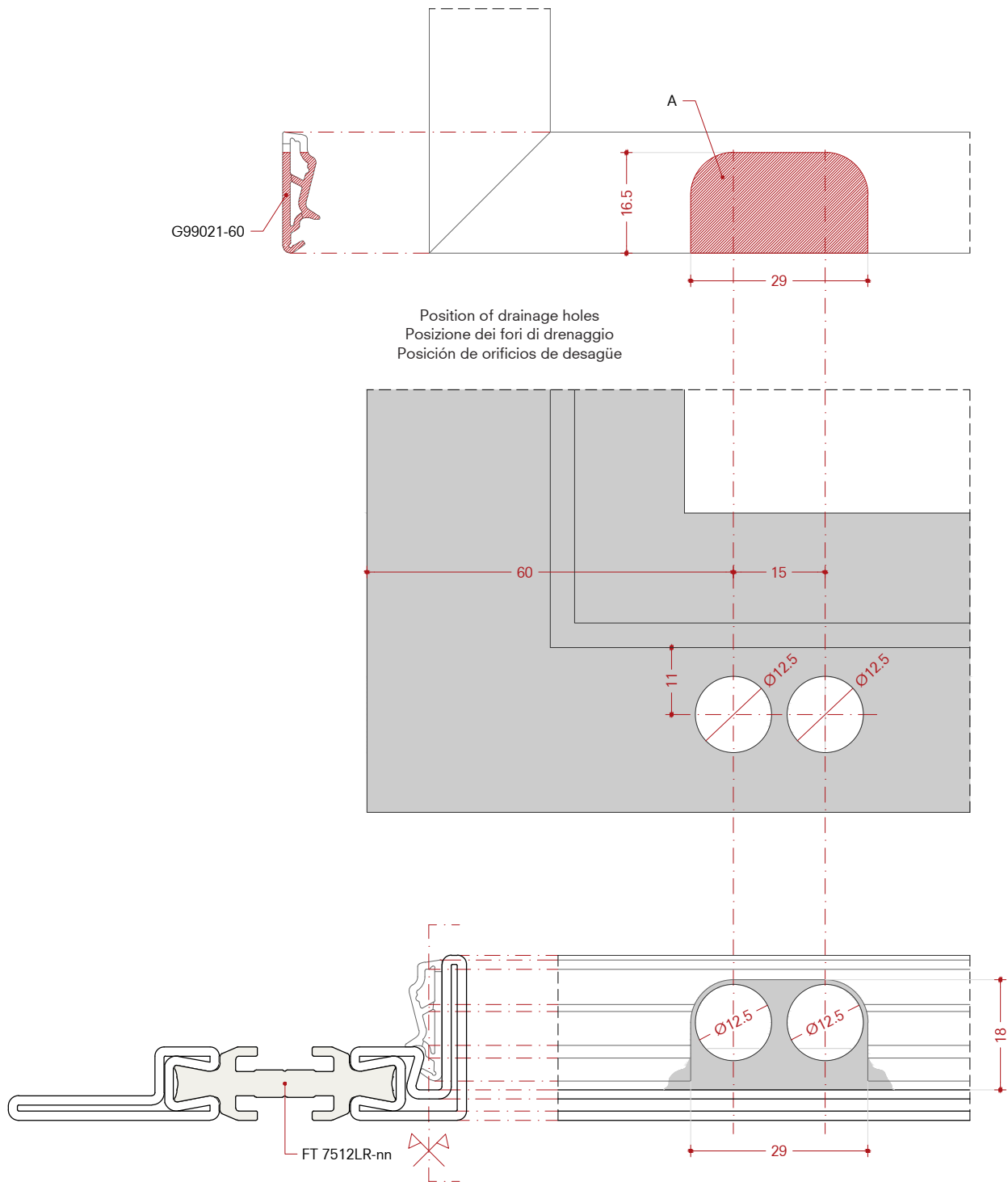
Da sigillare dopo verniciatura.

- A) n°02 fori Ø12.5 mm sul profilo telaio
- B) Sigillatura tra tappo di scarico acqua e profilo telaio
- C) G99312-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i tappi 1000 mm

**Nota:**

Para ser sellado después de pintar

- A) n°02 orificios Ø12.5 mm en perfil de marco
- B) Agente sellante entre tapa de cubierta y perfil de marco
- C) G99312-60 junta de drenaje de agua
- D) Distancia máxima entre tapas 1000 mm



**Note:**

At least 2 cover caps up to leaf width of 1000 mm  
 At least 4 cover caps up to leaf of 2000 mm

- A) Cut out 29x16.5 mm on gasket G99021-60
- B) Sealant

**Nota:**

Almeno 2 tappi di drenaggio per larghezza anta fino a 1000 mm  
 Almeno 4 tappi di drenaggio per larghezza anta fino a 2000 mm

- A) Fresata 29x16.5 mm su guarnizione G99021-60
- B) Sigillante

**Nota:**

Al menos 2 tapas hasta 1000 mm de ancho de hoja  
 Al menos 4 tapas hasta 2000 mm de ancho de hoja

- A) Hendiduras fresadas 29x16.5 mm en junta G99021-60
- B) Agente sellante

**Assembling**

Cover cap K99071  
 Open in  
 Flush profiles  
 Drain holes with cover caps.

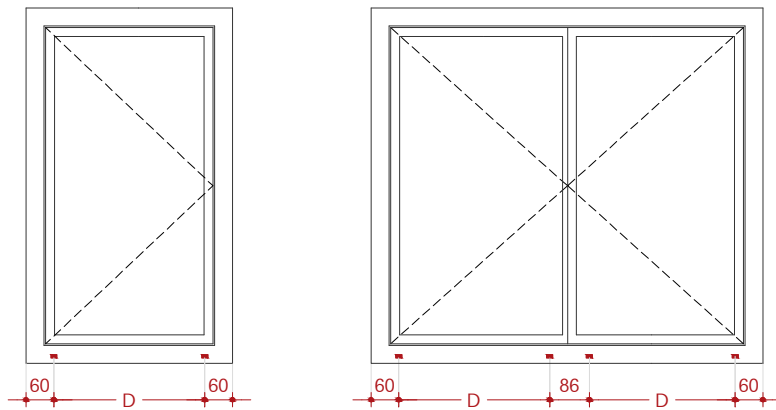
**Schema di montaggio**

Tappo scarico acqua K99071  
 Apertura interna  
 Profili complanari  
 Fori di drenaggio con tappi di copertura.

**Diagrama de montaje**

Tapa de cubierta K99071  
 Ventana que se abre hacia dentro  
 Perfiles coplanarios  
 Orificios de desagüe con tapas de cubierta.

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes/cover caps  
 For single leaf window

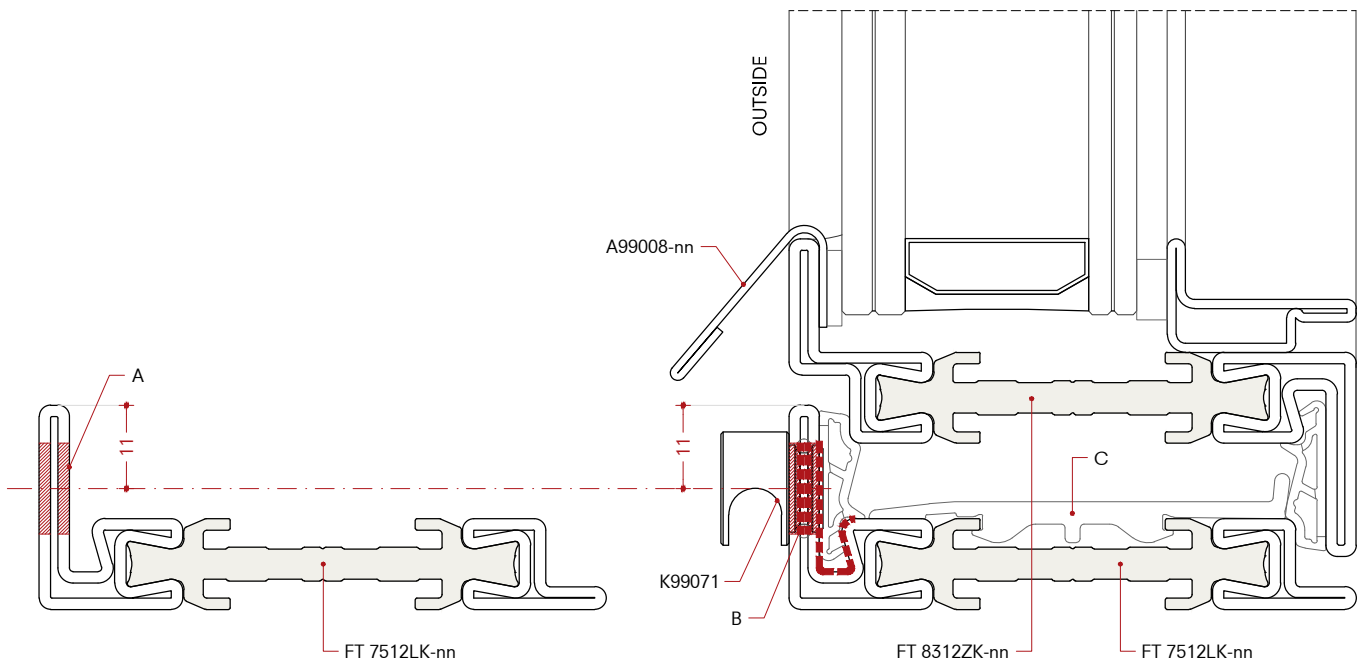
Minimo n°02 fori/tappi di scarico  
 Per finestra anta singola

Minimo n°02 orificios/tapas de cubierta  
 Para ventana de una hoja

Min. n°04 drain holes/cover caps  
 For double leaf window

Minimo n°04 fori/tappi di scarico  
 Per finestra anta doppia

Minimo n°04 orificios/tapas de cubierta  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) n°02 holes Ø12 mm frame profile
- B) Sealing between cover cap and frame profile
- C) G99313-60 water drainage gasket
- D) Max. distance between cover caps 1000 mm

**Note:**

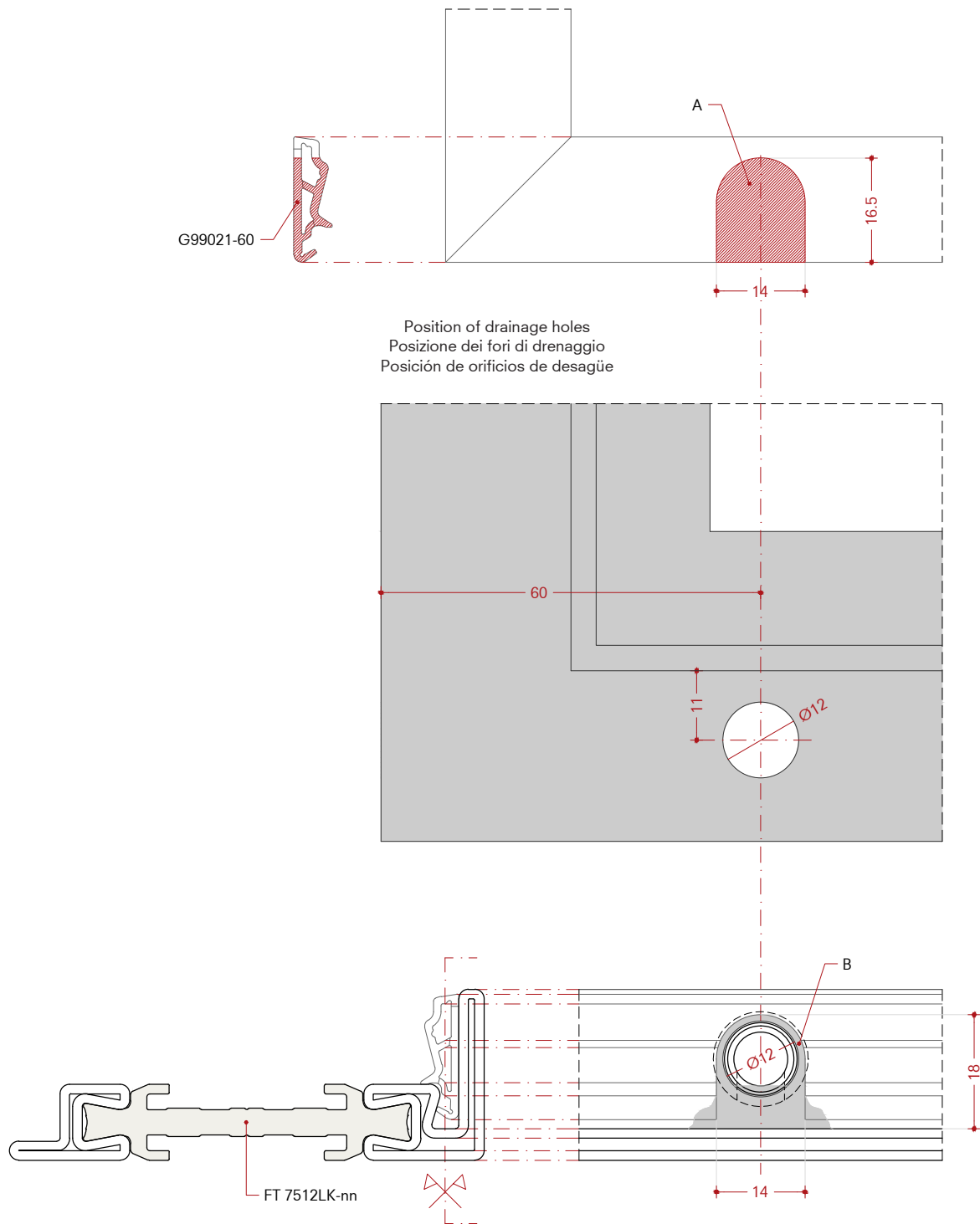
Da sigillare dopo verniciatura.

- A) n°02 fori Ø12 mm sul profilo telaio
- B) Sigillatura tra tappo di scarico acqua e profilo telaio
- C) G99313-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i tappi 1000 mm

**Nota:**

Para ser sellado después de pintar

- A) n°02 orificios Ø12 mm en perfil de marco
- B) Agente sellante entre tapa de cubierta y perfil de marco
- C) G99313-60 junta de drenaje de agua
- D) Distancia máxima entre tapas 1000 mm



**Note:**

At least 2 cover caps up to leaf width of 1000 mm  
 At least 4 cover caps up to leaf of 2000 mm

- A) Cut out 14x16.5 mm on gasket G99021-60
- B) Sealant

**Nota:**

Almeno 2 tappi di drenaggio per larghezza anta fino a 1000 mm  
 Almeno 4 tappi di drenaggio per larghezza anta fino a 2000 mm

- A) Fresata 14x16.5 mm su guarnizione G99021-60
- B) Sigillante

**Nota:**

Al menos 2 tapas hasta 1000 mm de ancho de hoja  
 Al menos 4 tapas hasta 2000 mm de ancho de hoja

- A) Hendiduras fresadas 14x16.5 mm en junta G99021-60
- B) Agente sellante

**Assembling**

Cover cap K99071  
 Open in  
 Overlapped profiles  
 Drain holes with cover caps.

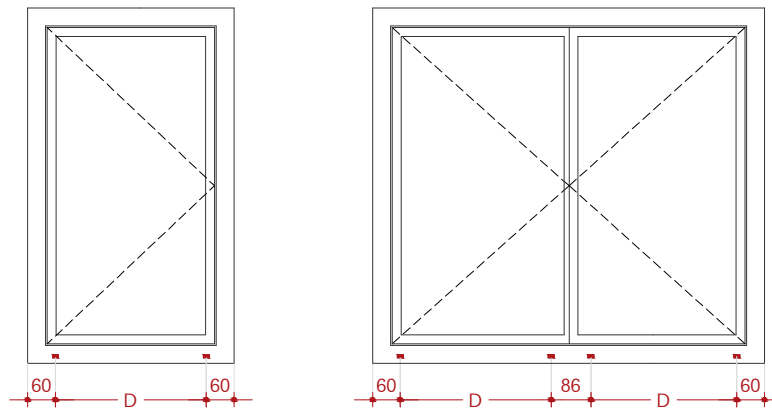
**Schema di montaggio**

Tappo scarico acqua K99071  
 Apertura interna  
 Profili a sormonto  
 Fori di drenaggio con tappi di copertura.

**Diagrama de montaje**

Tapa de cubierta K99071  
 Ventana que se abre hacia dentro  
 Perfiles superpuestos  
 Orificios de desagüe con tapas de cubierta.

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes/cover caps  
 For single leaf window

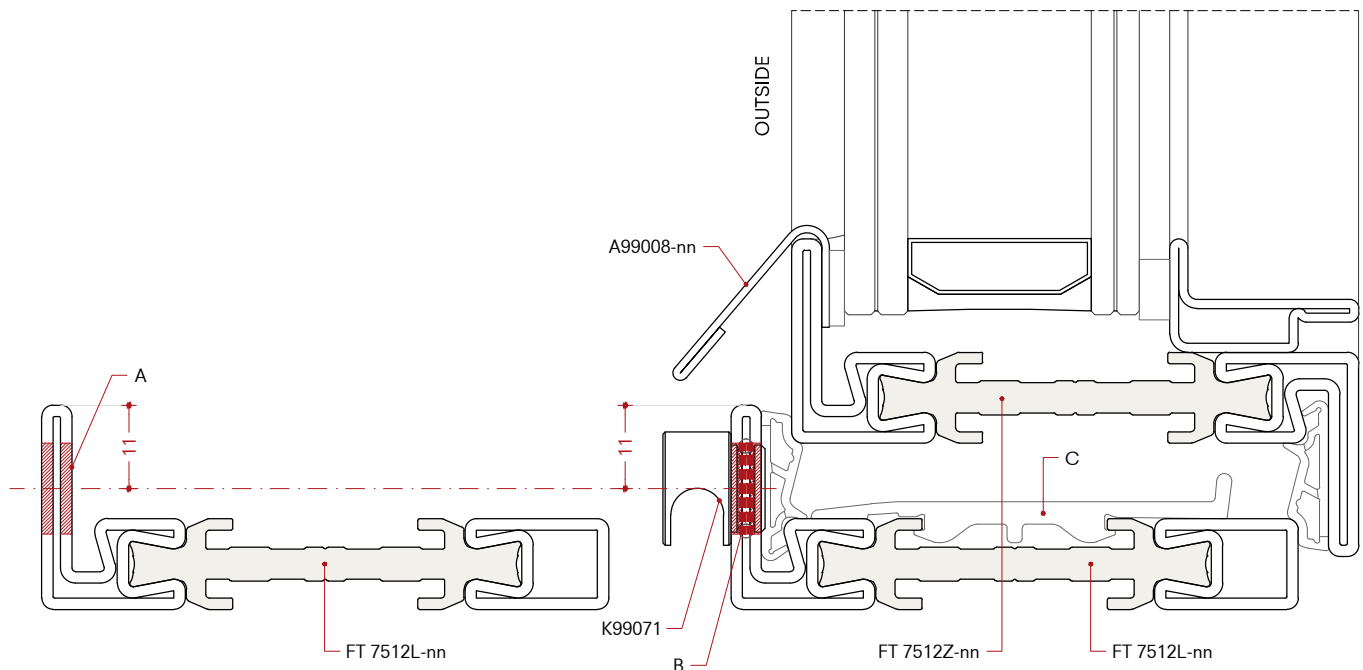
Minimo n°02 fori/tappi di scarico  
 Per finestra anta singola

Minimo n°02 orificios/tapas de cubierta  
 Para ventana de una hoja

Min. n°04 drain holes/cover caps  
 For double leaf window

Minimo n°04 fori/tappi di scarico  
 Per finestra anta doppia

Minimo n°04 orificios/tapas de cubierta  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) n°02 holes Ø12 mm frame profile
- B) Sealing between cover cap and frame profile
- C) G99313-60 water drainage gasket
- D) Max. distance between cover caps 1000 mm

**Note:**

Da sigillare dopo verniciatura.

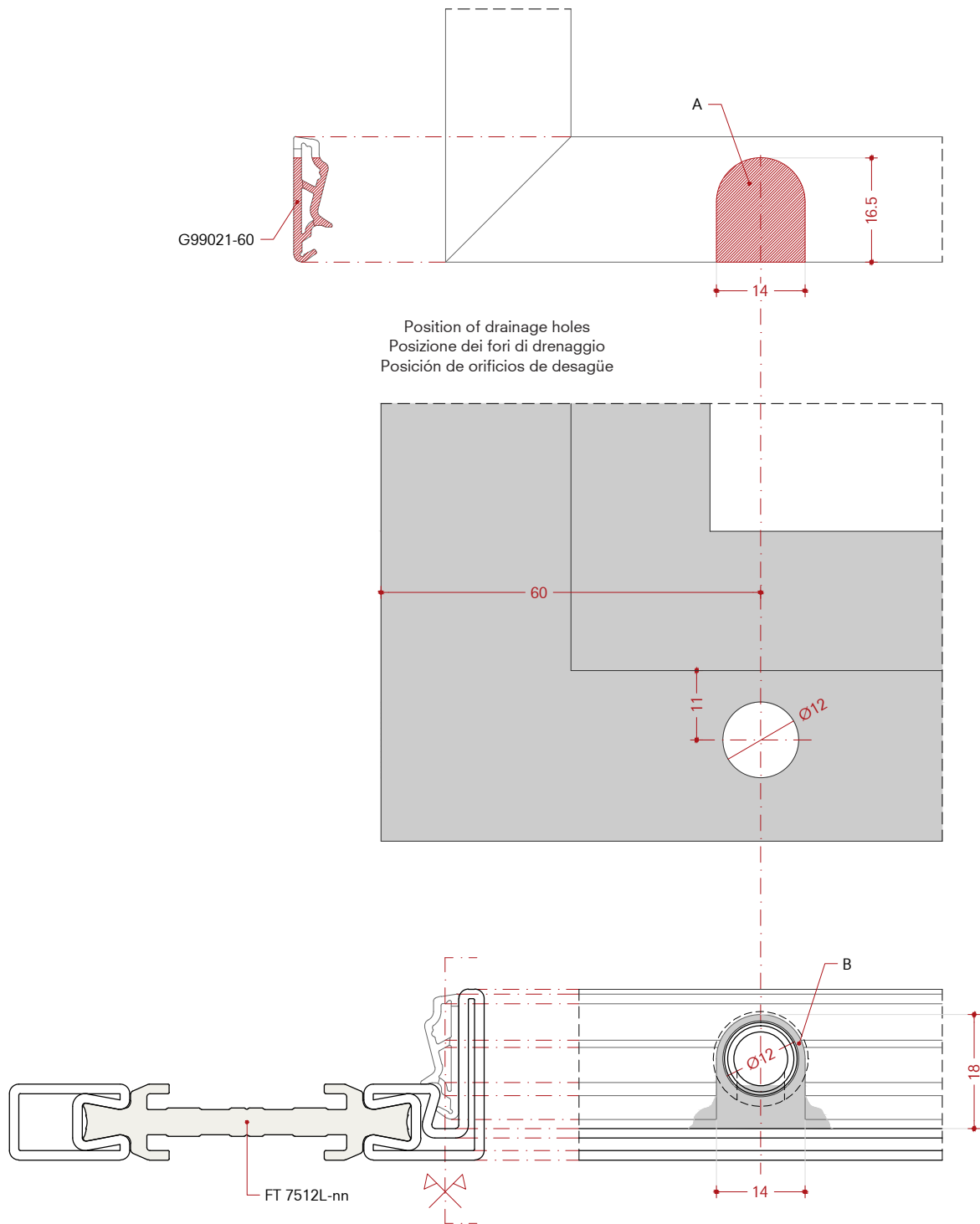
- A) n°02 fori Ø12 mm sul profilo telaio
- B) Sigillatura tra tappo di scarico acqua e profilo telaio
- C) G99313-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i tappi 1000 mm

**Nota:**

Para ser sellado después de pintar

- A) n°02 orificios Ø12 mm en perfil de marco
- B) Agente sellante entre tapa de cubierta y perfil de marco
- C) G99313-60 junta de drenaje de agua
- D) Distancia máxima entre tapas 1000 mm





Position of drainage holes  
 Posizione dei fori di drenaggio  
 Posición de orificios de desagüe

**Note:**

At least 2 cover caps up to leaf width of 1000 mm  
 At least 4 cover caps up to leaf of 2000 mm

- A) Cut out 14x16.5 mm on gasket G99021-60
- B) Sealant

**Nota:**

Almeno 2 tappi di drenaggio per larghezza anta fino a 1000 mm  
 Almeno 4 tappi di drenaggio per larghezza anta fino a 2000 mm

- A) Fresata 14x16.5 mm su guarnizione G99021-60
- B) Sigillante

**Nota:**

Al menos 2 tapas hasta 1000 mm de ancho de hoja  
 Al menos 4 tapas hasta 2000 mm de ancho de hoja

- A) Hendiduras fresadas 14x16.5 mm en junta G99021-60
- B) Agente sellante

**Assembling**

Cover cap K99071  
 Open in  
 Flush profiles  
 Drain holes with cover caps.

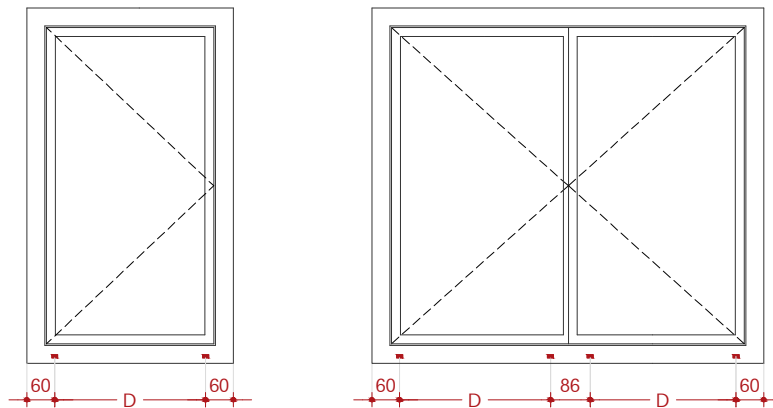
**Schema di montaggio**

Tappo scarico acqua K99071  
 Apertura interna  
 Profili complanari  
 Fori di drenaggio con tappi di copertura.

**Diagrama de montaje**

Tapa de cubierta K99071  
 Ventana que se abre hacia dentro  
 Perfiles coplanarios  
 Orificios de desagüe con tapas de cubierta.

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes/cover caps  
 For single leaf window

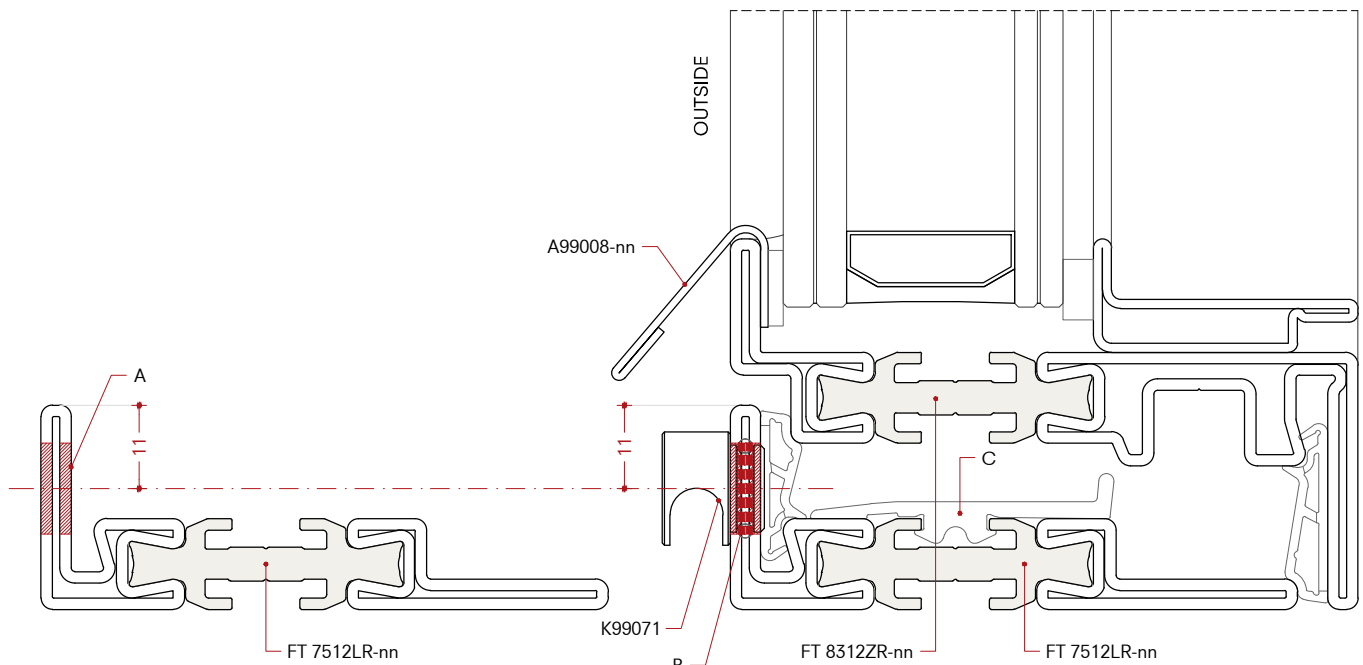
Minimo n°02 fori/tappi di scarico  
 Per finestra anta singola

Minimo n°02 orificios/tapas de cubierta  
 Para ventana de una hoja

Min. n°04 drain holes/cover caps  
 For double leaf window

Minimo n°04 fori/tappi di scarico  
 Per finestra anta doppia

Minimo n°04 orificios/tapas de cubierta  
 Para ventana de doble hoja



**Note:**  
 To be sealed after coating.

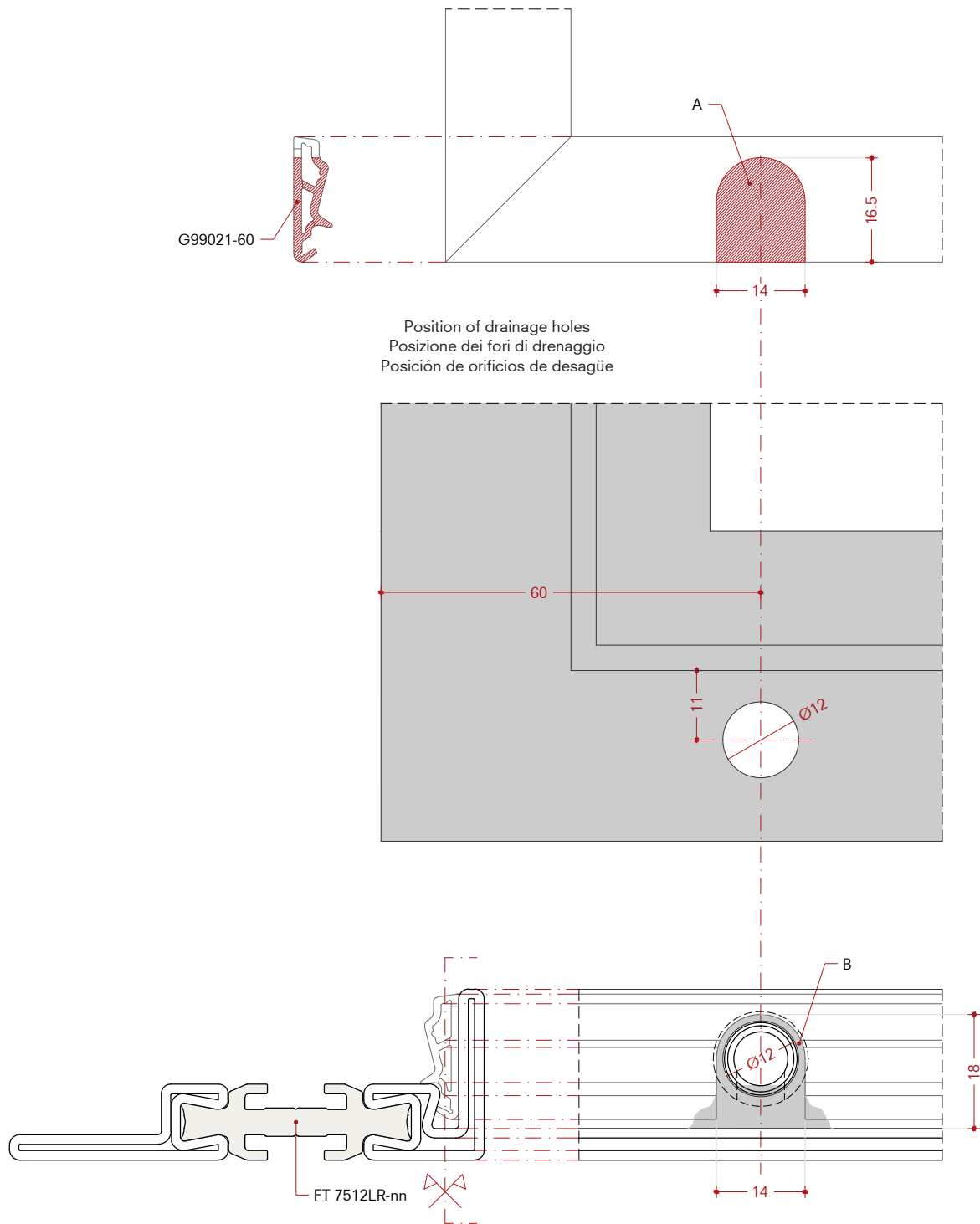
- A) n°02 holes Ø12 mm frame profile
- B) Sealing between cover cap and frame profile
- C) G99312-60 water drainage gasket
- D) Max. distance between cover caps 1000 mm

**Note:**  
 Da sigillare dopo verniciatura.

- A) n°02 fori Ø12 mm sul profilo telaio
- B) Sigillatura tra tappo di scarico acqua e profilo telaio
- C) G99312-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i tappi 1000 mm

**Nota:**  
 Para ser sellado después de pintar

- A) n°02 orificios Ø12 mm en perfil de marco
- B) Agente sellante entre tapa de cubierta y perfil de marco
- C) G99312-60 junta de drenaje de agua
- D) Distancia máxima entre tapas 1000 mm



**Note:**

At least 2 cover caps up to leaf width of 1000 mm  
 At least 4 cover caps up to leaf of 2000 mm

- A) Cut out 14x16.5 mm on gasket G99021-60
- B) Sealant

**Nota:**

Almeno 2 tappi di drenaggio per larghezza anta fino a 1000 mm  
 Almeno 4 tappi di drenaggio per larghezza anta fino a 2000 mm

- A) Fresata 14x16.5 mm su guarnizione G99021-60
- B) Sigillante

**Nota:**

Al menos 2 tapas hasta 1000 mm de ancho de hoja  
 Al menos 4 tapas hasta 2000 mm de ancho de hoja

- A) Hendiduras fresadas 14x16.5 mm en junta G99021-60
- B) Agente sellante

**Assembling**

Drains  
 Open out  
 Flush profiles

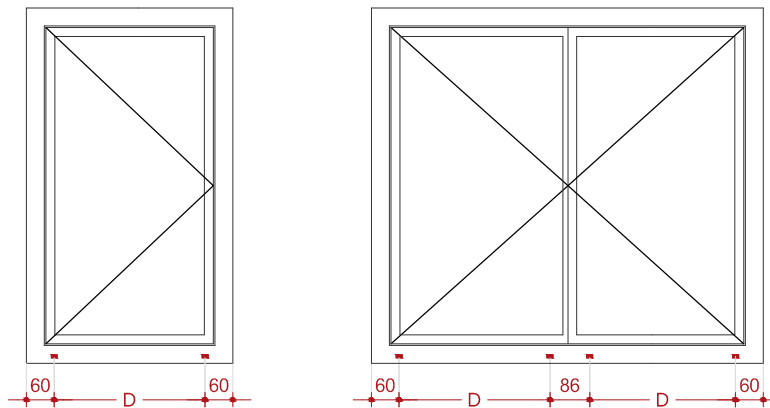
**Schema di montaggio**

Drenaggio  
 Apertura esterna  
 Profili complanari

**Diagrama de montaje**

Desagüe  
 Ventana que se abre hacia fuera  
 Perfiles coplanarios

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes  
 For single leaf window

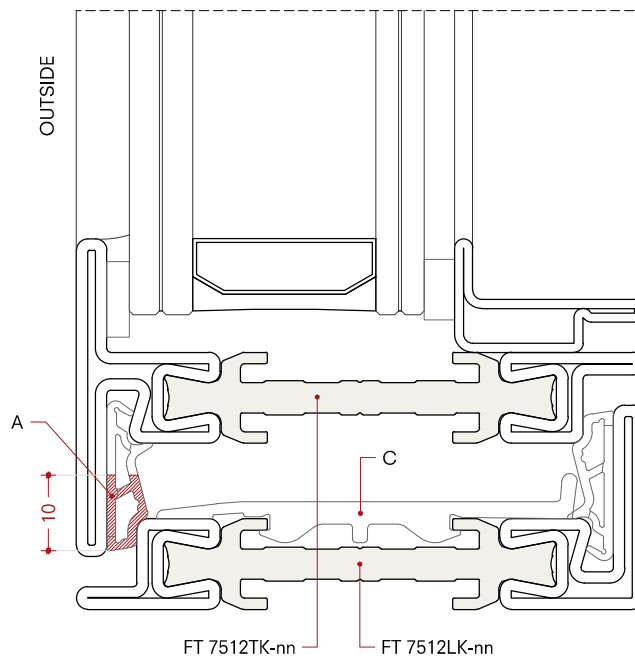
Min. n°04 drain holes  
 For double leaf window

Minimo n°02 fori  
 Per finestra anta singola

Minimo n°04 fori  
 Per finestra anta doppia

Minimo n°02 orificios  
 Para ventana de una hoja

Minimo n°04 orificios  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) Cut out 20x10 mm on gasket G99021-60
- B) G99313-60 water drainage gasket
- D) Max. distance between drainage holes 1000 mm

**Note:**

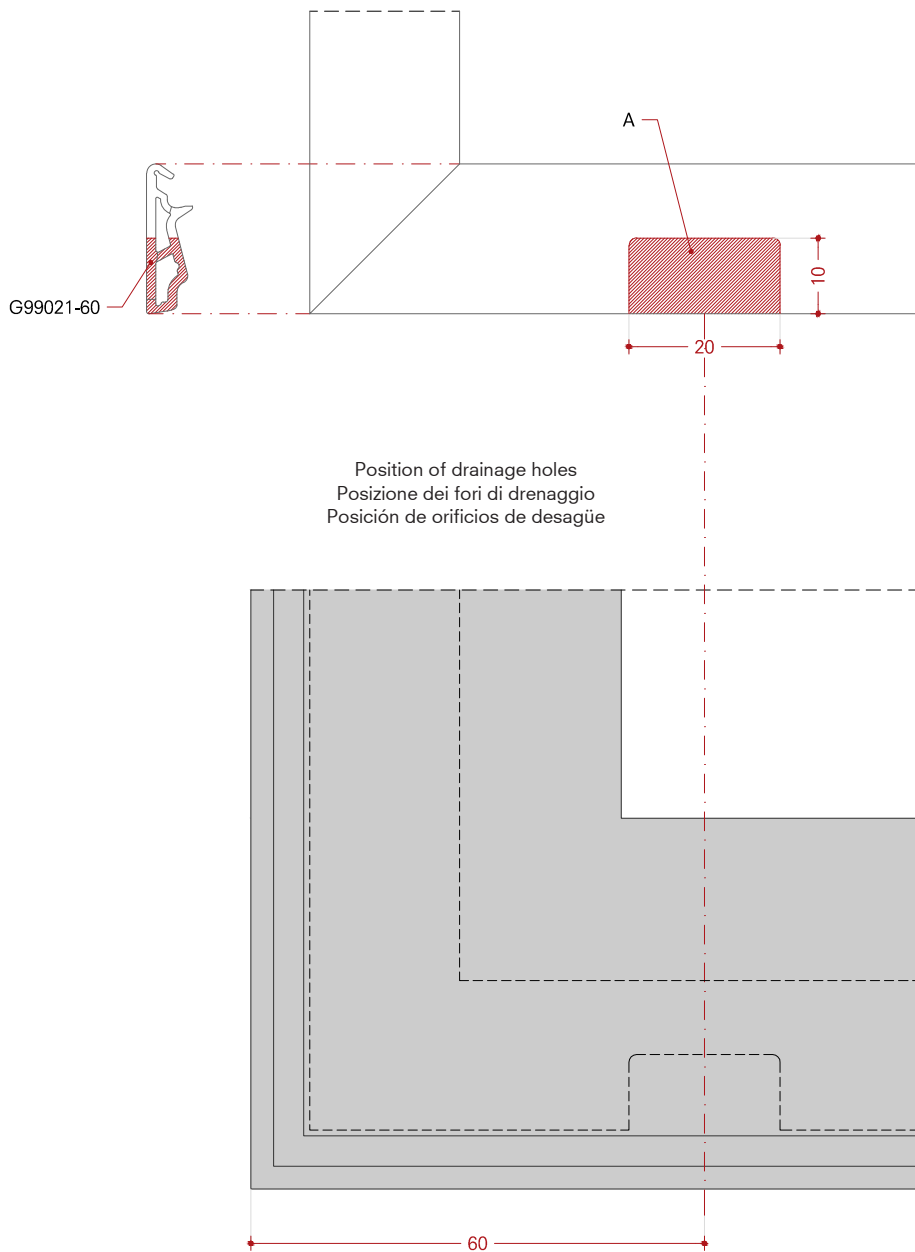
Da sigillare dopo verniciatura.

- A) Fresata 20x10 mm su guarnizione G99021-60
- B) G99313-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i fori di drenaggio 1000 mm

**Nota:**

Para ser sellado después de pintar

- A) Hendiduras fresadas 20x10 mm en junta G99021-60
- B) G99313-60 junta de drenaje de agua
- D) Distancia máxima entre orificios de desagüe 1000 mm



**Assembling**

Drains  
 Open out  
 Overlapped profiles

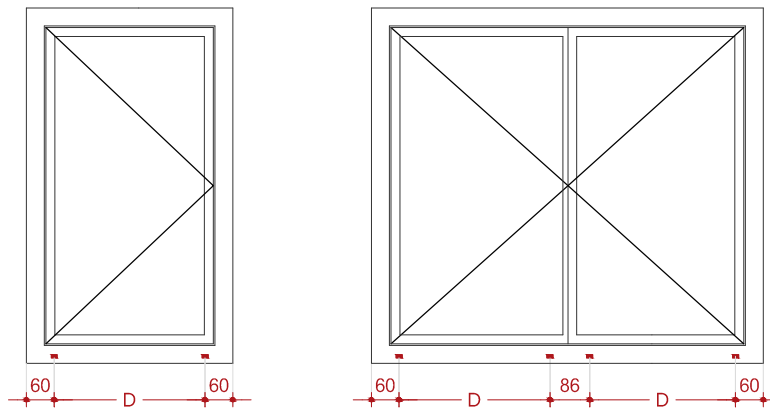
**Schema di montaggio**

Drenaggio  
 Apertura esterna  
 Profili a sormonto

**Diagrama de montaje**

Desagüe  
 Ventana que se abre hacia fuera  
 Perfiles superpuestos

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes  
 For single leaf window

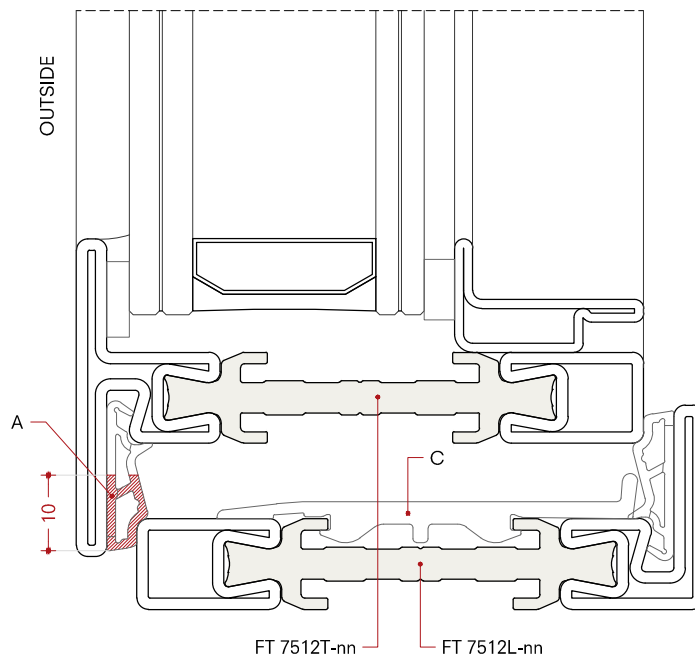
Min. n°04 drain holes  
 For double leaf window

Minimo n°02 fori  
 Per finestra anta singola

Minimo n°04 fori  
 Per finestra anta doppia

Minimo n°02 orificios  
 Para ventana de una hoja

Minimo n°04 orificios  
 Para ventana de doble hoja



**Note:**

To be sealed after coating.

- A) Cut out 20x10 mm on gasket G99021-60
- B) G99313-60 water drainage gasket
- D) Max. distance between drainage holes 1000 mm

**Note:**

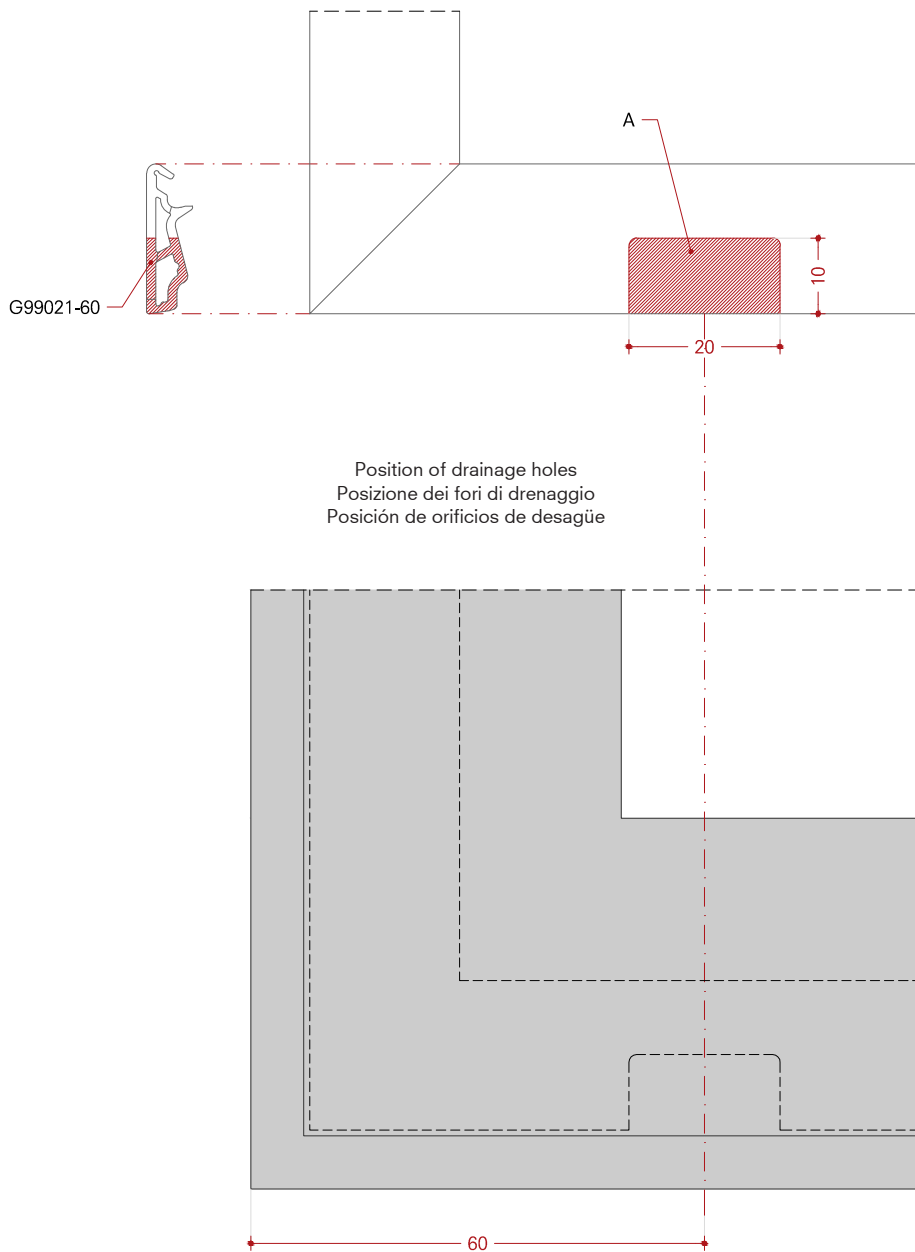
Da sigillare dopo verniciatura.

- A) Fresata 20x10 mm su guarnizione G99021-60
- B) G99313-60 guarnizione di drenaggio acqua
- D) Massima distanza tra i fori di drenaggio 1000 mm

**Nota:**

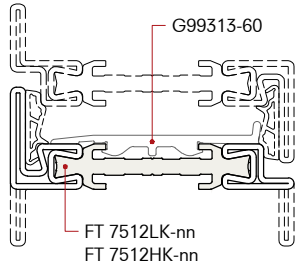
Para ser sellado después de pintar

- A) Hendiduras fresadas 20x10 mm en junta G99021-60
- B) G99313-60 junta de drenaje de agua
- D) Distancia máxima entre orificios de desagüe/orificios de desagüe 1000 mm



**Installation**

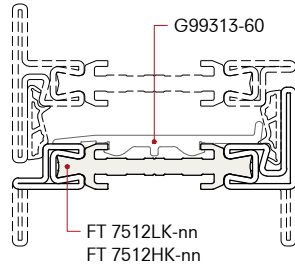
Condensate collection tray  
 G99313-60  
 Flush profiles



Open in  
 Apertura interna  
 Que se abre hacia dentro

**Montaggio**

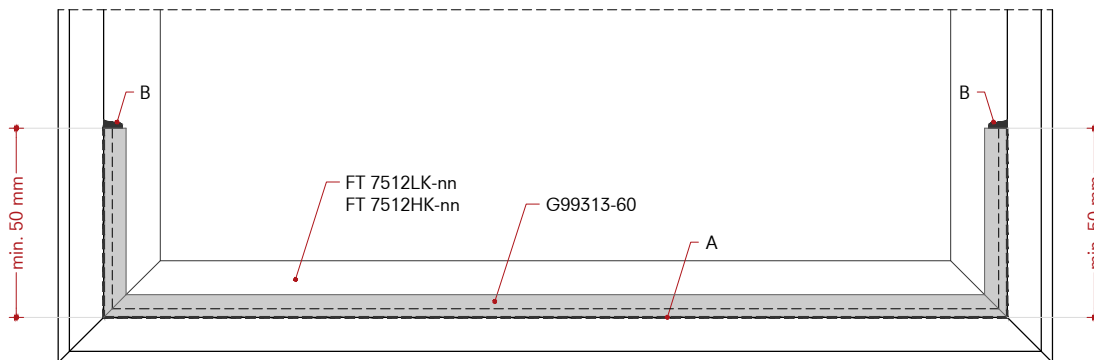
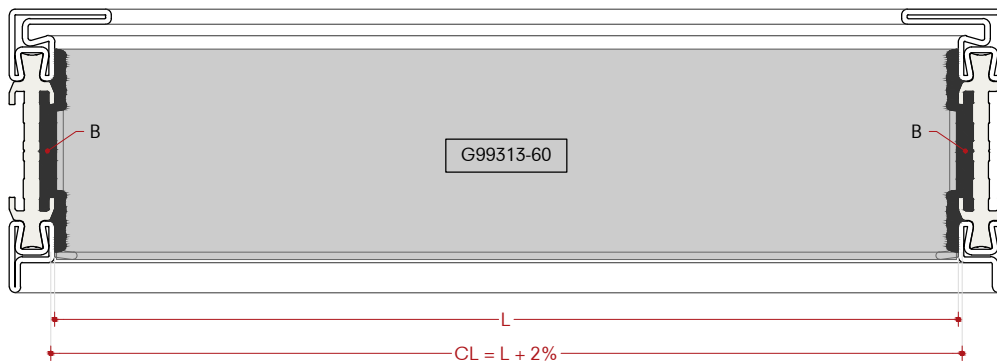
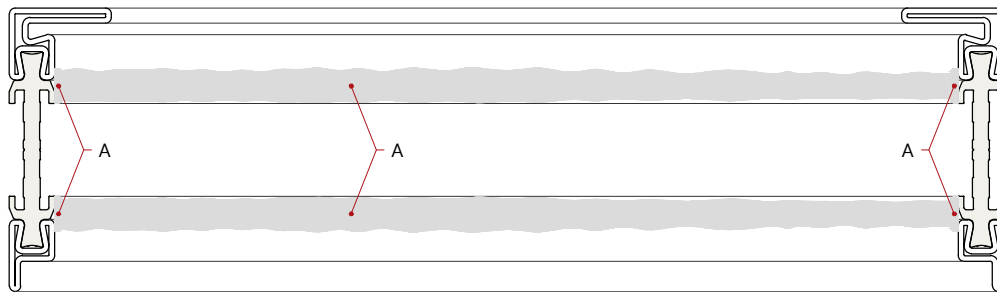
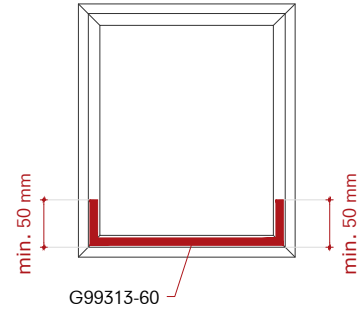
Vaschetta raccogli condensa  
 G99313-60  
 Profili complanari



Open out  
 Apertura esterna  
 Que se abre hacia fuera

**Montaje**

Bandeja de recogida de condensado  
 G99313-60  
 Perfiles coplanarios



A) Sealant under the gasket  
 B) Sealant

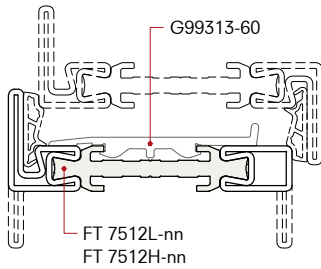
A) Sigillante sotto la guarnizione  
 B) Sigillante

A) Agente sellante debajo de la junta  
 B) Agente sellante



**Installation**

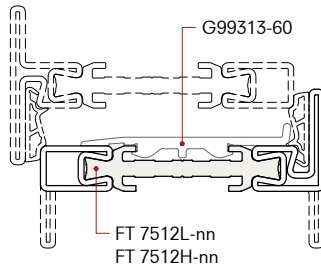
Condensate collection tray  
 G99313-60  
 Overlapped profiles



Open in  
 Apertura interna  
 Que se abre hacia dentro

**Montaggio**

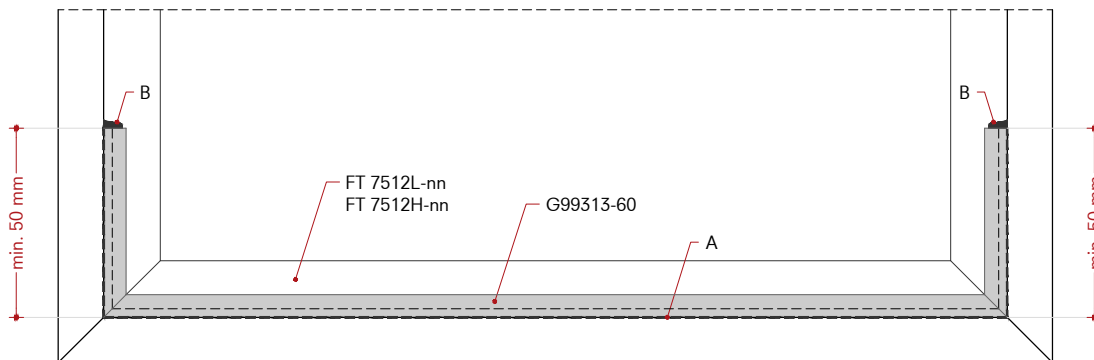
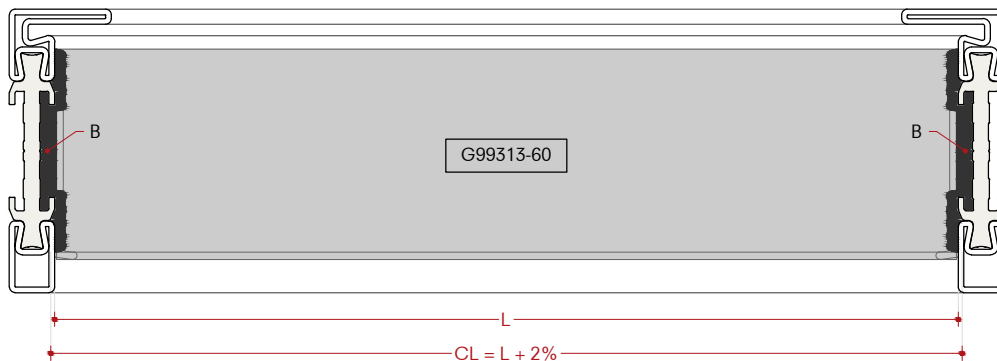
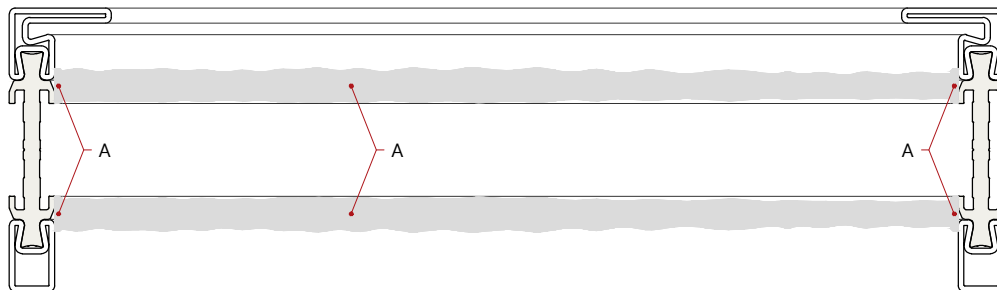
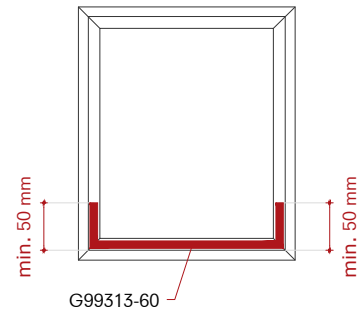
Vaschetta raccogli condensa  
 G99313-60  
 Profili a sormonto



Open out  
 Apertura esterna  
 Que se abre hacia fuera

**Montaje**

Bandeja de recogida de condensado  
 G99313-60  
 Perfiles superpuestos



A) Sealant under the gasket  
 B) Sealant

A) Sigillante sotto la guarnizione  
 B) Sigillante

A) Agente sellante debajo de la junta  
 B) Agente sellante

**Installation**

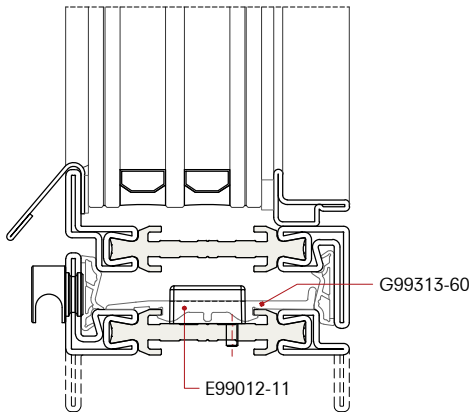
Condensate collection tray  
 G99313-60 on strike plate E99012-11

**Montaggio**

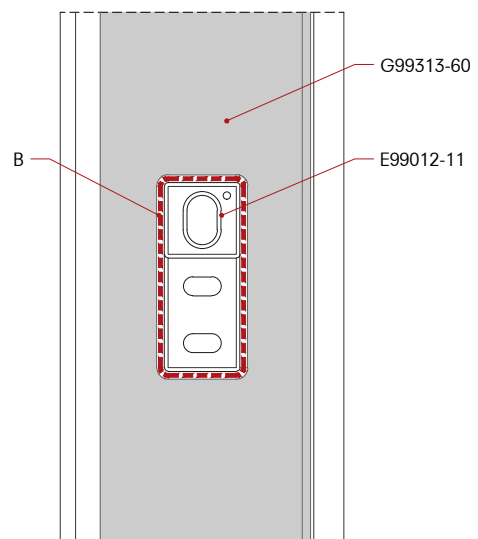
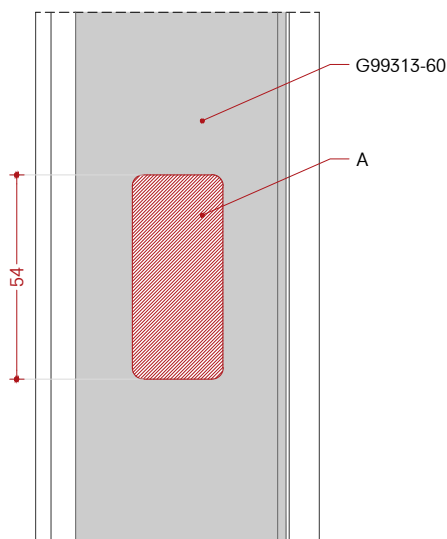
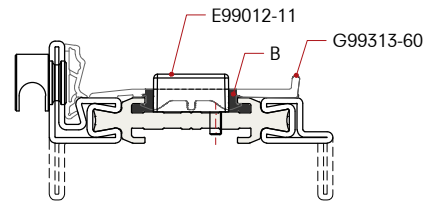
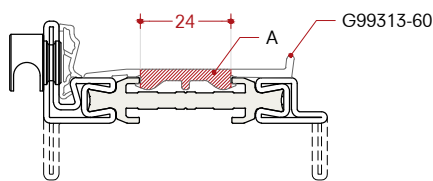
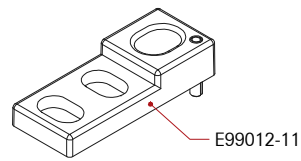
Vaschetta raccogli condensa  
 G99313-60 su riscontro E99012-11

**Montaje**

Bandeja de recogida de condensado  
 G99313-60 en chapa de cierre  
 E99012-11



Open in  
 Apertura interna  
 Que se abre hacia dentro



A) Cut out 54x24 mm on gasket G99313-60  
 B) Sealant

A) Fresata 54x24 mm su guarnizione G99313-60  
 B) Sigillante

A) Hendiduras fresadas 54x24 mm en junta  
 G99313-60  
 B) Agente sellante

**Installation**

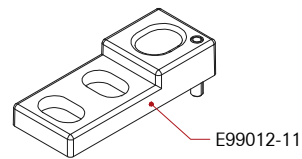
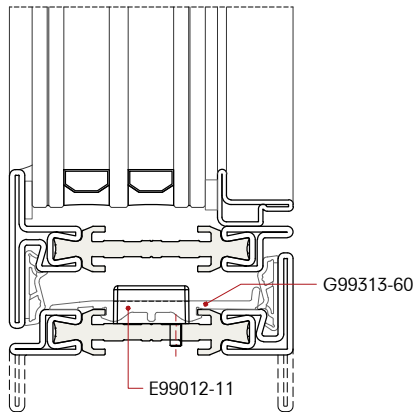
Condensate collection tray  
 G99313-60 on strike plate E99012-11

**Montaggio**

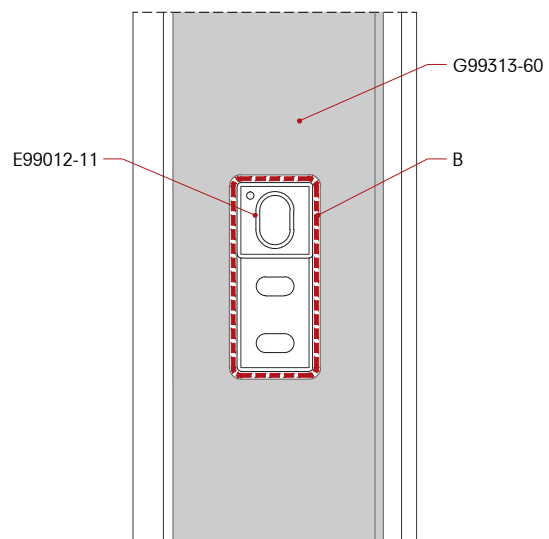
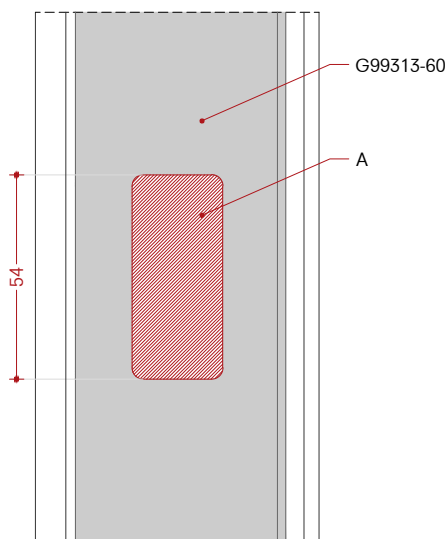
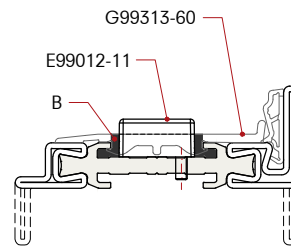
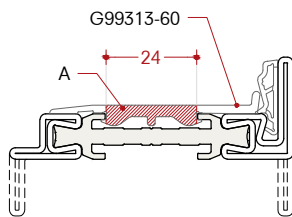
Vaschetta raccogli condensa  
 G99313-60 su riscontro E99012-11

**Montaje**

Bandeja de recogida de condensado  
 G99313-60 en chapa de cierre  
 E99012-11



Open out  
 Apertura esterna  
 Que se abre hacia fuera



A) Cut out 54x24 mm on gasket G99313-60  
 B) Sealant

A) Fresata 54x24 mm su guarnizione G99313-60  
 B) Sigillante

A) Hendiduras fresadas 54x24 mm en junta  
 G99313-60  
 B) Agente sellante

**Installation**

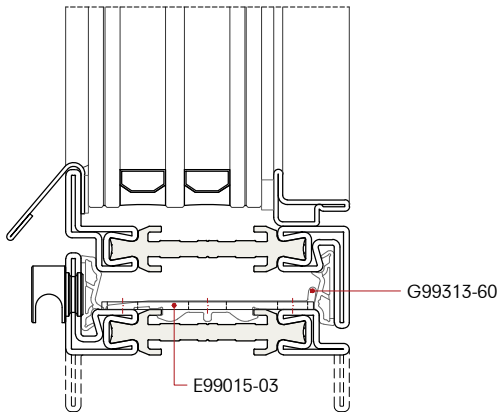
Condensate collection tray  
 G99313-60 on plate E99015-03

**Montaggio**

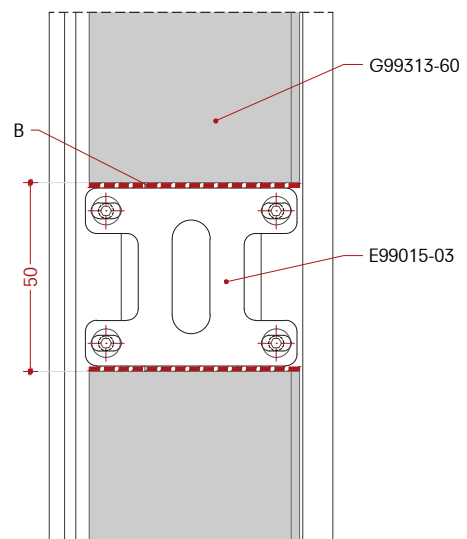
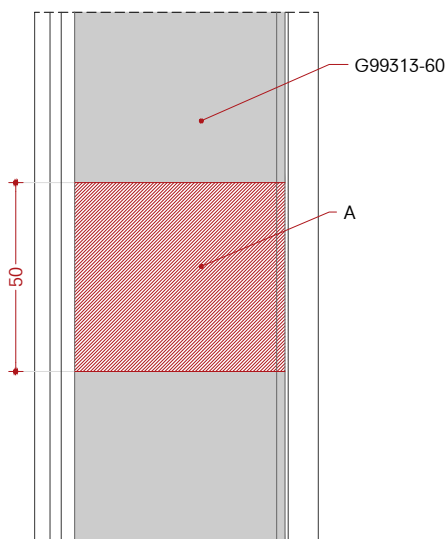
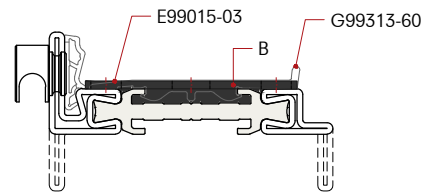
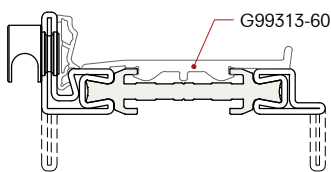
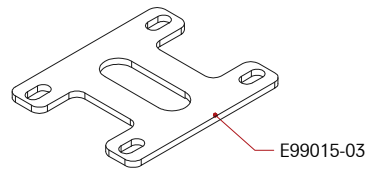
Vaschetta raccogli condensa  
 G99313-60 su piastra E99015-03

**Montaje**

Bandeja de recogida de condensado  
 G99313-60 en plato E99015-03



Open in  
 Apertura interna  
 Que se abre hacia dentro



A) Cut out 50 mm on gasket G99313-60  
 B) Sealant

A) Fresata 50 mm su guarnizione G99313-60  
 B) Sigillante

A) Hendiduras fresadas 50 mm en junta G99313-60  
 B) Agente sellante

**Installation**

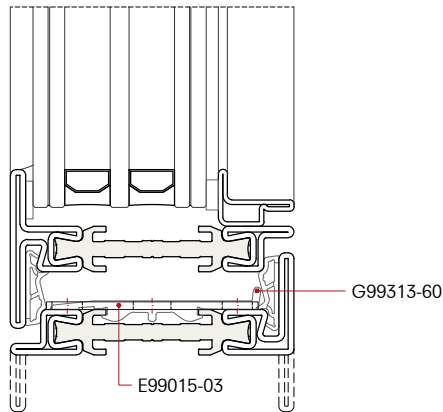
Condensate collection tray  
 G99313-60 on plate E99015-03

**Montaggio**

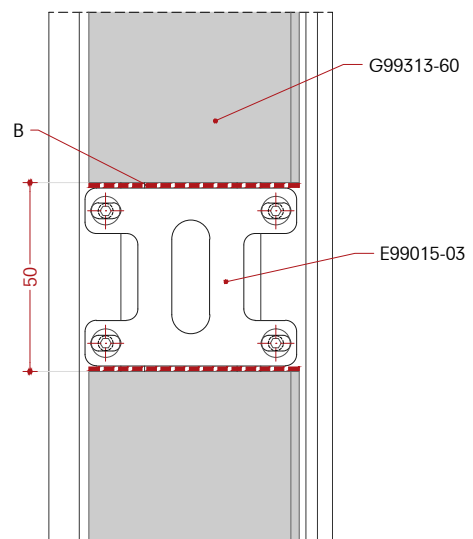
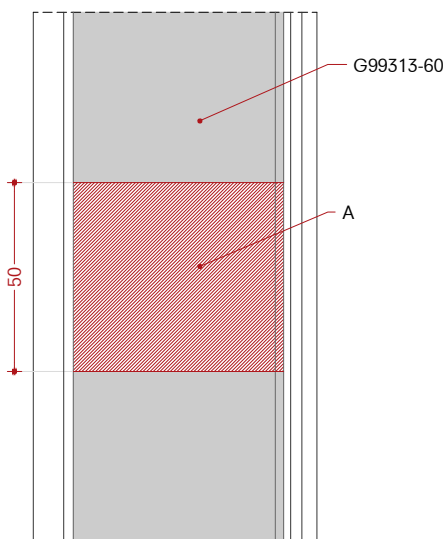
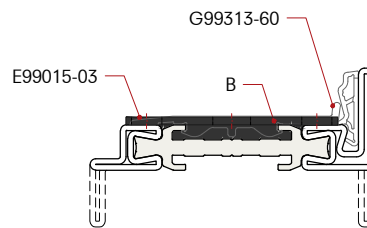
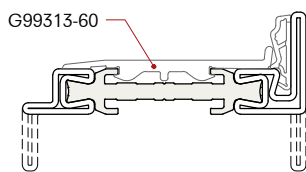
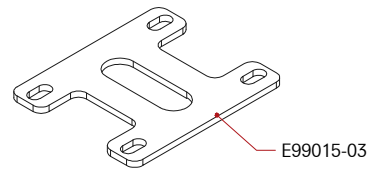
Vaschetta raccogli condensa  
 G99313-60 su piastra E99015-03

**Montaje**

Bandeja de recogida de condensado  
 G99313-60 en plato E99015-03



Open out  
 Apertura esterna  
 Que se abre hacia fuera



A) Cut out 50 mm on gasket G99313-60  
 B) Sealant

A) Fresata 50 mm su guarnizione G99313-60  
 B) Sigillante

A) Hendiduras fresadas 50 mm en junta G99313-60  
 B) Agente sellante

**Installation**

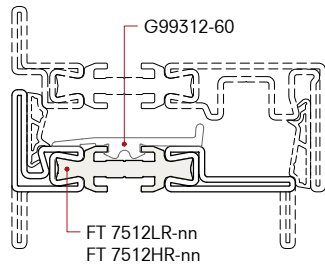
Condensate collection tray  
 G99312-60

**Montaggio**

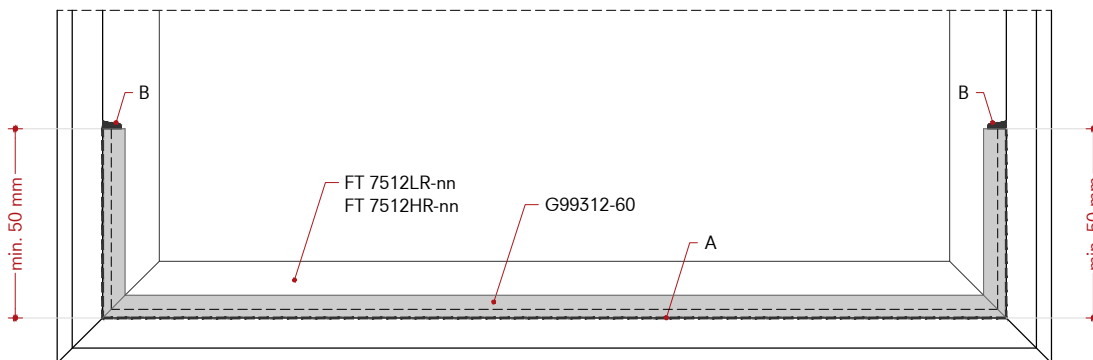
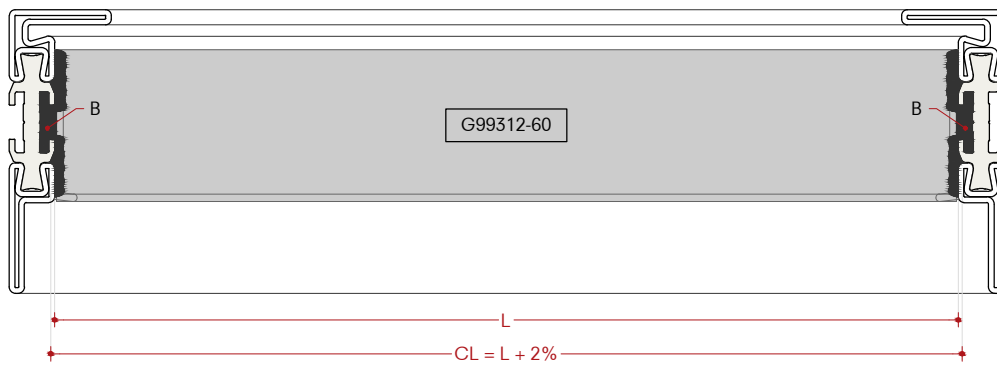
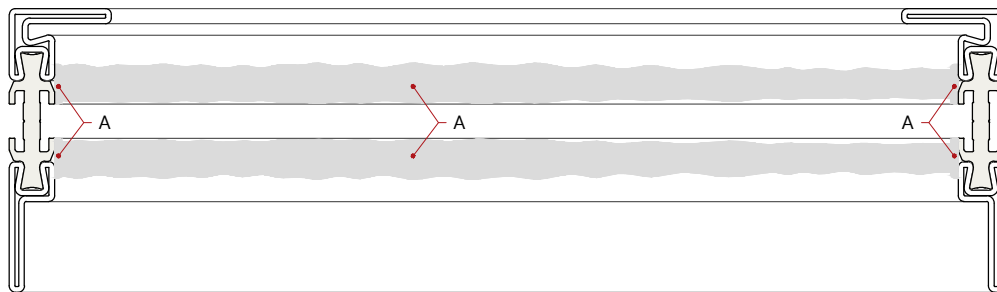
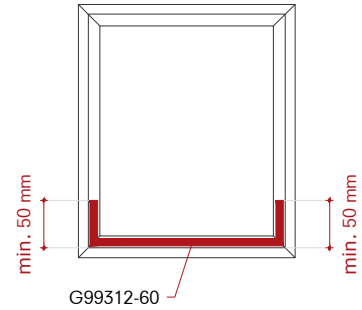
Vaschetta raccogli condensa  
 G99312-60

**Montaje**

Bandeja de recogida de condensado  
 G99312-60



Tilt&Turn window  
 Finestra anta ribalta  
 Ventana oscilante



A) Sealant under the gasket  
 B) Sealant

A) Sigillante sotto la guarnizione  
 B) Sigillante

A) Agente sellante debajo de la junta  
 B) Agente sellante

**Installation**

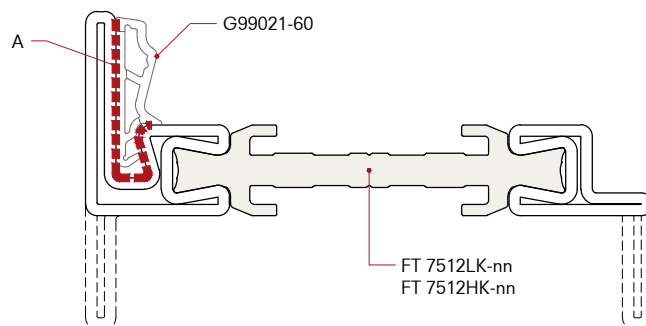
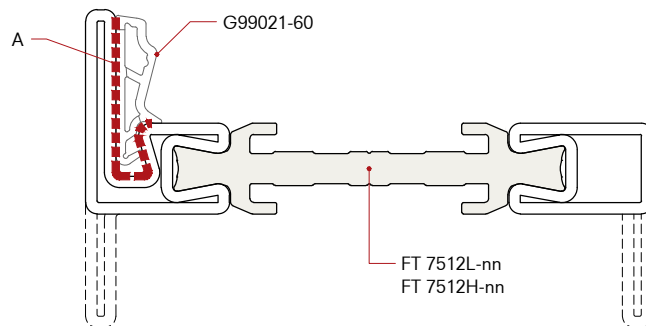
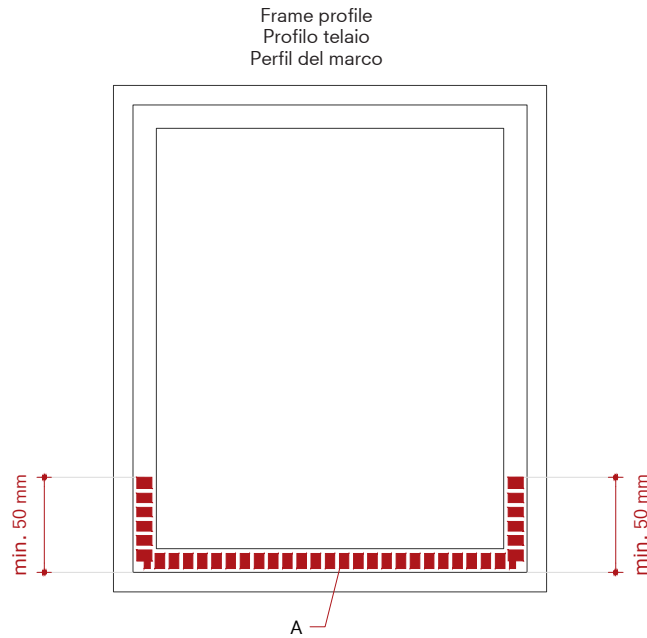
Rebate gasket G99021-60  
 on frame profile

**Montaggio**

Guarnizione di battuta G99021-60  
 su profilo telaio

**Montaje**

Junta de tope G99021-60  
 en el perfil del marco



A) Sealant under the gasket also vertically at  
 least 50 mm on both sides

A) Sigillante sotto la guarnizione anche in  
 verticale per minimo 50 mm ambo i lati

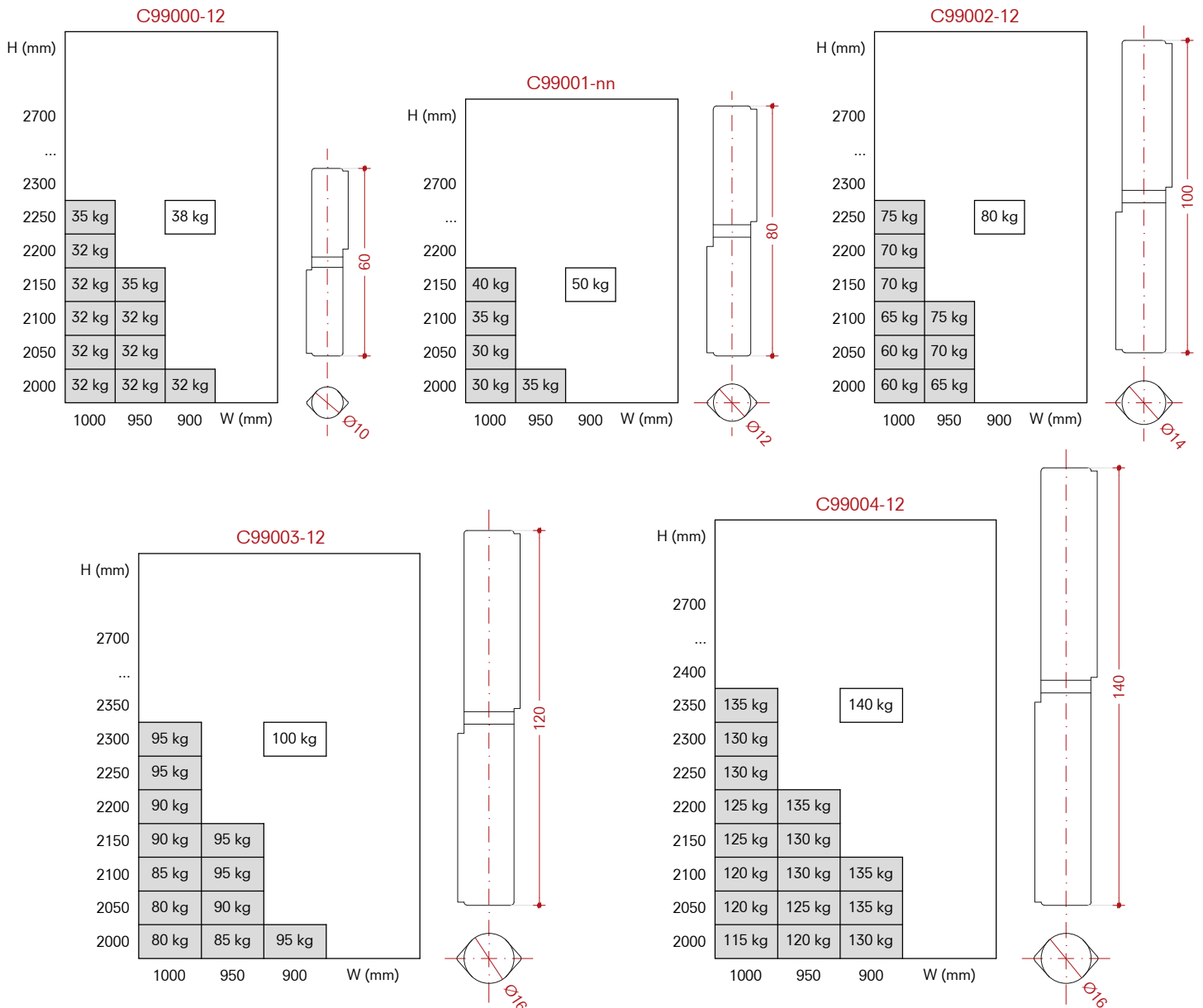
A) Agente sellante debajo de la junta también  
 vertical por al menos 50 mm en ambos lados

**Load capacity tables**  
 Weld-on hinges

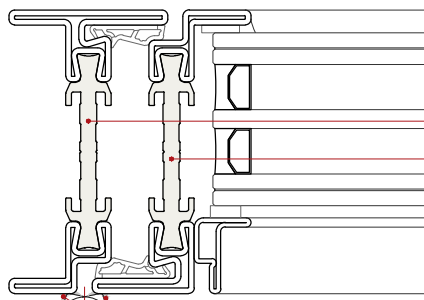
**Tabella portate**  
 Cerniere a saldare

**Tablas de peso**  
 Bisagras de soldadura

|                  | Material<br>Materiale<br>Material                                                                              | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99000-12</b> | Bright steel<br>Acciaio decapato<br>Acero bruto                                                                | Ø = 10 mm                        | 60 mm                           | 38 kg                                                  |
| <b>C99001-nn</b> | -03 Stainless steel<br>-03 Acciaio inossidabile<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 12 mm                        | 80 mm                           | 50 kg                                                  |
| <b>C99002-12</b> | Bright steel<br>Acciaio decapato<br>Acero bruto                                                                | Ø = 14 mm                        | 100 mm                          | 80 kg                                                  |
| <b>C99003-12</b> | Bright steel<br>Acciaio decapato<br>Acero bruto                                                                | Ø = 16 mm                        | 120 mm                          | 100 kg                                                 |
| <b>C99004-12</b> | Bright steel<br>Acciaio decapato<br>Acero bruto                                                                | Ø = 16 mm                        | 140 mm                          | 140 kg                                                 |





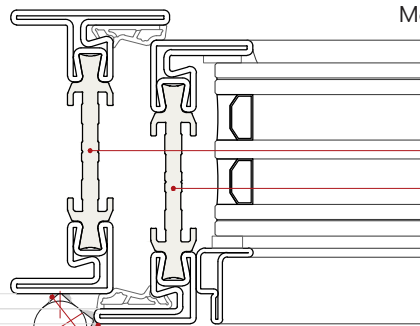


FT 7512HK-nn

FT 7512ZK-nn

Weld on both sides  
Saldare entrambi i lati  
Soldar ambos lados

Ø14  
C99002-12

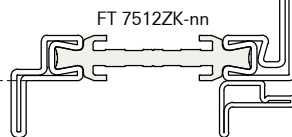
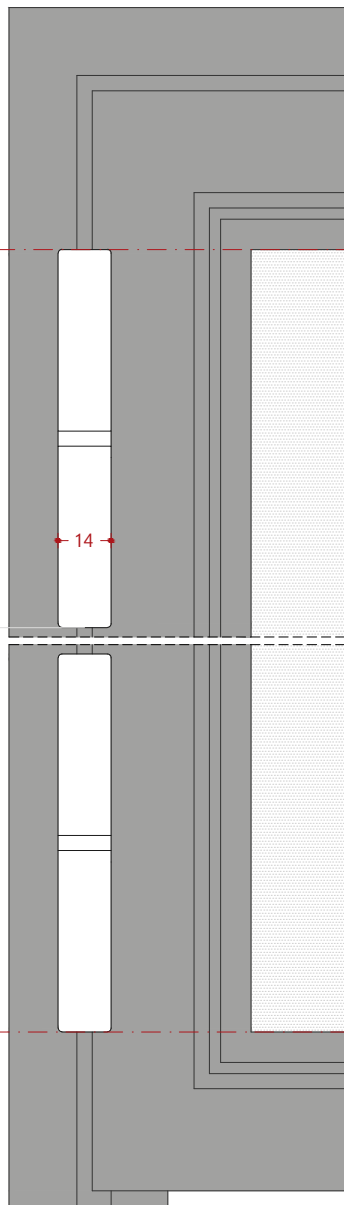


FT 7512H-nn

FT 7512Z-nn

Weld on both sides  
Saldare entrambi i lati  
Soldar ambos lados

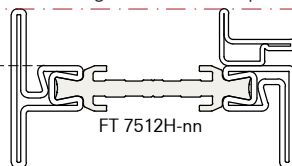
44  
Ø14  
C99002-12



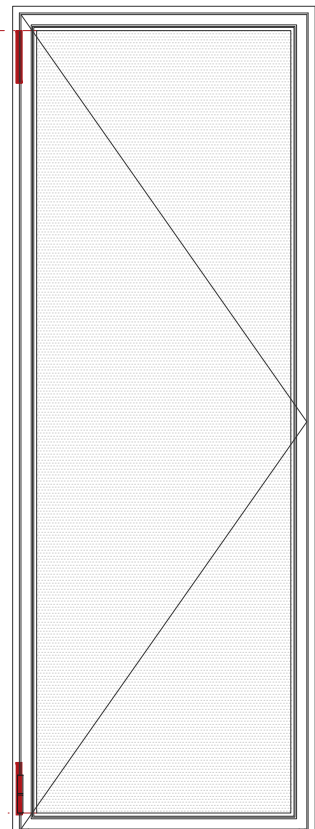
FT 7512ZK-nn

Align the top hinge to the profile  
Allineare il filo superiore della cerniera col profilo  
Alinear la bisagra superior con el perfil

Align the bottom hinge to the profile  
Allineare il filo inferiore della cerniera col profilo  
Alinear la bisagra inferior con el perfil



FT 7512H-nn



**Note**

When welding, care must be taken to avoid overheating the profiles. We recommend the use of heat sinks located in close proximity of the welded area, as well as to proceed in small segment, always waiting for the profile to cool down. The heat generated during welding of profiles and hinges must be dissipated using brass, copper and aluminium welding attachments. Keep minimum 3 mm distance from welding seam to polyamide web.

**Nota**

Durante la saldatura occorre prestare attenzione a non surriscaldare eccessivamente i profili. Consigliamo l'utilizzo di dissipatori di calore posizionati nelle immediate vicinanze della zona interessata dalla saldatura, di procedere per tratti e attendere che il profilo si raffreddi prima di terminare l'operazione. Il calore prodotto durante la saldatura dei profili e cerniere può essere disperso utilizzando controsagome in ottone, rame, alluminio. Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliammide.

**Nota**

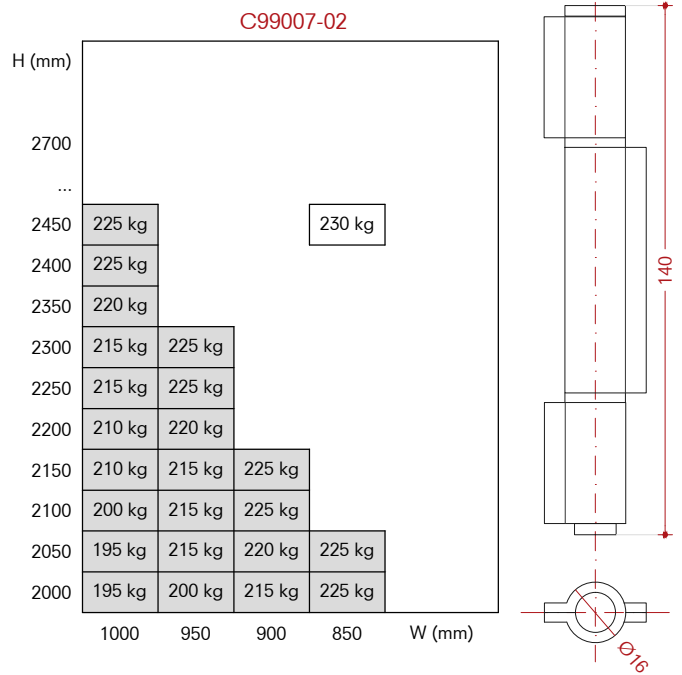
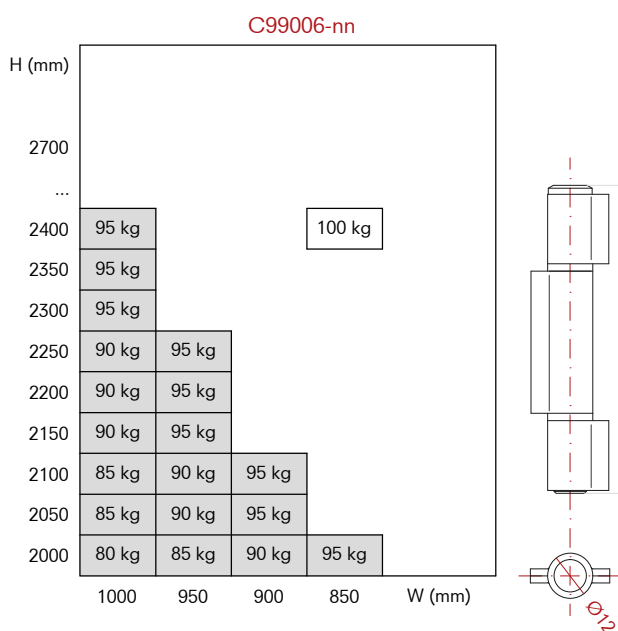
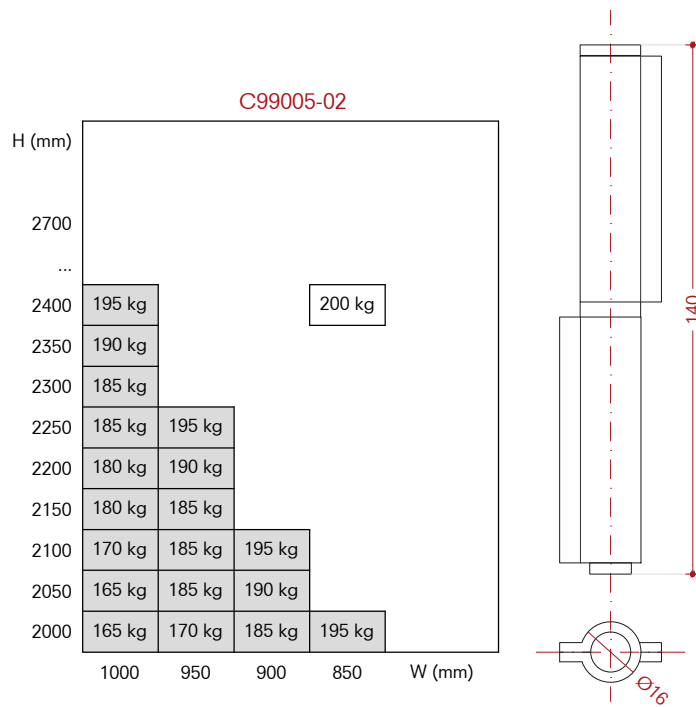
Durante la soldadura, se debe tener cuidado de no sobrecalentar los perfiles. Recomendamos el uso de disipadores en las inmediaciones del área afectada por la soldadura, proceder por tramos y esperar a que el perfil se enfríe antes de finalizar la operación. El calor generado durante la soldadura de perfiles y bisagras se debe disipar utilizando accesorios de soldadura de latón, cobre y aluminio. Mantenga una distancia mínima de 3 mm desde la costura de soldadura hasta la banda de poliamida.

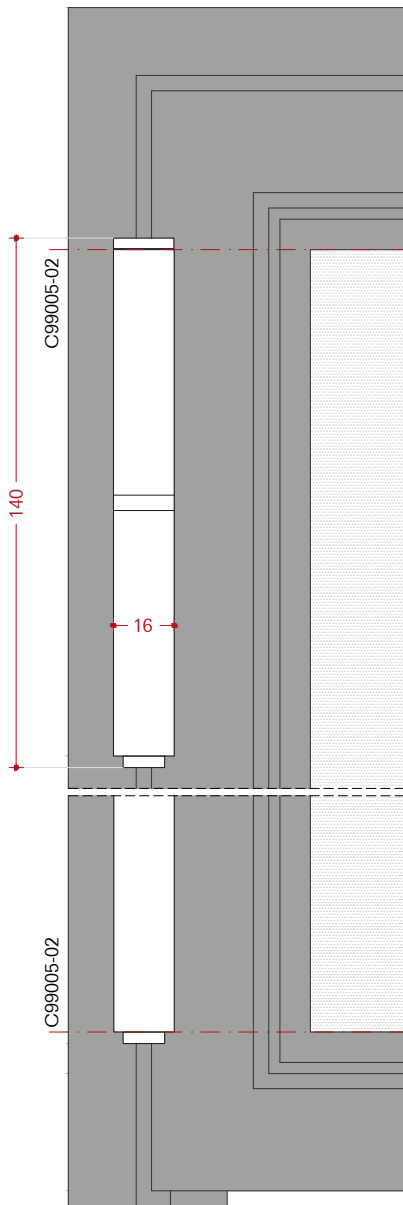
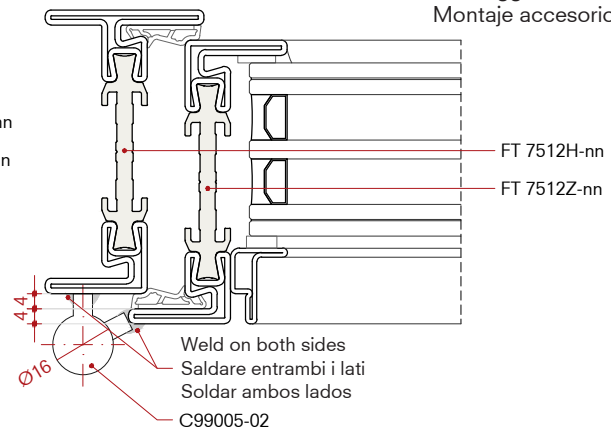
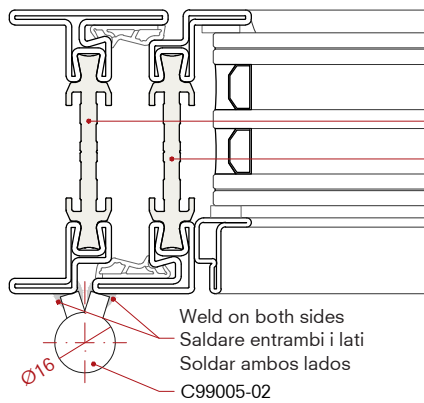
**Load capacity tables**  
 Weld-on hinges

**Tabella portate**  
 Cerniere a saldare

**Tablas de peso**  
 Bisagras de soldadura

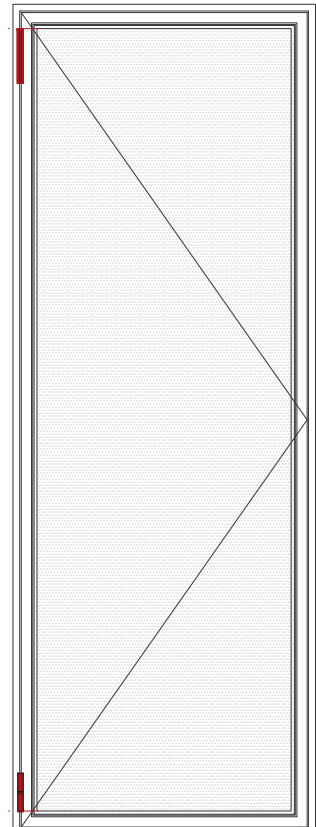
|                  | Material<br>Materiale<br>Material                                                                                                               | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99005-02</b> | Galvanized steel<br>Acciaio zincato<br>Acero galvanizado                                                                                        | Ø = 16 mm                        | 140 mm                          | 200 kg                                                 |
| <b>C99006-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-03 Stainless steel<br>-03 Acciaio inossidabile<br>-03 Acero inoxidable | Ø = 12 mm                        | 83 mm                           | 100 kg                                                 |
| <b>C99007-02</b> | Galvanized steel<br>Acciaio zincato<br>Acero galvanizado                                                                                        | Ø = 16 mm                        | 140 mm                          | 230 kg                                                 |





Align the top hinge to the profile  
Allineare il filo superiore della cerniera col profilo  
Alinear la bisagra superior con el perfil

Align the bottom hinge to the profile  
Allineare il filo inferiore della cerniera col profilo  
Alinear la bisagra inferior con el perfil



**Note**

When welding, care must be taken to avoid overheating the profiles. We recommend the use of heat sinks located in close proximity of the welded area, as well as to proceed in small segments, always waiting for the profile to cool down. The heat generated during welding of profiles and hinges must be dissipated using brass, copper and aluminium welding attachments. Keep minimum 3 mm distance from welding seam to polyamide web.

**Nota**

Durante la saldatura occorre prestare attenzione a non surriscaldare eccessivamente i profili. Consigliamo l'utilizzo di dissipatori di calore posizionati nelle immediate vicinanze della zona interessata dalla saldatura, di procedere per tratti e attendere che il profilo si raffreddi prima di terminare l'operazione. Il calore prodotto durante la saldatura dei profili e cerniere può essere disperso utilizzando controsagome in ottone, rame, alluminio. Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliammide.

**Nota**

Durante la soldadura, se debe tener cuidado de no sobrecalentar los perfiles. Recomendamos el uso de disipadores en las inmediaciones del área afectada por la soldadura, proceder por tramos y esperar a que el perfil se enfríe antes de finalizar la operación. El calor generado durante la soldadura de perfiles y bisagras se debe disipar utilizando accesorios de soldadura de latón, cobre y aluminio. Mantenga una distancia mínima de 3 mm desde la costura de soldadura hasta la banda de poliamida.

**Load capacity tables**  
 Weld-on hinges

**Tabella portate**  
 Cerniere a saldare

**Tablas de peso**  
 Bisagras de soldadura

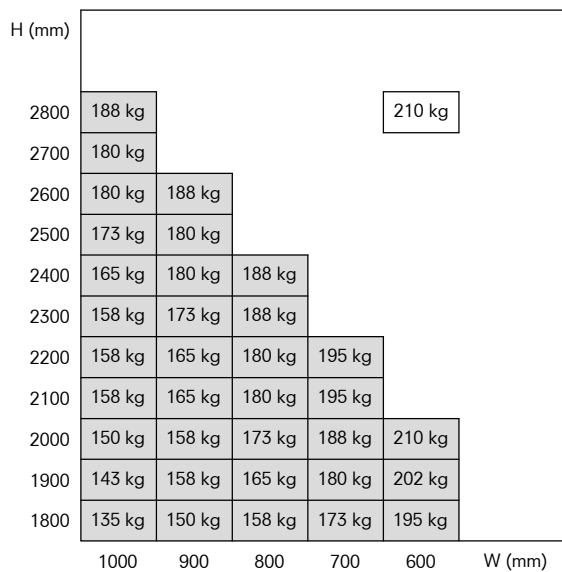
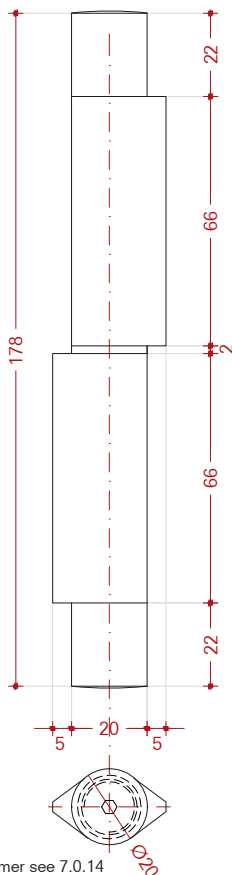
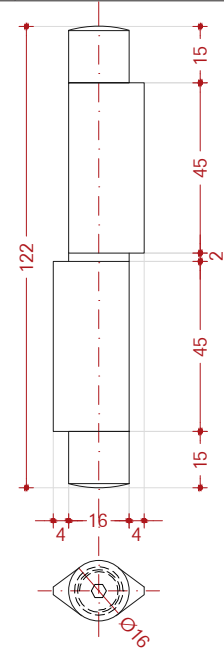
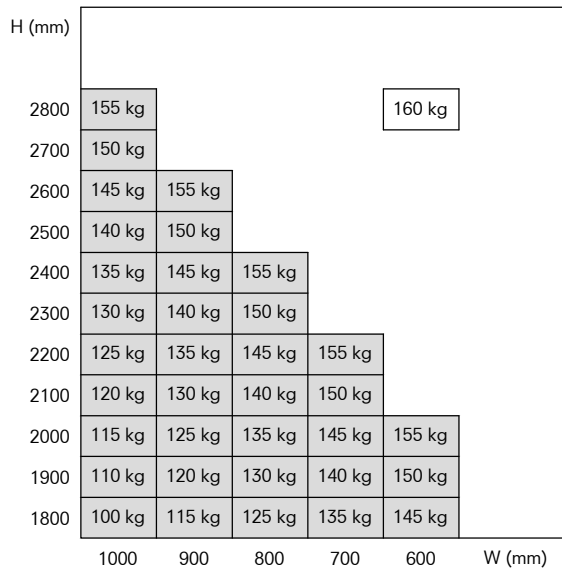
|                                                                          | Material<br>Materiale<br>Material                                                                                              | Diameter<br>Diámetro<br>Diamètre | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| C99008-04<br>C99008-12<br>ADJUSTABLE 3D<br>REGOLABILE 3D<br>3D AJUSTABLE | -04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 16 mm                        | 122 mm                          | 160 kg                                                 |
| C99009-04<br>C99009-12<br>ADJUSTABLE 3D<br>REGOLABILE 3D<br>3D AJUSTABLE | -04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 20 mm                        | 178 mm                          | 210 kg                                                 |

C99008-nn

Available templates for installation.  
 See page 3.8.9

Disponibili dime per l'installazione.  
 Vedi pagina 3.8.9

Plantillas disponibles para la instalación.  
 Ver página 3.8.9

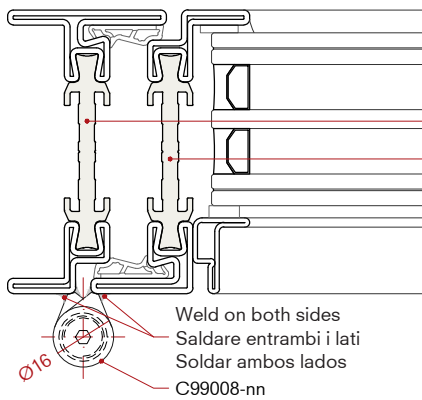


C99009-nn

Available templates for installation.  
 See page 3.8.9

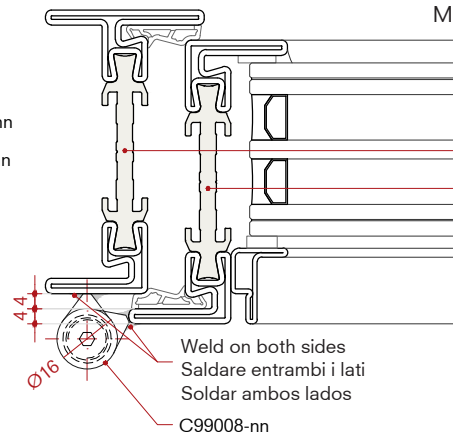
Disponibili dime per l'installazione.  
 Vedi pagina 3.8.9

Plantillas disponibles para la instalación.  
 Ver página 3.8.9



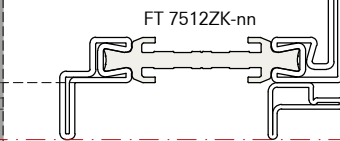
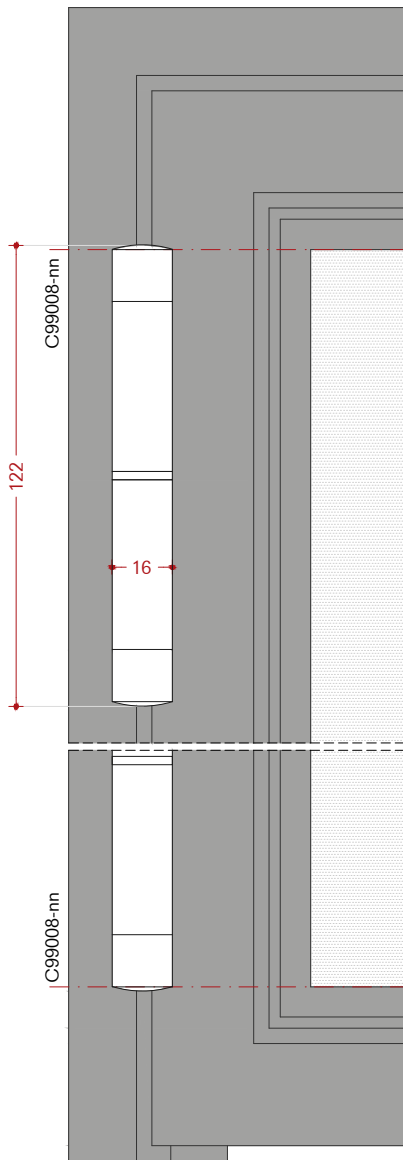
FT 7512HK-nn  
FT 7512ZK-nn

Weld on both sides  
Saldare entrambi i lati  
Soldar ambos lados  
C99008-nn



FT 7512H-nn  
FT 7512Z-nn

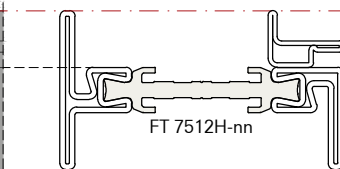
Weld on both sides  
Saldare entrambi i lati  
Soldar ambos lados  
C99008-nn



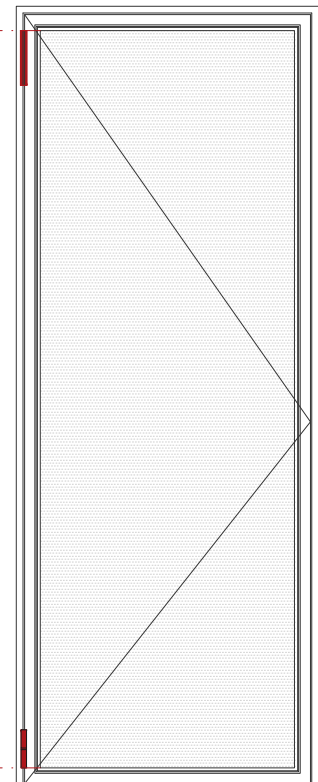
FT 7512ZK-nn

Align the top hinge to the profile  
Allineare il filo superiore della cerniera col profilo  
Alinear la bisagra superior con el perfil

Align the bottom hinge to the profile  
Allineare il filo inferiore della cerniera col profilo  
Alinear la bisagra inferior con el perfil



FT 7512H-nn



**Note**

When welding, care must be taken to avoid overheating the profiles. We recommend the use of heat sinks located in close proximity of the welded area, as well as to proceed in small segment, always waiting for the profile to cool down. The heat generated during welding of profiles and hinges must be dissipated using brass, copper and aluminium welding attachments. Keep minimum 3 mm distance from welding seam to polyamide web.

**Nota**

Durante la saldatura occorre prestare attenzione a non surriscaldare eccessivamente i profili. Consigliamo l'utilizzo di dissipatori di calore posizionati nelle immediate vicinanze della zona interessata dalla saldatura, di procedere per tratti e attendere che il profilo si raffreddi prima di terminare l'operazione. Il calore prodotto durante la saldatura dei profili e cerniere può essere disperso utilizzando controsagome in ottone, rame, alluminio. Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliammide.

**Nota**

Durante la soldadura, se debe tener cuidado de no sobrecalentar los perfiles. Recomendamos el uso de disipadores en las inmediaciones del área afectada por la soldadura, proceder por tramos y esperar a que el perfil se enfríe antes de finalizar la operación. El calor generado durante la soldadura de perfiles y bisagras se debe disipar utilizando accesorios de soldadura de latón, cobre y aluminio. Mantenga una distancia mínima de 3 mm desde la costura de soldadura hasta la banda de poliamida.

**Installation**

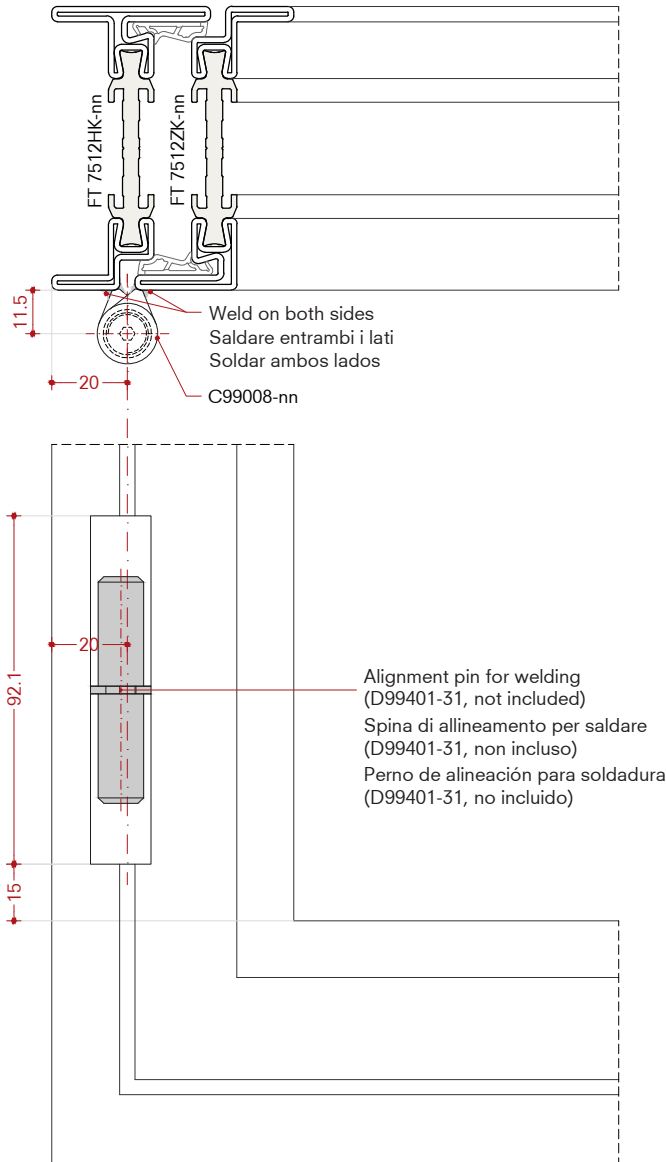
Adjustable 3D weld-on hinge  
 C99008-nn  
 Flush profiles

**Montaggio**

Cerniera 3D regolabile a saldare  
 C99008-nn  
 Profili complanari

**Montaje**

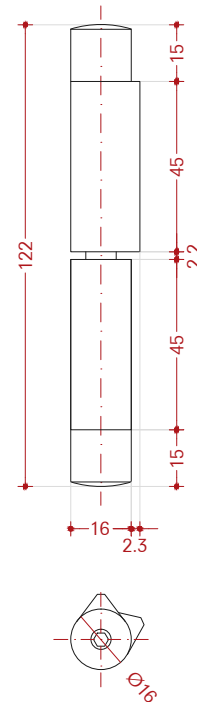
Bisagra ajustable 3D para soldar  
 C99008-nn  
 Perfiles coplanarios



The hinge may only be welded on  
 without brass bushings.

La cerniera deve essere saldata  
 senza boccole in ottone.

la bisagra solo se puede soldar  
 sin casquillos.



To adjust the brass bushing, use the D99501-31  
 adjusting tool. Adjust the top and bottom hinge before  
 hooking the sash.

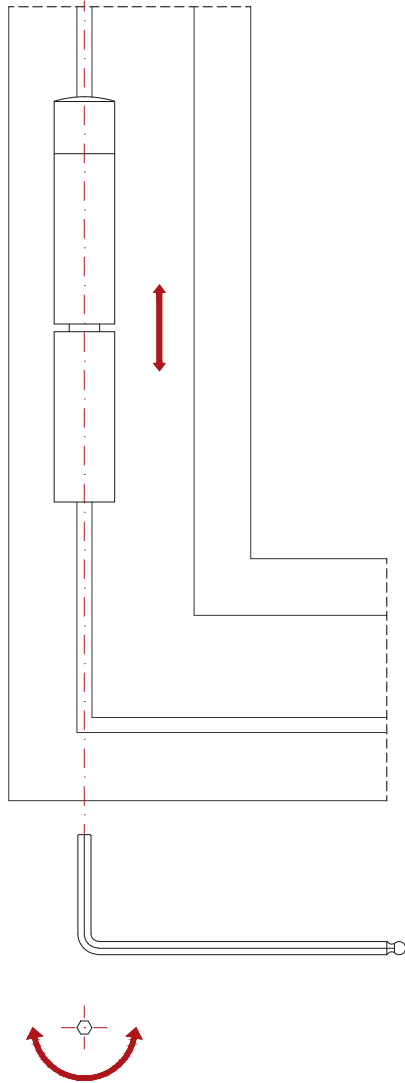
Per regolare la bussola in ottone utilizzare la chiave di  
 regolazione D99501-31. Regolare la cerniera superiore e  
 inferiore prima di agganciare il battente.

Para ajustar el casquillo de bronce, usar la llave de  
 ajuste D99501-31. Ajustar bisagra superior e inferior  
 antes de enganchar la hoja.

Setting on site

Regolazione in cantiere

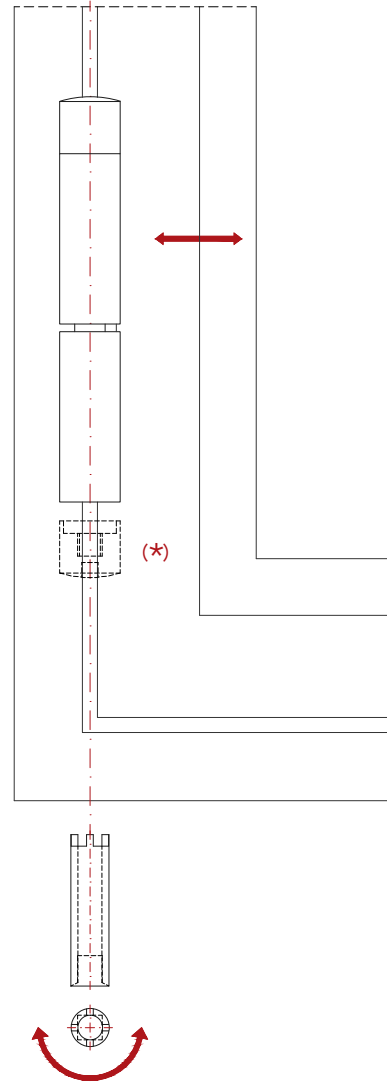
Ajuste in situ



Use an allen key (4 mm, not included) for the upward and downward setting

Utilizzare una chiave a brugola (4 mm, non inclusa) per la regolazione verso l'alto e verso il basso

Use la llave allen (4 mm, no incluida) para el ajuste hacia arriba y hacia abajo



Use 1/4" allen key adjusting tool D99501-31 (Not included) for left and right setting

Per la regolazione destra e sinistra utilizzare una chiave da 1/4" su D99501-31 (non inclusa)

Para el ajuste a izquierda y a derecha use una llave allen 1/4" en D99501-31 (no incluido)

**Note:**

(\*) After the installation mount all of the parts of the hinges to stop the adjustments and fix the caps.

**Nota:**

(\*) Dopo l'installazione montare tutte le parti delle cerniere, bloccare le regolazioni e fissare i tappi.

**Nota:**

(\*) Después de la instalación, monte todas las partes de las bisagras para detener los ajustes y arregla las tapas.

**Installation**

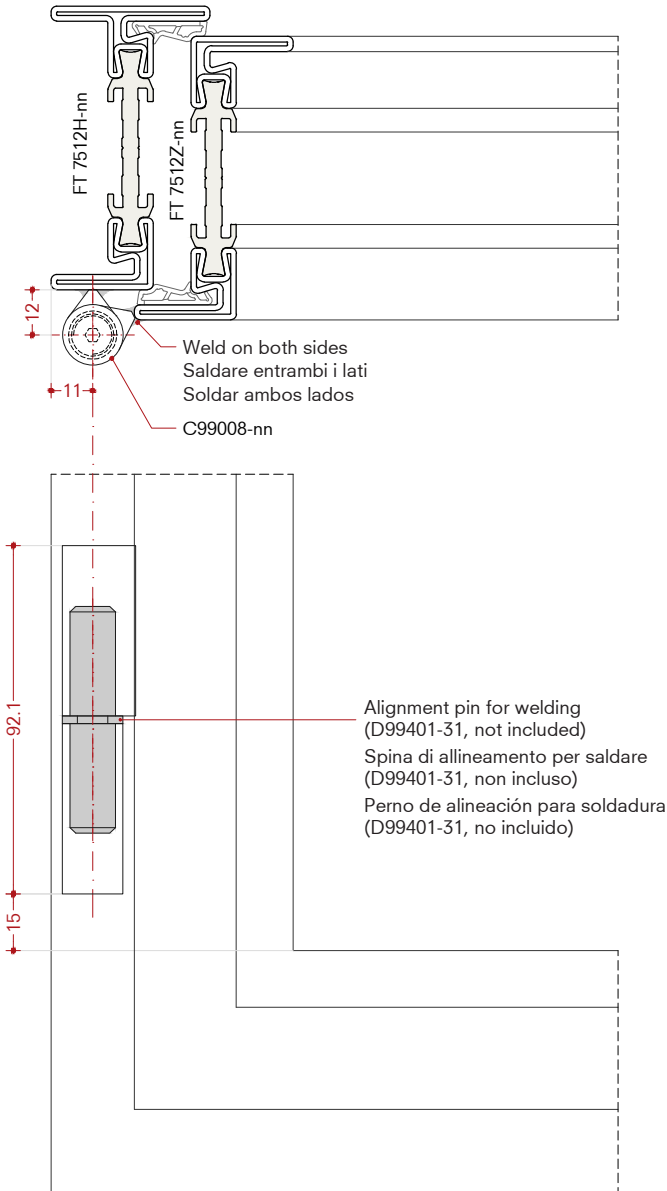
Adjustable 3D weld-on hinge  
 C99008-nn  
 Overlapped profiles

**Montaggio**

Cerniera 3D regolabile a saldare  
 C99008-nn  
 Profili a sovrapposto

**Montaje**

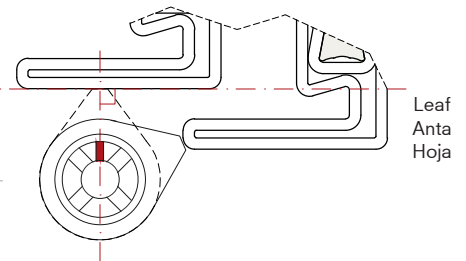
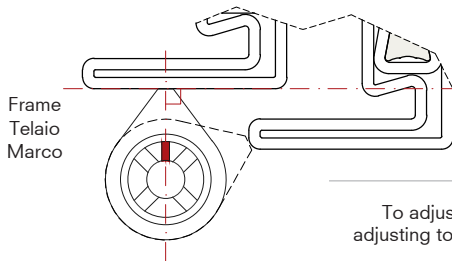
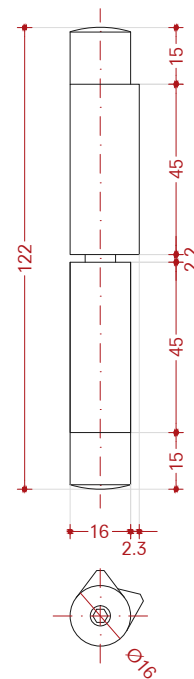
Bisagra ajustable 3D para soldar  
 C99008-nn  
 Perfiles superpuestos



The hinge may only be welded on without brass bushings.

La cerniera deve essere saldata senza boccole in ottone.

la bisagra solo se puede soldar sin casquillos.



To adjust the brass bushing, use the D99501-31 adjusting tool. Adjust the top and bottom hinge before hooking the sash.

Per regolare la bussola in ottone utilizzare la chiave di regolazione D99501-31. Regolare la cerniera superiore e inferiore prima di agganciare il battente.

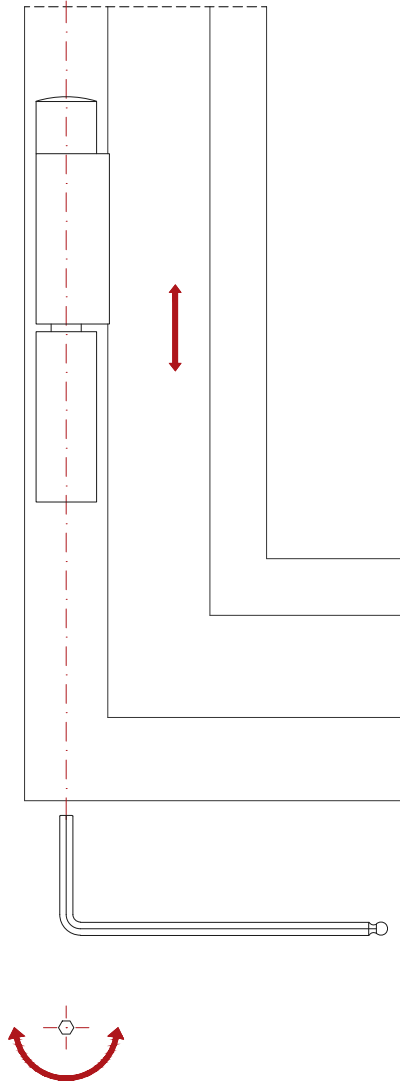
Para ajustar el casquillo de bronce, usar la llave de ajuste D99501-31. Ajustar bisagra superior e inferior antes de enganchar la hoja.



Setting on site

Regolazione in cantiere

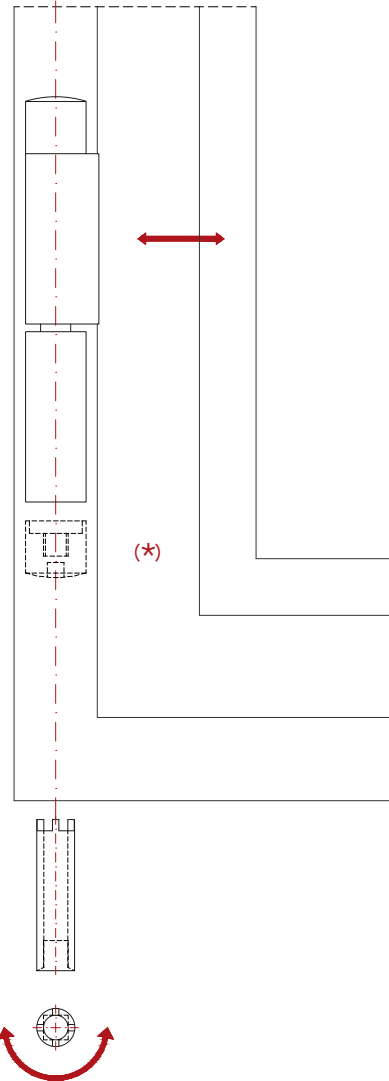
Ajuste in situ



Use an allen key (4 mm, not included) for the upward and downward setting

Utilizzare una chiave a brugola (4 mm, non inclusa) per la regolazione verso l'alto e verso il basso

Use la llave allen (4 mm, no incluida) para el ajuste hacia arriba y hacia abajo



Use 1/4" allen key adjusting tool D99501-31 (Not included) for left and right setting

Per la regolazione destra e sinistra utilizzare una chiave da 1/4" su D99501-31 (non inclusa)

Para el ajuste a izquierda y a derecha use una llave allen 1/4" en D99501-31 (no incluido)

**Note:**

(\*) After the installation mount all of the parts of the hinges to stop the adjustments and fix the caps.

**Nota:**

(\*) Dopo l'installazione montare tutte le parti delle cerniere, bloccare le regolazioni e fissare i tappi.

**Nota:**

(\*) Después de la instalación, monte todas las partes de las bisagras para detener los ajustes y arregla las tapas.

**Installation**

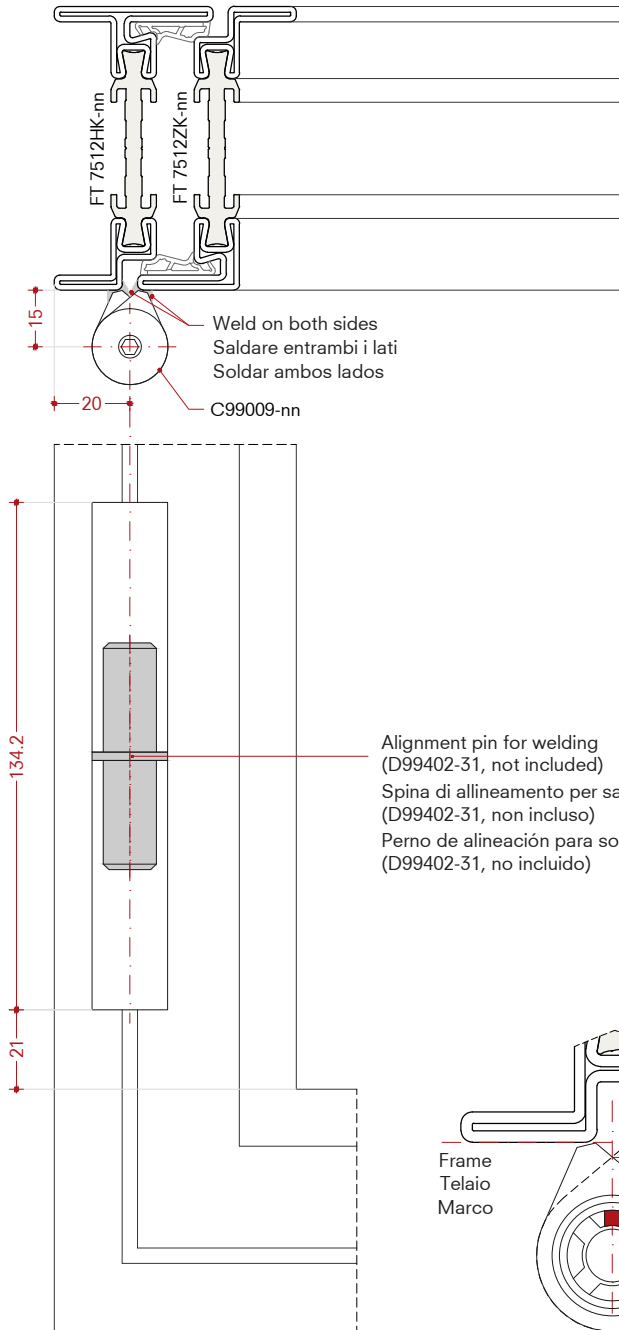
Adjustable 3D weld-on hinge  
 C99009-nn  
 Flush profiles

**Montaggio**

Cerniera 3D regolabile a saldare  
 C99009-nn  
 Profili complanari

**Montaje**

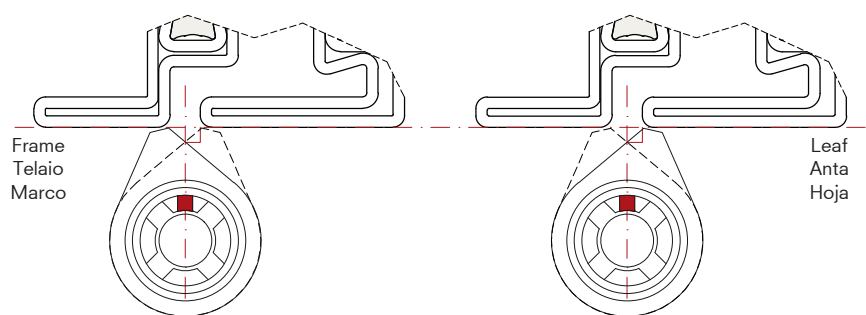
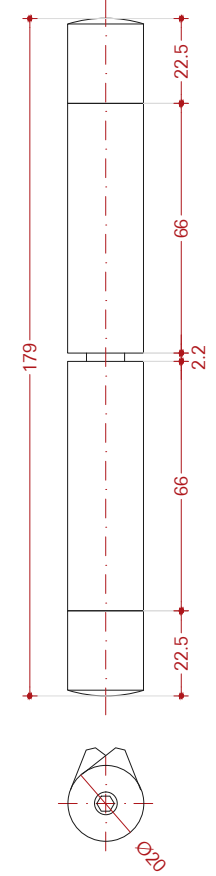
Bisagra ajustable 3D para soldar  
 C99009-nn  
 Perfiles coplanarios



The hinge may only be welded on without brass bushings.

La cerniera deve essere saldata senza boccole in ottone.

la bisagra solo se puede soldar sin casquillos.



To adjust the brass bushing, use the D99502-31 adjusting tool. Adjust the top and bottom hinge before hooking the sash.

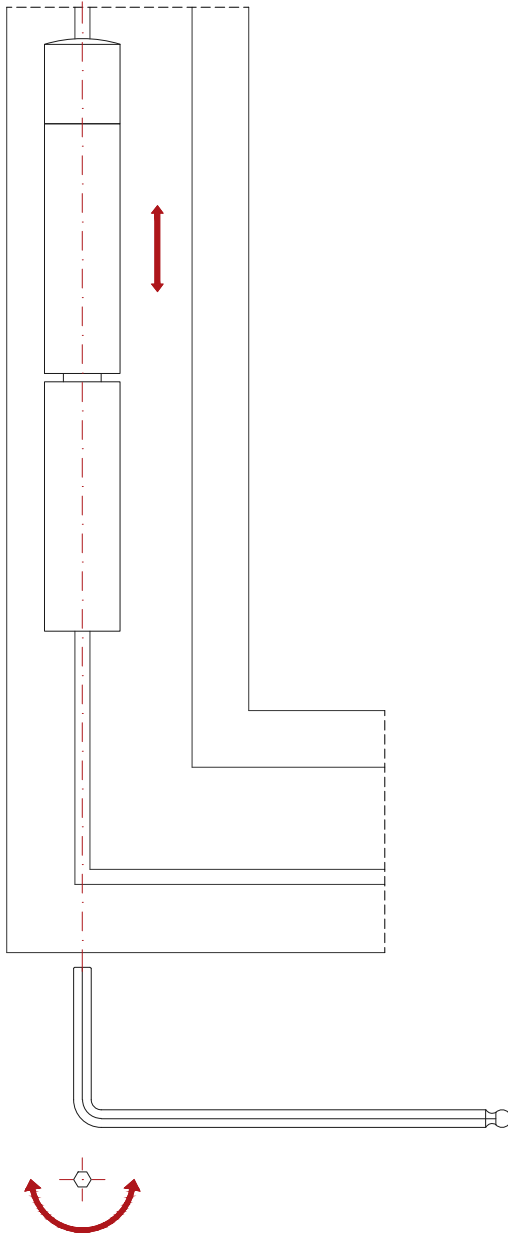
Per regolare la bussola in ottone utilizzare la chiave di regolazione D99502-31. Regolare la cerniera superiore e inferiore prima di agganciare il battente.

Para ajustar el casquillo de bronce, usar la llave de ajuste D99502-31. Ajustar bisagra superior e inferior antes de enganchar la hoja.

Setting on site

Regolazione in cantiere

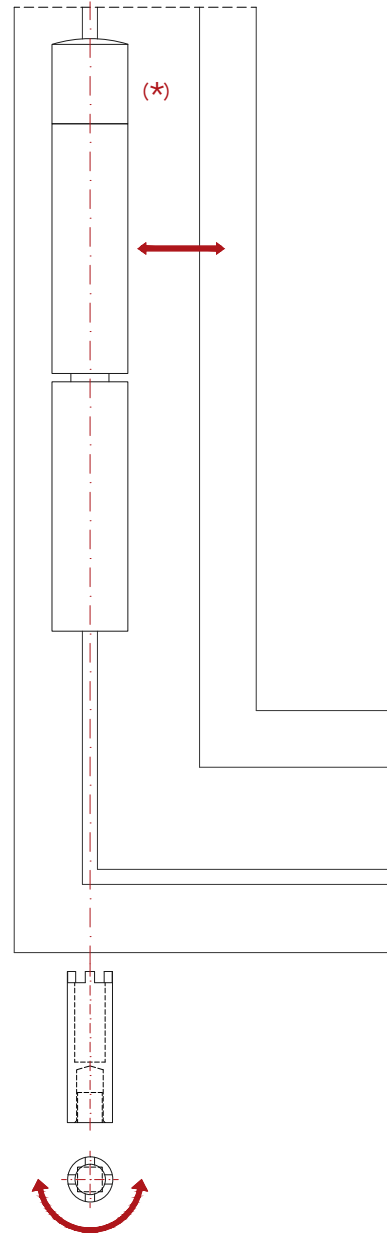
Ajuste in situ



Use an allen key (4 mm, not included) for the upward and downward setting

Utilizzare una chiave a brugola (4 mm, non inclusa) per la regolazione verso l'alto e verso il basso

Use la llave allen (4 mm, no incluida) para el ajuste hacia arriba y hacia abajo



Use 1/4" allen key adjusting tool D99502-31 (Not included) for left and right setting

Per la regolazione destra e sinistra utilizzare una chiave da 1/4" su D99502-31 (non inclusa)

Para el ajuste a izquierda y a derecha use una llave allen 1/4" en D99502-31 (no incluido)

**Note:**

(\*) After the installation mount all of the parts of the hinges to stop the adjustments and fix the caps.

**Nota:**

(\*) Dopo l'installazione montare tutte le parti delle cerniere, bloccare le regolazioni e fissare i tappi.

**Nota:**

(\*) Después de la instalación, monte todas las partes de las bisagras para detener los ajustes y arregla las tapas.

**Installation**

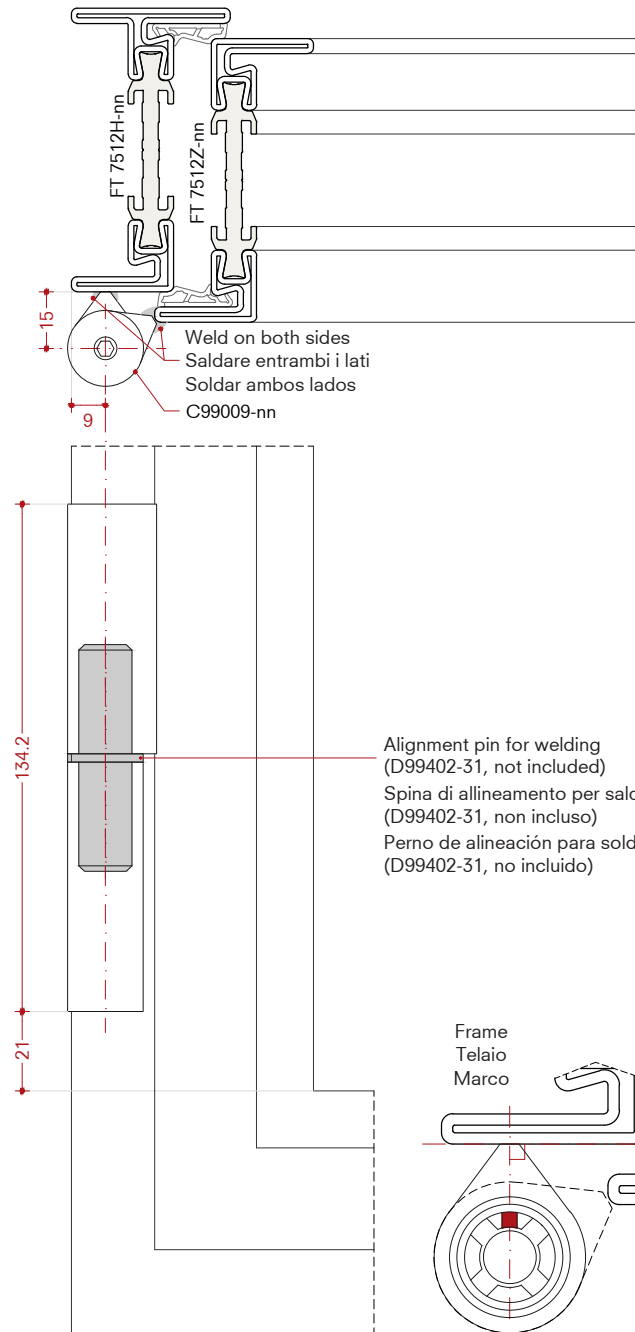
Adjustable 3D weld-on hinge  
 C99009-nn  
 Overlapped profiles

**Montaggio**

Cerniera 3D regolabile a saldare  
 C99009-nn  
 Profili a sormonto

**Montaje**

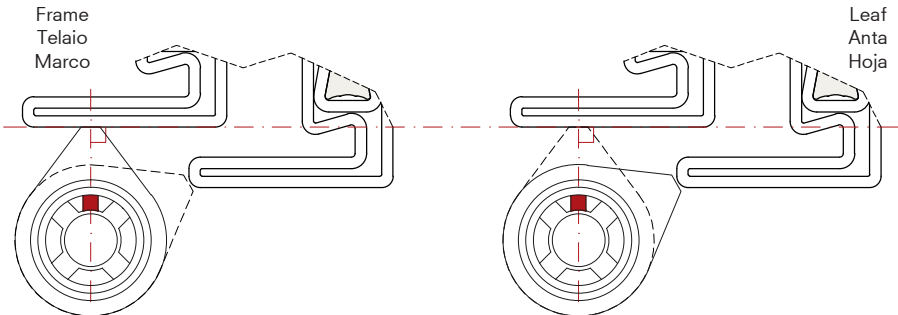
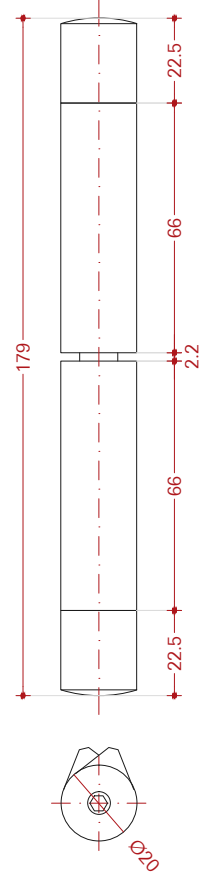
Bisagra ajustable 3D para soldar  
 C99009-nn  
 Perfiles superpuestos



The hinge may only be welded on without brass bushings.

La cerniera deve essere saldata senza boccole in ottone.

la bisagra solo se puede soldar sin casquillos.



To adjust the brass bushing, use the D99502-31 adjusting tool. Adjust the top and bottom hinge before hooking the sash.

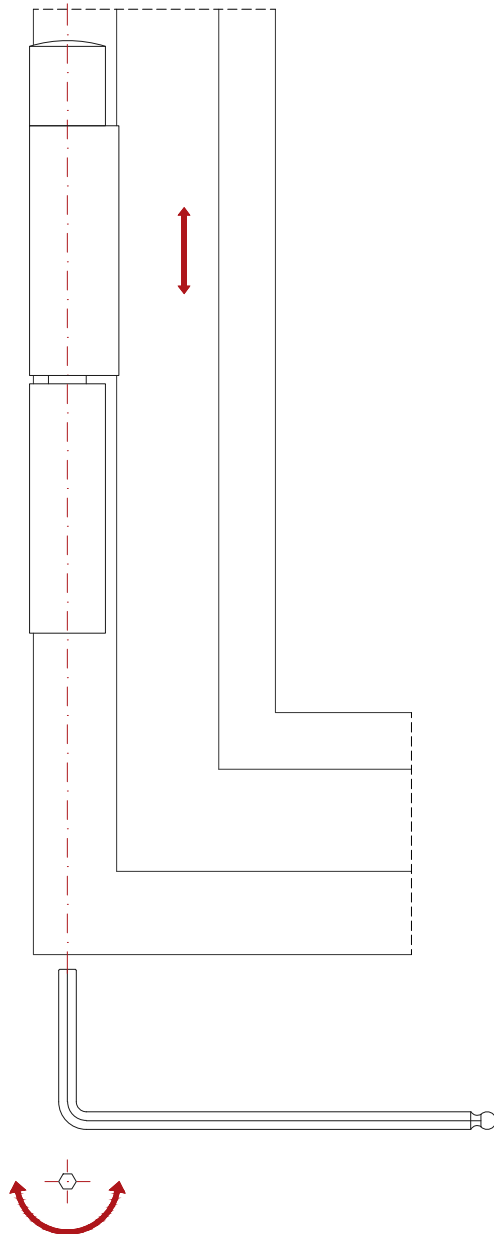
Per regolare la bussola in ottone utilizzare la chiave di regolazione D99502-31. Regolare la cerniera superiore e inferiore prima di agganciare il battente.

Para ajustar el casquillo de bronce, usar la llave de ajuste D99502-31. Ajustar bisagra superior e inferior antes de enganchar la hoja.

Setting on site

Regolazione in cantiere

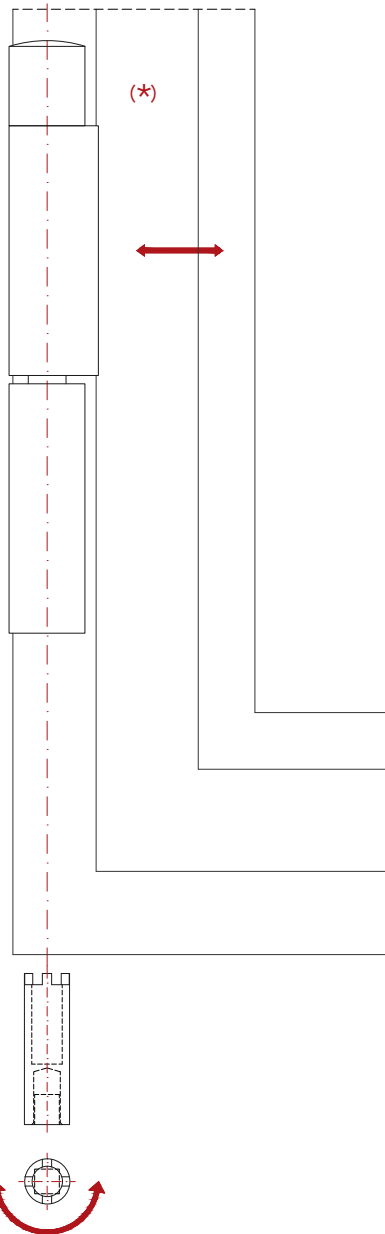
Ajuste in situ



Use an allen key (4 mm, not included) for the upward and downward setting

Utilizzare una chiave a brugola (4 mm, non inclusa) per la regolazione verso l'alto e verso il basso

Use la llave allen (4 mm, no incluida) para el ajuste hacia arriba y hacia abajo



Use 1/4" allen key adjusting tool D99502-31 (Not included) for left and right setting

Per la regolazione destra e sinistra utilizzare una chiave da 1/4" su D99502-31 (non inclusa)

Para el ajuste a izquierda y a derecha use una llave allen 1/4" en D99502-31 (no incluido)

**Note:**

(\*) After the installation mount all of the parts of the hinges to stop the adjustments and fix the caps.

**Nota:**

(\*) Dopo l'installazione montare tutte le parti delle cerniere, bloccare le regolazioni e fissare i tappi.

**Nota:**

(\*) Después de la instalación, monte todas las partes de las bisagras para detener los ajustes y arregla las tapas.

**Recommendations  
 for installation**

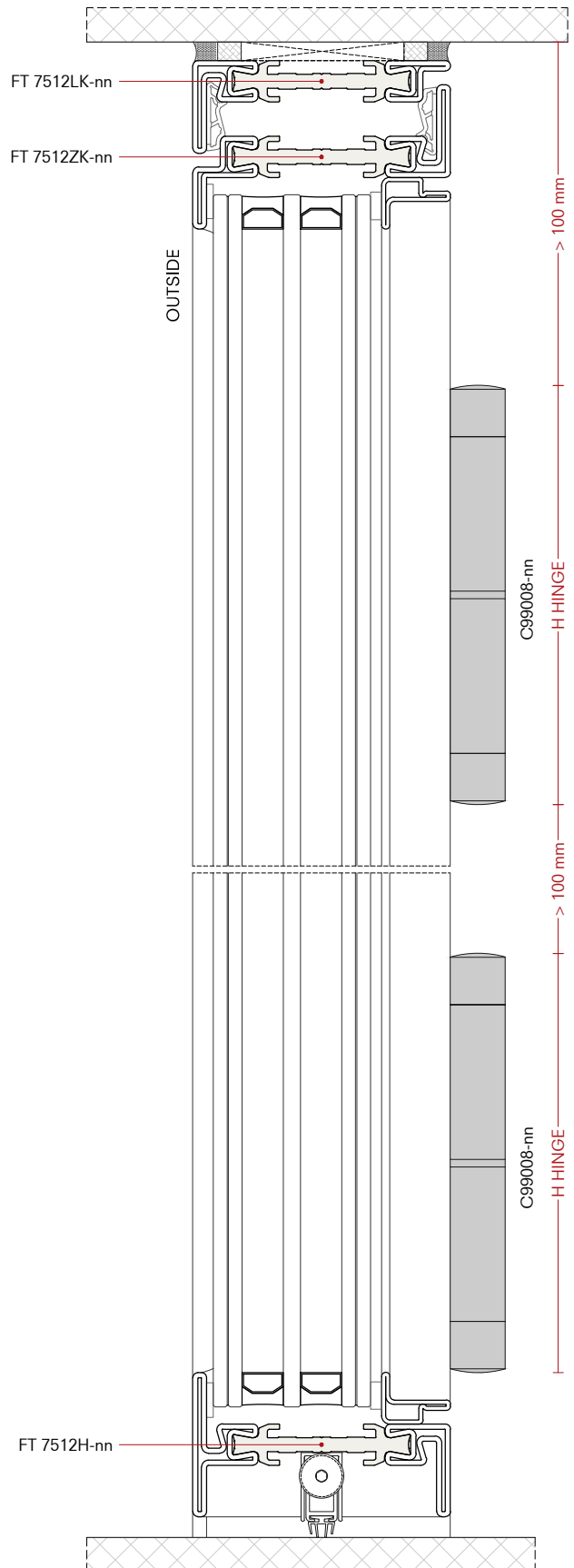
Adjustable 3D weld-on hinge  
 C99008-nn and C99009-nn

**Raccomandazioni per  
 l'installazione in luce**

Cerniera 3D regolabile a saldare  
 C99008-nn e C99009-nn

**Recomendaciones  
 para la instalación**

Bisagra ajustable 3D para soldar  
 C99008-nn y C99009-nn



Leave at least 100 mm  
 on top to remove the leaf.  
 Hinges code: C99008-nn, C99009-nn

Lasciare almeno 100 mm  
 di spazio superiore per poter rimuovere l'anta.  
 Codice cerniere: C99008-nn, C99009-nn

Dejar al menos 100 mm  
 en la parte superior para retirar la hoja.  
 Código de bisagras: C99008-nn, C99009-nn

**Installation**

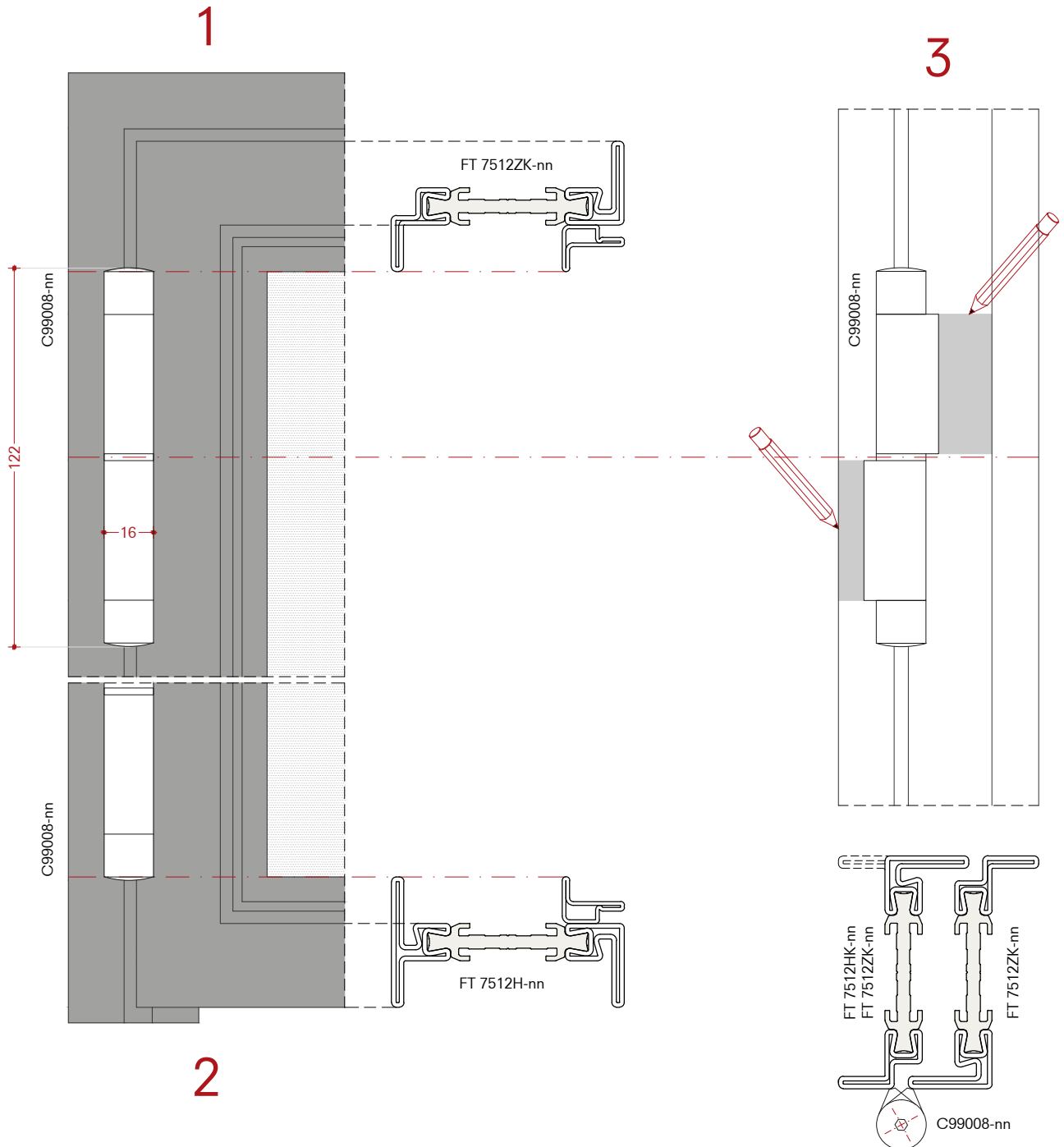
Templates D99442-03  
 for weld-on hinges C99008-nn  
 Flush profiles

**Montaggio**

Dime D99442-03  
 per cerniere a saldare C99008-nn  
 Profili complanari

**Montaje**

Plantilla D99442-03  
 para bisagra de soldadura C99008-nn  
 Perfiles coplanarios

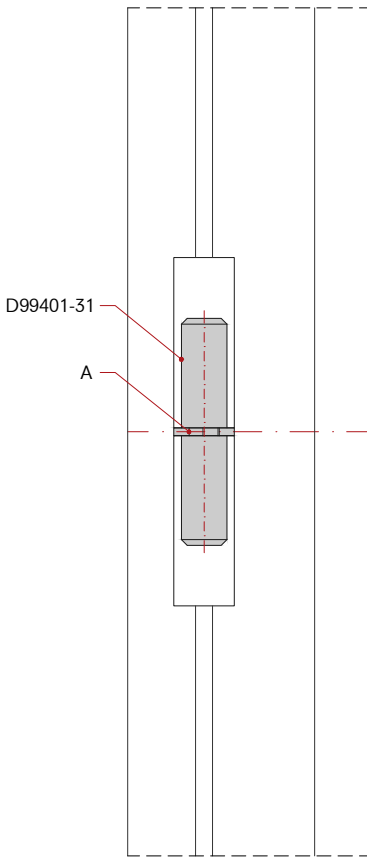


- 1) Align the top of hinge to the profile
- 2) Align the bottom of hinge to the profile
- 3) Mark the position of the hinge

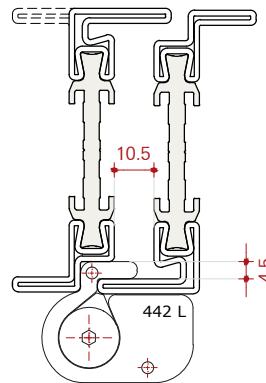
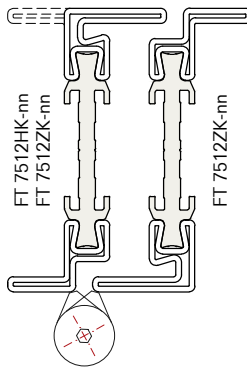
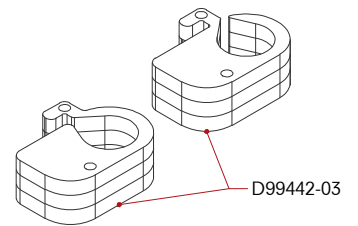
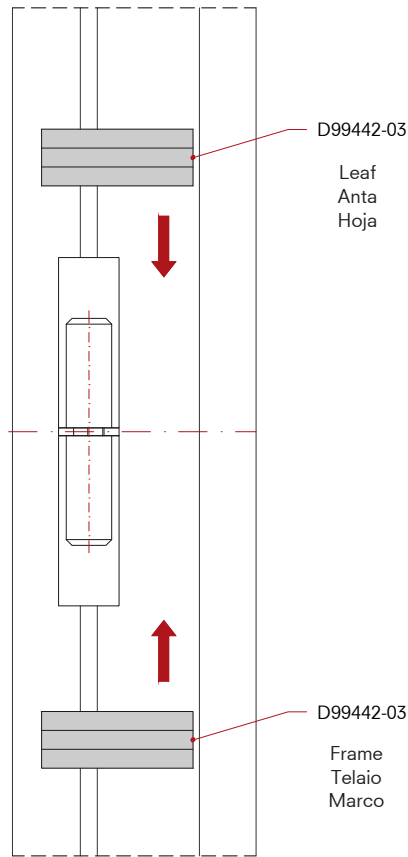
- 1) Allineare il filo superiore della cerniera col profilo
- 2) Allineare il filo inferiore della cerniera col profilo
- 3) Segnare la posizione della cerniera

- 1) Alinear la bisagra superior con el perfil
- 2) Alinear la bisagra inferior con el perfil
- 3) Marque la posición de la bisagra

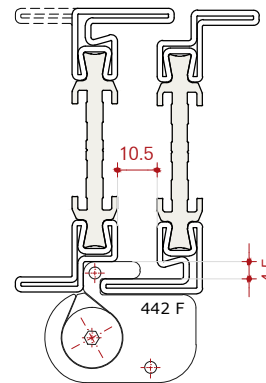
4



5



Leaf  
 Anta  
 Hoja



Frame  
 Telaio  
 Marco

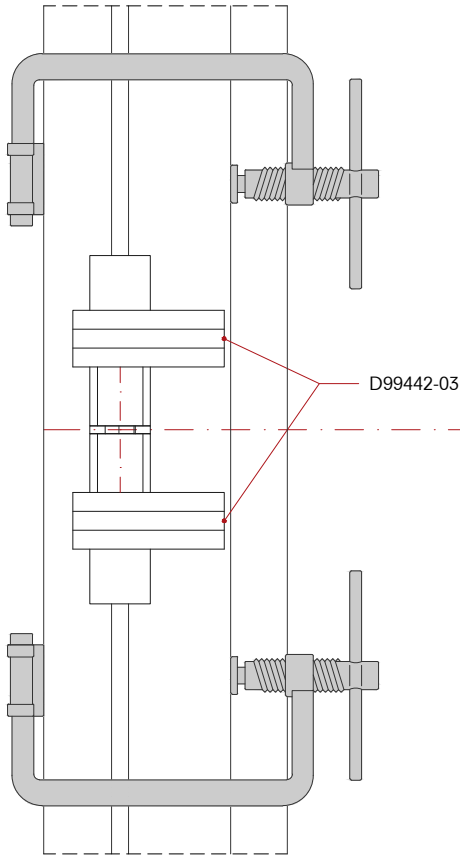
- 4) Remove caps, internal bush, set screw and spindles with spheres
- 5) Place the hinges using the templates
- A) Alignment pin for welding (D99401-31, not included)

- 4) Rimuovere i tappi, la bussola interna, il grano e il perno con le sfere
- 5) Posizionare le cerniere usando la dima
- A) Spina di allineamento per saldare (D99401-31, non incluso)

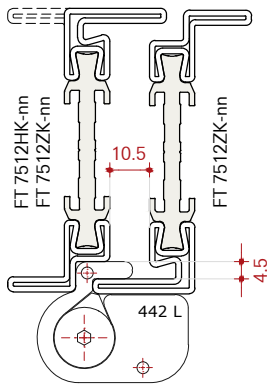
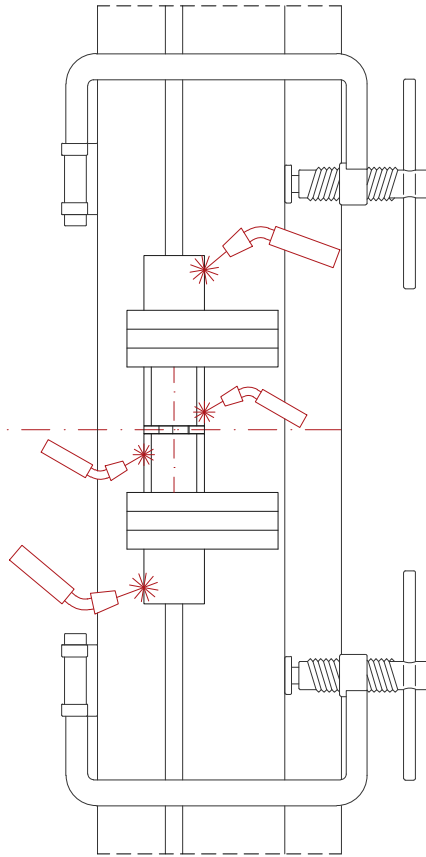
- 4) Retire las tapas, el casquillo interior, el tornillo y el perno con las bolas.
- 5) Coloque las bisagras usando la plantilla
- A) Perno de alineación para soldadura (D99401-31, no incluido)



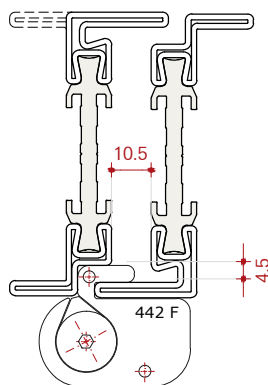
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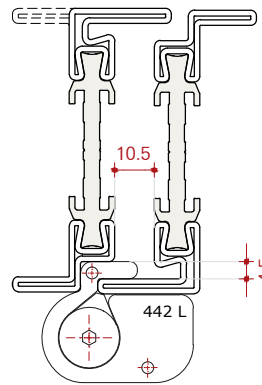
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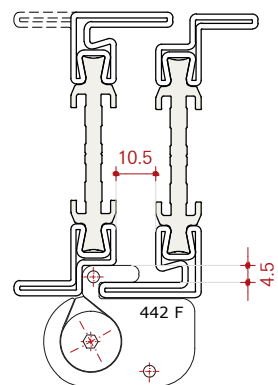
Leaf  
 Anta  
 Hoja



Frame  
 Telaio  
 Marco



Leaf  
 Anta  
 Hoja



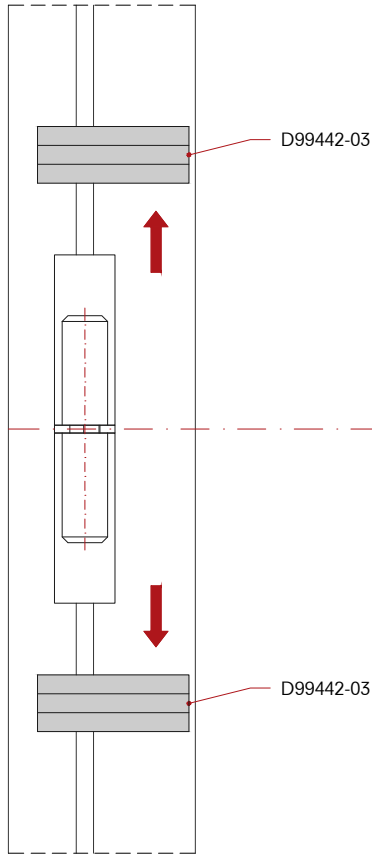
Frame  
 Telaio  
 Marco

6) Fix leaf and frame profiles using clamps  
 7) Weld hinge wings to profiles

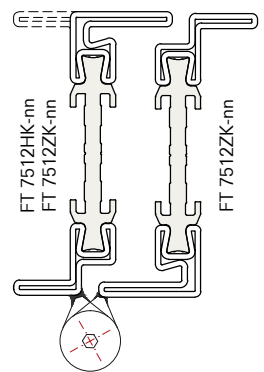
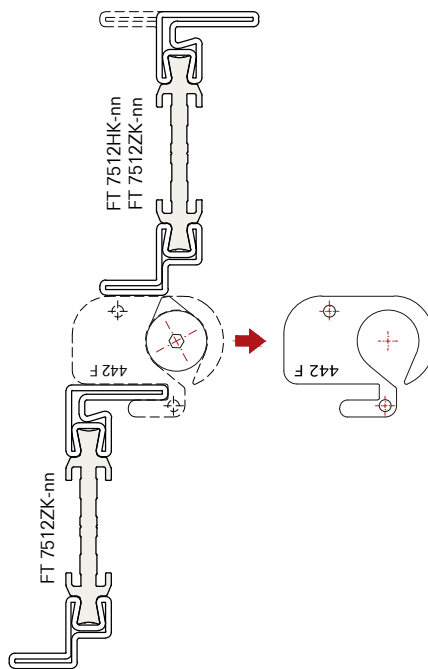
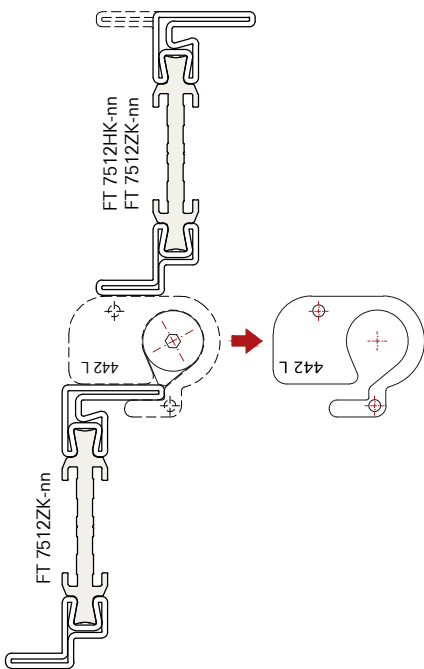
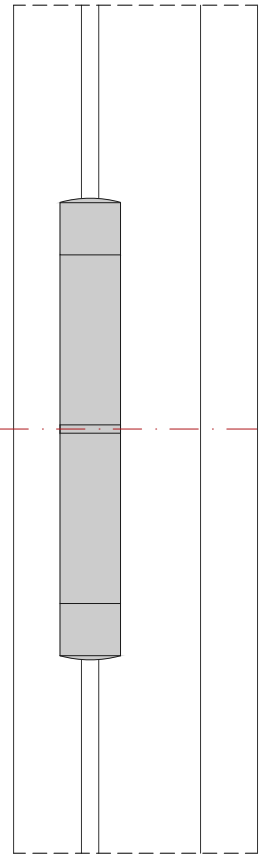
6) Fissare anta e telaio utilizzando i morsetti  
 7) Saldare le ali della cerniera sui profili

6) Fijar la hoja y el marco con las abrazaderas  
 7) Alas de bisagra soldadas a los perfiles

8



9



8) Remove templates  
 9) Assembly of the hinge

8) Rimuovere le dime  
 9) Assemblare la cerniera

8) Quitar plantillas  
 9) Montaje de la bisagra

**Installation**

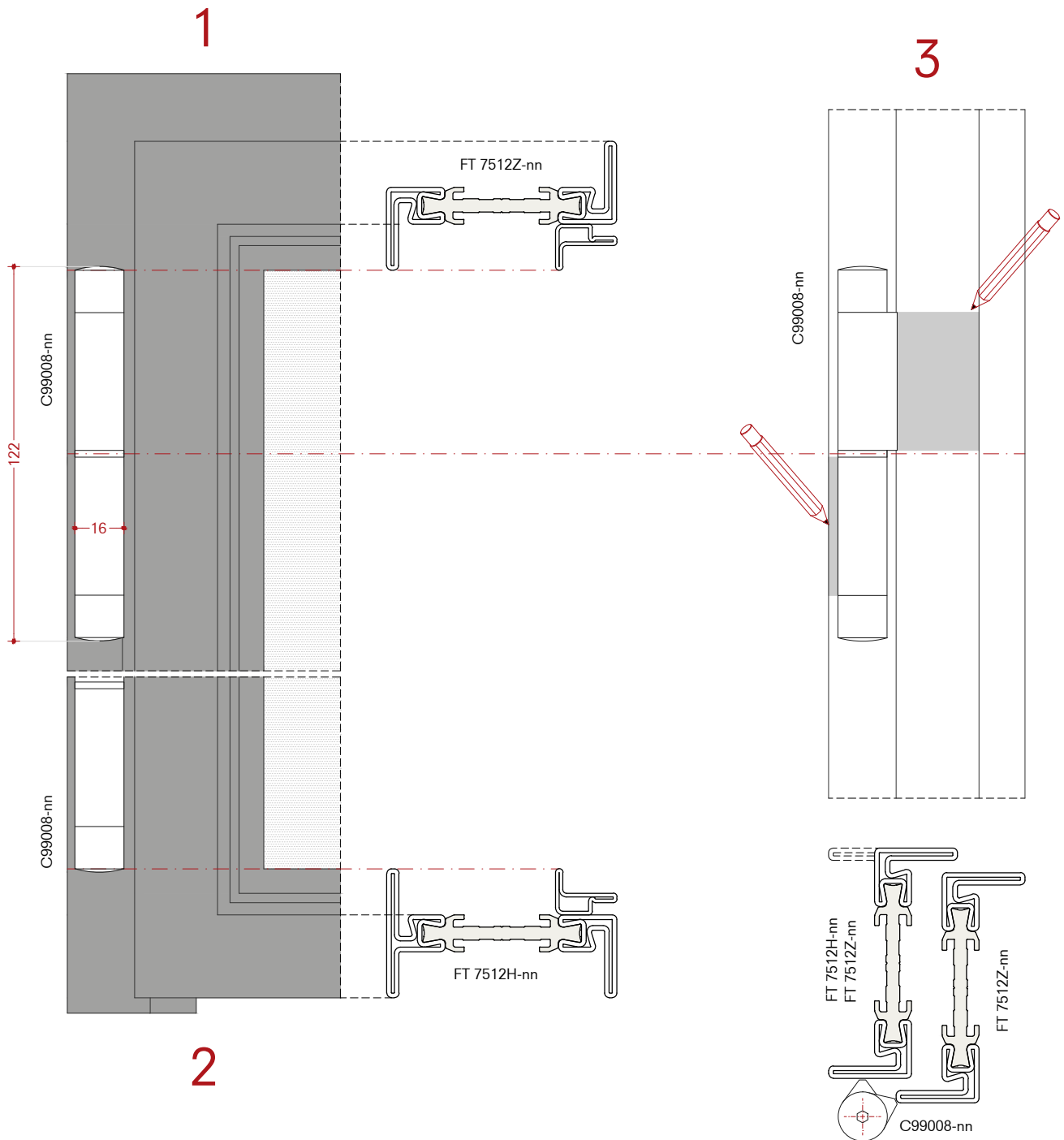
Templates D99443-03  
 for weld-on hinges C99008-nn  
 Overlapped profiles

**Montaggio**

Dime D99443-03  
 per cerniere a saldare C99008-nn  
 Profili a sormonto

**Montaje**

Plantilla D99443-03  
 para bisagra de soldadura C99008-nn  
 Perfiles superpuestos



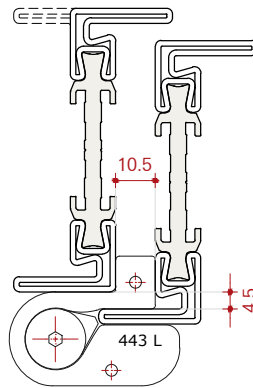
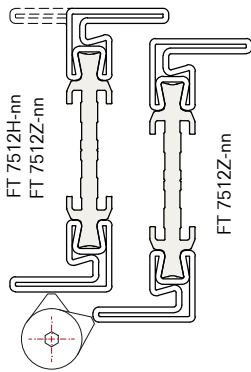
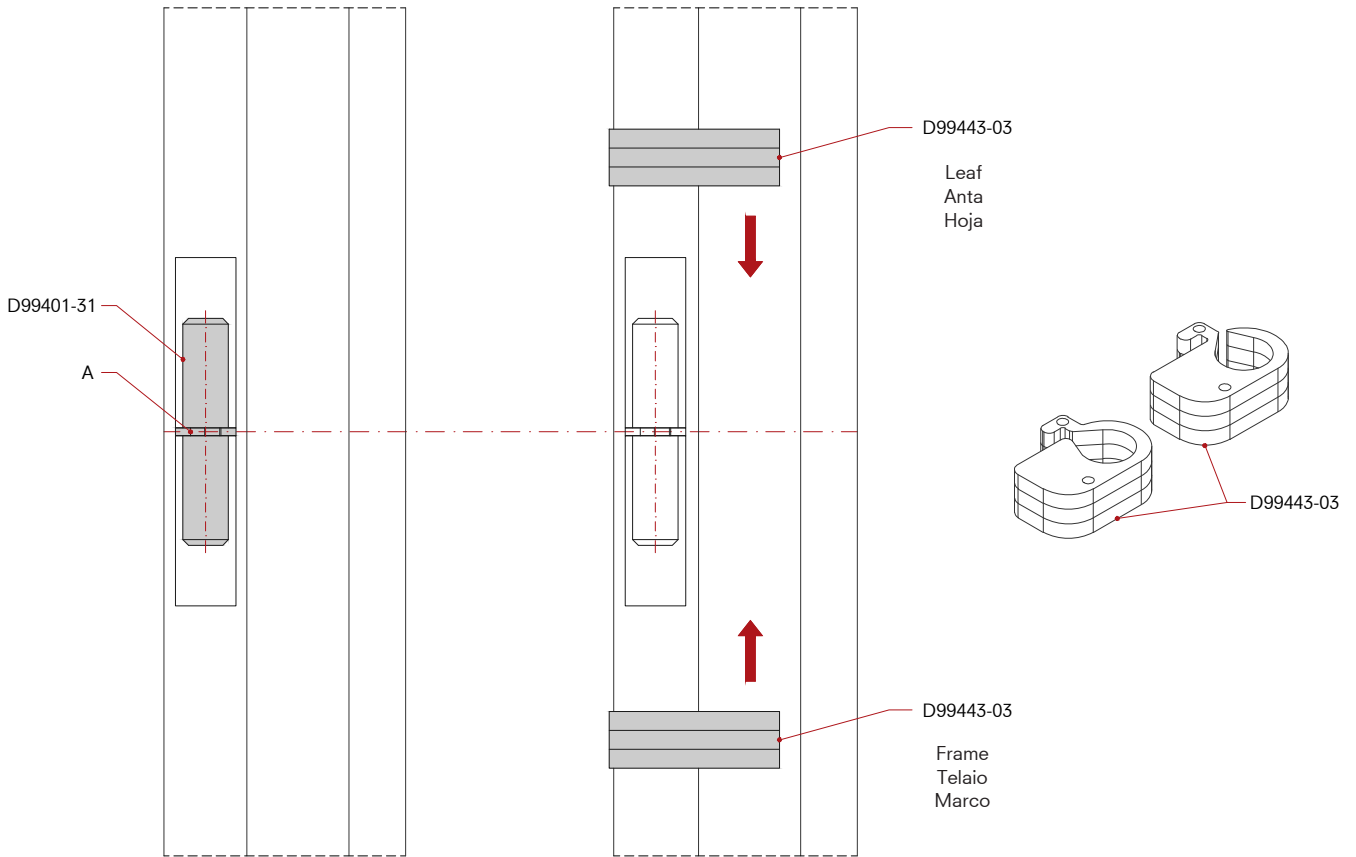
- 1) Align the top of hinge to the profile
- 2) Align the bottom of hinge to the profile
- 3) Mark the position of the hinge

- 1) Allineare il filo superiore della cerniera col profilo
- 2) Allineare il filo inferiore della cerniera col profilo
- 3) Segnare la posizione della cerniera

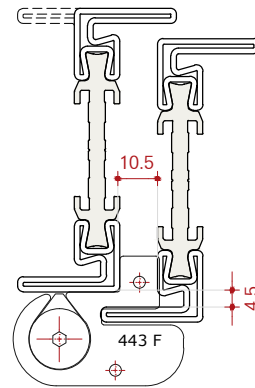
- 1) Alinear la bisagra superior con el perfil
- 2) Alinear la bisagra inferior con el perfil
- 3) Marque la posición de la bisagra

4

5



Leaf  
Anta  
Hoja



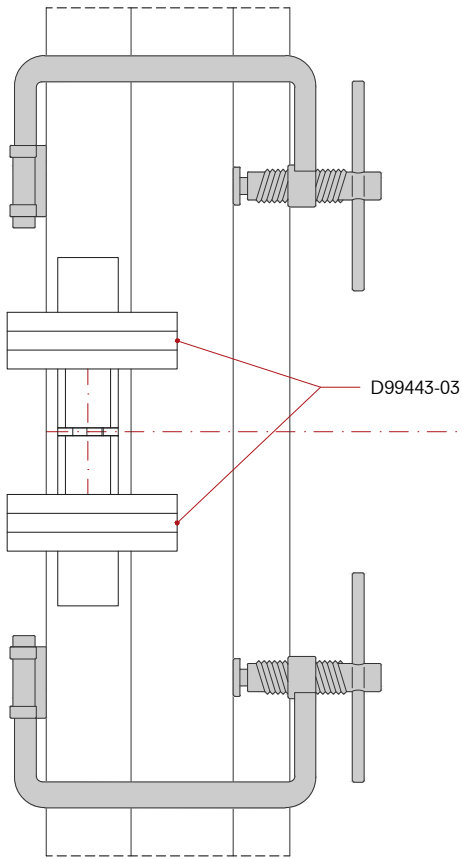
Frame  
Telaio  
Marco

- 4) Remove caps, internal bush, set screw and spindles with spheres
- 5) Place the hinges using the templates
- A) Alignment pin for welding (D99401-31, not included)

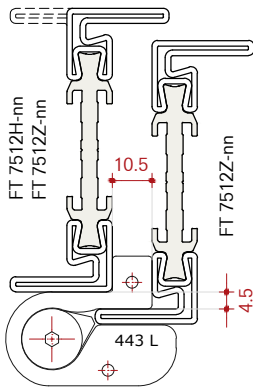
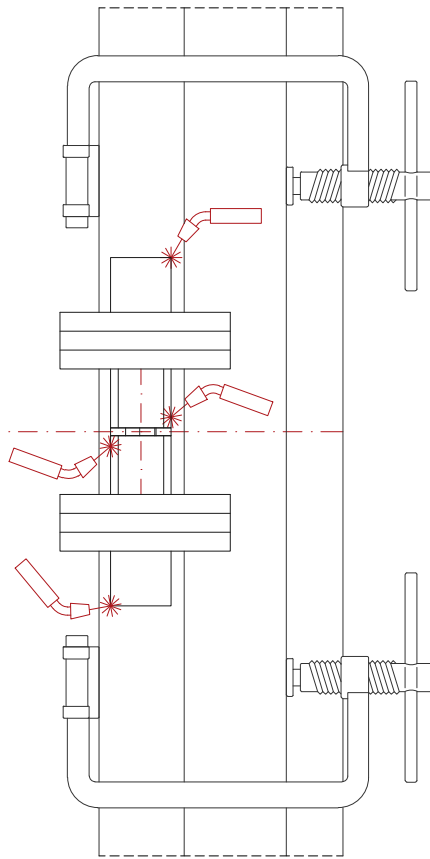
- 4) Rimuovere i tappi, la bussola interna, il grano e il perno con le sfere
- 5) Posizionare le cerniere usando la dima
- A) Spina di allineamento per saldare (D99401-31, non incluso)

- 4) Retire las tapas, el casquillo interior, el tornillo y el perno con las bolas.
- 5) Coloque las bisagras usando la plantilla
- A) Perno de alineación para soldadura (D99401-31, no incluido)

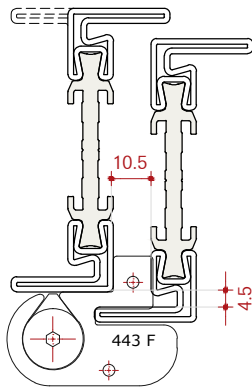
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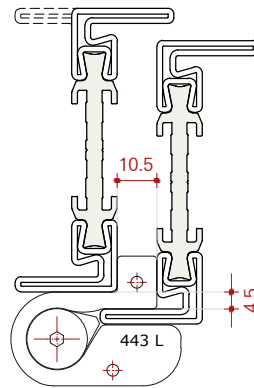
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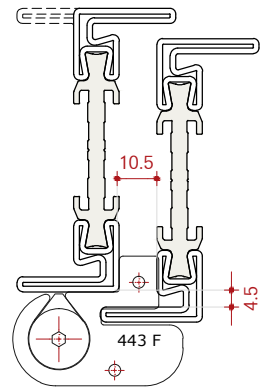
Leaf  
 Anta  
 Hoja



Frame  
 Telaio  
 Marco



Leaf  
 Anta  
 Hoja



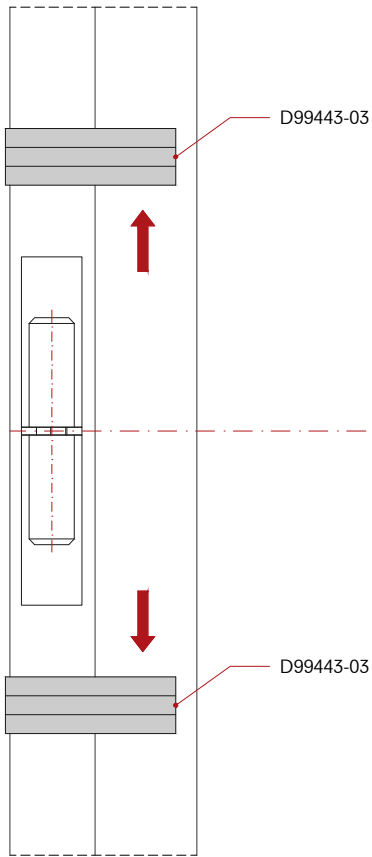
Frame  
 Telaio  
 Marco

6) Fix leaf and frame profiles using clamps  
 7) Weld hinge wings to profiles

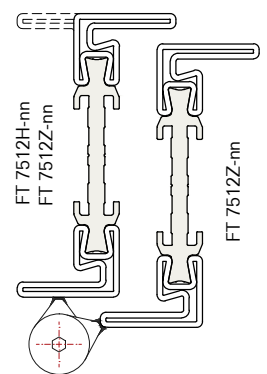
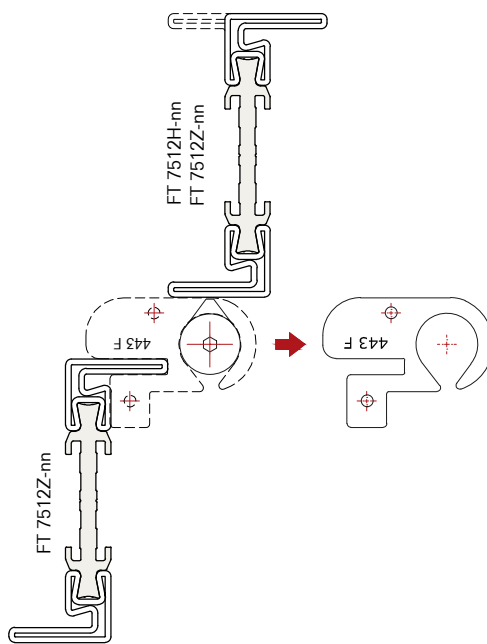
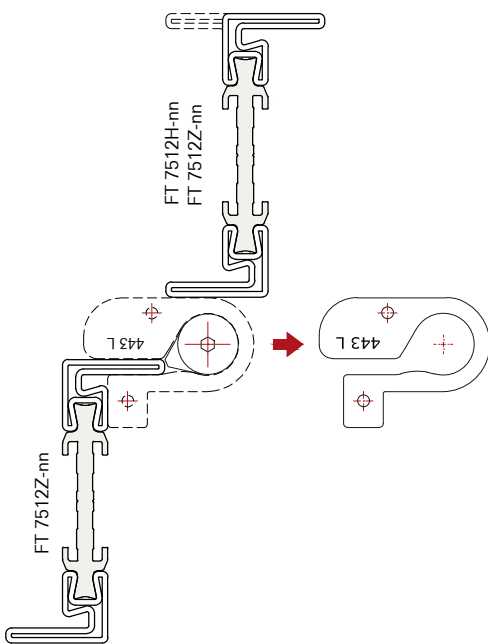
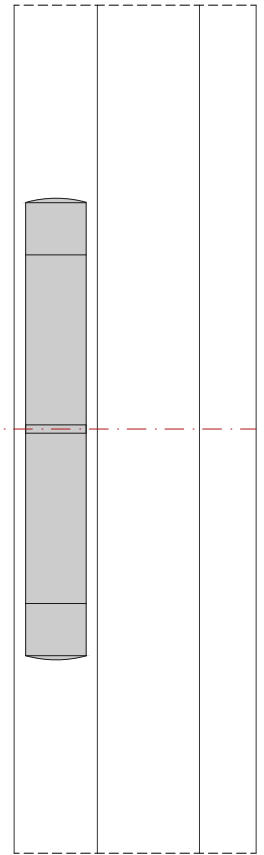
6) Fissare anta e telaio utilizzando i morsetti  
 7) Saldare le ali della cerniera sui profili

6) Fijar la hoja y el marco con las abrazaderas  
 7) Alas de bisagra soldadas a los perfiles

8



9



8) Remove templates  
 9) Assembly of the hinge

8) Rimuovere le dime  
 9) Assemblare la cerniera

8) Quitar plantillas  
 9) Montaje de la bisagra

**Installation**

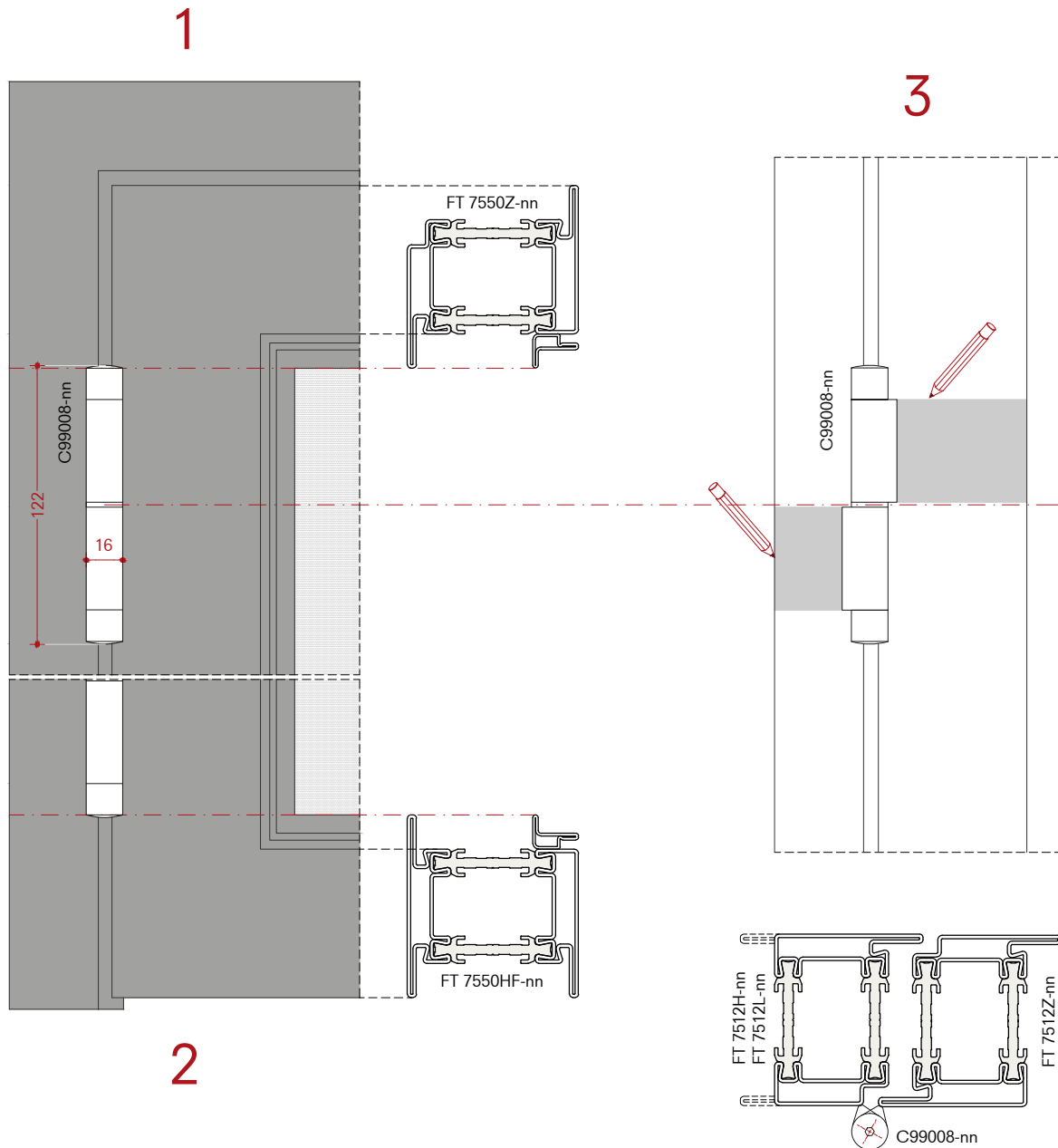
Templates D99453-03  
 for weld-on hinges C99008-nn  
 D75 TB - Door profiles

**Montaggio**

Dime D99453-03  
 per cerniere a saldare C99008-nn  
 D75 TB - Profili porta

**Montaje**

Plantilla D99453-03  
 para bisagra de soldadura C99008-nn  
 D75 TB - Perfiles puertas



Scale 1:3

- 1) Align the top of hinge to the profile
- 2) Align the bottom of hinge to the profile
- 3) Mark the position of the hinge

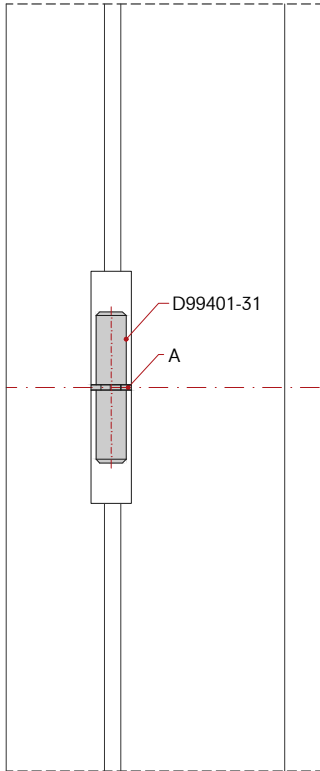
Scala 1:3

- 1) Allineare il filo superiore della cerniera col profilo
- 2) Allineare il filo inferiore della cerniera col profilo
- 3) Segnare la posizione della cerniera

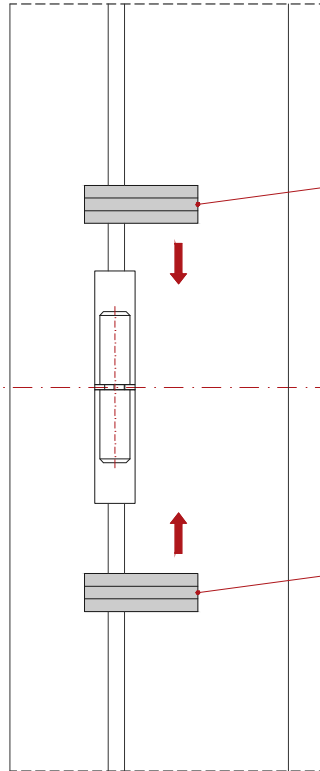
Escala 1:3

- 1) Alinear la bisagra superior con el perfil
- 2) Alinear la bisagra inferior con el perfil
- 3) Marque la posición de la bisagra

4

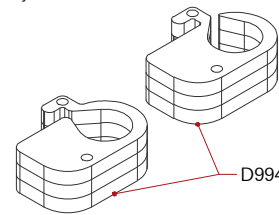


5



D99453-03

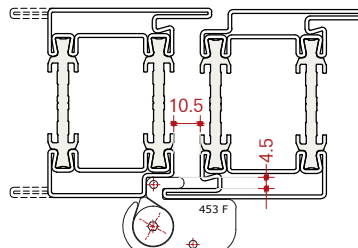
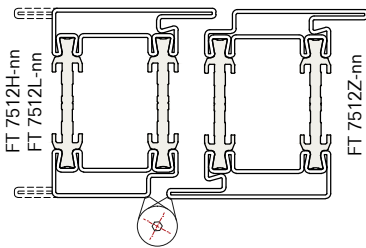
Leaf  
Anta  
Hoja



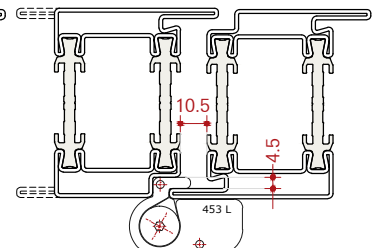
D99453-03

D99453-03

Frame  
Telaio  
Marco



Leaf  
Anta  
Hoja



Frame  
Telaio  
Marco

Scale 1:3

- 4) Remove caps, internal bush, set screw and spindles with spheres
- 5) Place the hinges using the templates
- A) Alignment pin for welding (D99401-31, not included)

Scala 1:3

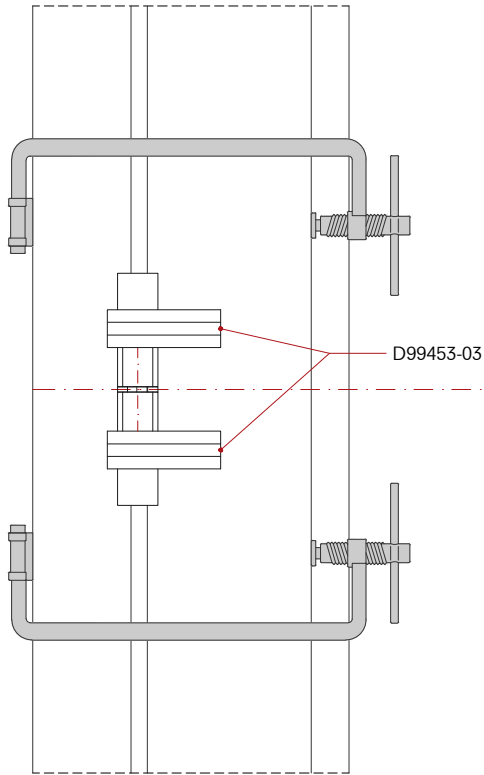
- 4) Rimuovere i tappi, la bussola interna, il grano e il perno con le sfere
- 5) Posizionare le cerniere usando la dima
- A) Spina di allineamento per saldare (D99401-31, non incluso)

Escala 1:3

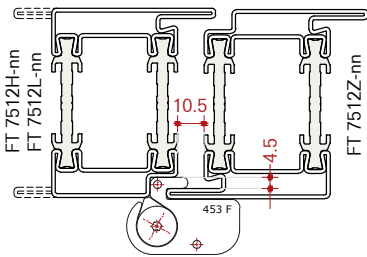
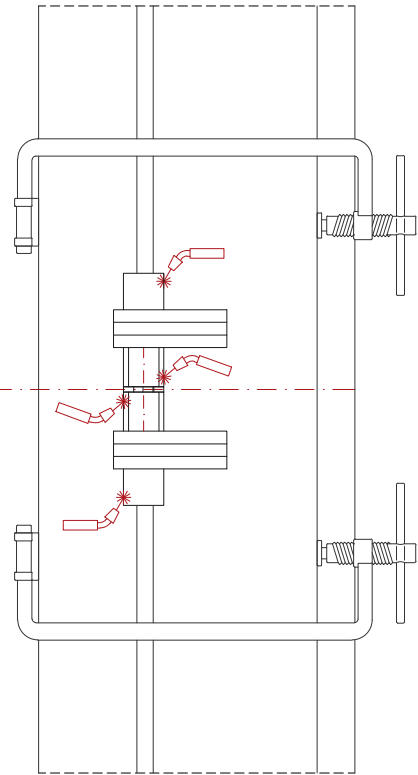
- 4) Retire las tapas, el casquillo interior, el tornillo y el perno con las bolas.
- 5) Coloque las bisagras usando la plantilla
- A) Perno de alineación para soldadura (D99401-31, no incluido)



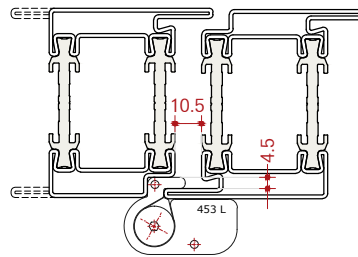
6



7



Leaf  
 Anta  
 Hoja



Frame  
 Telaio  
 Marco

Scale 1:3

- 6) Fix leaf and frame profiles using clamps
- 7) Weld hinge wings to profiles

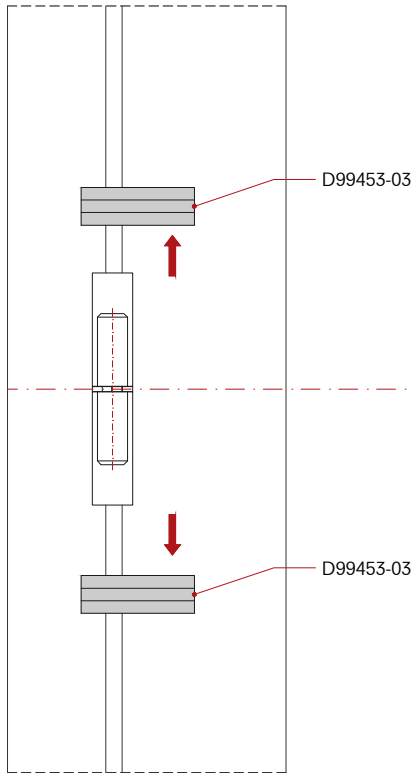
Scala 1:3

- 6) Fissare anta e telaio utilizzando i morsetti
- 7) Saldare le ali della cerniera sui profili

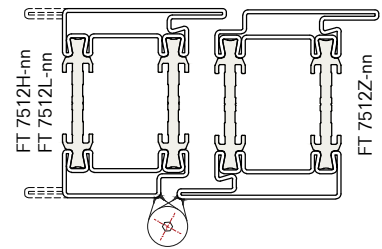
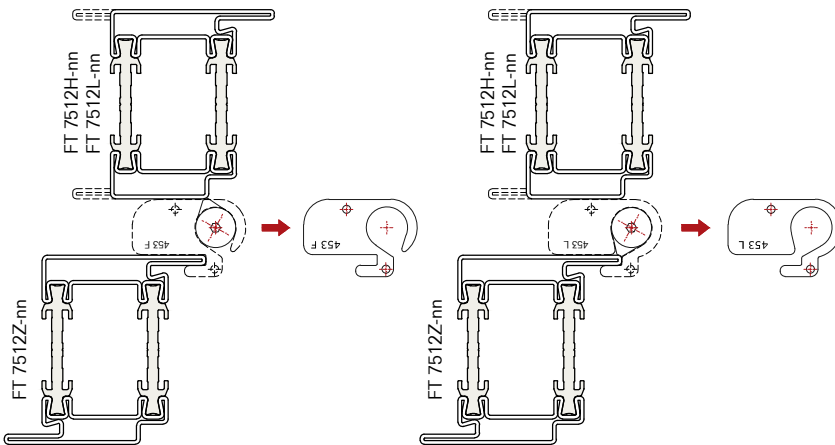
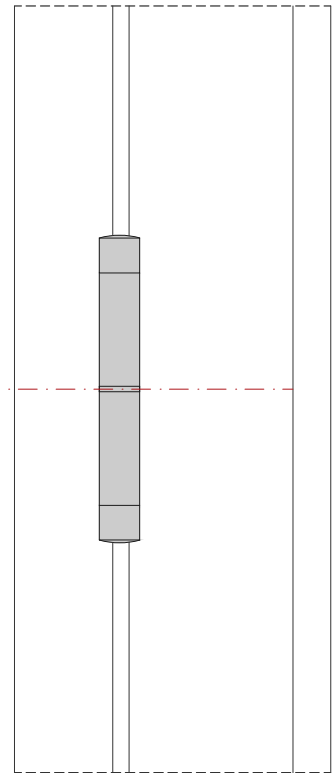
Escala 1:3

- 6) Fijar la hoja y el marco con las abrazaderas
- 7) Alas de bisagra soldadas a los perfiles

8



9



Scale 1:3  
 8) Remove templates  
 9) Assembly of the hinge

Scala 1:3  
 8) Rimuovere le dime  
 9) Assemblare la cerniera

Escala 1:3  
 8) Quitar plantillas  
 9) Montaje de la bisagra

**Installation**

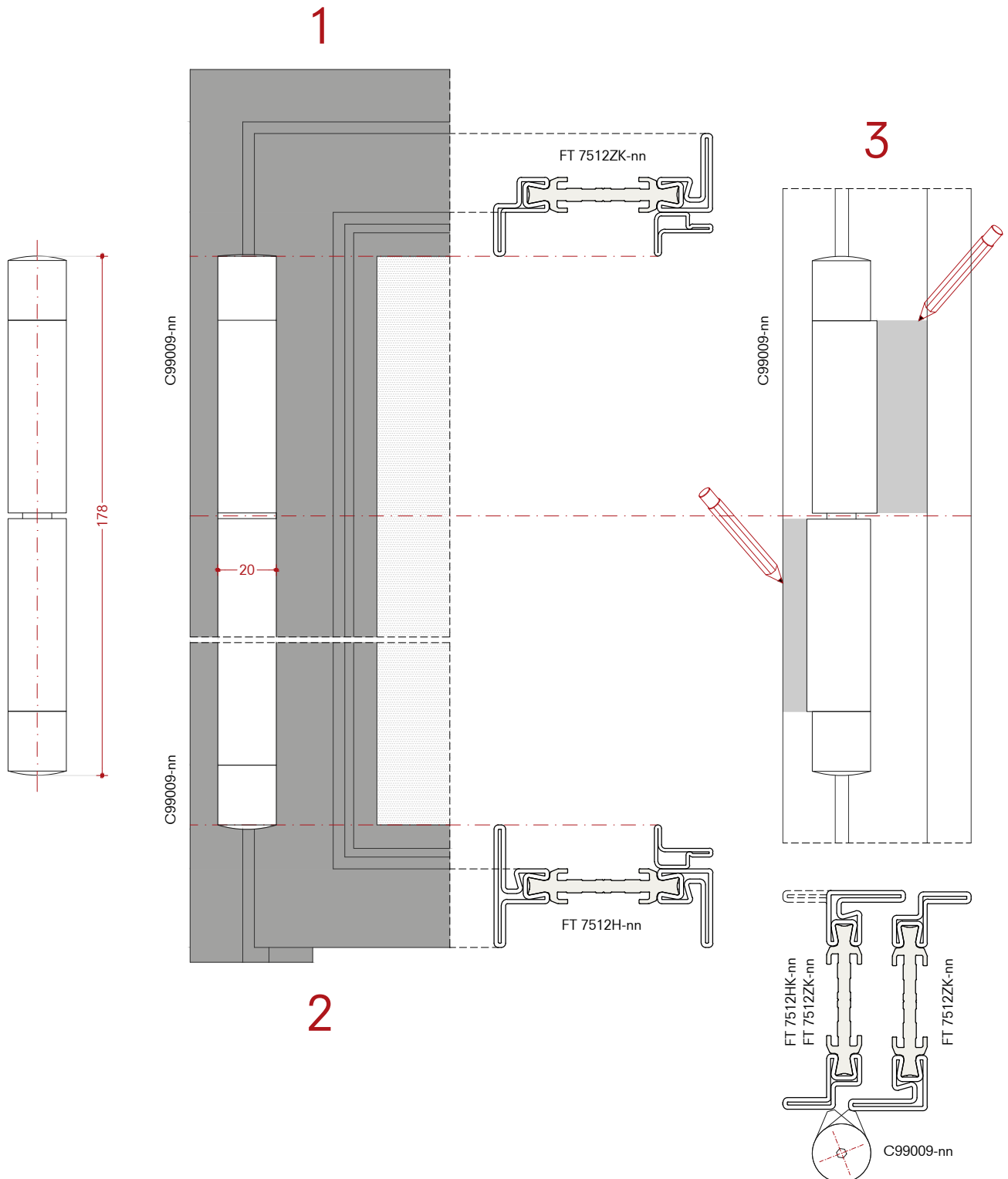
Templates D99444-03  
 for weld-on hinges C99009-nn  
 Flush profiles

**Montaggio**

Dime D99444-03  
 per cerniere a saldare C99009-nn  
 Profili complanari

**Montaje**

Plantilla D99444-03  
 para bisagra de soldadura C99009-nn  
 Perfiles coplanarios



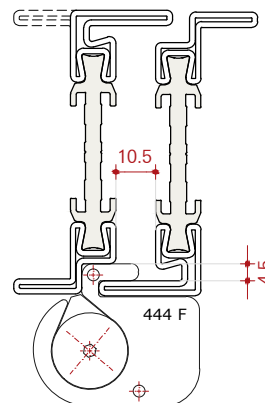
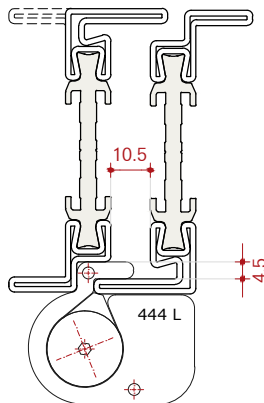
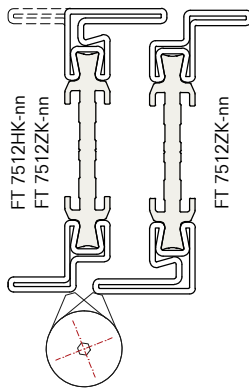
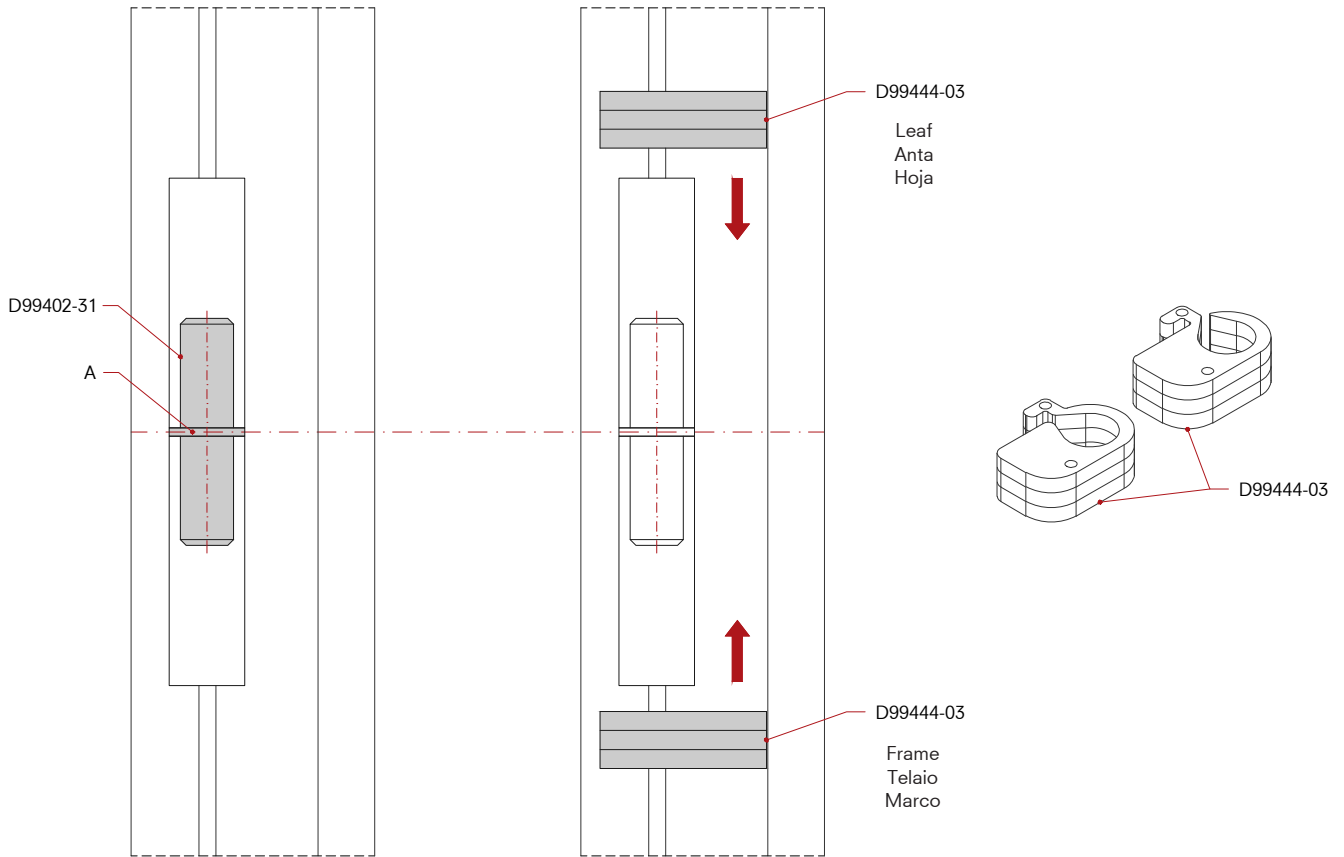
- 1) Align the top of hinge to the profile
- 2) Align the bottom of hinge to the profile
- 3) Mark the position of the hinge

- 1) Allineare il filo superiore della cerniera col profilo
- 2) Allineare il filo inferiore della cerniera col profilo
- 3) Segnare la posizione della cerniera

- 1) Alinear la bisagra superior con el perfil
- 2) Alinear la bisagra inferior con el perfil
- 3) Marque la posición de la bisagra

4

5



Leaf  
Anta  
Hoja

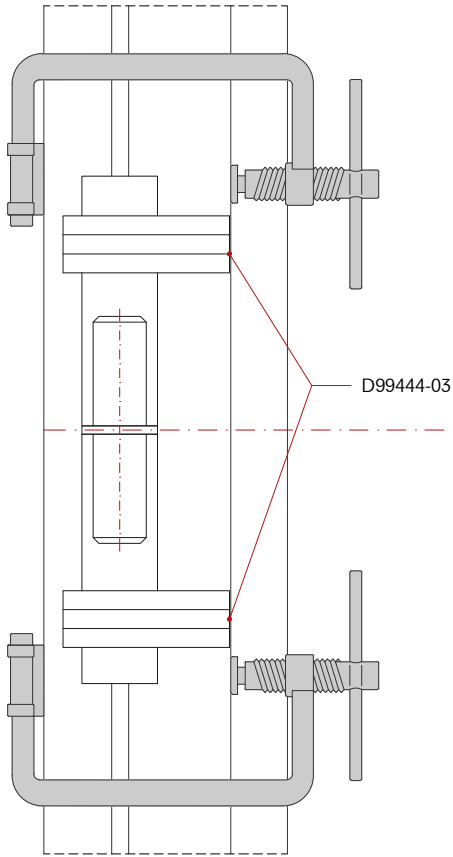
Frame  
Telaio  
Marco

- 4) Remove caps, internal bush, set screw and spindles with spheres
- 5) Place the hinges using the templates
- A) Alignment pin for welding (D99402-31, not included)

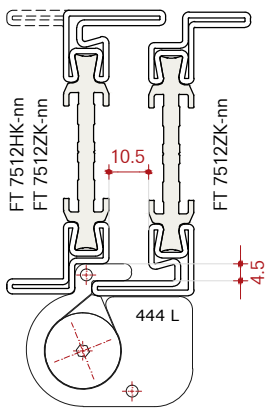
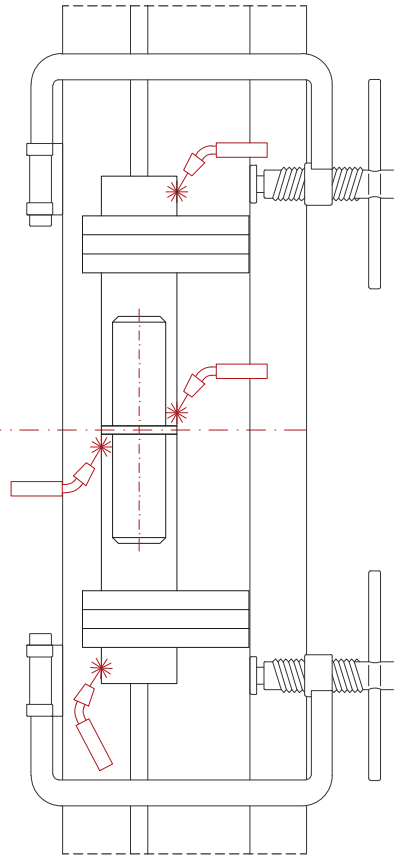
- 4) Rimuovere i tappi, la bussola interna, il grano e il perno con le sfere
- 5) Posizionare le cerniere usando la dima
- A) Spina di allineamento per saldare (D99402-31, non incluso)

- 4) Retire las tapas, el casquillo interior, el tornillo y el perno con las bolas.
- 5) Coloque las bisagras usando la plantilla
- A) Perno de alineación para soldadura (D99402-31, no incluido)

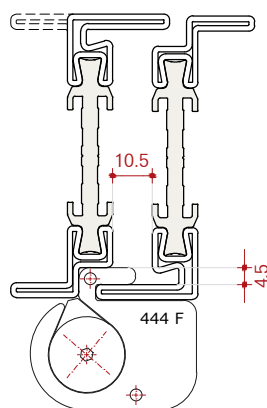
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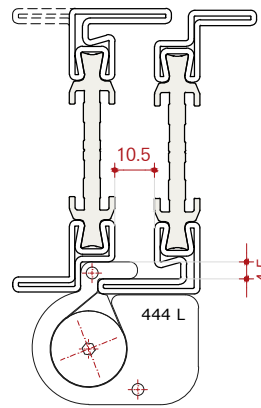
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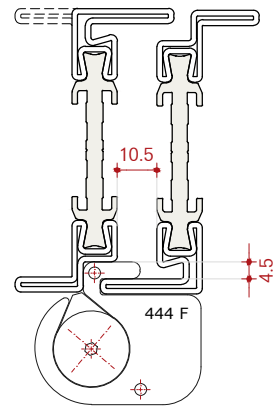
Leaf  
 Anta  
 Hoja



Frame  
 Telaio  
 Marco



Leaf  
 Anta  
 Hoja



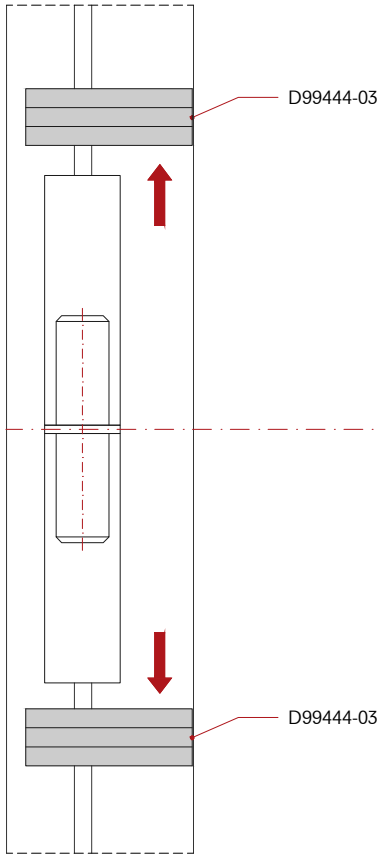
Frame  
 Telaio  
 Marco

6) Fix leaf and frame profiles using clamps  
 7) Weld hinge wings to profiles

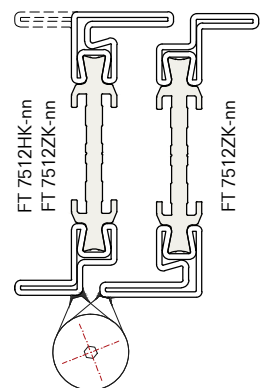
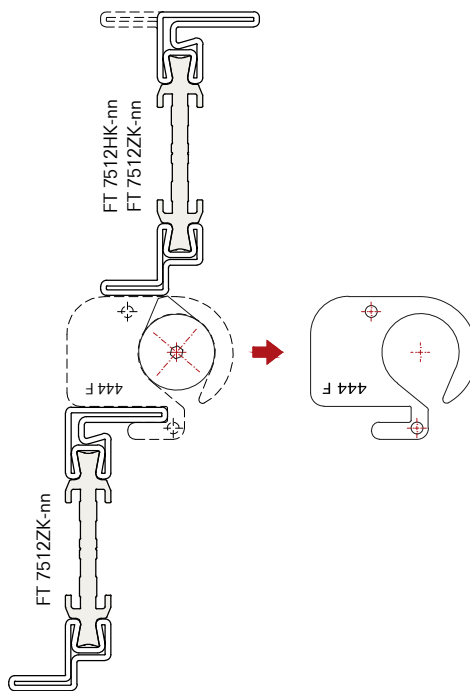
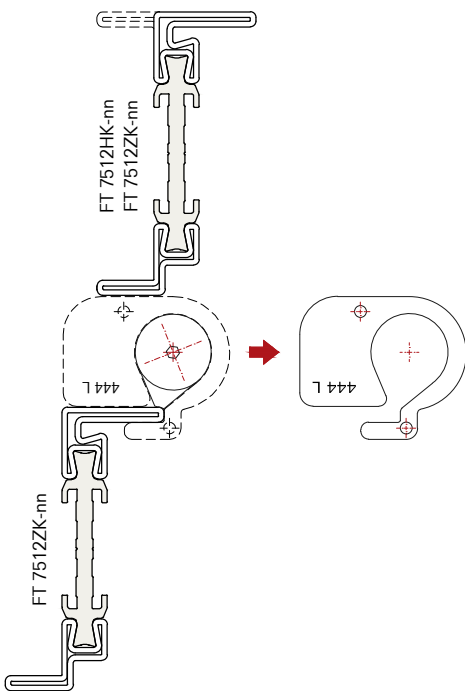
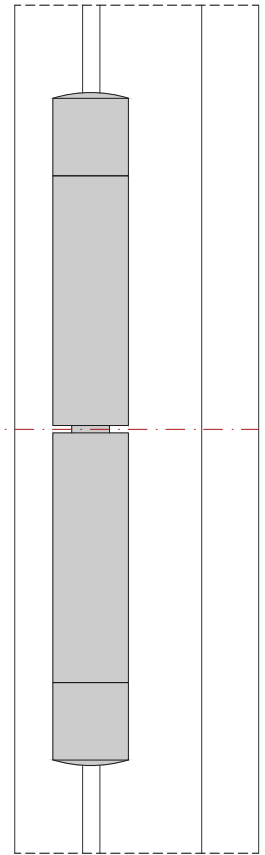
6) Fissare anta e telaio utilizzando i morsetti  
 7) Saldare le ali della cerniera sui profili

6) Fijar la hoja y el marco con las abrazaderas  
 7) Alas de bisagra soldadas a los perfiles

8



9



8) Remove templates  
 9) Assembly of the hinge

8) Rimuovere le dime  
 9) Assemblare la cerniera

8) Quitar plantillas  
 9) Montaje de la bisagra

**Installation**

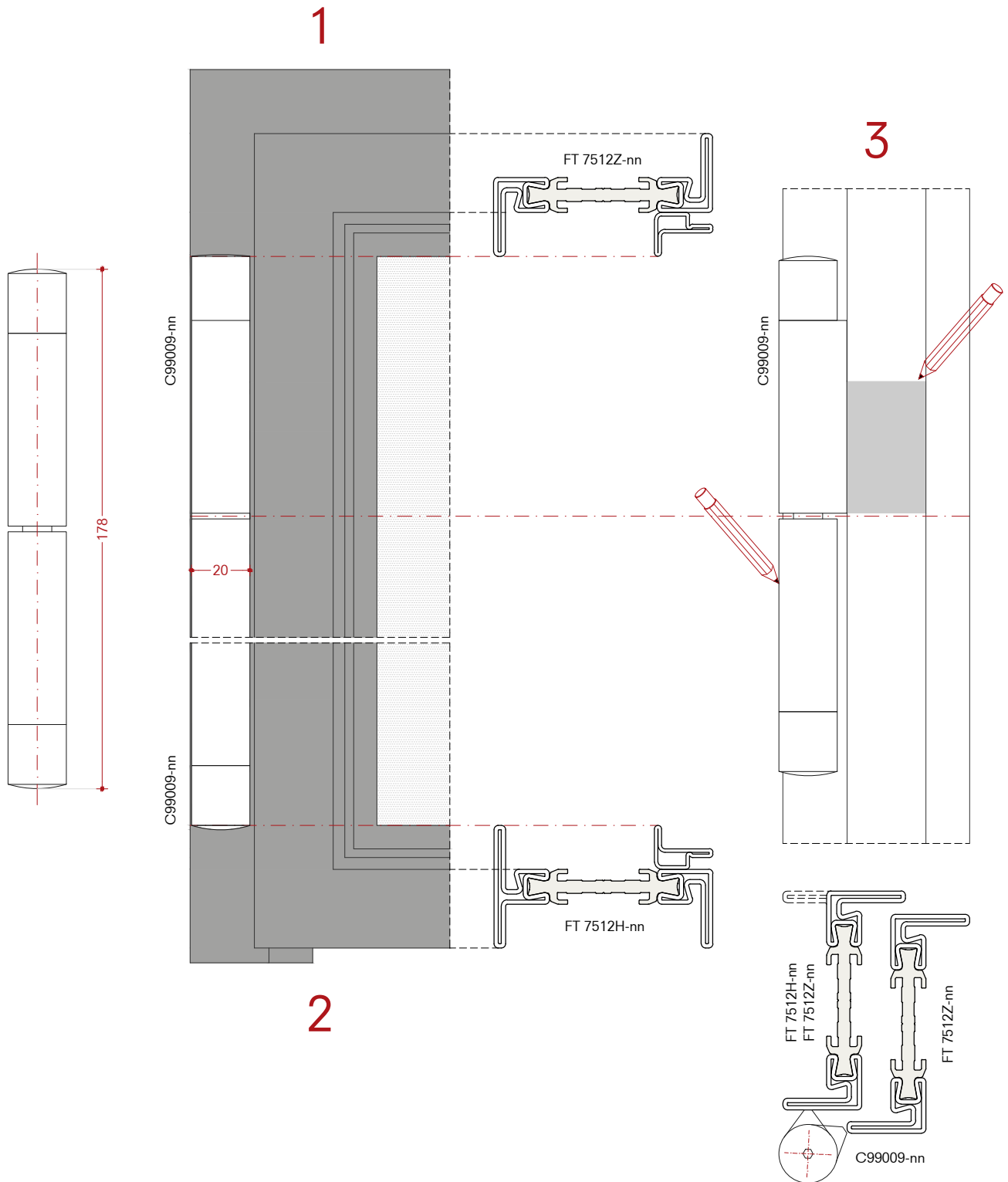
Templates D99445-03  
 for weld-on hinges C99009-nn  
 Overlapped profiles

**Montaggio**

Dime D99445-03  
 per cerniere a saldare C99009-nn  
 Profili a sommonte

**Montaje**

Plantilla D99445-03  
 para bisagra de soldadura C99009-nn  
 Perfiles superpuestos



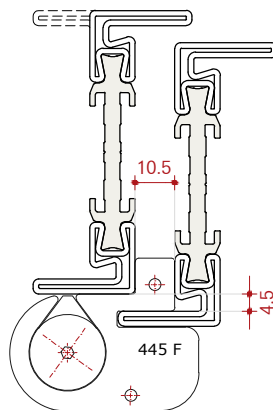
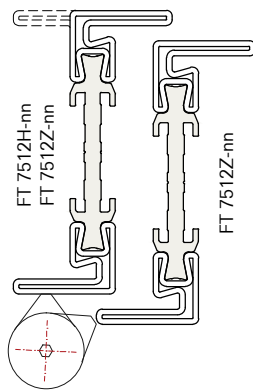
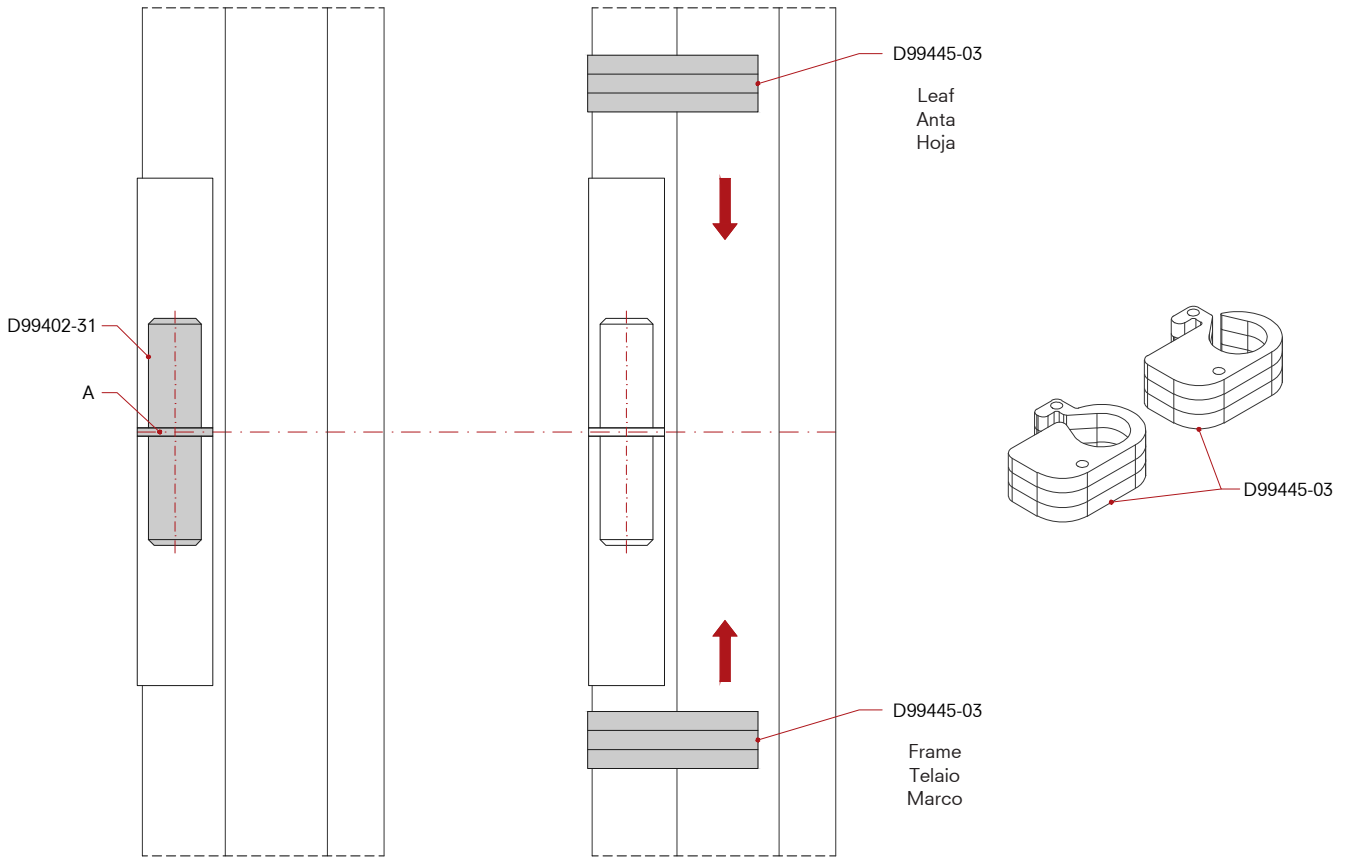
- 1) Align the top of hinge to the profile
- 2) Align the bottom of hinge to the profile
- 3) Mark the position of the hinge

- 1) Allineare il filo superiore della cerniera col profilo
- 2) Allineare il filo inferiore della cerniera col profilo
- 3) Segnare la posizione della cerniera

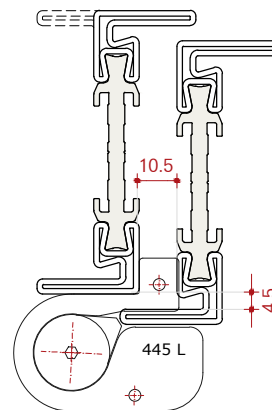
- 1) Alinear la bisagra superior con el perfil
- 2) Alinear la bisagra inferior con el perfil
- 3) Marque la posición de la bisagra

4

5



Leaf  
Anta  
Hoja



Frame  
Telaio  
Marco

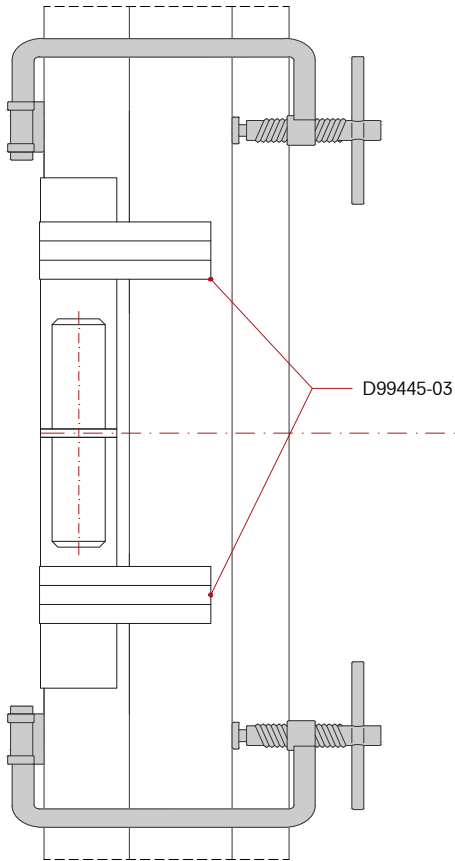
- 4) Remove caps, internal bush, set screw and spindles with spheres
- 5) Place the hinges using the templates
- A) Alignment pin for welding (D99402-31, not included)

- 4) Rimuovere i tappi, la bussola interna, il grano e il perno con le sfere
- 5) Posizionare le cerniere usando la dima
- A) Spina di allineamento per saldare (D99402-31, non incluso)

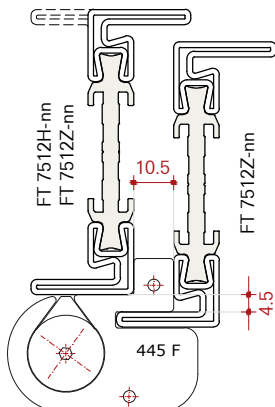
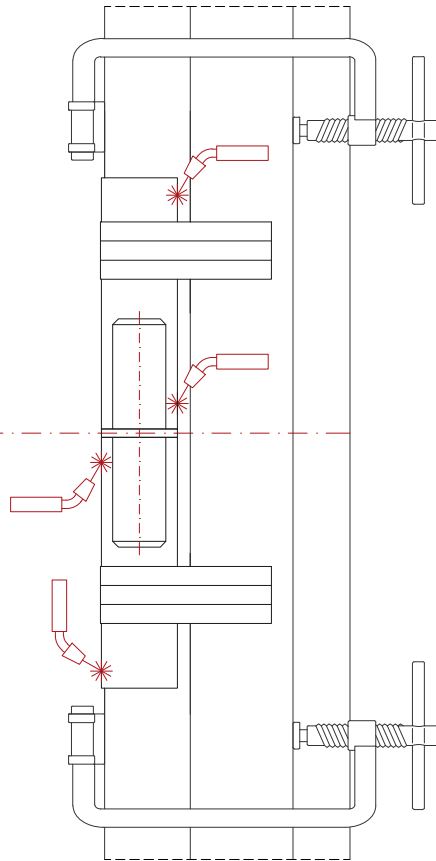
- 4) Retire las tapas, el casquillo interior, el tornillo y el perno con las bolas.
- 5) Coloque las bisagras usando la plantilla
- A) Perno de alineación para soldadura (D99402-31, no incluido)



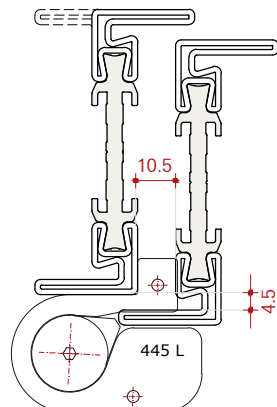
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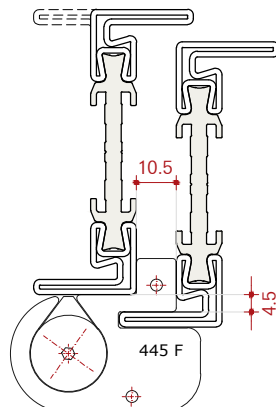
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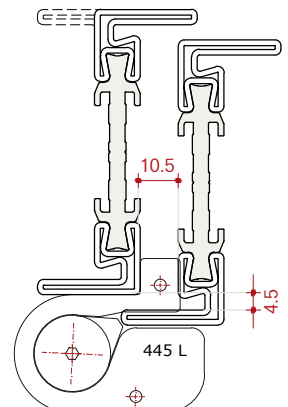
Leaf  
Anta  
Hoja



Frame  
Telaio  
Marco



Leaf  
Anta  
Hoja



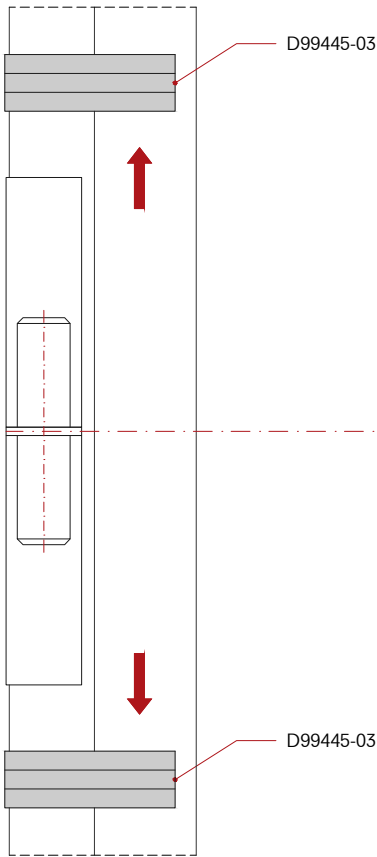
Frame  
Telaio  
Marco

6) Fix leaf and frame profiles using clamps  
 7) Weld hinge wings to profiles

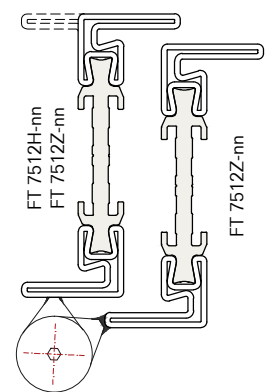
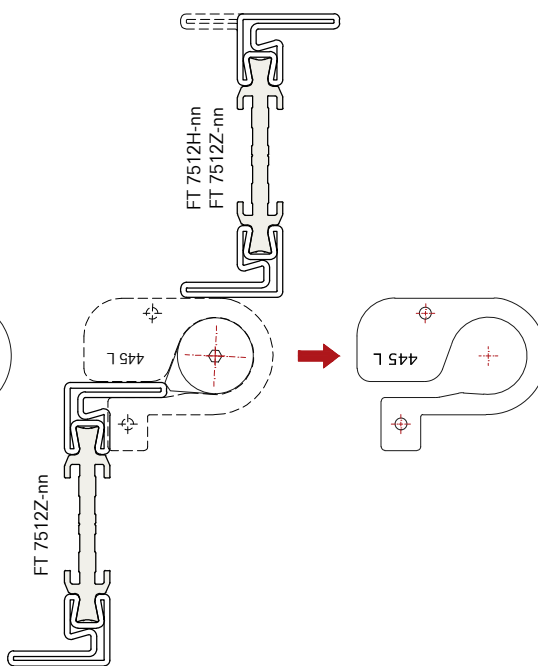
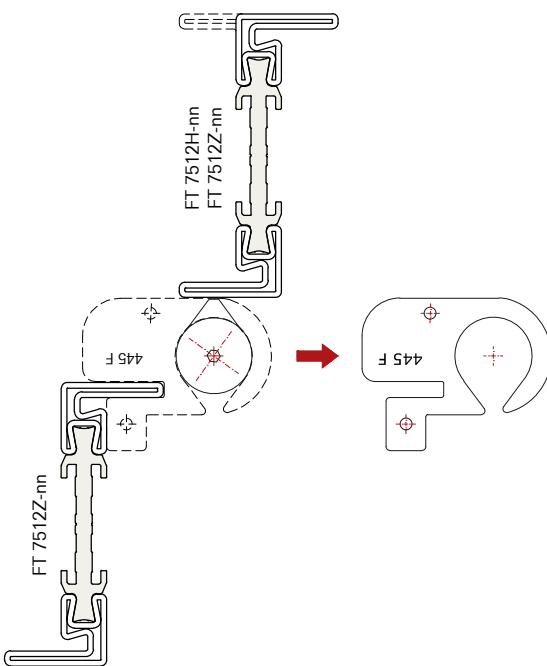
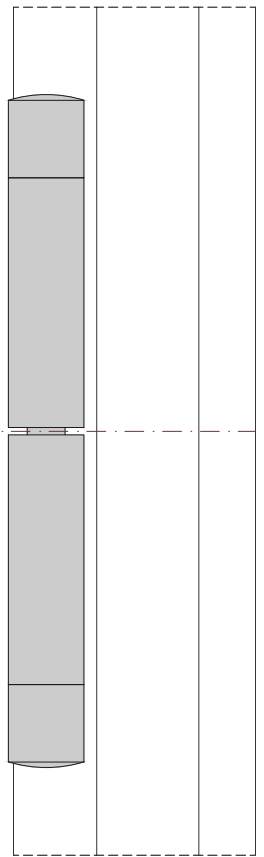
6) Fissare anta e telaio utilizzando i morsetti  
 7) Saldare le ali della cerniera sui profili

6) Fijar la hoja y el marco con las abrazaderas  
 7) Alas de bisagra soldadas a los perfiles

8



9



8) Remove templates  
 9) Assembly of the hinge

8) Rimuovere le dime  
 9) Assemblare la cerniera

8) Quitar plantillas  
 9) Montaje de la bisagra

**Installation**

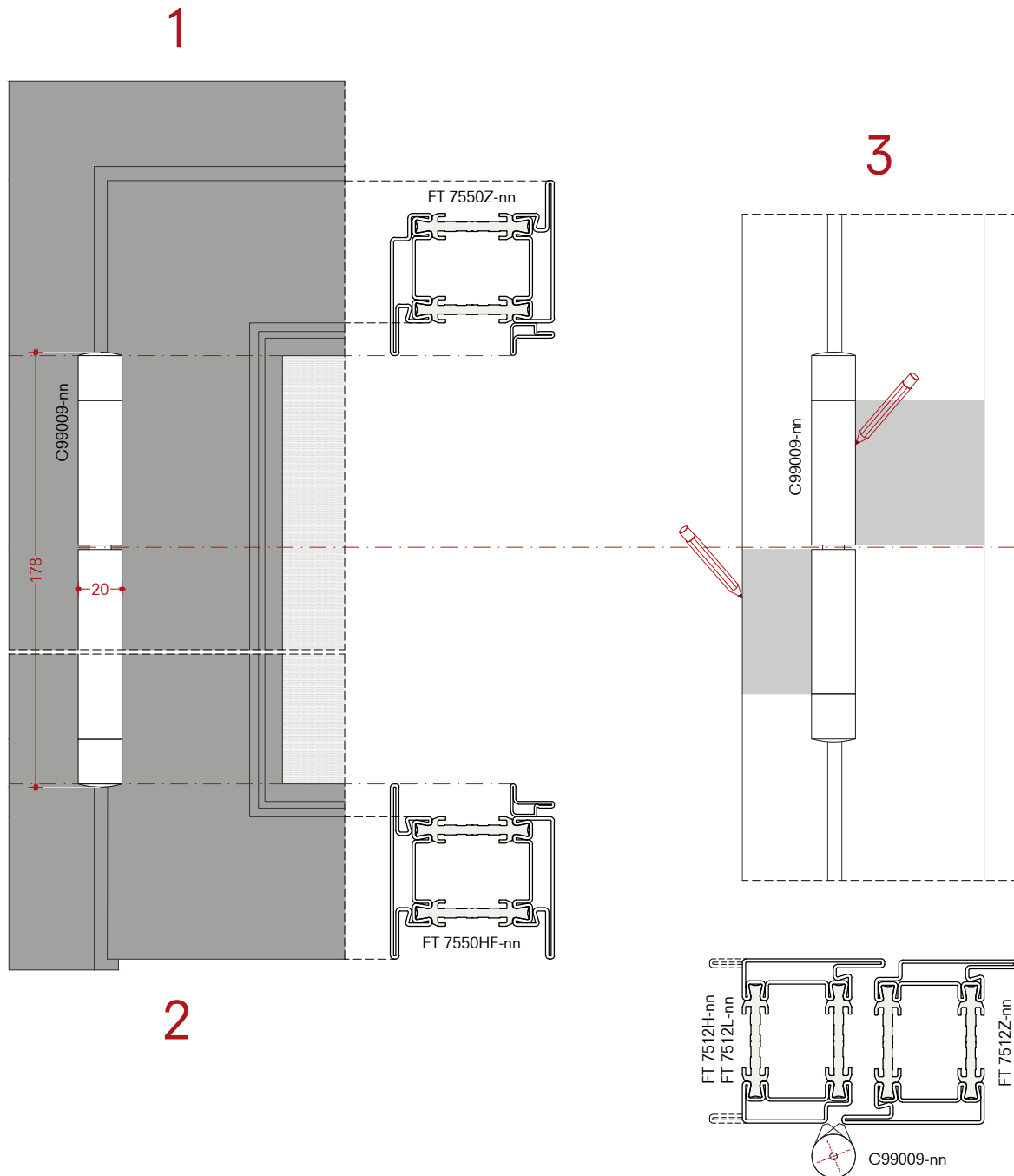
Templates D99452-03  
 for weld-on hinges C99009-nn  
 D75 TB - Door profiles

**Montaggio**

Dime D99452-03  
 per cerniere a saldare C99009-nn  
 D75 TB - Profili porta

**Montaje**

Plantilla D99452-03  
 para bisagra de soldadura C99009-nn  
 D75 TB - Perfiles puertas



Scale 1:3

- 1) Align the top of hinge to the profile
- 2) Align the bottom of hinge to the profile
- 3) Mark the position of the hinge

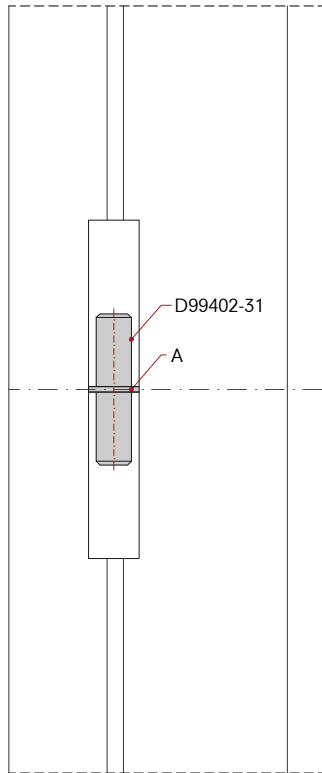
Scala 1:3

- 1) Allineare il filo superiore della cerniera col profilo
- 2) Allineare il filo inferiore della cerniera col profilo
- 3) Segnare la posizione della cerniera

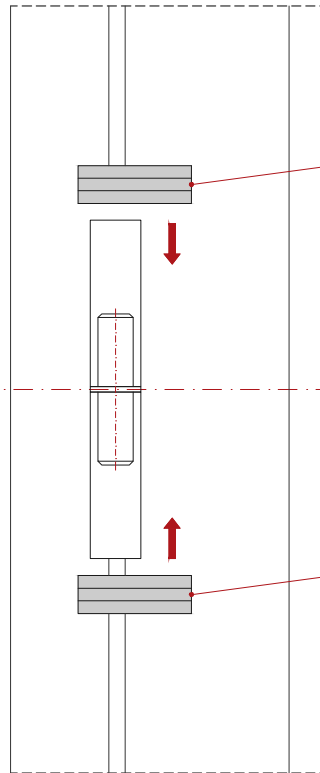
Escala 1:3

- 1) Alinear la bisagra superior con el perfil
- 2) Alinear la bisagra inferior con el perfil
- 3) Marque la posición de la bisagra

4

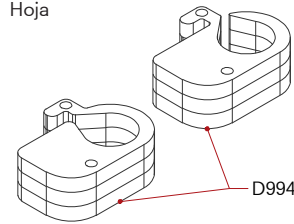


5



D99452-03

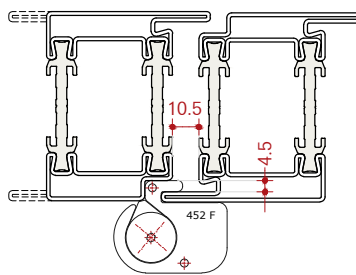
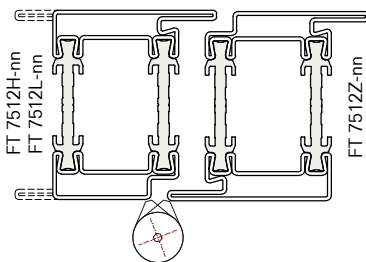
Leaf  
 Anta  
 Hoja



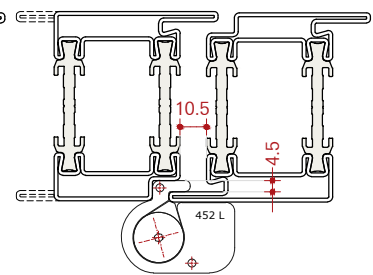
D99452-03

D99452-03

Frame  
 Telaio  
 Marco



Leaf  
 Anta  
 Hoja



Frame  
 Telaio  
 Marco

Scale 1:3

- 4) Remove caps, internal bush, set screw and spindles with spheres
- 5) Place the hinges using the templates
- A) Alignment pin for welding (D99402-31, not included)

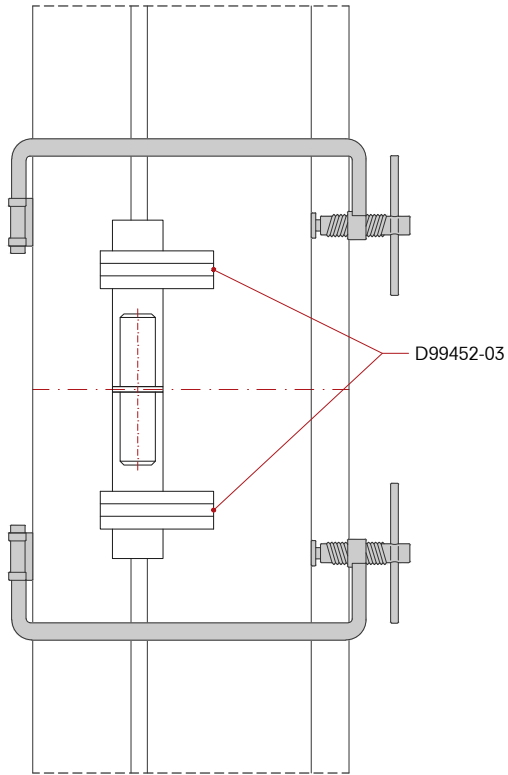
Scala 1:3

- 4) Rimuovere i tappi, la bussola interna, il grano e il perno con le sfere
- 5) Posizionare le cerniere usando la dima
- A) Spina di allineamento per saldare (D99402-31, non incluso)

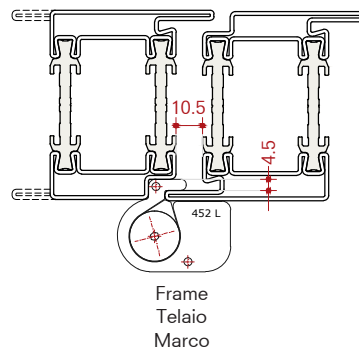
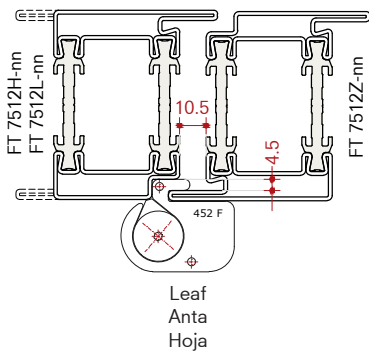
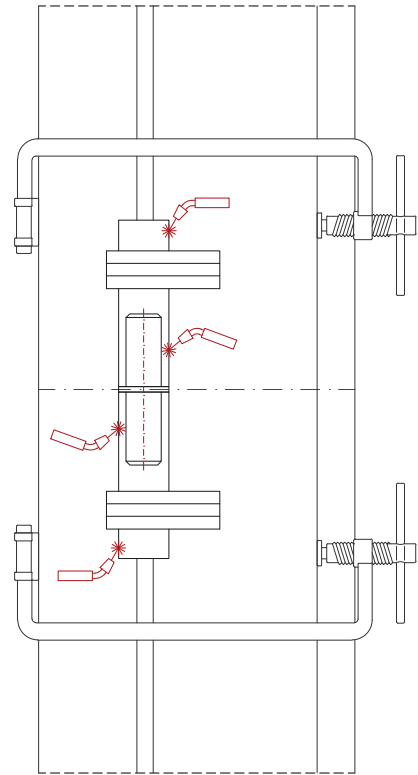
Escala 1:3

- 4) Retire las tapas, el casquillo interior, el tornillo y el perno con las bolas.
- 5) Coloque las bisagras usando la plantilla
- A) Perno de alineación para soldadura (D99402-31, no incluido)

6



7

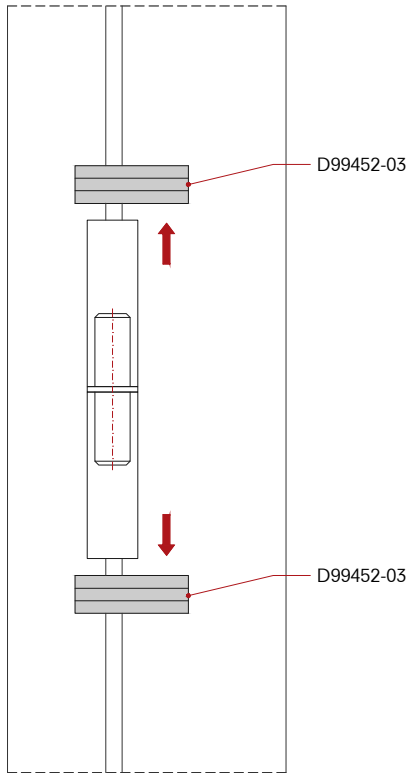


Scale 1:3  
 6) Fix leaf and frame profiles using clamps  
 7) Weld hinge wings to profiles

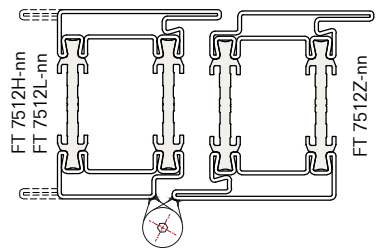
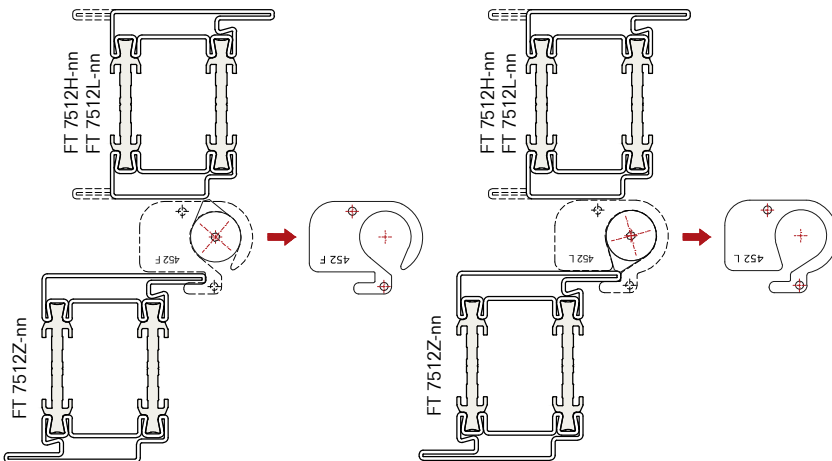
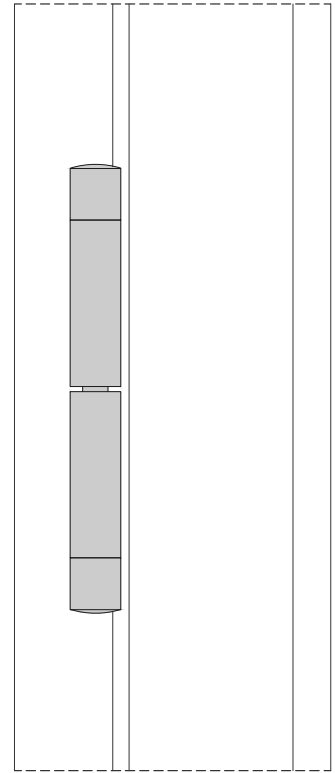
Scala 1:3  
 6) Fissare anta e telaio utilizzando i morsetti  
 7) Saldare le ali della cerniera sui profili

Escala 1:3  
 6) Fijar la hoja y el marco con las abrazaderas  
 7) Alas de bisagra soldadas a los perfiles

8



9



Scale 1:3  
 8) Remove templates  
 9) Assembly of the hinge

Scala 1:3  
 8) Rimuovere le dime  
 9) Assemblare la cerniera

Escala 1:3  
 8) Quitar plantillas  
 9) Montaje de la bisagra

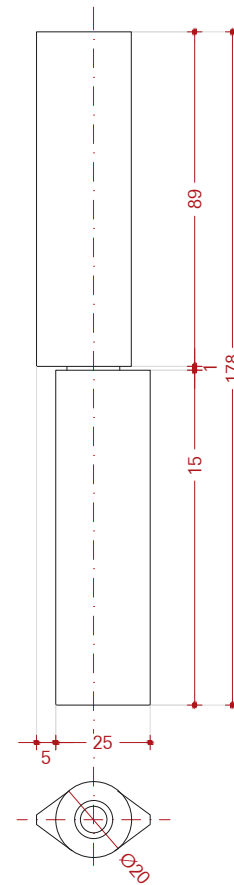
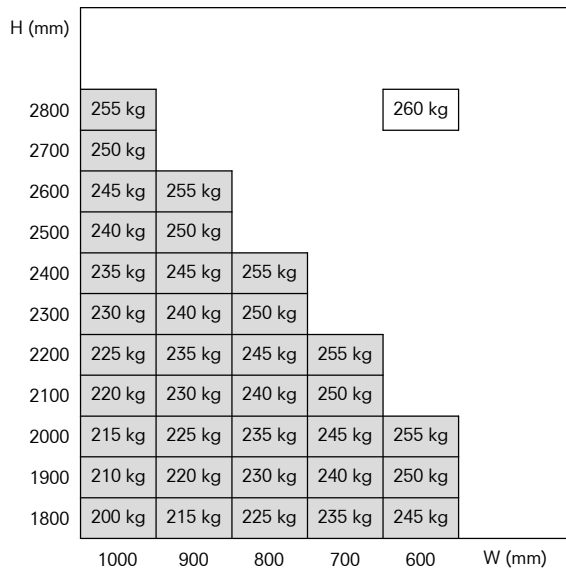


**Load capacity tables**  
 Weld-on hinges

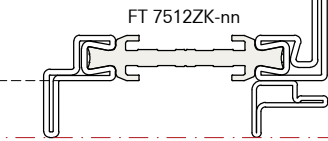
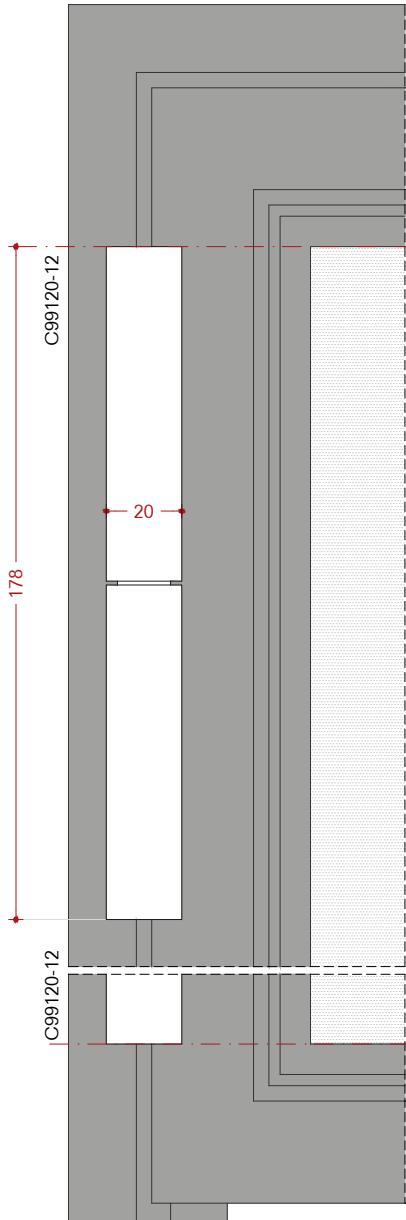
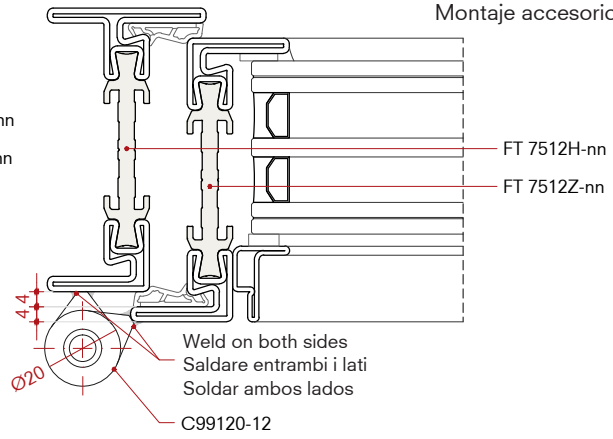
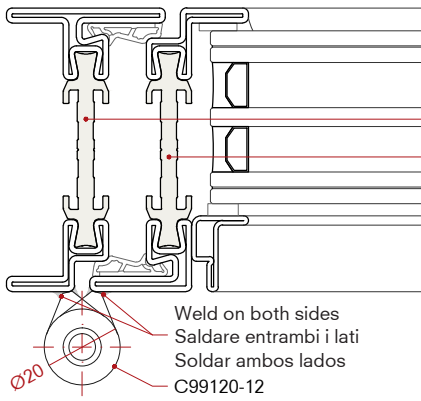
**Tabella portate**  
 Cerniere a saldare

**Tablas de peso**  
 Bisagras de soldadura

|                  | Material<br>Materiale<br>Material               | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|-------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99120-12</b> | Bright steel<br>Acciaio decapato<br>Acero bruto | Ø = 20 mm                        | 178 mm                          | 260 kg                                                 |

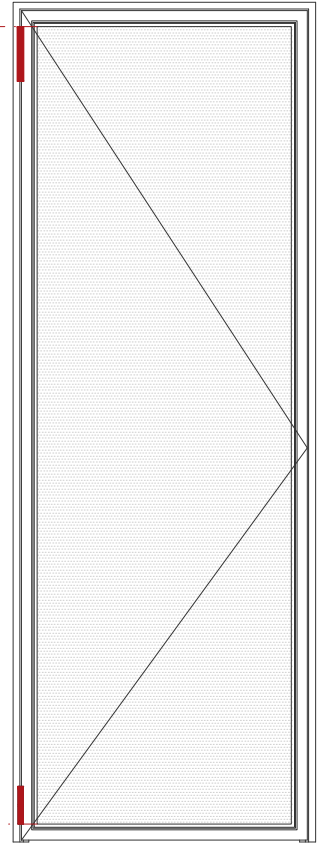
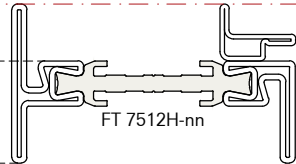






Align the top hinge to the profile  
 Allineare il filo superiore della cerniera col profilo  
 Alinear la bisagra superior con el perfil

Align the bottom hinge to the profile  
 Allineare il filo inferiore della cerniera col profilo  
 Alinear la bisagra inferior con el perfil



**Note**

When welding, care must be taken to avoid overheating the profiles. We recommend the use of heat sinks located in close proximity of the welded area, as well as to proceed in small segment, always waiting for the profile to cool down. The heat generated during welding of profiles and hinges must be dissipated using brass, copper and aluminium welding attachments. Keep minimum 3 mm distance from welding seam to polyamide web.

**Nota**

Durante la saldatura occorre prestare attenzione a non surriscaldare eccessivamente i profili. Consigliamo l'utilizzo di dissipatori di calore posizionati nelle immediate vicinanze della zona interessata dalla saldatura, di procedere per tratti e attendere che il profilo si raffreddi prima di terminare l'operazione. Il calore prodotto durante la saldatura dei profili e cerniere può essere disperso utilizzando controsagome in ottone, rame, alluminio. Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliammide.

**Nota**

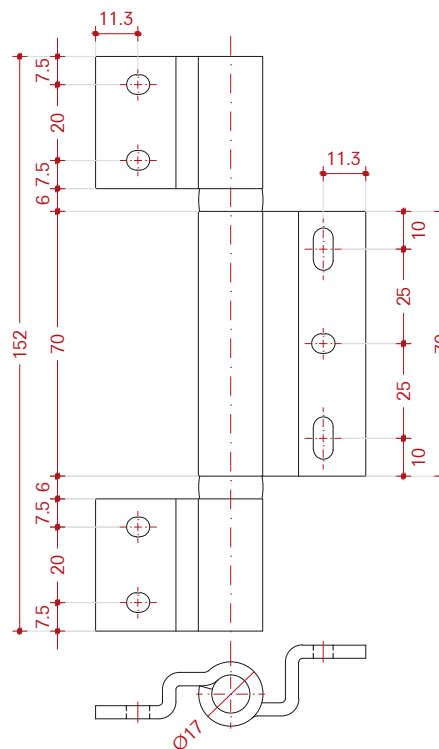
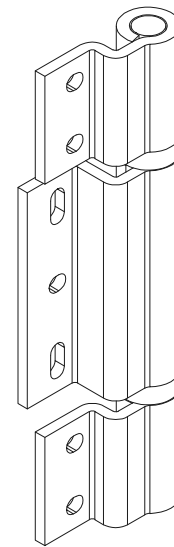
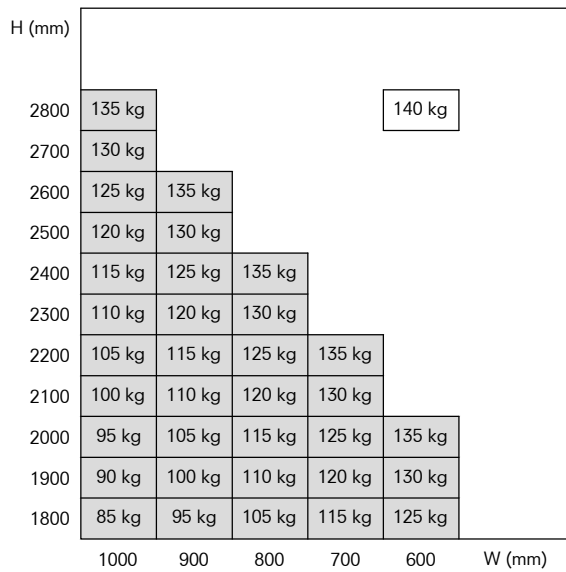
Durante la soldadura, se debe tener cuidado de no sobrecalentar los perfiles. Recomendamos el uso de disipadores en las inmediaciones del área afectada por la soldadura, proceder por tramos y esperar a que el perfil se enfríe antes de finalizar la operación. El calor generado durante la soldadura de perfiles y bisagras se debe disipar utilizando accesorios de soldadura de latón, cobre y aluminio. Mantenga una distancia mínima de 3 mm desde la costura de soldadura hasta la banda de poliamida.

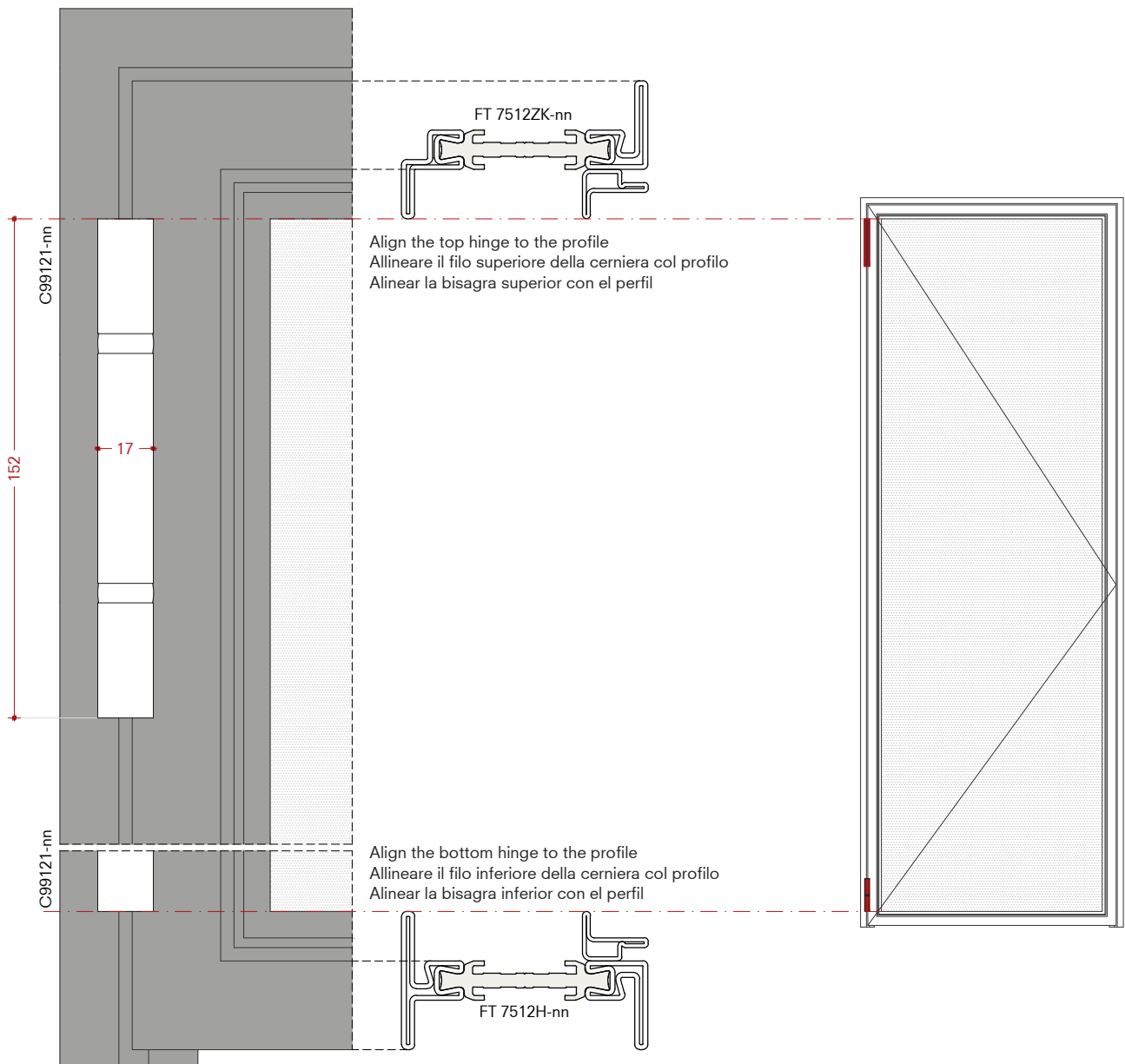
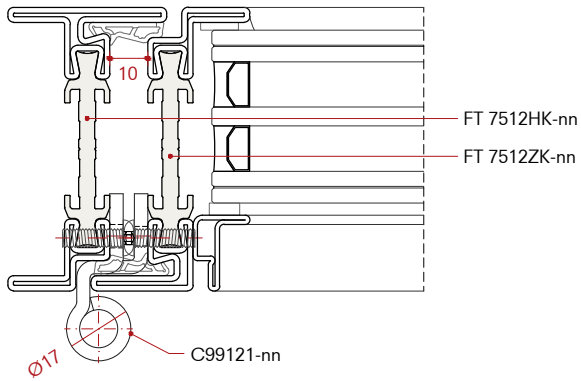
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                                                                                      | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99121-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 17 mm                        | 152 mm                          | 140 kg                                                 |





**Installation**

Screw-on hinge C99121-nn  
 Flush profiles

Maximum leaf weight 140 kg

**Montaggio**

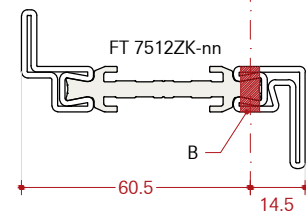
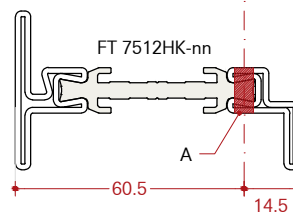
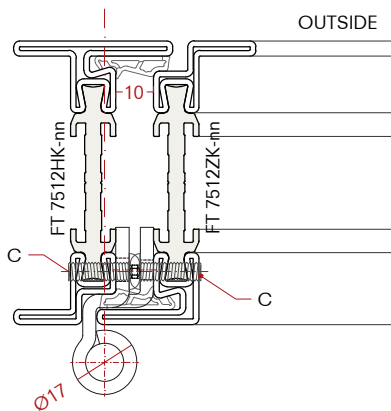
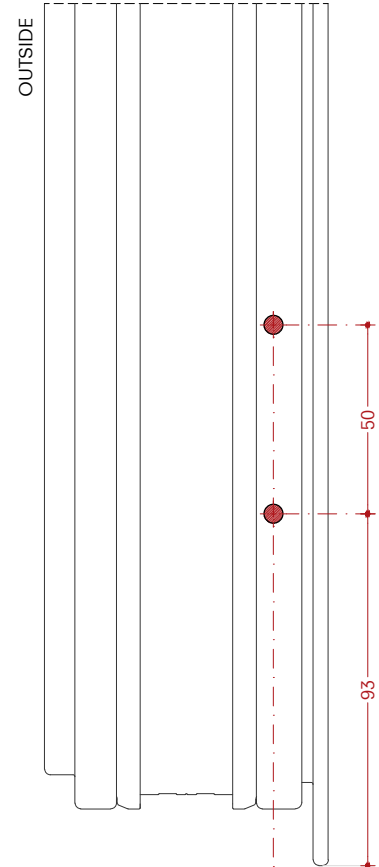
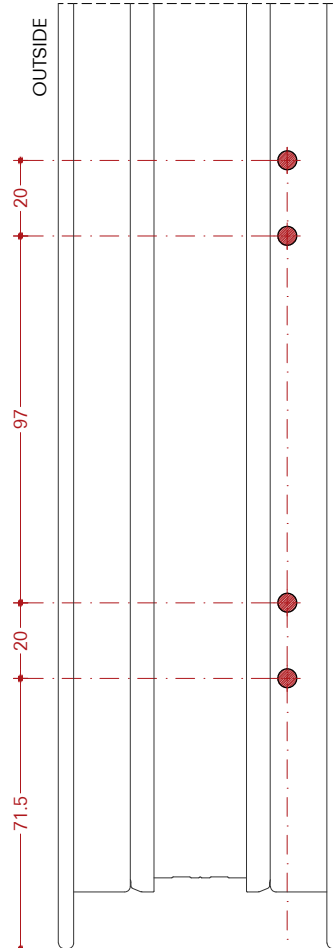
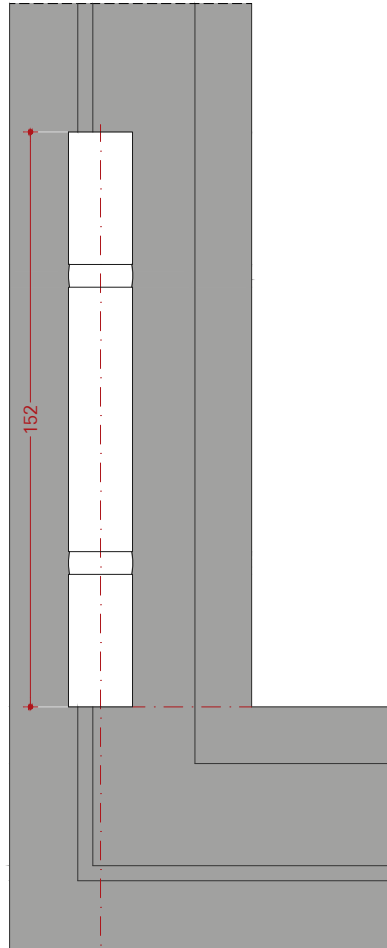
Cerniera ad avvitare C99121-nn  
 Profili complanari

Peso massimo anta 140 kg

**Montaje**

Bisagra atornillable C99121-nn  
 Perfiles coplanarios

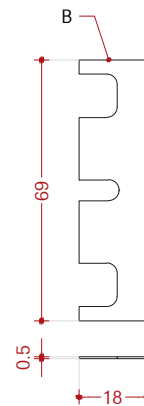
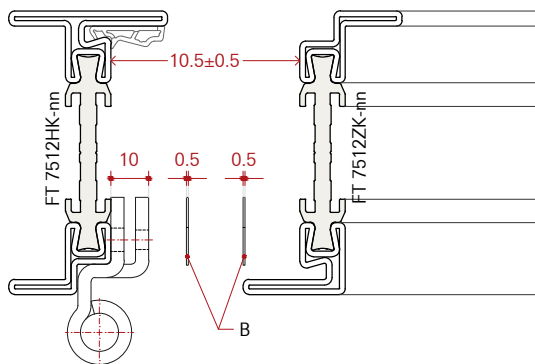
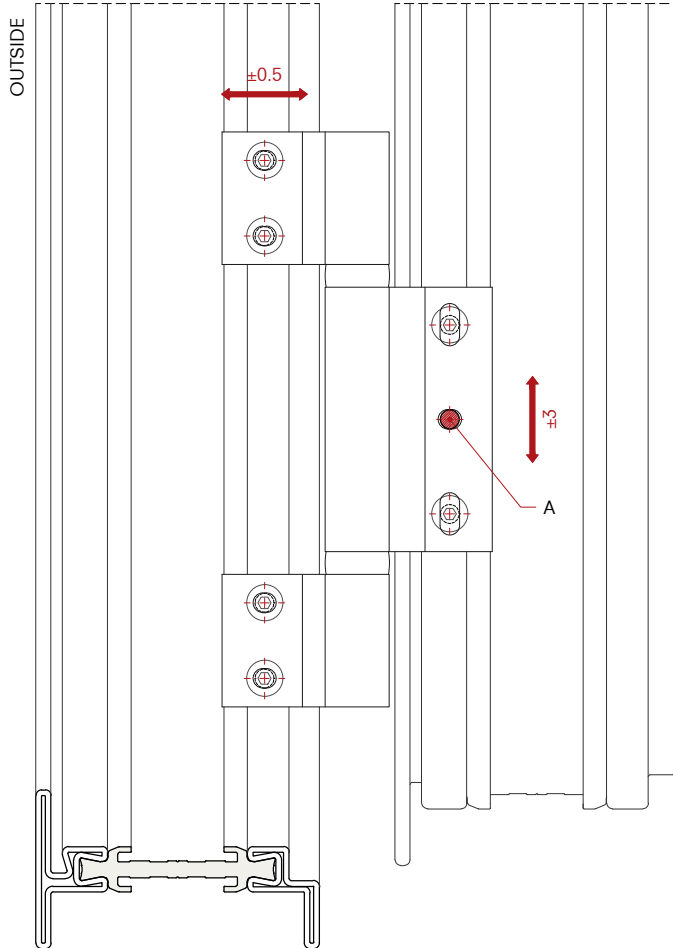
Peso máximo de la hoja 140 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO7380 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO7380

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO7380



A) M5 hole on profile and fastening with screw M5x16 ISO7380 after up and down adjustment.  
 B) Additional shims for adjustment.

A) Foro M5 sul profilo e fissaggio con vite M5x16 ISO7380 dopo la regolazione verticale.  
 B) Spessori aggiuntivi per la regolazione.

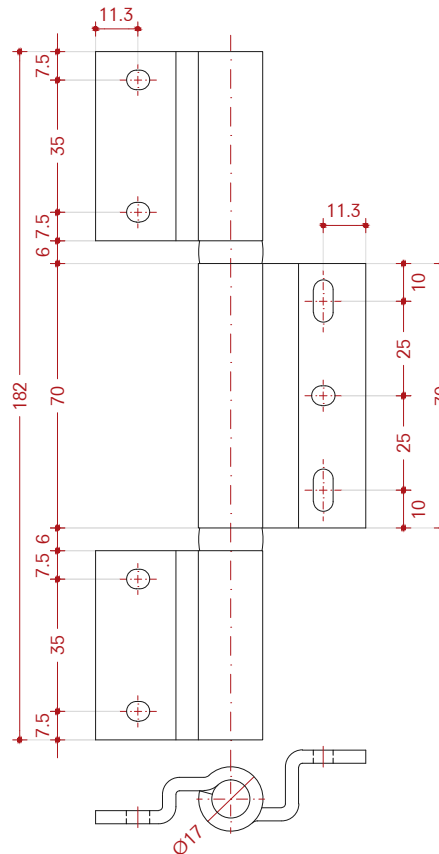
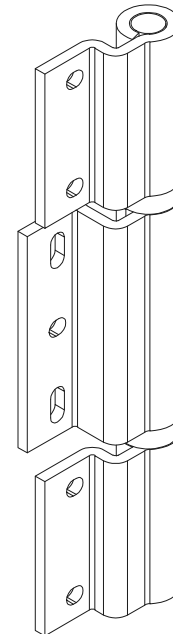
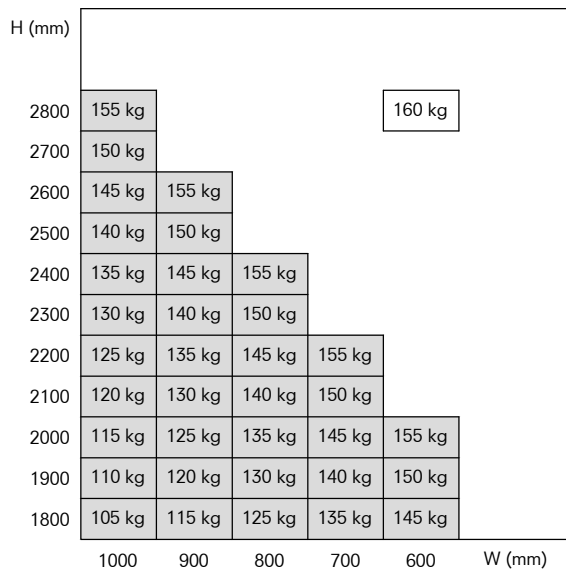
A) Orificios M5 en el perfil y fijación con tornillo M5x16 ISO7380 después del ajuste vertical.  
 B) Espesores adicionales para ajuste.

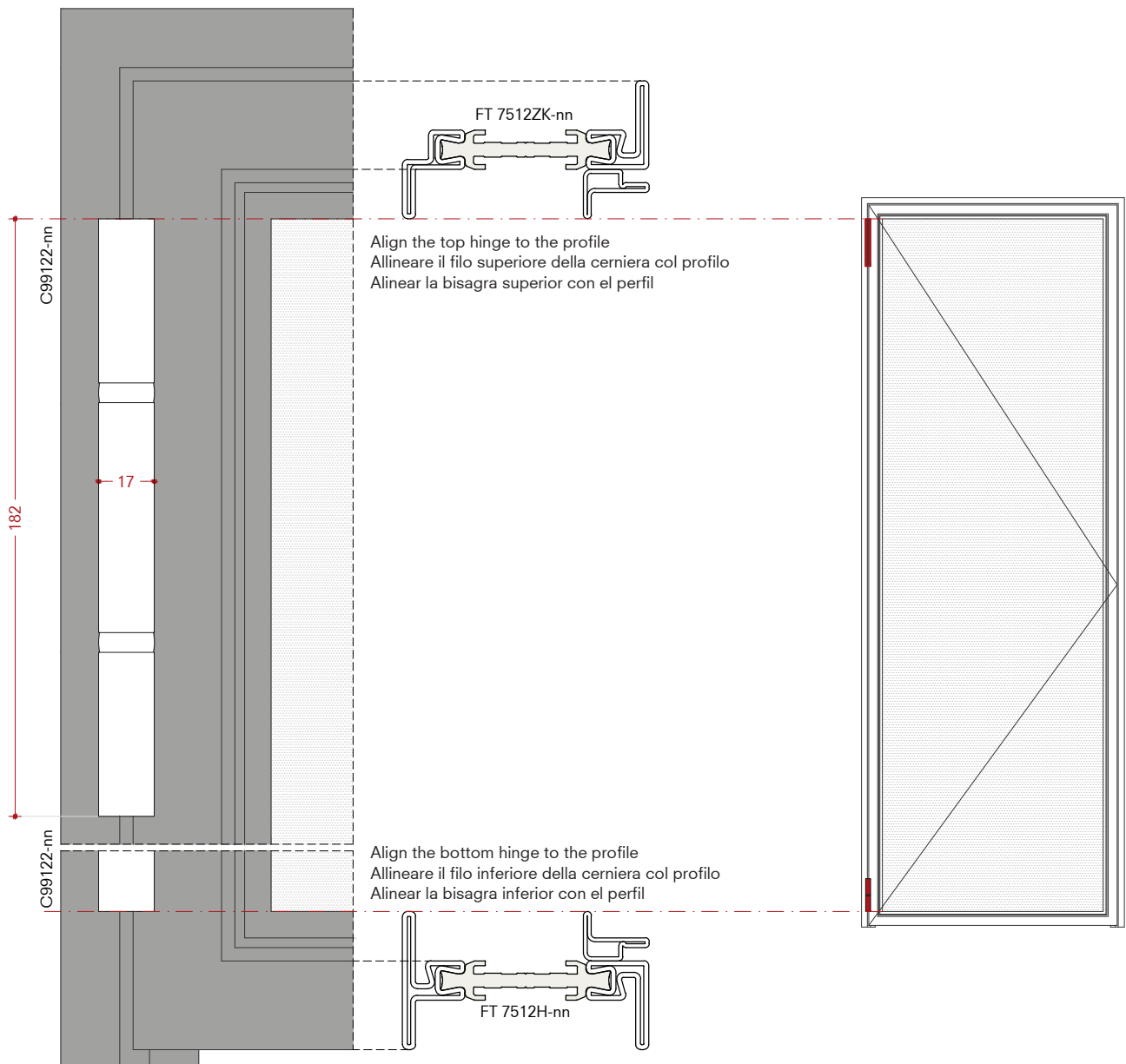
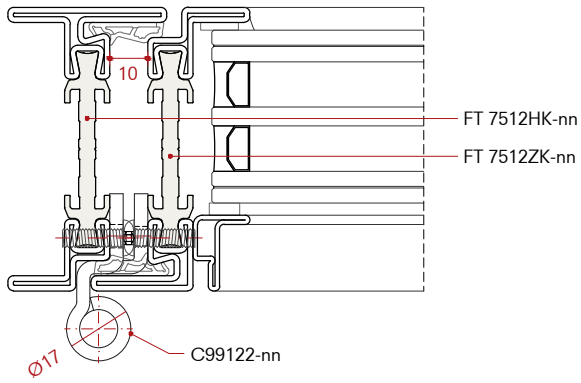
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                                                                                      | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99122-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 17 mm                        | 182 mm                          | 160 kg                                                 |





**Installation**

Screw-on hinge C99122-nn  
 Flush profiles

Maximum leaf weight 160 kg

**Montaggio**

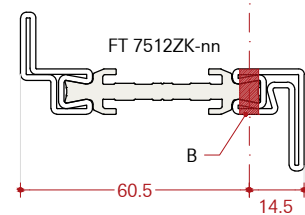
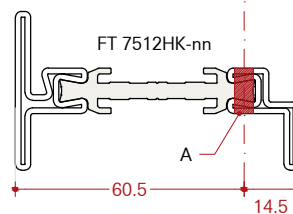
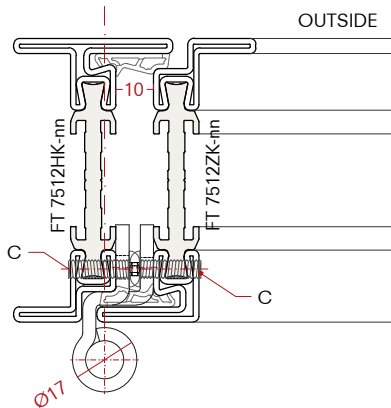
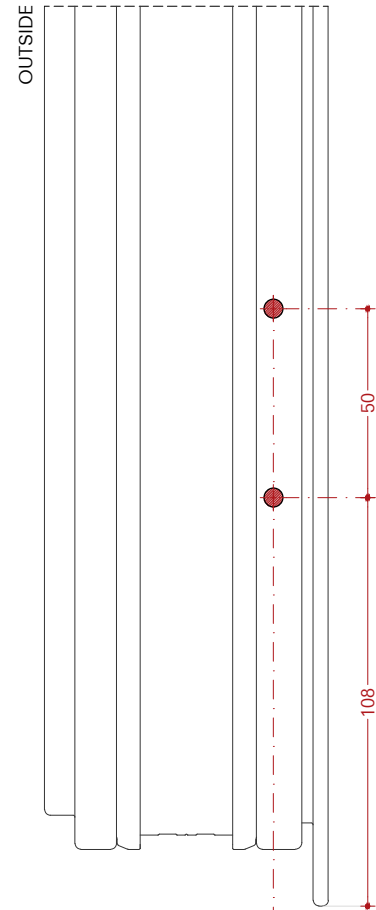
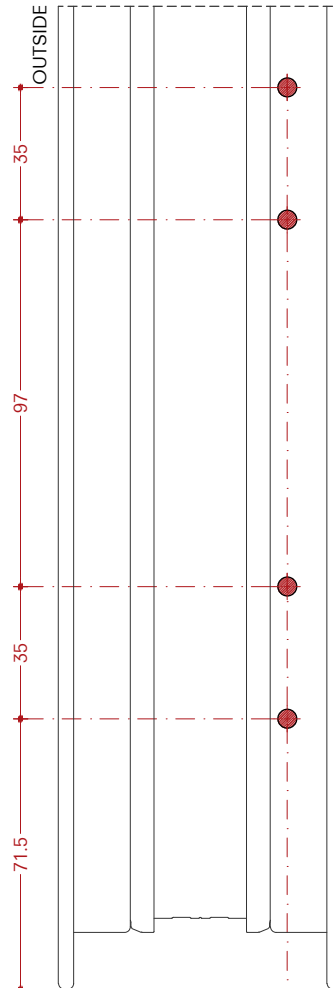
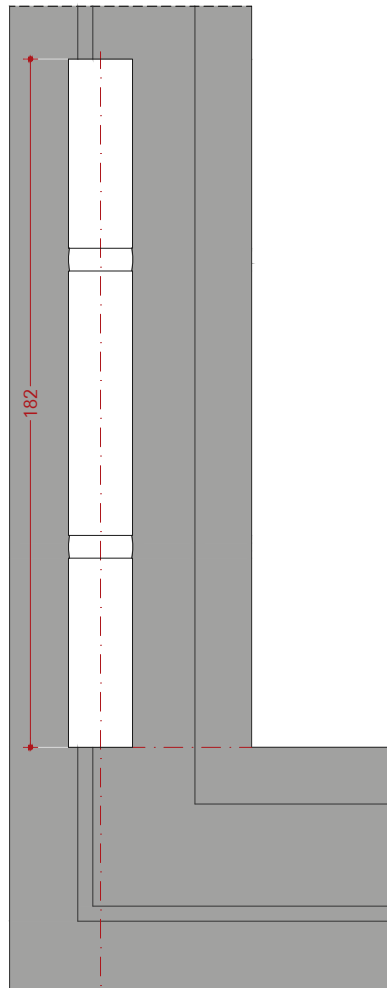
Cerniera ad avvitare C99122-nn  
 Profili complanari

Peso massimo anta 160 kg

**Montaje**

Bisagra atornillable C99122-nn  
 Perfiles coplanarios

Peso máximo de la hoja 160 kg

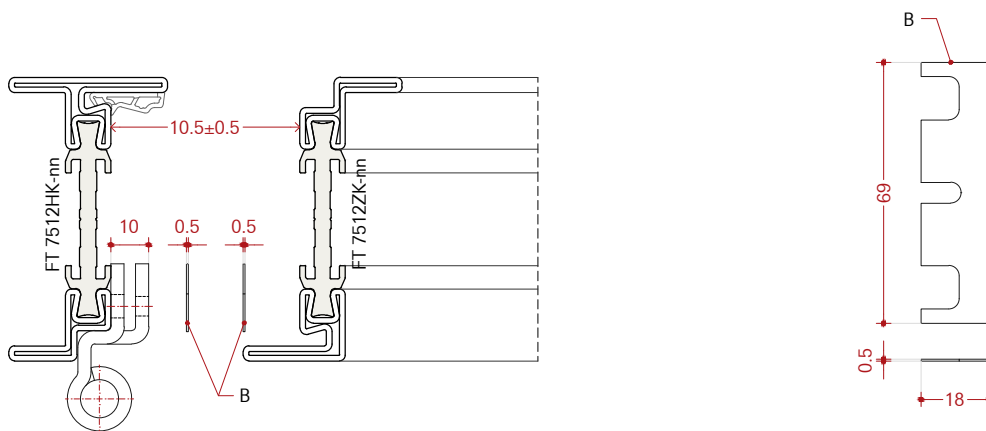
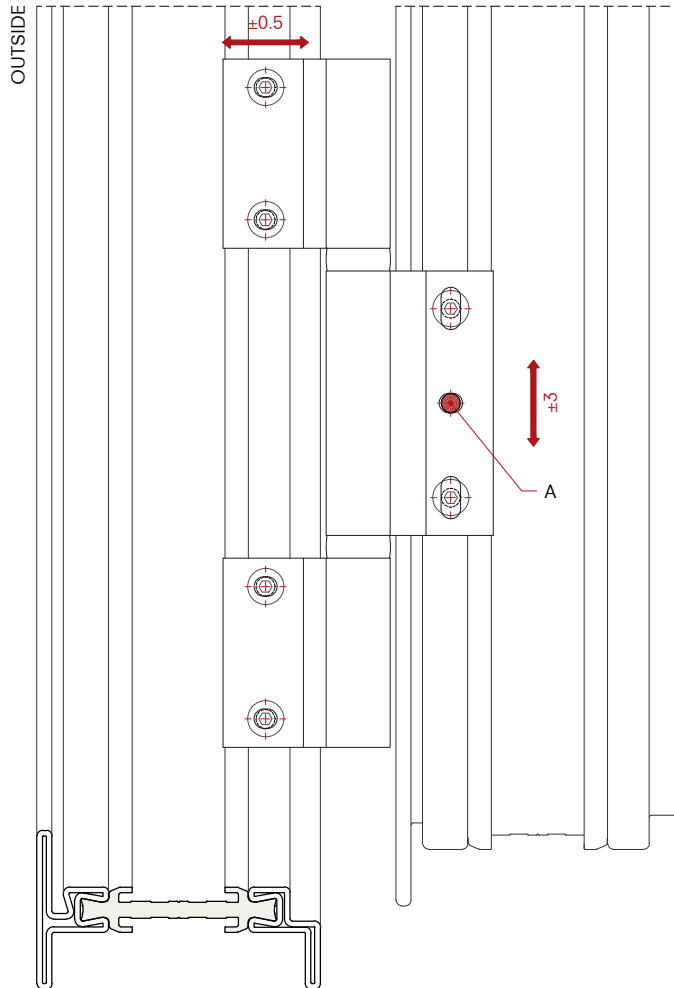


- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO7380 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO7380

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO7380





A) M5 hole on profile and fastening with screw M5x16 ISO7380 after up and down adjustment.  
 B) Additional shims for adjustment.

A) Foro M5 sul profilo e fissaggio con vite M5x16 ISO7380 dopo la regolazione verticale.  
 B) Spessori aggiuntivi per la regolazione.

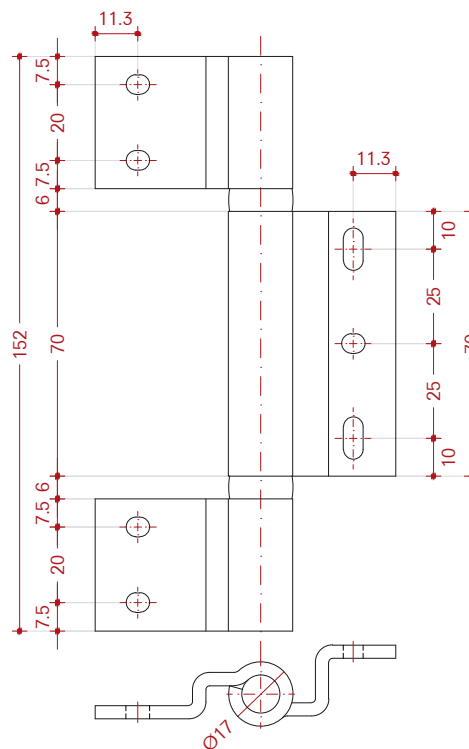
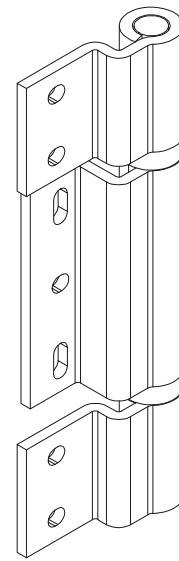
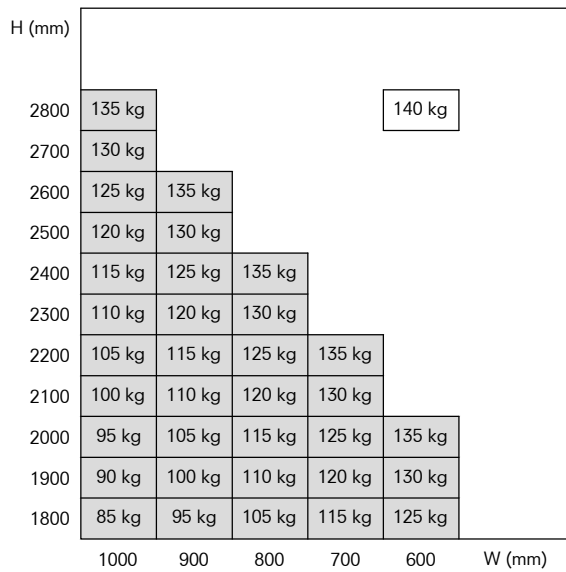
A) Orificios M5 en el perfil y fijación con tornillo M5x16 ISO7380 después del ajuste vertical.  
 B) Espesores adicionales para ajuste.

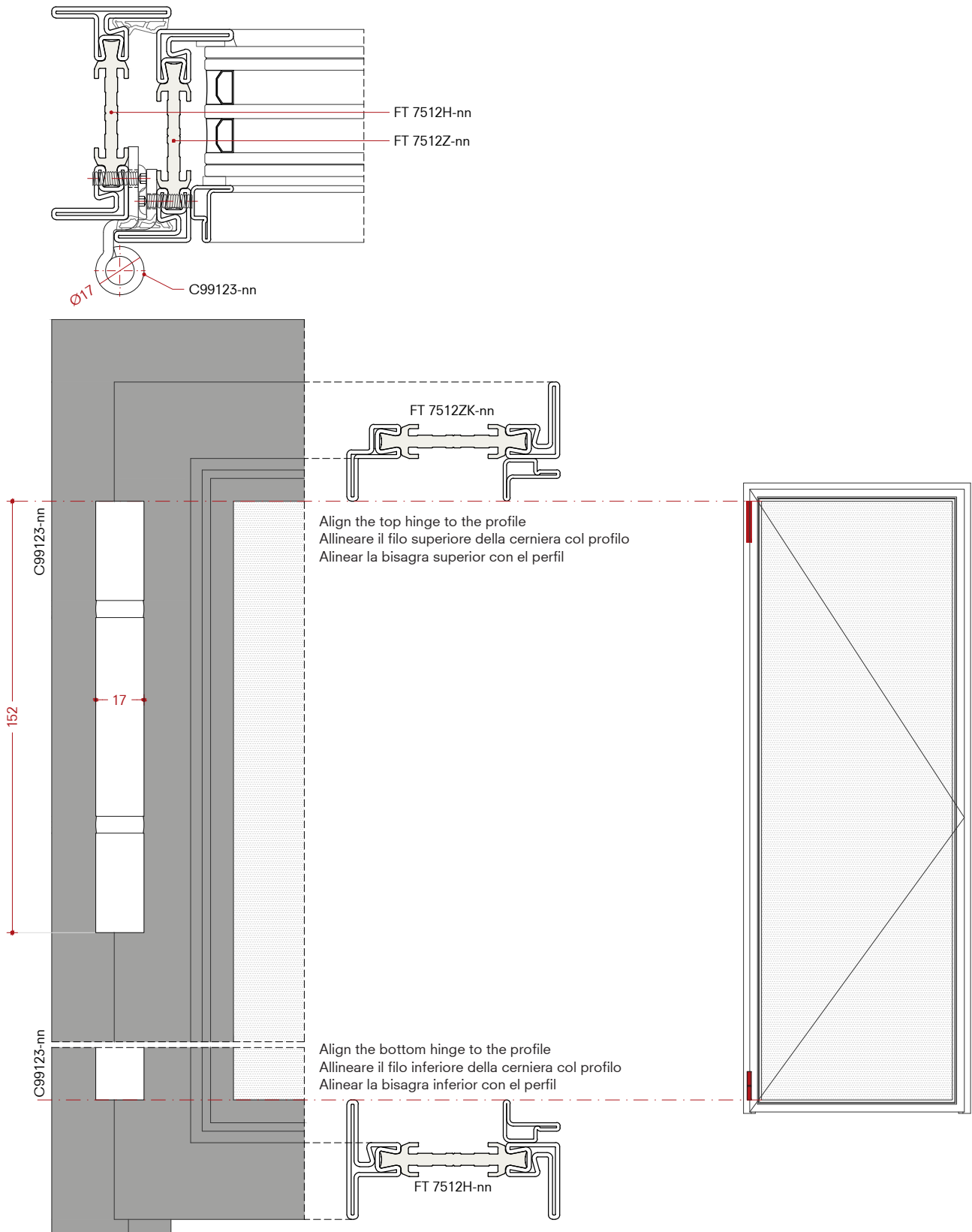
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                                                                                      | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99123-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 17 mm                        | 152 mm                          | 140 kg                                                 |





**Installation**

Screw-on hinge C99123-nn  
 Overlapped profiles

Maximum leaf weight 140 kg

**Montaggio**

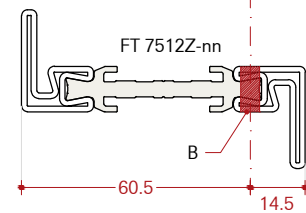
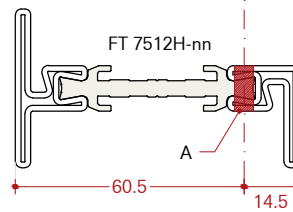
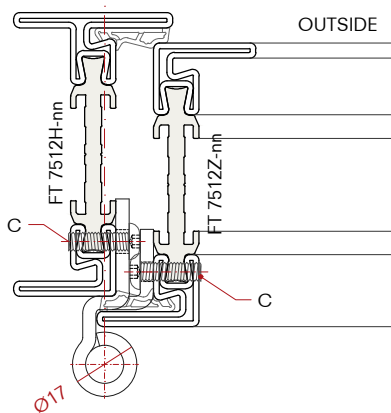
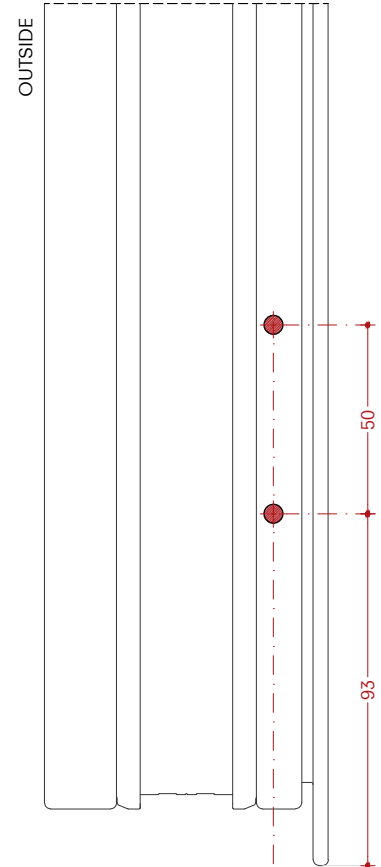
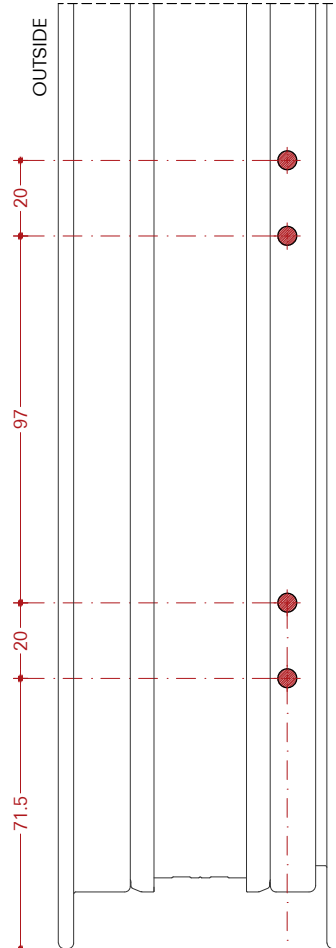
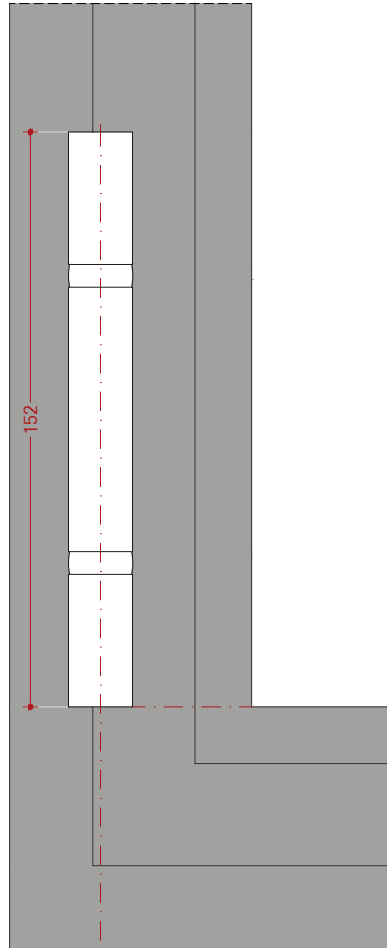
Cerniera ad avvitare C99123-nn  
 Profili a sormonto

Peso massimo anta 140 kg

**Montaje**

Bisagra atornillable C99123-nn  
 Perfiles superpuestos

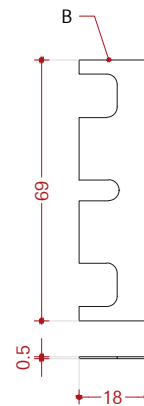
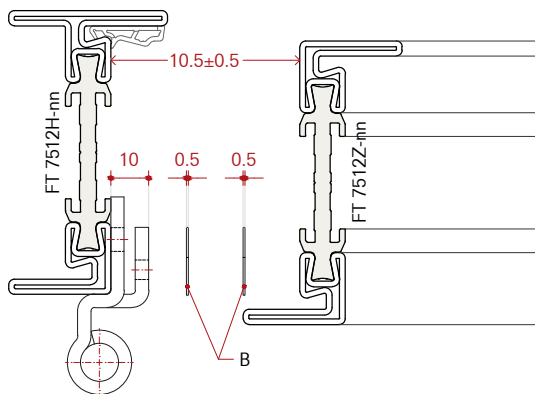
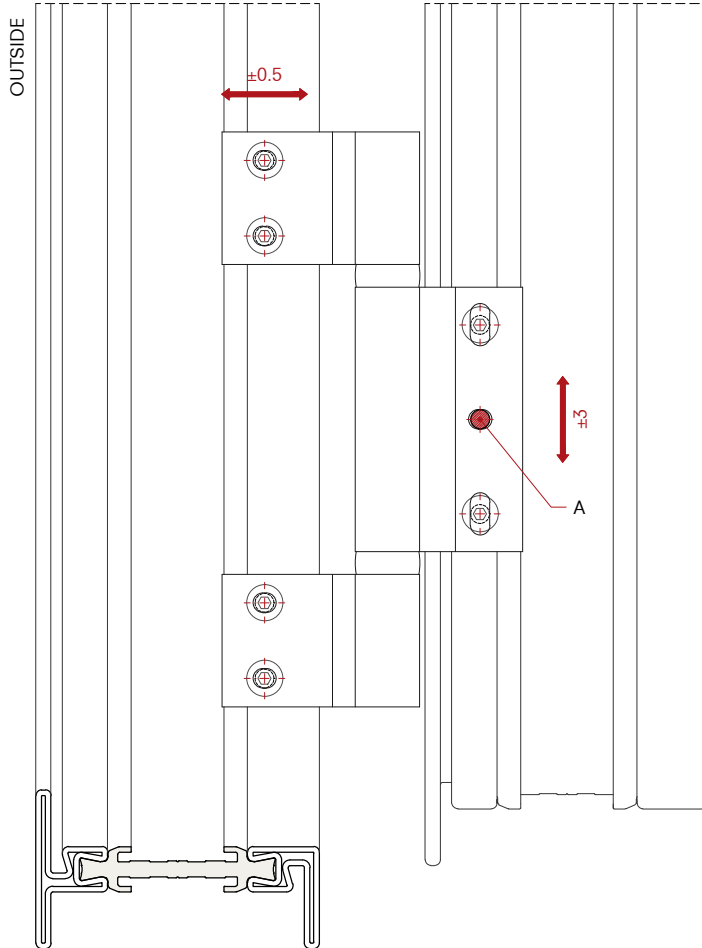
Peso máximo de la hoja 140 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO7380 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO7380

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO7380



A) M5 hole on profile and fastening with screw M5x16 ISO7380 after up and down adjustment.  
 B) Additional shims for adjustment.

A) Foro M5 sul profilo e fissaggio con vite M5x16 ISO7380 dopo la regolazione verticale.  
 B) Spessori aggiuntivi per la regolazione.

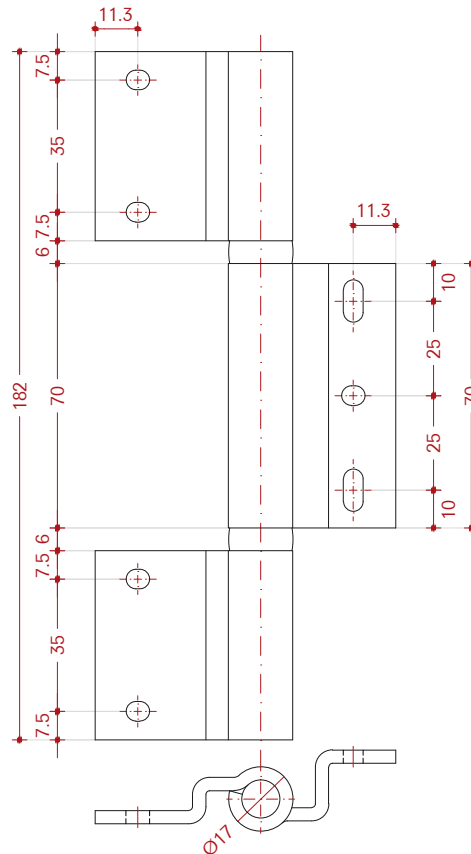
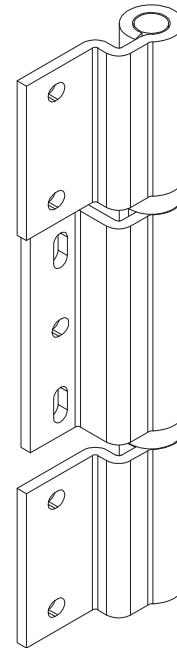
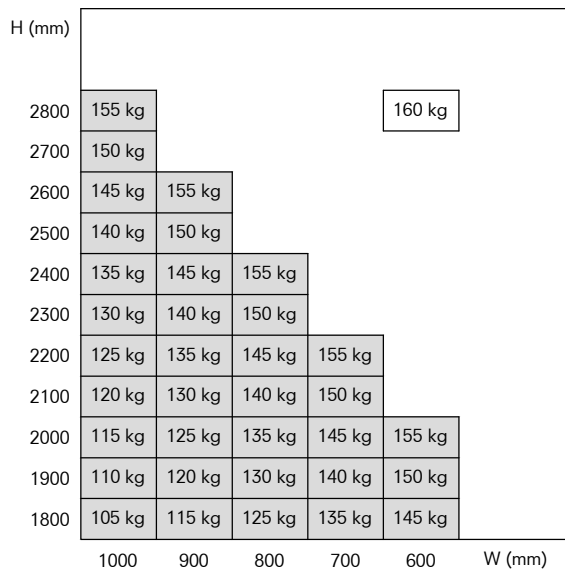
A) Orificios M5 en el perfil y fijación con tornillo M5x16 ISO7380 después del ajuste vertical.  
 B) Espesores adicionales para ajuste.

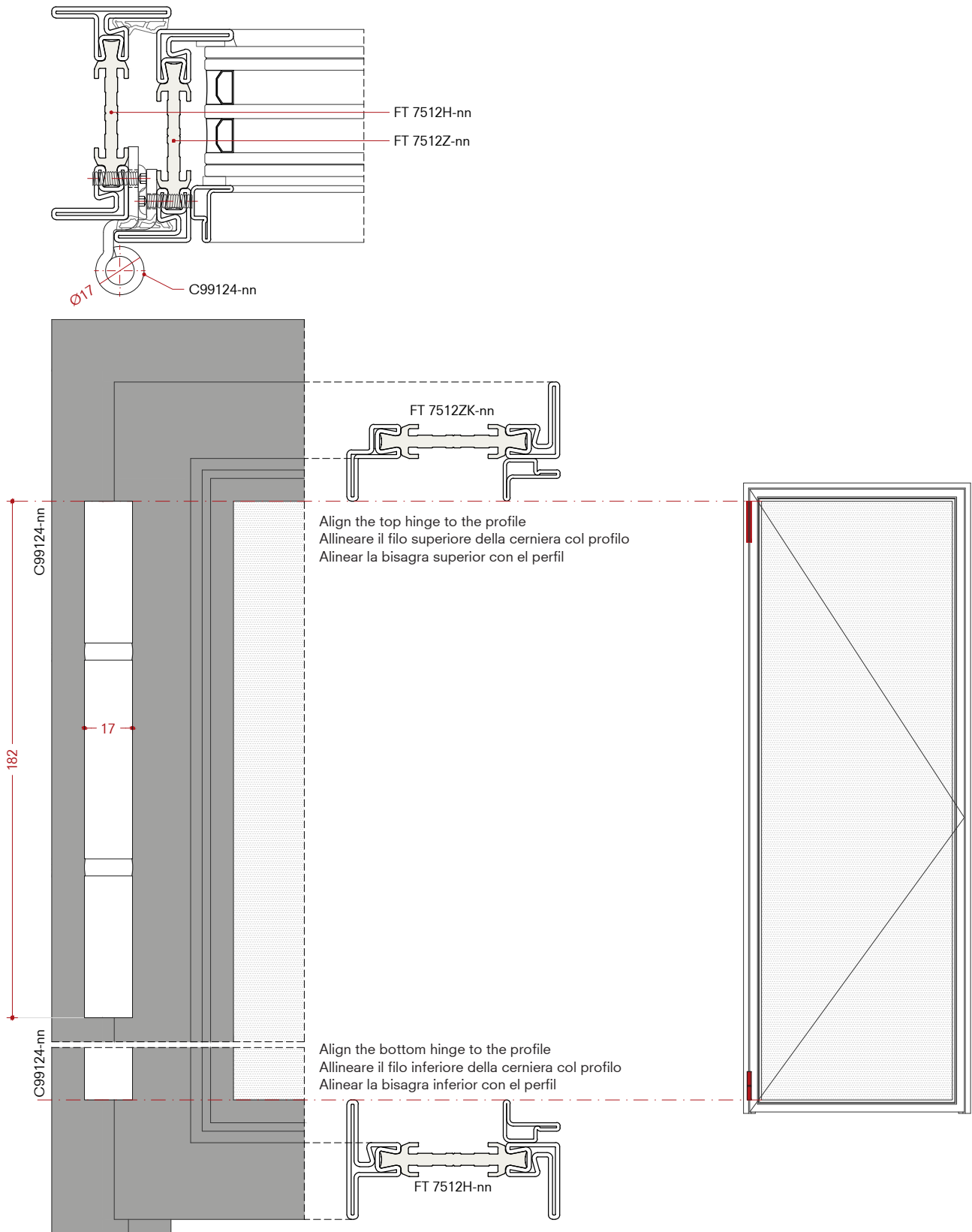
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                                                                                      | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99124-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 17 mm                        | 182 mm                          | 160 kg                                                 |





**Installation**

Screw-on hinge C99124-nn  
 Overlapped profiles

Maximum leaf weight 160 kg

**Montaggio**

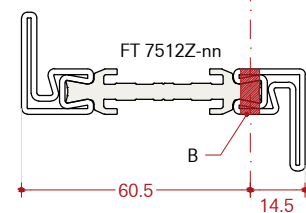
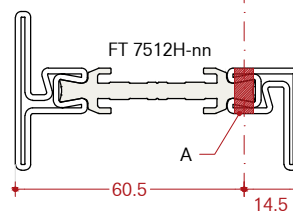
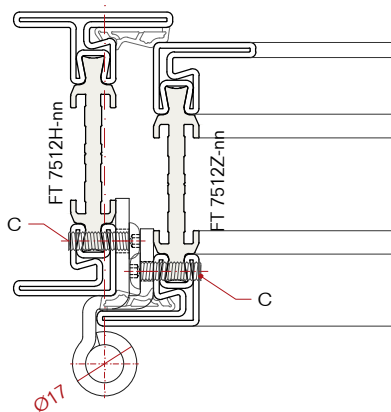
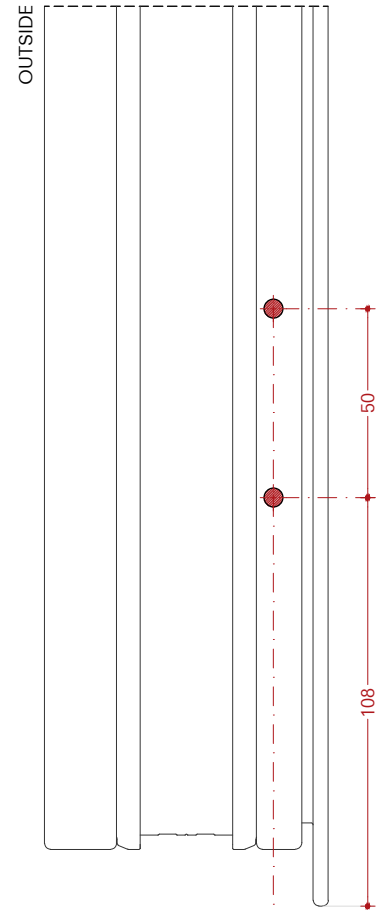
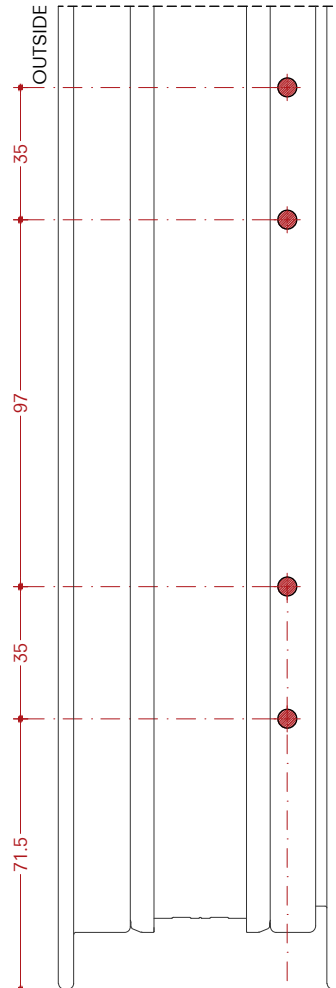
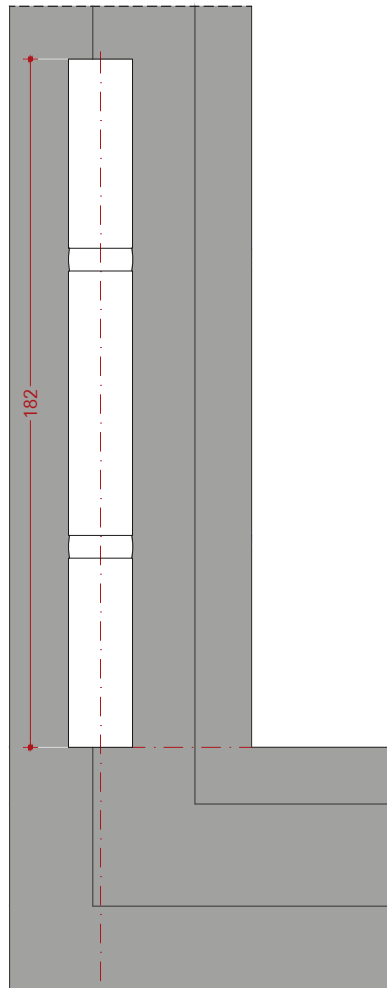
Cerniera ad avvitare C99124-nn  
 Profili a sormonto

Peso massimo anta 160 kg

**Montaje**

Bisagra atornillable C99124-nn  
 Perfiles superpuestos

Peso máximo de la hoja 160 kg

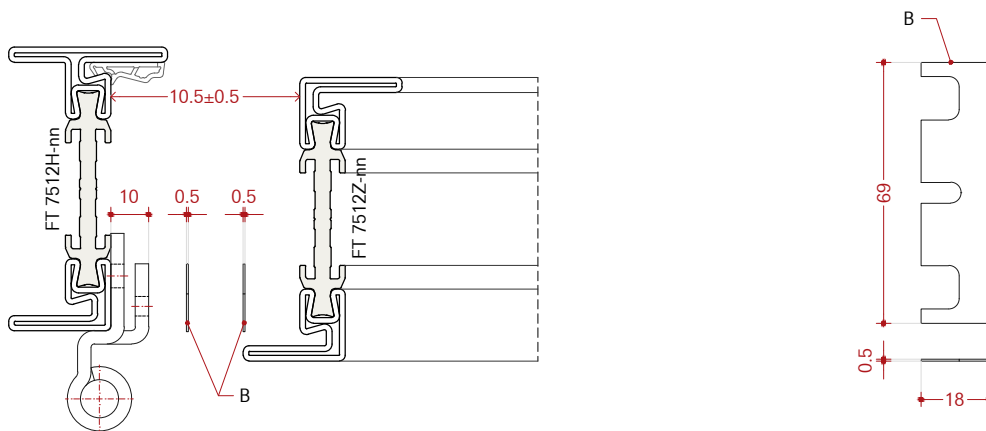
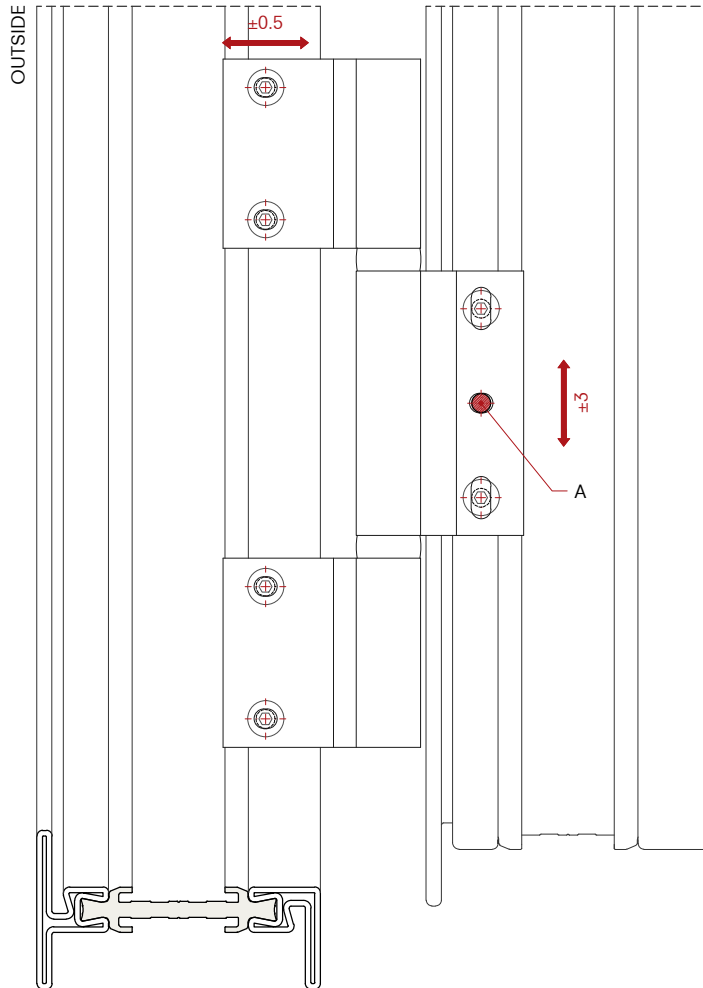


- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO7380 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO7380

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO7380





- A) M5 hole on profile and fastening with screw M5x16 ISO7380 after up and down adjustment.
- B) Additional shims for adjustment.

- A) Foro M5 sul profilo e fissaggio con vite M5x16 ISO7380 dopo la regolazione verticale.
- B) Spessori aggiuntivi per la regolazione.

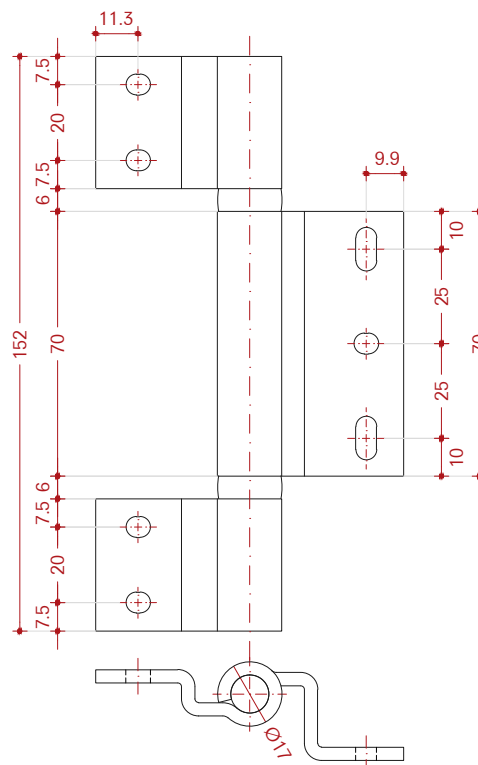
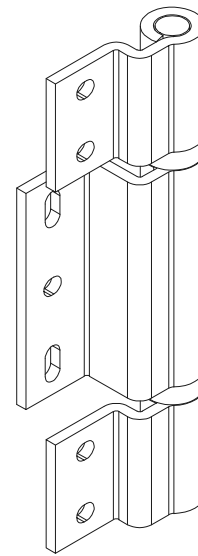
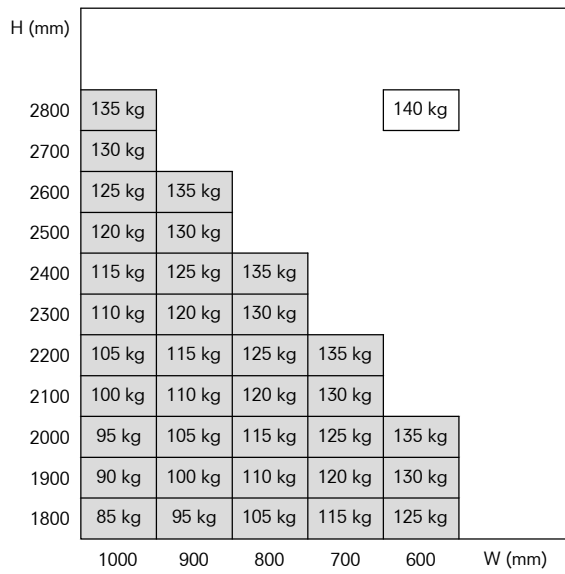
- A) Orificios M5 en el perfil y fijación con tornillo M5x16 ISO7380 después del ajuste vertical.
- B) Espesores adicionales para ajuste.

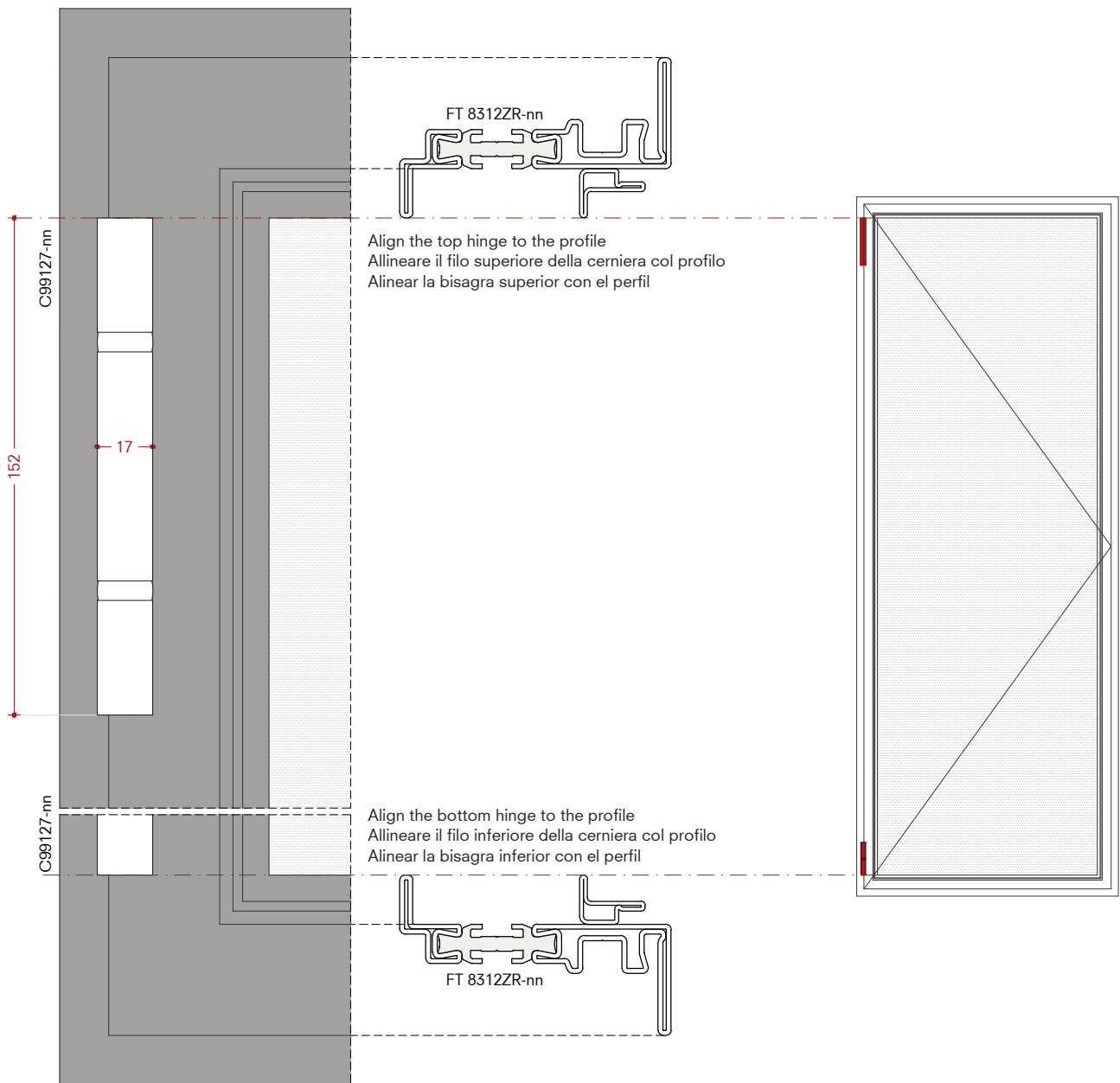
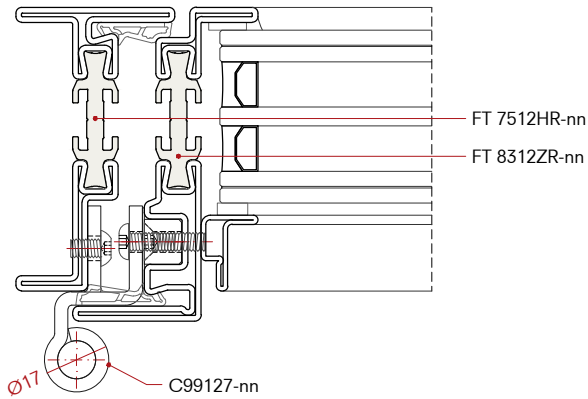
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                                                                                      | Diameter<br>Diametro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99127-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | Ø = 17 mm                        | 152 mm                          | 140 kg                                                 |





**Installation**

Screw-on hinge C99127-nn  
 Tilt&Turn window

Maximum leaf weight 140 kg

**Montaggio**

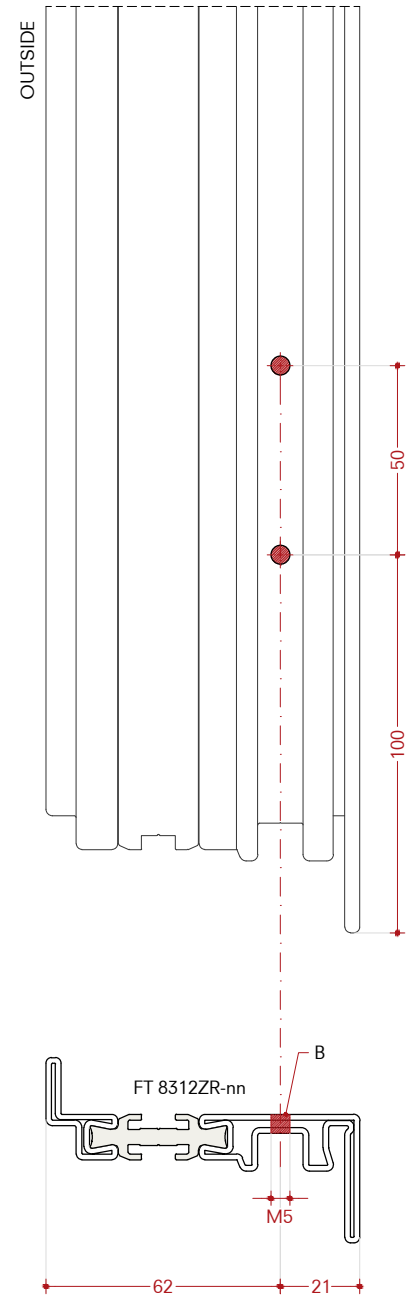
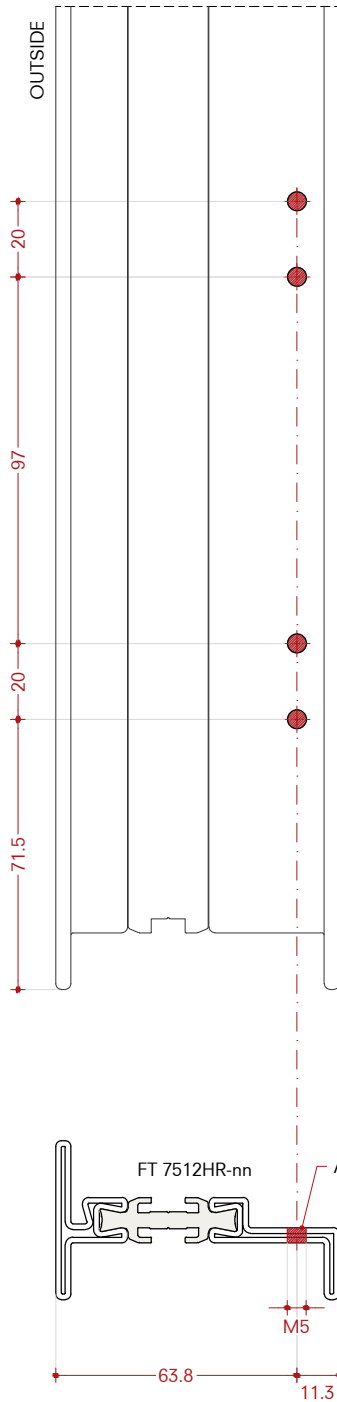
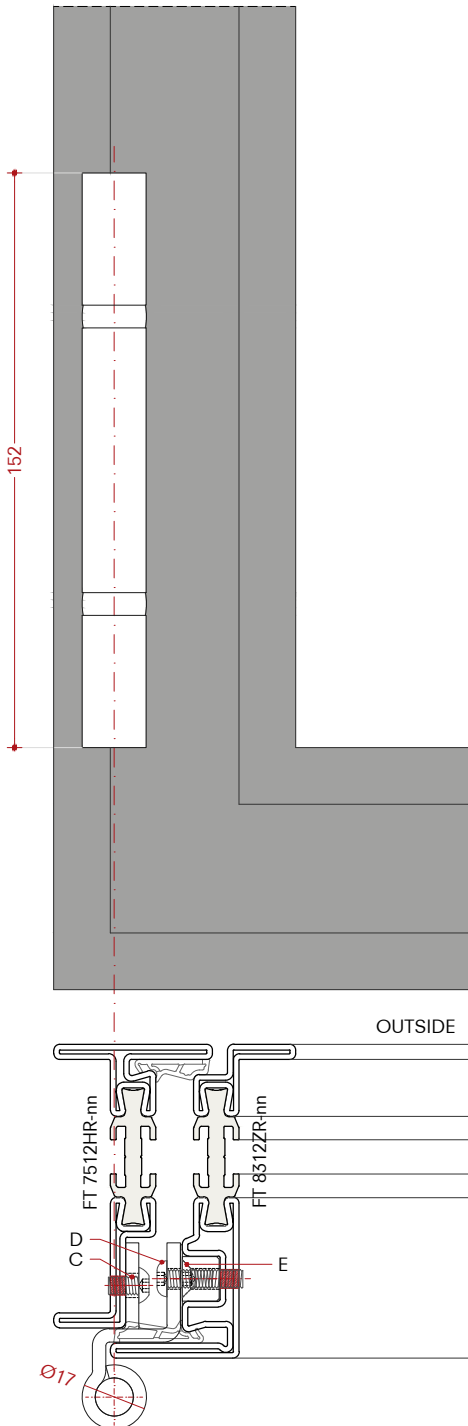
Cerniera ad avvitare C99127-nn  
 Finestra anta ribalta

Peso massimo anta 140 kg

**Montaje**

Bisagra atornillable C99127-nn  
 Ventana oscilante

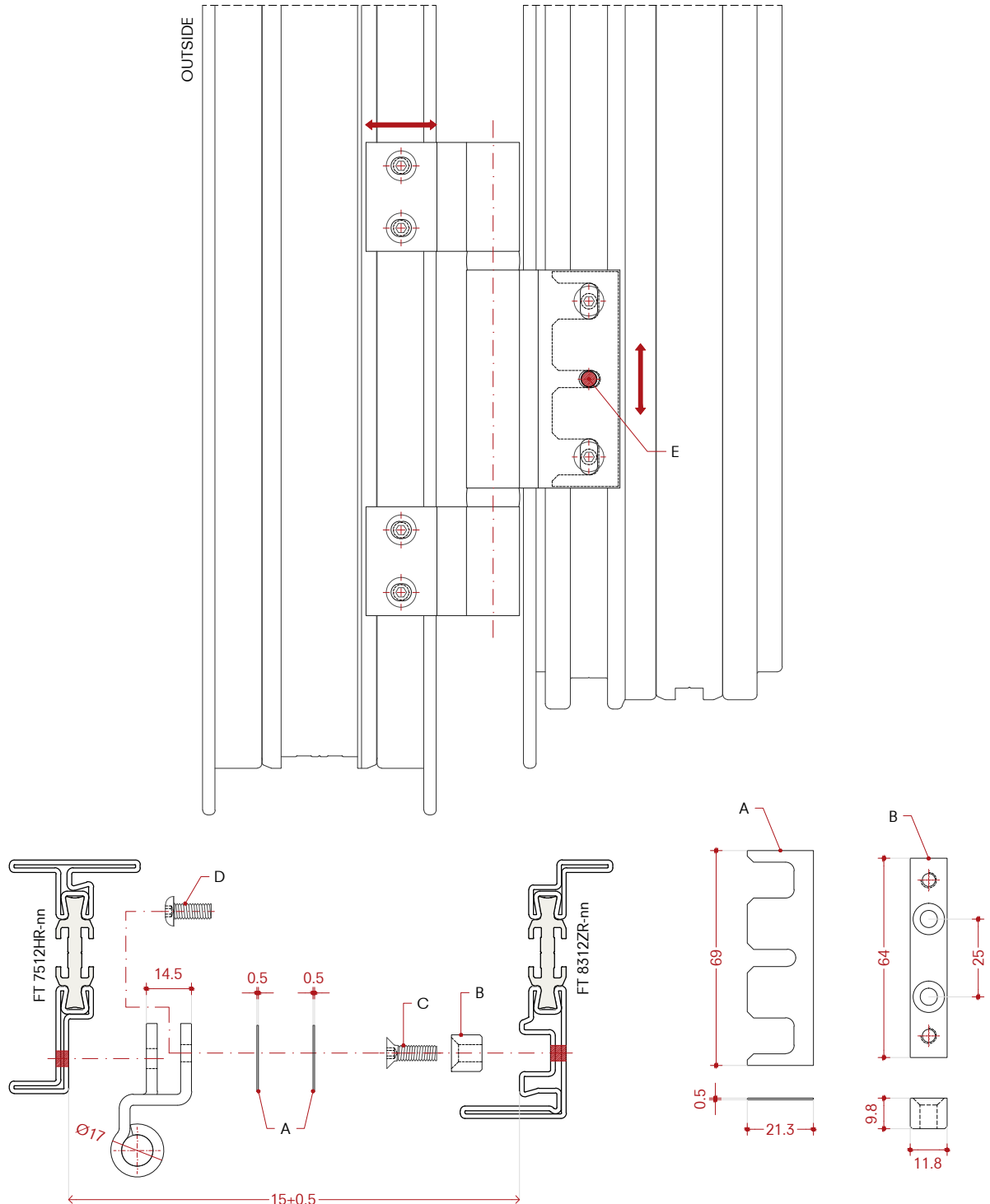
Peso máximo de la hoja 140 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x8 ISO7380 screws
- D) Fastening hinge with M5x12 ISO7380 screws
- E) Fastening with M5x16 ISO10642 screws and cut the screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x8 ISO7380
- D) Fissaggio cerniera con viti M5x12 ISO7380
- E) Fissaggio con viti M5x16 ISO10642 e accorciare le viti

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x8 ISO7380
- D) Fijación bisagra con tornillos M5x12 ISO7380
- E) Fijación con tornillos M5x16 ISO10642 y recortar tornillos



- A) Additional shims for adjustment 15±0.5
- B) Additional shim
- C) Fastening of (B) with M5x16 ISO10642 screws and cut the screws
- D) Fastening hinge with M5x12 ISO7380 screws
- E) M5 hole and fastening with screw M5x12 ISO7380 after up and down adjustment.

- A) Spessori aggiuntivi per la regolazione 15±0.5
- B) Spessore aggiuntivo
- C) Fissaggio di (B) con viti M5x16 ISO10642 e accorciare le viti
- D) Fissaggio cerniera con viti M5x12 ISO7380
- E) Foro M5 e fissaggio con vite M5x12 ISO7380 dopo la regolazione verticale.

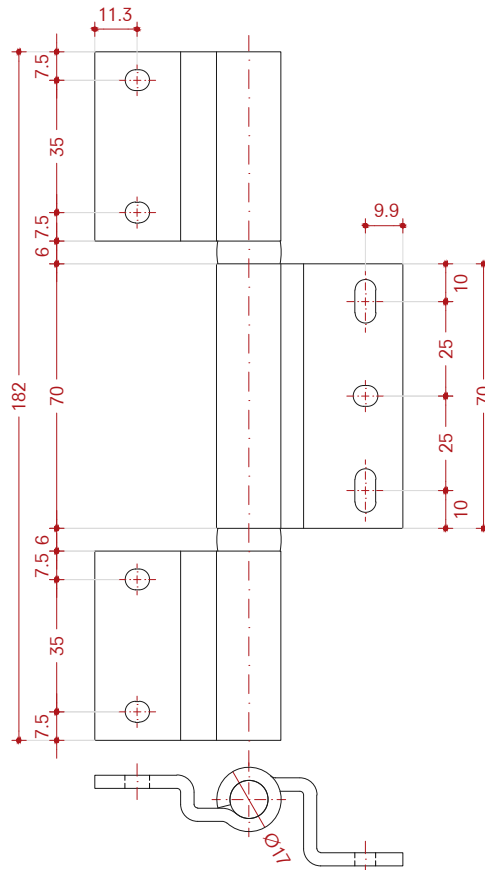
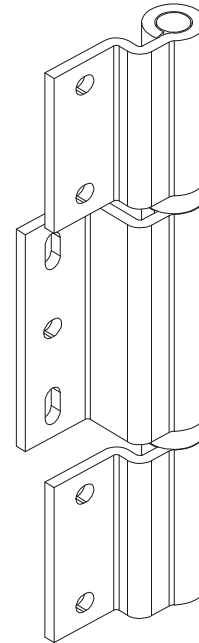
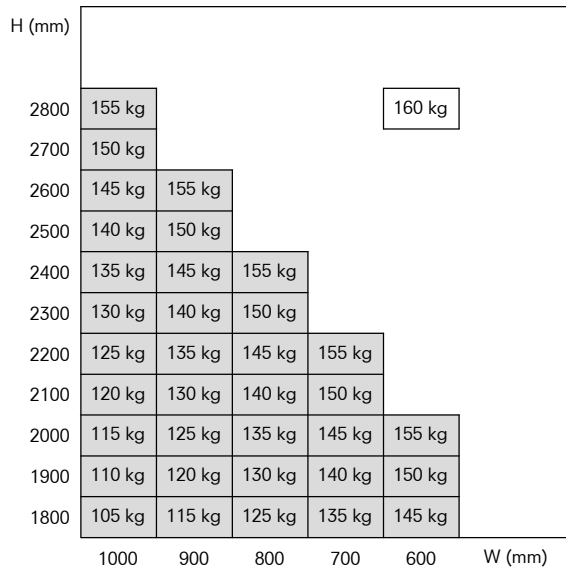
- A) Espesores adicionales para ajuste 15±0.5
- B) Espesor adicional
- C) Fijación de (B) con tornillos M5x16 ISO10642 y recortar tornillos
- D) Fijación bisagra con tornillos M5x12 ISO7380
- E) Orificios M5 y fijación con tornillo M5x12 ISO7380 después del ajuste vertical.

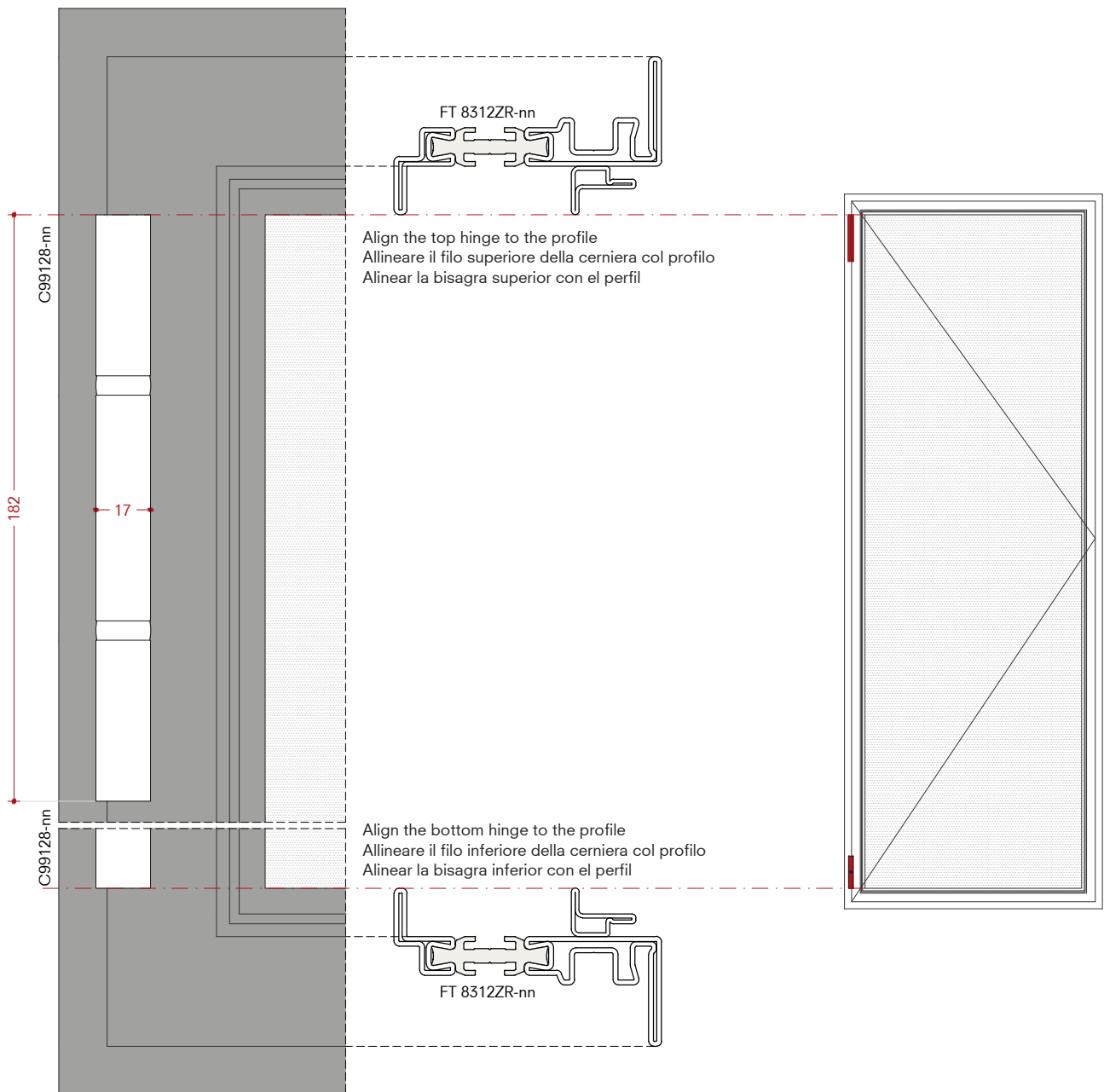
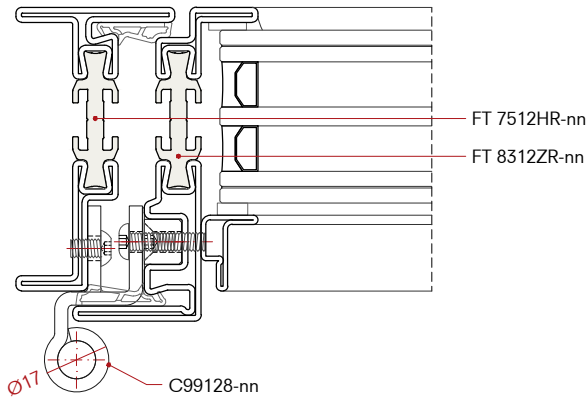
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                                                                                      | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99128-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable<br>-12 Bright steel<br>-12 Acciaio decapato<br>-12 Acero bruto | $\varnothing = 17 \text{ mm}$    | 182 mm                          | 160 kg                                                 |





**Installation**

Screw-on hinge C99128-nn  
 Tilt&Turn window

Maximum leaf weight 160 kg

**Montaggio**

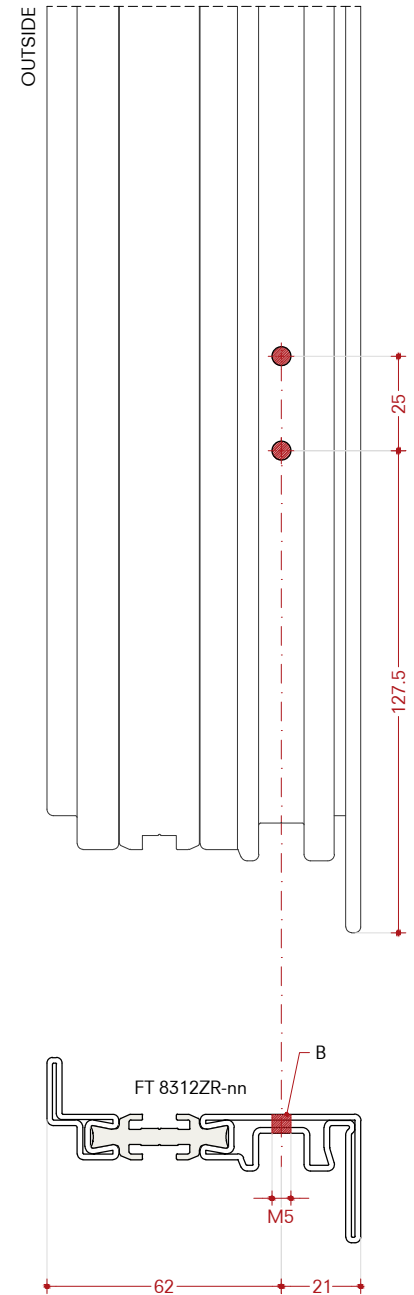
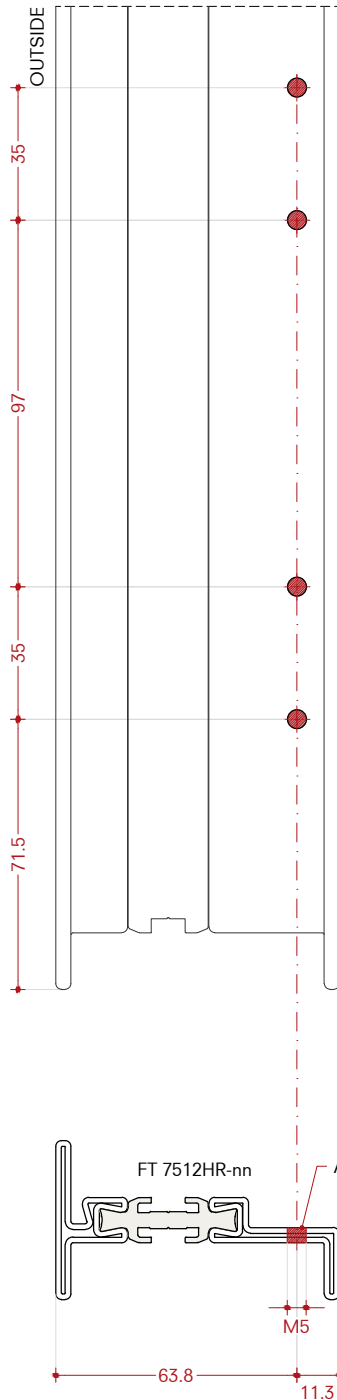
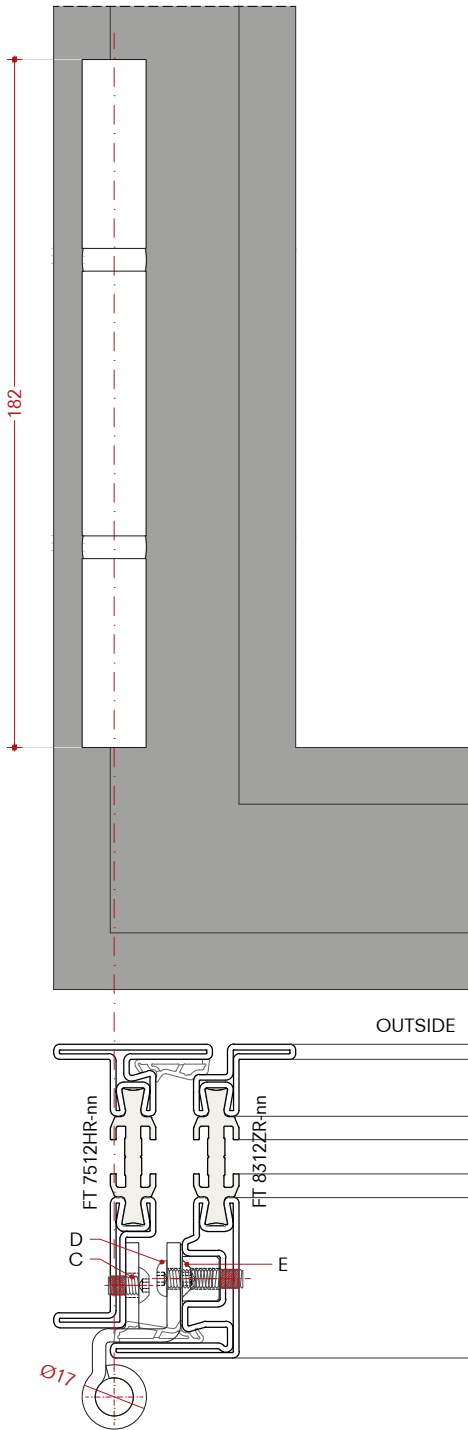
Cerniera ad avvitare C99128-nn  
 Finestra anta ribalta

Peso massimo anta 160 kg

**Montaje**

Bisagra atornillable C99128-nn  
 Ventana oscilante

Peso máximo de la hoja 160 kg

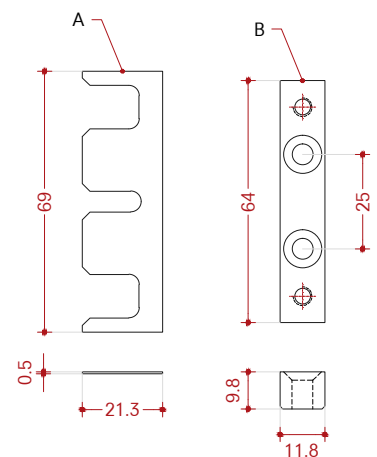
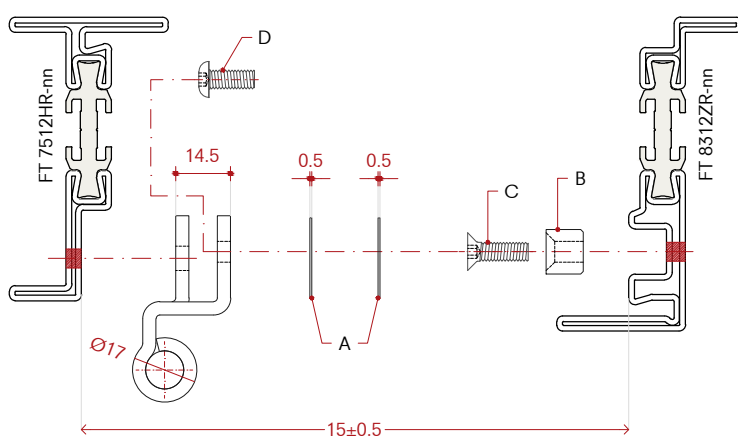
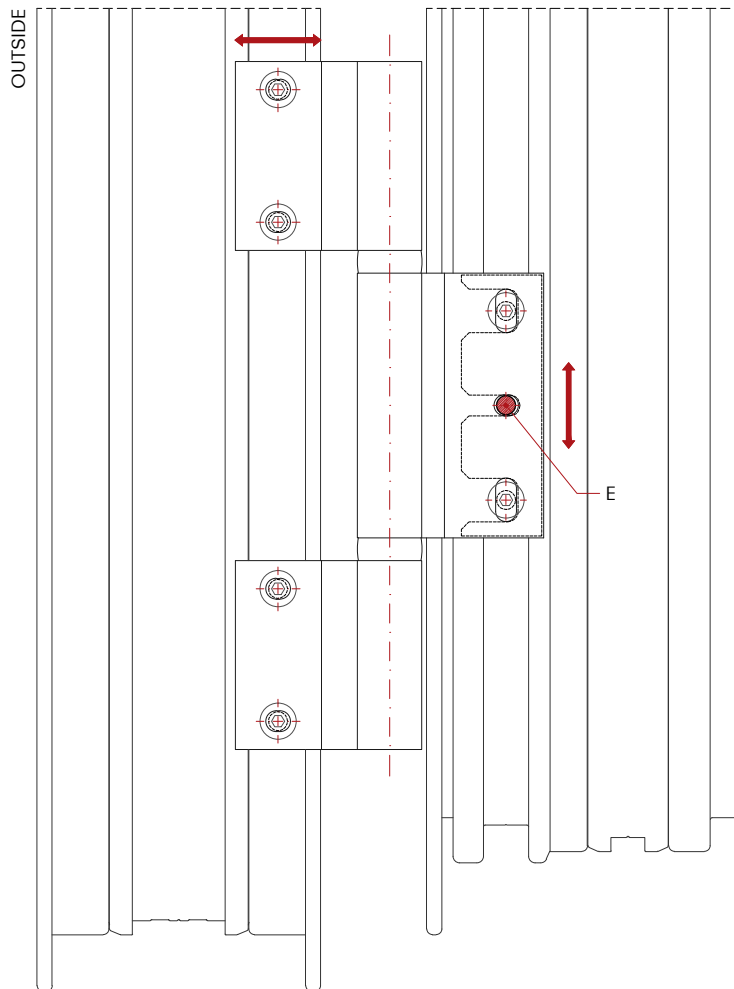


- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x8 ISO7380 screws
- D) Fastening hinge with M5x12 ISO7380 screws
- E) Fastening with M5x16 ISO10642 screws and cut the screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x8 ISO7380
- D) Fissaggio cerniera con viti M5x12 ISO7380
- E) Fissaggio con viti M5x16 ISO10642 e accorciare le viti

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x8 ISO7380
- D) Fijación bisagra con tornillos M5x12 ISO7380
- E) Fijación con tornillos M5x16 ISO10642 y recortar tornillos





- A) Additional shims for adjustment 15±0.5
- B) Additional shim
- C) Fastening of (B) with M5x16 ISO10642 screws and cut the screws
- D) Fastening hinge with M5x12 ISO7380 screws
- E) M5 hole and fastening with screw M5x12 ISO7380 after up and down adjustment.

- A) Spessori aggiuntivi per la regolazione 15±0.5
- B) Spessore aggiuntivo
- C) Fissaggio di (B) con viti M5x16 ISO10642 e accorciare le viti
- D) Fissaggio cerniera con viti M5x12 ISO7380
- E) Foro M5 e fissaggio con vite M5x12 ISO7380 dopo la regolazione verticale.

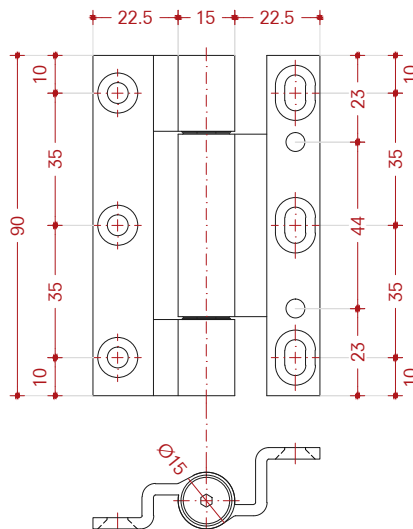
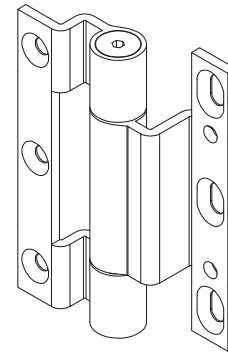
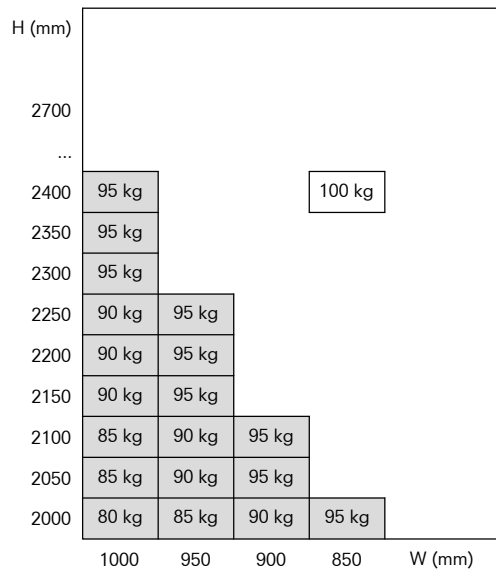
- A) Espesores adicionales para ajuste 15±0.5
- B) Espesor adicional
- C) Fijación de (B) con tornillos M5x16 ISO10642 y recortar tornillos
- D) Fijación bisagra con tornillos M5x12 ISO7380
- E) Orificios M5 y fijación con tornillo M5x12 ISO7380 después del ajuste vertical.

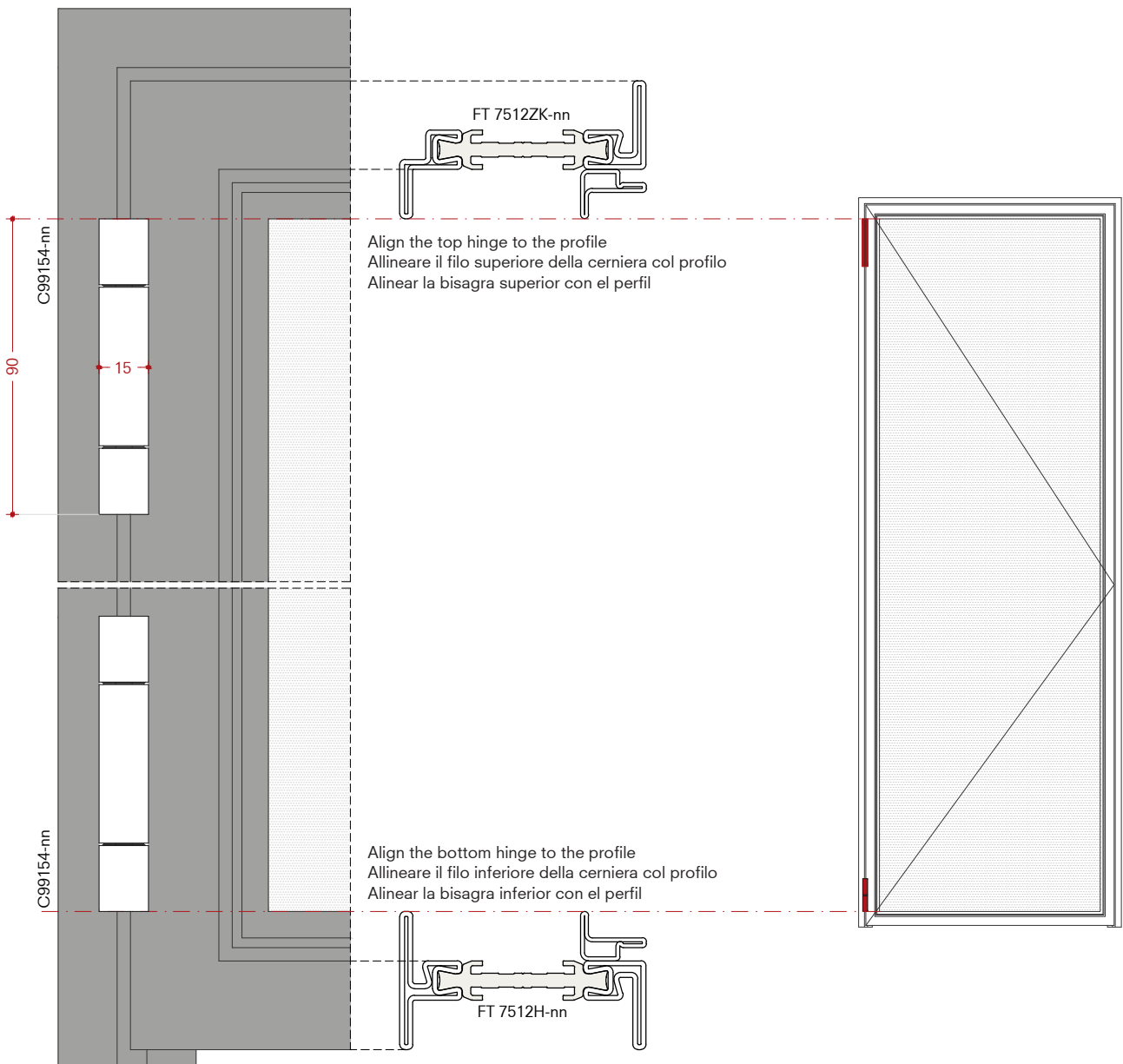
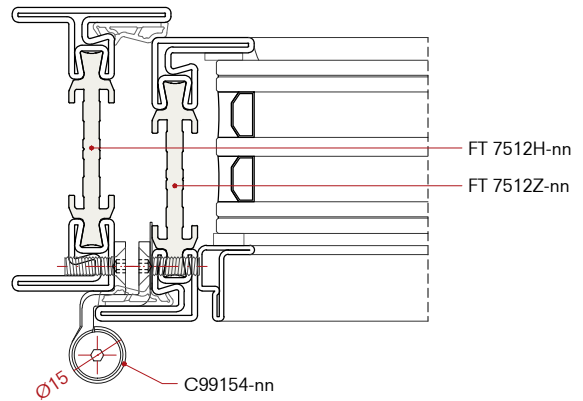
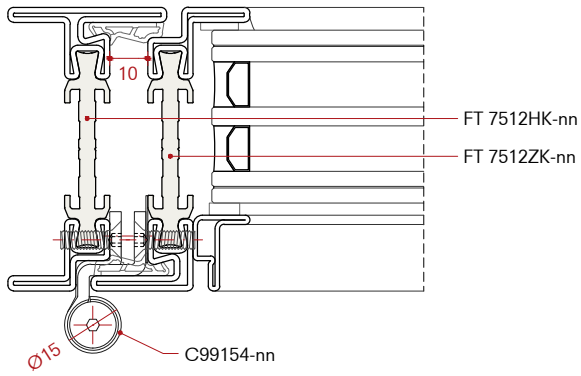
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                       | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99154-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable | Ø = 15 mm                        | 90 mm                           | 100 kg                                                 |





**Installation**

Screw-on hinge C99154-nn  
 Flush profiles

Maximum leaf weight 100 kg

**Montaggio**

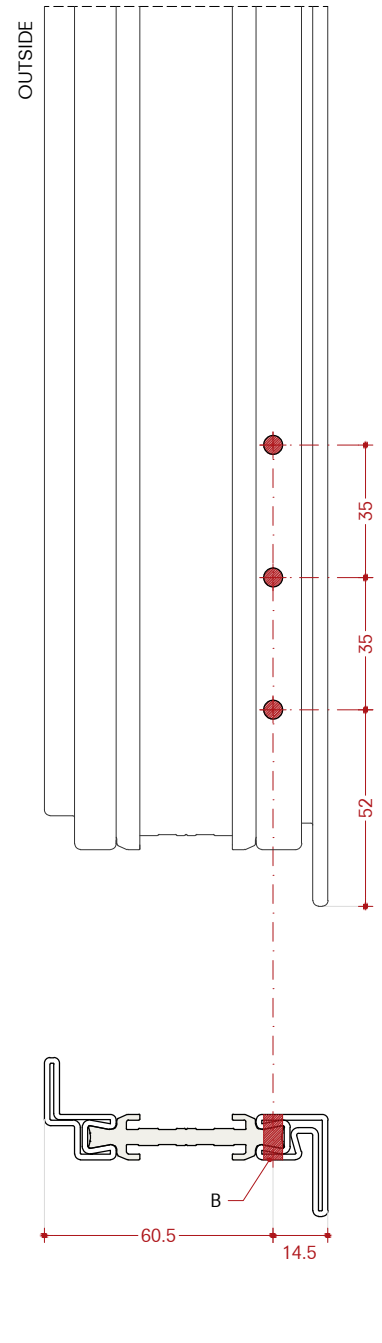
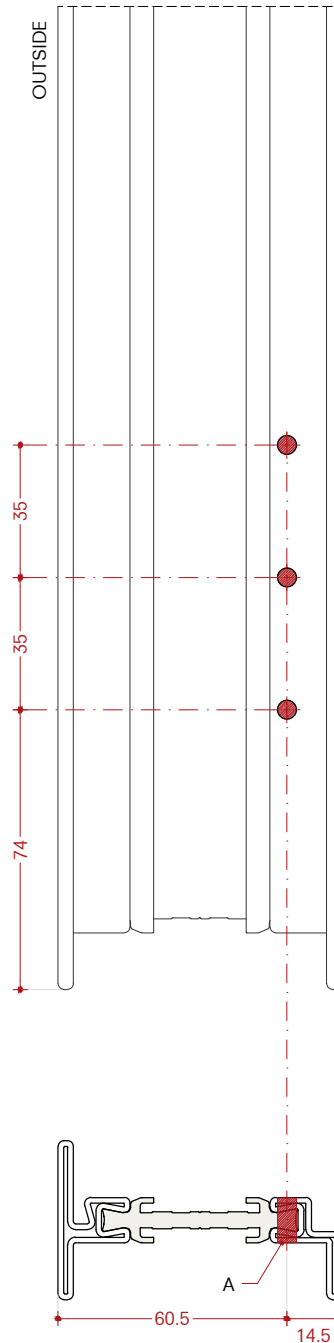
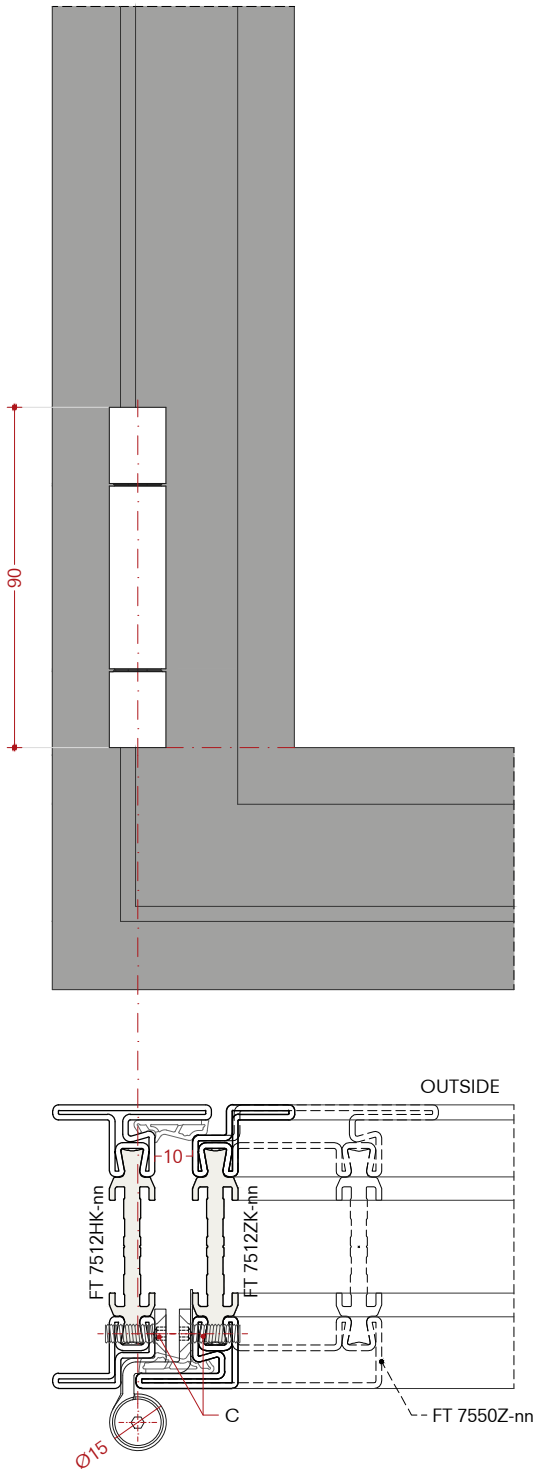
Cerniera ad avvitare C99154-nn  
 Profili complanari

Peso massimo anta 100 kg

**Montaje**

Bisagra atornillable C99154-nn  
 Perfiles coplanarios

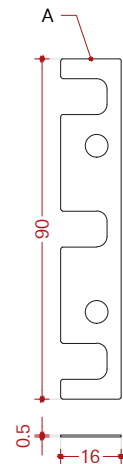
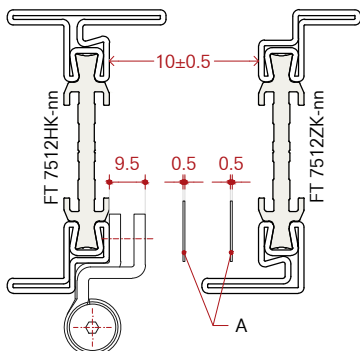
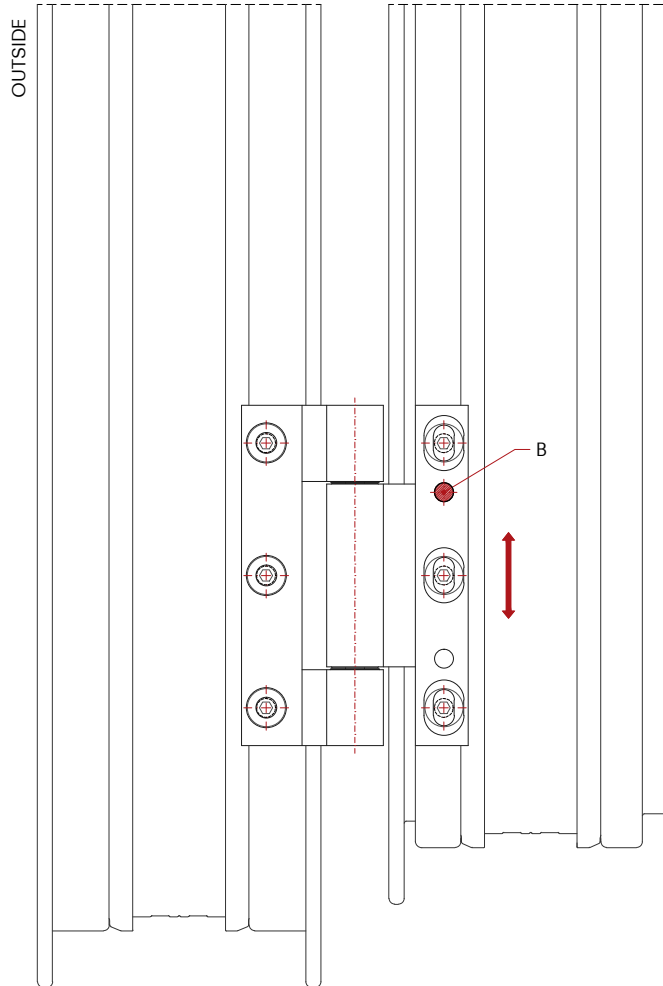
Peso máximo de la hoja 100 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO10642 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO10642

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO10642



A) Additional shims for adjustment  $10\pm 0.5$   
 B)  $\varnothing 5$  mm hole and pin to stop up and down adjustment.

A) Spessori aggiuntivi per la regolazione  $10\pm 0.5$   
 B) Foro  $\varnothing 5$  mm e perno per fermare la regolazione verticale.

A) Espesores adicionales para ajuste  $10\pm 0.5$   
 B) Oreficio  $\varnothing 5$  mm y pasador para detener el ajuste vertical.

**Installation**

Screw-on hinge C99154-nn  
 Overlapped profiles

Maximum leaf weight 100 kg

**Montaggio**

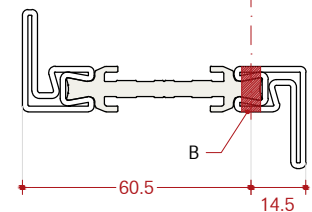
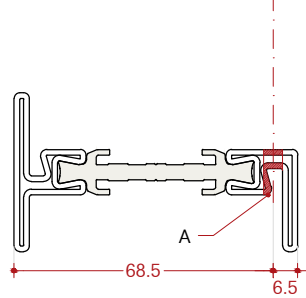
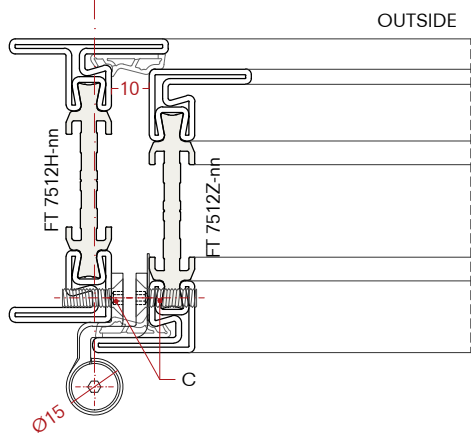
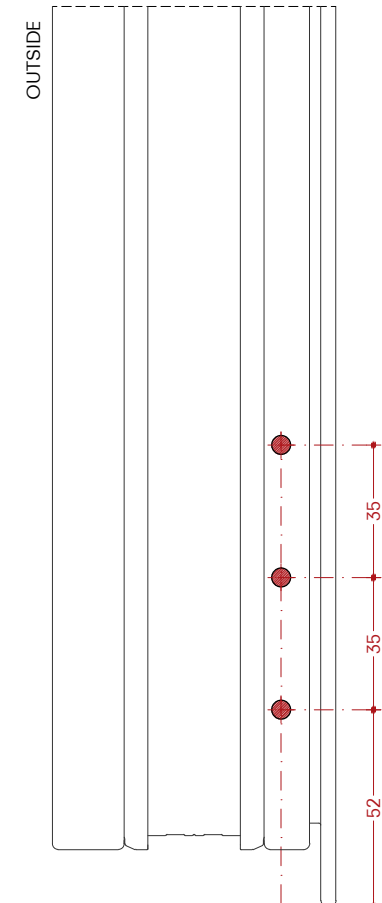
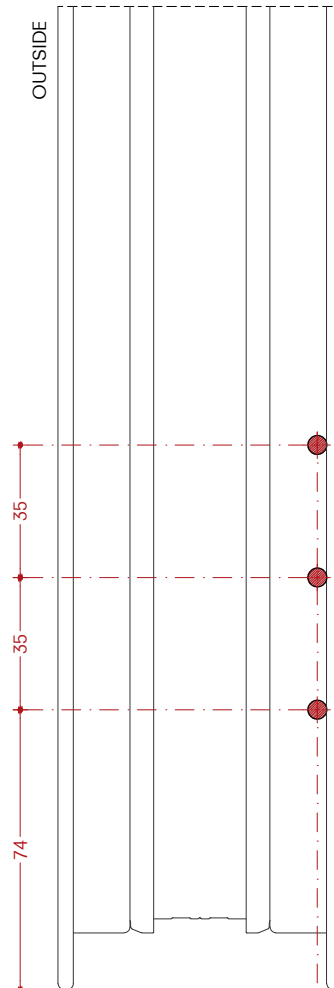
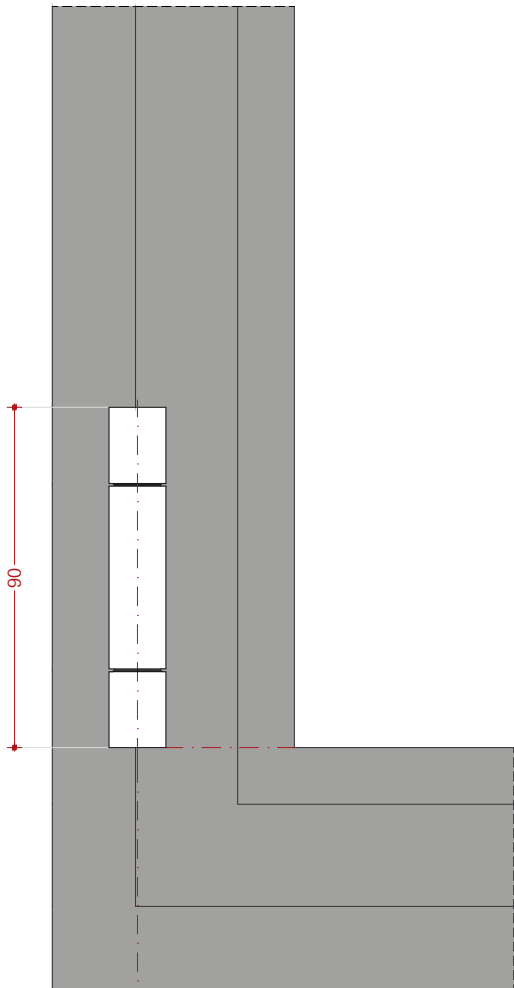
Cerniera ad avvitare C99154-nn  
 Profili a sormonto

Peso massimo anta 100 kg

**Montaje**

Bisagra atornillable C99154-nn  
 Perfiles superpuestos

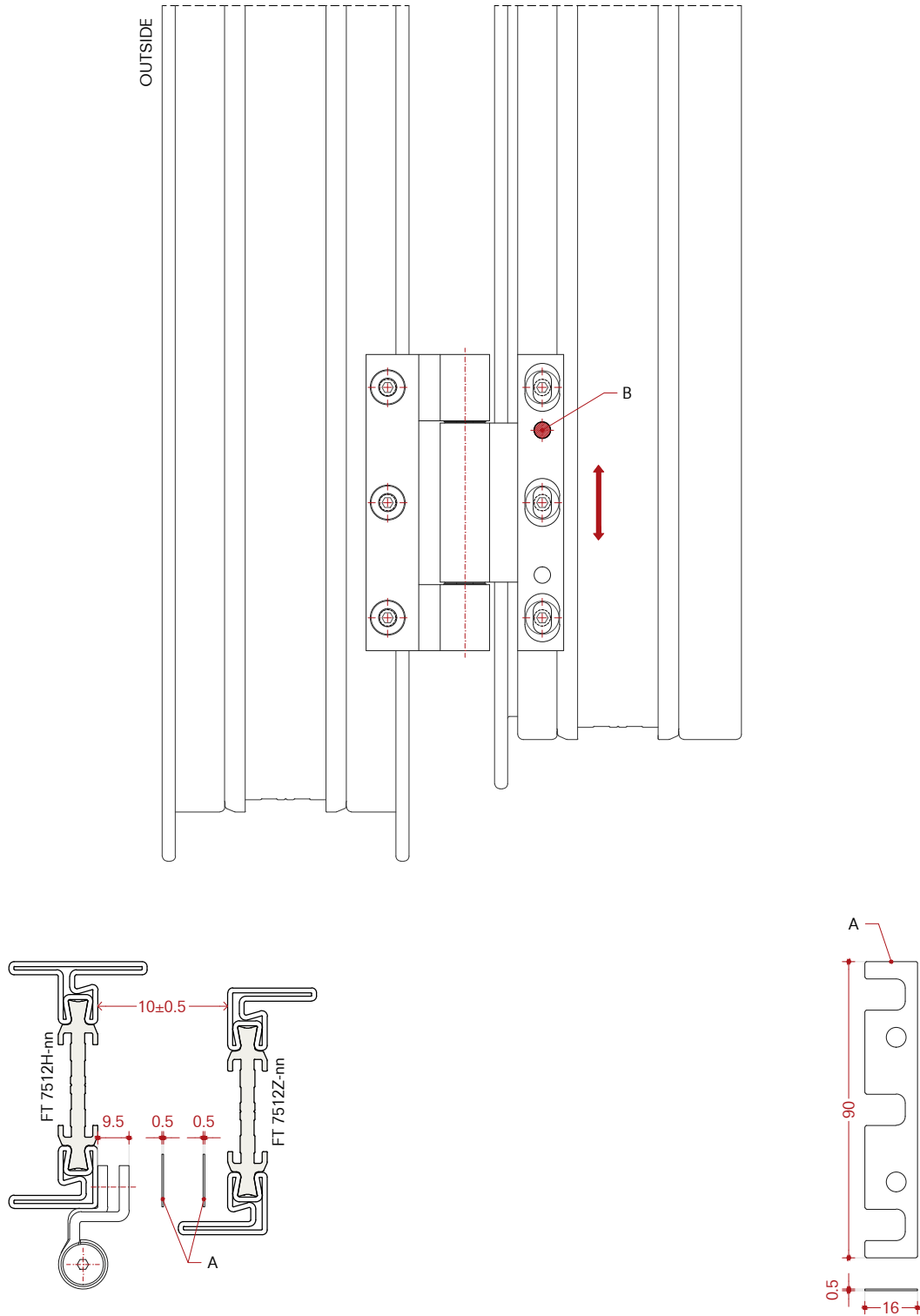
Peso máximo de la hoja 100 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO10642 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO10642

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO10642



A) Additional shims for adjustment  $10\pm 0.5$   
 B)  $\varnothing 5$  mm hole and pin to stop up and down adjustment.

A) Spessori aggiuntivi per la regolazione  $10\pm 0.5$   
 B) Foro  $\varnothing 5$  mm e perno per fermare la regolazione verticale.

A) Espesores adicionales para ajuste  $10\pm 0.5$   
 B) Oreficio  $\varnothing 5$  mm y pasador para detener el ajuste vertical.

**Installation**

Screw-on hinge C99154-nn  
 D75 TB door profiles

Maximum leaf weight 100 kg

**Montaggio**

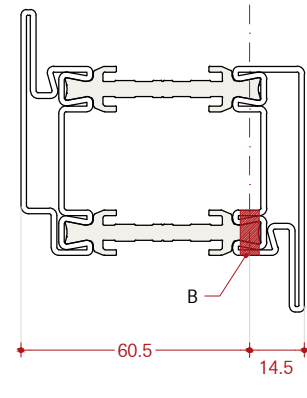
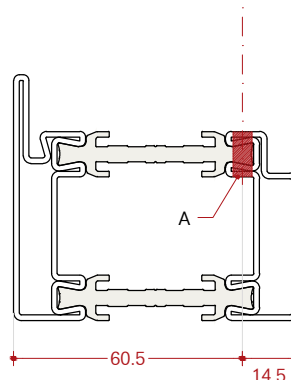
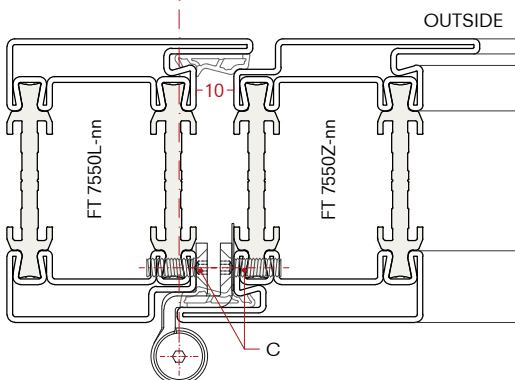
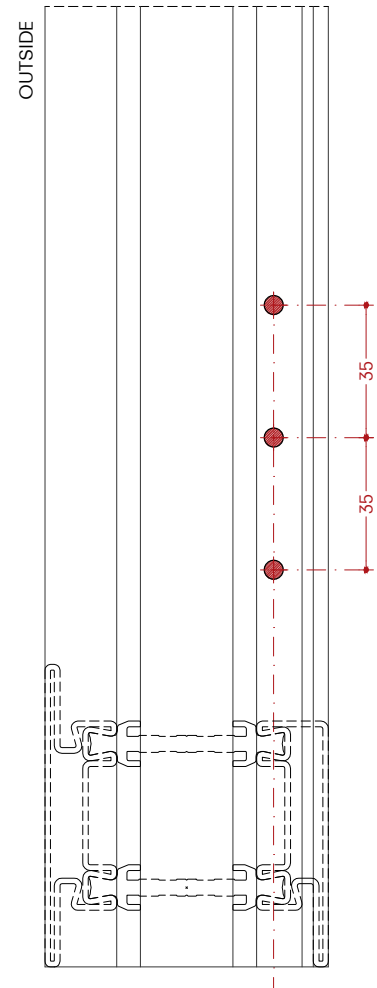
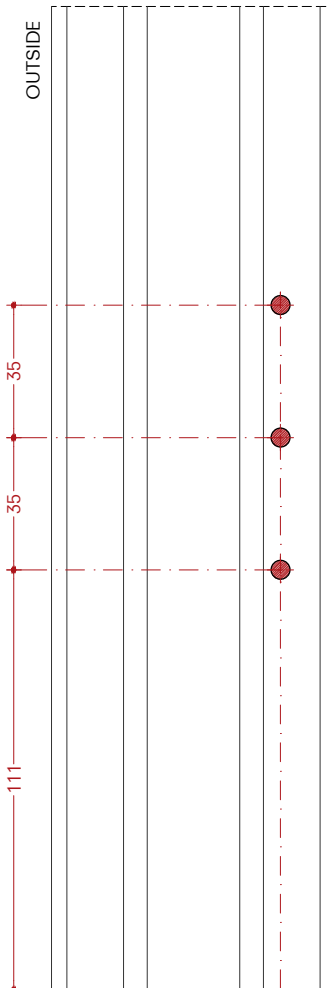
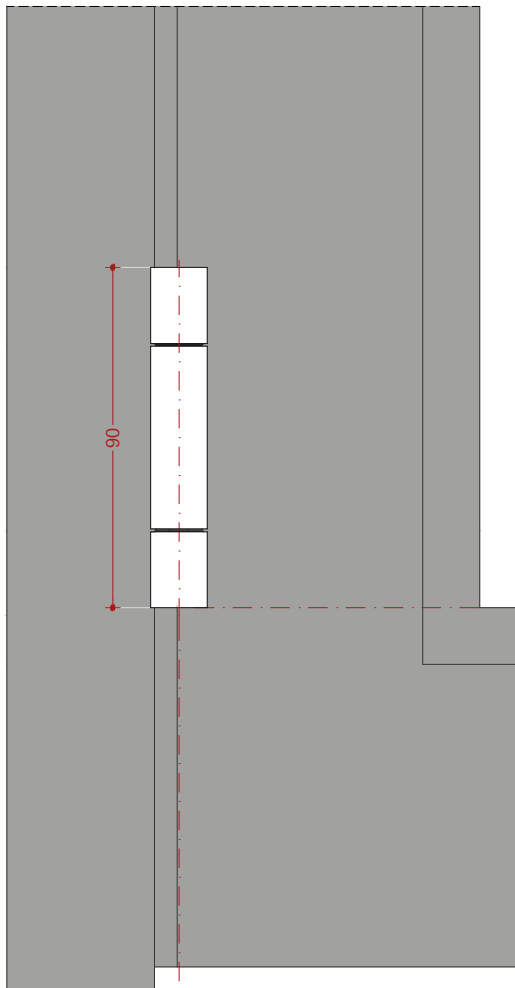
Cerniera ad avvitare C99154-nn  
 D75 TB profili porta

Peso massimo anta 100 kg

**Montaje**

Bisagra atornillable C99154-nn  
 D75 TB perfiles puerta

Peso máximo de la hoja 100 kg

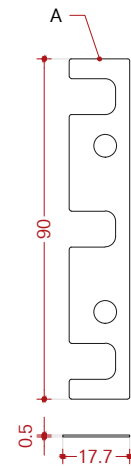
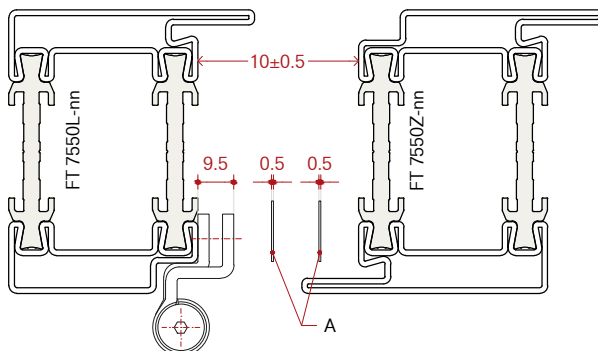
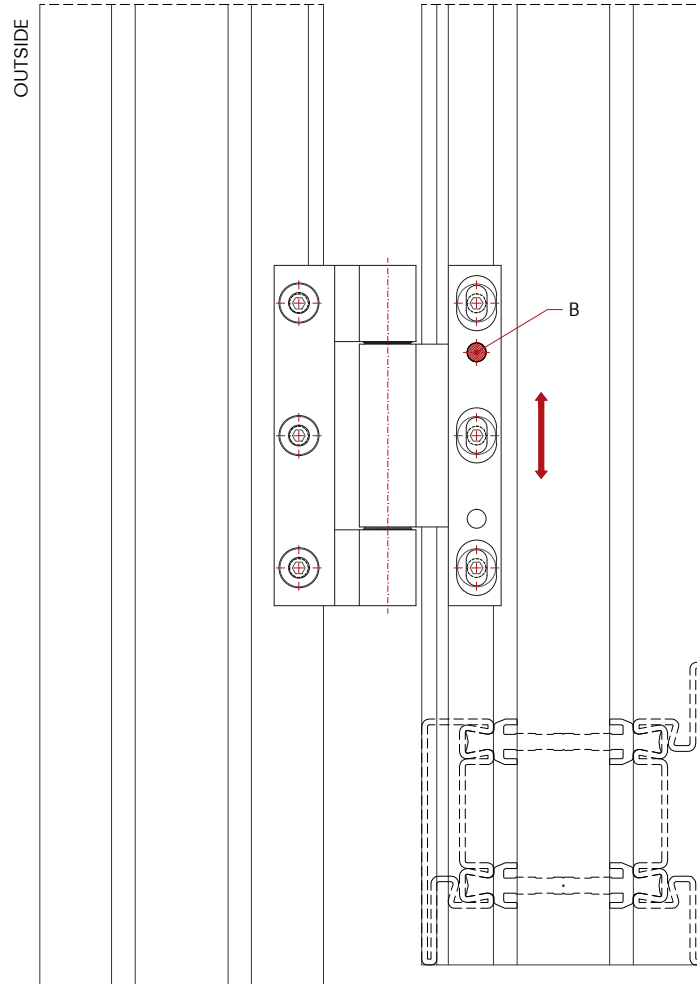


- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO10642 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO10642

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO10642





A) Additional shims for adjustment  $10\pm 0.5$   
 B)  $\varnothing 5$  mm hole and pin to stop up and down adjustment.

A) Spessori aggiuntivi per la regolazione  $10\pm 0.5$   
 B) Foro  $\varnothing 5$  mm e perno per fermare la regolazione verticale.

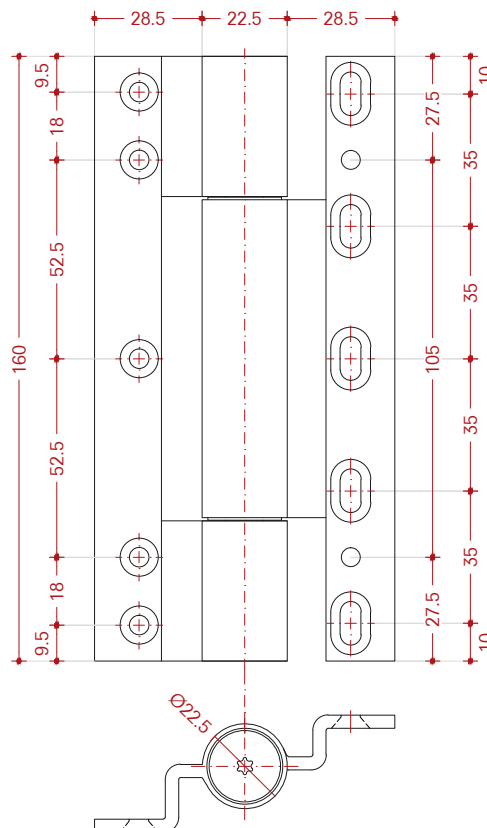
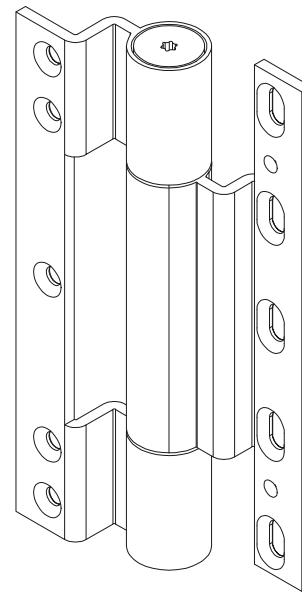
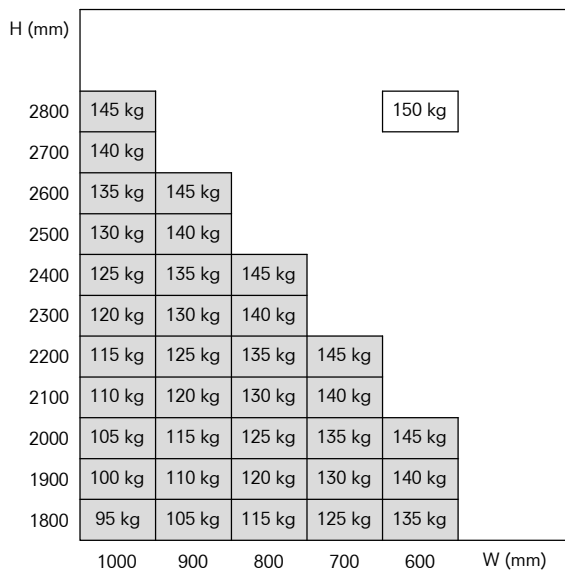
A) Espesores adicionales para ajuste  $10\pm 0.5$   
 B) Oreficio  $\varnothing 5$  mm y pasador para detener el ajuste vertical.

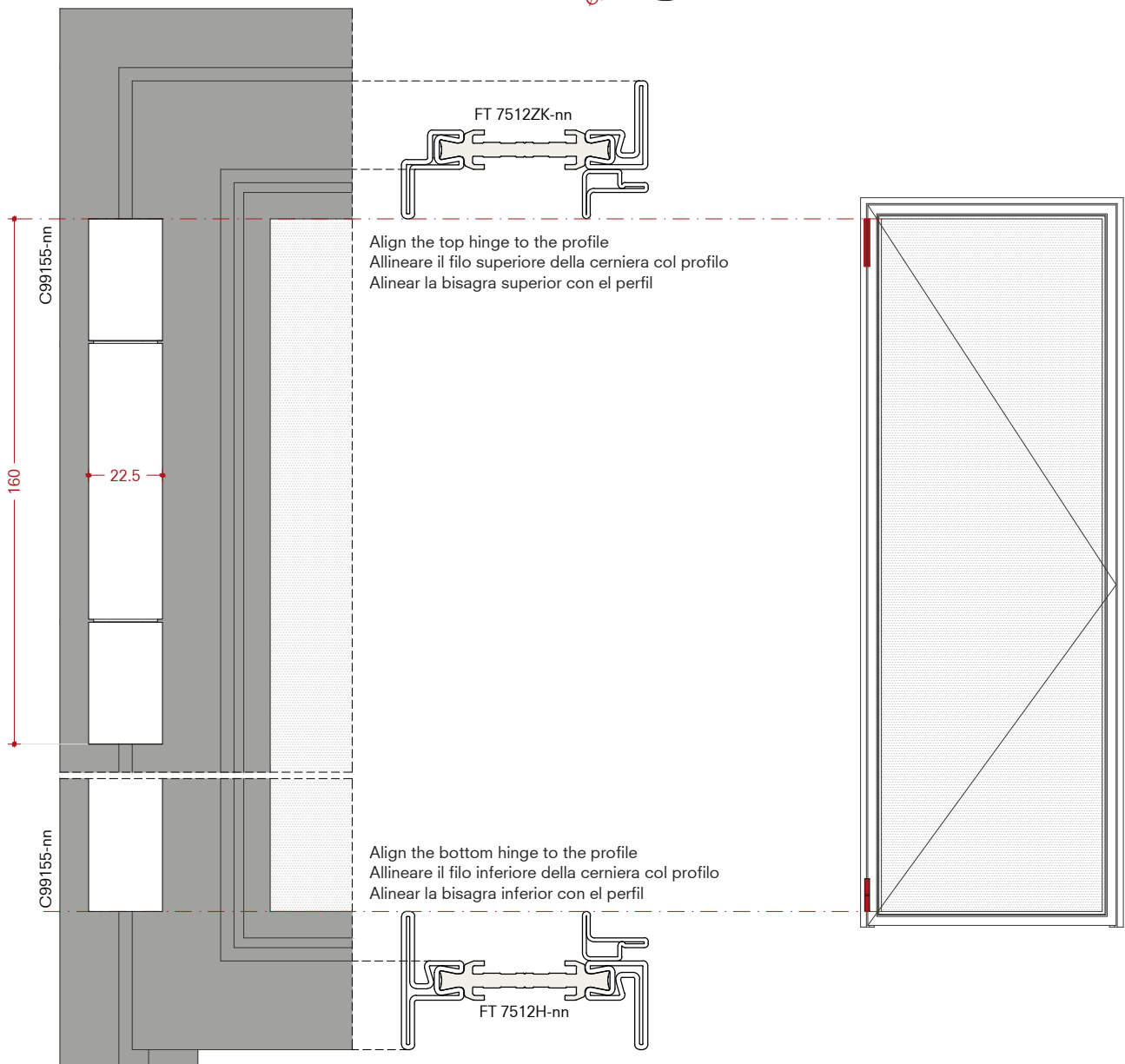
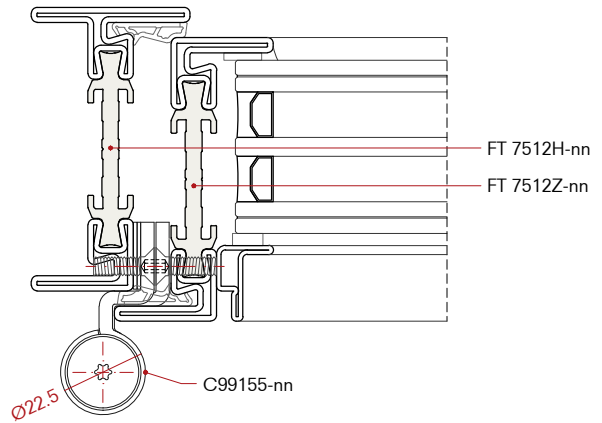
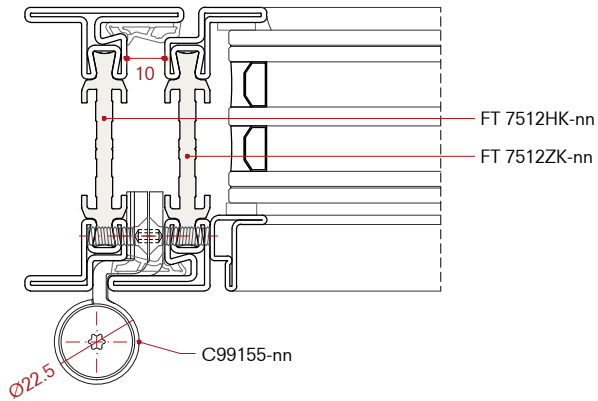
**Load capacity tables**  
 Screw-on hinges

**Tabella portate**  
 Cerniere ad avvitare

**Tablas de peso**  
 Bisagras atornillable

|                  | Material<br>Materiale<br>Material                                                                                                       | Diameter<br>Diámetro<br>Diámetro | Length<br>Lunghezza<br>Longitud | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par) |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------------------------------|
| <b>C99155-nn</b> | -02 Galvanized steel<br>-02 Acciaio zincato<br>-02 Acero galvanizado<br>-04 Stainless steel<br>-04 Acciaio inox<br>-04 Acero inoxidable | Ø = 22.5 mm                      | 160 mm                          | 150 kg                                                 |





**Installation**

Screw-on hinge C99155-nn  
 Flush profiles

Maximum leaf weight 150 kg

**Montaggio**

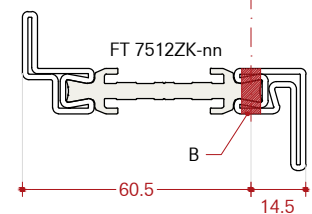
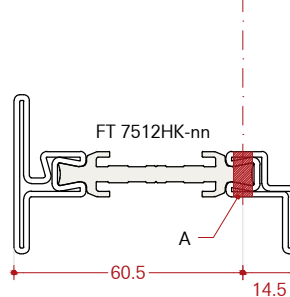
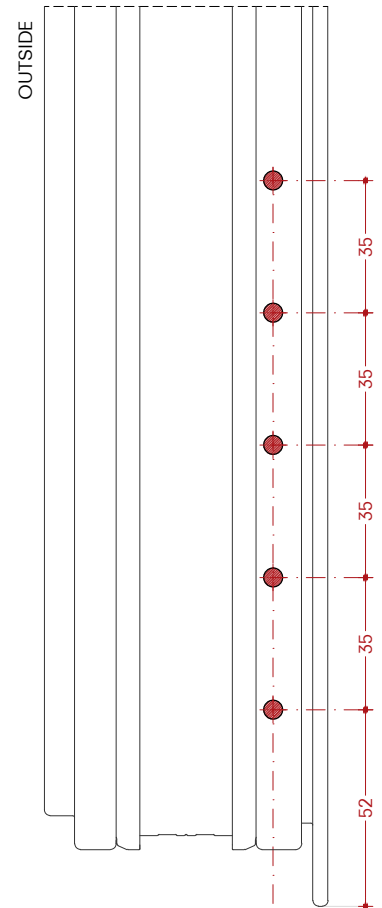
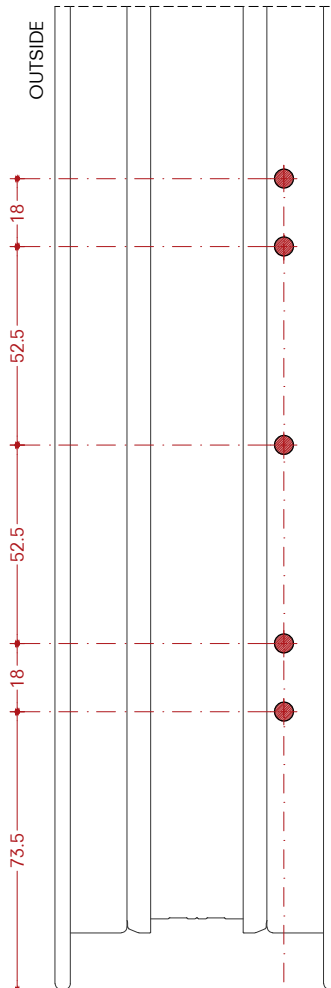
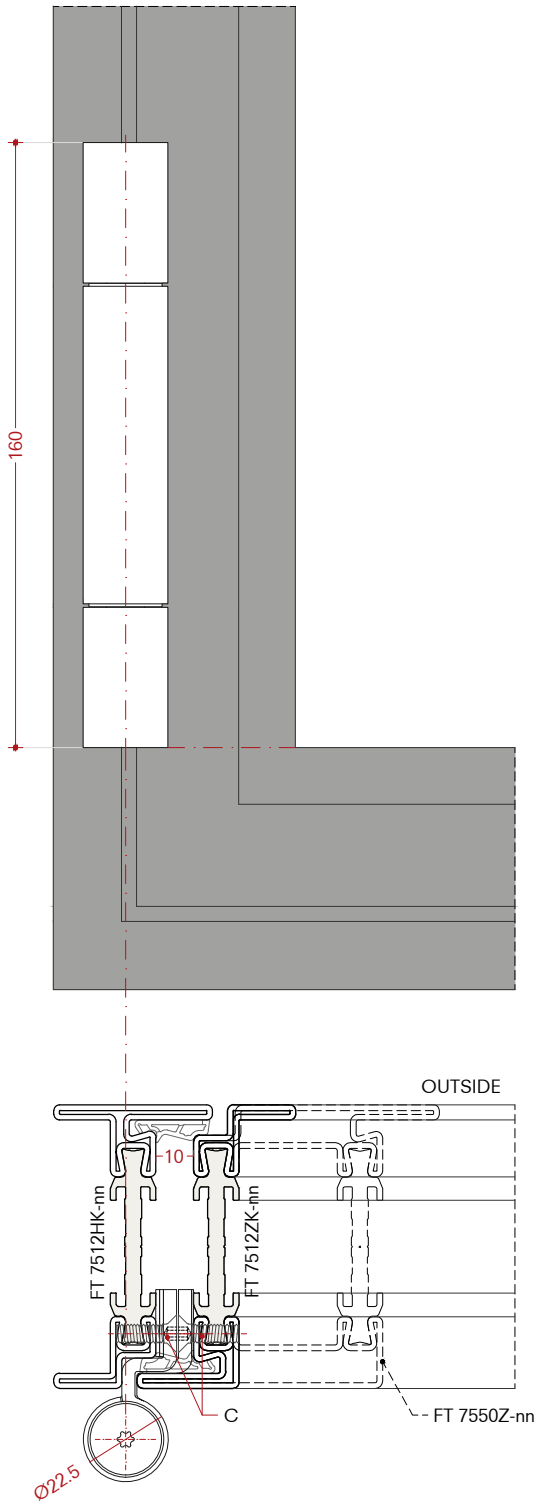
Cerniera ad avvitare C99155-nn  
 Profili complanari

Peso massimo anta 150 kg

**Montaje**

Bisagra atornillable C99155-nn  
 Perfiles coplanarios

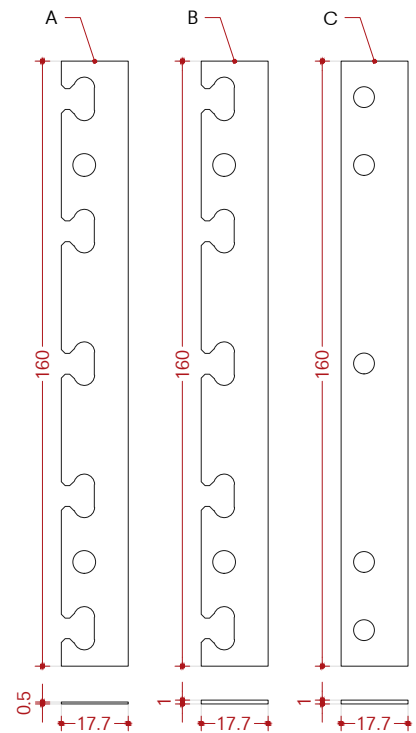
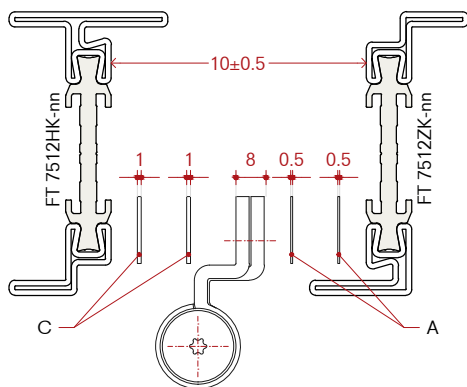
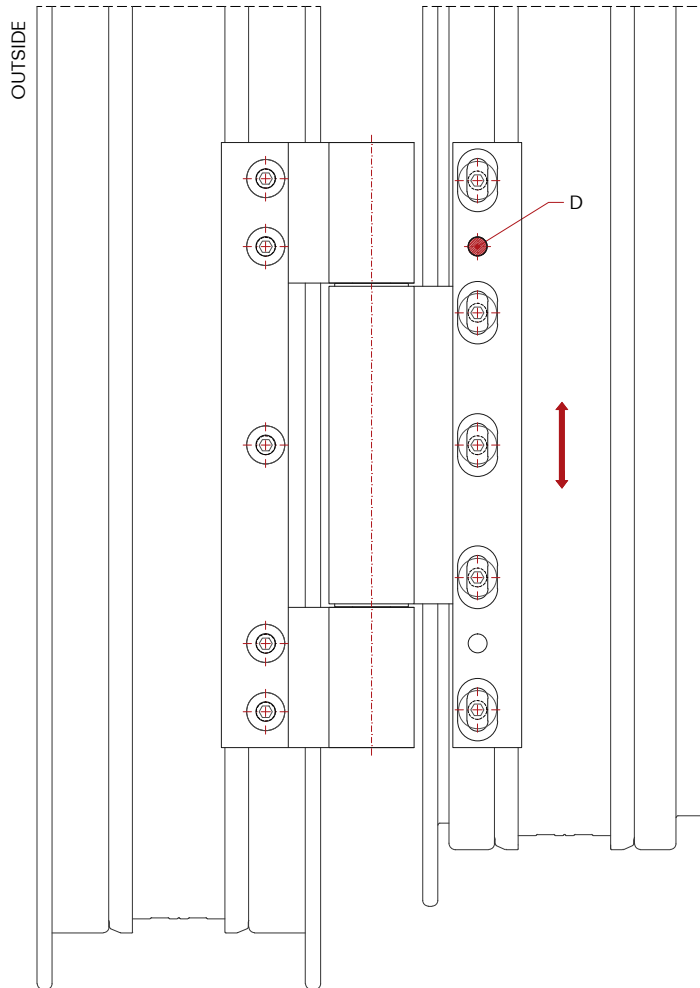
Peso máximo de la hoja 150 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO10642 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO10642

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO10642



- A) Additional shims for adjustment 10±0.5
- B) Additional shims for adjustment
- C) Additional shims for adjustment
- D) Ø5 mm hole and pin to stop up and down adjustment.

- A) Spessori aggiuntivi per la regolazione 10±0.5
- B) Spessori aggiuntivi per la regolazione
- C) Spessori aggiuntivi per la regolazione
- D) Foro Ø5 mm e perno per fermare la regolazione verticale.

- A) Espesores adicionales para ajuste 10±0.5
- B) Espesores adicionales para ajuste
- C) Espesores adicionales para ajuste
- D) Oreficio Ø5 mm y pasador para detener el ajuste vertical.

**Installation**

Screw-on hinge C99155-nn  
 Overlapped profiles

Maximum leaf weight 150 kg

**Montaggio**

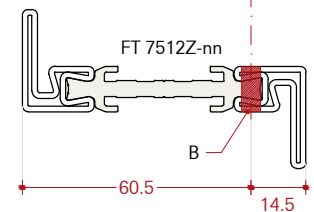
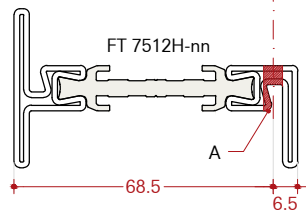
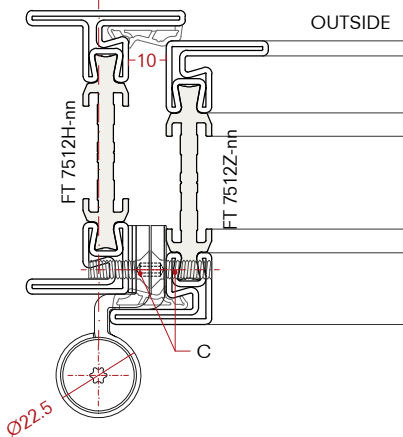
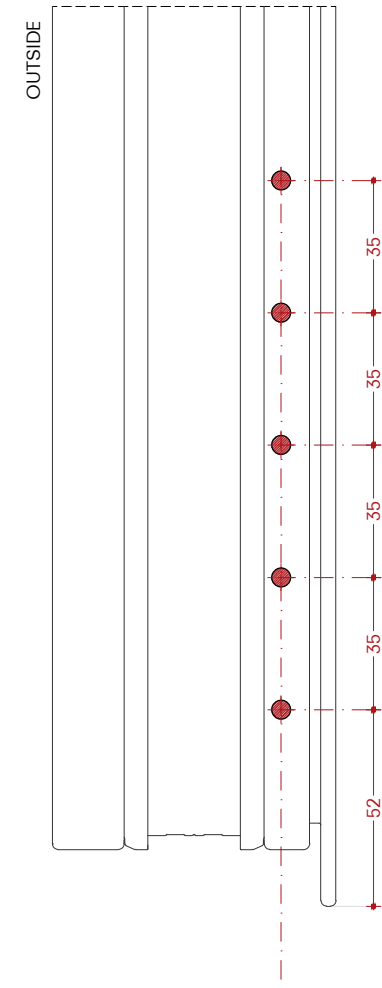
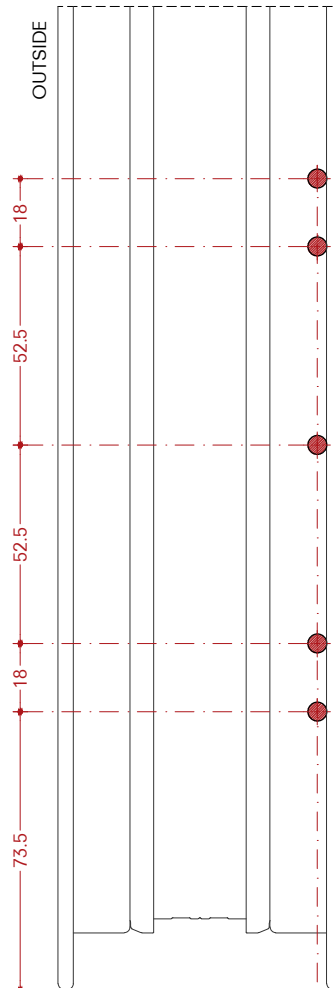
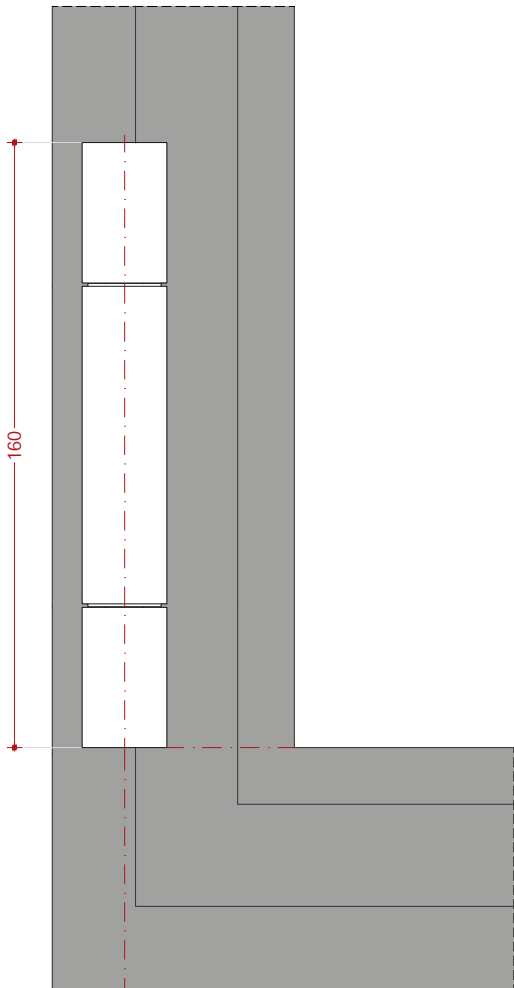
Cerniera ad avvitare C99155-nn  
 Profili a sormonto

Peso massimo anta 150 kg

**Montaje**

Bisagra atornillable C99155-nn  
 Perfiles superpuestos

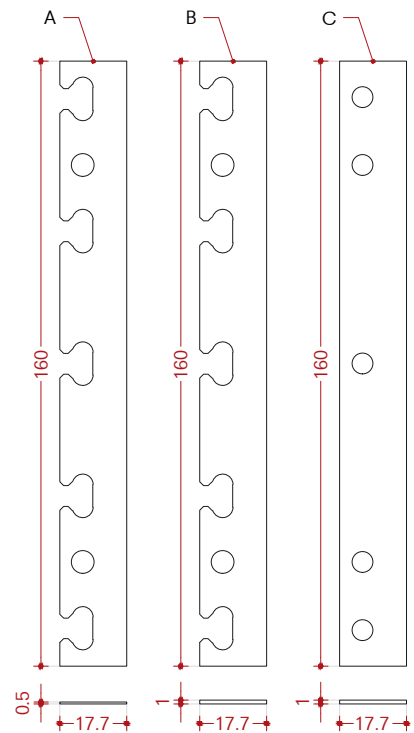
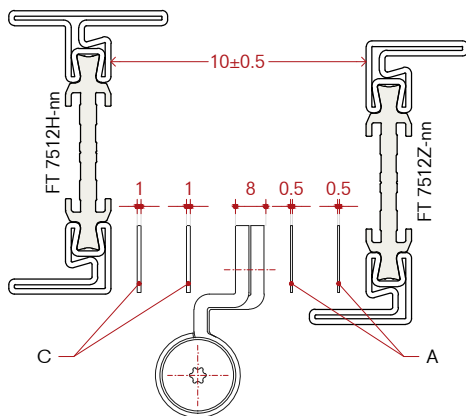
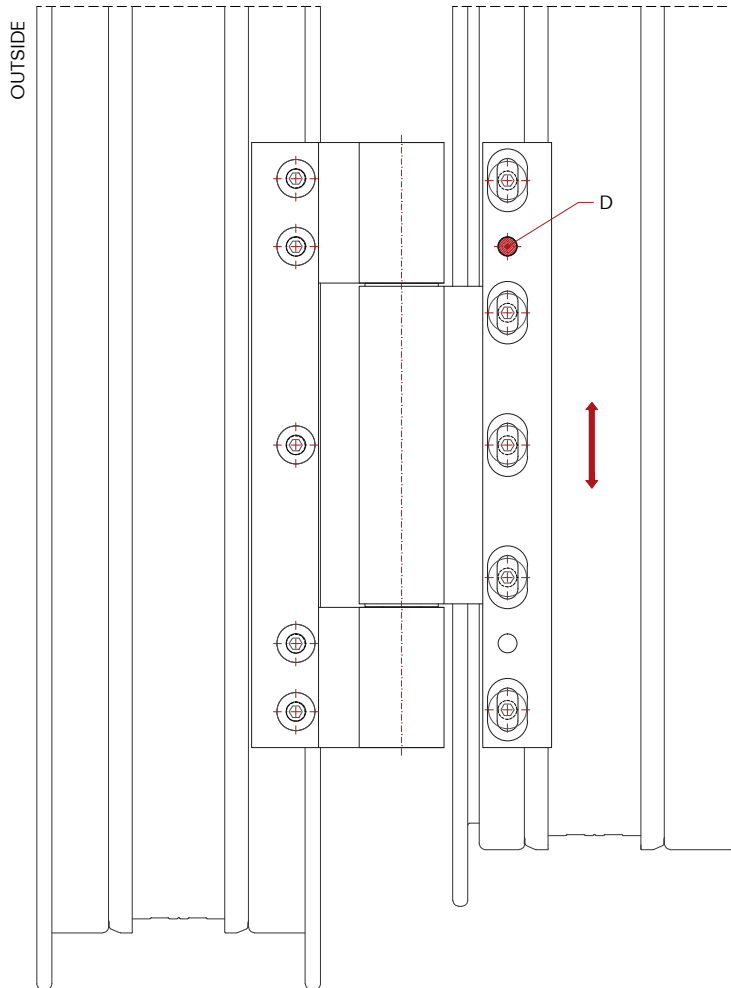
Peso máximo de la hoja 150 kg



- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO10642 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO10642

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO10642



- A) Additional shims for adjustment 10±0.5
- B) Additional shims for adjustment
- C) Additional shims for adjustment
- D) Ø5 mm hole and pin to stop up and down adjustment.

- A) Spessori aggiuntivi per la regolazione 10±0.5
- B) Spessori aggiuntivi per la regolazione
- C) Spessori aggiuntivi per la regolazione
- D) Foro Ø5 mm e perno per fermare la regolazione verticale.

- A) Espesores adicionales para ajuste 10±0.5
- B) Espesores adicionales para ajuste
- C) Espesores adicionales para ajuste
- D) Oreficio Ø5 mm y pasador para detener el ajuste vertical.

**Installation**

Screw-on hinge C99155-nn  
 D75 TB door profiles

Maximum leaf weight 150 kg

**Montaggio**

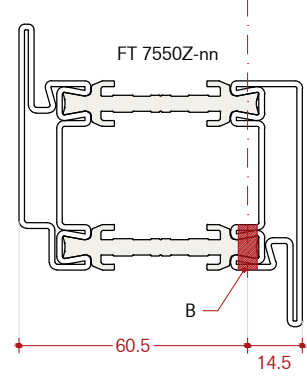
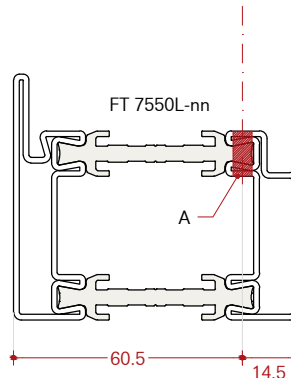
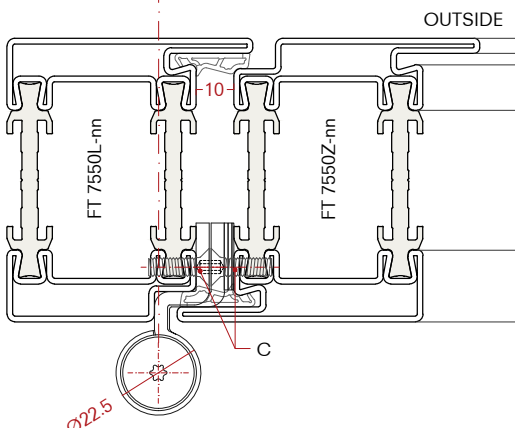
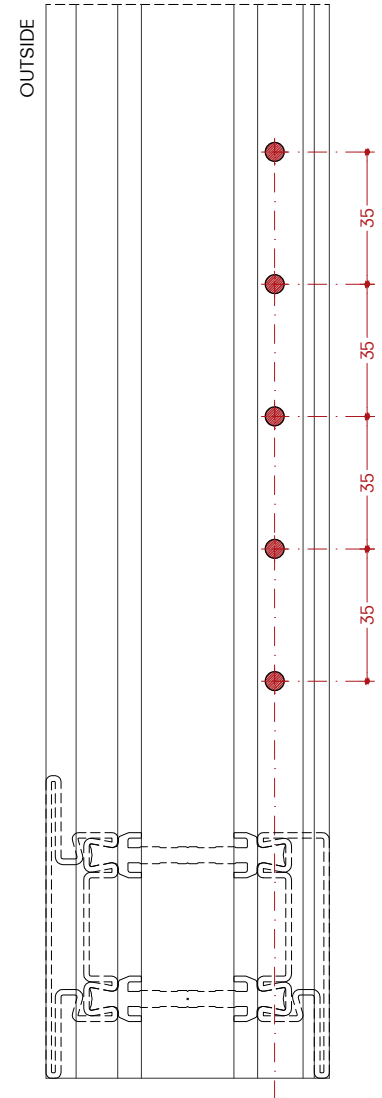
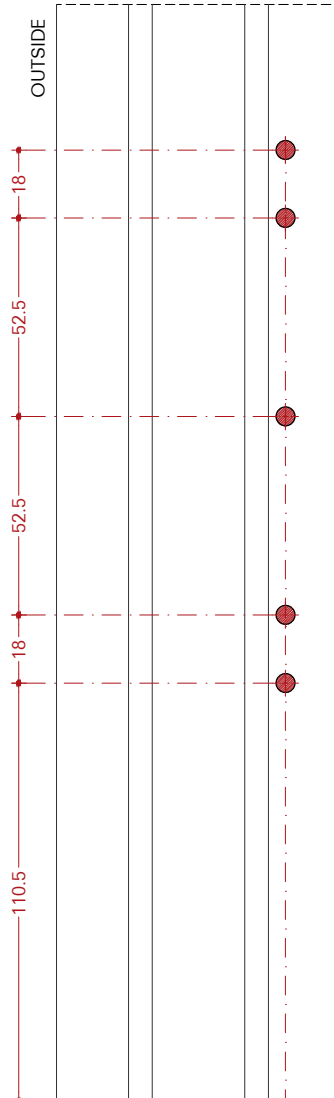
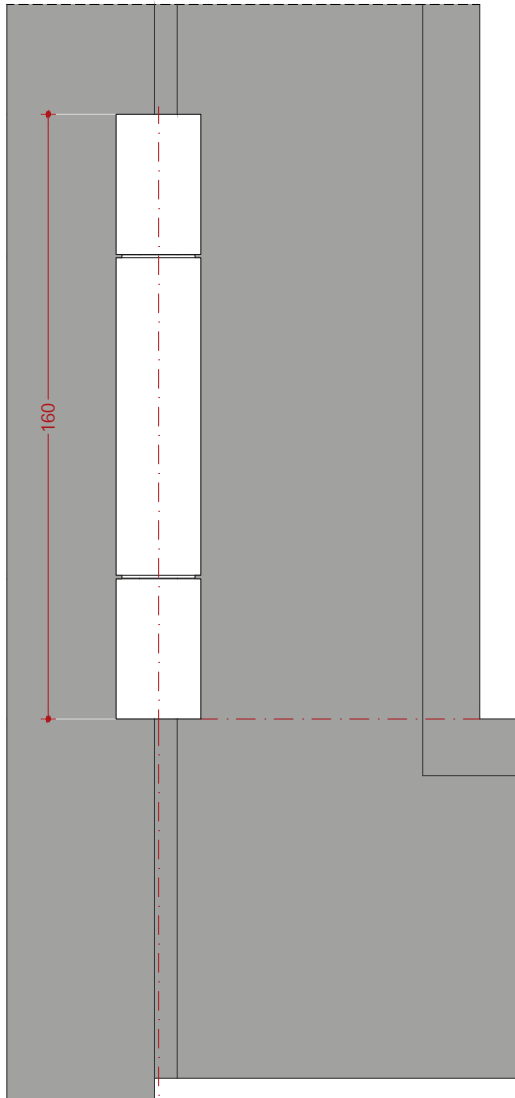
Cerniera ad avvitare C99155-nn  
 D75 TB profili porta

Peso massimo anta 150 kg

**Montaje**

Bisagra atornillable C99155-nn  
 D75 TB perfiles puerta

Peso máximo de la hoja 150 kg

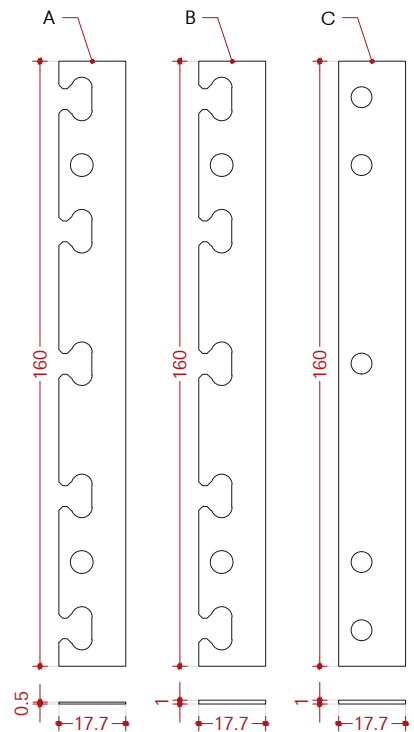
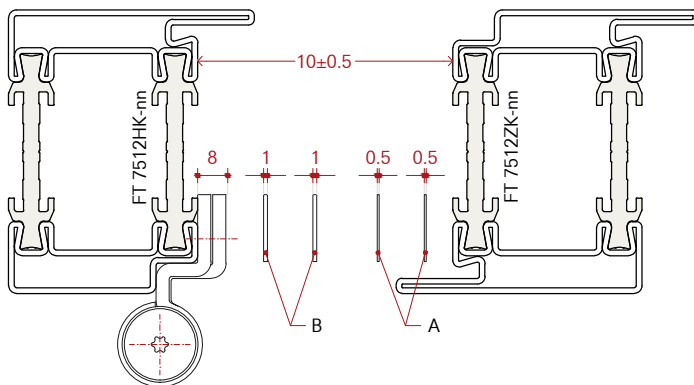
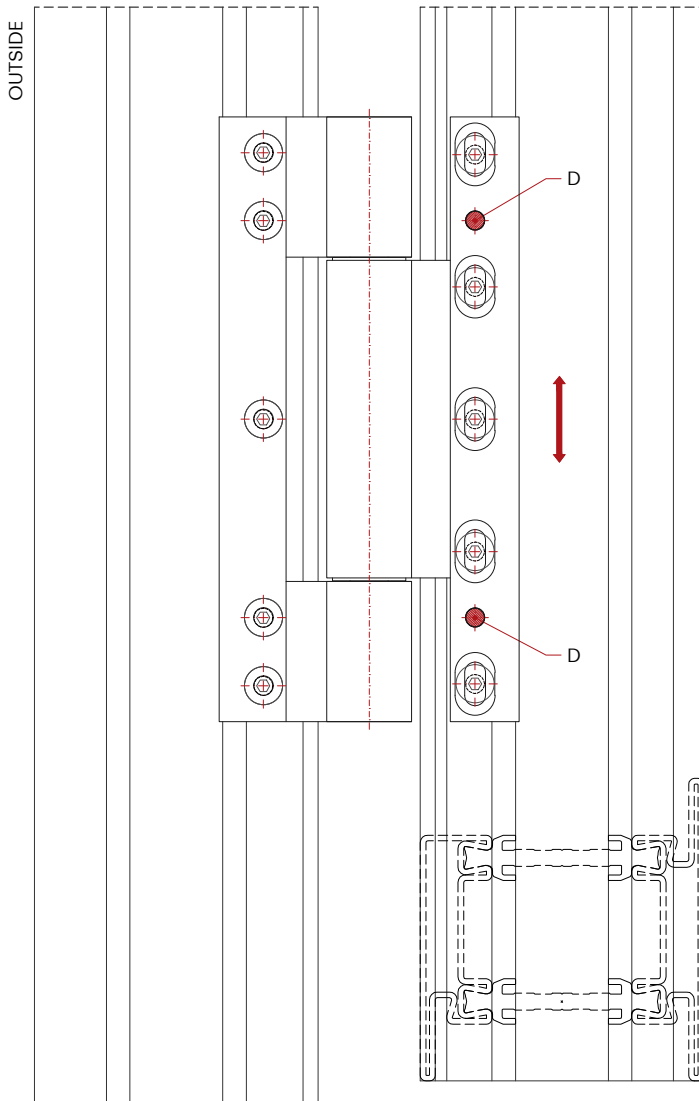


- A) M5 holes on frame profile
- B) M5 holes on leaf profile
- C) Fastening hinge with M5x16 ISO10642 screws

- A) Fori M5 sul profilo telaio
- B) Fori M5 sul profilo anta
- C) Fissaggio cerniera con viti M5x16 ISO10642

- A) Orificios M5 en perfil de marco
- B) Orificios M5 en perfil de hoja
- C) Fijación bisagra con tornillos M5x16 ISO10642





- A) Additional shims for adjustment 10±0.5
- B) Additional shims for adjustment
- C) Additional shims for adjustment
- D) Ø5 mm hole and pin to stop up and down adjustment.

- A) Spessori aggiuntivi per la regolazione 10±0.5
- B) Spessori aggiuntivi per la regolazione
- C) Spessori aggiuntivi per la regolazione
- D) Foro Ø5 mm e perno per fermare la regolazione verticale.

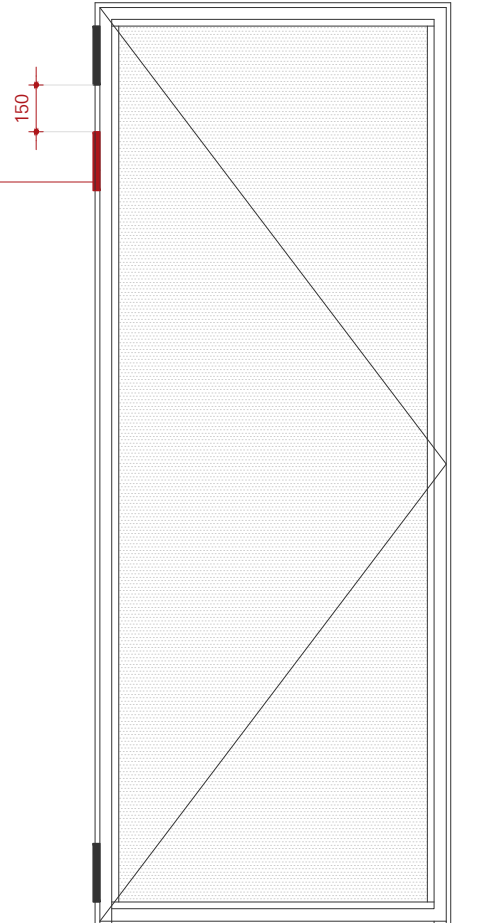
- A) Espesores adicionales para ajuste 10±0.5
- B) Espesores adicionales para ajuste
- C) Espesores adicionales para ajuste
- D) Oreficio Ø5 mm y pasador para detener el ajuste vertical.

**Rules for third hinge**

**Regole per la terza cerniera**

**Normas para tercera bisagra**

Third hinge at 150 mm  
 Terza cerniera a 150 mm  
 La tercera bisagra a 150 mm



The third hinge increases the load-bearing capacity by 15%

La terza cerniera aumenta la capacità di carico del 15%

La 3ª bisagra aumenta la capacidad de carga hasta un 15%

Use the third hinge if:  
 Terza cerniera consigliata in caso di:  
 Usar 3ª bisagra en los siguientes casos:

**A**

Doors equipped with overhead door closer  
 Porte dotate di chiudiporta superiore  
 Puertas equipadas con cierre en parte superior

**B**

Doors with panic bar (EN1125)  
 Porte con maniglione antipanico (EN1125)  
 Puertas con barra anti pánico (EN1125)

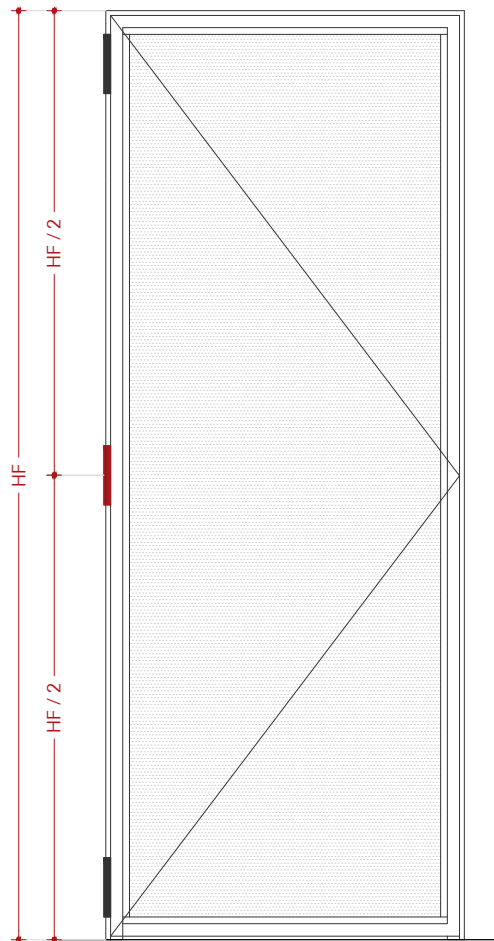
**C**

Doors for intensive uses (schools, hospitals, ...)  
 Porte ad uso intensivo (scuole, ospedali, ecc.)  
 Puertas de uso intensivo (colegios, hospitales, etc.)

**Rules for middle hinge**

**Regole per la cerniera centrale**

**Normas para la bisagra central**



Middle hinge needed if:  
 Cerniera centrale necessaria se:  
 Bisagra media necesaria si:

---

Doors height is more than 2250 mm

---

Porte di altezza superiore a 2250 mm

---

La altura de la puerta es superior a 2250 mm

---

**Note for all hinges:**

Please ensure that it is possible to unhinge the door leaf after installation. This should be taken into account during the planning.

HF = Height Frame

**Nota per tutte le cerniere:**

Assicurarsi che sia possibile togliere l'anta dopo l'installazione. Questo dovrebbe essere preso in considerazione durante la progettazione.

HF = Altezza telaio

**Nota para todas las bisagras:**

Asegúrese de que sea posible desenganchar la puerta después de la instalación. Esto debe tenerse en cuenta durante la planificación.

HF = Altura marco

**Installation**

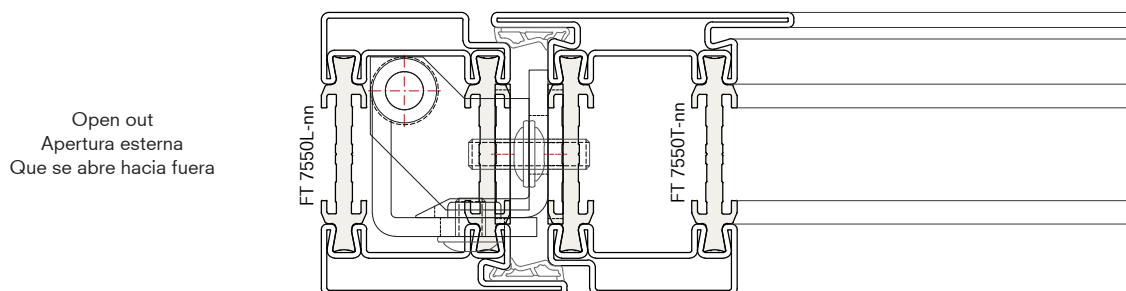
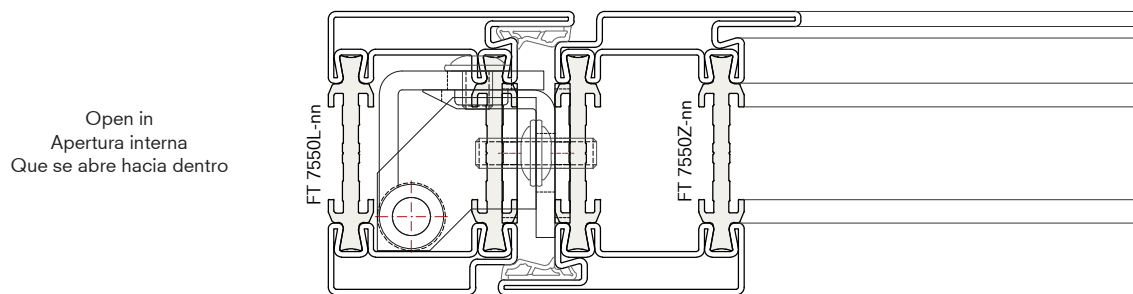
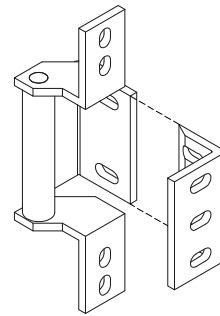
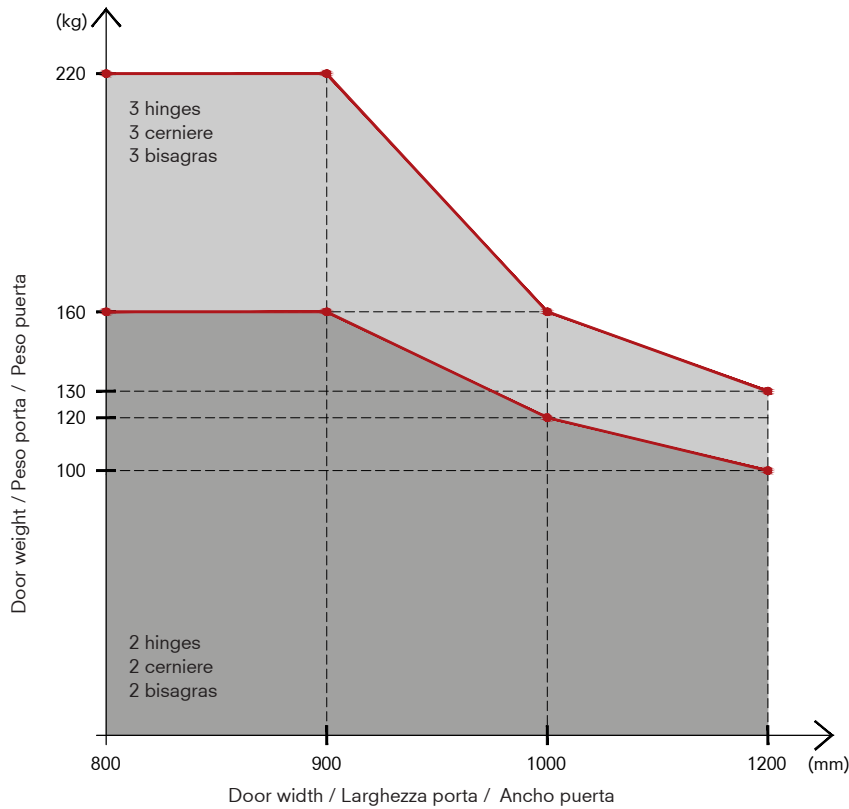
Screw-on hidden hinge C99403-46  
 Flush profiles

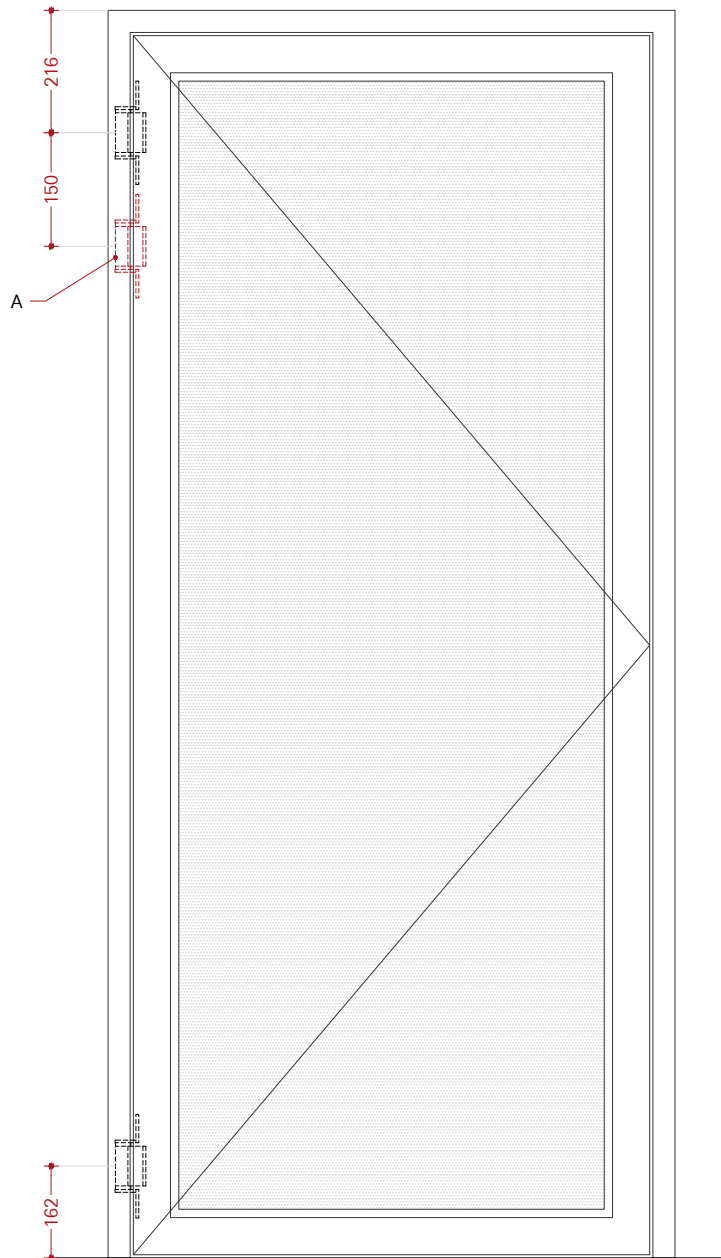
**Montaggio**

Cerniera ad avvitare  
 a scomparsa C99403-46  
 Profili complanari

**Montaje**

Bisagra atornillable oculto C99403-46  
 Perfiles coplanarios





A) Additional hinge. For the alignment foresee fixing system (not provided by OTTOSTUMM | Mogs).

A) Cerniera aggiuntiva. Per l'allineamento prevedere rostro (non fornito da OTTOSTUMM | Mogs).

A) Bisagra adicional. Para la alineación prever sistema de fijación (no provisto por OTTOSTUMM | Mogs).

**Installation**

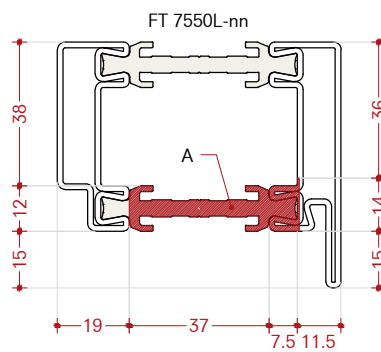
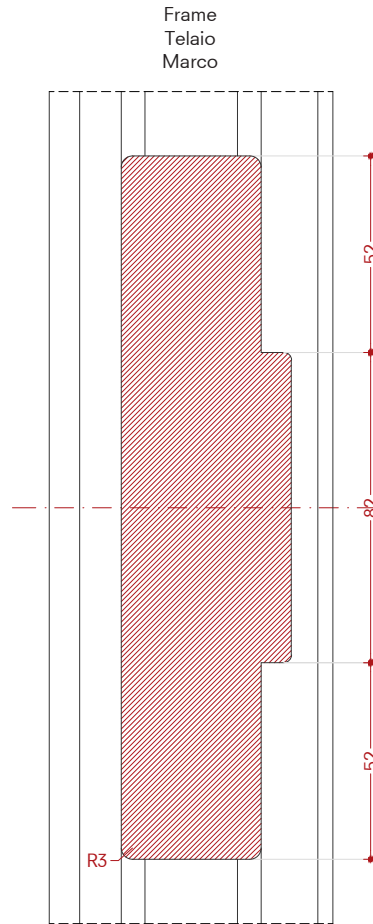
Screw-on hidden hinge C99403-46  
 Flush profiles

**Montaggio**

Cerniera ad avvitare  
 a scomparsa C99403-46  
 Profili complanari

**Montaje**

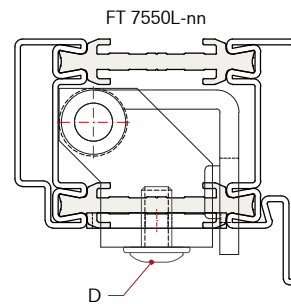
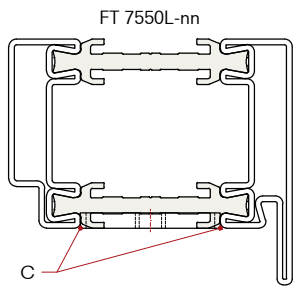
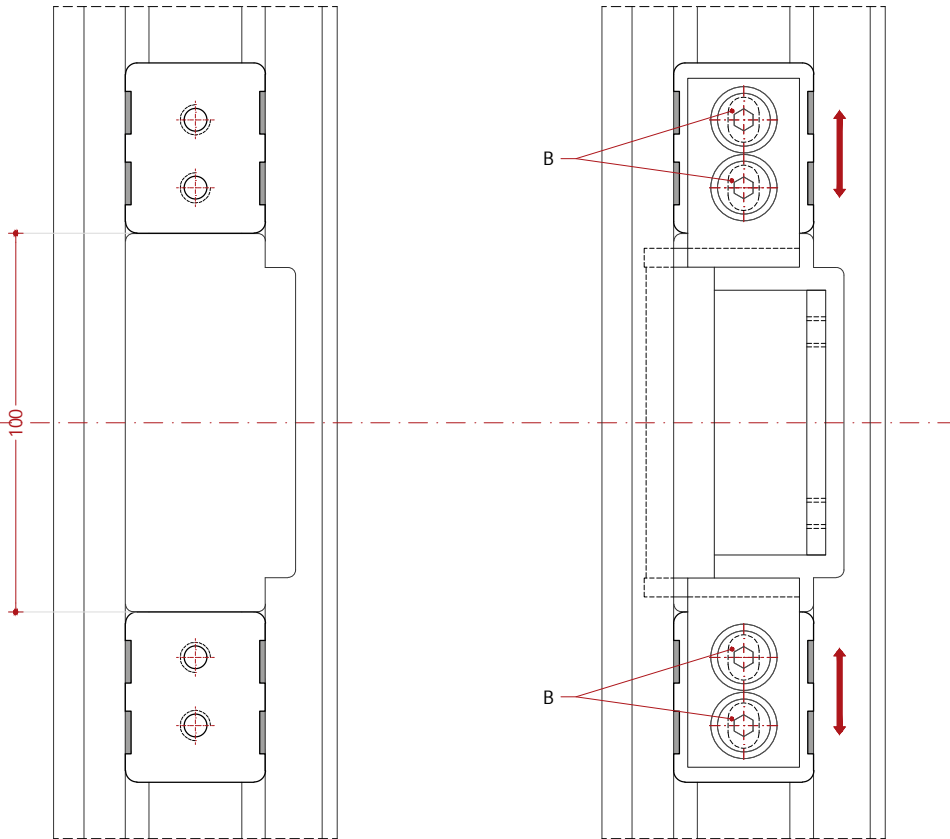
Bisagra atornillable oculto C99403-46  
 Perfiles coplanarios



A) Cut out

A) Fresata

A) Fresado



B) Slotted holes for up and down adjustment  
 C) Welding  
 D) Fix the hinge to the frame using his M8 screws

B) Fori asolati per la regolazione verticale  
 C) Saldatura  
 D) Fissare la cerniera al telaio usando le appropriate viti M8 del kit

B) Oreficios ranurados para ajuste vertical  
 C) Soldadura  
 D) Fije la bisagra al marco utilizando los tornillos M8 del kit

**Installation**

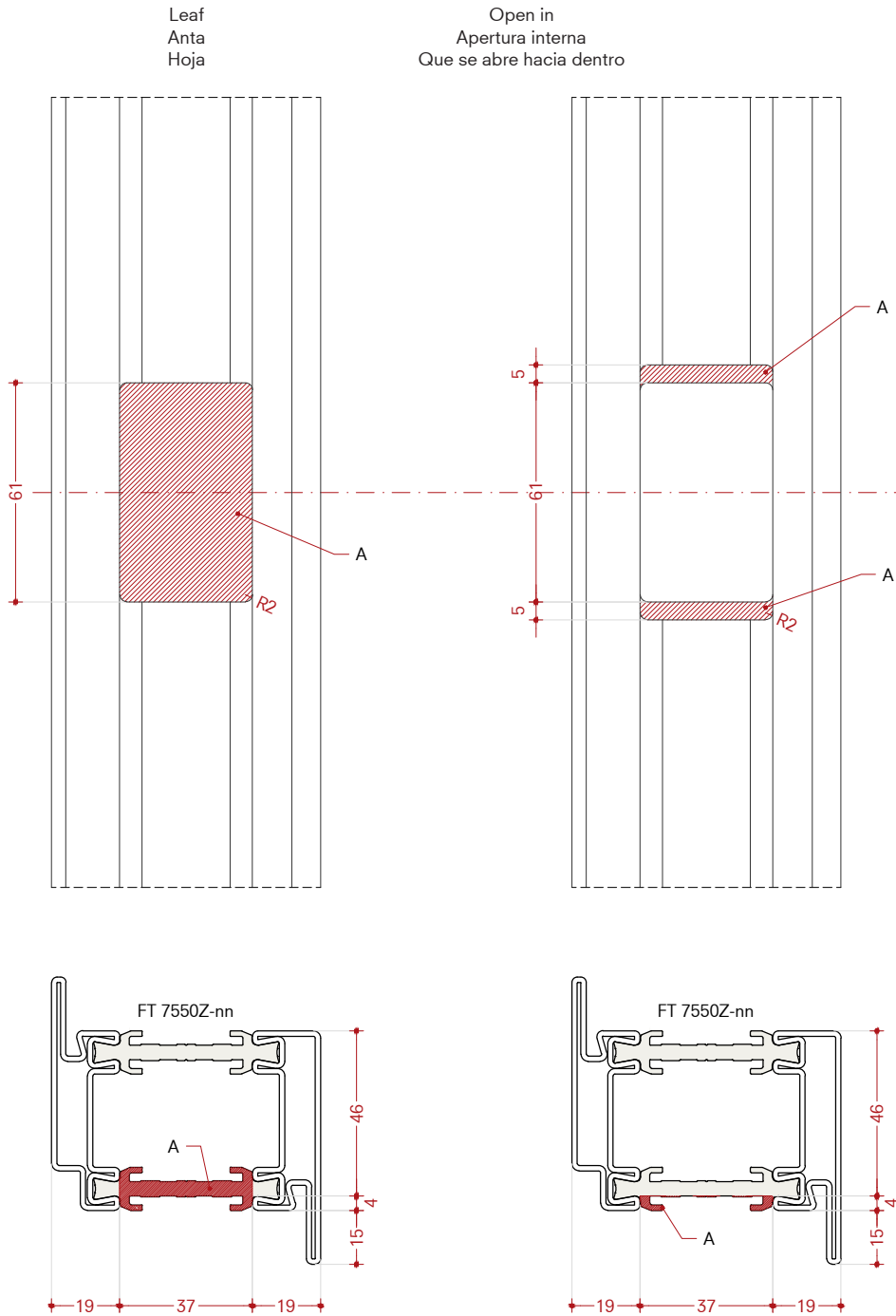
Screw-on hidden hinge C99403-46  
 Flush profiles

**Montaggio**

Cerniera ad avvitare  
 a scomparsa C99403-46  
 Profili complanari

**Montaje**

Bisagra atornillable oculto C99403-46  
 Perfiles coplanarios

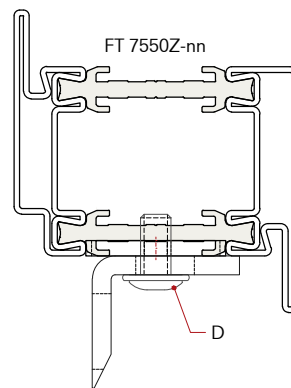
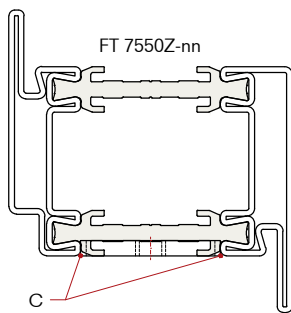
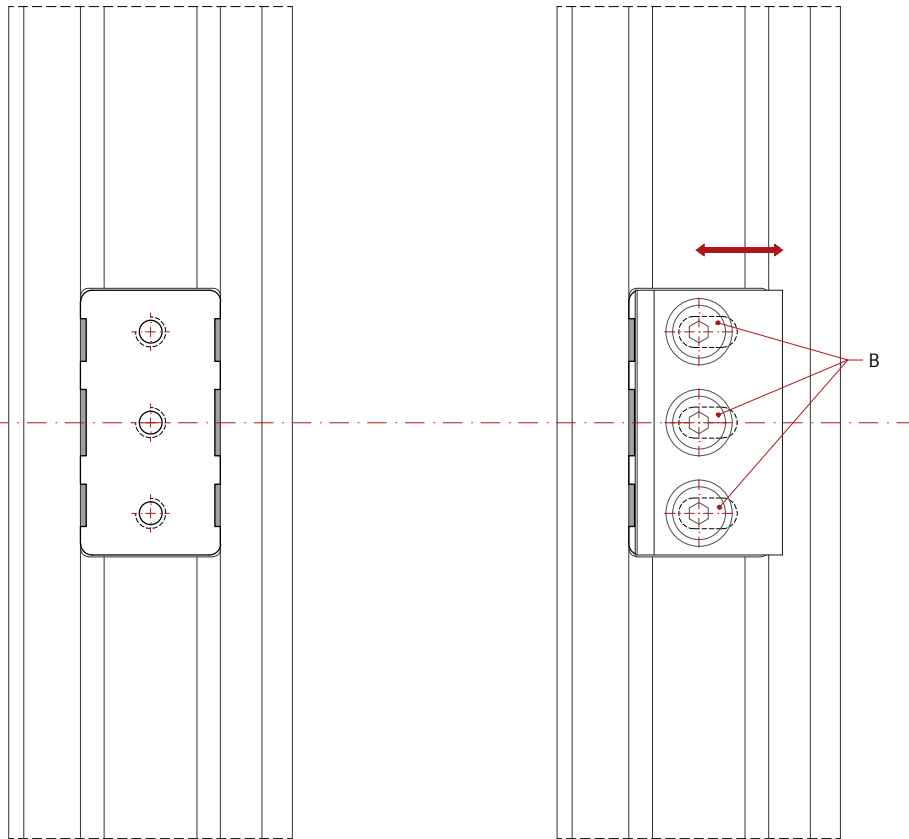


A) Cut out

A) Fresata

A) Fresado





B) Slotted holes for up and down adjustment  
 C) Welding  
 D) Fix the hinge to the frame using his M8 screws

B) Fori asolati per la regolazione verticale  
 C) Saldatura  
 D) Fissare la cerniera al telaio usando le appropriate viti M8 del kit

B) Oreficios ranurados para ajuste vertical  
 C) Soldadura  
 D) Fije la bisagra al marco utilizando los tornillos M8 del kit

**Installation**

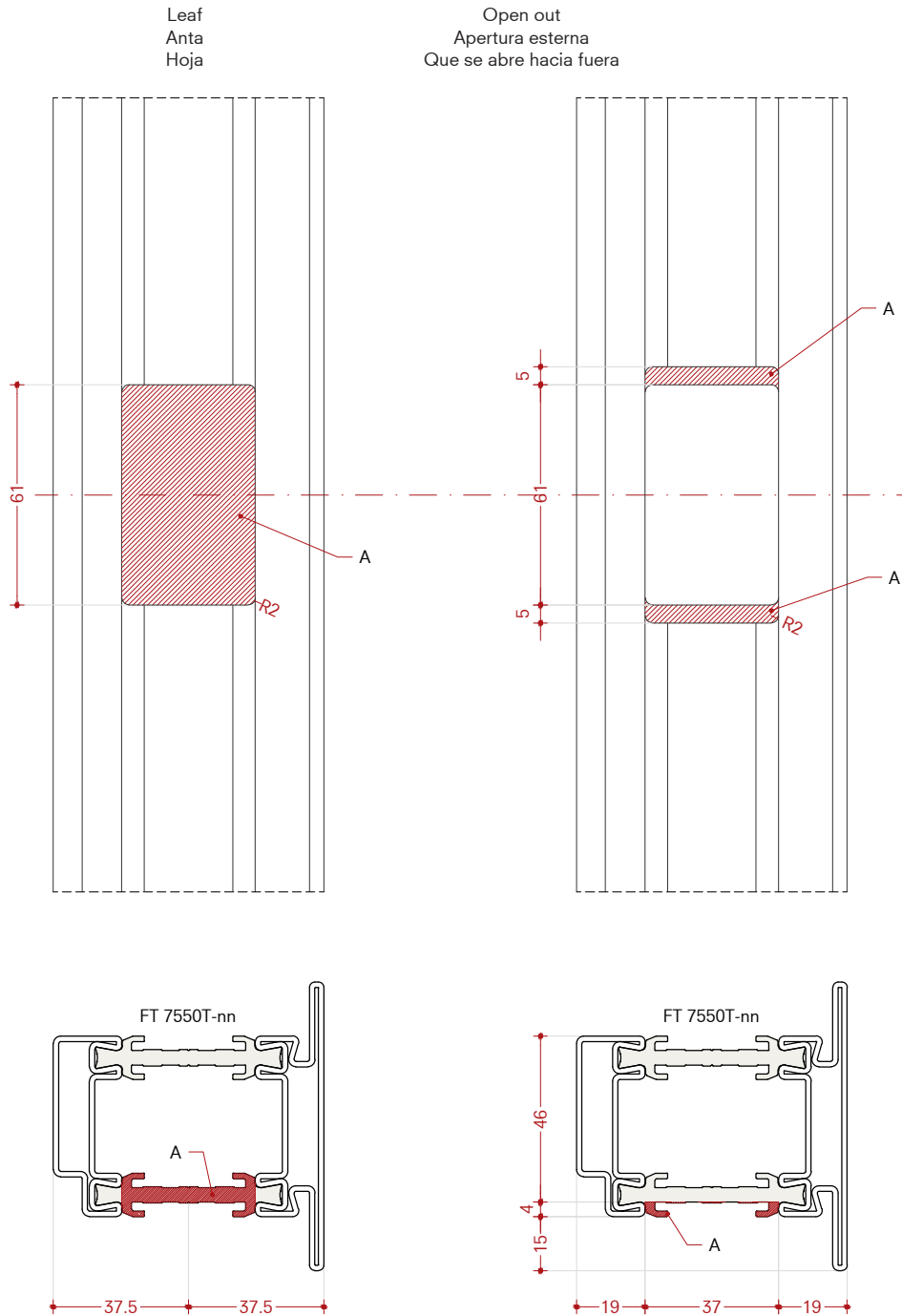
Screw-on hidden hinge C99403-46  
 Flush profiles

**Montaggio**

Cerniera ad avvitare  
 a scomparsa C99403-46  
 Profili complanari

**Montaje**

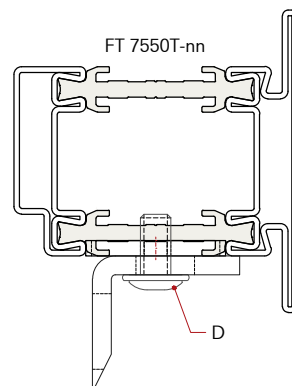
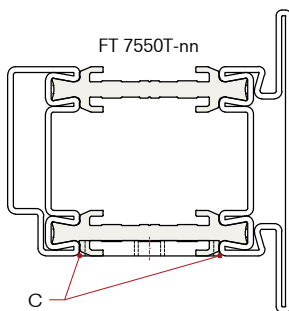
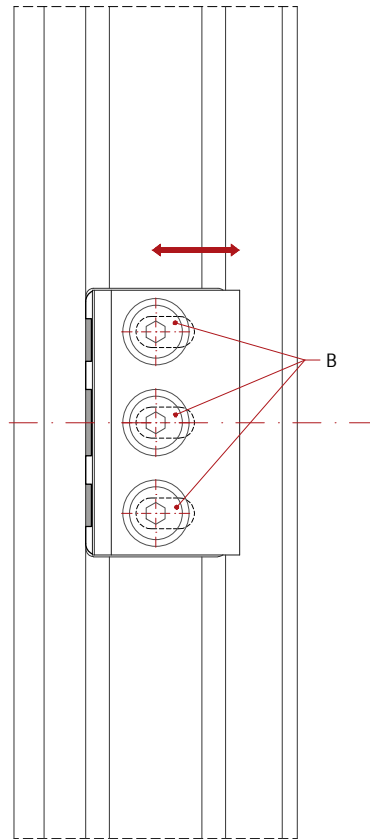
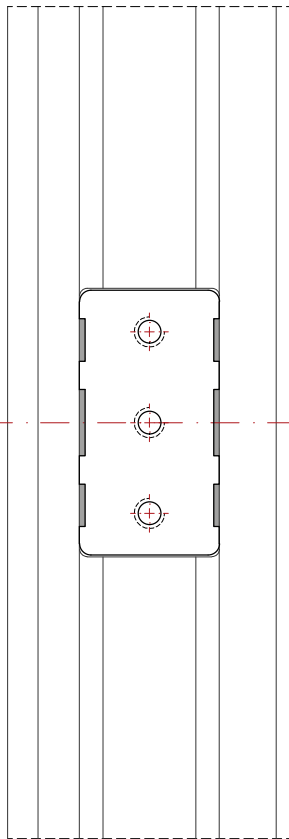
Bisagra atornillable oculto C99403-46  
 Perfiles coplanarios



A) Cut out

A) Fresata

A) Fresado



B) Slotted holes for up and down adjustment  
 C) Welding  
 D) Fix the hinge to the frame using his M8 screws

B) Fori asolati per la regolazione verticale  
 C) Saldatura  
 D) Fissare la cerniera al telaio usando le appropriate viti M8 del kit

B) Oreficios ranurados para ajuste vertical  
 C) Soldadura  
 D) Fije la bisagra al marco utilizando los tornillos M8 del kit

**Installation**

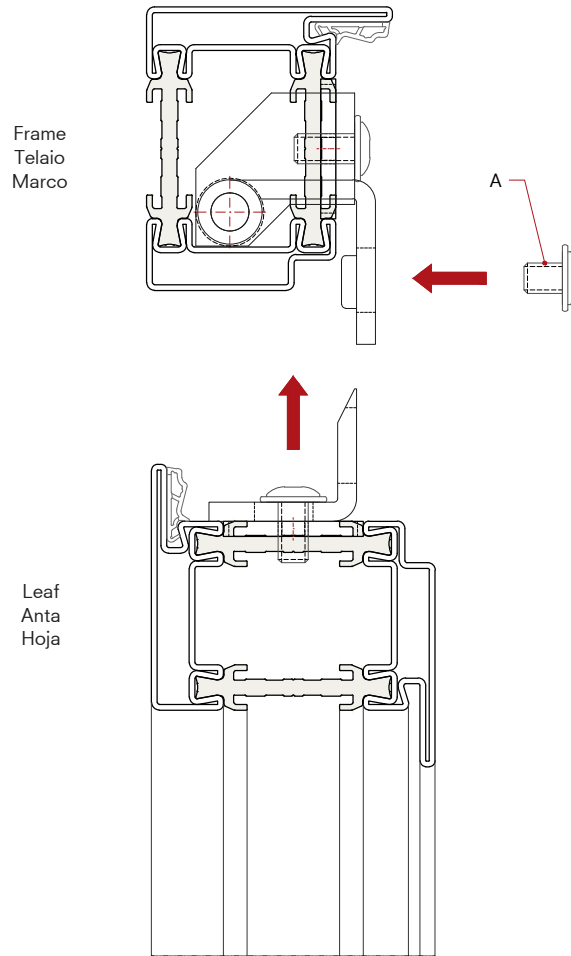
Screw-on hidden hinge C99403-46  
 Flush profiles

**Montaggio**

Cerniera ad avvitare  
 a scomparsa C99403-46  
 Profili complanari

**Montaje**

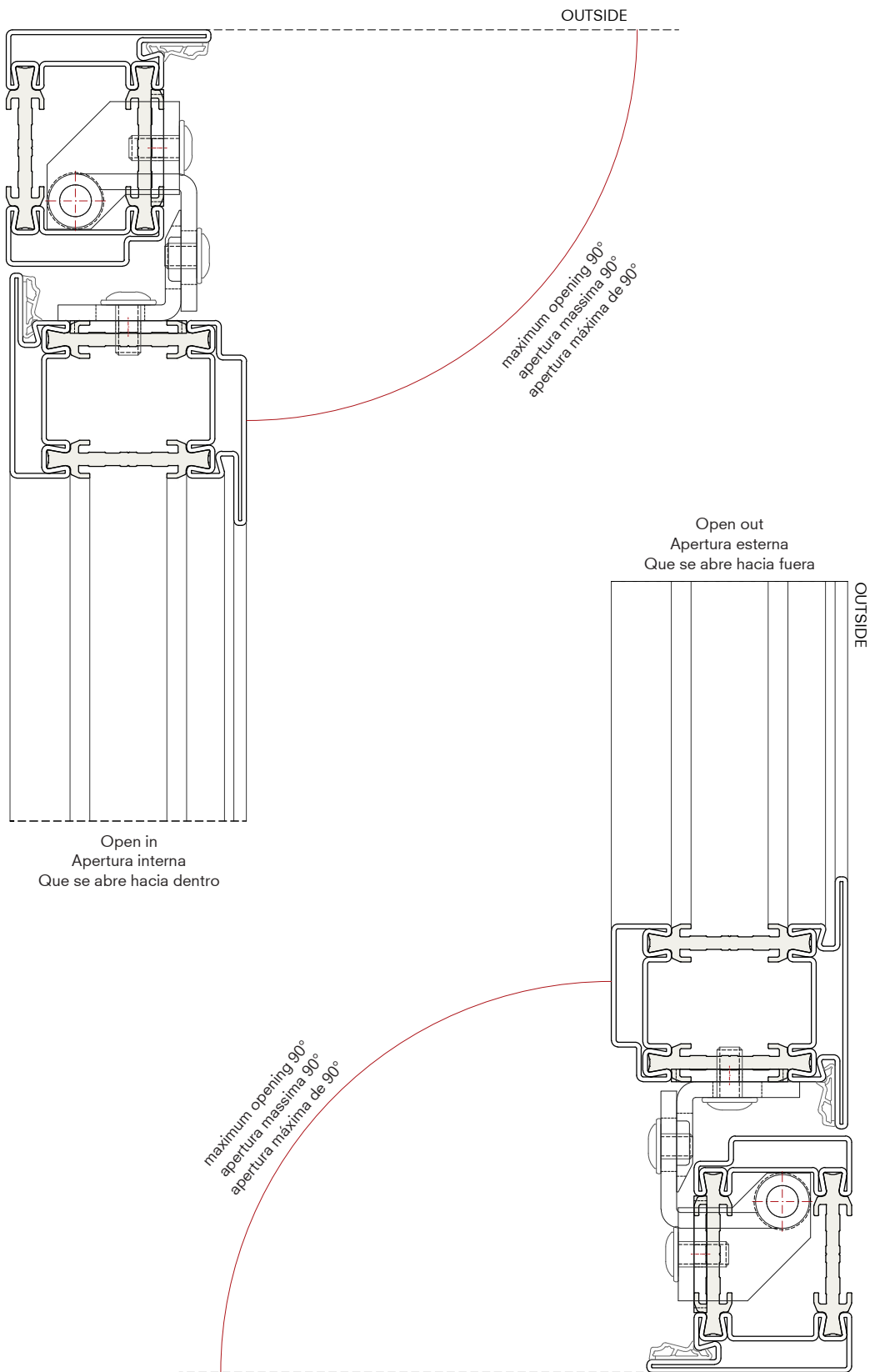
Bisagra atornillable oculto C99403-46  
 Perfiles coplanarios



A) Fix the hinge to the frame using his M8 screws

A) Fissare la cerniera al telaio usando le appropriate viti M8 del kit

A) Fije la bisagra al marco utilizando los tornillos M8 del kit



**Note:**

To avoid causing damages, we recommend using a door stop at 90° opening.

**Nota:**

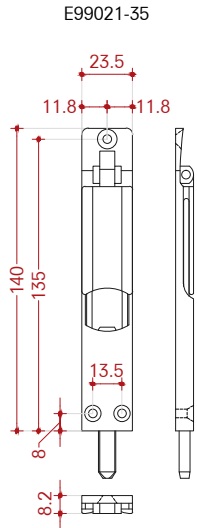
Per evitare danni, si consiglia di utilizzare un fermo porta con apertura a 90°.

**Nota:**

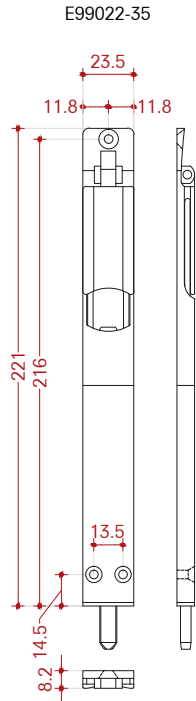
Para evitar causar daños, recomendamos utilizar un tope de puerta a 90° de apertura.



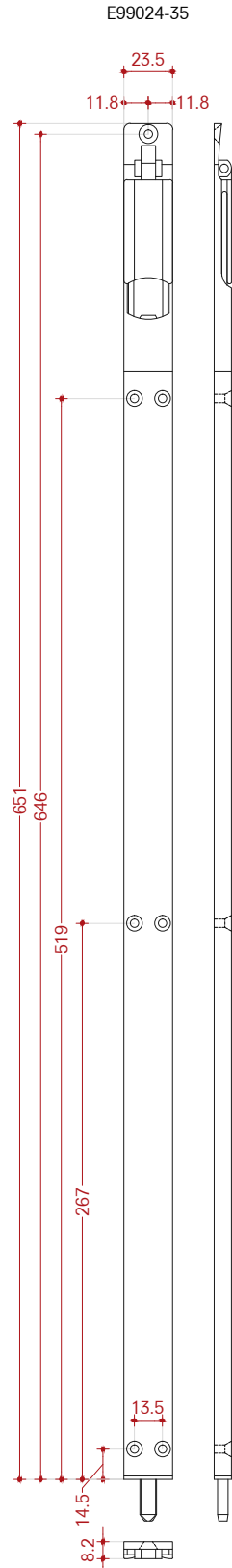
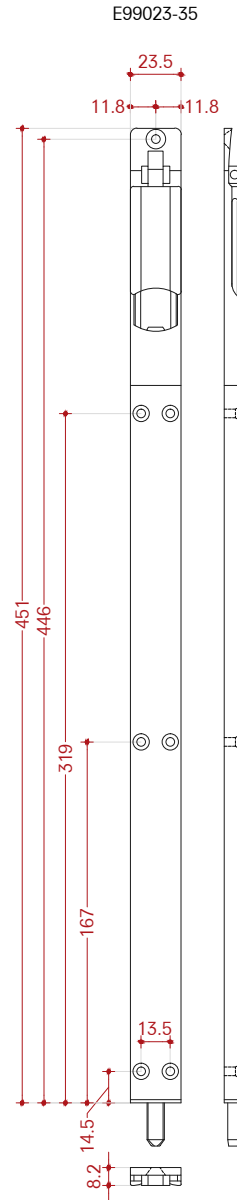
**Flush bolt with lever**  
 For doors



**Catenaccio con leva**  
 Per porte



**Pasador de canto con palanca**  
 Para puertas



**Installation**

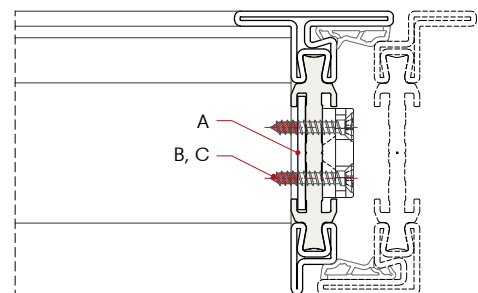
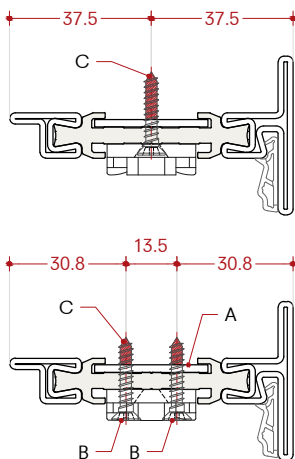
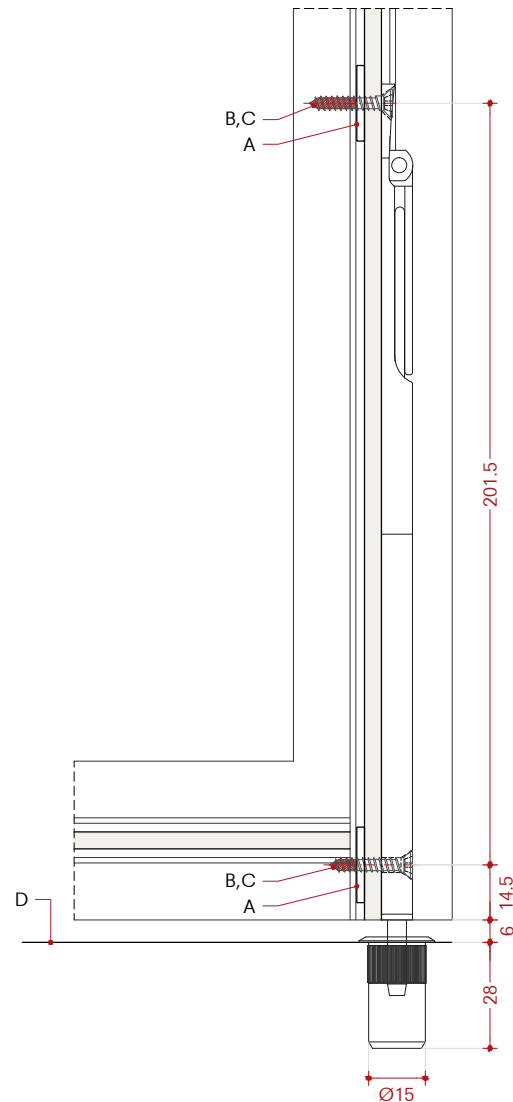
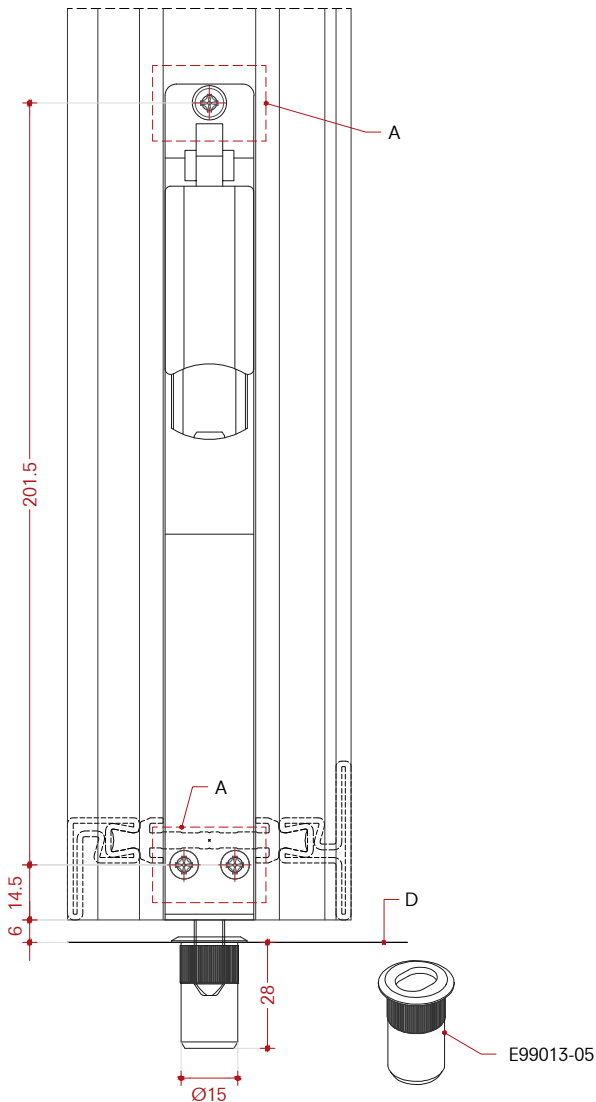
Flush bolt with lever E99022-35  
 For doors with single latch lock

**Montaggio**

Catenaccio con leva E99022-35  
 Per porte con serratura  
 singola a scrocco

**Montaje**

Pasador de canto con palanca  
 E99022-35  
 Para puertas con cerradura simple pestillo

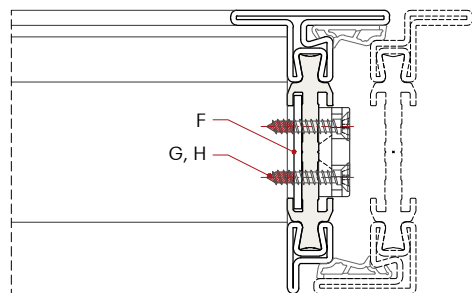
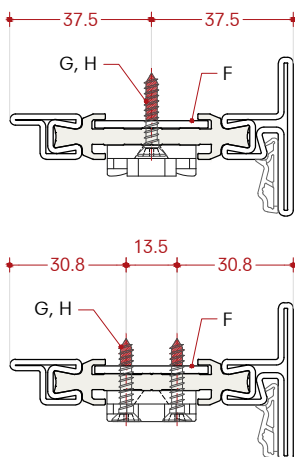
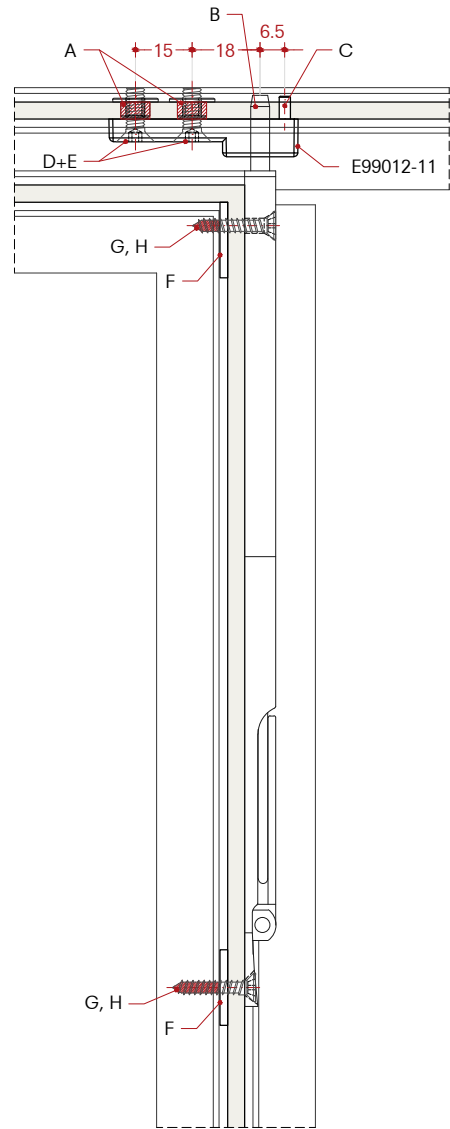
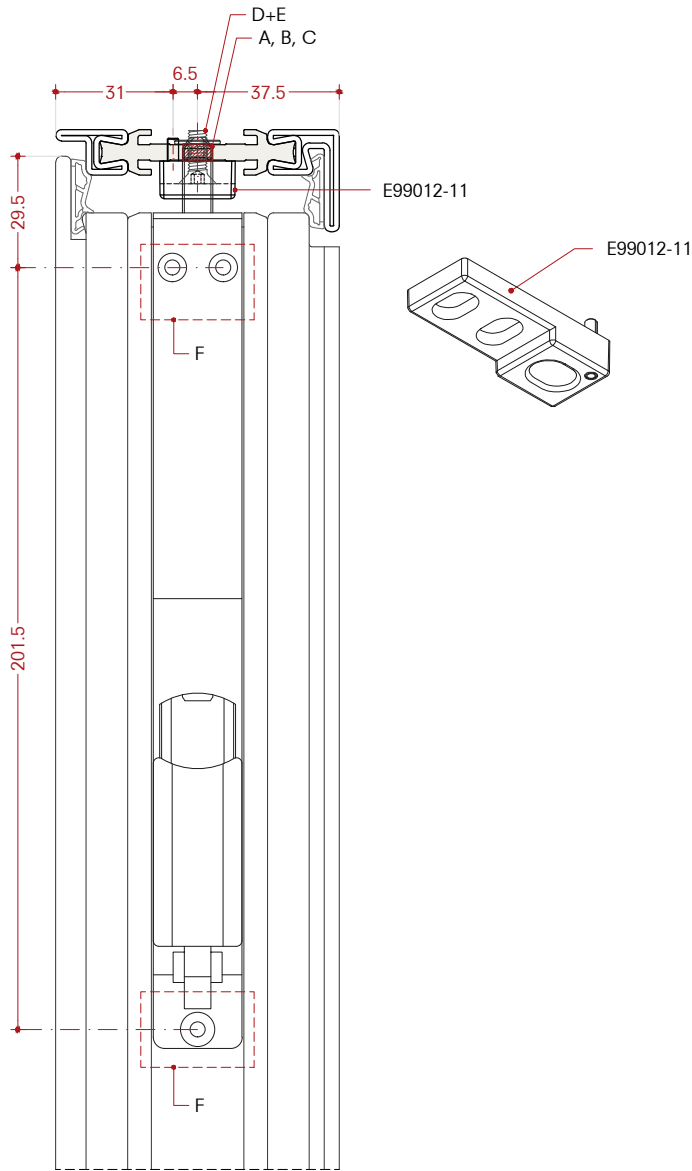


- A) Plate 30x20x2 mm fixed by glue on profile (not provided)
- B) Fastening with Ø3.9x22 mm ISO7050 screws
- C) Cut the screws
- D) Finished floor

- A) Piastra 30x20x2 mm fissata a colla al profilo (non fornita)
- B) Fissaggio con viti Ø3.9x22 mm ISO7050
- C) Accorciare le viti
- D) Pavimento finito

- A) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto)
- B) Fijación con tornillos Ø3.9x22 mm ISO7050
- C) Recortar tornillos
- D) Piso acabado





- A) Ø7.5 mm holes on profile
- B) Ø12 mm hole on profile
- C) Ø3 mm hole on profile
- D) D99702-08 M5 brass bushing
- E) Fastening with M5x14 ISO10642 screws
- F) Plate 30x20x2 mm fixed by glue on profile (not provided)
- G) Fastening with Ø3.9x22 mm ISO7050 screws
- H) Cut the screws

- A) Fori Ø7.5 mm sul profilo
- B) Foro Ø12 mm sul profilo
- C) Foro Ø3 mm sul profilo
- D) D99702-08 Boccola in ottone M5
- E) Fissaggio con viti M5x14 ISO10642
- F) Piastra 30x20x2 mm fissata a colla al profilo (non fornita)
- G) Fissaggio con viti Ø3.9x22 mm ISO7050
- H) Accorciare le viti

- A) Orificios Ø7.5 mm en perfil
- B) Orificio Ø12 mm en perfil
- C) Orificio Ø3 mm en perfil
- D) D99702-08 Casquillo en latón M5
- E) Fijación con tornillos M5x14 ISO10642
- F) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto)
- G) Fijación con tornillos Ø3.9x22 mm ISO7050
- H) Recortar tornillos

**Installation**

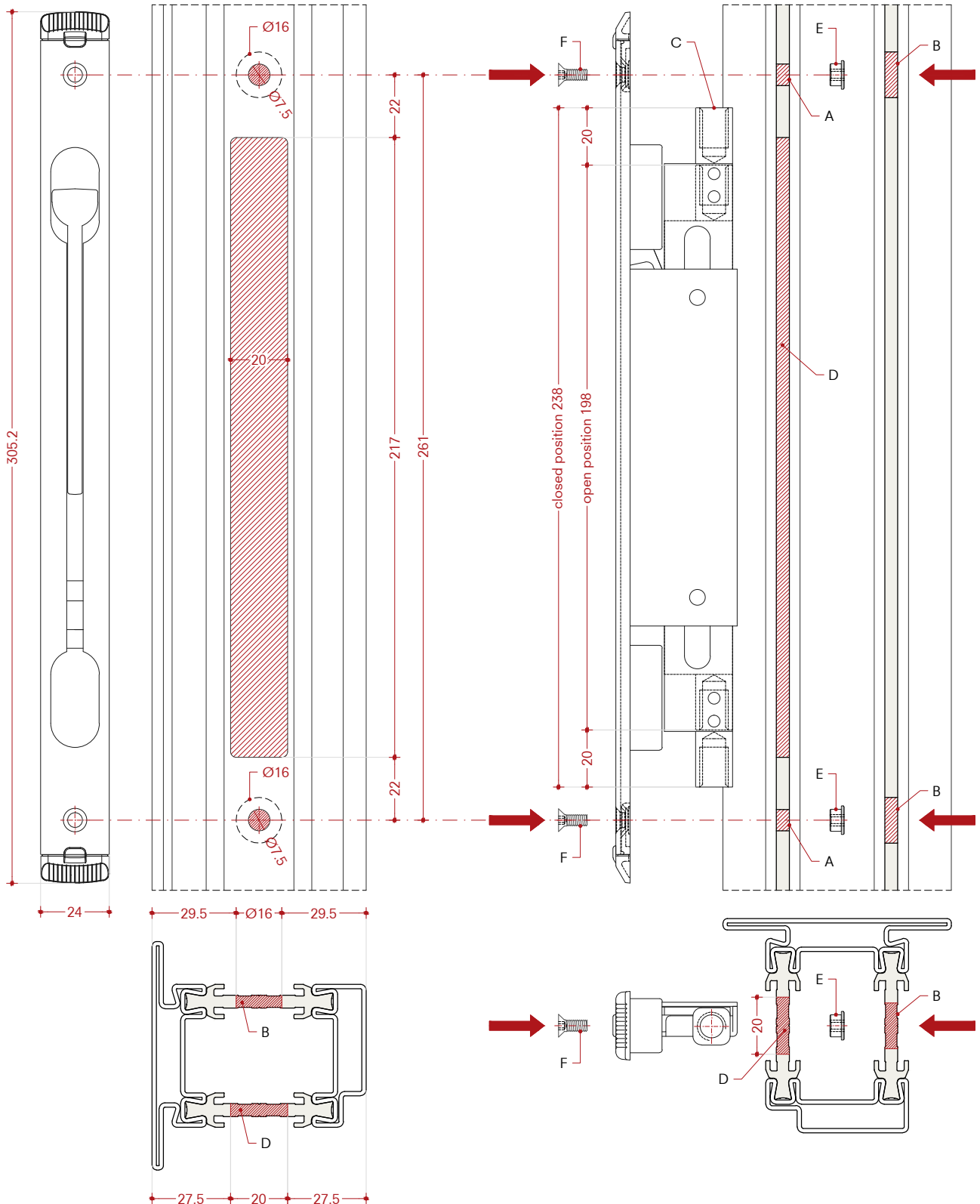
Deadbolt E99035-02  
 with FT 7550T-nn + FT 7550Z-nn -  
 Open in door

**Montaggio**

Catenaccio E99035-02  
 con FT 7550T-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

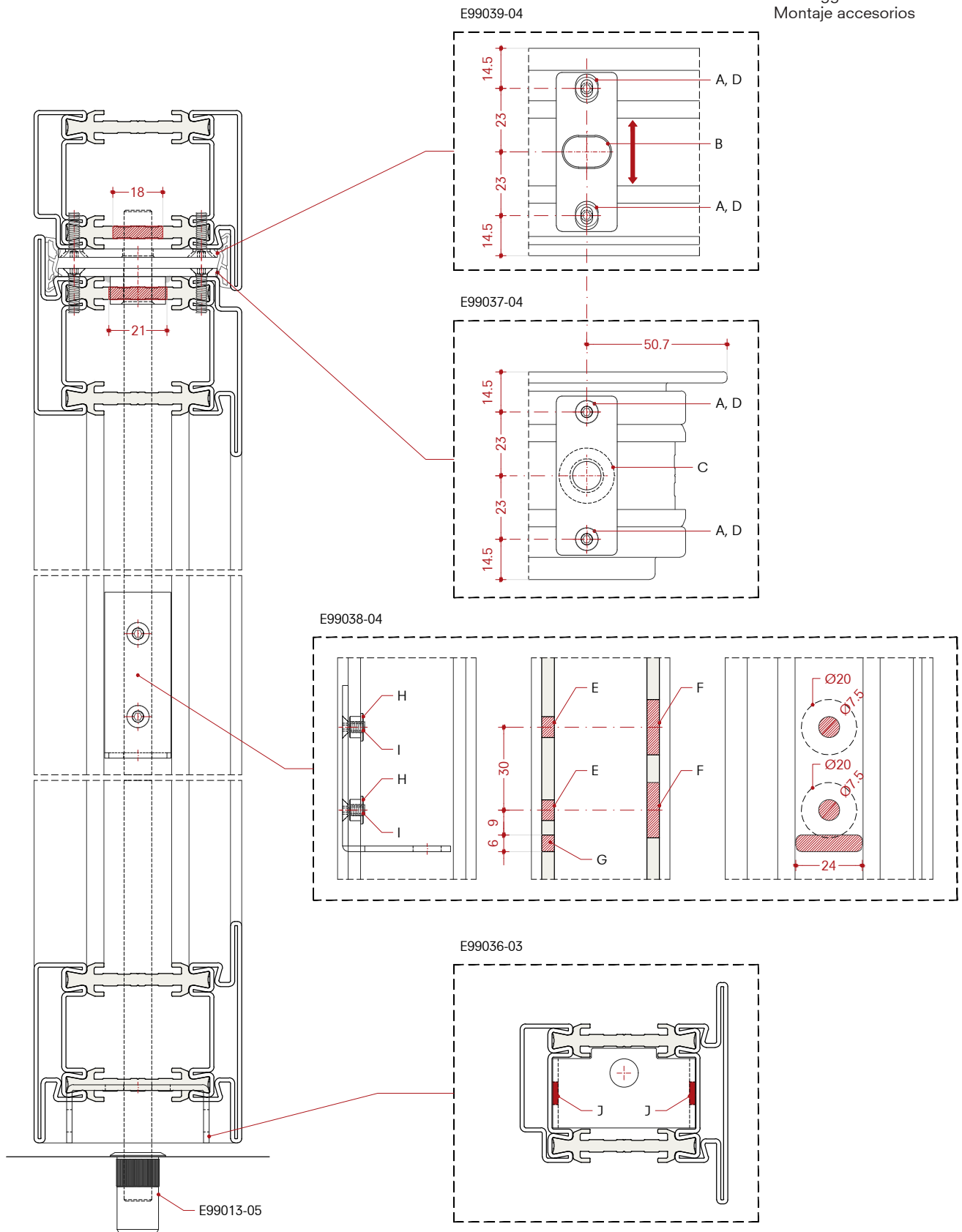
Pasador de canto E99035-02  
 con FT 7550T-nn + FT 7550Z-nn  
 Puerta que se abre hacia dentro



- A) Ø7.5 mm holes on profile
- B) Ø16 mm hole on profile
- C) M10 holes
- D) Cut out 20x217 mm
- E) D99704-08 M4 brass bushing
- F) Fastening with M4x10 ISO10642 screws

- A) Fori Ø7.5 mm sul profilo
- B) Foro Ø16 mm sul profilo
- C) Fori M10
- D) Fresata 20x217 mm
- E) D99704-08 Boccola in ottone M4
- F) Fissaggio con viti M4x10 ISO10642

- A) Orificios Ø7.5 mm en perfil
- B) Orificio Ø16 mm en perfil
- C) Orificios M10
- D) Fresado 20x217 mm
- E) D99704-08 Casquillo en latón M4
- F) Fijación con tornillos M4x10 ISO10642



- A) M4 holes on profile
- B) Ø18 mm hole on profile
- C) Ø21 mm hole on profile
- D) Fastening with M4x16 ISO10642 screws
- E) Ø7.5 mm holes on profile
- F) Ø20 mm holes on profile
- G) Cut out 24x6 mm
- H) D99704-08 M4 brass bushing
- I) Fastening with M4x8 ISO10642 screws
- J) Welding

- A) Fori M4 sul profilo
- B) Foro Ø16 mm sul profilo
- C) Foro Ø21 mm sul profilo
- D) Fissaggio con viti M4x16 ISO10642
- E) Fori Ø7.5 mm sul profilo
- F) Fori Ø20 mm sul profilo
- G) Fresata 24x6 mm
- H) D99704-08 Boccola in ottone M4
- I) Fissaggio con viti M4x8 ISO10642
- J) Saldatura

- A) Orificios M4 en perfil
- B) Orificio Ø18 mm en perfil
- C) Orificio Ø21 mm en perfil
- D) Fijación con tornillos M4x16 ISO10642
- E) Orificios Ø7.5 mm en perfil
- F) Orificios Ø20 mm en perfil
- G) Fresado 24x6 mm
- H) D99704-08 Casquillo en latón M4
- I) Fijación con tornillos M4x8 ISO10642
- J) Soldadura

**Installation**

Automatic door seal  
 Single and double leaf door  
 Open in and open out

**Note:**

In case the E99035-02 shoot bolt is used for double-leaf door, the automatic door seal must be moved outwards.

**Montaggio**

Guarnizione a ghigliottina  
 Porta a uno e due battenti  
 Apertura interna ed esterna

**Nota:**

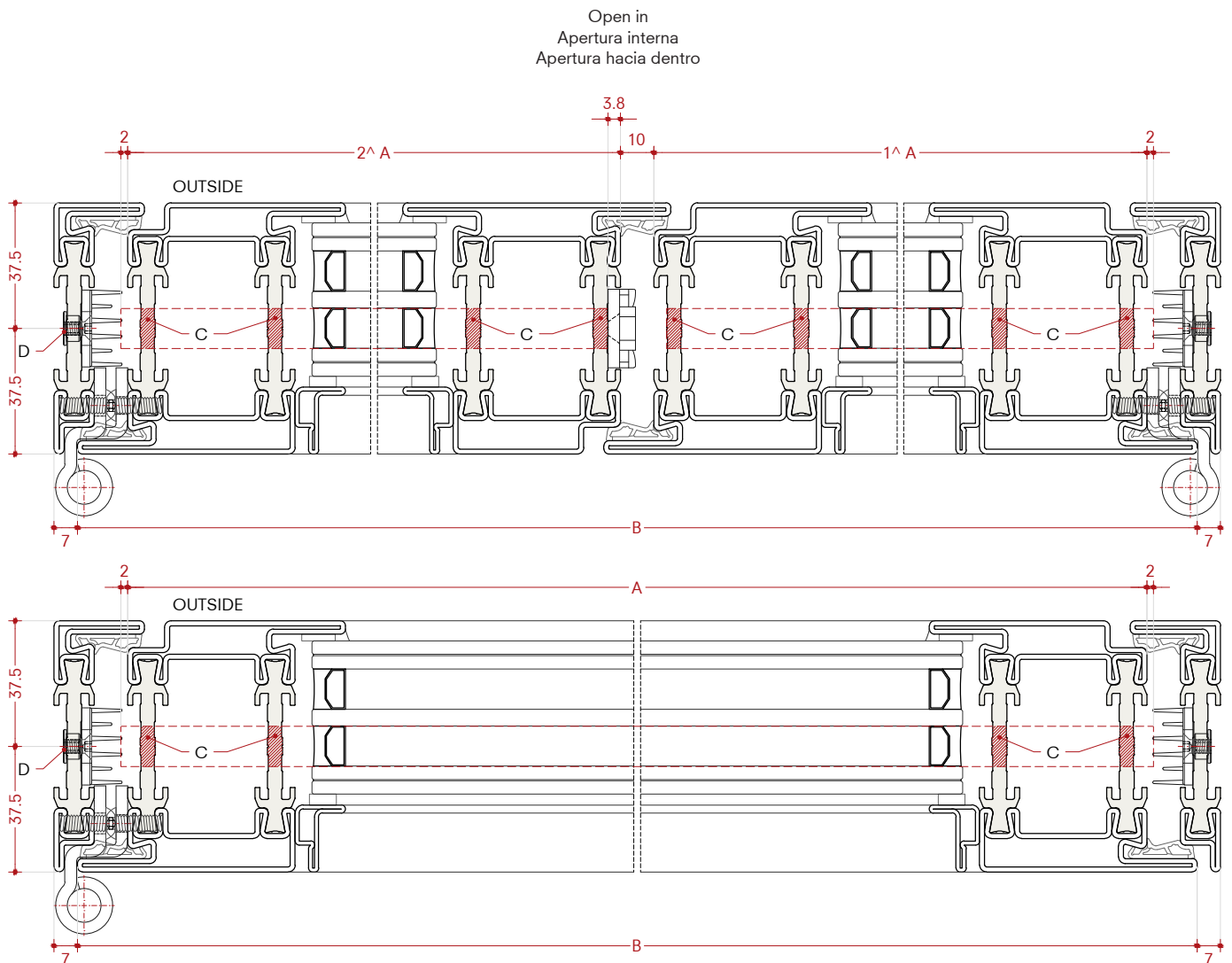
sulla porta a due ante, nel caso si usi il catenaccio E99035-02, la ghigliottina va spostata verso l'esterno.

**Montaje**

Junta guillotina  
 Puerta de una e dos hojas  
 Que se abre hacia dentro y fuera

**Nota:**

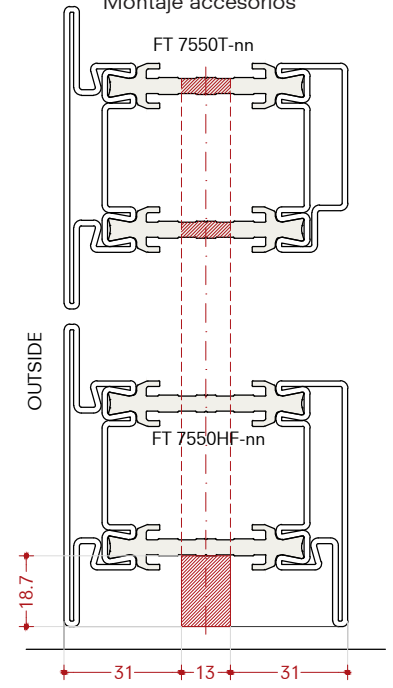
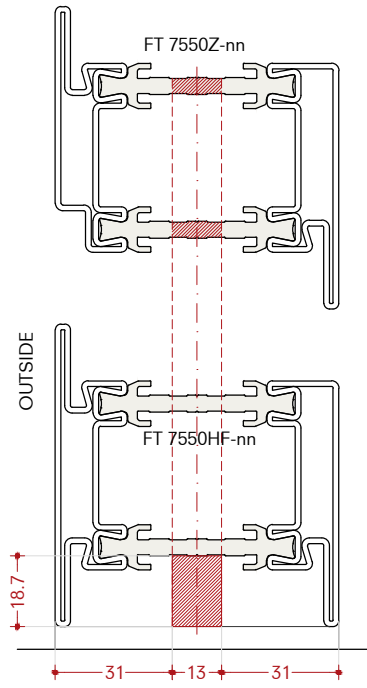
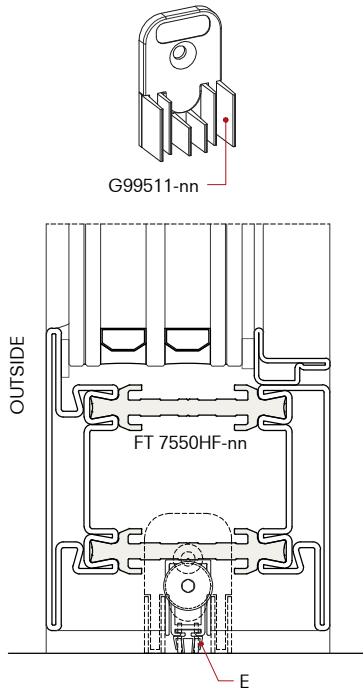
en la puerta de dos hojas, si se utiliza el pasador de canto E99035-02, la junta guillotina debe moverse hacia afuera.



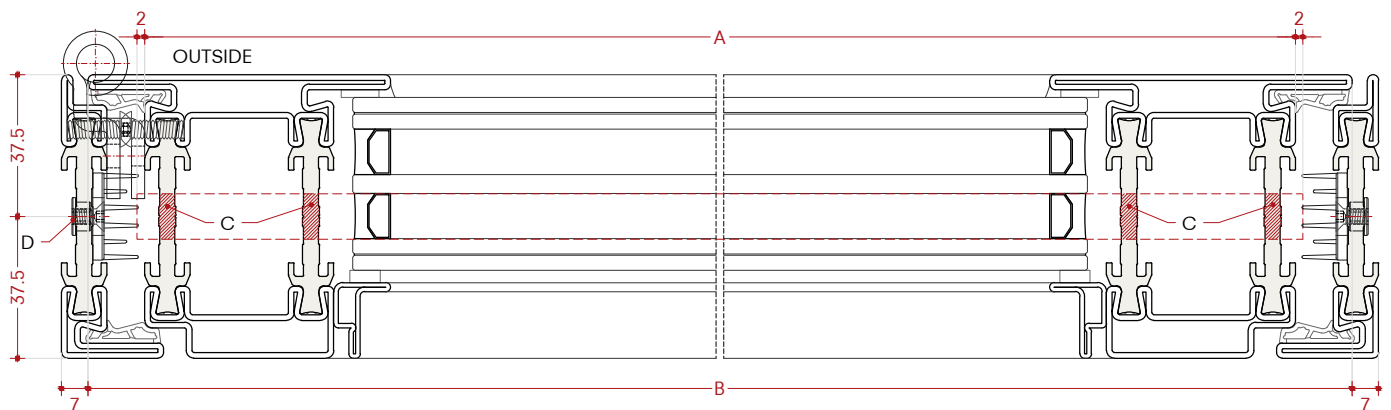
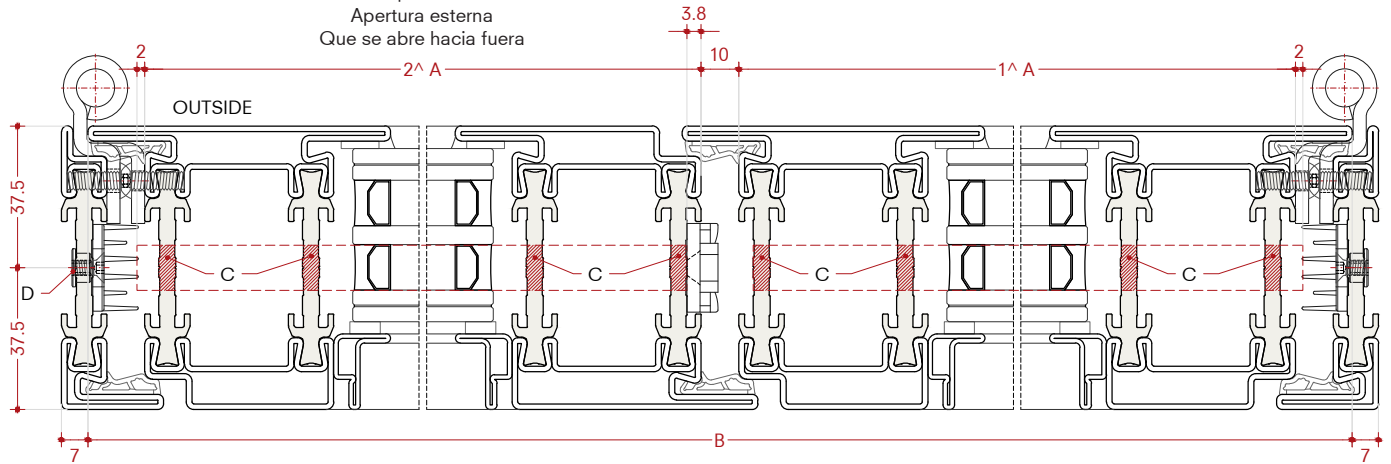
- A) Length Leaf
- B) Door leaf
- C) Cutout
- D) Fastening of G99511-nn with M4x8 ISO10642 screws + D99704-08 M4 brass bushing

- A) Larghezza anta
- B) Porta
- C) Taglio
- D) Fissaggio G99511-nn con viti M4x8 ISO10642 + D99704-08 Boccola in ottone M4

- A) Longitud hoja
- B) Puerta
- C) Corte
- D) Fijación G99511-nn con tornillos M4x8 ISO10642 + D99704-08 Casquillo en latón M4



Open out  
Apertura esterna  
Que se abre hacia fuera



A) Length Leaf  
B) Door leaf

C) Cutout  
D) Fastening of G99511-nn with M4x8 ISO10642 screws + D99704-08 M4 brass bushing

E) G995XX-62 bottom profile fastening with Ø3.5x9.5 mm ISO7049 screws. Automatic drop seal G995XX-62 length of 330 mm to 1230 mm

A) Larghezza anta  
B) Porta

C) Taglio  
D) Fissaggio G99511-nn con viti M4x8 ISO10642 + D99704-08 Boccola in ottone M4

E) Fissaggio G995XX-62 con viti Ø3,5x9,5 mm ISO7049. Guarnizione a ghigliottina G995XX-62 lunghezza da 330 mm fino a 1230 mm

A) Länge Flügel  
B) Puerta

C) Corte  
D) Fijación G99511-nn con tornillos M4x8 ISO10642 + D99704-08 Casquillo en latón M4

E) Fijación G995XX-62 con tornillos Ø3,5x9,5 mm ISO7049. Junta guillotina G995XX-62 longitud de 330 mm a 1230 mm

**Installation**

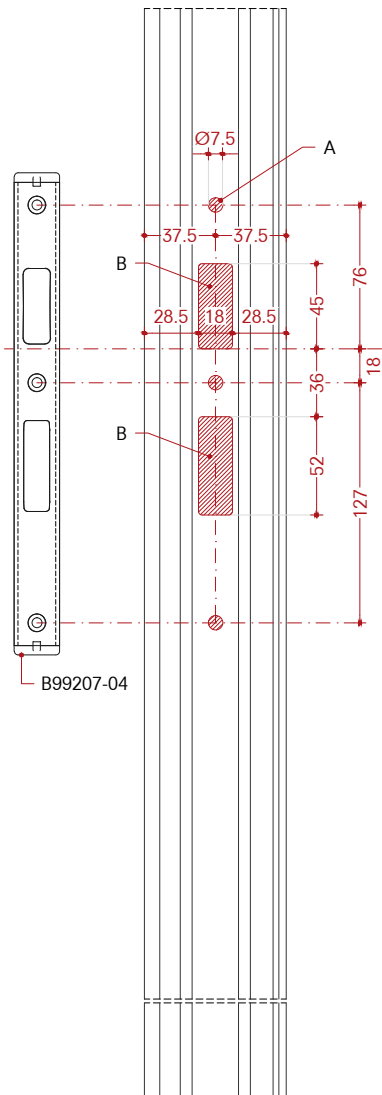
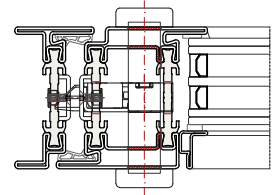
Lock B99015-02  
 with locking box  
 FT 7512HK-nn + FT 7550Z-nn  
 Open in door

**Montaggio**

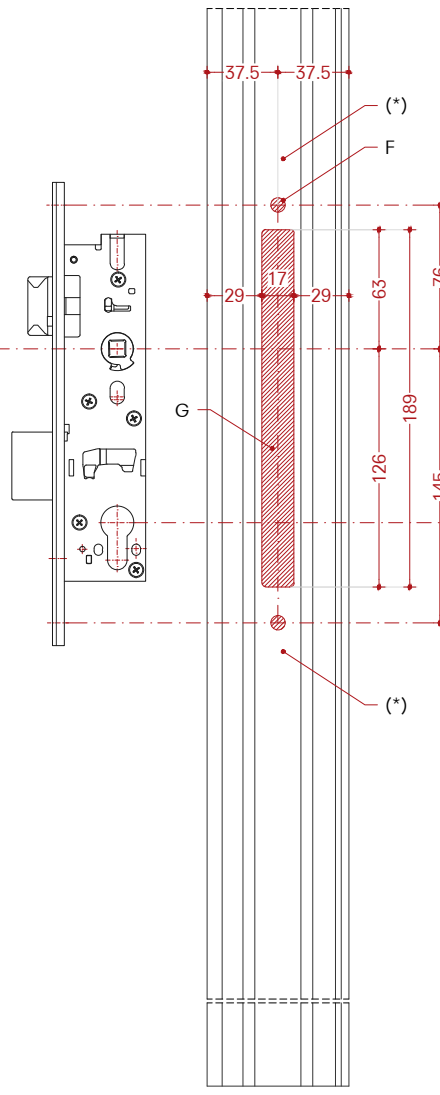
Serratura B99015-02  
 con scatola  
 FT 7512HK-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

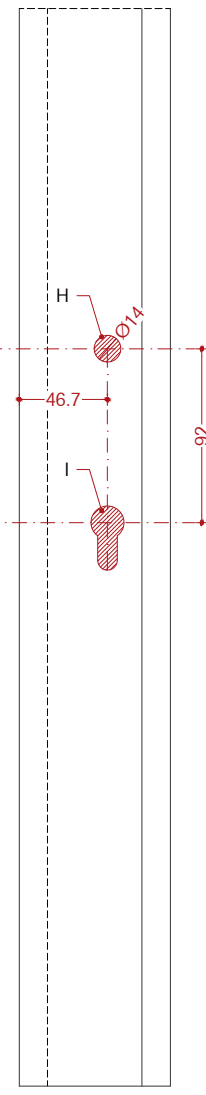
Cerradura B99015-02  
 con serradura  
 FT 7512HK-nn + FT 7550Z-nn  
 Puerta apertura hacia dentro



1



2



3

Scale 1:4

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Lever handle bore Ø14 mm
- I) Profile cylinder milling

(\*) Pay attention to glazing bead clips position.

Scala 1:4

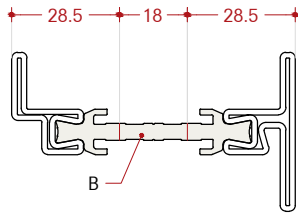
- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Foro leva maniglia Ø14 mm
- I) Fresatura profili per i cilindri

(\*) Prestare attenzione alla posizione di eventuali clip fermavetri.

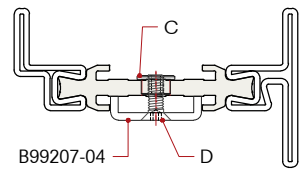
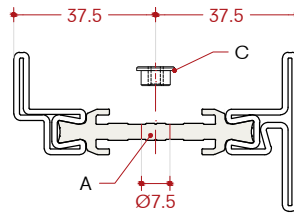
Escala 1:4

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Palanca de perfil de Ø14 mm
- I) Fresado en perfil para cilindros

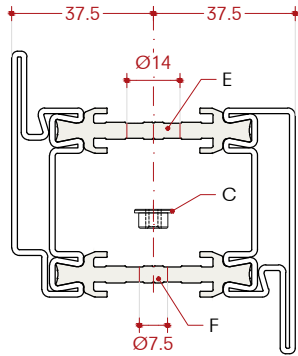
(\*) Preste atención a la posición de los clips de los junquillos



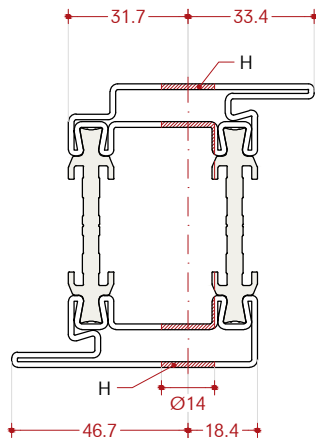
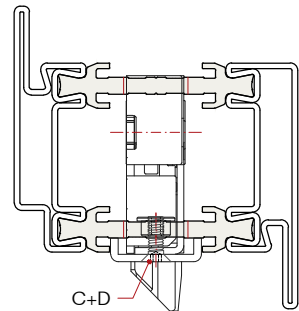
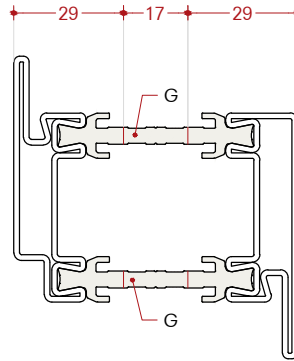
1



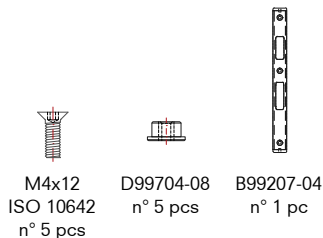
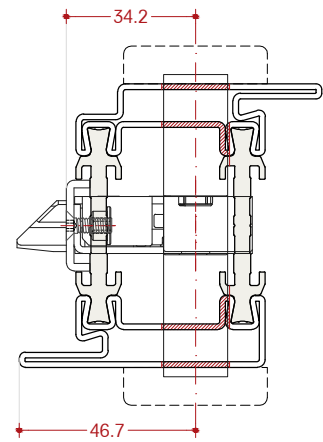
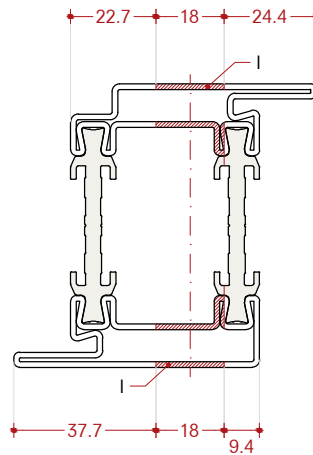
B99207-04



2



3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Lever handle bore Ø14 mm
- I) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Foro leva maniglia Ø14 mm
- I) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Palanca de perfil de Ø14 mm
- I) Fresado en perfil para cilindros

**Installation**

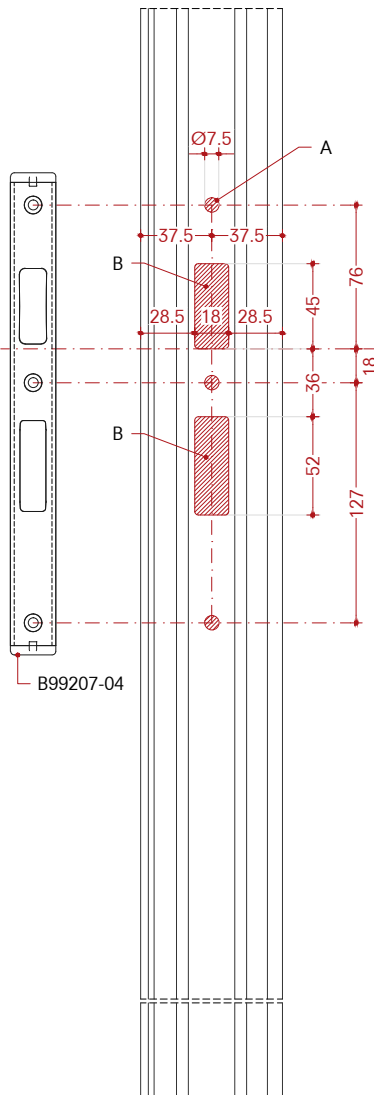
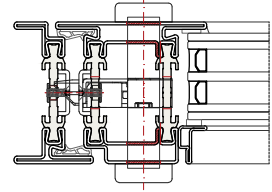
Lock B99015-02  
 with locking box  
 FT 7512HK-nn + FT 7550T-nn  
 Open out door

**Montaggio**

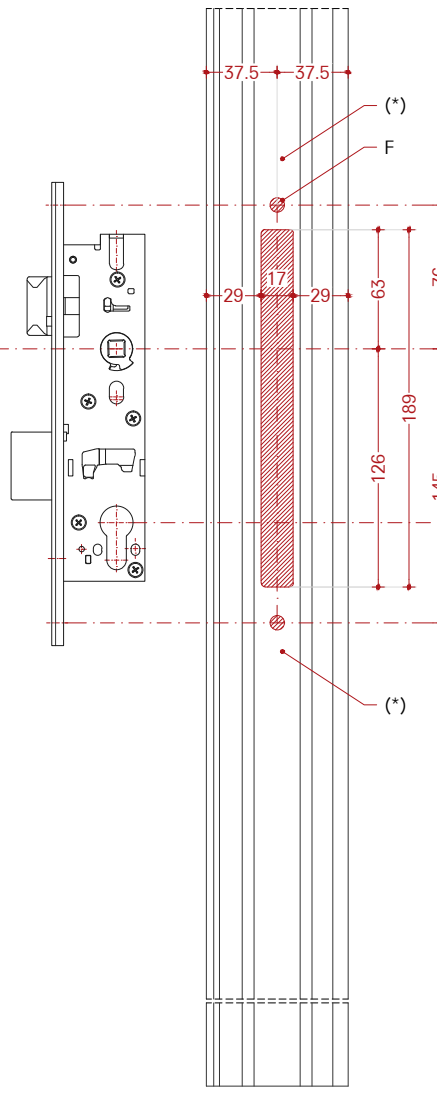
Serratura B99015-02  
 con scatola  
 FT 7512HK-nn + FT 7550T-nn  
 Porta apertura esterna

**Montaje**

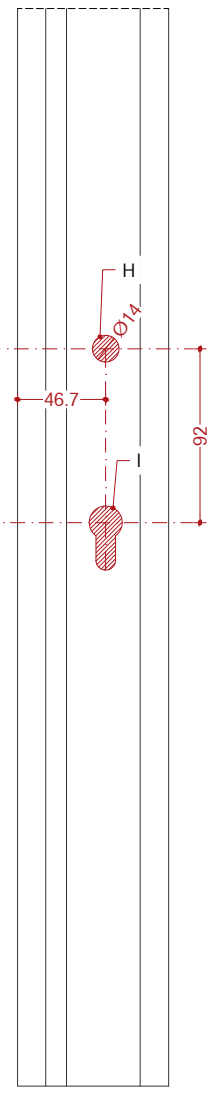
Cerradura B99015-02  
 con serradura  
 FT 7512HK-nn + FT 7550T-nn  
 Puerta apertura hacia fuera



1



2



3

Scale 1:4

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Lever handle bore Ø14 mm
- I) Profile cylinder milling

(\*) Pay attention to glazing bead clips position.

Scala 1:4

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Foro leva maniglia Ø14 mm
- I) Fresatura profili per i cilindri

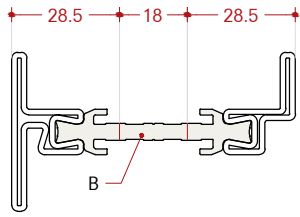
(\*) Prestare attenzione alla posizione di eventuali clip fermavetri.

Escala 1:4

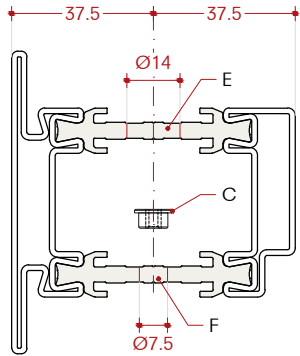
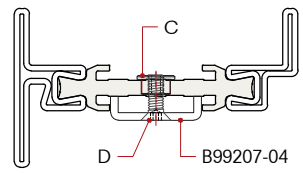
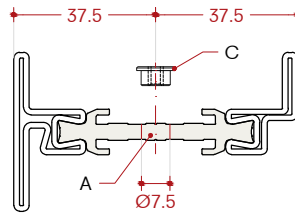
- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Palanca de perfil de Ø14 mm
- I) Fresado en perfil para cilindros

(\*) Preste atención a la posición de los clips de los junquillos

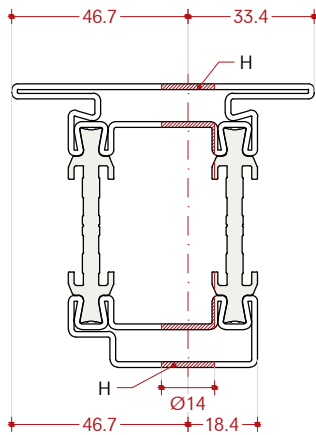
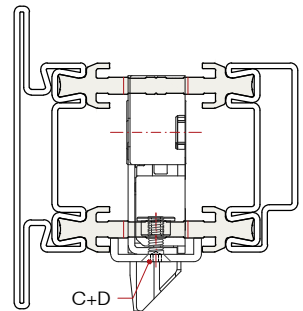
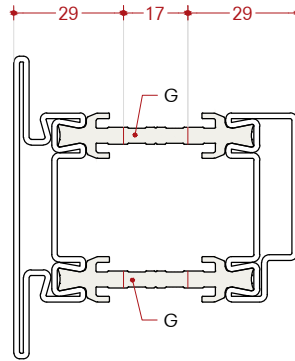




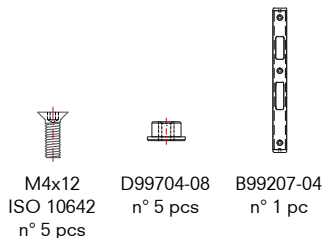
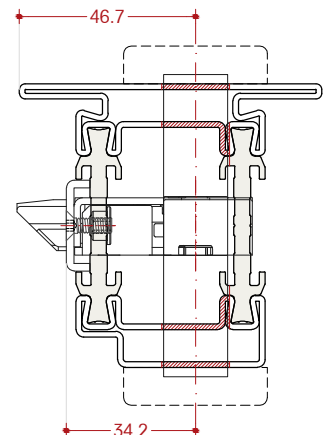
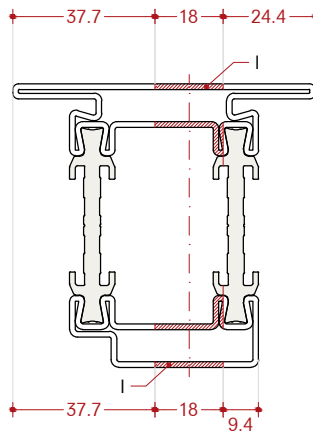
1



2



3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Lever handle bore Ø14 mm
- I) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Foro leva maniglia Ø14 mm
- I) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Palanca de perfil de Ø14 mm
- I) Fresado en perfil para cilindros

**Installation**

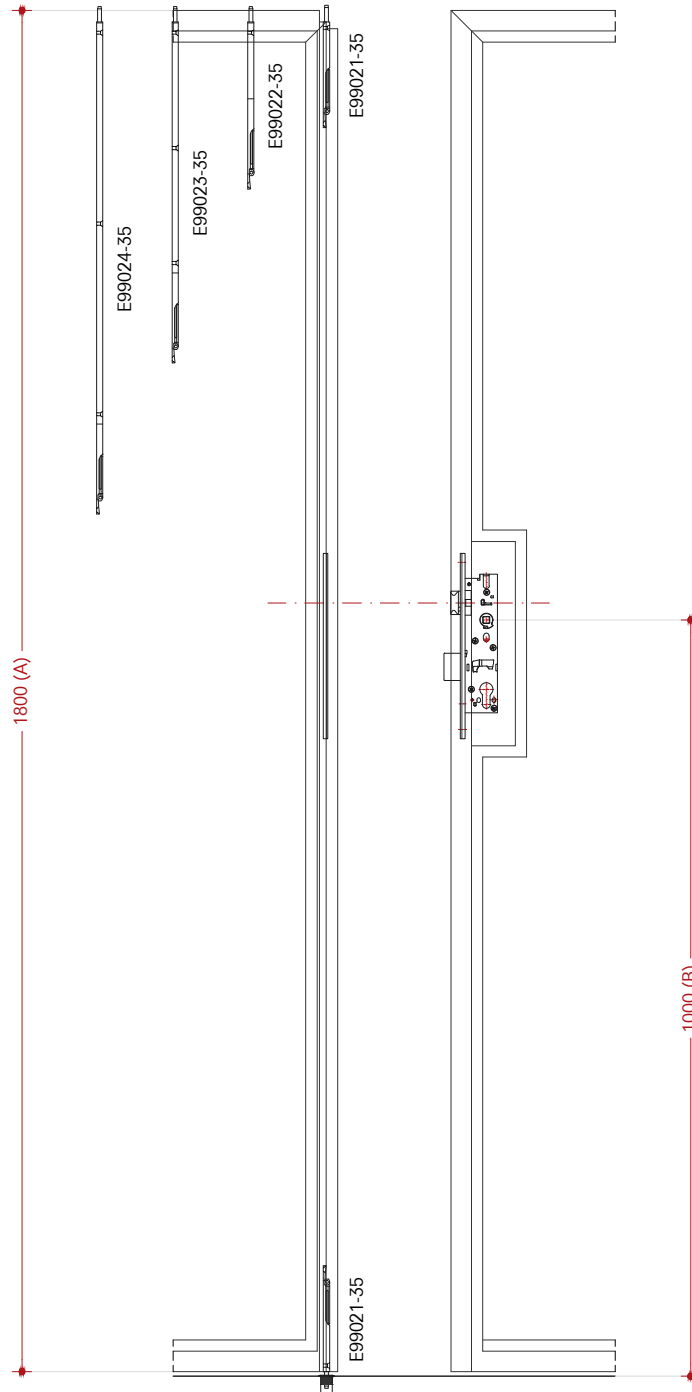
Flush bolt E9902X-35  
 Lock B99015-02  
 Double leaf door open in  
 with locking box

**Montaggio**

Catenaccio E9902X-35  
 Serratura B99015-02  
 Porta a due battenti apertura interna  
 con scatola serratura

**Montaje**

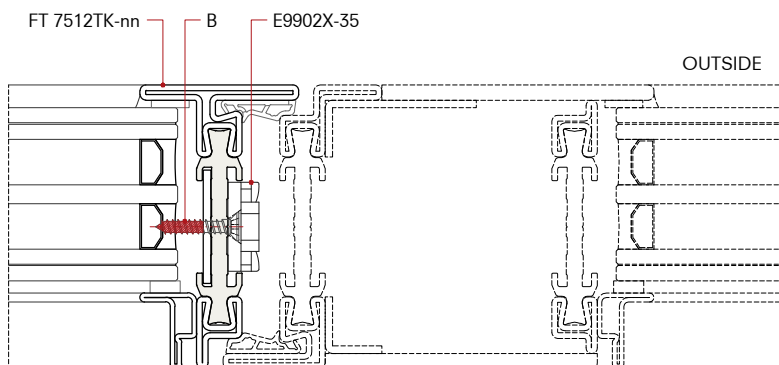
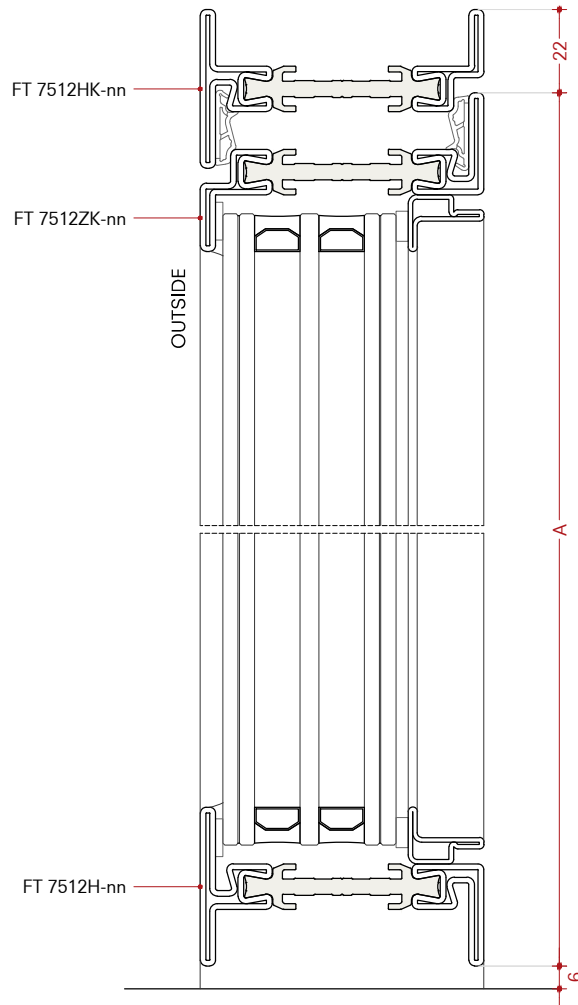
Pasador de canto E9902X-35  
 Cerradura B99015-02  
 Puerta abatible de dos hojas que se abre  
 hacia dentro con caja de cerradura



Scale 1:10  
 A) Minimum height leaf  
 B) Height handle

Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia

Escala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla



A) Height leaf  
 B) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

A) Altezza anta  
 B) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja  
 B) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillos

**Installation**

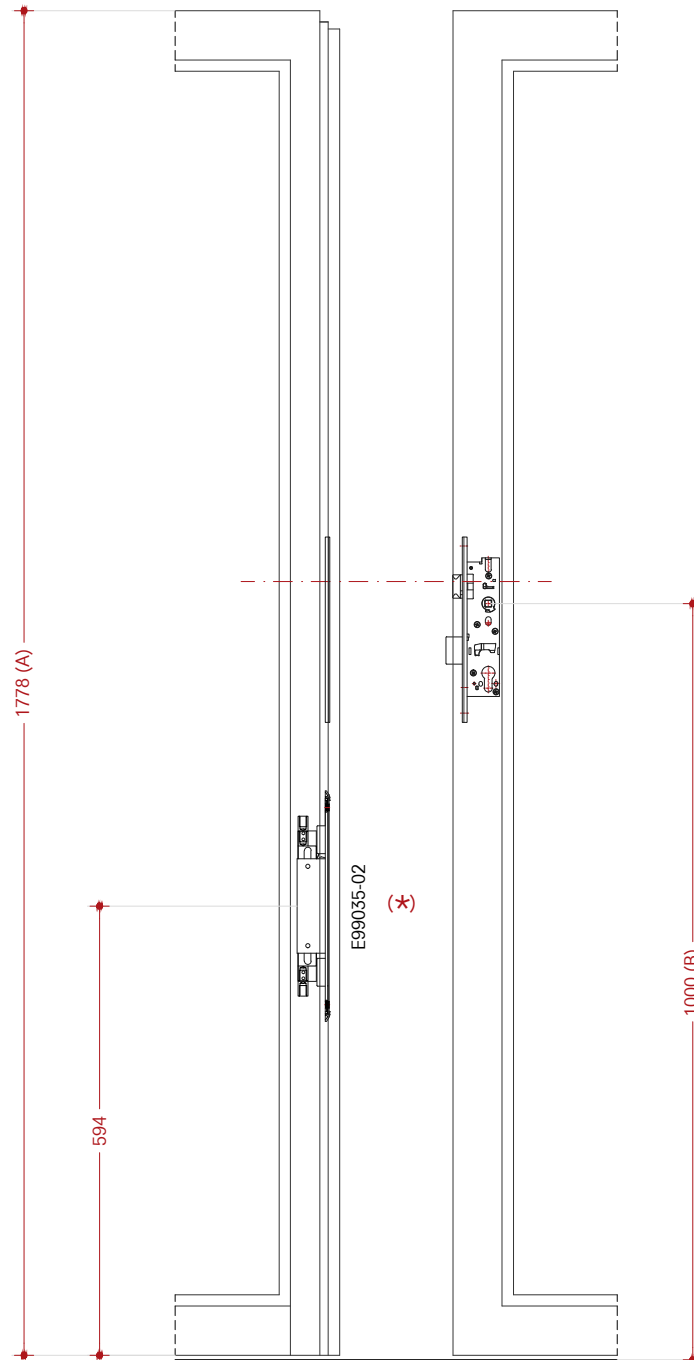
Flush bolt E99035-02  
 Lock B99015-02  
 Double leaf door open in  
 with widening on complete height on  
 lock side

**Montaggio**

Catenaccio E99035-02  
 Serratura B99015-02  
 Porta a due battenti apertura interna  
 con montante maggiorato lato  
 serratura

**Montaje**

Pasador de canto E99035-02  
 Cerradura B99015-02  
 Puerta abatible de dos hojas que se  
 abre hacia dentro con mayor posición  
 vertical en el lado de la cerradura



Scale 1:10

A) Minimum height leaf  
 B) Height handle

(\*) Evaluate the position of the flush bolt  
 E99035-02, installation allowed above or  
 below the lock.

Scala 1:10

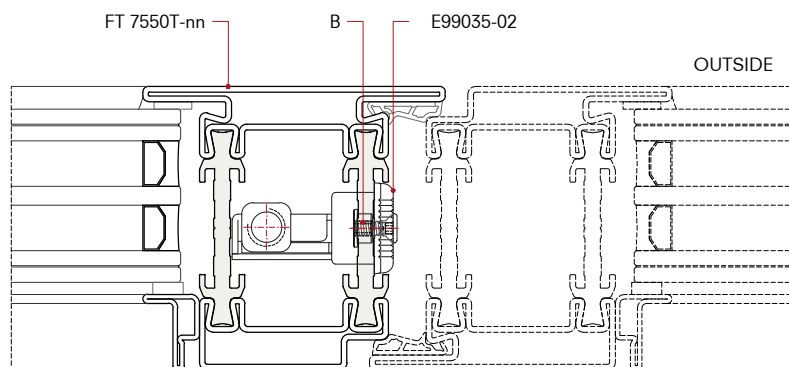
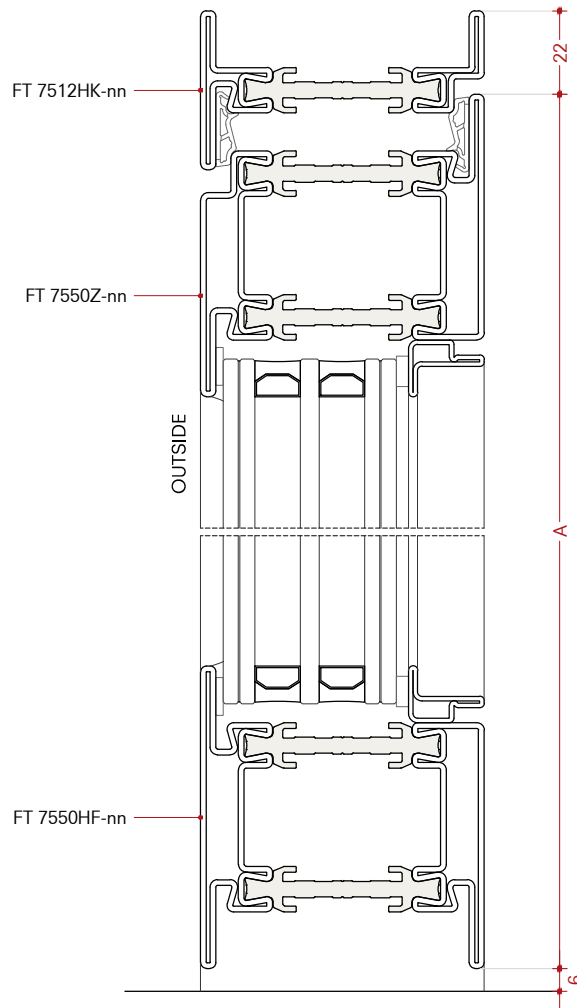
A) Altezza minima anta  
 B) Altezza maniglia

(\*) Valutare la posizione del catenaccio  
 E99035-02, installazione consentita sopra o  
 sotto la serratura.

Escala 1:10

A) Altura mínima de la hoja  
 B) Altura de la manilla

(\*) Evaluar la posición del pasador de canto  
 E99035-02, instalación permitida arriba o  
 debajo de la cerradura.



A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

**Installation**

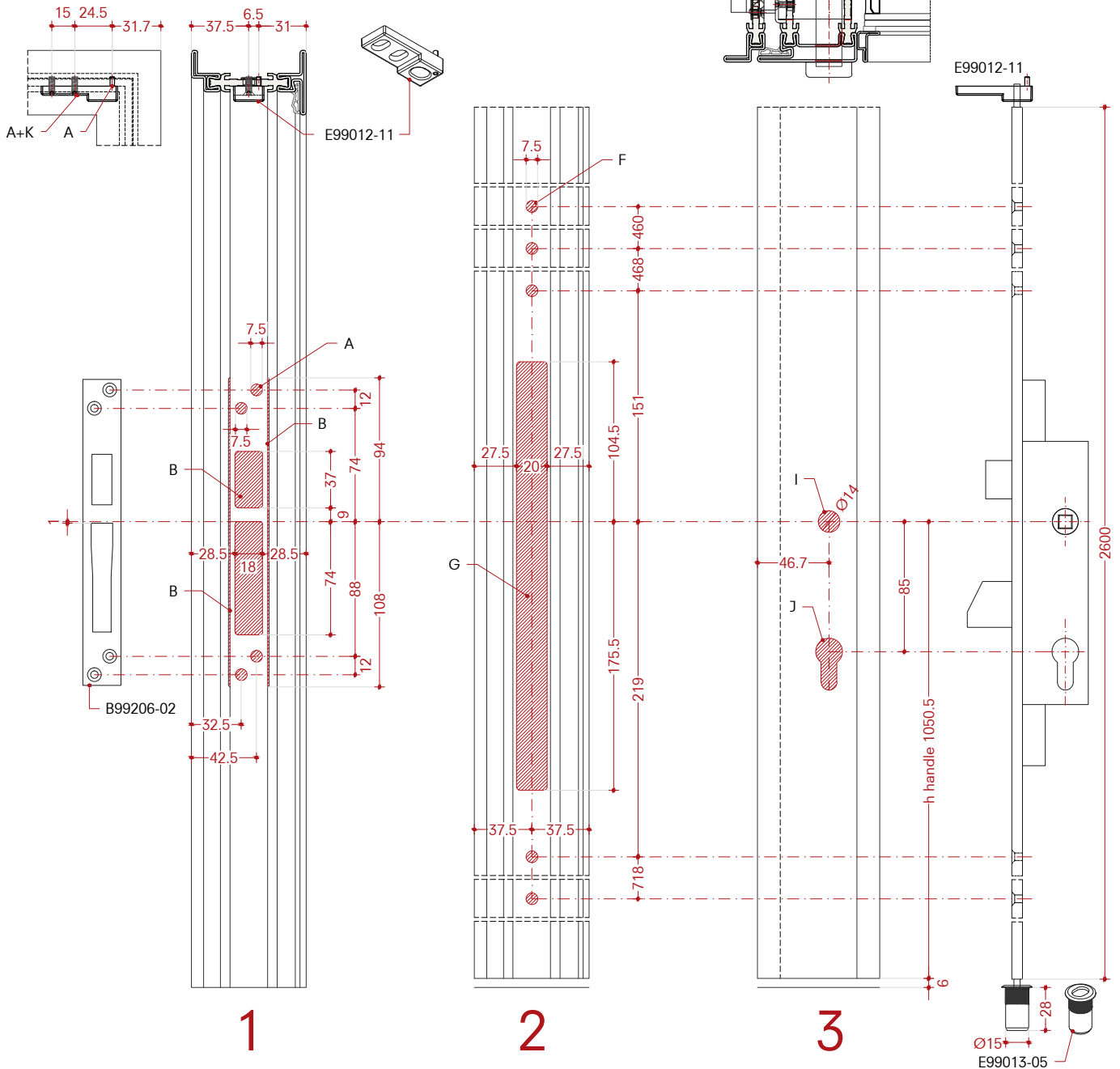
Lock B99111-02  
 with locking box  
 FT 7512HK-nn + FT 7550Z-nn  
 Open in door

**Montaggio**

Serratura B99111-02  
 con scatola  
 FT 7512HK-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

Cerradura B99111-02  
 con serradura  
 FT 7512HK-nn + FT 7550Z-nn  
 Puerta apertura hacia dentro



Scale 1:4

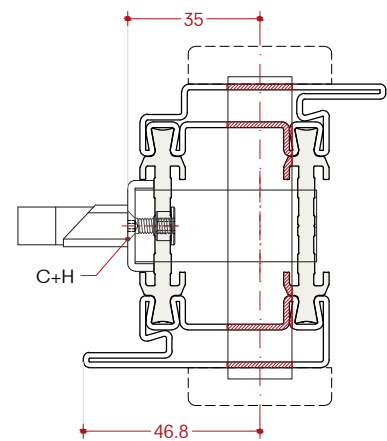
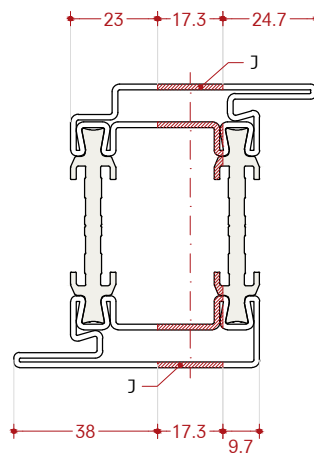
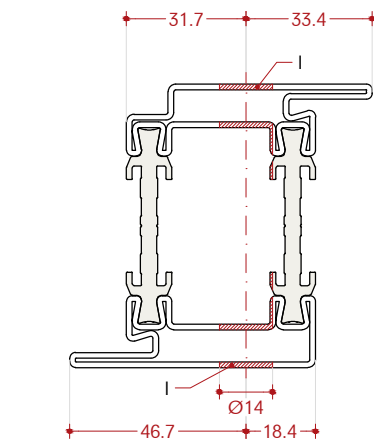
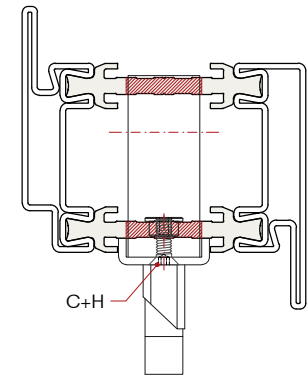
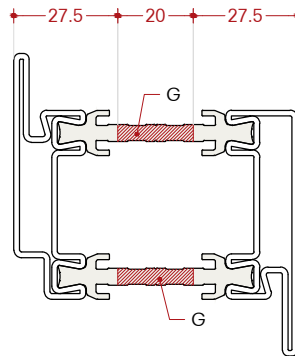
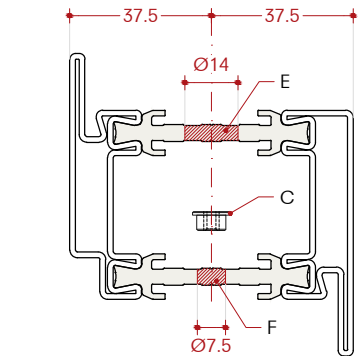
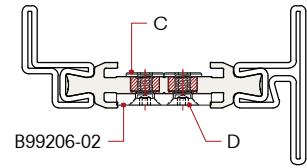
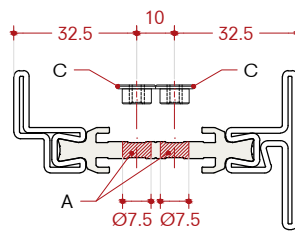
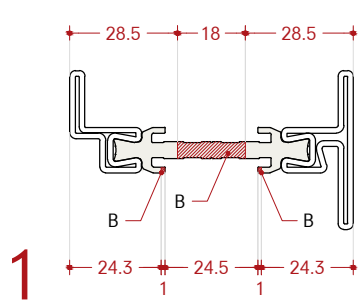
- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x8 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Fastening with M4x12 ISO10642 screws
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

Scala 1:4

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x8 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fissaggio con viti M4x12 ISO10642
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

Escala 1:4

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x8 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fijación con casquillos M4x12 ISO10642
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros



- |                                |                               |                           |                      |                      |                      |
|--------------------------------|-------------------------------|---------------------------|----------------------|----------------------|----------------------|
|                                |                               |                           |                      |                      |                      |
| M4x12<br>ISO 10642<br>n° 7 pcs | M4x8<br>ISO 10642<br>n° 4 pcs | D99704-08<br>n° 11<br>pcs | E99013-05<br>n° 1 pc | E99012-11<br>n° 1 pc | B99206-02<br>n° 1 pc |

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x8 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Fastening with M4x12 ISO10642 screws
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x8 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fissaggio con viti M4x12 ISO10642
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x8 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fijación con tornillos M4x12 ISO10642
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

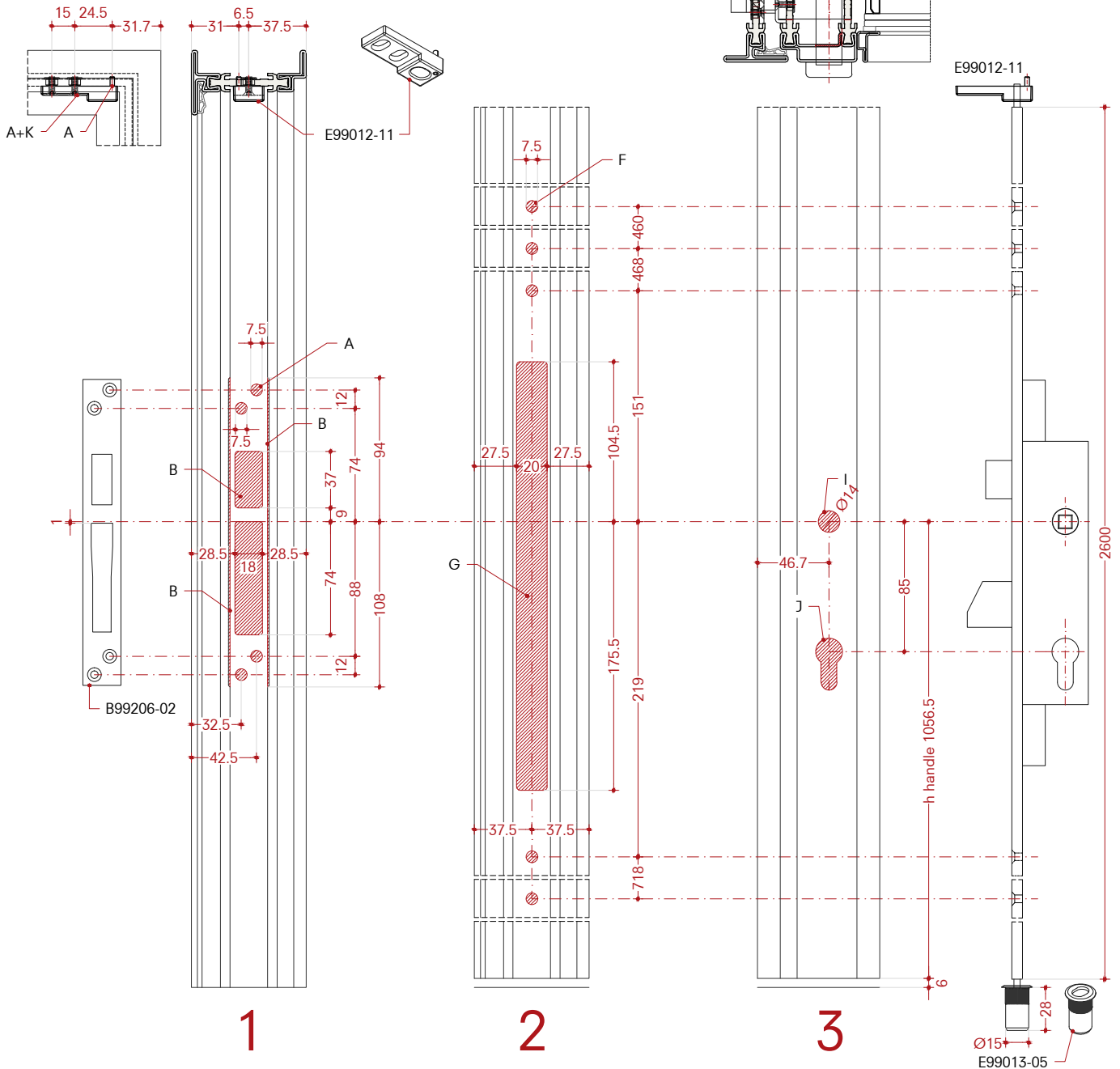
Lock B99111-02  
 with locking box  
 FT 7512HK-nn + FT 7550T-nn  
 Open out door

**Montaggio**

Serratura B99111-02  
 con scatola  
 FT 7512HK-nn + FT 7550T-nn  
 Porta apertura esterna

**Montaje**

Cerradura B99111-02  
 con serradura  
 FT 7512HK-nn + FT 7550T-nn  
 Puerta apertura hacia fuera



Scale 1:4

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x8 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Fastening with M4x12 ISO10642 screws
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

Scala 1:4

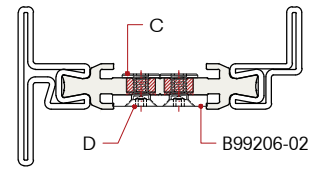
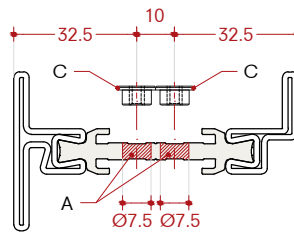
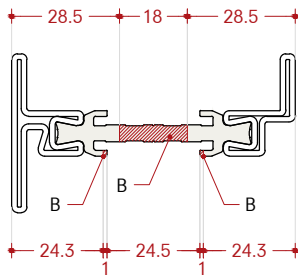
- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x8 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fissaggio con viti M4x12 ISO10642
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

Escala 1:4

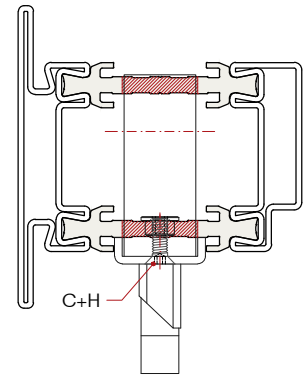
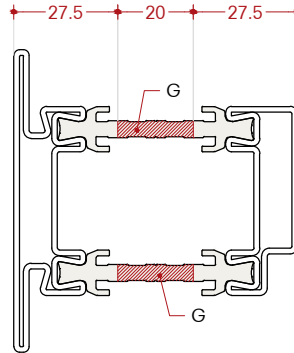
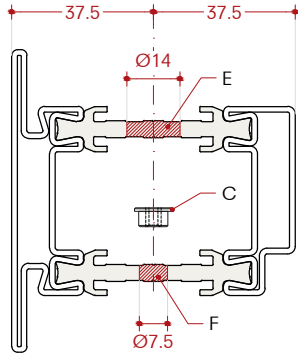
- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x8 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fijación con tornillos M4x12 ISO10642
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros



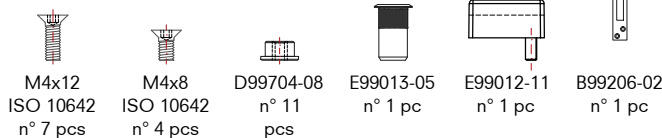
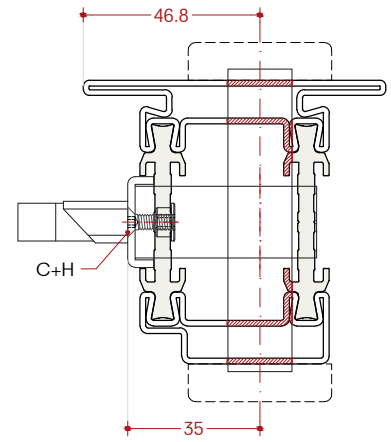
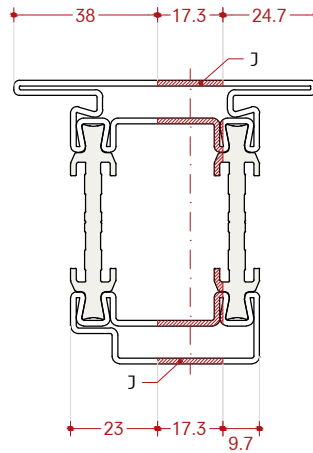
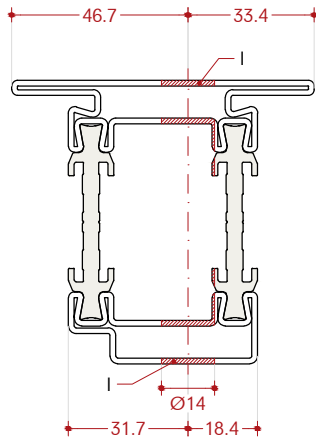
1



2



3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x8 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Fastening with M4x12 ISO10642 screws
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x8 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fissaggio con viti M4x12 ISO10642
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x8 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fijación con tornillos M4x12 ISO10642
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

Lock B99111-02  
 Deadbolt  
 Open in door

**Montaggio**

Serratura B99111-02  
 Mandata  
 Porta apertura interna

**Montaje**

Cerradura B99111-02  
 Pestillo de bloqueo  
 Puerta apertura hacia dentro



Scale 1:3  
 A) Deadbolt

Scala 1:3  
 A) Mandata

Escala 1:3  
 A) Pestillo de bloqueo

**Installation**

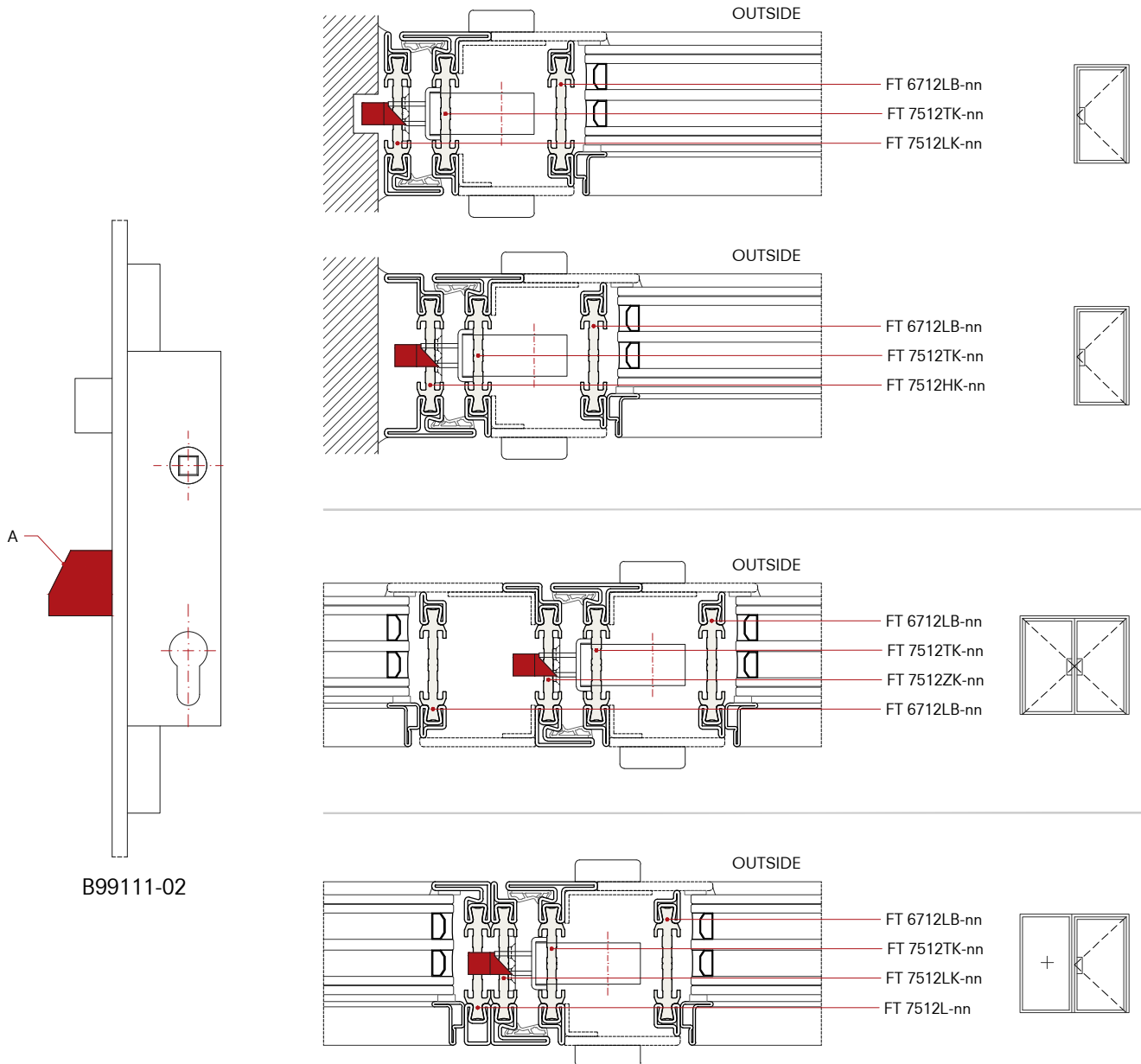
Lock B99111-02  
 Deadbolt  
 Open out door

**Montaggio**

Serratura B99111-02  
 Mandata  
 Porta apertura esterna

**Montaje**

Cerradura B99111-02  
 Pestillo de bloqueo  
 Puerta apertura hacia fuera



Scale 1:3  
 A) Deadbolt

Scala 1:3  
 A) Mandata

Escala 1:3  
 A) Pestillo de bloqueo

**Installation**

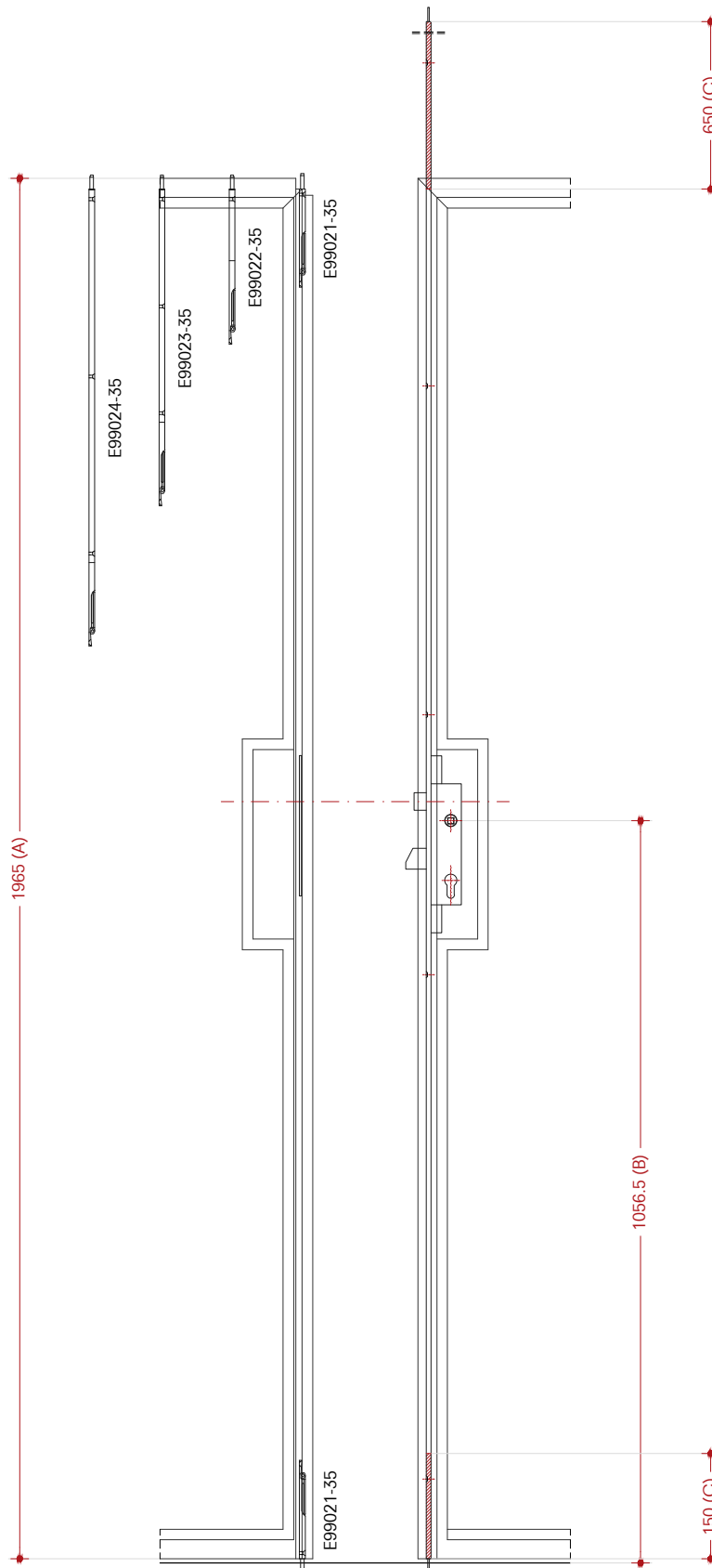
Flush bolt E9902X-35  
 Lock B99111-02  
 Double leaf door open in  
 with locking box

**Montaggio**

Catenaccio E9902X-35  
 Serratura B99111-02  
 Porta a due battenti apertura interna  
 con scatola serratura

**Montaje**

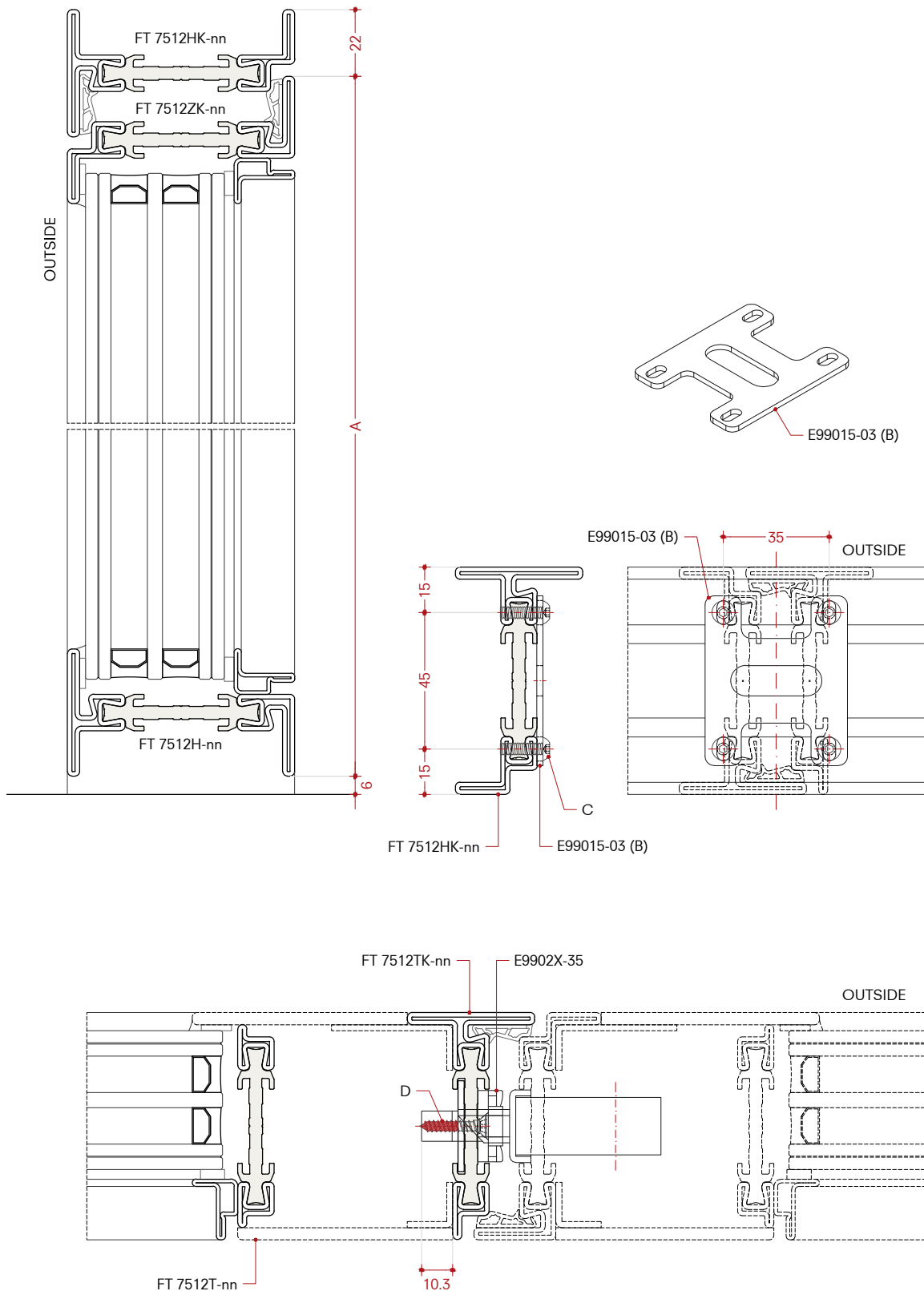
Pasador de canto E9902X-35  
 Cerradura B99111-02  
 Puerta abatible de dos hojas que se abre  
 hacia dentro con caja de cerradura



Escala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo

Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima

Scale 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping



- A) Height leaf
- B) E99015-03 only for double leaf door with B99111-02 + E9902X-35 (installation on top and bottom)
- C) Fastening with M4x14 ISO7380 screws
- D) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

- A) Altezza anta
- B) E99015-03 solo per porta a due ante con B99111-02 + E9902X-35 (installazione superiore e inferiore)
- C) Fissaggio con viti M4x14 ISO7380
- D) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare le viti

- A) Altura de la hoja
- B) E99015-03 solo para puerta de dos hojas con B99111-02 + E9902X-35 (instalación en la parte superior e inferior)
- C) Fijación con tornillos M4x14 ISO7380
- D) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillos

**Installation**

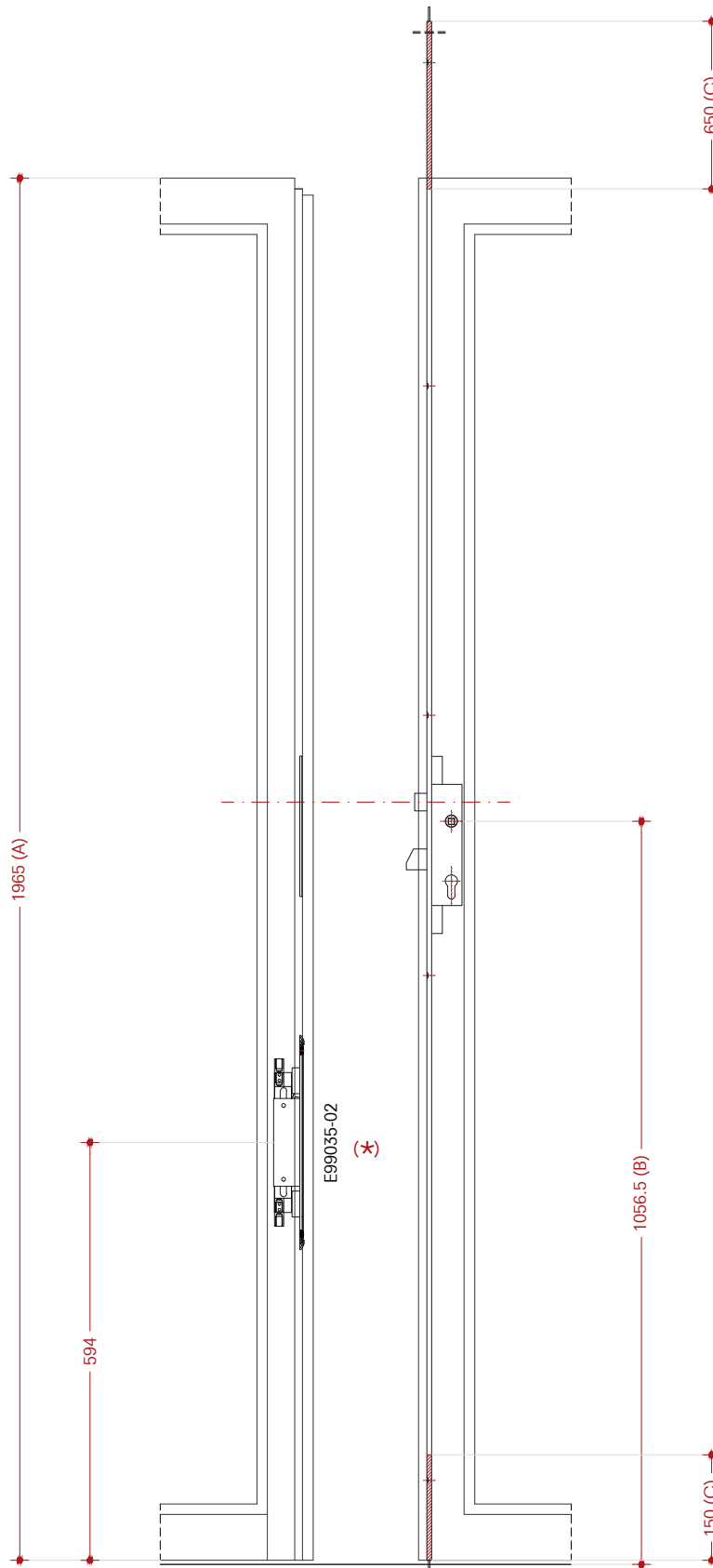
Flush bolt E99035-02  
 Lock B99111-02  
 Double leaf door open  
 with widening on complete height on  
 lock side

**Montaggio**

Catenaccio E99035-02  
 Serratura B99111-02  
 Porta a due battenti apertura interna  
 con montante maggiorato lato  
 serratura

**Montaje**

Pasador de canto E99035-02  
 Cerradura B99111-02  
 Puerta abatible de dos hojas que se  
 abre hacia dentro con mayor posición  
 vertical en el lado de la cerradura



Scala 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping

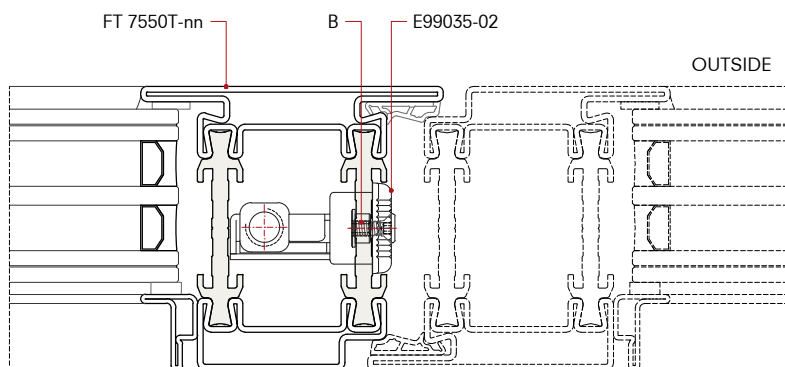
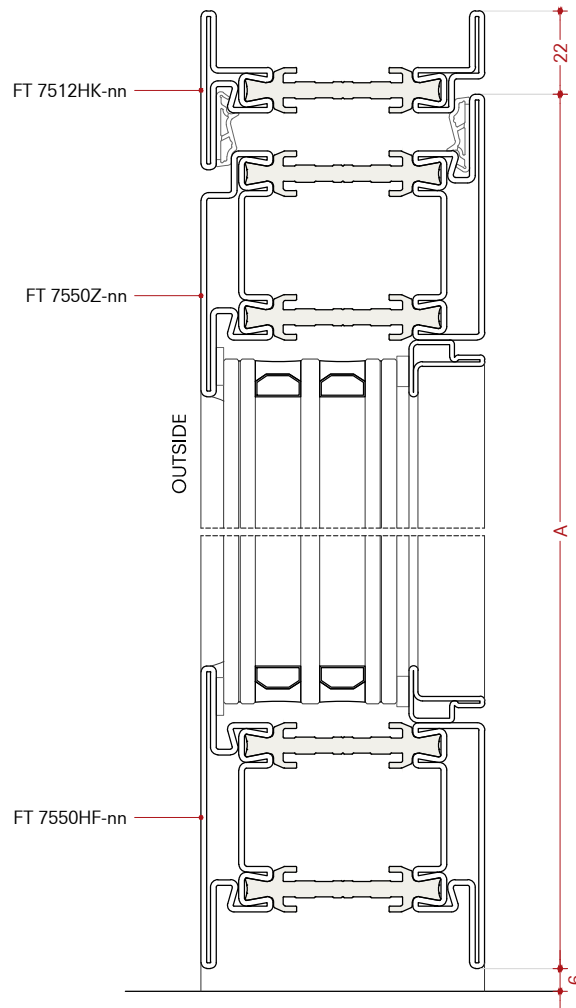
Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima

Scala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo

(\*) Evaluate the position of the flush bolt E99035-02, installation allowed above or below the lock.

(\*) Valutare la posizione del catenaccio E99035-02, installazione consentita sopra o sotto la serratura.

(\*) Evaluar la posición del pasador de canto E99035-02, instalación permitida arriba o debajo de la cerradura.



A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

**Installation**

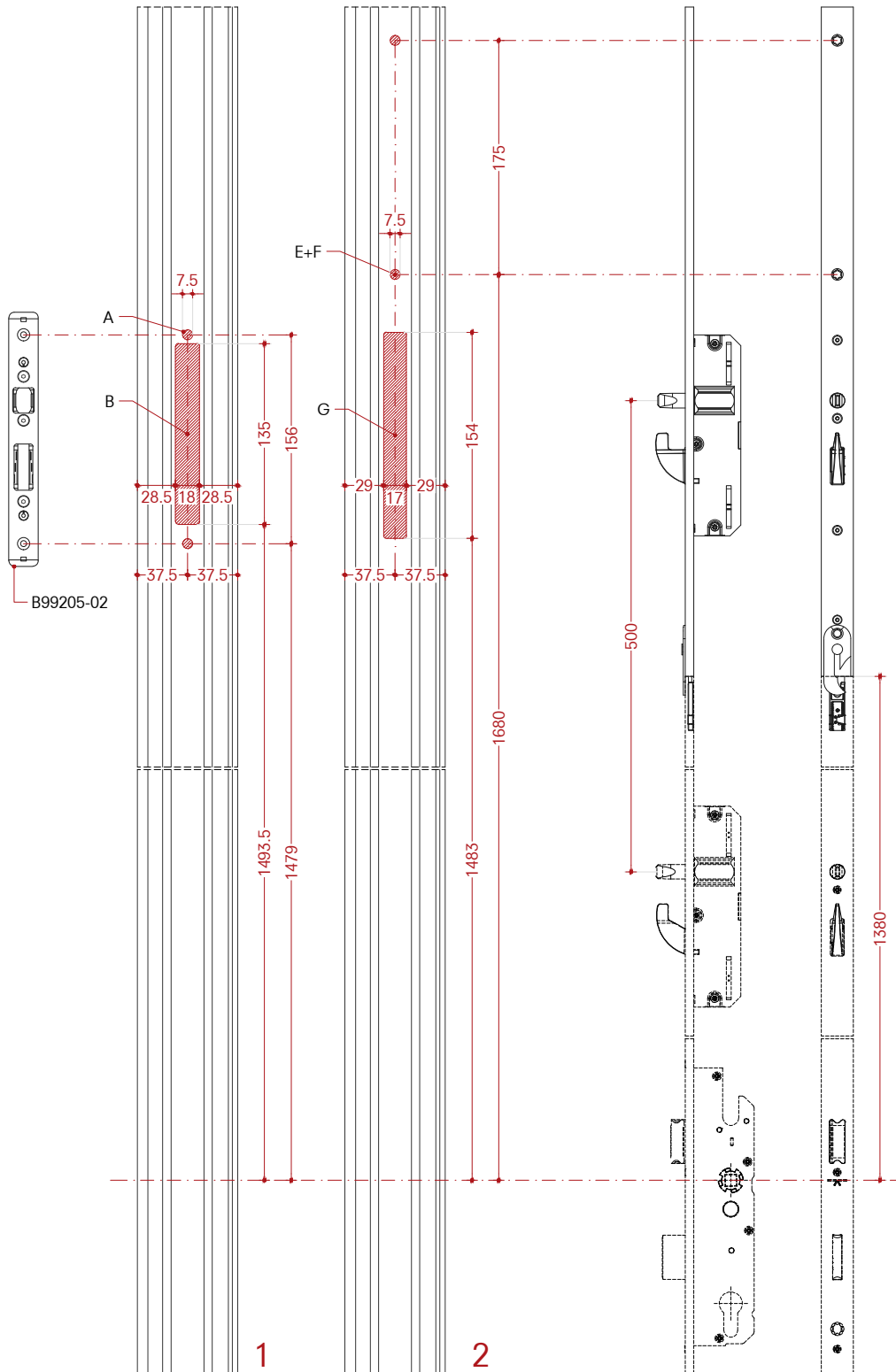
Lock B99169-02 with locking box  
 FT 7512HK-nn + FT 7550Z-nn  
 Open in door

**Montaggio**

Serratura B99169-02 con scatola  
 FT 7512HK-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

Cerradura B99169-02  
 con serradura FT 7512HK-nn + FT 7550Z-nn  
 Puerta apertura hacia dentro



Scale 1:5

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf

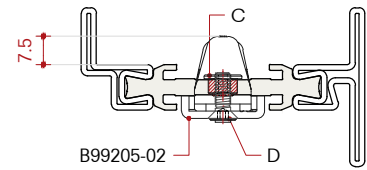
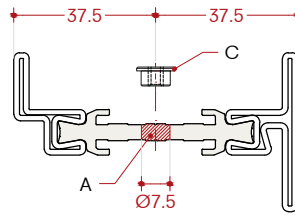
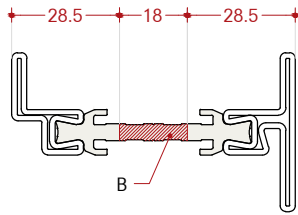
Scala 1:5

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fressatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fressatura nell'anta della porta

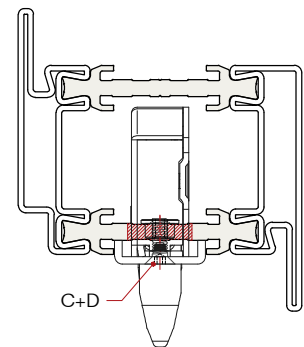
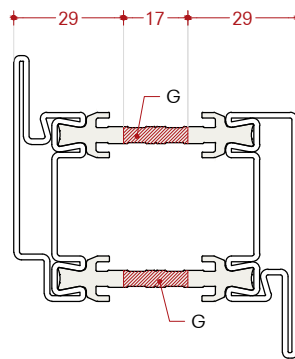
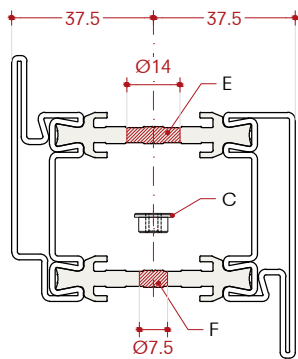
Escala 1:5

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta








1



2



- |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| M4x12<br>ISO 10642<br>n° 2 pcs                                                      | D99704-08<br>n° 2 pcs                                                               | D99205-02<br>n° 1 pc                                                                |

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta

**Installation**

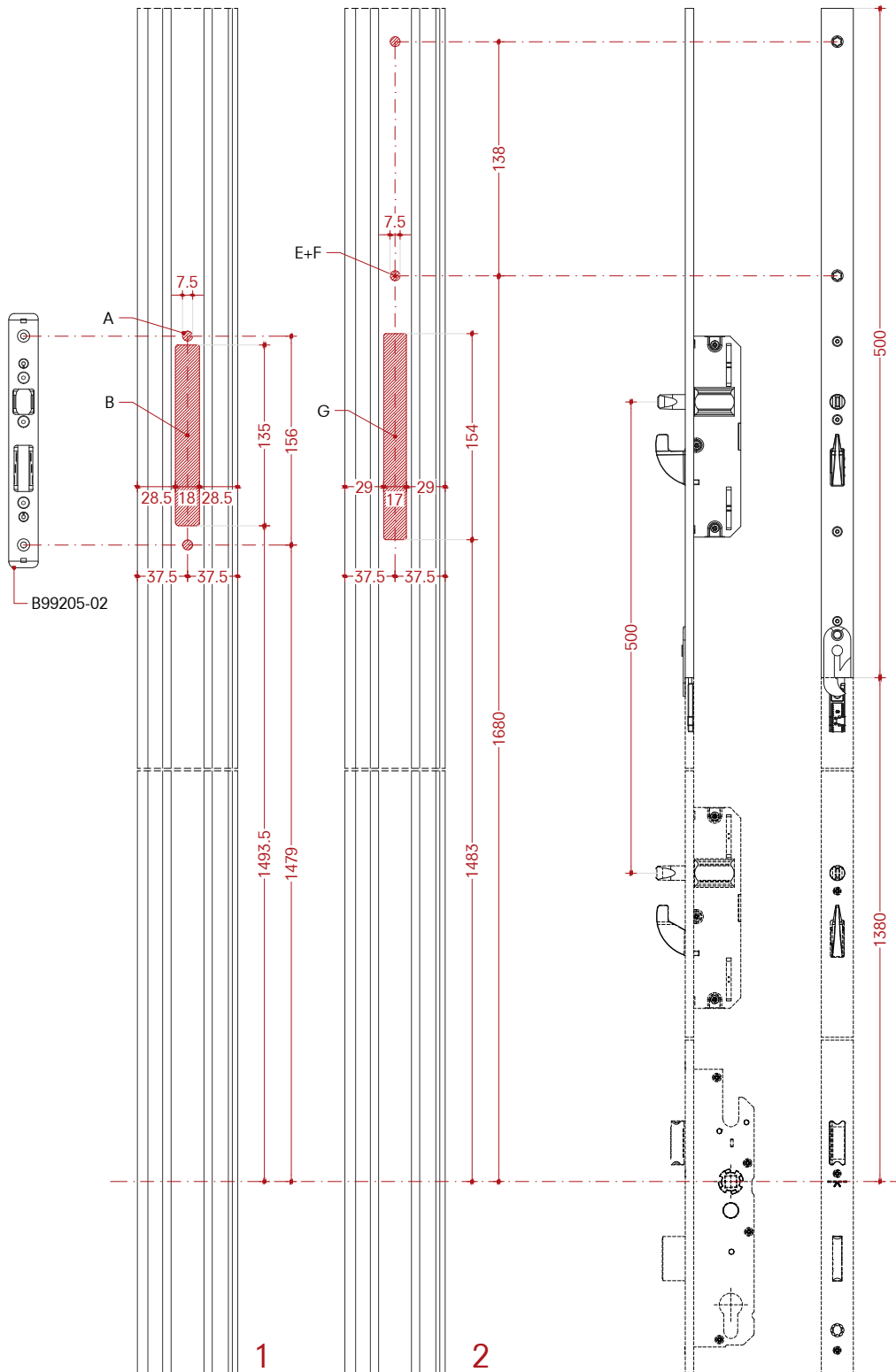
Lock B99169-02 with locking box  
 FT 7512HK-nn + FT 7550T-nn  
 Open out door

**Montaggio**

Serratura B99169-02 con scatola  
 FT 7512HK-nn + FT 7550T-nn  
 Porta apertura esterna

**Montaje**

Cerradura B99169-02  
 con serradura FT 7512HK-nn + FT 7550T-nn  
 Puerta apertura hacia fuera



Scale 1:5

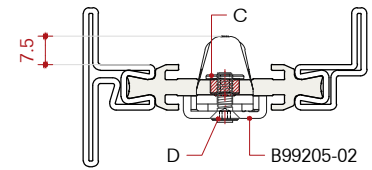
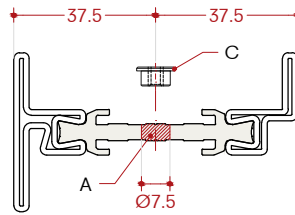
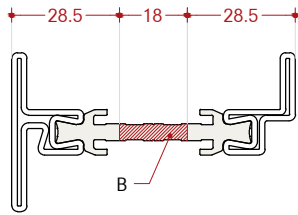
- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf

Scala 1:5

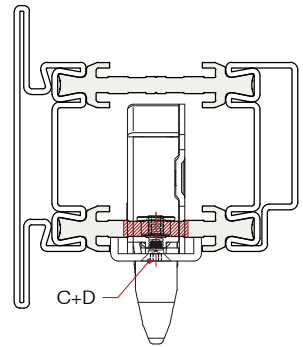
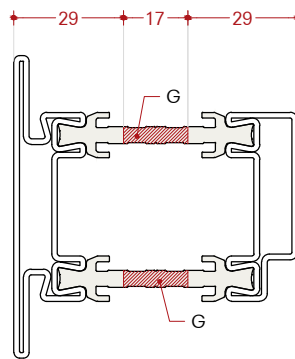
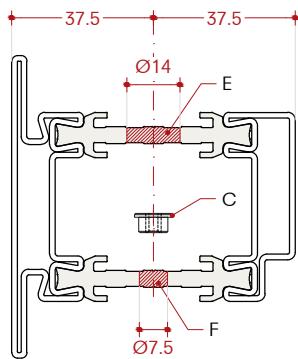
- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta

Escala 1:5

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta






1



2



- |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| M4x12<br>ISO 10642<br>n° 2 pcs                                                      | D99704-08<br>n° 2 pcs                                                               | D99205-02<br>n° 1 pc                                                                |

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta

**Installation**

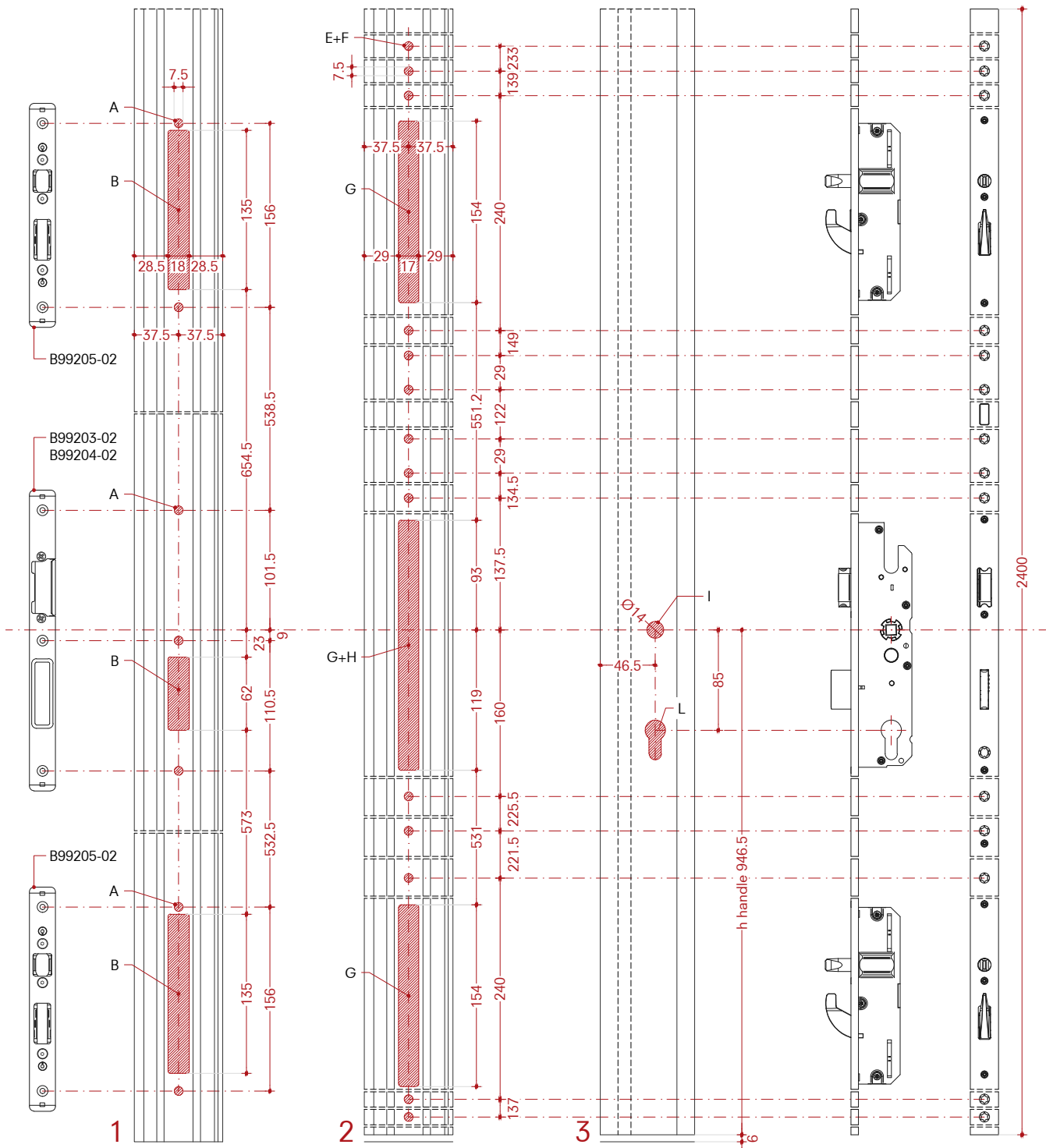
Lock B99170-02 with locking box  
 FT 7512HK-nn + FT 7550Z-nn  
 Open in door

**Montaggio**

Serratura B99170-02 con scatola  
 FT 7512HK-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

Cerradura B99170-02  
 con serradura FT 7512HK-nn + FT 7550Z-nn  
 Puerta apertura hacia dentro



Scale 1:5

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

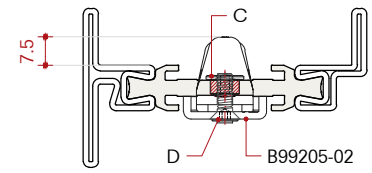
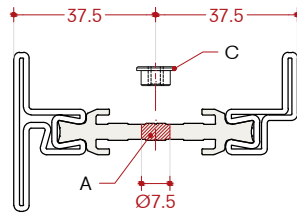
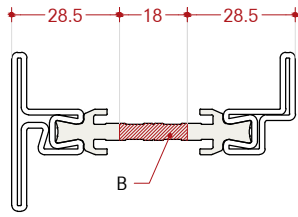
Scala 1:5

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

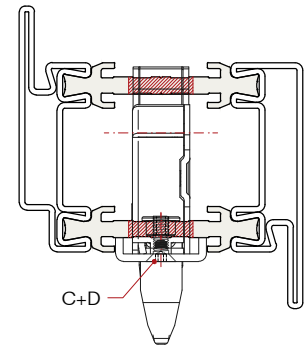
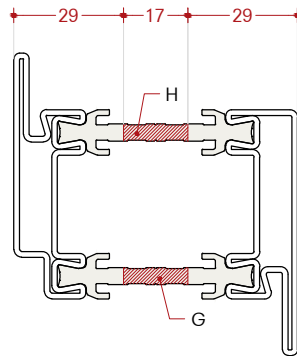
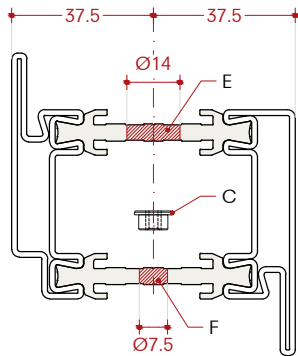
Escala 1:5

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

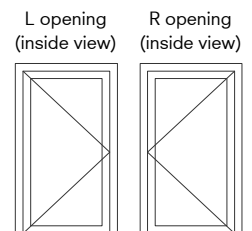
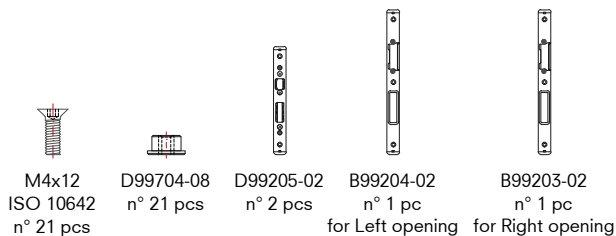
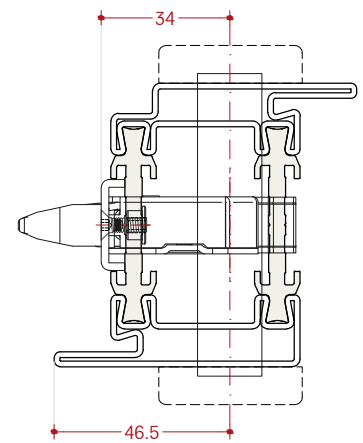
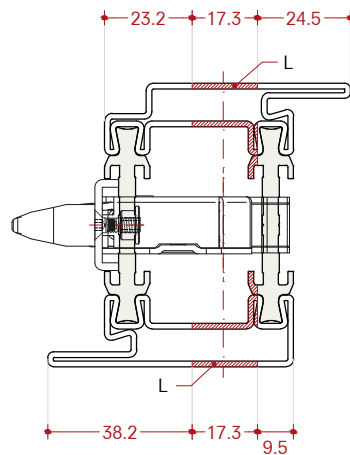
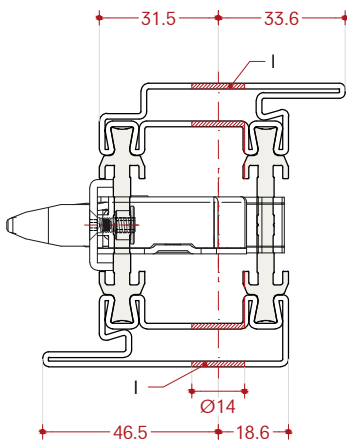
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- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccolla in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

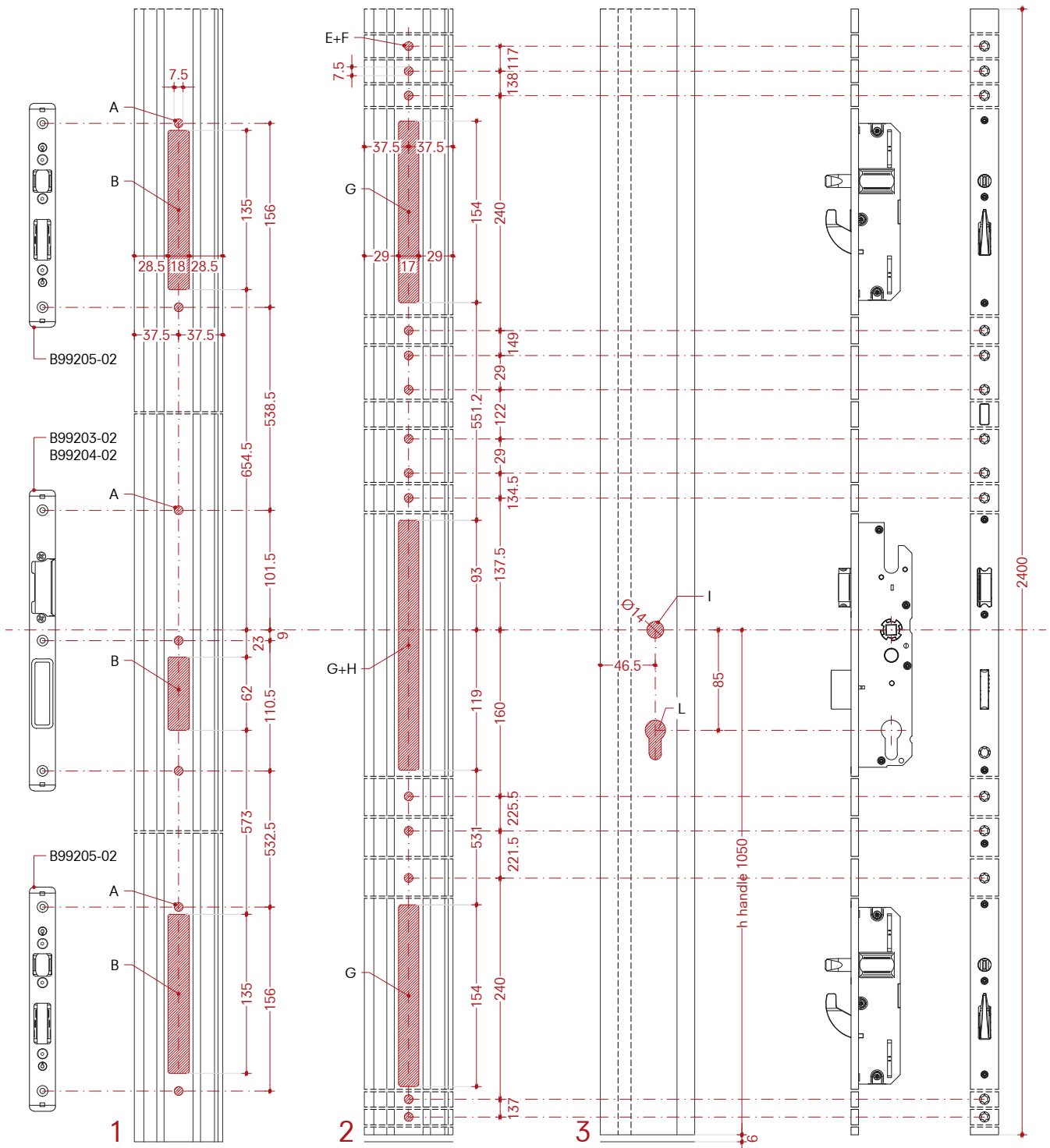
Lock B99170-02 with locking box  
 FT 7512HK-nn + FT 7550T-nn  
 Open out door

**Montaggio**

Serratura B99170-02 con scatola  
 FT 7512HK-nn + FT 7550T-nn  
 Porta apertura esterna

**Montaje**

Cerradura B99170-02  
 con serradura FT 7512HK-nn + FT 7550T-nn  
 Puerta apertura hacia fuera



Scale 1:5

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

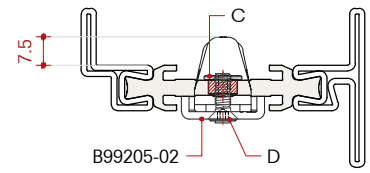
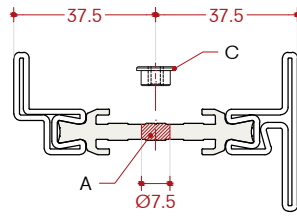
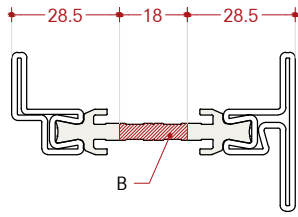
Scala 1:5

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

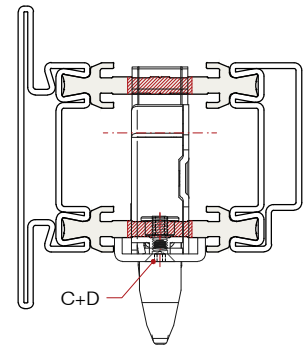
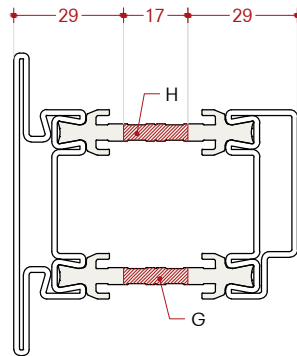
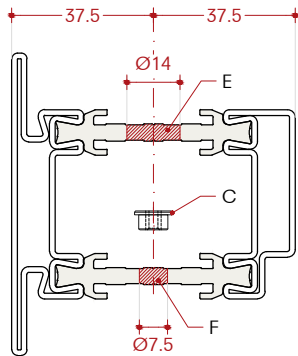
Escala 1:5

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

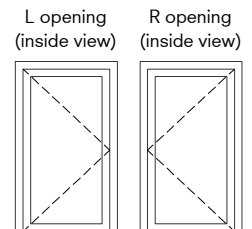
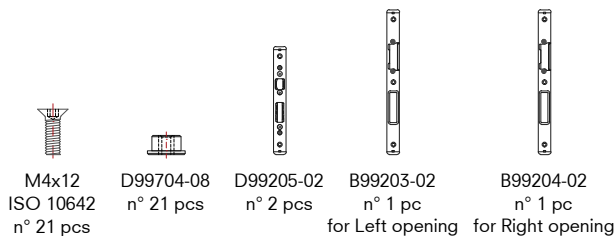
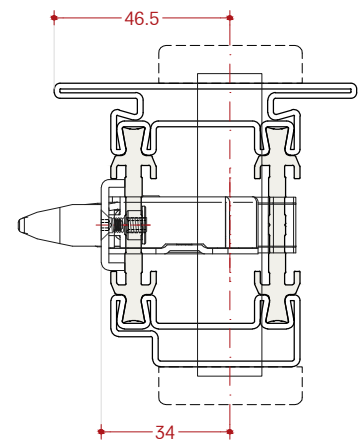
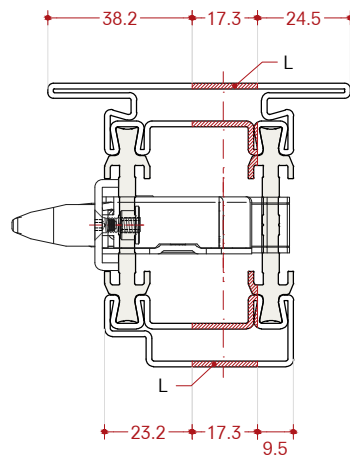
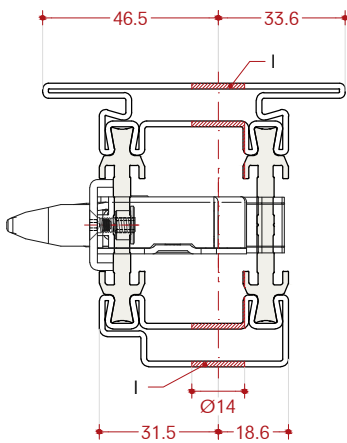
1



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- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccolla in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

Flush bolt E99035-02  
 Lock B99170-02

Double leaf door open in  
 with widening on complete height on  
 lock side

**Montaggio**

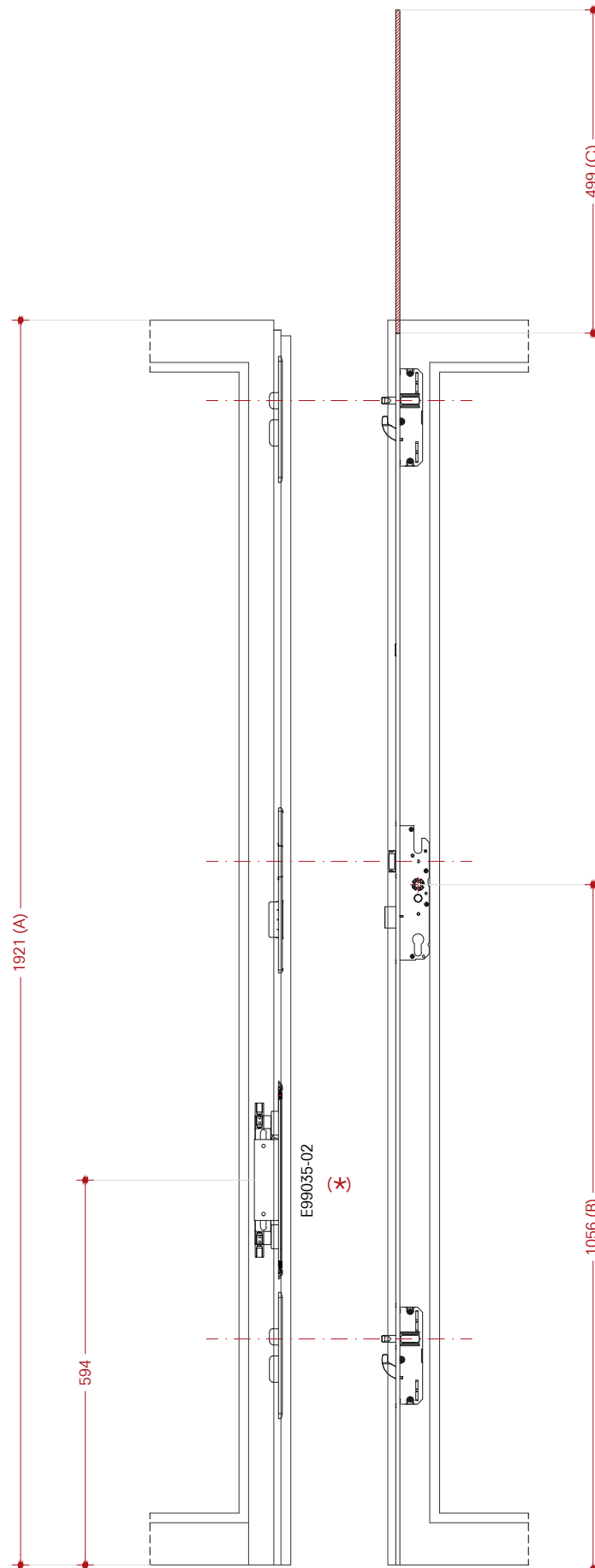
Catenaccio E99035-02  
 Serratura B99170-02

Porta a due battenti apertura interna  
 con montante maggiorato lato  
 serratura

**Montaje**

Pasador de canto E99035-02  
 Cerradura B99170-02

Puerta abatible de dos hojas que se  
 abre hacia dentro con mayor posición  
 vertical en el lado de la cerradura



Scale 1:10

- A) Minimum height leaf
- B) Height handle
- C) Maximum cropping

(\*) Evaluate the position of the flush bolt  
 E99035-02, installation allowed above or  
 below the lock.

Scale 1:10

- A) Altezza minima anta
- B) Altezza maniglia
- C) Rasabilità massima

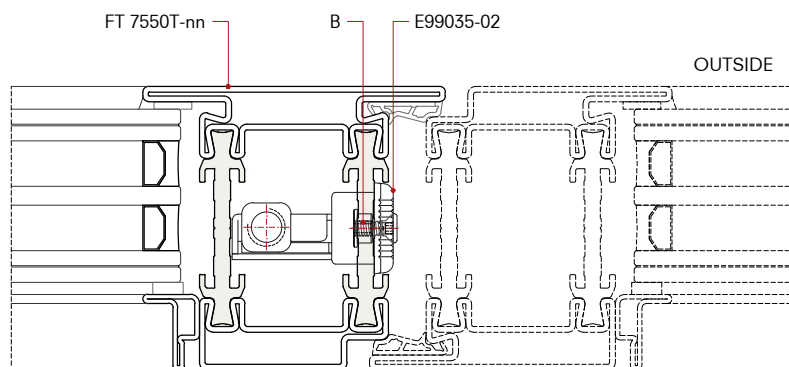
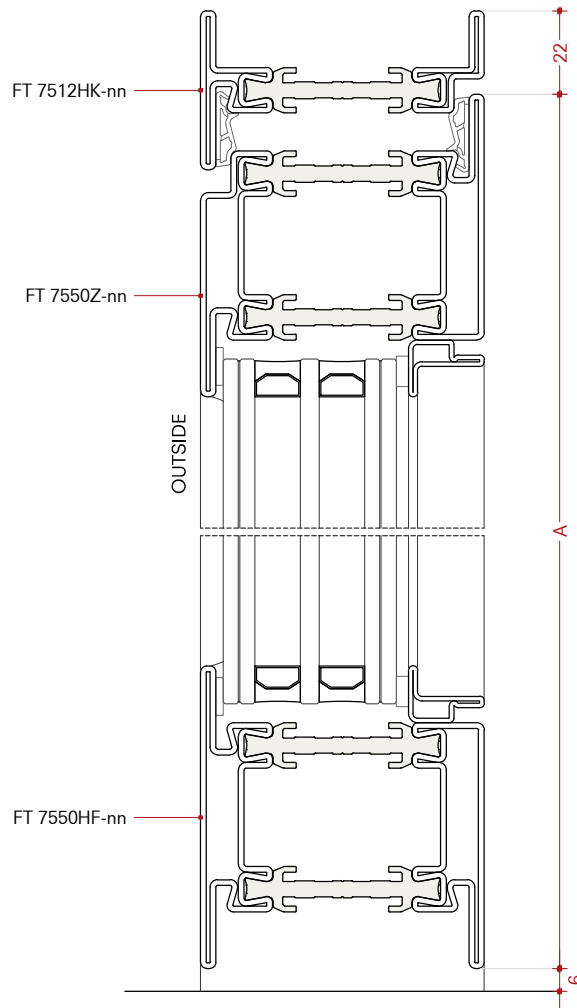
(\*) Valutare la posizione del catenaccio  
 E99035-02, installazione consentita sopra o  
 sotto la serratura.

Scale 1:10

- A) Altura mínima de la hoja
- B) Altura de la manilla
- C) Recorte máximo

(\*) Evaluar la posición del pasador de canto  
 E99035-02, instalación permitida arriba o  
 debajo de la cerradura.



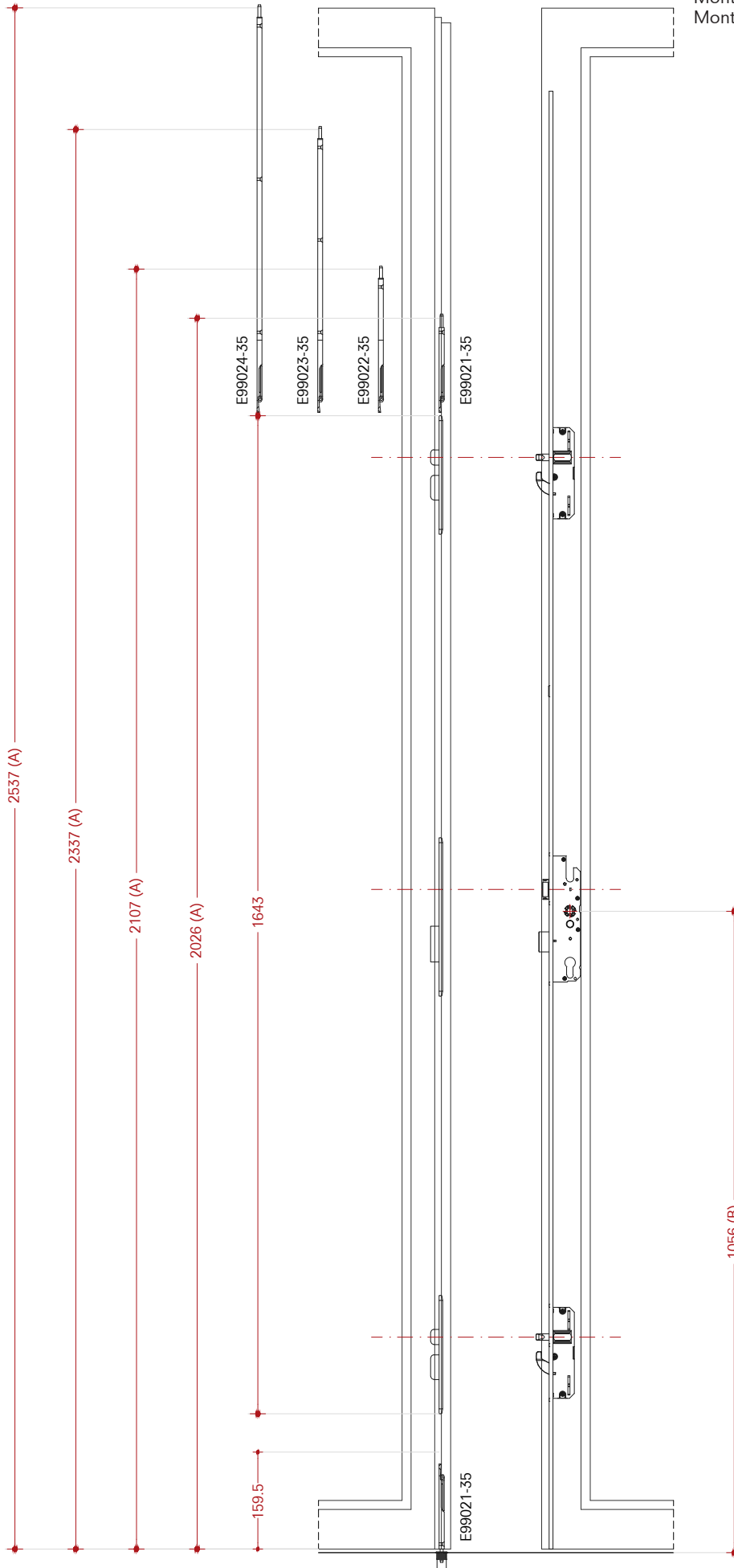


A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

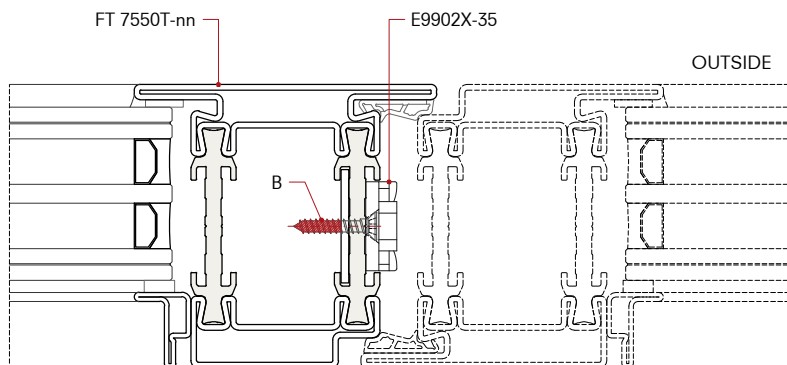
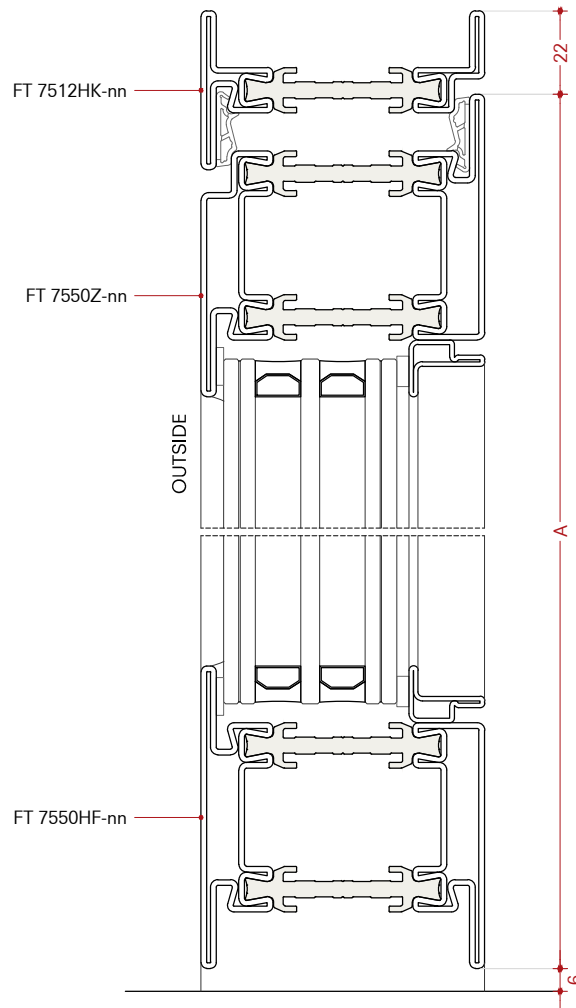
|                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Installation</b><br/>                 Flush bolt E9902X-35<br/>                 Lock B99170-02<br/>                 Double leaf door open in<br/>                 with widening on complete height on<br/>                 lock side</p> | <p><b>Montaggio</b><br/>                 Catenaccio E9902X-35<br/>                 Serratura B99170-02<br/>                 Porta a due battenti apertura interna<br/>                 con montante maggiorato lato<br/>                 serratura</p> | <p><b>Montaje</b><br/>                 Pasador de canto E9902X-35<br/>                 Cerradura B99170-02<br/>                 Puerta abatible de dos hojas que se<br/>                 abre hacia dentro con mayor posición<br/>                 vertical en el lado de la cerradura</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Escala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo

Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima

Scale 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping



A) Height leaf  
 B) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

A) Altezza anta  
 B) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja  
 B) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillos

**Installation**

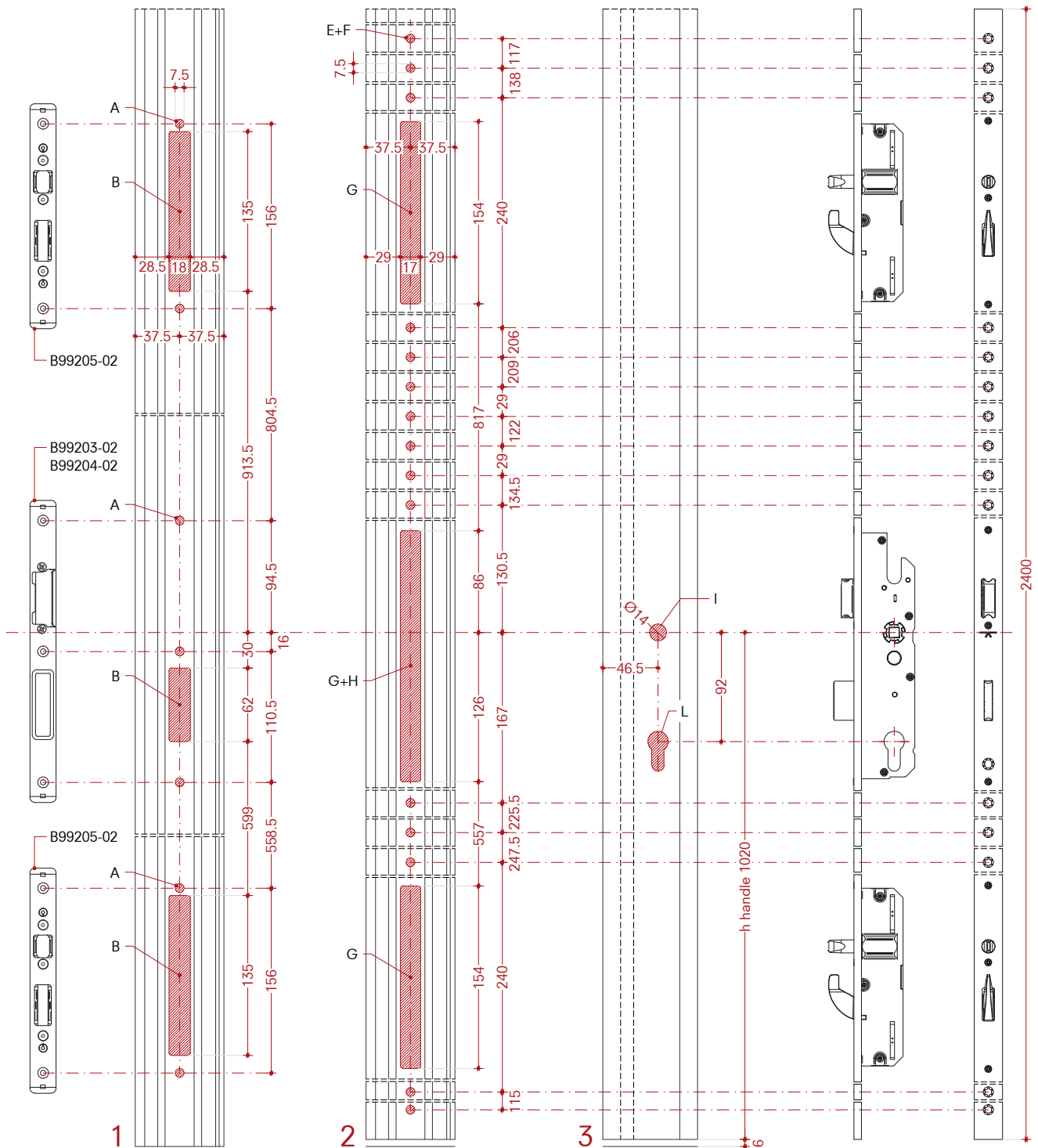
Lock B99171-02 with locking box  
 FT 7512HK-nn + FT 7550Z-nn  
 Open in door

**Montaggio**

Serratura B99171-02 con scatola  
 FT 7512HK-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

Cerradura B99171-02  
 con serradura FT 7512HK-nn + FT 7550Z-nn  
 Puerta apertura hacia dentro



Scale 1:5

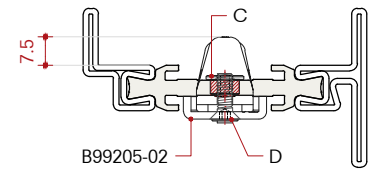
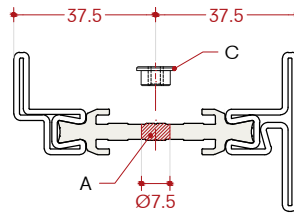
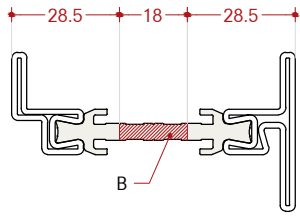
- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

Scala 1:5

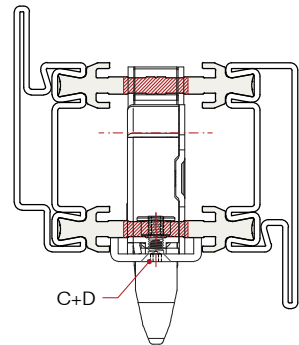
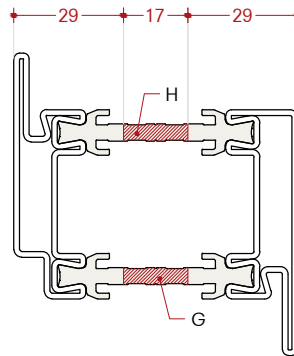
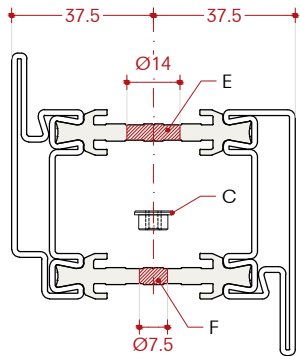
- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

Escala 1:5

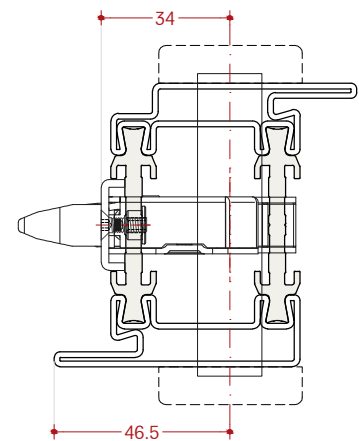
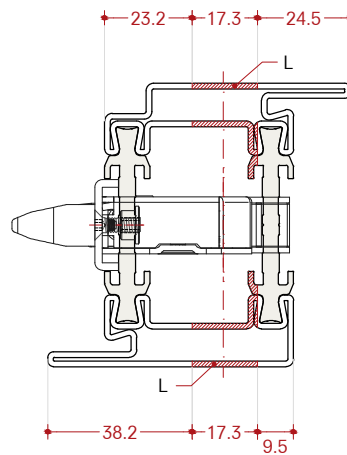
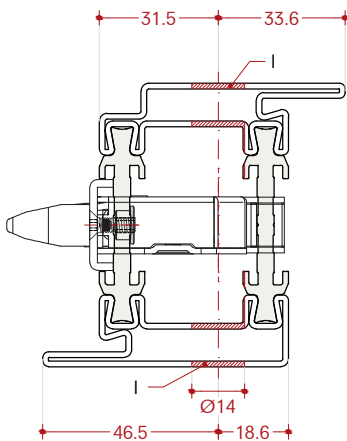
- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros



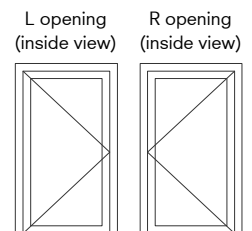
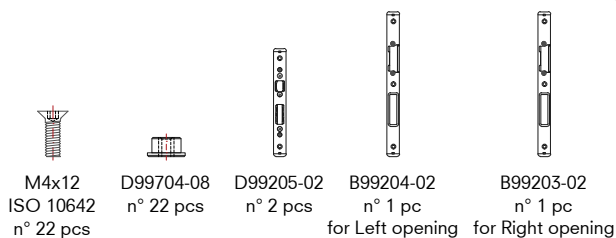
1



2



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- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccolla in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

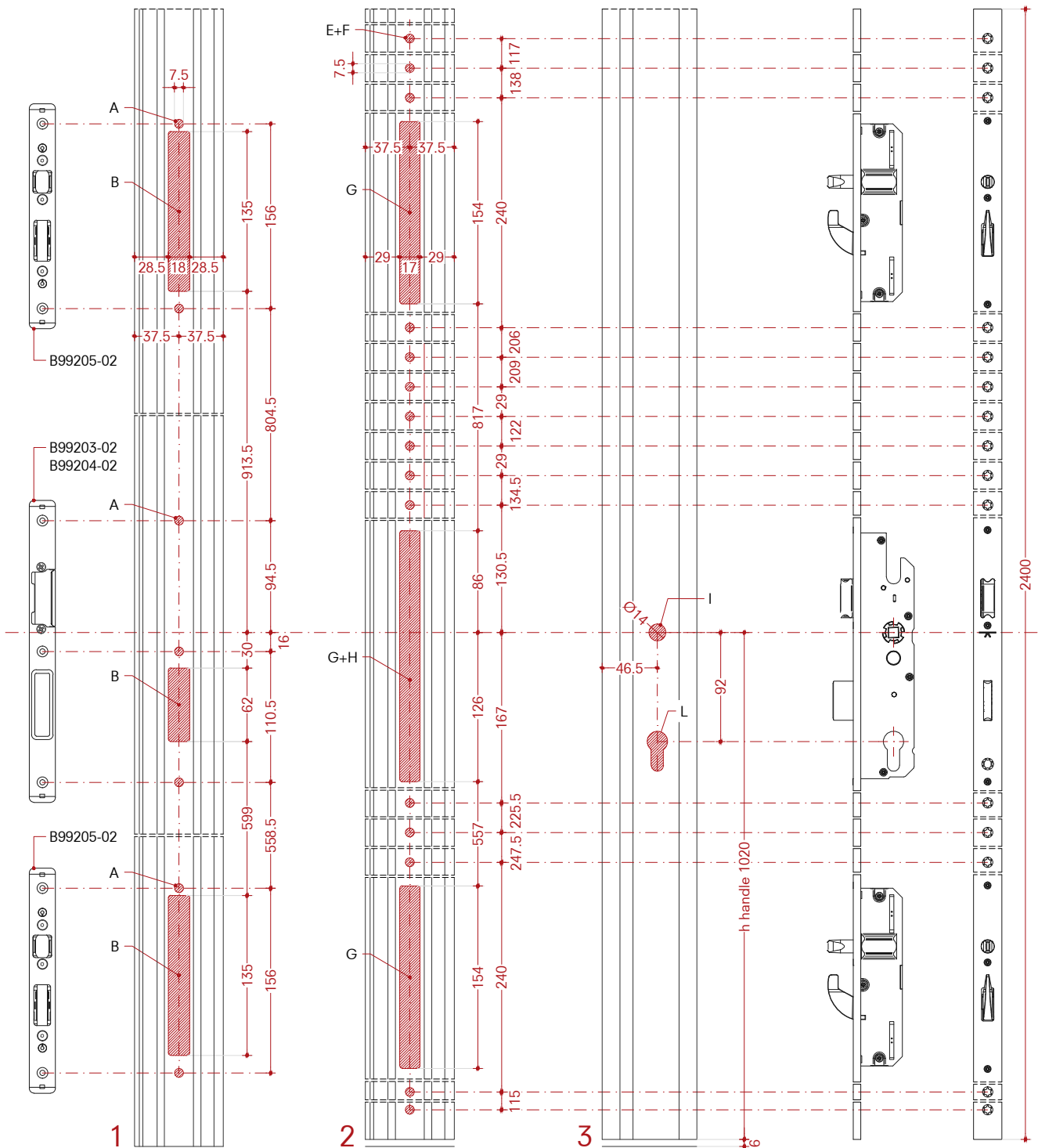
Lock B99171-02 with locking box  
 FT 7512HK-nn + FT 7550T-nn  
 Open out door

**Montaggio**

Serratura B99171-02 con scatola  
 FT 7512HK-nn + FT 7550T-nn  
 Porta apertura esterna

**Montaje**

Cerradura B99171-02  
 con serradura FT 7512HK-nn + FT 7550T-nn  
 Puerta apertura hacia fuera



Scale 1:5

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

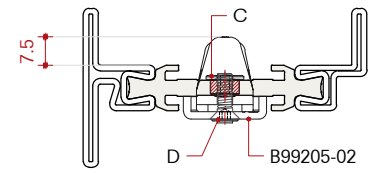
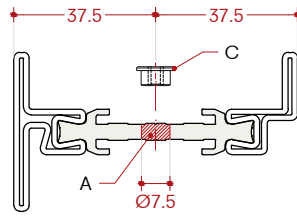
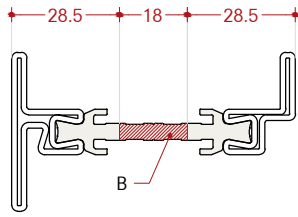
Scala 1:5

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

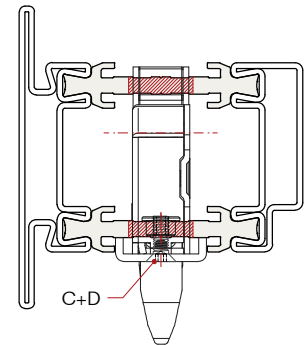
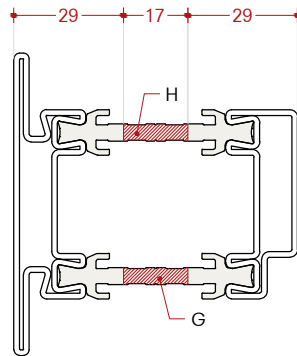
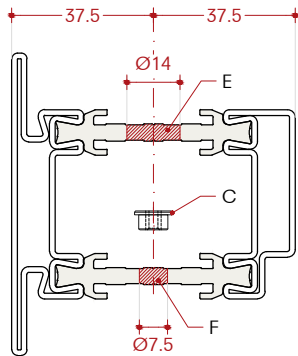
Escala 1:5

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

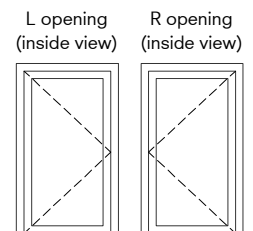
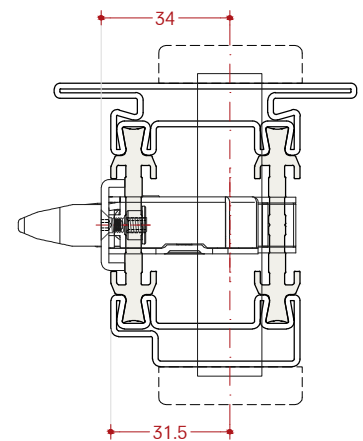
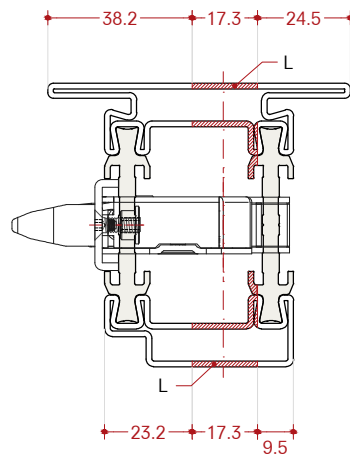
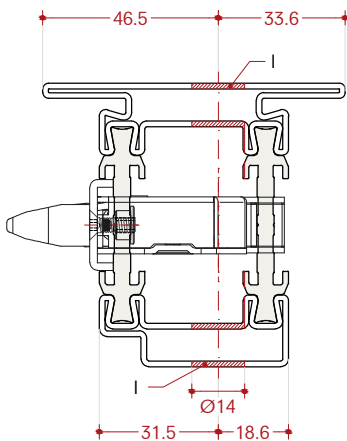
1



2



3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

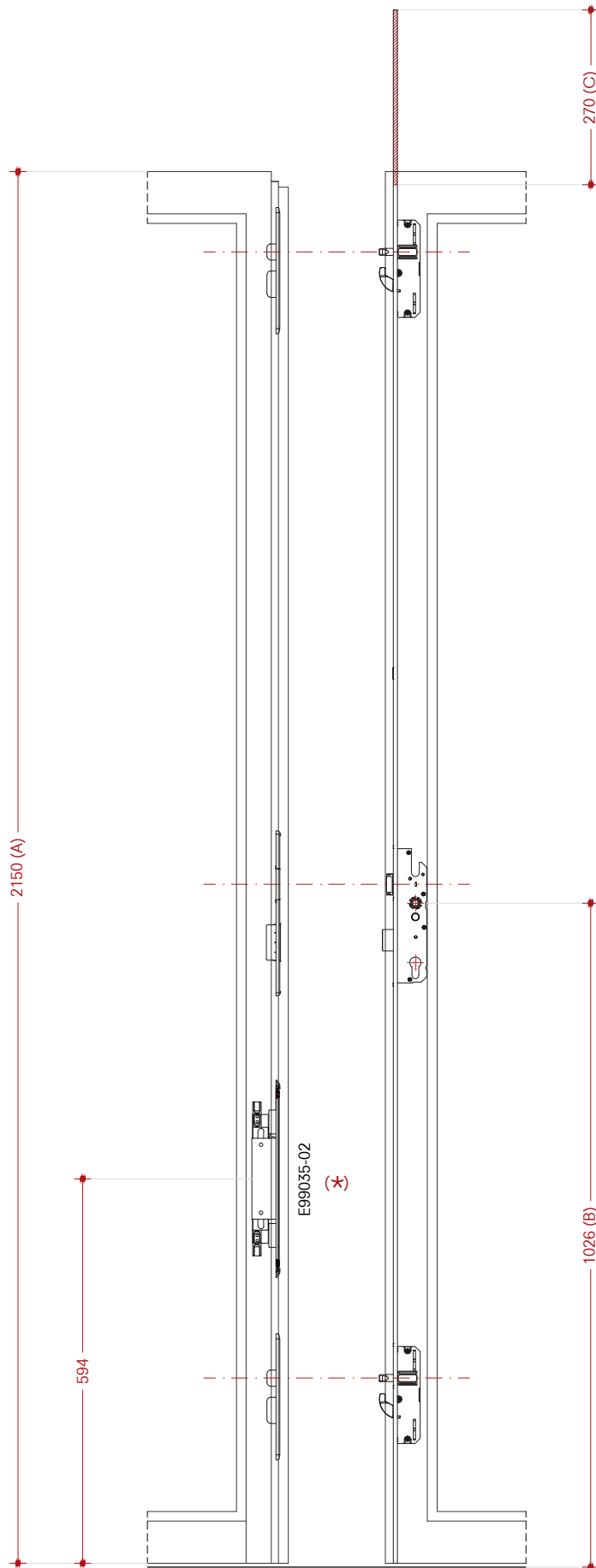
- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Montaje**  
 Pasador de canto E99035-02  
 Cerradura B99171-02  
 Puerta abatible de dos hojas que se abre hacia dentro con mayor posición vertical en el lado de la cerradura

**Montaggio**  
 Catenaccio E99035-02  
 Serratura B99171-02  
 Porta a due battenti apertura interna con montante maggiorato lato serratura

**Installation**  
 Flush bolt E99035-02  
 Lock B99171-02  
 Double leaf door open in with widening on complete height on lock side



Escala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo

Escala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima

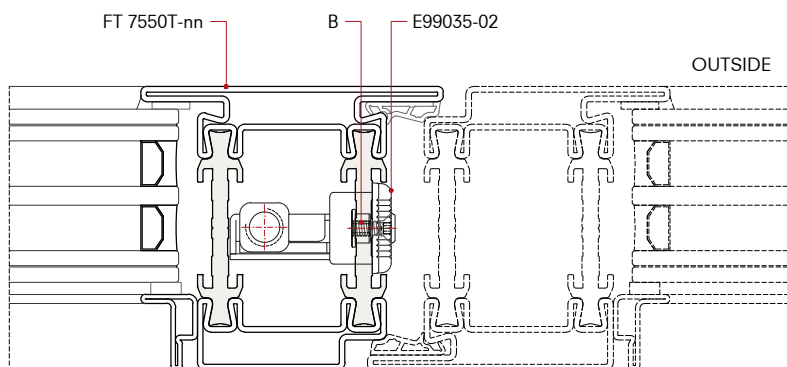
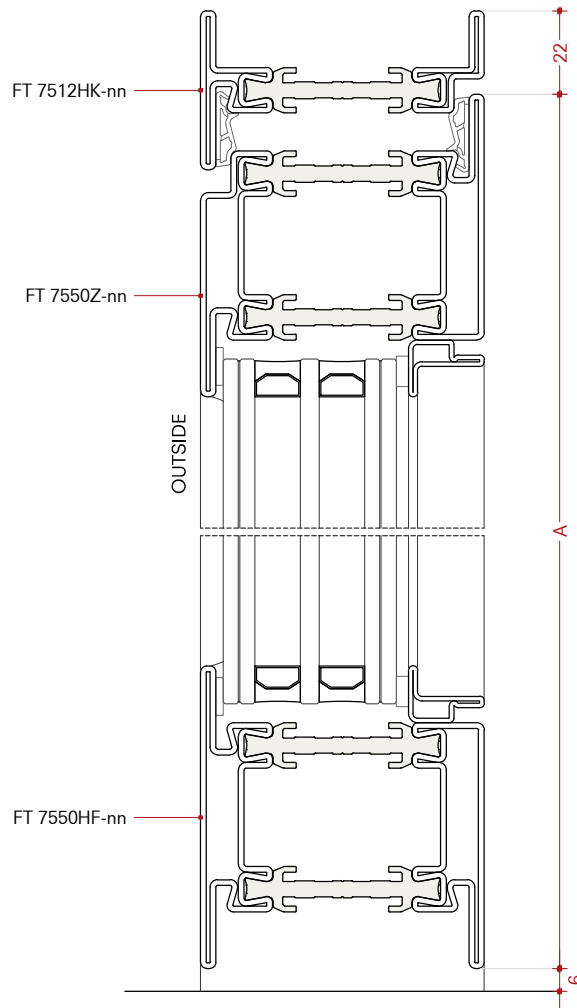
Escala 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping

(\*) Evaluar la posición del posador de canto E99035-02, instalación permitida arriba o debajo de la cerradura.

(\*) Valutare la posizione del catenaccio E99035-02, installazione consentita sopra o sotto la serratura.

(\*) Evaluate the position of the flush bolt E99035-02, installation allowed above or below the lock.





A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

**Installation**

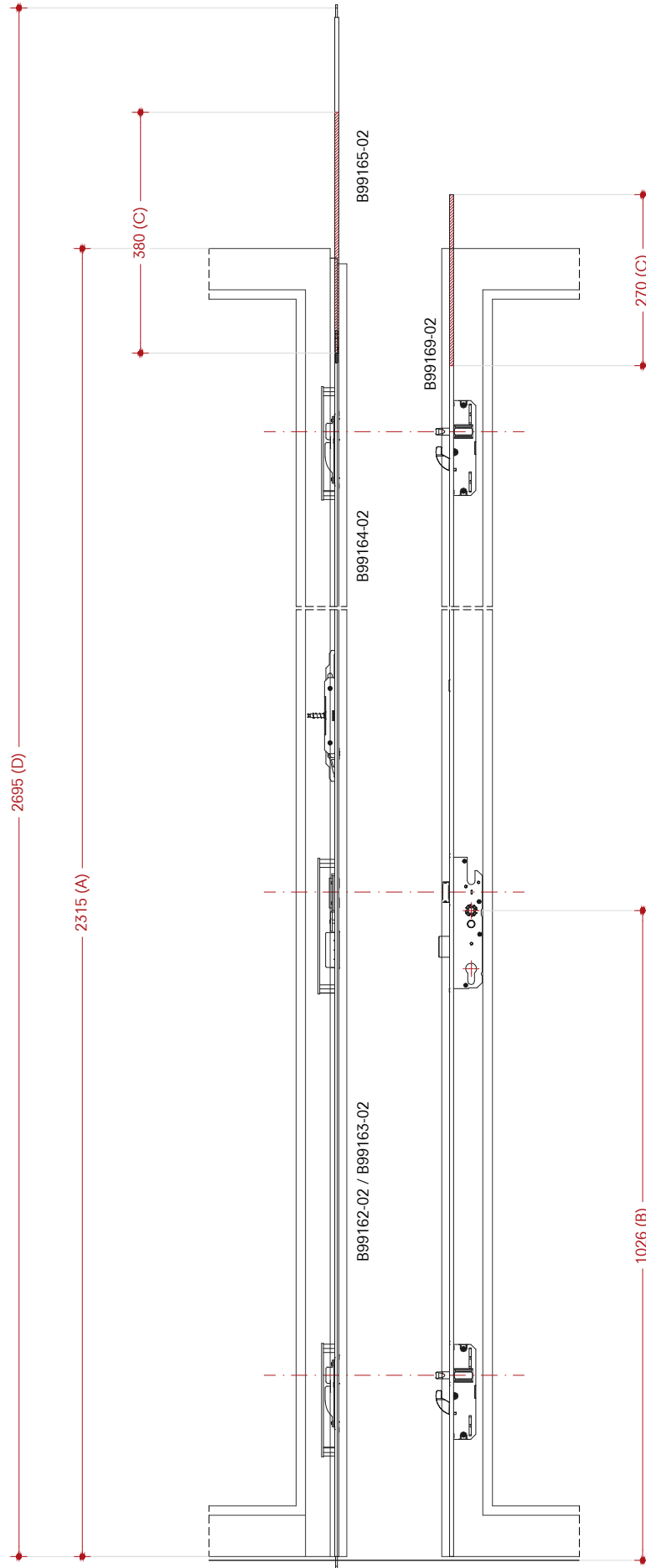
- Flush bolt E99035-02
- Lock B99171-02
- Lock extension B99169-02
- French casement drive gear B99162-02/B99163-02
- Extension B99164-02
- Shoot bolt B99165-02
- Double leaf door open in with widening on complete height on lock side

**Montaggio**

- Catenaccio E99035-02
- Serratura B99171-02
- Prolunga serratura B99169-02
- Asta a leva cava B99162-02/B99163-02
- Prolunga B99164-02
- Puntale B99165-02
- Porta a due battenti apertura interna con montante maggiorato lato serratura

**Montaje**

- Pasador de canto E99035-02
- Cerradura B99171-02
- Extensión de bloqueo B99169-02
- Varilla de palanca B99162-02/B99163-02
- Extensión B99164-02
- Pasador de canto B99165-02
- Puerta abatible de dos hojas que se abre hacia dentro con mayor posición vertical en el lado de la cerradura



Scala 1:10

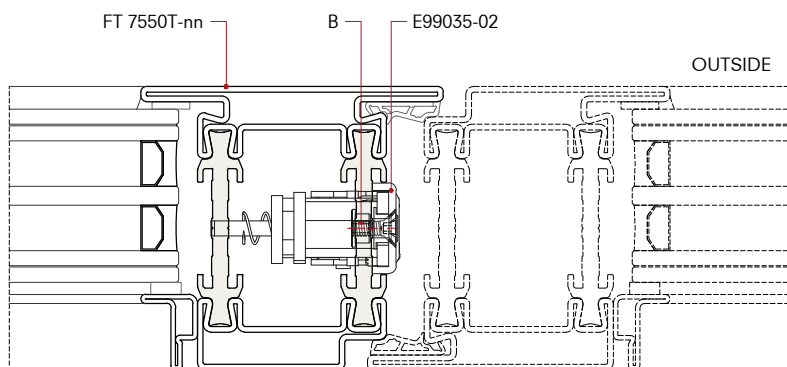
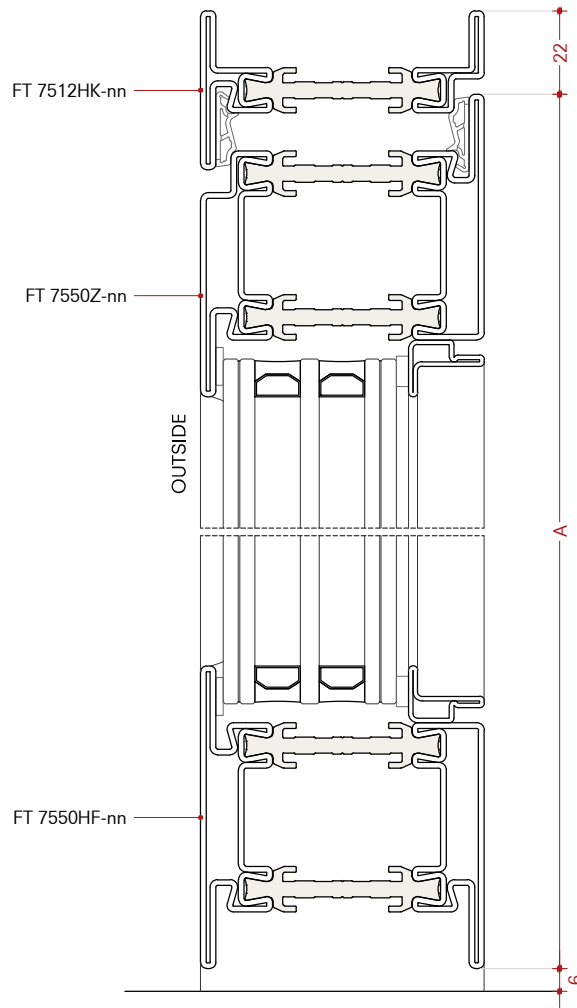
- A) Minimum height leaf
- B) Height handle
- C) Maximum cropping
- D) Maximum height

Scala 1:10

- A) Altezza minima anta
- B) Altezza maniglia
- C) Rasabilità massima
- D) Altezza massima

Scala 1:10

- A) Altura mínima de la hoja
- B) Altura de la manilla
- C) Recorte máximo
- D) Altura máxima



A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

**Installation**

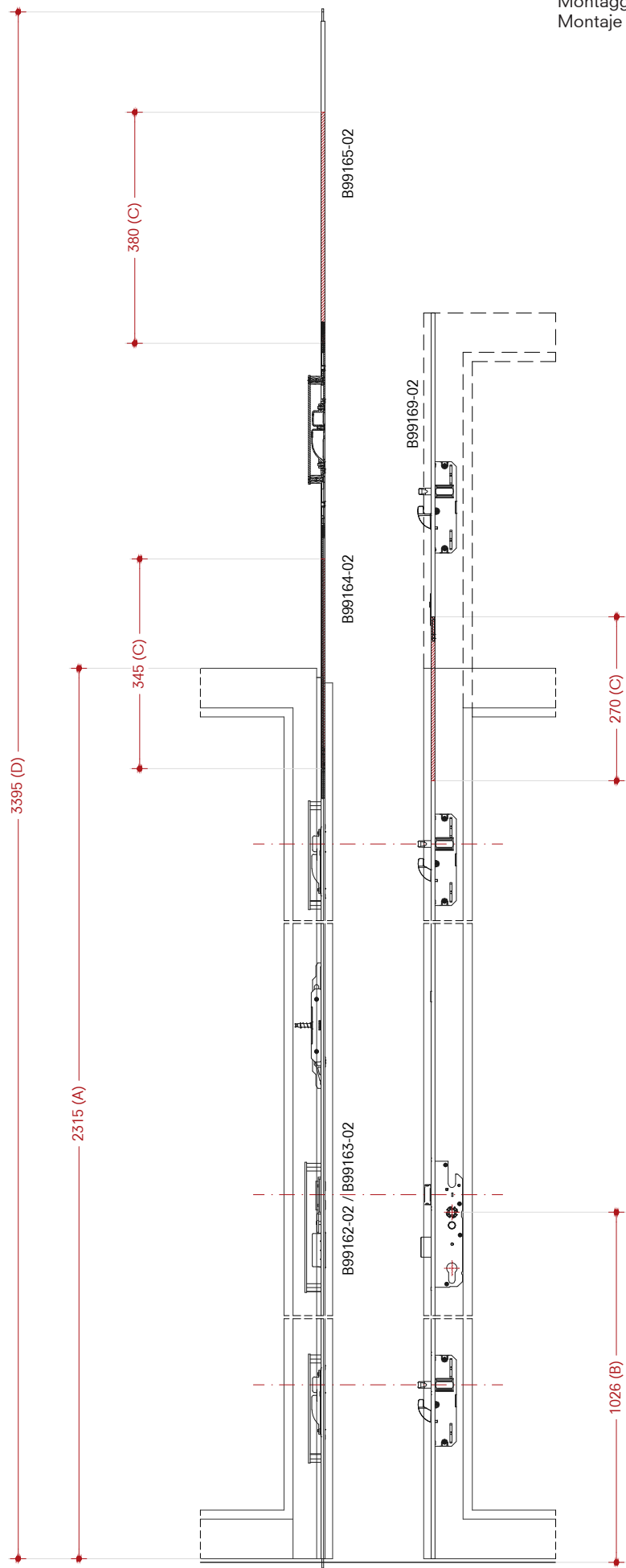
- Flush bolt E99035-02
- Lock B99171-02
- Lock extension B99169-02
- French casement drive gear B99162-02/B99163-02
- Extension B99164-02
- Shoot bolt B99165-02
- Double leaf door open in with widening on complete height on lock side

**Montaggio**

- Catenaccio E99035-02
- Serratura B99171-02
- Prolunga serratura B99169-02
- Asta a leva cava B99162-02/B99163-02
- Prolunga B99164-02
- Puntale B99165-02
- Porta a due battenti apertura interna con montante maggiorato lato serratura

**Montaje**

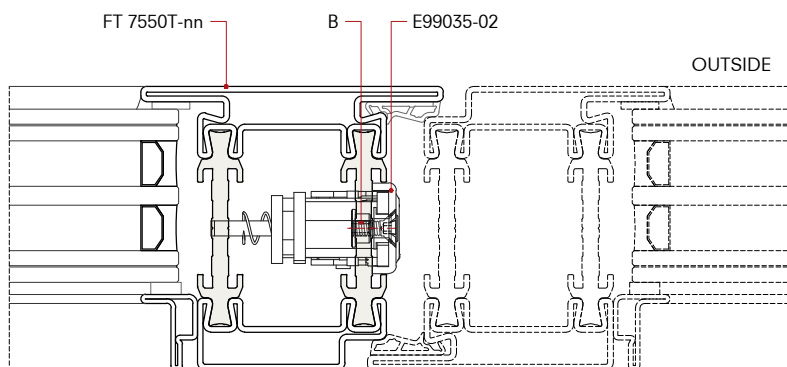
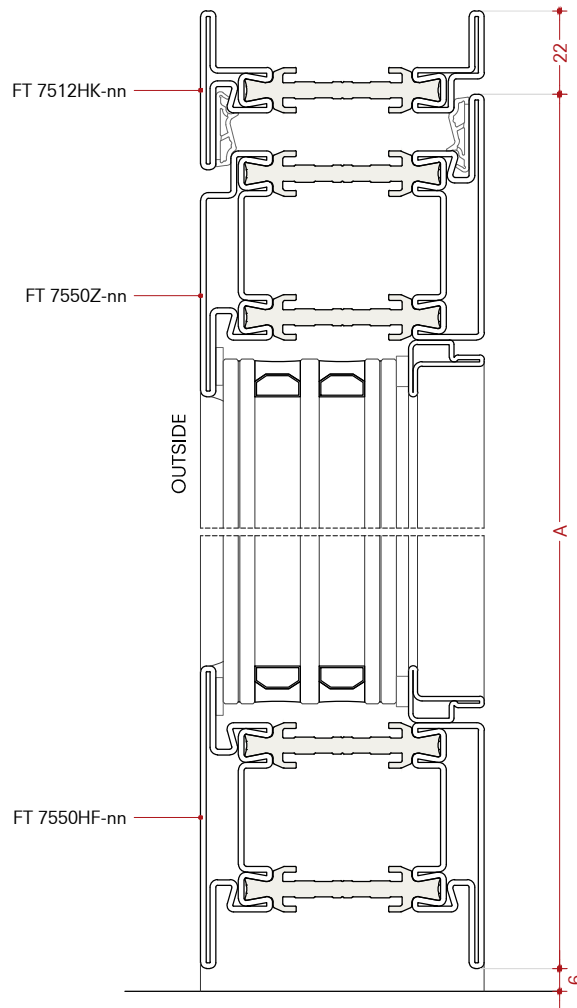
- Pasador de canto E99035-02
- Cerradura B99171-02
- Extensión de bloqueo B99169-02
- Varilla de palanca B99162-02/B99163-02
- Extensión B99164-02
- Pasador de canto B99165-02
- Puerta abatible de dos hojas que se abre hacia dentro con mayor posición vertical en el lado de la cerradura



Scala 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping  
 D) Maximum height

Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima  
 D) Altezza massima

Scala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo  
 D) Altura máxima



A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

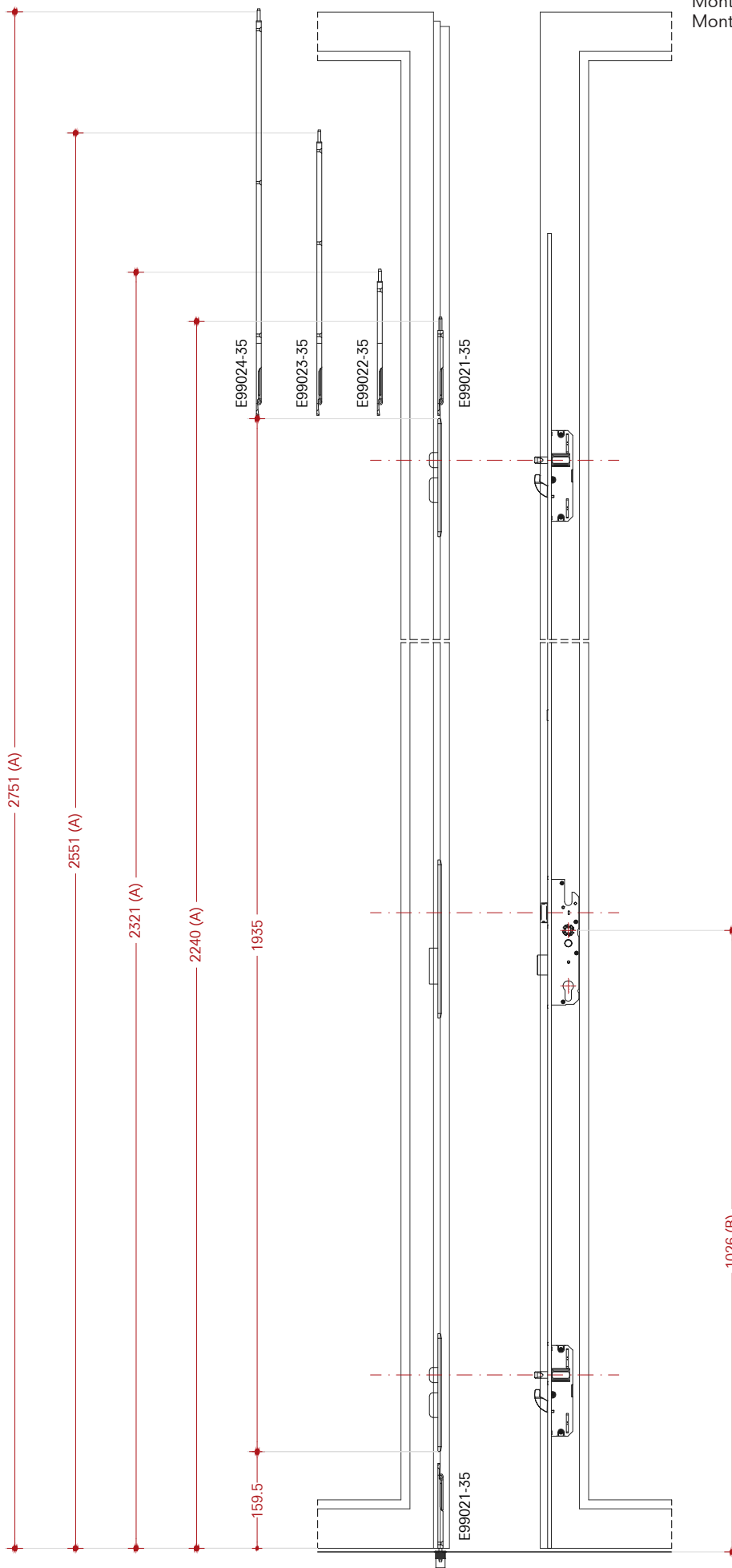
A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

**Montaje**  
Pasador de canto E9902X-35  
Cerradura B99171-02  
Puerta abatible de dos hojas que se abre hacia dentro con mayor posición vertical en el lado de la cerradura

**Montaggio**  
Catenaccio E9902X-35  
Serratura B99171-02  
Porta a due battenti apertura interna con montante maggiorato lato serratura

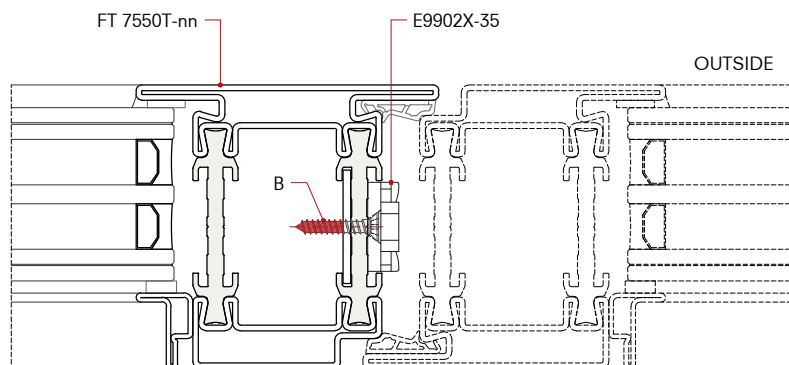
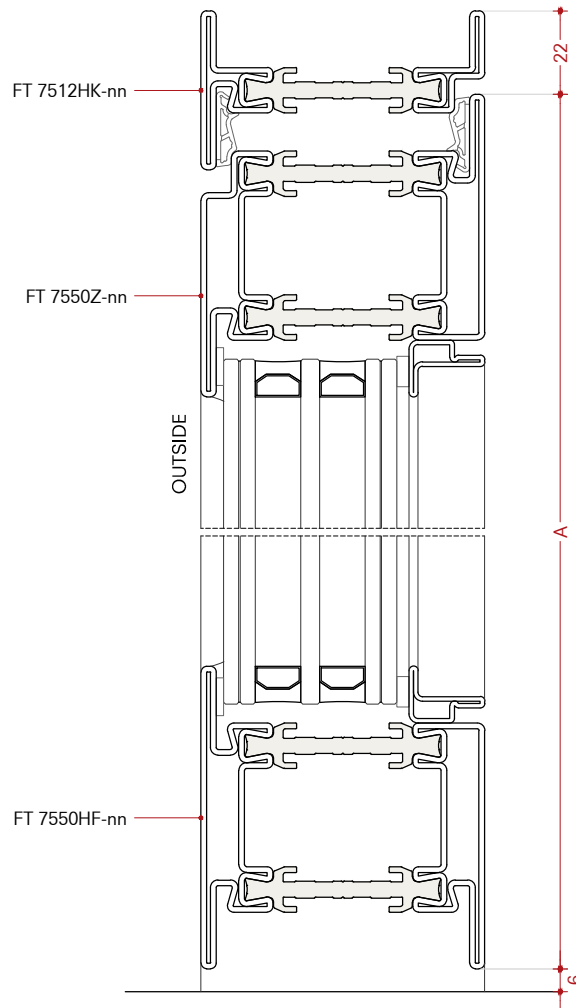
**Installation**  
Flush bolt E9902X-35  
Lock B99171-02  
Double leaf door open in with widening on complete height on lock side



Escala 1:10  
A) Altura mínima de la hoja  
B) Altura de la manilla

Scala 1:10  
A) Altezza minima anta  
B) Altezza maniglia

Scale 1:10  
A) Minimum height leaf  
B) Height handle



A) Height leaf  
 B) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

A) Altezza anta  
 B) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja  
 B) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillos

**Installation**

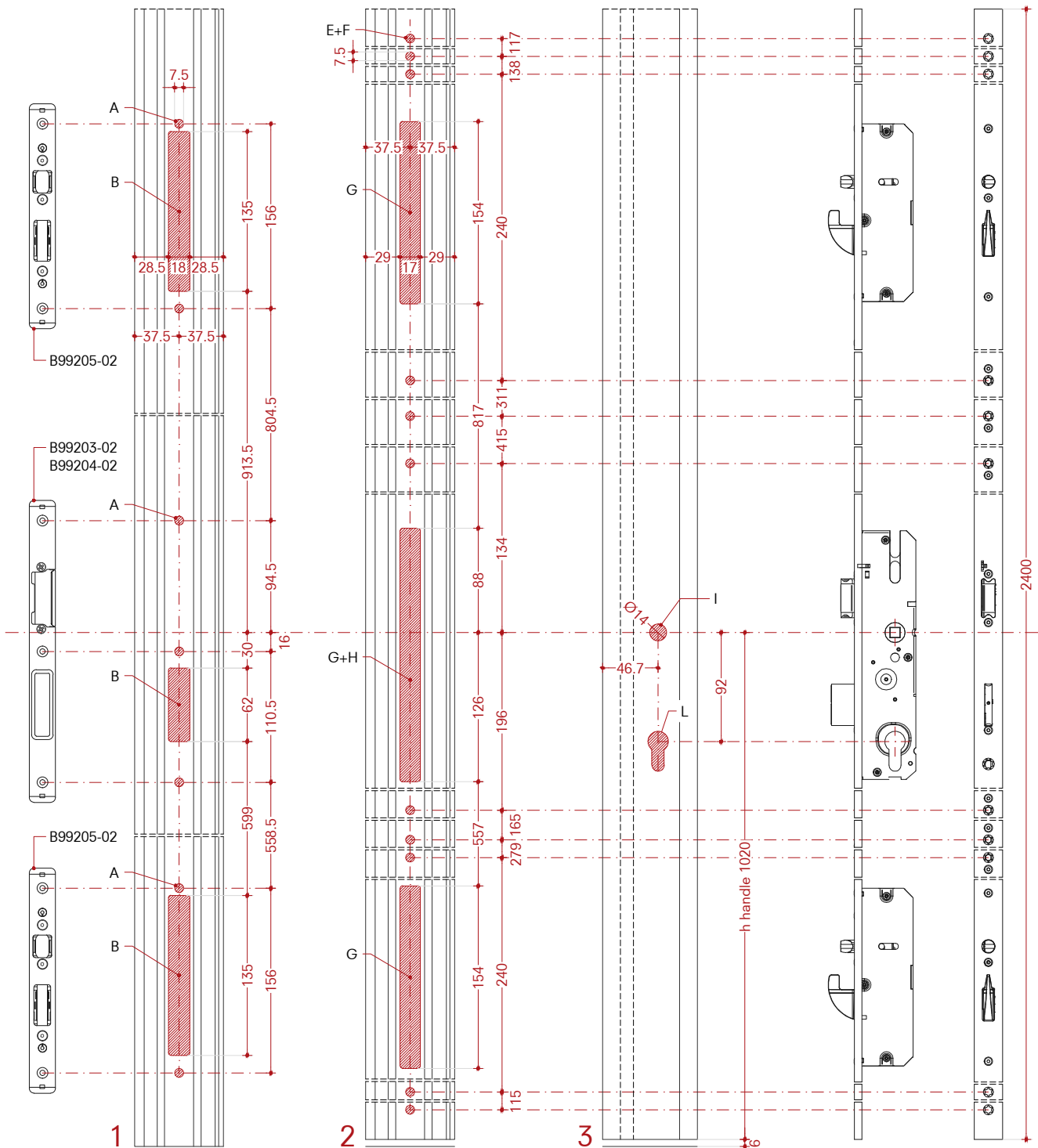
Lock B99173-02 with locking box  
 FT 7512HK-nn + FT 7550Z-nn  
 Open in door

**Montaggio**

Serratura B99173-02 con scatola  
 FT 7512HK-nn + FT 7550Z-nn  
 Porta apertura interna

**Montaje**

Cerradura B99173-02  
 con serradura FT 7512HK-nn + FT 7550Z-nn  
 Puerta apertura hacia dentro



Scale 1:5

- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

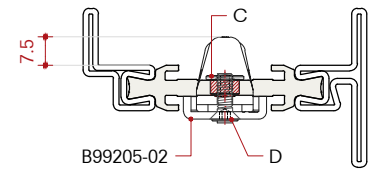
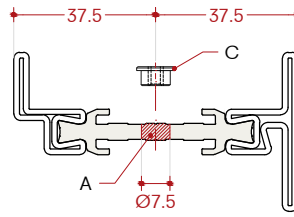
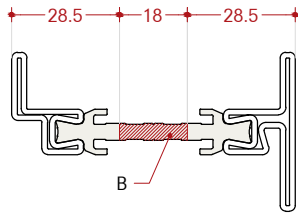
Scala 1:5

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

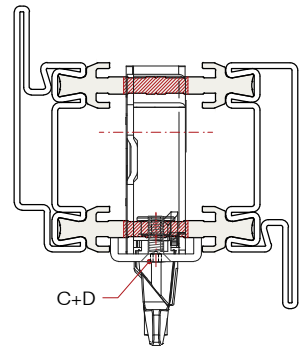
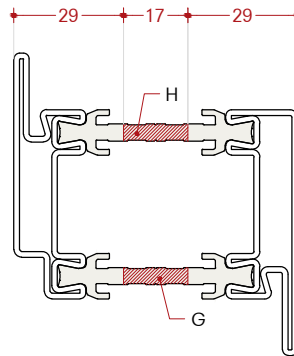
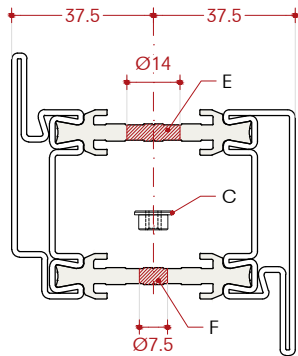
Escala 1:5

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

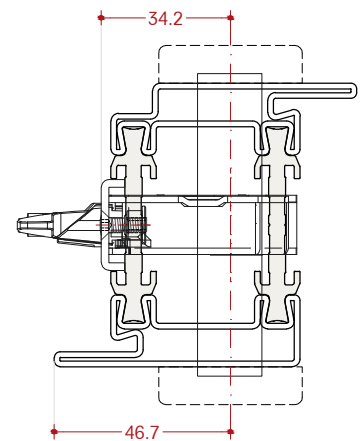
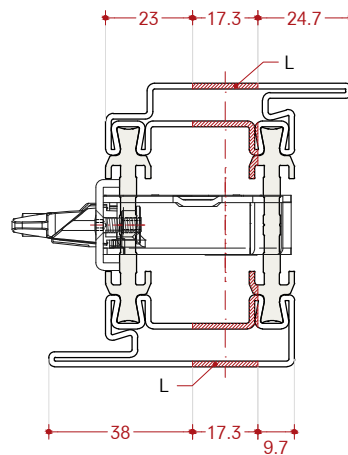
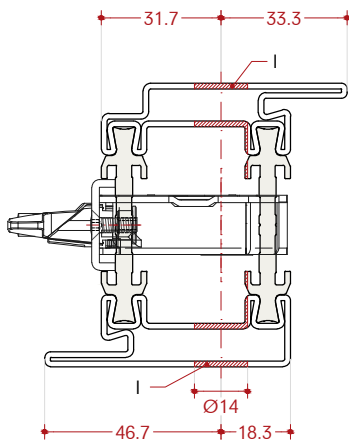




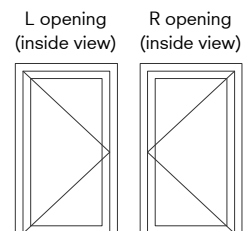
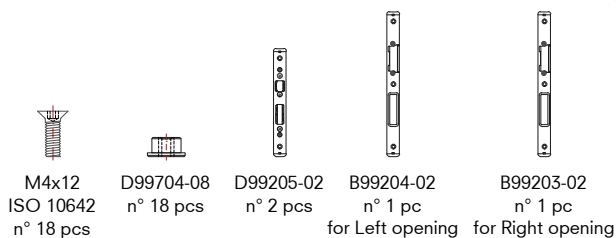
1



2



3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

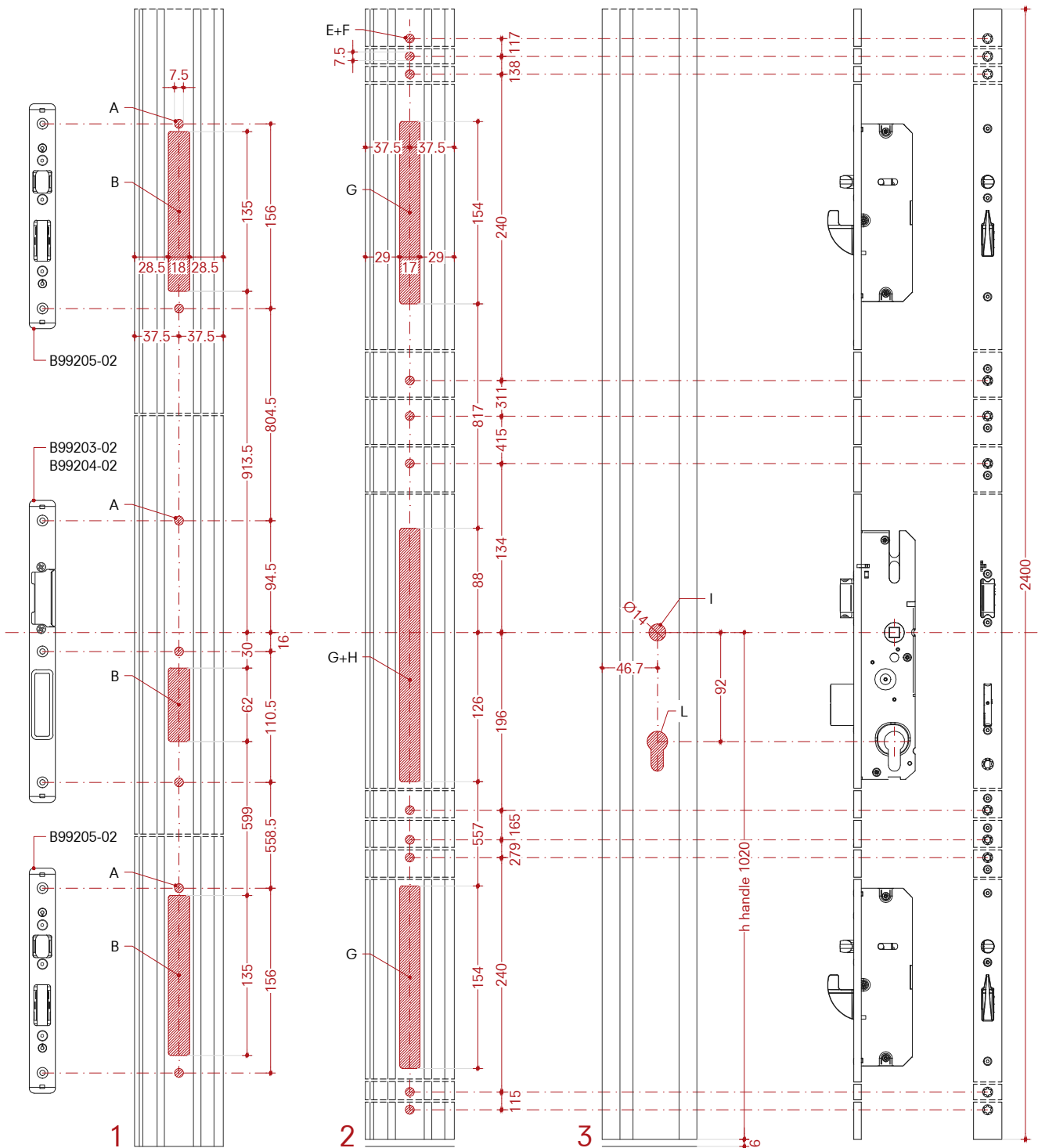
Lock B99173-02 with locking box  
 FT 7512HK-nn + FT 7550T-nn  
 Open out door

**Montaggio**

Serratura B99173-02 con scatola  
 FT 7512HK-nn + FT 7550T-nn  
 Porta apertura esterna

**Montaje**

Cerradura B99173-02  
 con serradura FT 7512HK-nn + FT 7550T-nn  
 Puerta apertura hacia fuera



Scale 1:5

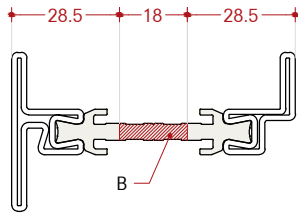
- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

Scala 1:5

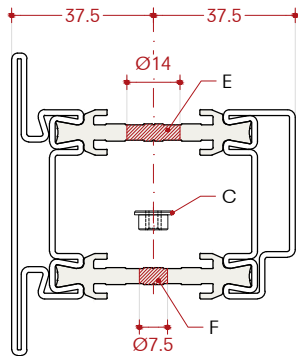
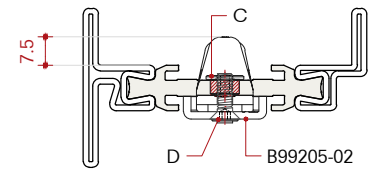
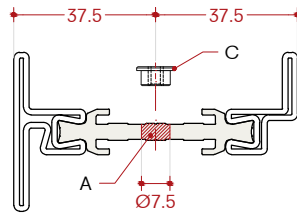
- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

Escala 1:5

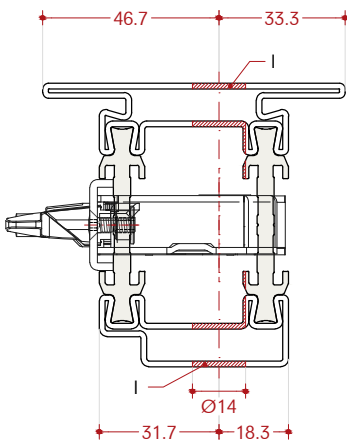
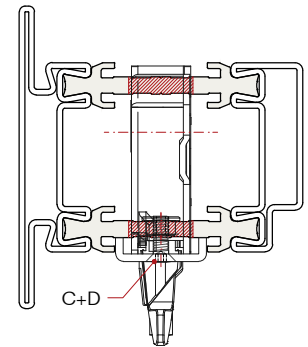
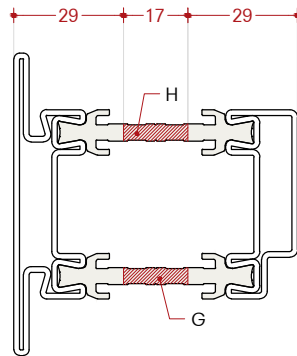
- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros



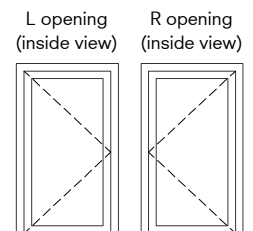
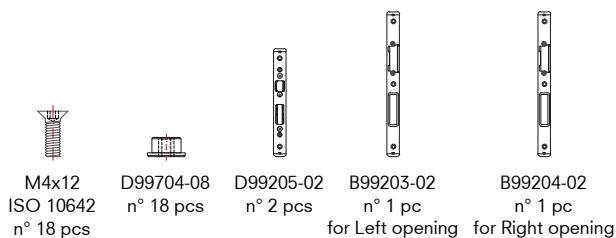
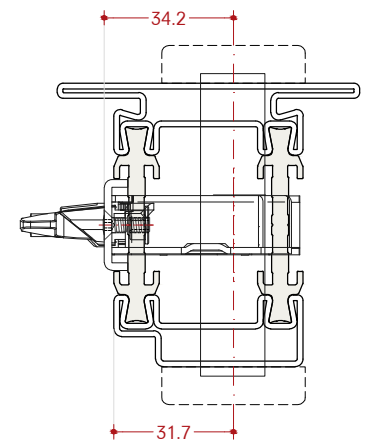
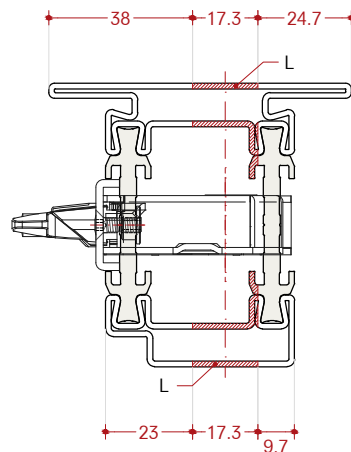
1



2



3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Cut-out in the door leaf
- H) Cut-out in the door leaf
- I) Lever handle bore Ø14 mm
- J) Profile cylinder milling

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccolla in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta
- H) Fresatura nell'anta della porta
- I) Foro leva maniglia Ø14 mm
- J) Fresatura profili per i cilindri

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta
- H) Fresado en hoja de la puerta
- I) Palanca de perfil de Ø14 mm
- J) Fresado en perfil para cilindros

**Installation**

Flush bolt E99035-02  
 Lock B99173-02

Double leaf door open in  
 with widening on complete height on  
 lock side

**Montaggio**

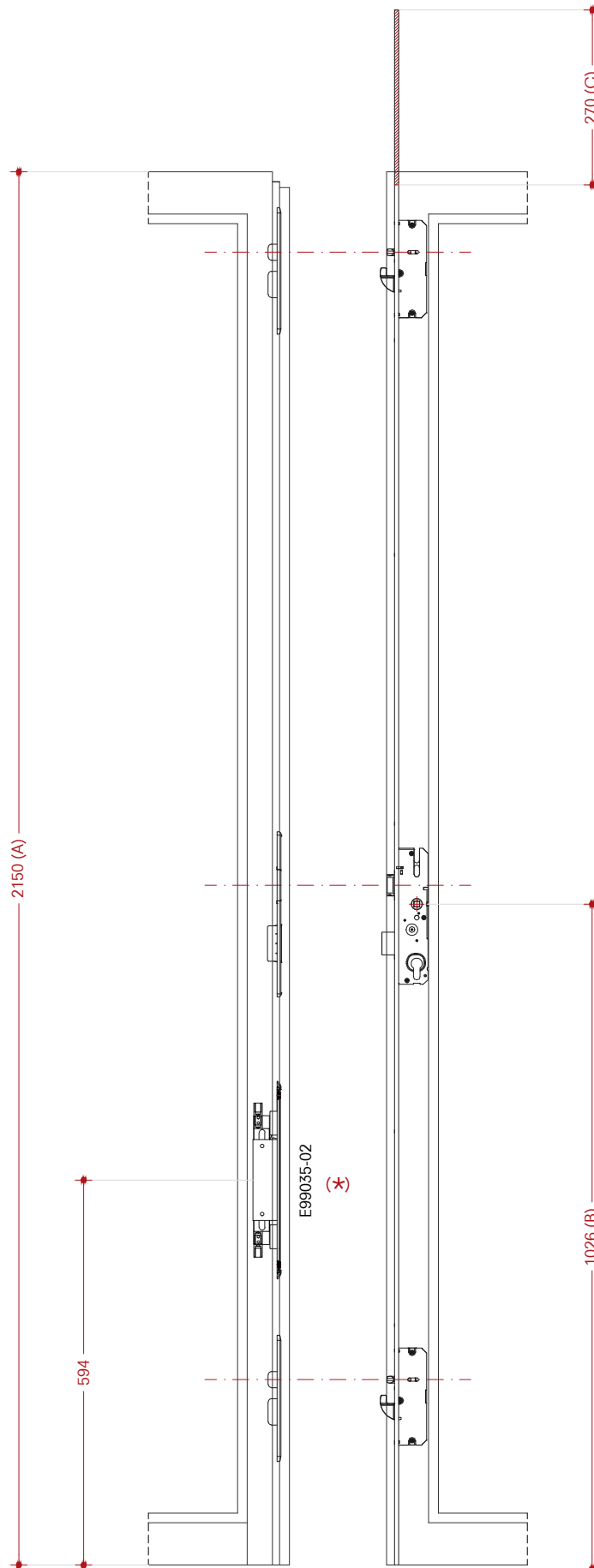
Catenaccio E99035-02  
 Serratura B99173-02

Porta a due battenti apertura interna  
 con montante maggiorato lato  
 serratura

**Montaje**

Pasador de canto E99035-02  
 Cerradura B99173-02

Puerta abatible de dos hojas que se  
 abre hacia dentro con mayor posición  
 vertical en el lado de la cerradura



Scale 1:10

- A) Minimum height leaf
- B) Height handle
- C) Maximum cropping

(\*) Evaluate the position of the flush bolt E99035-02, installation allowed above or below the lock.

Scale 1:10

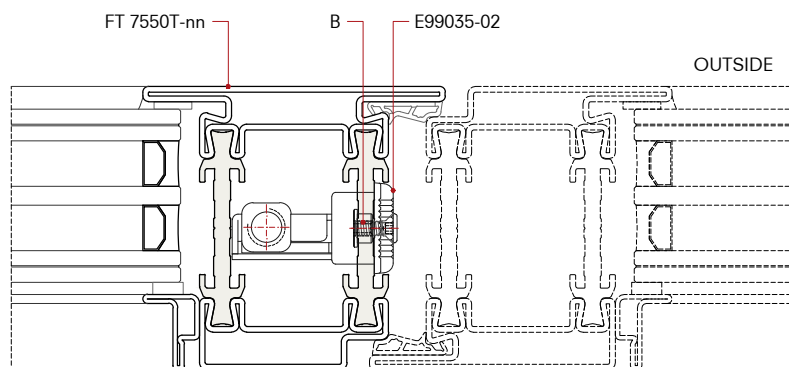
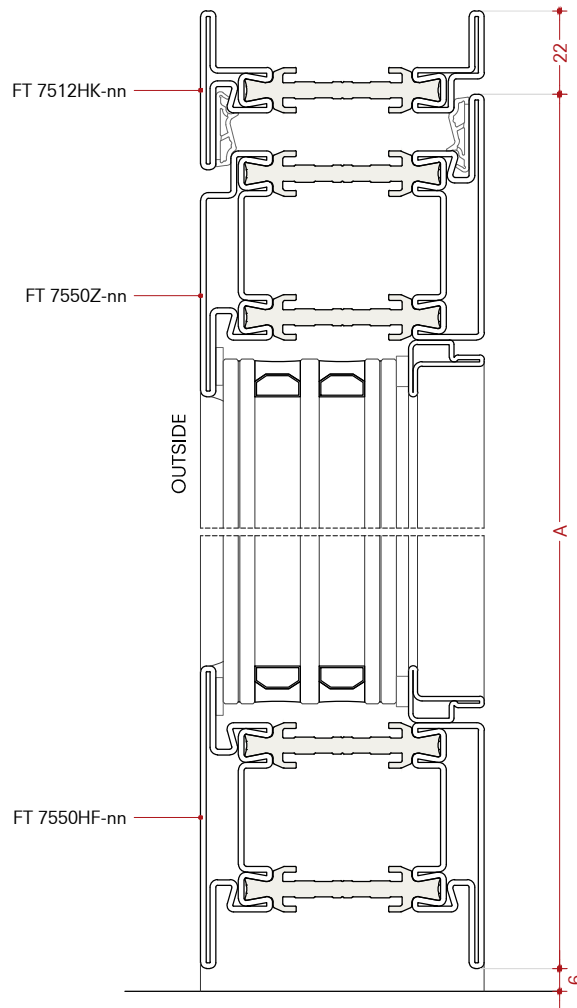
- A) Altezza minima anta
- B) Altezza maniglia
- C) Rasabilità massima

(\*) Valutare la posizione del catenaccio E99035-02, installazione consentita sopra o sotto la serratura.

Scale 1:10

- A) Altura mínima de la hoja
- B) Altura de la manilla
- C) Recorte máximo

(\*) Evaluar la posición del pasador de canto E99035-02, instalación permitida arriba o debajo de la cerradura.



A) Height leaf  
 B) Fastening with M4x10 ISO10642 screws and D99704-08 M4 brass bushing

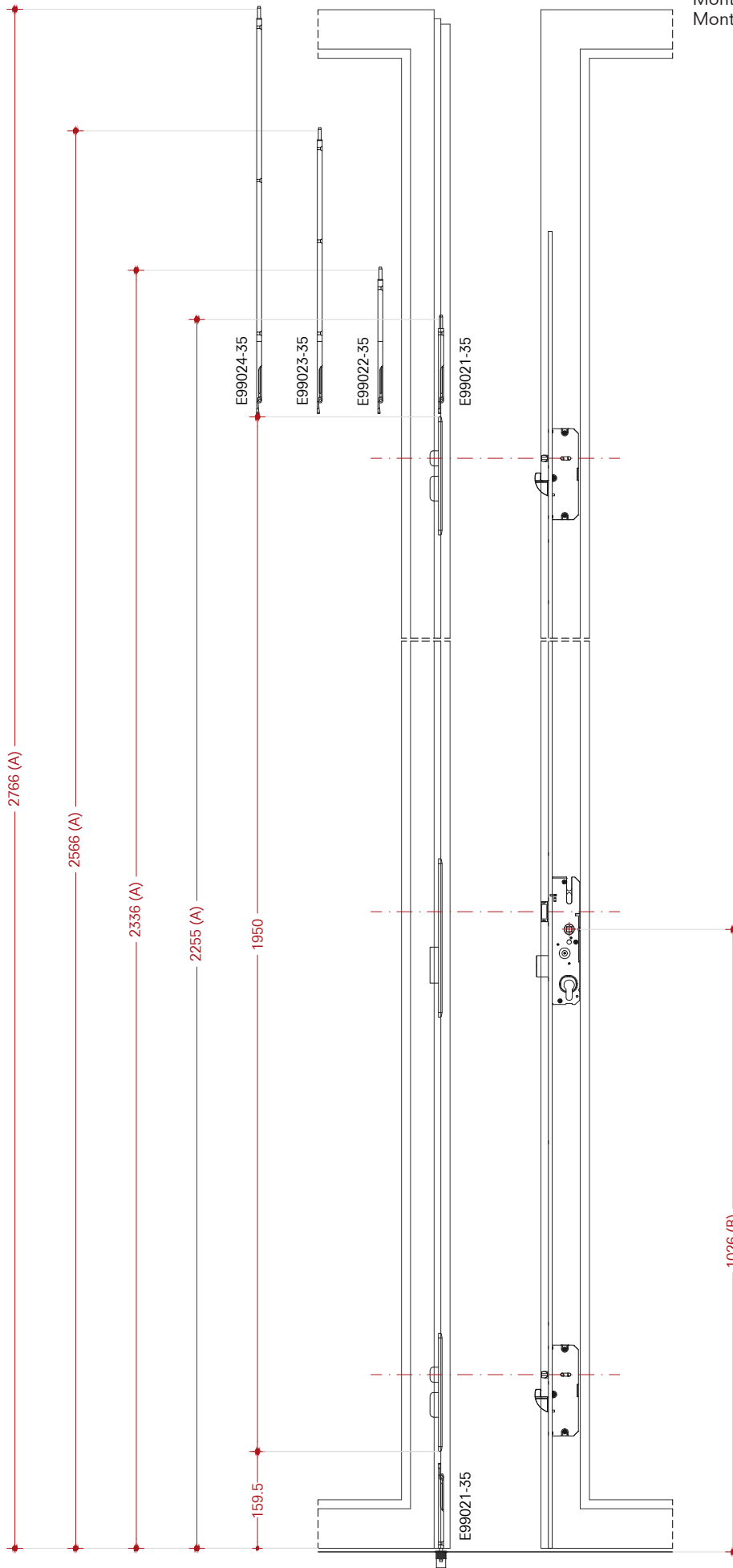
A) Altezza anta  
 B) Fissaggio con viti M4x10 ISO10642 e boccola M4 in ottone D99704-08

A) Altura de la hoja  
 B) Fijación con tornillos M4x10 ISO10642 y casquillo M4 en latón D99704-08

**Montaje**  
 Pasador de canto E9902X-35  
 Cerradura B99173-02  
 Puerta abatible de dos hojas que se abre hacia dentro con mayor posición vertical en el lado de la cerradura

**Montaggio**  
 Catenaccio E9902X-35  
 Serratura B99173-02  
 Porta a due battenti apertura interna con montante maggiorato lato serratura

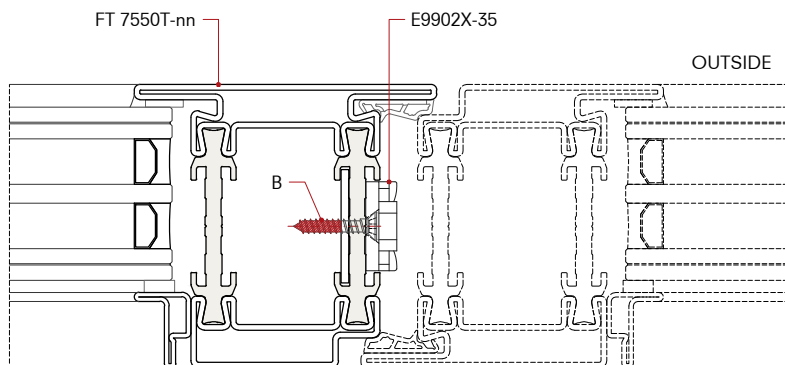
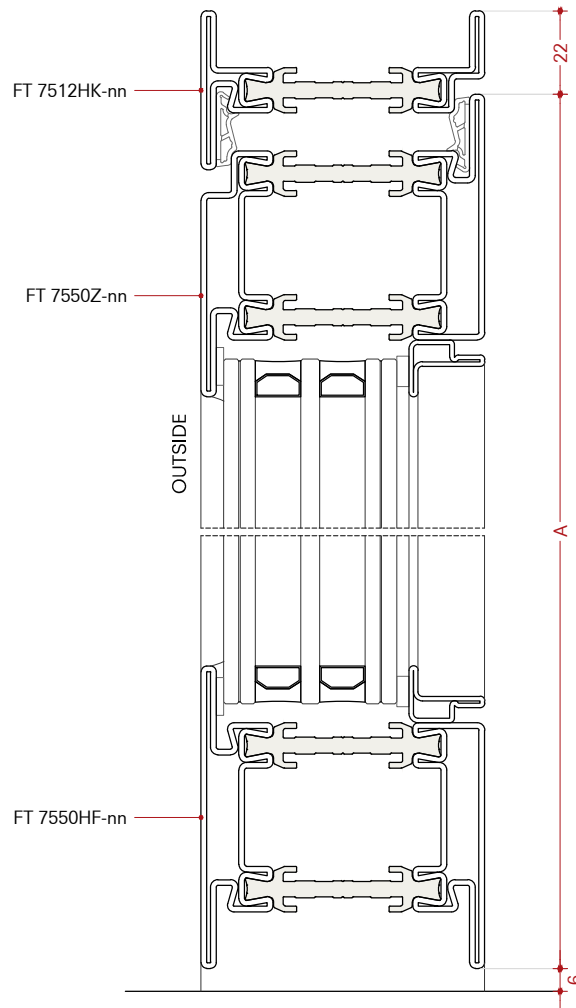
**Installation**  
 Flush bolt E9902X-35  
 Lock B99173-02  
 Double leaf door open in with widening on complete height on lock side



Scala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo

Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima

Scale 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping



A) Height leaf  
 B) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

A) Altezza anta  
 B) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja  
 B) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillos

**Installation**

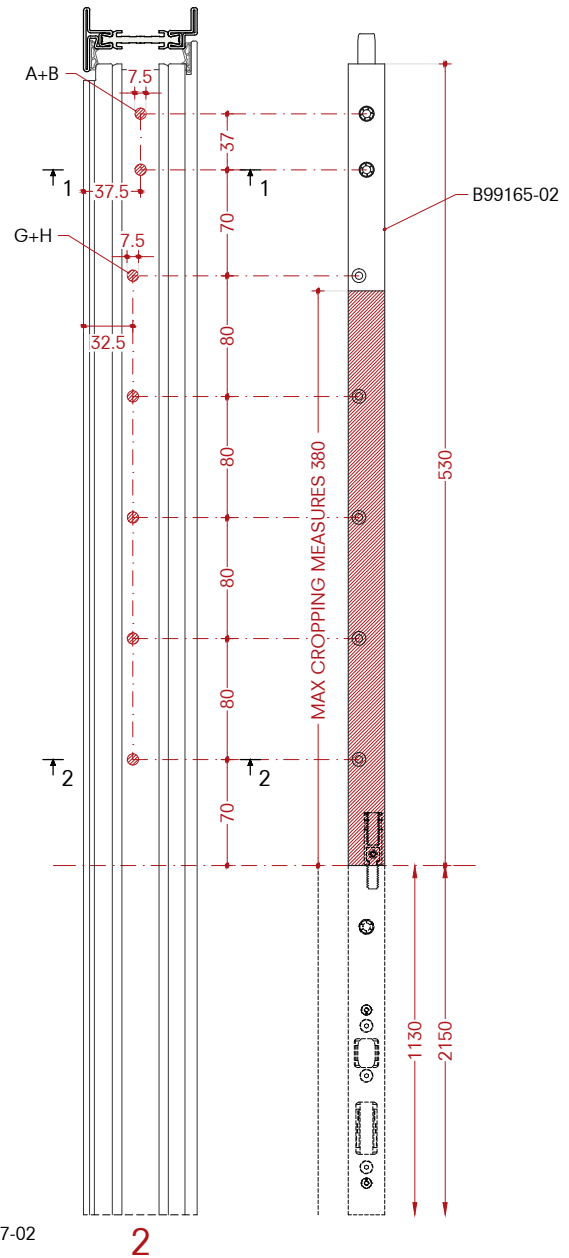
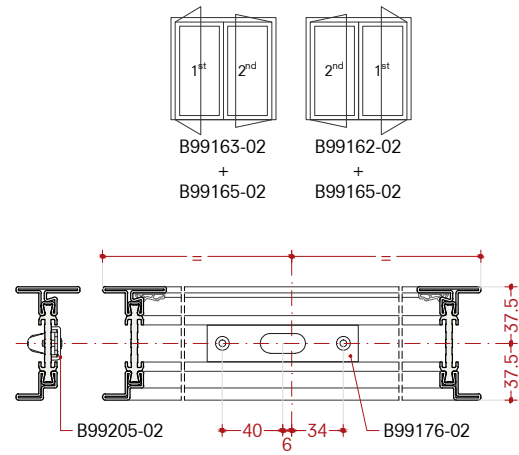
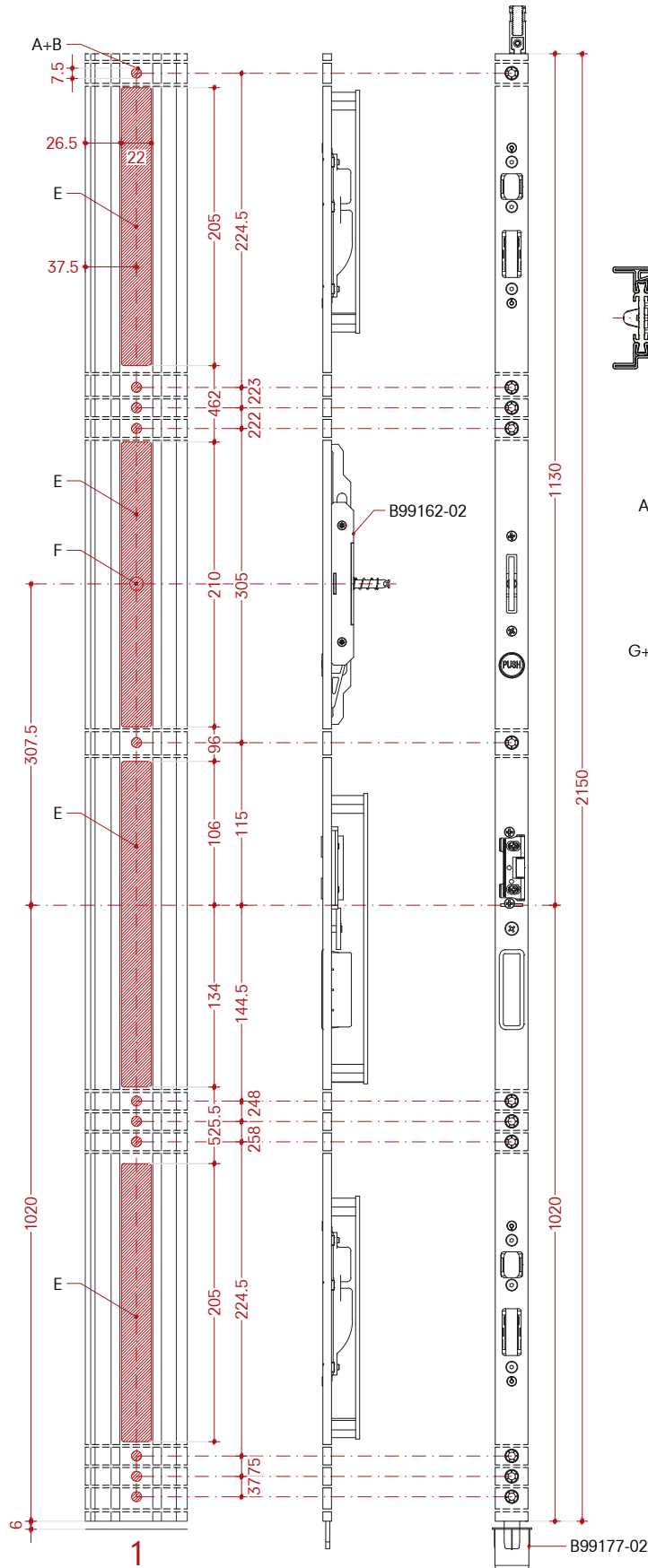
2nd leaf shoot bolt B99165-02  
 Open in door

**Montaggio**

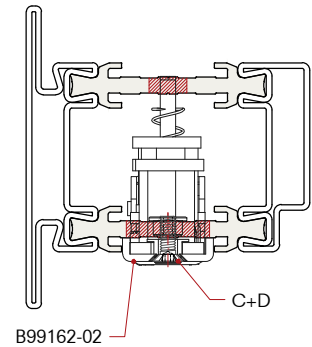
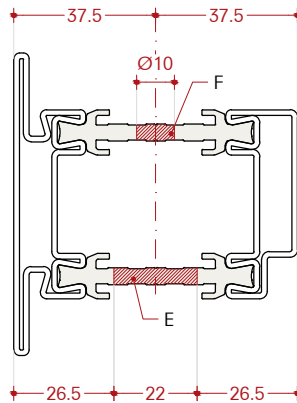
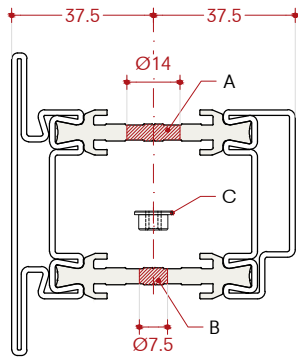
Catenaccio 2a anta B99165-02  
 Porta apertura interna

**Montaje**

Pasador de canto 2do hoja B99165-02  
 Puerta apertura hacia dentro





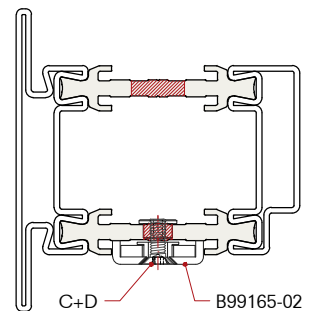
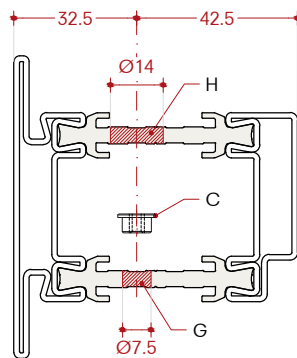
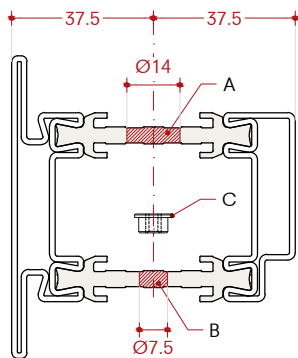


1







1-1

2-2



2



- |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |
| M4x12<br>ISO 10642<br>n° 20 pcs                                                     | D99704-08<br>n° 20 pcs                                                              | B99176-02<br>n° 1 pc                                                                | B99177-02<br>n° 1 pc                                                                |

- A) Holes Ø14 mm in the door leaf
- B) Holes Ø7.5 mm in the door leaf
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Milling in the door leaf
- F) Holes Ø10 mm in the door leaf
- G) Holes Ø7.5 mm in the door leaf
- H) Holes Ø14 mm in the door leaf

- A) Fori Ø14 mm nell'anta della porta
- B) Fori Ø7.5 mm nell'anta della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fresatura nell'anta della porta
- F) Fori Ø10 mm nell'anta della porta
- G) Fori Ø7.5 mm nell'anta della porta
- H) Fori Ø14 mm nell'anta della porta

- A) Orificios de Ø14 mm en hoja de la puerta
- B) Orificios de Ø7.5 mm en hoja de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Fresado en hoja de la puerta
- F) Orificios de Ø10 mm en hoja de la puerta
- G) Orificios de Ø7.5 mm en hoja de la puerta
- H) Orificios de Ø14 mm en hoja de la puerta

**Installation**

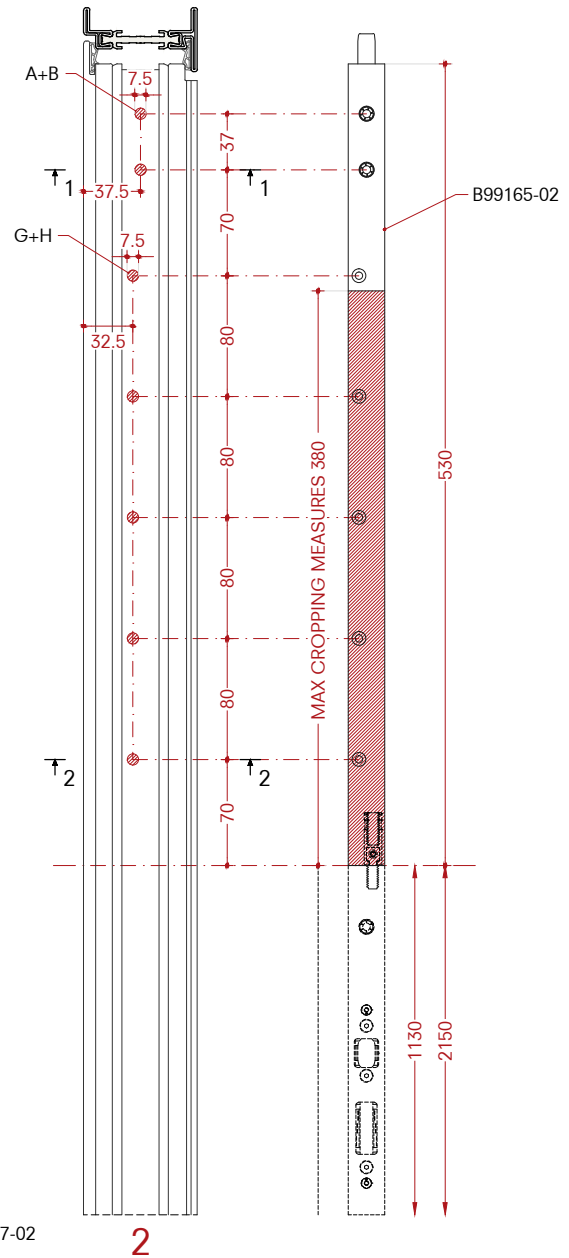
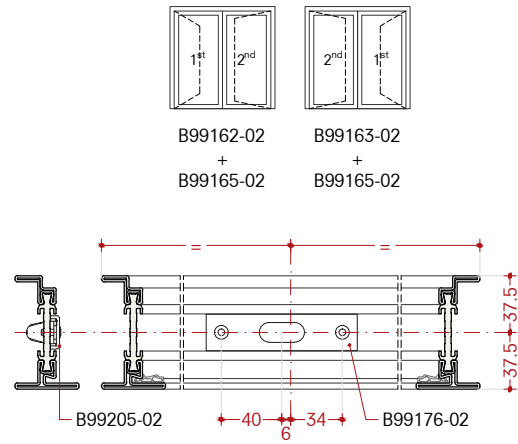
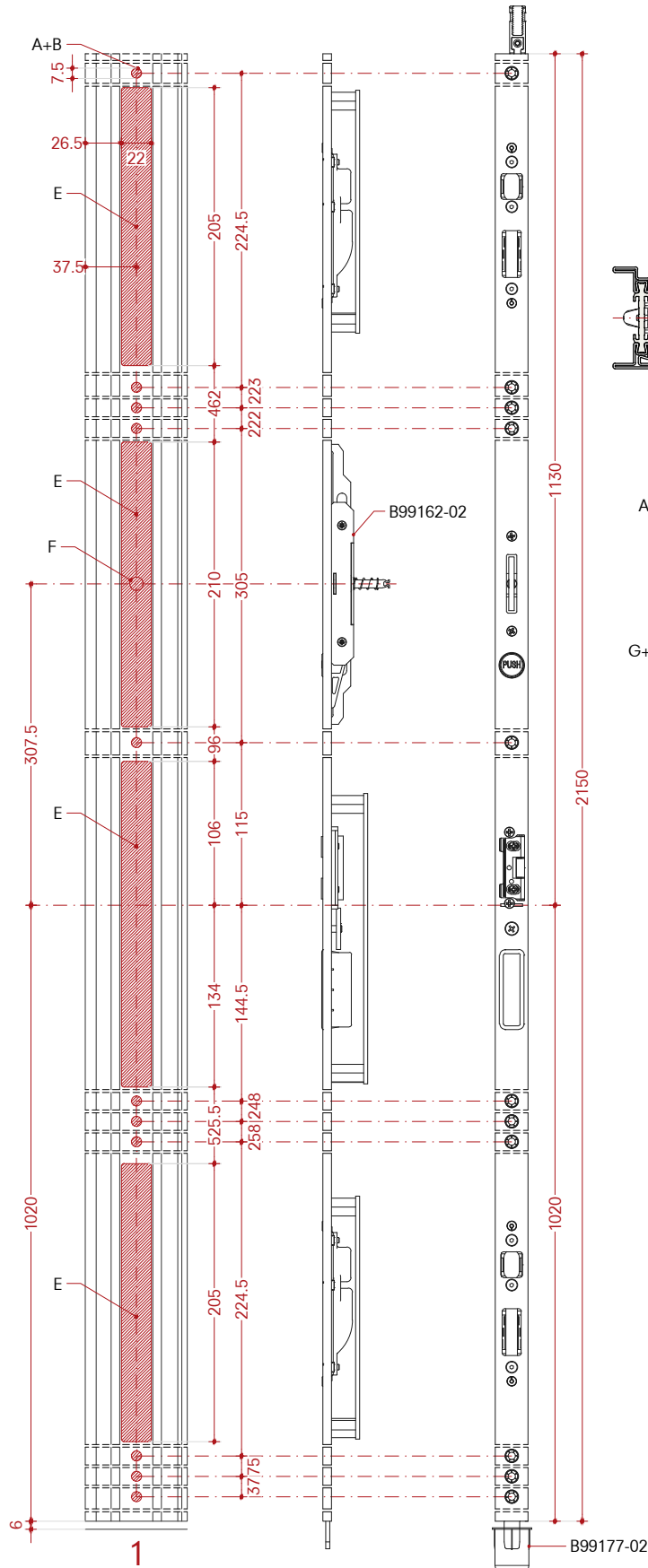
2nd leaf shoot bolt B99165-02  
 Open out door

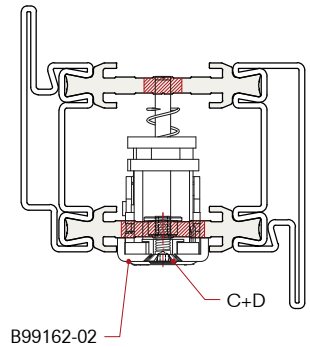
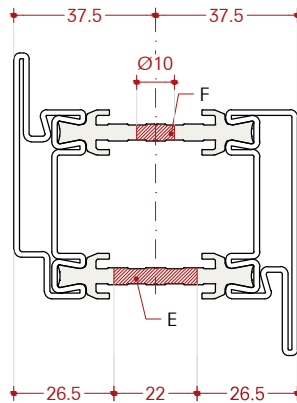
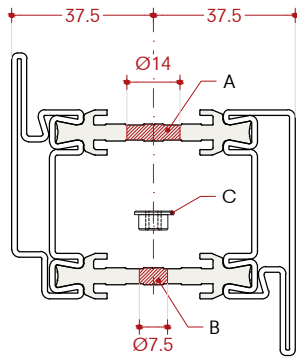
**Montaggio**

Catenaccio 2a anta B99165-02  
 Porta apertura esterna

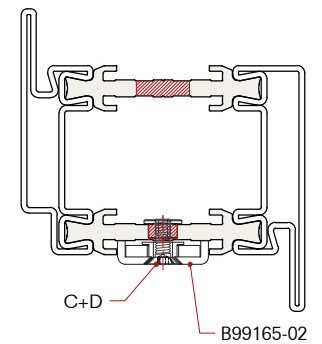
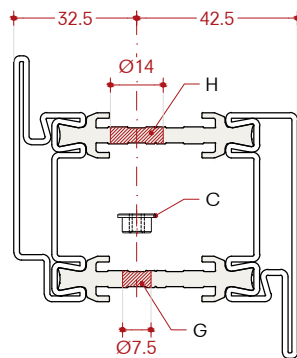
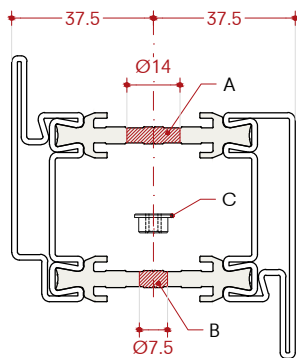
**Montaje**

Pasador de canto 2do hoja B99165-02  
 Puerta apertura hacia fuera









1



2



- |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |
| M4x12<br>ISO 10642<br>n° 20 pcs                                                     | D99704-08<br>n° 20 pcs                                                              | B99176-02<br>n° 1 pc                                                                | B99177-02<br>n° 1 pc                                                                |

- A) Holes Ø14 mm in the door leaf
- B) Holes Ø7.5 mm in the door leaf
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Milling in the door leaf
- F) Holes Ø10 mm in the door leaf
- G) Holes Ø7.5 mm in the door leaf
- H) Holes Ø14 mm in the door leaf

- A) Fori Ø14 mm nell'anta della porta
- B) Fori Ø7.5 mm nell'anta della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fresatura nell'anta della porta
- F) Fori Ø10 mm nell'anta della porta
- G) Fori Ø7.5 mm nell'anta della porta
- H) Fori Ø14 mm nell'anta della porta

- A) Orificios de Ø14 mm en hoja de la puerta
- B) Orificios de Ø7.5 mm en hoja de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Fresado en hoja de la puerta
- F) Orificios de Ø10 mm en hoja de la puerta
- G) Orificios de Ø7.5 mm en hoja de la puerta
- H) Orificios de Ø14 mm en hoja de la puerta

**Installation**

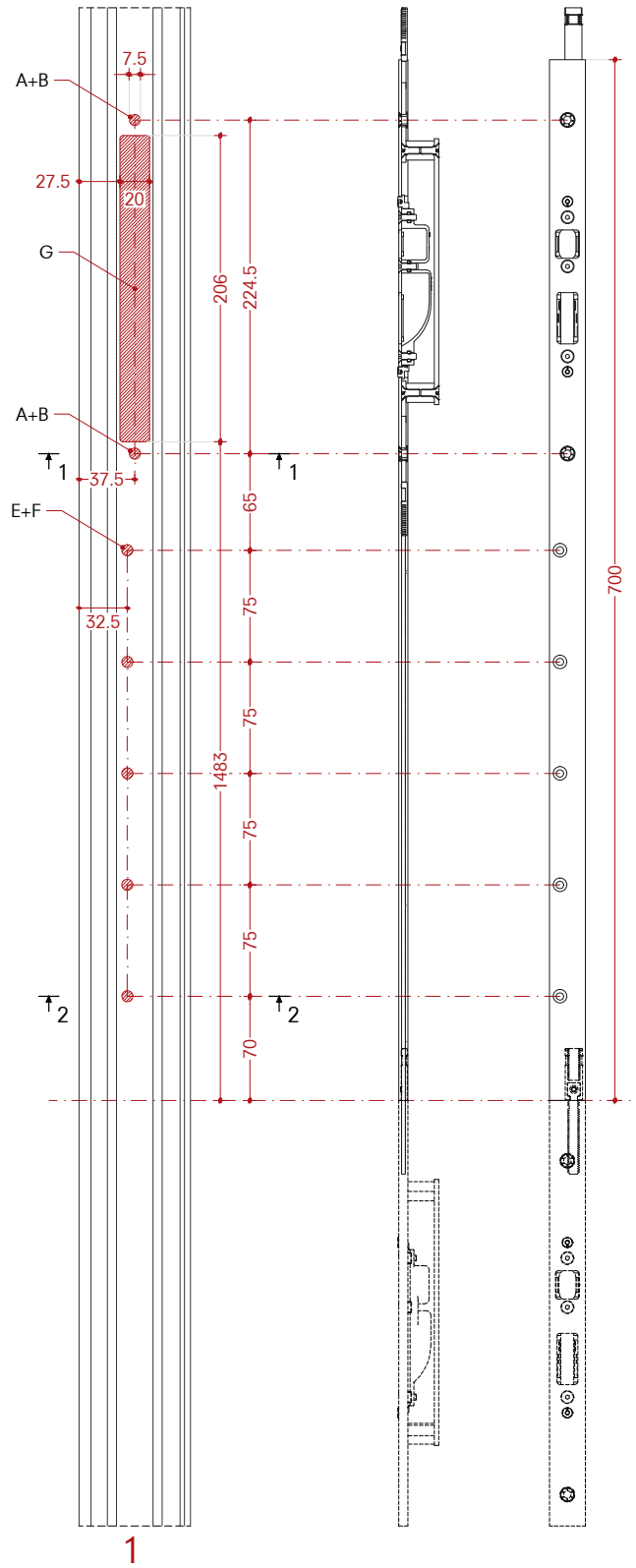
2nd leaf extension B99164-02  
 Open in door

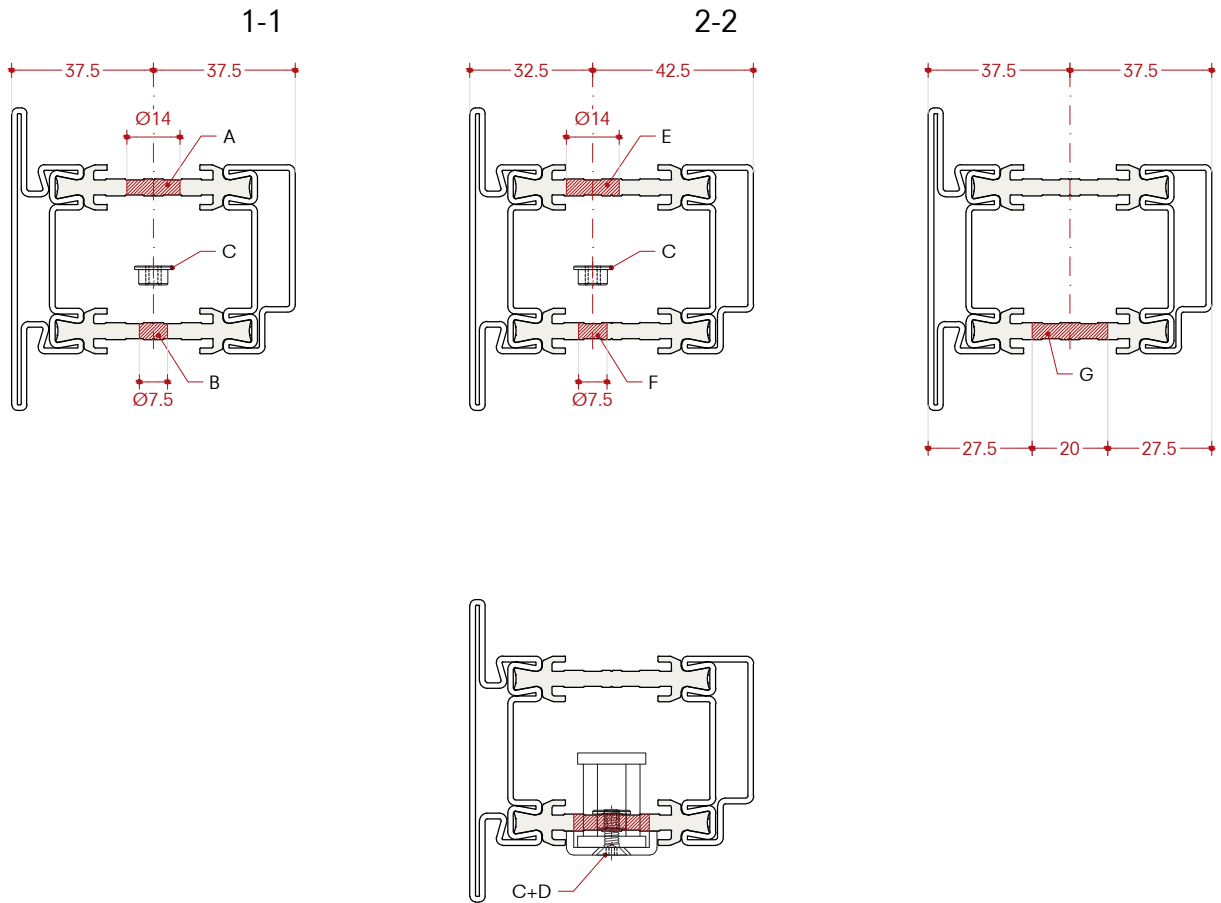
**Montaggio**

Prolunga 2a anta B99164-02  
 Porta apertura interna

**Montaje**



Extensión 2do hoja B99164-02  
 Puerta apertura hacia dentro





1



-  M4x12  
ISO 10642  
n° 7 pcs
-  D99704-08  
n° 7 pcs

- A) Holes Ø14 mm in the door leaf
- B) Holes Ø7.5 mm in the door leaf
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Milling in the door leaf

- A) Fori Ø14 mm nell'anta della porta
- B) Fori Ø7.5 mm nell'anta della porta
- C) D99704-08 Boccia in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta

- A) Orificios de Ø14 mm en hoja de la puerta
- B) Orificios de Ø7.5 mm en hoja de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta

**Installation**

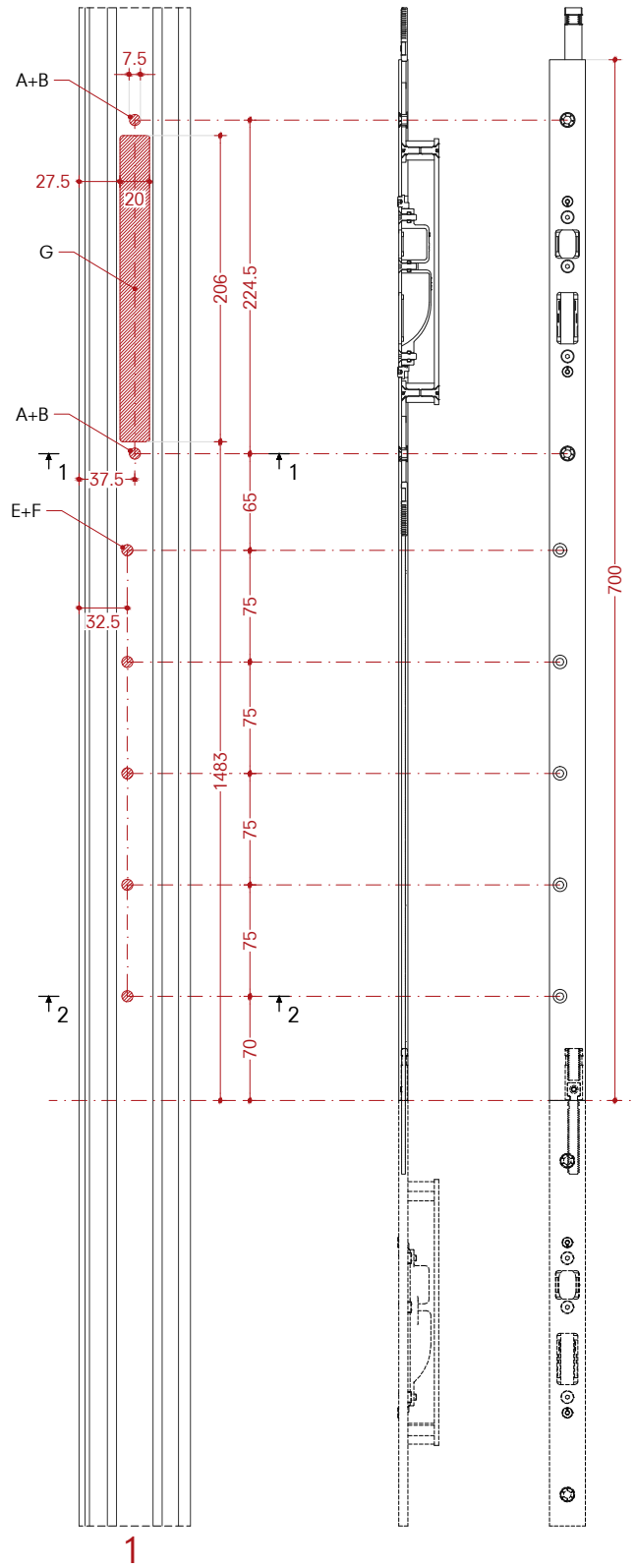
2nd leaf extension B99164-02  
 Open out door

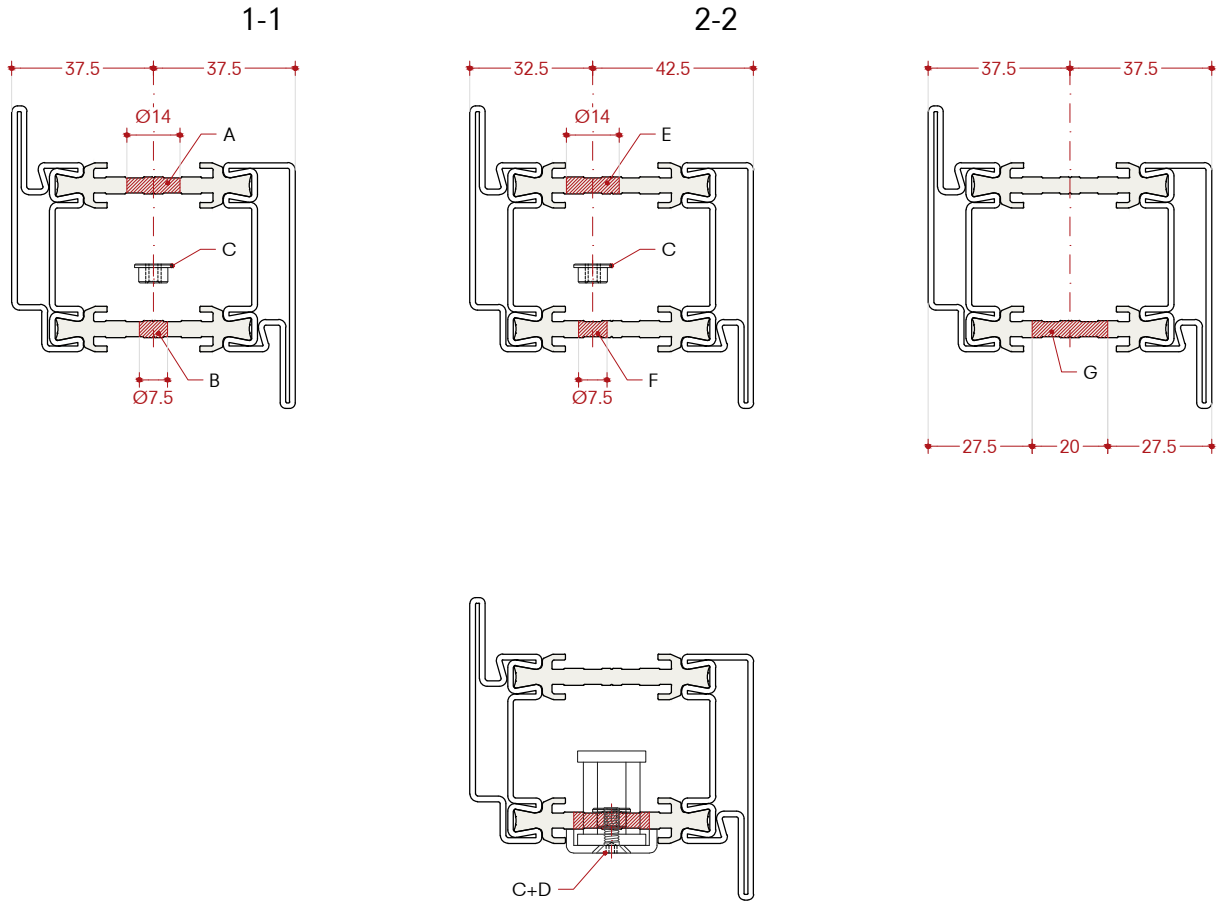
**Montaggio**

Prolunga 2a anta B99164-02  
 Porta apertura esterna

**Montaje**



Extensión 2do hoja B99164-02  
 Puerta apertura hacia fuera





1



-  M4x12  
ISO 10642  
n° 7 pcs
-  D99704-08  
n° 7 pcs

- A) Holes Ø14 mm in the door leaf
- B) Holes Ø7.5 mm in the door leaf
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x12 ISO10642 screws
- E) Holes Ø14 mm in the door leaf
- F) Holes Ø7.5 mm in the door leaf
- G) Milling in the door leaf

- A) Fori Ø14 mm nell'anta della porta
- B) Fori Ø7.5 mm nell'anta della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x12 ISO10642
- E) Fori Ø14 mm nell'anta della porta
- F) Fori Ø7.5 mm nell'anta della porta
- G) Fresatura nell'anta della porta

- A) Orificios de Ø14 mm en hoja de la puerta
- B) Orificios de Ø7.5 mm en hoja de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x12 ISO10642
- E) Orificios de Ø14 mm en hoja de la puerta
- F) Orificios de Ø7.5 mm en hoja de la puerta
- G) Fresado en hoja de la puerta

**Installation**

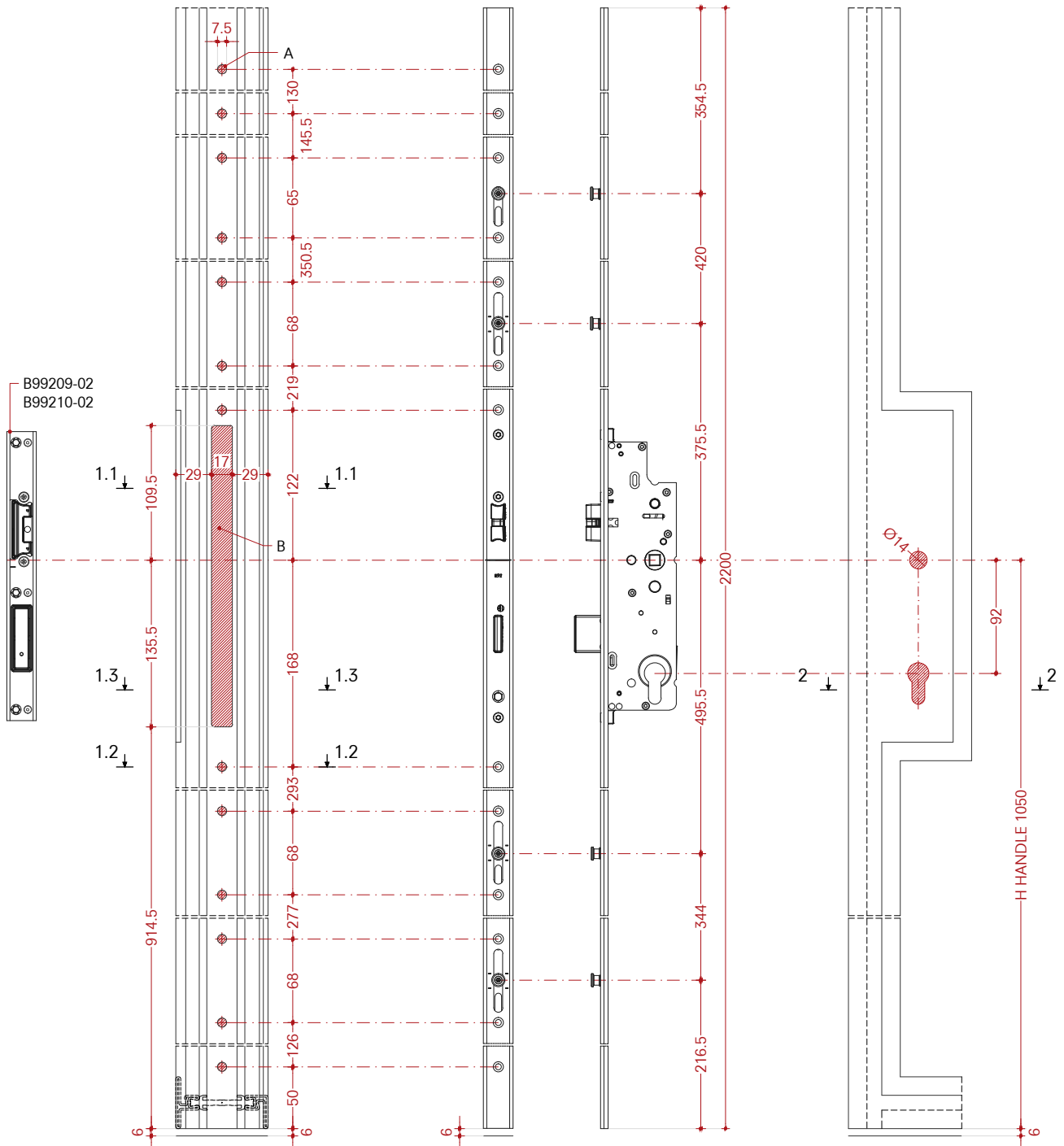
Lock B99174-02  
 with locking box FT 7512ZK-nn  
 Open in door

**Montaggio**

Serratura B99174-02  
 con scatola FT 7512ZK-nn  
 Porta apertura interna

**Montaje**

Cerradura B99174-02  
 con serradura FT 7512ZK-nn  
 Puerta apertura hacia dentro



Scale 1:5

Scala 1:5

Escala 1:5

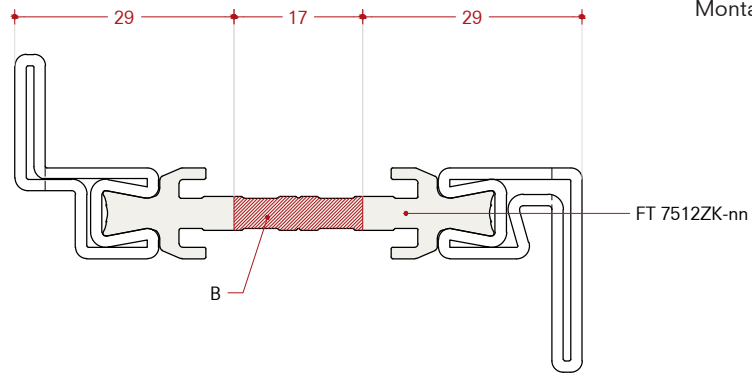
disclaimer see 7.0.14

rel. 07 - 09/2022

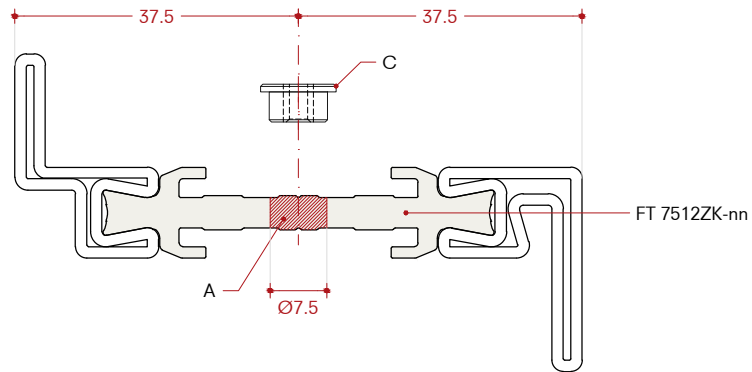
ottostumm-mogs.com



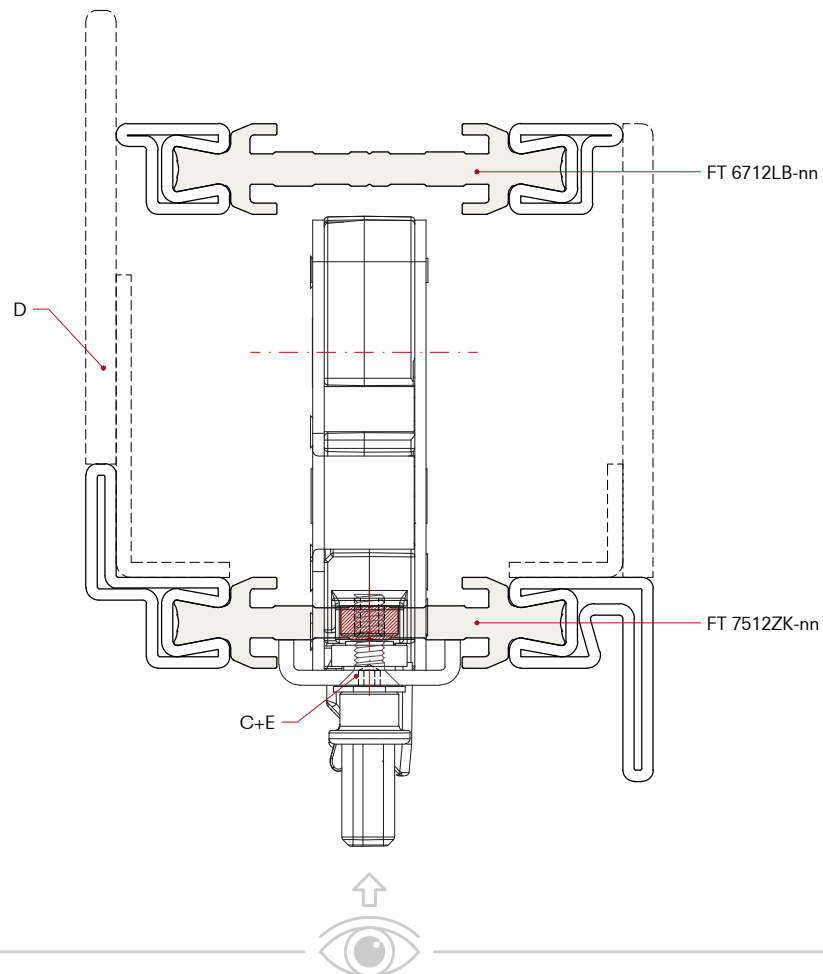
# 1.1



# 1.2



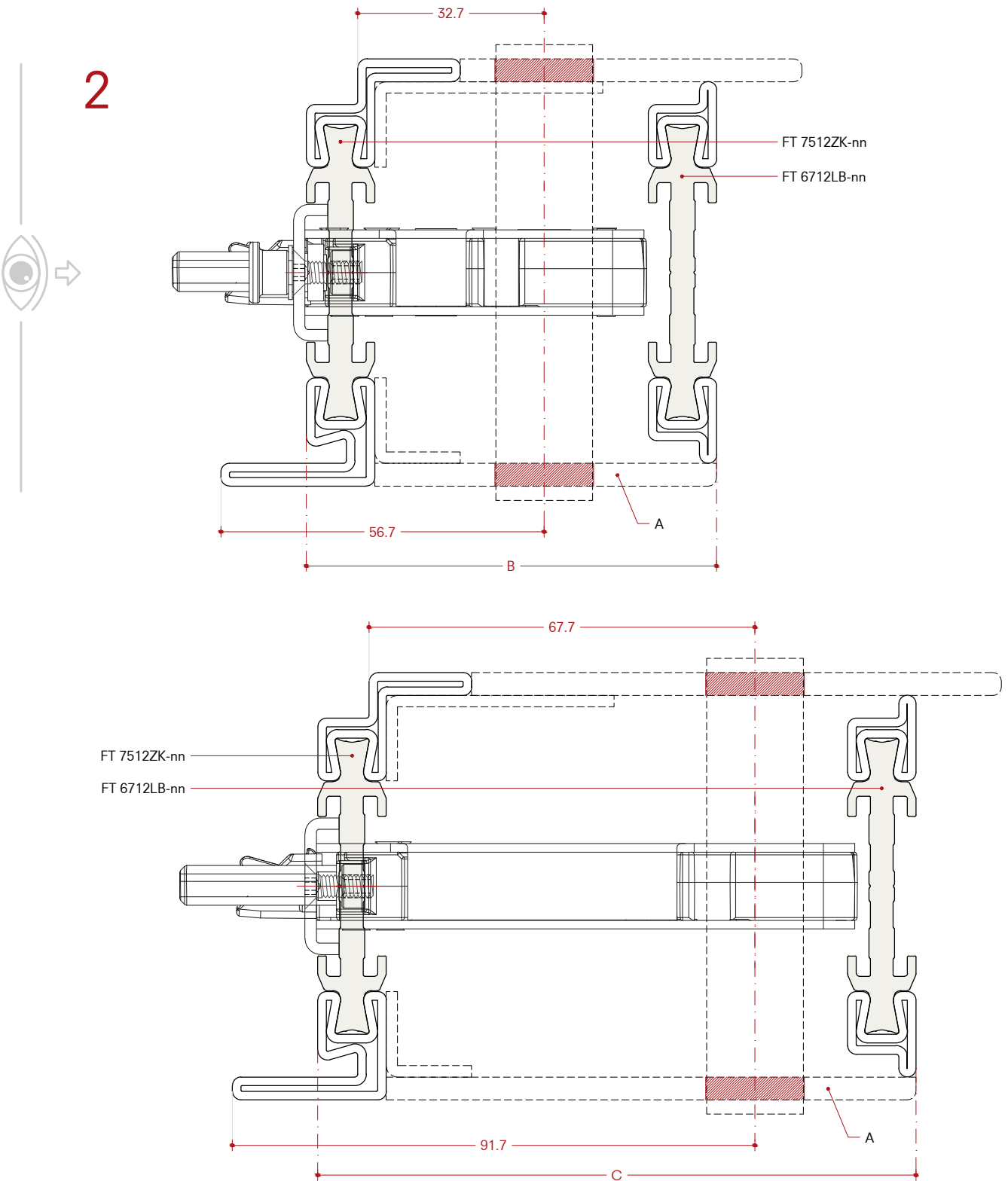
# 1.3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Locking box
- E) Fastening with M4x12 ISO10642 screws

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccolla in ottone M4
- D) Scatola serratura
- E) Fissaggio con viti M4x12 ISO10642

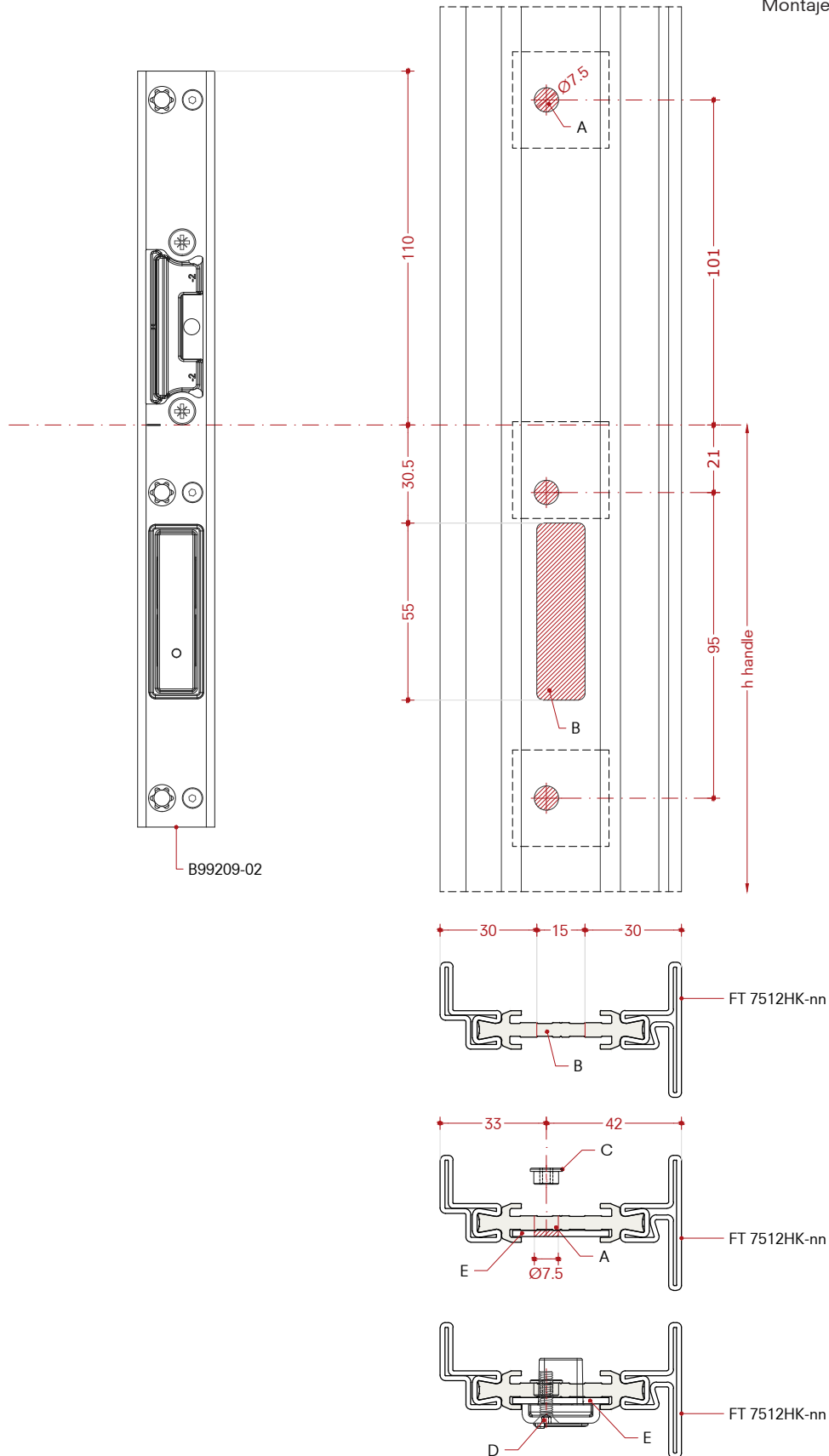
- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Caja de bloqueo
- E) Fijación con tornillos M4x12 ISO10642



A) Locking box  
 B) Minimum size recommended 70 mm  
 C) Minimum size recommended 105 mm

A) Scatola serratura  
 B) Distanza minima raccomandata 70 mm  
 C) Distanza minima raccomandata 105 mm

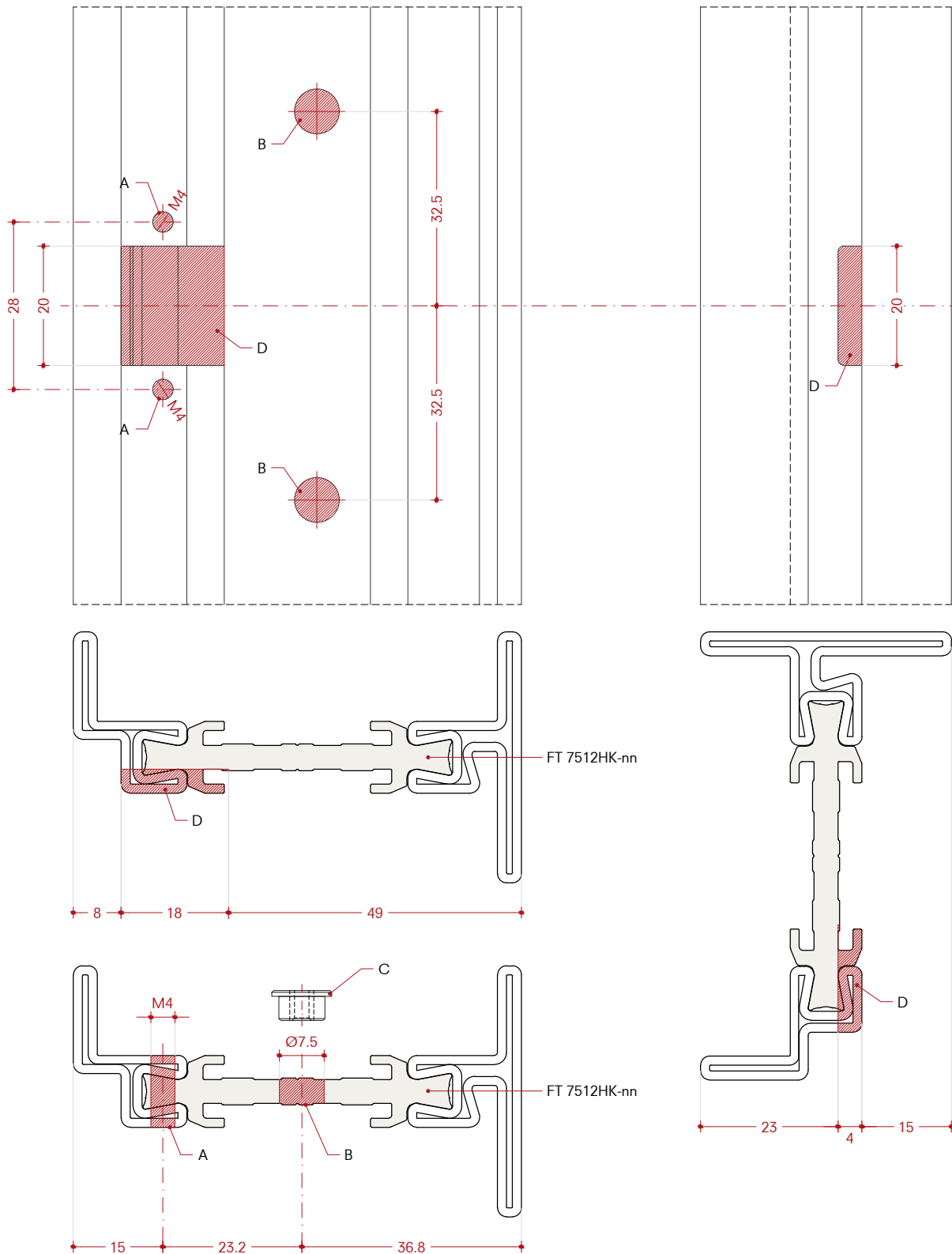
A) Caja de bloqueo  
 B) Tamaño mínimo recomendado 70 mm  
 C) Tamaño mínimo recomendado 105 mm



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x16 ISO10642 screws and cut the screw
- E) Plate 30x20x2 mm fixed by glue on profile (not provided) only for double leaves door

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccola in ottone M4
- D) Fissaggio con viti M4x16 ISO10642 e accorciare la vite
- E) Piastra 30x20x2 mm fissata a colla al profilo (non fornita) solo per porta a doppia anta

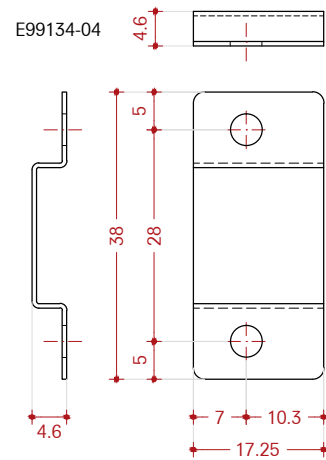
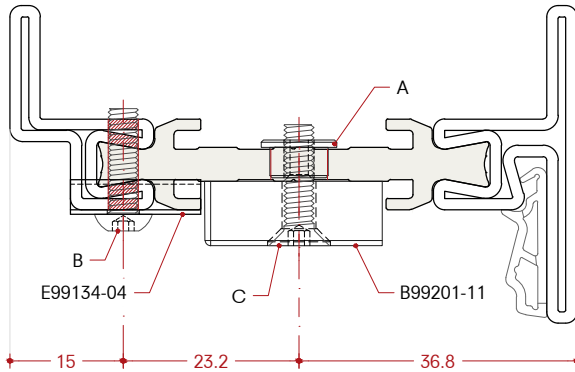
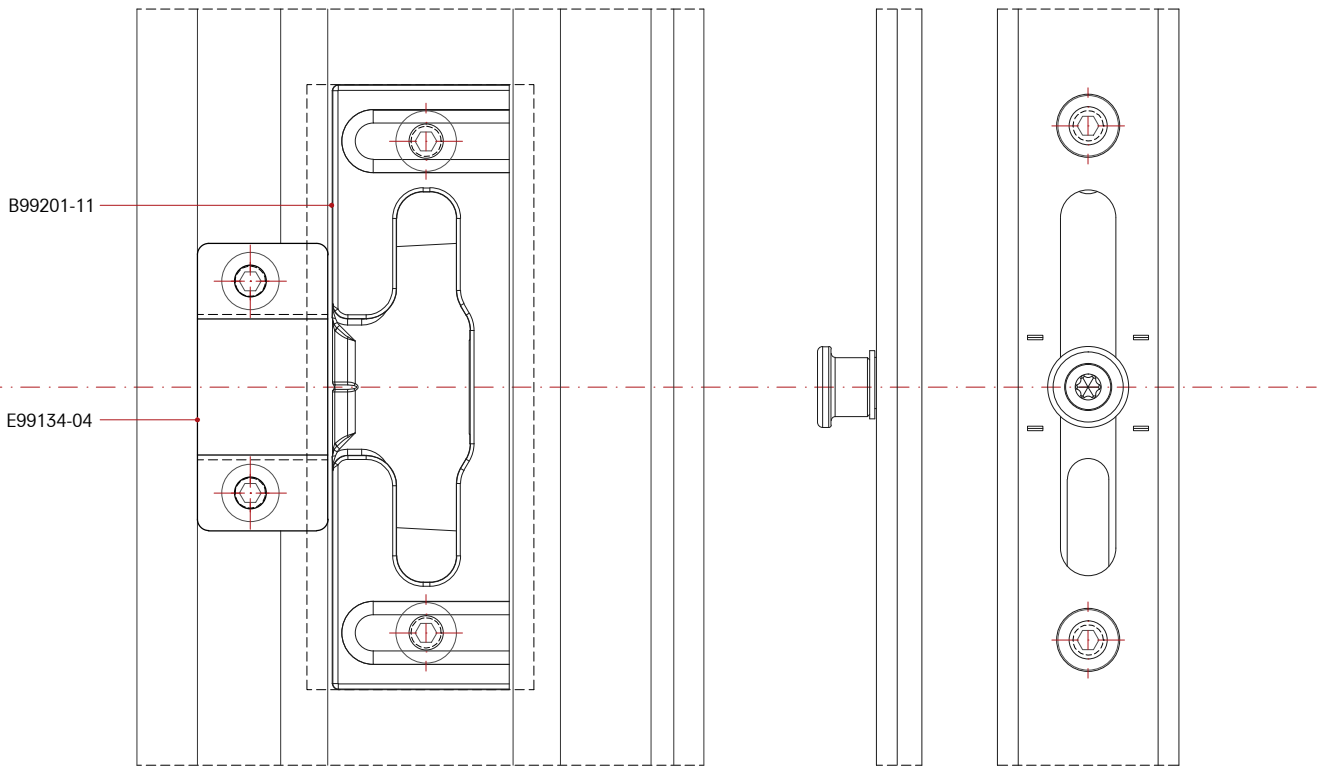
- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x16 ISO10642 y recortar tornillo
- E) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto) solo para puerta de dos hojas









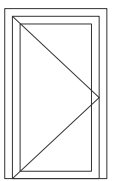
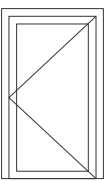


A) Holes M4 in door frame  
 B) Holes Ø7.5 mm in door frame  
 C) D99704-08 M4 brass bushing  
 D) Cut-out in door frame

A) Fori M4 nel telaio della porta  
 B) Fori Ø7.5 mm nel telaio della porta  
 C) D99704-08 Boccola in ottone M4  
 D) Fresatura del telaio della porta

A) Orificios de M4 en marco de la puerta  
 B) Orificios de Ø7.5 mm en marco de la puerta  
 C) D99704-08 Casquillo en latón M4  
 D) Fresado en marco de la puerta



- |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |  |
| M4x12<br>ISO 10642<br>n° 13 pcs                                                     | M4x16<br>ISO 10642<br>n° 11 pcs                                                     | M4x14<br>ISO 7380<br>n° 8 pcs                                                       | D99704-08<br>n° 24 pcs                                                              | E99134-04<br>n° 1 pc                                                                | B99201-11<br>n° 4 pcs                                                               | B99210-02<br>n° 1 pc<br>for Left opening                                            | B99209-02<br>n° 1 pc<br>for Right opening                                             |                                                                                       |                                                                                       |

A) D99704-08 M4 brass bushing  
 B) Fastening with M4x14 ISO7380 screws  
 C) Fastening with M4x16 ISO10642 screws

A) D99704-08 Boccola in ottone M4  
 B) Fissaggio con viti M4x14 ISO7380  
 C) Fissaggio con viti M4x16 ISO10642

A) D99704-08 Casquillo en latón M4  
 B) Fijación con tornillos M4x14 ISO7380  
 C) Fijación con tornillos M4x16 ISO10642

**Installation**

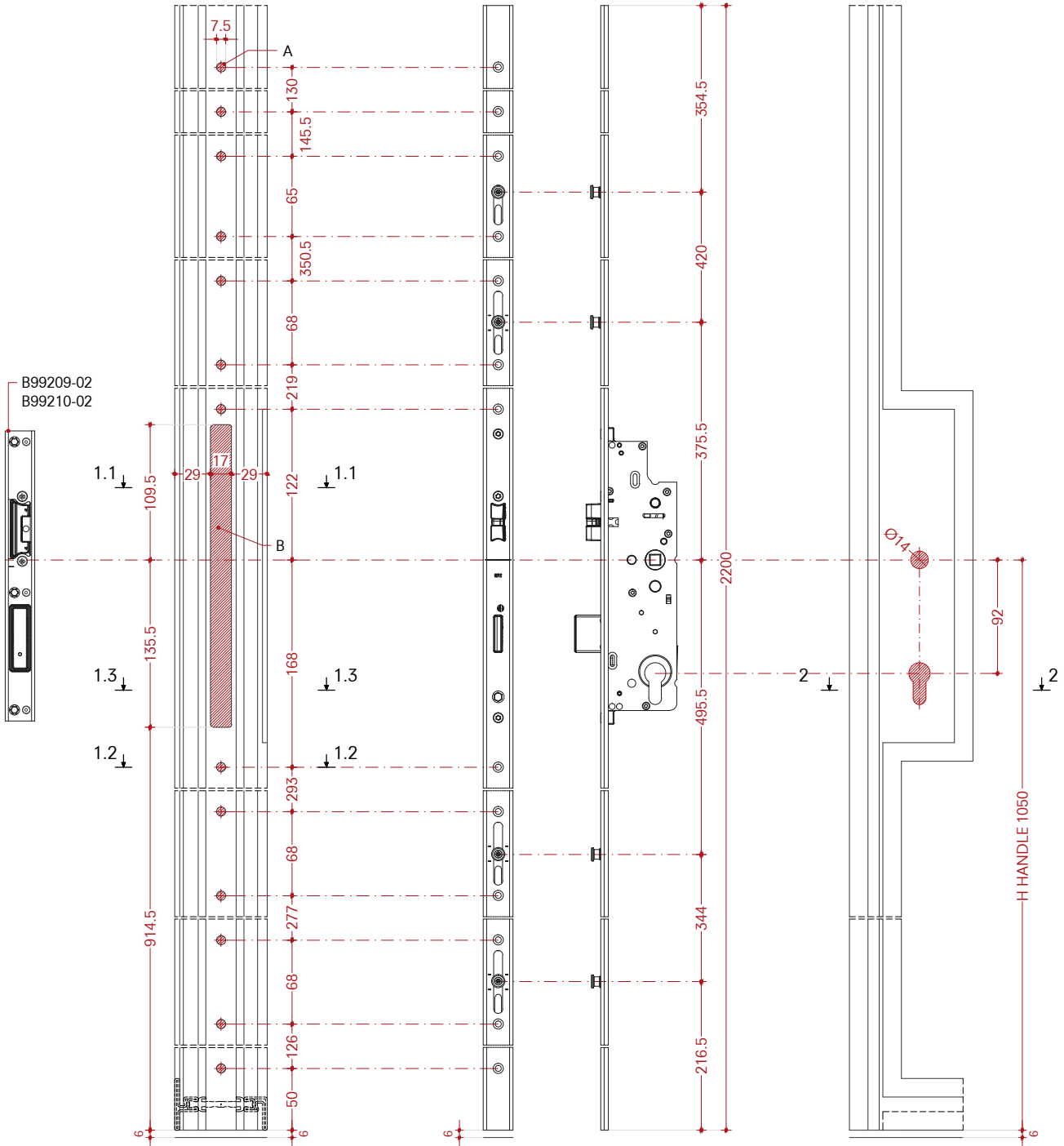
Lock B99174-02  
with locking box FT 7512TK-nn  
Open out door

**Montaggio**

Serratura B99174-02  
con scatola FT 7512TK-nn  
Porta apertura esterna

**Montaje**

Cerradura B99174-02  
con serradura FT 7512TK-nn  
Puerta apertura hacia fuera

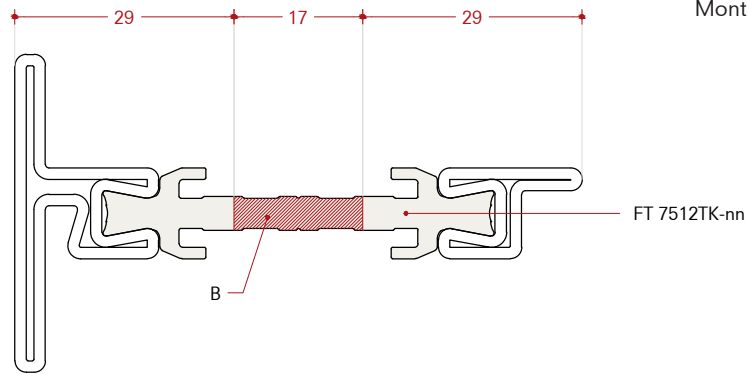


Scale 1:5

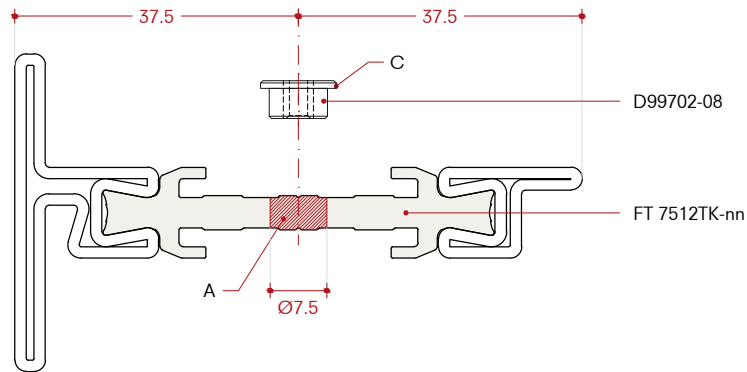
Scala 1:5

Escala 1:5

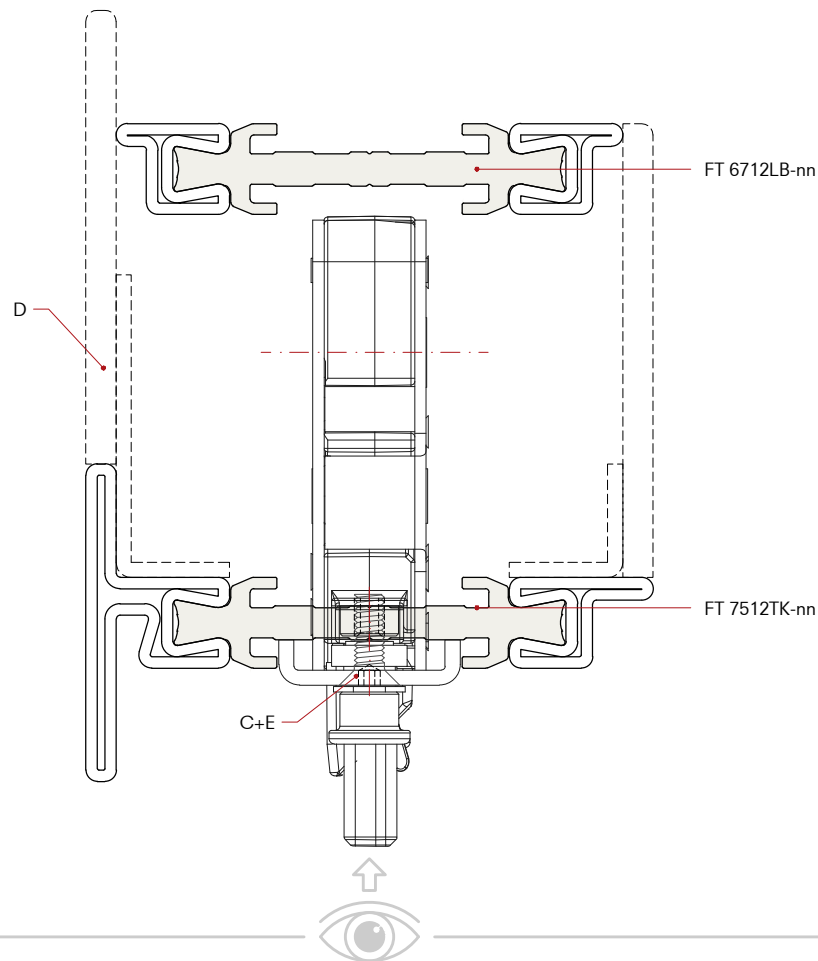
# 1.1



# 1.2



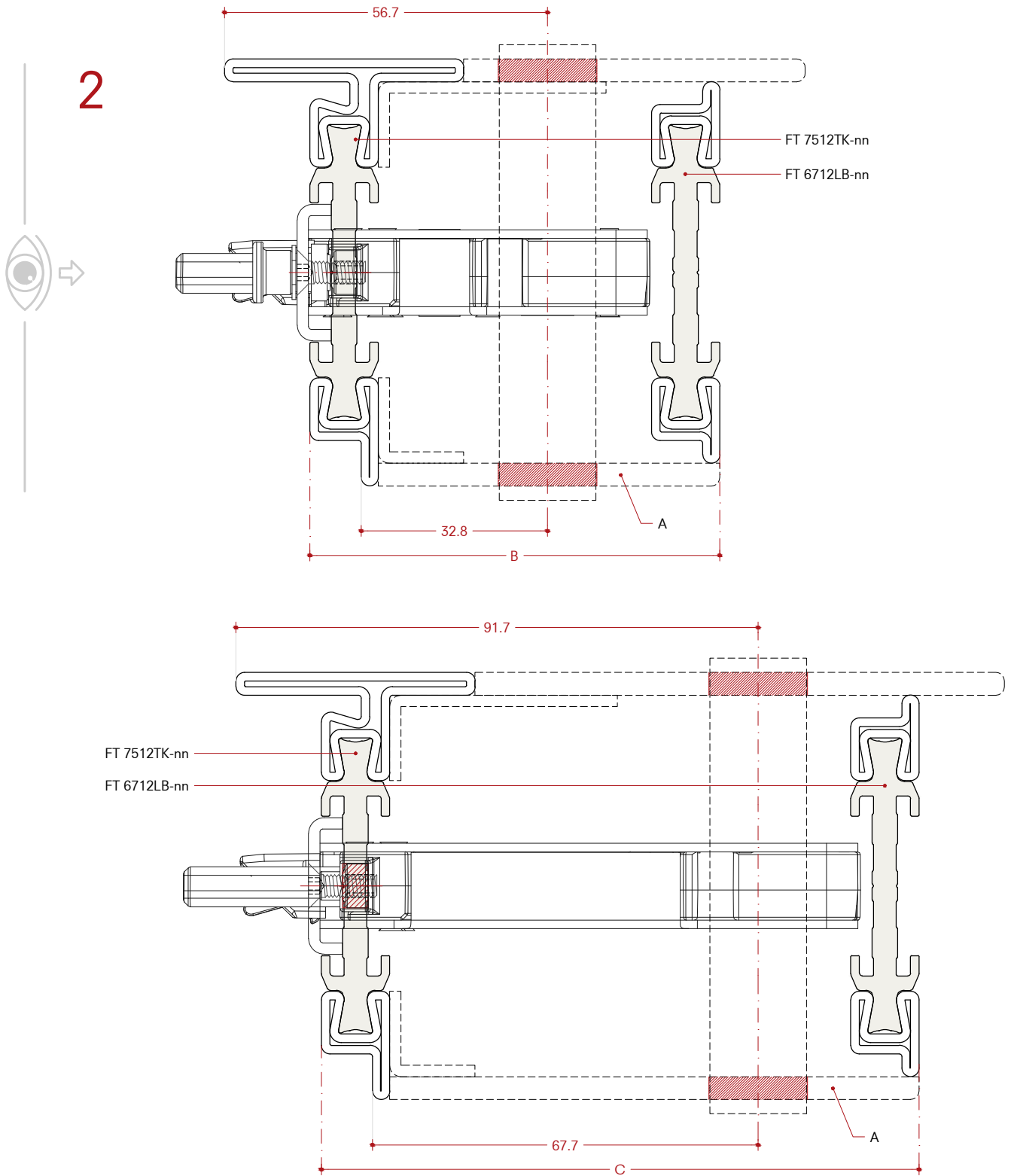
# 1.3



- A) Holes Ø7.5 mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Locking box
- E) Fastening with M4x12 ISO10642 screws

- A) Fori Ø7.5 mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccia in ottone M4
- D) Scatola serratura
- E) Fissaggio con viti M4x12 ISO10642

- A) Orificios de Ø7.5 mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Caja de bloqueo
- E) Fijación con tornillos M4x12 ISO10642

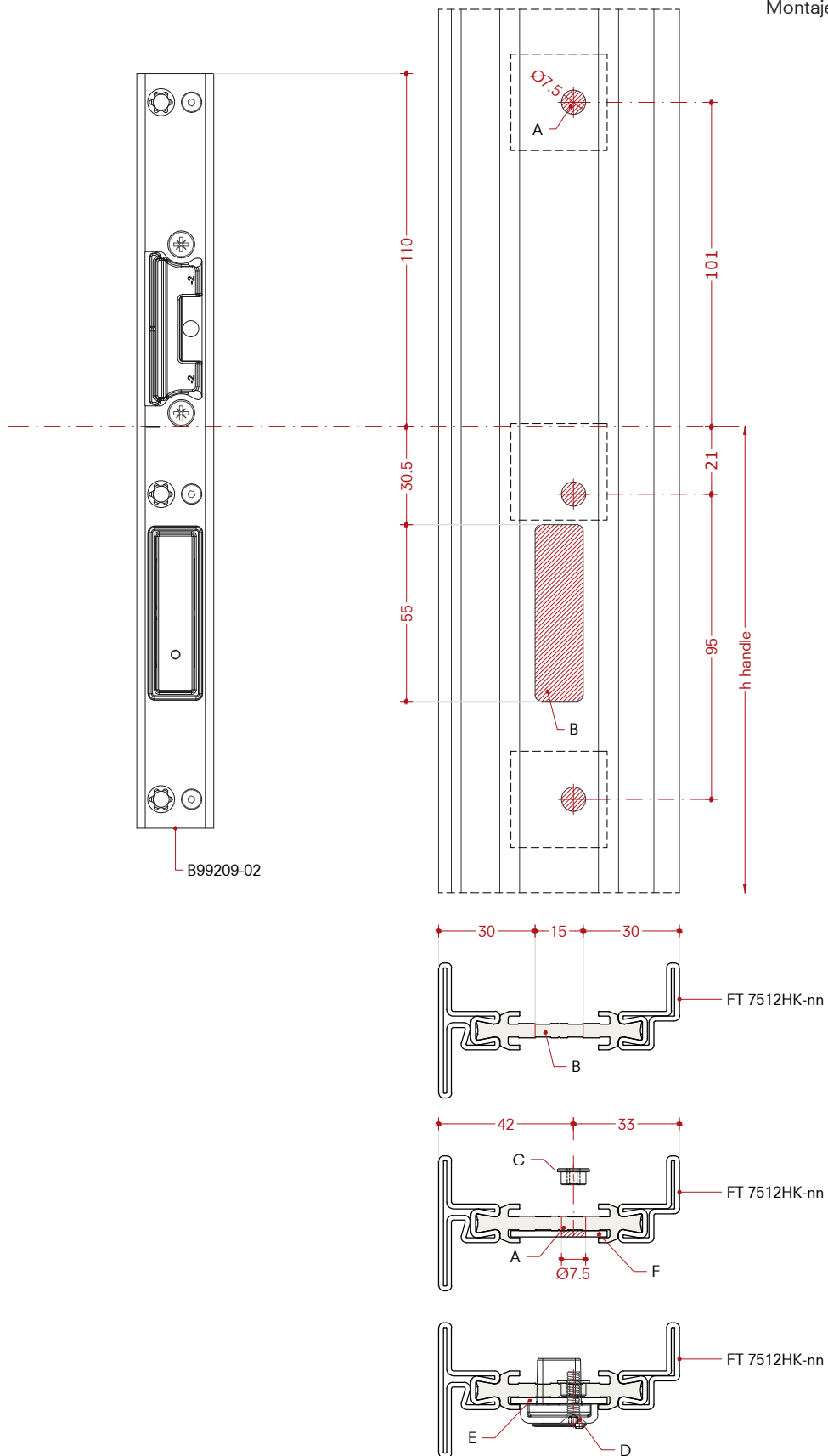


A) Locking box  
 B) Minimum size recommended 70 mm  
 C) Minimum size recommended 105 mm

A) Scatola serratura  
 B) Distanza minima raccomandata 70 mm  
 C) Distanza minima raccomandata 105 mm

A) Caja de bloqueo  
 B) Tamaño mínimo recomendado 70 mm  
 C) Tamaño mínimo recomendado 105 mm

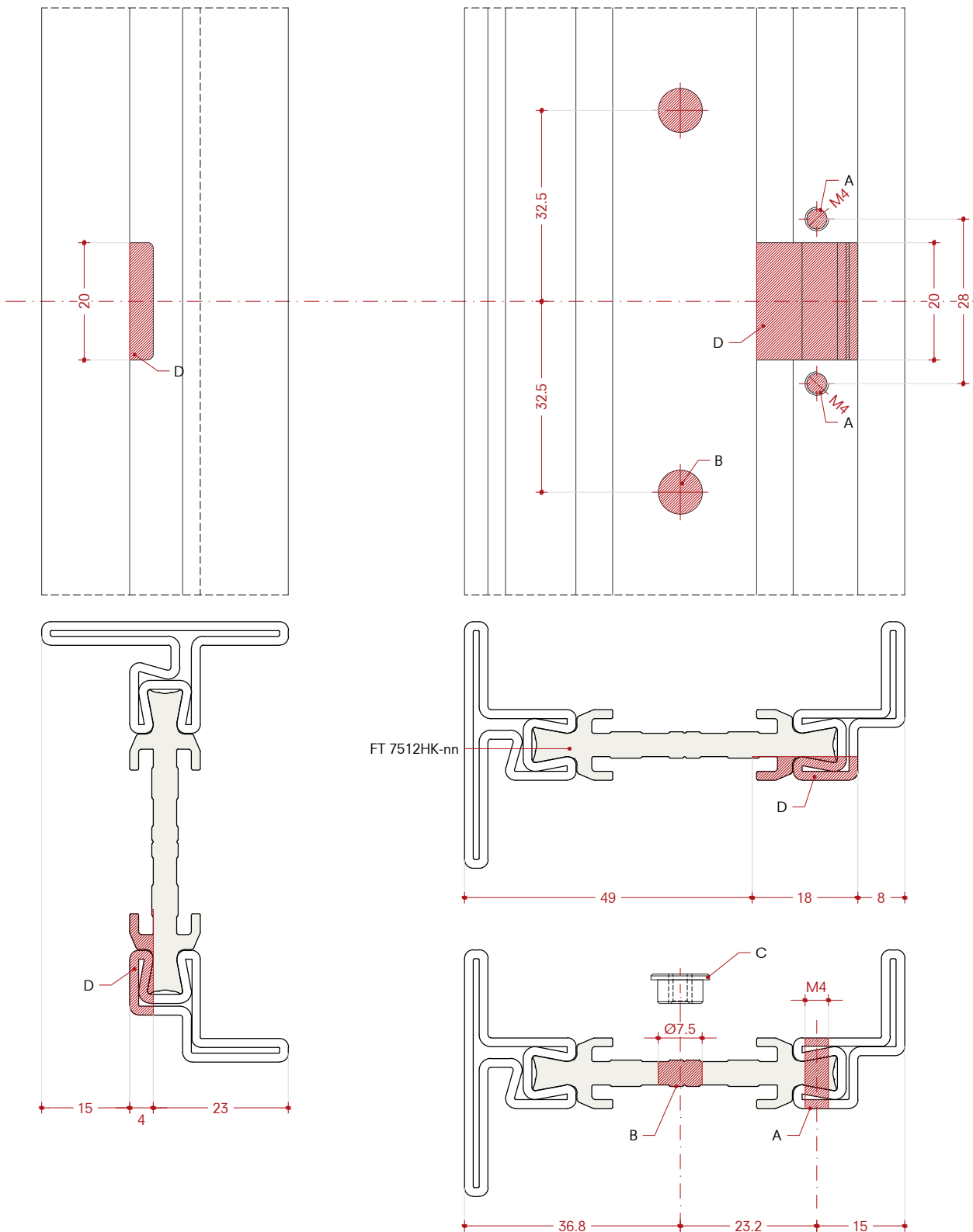




- A) Holes  $\varnothing 7.5$  mm in door frame
- B) Cut-out in door frame
- C) D99704-08 M4 brass bushing
- D) Fastening with M4x16 ISO10642 screws and cut the screw
- E) Plate 30x20x2 mm fixed by glue on profile (not provided) only for double leaves door

- A) Fori  $\varnothing 7.5$  mm nel telaio della porta
- B) Fresatura del telaio della porta
- C) D99704-08 Boccolla in ottone M4
- D) Fissaggio con viti M4x16 ISO10642 e accorciare la vite
- E) Piastra 30x20x2 mm fissata a colla al profilo (non fornita) solo per porta a doppia anta

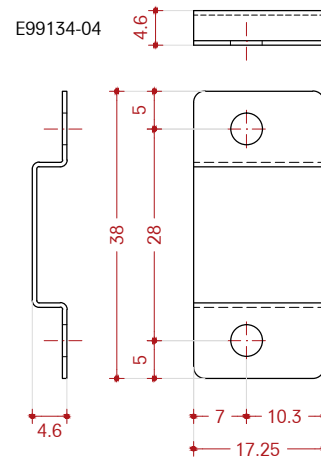
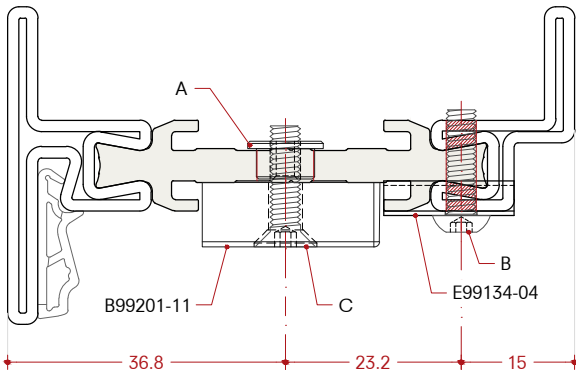
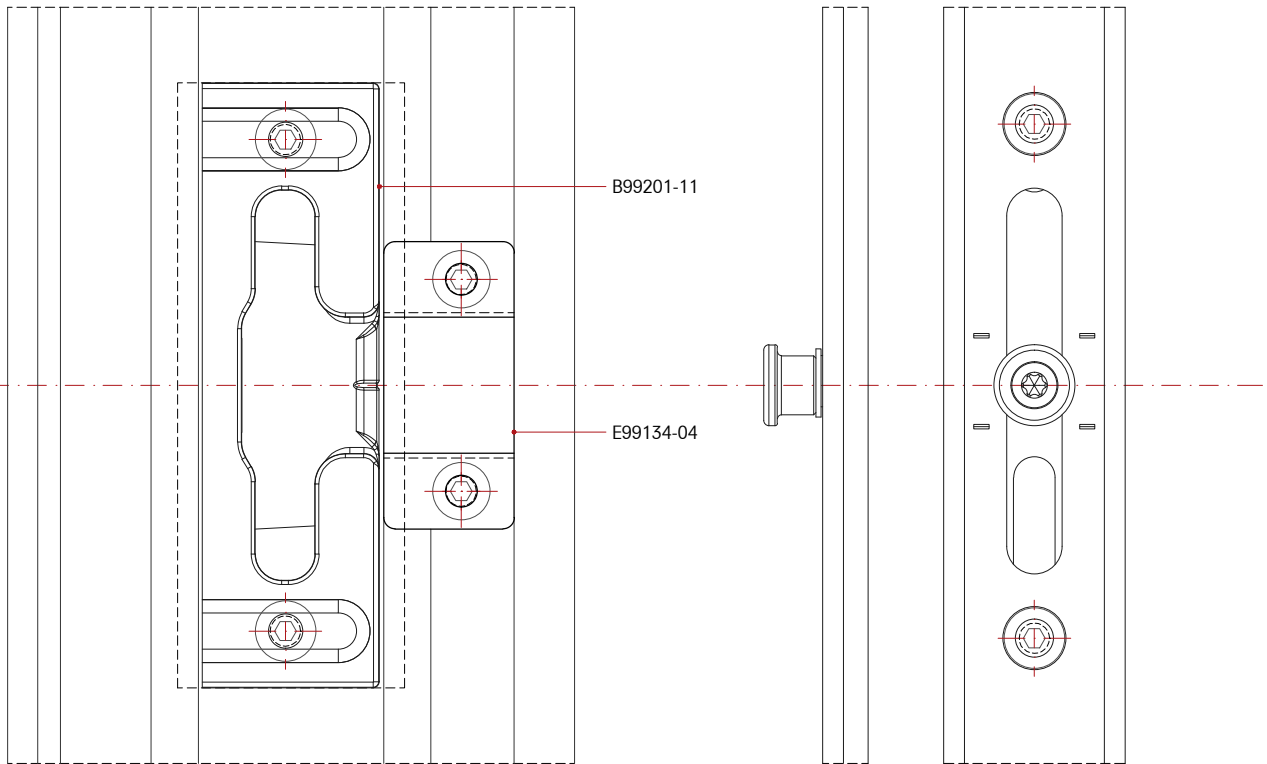
- A) Orificios de  $\varnothing 7.5$  mm en marco de la puerta
- B) Fresado en marco de la puerta
- C) D99704-08 Casquillo en latón M4
- D) Fijación con tornillos M4x16 ISO10642 y recortar tornillo
- E) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto) solo para puerta de dos hojas









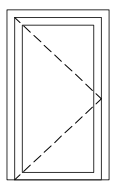
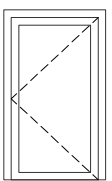


A) Holes M4 in door frame  
 B) Holes Ø7.5 mm in door frame  
 C) D99704-08 M4 brass bushing  
 D) Cut-out in door frame

A) Fori M4 nel telaio della porta  
 B) Fori Ø7.5 mm nel telaio della porta  
 C) D99704-08 Boccola in ottone M4  
 D) Fresatura del telaio della porta

A) Orificios de M4 en marco de la puerta  
 B) Orificios de Ø7.5 mm en marco de la puerta  
 C) D99704-08 Casquillo en latón M4  
 D) Fresado en marco de la puerta



- |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |  |
| M4x12<br>ISO 10642<br>n° 13 pcs                                                     | M4x16<br>ISO 10642<br>n° 11 pcs                                                     | M4x14<br>ISO 7380<br>n° 8 pcs                                                       | D99704-08<br>n° 24 pcs                                                              | E99134-04<br>n° 1 pc                                                                | B99201-11<br>n° 4 pcs                                                               | B99209-02<br>n° 1 pc<br>for Left opening                                            | B99210-02<br>n° 1 pc<br>for Right opening                                             |                                                                                       |                                                                                       |

A) D99704-08 M4 brass bushing  
 B) Fastening with M4x14 ISO7380 screws  
 C) Fastening with M4x16 ISO10642 screws

A) D99704-08 Boccola in ottone M4  
 B) Fissaggio con viti M4x14 ISO7380  
 C) Fissaggio con viti M4x16 ISO10642

A) D99704-08 Casquillo en latón M4  
 B) Fijación con tornillos M4x14 ISO7380  
 C) Fijación con tornillos M4x16 ISO10642

**Installation**

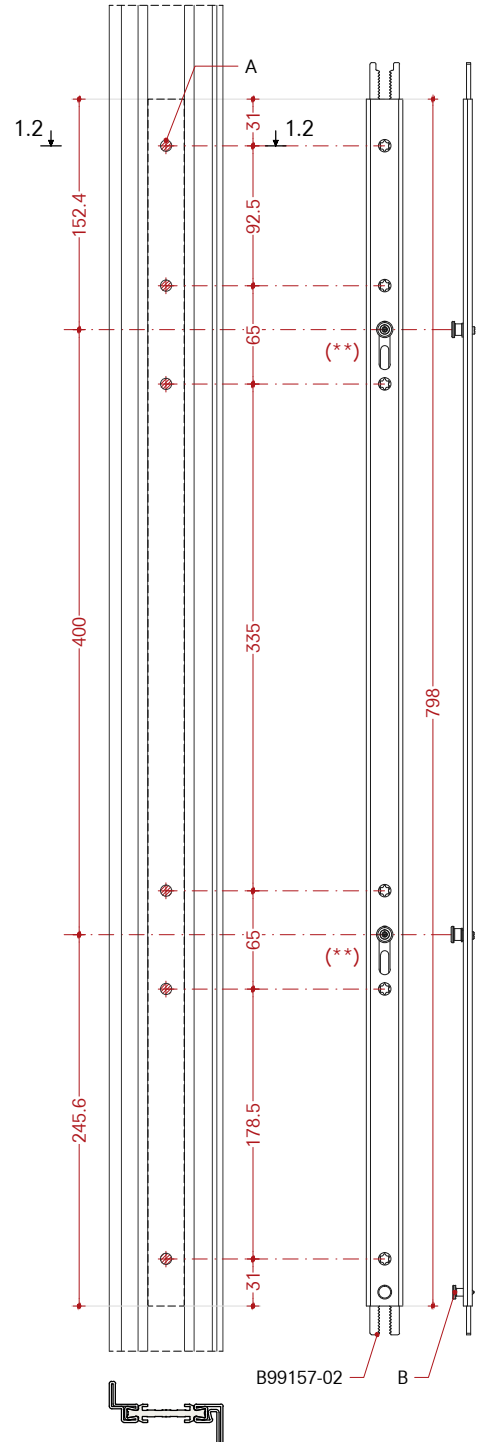
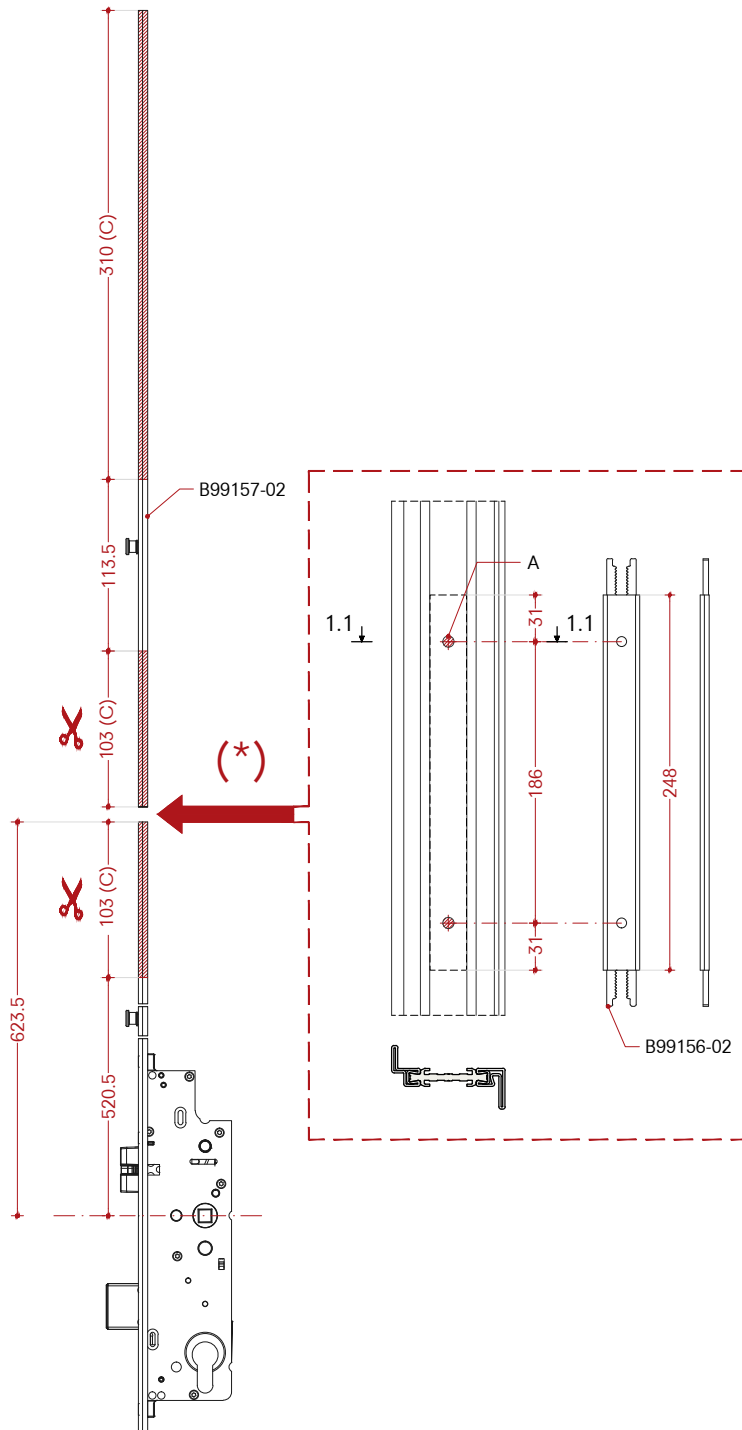
2nd leaf extension B99174-02  
 Open in door

**Montaggio**

Prolunga 2a anta B99174-02  
 Porta apertura interna

**Montaje**

Extensión 2do hoja B99174-02  
 Puerta apertura hacia dentro



Scale 1:5

- A) Holes Ø7.5 mm
- B) Remove this pin after installation
- C) Maximum cropping

(\*) Extension position

(\*\*) Extension in open position with studs at the top

Scala 1:5

- A) Fori Ø7.5 mm
- B) Rimuovere il perno dopo l'installazione
- C) Rasabilità massima

(\*) Posizione estensione

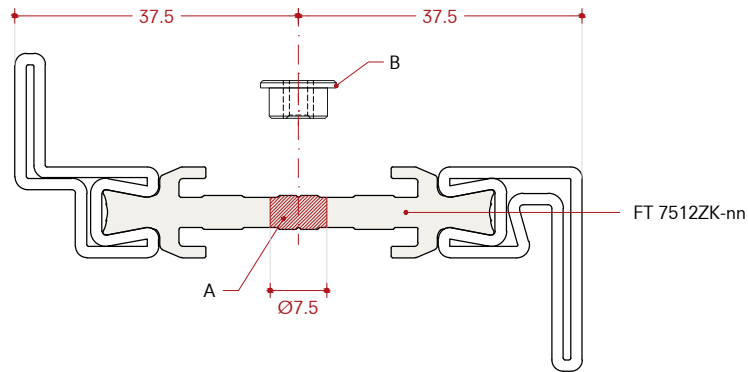
(\*\*) Prolunga in posizione aperta con nottolini in alto

Escala 1:5

- A) Orificios de Ø7.5 mm
- B) Quitar el pasador después de la instalación
- C) Recorte máximo

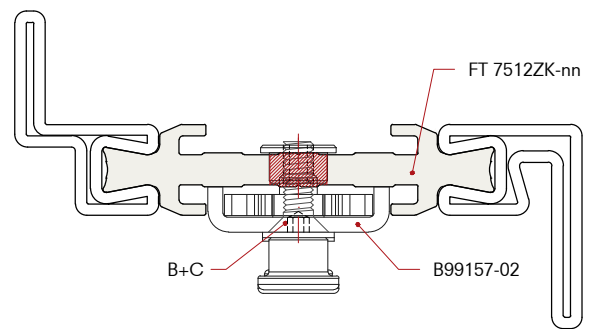
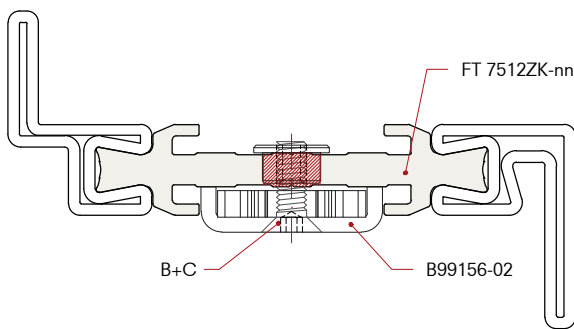
(\*) Posición de extensión

(\*\*) Extensión en posición abierta con alfileres en la parte superior




# 1.1







# 1.2



## B99156-02

-  M4x12  
ISO 10642  
n° 2 pcs
-  D99704-08  
n° 2 pcs

## B99157-02

-  M4x12  
ISO 10642  
n° 6 pcs
-  M4x14  
ISO 7380  
n° 4 pcs
-  3.9x19  
ISO 7050  
n° 4 pcs
-  D99704-08  
n° 6 pcs
-  E99134-04  
n° 0.5 pcs
-  B99201-11  
n° 2 pcs

A) Holes Ø7.5 mm  
 B) D99704-08 M4 brass bushing  
 C) Fastening with M4x12 ISO10642 screws

A) Fori Ø7.5 mm  
 B) D99704-08 Boccola in ottone M4  
 C) Fissaggio con viti M4x12 ISO10642

A) Orificios de Ø7.5 mm  
 B) D99704-08 Casquillo en latón M4  
 C) Fijación con tornillos M4x12 ISO10642

**Installation**

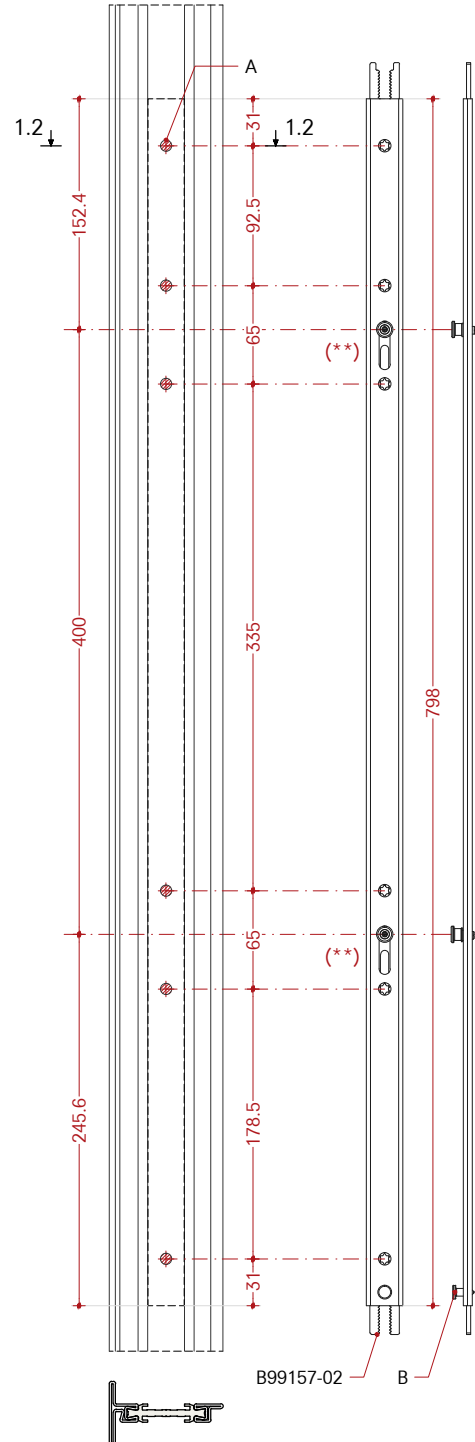
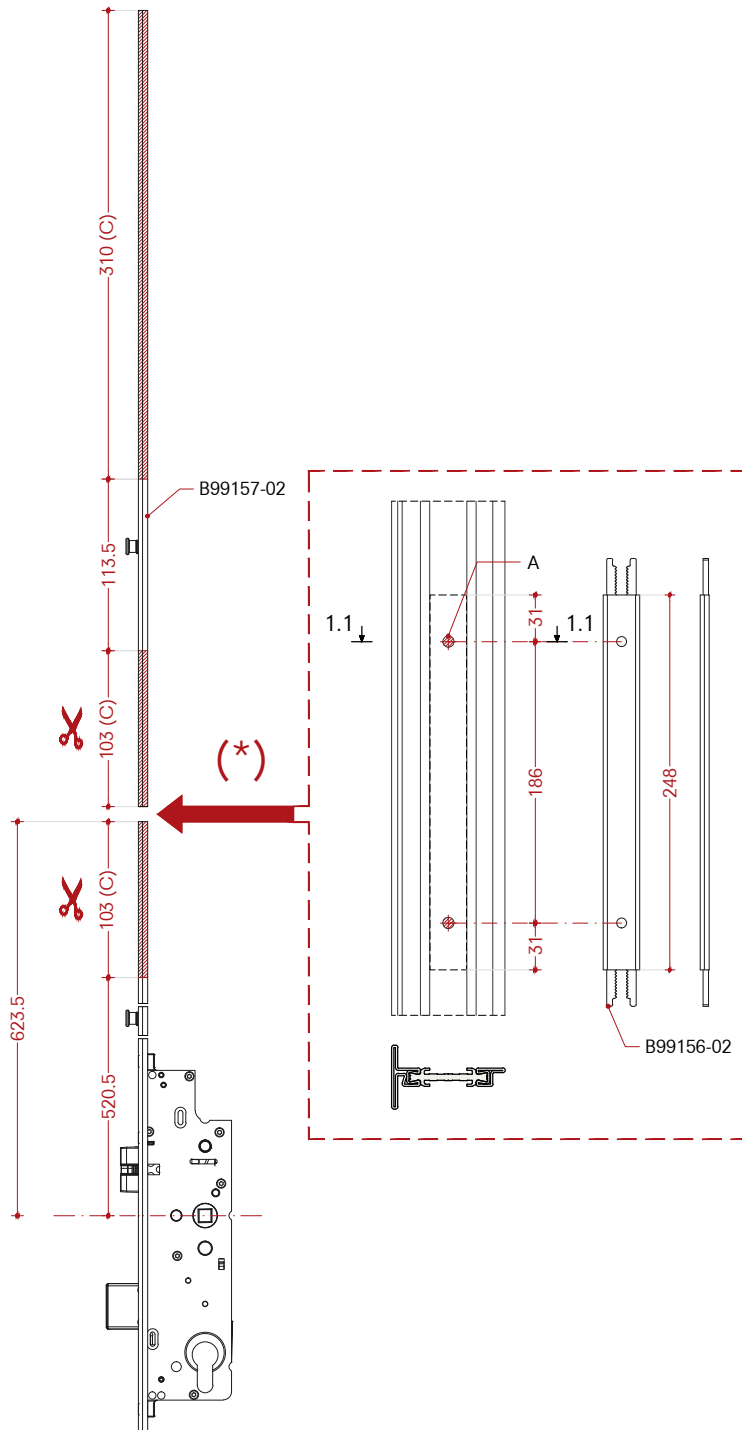
2nd leaf extension B99174-02  
 Open out door

**Montaggio**

Prolunga 2a anta B99174-02  
 Porta apertura esterna

**Montaje**

Extensión 2do hoja B99174-02  
 Puerta apertura hacia fuera



Scale 1:5

- A) Holes Ø7.5 mm
- B) Remove this pin after installation
- C) Maximum cropping

(\*) Extension position

(\*\*) Extension in open position with studs at the top

Scala 1:5

- A) Fori Ø7.5 mm
- B) Rimuovere il perno dopo l'installazione
- C) Rasabilità massima

(\*) Posizione estensione

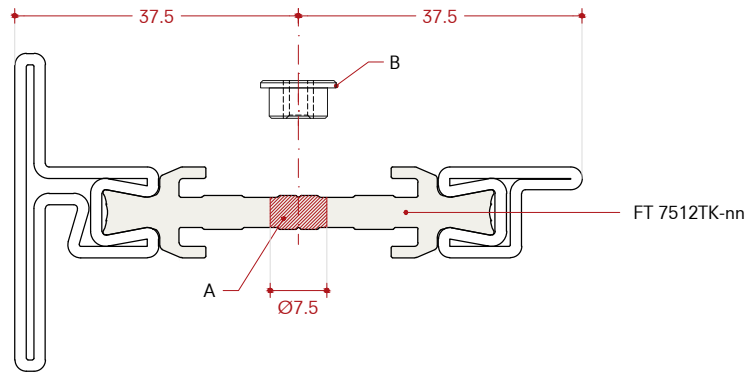
(\*\*) Prolunga in posizione aperta con nottolini in alto

Escala 1:5

- A) Orificios de Ø7.5 mm
- B) Quitar el pasador después de la instalación
- C) Recorte máximo

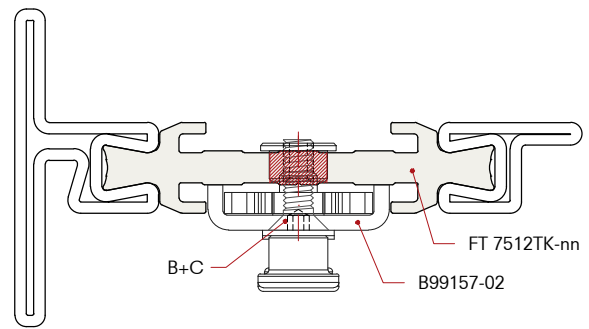
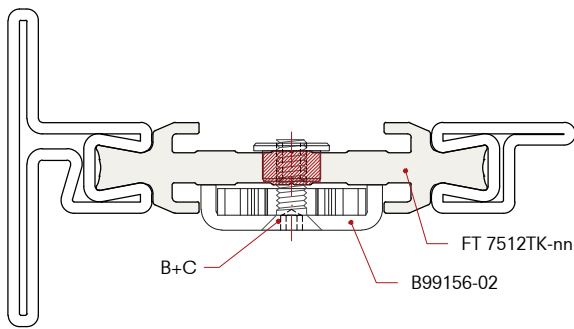
(\*) Posición de extensión

(\*\*) Extensión en posición abierta con alfileres en la parte superior




# 1.1







# 1.2



## B99156-02

-  M4x12  
ISO 10642  
n° 2 pcs
-  D99704-08  
n° 2 pcs

## B99157-02

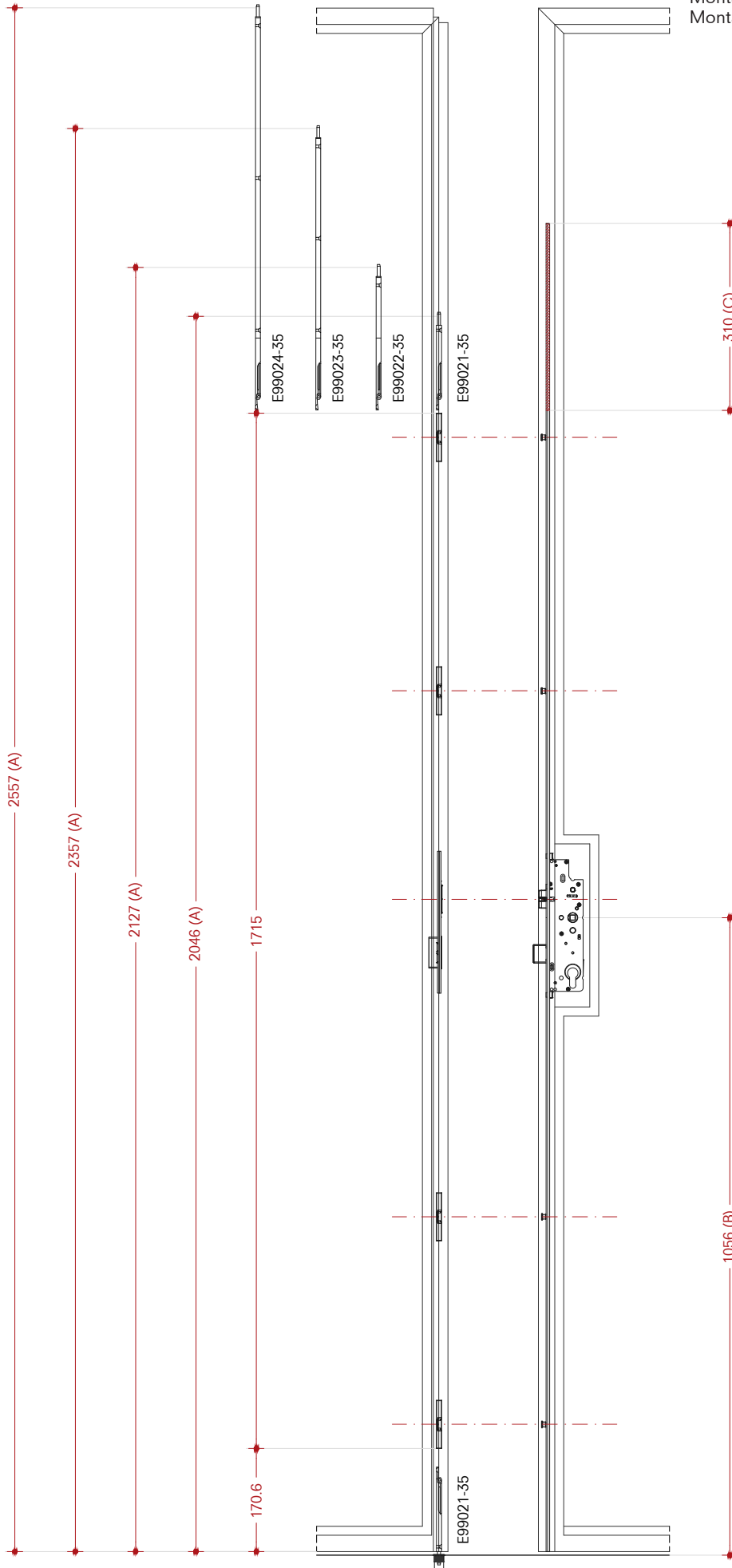
-  M4x12  
ISO 10642  
n° 6 pcs
-  M4x14  
ISO 7380  
n° 4 pcs
-  3.9x19  
ISO 7050  
n° 4 pcs
-  D99704-08  
n° 6 pcs
-  E99134-04  
n° 0.5 pcs
-  B99201-11  
n° 2 pcs

A) Holes Ø7.5 mm  
 B) D99704-08 M4 brass bushing  
 C) Fastening with M4x12 ISO10642 screws

A) Fori Ø7.5 mm  
 B) D99704-08 Boccola in ottone M4  
 C) Fissaggio con viti M4x12 ISO10642

A) Orificios de Ø7.5 mm  
 B) D99704-08 Casquillo en latón M4  
 C) Fijación con tornillos M4x12 ISO10642

|                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Installation</b><br/>                 Flush bolt E9902X-35<br/>                 Lock B99174-02<br/>                 Double leaf door open in<br/>                 with widening on complete height on<br/>                 lock side</p> | <p><b>Montaggio</b><br/>                 Catenaccio E9902X-35<br/>                 Serratura B99174-02<br/>                 Porta a due battenti apertura interna<br/>                 con montante maggiorato lato<br/>                 serratura</p> | <p><b>Montaje</b><br/>                 Pasador de canto E9902X-35<br/>                 Cerradura B99174-02<br/>                 Puerta abatible de dos hojas que se<br/>                 abre hacia dentro con mayor posición<br/>                 vertical en el lado de la cerradura</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

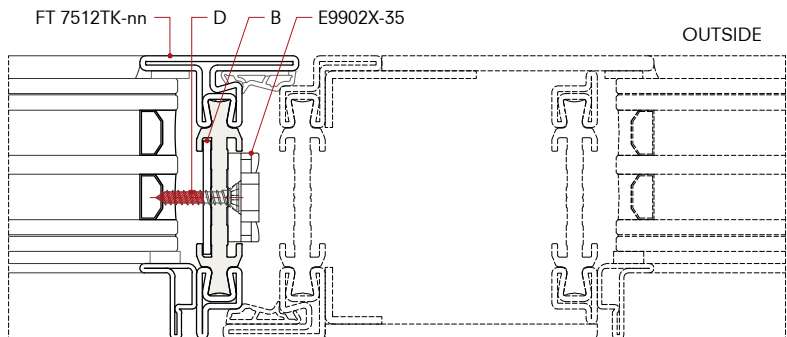
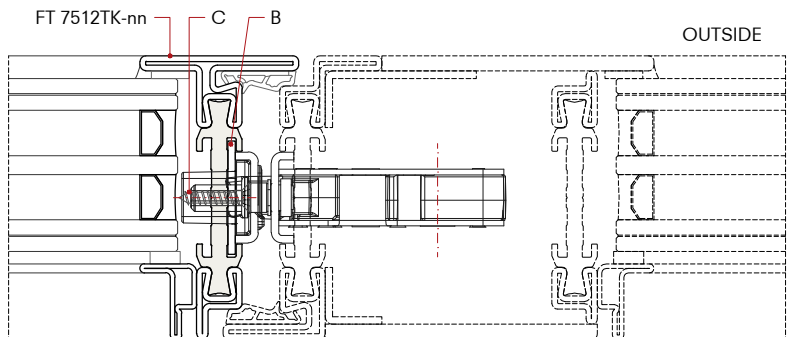
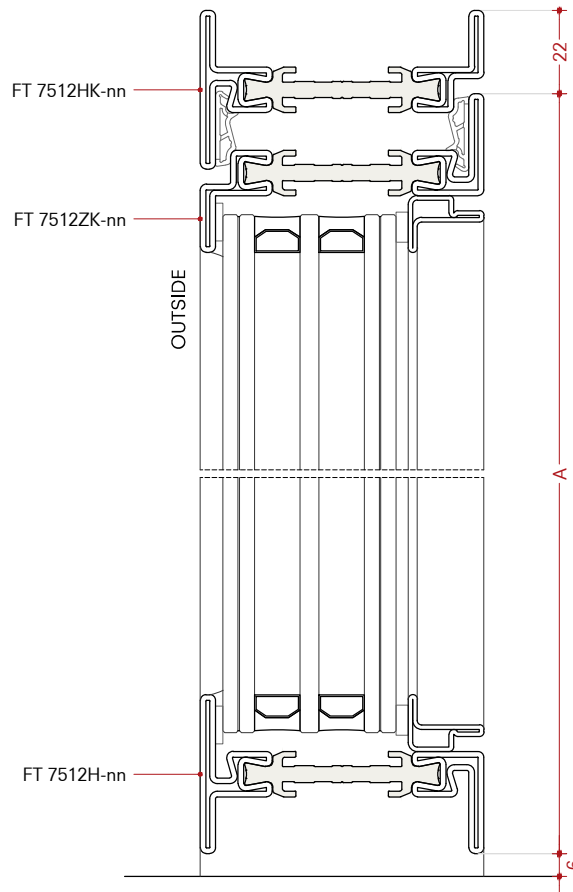


Escala 1:10  
 A) Altura mínima de la hoja  
 B) Altura de la manilla  
 C) Recorte máximo

Scala 1:10  
 A) Altezza minima anta  
 B) Altezza maniglia  
 C) Rasabilità massima

Scale 1:10  
 A) Minimum height leaf  
 B) Height handle  
 C) Maximum cropping





- A) Height leaf
- B) Additional 2 mm shim on central striker for 2nd leaf
- C) Fastening with Ø3.9x19 mm ISO7050 screws and cut the screws
- D) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

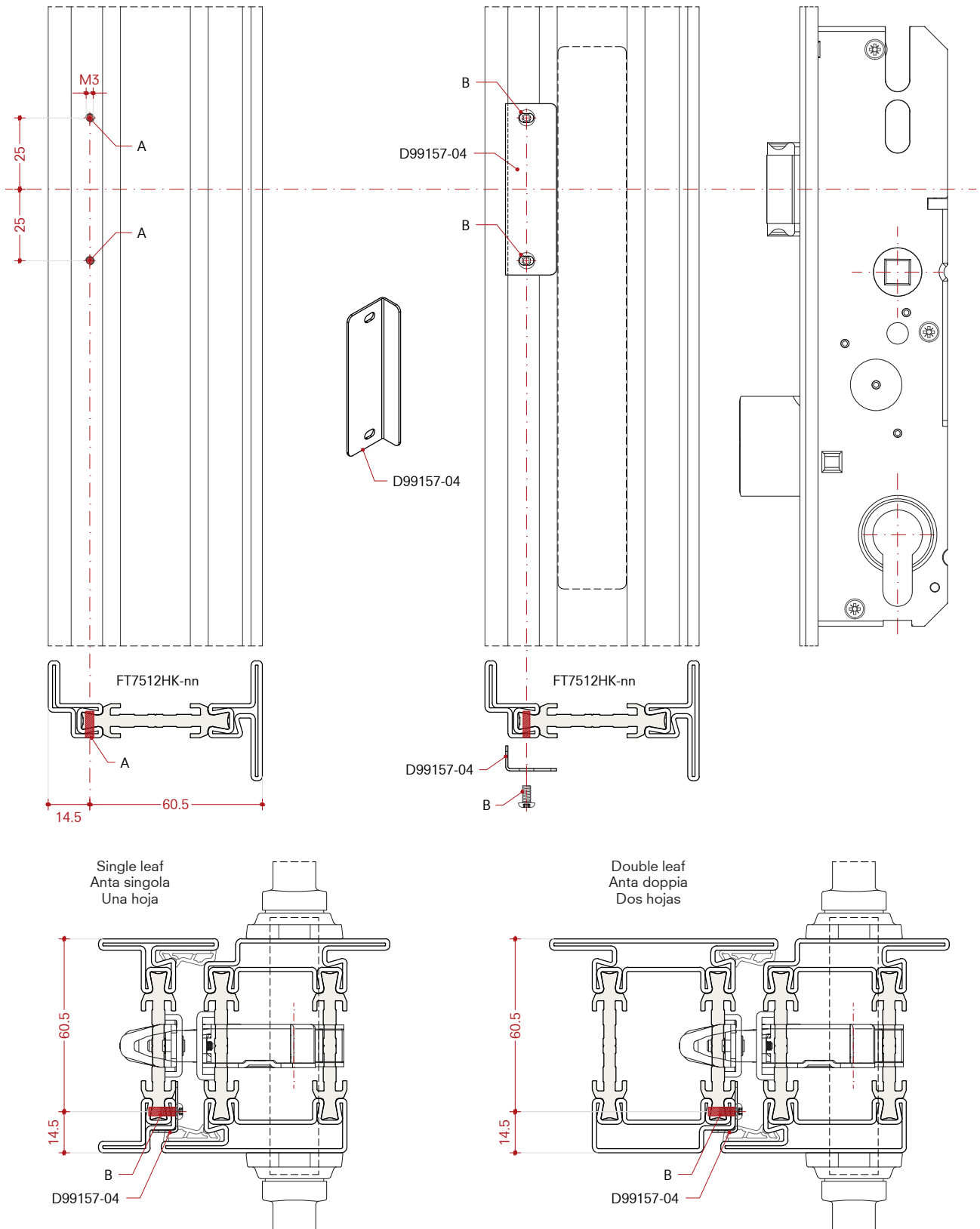
- A) Altezza anta
- B) Spessore da 2 mm addizionale su riscontro centrale per seconda anta
- C) Fissaggio con viti Ø3.9x19 mm ISO7050 e accorciare le viti
- D) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare le viti

- A) Altura de la hoja
- B) Espesor adicional de 2 mm en el cerradero central para 2do hoja
- C) Fijación con tornillos Ø3.9x19 mm ISO7050 y recortar tornillos
- D) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillos

**Installation of rebate protection for latchbolt**  
 Open in door

**Montaggio protezione battuta per scrocco**  
 Porta apertura interna

**Montaje de protección de parada para pestillo**  
 Puerta apertura hacia dentro



- A) Holes M3 mm in door frame
- B) Fastening with M3x6 ISO7380 screws
- C) Fastening with M3x20 ISO7380 screws and cut the screws

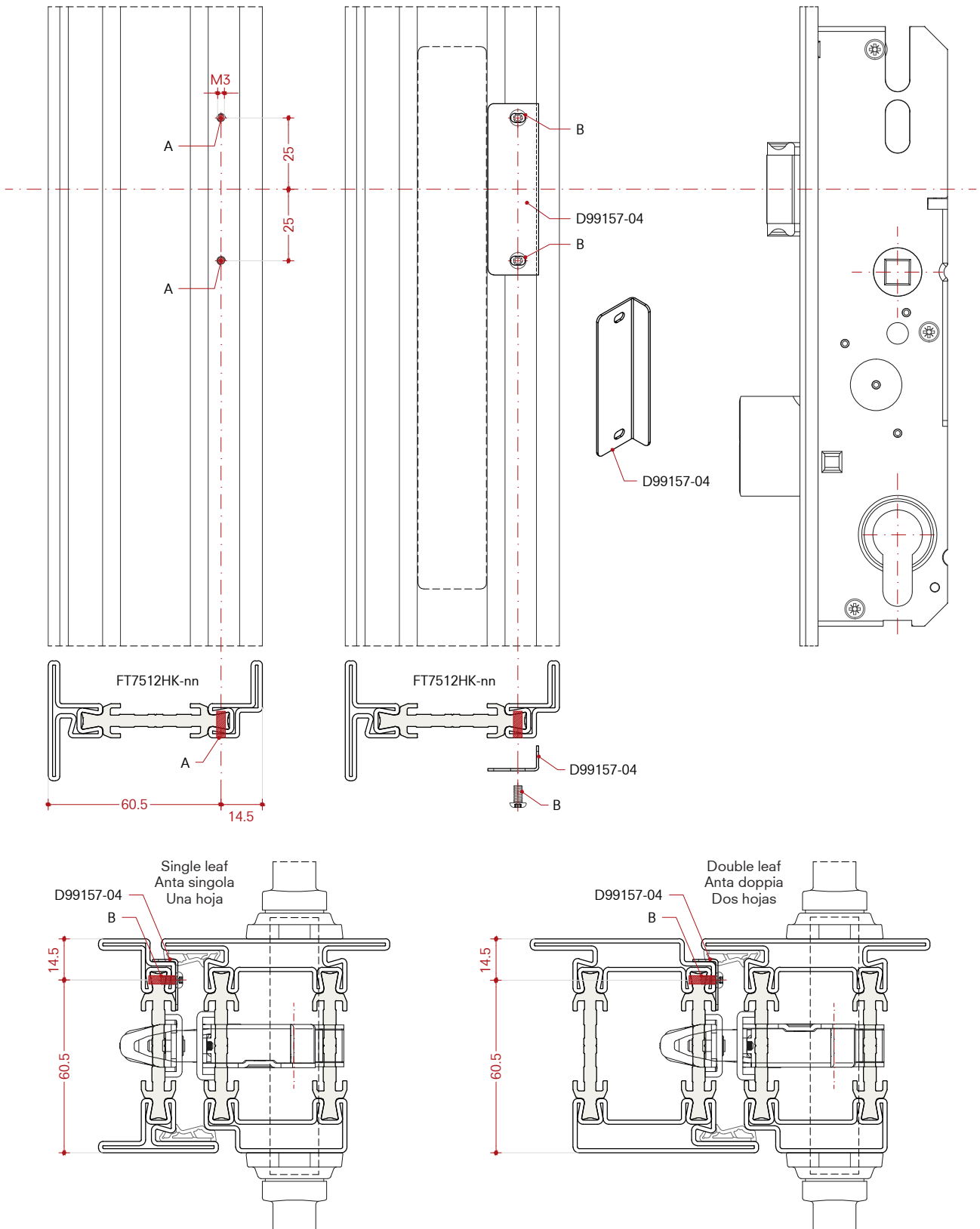
- A) Fori M3 mm nel telaio della porta
- B) Fissaggio con viti M3x6 ISO7380
- C) Fissaggio con viti M3x20 ISO7380 e accorciare le viti

- A) Orificios de M3 mm en marco de la puerta
- B) Fijación con tornillos M3x6 ISO7380
- C) Fijación con tornillos M3x20 ISO7380 y recortar tornillos

**Installation of rebate protection for latchbolt**  
 Open out door

**Montaggio protezione battuta per scrocco**  
 Porta apertura esterna

**Montaje de protección de parada para pestillo**  
 Puerta apertura hacia fuera



A) Holes M3 mm in door frame  
 B) Fastening with M3x6 ISO7380 screws

A) Fori M3 mm nel telaio della porta  
 B) Fissaggio con viti M3x6 ISO7380

A) Orificios de M3 mm en marco de la puerta  
 B) Fijación con tornillos M3x6 ISO7380

**Processing**

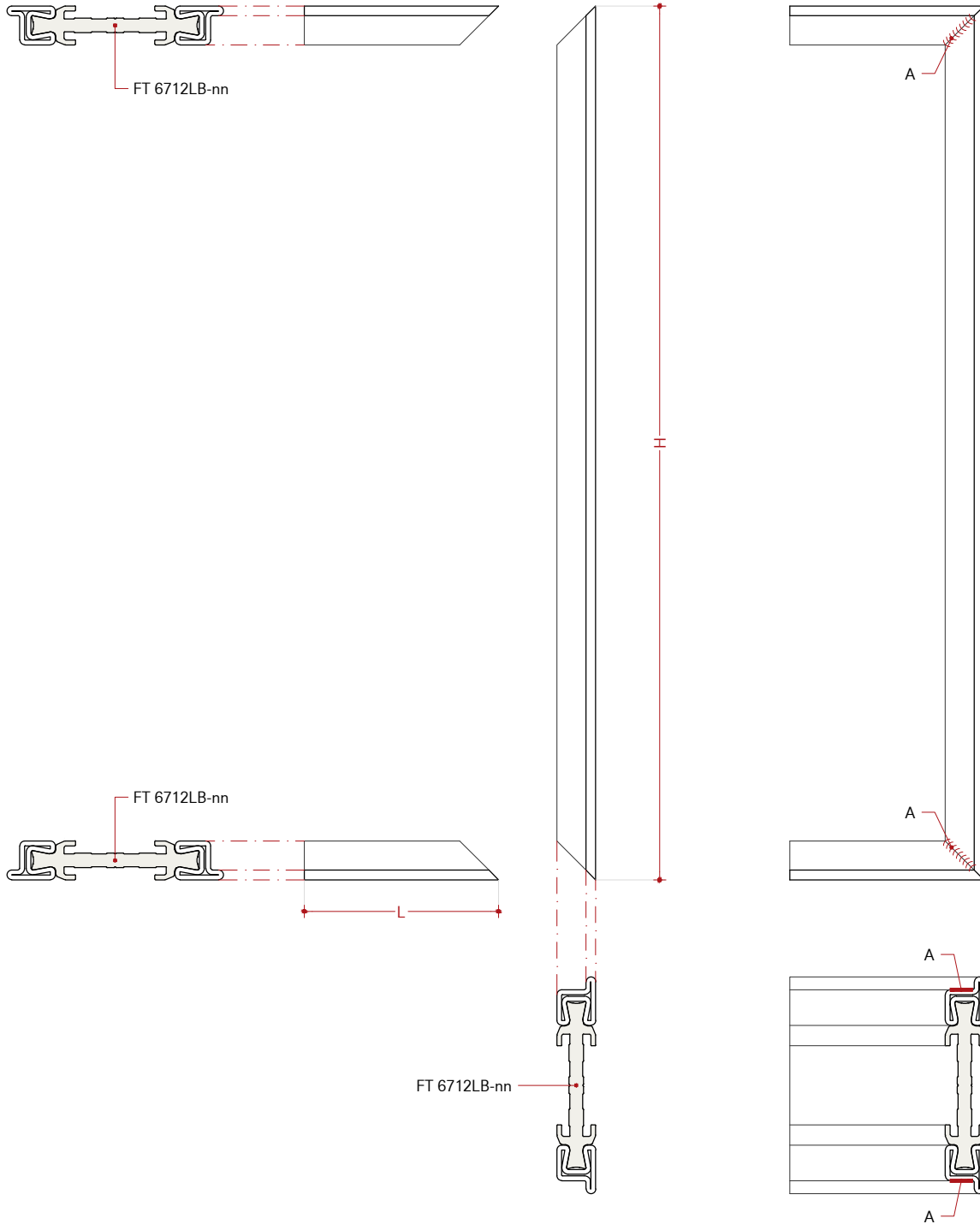
Locking box with FT 6712LB-nn  
 Open in

**Lavorazione**

Scatola serratura con FT 6712LB-nn  
 Apertura interna

**Mecanizado**

Cerradura con FT 6712LB-nn  
 Que se abre hacia dentro



L = Length locking box  
 H = Height locking box

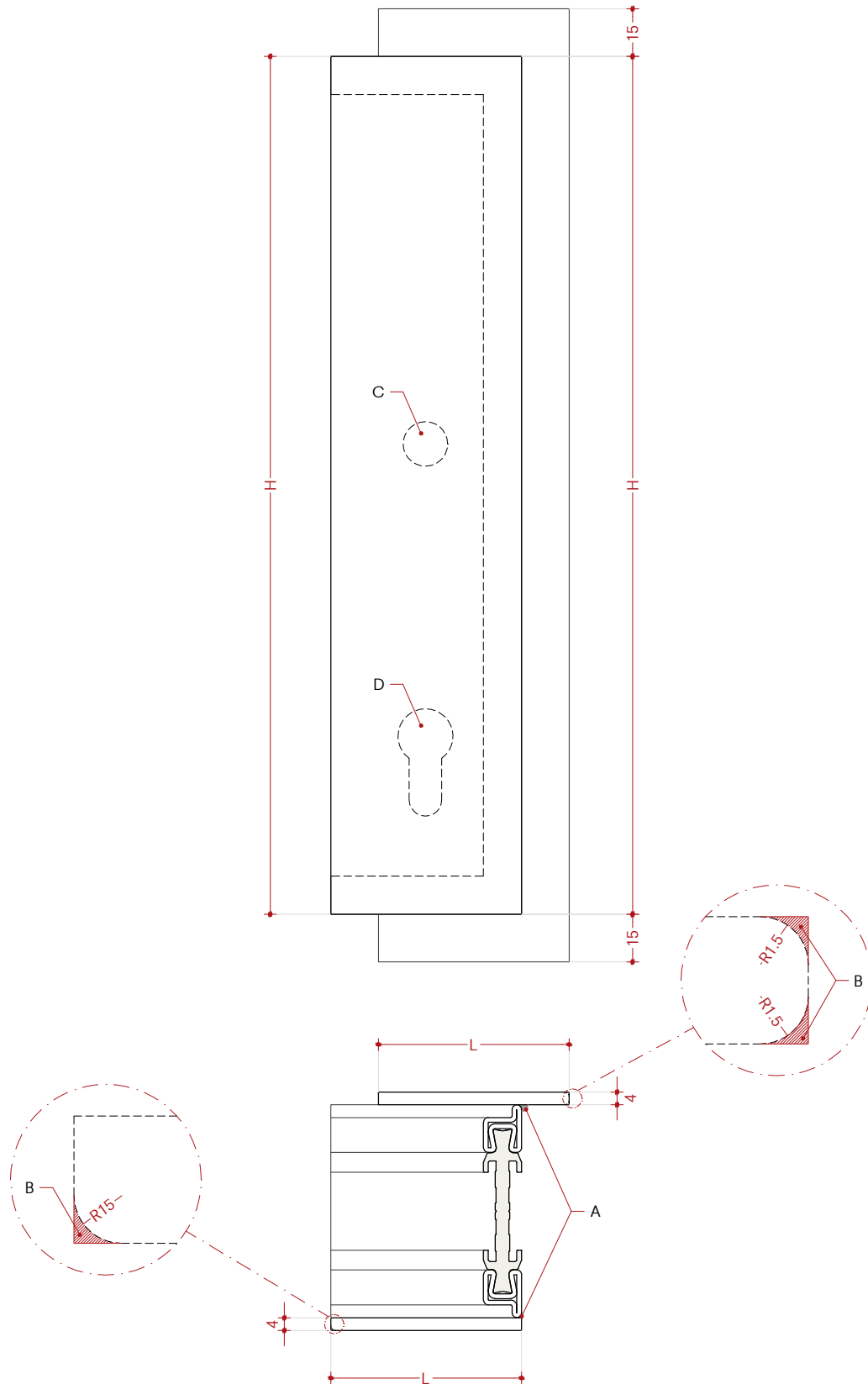
A) Welding

L = Larghezza scatola serratura  
 H = Altezza scatola serratura

A) Saldatura

L = Longitud caja de bloqueo  
 H = Altura caja de bloqueo

A) Soldadura



L = Length locking box  
 H = Height locking box

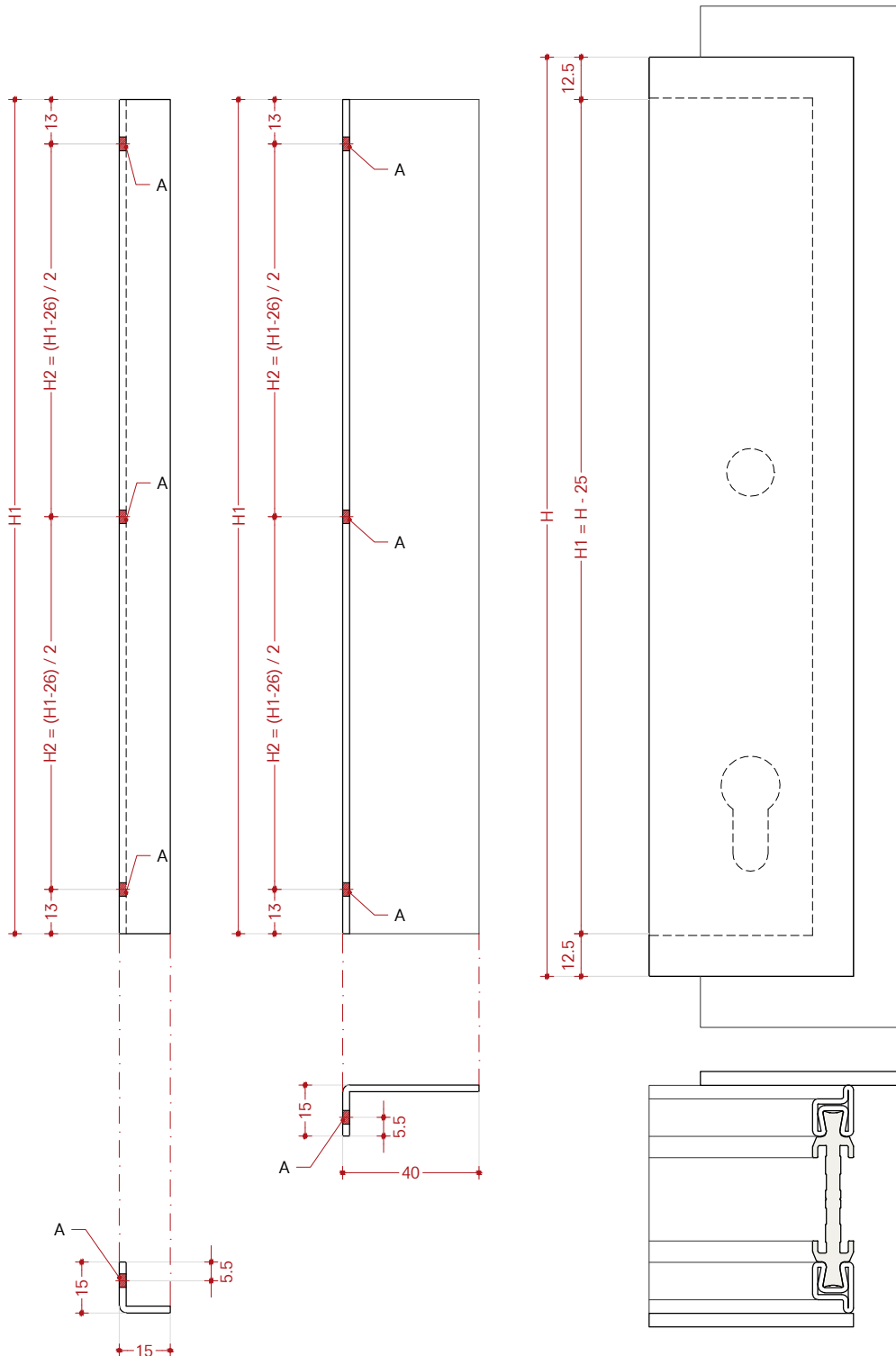
- A) Welding
- B) Chamfer
- C) Handle holes
- D) Cylinder holes

L = Larghezza scatola serratura  
 H = Altezza scatola serratura

- A) Saldatura
- B) Smussare
- C) Fori maniglia
- D) Fori cilindro

L = Longitud caja de bloqueo  
 H = Altura caja de bloqueo

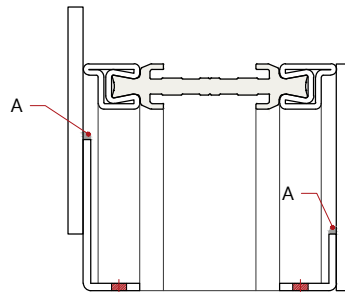
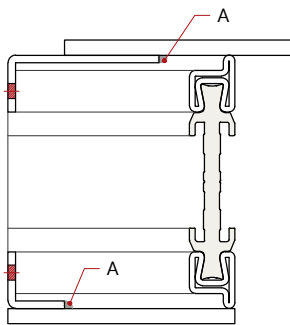
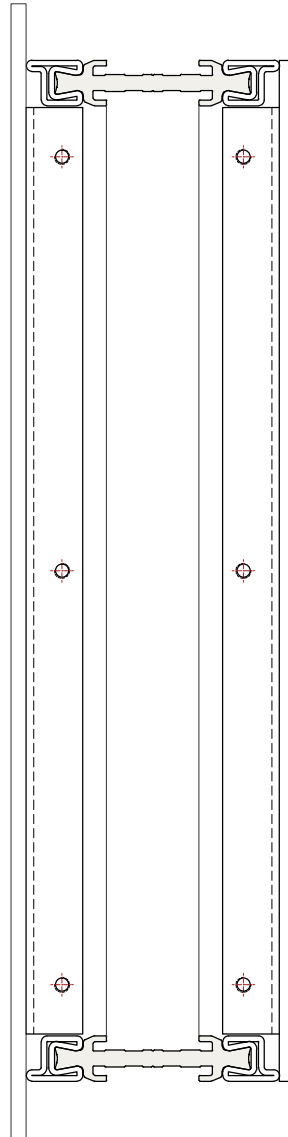
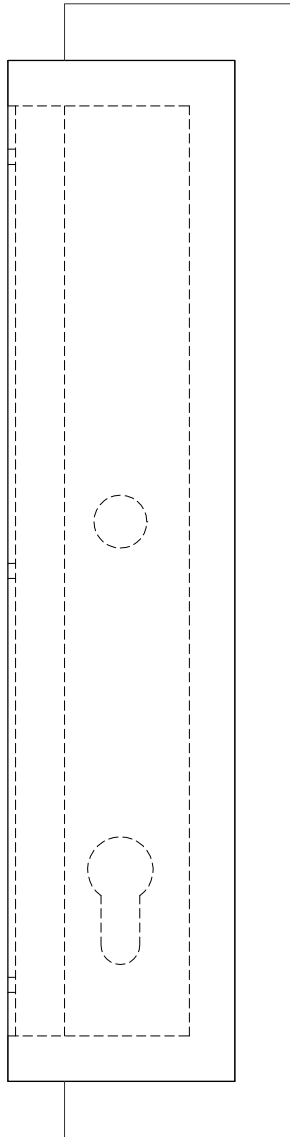
- A) Soldadura
- B) Chaflán
- C) Oreficios de la manija
- D) Oreficios de cilindro



A) Holes M4

A) Fori M4

A) Orificios de M4

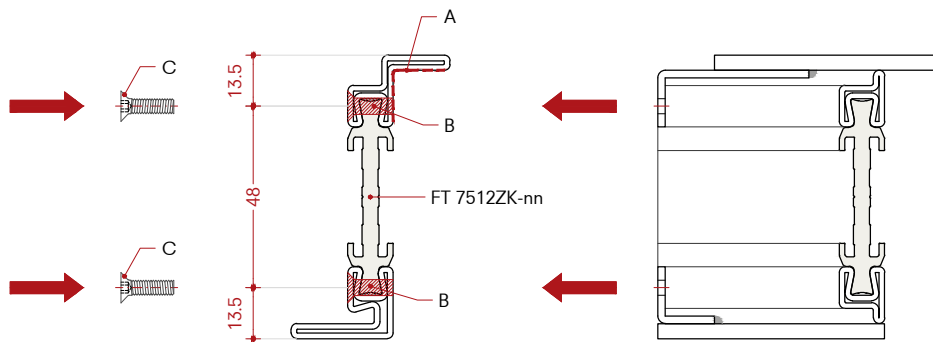
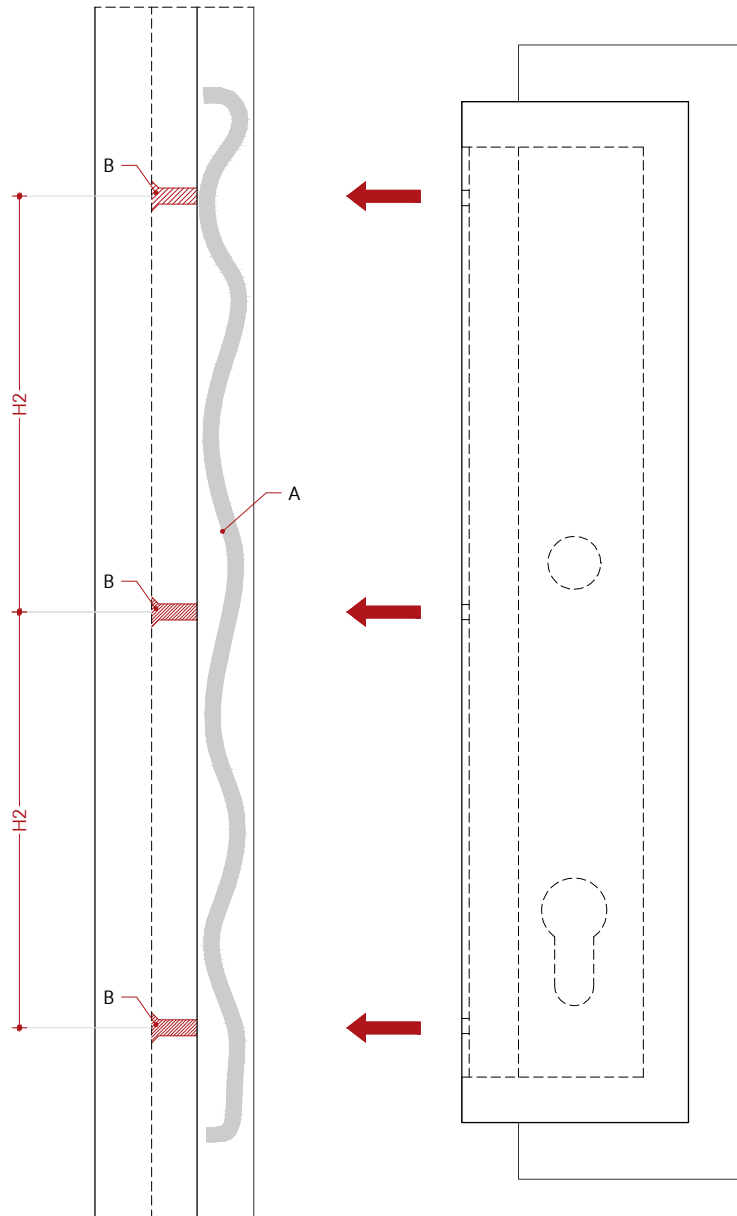


A) Welding

A) Saldatura

A) Soldadura

Open in  
 Apertura interna  
 Que se abre hacia dentro



**Note:**

Fixing on the leaf after coating.

- A) Sealant at corners
- B) Ø4.25 mm countersunk
- C) Fastening with M4x14 ISO10642 screws

**Note:**

Fissaggio sull'anta dopo la verniciatura.

- A) Sigillante negli angoli
- B) Fori svasati Ø4.25 mm
- C) Fissaggio con viti M4x14 ISO10642

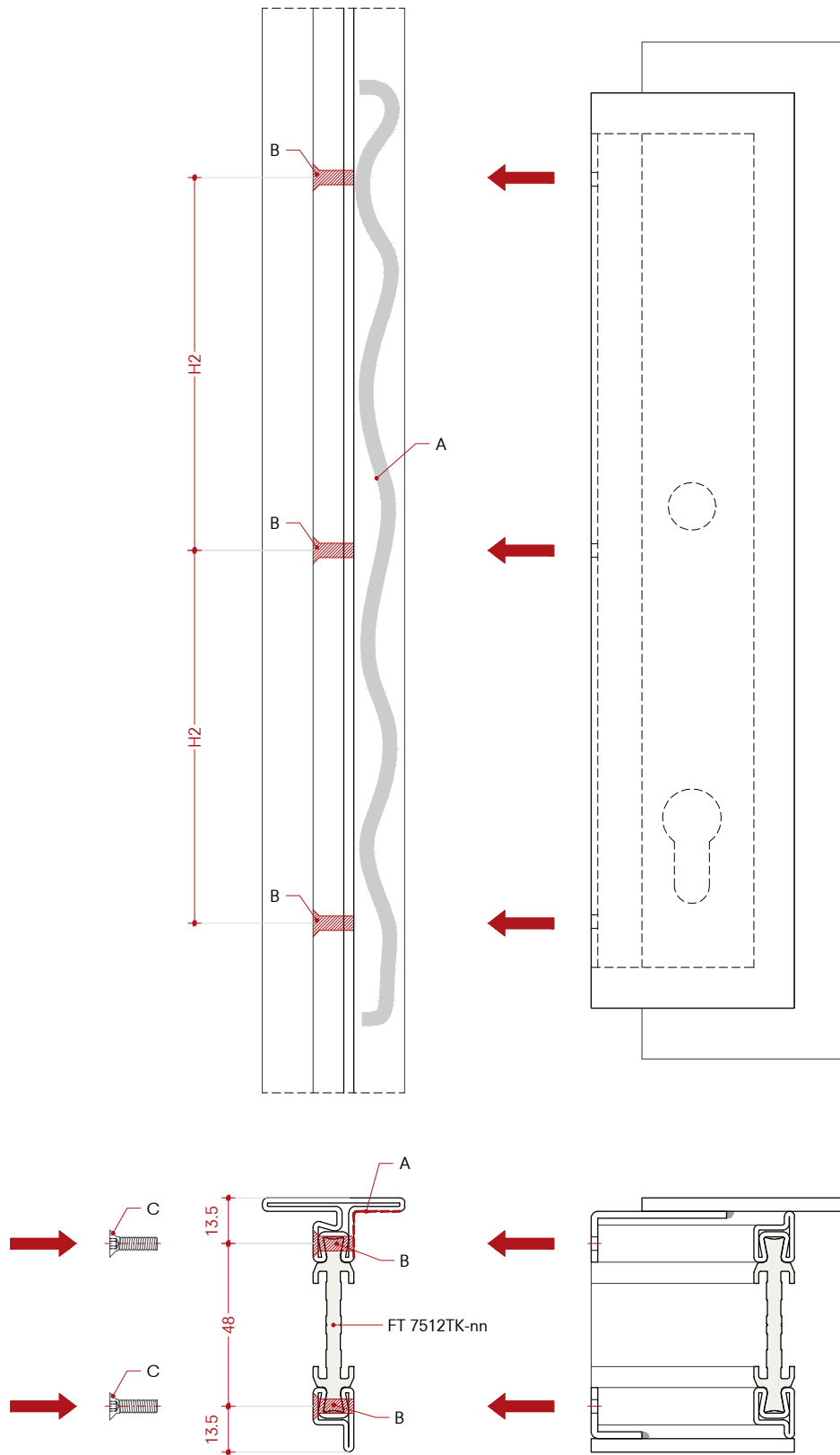
**Nota:**

Fijación en la hoja después de pintar.

- A) Agente sellante en las esquinas
- B) Orificios abocinado Ø4.25 mm
- C) Fijación con tornillos M4x14 ISO10642



Open out  
 Apertura esterna  
 Que se abre hacia fuera



**Note:**

Fixing on the leaf after coating.

- A) Sealant at corners
- B) Ø4.25 mm countersunk
- C) Fastening with M4x14 ISO10642 screws

**Note:**

Fissaggio sull'anta dopo la verniciatura.

- A) Sigillante negli angoli
- B) Fori svasati Ø4.25 mm
- C) Fissaggio con viti M4x14 ISO10642

**Nota:**

Fijación en la hoja después de pintar.

- A) Agente sellante en las esquinas
- B) Orificios abocinado Ø4.25 mm
- C) Fijación con tornillos M4x14 ISO10642

**Processing**

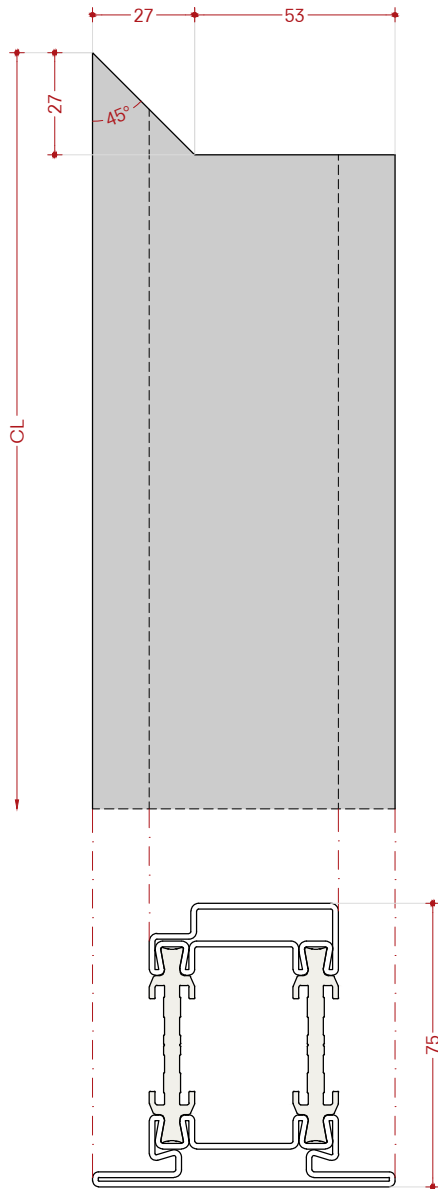
Leaf door widening on complete height on lock side  
 FT 7550T-nn + FT 7512ZK-nn  
 Open in

**Lavorazione**

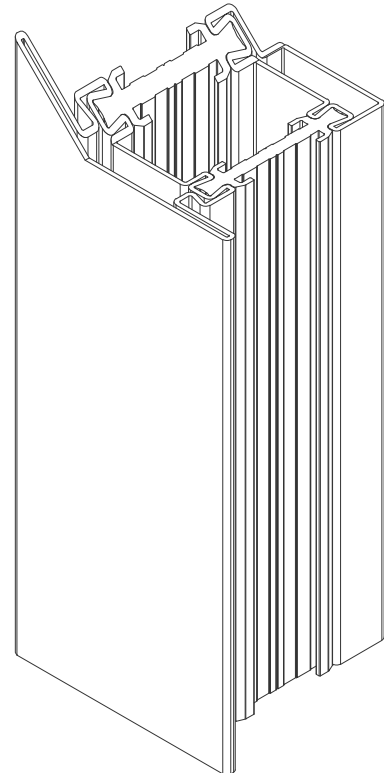
Anta porta con montante maggiorato lato serratura  
 FT 7550T-nn + FT 7512ZK-nn  
 Apertura interna

**Mecanizado**

Hoja de puerta con mayor posición vertical en el lado de la cerradura  
 FT 7550T-nn + FT 7512ZK-nn  
 Que se abre hacia dentro



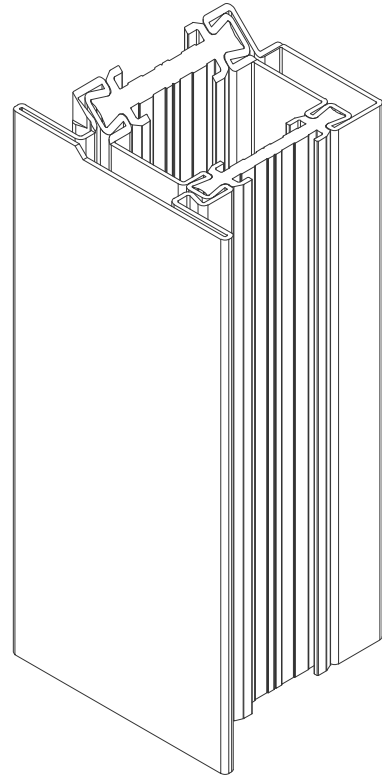
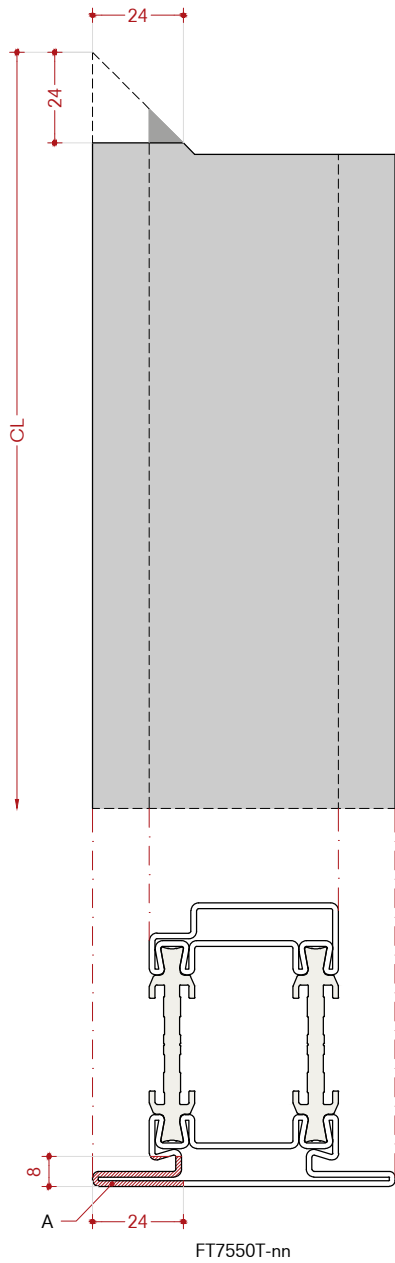
FT7550T-nn



CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte



CL = Cutting Length

A) Cut out

disclaimer see 7.0.14

CL = Lunghezza di taglio

A) Fresata

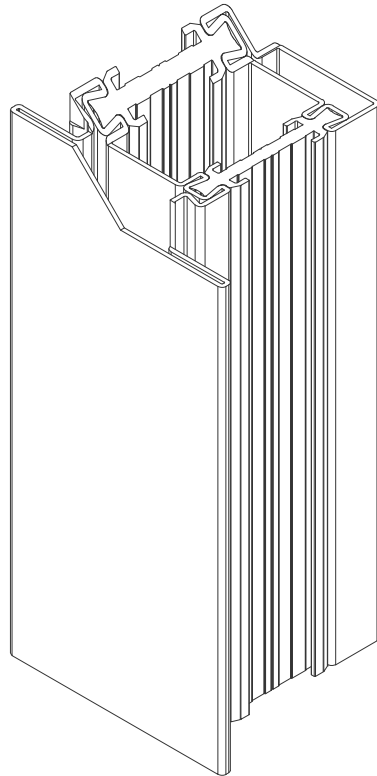
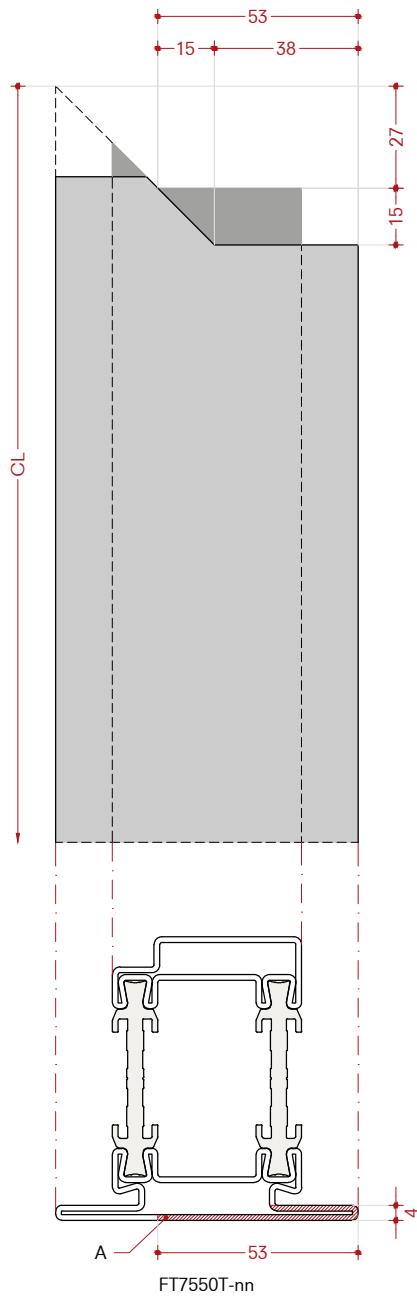
rel. 07 - 09/2022

5.4.228

CL = Longitud de corte

A) Fresado

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CL = Cutting Length

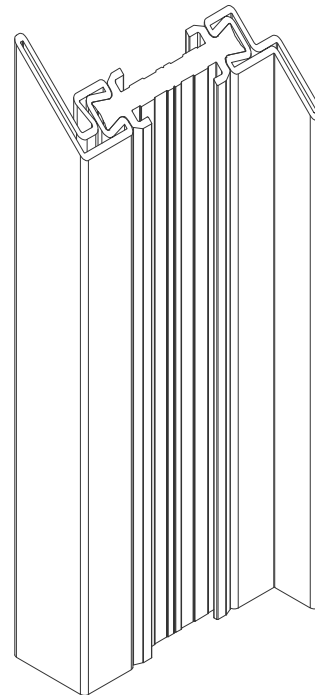
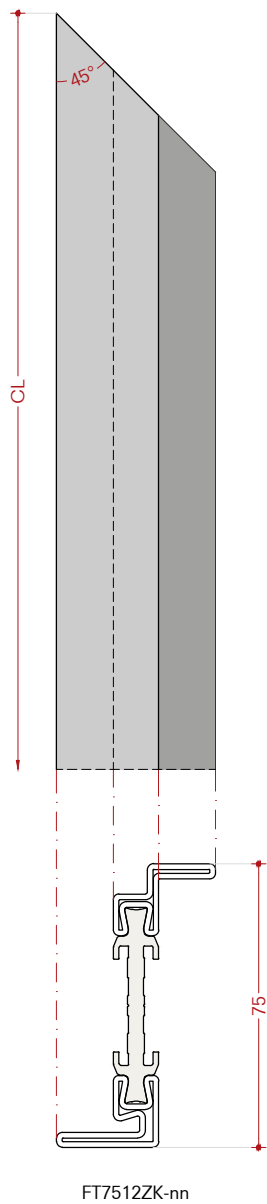
CL = Lunghezza di taglio

CL = Longitud de corte

A) Cut out

A) Fresata

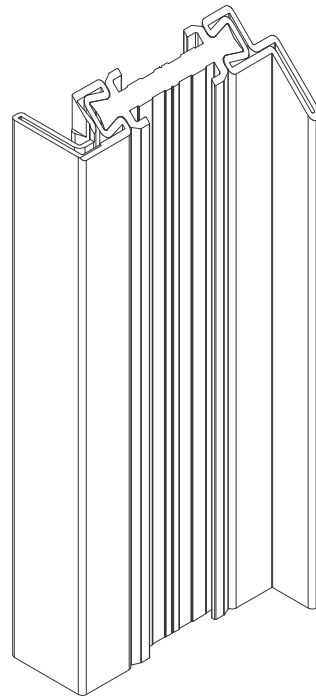
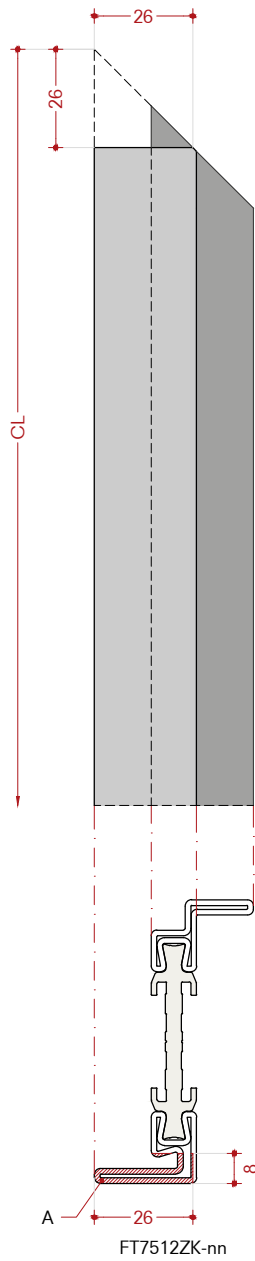
A) Fresado



CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte



CL = Cutting Length

A) Cut out

disclaimer see 7.0.14

CL = Lunghezza di taglio

A) Fresata

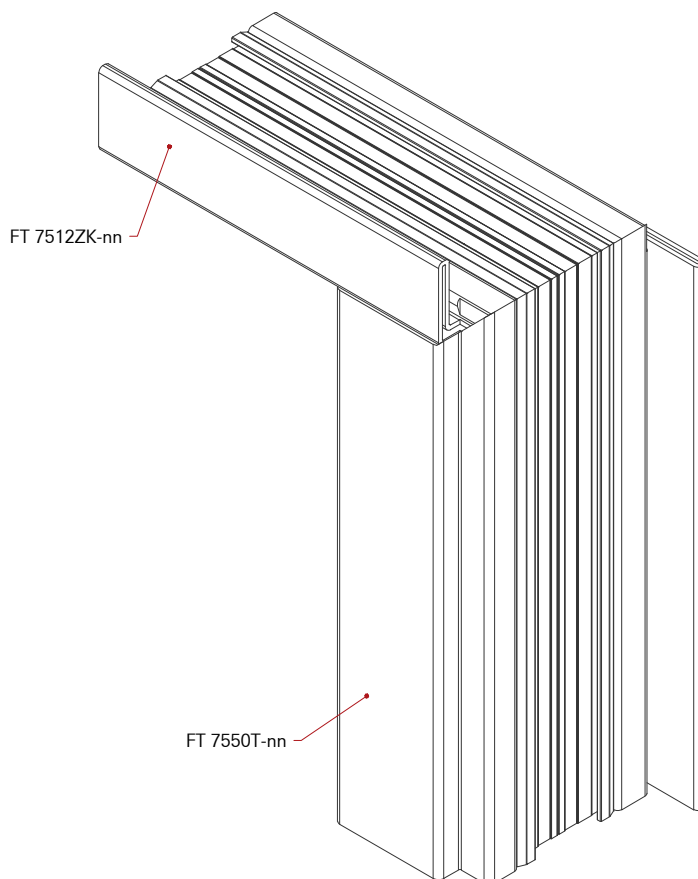
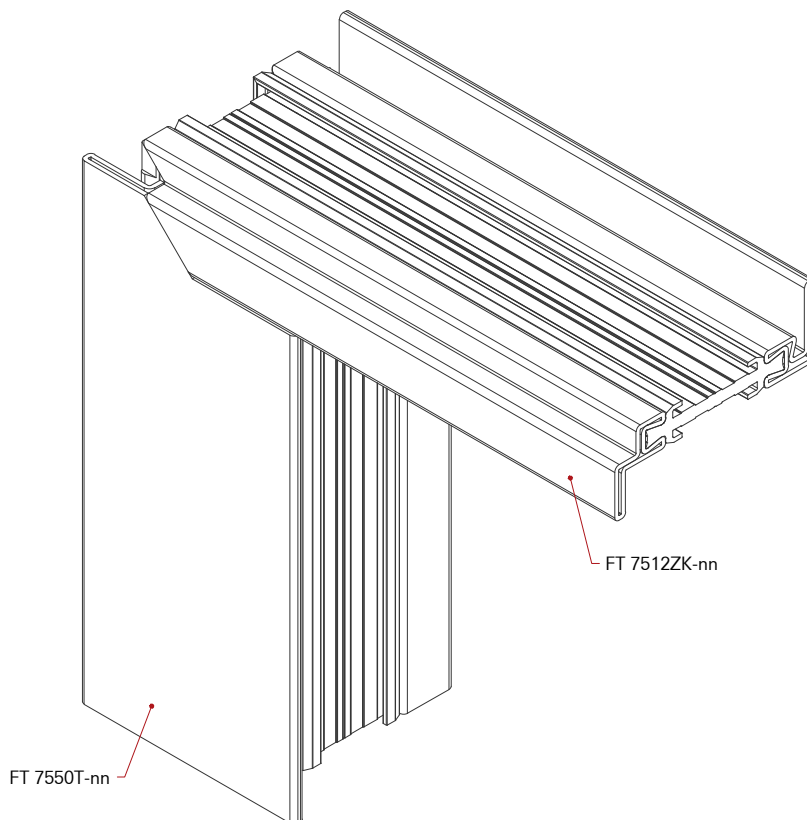
rel. 07 - 09/2022

5.4.231

CL = Longitud de corte

A) Fresado

ottostumm-mogs.com



**Processing**

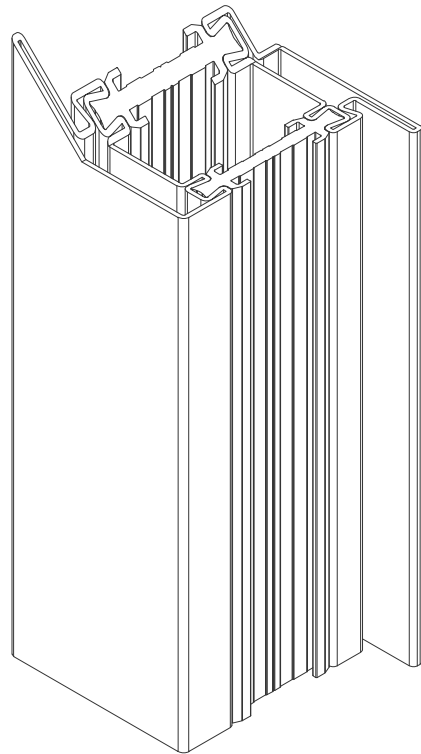
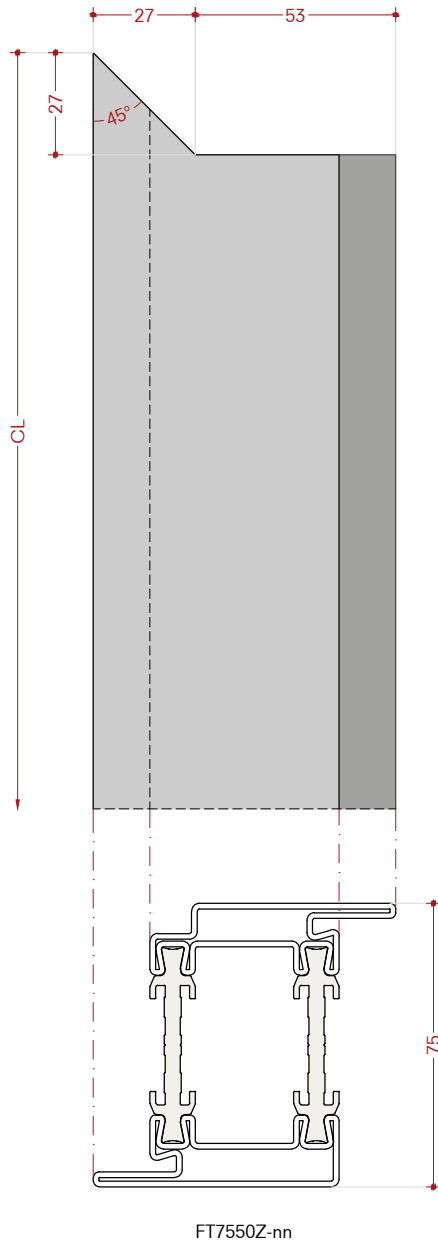
Leaf door widening on complete height on lock side  
 FT 7550Z-nn + FT 7512ZK-nn  
 Open in

**Lavorazione**

Anta porta con montante maggiorato lato serratura  
 FT 7550Z-nn + FT 7512ZK-nn  
 Apertura interna

**Mecanizado**

Hoja de puerta con mayor posición vertical en el lado de la cerradura  
 FT 7550Z-nn + FT 7512ZK-nn  
 Que se abre hacia dentro

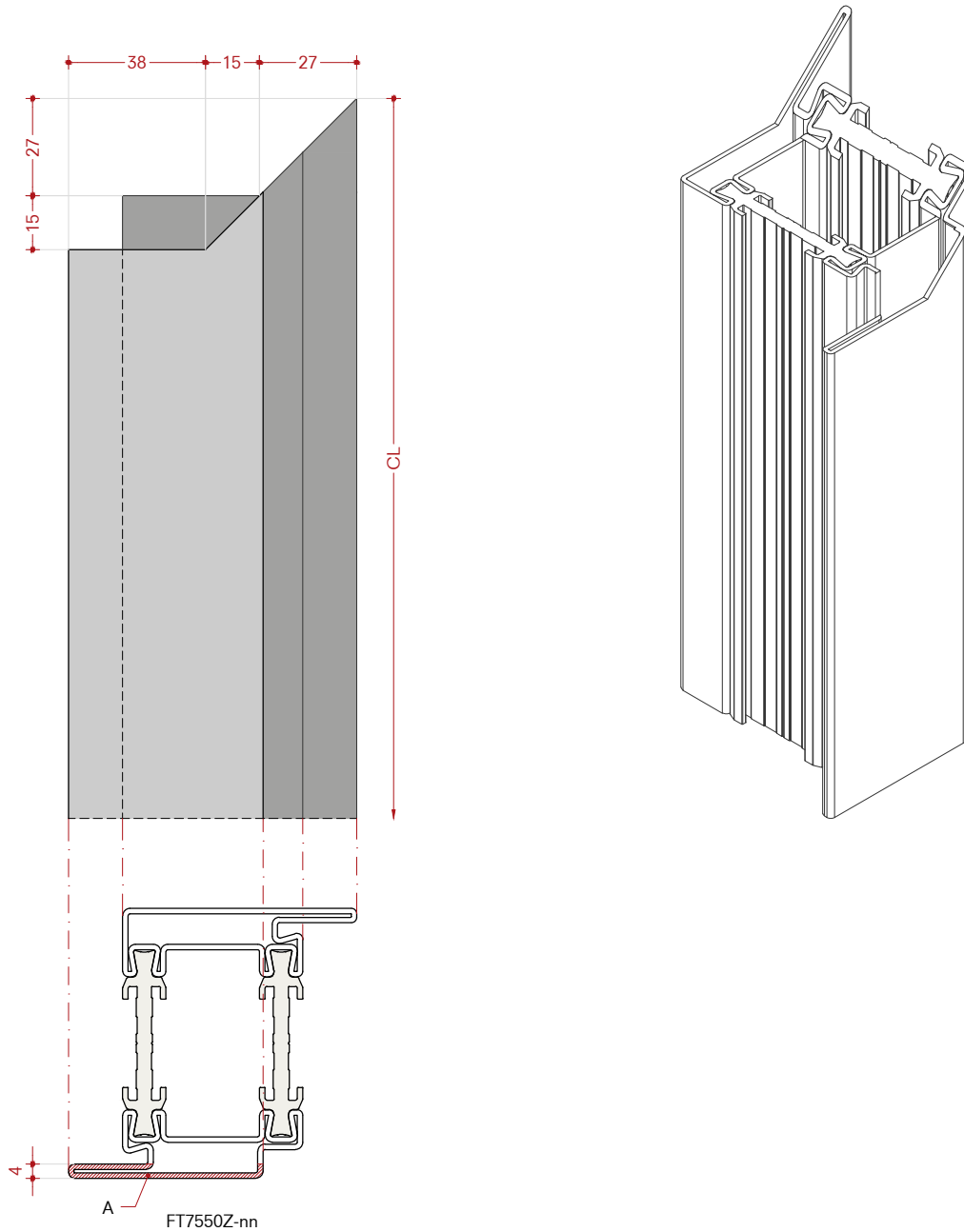


CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte





CL = Cutting Length

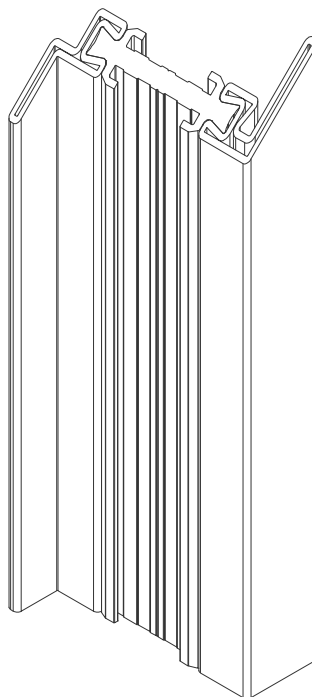
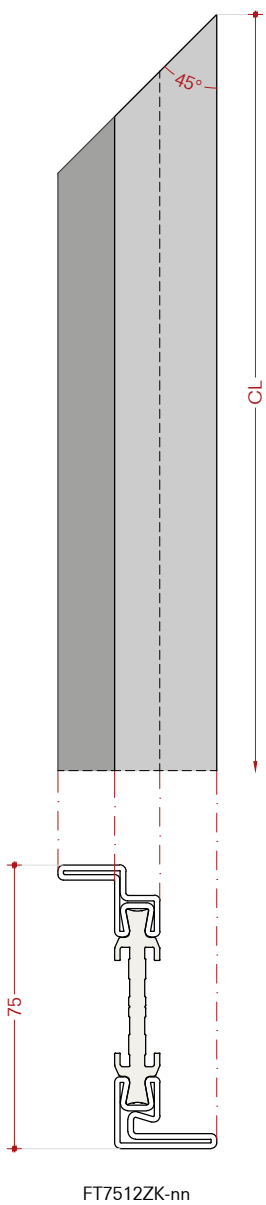
A) Cut out

CL = Lunghezza di taglio

A) Fresata

CL = Longitud de corte

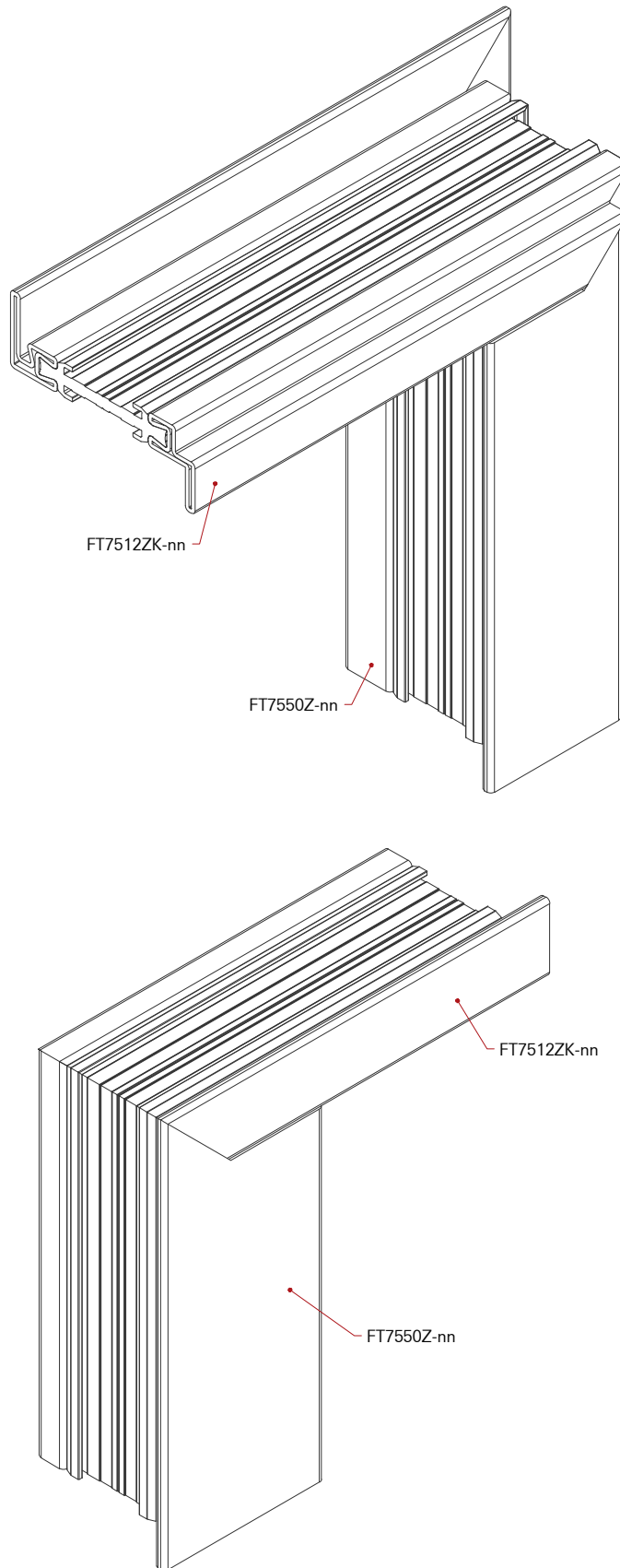
A) Fresado



CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte



**Processing**

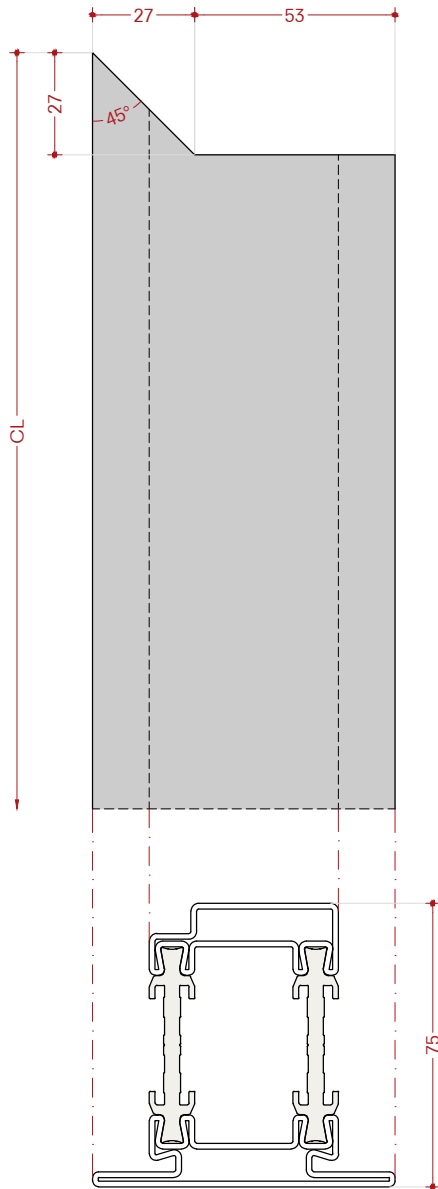
Leaf door widening on complete height on lock side  
 FT 7550T-nn + FT 7512TK-nn  
 Open out

**Lavorazione**

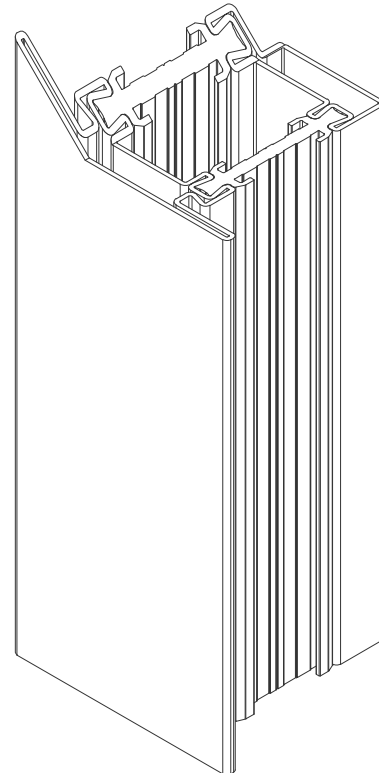
Anta porta con montante maggiorato lato serratura  
 FT 7550T-nn + FT 7512TK-nn  
 Apertura esterna

**Mecanizado**

Hoja de puerta con mayor posición vertical en el lado de la cerradura  
 FT 7550T-nn + FT 7512TK-nn  
 Que se abre hacia fuera



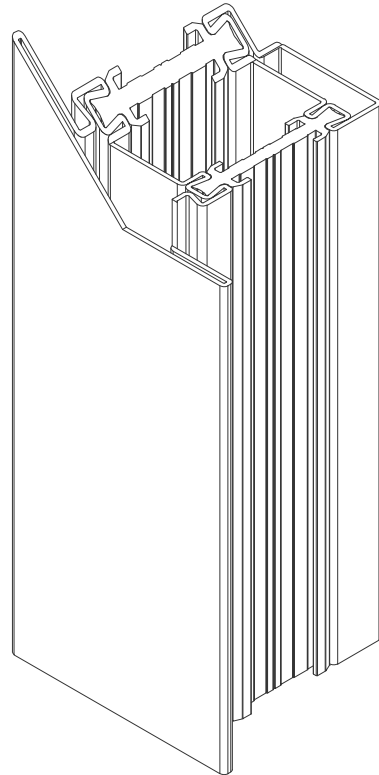
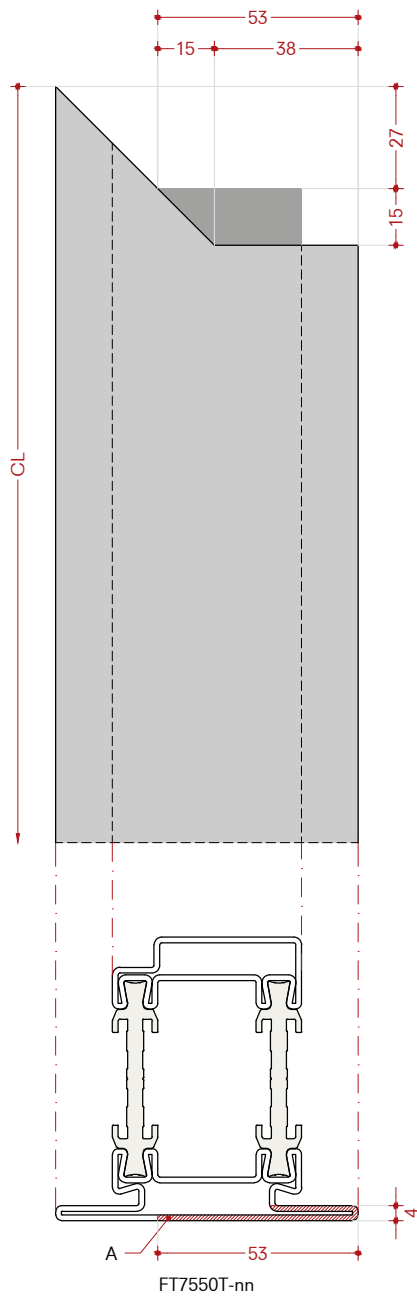
FT7550T-nn



CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte



CL = Cutting Length

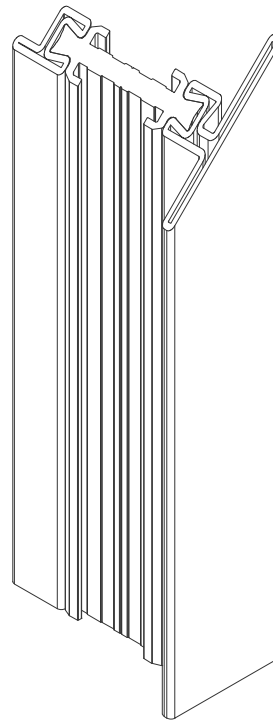
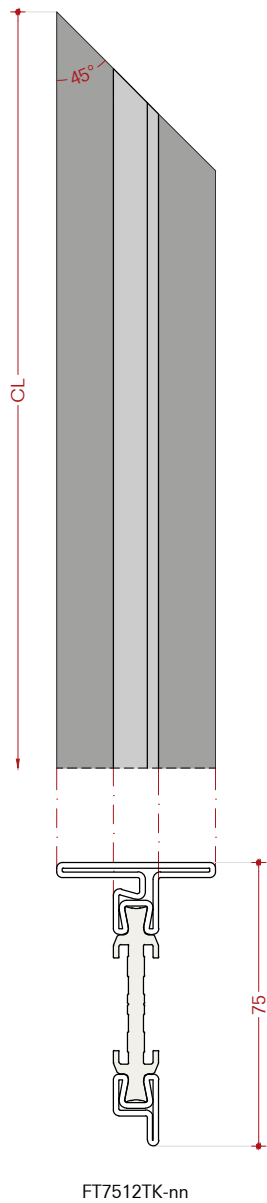
CL = Lunghezza di taglio

CL = Longitud de corte

A) Cut out

A) Fresata

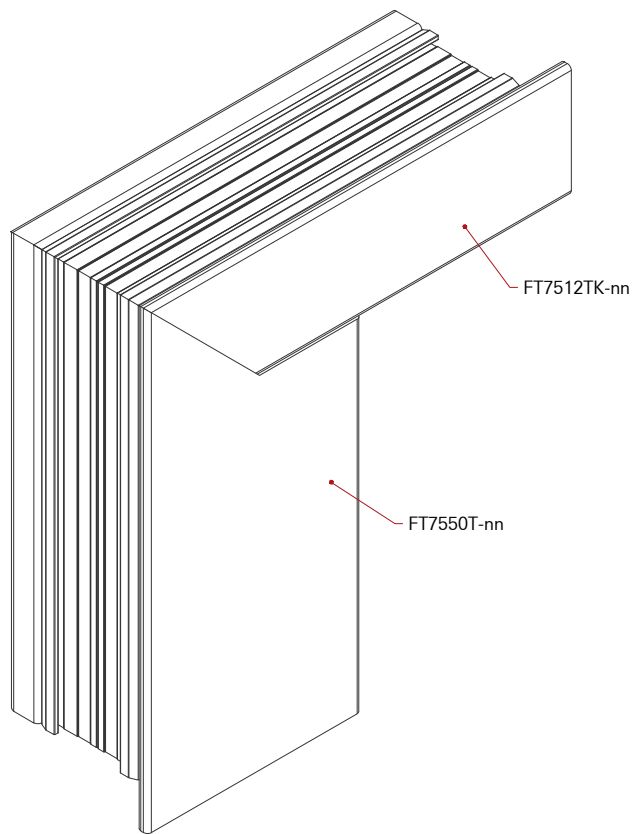
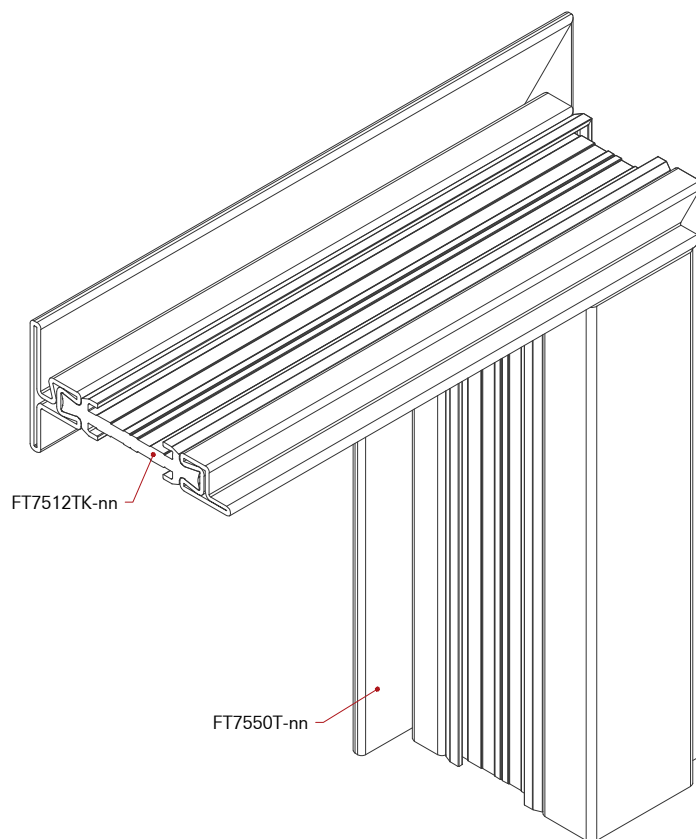
A) Fresado



CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte



**Processing**

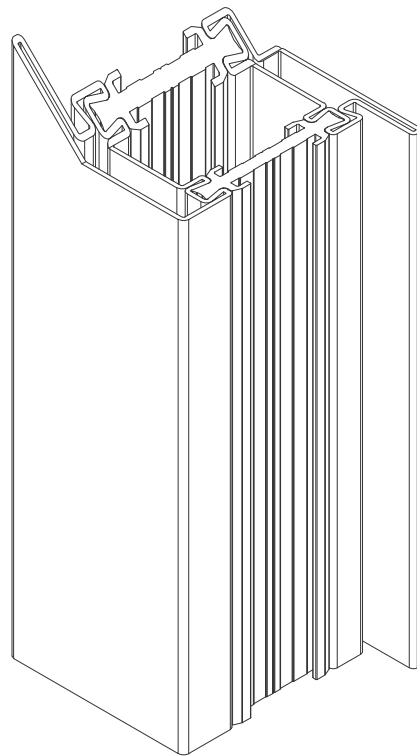
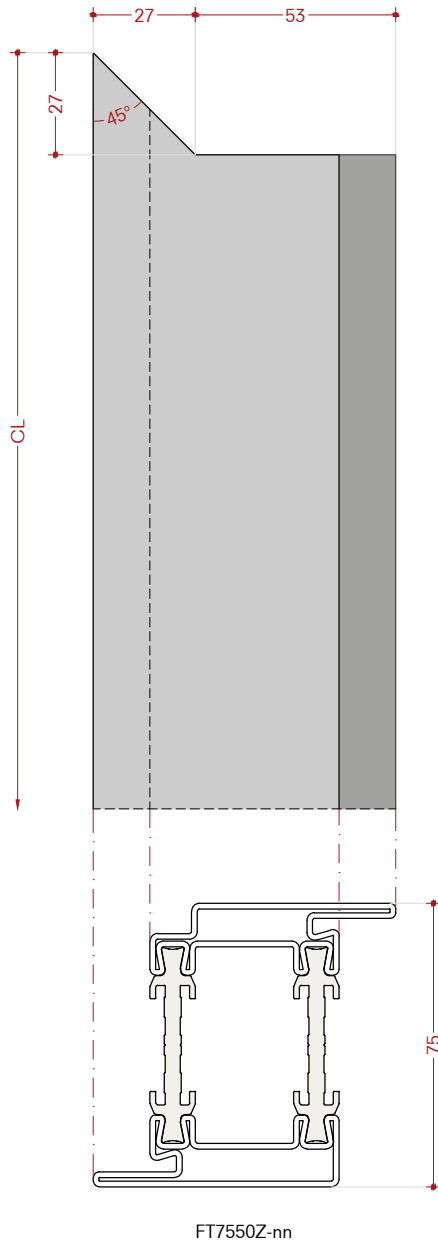
Leaf door widening on complete height on lock side  
 FT 7550Z-nn + FT 7512TK-nn  
 Open out

**Lavorazione**

Anta porta con montante maggiorato lato serratura  
 FT 7550Z-nn + FT 7512TK-nn  
 Apertura esterna

**Mecanizado**

Hoja de puerta con mayor posición vertical en el lado de la cerradura  
 FT 7550Z-nn + FT 7512TK-nn  
 Que se abre hacia fuera

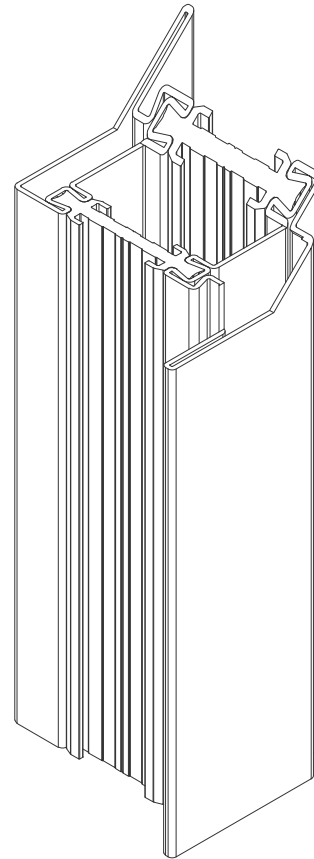
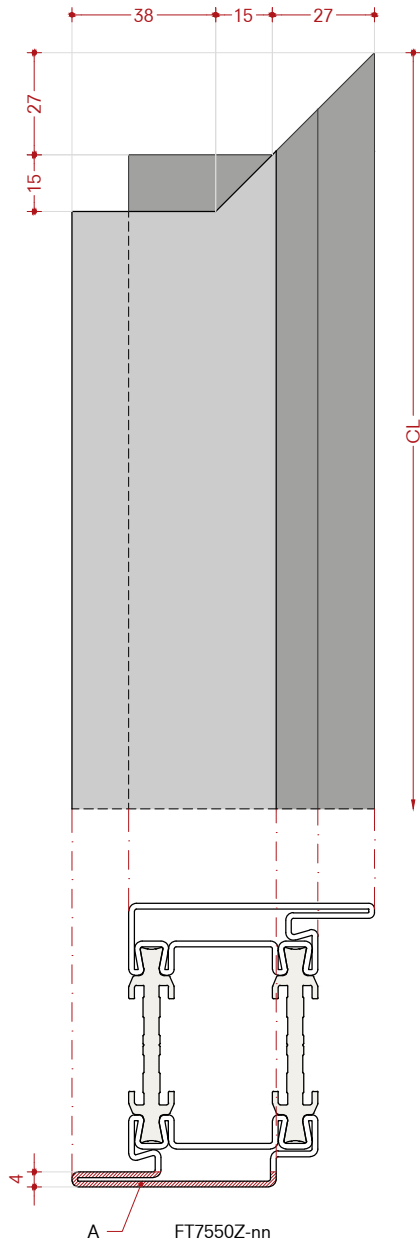


CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte





CL = Cutting Length

A) Cut out

disclaimer see 7.0.14

CL = Lunghezza di taglio

A) Fresata

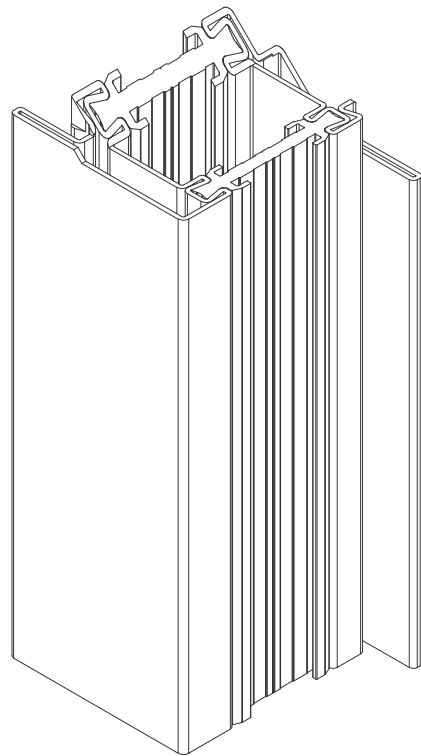
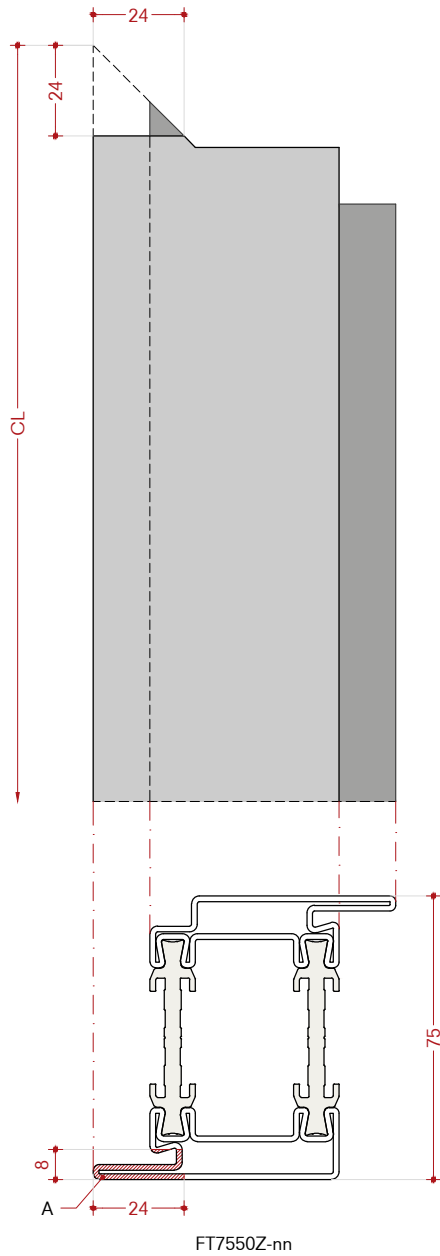
rel. 07 - 09/2022

5.4.242

CL = Longitud de corte

A) Fresado

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CL = Cutting Length

A) Cut out

disclaimer see 7.0.14

CL = Lunghezza di taglio

A) Fresata

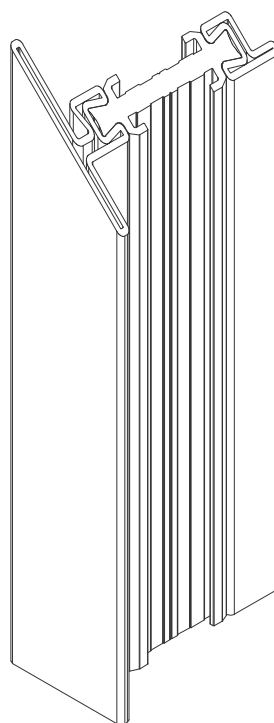
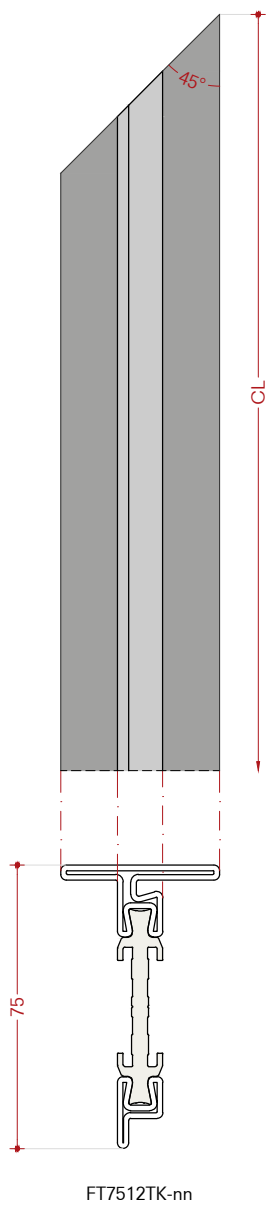
rel. 07 - 09/2022

5.4.243

CL = Longitud de corte

A) Fresado

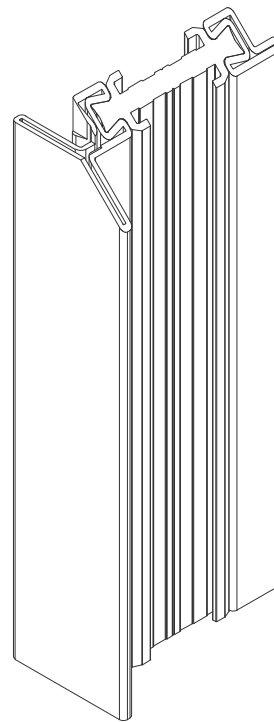
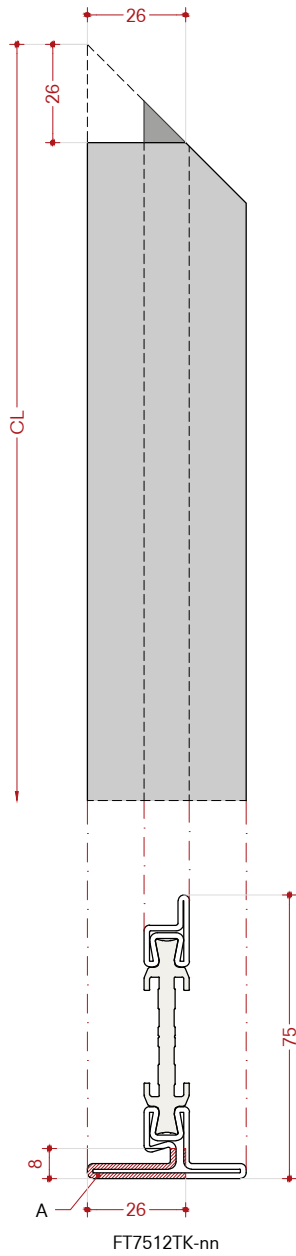
ottostumm-mogs.com



CL = Cutting Length

CL = Lunghezza di taglio

CL = Longitud de corte



CL = Cutting Length

A) Cut out

disclaimer see 7.0.14

CL = Lunghezza di taglio

A) Fresata

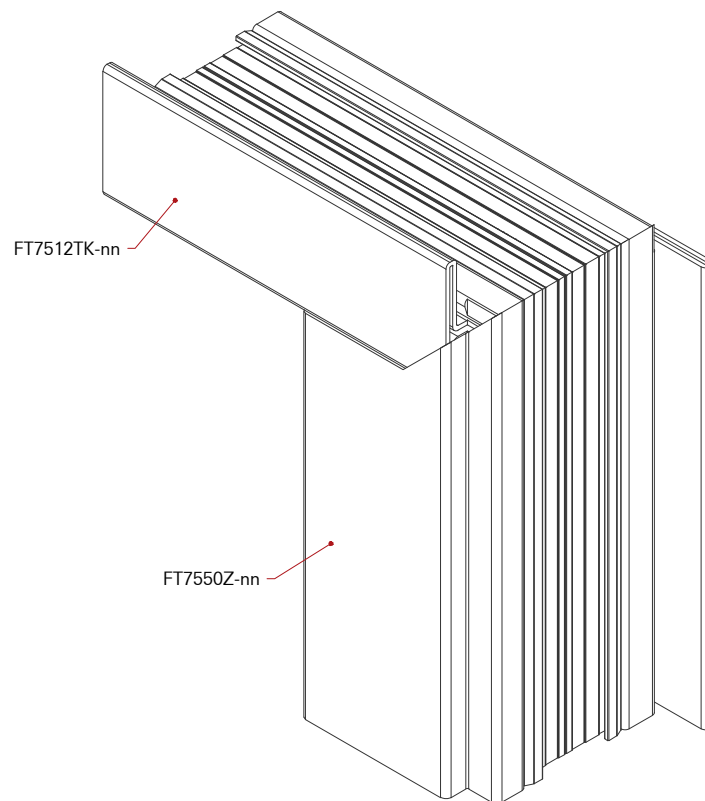
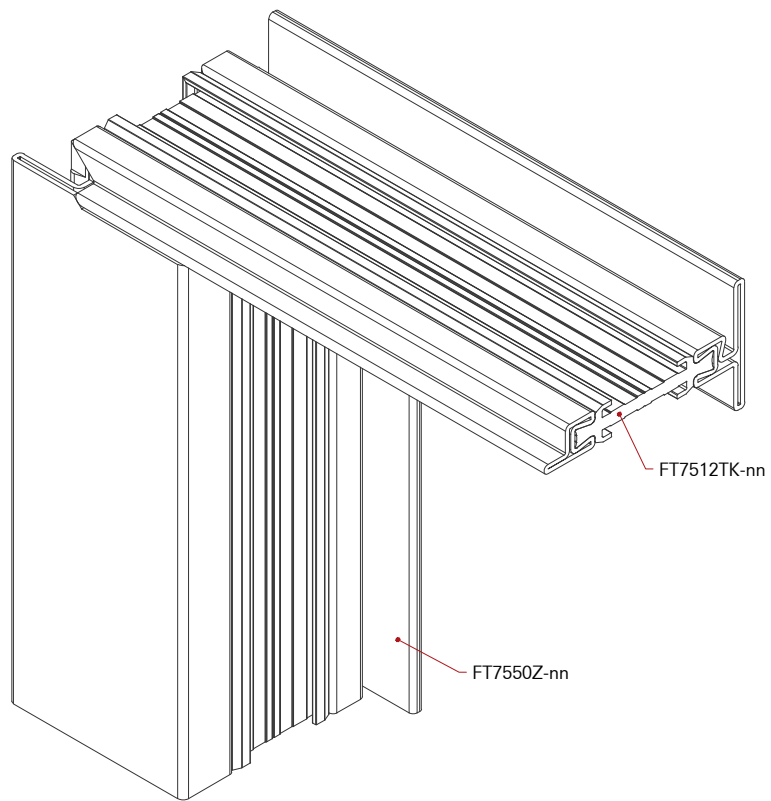
rel. 07 - 09/2022

5.4.245

CL = Longitud de corte

A) Fresado

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**Installation**

Heritage window handle  
 Open in, single leaf window  
 Flush profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a un battente apertura interna  
 Profili complanari

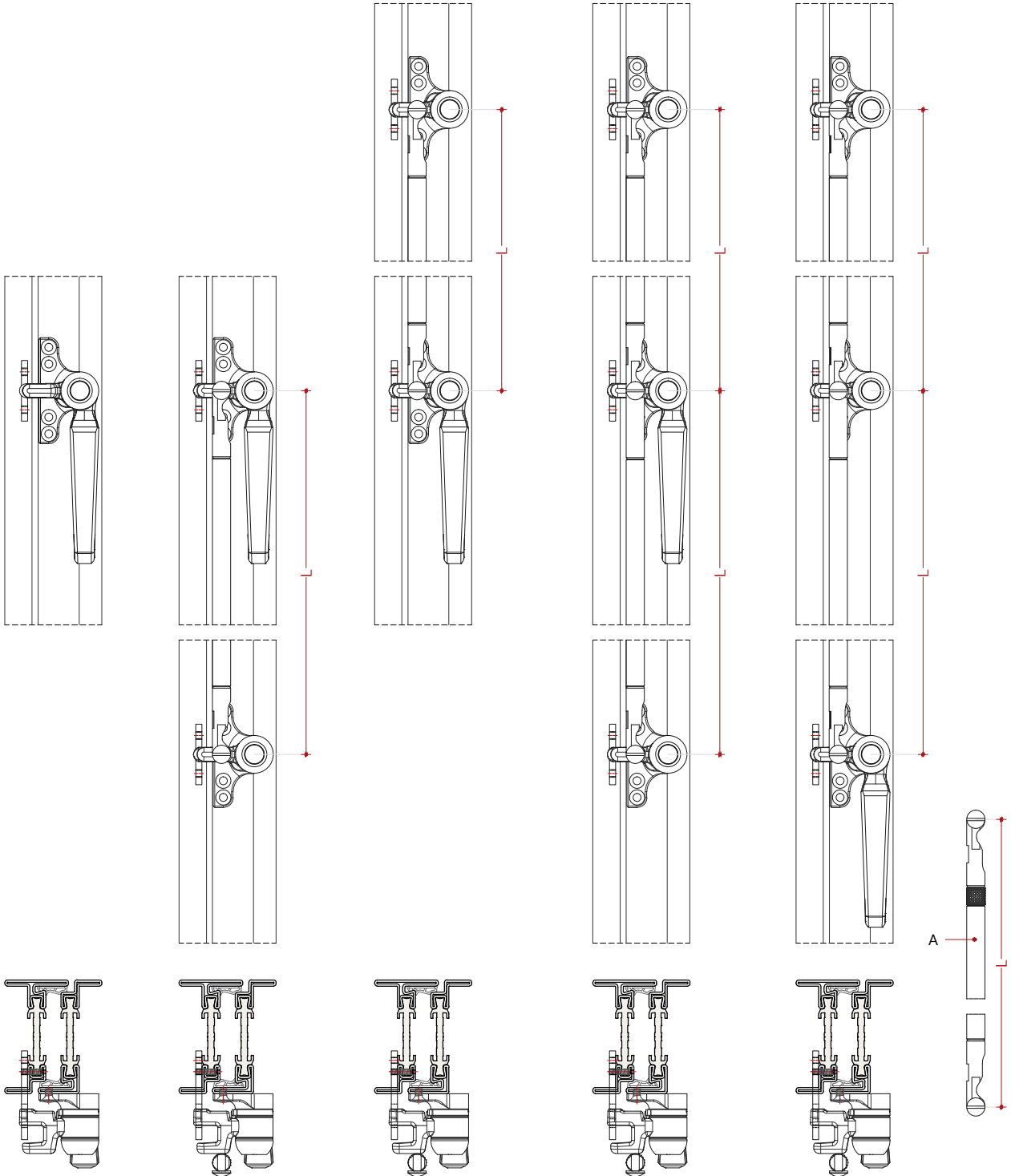
**Montaje**

Manilla de ventana Heritage  
 Apertura hacia dentro, ventana de 1 hoja  
 Perfiles coplanarios

MONO

DUPLEX

TRIPLEX



Scale 1:4

A) Connection rod

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

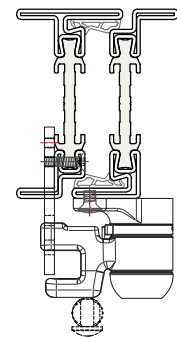
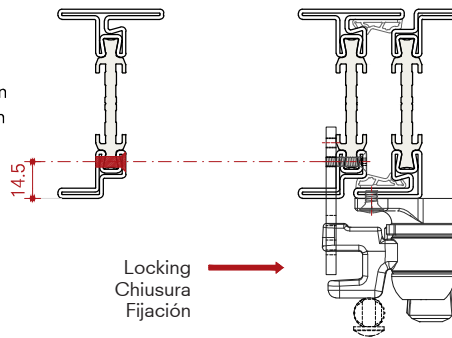
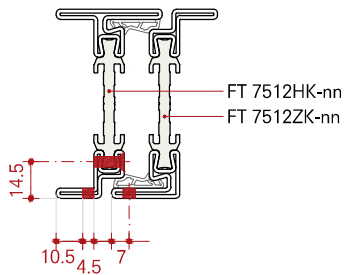
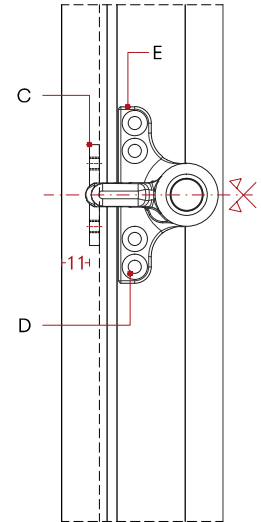
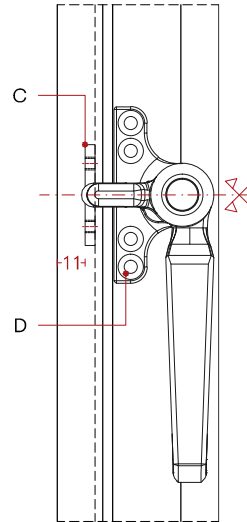
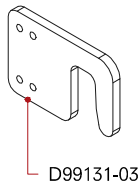
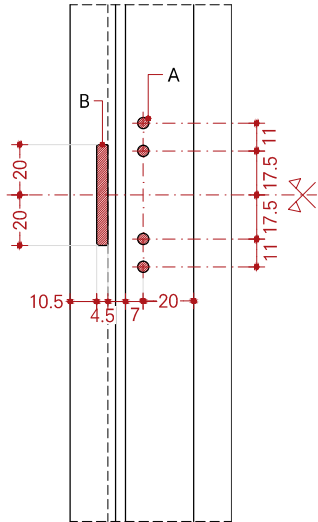
| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Assembly / Montaggio / Montaje

Profiles drilling  
 Foratura profili  
 Orificios en perfiles

Handle and locking hook  
 Maniglia e gancio di chiusura  
 Manilla y gancho de cierre

Additional locking nose and hook  
 Punto di chiusura e gancio addizionali  
 Cierre adicional y gancho de cierre



- A) M5 holes on leaf profile
- B) Cut out 4.5x40 mm on frame profile
- C) Fastening of locking hook with M4x16 ISO10642 screws
- D) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- E) A 70122X nn connection rod required to connect the handle to additional locking nose

For any additional information please contact our technical office.

- A) Fori M5 su profilo anta
- B) Taglio 4.5x40 mm sul profilo del telaio
- C) Fissaggio punto di chiusura e gancio addizionale con viti M4x16 ISO10642
- D) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- E) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura addizionale

Per ulteriori informazioni contattare l'ufficio tecnico.

- A) Oreficios M5 en el perfil de la hoja
- B) Fresadas 4.5x40 mm en el perfil del marco
- C) Fijación del punto de bloqueo y gancho adicional con tornillos M4x16 ISO10642
- D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional

Para más información contactar la nuestra oficina técnica.

**Installation**

Heritage window handle  
 Open in, single leaf window  
 Overlapped profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a un battente apertura interna  
 Profili a sormonto

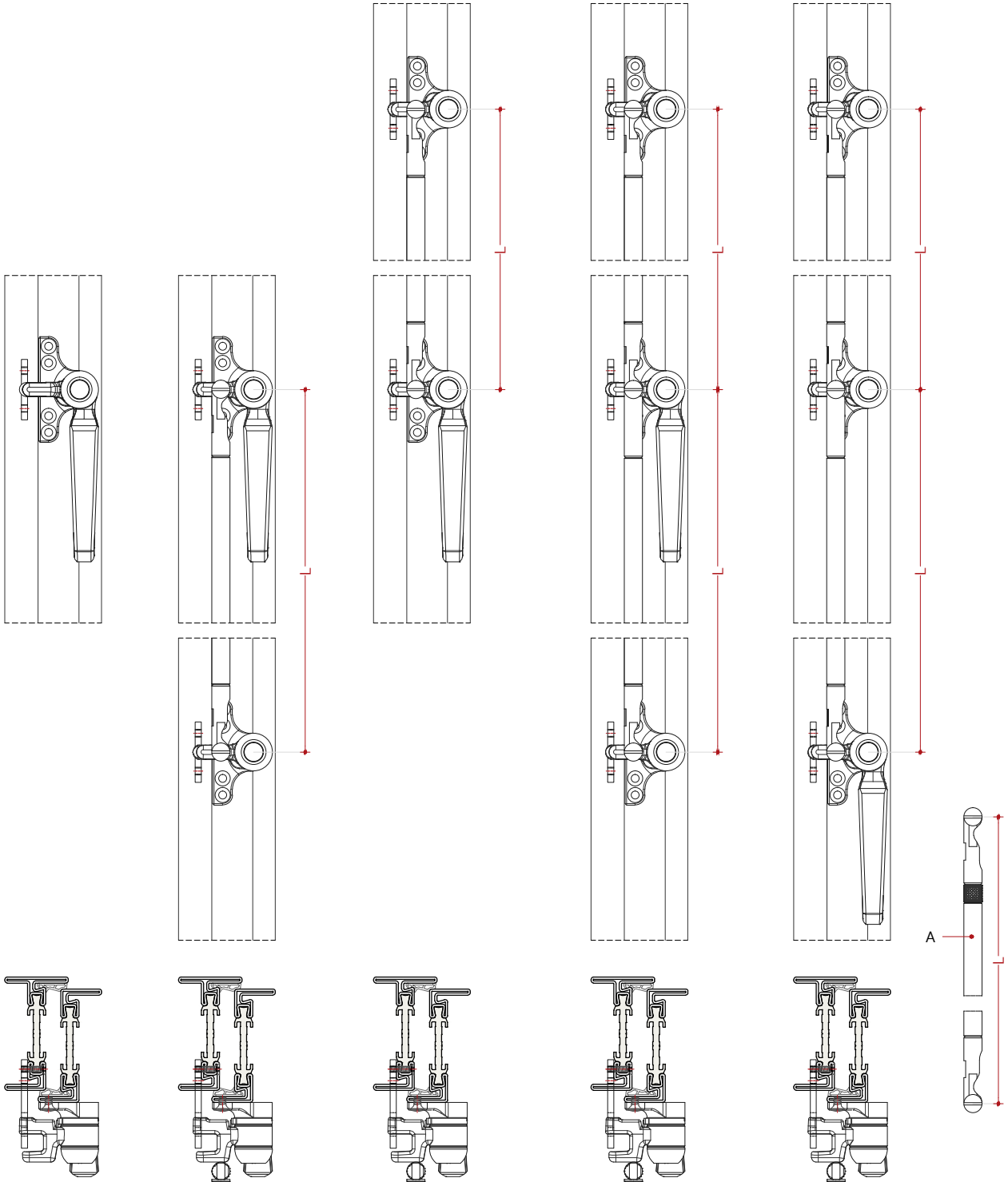
**Montaje**

Manilla de ventana Heritage  
 Apertura hacia dentro, ventana de 1 hoja  
 Perfiles superpuestos

MONO

DUPLEX

TRIPLEX



Scale 1:4

A) Connection rod

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

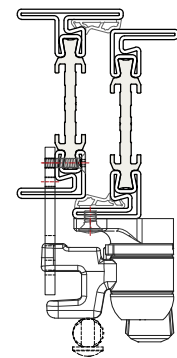
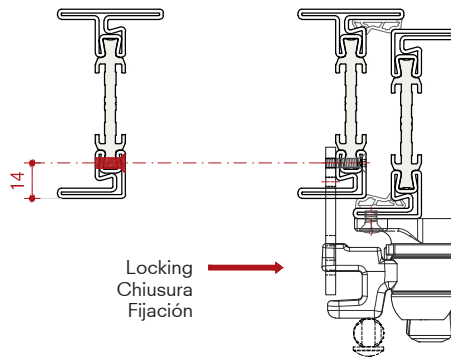
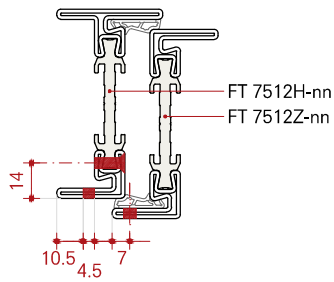
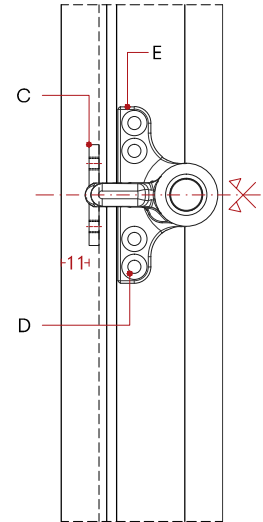
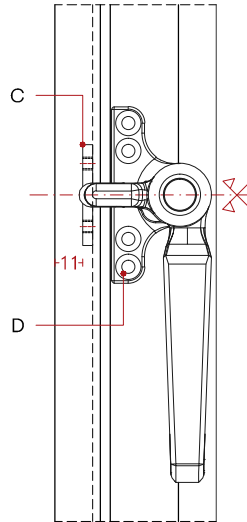
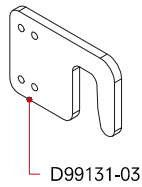
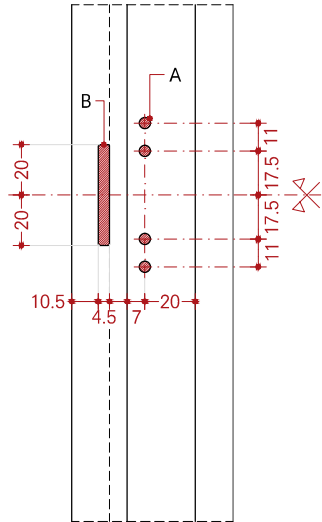


Assembly / Montaggio / Montaje

Profiles drilling  
 Foratura profili  
 Orificios en perfiles

Handle and locking hook  
 Maniglia e gancio di chiusura  
 Manilla y gancho de cierre

Additional locking nose and hook  
 Punto di chiusura e gancio addizionali  
 Cierre adicional y gancho de cierre



- A) M5 holes on leaf profile
- B) Cut out 4.5x40 mm on frame profile
- C) Fastening of locking hook with M4x16 ISO10642 screws
- D) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- E) A 70122X nn connection rod required to connect the handle to additional locking nose

For any additional information please contact our technical office.

- A) Fori M5 su profilo anta
- B) Taglio 4.5x40 mm sul profilo del telaio
- C) Fissaggio punto di chiusura e gancio addizionale con viti M4x16 ISO10642
- D) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- E) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura addizionale

Per ulteriori informazioni contattare l'ufficio tecnico.

- A) Oreficios M5 en el perfil de la hoja
- B) Fresadas 4.5x40 mm en el perfil del marco
- C) Fijación del punto de bloqueo y gancho adicional con tornillos M4x16 ISO10642
- D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional

Para más información contactar la nuestra oficina técnica.

**Installation**

Heritage window handle  
 Open in, double leaf window  
 Flush profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a due battenti apertura interna  
 Profili complanari

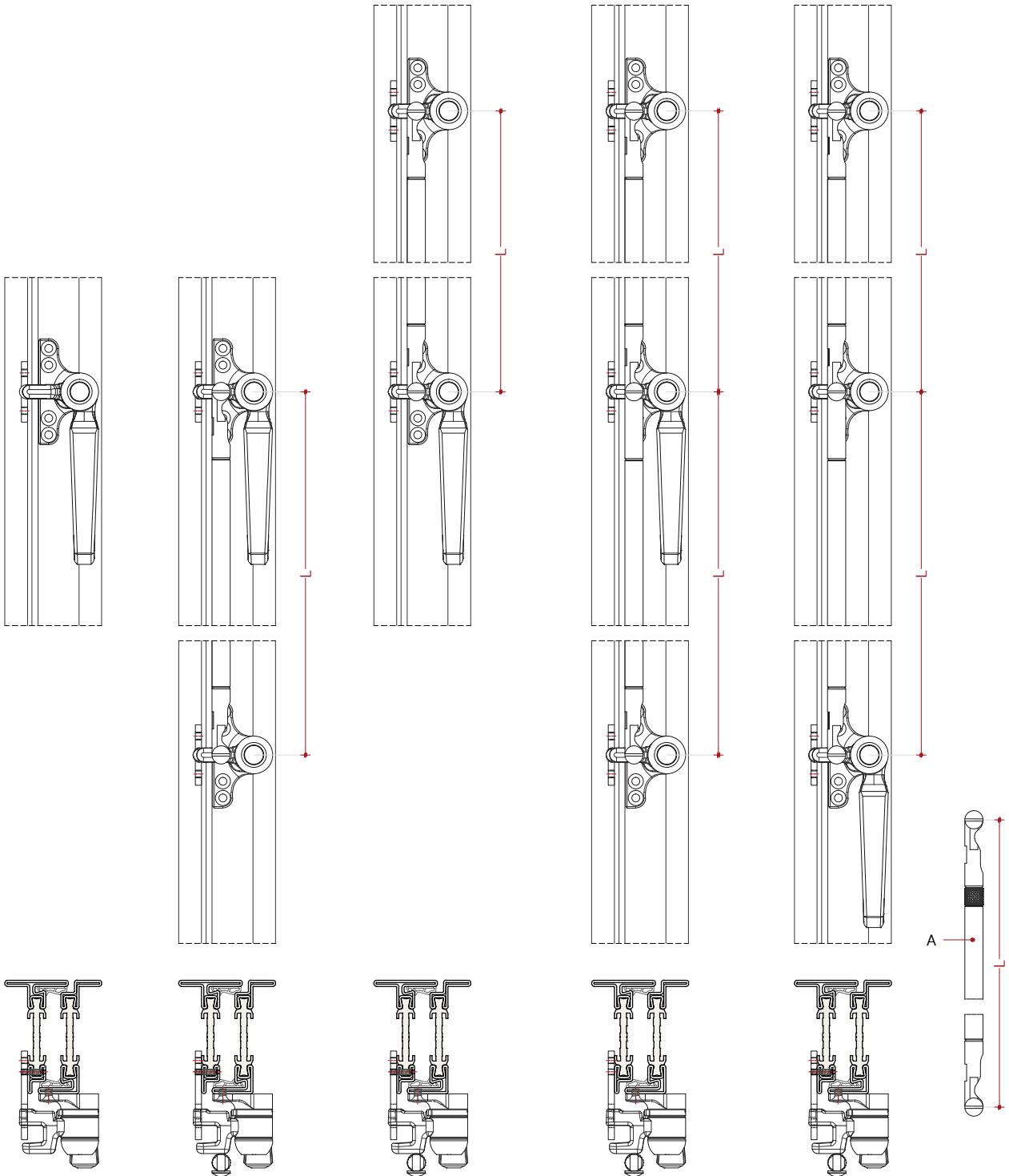
**Montaje**

Manilla de ventana Heritage  
 Apertura hacia dentro, ventana de 2 hojas  
 Perfiles coplanarios

MONO

DUPLEX

TRIPLEX



Scale 1:4

A) Connection rod

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

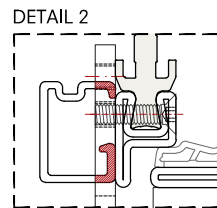
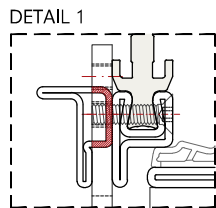
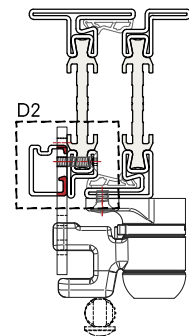
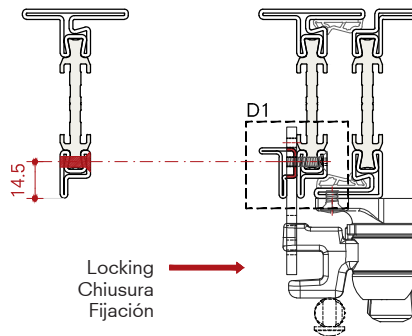
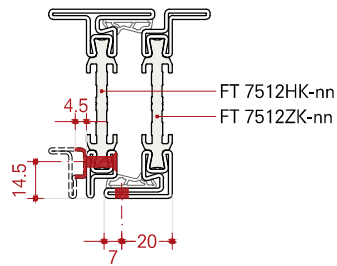
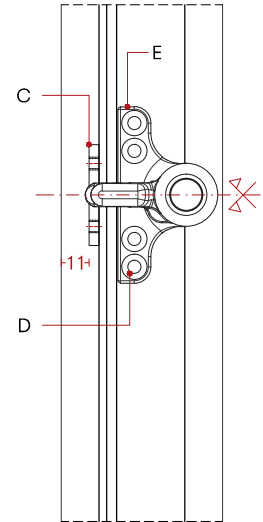
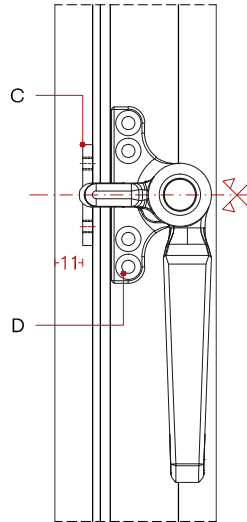
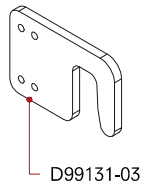
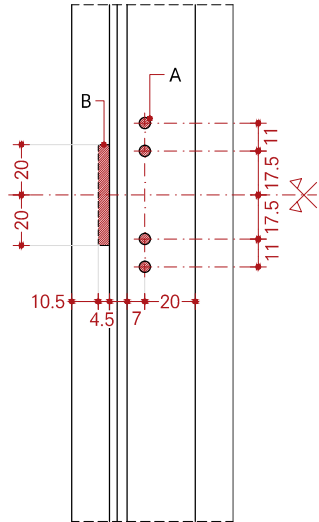
| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Assembly / Montaggio / Montaje

Profiles drilling  
 Foratura profili  
 Orificios en perfiles

Handle and locking hook  
 Maniglia e gancio di chiusura  
 Manilla y gancho de cierre

Additional locking nose and hook  
 Punto di chiusura e gancio addizionali  
 Cierre adicional y gancho de cierre



- A) M5 holes on leaf profile
- B) Cut out 4.5x40 mm on glazing bead
- C) Fastening of locking hook with M4x16 ISO10642 screws
- D) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- E) A 70122X nn connection rod required to connect the handle to additional locking nose

For any additional information please contact our technical office.

- A) Fori M5 su profilo anta
- B) Taglio 4.5x40 mm sul fermavetro
- C) Fissaggio punto di chiusura e gancio addizionale con viti M4x16 ISO10642
- D) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- E) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura addizionale

Per ulteriori informazioni contattare l'ufficio tecnico.

- A) Oreficios M5 en el perfil de la hoja
- B) Fresadas 4.5x40 mm en el junquillo
- C) Fijación del punto de bloqueo y gancho adicional con tornillos M4x16 ISO10642
- D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional

Para más información contactar la nuestra oficina técnica.

**Installation**

Heritage window handle  
 Open in, double leaf window  
 Overlapped profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a due battenti apertura interna  
 Profili a sormonto

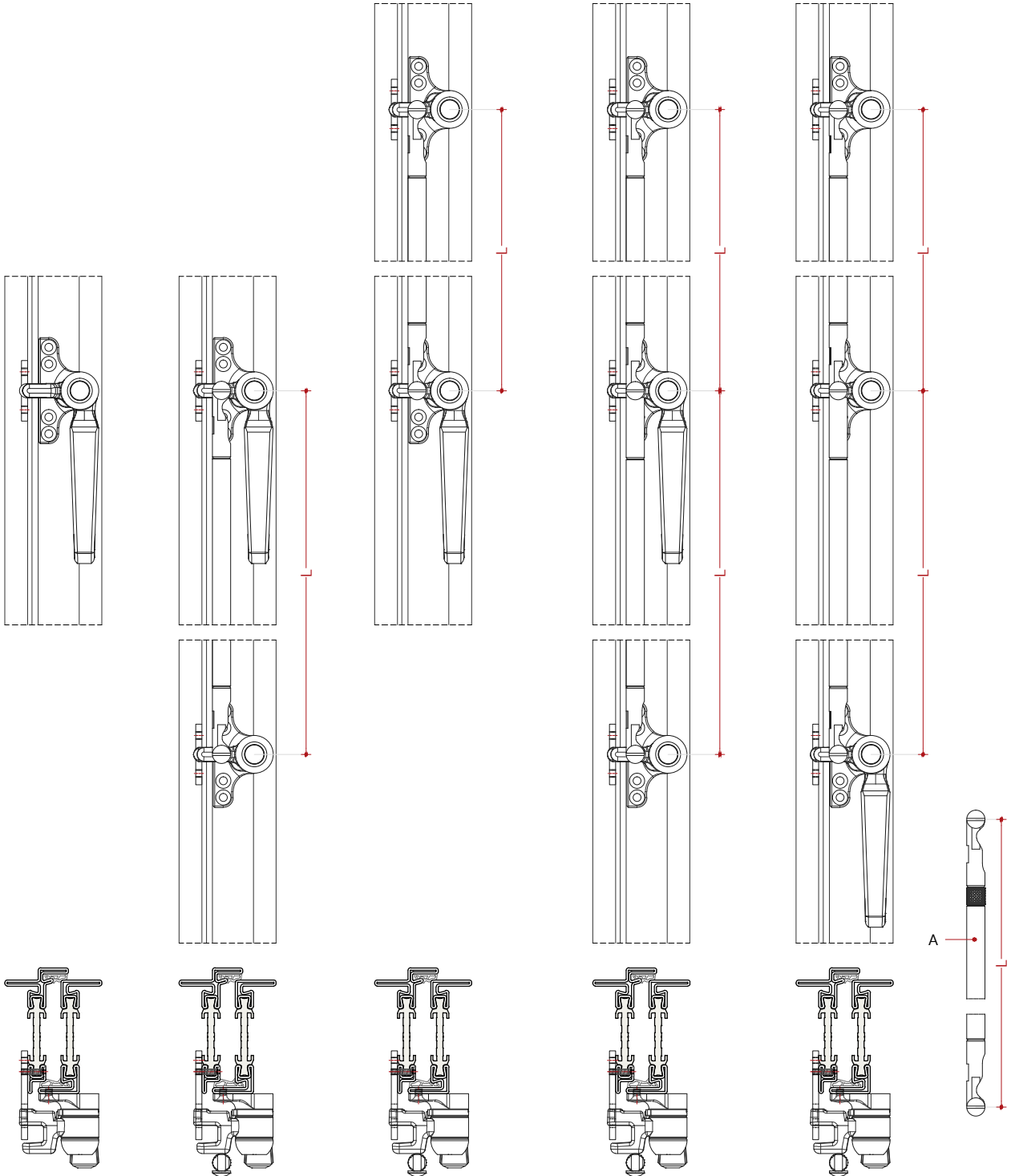
**Montaje**

Manilla de ventana Heritage  
 Apertura hacia dentro, ventana de 2 hojas  
 Perfiles superpuestos

MONO

DUPLEX

TRIPLEX



Scale 1:4

A) Connection rod

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

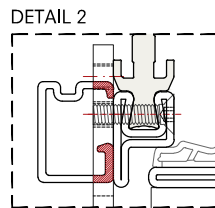
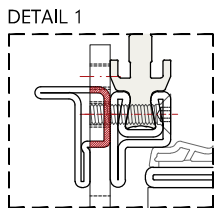
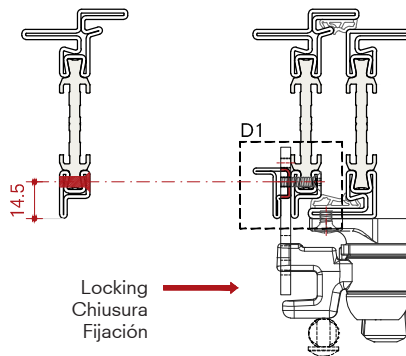
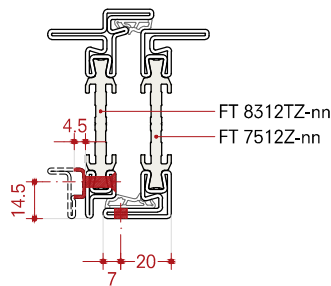
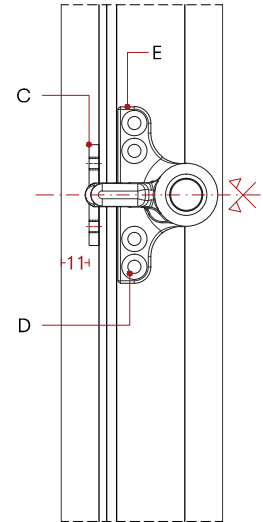
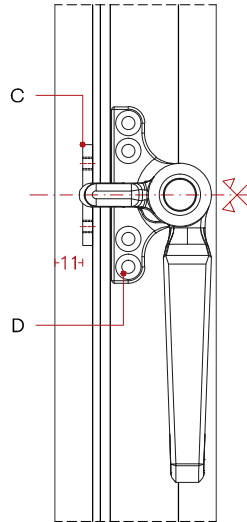
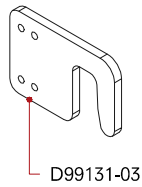
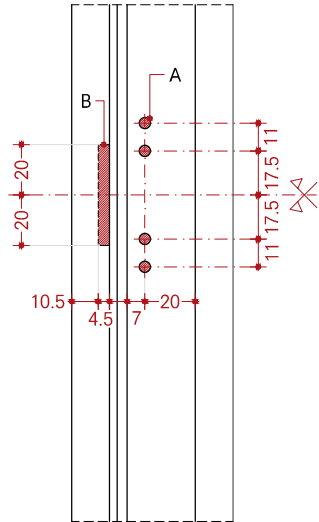
| Code L    | Length  |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Assembly / Montaggio / Montaje

Profiles drilling  
 Foratura profili  
 Orificios en perfiles

Handle and locking hook  
 Maniglia e gancio di chiusura  
 Manilla y gancho de cierre

Additional locking nose and hook  
 Punto di chiusura e gancio aggiuntivi  
 Cierre adicional y gancho de cierre



- A) M5 holes on leaf profile
- B) Cut out 4.5x40 mm on glazing bead
- C) Fastening of locking hook with M4x16 ISO10642 screws
- D) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- E) A 70122X nn connection rod required to connect the handle to additional locking nose

For any additional information please contact our technical office.

- A) Fori M5 su profilo anta
- B) Taglio 4.5x40 mm sul fermavetro
- C) Fissaggio punto di chiusura e gancio aggiuntivo con viti M4x16 ISO10642
- D) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- E) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura aggiuntivo

Per ulteriori informazioni contattare l'ufficio tecnico.

- A) Oreficios M5 en el perfil de la hoja
- B) Fresadas 4.5x40 mm en el junquillo
- C) Fijación del punto de bloqueo y gancho adicional con tornillos M4x16 ISO10642
- D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional

Para más información contactar la nuestra oficina técnica.

**Installation**

Heritage window handle  
 Open out, single leaf window  
 Flush profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a un battente apertura esterna  
 Profili complanari

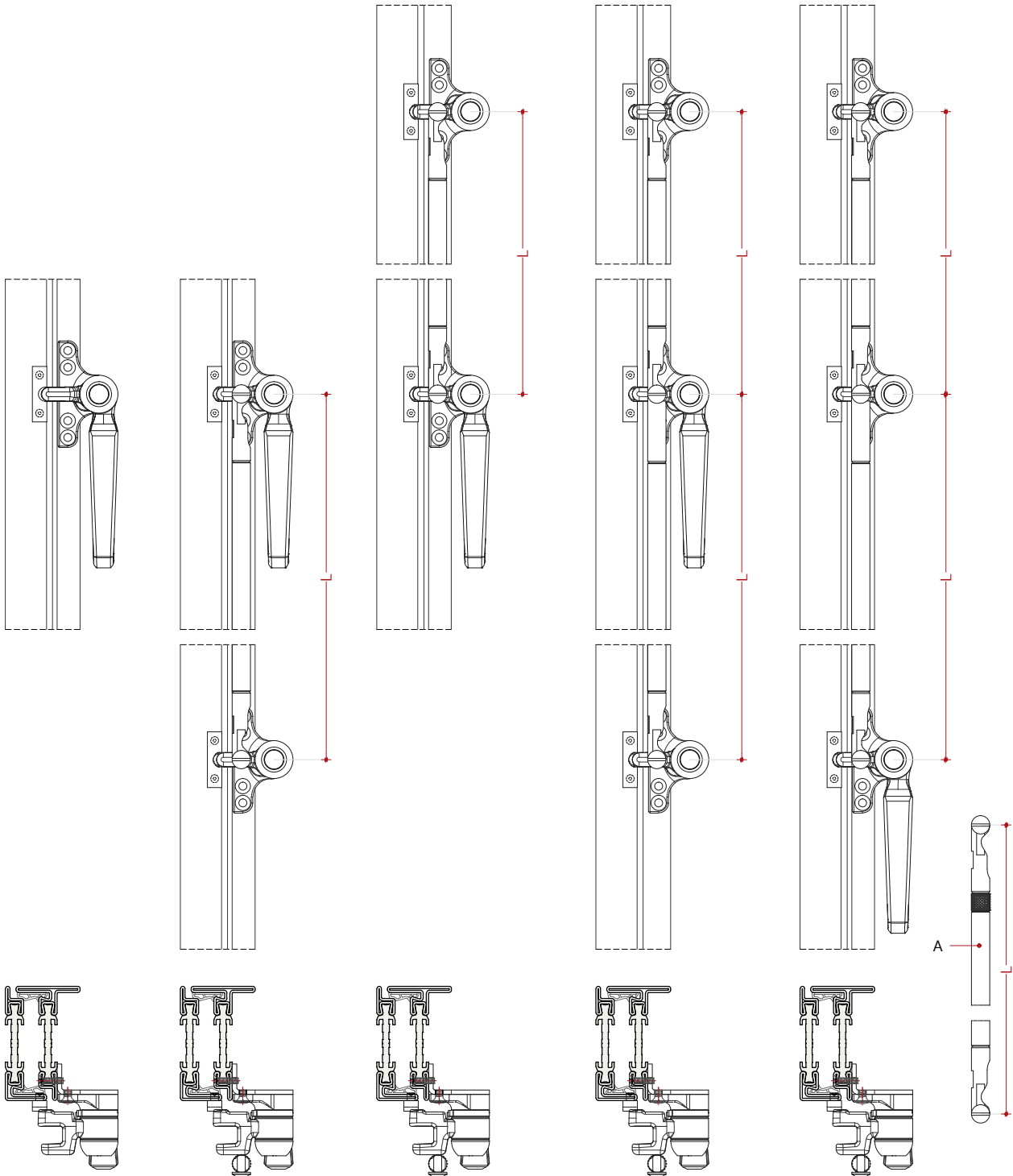
**Montaje**

Manilla de ventana Heritage  
 Apertura hacia fuera, ventana de 1 hoja  
 Perfiles coplanarios

MONO

DUPLEX

TRIPLEX



Scale 1:4

A) Connection rod

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

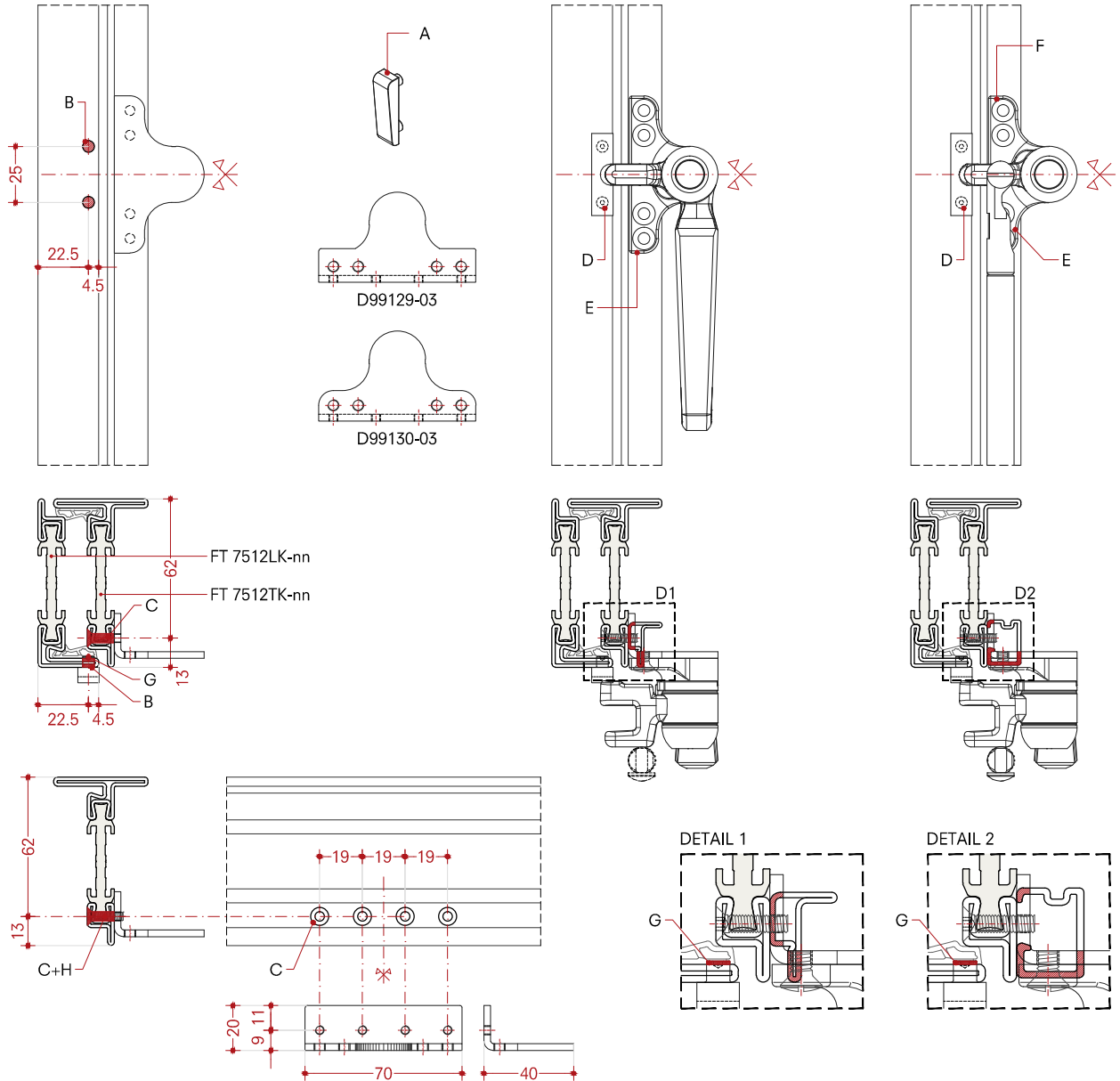
| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Assembly / Montaggio / Montaje

Profiles drilling  
Foratura profili  
Orificios en perfiles

Handle and locking wedge  
Maniglia e gancio di chiusura  
Manilla y gancho de cierre

Additional locking nose and hook  
Punto di chiusura e gancio additionali  
Cierre adicional y gancho de cierre



- A) Wedge 700105 NB  
D99129-03 Angular for snap-on glazing beads  
FV 15XXR-nn  
D99130-03 Angular for screw-on glazing beads  
FV 15XXE-nn
- B) Ø5.25 mm holes on frame profile
- C) Ø4.25 mm flared holes
- D) Fastening of 700105 NB on frame profile
- E) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- F) A 70122X nn connection rod necessary to connect the handle to additional locking nose
- G) Remove protrusions
- H) Fastening with M4x16 ISO10642 screws

Detail 1-2) Glazing beads - fastening examples:  
cut out glazing bead accordingly.

For any additional information please contact our technical office.

- A) Cuneo 700105 NB  
D99129-03 Angolare per fermavetri a scatto  
FV 15XXR-nn  
D99130-03 Angolare per fermavetri angolari  
FV 15XXE-nn
- B) Fori Ø5.25 mm su profilo telaio
- C) Fori svasati Ø4.25 mm
- D) Fissaggio 700105 NB su profilo telaio
- E) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- F) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura additional
- G) Rimuovere sporgenze
- H) Fissaggio con viti M4x16 ISO10642

Detail 1-2) Fermavetro - esempi di fissaggio:  
lavorare il profilo fermavetro in base alla tipologia.

Per ulteriori informazioni contattare l'ufficio tecnico.

- A) Cuña de bloqueo 700105 NB  
D99129-03 para junquillos a presión  
FV 15XXR-nn  
D99130-03 para junquillos angulares  
FV 15XXE-nn
- B) Oreficios Ø5.25 mm en el perfil del marco
- C) Orificios abocinado Ø4.25 mm
- D) Fijación 700105 NB en el perfil del marco
- E) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- F) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
- G) Cortar
- H) Fijación con tornillos M4x16 ISO10642

Detail 1-2) Barras de soporte de cristal - ejemplos de desenganche sujeción barra soporte cristal.

Para más información contactar la nuestra oficina técnica.

**Installation**

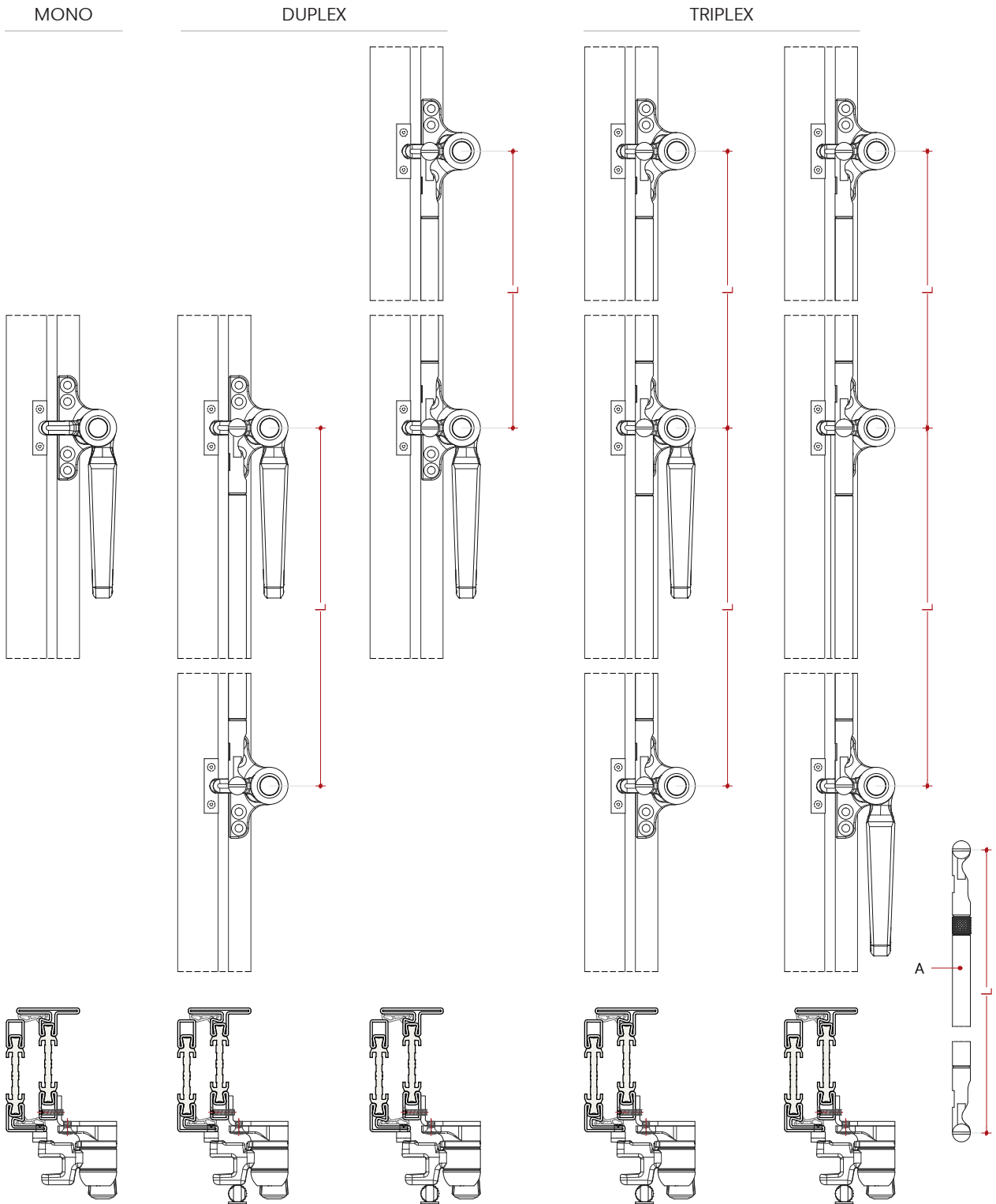
Heritage window handle  
 Open out, single leaf window  
 Overlapped profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a un battente apertura esterna  
 Profili a sormonto

**Montaje**

Manilla de ventana Heritage  
 Apertura hacia fuera, ventana de 1 hoja  
 Perfiles superpuestos



Scale 1:4

A) Connection rod

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

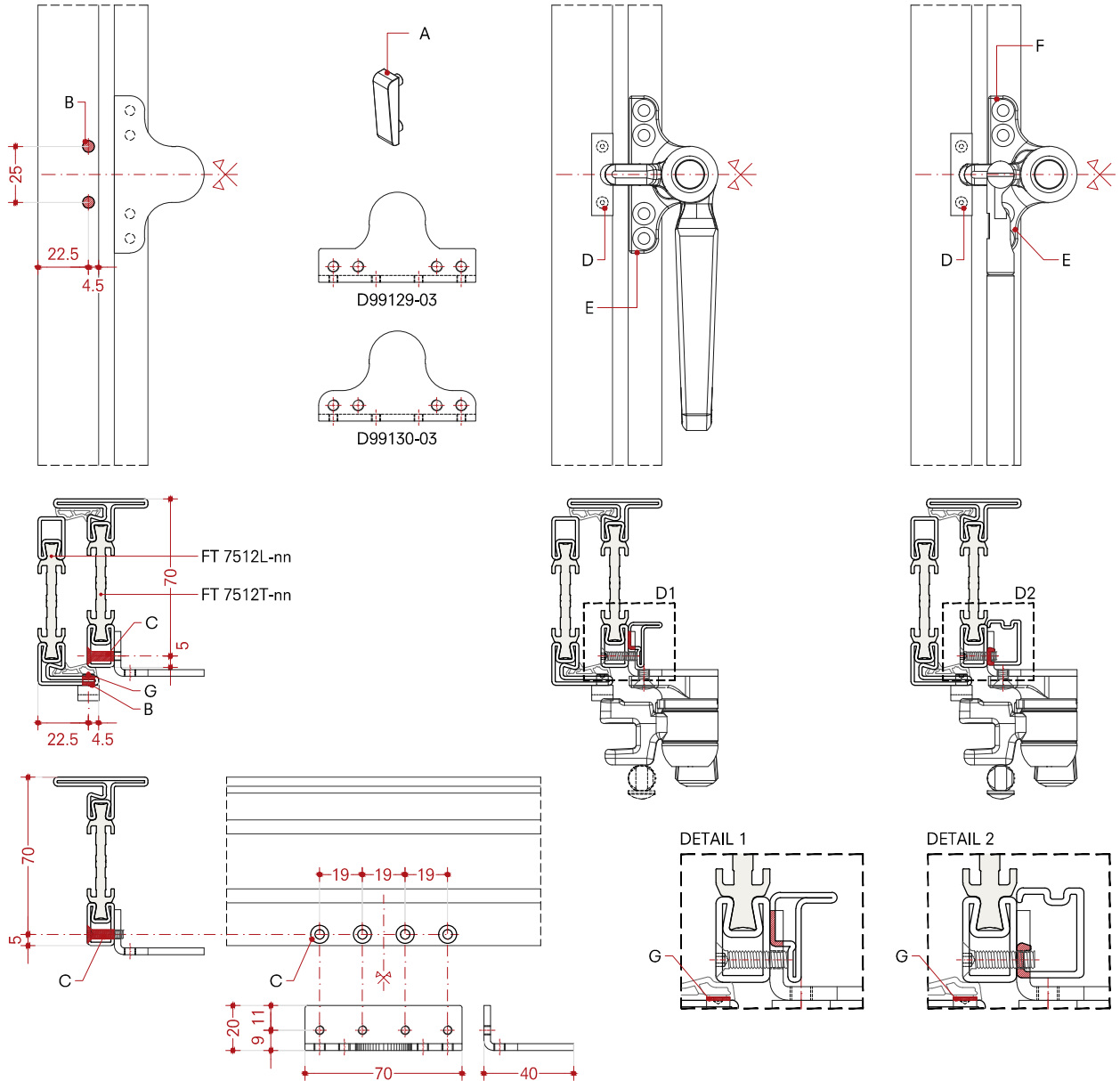


Assembly / Montaggio / Montaje

Profiles drilling  
 Foratura profili  
 Orificios en perfiles

Handle and locking wedge  
 Maniglia e gancio di chiusura  
 Manilla y gancho de cierre

Additional locking nose and hook  
 Punto di chiusura e gancio additionali  
 Cierre adicional y gancho de cierre



- A) Wedge 700105 NB  
 D99129-03 Angular for snap-on glazing beads  
 FV 15XXR-nn  
 D99130-03 Angular for screw-on glazing beads  
 FV 15XXE-nn
- B) Ø5.25 mm holes on frame profile
- C) Ø4.25 mm flared holes
- D) Fastening of 700105 NB on frame profile
- E) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- F) A 70122X nn connection rod required to connect the handle to additional locking nose
- G) Remove protrusions
- H) Fastening with M4x16 ISO10642 screws

- A) Cuneo 700105 NB  
 D99129-03 Angolare per fermavetri a scatto  
 FV 15XXR-nn  
 D99130-03 Angolare per fermavetri angolari  
 FV 15XXE-nn
- B) Fori Ø5.25 mm su profilo telaio
- C) Fori svasati Ø4.25 mm
- D) Fissaggio 700105 NB su profilo telaio
- E) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- F) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura additionali
- G) Rimuovere sporgenze
- H) Fissaggio con viti M4x16 ISO10642

- A) Cuña de bloqueo 700105 NB  
 D99129-03 para junquillos a presión  
 FV 15XXR-nn  
 D99130-03 para junquillos angulares  
 FV 15XXE-nn
- B) Oreficios Ø5.25 mm en el perfil del marco
- C) Orificios abocinado Ø4.25 mm
- D) Fijación 700105 NB en el perfil del marco
- E) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- F) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
- G) Cortar
- H) Fijación con tornillos M4x16 ISO10642

Detail 1-2) Glazing beads - fastening examples:  
 cut out glazing bead accordingly.

Detail 1-2) Fermavetro - esempi di fissaggio:  
 lavorare il profilo fermavetro in base alla tipologia.

Detail 1-2) Barras de soporte de cristal -  
 ejemplos de desenganche sujeción barra soporte cristal.

For any additional information please contact our technical office.

Per ulteriori informazioni contattare l'ufficio tecnico.

Para más información contactar la nuestra oficina técnica.

**Installation**

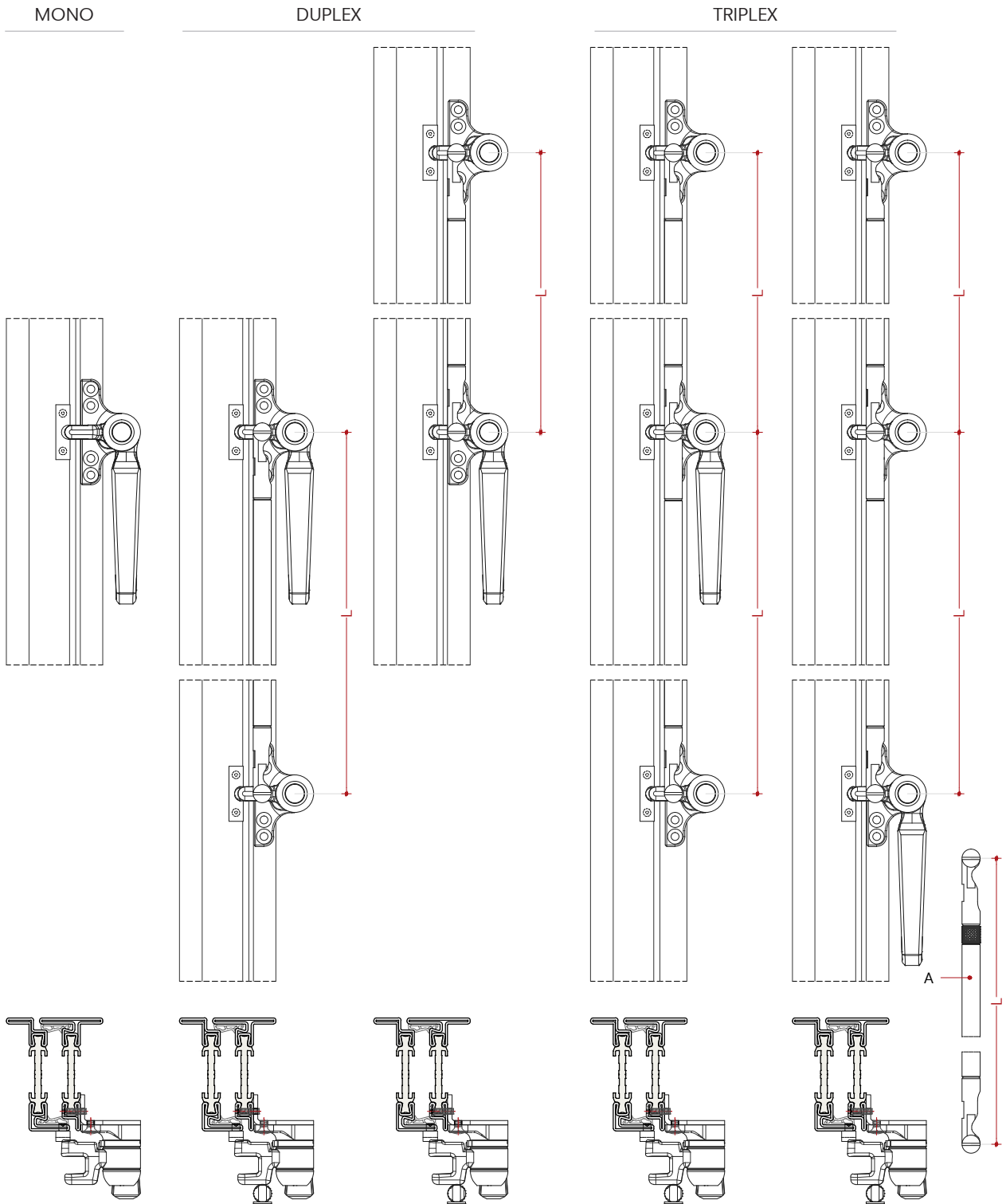
Heritage window handle  
 Open out, double leaf window  
 Flush and overlapped profiles

**Montaggio**

Maniglia Heritage per finestra  
 Finestra a due battenti apertura esterna  
 Profili complanari e a sormonto

**Montaje**

Manilla de ventana Heritage  
 Apertura hacia fuera, ventana de 2 hojas  
 Perfiles coplanarios y superpuestos



Scale 1:4

A) Connection rod

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Scala 1:4

A) Barra di collegamento

| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Escala 1:4

A) Barra de enlace

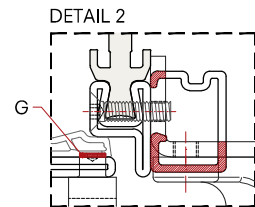
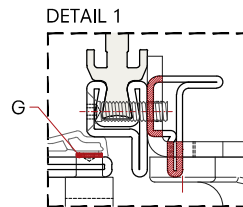
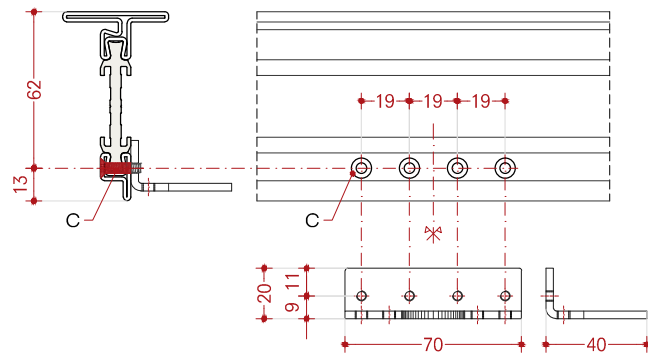
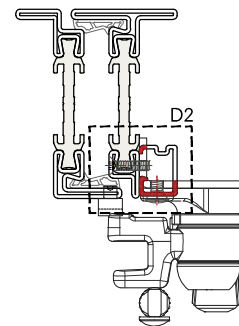
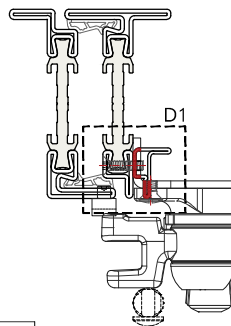
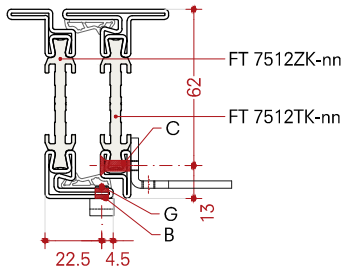
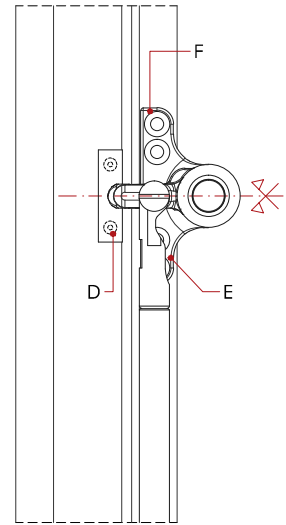
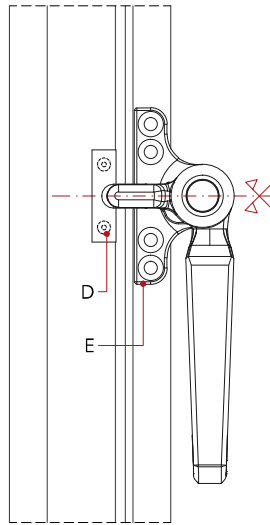
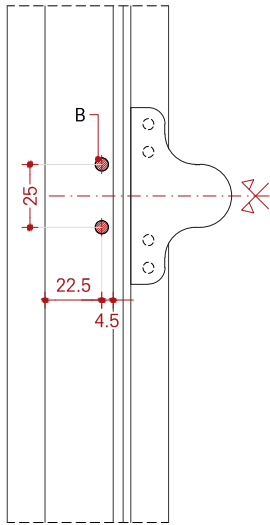
| Code L    |         |
|-----------|---------|
| 701220 nn | 600 mm  |
| 701221 nn | 750 mm  |
| 701222 nn | 900 mm  |
| 701223 nn | 1050 mm |
| 701224 nn | 1200 mm |

Assembly / Montaggio / Montaje

Profiles drilling  
 Foratura profili  
 Orificios en perfiles

Handle and locking wedge  
 Maniglia e gancio di chiusura  
 Manilla y gancho de cierre

Additional locking nose and hook  
 Punto di chiusura e gancio additionali  
 Cierre adicional y gancho de cierre



- A) Wedge 700105 NB  
 D99129-03 Angular for snap-on glazing beads  
 FV 15XXR-nn  
 D99130-03 Angular for screw-on glazing beads  
 FV 15XXE-nn
- B) Ø5.25 mm holes
- C) Ø4.25 mm flared holes
- D) Fastening of 700105 NB
- E) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
- F) A 70122X nn connection rod required to connect the handle to additional locking nose
- G) Remove protrusions
- H) Fastening with M4x16 ISO10642 screws

- A) Cuneo 700105 NB  
 D99129-03 Angolare per fermavetri a scatto  
 FV 15XXR-nn  
 D99130-03 Angolare per fermavetri angolari  
 FV 15XXE-nn
- B) Fori Ø5.25 mm
- C) Fori svasati Ø4.25 mm
- D) Fissaggio 700105 NB
- E) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
- F) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura additionali
- G) Rimuovere sporgenze
- H) Fissaggio con viti M4x16 ISO10642

- A) Cuña de bloqueo 700105 NB  
 D99129-03 para junquillos a presión  
 FV 15XXR-nn  
 D99130-03 para junquillos angulares  
 FV 15XXE-nn
- B) Oreficios Ø5.25 mm
- C) Orificios abocinado Ø4.25 mm
- D) Fijación 700105 NB
- E) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
- F) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
- G) Cortar
- H) Fijación con tornillos M4x16 ISO10642

Detail 1-2) Glazing beads - fastening examples:  
 cut out glazing bead accordingly.

Detail 1-2) Fermavetro - esempi di fissaggio:  
 lavorare il profilo fermavetro in base alla tipologia.

Detail 1-2) Barras de soporte de cristal -  
 ejemplos de desenganche sujeción barra soporte cristal.

For any additional information please contact our technical office.

Per ulteriori informazioni contattare l'ufficio tecnico.

Para más información contactar la nuestra oficina técnica.

**Installation**

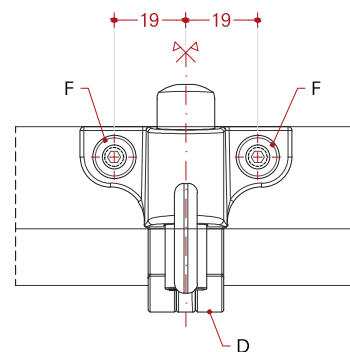
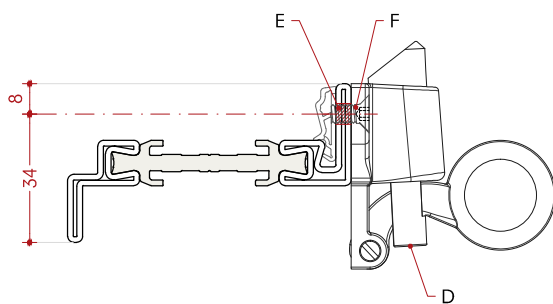
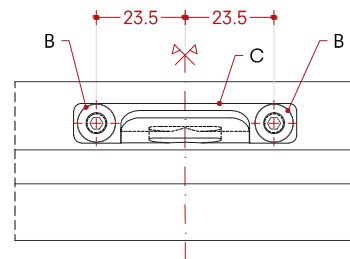
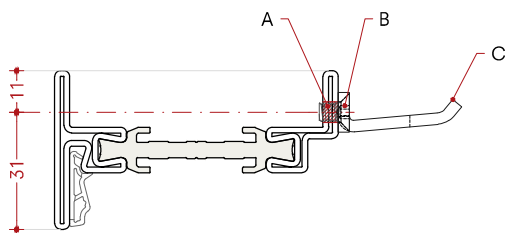
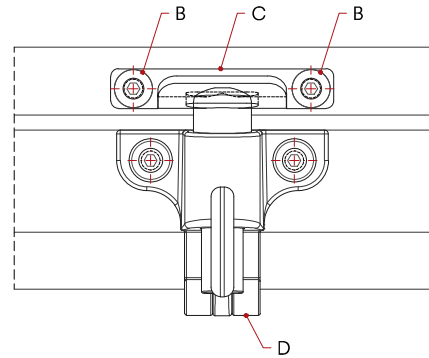
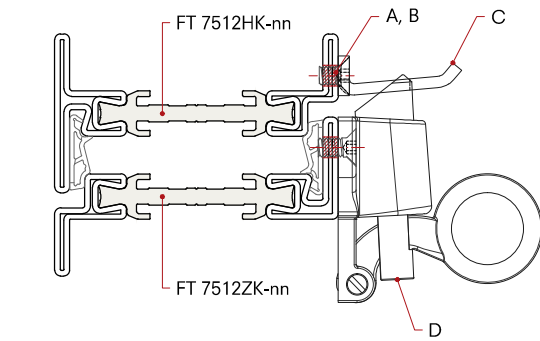
Spring catch 703000 nn  
 and spring catch plate 703002 nn  
 Bottom hung window  
 Flush profiles

**Montaggio**

Cricchetto 703000 nn  
 e riscontro 703002 nn  
 Finestra vasistas  
 Profili complanari

**Montaje**

Pasador 703000 nn  
 y placa de fijador 703002 nn  
 Ventana oscilante  
 Perfiles coplanarios



Single spring catch

Cricchetto singolo

Lengüeta de pasador

- A) M5 holes
- B) Fastening with M5x8 ISO10642 screws
- C) 703002 nn spring catch plate
- D) 703000 nn spring catch
- E) M5 holes
- F) Fastening with M5x10 ISO1064 screws

- A) Fori M5
- B) Fissaggio con viti M5x8 ISO10642
- C) 703002 nn piastra per cricchetto
- D) 703000 nn cricchetto
- E) Fori M5
- F) Fissaggio con viti M5x10 ISO10642

- A) Oreficios M5
- B) Fijación con tornillos M5x8 ISO10642
- C) 703002 nn placa para lengüeta
- D) 703000 nn lengüeta de pasador
- E) Oreficios M5
- F) Fijación con tornillos M5x10 ISO10642

**Installation**

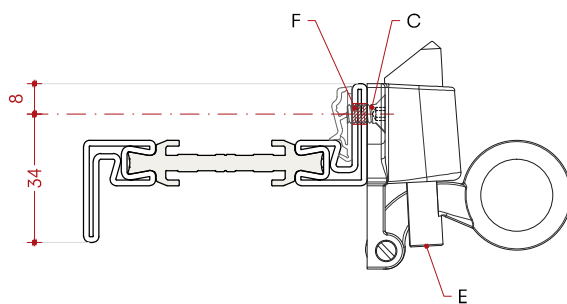
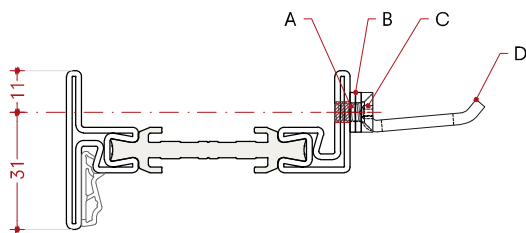
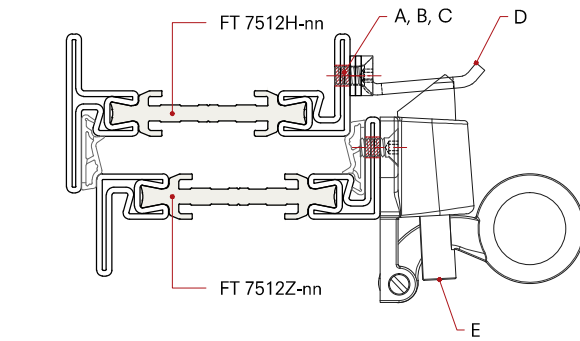
Spring catch 703000 nn  
 and spring catch plate 703001 nn  
 Bottom hung window  
 Overlapped profiles

**Montaggio**

Cricchetto 703000 nn  
 e riscontro 703001 nn  
 Finestra vasistas  
 Profili a sormonto

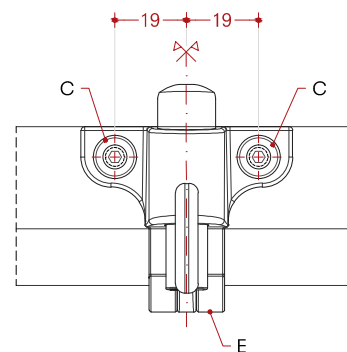
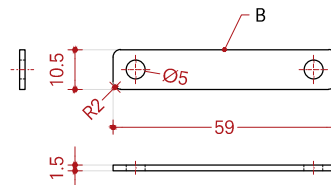
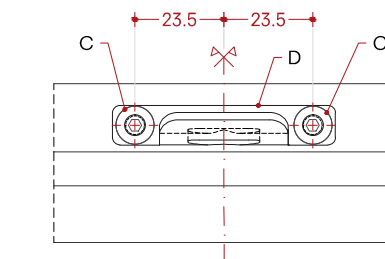
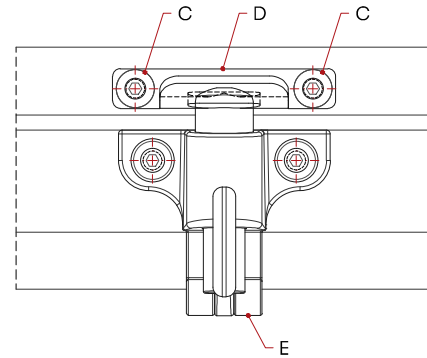
**Montaje**

Pasador 703000 nn  
 y placa de fijador 703001 nn  
 Ventana oscilante  
 Perfiles superpuestos



Single spring catch

Cricchetto singolo



Lengüeta de pasador

- A) M5 holes
- B) n°02 E99137-03 stainless steel shim 59x10.5x1.5 mm
- C) Fastening with M5x10 ISO10642 screws
- D) 703001 nn spring catch plate
- E) 703000 nn spring catch
- F) M5 holes

- A) Fori M5
- B) n°02 E99137-03 spessore in acciaio inox 59x10.5x1.5 mm
- C) Fissaggio con viti M5x10 ISO10642
- D) 703001 nn piastra per cricchetto
- E) 703000 nn cricchetto
- F) Fori M5

- A) Oreficios M5
- B) n°02 E99137-03 placa en acero inoxidable 59x10.5x1.5 mm
- C) Fijación con tornillos M5x10 ISO10642
- D) 703001 nn placa para lengüeta
- E) 703000 nn lengüeta de pasador
- F) Oreficios M5

**Installation**

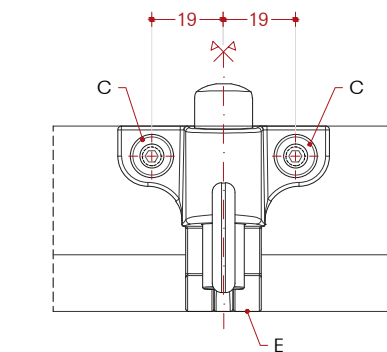
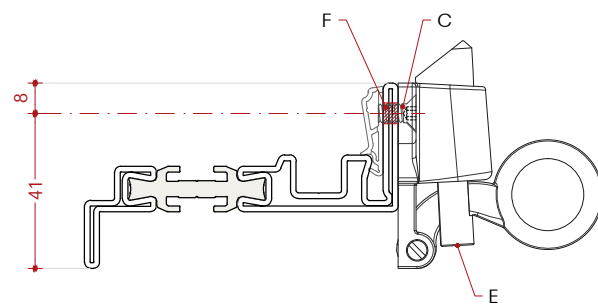
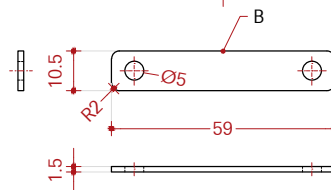
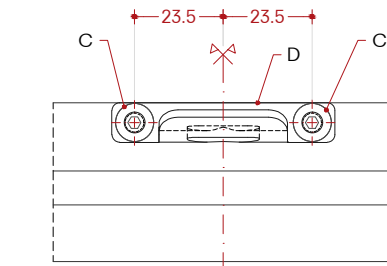
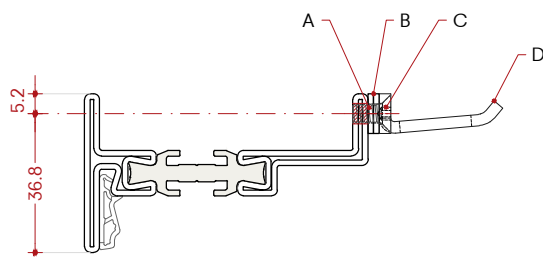
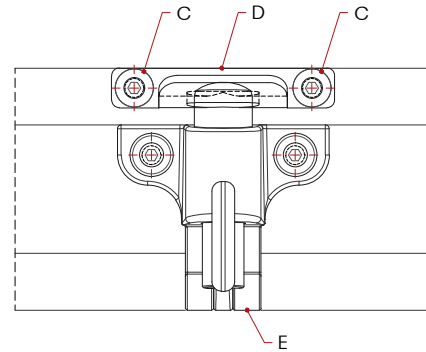
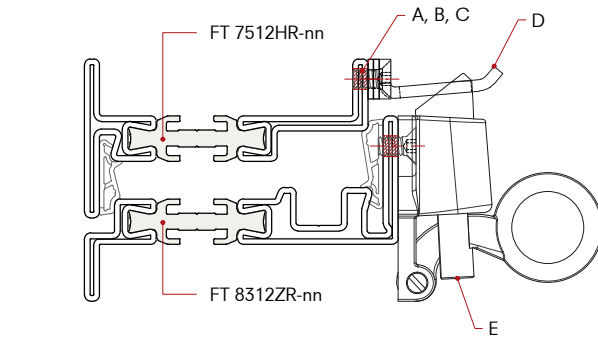
Spring catch 703000 nn  
 and spring catch plate 703001 nn  
 Bottom hung window  
 Tilt&Turn profiles

**Montaggio**

Cricchetto 703000 nn  
 e riscontro 703001 nn  
 Finestra vasistas  
 Profili a sormonto

**Montaje**

Pasador 703000 nn  
 y placa de fijador 703001 nn  
 Ventana oscilante  
 Perfiles superpuestos



Single spring catch

Cricchetto singolo

Lengüeta de pasador

- A) M5 holes
- B) n°02 E99137-03 stainless steel shim  
59x10.5x1.5 mm
- C) Fastening with M5x10 ISO10642 screws
- D) 703001 nn spring catch plate
- E) 703000 nn spring catch
- F) M5 holes

- A) Fori M5
- B) n°02 E99137-03 spessore in acciaio inox  
59x10.5x1.5 mm
- C) Fissaggio con viti M5x10 ISO10642
- D) 703001 nn piastra per cricchetto
- E) 703000 nn cricchetto
- F) Fori M5

- A) Oreficios M5
- B) n°02 E99137-03 placa en acero inoxidable  
59x10.5x1.5 mm
- C) Fijación con tornillos M5x10 ISO10642
- D) 703001 nn placa para lengüeta
- E) 703000 nn lengüeta de pasador
- F) Oreficios M5

**Installation**

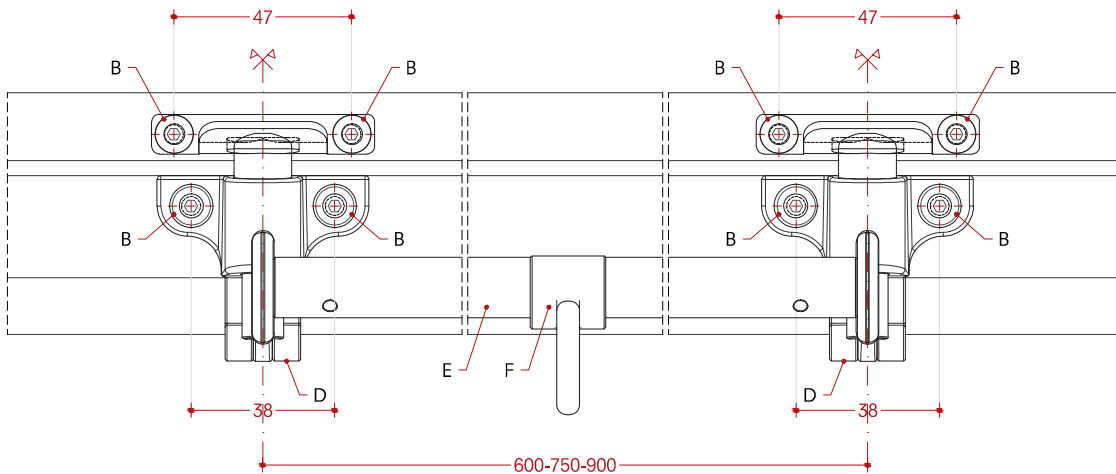
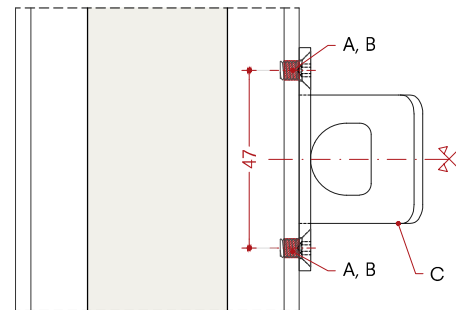
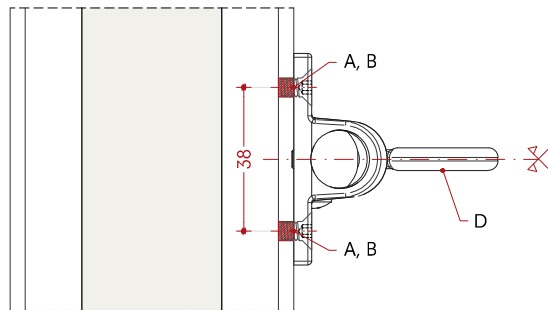
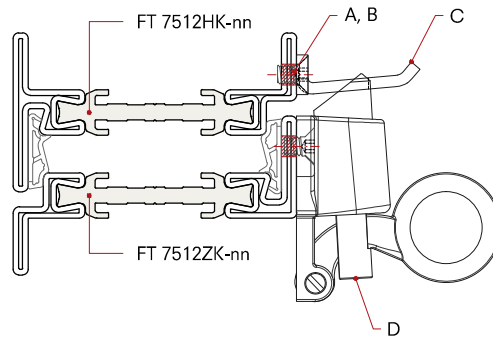
Spring catch 703000 nn  
 and spring catch plate 703002 nn  
 Double spring catch  
 Flush profiles

**Montaggio**

Cricchetto 703000 nn  
 e riscontro 703002 nn  
 Cricchetto doppio  
 Profili complanari

**Montaje**

Pasador 703000 nn  
 y placa de fijador 703002 nn  
 Brazo articulado doble  
 Perfiles coplanarios



Double spring catch

Cricchetto doppio

Lengüeta de pasador doble

- A) M5 holes
- B) Fastening with M5x8 ISO10642 screws
- C) 703002 nn spring catch plate
- D) 703000 nn spring catch
- E) 700520 nn connecting tube ring
- F) Connecting tube  
 700510 nn L = 600  
 700511 nn L = 750  
 700512 nn L = 900

- A) Fori M5
- B) Fissaggio con viti M5x8 ISO10642
- C) 703002 nn piastra per cricchetto
- D) 703000 nn cricchetto
- E) 700520 nn anello tubo collegamento
- F) Tubo di collegamento  
 700510 nn L = 600  
 700511 nn L = 750  
 700512 nn L = 900

- A) Oreficios M5
- B) Fijación con tornillos M5x8 ISO10642
- C) 703002 nn placa para lengüeta
- D) 703000 nn lengüeta de pasador
- E) 700520 nn anillo tubo de conexión
- F) Tubo de conexión  
 700510 nn L = 600  
 700511 nn L = 750  
 700512 nn L = 900

**Installation**

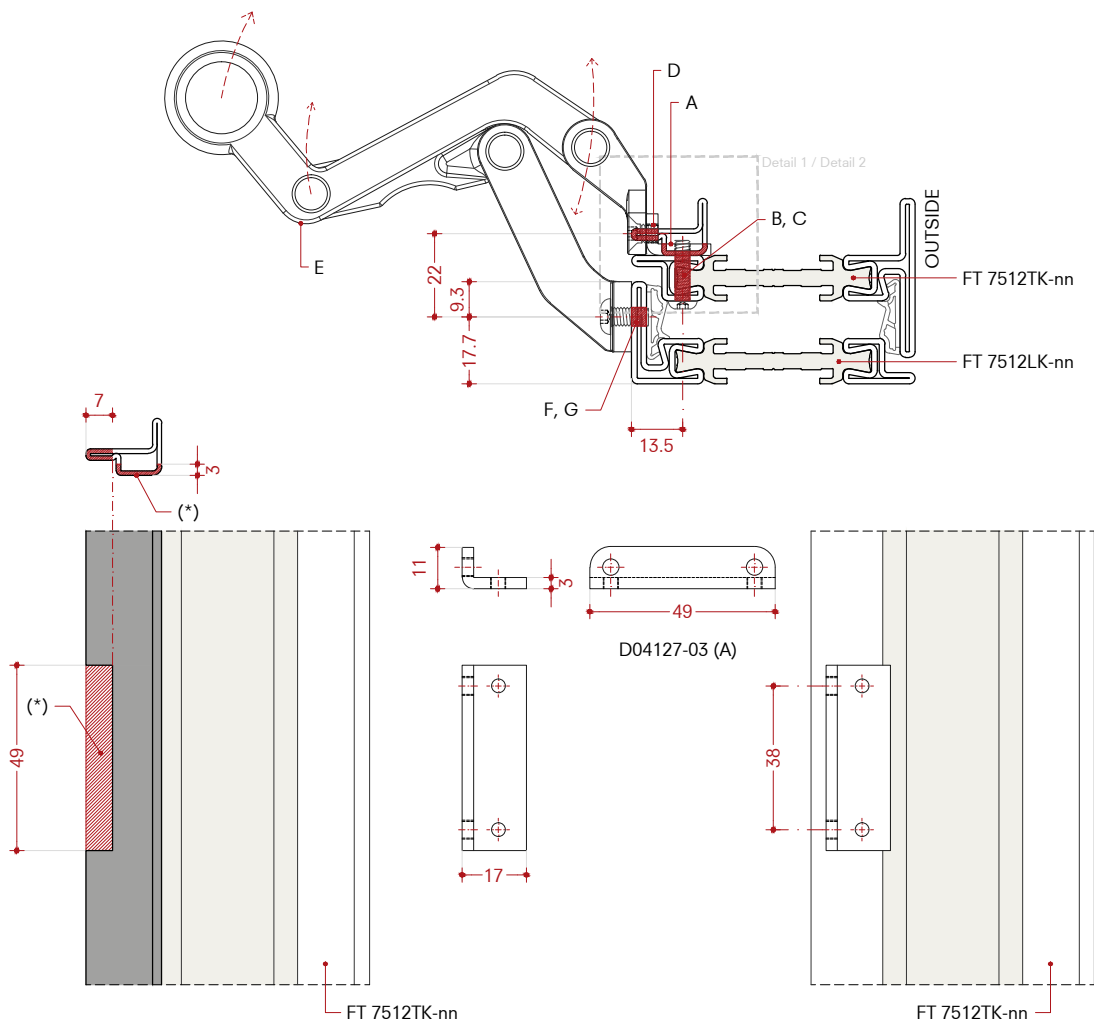
Folding opener  
 700500 nn and 700501 nn  
 Flush profiles

**Montaggio**

Braccio a compasso  
 700500 nn e 700501 nn  
 Profili complanari

**Montaje**

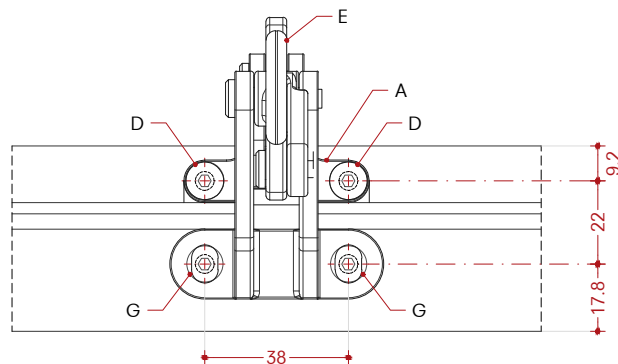
Brazo articulado  
 700500 nn y 700501 nn  
 Perfiles coplanarios



Single folding opener

Braccio a compasso singolo

brazo articulado



- A) D04127-03 bracket folding opener
- B) n°02 Ø4.25 mm holes on FT 7512TK-nn
- C) Fastening with M4x16 ISO7380 screws
- D) Fastening with M5x8 ISO10642 screws
- E) 700500 nn folding opener
- F) n°02 Ø5 mm holes on FT 7512LK-nn
- G) Fastening with M5x10 ISO7380 screws

(\*) Cut out on glazing bead

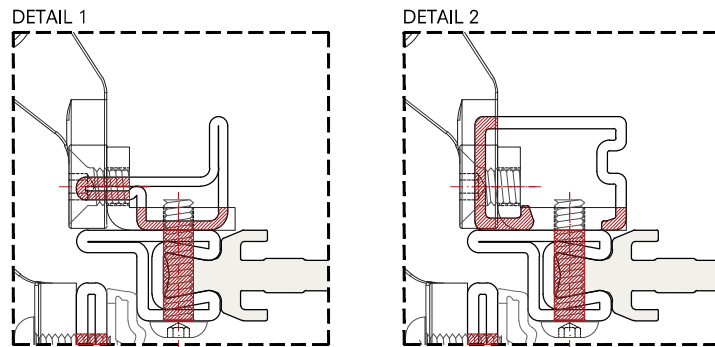
- A) D04127-03 staffa per braccio a compasso
- B) n°02 Fori Ø4.25 mm sul profilo FT 7512TK-nn
- C) Fissaggio con viti M4x16 ISO7380
- D) Fissaggio con viti M5x8 ISO10642
- E) 700500 nn braccio a compasso
- F) n°02 Fori Ø5 mm sul profilo FT 7512LK-nn
- G) Fissaggio con viti M5x10 ISO7380

(\*) Taglio sul fermavetro

- A) D04127-03 soporte de brazo articulado
- B) n°02 Oreficios Ø4.25 mm en FT 7512TK-nn
- C) Fijación con tornillos M4x16 ISO7380
- D) Fijación con tornillos M5x8 ISO10642
- E) 700500 nn brazo articulado
- F) n°02 Oreficios Ø5 mm en FT 7512LK-nn
- G) Fijación con tornillos M5x10 ISO7380

(\*) Fresado en junquillo



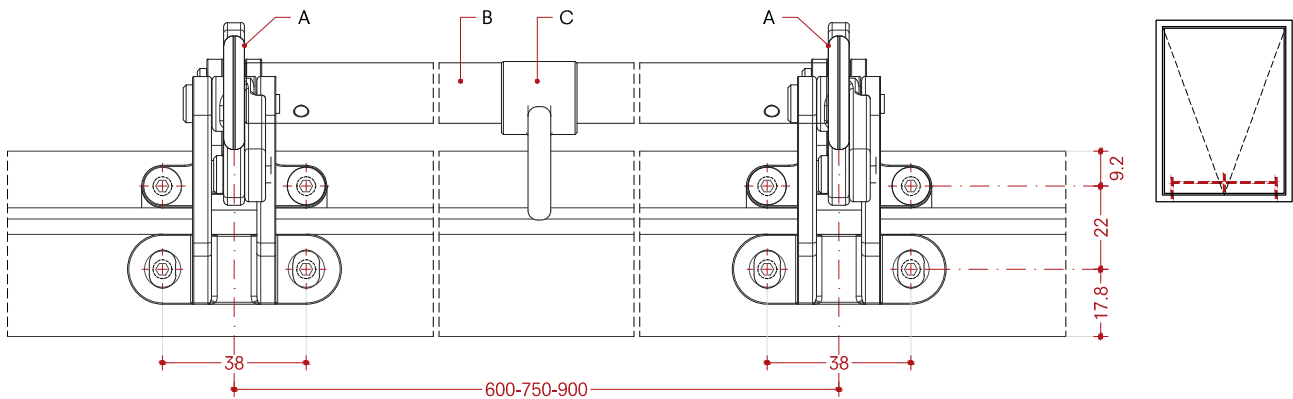


Glazing beads - fastening examples - glazing bead cut out  
 Profili fermavetro - esempi di fissaggio - lavorazione profili fermavetro  
 Perlas de esmalte - ejemplos de fijación - ajuste de la cuenta de esmalter

Double folding opener

Braccio a compasso doppio

Brazo articulado doble



- A) 700501 nn double folding opener
- B) 700520 nn connecting tube ring
- C) Connecting tube
  - 700510 nn L = 600
  - 700511 nn L = 750
  - 700512 nn L = 900

- A) 700501 nn doppio braccio a compasso
- B) 700520 nn anello tubo collegamento
- C) Tubo di collegamento
  - 700510 nn L = 600
  - 700511 nn L = 750
  - 700512 nn L = 900

- A) 700501 nn doble brazo articulado
- B) 700520 nn anillo tubo de conexión
- C) Tubo de conexión
  - 700510 nn L = 600
  - 700511 nn L = 750
  - 700512 nn L = 900

**Installation**

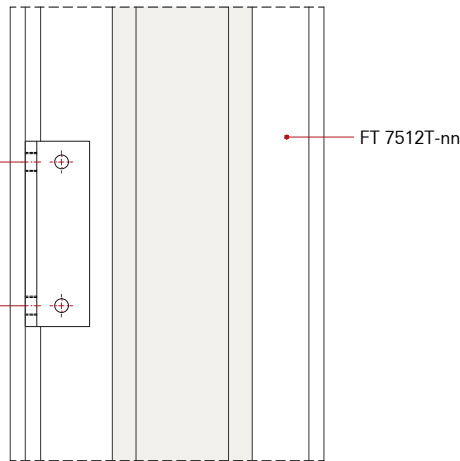
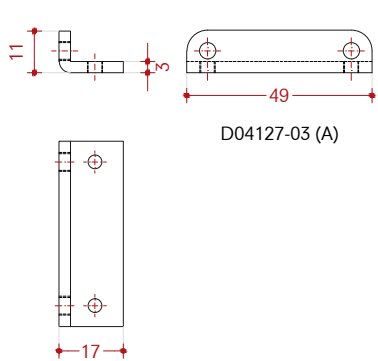
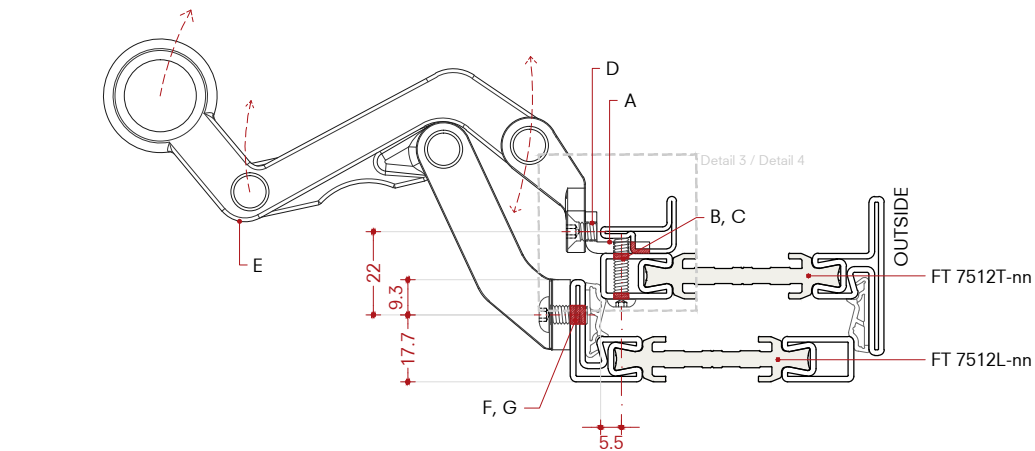
Folding opener  
 700500 nn and 700501 nn  
 Overlapped profiles

**Montaggio**

Braccio a compasso  
 700500 nn e 700501 nn  
 Profili a sormonto

**Montaje**

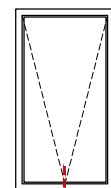
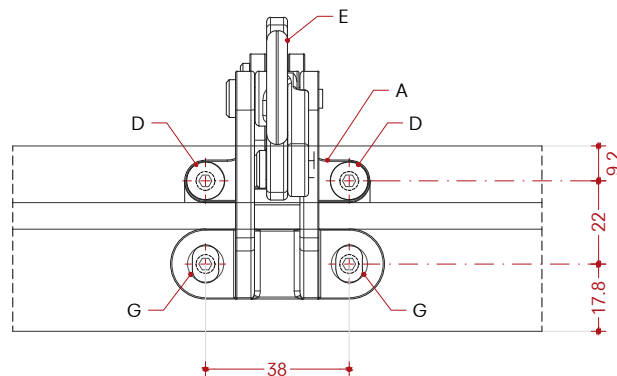
Brazo articulado  
 700500 nn y 700501 nn  
 Perfiles superpuestos



Single folding opener

Braccio a compasso singolo

brazo articulado



- A) D04127-03 bracket folding opener
- B) n°02 Ø4.25 mm holes on FT 7512T-nn
- C) Fastening with M4x16 ISO7380 screws
- D) Fastening with M5x8 ISO10642 screws
- E) 700500 nn folding opener
- F) n°02 Ø5 mm holes on FT 7512L-nn
- G) Fastening with M5x10 ISO7380 screws

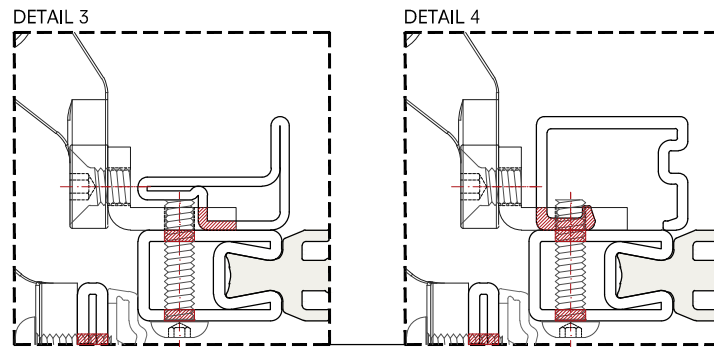
(\*) Cut out on glazing bead

- A) D04127-03 staffa per braccio a compasso
- B) n°02 Fori Ø4.25 mm sul profilo FT 7512T-nn
- C) Fissaggio con viti M4x16 ISO7380
- D) Fissaggio con viti M5x8 ISO10642
- E) 700500 nn braccio a compasso
- F) n°02 Fori Ø5 mm sul profilo FT 7512L-nn
- G) Fissaggio con viti M5x10 ISO7380

(\*) Taglio sul fermavetro

- A) D04127-03 soporte de brazo articulado
- B) n°02 Oreficios Ø4.25 mm en FT 7512T-nn
- C) Fijación con tornillos M4x16 ISO7380
- D) Fijación con tornillos M5x8 ISO10642
- E) 700500 nn brazo articulado
- F) n°02 Oreficios Ø5 mm en FT 7512L-nn
- G) Fijación con tornillos M5x10 ISO7380

(\*) Fresado en junquillo

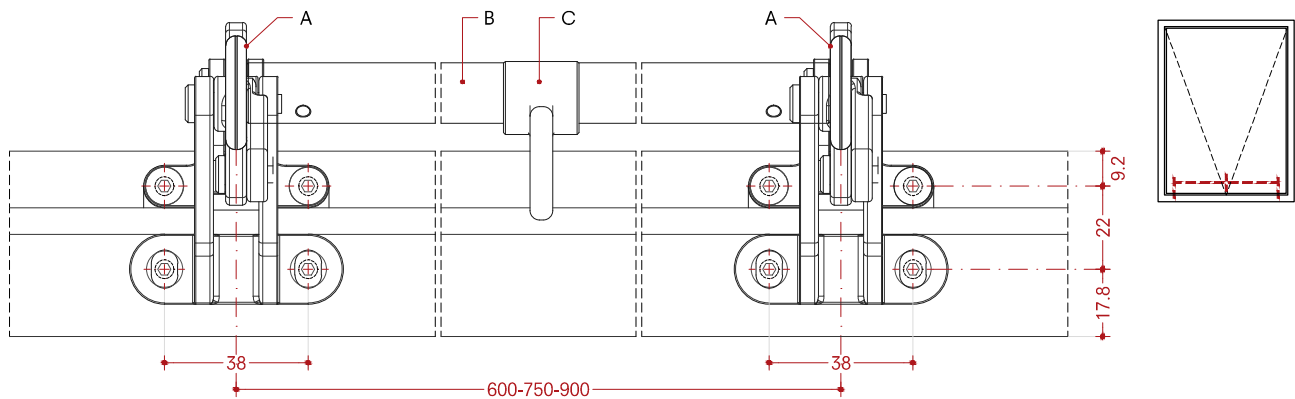


Glazing beads - fastening examples - glazing bead cut out  
 Profili fermavetro - esempi di fissaggio - lavorazione profili fermavetro  
 Perlas de esmalte - ejemplos de fijación - ajuste de la cuenta de esmalte

Double folding opener

Braccio a compasso doppio

Brazo articulado doble



- A) 700501 nn double folding opener
- B) 700520 nn connecting tube ring
- C) Connecting tube
  - 700510 nn L = 600
  - 700511 nn L = 750
  - 700512 nn L = 900

- A) 700501 nn doppio braccio a compasso
- B) 700520 nn anello tubo collegamento
- C) Tubo di collegamento
  - 700510 nn L = 600
  - 700511 nn L = 750
  - 700512 nn L = 900

- A) 700501 nn doble brazo articulado
- B) 700520 nn anillo tubo de conexión
- C) Tubo de conexión
  - 700510 nn L = 600
  - 700511 nn L = 750
  - 700512 nn L = 900

**Installation**

Friction stay C9921X-05  
 Flush profiles

**Montaggio**

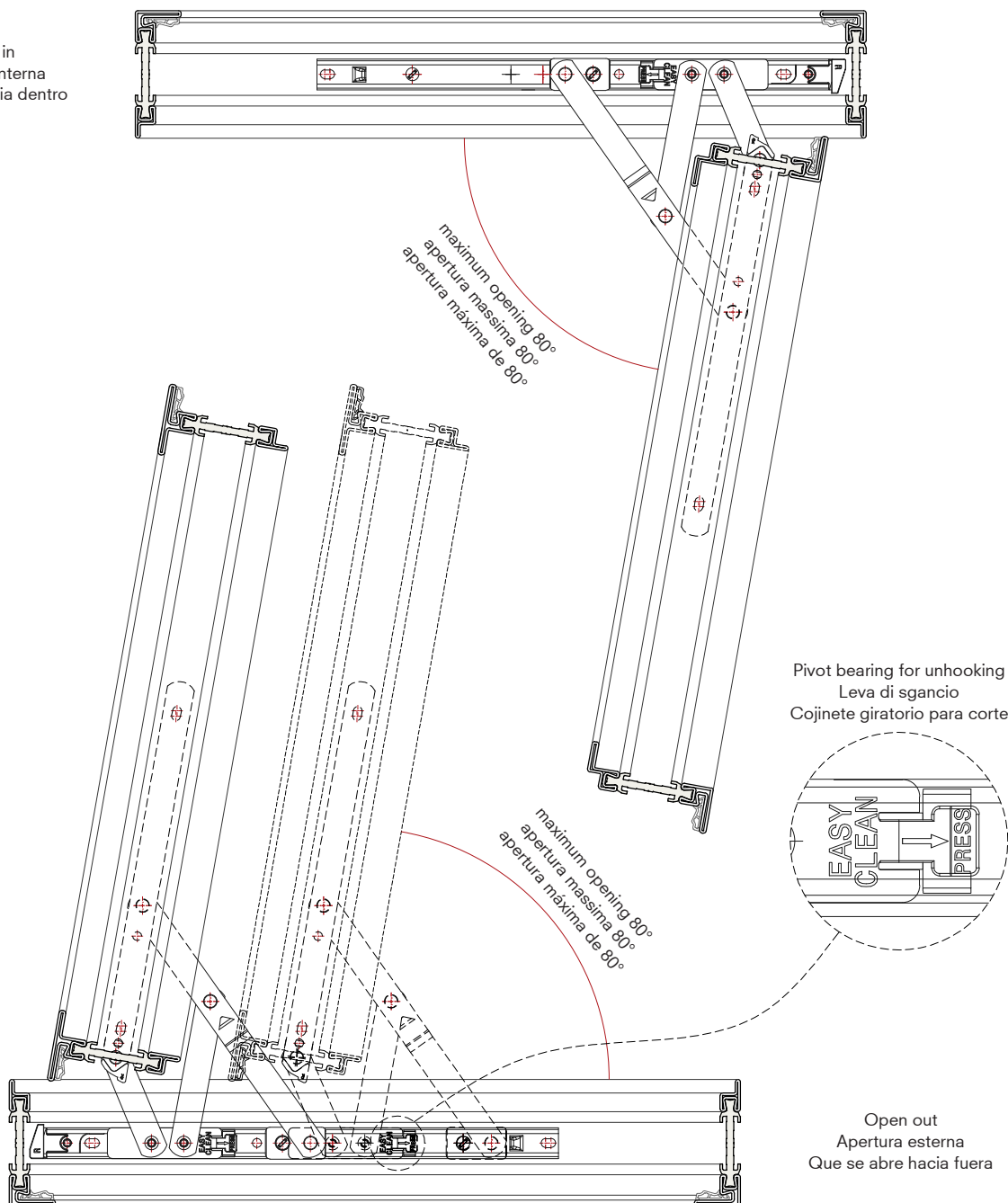
Bracci portanti C9921X-05  
 Profili complanari

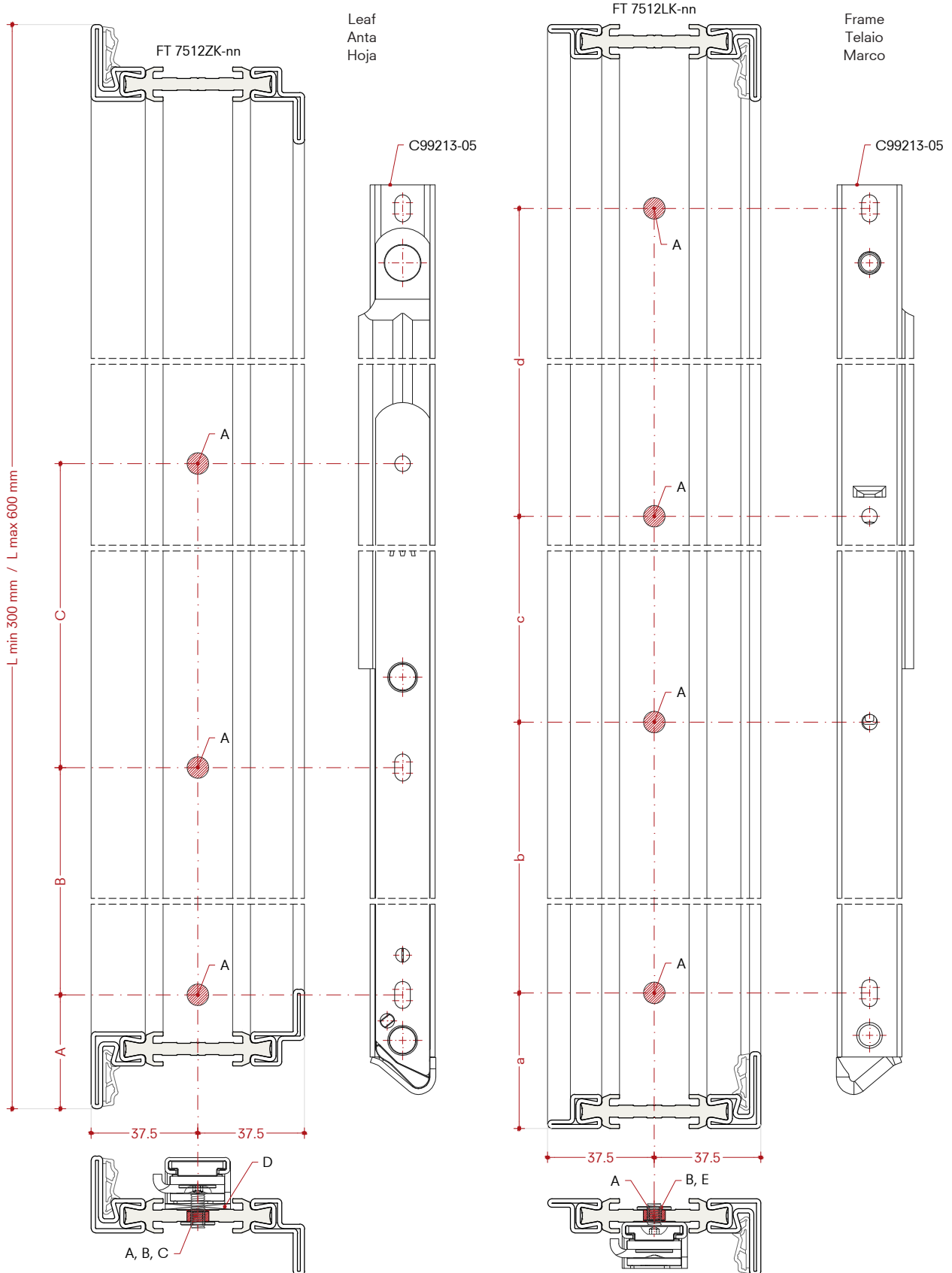
**Montaje**

Cizalla de apertura C9921X-05  
 Perfiles coplanarios

|           | A    | B     | C     | a    | b     | c     | d     | Capacity (pair)<br>Portata (coppia)<br>Capacidad (par)<br>[Kg] | Height window<br>Altezza finestra<br>Altura ventana<br>[mm] | Opening angle<br>Angolo di apertura<br>Ángulo de apertura |
|-----------|------|-------|-------|------|-------|-------|-------|----------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|
| C99210-05 | 37.5 | 55.3  | 133   | 48.6 | 96.9  | 171.5 | -     | 22                                                             | 300÷600                                                     | 80°                                                       |
| C99211-05 | 37.5 | 108.8 | 213.7 | 48.6 | 96.9  | 273.1 | -     | 24                                                             | 400÷700                                                     | 90°                                                       |
| C99212-05 | 40   | 34    | 131.1 | 47.7 | 177.8 | 40.4  | -     | 38                                                             | 300÷660                                                     | 85°                                                       |
| C99213-05 | 38   | 118.4 | 122.8 | 49.7 | 133.7 | 88.3  | 148.6 | 55                                                             | 450÷840                                                     | 60°                                                       |

Open in  
 Apertura interna  
 Apertura hacia dentro





- A) Ø7.5 mm holes
- B) D99702-08 M5 brass bushing
- C) Fastening with M5x12 ISO7380 screws
- D) Spacer 2 mm (not provided)
- E) Fastening with M5x8 ISO7380 screws

- A) Fori Ø7.5 mm
- B) D99702-08 Boccola in ottone M5
- C) Fissaggio con viti M5x12 ISO7380
- D) Spessore 2 mm (non fornito)
- E) Fissaggio con viti M5x8 ISO7380

- A) Oreficios Ø7.5 mm
- B) D99702-08 Casquillo en latón M5
- C) Fijación con tornillos M5x12 ISO7380
- D) Espaciador 2 mm (no provisto)
- E) Fijación con tornillos M5x8 ISO7380

**Installation**

Friction stay for top hung  
 Open out window  
 Overlapped profiles

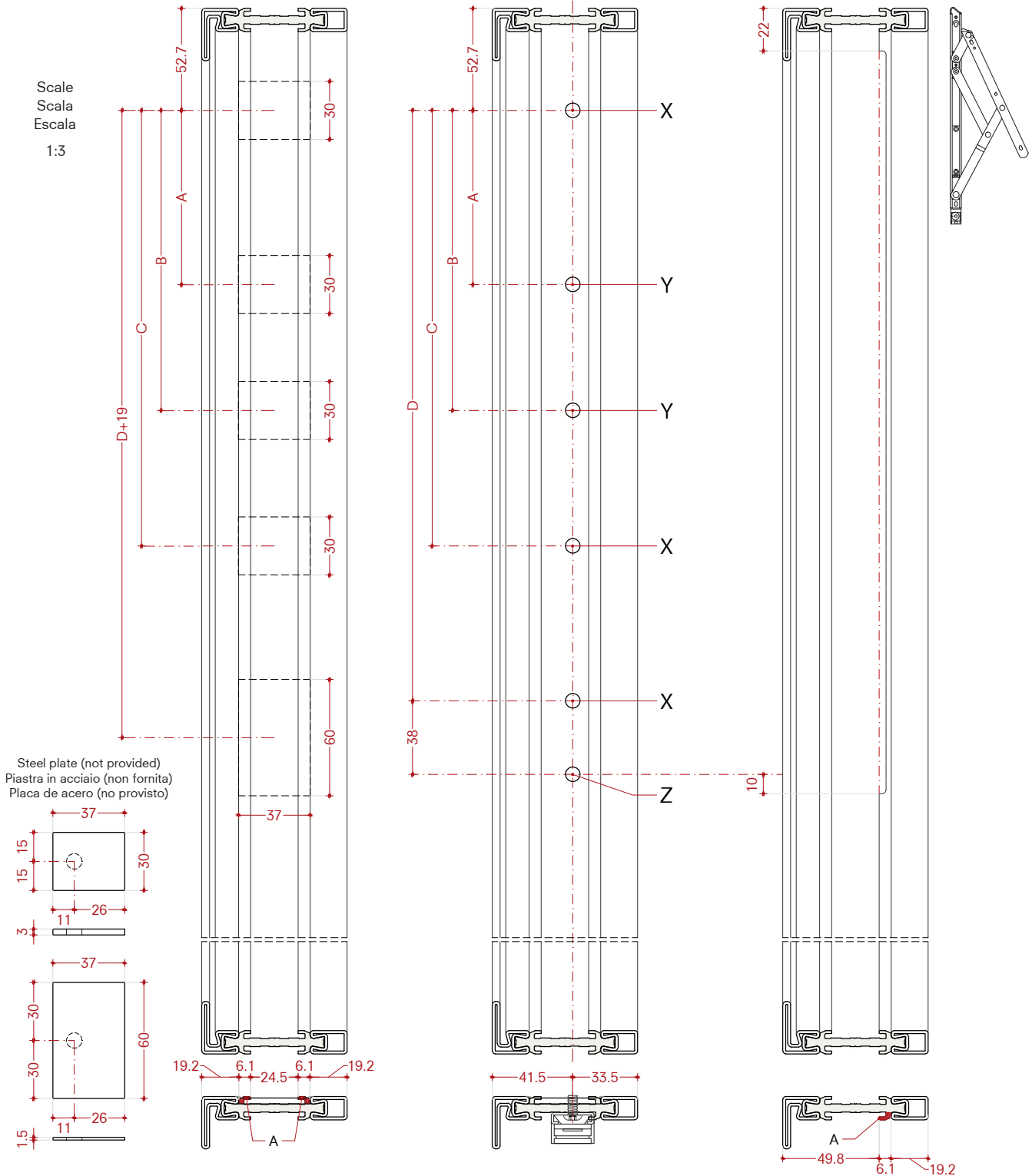
**Montaggio**

Braccio portante a sporgere  
 Finestra apertura esterna  
 Profili a sormonto

**Montaje**

Cizalla de apertura descendente  
 Ventana que abre hacia fuera  
 Perfiles superpuestos

| Capacity (pair) | Portata (coppia) | Capacidad (par) | Height window | Altezza finestra | Altura ventana | Opening angle | Angolo di apertura | Ángulo de apertura |
|-----------------|------------------|-----------------|---------------|------------------|----------------|---------------|--------------------|--------------------|
|                 | [Kg]             |                 | [mm]          |                  |                |               |                    |                    |
| C99201-05       | 40               |                 | 270÷640       |                  |                | 50°           |                    |                    |
| C99202-05       | 50               |                 | 640÷800       |                  |                | 50°           |                    |                    |
| C99203-05       | 65               |                 | 800÷1100      |                  |                | 50°           |                    |                    |
| C99204-05       | 100              |                 | 600÷1100      |                  |                | 30°           |                    |                    |
| C99205-05       | 100              |                 | 1100÷1500     |                  |                | 45°           |                    |                    |
| C99206-05       | 100              |                 | 1500÷2000     |                  |                | 20°           |                    |                    |
| C99207-05       | 180              |                 | 2000÷2500     |                  |                | 20°           |                    |                    |



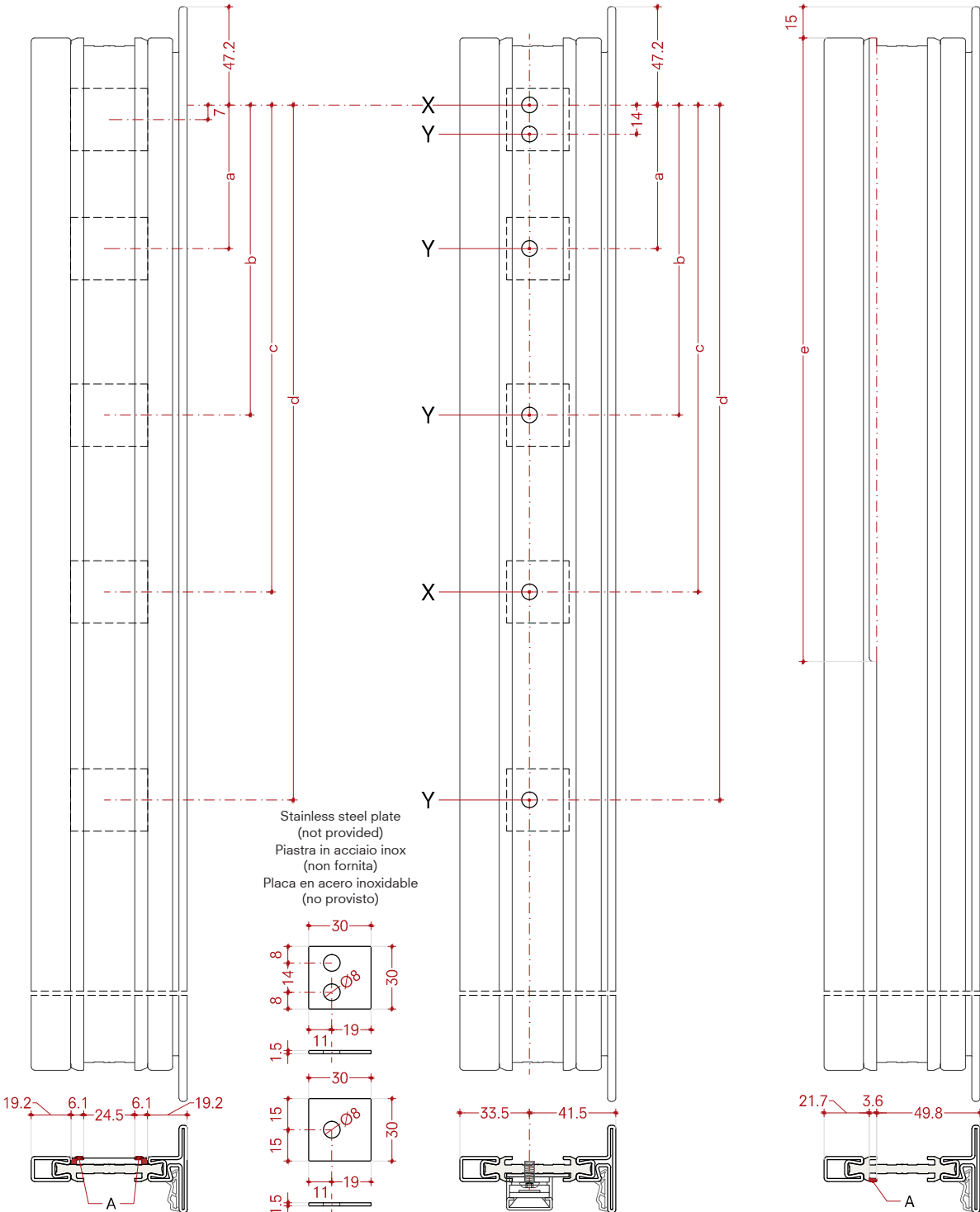
A) Cut out  
 disclaimer see 7.0.14

A) Fresata

A) Fresado

| Table with distances between holes<br>Tabella con passi di foratura<br>Tabla con distancias de taladros |       |       |       |       |       |       |        |       |     |
|---------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-----|
|                                                                                                         | A (y) | B (y) | C (x) | D (x) | a (y) | b (y) | c (x)  | d (y) | e   |
| C99201-05                                                                                               | 177.8 | -     | -     | 218.2 | 40.8  | -     | 165.1  | -     | 220 |
| C99202-05                                                                                               | 212.7 | -     | -     | 269.0 | 65.0  | -     | 190.1  | -     | 245 |
| C99203-05                                                                                               | 215.7 | 304.0 | -     | 370.6 | 118.4 | -     | 541.2  | -     | 395 |
| C99204-05                                                                                               | 133.7 | 222.0 | -     | 370.6 | -     | -     | 118.4  | 241.2 | 395 |
| C99205-05                                                                                               | 251.3 | 418.3 | -     | 523.0 | 65.0  | 203.2 | 317.4  | -     | 375 |
| C99206-05                                                                                               | 295.4 | -     | -     | 526.5 | 80.0  | -     | 235.75 | 350.0 | 405 |
| C99207-05                                                                                               | 161.4 | 292.4 | 584.5 | 638.5 | 65.0  | 189.0 | 314.4  | 383.9 | 440 |

- X M5 hole on profile  
 M5x10 mm ISO7380 screw  
 Foro M5 su profilo  
 Vite M5x10 mm ISO7380  
 Orificio M5 en perfil  
 Tornillo M5x10 mm ISO7380
- Y M5x12 mm ISO7380  
 (Screws must be cut)  
 M5x12 mm ISO7380  
 (Le viti devono essere accorciate)  
 M5x12 mm ISO7380  
 (Los tornillos deben colocarse en cruz)
- Z Hole Ø7 mm  
 Foro Ø7 mm  
 Orificio Ø7 mm



Scale  
 Scala  
 Escala  
 1:3

**Installation**

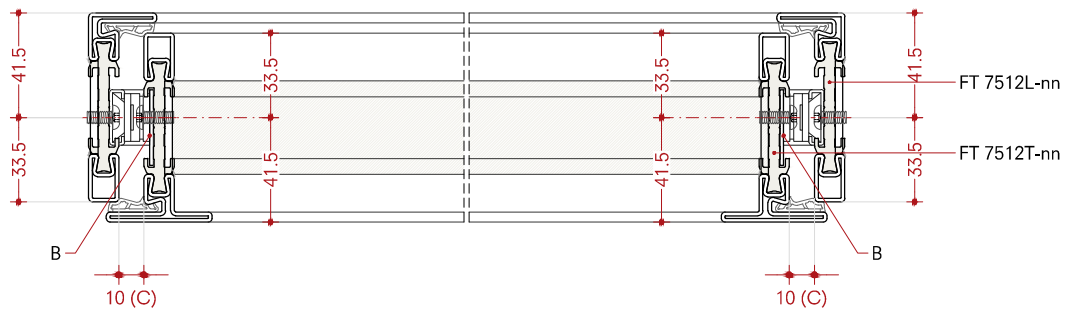
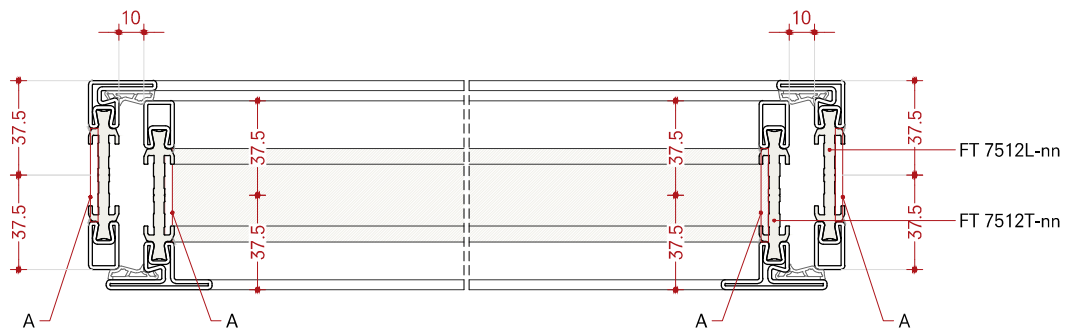
Example for friction stay C99203-05  
 up to 65 kg  
 Window height 800-1090 mm  
 Opening angle of 55°

**Esempio di montaggio**

Braccio portante a sporgere C99203-05 fino a 65 kg  
 Altezza finestra 800-1090 mm  
 Angolo di apertura 55°

**Ejemplo de montaje**

Cizalla descendente plegable C99203-05 hasta 65 kg  
 Altura de ventana 800-1090 mm  
 Ángulo de apertura 55°



- X M5 hole on profile  
 M5x10 mm ISO7380 screw  
 Foro M5 su profilo  
 Vite M5x10 mm ISO7380  
 Orificio M5 en perfil  
 Tornillo M5x10 mm ISO7380
- Y M5x12 mm ISO7380  
 M5x12 mm ISO7380  
 M5x12 mm ISO7380
- Z Hole Ø7 mm  
 Foro Ø7 mm  
 Orificio Ø7 mm

Scale 1:3

- A) 37x30x3 mm plate welded on profile (not provided)
- B) 30x30x1.5 mm plate welded on profile (not provided)
- C) Friction stay - 10 mm

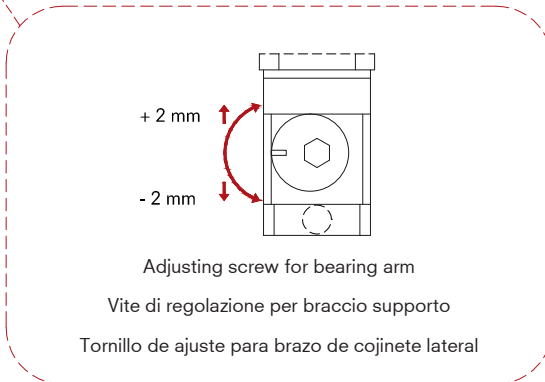
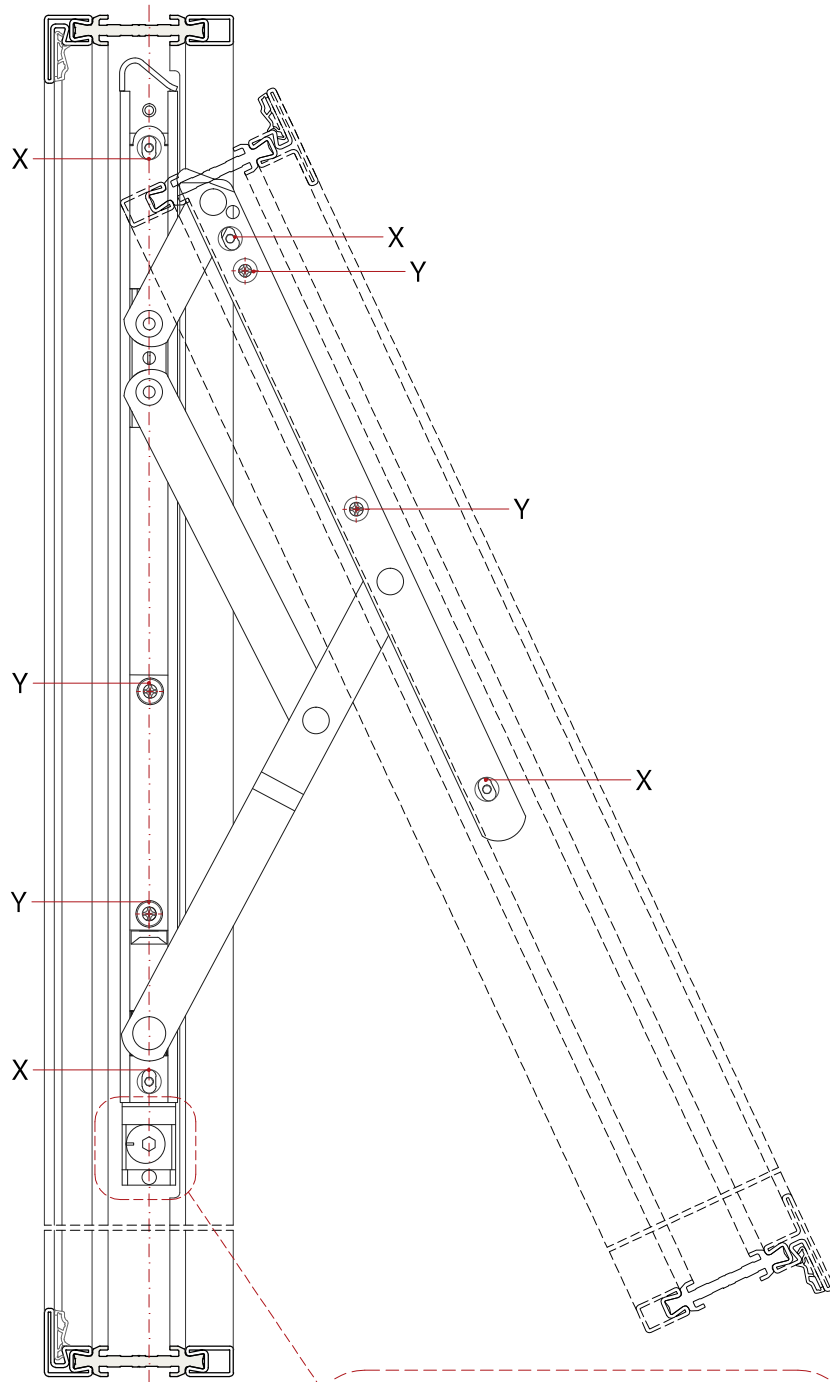
Scala 1:3

- A) Piastra 37x30x3 mm saldata al profilo (non fornita)
- B) Piastra 30x30x1.5 mm saldata al profilo (non fornita)
- C) Braccio a sporgere - 10 mm

Escala 1:3

- A) Placa 37x30x3 mm soldada en perfil (no provisto)
- B) Placa 30x30x1.5 mm soldada en perfil (no provisto)
- C) Cizalla descendente plegable - 10 mm





**Installation**

Flush bolt E99001-nn  
 (with or without lock)  
 L = 150 mm

**Montaggio**

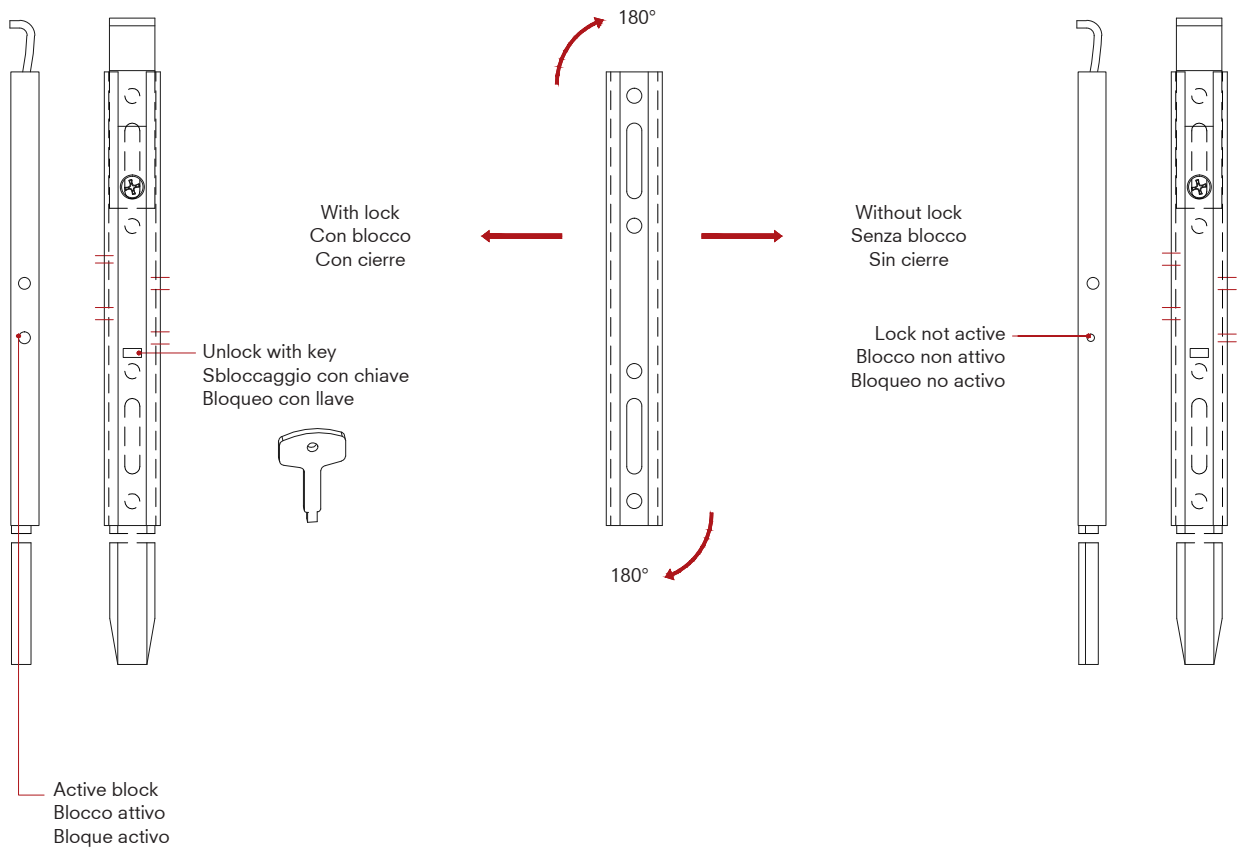
Catenaccio E99001-nn  
 (con o senza blocco)  
 L = 150 mm

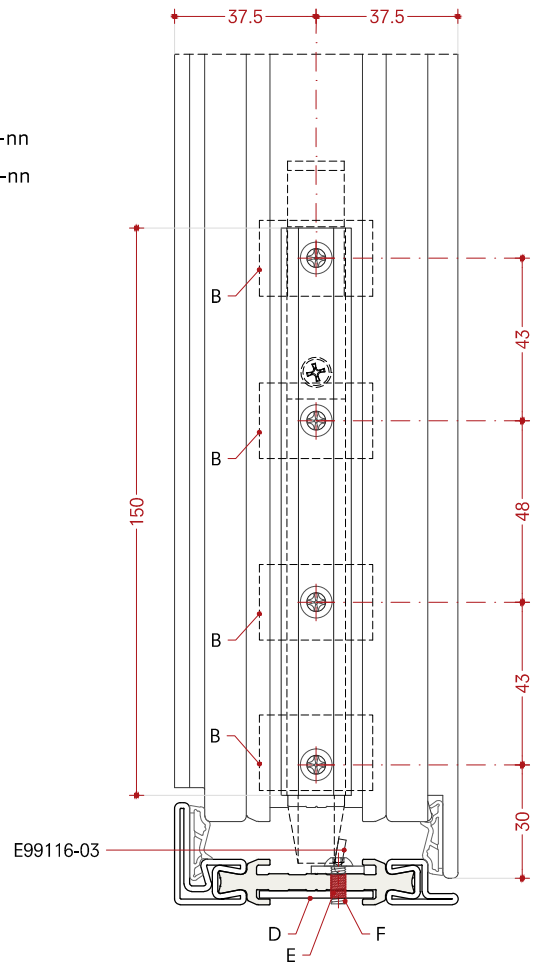
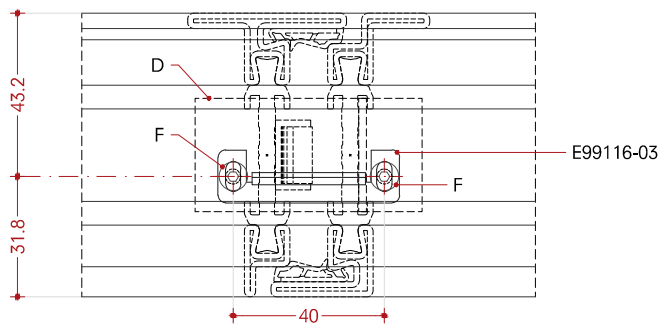
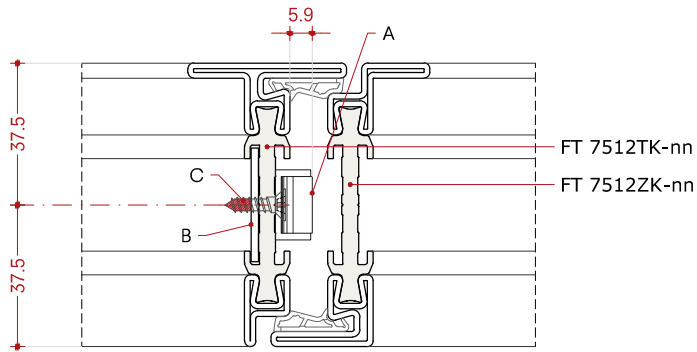
**Montaje**

Pasador de canto E99001-nn  
 (con o sin cierre)  
 L = 150 mm

Flush bolt with lock  
 Catenaccio con blocco  
 Bloqueo con cierre

Flush bolt without lock  
 Catenaccio senza blocco  
 Bloqueo sin cierre





- A) Flush bolt
- B) Plate 30x20x2 mm fixed by glue on profile (not provided)
- C) Fastening with Ø4.2x16 mm ISO7050 screws and cut the screws
- D) Plate 60x30x2 mm fixed by glue on profile (not provided)
- E) M4 mm holes
- F) Fastening with M4x10 ISO7380 screws

- A) Catenaccio
- B) Piastra 30x20x2 mm fissata a colla al profilo (non fornita)
- C) Fissaggio con viti Ø4.2x16 mm ISO7050 e accorciare le viti
- D) Piastra 60x30x2 mm fissata a colla al profilo (non fornita)
- E) Fori M4
- F) Fissaggio con viti M4x10 ISO7380

- A) Bloqueo
- B) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto)
- C) Fijación con tornillos Ø4.2x16 mm ISO7050 y recortar tornillo
- D) Placa 60x30x2 mm fijación de pegamento en perfil (no provisto)
- E) Oreficios M4
- F) Fijación con tornillos M4x10 ISO7380

**Installation**

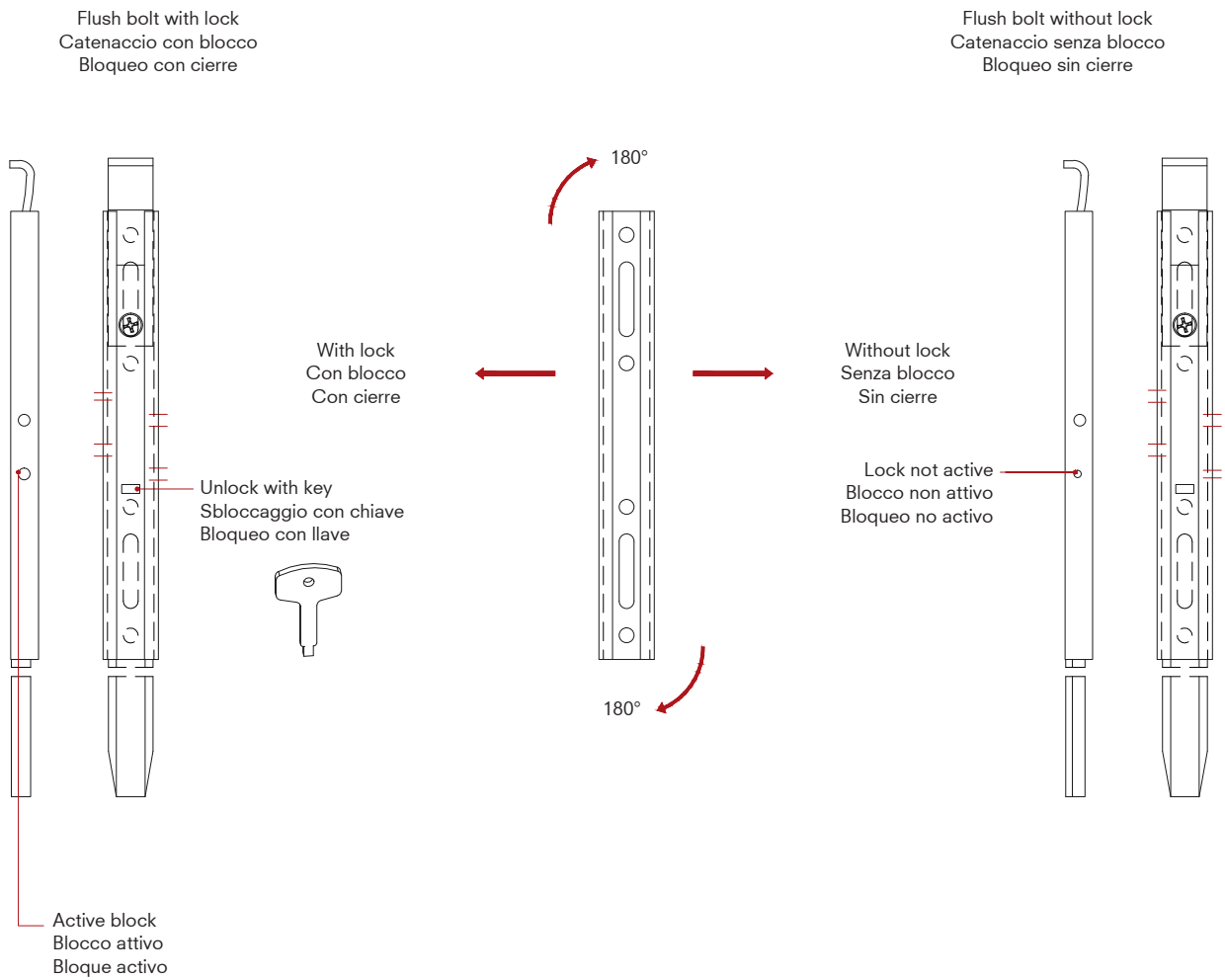
Flush bolt E99002-nn  
 (with or without lock)  
 L = 300 mm

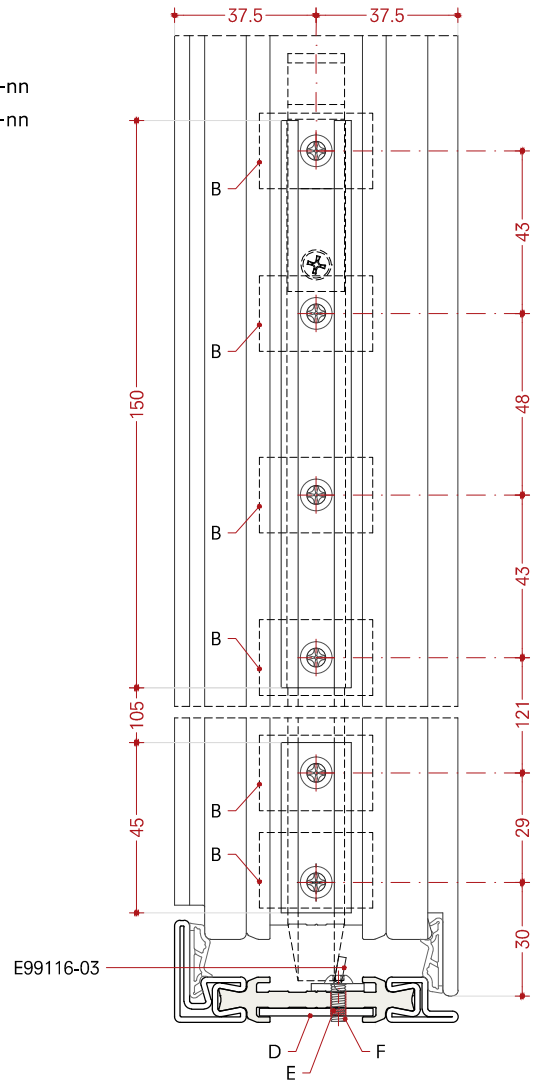
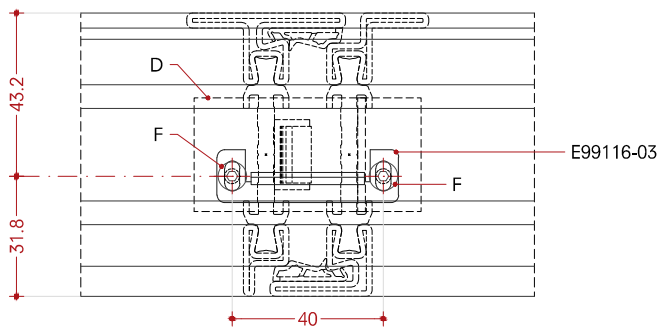
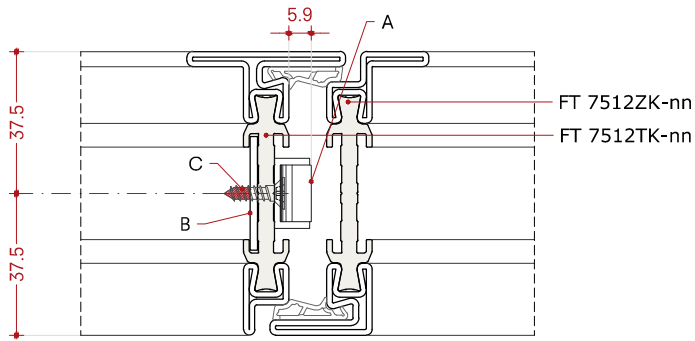
**Montaggio**

Catenaccio E99002-nn  
 (con o senza blocco)  
 L = 300 mm

**Montaje**

Pasador de canto E99002-nn  
 (con o sin cierre)  
 L = 300 mm





- A) Flush bolt
- B) Plate 30x20x2 mm fixed by glue on profile (not provided)
- C) Fastening with Ø4.2x16 mm ISO7050 screws and cut the screws
- D) Plate 60x30x2 mm fixed by glue on profile (not provided)
- E) M4 mm holes
- F) Fastening with M4x10 ISO7380 screws

- A) Catenaccio
- B) Piastra 30x20x2 mm fissata a colla al profilo (non fornita)
- C) Fissaggio con viti Ø4.2x16 mm ISO7050 e accorciare le viti
- D) Piastra 60x30x2 mm fissata a colla al profilo (non fornita)
- E) Fori M4
- F) Fissaggio con viti M4x10 ISO7380

- A) Bloqueo
- B) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto)
- C) Fijación con tornillos Ø4.2x16 mm ISO7050 y recortar tornillo
- D) Placa 60x30x2 mm fijación de pegamento en perfil (no provisto)
- E) Oreficios M4
- F) Fijación con tornillos M4x10 ISO7380

**Installation**

Flush bolt E99003-nn  
 (with or without lock)  
 L = 450 mm

**Montaggio**

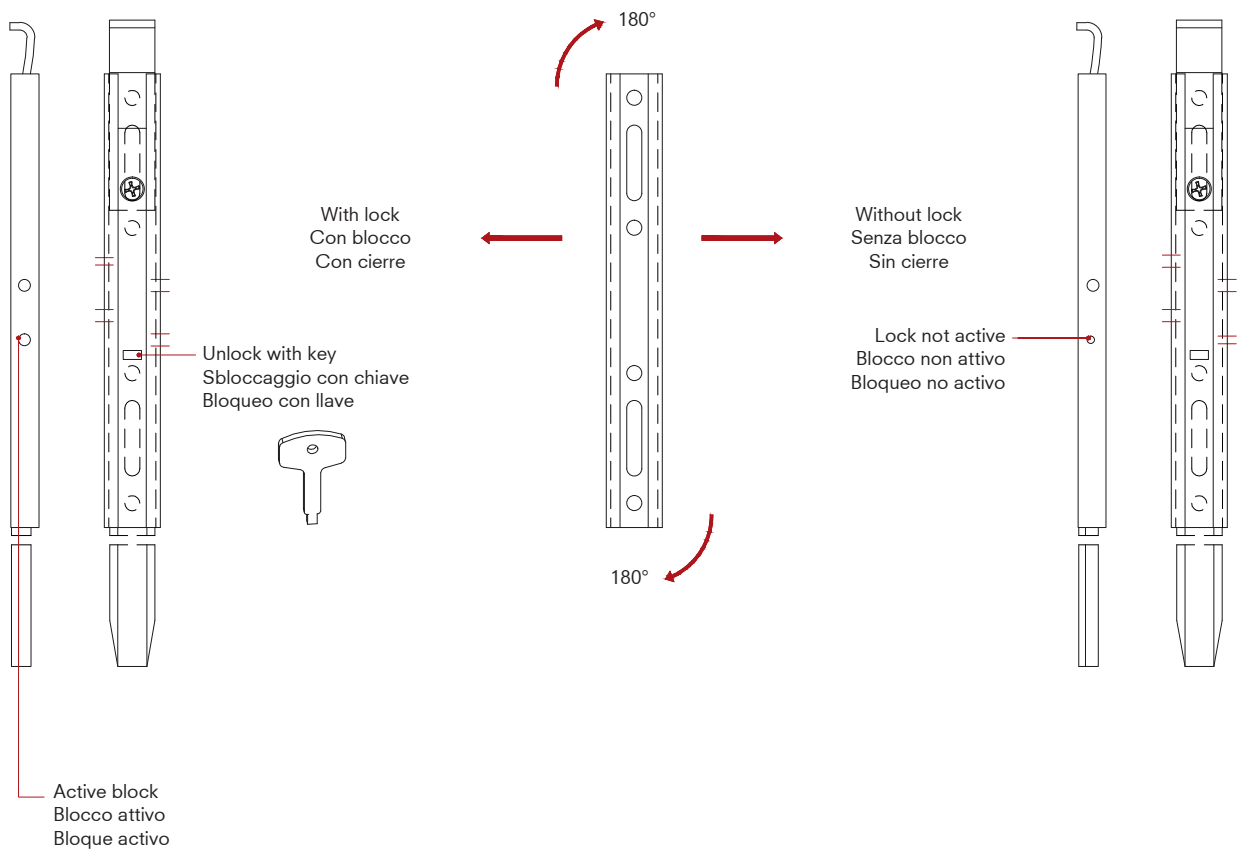
Catenaccio E99003-nn  
 (con o senza blocco)  
 L = 450 mm

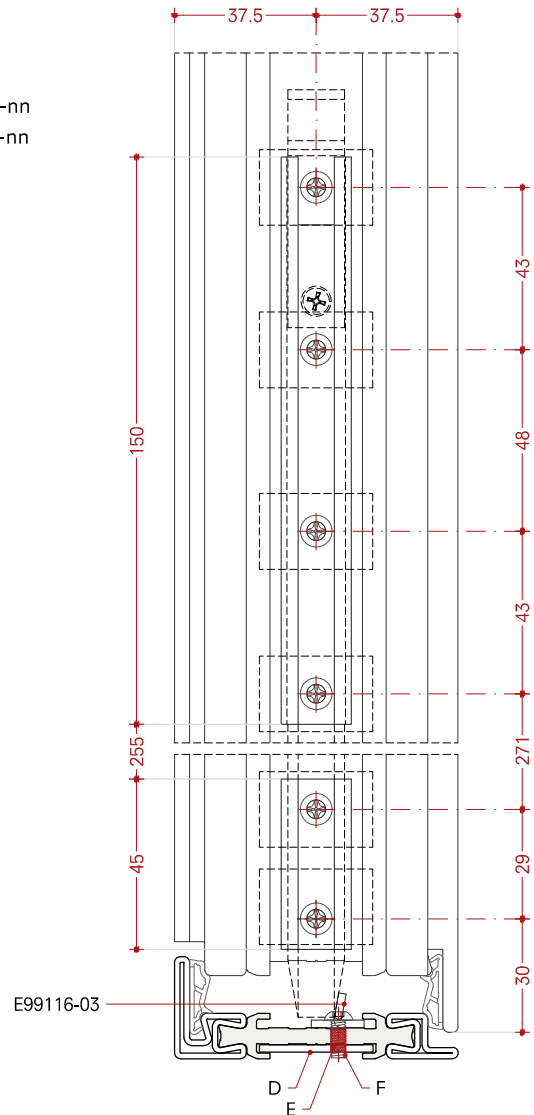
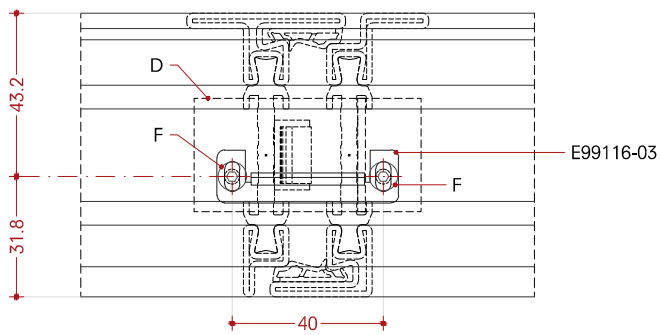
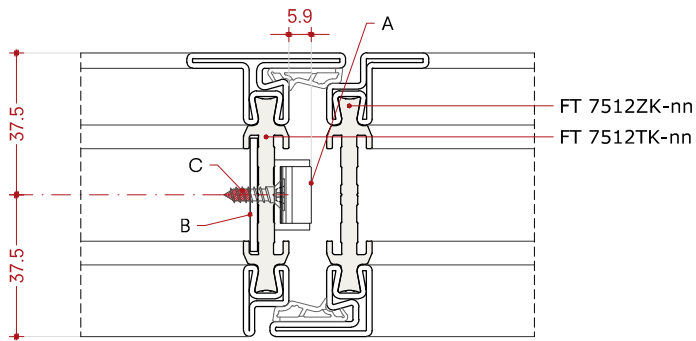
**Montaje**

Pasador de canto E99003-nn  
 (con o sin cierre)  
 L = 450 mm

Flush bolt with lock  
 Catenaccio con blocco  
 Bloqueo con cierre

Flush bolt without lock  
 Catenaccio senza blocco  
 Bloqueo sin cierre





- A) Flush bolt
- B) Plate 30x20x2 mm fixed by glue on profile (not provided)
- C) Fastening with Ø4.2x16 mm ISO7050 screws and cut the screws
- D) Plate 60x30x2 mm fixed by glue on profile (not provided)
- E) M4 mm holes
- F) Fastening with M4x10 ISO7380 screws

- A) Catenaccio
- B) Piastra 30x20x2 mm fissata a colla al profilo (non fornita)
- C) Fissaggio con viti Ø4.2x16 mm ISO7050 e accorciare le viti
- D) Piastra 60x30x2 mm fissata a colla al profilo (non fornita)
- E) Fori M4
- F) Fissaggio con viti M4x10 ISO7380

- A) Bloqueo
- B) Placa 30x20x2 mm fijación de pegamento en perfil (no provisto)
- C) Fijación con tornillos Ø4.2x16 mm ISO7050 y recortar tornillo
- D) Placa 60x30x2 mm fijación de pegamento en perfil (no provisto)
- E) Oreficios M4
- F) Fijación con tornillos M4x10 ISO7380

**Installation**

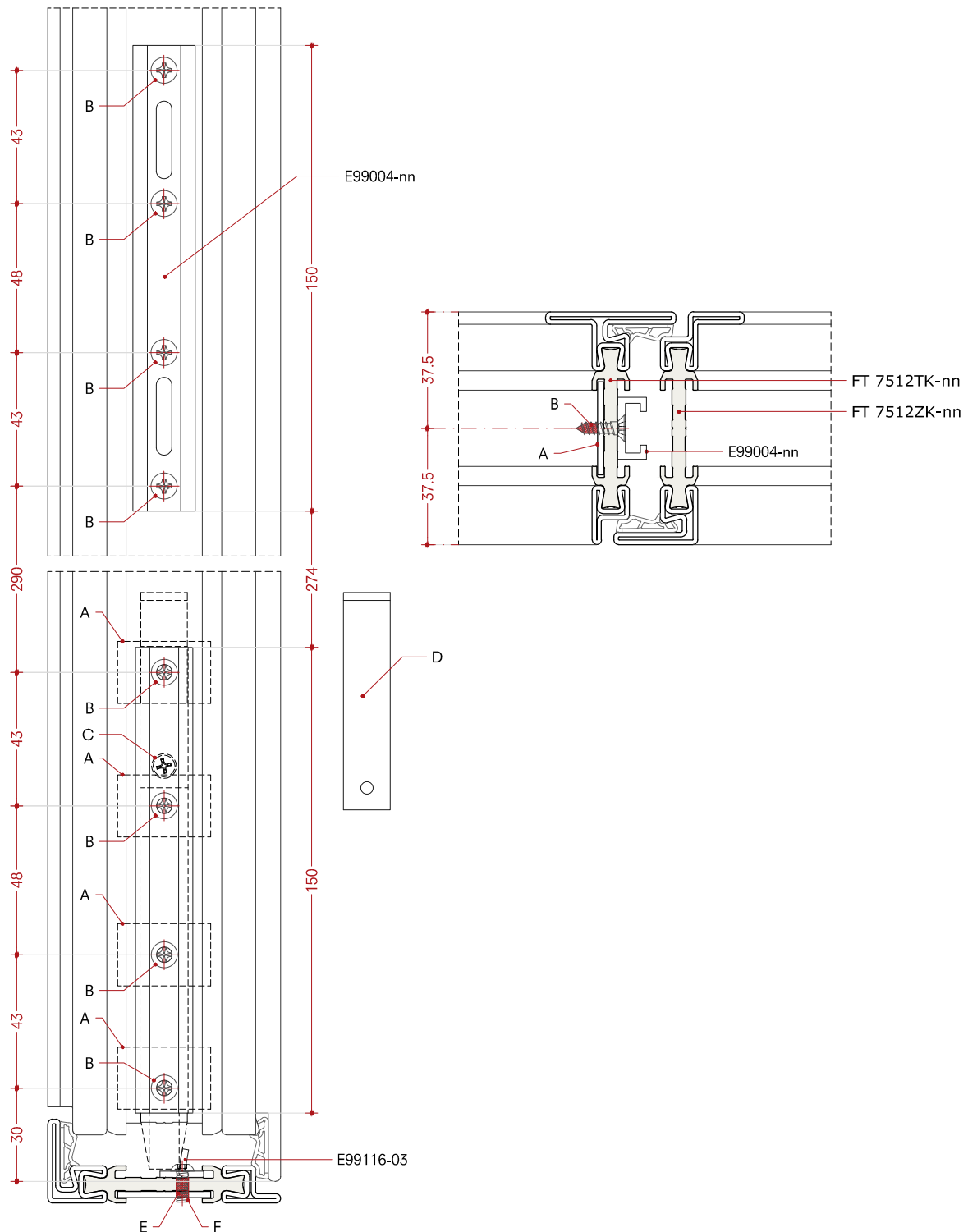
Extension E99004-nn for flush bolt  
 E99001-nn, E99002-nn, E99003-nn

**Montaggio**

Prolunga E99004-nn per catenaccio  
 E99001-nn, E99002-nn, E99003-nn

**Montaje**

Extensión E99004-nn para pasador de  
 canto E99001-nn, E99002-nn, E99003-nn

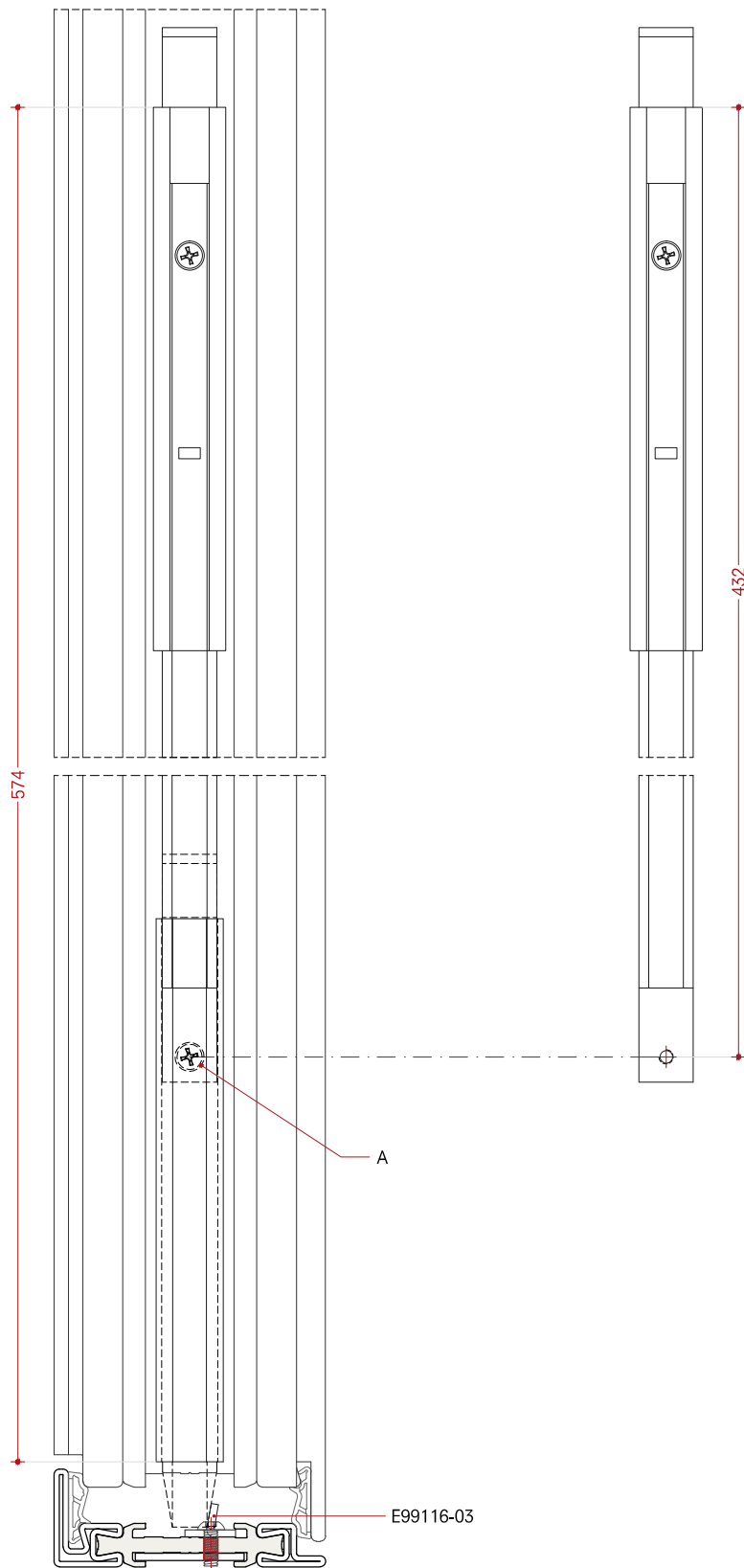


- A) 25x2 mm L=145 mm plate welded on profile (not provided)
- B) Fastening with Ø4.2x16 ISO7050 screws and cut the screws
- C) Remove this screw
- D) Remove the lever part
- E) M4 mm holes
- F) Fastening with M4x10 ISO7380 screws

- A) Piastra 25x2 mm L=145 mm saldata al profilo (non fornita)
- B) Fissaggio con viti Ø4.2x16 ISO7050 e accorciare la vite
- C) Rimuovere questa vite
- D) Rimuovere la parte della leva
- E) Fori M4
- F) Fissaggio con viti M4x10 ISO7380

- A) Placa 25x2 mm L=145 mm soldada en perfil (no provisto)
- B) Fijación con tornillos Ø4.2x16 ISO7050 y recortar tornillo
- C) Quitar este tornillo
- D) Retire la parte de la palanca
- E) Oreficios M4
- F) Fijación con tornillos M4x10 ISO7380





A) Fix the extension part with the screw

A) Fissare la prolunga con la vite

A) Arreglar la extensión con el tornillo

**Installation**

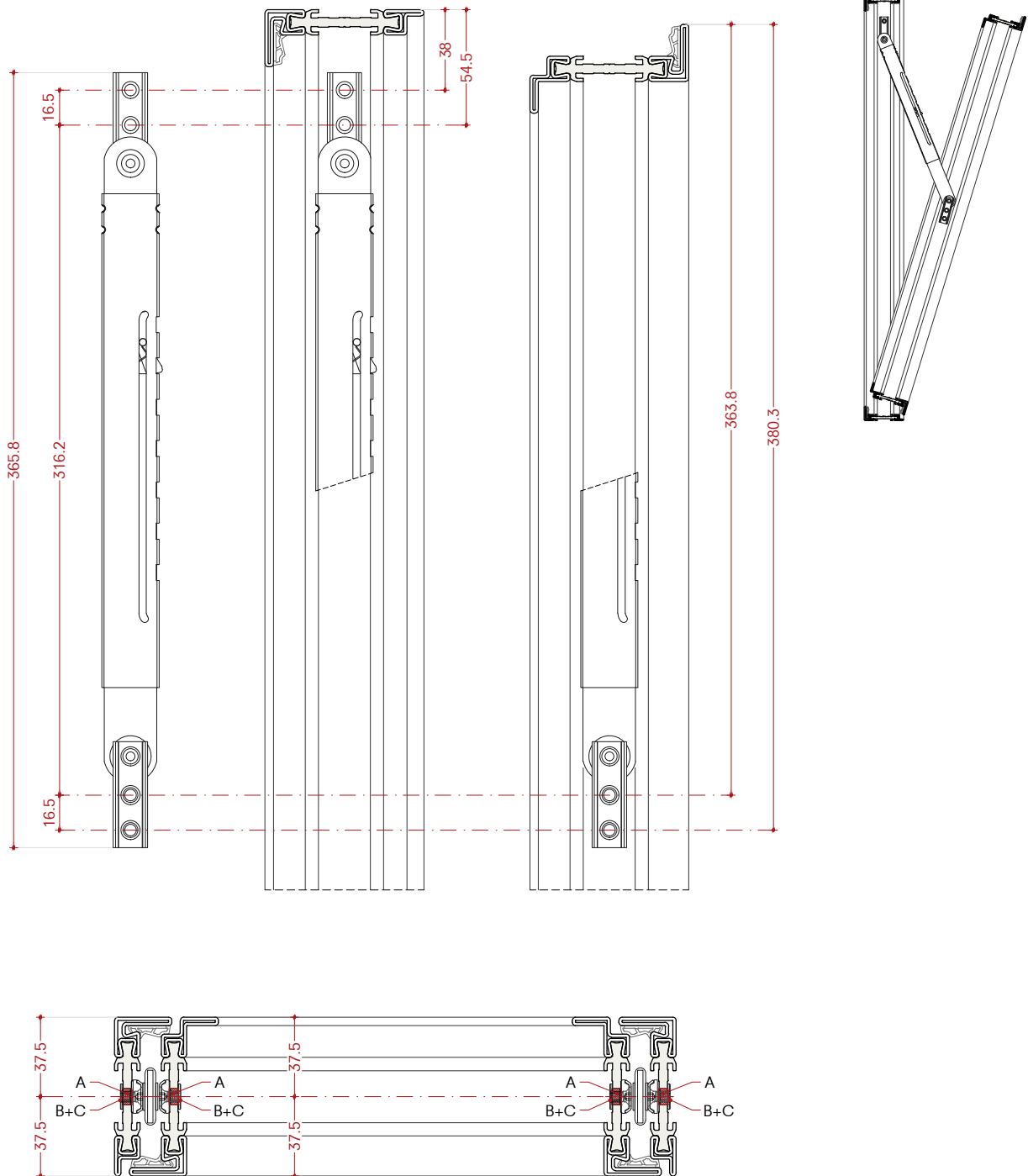
Opening restrictor E99205-05  
 Bottom hung open in window  
 Flush profiles

**Montaggio**

Limitatore di apertura E99205-05  
 Finestra a vasistas apertura interna  
 Profili complanari

**Montaje**

Limitador de apertura E99205-05  
 Ventana proyectante que se abre  
 hacia dentro - Perfiles coplanarios



Scale 1:3

- A) Ø7.5 mm holes
- B) D99702-08 M5 brass bushing
- C) Fastening with M5x10 ISO10642 screws

Scala 1:3

- A) Fori Ø7.5 mm
- B) D99702-08 Boccola in ottone M5
- C) Fissaggio con viti M5x10 ISO10642

Escala 1:3

- A) Oreficios Ø7.5 mm
- B) D99702-08 Casquillo en latón M5
- C) Fijación con tornillos M5x10 ISO10642

**Installation**

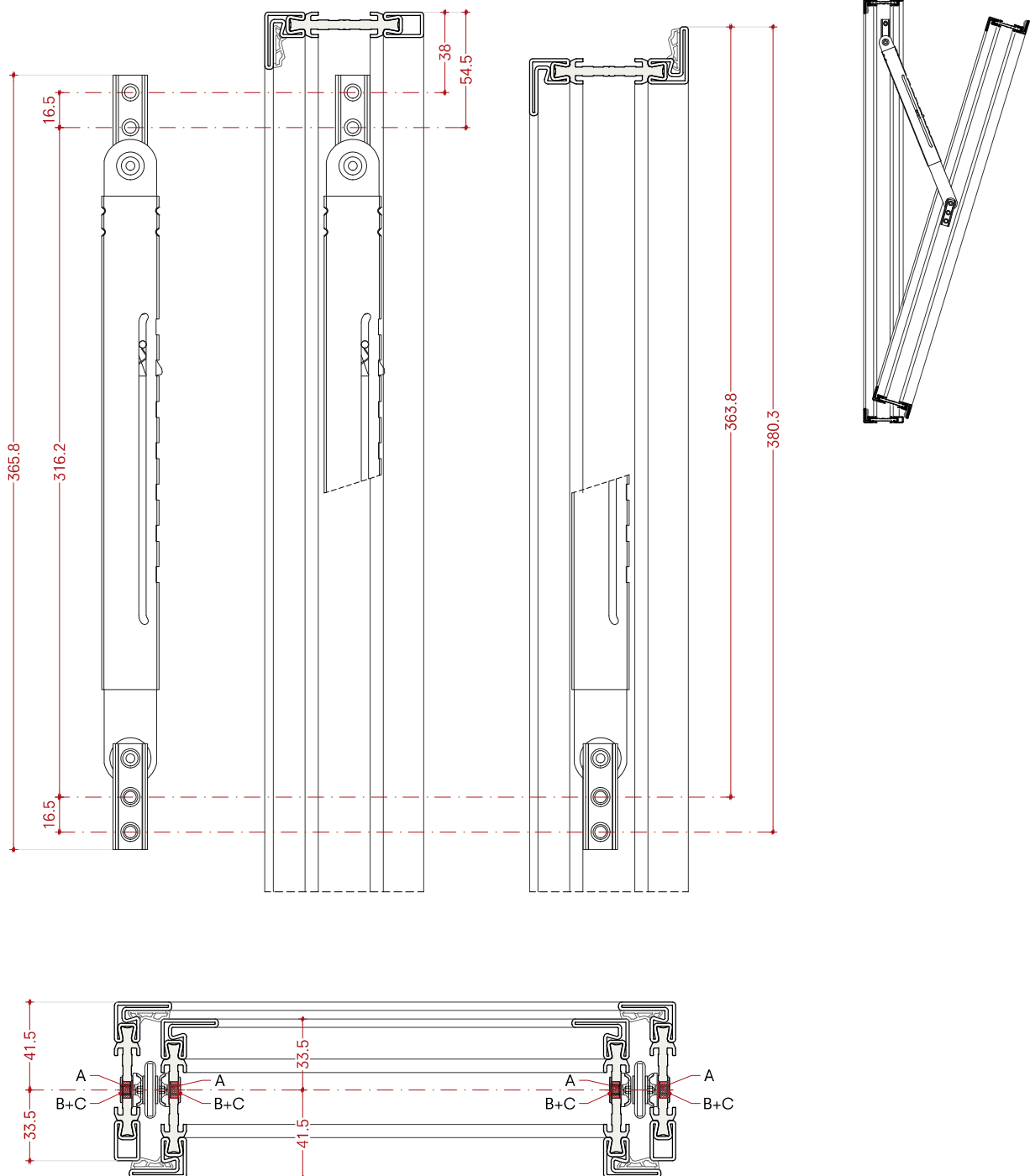
Opening restrictor E99205-05  
 Bottom hung open in window  
 Overlapped profiles

**Montaggio**

Limitatore di apertura E99205-05  
 Finestra a vasistas apertura interna  
 Profili a sormonto

**Montaje**

Limitador de apertura E99205-05  
 Ventana proyectante que se abre  
 hacia dentro - Perfiles superpuestos



Scale 1:3

- A) Ø7.5 mm holes
- B) D99702-08 M5 brass bushing
- C) Fastening with M5x10 ISO10642 screws

Scala 1:3

- A) Fori Ø7.5 mm
- B) D99702-08 Boccola in ottone M5
- C) Fissaggio con viti M5x10 ISO10642

Escala 1:3

- A) Oreficios Ø7.5 mm
- B) D99702-08 Casquillo en latón M5
- C) Fijación con tornillos M5x10 ISO10642

**Installation**

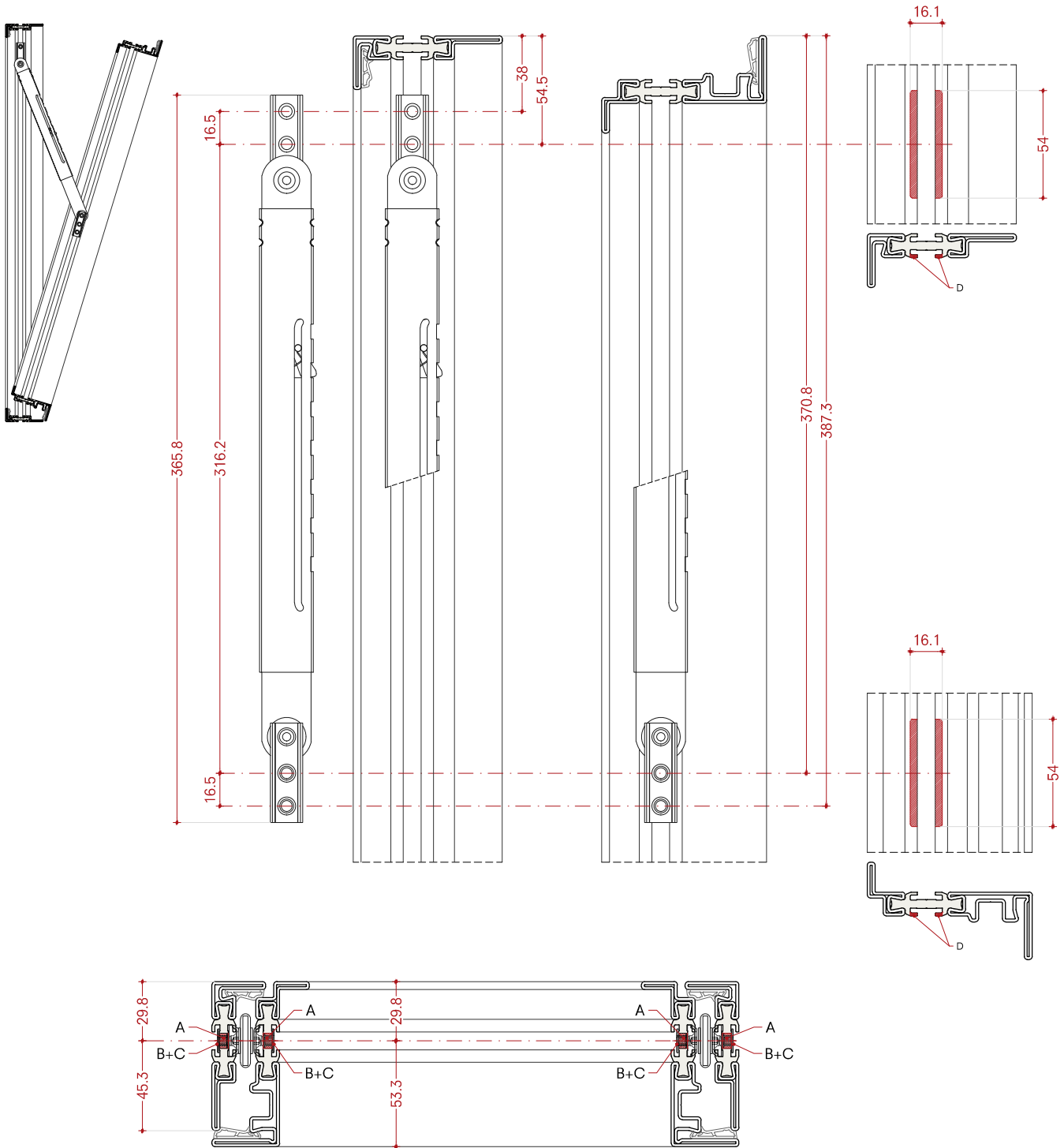
Opening restrictor E99205-05  
 Bottom hung open in window  
 Tilt&Turn profiles

**Montaggio**

Limitatore di apertura E99205-05  
 Finestra a vasistas apertura interna

**Montaje**

Limitador de apertura E99205-05  
 Ventana oscilante  
 que se abre hacia dentro



- A) Scale 1:3
- B) Ø7.5 mm holes
- C) D99702-08 M5 brass bushing
- D) Fastening with M5x10 ISO10642 screws
- E) Cut off profile

- A) Scala 1:3
- B) Fori Ø7.5 mm
- C) D99702-08 Boccola in ottone M5
- D) Fissaggio con viti M5x10 ISO10642
- E) Taglio del profilo

- A) Escala 1:3
- B) Oreficios Ø7.5 mm
- C) D99702-08 Casquillo en latón M5
- D) Fijación con tornillos M5x10 ISO10642
- E) Fresado de perfil

**Installation**

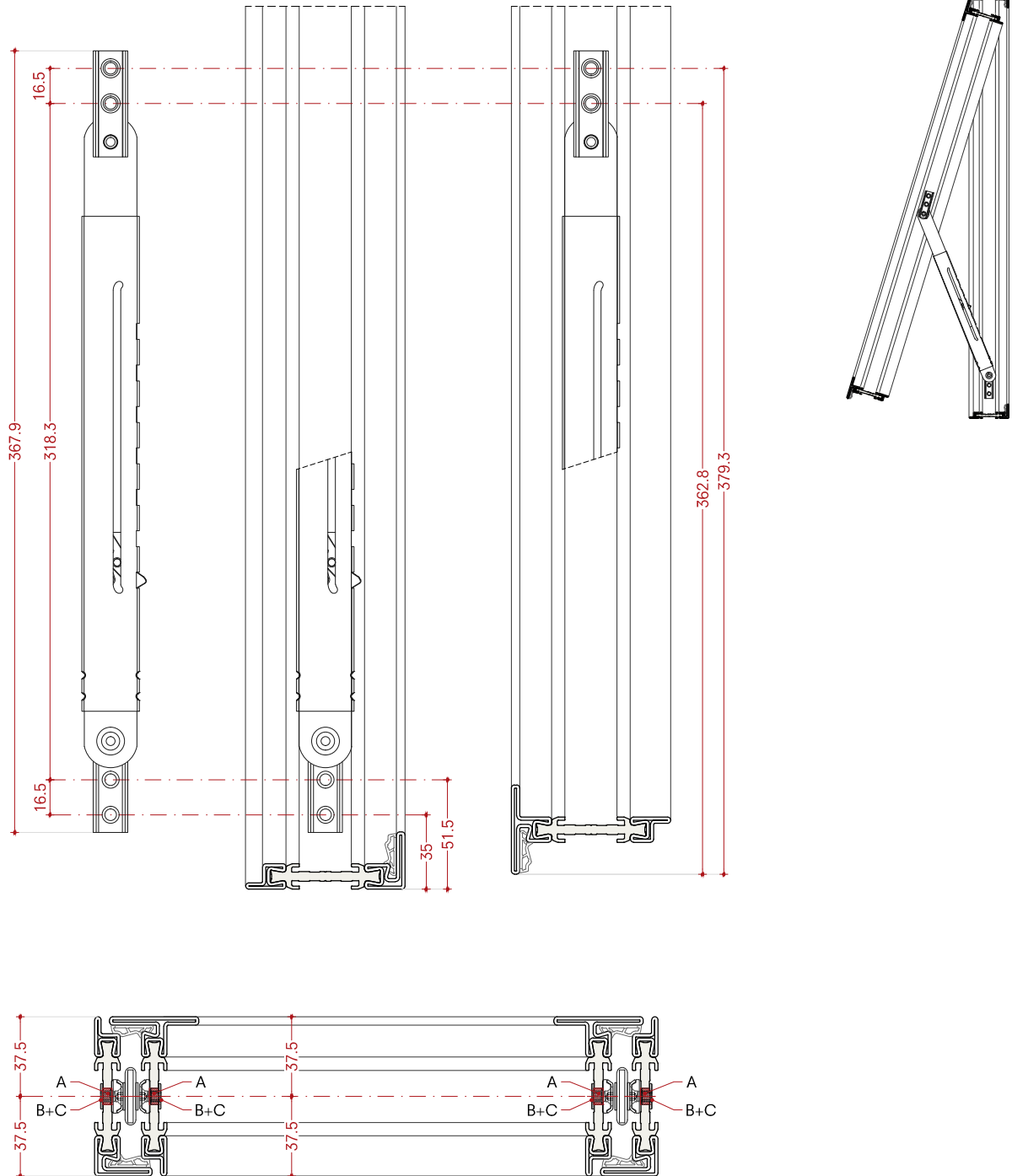
Opening restrictor E99203-05  
 Top hung open out window  
 Flush profiles

**Montaggio**

Limitatore di apertura E99203-05  
 Finestra a sporgere apertura esterna  
 Profili complanari

**Montaje**

Limitador de apertura E99203-05  
 Ventana proyectante que se abre hacia fuera - Perfiles coplanarios



Scale 1:3

- A) Ø7.5 mm holes
- B) D99702-08 M5 brass bushing
- C) Fastening with M5x10 ISO10642 screws

Scala 1:3

- A) Fori Ø7.5 mm
- B) D99702-08 Boccola in ottone M5
- C) Fissaggio con viti M5x10 ISO10642

Escala 1:3

- A) Oreficios Ø7.5 mm
- B) D99702-08 Casquillo en latón M5
- C) Fijación con tornillos M5x10 ISO10642

**Installation**

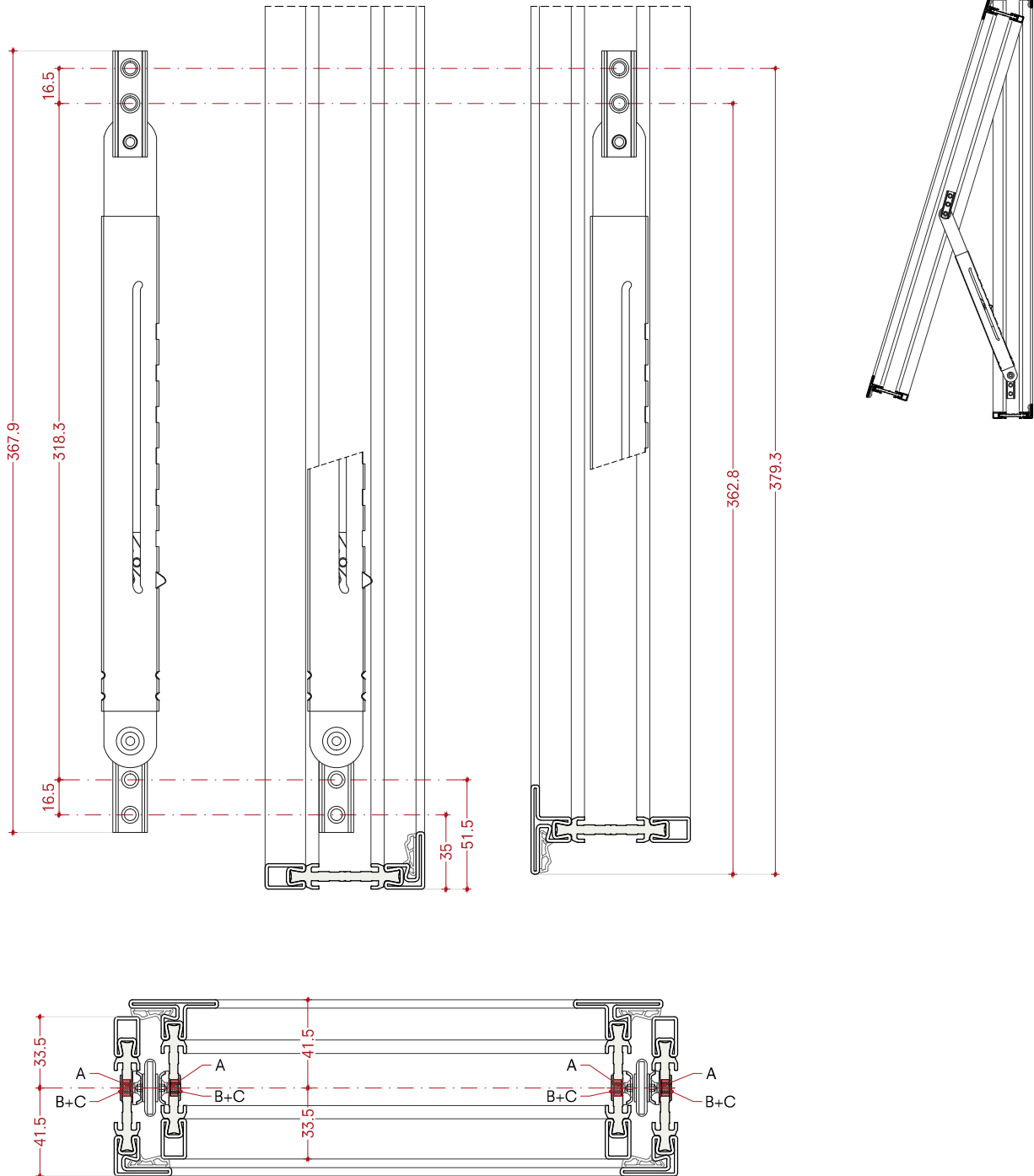
Opening restrictor E99203-05  
 Top hung open out window  
 Overlapped profiles

**Montaggio**

Limitatore di apertura E99203-05  
 Finestra a sporgere apertura esterna  
 Profili a sormonto

**Montaje**

Limitador de apertura E99203-05  
 Ventana proyectante que se abre  
 hacia fuera - Perfiles superpuestos



Scale 1:3

- A) Ø7.5 mm holes
- B) D99702-08 M5 brass bushing
- C) Fastening with M5x10 ISO10642 screws

Scala 1:3

- A) Fori Ø7.5 mm
- B) D99702-08 Boccola in ottone M5
- C) Fissaggio con viti M5x10 ISO10642

Escala 1:3

- A) Oreficios Ø7.5 mm
- B) D99702-08 Casquillo en latón M5
- C) Fijación con tornillos M5x10 ISO10642



**Installation**

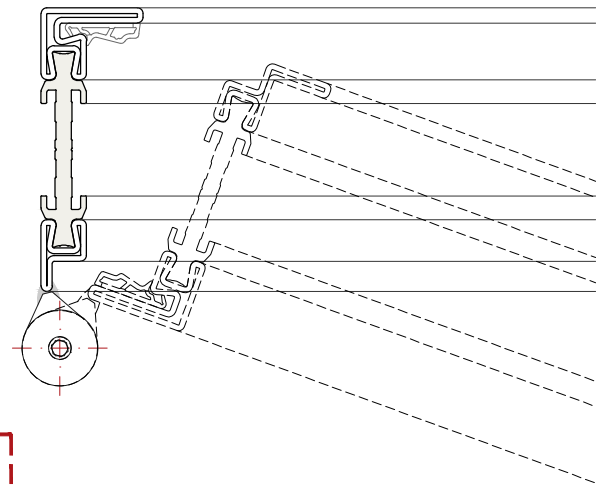
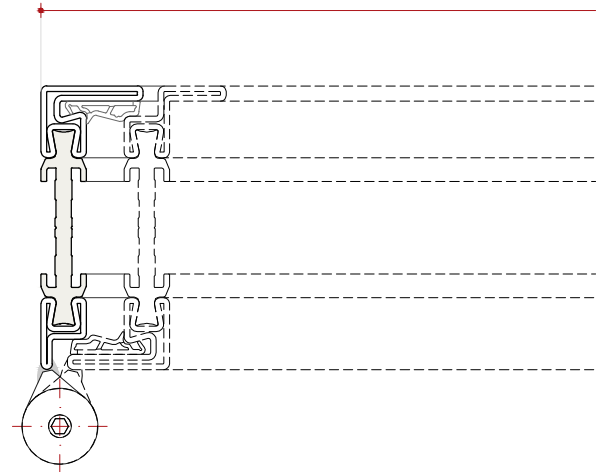
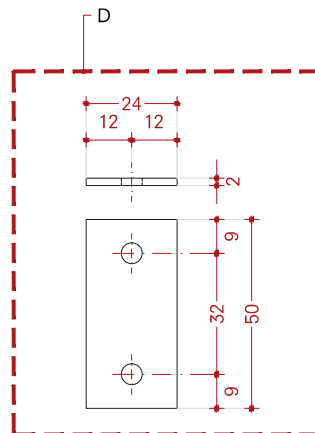
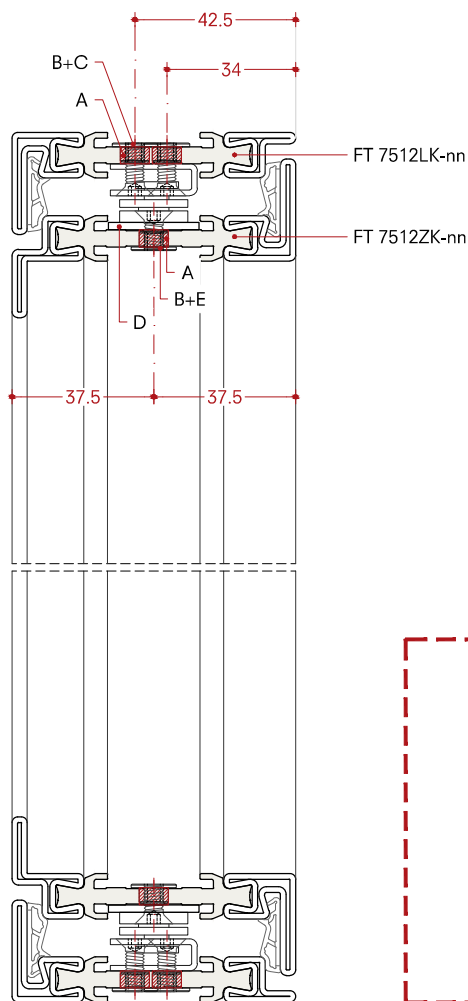
Opening restrictor E99201-02  
 Open in window  
 Flush profiles

**Montaggio**

Limitatore di apertura E99201-02  
 Finestra apertura interna  
 Profili complanari

**Montaje**

Limitador de apertura E99201-02  
 Ventana que se abre hacia dentro  
 Perfiles coplanarios

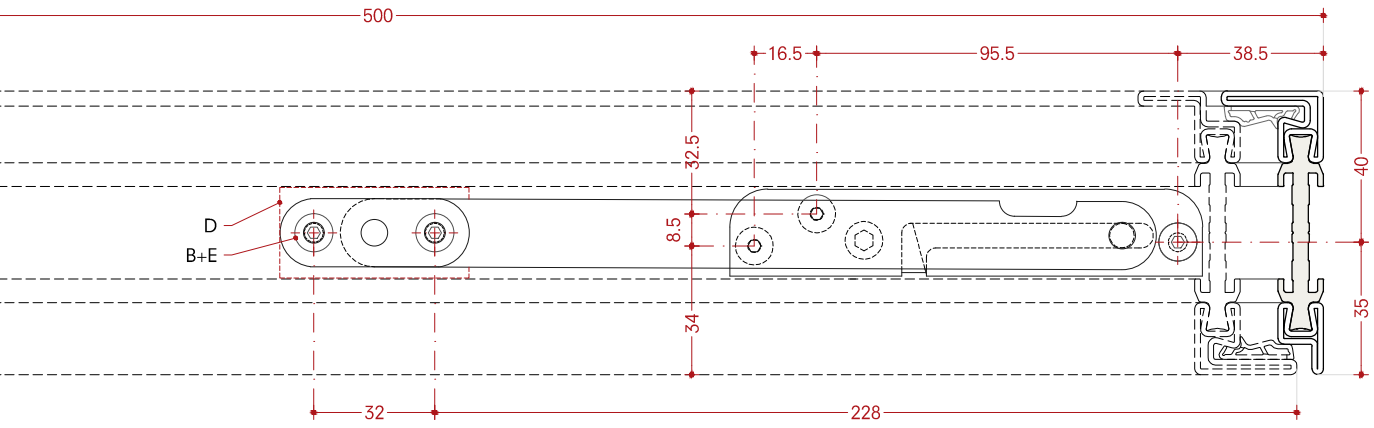


- A) Ø7.5 mm holes
- B) D99702-08 M5 brass bushing
- C) Fastening with M5x14 ISO10642 screws
- D) 50x24x2 mm plate (not provided)
- E) Fastening with M5x10 ISO10642 screws

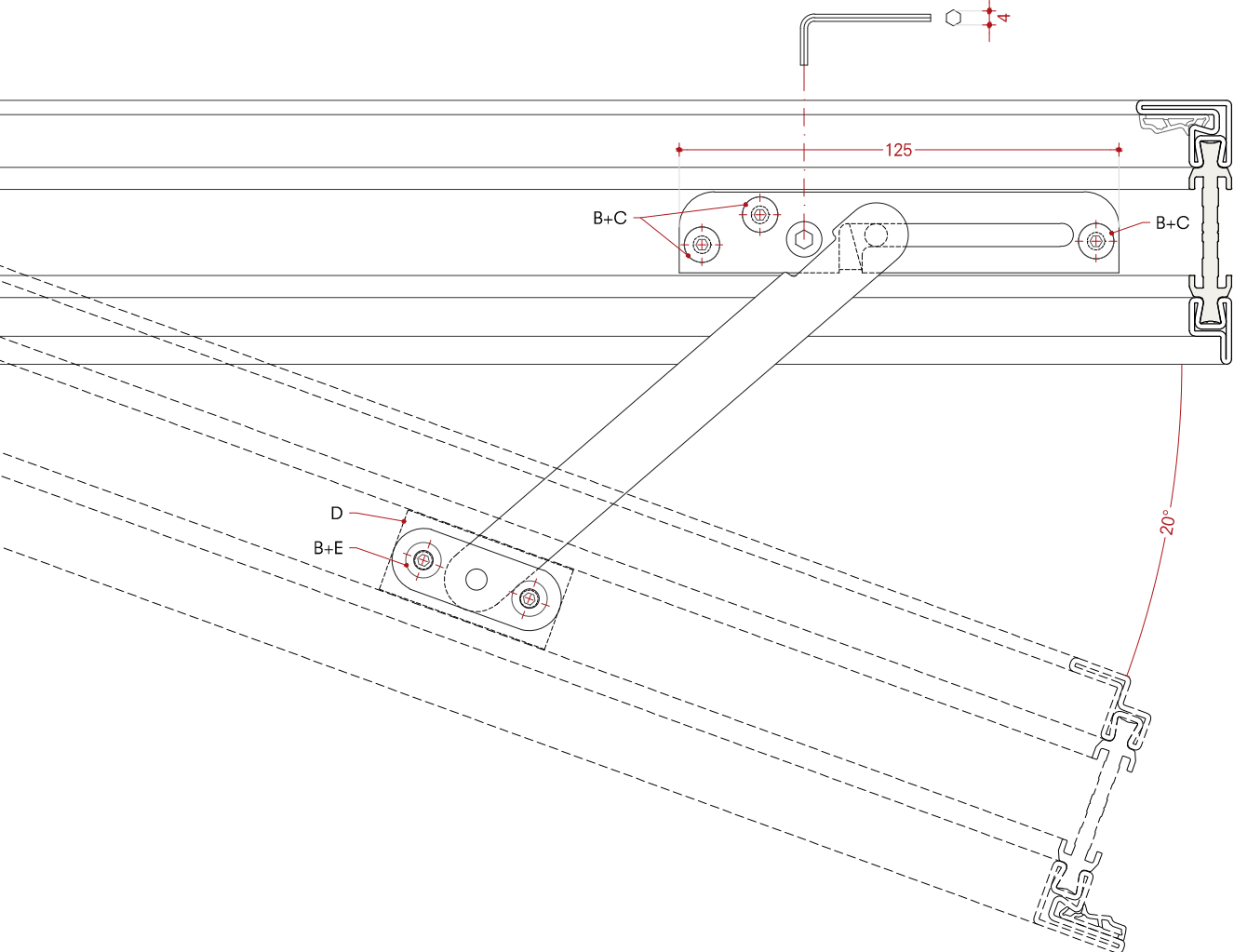
- A) Fori Ø7.5 mm
- B) D99702-08 Boccola in ottone M5
- C) Fissaggio con viti M5x14 ISO10642
- D) Piastra 50x24x2 mm (non fornita)
- E) Fissaggio con viti M5x10 ISO10642

- A) Oreficios Ø7.5 mm
- B) D99702-08 Casquillo en latón M5
- C) Fijación con tornillos M5x14 ISO10642
- D) Placa 50x24x2 mm (no provisto)
- E) Fijación con tornillos M5x10 ISO10642





Turn the screw to unlock the leaf  
 Girare la vite per sbloccare l'anta  
 Gire el tornillo para desbloquear la hoja



**Installation**

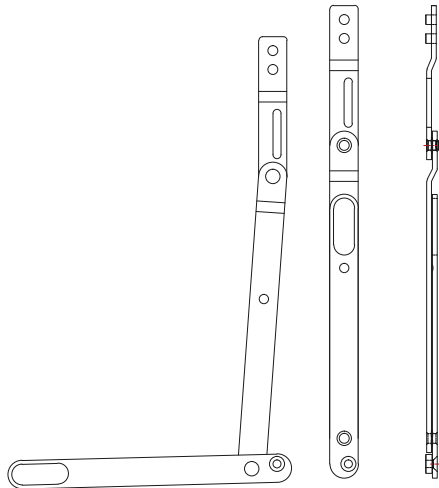
Upper and lower long shoot bolt  
 E99040-04 - E99041-04

**Montaggio**

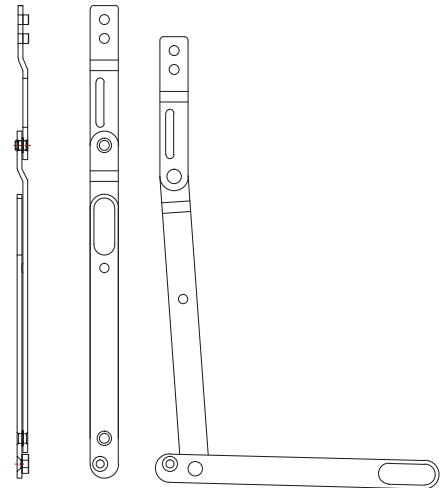
Catenaccio lungo superiore e inferiore  
 E99040-04 - E99041-04

**Montaje**

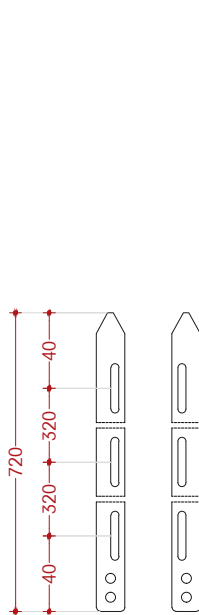
Pasador de canto largo superior y inferior  
 E99040-04 - E99041-04



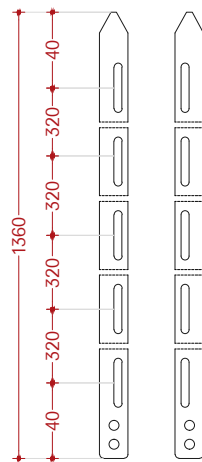
E99040-04



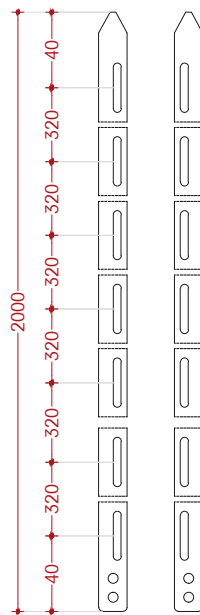
E99041-04



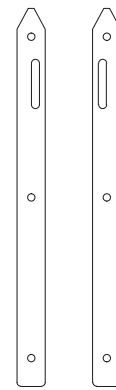
E99042-04  
 L=720 mm



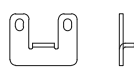
E99043-04  
 L=1360 mm



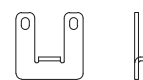
E99044-04  
 L=2000 mm



E99045-04

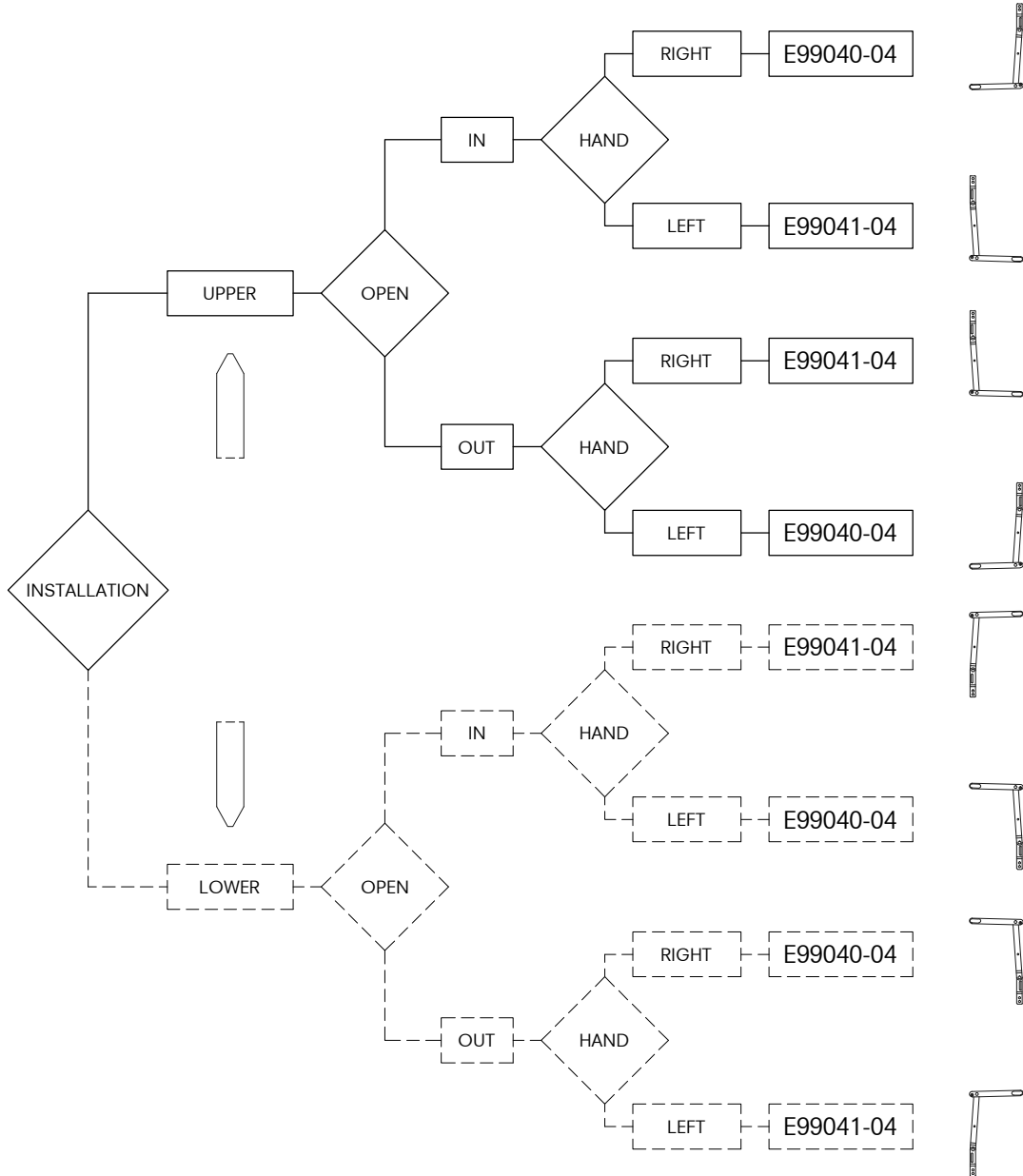


E99052-04

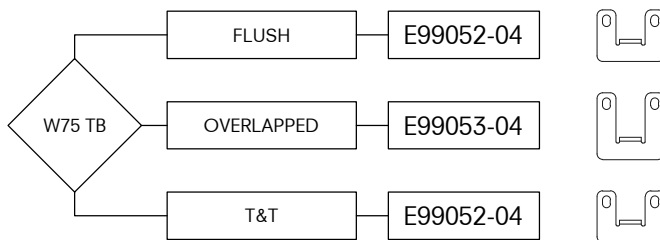


E99053-04

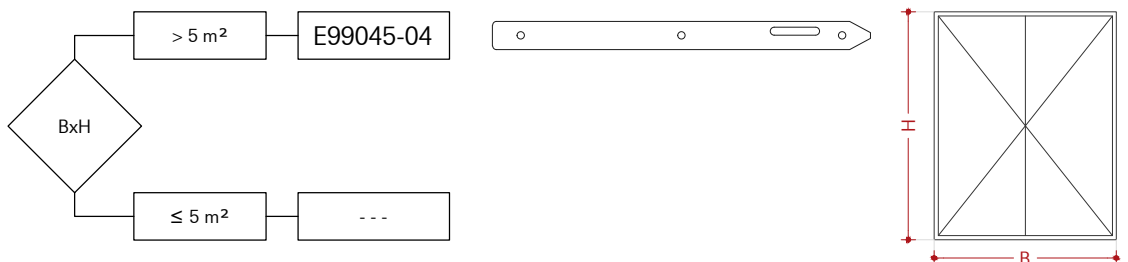
Lever  
 Leva  
 Palanca



Strike plate  
 Riscontro  
 Pieza de bloqueo



Reinforcement  
 Rinforzo  
 Reforzamiento



**Installation**

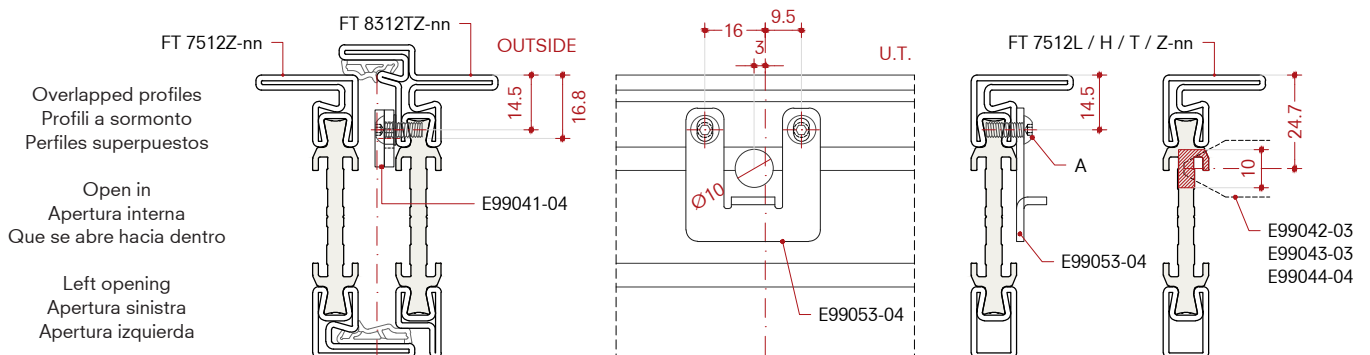
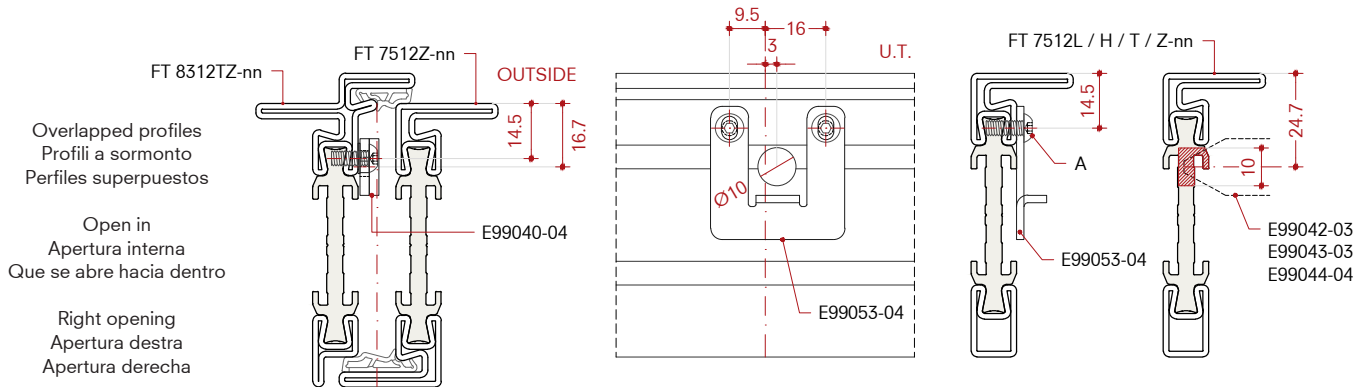
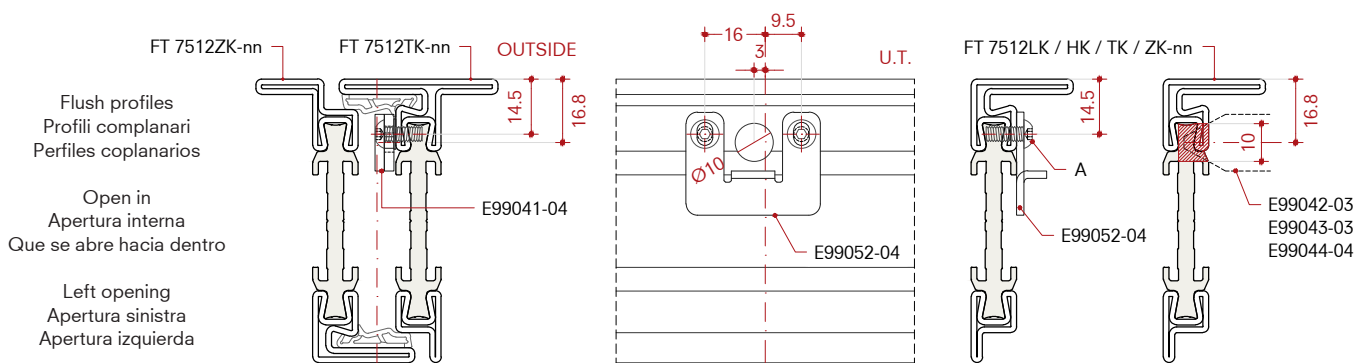
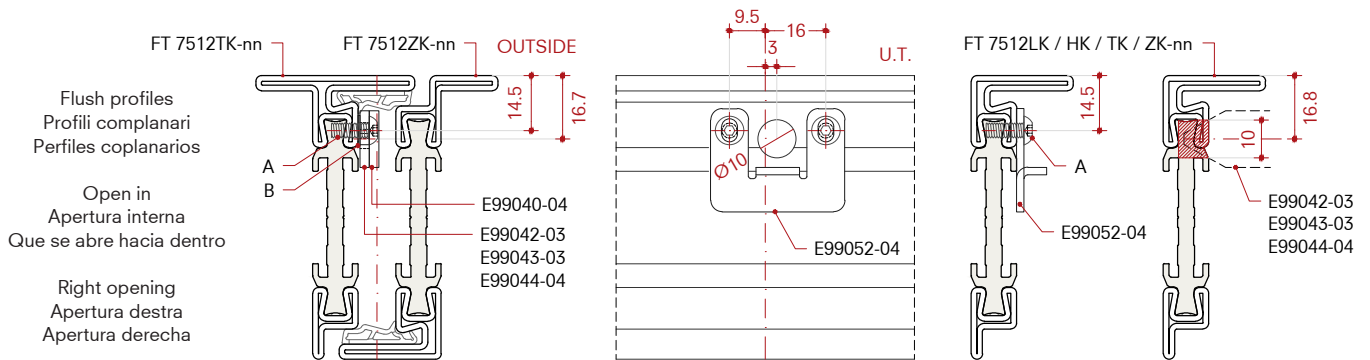
Upper long shoot bolt  
 E99040-04 - E99041-04

**Montaggio**

Catenaccio lungo superiore  
 E99040-04 - E99041-04

**Montaje**

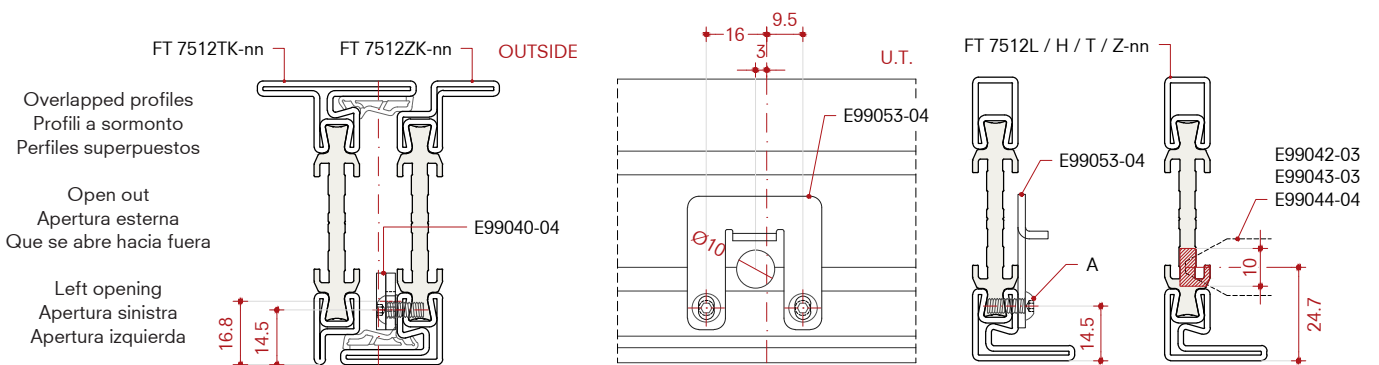
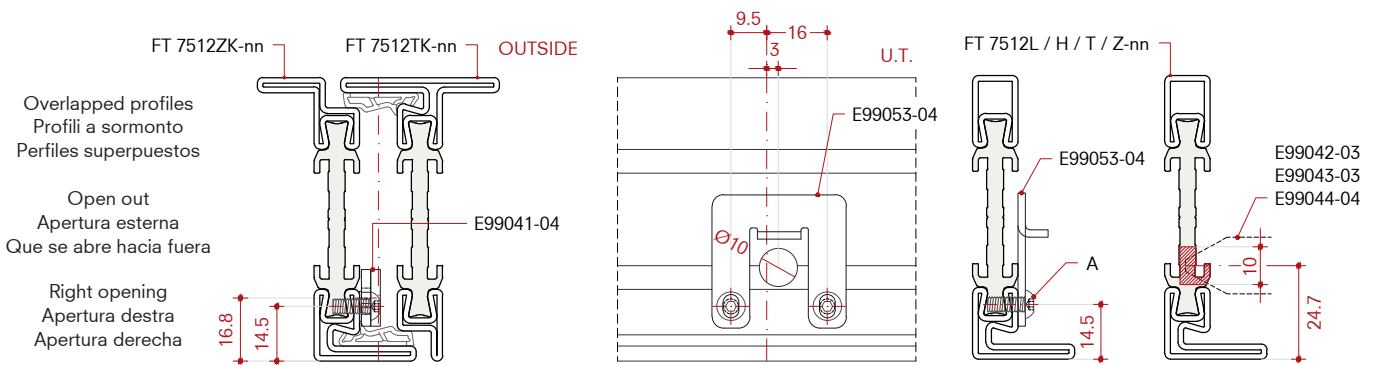
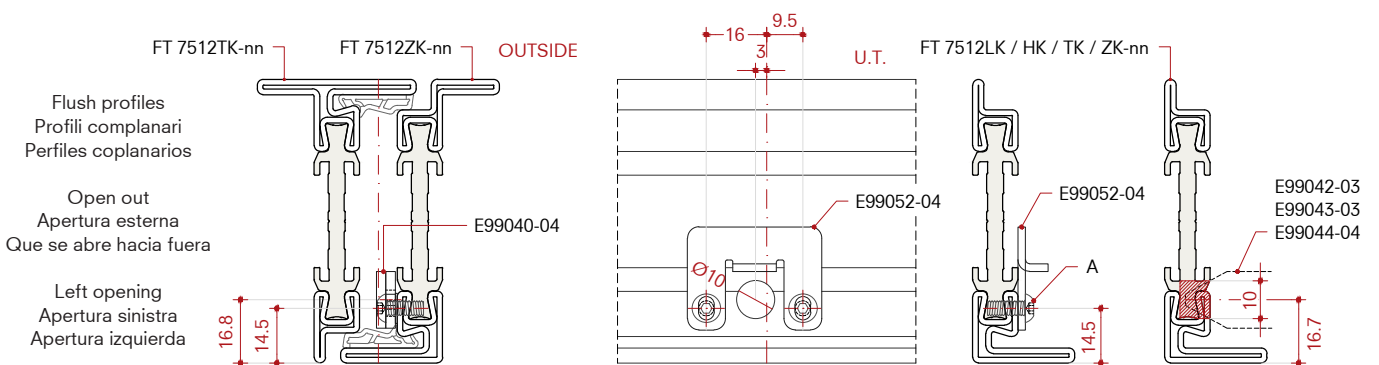
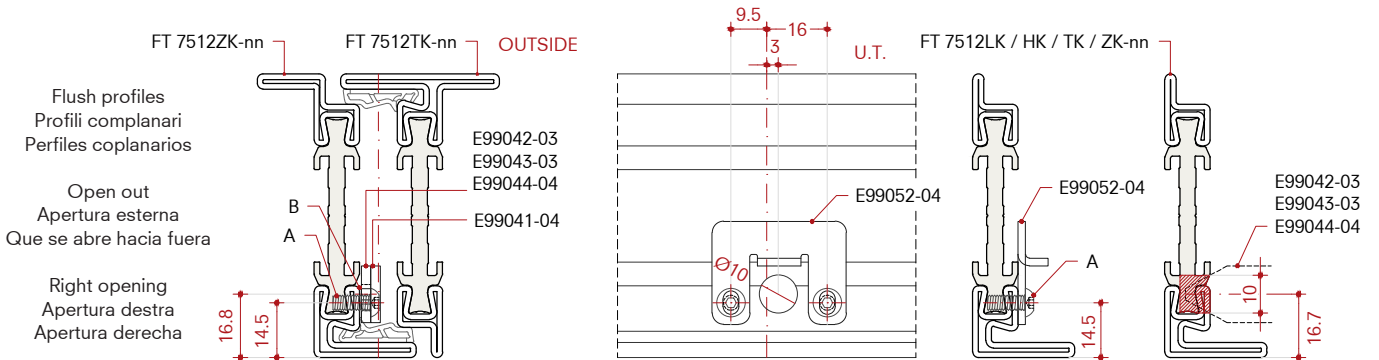
Pasador de canto largo superior  
 E99040-04 - E99041-04



U.T. = Upper Transom  
 A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)

U.T. = Traverso superiore  
 A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)

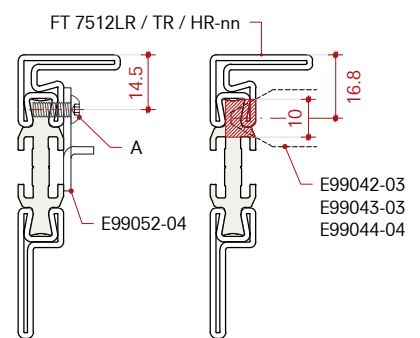
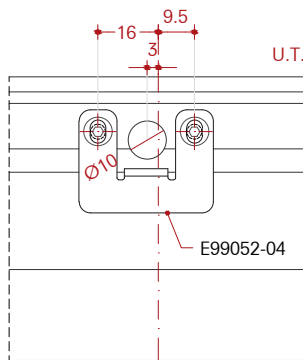
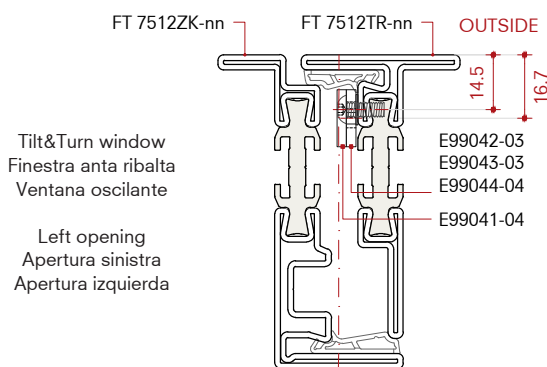
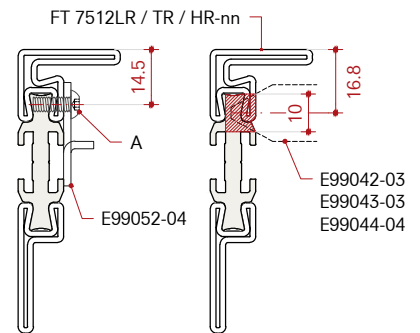
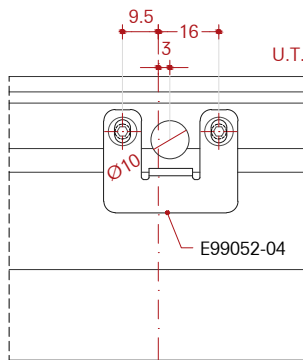
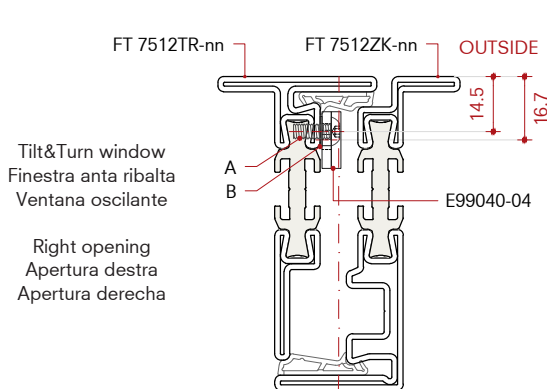
U.T. = Travesía superior  
 A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)



U.T. = Upper Transom  
 A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)

U.T. = Traverso superiore  
 A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)

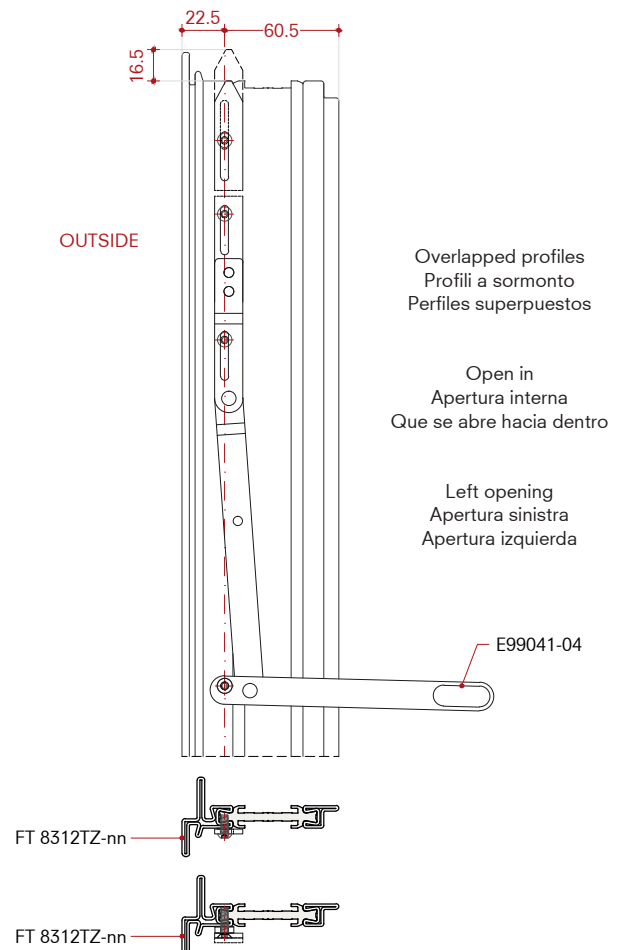
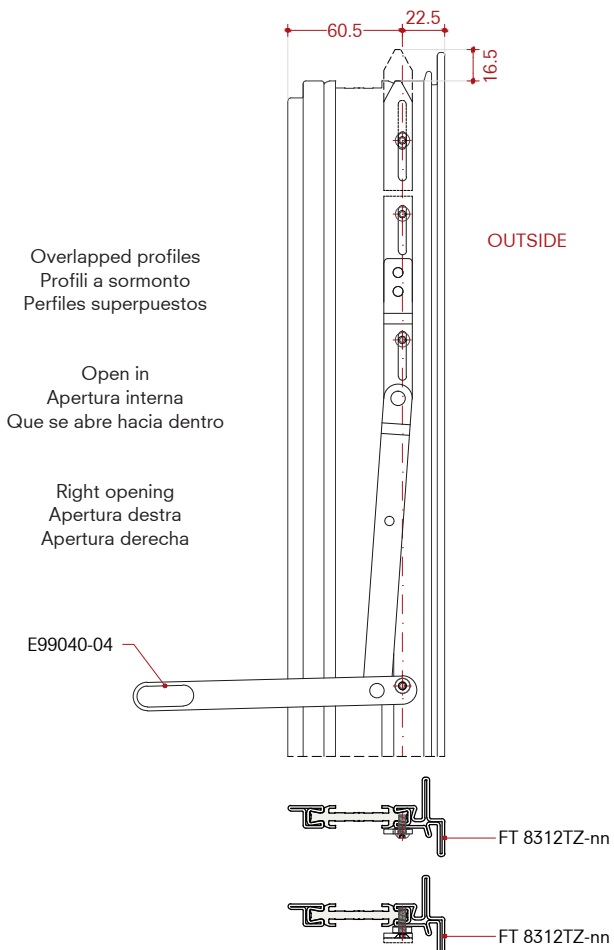
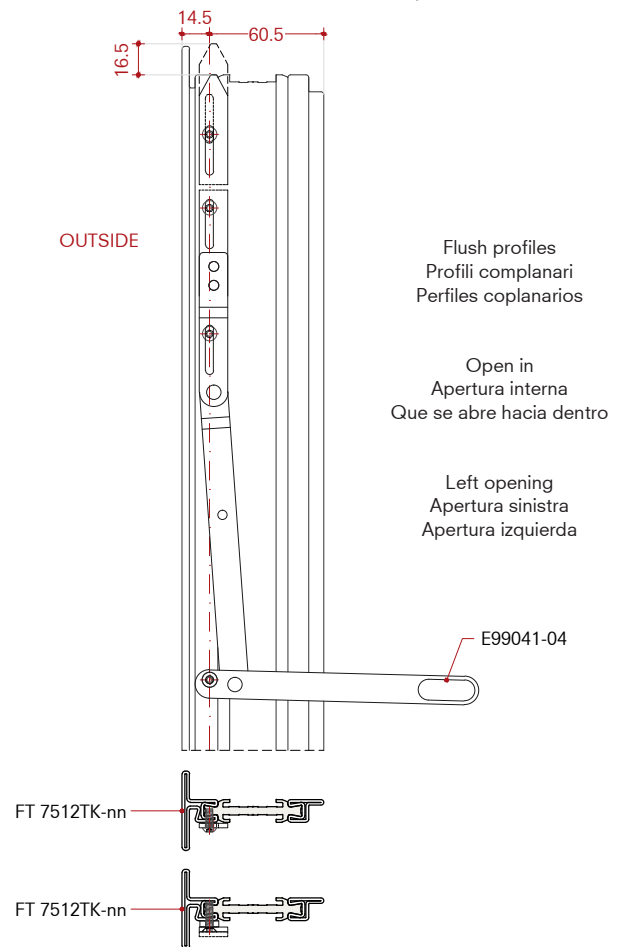
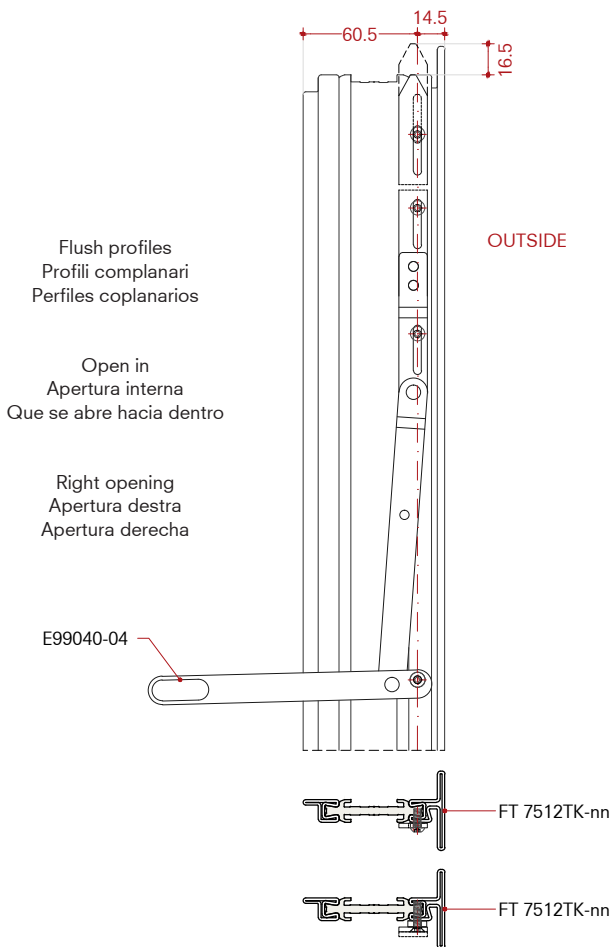
U.T. = Travesa superior  
 A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)

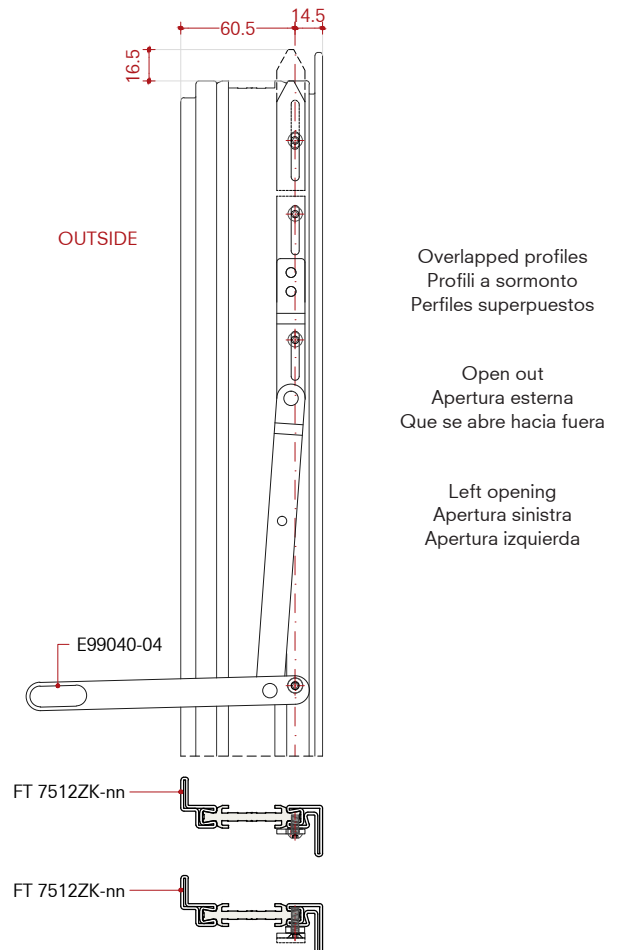
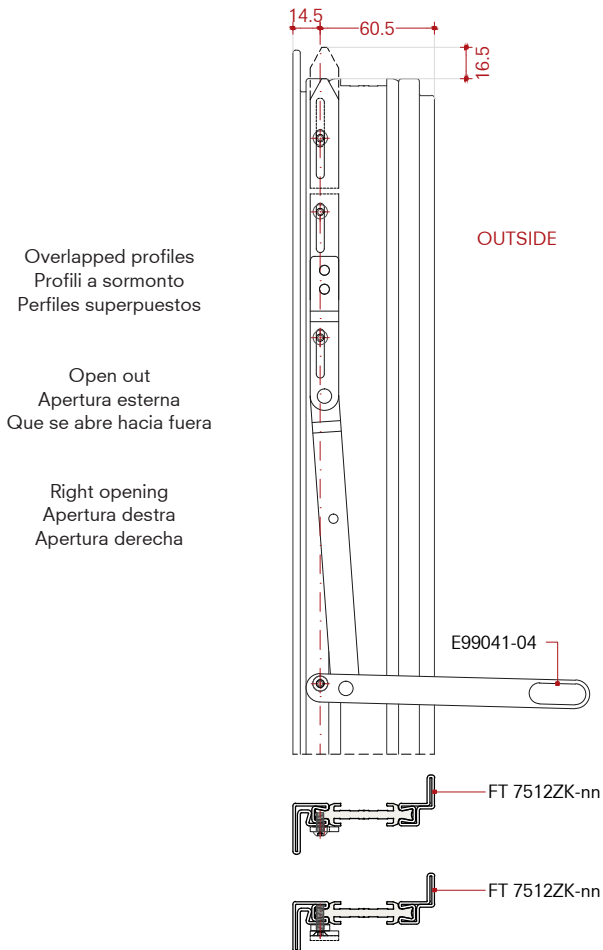
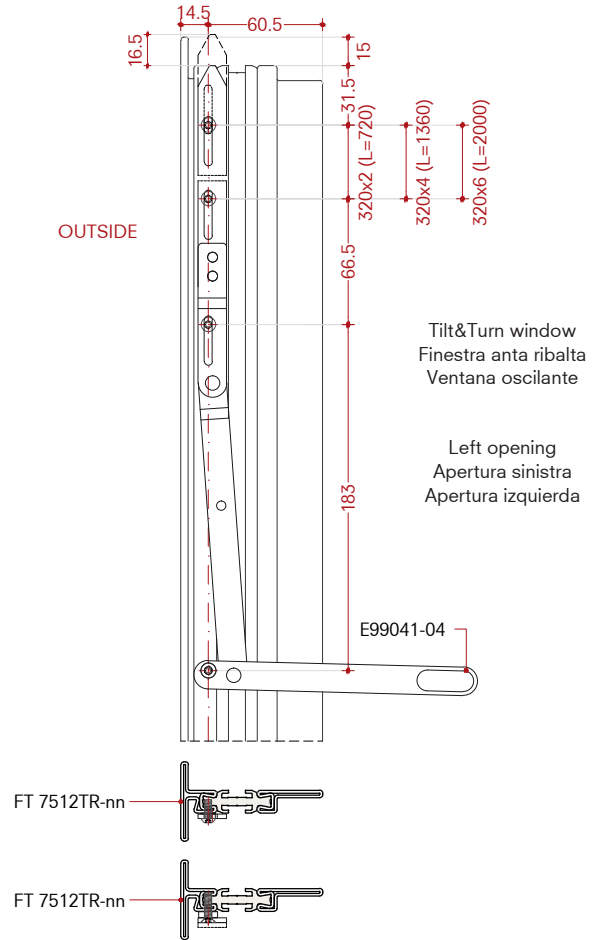
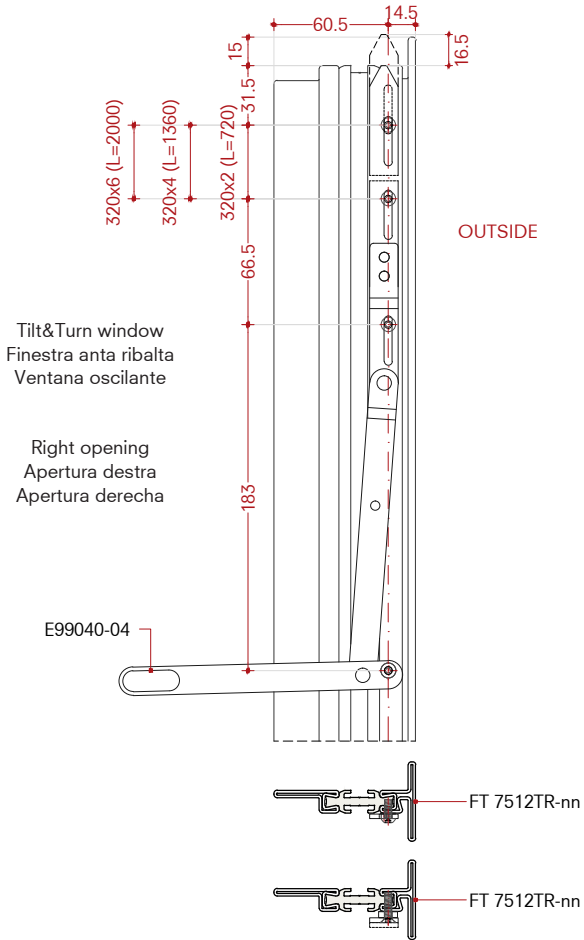


U.T. = Upper Transom  
 A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)

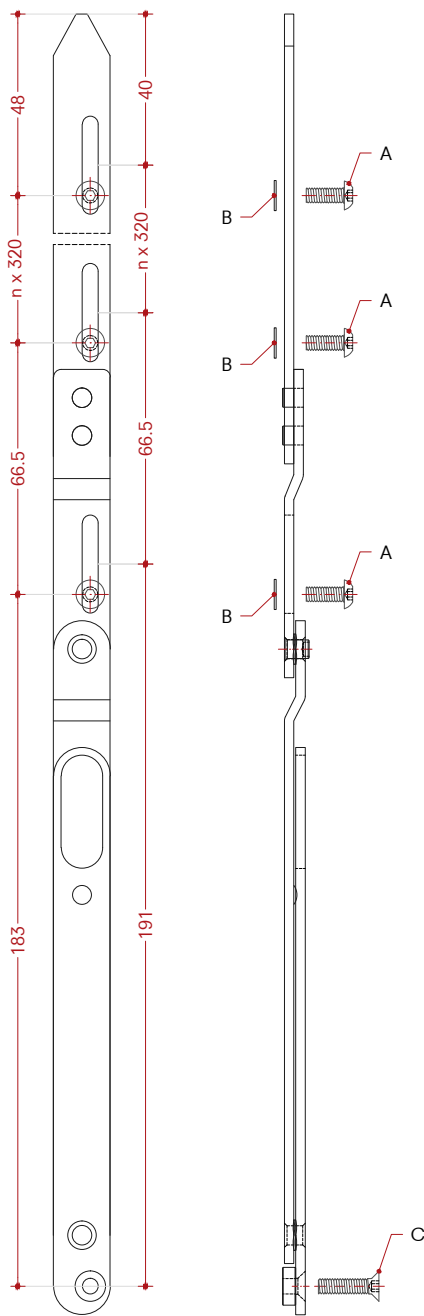
U.T. = Traverso superiore  
 A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)

U.T. = Travesía superior  
 A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)

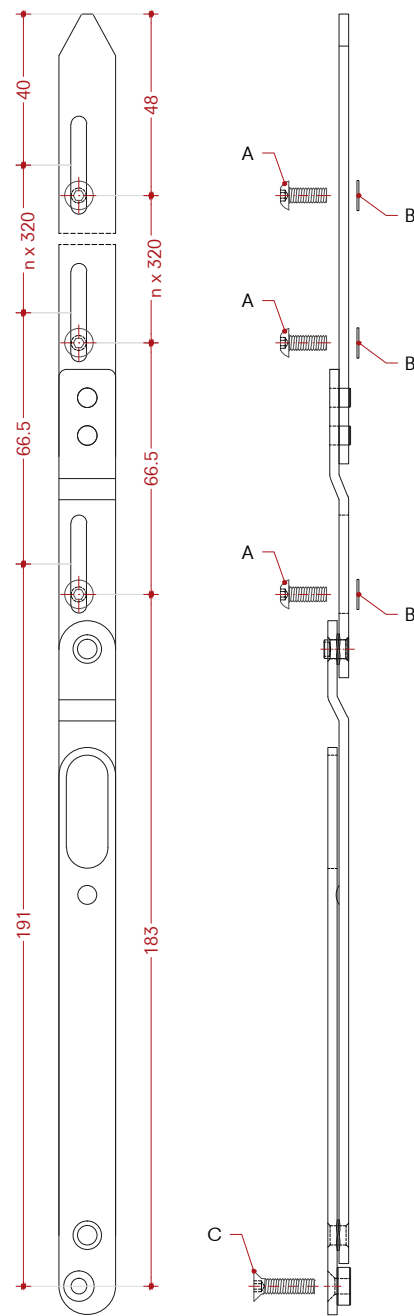








E99040-04



E99041-04

|      | Cod.             | L (mm) |                                 |
|------|------------------|--------|---------------------------------|
| n° 2 | <b>E99042-04</b> | 720    | (Right-Open in / Left-Open out) |
| n° 4 | <b>E99043-04</b> | 1360   | (Right-Open in / Left-Open out) |
| n° 6 | <b>E99044-04</b> | 2000   | (Right-Open in / Left-Open out) |

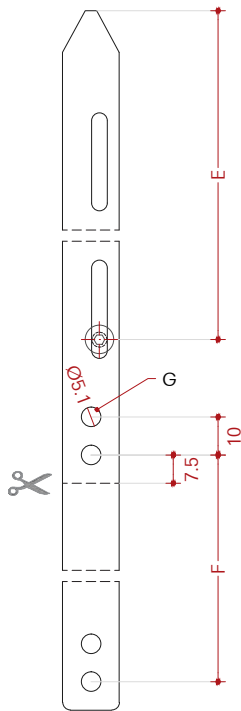
|      | Cod.             | L (mm) |                                 |
|------|------------------|--------|---------------------------------|
| n° 2 | <b>E99042-04</b> | 720    | (Left-Open in / Right-Open out) |
| n° 4 | <b>E99043-04</b> | 1360   | (Left-Open in / Right-Open out) |
| n° 6 | <b>E99044-04</b> | 2000   | (Left-Open in / Right-Open out) |

A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)  
 C) Fastening with M4x16 ISO10642 screws

A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)  
 C) Fissaggio con viti M4x16 ISO10642

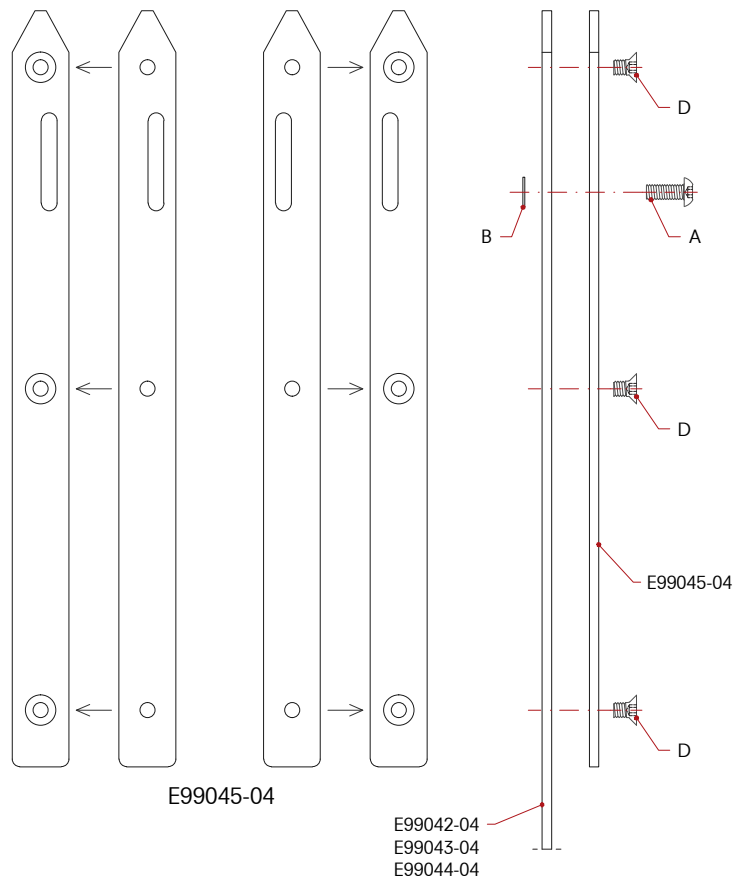
A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)  
 C) Fijación con tornillos M4x16 ISO10642

Cropping rod  
 Taglio dell'asta  
 Corte de subasta

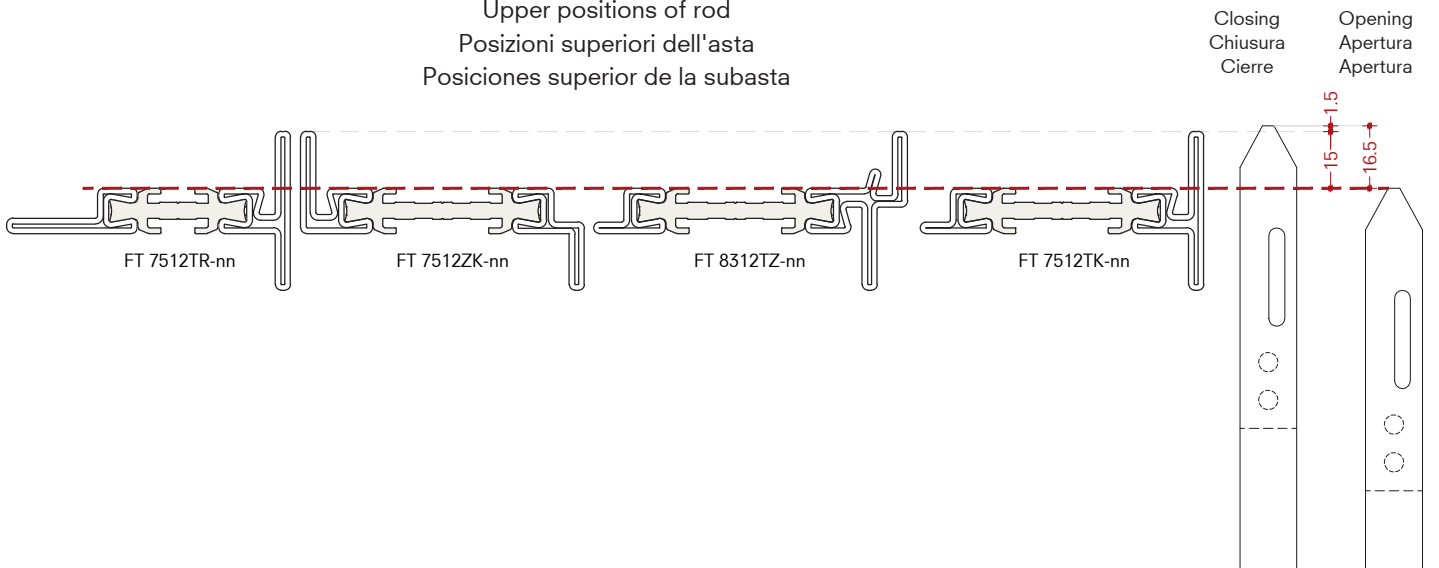


E99042-04  
 E99043-04  
 E99044-04

Reinforcement rod  
 Asta di rinforzo  
 Subasta de reforzamiento



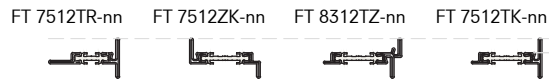
Upper positions of rod  
 Posizioni superiori dell'asta  
 Posiciones superior de la subasta



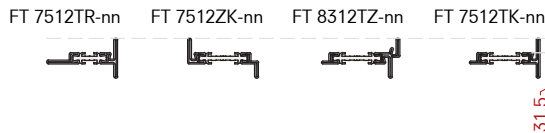
- A) Fastening with M4x10 ISO7380 screws
- B) M4 A2 DIN433 washer (not provided)
- D) Fastening with M4x6 ISO10642 screws and cut the screws (not provided)
- E) No variation beyond first slot above cropping
- F) Cropping (reference to allowable cropping fields)
- G) Redrill new Ø5.1 mm holes

- A) Fissaggio con viti M4x10 ISO7380
- B) Rondella M4 A2 DIN433 (non fornita)
- D) Fissaggio con viti M4x6 ISO10642 e accorciare le viti (non fornita)
- E) Nessuna variazione oltre il primo slot sopra il ritaglio
- F) Ritaglio (riferimento ai campi di ritaglio consentiti)
- G) Ritrapanare nuovi fori Ø5.1 mm

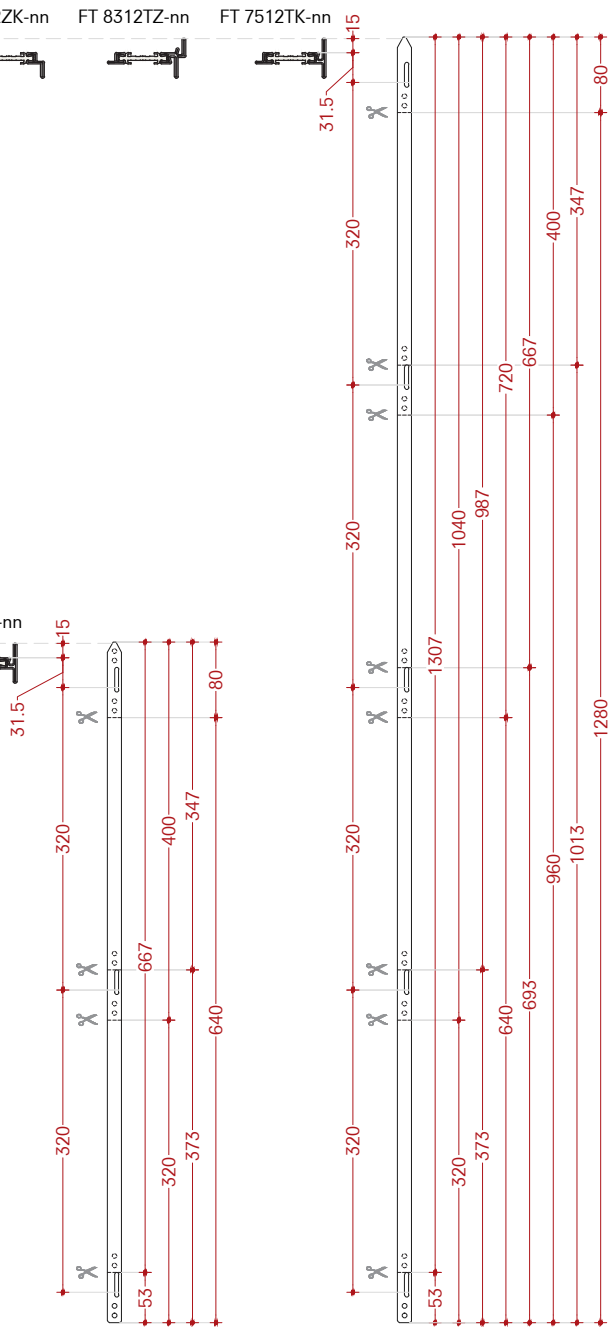
- A) Fijación con tornillos M4x10 ISO7380
- B) Arandela M4 A2 DIN433 (no provisto)
- D) Fijación con tornillos M4x6 ISO10642 y recortar tornillos (no provisto)
- E) Sin variación más allá del primer espacio por encima del recorte
- F) Cultivo (referencia a los campos de cultivo permitidos)
- G) Perforar nuevos orificios de Ø5.1 mm



| Cod.             | L (mm) | Cropping fields | Screw position from top of profile |
|------------------|--------|-----------------|------------------------------------|
| <b>E99044-04</b> | 2000   | 53 - 320        | 31.5 / 320 (x5)                    |
|                  |        | 373 - 640       | 31.5 / 320 (x4)                    |
|                  |        | 693 - 960       | 31.5 / 320 (x3)                    |
|                  |        | 1013 - 1280     | 31.5 / 320 (x2)                    |
|                  |        | 1333 - 1600     | 31.5 / 320 (x1)                    |
|                  |        | 1653 - 1920     | 31.5                               |



| Cod.             | L (mm) | Cropping fields | Screw position from top of profile |
|------------------|--------|-----------------|------------------------------------|
| <b>E99043-04</b> | 1360   | 53 - 320        | 31.5 / 320 (x3)                    |
|                  |        | 373 - 640       | 31.5 / 320 (x2)                    |
|                  |        | 693 - 960       | 31.5 / 320 (x1)                    |
|                  |        | 1013 - 1280     | 31.5                               |
|                  |        |                 |                                    |



**NOTE:**  
 Only right installation is represent.

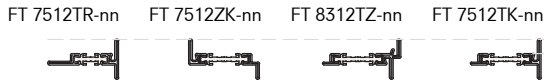
Fastening screw position is referred to the body of profile.

**Nota:**  
 Viene rappresentata solo l'installazione destra.

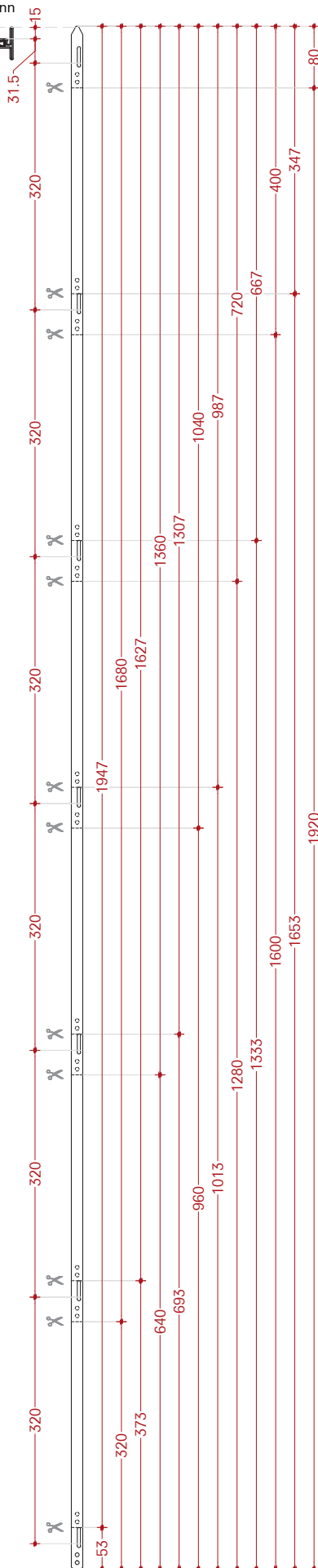
La posizione della vite di fissaggio è riferita al corpo del profilo.

**Nota:**  
 Solo se muestra la instalación derecha.

La posición de los tornillos de fijación se refiere al cuerpo del perfil.



| Cod.             | L (mm) | Cropping fields | Screw position from top of profile |
|------------------|--------|-----------------|------------------------------------|
| <b>E99042-04</b> | 720    | 53 - 320        | 31.5 / 320 (x1)                    |
|                  |        | 373 - 640       | 31.5                               |



**NOTE:**  
 Only right installation is represent.

**Nota:**  
 Viene rappresentata solo l'installazione destra.

**Nota:**  
 Solo se muestra la instalación derecha.

Fastening screw position is referred to the body of profile.

La posizione della vite di fissaggio è riferita al corpo del profilo.

La posición de los tornillos de fijación se refiere al cuerpo del perfil.

**Installation**

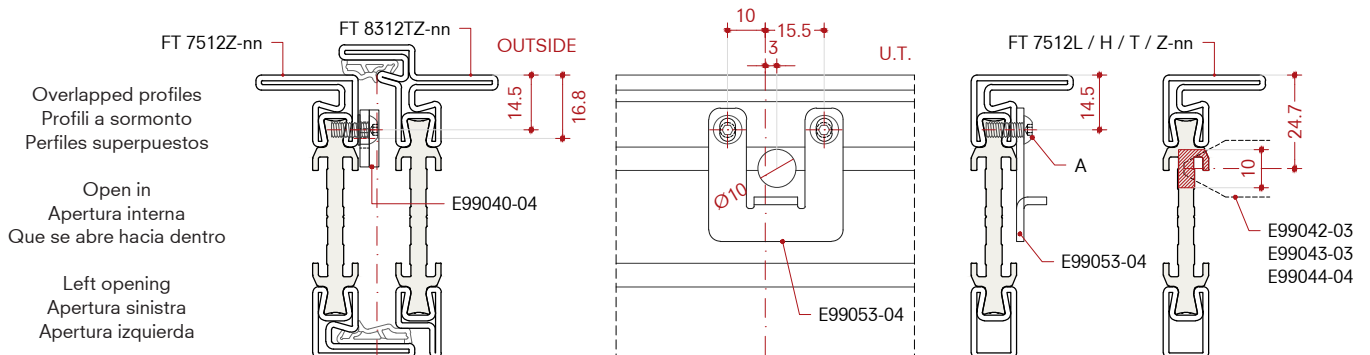
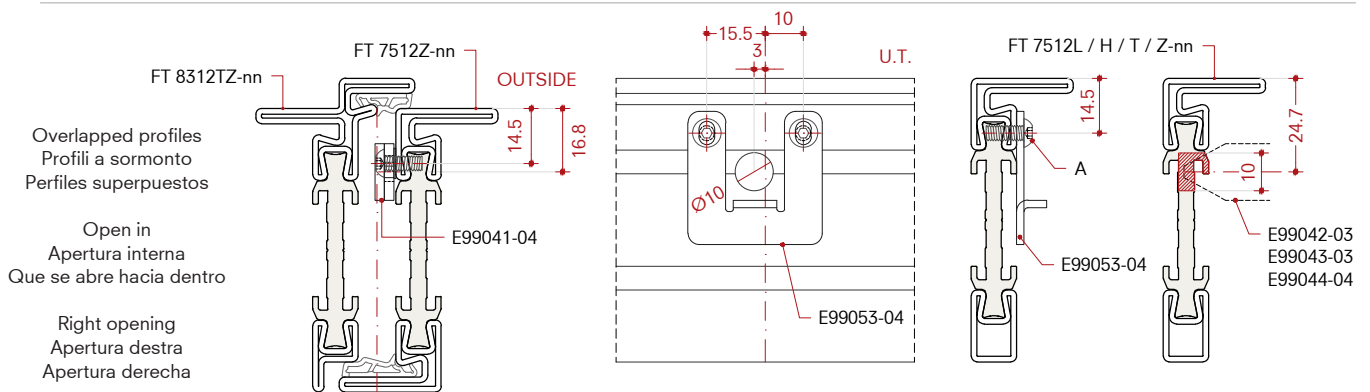
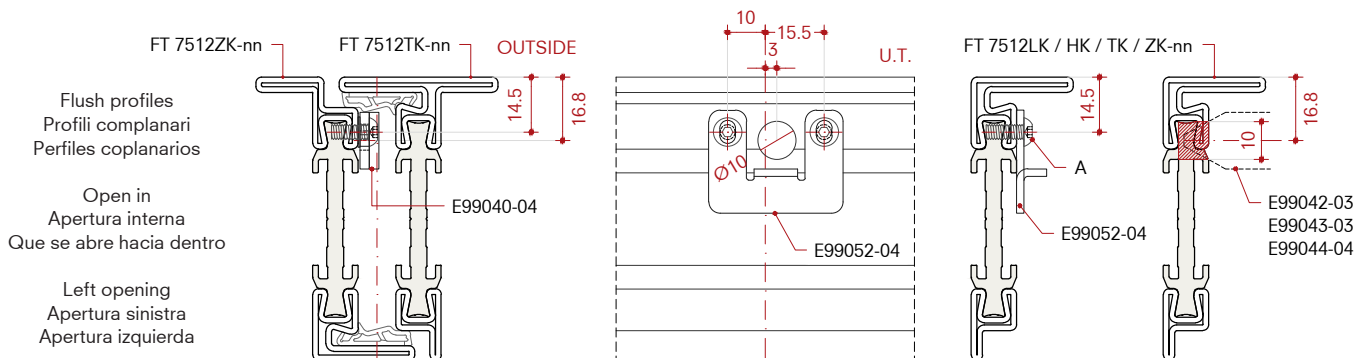
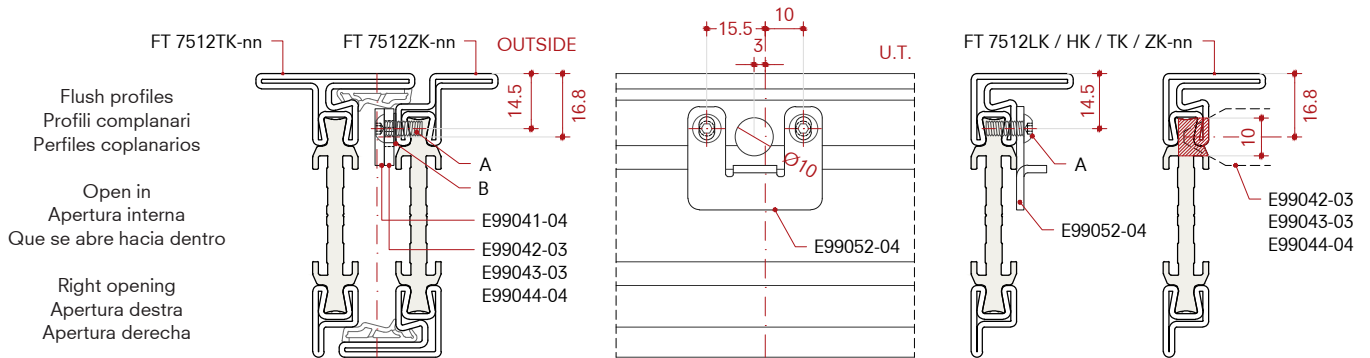
Lower long shoot bolt  
 E99040-04 - E99041-04

**Montaggio**

Catenaccio lungo inferiore  
 E99040-04 - E99041-04

**Montaje**

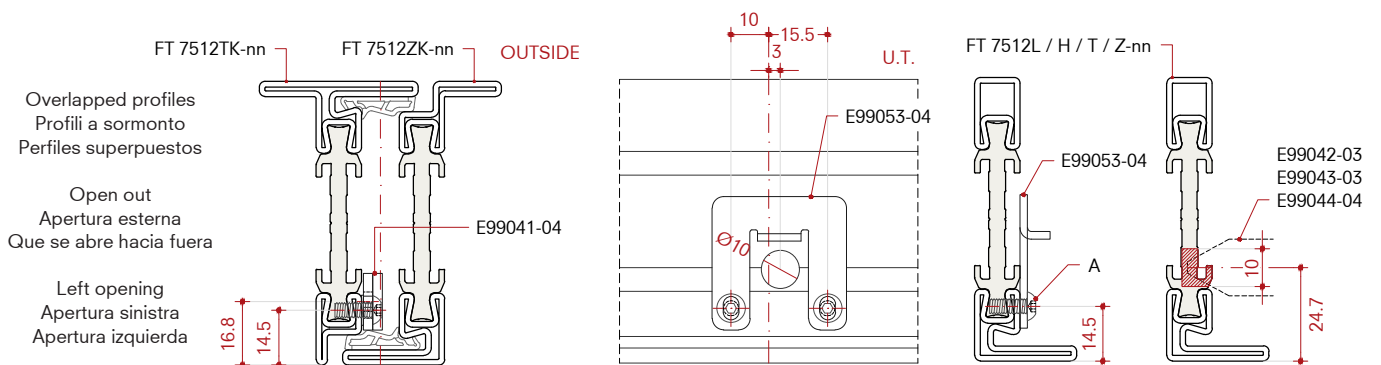
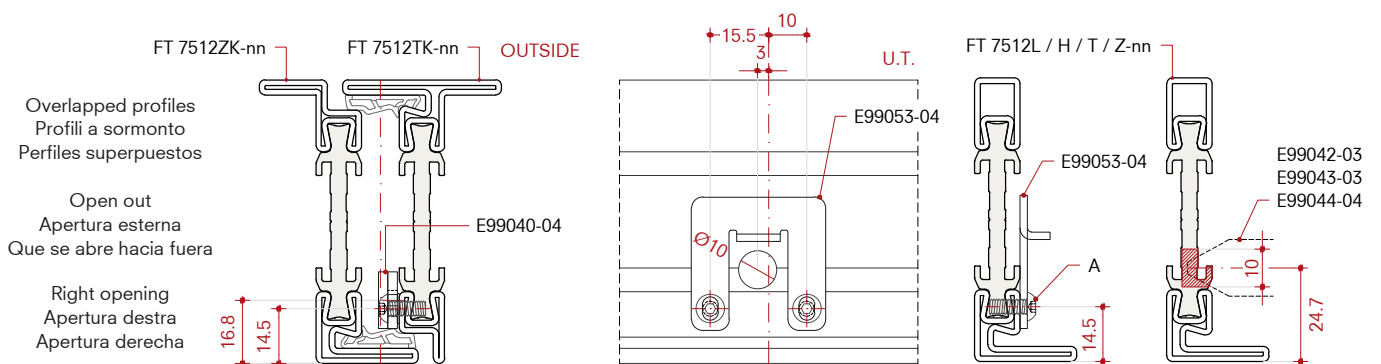
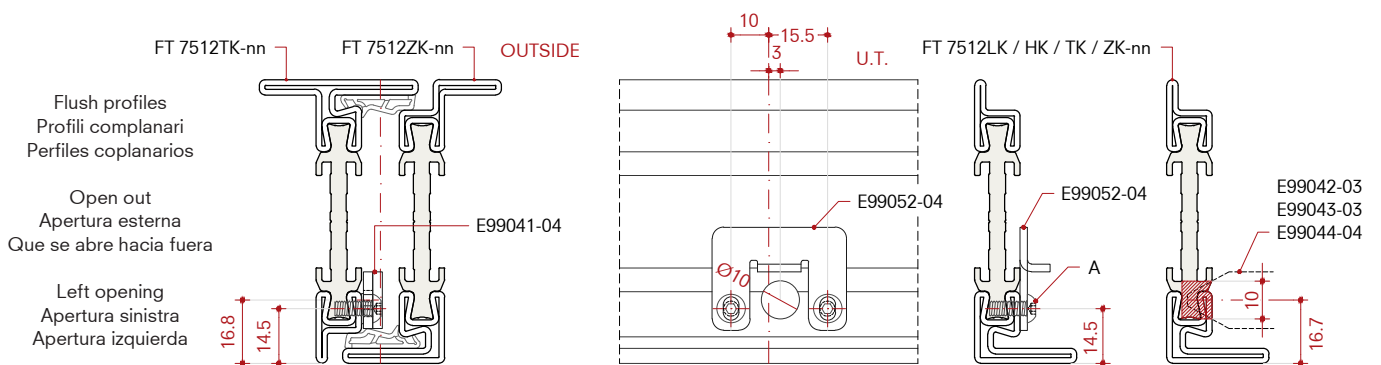
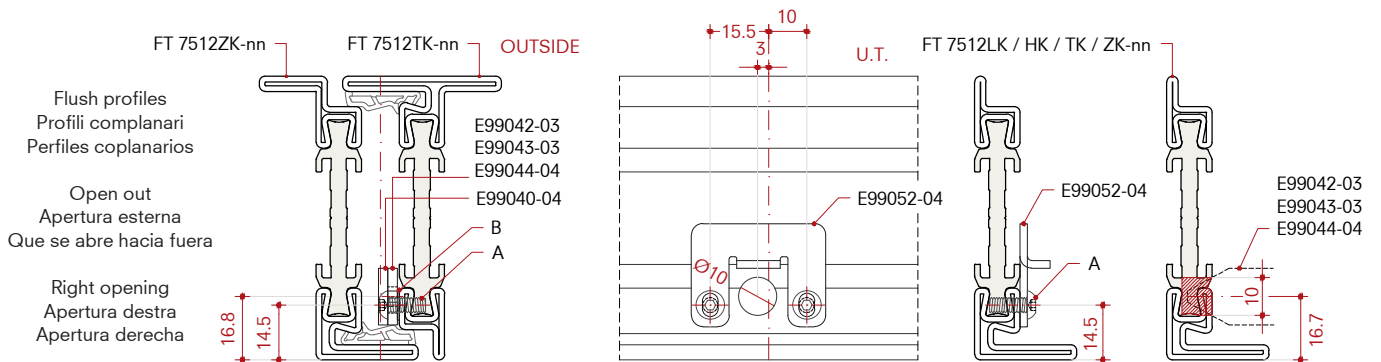
Pasador de canto largo inferior  
 E99040-04 - E99041-04



U.T. = Upper Transom  
 A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)

U.T. = Traverso superiore  
 A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)

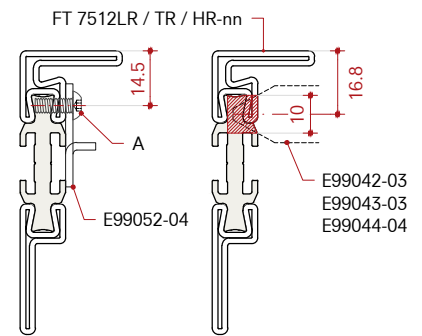
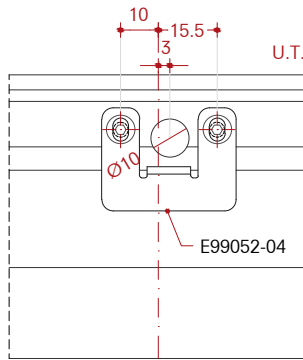
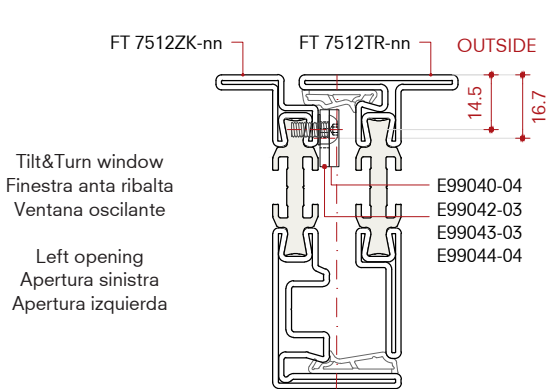
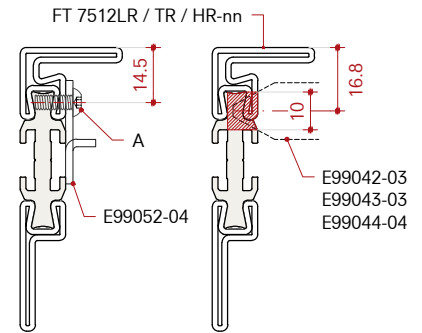
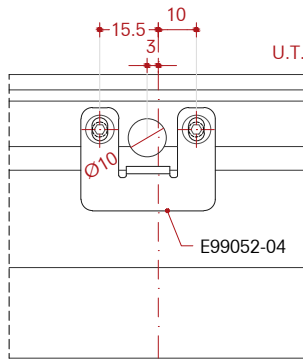
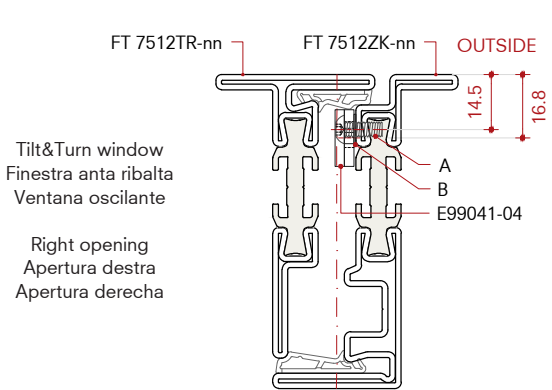
U.T. = Travesía superior  
 A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)



U.T. = Upper Transom  
 A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)

U.T. = Traverso superiore  
 A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)

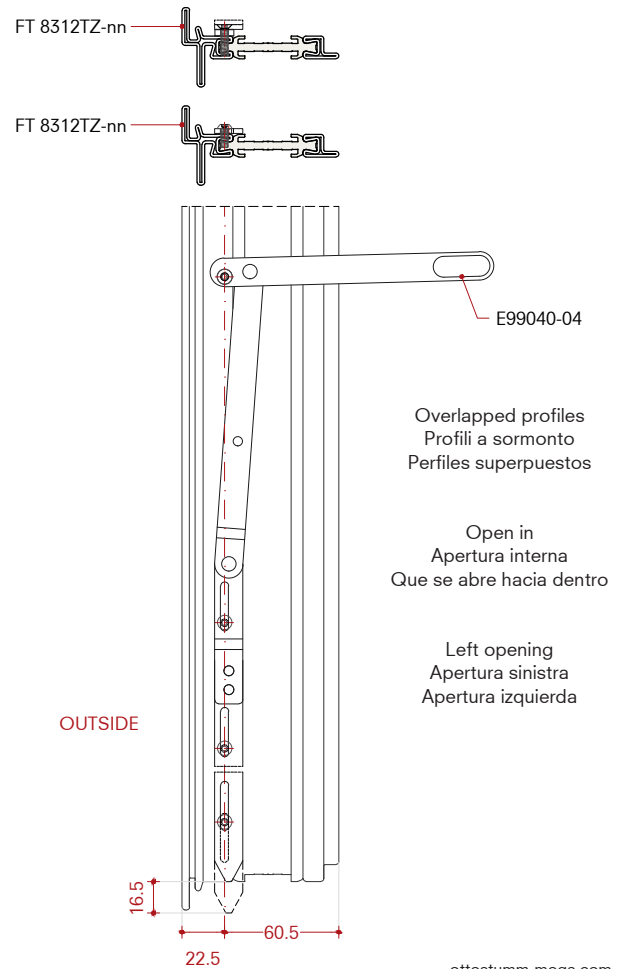
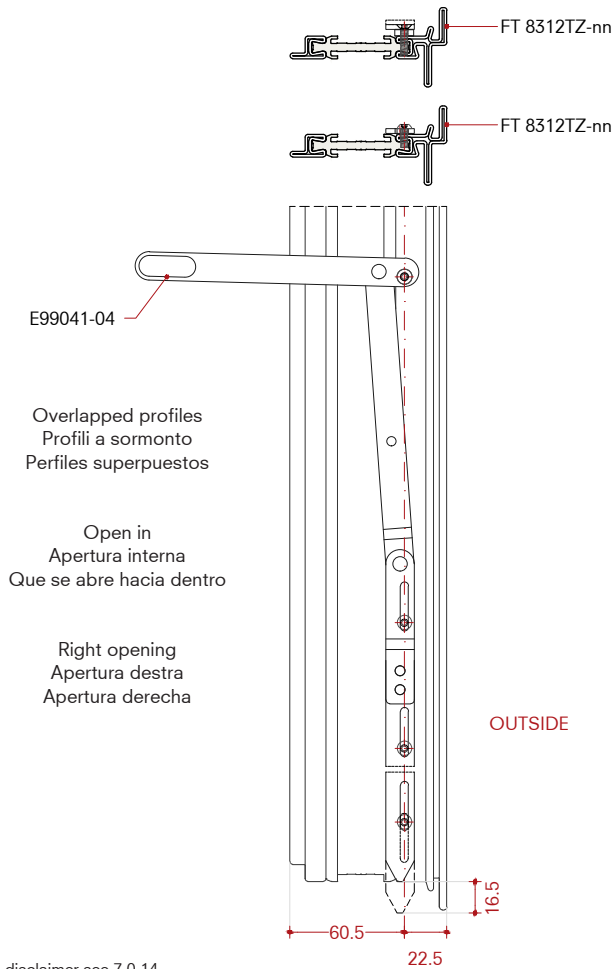
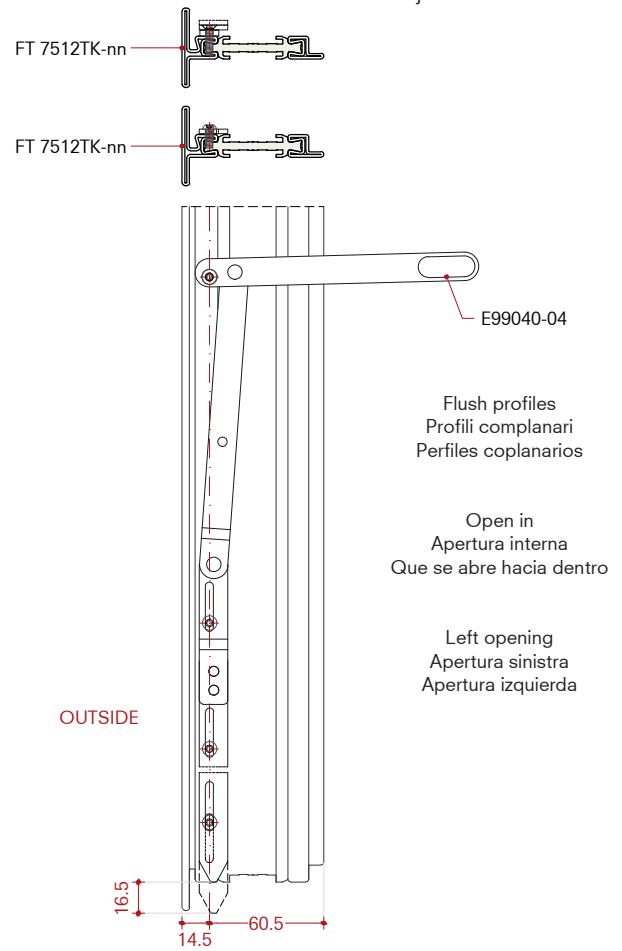
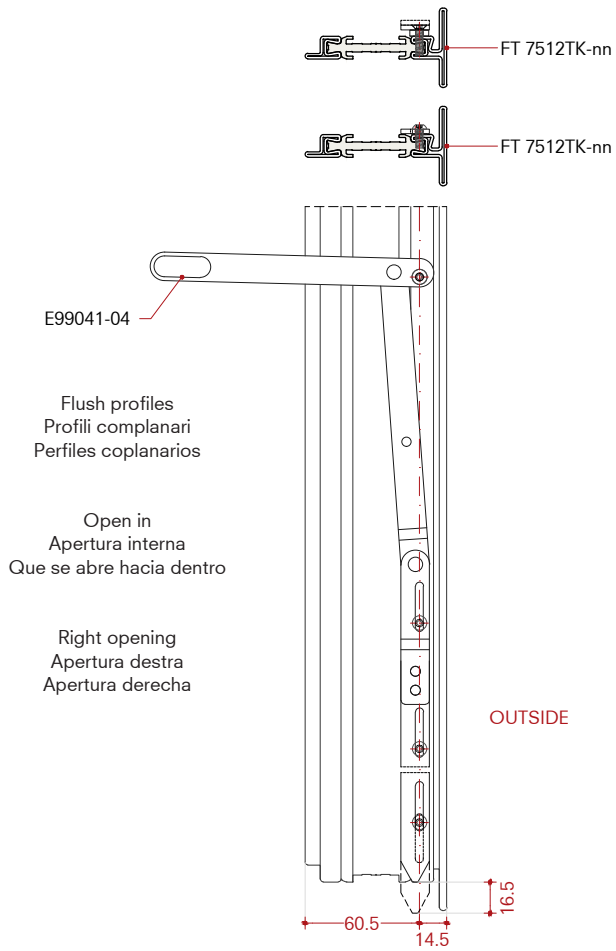
U.T. = Travesía superior  
 A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)



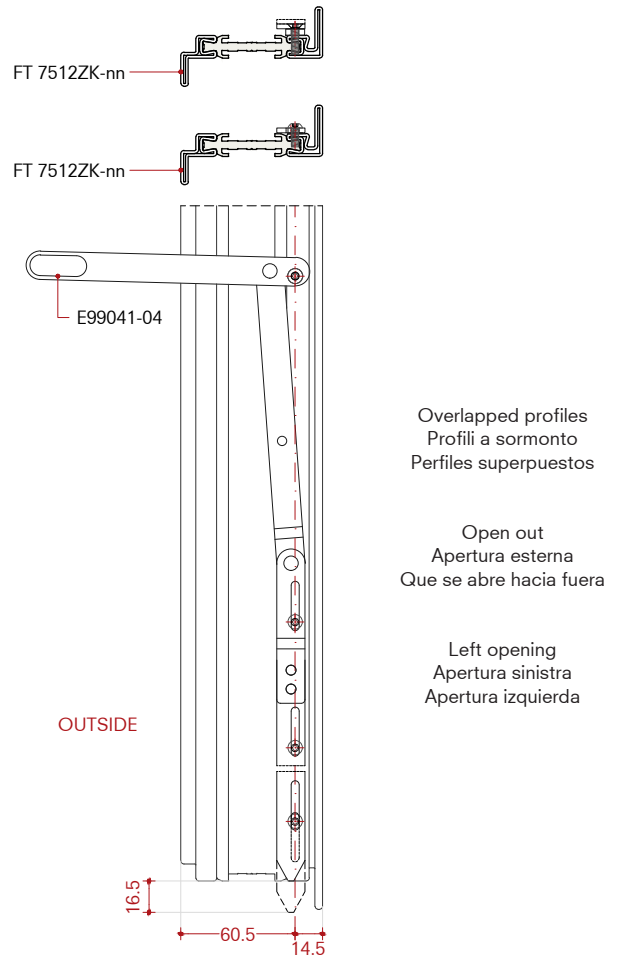
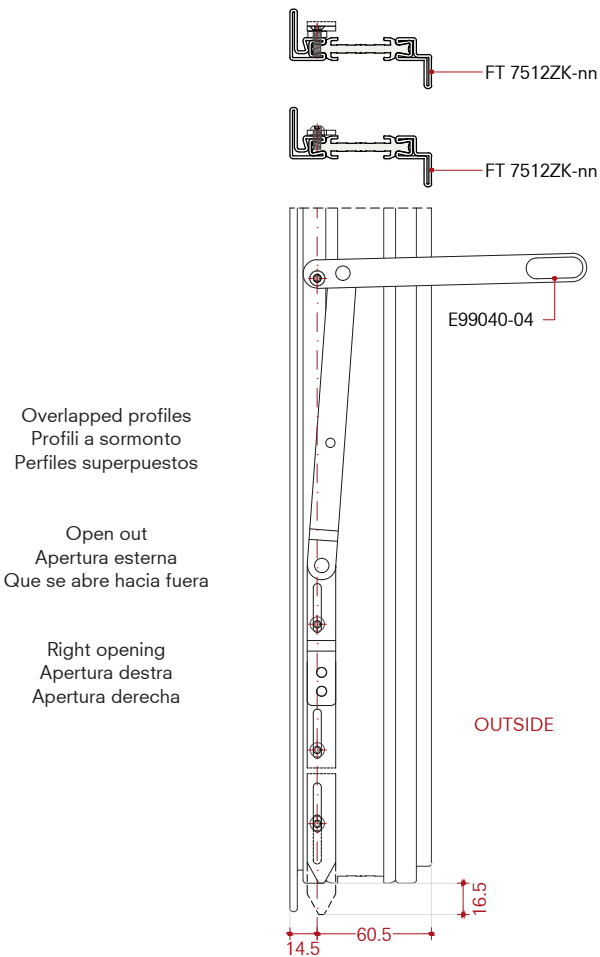
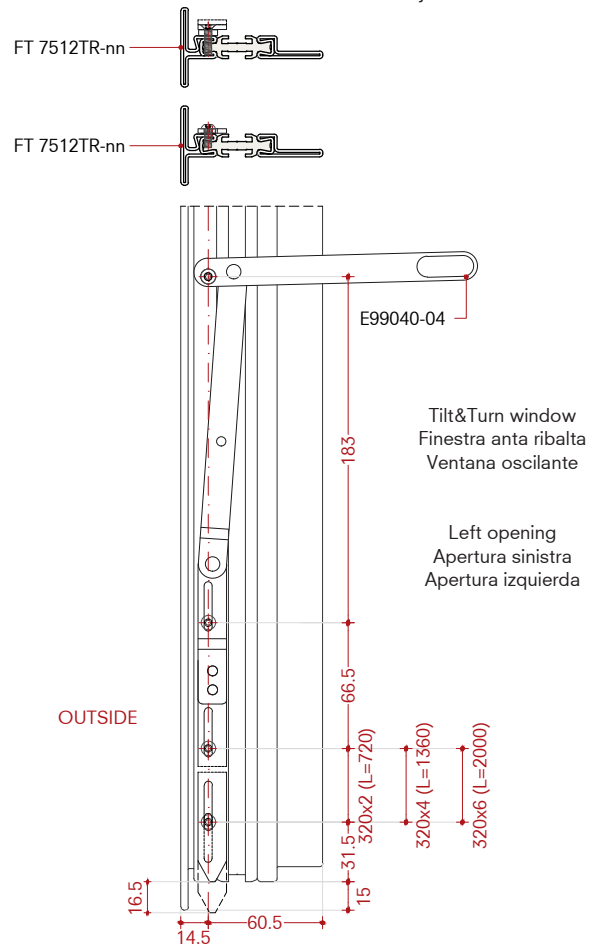
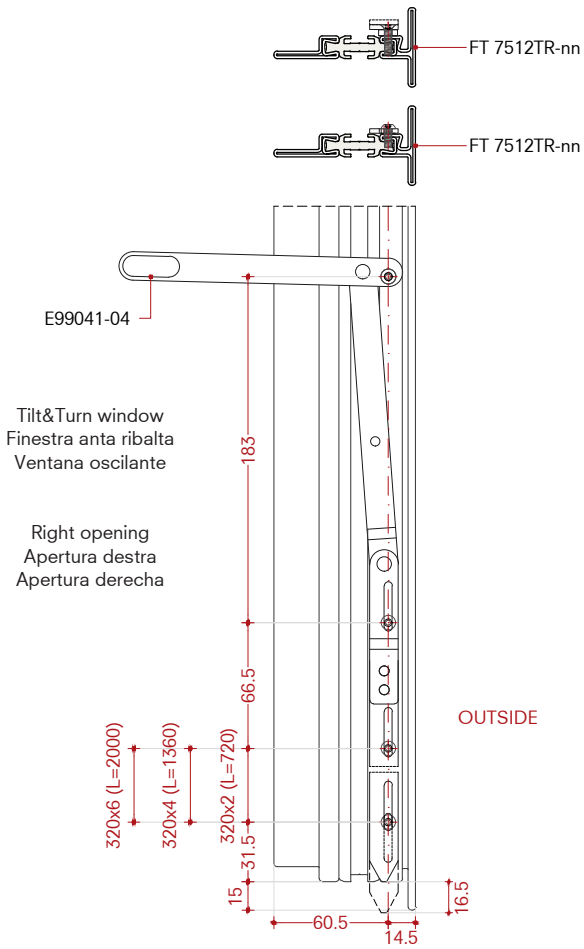
U.T. = Upper Transom  
 A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)

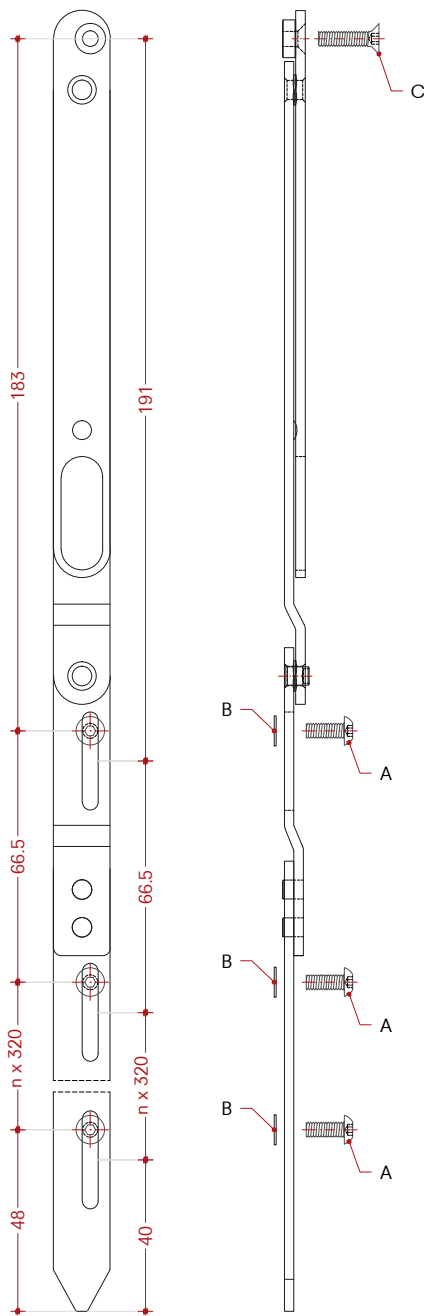
U.T. = Traverso superiore  
 A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)

U.T. = Travesía superior  
 A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)

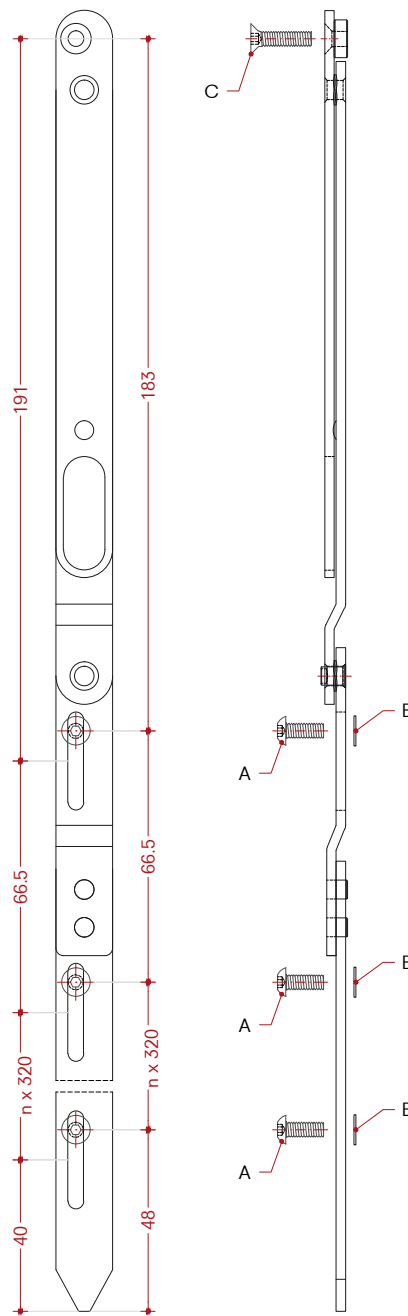








E99040-04



E99041-04

|      | Cod.             | L (mm) |                                 |
|------|------------------|--------|---------------------------------|
| n° 2 | <b>E99042-04</b> | 720    | (Right-Open in / Left-Open out) |
| n° 4 | <b>E99043-04</b> | 1360   | (Right-Open in / Left-Open out) |
| n° 6 | <b>E99044-04</b> | 2000   | (Right-Open in / Left-Open out) |

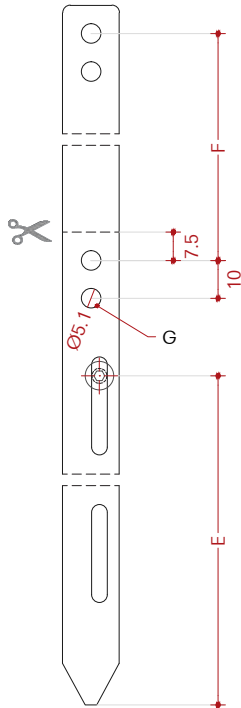
|      | Cod.             | L (mm) |                                 |
|------|------------------|--------|---------------------------------|
| n° 2 | <b>E99042-04</b> | 720    | (Left-Open in / Right-Open out) |
| n° 4 | <b>E99043-04</b> | 1360   | (Left-Open in / Right-Open out) |
| n° 6 | <b>E99044-04</b> | 2000   | (Left-Open in / Right-Open out) |

A) Fastening with M4x10 ISO7380 screws  
 B) M4 A2 DIN433 washer (not provided)  
 C) Fastening with M4x16 ISO10642 screws

A) Fissaggio con viti M4x10 ISO7380  
 B) Rondella M4 A2 DIN433 (non fornita)  
 C) Fissaggio con viti M4x16 ISO10642

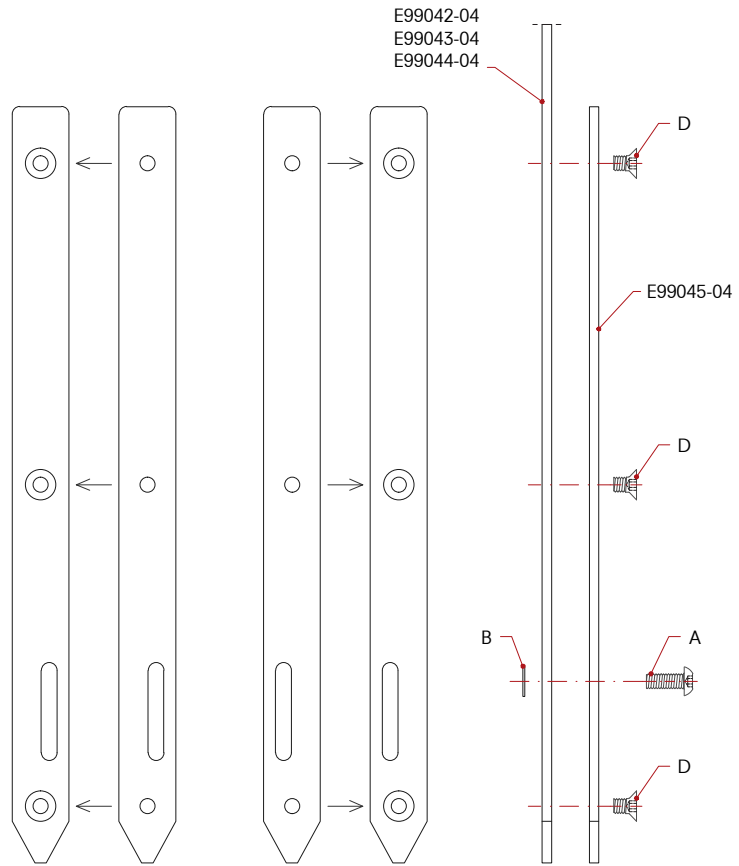
A) Fijación con tornillos M4x10 ISO7380  
 B) Arandela M4 A2 DIN433 (no provisto)  
 C) Fijación con tornillos M4x16 ISO10642

Cropping rod  
 Taglio dell'asta  
 Corte de subasta



E99042-04  
 E99043-04  
 E99044-04

Reinforcement rod  
 Asta di rinforzo  
 Subasta de reforzamiento

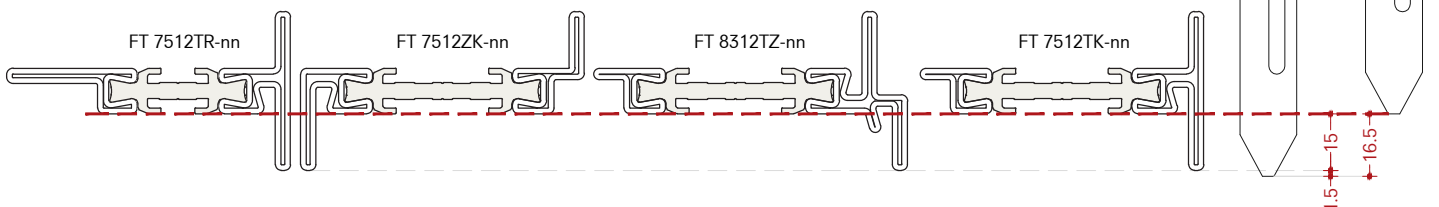


E99045-04

Closing  
 Chiusura  
 Cierre

Opening  
 Apertura  
 Apertura

Lower positions of rod  
 Posizioni inferiori dell'asta  
 Posiciones inferior de la subasta

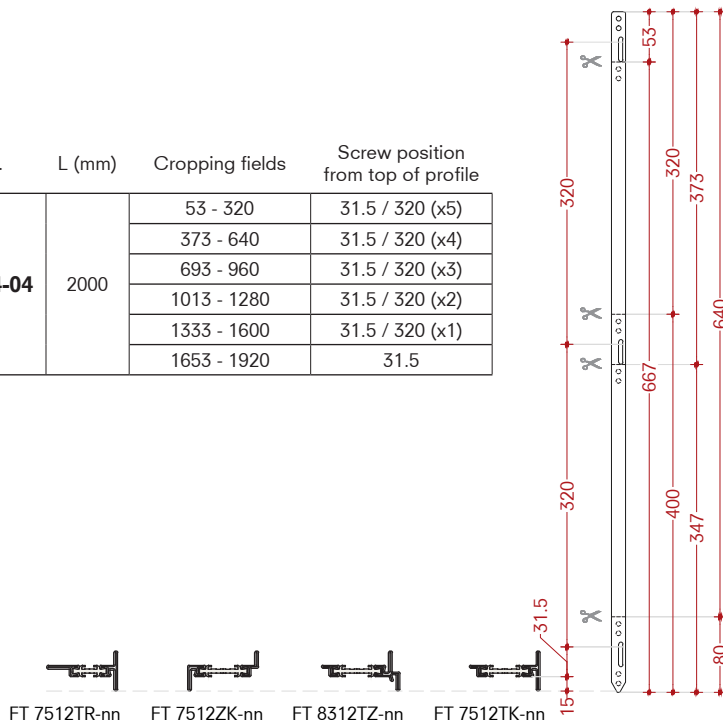


- A) Fastening with M4x10 ISO7380 screws
- B) M4 A2 DIN433 washer (not provided)
- D) Fastening with M4x6 ISO10642 screws and cut the screws (not provided)
- E) No variation beyond first slot above cropping
- F) Cropping (reference to allowable cropping fields)
- G) Redrill new Ø5.1 mm holes

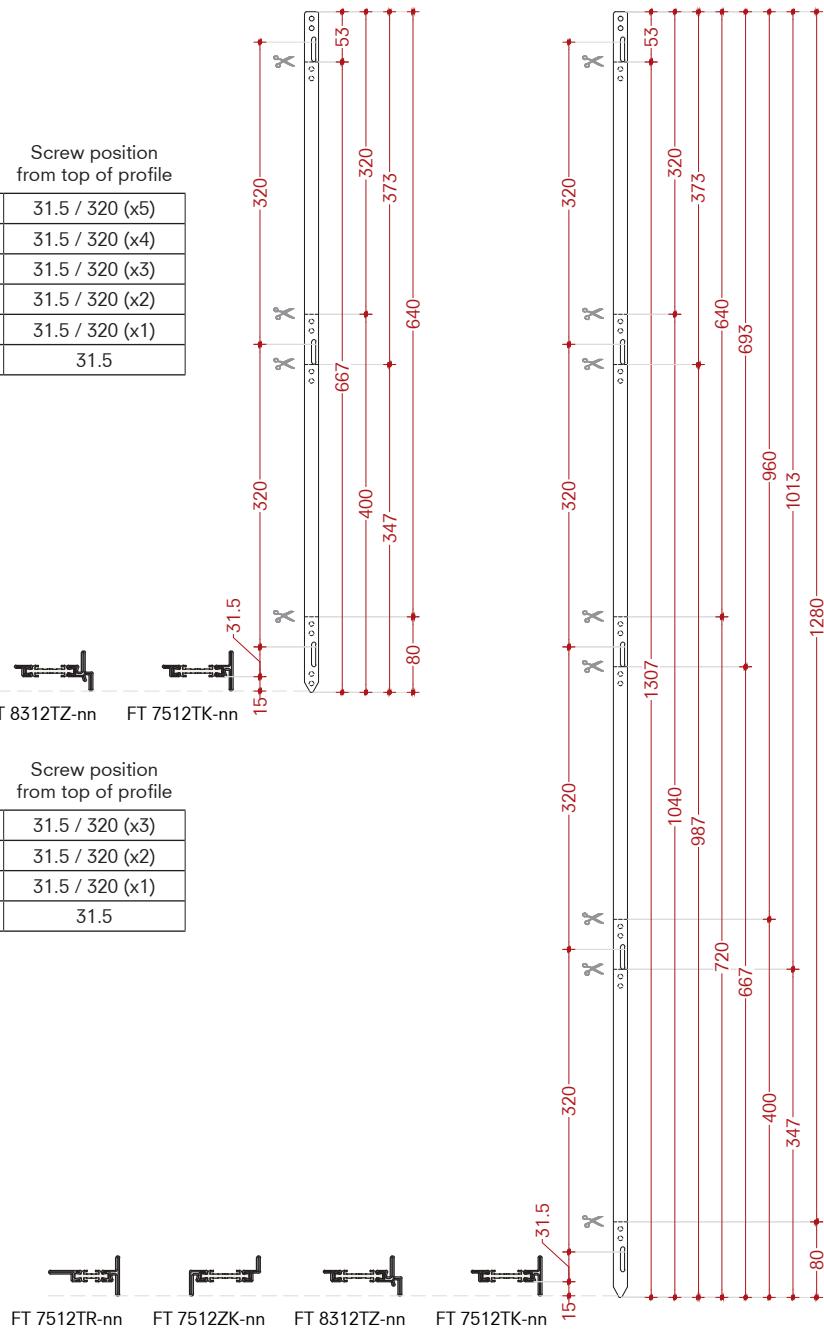
- A) Fissaggio con viti M4x10 ISO7380
- B) Rondella M4 A2 DIN433 (non fornita)
- D) Fissaggio con viti M4x6 ISO10642 e accorciare le viti (non fornita)
- E) Nessuna variazione oltre il primo slot sopra il ritaglio
- F) Ritaglio (riferimento ai campi di ritaglio consentiti)
- G) Ritrapanare nuovi fori Ø5.1 mm

- A) Fijación con tornillos M4x10 ISO7380
- B) Arandela M4 A2 DIN433 (no provisto)
- D) Fijación con tornillos M4x6 ISO10642 y recortar tornillos (no provisto)
- E) Sin variación más allá del primer espacio por encima del recorte
- F) Cultivo (referencia a los campos de cultivo permitidos)
- G) Perforar nuevos orificios de Ø5.1 mm

| Cod.             | L (mm)      | Cropping fields | Screw position from top of profile |
|------------------|-------------|-----------------|------------------------------------|
| <b>E99044-04</b> | 2000        | 53 - 320        | 31.5 / 320 (x5)                    |
|                  |             | 373 - 640       | 31.5 / 320 (x4)                    |
|                  |             | 693 - 960       | 31.5 / 320 (x3)                    |
|                  |             | 1013 - 1280     | 31.5 / 320 (x2)                    |
|                  |             | 1333 - 1600     | 31.5 / 320 (x1)                    |
|                  | 1653 - 1920 | 31.5            |                                    |



| Cod.             | L (mm) | Cropping fields | Screw position from top of profile |
|------------------|--------|-----------------|------------------------------------|
| <b>E99043-04</b> | 1360   | 53 - 320        | 31.5 / 320 (x3)                    |
|                  |        | 373 - 640       | 31.5 / 320 (x2)                    |
|                  |        | 693 - 960       | 31.5 / 320 (x1)                    |
|                  |        | 1013 - 1280     | 31.5                               |



**NOTE:**  
 Only right installation is represent.

Fastening screw position is referred to the body of profile.

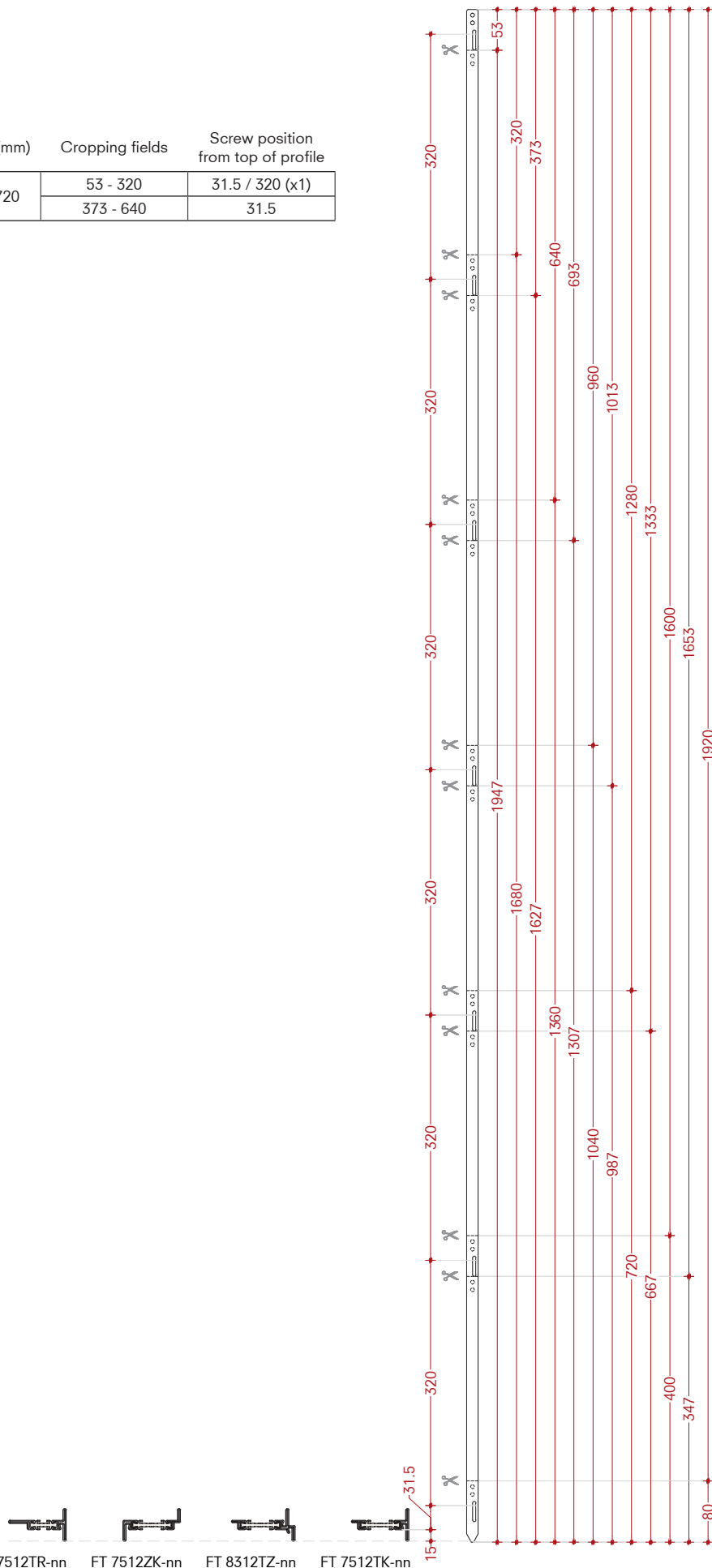
**Nota:**  
 Viene rappresentata solo l'installazione destra.

La posizione della vite di fissaggio è riferita al corpo del profilo.

**Nota:**  
 Solo se muestra la instalación derecha.

La posición de los tornillos de fijación se refiere al cuerpo del perfil.

| Cod.             | L (mm) | Cropping fields | Screw position from top of profile |
|------------------|--------|-----------------|------------------------------------|
| <b>E99042-04</b> | 720    | 53 - 320        | 31.5 / 320 (x1)                    |
|                  |        | 373 - 640       | 31.5                               |



FT 7512TR-nn FT 7512ZK-nn FT 8312TZ-nn FT 7512TK-nn

disclaimer see 7.0.14

rel. 07 - 09/2022

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**NOTE:** Only right installation is represent.  
 Fastening screw position is referred to the body of profile.

**Nota:** Viene rappresentata solo l'installazione destra.  
 La posizione della vite di fissaggio è riferita al corpo del profilo.

**Nota:** Solo se muestra la instalación derecha.  
 La posición de los tornillos de fijación se refiere al cuerpo del perfil.

**Installation**

Cremona for round rods  
 Kits for flush profiles

**Montaggio**

Cremonese per aste tonde  
 Kit per profili coplanari

**Montaje**

Falleba para varillas redondas  
 Kits para perfiles coplanarios

**K99082**

Height 400 - 1000 mm

H99026-26 n°01 piece  
 E99141-26 n°01 piece  
 E99144-26 n°04 pieces  
 E99145-26 n°02 pieces

**K99082**

Altezza 400 - 1000 mm

**K99082**

Altura 400 - 1000 mm

**K99083**

Height 1001 - 1500 mm

H99026-26 n°01 piece  
 E99142-26 n°01 piece  
 E99144-26 n°04 pieces  
 E99145-26 n°02 pieces

**K99083**

Altezza 1001 - 1500 mm

**K99083**

Altura 1001 - 1500 mm

**K99084**

Height 1501 - 3000 mm

H99026-26 n°01 piece  
 E99143-26 n°01 piece  
 E99144-26 n°07 pieces  
 E99145-26 n°02 pieces

**K99084**

Altezza 1501 - 3000 mm

**K99084**

Altura 1501 - 3000 mm

**K99085**

Height 3001 - 3200 mm

H99026-26 n°01 piece  
 E99141-26 n°01 piece  
 E99143-26 n°01 piece  
 E99144-26 n°08 pieces  
 E99145-26 n°02 pieces

**K99085**

Altezza 3001 - 3200 mm

**K99085**

Altura 3001 - 3200 mm

**Installation**

Cremona for round rods  
 Kits for overlapped profiles

**Montaggio**

Cremonese per aste tonde  
 Kit per profili a sormonto

**Montaje**

Falleba para varillas redondas  
 Kits para perfiles superpuestos

**K99096**

Height 400 - 1000 mm

H99026-26 n°01 piece  
 E99141-26 n°01 piece  
 E99144-26 n°04 pieces  
 E99148-26 n°02 pieces

**K99096**

Altezza 400 - 1000 mm

**K99096**

Altura 400 - 1000 mm

**K99097**

Height 1001 - 1500 mm

H99026-26 n°01 piece  
 E99142-26 n°01 piece  
 E99144-26 n°04 pieces  
 E99148-26 n°02 pieces

**K99097**

Altezza 1001 - 1500 mm

**K99097**

Altura 1001 - 1500 mm

**K99098**

Height 1501 - 3000 mm

H99026-26 n°01 piece  
 E99143-26 n°01 piece  
 E99144-26 n°07 pieces  
 E99148-26 n°02 pieces

**K99098**

Altezza 1501 - 3000 mm

**K99098**

Altura 1501 - 3000 mm

**K99099**

Height 3001 - 3200 mm

H99026-26 n°01 piece  
 E99141-26 n°01 piece  
 E99143-26 n°01 piece  
 E99144-26 n°08 pieces  
 E99148-26 n°02 pieces

**K99099**

Altezza 3001 - 3200 mm

**K99099**

Altura 3001 - 3200 mm

**Installation**

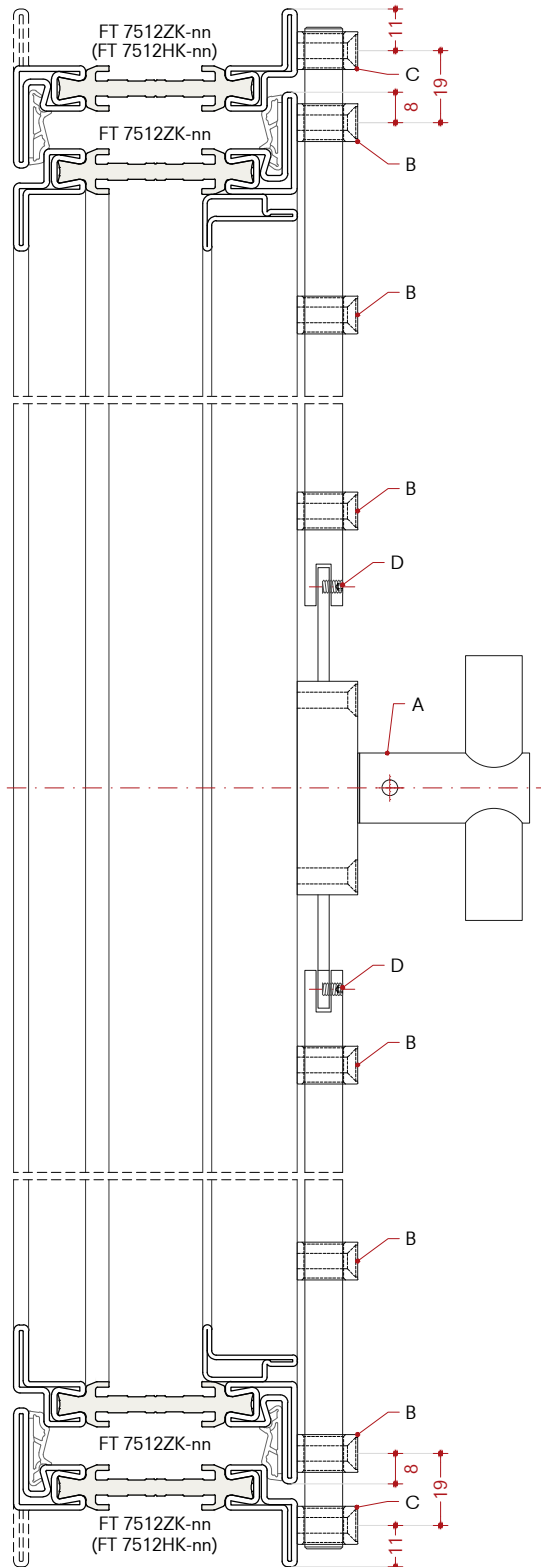
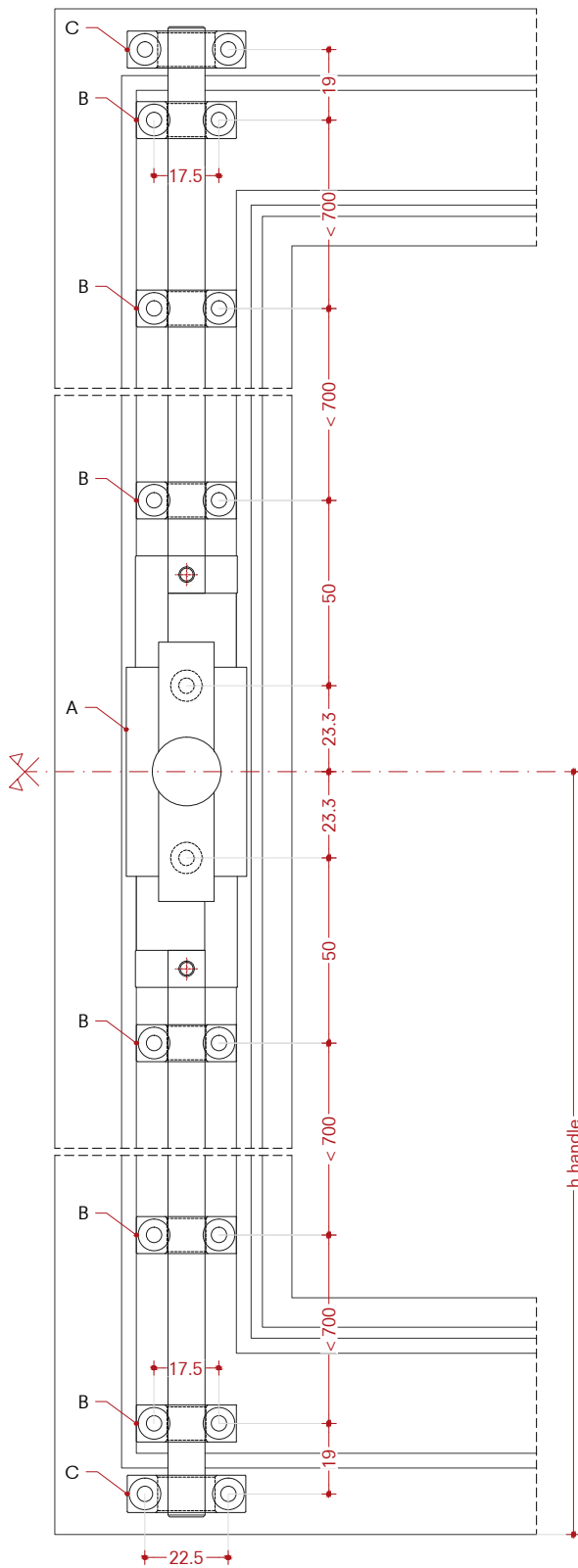
Cremones for round rods  
 Single leaf window  
 Flush profiles

**Montaggio**

Cremonese per aste tonde  
 Finestra anta singola  
 Profili complanari

**Montaje**

Falleba para varillas redondas  
 Ventana de una hoja  
 Perfiles coplanarios



- A) Handle and cremones H99026-26
- B) Pass through guide E99144-26
- C) Strike plate E99145-26
- D) Stud

- A) Maniglia e cremonese H99026-26
- B) Passante asta E99144-26
- C) Riscontro E99145-26
- D) Nottolino

- A) Manilla y falleba H99026-26
- B) Guía de paso E99144-26
- C) Chapa de cierre E99145-26
- D) Alfiler



**Installation**

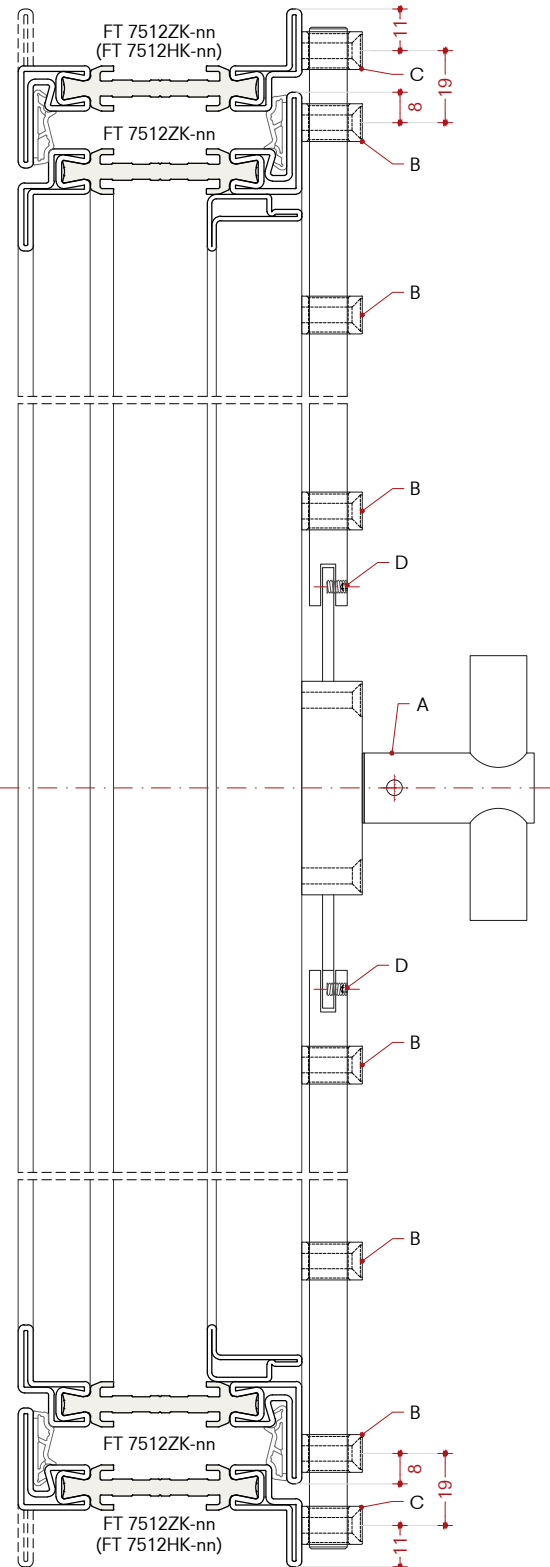
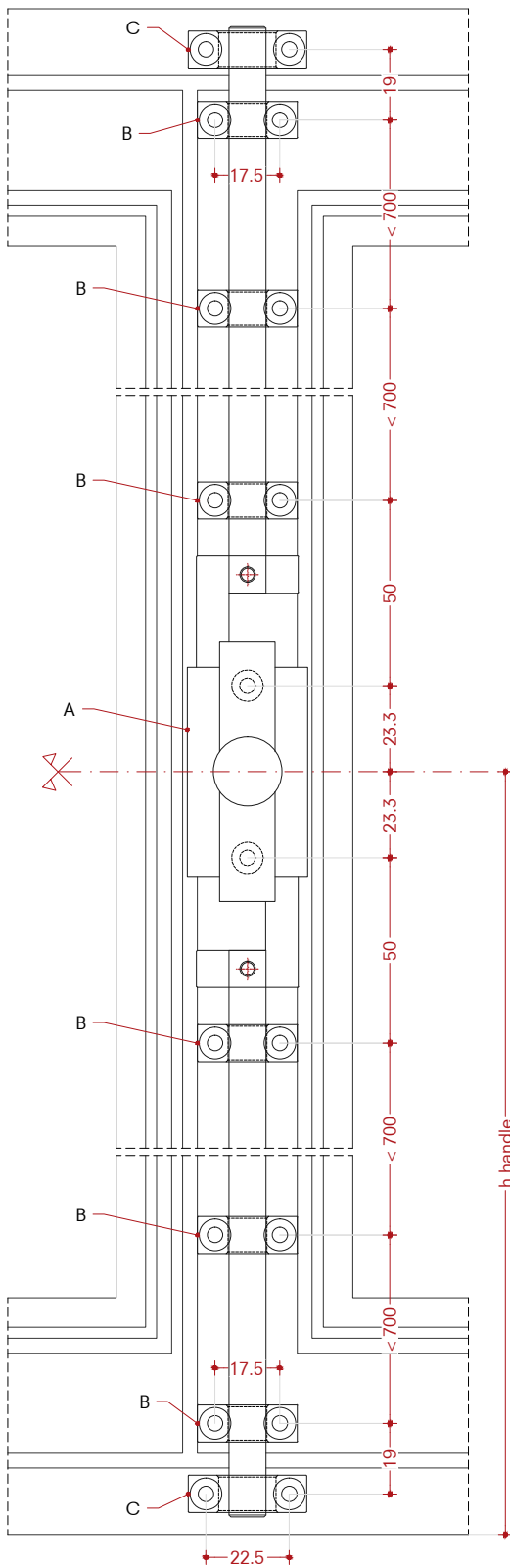
Cremones for round rods  
 Double leaf window  
 Flush profiles

**Montaggio**

Cremonese per aste tonde  
 Finestra a due battenti  
 Profili complanari

**Montaje**

Falleba para varillas redondas  
 Ventana de dos hojas  
 Perfiles coplanarios



- A) Handle and cremonese H99026-26
- B) Pass through guide E99144-26
- C) Strike plate E99145-26
- D) Stud

- A) Maniglia e cremonese H99026-26
- B) Passante asta E99144-26
- C) Riscontro E99145-26
- D) Nottolino

- A) Manilla y falleba H99026-26
- B) Guía de paso E99144-26
- C) Chapa de cierre E99145-26
- D) Alfiler

**Installation**

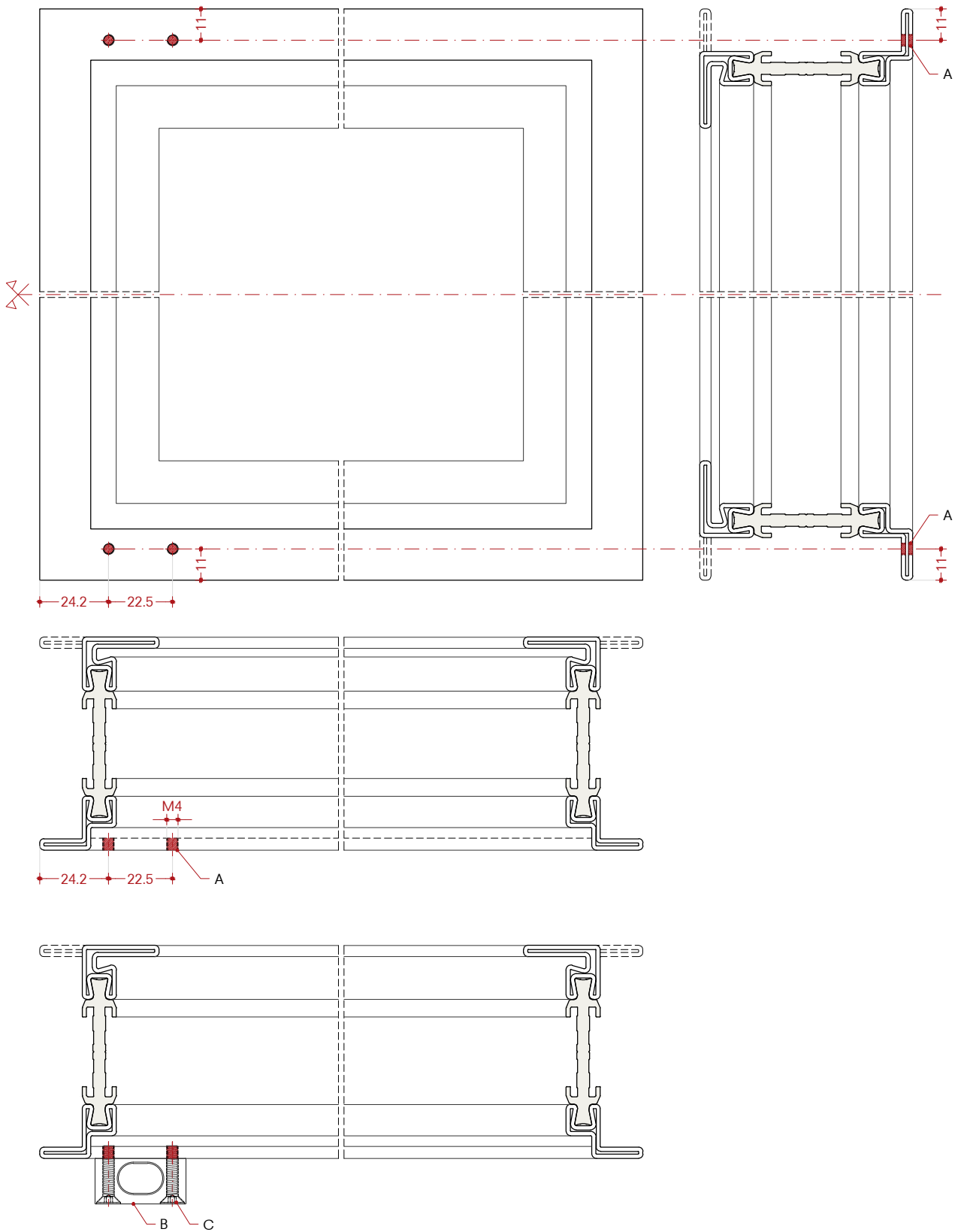
Cremonese for round rods  
 Flush profiles  
 Frame profile

**Montaggio**

Cremonese per aste tonde  
 Profili complanari  
 Profilo telaio

**Montaje**

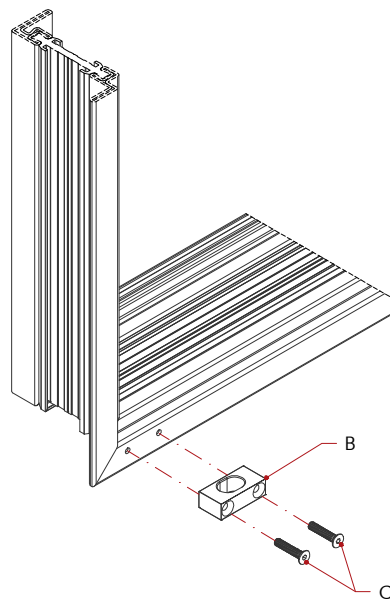
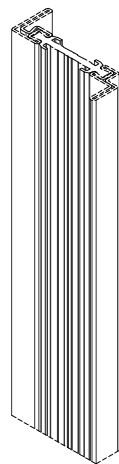
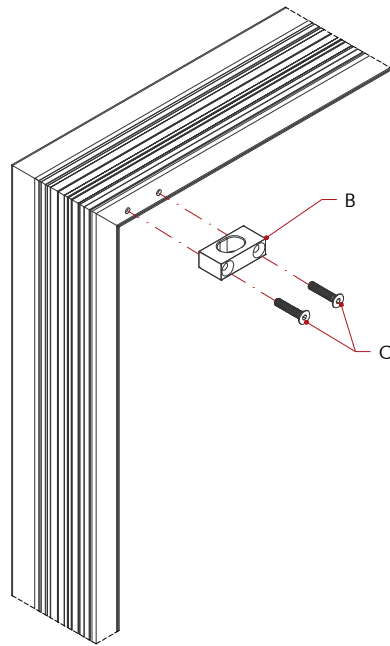
Falleba para varillas redondas  
 Perfiles coplanarios  
 Perfil del marco



- A) M4 holes
- B) Strike plate E99145-26
- C) Fastening with M4x20 mm ISO10642 screws

- A) Fori M4
- B) Riscontro E99145-26
- C) Fissaggio con viti M4x20 mm ISO10642

- A) Orificios M4
- B) Chapa de cierre E99145-26
- C) Fijación con tornillos M4x20 mm ISO10642



**Installation**

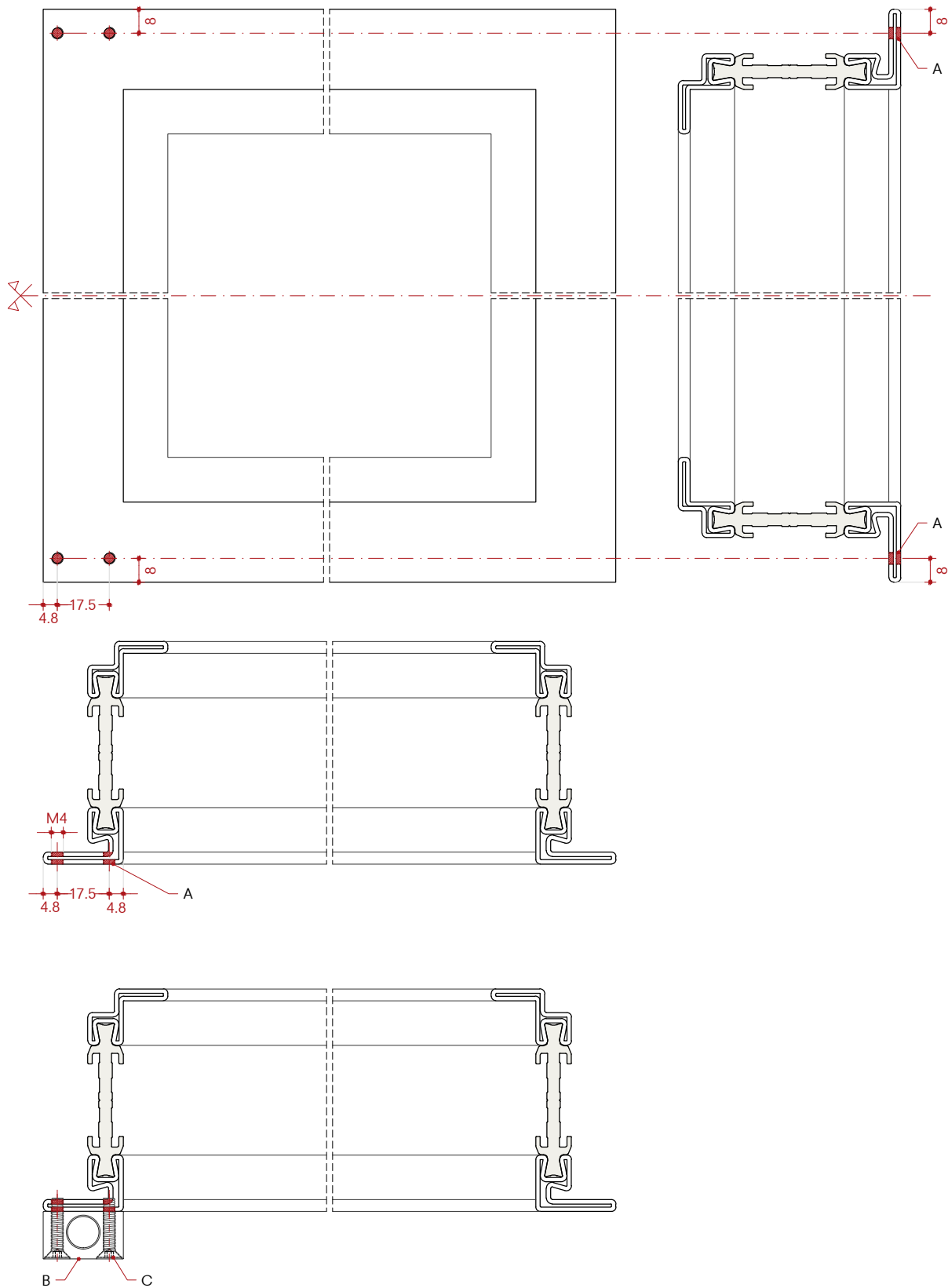
Cremona for round rods  
 Flush profiles  
 Leaf profile

**Montaggio**

Cremonese per aste tonde  
 Profili complanari  
 Profilo anta

**Montaje**

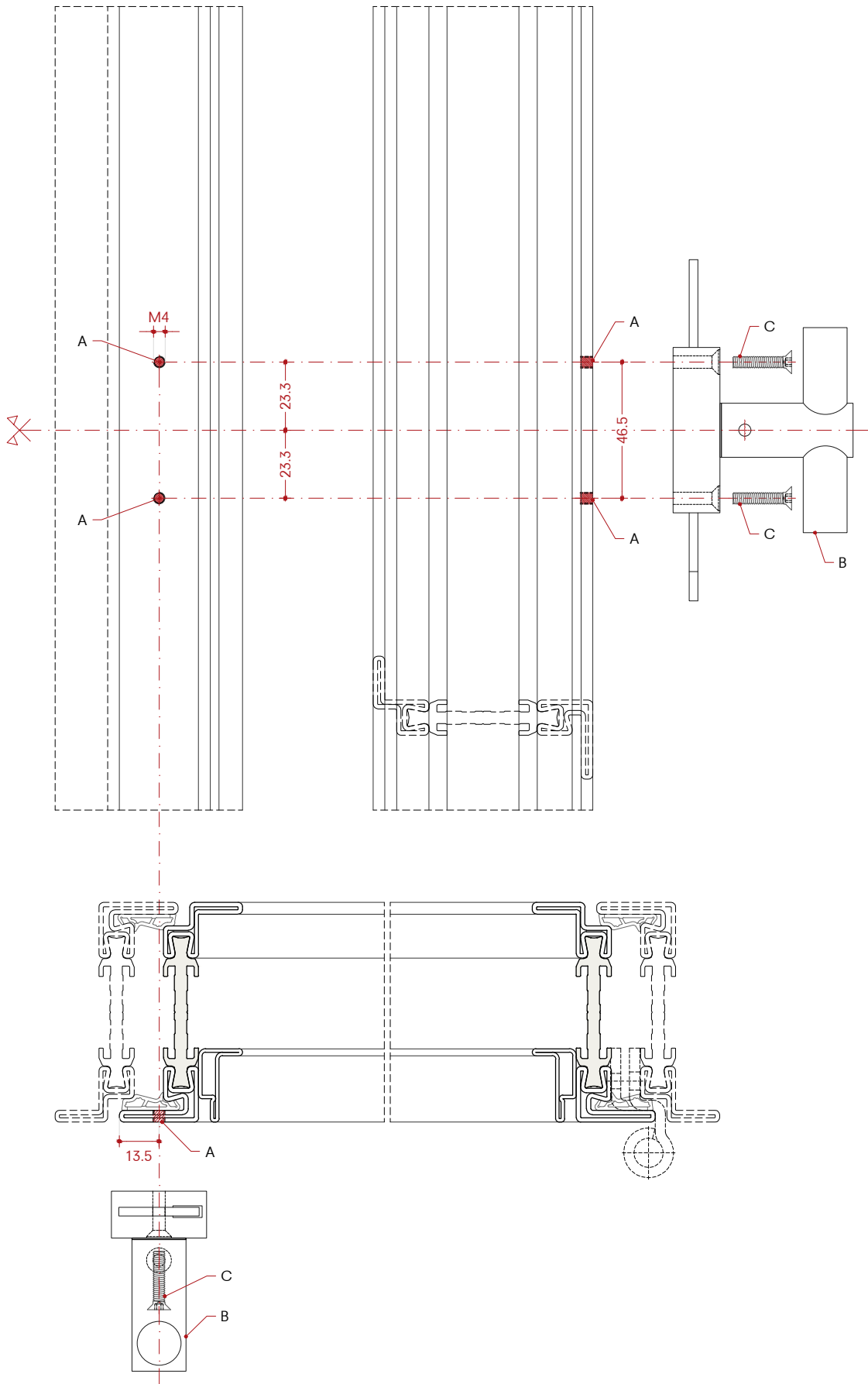
Falleba para varillas redondas  
 Perfiles coplanarios  
 Perfil de la hoja



- A) M4 holes
- B) Pass through guide E99144-26
- C) Fastening with M4x20 mm ISO10642 screws

- A) Fori M4
- B) Passante asta E99144-26
- C) Fissaggio con viti M4x20 mm ISO10642

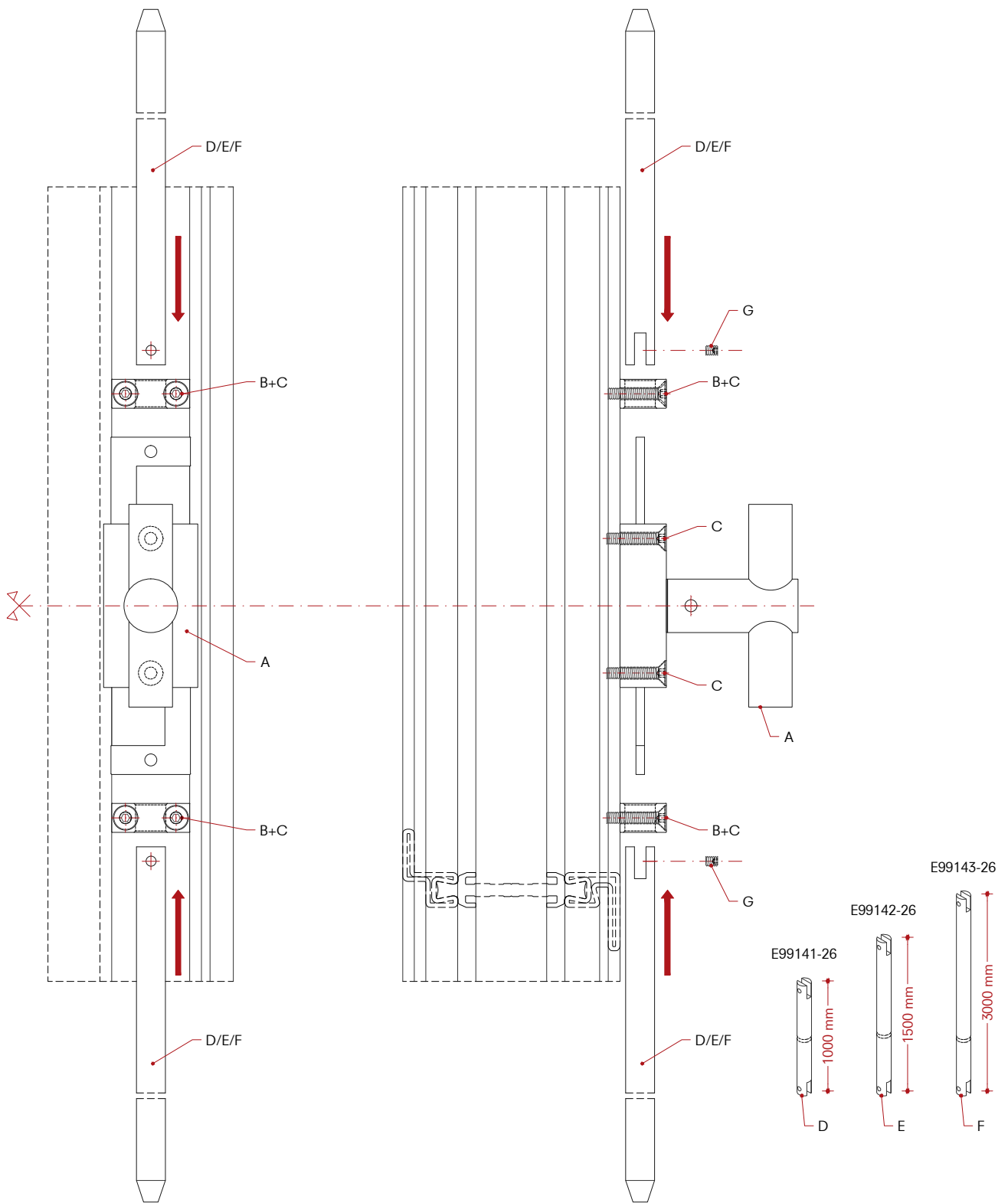
- A) Orificios M4
- B) Guía de paso E99144-26
- C) Fijación con tornillos M4x20 mm ISO10642



- A) M4 holes
- B) Handle and cremone H99026-26
- C) Fastening with M4x20 mm ISO10642 screws

- A) Fori M4
- B) Maniglia e cremone H99026-26
- C) Fissaggio con viti M4x20 mm ISO10642

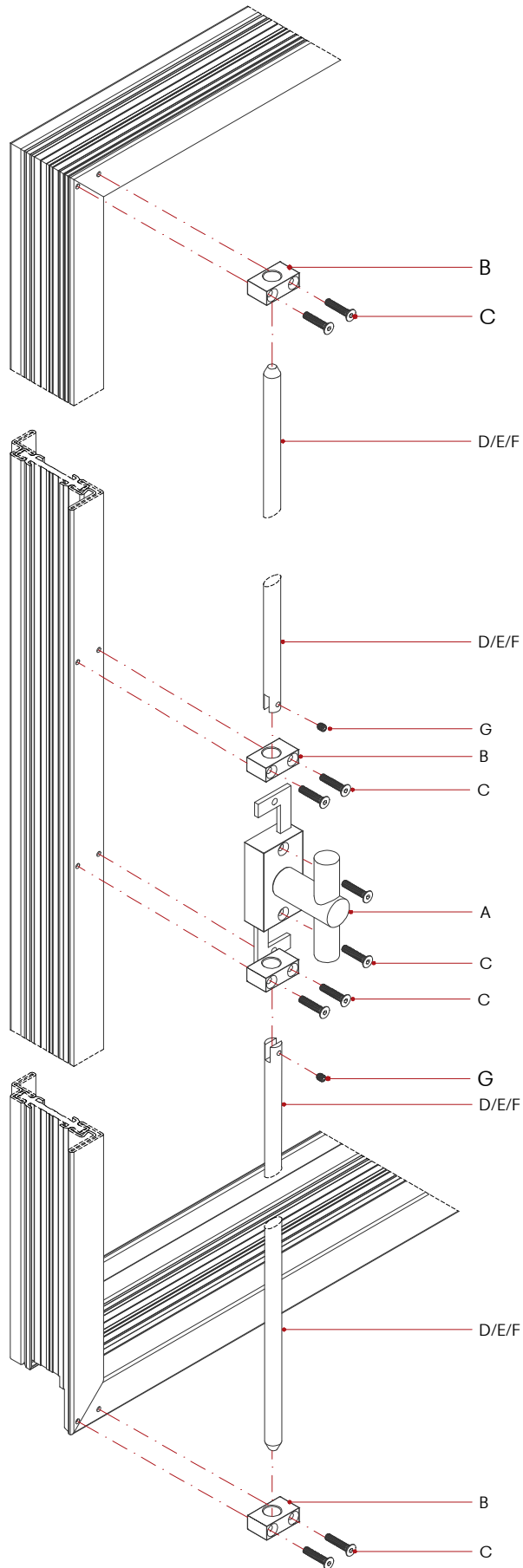
- A) Orificios M4
- B) Manilla y falleba H99026-26
- C) Fijación con tornillos M4x20 mm ISO10642



A) Handle and cremone H99026-26  
 B) Pass through guide E99144-26  
 C) Fastening with M4x20 mm ISO10642 screws  
 D/E/F) Round cremone rod  
 G) Stud

A) Maniglia e cremonese H99026-26  
 B) Passante asta E99144-26  
 C) Fissaggio con viti M4x20 mm ISO10642  
 D/E/F) Asta cremonese tonda  
 G) Nottolino

A) Manilla y falleba H99026-26  
 B) Guía de paso E99144-26  
 C) Fijación con tornillos M4x20 mm ISO10642  
 D/E/F) Varilla de falleba redonda  
 G) Alfiler



**Installation**

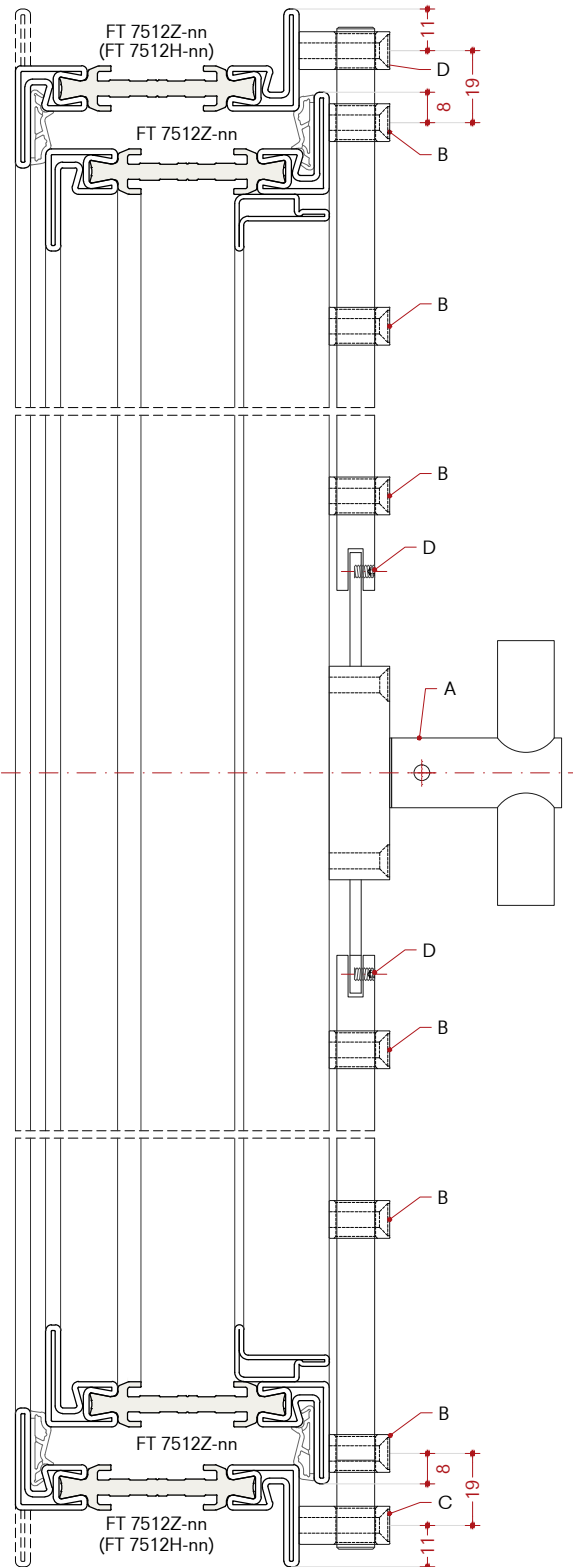
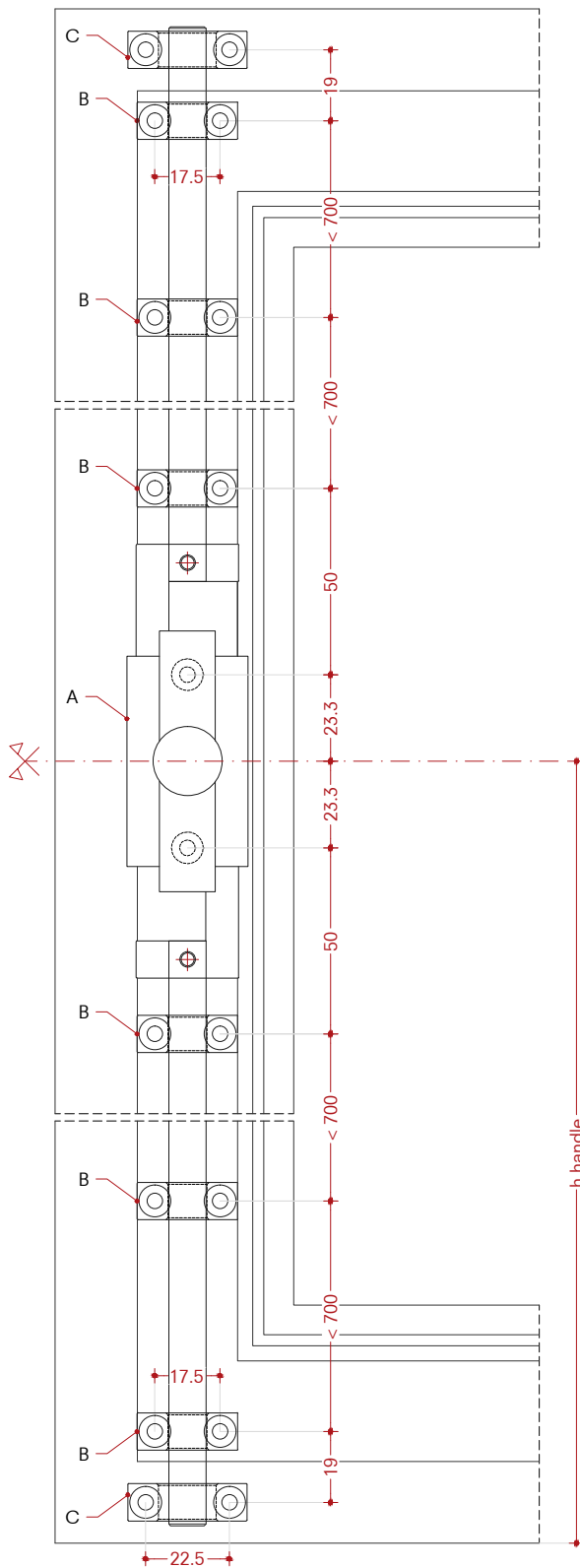
Cremones for round rods  
 Single leaf window  
 Overlapped profiles

**Montaggio**

Cremonese per aste tonde  
 Finestra anta singola  
 Profili a sormonto

**Montaje**

Falleba para varillas redondas  
 Ventana de una hoja  
 Perfiles superpuestos



- A) Handle and cremonese H99026-26
- B) Pass through guide E99144-26
- C) Strike plate E99148-26
- D) Stud

- A) Maniglia e cremonese H99026-26
- B) Passante asta E99144-26
- C) Riscontro E99148-26
- D) Nottolino

- A) Manilla y falleba H99026-26
- B) Guía de paso E99144-26
- C) Chapa de cierre E99148-26
- D) Alfiler



**Installation**

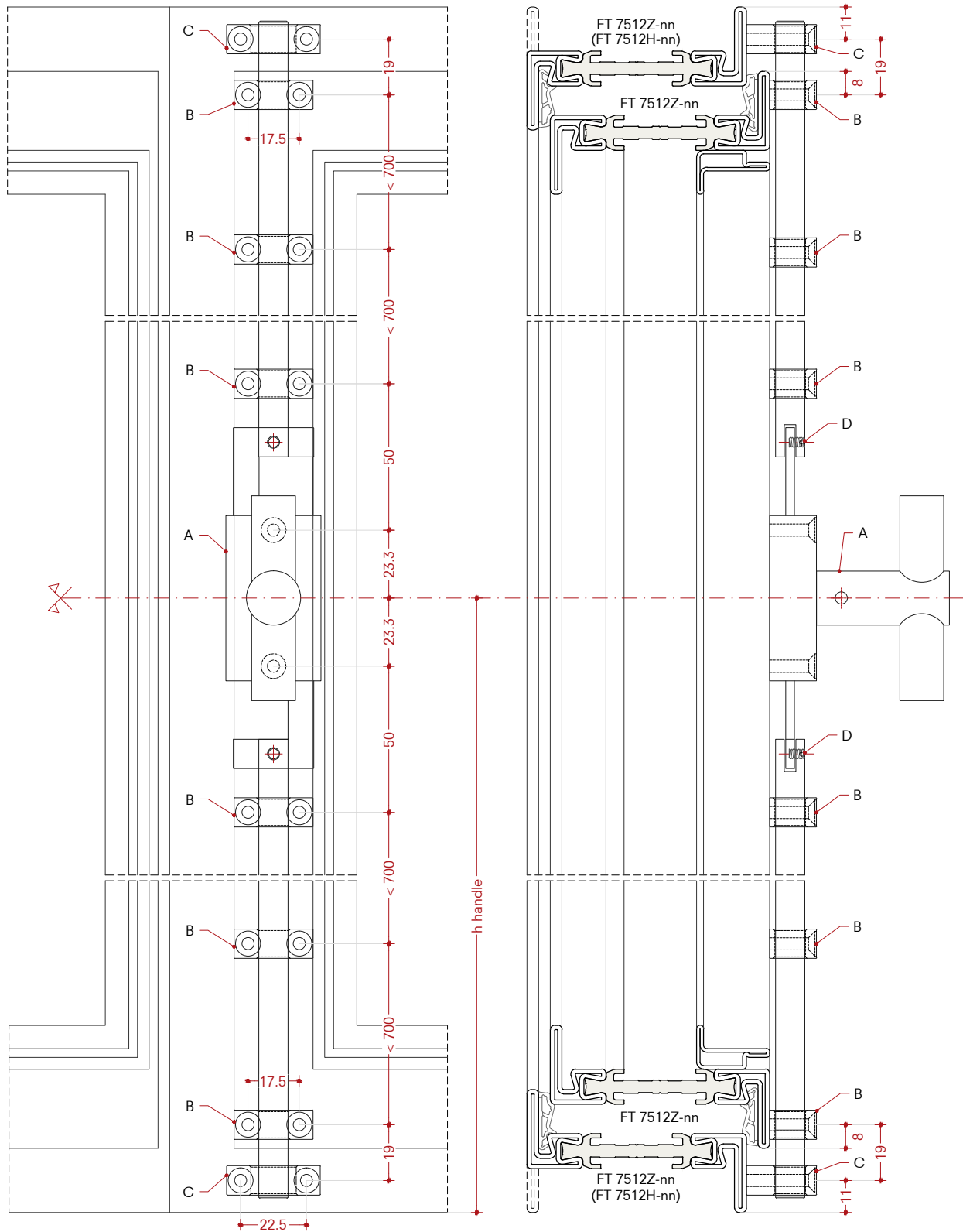
Cremones for round rods  
 Double leaf window  
 Overlapped profiles

**Montaggio**

Cremonese per aste tonde  
 Finestra a due battenti  
 Profili a sormonto

**Montaje**

Falleba para varillas redondas  
 Ventana de dos hojas  
 Perfiles superpuestos



- A) Handle and cremone H99026-26
- B) Pass through guide E99144-26
- C) Strike plate E99148-26
- D) Stud

- A) Maniglia e cremonese H99026-26
- B) Passante asta E99144-26
- C) Riscontro E99148-26
- D) Nottolino

- A) Manilla y falleba H99026-26
- B) Guía de paso E99144-26
- C) Chapa de cierre E99148-26
- D) Alfiler

**Installation**

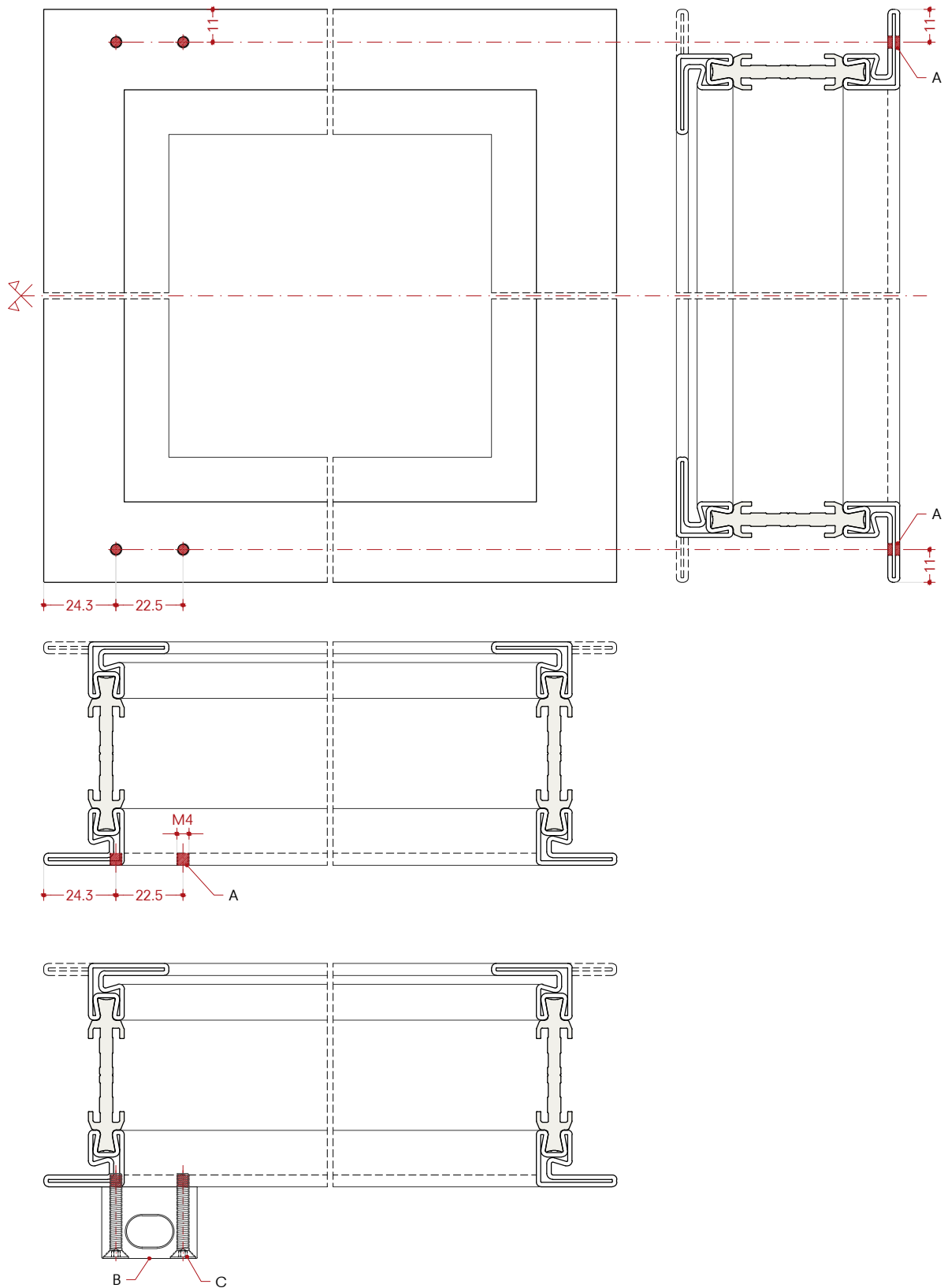
Cremonese for round rods  
 Overlapped profiles  
 Frame profile

**Montaggio**

Cremonese per aste tonde  
 Profili a sormonto  
 Profilo telaio

**Montaje**

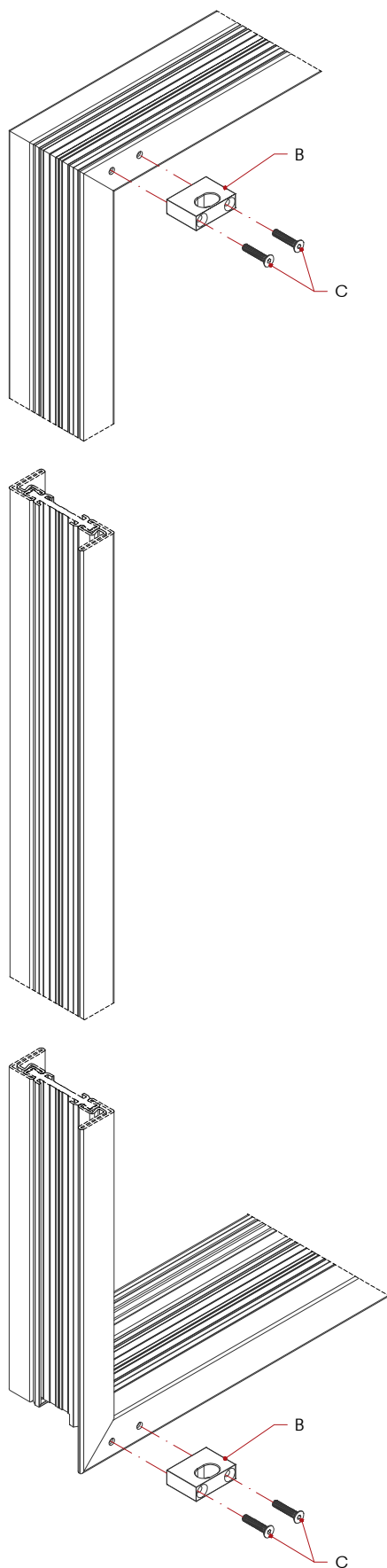
Falleba para varillas redondas  
 Perfiles superpuestos  
 Perfil del marco



- A) M4 holes
- B) Strike plate E99148-26
- C) Fastening with M4x28 mm ISO10642 screws

- A) Fori M4
- B) Riscontro E99148-26
- C) Fissaggio con viti M4x28 mm ISO10642

- A) Orificios M4
- B) Chapa de cierre E99148-26
- C) Fijación con tornillos M4x28 mm ISO10642



**Installation**

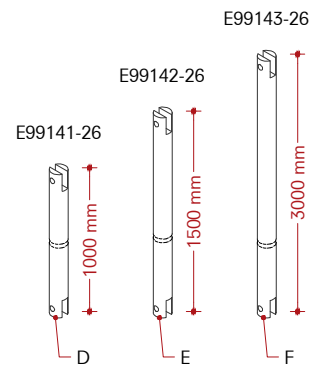
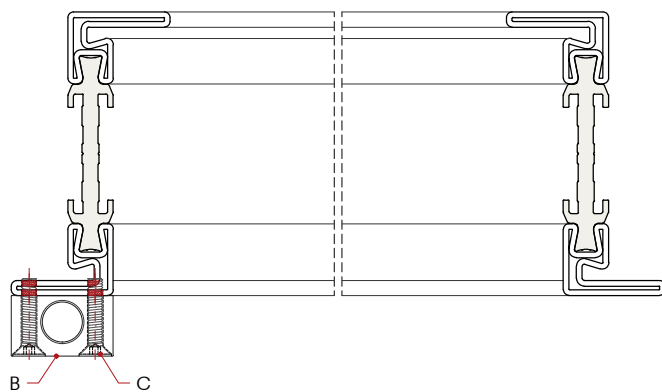
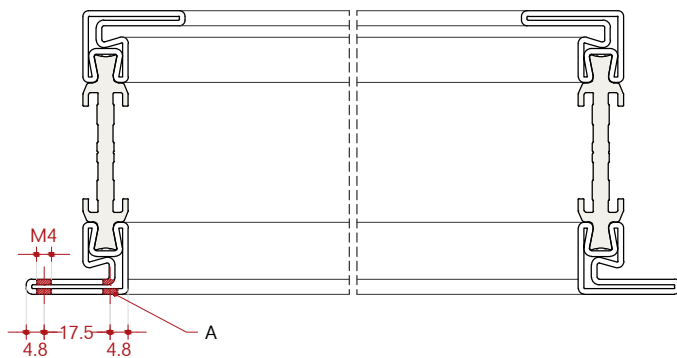
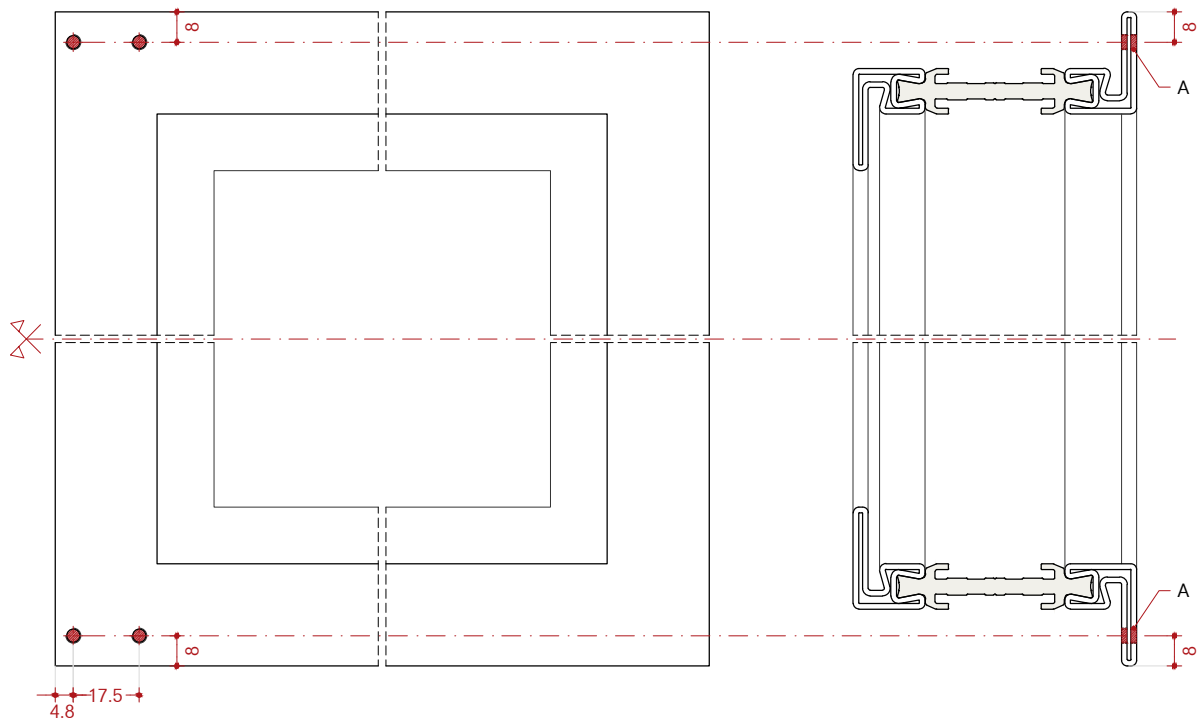
Cremones for round rods  
 Overlapped profiles  
 Leaf profile

**Montaggio**

Cremonese per aste tonde  
 Profili a sormonto  
 Profilo anta

**Montaje**

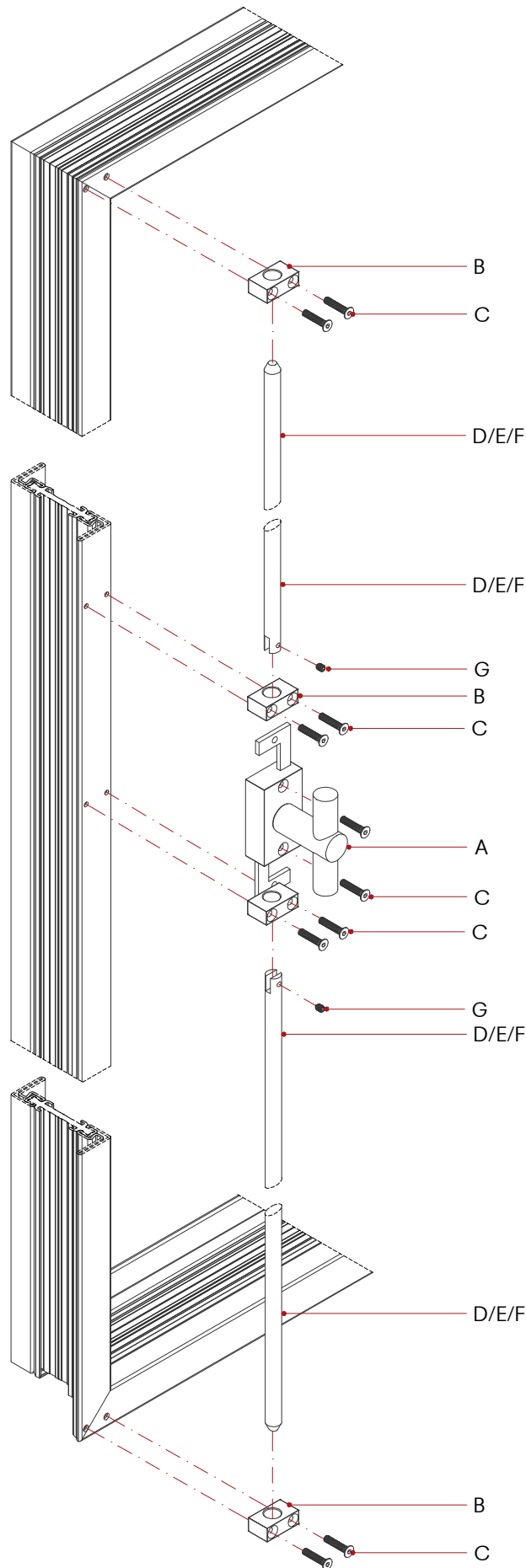
Falleba para varillas redondas  
 Perfiles superpuestos  
 Perfil de la hoja



- A) Handle and cremones H99026-26
- B) Pass through guide E99144-26
- C) Fastening with M4x20 mm ISO10642 screws
- D/E/F) Round cremones rod
- G) Stud

- A) Maniglia e cremonese H99026-26
- B) Passante asta E99144-26
- C) Fissaggio con viti M4x20 mm ISO10642
- D/E/F) Asta cremonese tonda
- G) Nottolino

- A) Manilla y falleba H99026-26
- B) Guía de paso E99144-26
- C) Fijación con tornillos M4x20 mm ISO10642
- D/E/F) Varilla de falleba redonda
- G) Alfiler



**Installation**

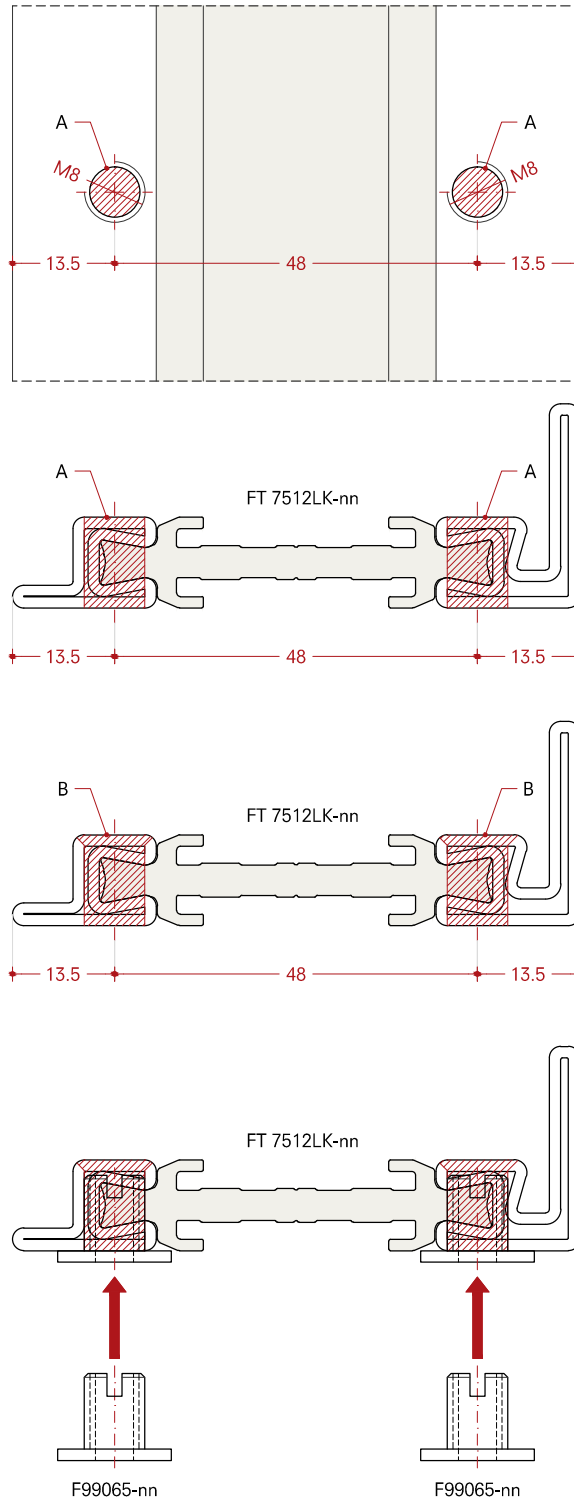
Adjustment bush F99065-nn  
 Flush and overlapped profiles

**Montaggio**

Bussola di regolazione F99065-nn  
 Profili complanari e a sormonto

**Montaje**

Cojinete de regulación F99065-nn  
 Perfiles coplanarios y superpuestos



**Note:**

Install F99065-nn after painting.

- A) M8 hole on frame profile
- B) Deburring hole on the internal side of the frame profile

**Note:**

Installare F99065-nn dopo la verniciatura.

- A) Fori M8 sul profilo telaio
- B) Foro svasato sul lato interno del profilo del telaio

**Nota:**

Instale F99065-nn después de pintar.

- A) Orificios M8 en perfil de marco
- B) Oreficio ensanchado en el lado interno del perfil del marco

**Installation**

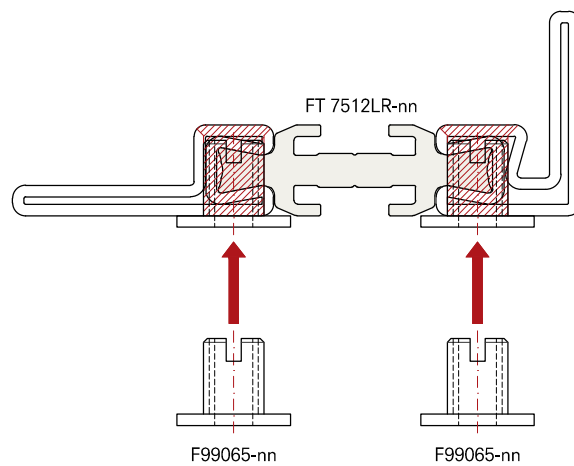
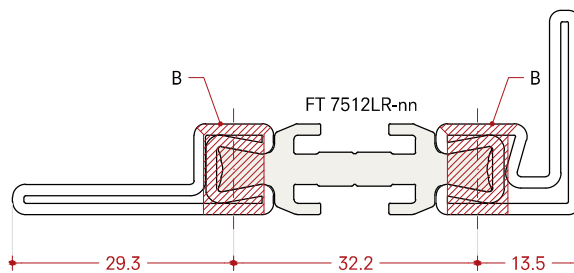
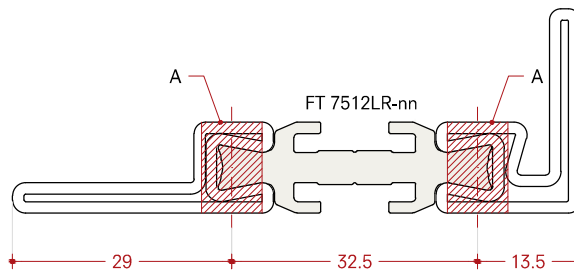
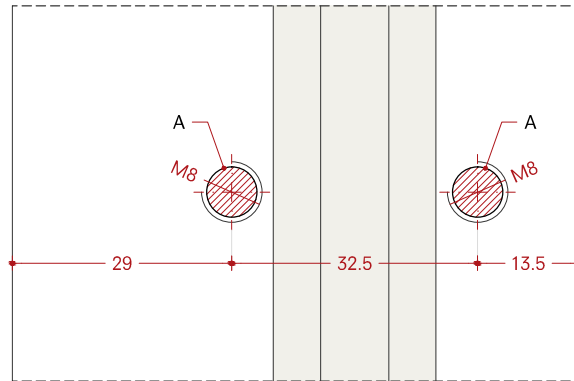
Adjustment bush F99065-nn  
 Tilt&Turn profiles

**Montaggio**

Bussola di regolazione F99065-nn  
 Finestra anta ribalta

**Montaje**

Cojinete de regulación F99065-nn  
 Ventana oscilante



**Note:**

Install F99065-nn after painting.

- A) M8 hole on frame profile
- B) Deburring hole on the internal side of the frame profile

**Note:**

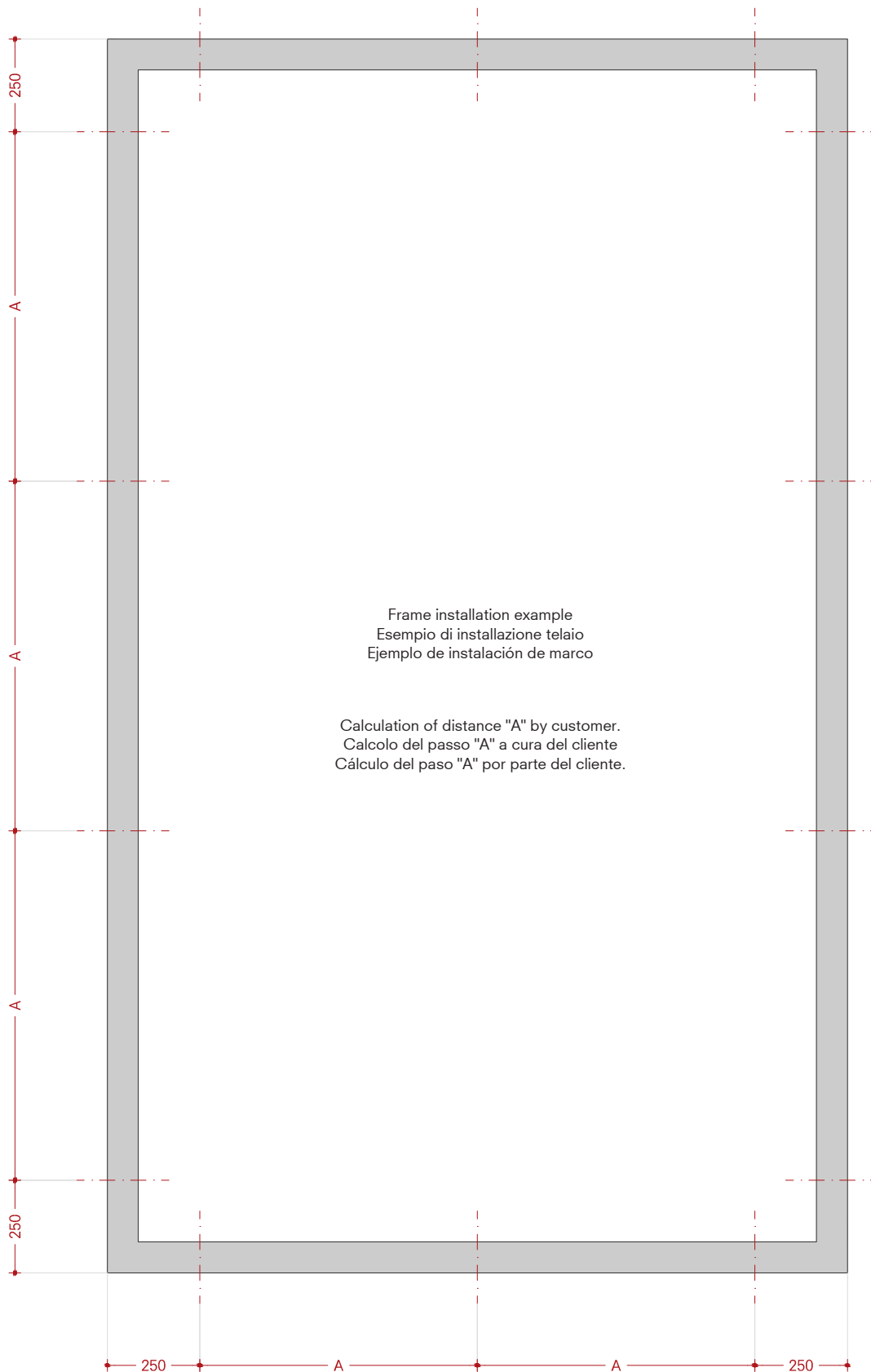
Installare F99065-nn dopo la verniciatura.

- A) Fori M8 sul profilo telaio
- B) Foro svasato sul lato interno del profilo del telaio

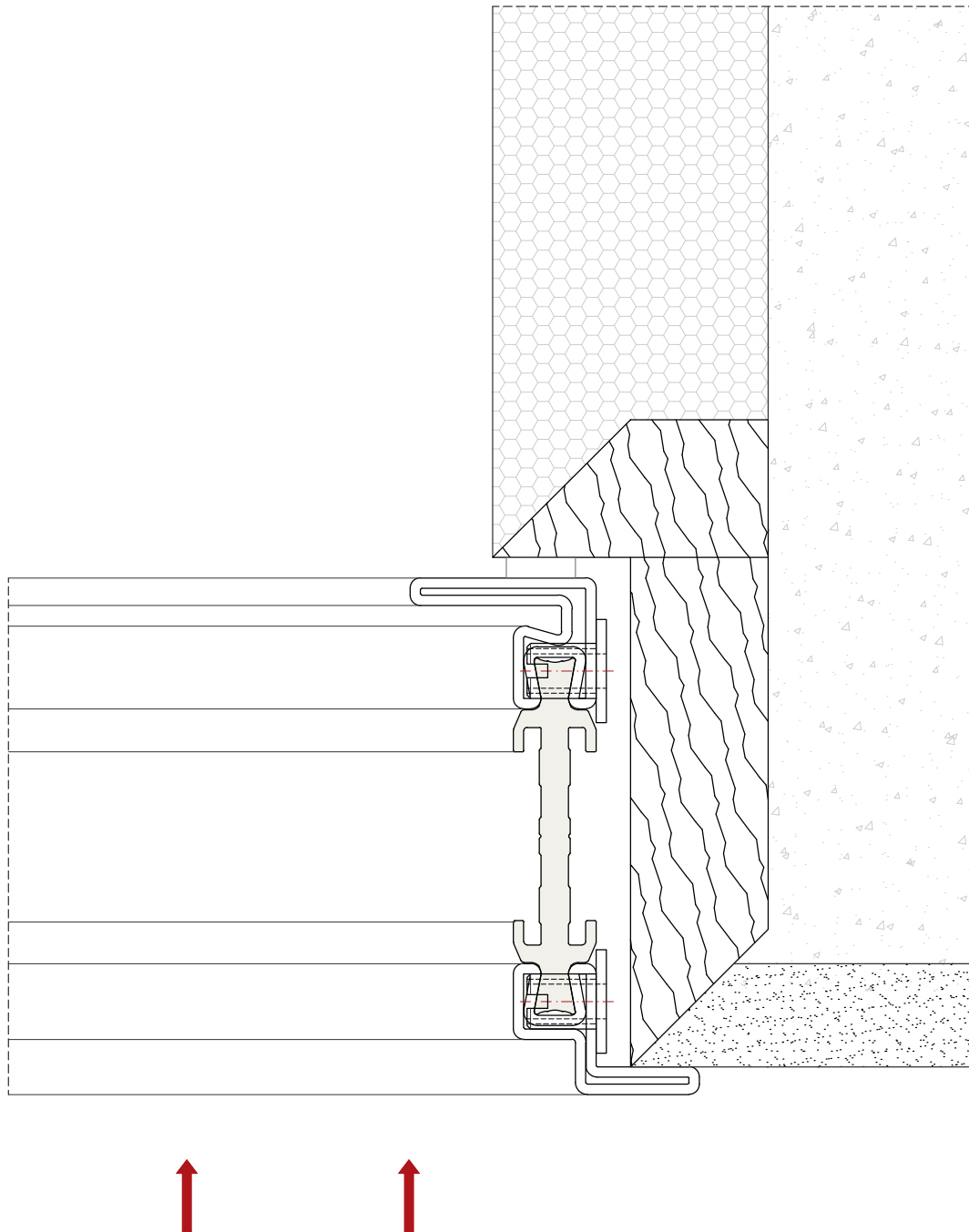
**Nota:**

Instale F99065-nn después de pintar.

- A) Orificios M8 en perfil de marco
- B) Oreficio ensanchado en el lado interno del perfil del marco







**Note:**

Put the frame inside the subframe with F99065-nn completely screwed.

Wall connection solution is indicative.

**Note:**

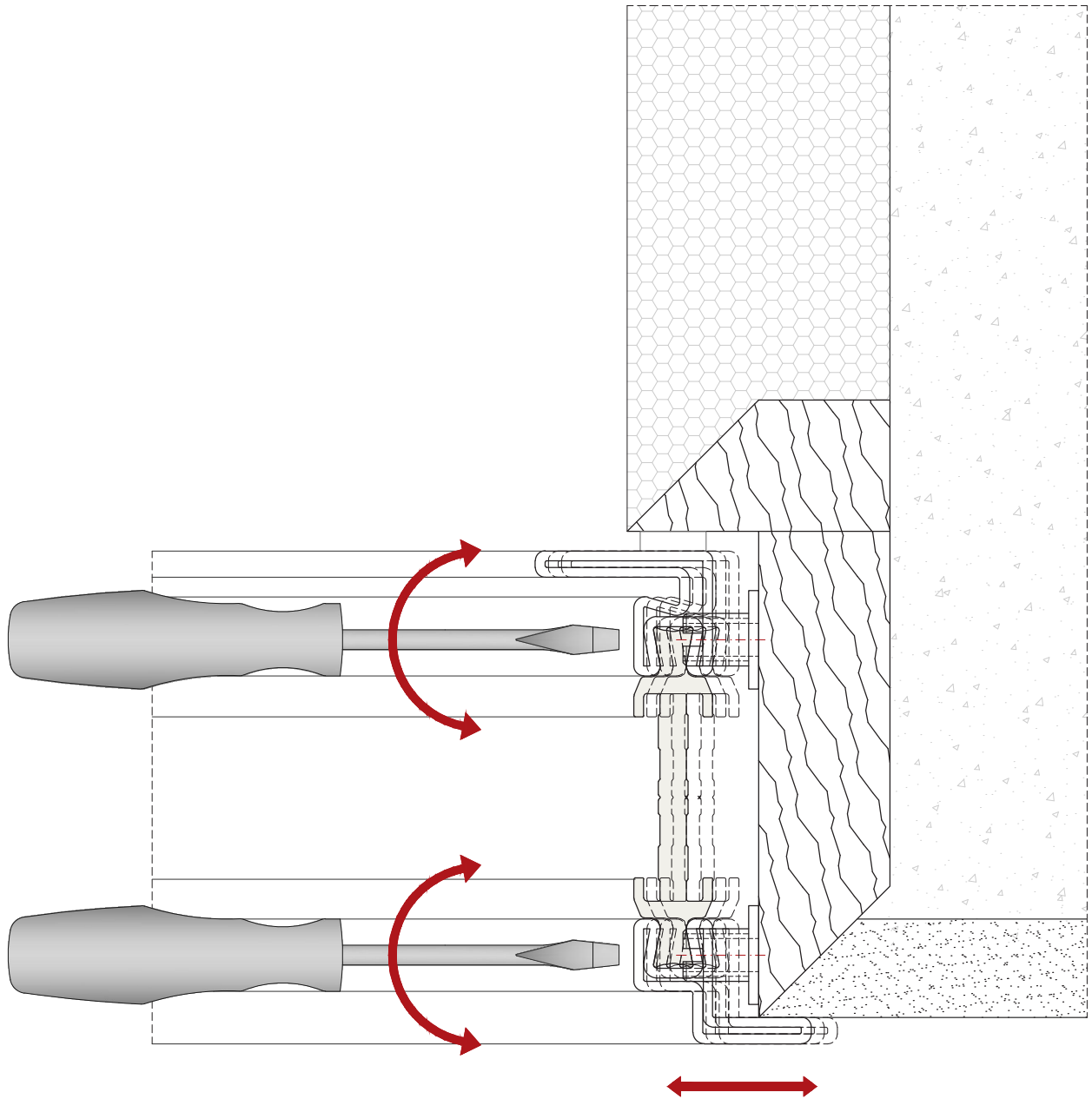
Accostare il telaio all'interno del controtelaio con F99065-nn completamente avvitato.

Soluzione attacco a muro puramente indicativa.

**Nota:**

Poner el marco dentro del subchasis con F99065-nn completamente atornillado.

La solución de conexión a la pared es orientativa.



**Note:**  
 Adjust F99065-nn with the screwdriver all around the frame and find the right position.

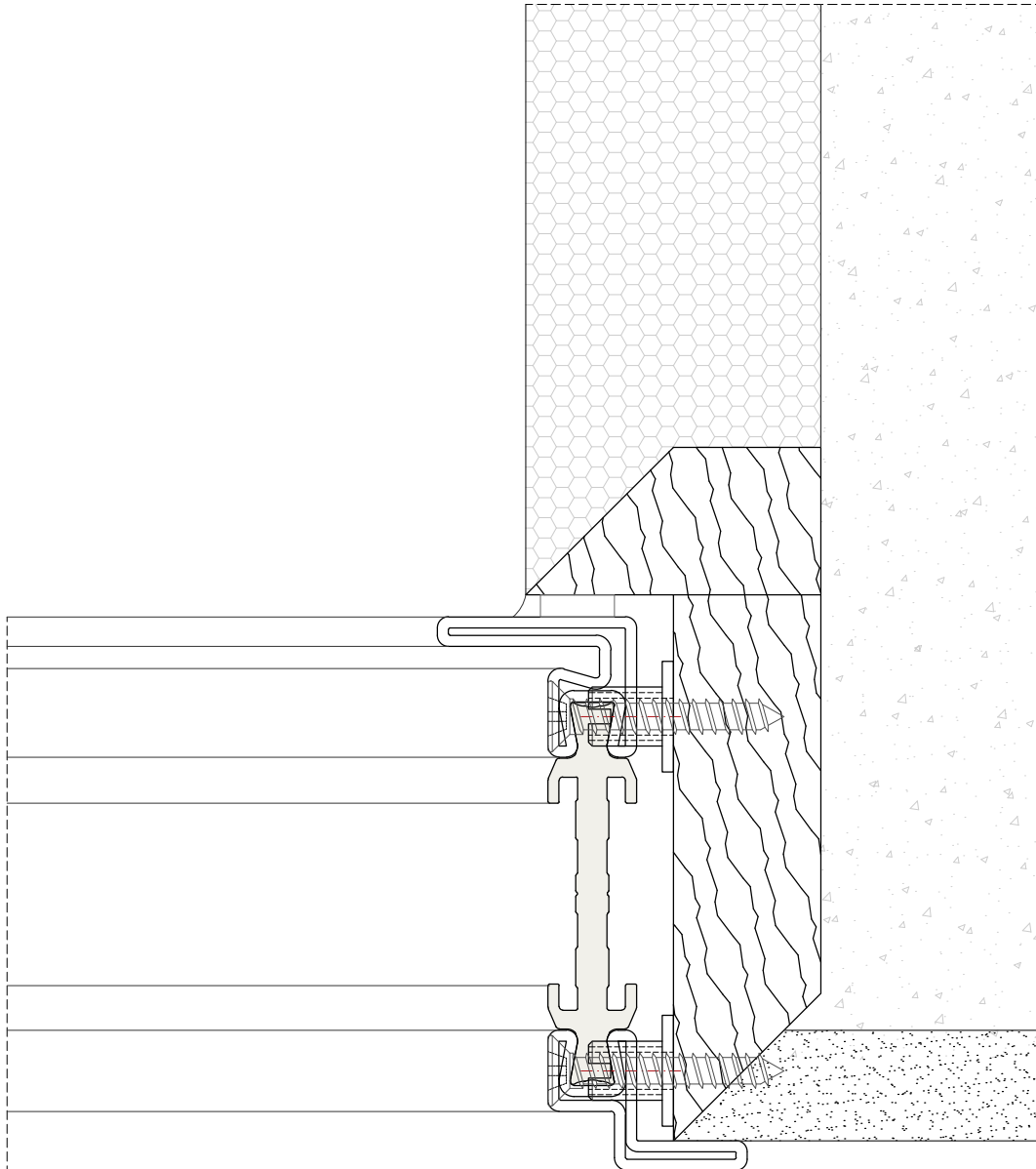
Wall connection solution is indicative.

**Note:**  
 Regolare F99065-nn con il cacciavite tutto intorno al telaio e trovare la giusta posizione.

Soluzione attacco a muro puramente indicativa.

**Nota:**  
 Ajustar F99065-nn con el destornillador alrededor del marco y encuentra la posición correcta.

La solución de conexión a la pared es orientativa.



**Note:**  
 Fastening with Ø4.8 mm screws.

Wall connection solution is indicative.

**Note:**  
 Fissaggio con viti Ø4.8 mm

Soluzione attacco a muro puramente indicativa.

**Nota:**  
 Fijación con tornillos Ø4.8 mm

La solución de conexión a la pared es orientativa.

**Installation**

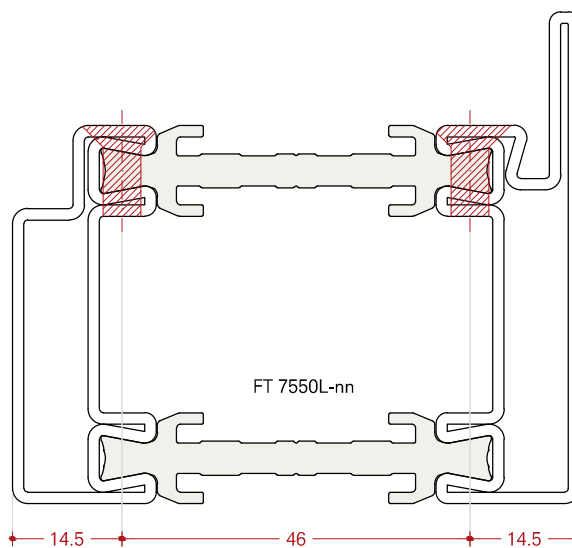
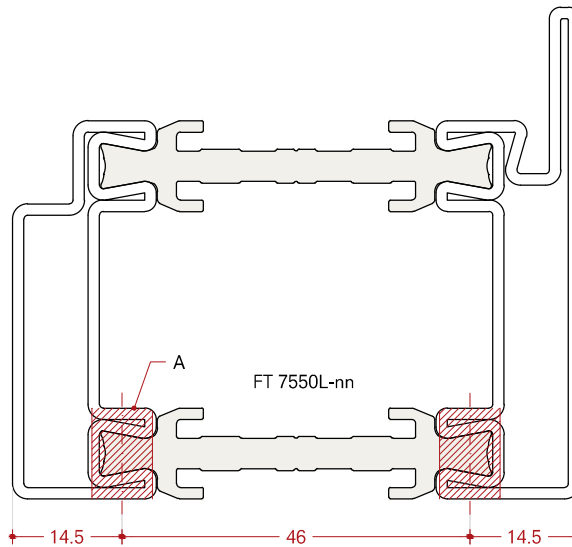
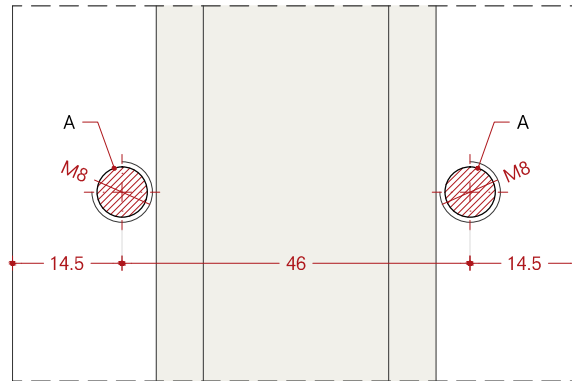
Adjustment bush F99065-nn  
 Flush profiles

**Montaggio**

Bussola di regolazione F99065-nn  
 Profili coplanari

**Montaje**

Cojinete de regulación F99065-nn  
 Perfiles coplanarios



**Note:**

Install F99065-nn after painting.

- A) M8 hole on frame profile
- B) Deburring hole on the internal side of the frame profile

**Note:**

Installare F99065-nn dopo la verniciatura.

- A) Fori M8 sul profilo telaio
- B) Foro svasato sul lato interno del profilo del telaio

**Nota:**

Instale F99065-nn después de pintar.

- A) Orificios M8 en perfil de marco
- B) Oreficio ensanchado en el lado interno del perfil del marco

**Installation**

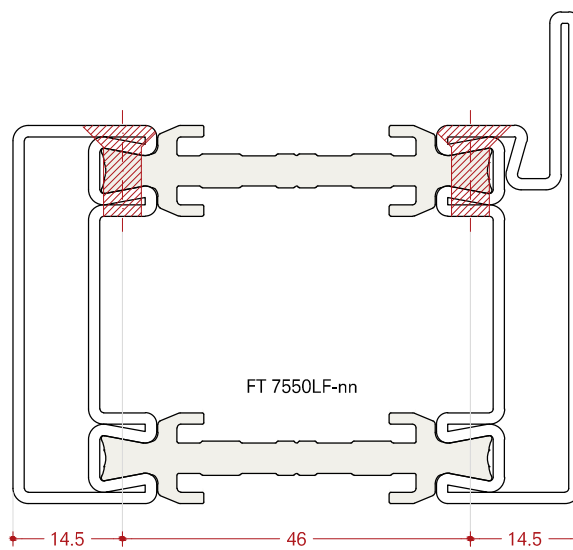
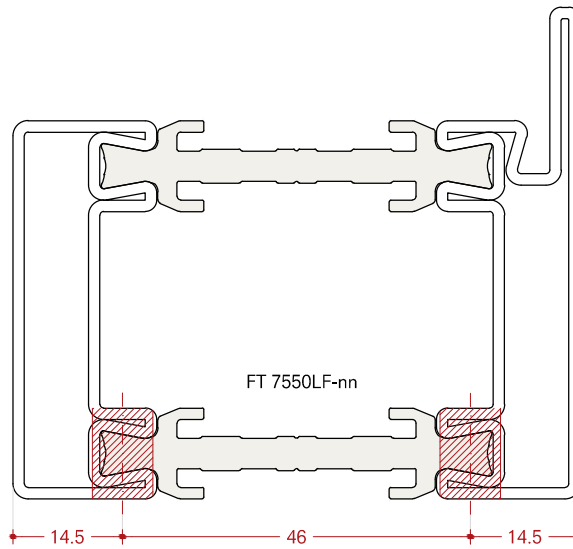
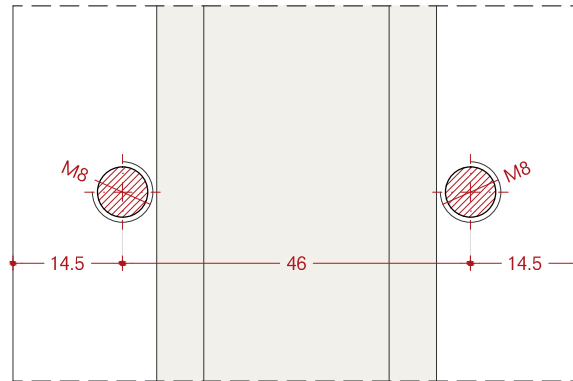
Adjustment bush F99065-nn  
 Overlapped profiles

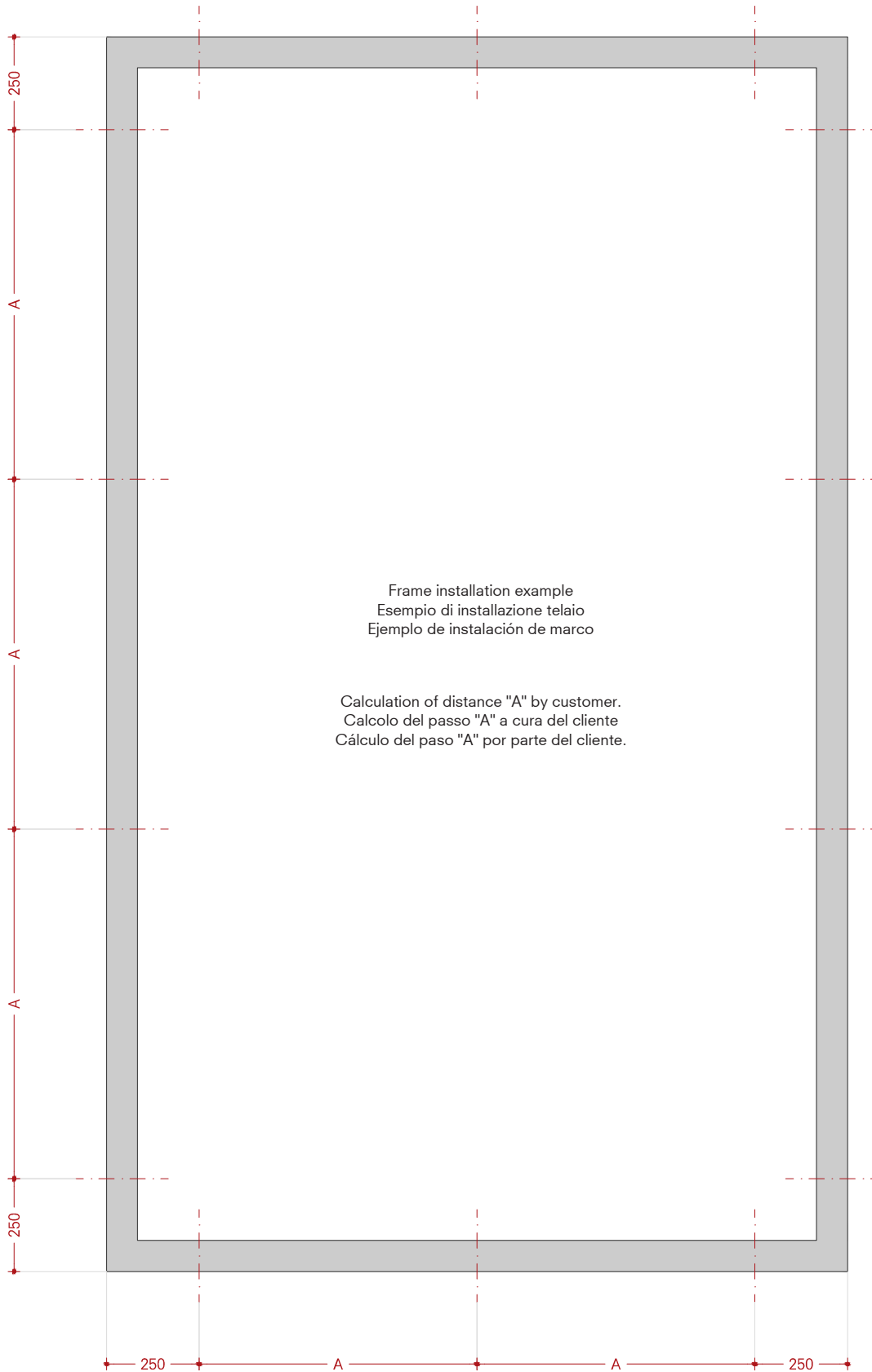
**Montaggio**

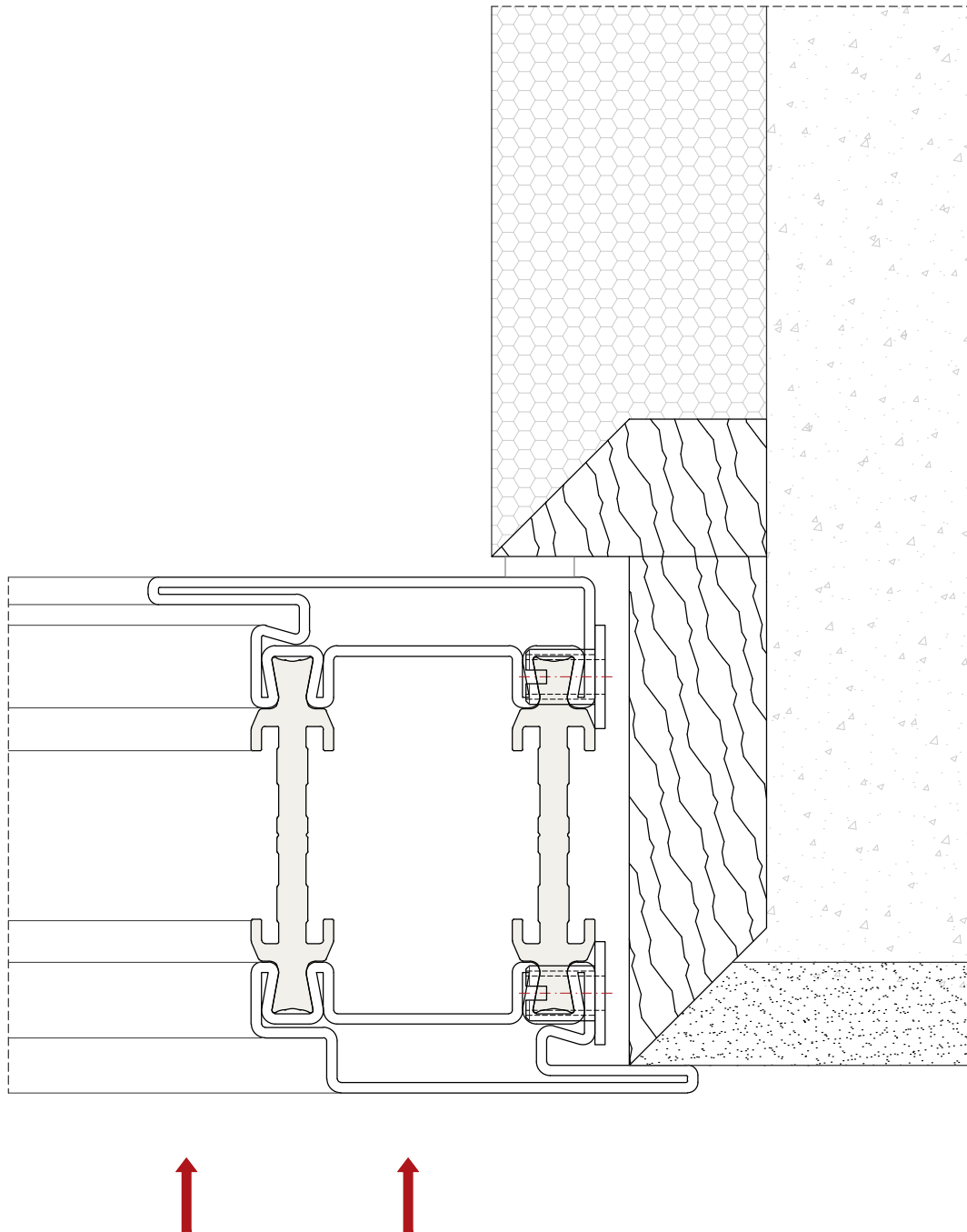
Bussola di regolazione F99065-nn  
 Profili a sormonto

**Montaje**

Cojinete de regulación F99065-nn  
 Perfiles superpuestos







**Note:**

Put the frame inside the subframe with F99065-nn completely screwed.

Wall connection solution is indicative.

**Note:**

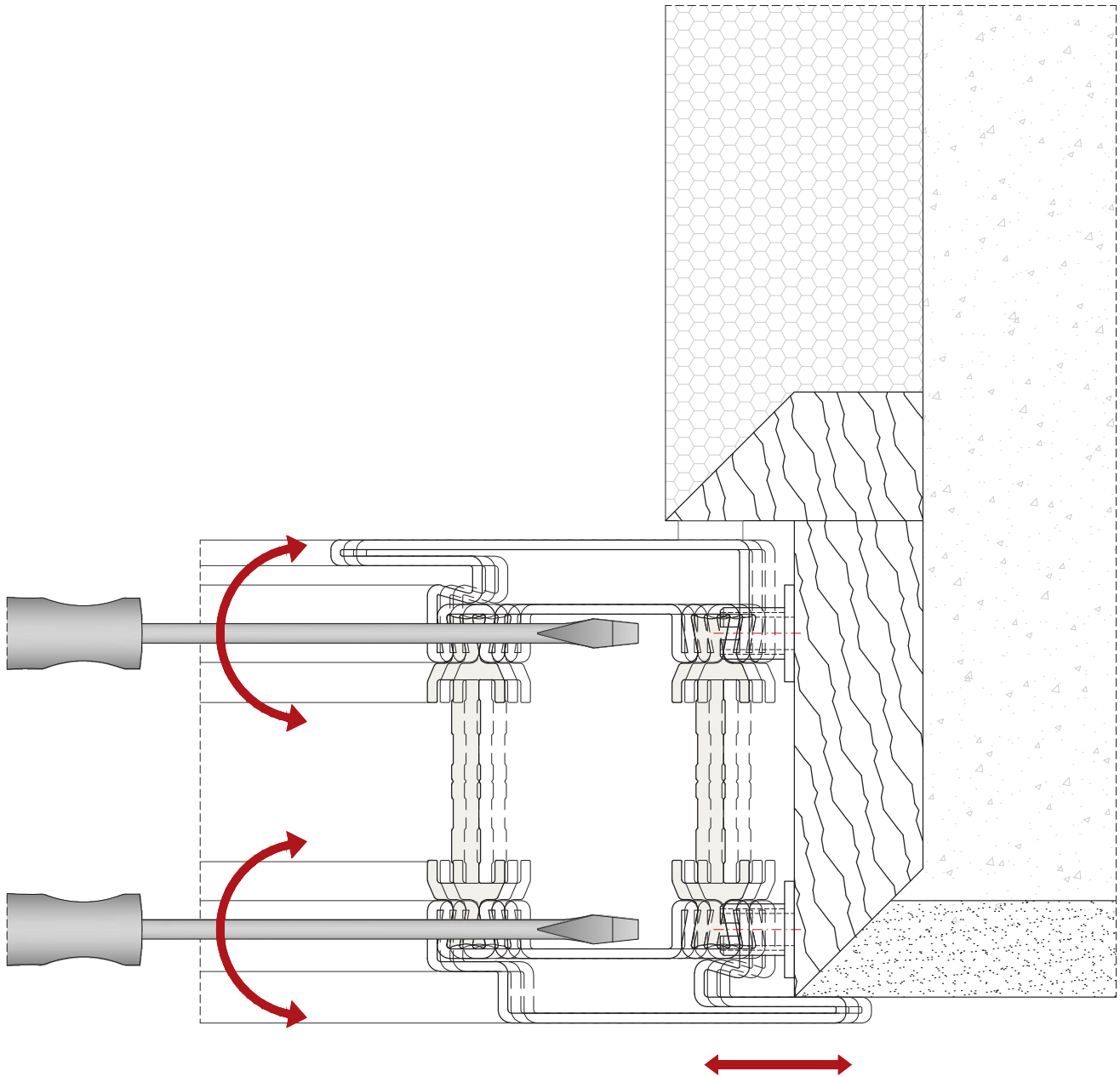
Accostare il telaio all'interno del controtelaio con F99065-nn completamente avvitato.

Soluzione attacco a muro puramente indicativa.

**Nota:**

Poner el marco dentro del subchasis con F99065-nn completamente atornillado.

La solución de conexión a la pared es orientativa.



**Note:**

Adjust F99065-nn with the screwdriver all around the frame and find the right position.

Wall connection solution is indicative.

**Note:**

Regolare F99065-nn con il cacciavite tutto intorno al telaio e trovare la giusta posizione.

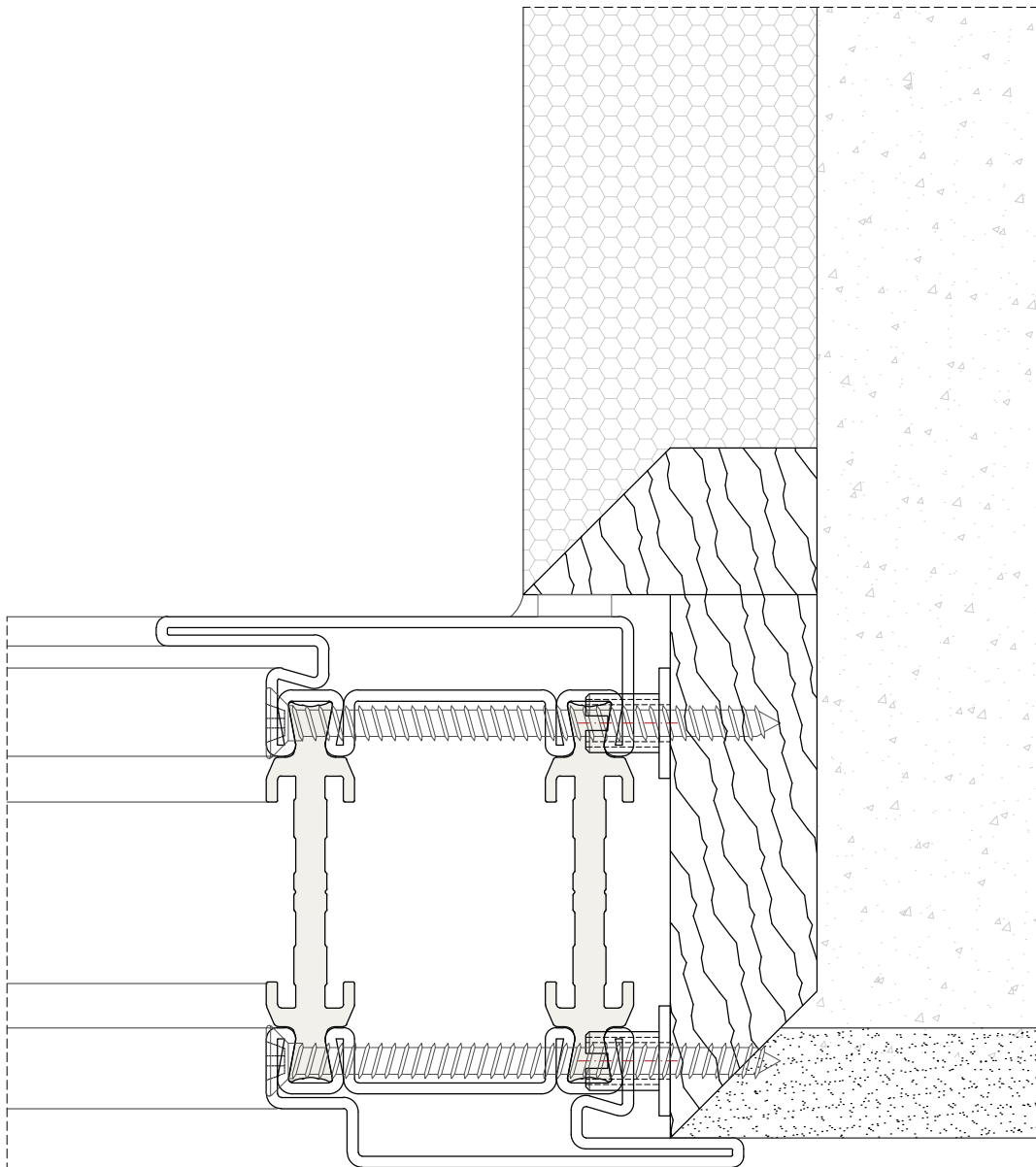
Soluzione attacco a muro puramente indicativa.

**Nota:**

Ajustar F99065-nn con el destornillador alrededor del marco y encuentra la posición correcta.

La solución de conexión a la pared es orientativa.





**Note:**  
 Fastening with Ø4.8 mm screws.

Wall connection solution is indicative.

**Note:**  
 Fissaggio con viti Ø4.8 mm

Soluzione attacco a muro puramente indicativa.

**Nota:**  
 Fijación con tornillos Ø4.8 mm

La solución de conexión a la pared es orientativa.



**Multipoint steel rods  
installation,  
with Graz**

**Montaggio  
Multipoint aste in acciaio,  
con Graz**

**Montaje  
Multipoint varillas de acero,  
con Graz**

5.5

**Legend**

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:2 - 1:4

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:2 - 1:4

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:2 - 1:4

**Multipoint steel rods, with Graz configuration**

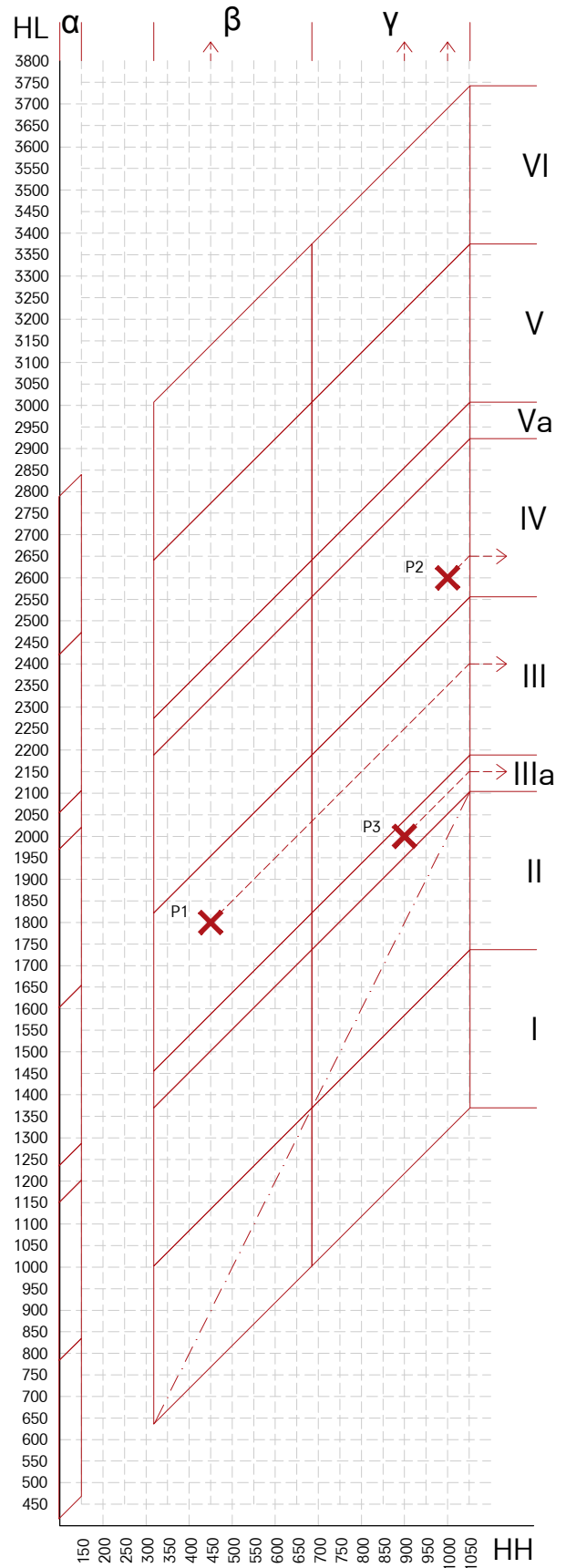
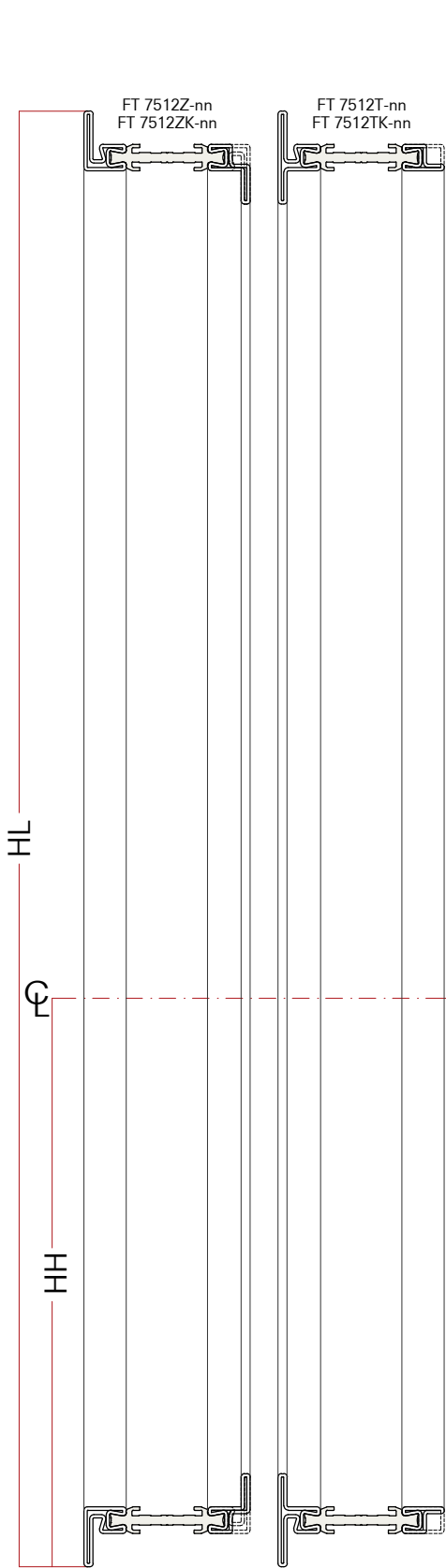
**Multipoint aste in acciaio, con Graz configurazione**

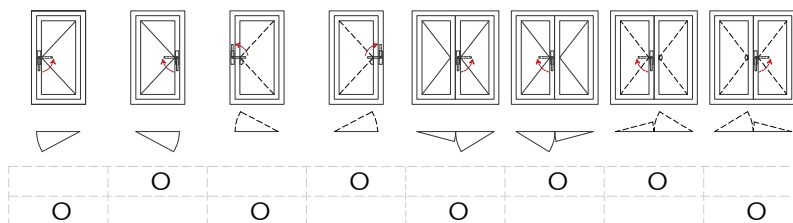
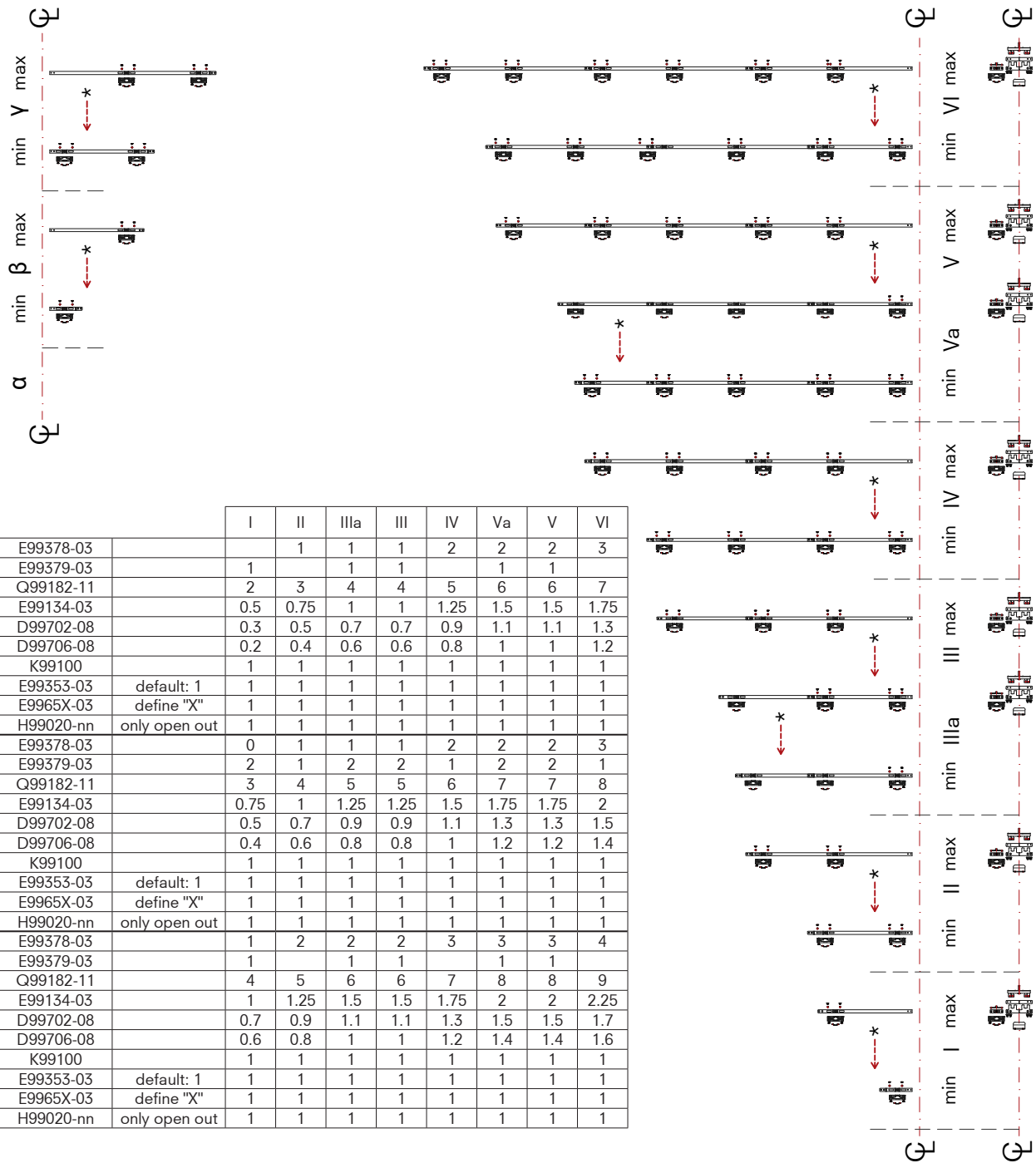
**Multipoint varillas de acero, con Graz configuración**

INPUT: HL = altura hoja  
 HH = altura manilla  
 OUTPUT: Dos CoFCo (CONFIGURATION FIELD COORDINATES)  
 I; II; III; IV; Va; V; VI y alfa; beta; gamma.  
 Los dos CoFCos definen la solución en las siguientes páginas.  
 - - - - - = Manilla simétrica  
 X = Examples:  
 P1 (1800 / 450 mm) -> III +  $\beta$   
 P2 (2600 / 1000 mm) -> IV + Y  
 P3 (2000 / 900 mm) -> IIIa + Y

INPUT: HL = altezza anta  
 HH = altezza maniglia  
 OUTPUT: Due CoFCo (CONFIGURATION FIELD COORDINATES)  
 I; II; III; IV; Va; V; VI e alfa; beta; gamma.  
 I due CoFCo definiscono la soluzione nelle pagine seguenti.  
 - - - - - = Maniglia simmetrica  
 X = Examples:  
 P1 (1800 / 450 mm) -> III +  $\beta$   
 P2 (2600 / 1000 mm) -> IV + Y  
 P3 (2000 / 900 mm) -> IIIa + Y

INPUT: HL = Height Leaf  
 HH = Height Handle  
 OUTPUT: Two CoFCo (CONFIGURATION FIELD COORDINATES)  
 I; II; III; IV; Va; V; VI and alfa; beta; gamma.  
 The two CoFCo define the solution in the following pages.  
 - - - - - = Symmetric handle  
 X = Examples:  
 P1 (1800 / 450 mm) -> III +  $\beta$   
 P2 (2600 / 1000 mm) -> IV + Y  
 P3 (2000 / 900 mm) -> IIIa + Y





← \* Cropping of rods.

← \* Ritaglio delle aste.

← \* Recorte de barras.

**Note:**

For double-hung window, the basic configuration is defined with 2 flush bolts E99021-35. If different flush bolt sizes are used, the hardware must be recalculated.

**Note:**

Per finestre a due ante, la configurazione base è definita con l'utilizzo di 2 catenacci E99021-35. In caso di utilizzo di catenacci di differente dimensione, la ferramenta deve essere ricalcolata.

**Nota:**

Para las ventanas de dos hojas, la configuración básica se define con el uso de 2 pernos E99021-35. Si se utilizan tamaños de pernos diferentes, hay que volver a calcular los herrajes.

**Multipoint steel rods installation, with Graz**

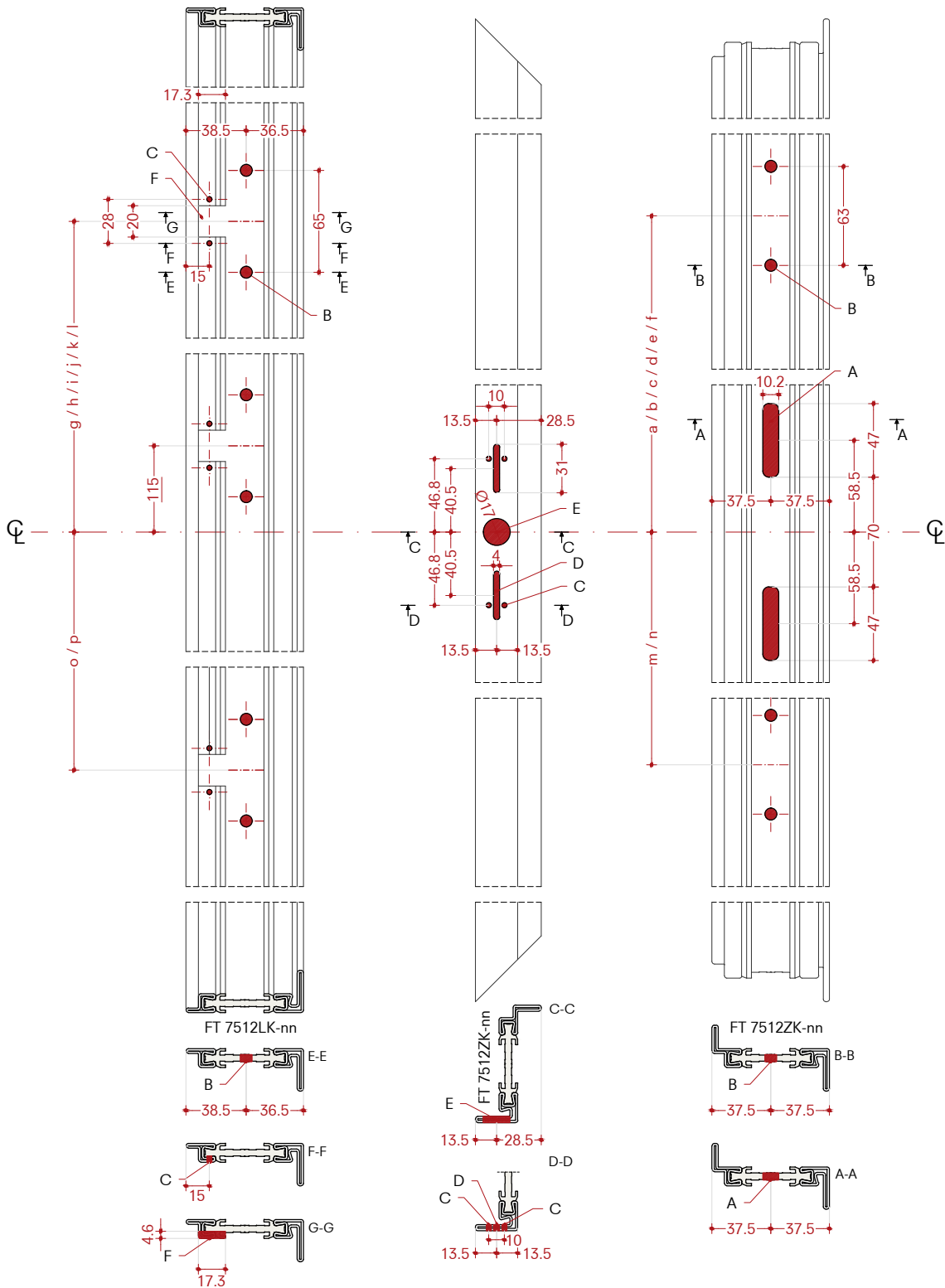
Single leaf window  
 Open in - Right opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura interna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

Ventana de una hoja  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles coplanarios



Scale 1:4

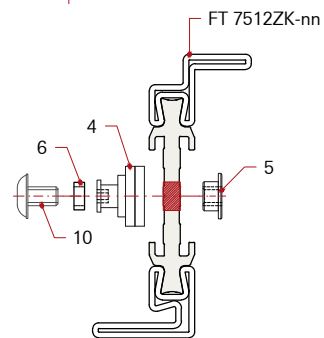
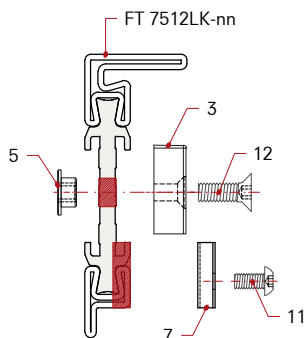
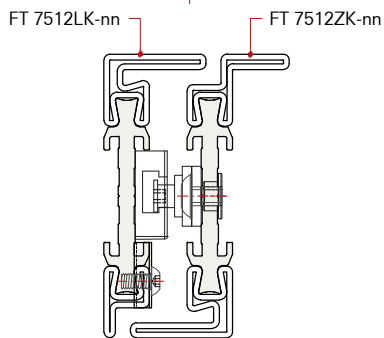
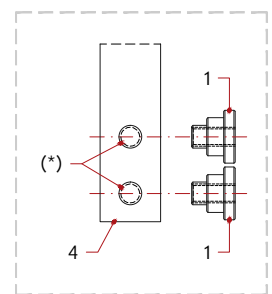
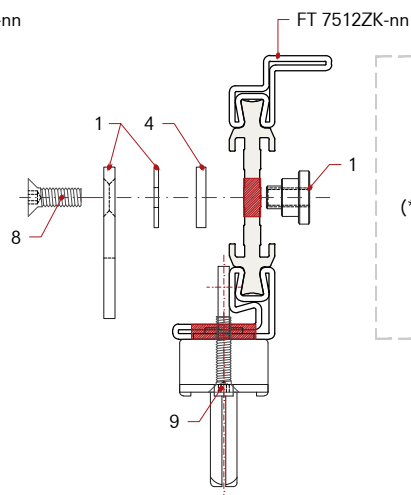
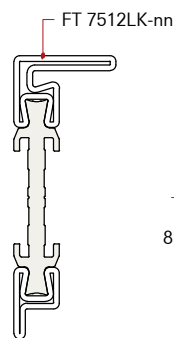
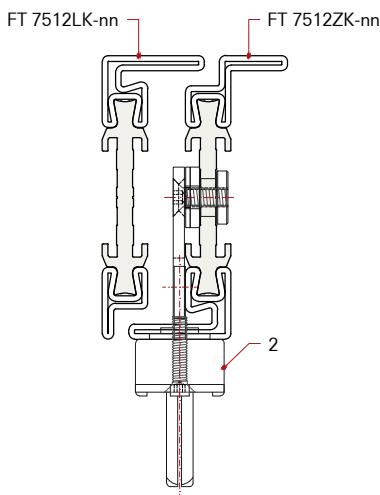
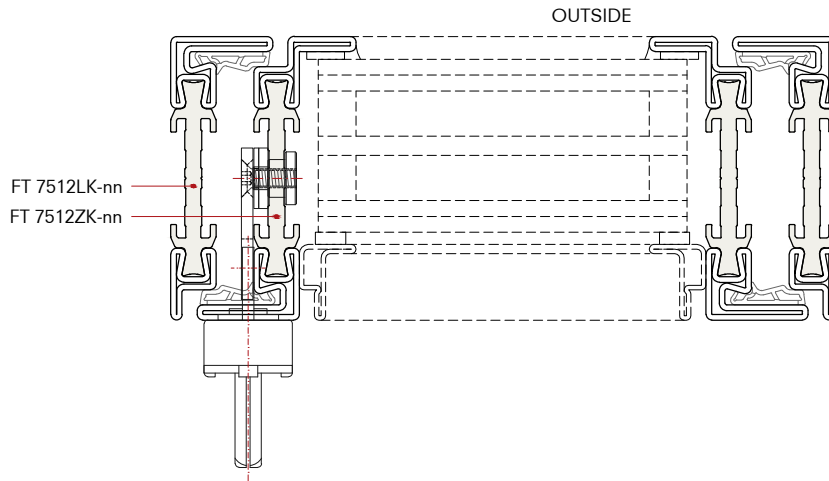
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm



Scale 1:2

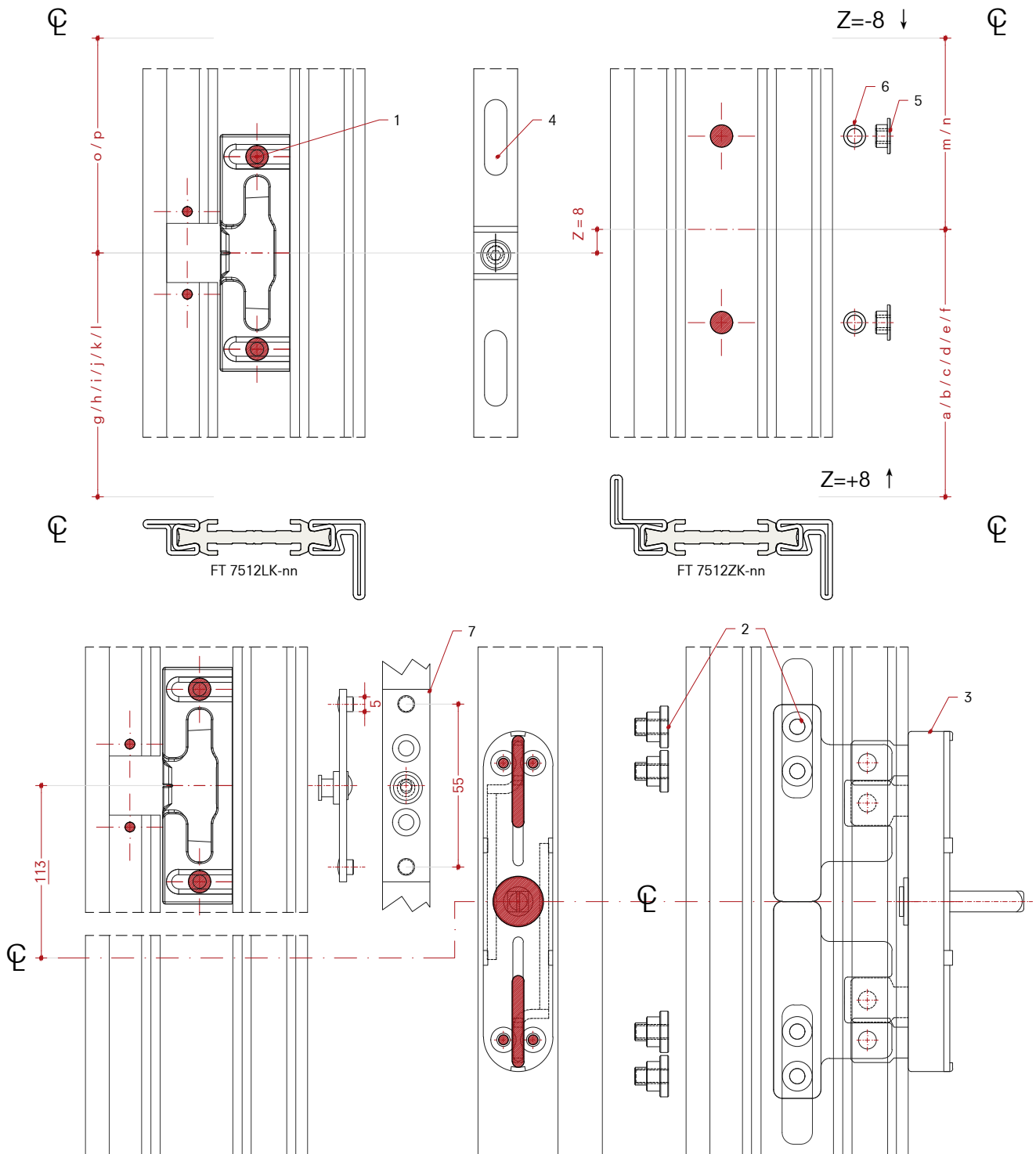
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\*) Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\*) Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\*) Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)



**Multipoint steel rods installation, with Graz**

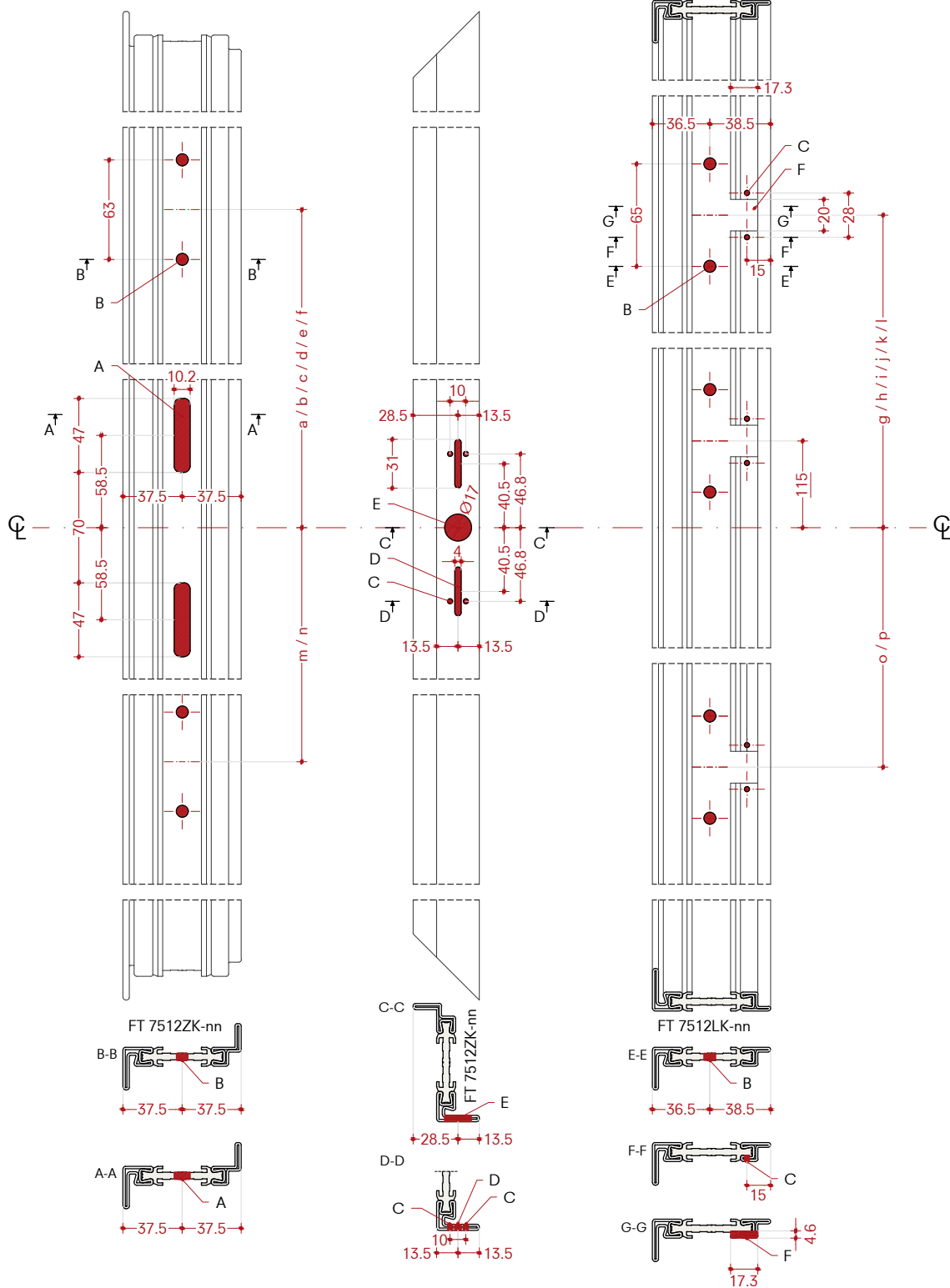
Single leaf window  
 Open in - Left opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura interna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

Ventana de una hoja  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles coplanarios



Scale 1:4

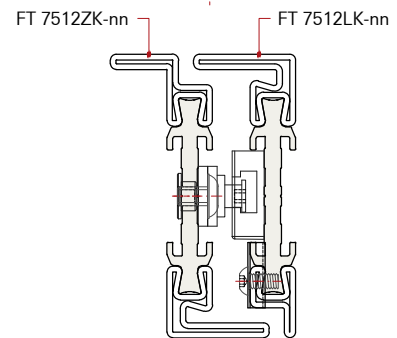
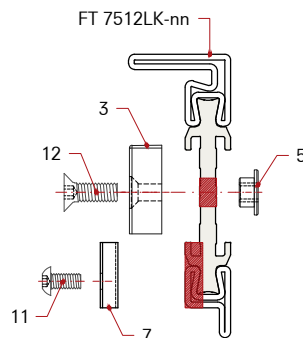
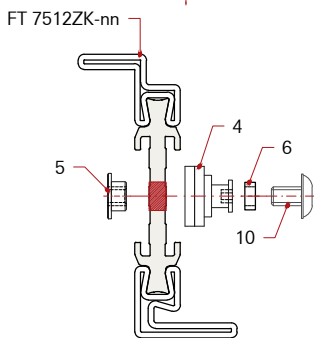
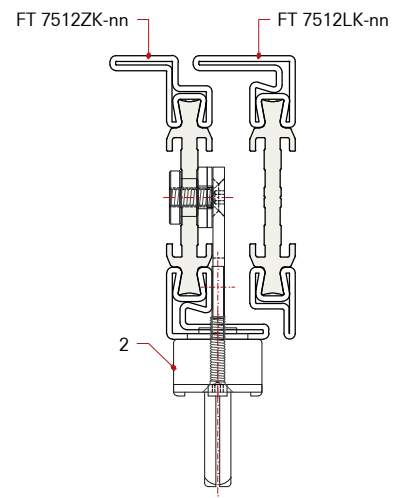
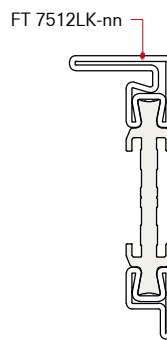
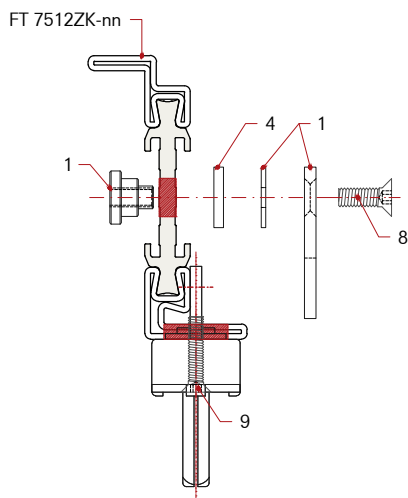
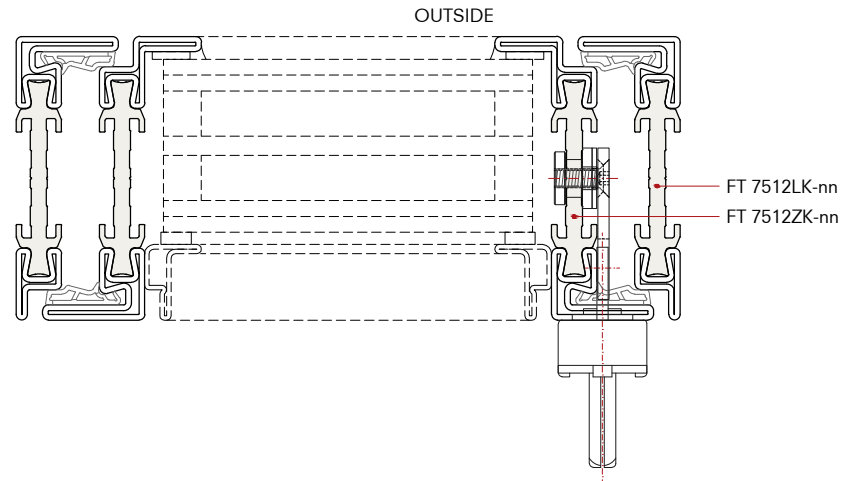
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm



Scale 1:2

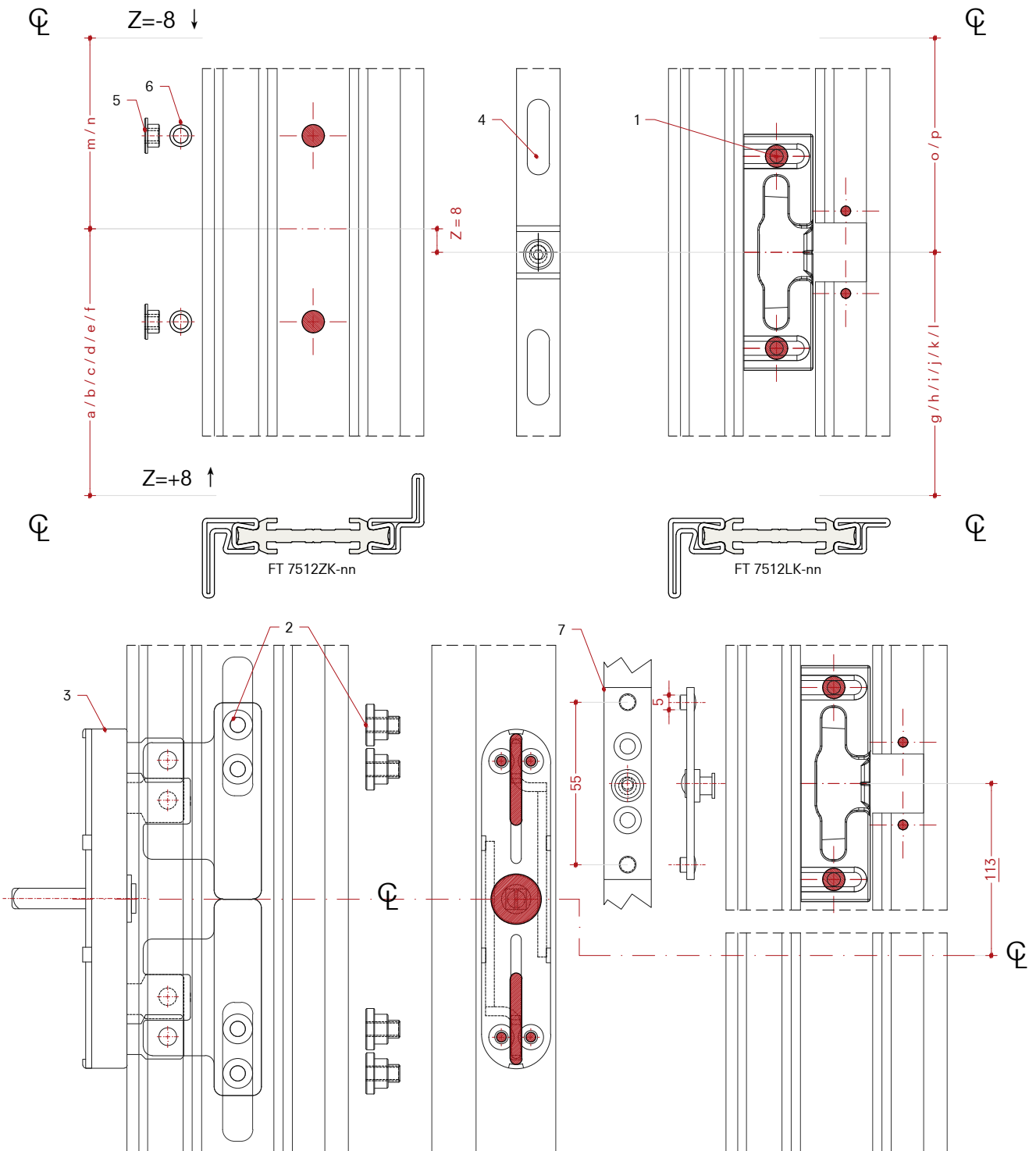
- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Coutout cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco di guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Chapa de cierre
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

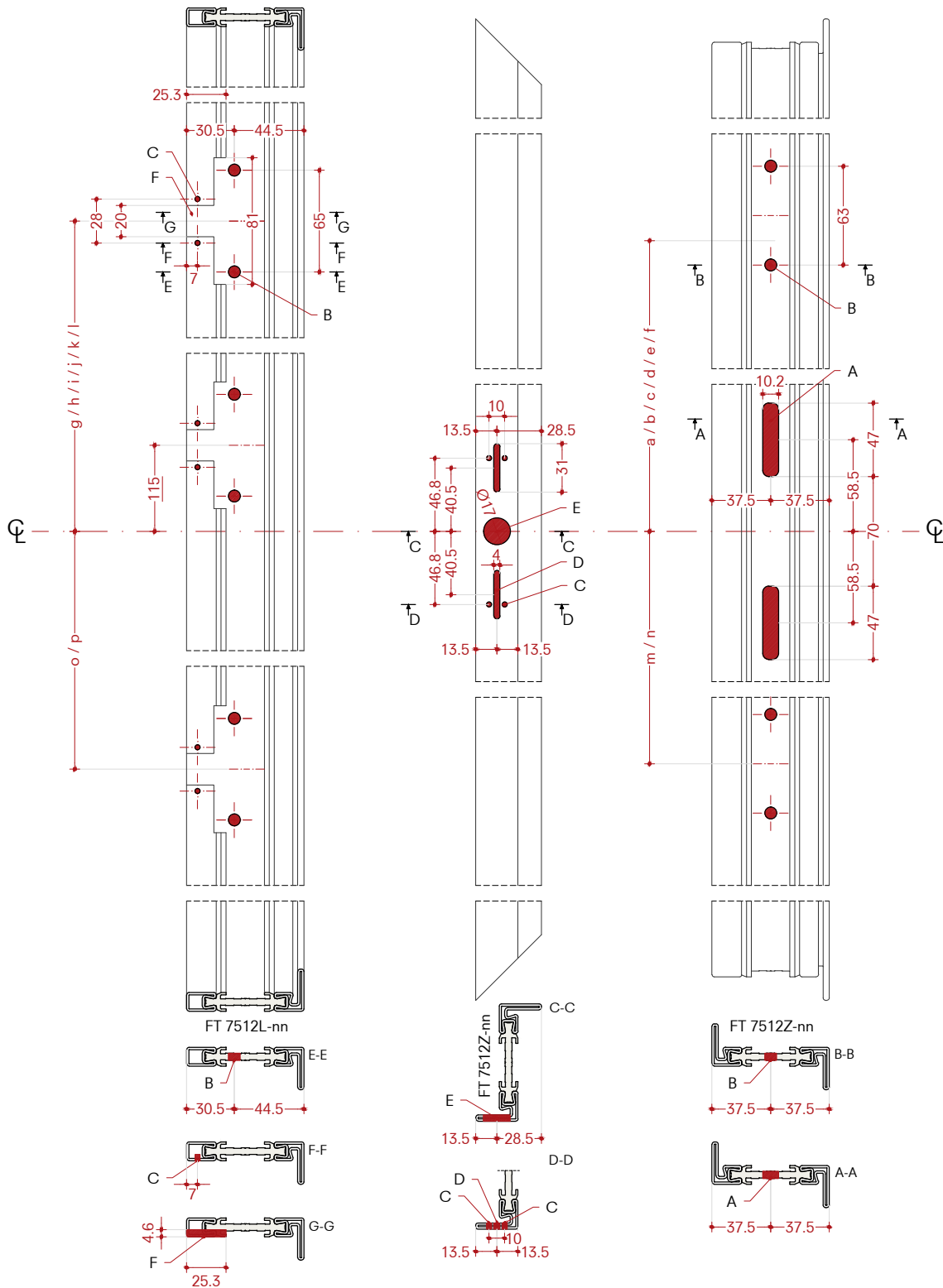
Single leaf window  
 Open in - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura interna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

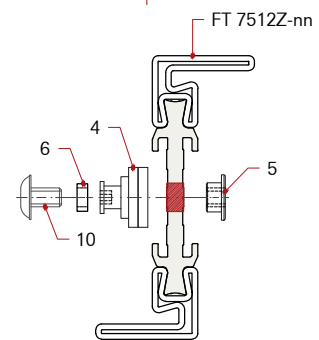
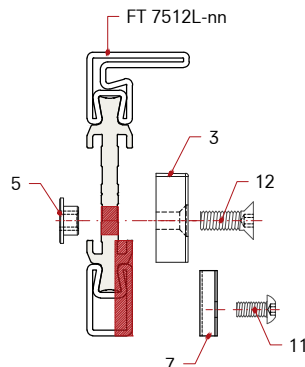
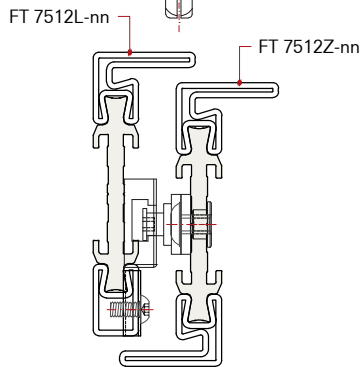
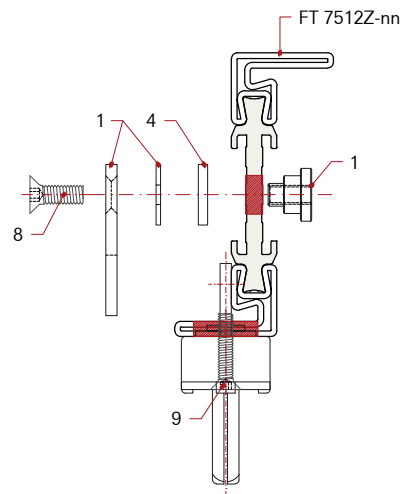
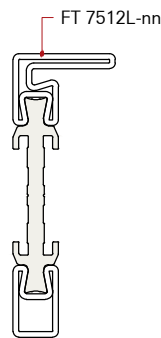
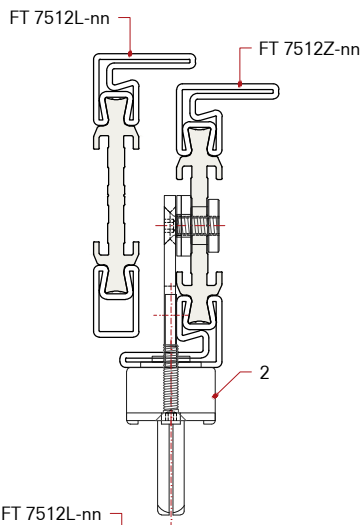
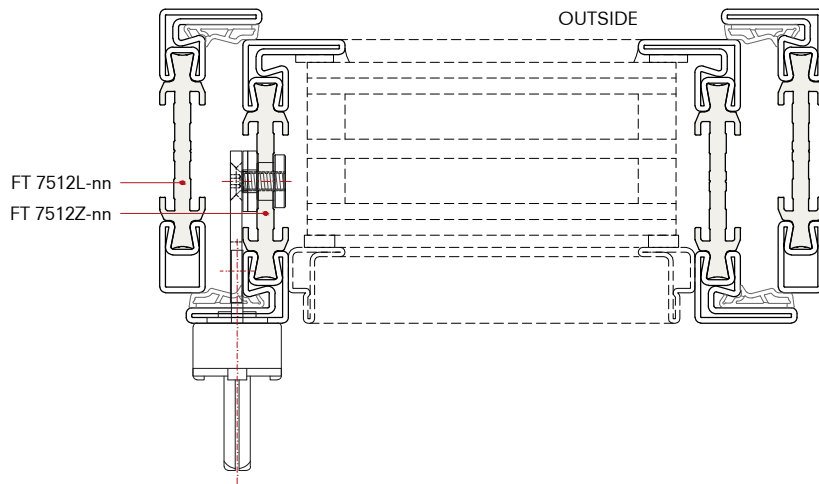
Ventana de una hoja  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles superpuestos



- Scale 1:4  
 A) Cut out 47x10.2 mm  
 B) Ø7.5 mm holes to be checked  
 C) Ø3.2 mm threaded M4 holes  
 D) Cut out 31x4 mm  
 E) Ø17 mm hole  
 F) Cut out 25.3x4.6x20 mm

- Scala 1:4  
 A) Fresatura 47x10.2 mm  
 B) Fori Ø7.5 mm da verificare  
 C) Fori Ø3.2 mm filettati M4  
 D) Fresatura 31x4 mm  
 E) Foro Ø17 mm  
 F) Fresatura 25.3x4.6x20 mm

- Escala 1:4  
 A) Fresado 47x10.2 mm  
 B) Orificios Ø7.5 mm por verificar  
 C) Orificios Ø3.2 mm roscados M4  
 D) Fresado 31x4 mm  
 E) Orificio Ø17 mm  
 F) Fresado 25.3x4.6x20 mm



Scale 1:2

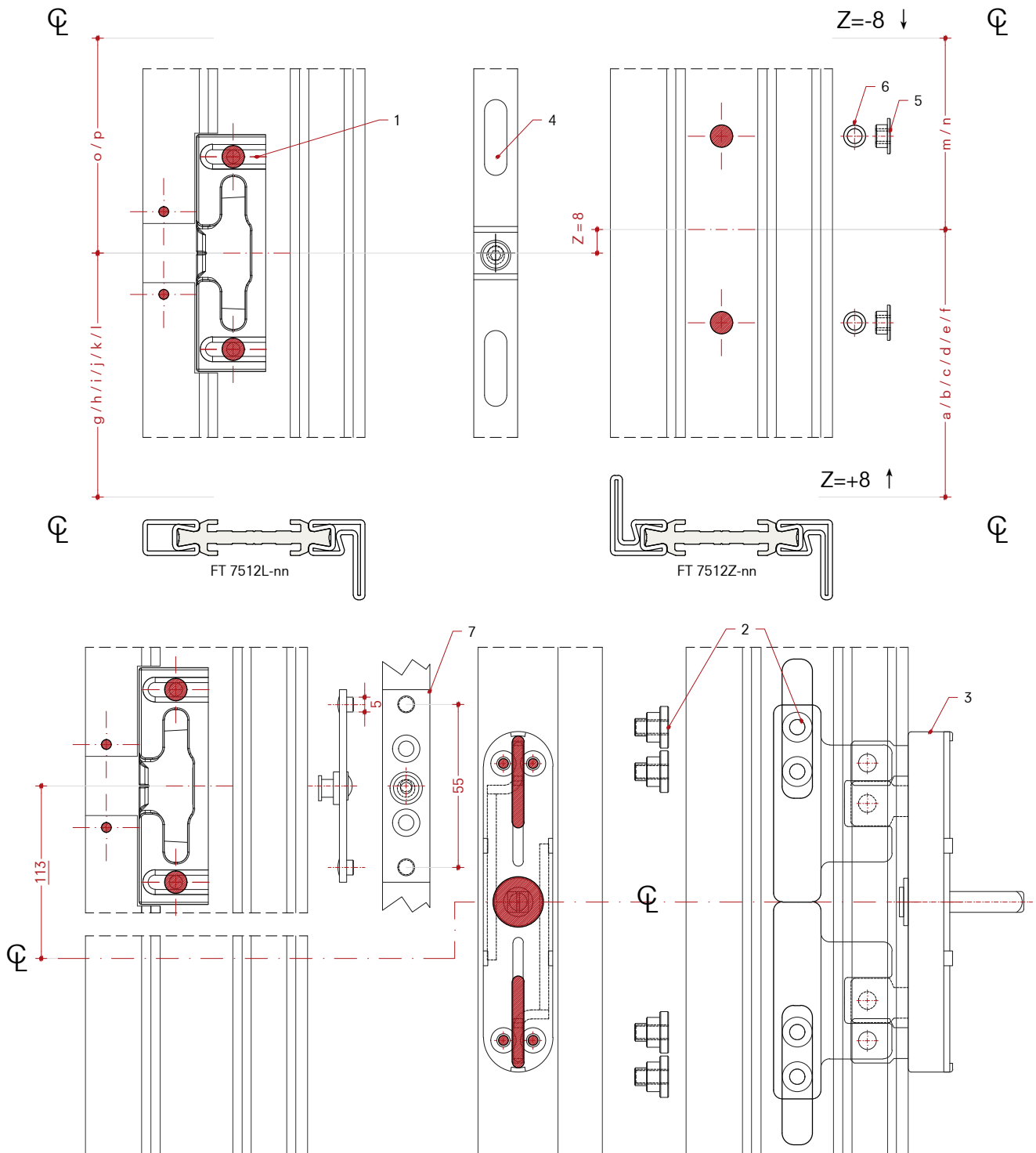
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

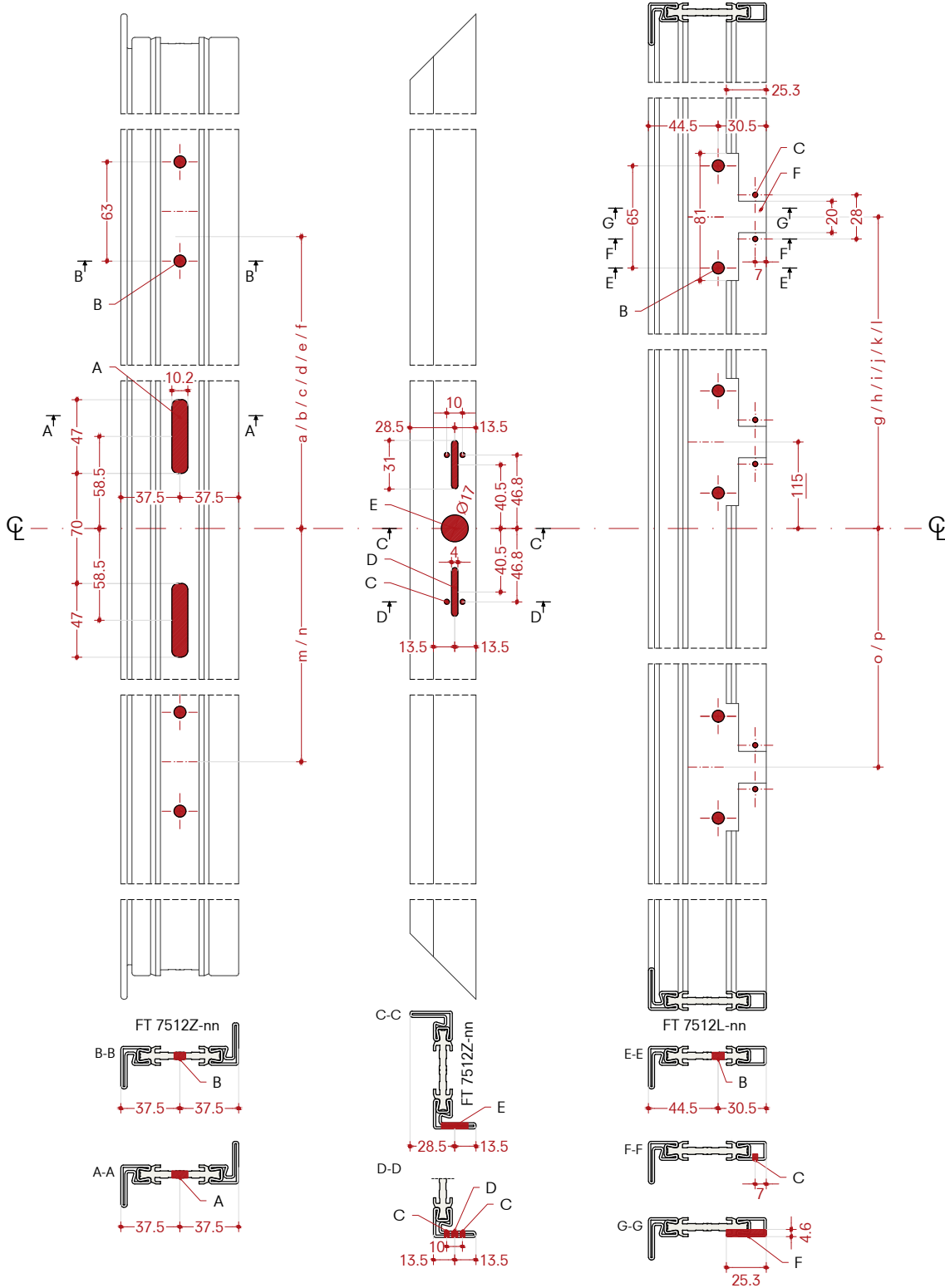
Single leaf window  
 Open in - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura interna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

Ventana de una hoja  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles superpuestos



Scale 1:4

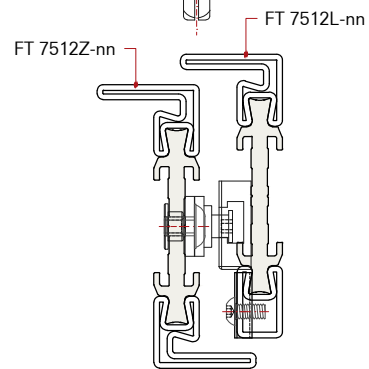
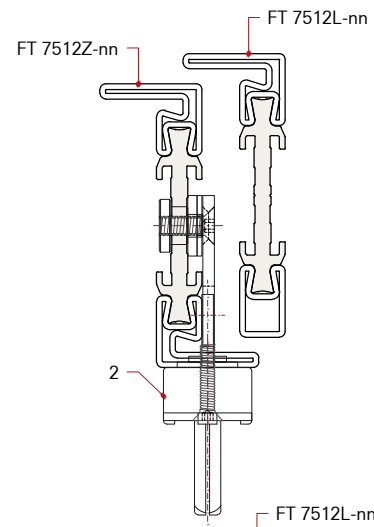
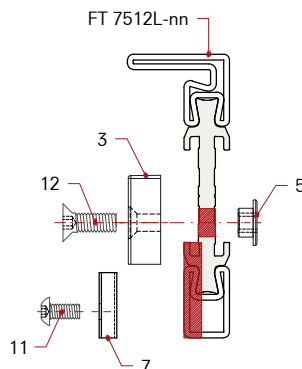
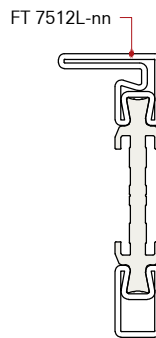
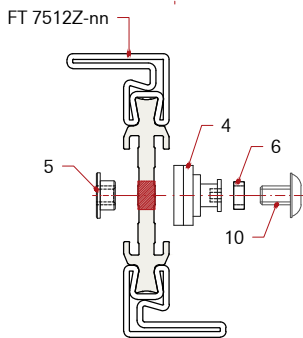
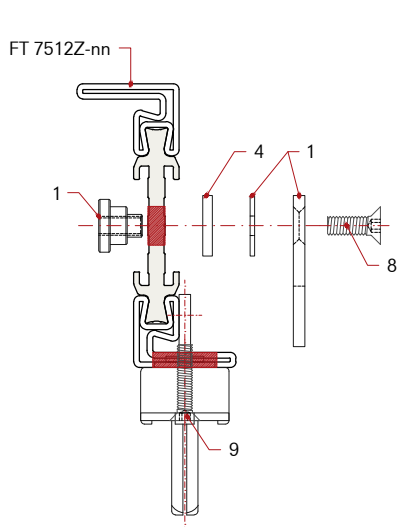
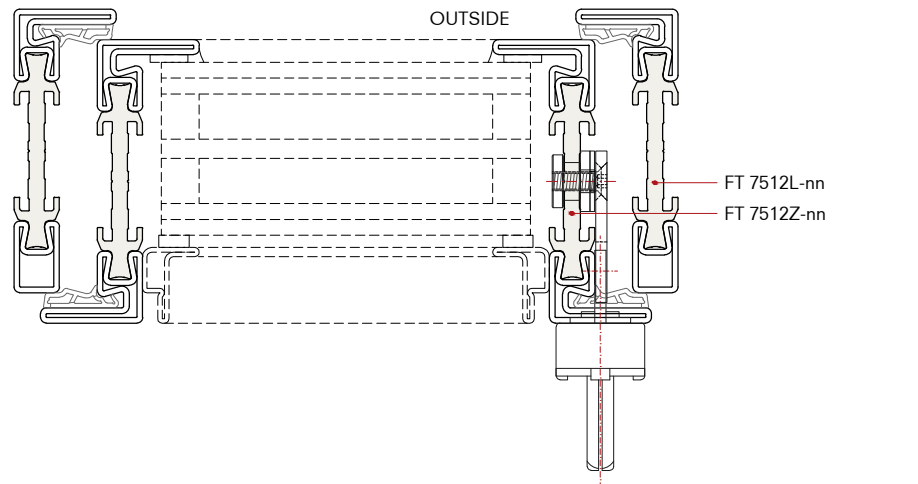
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 25.3x4.6x20 mm

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 25.3x4.6x20 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 25.3x4.6x20 mm



Scale 1:2

- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

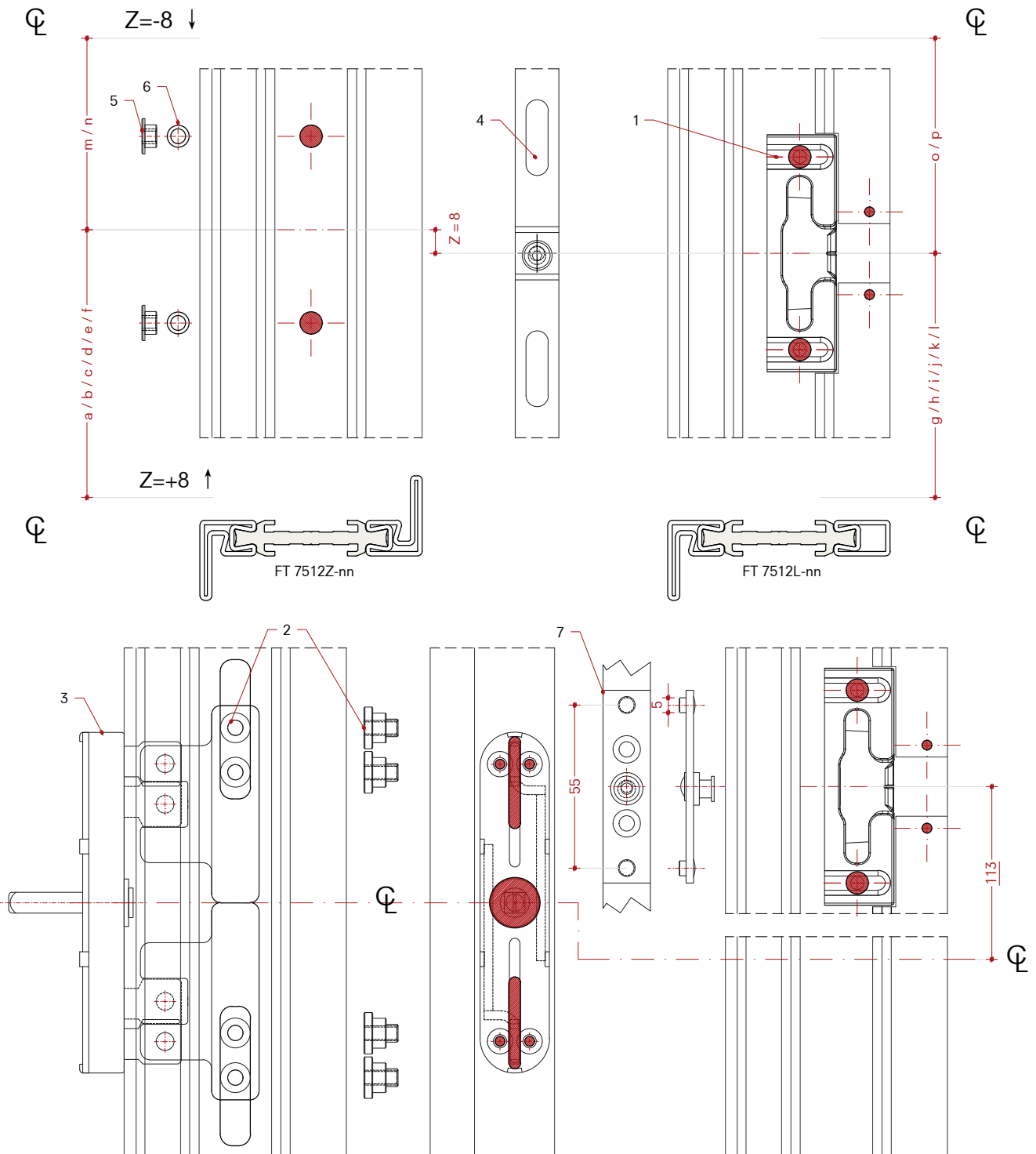
Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)





Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

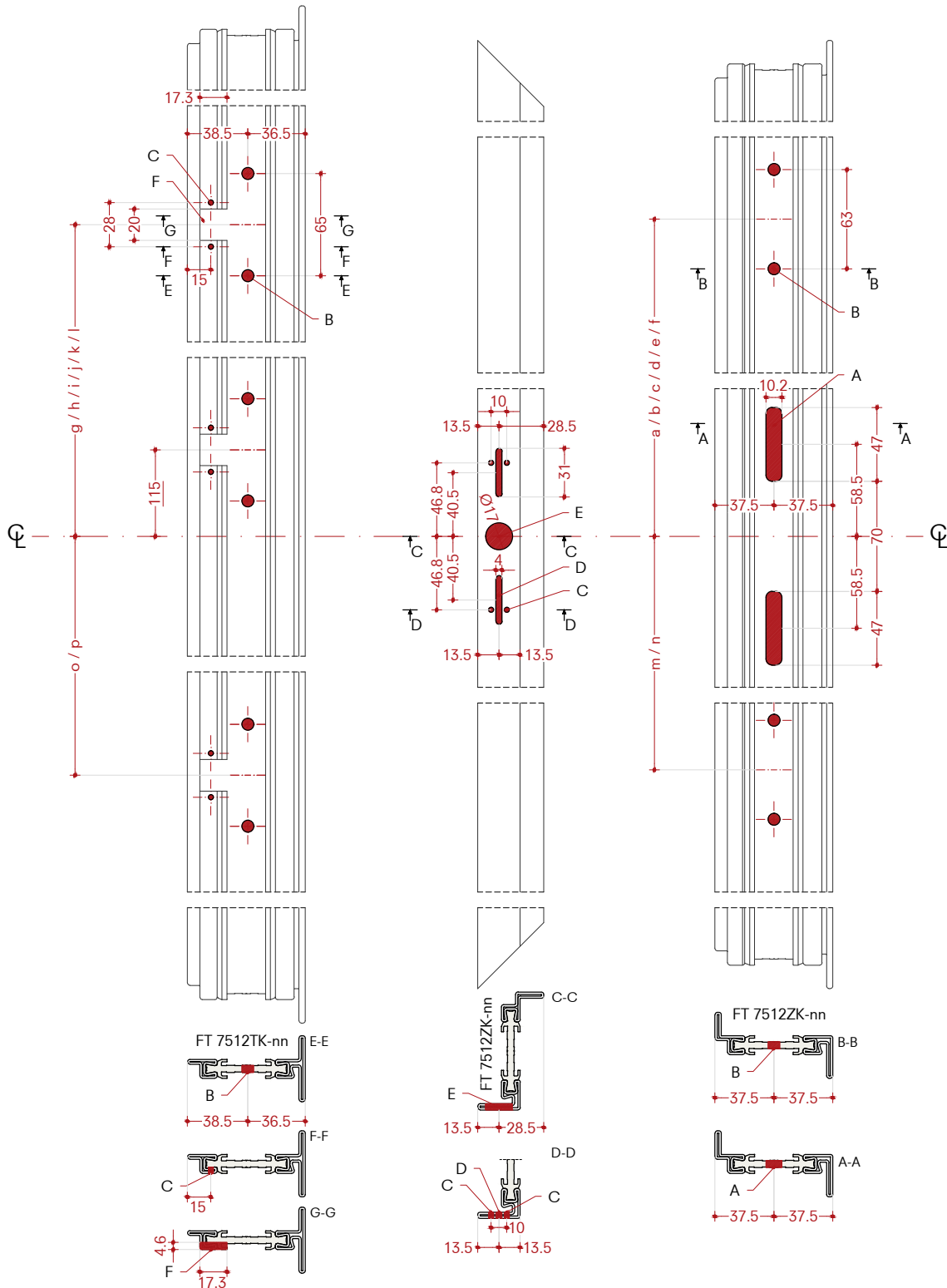
Double leaf window  
 Open in - Right opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura interna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles coplanarios



Scale 1:4

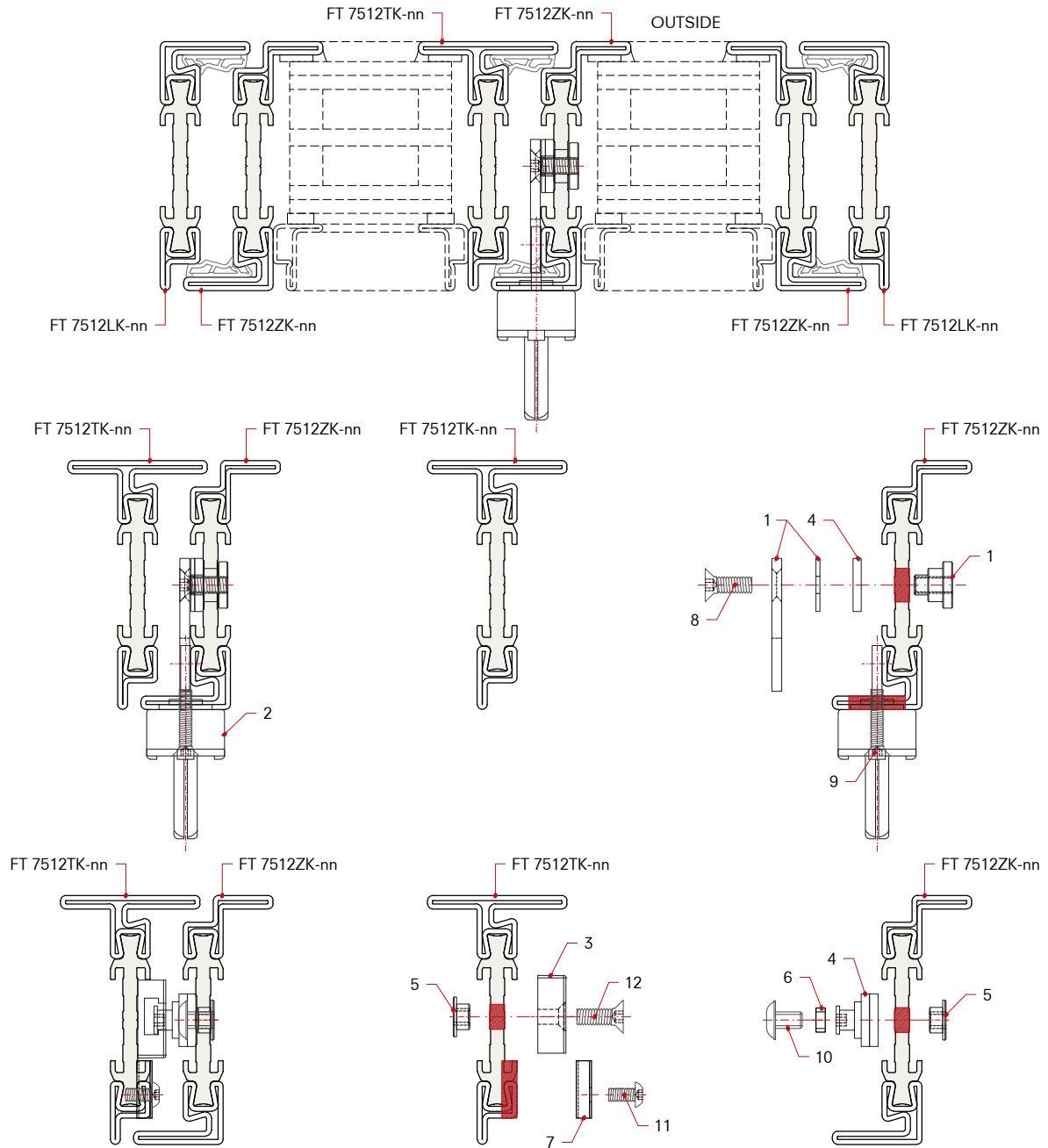
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm



Scale 1:2

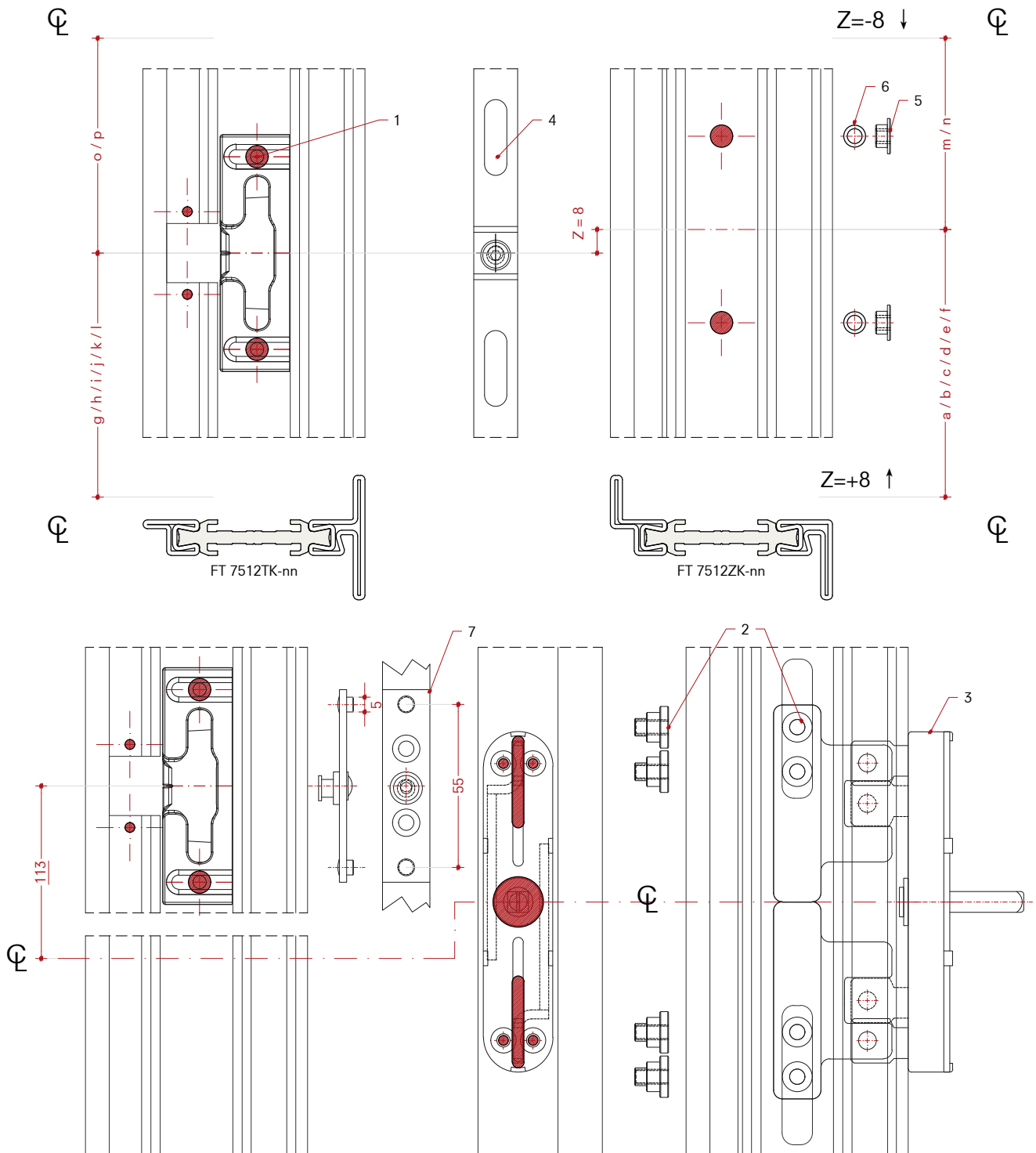
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

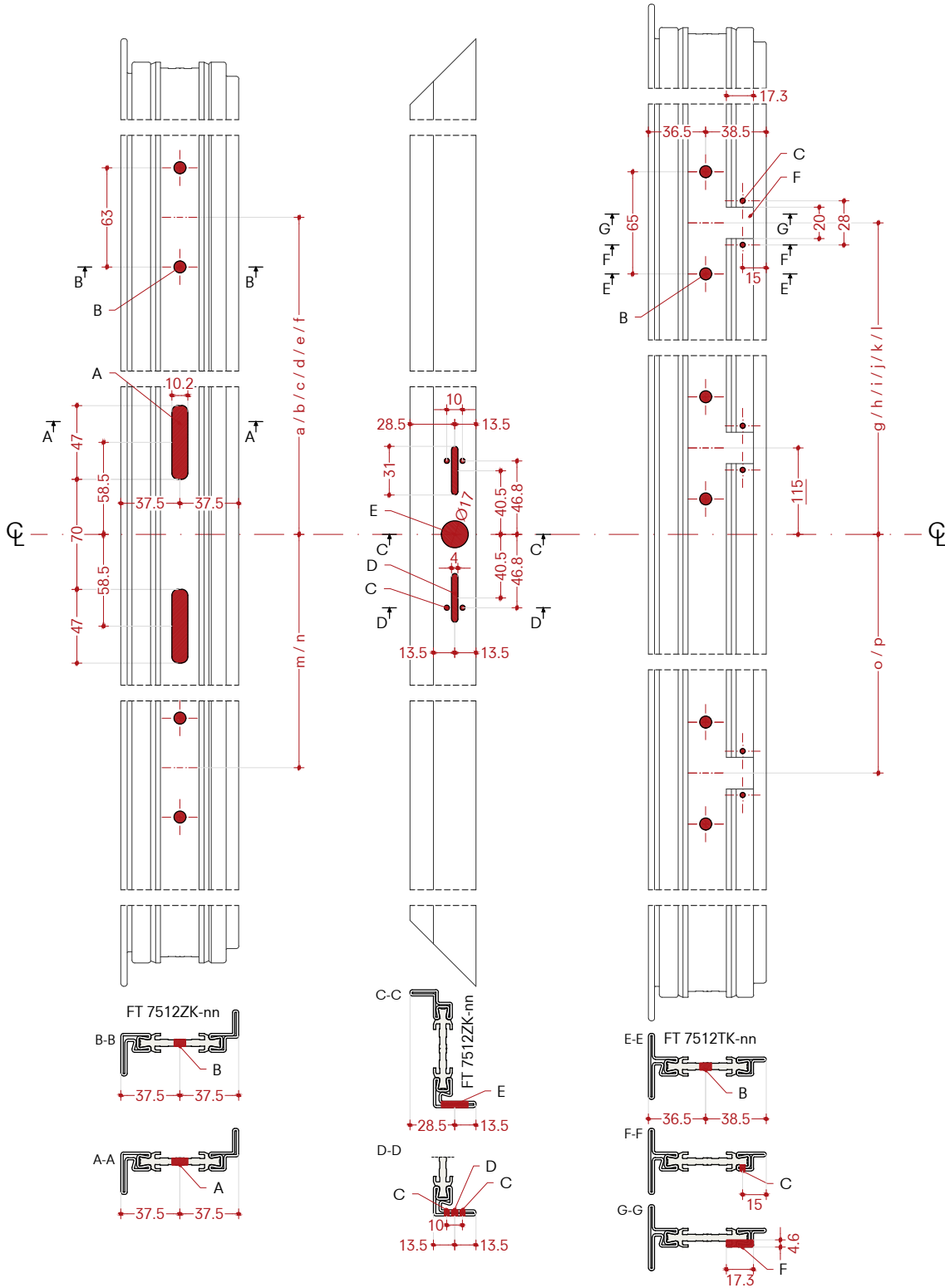
Double leaf window  
 Open in - Left opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura interna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles coplanarios



Scale 1:4

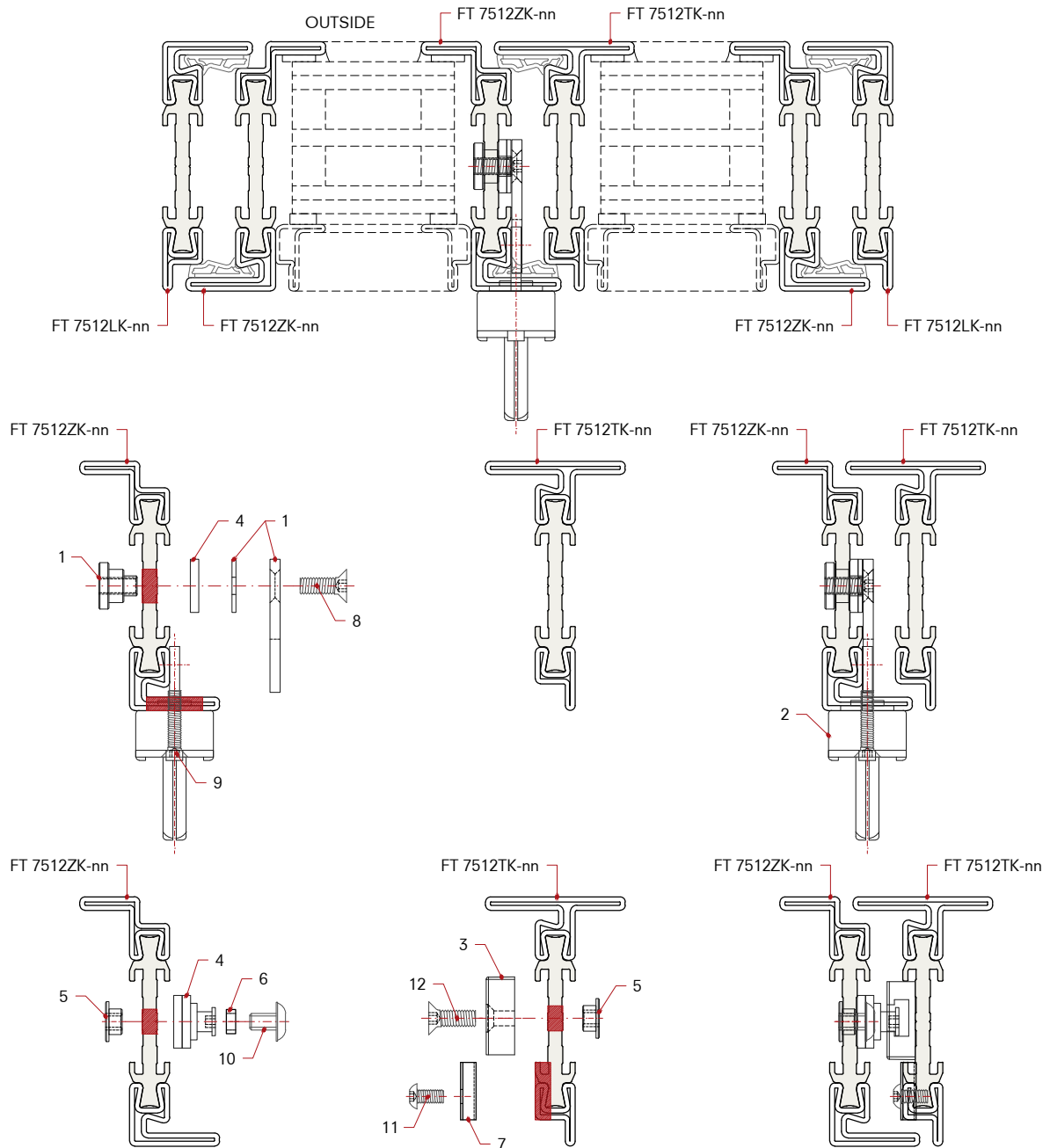
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm



Scale 1:2

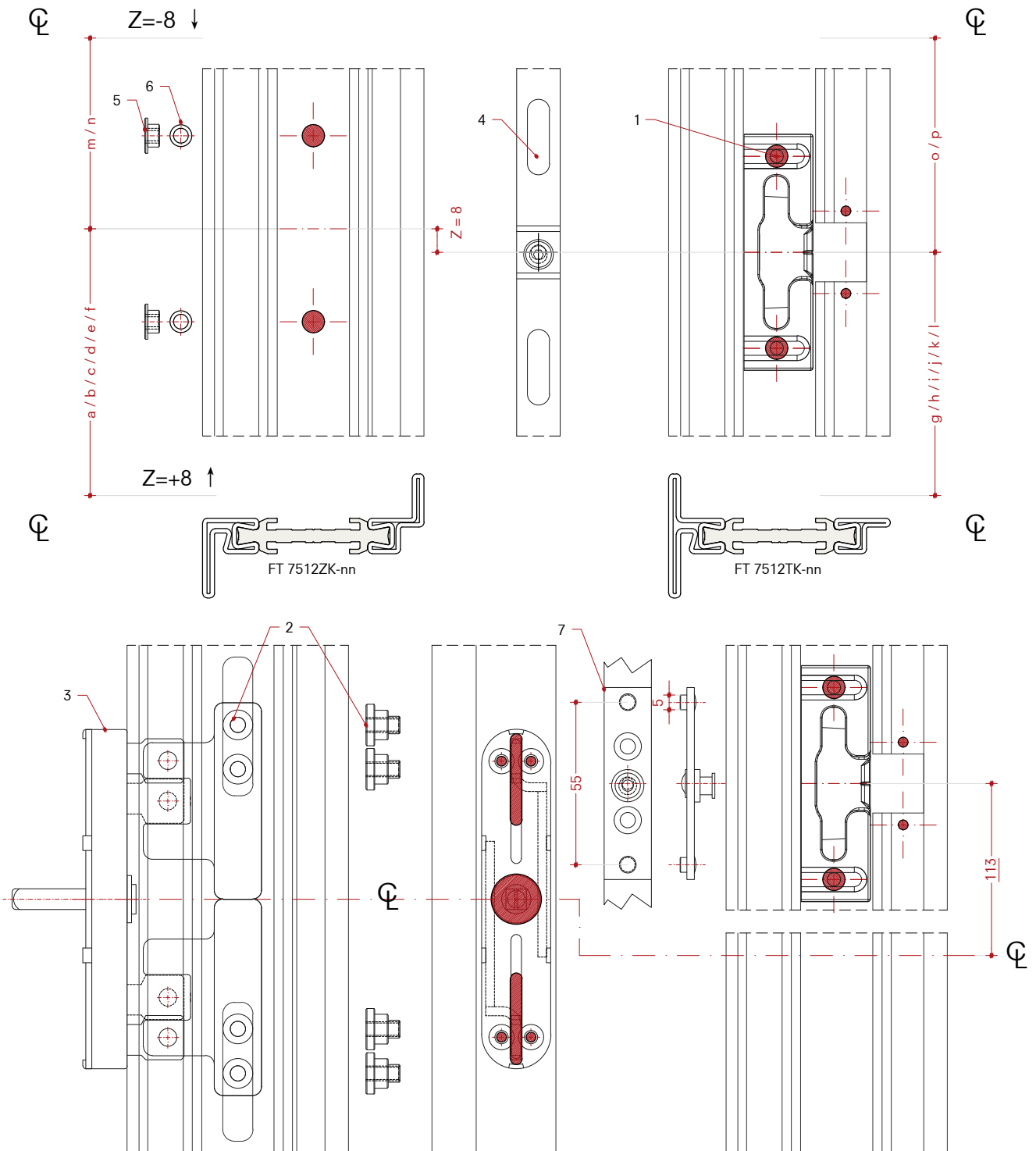
- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

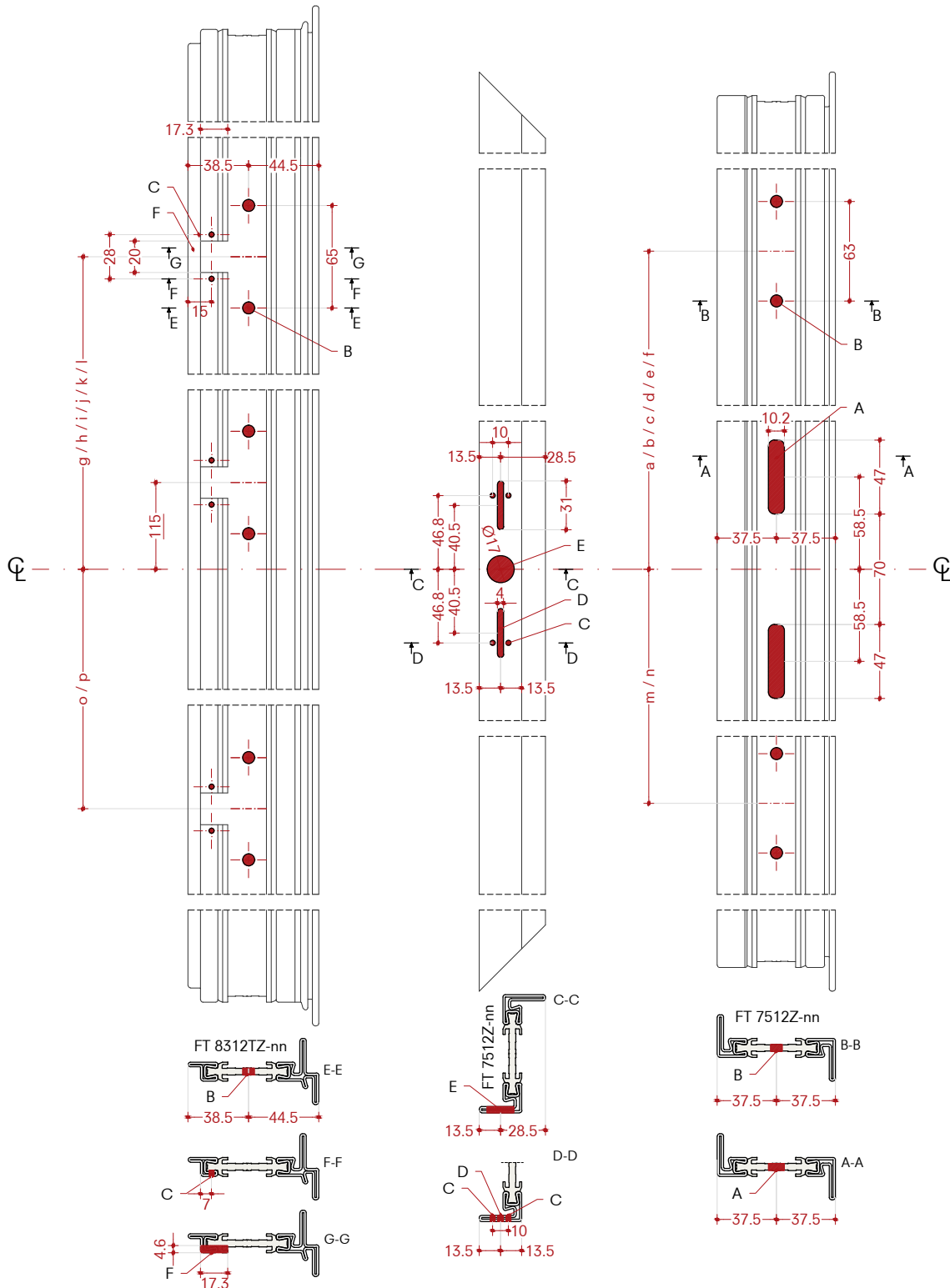
Double leaf window  
 Open in - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura interna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles superpuestos



Scale 1:4

- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm

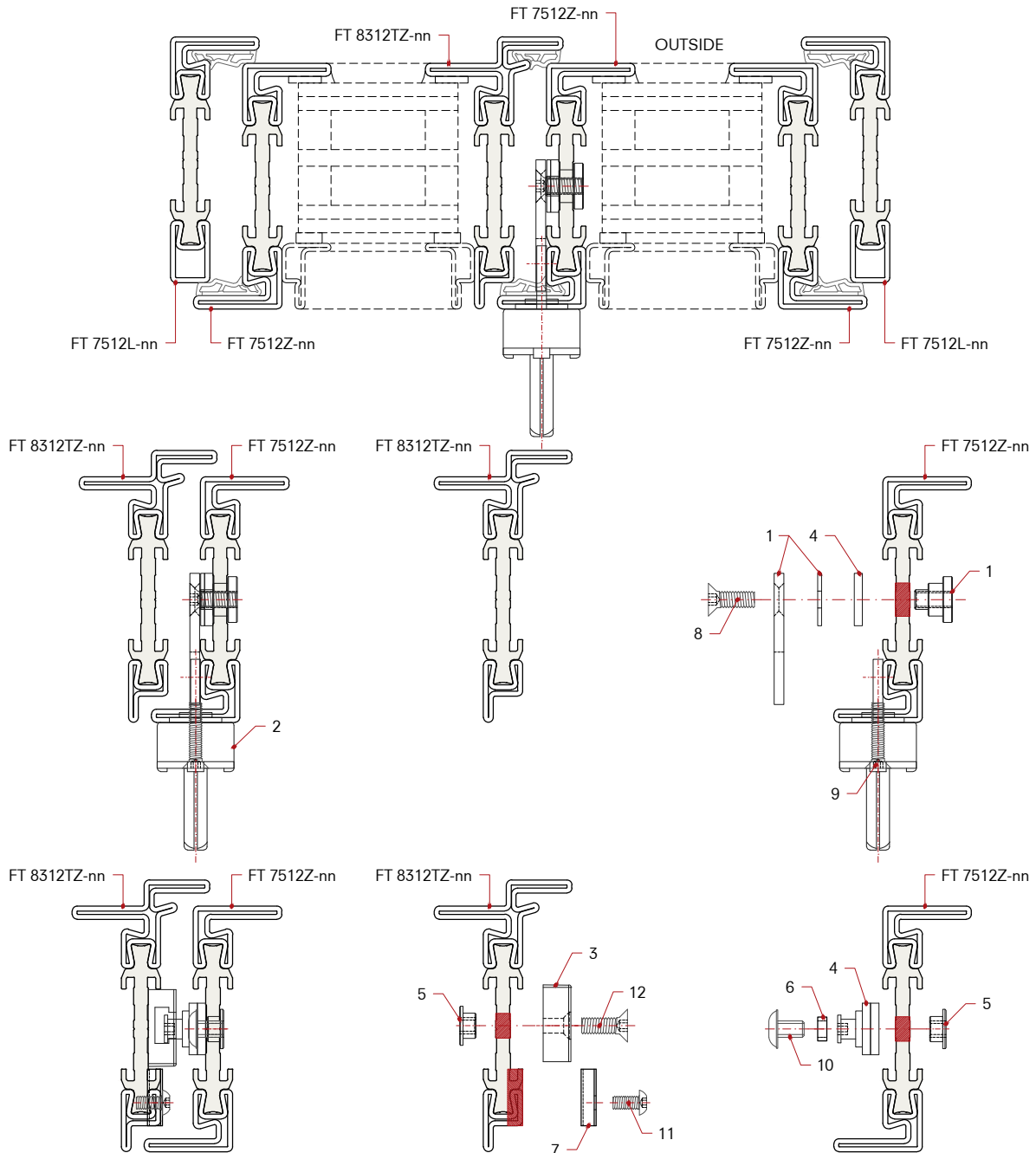
Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm





Scale 1:2

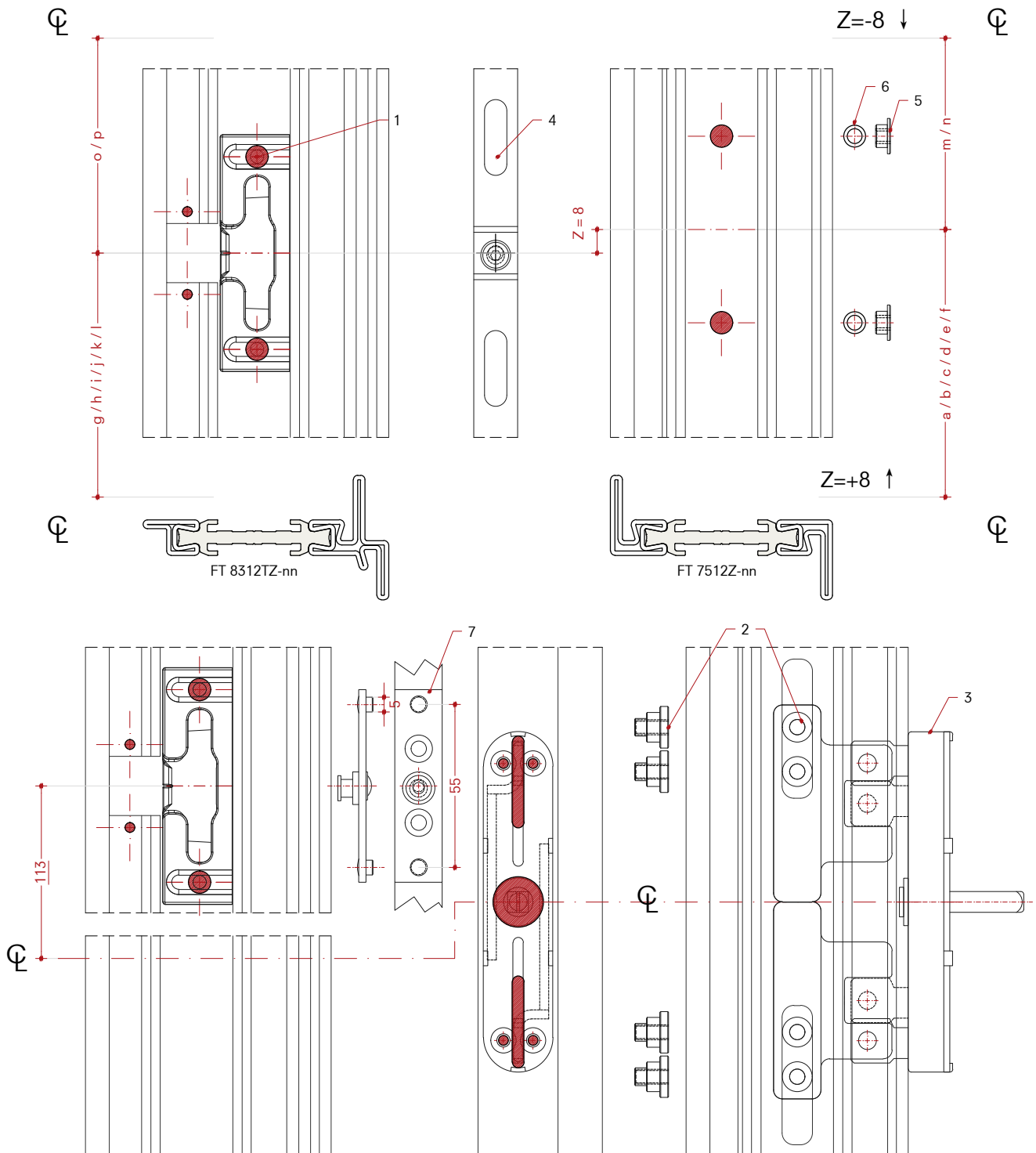
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilotti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

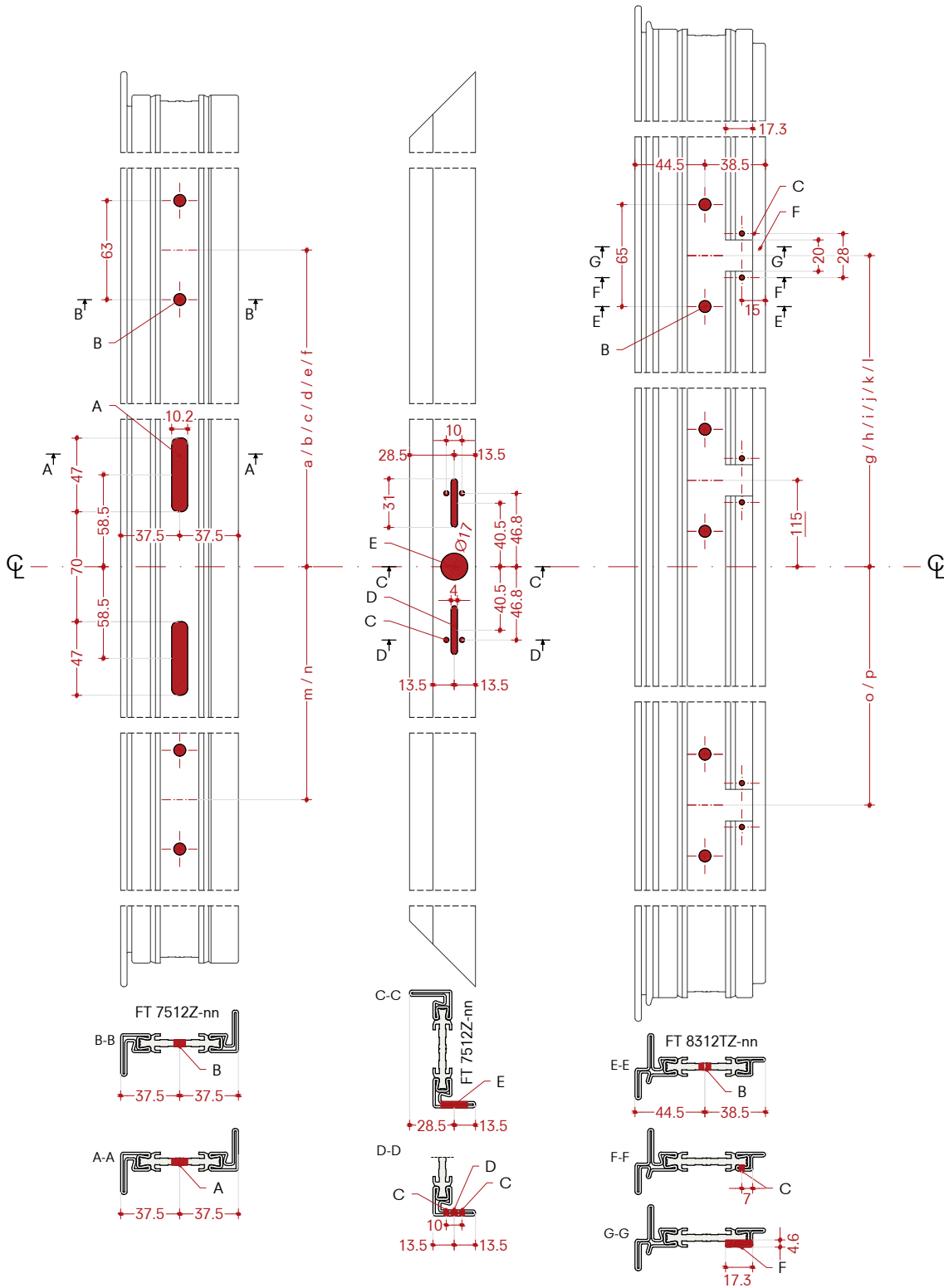
Double leaf window  
 Open in - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura interna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles superpuestos



Scale 1:4

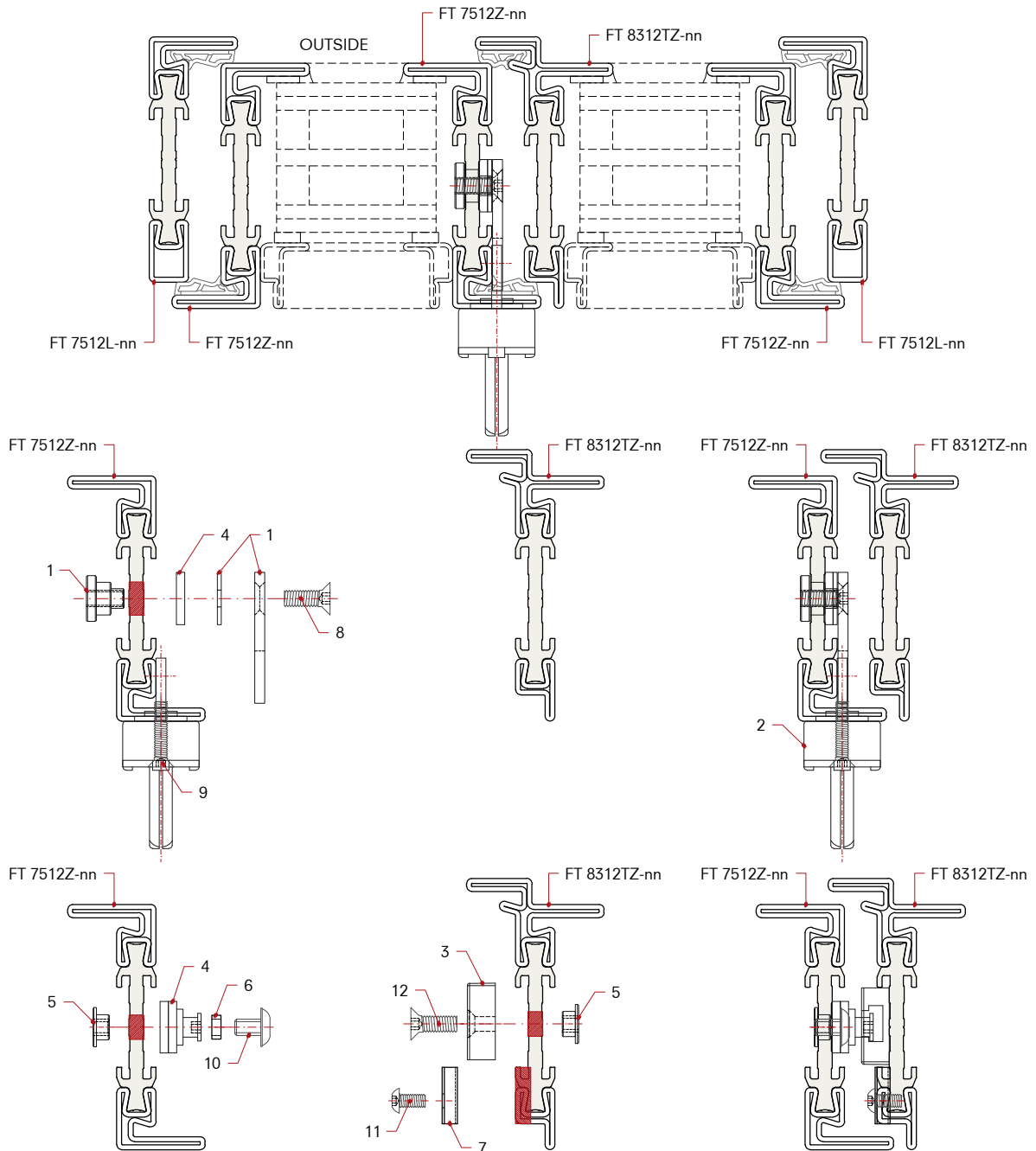
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm

Scala 1:4

- A) Fresastra 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresastra 31x4 mm
- E) Foro Ø17 mm
- F) Fresastra 17.3x4.6x20 mm

Escala 1:4

- A) Fresastra 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresastra 31x4 mm
- E) Orificio Ø17 mm
- F) Fresastra 17.3x4.6x20 mm



Scale 1:2

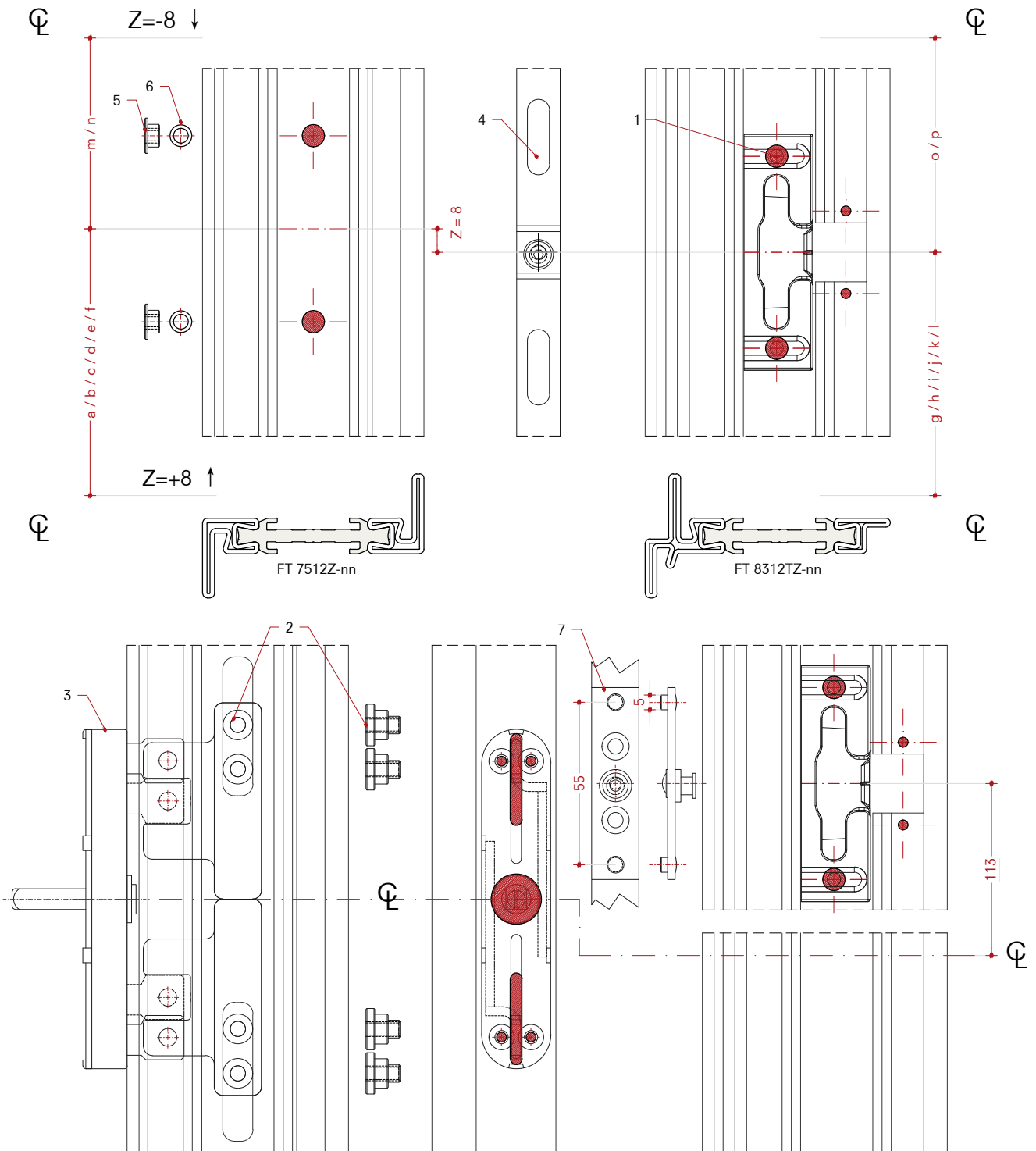
- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafilletti medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

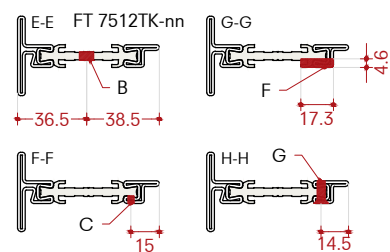
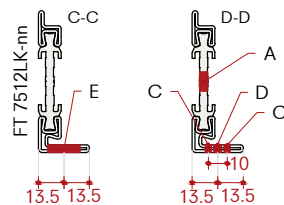
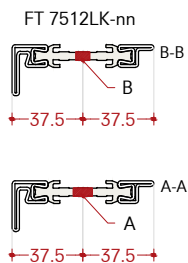
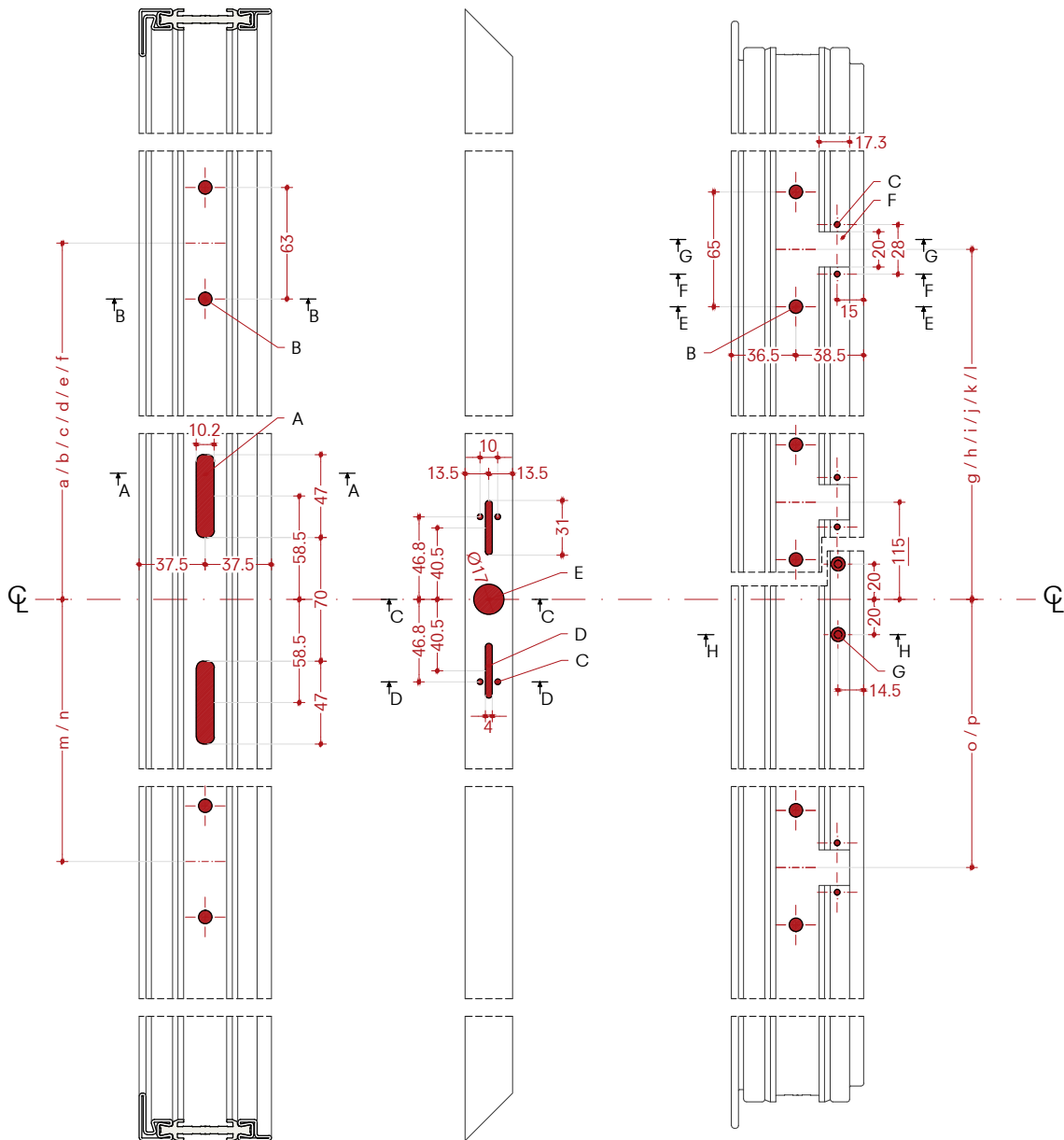
Single leaf window  
 Open out - Right opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura esterna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

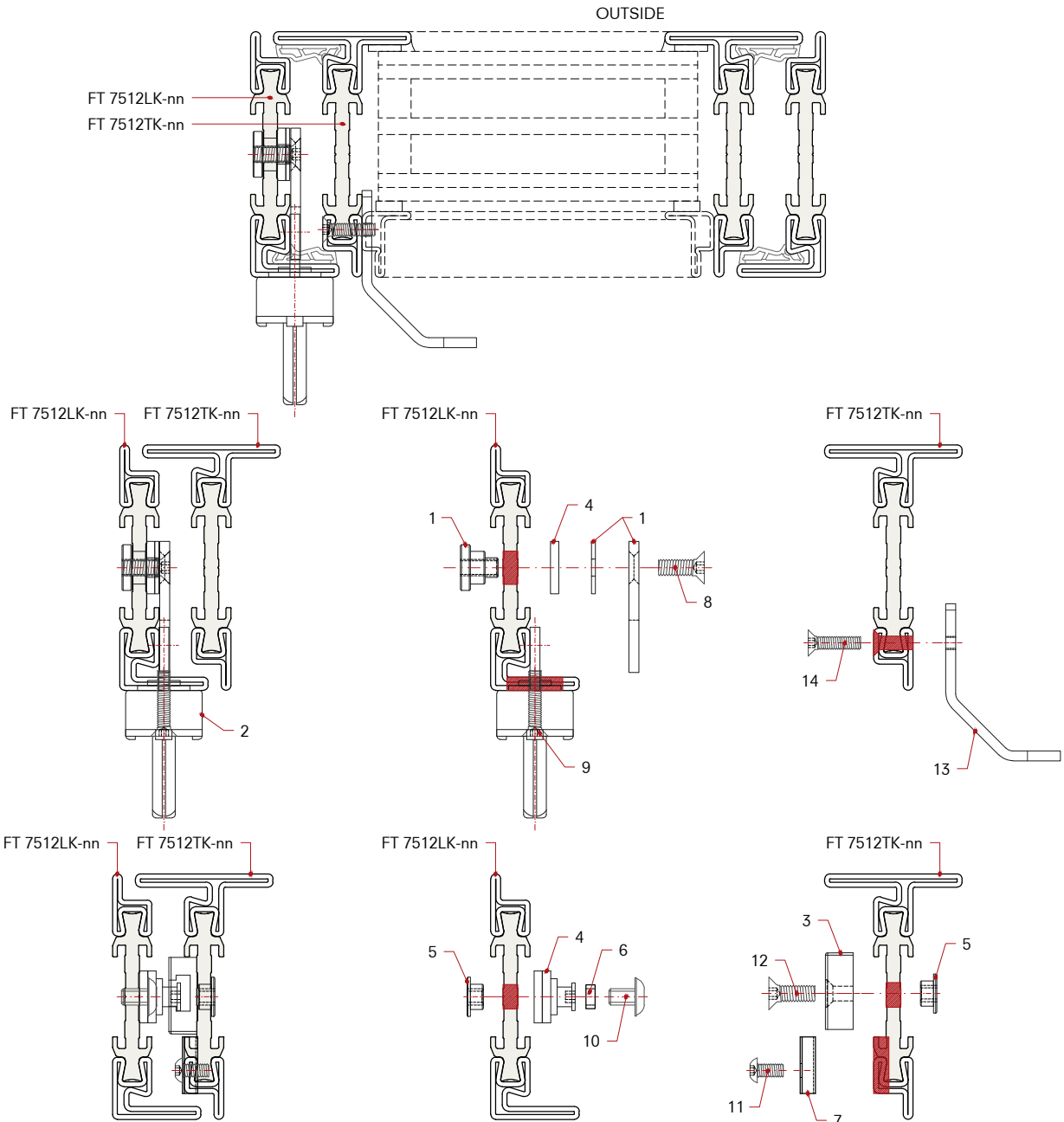
Ventana de una hoja  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles coplanarios



- Scale 1:4  
 A) Cut out 47x10.2 mm  
 B) Ø7.5 mm holes to be checked  
 C) Ø3.2 mm threaded M4 holes  
 D) Cut out 31x4 mm  
 E) Ø17 mm hole  
 F) Cut out 17.3x4.6x20 mm  
 G) Ø4.2 mm countersunk holes

- Scala 1:4  
 A) Fresatura 47x10.2 mm  
 B) Fori Ø7.5 mm da verificare  
 C) Fori Ø3.2 mm filettati M4  
 D) Fresatura 31x4 mm  
 E) Foro Ø17 mm  
 F) Fresatura 17.3x4.6x20 mm  
 G) Fori svasati Ø4.2 mm

- Escala 1:4  
 A) Fresado 47x10.2 mm  
 B) Orificios Ø7.5 mm por verificar  
 C) Orificios Ø3.2 mm roscados M4  
 D) Fresado 31x4 mm  
 E) Orificio Ø17 mm  
 F) Fresado 17.3x4.6x20 mm  
 G) Orificios avellanados Ø4.2 mm



Scale 1:2

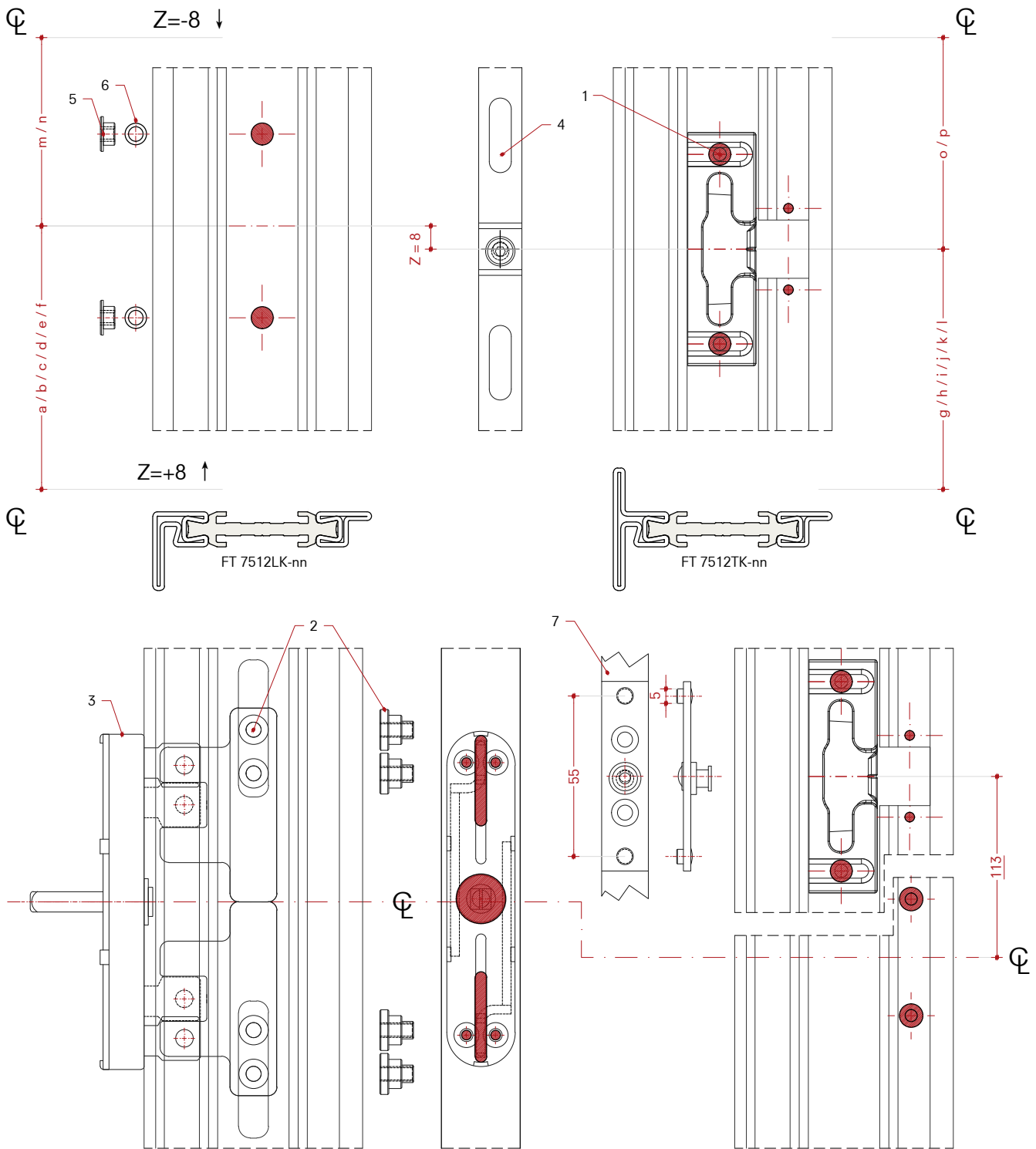
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)



**Multipoint steel rods installation, with Graz**

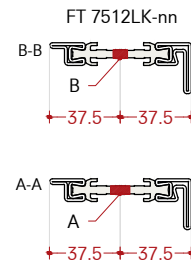
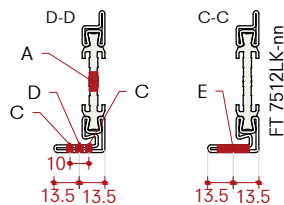
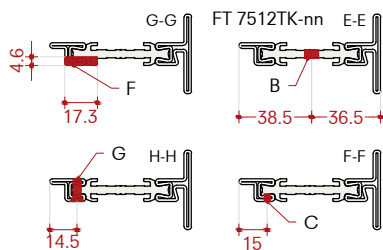
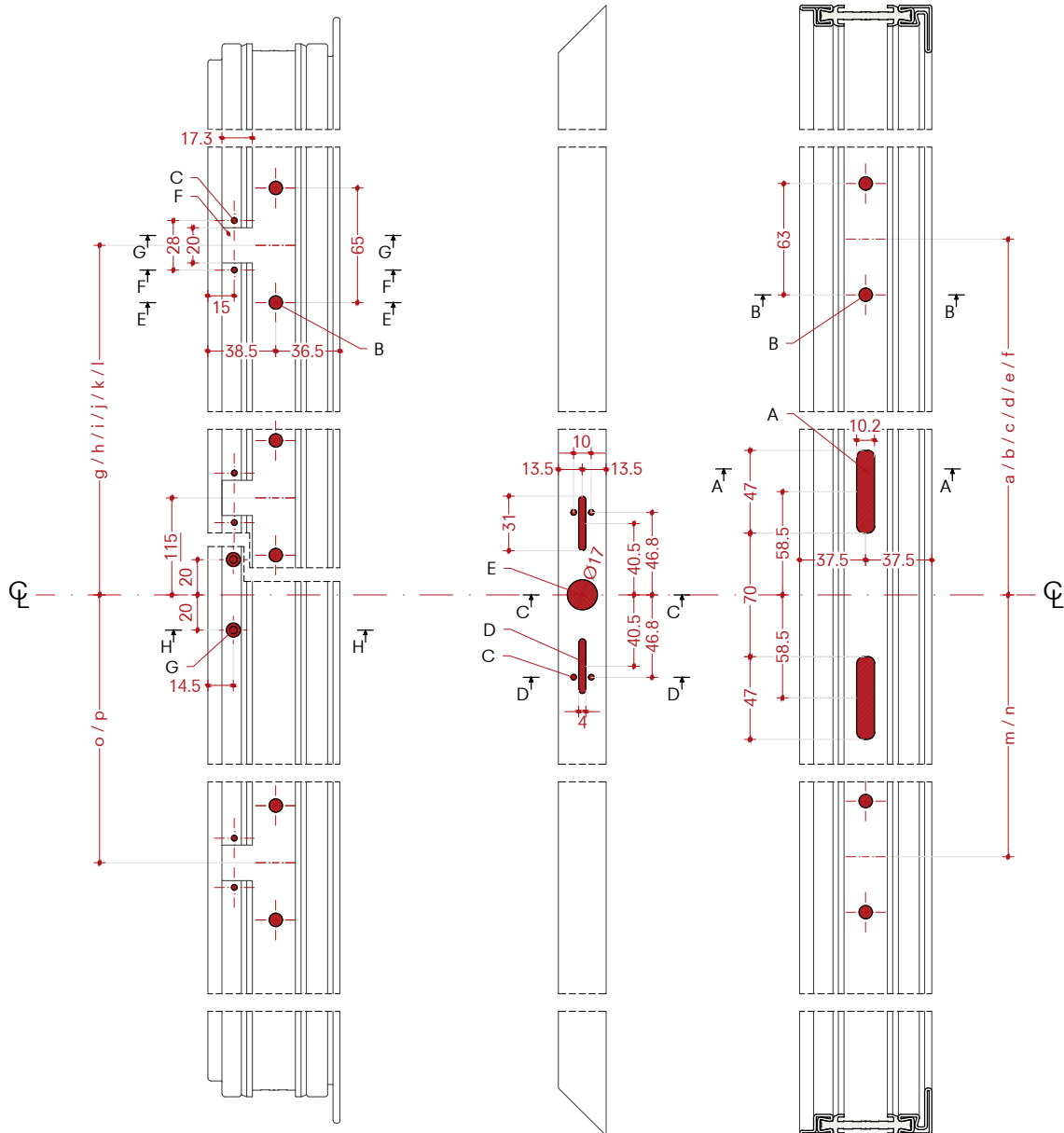
Single leaf window  
 Open out - Left opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura esterna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

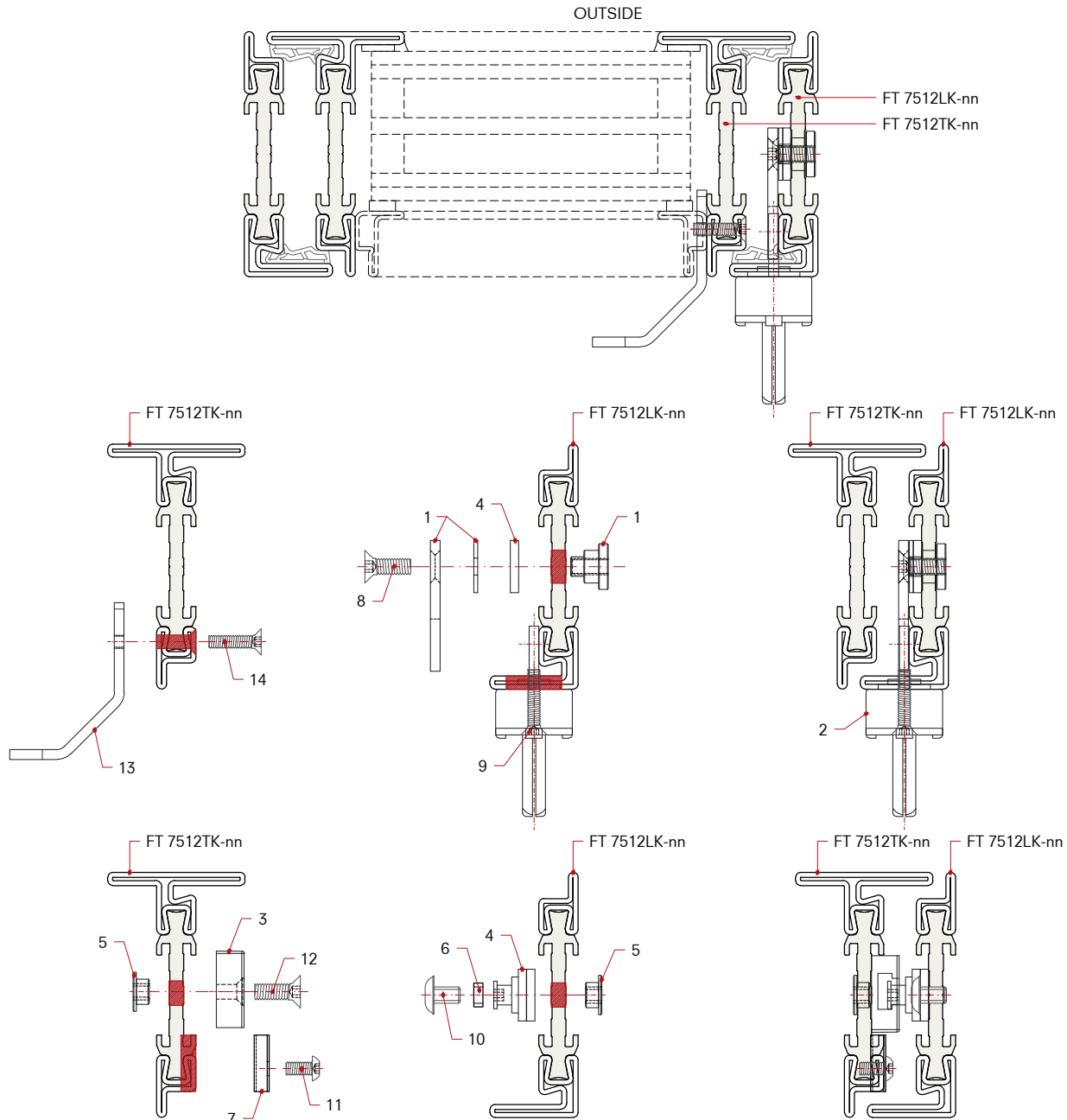
Ventana de una hoja  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles coplanarios



- Scale 1:4  
 A) Cut out 47x10.2 mm  
 B) Ø7.5 mm holes to be checked  
 C) Ø3.2 mm threaded M4 holes  
 D) Cut out 31x4 mm  
 E) Ø17 mm hole  
 F) Cut out 17.3x4.6x20 mm  
 G) Ø4.2 mm countersunk holes

- Scala 1:4  
 A) Fresatura 47x10.2 mm  
 B) Fori Ø7.5 mm da verificare  
 C) Fori Ø3.2 mm filettati M4  
 D) Fresatura 31x4 mm  
 E) Foro Ø17 mm  
 F) Fresatura 17.3x4.6x20 mm  
 G) Fori svasati Ø4.2 mm

- Escala 1:4  
 A) Fresado 47x10.2 mm  
 B) Orificios Ø7.5 mm por verificar  
 C) Orificios Ø3.2 mm roscados M4  
 D) Fresado 31x4 mm  
 E) Orificio Ø17 mm  
 F) Fresado 17.3x4.6x20 mm  
 G) Orificios avellanados Ø4.2 mm



Scale 1:2

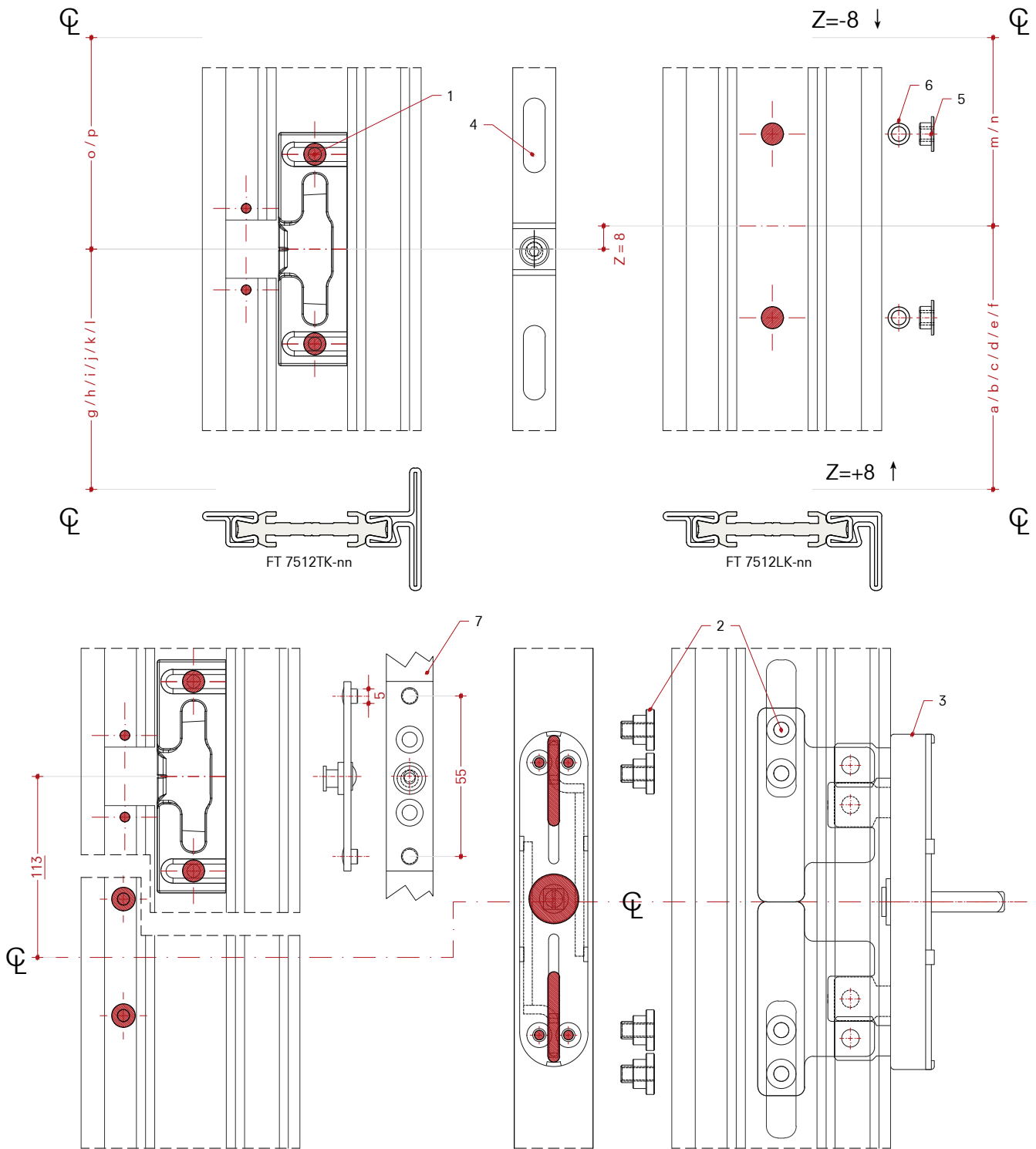
- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Blocco de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

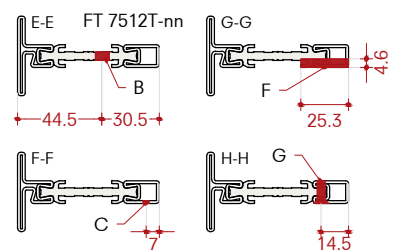
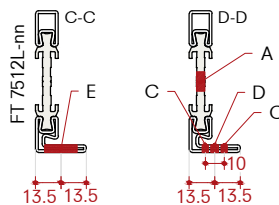
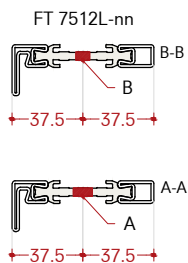
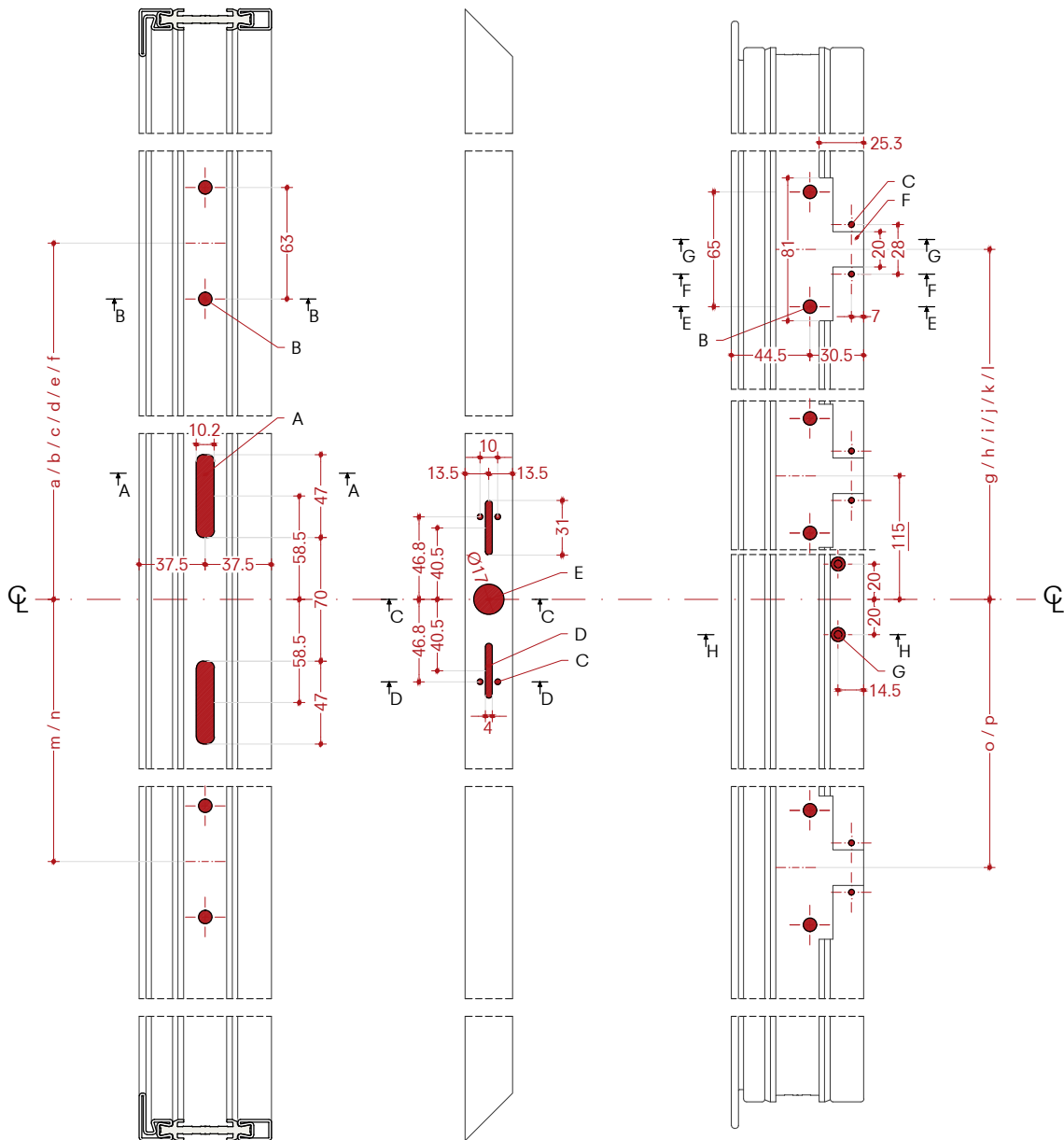
Single leaf window  
 Open out - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura esterna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

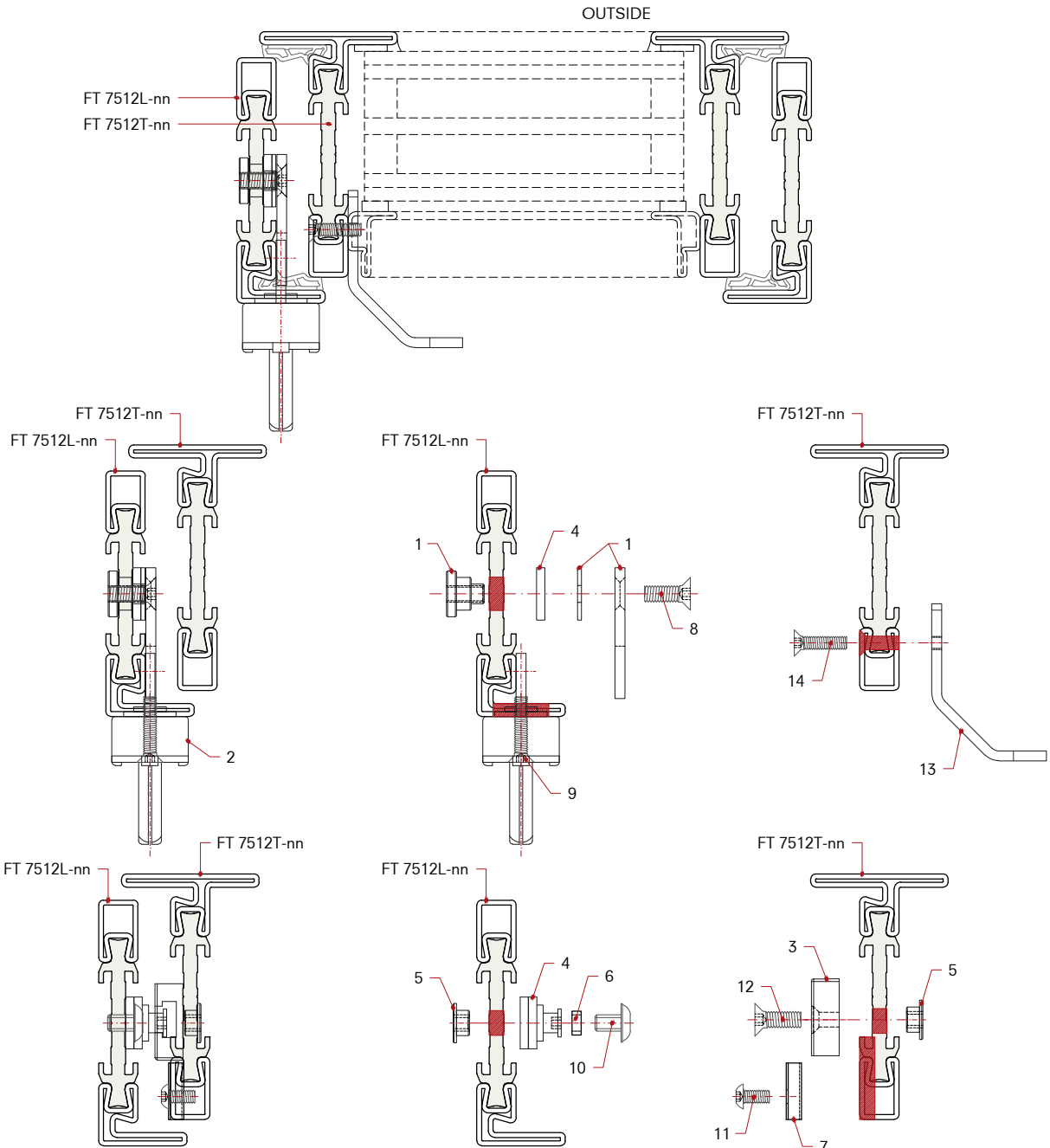
Ventana de una hoja  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles superpuestos



- Scale 1:4  
 A) Cut out 47x10.2 mm  
 B) Ø7.5 mm holes to be checked  
 C) Ø3.2 mm threaded M4 holes  
 D) Cut out 31x4 mm  
 E) Ø17 mm hole  
 F) Cut out 25.3x4.6x20 mm  
 G) Ø4.2 mm countersunk holes

- Scala 1:4  
 A) Fresatura 47x10.2 mm  
 B) Fori Ø7.5 mm da verificare  
 C) Fori Ø3.2 mm filettati M4  
 D) Fresatura 31x4 mm  
 E) Foro Ø17 mm  
 F) Fresatura 25.3x4.6x20 mm  
 G) Fori svasati Ø4.2 mm

- Escala 1:4  
 A) Fresado 47x10.2 mm  
 B) Orificios Ø7.5 mm por verificar  
 C) Orificios Ø3.2 mm roscados M4  
 D) Fresado 31x4 mm  
 E) Orificio Ø17 mm  
 F) Fresado 25.3x4.6x20 mm  
 G) Orificios avellanados Ø4.2 mm



Scale 1:2

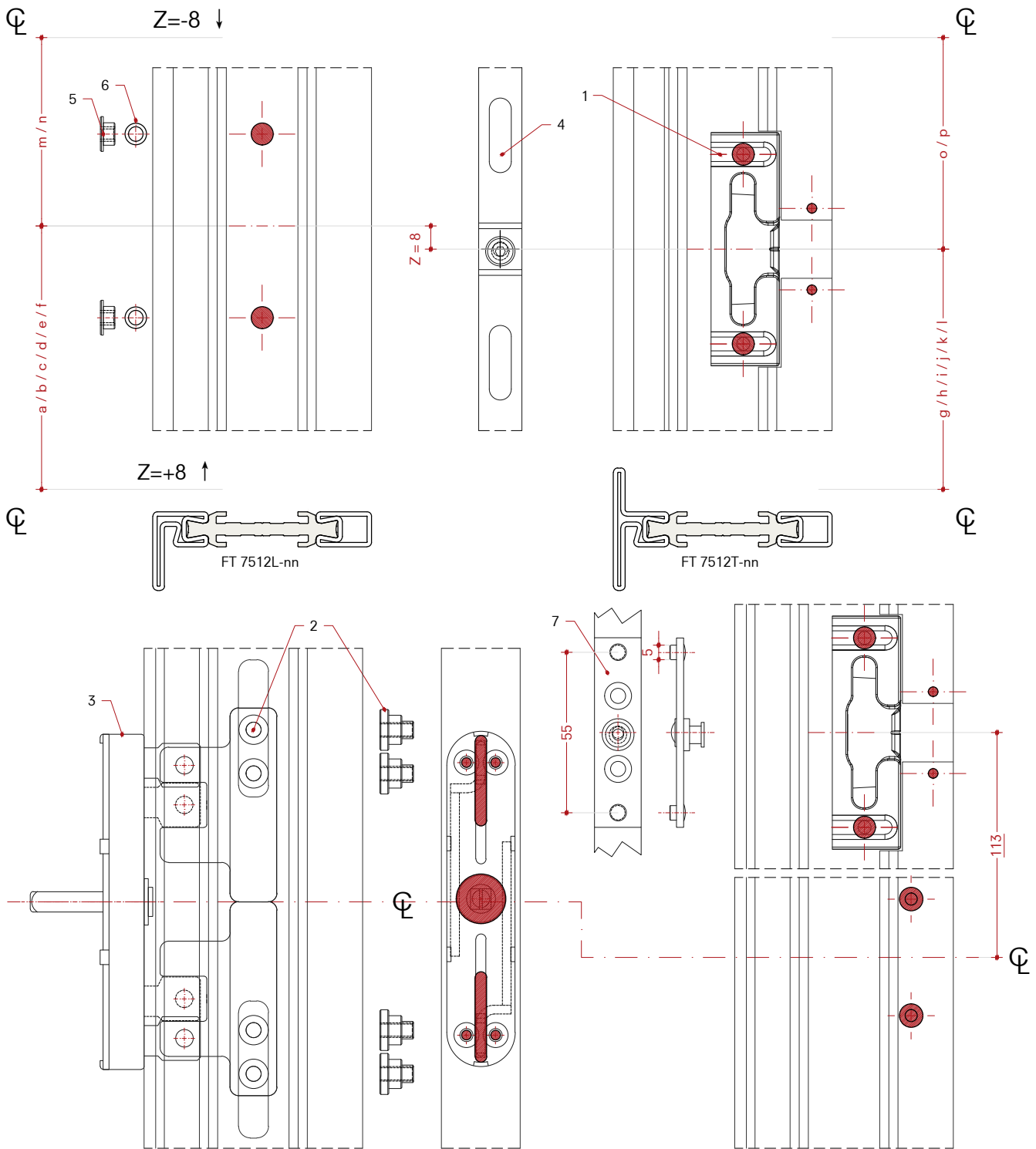
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

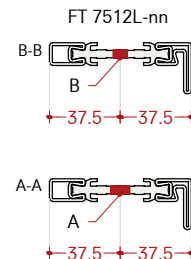
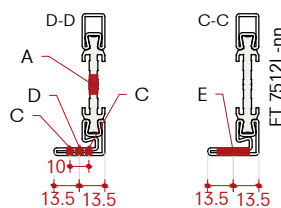
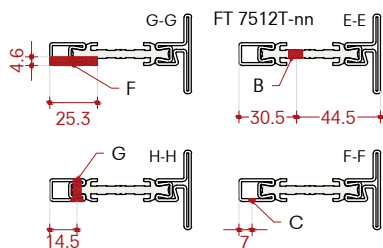
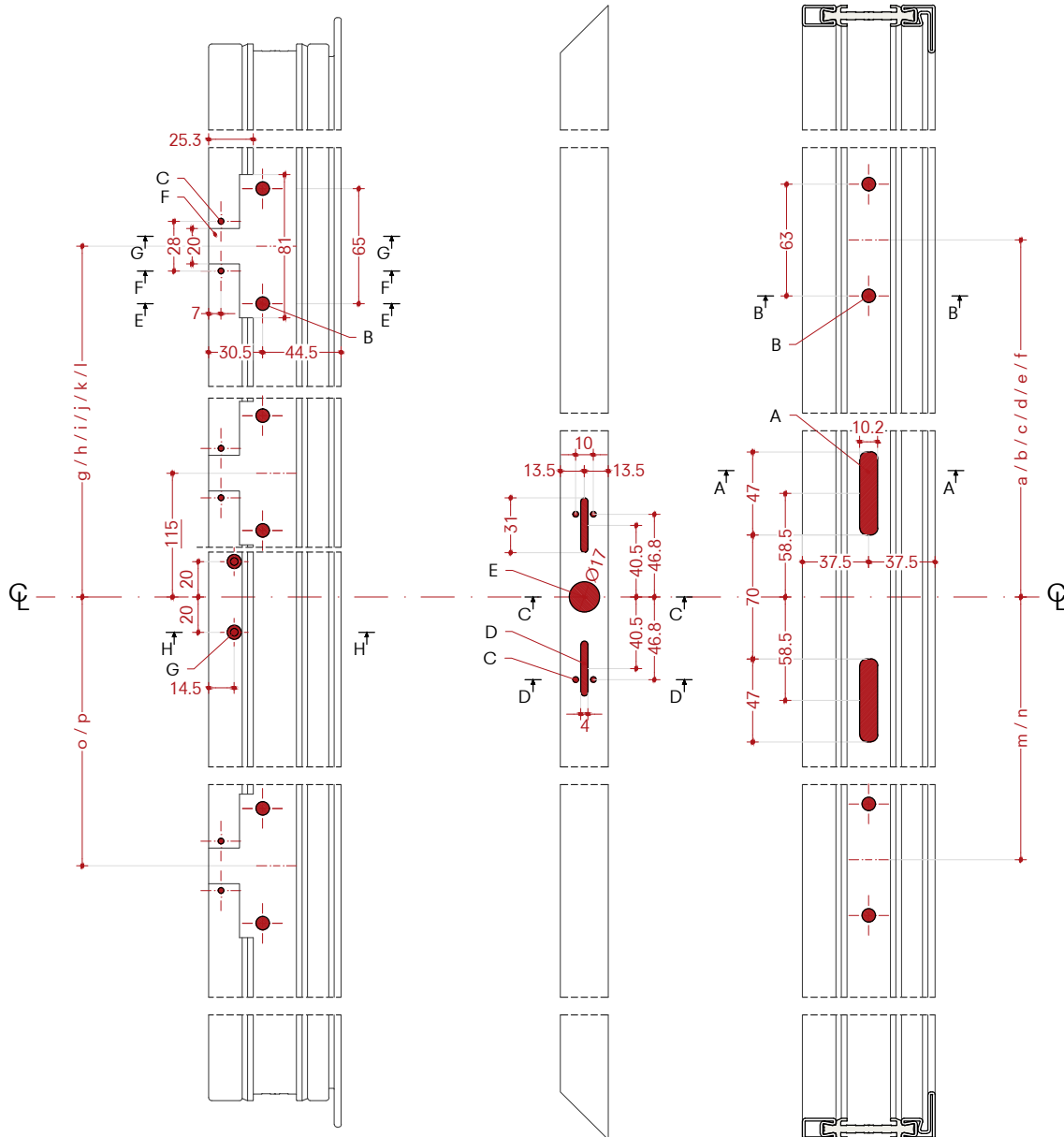
Single leaf window  
 Open out - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra ad anta singola  
 Apertura esterna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

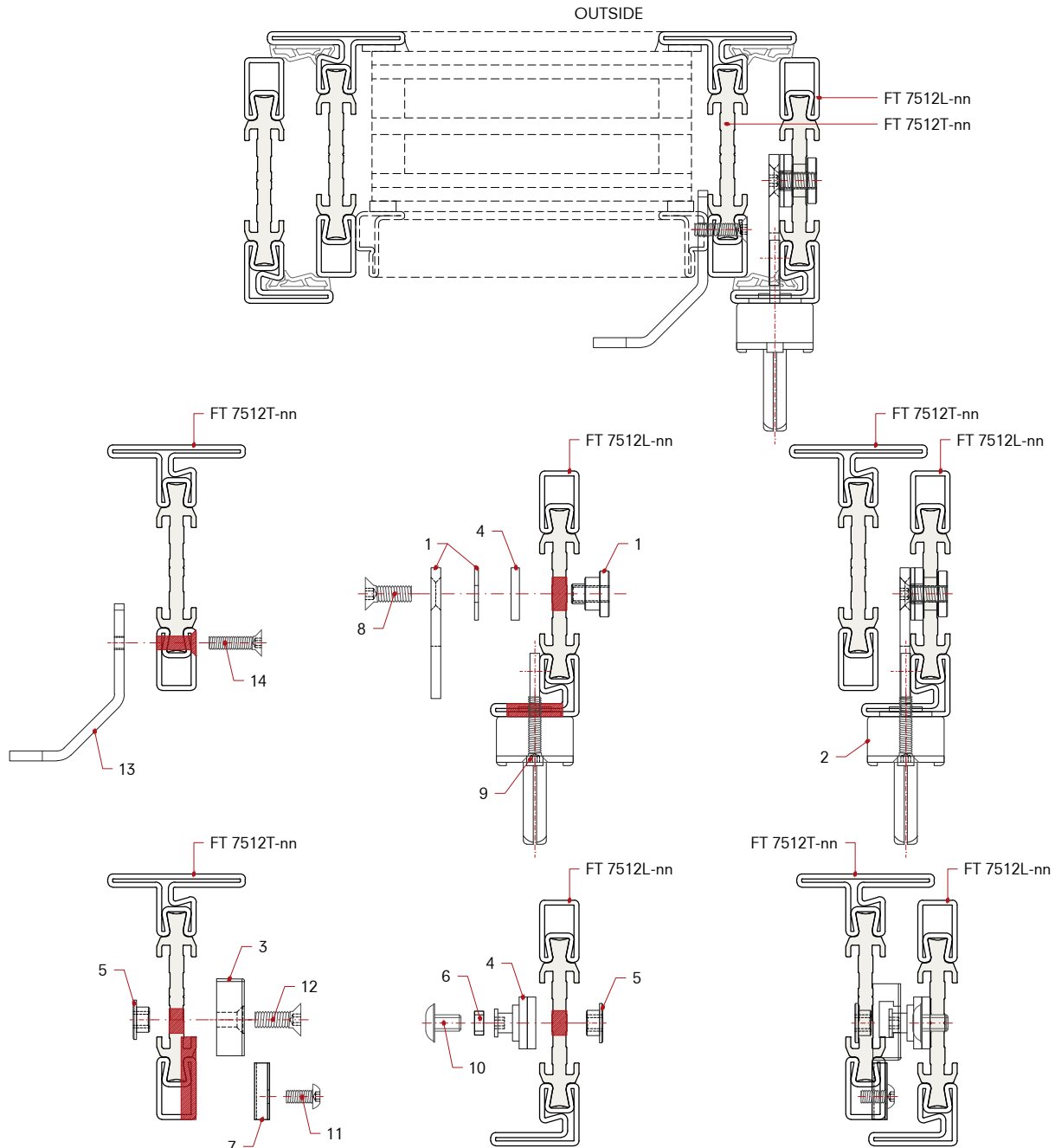
Ventana de una hoja  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles superpuestos



- Scale 1:4  
 A) Cut out 47x10.2 mm  
 B) Ø7.5 mm holes to be checked  
 C) Ø3.2 mm threaded M4 holes  
 D) Cut out 31x4 mm  
 E) Ø17 mm hole  
 F) Cut out 25.3x4.6x20 mm  
 G) Ø4.2 mm countersunk holes

- Scala 1:4  
 A) Fresatura 47x10.2 mm  
 B) Fori Ø7.5 mm da verificare  
 C) Fori Ø3.2 mm filettati M4  
 D) Fresatura 31x4 mm  
 E) Foro Ø17 mm  
 F) Fresatura 25.3x4.6x20 mm  
 G) Fori svasati Ø4.2 mm

- Escala 1:4  
 A) Fresado 47x10.2 mm  
 B) Orificios Ø7.5 mm por verificar  
 C) Orificios Ø3.2 mm roscados M4  
 D) Fresado 31x4 mm  
 E) Orificio Ø17 mm  
 F) Fresado 25.3x4.6x20 mm  
 G) Orificios avellanados Ø4.2 mm



Scale 1:2

- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

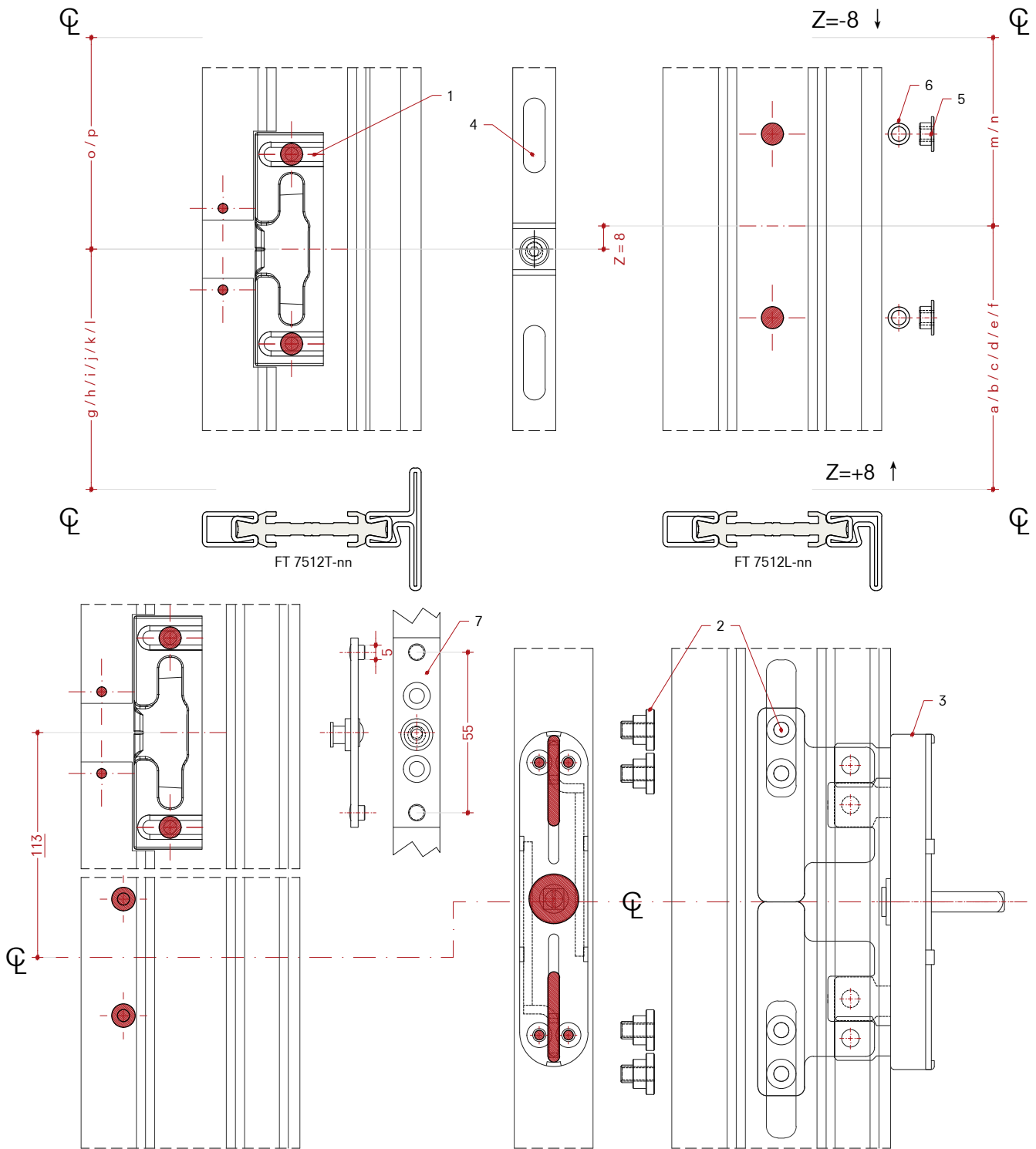
Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)





Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

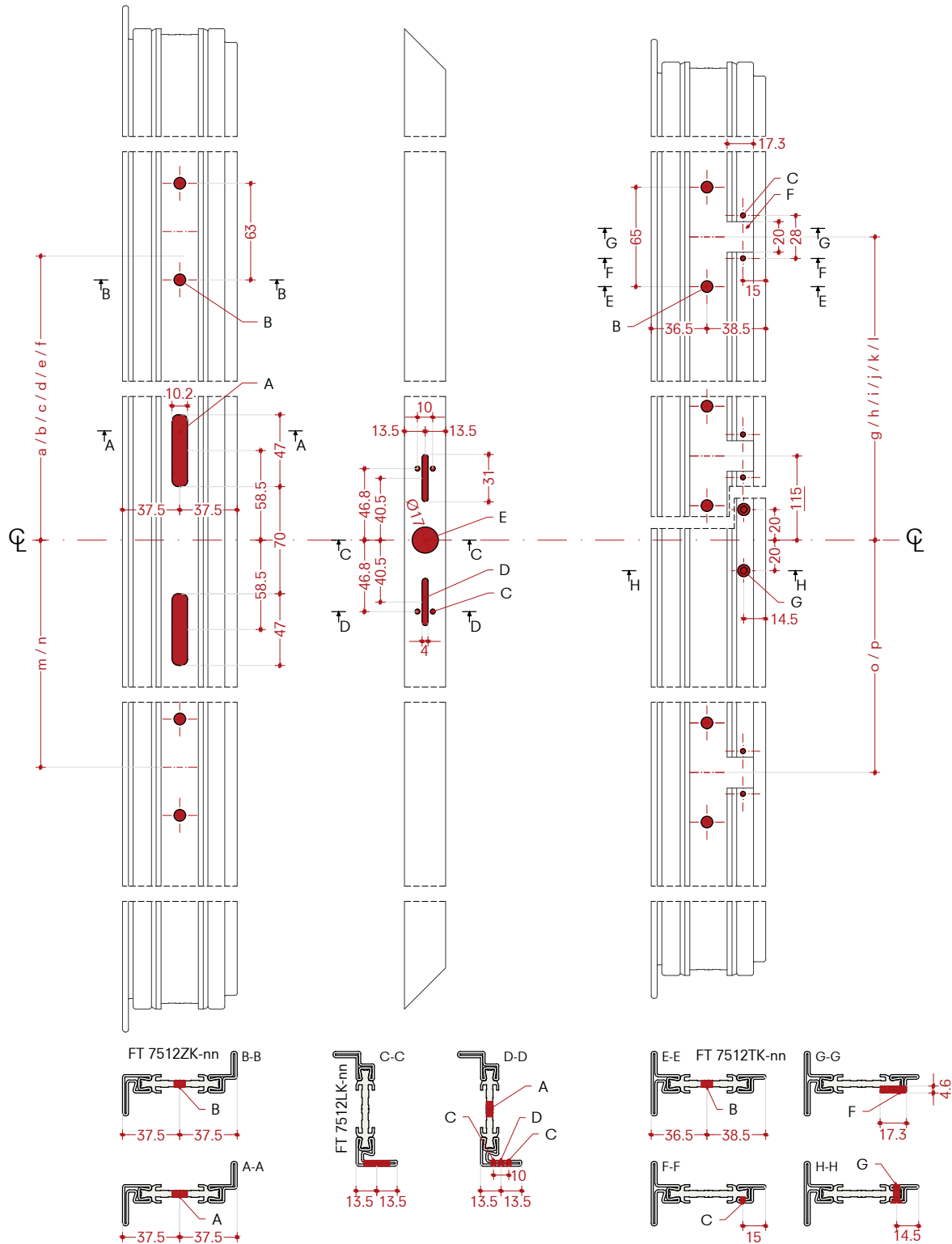
Double leaf window  
 Open out - Right opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura esterna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles coplanarios



Scale 1:4

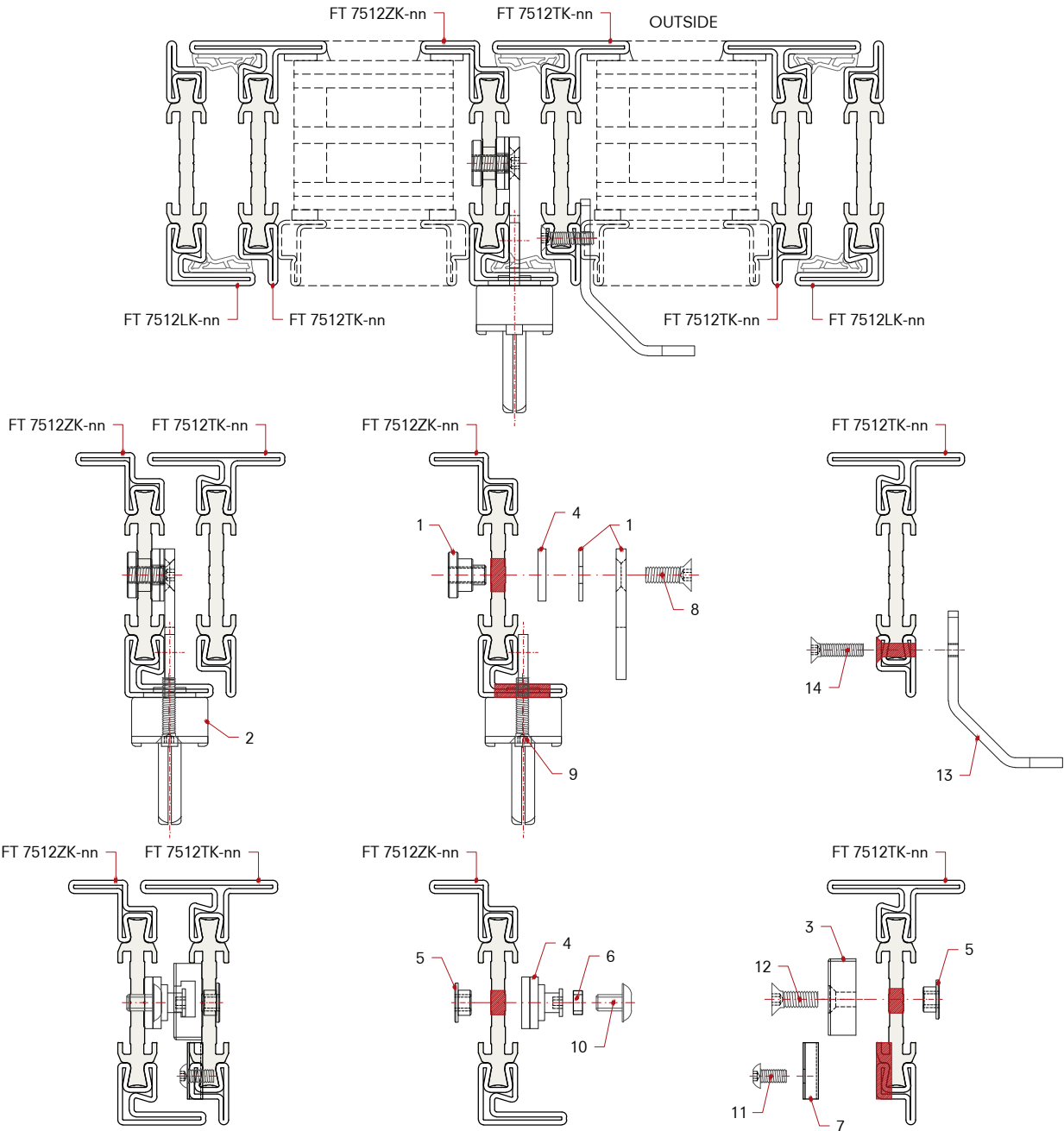
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm
- G) Ø4.2 mm countersunk holes

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm
- G) Fori svasati Ø4.2 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm
- G) Orificios avellanados Ø4.2 mm



Scale 1:2

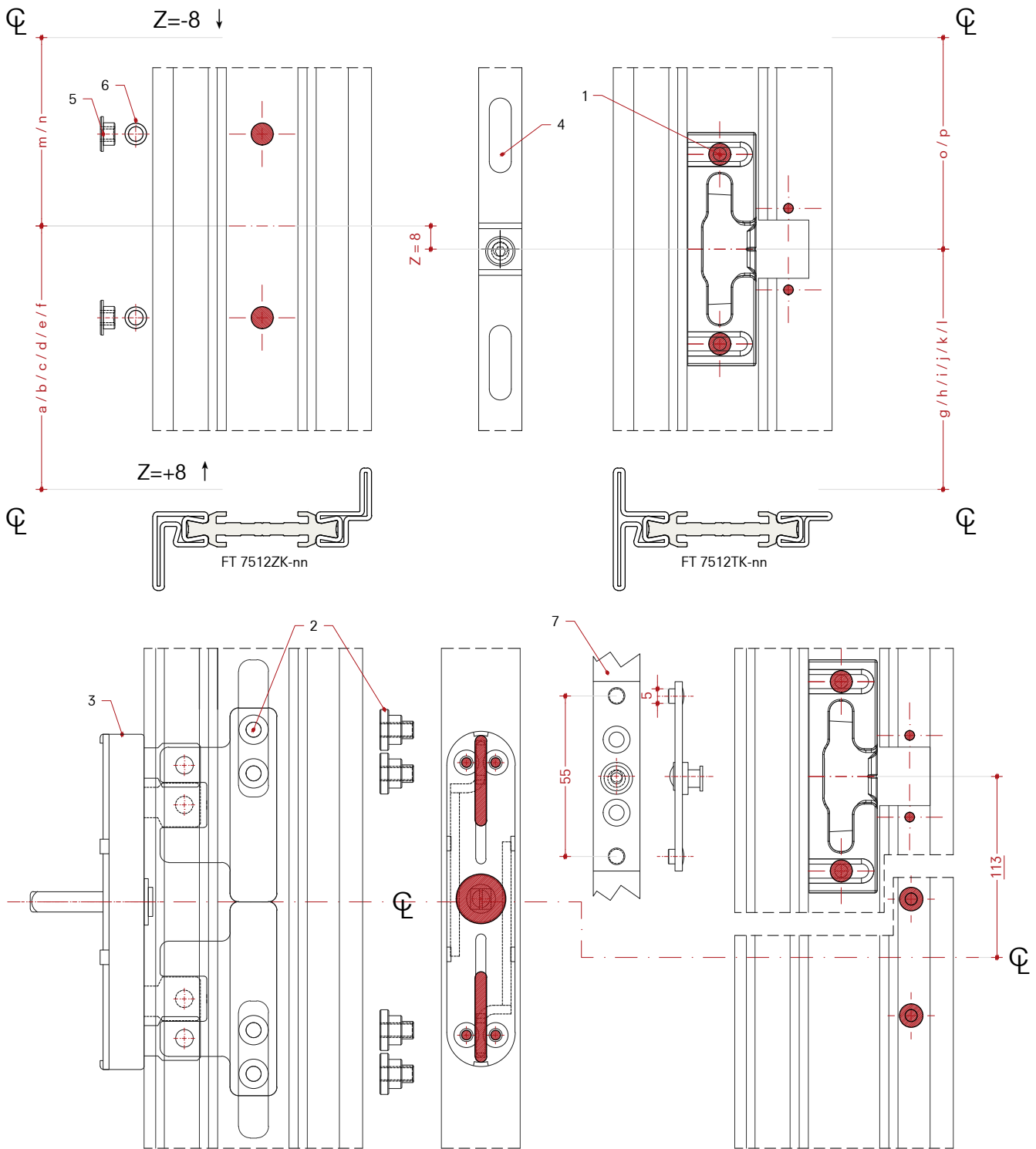
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Countout cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Blocco de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

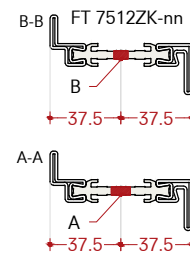
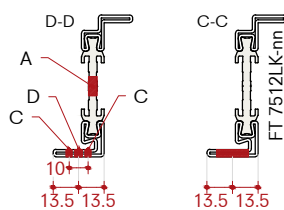
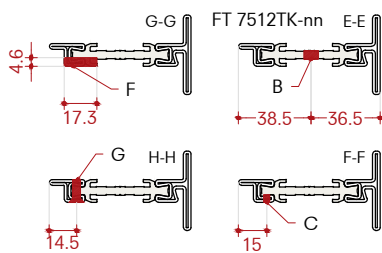
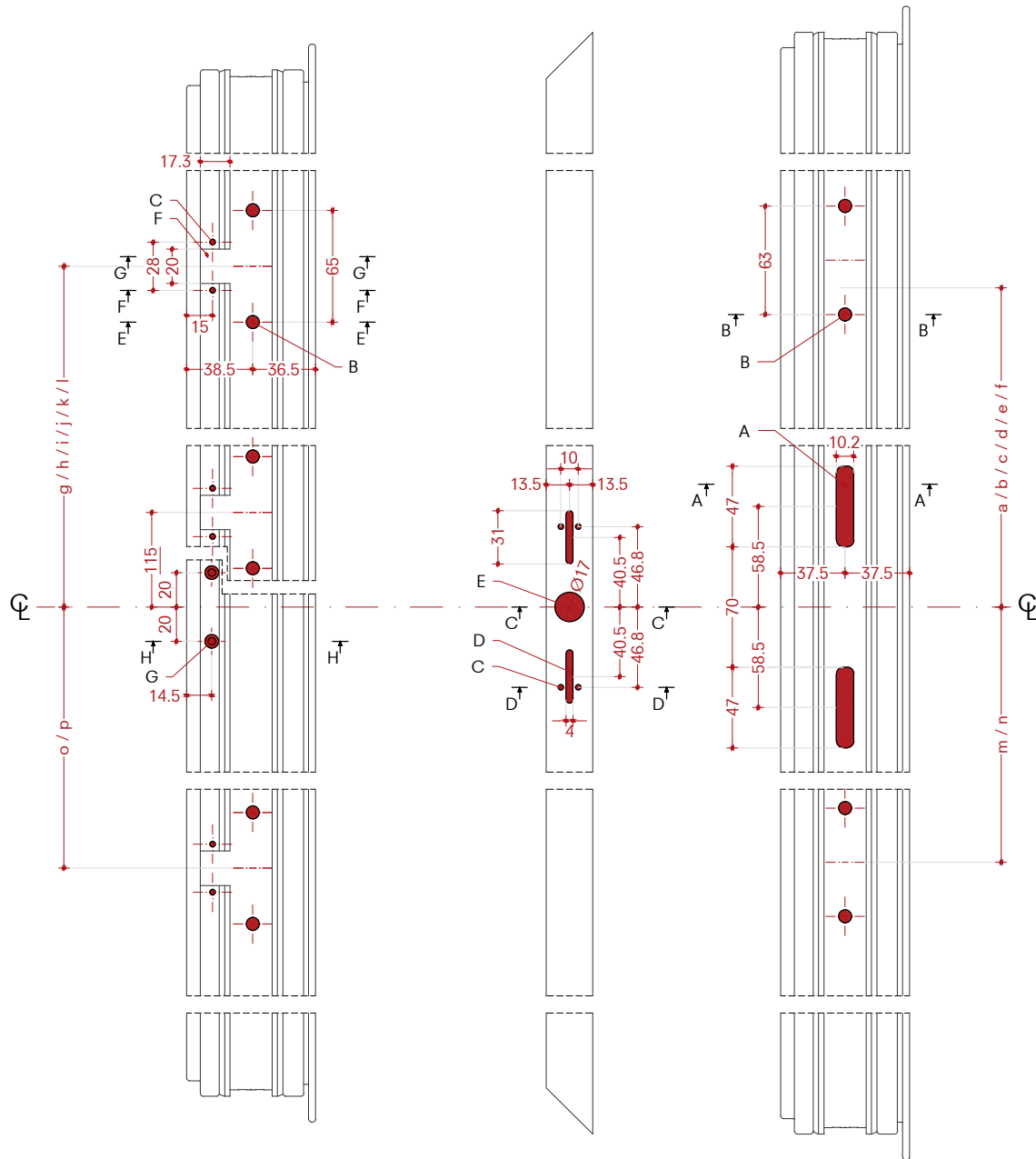
Double leaf window  
 Open out - Left opening  
 Flush profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura esterna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de acero, con Graz**

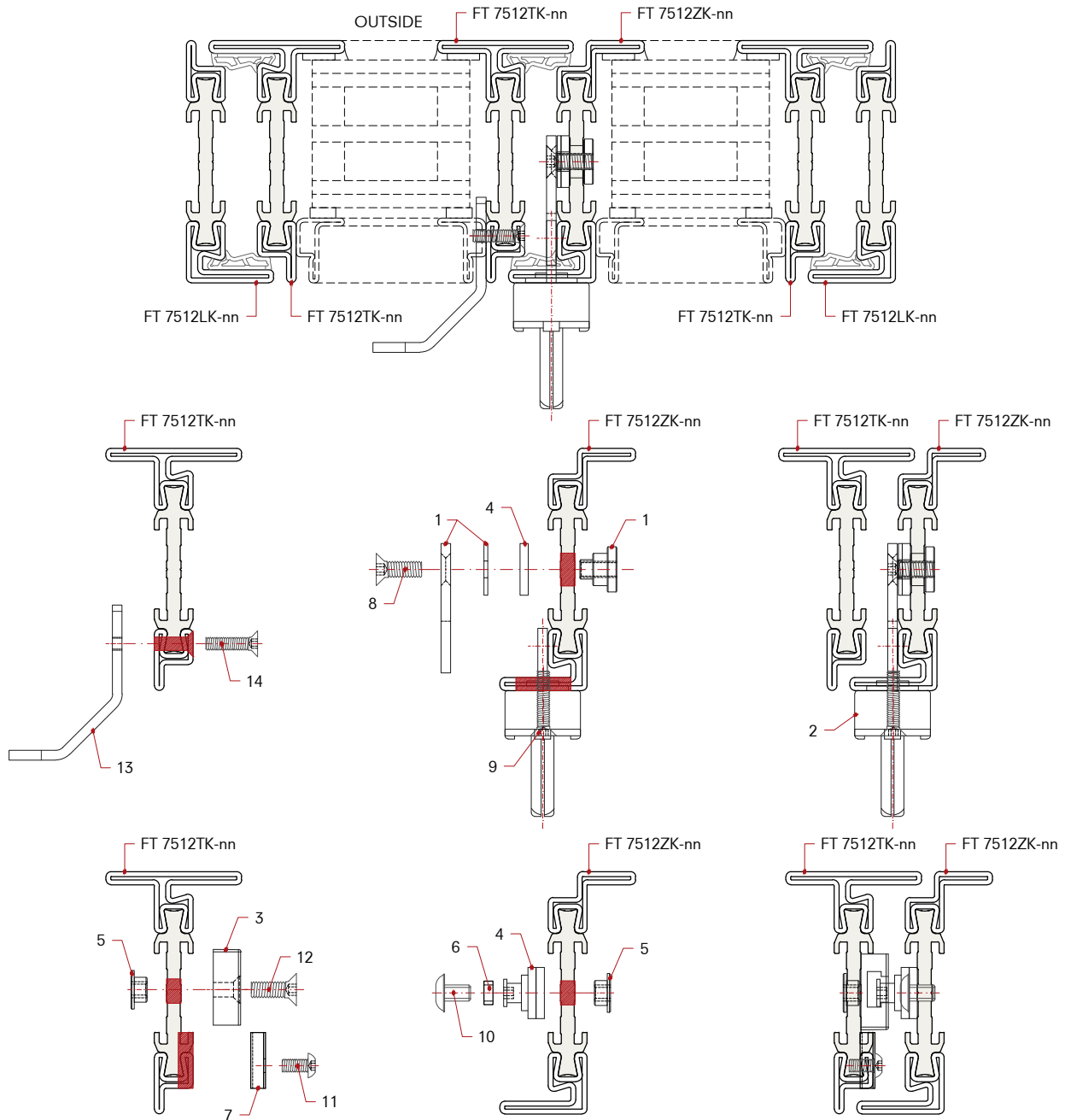
Ventana de dos hojas  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles coplanarios



- Scale 1:4  
 A) Cut out 47x10.2 mm  
 B) Ø7.5 mm holes to be checked  
 C) Ø3.2 mm threaded M4 holes  
 D) Cut out 31x4 mm  
 E) Ø17 mm hole  
 F) Cut out 17.3x4.6x20 mm  
 G) Ø4.2 mm countersunk holes

- Scala 1:4  
 A) Fresastra 47x10.2 mm  
 B) Fori Ø7.5 mm da verificare  
 C) Fori Ø3.2 mm filettati M4  
 D) Fresastra 31x4 mm  
 E) Foro Ø17 mm  
 F) Fresastra 17.3x4.6x20 mm  
 G) Fori svasati Ø4.2 mm

- Escala 1:4  
 A) Fresado 47x10.2 mm  
 B) Orificios Ø7.5 mm por verificar  
 C) Orificios Ø3.2 mm roscados M4  
 D) Fresado 31x4 mm  
 E) Orificio Ø17 mm  
 F) Fresastra 17.3x4.6x20 mm  
 G) Orificios avellanados Ø4.2 mm



Scale 1:2

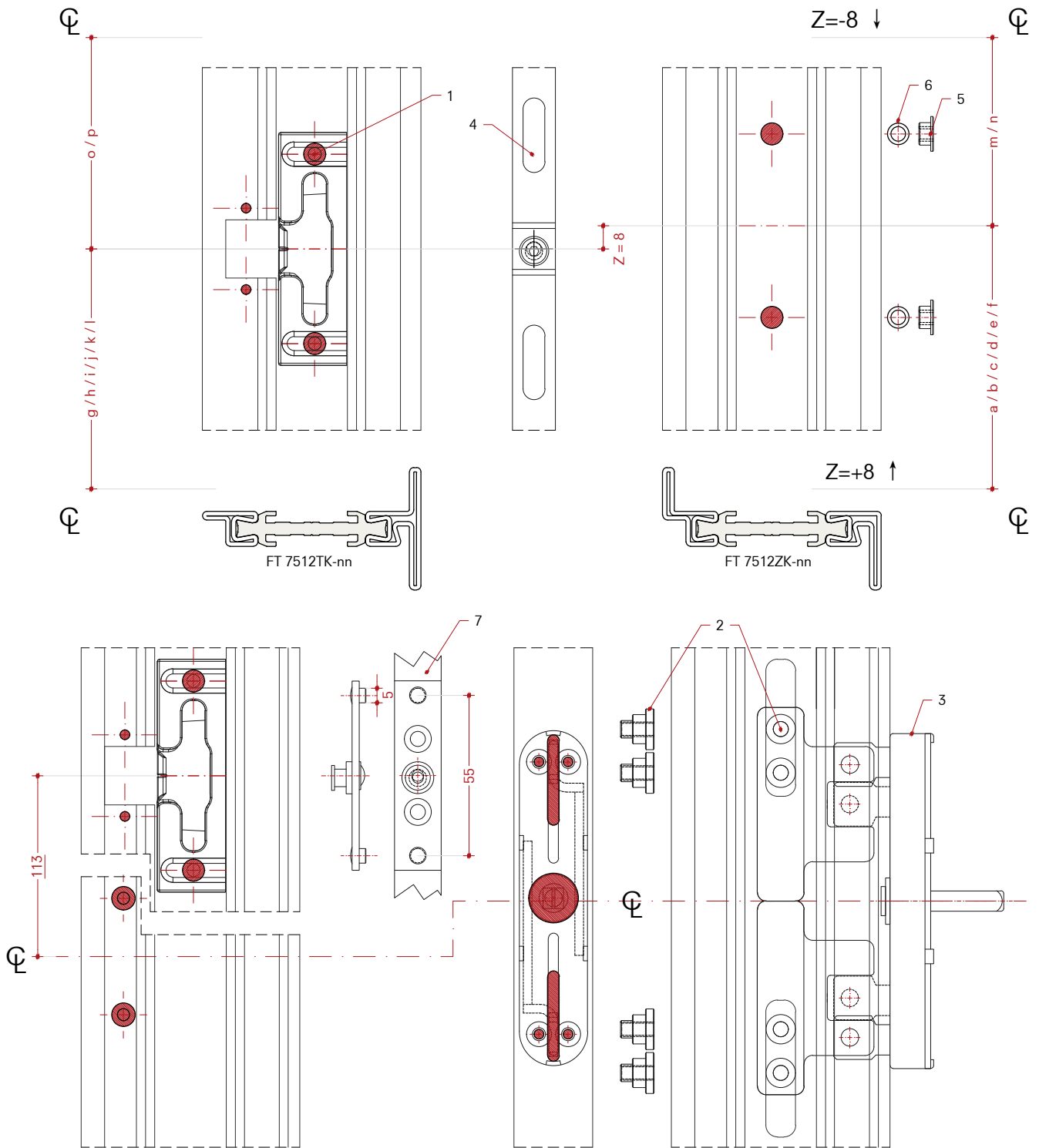
- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

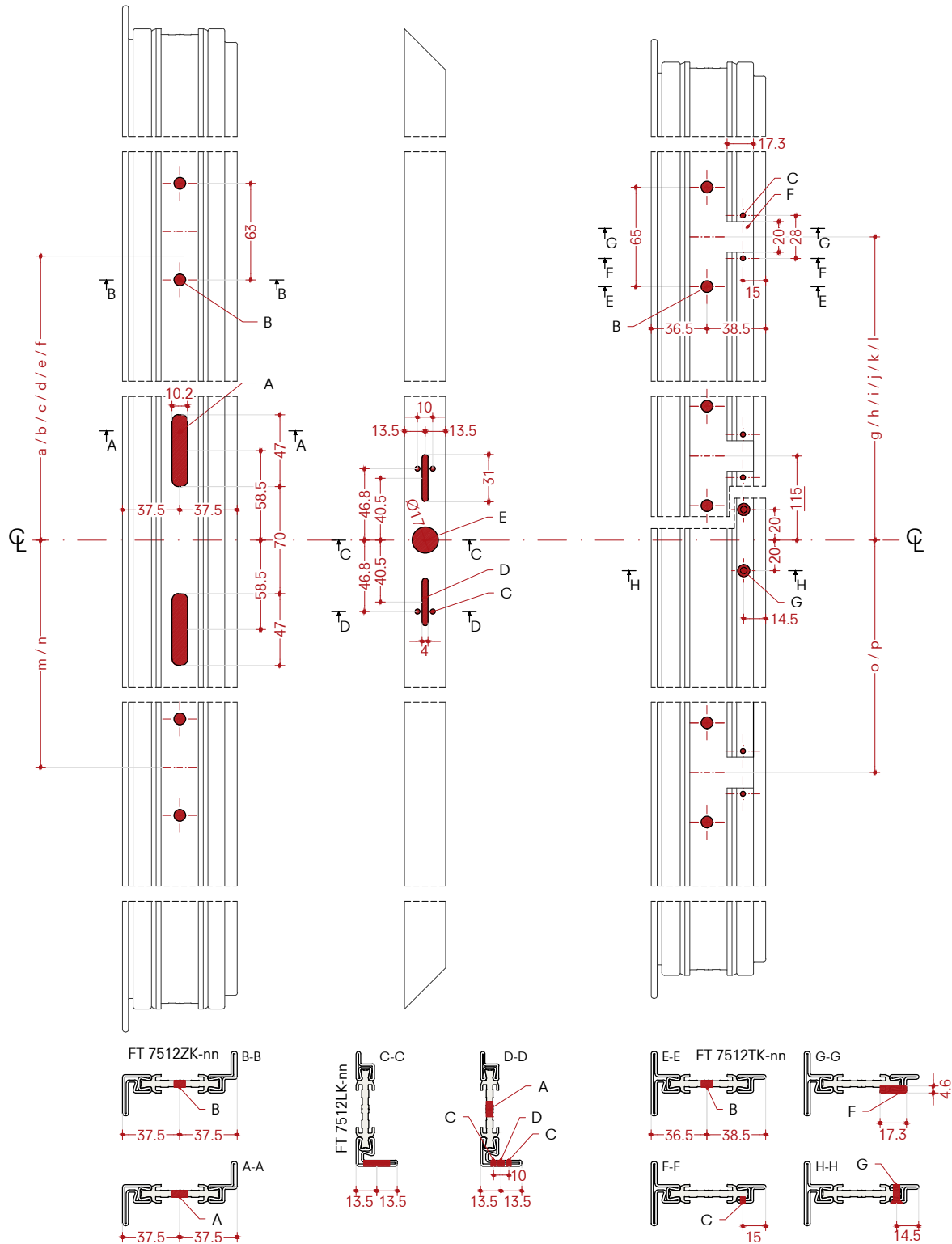
Double leaf window  
 Open out - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura esterna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles superpuestos



Scale 1:4

- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm
- G) Ø4.2 mm countersunk holes

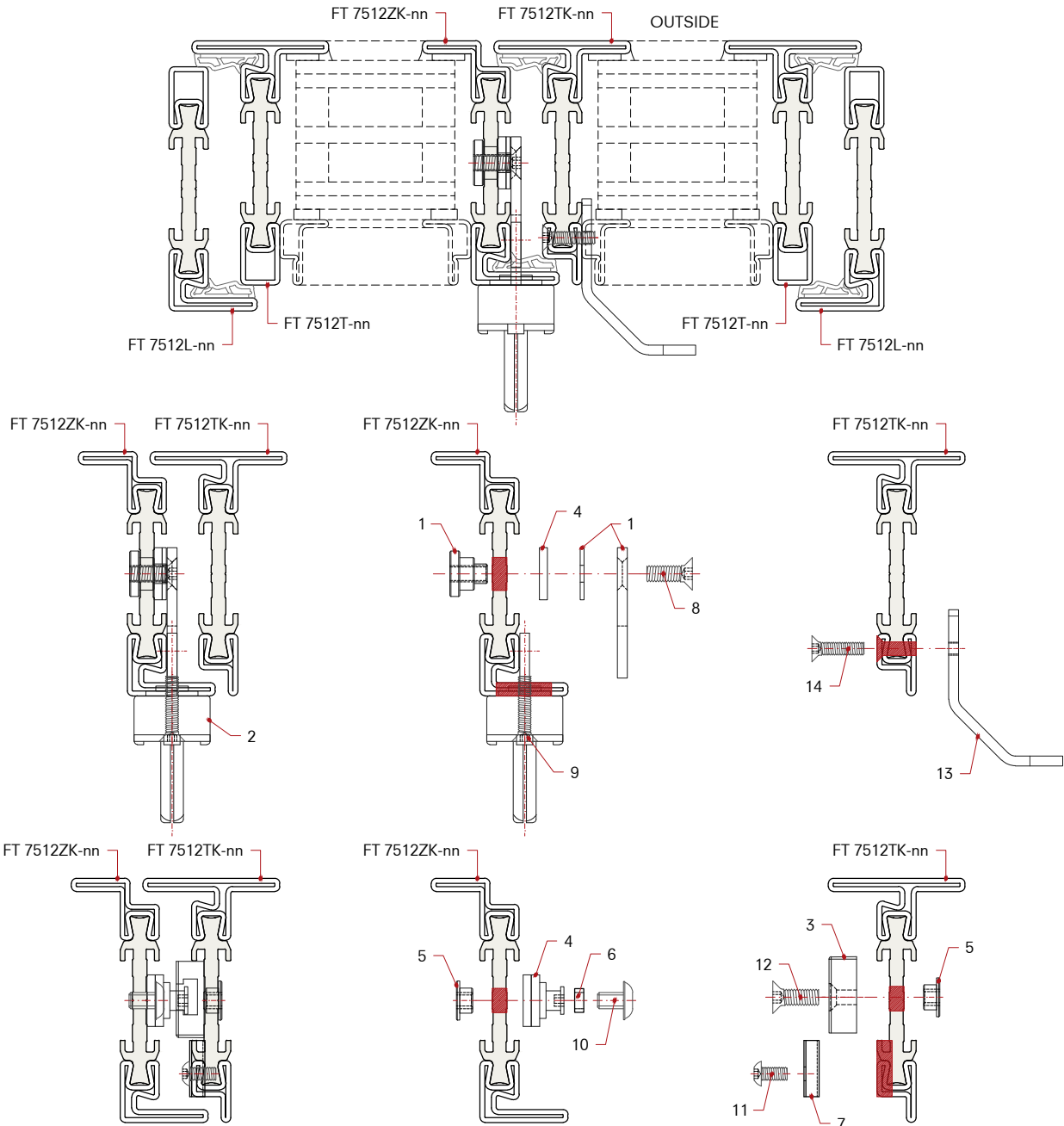
Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm
- G) Fori svasati Ø4.2 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm
- G) Orificios avellanados Ø4.2 mm





Scale 1:2

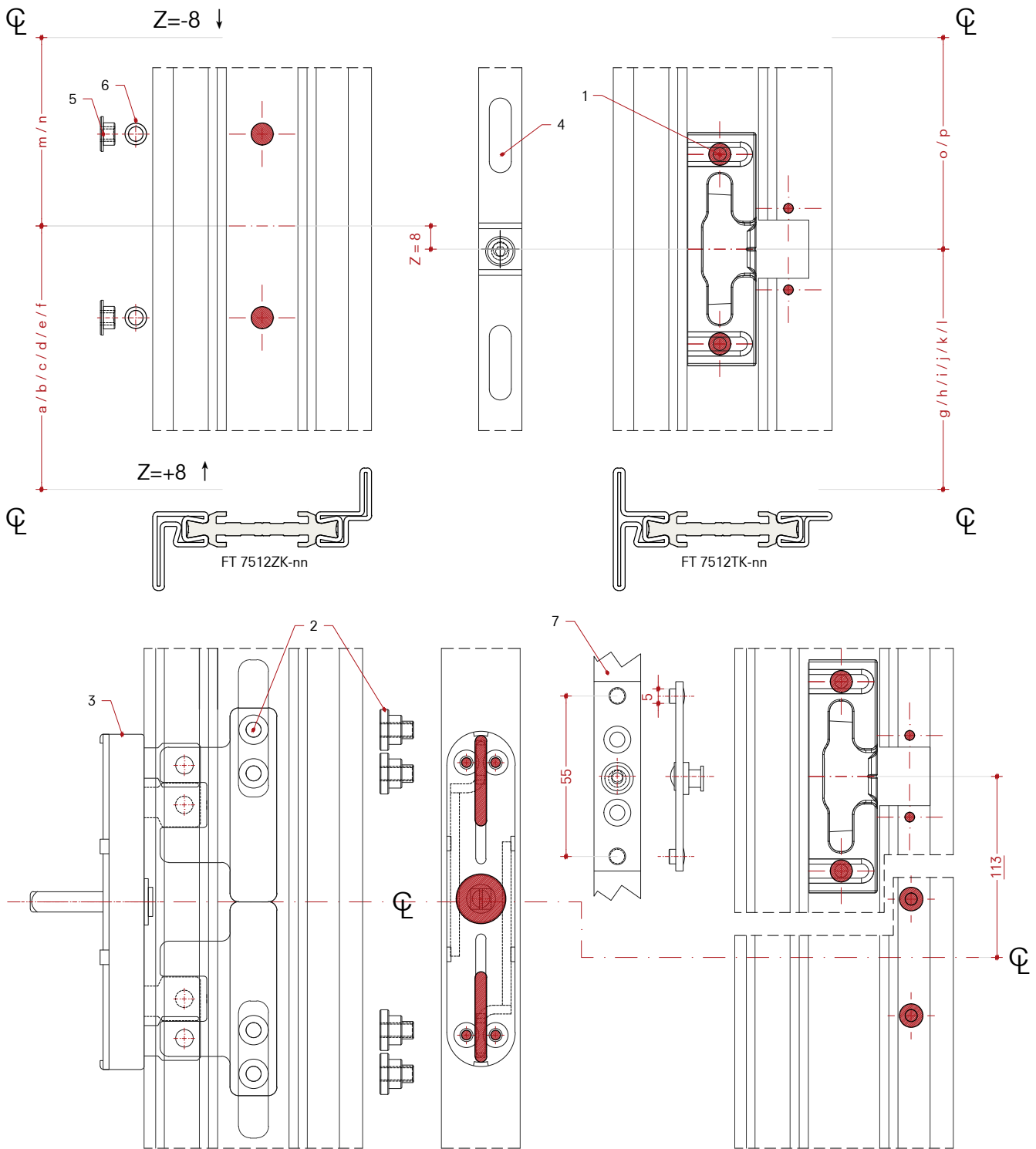
- 1) Drive block with shim K99100
- 2) Graz E99653-03 (right opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Couter cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99653-03 (apertura destra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99653-03 (apertura derecha)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99653-03 (right opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99653-03 (apertura destra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99653-03 (apertura derecha)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**

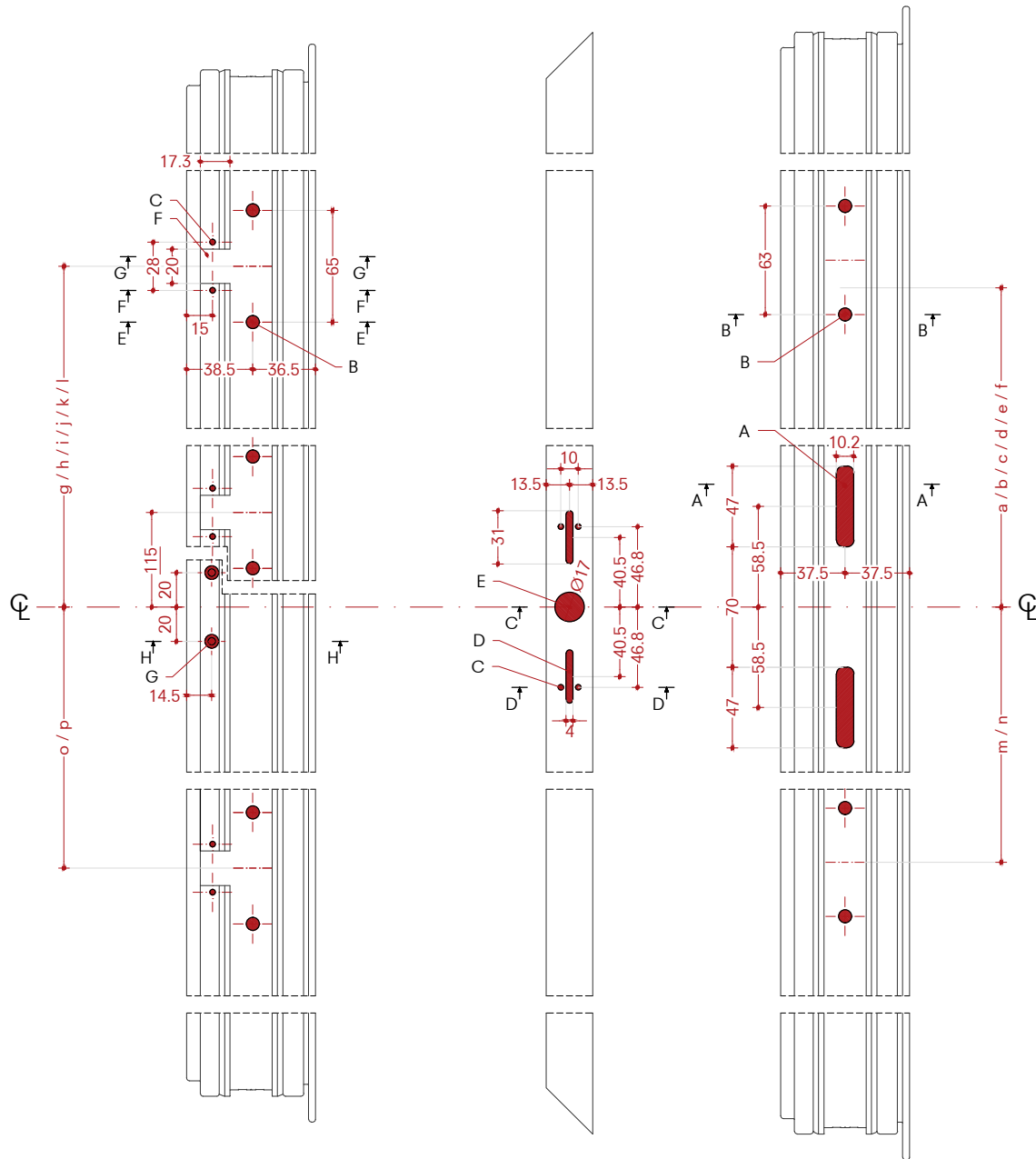
Double leaf window  
 Open out - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in acciaio, con Graz**

Finestra a due battenti  
 Apertura esterna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de acero, con Graz**

Ventana de dos hojas  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles superpuestos



Scale 1:4

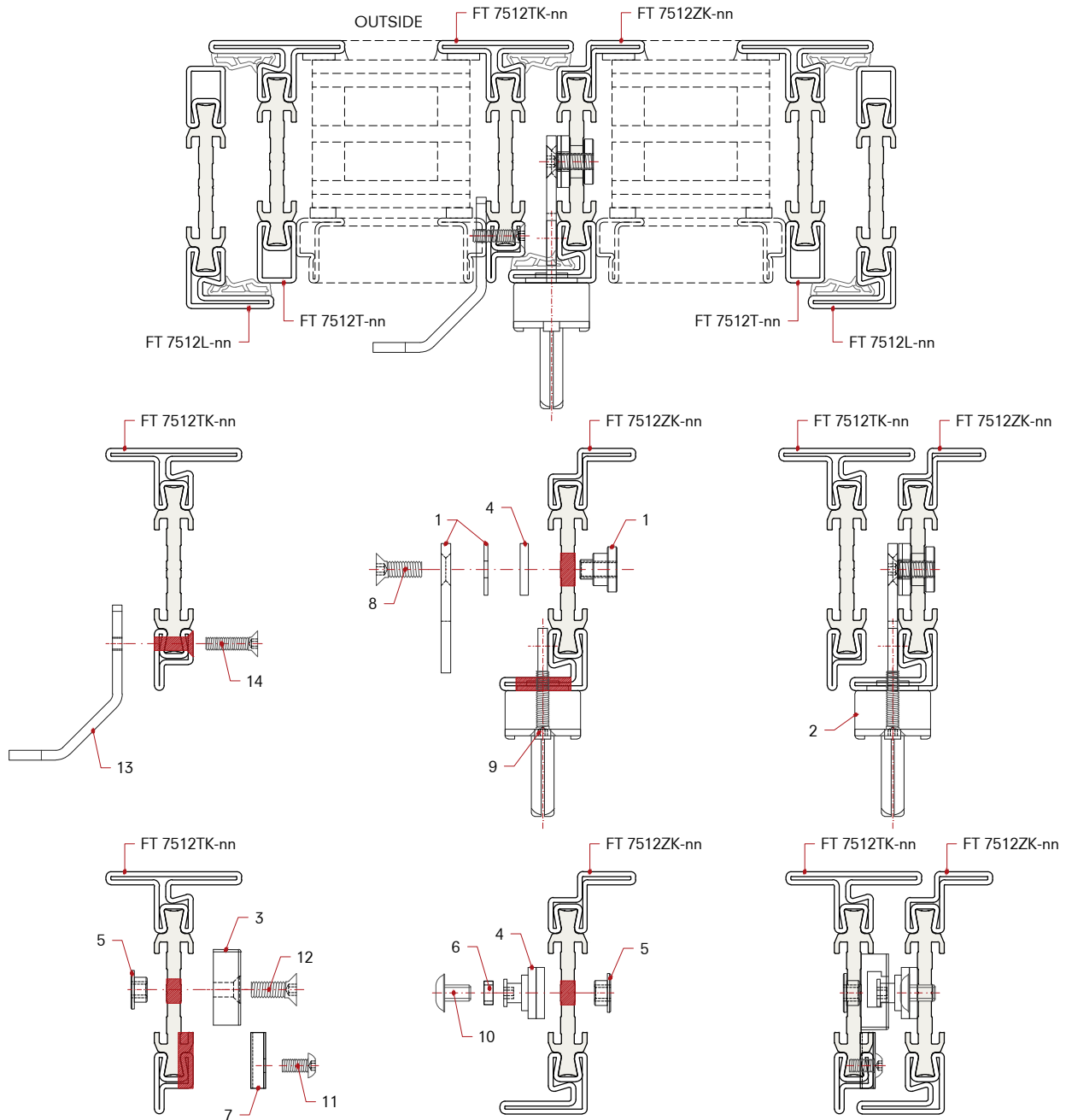
- A) Cut out 47x10.2 mm
- B) Ø7.5 mm holes to be checked
- C) Ø3.2 mm threaded M4 holes
- D) Cut out 31x4 mm
- E) Ø17 mm hole
- F) Cut out 17.3x4.6x20 mm
- G) Ø4.2 mm countersunk holes

Scala 1:4

- A) Fresatura 47x10.2 mm
- B) Fori Ø7.5 mm da verificare
- C) Fori Ø3.2 mm filettati M4
- D) Fresatura 31x4 mm
- E) Foro Ø17 mm
- F) Fresatura 17.3x4.6x20 mm
- G) Fori svasati Ø4.2 mm

Escala 1:4

- A) Fresado 47x10.2 mm
- B) Orificios Ø7.5 mm por verificar
- C) Orificios Ø3.2 mm roscados M4
- D) Fresado 31x4 mm
- E) Orificio Ø17 mm
- F) Fresado 17.3x4.6x20 mm
- G) Orificios avellanados Ø4.2 mm



Scale 1:2

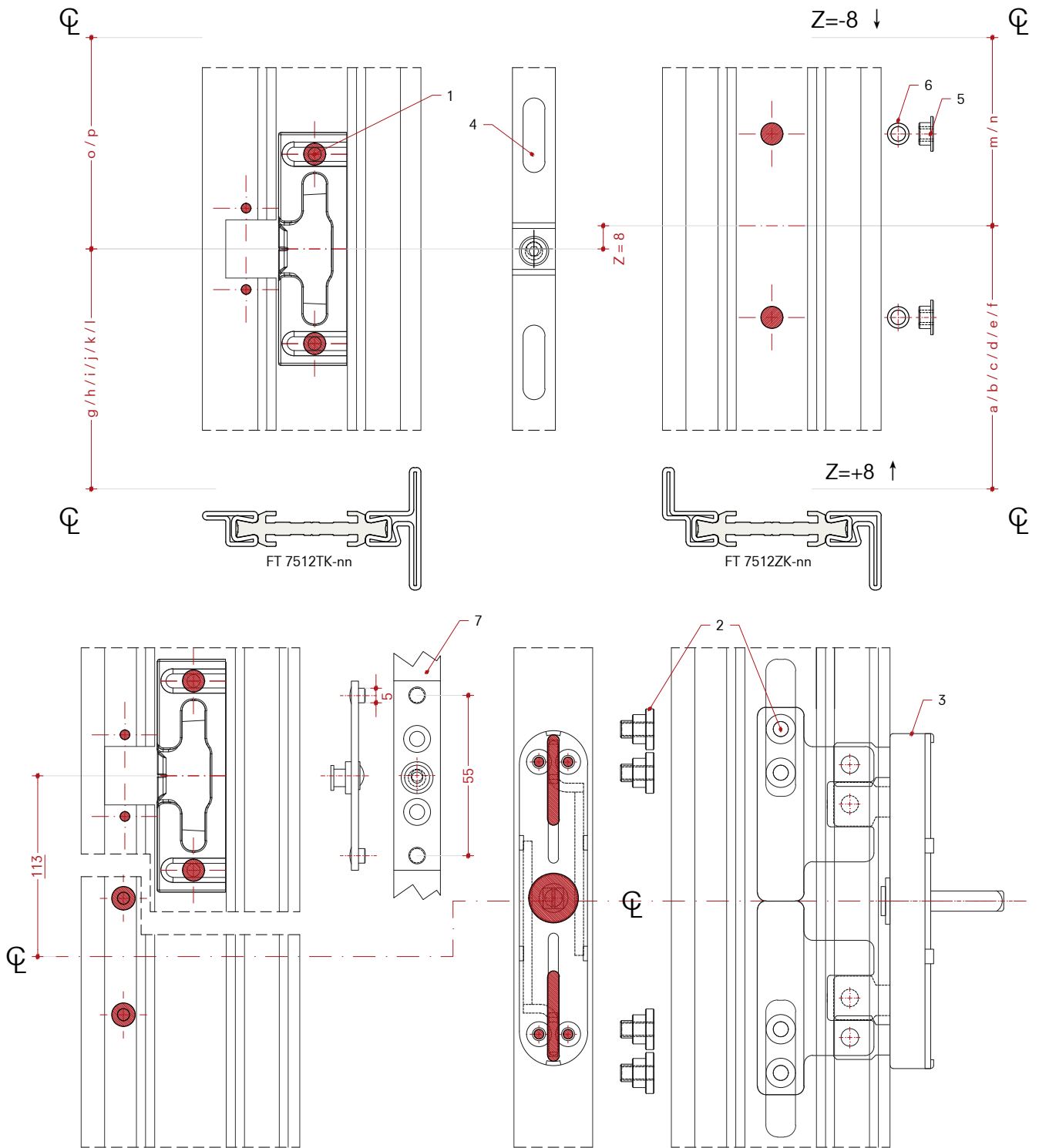
- 1) Drive block with shim K99100
- 2) Graz E99652-03 (left opening)
- 3) Strike plate
- 4) Rod E9937X-03
- (\* Enlarge the lower holes of the rod to Ø6 mm
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Cover E99134-04
- 8) Fastening with M5x14 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M5x8 mm screws. Do not overtighten and add medium thread-locker.
- 11) Fastening with M4x8 mm ISO7380 screws (not included)
- 12) Fastening with M5x14 mm ISO10642 screws (not included)
- 13) Handle H99020-nn
- 14) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Blocco guida con spessore K99100
- 2) Graz E99652-03 (apertura sinistra)
- 3) Riscontro
- 4) Asta E9937X-03
- (\* Allargare i fori inferiori dell'asta a Ø6 mm
- 5) Boccia in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Copertura fresata E99134-04
- 8) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M5x8 mm Non stringere eccessivamente la vite e aggiungere un frenafili medio.
- 11) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 12) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 13) Maniglia H99020-nn
- 14) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Bloque de guía con espesor K99100
- 2) Graz E99652-03 (apertura izquierda)
- 3) Chapa de cierre
- 4) Barra E9937X-03
- (\* Ampliar los orificios inferiores de la barra a Ø6 mm
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Cubierta molida E99134-04
- 8) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M5x8 mm No apriete demasiado y agregue fijador de roscas mediano.
- 11) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 12) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 13) Manija H99020-nn
- 14) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate
- 2) Drive block with shim K99100
- 3) Graz E99652-03 (left opening)
- 4) Rod E9937X-03
- 5) M5 brass bushing D99702-08
- 6) Brass washer D99706-08
- 7) Additional point (see the dedicated installation page at the end of chapter)

Scala 1:2

- 1) Riscontro
- 2) Blocco guida con spessore K99100
- 3) Graz E99652-03 (apertura sinistra)
- 4) Asta E9937X-03
- 5) Boccola in ottone M5 D99702-08
- 6) Rondella in ottone D99706-08
- 7) Punto aggiuntivo (vedi pagina installazione dedicata a fine capitolo)

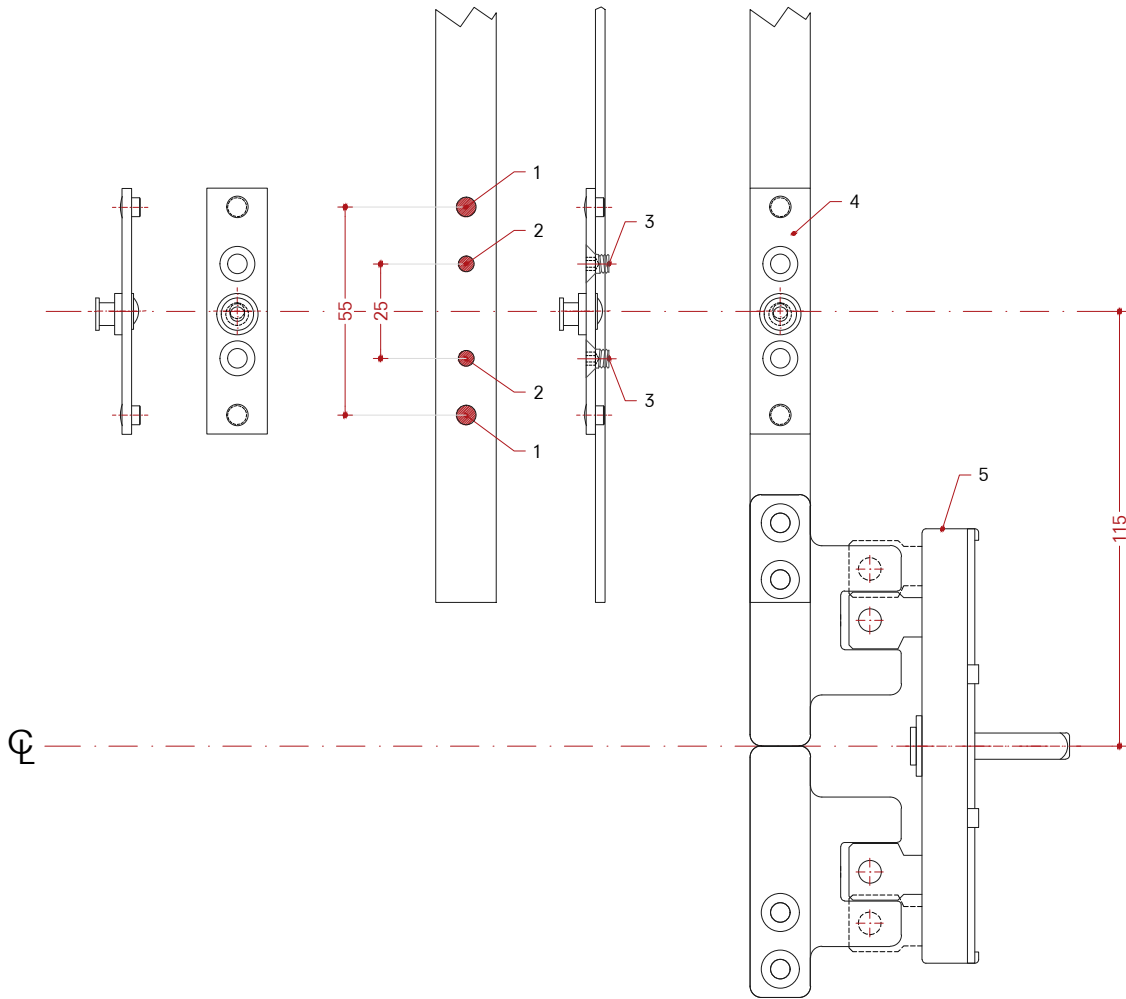
Escala 1:2

- 1) Chapa de cierre
- 2) Bloque de guía con espesor K99100
- 3) Graz E99652-03 (apertura izquierda)
- 4) Barra E9937X-03
- 5) Casquillo en latón M5 D99702-08
- 6) Arandela de latón D99706-08
- 7) Punto adicional (consulte la página de instalación dedicada al final del capítulo)

**Multipoint steel rods installation, with Graz**  
 Additional locking point

**Montaggio Multipoint aste in acciaio, con Graz**  
 Punto di chiusura aggiuntivo

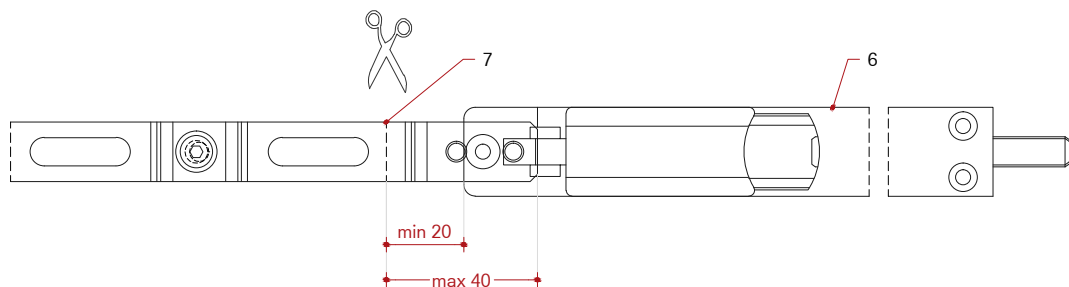
**Montaje Multipoint varillas de acero, con Graz**  
 Punto adicional



Cropping of rod ending  
 Open out, double leaf  
 (flush bolt and rod on the same profile)

Taglio all'estremità dell'asta  
 Apertura esterna, doppia anta  
 (catenaccio e asta sullo stesso profilo)

Corte al final de la barra  
 Que se abre hacia fuera, dos hojas  
 (pasador de canto y barra en el mismo perfil)



- Scale 1:2
- 1) Ø5.2 mm holes
  - 2) Ø4.2 mm threaded M5 holes
  - 3) Fastening with M5x6 mm ISO10642 screws (not provided) and cut the screws
  - 4) Additional point E99353-03
  - 5) Graz E9965X-03
  - 6) Flush bolt
  - 7) Rod cropping

- Scala 1:2
- 1) Fori Ø5.2 mm
  - 2) Fori Ø4.2 mm filettati M5
  - 3) Fissaggio con viti M5x6 mm ISO10642 (non fornite) e accorciare le viti
  - 4) Punto aggiuntivo E99353-03
  - 5) Graz E9965X-03
  - 6) Catenaccio
  - 7) Taglio dell'asta

- Escala 1:2
- 1) Orificios Ø5.2 mm
  - 2) Orificios Ø4.2 mm roscados M5
  - 3) Fijación con tornillos M5x6 mm ISO10642 (no provisto) y recortar tornillos
  - 4) Punto adicional E99353-03
  - 5) Graz E9965X-03
  - 6) Pasador de canto
  - 7) Corte de barra

**Multipoint steel rods installation, with Graz**

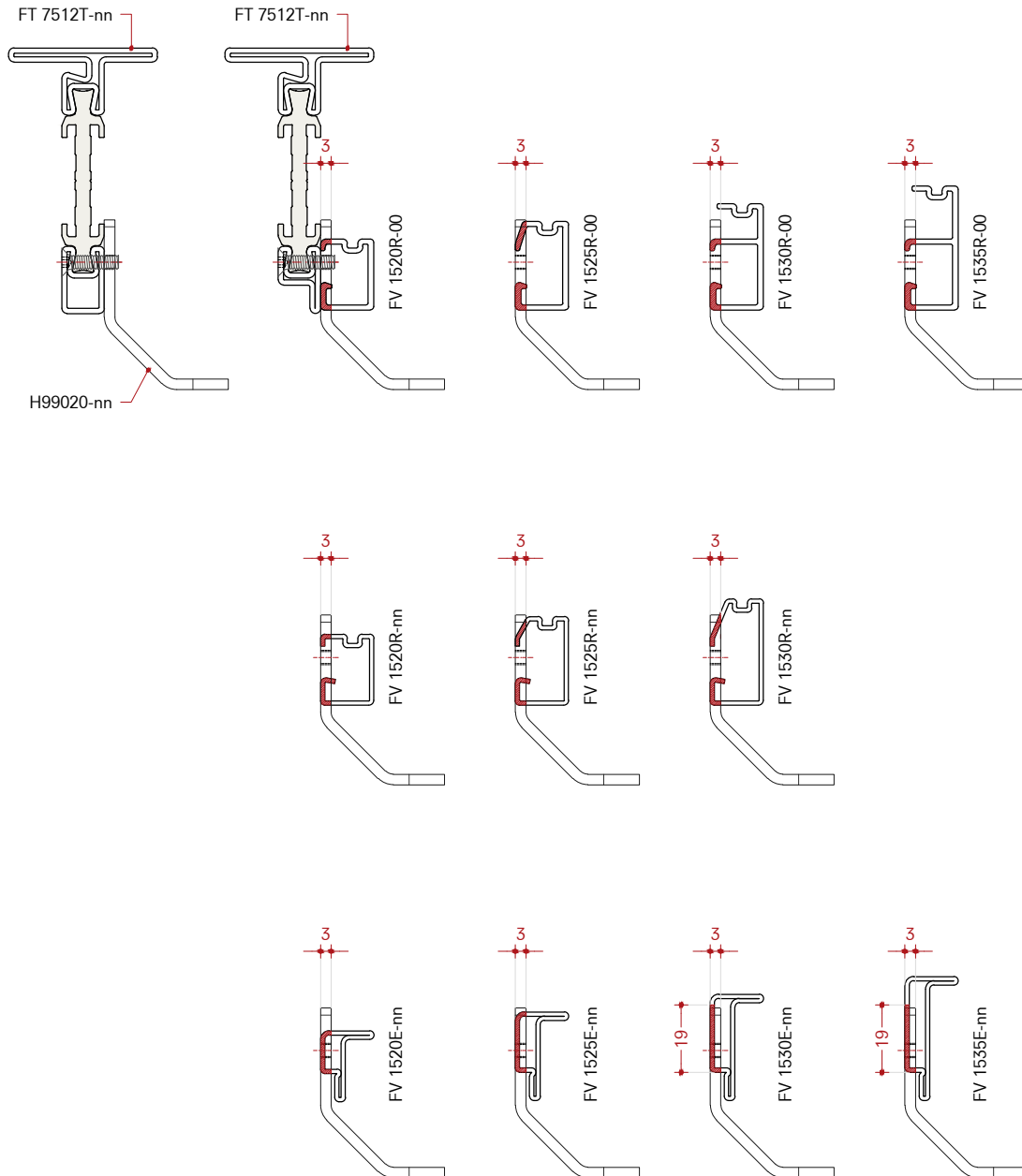
Glazing beads processing  
 Open out only

**Montaggio Multipoint aste in acciaio, con Graz**

Lavorazione fermavetri  
 Solo per apertura esterna

**Montaje Multipoint varillas de acero, con Graz**

Mecanizado de junquillos  
 Que se abre hacia fuera solo



Scale 1:2

Cutout length: 60.5 mm centered on handle center line.

Scala 1:2

Lunghezza intagli 60.5 mm centrata sulla linea centrale del taglio della maniglia.

Escala 1:2

Recorte de longitud 60.5 mm centrado en la línea central del mango.





**Multipoint aluminum rods  
installation,  
with Graz and Mono**

**Montaggio Multipoint  
aste in alluminio,  
con Graz e Mono**

**Montaje Multipoint  
varillas de aluminio,  
con Graz y Mono**

5.6

### Legend

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:2 - 1:4

### Legenda

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:2 - 1:4

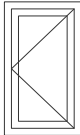
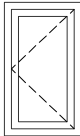
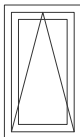
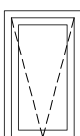
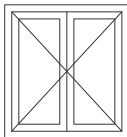
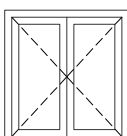
### Leyenda

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:2 - 1:4

Leaf dimension limits

Limiti dimensionali anta

Límites de dimensión de hoja

|       |                                                                                     |                                                                          |                                                         | E99134-04                                                          |   |               |
|-------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------|---|---------------|
| L min |    | Single leaf window<br>Finestra a un battente<br>Ventana de una hoja      | Open in<br>Apertura interna<br>Que se abre hacia dentro | Flush profiles<br>Profili complanari<br>Perfiles coplanarios       |   | <b>400 mm</b> |
|       |                                                                                     |                                                                          |                                                         | Overlapped profiles<br>Profili a sormonto<br>Perfiles superpuestos |   | <b>650 mm</b> |
| L min |    | Single leaf window<br>Finestra a un battente<br>Ventana de una hoja      | Open out<br>Apertura esterna<br>Que se abre hacia fuera | Flush profiles<br>Profili complanari<br>Perfiles coplanarios       | ● | <b>350 mm</b> |
|       |                                                                                     |                                                                          |                                                         | Overlapped profiles<br>Profili a sormonto<br>Perfiles superpuestos | ● | <b>450 mm</b> |
| H min |  | Bottom hung window<br>Finestra vasistas<br>Ventana oscilante             | Open in<br>Apertura interna<br>Que se abre hacia dentro | Flush profiles<br>Profili complanari<br>Perfiles coplanarios       |   | <b>400 mm</b> |
|       |                                                                                     |                                                                          |                                                         | Overlapped profiles<br>Profili a sormonto<br>Perfiles superpuestos |   | <b>650 mm</b> |
| H min |  | Top hung projecting window<br>Finestra a sporgere<br>Ventana proyectante | Open out<br>Apertura esterna<br>Que se abre hacia fuera | Flush profiles<br>Profili complanari<br>Perfiles coplanarios       | ● | <b>350 mm</b> |
|       |                                                                                     |                                                                          |                                                         | Overlapped profiles<br>Profili a sormonto<br>Perfiles superpuestos | ● | <b>450 mm</b> |
| L min |  | Double leaf window<br>Finestra a due battenti<br>Ventana de dos hojas    | Open in<br>Apertura interna<br>Que se abre hacia dentro | Flush profiles<br>Profili complanari<br>Perfiles coplanarios       |   | <b>400 mm</b> |
|       |                                                                                     |                                                                          |                                                         | Overlapped profiles<br>Profili a sormonto<br>Perfiles superpuestos |   | <b>650 mm</b> |
| L min |  | Double leaf window<br>Finestra a due battenti<br>Ventana de dos hojas    | Open out<br>Apertura esterna<br>Que se abre hacia fuera | Flush profiles<br>Profili complanari<br>Perfiles coplanarios       | ● | <b>350 mm</b> |
|       |                                                                                     |                                                                          |                                                         | Overlapped profiles<br>Profili a sormonto<br>Perfiles superpuestos | ● | <b>450 mm</b> |

L min = Minimum leaf length  
 H min = Minimum leaf height  
 ● Cut out cover E99134-04

L min = Lunghezza anta minima  
 H min = Altezza anta minima  
 ● Copertura fresata E99134-04

L min = Longitud mínima de la hoja  
 H min = Altura mínima de la hoja  
 ● Cubierta molida E99134-04

**Multipoint aluminum rods installation, with Graz and Mono**

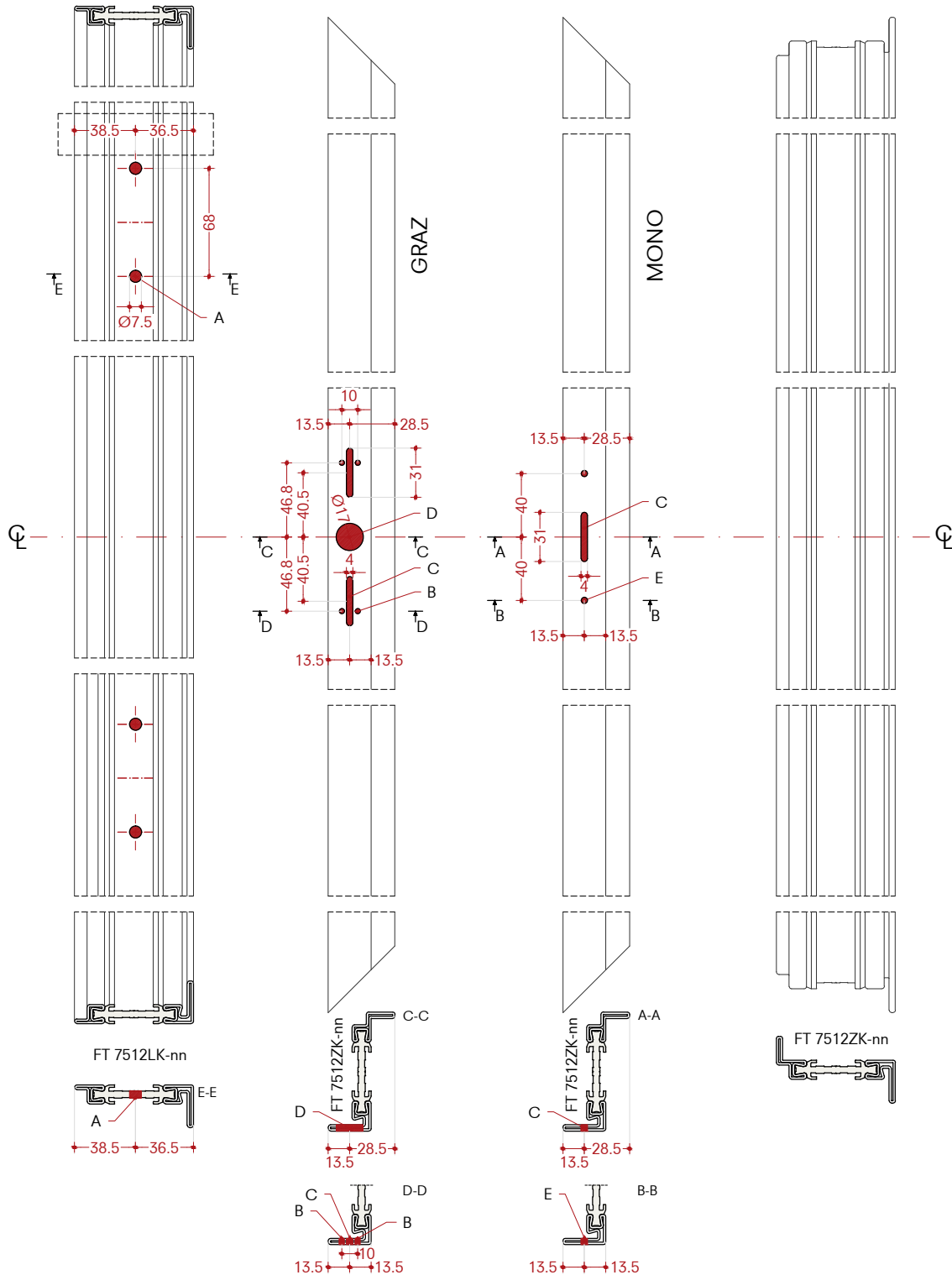
Single leaf window  
 Open in - Right opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura interna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

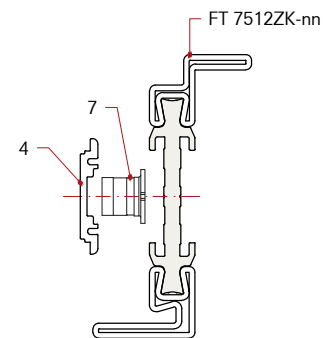
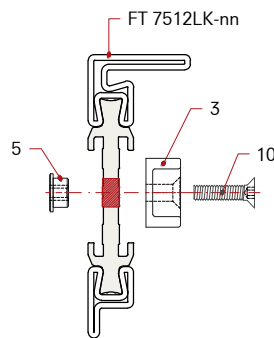
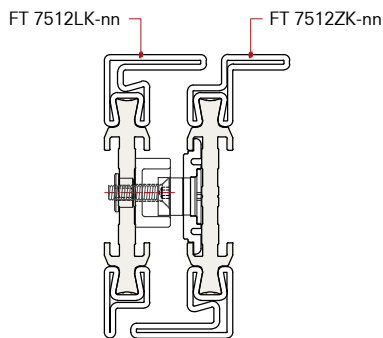
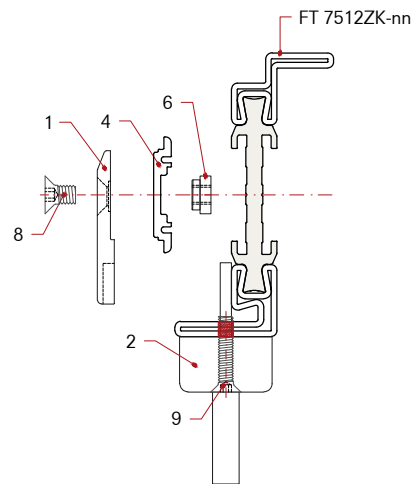
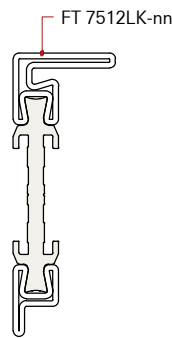
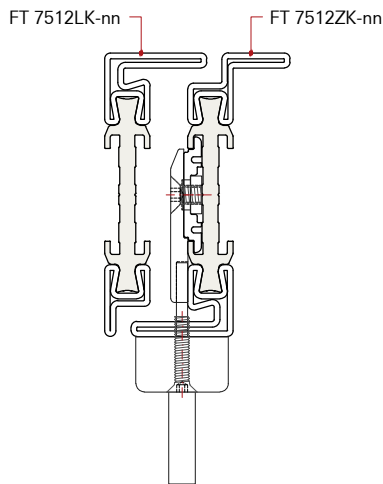
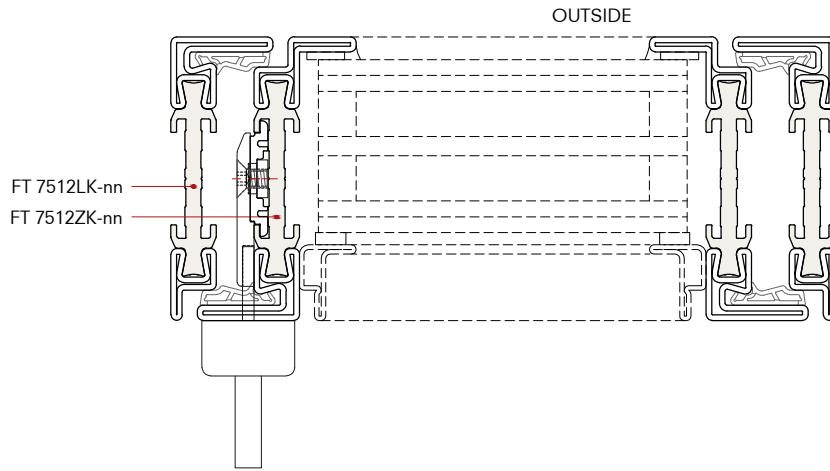
Ventana de una hoja  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles coplanarios



- Scale 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5



Scale 1:2

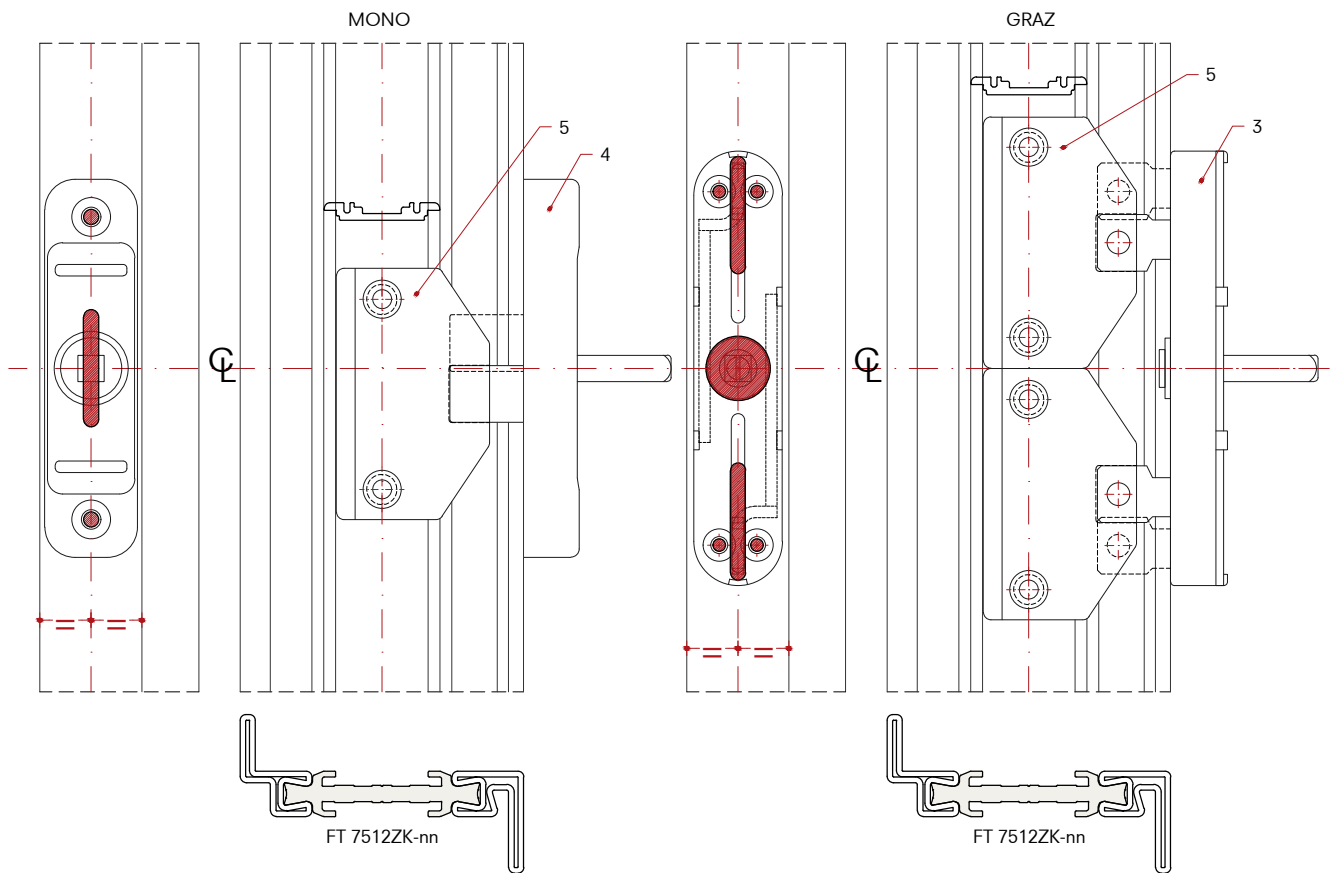
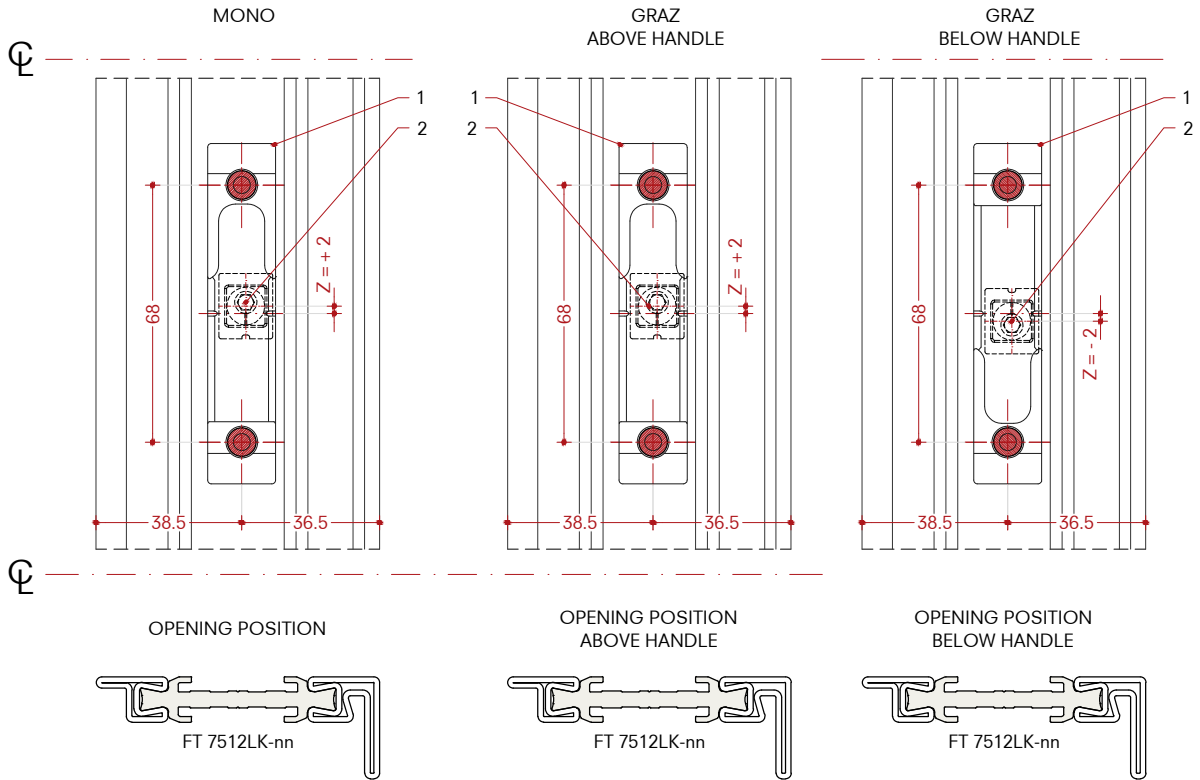
- 1) Cremone gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

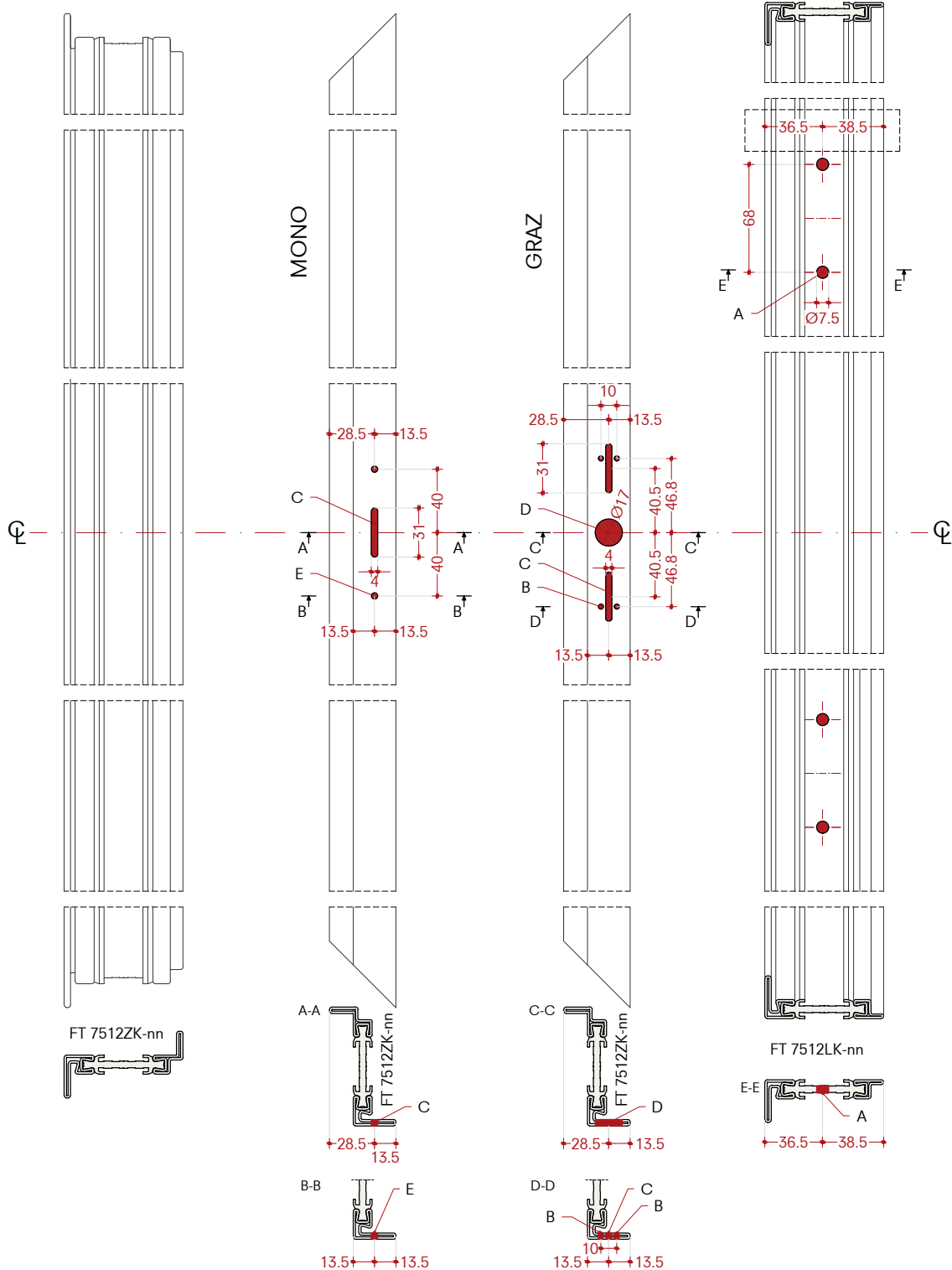
Single leaf window  
 Open in - Left opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura interna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

Ventana de una hoja  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles coplanarios



Scale 1:4

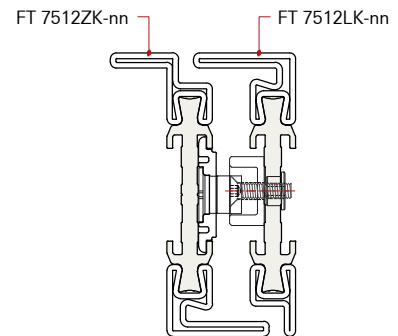
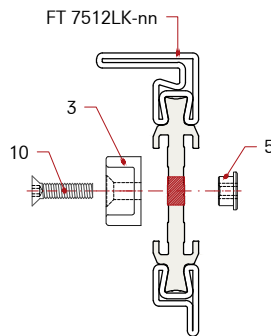
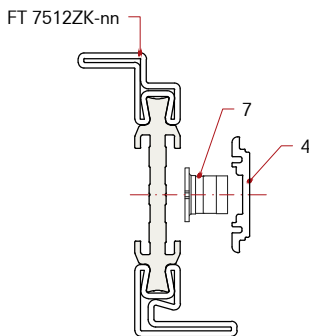
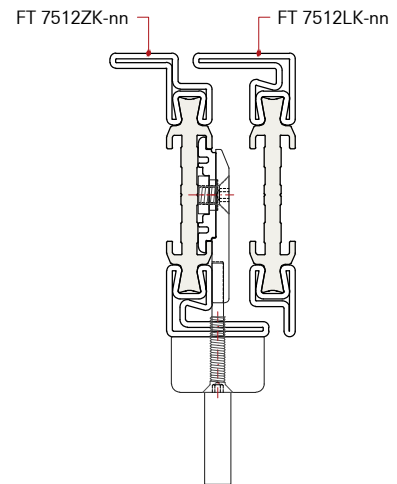
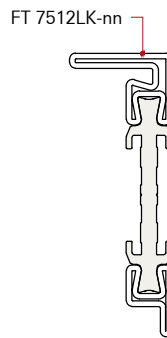
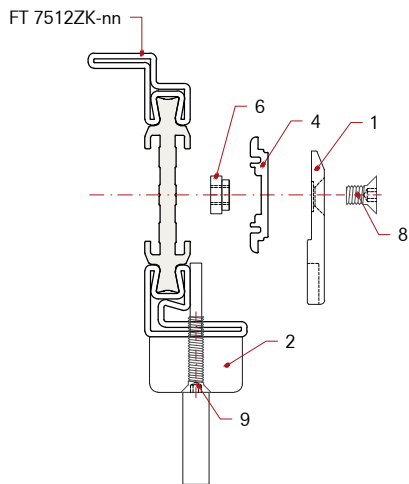
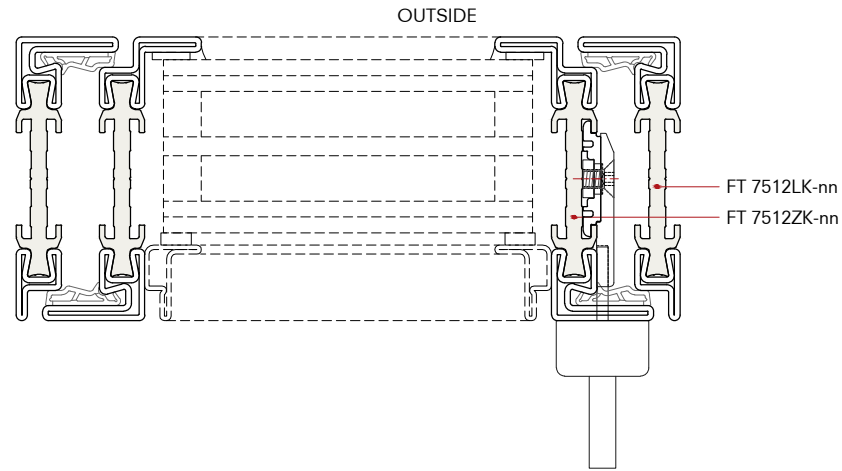
- A) Ø7.5 mm holes to be checked
- B) Ø3.2 mm threaded M4 holes
- C) Cut out 31x4 mm
- D) Ø17 mm hole
- E) Ø4 mm threaded M5 holes

Scala 1:4

- A) Fori Ø7.5 mm da verificare
- B) Fori Ø3.2 mm filettati M4
- C) Fresatura 31x4 mm
- D) Foro Ø17 mm
- E) Fori Ø4 mm filettati M5

Escala 1:4

- A) Orificios Ø7.5 mm por verificar
- B) Orificios Ø3.2 mm roscados M4
- C) Fresado 31x4 mm
- D) Orificio Ø17 mm
- E) Orificios Ø4 mm roscados M5



Scale 1:2

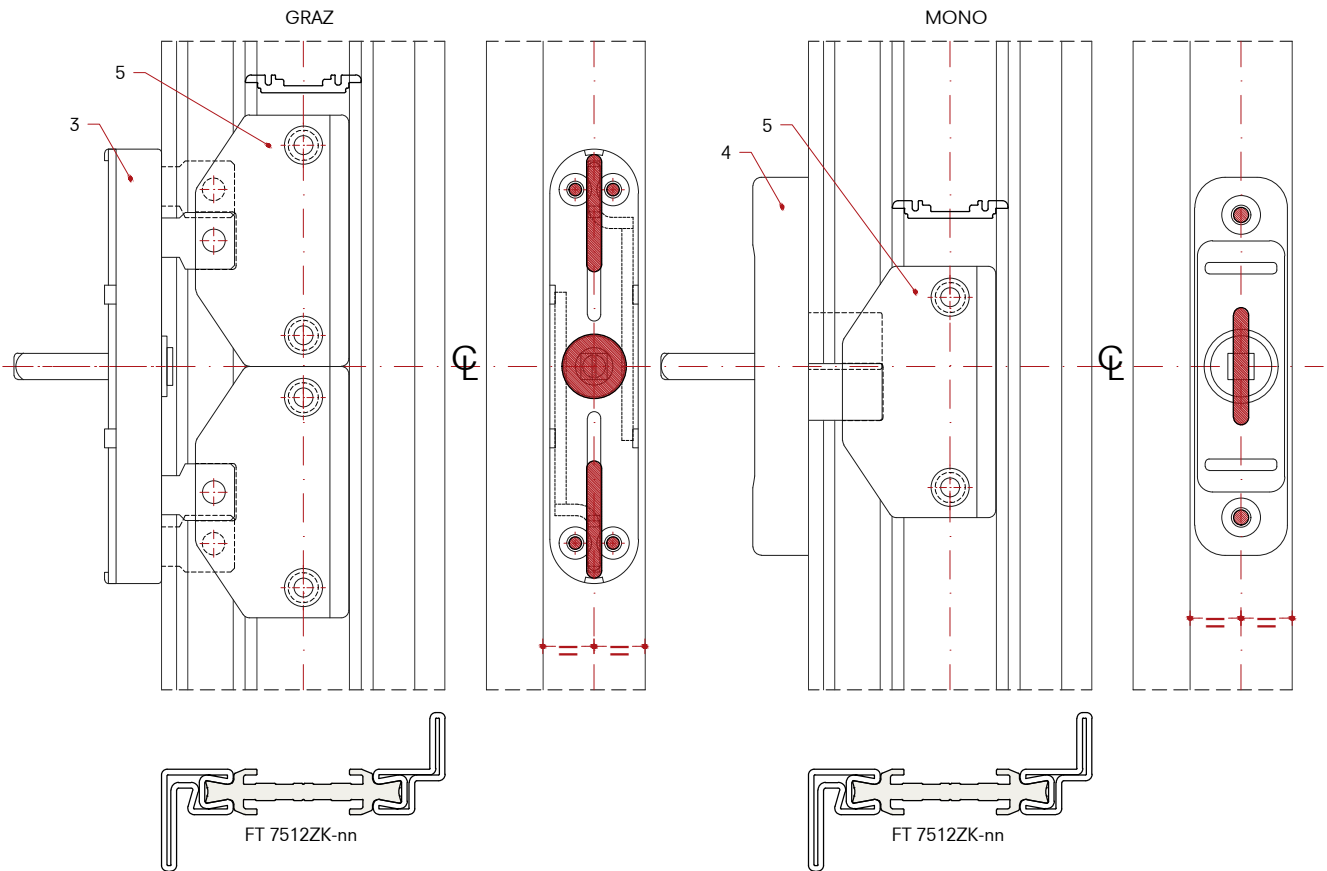
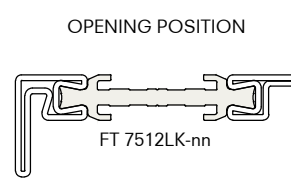
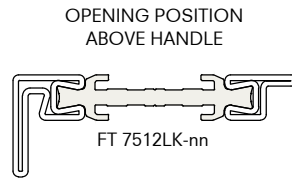
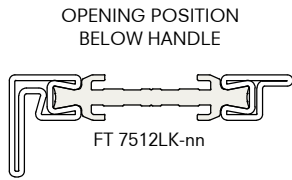
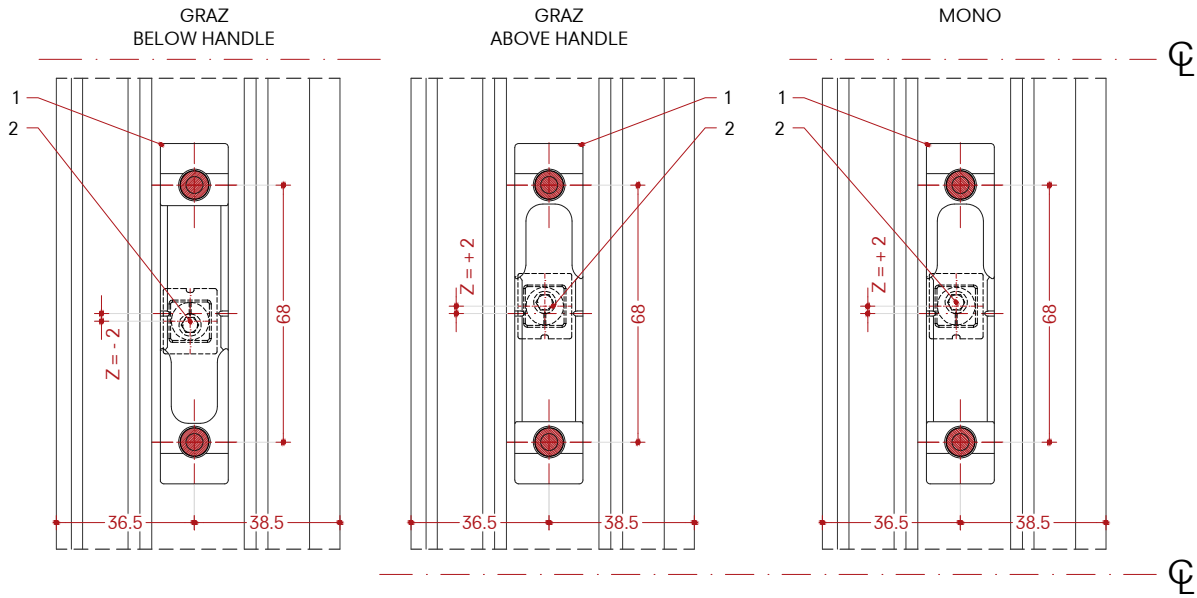
- 1) Cremona gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87



**Multipoint aluminum rods installation, with Graz and Mono**

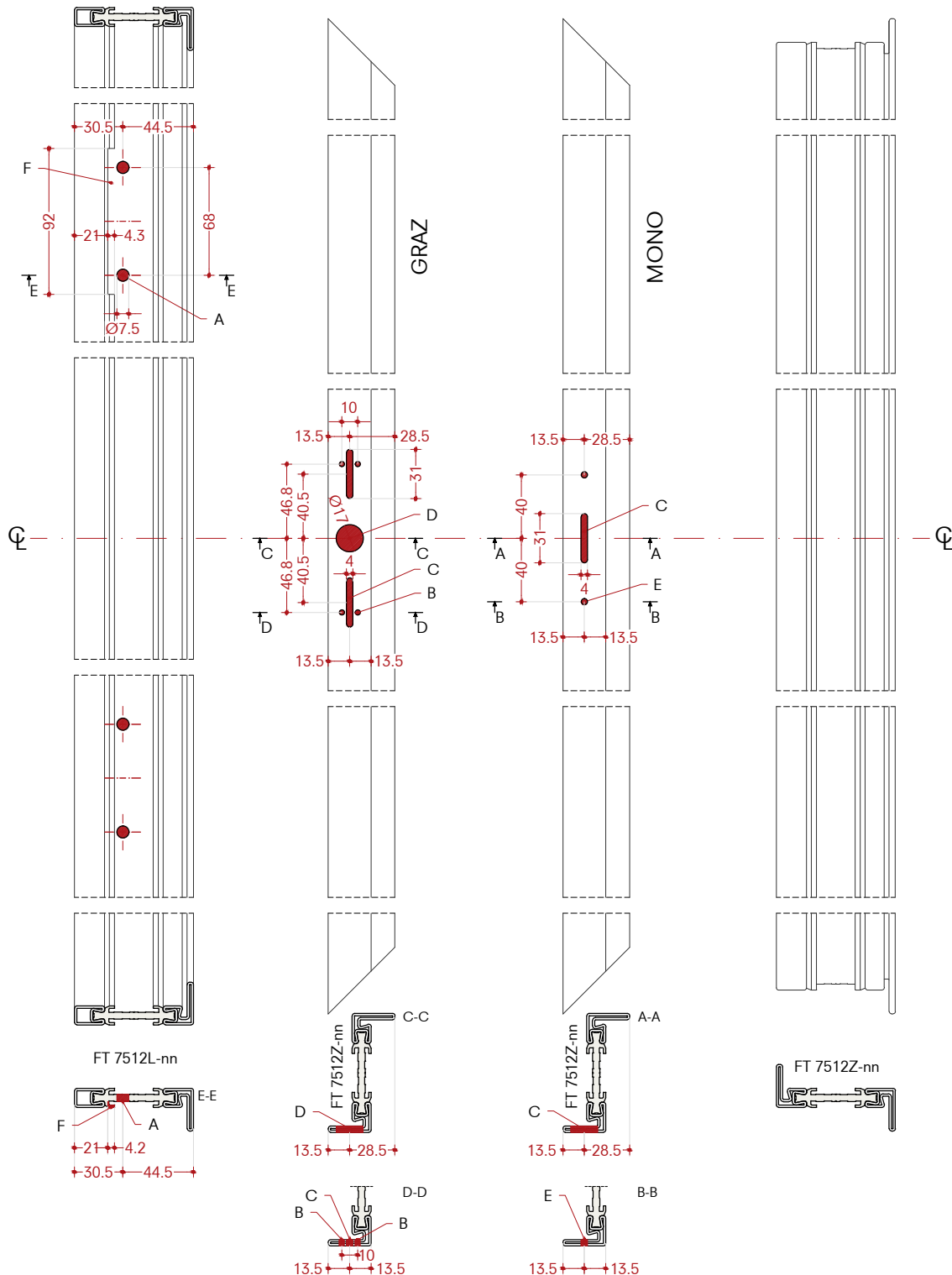
Single leaf window  
 Open in - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura interna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

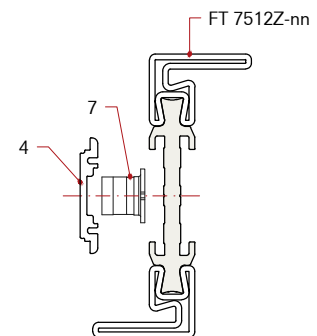
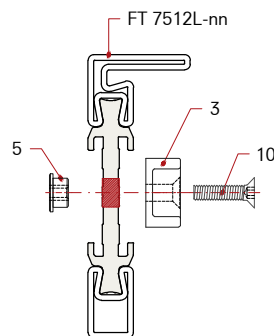
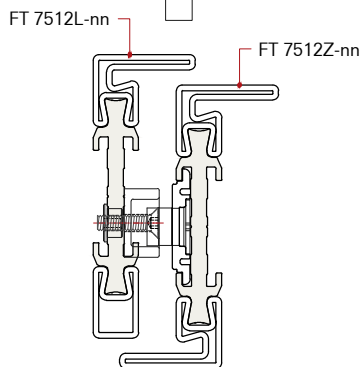
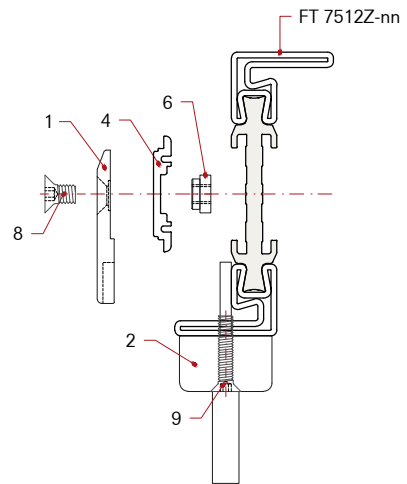
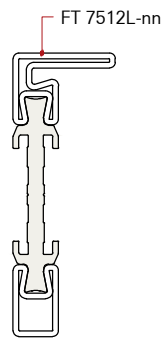
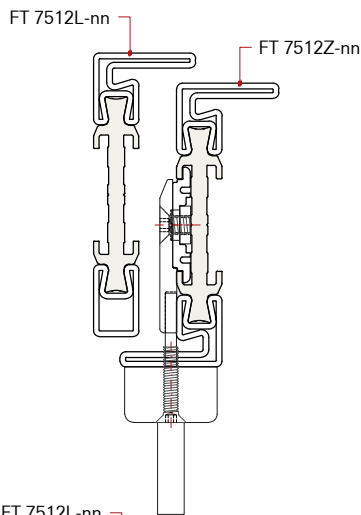
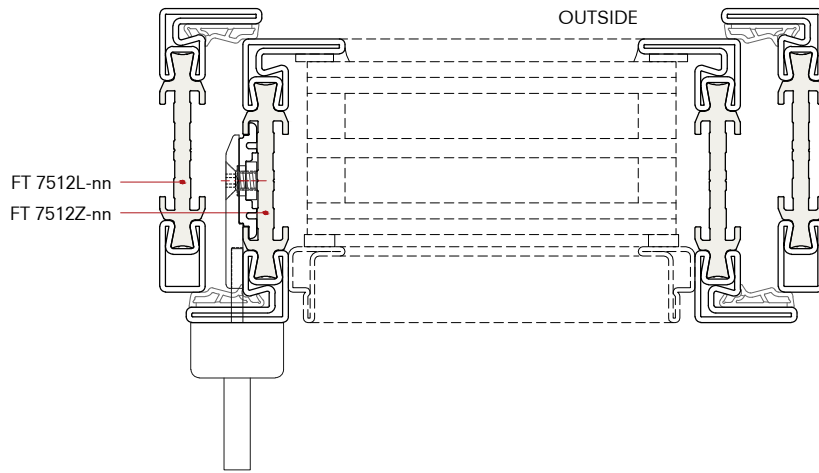
Ventana de una hoja  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles superpuestos



- Scale 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Cut out 92x4 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fresatura 92x4 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Fresado 92x4 mm



Scale 1:2

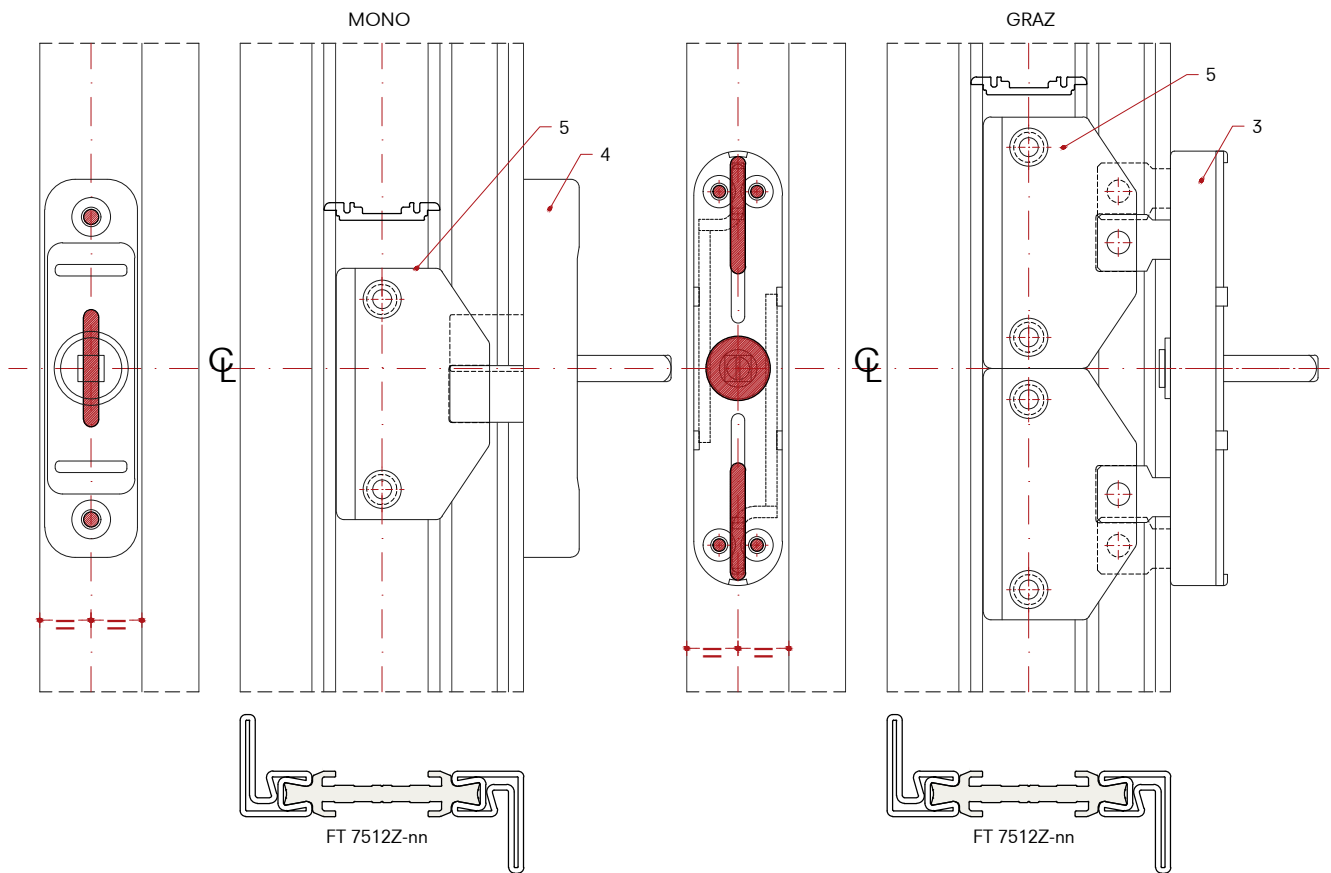
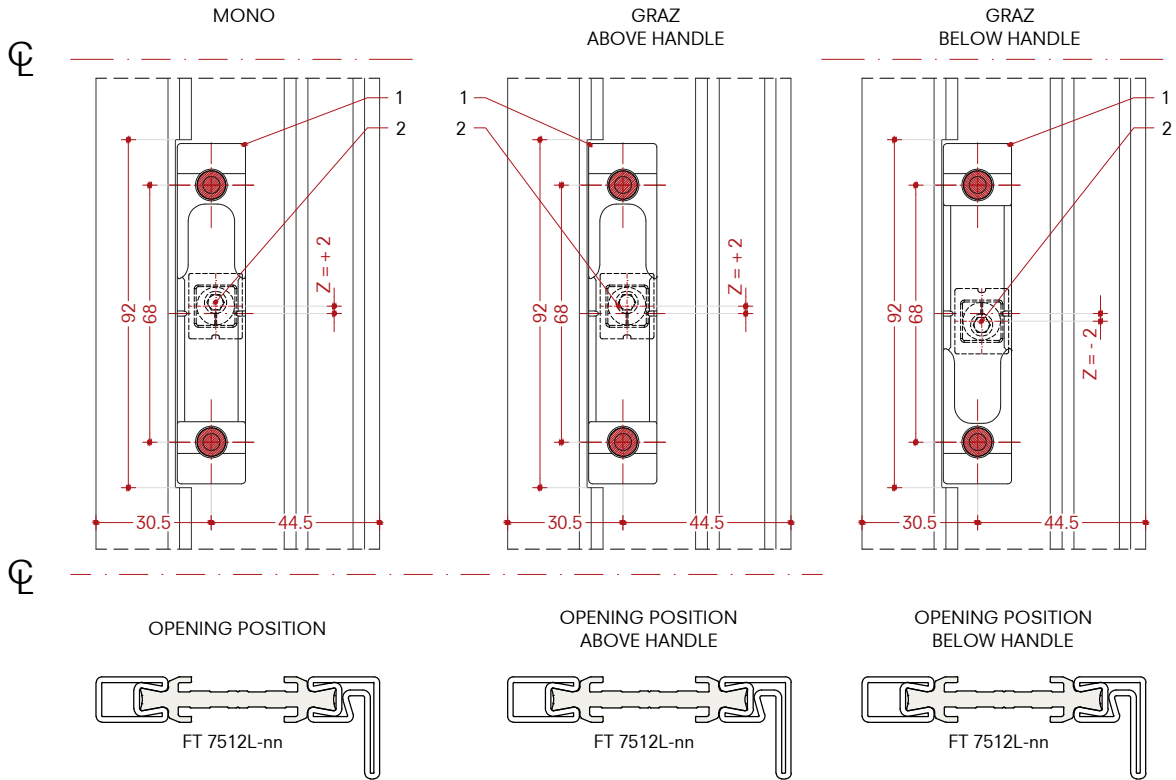
- 1) Cremona gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

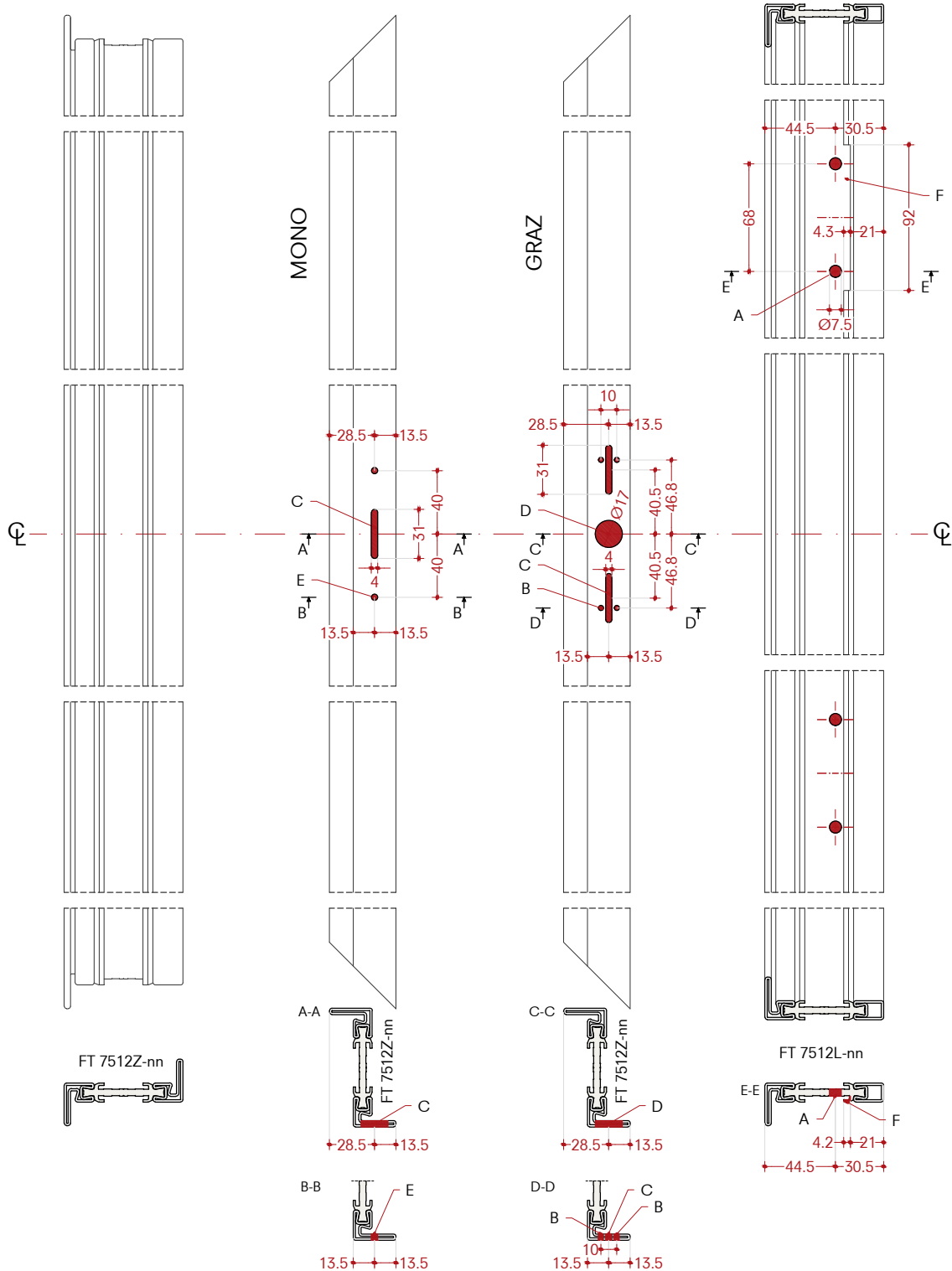
Single leaf window  
 Open in - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura interna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

Ventana de una hoja  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles superpuestos



Scale 1:4

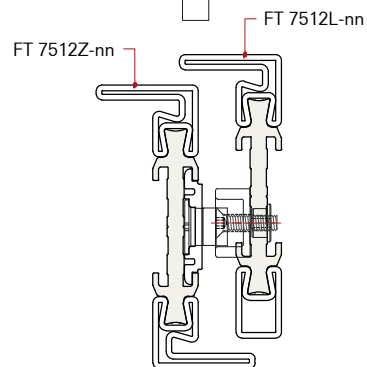
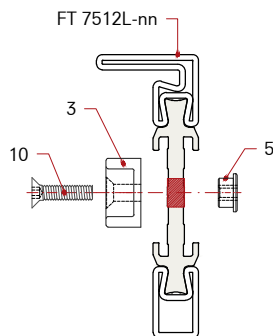
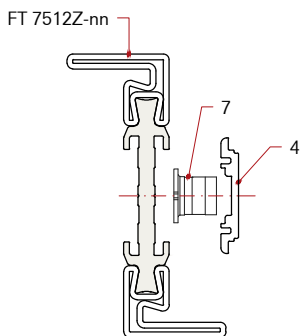
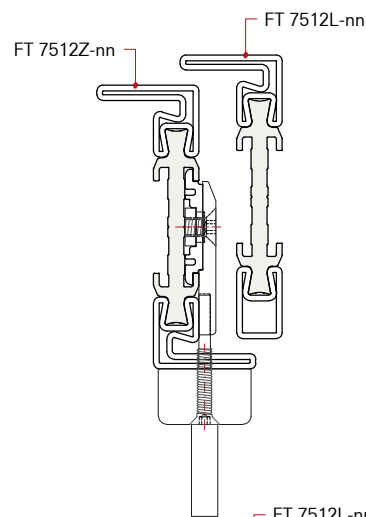
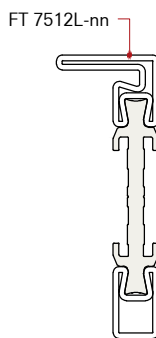
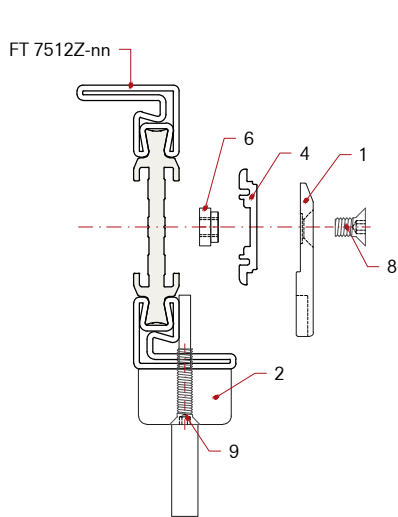
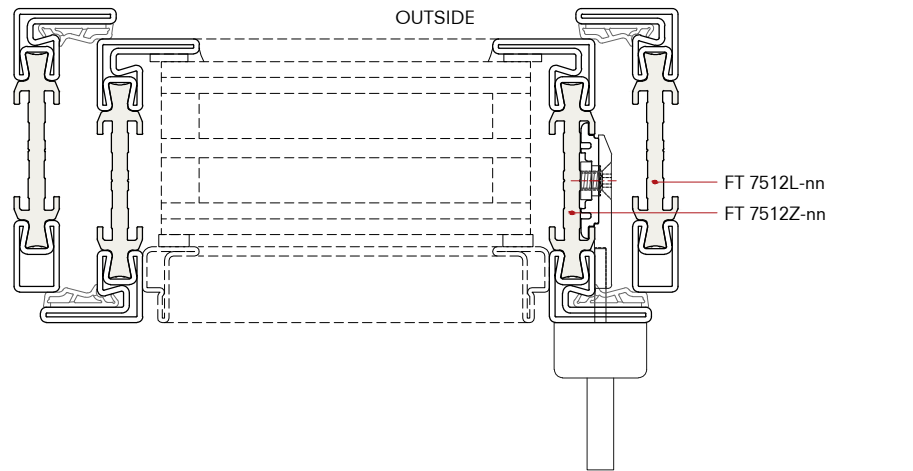
- A) Ø7.5 mm holes to be checked
- B) Ø3.2 mm threaded M4 holes
- C) Cut out 31x4 mm
- D) Ø17 mm hole
- E) Ø4 mm threaded M5 holes
- F) Cut out 92x4 mm

Scala 1:4

- A) Fori Ø7.5 mm da verificare
- B) Fori Ø3.2 mm filettati M4
- C) Fresatura 31x4 mm
- D) Foro Ø17 mm
- E) Fori Ø4 mm filettati M5
- F) Fresatura 92x4 mm

Escala 1:4

- A) Orificios Ø7.5 mm por verificar
- B) Orificios Ø3.2 mm roscados M4
- C) Fresado 31x4 mm
- D) Orificio Ø17 mm
- E) Orificios Ø4 mm roscados M5
- F) Fresado 92x4 mm



Scale 1:2

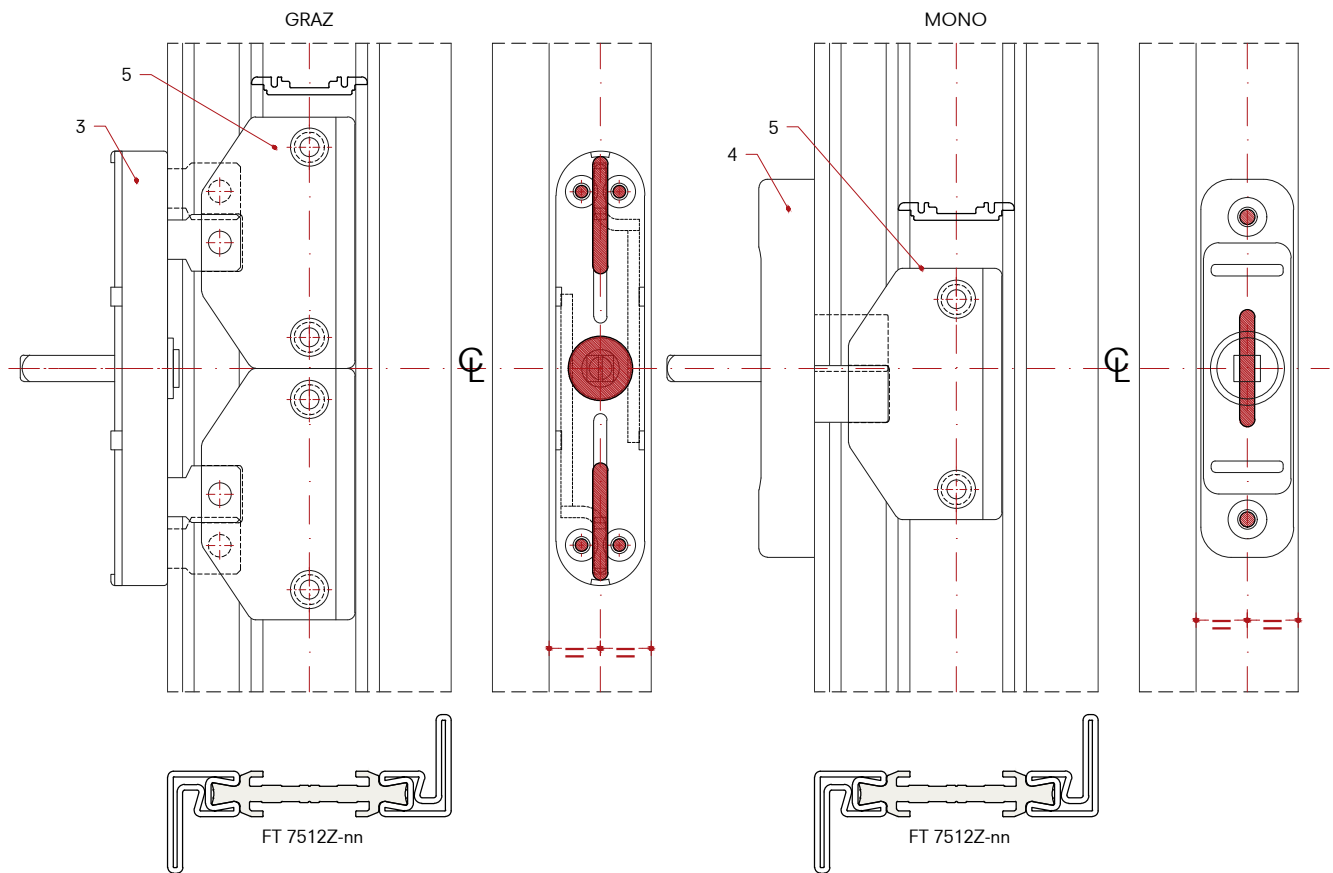
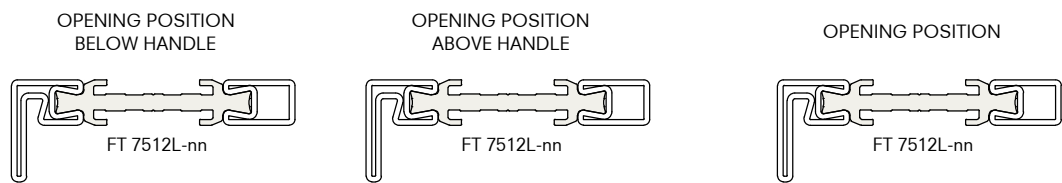
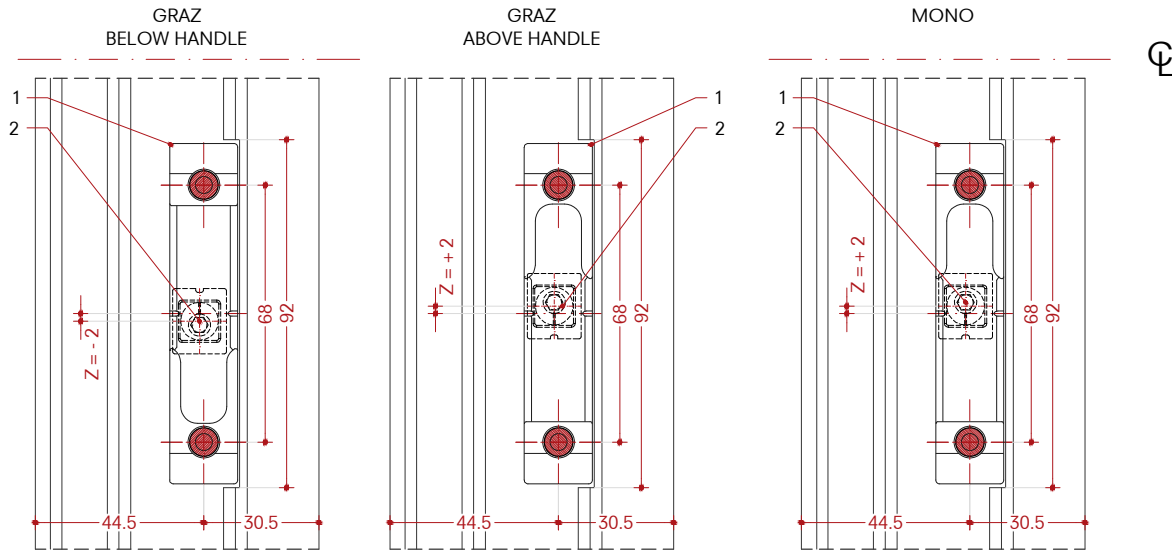
- 1) Cremone gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



- Scale 1:2
- 1) Strike plate E99389-11
  - 2) Stud E99397-03, position on leaf
  - 3) Graz E99652-03
  - 4) Mono E99658-11 (left configuration)
  - 5) Cremone gear connection E99391-87

- Scala 1:2
- 1) Riscontro E99389-11
  - 2) Nottolino E99397-03, posizione sull'anta
  - 3) Graz E99652-03
  - 4) Mono E99658-11 (configurazione sinistra)
  - 5) Connettore E99391-87

- Escala 1:2
- 1) Chapa de cierre E99389-11
  - 2) Alfiler E99397-03, posición en la hoja
  - 3) Graz E99652-03
  - 4) Mono E99658-11 (configuración izquierda)
  - 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

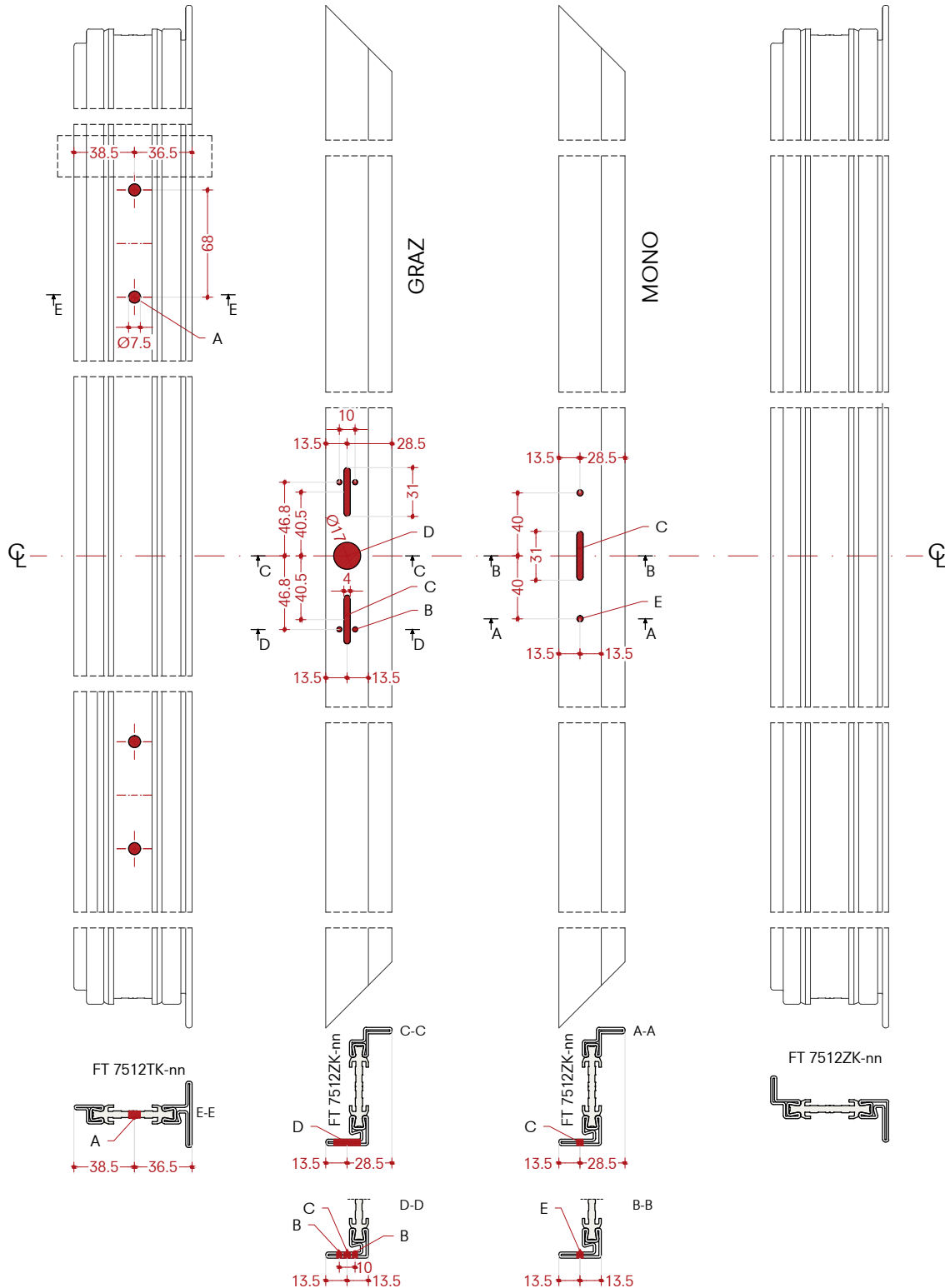
Double leaf window  
 Open in - Right opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra a due battenti  
 Apertura interna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles coplanarios



Scale 1:4

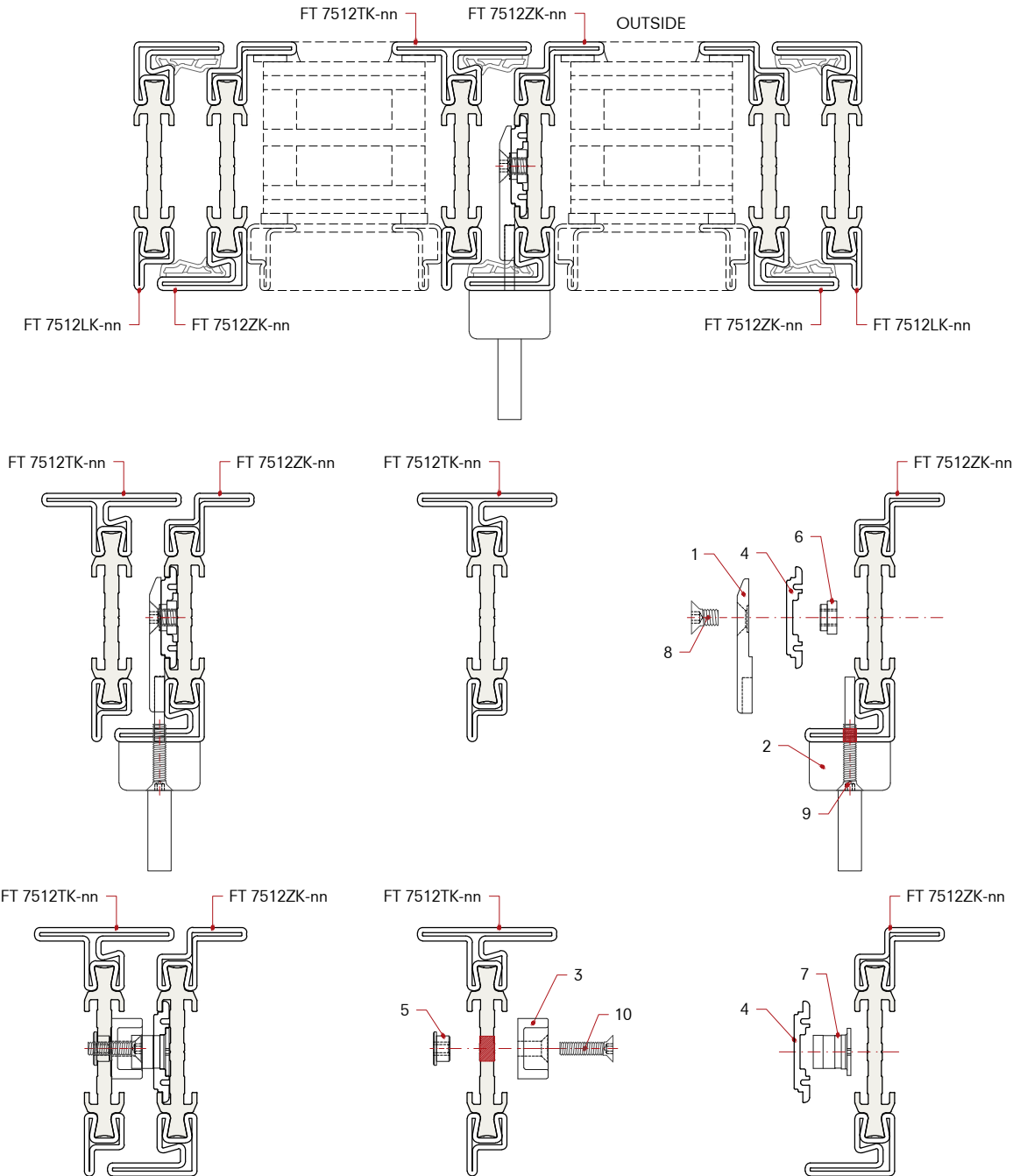
- A)  $\varnothing 7.5$  mm holes to be checked
- B)  $\varnothing 3.2$  mm threaded M4 holes
- C) Cut out 31x4 mm
- D)  $\varnothing 17$  mm hole
- E)  $\varnothing 4$  mm threaded M5 holes

Scala 1:4

- A) Fori  $\varnothing 7.5$  mm da verificare
- B) Fori  $\varnothing 3.2$  mm filettati M4
- C) Fresatura 31x4 mm
- D) Foro  $\varnothing 17$  mm
- E) Fori  $\varnothing 4$  mm filettati M5

Escala 1:4

- A) Orificios  $\varnothing 7.5$  mm por verificar
- B) Orificios  $\varnothing 3.2$  mm roscados M4
- C) Fresado 31x4 mm
- D) Orificio  $\varnothing 17$  mm
- E) Orificios  $\varnothing 4$  mm roscados M5



Scale 1:2

- 1) Cremone gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

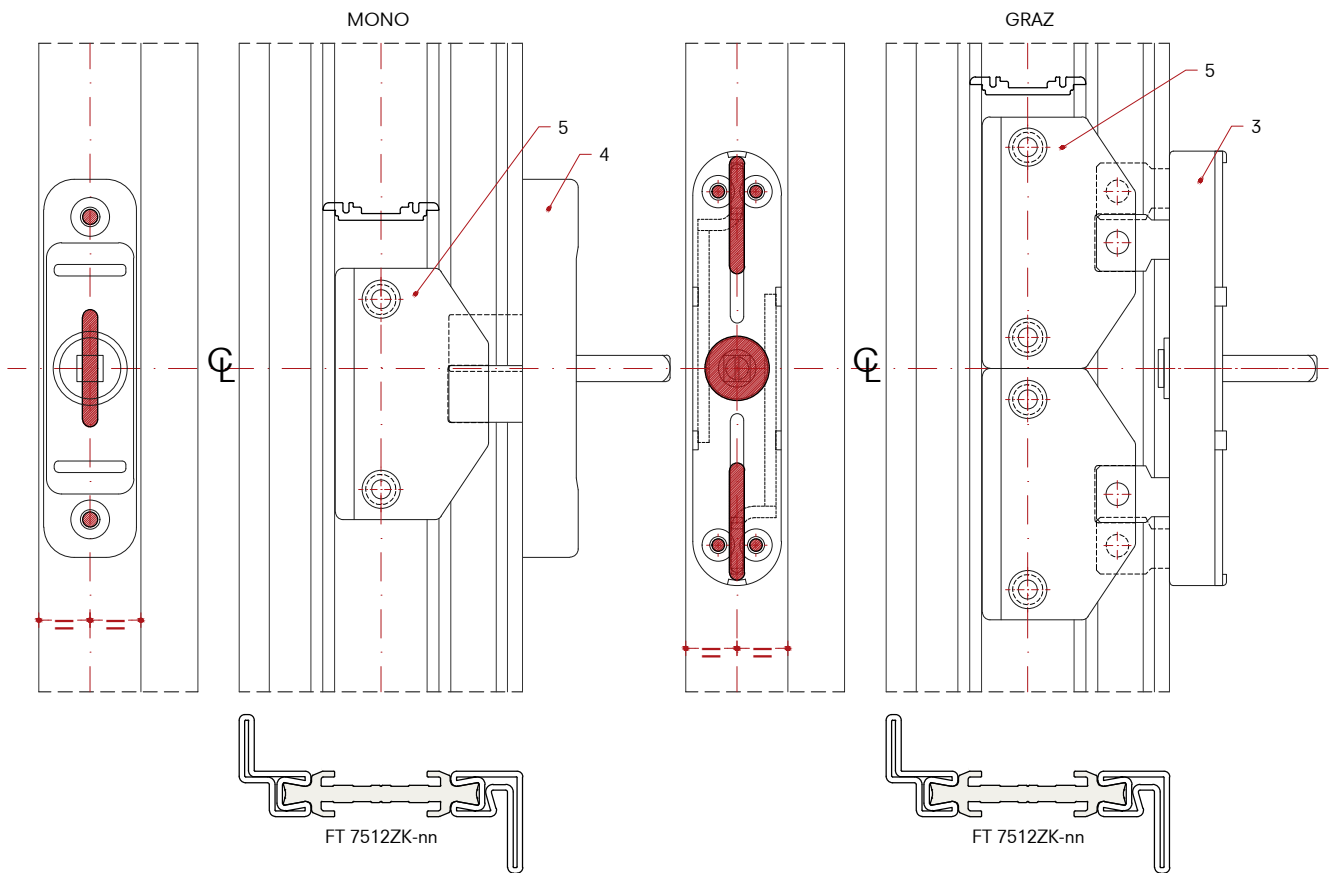
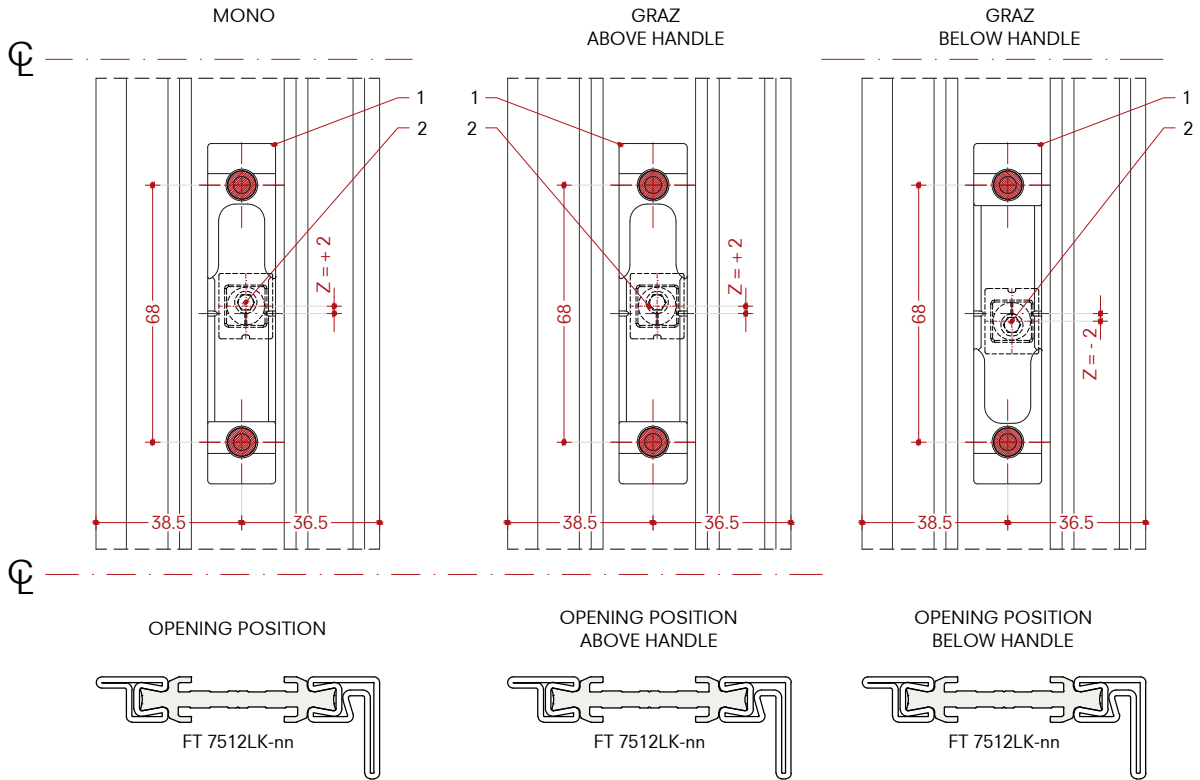
Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)





Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

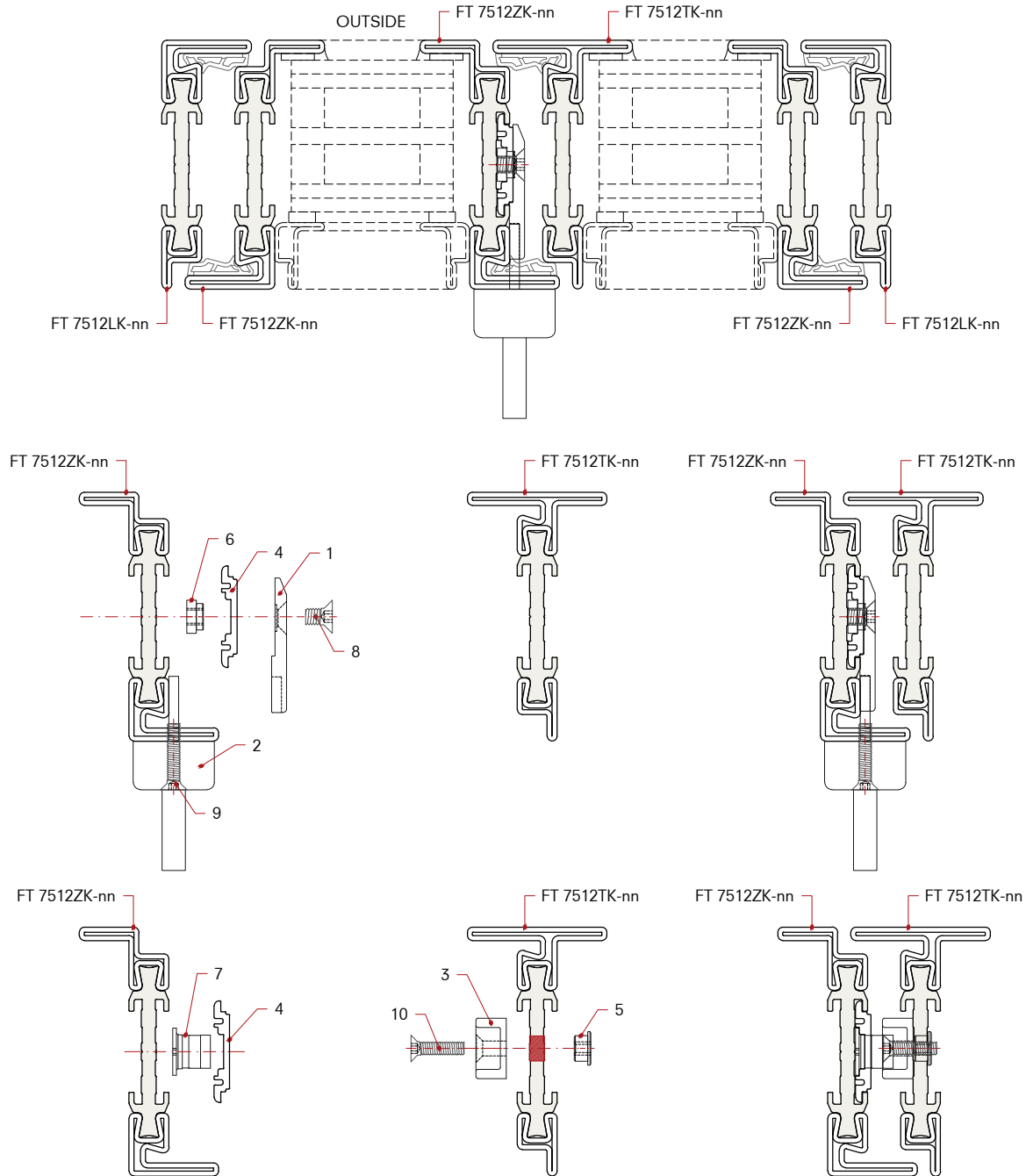
Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87





Scale 1:2

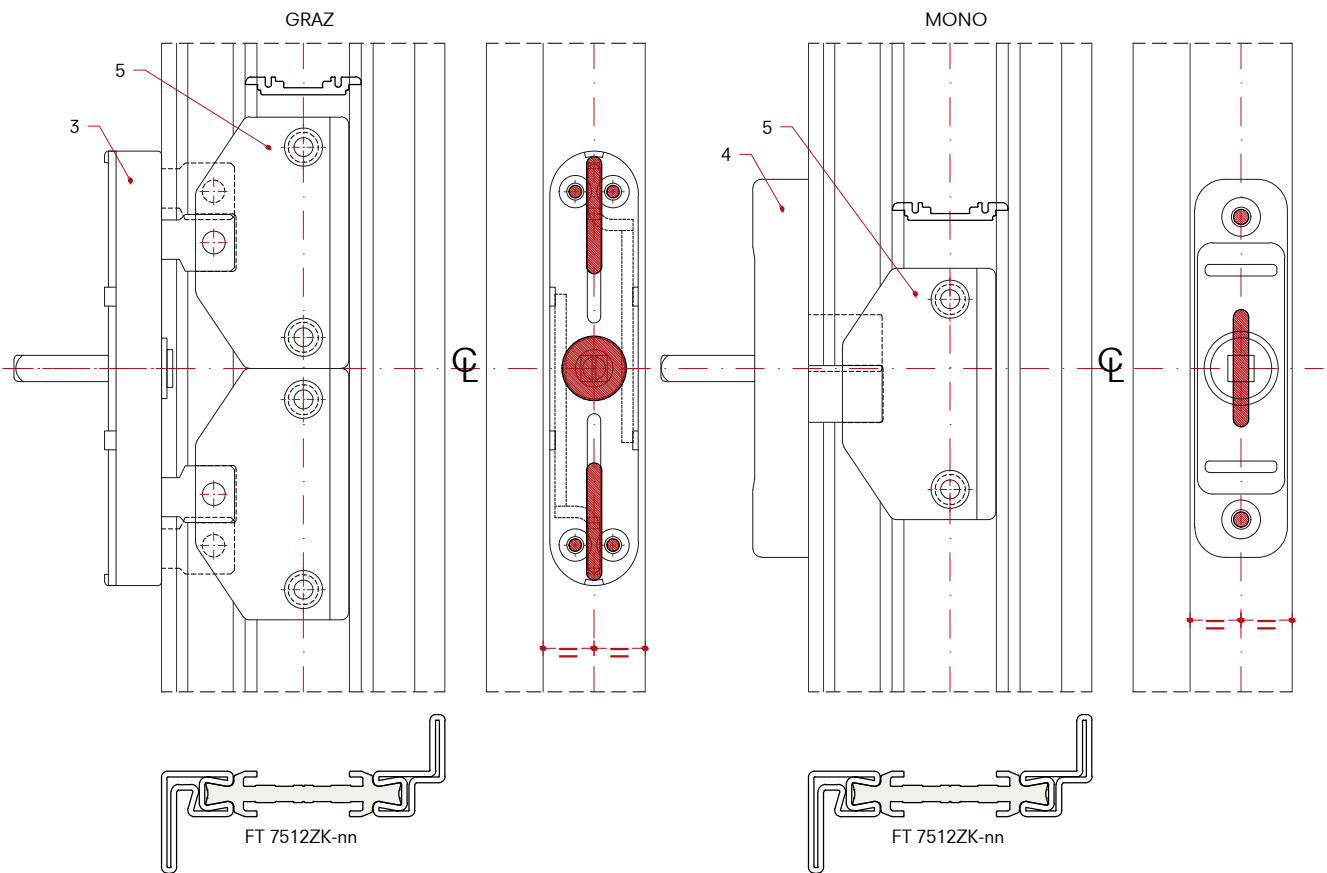
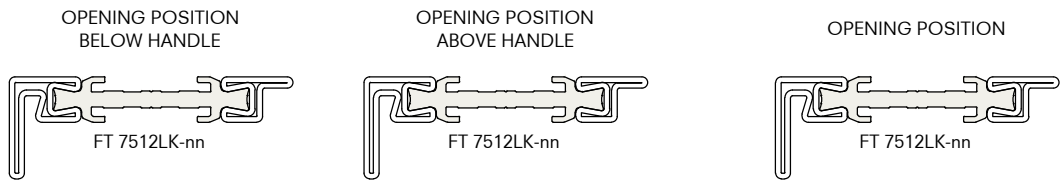
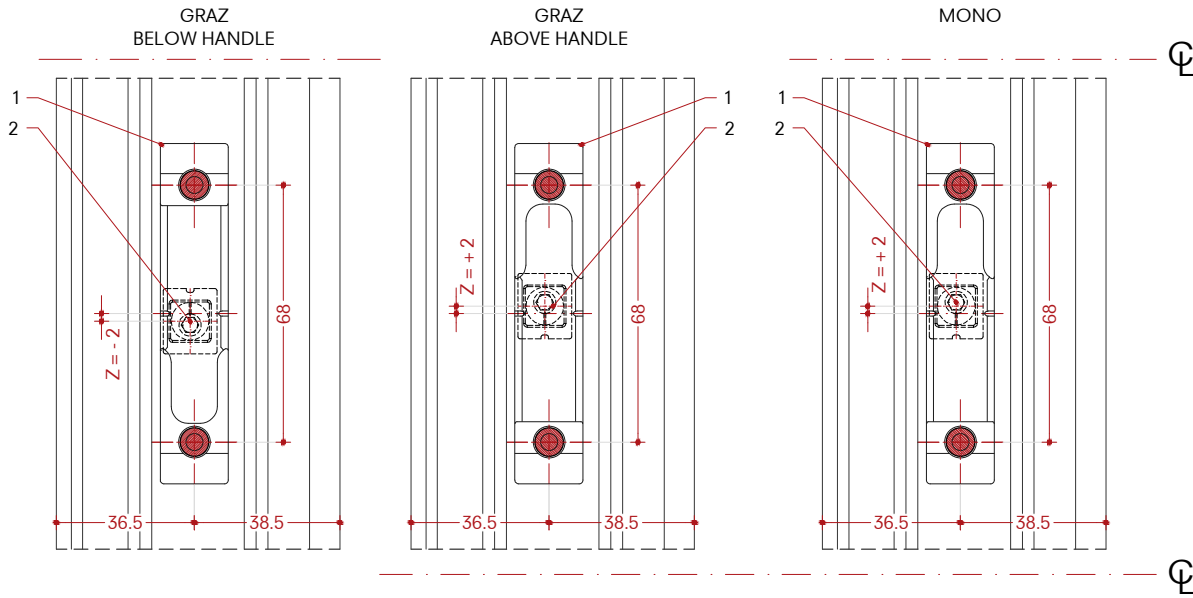
- 1) Cremone gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87

**Multipoint aluminum rods installation**

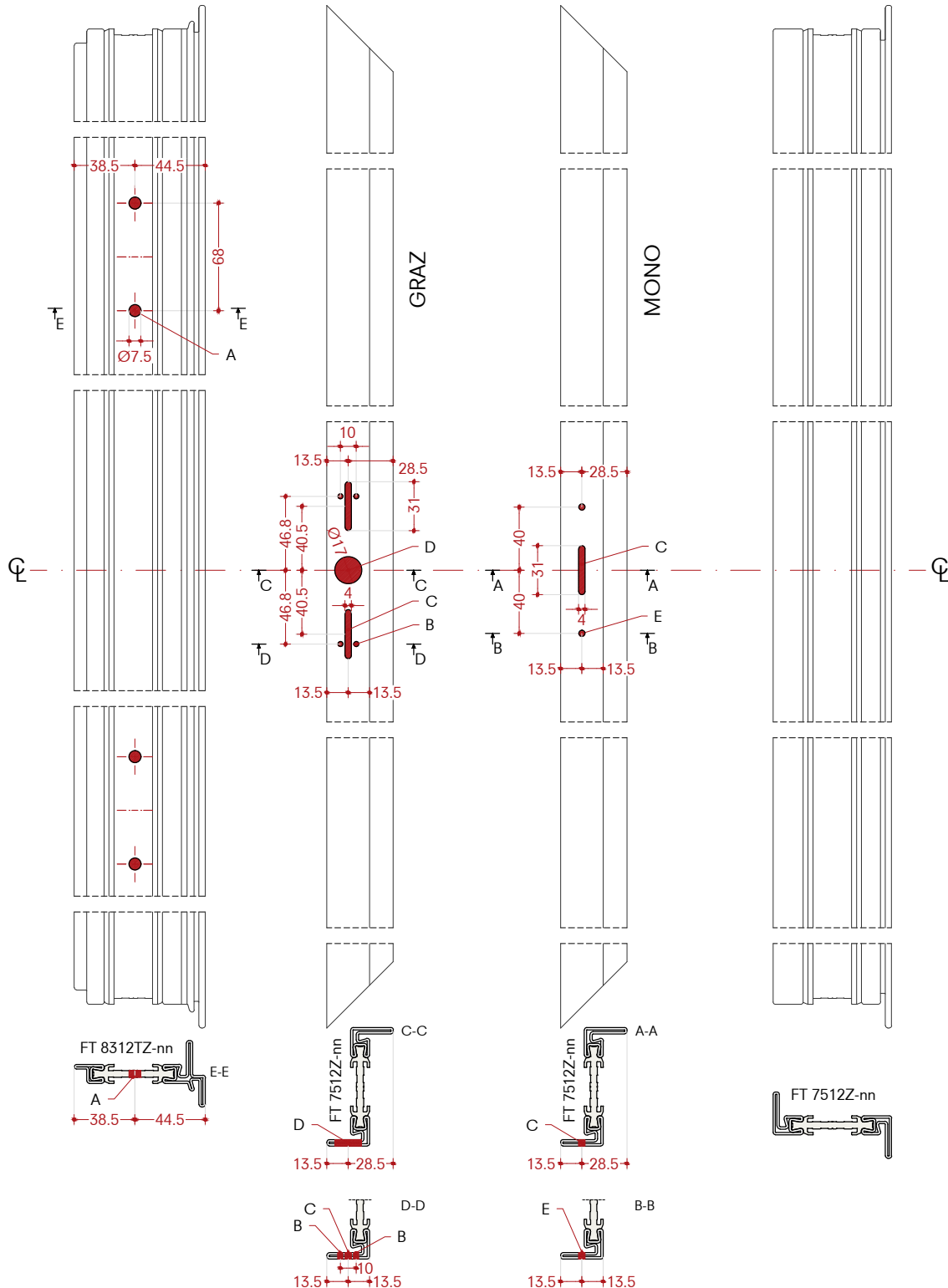
Double leaf window  
 Open in - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio**

Finestra a due battenti  
 Apertura interna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura derecha  
 Perfiles superpuestos



Scale 1:4

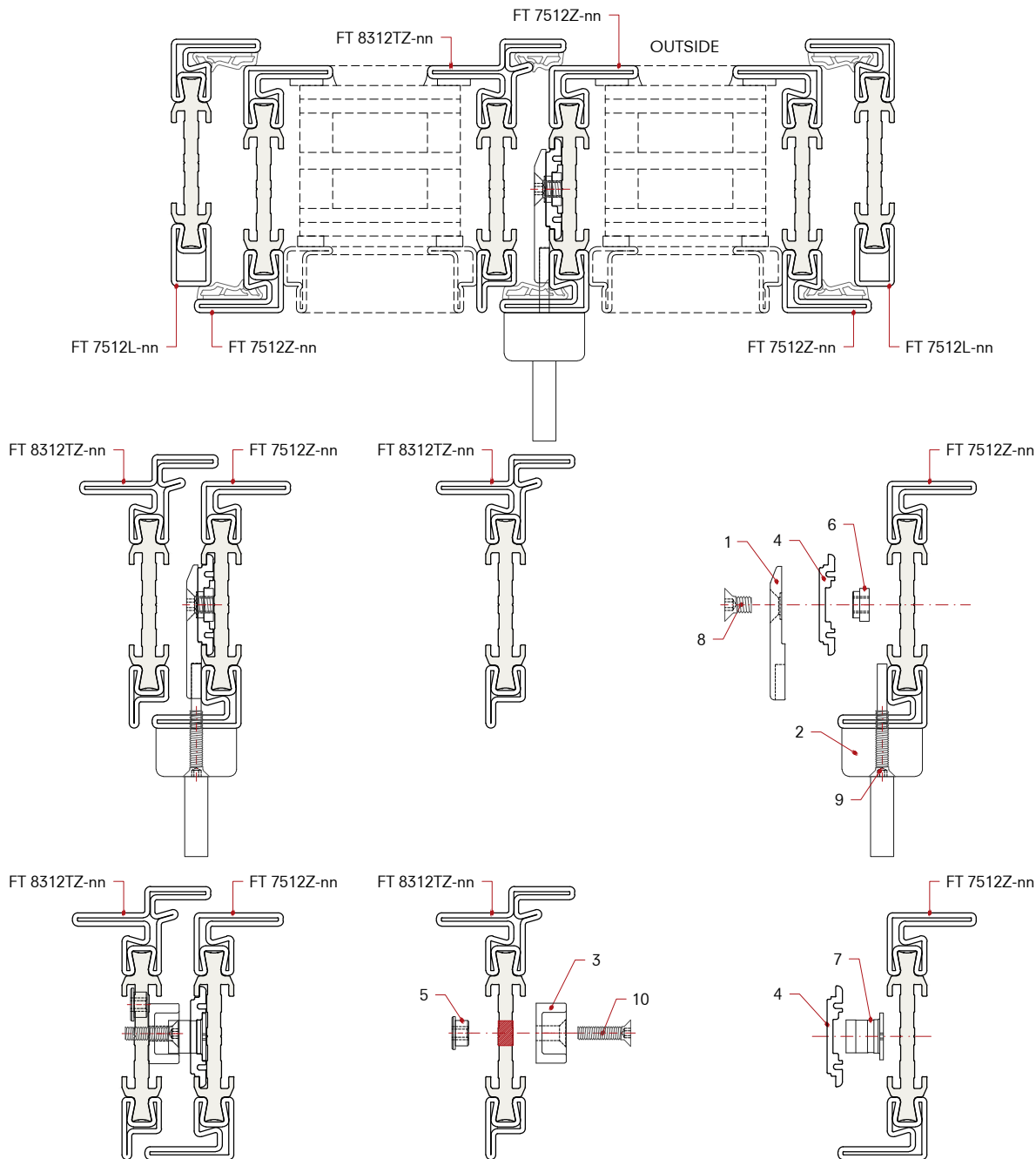
- A) Ø7.5 mm holes to be checked
- B) Ø3.2 mm threaded M4 holes
- C) Cut out 31x4 mm
- D) Ø17 mm hole
- E) Ø4 mm threaded M5 holes

Scala 1:4

- A) Fori Ø7.5 mm da verificare
- B) Fori Ø3.2 mm filettati M4
- C) Fresatura 31x4 mm
- D) Foro Ø17 mm
- E) Fori Ø4 mm filettati M5

Escala 1:4

- A) Orificios Ø7.5 mm por verificar
- B) Orificios Ø3.2 mm roscados M4
- C) Fresado 31x4 mm
- D) Orificio Ø17 mm
- E) Orificios Ø4 mm roscados M5



Scale 1:2

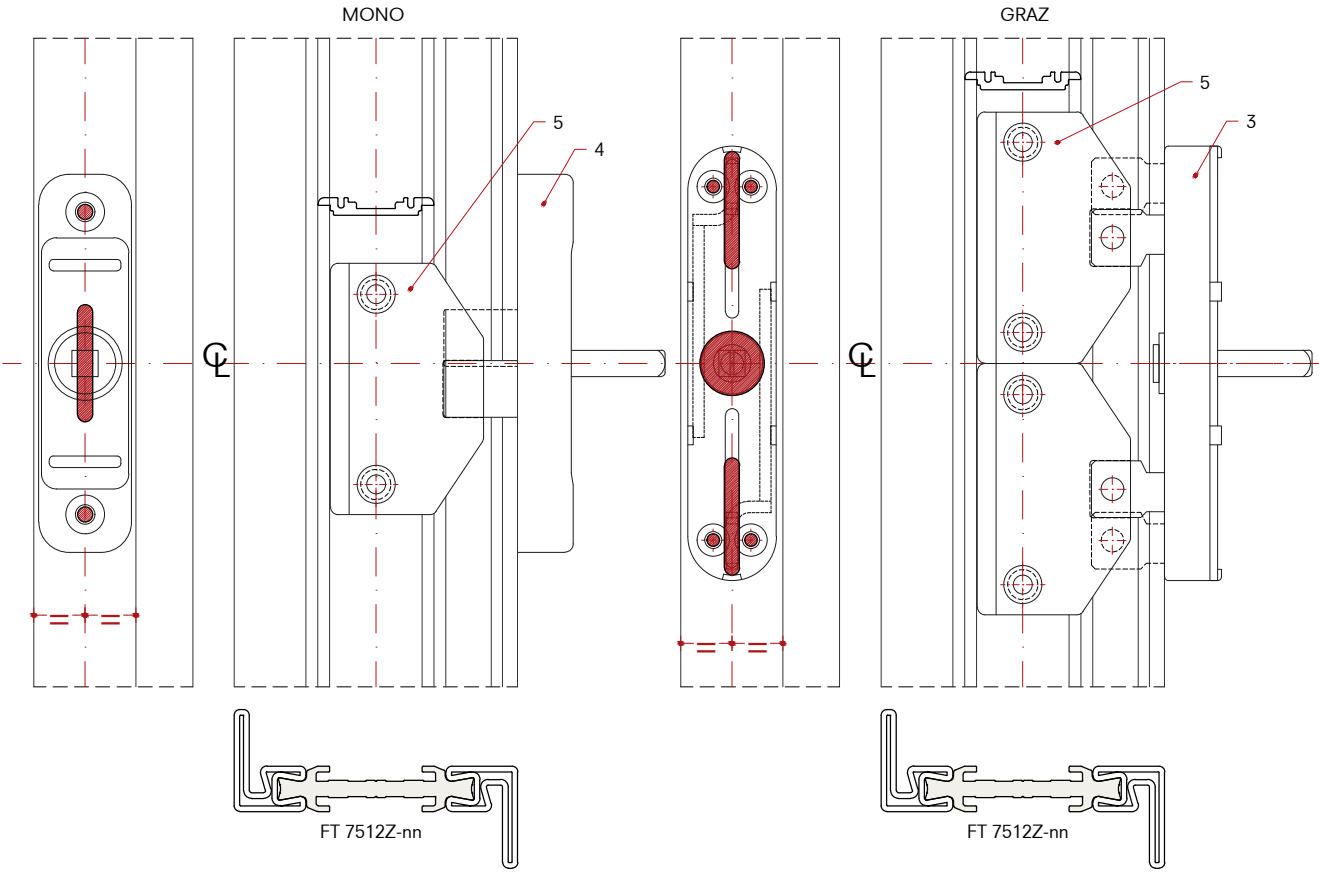
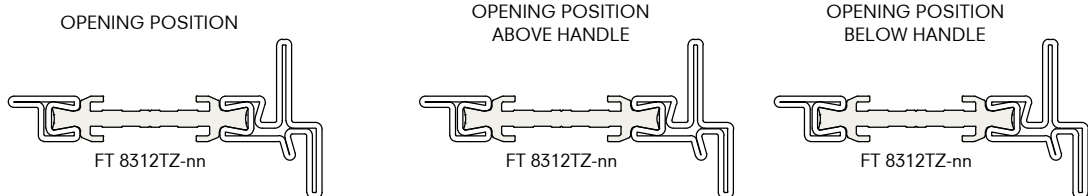
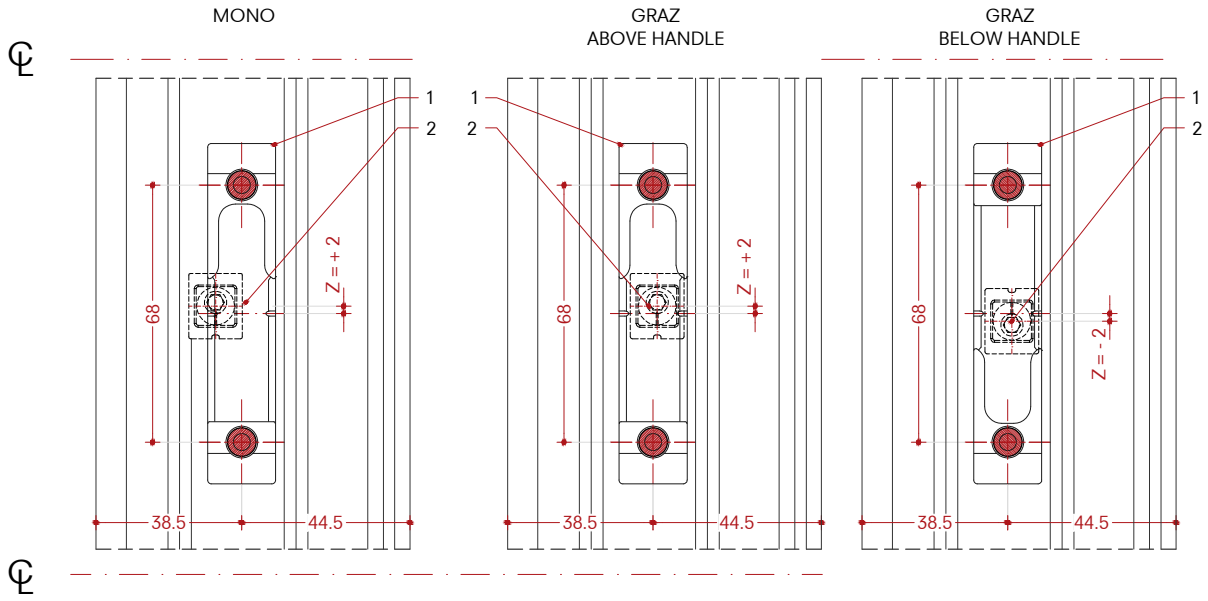
- 1) Cremone gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

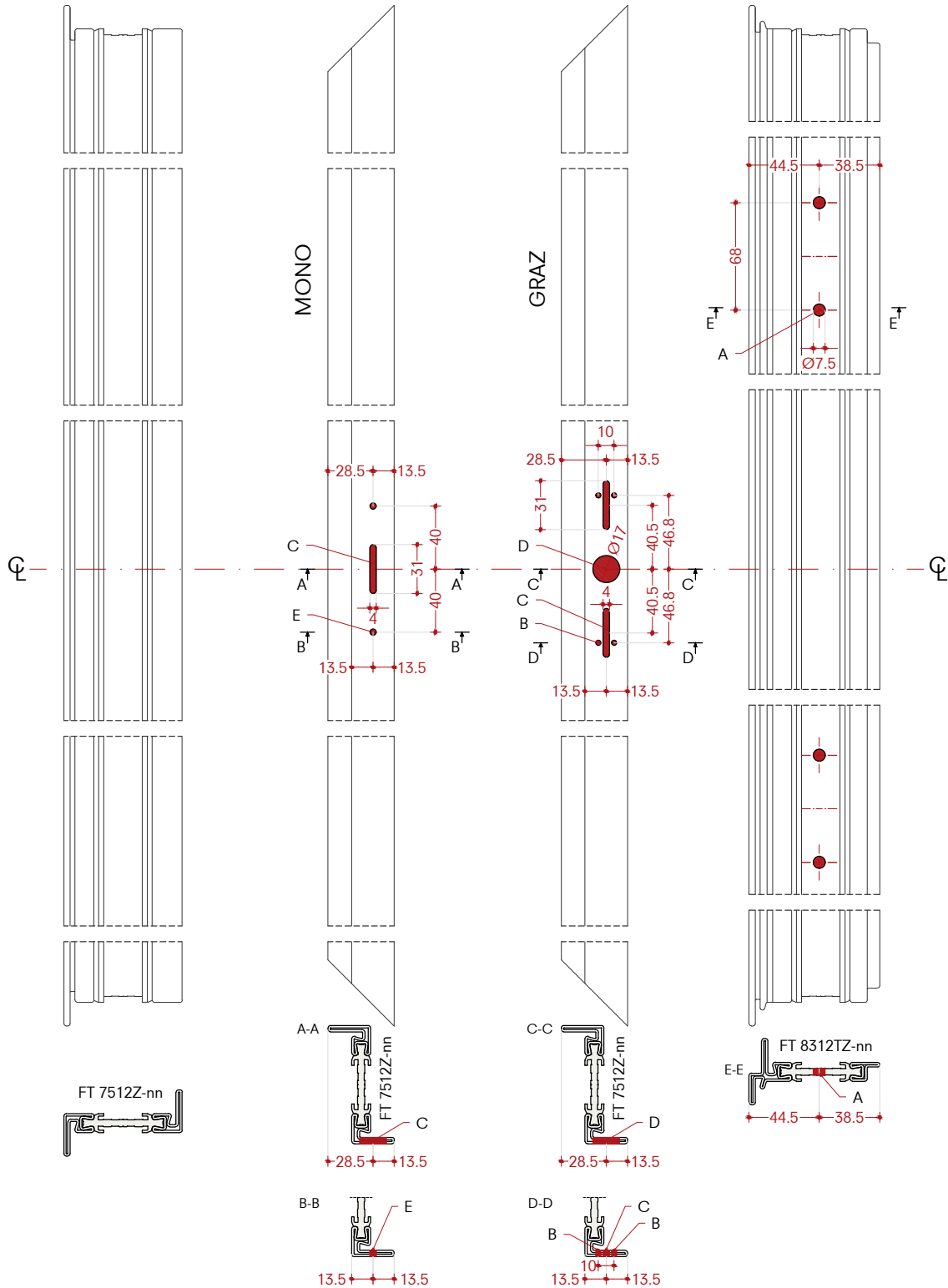
Double leaf window  
 Open in - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra a due battenti  
 Apertura interna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

Ventana de dos hojas  
 Que se abre hacia dentro - Apertura izquierda  
 Perfiles superpuestos



Scale 1:4

- A) Ø7.5 mm holes to be checked
- B) Ø3.2 mm threaded M4 holes
- C) Cut out 31x4 mm
- D) Ø17 mm hole
- E) Ø4 mm threaded M5 holes

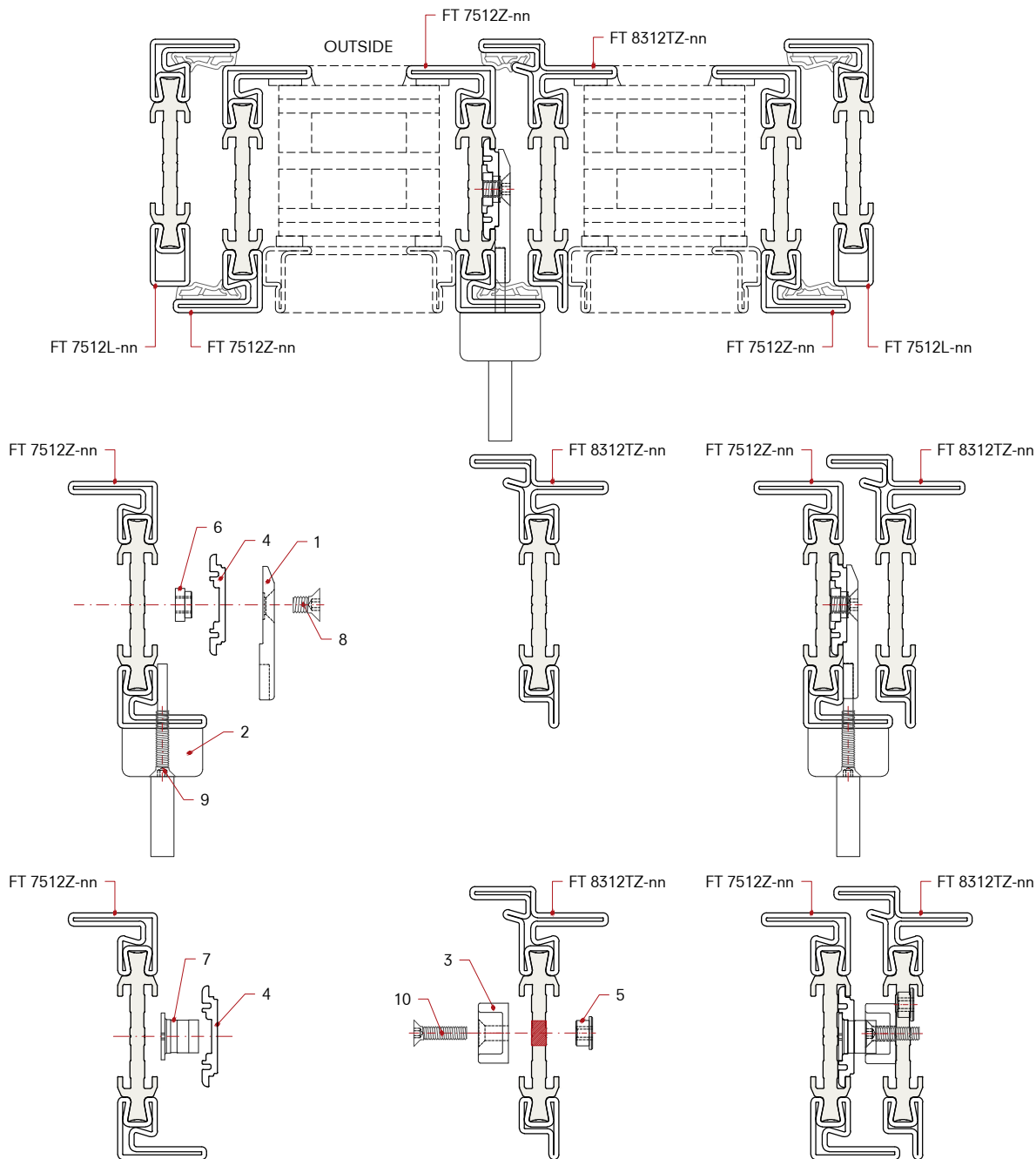
Scala 1:4

- A) Fori Ø7.5 mm da verificare
- B) Fori Ø3.2 mm filettati M4
- C) Fresatura 31x4 mm
- D) Foro Ø17 mm
- E) Fori Ø4 mm filettati M5

Escala 1:4

- A) Orificios Ø7.5 mm por verificar
- B) Orificios Ø3.2 mm roscados M4
- C) Fresado 31x4 mm
- D) Orificio Ø17 mm
- E) Orificios Ø4 mm roscados M5





Scale 1:2

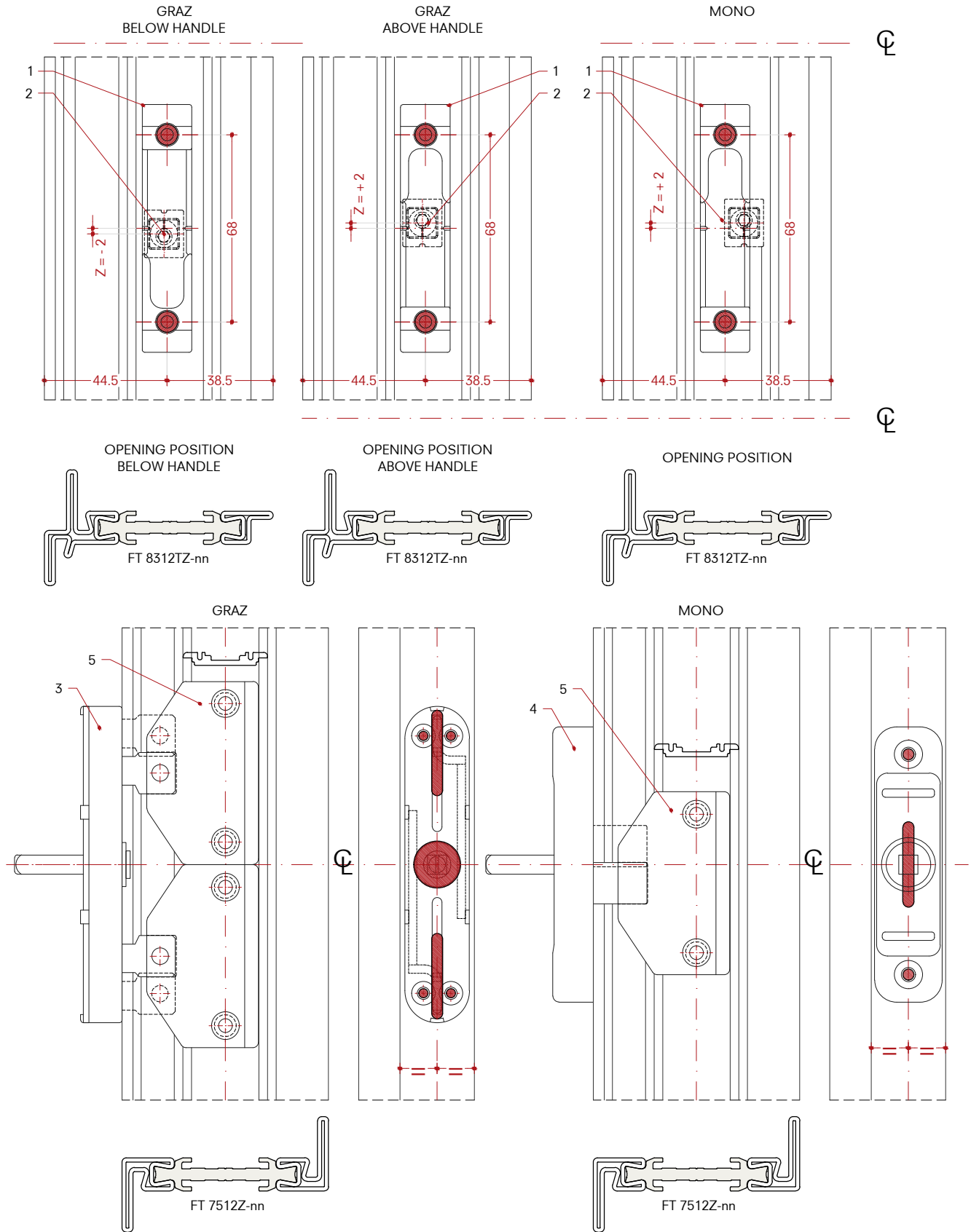
- 1) Cremone gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccola in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

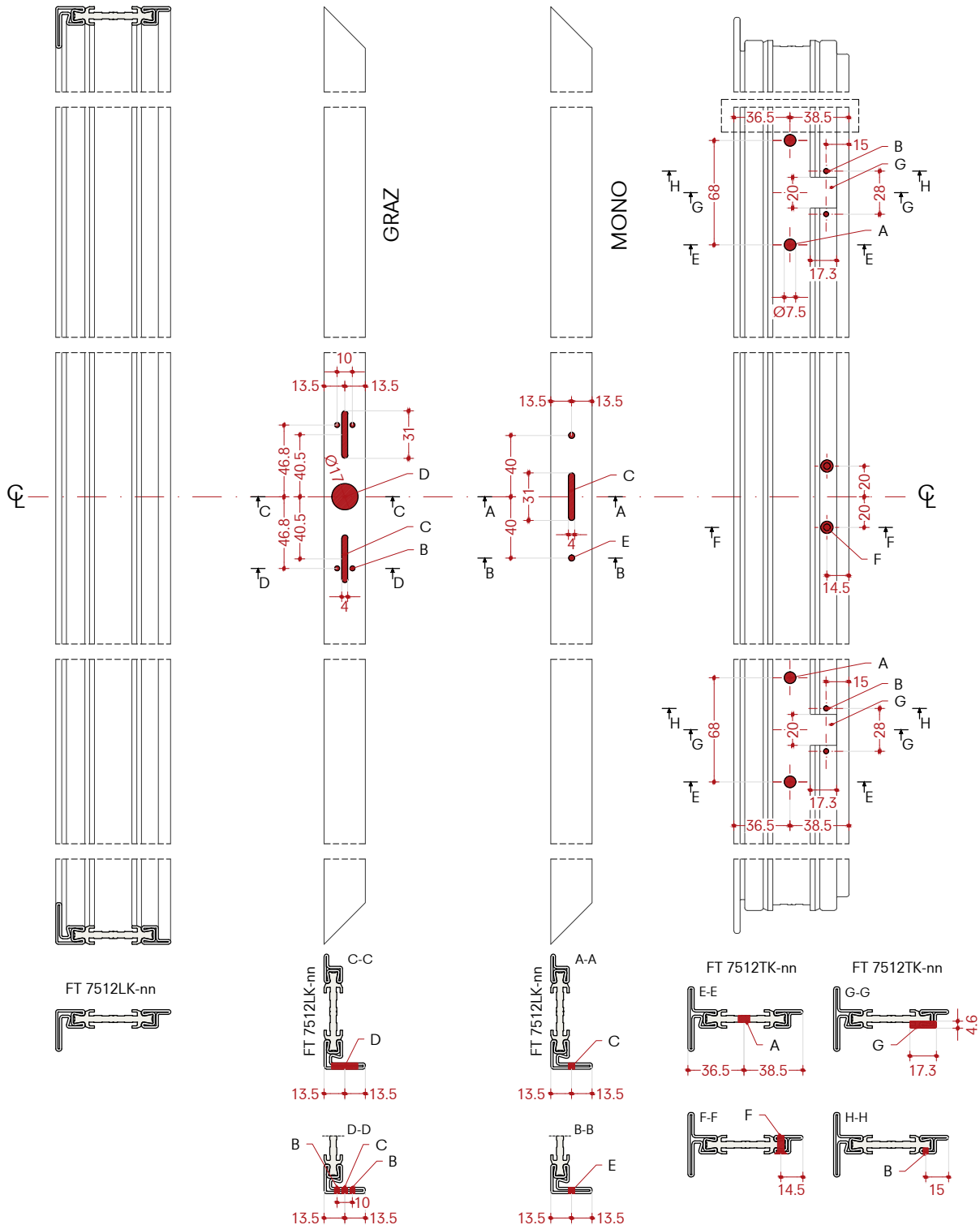
Single leaf window  
 Open out - Right opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura esterna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

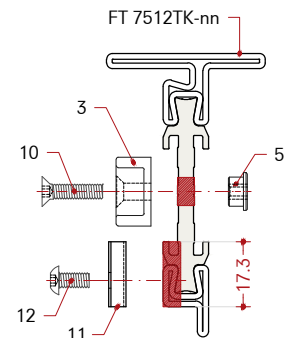
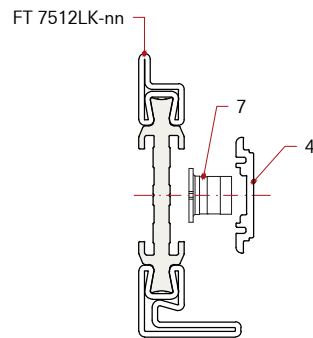
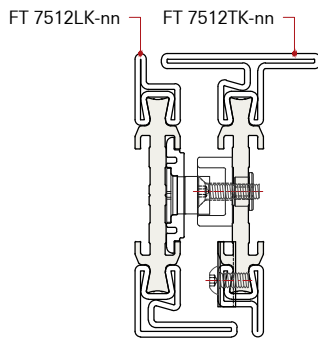
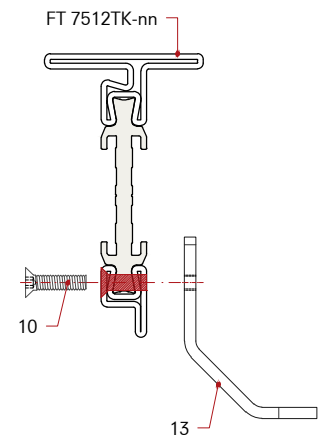
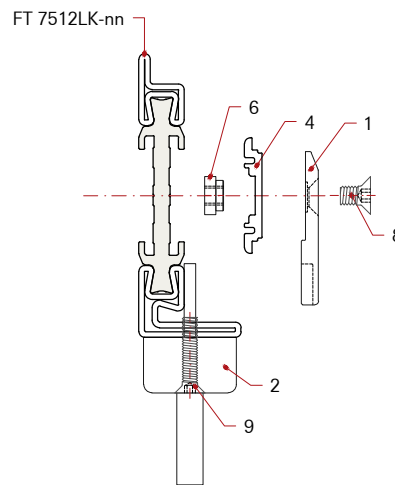
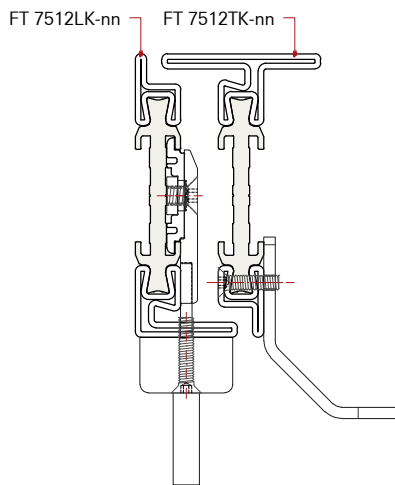
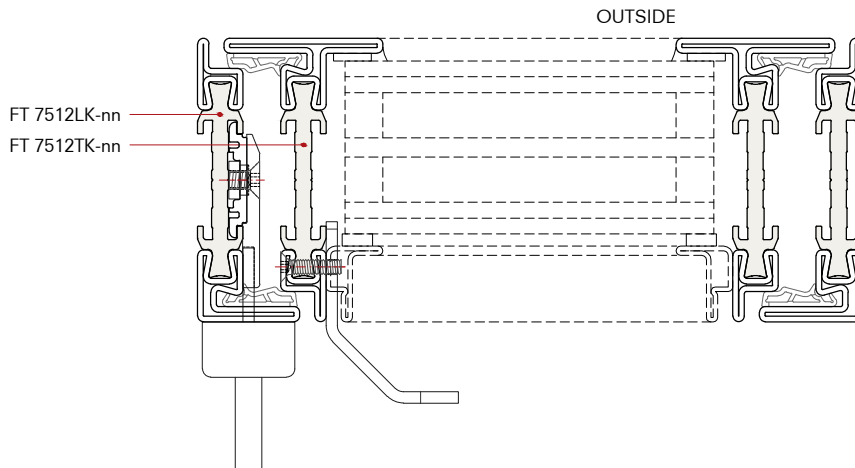
Ventana de una hoja  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles coplanarios



- Scala 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Ø4.2 mm countersunk holes  
 G) Cut out 20x17.3x4.6 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fori svasati Ø4.2 mm  
 G) Fresatura 20x17.3x4.6 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Orificios avellanados Ø4.2 mm  
 G) Fresado 20x17.3x4.6 mm



Scale 1:2

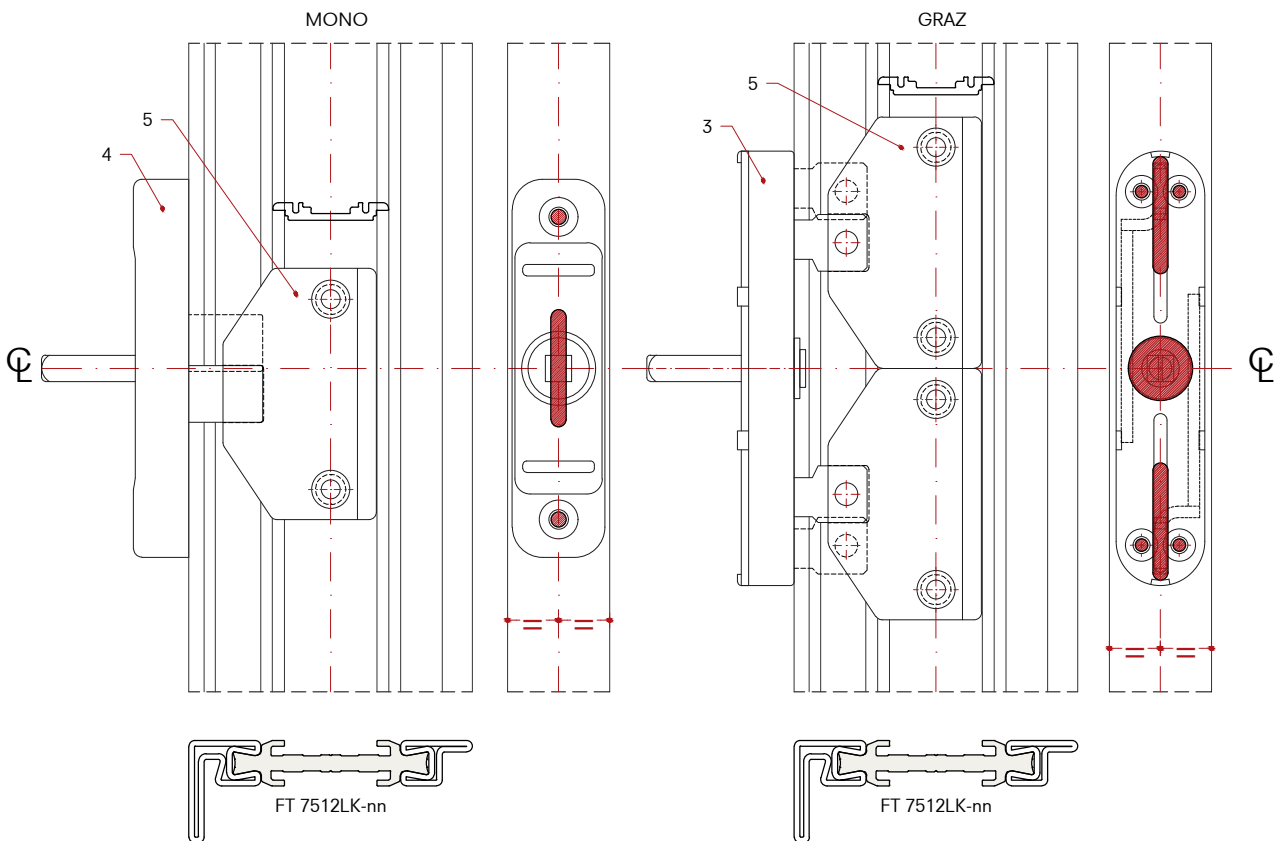
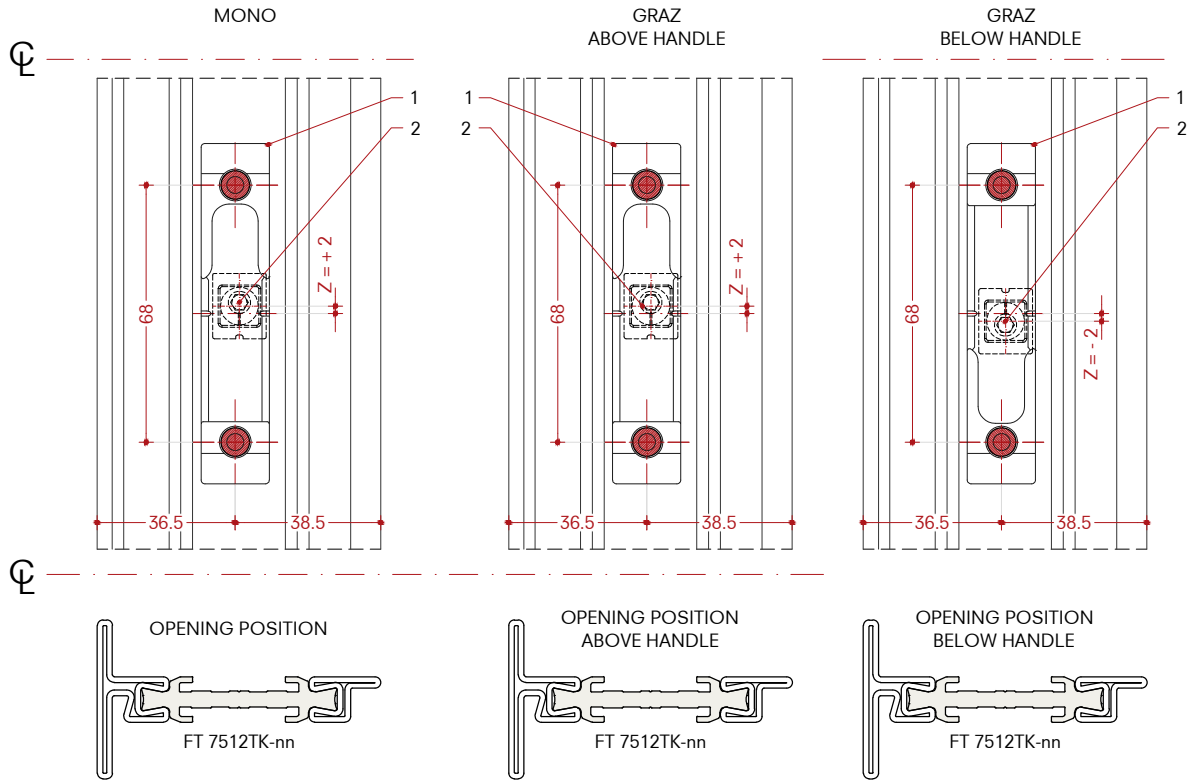
- 1) Cremona gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Cover cap E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

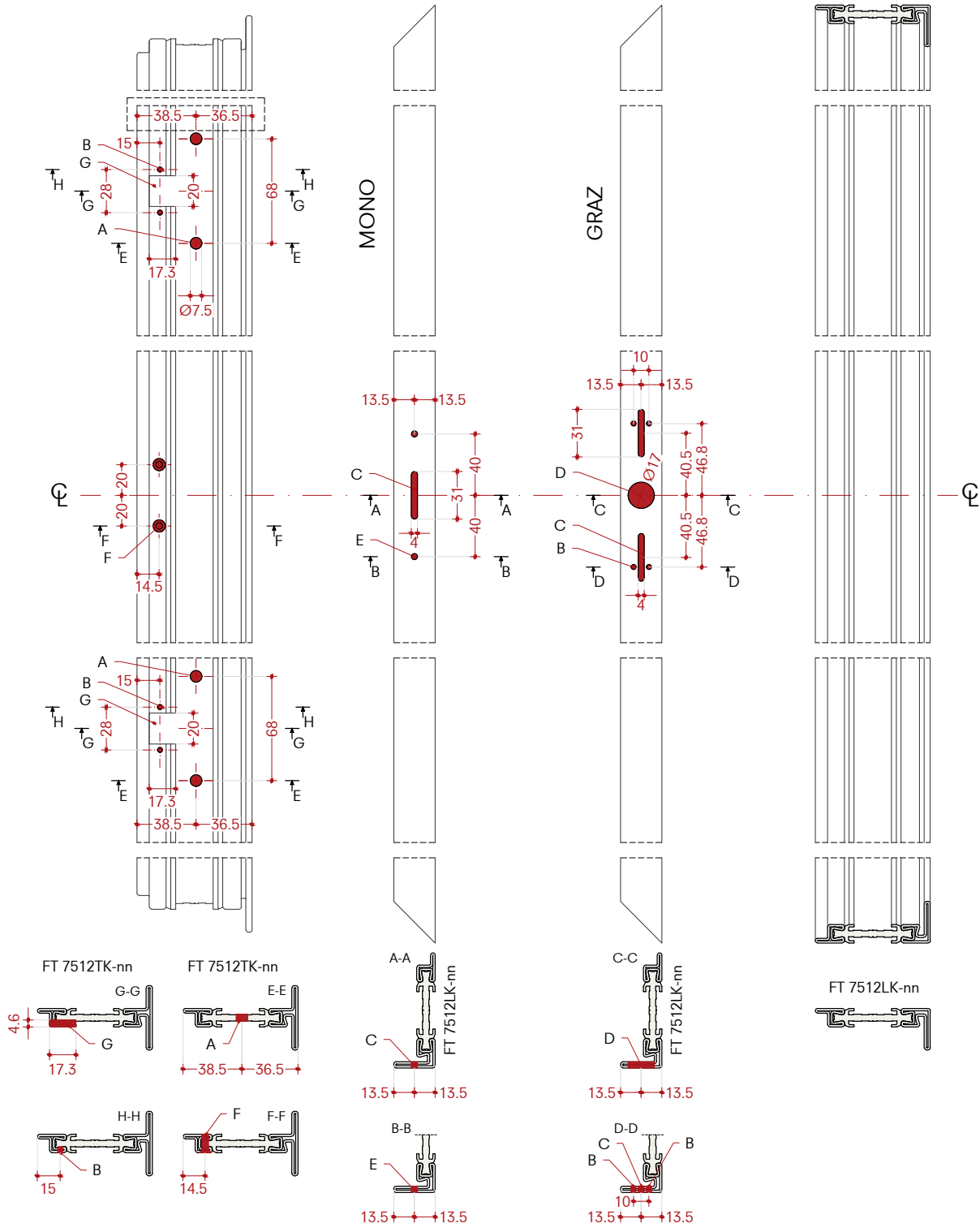
Single leaf window  
 Open out - Left opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura esterna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

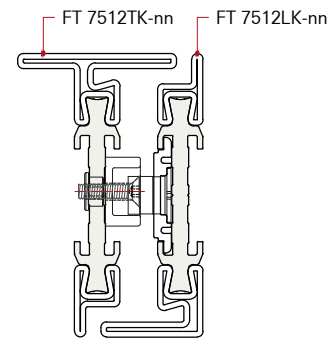
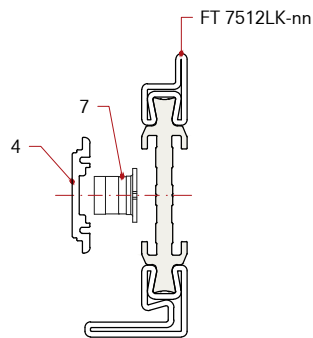
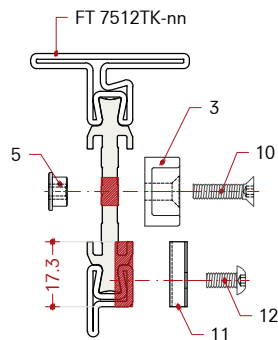
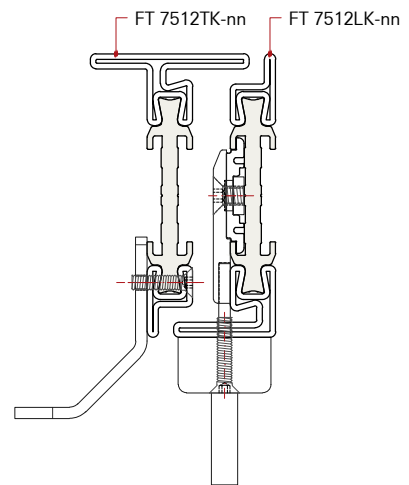
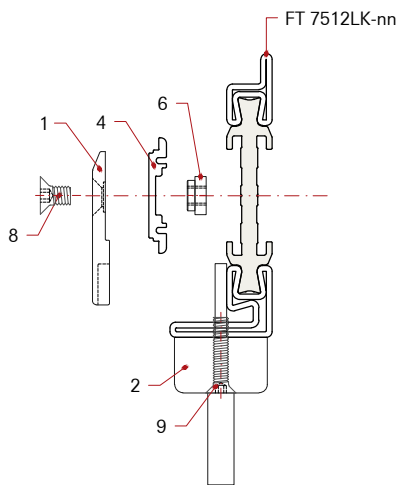
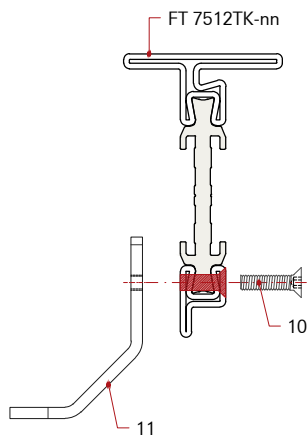
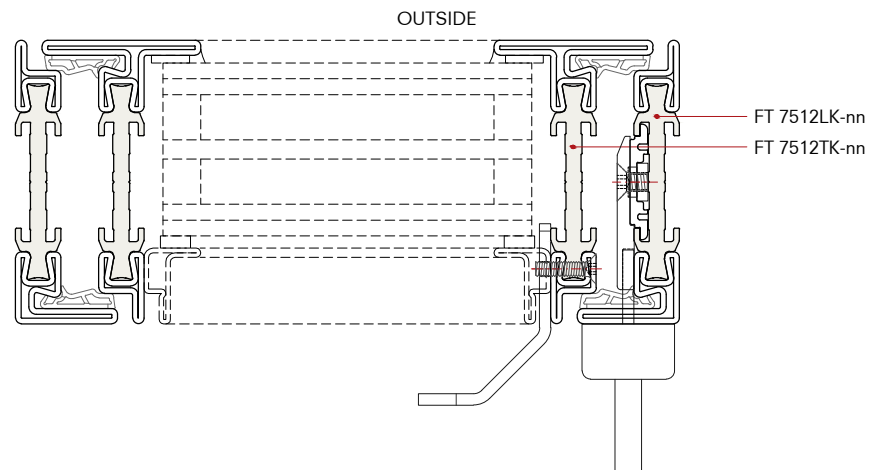
Ventana de una hoja  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles coplanarios



- Scale 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Ø4.2 mm countersunk holes  
 G) Cut out 20x17.3x4.6 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fori svasati Ø4.2 mm  
 G) Fresatura 20x17.3x4.6 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Orificios avellanados Ø4.2 mm  
 G) Fresado 20x17.3x4.6 mm



Scale 1:2

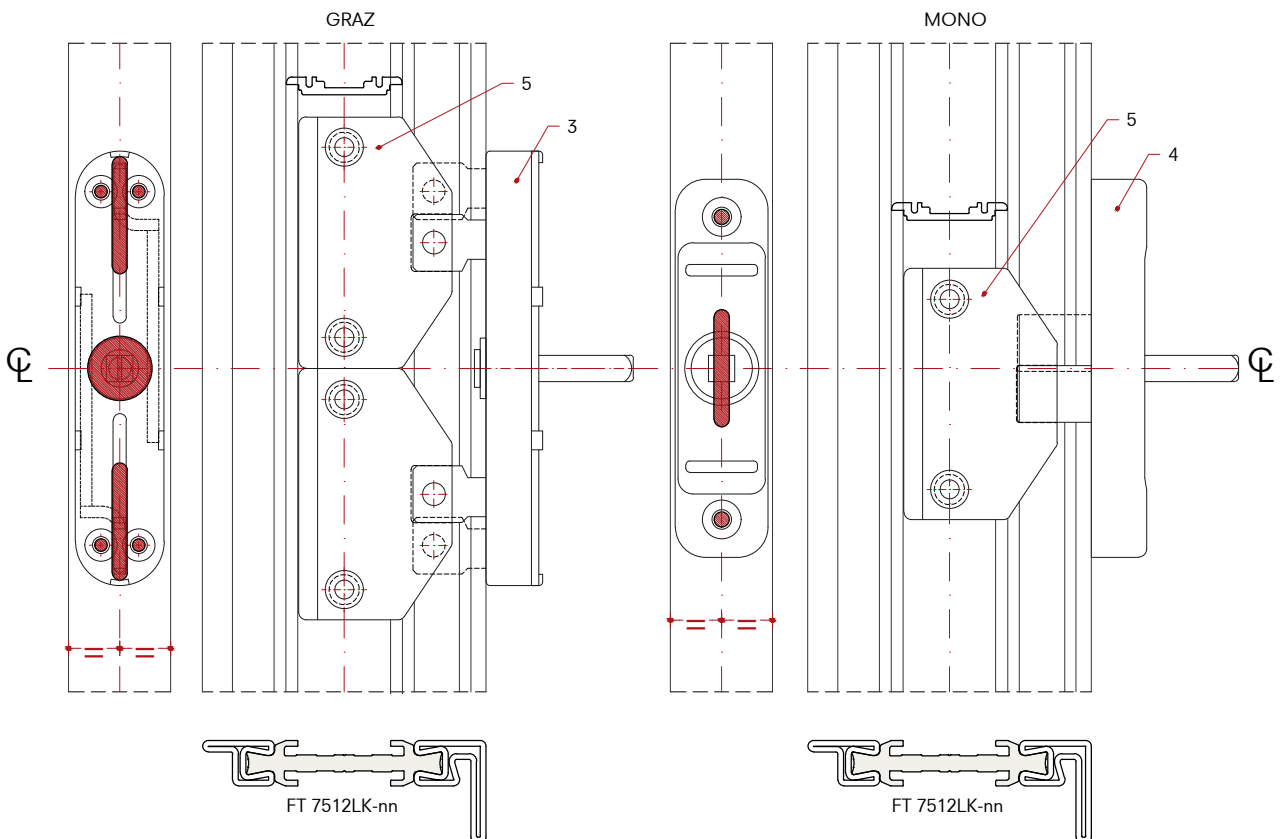
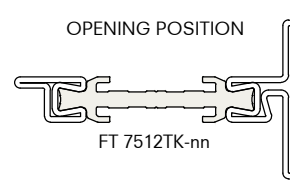
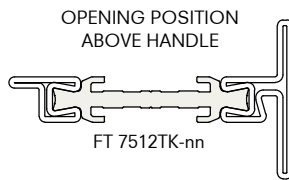
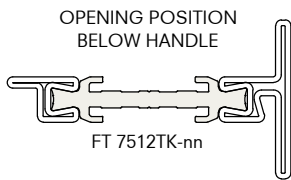
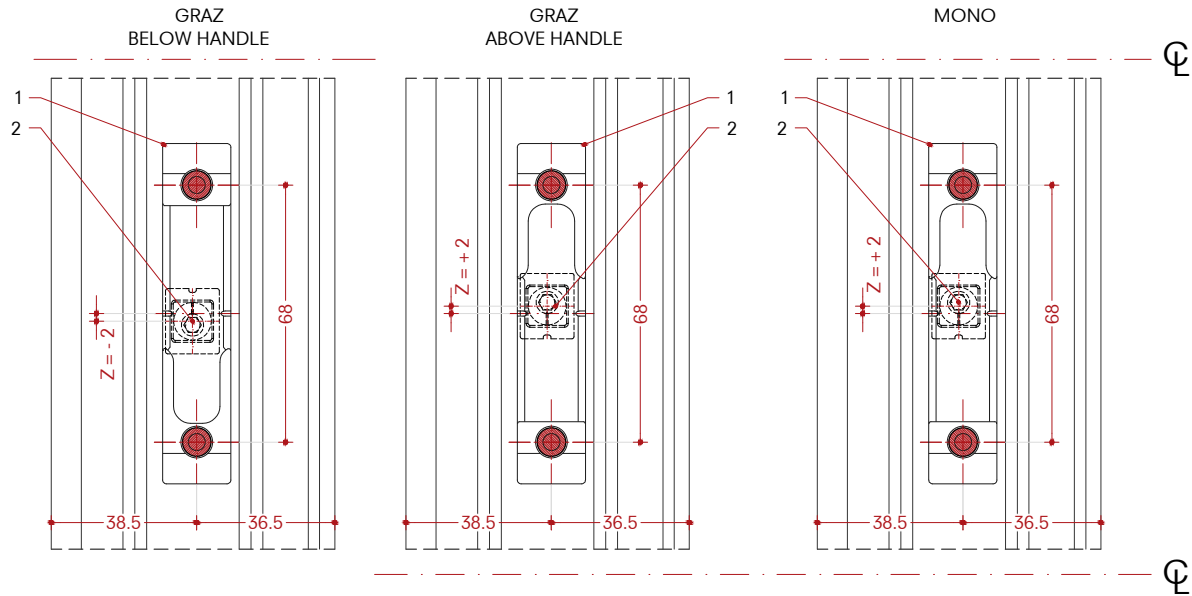
- 1) Cremone gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Copertura fresata E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87



**Multipoint aluminum rods installation, with Graz and Mono**

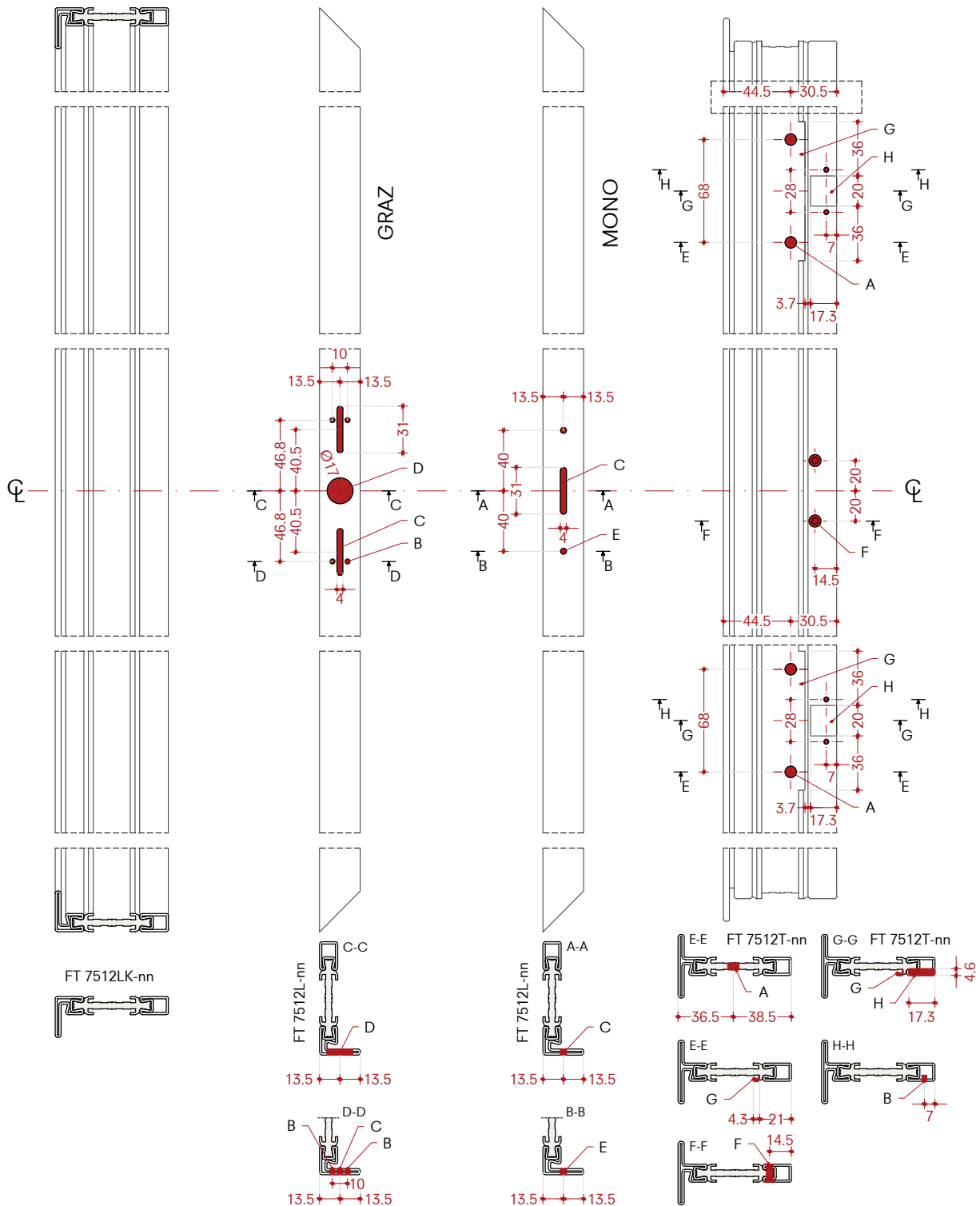
Single leaf window  
 Open out - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura esterna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

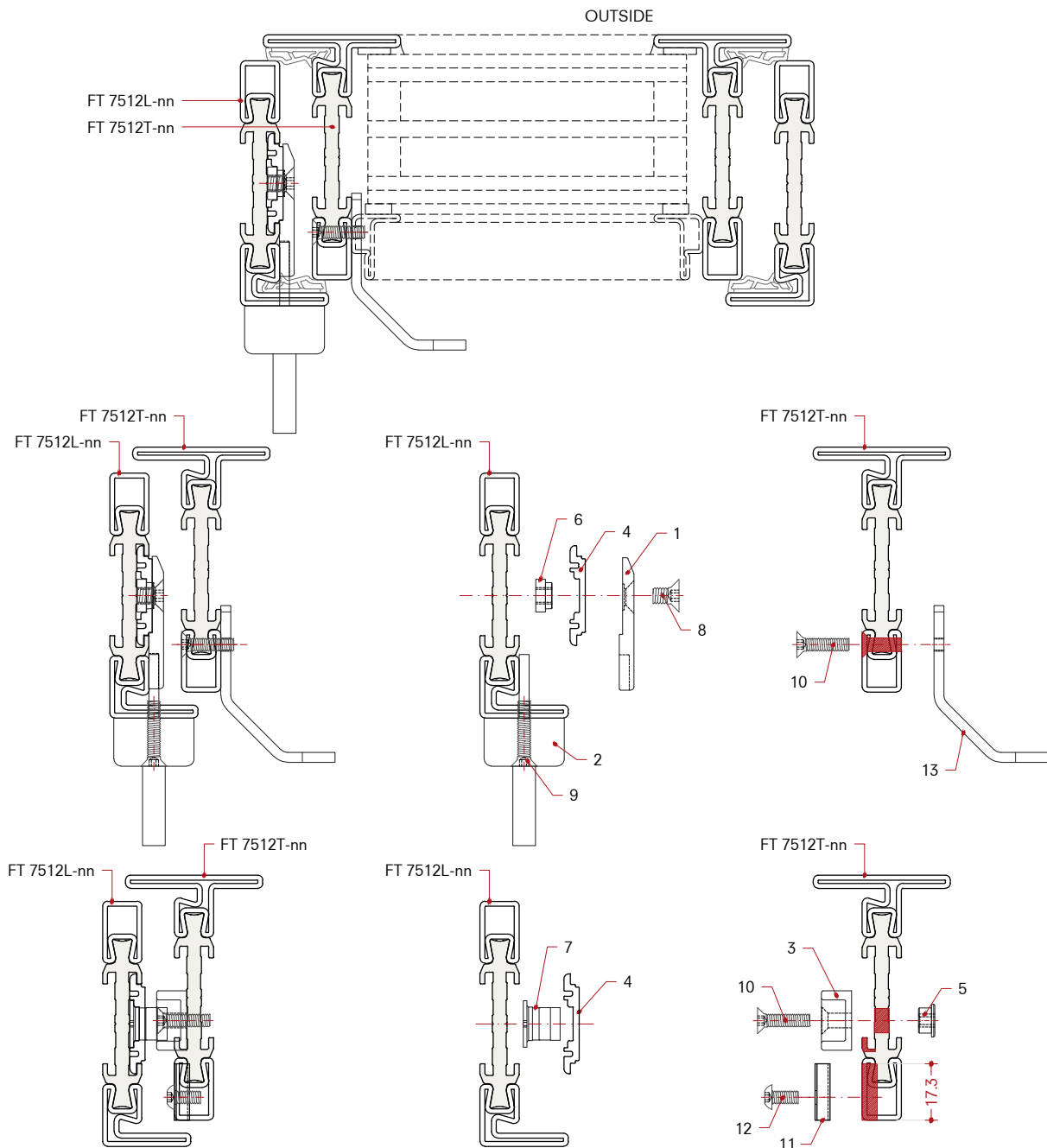
Ventana de una hoja  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles superpuestos



- Scale 1:4
- A) Ø7.5 mm holes to be checked
  - B) Ø3.2 mm threaded M4 holes
  - C) Cut out 31x4 mm
  - D) Ø17 mm hole
  - E) Ø4 mm threaded M5 holes
  - F) Ø4.2 mm countersunk holes
  - G) Cut out 92x4.3x3.8 mm
  - H) Cut out 20x17.3x4.6 mm

- Scala 1:4
- A) Fori Ø7.5 mm da verificare
  - B) Fori Ø3.2 mm filettati M4
  - C) Fresatura 31x4 mm
  - D) Foro Ø17 mm
  - E) Fori Ø4 mm filettati M5
  - F) Fori svasati Ø4.2 mm
  - G) Fresatura 92x4.3x3.8 mm
  - H) Fresatura 20x17.3x4.6 mm

- Escala 1:4
- A) Orificios Ø7.5 mm por verificar
  - B) Orificios Ø3.2 mm roscados M4
  - C) Fresado 31x4 mm
  - D) Orificio Ø17 mm
  - E) Orificios Ø4 mm roscados M5
  - F) Orificios avellanados Ø4.2 mm
  - G) Fresado 92x4.3x3.8 mm
  - H) Fresado 20x17.3x4.6 mm



Scale 1:2

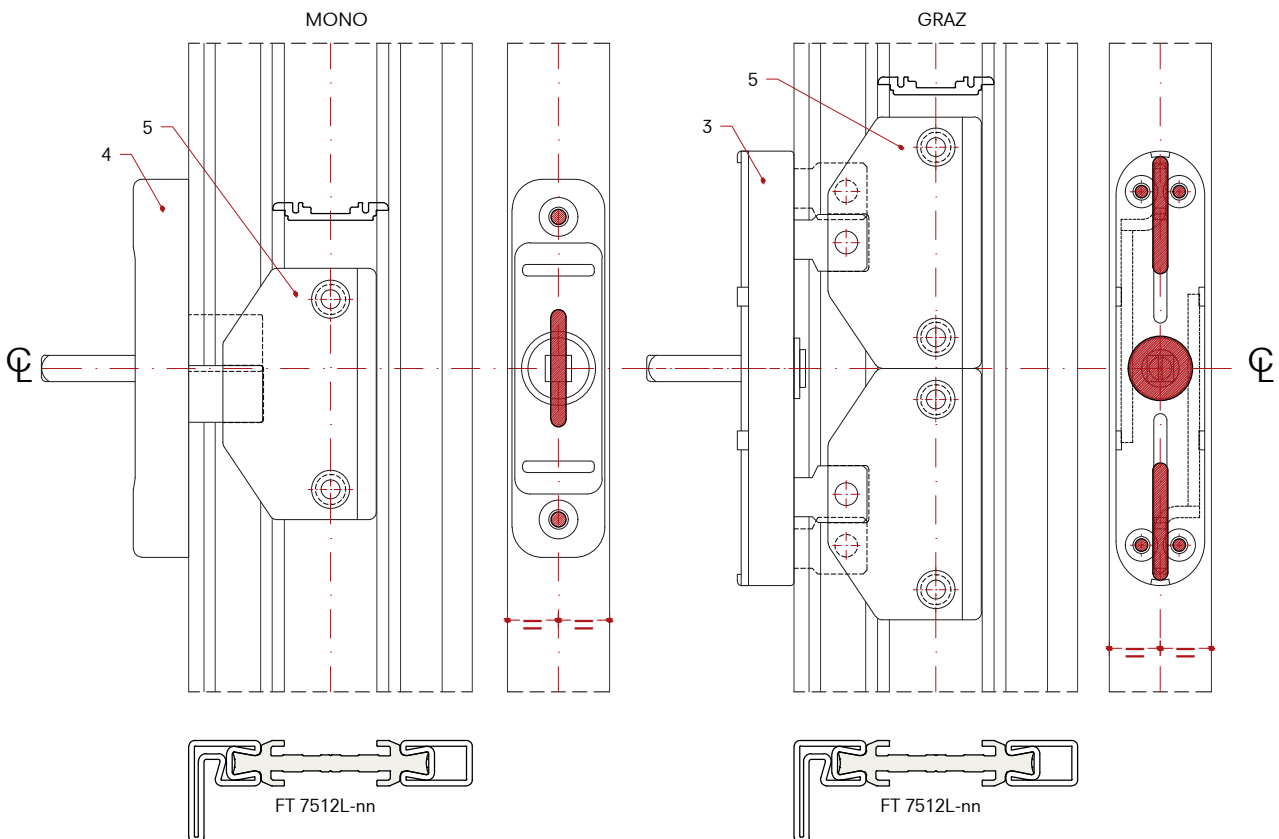
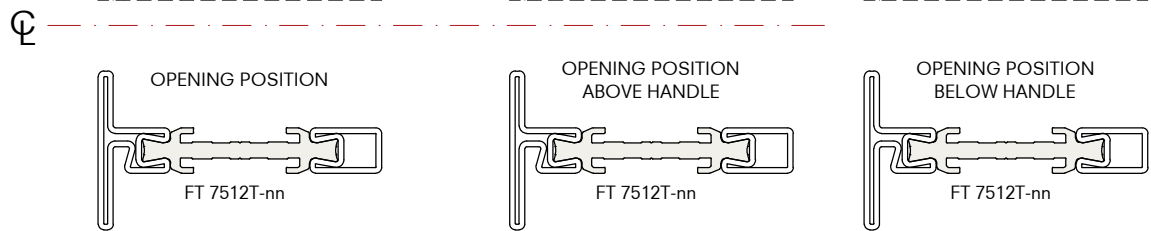
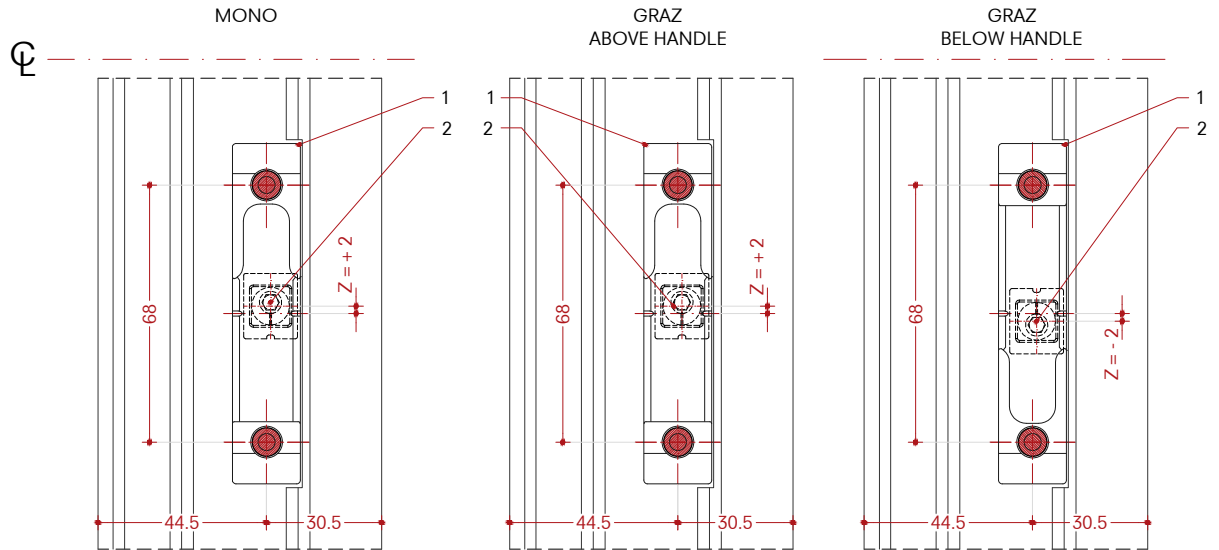
- 1) Cremona gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Cover cap E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

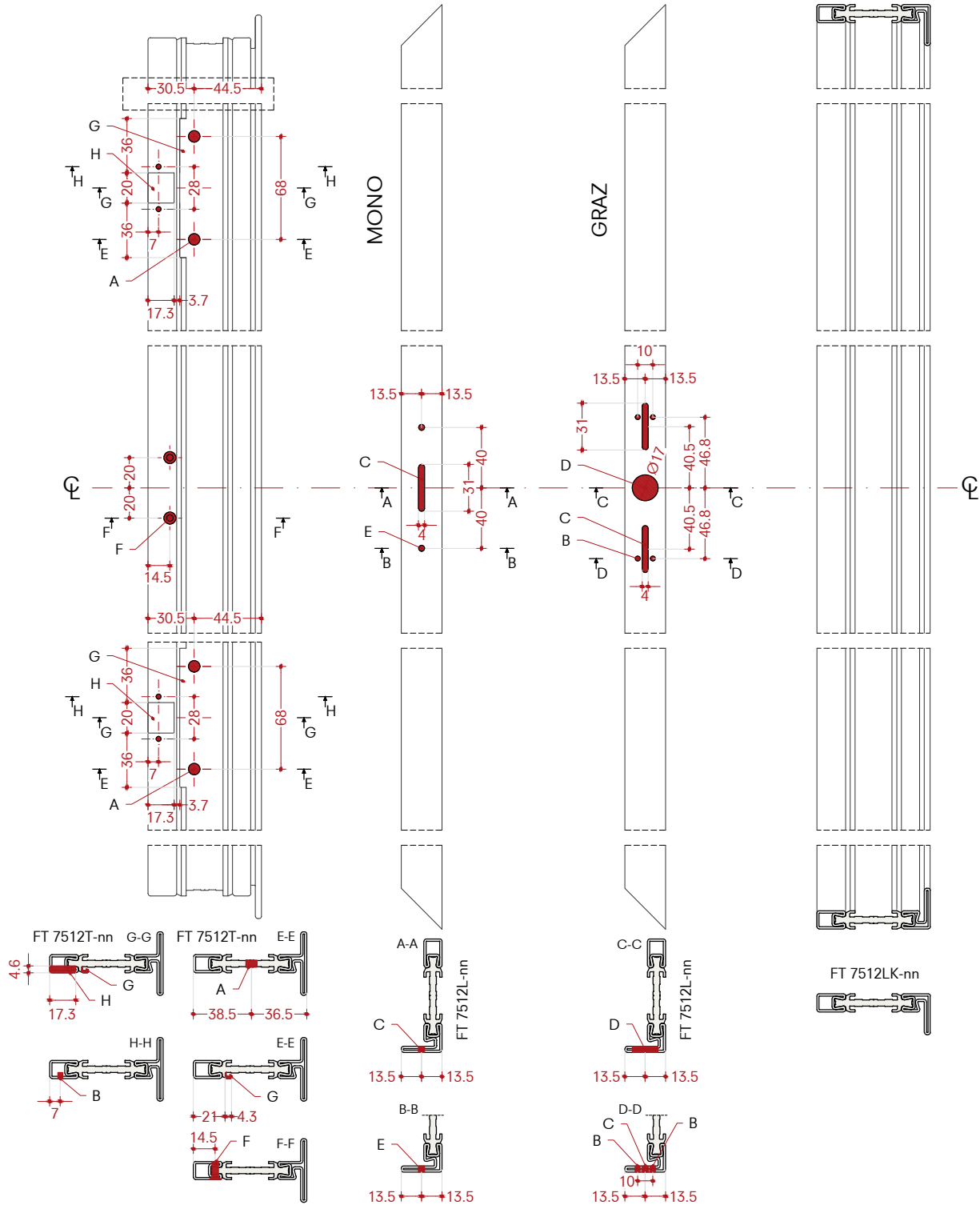
Single leaf window  
 Open out - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra ad anta singola  
 Apertura esterna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

Ventana de una hoja  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles superpuestos



Scale 1:4

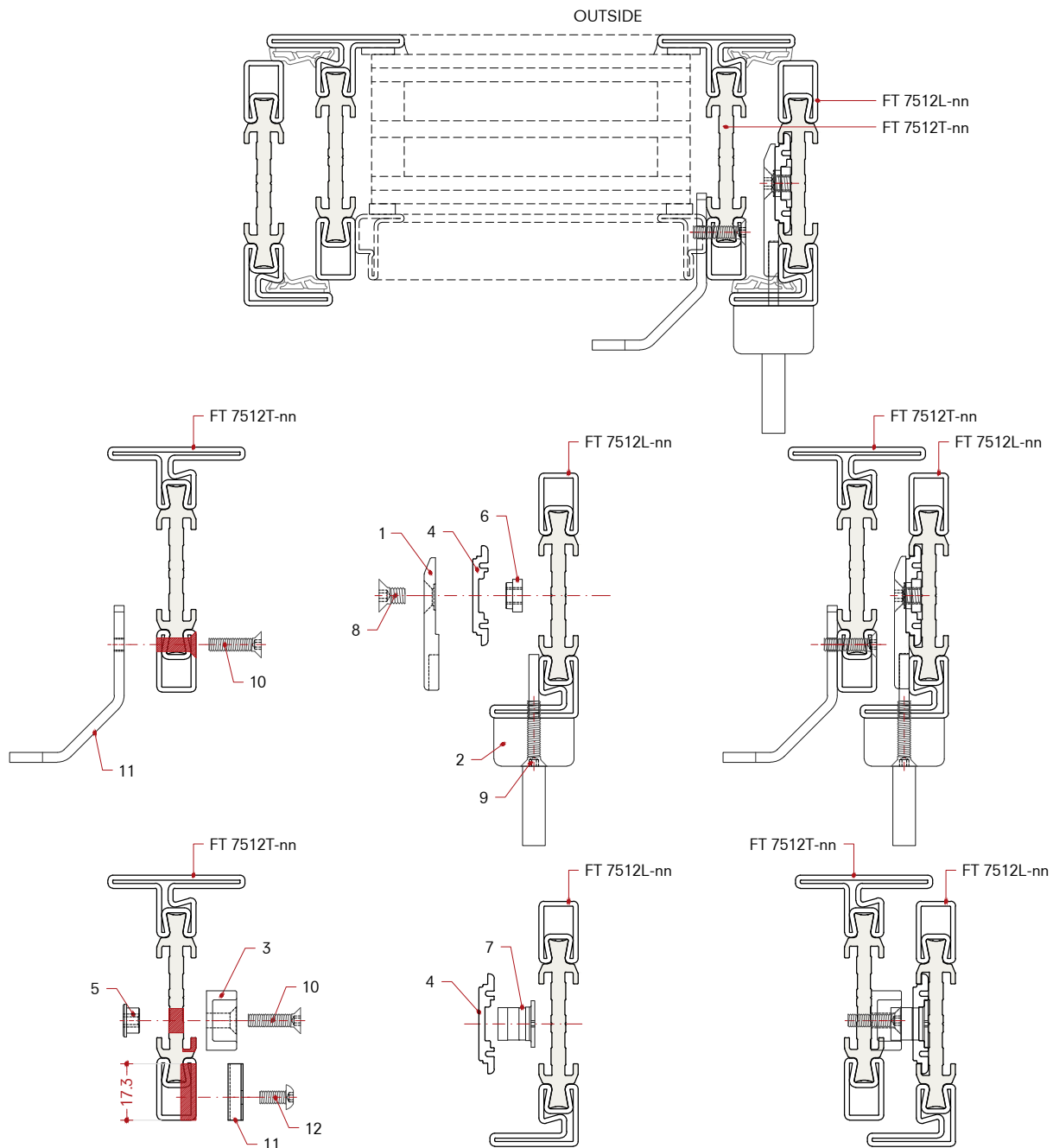
- A) Ø7.5 mm holes to be checked
- B) Ø3.2 mm threaded M4 holes
- C) Cut out 31x4 mm
- D) Ø17 mm hole
- E) Ø4 mm threaded M5 holes
- F) Ø4.2 mm countersunk holes
- G) Cut out 92x4.3x3.8 mm
- H) Cut out 20x17.3x4.6 mm

Scala 1:4

- A) Fori Ø7.5 mm da verificare
- B) Fori Ø3.2 mm filettati M4
- C) Fresatura 31x4 mm
- D) Foro Ø17 mm
- E) Fori Ø4 mm filettati M5
- F) Fori svasati Ø4.2 mm
- G) Fresatura 92x4.3x3.8 mm
- H) Fresatura 20x17.3x4.6 mm

Escala 1:4

- A) Orificios Ø7.5 mm por verificar
- B) Orificios Ø3.2 mm roscados M4
- C) Fresado 31x4 mm
- D) Orificio Ø17 mm
- E) Orificios Ø4 mm roscados M5
- F) Orificios avellanados Ø4.2 mm
- G) Fresado 92x4.3x3.8 mm
- H) Fresado 20x17.3x4.6 mm



Scale 1:2

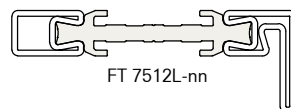
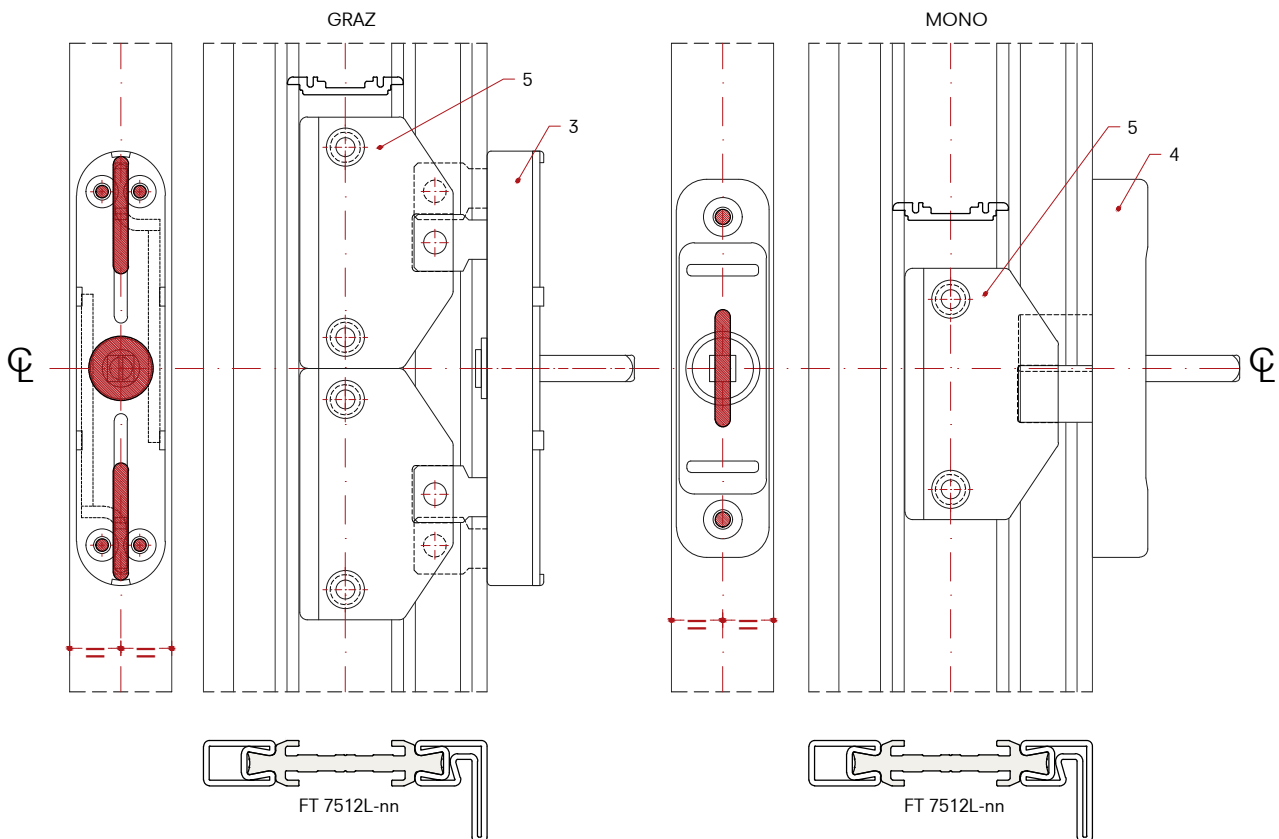
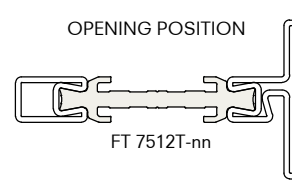
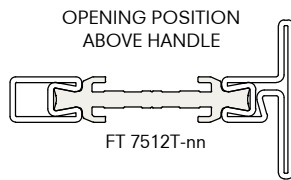
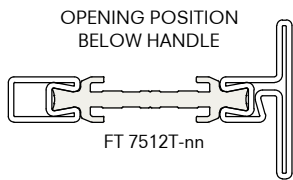
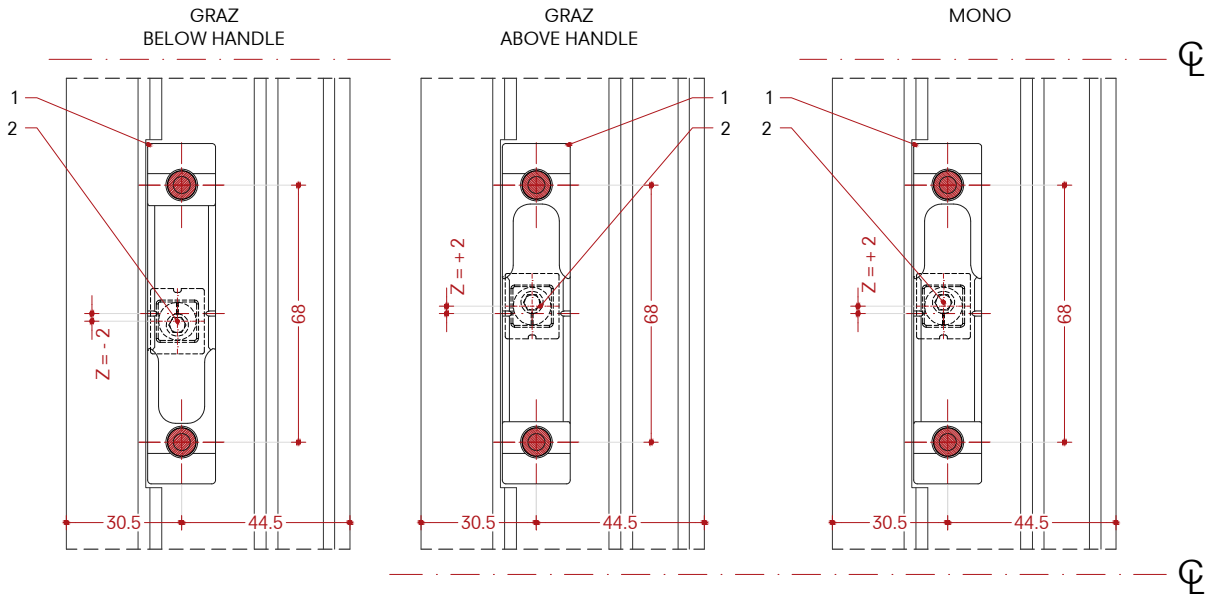
- 1) Cremona gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Copertura fresata E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccia D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

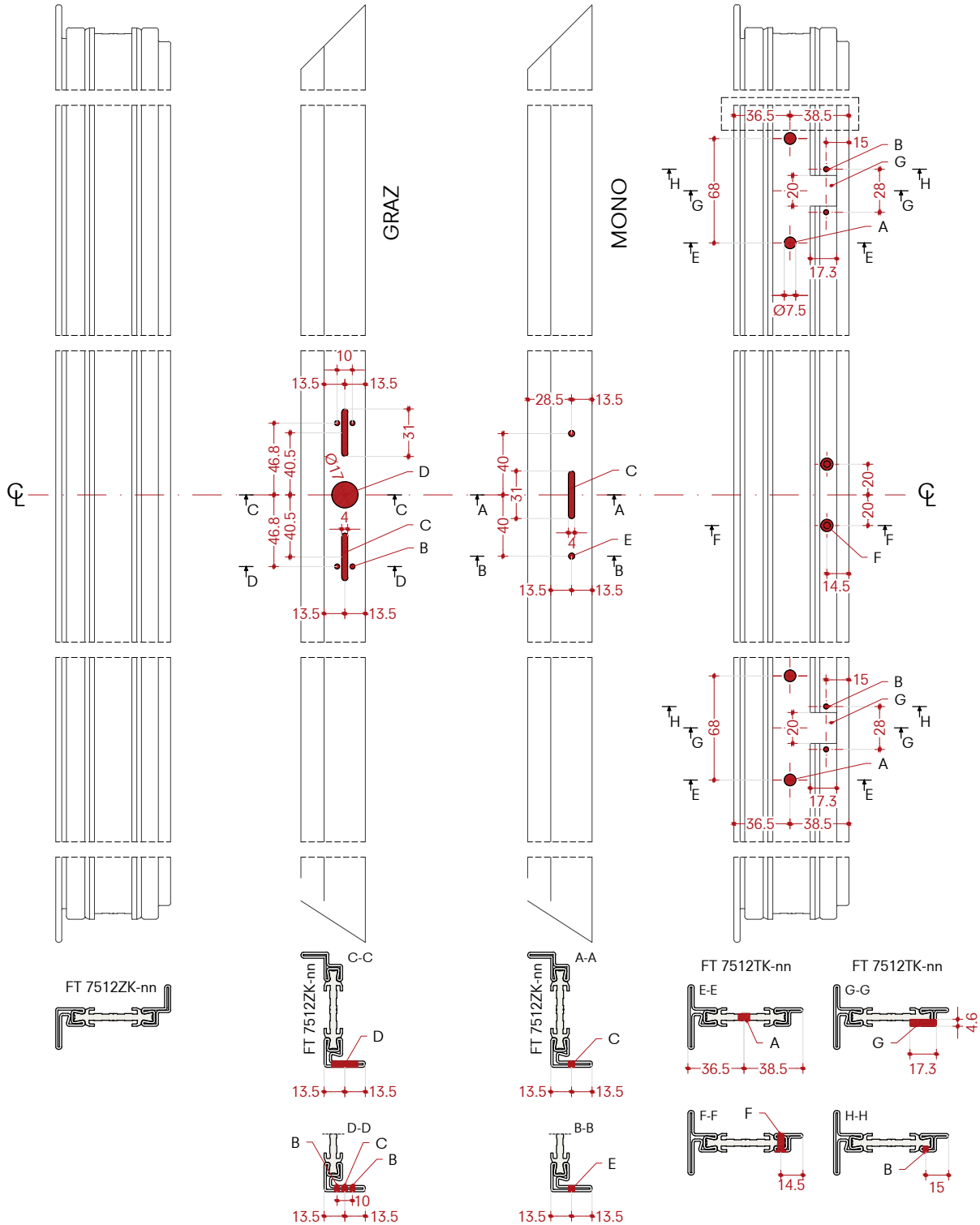
Double leaf window  
 Open out - Right opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra a due battenti  
 Apertura esterna - Apertura destra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

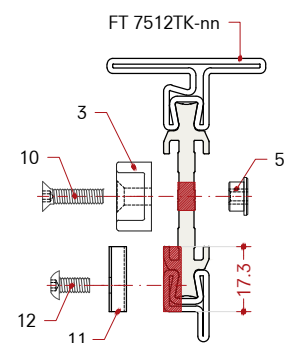
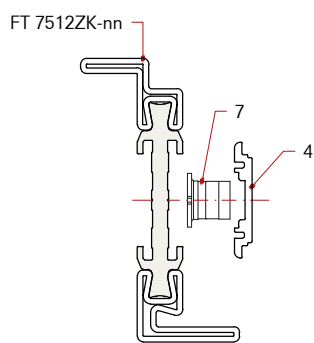
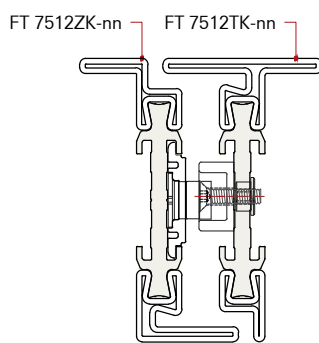
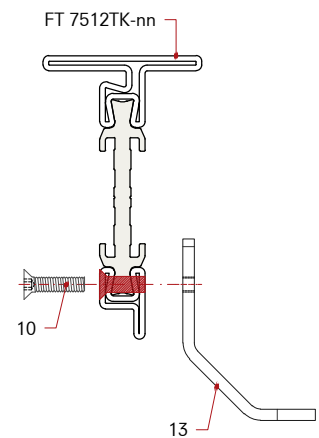
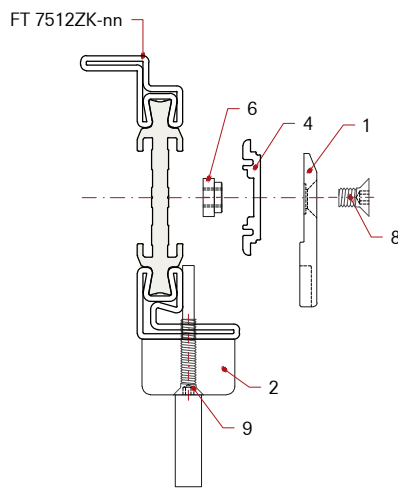
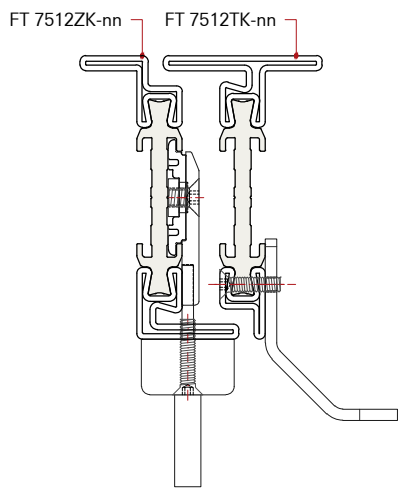
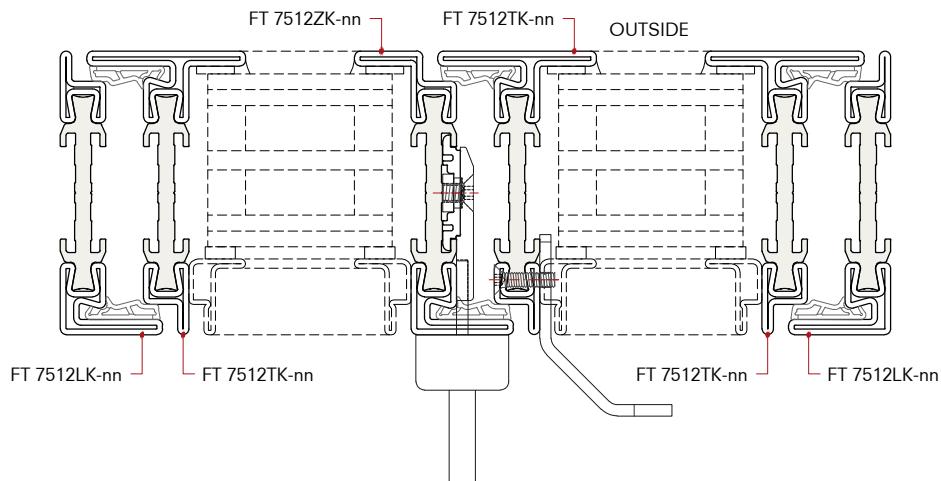
Ventana de dos hojas  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles coplanarios



- Scala 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Ø4.2 mm countersunk holes  
 G) Cut out 20x17.3x4.6 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fori svasati Ø4.2 mm  
 G) Fresatura 20x17.3x4.6 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Orificios avellanados Ø4.2 mm  
 G) Fresado 20x17.3x4.6 mm



Scale 1:2

- 1) Cremona gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Cover cap E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

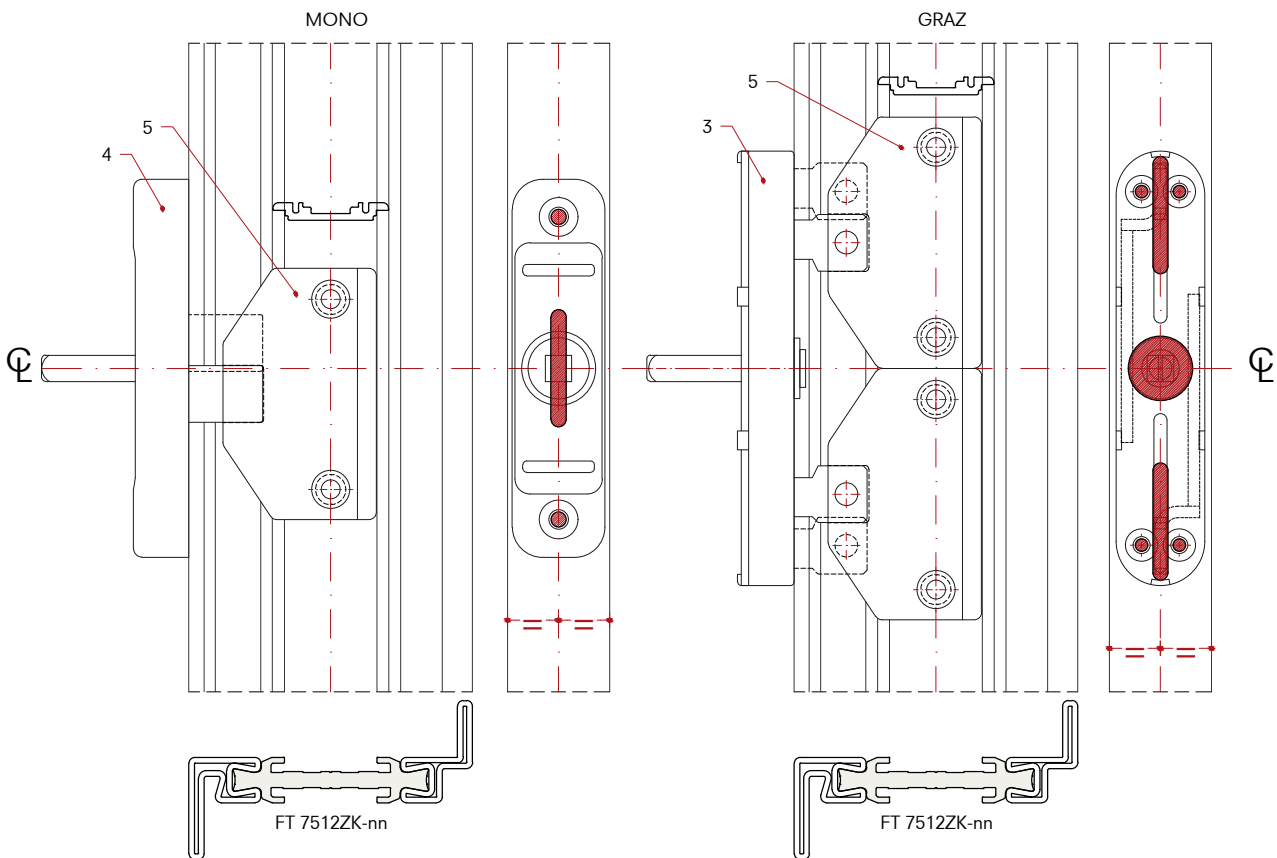
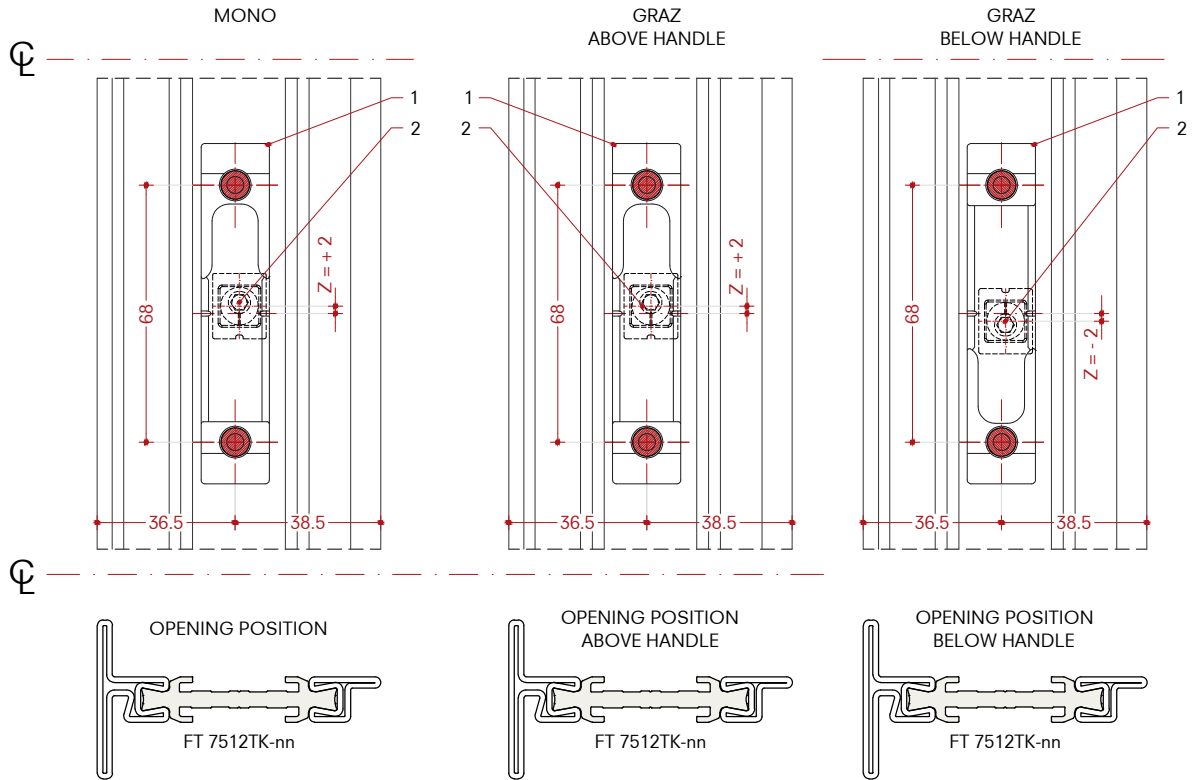
Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn





Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

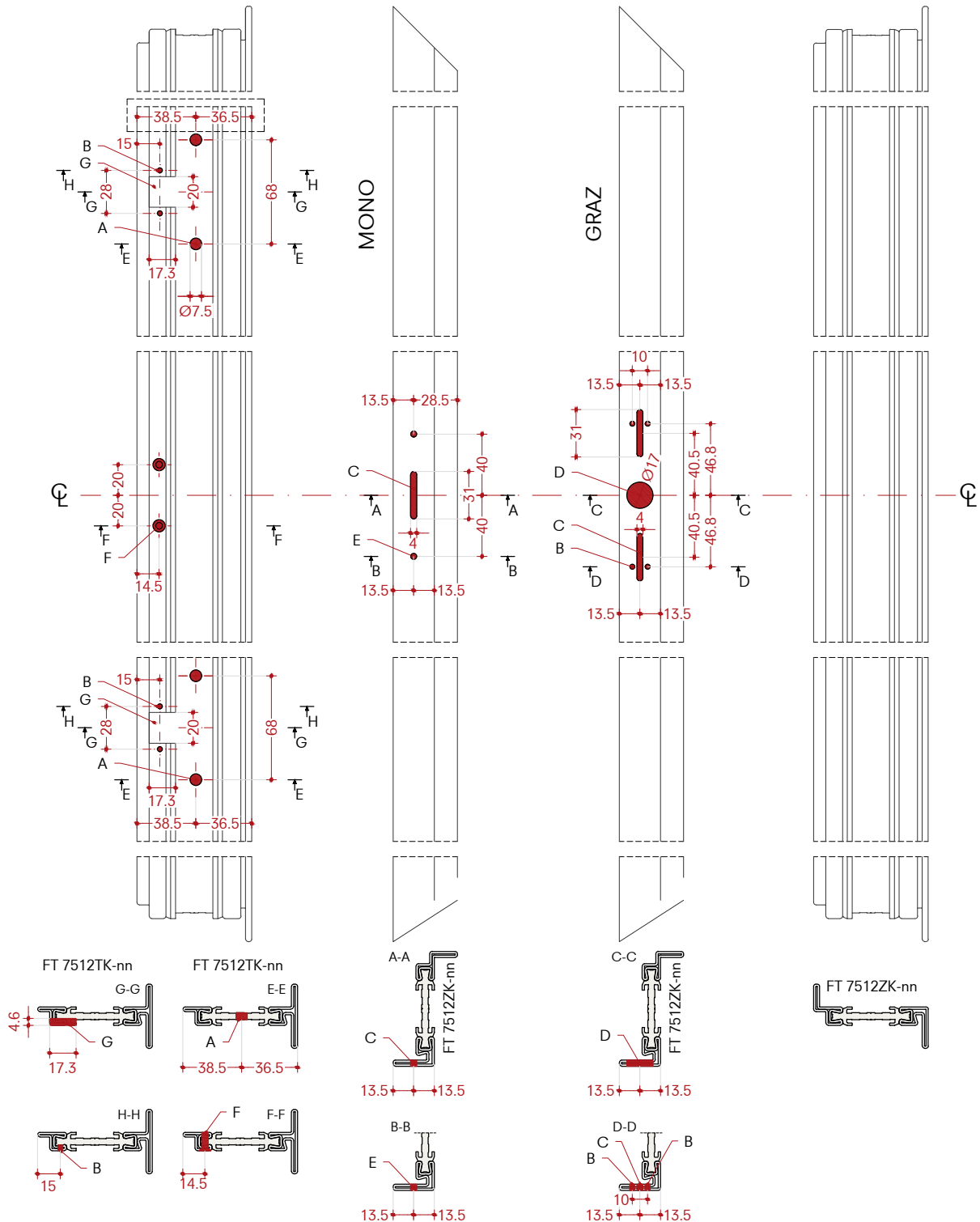
Double leaf window  
 Open out - Left opening  
 Flush profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra a due battenti  
 Apertura esterna - Apertura sinistra  
 Profili complanari

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

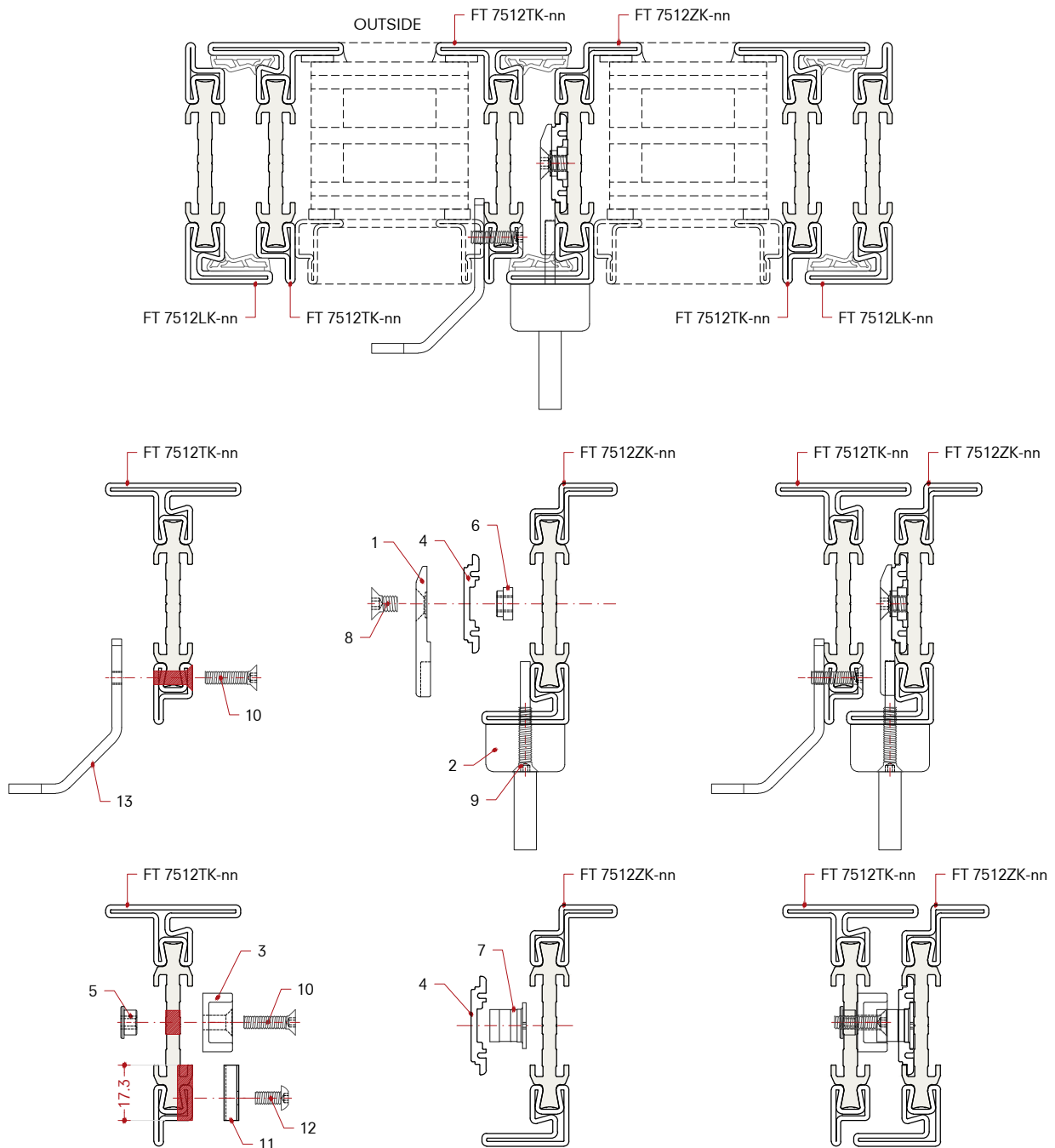
Ventana de dos hojas  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles coplanarios



- Scale 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Ø4.2 mm countersunk holes  
 G) Cut out 20x17.3x4.6 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fori svasati Ø4.2 mm  
 G) Fresatura 20x17.3x4.6 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Orificios avellanados Ø4.2 mm  
 G) Fresado 20x17.3x4.6 mm



Scale 1:2

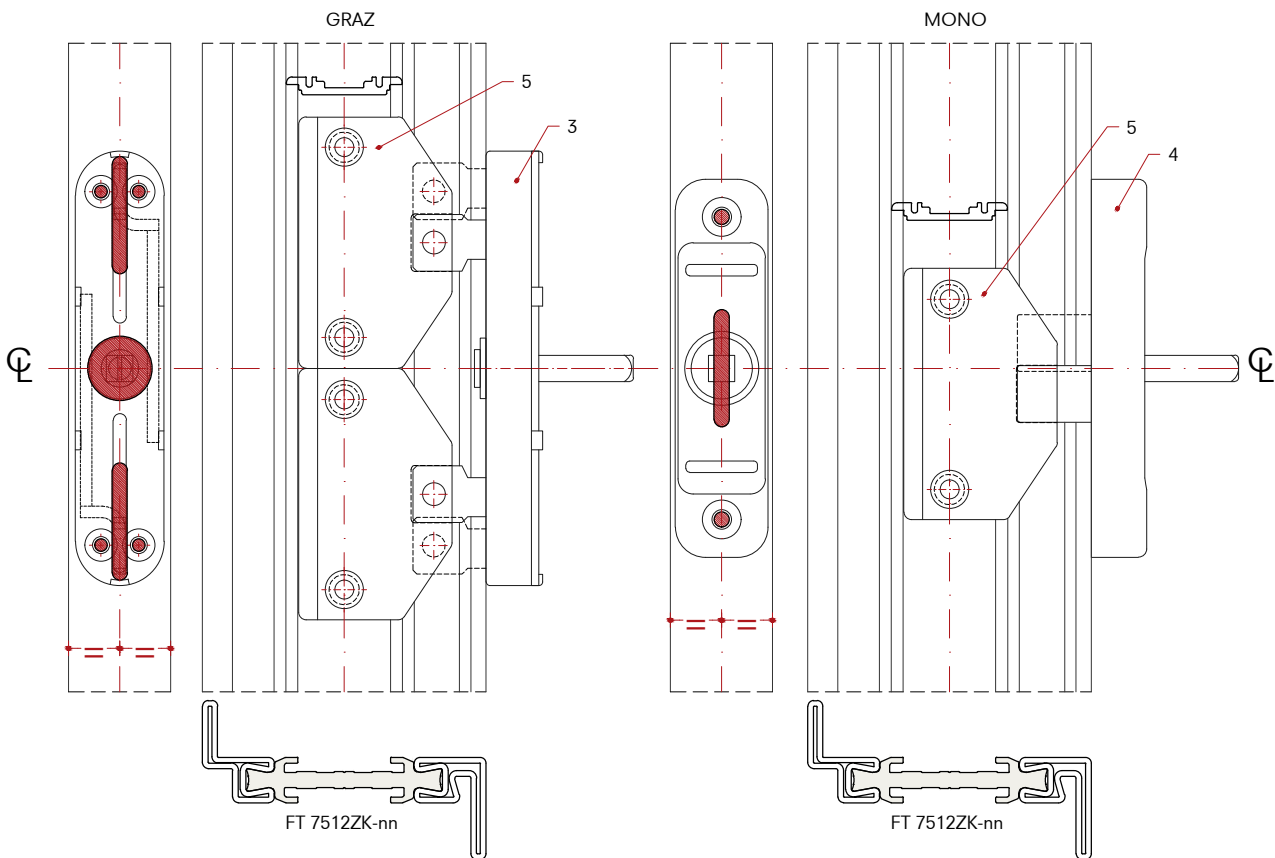
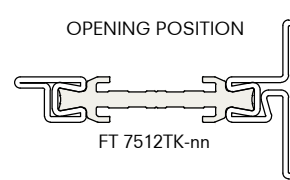
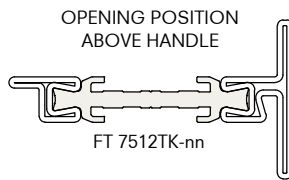
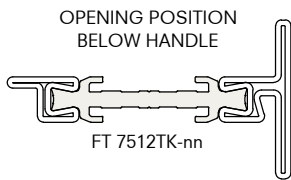
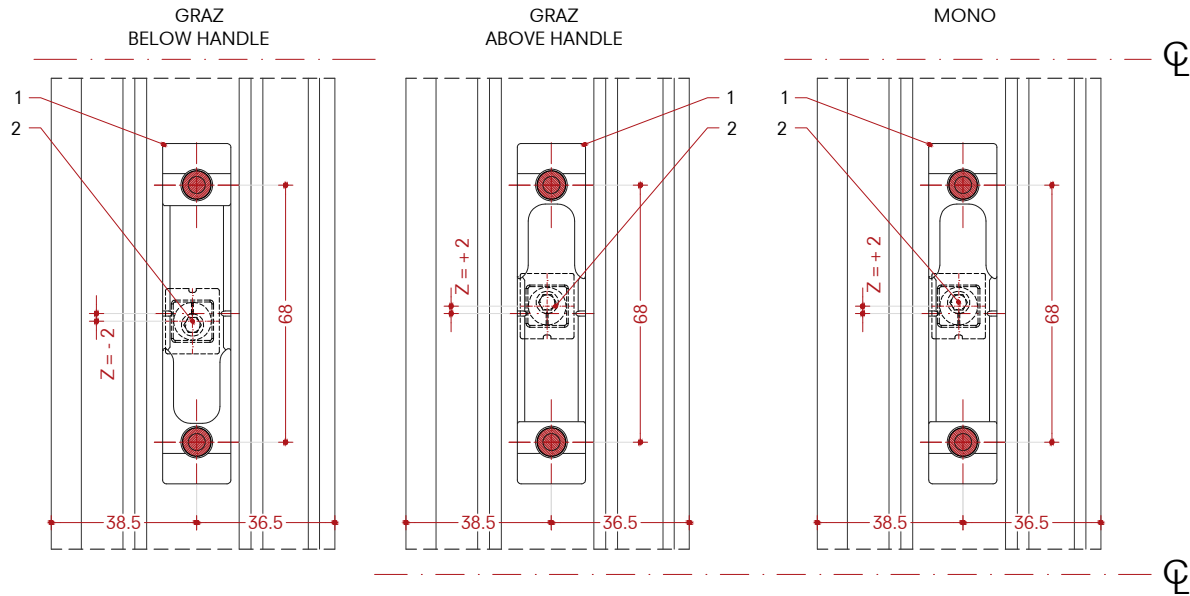
- 1) Cremona gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Copertura fresata E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

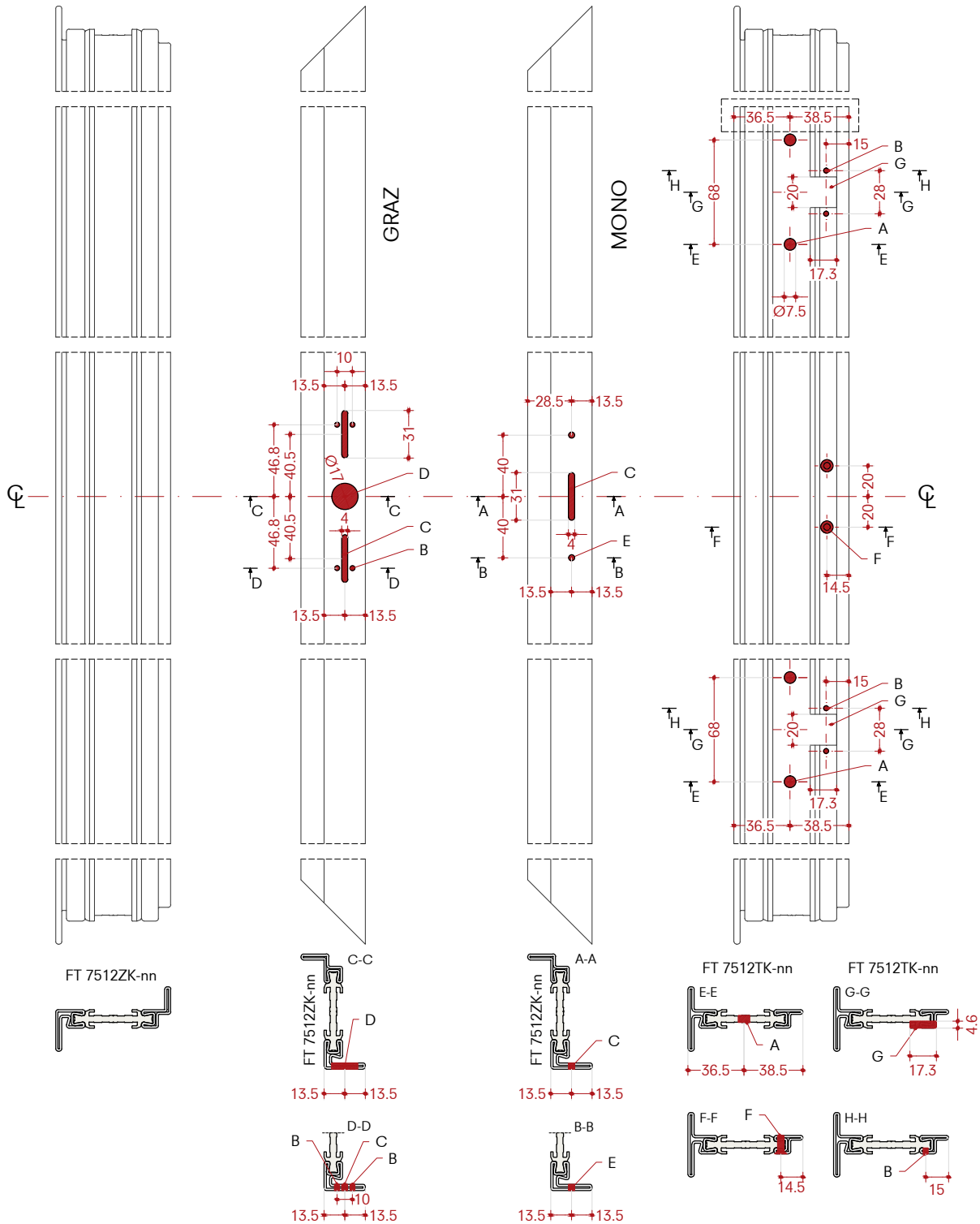
Double leaf window  
 Open out - Right opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra a due battenti  
 Apertura esterna - Apertura destra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

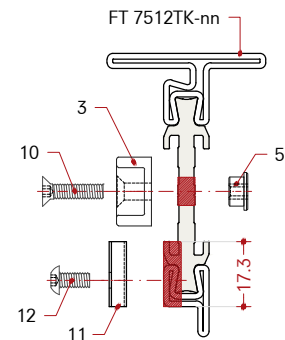
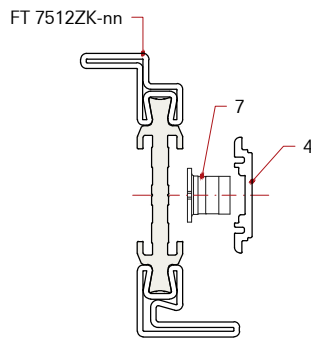
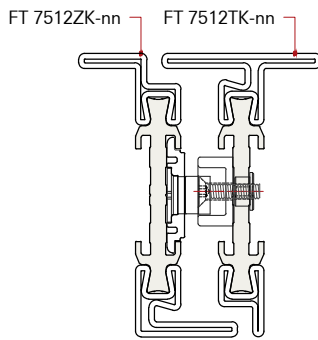
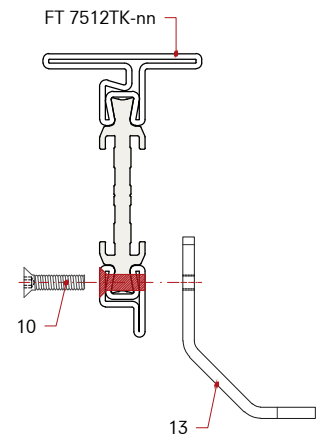
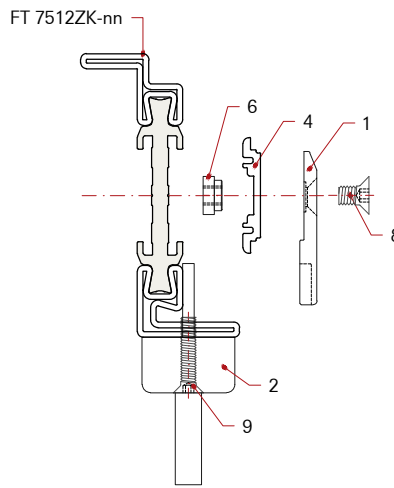
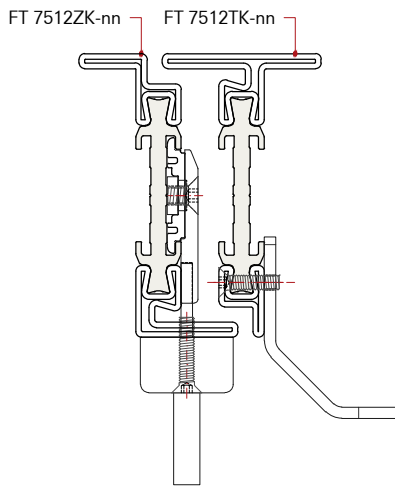
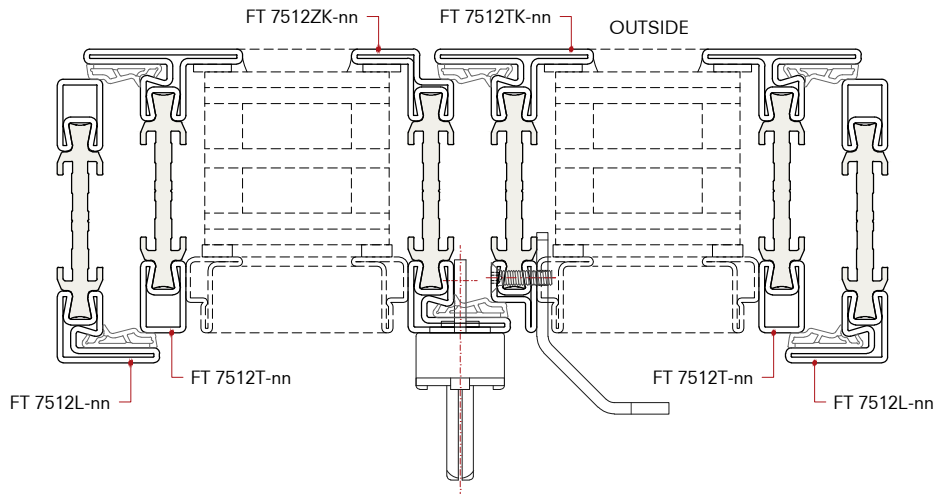
Ventana de dos hojas  
 Que se abre hacia fuera - Apertura derecha  
 Perfiles superpuestos



- Scala 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Ø4.2 mm countersunk holes  
 G) Cut out 20x17.3x4.6 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fori svasati Ø4.2 mm  
 G) Fresatura 20x17.3x4.6 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Orificios avellanados Ø4.2 mm  
 G) Fresado 20x17.3x4.6 mm



Scale 1:2

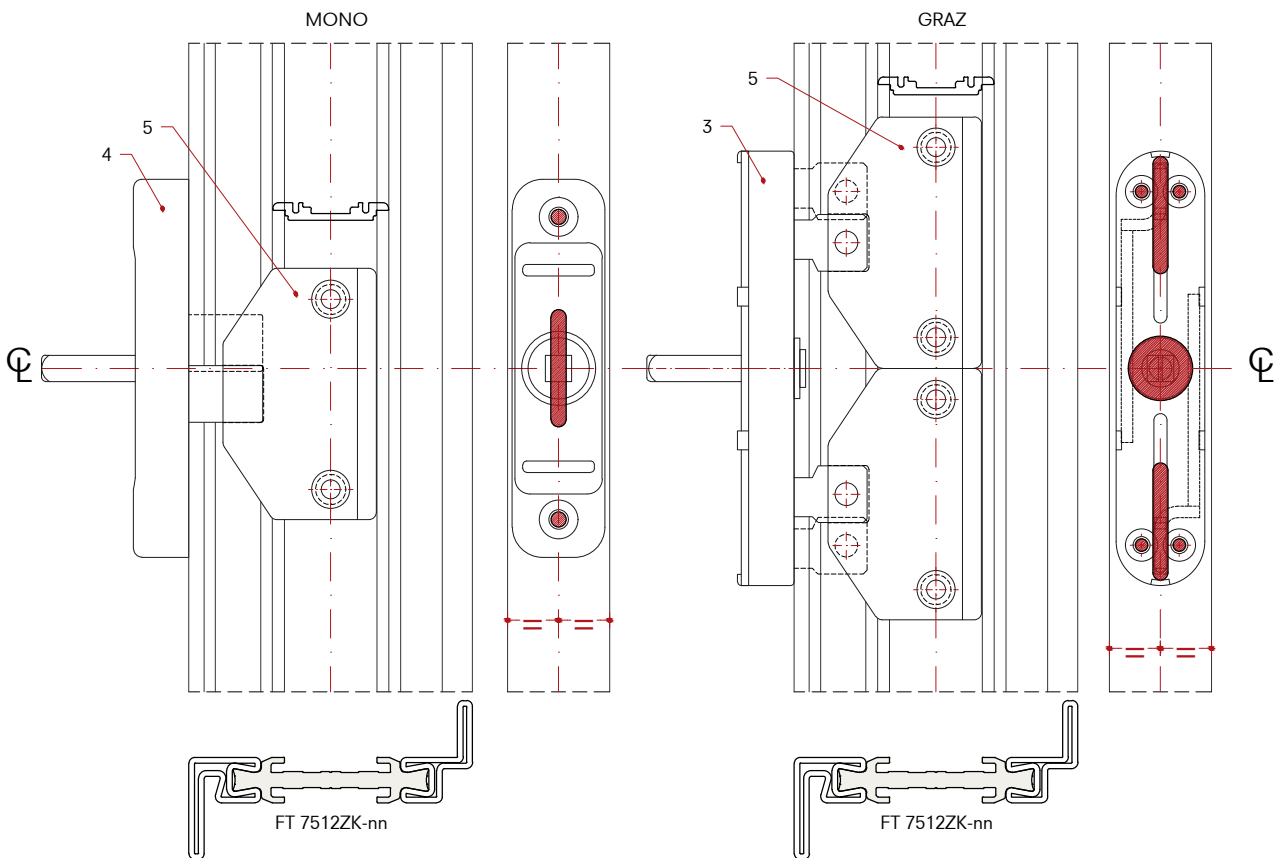
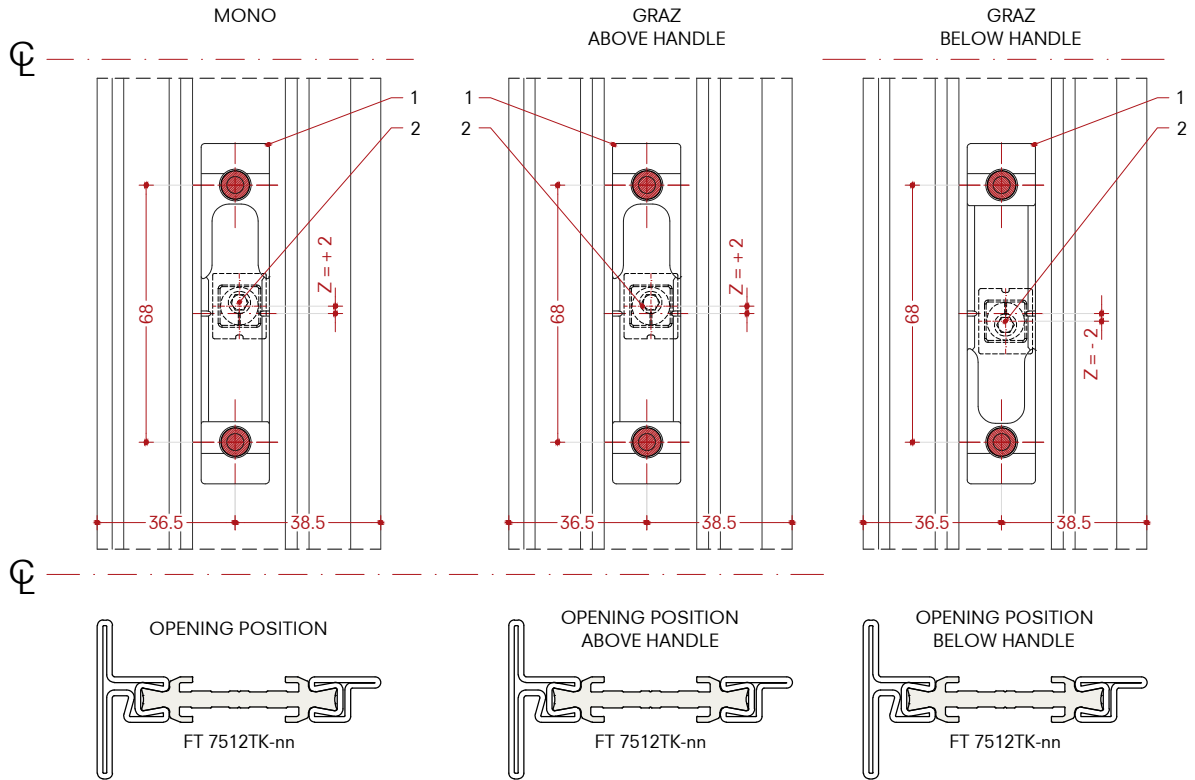
- 1) Cremona gear connection E99391-87
- 2) Graz E99653-03 or Mono E99658-11 (right configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Cover cap E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99653-03
- 4) Mono E99658-11 (right configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99653-03
- 4) Mono E99658-11 (configurazione destra)
- 5) Connettore E99391-87

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99653-03
- 4) Mono E99658-11 (configuración derecha)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**

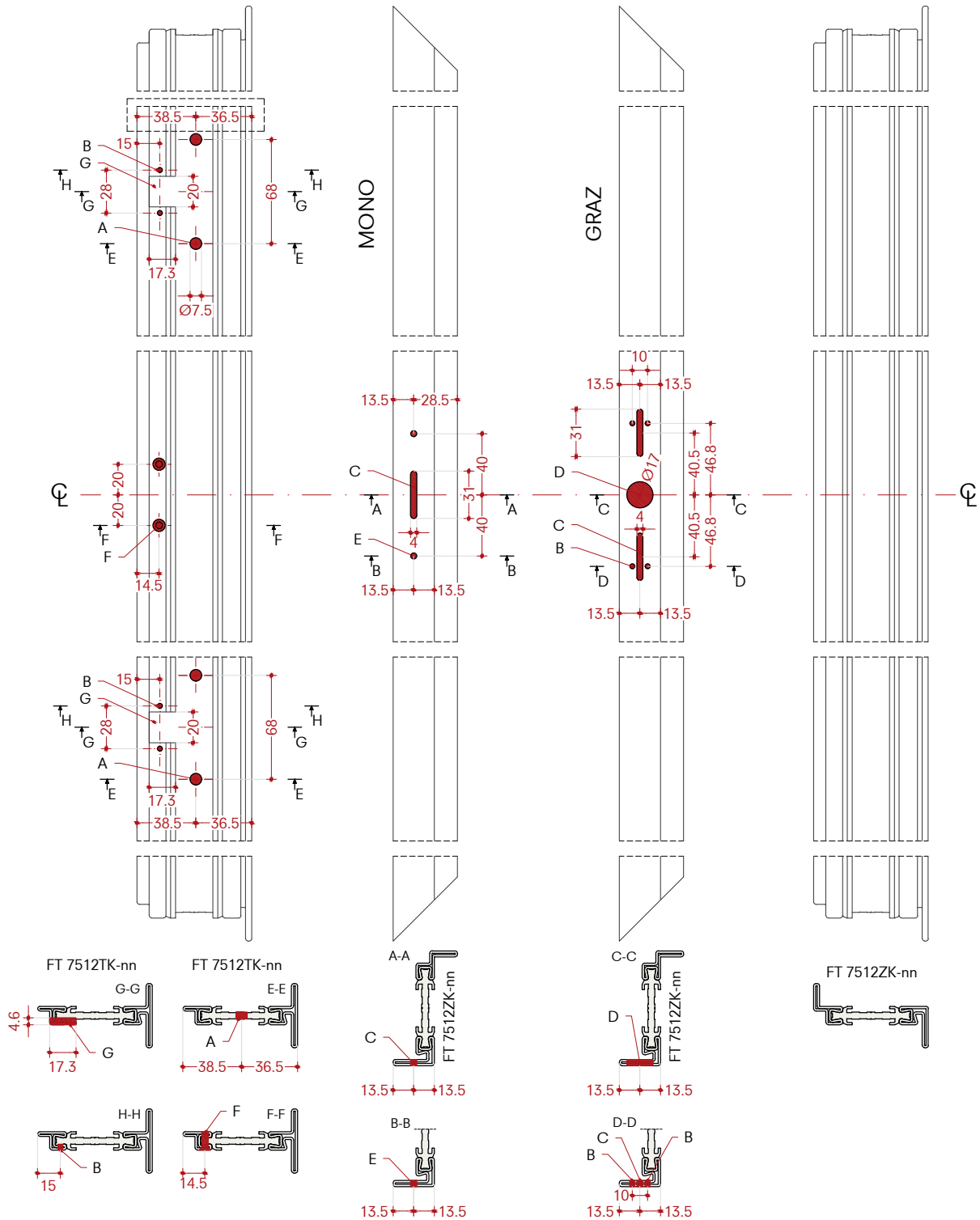
Double leaf window  
 Open out - Left opening  
 Overlapped profiles

**Montaggio Multipoint aste in alluminio, con Graz e Mono**

Finestra a due battenti  
 Apertura esterna - Apertura sinistra  
 Profili a sormonto

**Montaje Multipoint varillas de aluminio, con Graz y Mono**

Ventana de dos hojas  
 Que se abre hacia fuera - Apertura izquierda  
 Perfiles superpuestos

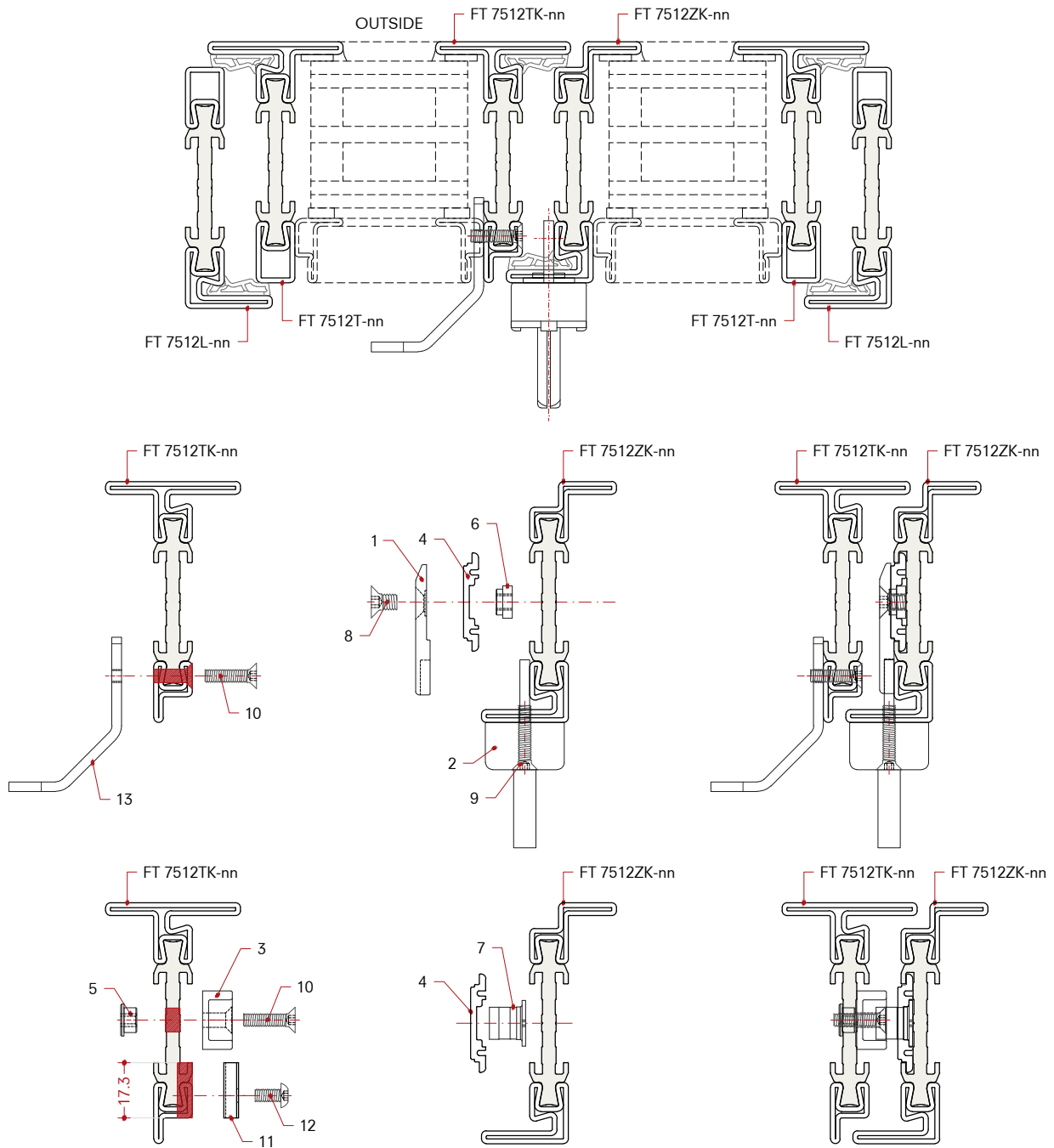


- Scale 1:4  
 A) Ø7.5 mm holes to be checked  
 B) Ø3.2 mm threaded M4 holes  
 C) Cut out 31x4 mm  
 D) Ø17 mm hole  
 E) Ø4 mm threaded M5 holes  
 F) Ø4.2 mm countersunk holes  
 G) Cut out 20x17.3x4.6 mm

- Scala 1:4  
 A) Fori Ø7.5 mm da verificare  
 B) Fori Ø3.2 mm filettati M4  
 C) Fresatura 31x4 mm  
 D) Foro Ø17 mm  
 E) Fori Ø4 mm filettati M5  
 F) Fori svasati Ø4.2 mm  
 G) Fresatura 20x17.3x4.6 mm

- Escala 1:4  
 A) Orificios Ø7.5 mm por verificar  
 B) Orificios Ø3.2 mm roscados M4  
 C) Fresado 31x4 mm  
 D) Orificio Ø17 mm  
 E) Orificios Ø4 mm roscados M5  
 F) Orificios avellanados Ø4.2 mm  
 G) Fresado 20x17.3x4.6 mm





Scale 1:2

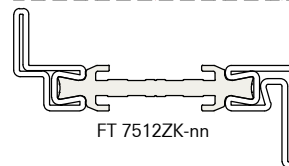
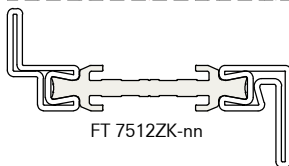
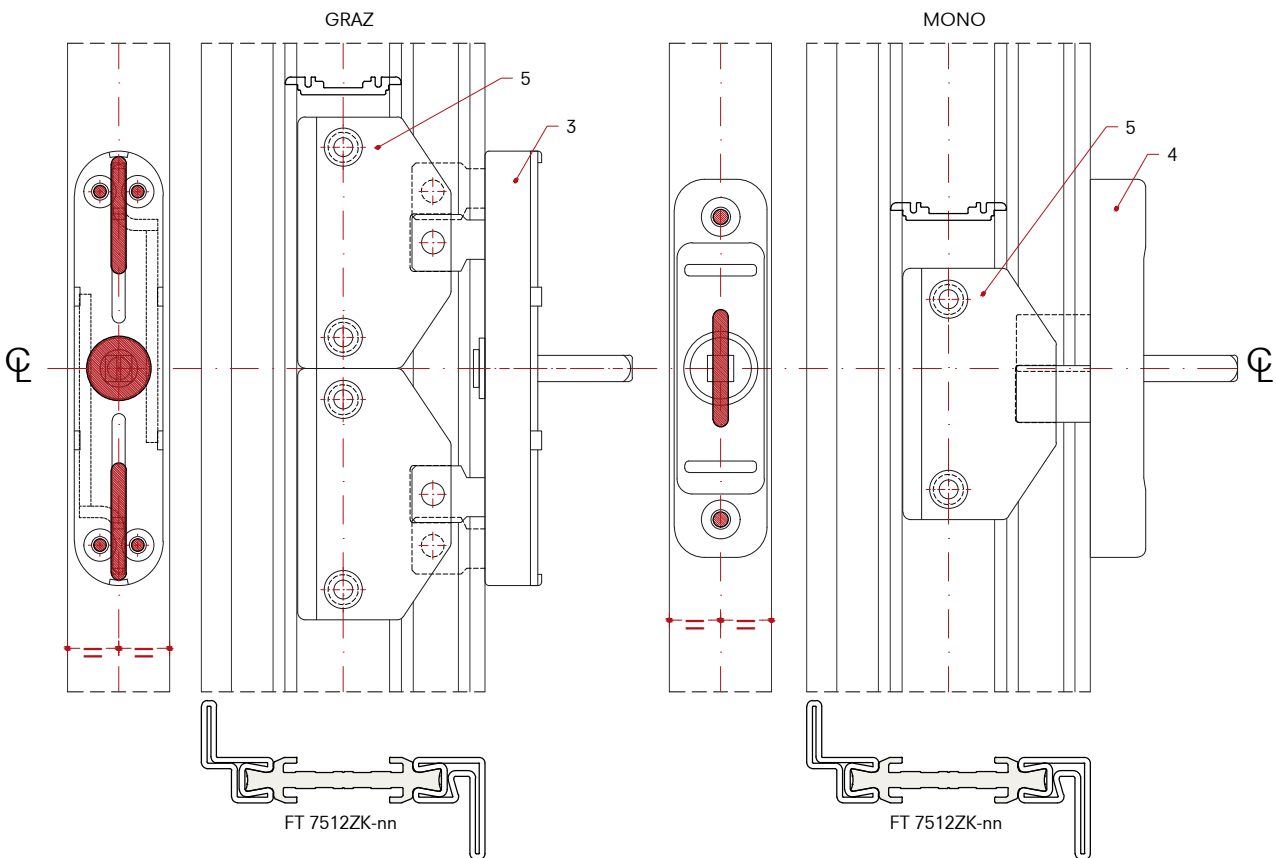
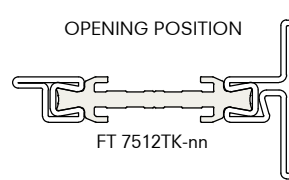
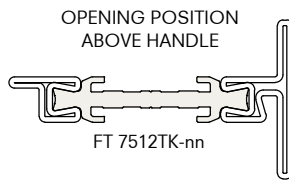
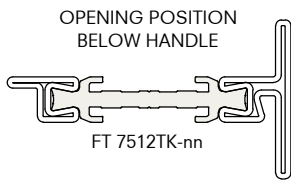
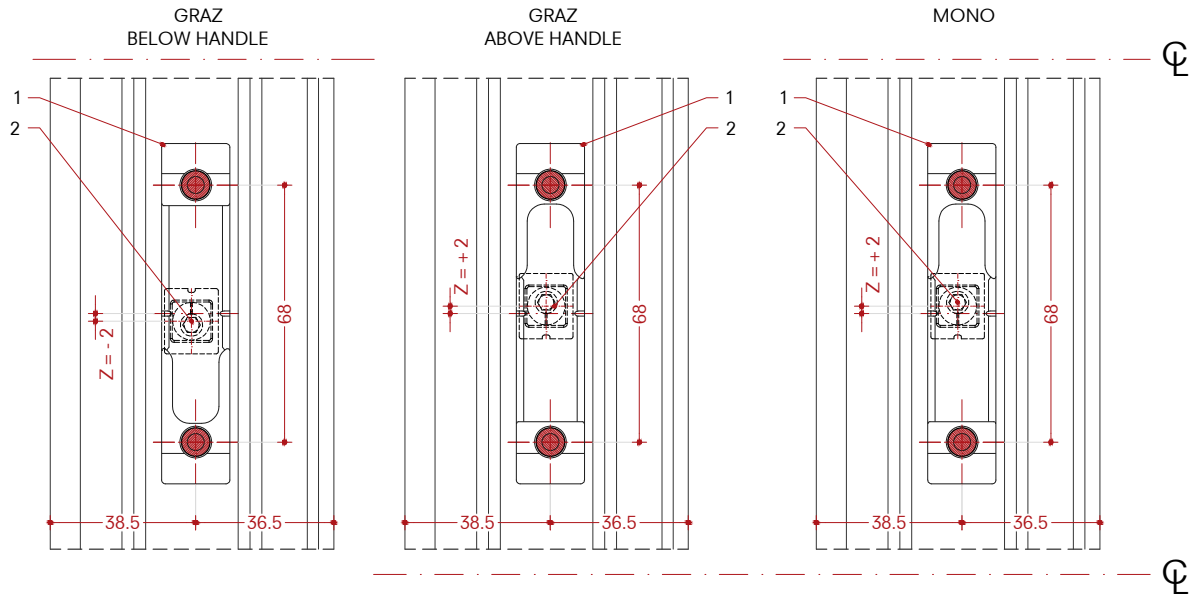
- 1) Cremone gear connection E99391-87
- 2) Graz E99652-03 or Mono E99658-11 (left configuration)
- 3) Strike plate E99389-11
- 4) Aluminum rail E99383-53
- 5) M4 brass bushing D99704-08
- 6) Bush D99709-02
- 7) Stud E99397-03
- 8) Fastening with M5x8 mm ISO10642 screws (not included)
- 9) Fastening with M4x20 mm ISO10642 screws (not included)
- 10) Fastening with M4x16 mm ISO10642 screws (not included)
- 11) Copertura fresata E99134-04
- 12) Fastening with M4x8 mm ISO7380 screws (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99391-87
- 2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
- 3) Riscontro E99389-11
- 4) Binario in alluminio E99383-53
- 5) Boccia in ottone M4 D99704-08
- 6) Boccola D99709-02
- 7) Nottolino E99397-03
- 8) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
- 9) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
- 10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 11) Copertura fresata E99134-04
- 12) Fissaggio con viti M4x8 mm ISO7380 (non fornite)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99391-87
- 2) Mecanismo E99652-03 o Mono E99658-11 (configuración izquierda)
- 3) Chapa de cierre E99389-11
- 4) Carril de aluminio E99383-53
- 5) Casquillo en latón M4 D99704-08
- 6) Casquillo D99709-02
- 7) Alfiler E99397-03
- 8) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
- 9) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
- 10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 11) Cubierta molida E99134-04
- 12) Fijación con tornillos M4x8 mm ISO7380 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Graz E99652-03
- 4) Mono E99658-11 (left configuration)
- 5) Cremone gear connection E99391-87

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Graz E99652-03
- 4) Mono E99658-11 (configurazione sinistra)
- 5) Connettore E99391-87

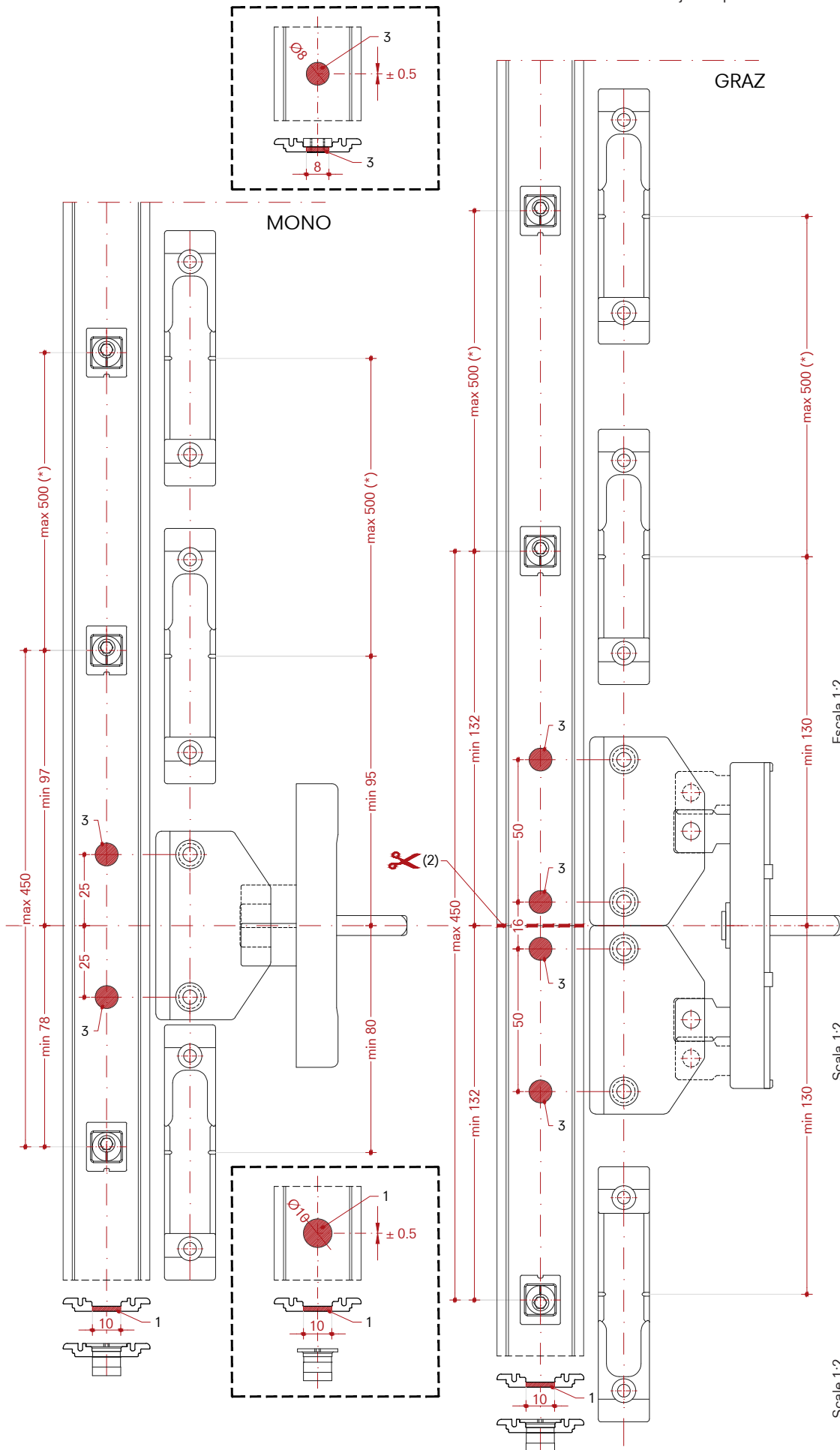
Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Graz E99652-03
- 4) Mono E99658-11 (configuración izquierda)
- 5) Conector E99391-87

**Multipoint aluminum rods installation, with Graz and Mono**  
 Rail, stud and strike plate position

**Montaggio Multipoint aste in alluminio, con Graz e Mono**  
 Posizione binario, nottolino e fermi

**Montaje Multipoint varillas de aluminio, con Graz y Mono**  
 Posición de carril, alfiler y tope



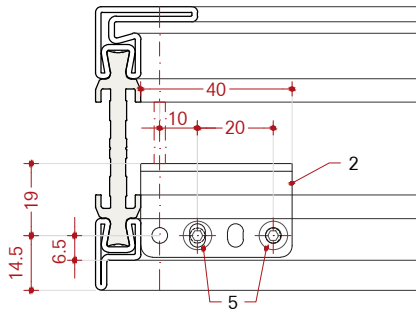
Scala 1:2  
 1) Ø10 mm holes  
 2) Rail cut  
 3) Ø8 mm holes  
 (\*) Maximum distance to be reduced in case of heavy wind load conditions. Maximum distance 700 mm in case of long flush bolt on 2nd leaf. In this case shoot bolt on 1st leaf open-in is mandatory.

Scala 1:2  
 1) Fori Ø10 mm  
 2) Taglio del binario  
 3) Fori Ø8 mm  
 (\*) Distanza massima da ridurre in caso di forte carico di vento. Distanza massima 700 mm in caso di catenaccio lungo sulla 2a anta. In questo caso il catenaccio sulla 1a anta apertura interna è obbligatorio.

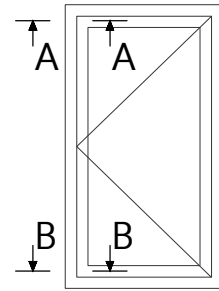
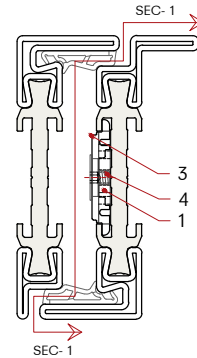
Scala 1:2  
 1) Orificios Ø10 mm  
 2) Corte de carril  
 3) Orificios Ø8 mm  
 (\*) Distancia máxima a reducir en caso de fuerte carga de viento. Distancia máxima 700 mm en caso de pasador de canto largo en 2do hoja. En este caso, pasador de canto de la 1er hoja de apertura hacia dentro es obligatorio.

Single leaf window - Open in - Flush profiles - Right opening (Left opening is specular)

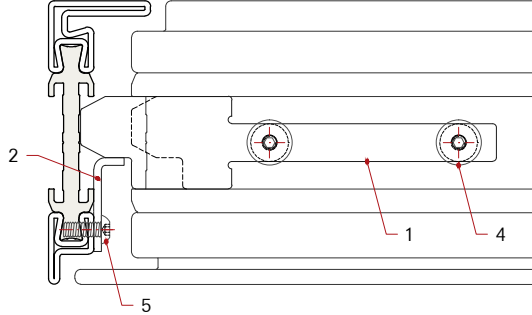
FOR GRAZ SECTION B-B & A-A(SPECULAR)



MONO INCLUDES ONLY SECTION A-A

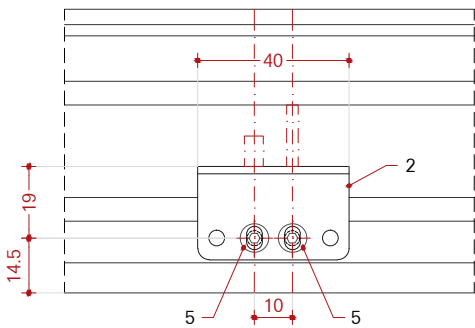


SECTION 1-1

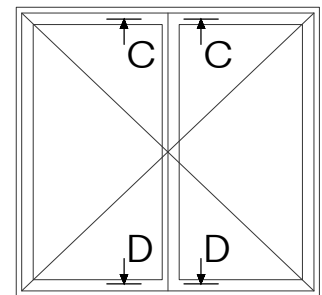
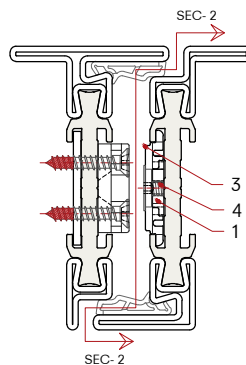


Double leaf window - Open in - Flush profiles - Right opening (Left opening is specular)

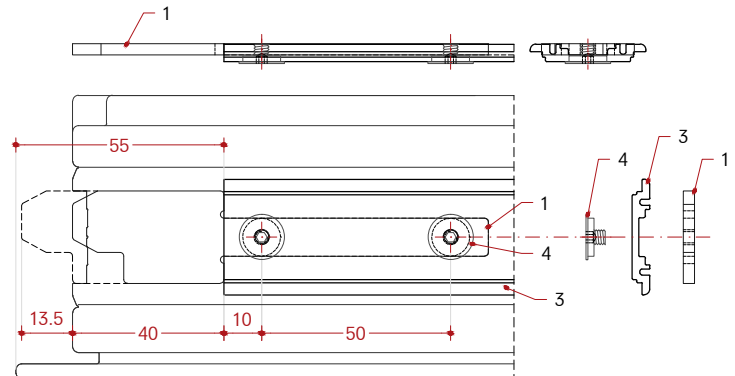
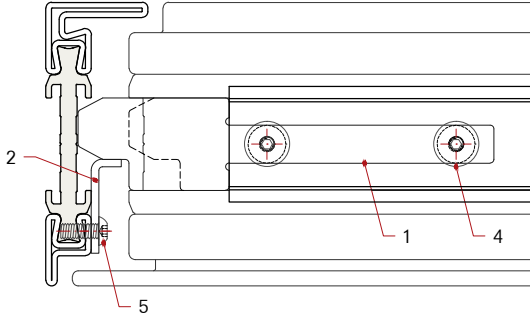
FOR GRAZ SECTION D-D & C-C(SPECULAR)



MONO INCLUDES ONLY SECTION C-C



SECTION 2-2



UPPER / LOWER SHOOT BOLT (OPEN IN ONLY)

Scale 1:2

- 1) Shoot bolt K99108
- 2) Strike plate (provided)
- 3) Aluminum rail E99383-53
- 4) Bush for shoot bolt (provided)
- 5) Fastening with M4x10 mm ISO7380 screws (not included)

Scala 1:2

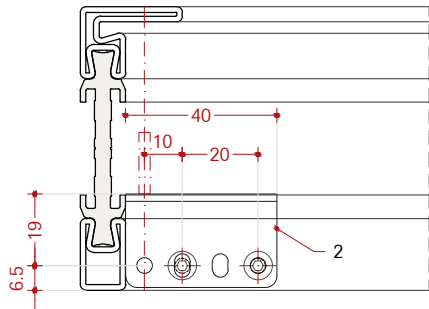
- 1) Puntale K99108
- 2) Riscontro (fornito)
- 3) Binario in alluminio E99383-53
- 4) Boccia fissaggio puntale (fornita)
- 5) Fissaggio con viti M4x10 mm ISO7380 (non fornite)

Escala 1:2

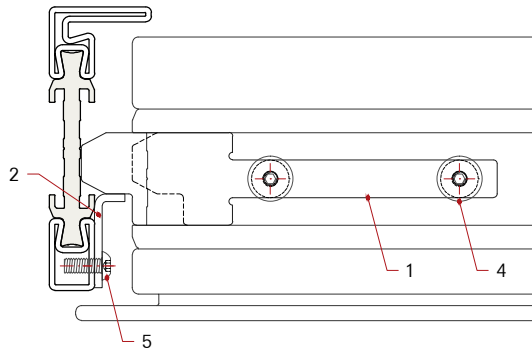
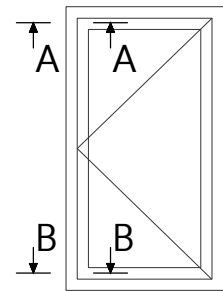
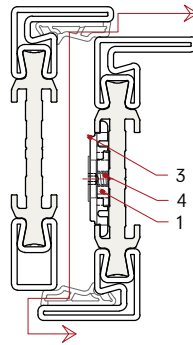
- 1) Pasador K99108
- 2) Chapa de cierre (provisto)
- 3) Carril de aluminio E99383-53
- 4) Casquillo para pasador (provisto)
- 5) Fijación con tornillos M4x10 mm ISO7380 (no provisto)

Single leaf window - Open in - Overlapped profiles - Right opening (Left opening is specular)

FOR GRAZ SECTION B-B & A-A(SPECULAR)

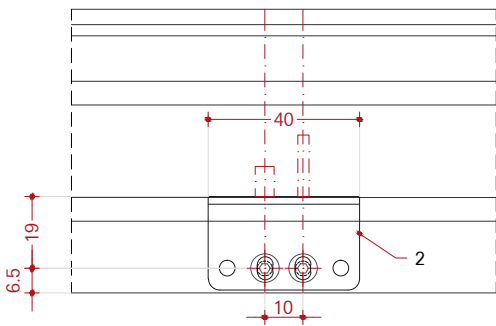


MONO INCLUDES ONLY SECTION A-A

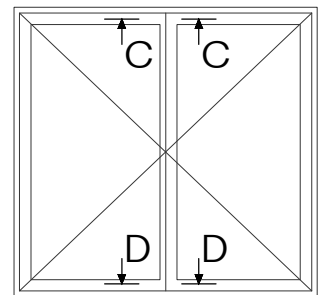
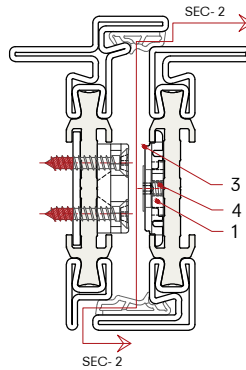


Double leaf window - Open in - Overlapped profiles - Right opening (Left opening is specular)

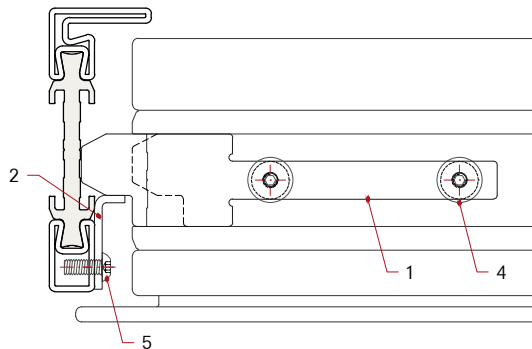
FOR GRAZ SECTION D-D & C-C(SPECULAR)



MONO INCLUDES ONLY SECTION C-C



SECTION 2:2



Scale 1:2

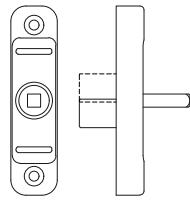
- 1) Shoot bolt K99108
- 2) Strike plate (provided)
- 3) Aluminum rail E99383-53
- 4) Bush for shoot bolt (provided)
- 5) Fastening with M4x10 mm ISO7380 screws (not included)

Scala 1:2

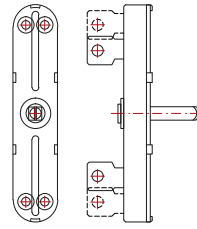
- 1) Puntale K99108
- 2) Riscontro (fornito)
- 3) Binario in alluminio E99383-53
- 4) Boccia fissaggio puntale (fornita)
- 5) Fissaggio con viti M4x10 mm ISO7380 (non fornite)

Escala 1:2

- 1) Pasador K99108
- 2) Chapa de cierre (provisto)
- 3) Carril de aluminio E99383-53
- 4) Casquillo para pasador (provisto)
- 5) Fijación con tornillos M4x10 mm ISO7380 (no provisto)

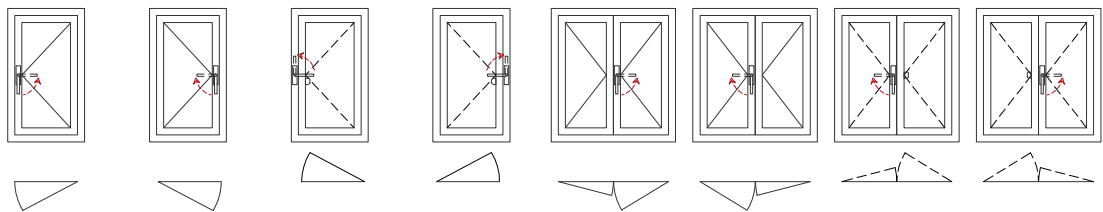


E99658-11

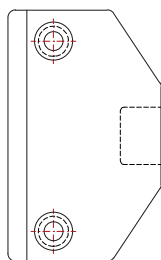


E99652-03  
E99653-03

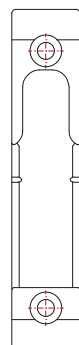
| GRAZ     |          |               |           |                                                |
|----------|----------|---------------|-----------|------------------------------------------------|
| opening  | leaves   | hand          | cremone   |                                                |
| Open in  | 1 Leaf   | Right opening | E99653-03 | standard installation                          |
| Open in  | 1 Leaf   | Left opening  | E99652-03 | standard installation                          |
| Open in  | 2 Leaves | Right opening | E99653-03 | standard installation                          |
| Open in  | 2 Leaves | Left opening  | E99652-03 | standard installation                          |
| Open out | 1 Leaf   | Right opening | E99653-03 | horizontal handle when closed                  |
| Open out | 1 Leaf   | Left opening  | E99652-03 | horizontal handle when closed                  |
| Open out | 2 Leaves | Right opening | E99652-03 | standard installation                          |
| Open out | 2 Leaves | Left opening  | E99653-03 | standard installation                          |
| MONO     |          |               |           |                                                |
| opening  | leaves   | hand          | cremone   |                                                |
| Open in  | 1 Leaf   | Right opening | E99658-11 | R as delivered - standard installation         |
| Open in  | 1 Leaf   | Left opening  | E99658-11 | switch R to L - standard installation          |
| Open in  | 2 Leaves | Right opening | E99658-11 | R as delivered - standard installation         |
| Open in  | 2 Leaves | Left opening  | E99658-11 | switch R to L - standard installation          |
| Open out | 1 Leaf   | Right opening | E99658-11 | R as delivered - horizontal handle when closed |
| Open out | 1 Leaf   | Left opening  | E99658-11 | switch R to L - horizontal handle when closed  |
| Open out | 2 Leaves | Right opening | E99658-11 | switch R to L - standard installation          |
| Open out | 2 Leaves | Left opening  | E99658-11 | R as delivered - standard installation         |



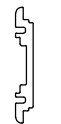
|               |   |   |   |   |   |   |   |
|---------------|---|---|---|---|---|---|---|
| E99652-03 (L) |   | ○ |   | ○ |   | ○ | ○ |
| E99653-03 (R) | ○ |   | ○ |   | ○ |   | ○ |
| E99658-11 (R) |   | ○ |   | ○ |   | ○ | ○ |
| E99658-11 (L) | ○ |   | ○ |   | ○ |   | ○ |



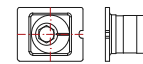
E99391-87



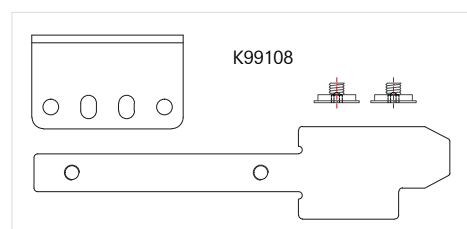
E99389-11



E99383-53



E99397-03



K99108

**Multipoint aluminum rods  
installation,  
with lever handle**

**Montaggio Multipoint  
aste in alluminio,  
con cariglione**

**Montaje Multipoint  
varillas de aluminio,  
con manija de bloqueo**

5.7

**Legend**

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:2 - 1:4

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:2 - 1:4

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:2 - 1:4

**Multipoint aluminum rods installation with lever handle**

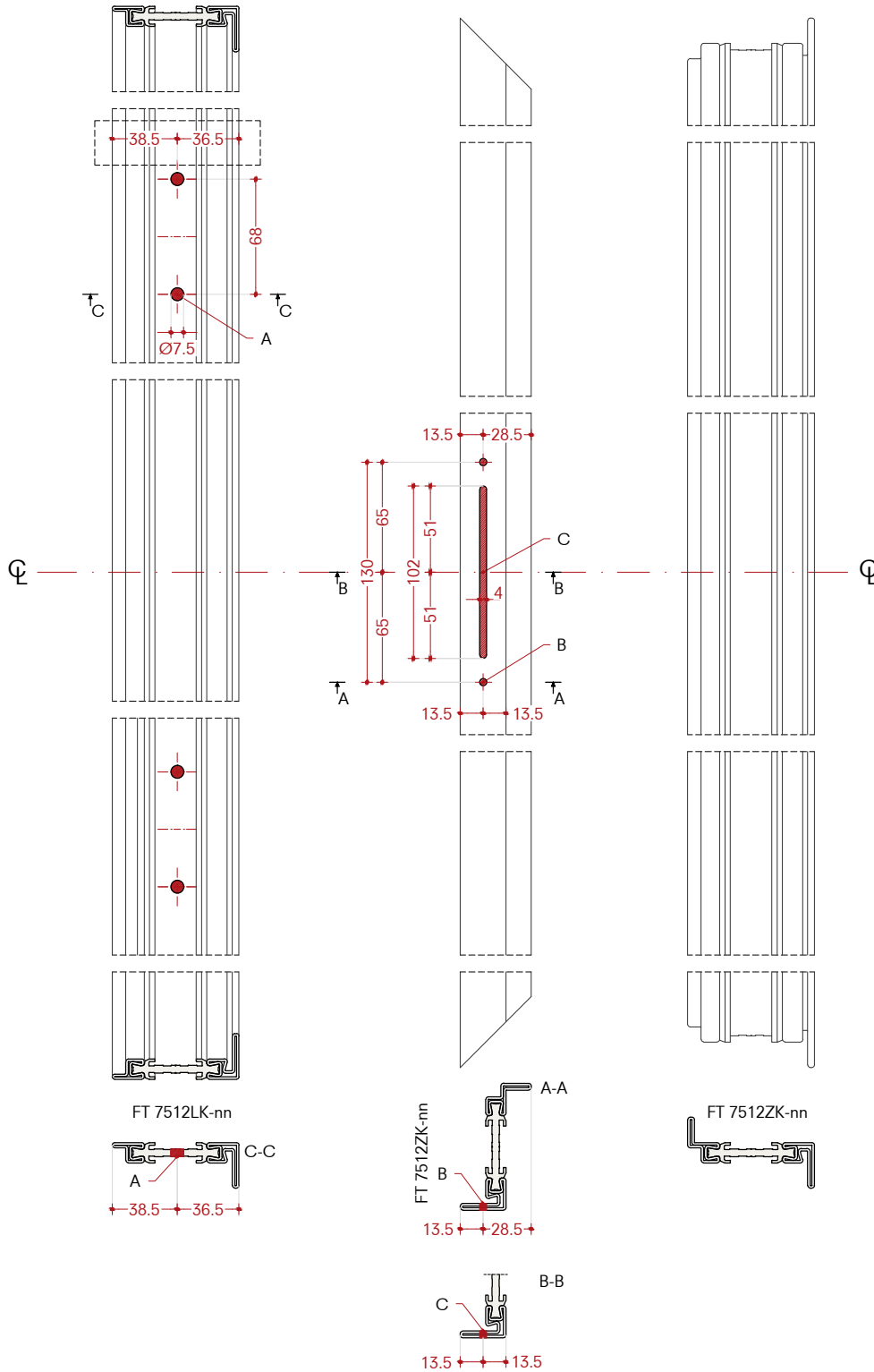
Single leaf window  
Open in - Right opening  
(left opening is the mirror image)  
Flush profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra ad anta singola  
Apertura interna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili complanari

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

Ventana de una hoja  
Que se abre hacia dentro - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles coplanarios

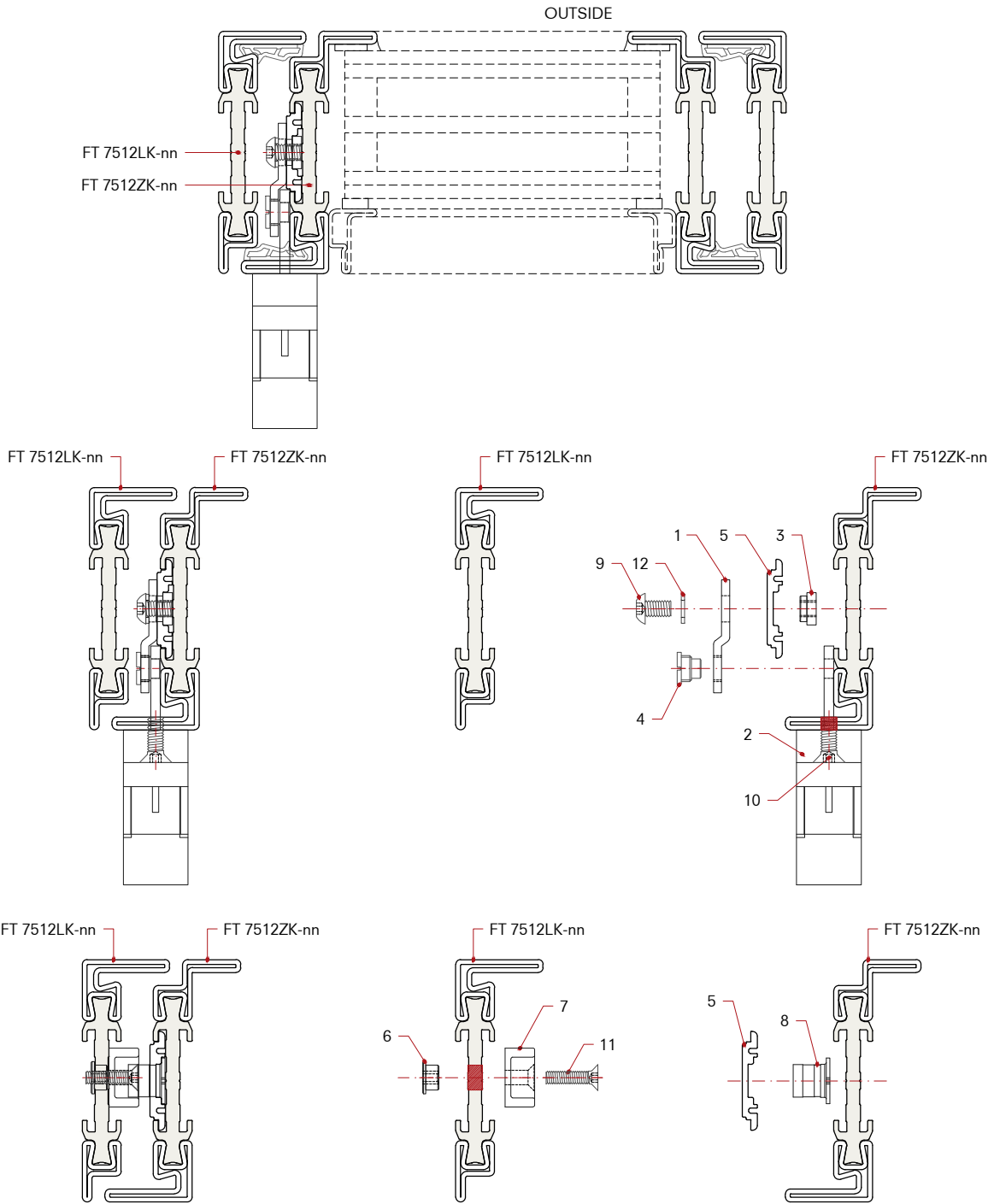


Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm

Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm

Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm





Scale 1:2

- 1) Cremona gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)

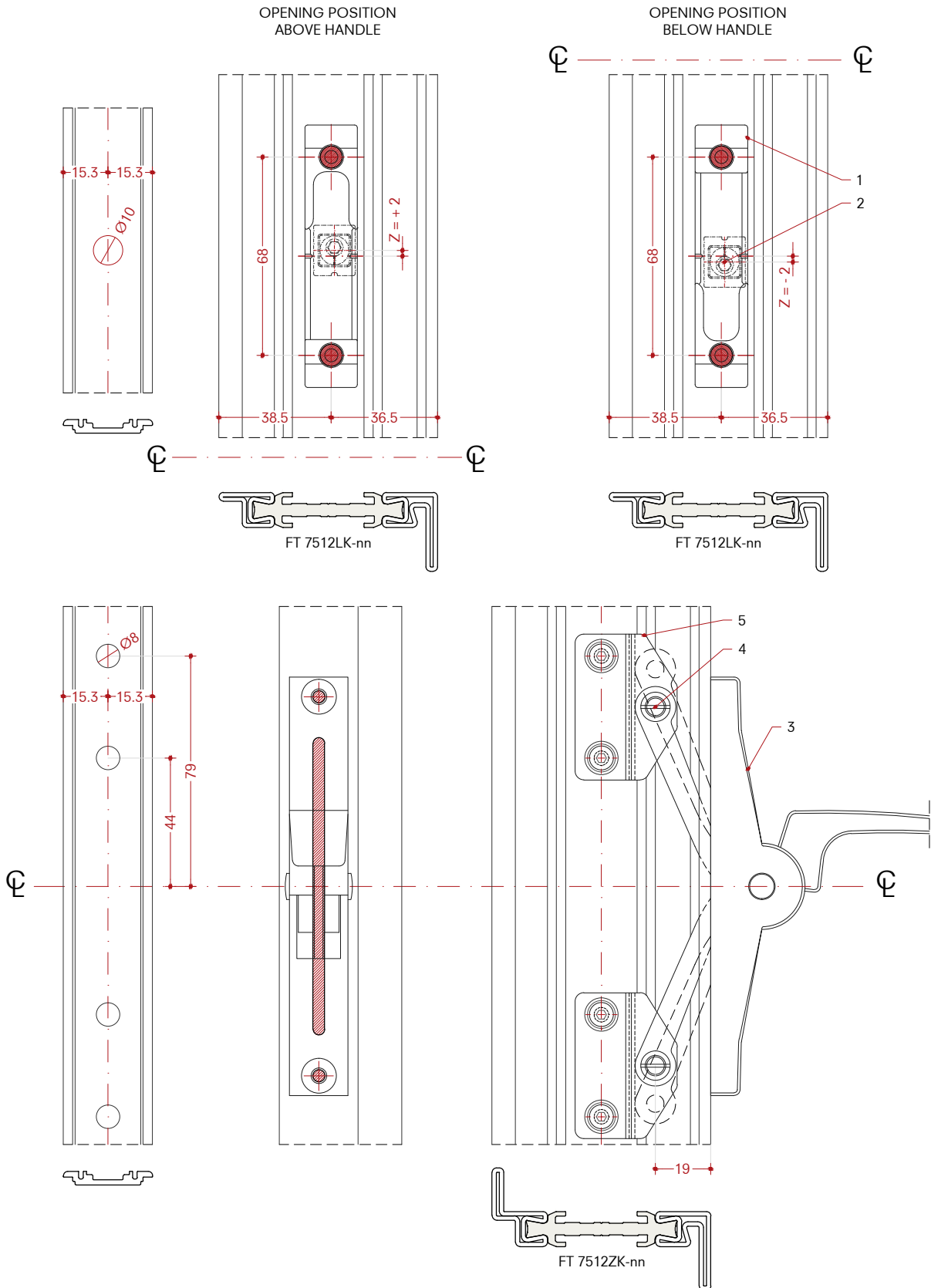
Scala 1:2

- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccia D99709-02
- 4) Boccia D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccia in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)

Montaggio Multipoint aste in alluminio, con cariglione  
 Montaje Multipoint varillas de aluminio, con manija de bloqueo



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**

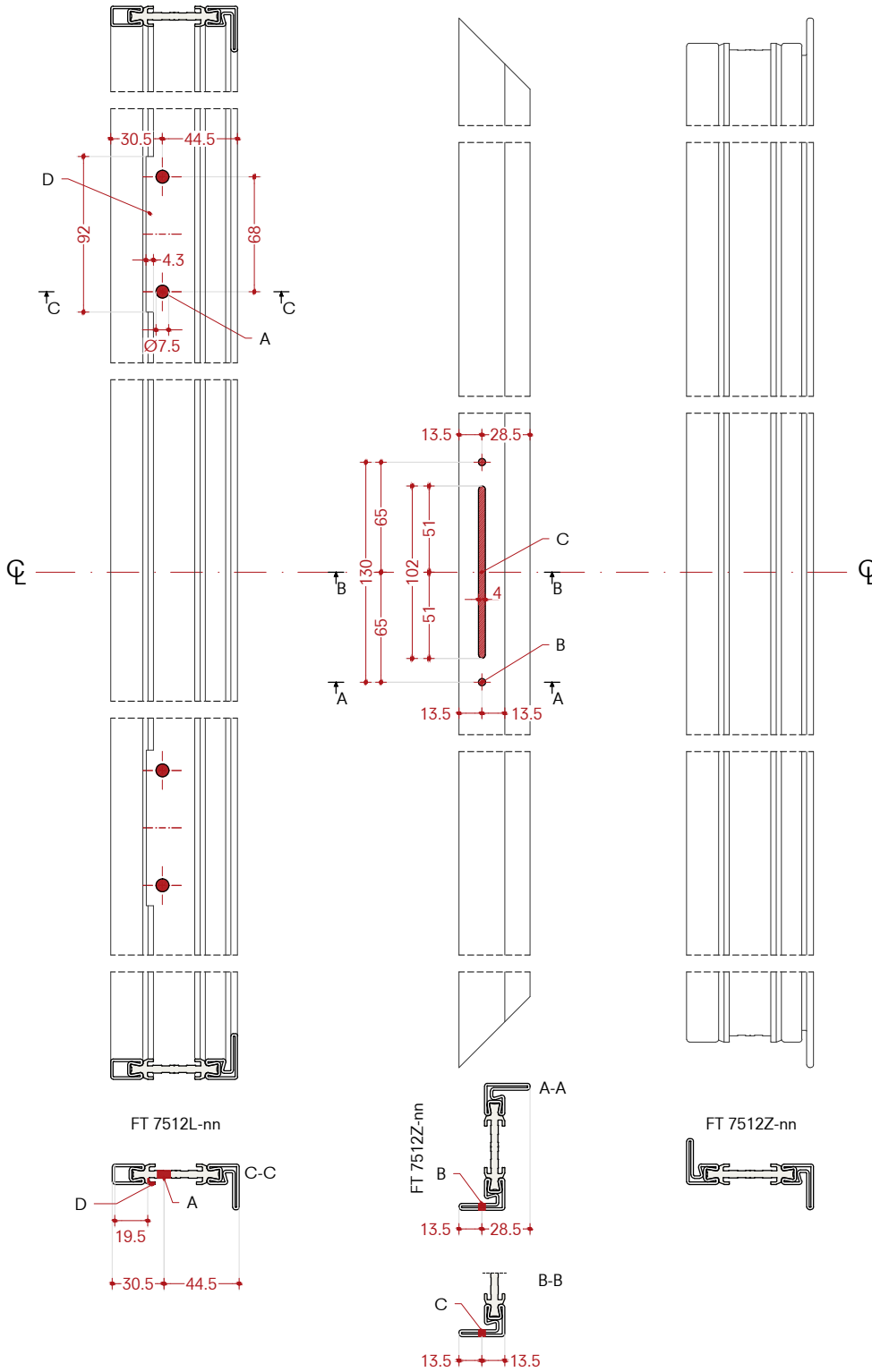
Single leaf window  
Open in - Right opening  
(left opening is the mirror image)  
Overlapped profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra ad anta singola  
Apertura interna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili a sormonto

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

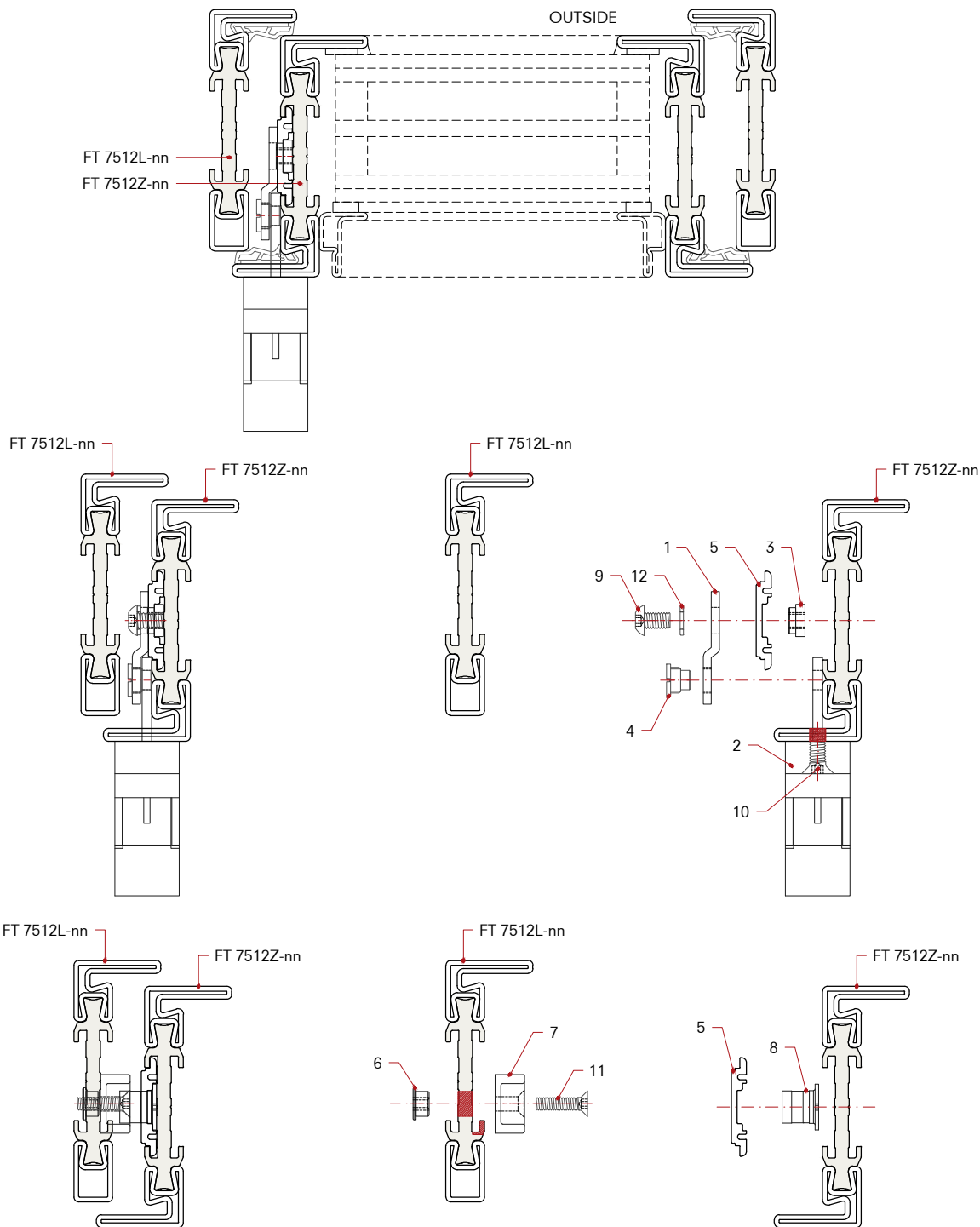
Ventana de una hoja  
Que se abre hacia dentro - Apertura derecha  
(la apertura izquierda es la imagen especular)  
Perfiles superpuestos



Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5  
C) Cut out 102x4 mm  
D) Cut out 92x4 mm

Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm  
D) Fresatura 92x4 mm

Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm  
D) Fresado 92x4 mm



Scale 1:2

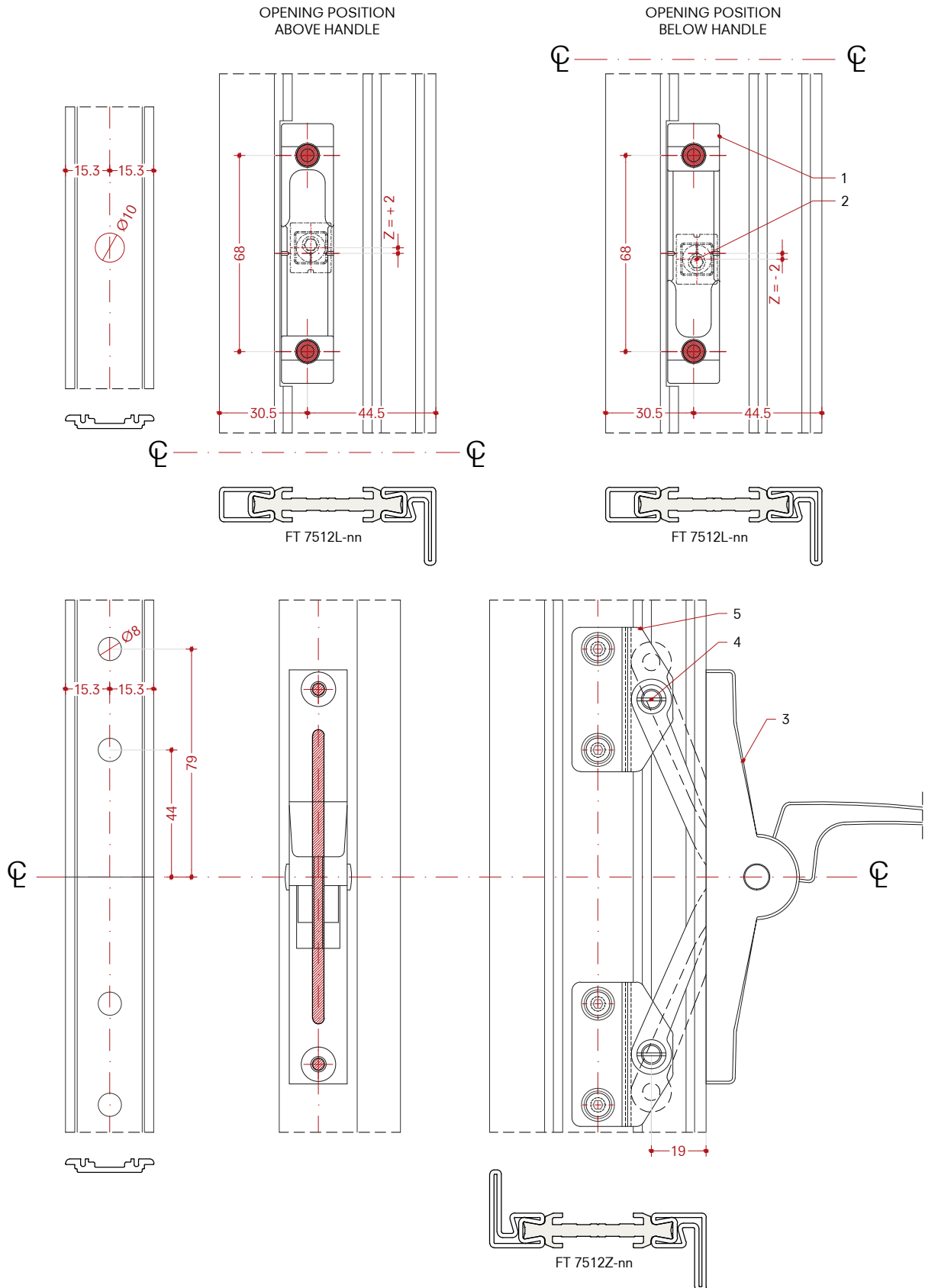
- 1) Cremona gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)

Scala 1:2

- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccia D99709-02
- 4) Boccia D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccia in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**

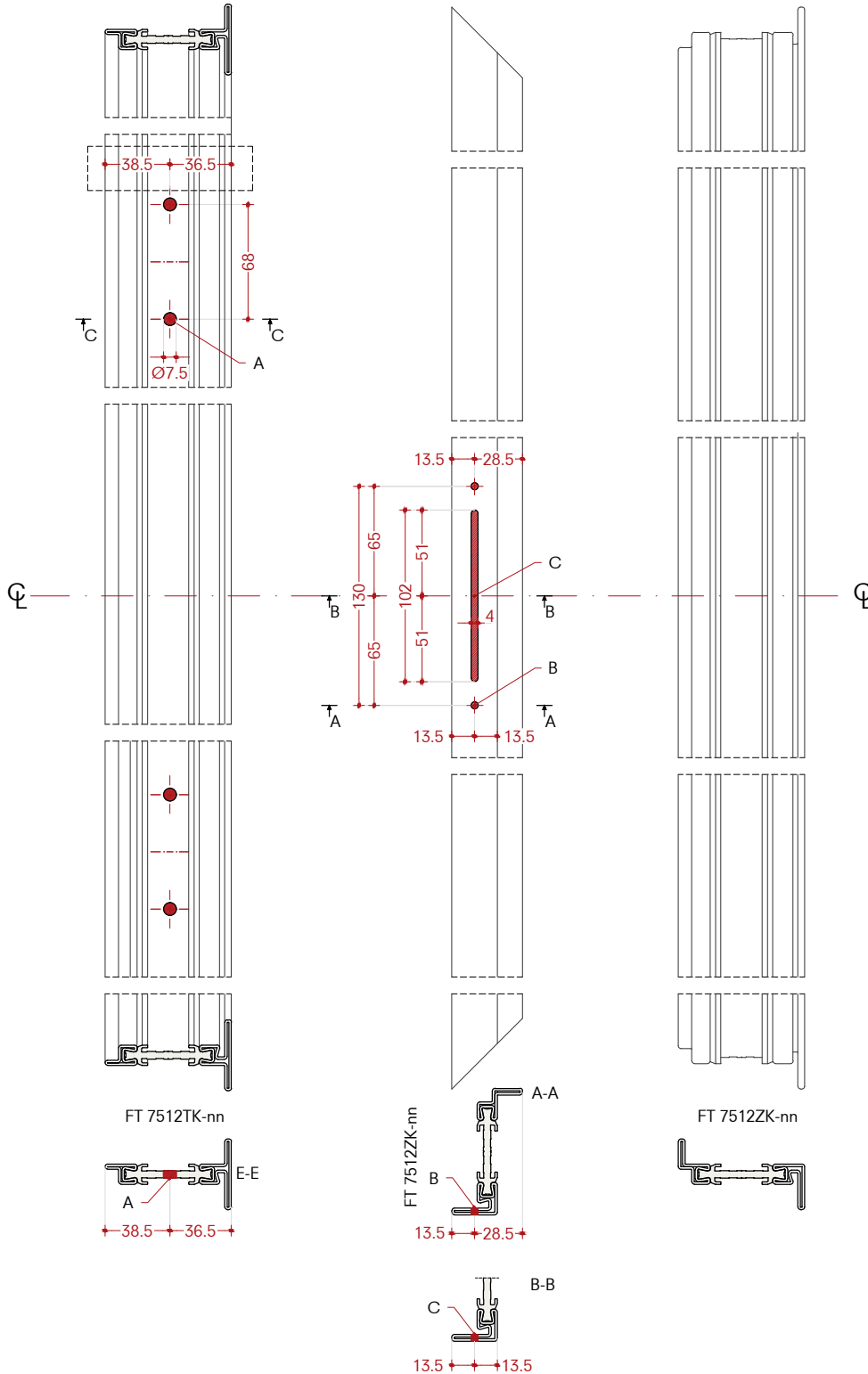
Double leaf window  
Open in - Right opening  
(left opening is the mirror image)  
Flush profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra a due battenti  
Apertura interna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili complanari

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

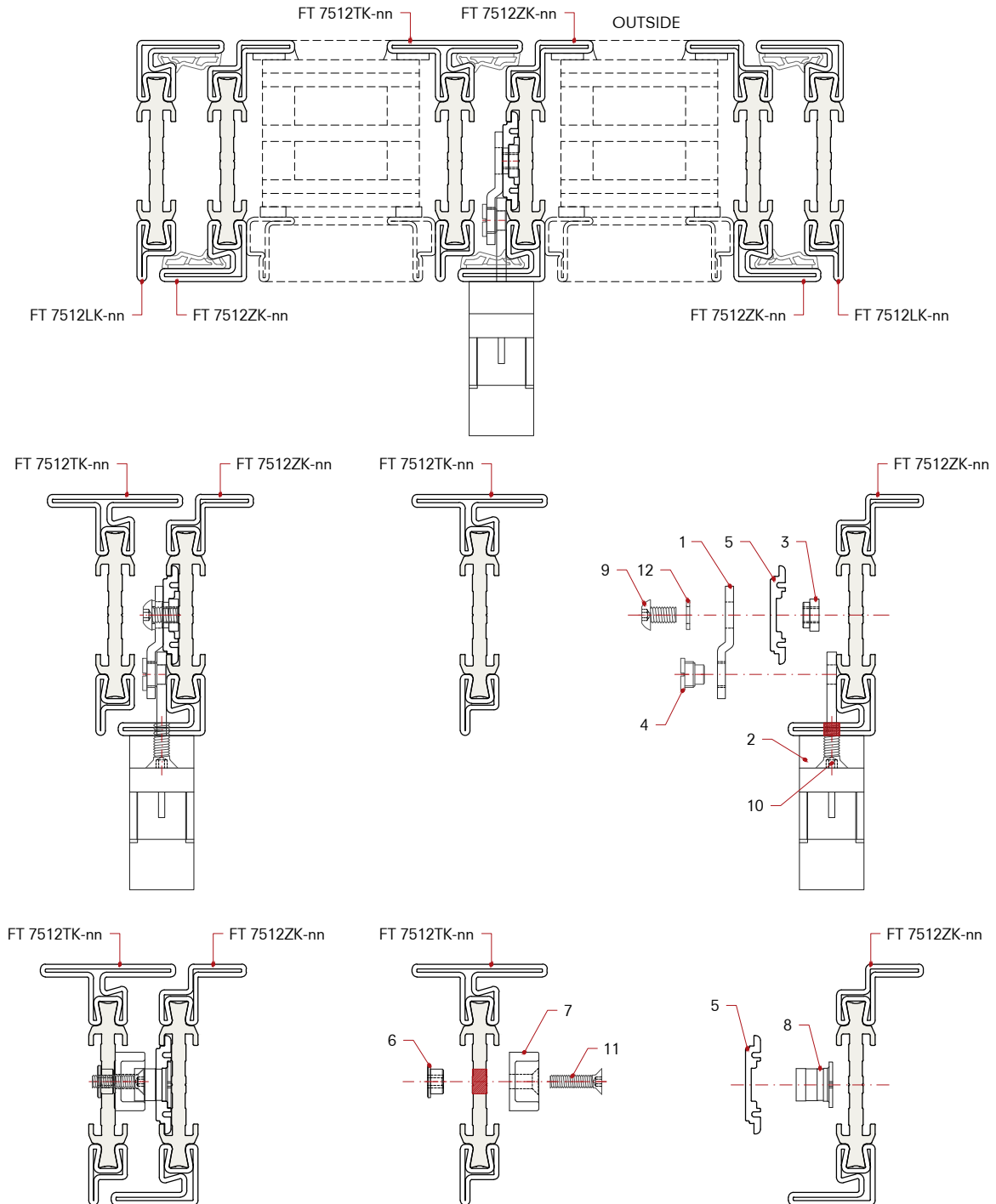
Ventana de dos hojas  
Que se abre hacia dentro - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles coplanarios



Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm

Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm

Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm



Scale 1:2

- 1) Cremone gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)

Scala 1:2

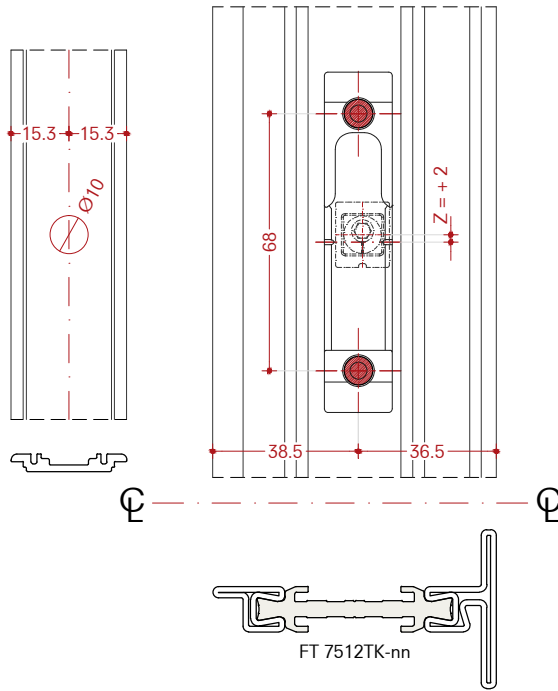
- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccia D99709-02
- 4) Boccia D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccia in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)

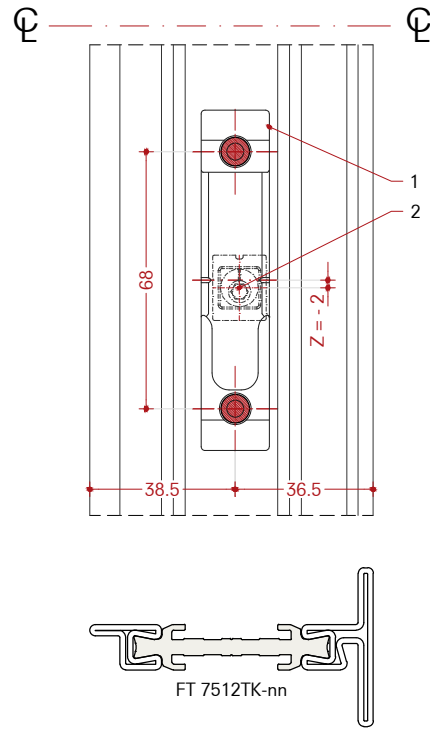
Montaggio Multipoint aste in alluminio, con cariglione  
 Montaje Multipoint varillas de aluminio, con manija de bloqueo

OPENING POSITION  
 ABOVE HANDLE

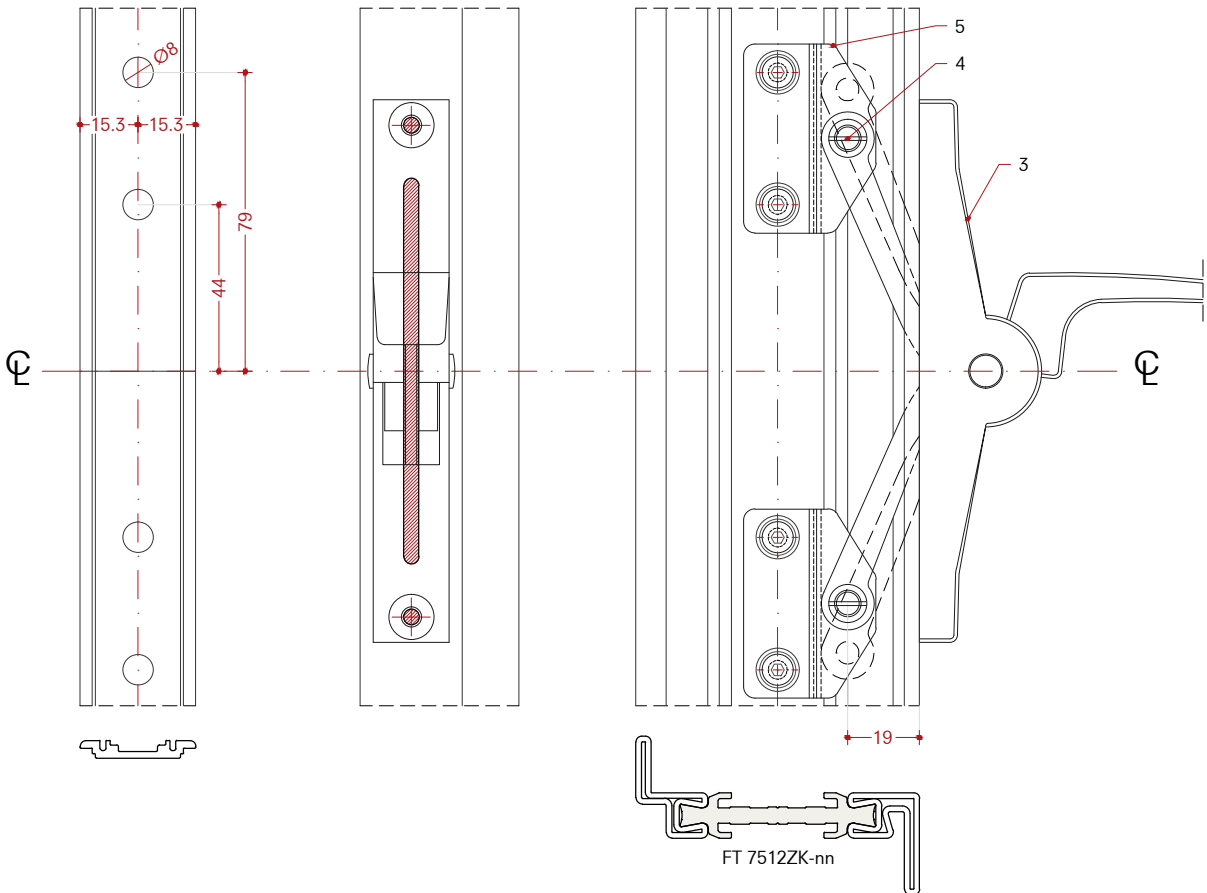


FT 7512TK-nn

OPENING POSITION  
 BELOW HANDLE



FT 7512TK-nn



FT 7512ZK-nn

Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02



**Multipoint aluminum rods installation with lever handle**

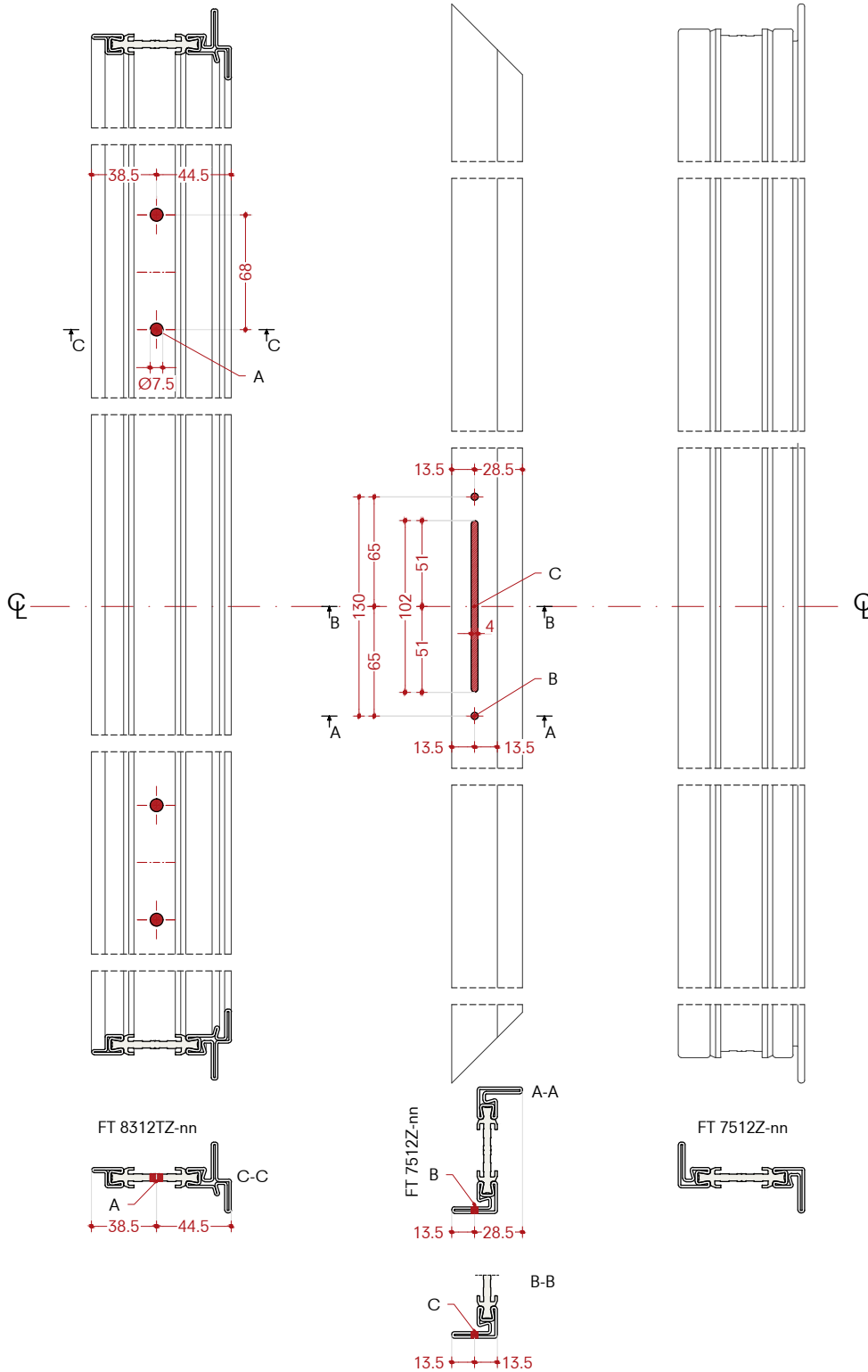
Double leaf window  
Open in - Right opening  
(left opening is the mirror image)  
Overlapped profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra a due battenti  
Apertura interna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili a sormonto

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

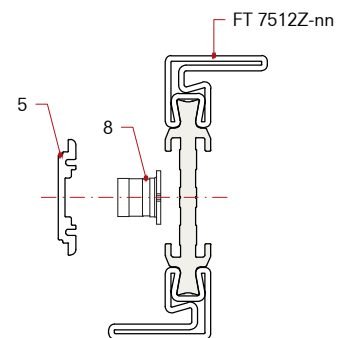
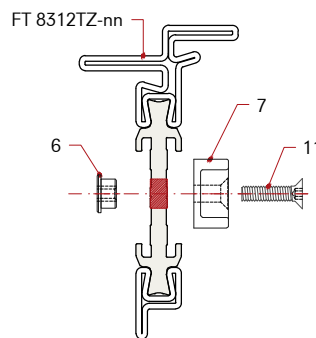
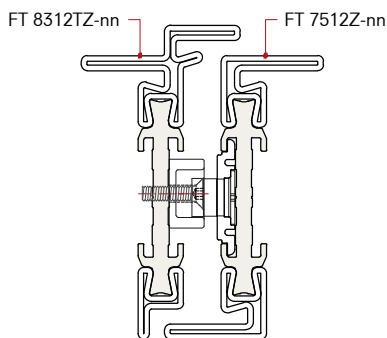
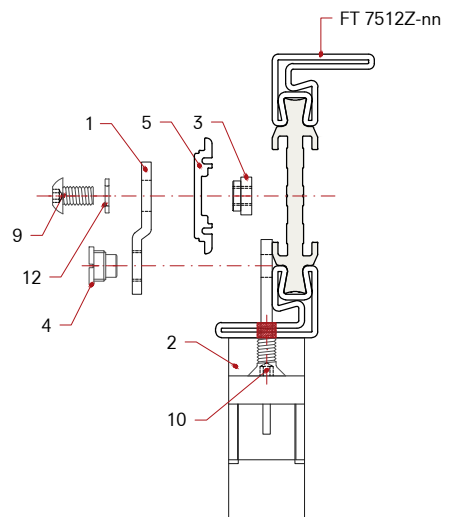
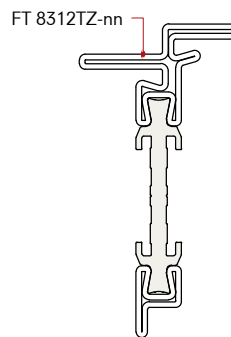
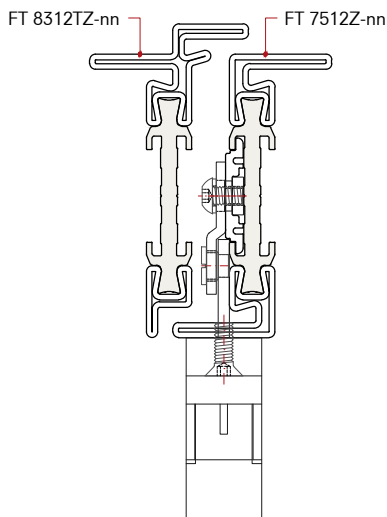
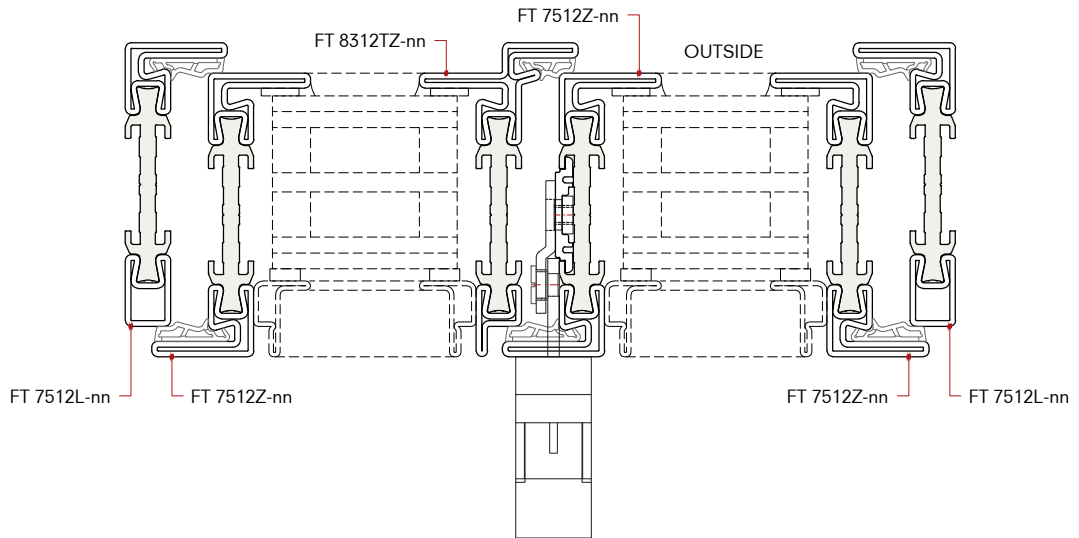
Ventana de dos hojas  
Que se abre hacia dentro - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles superpuestos



Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm

Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm

Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm



Scale 1:2

- 1) Cremone gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)

Scala 1:2

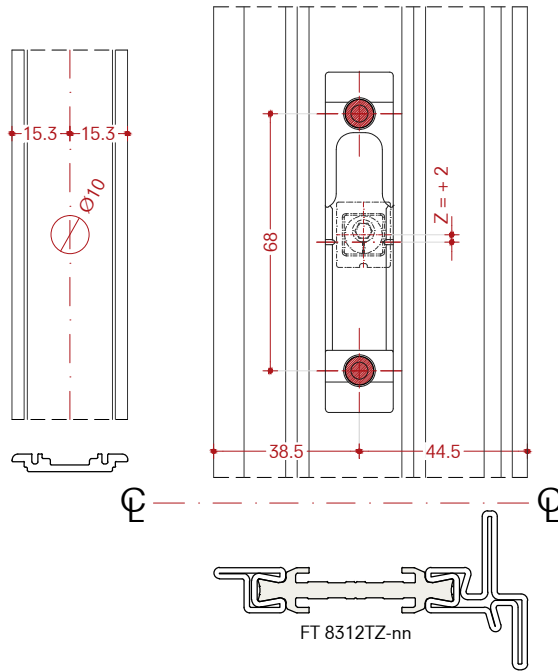
- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccia D99709-02
- 4) Boccia D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccia in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)

Escala 1:2

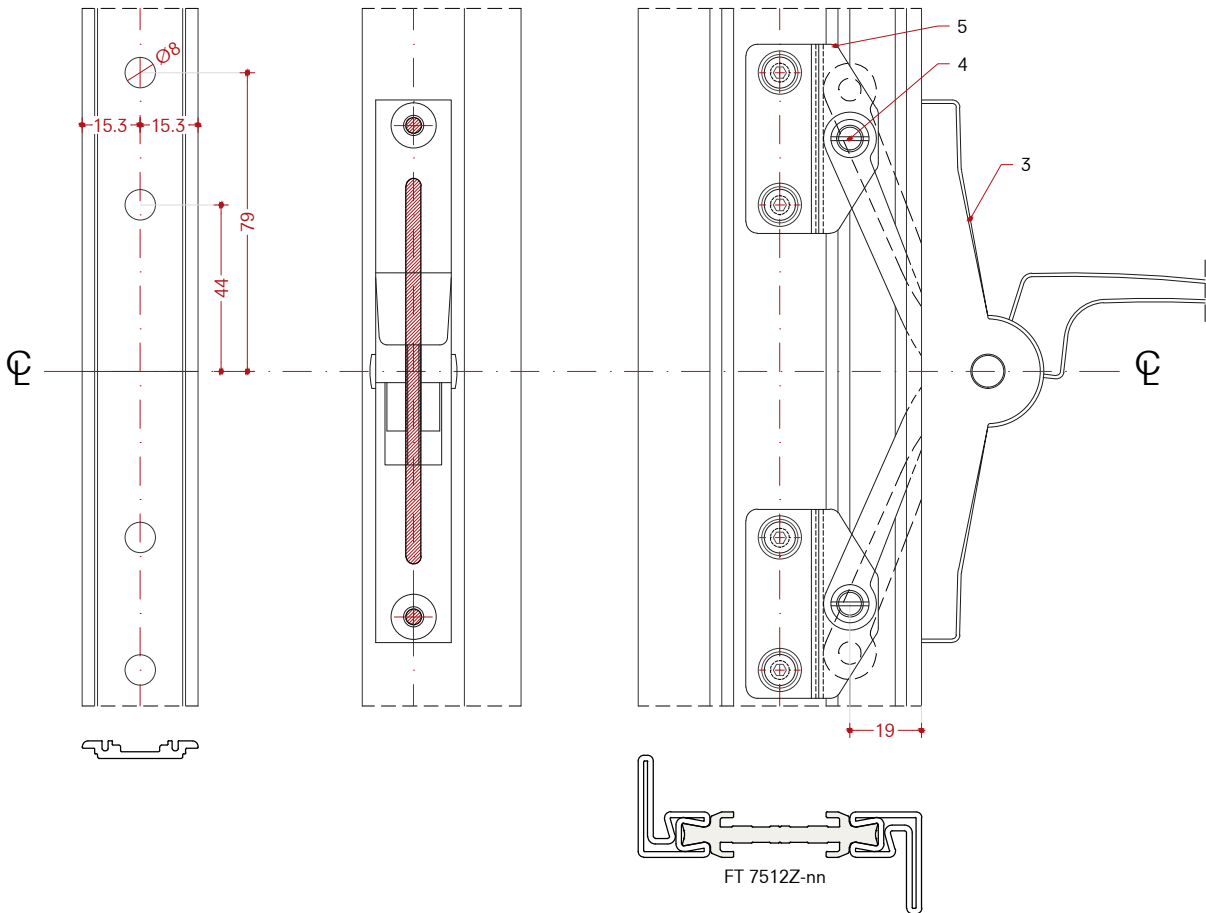
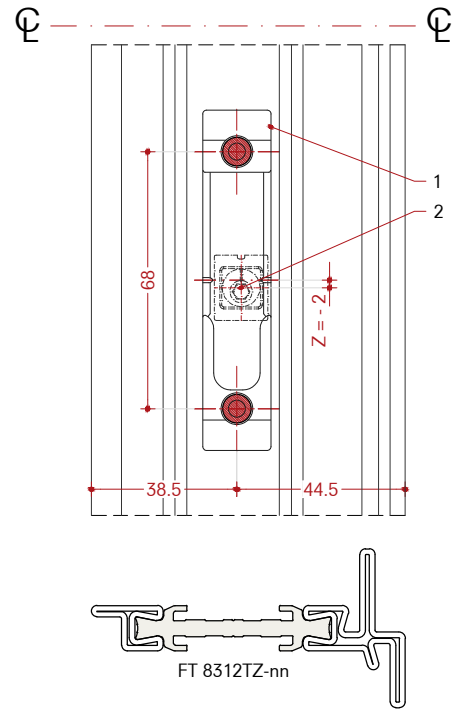
- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)

Montaggio Multipoint aste in alluminio, con cariglione  
 Montaje Multipoint varillas de aluminio, con manija de bloqueo

OPENING POSITION  
 ABOVE HANDLE



OPENING POSITION  
 BELOW HANDLE



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**

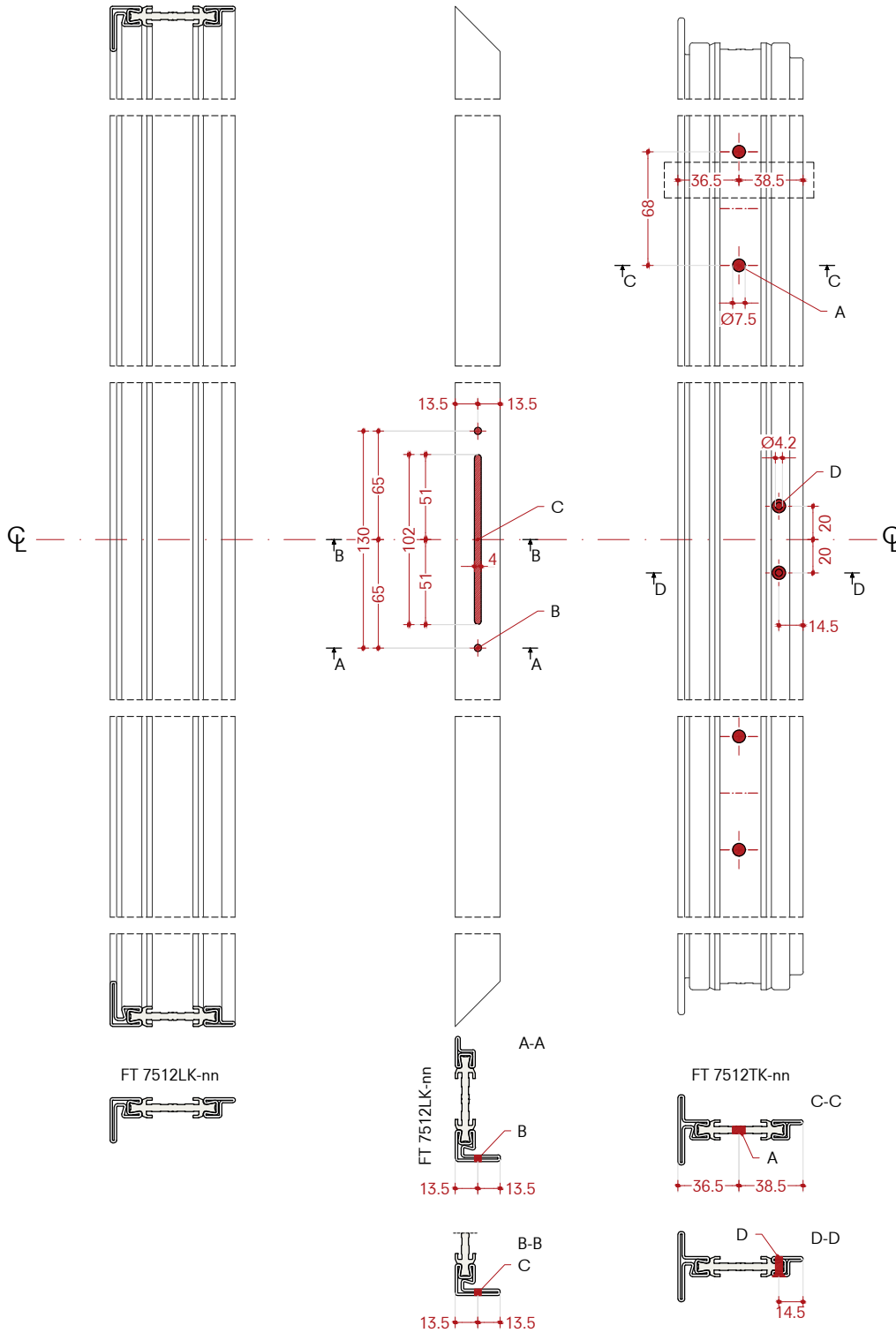
Single leaf window  
Open out - Right opening  
(left opening is the mirror image)  
Flush profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra ad anta singola  
Apertura esterna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili complanari

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

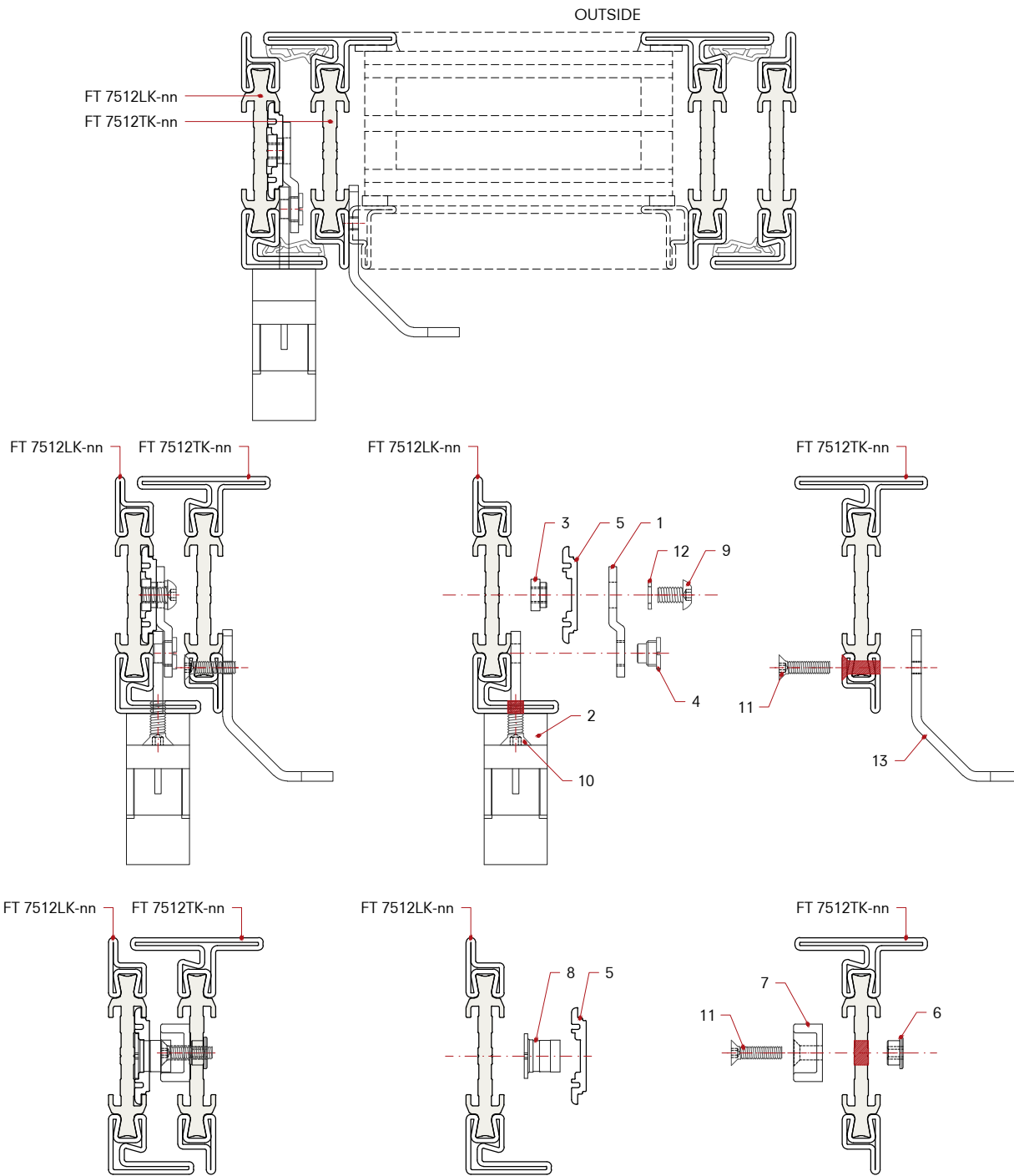
Ventana de una hoja  
Que se abre hacia fuera - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles coplanarios



- Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm  
D) Ø4.2 mm countersunk threaded M5 holes

- Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm  
D) Fori svasati Ø4.2 mm filettati M5

- Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm  
D) Orificios avellanados Ø4.2 mm roscados M5



Scale 1:2

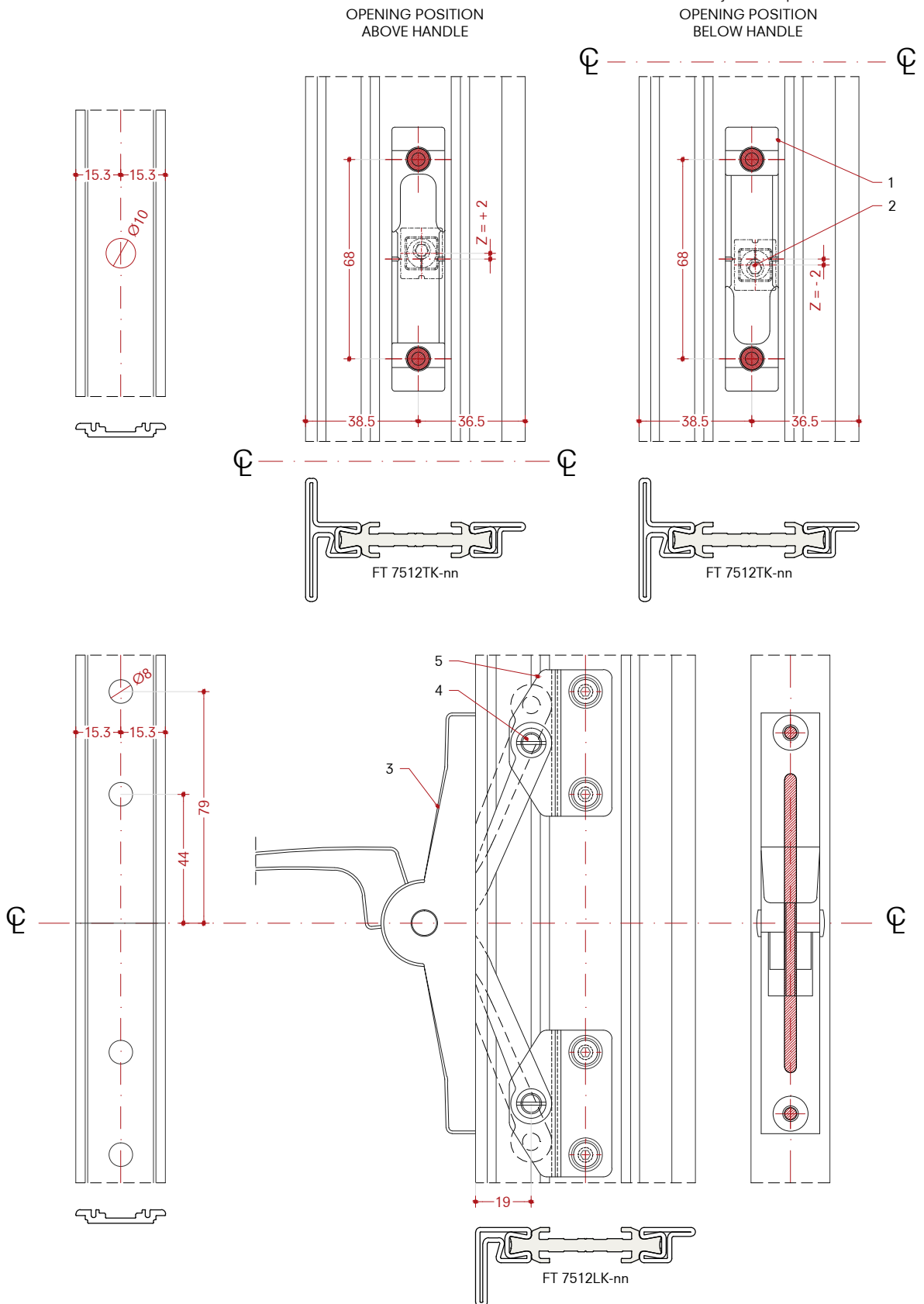
- 1) Cremone gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)
- 13) Handle H99020-nn

Scala 1:2

- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccia D99709-02
- 4) Boccia D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccia in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)
- 13) Manija H99020-nn



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**

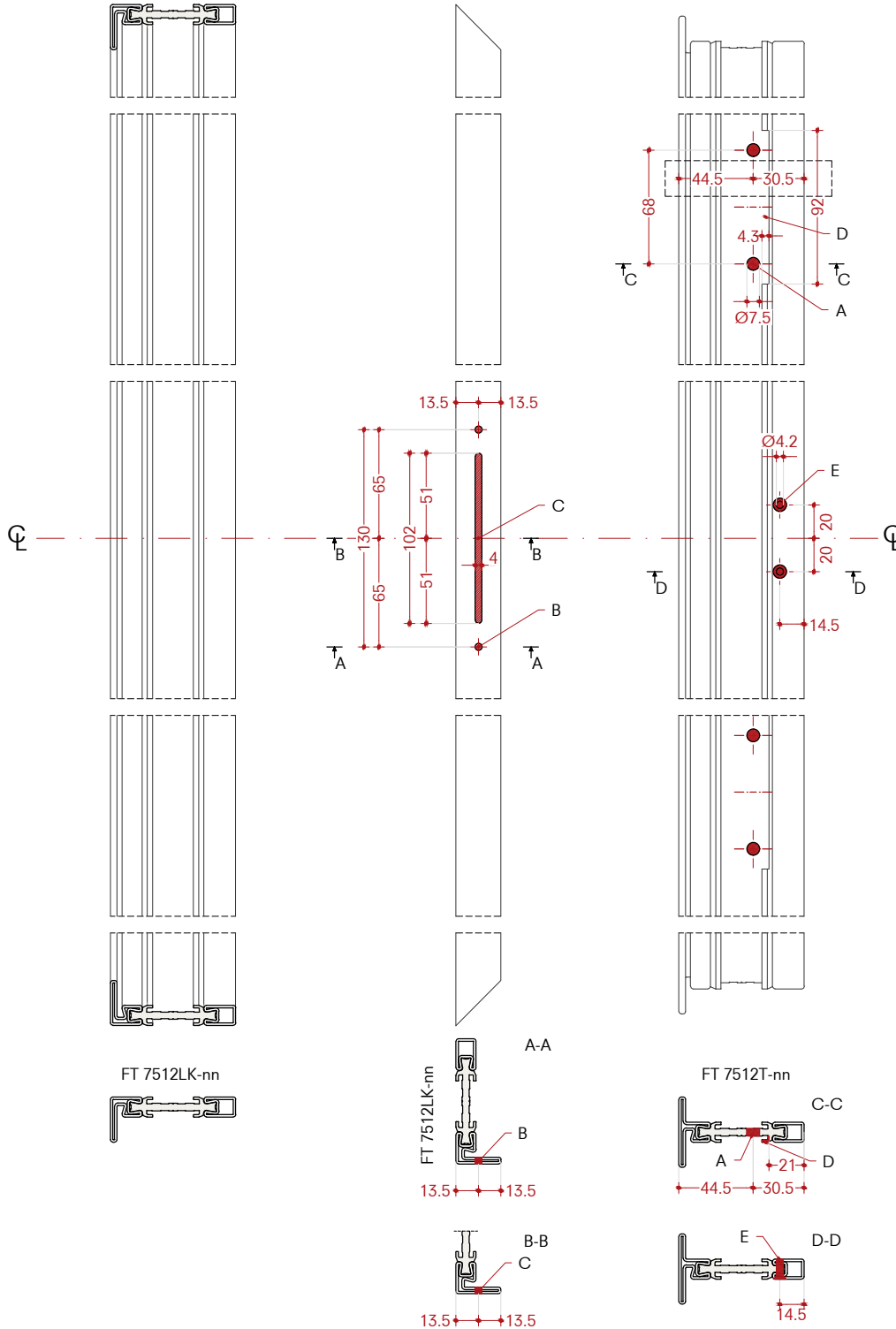
Single leaf window  
Open out - Right opening  
(left opening is the mirror image)  
Overlapped profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra ad anta singola  
Apertura esterna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili a sormonto

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

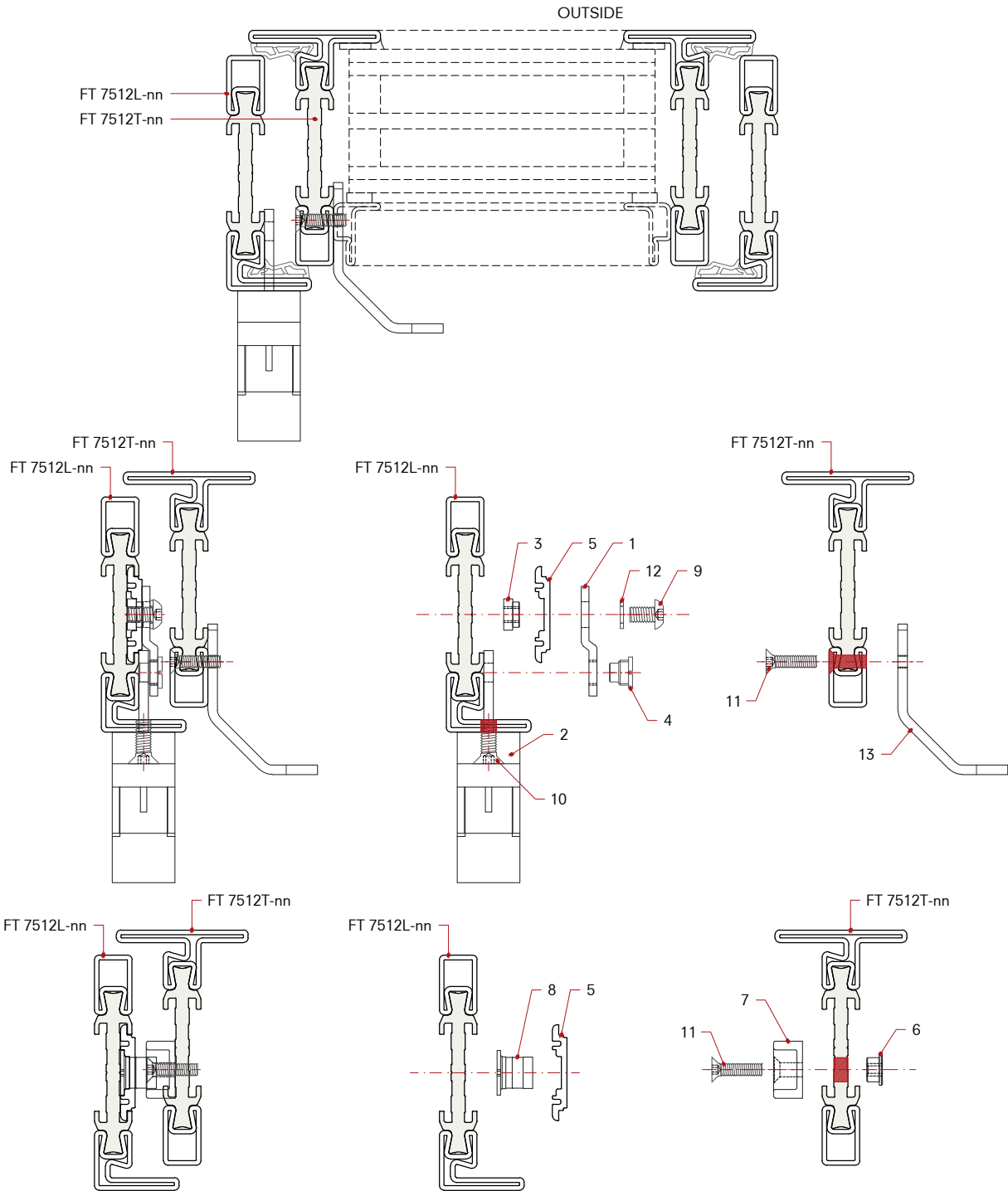
Ventana de una hoja  
Que se abre hacia fuera - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles superpuestos



- Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm  
D) Cut out 92x4 mm  
E) Ø4.2 mm countersunk threaded M5 holes

- Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm  
D) Fresatura 92x4 mm  
E) Fori svasati Ø4.2 mm filettati M5

- Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm  
D) Fresado 92x4 mm  
E) Orificios avellanados Ø4.2 mm roscados M5



Scale 1:2

- 1) Cremone gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)
- 13) Handle H99020-nn

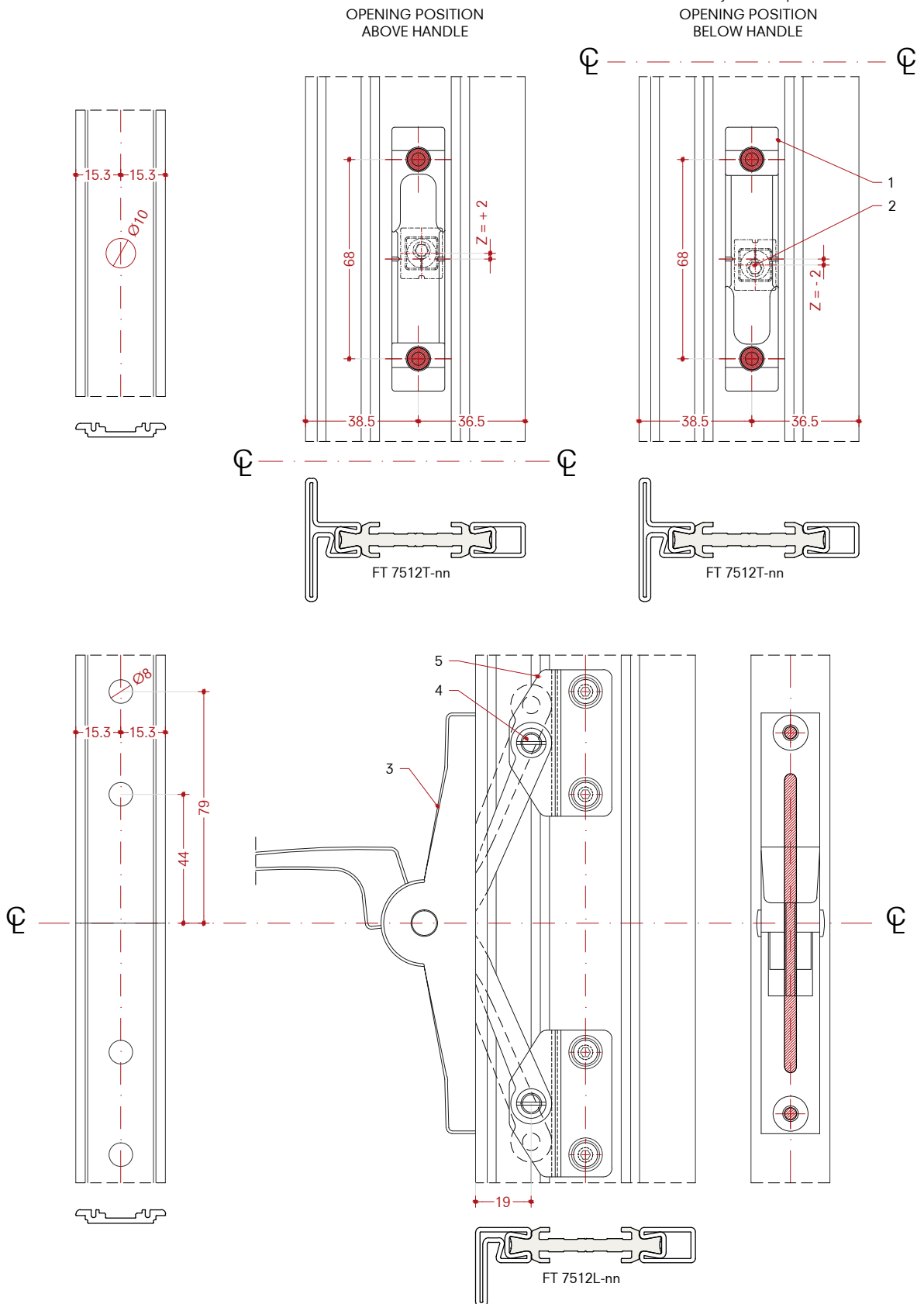
Scala 1:2

- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccia D99709-02
- 4) Boccia D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccia in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)
- 13) Manija H99020-nn





Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**

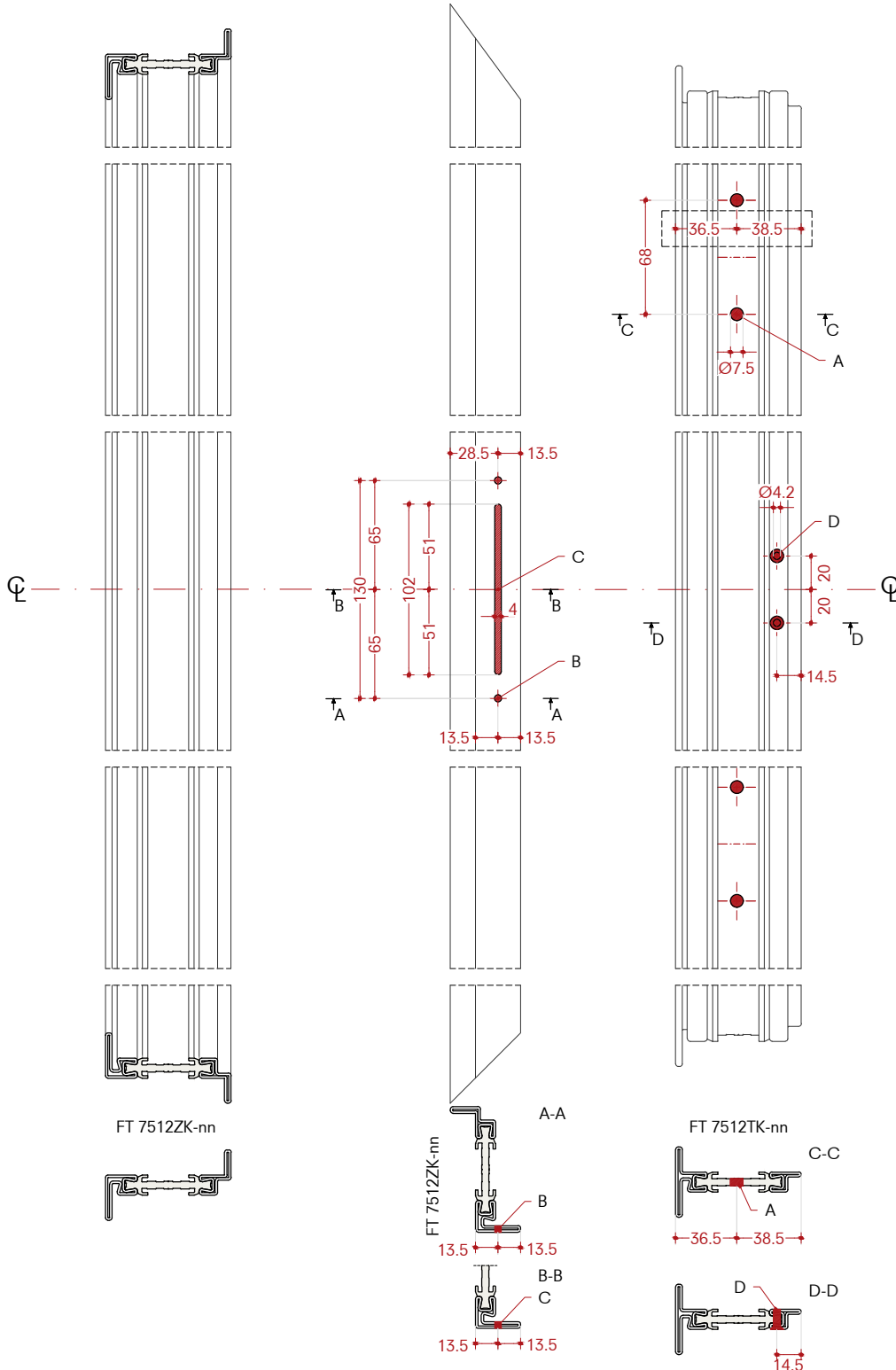
Double leaf window  
Open out - Right opening  
(left opening is the mirror image)  
Flush profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra a due battenti  
Apertura esterna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili complanari

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

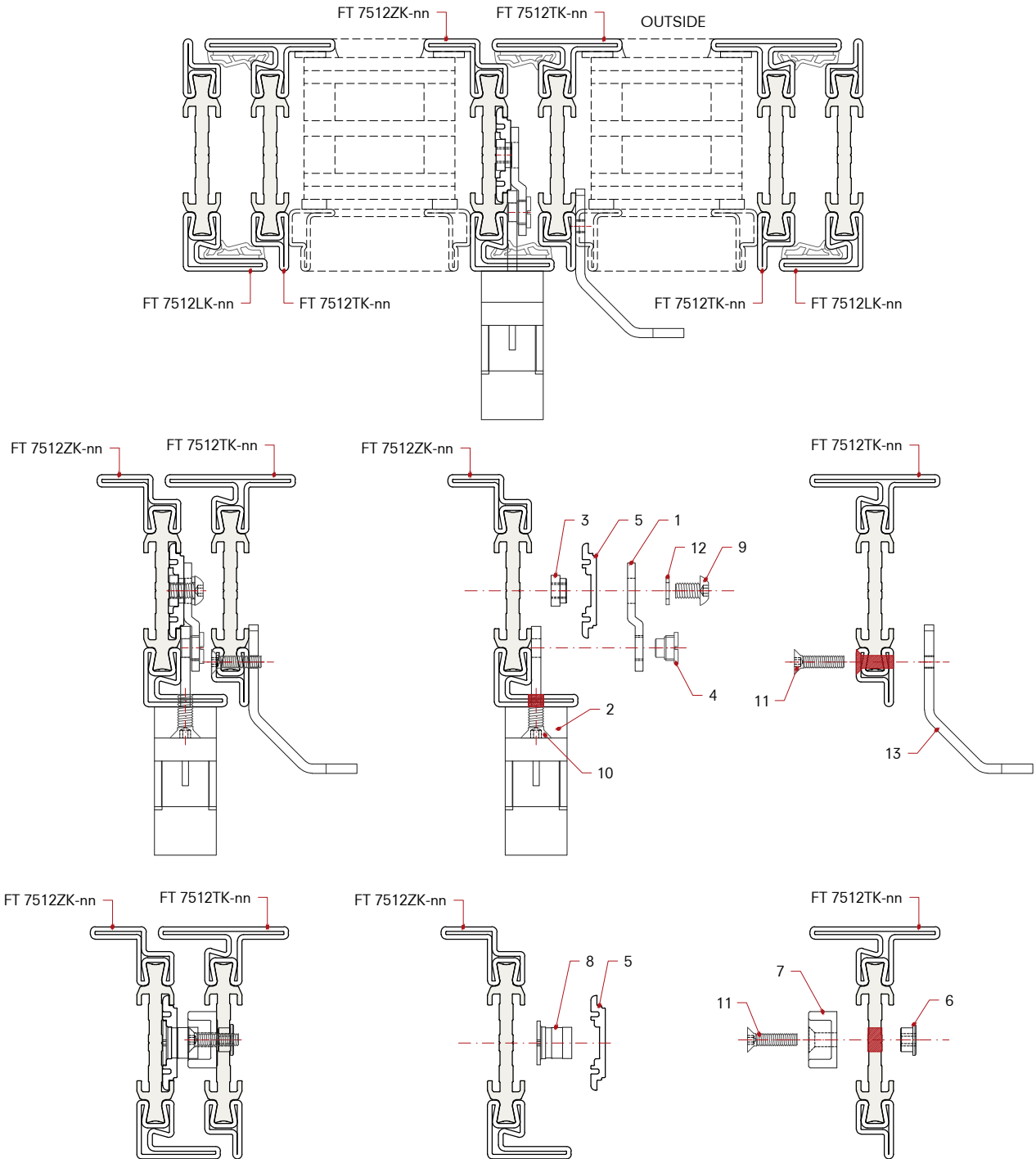
Ventana de dos hojas  
Que se abre hacia fuera - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles coplanarios



- Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm  
D) Ø4.2 mm countersunk threaded M5 holes

- Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm  
D) Fori svasati Ø4.2 mm filettati M5

- Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm  
D) Orificios avellanados Ø4.2 mm roscados M5



Scale 1:2

- 1) Cremone gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)
- 13) Handle H99020-nn

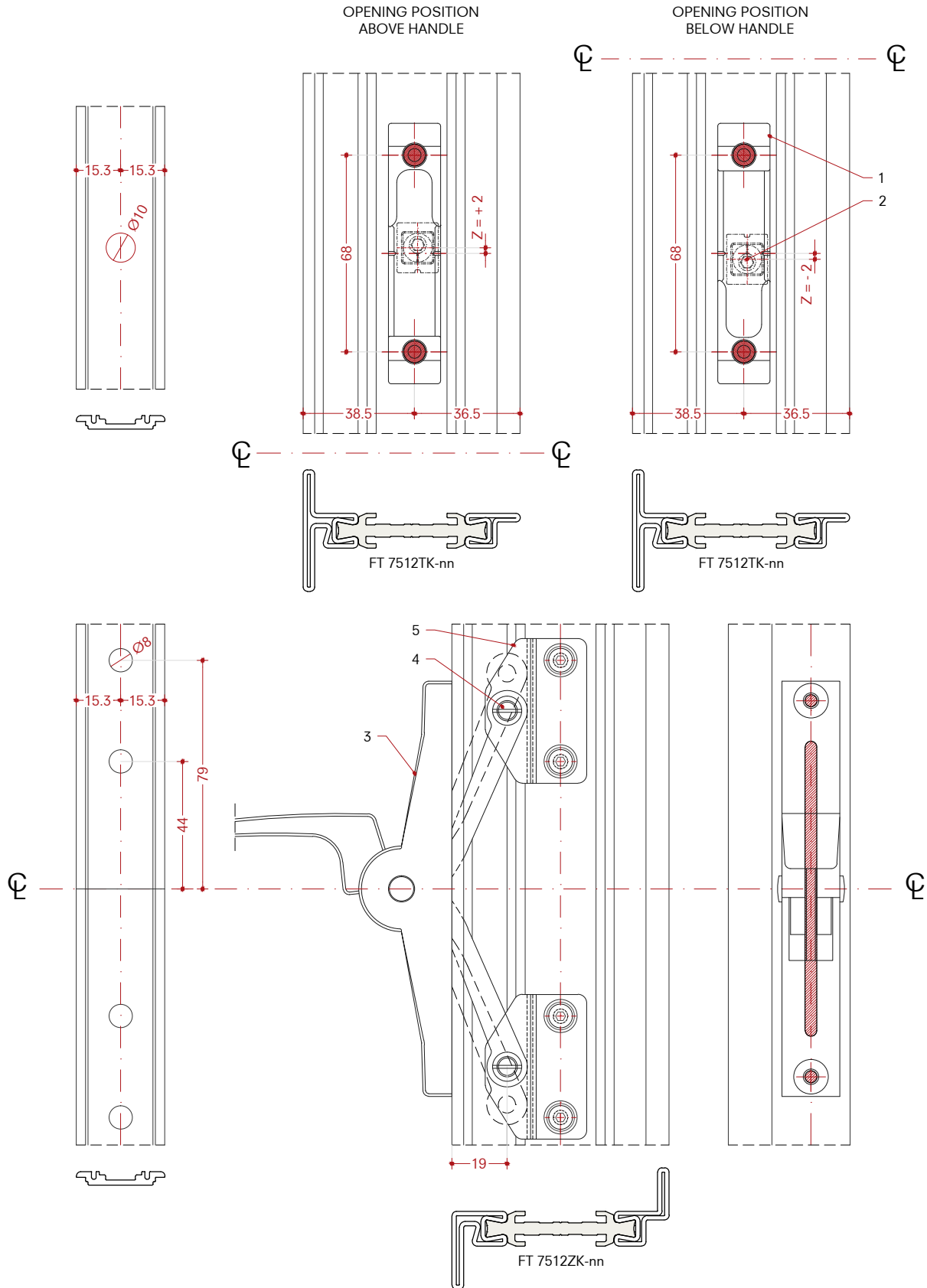
Scala 1:2

- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccola D99709-02
- 4) Boccola D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccola in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)
- 13) Manija H99020-nn

Montaggio Multipoint aste in alluminio, con cariglione  
 Montaje Multipoint varillas de aluminio, con manija de bloqueo



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**

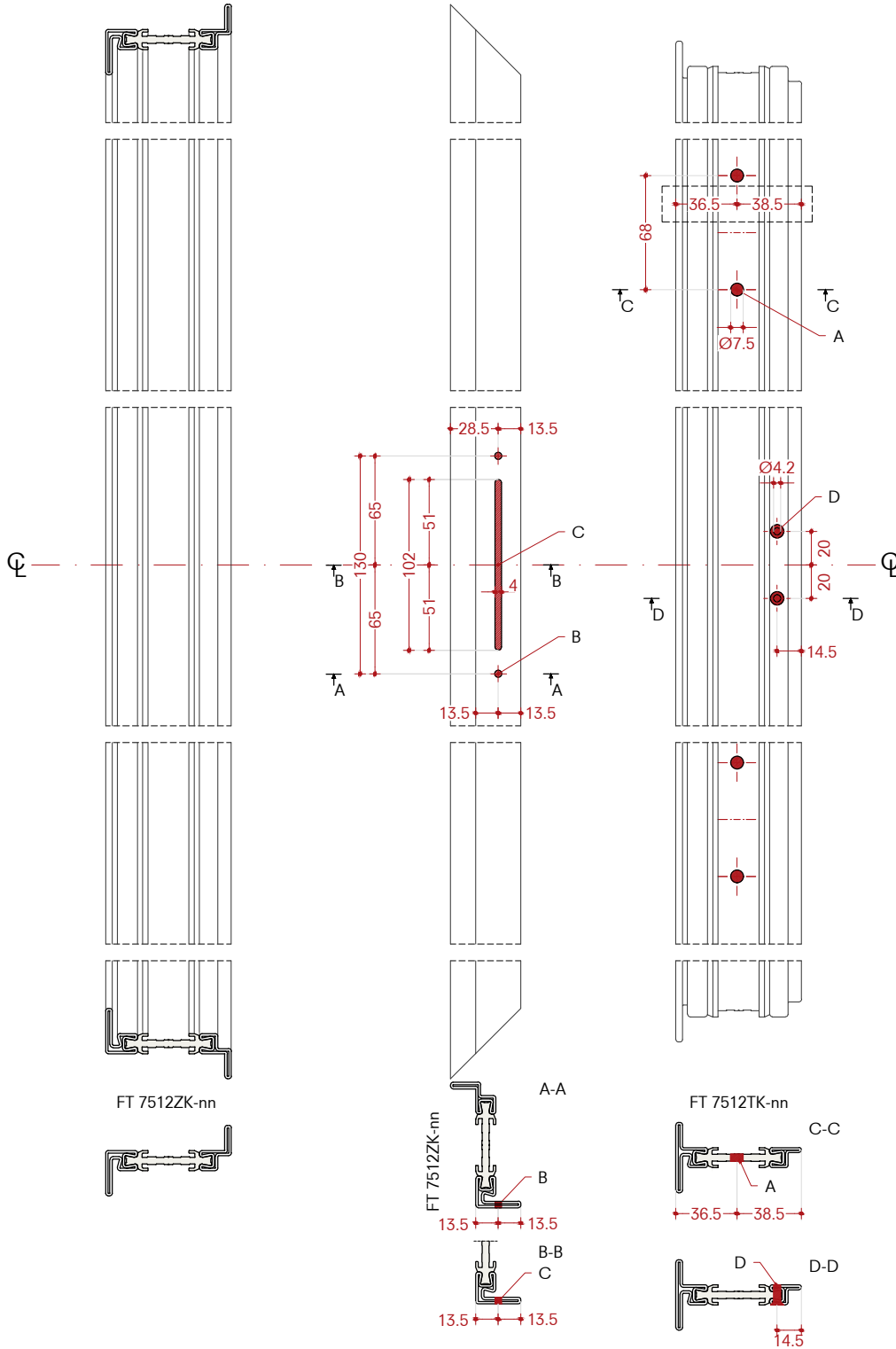
Double leaf window  
Open out - Right opening  
(left opening is the mirror image)  
Overlapped profiles

**Montaggio Multipoint aste in alluminio con cariglione**

Finestra a due battenti  
Apertura esterna - Apertura destra  
(l'apertura sinistra è l'immagine speculare)  
Profili a sormonto

**Montaje Multipoint varillas de aluminio con manija de bloqueo**

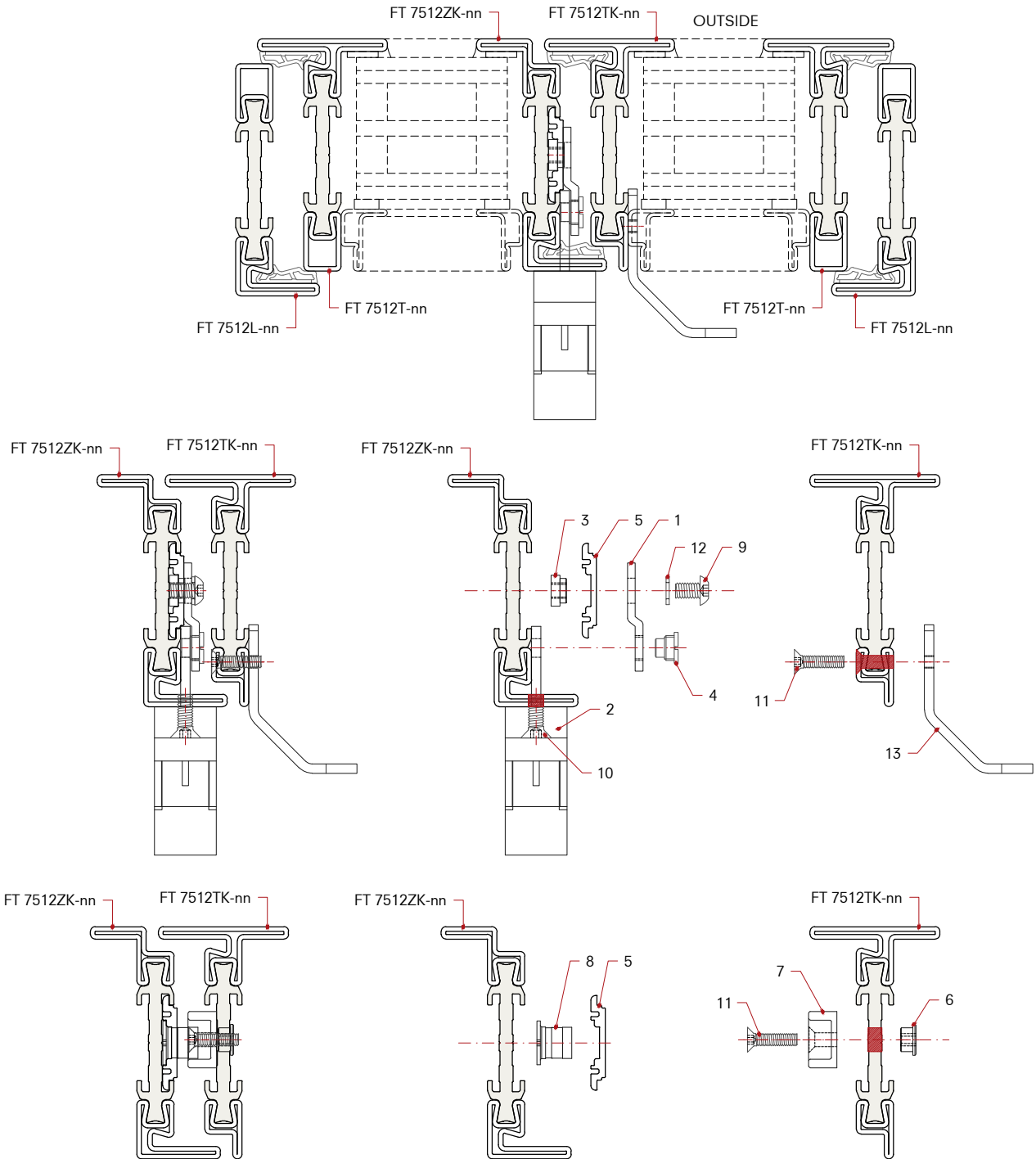
Ventana de dos hojas  
Que se abre hacia fuera - Apertura derecha  
(la apertura izquierda es la imagen espejular)  
Perfiles superpuestos



- Scale 1:4  
A) Ø7.5 mm holes to be checked  
B) Ø4.2 mm threaded M5 holes  
C) Cut out 102x4 mm  
D) Ø4.2 mm countersunk threaded M5 holes

- Scala 1:4  
A) Fori Ø7.5 mm da verificare  
B) Fori Ø4.2 mm filettati M5  
C) Fresatura 102x4 mm  
D) Fori svasati Ø4.2 mm filettati M5

- Escala 1:4  
A) Orificios Ø7.5 mm por verificar  
B) Orificios Ø4.2 mm roscados M5  
C) Fresado 102x4 mm  
D) Orificios avellanados Ø4.2 mm roscados M5



Scale 1:2

- 1) Cremone gear connection E99398-02
- 2) Lever handle H99001-nn or H99003-nn
- 3) Bush D99709-02
- 4) Bush D99714-02
- 5) Aluminum rail E99383-53
- 6) M4 brass bushing D99704-08
- 7) Strike plate E99389-11
- 8) Stud E99397-03
- 9) Fastening with M5x8 mm ISO7380 screws (not included)
- 10) Fastening with M5x14 mm ISO10642 screws (not included)
- 11) Fastening with M4x16 mm ISO10642 screws (not included)
- 12) Washer M5 DIN433 (not included)
- 13) Handle H99020-nn

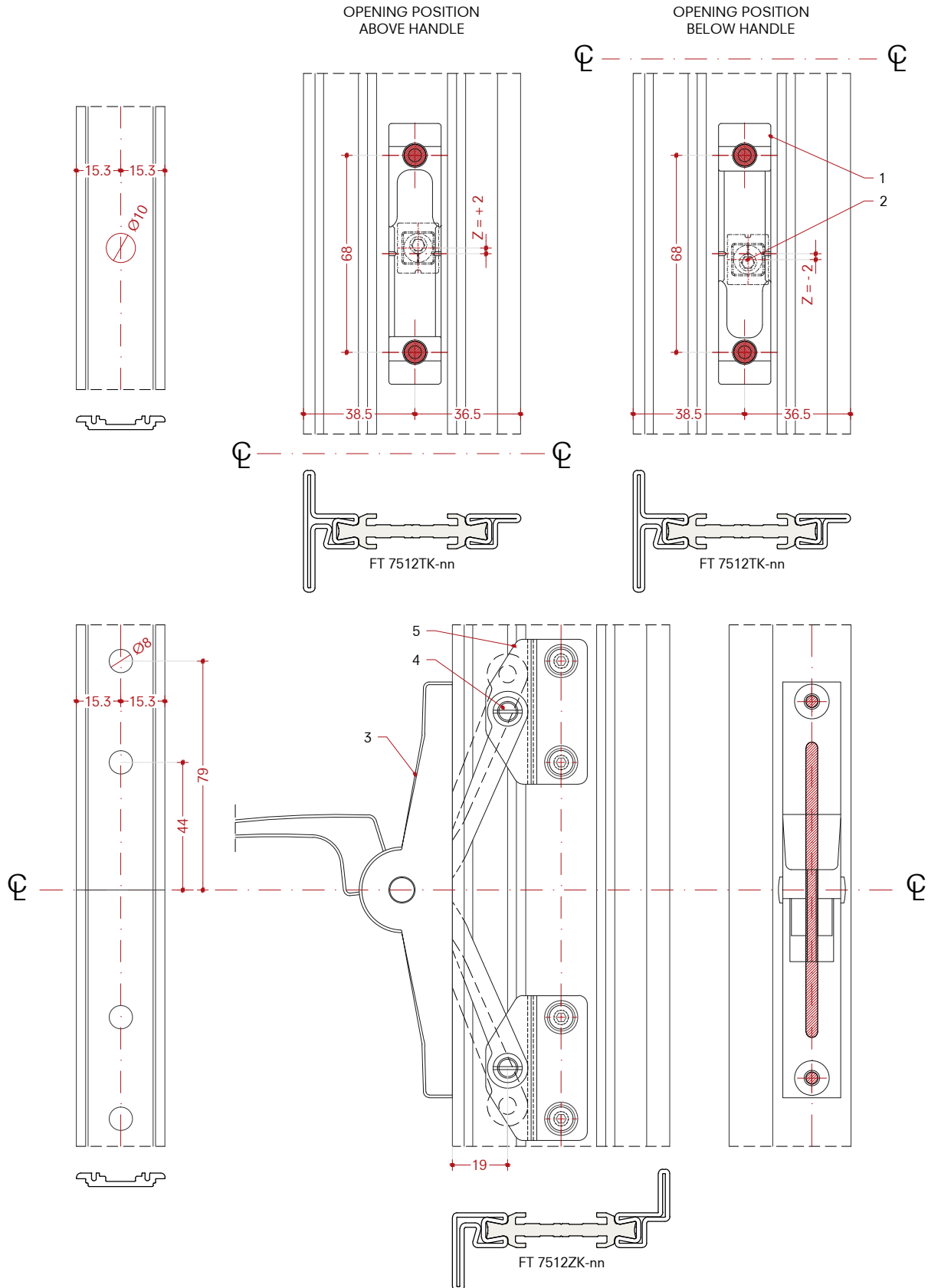
Scala 1:2

- 1) Connettore E99398-02
- 2) Cariglione H99001-nn or H99003-nn
- 3) Boccola D99709-02
- 4) Boccola D99714-02
- 5) Binario in alluminio E99383-53
- 6) Boccola in ottone M4 D99704-08
- 7) Riscontro E99389-11
- 8) Nottolino E99397-03
- 9) Fissaggio con viti M5x8 mm ISO7380 (non fornite)
- 10) Fissaggio con viti M5x14 mm ISO10642 (non fornite)
- 11) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
- 12) Rondella M5 DIN433 (non fornita)
- 13) Maniglia H99020-nn

Escala 1:2

- 1) Conector E99398-02
- 2) Manija de bloqueo H99001-nn or H99003-nn
- 3) Casquillo D99709-02
- 4) Casquillo D99714-02
- 5) Carril de aluminio E99383-53
- 6) Casquillo en latón M4 D99704-08
- 7) Chapa de cierre E99389-11
- 8) Alfiler E99397-03
- 9) Fijación con tornillos M5x8 mm ISO7380 (no provisto)
- 10) Fijación con tornillos M5x14 mm ISO10642 (no provisto)
- 11) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
- 12) Arandela M5 DIN433 (no provisto)
- 13) Manija H99020-nn

Montaggio Multipoint aste in alluminio, con cariglione  
 Montaje Multipoint varillas de aluminio, con manija de bloqueo



Scale 1:2

- 1) Strike plate E99389-11
- 2) Stud E99397-03, position on leaf
- 3) Lever handle H99001-nn or H99003-nn
- 4) Bush D99714-02
- 5) Cremone gear connection E99398-02

Scala 1:2

- 1) Riscontro E99389-11
- 2) Nottolino E99397-03, posizione sull'anta
- 3) Cariglione H99001-nn or H99003-nn
- 4) Boccia D99714-02
- 5) Connettore E99398-02

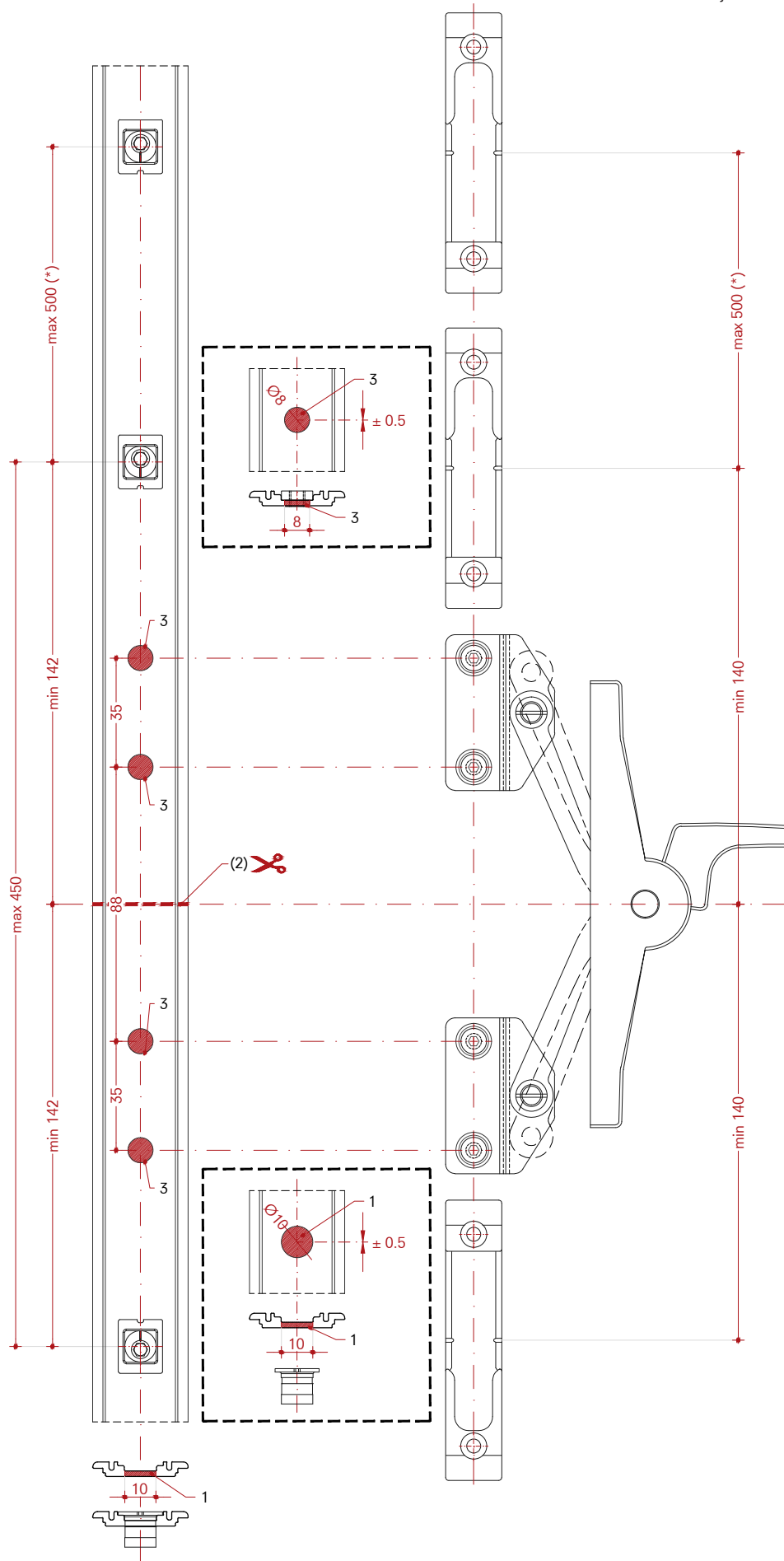
Escala 1:2

- 1) Chapa de cierre E99389-11
- 2) Alfiler E99397-03, posición en la hoja
- 3) Manija de bloqueo H99001-nn or H99003-nn
- 4) Casquillo D99714-02
- 5) Connettore E99398-02

**Multipoint aluminum rods installation with lever handle**  
 Rail, stud and keeps position

**Montaggio Multipoint aste in alluminio con cariglione**  
 Posizione binario, nottolino e fermi

**Montaje Multipoint varillas de aluminio con manija de bloqueo**  
 Posición de carril, alfiler y tope



Scala 1:2  
 1) Ø10 mm holes  
 2) Rail cut  
 3) Ø8 mm holes  
 (\*) Maximum distance to be reduced in case of heavy wind load conditions. Maximum distance 700 mm in case of long flush bolt on 2nd leaf. In this case shoot bolt on 1st leaf open-in is mandatory.

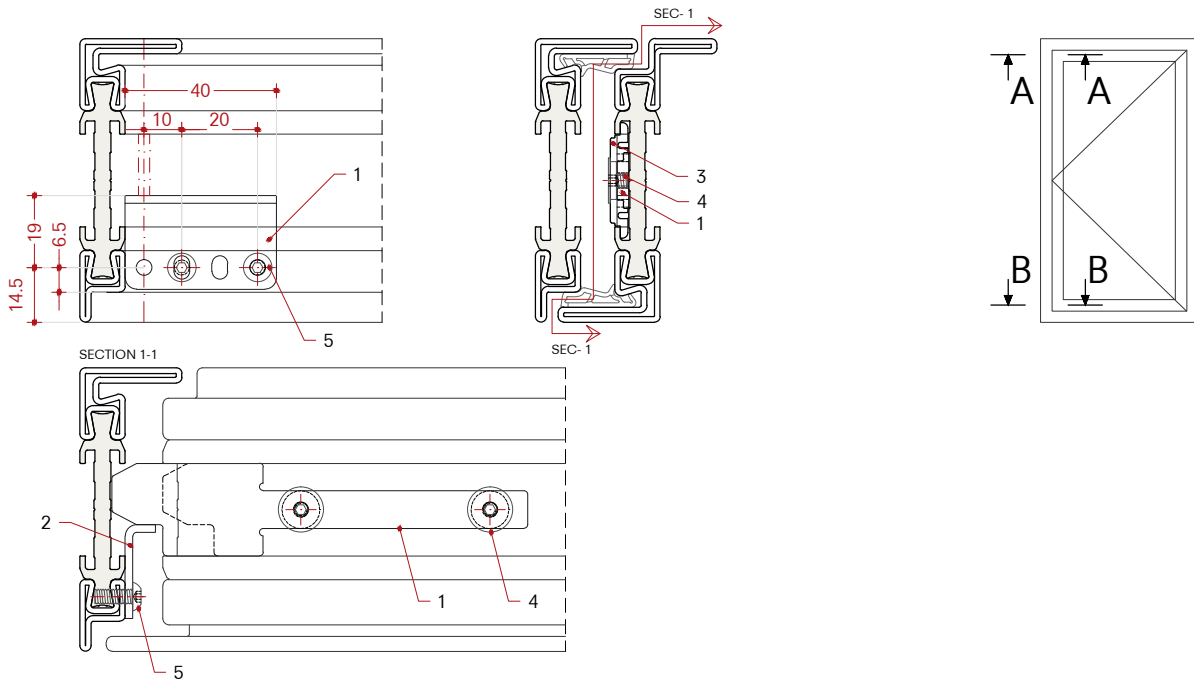
Scala 1:2  
 1) Fori Ø10 mm  
 2) Taglio del binario  
 3) Fori Ø8 mm  
 (\*) Distanza massima da ridurre in caso di forte carico di vento. Distanza massima 700 mm in caso di catenaccio lungo sulla 2a anta. In questo caso il catenaccio sulla 1a anta apertura interna è obbligatorio.

Scala 1:2  
 1) Orificios Ø10 mm  
 2) Corte de carril  
 3) Orificios Ø8 mm  
 (\*) Distancia máxima a reducir en caso de fuerte carga de viento. Distancia máxima 700 mm en caso de pasador de canto largo en 2do hoja. En este caso, pasador de canto de la 1er hoja de apertura hacia dentro es obligatorio.



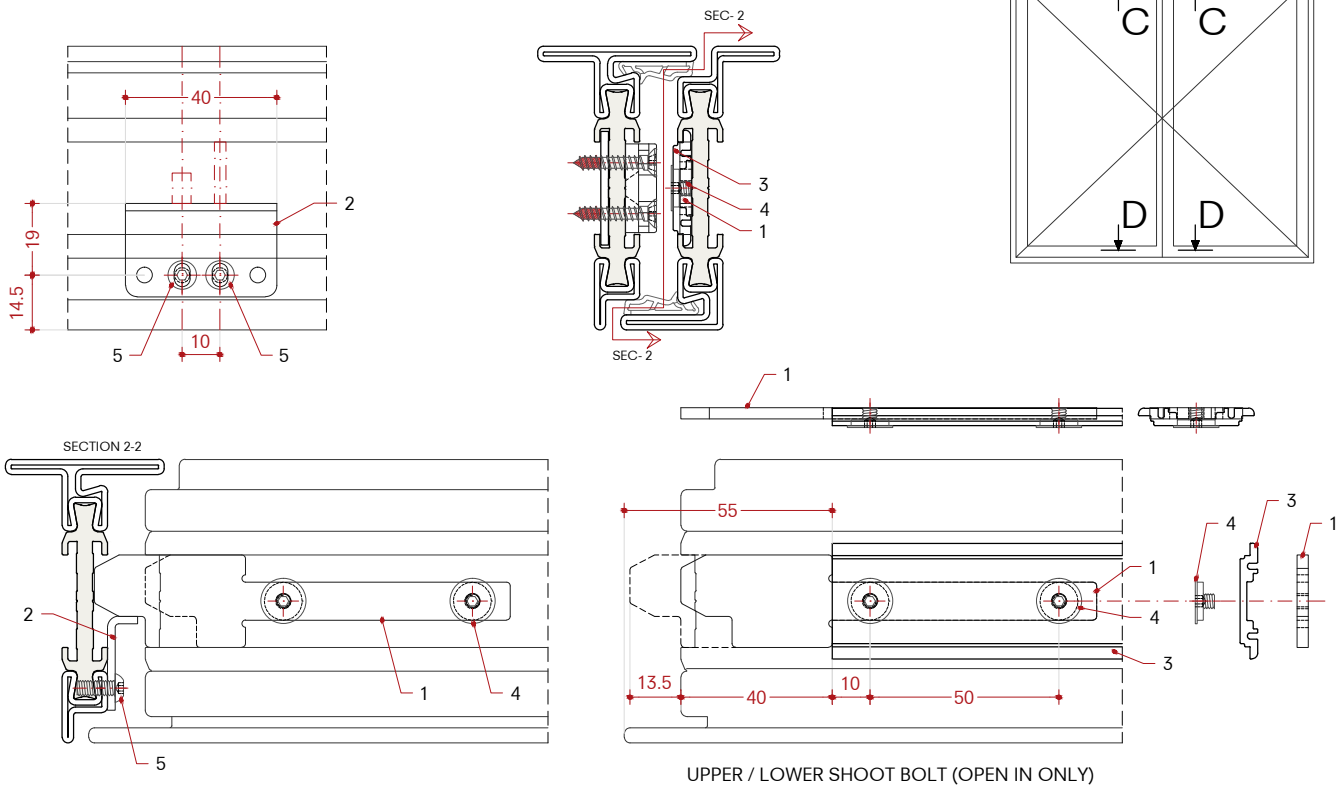
Single leaf window - Open in - Flush profiles - Right opening (Left opening is specular)

FOR BIDIRECTIONAL SECTION  
B-B & A-A (SPECULAR)



Double leaf window - Open in - Flush profiles - Right opening (Left opening is specular)

FOR BIDIRECTIONAL SECTION  
D-D & C-C (SPECULAR)



UPPER / LOWER SHOOT BOLT (OPEN IN ONLY)

Scale 1:2

- 1) Shoot bolt K99108
- 2) Strike plate (provided)
- 3) Aluminum rail E99383-53
- 4) Bush for shoot bolt (provided)
- 5) Fastening with M4x10 mm ISO7380 screws (not included)

Scala 1:2

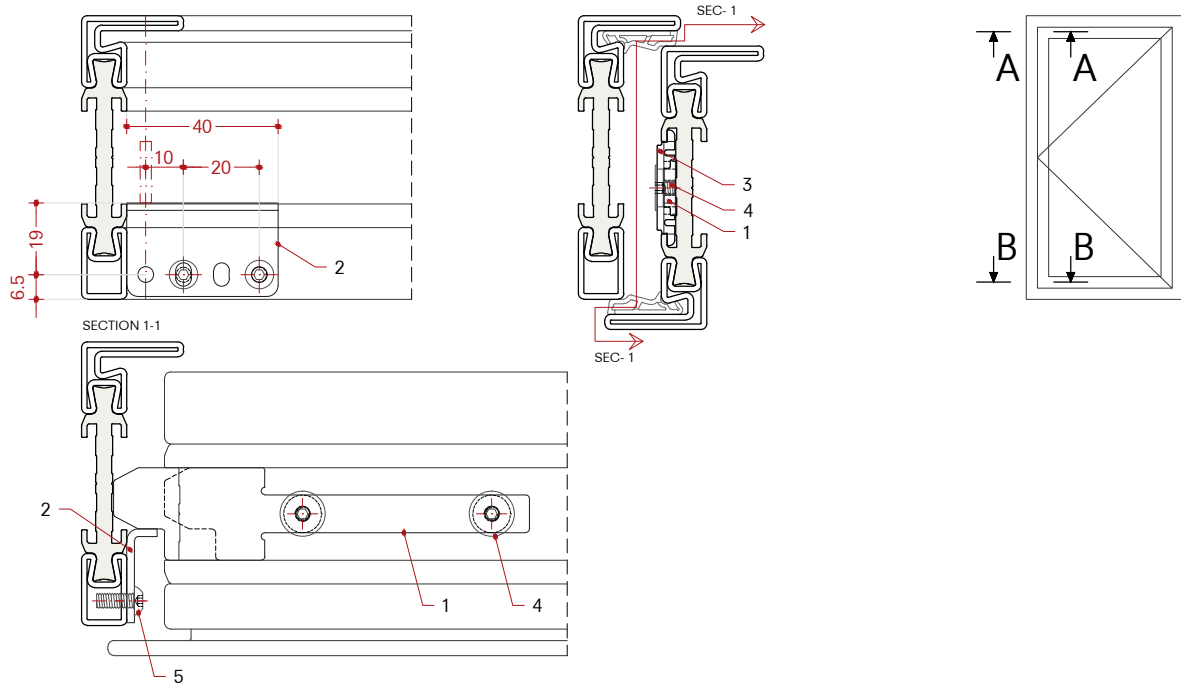
- 1) Puntale K99108
- 2) Riscontro (fornito)
- 3) Binario in alluminio E99383-53
- 4) Boccia fissaggio puntale (fornita)
- 5) Fissaggio con viti M4x10 mm ISO7380 (non fornite)

Escala 1:2

- 1) Pasador K99108
- 2) Chapa de cierre (provisto)
- 3) Carril de aluminio E99383-53
- 4) Casquillo para pasador (provisto)
- 5) Fijación con tornillos M4x10 mm ISO7380 (no provisto)

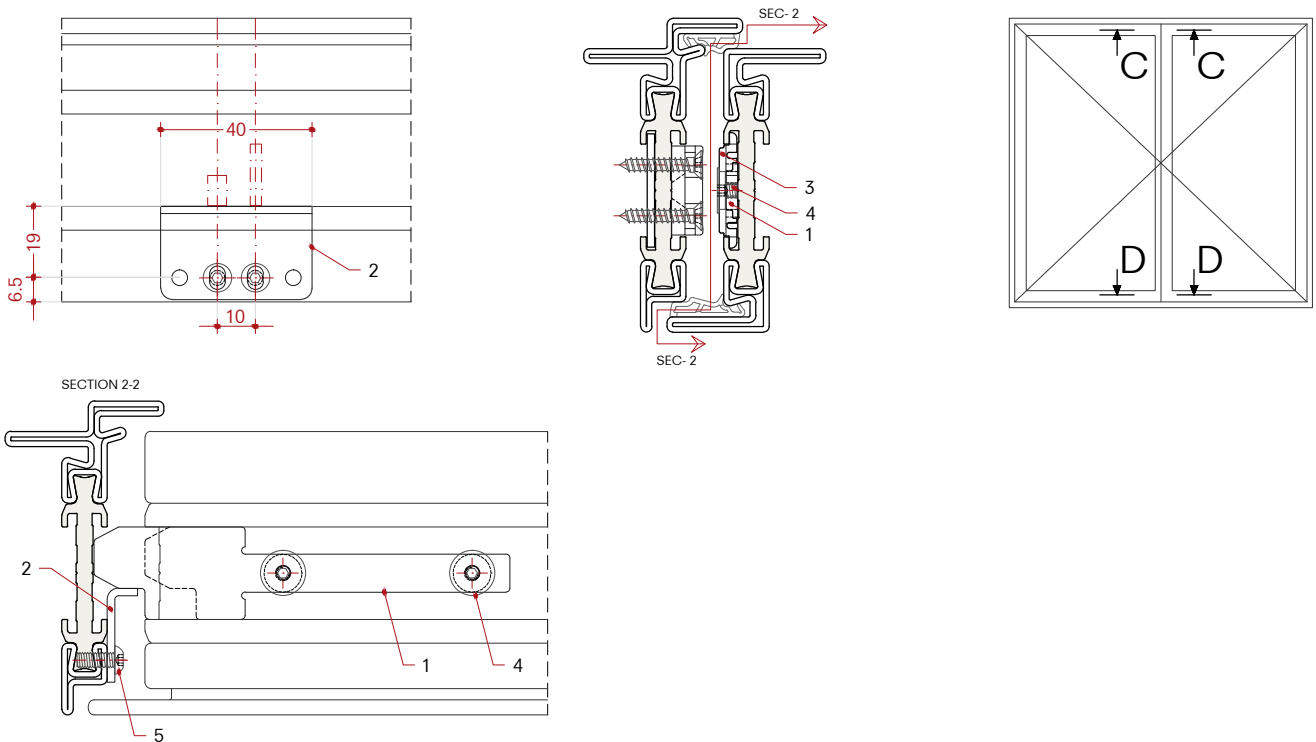
Single leaf window - Open in - Overlapped profiles - Right opening (Left opening is specular)

FOR BIDIRECTIONAL SECTION  
 B-B & A-A(SPECULAR)



Double leaf window - Open in - Overlapped profiles - Right opening (Left opening is specular)

FOR BIDIRECTIONAL SECTION  
 D-D & C-C(SPECULAR)



Scale 1:2

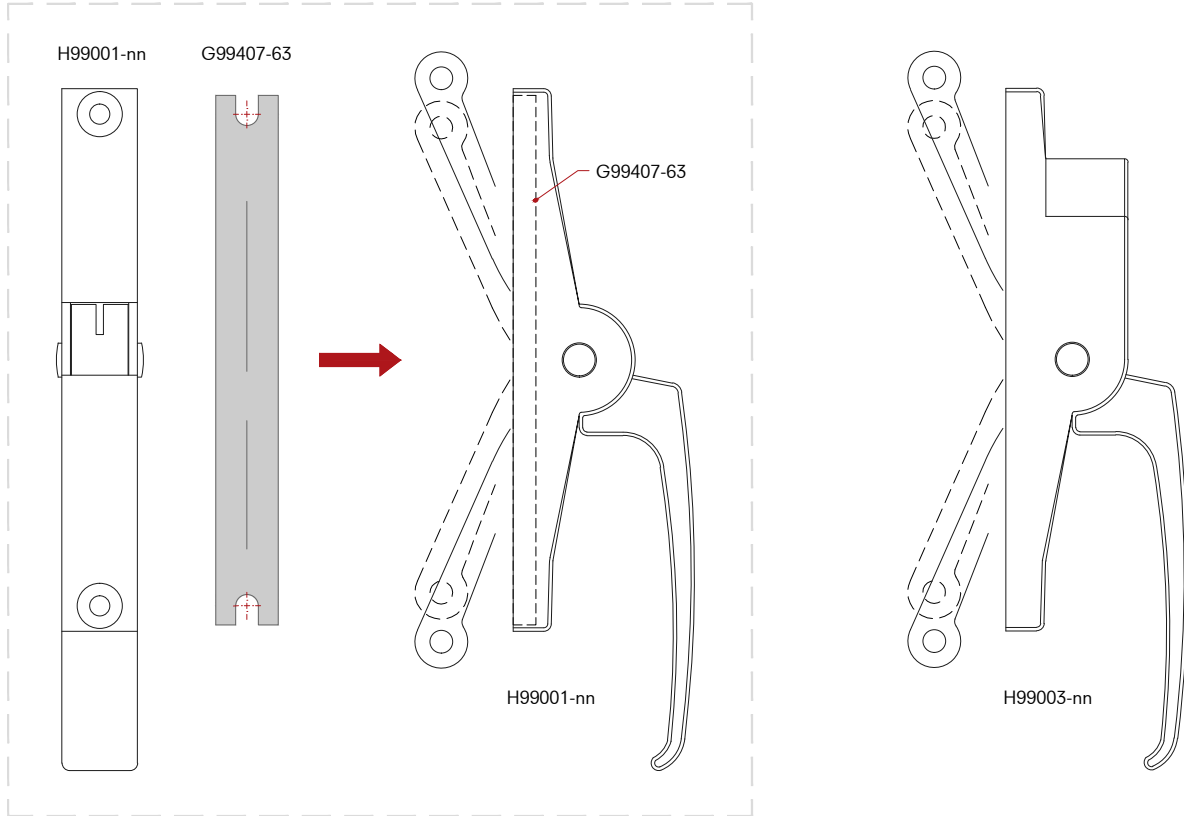
- 1) Shoot bolt K99108
- 2) Strike plate (provided)
- 3) Aluminum rail E99383-53
- 4) Bush for shoot bolt (provided)
- 5) Fastening with M4x10 mm ISO7380 screws (not included)

Scala 1:2

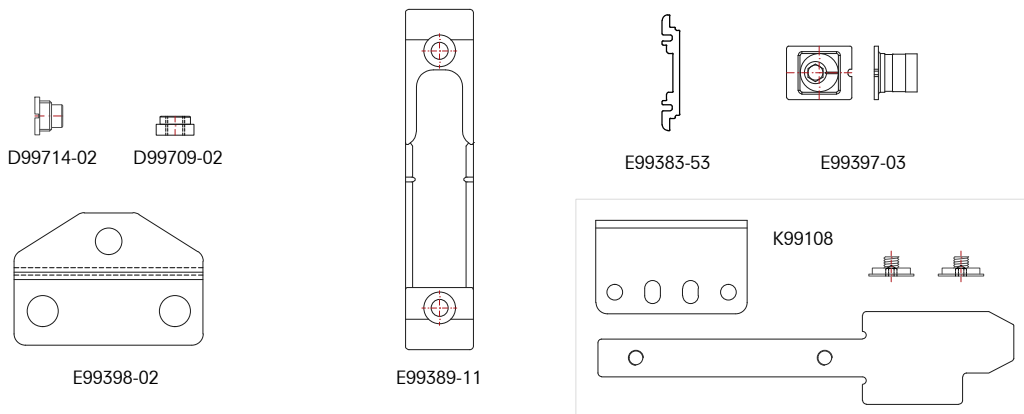
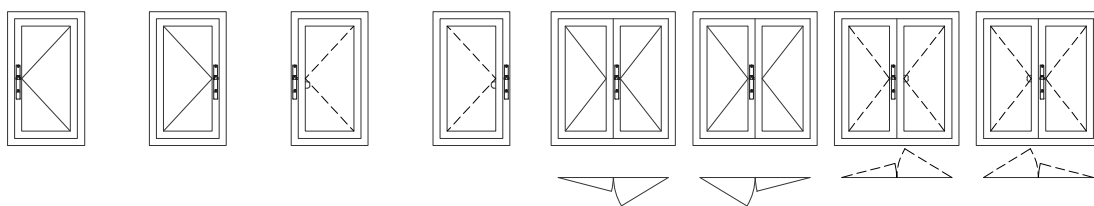
- 1) Puntale K99108
- 2) Riscontro (fornito)
- 3) Binario in alluminio E99383-53
- 4) Boccia fissaggio puntale (fornita)
- 5) Fissaggio con viti M4x10 mm ISO7380 (non fornite)

Escala 1:2

- 1) Pasador K99108
- 2) Chapa de cierre (provisto)
- 3) Carril de aluminio E99383-53
- 4) Casquillo para pasador (provisto)
- 5) Fijación con tornillos M4x10 mm ISO7380 (no provisto)



| BIDIRECTIONAL CREMONE GEAR |          |                                   |
|----------------------------|----------|-----------------------------------|
| opening                    | leaves   |                                   |
| Open in                    | 1 Leaf   | standard installation on leaf     |
| Open in                    | 2 Leaves | standard installation on 1st leaf |
| Open out                   | 1 Leaf   | installation on frame             |
| Open out                   | 2 Leaves | installation on 2nd leaf          |





**Installation Tilt&Turn fittings**

**Montaggio accessori finestra anta ribalta**

**Montaje accesorios ventana oscilante**

5.8

**Legend**

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1 - 1:2

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1 - 1:2

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1 - 1:2

**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Basic kits

Kit base

Kits básicos

K88001  
 Standard windows

K88001  
 Finestre standard

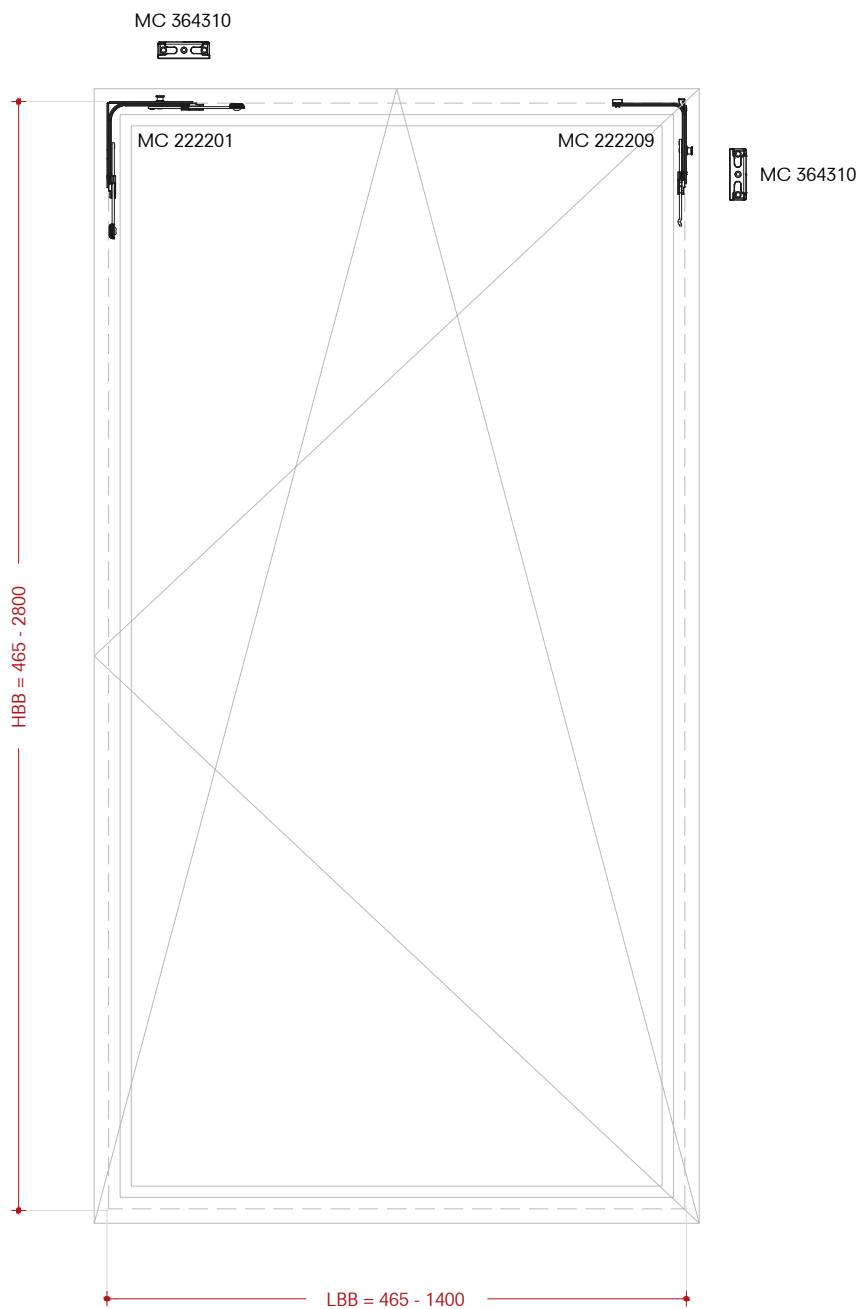
K88001  
 Ventanas estándar

LBB = 465 - 1400 mm  
 HBB = 455 - 2800 mm

LBB = 465 - 1400 mm  
 HBB = 455 - 2800 mm

LBB = 465 - 1400 mm  
 HBB = 455 - 2800 mm

MC 222201 n°01 piece  
 MC 222209 n°01 piece  
 MC 364310 n°02 pieces



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Basic kits

Kit base

Kits básicos

K88002

K88002

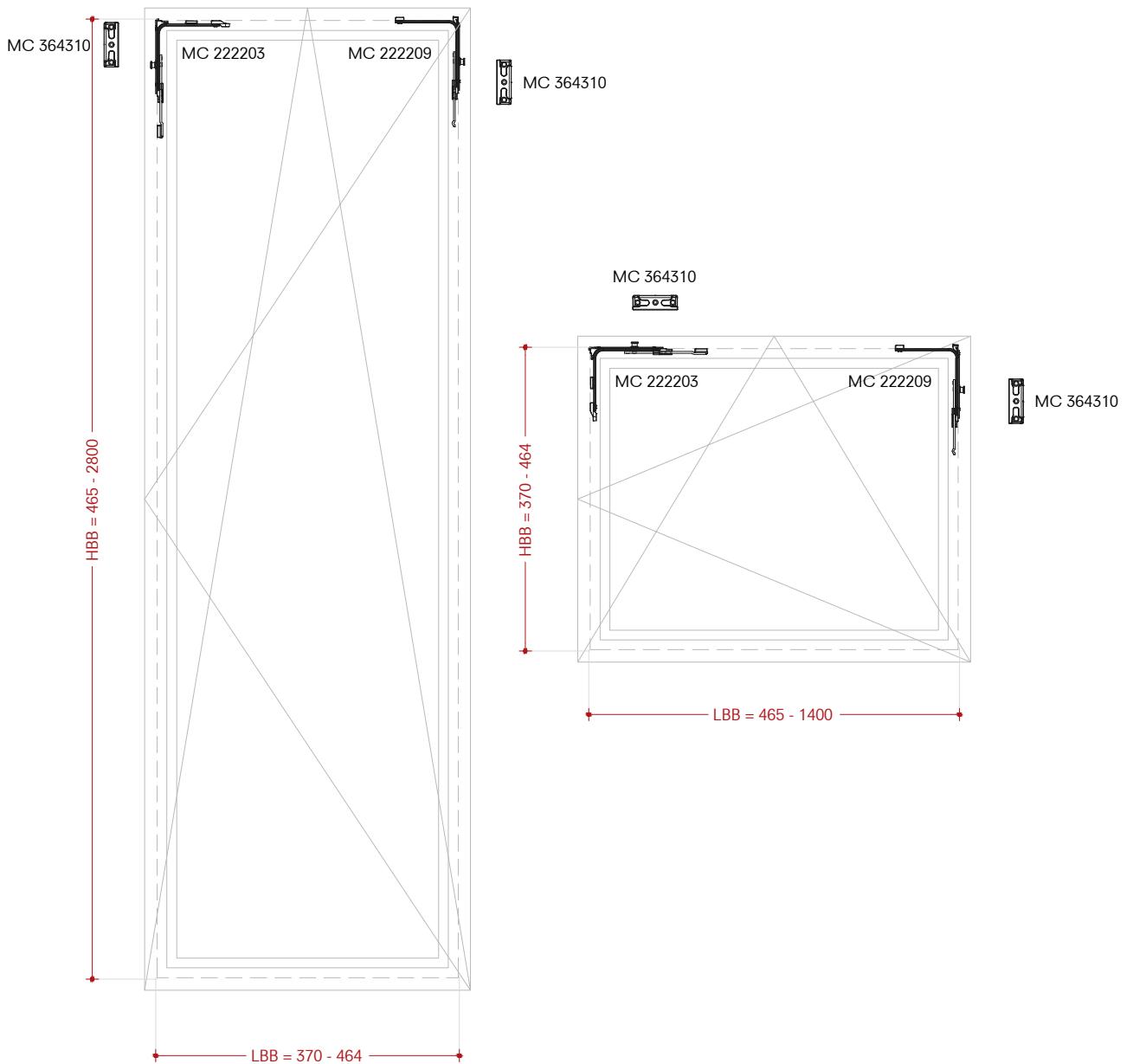
K88002

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

MC 222203 n°01 piece  
 MC 222209 n°01 piece  
 MC 364310 n°02 pieces



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Basic kits

Kit base

Kits básicos

K88117  
 Only for double leaf windows

K88117  
 Solo per finestre a doppia anta

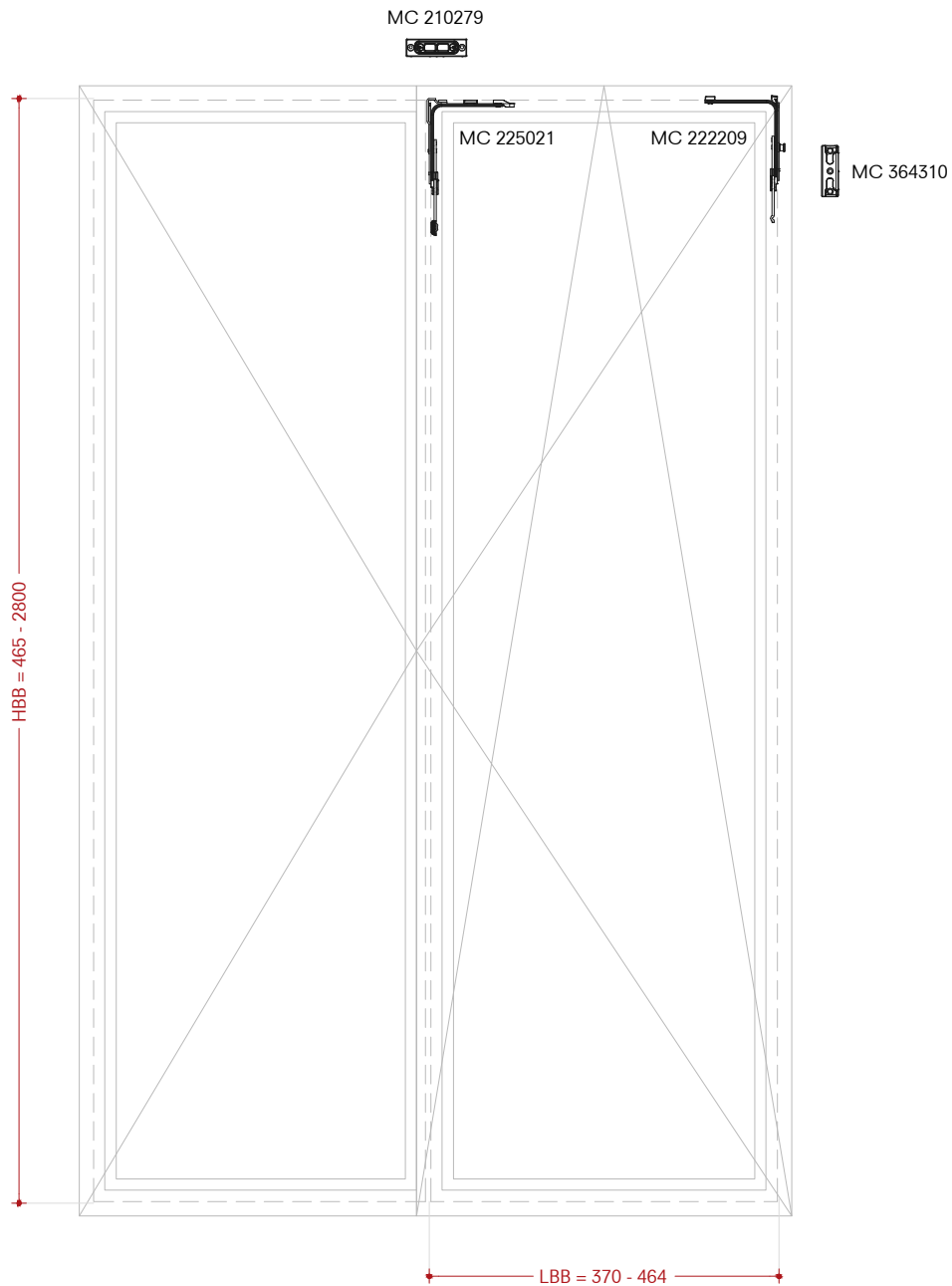
K88117  
 Solo para ventanas de dos hojas

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

MC 225021 n°01 piece  
 MC 222209 n°01 piece  
 MC 210279 n°01 piece  
 MC 364310 n°01 piece







**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

**Gear kits**

**Kit cremonese**

**Kits de equipo**

**K88003**

HH = 190 mm  
 HBB = 340 - 1608 mm

MC 202206 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°01 piece

**K88003**

HH = 190 mm  
 HBB = 340 - 1608 mm

**K88003**

HH = 190 mm  
 HBB = 340 - 1608 mm

**K88004**

HH = 300 mm  
 HBB = 661 - 1790 mm

MC 202207 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88004**

HH = 300 mm  
 HBB = 661 - 1790 mm

**K88004**

HH = 300 mm  
 HBB = 661 - 1790 mm

**K88005**

HH = 400 mm  
 HBB = 841 - 2040 mm

MC 202208 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88005**

HH = 400 mm  
 HBB = 841 - 2040 mm

**K88005**

HH = 400 mm  
 HBB = 841 - 2040 mm

**K88006**

HH = 500 mm  
 HBB = 1091 - 2290 mm

MC 202209 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88006**

HH = 500 mm  
 HBB = 1091 - 2290 mm

**K88006**

HH = 500 mm  
 HBB = 1091 - 2290 mm

**K88007**

HH = 600 mm  
 HBB = 1341 - 2540 mm

MC 202216 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces

**K88007**

HH = 600 mm  
 HBB = 1341 - 2540 mm

**K88007**

HH = 600 mm  
 HBB = 1341 - 2540 mm

**K88008**

HH = 700 mm  
 HBB = 1591 - 2650 mm

MC 207305 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces

**K88008**

HH = 700 mm  
 HBB = 1591 - 2650 mm

**K88008**

HH = 700 mm  
 HBB = 1591 - 2650 mm

**K88009**

HH = 1050 mm  
 HBB = 1701 - 2900 mm

MC 202737 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces

**K88009**

HH = 1050 mm  
 HBB = 1701 - 2900 mm

**K88009**

HH = 1050 mm  
 HBB = 1701 - 2900 mm

**K88010**

HH = 1050 mm  
 HBB = 1951 - 3150 mm

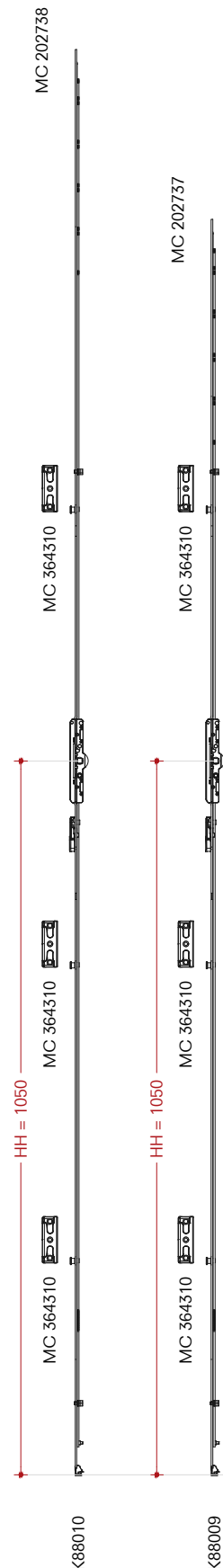
MC 202738 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces

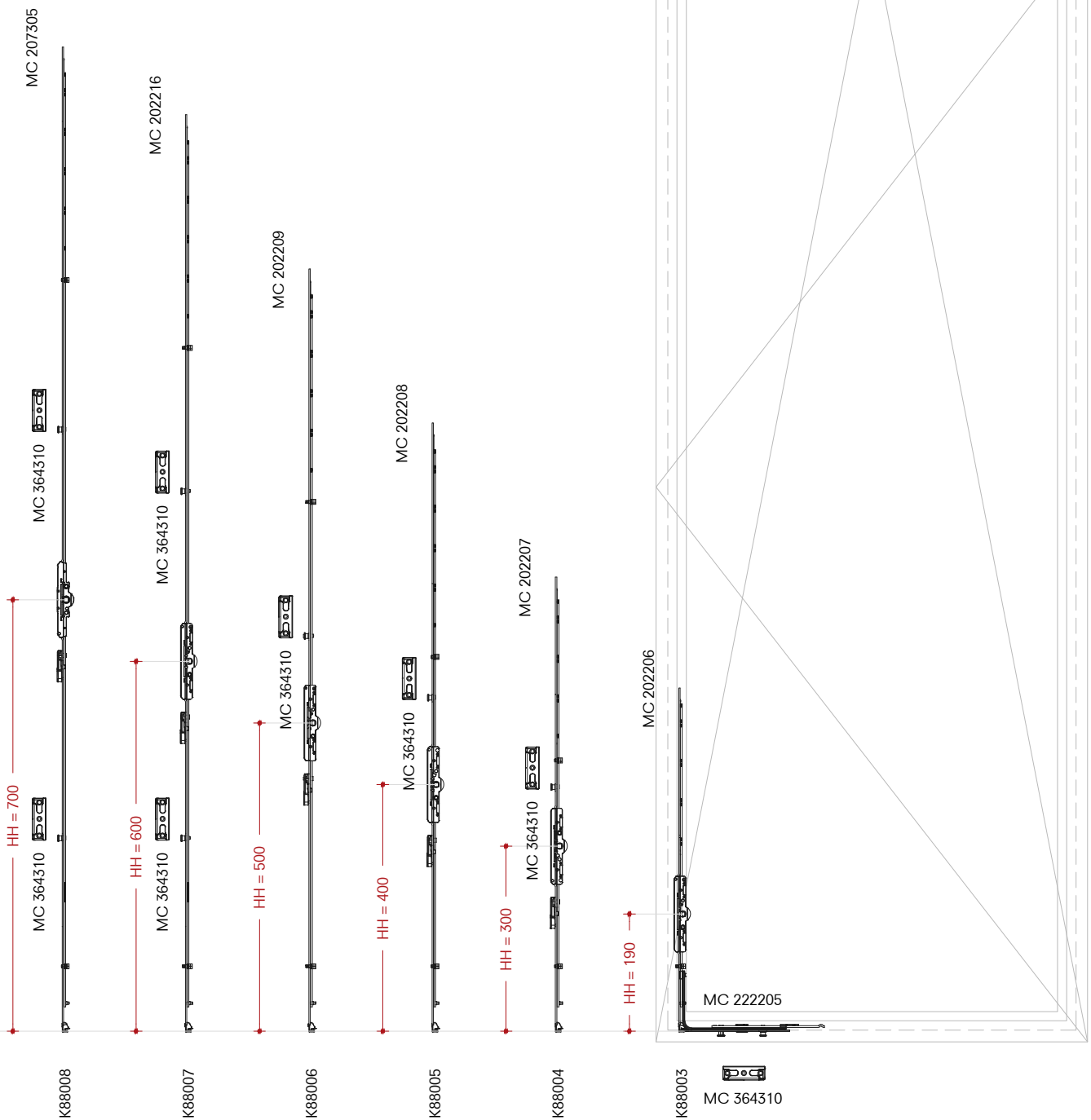
**K88010**

HH = 1050 mm  
 HBB = 1951 - 3150 mm

**K88010**

HH = 1050 mm  
 HBB = 1951 - 3150 mm





**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Double croppable gear kits

Kit cremonesi doppiorasabili

Kits de equipo recortables dobles

K88109

K88109

K88109

MC 202491 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°01 piece

K88110

K88110

K88110

MC 202492 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°02 pieces

K88111

K88111

K88111

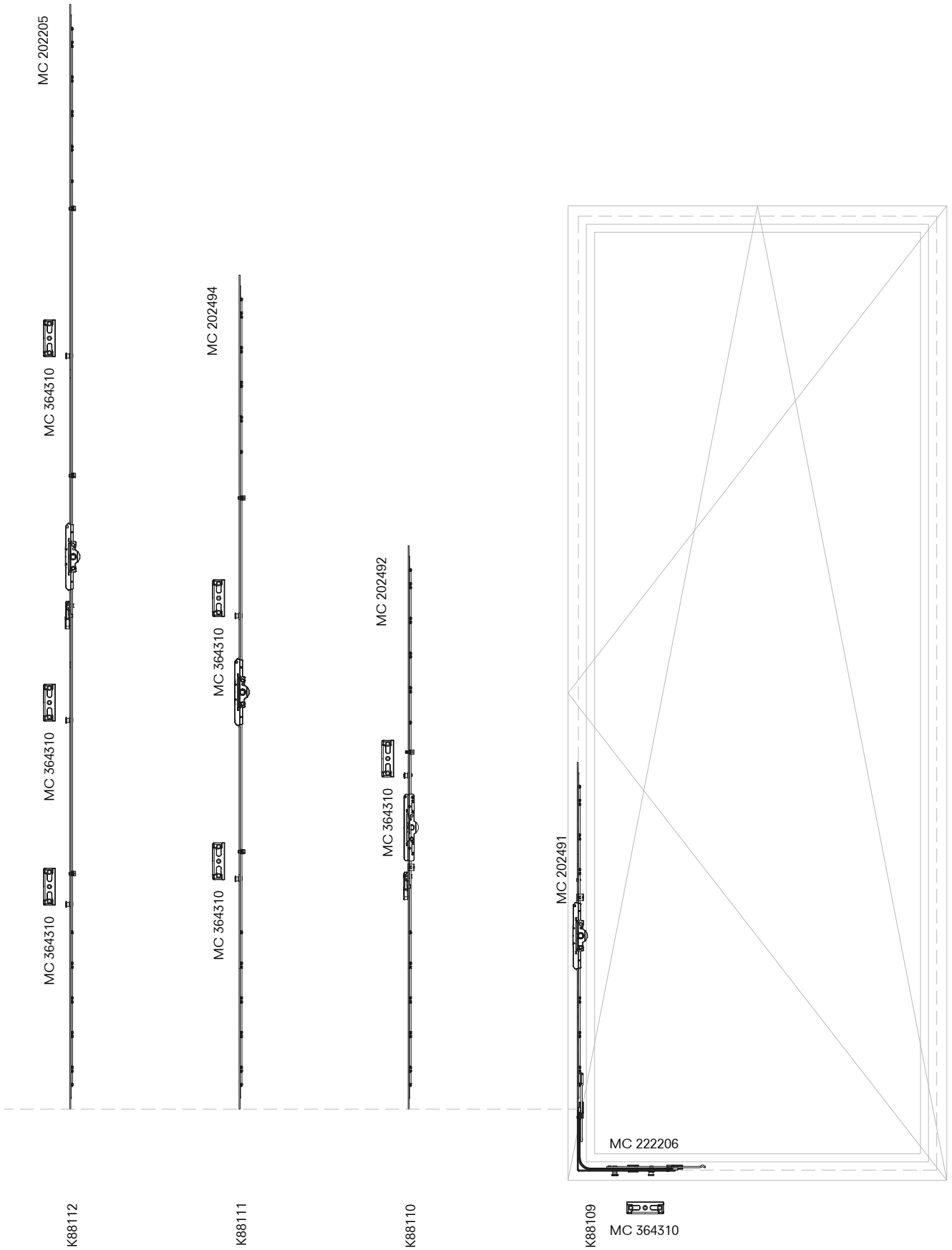
MC 202494 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°03 pieces

K88112

K88112

K88112

MC 202205 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°04 pieces



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Extension kits

Kit estensione Cremonese

Kits extensión

K88011

K88011

K88011

0 - 140 mm

0 - 140 mm

0 - 140 mm

MC 206630 n°01 piece

K88016

K88060

K88012

K88012

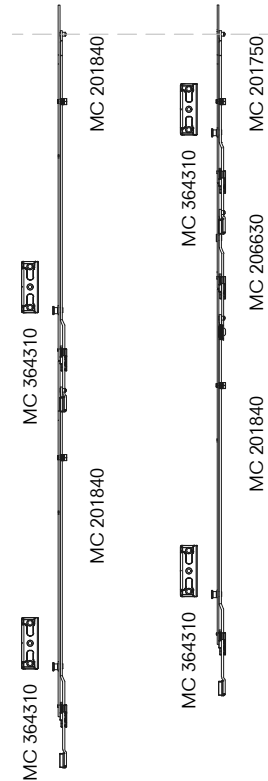
K88012

141 - 235 mm

141 - 235 mm

141 - 235 mm

MC 201750 n°01 piece  
MC 364310 n°01 piece



K88059

K88059

K88059

236 - 375 mm

236 - 375 mm

236 - 375 mm

MC 201750 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88013

K88013

K88013

376 - 470 mm

376 - 470 mm

376 - 470 mm

MC 201840 n°01 piece  
MC 364310 n°01 piece

K88014

K88014

K88014

471 - 610 mm

471 - 610 mm

471 - 610 mm

MC 201840 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88015

K88015

K88015

611 - 705 mm

611 - 705 mm

611 - 705 mm

MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88060

K88060

K88060

706 - 845 mm

706 - 845 mm

706 - 845 mm

MC 206630 n°01 piece  
MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88016

K88016

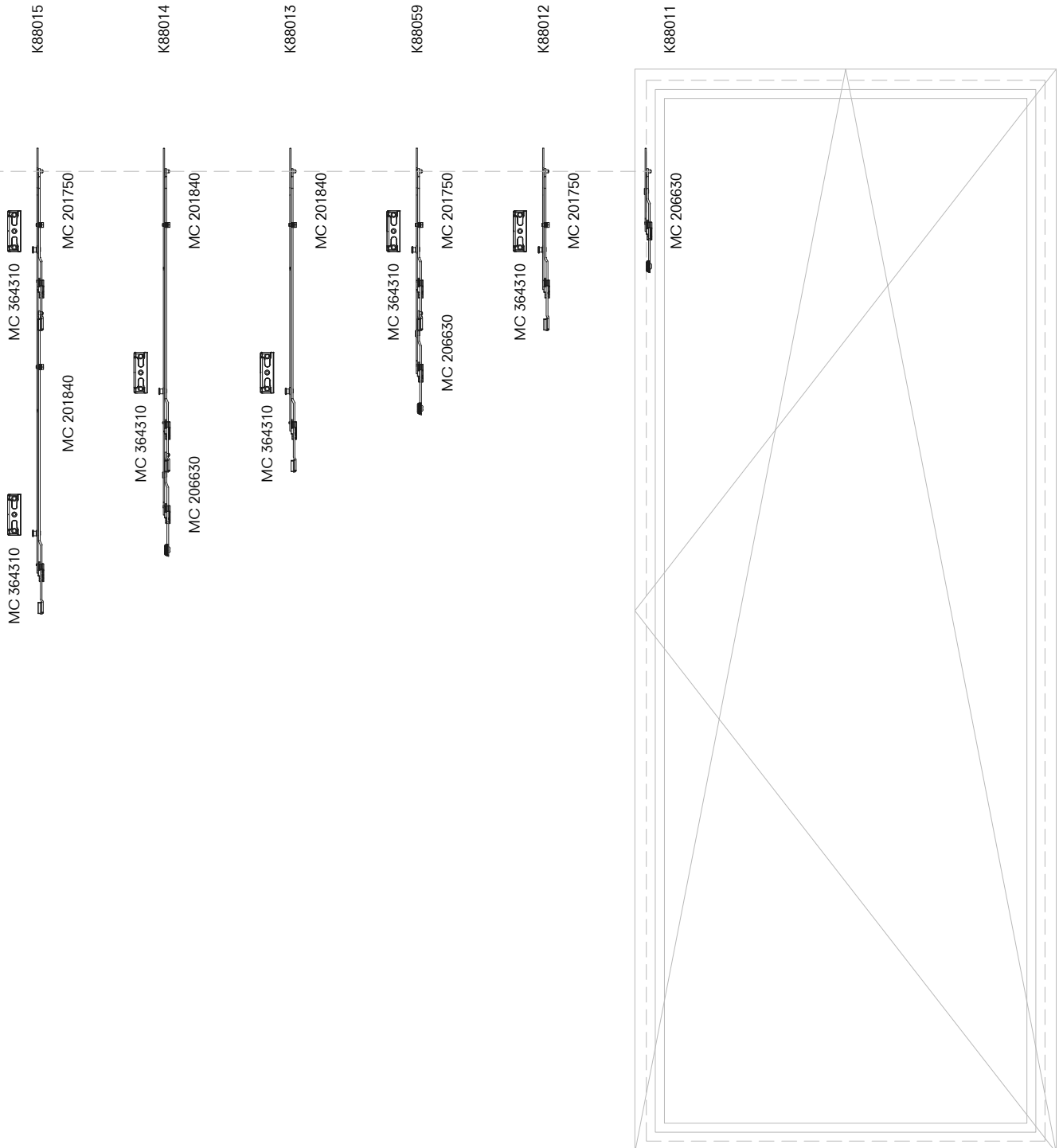
K88016

846 - 940 mm

846 - 940 mm

846 - 940 mm

MC 201840 n°02 pieces  
MC 364310 n°02 pieces



**Tilt&Turn windows**

Scissors and hinges kits  
 Right opening

K88017

LBB = 370 - 600 mm

- MC 217470 n°01 piece
- MC 217346 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece

**Finestre anta ribalta**

Kit forbice e cerniere  
 Apertura destra

K88017

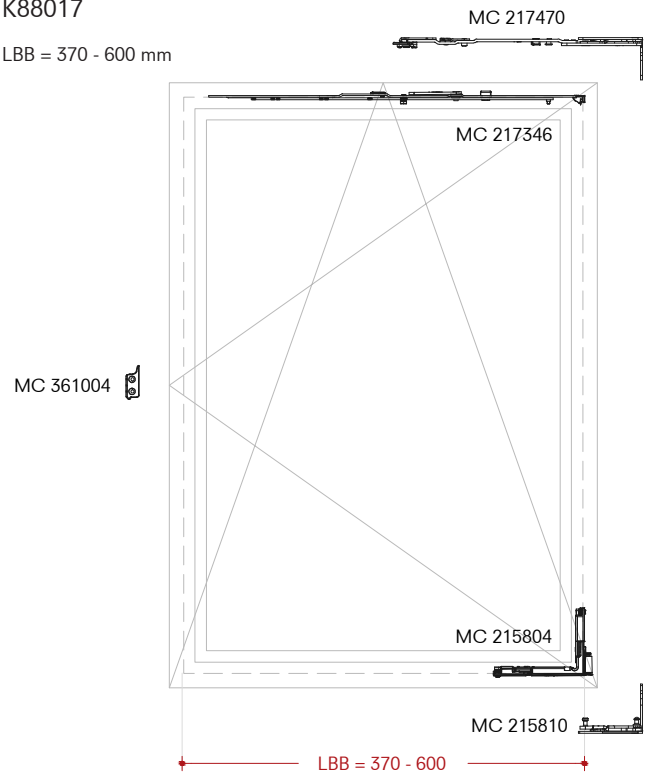
LBB = 370 - 600 mm

**Ventana oscilante**

Kits de cizallas y bisagras  
 Apertura derecha

K88017

LBB = 370 - 600 mm



K88018

LBB = 601 - 800 mm

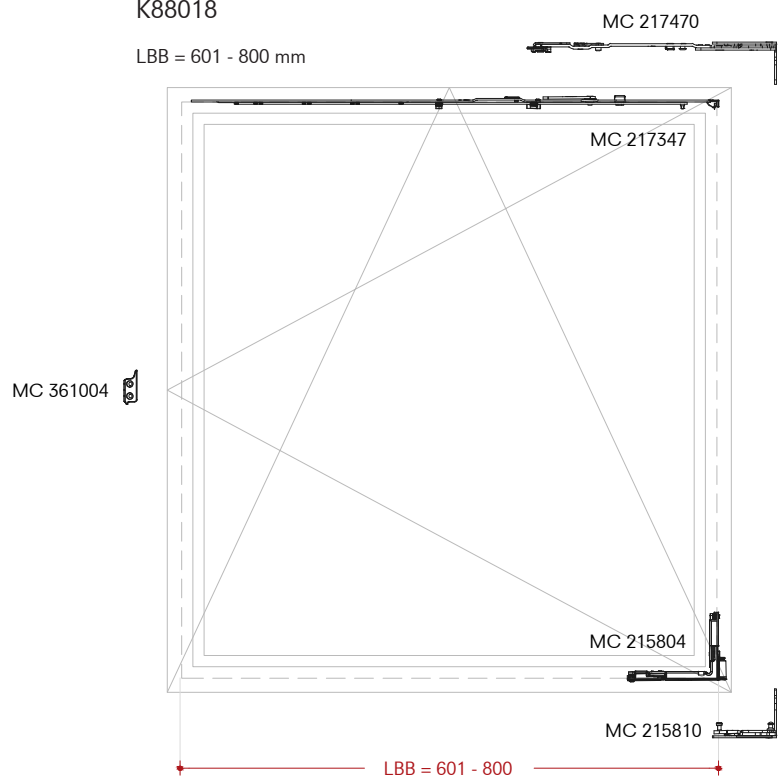
- MC 217470 n°01 piece
- MC 217347 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece

K88018

LBB = 601 - 800 mm

K88018

LBB = 601 - 800 mm





K88019

LBB = 801 - 1050 mm

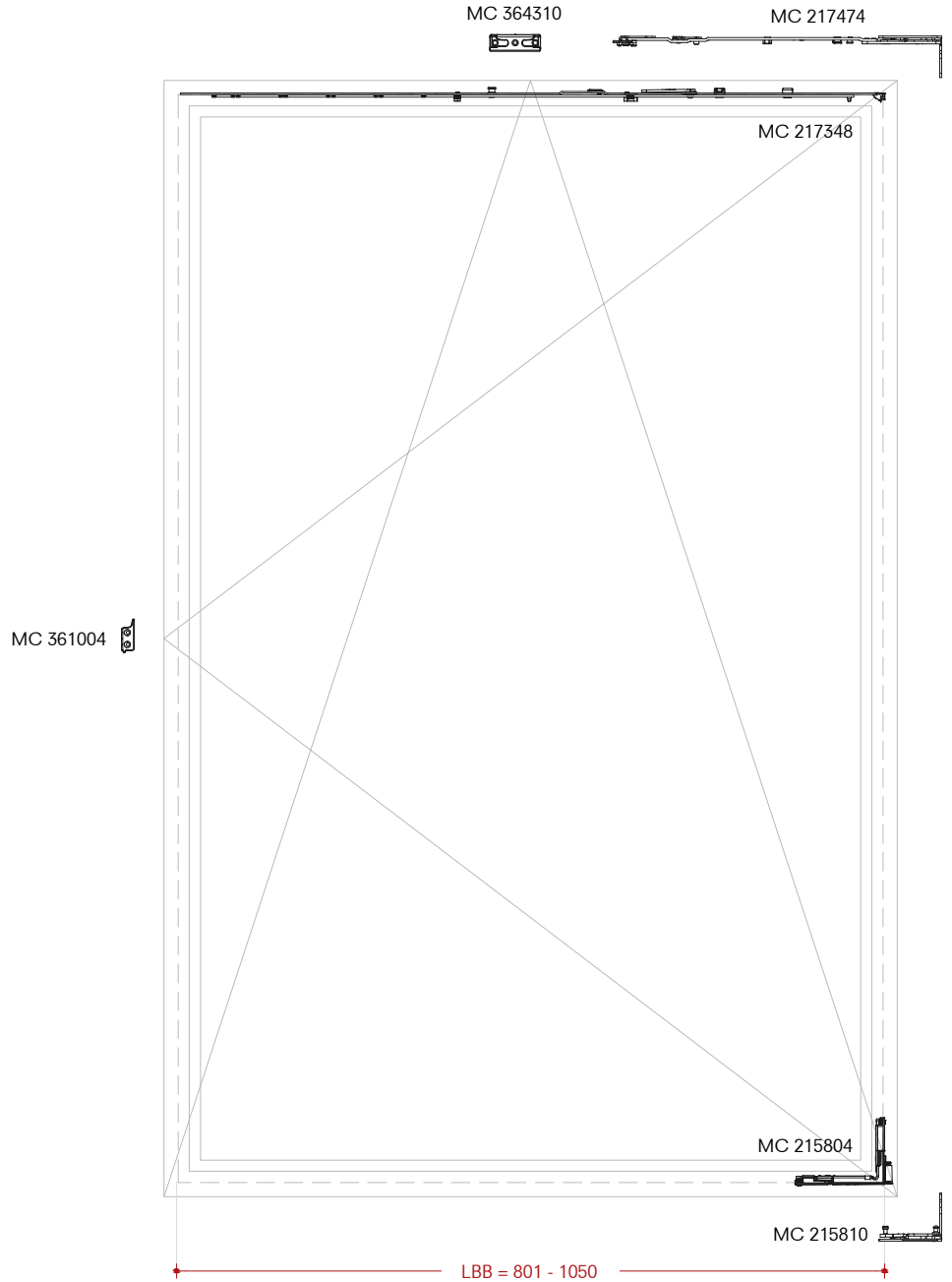
- MC 217474 n°01 piece
- MC 217348 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece
- MC 364310 n°01 piece

K88019

LBB = 801 - 1050 mm

K88019

LBB = 801 - 1050 mm



**Tilt&Turn windows**

Scissors and hinges kits  
 Right opening

K88020

LBB = 1051 - 1285 mm

- MC 217474 n°01 piece
- MC 217348 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece
- MC 364310 n°01 piece

**Finestre anta ribalta**

Kit forbice e cerniere  
 Apertura destra

K88020

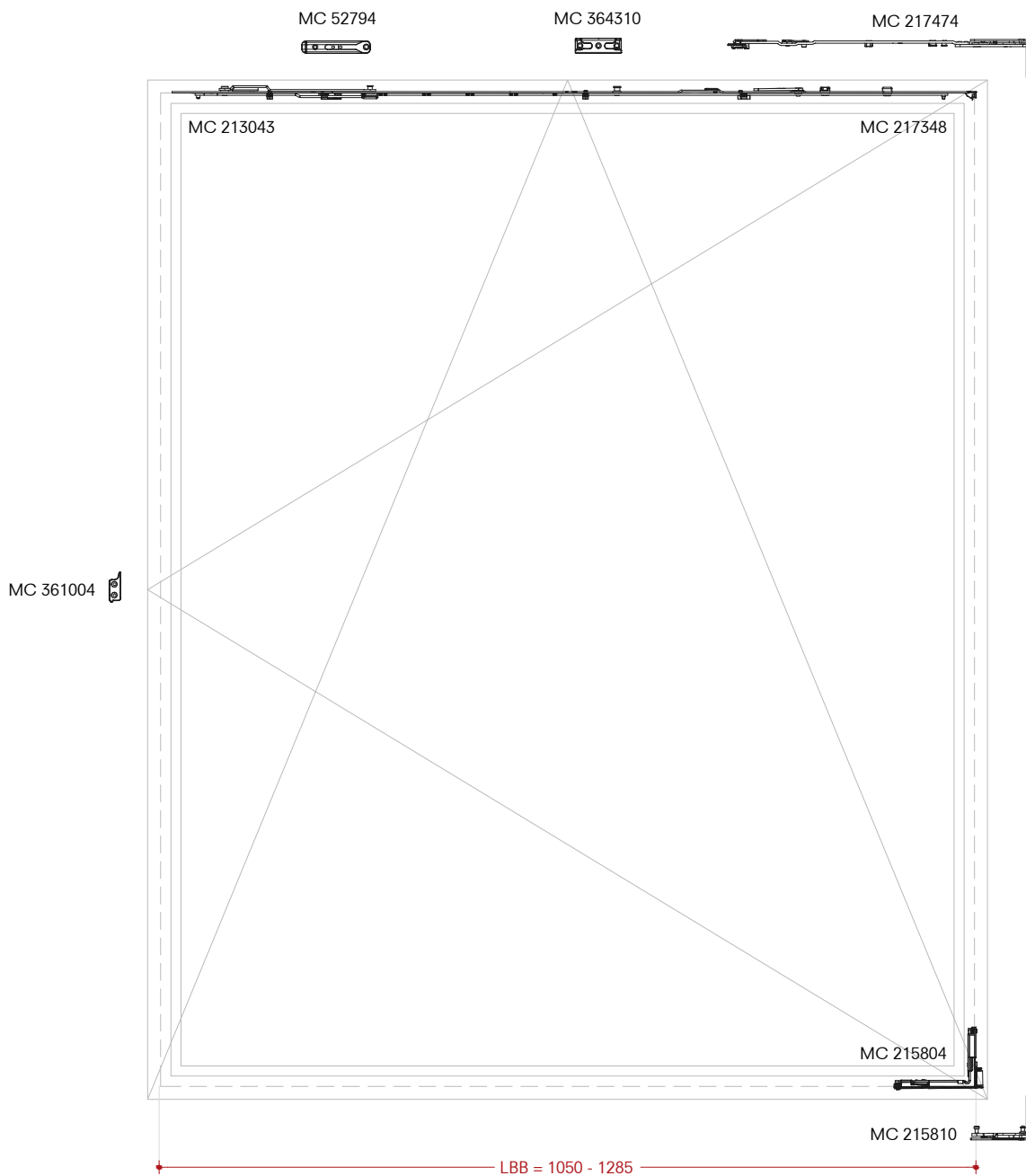
LBB = 1051 - 1285 mm

**Ventana oscilante**

Kits de cizallas y bisagras  
 Apertura derecha

K88020

LBB = 1051 - 1285 mm



K88021

LBB = 1286 - 1400 mm

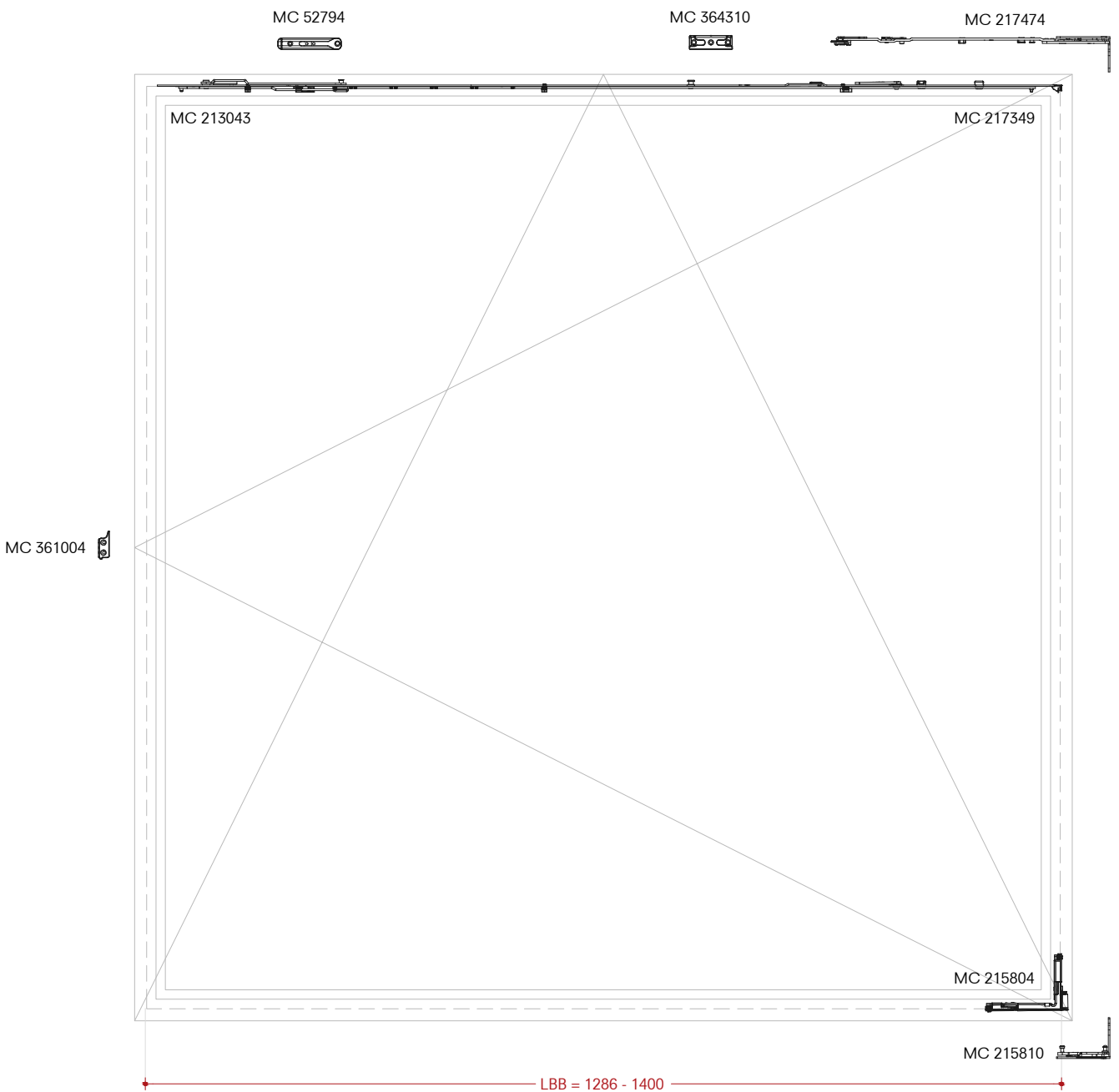
- MC 217474 n°01 piece
- MC 217349 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215804 n°01 piece
- MC 215810 n°01 piece
- MC 361004 n°01 piece
- MC 364310 n°01 piece

K88021

LBB = 1286 - 1400 mm

K88021

LBB = 1286 - 1400 mm



**Tilt&Turn windows**

Scissors and hinges kits  
 Left opening

K88022

LBB = 370 - 600 mm

- MC 217471 n°01 piece
- MC 217346 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece

**Finestre anta ribalta**

Kit forbice e cerniere  
 Apertura sinistra

K88022

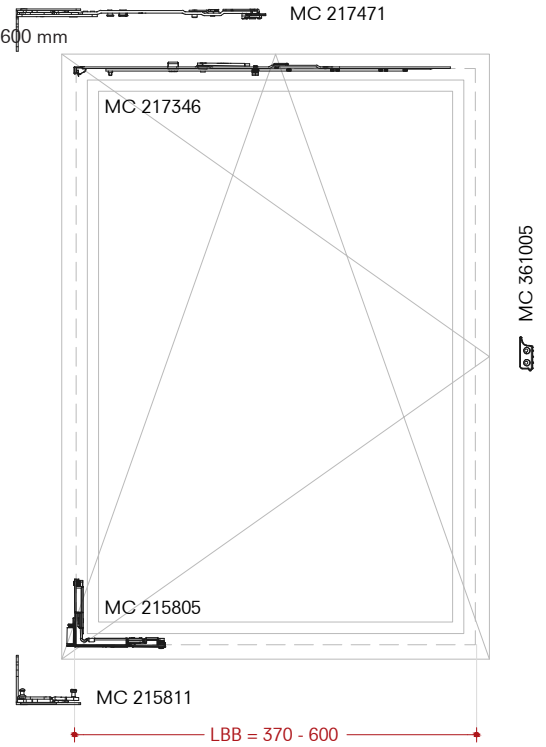
LBB = 370 - 600 mm

**Ventana oscilante**

Kits de cizallas y bisagras  
 Apertura izquierda

K88022

LBB = 370 - 600 mm



K88023

LBB = 601 - 800 mm

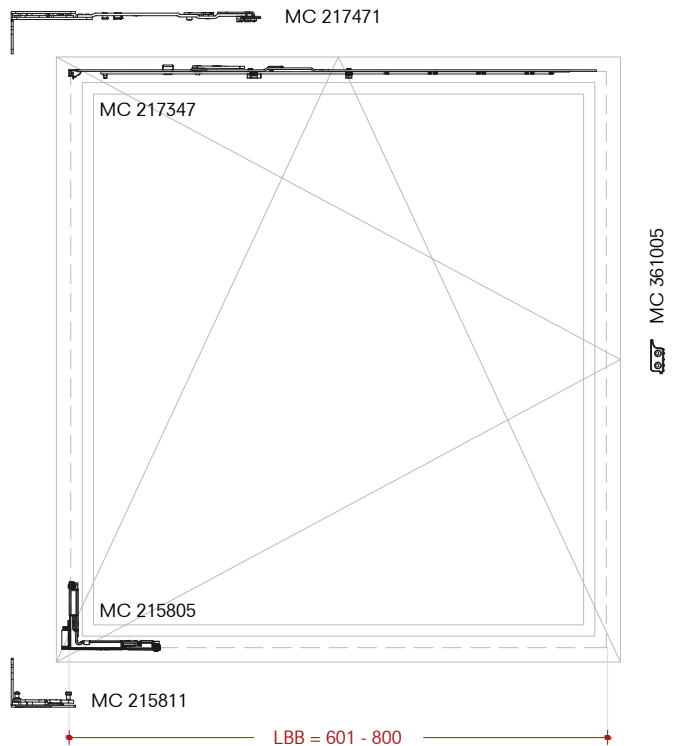
- MC 217471 n°01 piece
- MC 217347 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece

K88023

LBB = 601 - 800 mm

K88023

LBB = 601 - 800 mm



K88024

LBB = 801 - 1050 mm

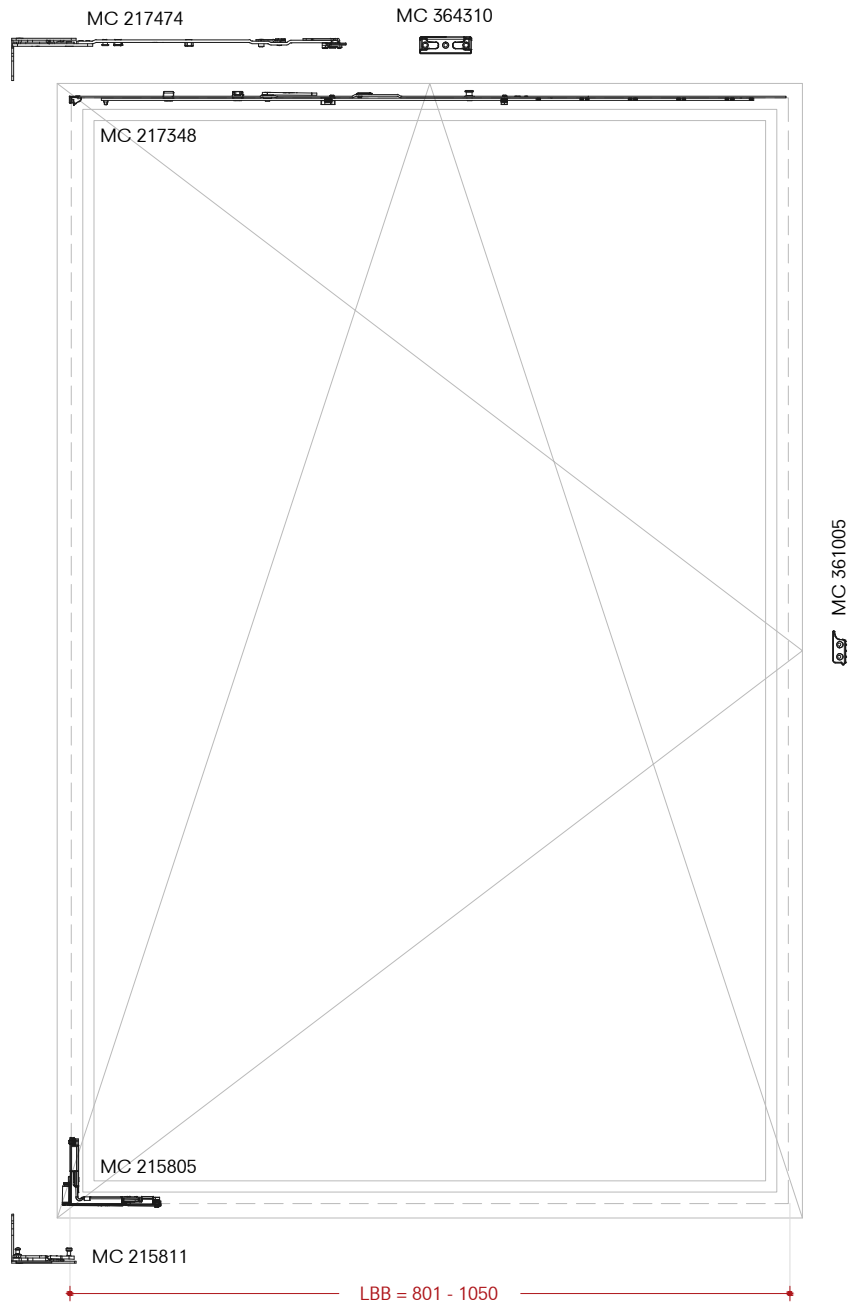
- MC 217475 n°01 piece
- MC 217348 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece
- MC 364310 n°01 piece

K88024

LBB = 801 - 1050 mm

K88024

LBB = 801 - 1050 mm



**Tilt&Turn windows**

Scissors and hinges kits  
 Left opening

K88025

LBB = 1051 - 1285 mm

- MC 217475 n°01 piece
- MC 217348 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece
- MC 364310 n°01 piece

**Finestre anta ribalta**

Kit forbice e cerniere  
 Apertura sinistra

K88025

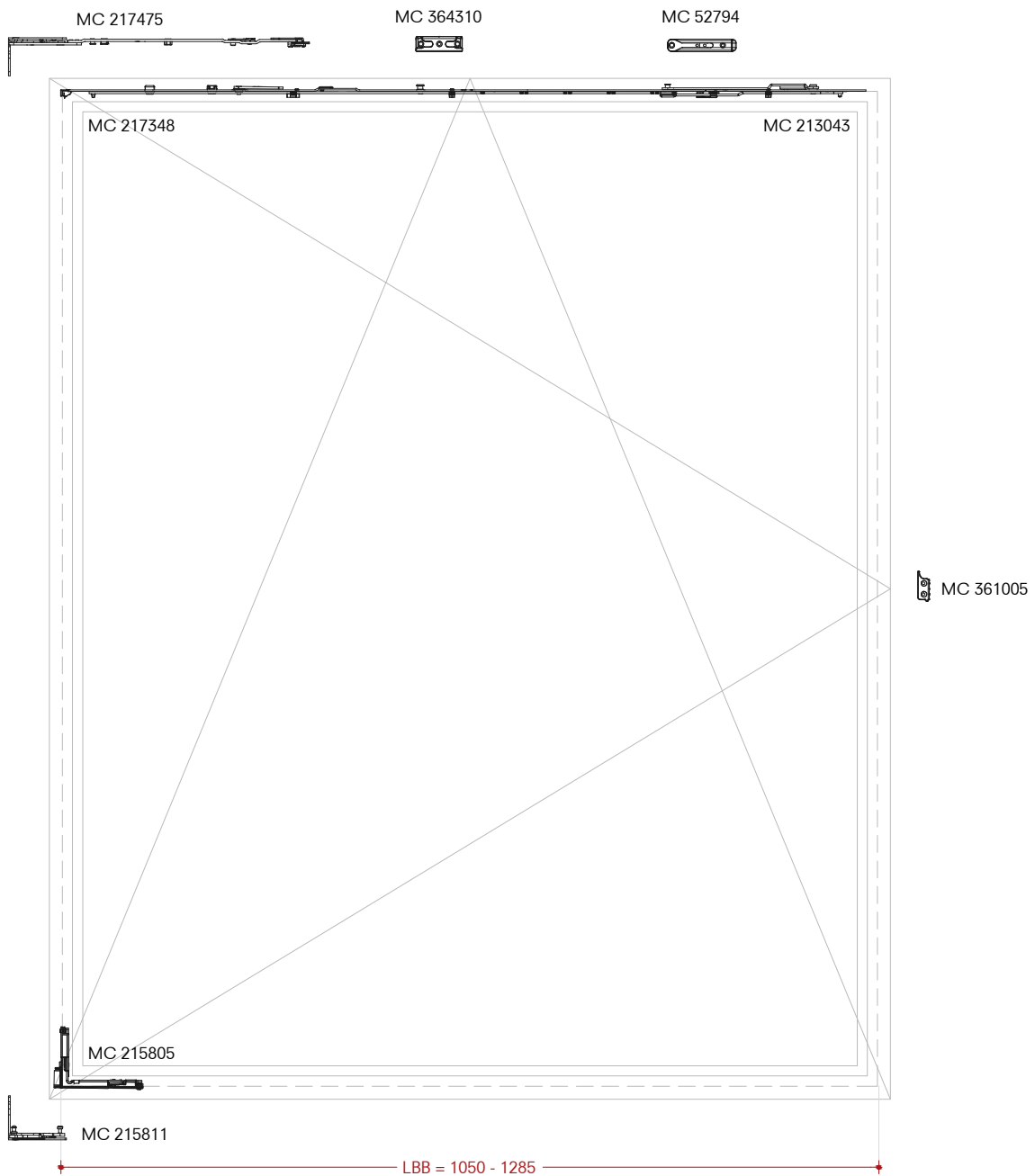
LBB = 1051 - 1285 mm

**Ventana oscilante**

Kits de cizallas y bisagras  
 Apertura izquierda

K88025

LBB = 1051 - 1285 mm



K88026

LBB = 1286 - 1400 mm

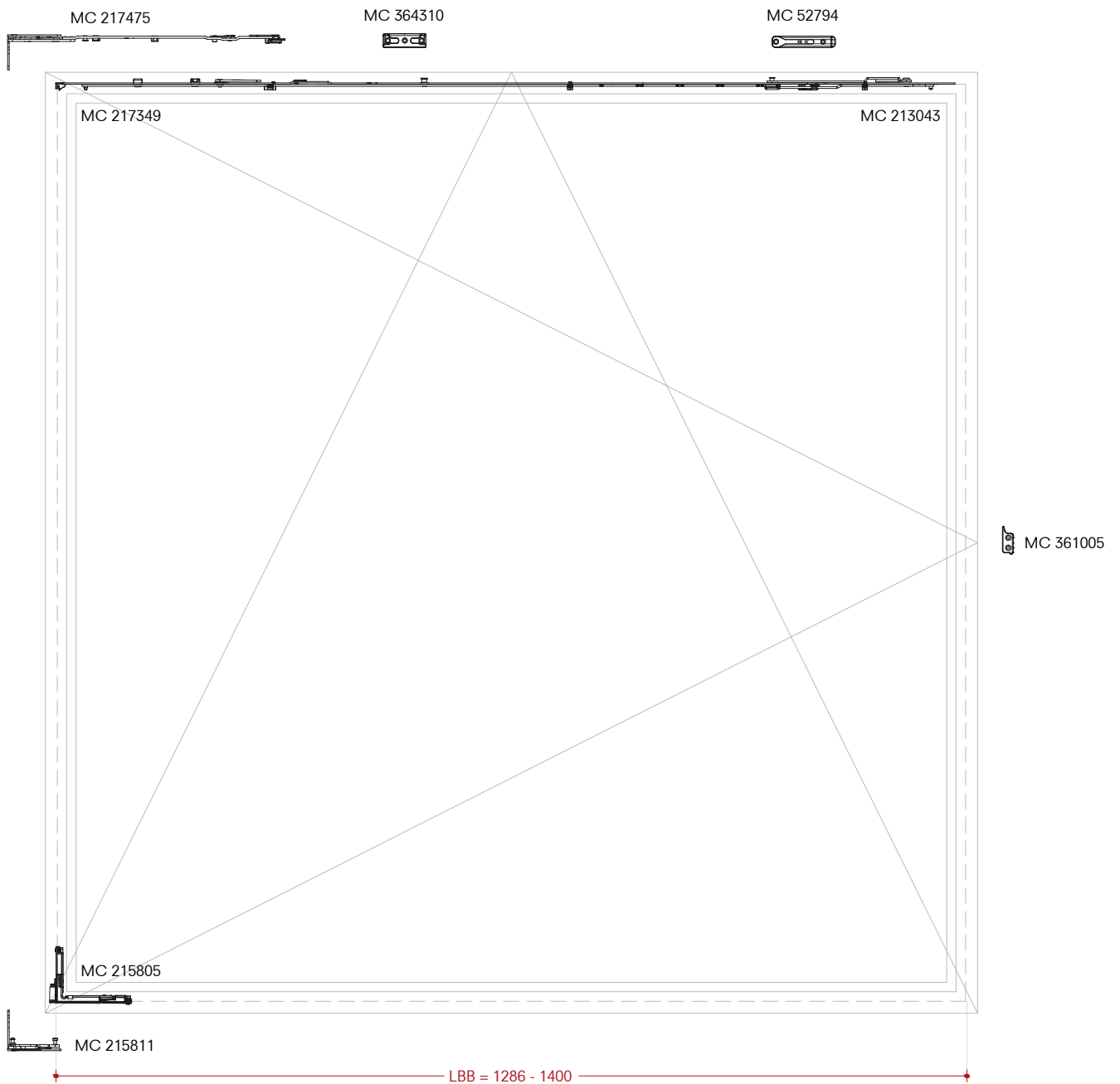
- MC 217475 n°01 piece
- MC 217349 n°01 piece
- MC 213043 n°01 piece
- MC 52794 n°01 piece
- MC 215805 n°01 piece
- MC 215811 n°01 piece
- MC 361005 n°01 piece
- MC 364310 n°01 piece

K88026

LBB = 1286 - 1400 mm

K88026

LBB = 1286 - 1400 mm



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Additional hinge side locking point

Punto di chiusura aggiuntivo lato cerniera

Punto de bloqueo adicional lado de la bisagra

K88027

HBB = 801 - 1280 mm

MC 201751 n°01 piece  
MC 364310 n°01 piece

K88027

HBB = 801 - 1280 mm

K88027

HBB = 801 - 1280 mm

K88028

HBB = 1281 - 1500 mm

MC 201752 n°01 piece  
MC 364310 n°01 piece

K88028

HBB = 1281 - 1500 mm

K88028

HBB = 1281 - 1500 mm

K88029

HBB = 1501 - 1700 mm

MC 201840 n°01 piece  
MC 201753 n°01 piece  
MC 364310 n°02 pieces

K88029

HBB = 1501 - 1700 mm

K88029

HBB = 1501 - 1700 mm

K88030

HBB = 1701 - 2800 mm

MC 201754 n°01 piece  
MC 364310 n°02 pieces

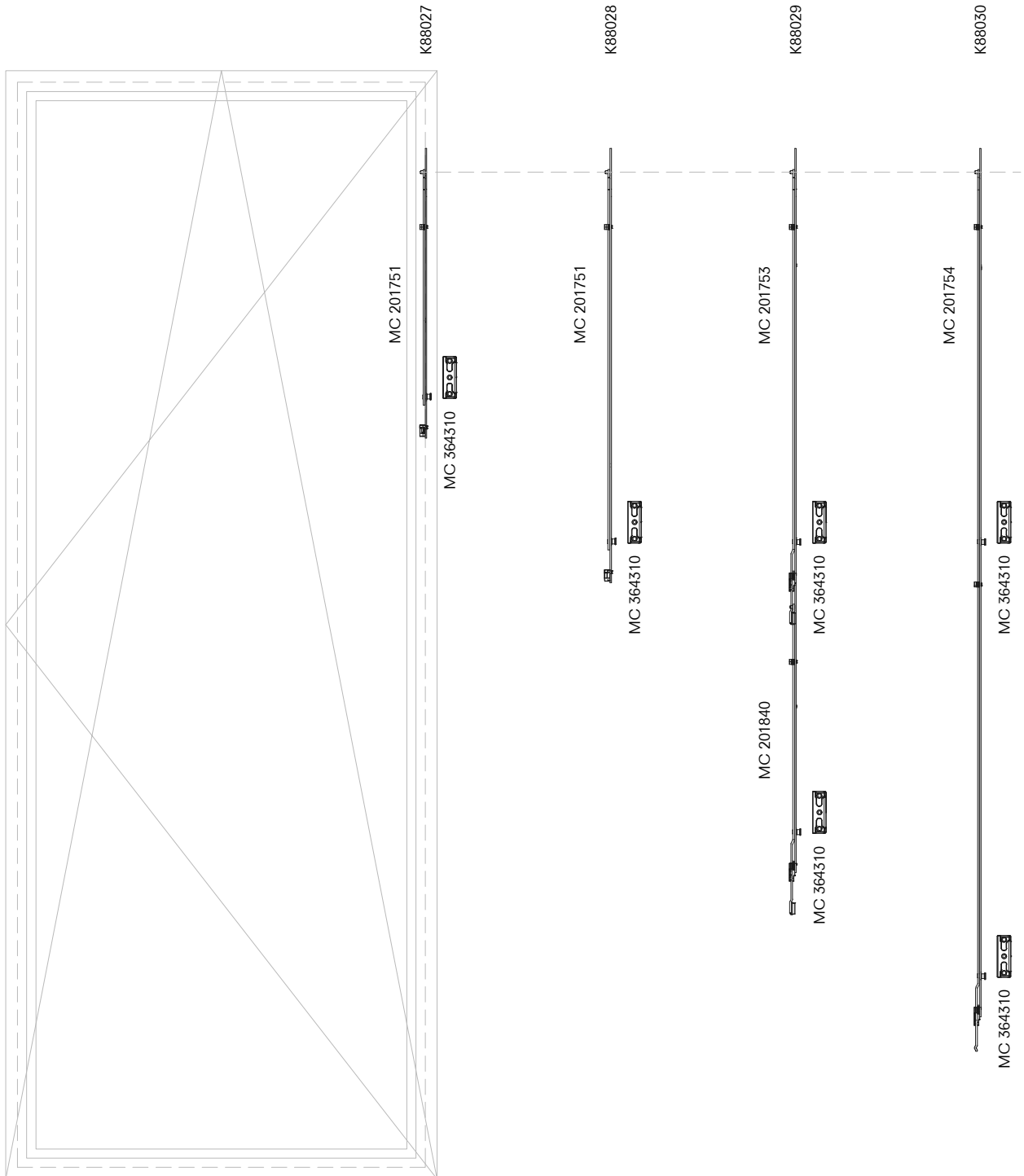
K88030

HBB = 1701 - 2800 mm

K88030

HBB = 1701 - 2800 mm





**Tilt&Turn windows**

Additional bottom side locking point

K88031

LBB = 801 - 1280 mm

MC 201751 n°01 piece  
 MC 364310 n°01 piece

**Finestre anta ribalta**

Punto di chiusura aggiuntivo lato inferiore

K88031

LBB = 801 - 1280 mm

K88031

LBB = 801 - 1280 mm

**Ventana oscilante**

Punto de bloqueo adicional lado inferior

K88032

LBB = 1281 - 1400 mm

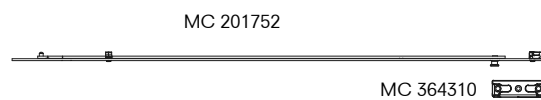
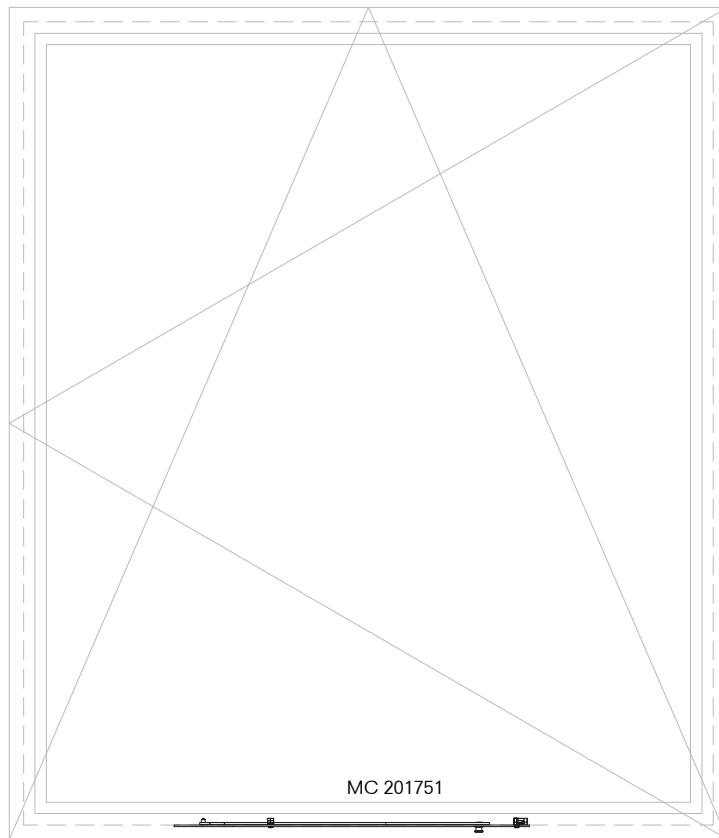
MC 201752 n°01 piece  
 MC 364310 n°01 piece

K88032

LBB = 1281 - 1400 mm

K88032

LBB = 1281 - 1400 mm



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Hinges kits 2nd leaf

Kit cerniere 2a anta

Kits de bisagras 2do hoja

K88034

K88034

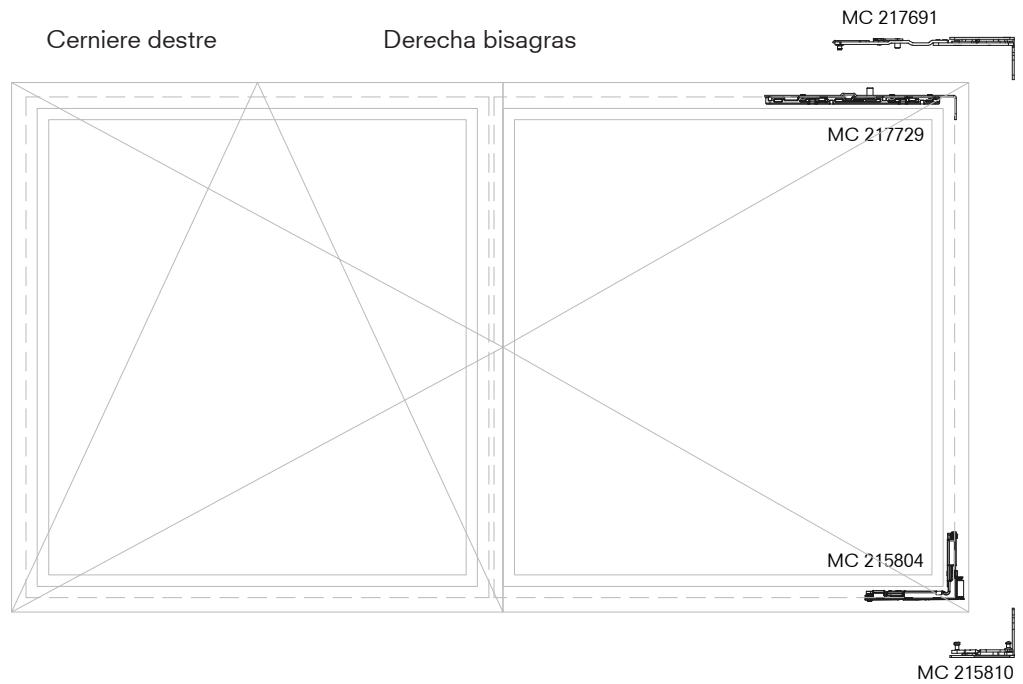
K88034

Right hinges

Cerniere destre

Derecha bisagras

MC 217691 n°01 piece  
 MC 217729 n°01 piece  
 MC 215804 n°01 piece  
 MC 215810 n°01 piece



K88035

K88035

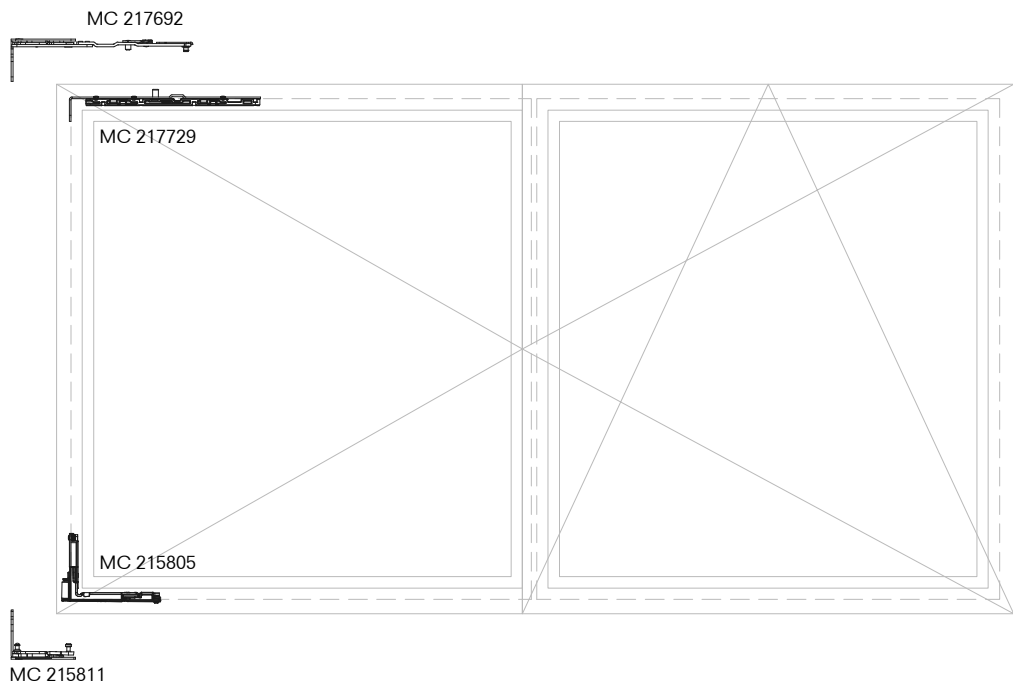
K88035

Left hinges

Cerniere sinistre

Izquierda bisagras

MC 217692 n°01 piece  
 MC 217729 n°01 piece  
 MC 215805 n°01 piece  
 MC 215811 n°01 piece



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Concealed compression locks kits

Kit cerniere centrali a scomparsa

Kits de bisagras ocultas centrales

K88036

HBB = 1280 - 2000 mm

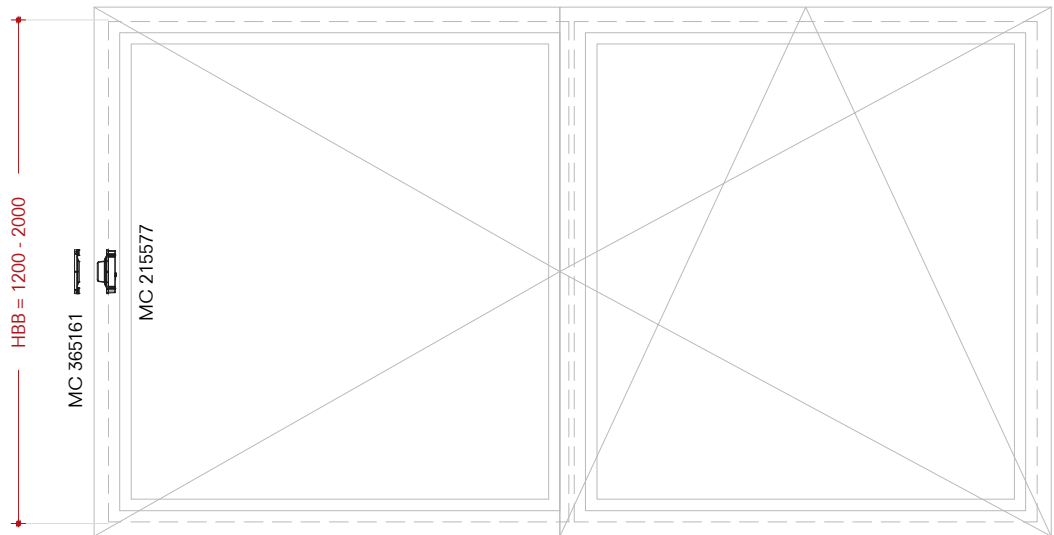
MC 215577 n°01 piece  
 MC 365161 n°01 piece

K88036

HBB = 1280 - 2000 mm

K88036

HBB = 1280 - 2000 mm



K88037

HBB = 2001 - 2800 mm

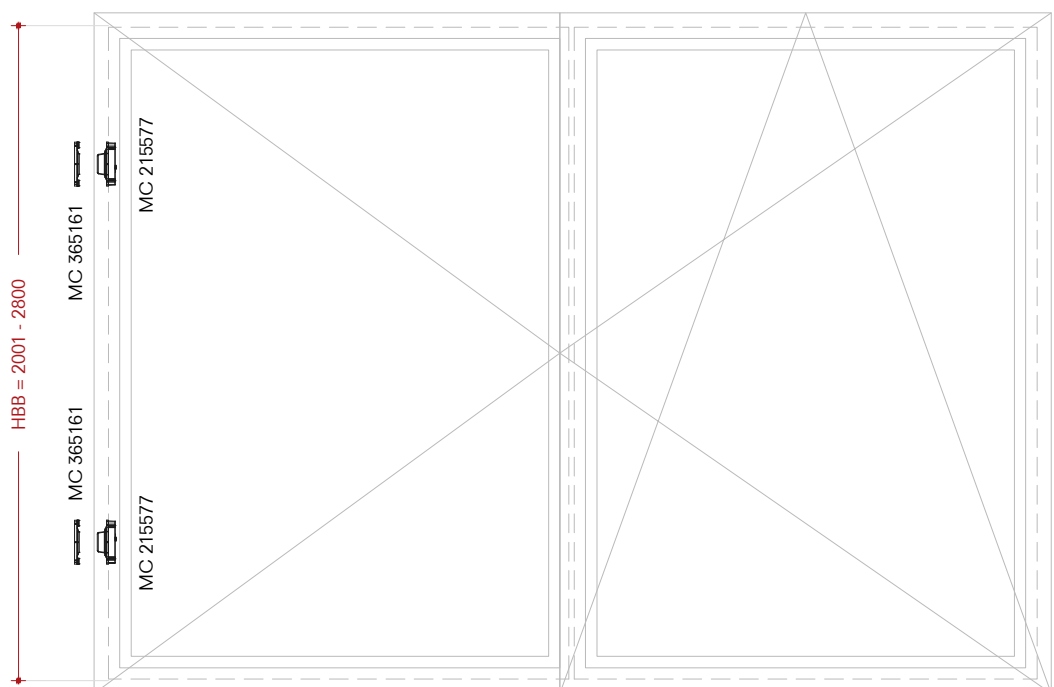
MC 215577 n°01 piece  
 MC 365161 n°01 piece

K88037

HBB = 2001 - 2800 mm

K88037

HBB = 2001 - 2800 mm



**Tilt&Turn windows**

French casement lock extendable

K88038

LBB = 370 - 800 mm

MC 215336 n°02 pieces  
 MC 364310 n°02 pieces

**Finestre anta ribalta**

Catenacci angolari estendibili

K88038

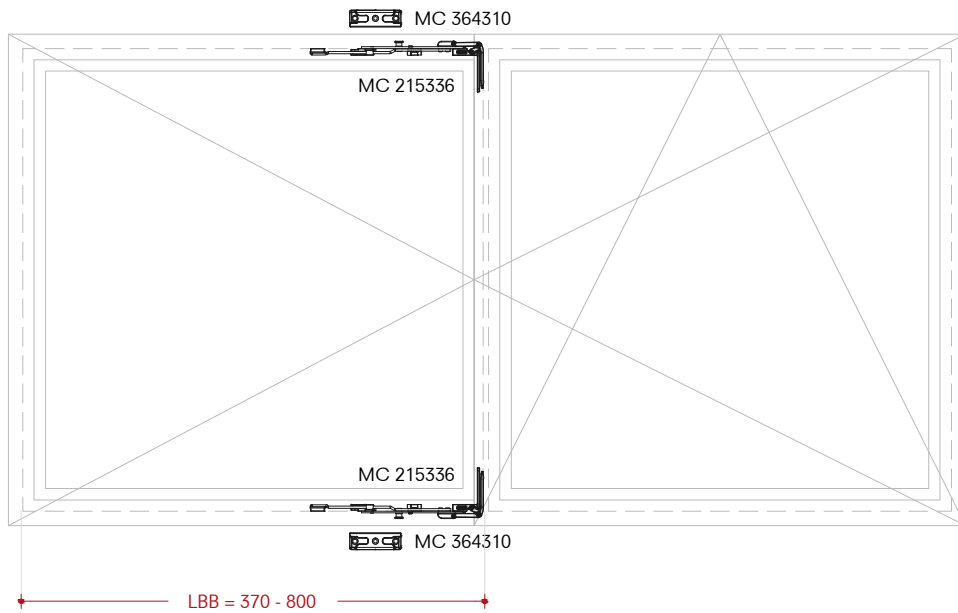
LBB = 370 - 800 mm

**Ventana oscilante**

Cerradura abatible francesa extensible

K88038

LBB = 370 - 800 mm



K88039

LBB = 801 - 1400 mm

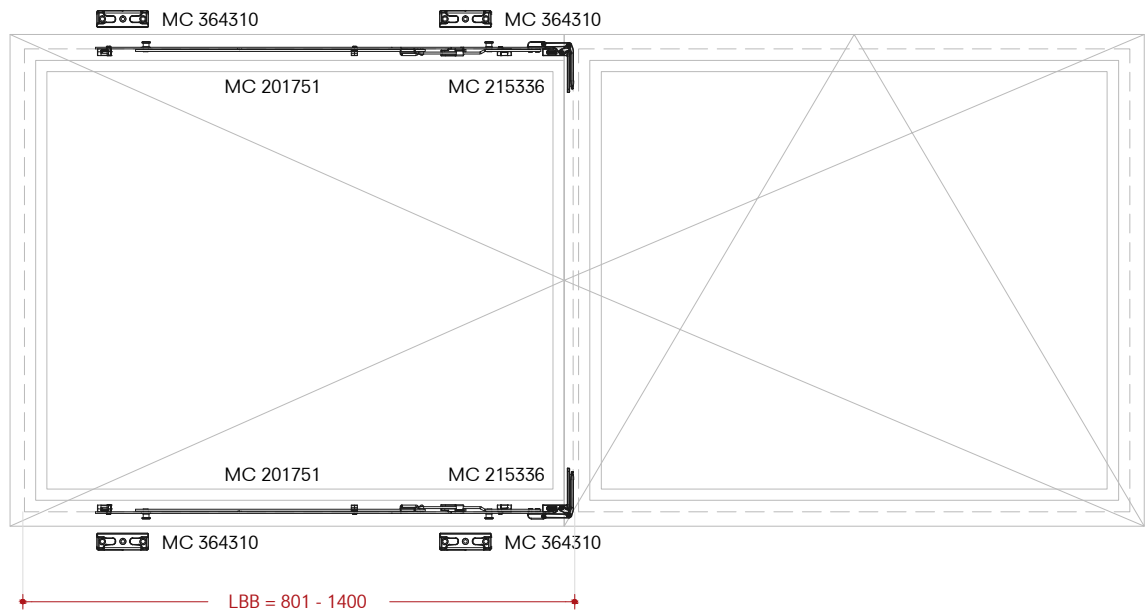
MC 215336 n°02 pieces  
 MC 201751 n°02 pieces  
 MC 364310 n°04 pieces

K88039

LBB = 801 - 1400 mm

K88039

LBB = 801 - 1400 mm



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Roller snap catch

Scrocco a rullo

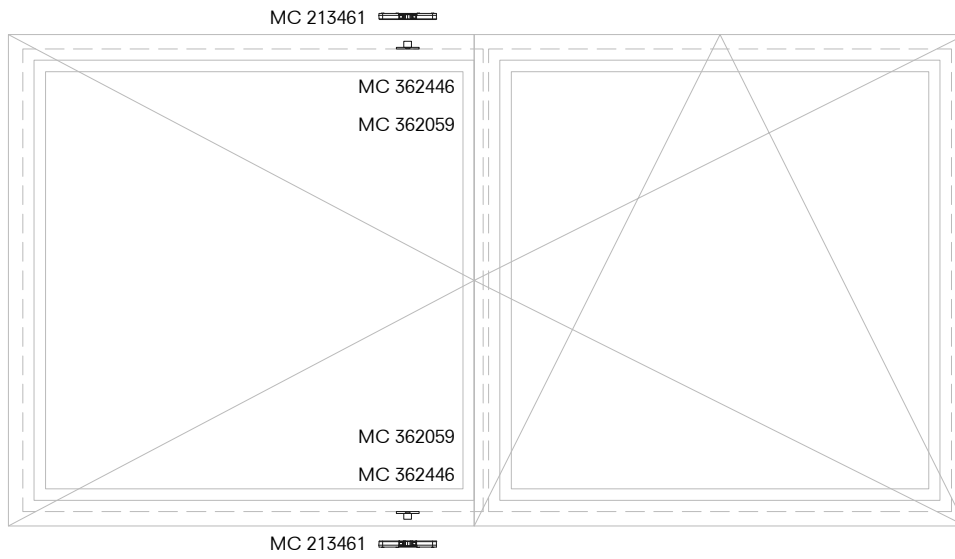
Pestillo de rodillo

K88201

K88201

K88201

MC 213461 n°02 pieces  
MC 362059 n°02 pieces  
MC 362446 n°02 pieces



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Extendable french casement lock +  
 upper roller snap catch

Serratura anta francese estensibile +  
 scrocco a rullo superiore

Cerradura de marco francés extensible  
 + cierre de presión de rodillo superior

K88041

K88041

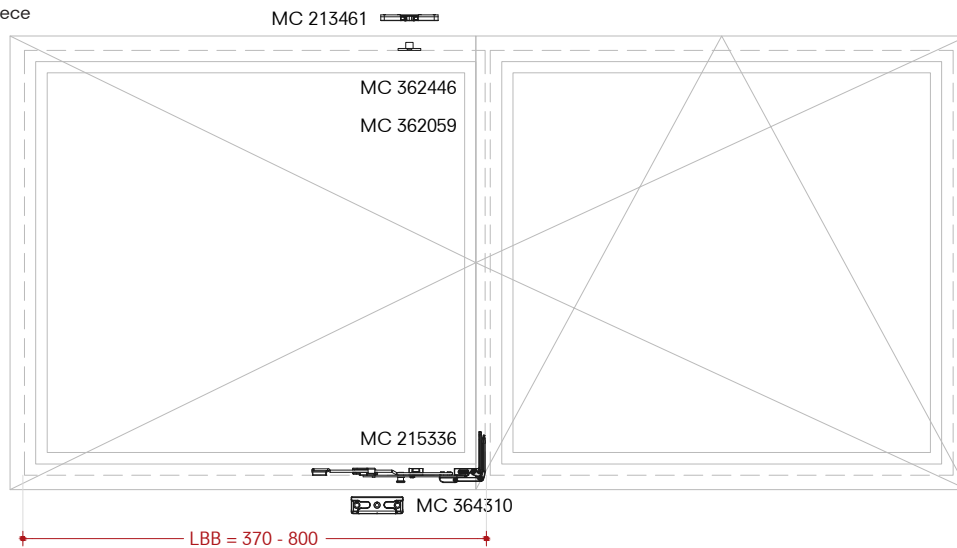
K88041

LBB = 370 - 800 mm

LBB = 370 - 800 mm

LBB = 370 - 800 mm

- MC 213461 n°01 piece
- MC 362059 n°01 piece
- MC 362446 n°01 piece
- MC 215336 n°01 piece
- MC 364310 n°01 piece



K88042

K88042

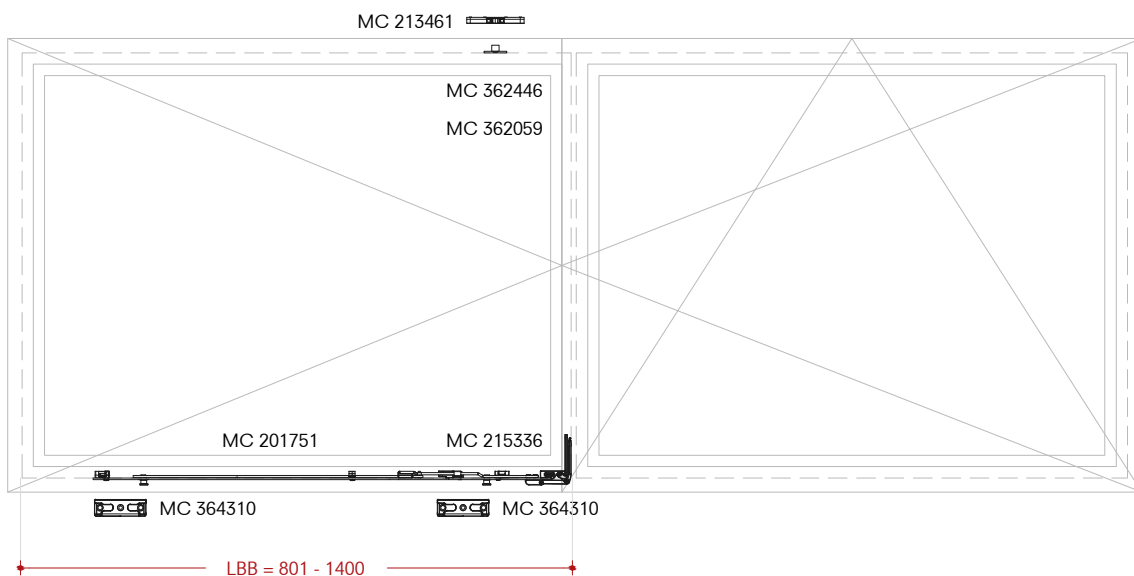
K88042

LBB = 801 - 1280 mm

LBB = 801 - 1280 mm

LBB = 801 - 1280 mm

- MC 213461 n°01 piece
- MC 362059 n°01 piece
- MC 362446 n°01 piece
- MC 215336 n°01 piece
- MC 201751 n°01 piece
- MC 364310 n°02 pieces



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Door catch

Scrocco porta

Pestillo de puerta

K88061

K88061

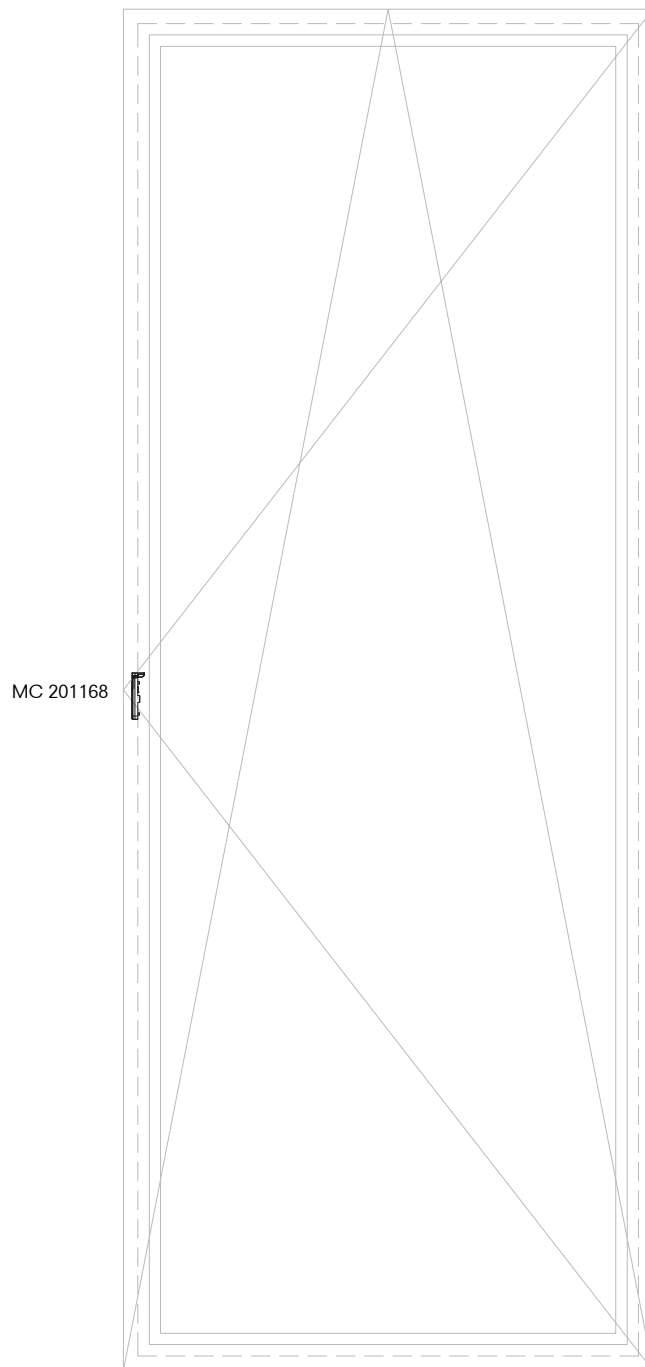
K88061

HBB = 661 - 2800 mm

HBB = 661 - 2800 mm

HBB = 661 - 2800 mm

MC 201168 n°01 piece





**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Opening restrictor

Limitatore di apertura

Limitador de apertura

K88033

K88033

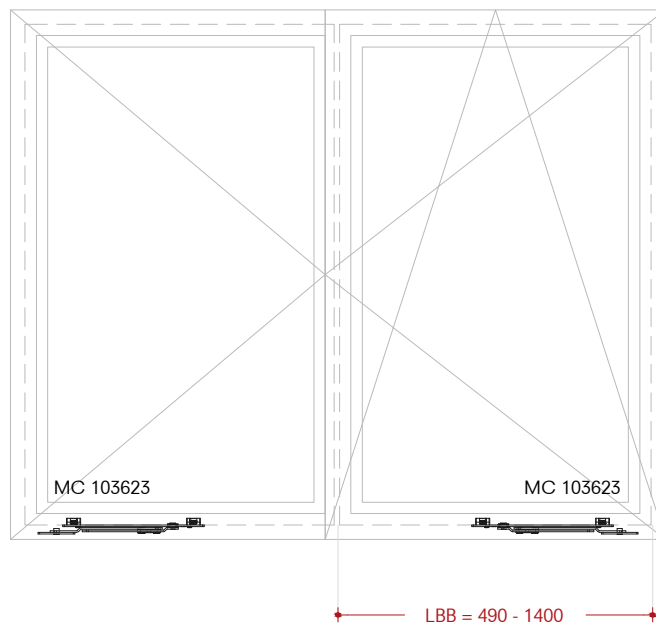
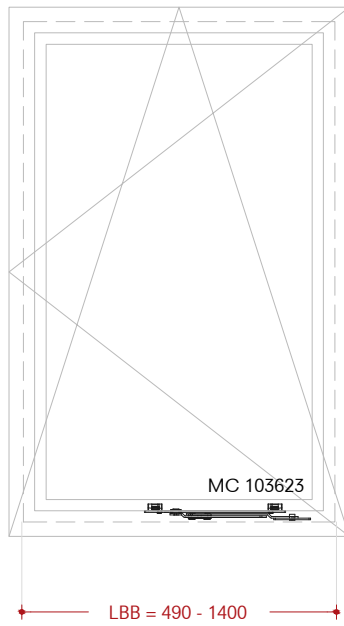
K88033

LBB = 490 - 1400 mm

LBB = 490 - 1400 mm

LBB = 490 - 1400 mm

MC 103623 n°01 piece



**Tilt&Turn windows**

Load transfer 180 kg

**Finestre anta ribalta**

Asta di sostegno 180 kg

**Ventana oscilante**

Varilla de soporte 180 kg

E99510-02

Right

MC 105336 n°01 piece

E99510-02

Destro

E99510-02

Derecha

E99511-02

Left

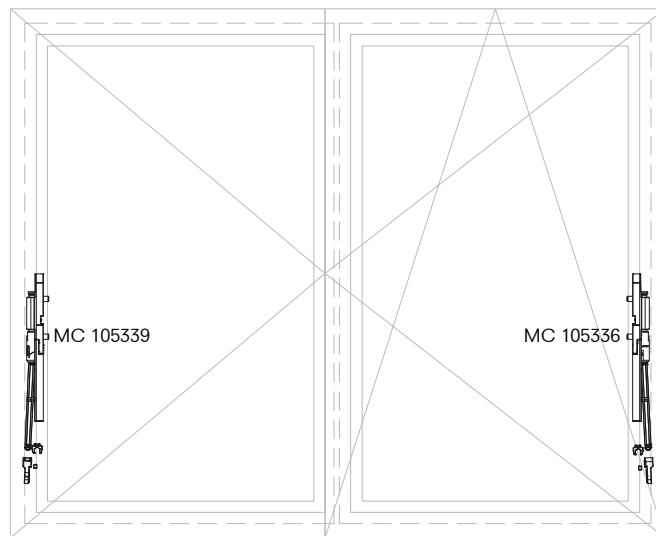
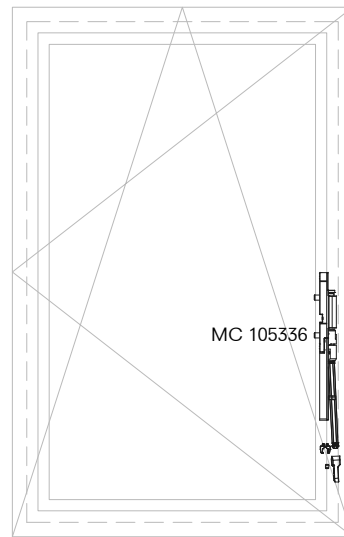
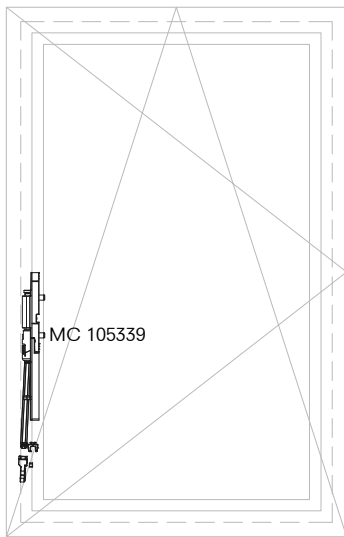
MC 105339 n°01 piece

E99511-02

Sinistro

E99511-02

Izquierda



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

Alarm contact

Contatto allarme

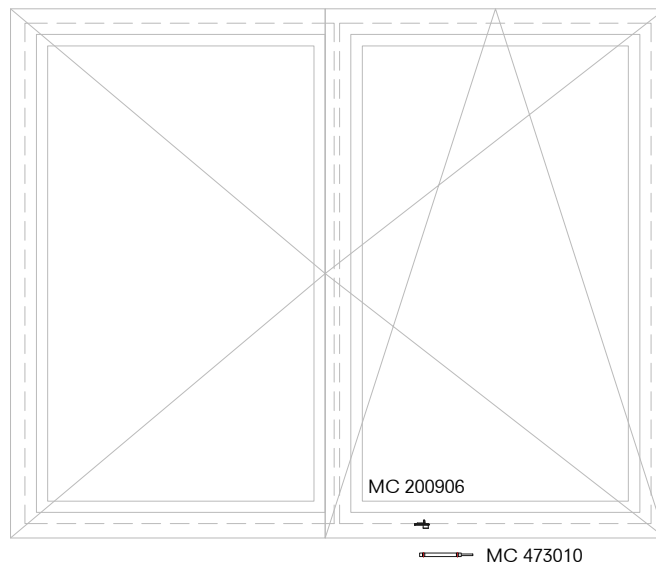
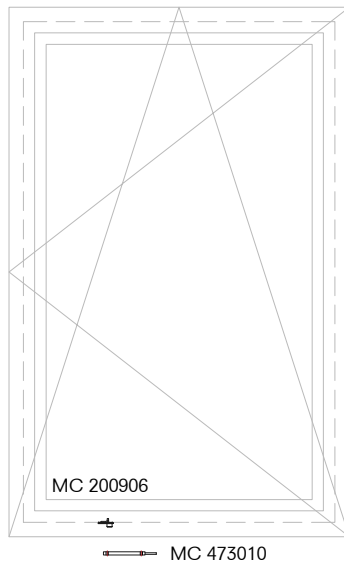
Contacto de alarma

K99062

K99062

K99062

MC 200906 n°01 piece  
MC 473010 n°01 piece



**Tilt&Turn windows**

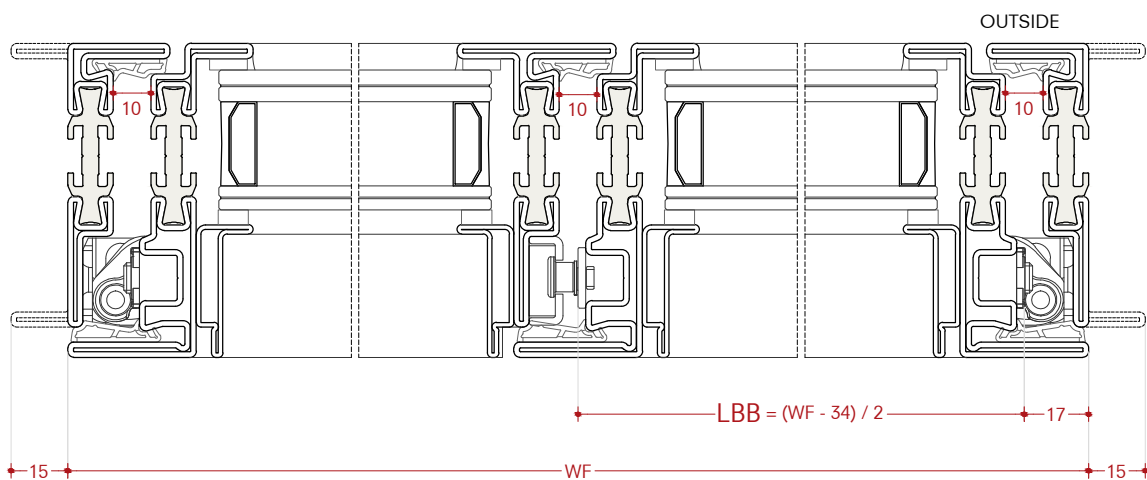
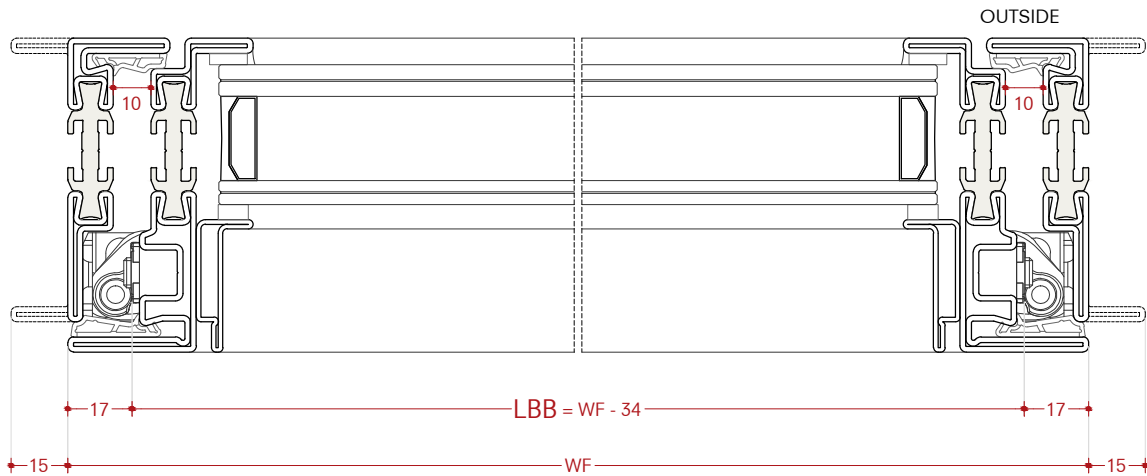
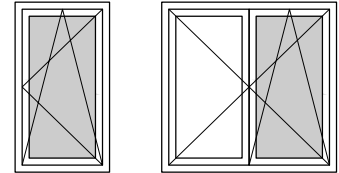
Determination of LBB  
 (Groove Hardware Length)

**Finestre anta ribalta**

Determinazione di LBB  
 (Larghezza cava ferramenta)

**Ventana oscilante**

Determinación de LBB  
 (longitud de la ranura del hardware)



**Tilt&Turn windows**

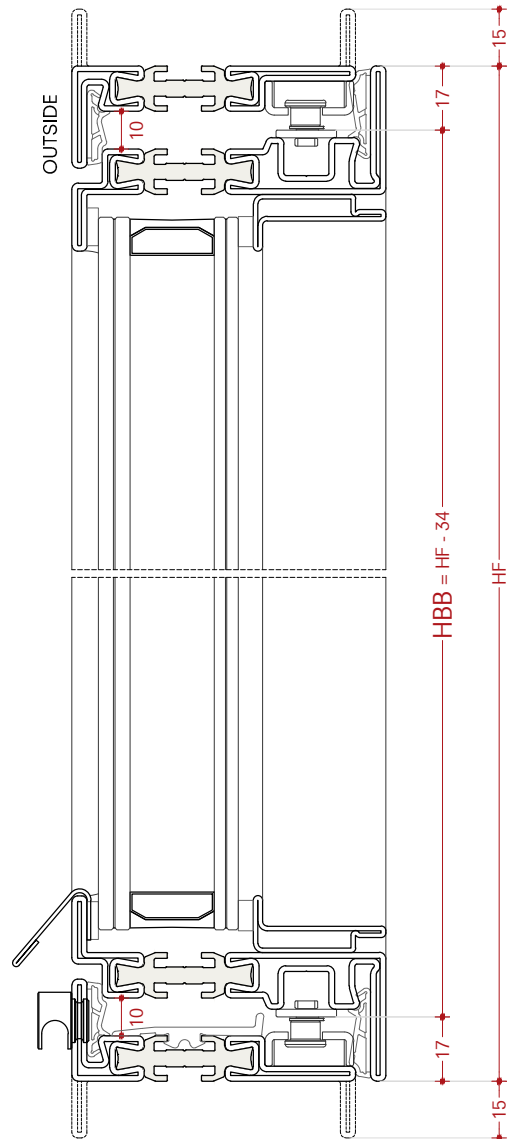
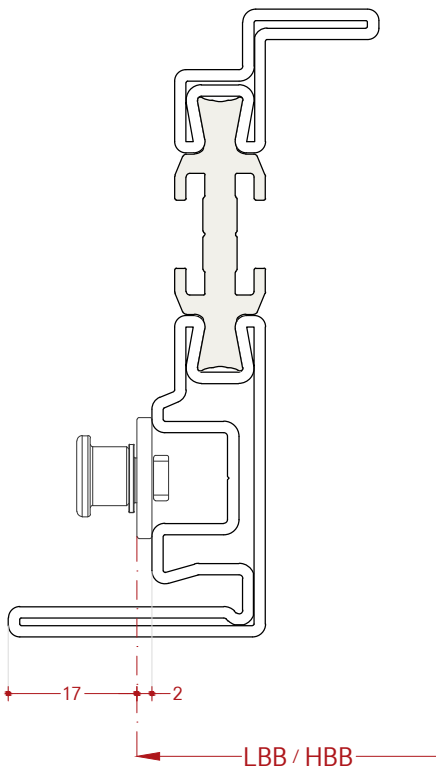
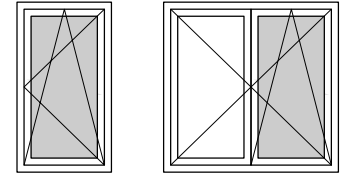
Determination of HBB  
 (Groove Hardware Height)

**Finestre anta ribalta**

Determinazione di HBB  
 (altezza cava ferramenta)

**Ventana oscilante**

Determinación de HBB  
 (altura de la ranura del hardware)



**Tilt&Turn windows**

**Finestre anta ribalta**

**Ventana oscilante**

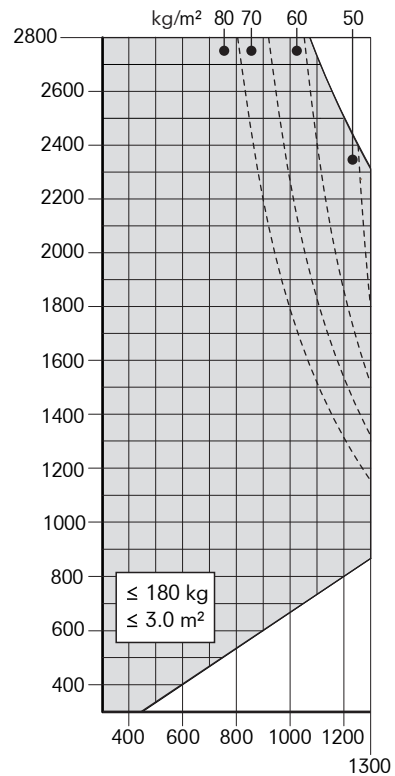
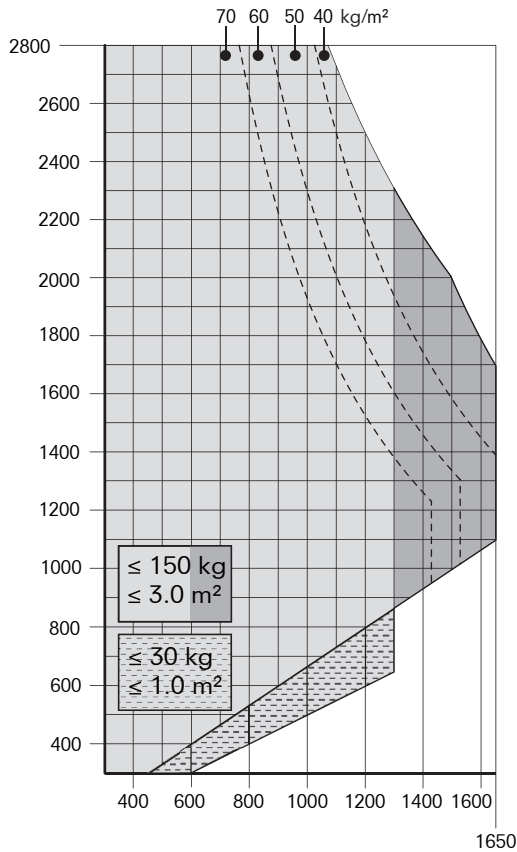
Load capacity tables

Tabelle portate

Tablas de peso

T&T window concealed accessories capacity  
 Portate ferramenta a scomparsa per finestre anta ribalta  
 Peso de accesorios ocultas para ventana arriba

T&T window concealed accessories capacity  
 with support rod E99510-02 / E99511-02  
 Portate ferramenta a scomparsa per finestre anta ribalta  
 con asta di sostegno E99510-02 / E99511-02  
 Peso de accesorios ocultas para ventana arriba  
 con varilla de soporte E99510-02 / E99511-02



Standard handle height

Altezza maniglia standard

Altura del manilla estándar

|               | HBB min | HBB max | H handle |
|---------------|---------|---------|----------|
| <b>K88003</b> | 370     | 660     | 190      |
| <b>K88004</b> | 661     | 840     | 300      |
| <b>K88005</b> | 841     | 1090    | 400      |
| <b>K88006</b> | 1091    | 1340    | 500      |
| <b>K88007</b> | 1341    | 1590    | 600      |
| <b>K88008</b> | 1591    | 1700    | 700      |
| <b>K88009</b> | 1701    | 1950    | 1050     |
| <b>K88010</b> | 1951    | 2200    | 1050     |

**Tilt&Turn windows**

**Finestre anta ribalta**

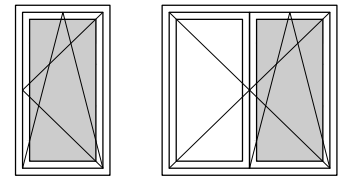
**Ventana oscilante**

Step #1 - Basic kit choice

Passo #1 - Scelta del kit base

Paso #1 - Elección de kit básico

|                   | LBB min | LBB max | HBB min | HBB max |
|-------------------|---------|---------|---------|---------|
| <b>K88001</b>     | 465     | 1400    | 455     | 2800    |
| <b>K88002</b>     | 370     | 464     | 455     | 2800    |
| <b>K88002</b>     | 465     | 815     | 370     | 454     |
| <b>K88117 (*)</b> | 370     | 464     | 455     | 2800    |



LBB = Groove Hardware Length  
 HBB = Groove Hardware Height

LBB = larghezza cava ferramenta  
 HBB = altezza cava ferramenta

LBB = longitud de la ranura del hardware  
 HBB = altura de la ranura del hardware

(\*) Only for double leaf windows with  
 K88041 - K88042 - K88201

(\*) Solo per finestre a doppia anta con  
 K88041 - K88042 - K88201

(\*) Solo para ventanas de dos hojas con  
 K88041 - K88042 - K88201

Step #2 - Gear kit choice

Passo #2 - Scelta del kit Cremonese

Paso #2 - Elección de kit de equipo

|               | HH   | HDG    | CRP   | HCRN  | HBB min | HBB max<br>(without extension) | HBB max<br>(with extension) |
|---------------|------|--------|-------|-------|---------|--------------------------------|-----------------------------|
| <b>K88003</b> | 190  | 555    | 220   | 5     | 370     | 454                            | 2335                        |
| <b>K88003</b> | 190  | 555    | 220   | 113.5 | 455     | 660                            | 2540                        |
| <b>K88004</b> | 300  | 736.5  | 190.5 | 113.5 | 661     | 840                            | 2720                        |
| <b>K88005</b> | 400  | 986.5  | 260.5 | 113.5 | 841     | 1090                           | 2970 (*)                    |
| <b>K88006</b> | 500  | 1236.5 | 260.5 | 113.5 | 1091    | 1340                           | 3150 (*)                    |
| <b>K88007</b> | 600  | 1486.5 | 260.5 | 113.5 | 1341    | 1590                           | 3150 (*)                    |
| <b>K88008</b> | 700  | 1596.5 | 260.5 | 113.5 | 1591    | 1700                           | 3150 (*)                    |
| <b>K88009</b> | 1050 | 1846.5 | 260.5 | 113.5 | 1701    | 1950                           | 3150 (*)                    |
| <b>K88010</b> | 1050 | 2096.5 | 260.5 | 113.5 | 1951    | 2200                           | 3150 (*)                    |

HH = Height Handle  
 HDG = Height Drive Gear  
 CRP = Cropping measures  
 HCRN = Height Corner  
 HBB = Groove Hardware Height

HH = altezza maniglia  
 HDG = altezza guida cremonese  
 CRP = misura di taglio  
 HCRN = altezza dell'angolo  
 HBB = altezza cava ferramenta

HH = altura manilla  
 HDG = altura de la guía de equipo  
 CRP = medida de corte  
 HCRN = altura de la esquina  
 HBB = altura de la ranura del hardware

(\*) = Over 2800 mm technical department  
 confirmation needed.

(\*) = Conferma dell'ufficio tecnico necessaria  
 per dimensioni superiori a 2800 mm

(\*) = Se necesita confirmación del departamento  
 técnico para dimensiones superiores a  
 2800 mm

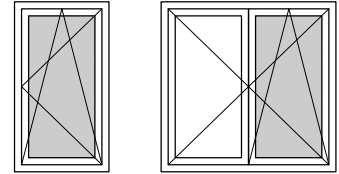
Step #3 - Extension kits choice

Passo #3 - Scelta del kit estensione Cremonese

Paso #3 - Elección de kit extensión

**HBB \* - HCRN - HDG =** Extension kit length  
 larghezza kit prolunga  
 longitud de kit extensión

|                        | MinL | MaxL |
|------------------------|------|------|
| <b>K88011</b>          | 0    | 140  |
| <b>K88012</b>          | 141  | 235  |
| <b>K88059</b>          | 236  | 375  |
| <b>K88013</b>          | 376  | 470  |
| <b>K88014</b>          | 471  | 610  |
| <b>K88015</b>          | 611  | 705  |
| <b>K88060</b>          | 706  | 845  |
| <b>K88016</b>          | 846  | 940  |
| <b>K88016 / K88011</b> | 941  | 1080 |
| <b>K88016 / K88012</b> | 1081 | 1175 |
| <b>K88016 / K88059</b> | 1176 | 1315 |
| <b>K88016 / K88013</b> | 1316 | 1410 |
| <b>K88016 / K88014</b> | 1411 | 1550 |
| <b>K88016 / K88015</b> | 1551 | 1650 |
| <b>K88016 / K88060</b> | 1651 | 1785 |
| <b>K88016 / K88016</b> | 1786 | 1880 |



\* See HBB information page

MinL = Min Length (mm)  
 MaxL = Max Length (mm)

Example:  
 HBB = 1780 mm; HM = 300 mm  
 1780 - 113.5 - 736.5 = 930 mm ---> K88016

HBB = 2700 mm; HM = 1050 mm  
 2700 - 113.5 - 2096.5 = 490 mm ---> K88014

MinL = larghezza minima (mm)  
 MaxL = larghezza massima (mm)

Example:  
 HBB = 1780 mm; HM = 300 mm  
 1780 - 113.5 - 736.5 = 930 mm ---> K88016

HBB = 2700 mm; HM = 1050 mm  
 2700 - 113.5 - 2096.5 = 490 mm ---> K88014

MinL = longitud mínimo (mm)  
 MaxL = longitud máximo (mm)

Example:  
 HBB = 1780 mm; HM = 300 mm  
 1780 - 113.5 - 736.5 = 930 mm ---> K88016

HBB = 2700 mm; HM = 1050 mm  
 2700 - 113.5 - 2096.5 = 490 mm ---> K88014

Step #4 - Scissors and hinges kit choice

Passo #4 - Scelta del kit forbice e cerniere

Paso #4 - Elección de kit de cizallas y bisagras

Left / Sinistro / Izquierda

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88022</b> | 370     | 600     |
| <b>K88023</b> | 601     | 800     |
| <b>K88024</b> | 801     | 1050    |
| <b>K88025</b> | 1051    | 1285    |
| <b>K88026</b> | 1286    | 1400    |

Right / Destro / Derecha

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88017</b> | 370     | 600     |
| <b>K88018</b> | 601     | 800     |
| <b>K88019</b> | 801     | 1050    |
| <b>K88020</b> | 1051    | 1285    |
| <b>K88021</b> | 1286    | 1400    |

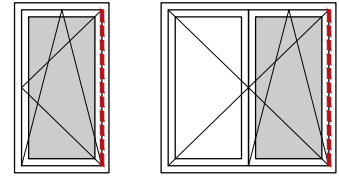


Step #5 - Additional hinge side locking point choice

Passo #5 - Scelta punto di chiusura aggiuntivo lato cerniera

Paso #5 - Elección punto de bloqueo adicional lado de la bisagra

|               | HBB min | HBB max |
|---------------|---------|---------|
| <b>K88027</b> | 801     | 1280    |
| <b>K88028</b> | 1281    | 1500    |
| <b>K88029</b> | 1501    | 1700    |
| <b>K88030</b> | 1701    | 2800    |

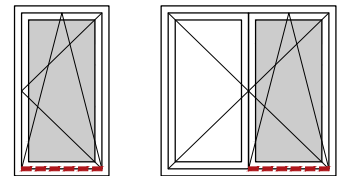


Step #6 - Additional bottom side locking point choice

Passo #6 - Scelta punto di chiusura aggiuntivo lato inferiore

Paso #6 - Elección punto de bloqueo adicional lado inferior

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88031</b> | 800     | 1280    |
| <b>K88032</b> | 1281    | 1400    |



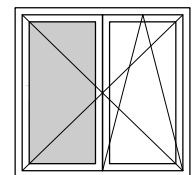
Step #7 - 2nd leaf hinges kit choice

Passo #7 - Scelta kit cerniere 2a anta

Paso #7 - Elección kit de bisagras 2do hoja

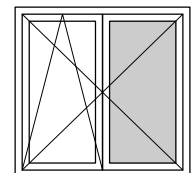
Left / Sinistro / Izquierda

|               | LBB min | LBB max | HBB min | HBB max |
|---------------|---------|---------|---------|---------|
| <b>K88035</b> | 370     | 1400    | 365     | 2800    |



Right / Destro / Derecha

|               | LBB min | LBB max | HBB min | HBB max |
|---------------|---------|---------|---------|---------|
| <b>K88034</b> | 370     | 1400    | 365     | 2800    |

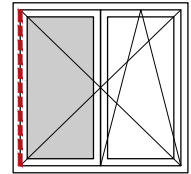


Step #8 - Concealed compression lock kit choice for 2nd leaf

Passo #8 - Scelta kit cerniere centrali a scomparsa per 2a anta

Paso #8 - Elección kit de cerraduras de compresión oculto para 2do hoja

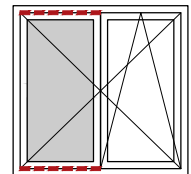
|               | HBB min | HBB max |
|---------------|---------|---------|
| <b>K88036</b> | 1280    | 2000    |
| <b>K88037</b> | 2001    | 2800    |



Step #9 - 2nd leaf lock choice  
 Choose option A or B or C

Passo #9 - Scelta chiusura 2a anta  
 Scegli l'opzione A o B o C

Paso #9 - Elección cerradura 2do hoja  
 Elija la opción A o B o C



A - Extendable french casement lock choice

A - Scelta catenacci angolari estendibili

A - Elección cerradura abatible francesa extensible

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88038</b> | 370     | 800     |
| <b>K88039</b> | 801     | 1400    |

B - Roller snap catch

B - Scrocchi a rullo

B - Pestillo de rodillo

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88201</b> | 370     | 1400    |

C - Extendable french casement lock + upper roller snap catch

C - Serratura anta francese estensibile + scrocco a rullo superiore

C - Cerradura de marco francés extensible + cierre de presión de rodillo superior

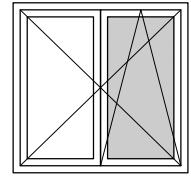
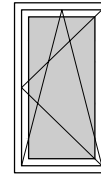
|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88041</b> | 370     | 800     |
| <b>K88042</b> | 801     | 1400    |

Step #10 - Door catch choice

Passo #10 - Scelta scrocco porta

Paso #10 - Elección pestillo de puerta

|               | HBB min | HBB max |
|---------------|---------|---------|
| <b>K88061</b> | 661     | 2800    |

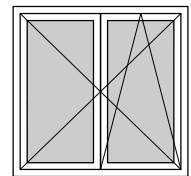
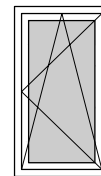


Step #11 - Opening restrictor choice

Passo #11 - Scelta limitatore di apertura

Paso #11 - Elección limitador de apertura

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88033</b> | 490     | 1400    |

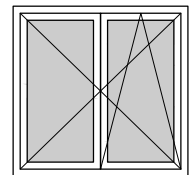
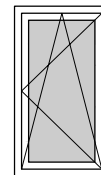


Step #12 - Load transfer 180 kg choice

Passo #12 - Scelta asta di sostegno 180 kg

Paso #12 - Elección varilla de soporte 180 kg

|                  |              | HBB min | HBB max |
|------------------|--------------|---------|---------|
| <b>E99510-02</b> | <b>Right</b> | 2000    | 2800    |
| <b>E99511-02</b> | <b>Left</b>  | 2000    | 2800    |

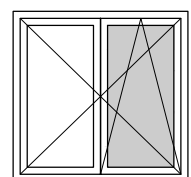
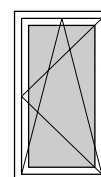


Step #13 - Alarm contact choice

Passo #13 - Scelta contatto allarme

Paso #13 - Elección contacto de alarma

**K99062**



Step #14 - Double croppable gear kits choice

Passo #14 - Scelta Kit cremonesi doppiorasabili

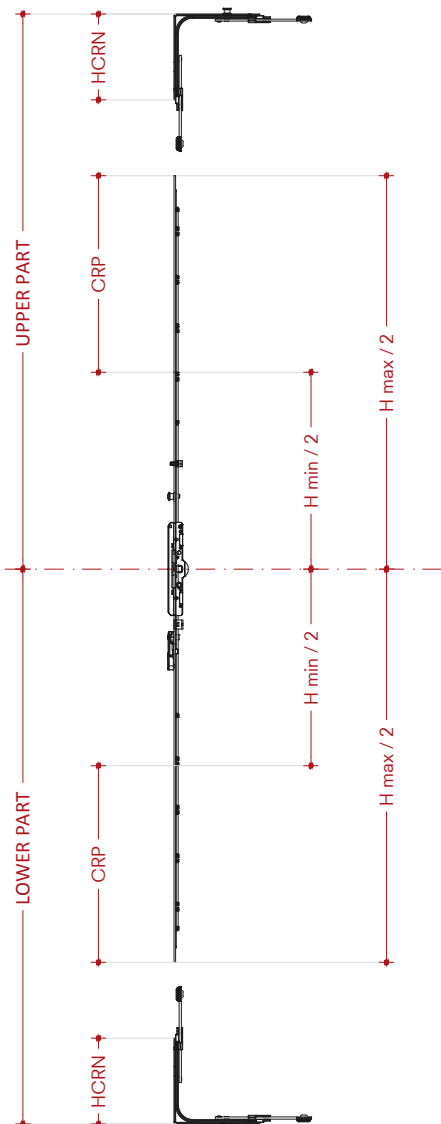
Paso #14 - Elección Kits de equipo recortables dobles

(Instead of Step #2 and #3)

(Invece dei passaggi #2 e #3)

(En lugar de los pasos #2 y #3)

|               | h min handle | HDG    | H min / 2 | H max / 2 | CRP       | HCRN  | HBB min |
|---------------|--------------|--------|-----------|-----------|-----------|-------|---------|
| <b>K88109</b> | 265          | 640.5  | 151       | 260       | 170 + 170 | 113.5 | 527.5   |
| <b>K88110</b> | 375          | 1040.5 | 261       | 510       | 260 + 260 | 113.5 | 747.5   |
| <b>K88111</b> | 625          | 1540.5 | 511       | 760       | 260 + 260 | 113.5 | 1247.5  |
| <b>K88112</b> | 875          | 2040.5 | 761       | 1020      | 260 + 260 | 113.5 | 1747.5  |



UPPER PART = HBB - HH - HCRN

LOWER PART = HH - HCRN

Choose the smallest value and find the right gear kit between Hmin/2 and Hmax/2 range columns.  
 Scegli il valore più piccolo e trova il kit Cremonese giusto tra le colonne dell'intervallo Hmin/2 e Hmax/2  
 Elija el valor más pequeño y encuentre el kit de equipo adecuado entre las columnas de rango Hmin/2 y Hmax/2

EXTENSION KIT:

UPPER\* = HBB - HH - HCRN - H max / 2 →

LOWER\* = HH - HCRN - H max / 2 →

CHECK ON THE EXTENSION TABLE (STEP 3)

\* with negative value extension are not needed.

\* con valore negativo non sono necessarie estensioni.

\* con valor negativo no se necesitan extensiones.

HH = Height Handle  
 HDG = Height Drive Gear  
 CRP = Cropping measures  
 HCRN = Height Corner  
 HBB = Groove Hardware Height

HH = altezza maniglia  
 HDG = altezza guida cremonese  
 CRP = misura di taglio  
 HCRN = altezza dell'angolo  
 HBB = altezza cava ferramenta

HH = altura manilla  
 HDG = altura de la guía de equipo  
 CRP = medida de corte  
 HCRN = altura de la esquina  
 HBB = altura de la ranura del hardware



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Basic kits

Kit base

Kits básicos

K88043

K88043

K88043

Standard windows

Finestre standard

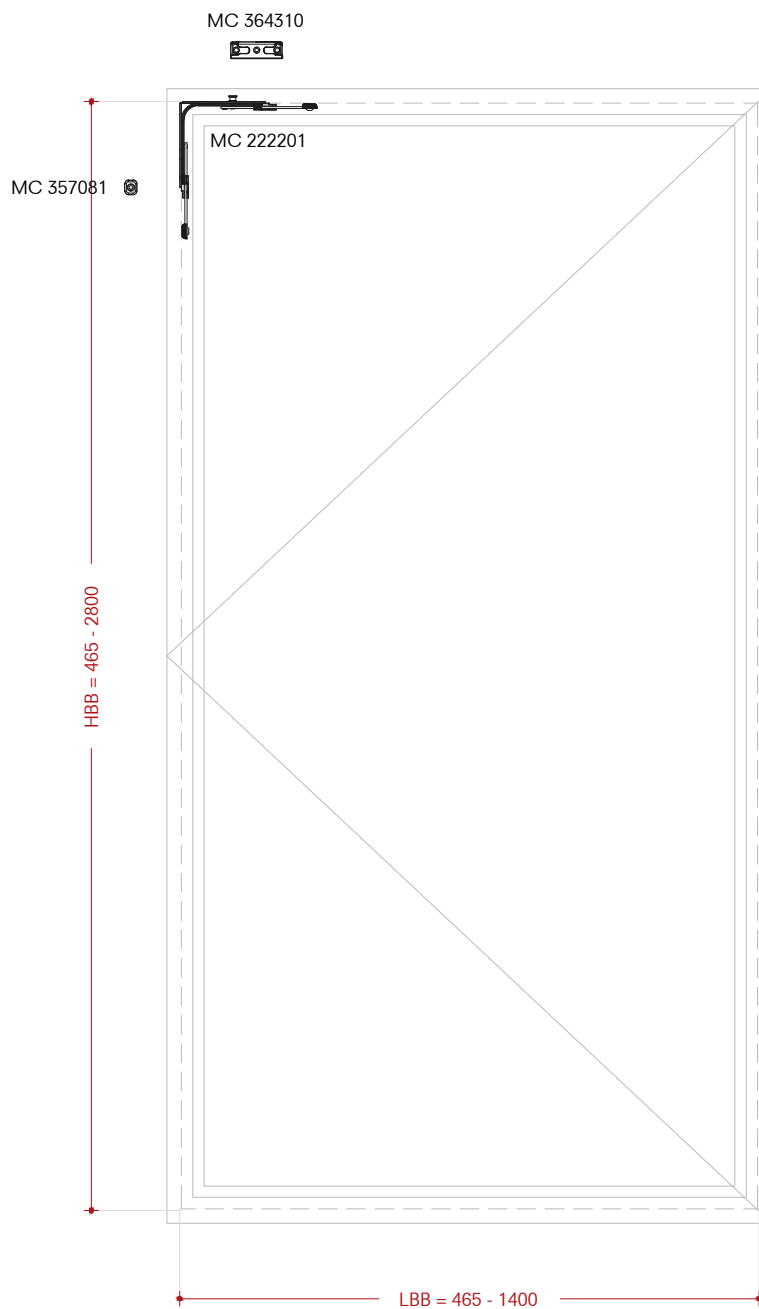
Ventanas estándar

LBB = 465 - 1400 mm  
 HBB = 455 - 2800 mm

LBB = 465 - 1400 mm  
 HBB = 455 - 2800 mm

LBB = 465 - 1400 mm  
 HBB = 455 - 2800 mm

MC 222201 n°01 piece  
MC 357081 n°01 piece  
MC 364310 n°01 piece



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Basic kits

Kit base

Kits básicos

K88044

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

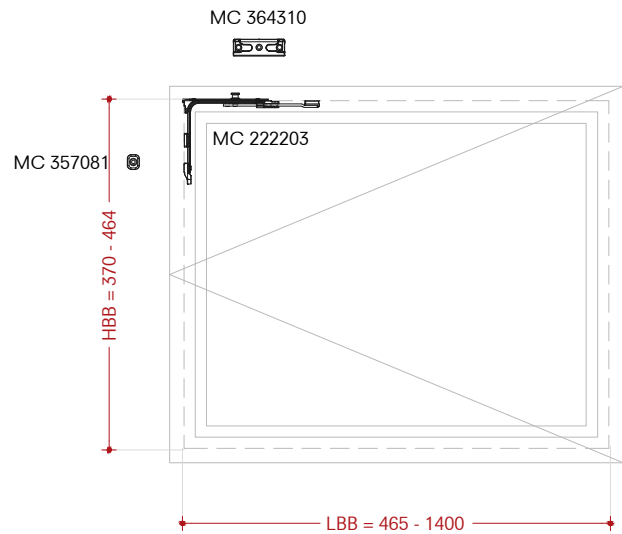
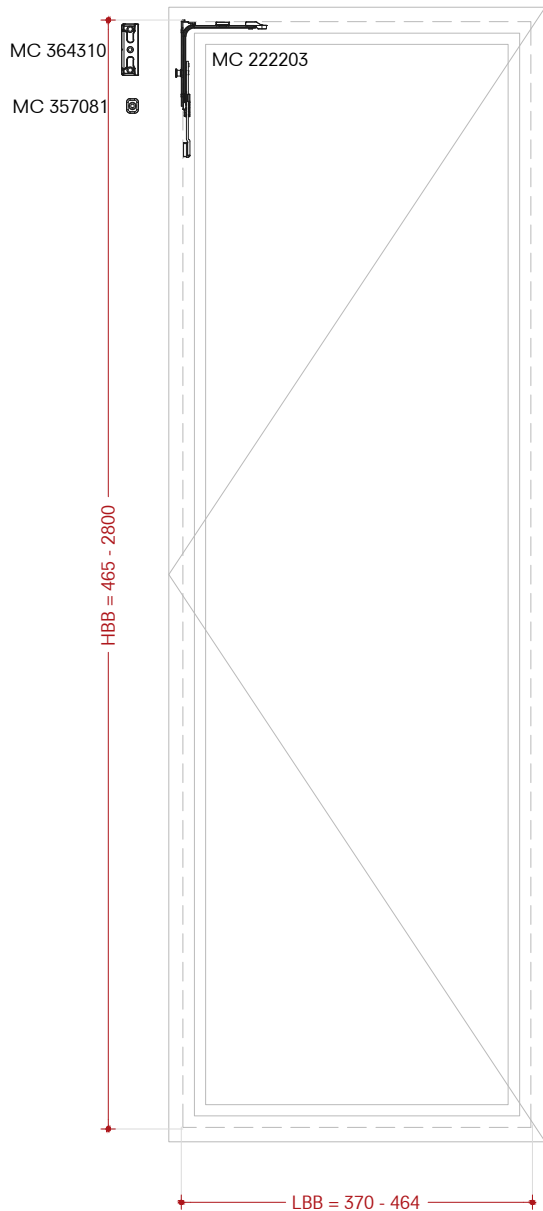
MC 222203 n°01 piece  
 MC 357081 n°01 piece  
 MC 364310 n°01 piece

K88044

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

K88044

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Basic kits

Kit base

Kits básicos

K88118  
 Only for double leaf windows

K88118  
 Solo per finestre a doppia anta

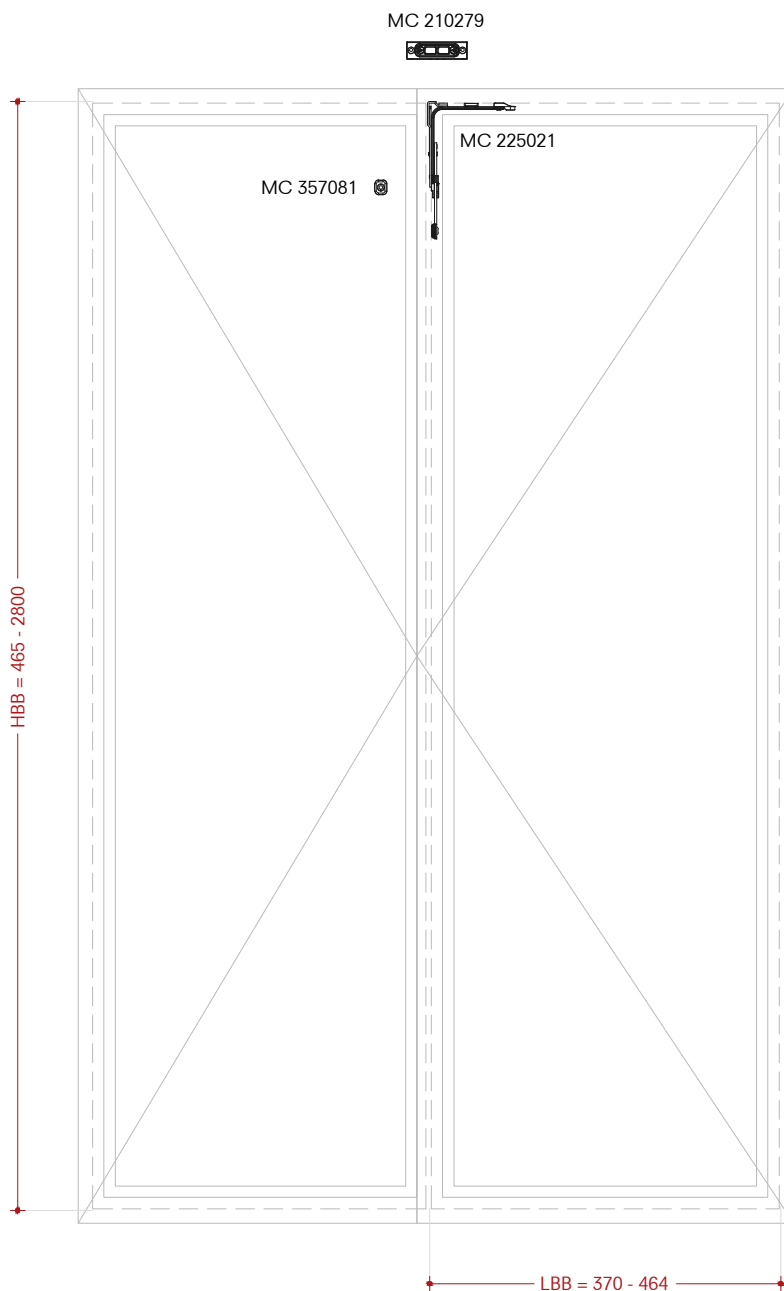
K88118  
 Solo para ventanas de dos hojas

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

LBB = 370 - 464 mm  
 HBB = 455 - 2800 mm

MC 225021 n°01 piece  
 MC 210279 n°01 piece  
 MC 357081 n°01 piece







**Side hung windows**

**Finestre battenti**

**Ventana batiente**

**Gear kits**

**Kit cremonese**

**Kits de equipo**

**K88003**

HH = 190 mm  
 HBB = 340 - 1608 mm

MC 202206 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°01 piece

**K88004**

HH = 300 mm  
 HBB = 661 - 1790 mm

MC 202207 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88005**

HH = 400 mm  
 HBB = 841 - 2040 mm

MC 202208 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88006**

HH = 500 mm  
 HBB = 1091 - 2290 mm

MC 202209 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°02 pieces

**K88007**

HH = 600 mm  
 HBB = 1341 - 2540 mm

MC 202216 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces

**K88008**

HH = 700 mm  
 HBB = 1591 - 2650 mm

MC 207305 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°03 pieces

**K88009**

HH = 1050 mm  
 HBB = 1701 - 2900 mm

MC 202737 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces

**K88010**

HH = 1050 mm  
 HBB = 1951 - 3150 mm

MC 202738 n°01 piece  
MC 222205 n°01 piece  
MC 364310 n°04 pieces

**K88003**

HH = 190 mm  
 HBB = 340 - 1608 mm

**K88004**

HH = 300 mm  
 HBB = 661 - 1790 mm

**K88005**

HH = 400 mm  
 HBB = 841 - 2040 mm

**K88006**

HH = 500 mm  
 HBB = 1091 - 2290 mm

**K88007**

HH = 600 mm  
 HBB = 1341 - 2540 mm

**K88008**

HH = 700 mm  
 HBB = 1591 - 2650 mm

**K88009**

HH = 1050 mm  
 HBB = 1701 - 2900 mm

**K88010**

HH = 1050 mm  
 HBB = 1951 - 3150 mm

**K88003**

HH = 190 mm  
 HBB = 340 - 1608 mm

**K88004**

HH = 300 mm  
 HBB = 661 - 1790 mm

**K88005**

HH = 400 mm  
 HBB = 841 - 2040 mm

**K88006**

HH = 500 mm  
 HBB = 1091 - 2290 mm

**K88007**

HH = 600 mm  
 HBB = 1341 - 2540 mm

**K88008**

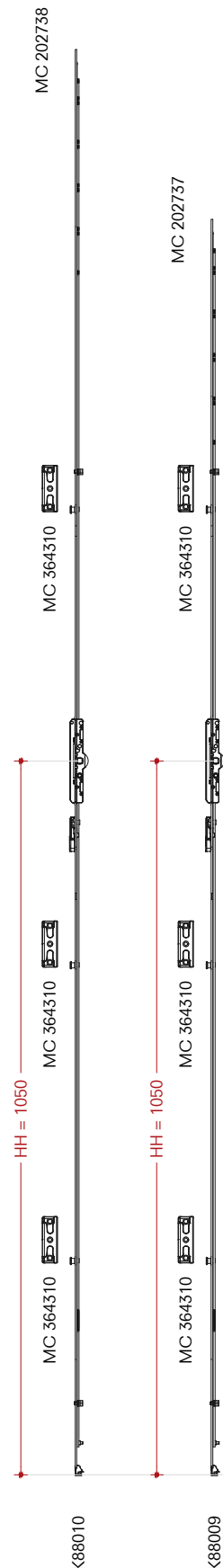
HH = 700 mm  
 HBB = 1591 - 2650 mm

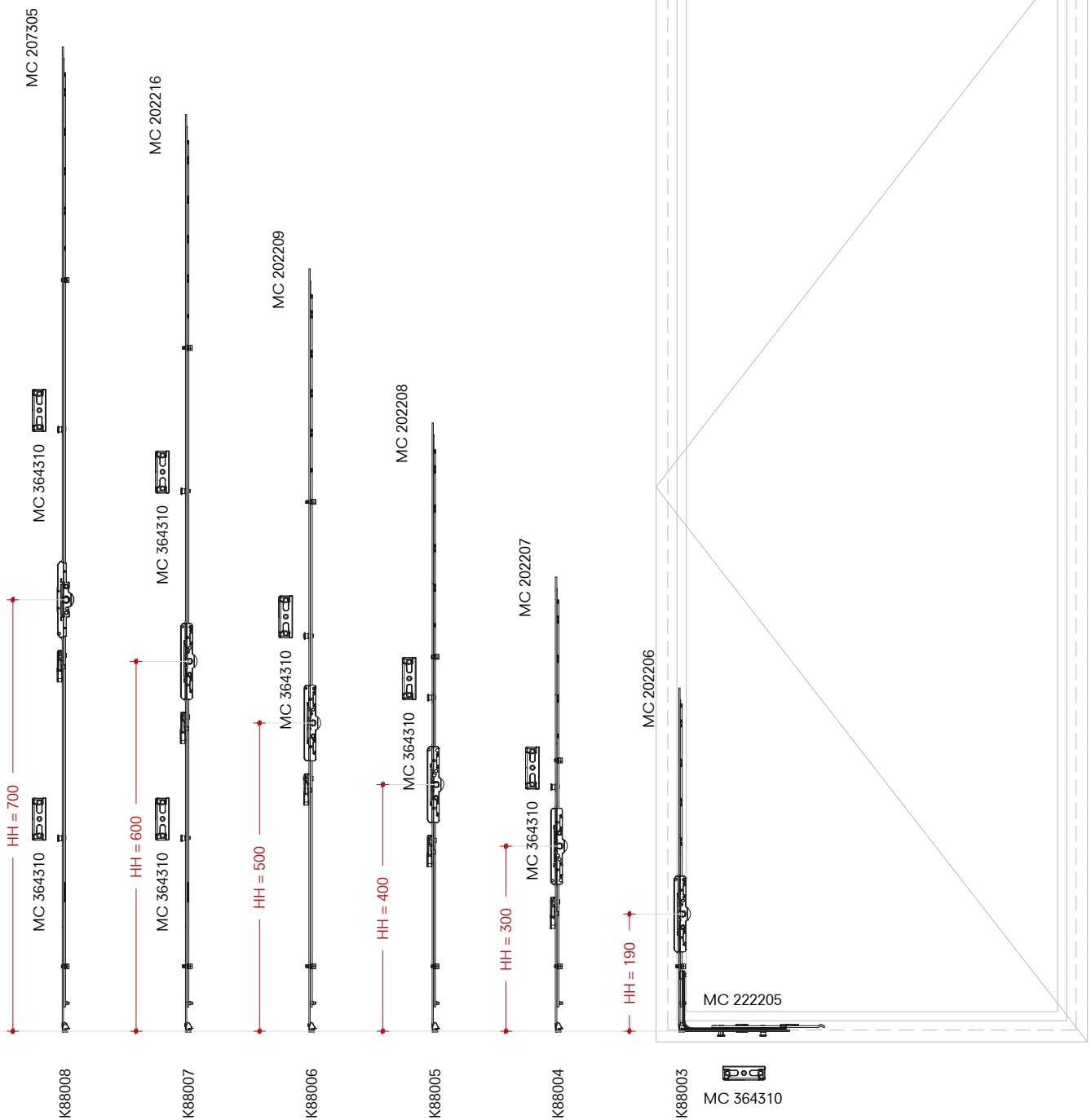
**K88009**

HH = 1050 mm  
 HBB = 1701 - 2900 mm

**K88010**

HH = 1050 mm  
 HBB = 1951 - 3150 mm





**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Double croppable gear kits

Kit cremonesi doppiorasabili

Kits de equipo recortables dobles

K88109

K88109

K88109

MC 202491 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°01 piece

K88110

K88110

K88110

MC 202492 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°02 pieces

K88111

K88111

K88111

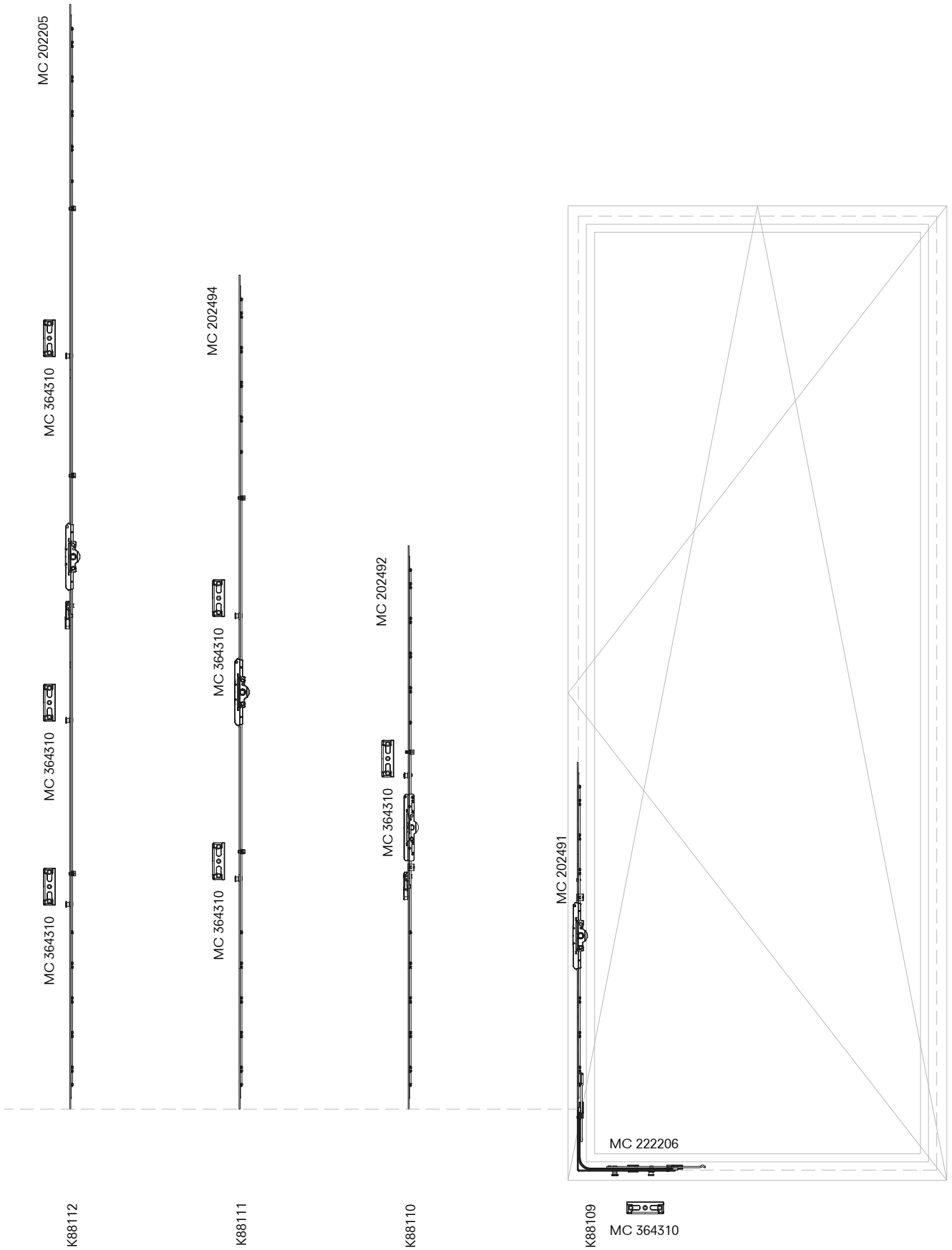
MC 202494 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°03 pieces

K88112

K88112

K88112

MC 202205 n°01 piece  
MC 222206 n°01 piece  
MC 364310 n°04 pieces



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Extension kits

Kit estensione Cremonese

Kits extensión

K88011

0 - 140 mm

MC 206630 n°01 piece

K88011

0 - 140 mm

K88011

0 - 140 mm

K88016

K88060

K88012

141 - 235 mm

MC 201750 n°01 piece  
MC 364310 n°01 piece

K88012

141 - 235 mm

K88012

141 - 235 mm

K88059

236 - 375 mm

MC 201750 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88059

236 - 375 mm

K88059

236 - 375 mm

K88013

376 - 470 mm

MC 201840 n°01 piece  
MC 364310 n°01 piece

K88013

376 - 470 mm

K88013

376 - 470 mm

K88014

471 - 610 mm

MC 201840 n°01 piece  
MC 206630 n°01 piece  
MC 364310 n°01 piece

K88014

471 - 610 mm

K88014

471 - 610 mm

K88015

611 - 705 mm

MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88015

611 - 705 mm

K88015

611 - 705 mm

K88060

706 - 845 mm

MC 206630 n°01 piece  
MC 201750 n°01 piece  
MC 201840 n°01 piece  
MC 364310 n°02 pieces

K88060

706 - 845 mm

K88060

706 - 845 mm

K88016

846 - 940 mm

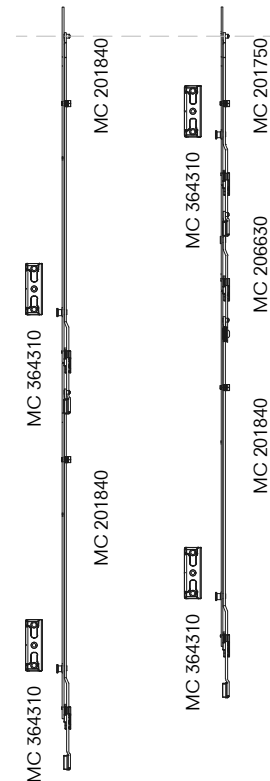
MC 201840 n°02 pieces  
MC 364310 n°02 pieces

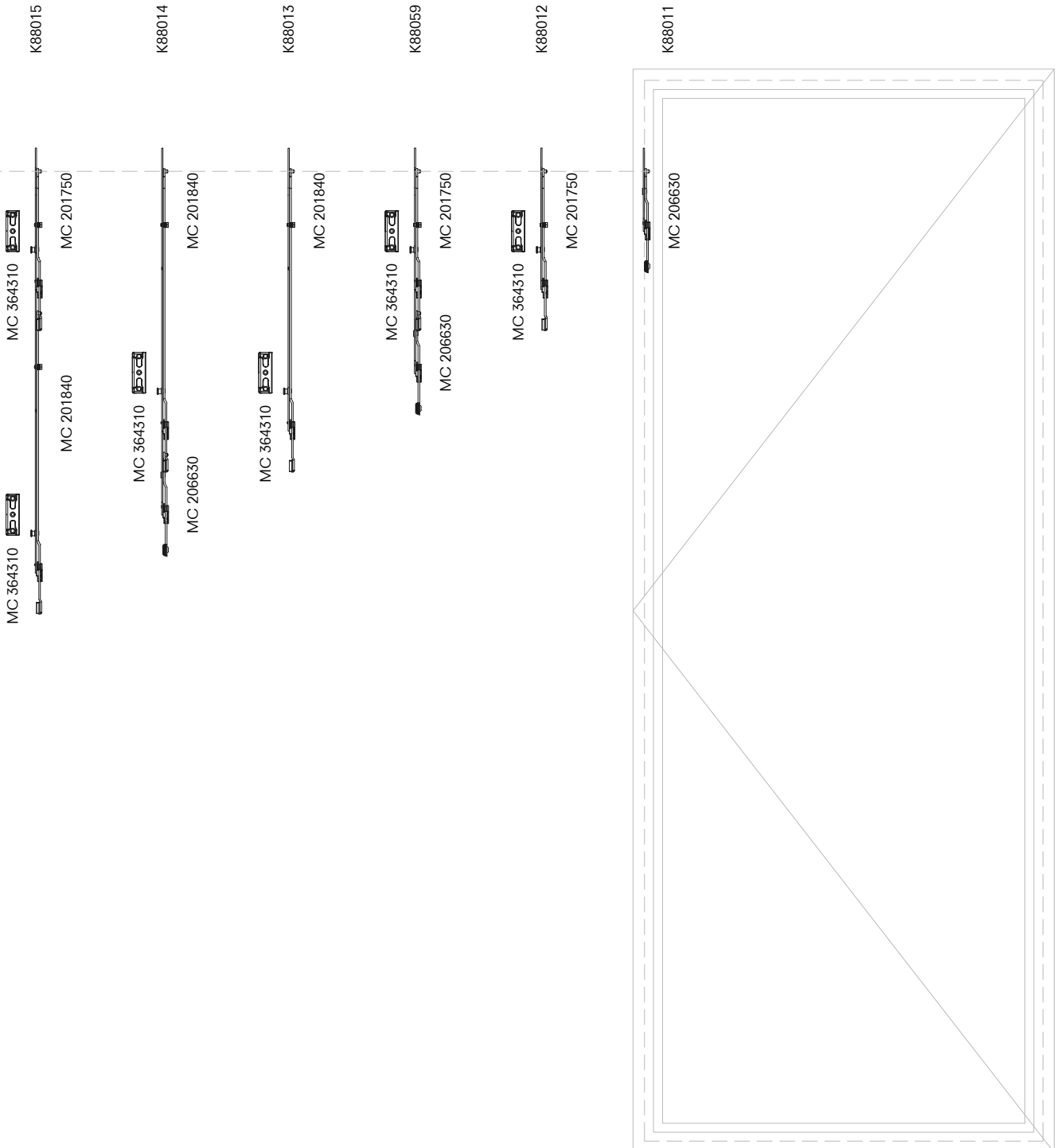
K88016

846 - 940 mm

K88016

846 - 940 mm





**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Hinges kits

Kit cerniere

Kits de bisagras

K88034

K88034

K88034

Right hinges

Cerniere destre

Derecha bisagras

MC 217691 n°01 piece  
 MC 217729 n°01 piece  
 MC 215804 n°01 piece  
 MC 215810 n°01 piece

K88035

K88035

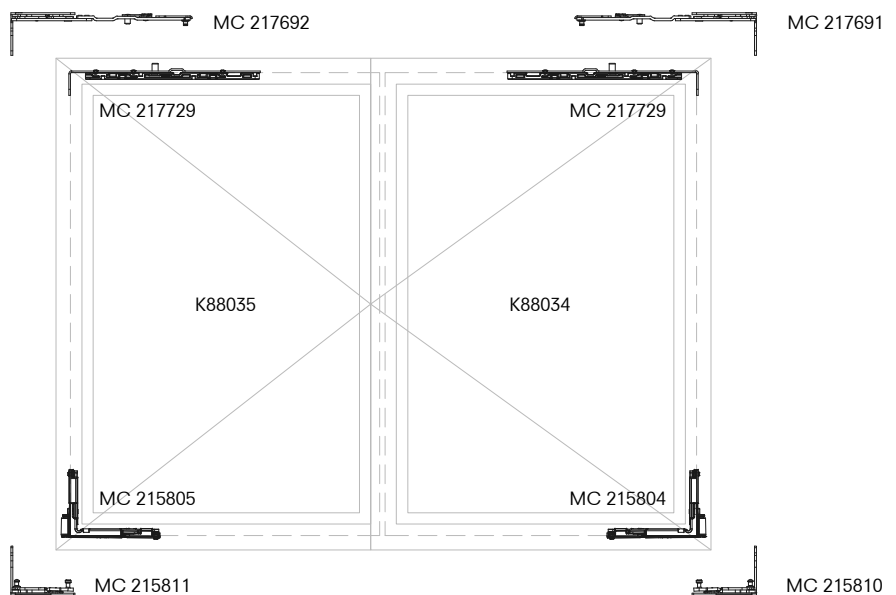
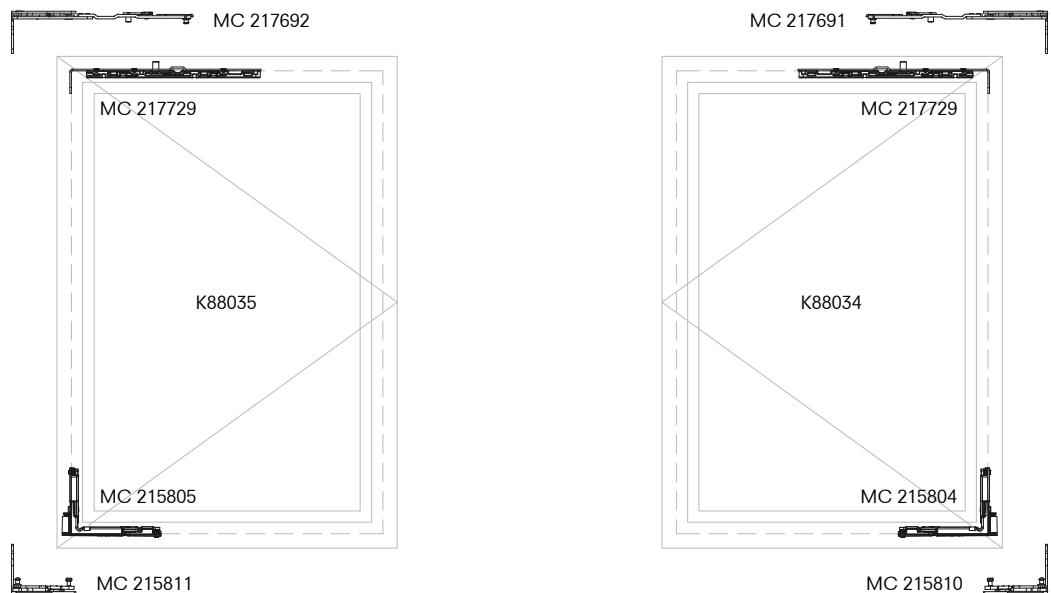
K88035

Left hinges

Cerniere sinistre

Izquierda bisagras

MC 217692 n°01 piece  
 MC 217729 n°01 piece  
 MC 215805 n°01 piece  
 MC 215811 n°01 piece





**Side hung windows**

Additional top and bottom locking point

K88045

LBB = 801 - 1280 mm

MC 201751 n°02 pieces  
 MC 364310 n°02 pieces

**Finestre battenti**

Punto di chiusura aggiuntivo superiore e inferiore

K88045

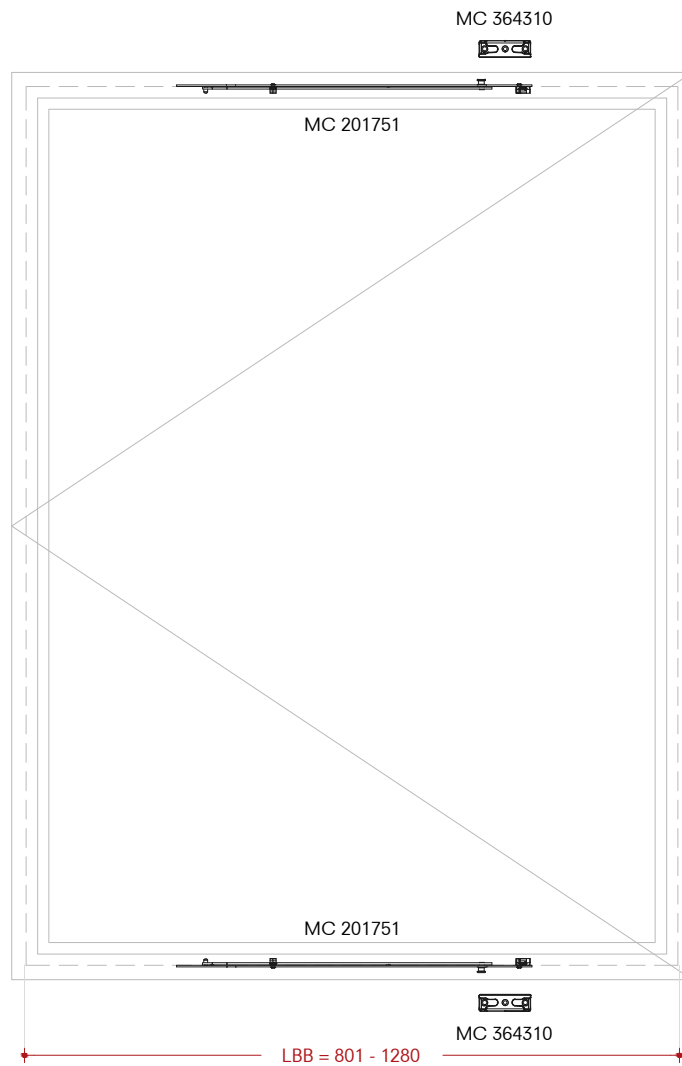
LBB = 801 - 1280 mm

**Ventana batiente**

Superior e inferior adicionales punto de bloqueo

K88045

LBB = 801 - 1280 mm



**Side hung windows**

Additional top and bottom locking point

K88046

LBB = 1281 - 1400 mm

MC 201752 n°02 pieces  
 MC 364310 n°02 pieces

**Finestre battenti**

Punto di chiusura aggiuntivo superiore e inferiore

K88046

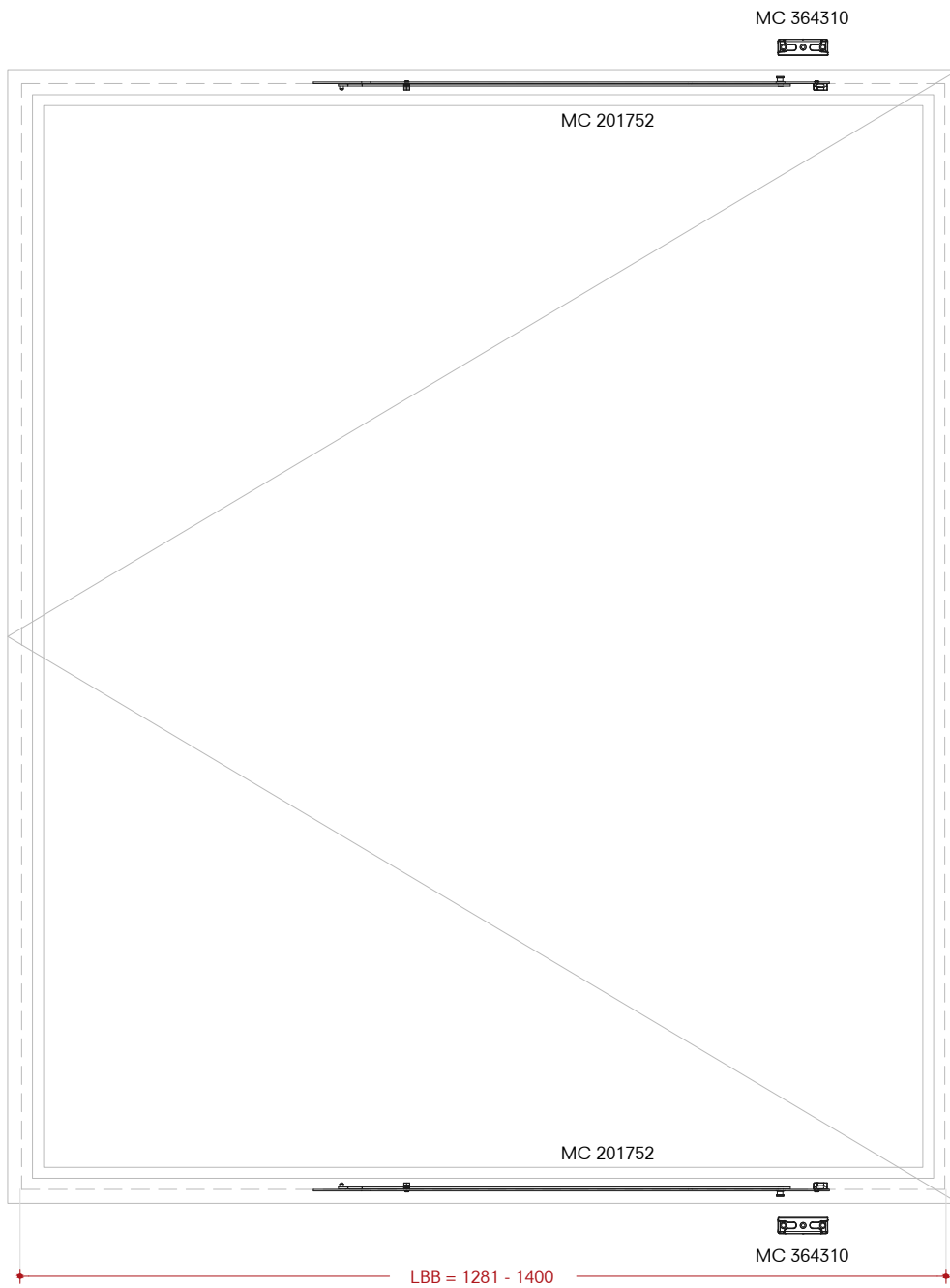
LBB = 1281 - 1400 mm

**Ventana batiente**

Superior e inferior adicionales punto de bloqueo

K88046

LBB = 1281 - 1400 mm



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Lifting component

Componente di sollevamento

Componente de elevación

K88047

K88047

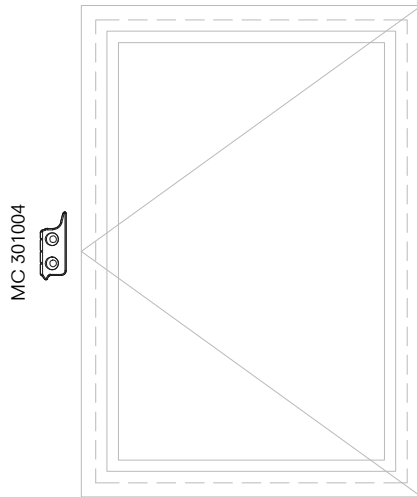
K88047

Right

Destra

Derecha

MC 361004 n°01 piece



K88048

K88048

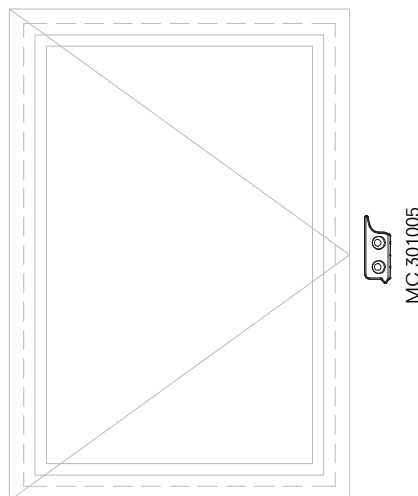
K88048

Left

Sinistra

Izquierda

MC 361005 n°01 piece



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Concealed compression locks kits

Kit cerniere centrali a scomparsa

Kits de bisagras ocultas centrales

K88036

HBB = 1280 - 2000 mm

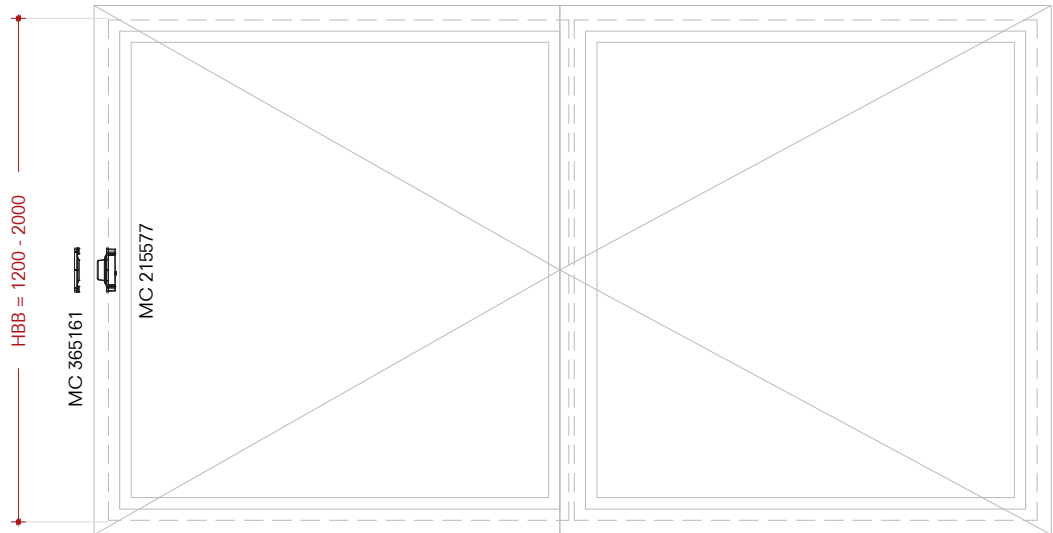
MC 215577 n°01 piece  
 MC 365161 n°01 piece

K88036

HBB = 1280 - 2000 mm

K88036

HBB = 1280 - 2000 mm



K88037

HBB = 2001 - 2800 mm

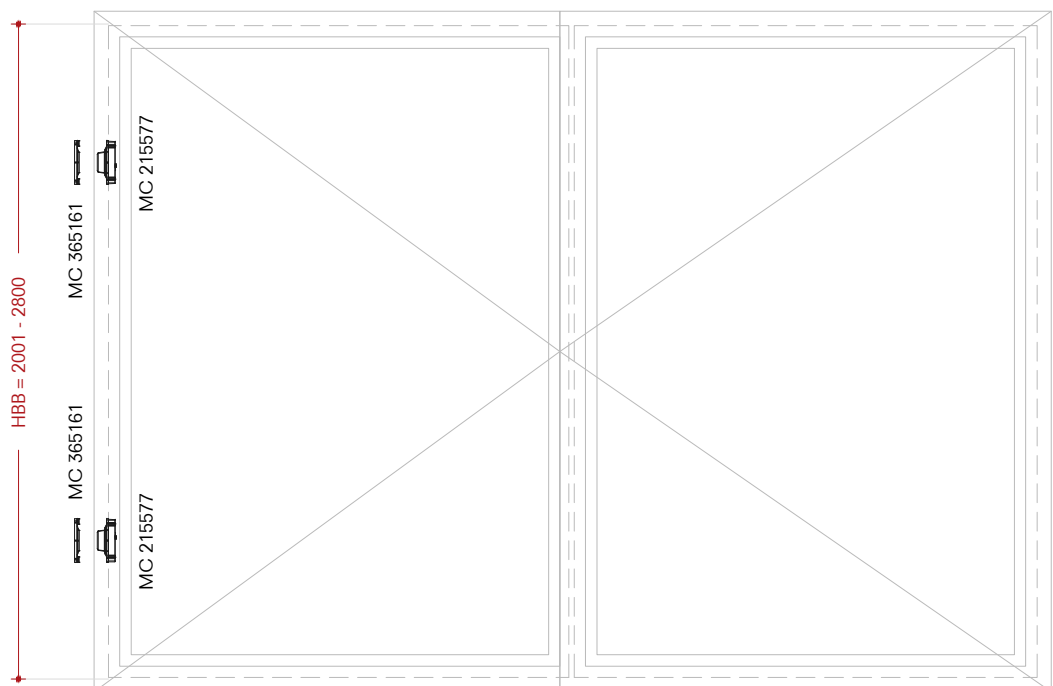
MC 215577 n°01 piece  
 MC 365161 n°01 piece

K88037

HBB = 2001 - 2800 mm

K88037

HBB = 2001 - 2800 mm



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

French casement lock extendable

Catenacci angolari estendibili

Cerradura abatible francesa extensible

K88038

K88038

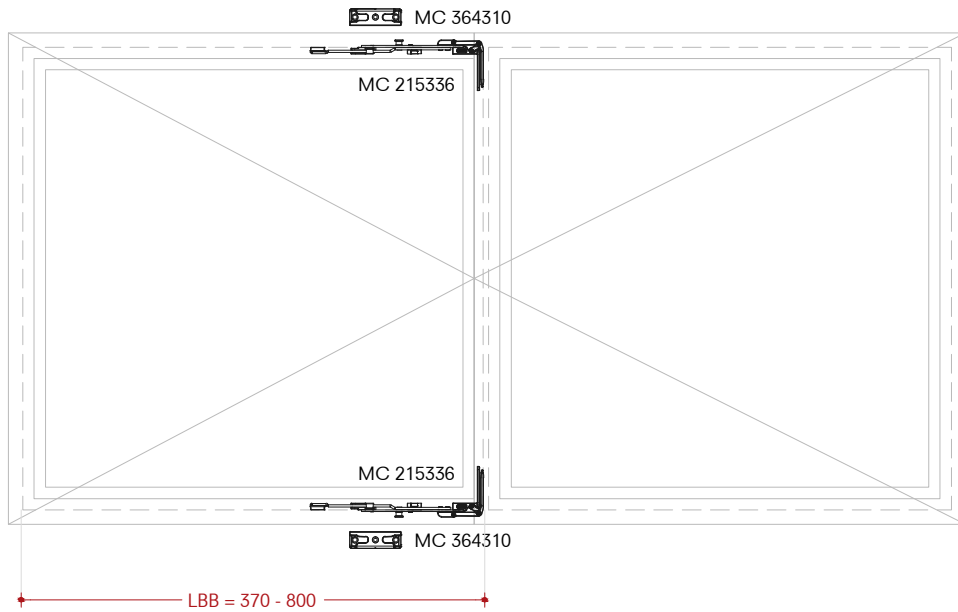
K88038

LBB = 370 - 800 mm

LBB = 370 - 800 mm

LBB = 370 - 800 mm

MC 215336 n°02 pieces  
 MC 364310 n°02 pieces



K88039

K88039

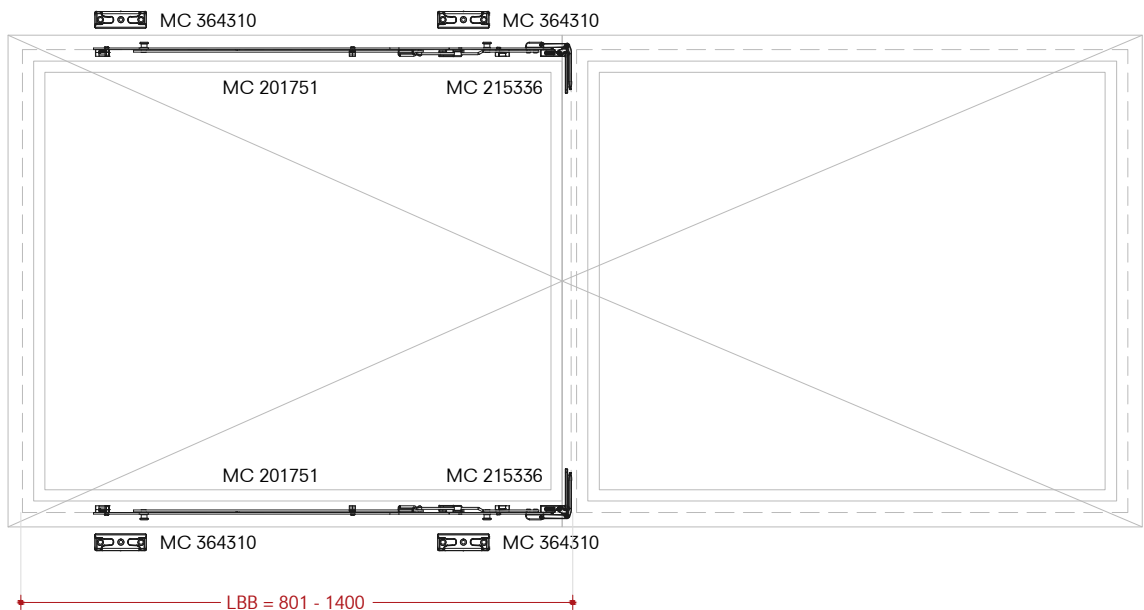
K88039

LBB = 801 - 1400 mm

LBB = 801 - 1400 mm

LBB = 801 - 1400 mm

MC 215336 n°02 pieces  
 MC 201751 n°02 pieces  
 MC 364310 n°04 pieces



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Roller snap catch

Scrocco a rullo

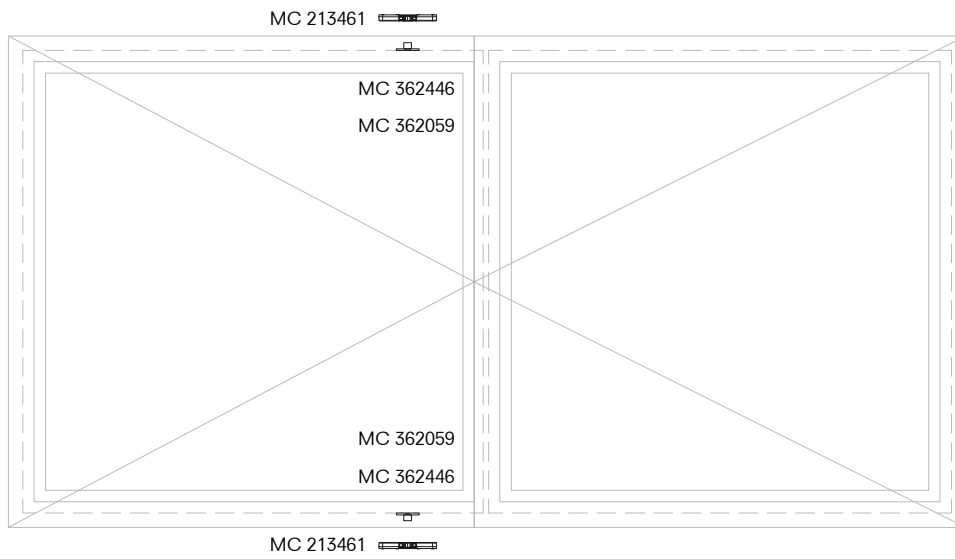
Pestillo de rodillo

K88201

K88201

K88201

MC 213461 n°02 pieces  
MC 362059 n°02 pieces  
MC 362446 n°02 pieces



**Side hung windows**

Extendable french casement lock + upper roller snap catch

K88041

LBB = 370 - 800 mm

- MC 213461 n°01 piece
- MC 362059 n°01 piece
- MC 362446 n°01 piece
- MC 215336 n°01 piece
- MC 364310 n°01 piece

**Finestre battenti**

Serratura anta francese estensibile + scrocco a rullo superiore

K88041

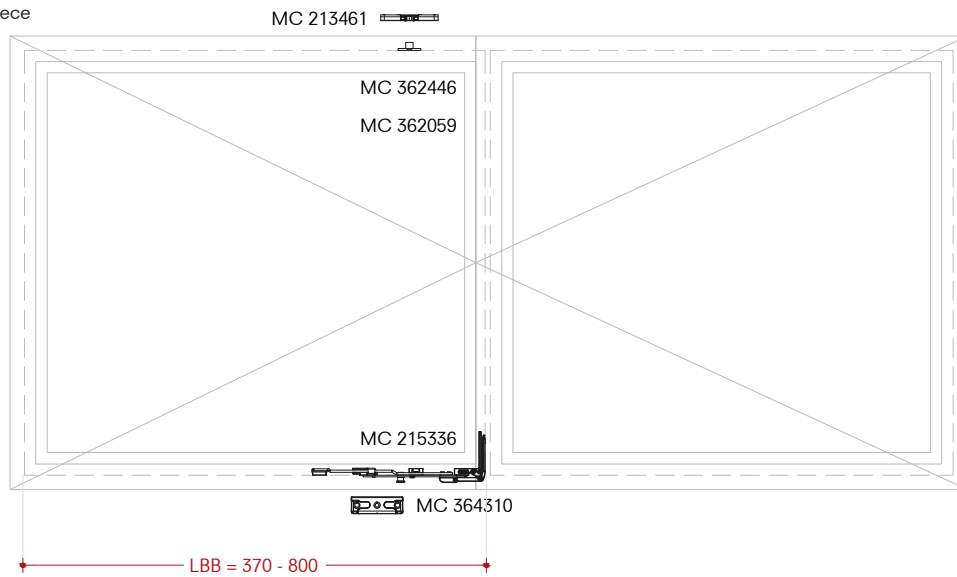
LBB = 370 - 800 mm

**Ventana batiente**

Cerradura de marco francés extensible + cierre de presión de rodillo superior

K88041

LBB = 370 - 800 mm



K88042

LBB = 801 - 1280 mm

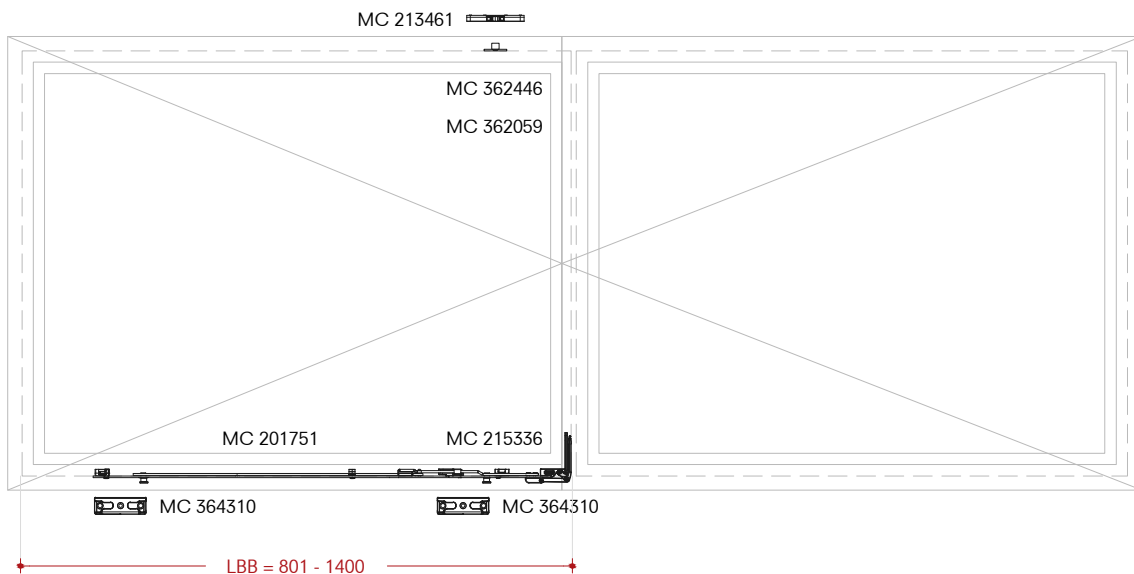
- MC 213461 n°01 piece
- MC 362059 n°01 piece
- MC 362446 n°01 piece
- MC 215336 n°01 piece
- MC 201751 n°01 piece
- MC 364310 n°01 piece

K88042

LBB = 370 - 800 mm

K88042

LBB = 370 - 800 mm



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Door catch

Scrocco porta

Pestillo de puerta

K88061

K88061

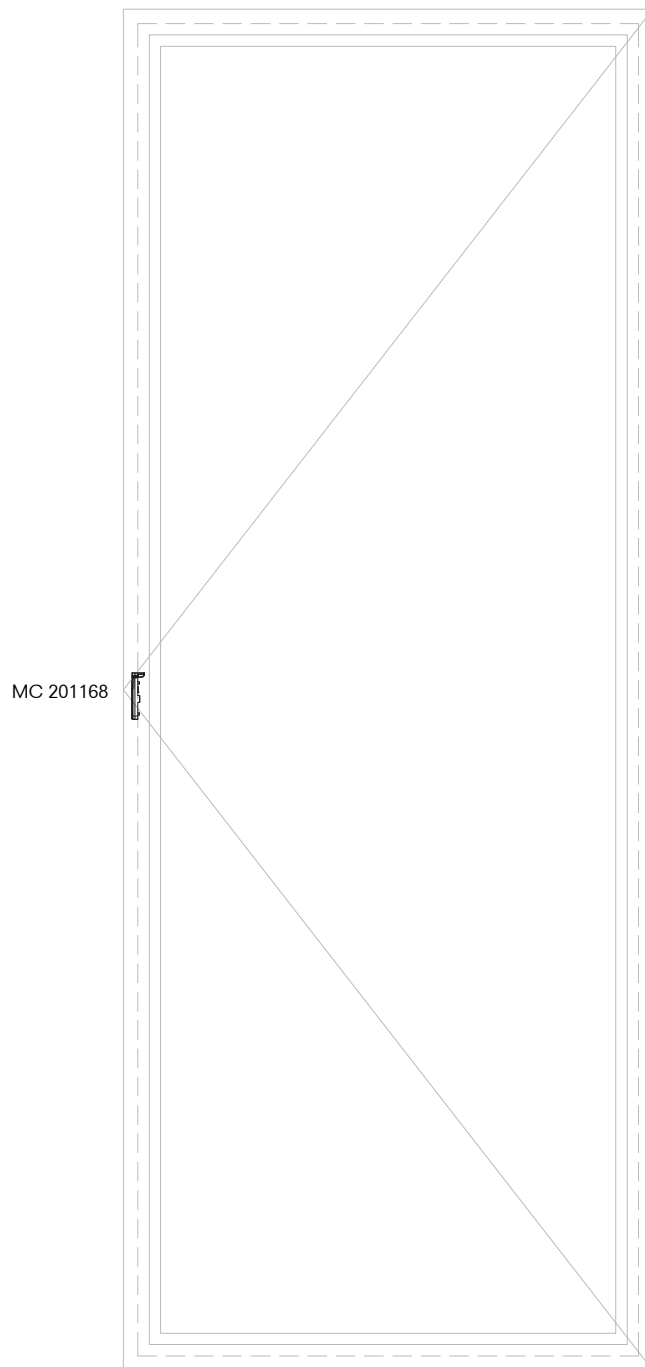
K88061

HBB = 661 - 2800 mm

HBB = 661 - 2800 mm

HBB = 661 - 2800 mm

MC 201168 n°01 piece





**Side hung windows**

Opening restrictor

**Finestre battenti**

Limitatore di apertura

**Ventana batiente**

Limitador de apertura

K88033

LBB = 490 - 1400 mm

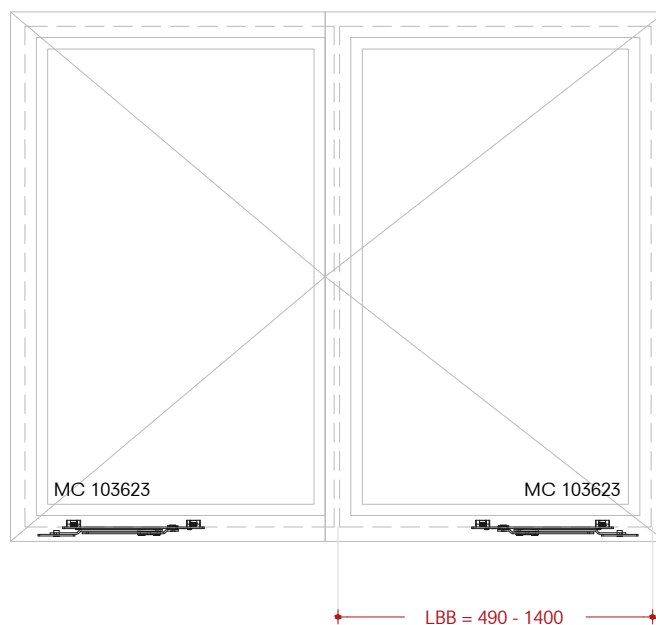
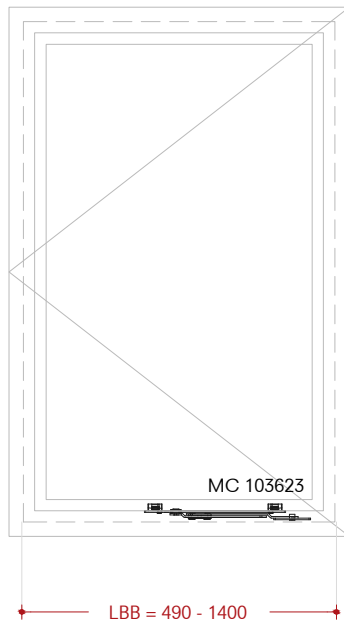
MC 103623 n°01 piece

K88033

LBB = 490 - 1400 mm

K88033

LBB = 490 - 1400 mm



**Side hung windows**

Load transfer 180 kg

E99510-02

Right

MC 105336 n°01 piece

**Finestre battenti**

Asta di sostegno 180 kg

E99510-02

Destro

E99510-02

Derecha

**Ventana batiente**

Varilla de soporte 180 kg

E99511-02

Left

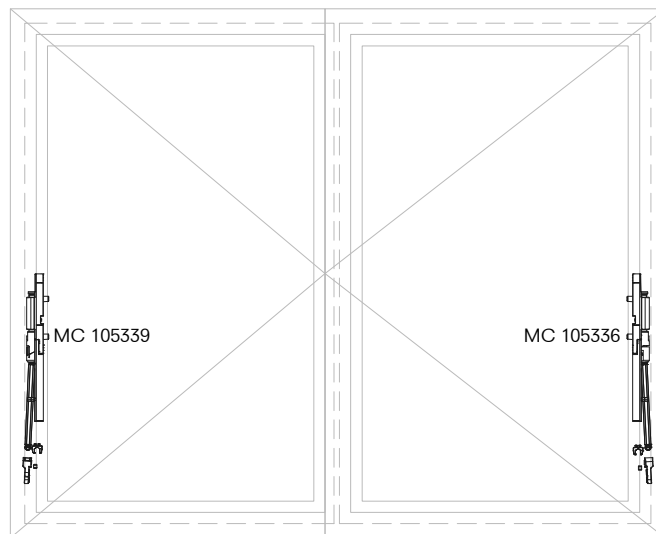
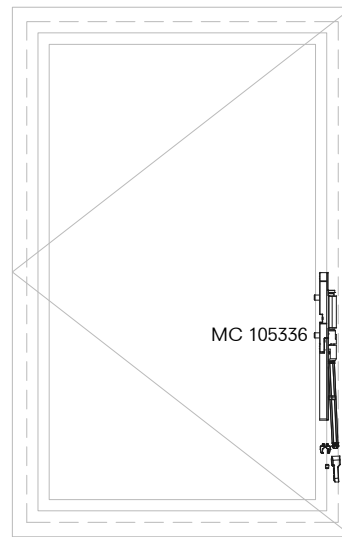
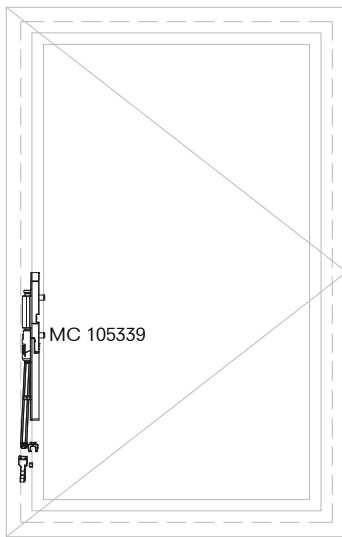
MC 105339 n°01 piece

E99511-02

Sinistro

E99511-02

Izquierda



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

Alarm contact

Contatto allarme

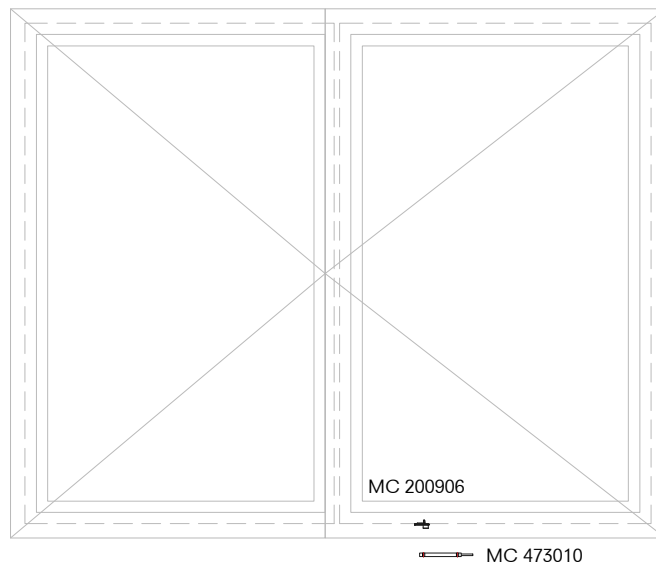
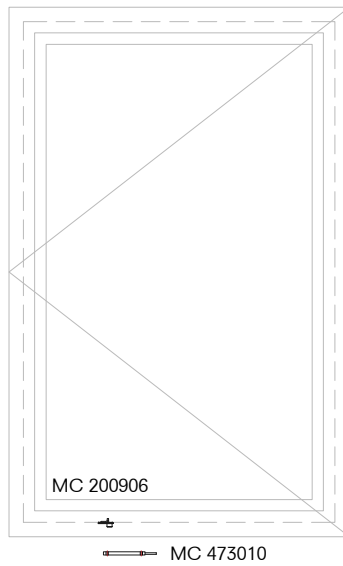
Contacto de alarma

K99062

K99062

K99062

MC 200906 n°01 piece  
MC 473010 n°01 piece



**Side hung windows**

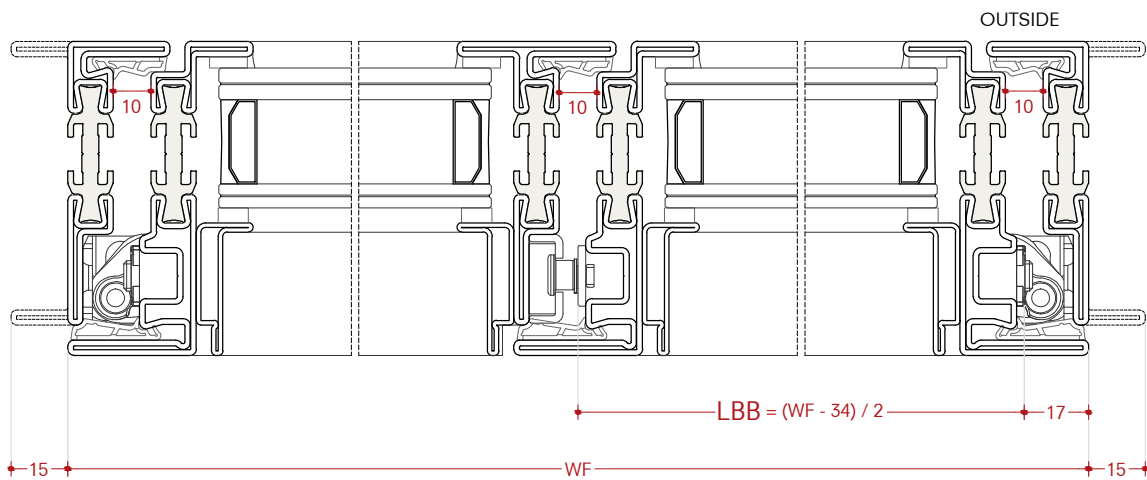
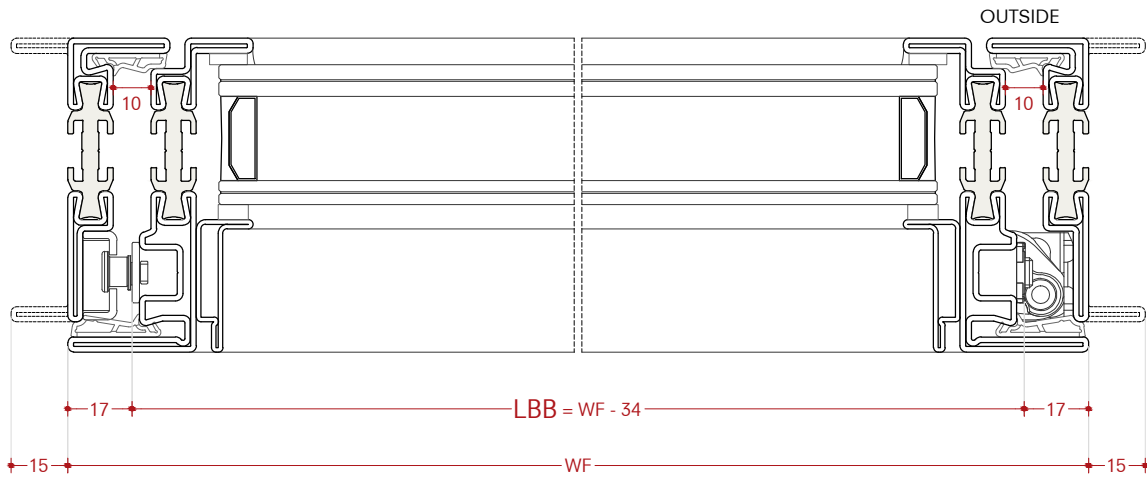
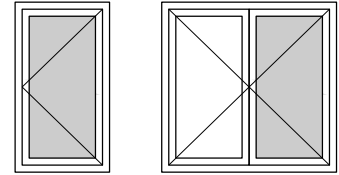
Determination of LBB  
 (Groove Hardware Length)

**Finestre battenti**

Determinazione di LBB  
 (Larghezza cava ferramenta)

**Ventana batiente**

Determinación de LBB  
 (longitud de la ranura del hardware)



**Side hung windows**

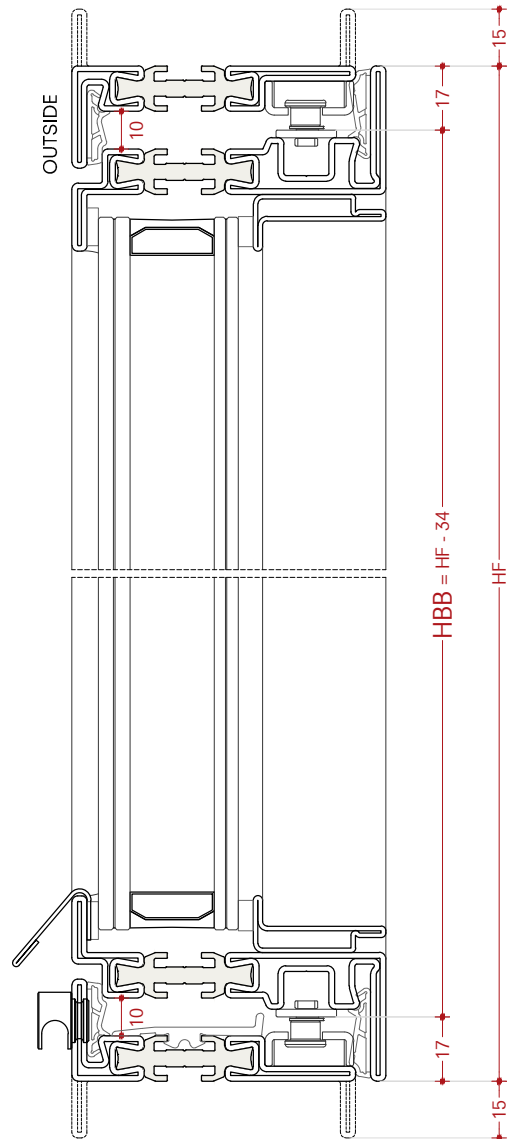
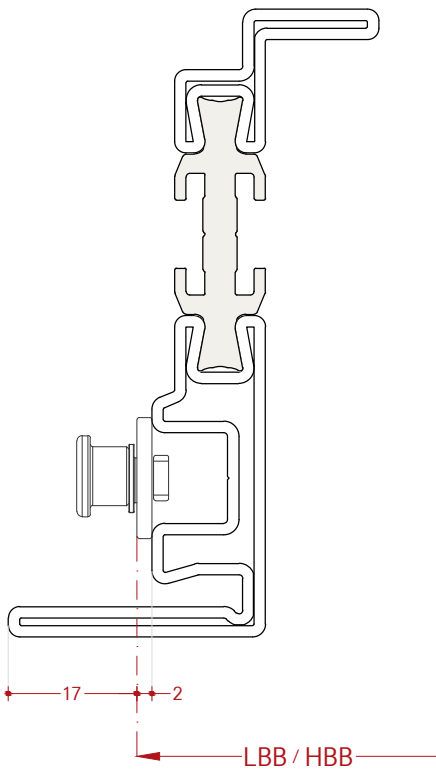
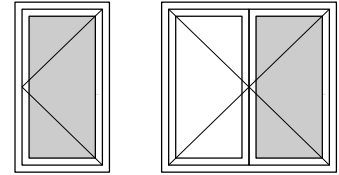
Determination of HBB  
 (Groove Hardware Height)

**Finestre battenti**

Determinazione di HBB  
 (altezza cava ferramenta)

**Ventana batiente**

Determinación de HBB  
 (altura de la ranura del hardware)



**Side hung windows**

**Finestre battenti**

**Ventana batiente**

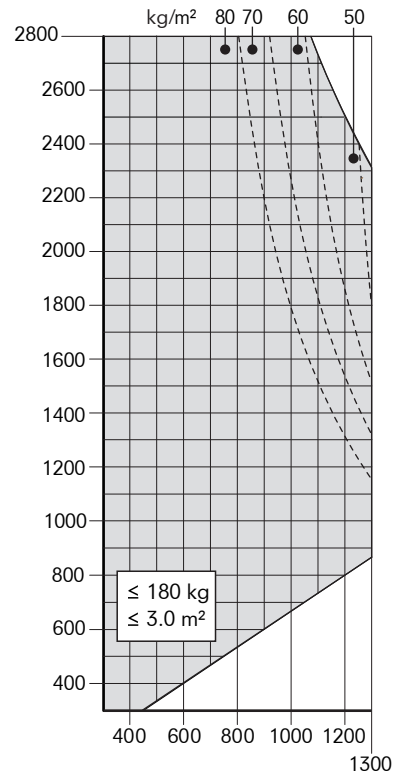
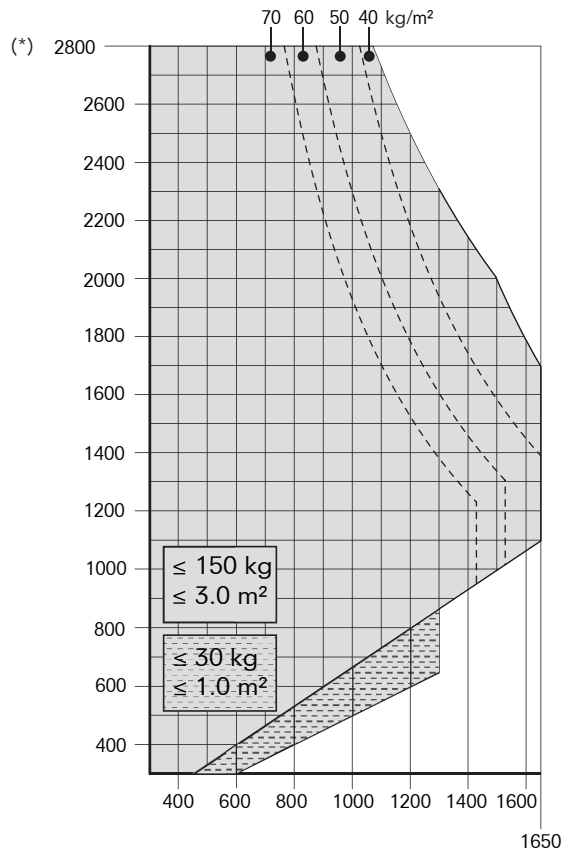
Load capacity tables

Tabelle portate

Tablas de peso

Side hung window concealed accessories capacity  
 Portate ferramenta a scomparsa per finestra a battente  
 Peso de accesorios ocultas para ventana batiente

Side hung window concealed accessories capacity  
 with support rod E99510-02 / E99511-02  
 Portate ferramenta a scomparsa per finestra a battente  
 con asta di sostegno E99510-02 / E99511-02  
 Peso de accesorios ocultas para ventana batiente  
 con varilla de soporte E99510-02 / E99511-02



(\*) Extendable to a height of 3000 mm using weld-on hinges.

(\*) Estendibile ad altezza 3000 mm con l'uso di cerniere a saldare.

(\*) Extensible hasta 3000 mm de altura mediante bisagras de soldadura.

Standard handle height

Altezza maniglia standard

Altura del manilla estándar

|               | HBB min | HBB max | H handle |
|---------------|---------|---------|----------|
| <b>K88003</b> | 370     | 660     | 190      |
| <b>K88004</b> | 661     | 840     | 300      |
| <b>K88005</b> | 841     | 1090    | 400      |
| <b>K88006</b> | 1091    | 1340    | 500      |
| <b>K88007</b> | 1341    | 1590    | 600      |
| <b>K88008</b> | 1591    | 1700    | 700      |
| <b>K88009</b> | 1701    | 1950    | 1050     |
| <b>K88010</b> | 1951    | 2200    | 1050     |

**Side hung windows**

**Finestre battenti**

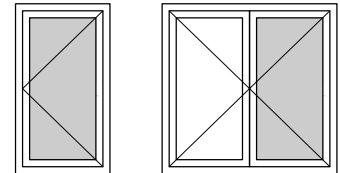
**Ventana batiente**

Step #1 - Basic kit choice

Passo #1 - Scelta del kit base

Paso #1 - Elección de kit básico

|                   | LBB min | LBB max | HBB min | HBB max |
|-------------------|---------|---------|---------|---------|
| <b>K88043</b>     | 465     | 1400    | 455     | 2800    |
| <b>K88044</b>     | 370     | 464     | 455     | 2800    |
| <b>K88044</b>     | 465     | 815     | 370     | 454     |
| <b>K88118 (*)</b> | 370     | 464     | 455     | 2800    |



LBB = Groove Hardware Length  
 HBB = Groove Hardware Height

LBB = larghezza cava ferramenta  
 HBB = altezza cava ferramenta

LBB = longitud de la ranura del hardware  
 HBB = altura de la ranura del hardware

(\*) Only for double leaf windows with  
 K88041 - K88042 - K88201

(\*) Solo per finestre a doppia anta con  
 K88041 - K88042 - K88201

(\*) Solo para ventanas de dos hojas con  
 K88041 - K88042 - K88201

Step #2 - Gear kit choice

Passo #2 - Scelta del kit Cremonese

Paso #2 - Elección de kit de equipo

|               | HH   | HDG    | CRP   | HCRN  | HBB min | HBB max<br>(without extension) | HBB max<br>(with extension) |
|---------------|------|--------|-------|-------|---------|--------------------------------|-----------------------------|
| <b>K88003</b> | 190  | 555    | 220   | 5     | 370     | 454                            | 2335                        |
| <b>K88003</b> | 190  | 555    | 220   | 113.5 | 455     | 660                            | 2540                        |
| <b>K88004</b> | 300  | 736.5  | 190.5 | 113.5 | 661     | 840                            | 2720                        |
| <b>K88005</b> | 400  | 986.5  | 260.5 | 113.5 | 841     | 1090                           | 2970 (*)                    |
| <b>K88006</b> | 500  | 1236.5 | 260.5 | 113.5 | 1091    | 1340                           | 3150 (*)                    |
| <b>K88007</b> | 600  | 1486.5 | 260.5 | 113.5 | 1341    | 1590                           | 3150 (*)                    |
| <b>K88008</b> | 700  | 1596.5 | 260.5 | 113.5 | 1591    | 1700                           | 3150 (*)                    |
| <b>K88009</b> | 1050 | 1846.5 | 260.5 | 113.5 | 1701    | 1950                           | 3150 (*)                    |
| <b>K88010</b> | 1050 | 2096.5 | 260.5 | 113.5 | 1951    | 2200                           | 3150 (*)                    |

HH = Height Handle  
 HDG = Height Drive Gear  
 CRP = Cropping measures  
 HCRN = Height Corner  
 HBB = Groove Hardware Height

HH = altezza maniglia  
 HDG = altezza guida cremonese  
 CRP = misura di taglio  
 HCRN = altezza dell'angolo  
 HBB = altezza cava ferramenta

HH = altura manilla  
 HDG = altura de la guía de equipo  
 CRP = medida de corte  
 HCRN = altura de la esquina  
 HBB = altura de la ranura del hardware

(\*) = Over 2800 mm technical department  
 confirmation needed.

(\*) = Conferma dell'ufficio tecnico necessaria  
 per dimensioni superiori a 2800 mm

(\*) = Se necesita confirmación del departamento  
 técnico para dimensiones superiores a  
 2800 mm

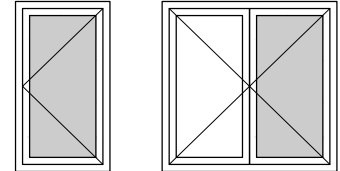
Step #3 - Extension kits choice

Passo #3 - Scelta del kit estensione Cremonese

Paso #3 - Elección de kit extensión

**HBB \* - HCRN - HDG =** Extension kit length  
 larghezza kit prolunga  
 longitud de kit extensión

|                        | MinL | MaxL |
|------------------------|------|------|
| <b>K88011</b>          | 0    | 140  |
| <b>K88012</b>          | 141  | 235  |
| <b>K88059</b>          | 236  | 375  |
| <b>K88013</b>          | 376  | 470  |
| <b>K88014</b>          | 471  | 610  |
| <b>K88015</b>          | 611  | 705  |
| <b>K88060</b>          | 706  | 845  |
| <b>K88016</b>          | 846  | 940  |
| <b>K88016 / K88011</b> | 941  | 1080 |
| <b>K88016 / K88012</b> | 1081 | 1175 |
| <b>K88016 / K88059</b> | 1176 | 1315 |
| <b>K88016 / K88013</b> | 1316 | 1410 |
| <b>K88016 / K88014</b> | 1411 | 1550 |
| <b>K88016 / K88015</b> | 1551 | 1650 |
| <b>K88016 / K88060</b> | 1651 | 1785 |
| <b>K88016 / K88016</b> | 1786 | 1880 |



\* See HBB information page

MinL = Min Length (mm)  
 MaxL = Max Length (mm)

MinL = larghezza minima (mm)  
 MaxL = larghezza massima (mm)

MinL = longitud mínimo (mm)  
 MaxL = longitud máximo (mm)

Example:  
 HBB = 1780 mm; HM = 300 mm  
 1780 - 113.5 - 736.5 = 930 mm ---> K88016

Example:  
 HBB = 1780 mm; HM = 300 mm  
 1780 - 113.5 - 736.5 = 930 mm ---> K88016

Example:  
 HBB = 1780 mm; HM = 300 mm  
 1780 - 113.5 - 736.5 = 930 mm ---> K88016

HBB = 2700 mm; HM = 1050 mm  
 2700 - 113.5 - 2096.5 = 490 mm ---> K88014

HBB = 2700 mm; HM = 1050 mm  
 2700 - 113.5 - 2096.5 = 490 mm ---> K88014

HBB = 2700 mm; HM = 1050 mm  
 2700 - 113.5 - 2096.5 = 490 mm ---> K88014

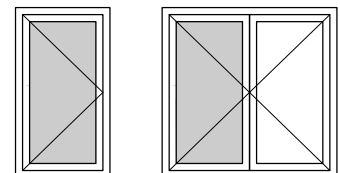
Step #4 - Hinges kit choice

Passo #4 - Scelta kit cerniere

Paso #4 - Elección kit bisagras

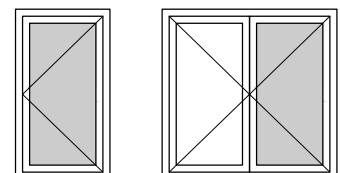
Left / Sinistro / Izquierda

|               | LBB min | LBB max | HBB min | HBB max |
|---------------|---------|---------|---------|---------|
| <b>K88035</b> | 370     | 1400    | 365     | 2800    |



Right / Destro / Derecha

|               | LBB min | LBB max | HBB min | HBB max |
|---------------|---------|---------|---------|---------|
| <b>K88034</b> | 370     | 1400    | 365     | 2800    |



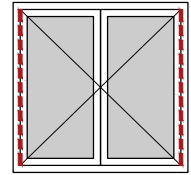


Step #5 - Concealed compression lock kit choice  
 n°1 kit per leaf

Passo #5 - Scelta kit cerniere centrali a scomparsa  
 n°1 kit per anta

Paso #5 - Elección kit de cerraduras de compresión oculto  
 n°1 kit por hoja

|               | HBB min | HBB max |
|---------------|---------|---------|
| <b>K88036</b> | 1280    | 2000    |
| <b>K88037</b> | 2001    | 2800    |

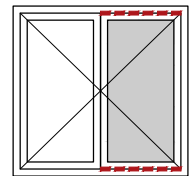
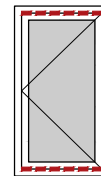


Step #6 - Additional top and bottom locking point choice

Passo #6 - Scelta punto di chiusura aggiuntivo superiore e inferiore

Paso #6 - Elección superior e inferior adicionales punto de bloqueo

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88045</b> | 801     | 1280    |
| <b>K88046</b> | 1281    | 1400    |



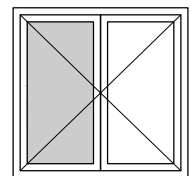
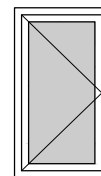
Step #7 - Lifting component choice

Passo #7 - Scelta componente di sollevamento

Paso #7 - Elección componente de elevación

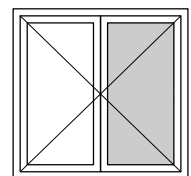
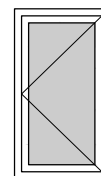
Left / Sinistro / Izquierda

**K88048**



Right / Destro / Derecha

**K88047**



Step #8 - 2nd leaf lock choice

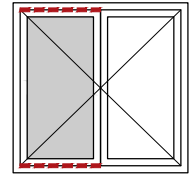
Passo #8 - Scelta chiusura 2a anta

Paso #8 - Elección cerradura 2do hoja

Choose option A or B or C

Scegli l'opzione A o B o C

Elija la opción A o B o C



A - Extendable french casement lock choice

A - Scelta catenacci angolari estendibili

A - Elección cerradura abatible francesa extensible

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88038</b> | 370     | 800     |
| <b>K88039</b> | 801     | 1400    |

B - Roller snap catch

B - Scrocci a rullo

B - Pestillo de rodillo

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88201</b> | 370     | 1400    |

C - Extendable french casement lock + upper roller snap catch

C - Serratura anta francese estensibile + scrocco a rullo superiore

C - Cerradura de marco francés extensible + cierre de presión de rodillo superior

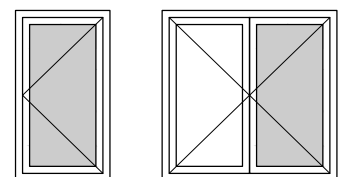
|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88041</b> | 370     | 800     |
| <b>K88042</b> | 801     | 1400    |

Step #9 - Door catch choice

Passo #9 - Scelta scrocco porta

Paso #9 - Elección pestillo de puerta

|               | HBB min | HBB max |
|---------------|---------|---------|
| <b>K88061</b> | 661     | 2800    |

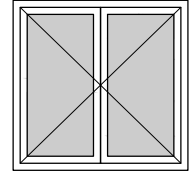
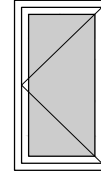


Step #10 - Opening restrictor choice

Passo #10 - Scelta limitatore di apertura

Paso #10 - Elección limitador de apertura

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88033</b> | 490     | 1400    |

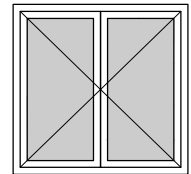
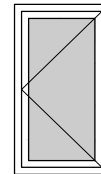


Step #11 - Load transfer 180 kg choice

Passo #11 - Scelta asta di sostegno 180 kg

Paso #11 - Elección varilla de soporte 180 kg

|                  |              | HBB min | HBB max |
|------------------|--------------|---------|---------|
| <b>E99510-02</b> | <b>Right</b> | 2000    | 2800    |
| <b>E99511-02</b> | <b>Left</b>  | 2000    | 2800    |

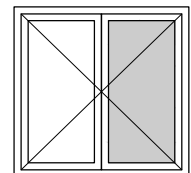
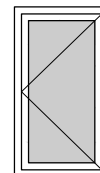


Step #12 - Alarm contact choice

Passo #12 - Scelta contatto allarme

Paso #12 - Elección contacto de alarma

**K99062**

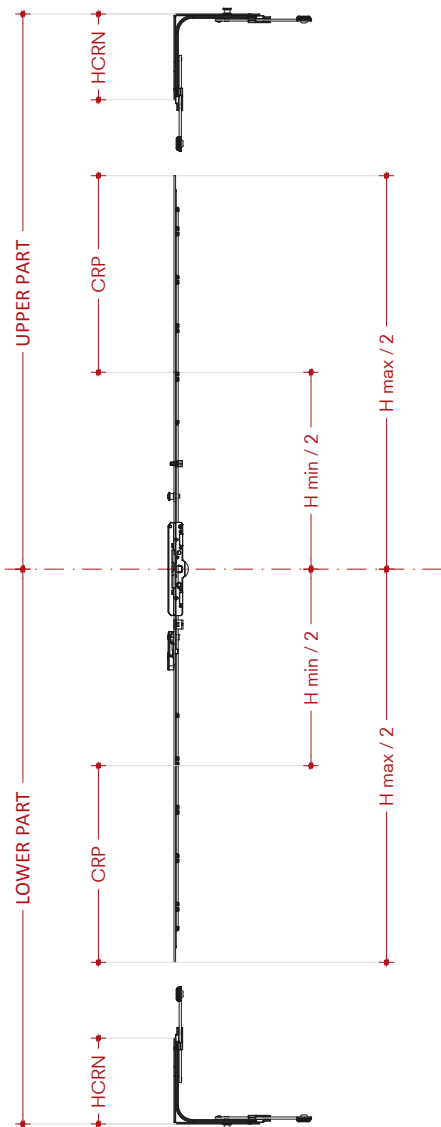


Step #13 - Double croppable gear kits choice  
 (Instead of Step #2 and #3)

Passo #13 - Scelta Kit cremonesi doppiorasabili  
 (Invece dei passaggi #2 e #3)

Paso #13 - Elección Kits de equipo recortables dobles  
 (En lugar de los pasos #2 y #3)

|               | h min handle | HDG    | H min / 2 | H max / 2 | CRP       | HCRN  | HBB min |
|---------------|--------------|--------|-----------|-----------|-----------|-------|---------|
| <b>K88109</b> | 265          | 640.5  | 151       | 260       | 170 + 170 | 113.5 | 527.5   |
| <b>K88110</b> | 375          | 1040.5 | 261       | 510       | 260 + 260 | 113.5 | 747.5   |
| <b>K88111</b> | 625          | 1540.5 | 511       | 760       | 260 + 260 | 113.5 | 1247.5  |
| <b>K88112</b> | 875          | 2040.5 | 761       | 1020      | 260 + 260 | 113.5 | 1747.5  |



UPPER PART = HBB - HH - HCRN

LOWER PART = HH - HCRN

Choose the smallest value and find the right gear kit between Hmin/2 and Hmax/2 range columns.  
 Scegli il valore più piccolo e trova il kit Cremonese giusto tra le colonne dell'intervallo Hmin/2 e Hmax/2  
 Elija el valor más pequeño y encuentre el kit de equipo adecuado entre las columnas de rango Hmin/2 y Hmax/2

EXTENSION KIT:

UPPER\* = HBB - HH - HCRN - H max / 2 →

LOWER\* = HH - HCRN - H max / 2 →

CHECK ON THE EXTENSION TABLE (STEP 3)

\* with negative value extension are not needed.

\* con valore negativo non sono necessarie estensioni.

\* con valor negativo no se necesitan extensiones.

HH = Height Handle  
 HDG = Height Drive Gear  
 CRP = Cropping measures  
 HCRN = Height Corner  
 HBB = Groove Hardware Height

HH = altezza maniglia  
 HDG = altezza guida cremonese  
 CRP = misura di taglio  
 HCRN = altezza dell'angolo  
 HBB = altezza cava ferramenta

HH = altura manilla  
 HDG = altura de la guía de equipo  
 CRP = medida de corte  
 HCRN = altura de la esquina  
 HBB = altura de la ranura del hardware



**Bottom hung windows**

**Finestre vasistas**

**Ventana oscilante**

Gear kits

Kit cremonese

Kits de equipo

K88049

LBB = 390 - 500 mm

MC 208323 n°01 piece  
MC 364310 n°02 pieces

K88049

LBB = 390 - 500 mm

K88049

LBB = 390 - 500 mm

K88050

LBB = 501 - 700 mm

MC 208324 n°01 piece  
MC 364310 n°02 pieces

K88050

LBB = 501 - 700 mm

K88050

LBB = 501 - 700 mm

K88051

LBB = 701 - 1000 mm

MC 208325 n°01 piece  
MC 364310 n°02 pieces

K88051

LBB = 701 - 1000 mm

K88051

LBB = 701 - 1000 mm

K88052

LBB = 1001 - 1400 mm

MC 208326 n°01 piece  
MC 364310 n°03 pieces

K88052

LBB = 1001 - 1400 mm

K88052

LBB = 1001 - 1400 mm

K88053

LBB = 1401 - 1800 mm

MC 208327 n°01 piece  
MC 364310 n°03 pieces

K88053

LBB = 1401 - 1800 mm

K88053

LBB = 1401 - 1800 mm

K88054

LBB = 1801 - 2250 mm

MC 202497 n°01 piece  
MC 212211 n°02 pieces  
MC 364310 n°05 pieces

K88054

LBB = 1801 - 2250 mm

K88054

LBB = 1801 - 2250 mm

K88054

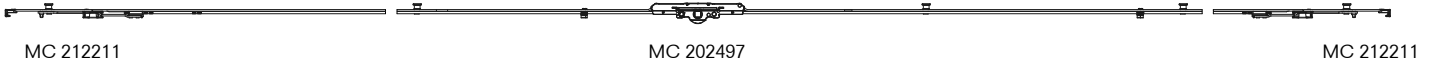
MC 364310

MC 364310

MC 364310

MC 364310

MC 364310

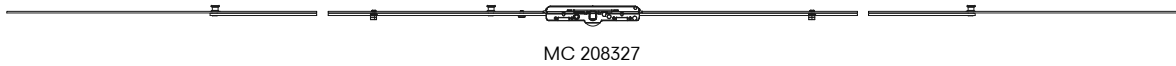


K88053

MC 364310

MC 364310

MC 364310



K88052

MC 364310

MC 364310

MC 364310



K88051

MC 364310

MC 364310



K88050

MC 364310

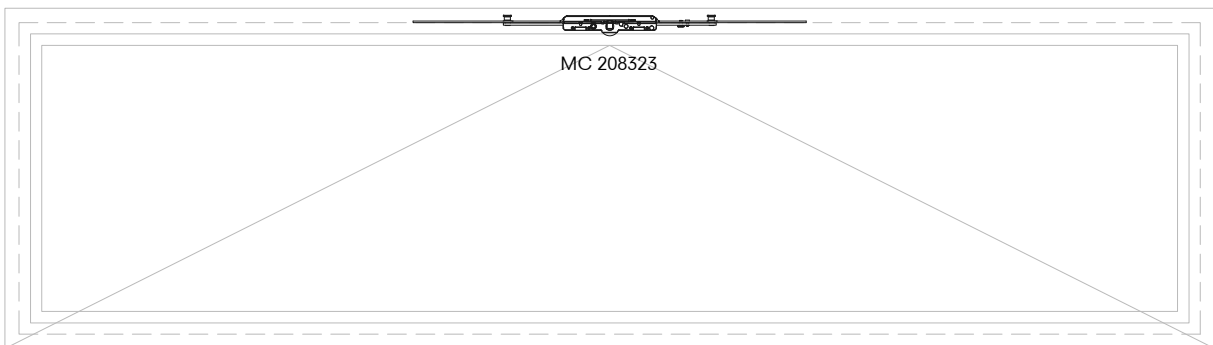
MC 364310



K88049

MC 364310

MC 364310



**Bottom hung windows**

**Finestre vasistas**

**Ventana oscilante**

Gear kits

Kit cremonese

Kits de equipo

K88055

K88055

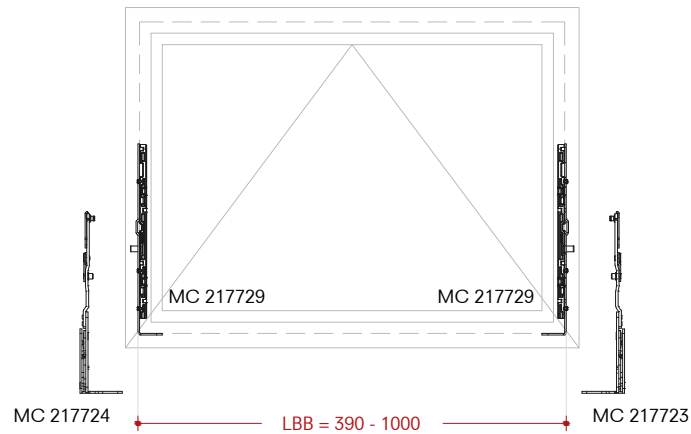
K88055

LBB = 390 - 1000 mm

LBB = 390 - 1000 mm

LBB = 390 - 1000 mm

MC 217723 n°01 piece  
 MC 217724 n°01 piece  
 MC 217729 n°02 pieces



K88056

K88056

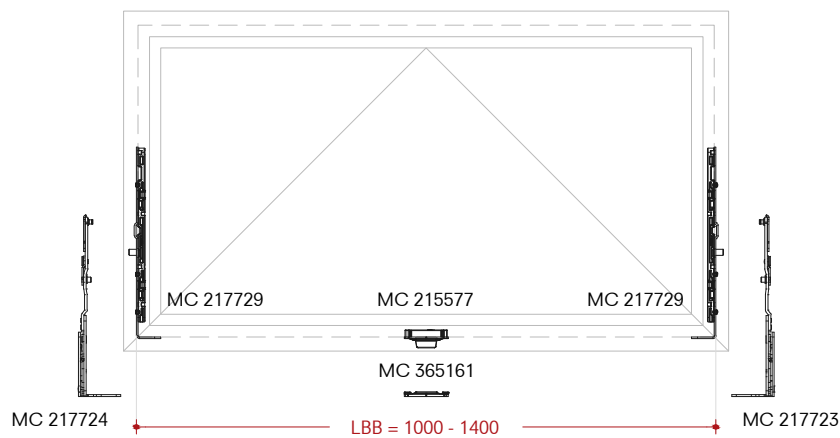
K88056

LBB = 1001 - 1400 mm

LBB = 1001 - 1400 mm

LBB = 1001 - 1400 mm

MC 215577 n°01 piece  
 MC 365161 n°01 piece  
 MC 217723 n°01 piece  
 MC 217724 n°01 piece  
 MC 217729 n°02 pieces





K88057

LBB = 1401 - 1800 mm

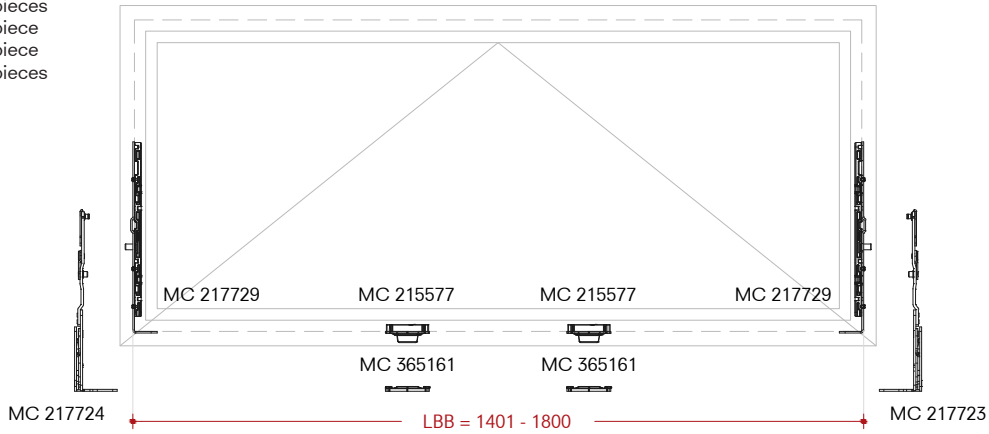
MC 215577 n°02 pieces  
 MC 365161 n°02 pieces  
 MC 217723 n°01 piece  
 MC 217724 n°01 piece  
 MC 217729 n°02 pieces

K88057

LBB = 1401 - 1800 mm

K88057

LBB = 1401 - 1800 mm



K88058

LBB = 1801 - 2250 mm

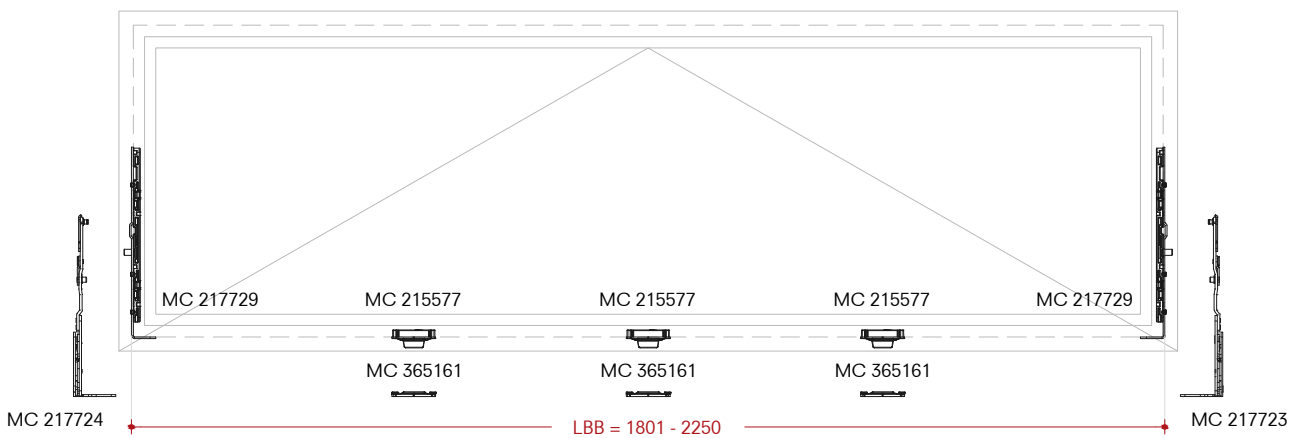
MC 215577 n°03 pieces  
 MC 365161 n°03 pieces  
 MC 217723 n°01 piece  
 MC 217724 n°01 piece  
 MC 217729 n°02 pieces

K88058

LBB = 1801 - 2250 mm

K88058

LBB = 1801 - 2250 mm



**Bottom hung windows**

**Finestre vasistas**

**Ventana oscilante**

Opening restrictor

Limitatore di apertura

Limitador de apertura

E99205-05

With clicks.  
 HBB = 400 - 1200 mm

n°02 pieces

[See opening restrictor installation](#)

E99205-05

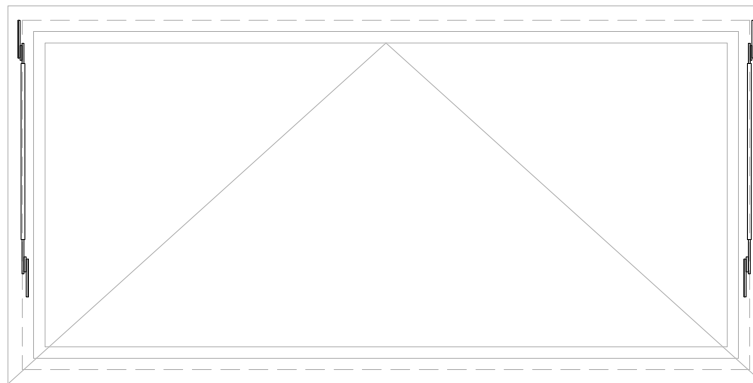
Con scatti.  
 HBB = 400 - 1200 mm

n°02 pezzi

E99205-05

Con clics.  
 HBB = 400 - 1200 mm

n°02 unidades



E99206-03

HBB = 400 - 1200 mm

n°02 pieces

[See opening restrictor installation](#)

E99206-03

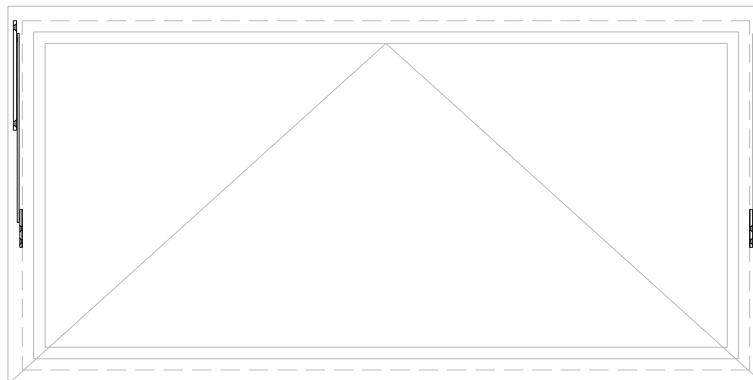
HBB = 400 - 1200 mm

n°02 pezzi

E99206-03

HBB = 400 - 1200 mm

n°02 unidades



K88107

HBB = 520 - 620 mm

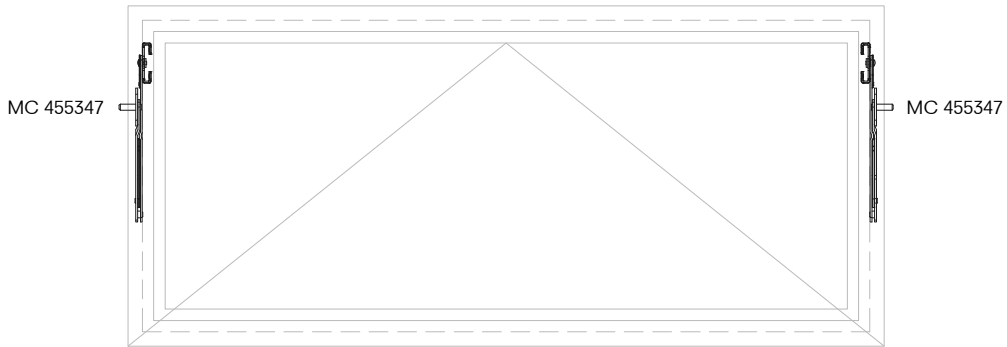
MC 455347 n°02 pieces

K88107

HBB = 520 - 620 mm

K88107

HBB = 520 - 620 mm



K88108

HBB = 621 - 1200 mm

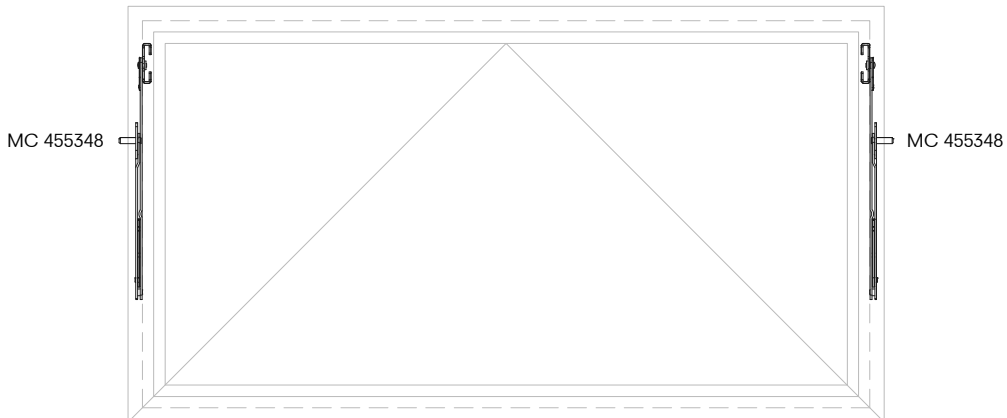
MC 455348 n°02 pieces

K88108

HBB = 621 - 1200 mm

K88108

HBB = 621 - 1200 mm



**Bottom hung windows**

**Finestre vasistas**

**Ventana oscilante**

Alarm contact

Contatto allarme

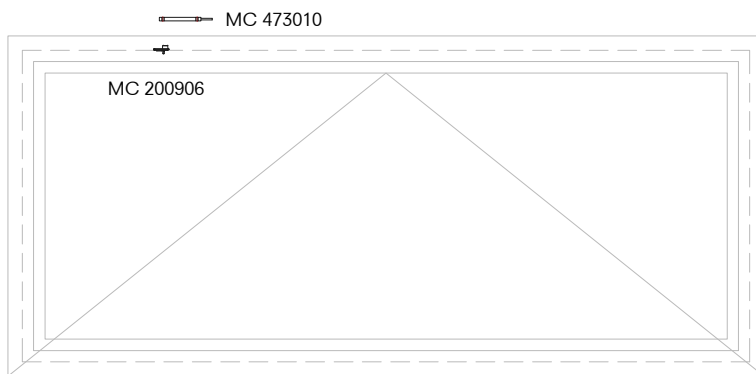
Contacto de alarma

K99062

K99062

K99062

MC 200906 n°01 piece  
MC 473010 n°01 piece



**Bottom hung windows**

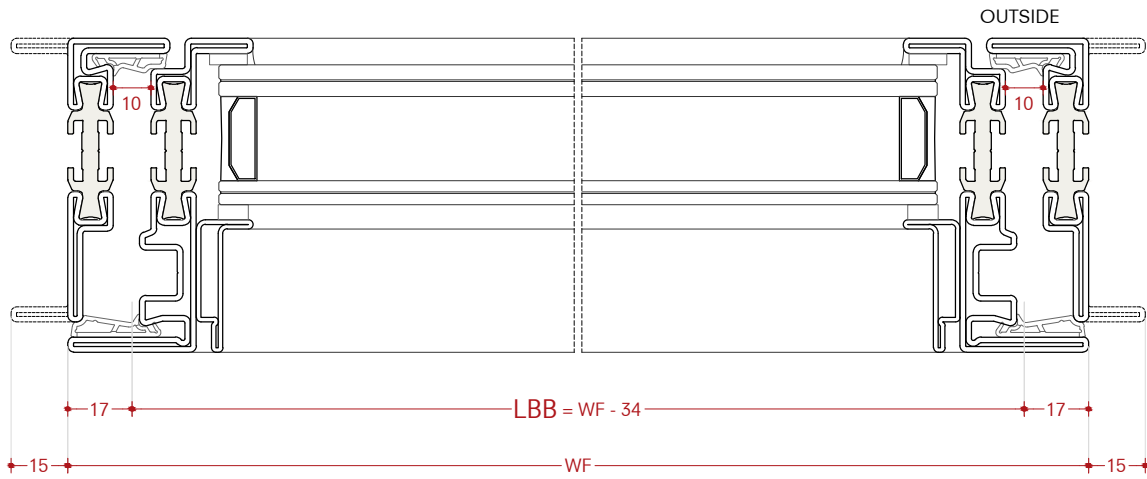
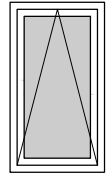
Determination of LBB  
 (Groove Hardware Length)

**Finestre vasistas**

Determinazione di LBB  
 (Larghezza cava ferramenta)

**Ventana oscilante**

Determinación de LBB  
 (longitud de la ranura del hardware)



**Bottom hung windows**

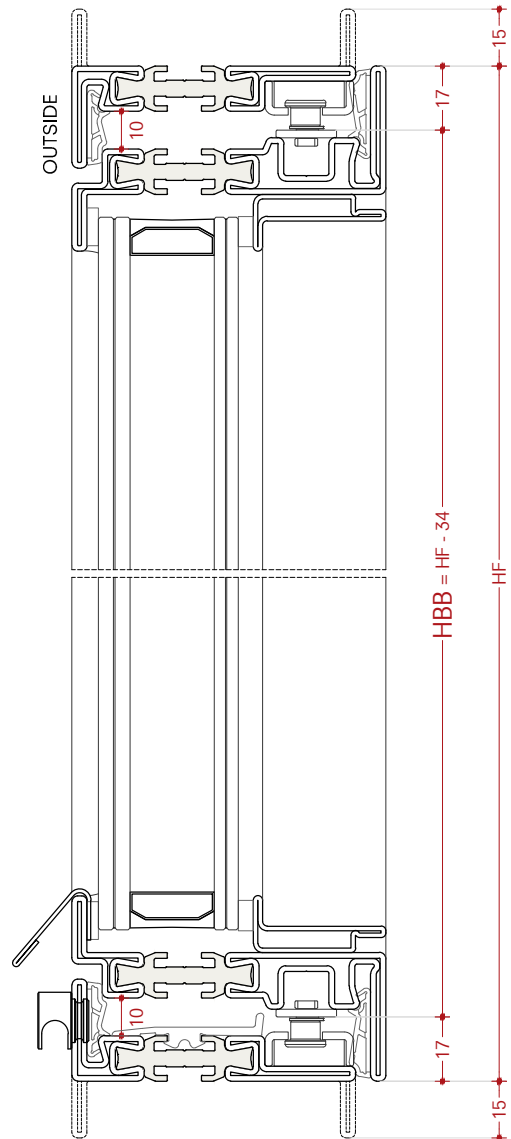
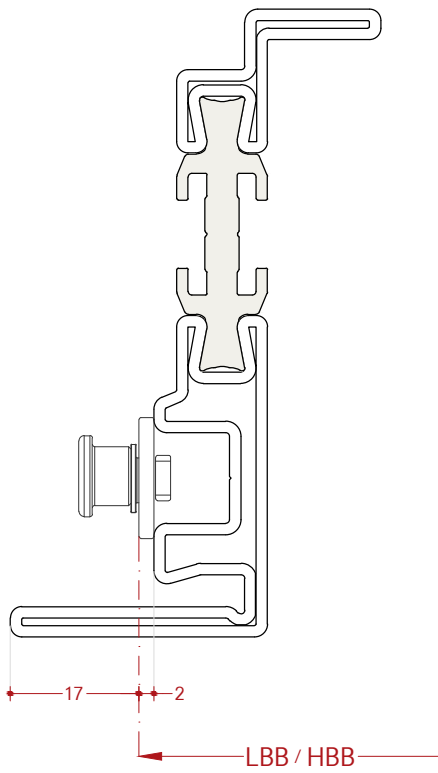
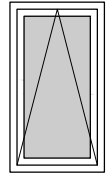
Determination of HBB  
 (Groove Hardware Height)

**Finestre vasistas**

Determinazione di HBB  
 (altezza cava ferramenta)

**Ventana oscilante**

Determinación de HBB  
 (altura de la ranura del hardware)



**Bottom hung windows**

**Finestre vasistas**

**Ventana oscilante**

Load capacity tables

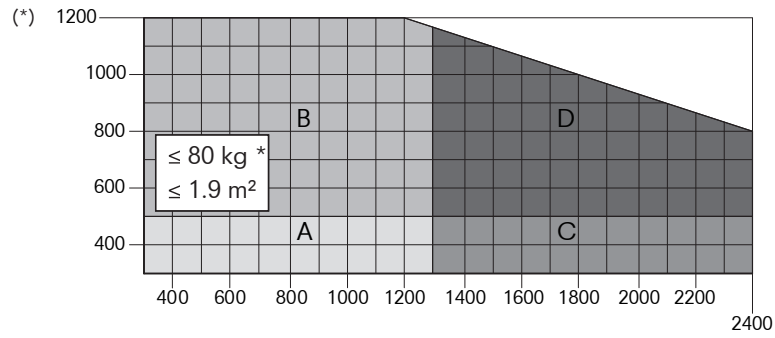
Tabelle portate

Tablas de peso

Capacity of bottom hung window with concealed compression locks

Portate vasistas con cerniere a scomparsa

Capacidad de la ventana oscilante con bisagras ocultas



(\*) Extendable to a height of 1800 mm using screw-on hinges.

(\*) Estendibile ad altezza 1800 mm con l'uso di cerniere ad avvitare.

(\*) Extensible hasta 1800 mm de altura mediante bisagras atornillable.

**Bottom hung windows**

**Finestre vasistas**

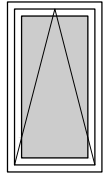
**Ventana oscilante**

Step #1 - Gear kit choice

Passo #1 - Scelta del kit cremonese

Paso #1 - Elección de kit de equipo

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88049</b> | 390     | 500     |
| <b>K88050</b> | 501     | 700     |
| <b>K88051</b> | 701     | 1000    |
| <b>K88052</b> | 1001    | 1400    |
| <b>K88053</b> | 1401    | 1800    |
| <b>K88054</b> | 1801    | 2250    |



Step #2 - Hinges kit choice

Passo #2 - Scelta kit cerniere

Paso #2 - Elección kit bisagras

|               | LBB min | LBB max |
|---------------|---------|---------|
| <b>K88055</b> | 390     | 1000    |
| <b>K88056</b> | 1001    | 1400    |
| <b>K88057</b> | 1401    | 1800    |
| <b>K88058</b> | 1801    | 2250    |

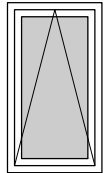


Step #3 - Opening restrictor choice

Passo #3 - Scelta limitatore di apertura

Paso #3 - Elección limitador de apertura

|                  | HBB min | HBB max |                    |
|------------------|---------|---------|--------------------|
| <b>E99205-05</b> | 400     | 1200    | adjustable opening |
| <b>E99206-05</b> | 400     | 1200    | releasable         |
| <b>K88107</b>    | 520     | 620     | recommended        |
| <b>K88108</b>    | 621     | 1200    | recommended        |



Step #4 - Alarm contact choice

Passo #4 - Scelta contatto allarme

Paso #4 - Elección contacto de alarma

**K99062**

**Pivot post**

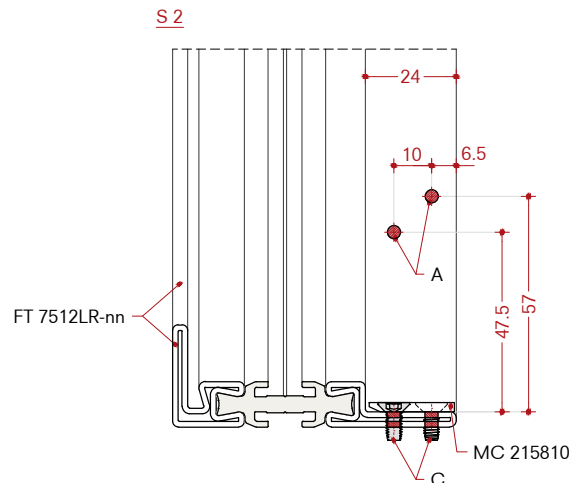
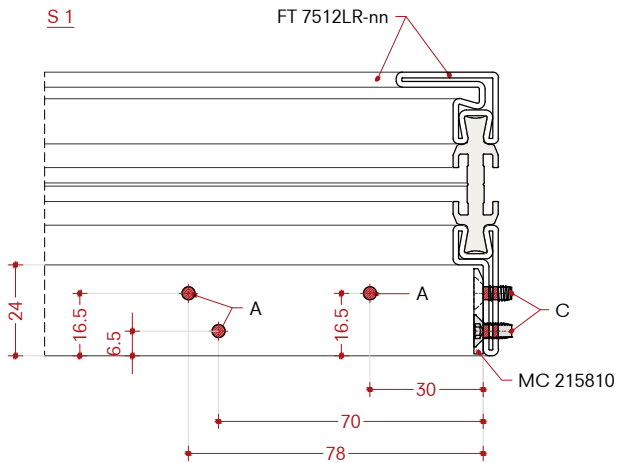
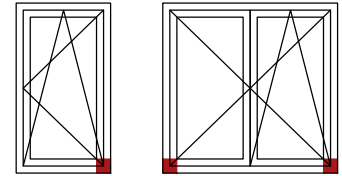
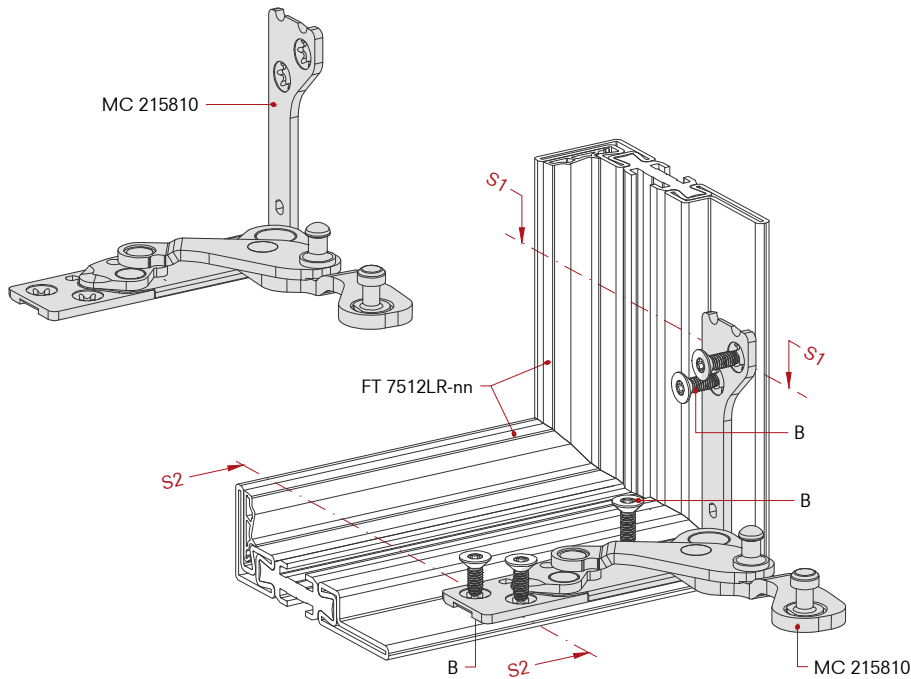
MC 215810 R  
 MC 215811 L  
 Leaf weight ≤ 150 kg  
 Installation on frame

**Cuscinetto angolare**

MC 215810 R  
 MC 215811 L  
 Peso anta ≤ 150 kg  
 Installazione sul telaio

**Cojinete de esquina**

MC 215810 R  
 MC 215811 L  
 Peso de la hoja ≤ 150 kg  
 Instalación en el marco



W75TB - 0001 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x10
- C) Cut the screw

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x10
- C) Accorciare la vite

L = Apertura sinistra  
 R = Apertura destra

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

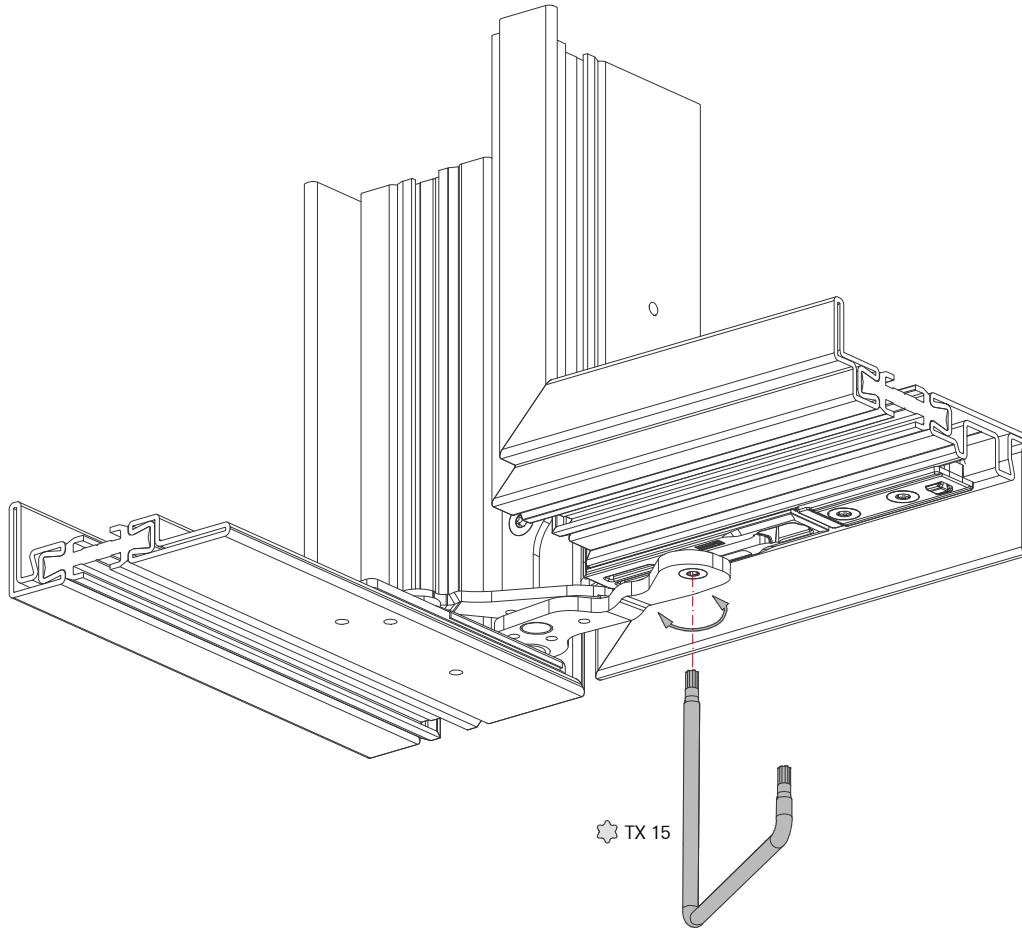
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x10
- C) Recortar tornillo

L = Apertura izquierda  
 R = Apertura derecha

**Pressure adjustment**

**Regolazione pressione di contatto**

**Ajuste de presión de contacto**



✱ Adjustment range  $\pm 0.5$  mm with TX 15

L = Left opening  
 R = Right opening

✱ Regolazione  $\pm 0.5$  mm con TX 15

L = Apertura sinistra  
 R = Apertura destra

✱ Ajuste  $\pm 0.5$  mm con TX 15

L = Apertura izquierda  
 R = Apertura derecha

**Corner support**

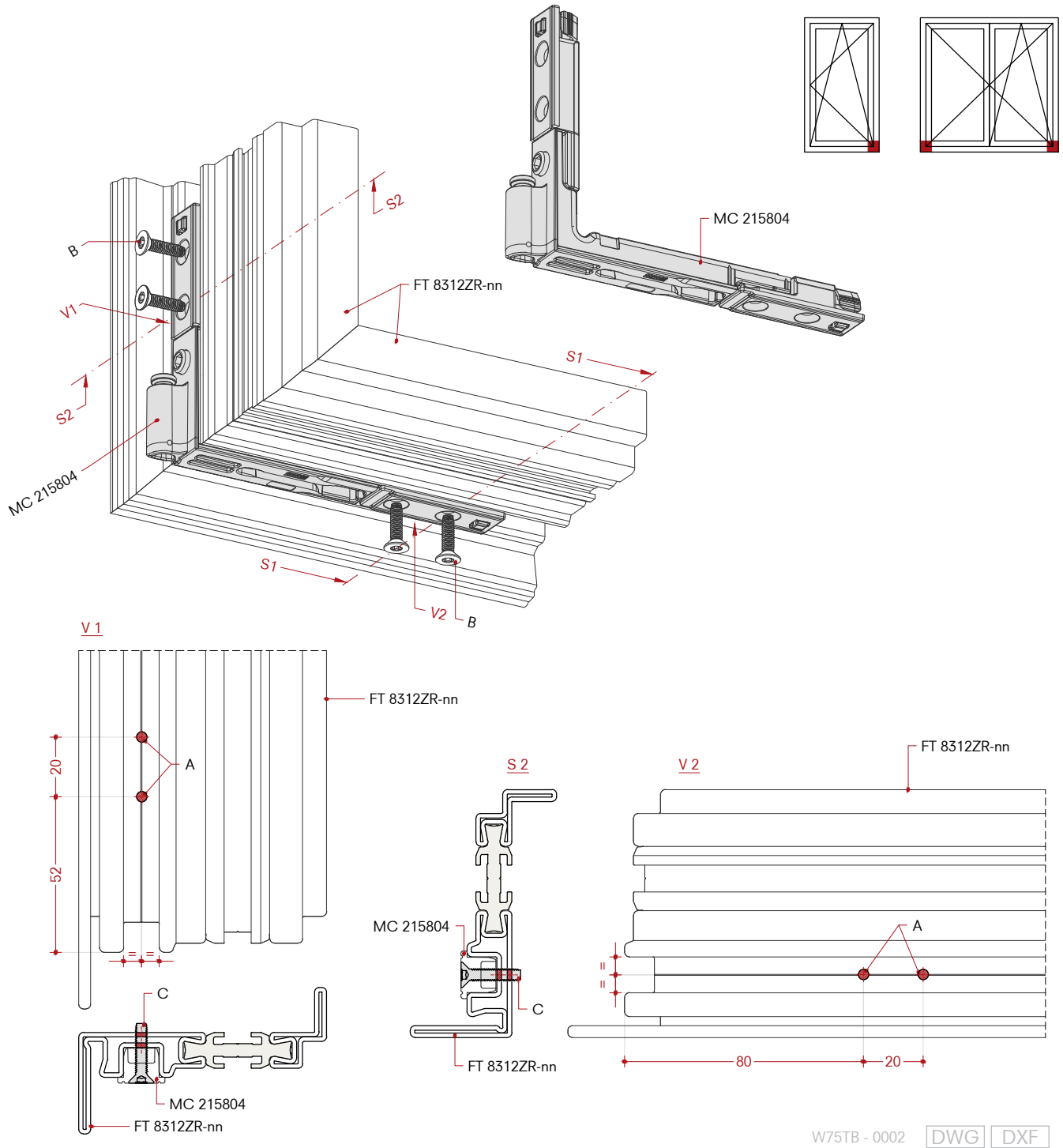
MC 215804 R  
 MC 215805 L  
 Leaf weight ≤ 150 kg  
 Installation on leaf

**Supporto angolare**

MC 215804 R  
 MC 215805 L  
 Peso anta ≤ 150 kg  
 Installazione sull'anta

**Soporte angular**

MC 215804 R  
 MC 215805 L  
 Peso de la hoja ≤ 150 kg  
 Instalación en la hoja



**S1**

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

L = Apertura sinistra  
 R = Apertura destra

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

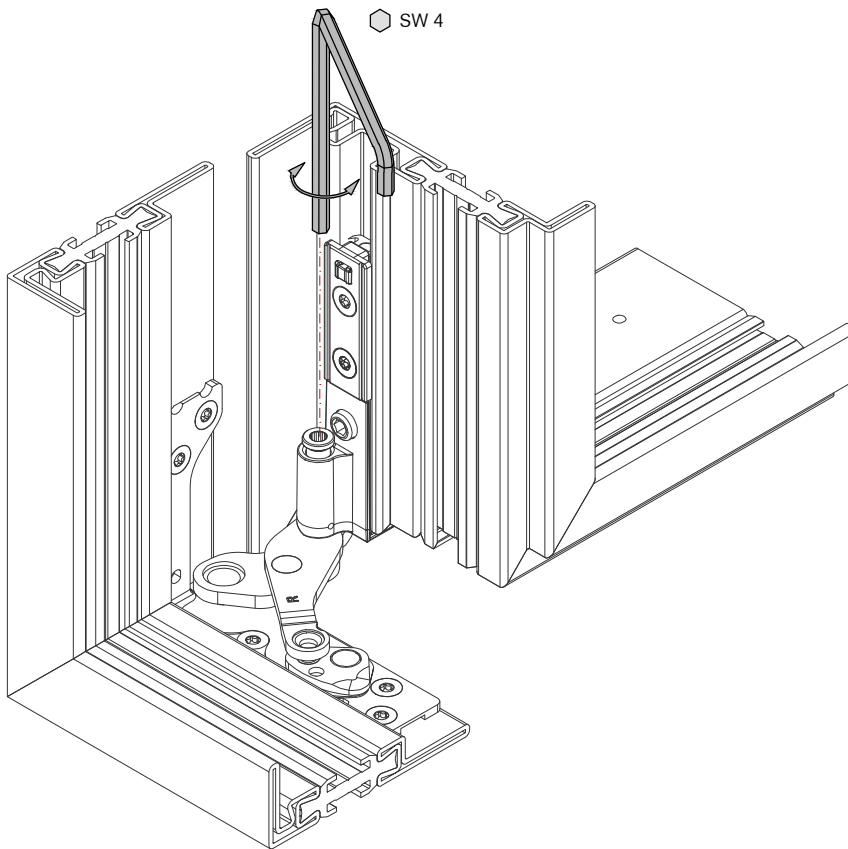
L = Apertura izquierda  
 R = Apertura derecha

W75TB - 0002 [DWG] [DXF]

**Height adjustment**

**Regolazione verticale**

**Ajuste vertical**

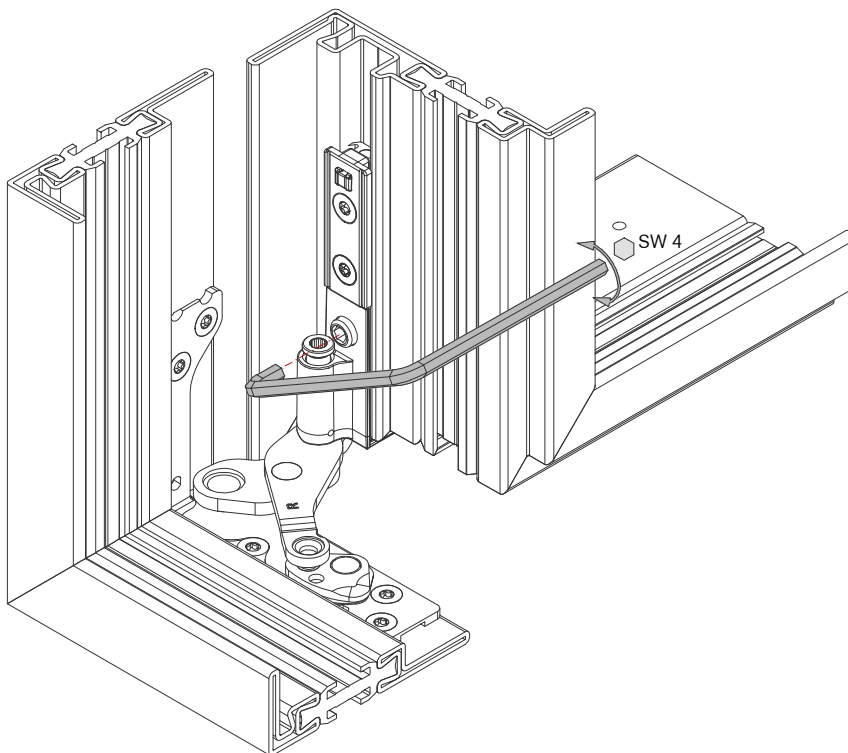


-1/+2

**Side adjustment**

**Regolazione orizzontale**

**Ajuste horizontal**



-1/+2

⬡ Adjustment range -1/+2 mm with SW 4

⬡ Regolazione -1/+2 mm con SW 4

⬡ Ajuste -1/+2 mm con SW 4

L = Left opening  
 R = Right opening

L = Apertura sinistra  
 R = Apertura destra

L = Apertura izquierda  
 R = Apertura derecha

**Load transfer MULTI POWER**

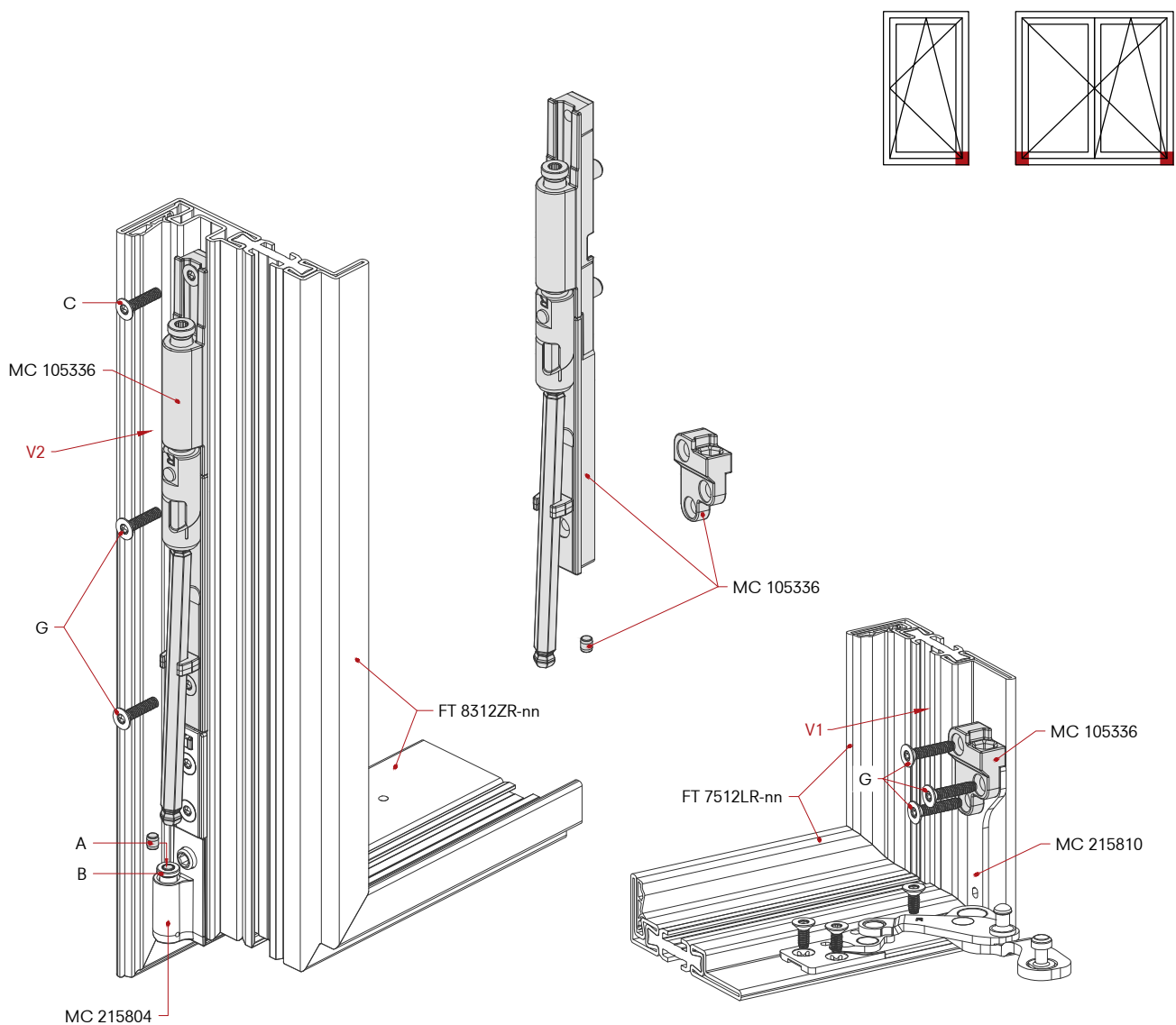
MC 105336 R  
 MC 105339 L  
 Leaf weight ≤ 180 kg  
 Installation frame and leaf

**Asta di sostegno MULTI POWER**

MC 105336 R  
 MC 105339 L  
 Peso anta ≤ 180 kg  
 Installazione su telaio e anta

**Varilla de soporte MULTI POWER**

MC 105336 R  
 MC 105339 L  
 Peso de la hoja ≤ 180 kg  
 Instalación en marco y hoja



W75TB - 0003 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Press the seal into the height adjustment screw of the corner bearing band completely
- B) The height adjusting screw must be in the "neutral position" (delivery condition)
- C) Hole Ø3.3 mm
- D) Hole Ø7 mm
- E) Cut off protruding bolts (MC 105336 / MC 105339 Ø7 mm)
- F) Cut the screw
- G) Countersunk screw M4x20

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Inserire completamente la guarnizione nella vite di regolazione dell'altezza della cerniera angolare
- B) La vite di regolazione dell'altezza deve essere in "posizione neutra" (condizione di consegna)
- C) Foro Ø3.3 mm
- D) Foro Ø7 mm
- E) Tagliare i bulloni sporgenti (MC 105336 / MC 105339 Ø7 mm)
- F) Accorciare la vite
- G) Vite testa svasata M4x20

L = Apertura sinistra  
 R = Apertura destra

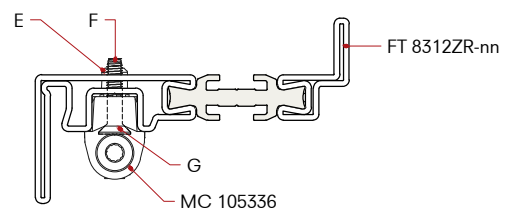
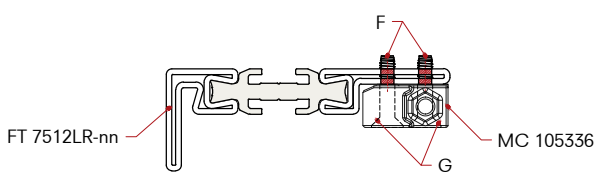
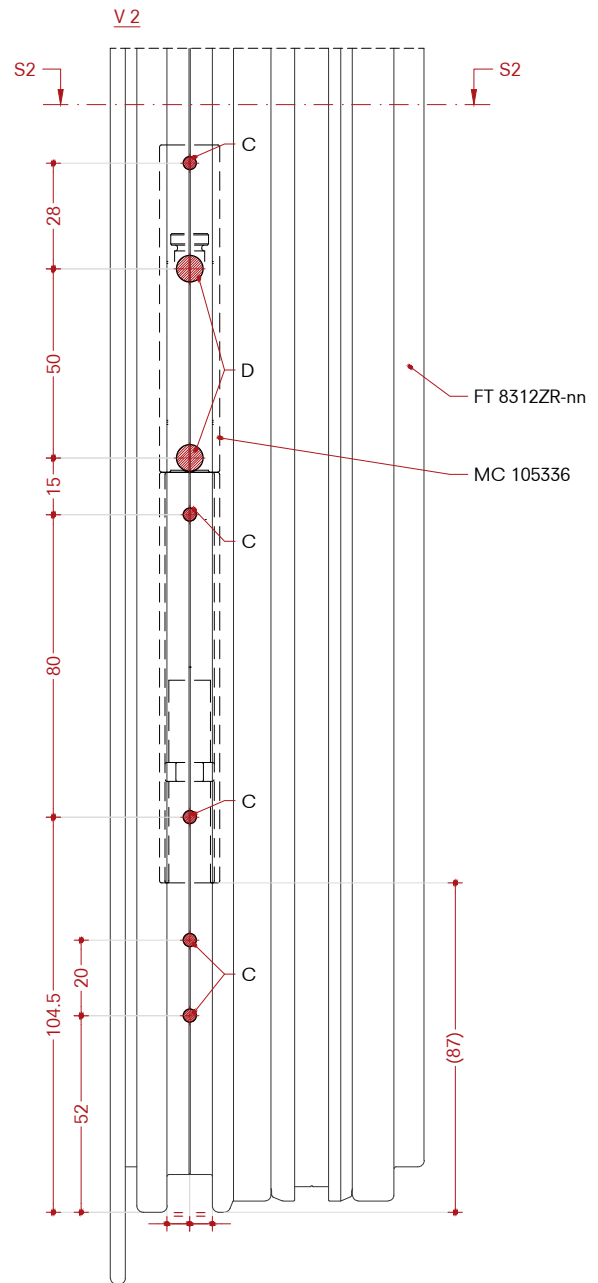
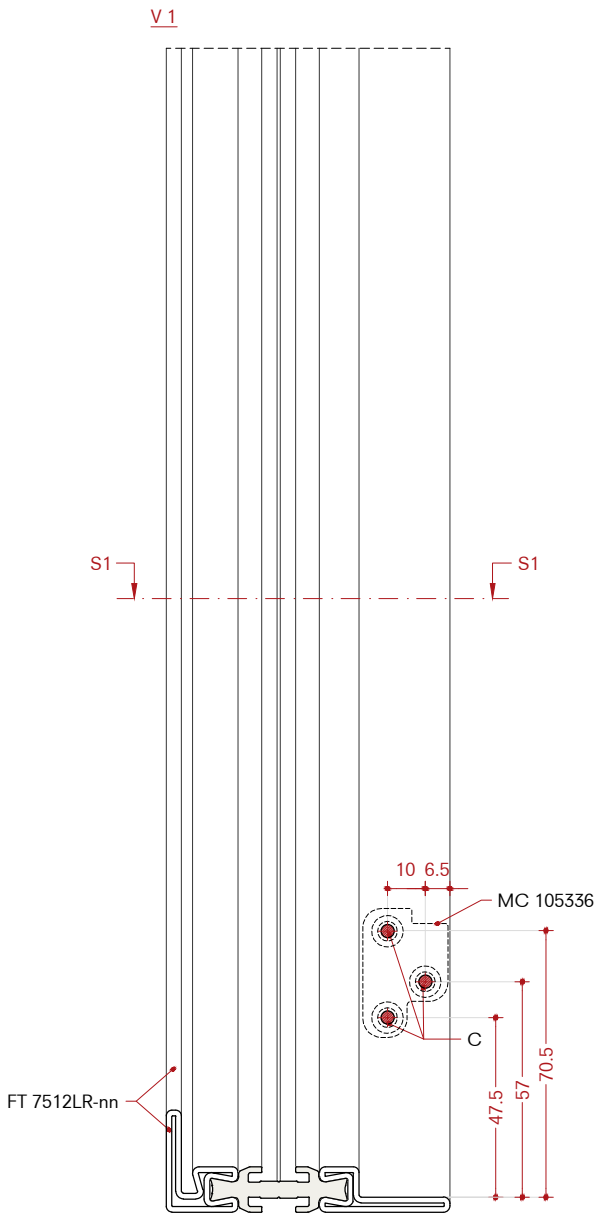
El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Inserte la junta completamente en el tornillo de ajuste de altura de la bisagra de esquina
- B) El tornillo de ajuste de altura debe estar en "posición neutra" (condición de entrega)
- C) Oreficio Ø3.3 mm
- D) Oreficio Ø7 mm
- E) Cortar los tornillos que sobresalen (MC 105336 / MC 105339 Ø7 mm)
- F) Recortar tornillo
- G) Tornillo avellanado M4x20

L = Apertura izquierda  
 R = Apertura derecha

Frame  
 Telaio  
 Marco

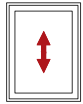
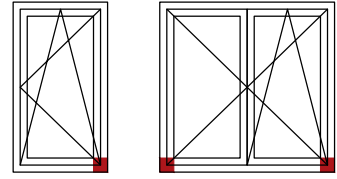
Leaf  
 Anta  
 Hoja



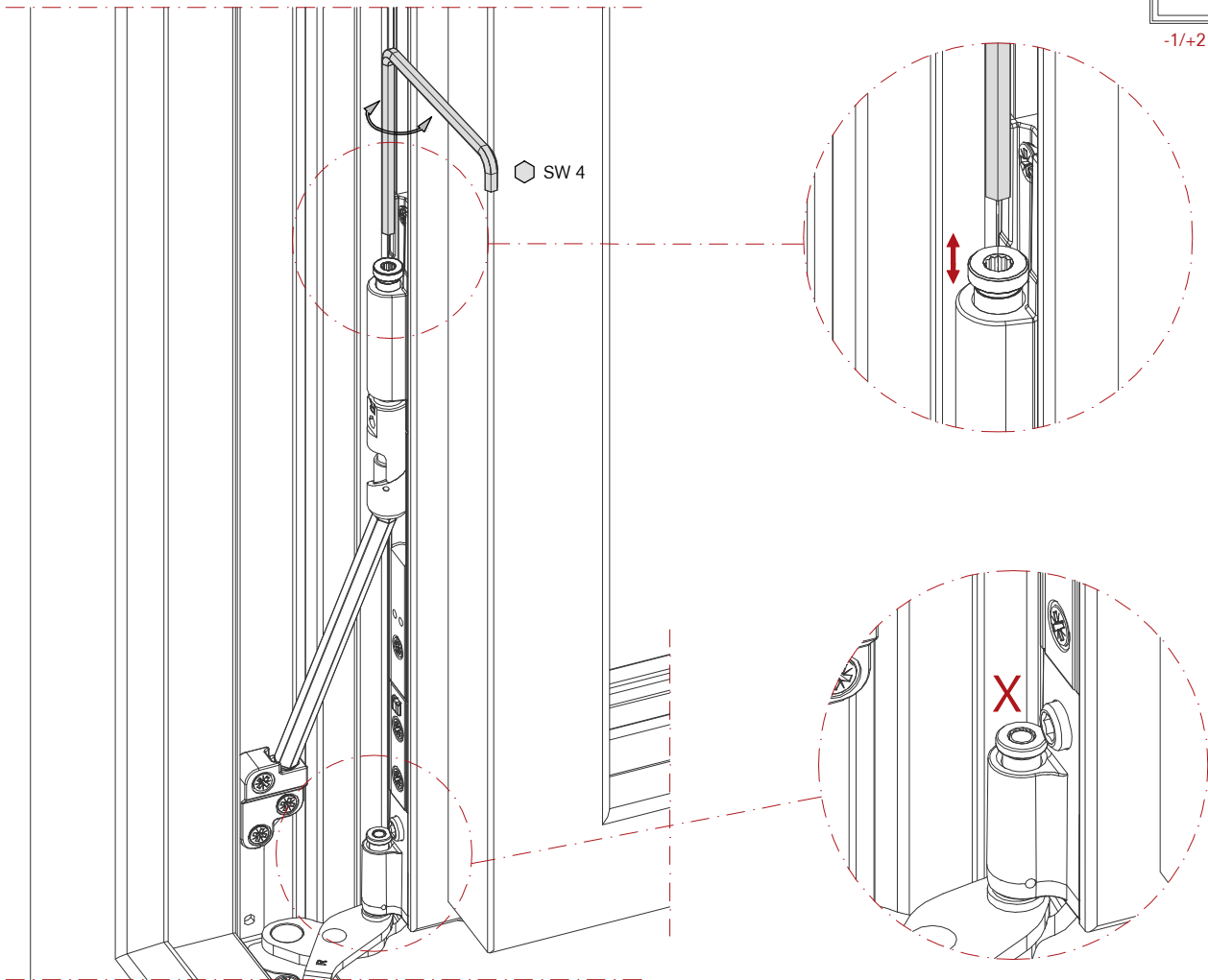
Height adjustment

Regolazione verticale

Ajuste vertical



-1/+2



⬡ Adjustment range -1/+2 mm with SW 4

⬡ Regolazione -1/+2 mm con SW 4

⬡ Ajuste -1/+2 mm con SW 4

**X** = No adjustment allowed here

**X** = Nessuna regolazione consentita

**X** = No se permiten ajustes

L = Left opening  
 R = Right opening

L = Apertura sinistra  
 R = Apertura destra

L = Apertura izquierda  
 R = Apertura derecha

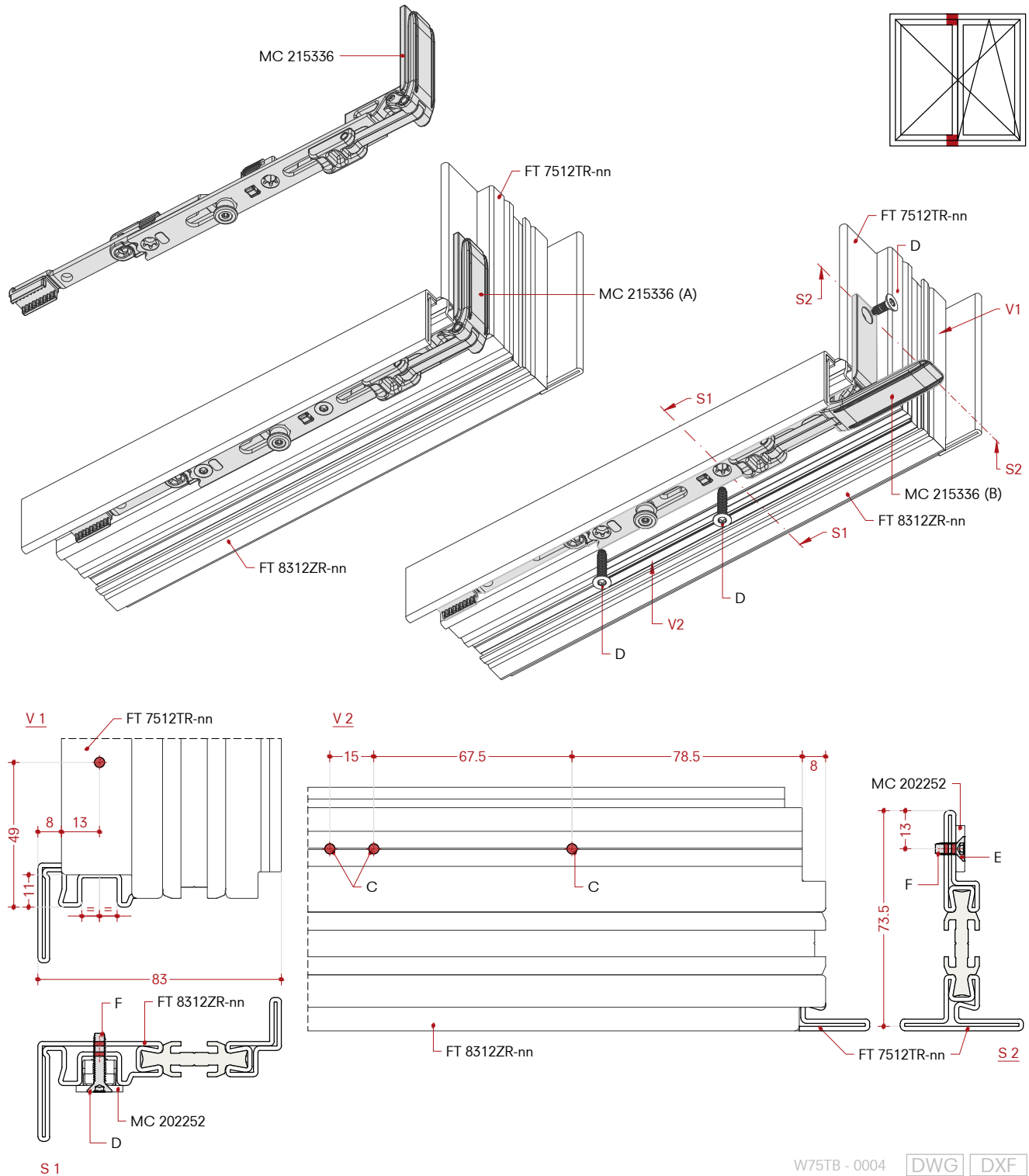




**Extendable french casement lock**  
 MC 215336  
 Installation on 2nd leaf

**Catenacci angolari estendibili**  
 MC 215336  
 Installazione su 2a anta

**Cerradura abatible francesa extensible**  
 MC 215 336  
 Instalación en 2do hoja



Drawing represents below - installation above mirror-inverted

Il disegno rappresenta la vista da sotto - installazione superiore specchiata e invertita

El dibujo representa la vista inferior - instalación superior reflejada e invertida

- A) Illustration: Leaf in turning position
- B) Illustration: Leaf in closed position
- C) Hole Ø3.3 mm
- D) Countersunk screw M4x20
- E) Countersunk screw M4x10
- F) Cut the screw

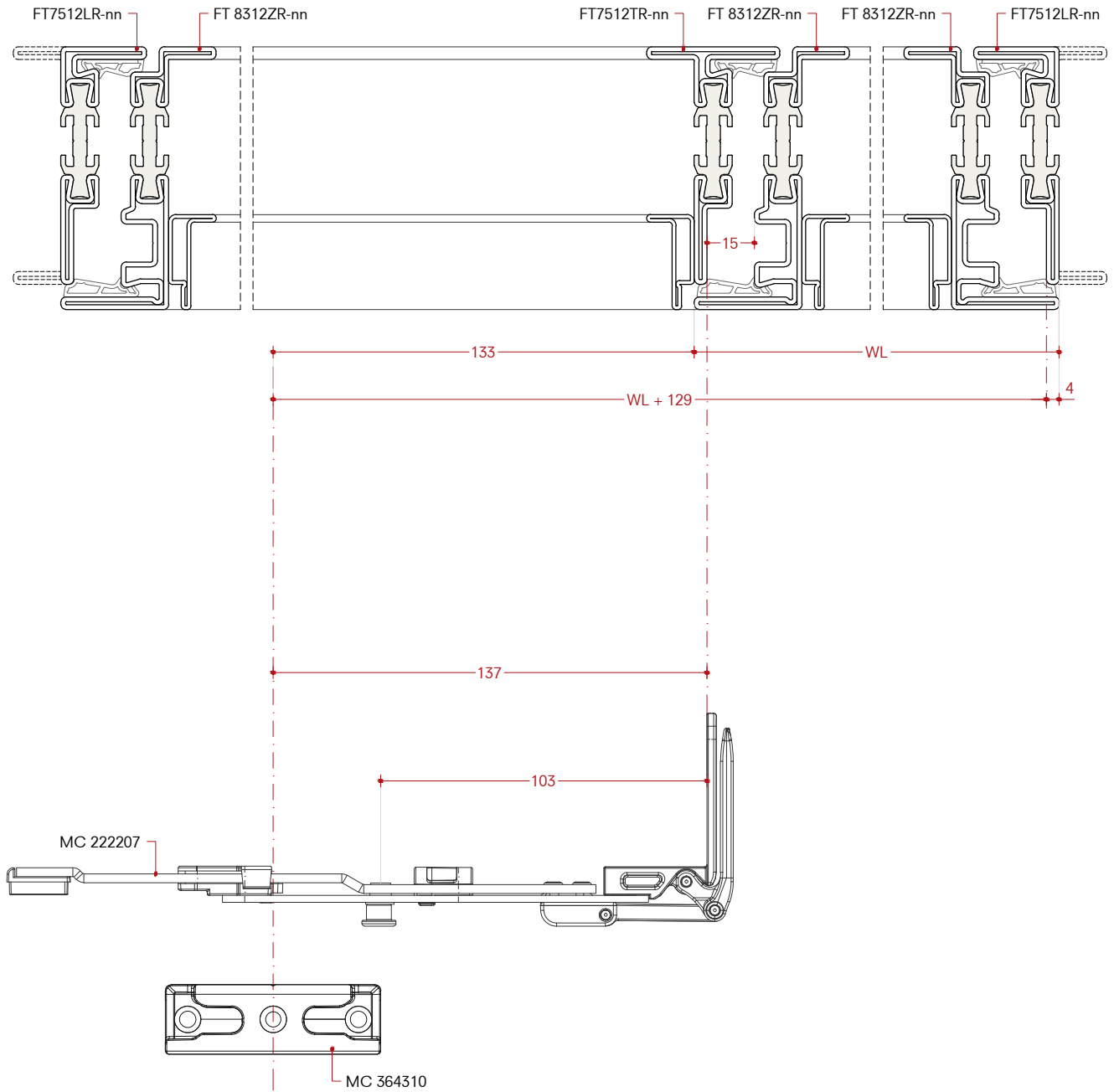
- A) Illustrazione: anta in posizione di rotazione
- B) Illustrazione: anta in posizione chiusa
- C) Foro Ø3.3 mm
- D) Vite a testa svasata M4x20
- E) Vite a testa svasata M4x10
- F) Accorciare la vite

- A) Ilustración: hoja en posición de rotación
- B) Ilustración: hoja en posición cerrada
- C) Oreficio Ø3.3 mm
- D) Tornillo avellanado M4x20
- E) Tornillo avellanado M4x10
- F) Recortar tornillo

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

WL = Width Leaf

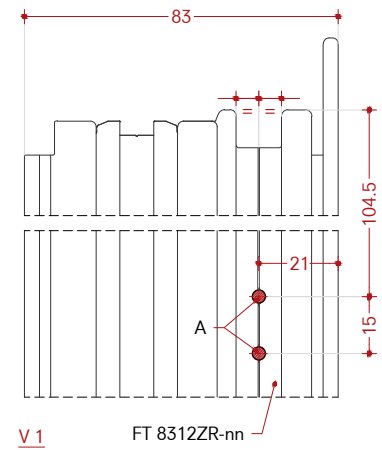
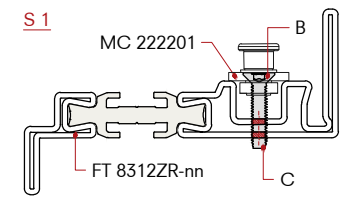
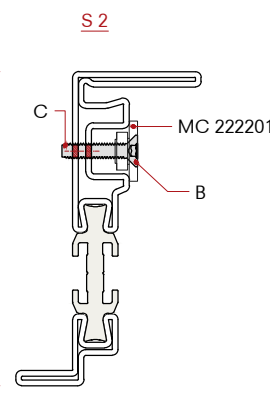
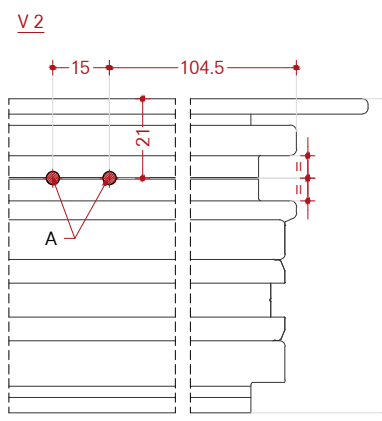
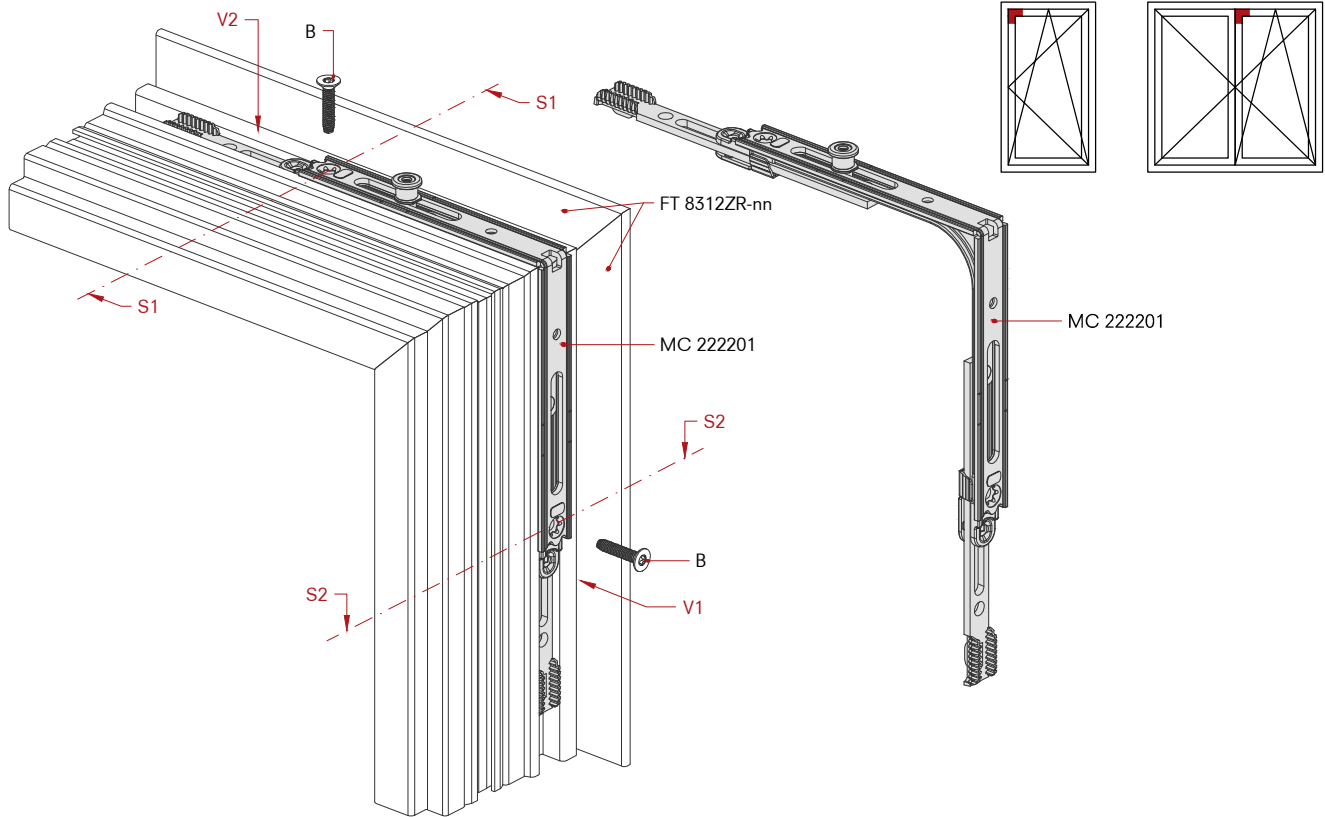
WL = Larghezza anta

WL = Longitud hoja

**Corner element standard  
 with 1 locking cam**  
 MC 222201

**Azionamento angolare standard  
 con 1 nottolino di bloccaggio**  
 MC 222201

**Accionamiento de esquina  
 estándar con 1 rodillo de bloqueo**  
 MC 222201



W75TB - 0005 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

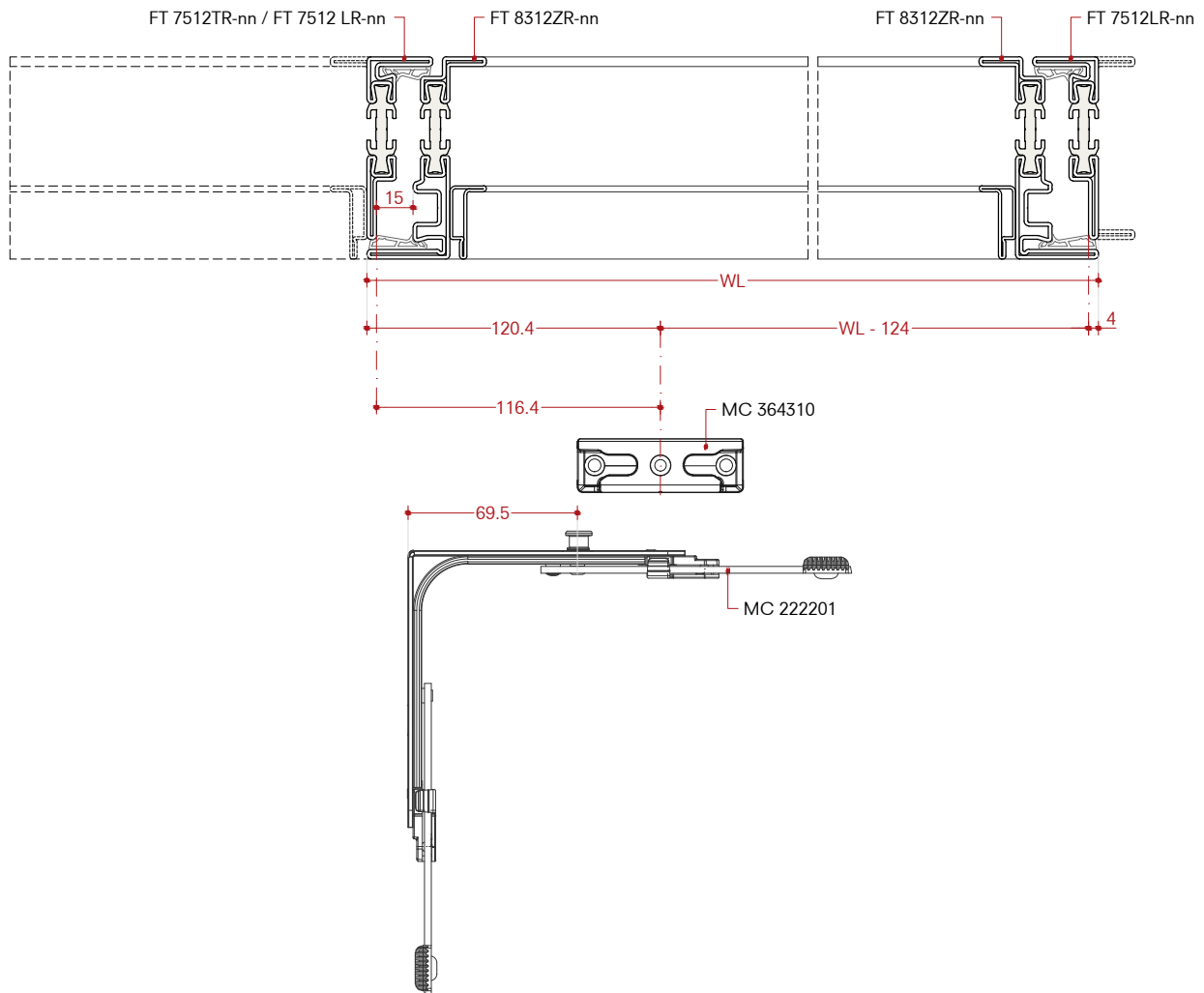
- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

WL = Width Leaf

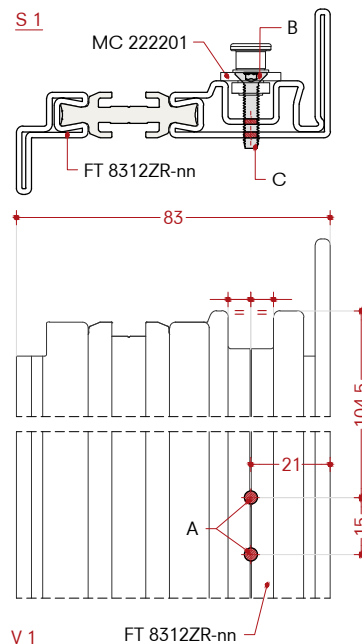
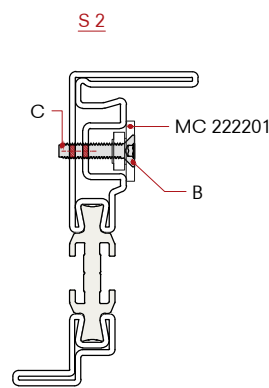
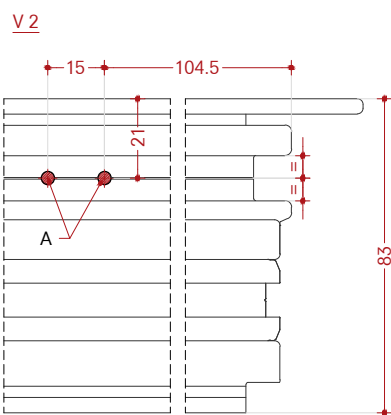
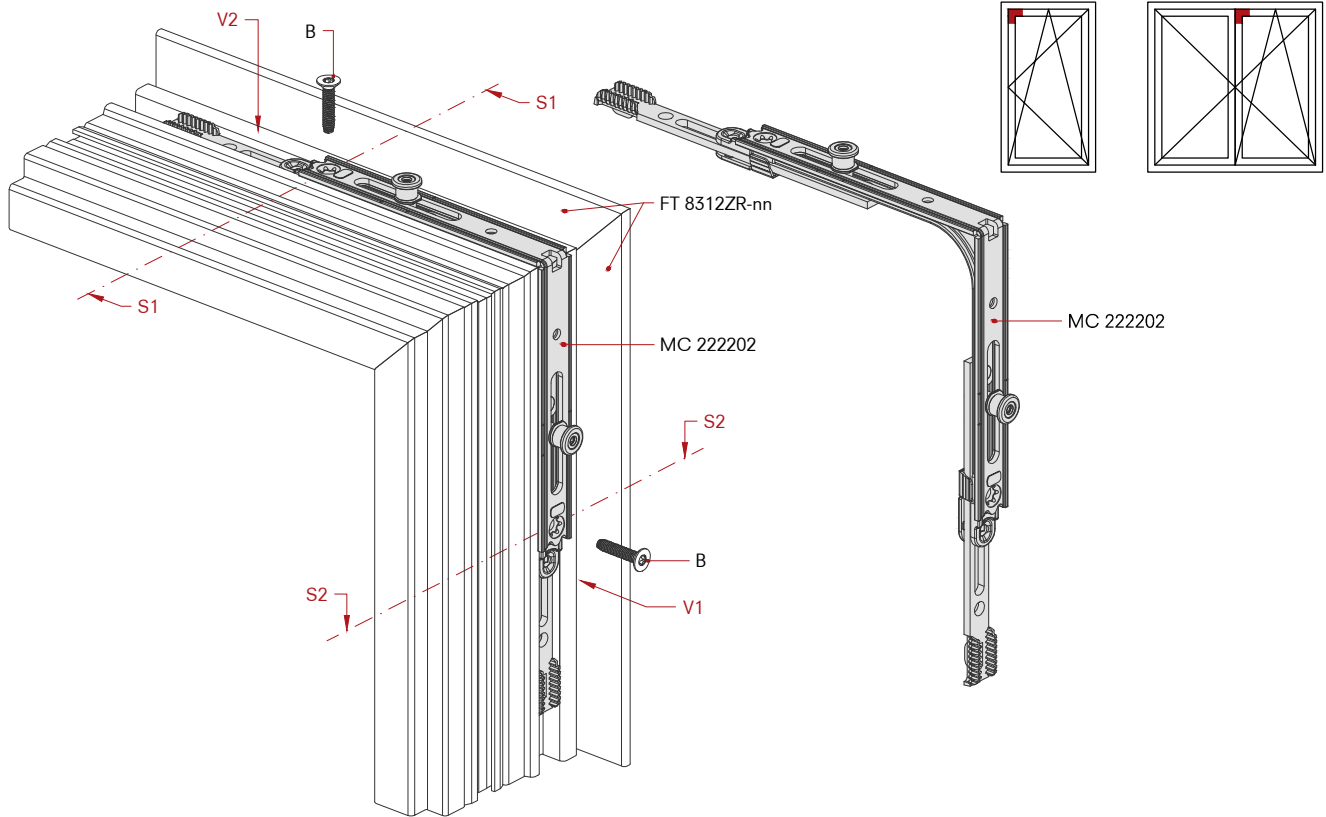
WL = Larghezza anta

WL = Longitud hoja

**Corner element standard  
 with 2 locking cams**  
 MC 222202

**Azionamento angolare standard  
 con 2 nottolini di bloccaggio**  
 MC 222202

**Accionamiento de esquina  
 estándar con 2 rodillos de bloqueo**  
 MC 222202



W75TB - 0006 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- D) Support aluminum in house production  
 (installation on 2nd leaf)

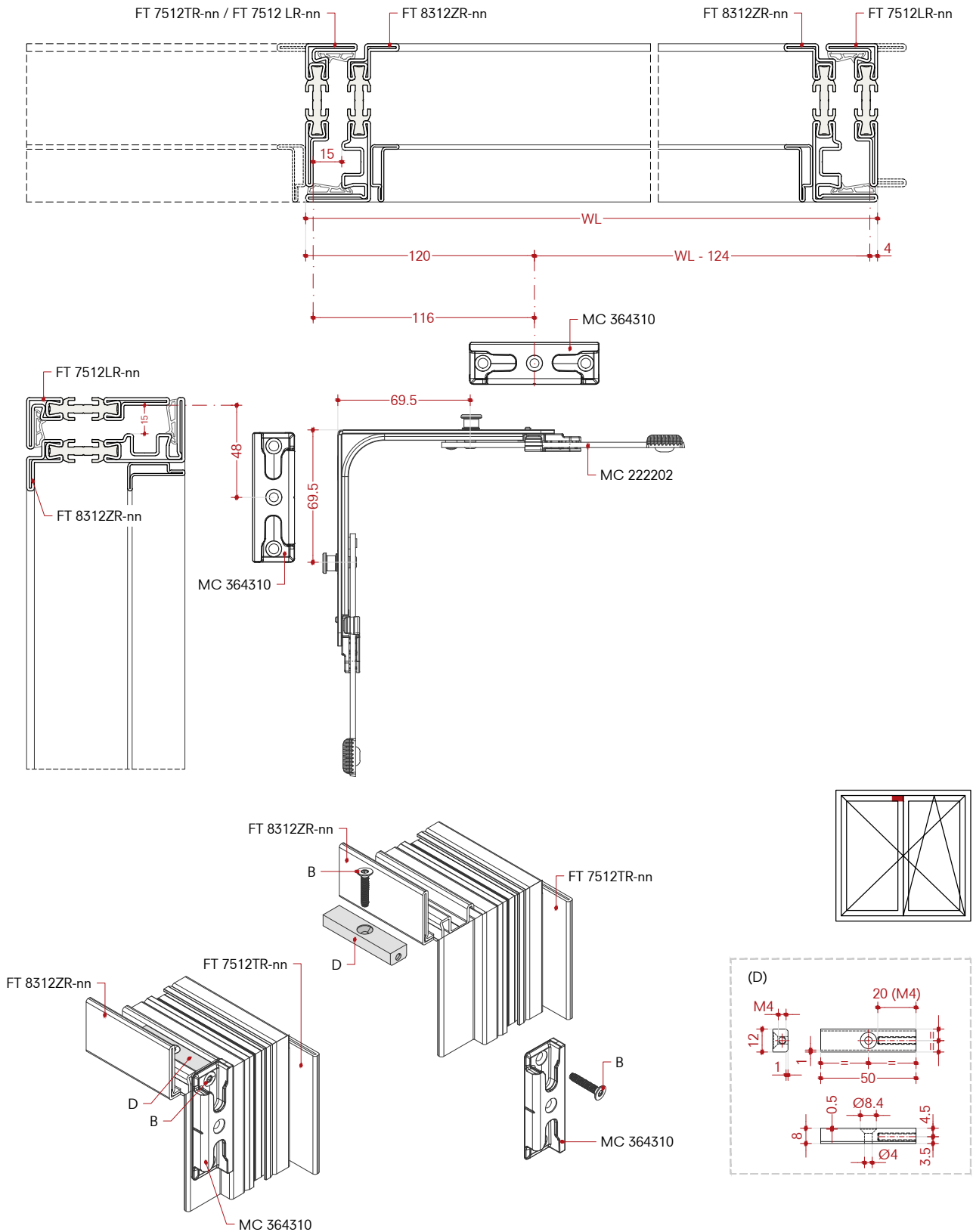
- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- D) Supporto in alluminio, non fornito  
 (installazione su 2a anta)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- D) Soporte de aluminio, no incluido (instalación  
 en 2do hoja)

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

WL = Width Leaf

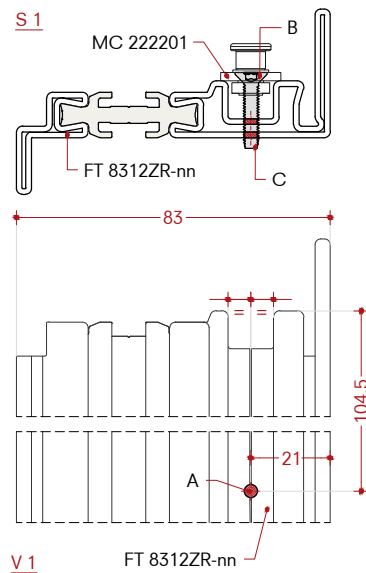
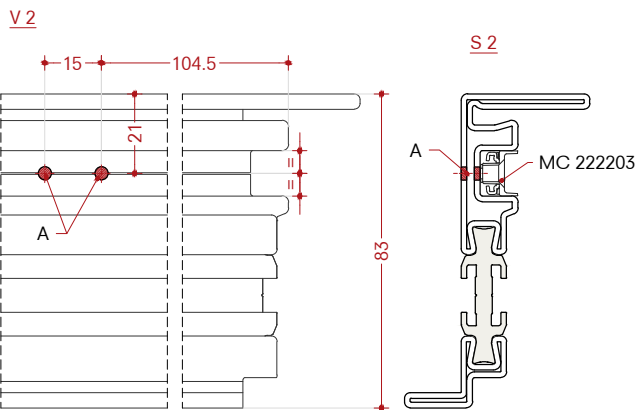
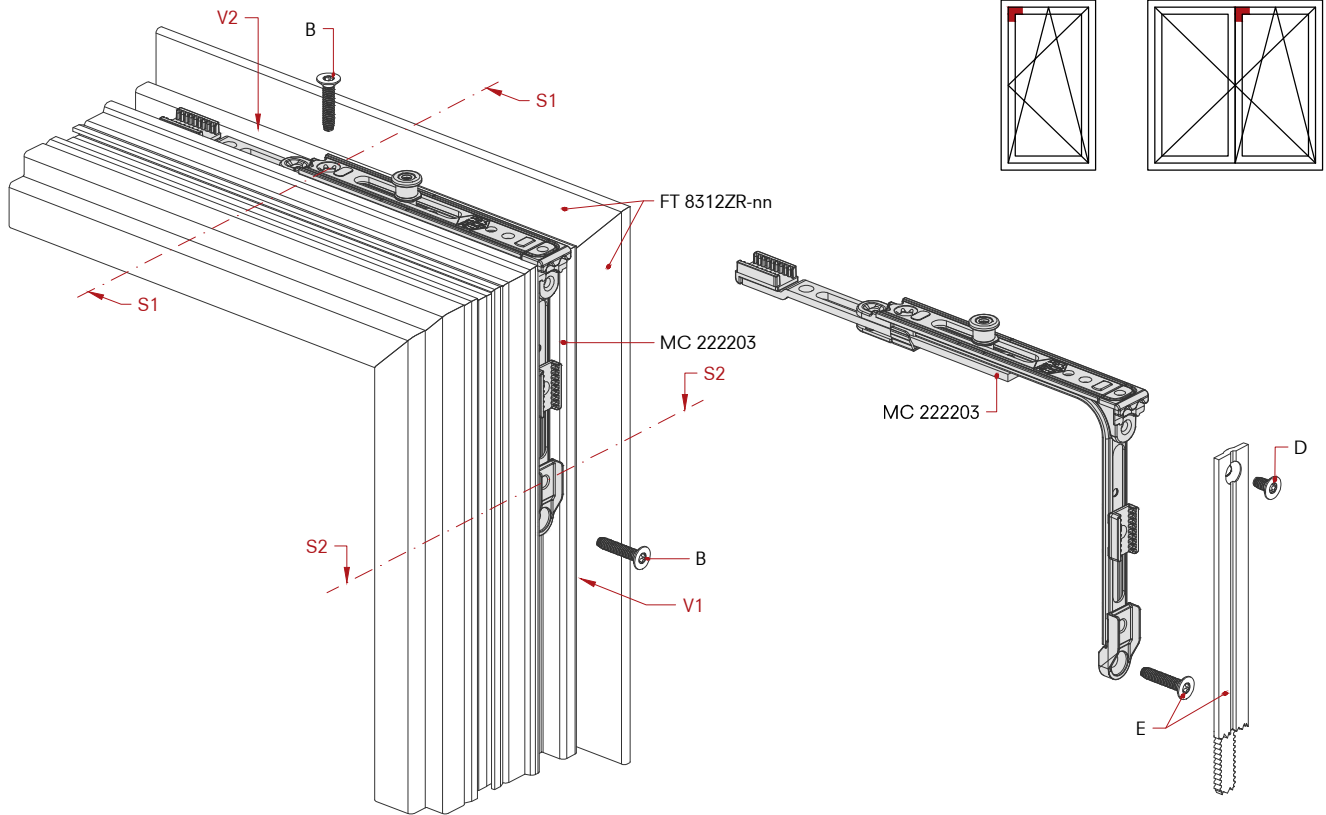
WL = Larghezza anta

WL = Longitud hoja

**Corner element short  
 with 1 locking cams**  
 MC 222203

**Azionamento angolare corto  
 con 1 nottolino di bloccaggio**  
 MC 222203

**Accionamiento de esquina corta  
 con 1 rodillo de bloqueo**  
 MC 222203



W75TB - 0007 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- D) Countersunk head screw M4x8 included
- E) Please note: fasten groove base before support block

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- D) Vite a testa svasata M4x8 inclusa
- E) Nota: fissare la base della scanalatura prima del blocco di supporto

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen espejular)

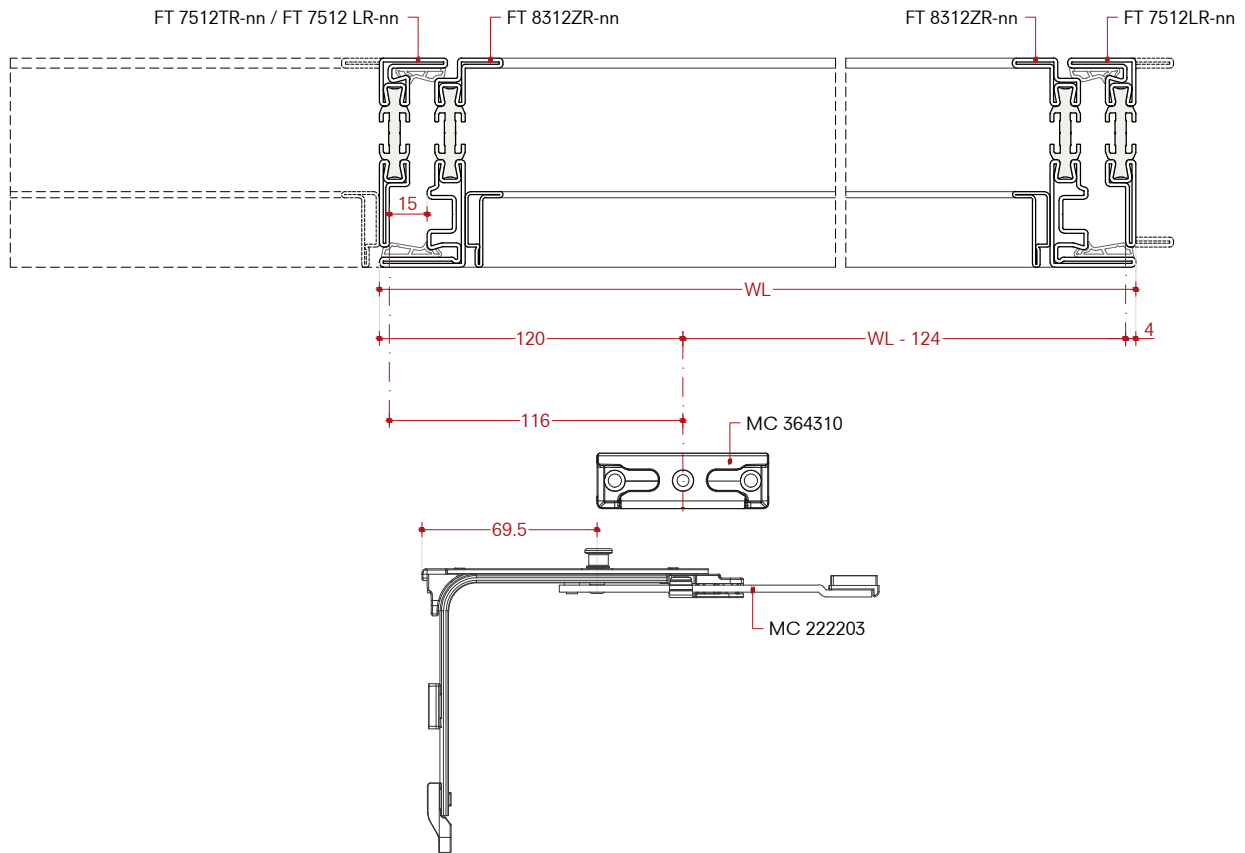
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- D) Tornillo avellanado incluido M4x8
- E) Nota: Fije la base de la ranura antes del bloque de soporte



**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

WL = Width Leaf

disclaimer see 7.0.14

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

WL = Larghezza anta

rel. 07 - 09/2022

5.8.100

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

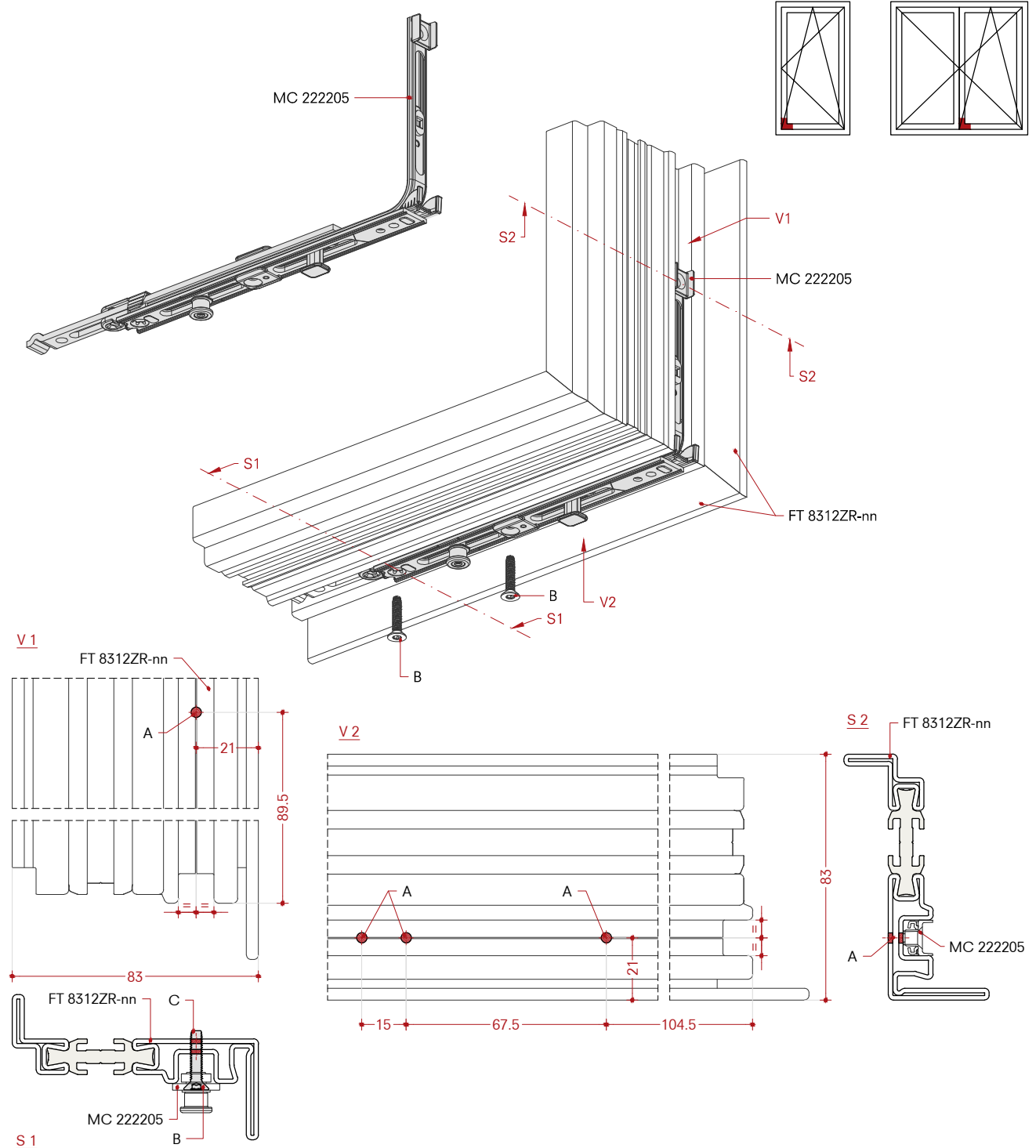
WL = Longitud hoja

ottostumm-mogs.com

**Corner element horizontally extendable for fixed drive gear with 1 locking cam**  
 MC 222205

**Elemento angolare estensibile orizzontalmente per cremonese fisso con 1 nottolino di bloccaggio**  
 MC 222205

**Elemento de esquina extensible horizontalmente para piñón fijo con 1 rodillo de bloqueo**  
 MC 222205



W75TB - 0008 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

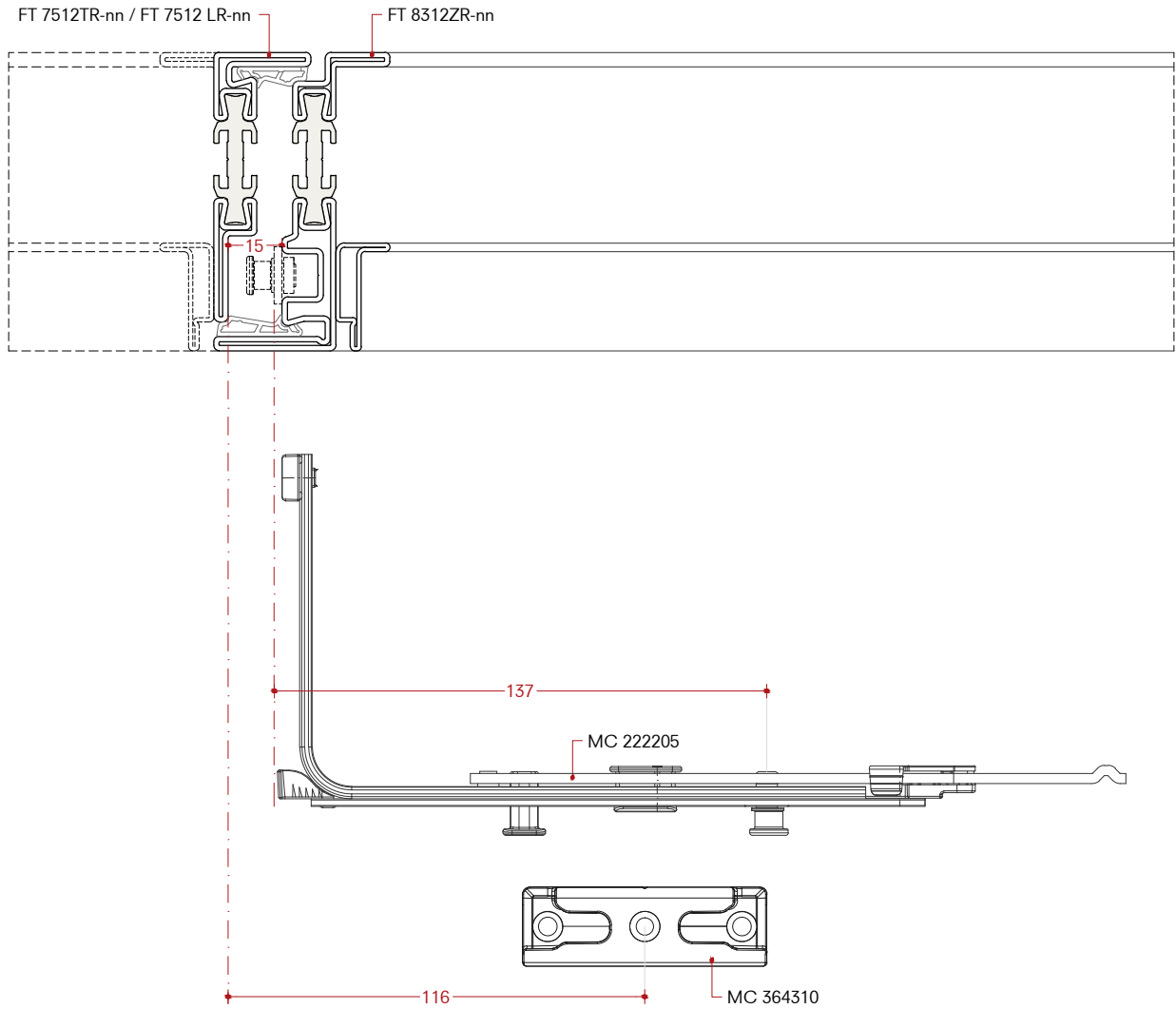
El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

**Tilt&Turn drive gear**

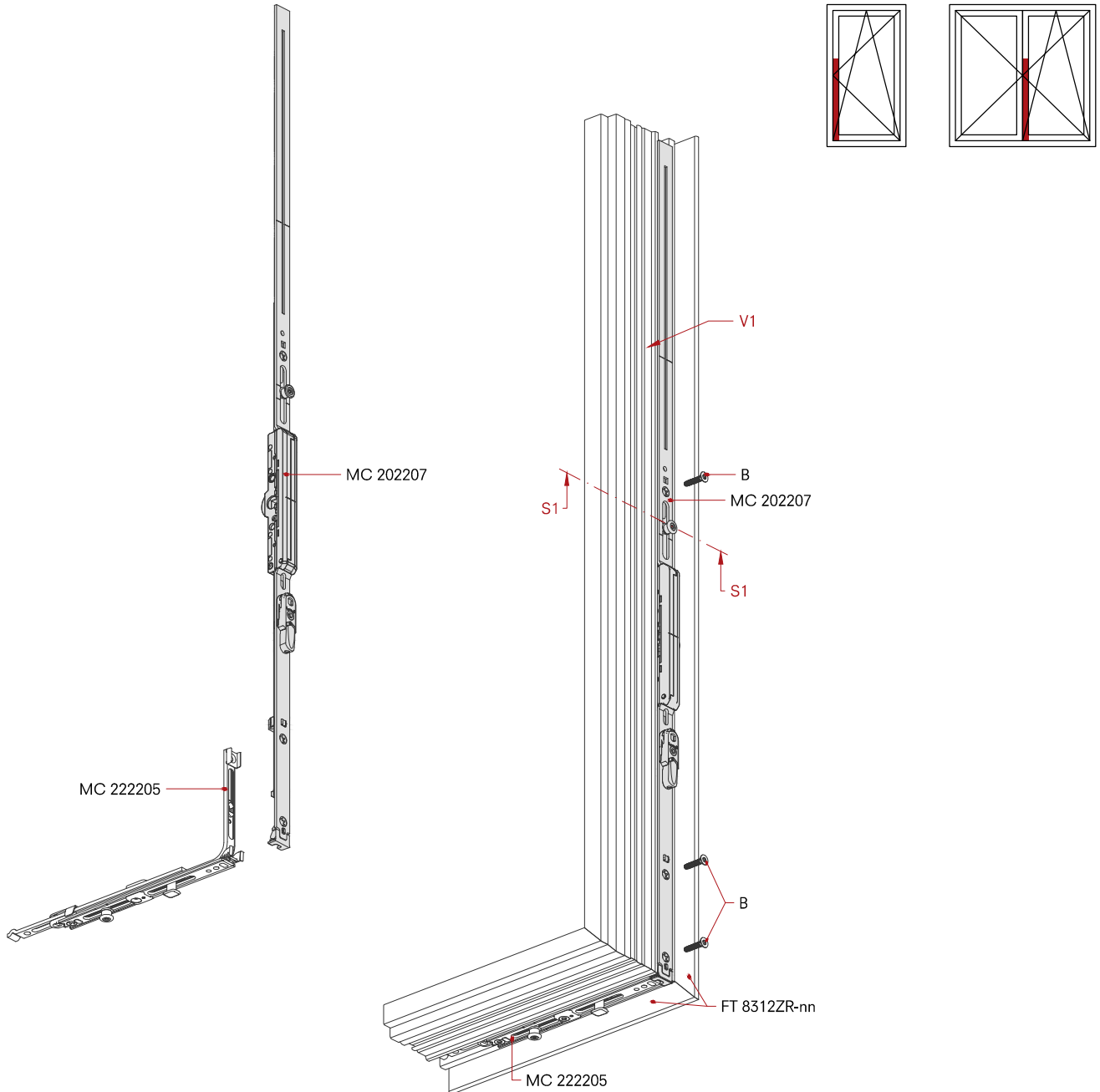
Backset 6.5 mm  
 Fixed handle height  
 MC 202206 - MC 202207  
 MC 202208 - MC 202209  
 MC 202216 - MC 202737  
 MC 202738 - MC 207305

**Cremonese**

Entrata 6.5 mm  
 Altezza maniglia fissa  
 MC 202206 - MC 202207  
 MC 202208 - MC 202209  
 MC 202216 - MC 202737  
 MC 202738 - MC 207305

**Falleba OB**

Entrada 6.5 mm  
 Altura de la manija fija  
 MC 202206 - MC 202207  
 MC 202208 - MC 202209  
 MC 202216 - MC 202737  
 MC 202738 - MC 207305



W75TB - 0009 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

X = Position screw connection drive gear

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

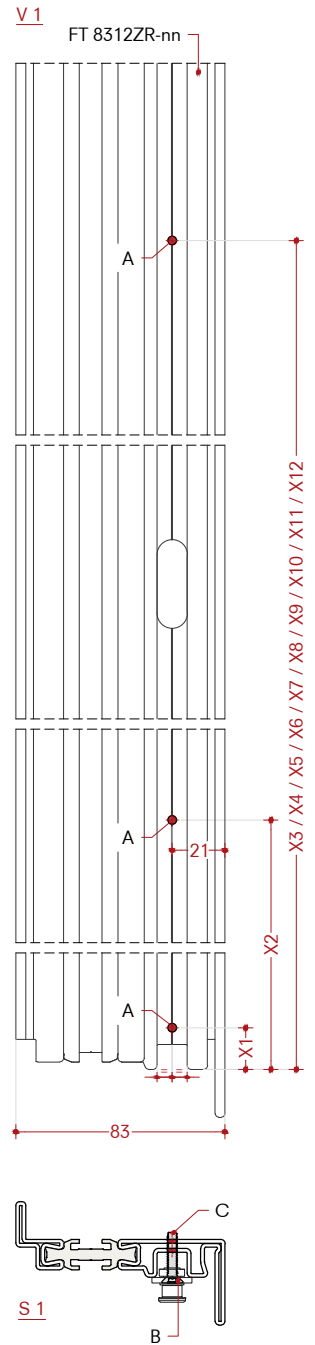
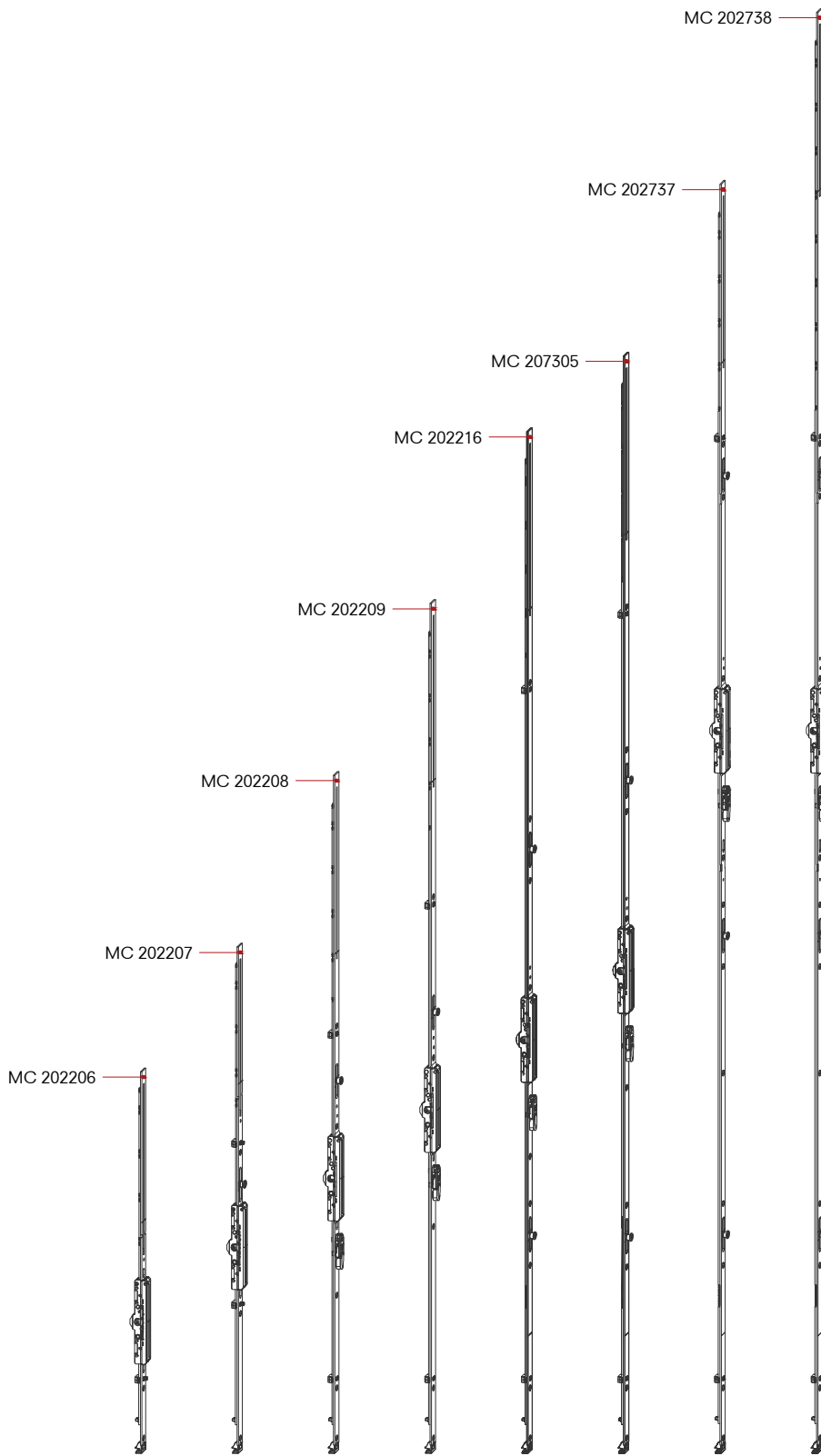
- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

X = Posizione vite di fissaggio del cremonese

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

X = Posición del tornillo de fijación del engranaje

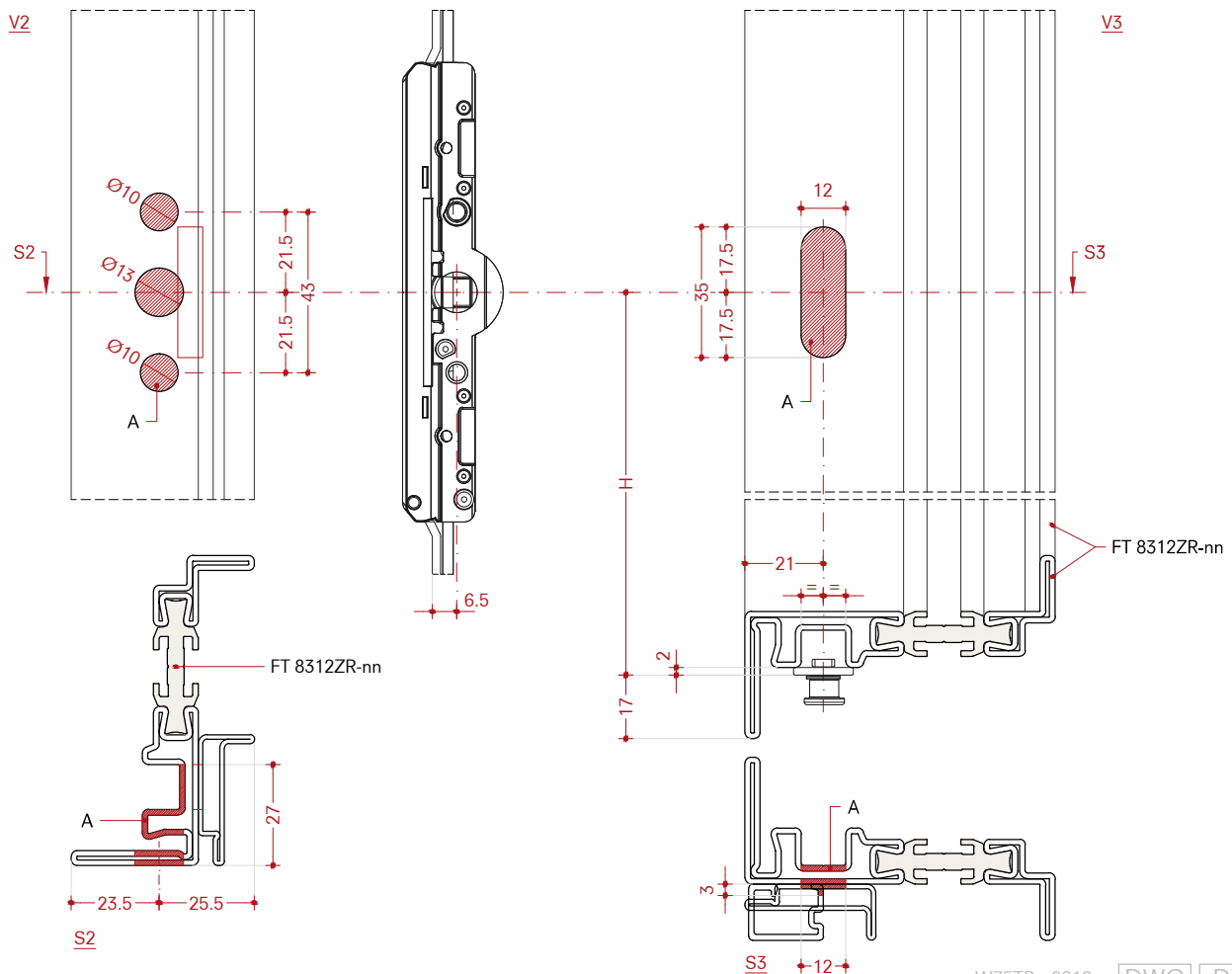
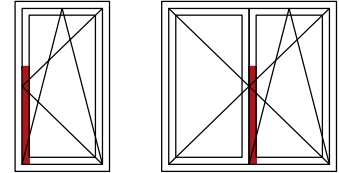
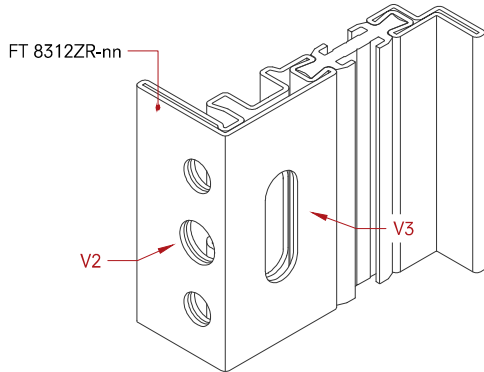


|           | X1   | X2   | X3    | X4  | X5    | X6    | X7  | X8    | X9   | X10  | X11  | X12  |
|-----------|------|------|-------|-----|-------|-------|-----|-------|------|------|------|------|
| MC 202206 | 16.5 | 89.5 | -     | -   | -     | -     | -   | -     | -    | -    | -    | -    |
| MC 202207 | 16.5 | 89.5 | 427   | -   | -     | -     | -   | -     | -    | -    | -    | -    |
| MC 202208 | 16.5 | 89.5 | 226.5 | 472 | 615   | -     | -   | -     | -    | -    | -    | -    |
| MC 202209 | 16.5 | 89.5 | 326.5 | 572 | 683   | 866.5 | -   | -     | -    | -    | -    | -    |
| MC 202216 | 16.5 | 89.5 | 268   | 358 | 426.5 | 672   | 828 | 918   | 1117 | -    | -    | -    |
| MC 207305 | 16.5 | 89.5 | 268   | 358 | 526.5 | 772   | 928 | 1018  | 2227 | -    | -    | -    |
| MC 202737 | 16.5 | 89.5 | 268   | 358 | 548   | 703   | 793 | 861.5 | 1122 | 1386 | 1463 | -    |
| MC 202738 | 16.5 | 89.5 | 268   | 358 | 548   | 703   | 793 | 861.5 | 1122 | 1386 | 1463 | 1727 |

**Handle position**  
**Tilt&Turn window**  
 Hardware 6.5 mm backset  
 Fixed handle height

**Posizione maniglia**  
**Finestra anta ribalta**  
 Entrata 6.5 mm  
 Altezza maniglia fissa

**Posición de la manija**  
**ventana oscilante**  
 Entrada 6.5 mm  
 Altura de la manija fija



W75TB - 0010 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Cut off profile
- H) Fixed handle height  $H \geq 1/3$  leaf height
- L) Length drive gear
- T) Maximum cut drive gear
- Z) Position locking cam

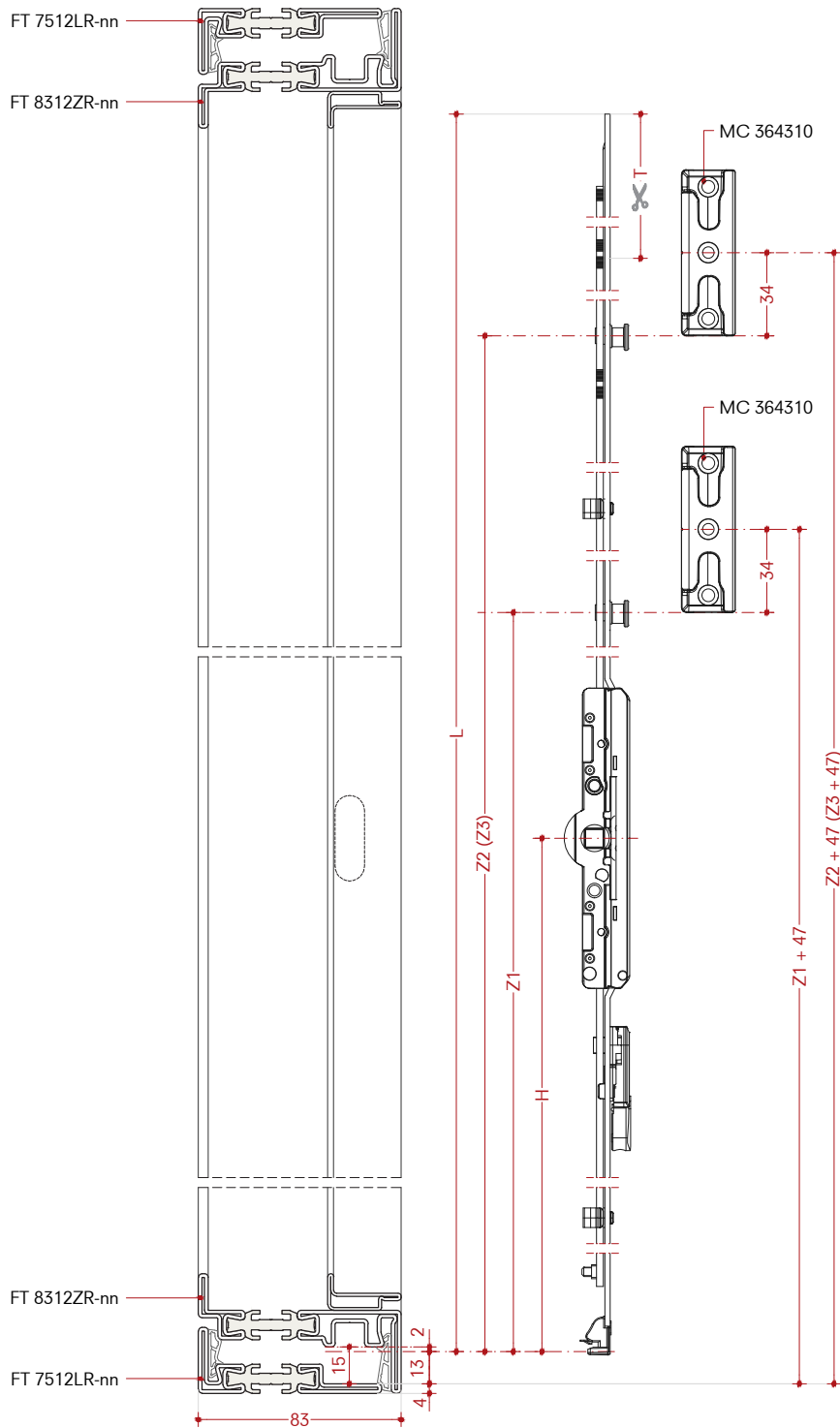
- A) Taglio del profilo
- H) Altezza maniglia fissa  $H \geq 1/3$  altezza anta
- L) Lunghezza cremone
- T) Massimo taglio del cremone
- Z) Posizione della camma di bloccaggio

- A) Fresado de perfil
- H) Altura de la manija fija  
 $H \geq 1/3$  de la altura de la hoja
- L) Longitud del engranaje
- T) Corte de engranaje máximo
- Z) Posición de la leva de bloqueo

Positioning striker plate

Posizionamento del riscontro

Posicionamiento del pieza de bloqueo



|           | H    | L      | T     | Z1  | Z2  | Z3   |
|-----------|------|--------|-------|-----|-----|------|
| MC 202206 | 190  | 555    | 220   | -   | -   | -    |
| MC 202207 | 300  | 736.5  | 190.5 | 395 | -   | -    |
| MC 202208 | 400  | 986.5  | 260.5 | 540 | -   | -    |
| MC 202209 | 500  | 1236.5 | 260.5 | 640 | -   | -    |
| MC 202216 | 600  | 1486.5 | 260.5 | 315 | 875 | -    |
| MC 207305 | 700  | 1596.5 | 260.5 | 315 | 975 | -    |
| MC 202737 | 1050 | 1846.5 | 260.5 | 315 | 750 | 1420 |
| MC 202738 | 1050 | 2096.5 | 260.5 | 315 | 750 | 1420 |

**Tilt&Turn drive gear**

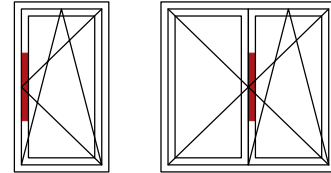
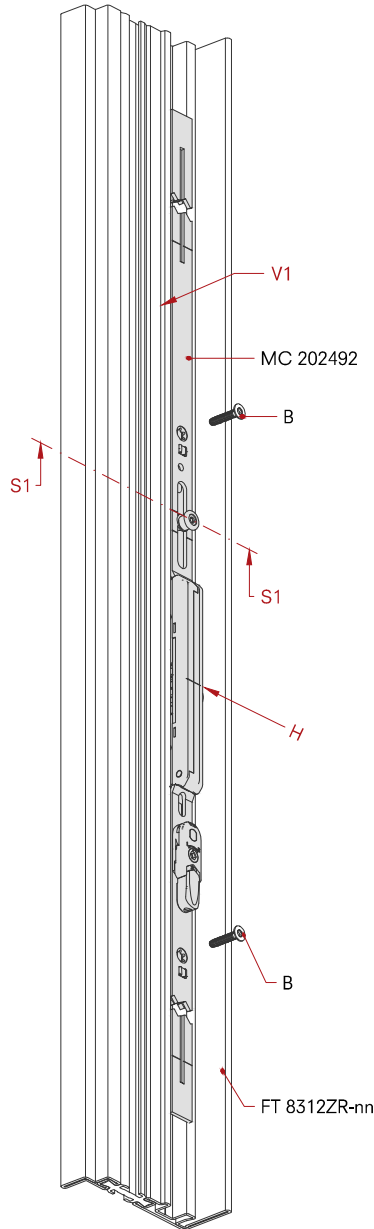
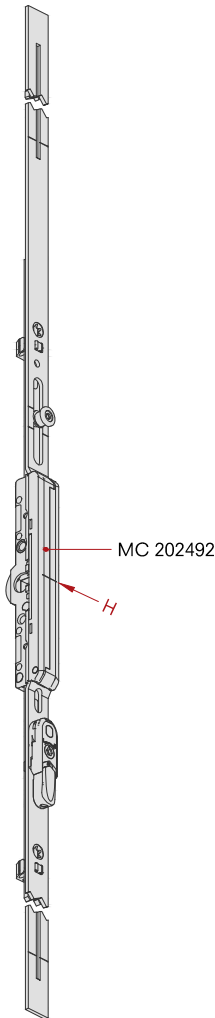
Backset 6.5 mm  
 Variable handle height  
 MC 202491 - MC 202492  
 MC 202494 - MC 202205

**Cremonese**

Entrata 6.5 mm  
 Altezza maniglia variabile  
 MC 202491 - MC 202492  
 MC 202494 - MC 202205

**Falleba OB**

Entrada 6.5 mm  
 Altura de la manija variable  
 MC 202491 - MC 202492  
 MC 202494 - MC 202205



Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- H) Variable handle height  $H \geq 1/3$  leaf height
- T) Maximum cut drive gear

X = Position screw connection drive gear

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- H) Altezza maniglia variabile  $H \geq 1/3$  altezza anta
- T) Massimo taglio del cremonese

X = Posizione vite di fissaggio del cremonese

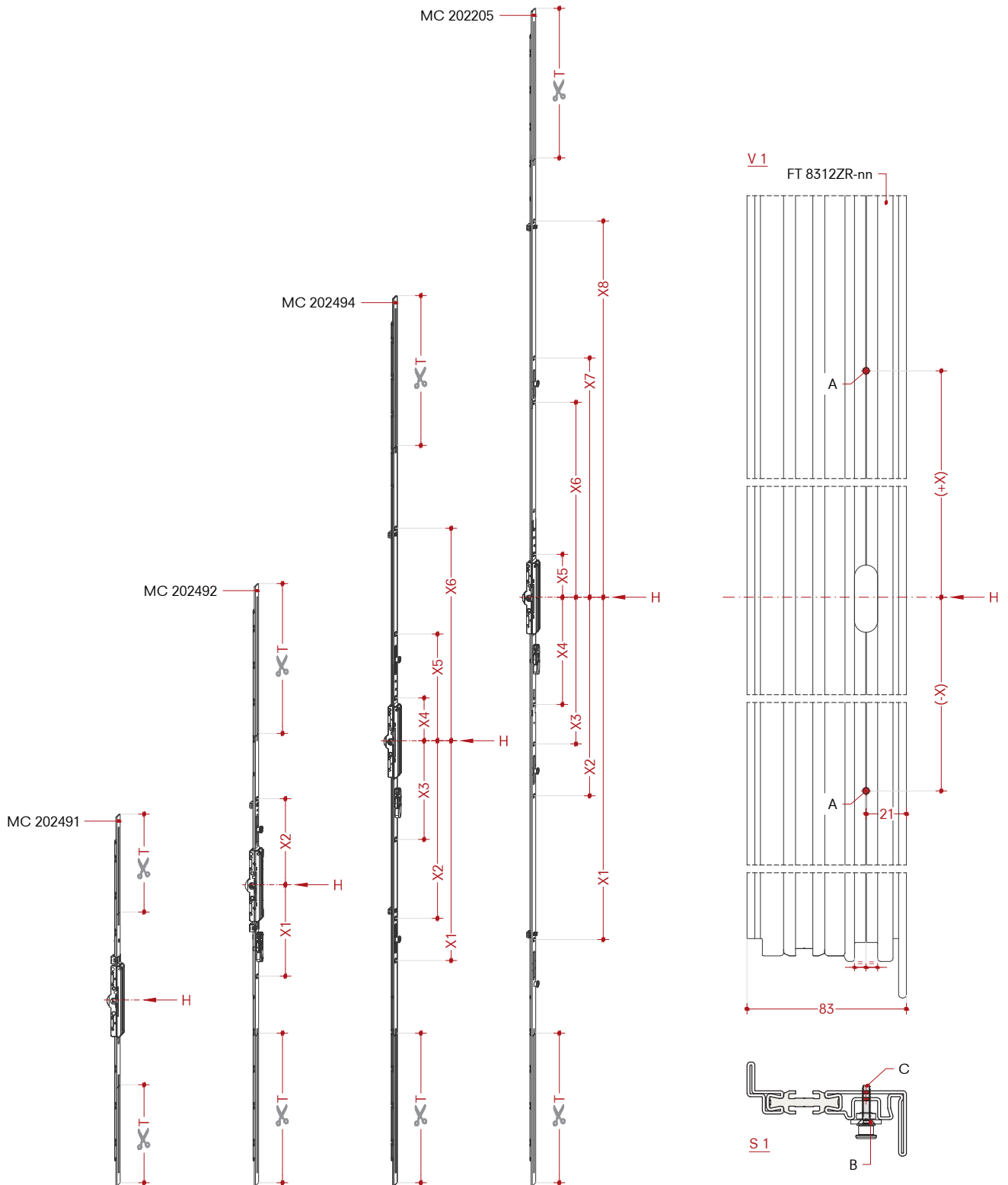
El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- H) Altura de la manija variable  
 $H \geq 1/3$  de la altura de la hoja
- T) Corte de engranaje máximo

X = Posición del tornillo de fijación del engranaje

W75TB - 0011 DWG DXF





|           | T   | X1     | X2     | X3     | X4     | X5  | X6    | X7  | X8  |
|-----------|-----|--------|--------|--------|--------|-----|-------|-----|-----|
| MC 202491 | 170 | -      | -      | -      | -      | -   | -     | -   | -   |
| MC 202492 | 260 | -158.5 | 149    | -      | -      | -   | -     | -   | -   |
| MC 202494 | 260 | -381.5 | -308.5 | -171.5 | 74     | 185 | 368.5 | -   | -   |
| MC 202205 | 260 | -595   | -345   | -255   | -186.5 | 74  | 338   | 415 | 653 |

**Templates for Tilt&Turn fittings**

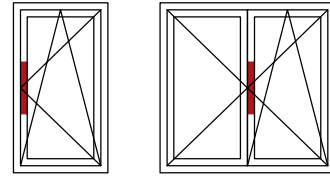
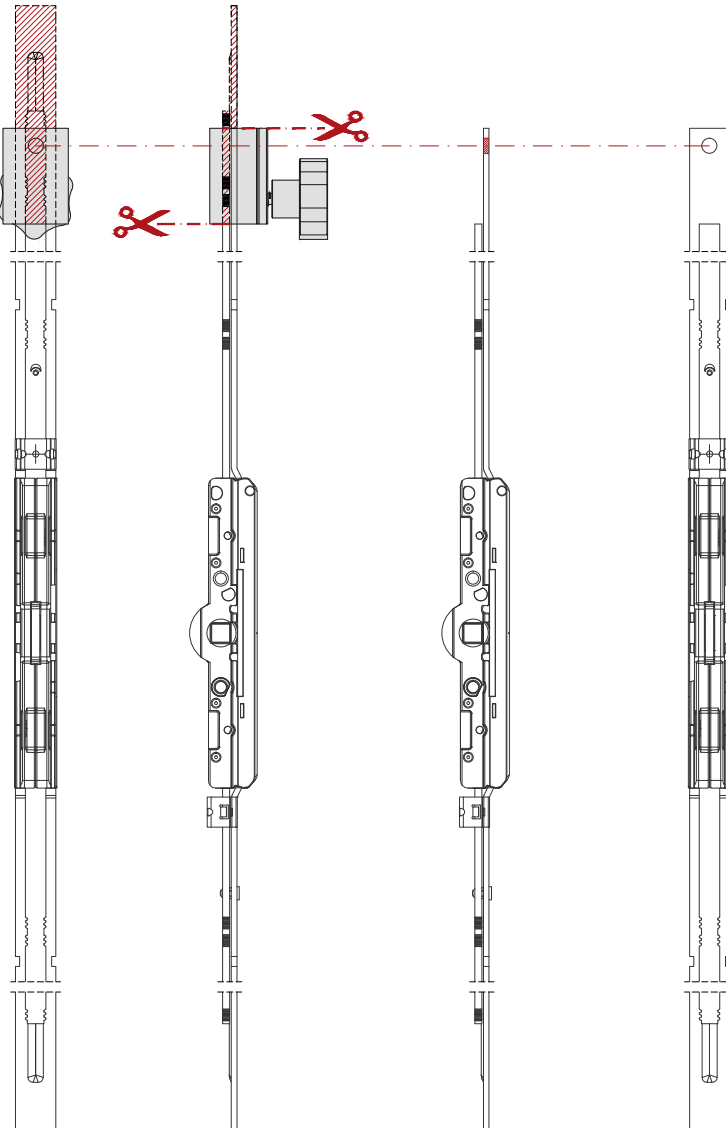
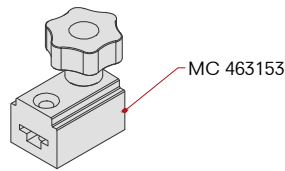
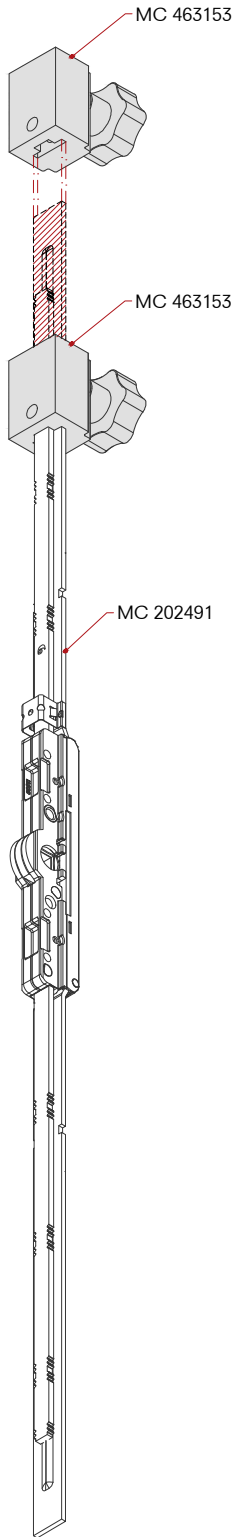
MC 463153

**Dime per ferramenta anta ribalta**

MC 463153

**Plantilla para herrajes  
para ventana oscilante**

MC 463153





**Handle position  
 Tilt&Turn window**

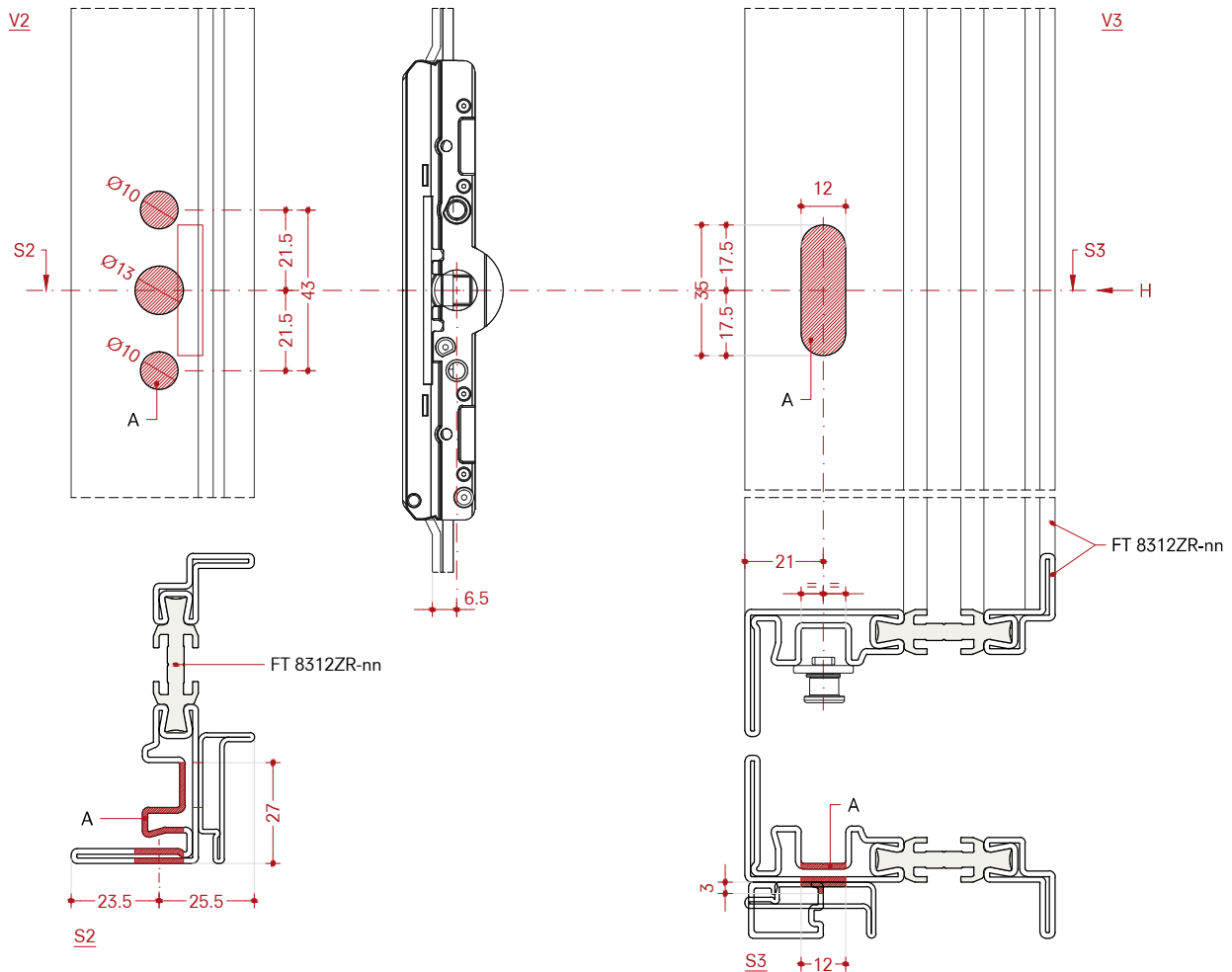
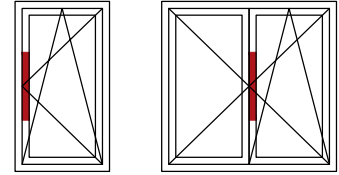
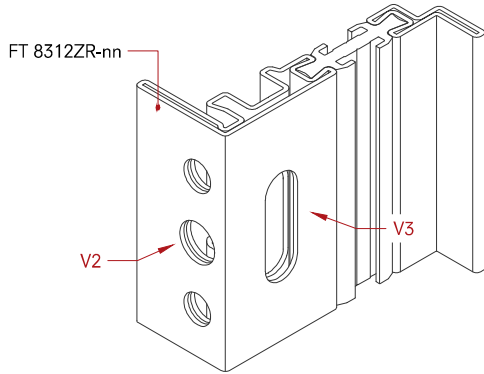
Hardware 6.5 mm backset  
 Variable handle height

**Posizione maniglia  
 Finestra anta ribalta**

Entrata 6.5 mm  
 Altezza maniglia variabile

**Posición de la manija  
 ventana oscilante**

Entrada 6.5 mm  
 Altura de la manija variable



W75TB - 0012 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

- A) Cut off profile
- H) Variable handle height  $H \geq 1/3$  leaf height
- L) Length drive gear
- Z) Position locking cam

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Taglio del profilo
- H) Altezza maniglia variabile  $H \geq 1/3$  altezza anta
- L) Lunghezza cremone
- Z) Posizione della camma di bloccaggio

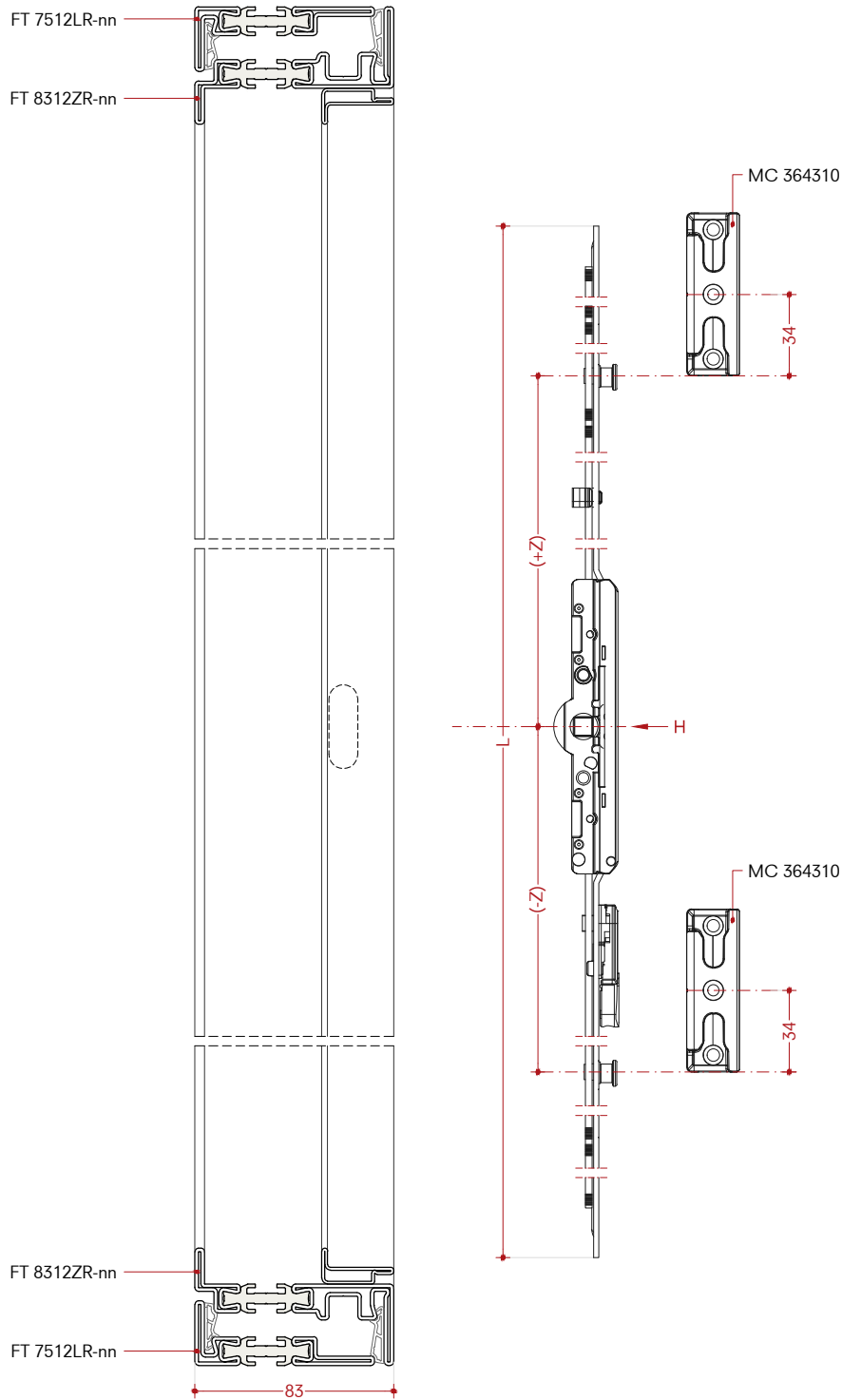
El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Fresado de perfil
- H) Altura de la manija variable  
 $H \geq 1/3$  de la altura de la hoja
- L) Longitud del engranaje
- Z) Posición de la leva de bloqueo

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**

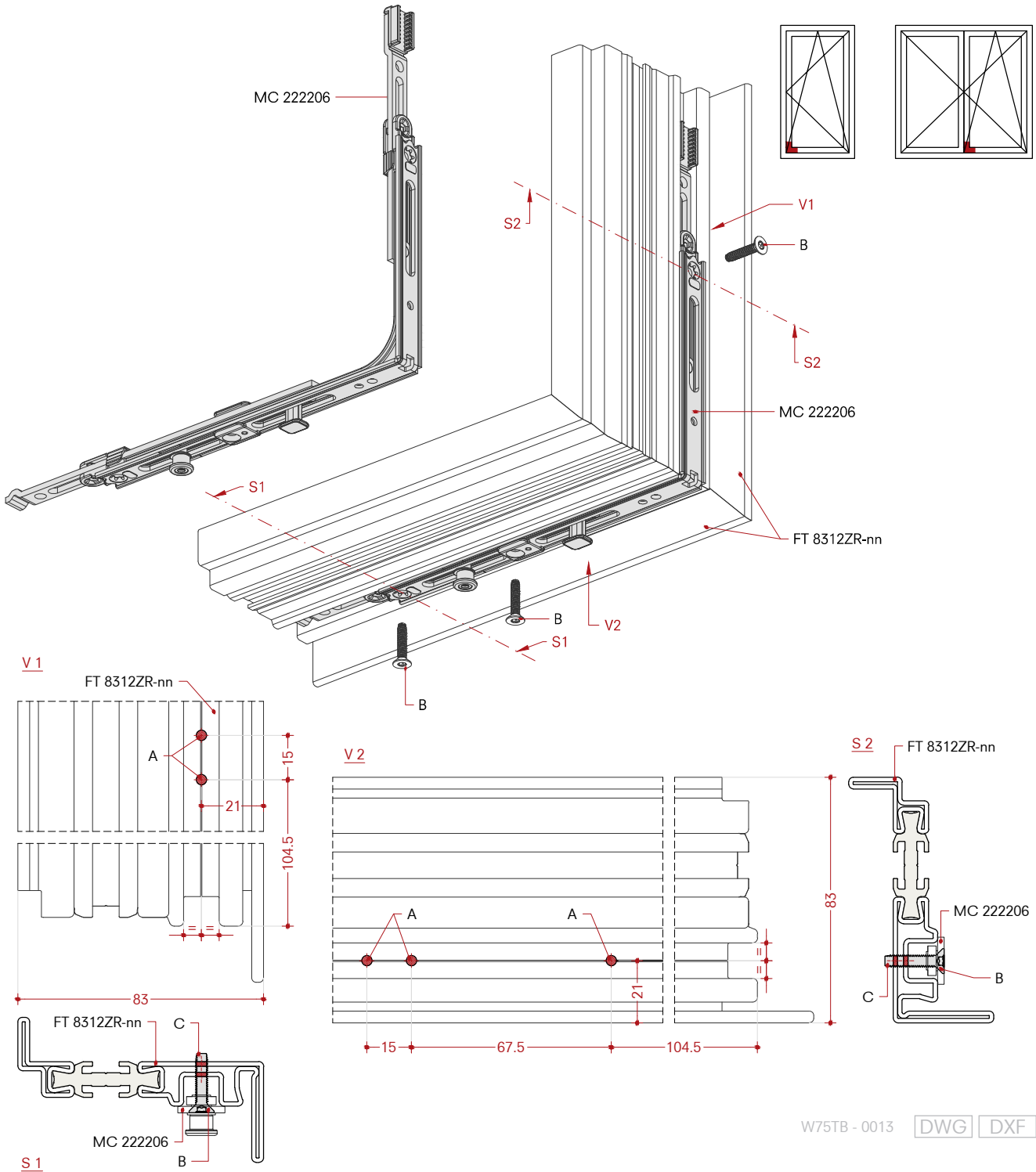


|           | L    | Z1   | Z2   | Z3  |
|-----------|------|------|------|-----|
| MC 202491 | 640  | -    | -    | -   |
| MC 202492 | 1040 | 95   | -    | -   |
| MC 202494 | 1540 | -343 | 140  | -   |
| MC 202205 | 2040 | -640 | -300 | 370 |

**Corner element horizontally extendable for variable drive gear with 1 locking cam**  
 MC 222206

**Elemento angolare estensibile orizzontalmente per cremone variabile con 1 nottolino di bloccaggio**  
 MC 222206

**Elemento de esquina extensible horizontalmente para piñon variable con 1 rodillo de bloqueo**  
 MC 222206



W75TB - 0013 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

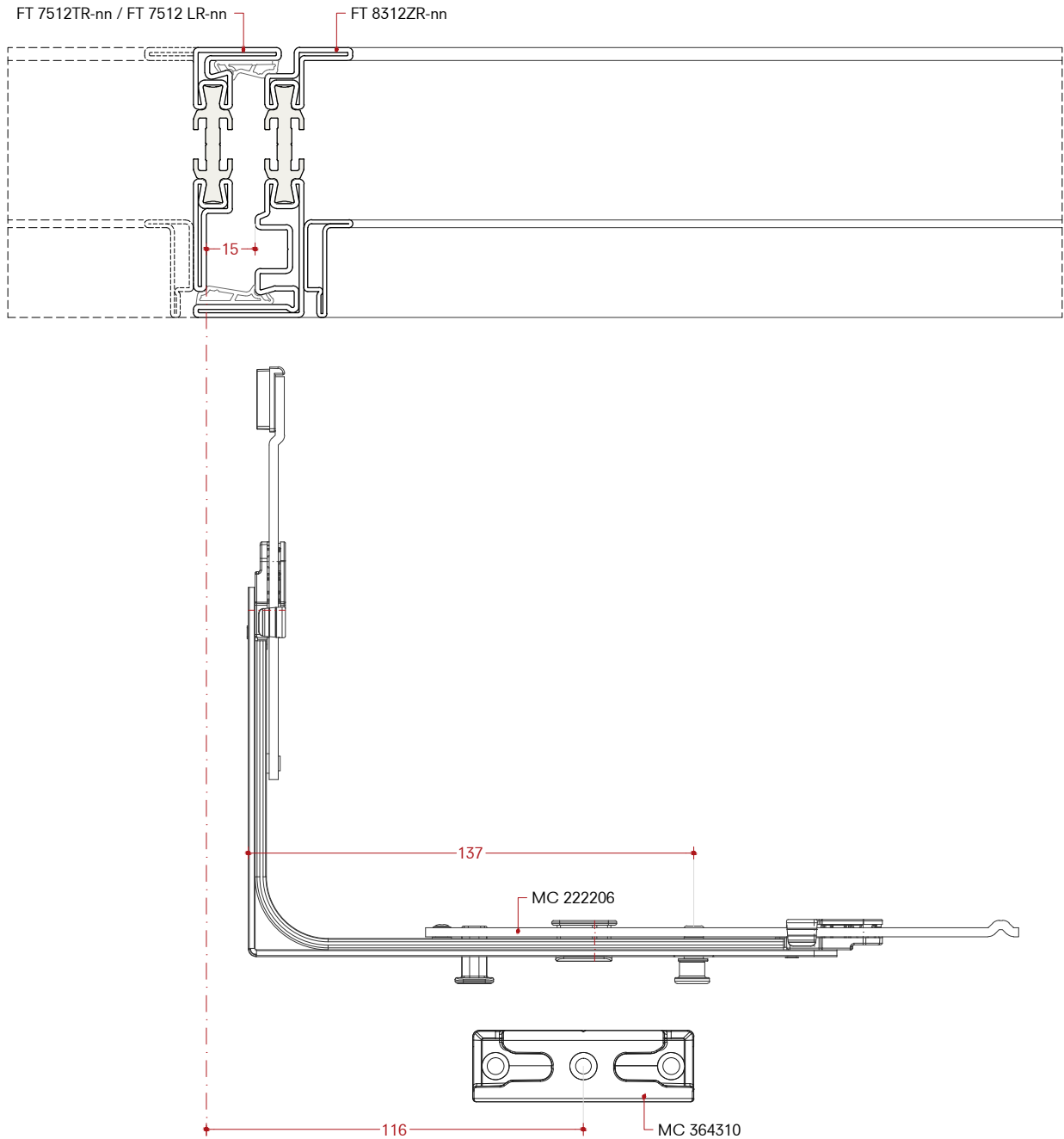
El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

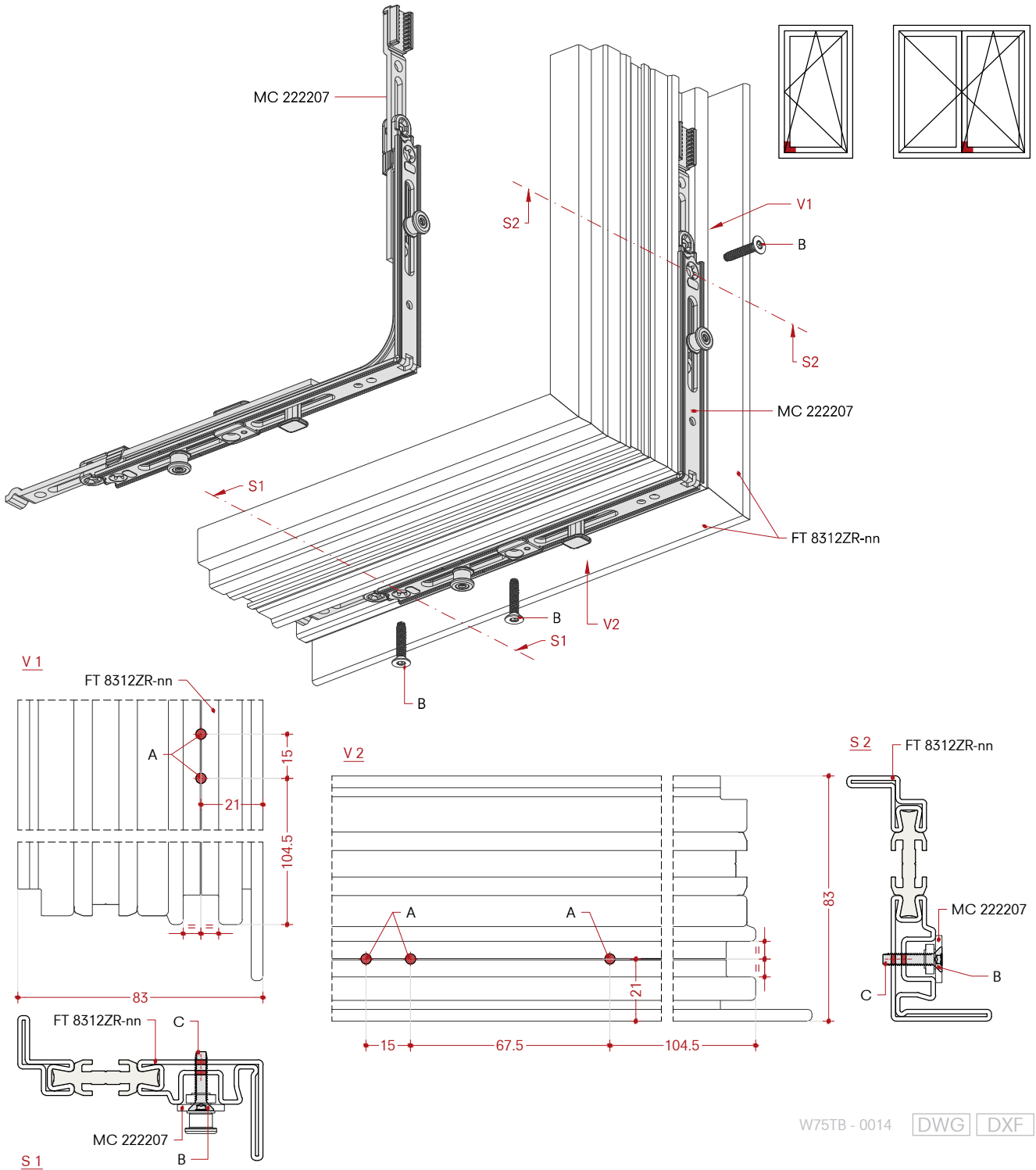
Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

**Corner element horizontally extendable for variable drive gear with 2 locking cams**  
 MC 222207

**Elemento angolare estensibile orizzontalmente per cremonese variabile con 2 nottolini di bloccaggio**  
 MC 222207

**Elemento de esquina extensible horizontalmente para piñón variable con 2 rodillos de bloqueo**  
 MC 222207



W75TB - 0014 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

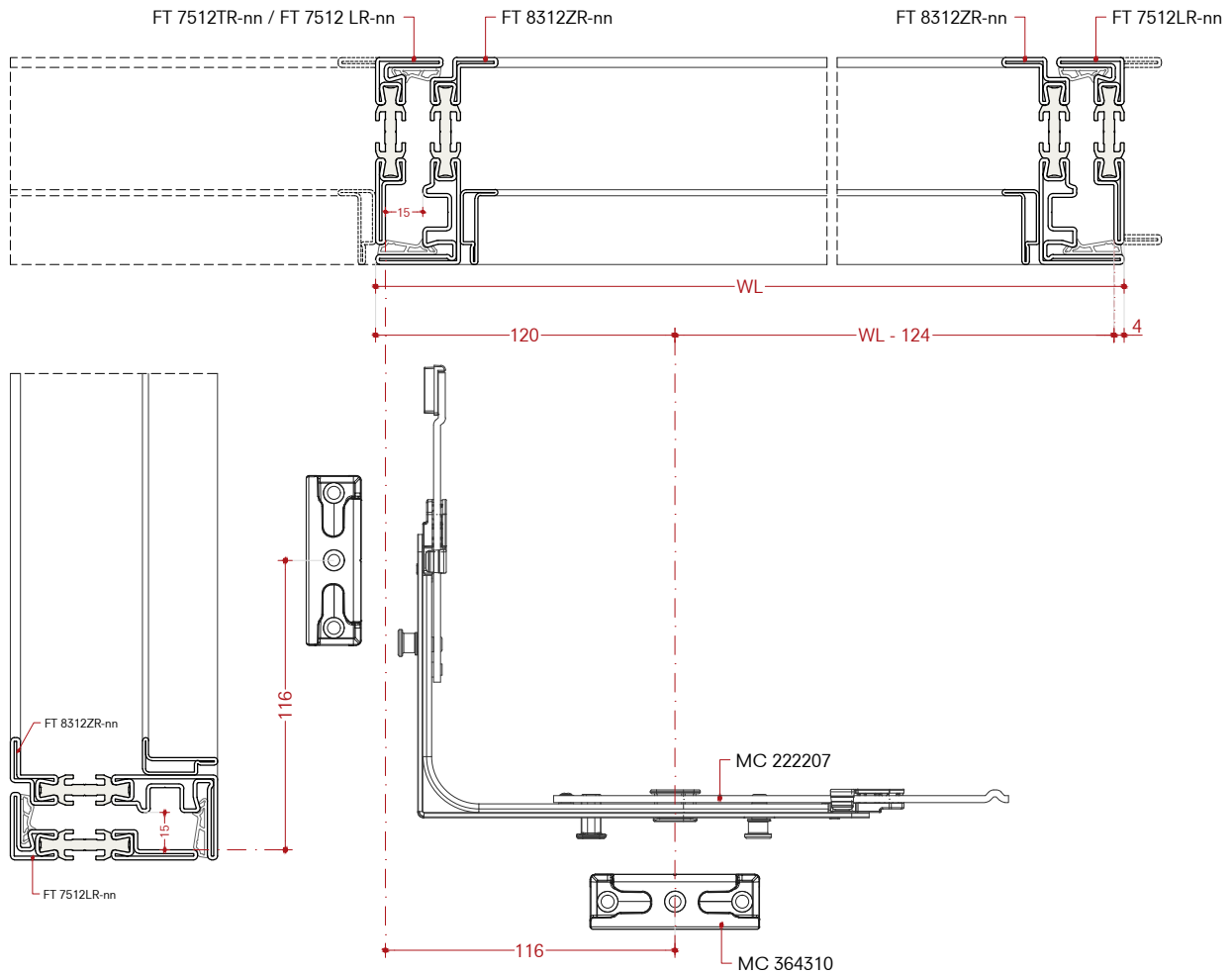
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo



**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

WL = Width Leaf

WL = Larghezza anta

WL = Longitud hoja

**Tilt&Turn scissor stay arm with bearing**

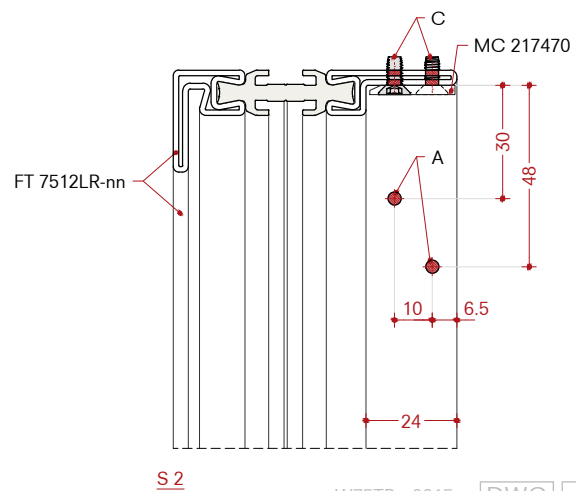
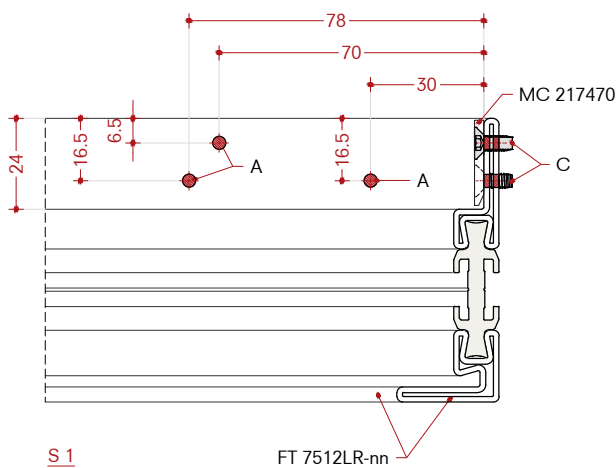
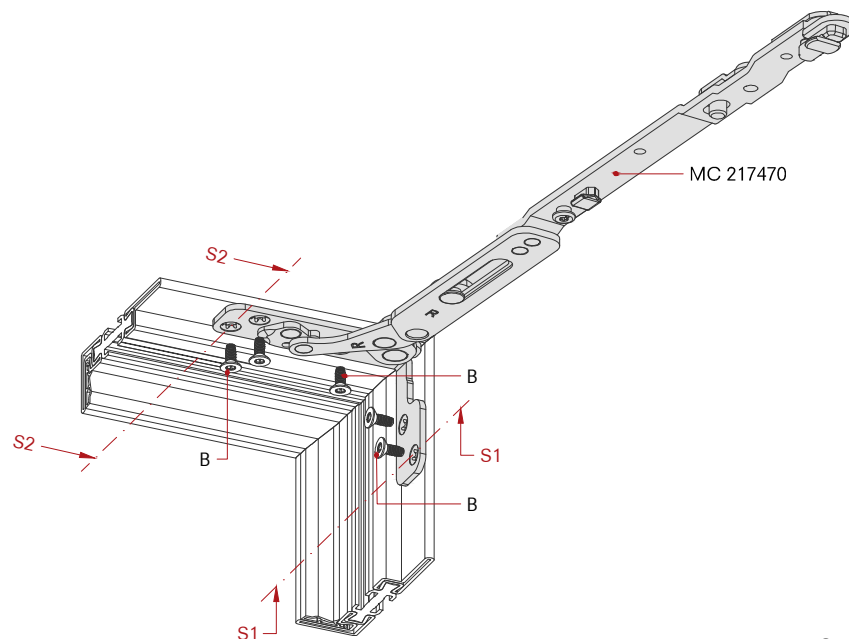
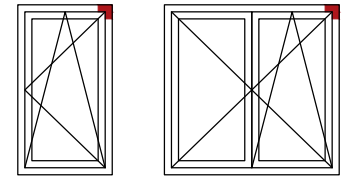
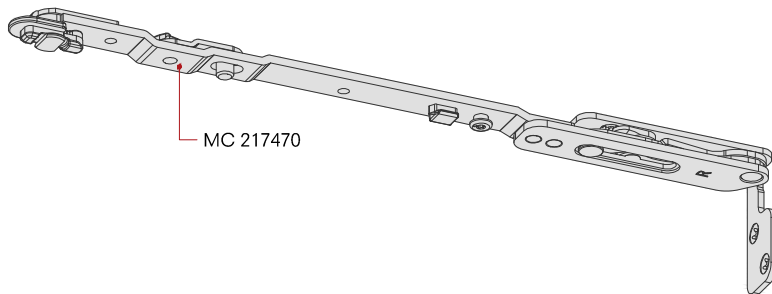
Sash rebate width ≤ 800 mm  
 MC 217470 R  
 MC 217471 L

**Braccio di supporto a forbice inclinabile e girevole con cuscinetto**

Larghezza battuta anta ≤ 800 mm  
 MC 217470 R  
 MC 217471 L

**Braço de soporte de tijera inclinable y giratorio con rodamiento**

Ancho de rebaje de puerta ≤ 800 mm  
 MC 217470 R  
 MC 217471 L



Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x10
- C) Cut the screw

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x10
- C) Accorciare la vite

L = Apertura sinistra  
 R = Apertura destra

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x10
- C) Recortar tornillo

L = Apertura izquierda  
 R = Apertura derecha

**Side adjustment**

✳ Adjustment range +1/-2.5 mm with TX 15

L = Left opening  
 R = Right opening

**Regolazione orizzontale**

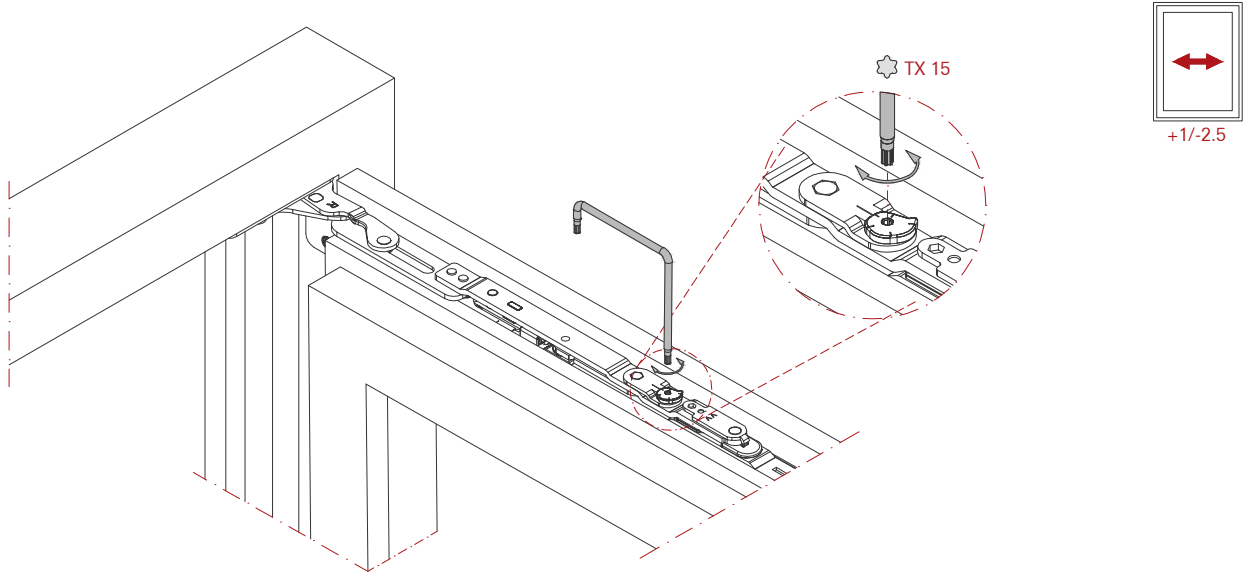
✳ Regolazione +1/-2.5 mm con TX 15

L = Apertura sinistra  
 R = Apertura destra

**Ajuste horizontal**

✳ Ajuste +1/-2.5 mm con TX 15

L = Apertura izquierda  
 R = Apertura derecha



**Pressure adjustment**

✳ Adjustment range  $\pm 0.7$  mm with TX 15

L = Left opening  
 R = Right opening

**Regolazione pressione di contatto**

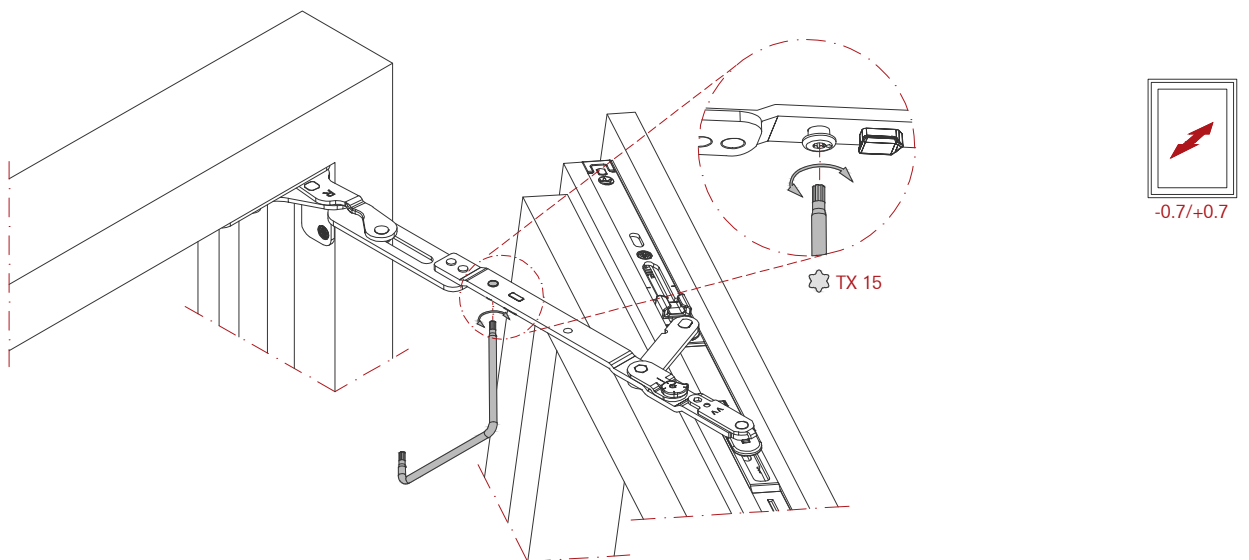
✳ Regolazione  $\pm 0.7$  mm con TX 15

L = Apertura sinistra  
 R = Apertura destra

**Ajuste de presión de contacto**

✳ Ajuste  $\pm 0.7$  mm con TX 15

L = Apertura izquierda  
 R = Apertura derecha



**Tilt&Turn scissor stay arm with bearing**

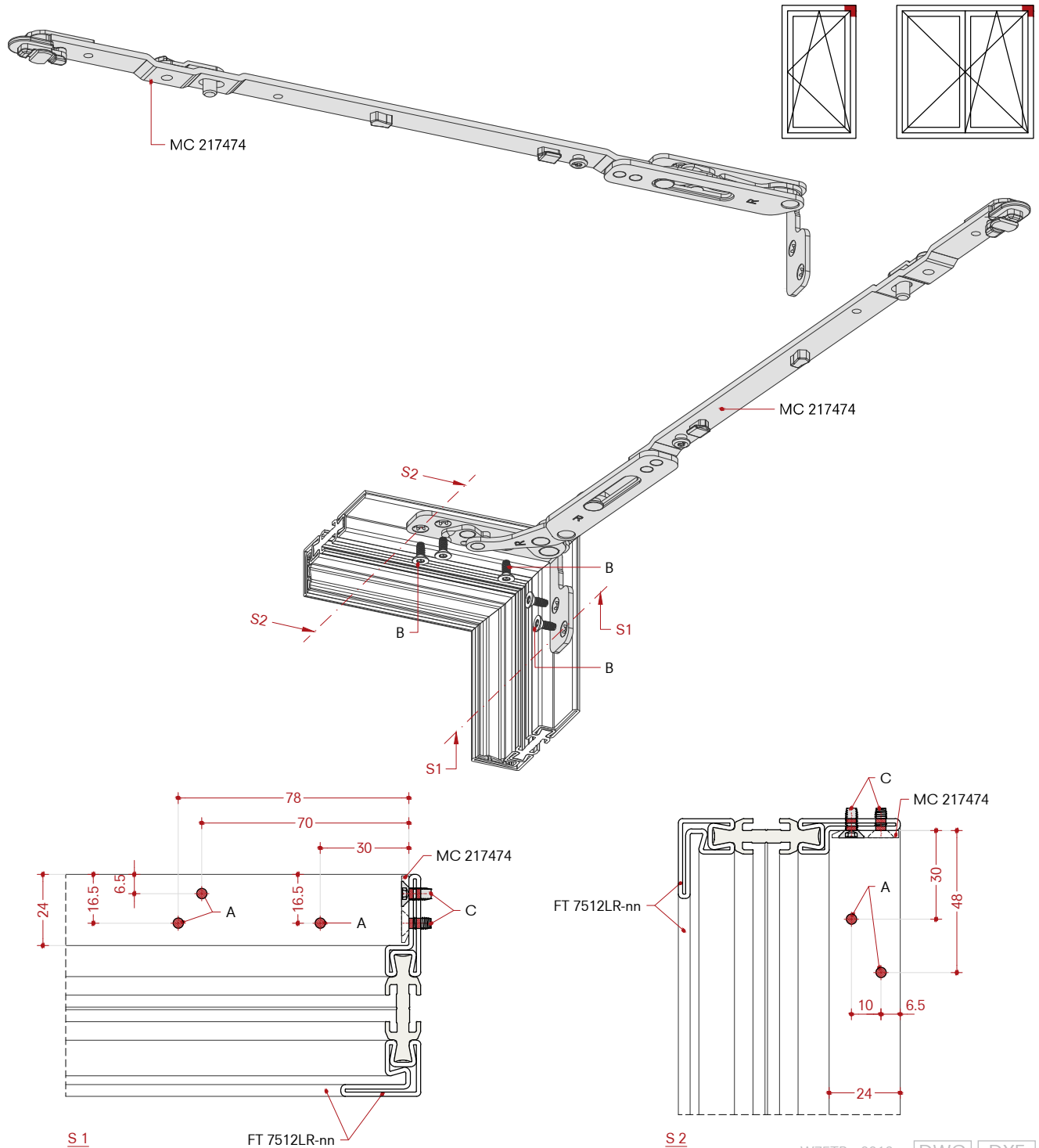
Sash rebate width > 800 mm  
 MC 217474 R  
 MC 217475 L

**Braccio di supporto a forbice inclinabile e girevole con cuscinetto**

Larghezza battuta anta > 800 mm  
 MC 217474 R  
 MC 217475 L

**Brazo de soporte de tijera inclinable y giratorio con rodamiento**

Ancho de rebaje de puerta > 800 mm  
 MC 217474 R  
 MC 217475 L



Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x10
- C) Cut the screw

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x10
- C) Accorciare la vite

L = Apertura sinistra  
 R = Apertura destra

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x10
- C) Recortar tornillo

L = Apertura izquierda  
 R = Apertura derecha

**Side adjustment**

✱ Adjustment range +1/-2.5 mm with TX 15

L = Left opening  
 R = Right opening

**Regolazione orizzontale**

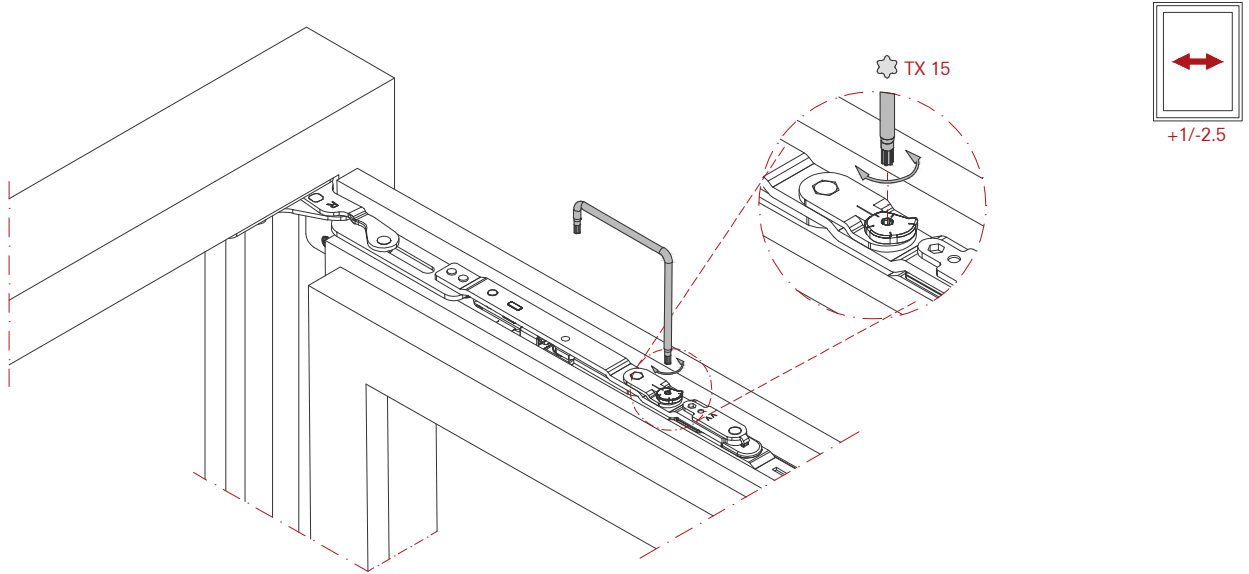
✱ Regolazione +1/-2.5 mm con TX 15

L = Apertura sinistra  
 R = Apertura destra

**Ajuste horizontal**

✱ Ajuste +1/-2.5 mm con TX 15

L = Apertura izquierda  
 R = Apertura derecha



**Pressure adjustment**

✱ Adjustment range  $\pm 0.7$  mm with TX 15

L = Left opening  
 R = Right opening

**Regolazione pressione di contatto**

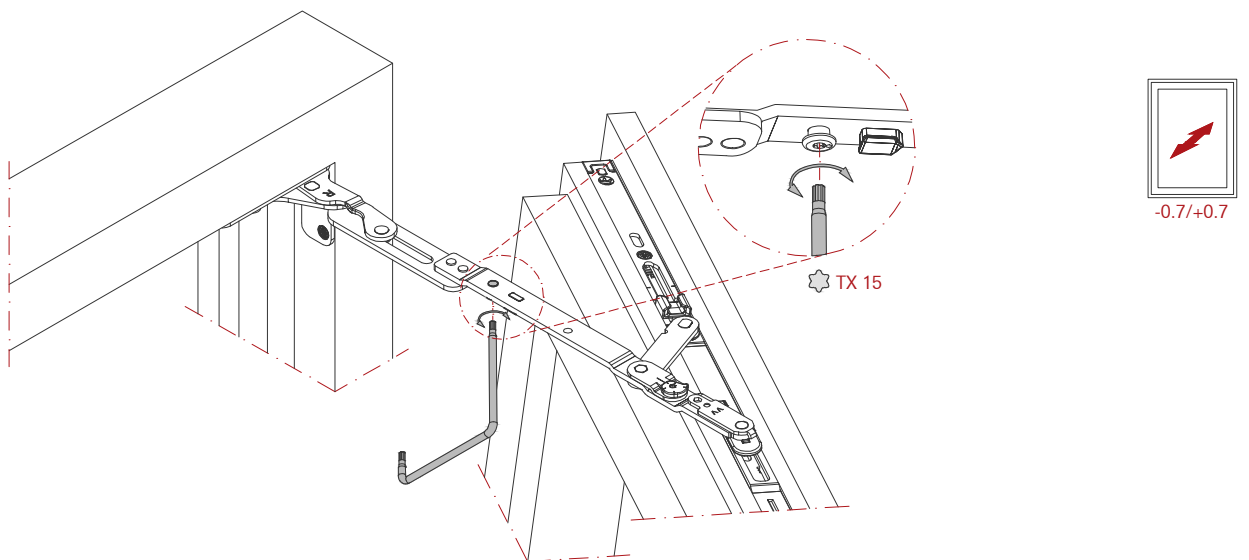
✱ Regolazione  $\pm 0.7$  mm con TX 15

L = Apertura sinistra  
 R = Apertura destra

**Ajuste de presión de contacto**

✱ Ajuste  $\pm 0.7$  mm con TX 15

L = Apertura izquierda  
 R = Apertura derecha



**Turn-only hinge arm with hinge**

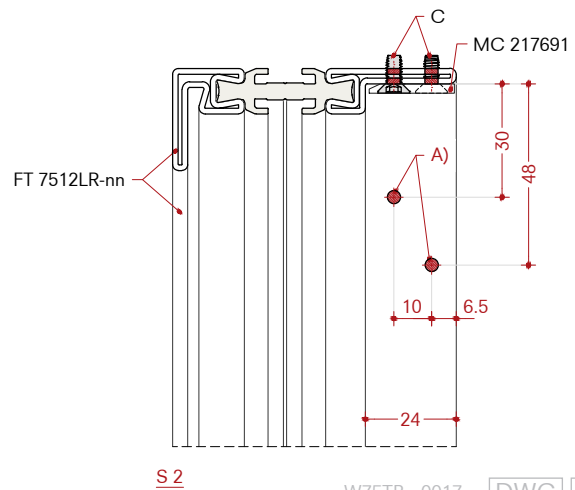
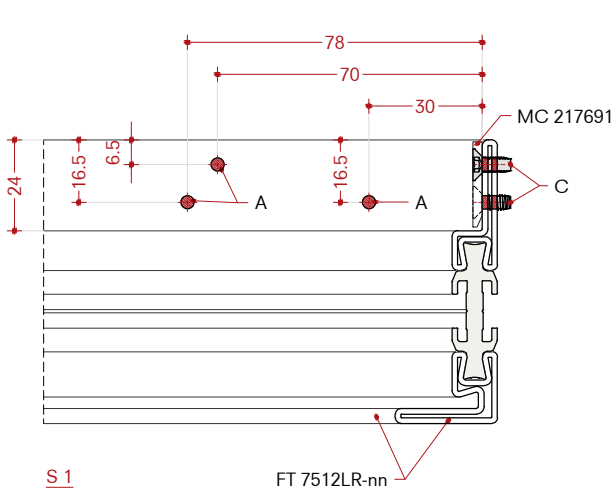
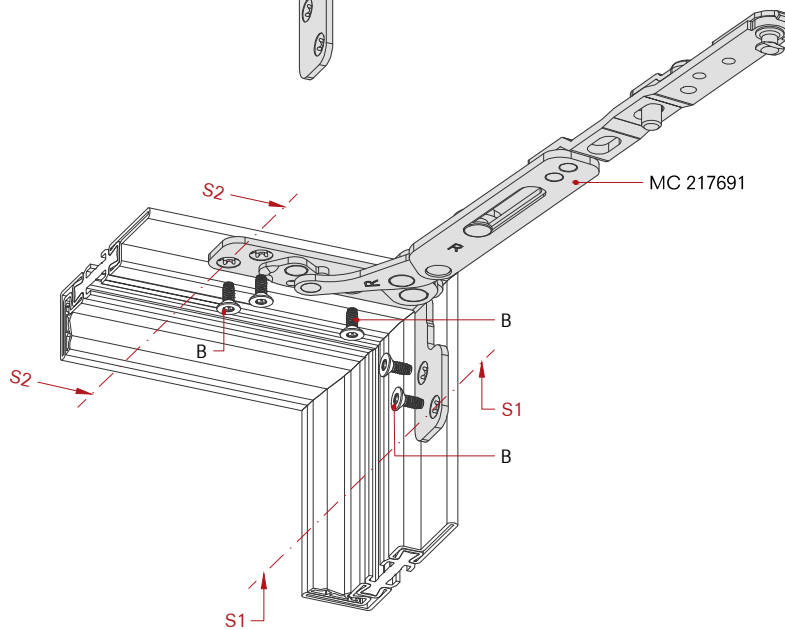
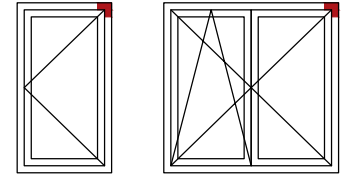
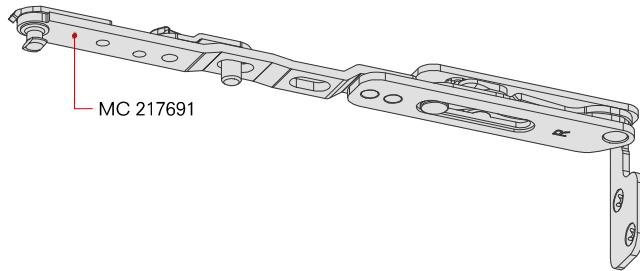
MC 217691 R  
 MC 217692 L

**Braccio solo girevole con cerniera**

MC 217691 R  
 MC 217692 L

**Brazo giratorio con bisagra**

MC 217691 R  
 MC 217692 L



W75TB - 0017 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x10
- C) Cut the screw

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x10
- C) Accorciare la vite

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x10
- C) Recortar tornillo

L = Left opening  
 R = Right opening

L = Apertura sinistra  
 R = Apertura destra

L = Apertura izquierda  
 R = Apertura derecha

**Side adjustment**

⚙️ Adjustment range +1/-2.5 mm with TX 15

L = Left opening  
 R = Right opening

**Regolazione orizzontale**

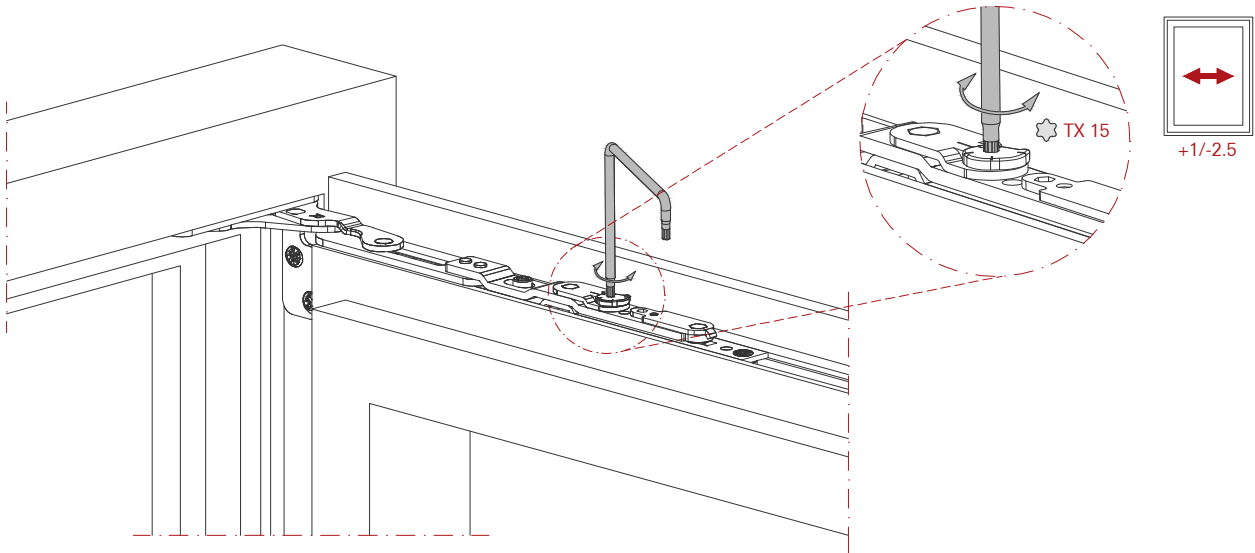
⚙️ Regolazione +1/-2.5 mm con TX 15

L = Apertura sinistra  
 R = Apertura destra

**Ajuste horizontal**

⚙️ Ajuste +1/-2.5 mm con TX 15

L = Apertura izquierda  
 R = Apertura derecha



**Pressure adjustment**

⚙️ Adjustment range +1 mm with SW 4

L = Left opening  
 R = Right opening

**Regolazione pressione di contatto**

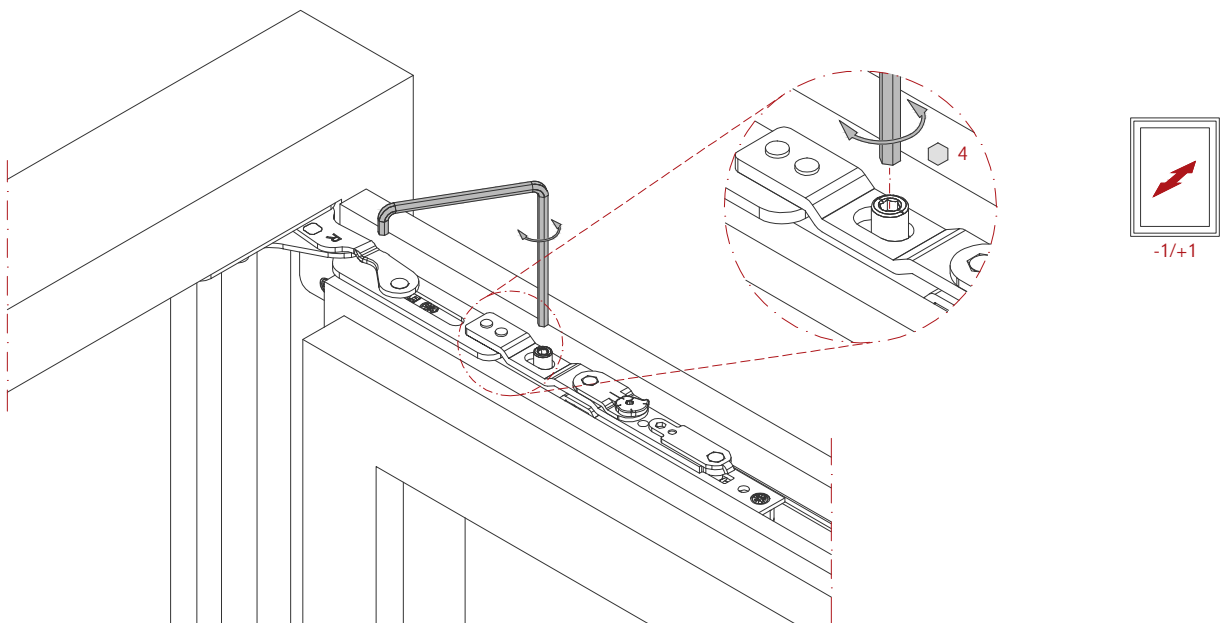
⚙️ Regolazione +1 mm con SW 4

L = Apertura sinistra  
 R = Apertura destra

**Ajuste de presión de contacto**

⚙️ Ajuste +1 mm con SW 4

L = Apertura izquierda  
 R = Apertura derecha



**Templates for Tilt&Turn fittings**

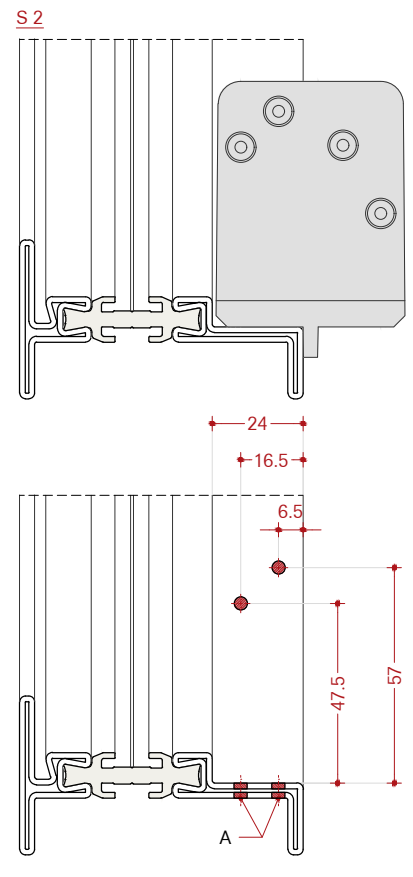
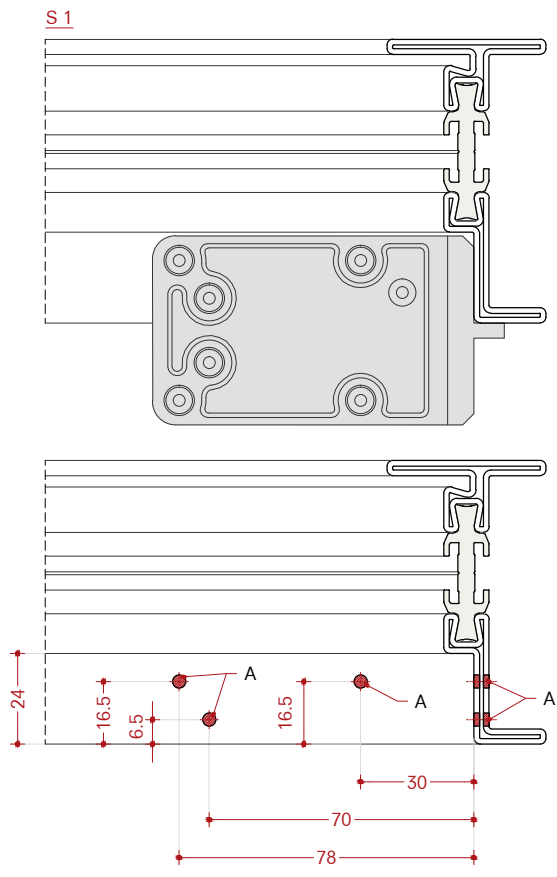
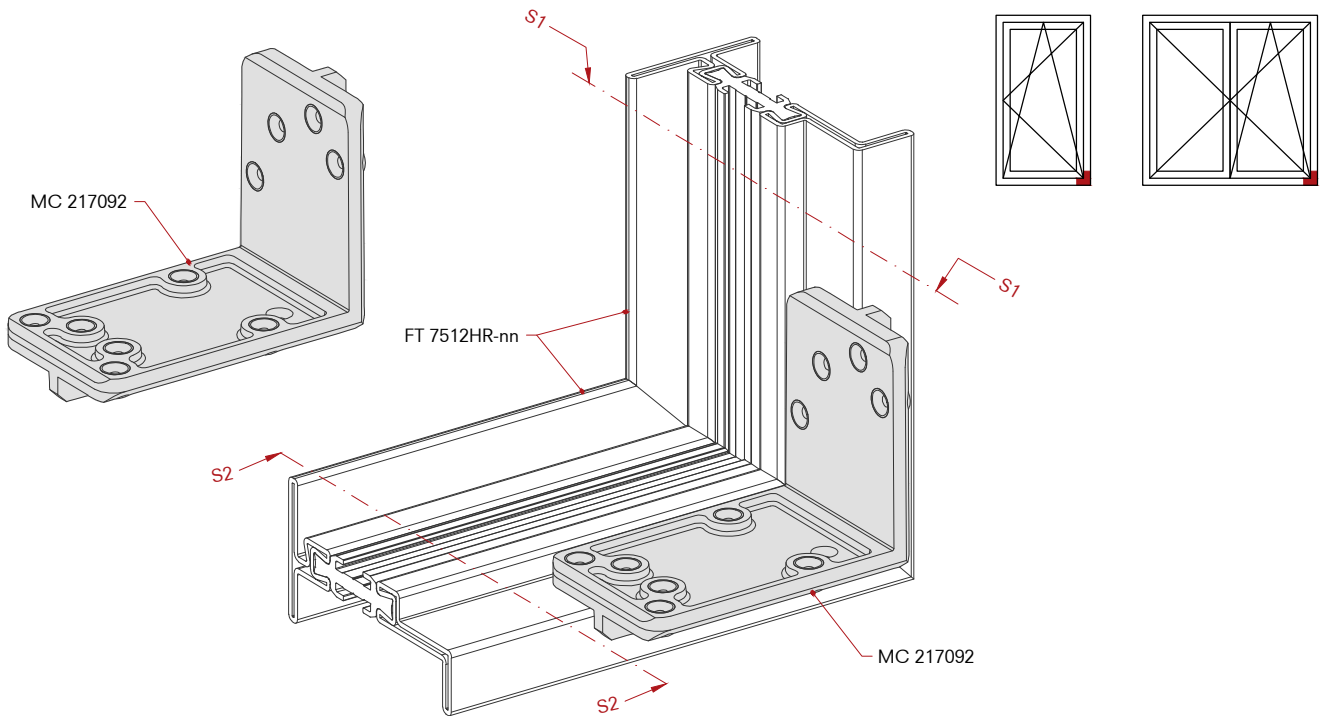
MC 217092  
 Bottom angle

**Dime per ferramenta anta ribalta**

MC 217092  
 Angoo inferiore

**Plantilla para herrajes para ventana oscilante**

MC 217092  
 Ángulo inferior



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

A) Hole Ø3.5 mm

A) Foro Ø3.5 mm

A) Oreficio Ø3.5 mm



**Templates for Tilt&Turn fittings**

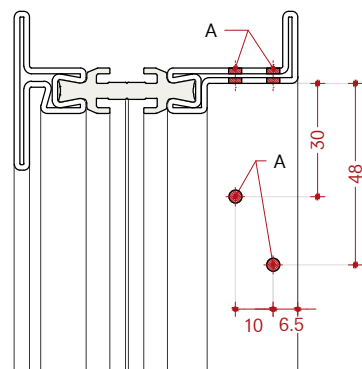
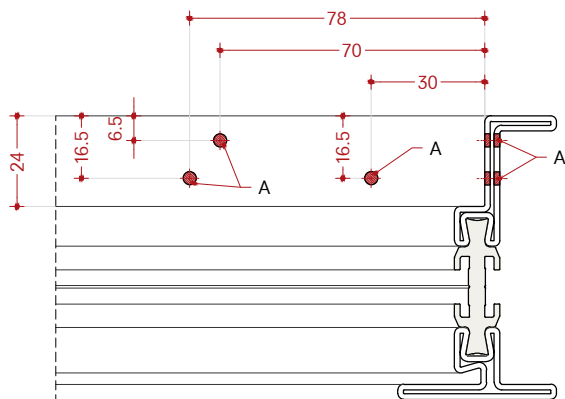
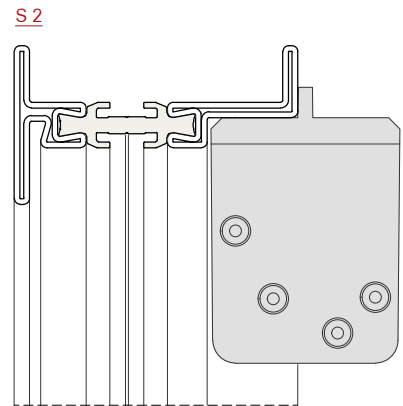
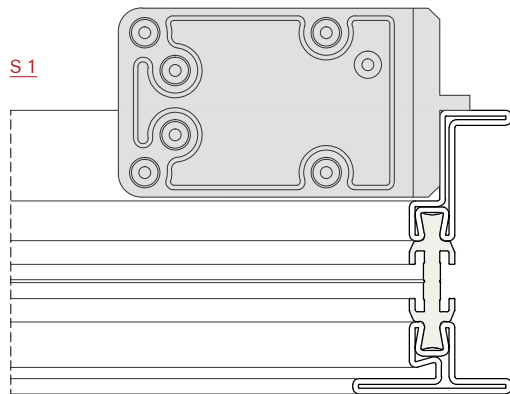
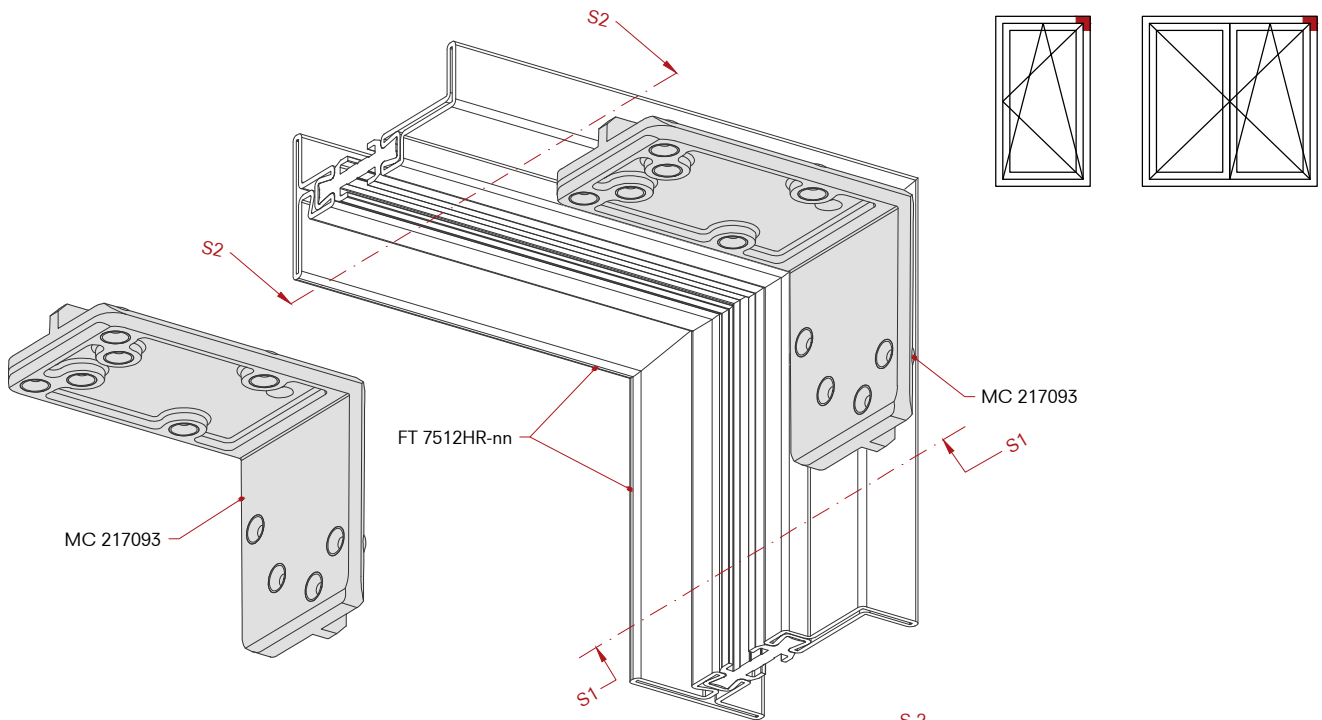
MC 217093  
 Top angle

**Dime per ferramenta anta ribalta**

MC 217093  
 Angoo superiore

**Plantilla para herrajes  
 para ventana oscilante**

MC 217093  
 Ángulo superior



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

A) Hole Ø3.5 mm

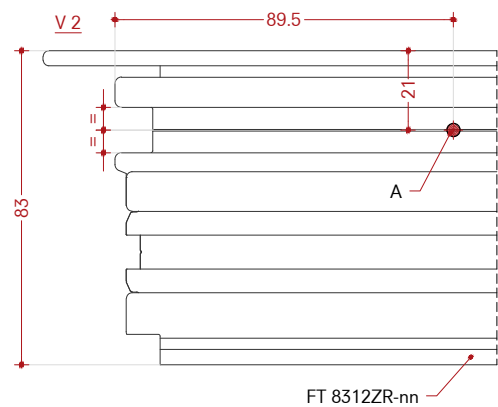
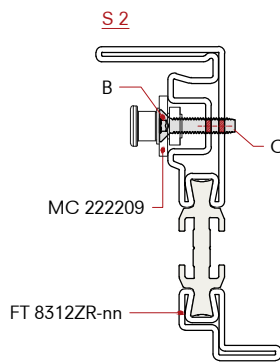
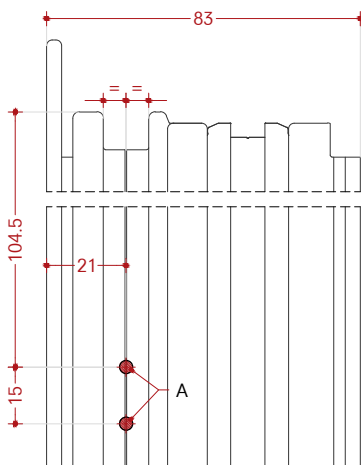
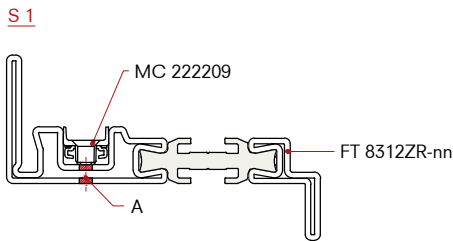
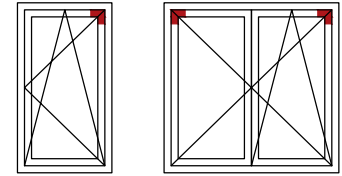
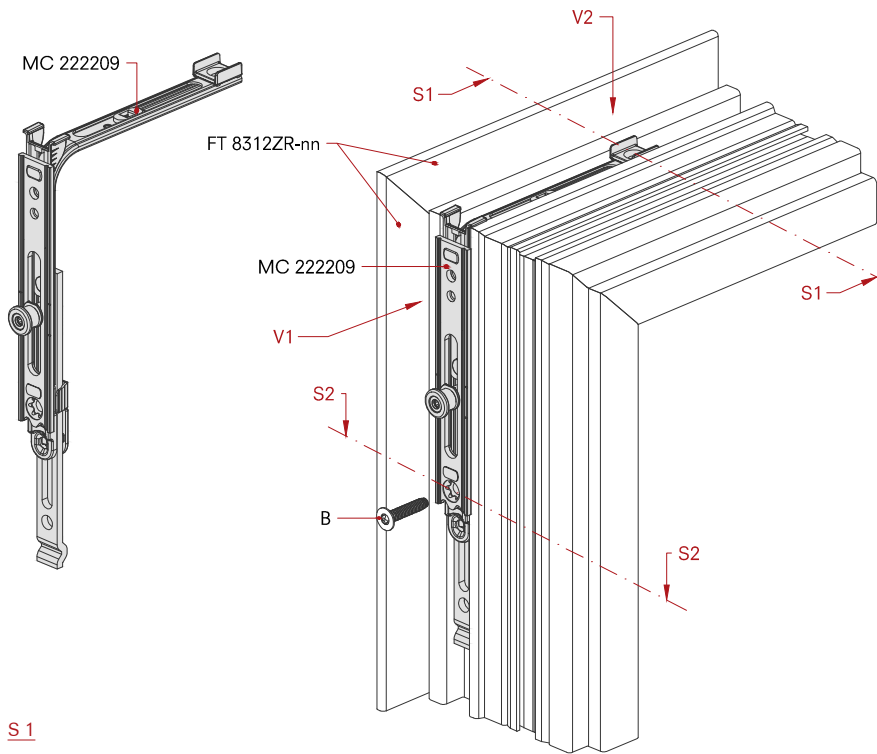
A) Foro Ø3.5 mm

A) Oreficio Ø3.5 mm

**Corner element vertically extendable with 1 locking cam**  
 MC 222209

**Elemento angolare estensibile verticalmente con 1 nottolino di bloccaggio**  
 MC 222209

**Elemento de esquina extensible verticalmente con 1 rodillo de bloqueo**  
 MC 222209



W75TB - 0018 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

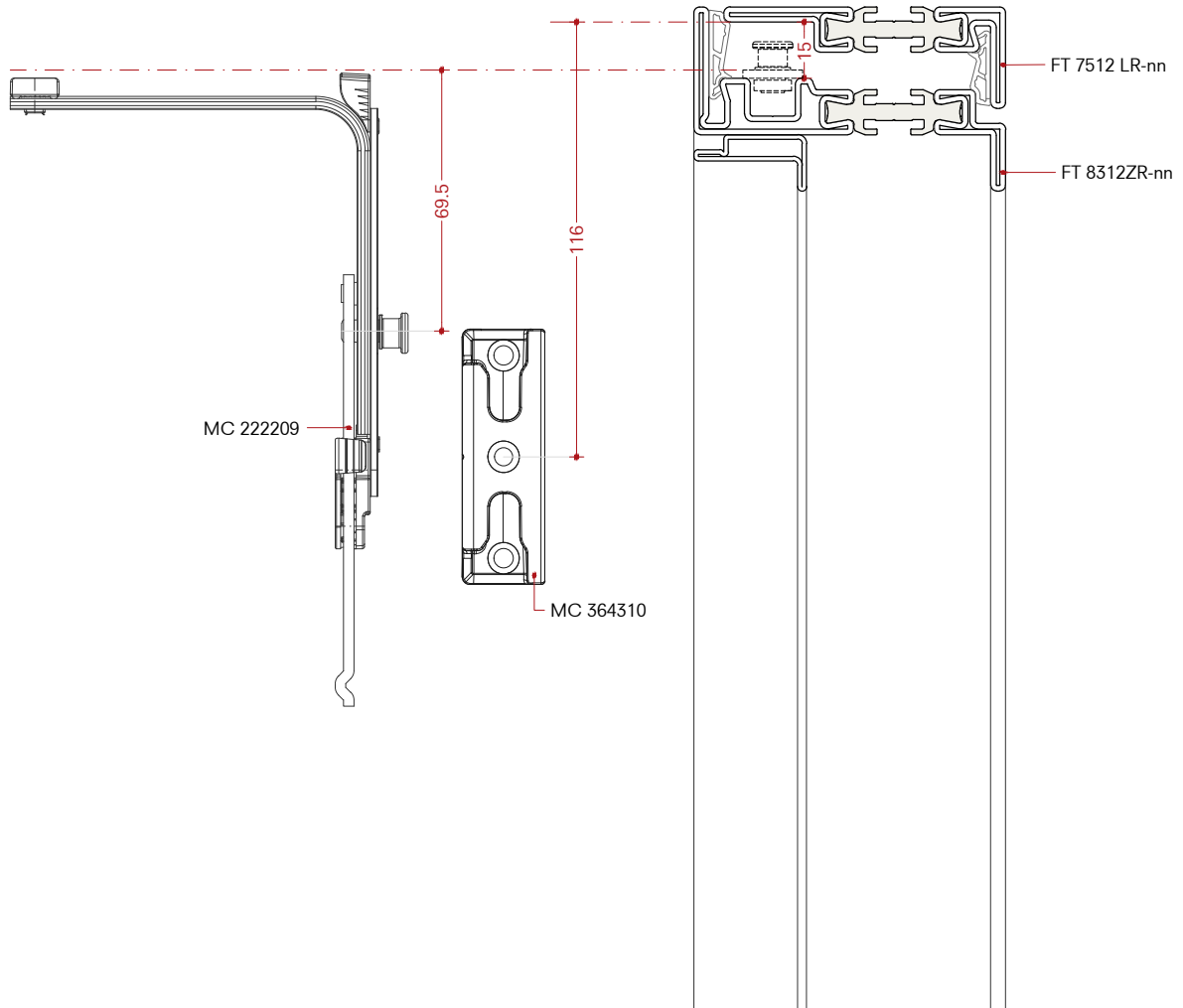
El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

**Positioning striker plate**

**Posizionamento del riscontro**

**Posicionamiento del pieza de bloqueo**



Drawing represents right opening  
 (left opening is the mirror image)

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

**Tilt&Turn/tilt-first scissor stay**

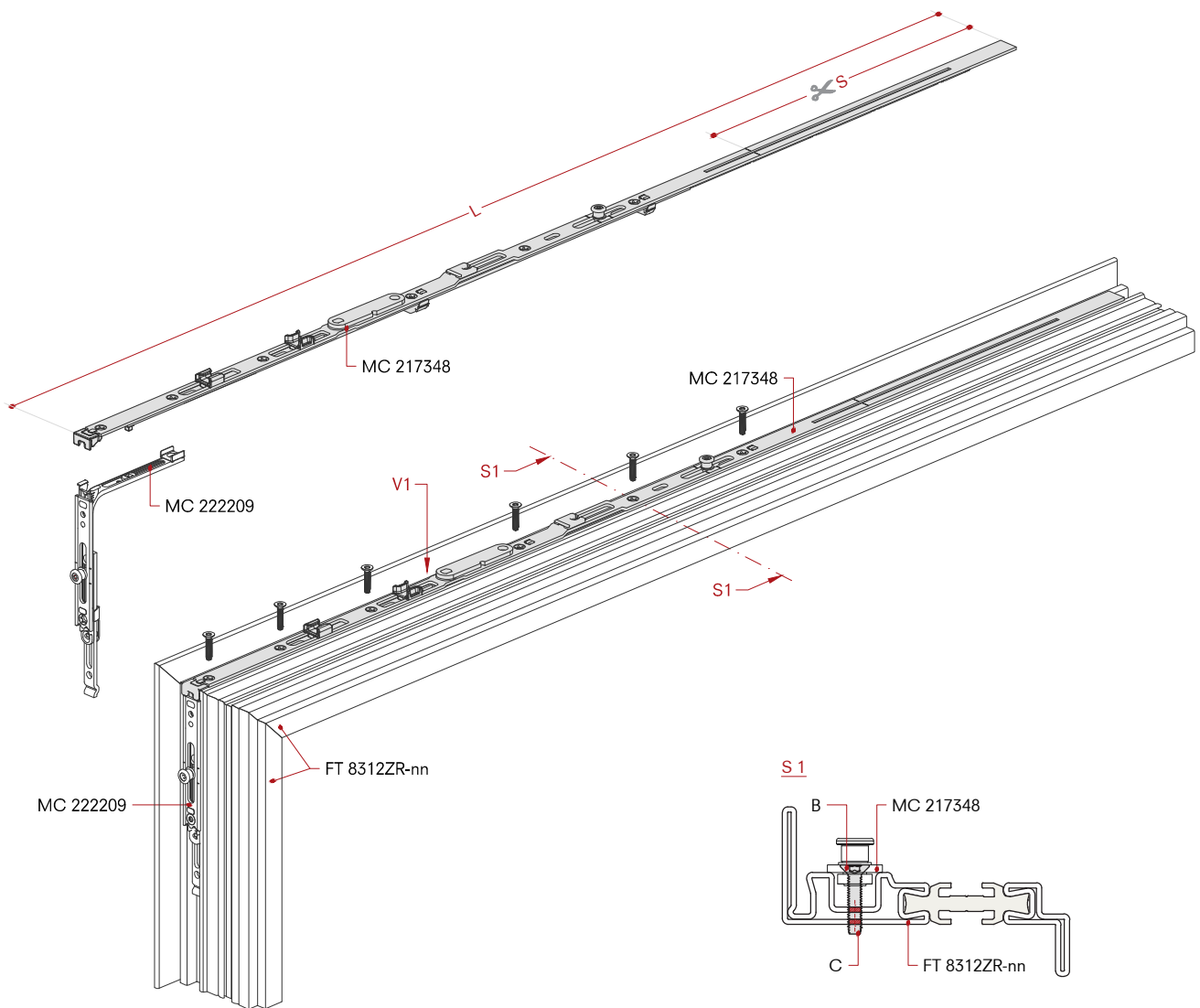
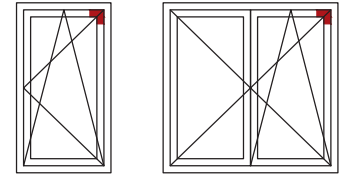
MC 217346 - MC 217347  
 MC 217348 - MC 217349

**Frontale a forbice**

MC 217346 - MC 217347  
 MC 217348 - MC 217349

**Frontal compás**

MC 217346 - MC 217347  
 MC 217348 - MC 217349



W75TB - 0019 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

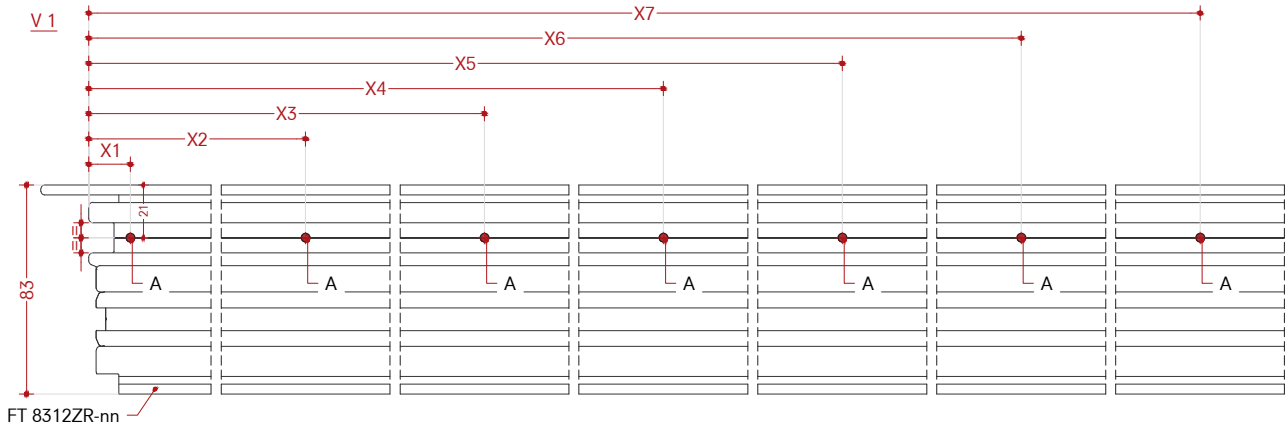
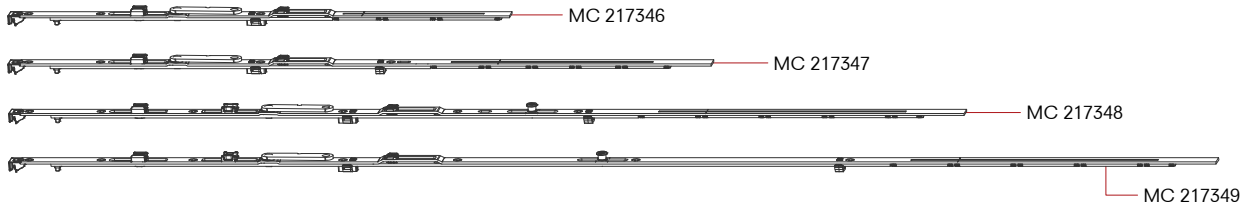
- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- L) Length scissor stay
- T) Maximum cut scissor stay
- X) Position screw connection scissor stay
- Z) Position locking cam

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- L) Lunghezza forbice
- T) Massimo taglio forbice
- X) Posizionamento vite di fissaggio forbice
- Z) Posizione della camma di bloccaggio

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

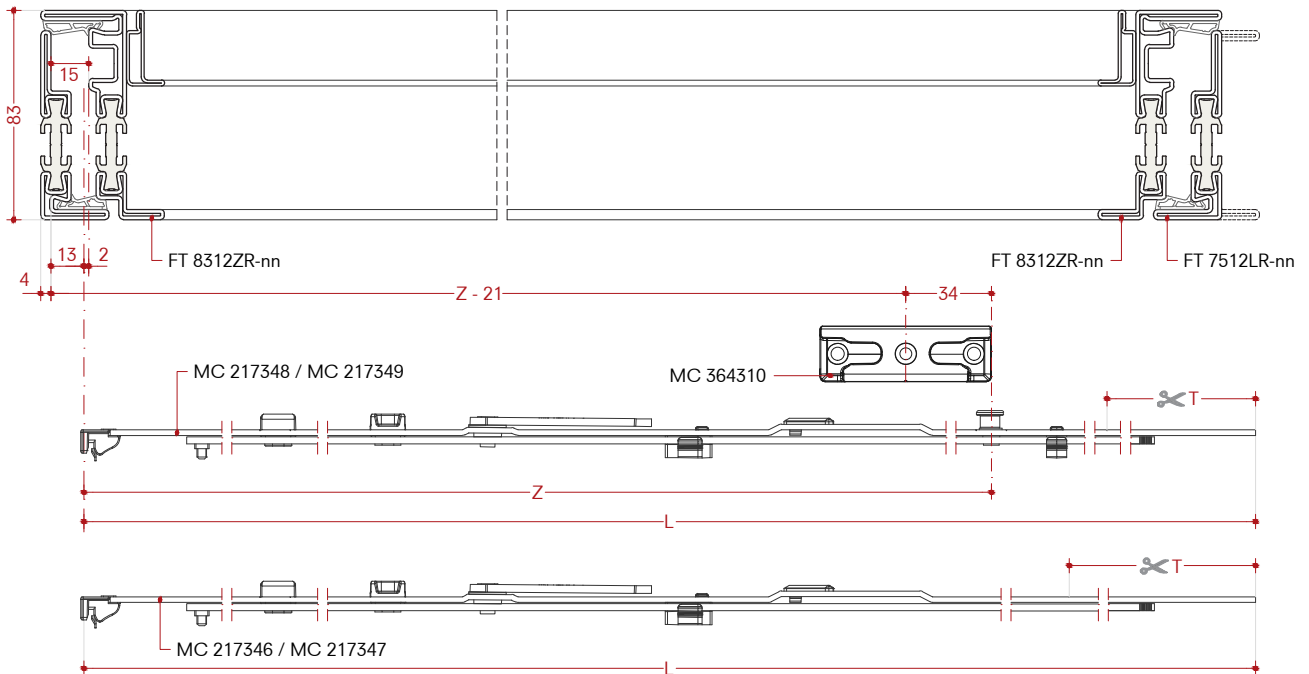
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- L) Longitud de la tijera
- T) Corte máximo en tijera
- X) Colocación del tornillo de fijación de la tijera
- Z) Posición de la leva de bloqueo



**Positioning striker plate**  
 (only for MC 217348 / MC 217349)

**Posizionamento del riscontro**  
 (solo per MC 217348 / MC 217349)

**Posicionamiento del pieza de bloqueo**  
 (solo para MC 217348 / MC 217349)

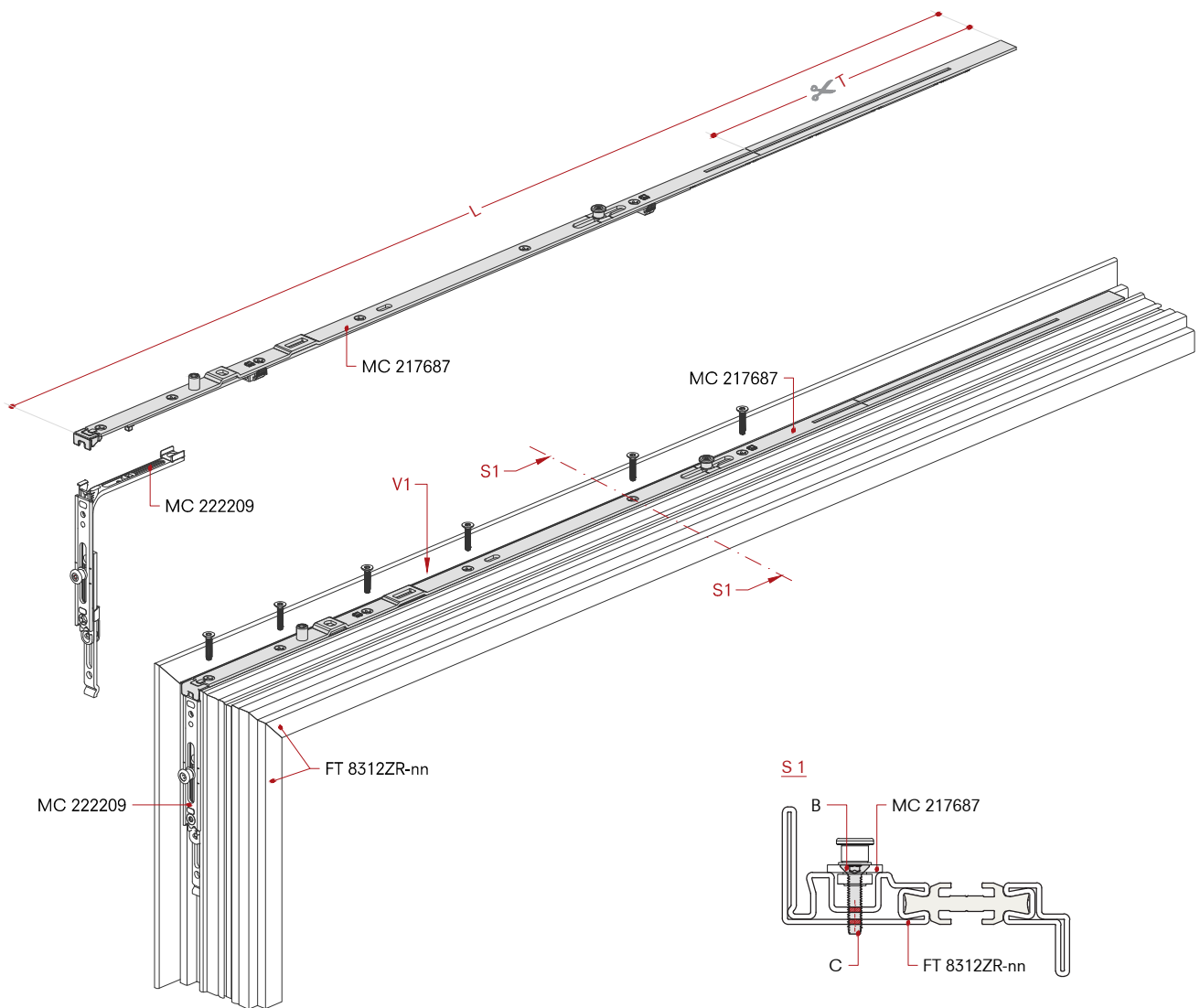
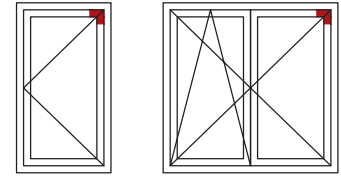


|           | L    | T   | X1   | X2   | X3  | X4  | X5  | X6  | X7  | Z   |
|-----------|------|-----|------|------|-----|-----|-----|-----|-----|-----|
| MC 217346 | 497  | 147 | 16.5 | 89.5 | 247 | -   | -   | -   | -   | -   |
| MC 217347 | 697  | 212 | 16.5 | 89.5 | 247 | 281 | 377 | -   | -   | -   |
| MC 217348 | 947  | 262 | 16.5 | 89.5 | 182 | 281 | 450 | 562 | -   | 528 |
| MC 217349 | 1197 | 262 | 16.5 | 89.5 | 182 | 281 | 450 | 621 | 827 | 587 |

**Turn-only hinge  
 faceplates croppable**  
 MC 217685 - MC 217686  
 MC 217687 - MC 217688

**Frontale a forbice accorciabile**  
 MC 217685 - MC 217686  
 MC 217687 - MC 217688

**Frontal compás que se puede acortar**  
 MC 217685 - MC 217686  
 MC 217687 - MC 217688



W75TB - 0020 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

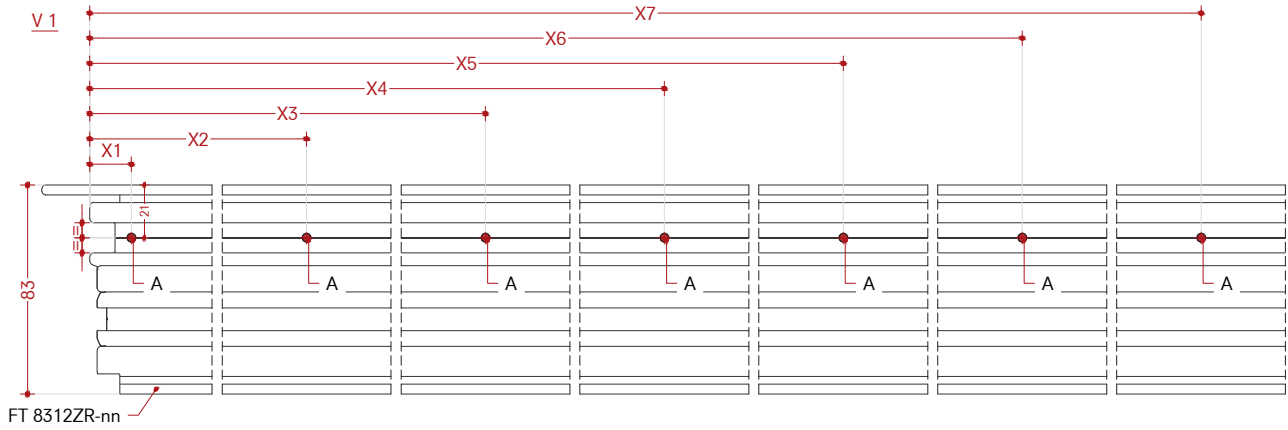
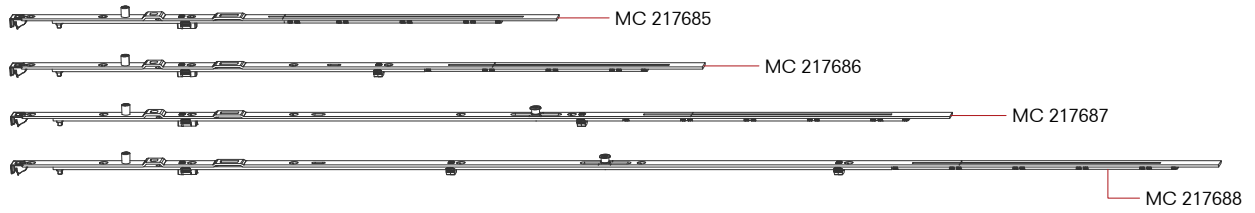
- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- L) Length turn-only hinge
- T) Maximum cut turn-only hinge
- X) Position screw connection turn-only hinge
- Z) Position locking cam

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- L) Lunghezza cerniera di sola rotazione
- T) Massimo taglio cerniera di sola rotazione
- X) Posizionamento vite di fissaggio cerniera
- Z) Posizione della camma di bloccaggio

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen espejular)

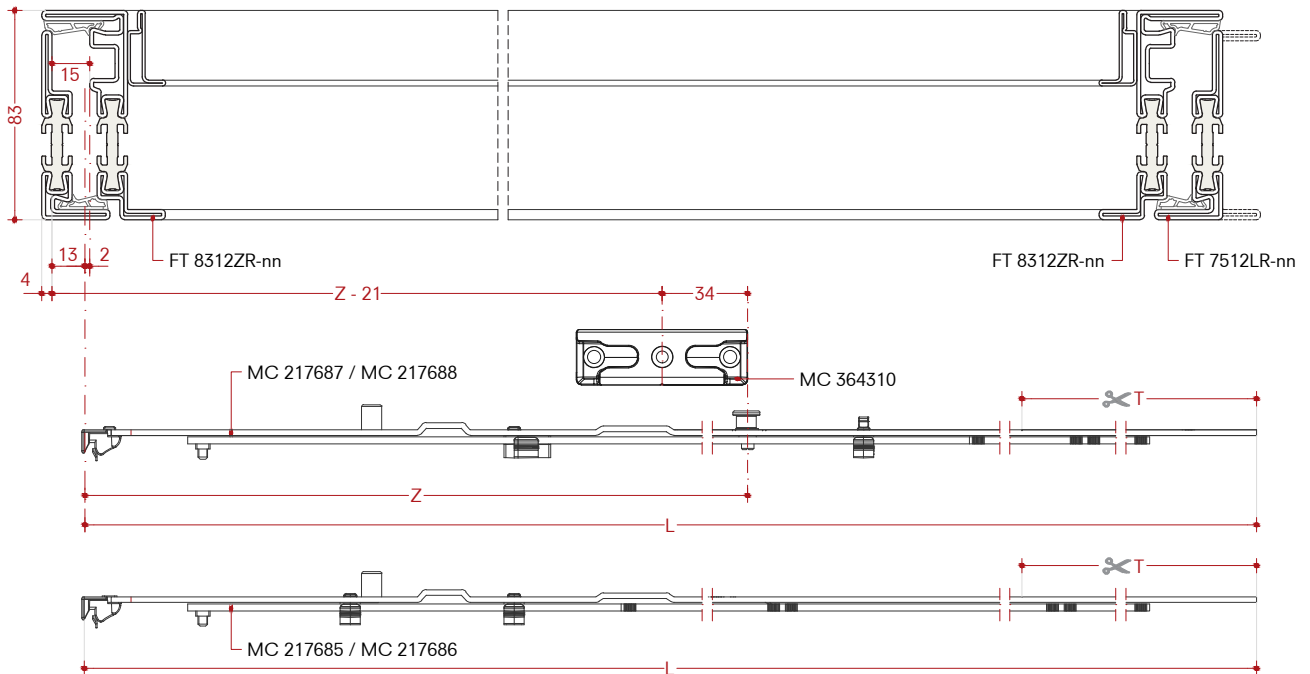
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- L) Longitud de la bisagra de solo rotación
- T) Corte máximo en bisagra de solo rotación
- X) Colocación del tornillo de fijación de la bisagra
- Z) Posición de la leva de bloqueo



**Positioning striker plate**  
 (only for MC 217687 / MC 217688)

**Posizionamento del riscontro**  
 (solo per MC 217687 / MC 217688)

**Posicionamiento del pieza de bloqueo**  
 (solo para MC 217687 / MC 217688)

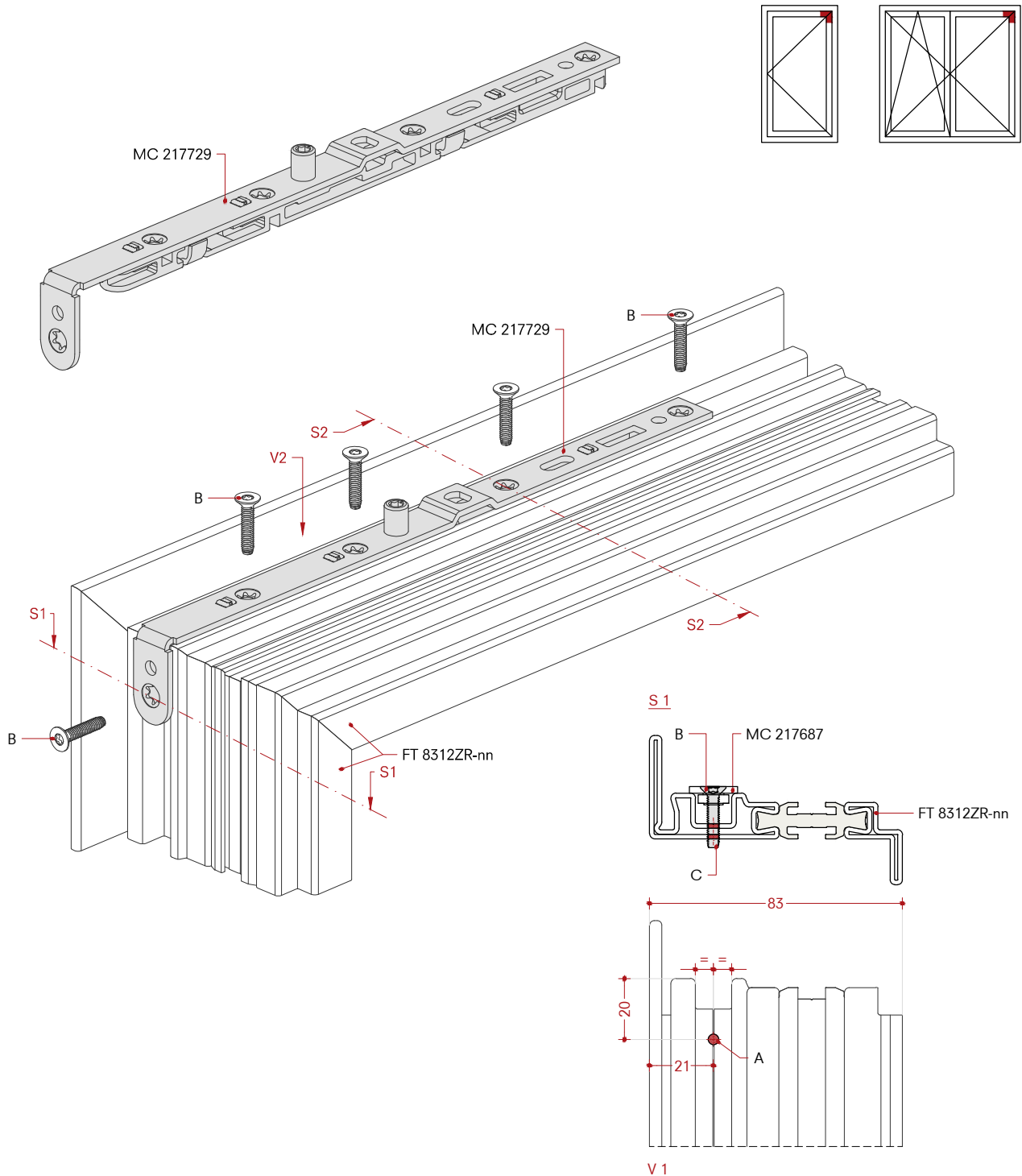


|           | L    | T   | X1   | X2   | X3    | X4  | X5  | X6  | X7  | Z   |
|-----------|------|-----|------|------|-------|-----|-----|-----|-----|-----|
| MC 217685 | 548  | 262 | 16.5 | 89.5 | 178.5 | -   | -   | -   | -   | -   |
| MC 217686 | 697  | 212 | 16.5 | 89.5 | 178.5 | 281 | 377 | -   | -   | -   |
| MC 217687 | 948  | 262 | 16.5 | 89.5 | 178.5 | 281 | 450 | 562 | -   | 528 |
| MC 217688 | 1198 | 262 | 16.5 | 89.5 | 178.5 | 281 | 450 | 621 | 827 | 587 |

**Turn-only and tilt-only faceplate**  
 MC 217729

**Frontale di sola rotazione  
 e solo inclinazione**  
 MC 217729

**Solo frente de rotación  
 y solo inclinación**  
 MC 217729



W75TB - 0021 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

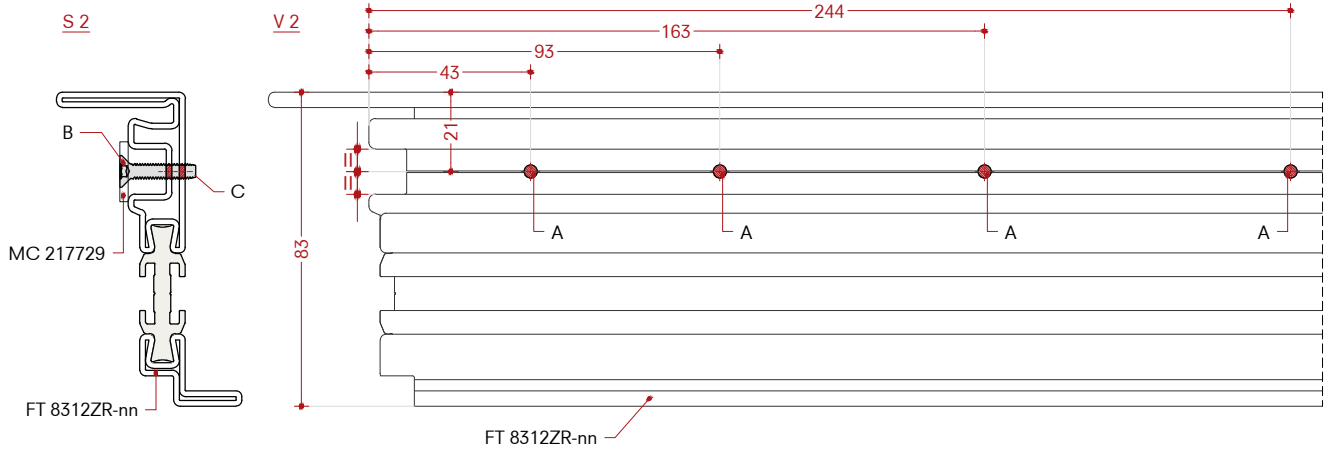
Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

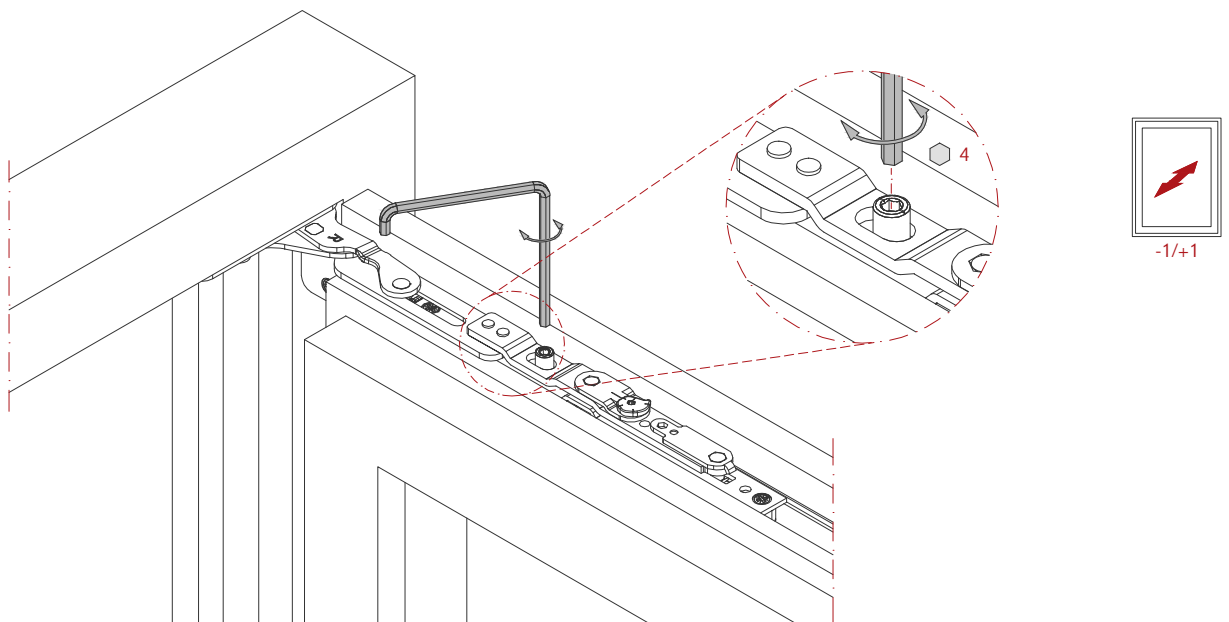




**Pressure adjustment**

**Regolazione pressione di contatto**

**Ajuste de presión de contacto**



⬡ Adjustment range +1 mm with SW 4

⬡ Regolazione +1 mm con SW 4

⬡ Ajuste +1 mm con SW 4

**Faceplate extensions extendable**

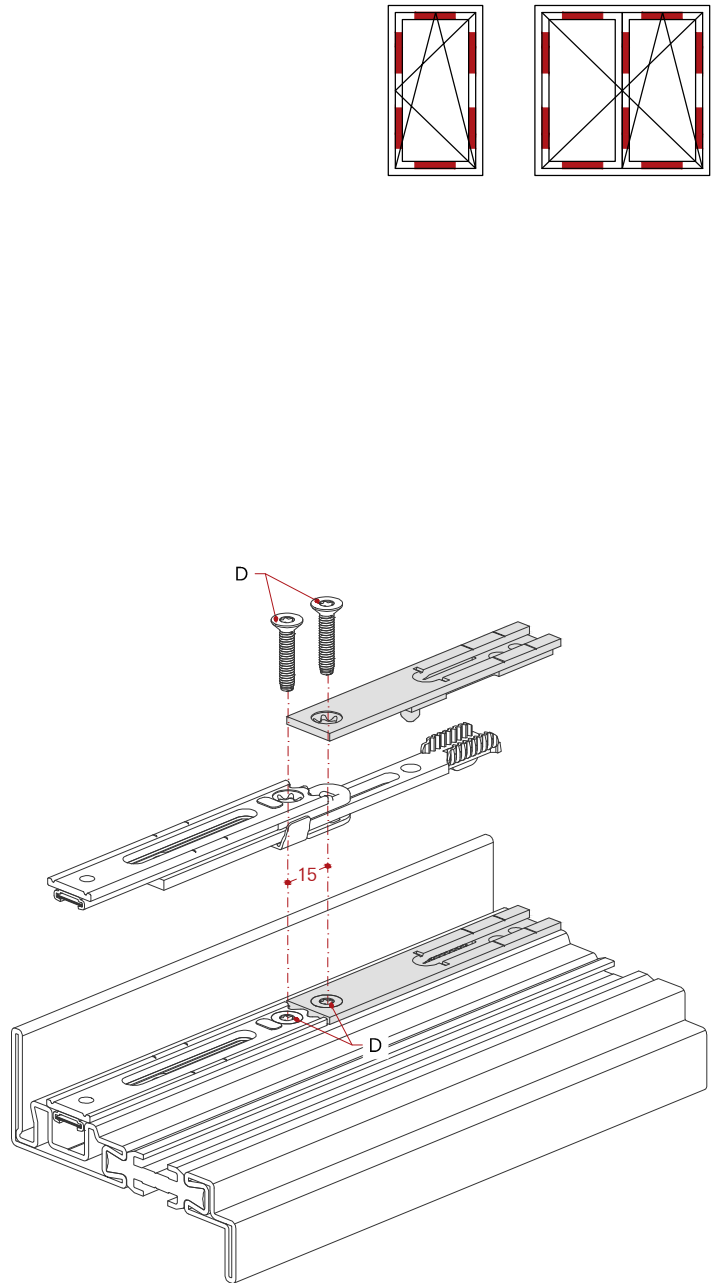
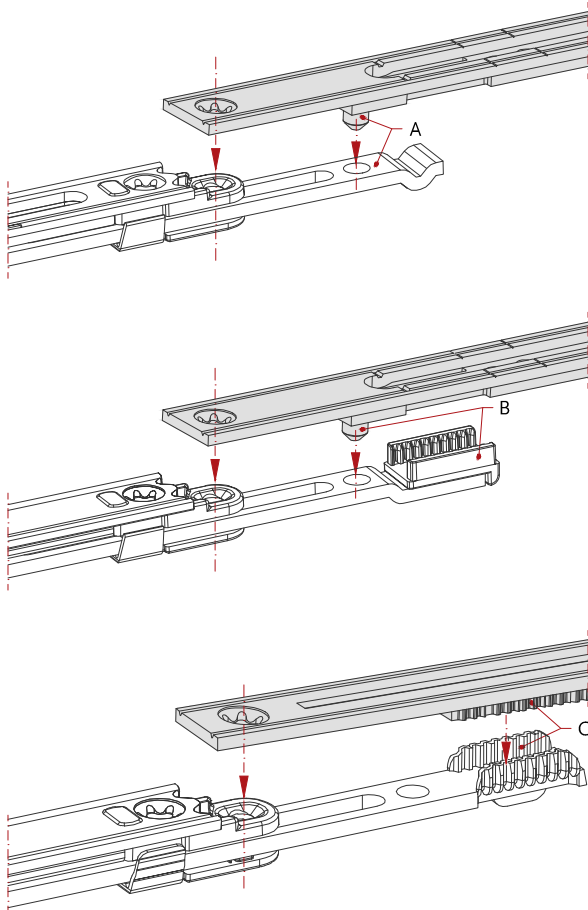
- MC 201750
- MC 201753
- MC 201754 (\*)
- MC 201840
- MC 201841
- MC 206630

**Prolunga frontalino**

- MC 201750
- MC 201753
- MC 201754 (\*)
- MC 201840
- MC 201841
- MC 206630

**Extensión frontal**

- MC 201750
- MC 201753
- MC 201754 (\*)
- MC 201840
- MC 201841
- MC 206630



W75TB - 0022 DWG DXF

(\*) Faceplate extension MC 201754 can only be used vertically

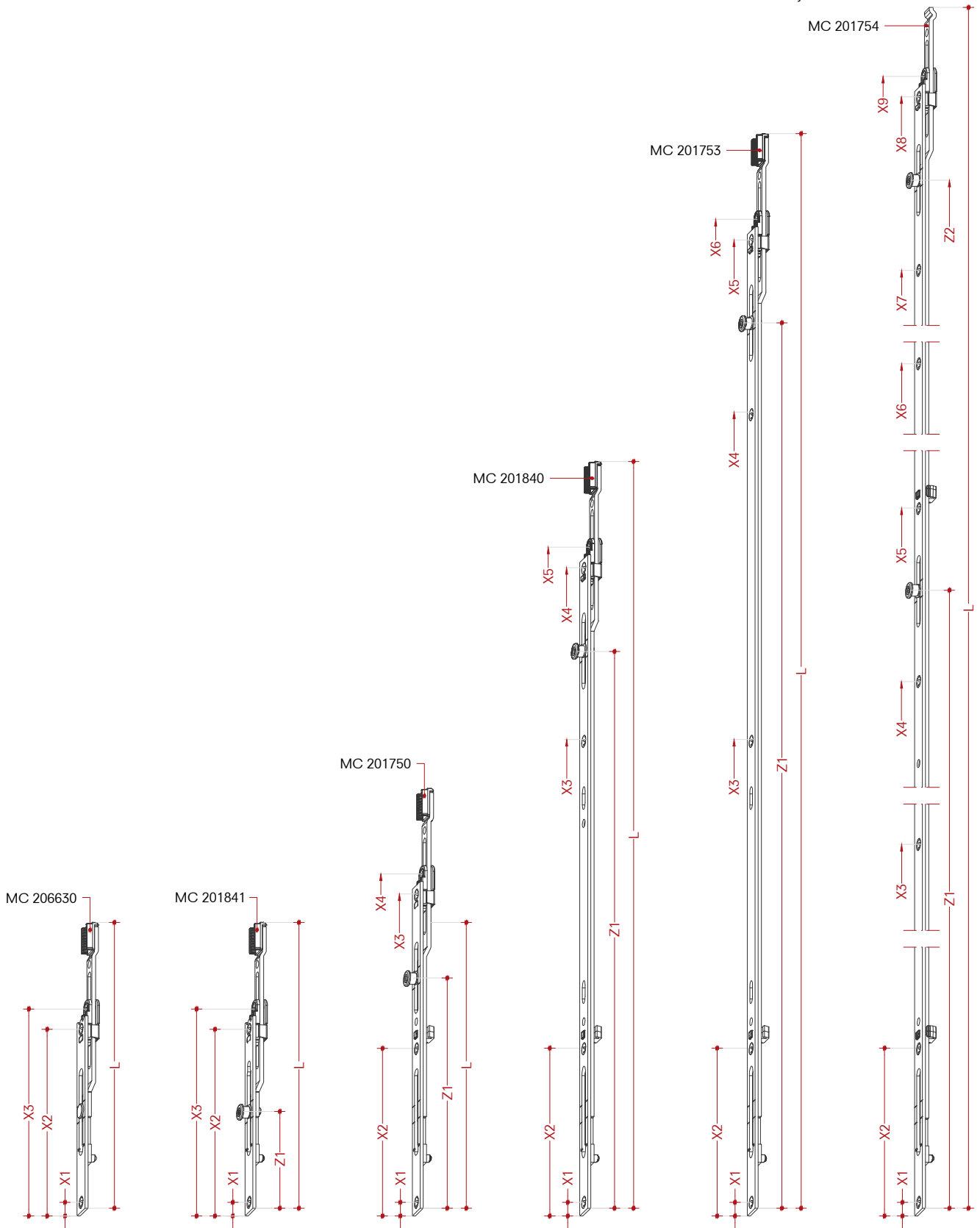
- A) Coupling with hole-pin connection
- B) Coupling with hole-pin connection with serrated carrier
- C) Coupling with serrated carrier connection
- D) Countersunk screw M4x20
- L) Length faceplate extension
- X) Position screw connection faceplate extension
- Z) Position locking cam

(\*) La prolunga del frontalino MC 201754 può essere utilizzata solo in verticale

- A) Accoppiamento foro-perno
- B) Accoppiamento foro-perno con supporto dentellato
- C) Accoppiamento dentellato
- D) Vite testa svasata M4x20
- L) Lunghezza della prolunga
- X) Posizionamento vite di fissaggio prolunga
- Z) Posizione della camma di bloccaggio

(\*) La extensión del panel frontal del MC 201754 solo se puede utilizar verticalmente

- A) Acoplamiento orificio-alfiler
- B) Acoplamiento orificio-alfiler con soporte dentado
- C) Acoplamiento con dentado
- D) Tornillo avellanado M4x20
- L) Longitud de la extensión
- X) Posicionamiento del tornillo de fijación
- Z) Posición de la leva de bloqueo



|               | L     | X1 | X2    | X3    | X4    | X5  | X6   | X7   | X8   | X9   | Z1    | Z2   |
|---------------|-------|----|-------|-------|-------|-----|------|------|------|------|-------|------|
| MC 206630     | 138.5 | 7  | 131.5 | 146.5 | -     | -   | -    | -    | -    | -    | -     | -    |
| MC 201841     | 138.5 | 7  | 131.5 | 146.5 | -     | -   | -    | -    | -    | -    | 72    | -    |
| MC 201750     | 235   | 7  | 117.5 | 228   | 243   | -   | -    | -    | -    | -    | 168.5 | -    |
| MC 201840     | 470   | 7  | 117.5 | 338.5 | 463   | 478 | -    | -    | -    | -    | 403.5 | -    |
| MC 201753     | 705   | 7  | 117.5 | 338.5 | 573.5 | 698 | 713  | -    | -    | -    | 638.5 | -    |
| MC 201754 (*) | 1410  | 7  | 117.5 | 338.5 | 573.5 | 698 | 1044 | 1279 | 1403 | 1408 | 638.5 | 1344 |

**Faceplate extensions croppable**

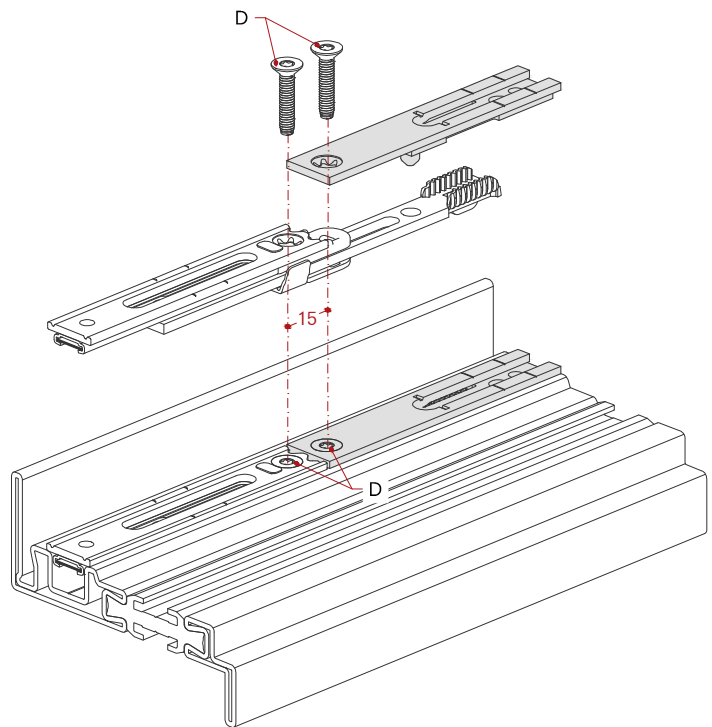
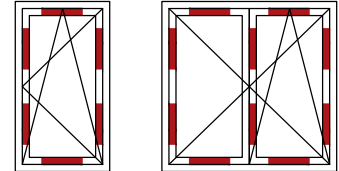
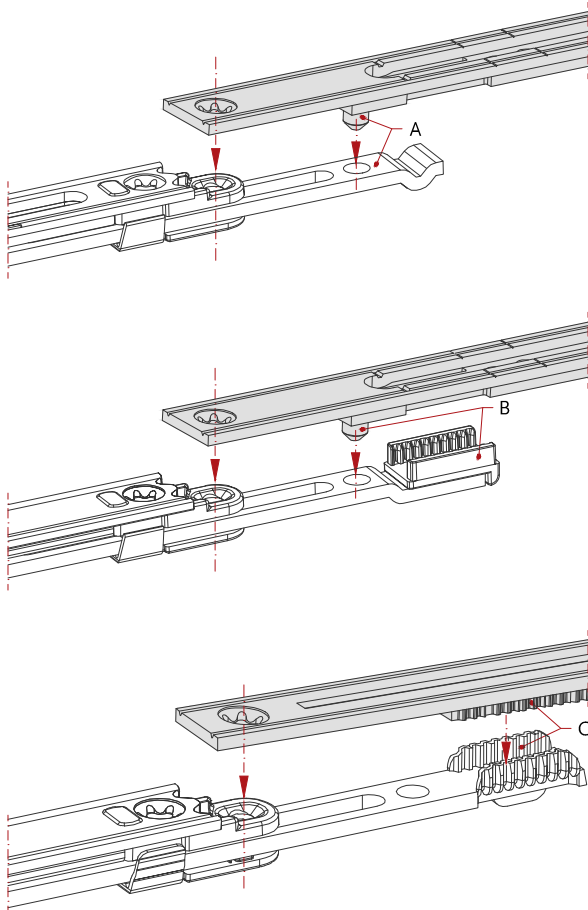
MC 203697  
 MC 203698  
 MC 203699 (\*)

**Prolunga frontalino accorciabile**

MC 203697  
 MC 203698  
 MC 203699 (\*)

**Extensión frontal que se puede acortar**

MC 203697  
 MC 203698  
 MC 203699 (\*)



W75TB - 0023 DWG DXF

(\*) Faceplate extension MC 203699 can only be used vertically

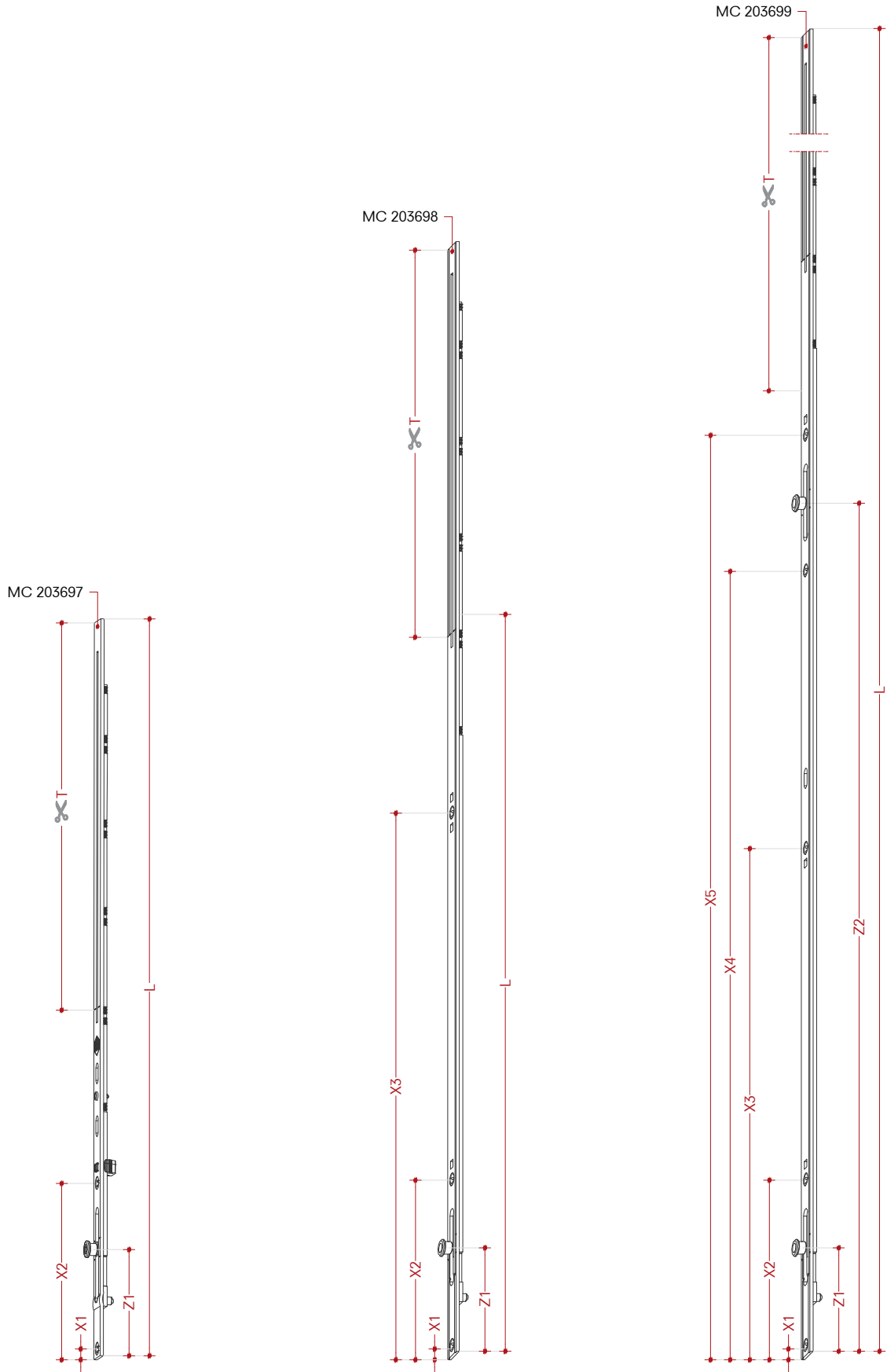
(\*) La prolunga del frontalino MC 203699 può essere utilizzata solo in verticale

(\*) La extensión del panel frontal del MC 203699 solo se puede utilizar verticalmente

- A) Coupling with hole-pin connection
- B) Coupling with hole-pin connection with serrated carrier
- C) Coupling with serrated carrier connection
- D) Countersunk screw M4x20
- L) Length faceplate extension
- T) Maximum cut faceplate extension
- X) Position screw connection faceplate extension
- Z) Position locking cam

- A) Accoppiamento foro-perno
- B) Accoppiamento foro-perno con supporto dentellato
- C) Accoppiamento dentellato
- D) Vite testa svasata M4x20
- L) Lunghezza della prolunga
- T) Estensione massima di taglio del frontalino
- X) Posizionamento vite di fissaggio prolunga
- Z) Posizione della camma di bloccaggio

- A) Acoplamiento orificio-alfiler
- B) Acoplamiento orificio-alfiler con soporte dentado
- C) Acoplamiento con dentado
- D) Tornillo avellanado M4x20
- L) Longitud de la extensión
- T) Extensión máxima de corte del panel frontal
- X) Posicionamiento del tornillo de fijación
- Z) Posición de la leva de bloqueo



|               | L   | X1 | X2  | X3  | X4  | X5  | T   | Z1 | Z2  |
|---------------|-----|----|-----|-----|-----|-----|-----|----|-----|
| MC 203697     | 497 | 7  | 117 | -   | -   | -   | 260 | 72 | -   |
| MC 203698     | 747 | 7  | 117 | 367 | -   | -   | 260 | 72 | -   |
| MC 203699 (*) | 997 | 7  | 117 | 337 | 527 | 617 | 260 | 72 | 572 |

**Faceplate extensions fixed**

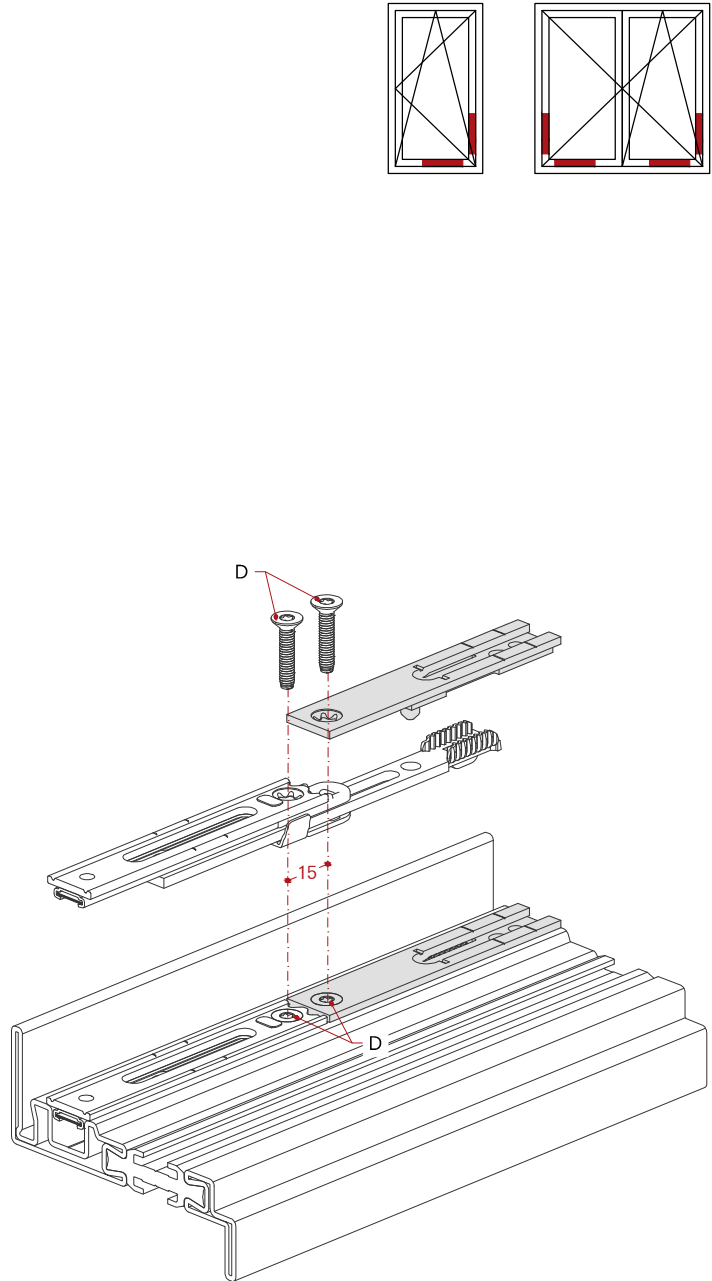
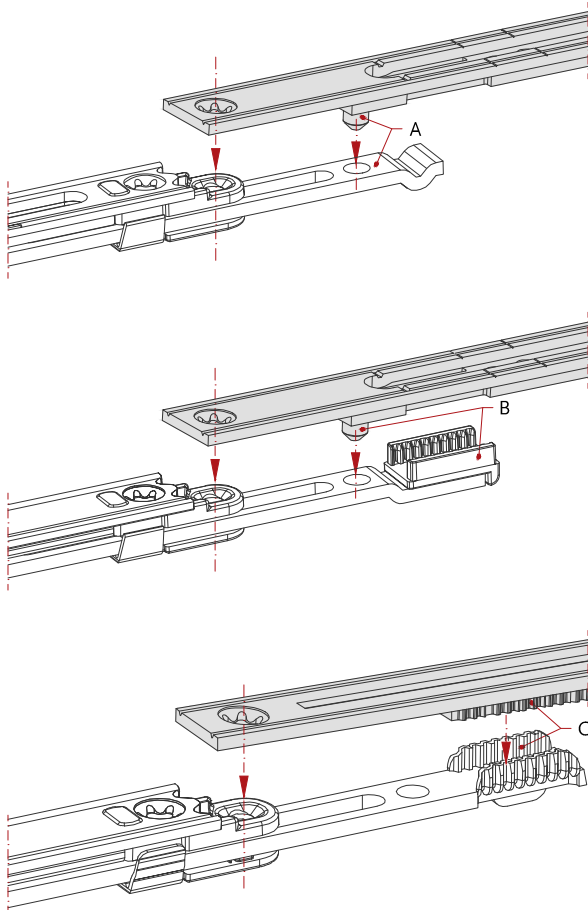
MC 210496  
 MC 201751  
 MC 201752

**Prolunga frontalino fissa**

MC 210496  
 MC 201751  
 MC 201752

**Extensión frontal fijo**

MC 210496  
 MC 201751  
 MC 201752

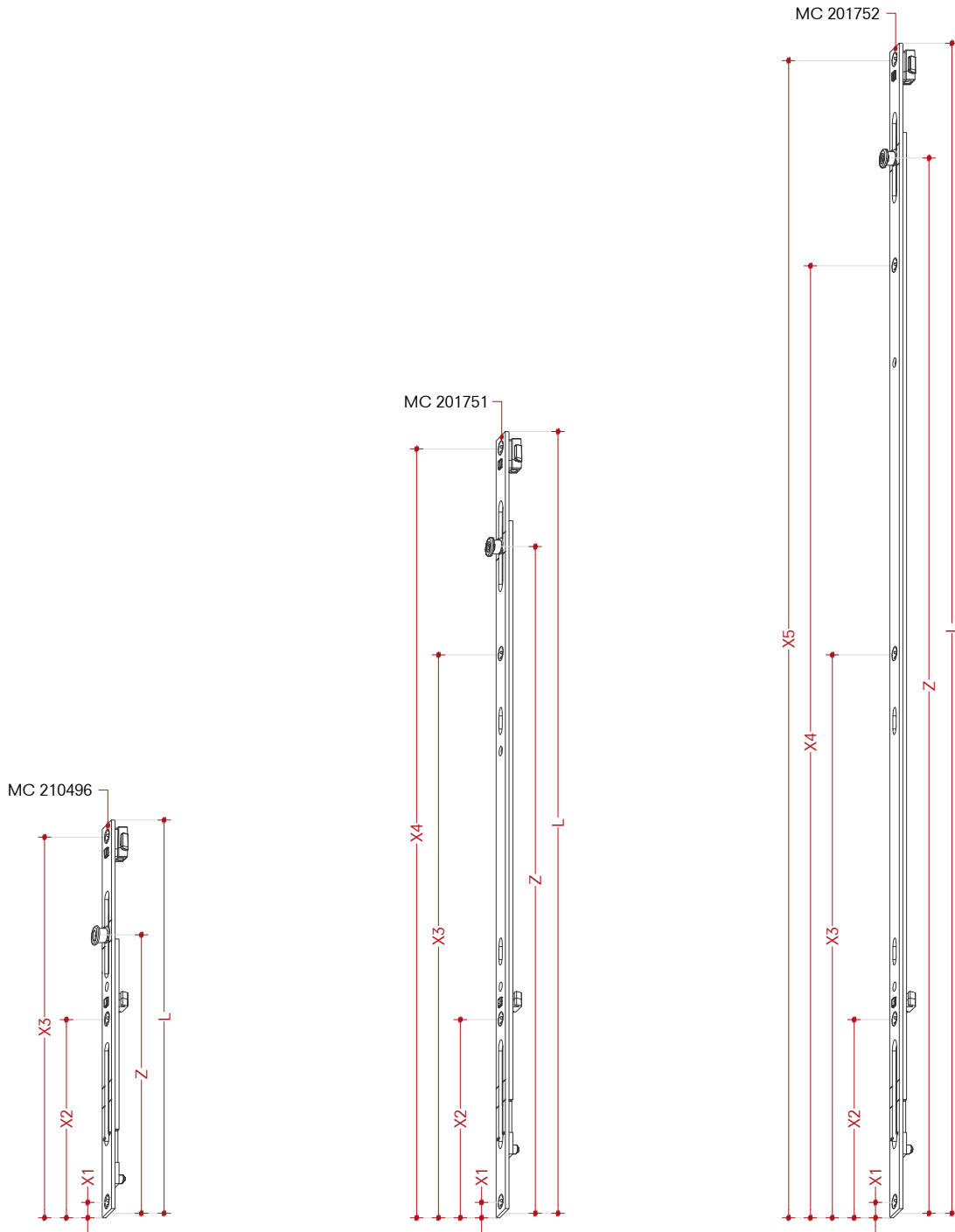


W75TB - 0024 DWG DXF

- A) Coupling with hole-pin connection
- B) Coupling with hole-pin connection with serrated carrier
- C) Coupling with serrated carrier connection
- D) Countersunk screw M4x20
- L) Length faceplate extension
- X) Position screw connection faceplate extension
- Z) Position locking cam

- A) Accoppiamento foro-perno
- B) Accoppiamento foro-perno con supporto dentellato
- C) Accoppiamento dentellato
- D) Vite testa svasata M4x20
- L) Lunghezza della prolunga
- X) Posizionamento vite di fissaggio prolunga
- Z) Posizione della camma di bloccaggio

- A) Acoplamiento orificio-alfiler
- B) Acoplamiento orificio-alfiler con soporte dentado
- C) Acoplamiento con dentado
- D) Tornillo avellanado M4x20
- L) Longitud de la extensión
- X) Posicionamiento del tornillo de fijación
- Z) Posición de la leva de bloqueo

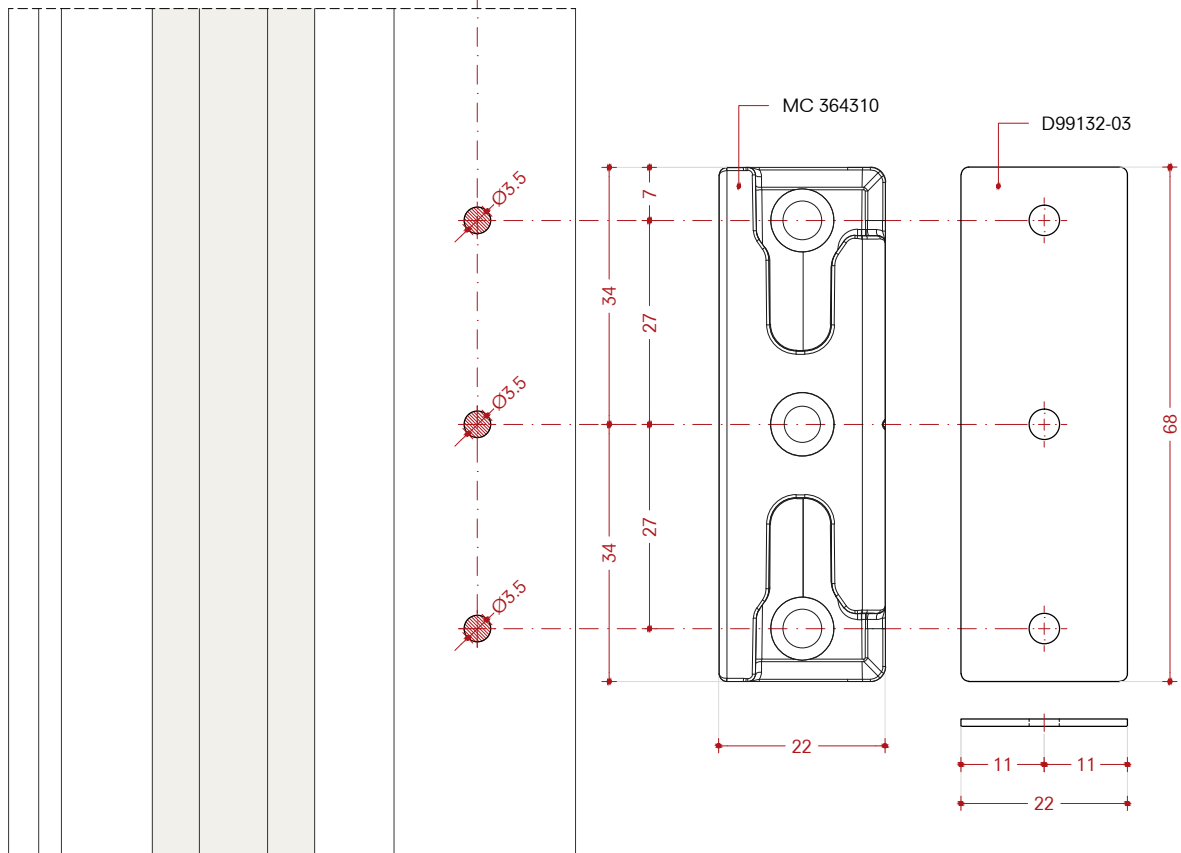
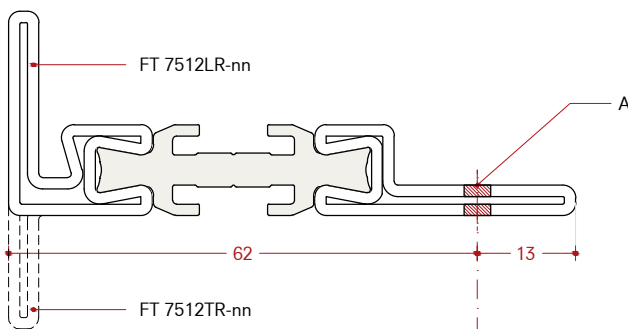
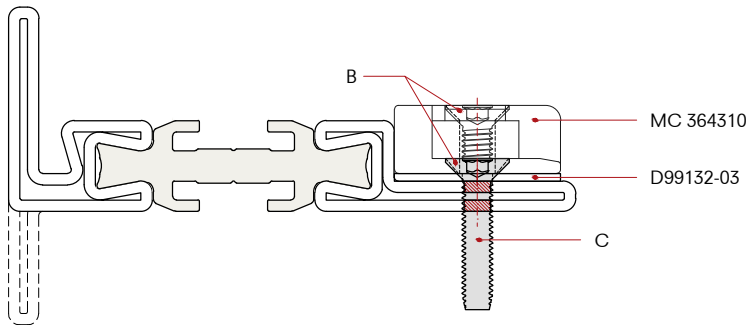


|           | L   | X1 | X2    | X3    | X4    | X5  | Z     |
|-----------|-----|----|-------|-------|-------|-----|-------|
| MC 210496 | 235 | 7  | 117.5 | 228   | -     | -   | 168.5 |
| MC 201751 | 470 | 7  | 117.5 | 338.5 | 463   | -   | 403.5 |
| MC 201752 | 705 | 7  | 117.5 | 338.5 | 573.5 | 698 | 638.5 |

**Striker plate position**  
 MC 364310

**Posizione riscontro**  
 MC 364310

**Posicion del pieza de bloqueo**  
 MC 364310



W75TB - 0025 DWG DXF

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20 (3 pieces each)
- C) Cut the screw

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20 (3 pezzi ciascuno)
- C) Accorciare la vite

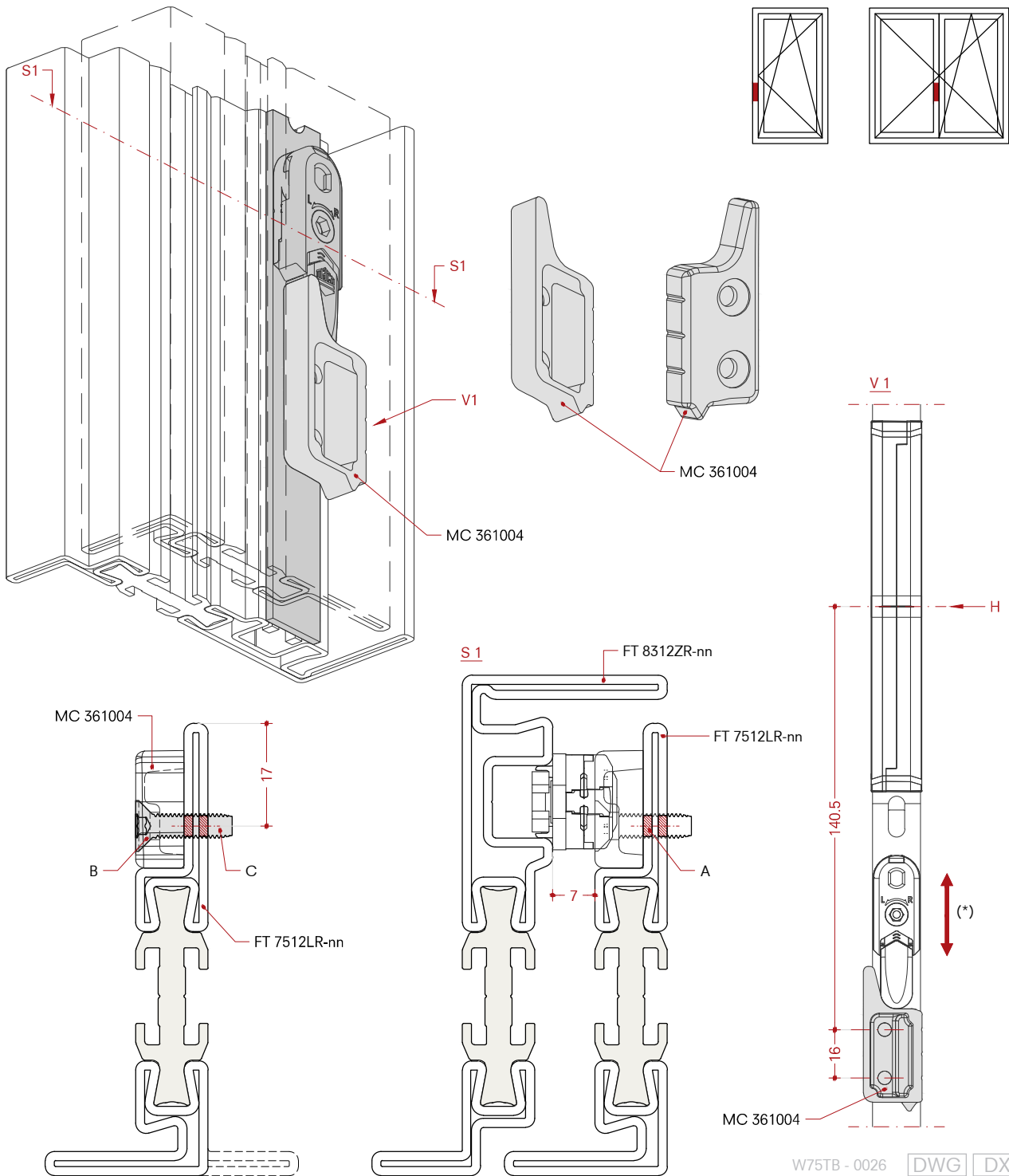
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20 (3 piezas cada uno)
- C) Recortar tornillo



**Sash lifter**  
 MC 361004 R  
 MC 361005 L

**Scontro alza anta**  
 MC 361004 R  
 MC 361005 L

**Cerradero elevador**  
 MC 361004 R  
 MC 361005 L



Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x16
- C) Cut the screw
- H) Handle height
- (\*) Adjustable

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x16
- C) Accorciare la vite
- H) Altezza maniglia
- (\*) Regolabile

L = Apertura sinistra  
 R = Apertura destra

El dibujo representa la apertura derecha  
 (la apertura izquiera es la imagen especular)

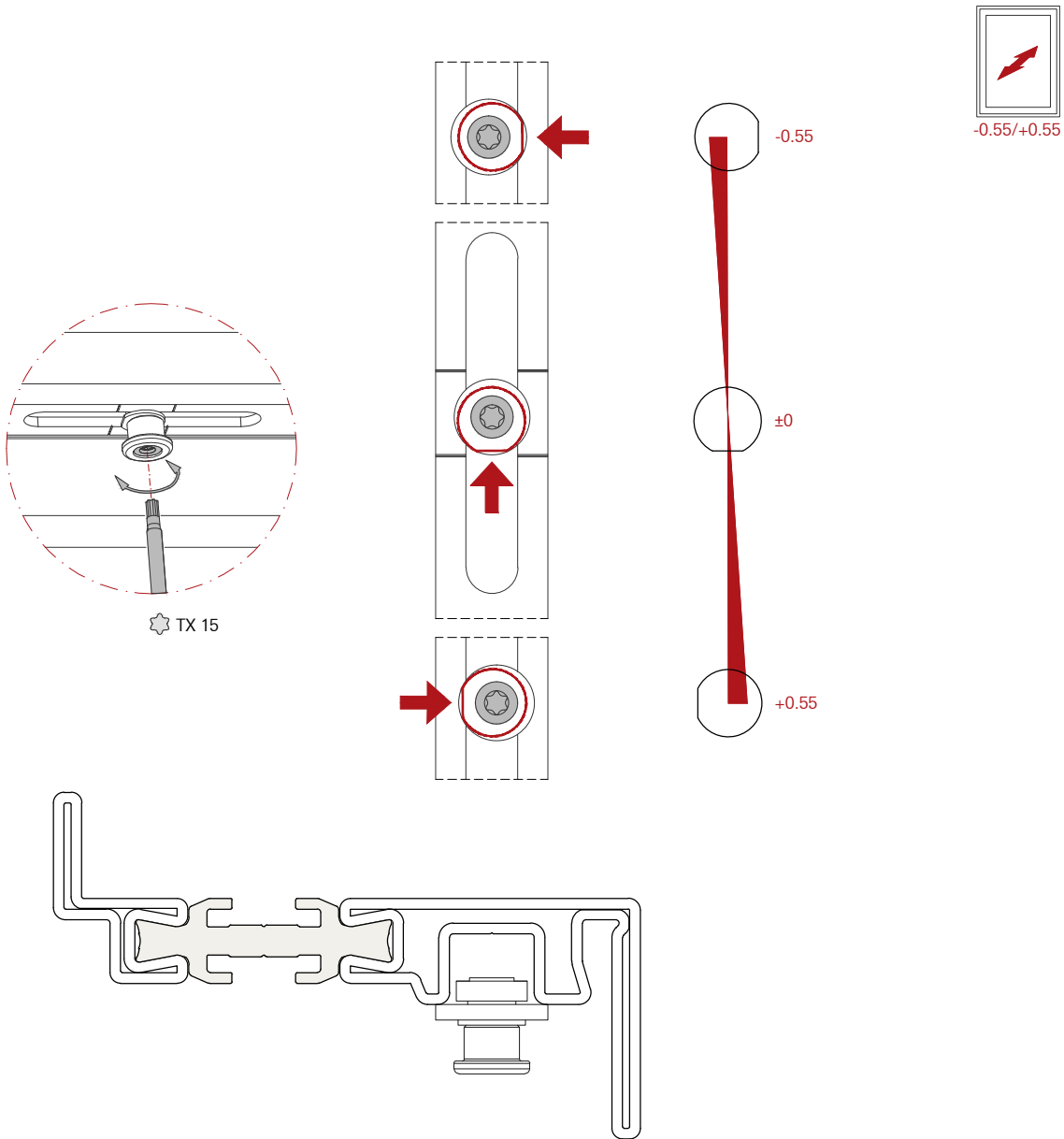
- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x16
- C) Recortar tornillo
- H) Altura manija
- (\*) Ajustable

L = Apertura izquierda  
 R = Apertura derecha

Pressure adjustment

Regolazione pressione di contatto

Ajuste de presión de contacto



✱ Adjustment range ± 0.5 mm with TX 15

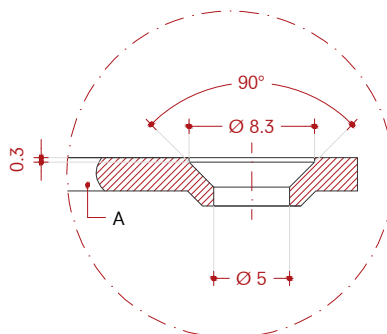
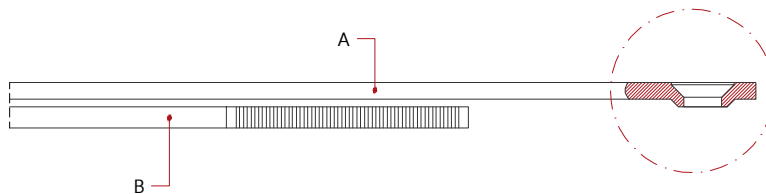
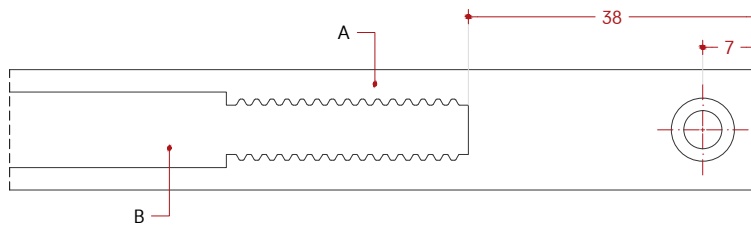
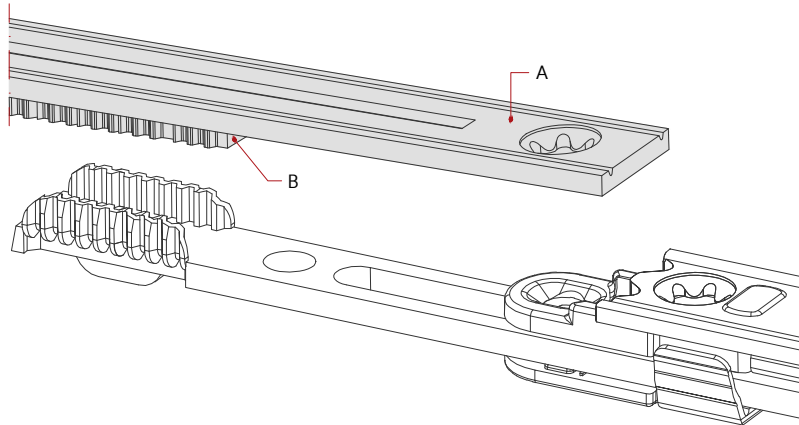
✱ Regolazione ± 0.5 mm con TX 15

✱ Ajuste ± 0.5 mm con TX 15

**Punch pattern for cut-to-length faceplates**

**Schema di taglio per frontalini tagliati a misura**

**Diagrama de corte para placas frontales cortadas a medida**



**NOTE:**  
 We recommend re-treating the cropped edges of fittings with a suitable touch-up paint.

- A) Faceplate
- B) Drive track

**NOTA:**  
 Sugeriamo di fissare le boccole sul lato superiore e sul lato destro dopo l'installazione del vetro.

- A) Frontalino
- B) Guida

**NOTA:**  
 Sugerimos fijar los arbustos en la parte superior y en el lado derecho después de la instalación del vidrio.

- A) Frontal
- B) Guía

**Templates for Tilt&Turn fittings**

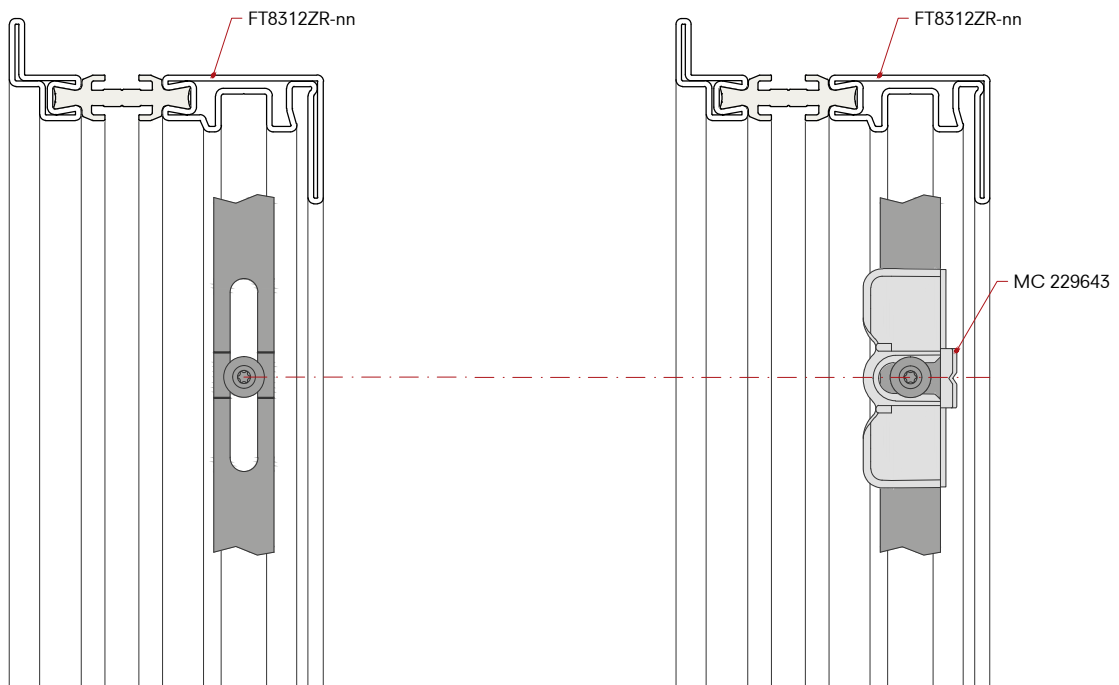
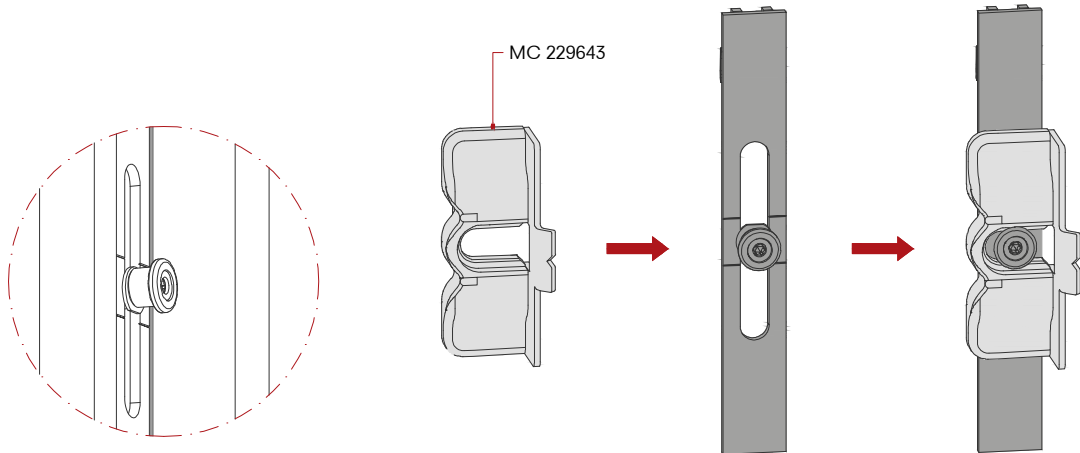
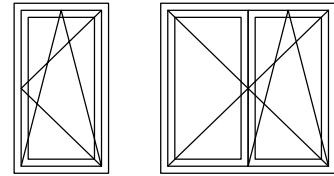
MC 229643

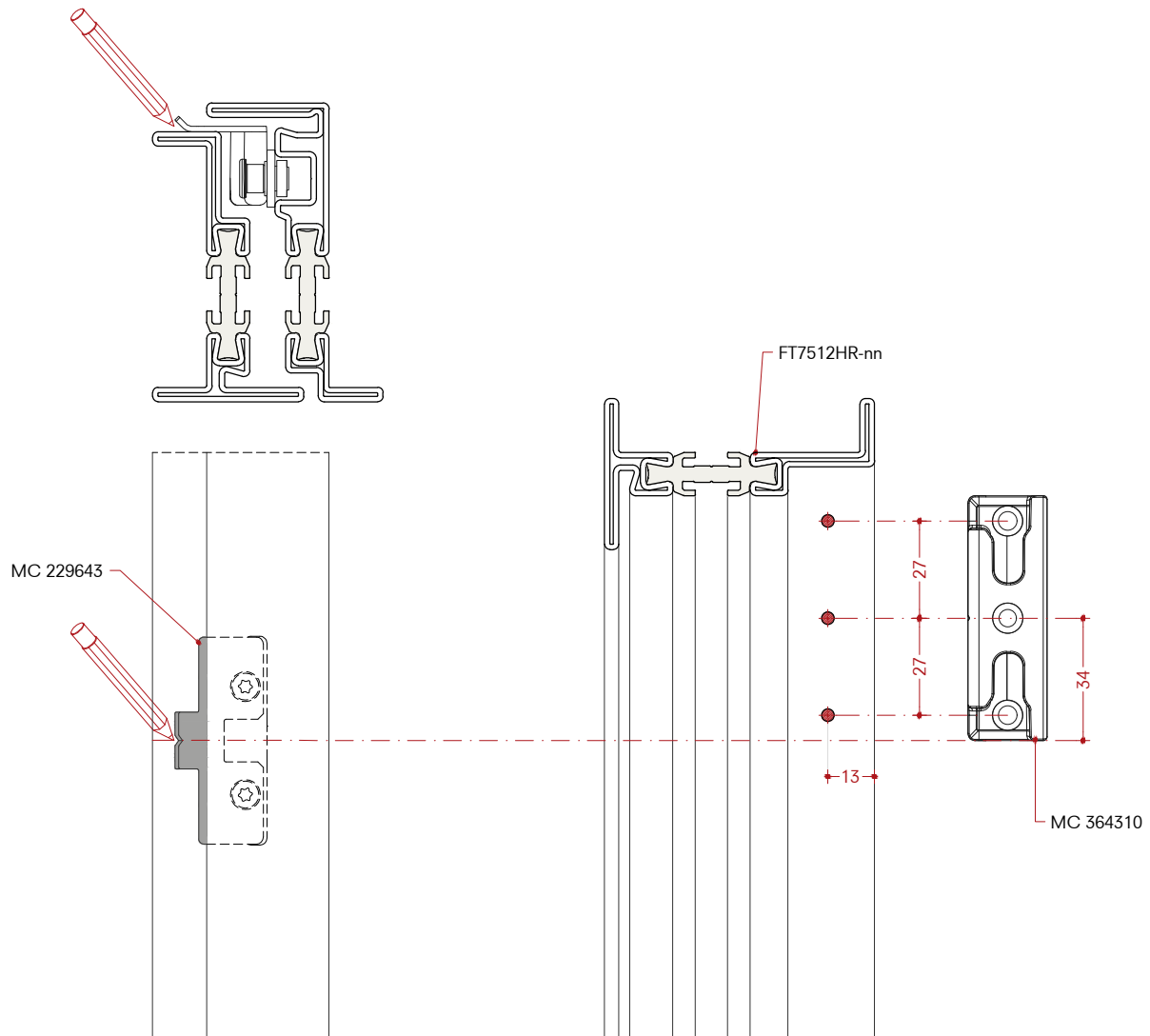
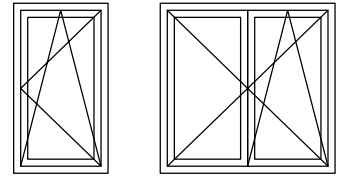
**Dime per ferramenta anta ribalta**

MC 229643

**Plantilla para herrajes  
para ventana oscilante**

MC 229643

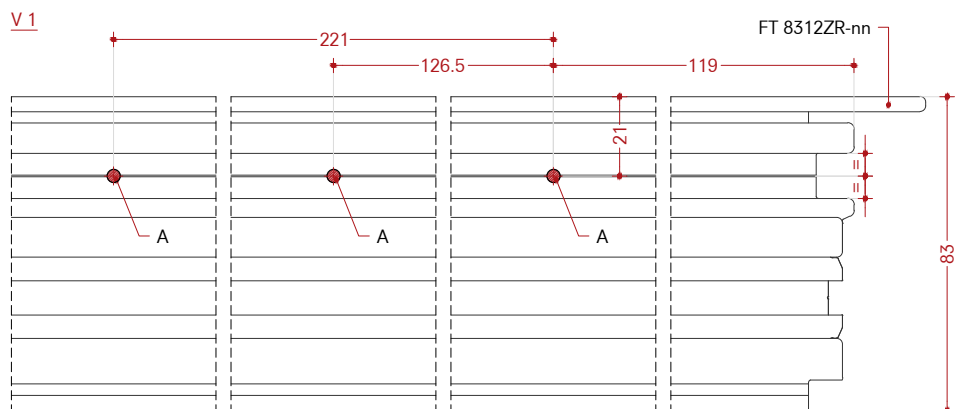
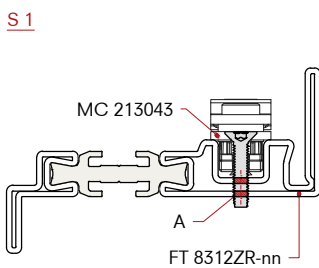
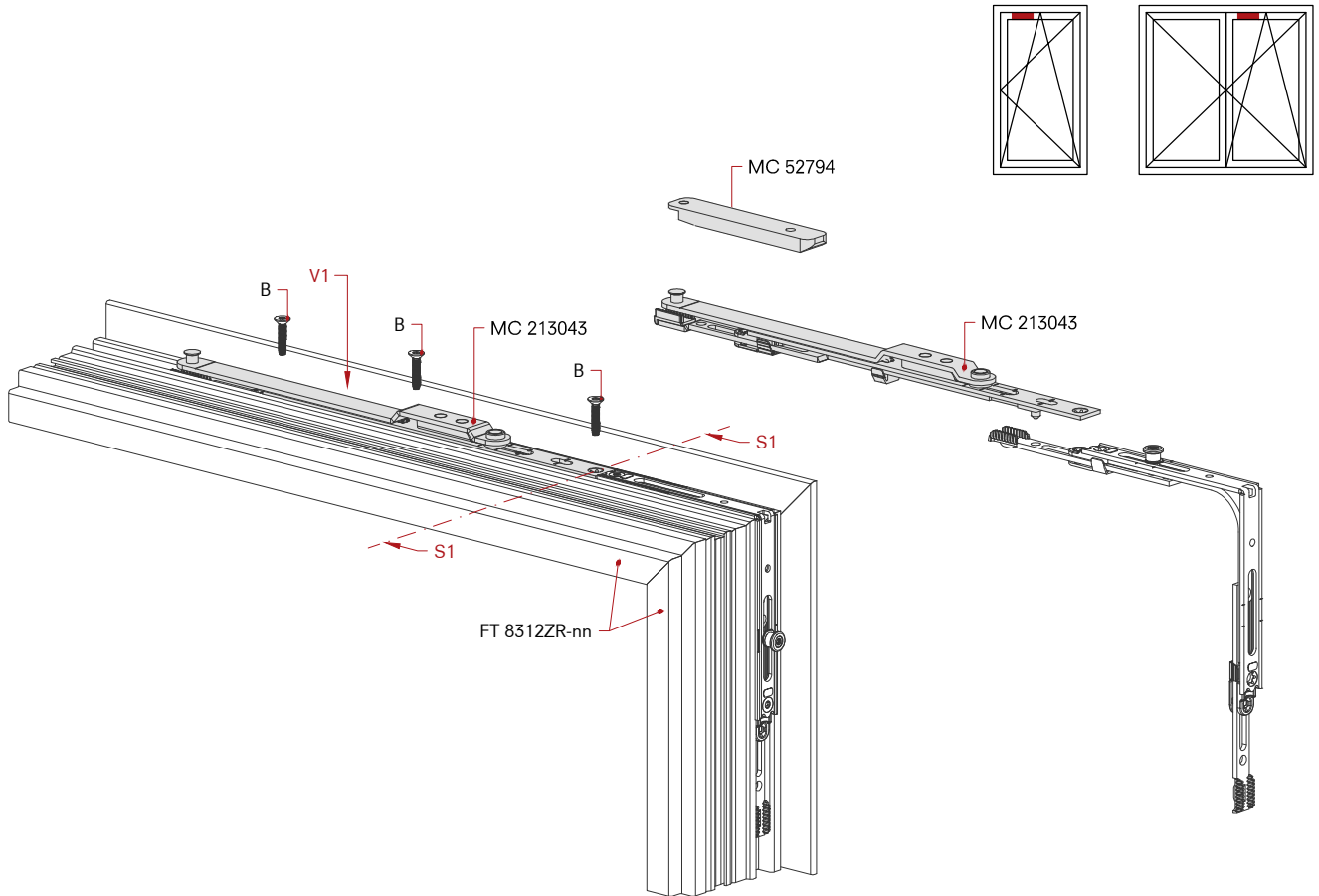




**Stabilizing scissor stay without night-vent**  
 MC 213043  
**and stabilising scissor stay case**  
 MC 52794

**Bussola aggiuntiva senza funzione di blocco**  
 MC 213043  
**e scatola per bussola aggiuntiva**  
 MC 52794

**Brújula adicional sin función de bloqueo**  
 MC 213043  
**y guardián para brújula adicional**  
 MC 52794



W75TB - 0027 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw

WL = Width Leaf

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

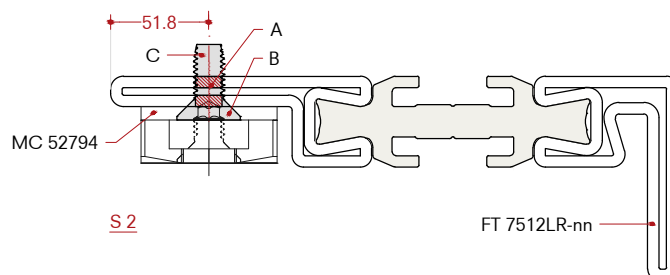
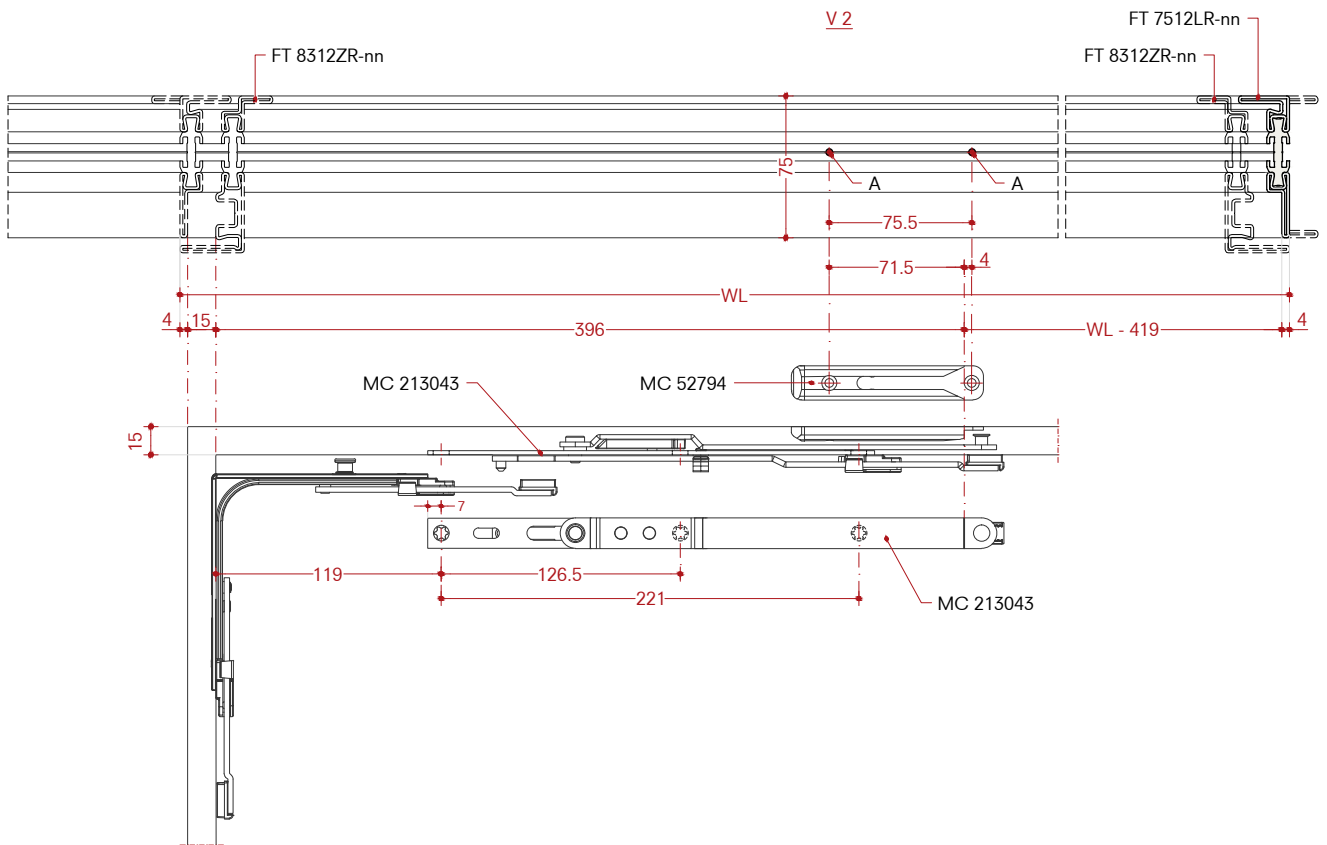
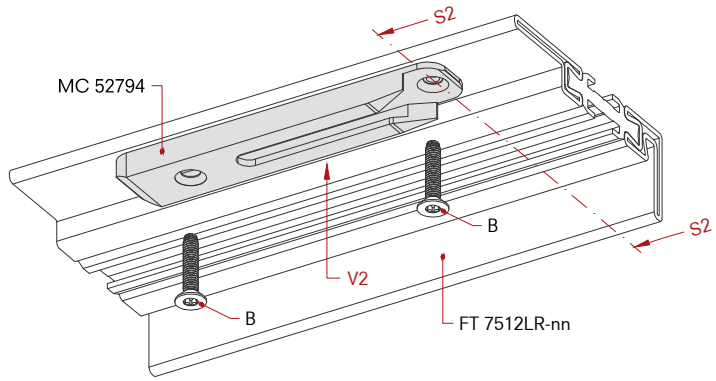
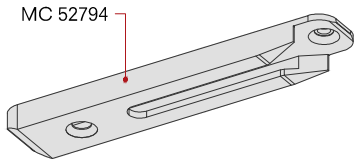
- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite

WL = Larghezza anta

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo

WL = Longitud hoja



**Opening restrictor**

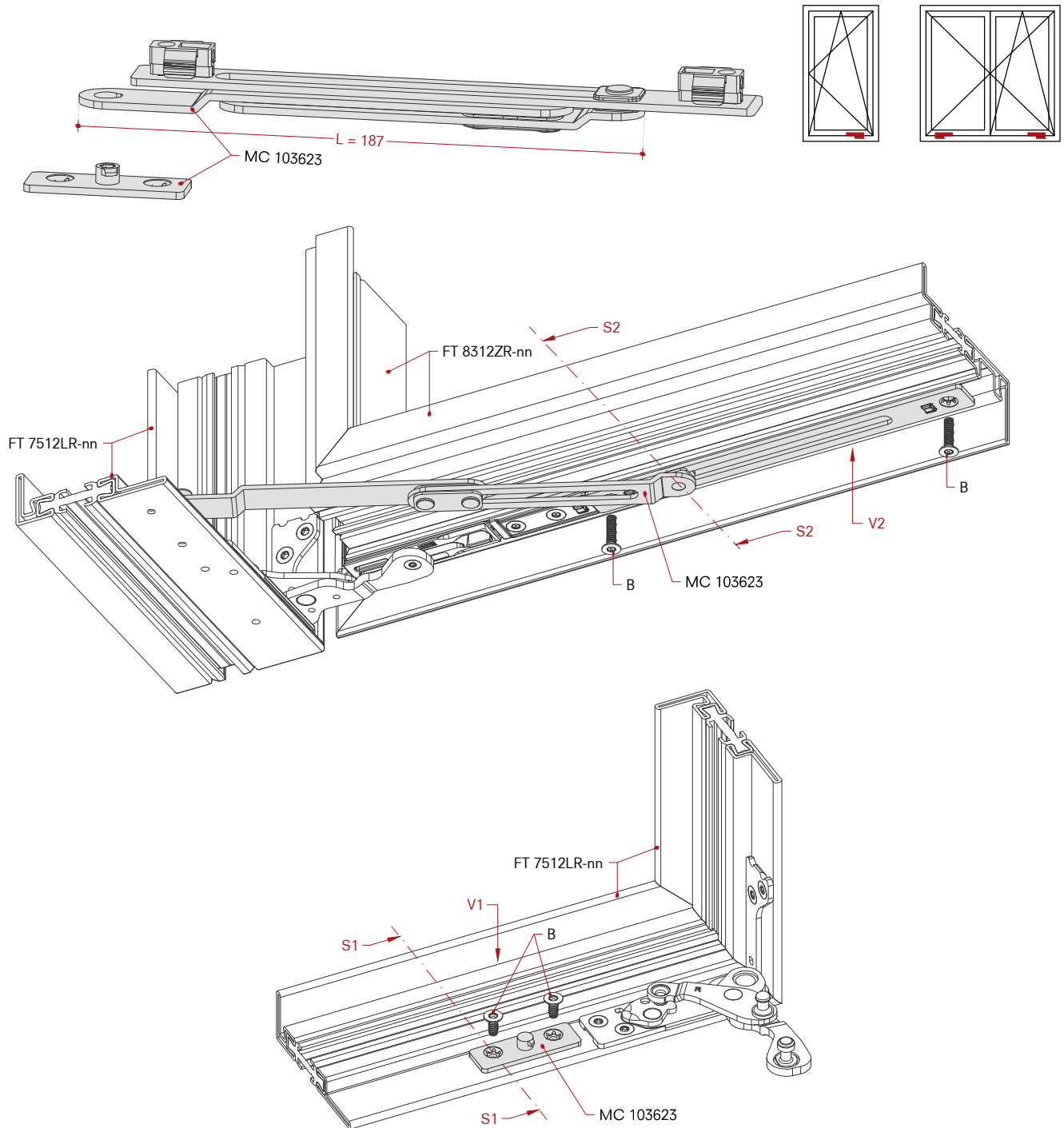
L = 187 mm  
 MC 103623

**Limitatore di apertura**

L = 187 mm  
 MC 103623

**Limitador de apertura**

L = 187 mm  
 MC 103623



W75TB - 0028 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Countersunk screw M4x10
- D) Cut the screw

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Vite testa svasata M4x10
- D) Accorciare la vite

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Tornillo avellanado M4x10
- D) Recortar tornillo



**Please note minimum sash rebate widths:**

For Turn&Tilt and Turn-only window with vertical tilt lock bolt, the sash rebate width is  $\geq 490$  mm

For Turn&Tilt window with horizontal tilt lock bolt, the sash rebate width is  $\geq 560$  mm

**Si prega di notare le larghezze minime di battuta dell'anta:**

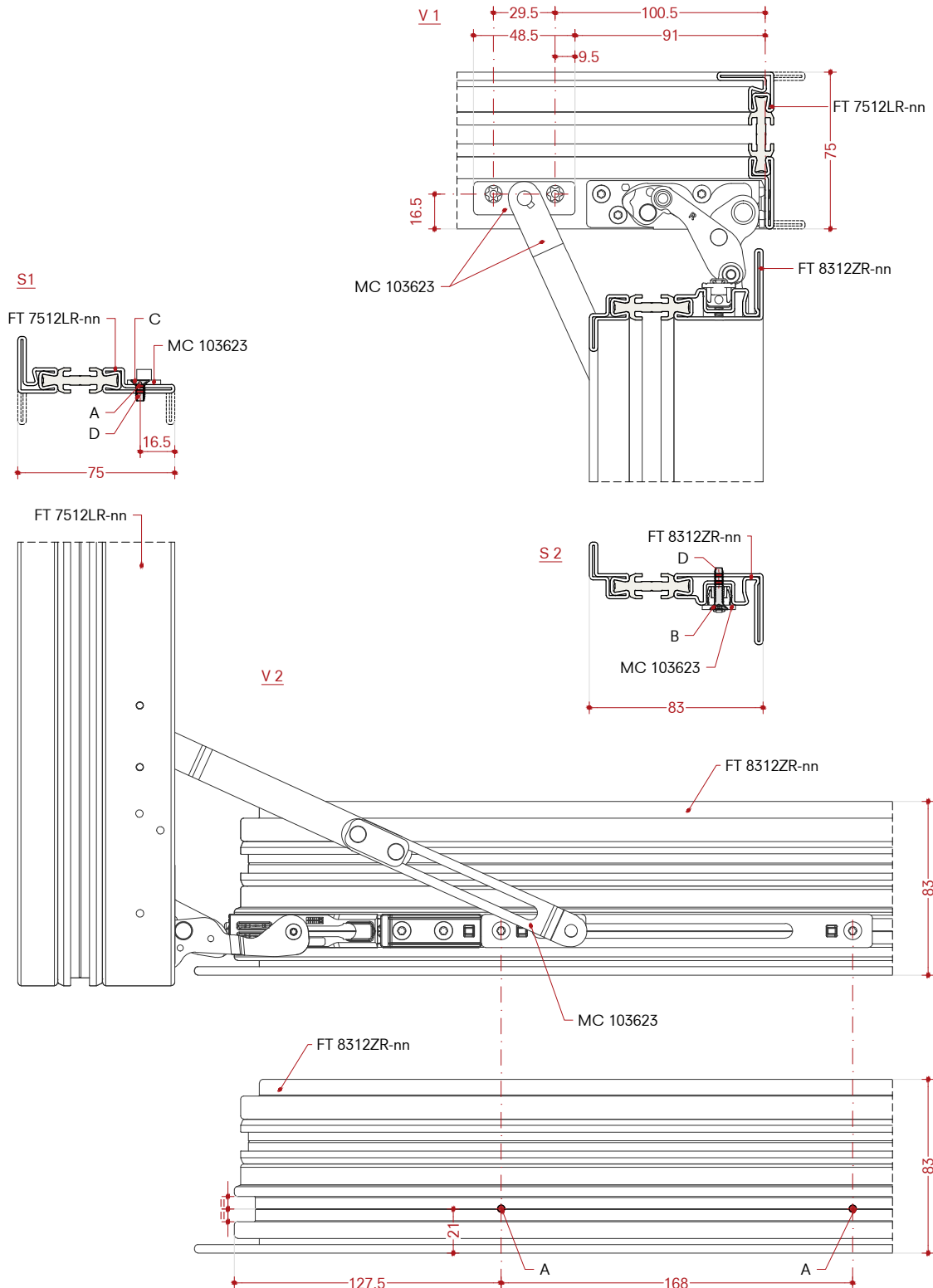
Per la finestra ad anta e ribalta e solo anta con chiavistello ad inclinazione verticale, la larghezza della battuta dell'anta è  $\geq 490$  mm

Per la finestra ad anta e ribalta con chiavistello di blocco dell'inclinazione orizzontale, la larghezza della battuta dell'anta è  $\geq 560$  mm

**Tenga en cuenta los anchos mínimos de los rebordes de las hojas:**

Para ventanas oscilobatientes y solo hoja con pestillo inclinado verticalmente, el ancho del rebaje de hoja es  $\geq 490$  mm

Para ventanas oscilobatientes con pestillo de bloqueo de inclinación horizontal, el ancho de la ranura de la hoja es  $\geq 560$  mm



**Travel restriction 90°**

MC 357081

surface-mounted on corner elements

**Limitatore di apertura 90°**

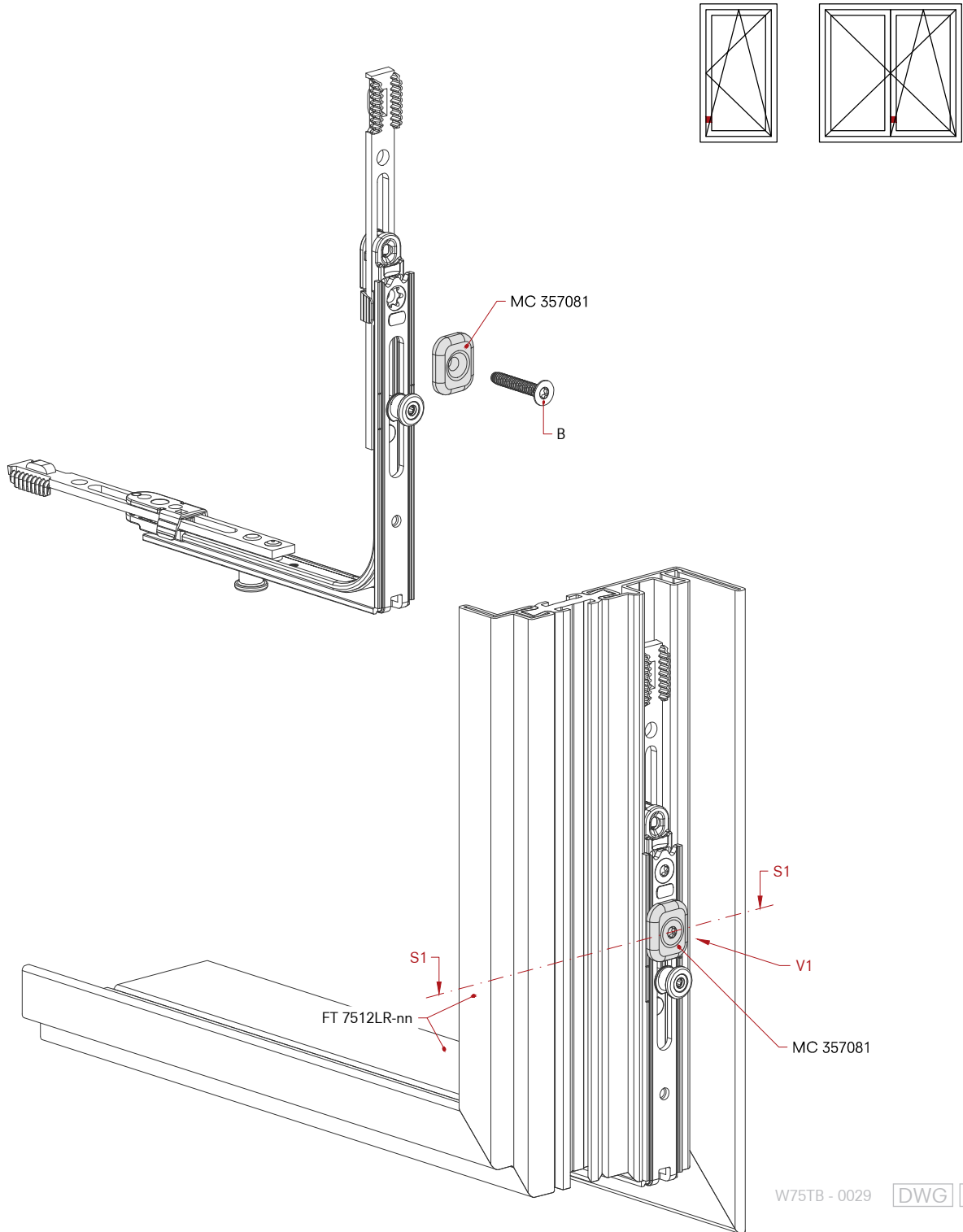
MC 357081

su elementi angolari

**Limitador de apertura 90°**

MC 357081

en elementos de esquina



Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x24
- C) Cut the screw

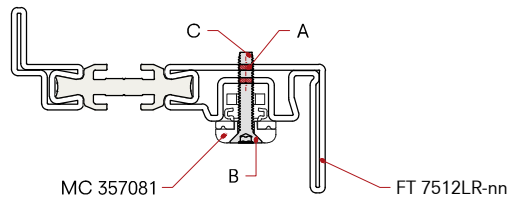
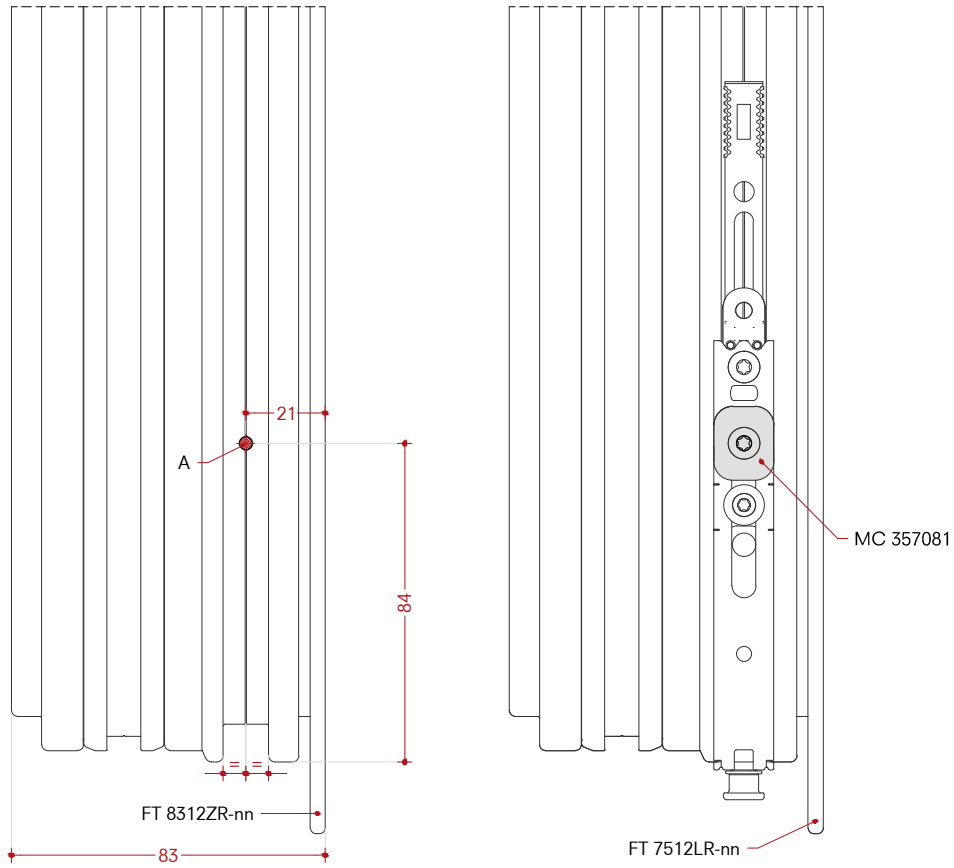
Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x24
- C) Accorciare la vite

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x24
- C) Recortar tornillo

V 1



S 1

**Adaptor with contact sensor KVS**

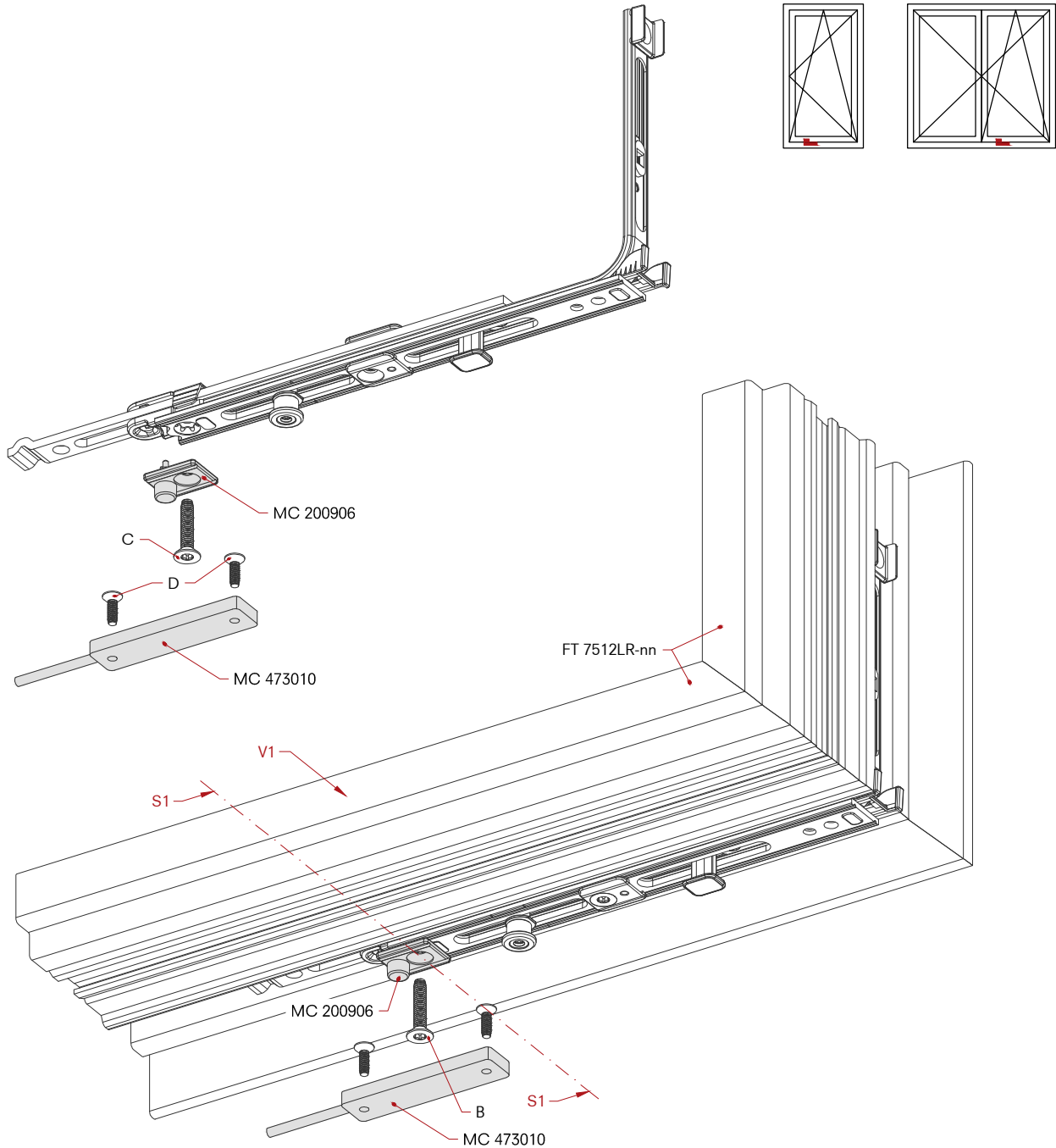
MC 200906  
 Flat magnet contact safety class 2  
 MC 473010

**Adattatore con contatto KVS**

MC 200906  
 Contatto magnetico piatto classe di protezione 2  
 MC 473010

**Adaptador con contacto KVS**

MC 200906  
 Protección de contacto magnético plano clase 2  
 MC 473010



W75TB - 0030 DWG DXF

Drawing represents right opening  
 (left opening is the mirror image)

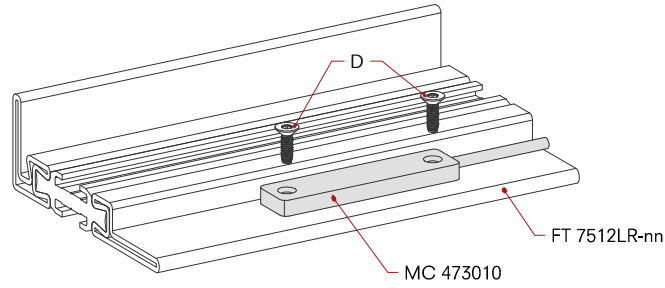
- A) Hole Ø3.3 mm
- B) Hole Ø2.5 mm
- C) Countersunk screw M4x20
- D) Countersunk screw M3x10
- E) Cut the screw

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

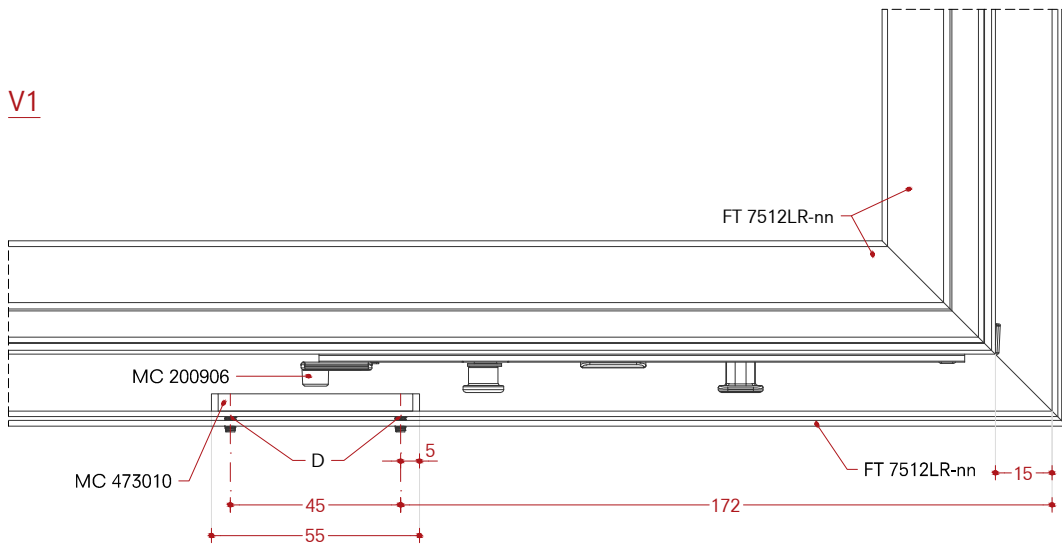
- A) Foro Ø3.3 mm
- B) Foro Ø2.5 mm
- C) Vite testa svasata M4x20
- D) Vite testa svasata M3x10
- E) Accorciare la vite

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

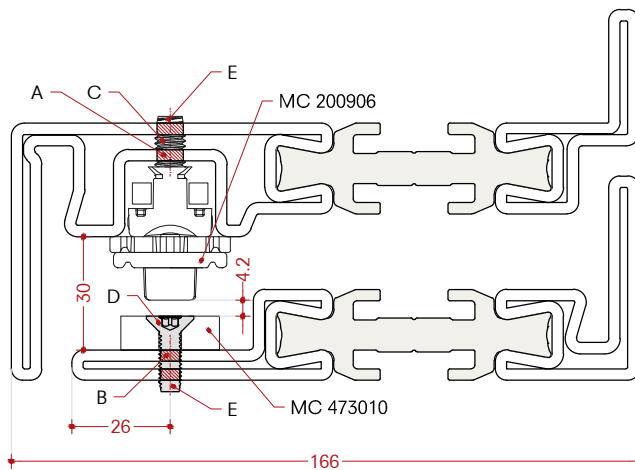
- A) Oreficio Ø3.3 mm
- B) Oreficio Ø2.5 mm
- C) Tornillo avellanado M4x20
- D) Tornillo avellanado M3x10
- E) Recortar tornillo



**V1**



**S1**



**Turn-only drive gear variable**

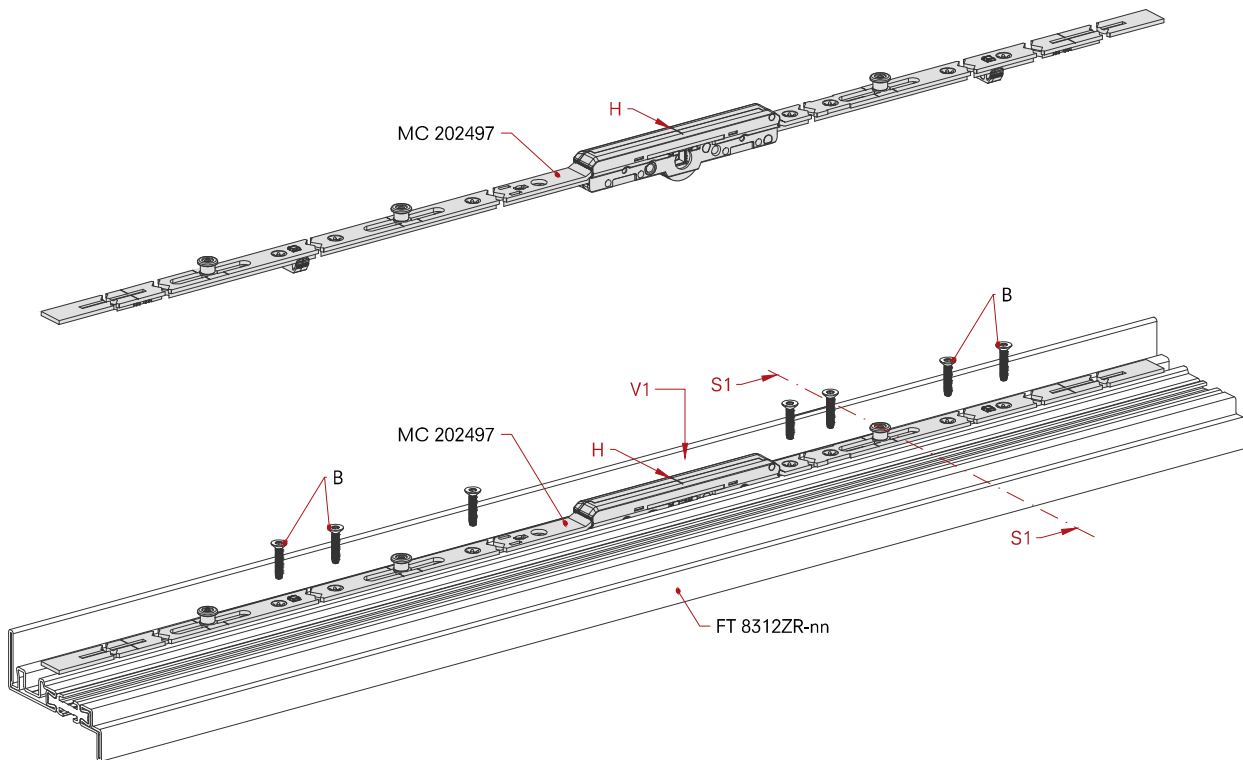
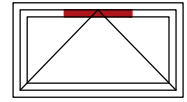
Bottom-hung window  
 Backset 6.5 mm  
 MC 202497

**Cremonese sola rotazione variabile**

Finestra anta ribalta  
 Entrata 6.5 mm  
 MC 202497

**Engranaje de rotación variable**

Ventana oscilante  
 Entrada 6.5 mm  
 MC 202497

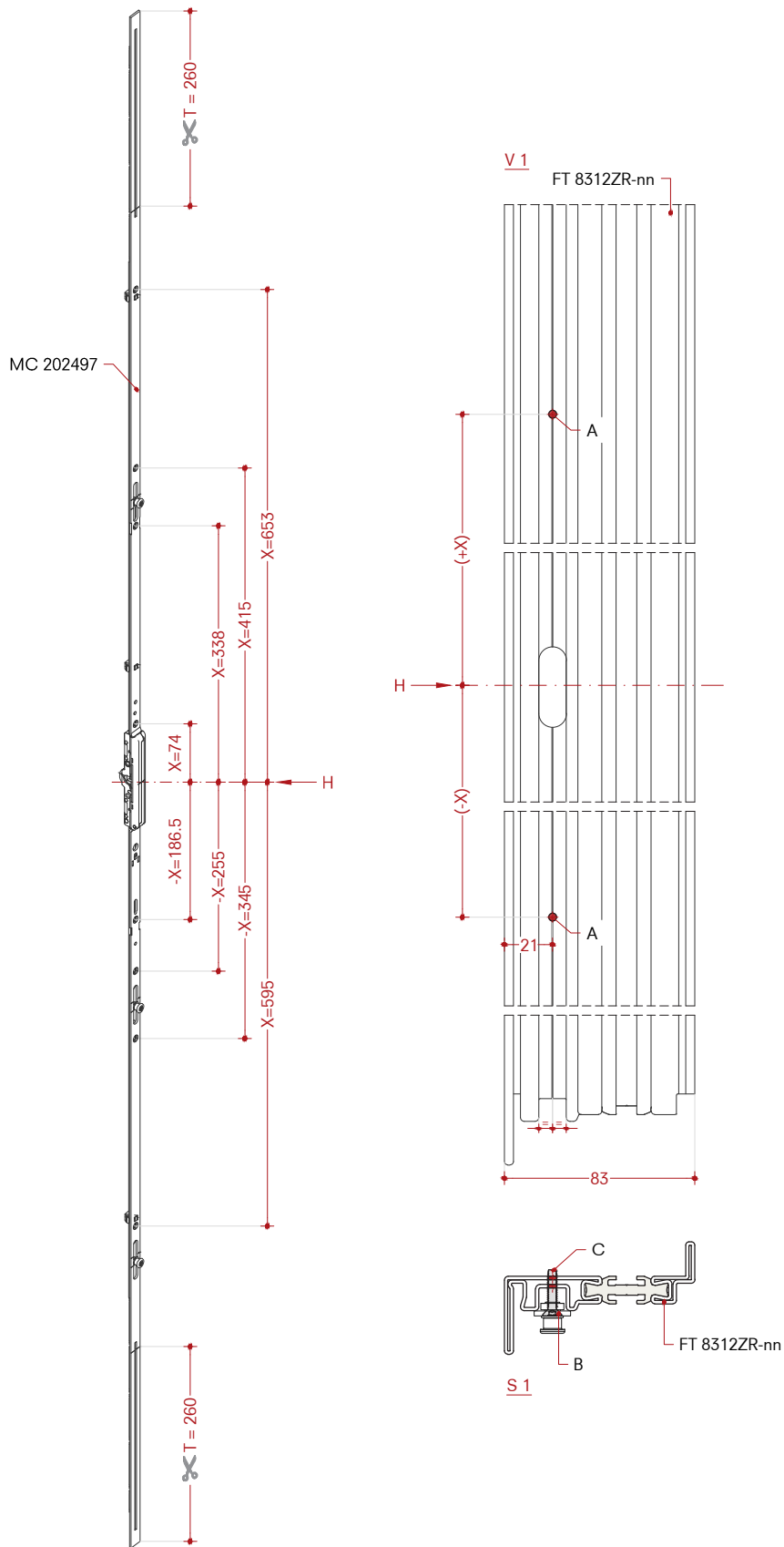


W75TB - 0031 DWG DXF

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- H) Handle centre
- T) Maximum cut drive gear
- X) Position screw connection drive gear

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- H) Centro maniglia
- T) Taglio massimo cremonese
- X) Posizionamento vite cremonese

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- H) Centro de la manija
- T) Corte de engranaje máximo
- X) Posicionamiento del tornillo de engranaje



**Handle position**

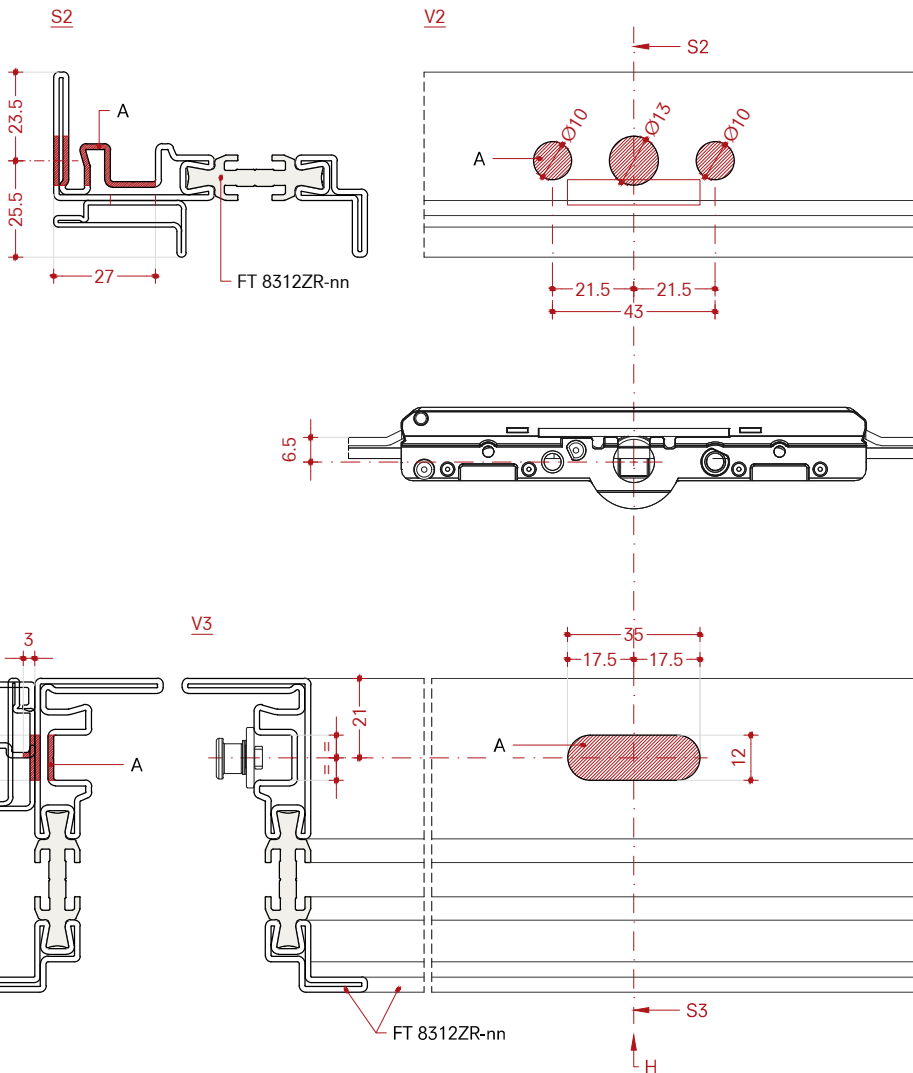
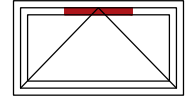
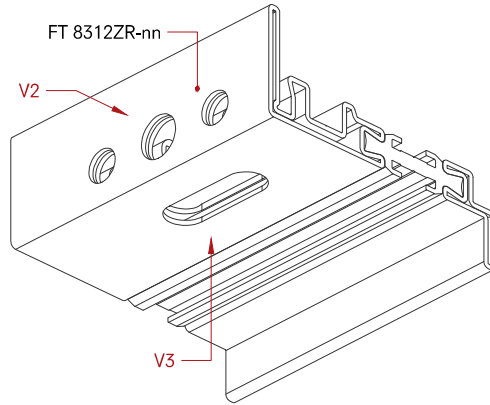
Bottom-hung window  
 Hardware 6.5 mm backset  
 Drive gear variable

**Posizione maniglia**

Finestra anta ribalta  
 Entrata 6.5 mm  
 Cremonese variabile

**Posición de la manija**

Ventana oscilante  
 Entrada 6.5 mm  
 Engranaje variable



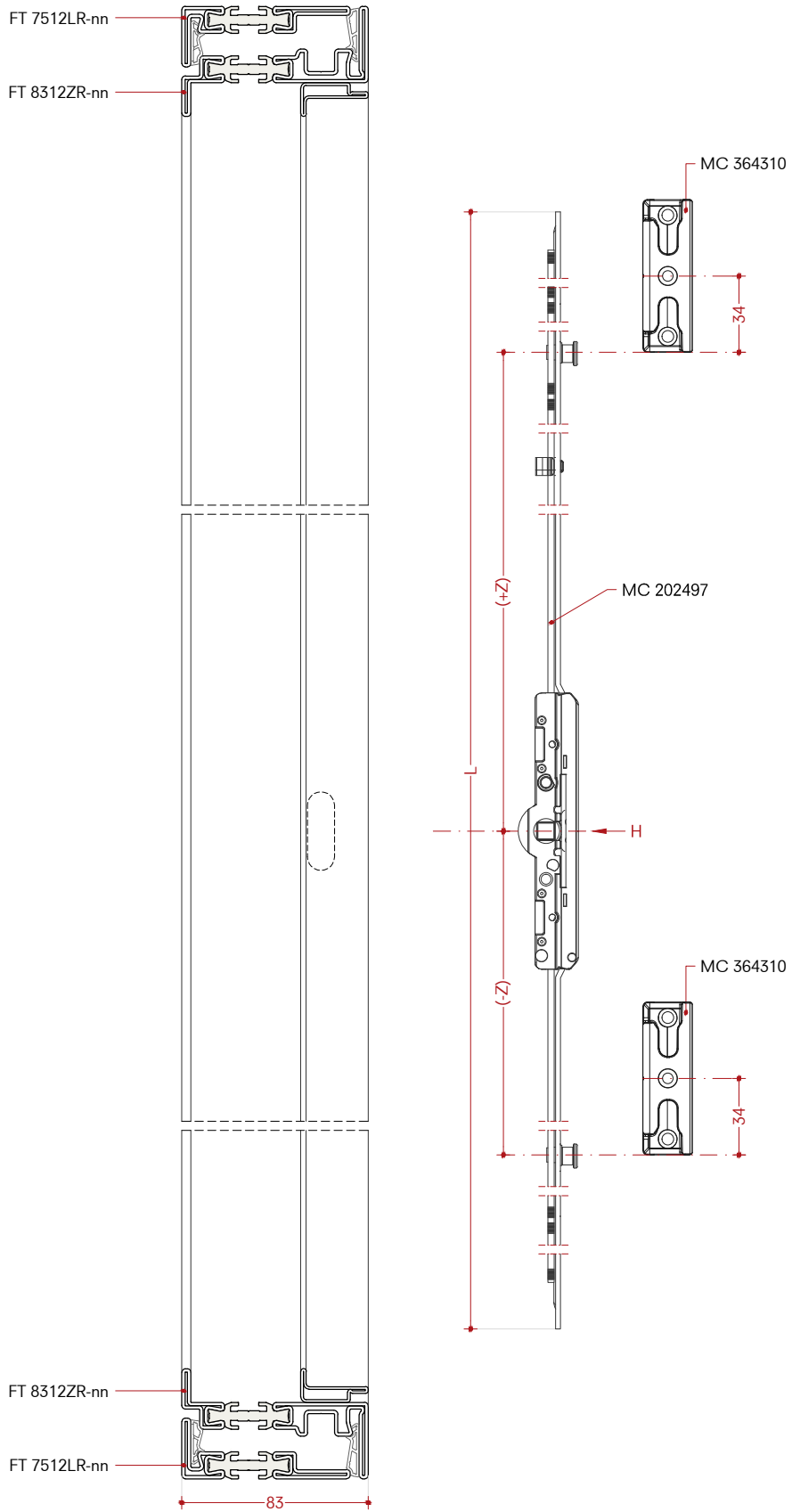
W75TB - 0032 [DWG] [DXF]

A) Cut off profile  
 H) Handle centre  
 L) Length drive gear  
 Z) Position locking cam

A) Taglio profilo  
 H) Centro maniglia  
 L) Lunghezza massima cremonese  
 X) Posizionamento camma di bloccaggio

A) Corte de perfil  
 H) Centro de la manija  
 L) Longitud máxima del engranaje  
 X) Posicionamiento de la leva de bloqueo





|           | L    | Z1   | Z2   | Z3  |
|-----------|------|------|------|-----|
| MC 202497 | 2040 | -640 | -300 | 370 |

**Espagnolette - centred handle**

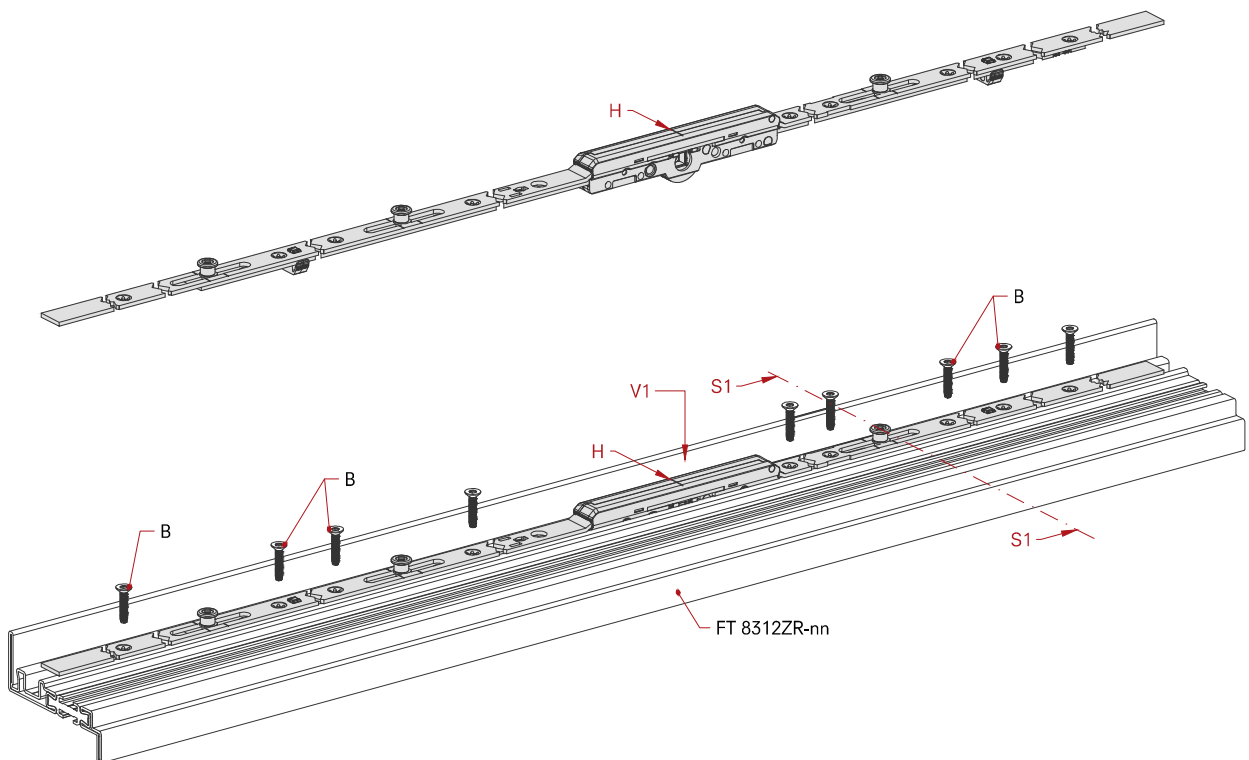
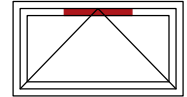
Bottom-hung window  
 Backset 6.5 mm  
 MC 208323 - MC 208324  
 MC 208325 - MC 208326  
 MC 208327

**Posizione maniglia centrata**

Finestra anta ribalta  
 Entrata 6.5 mm  
 MC 208323 - MC 208324  
 MC 208325 - MC 208326  
 MC 208327

**Posición de la manija centrada**

Ventana oscilante  
 Entrada 6.5 mm  
 MC 208323 - MC 208324  
 MC 208325 - MC 208326  
 MC 208327

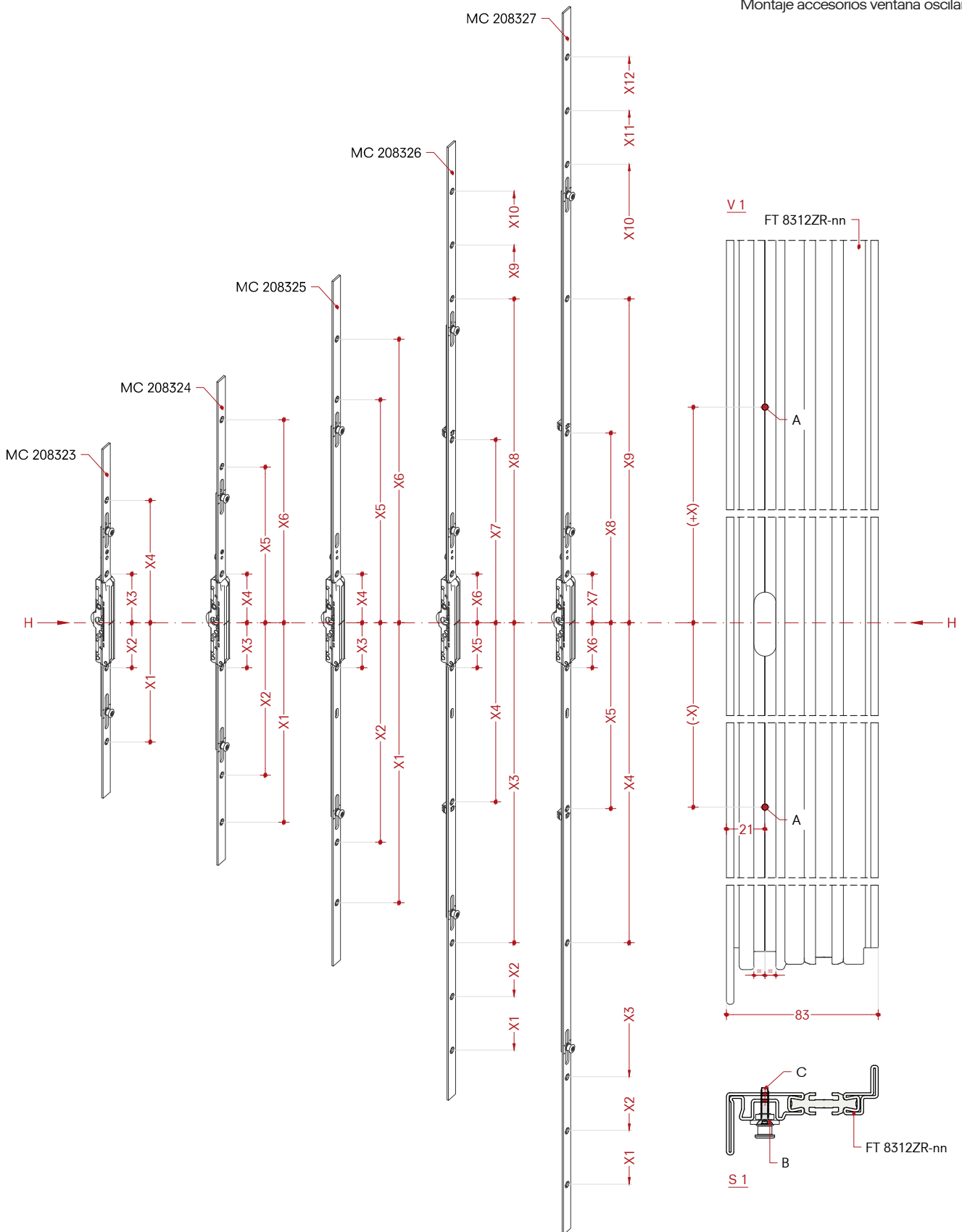


W75TB - 0033 DWG DXF

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x20
- C) Cut the screw
- H) Handle centre
- X) Position screw connection drive gear

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x20
- C) Accorciare la vite
- H) Centro maniglia
- X) Posizionamento vite cremonese

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x20
- C) Recortar tornillo
- H) Centro de la manija
- X) Posicionamiento del tornillo de engranaje



|           | X1   | X2   | X3   | X4   | X5   | X6  | X7  | X8  | X9  | X10 | X11 | X12 |
|-----------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| MC 208323 | -180 | -70  | 70   | 180  | -    | -   | -   | -   | -   | -   | -   | -   |
| MC 208324 | -300 | -230 | -70  | 70   | 230  | 300 | -   | -   | -   | -   | -   | -   |
| MC 208325 | -420 | -330 | -70  | 70   | 330  | 420 | -   | -   | -   | -   | -   | -   |
| MC 208326 | -640 | -560 | -480 | -270 | -70  | 70  | 270 | 480 | 560 | 640 | -   | -   |
| MC 208327 | -840 | -760 | -680 | -480 | -280 | -70 | 70  | 280 | 480 | 680 | 760 | 840 |

**Handle position**

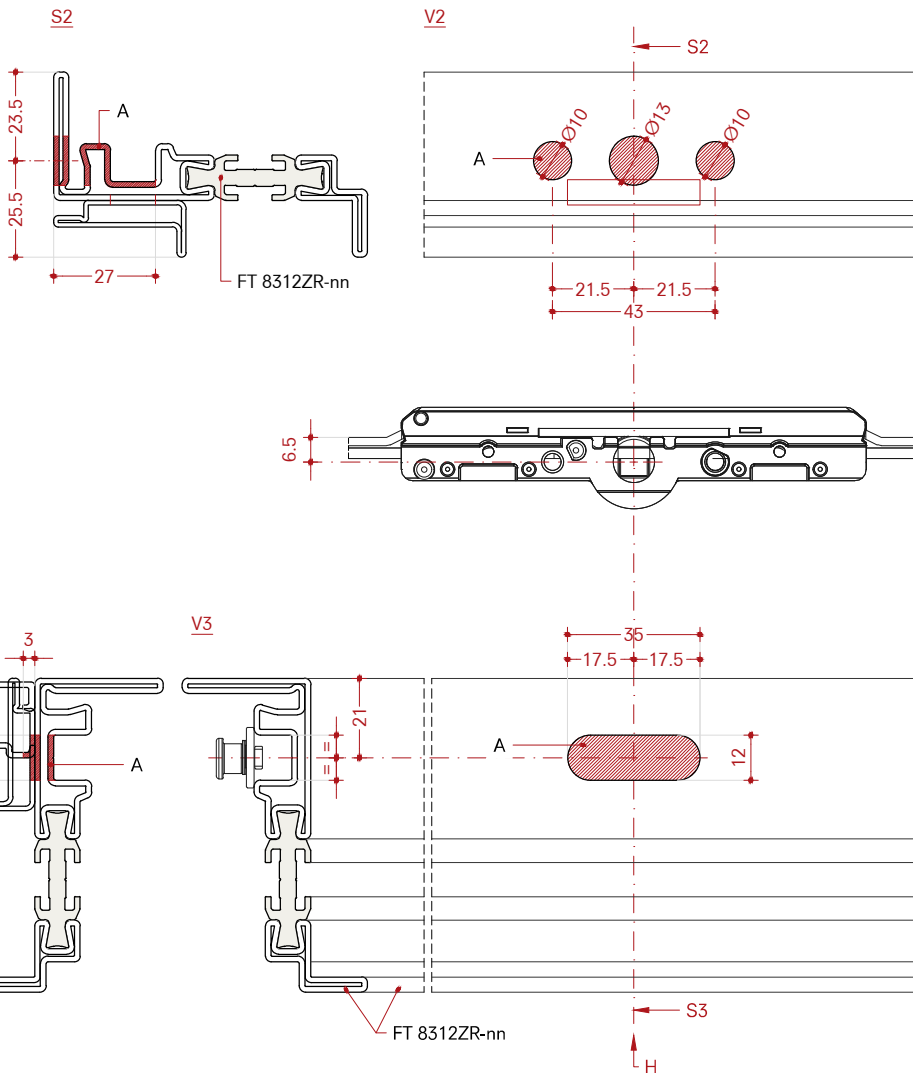
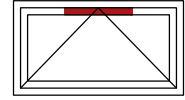
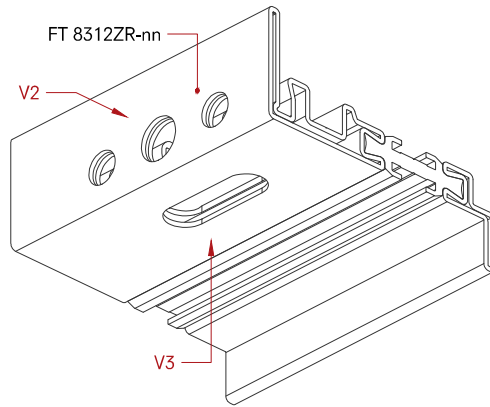
Bottom-hung window  
 Hardware 6.5 mm backset  
 Drive gear fixed

**Posizione maniglia**

Finestra anta ribalta  
 Entrata 6.5 mm  
 Cremonese fisso

**Posición de la manija**

Ventana oscilante  
 Entrada 6.5 mm  
 Engranaje fijo

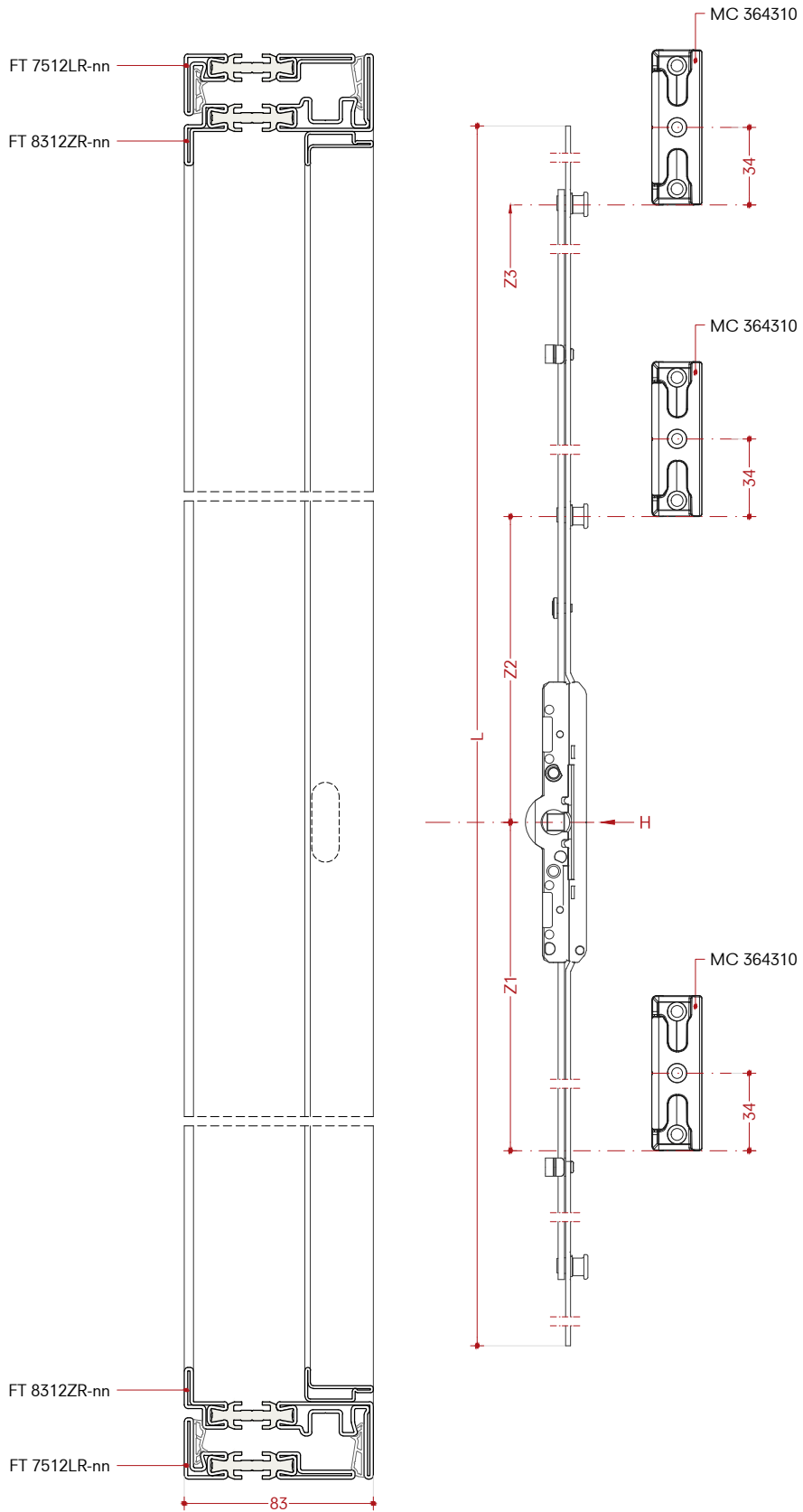


W75TB - 0034 [DWG] [DXF]

A) Cut off profile  
 H) Handle centre  
 L) Length drive gear  
 Z) Position locking cam

A) Taglio profilo  
 H) Centro maniglia  
 L) Lunghezza massima cremonese  
 X) Posizionamento camma di bloccaggio

A) Corte de perfil  
 H) Centro de la manija  
 L) Longitud máxima del engranaje  
 X) Posicionamiento de la leva de bloqueo

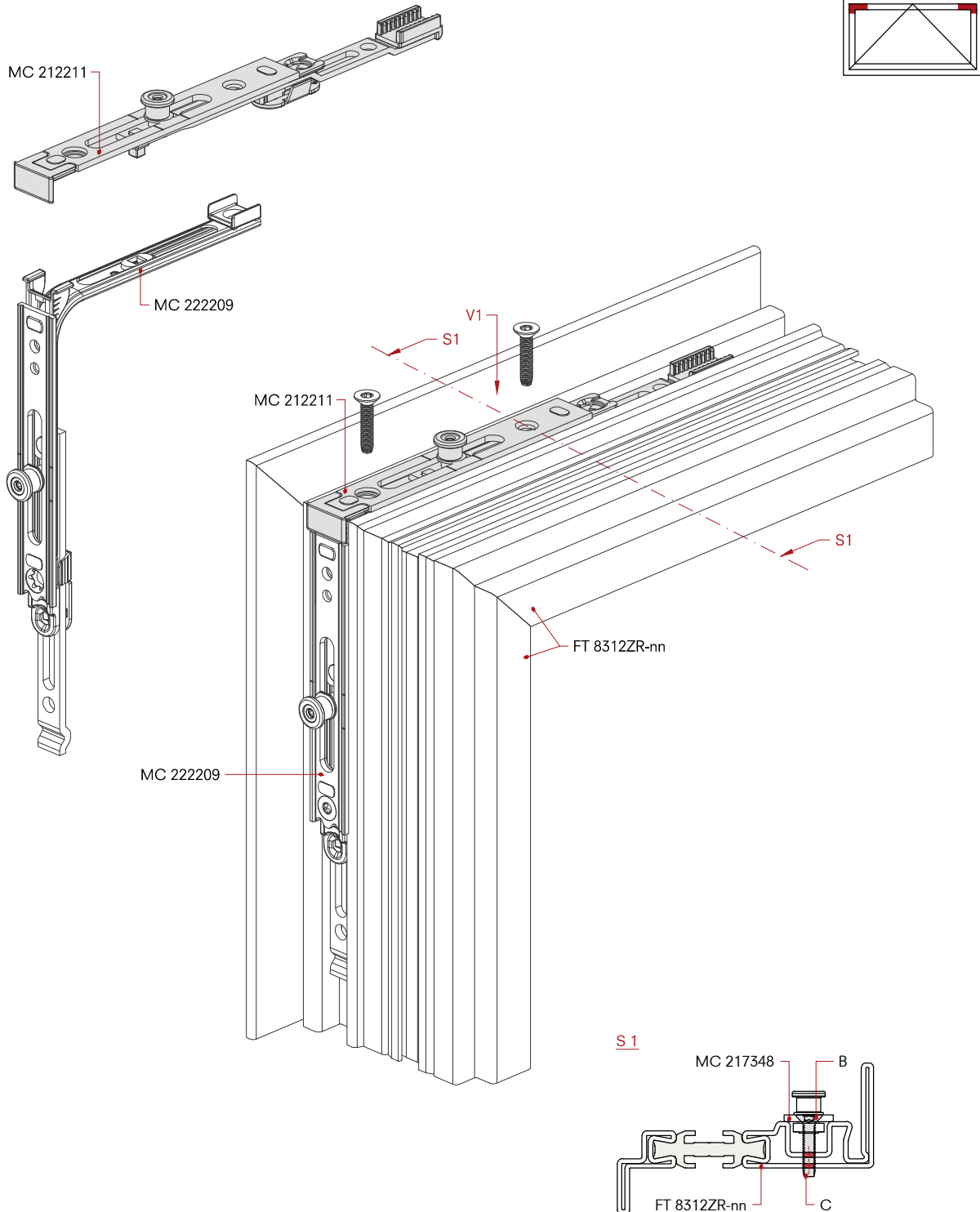


|           | L    | Z1   | Z2  | Z3  |
|-----------|------|------|-----|-----|
| MC 208323 | 520  | -135 | 135 | -   |
| MC 208324 | 720  | -185 | 185 | -   |
| MC 208325 | 1020 | -285 | 285 | -   |
| MC 208326 | 1420 | -435 | 135 | 435 |
| MC 208327 | 1820 | -635 | 135 | 635 |

**End piece top 180°**  
 with 1 locking cam  
 Bottom-hung window  
 MC 212211

**Terminale superiore 180°**  
 con 1 camma di bloccaggio  
 Finestra anta ribalta  
 MC 212211

**Pieza final superior 180°**  
 con 1 leva de bloqueo  
 Ventana oscilante  
 MC 212211

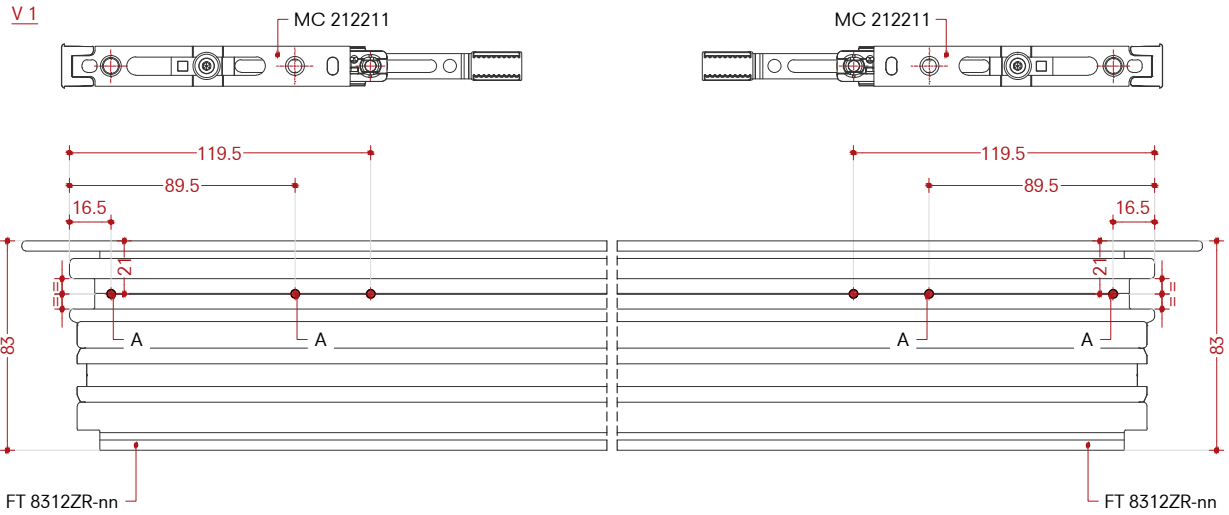


A) Cut off profile  
 H) Handle centre  
 L) Length drive gear  
 Z) Position locking cam

A) Taglio profilo  
 H) Centro maniglia  
 L) Lunghezza massima cremonese  
 X) Posizionamento camma di bloccaggio

A) Corte de perfil  
 H) Centro de la manija  
 L) Longitud máxima del engranaje  
 X) Posicionamiento de la leva de bloqueo

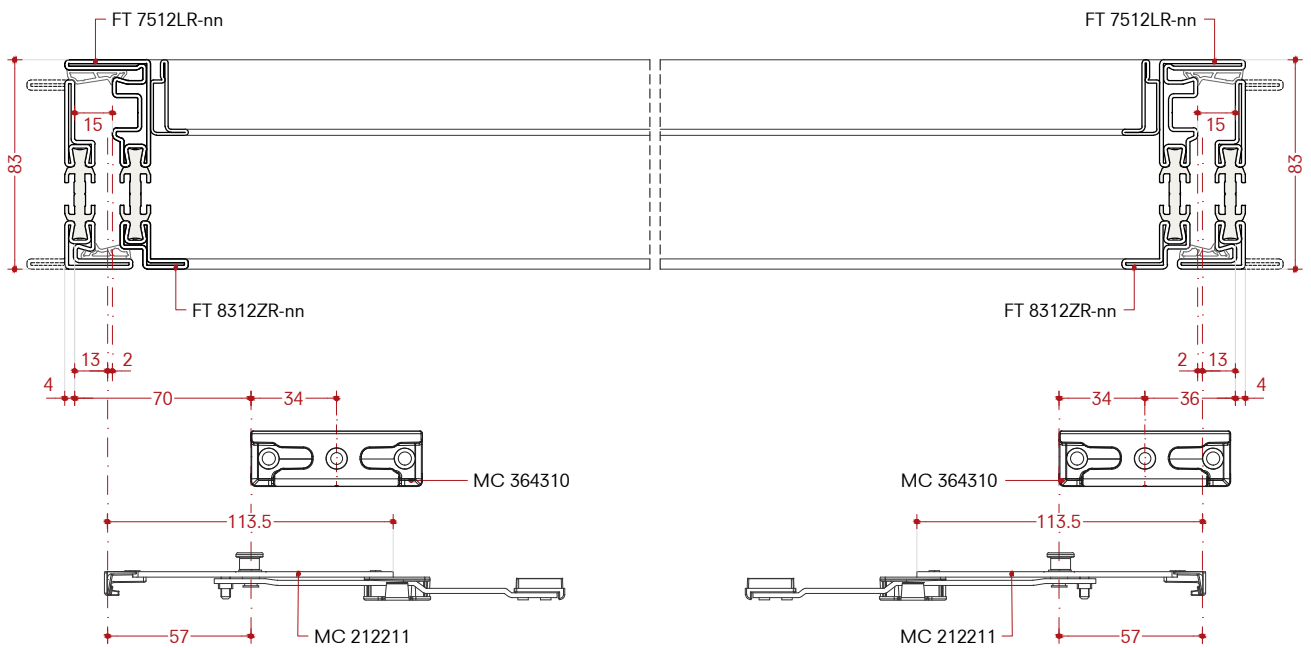
W75TB - 0035 DWG DXF



**Positioning striker plate**  
 (only for MC 217348 / MC 217349)

**Posizionamento del riscontro**  
 (solo per MC 217348 / MC 217349)

**Posicionamiento del pieza de bloqueo**  
 (solo para MC 217348 / MC 217349)



**Tilt-only hinge arm with hinge**

MC 217723 R  
 MC 217724 L

Leaf weight ≤ 80 kg  
 Leaf size ≤ 1.9 m<sup>2</sup>

**Braccio solo inclinabile con cerniera**

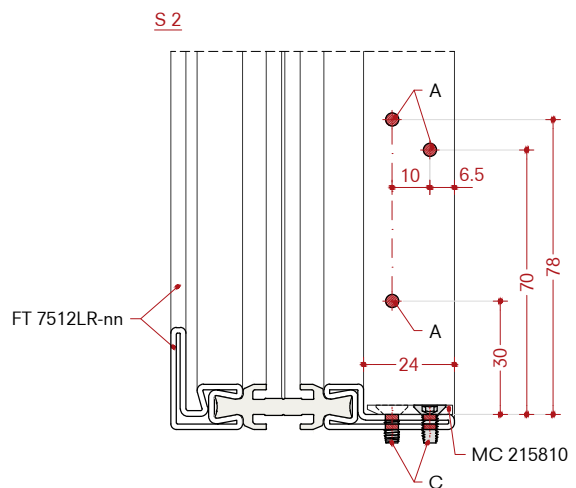
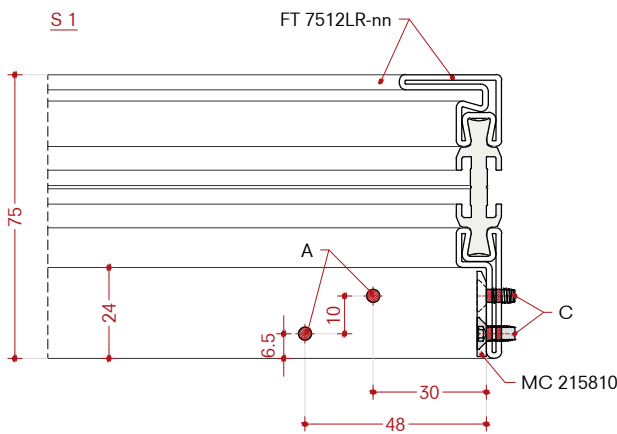
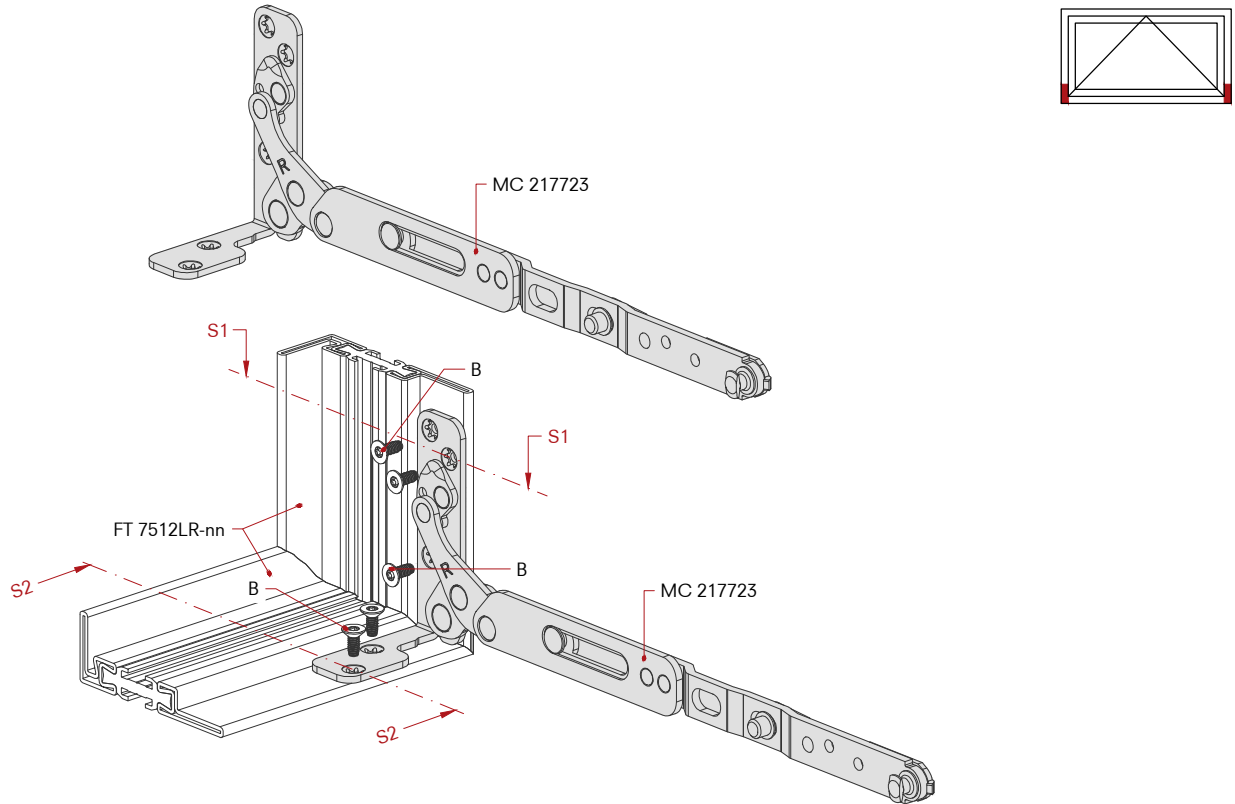
MC 217723 R  
 MC 217724 L

Peso anta ≤ 80 kg  
 Dimensioni anta ≤ 1.9 m<sup>2</sup>

**Brazo solo inclinabile con bisagra**

MC 217723 R  
 MC 217724 L

Peso de la hoja ≤ 80 kg  
 Dimensiones de la hoja ≤ 1.9 m<sup>2</sup>



W75TB - 0036 [DWG] [DXF]

Drawing represents right opening  
 (left opening is the mirror image)

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x10
- C) Cut the screw

L = Left opening  
 R = Right opening

Il disegno rappresenta l'apertura destra  
 (l'apertura sinistra è l'immagine speculare)

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x10
- C) Accorciare la vite

L = Apertura sinistra  
 R = Apertura destra

El dibujo representa la apertura derecha  
 (la apertura izquierda es la imagen especular)

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x10
- C) Recortar tornillo

L = Apertura izquierda  
 R = Apertura derecha



**Please note:**

- Observe guideline "Restrictor and cleaning stays for tilt-only sashes and tilt-only fanlights".
- The maximum sash weight must not be exceeded.
- Fasten according to: TBDK guideline Gütegemeinschaft Schlösser und Beschläge (Locks and Fittings Quality Association - www.schlossindustrie.de).

**Nota:**

- Rispettare la guida "Sostegno di limitazione e di pulizia per ante solo anta e sopra luce solo ribalta".
- Il peso massimo dell'anta non deve essere superato.
- Fissare secondo la linea guida TBDK Gütegemeinschaft Schlösser und Beschläge (Associazione per la qualità delle serrature e dei raccordi - www.schlossindustrie.de).

**Nota:**

- Observe la guía "Limitación y soporte de limpieza para puertas de guillotina y ventanas de popa basculantes".
- No se debe exceder el peso máximo de la puerta.
- Fije según la directriz TBDK Gütegemeinschaft Schlösser und Beschläge (Asociación para la calidad de cerraduras y herrajes - www.schlossindustrie.de).

**Height adjustment**

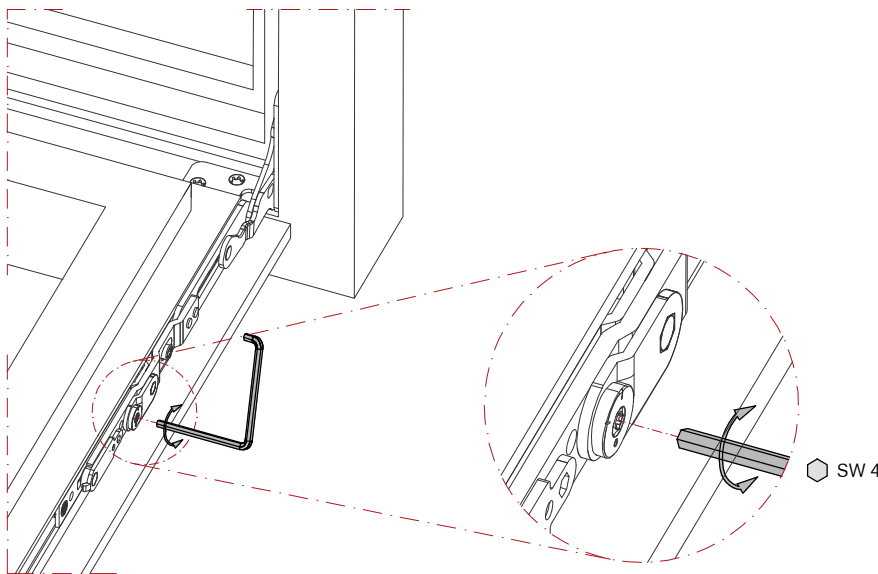
⬡ Adjustment range +1/-2.5 mm with SW 4

**Regolazione verticale**

⬡ Regolazione +1/-2.5 mm con SW 4

**Ajuste vertical**

⬡ Ajuste +1/-2.5 mm con SW 4



**Pressure adjustment**

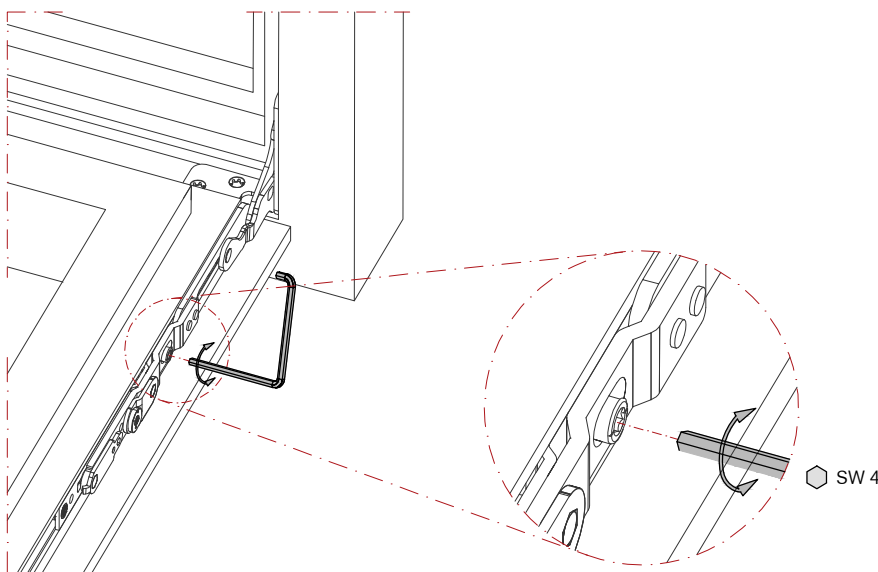
⬡ Adjustment range +1 mm with SW 4

**Regolazione pressione di contatto**

⬡ Regolazione +1 mm con SW 4

**Ajuste de presión de contacto**

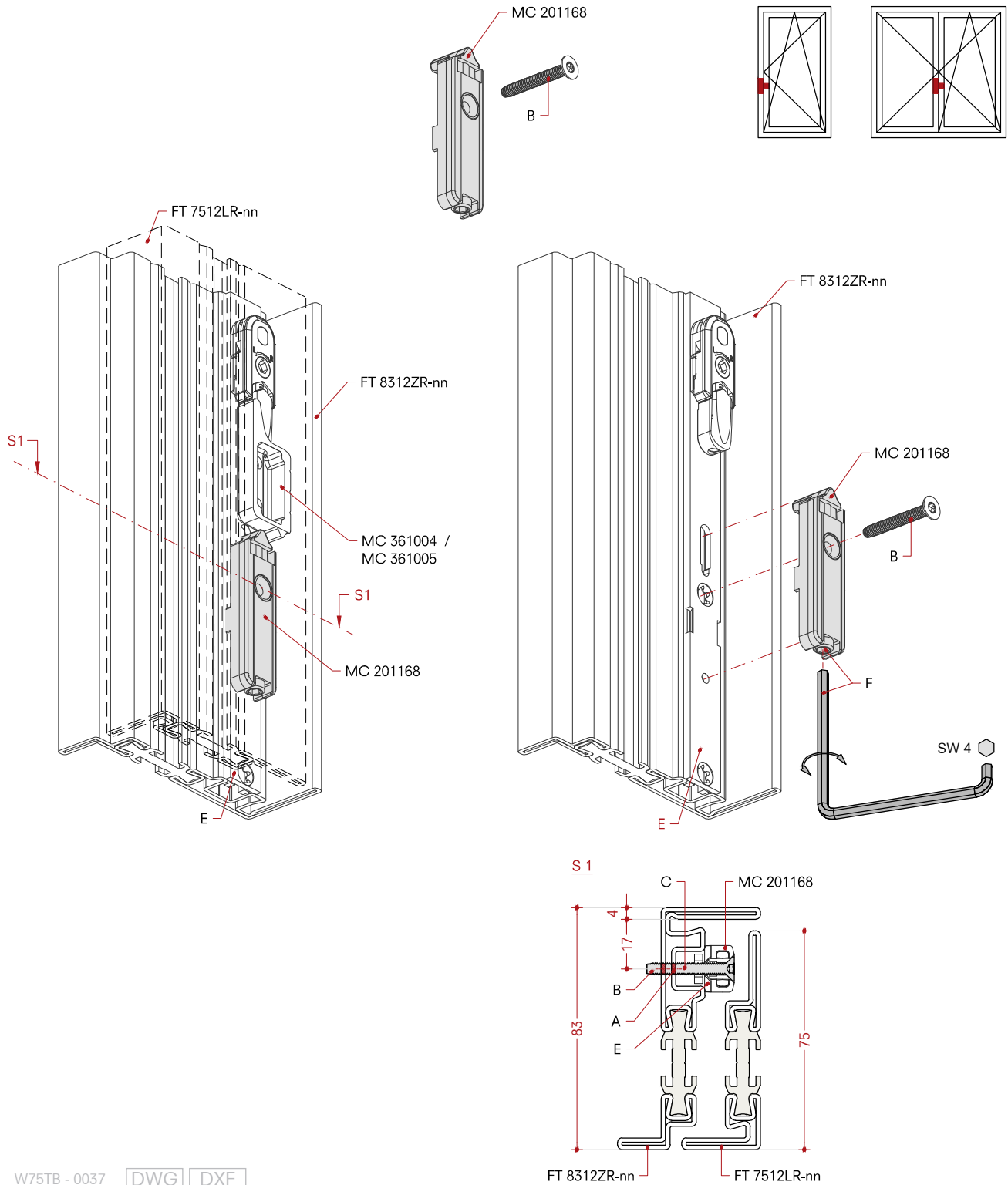
⬡ Ajuste +1 mm con SW 4



**Door catch**  
 MC 201168  
 Installed on faceplate

**Scrocco porta**  
 MC 201168  
 Installato sul frontalino

**Pestillo de puerta**  
 MC 201168  
 Instalado en la placa frontal



W75TB - 0037 DWG DXF

- A) Hole Ø3.3 mm
- B) Countersunk screw M4x30
- C) Cut the screw
- E) Faceplate
- F) Height adjustment ±2 mm with SW 4

- A) Foro Ø3.3 mm
- B) Vite testa svasata M4x30
- C) Accorciare la vite
- E) Frontalino
- F) Regolazione in altezza ±2 mm con SW 4

- A) Oreficio Ø3.3 mm
- B) Tornillo avellanado M4x30
- C) Recortar tornillo
- E) Placa frontal
- F) Regulación de altura ± 2 mm con SW 4

**Bullet catch**

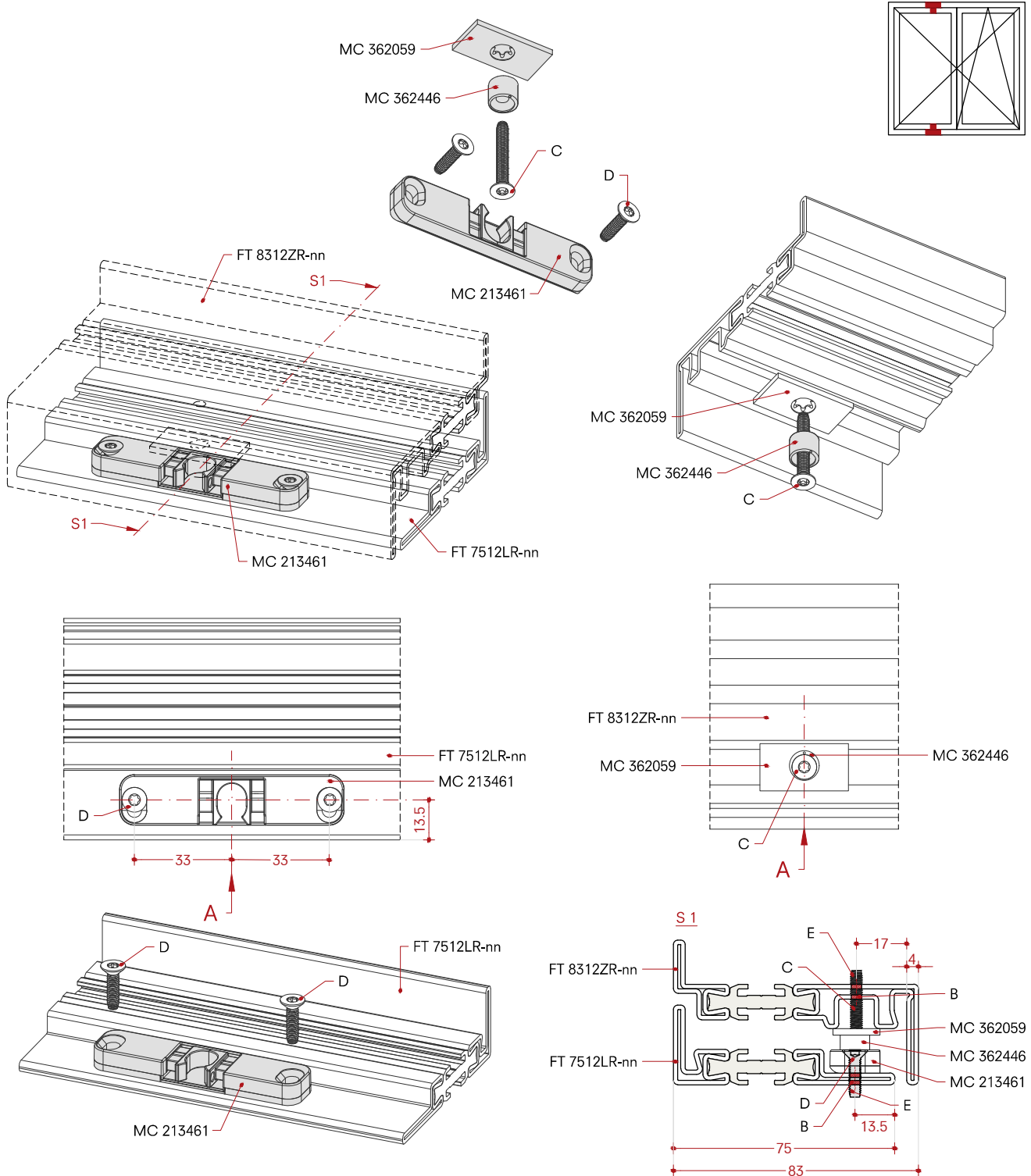
MC 213461  
 with Bullet-catch roll MC 362446  
 and packer for bullet catch for  
 Eurogroove MC 362059

**Chiusura perno**

MC 213461  
 con rullo chiusura perno MC 362446  
 e packer perno per Eurogroove  
 MC 362059

**Cierre de pasador**

MC 213461  
 con rodillo de cierre de pasador  
 MC 362446  
 y empaquetador de pasadores para  
 Eurogroove MC 362059



W75TB - 0038 [DWG](#) [DXF](#)

- A) Centre Bullet catch
- B) Hole Ø3.3 mm
- C) Countersunk screw M4x30
- D) Countersunk screw M4x16
- E) Cut the screw

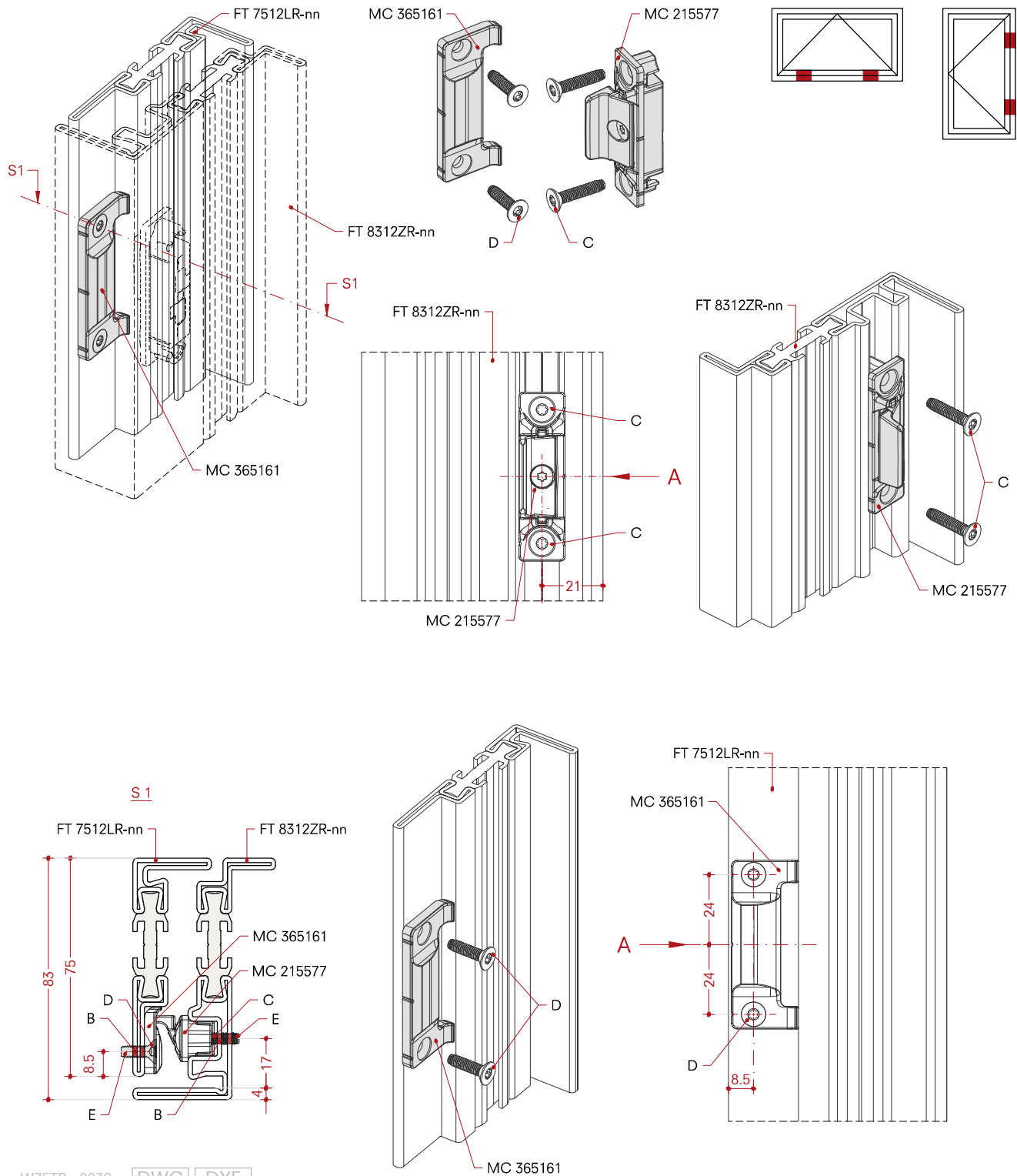
- A) Centro chiusura perno
- B) Foro Ø3.3 mm
- C) Vite testa svasata M4x30
- D) Vite testa svasata M4x16
- E) Accorciare la vite

- A) Cierre con pasador central
- B) Oreficio Ø3.3 mm
- C) Tornillo avellanado M4x30
- D) Tornillo avellanado M4x16
- E) Recortar tornillo

**Concealed compression lock**  
**Frame component MC 365161**  
 and sash component with lateral  
 adjustment MC 215577

**Cerniere centrali a scomparsa**  
 MC 365161  
 e componente anta con  
 aggiustamento laterale MC 215577

**Bisagras ocultas centrales**  
 MC 365161 y elemento de hoja con  
 ajuste lateral MC 215577



W75TB - 0039 DWG DXF

- A) Centre compression lock
- B) Hole Ø3.3 mm
- C) Countersunk screw M4x20
- D) Countersunk screw M4x12
- E) Cut the screw

- A) Centro serratura
- B) Foro Ø3.3 mm
- C) Vite testa svasata M4x20
- D) Vite testa svasata M4x12
- E) Accorciare la vite

- A) Bloqueo central
- B) Oreficio Ø3.3 mm
- C) Tornillo avellanado M4x20
- D) Tornillo avellanado M4x12
- E) Recortar tornillo

**Please note:**

It is necessary to set a spacer block in the area of the compression device (distance piece glazing).

**Nota:**

È necessario posizionare un blocco distanziatore nella zona del dispositivo di compressione.

**Nota:**

Se debe colocar un bloque espaciador en el área del dispositivo de compresión.

**Pressure adjustment**

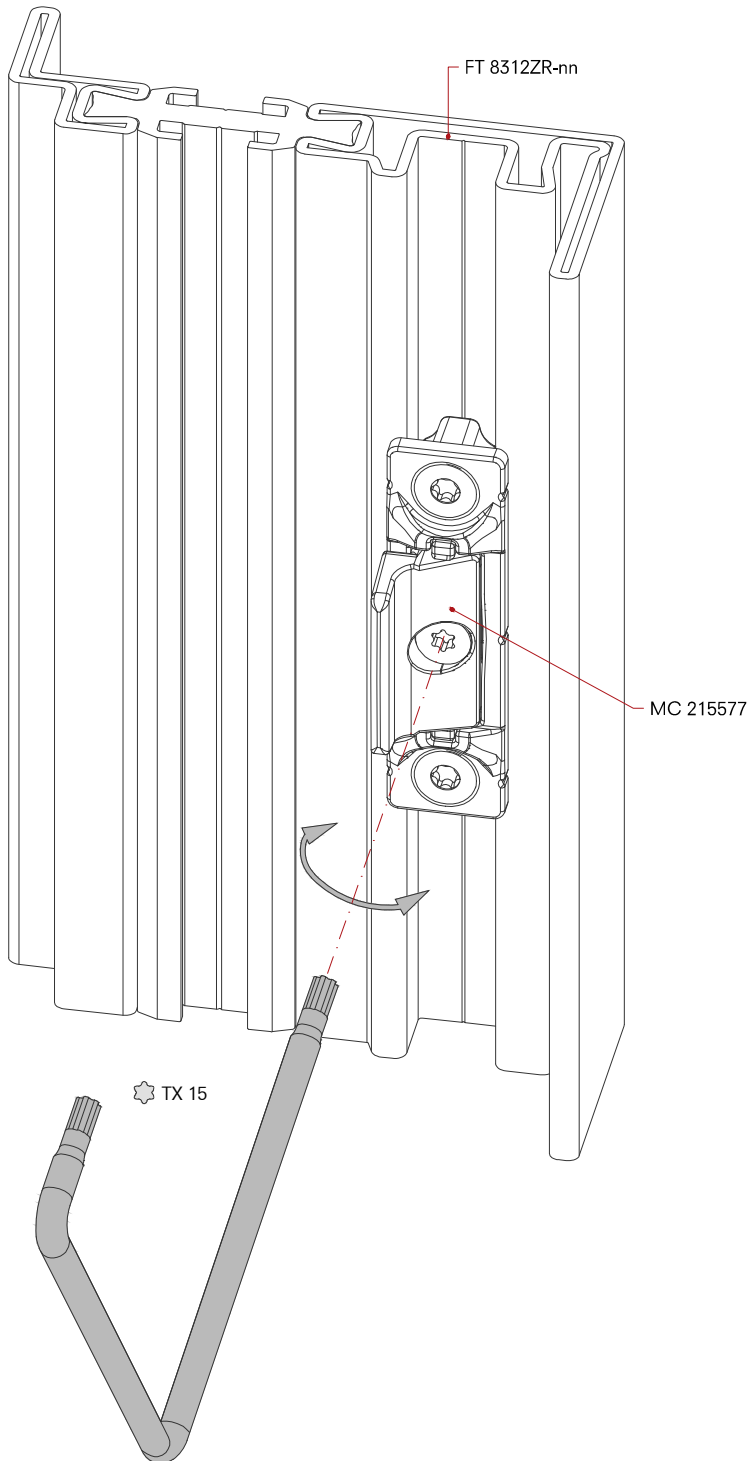
Air gap 10-14 mm adjustable

**Regolazione pressione di contatto**

Regolabile 10-14 mm

**Ajuste de presión de contacto**

Ajustable 10-14 mm



✱ Adjustment range ± 2 mm with TX 15

✱ Regolazione ± 2 mm con TX 15

✱ Ajuste ± 2 mm con TX 15



**Pivot window  
installation**

**Montaggio  
sistema pivot**

**Montaje  
sistema de pivote**

**5.9**

**Legend**

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1 - 1:2

**Legenda**

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1 - 1:2

**Leyenda**

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1 - 1:2

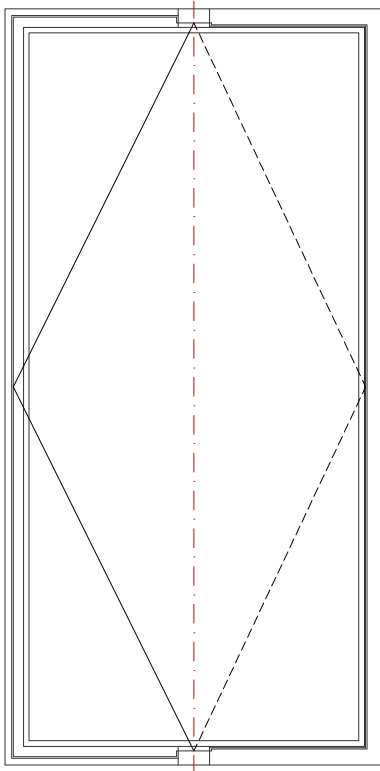




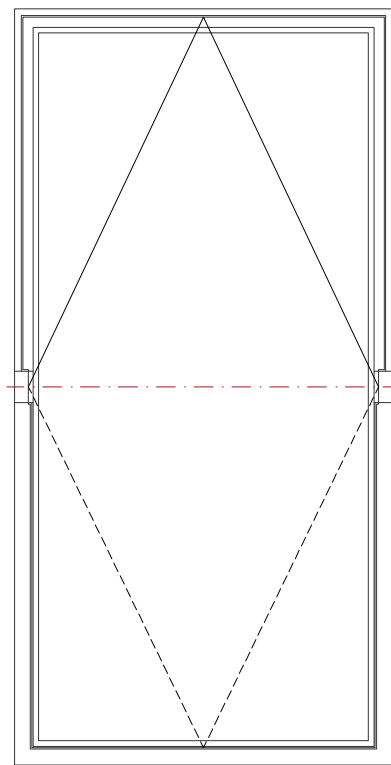
**Load capacity pivot hinge**  
C99327-05 - C99327-12

**Portate cerniera pivot**  
C99327-05 - C99327-12

**Alcance de la bisagra**  
C99327-05 - C99327-12



**Vertical pivot - max weight 300 kg**



**Orizontal pivot - max weight 200 kg**

**Installation**

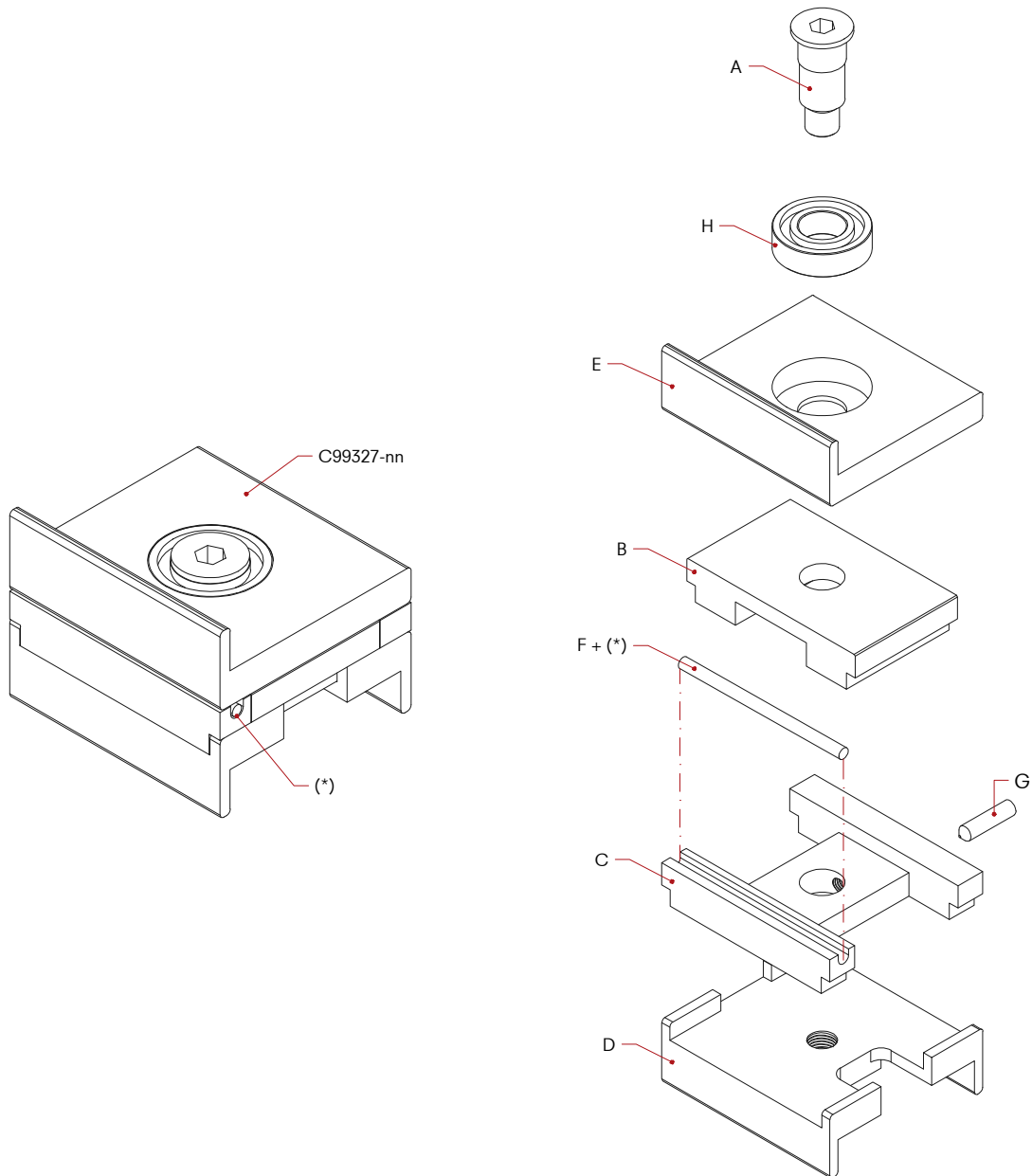
C99327-05 - C99327-12

**Montaggio**

C99327-05 - C99327-12

**Montaje**

C99327-05 - C99327-12



- A) Pin
- B) Skate
- C) Shoe holder
- D) Frame part
- E) Leaf part
- F) Gasket
- G) M6x25 mm ISO4027
- H) Bearing 6003SRS

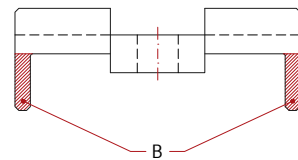
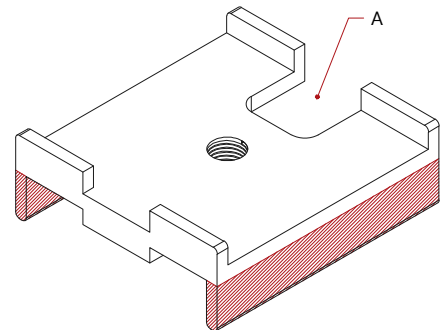
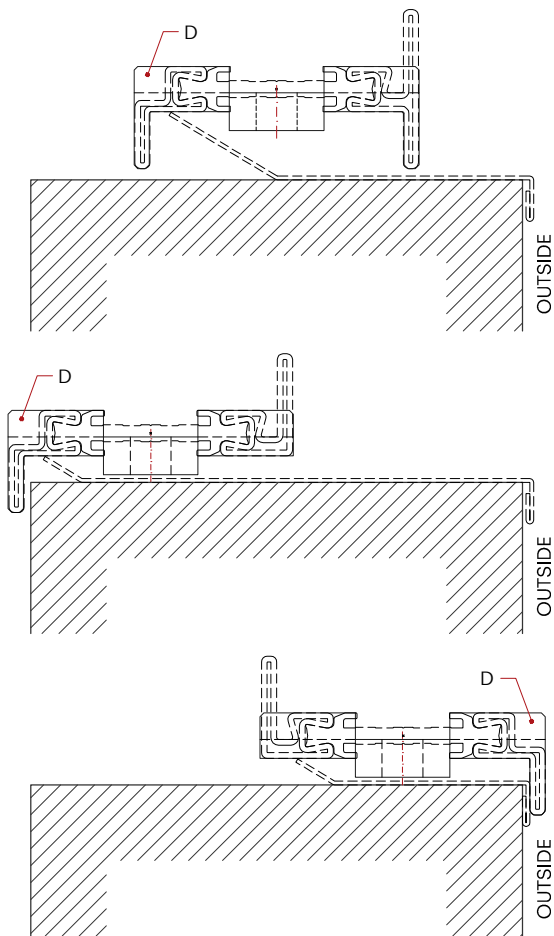
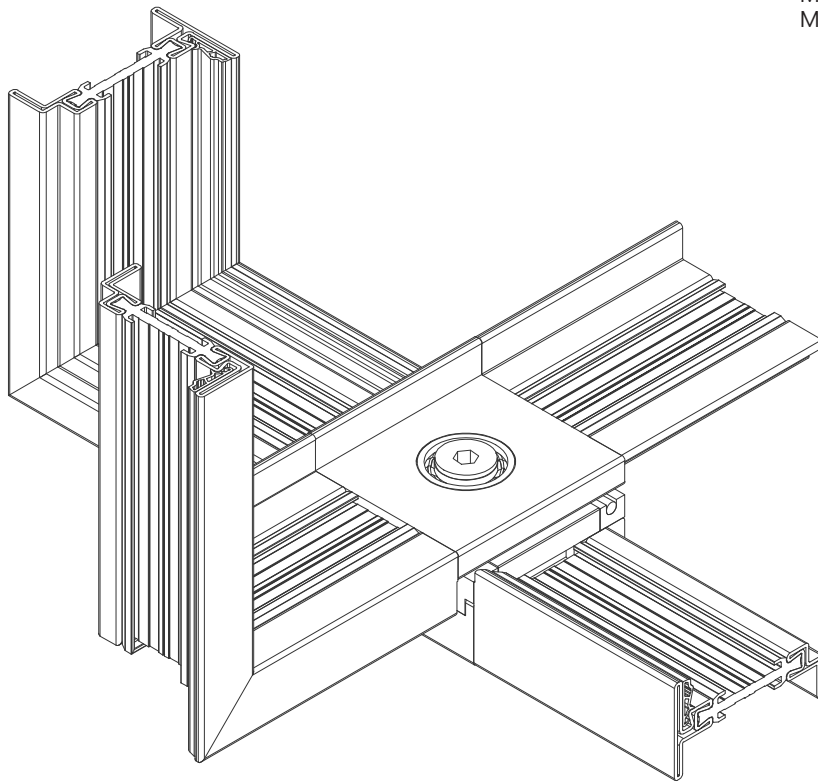
(\*) Seal before assembly

- A) Perno
- B) Pattino
- C) Portapattino
- D) Parte telaio
- E) Parte anta
- F) Guarnizione
- G) Grano M6x25 mm ISO4027
- H) Cuscinetto 6003SRS

(\*) Sigillare prima del montaggio

- A) Alfiler
- B) Patino
- C) Porta patino
- D) Parte del marco
- E) Parte de la hoja
- F) Empaquetadura
- G) M6x25 mm ISO4027
- H) Soporte 6003SRS

(\*) Sellar antes del montaje



- A) Weld this slot always on the open-in side
- B) Remove this part for different frame profile
- D) Hinge, frame part

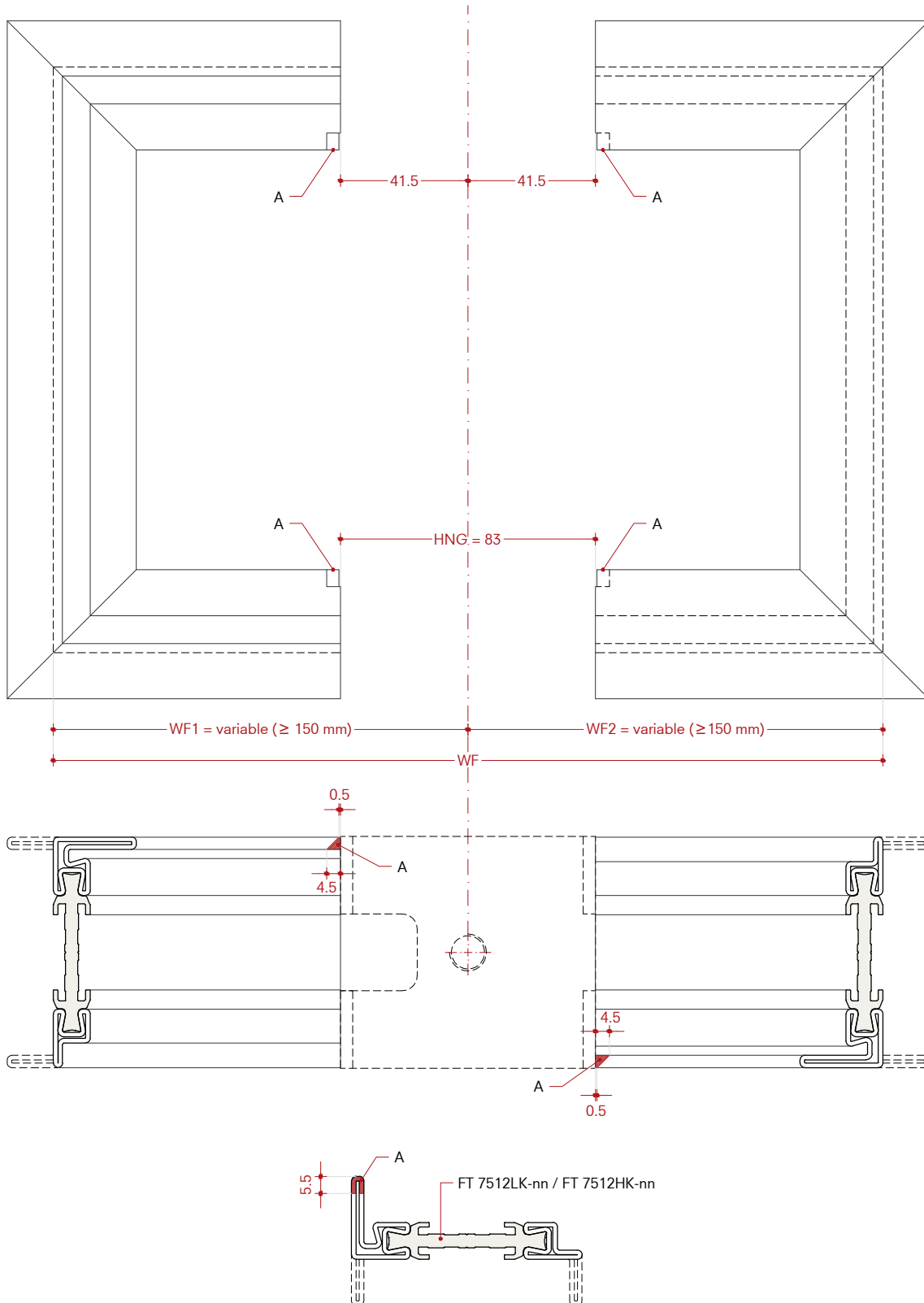
- A) Saldare questa fessura sempre sul lato apertura dell'anta, saldare questo scarico sempre dalla parte del telaio con apertura verso l'interno
- B) Rimuovere questa parte per profilo del telaio differente
- D) Cerniera, parte telaio

- A) Suelde siempre esta ranura en el lado de apertura de la puerta
- B) Retire esta pieza para un perfil de marco diferente
- D) Bisagra, parte del marco

**Frame profile processing**  
 FT 7512LK-nn / FT 7512HK-nn

**Lavorazione del profilo telaio**  
 FT 7512LK-nn / FT 7512HK-nn

**Mecanizado de perfil de marco**  
 FT 7512LK-nn / FT 7512HK-nn



WF = Frame Width  
 HNG = Hinge Length

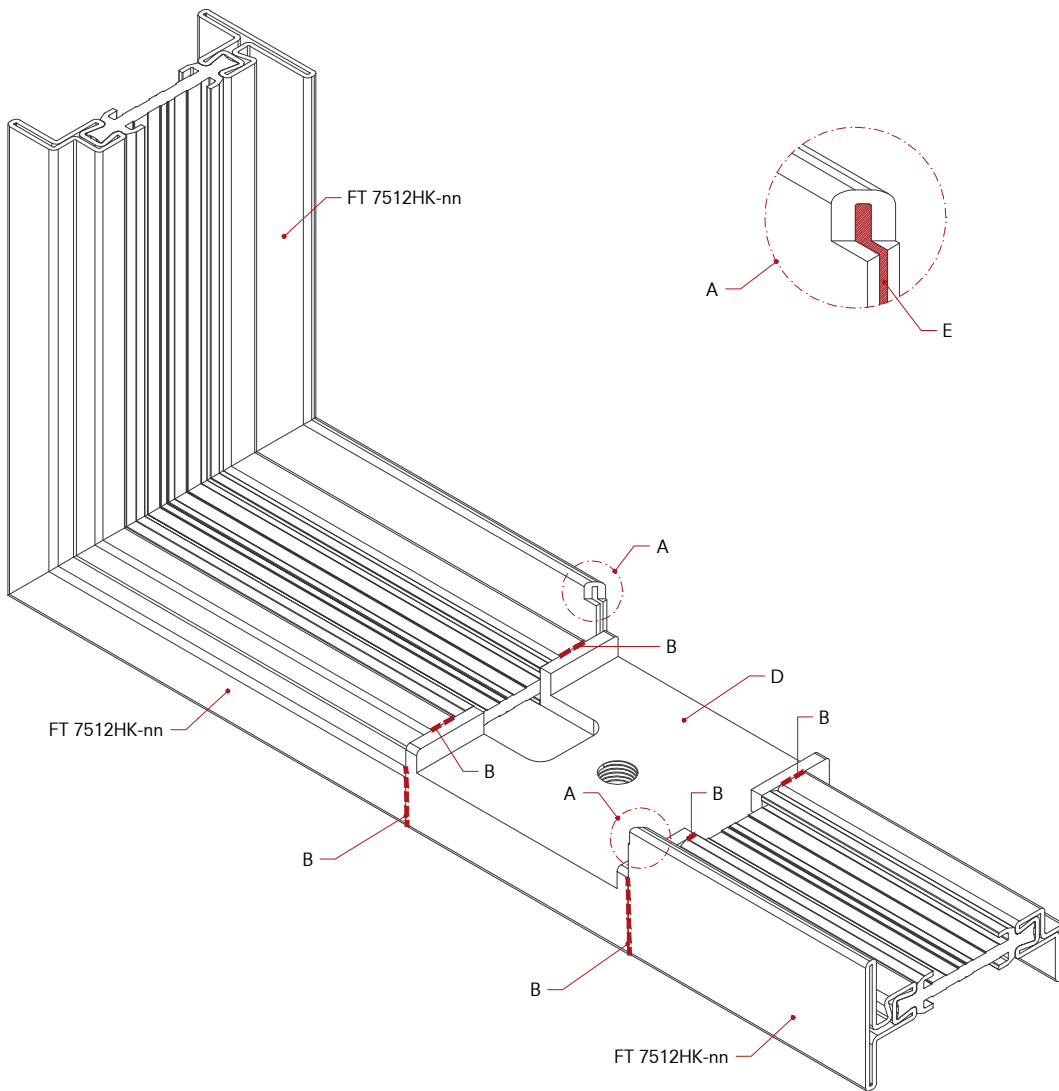
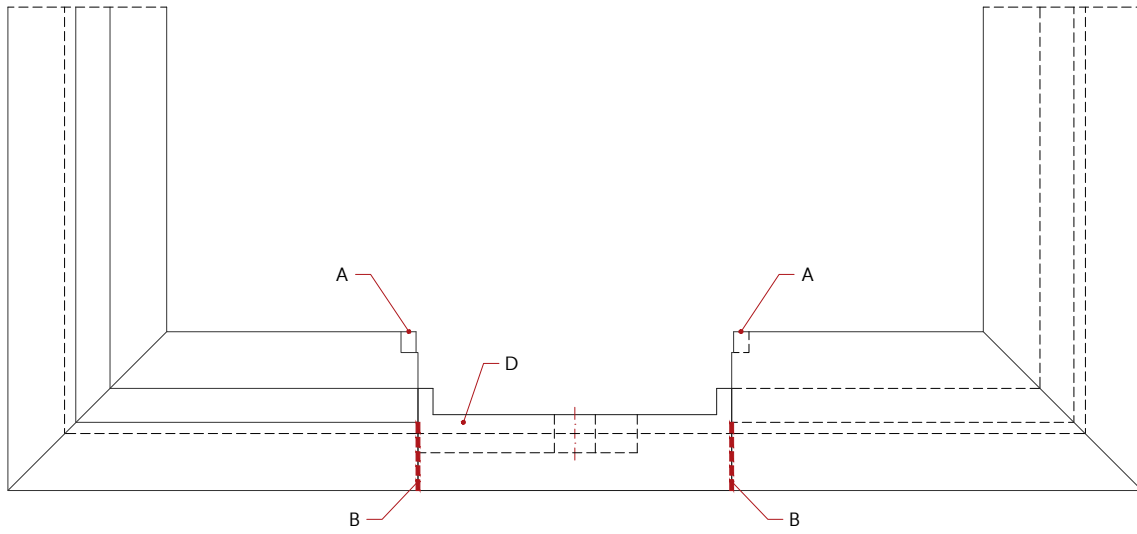
WF = Larghezza telaio  
 HNG = Larghezza cerniera

WF = Longitud marco  
 HNG = Longitud de bisagra

A) Cut-off profile

A) Taglio del profilo

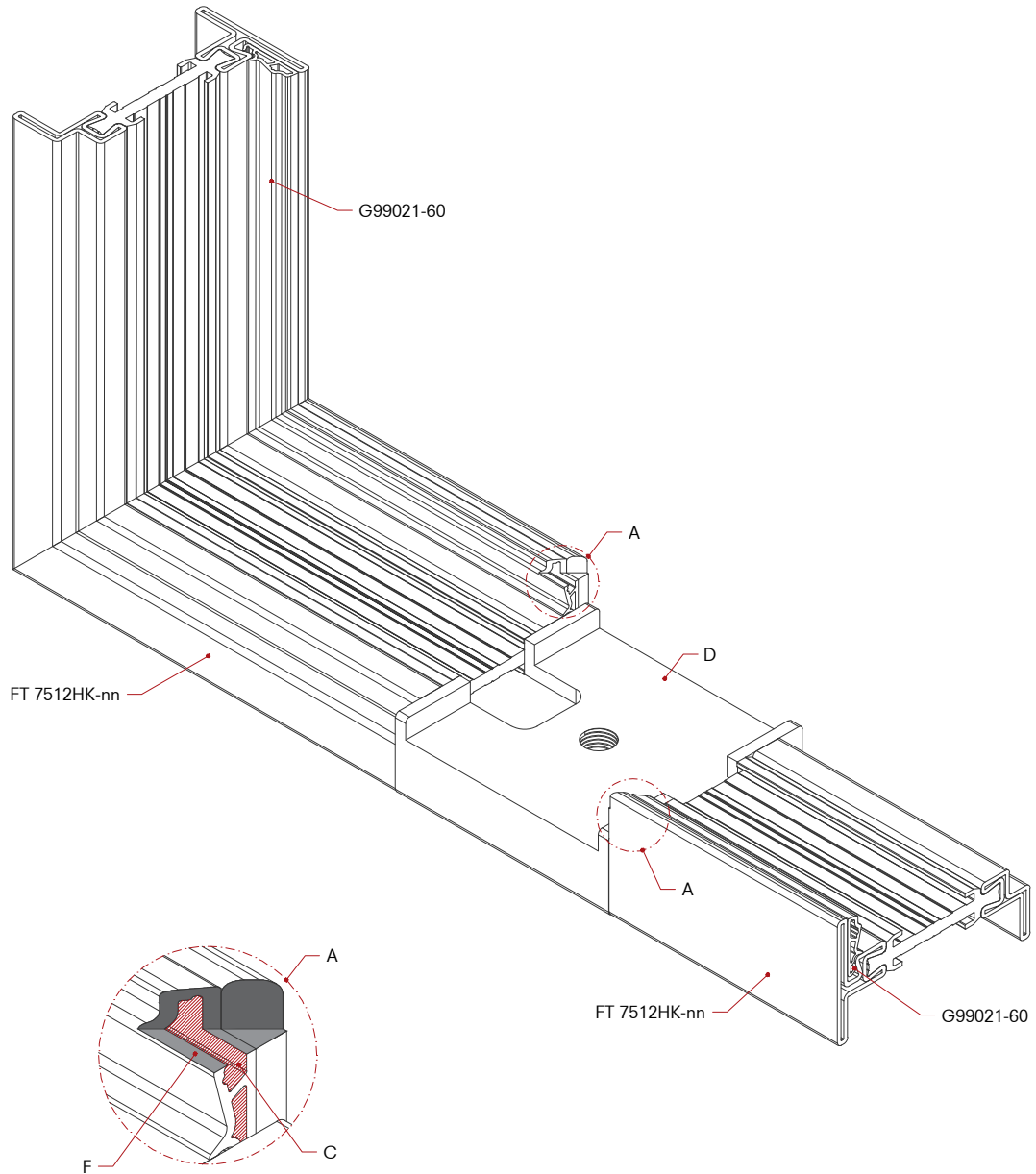
A) Fresado de perfil



A) Cut-off profile  
 B) Welding  
 D) Hinge, frame part  
 E) Sealant

A) Taglio del profilo  
 B) Saldatura  
 D) Cerniera, parte telaio  
 E) Sigillante

A) Fresado de perfil  
 B) Soldadura  
 D) Bisagra, parte del marco  
 E) Agente sellante



C) Sealant  
 D) Hinge, frame part  
 F) Cut out the gasket G99021-60 in line with the profile

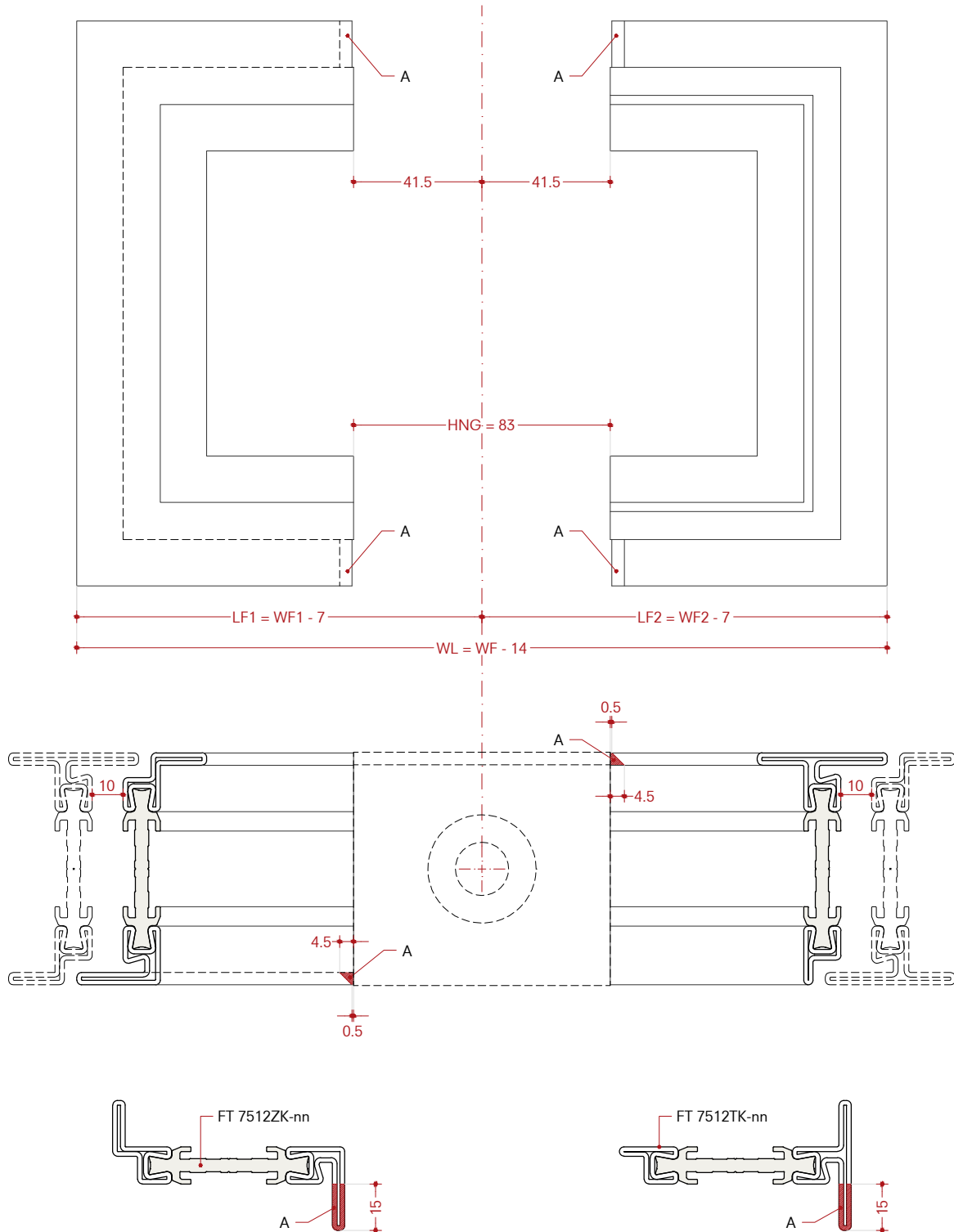
C) Sigillante  
 D) Cerniera, parte telaio  
 F) Scaricare la guarnizione G99021-60 in andamento con lo scarico del profilo

C) Agente sellante  
 D) Bisagra, parte del marco  
 F) Cortar la junta G99021-60 como perfil

**Leaf profile processing**  
 FT 7512ZK-nn / FT 7512TK-nn

**Lavorazione del profilo dell'anta**  
 FT 7512ZK-nn / FT 7512TK-nn

**Mecanizado de perfil de hoja**  
 FT 7512ZK-nn / FT 7512TK-nn



WF = Frame Width  
 HNG = Hinge Length

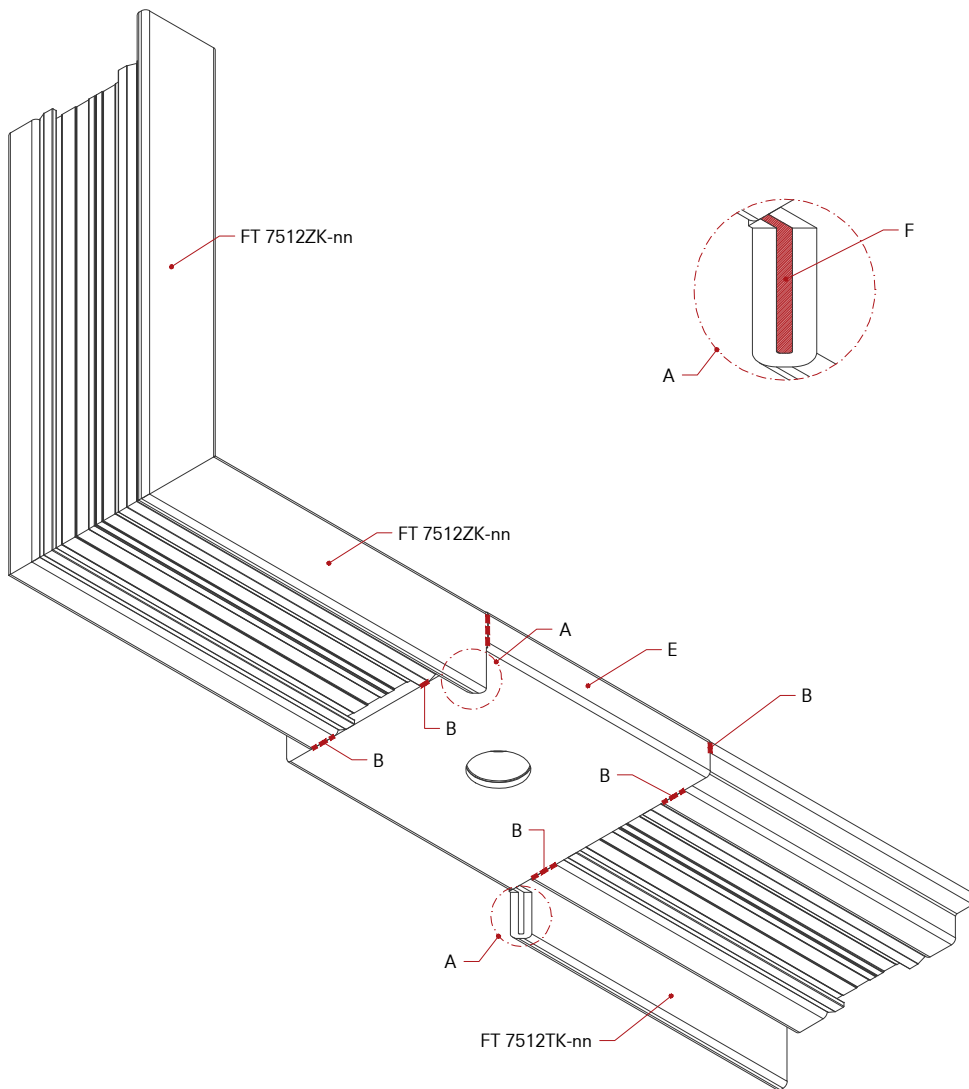
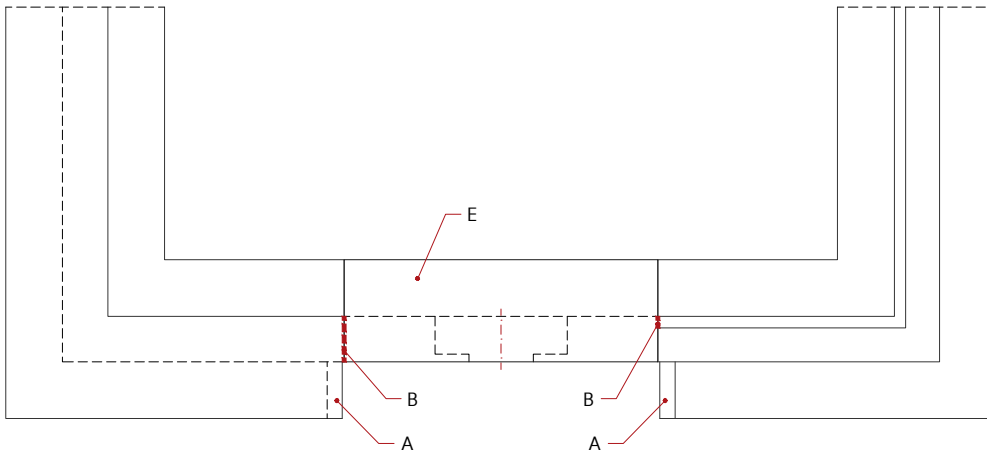
WF = Larghezza telaio  
 HNG = Larghezza cerniera

WF = Longitud marco  
 HNG = Longitud de bisagra

A) Cut-off profile

A) Taglio del profilo

A) Fresado de perfil

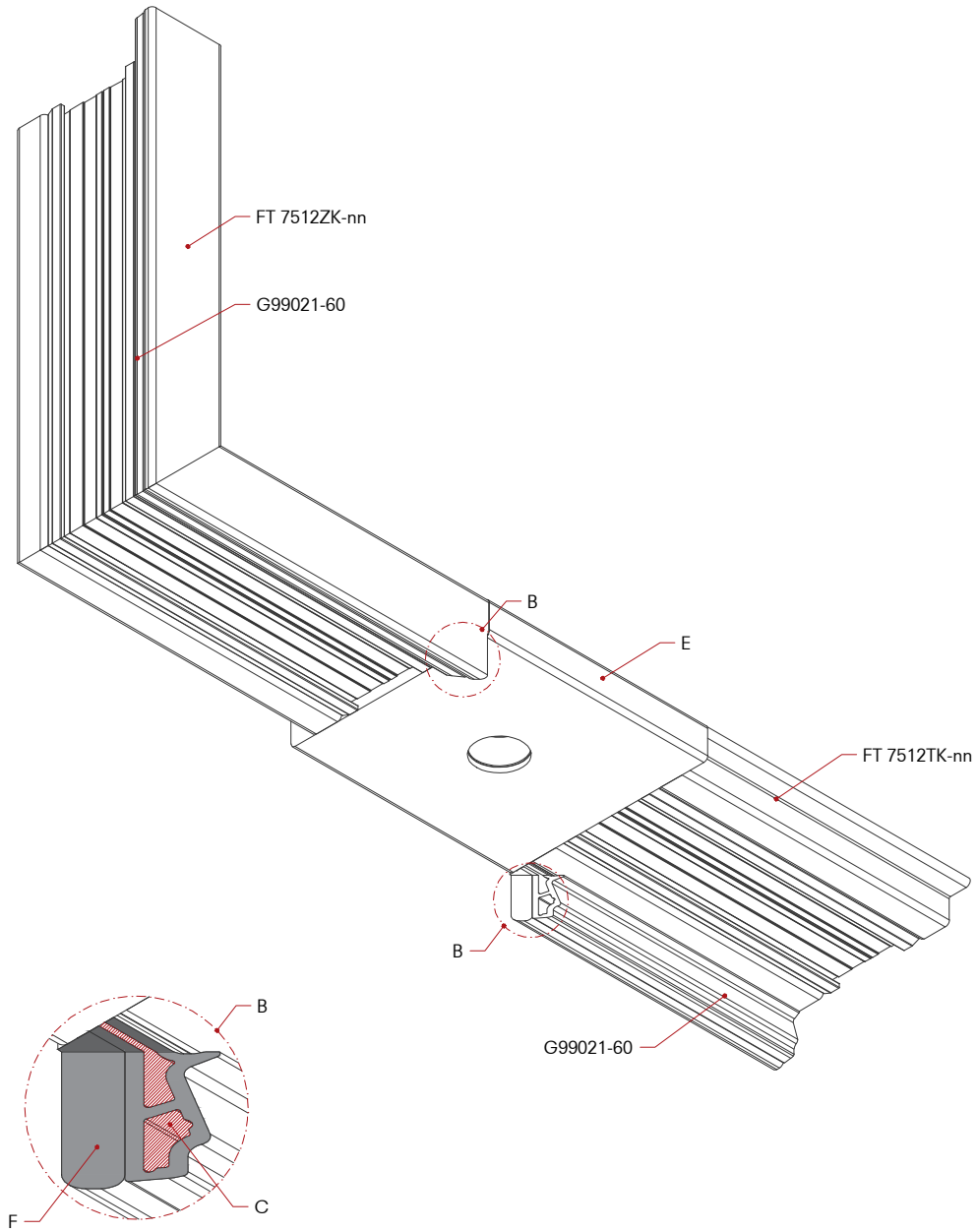


A) Cut-off profile  
 B) Welding  
 E) Hinge, leaf part  
 F) Sealant

A) Taglio del profilo  
 B) Saldatura  
 E) Cerniera, parte anta  
 F) Sigillante

A) Fresado de perfil  
 B) Soldadura  
 E) Bisagra, parte del hoja  
 F) Agente sellante





C) Sealant  
 E) Hinge, leaf part  
 F) Cut out the gasket G99021-60 in line with the profile

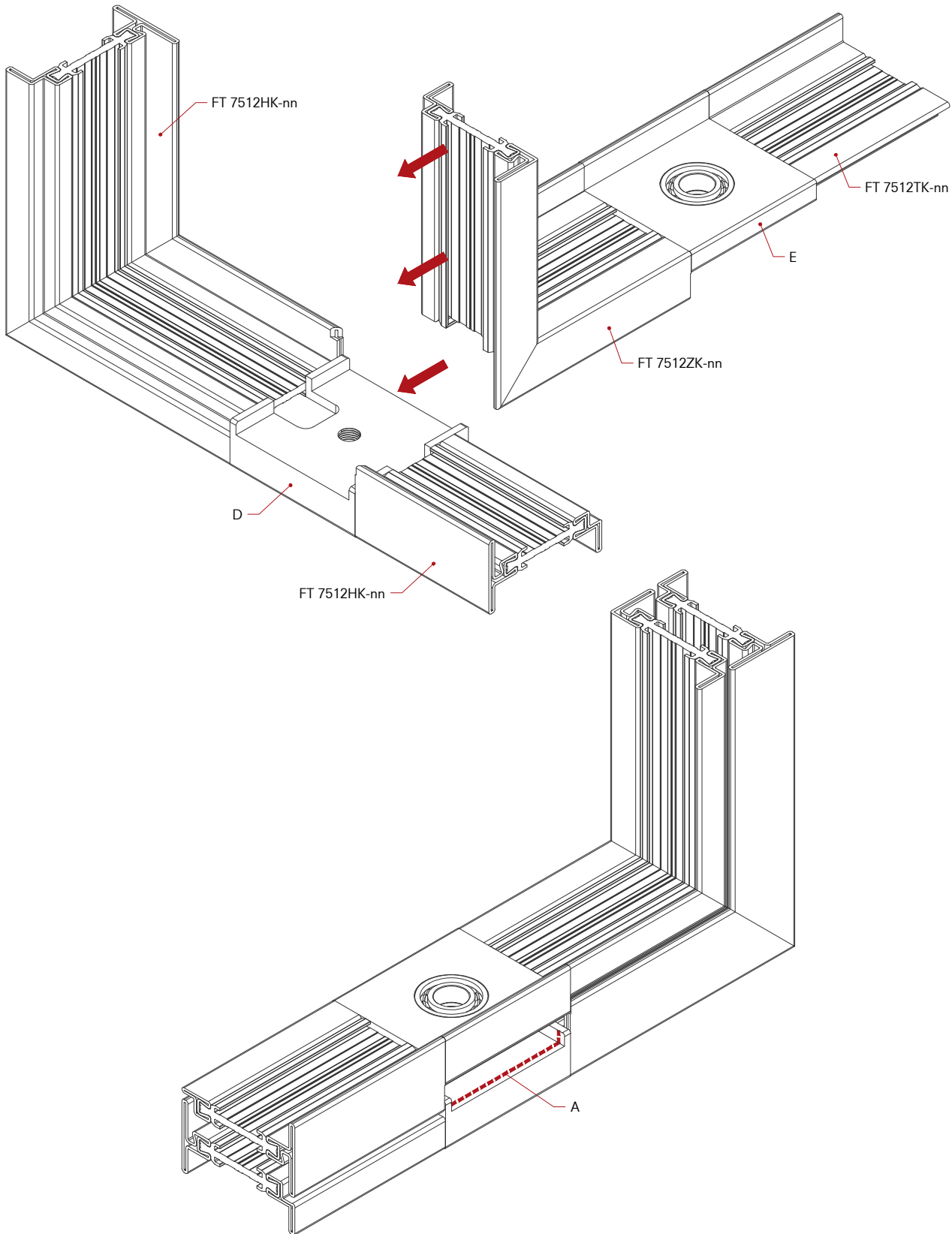
C) Sigillante  
 E) Cerniera, parte anta  
 F) Scaricare la guarnizione G99021-60 in andamento con lo scarico del profilo

C) Agente sellante  
 E) Bisagra, parte del hoja  
 F) Cortar la junta G99021-60 como perfil

Door leaf assembly

Montaggio anta porta

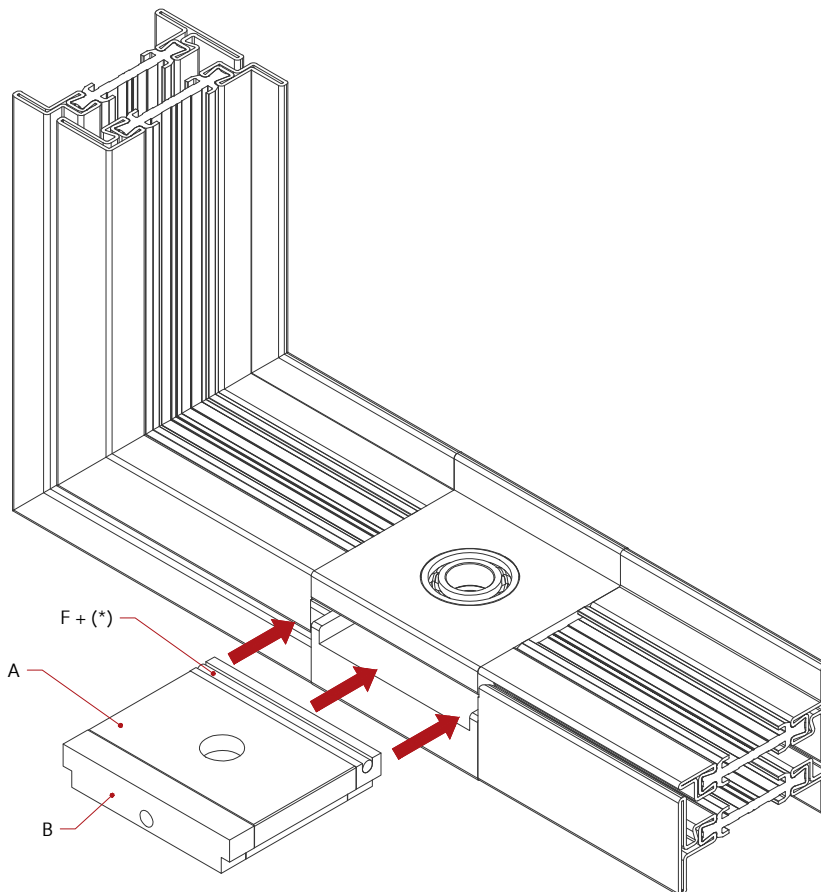
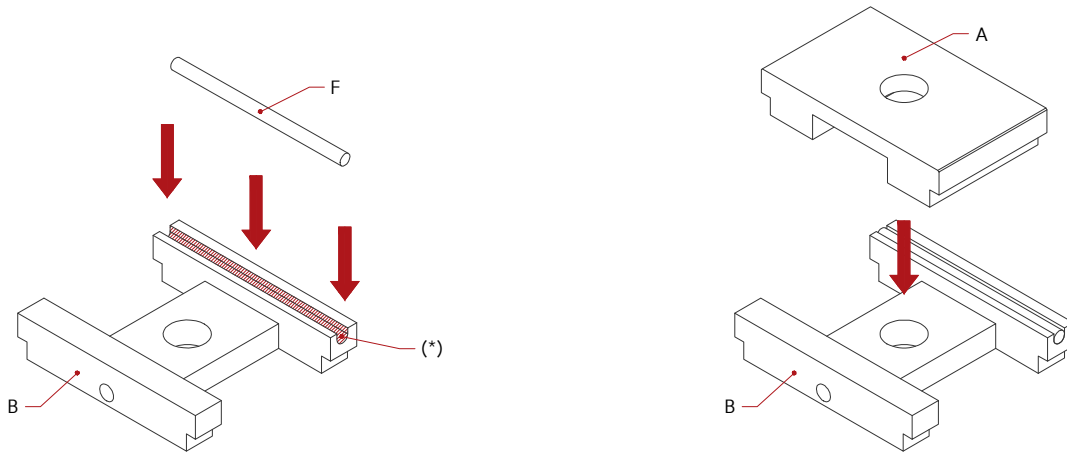
Montaje de la hoja de la puerta



A) Sealant  
 D) Hinge, frame part  
 E) Hinge, leaf part

A) Sigillante  
 D) Cerniera, parte telaio  
 E) Cerniera, parte anta

A) Agente sellante  
 D) Bisagra, parte del marco  
 E) Bisagra, parte del hoja



A) Skate  
 B) Shoe holder  
 F) Gasket

A) Pattino  
 B) Portapattino  
 F) Guarnizione

A) Patino  
 B) Porta patino  
 F) Empaquetadura

(\* Seal and bond with silicone before assembly

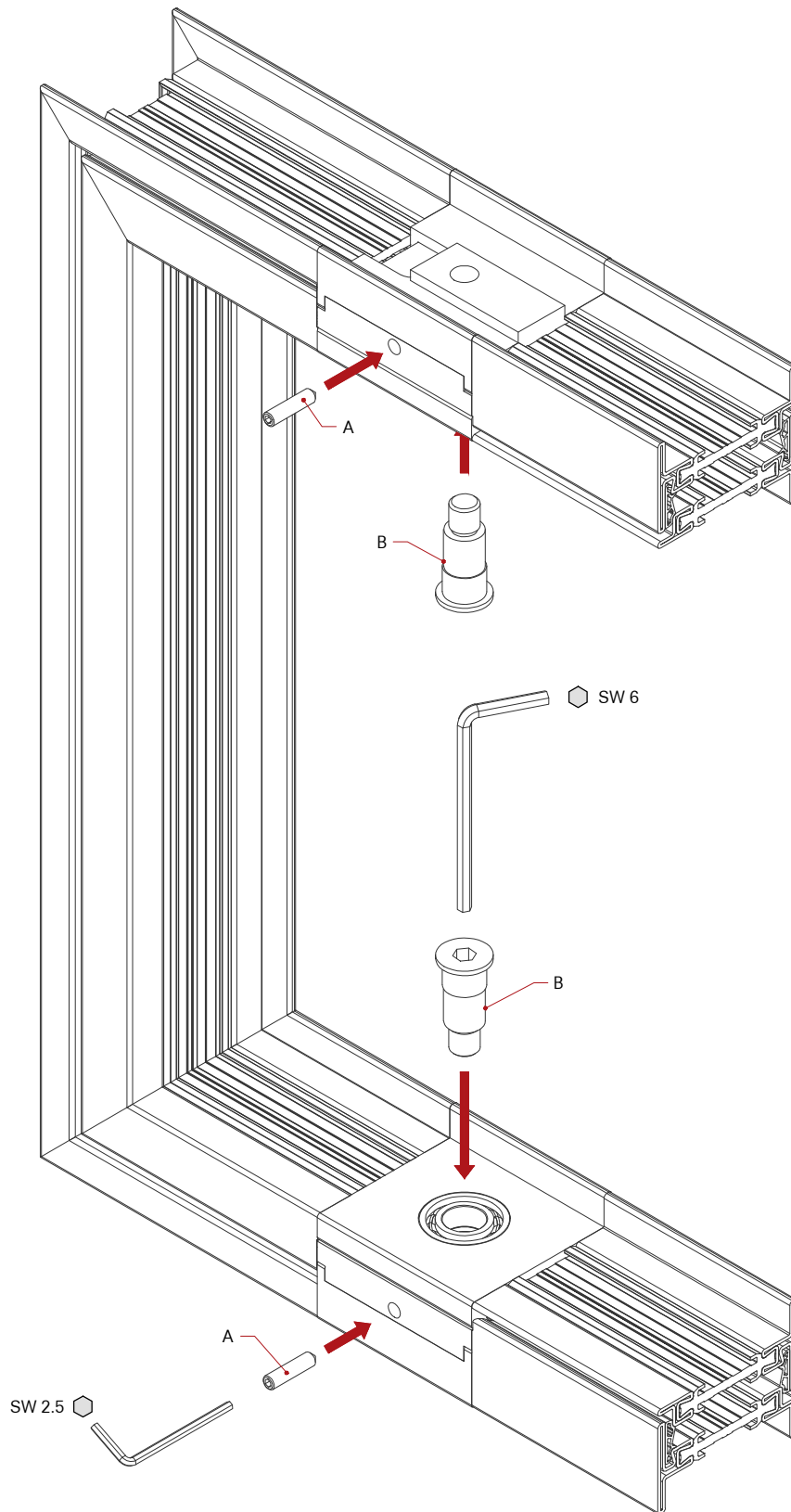
(\* Sigillare e incollare con silicone prima del montaggio

(\* Selle y pegue con silicona antes del montaje

**Assembling**  
 C99327-05 - C99327-12

**Schema di montaggio**  
 C99327-05 - C99327-12

**Diagrama de montaje**  
 C99327-05 - C99327-12



A) M6x25 mm ISO4027  
 B) Pin

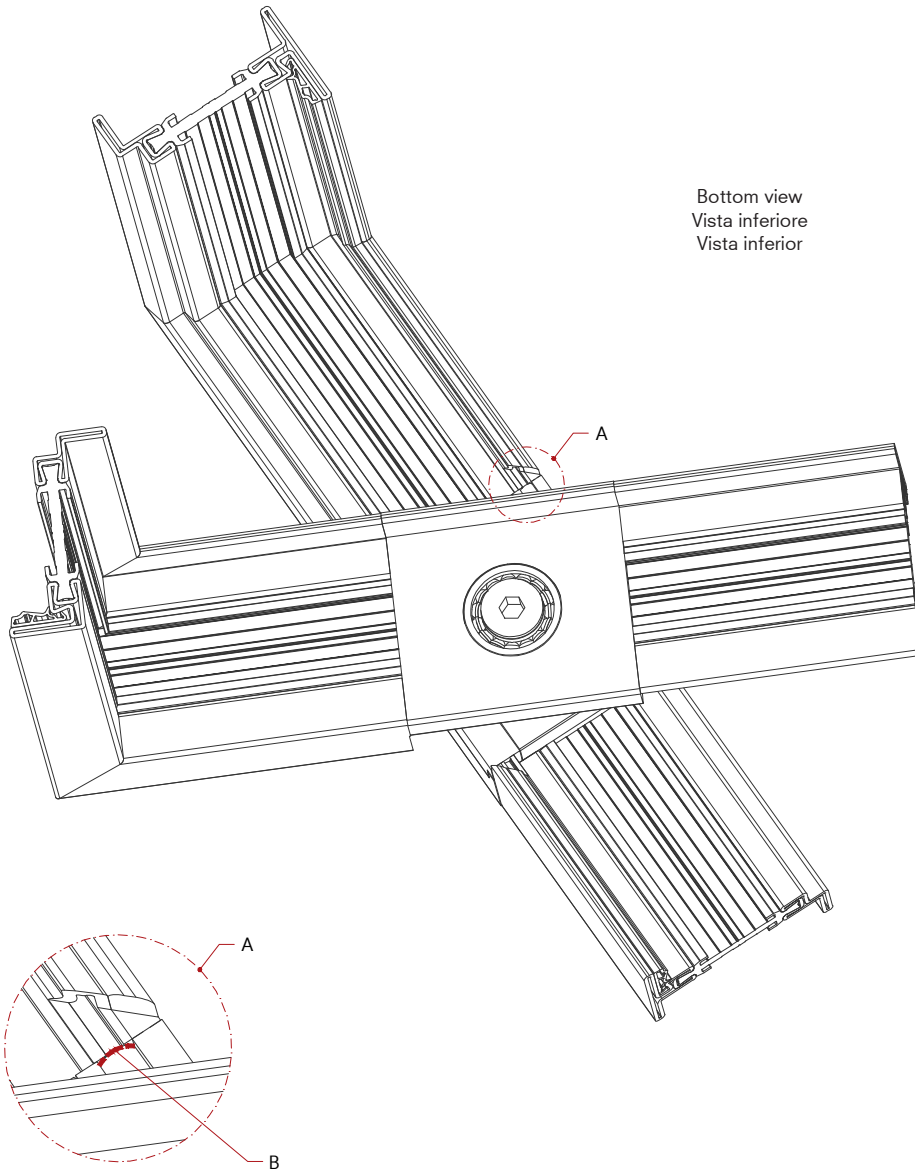
A) G) Grano M6x25 mm ISO4027  
 B) Perno

A) M6x25 mm ISO4027  
 B) Alfiler

**Assembling**  
 C99327-05 - C99327-12

**Schema di montaggio**  
 C99327-05 - C99327-12

**Diagrama de montaje**  
 C99327-05 - C99327-12



Bottom view  
 Vista inferiore  
 Vista inferior

B) Seal with silicone between G99021-60 and (round) gasket of C99327-nn hinge

B) Sigillare con silicone tra G99021-60 e guarnizione (tonda) della cerniera C99327-nn

B) Sello con silicona entre G99021-60 y la junta (redonda) de bisagra C99327-nn



Glazing

Vetrazione

Acristalamiento

5.10

### Legend

+ = Fixed  
— = Open in  
- - - = Open out  
Dimensions in: mm  
Scale 1:1 - 1:2

### Legenda

+ = Anta fissa  
— = Apertura interna  
- - - = Apertura esterna  
Misure in: mm  
Scala 1:1 - 1:2

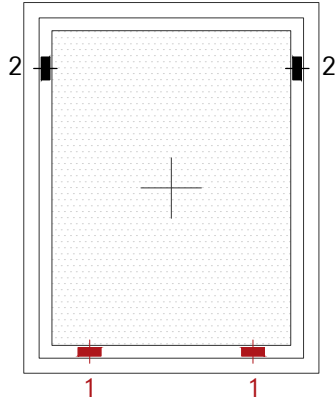
### Leyenda

+ = Fijo  
— = Apertura interna  
- - - = Apertura externa  
Medidas en: mm  
Escala 1:1 - 1:2

**Installation**  
Glazing

**Montaggio**  
Vetrazioni

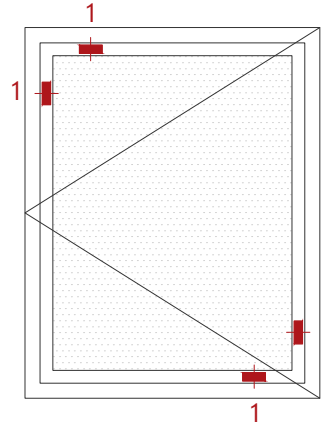
**Montaje**  
Acristalamiento



Fixed window (Windows and doors)

Finestra fissa (Serramenti esterni)

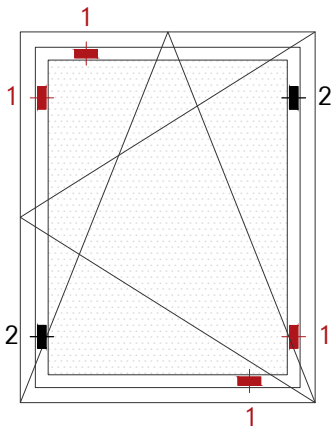
Ventana fija (Ventanas y puertas)



Single leaf window open in and open out

Finestra a un battente apertura interna e esterna

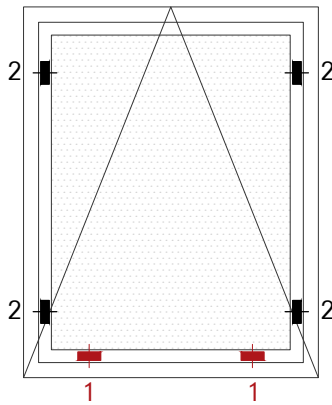
Ventana de una hoja que se abre hacia dentro y fuera



Single leaf window

Finestra a un battente

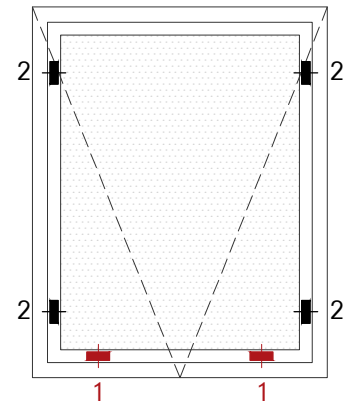
Ventana de una hoja



Bottom hung window open in

Finestra vasistas apertura interna

Ventana oscilante que se abre hacia dentro



Top hung projecting window open out

Finestra a sporgere apertura esterna

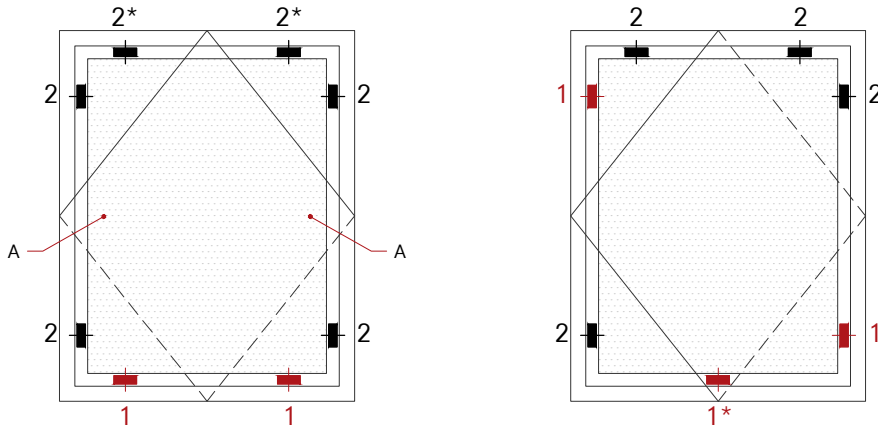
Ventana proyectante que se abre hacia fuera

1) Support shims  
2) Distance shims

1) Spessori di supporto  
2) Spessori di distanza

1) Espesores de soporte  
2) Calzas de distancia

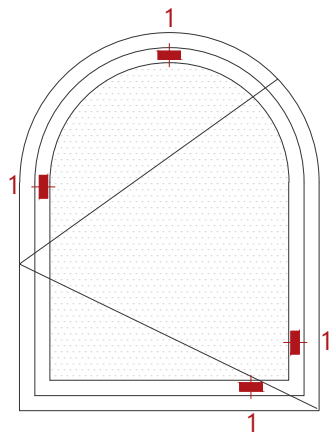




Single leaf pivot window open in and open out

Finestra pivot a un battente apertura interna ed esterna

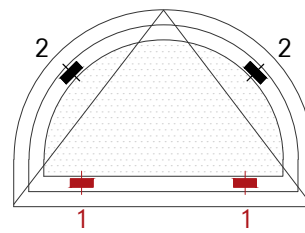
Ventana pivote de una hoja que se abre hacia dentro y fuera



Single leaf window open in and open out

Finestra a un battente apertura interna e esterna

Ventana de una hoja que se abre hacia dentro y fuera



Open in bottom hung window

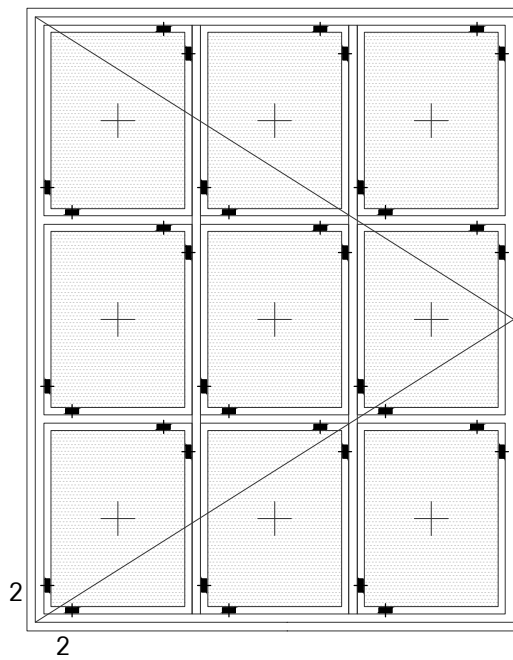
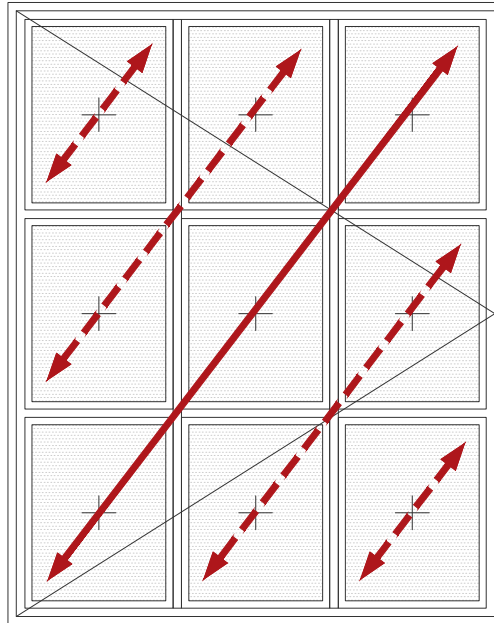
Finestra vasistas apertura interna

Ventana oscilante que se abre hacia dentro

- 1) Support shims
- 2) Distance shims
- 1\*) For glazing units over one meter wide, the shims must be above the swivel bearing
- 2\*) In case of swing door, they become support shims
- A) In the case of horizontal pivot openings, it is advisable to ask the Ottostumm technical office

- 1) Spessori di supporto
- 2) Spessori di distanza
- 1\*) Per unità di vetratura larghe oltre il metro, gli spessori devono trovarsi sopra il cuscinetto girevole
- 2\*) In caso di anta oscillante diventano spessori di supporto
- A) Nel caso di aperture a bilico orizzontale si consiglia di chiedere all'ufficio tecnico di Ottostumm

- 1) Espesores de soporte
- 2) Calzas de distancia
- 1\*) Para acristalamientos de más de un metro de ancho, las calzas deben estar por encima del cojinete giratorio
- 2\*) En caso de puerta batiente, se convierten en espesores de soporte
- A) En el caso de aperturas pivotantes horizontales, es recomendable consultar a la oficina técnica de Ottostumm.



Single leaf window open in and open out

Finestra a un battente apertura interna ed esterna

Ventana de una hoja que se abre hacia dentro y fuera

2) Distance shims

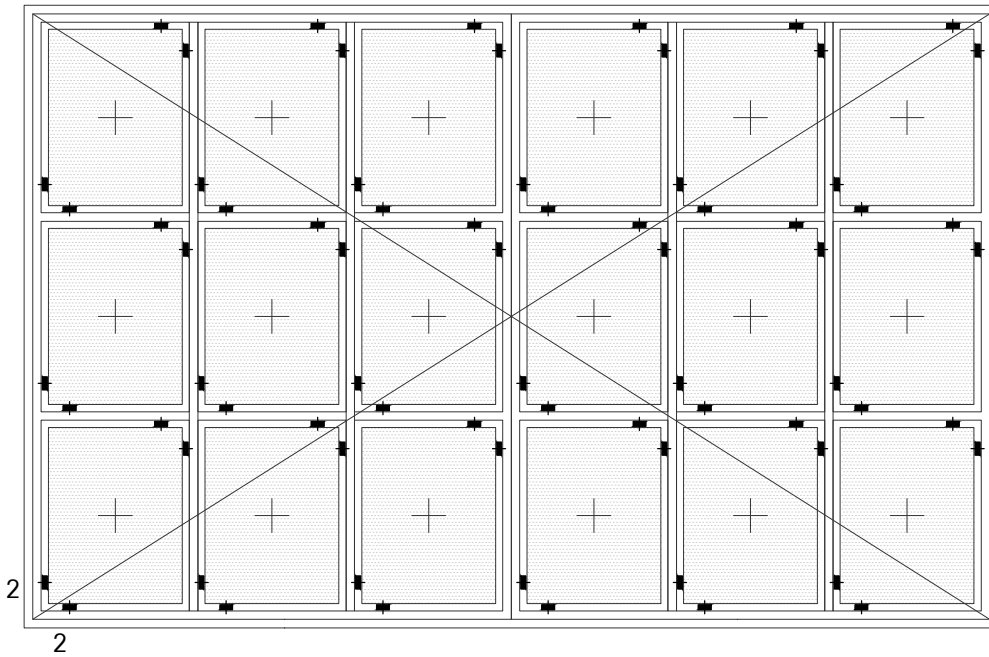
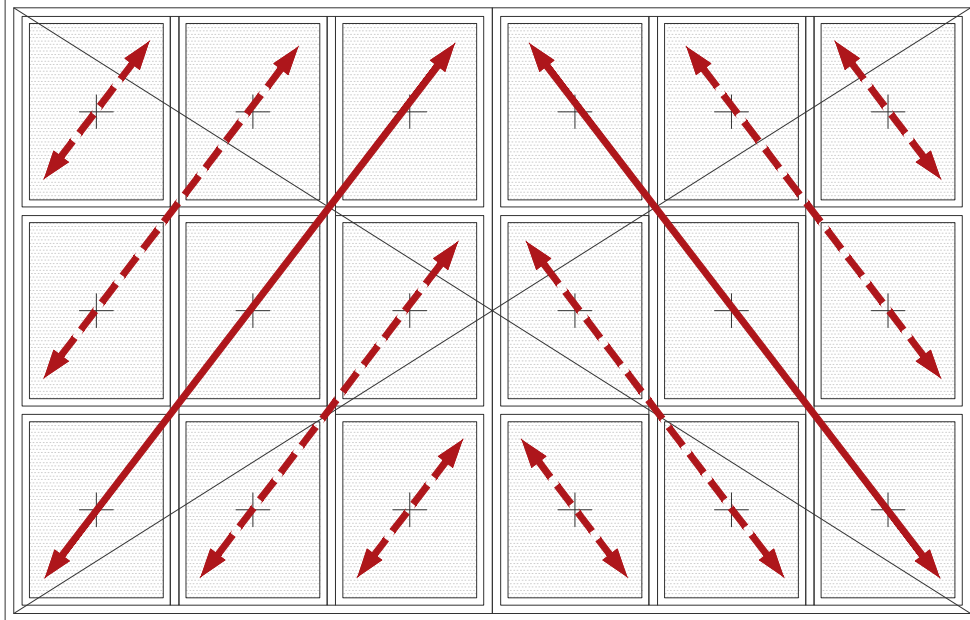
2) Spessori di distanza

2) Calzas de distancia

disclaimer see 7.0.14

rel. 07 - 09/2022

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Double leaf window open in and open out

Finestra a due battenti apertura interna ed esterna

Ventana de dos hojas que se abre hacia dentro y fuera

2) Distance shims

2) Spessori di distanza

2) Calzas de distancia

**Installation**  
Glazing beads

**Montaggio**  
Fermavetri

**Montaje**  
Junquillos

45° cutting of angled glazing beads and welding of the corners on the inside.

Taglio a 45° dei fermavetri angolari e saldatura degli angoli sul lato interno.

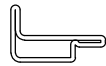
Corte de junquillos a 45° y soldado desde el interior.



FV 1515E-00



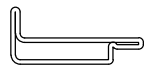
FV 1520E-nn



FV 1525E-nn



FV 1530E-nn



FV 1535E-nn



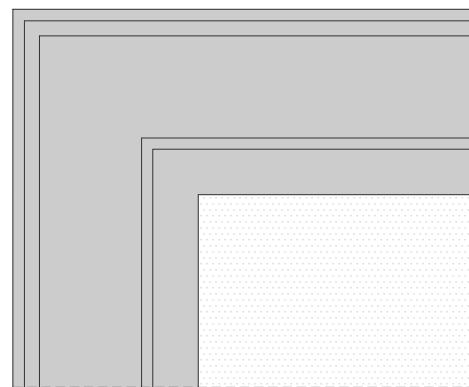
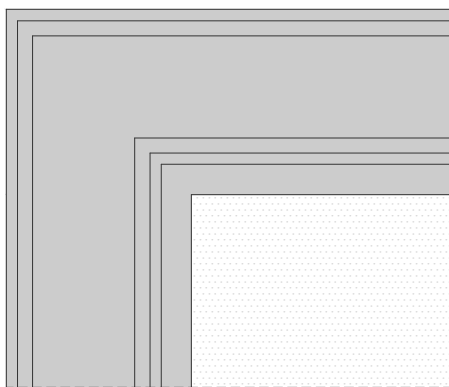
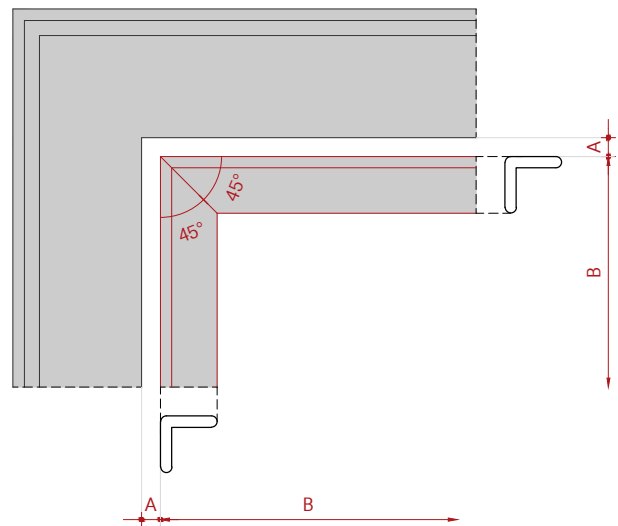
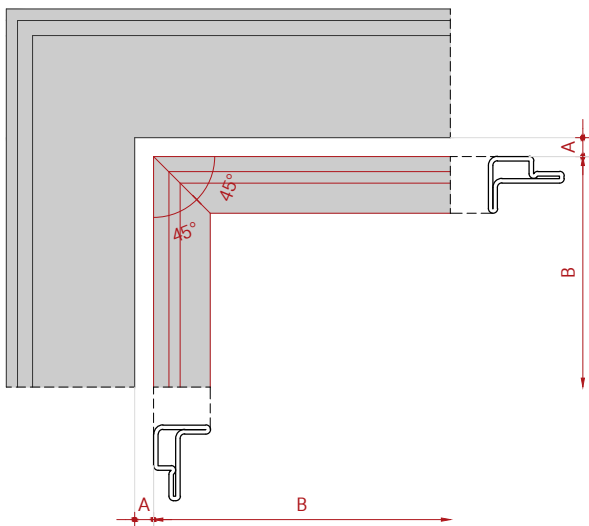
FV 1515A-02



FV 1815A-02



FV 1525A-01



A) Shim between frame and glazing bead 0.5 mm (distance)  
B) Cutting length

A) Aria di 0.5 mm  
B) Lunghezza di taglio

A) Inserto de 0.5 mm como distancia  
B) Longitud de corte

45° cutting of angled glazing beads and welding of the corners on the inside.

Taglio a 45° dei fermavetri angolari e saldatura degli angoli sul lato interno.

Corte de junquillos a 45° y soldado desde el interior.



FV 1520S-00



FV 1530S-00



FV 1520S-nn



FV 1530S-nn

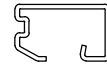
90° cutting of steel and aluminium glazing beads.

Taglio a 90° dei fermavetri in acciaio e alluminio.

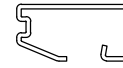
Corte de junquillos de acero y aluminio a 90°.



FV 1520R-nn



FV 1525R-nn



FV 1530R-nn



FV 1515R-00



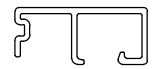
FV 1520R-00



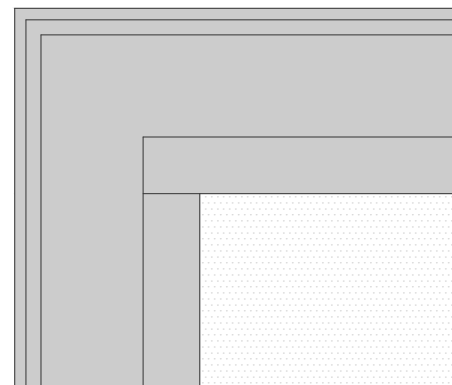
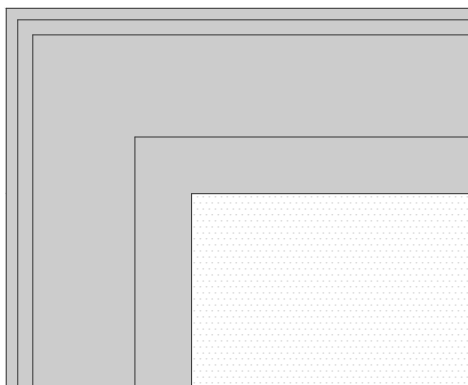
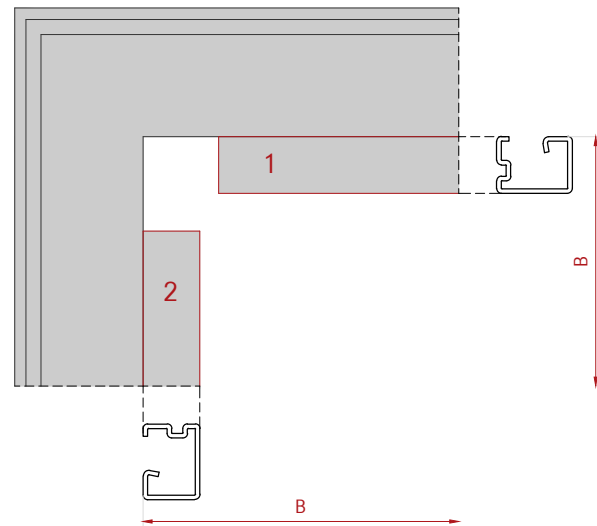
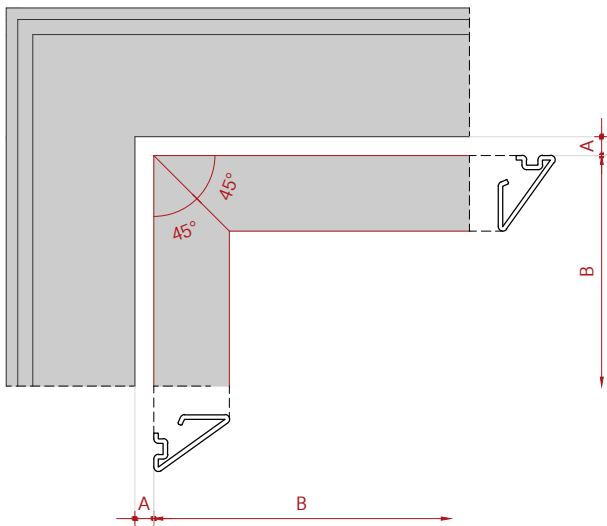
FV 1525R-00



FV 1530R-00



FV 1535R-00



A) Shim between frame and glazing bead 0.5 mm (distance)  
B) Cutting length

A) Aria di 0.5 mm  
B) Lunghezza di taglio

A) Inserto de 0.5 mm como distancia  
B) Longitud de corte

**Installation**

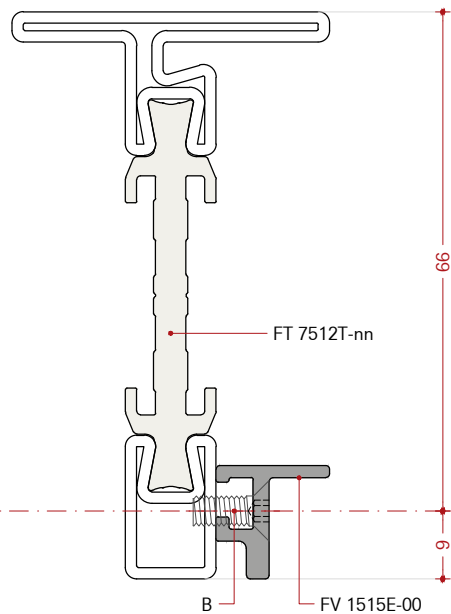
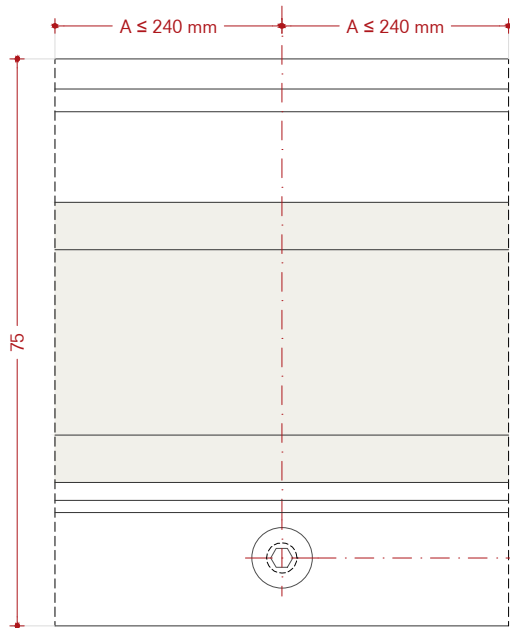
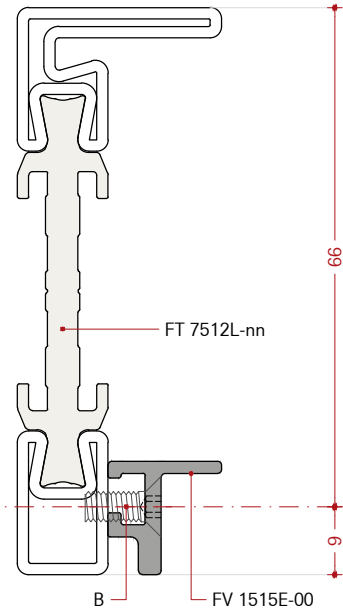
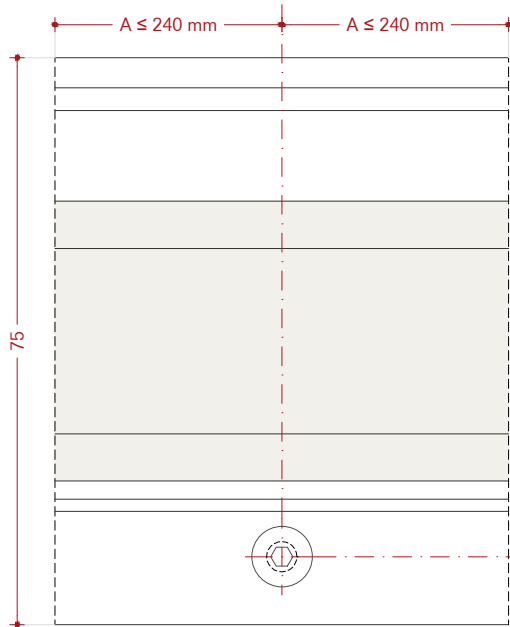
Glazing beads  
Positioning of glazing bead

**Montaggio**

Fermavetri  
Posizionamento fermavetro

**Montaje**

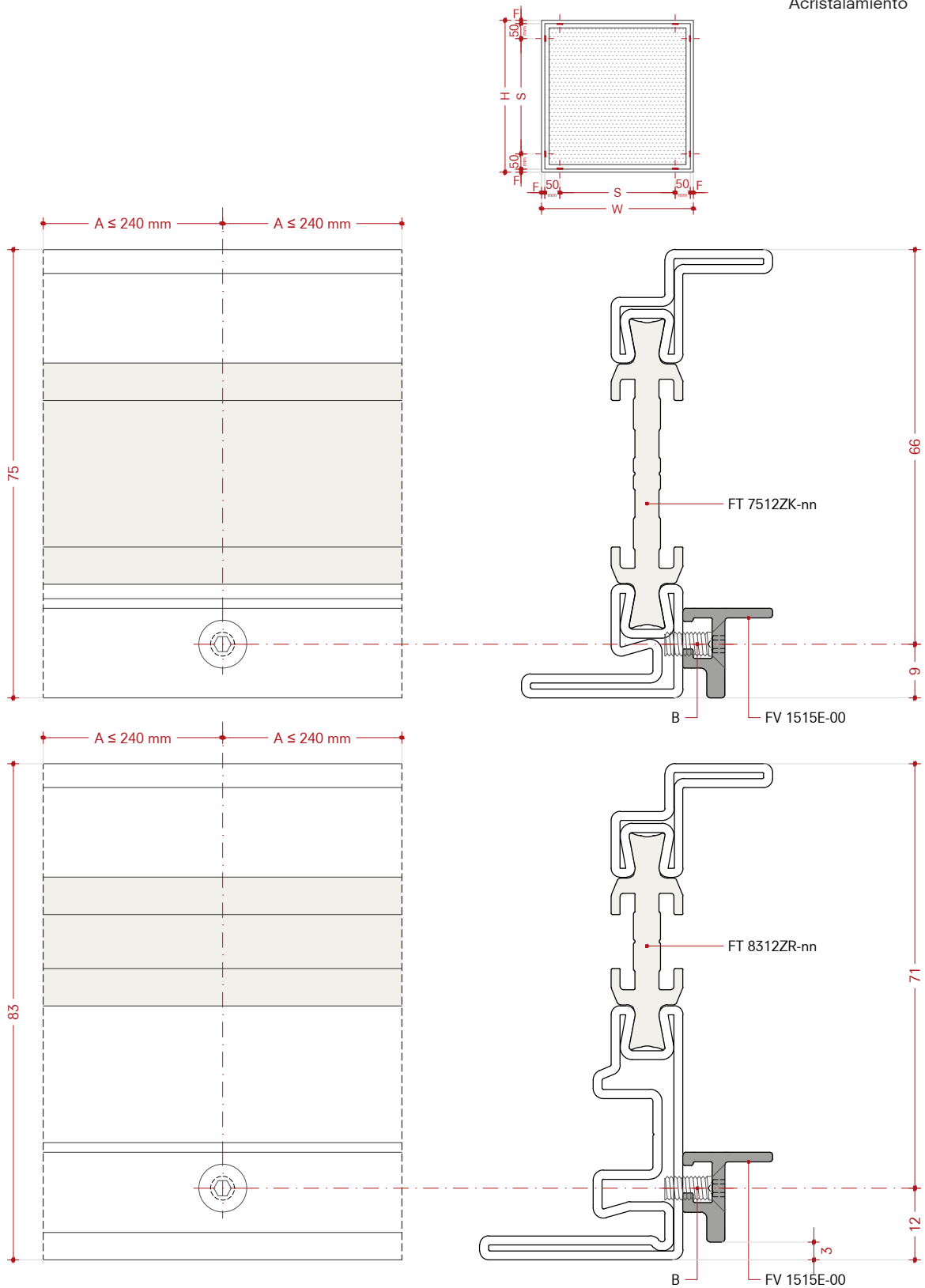
Junquillos  
Colocación de junquillo



A) Maximum fixing distance  
B) Screws D99880-03

A) Distanza massima di fissaggio  
B) Viti D99880-03

A) Distancia máxima de fijación  
B) Tornillos D99880-03



A) Maximum fixing distance  
 B) Screws D99880-03  
 F) Internal profile width  
 H) Overall height  
 S) On-centre distance between the outer clips  
 W) Overall width

A) Distanza massima di fissaggio  
 B) Viti D99880-03  
 F) Larghezza profilo interno  
 H) Altezza totale  
 S) Distanza tra le clips esterne  
 W) Larghezza totale

A) Distancia máxima de fijación  
 B) Tornillos D99880-03  
 F) Ancho del perfil interno  
 H) Altura total  
 S) Distancia entre clips externos  
 W) Ancho total

**Installation**

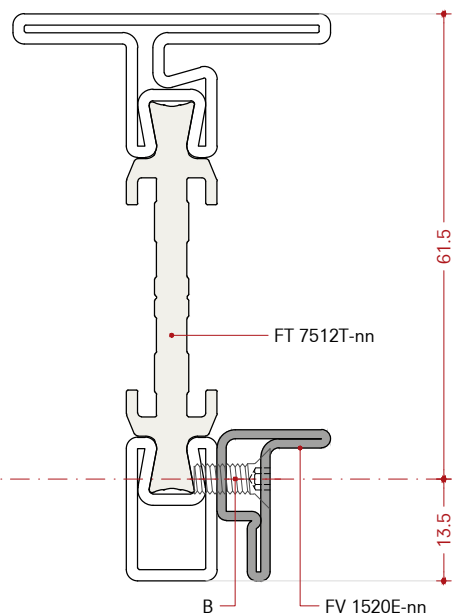
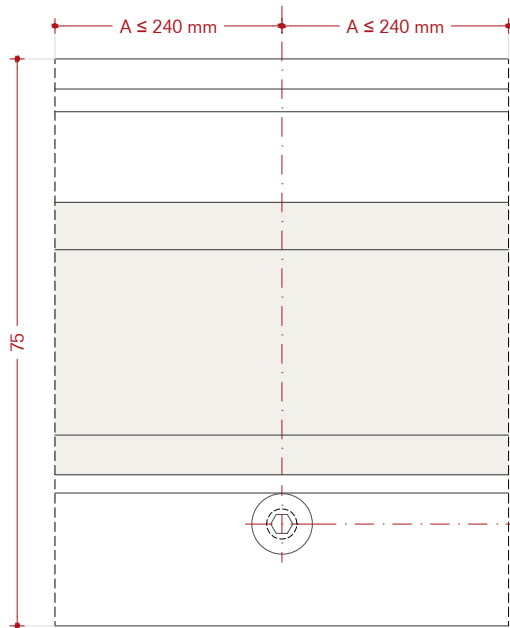
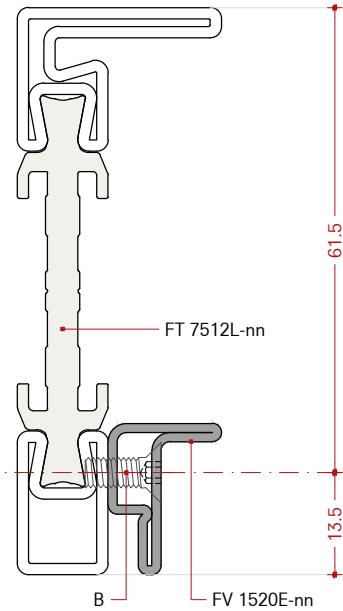
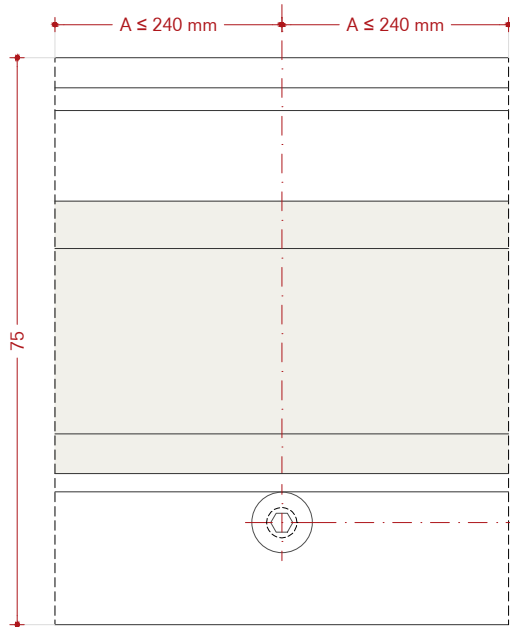
Glazing beads  
Positioning of glazing bead

**Montaggio**

Fermavetri  
Posizionamento fermavetro

**Montaje**

Junquillos  
Colocación de junquillo

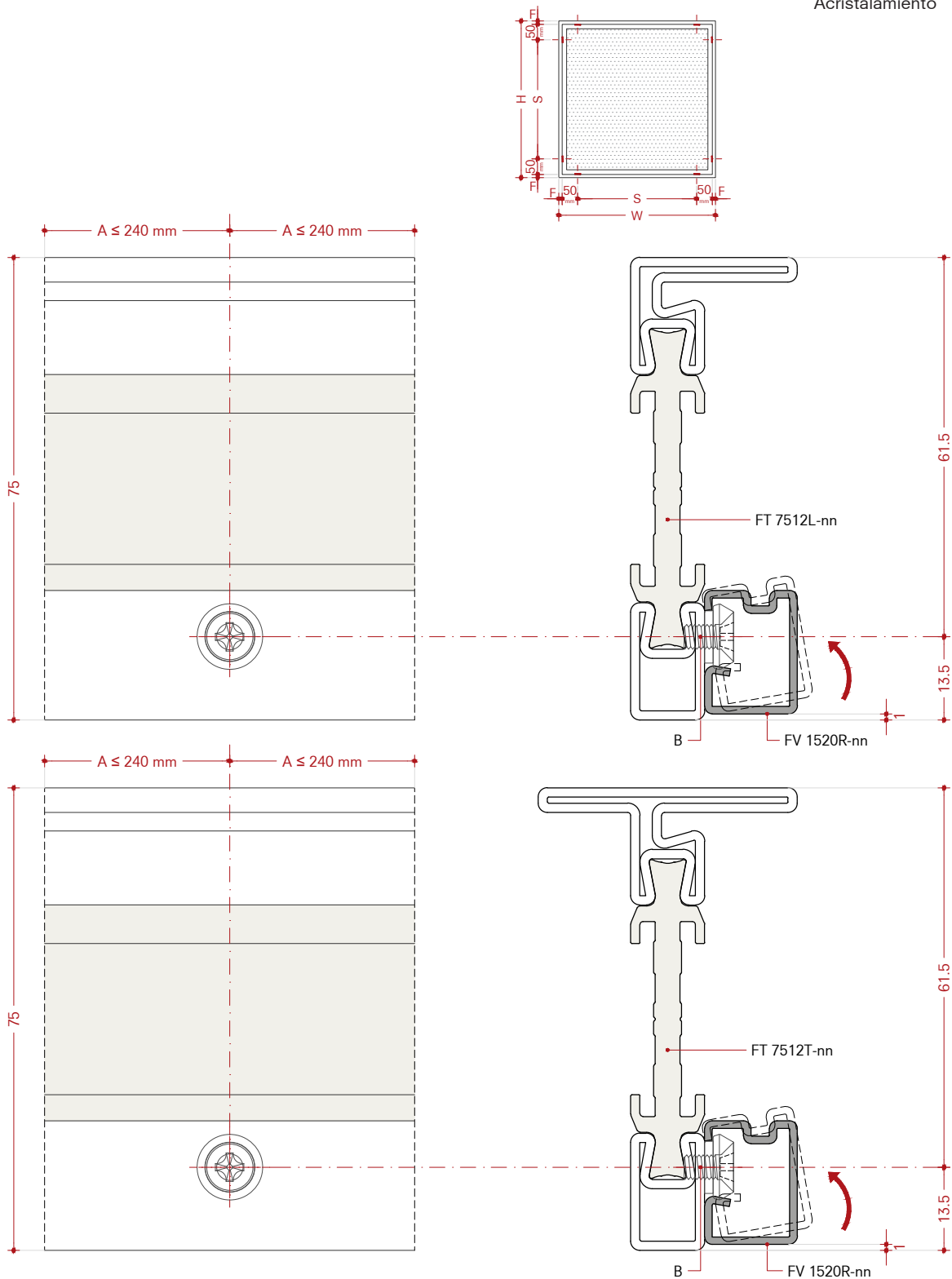


A) Maximum fixing distance  
B) Screws D99880-03

A) Distanza massima di fissaggio  
B) Viti D99880-03

A) Distancia máxima de fijación  
B) Tornillos D99880-03





**NOTE:**

We suggest to fix the bushes on the top and on the right side after the installation of the glass.

- A) Maximum fixing distance
- B) Fastening with F99063-03 + D99980-02 (for galvanized and bright steel profiles)  
F99063-03 + D99980-03 (for Cor-Ten and stainless steel profiles)
- F) Internal profile width
- H) Overall height
- S) On-centre distance between the outer clips
- W) Overall width

**NOTA:**

Sugeriamo di fissare le boccole sul lato superiore e sul lato destro dopo l'installazione del vetro.

- A) Distanza massima di fissaggio
- B) Fissaggio con F99063-03 + D99980-02 (per profili in acciaio zincato e decapato)  
F99063-03 + D99980-03 (per profili in acciaio Cor-Ten e inox)
- F) Larghezza profilo interno
- H) Altezza totale
- S) Distanza tra le clips esterne
- W) Larghezza totale

**NOTA:**

Sugerimos fijar los arbustos en la parte superior y en el lado derecho después de la instalación del vidrio.

- A) Distancia máxima de fijación
- B) Fijación con F99063-03 + D99980-02 (para perfiles de acero galvanizado y brillante)  
F99063-03 + D99980-03 (para perfiles de acero Cor-Ten e inoxidable)
- F) Ancho del perfil interno
- H) Altura total
- S) Distancia entre clips externos
- W) Ancho total

**Installation**

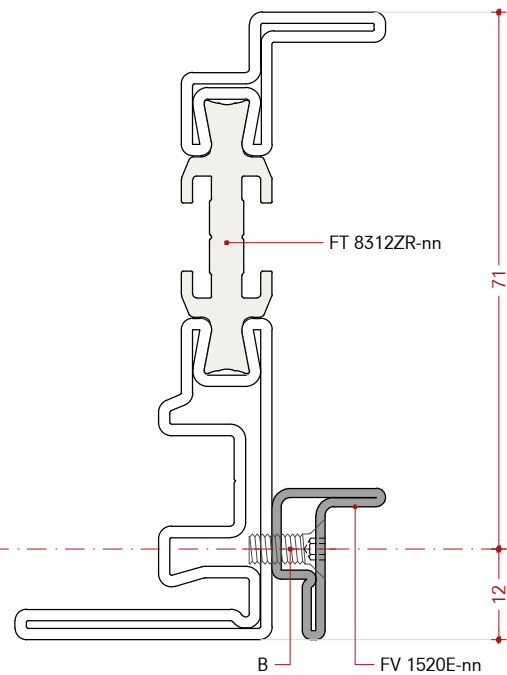
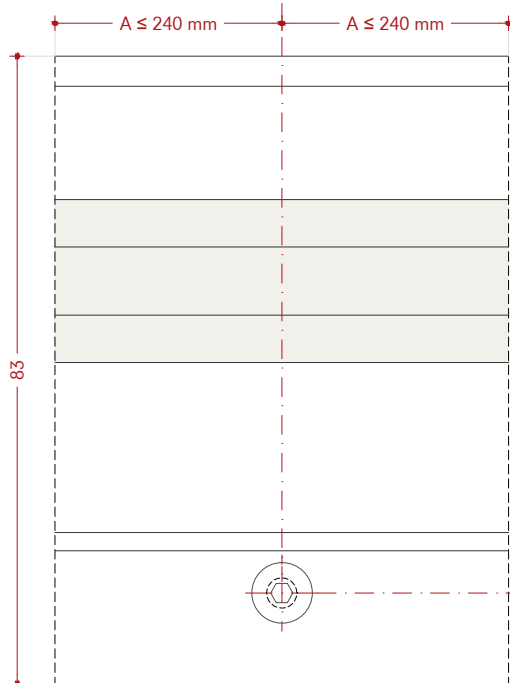
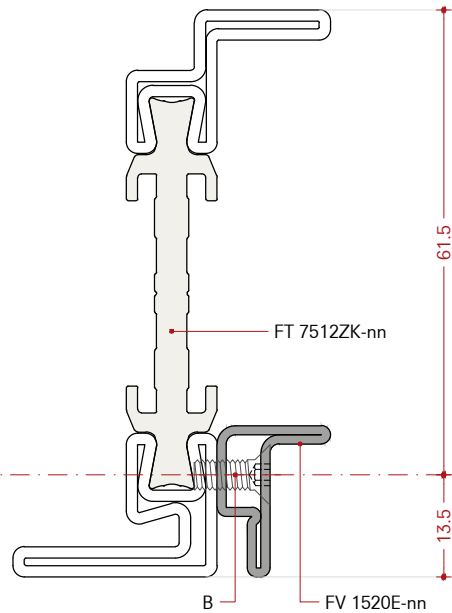
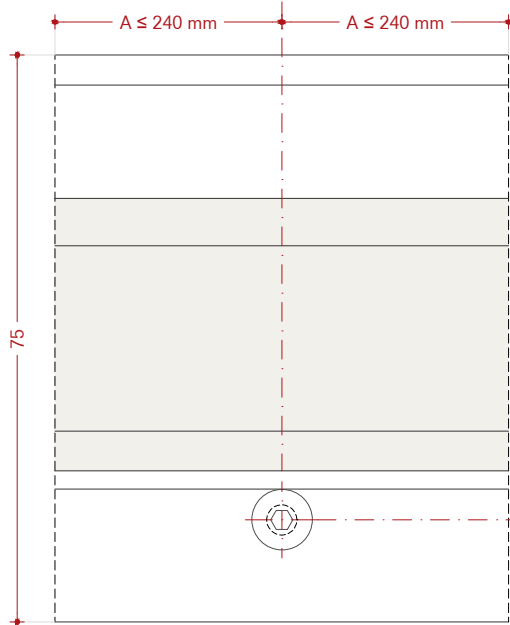
Glazing beads  
Positioning of glazing bead

**Montaggio**

Fermavetri  
Posizionamento fermavetro

**Montaje**

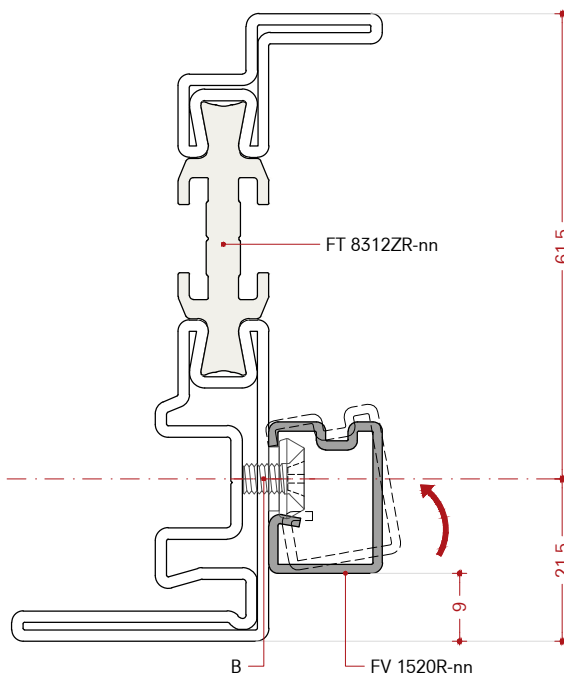
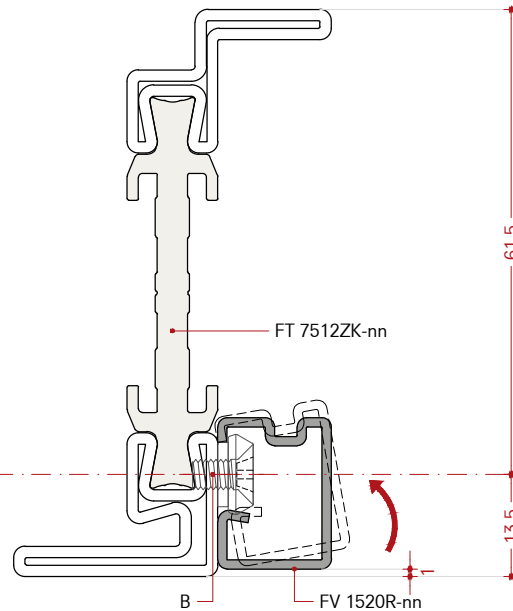
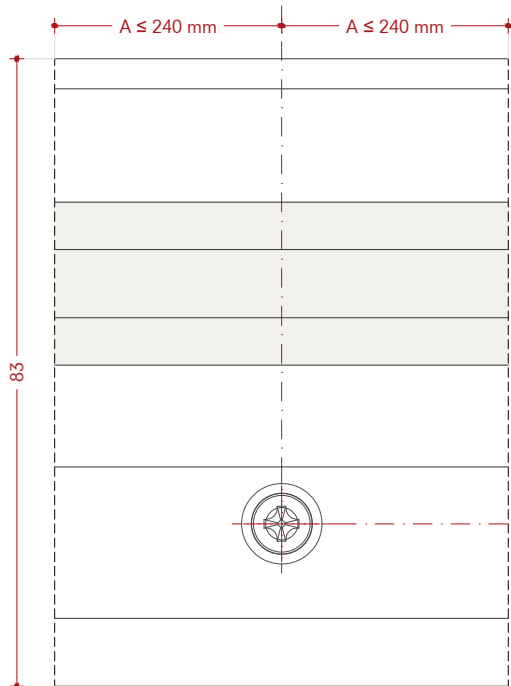
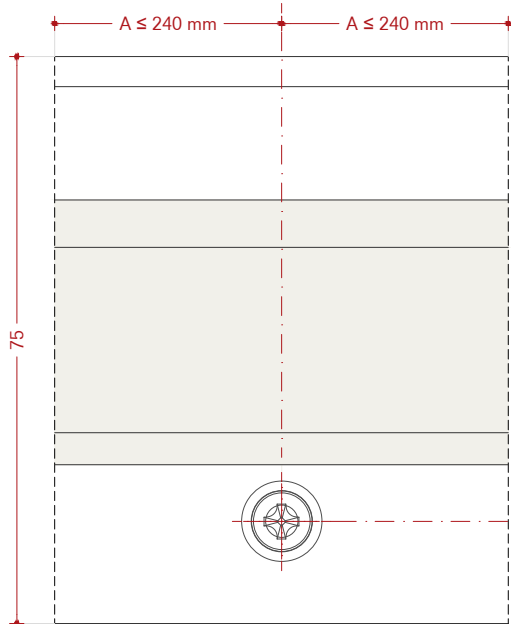
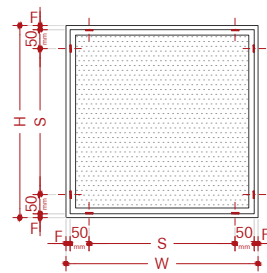
Junquillos  
Colocación de junquillo



A) Maximum fixing distance  
B) Screws D99880-03

A) Distanza massima di fissaggio  
B) Viti D99880-03

A) Distancia máxima de fijación  
B) Tornillos D99880-03



**NOTE:**

We suggest to fix the bushes on the top and on the right side after the installation of the glass.

- A) Maximum fixing distance
- B) Fastening with F99063-03 + D99980-02 (for galvanized and bright steel profiles)  
F99063-03 + D99980-03 (for Cor-Ten and stainless steel profiles)
- F) Internal profile width
- H) Overall height
- S) On-centre distance between the outer clips
- W) Overall width

**NOTA:**

Sugeriamo di fissare le bocche sul lato superiore e sul lato destro dopo l'installazione del vetro.

- A) Distanza massima di fissaggio
- B) Fissaggio con F99063-03 + D99980-02 (per profili in acciaio zincato e decapato)  
F99063-03 + D99980-03 (per profili in acciaio Cor-Ten e inox)
- F) Larghezza profilo interno
- H) Altezza totale
- S) Distanza tra le clips esterne
- W) Larghezza totale

**NOTA:**

Sugerimos fijar los arbutos en la parte superior y en el lado derecho después de la instalación del vidrio.

- A) Distancia máxima de fijación
- B) Fijación con F99063-03 + D99980-02 (para perfiles de acero galvanizado y brillante)  
F99063-03 + D99980-03 (para perfiles de acero Cor-Ten e inoxidable)
- F) Ancho del perfil interno
- H) Altura total
- S) Distancia entre clips externos
- W) Ancho total

**Installation**

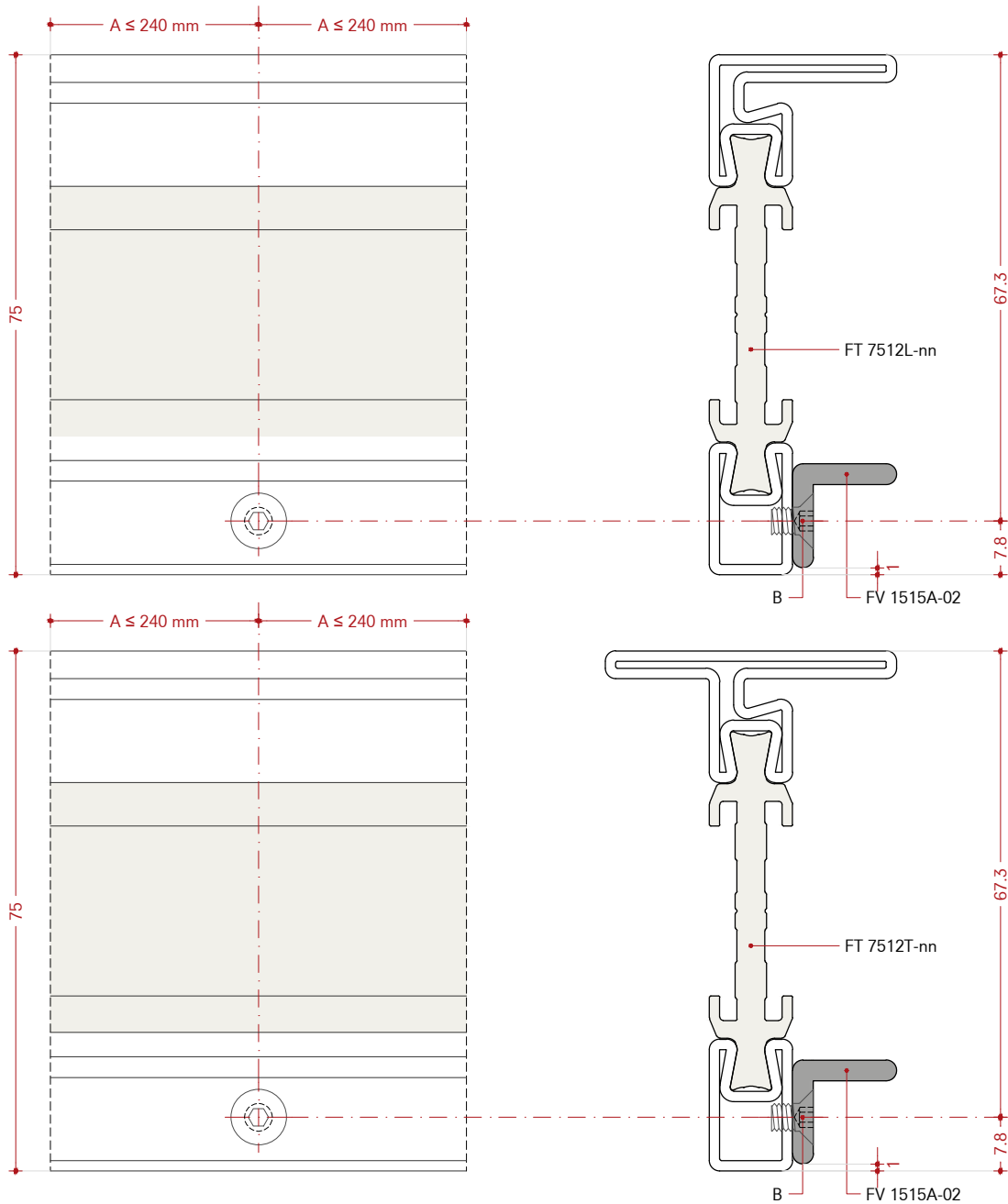
Glazing beads  
Positioning of glazing bead

**Montaggio**

Fermavetri  
Posizionamento fermavetro

**Montaje**

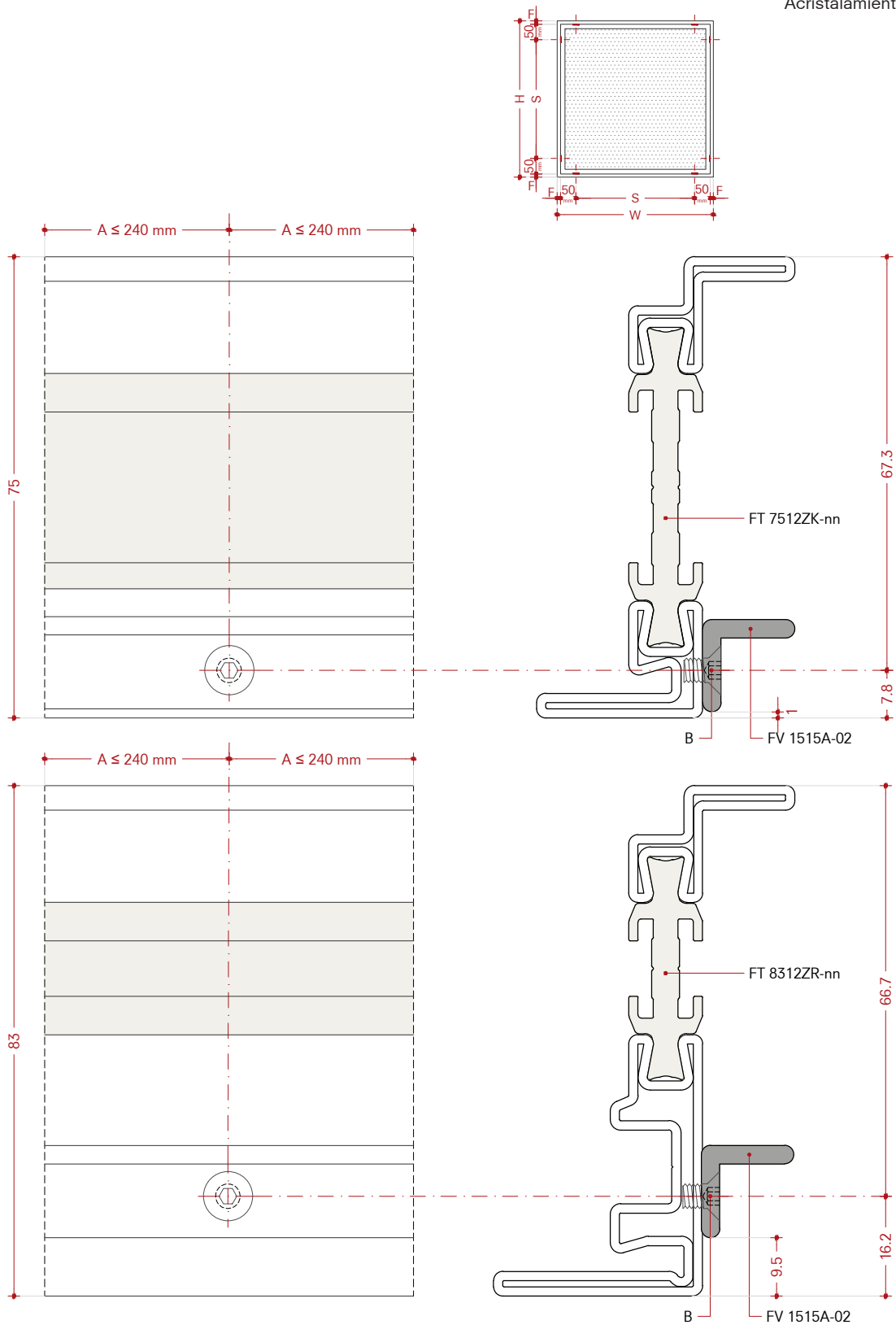
Junquillos  
Colocación de junquillo



A) Maximum fixing distance  
B) Screws D99867-03

A) Distanza massima di fissaggio  
B) Viti D99867-03

A) Distancia máxima de fijación  
B) Tornillos D99867-03



A) Maximum fixing distance  
B) Screws D99867-03  
F) Internal profile width  
H) Overall height  
S) On-centre distance between the outer clips  
W) Overall width

A) Distanza massima di fissaggio  
B) Viti D99867-03  
F) Larghezza profilo interno  
H) Altezza totale  
S) Distanza tra le clips esterne  
W) Larghezza totale

A) Distancia máxima de fijación  
B) Tornillos D99867-03  
F) Ancho del perfil interno  
H) Altura total  
S) Distancia entre clips externos  
W) Ancho total

**Installation**

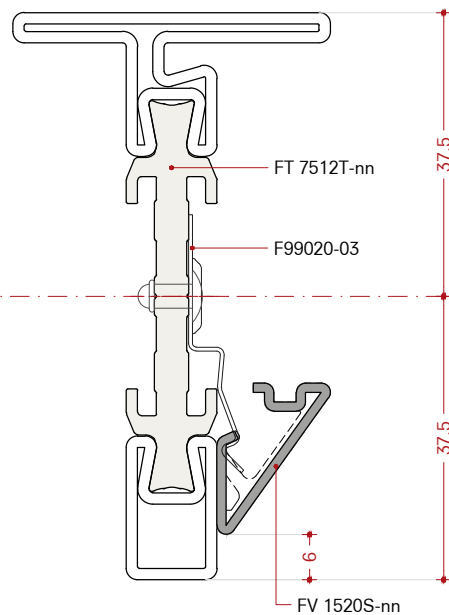
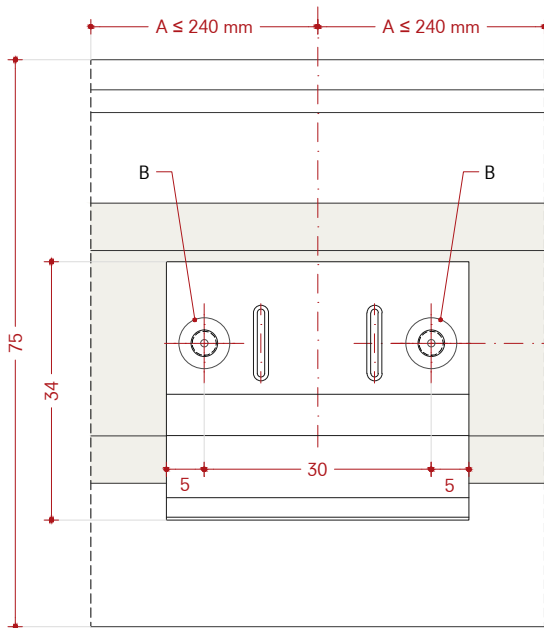
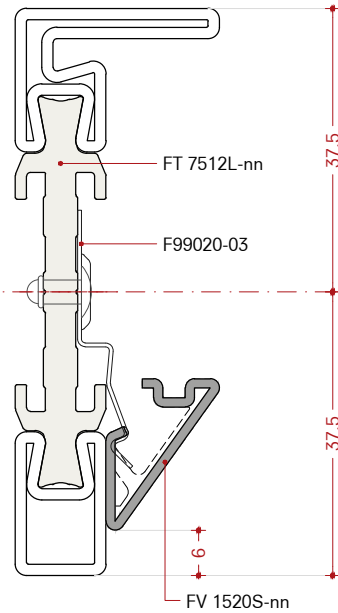
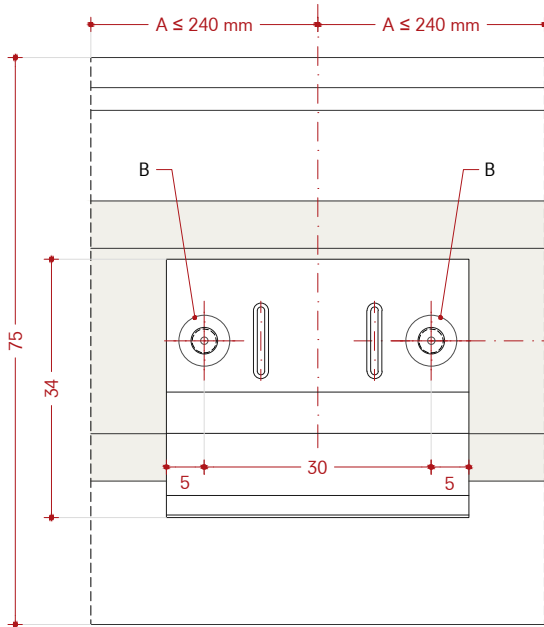
Glazing beads  
Positioning of glazing bead

**Montaggio**

Fermavetri  
Posizionamento fermavetro

**Montaje**

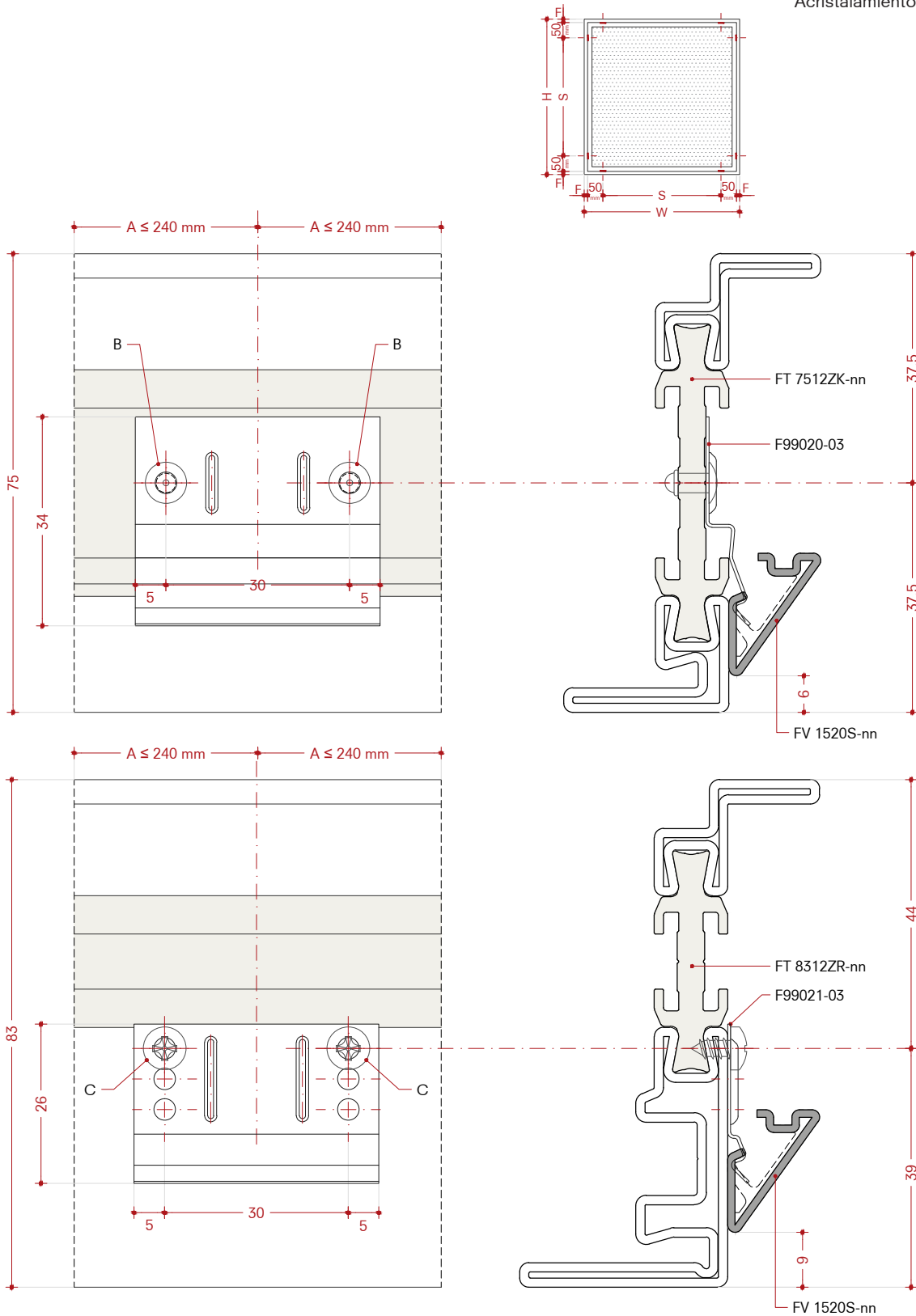
Junquillos  
Colocación de junquillo



A) Maximum fixing distance  
B) Rivet D99950-03

A) Distanza massima di fissaggio  
B) Rivetto D99950-03

A) Distancia máxima de fijación  
B) Remache D99950-03



- A) Maximum fixing distance
- B) Rivet D99950-03
- C) Fastening with D99801-03 screws
- F) Internal profile width
- H) Overall height
- S) On-centre distance between the outer clips
- W) Overall width

- A) Distanza massima di fissaggio
- B) Rivetto D99950-03
- C) Fissaggio con viti D99801-03
- F) Larghezza profilo interno
- H) Altezza totale
- S) Distanza tra le clips esterne
- W) Larghezza totale

- A) Distancia máxima de fijación
- B) Remache D99950-03
- C) Fijación con tornillos D99801-03
- F) Ancho del perfil interno
- H) Altura total
- S) Distancia entre clips externos
- W) Ancho total

**Installation**

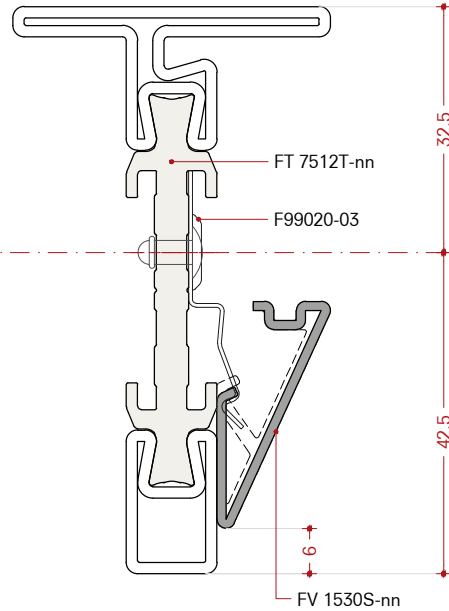
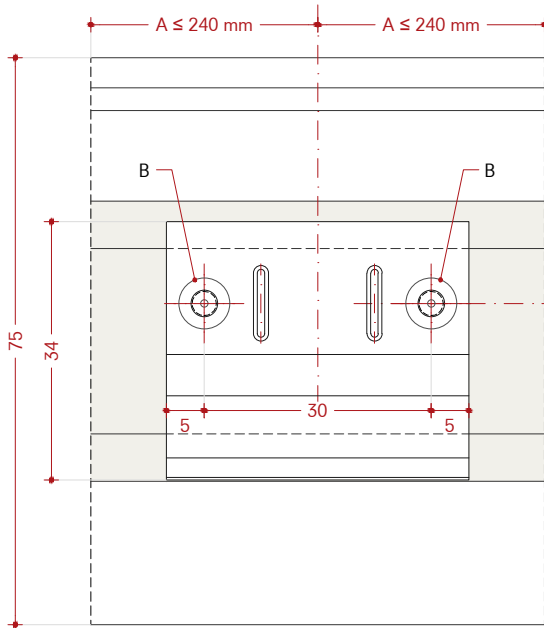
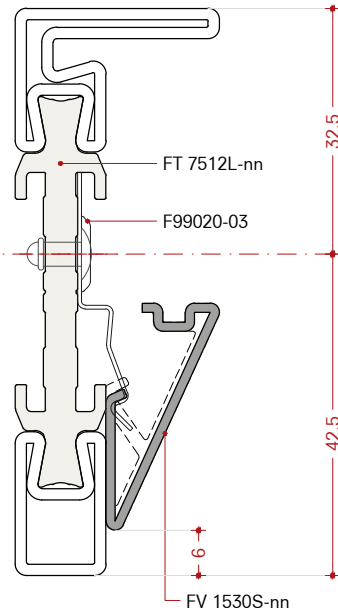
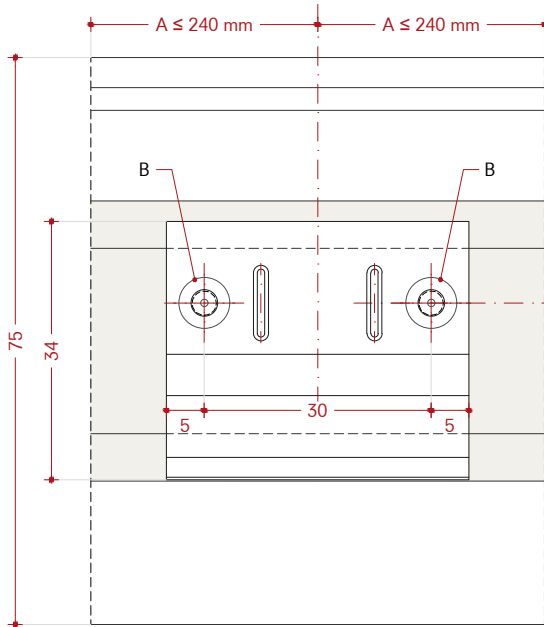
Glazing beads  
Positioning of glazing bead

**Montaggio**

Fermavetri  
Posizionamento fermavetro

**Montaje**

Junquillos  
Colocación de junquillo

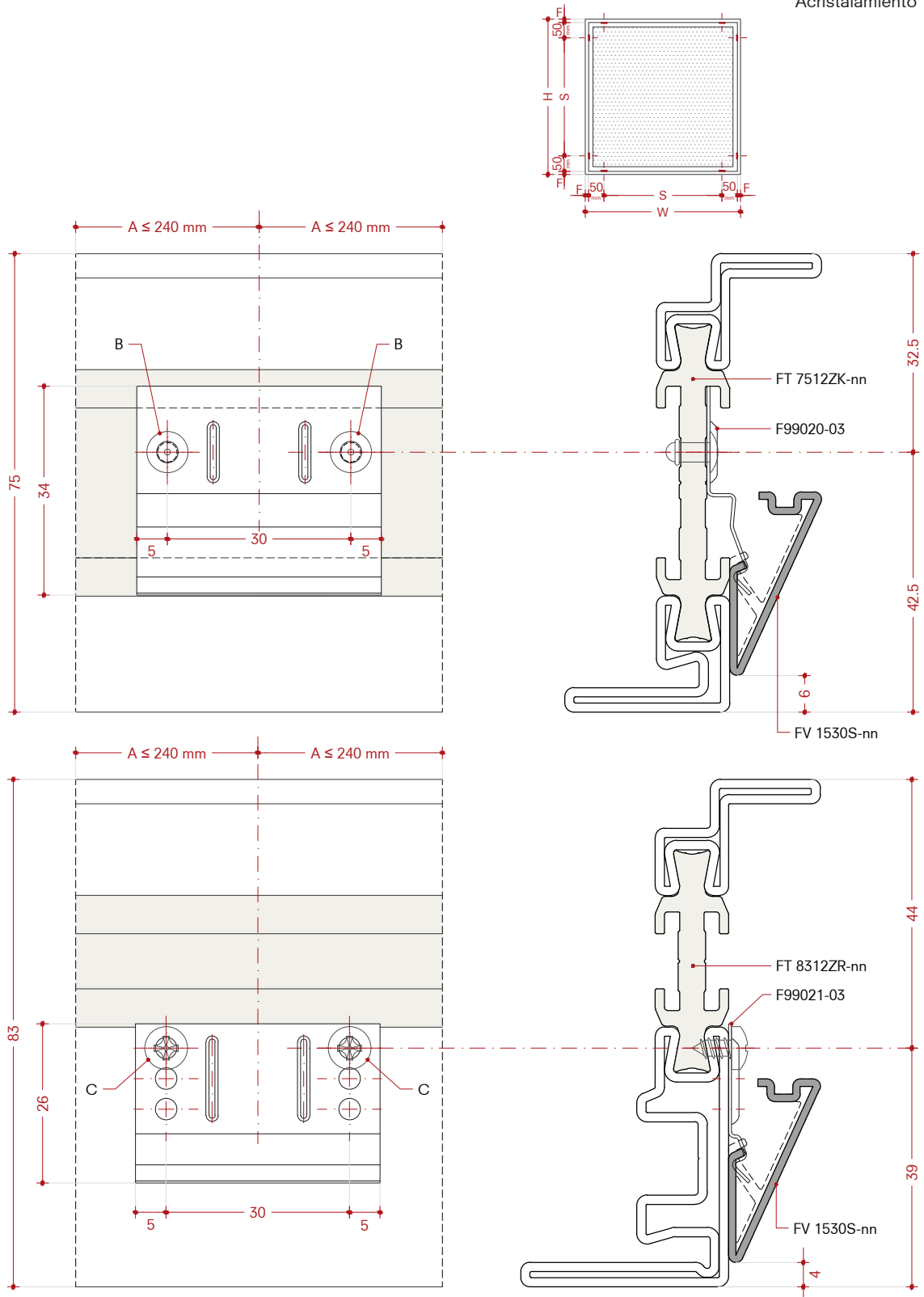


A) Maximum fixing distance  
B) Rivet D99950-03

A) Distanza massima di fissaggio  
B) Rivetto D99950-03

A) Distancia máxima de fijación  
B) Remache D99950-03





- A) Maximum fixing distance
- B) Rivet D99950-03
- C) Fastening with D99801-03 screws
- F) Internal profile width
- H) Overall height
- S) On-centre distance between the outer clips
- W) Overall width

- A) Distanza massima di fissaggio
- B) Rivetto D99950-03
- C) Fissaggio con viti D99801-03
- F) Larghezza profilo interno
- H) Altezza totale
- S) Distanza tra le clips esterne
- W) Larghezza totale

- A) Distancia máxima de fijación
- B) Remache D99950-03
- C) Fijación con tornillos D99801-03
- F) Ancho del perfil interno
- H) Altura total
- S) Distancia entre clips externos
- W) Ancho total



**General technical instructions**

**Indicazioni tecniche generali**

**Instrucciones técnicas generales**

**6.0**

Ventilation glazing rebate  
 Bending radius  
 Coating

Ventilazione vetrocamera  
 Raggi di curvatura  
 Verniciatura

Ventilación del acristalamiento  
 Radios de curvatura  
 Pintura

**6.1**  
**6.2**  
**6.3**



**Ventilation glazing rebate**

**Ventilazione  
vetrocamera**

**Ventilación del  
acristalamiento**

**6.1**



**Ventilation glazing rebate**

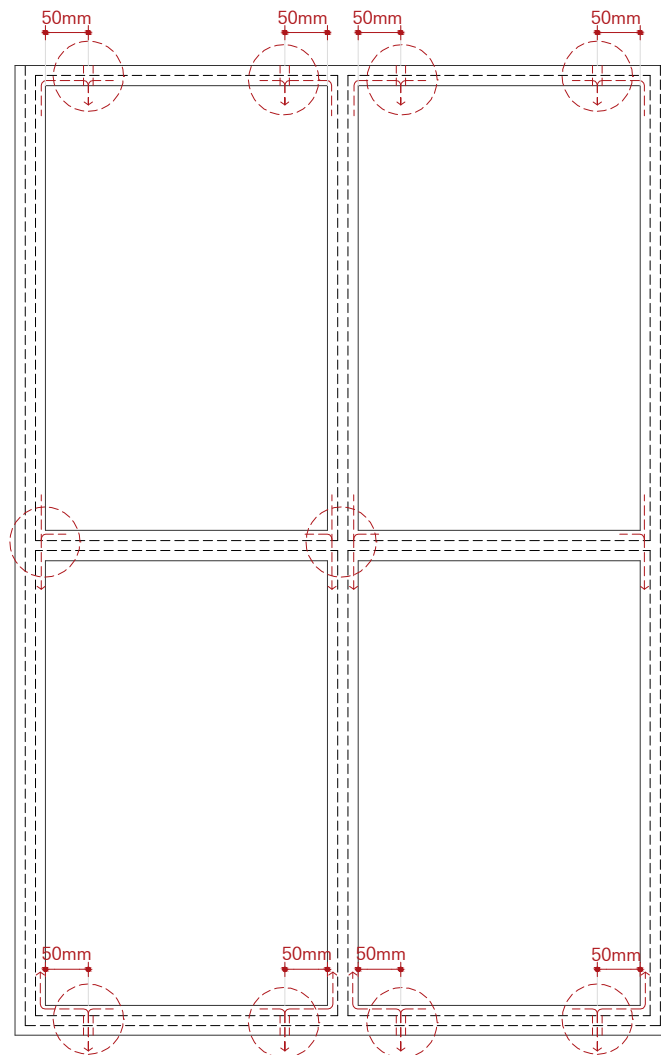
If there is a high chance of moisture forming in the glazing rebate, appropriate ventilation must be provided.  
 In such cases, drainage holes and outlets must be provided to enhance air circulation and to keep moisture away from the insulated glazing.

**Ventilazione vetrocamera**

Se esiste un'alta possibilità di formazione di umidità nella battuta del vetro, deve essere fornita un'adeguata ventilazione.  
 In tal caso, devono essere previsti fori di drenaggio e aerazione per migliorare la circolazione dell'aria ed evitare formazione di umidità sui vetri isolanti.

**Ventilación del acristalamiento**

Si existe una alta probabilidad de que se forme humedad el galce del acristalamiento, se debe proporcionar una ventilación adecuada.  
 En tales casos, se deben proporcionar orificios de drenaje y salidas para mejorar la circulación del aire y mantener la humedad alejada del acristalamiento aislado.







**Bending radius**

**Raggi di curvatura**

**Radios de curvatura**

**6.2**

**Bending radius**

These bending dimensions are available only for W75 TB profiles, not for D75 TB door profiles.

**Raggi di curvatura**

Queste dimensioni di curvatura valgono solo per profili W75 TB, non per i profili porta D75 TB.

**Radios de curvatura**

Estas dimensiones de plegado solo son válidas para los perfiles W75 TB, no para los perfiles de puerta D75 TB.

| Fixed frames<br>Telai fissi<br>Marcos fijos |                                           |                                                 |
|---------------------------------------------|-------------------------------------------|-------------------------------------------------|
| Profile<br>Profilo<br>Perfil                | Description<br>Descrizione<br>Descripción | Minimum radius<br>Raggio minimo<br>Radio mínimo |
| FT 7512L-nn                                 | L profile<br>Profilo a L<br>L perfil      | 500 mm                                          |
| FT 7512Z-nn                                 | Z profile<br>Profilo a Z<br>Z perfil      | 550 mm                                          |
| FT 7512T-nn                                 | T profile<br>Profilo a T<br>T perfil      | 550 mm                                          |
| FT 7512H-nn                                 | H profile<br>Profilo a H<br>H perfil      | 550 mm                                          |

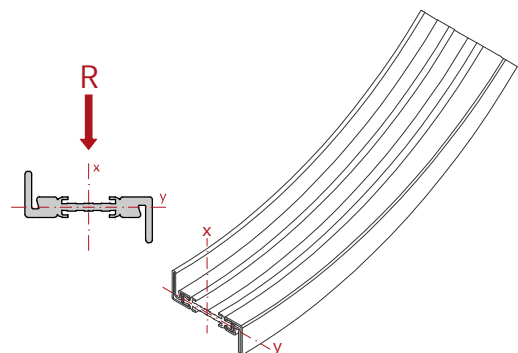
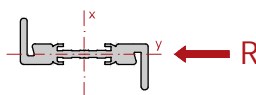
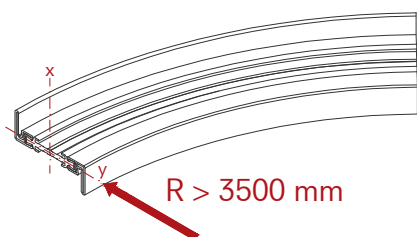
| Frame + Window<br>Telaio + Finestra<br>Marco + Ventana |                                           |                                                 |
|--------------------------------------------------------|-------------------------------------------|-------------------------------------------------|
| Profile<br>Profilo<br>Perfil                           | Description<br>Descrizione<br>Descripción | Minimum radius<br>Raggio minimo<br>Radio mínimo |
| FT 7512HK-nn                                           | H profile<br>Profilo a H<br>H perfil      | 550 mm                                          |
| FT 7512LK-nn                                           | L profile<br>Profilo a L<br>L perfil      | 550 mm                                          |
| FT 7512TK-nn                                           | T profile<br>Profilo a T<br>T perfil      | 500 mm                                          |
| FT 7512ZK-nn                                           | Z profile<br>Profilo a Z<br>Z perfil      | 500 mm                                          |

| Profile<br>Profilo<br>Perfil | Description<br>Descrizione<br>Descripción    | Minimum radius<br>Raggio minimo<br>Radio mínimo |
|------------------------------|----------------------------------------------|-------------------------------------------------|
| FV 1515E-00                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1520E-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1525E-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1530E-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1535E-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1515A-02                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 450 mm                                          |
| FV 1815A-02                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 450 mm                                          |
| FV 1525A-01                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 450 mm                                          |
| FV 1520S-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | NOT BENDABLE<br>NON CURVABILE<br>NO CURVABLE    |
| FV 1530S-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | NOT BENDABLE<br>NON CURVABILE<br>NO CURVABLE    |
| FV 1520R-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1525R-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1530R-nn                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1515R-00                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1520R-00                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1525R-00                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 500 mm                                          |
| FV 1530R-00                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 1000 mm                                         |
| FV 1535R-00                  | Glazing bead<br>Profilo fermavetro<br>Marcos | 1000 mm                                         |

The bending along the x axis is allowed only for minimum radius of 3500 mm

La calandratura lungo l'asse x è consentita solo per un raggio minimo di 3500 mm

El calandrado a lo largo del eje x está permitida solo para un radio mínimo de 3500 mm





**Coating**

**Verniciatura**

**Pintura**

**6.3**

**Coating**

**Verniciatura a liquido**

**Pintura líquida**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Painting procedure (ISO 12944) - based on Sherwin Williams liquid paints<br>Procedura di verniciatura (ISO 12944) - basata sulle vernici liquide Sherwin Williams<br>Procedimiento de pintura (ISO 12944) - basado en pinturas líquidas Sherwin Williams                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Surface cleaning / Pulizia delle superfici / Limpieza de superficie</b>                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• Sand blast frames until metal gets almost white with grit Sa 2.5 for cycle C3-H/C4-M or sand blast frames until metal gets totally white with grit Sa 3 for cycle C5M-H.</li> <li>• Clean up any debris of sand blasting with compressed air in order to obtain a perfectly cleaned surface.</li> <li>• Apply the first primer layer within 2 hours from sand blasting or, in any case, before the oxidation process starts.</li> </ul> | <ul style="list-style-type: none"> <li>• Sabbiare i telai fino a quando il metallo diventa quasi bianco con graniglia Sa 2.5 per il ciclo C3-H/C4-M o sabbia i telai fino a quando il metallo non diventa completamente bianco con graniglia Sa 3 per il ciclo C5M-H.</li> <li>• Pulire dai residui della sabbatura con aria compressa per ottenere una superficie perfettamente pulita.</li> <li>• Applicare il primo strato di primer entro 2 ore dalla sabbatura o, comunque, prima dell'inizio del processo di ossidazione.</li> </ul>              | <ul style="list-style-type: none"> <li>• Lije los marcos con chorro de arena hasta que el metal se vuelva casi blanco con el grano Sa 2.5 para el ciclo C3-H/C4-M o lije los marcos con chorro de arena hasta que el metal se vuelva totalmente blanco con el grano Sa 3 para el ciclo C5M-H.</li> <li>• Limpie cualquier residuo de chorro de arena con aire comprimido para obtener una superficie perfectamente limpia.</li> <li>• Aplique la primera capa de imprimación dentro de las 2 horas posteriores al chorro de arena o, en cualquier caso, antes de que comience el proceso de oxidación.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Liquid painting options / Opzioni di verniciatura a liquido / Opciones de pintura líquida</b>                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>C3-H</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• Apply first layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 70 µm</li> <li>• Apply a second layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 70 µm</li> <li>• Apply a third layer of poly-acrylic enamel Inverplast/B pastel: 60 µm Colours and shades as per customer choice (*).</li> <li>• Total coating thickness: 200 µm</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>• Applicare il primo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 70 µm</li> <li>• Applicare un secondo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 70 µm</li> <li>• Applicare un terzo strato di smalto poliaccrilico Inverplast/B pastello: 60 µm Colori e tonalità a scelta del cliente (*).</li> <li>• Spessore totale del rivestimento: 200 µm</li> </ul>                                                                                                                                | <ul style="list-style-type: none"> <li>• Aplique la primera capa de la imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 70 µm</li> <li>• Aplique una segunda capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 70 µm</li> <li>• Aplique una tercera capa de esmalte poliaccrilico Inverplast/B pastel: 60 µm Colores y tonos según la elección del cliente (*).</li> <li>• Espesor total del recubrimiento: 200 µm.</li> </ul>                                                                                                                |
| <p><b>C4-M</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• Apply first layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm</li> <li>• Apply a second layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm</li> <li>• Apply a third layer of poly-acrylic enamel Inverplast/B pastel: 60 µm Colours and shades as per customer choice (*).</li> <li>• Total coating thickness: 240 µm</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>• Applicare il primo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm</li> <li>• Applicare un secondo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm</li> <li>• Applicare un terzo strato di smalto poliaccrilico Inverplast/B pastello: 60 µm Colori e tonalità a scelta del cliente (*).</li> <li>• Spessore totale del rivestimento: 240 µm</li> </ul>                                                                                                                                | <ul style="list-style-type: none"> <li>• Aplique la primera capa de la imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm</li> <li>• Aplique una segunda capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm</li> <li>• Aplique una tercera capa de esmalte poliaccrilico Inverplast/B pastel: 60 µm Colores y tonos según la elección del cliente (*).</li> <li>• Espesor total del recubrimiento: 240 µm.</li> </ul>                                                                                                                |
| <p><b>C5M-H</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• Apply first layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 80 µm</li> <li>• Apply a second layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm</li> <li>• Apply a third layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm</li> <li>• Apply final layer of poly-acrylic enamel Inverplast/B pastel: 60 µm Colours and shades as per customer choice (*).</li> <li>• Total coating thickness: 320 µm</li> </ul> | <ul style="list-style-type: none"> <li>• Applicare il primo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 80 µm</li> <li>• Applicare un secondo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm</li> <li>• Applicare un terzo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm</li> <li>• Applicare lo strato finale di smalto poliaccrilico Inverplast/B pastello: 60 µm Colori e tonalità a scelta del cliente (*).</li> <li>• Spessore totale del rivestimento: 320 µm</li> </ul>        | <ul style="list-style-type: none"> <li>• Aplique la primera capa de la imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 80 µm</li> <li>• Aplique una segunda capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm</li> <li>• Aplique una tercera capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm</li> <li>• Aplique la capa final de esmalte poliaccrilico Inverplast/B pastel: 60 µm Colores y tonos según la elección del cliente (*).</li> <li>• Espesor total del recubrimiento: 320 µm</li> </ul> |
| <b>Drying-curing process / Processo di essiccazione-indurimento / Proceso de secado-curado</b>                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• Dry frames for at least 5 hours at a room temperature of 15°C (60°F) between the different applications of epoxy primers.</li> <li>• Wait for at least 8 hours at a room temperature of 15°C (60°F) before applying the final enamel paint on the last epoxy primer application.</li> <li>• Max. humidity level: 85%</li> </ul>                                                                                                         | <ul style="list-style-type: none"> <li>• Asciugare i telai per almeno 5 ore a una temperatura ambiente di 15°C (60°F) un'applicazione e l'altra di primer epossidico.</li> <li>• Attendere almeno 8 ore a temperatura ambiente di 15°C (60°F) prima di applicare la vernice a smalto finale sull'ultima applicazione di primer epossidico.</li> <li>• Massimo livello di umidità: 85%</li> </ul>                                                                                                                                                        | <ul style="list-style-type: none"> <li>• Seque los marcos durante al menos 5 horas a una temperatura ambiente de 15°C (60°F) entre las diferentes aplicaciones de imprimaciones epoxi.</li> <li>• Espere al menos 8 horas a una temperatura ambiente de 15°C (60°F) antes de aplicar la pintura de esmalte final en la última aplicación de imprimación epoxi.</li> <li>• Max. nivel de humedad: 85%</li> </ul>                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| (*) For colour selection and/or special touch up finishes, please contact directly Sherwin Williams.<br>(*) Per la selezione del colore e/o finiture speciali di ritocco, contattare direttamente Sherwin Williams.<br>(*) Para la selección de colores y/o acabados especiales de retoque, comuníquese directamente con Sherwin Williams.                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Powder Coating

W75 TB profiles can be wet painted and powder coated. In case of powder coating the profile temperature must not exceed 180°C (18 min.). Once out of the oven the frame must be accurately removed and laid in a horizontal position until complete coating. Depending on the aesthetic requirements, for window leaves we recommend to cover the visible areas of the isolator with a heat resistant tape before powder coating.

Polyester powder is mainly used.

The object temperature of max. 180°C to be measured on the frame in the furnace must not exceed a duration of 18 minutes when powder coating frames of composite profiles. Compliance with this condition is to be documented regularly by records.

Contact must be established in such a way to prevent any deformation of the profiles and frames. Additional support may be required for flexible profiles. All the holes and millings must be foreseen before the painting operations.

## Process sequence

### Preparation

- Grind welding points, blast them if necessary (remove waviness).
- Degreasing and cleaning of all component surfaces.
- Roughening (in general sweeping) of all component surfaces / alternative: chemical surface treatment.

### Painting cycle

- Degreasing
- Flushing
- Zinc phosphating
- Flushing
- 1x polyester powder paint, nominal coat thickness of 60-90 µm

The safety regulations and procedural instructions of the manufacturers must be observed.

## Verniciatura a polvere

I profili W75 TB possono essere verniciati a liquido e verniciati a polvere. In caso di verniciatura a polvere, la temperatura dei profili non deve superare i 180°C (18 min.). All'uscita del forno i telai vanno rimossi accuratamente ed adagiati in posizione piana fino al completo raffreddamento. A seconda delle esigenze estetiche, consigliamo di coprire le aree visibili dell'anima in poliammide con un nastro resistente al calore prima della verniciatura a polvere. Vengono utilizzate prevalentemente polveri di poliestere. In caso di rivestimento con vernice in polvere su telai realizzati con profili compositi OTTOSTUMM | Mogs la temperatura dei profili, che deve essere misurata sul telaio nel forno, non deve superare i 180°C per 18 minuti. Il rispetto di queste condizioni deve essere documentato regolarmente tramite apposite registrazioni. Il supporto dei telai deve avvenire in modo tale da escludere ogni possibile deformazione. In caso di profili flessibili potrebbe essere necessario un supporto aggiuntivo. Tutti i fori e le lavorazioni devono essere previste prima delle operazioni di verniciatura.

## Fasi del processo

### Preparazione

- Smerigliatura dei punti di saldatura, se necessario sabbatura (eliminare le ondulazioni).
- Rimozione del grasso e pulizia di tutte le superfici del componente.
- Preparazione meccanica (in genere sabbatura leggera, sweep) di tutte le superfici del componente / In alternativa: trattamento chimico della superficie.

### Ciclo verniciatura

- Sgrassaggio
- Risciacquo
- Fosfatazione allo zinco
- Risciacquo
- 1x vernice in polvere PE, spessore dello strato nominale 60-90 µm

Osservare le precauzioni di sicurezza e le indicazioni sui metodi del produttore.

## Recubrimiento en polvo

Los perfiles W75 TB pueden pintarse en húmedo y recubrirse con pintura en polvo. En caso de recubrimiento en polvo, la temperatura del perfil no debe superar los 180°C (18 min.). Dependiendo de los requisitos estéticos, para las ventanas recomendamos cubrir las áreas visibles del aislador con una cinta resistente al calor antes del recubrimiento en polvo. Al igual que en el revestimiento individual de piezas de aluminio, se usan principalmente polvos de poliéster. En el caso de revestimiento laca en polvo de marcos de perfiles de unión de OTTOSTUMM | Mogs no se debe superar el tiempo de 18 min de exposición a la temperatura de objeto de máx. 180°C medida en el marco en el horno. Debe documentarse el cumplimiento de este requisito mediante un registro regular de las condiciones. El contacto debe realizarse de manera que los perfiles y marcos no puedan deformarse. En el caso de perfiles que se doblan con facilidad puede hacer falta un soporte adicional. Todos los orificios y los procesos de poliuretano deben preverse antes de las operaciones de pintura. Siempre proporcione la cinta protectora en las superficies del poliuretano. Después de pintar, coloque cuidadosamente los marcos en posición horizontal hasta que estén completamente fríos.

## Secuencia

### Preparación

- Lijar los puntos de soldadura o aplicar chorro si es necesario (eliminar ondulaciones).
- Desengrasar y limpiar todas las superficies de componentes.
- Raspado (p. ej. Sweeping) de todas las superficies de componentes/alternativa: tratamiento químico de la superficie.

### Ciclo de pintura

- Desengrasado
- Enrojamiento
- Realizar fosfatado de cinc
- Enrojamiento
- 1x capa de laca de polvo de poliéster, grosor nominal de capa 60-90 µm

Deben tenerse en cuenta las normas de seguridad y las instrucciones del procedimiento de los fabricantes.

VFF leaflet St. 01: 2015-10

Scheda descrittiva VFF St. 01: 2015-10 Hoja de datos St. 01 VFF: 2015-10

Correlation of corrosivity categories, protection period and corrosion protection classes.

Corrispondenze tra categorie di corrosività, durata della protezione e classi di protezione contro la corrosione.

Relación de categorías de corrosividad, duración de protección, accesibilidad y clases de protección contra corrosión.

| Corrosivity category<br>Categoría corrosivitat<br>Categoría corrosividad | Protection period<br>Periodo di protezione<br>Periodo de protección | <sup>(1)</sup> Corrosion protection class<br>Classe di protezione<br>Clase de protección |                      | Environment example outdoors<br>Esempio di ambiente esterno<br>Ejemplo de ambiente externo                                                                                                                                                                                                                                                              | Environment example indoors<br>Esempio di ambiente interno<br>Ejemplo de ambiente interno                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                          |                                                                     |                                                                                          |                      |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
| C1<br>Insignificant<br>Insignificante<br>Insignificante                  | Low<br>Basso<br>Bajo                                                | I                                                                                        | I                    |                                                                                                                                                                                                                                                                                                                                                         | Heated building with neutral atmosphere.<br>Edificio riscaldato con atmosfera neutra.<br>Edificio climatizado con ambiente neutral.                                                                                                                                                                                                                                   |
|                                                                          | Medium<br>Medio<br>Medio                                            | I                                                                                        | I                    |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | High<br>Alto<br>Alto                                                | I                                                                                        | I                    |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
| C2<br>Low<br>Basso<br>Bajo                                               | Low<br>Basso<br>Bajo                                                | I                                                                                        | II                   | Rural areas with a low level of pollution.<br>Zone rurali con basso livello di inquinamento.<br>Zonas rurales con bajo nivel de contaminación.                                                                                                                                                                                                          | Buildings where condensation may occasionally occur, e.g. gymnasiums.<br>Edifici in cui può verificarsi occasionalmente condensa, ad es. palestre.<br>Edificios donde puede producirse condensación ocasionalmente, p. Ej. gimnasios.                                                                                                                                 |
|                                                                          | Medium<br>Medio<br>Medio                                            | I                                                                                        | II                   |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | High<br>Alto<br>Alto                                                | I                                                                                        | III                  |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
| C3<br>Moderate<br>Moderato<br>Moderar                                    | Low<br>Basso<br>Bajo                                                | II                                                                                       | III                  | Urban and industrial atmosphere, moderate sulphur dioxide pollution, coastal area with low salt content.<br>Ambiente urbano e industriale, moderato inquinamento da anidride solforosa, area costiera a basso contenuto di sale.<br>Atmósfera urbana e industrial, contaminación moderada de dióxido de azufre, área costera con bajo contenido de sal. | Production rooms with high humidity and some air pollution, e.g. laundries, dairies, canteen kitchens, winter gardens.<br>Ambiente urbano e industriale, moderato inquinamento da anidride solforosa, area costiera a basso contenuto di sale.<br>Atmósfera urbana e industrial, contaminación moderada de dióxido de azufre, área costera con bajo contenido de sal. |
|                                                                          | Medium<br>Medio<br>Medio                                            | II                                                                                       | III                  |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | High<br>Alto<br>Alto                                                | II                                                                                       | III                  |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
| C4<br>High<br>Alto<br>Alto                                               | Low<br>Basso<br>Bajo                                                | III                                                                                      | III                  | Industrial areas, tunnels, traffic junctions, moderate salt load.<br>Aree industriali, gallerie, incroci stradali, carico di sale moderato.<br>Zonas industriales, túneles, cruces de tráfico, carga salina moderada.                                                                                                                                   | Chemical plants, swimming pools, slaughterhouses.<br>Impianti chimici, piscine, macelli.<br>Plantas químicas, piscinas, mataderos.                                                                                                                                                                                                                                    |
|                                                                          | Medium<br>Medio<br>Medio                                            | III                                                                                      | III                  |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | High<br>Alto<br>Alto                                                | III                                                                                      | > III <sup>(2)</sup> |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
| C5-I<br>Very high<br>Molto alto<br>Muy alto                              | Low<br>Basso<br>Bajo                                                | III                                                                                      | > III <sup>(2)</sup> | Industrial sectors with high moisture and aggressive atmosphere.<br>Settori industriali con elevata umidità e atmosfera aggressiva.<br>Sectores industriales con alta humedad y ambiente agresivo.                                                                                                                                                      | Buildings or areas with almost constant condensation and heavy pollution.<br>Edifici o aree con condensa quasi costante e forte inquinamento.<br>Edificios o áreas con condensación casi constante y fuerte contaminación.                                                                                                                                            |
|                                                                          | Medium<br>Medio<br>Medio                                            | III                                                                                      | > III <sup>(2)</sup> |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | High<br>Alto<br>Alto                                                | > III <sup>(2)</sup>                                                                     | > III <sup>(2)</sup> |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
| C5-M<br>Very high<br>Molto alto<br>Muy alto                              | Low<br>Basso<br>Bajo                                                | III                                                                                      | > III <sup>(2)</sup> | Coastal and offshore areas with high salt concentration.<br>Zone costiere e offshore con alta concentrazione di sale.<br>Zonas costeras y mar adentro con alta concentración de sal.                                                                                                                                                                    | Buildings or areas with almost constant condensation and heavy pollution.<br>Edifici o aree con condensa quasi costante e forte inquinamento.<br>Edificios o áreas con condensación casi constante y fuerte contaminación.                                                                                                                                            |
|                                                                          | Medium<br>Medio<br>Medio                                            | III                                                                                      | > III <sup>(2)</sup> |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | High<br>Alto<br>Alto                                                | > III <sup>(2)</sup>                                                                     | > III <sup>(2)</sup> |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                       |

(1) The indication of the corrosion protection class serves only the assignment of the previous building authority requirements to the new European classification system consisting of corrosivity category and protection period.

(2) The corrosion protection classes are not applicable in the event of very high corrosion loads and long protection periods as well as special loads. In the case of these loads and conditions, the necessary measures must be determined on a case-by-case basis.

Source: DIN 55634 table 1.

(1) L'indicazione della classe di protezione contro la corrosione serve solo per l'allineamento dei requisiti inerenti alla sorveglianza sulle costruzioni al nuovo sistema di classificazione europeo in base a categoria di corrosività e durata della protezione.

(2) In presenza di esposizione a corrosione intensa, durata della protezione prolungata e sollecitazioni particolari le classi di protezione contro la corrosione non sono applicabili. In simili circostanze e condizioni occorre definire le misure da adottare caso per caso.

Fonte: DIN 55634 Tabella 1.

(1) La indicación de la clase de protección contra corrosión solo sirve para asignar los requisitos antiguos de la obra al nuevo sistema de clasificación europeo compuesto por categoría de corrosividad y duración de protección.

(2) En caso de gran carga por corrosión y duración de protección, así como en caso de cargas especiales, las clases de protección contra corrosión no son aplicables. En este caso de cargas y condiciones deben determinarse las medidas individualmente para cada caso.

Fuente: DIN 55634 Tabla 1.



|                                        |                                           |                                        |            |
|----------------------------------------|-------------------------------------------|----------------------------------------|------------|
| <b>General information</b>             | <b>Informazioni generali</b>              | <b>Información general</b>             | <b>7.0</b> |
| Foreword                               | Premessa                                  | Prólogo                                | 7.1        |
| Materials                              | Materiali                                 | Materiales                             | 7.2        |
| European standards                     | Norme Europee                             | Normas europeas                        | 7.3        |
| Orders                                 | Ordini                                    | Pedido                                 | 7.4        |
| Transport and storage                  | Trasporto e stoccaggio                    | Transporte y almacenamiento            | 7.5        |
| Processing:                            | Lavorazioni:                              | Procesamiento:                         | 7.6        |
| - general                              | - aspetti generali                        | - generalidades                        | 7.6.1      |
| - sawing                               | - taglio a sega                           | - corte con sierra                     | 7.6.2      |
| - drilling                             | - foratura                                | - taladrado                            | 7.6.3      |
| - thread cutting                       | - filettatura                             | - corte roscado                        | 7.6.4      |
| - milling                              | - fresatura                               | - fresado                              | 7.6.5      |
| - welding                              | - saldatura                               | - soldadura                            | 7.6.6      |
| - welding station                      | - postazione di saldatura                 | - puesto de soldadura                  | 7.6.7      |
| - straightening work                   | - interventi di rettifica                 | - enderezamiento                       | 7.6.8      |
| - cleaning                             | - pulitura                                | - limpieza                             | 7.6.9      |
| Surface treatment:                     | Trattamento superficiale:                 | Tratamiento de superficie:             | 7.7        |
| - general notes, coating               | - aspetti generali, la verniciatura       | - generalidades, la pintura            | 7.7.1      |
| - procedure                            | - procedura                               | - procedimiento                        | 7.7.2      |
| - weld seam area                       | - area del cordone di saldatura           | - zona de cordón de soldadura          | 7.7.3      |
| - cleaning the surfaces                | - pulizia delle superfici                 | - limpieza de las superficies          | 7.7.4      |
| - mechanical roughening of the surface | - preparazione meccanica della superficie | - raspado mecánico de la superficie    | 7.7.5      |
| - chemical surface treatment           | - trattamento chimico della superficie    | - tratamiento químico de la superficie | 7.7.6      |
| - types of coating                     | - tipi di verniciatura                    | - tipos de pintura                     | 7.7.7      |
| - Cor-Ten profile oxidation            | - ossidazione su profili Cor-Ten          | - oxidación en perfiles Cor-Ten        | 7.7.8      |
| Installation on site:                  | Posa in opera:                            | Montaje:                               | 7.8        |
| - glazing                              | - vetrazione                              | - acristalamientos                     | 7.8.1      |
| - joint sealing                        | - sigillatura giunti                      | - sellado de juntas                    | 7.8.2      |
| - damage prevention on site            | - prevenzione dei danni in cantiere       | - prevención de daños en el sitio      | 7.8.3      |
| - cleaning                             | - pulizia                                 | - limpieza                             | 7.8.4      |
| - use and maintenance                  | - uso e manutenzione                      | - uso y mantenimiento                  | 7.8.5      |
| Technical services                     | Consulenza tecnica                        | Apoyo técnico                          | 7.9        |
| Disclaimer                             | Avvertenze                                | Descargo                               | 7.10       |

## 7.1 Foreword

The profile systems from OTTOSTUMM I Mogs are designed for use in door, window and façade construction. The high dimensional accuracy and straightness of the profiles makes them easy to be processed.

These documents are intended for specialist companies that are familiar with the relevant standards, directives and regulations.

Notes on construction suggestions and application examples:

- The illustrations shown are non-binding suggestions.
- The examples cannot cover every possible application.
- All relevant regulations are to be observed.
- The processing guidelines for the OTTOSTUMM I Mogs product ranges also apply.
- The static dimensioning of the profiles, anchors, dowels, screws and glazing must be determined independently by the executing company in accordance with the applicable standards, directives and regulations.
- In individual cases they must be checked for their usefulness and, if necessary, modified in consultation with the responsible architect, structural engineer and/or building physicist.
- The professional execution is the responsibility of the executing company.
- OTTOSTUMM I Mogs assumes no liability for this.

For all items contained in this documentation, as well as for all activities related to them (order, transport, etc.), our General Conditions and Terms, which can be downloaded at [www.ottostumm-mogs.com](http://www.ottostumm-mogs.com), apply.

## 7.1 Premessa

I sistemi per profili di OTTOSTUMM I Mogs sono progettati per l'utilizzo nella costruzione di porte, portoni, finestre e facciate. L'elevata precisione dimensionale e la perfetta linearità dei profili semplificano la lavorazione. La presente documentazione è riservata ad aziende che hanno già dimestichezza con le norme, le direttive e le disposizioni in materia.

Note relative alle proposte di costruzione e agli esempi di applicazione:

- Le raffigurazioni fornite sono proposte non vincolanti.
- Gli esempi non possono coprire ogni singolo caso applicativo.
- Tenere conto di tutte le disposizioni vigenti in materia.
- Osservare anche le direttive di lavorazione dei diversi sistemi OTTOSTUMM I Mogs.
- Il dimensionamento statico dei profili, degli ancoraggi, dei tasselli, delle viti e delle vetrate deve essere definito dalla ditta esecutrice sotto la propria responsabilità e in conformità alle norme, direttive e disposizioni vigenti in materia.
- In circostanze particolari deve essere verificata la fruibilità e, se necessario, devono essere apportate le dovute modifiche in accordo con i professionisti competenti.
- Della corretta esecuzione è responsabile la ditta esecutrice.
- OTTOSTUMM I Mogs è sollevata da qualsiasi responsabilità a riguardo.

Per ulteriori avvertenze, fare riferimento a quanto specificato nel Disclaimer.

Per tutti gli articoli contenuti nella presente documentazione, così come per ogni attività ad essi collegata (ordine, trasporto ecc) fanno fede le nostre Condizioni generali di vendita, scaricabili al sito [www.ottostumm-mogs.com](http://www.ottostumm-mogs.com)

## 7.1 Prólogo

Los sistemas de perfiles de OTTOSTUMM I Mogs han sido concebidos para su uso en la construcción de puertas, portales, ventanas y fachadas. La gran precisión y el carácter especialmente recto de los perfiles permite un procesamiento sencillo.

La presente documentación van dirigidas a empresas especializadas que están familiarizadas con las directivas y normativas aplicables.

Notas relativas a sugerencias de construcción y ejemplos de aplicación:

-Las representaciones indicadas son sugerencias no vinculantes.

- Los ejemplos no pueden representar todos los casos posibles de aplicación.
- Deben tenerse en cuenta todas las normas aplicables.
- Además, deben respetarse las directivas de procesamiento de los programas OTTOSTUMM I Mogs.
- El dimensionamiento estático de los perfiles, los anclajes, los tacos, tornillos y acristalamientos debe determinarlos la empresa responsable por su cuenta de conformidad con las normas, directivas y disposiciones vigentes.
- En casos individuales habrá que comprobar la viabilidad y puede ser necesario realizar cambios tras consulta con el arquitecto, ingeniero o calculistas.
- La responsabilidad de la realización correcta de estas tareas recae sobre la empresa encargada.
- OTTOSTUMM I Mogs no puede dar garantía alguna al respecto.

Para mayor información, dirijase a las cláusulas especificadas en la nota de descargo de responsabilidad.

Para todos los artículos contenidos en esta documentación, así como para todas las actividades ligadas (pedidos, transporte, etc) se aplican las condiciones generales de venta, que se pueden descargar desde [www.ottostumm-mogs.com](http://www.ottostumm-mogs.com).

## 7.2 Materials

OTTOSTUMM | Mogs profiles are produced in the following material variants:

- A) Aluminum (-00) Aluminum alloy EN AW 6060 according to EN 573-3, state T 66 according to EN 755-2 for complementary profiles.
- B) Galvanized steel (-02) Steel profiles 1.5 mm thick, grade 1.0242, S250GD+ZM130-BO according to EN 10346 and 10143, galvanized with a continuous hot process. Thermal break consisting of a glass fiber reinforced polyamide insulation.
- C) Stainless steel (-05) Stainless steel profiles 1.5 mm thick, quality AISI 316L according to EN 10088-1 T2, finish 2B according to EN 10088-2. Thermal break consisting of a glass fiber reinforced polyamide insulation.
- D) Cor-Ten steel (-07) Cor-Ten steel profiles thickness 1.5 mm, quality 1.8946 - S355J2WP according to EN 10025 T1/T5. Thermal break consisting of a glass fiber reinforced polyamide insulation.
- E) Bright steel (-12) Cold rolled steel profiles 1.5 mm thick, quality/grade 1.0038, S235JR according to EN 10025 and EN 10027. Thermal break consisting of an insulation in polyamide reinforced with glass fiber.

The standard designation is:  
S250GD+ZM 130-B-O according to EN 10346 and EN 10143

Material no. 1.0244 according to table 2 EN 10346

Density: 7.85 kg/dm<sup>3</sup>  
0,2% yield strength: 280 N/mm<sup>2</sup>  
Tensile strength: 360 N/mm<sup>2</sup>  
Elongation at break: 18%  
E module: 210000 N/mm<sup>2</sup>

The coating consists of zinc with 1-2 wt.% magnesium (abbreviation: ZM).  
The total weight of coating is 130 g/m<sup>2</sup>. This corresponds to a coat thickness of approx. 10 µm per side (abbreviation: ZM 130).  
The profiles are supplied with surface type B (= improved surface) with surface treatment O (= oiled). Surface type B is achieved by cold re-rolling.

**Galvanized steel - 02**  
Profiles made from 1.5 mm steel, material quality 1.0242, S250GD + ZM130-BO in accordance with EN 10346 and 10143, continuously hot-dip galvanized. Joined by a glass fiber reinforced polyamide insulator.

**Stainless steel - 05**  
Profiles made of 1.5 mm stainless steel, material quality 316L according to EN 10088-1 T2, surface 2B according to EN 10088-2. Joined by a glass fiber reinforced polyamide insulator.

**Cor-Ten steel - 07**  
Profile made of 1.5 mm Cor-Ten Steel, Material quality 1.8946 - S355J2WP according EN 10025 T1/T5. Joined by a glass fiber reinforced polyamide insulator.

**Bright steel - 12**  
Profile made of 1.5 mm steel, material quality 1.0038, S235JR cold rolled steel, according EN 10025 and EN 10027. Joined by a glass fiber reinforced polyamide insulator.

## 7.2 Materiali

I profili OTTOSTUMM | Mogs sono realizzati nelle seguenti varianti di materiale:

- A) Alluminio (-00) Lega di alluminio EN AW 6060 secondo EN 573-3, stato T 66 secondo EN 755-2 per profili complementari.
- B) Acciaio zincato (-02) Profili in acciaio spessore 1.5 mm, grado 1.0242, S250GD+ZM130-BO a norma EN 10346 e 10143, zincati con processo continuo a caldo. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.
- C) Acciaio inossidabile (-05) Profili in acciaio inossidabile spessore 1.5 mm, qualità AISI 316L a norma EN 10088-1 T2, finitura 2B a norma EN 10088-2. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.
- D) Acciaio Cor-Ten (-07) Profili in acciaio Cor-Ten spessore 1.5 mm, qualità 1.8946 - S355J2WP a norma EN 10025 T1/T5. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.
- E) Acciaio decapato (-12) Profili in acciaio laminato a freddo spessore 1.5 mm, qualità/ grado 1.0038, S235JR a norma EN 10025 e EN 10027. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.

La norma presenta la seguente denominazione:  
S250GD+ZM 130-B-O secondo EN 10346 ed EN 10143  
Materiale n. 1.0244 secondo tabella 2 EN 10346  
Densità: 7.85 kg/dm<sup>3</sup>  
0,2% Limite di elasticità: 280 N/mm<sup>2</sup>  
Resistenza alla trazione: 360 N/mm<sup>2</sup>  
Resistenza alla rottura: 18%  
Modulo E: 210000 N/mm<sup>2</sup>  
Il rivestimento è in zinco con magnesio all'1-2% del peso (abbreviazione ZM).  
Il peso totale dello strato di zinco è 130 g/m<sup>2</sup>, corrispondente a uno spessore di ca. 10 µm per lato (abbreviazione ZM 130).  
I profili sono forniti con finitura superficiale B (= superficie nobilitata) con trattamento della superficie O (= oliata). La finitura superficiale B si ottiene mediante rilaminazione a freddo.

**Acciaio zincato - 02**  
Profili in acciaio spessore 1.5 mm, grado 1.0242, S250GD + ZM130-BO a norma EN 10346 e 10143, zincati con processo continuo a caldo. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.

**Acciaio inossidabile - 05**  
Profili in acciaio inossidabile spessore 1.5 mm, qualità AISI 316L a norma EN 10088-1 T2, finitura 2B a norma EN 10088-2. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.

**Acciaio Cor-Ten - 07**  
Profili in acciaio Cor-Ten spessore 1.5 mm, qualità 1.8946 - S355J2WP a norma EN 10025 T1/T5. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.

**Acciaio decapato - 12**  
Profili in acciaio laminato a freddo spessore 1.5 mm, qualità/grado 1.0038, S235JR a norma EN 10025 e EN 10027. Taglio termico costituito da un isolante in poliammide rinforzata con fibra di vetro.

## 7.2 Materiales

Los perfiles OTTOSTUMM | Mogs se fabrican en las siguientes variantes de material:

- A) Aluminio (-00) Aleación de aluminio EN AW 6060 según EN 573-3, estado T 66 según EN 755-2 para perfiles complementarios.
- B) Acero galvanizado (-02) Perfiles de acero de 1.5 mm de espesor, grado 1.0242, S250GD+ZM130-BO según EN 10346 y 10143, galvanizados con proceso continuo en caliente. Rotura de puente térmico formado por un aislamiento de poliamida reforzado con fibra de vidrio.
- C) Acero inoxidable (-05) Perfiles de acero inoxidable de 1.5 mm de espesor, calidad AISI 316L según EN 10088-1 T2, acabado 2B según EN 10088-2. Rotura de puente térmico formado por un aislamiento de poliamida reforzado con fibra de vidrio.
- D) Acero Cor-Ten (-07) Perfiles de acero Cor-Ten espesor 1.5 mm, calidad 1.8946 - S355J2WP según EN 10025 T1/T5. Rotura de puente térmico formado por un aislamiento de poliamida reforzado con fibra de vidrio.
- E) Acero bruto (-12) Perfiles de acero laminado en frío de 1.5 mm de espesor, calidad/grado 1.0038, S235JR según EN 10025 y EN 10027. Rotura térmica constituida por un aislamiento en poliamida reforzada con fibra de vidrio.

La denominación normativa es:  
S250GD+ZM 130-B-O de conformidad con EN 10346 y EN 10143  
N.º de material 1.0244 de conformidad con la Tabla 2 EN 10346  
Densidad: 7.85 kg/dm<sup>3</sup>  
0,2% límite de expansión: 280 N/mm<sup>2</sup>  
Resistencia de tracción: 360 N/mm<sup>2</sup>  
Extensión de rotura: 18%  
Módulo E: 210000 N/mm<sup>2</sup>  
El recubrimiento está hecho de cinc con una fracción de masa 1-2% De magnesio (abreviatura ZM).  
El peso de carga (= peso de recubrimiento) asciende a un total de 130 g/m<sup>2</sup>. Este valor se corresponde con un grosor de capa de aprox. 10 µm por lado (abreviatura ZM 130).  
Los perfiles se suministran con el tipo de superficie B (= superficie mejorada) con el tratamiento de superficie O (= lubricado con aceite). El tipo de superficie B se obtiene mediante aplanado con rodillo en frío.

**Acero galvanizado - 02**  
Perfiles de acero de 1.5 mm, calidad del material 1.0242, S250GD + ZM130-BO según EN 10346 y 10143, galvanizados en caliente de forma continua. Unidos por un aislante de poliamida reforzada con fibra de vidrio.

**Acero inoxidable - 05**  
Perfiles de acero inoxidable de 1.5 mm, calidad de material 316L según EN 10088-1 T2, superficie 2B según EN 10088-2. Unidos por un aislante de poliamida reforzada con fibra de vidrio.

**Acero Corten - 07**  
Perfiles en acero Cor-Ten de 1.5 mm, calidad del material 1.8946 - S355J2WP según EN 10025 T1/T5. Unidos por un aislante de poliamida reforzada con fibra de vidrio.

**Acero bruto - 12**  
Perfiles en acero bruto de 1.5mm, calidad de material 1.0038, S235JR laminado en frío, según EN 10025 y EN 10027. Unidos por un aislante de poliamida reforzada con fibra de vidrio.

### 7.3 European standards

EN 1993-1-1: Design of steel structures - Part 1-1: General rules and rules for buildings  
 EN 1993-1 -1/NA: National Annex - Nationally determined parameters -: Design of steel structures - Part 1-1: General rules and rules for buildings  
 EN 1993-1-2: Design of steel structures - Part 1-2: General rules - Structural fire design  
 EN 1993-1 -2/NA: National Annex - Nationally determined parameters -: Design of steel structures - Part 1-2: General rules - Structural fire design  
 EN 1993-1-3: Design of steel structures - Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting  
 EN 1993-1 -3/NA: National Annex - Nationally determined parameters -: Design of steel structures - Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting  
 EN 1993-1-4: Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels  
 EN 1993-1 -4/NA: National Annex - Nationally determined parameters -: Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels  
 EN 1993-1-5: Design of steel structures - Part 1-5: Plated structural elements  
 EN 1993-1 -5/NA: National Annex - Nationally determined parameters -: Design of steel structures - Part 1-5: Plated structural elements  
 EN ISO 1461: Hot dip galvanized coatings on fabricated iron and steel articles  
 EN 10143: Continuously hot-dip coated steel sheet and strip - Tolerances on dimensions and shape  
 EN 10346: Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions  
 EN 12944: Corrosion protection of steel structures by protective paint systems  
 EN 12944-1: General introduction  
 EN 12944-2: Classification of environments  
 EN 12944-3: Design considerations  
 EN 12944-4: Types of surface and surface preparation  
 EN 12944-5: Protective paint systems  
 EN 12944-6: Laboratory performance test methods  
 EN 12944-7: Execution and supervision of paint work  
 EN 12944-8: Development of specifications for new work and maintenance

### 7.3 Norme europee

EN 1993-1-1: Misurazione e progettazione di strutture in acciaio - Parte 1-1: Regole generali e regole per gli edifici  
 EN 1993-1 -1/NA: Allegato nazionale - Parametri definiti a livello nazionale -: Misurazione e progettazione di strutture in acciaio - Parte 1-1: Regole generali e regole per gli edifici  
 EN 1993-1-2: Misurazione e progettazione di strutture in acciaio - Parte 1-2: Regole generali - Progettazione di strutture portanti in caso di incendio  
 EN 1993-1 -2/NA: Allegato nazionale - Parametri definiti a livello nazionale -: Misurazione e progettazione di strutture in acciaio - Parte 1-2: Regole generali - Progettazione di strutture portanti in caso di incendio  
 EN 1993-1-3: Misurazione e progettazione di strutture in acciaio - Parte 1-3: Regole generali - Regole supplementari per l'impiego di profilati e lamiere piegati a freddo  
 EN 1993-1 -3/NA: Allegato nazionale - Parametri definiti a livello nazionale -: Misurazione e progettazione di strutture in acciaio - Parte 1-3: Regole generali - Regole supplementari per l'impiego di profilati e lamiere sottili formati a freddo  
 EN 1993-1-4: Misurazione e progettazione di strutture in acciaio - Parte 1-4: Regole generali di progettazione - Regole supplementari per l'impiego di acciai inossidabili  
 EN 1993-1 -4/NA: Allegato nazionale - Parametri definiti a livello nazionale -: Misurazione e progettazione di strutture in acciaio - Parte 1-4: Regole generali di progettazione - Regole supplementari per l'impiego di acciai inossidabili  
 EN 1993-1-5: Misurazione e progettazione di strutture in acciaio - Parte 1-5: Elementi strutturali a lastra  
 EN 1993-1 -5/NA: Allegato nazionale - Parametri definiti a livello nazionale -: Misurazione e progettazione di strutture in acciaio - Parte 1-5: Elementi strutturali a lastra  
 EN ISO 1461: Rivestimento di zincatura per immersione a caldo su prodotti in acciaio (zincatura di pezzi singoli)  
 EN 10143: Lamiere e nastri di acciaio con affinazione continua mediante immersione a caldo - Dimensioni limite e tolleranze di forma  
 EN 10346: Lamiere e nastri in acciaio da costruzione con affinazione continua mediante immersione a caldo - Condizioni tecniche di fornitura  
 EN 12944: Protezione dalla corrosione di strutture in acciaio mediante verniciatura  
 EN 12944-1: Informazioni generali, termini, corrosione  
 EN 12944-2: Suddivisione delle condizioni ambientali  
 EN 12944-3: Regole di base per la progettazione  
 EN 12944-4: Tipi di superficie e preparazione della superficie  
 EN 12944-5: Sistemi di verniciatura  
 EN 12944-6: Prove in laboratorio per la valutazione dei sistemi di verniciatura  
 EN 12944-7: Esecuzione e supervisione dei lavori di verniciatura  
 EN 12944-8: Stesura di specifiche per lavori nuovi e di manutenzione

### 7.3 Normas europeas

EN 1993-1-1: Proyecto de estructuras de acero. Parte 1-1: Reglas generales y reglas para edificios.  
 AN UNE EN 1993-1 -1: Anejo Nacional: Parámetros de determinación nacional: Proyecto de estructuras de acero. Parte 1-1: Reglas generales y reglas para edificios.  
 EN 1993-1-2: Proyecto de estructuras de acero. Parte 1-2: Reglas generales. Proyecto de estructuras sometidas al fuego.  
 AN UNE EN 1993-1 -2: Anejo Nacional: Parámetros de determinación nacional: Proyecto de estructuras de acero. Parte 1-2: Reglas generales. Proyecto de estructuras sometidas al fuego.  
 EN 1993-1-3: Proyecto de estructuras de acero. Parte 1-3: Reglas generales. Reglas adicionales para perfiles y chapas de paredes delgadas conformadas en frío.  
 AN UNE EN 1993-1 -3: Anejo Nacional: Parámetros de determinación nacional: Proyecto de estructuras de acero. Parte 1-3: Reglas generales. Reglas adicionales para perfiles y chapas de paredes delgadas conformadas en frío.  
 EN 1993-1-4: Proyecto de estructuras de acero. Parte 1-4: Reglas generales. Reglas adicionales para los aceros inoxidables.  
 AN UNE EN 1993-1 -4: Anejo Nacional: Parámetros de determinación nacional: Proyecto de estructuras de acero. Parte 1-4: Reglas generales. Reglas adicionales para los aceros inoxidables.  
 EN 1993-1-5: Proyecto de estructuras de acero. Parte 1-5: Placas planas cargadas en su plano.  
 AN UNE EN 1993-1 -5: Anejo Nacional: Parámetros de determinación nacional: Proyecto de estructuras de acero. Parte 1-5: Placas planas cargadas en su plano.  
 EN ISO 1461: Recubrimientos de galvanización en caliente sobre piezas de hierro y acero.  
 EN 10143: Chapas y bandas de acero con revestimiento metálico en continuo por inmersión en caliente. Tolerancias dimensionales y de forma.  
 EN 10346: Productos planos de acero recubiertos en continuo por inmersión en caliente. Condiciones técnicas de suministro.  
 EN 12944: Protección de estructuras de acero frente a la corrosión mediante sistemas de pintura protectores  
 EN 12944-1: Introducción general.  
 EN 12944-2: Clasificación de ambientes.  
 EN 12944-3: Consideraciones sobre el diseño.  
 EN 12944-4: Tipos y preparación de superficies.  
 EN 12944-5: Sistemas de pintura protectores.  
 EN 12944-6: Ensayos de comportamiento en laboratorio.  
 EN 12944-7: Ejecución y supervisión de trabajos de pintado.  
 EN 12944-8: Desarrollo de especificaciones para trabajos nuevos y mantenimiento.

## 7.4 Order

Delivery lengths of profiles and packaging units of accessories and fittings are included in the program list. In the case of insulate profiles, the outside unfolding specified for profiles contains the entire visible unfolding. The specified weights per metre apply to the corresponding material and the weights of the composite webs are included in the insulated profiles.

## 7.5 Transport and storage

OTTOSTUMM I Mogs profiles are treated and pack extremely carefully at the factory to rule out any corrosion and mechanical damage at the distribution warehouses and during transport to the processor.

The risk is transferred to the purchaser when the goods are handed over to a freight forwarder or carrier, at the latest, however, when they leave the warehouse or the supplying plant.

Unloading operations can be carried out with an overhead crane or forklift truck.

Only forklift trucks with wide forks set at a large distance may be used for unloading and transport.

For the timely notification of transport damage and other material defects, the corresponding information in our terms of sale shall apply.

OTTOSTUMM I Mogs profiles must be stored separately according to the material in order to exclude a risk of corrosion due to extraneous rust particles on stainless steel and aluminium. Dry storage in suitable rooms must be ensured to avoid corrosion. Short-term strong temperature fluctuations in the storage room should be avoided in view of possible condensation water formation in the profile stack.

The profiles must rest on wood or plastic, materials which must not contain any aggressive substances that could trigger chemical reactions at the contact surfaces with the profiles.

Scratches, indentations or other deformation or damage to the surface must be avoided during storage and transport. This applies in particular to the interim storage of profiles that have already been subjected to surface treatment. They may be removed from storage racks only by lifting them out.

For businesses that process aluminium as well as steel, it is a matter of course that strict spatial separation of these materials is ensured both during storage and processing. The formation of white rust in continuously hot-dip galvanized materials does not constitute a reason for complaint.

## 7.4 Ordine

Le lunghezze di fornitura dei profili e le confezioni di accessori e ferramenta sono indicate nel catalogo. In caso di profili taglio termico lo sviluppo esterno si riferisce all'intero sviluppo visibile. I pesi al metro indicati si riferiscono al rispettivo materiale e in caso di profili taglio termico sono inclusi anche i pesi delle anime isolanti di collegamento.

## 7.5 Trasporto e stoccaggio

I profili OTTOSTUMM I Mogs vengono trattati e imballati in magazzino con estrema accortezza per proteggerli dalla corrosione e da possibili danni meccanici che possono subire nei magazzini di distribuzione e durante il trasporto verso il produttore di serramenti.

Con l'affidamento della merce a un vettore o trasportatore, e comunque al più tardi all'uscita dal magazzino o dallo stabilimento di produzione, il rischio viene trasferito al cliente. Le operazioni di scarico possono avvenire con carrozzone o con carrello elevatore.

Se si utilizza un carrello elevatore per scaricare e trasportare la merce, le forche dell'elevatore devono essere larghe e regolate alla massima distanza.

Per la segnalazione tempestiva di eventuali danni dovuti al trasporto o altri difetti strutturali valgono le indicazioni relative contenute nelle nostre condizioni di vendita.

I profili OTTOSTUMM I Mogs devono essere obbligatoriamente stoccati in base al materiale per evitare il pericolo di corrosione dovuto a particelle di ruggine volatile che vengono a contatto con l'acciaio inossidabile e l'alluminio. Per evitare la corrosione deve essere garantito uno stoccaggio in locali adeguatamente protetti dall'umidità. Variazioni brusche della temperatura all'interno del luogo di stoccaggio devono essere evitate per impedire la formazione di acqua di condensa tra i profili. I profili devono poggiare su legno o plastica, materiali che non devono contenere sostanze aggressive che potrebbero innescare reazioni chimiche nei punti di contatto tra i profili. Evitare graffi, impronte, deformazioni o danni superficiali di qualunque natura durante l'immagazzinaggio e il trasporto. Ciò vale in particolare in caso di stoccaggi intermedi di profili già sottoposti a trattamento della superficie. Il prelievo dai luoghi di stoccaggio può avvenire soltanto per sollevamento.

In aziende che prevedono la lavorazione di alluminio oltre a quella dell'acciaio è ovviamente necessario predisporre una rigida separazione degli spazi adibiti alla lavorazione, ma anche allo stoccaggio di questi due materiali. La formazione di ossidazione bianca sui materiali sottoposti ad affinazione continua mediante immersione a caldo non costituisce motivo di reclamo.

## 7.4 Pedido

Las longitudes de suministro y las unidades de embalaje de accesorios y herrajes se pueden consultar en los listados. En el caso de los perfiles de unión, la estructura exterior indicada incluye toda la estructura visible. Los pesos por metro se refieren al material correspondiente y en el caso de los perfiles de unión se incluye el peso de las barras de unión.

## 7.5 Transporte y almacenamiento

Los perfiles de OTTOSTUMM I Mogs se tratan con la máxima diligencia en fábrica para evitar corrosión y daños mecánicos en los almacenes de distribución y en el transporte a la empresa procesadora.

La responsabilidad sobre la mercancía se transfiere al comprador en el momento de la entrega a la empresa de transporte o el encargado de transporte y, como muy tarde, en el momento en el que la mercancía abandona el almacén o la fábrica proveedora.

Las operaciones de descarga se pueden realizar con un puente grúa o carro elevador. Si se realizan descargas y transportes con carretilla elevadora, solo se deben emplear horquillas anchas y ajustadas a distancias amplias.

En cuanto a los plazos de comunicación de daños de transporte u otros imperfectos materiales se aplican las indicaciones correspondientes en nuestras condiciones de venta.

Los perfiles de OTTOSTUMM I Mogs deben almacenarse obligatoriamente separados por material para evitar cualquier posibilidad de corrosión por partículas de óxido ajeno en el acero y el aluminio inoxidables. Para evitar la corrosión hay que garantizar un almacenamiento en seco en espacios adecuados. Deben evitarse las oscilaciones térmicas repentinas en el espacio de almacenamiento para evitar la posible formación de agua de condensación en las pilas de los perfiles. Los perfiles deben apilarse sobre madera o plástico, materiales que no tienen que contener sustancias agresivas que puedan provocar reacciones químicas en las superficies de contacto con los perfiles. Durante el transporte y el almacenamiento deben evitarse arañazos, abolladuras o cualquier otra deformación o forma de daño en las superficies. Hay que tener especial cuidado en los almacenamientos temporales de los perfiles cuyas superficies ya han sido tratadas. Para retirar los perfiles de sus estructuras de almacenamiento siempre se deben elevar, nunca arrastrar.

En el caso de empresas que aparte de acero también procesan aluminio, debe preverse una separación física estricta de ambos materiales tanto durante el almacenamiento como el procesamiento. La formación de óxido blanco en los materiales con galvanizado continuo en caliente no representa un motivo de reclamación.

## 7.6 Processing

### 7.6.1 General

Special attention must be paid to the strictly separate processing of the materials galvanized steel, stainless steel, Cor-Ten steel, bright steel and aluminium. No tools of any kind must be mutually shared. Width and height tolerances of  $\pm 1$  mm beyond the outer dimensions apply to the production of the frames unless expressly stated otherwise in the product chapters. For the sealing of joint zones not closed by welding in joined frame connections, we strongly recommend using a narrow joint sealant. OTTOSTUMM | Mogs door fittings are supplied with initial factory lubrication and do not need to be greased during installation. Information on further maintenance can be found in the processing guidelines. Window fittings must be greased slightly during installation in accordance with the instructions in the fitting packaging. Observe the wall thickness of 2 mm and - in particular when welding - the zinc-magnesium coating. Commercially available products for machining carbon steel are to be used as coolants and lubricants.

## 7.6 Lavorazione

### 7.6.1 Aspetti generali

Prestare particolare attenzione alla lavorazione separata di acciaio zincato, acciaio inox, acciaio Cor-Ten, acciaio decapato e alluminio. Gli utensili di qualsiasi tipo non devono essere utilizzati in modo alternato per le diverse lavorazioni. Salvo diversamente indicato nei capitoli dedicati, la tolleranza di larghezza e altezza ammessa per la fabbricazione dei telai è di  $\pm 1$  mm rispetto alla misura esterna. Per l'isolamento delle fughe in corrispondenza delle giunzioni del telaio che non vengono saldate si consiglia vivamente l'utilizzo di un apposito sigillante per fughe sottili. Le ferramenta per porte OTTOSTUMM | Mogs sono fornite con una prima lubrificazione in fabbrica e non deve essere aggiunto grasso durante il montaggio. Per informazioni sulla manutenzione successiva fare riferimento alle direttive di lavorazione. Le ferramenta per finestre devono essere leggermente lubrificate durante il montaggio secondo quanto riportato sulle confezioni. Da tenere in particolare considerazione è lo spessore della lamiera pari a 2 mm. Durante la lavorazione degli acciai, impiegare prodotti di raffreddamento e lubrificazione comunemente disponibili in commercio.

## 7.6 Procesamiento

### 7.6.1 Generalidades

Hay que prestar especial atención a la separación de los materiales de acero galvanizado, acero inoxidable, acero Cor-Ten, acero bruto y aluminio. Las herramientas no se pueden emplear de forma conjunta para ambos materiales. Si no se establece expresamente lo contrario en los capítulos concretos del producto, la tolerancia aplicable de anchura y altura para la fabricación de marcos es de  $\pm 1$  mm. Para sellar zonas de fuga cerradas mediante procesos distintos a la soldadura en el caso de las uniones de marcos (unión a tope o con inglete) recomendamos encarecidamente el uso del agente sellante para fugas. Los herrajes de puertas OTTOSTUMM | Mogs se suministran con una lubricación inicial de fábrica y no necesitan engrasarse durante el montaje. Las indicaciones sobre el mantenimiento posterior deben consultarse en las directivas de procesamiento. Los herrajes de ventana deben engrasarse ligeramente en el montaje tal y como se indica en las instrucciones de los embalajes de los herrajes. Debe tenerse en cuenta su grosor de pared de 2 mm y, especialmente a la hora de soldar, el recubrimiento de cinc-magnesio. Como agentes refrigerantes y lubricantes deben emplearse los productos habituales del sector para la mecanización de aceros al carbono.

**7.6.2 Sawing**

Particular attention must be paid to the clamping of sectional steel profiles. Special cutting supports corresponding to the profile shapes must be inserted for this purpose. Cuts are usually made with metal cold circular saws, which can make angle cuts within a range of ±90°. However, high-performance band saws or hand saws can be used also for simple, straight cuts. Only HSS saw blades are to be used. Fine toothing is required for OTTOSTUMM I Mogs profiles. Cutting speed according to the material to be cut. Tooth pitch: 4-6 mm Saw blade thickness: 2.4 to 4 mm The specifications depend on the type of machine used. Universal cold circular saws are recommended as sawing machines.

**7.6.2 Taglio a sega**

Prestare particolare attenzione al bloccaggio dei profili in acciaio. A tal riguardo, utilizzare le dime di taglio specifiche. I tagli vengono eseguiti in genere con seghe circolari per metallo a freddo; i tagli ad angolo possono essere eseguiti in un range tra ±90°. Per tagli diritti più semplici possono essere utilizzate anche seghe a nastro ad alte prestazioni o seghe manuali. Utilizzare unicamente lame per seghe HSS. Per i profili OTTOSTUMM I Mogs è richiesta una dentatura fine. Velocità di taglio in base al materiale da tagliare. Passo dei denti: 4-6 mm Spessore della lama: da 2.4 a 4 mm I dati indicati dipendono dal tipo di macchinario utilizzato. Si consiglia l'utilizzo di seghe circolari a freddo universali.

**7.6.2 Corte con sierra**

Hay que prestar atención especial a la sujeción de tubos perfilados de acero. En este contexto, hay que usar hojas de sierra adecuadas a las formas de perfil. Por norma general, los cortes a medida se realizan con sierras circulares para corte de metales en frío con capacidad para realizar cortes angulares de ±90°. No obstante, para realizar otros cortes más sencillos y rectos se pueden emplear sierras de alto rendimiento o sierras manuales. Solo se deben emplear hojas de sierra HSS. Los perfiles de OTTOSTUMM I Mogs requieren un dentado fino. Velocidad de corte según el material a cortar. División de dientes: 4-6 mm Grosor de hoja de sierra: 2.4 a 4 mm Las indicaciones propuestas dependen del tipo de máquina empleado. Se recomiendan sierras circulares universales de corte en frío.

**7.6.3 Drilling**

Drilling jigs or templates should always be used. The drills - standard range (HSS) - must be ground exactly and always kept sharp (reground). Angles, cutting edges and relief cuts to the core must be symmetrical. Point angle of 116°-118°.

**7.6.3 Foratura**

Utilizzare sempre schemi o dime di foratura. Le punte - gamma comune (HSS) - devono essere affilati con precisione e l'affilatura deve essere costantemente mantenuta (affilatura periodica). Gli angoli, i profili del tagliente e gli angoli di spoglia rispetto al nucleo della punta devono essere simmetrici. Angolo di punta 116°-118°.

**7.6.3 Taladrado**

Siempre debe emplear calibres o plantillas de taladro. Los taladros, gama habitual (HSS), deben mantenerse siempre bien lijados y afilados (reafilear). Cualquier ángulo, borde de corte o lijado posterior con respecto al alma debe ser simétrico. Ángulo punta 116°-118°.

| Drilling Ø [mm] | Speed [rpm] | Feed rate [mm/rev.] | Foro Ø [mm] | Velocità [rpm] | Avanzamento [mm/giro] | Taladro Ø [mm] | Velocidad [rpm] | Avance [mm/vuelta] |
|-----------------|-------------|---------------------|-------------|----------------|-----------------------|----------------|-----------------|--------------------|
| 3               | 1000        | 0.11                | 3           | 1000           | 0.11                  | 3              | 1000            | 0.11               |
| 4.8             | 780         | 0.12                | 4.8         | 780            | 0.12                  | 4.8            | 780             | 0.12               |
| 5.2             | 730         | 0.125               | 5.2         | 730            | 0.125                 | 5.2            | 730             | 0.125              |
| 6               | 625         | 0.13                | 6           | 625            | 0.13                  | 6              | 625             | 0.13               |
| 7               | 560         | 0.14                | 7           | 560            | 0.14                  | 7              | 560             | 0.14               |
| 8               | 500         | 0.145               | 8           | 500            | 0.145                 | 8              | 500             | 0.145              |
| 9.2             | 410         | 0.165               | 9.2         | 410            | 0.165                 | 9.2            | 410             | 0.165              |

Spray cooling for large cross-sections increases the tool life.

In caso di sezioni di grandi dimensioni il raffreddamento a spruzzo prolunga la vita utile dell'utensile.

La refrigeración por pulverización en las secciones más amplias aumenta la vida útil de las herramientas.

### 7.6.4 Tapping and thread cutting

Use HSS tools. The cutting speed is approx. 10% higher than with alloyed steels.

### 7.6.5 Milling

The milling cutters - standard range (HSS) - must be ground exactly and always kept sharp (reground). Angles, cutting edges and relief cuts must be symmetrical. The required milling work must be carried out with tools for thin-walled profiles (with profile miller or machining centre for steel and stainless steel).

### 7.6.6 Welding

W75 TB profiles can be welded with all common fusion or resistance welding methods. As with alloy steels, the use of oxyacetylene welding is not recommended (deformation due to the heating of a large surface of the profile). The methods suitable for galvanized steel (-02) are the following:

- Arc welding with metal under active gas protection (MAG).
- Cold metal transfer welding (CMT).

The method suitable for Cor-Ten (-07) and bright (-12) steel is the following:

- Arc welding with metal under active gas protection (MAG).

The method suitable for stainless steel (-05) is as follows:

- Arc welding with infusible electrode under inert gas protection (TIG).

When welding, care must be taken to avoid overheating the profiles.

We recommend the use of heat sinks located in close proximity of the welded area, as well as to proceed in small segment, always waiting for the profile to cool down.

The heat generated during welding of profiles and hinges must be dissipated using brass, copper and aluminium welding attachments. Keep minimum 3 mm distance from welding seam to polyamide web.

### 7.6.7 Welding station

When welding elements, make sure the working surface is absolutely flat! A suitable welding table with fasteners is recommended for this purpose.

The welding station should always be well ventilated.

Smoke extraction systems are recommended here! The relevant regulations must be observed.

### 7.6.4 Filettatura

Utilizzare utensili HSS. È richiesta una velocità di taglio del 10% superiore a quella impiegata con gli acciai legati.

### 7.6.5 Fresatura

Le frese - gamma comune (HSS) - devono essere affilate con precisione e l'affilatura deve essere costantemente mantenuta (affilatura periodica). Gli angoli, i profili del tagliente e le spoglie devono essere simmetrici. Le operazioni di fresatura richieste devono essere eseguite con utensili per profili in lamiera sottile (con frese a pantografo o centri di lavorazione per acciaio e acciaio inox).

### 7.6.6 Saldatura

I profili W75 TB possono essere saldati con tutti i comuni metodi di saldatura per fusione o a resistenza. Come con gli acciai legati si sconsiglia l'uso della saldatura ossiacetilenica (deformazione a causa del riscaldamento di un'ampia superficie del profilo).

I metodi particolarmente adatti per acciaio zincato (-02), sono i seguenti:

- Saldatura ad arco con metallo sotto protezione di gas attivo (MAG).
- Saldatura ad arco voltaico freddo stabile (CMT).

Il metodo particolarmente adatto per acciaio Cor-Ten (-07) e decapato (-12), è il seguente:

- Saldatura ad arco con metallo sotto protezione di gas attivo (MAG).

Il metodo particolarmente adatto per l'acciaio inox (-05), è il seguente:

- Saldatura ad arco con elettrodo infusibile sotto protezione di gas inerte (TIG).

Durante la saldatura occorre prestare attenzione a non surriscaldare eccessivamente i profili. Consigliamo l'utilizzo di dissipatori di calore posizionati nelle immediate vicinanze della zona interessata dalla saldatura, di procedere per tratti e attendere che il profilo si raffreddi prima di terminare l'operazione.

Il calore prodotto durante la saldatura dei profili e cerniere può essere disperso utilizzando controsagome in ottone, rame, alluminio. Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliammide.

### 7.6.7 Postazione di saldatura

Per la saldatura degli elementi è richiesta una superficie di lavoro assolutamente in piano. Si consiglia pertanto l'utilizzo di un apposito banco di saldatura con mezzi di fissaggio.

La postazione di saldatura deve essere sempre ben ventilata.

Si consiglia l'utilizzo di un impianto di aspirazione dei fumi. Osservare le disposizioni vigenti in materia.

### 7.6.4 Taladrado y corte roscado

Emplear herramientas HSS. La velocidad de corte es aprox. un 10% superior que la de los aceros de aleación.

### 7.6.5 Fresado

Las fresas, gama habitual (HSS), deben mantenerse siempre bien lijadas y afiladas (reafilear). Cualquier ángulo, borde de corte o lijado posterior ser simétrico. Los trabajos de fresado requeridos deben llevarse a cabo con perfiles de paredes finas (con fresa de copia o centro de mecanizado para acero y acero inoxidable).

### 7.6.6 Soldadura

Los perfiles W75 TB se pueden soldar con todos los métodos comunes de soldadura por fusión o por resistencia. Al igual que con los aceros aleados, no se recomienda el uso de soldadura de oxiacetileno (deformación debido al calentamiento de una gran superficie del perfil). Los métodos especialmente adecuados para el acero galvanizado (-02) son los siguientes:

- Soldadura por arco con metal bajo protección activa de gas (MAG).
- Soldadura estable por arco frío (CMT).

El método especialmente adecuado para acero Cor-Ten (-07) y bruto (-12) es el siguiente:

- Soldadura por arco con metal bajo protección activa de gas (MAG).

El método especialmente adecuado para acero inoxidable (-05) es el siguiente:

- Soldadura por arco con electrodo infusible bajo protección de gas inerte (TIG).

Durante la soldadura, se debe tener cuidado de no sobrecalentar los perfiles.

Recomendamos el uso de disipadores en las inmediaciones del área afectada por la soldadura, proceder por tramos y esperar a que el perfil se enfríe antes de finalizar la operación. El calor generado durante la soldadura de perfiles y bisagras se debe disipar utilizando accesorios de soldadura de latón, cobre y aluminio.

Mantenga una distancia mínima de 3 mm desde la costura de soldadura hasta la banda de poliamida.

### 7.6.7 Puesto de soldadura

Al soldar los elementos debe garantizarse que la superficie de trabajo está totalmente nivelada. En este caso, recomendamos una mesa de soldadura adecuada con medios de fijación.

El puesto de soldadura siempre debe estar bien ventilado.

En este contexto, recomendamos el uso de dispositivos de extracción de humo. Deben tenerse en cuenta todas las normas aplicables.



### 7.6.8 Straightening work

If, despite all precautions, slight distortions occur in the frame and sash, they should be straightened using suitable spindle presses or other straightening machines.

### 7.6.9 Plastering

The weld seams are usually plastered with an angle grinder (for further information, refer to the processing guidelines). In order to achieve a clean visible surface of the element and ensure the exact function of the glazing bead, the corners must be treated with a file.

## 7.7 Surface treatment

### 7.7.1 General notes, coating

The surface treatment serves corrosion protection and colour design. With steel profiles, it must always be carried out after machining. Exception: aluminium profiles. Coating accumulation should be avoided, in particular in the area of the sealing and glazing bead mounting zones.

Decisive are:

- EN ISO 12944 Corrosion protection of steel structures by protective paint systems
- DIN 55634 Paints, varnishes and coatings corrosion protection of supporting thin-walled building components made of steel
- Guideline from GSB or Qualicoat for piece coating of steel parts
- Also refer to VFF leaflet ST.01

In the case of high corrosion loads and a long protection period (e.g. windows near the coast) and special loads, the suitable corrosion protection system must be determined in each individual case.

The manufacturer of the coating material must prove the suitability of their product for the coating of the profiles and the corrosion protection of the overall system (primer and top coat, weld seam area, cutting edge).

### 7.7.2 Procedure

In order to achieve perfect adhesion of the coating system, an appropriate surface must be created by cleaning and roughening or chemical pre-treatment.

### 7.6.8 Lavori di rettifica

Se, nonostante tutte le precauzioni del caso, i telai o i battenti subiscono lievi deformazioni, è possibile rettificarli con l'impiego di apposite presse a bilanciere o altri macchinari di rettifica.

### 7.6.9 Ripulitura

I cordoni di saldatura vengono rifiniti solitamente con la smerigliatrice angolare (per ulteriori indicazioni vedere le direttive di lavorazione). Per ottenere una superficie visibile dell'oggetto pulita e per garantire il corretto funzionamento dei profili fermavetro, è necessario ripassare gli angoli con una lima.

## 7.7 Trattamento della superficie

### 7.7.1 Aspetti generali, la verniciatura

Il trattamento della superficie è necessario per la protezione contro la corrosione e per la finitura cromatica dell'oggetto. In linea di massima va eseguito dopo la lavorazione dei profili in acciaio. Eccezione: profili in alluminio. Evitare gli accumuli di rivestimento in particolare nelle zone delle guarnizioni e delle sedi dei profili fermavetro.

Riferimenti normativi:

- EN ISO 12944 Protezione dalla corrosione di strutture di acciaio mediante verniciatura e rivestimento
- DIN 55634 Verniciature e rivestimenti protezione anticorrosione di componenti portanti in lamina d'acciaio sottile
- Direttiva GSB o Qualicoat per la zincatura di singoli pezzi per articoli in acciaio
- Fare riferimento anche alla scheda descrittiva VFF ST.01

In presenza di esposizione a corrosione intensa, durata della protezione prolungata (ad esempio serramenti in zona costiera) o sollecitazioni particolari, occorre definire un sistema di protezione contro la corrosione specifico per il singolo caso.

Il produttore del materiale usato per la verniciatura deve provare l'idoneità del suo prodotto per il rivestimento dei profili e la protezione contro la corrosione dell'intero sistema (rivestimento di base e topcoat, zona del cordone di saldatura, bordo tagliato).

### 7.7.2 Procedura

Per ottenere un'adesione perfetta del sistema di rivestimento, anche la superficie di acciaio deve essere adeguatamente pulita, irruvidita o sottoposta ad apposito pretrattamento chimico.

### 7.6.8 Enderezamiento

Si a pesar de tomar todas las precauciones surgen pequeñas deformaciones en el marco y las hojas, deben corregirse mediante presas de husillo u otros dispositivos de ajuste.

### 7.6.9 Acabado

Normalmente los cordones de soldadura se repasan con la lijadora angular (más información en las directivas de procesamiento). Para obtener una superficie visible limpia del elemento y para garantizar el funcionamiento preciso de la barra de soporte de cristal, hay que repasar las esquinas con una lima.

## 7.7 Tratamiento de superficie

### 7.7.1 Generalidades, la pintura

El tratamiento de la superficie sirve como protección contra la corrosión y para dar color. Por norma general, debe realizarse tras la mecanización de perfiles de acero. Excepción: Perfiles de aluminio. Debe evitarse la acumulación del revestimiento, sobre todo en las zonas de alojamiento de las juntas y la barra de soporte de cristal.

Se aplican las siguientes normas:

- EN ISO 12944 Protección de estructuras de acero frente a la corrosión mediante sistemas de pintura protectores.
- DIN 55634 Sustancias de revestimiento y recubrimientos protección contra corrosión de componentes portantes de paredes finas de acero
- Directiva de GSB o Qualicoat para el revestimiento individual de componentes de acero
- Debe hacerse referencia a la hoja de datos ST.01 de VFF

Si la carga corrosiva es muy elevada y se requiere una protección prolongada (p. ej. Ventanas en zona de costa) y en caso de exigencias especiales, hay que determinar el sistema de protección contra corrosión adecuado en cada caso individual. El fabricante debe acreditar el carácter adecuado de su producto para el revestimiento de los perfiles (sin tratamiento o galvanizado continuo en caliente) y para la protección contra corrosión del sistema completo (revestimiento básico y de cobertura, zona de cordón de soldadura, borde de corte).

### 7.7.2 Procedimiento

Debe conseguirse una superficie adecuada mediante la limpieza, el raspado o el tratamiento previo químico para garantizar la adherencia impecable del sistema de revestimiento.

### 7.7.3 Weld seam area

Welding beads and scale must be carefully removed with the grinding machine and, if necessary, reworked with a blasting gun and corundum sand.

### 7.7.4 Cleaning the surfaces

Due to the forming process and the subsequent machining, the profile surfaces are soiled with cooling lubricant, grease, cutting oil etc. To ensure perfect adhesion of the coating, the profiles must be completely cleaned. The choice of the cleaning process is incumbent on the coating company carrying out the work.

Possible cleaning processes:

- A) Washing off with solvent mixtures
- B) Steam jet cleaning with or without chemical additives
- C) High-pressure hot-water cleaning with or without chemical additives
- D) Alkaline or acidic decoction degreasing in immersion or spraying process.

### 7.7.5 Mechanical roughening of the surface

Mechanical roughening significantly improves the adhesion between the coating and the substrate. In the simplest case, the profiles and frames are ground with abrasive paper or corundum plastic fleece (e.g. Scotch Brite). Disadvantage: very high input for profiled surfaces - no reliable process. In particular with larger quantities, overblowing (= sweep jets) with corundum at reduced pressure and a jet impact angle of < 30° is more economic and safer. Any abrasion and blasting abrasive residue must be removed completely.

Warning: In the case of continuously hot-dip galvanized profiles, the metal coating must not be removed.

### 7.7.6 Chemical surface treatment

Chemical pickling surface treatment is an alternative to mechanical roughening. The procedural instructions and safety regulations must be observed. Use a method compatible for galvanized profiles. The removal of any superficial white oxides is only possible by mechanical treatment such as sweeping or grinding.

### 7.7.7 Types of coating

W75 TB - D75 TB profiles can be powder coated or wet painted.

You'll find the different painting techniques in a specific chapter of this documentation (6.3.0).

### 7.7.3 Area del cordone di saldatura

Eliminare accuratamente perle di saldatura e scaglie di laminazione con la smerigliatrice; se necessario perfezionare con una pistola per sabbatura e sabbia di corindone.

### 7.7.4 Pulizia delle superfici

A seguito del processo di profilatura e della successiva lavorazione, le superfici dei profili si sporcano con residui di refrigerante, grasso, olio di taglio, ecc. Per ottenere un'adesione perfetta del rivestimento, è necessario pulire accuratamente i profili. La scelta del metodo di pulizia spetta alla ditta che esegue i trattamenti. Metodi di pulizia possibili:

- A) Risciacquo con miscela di solventi
- B) Pulizia con getto di vapore con o senza additivi chimici
- C) Pulizia con idropulitrice ad alta pressione con o senza additivi chimici
- D) Sgrassaggio in ambiente alcalino o acido per immersione o a spruzzo.

### 7.7.5 Preparazione meccanica della superficie

La preparazione meccanica migliora decisamente l'adesione tra rivestimento e fondo. Nel caso più semplice i profili e i telai vengono smerigliati con carta abrasiva o tela sintetica al corindone (ad es. Scotch Brite). Svantaggi: molto faticoso in caso di superfici profilate - metodo proceduralmente non affidabile. Soprattutto in presenza di grandi quantità di pezzi, una sabbatura leggera con corindone ad una pressione inferiore e un angolo di impatto entro i 30° è più proficua e sicura. Eliminare completamente il materiale abraso e i residui di materiale per sabbatura.

Avvertenza: in caso di profili zincati per immersione a caldo il rivestimento metallico non può essere rimosso.

### 7.7.6 Trattamento chimico della superficie

Il trattamento chimico per il decapaggio della superficie rappresenta un'alternativa al trattamento meccanico. Osservare le linee guida sul metodo e le precauzioni di sicurezza. Utilizzare un metodo compatibile con profili zincati. L'eliminazione di eventuale ossido bianco superficiale è possibile solo mediante trattamento meccanico come sabbatura leggera (sweep) o smerigliatura.

### 7.7.7 Tipi di verniciatura

I profili W75 TB - D75 TB possono essere verniciati sia a liquido che a polveri.

Trovate le diverse metodologie di verniciatura nell'apposito capitolo di questa documentazione (6.3.0).

### 7.7.3 Zona de cordón de soldadura

Las perlas de soldadura y las marcas por óxido deben eliminarse cuidadosamente con la lijadora y, en caso necesario, repasarse después con una pistola a presión y corindón.

### 7.7.4 Limpieza de las superficies

Debido al proceso de cambio de forma y la mecanización posterior, las superficies del perfil están contaminadas con lubricantes de refrigeración, grasas, aceites de corte, etc. Los perfiles deben limpiarse para garantizar un nivel de adherencia óptimo del revestimiento. La empresa encargada del revestimiento debe elegir el procedimiento de limpieza adecuado. Procedimientos de limpieza admisibles:

- A) Aclarado con mezcla de disolventes
- B) Limpieza con chorro de vapor con o sin adición de sustancias químicas
- C) Limpieza con chorro de agua caliente a presión con o sin adición de sustancias químicas
- D) Desengrasado por cocción alcalina o ácida mediante inmersión o pulverización.

### 7.7.5 Raspado mecánico de la superficie

El Raspado mecánico mejora notablemente la adherencia entre el revestimiento y la base. En los casos más simples, los perfiles y marcos se tratan con papel de lija o fieltro de corindón y plástico (p. ej. Scotch Brite). Desventaja: Se requiere un gran esfuerzo en las superficies perfiladas; no es un proceso seguro. Sobre todo para cantidades mayores es preferible la técnica del sobresoplado (= chorro Sweep) con corindón a presión reducida y un ángulo de impacto del chorro 30° porque es más segura y rentable. Debe eliminarse cualquier resto de material desprendido la fricción o resto del material del chorro.

Advertencia: En el caso de los perfiles con galvanizado continuo en caliente no se debe eliminar el recubrimiento metálico.

### 7.7.6 Tratamiento químico de la superficie

El tratamiento químico per il decapaggio della superficie rappresenta un'alternativa al trattamento meccanico. Osservare le linee guida sul metodo e le precauzioni di sicurezza. Utilizzare un metodo compatibile con profili zincati. L'eliminazione di eventuale ossido bianco superficiale è possibile solo mediante trattamento meccanico come sabbatura leggera (sweep) o smerigliatura.

### 7.7.7 Tipos de pintura

Los perfiles W75 TB - D75 TB se pueden pintar en húmedo y recubrirse con pintura en polvo.

Encontrará las diferentes técnicas de pintura en un capítulo específico de esta documentación (6.3.0).

### 7.7.8 Cor-Ten profile (-07) oxidation

The Cor-Ten steel is like a natural, "living" material. With the passage of time and exposure to weathering it takes on different and unique shades. Under normal conditions this phenomenon (formation and stabilization of the surface protective "patina") requires from a minimum of one to a maximum of four years. This natural oxidation process can also be obtained chemically, with different processes, for example as described below.

Guidelines for the oxidation and passivation process:

- Cleaning with a brush the surfaces to be treated, applying a neutral detergent and drying with a cotton rag;
- Application of a suitable product as oxidation starter (In this phase do not expose the surfaces directly to the weathering);
- Apply a film of demineralized water with a cotton rag, wait for a "medium" dark shade will be reached;
- Once the desired shade is obtained, apply a suitable passivating product. Take care to avoid any dripping.

Process of finishing:

- Apply the beeswax on the treated surfaces;
- As an alternative to beeswax, apply a suitable oil.

Each process (products and procedures) must be verified in relation to location environment. The choice between oil or wax must consider the final location (internal or external) of the windows and doors.

The finishing must be resumed and maintained following a plan, depending on weathering and exposure conditions.

About the finishing, the oil is the easiest one in terms of application and maintenance. It also allows the resuming of Cor-Ten surface in case of formation of halos due to water stagnation. Attention: the oil must be uniformly applied and after application dried with a cotton rag. Being a chemical process, pay attention to washout and chalking of the patina surface over the time. To limit these effects, it is recommended to plan periodic treatments of the surface with applications of suitable wax or oil.

To preserve the state of the existing artifacts and masonry where the Cor-Ten steel windows and doors will be installed, proper drainage system must be provided and washable and non-absorbent materials must be used.

### 7.7.8 Ossidazione su profili Cor-Ten (-07)

Il Cor-Ten è un materiale naturale, vivo, che con il passare del tempo e l'esposizione agli agenti atmosferici assume di volta in volta tonalità diverse ed uniche. In normali condizioni questo fenomeno di formazione e stabilizzazione dello stato superficiale di patina protettiva può richiedere da uno, fino ad un massimo di quattro anni. Questo naturale processo di ossidazione può essere ottenuto anche chimicamente, con differenti procedure tra le quali ad esempio quella qui di seguito descritta.

Linee guida al processo di ossidazione e passivazione:

- Pulizia dei manufatti con pennello, stesura del detergente e asciugatura con pezza di cotone;
- Applicazione soluzione di innesco dell'ossidazione con prodotto a scelta (evitare di lasciare i telai alle intemperie);
- Applicare una mano di acqua demineralizzata con pezza di cotone, attendere il raggiungimento di una tonalità "media";
- Al raggiungimento della tonalità desiderata, applicare il passivante scelto facendo attenzione a non formare calcure.

Al termine del processo:

- Stendere la cera d'api sulla superficie dei profili;
- In alternativa alla cera d'api, usare un olio dedicato.

Ogni procedimento deve essere verificato dal punto di vista dei prodotti scelti e delle procedure oltre che in relazione all'ubicazione del cantiere. La scelta di finire il Cor-Ten a olio o a cera va fatta in base alla tipologia di serramento: interno o esterno. La finitura va ripresa e mantenuta secondo periodi temporali predefiniti, a seconda di quanto e come è esposto il serramento. Tra le due finiture, quella ad olio è più facile da realizzare e da mantenere ed inoltre consente di riprendere il Cor-Ten in caso di formazione di aloni dovuti a ristagno d'acqua. Attenzione: se la scelta ricade sull'uso dell'olio, occorre prestare particolare attenzione poiché dopo l'applicazione va asciugato e "uniformato" con una pezza di cotone. Va prestata particolare attenzione all'eventuale dilavamento e sfarinamento della patina superficiale che tale finitura può generare con il passare del tempo. Per contenere tali fenomeni è comunque consigliabile pianificare trattamenti periodici con applicazioni di idonee cere oppure olii. Inoltre, se si volesse preservare lo stato dei manufatti su cui si andranno ad installare i serramenti in acciaio Cor-Ten, si dovranno prevedere appositi canali di scolo o si dovranno accostare ad essi materiali lavabili e non assorbenti.

### 7.7.8 Oxidación en perfiles Cor-Ten (-07)

Cor-Ten es un material natural, vivo, que con el paso del tiempo y la exposición a los agentes atmosféricos adquiere tonalidades distintas y únicas. En condiciones normales, este fenómeno de formación y estabilización del estado superficial de patina protectora puede durar de uno a un máximo de cuatro años. Este proceso de oxidación natural también se puede obtener químicamente, con diferentes procedimientos como por ejemplo:

Directrices para el proceso de oxidación y pasivación:

- Limpiar las piezas con un cepillo, aplicar el detergente y secar con un paño de algodón;
- Aplicar la solución detonante de oxidación con el producto de su elección (evite dejar los marcos a la intemperie);
- Aplicar una capa de agua desmineralizada con un trozo de algodón, se alcanzará un tono "medio";
- Cuando se alcance el tono deseado, aplicar el producto pasivante elegido, evitando que no se formen gotas.

Al final del proceso:

- Extender la cera de abejas en la superficie de los perfiles;
- Como alternativa a la cera de abejas, utilice un aceite específico.

Cada procedimiento debe verificarse desde el punto de vista de los productos y procedimientos elegidos, así como en relación con la ubicación del sitio. La elección de terminar el Cor-Ten con aceite o cera debe hacerse según el tipo de ventana: interna o externa. El acabado debe reanudarse y mantenerse de acuerdo con períodos de tiempo predefinidos, dependiendo de cuánto y cómo esté expuesta la ventana. De los dos acabados, el aceitoso es más fácil de realizar y mantener y además permite retomar el Cor-Ten en caso de formación de halos por estancamiento de agua. Atención: si se elige el uso de aceite, se debe prestar especial atención ya que después de la aplicación se debe secar y "uniformar" con un trozo de algodón. Como se trata de un proceso químico, se debe prestar especial atención a cualquier lavado y tiza de la patina de la superficie que este acabado pueda generar con el tiempo. Sin embargo, para contener estos fenómenos es aconsejable planificar tratamientos periódicos con aplicaciones de ceras o aceites adecuados. Además, si desea preservar el estado de los artefactos en los que se instalarán las ventanas y puertas de acero Cor-Ten, se deben proporcionar canales de drenaje adecuados o se deben combinar materiales lavables y no absorbentes con ellos.

## 7.8 Installation on site

### 7.8.1 Glazing

The glazing systems of all OTTOSTUMM I Mogs series comply with the relevant standards, the cushioning regulations of the glazing trade and the guidelines of insulating glass manufacturers. Particular attention must be paid to the regulations regarding pressure compensation and drainage from free rebate spaces. All glazing systems are usually designed for glazing between elastomer profiles (EPDM or neoprene).

If necessary, a silicone-free lubricant is applied to the seals to facilitate installation.

The glass mass is determined and the glazing beads and sealing profiles are selected on the basis of the filling thickness according to the specifications in the program list and processing documents.

Wet glazing is possible and must be carried out in accordance with the generally applicable regulations.

In the case of acrylic glass (PMMA) and polycarbonate (PC) fillings, the risk of stress cracks in these sheets in contact with our EPDM seals cannot be excluded. The risk of incompatibility is beyond our control and must be clarified by the processor with the manufacturers of such fillings.

### 7.8.2 Joint sealing

For the sealing of structural attachment and construction joints, use specific and certified products, referring to the manufacturer's instructions.

### 7.8.3 Prevention of surface damage during installation

For a correct conservation of OTTOSTUMM I Mogs frames it is advisable to use counter frames, in order to carry out the installation only at the conclusion of the masonry and plastering works.

In case of installation at an early stage of the construction site, with the use of self-adhesive plastic films, the user is solely responsible for ensuring that the products used are fully compatible with the components.

For large objects, we recommend the interim acceptance of construction phases immediately after their completion.

### 7.8.4 Cleaning

In addition to the exposure to the sun and weather, exterior wall elements are exposed to aggressive air components and are therefore inevitably subject to soiling. This not only impairs the appearance of the components, but also poses an increased risk of corrosion due to the constant effect of the dirt deposits. The components must therefore be cleaned at intervals, which vary depending on the location. In the following we confine ourselves to a few essential notes:

## 7.8 Posa in opera

### 7.8.1 Vetrazione

I sistemi di vetratura di tutte le serie OTTOSTUMM I Mogs rispettano le norme in materia, le disposizioni valide per la lavorazione artigianale del vetro e le linee guida dei produttori di vetro isolante. Da tenere in particolare considerazione sono le disposizioni relative alla compensazione della pressione e al drenaggio dagli spazi sotto il vetro.

In linea generale tutti i sistemi di vetratura sono predisposti per la sigillatura con guarnizioni (EPDM o Neoprene). Se necessario, le guarnizioni sono progettate per essere montate semplicemente con un lubrificante privo di silicone.

Il calcolo delle dimensioni del vetro e la scelta dei profili fermavetro e dei profili di tenuta devono avvenire in base allo spessore della vetrata isolante e secondo le indicazioni contenute nel catalogo e nella documentazione per la lavorazione.

La vetratura sigillata con silicone è ammessa e deve essere realizzata secondo le normative genericamente valide.

In caso di installazione di lastre di acrilico (PMMA) e polycarbonato (PC) non è escluso il rischio di crepe da tensione nelle zone dovute al contatto con le nostre guarnizioni in EPDM. Il pericolo di incompatibilità è fuori dal nostro controllo, pertanto il produttore di serramenti è tenuto a chiarire tali eventualità con i produttori di questo tipo di lastre.

### 7.8.2 Sigillatura giunti

Per l'isolamento delle fughe della costruzione e dei punti di giunzione con il vano murario, utilizzare prodotti specifici e certificati, rifacendosi alle indicazioni del produttore.

### 7.8.3 Prevenzione dei danni ai telai durante la posa

Per una corretta conservazione dei telai OTTOSTUMM I Mogs si consiglia di utilizzare sempre dei controtelai, in modo da eseguire la posa in opera solo a conclusione dei lavori di muratura e intonacatura.

In caso di posa in fase iniziale del cantiere, con utilizzo di pellicole di plastica autoadesive rimovibili, l'utilizzatore sarà il solo responsabile della completa compatibilità dei prodotti utilizzati con i componenti da montare.

In caso di grandi dimensioni consigliamo di procedere al collaudo del lotto appena posato.

### 7.8.4 Pulizia

I serramenti sono esposti a diverse sollecitazioni quali sole, agenti atmosferici, ma anche particelle aggressive presenti nell'aria ed è quindi inevitabile che si sporchino. Oltre a pregiudicare l'aspetto delle superfici, l'imbrattamento aumenta il rischio di corrosione dovuta al contatto costante con i depositi di sporco. I serramenti devono essere puliti a intervalli regolari a seconda del luogo di installazione.

Ci limitiamo a fornire le seguenti indicazioni fondamentali:

## 7.8 Montaje

### 7.8.1 Acristalamiento

Los sistemas de acristalamiento de todas las series OTTOSTUMM I Mogs cumplen las normas generales aplicables, los reglamentos de colocación de calzos del gremio cristalero y las directrices de los fabricantes del vidrio aislante. Debe prestar especial atención a las normas relativas a la compensación de presión y el drenaje de agua en las zonas del galce.

Por norma general, todos los sistemas de acristalamiento han sido concebidos para el acristalamiento entre perfiles de elastómero (EPDM o neoprenos).

Si se requiere, las juntas están provistas de un lubricante sin silicona para facilitar su montaje. La determinación de las medidas del vidrio, así como la elección de barras de soporte de cristal y perfiles de sellado en función del grosor de llenado deben realizarse de acuerdo con las indicaciones en la lista de programas o en la documentación de procesamiento.

Se puede realizar un acristalamiento en mojado siempre y cuando se cumplan los reglamentos generales vigentes.

En el caso de rellenos de vidrio acrílico (PMMA) y policarbonato (PC) no se puede descartar el riesgo de fisuras por tensión en esas placas cuando entran en contacto con nuestras juntas de EPDM. El riesgo de esta incompatibilidad está fuera de nuestro control y debe evaluarlo la empresa procesadora junto con los fabricantes de los rellenos citados.

### 7.8.2 Sellado de juntas

Para sellar fugas de conexiones constructivas y fugas generales en la construcción, use productos específicos y certificados, refiriéndose a las indicaciones del fabricante.

### 7.8.3 Prevención de daños superficiales en marcos

Para una correcta conservación de los marcos OTTOSTUMM I Mogs es aconsejable utilizar siempre contramarcos, con el fin de realizar la instalación solo al finalizar los trabajos de albañilería y revoque.

Si se emplean otros procedimientos de protección, con láminas autoadhesivas de plástico, use productos autoadhesivos y certificados, en base a las instrucciones del fabricante.

En caso de objetos de grandes dimensiones, recomendamos la recepción intermedia de los tramos constructivos inmediatamente después de su fabricación.

### 7.8.4 Limpieza de componentes

Aparte del sol y las influencias climáticas, los elementos de paredes exteriores están expuestos a componentes agresivos del aire, por lo que la suciedad es inevitable. La suciedad no solo compromete la apariencia estética de los componentes, sino que representa un serio riesgo de corrosión debido a la actuación continua de la contaminación cuando se acumula en zonas concretas. Por ello, los componentes deben limpiarse en intervalos regulares que varían según el lugar de uso. Desde OTTOSTUMM I Mogs nos limitaremos a transmitirle las siguientes recomendaciones:

Light soiling is removed with water and a neutral cleaning agent (no soapy water!) using a sponge and cloth. Then rise thoroughly with demineralized water.  
If other cleaning agents are required, a test application on a concealed surface should first ensure that surfaces are neither mechanically nor chemically corroded. Cleaners with pH values below 5 and above 8 as well as abrasive or scouring agents such as steel wool or wire brushes must be excluded in any case. Further details can be found in the technical literature.

### 7.8.5 Use and maintenance

The Construction Products Ordinance must always be observed here. Any relevant product standards also apply.  
If there are no malfunctions or damage caused by inappropriate handling, maintenance for private use can be limited to easily oiling or greasing accessible sliding fitting parts at large intervals. Maintenance work for large objects and public buildings should be carried out by a specialist, especially since it involves more extensive maintenance measures. By concluding a maintenance contract with the building owner, the processor can ensure that the quality of their work is maintained to the satisfaction of their customers over a long period of use. In this context, please also observe the maintenance instructions of the fitting manufacturers.

The following maintenance work is to be performed:

- A) Cleaning of elements, in particular moving parts and functional zones.
- B) Inspection of the seals between:
  - Sash and blind frame Replace damaged rebate gaskets.
  - Glass and sash frame
  - Element frame and building structure
  - If necessary, repair or replace the sealants or sealing profiles.
- C) Inspection of the corner and butt joint at the seals. If necessary, repair them with the adhesives and sealants.
- D) Subject the glazing to a visual inspection for cracks, including edge cracks, and replace it if necessary.
- E) Verification of all functions:
  - Check the fitting components for ease of movement and grease the movable parts if necessary. Bolted strips with plastic bearing bushings are maintenance-free and must not be lubricated.

The replacement of non-functional parts (fittings, accessories, glass etc.) is the responsibility of the authorised specialist company.

Eliminare lo sporco leggero con acqua e un prodotto per la pulizia neutro (no soluzioni saponate!) applicati con una spugna e un panno. Dopodiché risciacquare accuratamente con acqua demineralizzata. In caso si renda necessario l'utilizzo di altri detersivi, eseguire una prova su una superficie nascosta per verificare che non vi siano reazioni meccaniche o chimiche sulle superfici. Evitare assolutamente detersivi con ph inferiore a 5 o superiore a 8, nonché prodotti abrasivi o leviganti, lana o spazzole d'acciaio.  
Per ulteriori dettagli consultare la letteratura specifica.

### 7.8.5 Uso e manutenzione

A riguardo è necessario attenersi essenzialmente al regolamento sui prodotti per l'edilizia. Si applicano inoltre le rispettive norme di prodotto, ove presenti. Se non sono presenti malfunzionamenti o danni dovuti ad uso improprio, è possibile limitarsi alla manutenzione prevista in caso di utilizzo privato, che consiste nella lubrificazione con quantità moderate di olio o grasso dei componenti mobili delle ferramenta a cui è possibile accedere ad intervalli relativamente distanziati. I lavori di manutenzione su oggetti di grandi dimensioni o su edifici pubblici devono essere eseguiti da ditte qualificate, in particolare quando l'intervento è associato ad altre misure conservative del fabbricato. In questo caso il produttore di serramenti può stipulare un contratto di garanzia per assicurarsi che la qualità del suo lavoro resti invariata nel tempo, per la massima soddisfazione del cliente.

A tal riguardo occorre tenere presenti anche le istruzioni di manutenzione del costruttore delle ferramenta.

I lavori di manutenzione da eseguire sono i seguenti:

- A) Pulizia degli elementi, in particolare delle parti mobili e delle aree rilevanti per il funzionamento.
- B) Controllo della tenuta tra:
  - Telaio del battente e telaio dell'anta; sostituire le guarnizioni della battuta danneggiate.
  - Vetro e telaio del battente;
  - Telaio dell'infixo e muratura;
  - Se necessario migliorare la qualità del sigillante o dei profili di tenuta, oppure sostituirli.
- C) Controllo delle giunzioni d'angolo delle guarnizioni; eventualmente, migliorare la qualità con i collanti/sigillanti.
- D) Controllo della vetratura mediante ispezioni visive in merito a fessurazioni; se necessario sostituire.
- E) Controllo di tutte le funzionalità:
  - Controllare la mobilità di tutti i componenti della ferramenta, eventualmente ingrassare le parti mobili. Le cerniere con boccole in plastica non richiedono manutenzione e non devono essere lubrificati.

La sostituzione di parti non funzionanti (ferramenta, vetro, accessorio) spetta alla ditta specializzata autorizzata.

La suciedad ligera debe eliminarse con agua y un producto de limpieza neutro (no se permiten las soluciones de jabón) con ayuda de una esponja o un paño. A continuación se debe realizar un aclarado exhaustivo con agua demineralizada. Si otros agentes limpiadores son requeridos, una prueba en una zona poco visible que las superficies no sufren daños mecánicos ni químicos. Deben descartarse directamente los productos de limpieza con valores de pH inferiores a 5 y superiores a 8, así como cualquier medio con efecto abrasivo o lijador, así como cepillos metálicos o lana de acero.  
Puede consultar más detalles en la documentación especializada.

### 7.8.5 Uso y mantenimiento

Por norma general, en este caso debe tenerse en cuenta la normativa de productos constructivos. Adicionalmente deben tenerse en cuenta las normas de producto aplicables, si las hay.  
Si no se da un funcionamiento incorrecto y si no hay daños causados por un tratamiento incorrecto, el mantenimiento para uso privado puede limitarse a la lubricación ligera con aceite o grasa de los componentes deslizantes accesibles de los herrajes en intervalos regulares prolongados. Los trabajos de mantenimiento de objetos de mayor tamaño o de obras públicas debe realizarlos un especialista siempre y cuando estén sujetos a más medidas de conservación. En este caso, la empresa procesadora puede celebrar un contrato de mantenimiento con los propietarios de la obra para garantizar que la calidad de su trabajo se conserve durante un período de uso prolongado y cumplir los requisitos de su cliente. En este contexto debe tener en cuenta también las indicaciones de mantenimiento del fabricante de los herrajes.

Deben llevarse a cabo los siguientes trabajos de mantenimiento:

- A) Limpieza de los elementos, sobre todo piezas y zonas de funcionamiento móviles.
- B) Comprobación de las juntas entre:
  - Marcos de hojas y de molduras, sustituir las juntas de tope dañadas.
  - Cristal y marcos de hojas
  - El marco general del elemento y el cuerpo constructivo
  - Sustituir o corregir los agentes sellantes o los perfiles de junta si es necesario.
- C) Comprobación de las uniones en esquina y tope en las juntas; aplicar los agentes adhesivos y sellantes del capítulo Medios auxiliares si es necesario.
- D) Comprobación del acristalamiento en busca de fisuras zonas estalladas, sustitución en caso necesario.
- E) Comprobación de todas las funciones:
  - comprobar la facilidad de marcha de las piezas de herraje, lubricar las piezas móviles si es necesario. En caso de cintas atornilladas con cojinetes de plástico, estos están libres de mantenimiento y no deben lubricarse.

Solo empresas especializadas deben ocuparse de la sustitución de piezas que no funcionan (herraje, accesorios, cristal, etc.).

## 7.9 Technical services

Our planning and drawing documents, processing guidelines and fitting installation plans make it easier for you to process our systems. Even without explicit indication, the processing guidelines of the basic series apply to all object-related construction suggestions. Furthermore, the consulting services of our company and our sales partners are at your disposal. Documents and consultations correspond to our best knowledge. However, no guarantee can be given for the absence of errors, unless the errors are based on intent or gross negligence on our part. We offer our processors seminars with intensive instruction in the theory and practice of OTTOSTUMM | Mogs systems. We also support other EDP software, such as FPPRO Emmigissoft and LogiKal® from ORGADATA etc. We keep our customers up to date with the latest technical and standardization information.

## 7.9 Consulenza tecnica

I nostri elaborati di progetto, disegni, direttive di lavorazione e schemi di montaggio delle ferramenta semplificano la lavorazione dei nostri sistemi. Anche senza esplicita indicazione le direttive di lavorazione delle serie di base valgono per tutte le proposte costruttive riferite all'oggetto. I nostri consulenti interni e partner commerciali sono inoltre a vostra completa disposizione. La documentazione e le consulenze riflettono le migliori conoscenze di cui disponiamo. Non possiamo assumerci tuttavia la responsabilità per l'assoluta assenza di errori, salvo il caso in cui l'errore sia dovuto a dolo o grave negligenza da parte nostra. Ai nostri produttori di serramenti offriamo seminari con una ricca offerta di nozioni teoriche e pratiche sui sistemi OTTOSTUMM | Mogs. Sosteniamo inoltre software dedicati, come FPPRO Emmigissoft e LogiKal® di ORGADATA, ecc. Teniamo i nostri clienti aggiornati su questioni tecniche e normative fornendo loro continue informazioni.

## 7.9 Apoyo técnico

Nuestra documentación de planificación y representación gráfica, las directivas de procesamiento y los planos de montaje de herrajes le facilitan el procesamiento de nuestros sistemas. Aunque no se indique expresamente, en todas las propuestas constructivas concretas de un objetos se deben aplicar las directivas de procesamiento de las series básicas. Además, puede acudir a los servicios de asesoramiento de nuestra empresa y nuestros socios de distribución. La documentación y el asesoramiento que facilitamos se basa en nuestros conocimientos y lo ofrecemos de buena fe. No obstante no podemos garantizar la ausencia de errores a excepción de información errónea facilitada con premeditación o por negligencia grave. A nuestras empresas procesadoras le ofrecemos seminarios con formación intensiva teórica y práctica para los sistemas OTTOSTUMM | Mogs. Además trabajamos con otros programas de procesamiento electrónico de datos como, por ejemplo, FPPRO y LogiKal® de ORGADATA, etc. Mantenemos a nuestros clientes siempre al día en cuanto a la técnica y las normativas gracias a la información actualizada que manejamos.

## 7.10 Disclaimer

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## Index

3D Adjusting tools 3.8.2  
3D Hinge alignment pins 3.8.2  
3D weld-on hinge recommendations  
5.4.55  
3D weld-on hinges 3.3.3  
3D weld-on hinges installation 5.4.47

## A

Adjustment bush 3.5.4, 5.4.327  
Automatic drop seal 3.5.2  
Automatic drop seal installation 5.4.141

## B

Bending radius 6.2.1  
Bonding 3.7.2  
Bottom hung window configurations  
5.8.83  
Bottom hung window kits 3.12.45, 5.8.73  
Bushings 3.7.2

## C

Clips glazing bead 2.2.4, 2.2.5  
Coating 6.2.4  
Cover cap 3.2.2  
Cover cap installation 5.4.17  
Cremone for round rods 3.5.3  
Cremone for round rods installation  
5.4.313  
Cremone for round rods kits 5.4.311  
Cutting gaskets 5.4.3  
Cutting profiles 5.2.1  
Cutting templates 3.8.5

## D

Deadbolt for door 3.4.3  
Deadbolt for door installation 5.4.139  
Details - doors 4.2.1  
Details - structural connections 4.3.1  
Details - wall connections 4.4.1  
Details - windows 4.1.1  
Dimensions 1.3.3  
see also Type overview  
Disclaimer 7.0.14  
Drainage cut outs 5.4.29  
Drainage gasket installation 5.4.33  
Drainage gaskets 3.2.2

## E

End caps for hinges 3.3.4  
End pieces for profiles 3.2.1, 5.4.6

## F

Fixing bushings 2.2.3  
Fixing glazing beads 2.2.1  
Floor recess plate 3.4.2

Flush bolt extension 3.4.1  
Flush bolt extension installation 5.4.281  
Flush bolt installation 5.4.275  
Flush bolts for doors 3.4.1  
Flush bolts for doors installation 5.4.136,  
5.4.147, 5.4.157, 5.4.169, 5.4.177, 5.4.189  
Flush bolts for windows 3.4.1  
Folding opener installation 5.4.265  
Friction stay installation 5.4.269  
Friction stays 3.3.8

## G

Gasket for lever handle 3.5.4  
Gaskets 3.1.1  
General information 6.3.4  
Glazing beads 2.2.1  
Glazing beads installation 5.10.5  
Glazing installation 5.10.1  
Glazing tables 2.3.1

## H

Handles - Heritage - installation 5.4.247  
Handle spindle 3.5.4  
Health and safety informations 5.1.2  
Hinges informations 5.4.123  
Hinges installation 5.4.41

## L

Lateral cover cap 3.5.2  
Locking box processing 5.4.221  
Locks 3.6.1  
Locks installation 5.4.143  
Long shoot bolt 3.4.4  
Long shoot bolt installation 5.4.291

## M

Multipoint aluminum rods with Graz and  
Mono installation 5.6.2  
Multipoint aluminum rods with Graz and  
Mono parts 3.10.1  
Multipoint aluminum rods with lever handle  
installation 5.7.1  
Multipoint aluminum rods with lever handle  
parts 3.11.1  
Multi-point locking 3.6.1  
Multi-point locking installation 5.4.151  
Multipoint steel rods with Graz installation  
5.5.1  
Multipoint steel rods with Graz parts  
3.9.1

## O

Opening restrictor installation 5.4.283  
Opening restrictors 3.5.1  
Opening scheme information 2.3.47

## P

Performances 1.2.5  
Primer for doubleadhesive tape 3.7.2  
Profile cutting information 3.8.8  
Profile inertia values 2.1.11  
Profile matching 4.1.49  
Profile processing 5.4.5  
Profiles range 2.1.1

## R

Rebate protection for latchbolt 5.4.219  
Reducing sleeve 3.5.4  
Rivet 3.7.2  
Rod guides for door 3.4.3

## S

Scissors for gaskets 3.8.3  
Screw-on hidden hinge 3.3.7  
Screw-on hidden hinge installation  
5.4.125  
Screw-on hinges 3.3.5  
Screw-on hinges installation 5.4.85  
Screws 3.7.1  
Sealing frame connections 5.4.1  
Side hung window configurations 5.8.66  
Side hung window kits 3.12.35, 5.8.41  
Spring catch - Heritage - installation  
5.4.261  
Standards 1.2.1  
Strike plate 3.4.2  
Strike plate for door 3.4.3  
Surface finishes 2.3.48  
System description 1.1.1

## T

Technical services 7.0.13  
Templates for Tilt and Turn fittings 3.8.10  
Templates for Tilt and Turn fittings installa-  
tion 5.8.109, 5.8.123, 5.8.143  
Templates for weld-on hinges 3.8.9  
Templates for weld-on hinges installation  
5.4.56  
Tilt and Turn kit configurations 5.8.34  
Tilt and Turn kits 3.12.19, 5.8.1  
Type overview 1.3.1

## V

Ventilation glazing rebate 6.1.2

## W

Weather bars 3.2.1  
Weather bars installation 5.4.11  
Welding profiles 5.3.2  
Weld-on hinges - capacity tables 5.4.41