METALFORM

OTTOSTUMM | mogs

FerroFinestra®

W50 TB

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W50 TB

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System | Sistema | Sistema 1.0

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System description

The new W50 TB thermal break steel window and door system was developed to provide architects and planners with optimal solutions for projects involving the renovation or restoration of industrial heritage buildings. In addition, this profile series provides interesting stimulation for designoriented contemporary architecture.
The characteristic profile contour – 5.5 mm recess in the sightline – emphasises both the delicate appearance and the link to historical hot-rolled steel profiles. Furthermore, these unique profile contours ensure that the glazing is always flush, in the same line between the fixed sash and the window sash.
The wide range of profiles – with installation depths of 50 mm and 55.5 mm and sightline widths of 32 mm for the frame profile and 57.5 mm for the frame/sash combination – makes it possible to create large-format windows, doors and window fronts with any type of opening. The opening and design variants are typical of Bauhaus architecture but are also in line with contemporary style and aesthetics. The innovative profile connection, the thermal barrier, guarantees optimal thermal and acoustic insulation in conjunction with functional insulating glass. In addition to the accessories that have been specially developed and selected by OTTOSTUMM | Mogs, the W50 TB system is also compatible with a wide range of other fittings. This makes it possible to replace thermally insulated steel windows from many different historical periods and styles while staying true to the originals.

Descrizione del sistema

Il nuovo sistema per porte e finestre a taglio termico in acciaio W50 TB è stato sviluppato per offrire ad architetti e progettisti soluzioni ottimali per la ristrutturazione o il restauro di edifici industriali e storici. Inoltre, questa serie di profili offre spunti interessanti e sempre più apprezzati all'architettura contemporanea. Il design caratteristico del sistema con gli evocativi giochi di sormonto dei profili, ne sottolinea l'eleganza e richiama lo stile degli storici profili in acciaio laminati a caldo.
I profili sono studiati per ottenere sempre la perfetta complanarità tra vetrate fisse e specchiature apribili. Grazie alla vasta gamma di profili con profondità tra i 50 e i 55.5 mm e ingombro visivo compreso tra 32 mm (telaio) e 57.5 mm (combinazione telaio/battente) è possibile realizzare finestre di grandi dimensioni, porte e facciate in ogni tipologia di apertura. Le soluzioni stilistiche, ispirate all'architettura del Bauhaus, sposano perfettamente il gusto minimalista e moderno. L'innovativo taglio termico e la possibilità di alloggiare vetri isolanti ad alte prestazioni garantiscono un ottimale isolamento termo-acustico. Il sistema W50 TB è compatibile, oltre che con gli accessori appositamente sviluppati e selezionati da OTTOSTUMM | Mogs, con una vasta gamma di ferramenta reperibile in commercio. Ciò consente di sostituire con infissi in acciaio a taglio termico porte e finestre di epoche e stili diversi, in modo del tutto fedele all'originale.

Descripción del sistema

El nuevo sistema de ventanas y puertas de acero con rotura térmica W50 TB se ha desarrollado para ofrecer a arquitectos y proyectistas soluciones óptimas para aquellos proyectos de renovación o restauración de edificios históricos del legado industrial. Además, esta serie de perfiles ofrece un interesante impulso para arquitectos contemporáneos interesados en el diseño.El contorno característico del perfil - retranqueo de 5.5 mm en la línea visible - realza la ornamentación y el vínculo con los perfiles de acero laminados en caliente con carácter histórico. Además, estos contornos únicos de perfiles siempre ofrecen una línea recta contigua entre los acristalamientos de la hoja fija y la hoja de la ventana.
Gracias a la amplia gama de perfiles con profundidades de 50 mm y 55.5 mm, con anchos de 32 mm para el perfil del marco y 57.5 mm para la combinación marco/hojas, es posible elaborar ventanas, puertas y ventanales de gran tamaño con todos los tipos de aperturas deseadas. Las variantes de aperturas y acabados son típicas de la arquitectura Bauhaus, pero también armonizan perfectamente con el estilo y la estética contemporánea. La innovadora unión de los perfiles, la separación térmica, garantiza un óptimo aislamiento térmico y acústico en combinación con cristales de aislamiento funcionales.
El sistema W50 TB es compatible tanto con los accesorios seleccionados y desarrollados especialmente por OTTOSTUMM | Mogs como con una gran variedad de herrajes independientes. Esto permite sustituir ventanas de acero con aislamiento térmico de diferentes épocas históricas y corrientes estéticas conservando la fidelidad al original.

System description

Fixed glazing, single- and double-leaf windows, side hung and bottom-hung windows opening inwards and outwards, top-hung projecting windows, opening inwards and outwards;

Wet and dry glazing;

Glass thickness from 16 to 37 mm;

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

Classic and modern fittings.

Descrizione del sistema

Vetratura fissa, finestre a una, due o più battenti, a vasistas e a sporgere, con apertura interna o esterna, porte-finestre a una, due o più battenti con apertura interna o esterna.

Vetrocamera sigillato con silicone o con guarnizioni a secco;

Spessore del vetrocamera da 16 a 37 mm;

Ferramenta con cerniere ad avvitare o a saldare;

Ferramenta classica e moderna.

Descripción del sistema

Acristalamientos fijos, ventanas de una, dos o mas hojas, oscilantes y proyectantes con apertura interna o externa, y puertas de una o dos hojas con apertura interna o externa;

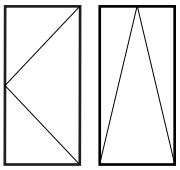
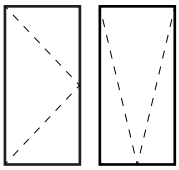
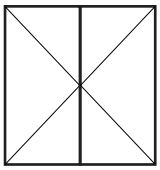
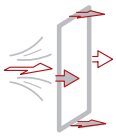
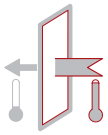
Acristalamiento en seco y húmedo;

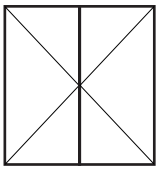
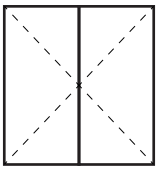
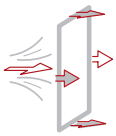
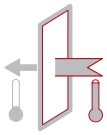
Grosor del cristal de 16 a 37 mm;

Herrajes del sistema con bisagras de soldadura o atornillables;

Herrajes clásicos y modernos.

Performances | Performance | Características de prestación 1.2

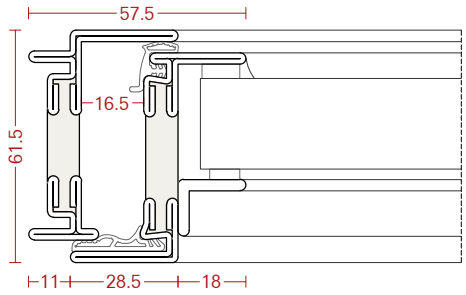
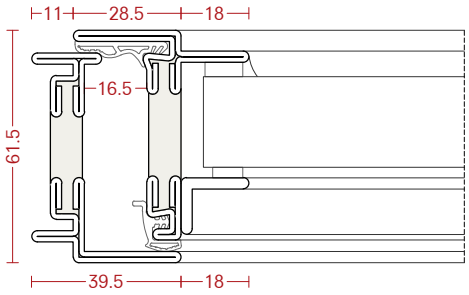
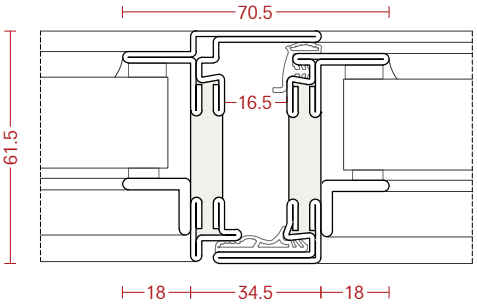
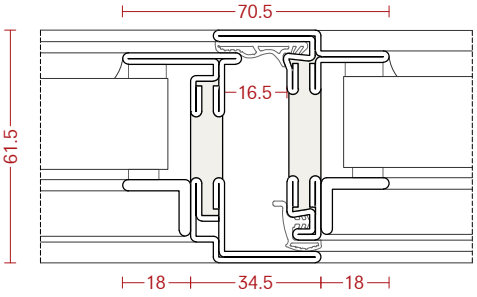
Standard Norme Normas	Test Controlli Ensayos			
		Window open in Finestra apertura interna Apertura hacia dentro	Window open out Finestra apertura esterna Apertura hacia fuera	Window open in Finestra apertura interna Apertura hacia dentro
EN**12207** 	Air permeability Permeabilità all'aria Permeabilidad al aire	up to class 4 - 600 Pa fino alla classe 4 - 600 Pa hasta clase 4 - 600 Pa	up to class 4 - 600 Pa fino alla classe 4 - 600 Pa hasta clase 4 - 600 Pa	up to class 4 - 600 Pa fino alla classe 4 - 600 Pa hasta clase 4 - 600 Pa
EN**12208** 	Water tightness Tenuta all'acqua Estanquidad al agua	up to class 7B - 300 Pa fino alla classe 7B - 300 Pa hasta clase 7B - 300 Pa	up to class 9A - 600 Pa fino alla classe 9A - 600 Pa hasta clase 9A - 600 Pa	up to class 8A - 450 Pa fino alla classe 8A - 450 Pa hasta clase 8A - 450 Pa
EN**12210** 	Resistance to wind load Resistenza al carico del vento Resistencia a la presión del viento	up to class C3 - 1200 Pa fino alla classe C3 - 1200 Pa hasta clase C3 - 1200 Pa	up to class C5 - 2000 Pa fino alla classe C5 - 2000 Pa hasta clase C5 - 2000 Pa	up to class C3 - 1200 Pa fino alla classe C3 - 1200 Pa hasta clase C3 - 1200 Pa
EN ISO**10077-1** 	Heat transfer coefficient Coefficiente di trasmittanza termica Coeficiente de transmisión térmica	from > 1.20 W/m²K da > 1.20 W/m²K desde > 1.20 W/m²K	from > 1.20 W/m²K da > 1.20 W/m²K desde > 1.20 W/m²K	from > 1.20 W/m²K da > 1.20 W/m²K desde > 1.20 W/m²K
EN ISO**10140** 	Sound insulation Isolamento acustico Absorción acústica	up to R_w+C_{tr}= 41dB (R_w=46dB) fino a R_w+C_{tr} = 41dB (R_w=46dB) hasta R_w+C_{tr} = 41dB (R_w=46dB)	up to R_w+C_{tr}= 41dB (R_w=46dB) fino a R_w+C_{tr} = 41dB (R_w=46dB) hasta R_w+C_{tr} = 41dB (R_w=46dB)	
EN**14024** 	Metal profile with thermal barrier Profili metallici a taglio termico Perfiles metálicos rotura térmica	CW / TC2	CW / TC2	CW / TC2

Standard Norme Normas	Test Controlli Ensayos		
		Open in door Porta apertura interna Apertura hacia dentro	Open out door Porta apertura esterna Apertura hacia fuera
EN**12207** 	Air permeability Permeabilità all'aria Permeabilidad al aire	up to class 3 - 600 Pa fino alla classe 3 - 600 Pa hasta clase 3 - 600 Pa	up to class 3 - 600 Pa fino alla classe 3 - 600 Pa hasta clase 3 - 600 Pa
EN**12208**	Water tightness Tenuta all'acqua Estanquidad al agua	up to class 1A fino alla classe 1A hasta clase 1A	up to class 1A fino alla classe 1A hasta clase 1A
EN**12210**	Resistance to wind load Resistenza al carico del vento Resistencia a la presión del viento	up to class C2 - 800 Pa fino alla classe C2 - 800 Pa hasta clase C2 - 800 Pa	up to class C2 - 800 Pa fino alla classe C2 - 800 Pa hasta clase C2 - 800 Pa
EN ISO**10077-1** 	Heat transfer coefficient Coefficiente di trasmittanza termica Coeficiente de transmisión térmica	from > 1.20 W/m²K da > 1.20 W/m²K desde > 1.20 W/m²K	from > 1.20 W/m²K da > 1.20 W/m²K desde > 1.20 W/m²K
EN**14024**	Metal profile with thermal barrier Profili metallici a taglio termico Perfiles metálicos rotura térmica	CW / TC2	CW / TC2
EN**1627**	Burglary resistance Antieffrazione Antirrobo	RC2	RC2

U_f value
Performances according to EN 10077-2

Valore U_f
Prestazioni secondo EN 10077-2

Valor U_f
Características de prestación conforme EN 10077-2

	T = 24 mm DOUBLE GLAZED	T = 36 mm TRIPLE GLAZED	
FT 5509L-02 / FT 5509ZA-02	2.9	2.7	
FT 5509L-02 / FT 5509TA-02	2.9	2.8	
FT 6109TZ-02 / FT 5509ZA-02	2.9	2.5	
FT 5509ZL-02 / FT 5509TA-02	2.9	2.8	

T = Glazing thickness
According to EN 10077-2:
U_f = U_f value in [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

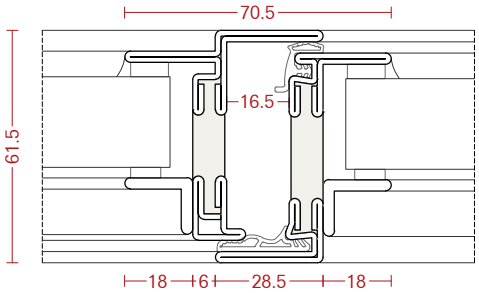
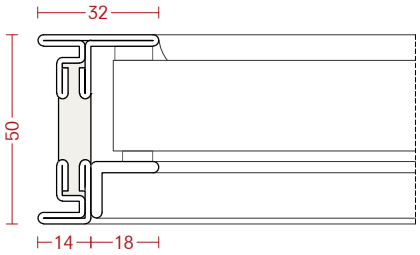
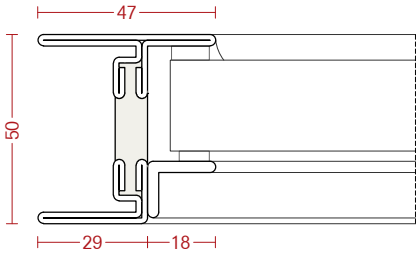
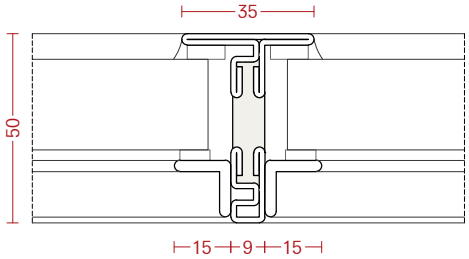
T = Spessore vetro
Secondo EN 10077-2:
U_f = valore U_f in [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

T = Espesores de vidrio
Conforme EN 10077-2:
U_f = valor U_f en [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

U_f value
Performances according to EN 10077-2

Valore U_f
Prestazioni secondo EN 10077-2

Valor U_f
Características de prestación conforme EN 10077-2

	T = 24 mm DOUBLE GLAZED	T = 36 mm TRIPLE GLAZED	
FT 5509TL-02 / FT 5509ZA-02	3.0	2.6	
FT 5009LF-02	2.8	2.5	
FT 5009HF-02	2.3	1.9	
FT 5009TR-02	3.4	3.0	

T = Glazing thickness
According to EN 10077-2:
U_f = U_f value in [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

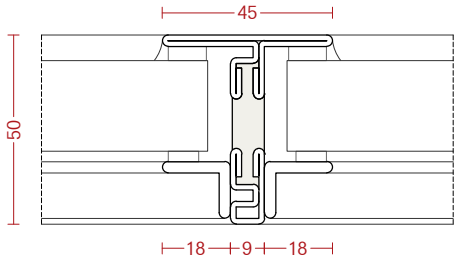
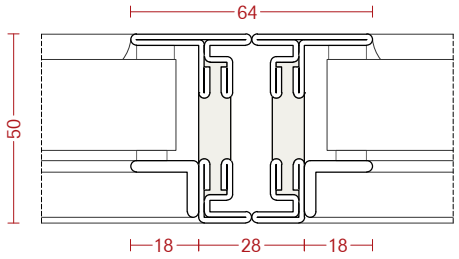
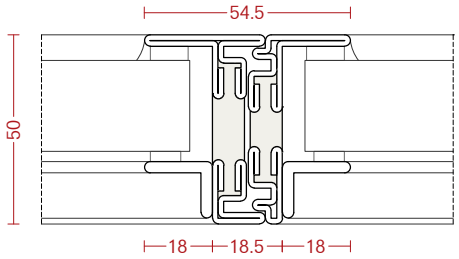
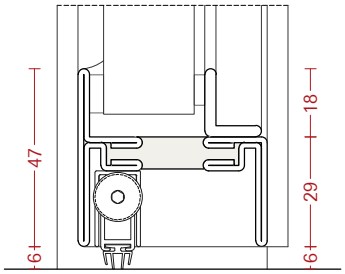
T = Spessore vetro
Secondo EN 10077-2:
U_f = valore U_f in [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

T = Espesores de vidrio
Conforme EN 10077-2:
U_f = valor U_f en [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

U_f value
Performances according to EN 10077-2

Valore U_f
Prestazioni secondo EN 10077-2

Valor U_f
Características de prestación conforme EN 10077-2

	T = 24 mm DOUBLE GLAZED	T = 36 mm TRIPLE GLAZED	
FT 5009TN-02	2.9	2.6	
FT 5009LF-02 / FT 5009LF-02	2.5	2.2	
FT 5009LF-02 / FT 5009LC-02	3.4	3.2	
FT 5009HF-02	3.0	2.6	

T = Glazing thickness
According to EN 10077-2:
U_f = U_f value in [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

T = Spessore vetro
Secondo EN 10077-2:
U_f = valore U_f in [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

T = Espesores de vidrio
Conforme EN 10077-2:
U_f = valor U_f en [W/m²K]
T = 24 mm, λ=0.035 [W/(mK)]
T = 36 mm, λ=0.035 [W/(mK)]

Type overview and dimensional limits

Tipologie e limiti dimensionali

Resumen de modelos y dimensiones

Legend

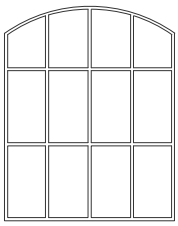
+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm

Legenda

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

Leyenda

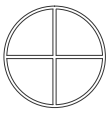
+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm



Fixed glazing

Vetrature fisse

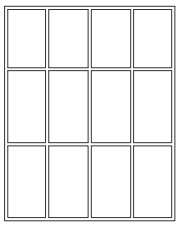
Acristalamientos fijos



Fixed glazing

Vetrature fisse

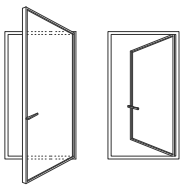
Acristalamientos fijos



Fixed glazing

Vetrature fisse

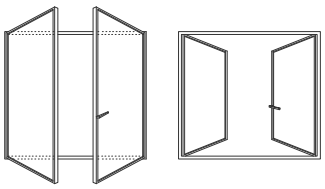
Acristalamientos fijos



Single leaf open in or open out side hung window

Finestra a un battente apertura interna o esterna

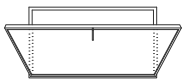
Ventana batiente de una hoja que se abre hacia dentro o fuera



Double leaf open in or open out side hung window

Finestra a due battenti apertura interna o esterna

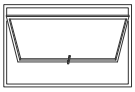
Ventana batiente de dos hojas que se abre hacia dentro o fuera



Open in bottom hung window

Finestra vasistas apertura interna

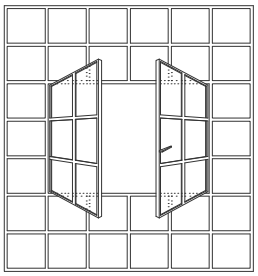
Ventana oscilante que se abre hacia dentro



Open out top hung projecting window

Finestra a sporgere apertura esterna

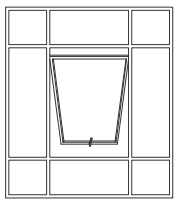
Ventana proyectante que se abre hacia fuera



Double leaf open in side hung window in fixed glazing

Finestra a due battenti apertura interna in vetratura fissa

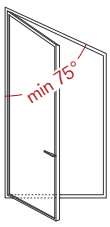
Ventana doble batiente que se abre hacia dentro en acristalamiento



Open out top hung projecting window

Finestra a sporgere apertura esterna

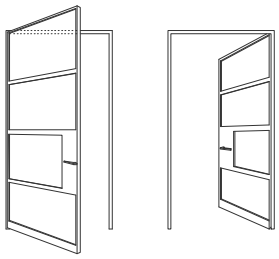
Ventana proyectante que se abre hacia fuera



For trapezoidal windows, the minimum angle on the hinges side is 75°

Per finestre trapezoidali, l'angolo minimo lato cerniere è di 75°

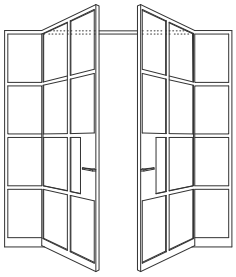
Para ventanas trapezoidales, el ángulo mínimo en el lado de la bisagras es de 75°



Single leaf door
open in or open out

Porta a un battente
apertura interna o esterna

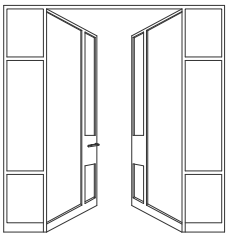
Puerta batiente de una hoja
que se abre hacia dentro o fuera



Double leaf door open in
with side lights

Porta a due battenti apertura interna
con fissi laterali

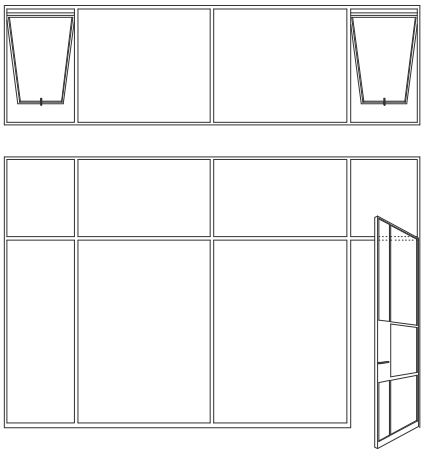
Puerta doble batiente que se abre hacia
dentro con fijos laterales



Double leaf door open out
with side lights

Porta a due battenti apertura esterna
con fissi laterali

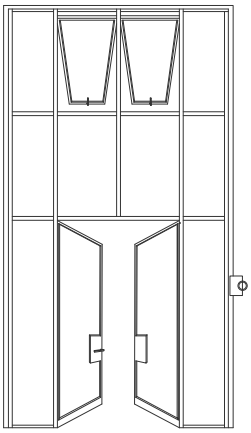
Puerta doble batiente que se abre hacia
fuera con fijos laterales



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

Vetratura fissa con porta battente apertura
interna e finestre a sporgere

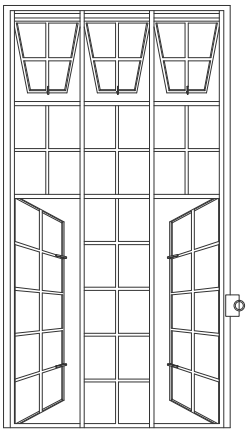
Acristalamiento con puerta batiente que se
abre hacia dentro y ventana proyectante



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

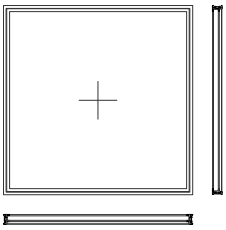
Facciate e vetrature fisse
stile industrial

Fachadas y acristalamientos
de diseño industrial

Dimensions

Dimensioni

Dimensiones

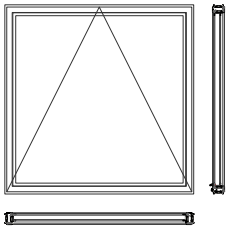


Fixed window

Finestra fissa

Ventana fija

min. dimensions 400 x 400
max. dimensions 2500 x 2500



Bottom hung window open in

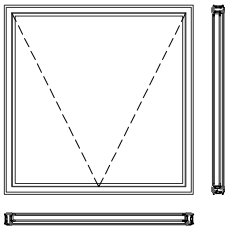
Finestra vasistas apertura interna

Ventana oscilante que se abre hacia dentro

min. dimensions 400 x 400
max. dimensions 1700 x 1700

max. leaf weight: 110 kg (*)

(*) related accessory E99205-05



Top hung projecting window open out

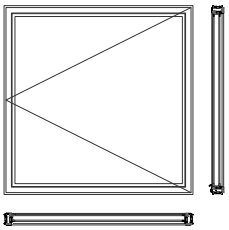
Finestra a sporgere apertura esterna

Ventana proyectante que se abre hacia fuera

min. dimensions 400 x 400
max. dimensions 1700 x 1700

max. leaf weight: 110 kg (**)

(**) related accessory E99203-05



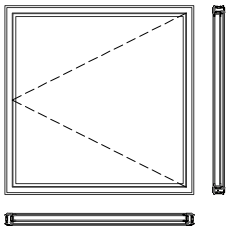
Single leaf window open in

Finestra a un battente apertura interna

Ventana de una hoja que se abre hacia dentro

min. dimensions 500 x 500
max. dimensions 1050 x 2300

max. leaf weight: 120 kg



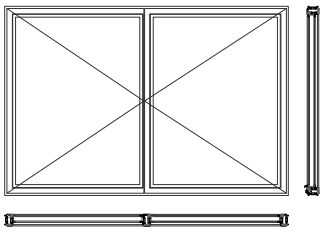
Single leaf window open out

Finestra a un battente apertura esterna

Ventana de una hoja que se abre hacia fuera

min. dimensions 500 x 500
max. dimensions 1050 x 2300

max. leaf weight: 120 kg



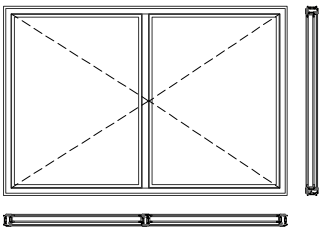
Double leaf window open in

Finestra a due battenti apertura interna

Ventana de dos hojas que se abre hacia dentro

min. dimensions 1000 x 500
max. dimensions 2100 x 2300

max. leaf weight: 120 kg



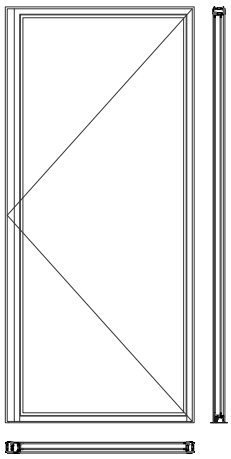
Double leaf window open out

Finestra a due battenti apertura esterna

Ventana de dos hojas que se abre hacia fuera

min. dimensions 1000 x 500
max. dimensions 2100 x 2300

max. leaf weight: 120 kg



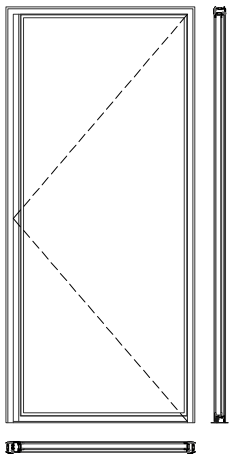
Single leaf door open in
with full height additional profile

Porta a un battente apertura interna
con riporto serratura a tutt'altezza

Puerta abatible de una hoja que se abre hacia dentro
con perfil adicional de altura completa

min. dimensions 700 x 1800
max. dimensions 1050 x 2400

max. leaf weight: 160 kg



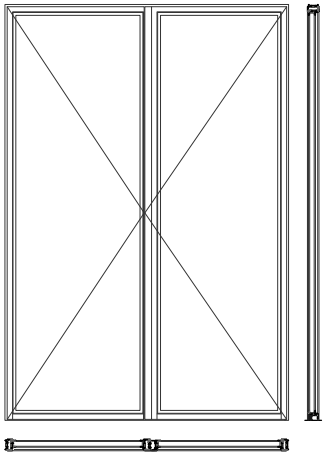
Single leaf door open out
with full height additional profile

Porta a un battente apertura esterna
con riporto serratura a tutt'altezza

Puerta abatible de una hoja que se abre hacia fuera
con perfil adicional de altura completa

min. dimensions 700 x 1800
max. dimensions 1050 x 2400

max. leaf weight: 160 kg



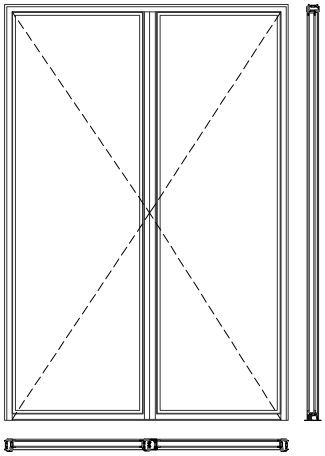
Double leaf door open in
with full height additional profile

Porta a due battenti apertura interna
con riporto serratura a tutt'altezza

Puerta abatible de dos hojas que se abre hacia dentro
con perfil adicional de altura completa

min. dimensions 1400 x 1800
max. dimensions 2100 x 2400

max. leaf weight: 160 kg



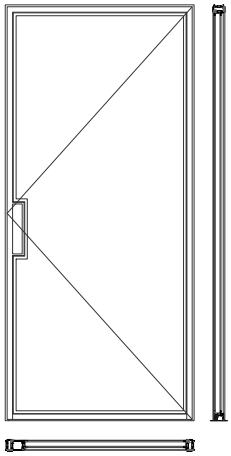
Double leaf door open out
with full height additional profile

Porta a due battenti apertura esterna
con riporto serratura a tutt'altezza

Puerta abatible de dos hojas que se abre hacia fuera
con perfil adicional de altura completa

min. dimensions 1400 x 1800
max. dimensions 2100 x 2400

max. leaf weight: 160 kg



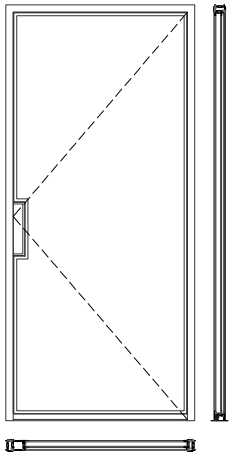
Single leaf door open in with locking box

Porta a un battente apertura interna con scatola serratura

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

min. dimensions 700 x 1800
max. dimensions 1050 x 2400

max. leaf weight: 160 kg



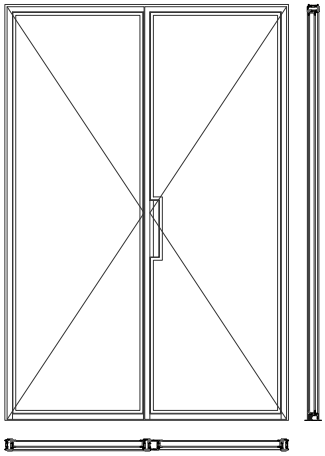
Single leaf door open out with locking box

Porta a un battente apertura esterna con scatola serratura

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

min. dimensions 700 x 1800
max. dimensions 1050 x 2400

max. leaf weight: 160 kg



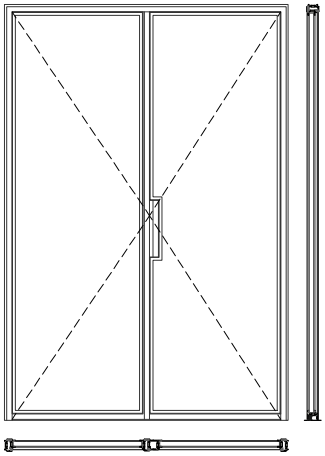
Double leaf door open in with locking box

Porta a due battenti apertura interna con scatola serratura

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

min. dimensions 1400 x 1800
max. dimensions 2100 x 2400

max. leaf weight: 160 kg



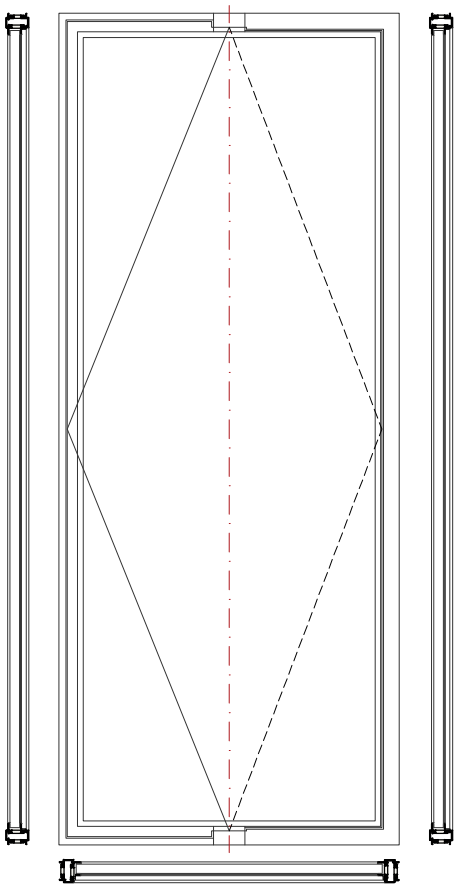
Double leaf door open out with locking box

Porta a due battenti apertura esterna con scatola serratura

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

min. dimensions 1400 x 1800
max. dimensions 2100 x 2400

max. leaf weight: 160 kg



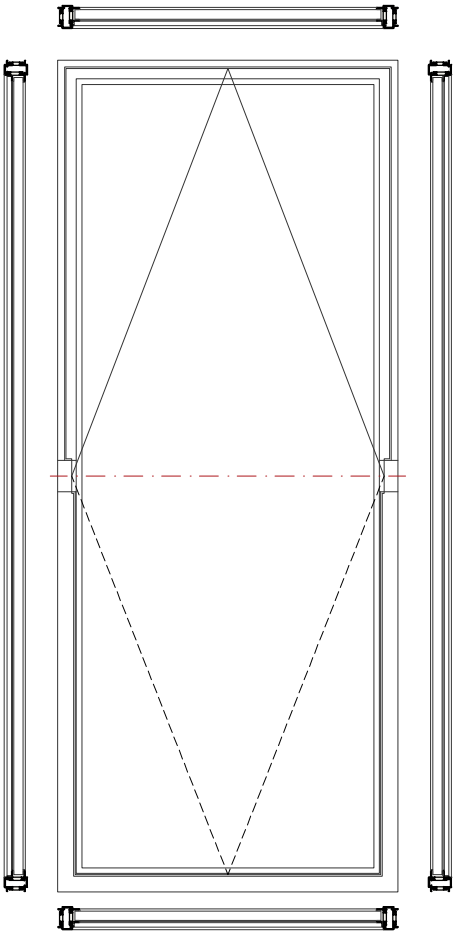
Single leaf pivot window

Finestra pivot a un battente

Ventana pivote de una hoja

min. dimensions 500 x 500
max. dimensions 1800 x 2400

Vertical pivot
max. leaf weight: 200 kg



Double leaf pivot window

Finestra pivot a due battenti

Ventana pivote de dos hojas

min. dimensions 500 x 500
max. dimensions 1800 x 1500

Orizontal pivot
max. leaf weight: 150 kg

Profile range

Gamma profili

Gama de perfiles

2.0

Profiles — Profili — Perfiles — 2.1
Glazing beads and complementary — Profili fermavetro e complementari — Junquillos y complementarios — 2.2
Glazing table — Tabella vetrazioni — Tabla de acristalamiento — 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

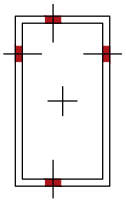
BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

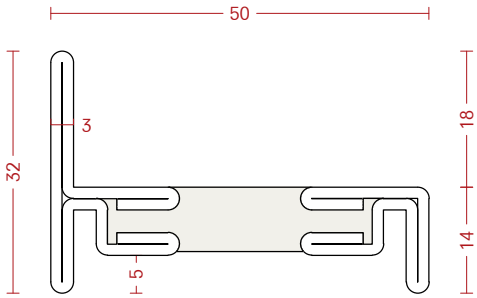
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

Perfiles

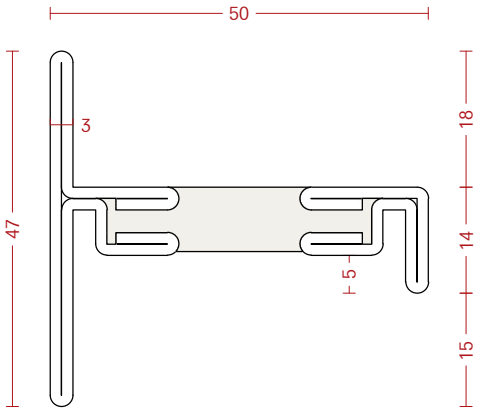
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado





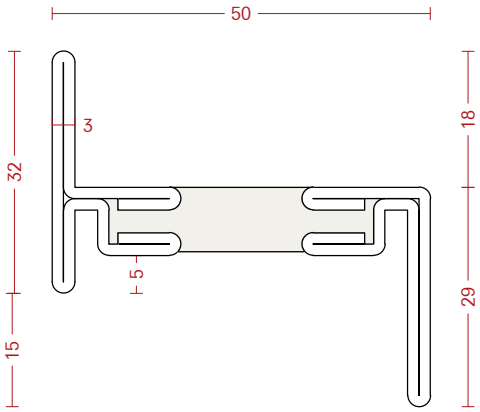
FT 5009LF-02

G = 2.43 kg/m U = 0.192 m²/m



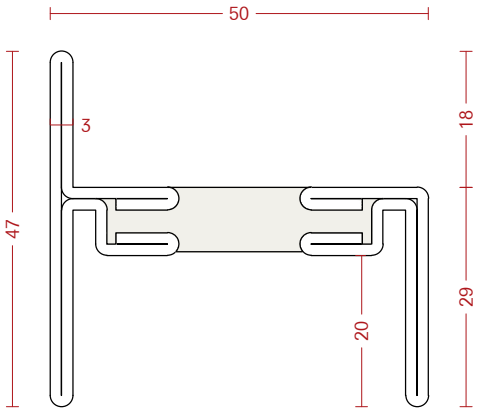
FT 5009TF-02

G = 2.79 kg/m U = 0.222 m²/m



FT 5009ZF-02

G = 2.79 kg/m U = 0.222 m²/m



FT 5009HF-02

G = 3.14 kg/m U = 0.252 m²/m

Profiles

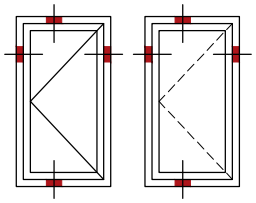
BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

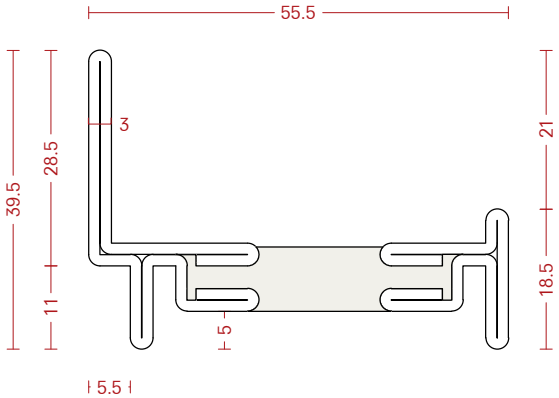
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

Perfiles

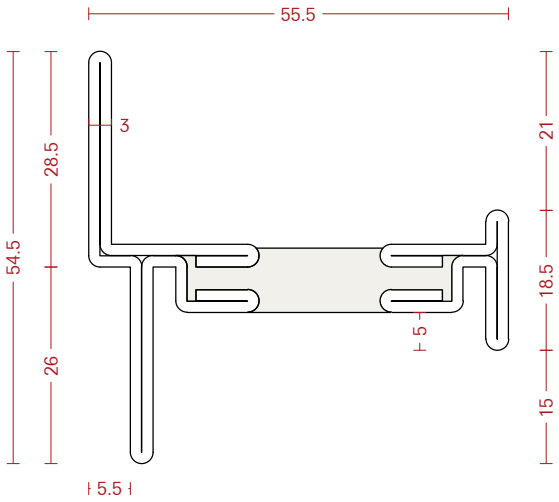
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado





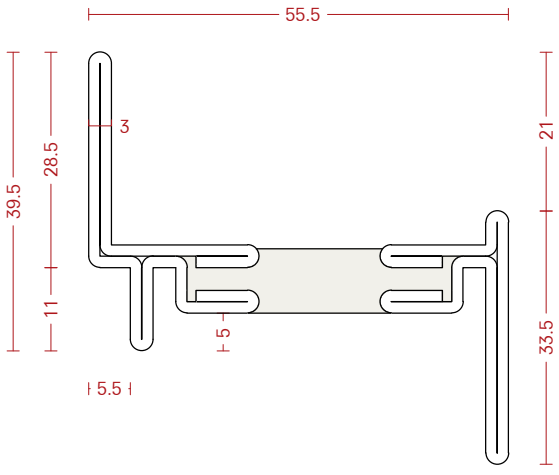
FT 5509L-02

G = 2.83 kg/m U = 0.226 m²/m



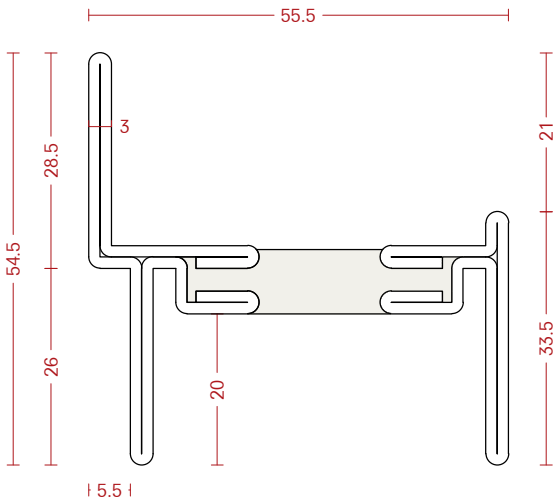
FT 5509T-02

G = 3.18 kg/m U = 0.256 m²/m



FT 5509Z-02

G = 3.18 kg/m U = 0.256 m²/m



FT 5509H-02

G = 3.54 kg/m U = 0.286 m²/m

Profiles

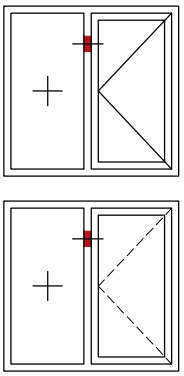
BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

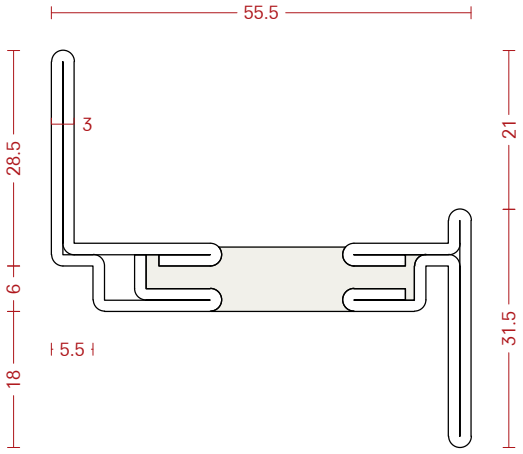
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

Perfiles

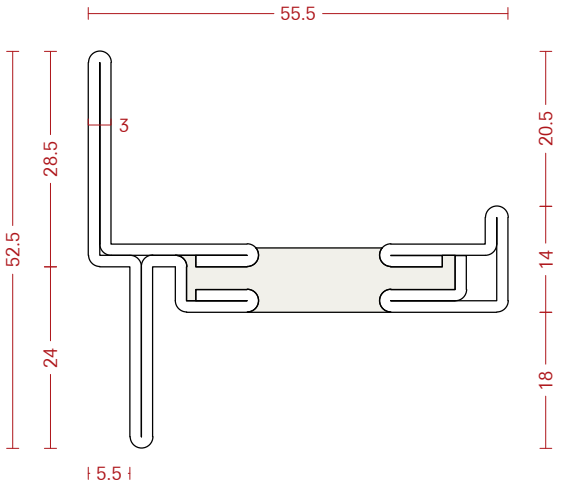
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado





FT 5509ZL-02

G = 2.99 kg/m U = 0.232 m²/m



FT 5509TL-02

G = 2.99 kg/m U = 0.232 m²/m

Profiles

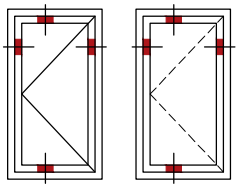
BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

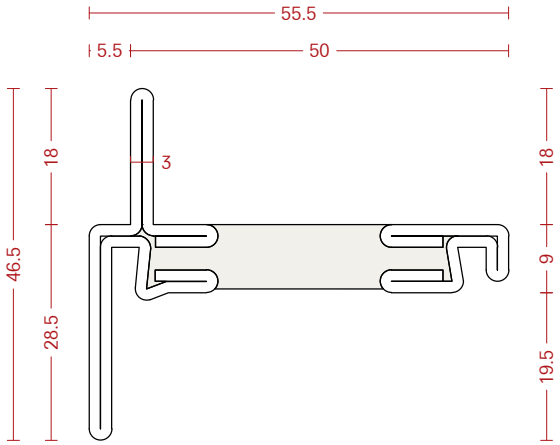
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

Perfiles

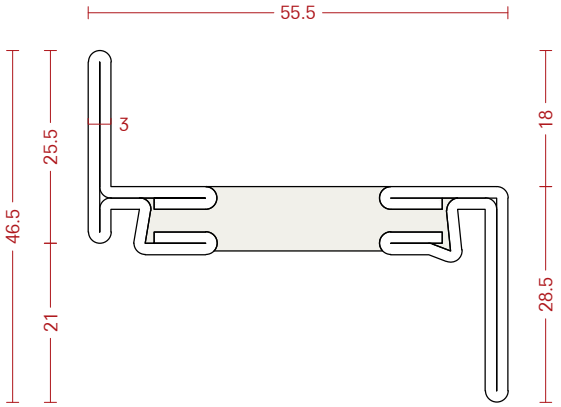
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado





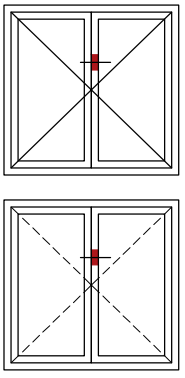
FT 5509TA-02

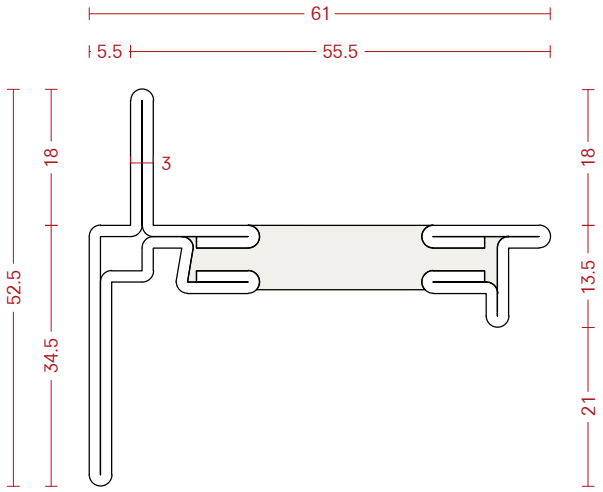
U = 2.69 kg/m U = 0.221 m²/m



FT 5509ZA-02

U = 2.70 kg/m U = 0.222 m²/m





FT 6109TZ-02

G = 2.93 kg/m U = 0.242 m²/m

Profiles

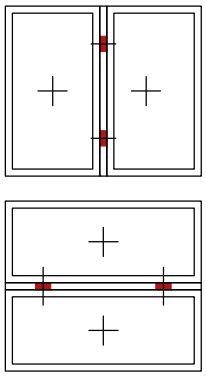
BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

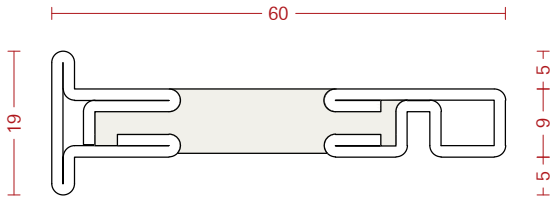
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

Perfiles

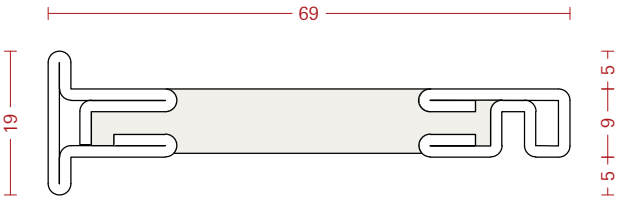
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado





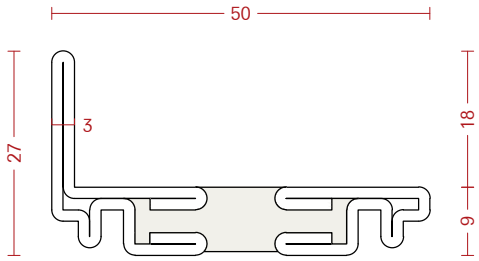
FT 6009SV-02

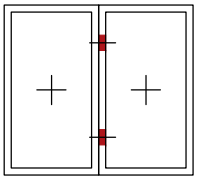
G = 2.16 kg/m U = 0.165 m²/m



FT 6909SO-02

G = 2.19 kg/m U = 0.183 m²/m





FT 5009LC-02

G = 2.19 kg/m U = 0.167 m²/m

Profiles

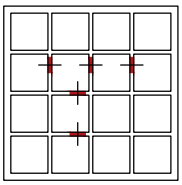
BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

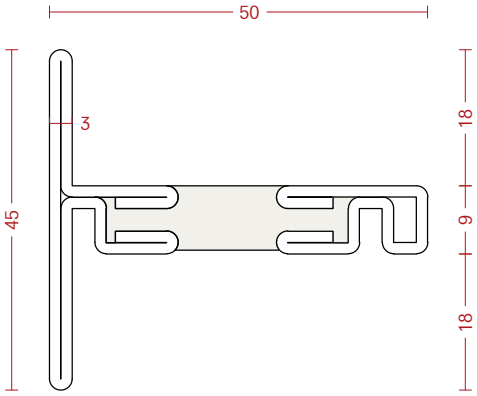
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

Perfiles

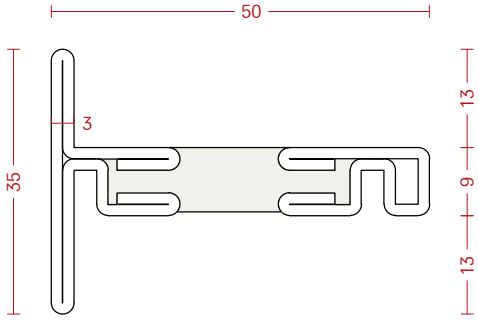
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado





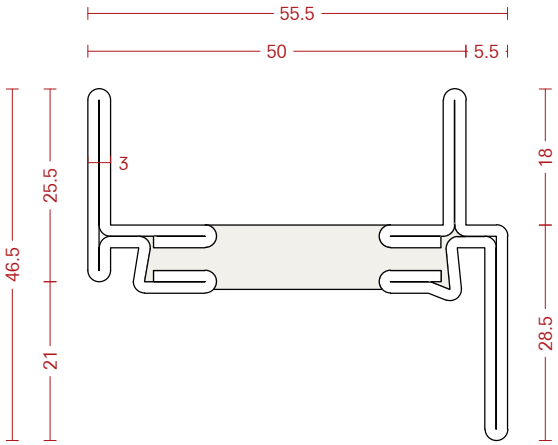
FT 5009TN-02

G = 2.61 kg/m U = 0.208 m²/m



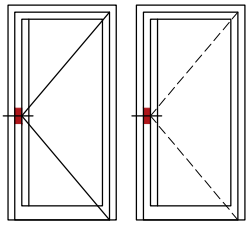
FT 5009TR-02

G = 2.52 kg/m U = 0.188 m²/m



FT 5509HP-02

G = 2.90 kg/m U = 0.258 m²/m



Profiles

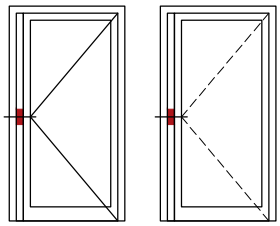
BAR LENGTH: 5800 mm
MATERIAL:
00 - Aluminium

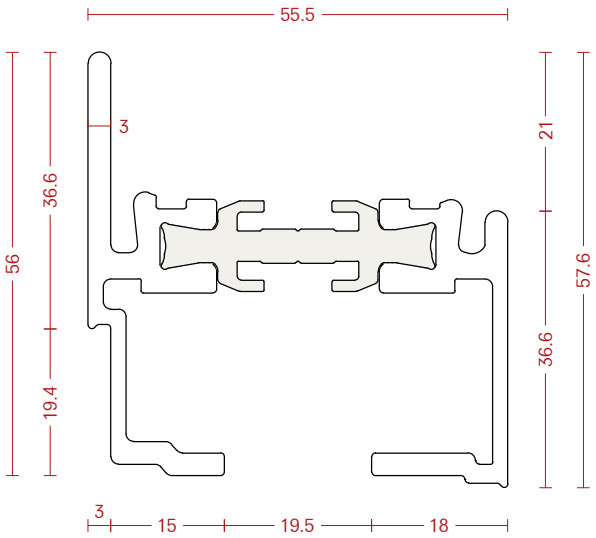
Profili

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
00 - Alluminio

Perfiles

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





FT 5512RS-00

G = 1.68	U = 0.260
kg/m	m²/m

Inertia values
according to EN14024

Valori di inerzia
conforme a norma EN14024

Valores de inercia
conforme a EN14024

	G (kg/m)	U (m^2/m)	Iy (cm^4)	Wy (cm^3)	Ix (cm^4) SPAN L1	Ix (cm^4) SPAN L2	Ix (cm^4) SPAN L3	Wx (cm^3) SPAN L1	Wx (cm^3) SPAN L2	Wx (cm^3) SPAN L3
FT 5009LF-02	2.430	0.192	1.278	0.623	7.450	8.810	9.400	2.525	2.986	3.186
FT 5009TF-02	2.790	0.222	2.718	1.137	8.280	9.920	10.650	2.579	3.090	3.318
FT 5009ZF-02	2.790	0.222	2.700	1.130	9.180	11.160	12.060	3.586	4.359	4.711
FT 5009HF-02	3.140	0.252	3.812	1.525	10.240	12.680	13.810	3.606	4.465	4.863
FT 5509L-02	2.830	0.226	2.494	0.956	10.270	12.350	13.280	3.199	3.847	4.137
FT 5509T-02	3.180	0.256	4.254	1.487	10.820	13.160	14.230	3.182	3.871	4.185
FT 5509Z-02	3.180	0.256	4.255	1.488	12.220	15.130	16.490	4.303	5.327	5.806
FT 5509H-02	3.540	0.286	5.655	1.854	12.950	16.280	17.880	4.246	5.338	5.862
FT 5509TL-02	2.990	0.232	4.170	1.474	9.650	11.540	12.380	2.703	3.232	3.468
FT 5509ZL-02	3.580	0.286	4.163	1.471	11.830	14.530	15.780	4.180	5.134	5.576

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

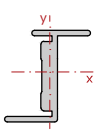
Per ulteriori informazioni contattare l'ufficio tecnico.

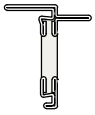
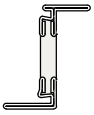
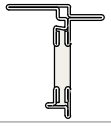
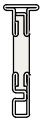
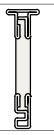
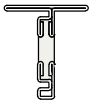
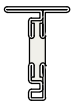
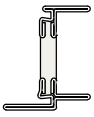
Leyenda

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



	G (kg/m)	U (m^2/m)	Iy (cm^4)	Wy (cm^3)	Ix (cm^4) SPAN L1	Ix (cm^4) SPAN L2	Ix (cm^4) SPAN L3	Wx (cm^3) SPAN L1	Wx (cm^3) SPAN L2	Wx (cm^3) SPAN L3
FT 5509TA-02 	2.690	0.221	2.573	1.077	8.640	10.230	10.920	2.348	2.780	2.967
FT 5509ZA-02 	2.700	0.222	2.557	1.074	10.990	13.310	14.350	3.816	4.622	4.983
FT 6109TZ-02 	2.930	0.242	3.826	1.352	10.720	12.680	13.530	2.602	3.078	3.284
FT 6009SV-02 	2.160	0.165	0.338	0.348	8.230	9.580	10.150	2.464	2.868	3.039
FT 6909SO-02 	2.190	0.183	0.321	0.331	11.800	13.750	14.560	3.130	3.647	3.862
FT 5009LC-02	2.190	0.167	1.002	0.517	5.590	6.490	6.880	1.882	2.185	2.316
FT 5009TN-02 	2.610	0.208	2.349	1.035	6.970	8.250	8.810	2.074	2.455	2.622
FT 5009TR-02 	2.520	0.188	1.178	0.665	6.520	7.660	8.150	2.050	2.409	2.563
FT 5509HP-02 	2.900	0.258	3.522	1.365	11.770	14.550	15.820	3.713	4.590	4.991

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'inerzia lungo un asse
SPAN = lunghezza del profilo fra due fissaggi

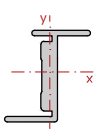
Per ulteriori informazioni contattare l'ufficio tecnico.

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



Glazing beads and complementary

Profili fermavetro e complementari

Junquillos y complementarios

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

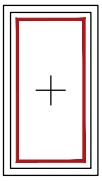
BAR LENGTH: 5800 mm
MATERIAL:
01 - Hot Rolled Steel
02 - Galvanized steel

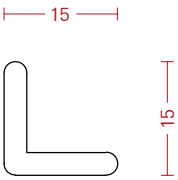
Fermavetri

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

Junquillos

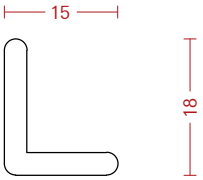
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
01 - Acero laminado en caliente
02 - Acero galvanizado





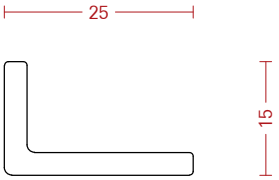
FV 1515A-02

-02	G = 0.62	U = 0.057	
	kg/m	m^2/m	



FV 1815A-02

-02	G = 0.69	U = 0.063	
	kg/m	m^2/m	



FV 1525A-01

-01	G = 0.85	U = 0.078	
	kg/m	m^2/m	

Fixing screw

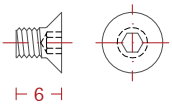
PU: 100 pc
MATERIAL: Stainless steel A2

Vite di fissaggio

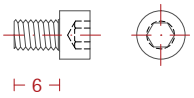
UV: 100 pezzi
MATERIALE: Acciaio inox A2

Tornillo de fijación

CANTIDAD: 100 uds.
MATERIAL: Acero inoxidable A2



D99867-03
M4 x 6 mm



D99866-03
M4 x 6 mm

Glazing beads

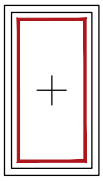
BAR LENGTH: 3000 mm
MATERIAL:
02 - Galvanized steel

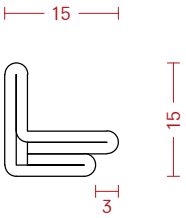
Fermavetri

LUNGHEZZA BARRA: 3000 mm
MATERIALE:
02 - Acciaio zincato

Junquillos

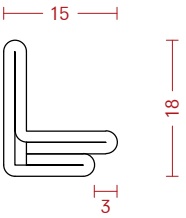
LONGITUD DE LA BARRA: 3000 mm
MATERIAL:
02 - Acero galvanizado





FV 1515D-02

G = 0.78 kg/m
U = 0.058 m²/m



FV 1815D-02

G = 0.85 kg/m
U = 0.065 m²/m

Fixing screw

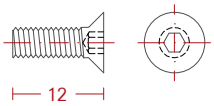
PU: 100 pc
MATERIAL: Stainless steel A2

Vite di fissaggio

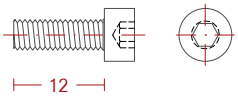
UV: 100 pezzi
MATERIALE: Acciaio inox A2

Tornillo de fijación

CANTIDAD: 100 uds.
MATERIAL: Acero inoxidable A2



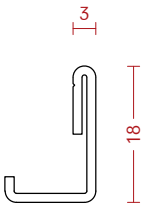
D99851-03
M4 x 12 mm



D99868-03
M4 x 12 mm

Glazing beads

BAR LENGTH: 5800 mm
MATERIAL:
02 - Galvanized steel

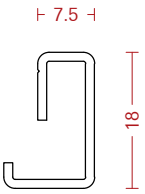


FV 1803R-02

G = 0.37 kg/m
U = 0.065 m²/m

Fermavetri

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
02 - Acciaio zincato

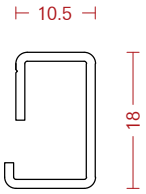


FV 1807R-02

G = 0.41 kg/m
U = 0.090 m²/m

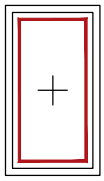
Junquillos

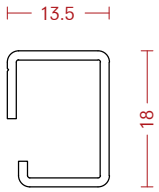
LONGITUD DE LA BARRA: 5800 mm
MATERIAL:
02 - Acero galvanizado



FV 1810R-02

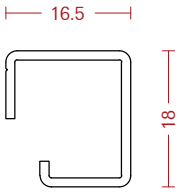
G = 0.44 kg/m
U = 0.095 m²/m





FV 1813R-02

G = 0.47 kg/m
U = 0.102 m²/m

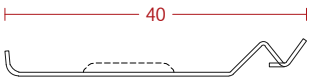


FV 1816R-02

G = 0.49 kg/m
U = 0.108 m²/m

Glazing bead - clips

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



F99005-03

Fermavetri - clips

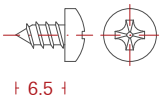
UV: 100 pezzi
MATERIALE:
Acciaio inox AISI 304 2B

Clips para junquillos

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

Fixture - clips

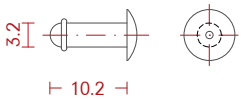
PU: 100 pc
MATERIAL:
Stainless steel A2



D99801-03
Ø3.5 x 6.5 mm

Fissaggio clips

UV: 100 pezzi
MATERIALE:
Acciaio inox A2



D99950-03
Ø3.2 x 8 mm

Fijacion - clips

CANTIDAD: 100 uds.
MATERIAL:
Acero inoxidable A2

Glazing beads

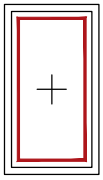
BAR LENGTH: 5800 mm
MATERIAL:
00 - Aluminium

Fermavetri

LUNGHEZZA BARRA: 5800 mm
MATERIALE:
00 - Alluminio

Junquillos

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



FV 1302R-00

G = 0.08 kg/m U = 0.051 m²/m

FV 1312R-00

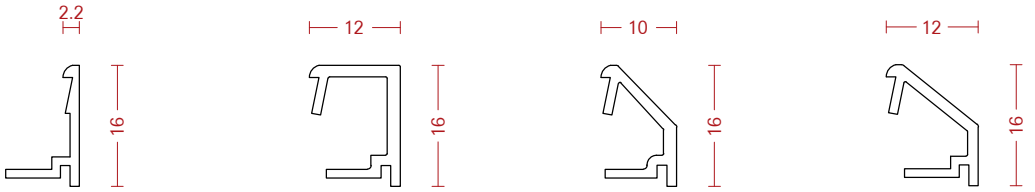
G = 0.15 kg/m U = 0.078 m²/m

FV 1310S-00

G = 0.11 kg/m U = 0.064 m²/m

FV 1312S-00

G = 0.12 kg/m U = 0.069 m²/m



FV 1602R-00

G = 0.09 kg/m U = 0.057 m²/m

FV 1612R-00

G = 0.16 kg/m U = 0.084 m²/m

FV 1610S-00

G = 0.13 kg/m U = 0.070 m²/m

FV 1612S-00

G = 0.13 kg/m U = 0.075 m²/m

Glazing bead - clips

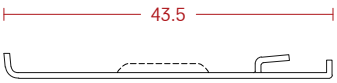
PU: 100 pc
MATERIAL:
Stainless steel AISI 304 2B

Fermavetri - clips

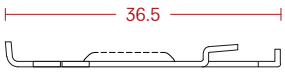
UV: 100 pezzi
MATERIALE:
Acciaio inox AISI 304 2B

Clips para junquillos

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



F99004-03



F99003-03 *

* not suitable for:
* non utilizzabile per:
* no se puede usar para:
FT 5009TN-02
FT 5009TR-02

Fixture - clips

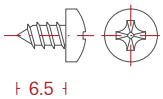
PU: 100 pc
MATERIAL:
Stainless steel A2

Fissaggio clips

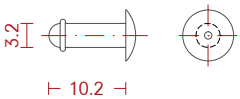
UV: 100 pezzi
MATERIALE:
Acciaio inox A2

Fijacion - clips

CANTIDAD: 100 uds.
MATERIAL:
Acero inoxidable A2



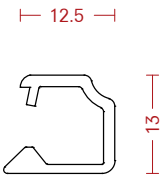
D99801-03
Ø3.5 x 6.5 mm



D99950-03
Ø3.2 x 8 mm

Glazing beads

BAR LENGTH: 4000 mm
MATERIAL:
00 - Aluminium

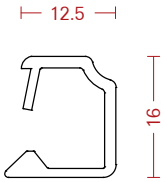


FV 1312B-00

G = 0.16 kg/m
U = 0.079 m²/m

Fermavetri

LUNGHEZZA BARRA: 4000 mm
MATERIALE:
00 - Alluminio

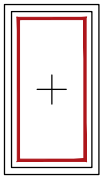


FV 1612B-00

G = 0.18 kg/m
U = 0.091 m²/m

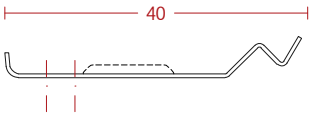
Junquillos

LONGITUD DE LA BARRA: 4000 mm
MATERIAL:
00 - Aluminio



Glazing bead - clips

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



F99006-03

Fermavetri - clips

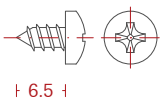
UV: 100 pezzi
MATERIALE:
Acciaio inox AISI 304 2B

Clips para junquillos

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

Fixture - clips

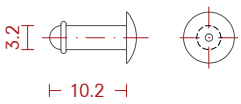
PU: 100 pc
MATERIAL:
Stainless steel A2



D99801-03
Ø3.5 x 6.5 mm

Fissaggio clips

UV: 100 pezzi
MATERIALE:
Acciaio inox A2



D99950-03
Ø3.2 x 8 mm

Fijacion - clips

CANTIDAD: 100 uds.
MATERIAL:
Acero inoxidable A2

False muntins

BAR LENGTH: 3000 mm
MATERIAL:
02 - Galvanized steel

In combination with:
FV 1815A-02/1515A-02

Inglesine

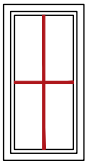
LUNGHEZZA BARRA: 3000 mm
MATERIALE:
02 - Acciaio zincato

In combinazione con:
FV 1815A-02/1515A-02

Listones adheridos

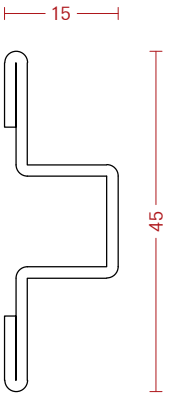
LONGITUD DE LA BARRA: 3000 mm
MATERIAL:
02 - Acero galvanizado

En combinación con:
FV 1815A-02/1515A-02



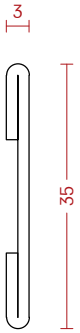
FT 4503IP-02

G = 0.75 kg/m
U = 0.096 m²/m



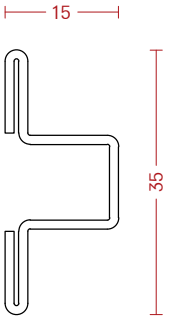
FT 4515IT-02 *

G = 1.02 kg/m
U = 0.142 m²/m



FT 3503IP-02

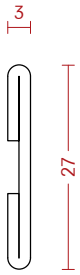
G = 0.63 kg/m
U = 0.076 m²/m



FT 3515IT-02 *

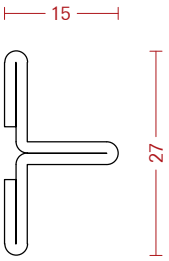
G = 0.99 kg/m
U = 0.130 m²/m

*On request
*Su richiesta
*Por encargo



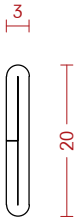
FT 2703IP-02

G = 0.54 kg/m
U = 0.060 m²/m



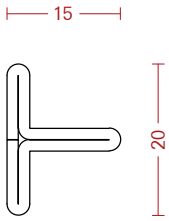
FT 2715IT-02

G = 0.81 kg/m
U = 0.085 m²/m



FT 2003IP-02 *

G = 0.46 kg/m
U = 0.043 m²/m



FT 2015IT-02 *

G = 0.73 kg/m
U = 0.066 m²/m

Double-side adhesive tape

Black

Apply with primer I99005-75.

PU: 33 m

Nastro biadesivo

Nero

Applicare con primer I99005-75.

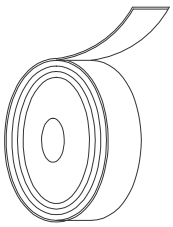
PU: 33 m

Cinta adhesiva de doble cara

Negro

Aplicar con imprimación I99005-75.

PU: 33 m



G99301-74
8 x 1.55 mm

Multipoint aluminum rods, parts

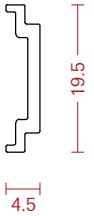
BAR LENGTH: 3000 mm
MATERIALS:
00 - Aluminium
52 - Silver anodised aluminum

Multipoint aste in alluminio, componenti

BAR LENGTH: 3000 mm
MATERIALI:
00 - Alluminio
52 - Alluminio anodizzato argento

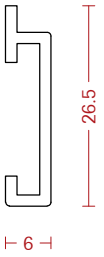
Multipoint varillas de aluminio, componentes

LONGITUD DE LA BARRA: 3000 mm
MATERIALES:
00 - Aluminio
52 - Aluminio anodizado plata



E99385-52

G = 0.10 kg/m U = 0.052 m²/m



E99502-00
L = 4000 mm

G = 0.16 kg/m U = 0.083 m²/m

Glazing table

Tabella vetrazioni

Tabla de acristalamiento

Important notes:

This system requires the use of glasses with edge covered.

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:

Per questo sistema è necessario l'utilizzo di vetri con canaline ribassate.

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

Notas importantes:

Este sistema requiere el uso de gafas con canales rebajados.

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

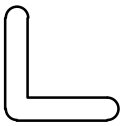
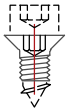
02 - Galvanized steel

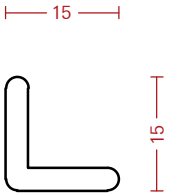
Tabella vetrazioni

02 - Acciaio zincato

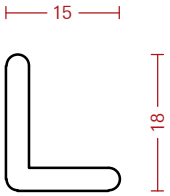
Tabla de acristalamiento

02 - Acero galvanizado

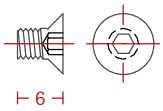
							
F	A		B		C	D	E
mm	code	mm	code	mm	mm	mm	mm
20	G99103-62	5	G99204-61	5.5	15	8.5 / 14	1.5 / 7
21	G99103-62	5	G99203-61	4.5	15	8.5 / 14	1.5 / 7
22	G99102-61	3	G99204-61	5.5	15	8.5 / 14	1.5 / 7
23	G99102-61	3	G99203-61	4.5	15	8.5 / 14	1.5 / 7
24	G99102-61	3	G99202-61	3.5	15	8.5 / 14	1.5 / 7
25	G99102-61	3	G99201-61	2.5	15	8.5 / 14	1.5 / 7



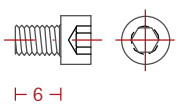
FV 1515A-02



FV 1815A-02



D99867-03
M4 x 6 mm

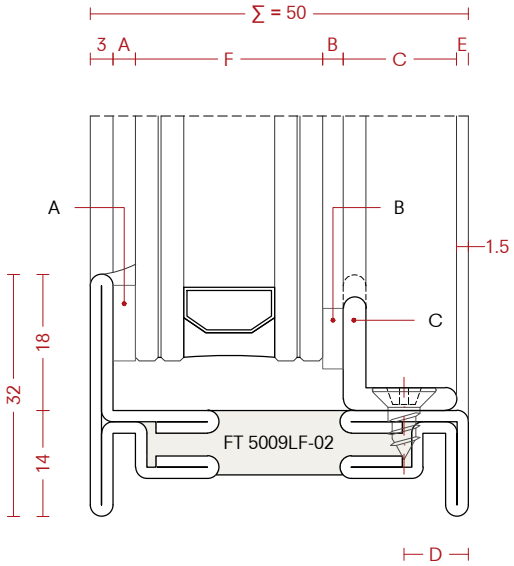


D99866-03
M4 x 6 mm

* We recommend to reduce the height of the spacer of the Insulated Glass Unit (IGU).

* Si consiglia di adottare canaline vetrocamera con altezza ridotta.

* Recomendamos reducir la altura del espaciador de la unidad de vidrio aislante.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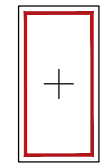
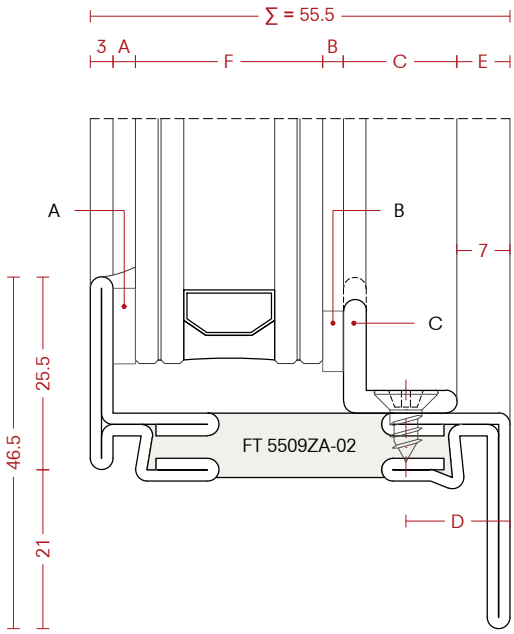
A
F
B
C
E
A
B
1.5
C
32
18
14
FT 5009LF-02
D




∑ = 55.5
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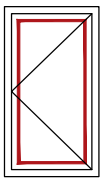
A
F
B
C
E
A
B
7
C
46.5
25.5
21
FT 5509ZA-02
D



Glazing table

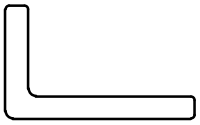
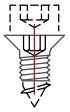
01 - Hot Rolled Steel

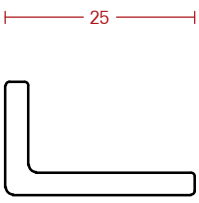
Tabella vetrazioni

01 - Acciaio laminato a caldo

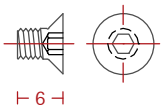
Tabla de acristalamiento

01 - Acero laminado en caliente

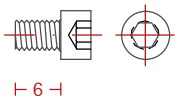
F	A		B		 C	 D	E
mm	code	mm	code	mm	mm	mm	mm
10	G99103-62	5	G99204-61	5.5	25	12.3	1.5 / 7
11	G99103-62	5	G99203-61	4.5	25	12.3	1.5 / 7
12	G99102-61	3	G99204-61	5.5	25	12.3	1.5 / 7
13	G99102-61	3	G99203-61	4.5	25	12.3	1.5 / 7
14	G99102-61	3	G99202-61	3.5	25	12.3	1.5 / 7
15	G99102-61	3	G99201-61	2.5	25	12.3	1.5 / 7



FV 1525A-01



D99867-03
M4 x 6 mm

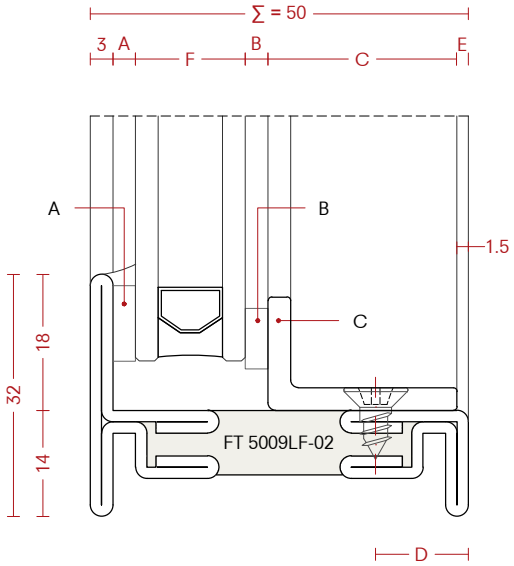


D99866-03
M4 x 6 mm

* We recommend to reduce the height of the spacer of the Insulated Glass Unit (IGU).

* Si consiglia di adottare canaline vetrocamera con altezza ridotta.

* Recomendamos reducir la altura del espaciador de la unidad de vidrio aislante.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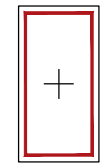
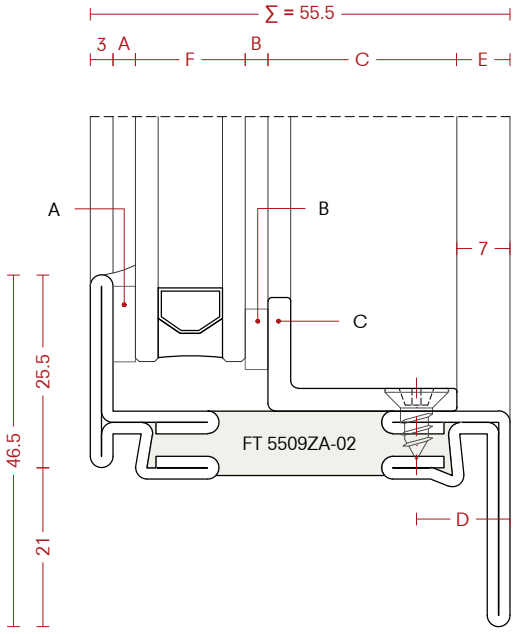
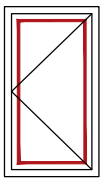
F
B
C
E
A
B
C
1.5
32
18
14
FT 5009LF-02
D




∑ = 55.5
3
A
F
B
C
E
A
B
C
7
46.5
25.5
21
FT 5509ZA-02
D



Glazing table

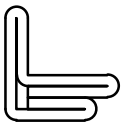
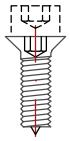
02 - Galvanized steel

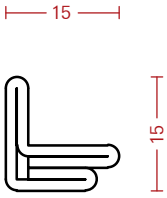
Tabella vetrazioni

02 - Acciaio zincato

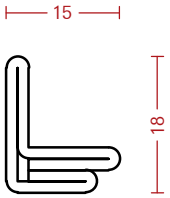
Tabla de acristalamiento

02 - Acero galvanizado

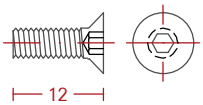
F	A		B		 C	 D	E
mm	code	mm	code	mm	mm	mm	mm
20	G99103-62	5	G99204-61	5.5	15	8.5 / 14	1.5 / 7
21	G99103-62	5	G99203-61	4.5	15	8.5 / 14	1.5 / 7
22	G99102-61	3	G99204-61	5.5	15	8.5 / 14	1.5 / 7
23	G99102-61	3	G99203-61	4.5	15	8.5 / 14	1.5 / 7
24	G99102-61	3	G99202-61	3.5	15	8.5 / 14	1.5 / 7
25	G99102-61	3	G99201-61	2.5	15	8.5 / 14	1.5 / 7



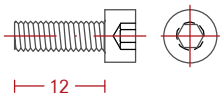
FV 1515D-02



FV 1815D-02



D99851-03
M4 x 12 mm

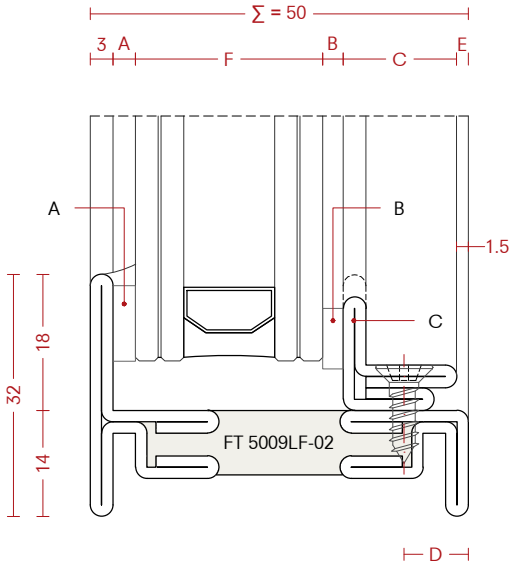


D99868-03
M4 x 12 mm

* We recommend to reduce the height of the spacer of the Insulated Glass Unit (IGU).

* Si consiglia di adottare canaline vetrocamera con altezza ridotta.

* Recomendamos reducir la altura del espaciador de la unidad de vidrio aislante.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C
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A
B
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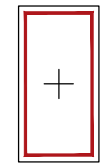
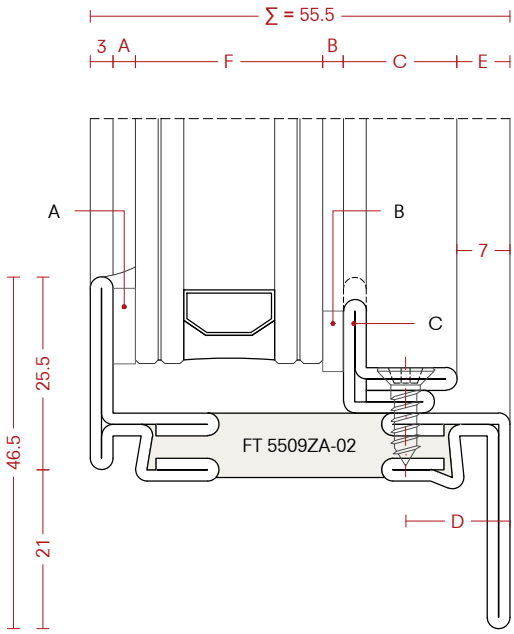
C
32
18
14
FT 5009LF-02
D




∑ = 55.5
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B
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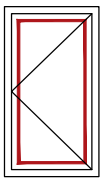
C
46.5
25.5
21
FT 5509ZA-02
D



Glazing table

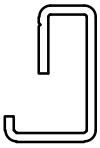
02 - Galvanized steel

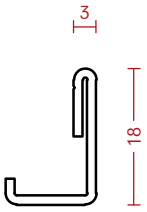
Tabella vetrazioni

02 - Acciaio zincato

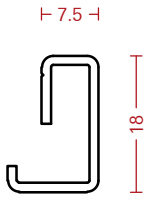
Tabla de acristalamiento

02 - Acero galvanizado

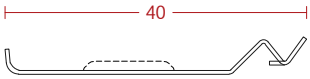
								
F	A		B		C		D	E
mm	code	mm	code	mm	code	mm	mm	mm
28	G99103-62	5	G99204-61	5.5	FV 1807R-02	7.5	12.3	1.5 / 7
29	G99103-62	5	G99203-61	4.5	FV 1807R-02	7.5	12.3	1.5 / 7
30	G99102-61	3	G99204-61	5.5	FV 1807R-02	7.5	12.3	1.5 / 7
31	G99102-61	3	G99203-61	4.5	FV 1807R-02	7.5	12.3	1.5 / 7
32	G99103-62	5	G99204-61	5.5	FV 1803R-02	3	12.3	1.5 / 7
32	G99102-61	3	G99202-61	3.5	FV 1807R-02	7.5	12.3	1.5 / 7
33	G99103-62	5	G99203-61	4.5	FV 1803R-02	3	12.3	1.5 / 7
33	G99102-61	3	G99201-61	2.5	FV 1807R-02	7.5	12.3	1.5 / 7
34	G99102-61	3	G99204-61	5.5	FV 1803R-02	3	12.3	1.5 / 7
35	G99102-61	3	G99203-61	4.5	FV 1803R-02	3	12.3	1.5 / 7
36	G99102-61	3	G99202-61	3.5	FV 1803R-02	3	12.3	1.5 / 7
37	G99102-61	3	G99201-61	2.5	FV 1803R-02	3	12.3	1.5 / 7



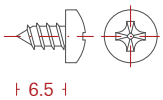
FV 1803R-02



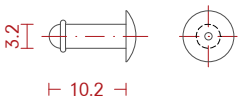
FV 1807R-02



F99005-03



D99801-03
Ø3.5 x 6.5 mm

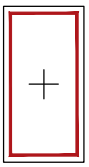


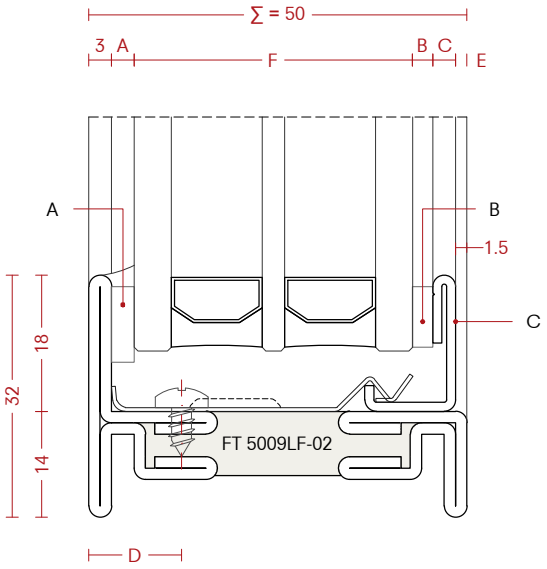
D99950-03
Ø3.2 x 8 mm

PAY ATTENTION: distance between glass and profile must be increase from 6 mm to 8 mm

ATTENZIONE: la distanza tra vetro e profilo deve essere aumentata da 6 mm a 8 mm

PRESTE ATENCIÓN: la distancia entre el vidrio y el perfil debe aumentarse de 6 mm a 8 mm

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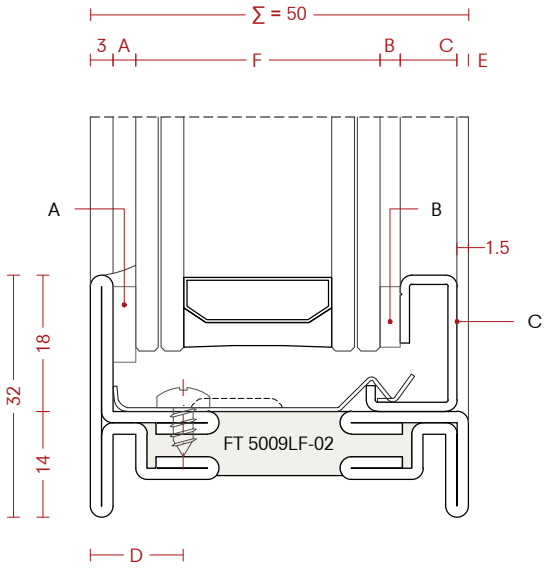
3
A
F
B
C
E
A
B
1.5
C
32
18
14
FT 5009LF-02
D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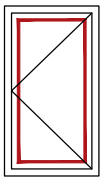
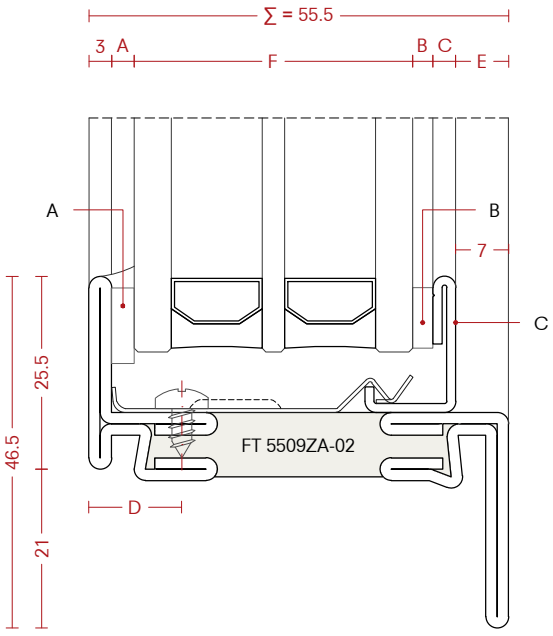
F
B
C
E
A
B
1.5
C
32
18
14
FT 5009LF-02
D

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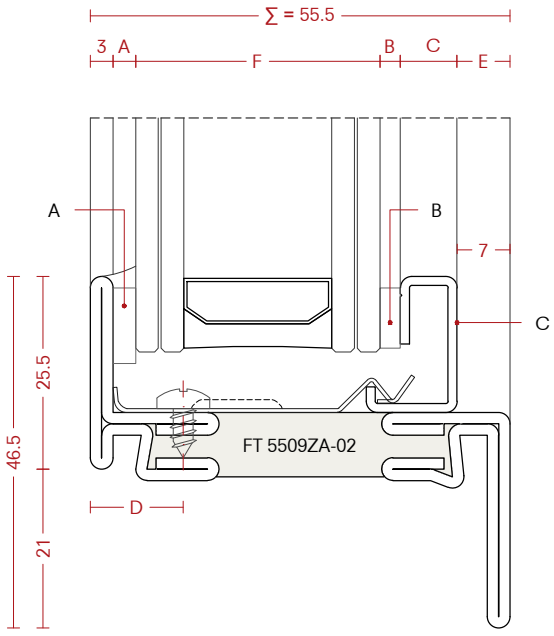
A
F
B
C
E
A
B
7
C
46.5
25.5
21
FT 5509ZA-02
D


∑ = 55.5
3
A
F
B
C
E
A
B
7
C
46.5
25.5
21
FT 5509ZA-02
D

Glazing table

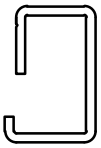
02 - Galvanized steel

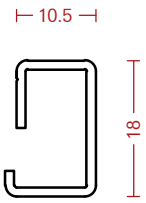
Tabella vetrazioni

02 - Acciaio zincato

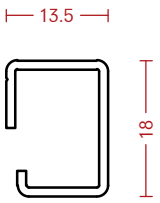
Tabla de acristalamiento

02 - Acero galvanizado

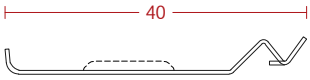
								
F	A		B		C		D	E
mm	code	mm	code	mm	code	mm	mm	mm
22	G99103-62	5	G99204-61	5.5	FV 1813R-02	13.5	12.3	1.5 / 7
23	G99103-62	5	G99203-61	4.5	FV 1813R-02	13.5	12.3	1.5 / 7
24	G99102-61	3	G99204-61	5.5	FV 1813R-02	13.5	12.3	1.5 / 7
25	G99103-62	5	G99204-61	5.5	FV 1810R-02	10.5	12.3	1.5 / 7
25	G99102-61	3	G99203-61	4.5	FV 1813R-02	13.5	12.3	1.5 / 7
26	G99103-62	5	G99203-61	4.5	FV 1810R-02	10.5	12.3	1.5 / 7
26	G99102-61	3	G99202-61	3.5	FV 1813R-02	13.5	12.3	1.5 / 7
27	G99102-61	3	G99204-61	5.5	FV 1810R-02	10.5	12.3	1.5 / 7
27	G99102-61	3	G99201-61	2.5	FV 1813R-02	13.5	12.3	1.5 / 7
28	G99102-61	3	G99203-61	4.5	FV 1810R-02	10.5	12.3	1.5 / 7
29	G99102-61	3	G99202-61	3.5	FV 1810R-02	10.5	12.3	1.5 / 7
30	G99102-61	3	G99201-61	2.5	FV 1810R-02	10.5	12.3	1.5 / 7



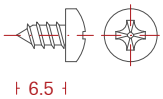
FV 1810R-02



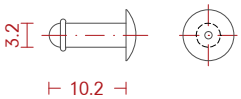
FV 1813R-02



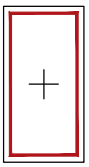
F99005-03

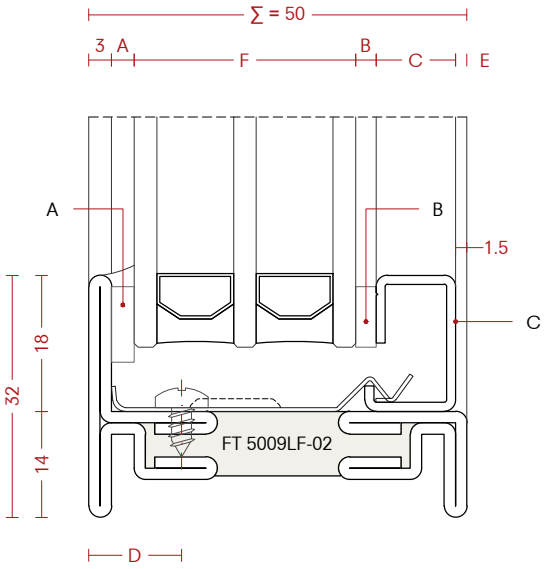


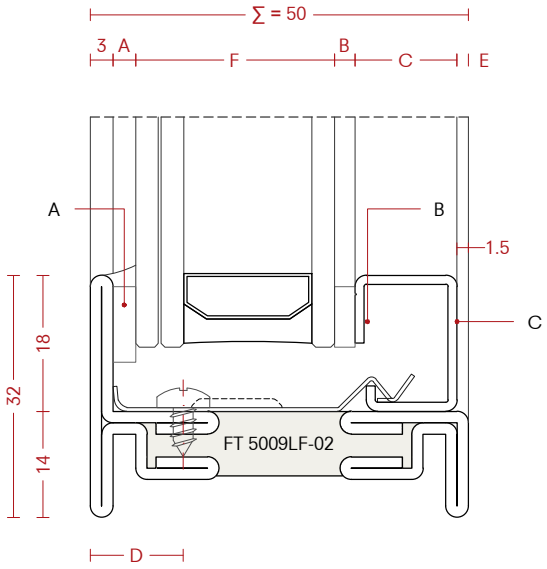
D99801-03
Ø3.5 x 6.5 mm



D99950-03
Ø3.2 x 8 mm




∑ = 50
3
A
F
B
C
E
A
B
1.5
C
32
18
14
FT 5009LF-02
D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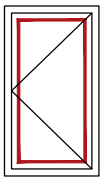
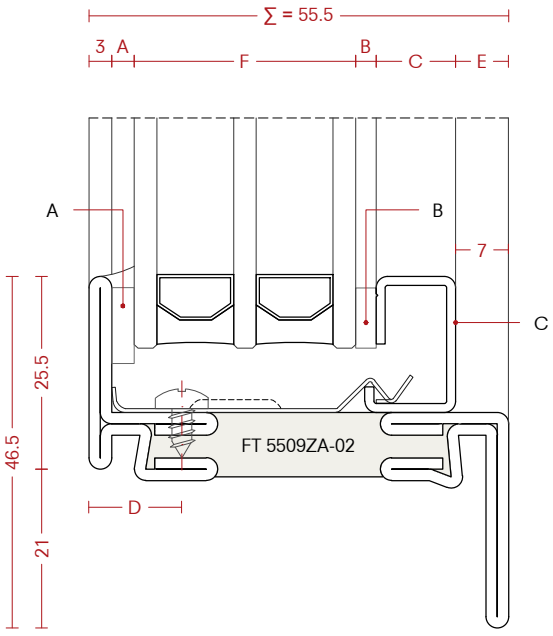
F
B
C
E
A
B
1.5
C
32
18
14
FT 5009LF-02
D




∑ = 55.5
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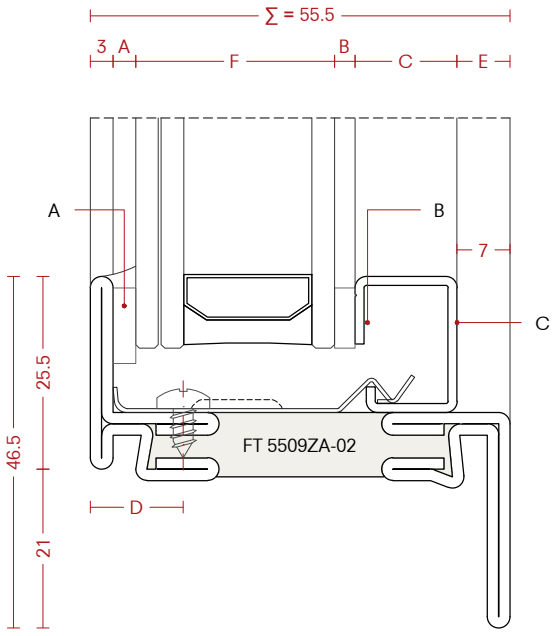
A
F
B
C
E
A
B
7
C
46.5
25.5
21
FT 5509ZA-02
D


∑ = 55.5
3
A
F
B
C
E
A
B
7
C
46.5
25.5
21
FT 5509ZA-02
D

Glazing table

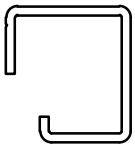
02 - Galvanized steel

Tabella vetrazioni

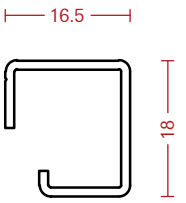
02 - Acciaio zincato

Tabla de acristalamiento

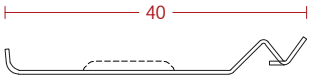
02 - Acero galvanizado



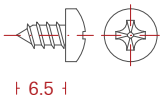
F	A		B		C	D	E
mm	code	mm	code	mm	mm	mm	mm
19	G99103-62	5	G99204-61	5.5	16.5	12.3	1.5 / 7
20	G99103-62	5	G99203-61	4.5	16.5	12.3	1.5 / 7
21	G99102-61	3	G99204-61	5.5	16.5	12.3	1.5 / 7
22	G99102-61	3	G99203-61	4.5	16.5	12.3	1.5 / 7
23	G99102-61	3	G99202-61	3.5	16.5	12.3	1.5 / 7
24	G99102-62	3	G99201-61	2.5	16.5	12.3	1.5 / 7



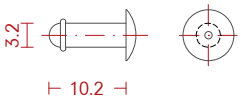
FV 1816R-02



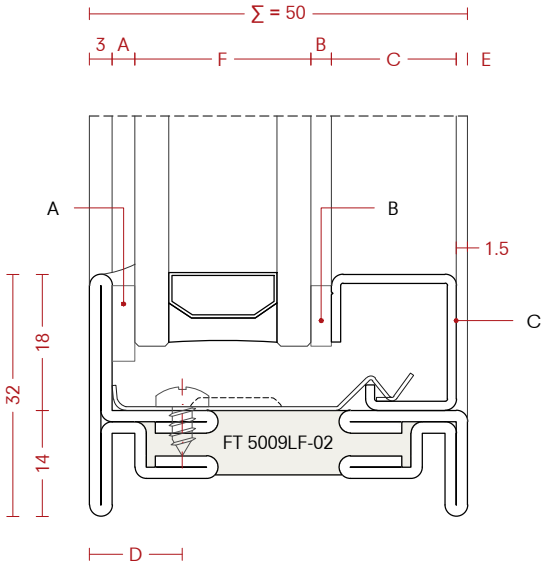
F99005-03



D99801-03
Ø3.5 x 6.5 mm



D99950-03
Ø3.2 x 8 mm


∑ = 50
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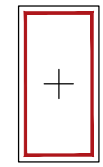
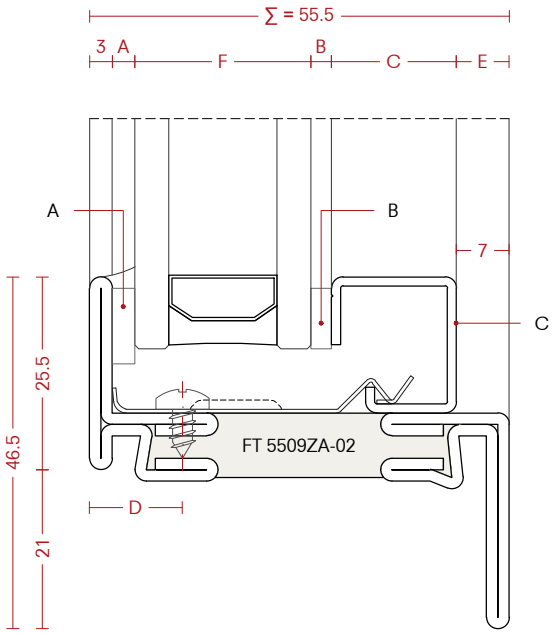
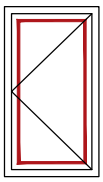
A
F
B
C
E
A
B
1.5
C
32
18
14
FT 5009LF-02
D




∑ = 55.5
3
A
F
B
C
E
A
B
7
C
46.5
25.5
21
FT 5509ZA-02
D



Glazing table

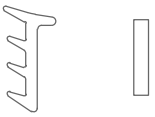
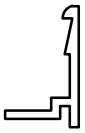
00 - Aluminium

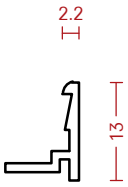
Tabella vetrazioni

00 - Alluminio

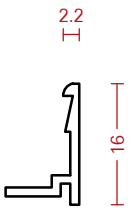
Tabla de acristalamiento

00 - Aluminio

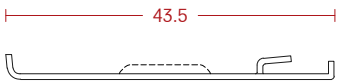
								
F	A		B		C	D		E
mm	code	mm	code	mm	mm	code	mm	mm
25	G99108-60 / G99103-62	5	G99208-60	6	2.2	F99003-03	12.3	8.8 / 14.3
26	G99108-60 / G99103-62	5	G99207-60	5	2.2	F99003-03	12.3	8.8 / 14.3
27	G99107-60 / G99102-61	3	G99208-60	6	2.2	F99003-03	12.3	8.8 / 14.3
28	G99107-60 / G99102-61	3	G99207-60	5	2.2	F99003-03	12.3	8.8 / 14.3
29	G99107-60 / G99102-61	3	G99206-60	4	2.2	F99003-03	12.3	8.8 / 14.3
30	G99107-60 / G99102-61	3	G99205-60	3	2.2	F99003-03	12.3	8.8 / 14.3
32	G99108-60 / G99103-62	5	G99208-60	6	2.2	F99004-03	12.3	8.8 / 14.3
33	G99108-60 / G99103-62	5	G99207-60	5	2.2	F99004-03	12.3	8.8 / 14.3
34	G99107-60 / G99102-61	3	G99208-60	6	2.2	F99004-03	12.3	8.8 / 14.3
35	G99107-60 / G99102-61	3	G99207-60	5	2.2	F99004-03	12.3	8.8 / 14.3
36	G99107-60 / G99102-61	3	G99206-60	4	2.2	F99004-03	12.3	8.8 / 14.3
37	G99107-60 / G99102-61	3	G99205-60	3	2.2	F99004-03	12.3	8.8 / 14.3



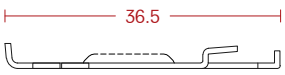
FV 1302R-00



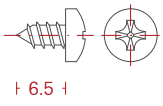
FV 1602R-00



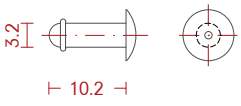
F99004-03



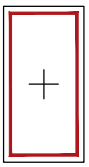
F99003-03

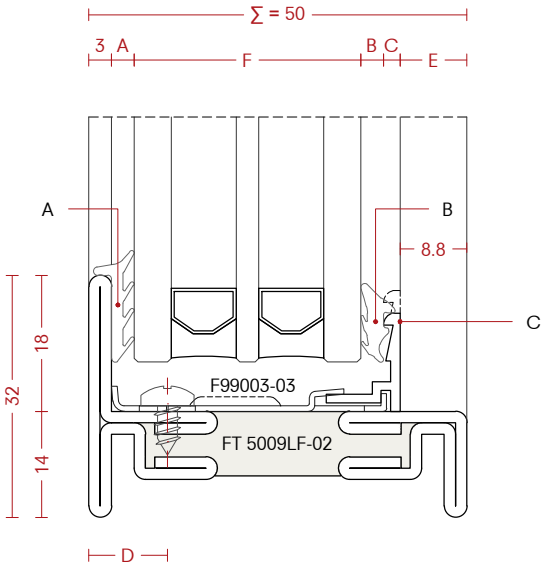


D99801-03
Ø3.5 x 6.5 mm



D99950-03
Ø3.2 x 8 mm

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A
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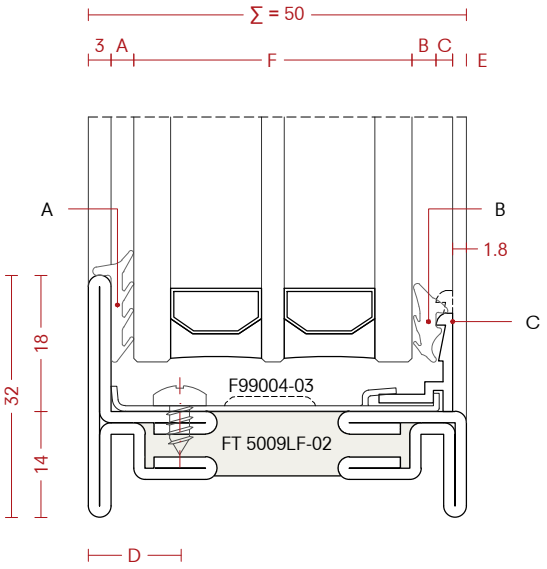
B
C
E
A
B
8.8
C
32
18
14
F99003-03
FT 5009LF-02
D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B
1.8
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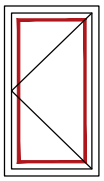
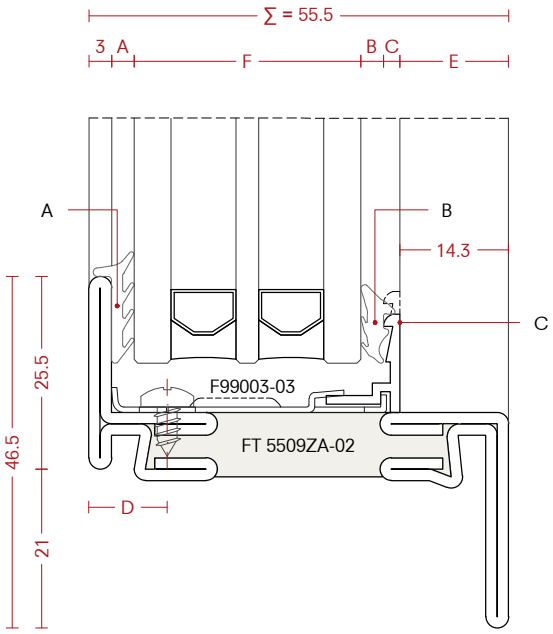
F99004-03
FT 5009LF-02
D

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46.5
25.5
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F99003-03
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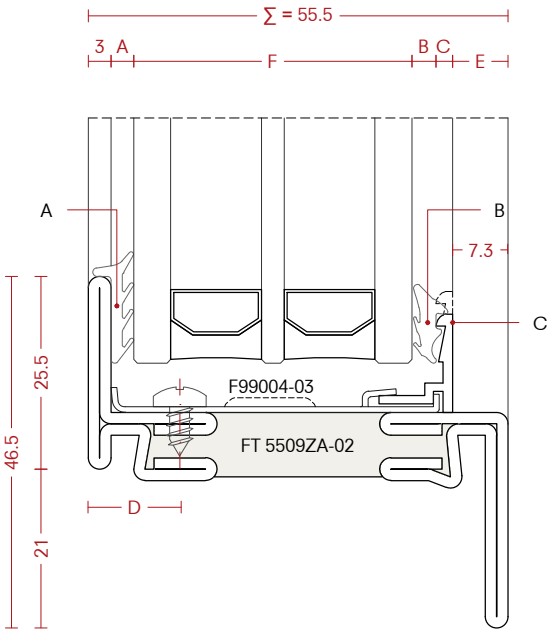
D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A
F
B
C
E
A
B
7.3
C
46.5
25.5
21
F99004-03
FT 5509ZA-02
D

Glazing table

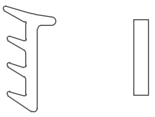
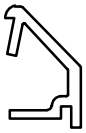
00 - Aluminium

Tabella vetrazioni

00 - Alluminio

Tabla de acristalamiento

00 - Aluminio

								
F	A		B		C	D		E
mm	code	mm	code	mm	mm	code	mm	mm
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19	G99108-60 / G99103-62	5	G99207-60	5	10	F99003-03	12.3	8.8 / 14.3
20	G99107-60 / G99102-61	3	G99208-60	6	10	F99003-03	12.3	8.8 / 14.3
21	G99107-60 / G99102-61	3	G99207-60	5	10	F99003-03	12.3	8.8 / 14.3
22	G99107-60 / G99102-61	3	G99206-60	4	10	F99003-03	12.3	8.8 / 14.3
23	G99107-60 / G99102-61	3	G99205-60	3	10	F99003-03	12.3	8.8 / 14.3
25	G99108-60 / G99103-62	5	G99208-60	6	10	F99004-03	12.3	8.8 / 14.3
26	G99108-60 / G99103-62	5	G99207-60	5	10	F99004-03	12.3	8.8 / 14.3
27	G99107-60 / G99102-61	3	G99208-60	6	10	F99004-03	12.3	8.8 / 14.3
28	G99107-60 / G99102-61	3	G99207-60	5	10	F99004-03	12.3	8.8 / 14.3
29	G99107-60 / G99102-61	3	G99206-60	4	10	F99004-03	12.3	8.8 / 14.3
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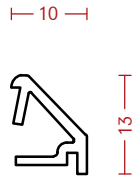
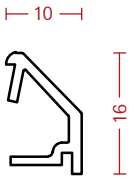
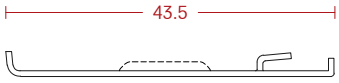


FV 1310S-00



FV 1610S-00



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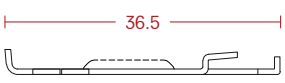

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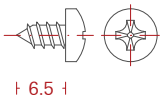
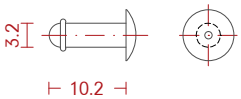
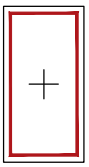
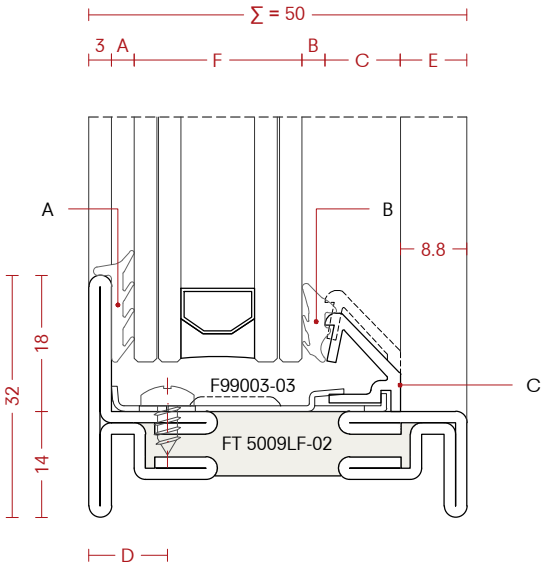


D99801-03
Ø3.5 x 6.5 mm



D99950-03
Ø3.2 x 8 mm

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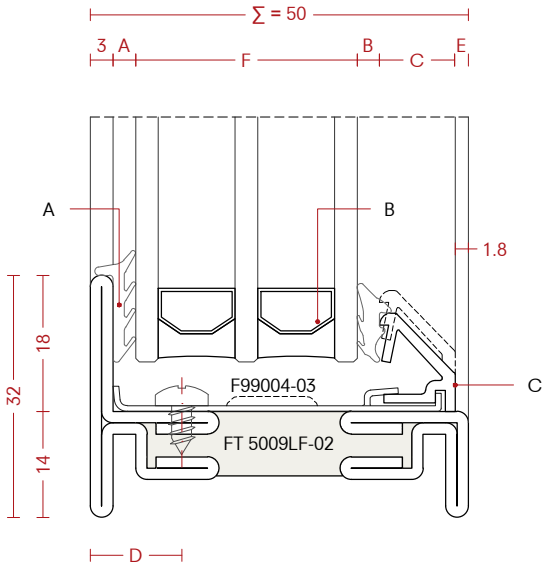
F
B
C
E
A
B
8.8
C
32
18
14
F99003-03
FT 5009LF-02
D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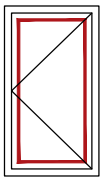
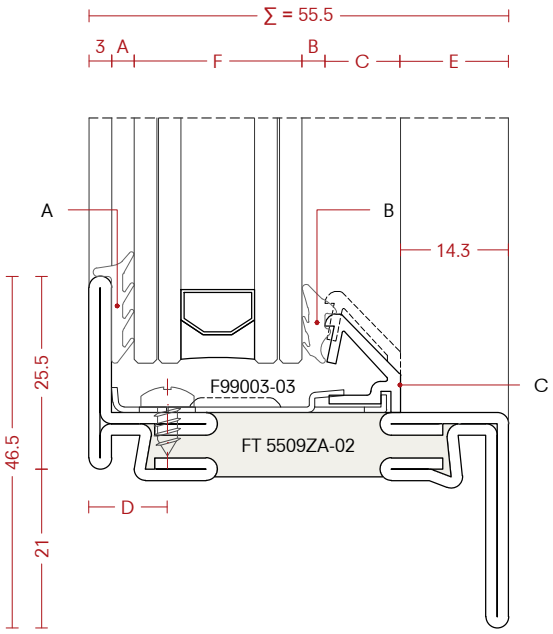
B
C
E
A
B
1.8
C
32
18
14
F99004-03
FT 5009LF-02
D

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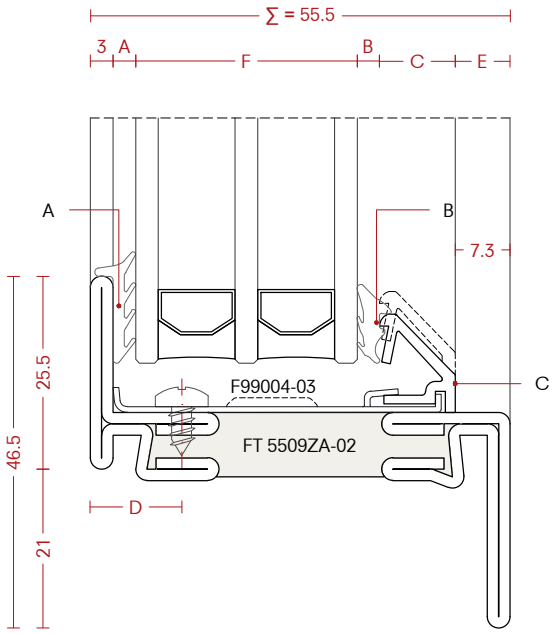
F
B
C
E
A
B
14.3
C
46.5
25.5
21
F99003-03
FT 5509ZA-02
D


∑ = 55.5
3
A
F
B
C
E
A
B
7.3
C
46.5
25.5
21
F99004-03
FT 5509ZA-02
D

Glazing table

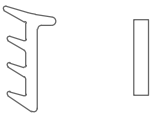
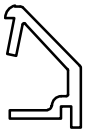
00 - Aluminium

Tabella vetrazioni

00 - Alluminio

Tabla de acristalamiento

00 - Aluminio

								
F	A		B		C	D		E
mm	code	mm	code	mm	mm	code	mm	mm
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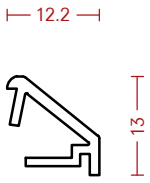
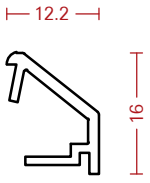
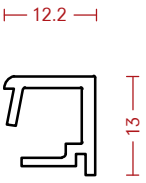
17	G99108-60 / G99103-62	5	G99207-60	5	12	F99003-03	12.3	8.8 / 14.3
18	G99107-60 / G99102-61	3	G99208-60	6	12	F99003-03	12.3	8.8 / 14.3
19	G99107-60 / G99102-61	3	G99207-60	5	12	F99003-03	12.3	8.8 / 14.3
20	G99107-60 / G99102-61	3	G99206-60	4	12	F99003-03	12.3	8.8 / 14.3
21	G99107-60 / G99102-61	3	G99205-60	3	12	F99003-03	12.3	8.8 / 14.3
23	G99108-60 / G99103-62	5	G99208-60	6	12	F99004-03	12.3	8.8 / 14.3
24	G99108-60 / G99103-62	5	G99207-60	5	12	F99004-03	12.3	8.8 / 14.3
25	G99107-60 / G99102-61	3	G99208-60	6	12	F99004-03	12.3	8.8 / 14.3
26	G99107-60 / G99102-61	3	G99207-60	5	12	F99004-03	12.3	8.8 / 14.3
27	G99107-60 / G99102-61	3	G99206-60	4	12	F99004-03	12.3	8.8 / 14.3
28	G99107-60 / G99102-61	3	G99205-60	3	12	F99004-03	12.3	8.8 / 14.3



FV 1312S-00



FV 1612S-00



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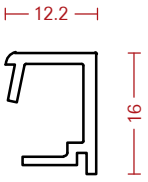

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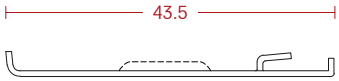

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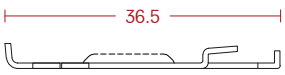
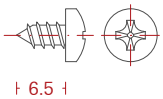
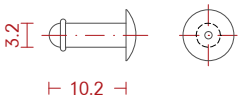


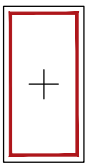
F99003-03

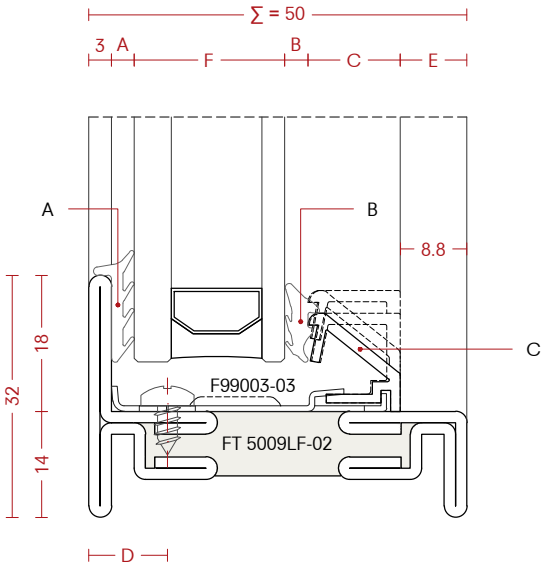


D99801-03
Ø3.5 x 6.5 mm



D99950-03
Ø3.2 x 8 mm




∑ = 50
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C
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B
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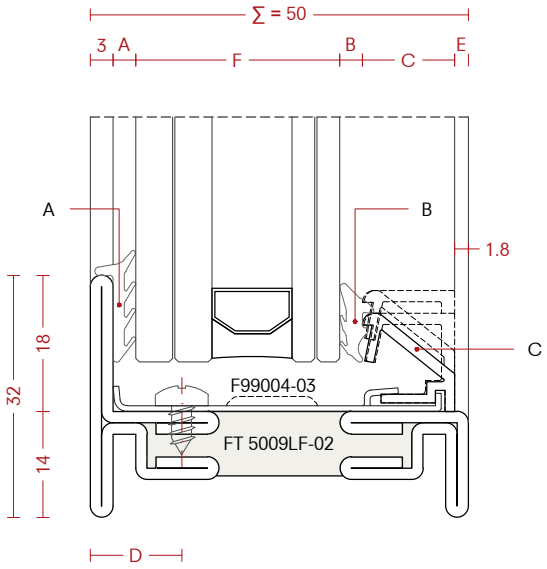
FT 5009LF-02
D


∑ = 50
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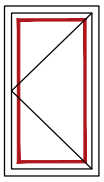

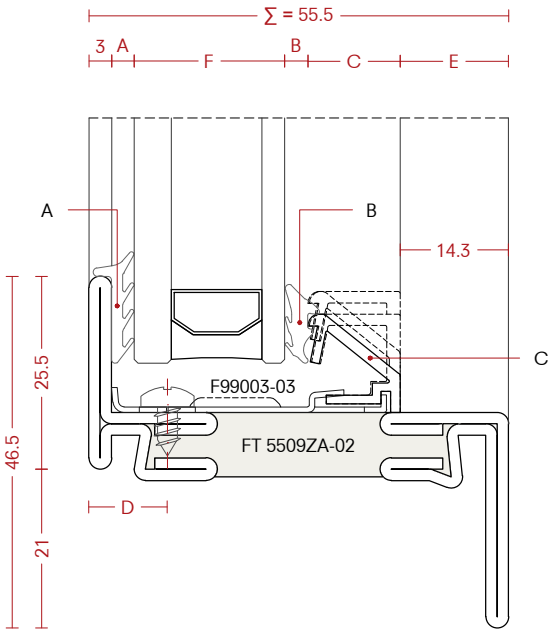
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C
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25.5
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FT 5509ZA-02
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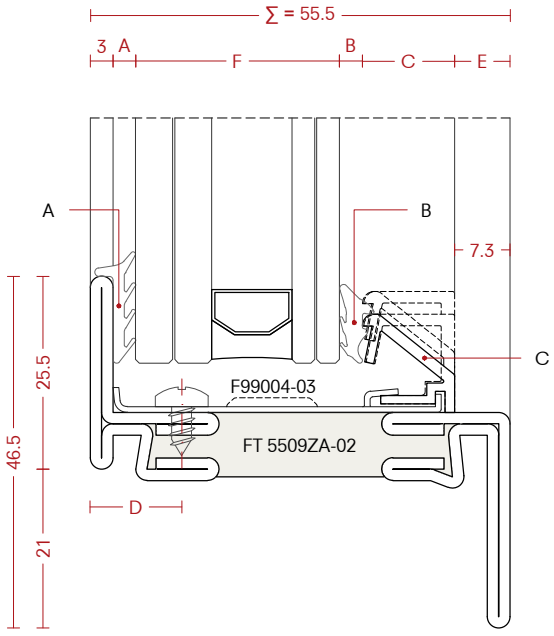
∑ = 55.5
3
A
F
B
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A
B
7.3
C
46.5
25.5
21
F99004-03
FT 5509ZA-02
D

Glazing table

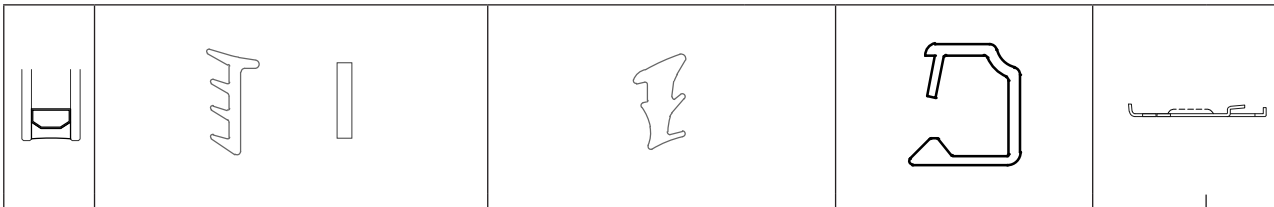
00 - Aluminium

Tabella vetrazioni

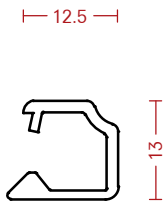
00 - Alluminio

Tabla de acristalamiento

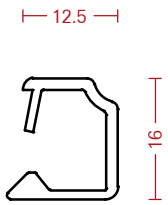
00 - Aluminio



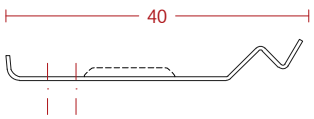
F	A		B		C	D	E
mm	code	mm	code	mm	mm	mm	mm
22	G99108-60 / G99103-62	5	G99208-60	6	12.5	12.3	1.8 / 7.3
23	G99108-60 / G99103-62	5	G99207-60	5	12.5	12.3	1.8 / 7.3
24	G99107-60 / G99102-61	3	G99208-60	6	12.5	12.3	1.8 / 7.3
25	G99107-60 / G99102-61	3	G99207-60	5	12.5	12.3	1.8 / 7.3
26	G99107-60 / G99102-61	3	G99206-60	4	12.5	12.3	1.8 / 7.3
27	G99107-60 / G99102-61	3	G99205-60	3	12.5	12.3	1.8 / 7.3



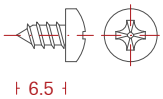
FV 1312B-00



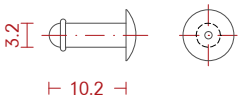
FV 1612B-00



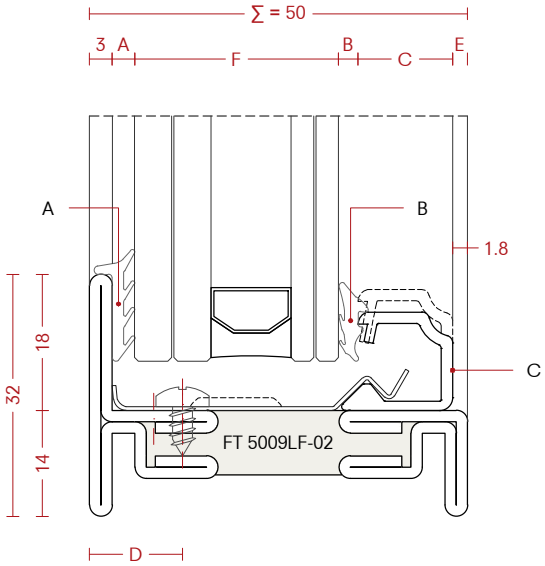
F99006-03

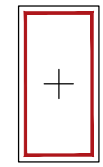


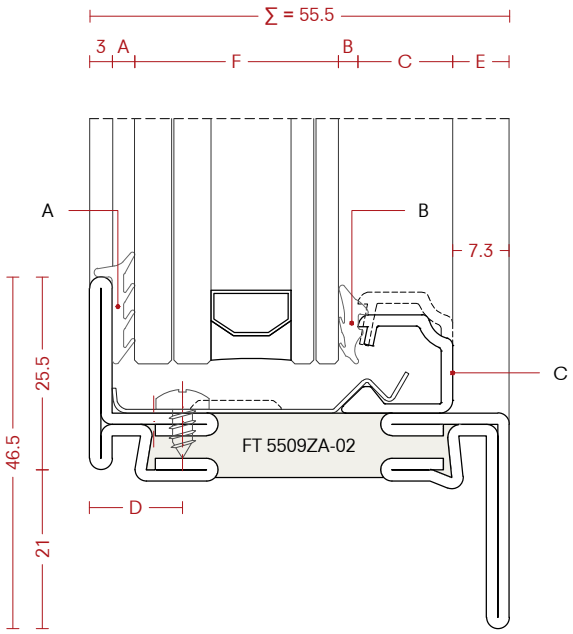
D99801-03
Ø3.5 x 6.5 mm

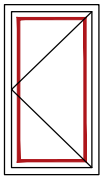


D99950-03
Ø3.2 x 8 mm


∑ = 50
3
A
F
B
C
E
A
B
1.8
C
32
18
14
FT 5009LF-02
D




∑ = 55.5
3
A
F
B
C
E
A
B
7.3
C
46.5
25.5
21
FT 5509ZA-02
D



Accessories | Accessori | Accesorios 3.0

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
Handles	Maniglie	Manillas	3.6
Locks	Serrature	Cerraduras	3.7
Multipoint standard rods parts, with lever handle	Multipoint componenti aste standard, con cariglione	Multipoint varillas estándar componentes, con manija de bloqueo	3.8
Multipoint steel rods, with Heritage	Multipoint aste in acciaio, con Heritage	Multipoint varillas de acero, con Heritage	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
Screws	Viti	Tornillos	3.11
Assembling tools	Utensili di assemblaggio	Herramientas de montaje	3.12
Installation templates	Dime di installazione	Plantillas de instalación	3.13
Cutting templates	Dime di taglio	Plantillas de corte	3.14

Opening scheme

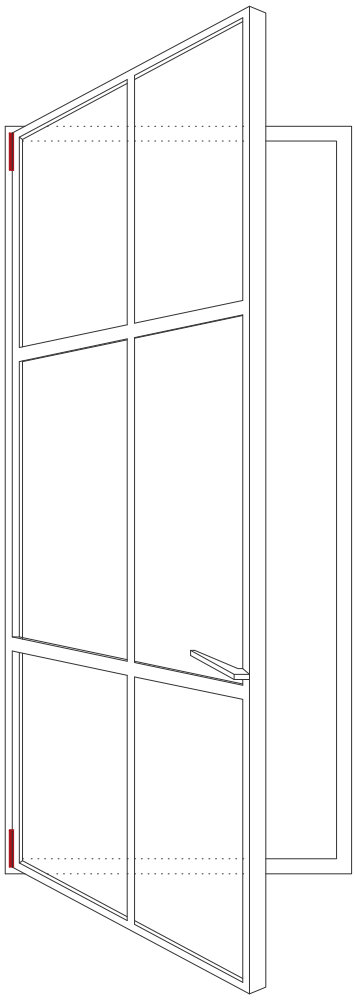
A window or a door is defined as "left opening" or "right opening" when, viewed from the opening side, the hinges are respectively on the left or on the right.

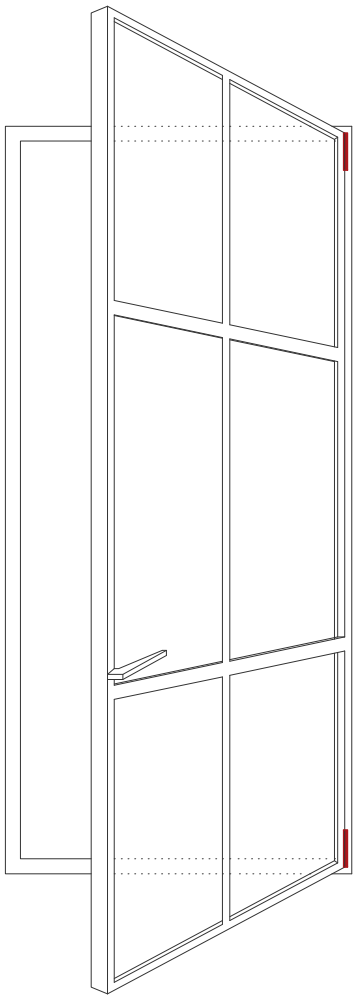
Schema di apertura

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.



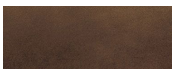
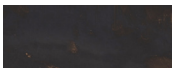


Left opening	Right opening
Apertura sinistra	Apertura destra
Apertura izquierda	Apertura derecha

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	
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 rebate gasket

-60 = EPDM black
-77 = EPDM white

PU = 50 m

Guarnizione di battuta interna

-60 = EPDM nero
-77 = EPDM bianco

UV = 50 m

Junta de tope interior

-60 = EPDM negro
-77 = EPDM blanco

CANTIDAD = 50 m

G04016-nn

External rebate gasket

-60 = EPDM black
-77 = EPDM white

PU = 50 m

Guarnizione di battuta esterna

-60 = EPDM nero
-77 = EPDM bianco

UV = 50 m

Junta de tope exterior

-60 = EPDM negro
-77 = EPDM blanco

CANTIDAD = 50 m

G04018-nn

Rebate gasket

PVC sealing tape, black, self-adhesive, 3 mm

PU = 25 m

Guarnizione di battuta

Nastro di guarnizione in PVC, nero, autoadesivo, 3 mm

UV = 25 m

Junta de tope

Cinta aislante de PVC, color negro, autoadhesiva, 3 mm

CANTIDAD = 25 m

G99002-62

External glazing gasket

EPDM, black,
self-adhesive, 3 mm

PU = 50 m

Guarnizione vetro esterna

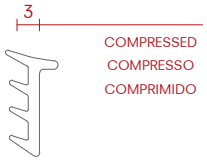
EPDM, nero,
autoadesivo, 3 mm

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 = 50 m

Guarnizione vetro esterna

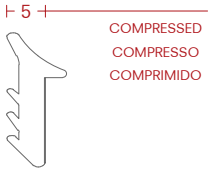
EPDM, nero,
autoadesivo, 5 mm

UV = 50 m

Junta de acristalamiento exterior

EPDM, color negro,
autoadhesiva, 5 mm

CANTIDAD = 50 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

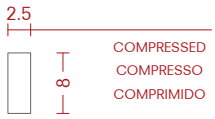
Neoprene, nero,
autoadesivo, 3 mm

UV = 20 m

Cinta interior

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

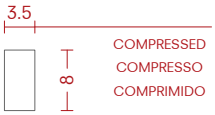
Neoprene, nero,
autoadesivo, 4 mm

UV = 20 m

Cinta interior

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

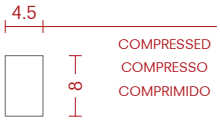
Neoprene, nero,
autoadesivo, 5 mm

UV = 20 m

Cinta interior

Neopreno, color negro,
autoadhesiva, 5 mm

CANTIDAD = 20 m



G99203-61

Internal tape seals

Neoprene, black,
self-adhesive, 6 mm

PU = 10 m

Nastro autoadesivo interno

Neoprene, nero,
autoadesivo, 6 mm

UV = 10 m

Cinta interior

Neopreno, color negro,
autoadhesiva, 6 mm

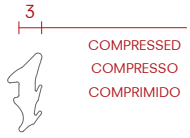
CANTIDAD = 10 m

G99204-61

Internal glazing gasket
EPDM, black, 3 mm
PU = 150 m

Guarnizione vetro interna
EPDM, nero, 3 mm
UV = 150 m

Junta de acristalamiento interior
EPDM, color negro, 3 mm
CANTIDAD = 150 m

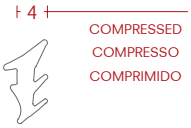


G99205-60

Internal glazing gasket
EPDM, black, 4 mm
PU = 150 m

Guarnizione vetro interna
EPDM, nero, 4 mm
UV = 150 m

Junta de acristalamiento interior
EPDM, color negro, 4 mm
CANTIDAD = 150 m

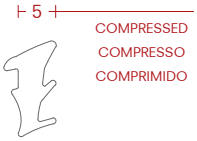


G99206-60

Internal glazing gasket
EPDM, black, 5 mm
PU = 150 m

Guarnizione vetro interna
EPDM, nero, 5 mm
UV = 150 m

Junta de acristalamiento interior
EPDM, color negro, 5 mm
CANTIDAD = 150 m

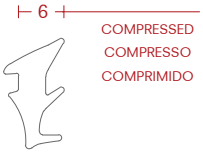


G99207-60

Internal glazing gasket
EPDM, black, 6 mm
PU = 100 m

Guarnizione vetro interna
EPDM, nero, 6 mm
UV = 100 m

Junta de acristalamiento interior
EPDM, color negro, 6 mm
CANTIDAD = 100 m



G99208-60

System accessories | Accessori di sistema | Accesorios del sistema 3.2

Weather bar

-00 = Aluminium

L = 5800 mm

Gocciolatoio

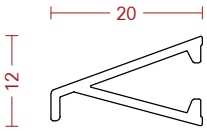
-00 = Alluminio

L = 5800 mm

Vierteaguas

-00 = Aluminio

L = 5800 mm



A99001-00

Fixing screw

Fixing screw weather bar
A99001-00, M4x9 mm DIN84

-02 = Galvanized steel

PU = 50 pieces

Vite di fissaggio

Vite di fissaggio gocciolatoio
A99001-00, M4x9 mm DIN84

-02 = Acciaio zincato

UV = 50 pezzi

Cabezal de fijación

Tornillo de fijación vierteaguas
A99001-00, M4x9 mm DIN84

-02 = Acero galvanizado

CANTIDAD = 50 unidades

D99901-02

Weather bar

-02 = Galvanized steel
-06 = Satin stainless steel AISI 316L

L = 3000 mm

Gocciolatoio

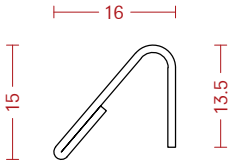
-02 = Acciaio zincato
-06 = Acciaio inox AISI 316L satinato

L = 3000 mm

Vierteaguas

-02 = Acero galvanizado
-06 = Acero inoxidable AISI 316L satinado

L = 3000 mm



A99005-nn

Drainage profile

Window leaf bottom.

-06 = Satin stainless steel AISI 316L

L = 3000 mm

Profilo di drenaggio

Anta con scanalatura inferiore.

-06 = Acciaio inox AISI 316L satinato

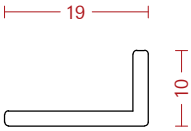
L = 3000 mm

Perfil de drenaje

Encaje en el pie de la hoja de la ventana.

-06 = Acero inoxidable AISI 316L satinado

L = 3000 mm



A04102-06

Cover cap

Plastic, black, for covering drainage holes.

PU = 10 pieces

Tappo scarico acqua

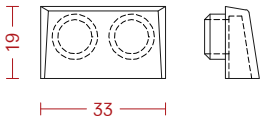
Plastica, nero, per chiusura fori drenaggio.

UV = 10 pezzi

Tapa

Plástico, color negro, para orificios de drenaje.

CANTIDAD = 10 unidades



A99201-35

Cover cap with valve

Plastic, black, for covering drainage holes.

PU = 10 pieces

Tappo scarico acqua con valvola

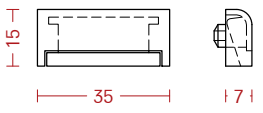
Plastica, nero, per chiusura fori drenaggio.

UV = 10 pezzi

Tapa con válvula

Plástico, color negro, para orificios de drenaje.

CANTIDAD = 10 unidades



A99202-35

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

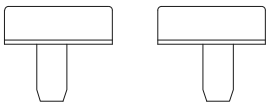
UV = 1 set

Pieza final

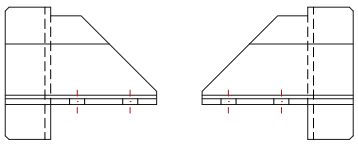
Ventana de dos hojas que se abre hacia dentro y fuera, 2do hoja.

B = negro
W = blanco

CANTIDAD = 1 conjunto



Open out / Apertura esterna / Apertura externa



Open in / Apertura interna / Apertura interna

K04020 B
K04023 W

End pieces set extension profile door

R = Right opening

1 x bracket 25x25x2 mm
1 x corner pieces FT 5512RS-00
4 x screw M4x8 ISO7380

PU = 1 set

Set terminale profilo aggiuntivo porta

R = Apertura destra

1 x staffa L 25x25x2 mm
1 x profilo angolare FT 5512RS-00
4 x vite M4x8 ISO7380

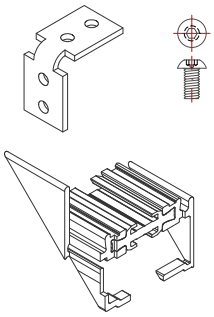
UV = 1 pezzo

Conjunto de cierre de manguito

R = Apertura derecha

1 x L-placa 25x25x2 mm
1 x perfiles angulares FT 5512RS-00
4 x tornillo M4x8 ISO7380

CANTIDAD = 1 unidad



K04029

End pieces set extension profile door

L = Left opening

1 x bracket 25x25x2 mm
1 x corner pieces FT 5512RS-00
4 x screw M4x8 ISO7380

PU = 1 set

Set terminale profilo aggiuntivo porta

L = Apertura sinistra

1 x staffa L 25x25x2 mm
1 x profilo angolare FT 5512RS-00
4 x vite M4x8 ISO7380

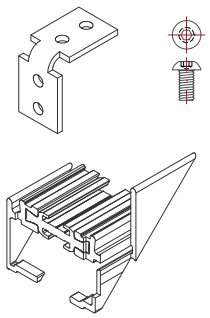
UV = 1 pezzo

Conjunto de cierre de manguito

L = Apertura izquierda

1 x L-placa 25x25x2 mm
1 x perfiles angulares FT 5512RS-00
4 x tornillo M4x8 ISO7380

CANTIDAD = 1 unidad



K04039

Hinges | Cerniere | Bisagras

Important notes:

All weld-on and/or screw-on hinges are compatible for both open-in and open-out.

Note importanti:

Tutte le cerniere a saldare e/o avvitare sono compatibili sia per apertura interna che per apertura esterna.

Notas importantes:

Todas las bisagras de soldadura y/o atornillable son compatibles tanto para abrir hacia adentro como para abrir hacia afuera.

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)

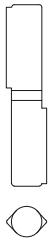
UV = 1 pezzo

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)

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)

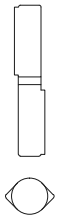
UV = 1 pezzo

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)

CANTIDAD = 1 unidad



C99001-12

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)

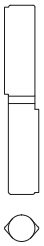
UV = 1 pezzo

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)

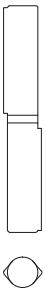
UV = 1 pezzo

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)

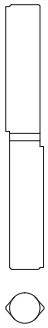
UV = 1 pezzo

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 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)

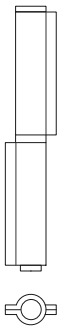
UV = 1 pezzo

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)

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)

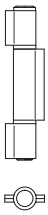
UV = 1 pezzo

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)

CANTIDAD = 1 unidad



C99006-02

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

Bright steel 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 and contact pressure ±1 mm

Capacity: 160 kg (pair=2 pc)

PU = 1 piece

Cerniera a saldare regolabile 3D

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

Regolazione:
Altezza ±2 mm;
Lato e pressione di contatto ±1 mm

Portata: 160 kg (coppia=2 pezzi)

UV = 1 pezzo

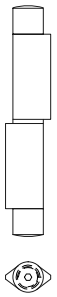
Bisagra de soldadura en 3D

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

Ajustabilidad:
Altura ±2 mm;
Laterales y presión de contacto ±1 mm

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

CANTIDAD = 1 unidad



C99008-12
CE certified

Screw-on hinge

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

Capacity: 140 kg (pair=2 pc)

-02 = Galvanized steel

PU = 1 piece

Cerniera ad avvitare

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

Portata: 140 kg (coppia=2 pezzi)

-02 = Acciaio zincato

UV = 1 pezzo

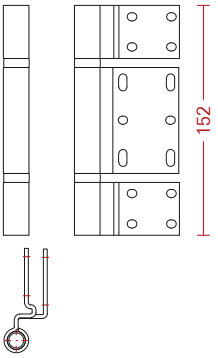
Bisagra atornillable

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

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

-02 = Acero galvanizado

CANTIDAD = 1 unidad



C99125-02
CE certified

Screw-on hinge

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

Capacity: 160 kg (pair=2 pc)

-02 = Galvanized steel

PU = 1 piece

Cerniera ad avvitare

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

Portata: 160 kg (coppia=2 pezzi)

-02 = Acciaio zincato

UV = 1 pezzo

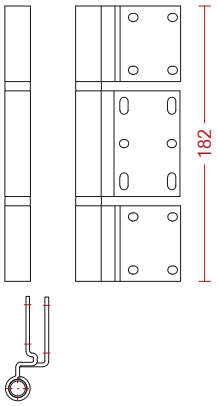
Bisagra atornillable

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

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

-02 = Acero galvanizado

CANTIDAD = 1 unidad



C99126-02
CE certified

Screw-on hinge

Two-part screw-on hinge brass, length 80 mm

R = Right opening
L = Left opening

Capacity: 80 kg (pair=2 pc)

PU = 1 piece

Cerniera ad avvitare

Cerniera ad avvitare in ottone, lunghezza: 80 mm

R = Apertura destra
L = Apertura sinistra

Portata: 80 kg (coppia=2 pezzi)

UV = 1 pezzo

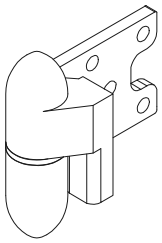
Bisagra atornillable

Bisagra atornillable de 2 piezas latón, longitud de 80 mm

R = Apertura derecha
L = Apertura izquierda

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

CANTIDAD = 1 unidad



C99102-25 R
C99101-25 L

Screw-on hinge

Two-part screw-on hinge brass, length 85 mm

Capacity: 80 kg (pair=2 pc)

PU = 1 piece

Cerniera ad avvitare

Cerniera ad avvitare in ottone, lunghezza: 85 mm

Portata: 80 kg (coppia=2 pezzi)

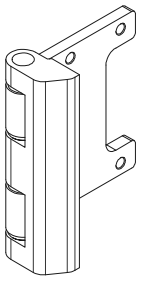
UV = 1 pezzo

Bisagra atornillable

Bisagra atornillable de 2 piezas latón, longitud de 85 mm

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

CANTIDAD = 1 unidad



C04103-25

Screw-on hinge

One-part screw-on hinge brass, length 50 mm

Capacity: 50 kg (pair=2 pc)

PU = 1 piece

Cerniera ad avvitare

Cerniera ad avvitare in ottone, lunghezza: 50 mm

Portata: 50 kg (coppia=2 pezzi)

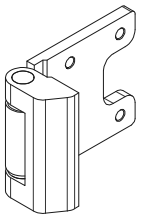
UV = 1 pezzo

Bisagra atornillable

Bisagra atornillable de 1 pieza latón, longitud de 50 mm

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

CANTIDAD = 1 unidad



C04104-25

Pivot window hinge

Capacity:
vertical pivot: max weight 200 kg
orizontal pivot: max weight 150 kg

-12 = Bright steel

PU = 1 piece

Cerniera pivot finestra

Portata:
bilico verticale: peso max 200 kg
bilico orizzontale: peso max 150 kg

-12 = Acciaio decapato

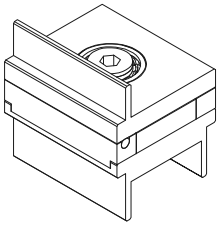
UV = 1 pezzo

Bisagra pivote ventana

Capacidad de carga:
pivote vertical: peso máximo 200 kg
pivote orizontal: peso máximo 150 kg

-12 = Acero bruto

CANTIDAD = 1 unidad



C99321-12

Friction stay (projecting)

Stainless steel AISI 316L 2B, for open out top hung projecting windows with adjustable opening angles.

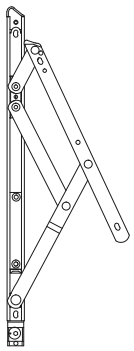
Bracci portanti a sporgere

Acciaio inox AISI 316L 2B, per finestra a sporgere apertura esterna con angolo di apertura regolabile.

Bisagra proyectante

Acero inoxidable AISI 316L 2B, para ventana proyectante que se abre hacia fuera con ángulo de apertura ajustable.

Code Codice Code	Capacity Portata Capacidad [kg]	H size H dimensione H tamaño [mm]	Opening angle Angolo di apertura Ángulo de apertura [°]
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 316L 2B, for open in or open out side hung windows.

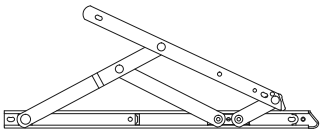
Bracci portanti anta battente

Acciaio inox AISI 316L 2B, per finestra battente ad apertura verso l'interno o l'esterno.

Bisagra abatible

Acero inoxidable AISI 316L 2B, para ventana abatible que se abre hacia dentro o hacia fuera.

Code Codice Code	Capacity Portata Capacidad [kg]	H size H dimensione H tamaño [mm]	Opening angle Angolo di apertura Ángulo de apertura [°]
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 finestre

Interno.

Finiture:
15 17 18 42 43

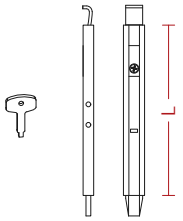
UV = 1 pezzo

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

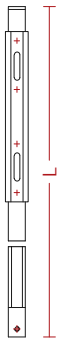
UV = 1 pezzo

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 finestre

A vista.

Finiture:
15 17 18 42 43

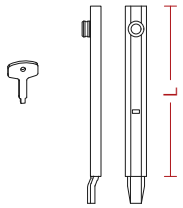
UV = 1 pezzo

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, Black.

PU = 1 piece

Catenaccio con leva per porte

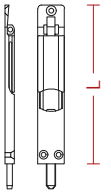
Interno, nero.

UV = 1 pezzo

Pasador de canto para puertas

Oculto, negro.

CANTIDAD = 1 unidad



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

Strike plate

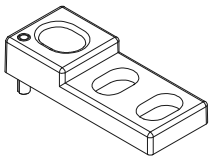
PU = 1 piece

Riscontro

UV = 1 pezzo

Chapa de cierre

CANTIDAD = 1 unidad



E99012-11

Floor recess plate

-05 = Stainless steel AISI 316L 2B

PU = 1 piece

Pozzetto

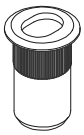
-05 = Acciaio inox AISI 316L 2B

UV = 1 pezzo

Cavidad en el suelo

-05 = Acero inoxidable AISI 316L 2B

CANTIDAD = 1 unidad



E99013-05

Strike plate

Fastening with screws A2
Ø3.5x9.5 mm ISO7049

-03 = Stainless steel AISI 304 2B

PU = 1 piece

Riscontro

Fissaggio con viti A2
Ø3.5x9.5 mm ISO7049

-03 = Acciaio inox AISI 304 2B

UV = 1 pezzo

Pieza de bloqueo

Fijación con tornillos A2
Ø3.5x9.5 mm ISO7049

-03 = Acero inoxidable AISI 304 2B

CANTIDAD = 1 unidad

E99106-03

General fittings | Ferramenta generale | Herrajes generales 3.5

Automatic drop seal

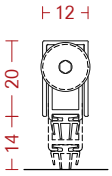
Automatic drop seal with 14 mm lift height, floor compensation.

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 Codice Code	Length Lunghezza Tamaño	Can be shortened Accorciabile 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

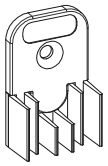
-35 = nero
-41 = grigio RAL 7035

UV = 1 coppia

Tapa lateral para junta de suelo automática

-35 = negro
-41 = gris RAL 7035

CANTIDAD = 1 par



G99511-nn

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

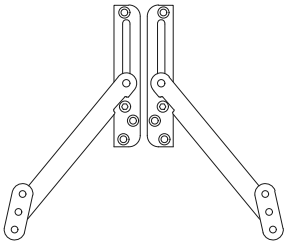
UV = 1 coppia

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 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 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 fuera.

-05 = Acero inoxidable AISI 316L 2B

Capacidad de carga: 110 kg (par)

CANTIDAD = 1 par

E99203-05

Opening restrictor

Concealed opening restrictor, bottom hung windows, open in.

-05 = Stainless steel AISI 316L 2B

Capacity: 110 kg (pair)

PU = 1 pair

Limitatore di apertura

Limitatore di apertura a scomparsa, vasistas, apertura interna.

-05 = Acciaio inox AISI 316L 2B

Portata: 110 kg (coppia)

UV = 1 coppia

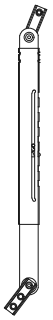
Limitador de apertura

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

-05 = Acero inoxidable AISI 316L 2B

Capacidad de carga: 110 kg (par)

CANTIDAD = 1 par



E99205-05

Opening restrictor

Concealed frictioned opening restrictor.

-03 = Stainless steel AISI 304 2B

Capacity: 110 kg (pair)

PU = 1 pair

Limitatore di apertura

Limitatore di apertura a scomparsa frizionato.

-03 = Acciaio inox AISI 304 2B

Portata: 110 kg (coppia)

UV = 1 coppia

Limitador de apertura

Limitador de apertura oculto friccionado.

-03 = Acero inoxidable AISI 304 2B

Capacidad de carga: 110 kg (par)

CANTIDAD = 1 par

E99207-03

Handles | Maniglie | Manillas 3.6

Handle for 1st leaf

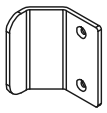
-06 = Satin stainless steel AISI 316L
-12 = Bright steel
-20 = Satin brass

Maniglia per 1a anta

-06 = Acciaio inox AISI 316L satinato
-12 = Acciaio decapato
-20 = Ottone satinato

Manija para 1er hoja

-06 = Acero inoxidable AISI 316L satinado
-12 = Acero bruto
-20 = Latón satinado



H99025-nn

Handle spindle

-02 = Galvanized steel
☒ 8 mm L=140 mm

PU = 1 piece

Quadro maniglia

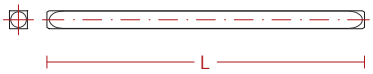
-02 = Acciaio zincato
☒ 8 mm L=140 mm

UV = 1 pezzo

Pasador de la manilla

-02 = Acero galvanizado
☒ 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

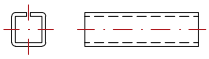
-02 = Acciaio zincato
☒ 7 mm

UV = 1 pezzo

Manguito reductor de 8 mm a 7 mm

-02 = Acero galvanizado
☒ 7 mm

CANTIDAD = 1 unidad



E99531-02

Note:

For handle selection, consult the handles catalog.

Nota:

Per scelta maniglia consultare il catalogo maniglie.

Nota:

Para la selección de manillas consultar el catálogo de manillas.

Locks | Serrature | Cerraduras 3.7

Mortise lock

Single latch and deadbolt, faceplate 24x6 mm, backset 35 mm, 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

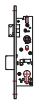
UV = 1 pezzo

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

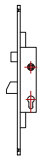
UV = 1 pezzo

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

Extension

Extension for B99170-02 and B99171-02 lock, faceplate 24x6 mm, L 500 mm

-02 = Galvanized steel

PU = 1 piece

Prolunga

Prolunga per serratura B99170-02 e B99171-02, frontale 24x6 mm, L 500 mm

-02 = Acciaio zincato

UV = 1 pezzo

Extensión

Extensión para cerradura B99170-02 y B99171-02, frente 24x6 mm, L 500 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, minimum vent height 2400 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, interasse maniglia/cilindro 85 mm, serratura estensibile, altezza minima anta 2400 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, distancia manilla/cilindro 85 mm, cerradura extensible, altura mínima hoja 2400 mm

-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, extendable lock, minimum vent height 2400 mm

-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, altezza minima anta 2400 mm

-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, altura mínima hoja 2400 mm

-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, minimum vent height 2400 mm

-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, scrocchi automatici, serratura estensibile, altezza minima anta 2400 mm

-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, altura mínima hoja 2400 mm

-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 2200 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 2200 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 2200 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 2200 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 2200 mm

-02 = Acciaio zincato

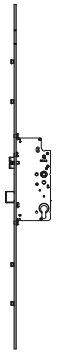
UV = 1 pezzo

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 2200 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

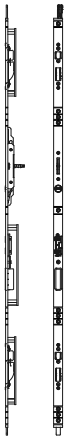
Varilla de palanca

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

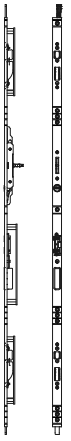
Varilla de palanca

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, H 700 mm

-02 = Galvanized steel

PU = 1 piece

Prolunga

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

-02 = Acciaio zincato

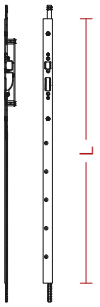
UV = 1 pezzo

Extensión

Extensión para varilla de palanca B99162-02 y B99163-02, frente 24x6 mm, H 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, H 530 mm

-02 = Galvanized steel

PU = 1 piece

Puntale

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

-02 = Acero galvanizado

CANTIDAD = 1 unidad

B99165-02

Strike plate

Strike plate for studs for B99174-02 and B99175-02 locks and extension B99157-02

-04 = Satin stainless steel AISI 304

PU = 1 piece

Riscontro

Riscontro nottolini per serrature B99174-02 e B99175-02 e prolunga B99157-02

-04 = Acciaio inox AISI 304 satinato

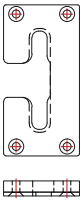
UV = 1 pezzo

Pieza de bloqueo

Pieza de bloqueo para alfileres para cerradures B99174-02 y B99175-02 y para extensión B99157-02

-04 = Acero inoxidable AISI 304 satinado

CANTIDAD = 1 unidad



B99202-04

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 cerradures 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

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

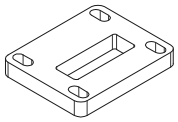
UV = 2 pezzi

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



E99014-03

Lock extension

Extension for multi-point lock B99174-02 and B99175-02, stainless steel faceplate 24x6 mm; without pawls, L 248 mm

-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, L 248 mm

-02 = Acciaio zincato

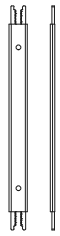
UV = 1 pezzo

Extensión de bloqueo

Prolongación para cerradura multipunto B99174-02 y B99175-02, frontal en acero inoxidable 24x6 mm; sin trinquetes, L 248 mm

-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, L 798 mm

-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, L 798 mm

-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, L 798 mm

-02 = Acero galvanizado

CANTIDAD = 1 unidad

B99157-02

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

**Multipoint
componenti
aste standard,
con cariglione**

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

Note:

For handle compatibility, consult the handle catalogue.

Nota:

Per compatibilità maniglie consultare catalogo maniglie.

Nota:

Para compatibilidad de manillas consultar el catálogo de manillas.

Locking device set

Locking system consisting of two connecting rods, rod guides and strike plates, in combination with lever handle (H99001-nn/H99002-nn).

4 x E99105-03 - Rod guide
16 x Screw D99807-03 ISO7049
2 x E99106-03 - Strike plate
4 x Screw D99808-03 ISO7049
2 x E99108-03 - Rod L 1000 mm

PU = 1 set

Set di chiusura

Sistema di chiusura costituito da due aste, guide e riscontri, in combinazione con maniglia a leva (H99001-nn/H99002-nn).

4 x E99105-03 - Guida asta
16 x Vite D99807-03 ISO7049
2 x E99106-03 - Riscontro
4 x Vite D99808-03 ISO7049
2 x E99108-03 - Asta L 1000 mm

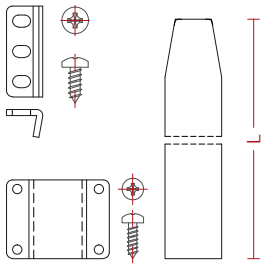
UV = 1 set

Conjunto de bloqueo

Sistema de bloqueo compuesto por dos barras de empuje, guías de barra y dos piezas de cierre, en combinación con la palanca (H99001-nn/H99002-nn).

4 x E99105-03 - Guía de barra
16 x Tornillo D99807-03 ISO7049
2 x E99106-03 - Placas de montante
4 x Tornillo D99808-03 ISO7049
2 x E99108-03 - Barras de empuje L 1000 mm

CANTIDAD = 1 conjunto



K04010 (*)

Locking device set

Locking system consisting of two connecting rods, rod guides and strike plates, in combination with lever handle (H99001-nn/H99002-nn).

5 x E99105-03 - Rod guide
20 x Screw D99807-03 ISO7049
2 x E99106-03 - Strike plate
4 x Screw D99808-03 ISO7049
1 x E99108-03 - Rod L 1000 mm
1 x E99110-03 - Rod L 2000 mm

PU = 1 set

Set di chiusura

Sistema di chiusura costituito da due aste, guide e riscontri, in combinazione con maniglia a leva (H99001-nn/H99002-nn).

5 x E99105-03 - Guida asta
20 x Vite D99807-03 ISO7049
2 x E99106-03 - Riscontro
4 x Vite D99808-03 ISO7049
1 x E99108-03 - Asta L 1000 mm
1 x E99110-03 - Asta L 2000 mm

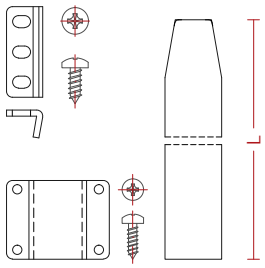
UV = 1 set

Conjunto de bloqueo

Sistema de bloqueo compuesto por dos barras de empuje, guías de barra y dos piezas de cierre, en combinación con la palanca (H99001-nn/H99002-nn).

5 x E99105-03 - Guía de barra
20 x Tornillo D99807-03 ISO7049
2 x E99106-03 - Placas de montante
4 x Tornillo D99808-03 ISO7049
1 x E99108-03 - Barras de empuje L 1000 mm
1 x E99110-03 - Barras de empuje L 2000 mm

CANTIDAD = 1 conjunto



K04011 (*)

Locking device set

Locking system consisting of two connecting rods, rod guides and strike plates, in combination with lever handle (H99001-nn/H99002-nn).

6 x E99105-03 - Rod guide
24 x Screw D99807-03 ISO7049
2 x E99106-03 - Strike plate
4 x Screw D99808-03 ISO7049
2 x E99110-03 - Rod L 2000 mm

PU = 1 set

Set di chiusura

Sistema di chiusura costituito da due aste, guide e riscontri, in combinazione con maniglia a leva (H99001-nn/H99002-nn).

6 x E99105-03 - Guida asta
24 x Vite D99807-03 ISO7049
2 x E99106-03 - Riscontro
4 x Vite D99808-03 ISO7049
2 x E99110-03 - Asta L 2000 mm

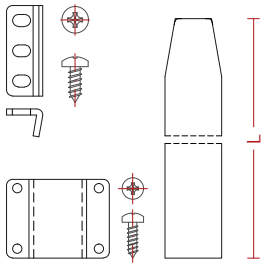
UV = 1 set

Conjunto de bloqueo

Sistema de bloqueo compuesto por dos barras de empuje, guías de barra y dos piezas de cierre, en combinación con la palanca (H99001-nn/H99002-nn).

6 x E99105-03 - Guía de barra
24 x Tornillo D99807-03 ISO7049
2 x E99106-03 - Placas de montante
4 x Tornillo D99808-03 ISO7049
2 x E99110-03 - Barras de empuje L 2000 mm

CANTIDAD = 1 conjunto



K04012 (*)

Note:

(*) Please evaluate the wind load.

Nota:

(*) Necessario considerare la spinta del vento.

Nota:

(*) Por favor, evalúe la carga de viento.

Multipoint steel rods, with Heritage

Multipoint aste in acciaio, con Heritage

Multipoint varillas de acero, con Heritage

Note:

For handle compatibility, consult the handle catalogue.

Nota:

Per compatibilità maniglie consultare catalogo maniglie.

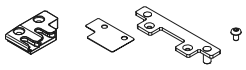
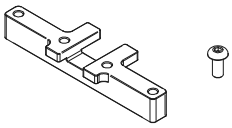
Nota:

Para compatibilidad de manillas consultar el catálogo de manillas.

Multipoint steel rods parts, with Heritage
Open in - Right opening

Multipoint aste in acciaio componenti, con Heritage
Apertura interna - Apertura destra

Multipoint varillas de acero componentes, con Heritage
Que se abre hacia dentro - Apertura derecha

Short rod	**Asta corta**	**Varilla corta**	E99369-03 (*)
Long rod	**Asta lunga**	**Varilla largo**	E99368-03 (*)
Locking set open in right opening	**Punto di chiusura apertura interna apertura destra**	**Punto de cierre que se abre hacia dentro apertura derecha**	 E99376-03 (*)
Central locking set open in right opening	**Punto di chiusura centrale apertura interna apertura destra**	**Punto de cierre central que se abre hacia dentro apertura derecha**	E99374-03 (*)
Drive block	**Blocco guida**	**Bloque de guía**	 E99370-03 (*)

Note:

Open in window requires left hand accessories for right opening and right hand accessories for left opening.

(*) screws for installation are not included.

Nota:

Finestre apertura interna richiedono accessori verso sinistro per apertura destra e accessori verso destro per apertura sinistra.

(*) le viti per l'installazione non sono incluse.

Nota:

Las ventanas que se abren hacia dentro requieren accesorios a la izquierda para la apertura derecha y accesorios a la derecha para la apertura izquierda.

(*) los tornillos para la instalación no están incluidos.

Multipoint steel rods parts, with Heritage
Open in - Left opening

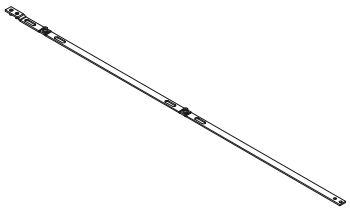
Multipoint aste in acciaio componenti, con Heritage
Apertura interna - Apertura sinistra

Multipoint varillas de acero componentes, con Heritage
Que se abre hacia dentro - Apertura izquierda

Short rod | **Asta corta** | **Varilla corta**

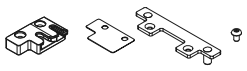
E99369-03 (*)

Long rod | **Asta lunga** | **Varilla largo**



E99368-03 (*)

Locking set open in left opening | **Punto di chiusura apertura interna apertura sinistra** | **Punto de cierre que se abre hacia dentro apertura izquierda**

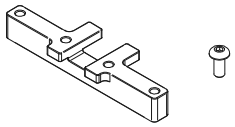


E99377-03 (*)

Central locking set open in left opening | **Punto di chiusura centrale apertura interna apertura sinistra** | **Punto de cierre central que se abre hacia dentro apertura izquierda**

E99375-03 (*)

Drive block | **Blocco guida** | **Bloque de guía**



E99370-03 (*)

Note:

Open in window requires left hand accessories for right opening and right hand accessories for left opening.

(*) screws for installation are not included.

Nota:

Finestre apertura interna richiedono accessori verso sinistro per apertura destra e accessori verso destro per apertura sinistra.

(*) le viti per l'installazione non sono incluse.

Nota:

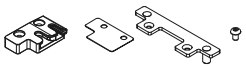
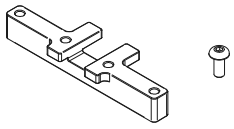
Las ventanas que se abren hacia dentro requieren accesorios a la izquierda para la apertura derecha y accesorios a la derecha para la apertura izquierda.

(*) los tornillos para la instalación no están incluidos.

Multipoint steel rods parts, with Heritage
Open out - Right opening

Multipoint aste in acciaio componenti, con Heritage
Apertura esterna - Apertura destra

Multipoint varillas de acero componentes, con Heritage
Que se abre hacia fuera - Apertura derecha

Short rod	**Asta corta**	**Varilla corta**	E99369-03 (*)
Long rod	**Asta lunga**	**Varilla largo**	E99368-03 (*)
Locking set open out right opening	**Punto di chiusura apertura esterna apertura destra**	**Punto de cierre que se abre hacia fuera apertura derecha**	 E99377-03 (*)
Central locking set open out right opening	**Punto di chiusura centrale apertura esterna apertura destra**	**Punto de cierre central que se abre hacia fuera apertura derecha**	E99373-03 (*)
Drive block	**Blocco guida**	**Bloque de guía**	 E99370-03 (*)
Handle block	**Blocco maniglia**	**Bloque de manija**	E99324-03 (*)
Handle bracket	**Staffa maniglia**	**Soporte de manija**	E99323-03 (*)

(*) screws for installation are not included.

(*) le viti per l'installazione non sono incluse.

(*) los tornillos para la instalación no están incluidos.

Multipoint steel rods parts, with Heritage
Open out - Left opening

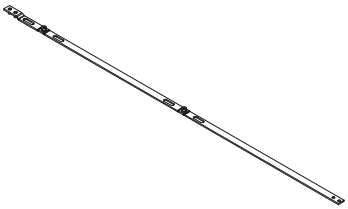
Multipoint aste in acciaio componenti, con Heritage
Apertura esterna - Apertura sinistra

Multipoint varillas de acero componentes, con Heritage
Que se abre hacia fuera - Apertura izquierda

Short rod | **Asta corta** | **Varilla corta**

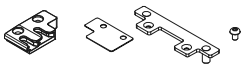
E99369-03 (*)

Long rod | **Asta lunga** | **Varilla largo**



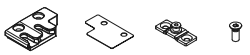
E99368-03 (*)

Locking set open out left opening | **Punto di chiusura apertura esterna apertura sinistra** | **Punto de cierre que se abre hacia fuera apertura izquierda**



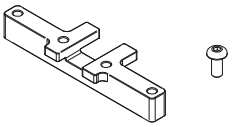
E99376-03 (*)

Central locking set open out left opening | **Punto di chiusura centrale apertura esterna apertura sinistra** | **Punto de cierre central que se abre hacia fuera apertura izquierda**



E99372-03 (*)

Drive block | **Blocco guida** | **Bloque de guía**



E99370-03 (*)

Handle block | **Blocco maniglia** | **Bloque de manija**

E99324-03 (*)

Handle bracket | **Staffa maniglia** | **Soporte de manija**

E99323-03 (*)

(*) screws for installation are not included.

(*) le viti per l'installazione non sono incluse.

(*) los tornillos para la instalación no están incluidos.

Multipoint aluminum rods, with Graz and Mono

Multipoint aste in alluminio, con Graz e Mono

Multipoint varillas de aluminio, con Graz y Mono

Note:

For handle compatibility, consult the handle catalogue.

Nota:

Per compatibilità maniglie consultare catalogo maniglie.

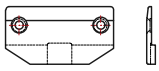
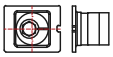
Nota:

Para compatibilidad de manillas consultar el catálogo de manillas.

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 L = 2900 mm	**Asta** L = 2900 mm	**Varilla** L = 2900 mm	 E99385-52
Rod support L = 2900 mm	**Supporto asta** L = 2900 mm	**Soporte de varilla** L = 2900 mm	 E99502-00
Cremone gear connection	**Connettore**	**Conector**	 E99393-87
Strike plate	**Riscontro**	**Chapa de cierre**	 E99387-11
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

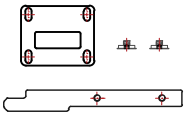
E99014-03 - Strike plate
QD99713A-02 - n°02 M4 bushing
QK99109A-02 - Shoot bolt

Kit puntale

E99014-03 - Riscontro
QD99713A-02 - n°02 boccole M4
QK99109A-02 - Puntale

Kit para cerrojo

E99014-03 - Chapa de cierre
QD99713A-02 - n°02 casquillo M4
QK99109A-02 - Consejo



K99109

Cremone gear Graz

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

See configuration page.

Graz

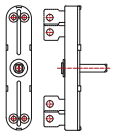
E99652-03 (Apertura sinistra)
E99653-03 (Apertura destra)

Vedi pagina configurazione.

Graz

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

Ver página del configurador.

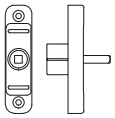


E9965X-03

Cremone gear Mono

Mono

Mono



E99658-11

Note:
For handle selection, consult the handles catalog.

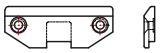
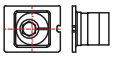
Note:
Per scelta maniglia consultare il catalogo maniglie.

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 L = 2900 mm	**Asta** L = 2900 mm	**Varilla** L = 2900 mm	 E99385-52
Rod support L = 2900 mm	**Supporto asta** L = 2900 mm	**Soporte de varilla** L = 2900 mm	 E99502-00
Cremone gear connection	**Connettore**	**Conector**	 E99392-87
Strike plate	**Riscontro**	**Chapa de cierre**	 E99387-11
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

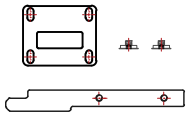
E99014-03 - Strike plate
QD99713A-02 - n°02 M4 bushing
QK99109A-02 - Shoot bolt

Kit puntale

E99014-03 - Riscontro
QD99713A-02 - n°02 boccole M4
QK99109A-02 - Puntale

Kit para cerrojo

E99014-03 - Chapa de cierre
QD99713A-02 - n°02 casquillo M4
QK99109A-02 - Consejo



K99109

Cremone gear Graz

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

See configuration page.

Graz

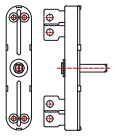
E99652-03 (Apertura sinistra)
E99653-03 (Apertura destra)

Vedi pagina configurazione.

Graz

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

Ver página del configurador.

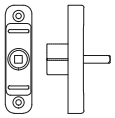


E9965X-03

Cremone gear Mono

Mono

Mono



E99658-11

Handle for 1st leaf

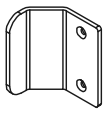
-06 = Satin stainless steel AISI 316L
-12 = Bright steel
-20 = Satin brass

Maniglia per 1a anta

-06 = Acciaio inox AISI 316L satinato
-12 = Acciaio decapato
-20 = Ottone satinato

Manija para 1er hoja

-06 = Acero inoxidable AISI 316L satinado
-12 = Acero bruto
-20 = Latón satinado



H99025-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.

Screws | Viti | Tornillos 3.11

Screw

Cross recessed pan head screw,
stainless steel A2 Ø3.5x6.5 mm
DIN7981 / ISO7049

PU = 100 pieces

Vite

Vite testa bombata intaglio croce,
acciaio inox A2 Ø3.5x6.5 mm
DIN7981 / ISO7049

UV = 100 pezzi

Tornillo

Tornillo alomado y de chapa con ranura en cruz,
acero inoxidable A2 Ø3.5x6.5 mm
DIN7981 / ISO7049

CANTIDAD = 100 unidades

D99801-03

Screw

Cross recessed countersunk head screw,
stainless steel A2 Ø3.9x13 mm
DIN7982 / ISO7050

PU = 100 pieces

Vite

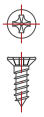
Vite testa svasata intaglio a croce,
acciaio inox A2 Ø3.9x13 mm
DIN7982 / ISO7050

UV = 100 pezzi

Tornillo

Tornillo avellanado con ranura en cruz,
acero inoxidable A2 Ø3.9x13 mm
DIN7982 / ISO7050

CANTIDAD = 100 unidades



D99802-03

Screw

Cross recessed countersunk head screw,
stainless steel A2 Ø4.2x9.5 mm
DIN7982 / ISO7050

PU = 100 pieces

Vite

Vite testa svasata intaglio a croce,
acciaio inox A2 Ø4.2x9.5 mm
DIN7982 / ISO7050

UV = 100 pezzi

Tornillo

Tornillo avellanado con ranura en cruz,
acero inoxidable A2 Ø4.2x9.5 mm
DIN7982 / ISO7050

CANTIDAD = 100 unidades

D99815-03

Screw

Hexagon recessed countersunk screw,
stainless steel A2 M4x12 mm
DIN7991 / ISO10642

PU = 100 pieces

Vite

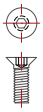
Vite testa svasata piana esagono incassato,
acciaio inox A2 M4x12 mm
DIN7991 / ISO10642

UV = 100 pezzi

Tornillo

Tornillo cabeza plana avellanada con hexágono interior,
acero inoxidable A2 M4x12 mm
DIN7991 / ISO10642

Cantidad = 100 unidades



D99851-03

Screw

Hexagon recessed cap head screw,
stainless steel A2 M4x6 mm
DIN912 / ISO762

PU = 100 pieces

Vite

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

UV = 100 pezzi

Tornillo

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

CANTIDAD = 100 unidades

D99866-03

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

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 M4x12 mm
DIN912 / ISO4762

PU = 100 pieces

Vite

Vite testa cilindrica esagono incassato,
acciaio inox A2 M4x12 mm
DIN 12 / ISO4762

UV = 100 pezzi

Tornillo

Tornillo cilíndrico con hexágono interior,
acero inoxidable A2 M4x12 mm
DIN912 / ISO4762

CANTIDAD = 100 unidades

D99868-03

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

Screw

Cross recessed pan head screw,
stainless steel A2 Ø2.9x9.5 mm
DIN7981 / ISO7049

PU = 100 pieces

Vite

Vite testa bombata intaglio croce,
acciaio inox A2 Ø2.9x9.5 mm
DIN7981 / ISO7049

UV = 100 pezzi

Tornillo

Tornillo alomado y de chapa con ranura en cruz,
acero inoxidable A2 Ø2.9x9.5 mm
DIN7981 / ISO7049

CANTIDAD = 100 unidades

D99807-03

Screw

Cross recessed pan head screw,
stainless steel A2 Ø3.5x9.5 mm
DIN7981 / ISO7049

PU = 100 pieces

Vite

Vite testa bombata intaglio croce,
acciaio inox A2 Ø3.5x9.5 mm
DIN7981 / ISO7049

UV = 100 pezzi

Tornillo

Tornillo alomado y de chapa con ranura en cruz,
acero inoxidable A2 Ø3.5x9.5 mm
DIN 7981 / ISO 7049

CANTIDAD = 100 unidades

D99808-03

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.

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 galvanized steel bushing.

PU = 10 pieces

Boccola

Boccola in acciaio zincato M5.

UV = 10 pezzi

Casquillo

Casquillo en acero galvanizado M5.

CANTIDAD = 10 unidades

D99709-02

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

Cover tape

Polyester, self-adhesive, different widths, for protecting the polyurethane isolator during the coating.

h=13.8 mm - 73 rolls
h=16.8 mm - 45 rolls
h=22.3 mm - 28 rolls

PU = 55 m

Nastro di protezione

Poliestere, autoadesivo, di diverse larghezze, per proteggere l'elemento isolante in poliuretano durante la verniciatura.

h=13.8 mm - 73 rotoli
h=16.8 mm - 45 rotoli
h=22.3 mm - 28 rotoli

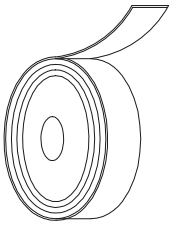
UV = 55 m

Cinta protectora

Poliéster, autoadhesivo, diferentes anchos, para proteger el aislante de poliuretano durante la pintura.

h=13.8 mm - 73 rollos
h=16.8 mm - 45 rollos
h=22.3 mm - 28 rollos

CANTIDAD = 55 m



D04101-73 h=13.8 mm
D04102-73 h=16.8 mm
D04103-73 h=22.3 mm

Primer

Primer for self-adhesive tape.

PU = 1 piece

Primer

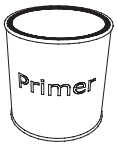
Primer per nastro autoadesivo.

UV = 1 pezzo

Primer

Primer para cinta autoadhesiva.

CANTIDAD = 1 unidad



I99005-75

Assembling tools | Utensili di assemblaggio | Herramientas de montaje 3.12

Alignment pin

For welding of hinge C99008-12

-03 = Stainless steel AISI 304 2B

PU = 1 piece

Spina di allineamento

Per saldatura cerniera C99008-12

-03 = Acciaio inox AISI 304 2B

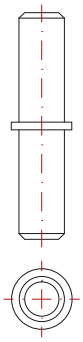
UV = 1 pezzo

Pasador de posicionamiento

Pasador de posicionamiento para soldadura de bisagra C99008-12

-03 = Acero inoxidable AISI 304 2B

CANTIDAD = 1 unidad



D99401-03

Adjusting tool

Adjusting tool for 3D hinge C99008-12

-03 = Stainless steel AISI 304 2B

PU = 1 piece

Chiave di regolazione

Chiave di regolazione per cerniera 3D C99008-12

-03 = Acciaio inox AISI 304 2B

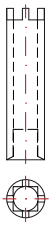
UV = 1 pezzo

Llave

Llave de ajuste para calibrar bisagras 3D C99008-12

-03 = Acero inoxidable AISI 304 2B

CANTIDAD = 1 unidad



D99501-03

Scissors

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

PU = 1 piece

Forbici

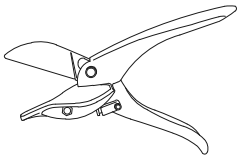
Forbici per guarnizioni, taglio 15°, 30°, 45°, 90°.

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. For G04018-nn

PU = 1 piece

Forbici

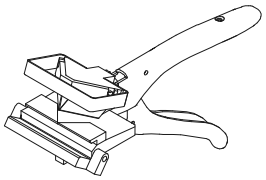
Forbici per guarnizioni, taglio 45°. Per G04018-nn

UV = 1 pezzo

Cizallas

Cizalla para juntas, corte de 45°. Para G04018-nn

CANTIDAD = 1 unidad



D99542-02

Scissors
Spare parts

Base and hinged front section for scissor D99542-02

PU = 1 piece

Forbici
Pezzi di ricambio

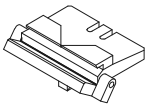
Supporto di base per forbici D99542-02

UV = 1 pezzo

Cizallas
Piezas de repuesto

Soporte completo con tapa por cizalla D99542-02

CANTIDAD = 1 unidad



Q99542A-99

Scissors
Spare parts

Blades retainer with blades and safety bracket for scissor D99542-02

PU = 1 piece

Forbici
Pezzi di ricambio

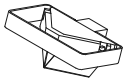
Porta lame con lame e protezione per forbici D99542-02

UV = 1 pezzo

Cizallas
Piezas de repuesto

Portacuchillas completo con cuchillas por cizalla D99542-02

CANTIDAD = 1 unidad



Q99542B-99

Scissors
Spare parts

Blades for scissor D99542-02

PU = 2 pieces

Forbici
Pezzi di ricambio

Lame per forbici D99542-02

UV = 2 pezzi

Cizallas
Piezas de repuesto

Cuchillas por cizalla D99542-02

CANTIDAD = 2 unidades

Q99542C-99

Scissors

Seal-cutting scissor,
45° cutting angle.
For G99008-06, G04016-nn,
G99021-60, G99022-60, G99030-60

PU = 1 piece

Forbici

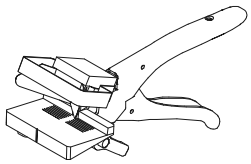
Forbici per guarnizioni,
taglio 45°.
Per G99008-06, G04016-nn,
G99021-60, G99022-60, G99030-60

UV = 1 pezzo

Cizallas

Cizalla para juntas,
corte de 45°.
Para G99008-06, G04016-nn,
G99021-60, G99022-60, G99030-60

CANTIDAD = 1 unidad



D99543-02

Scissors
Spare parts

Base for scissor D99543-02

PU = 1 piece

Forbici
Pezzi di ricambio

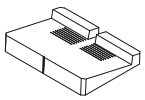
Base per forbici D99543-02

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

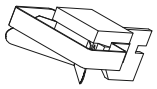
Porta lame con lame e protezione
per forbici D99543-02

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

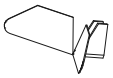
Lame per forbici D99543-02

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

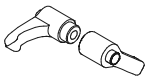
Leva di bloccaggio per forbici
D99543-02

UV = 1 coppia

Cizallas
Piezas de repuesto

Palanca de bloqueo por cizalla
D99543-02

CANTIDAD = 1 par



Q99543D-99

Installation templates | Dime di installazione | Plantillas de instalación 3.13

Template for screw-on hinge

Template for screw-on hinges C99125-02 and C99126-02

-02 = Galvanized steel

PU = 1 piece

See installation page 5.6.21

Dima per cerniera ad avvitare

Dima per cerniere ad avvitare C99125-02 e C99126-02

-02 = Acciaio zincato

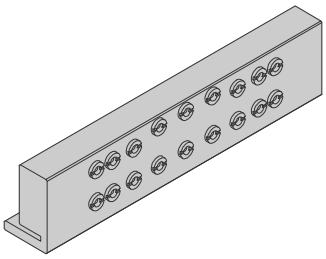
UV = 1 pezzo

Plantilla para bisagra para bisagra atornillable

Plantilla para bisagra para bisagra atornillable C99125-02 y C99126-02

-02 = Acero galvanizado

CANTIDAD = 1 unidad



D99438-00

Cutting templates | Dime di taglio | Plantillas de corte 3.14

Cutting templates

Aluminum, supports for cutting profiles, length 300 mm

PU = 1 piece

Dime di taglio

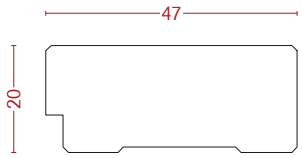
Alluminio, per il taglio dei profili, lunghezza 300 mm

UV = 1 pezzo

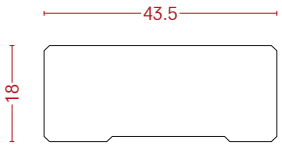
Plantilla de corte

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

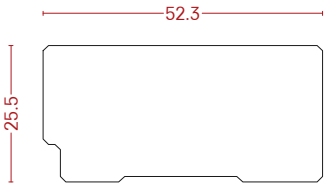
CANTIDAD = 1 unidad



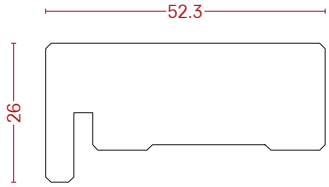
D04001-00



D04002-00



D04003-00



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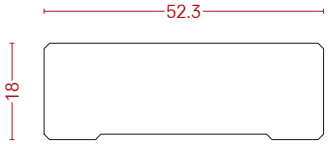

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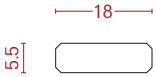

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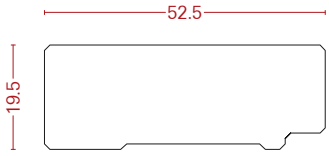
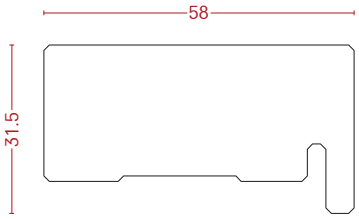
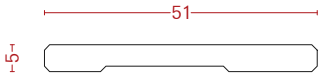


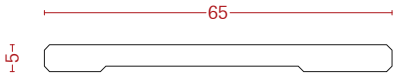
D04009-00



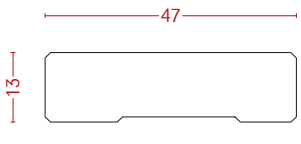
D04010-00



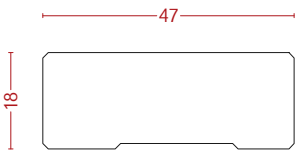
D04011-00



D04012-00



D04013-00



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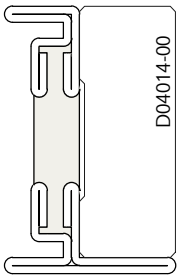

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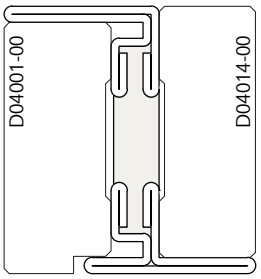

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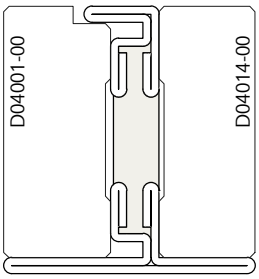

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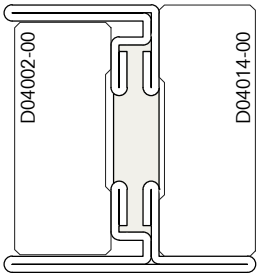

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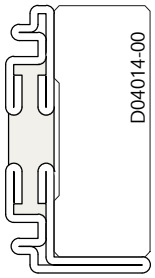

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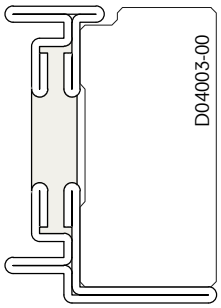

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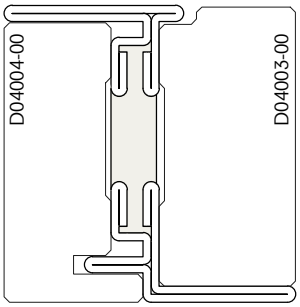

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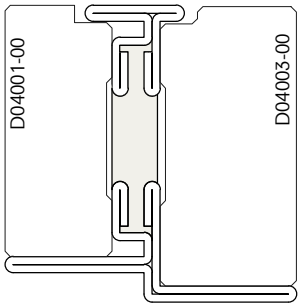

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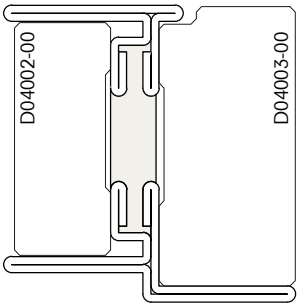

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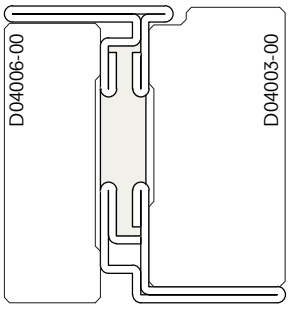

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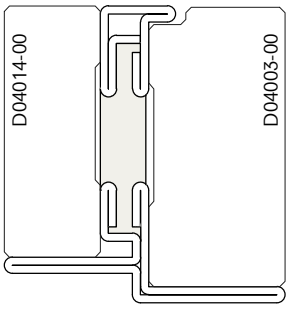

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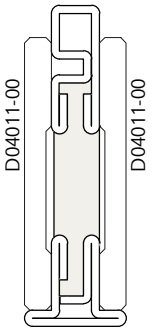

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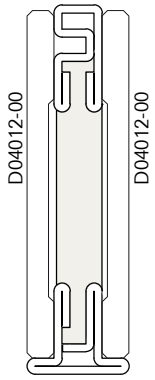

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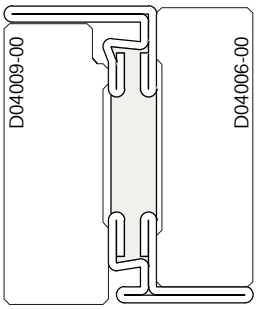

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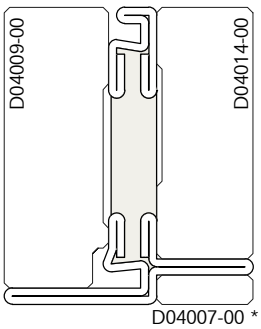

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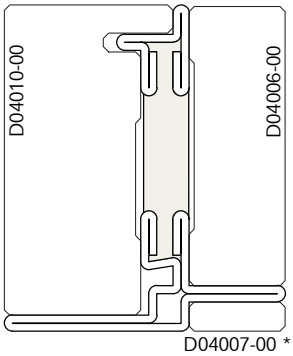

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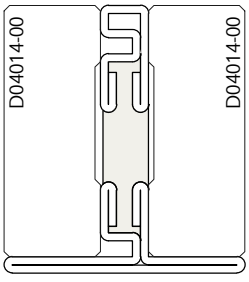

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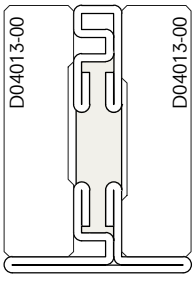

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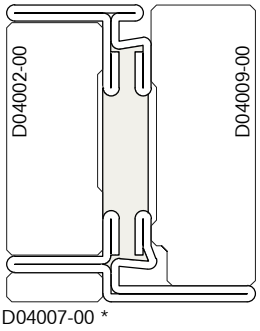


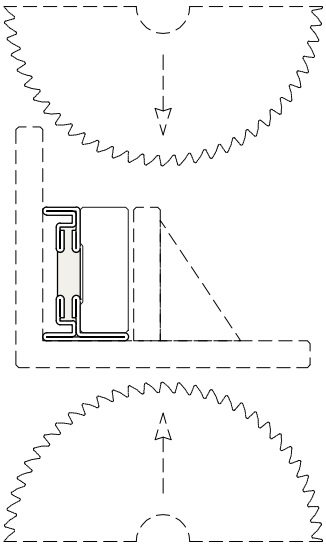
FT 5509HP-02

Profile cutting

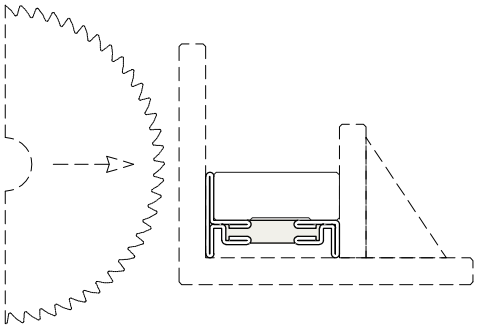
Taglio dei profili

Corte de Perfil

Top cut
Taglio dall'alto
Corte vertical



Side cut
Taglio dal lato
Corte horizontal



Examples | Esempi | Ejemplos 4.0

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

Window details

Sezioni finestre

Detalles de ventanas

Legend

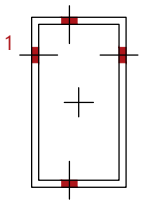
+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm
Scale 1:1 - 1:2

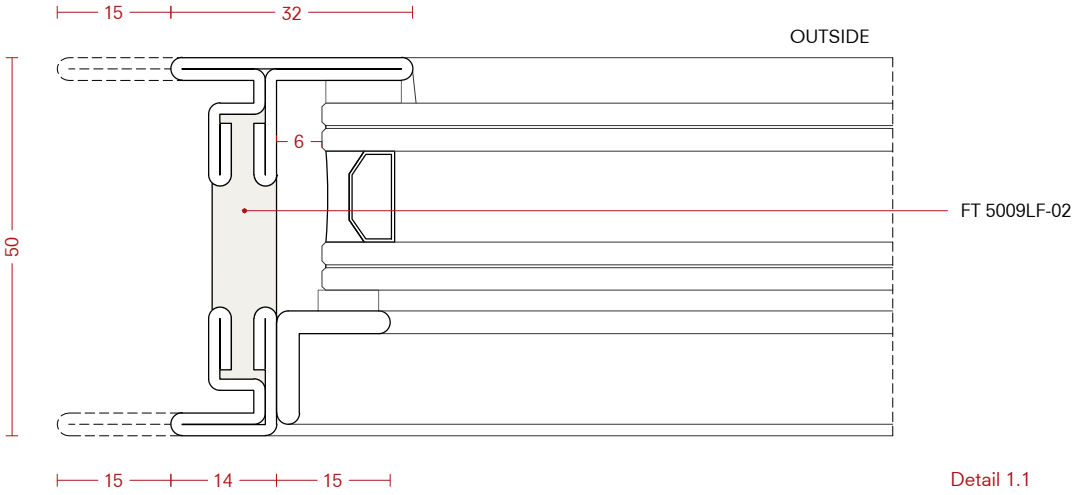
Legenda

+ = Anta fissa
—— = Apertura interna
- - - = Apertura esterna
Misure in: mm
Scala 1:1 - 1:2

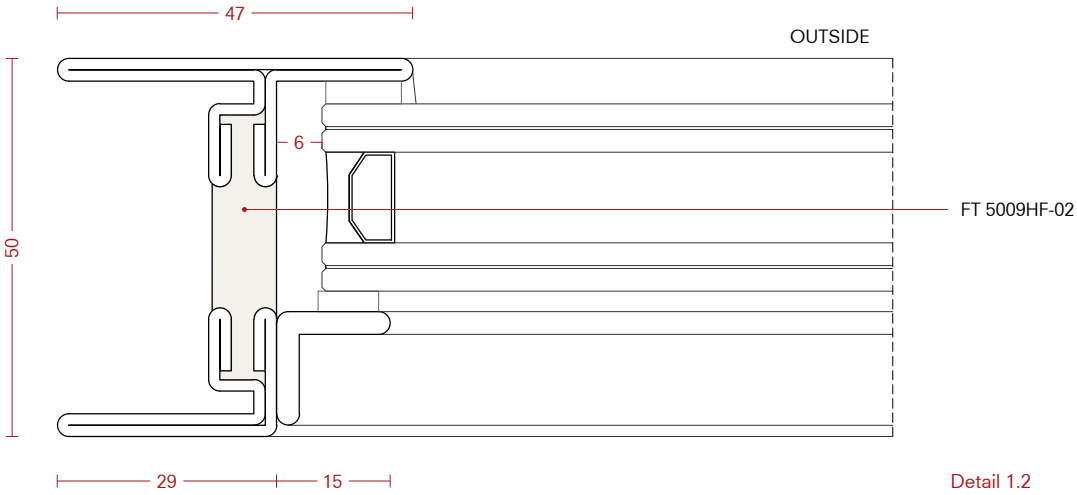
Leyenda

+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm
Escala 1:1 - 1:2

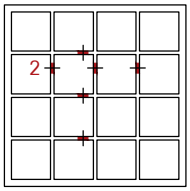


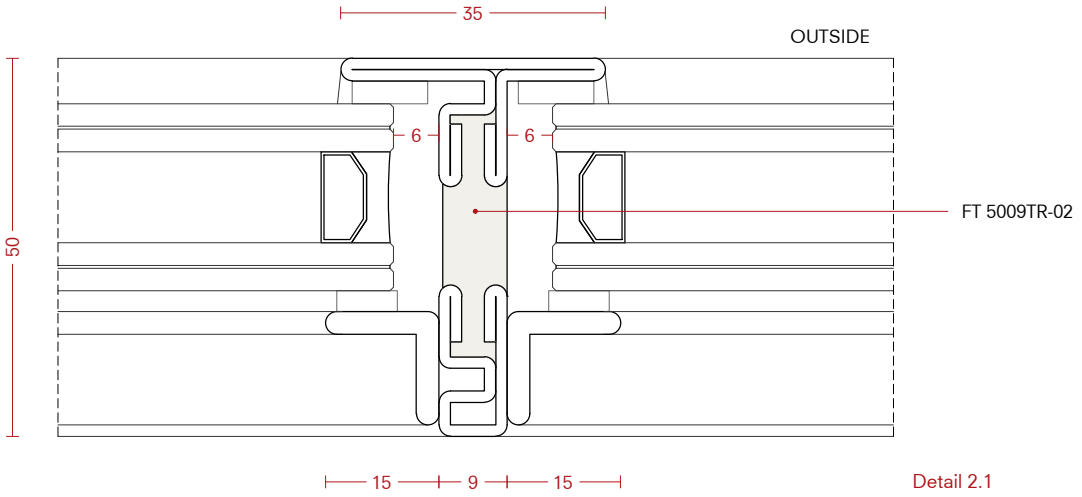


Detail 1.1



Detail 1.2





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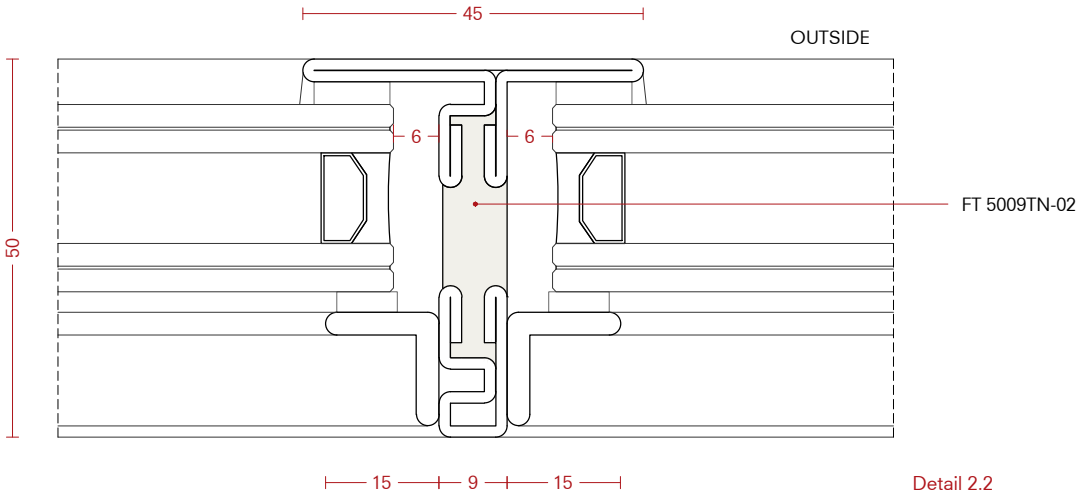

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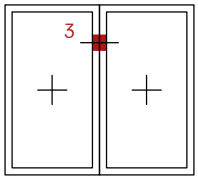

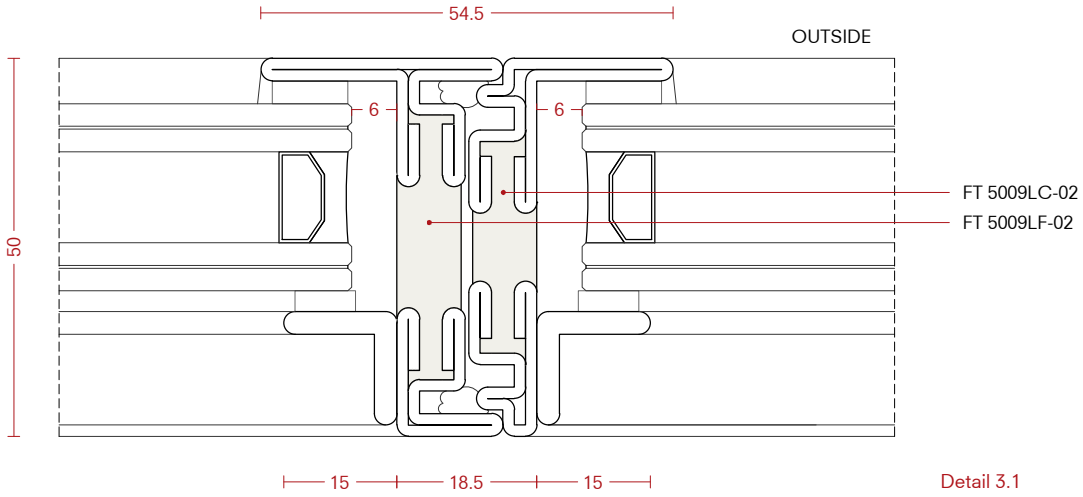

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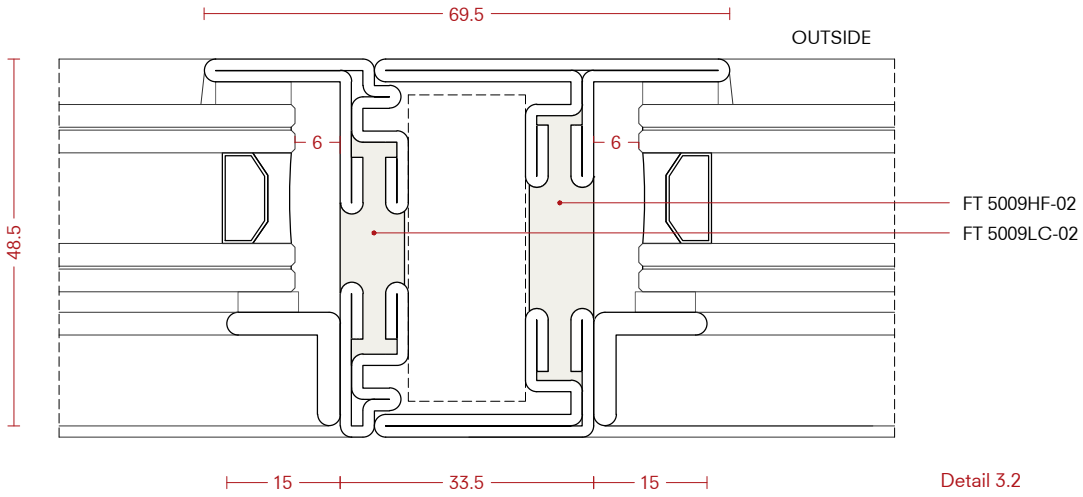

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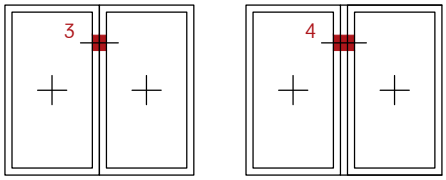

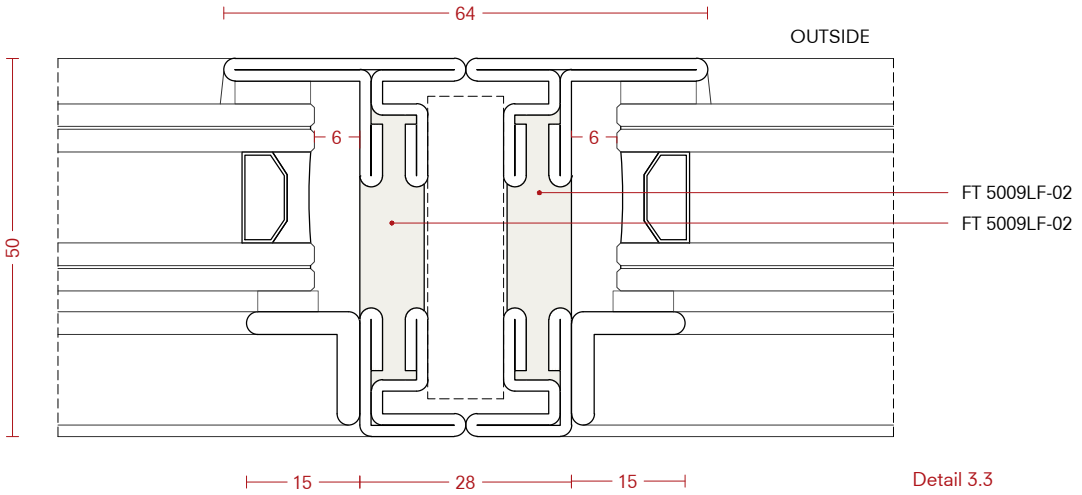

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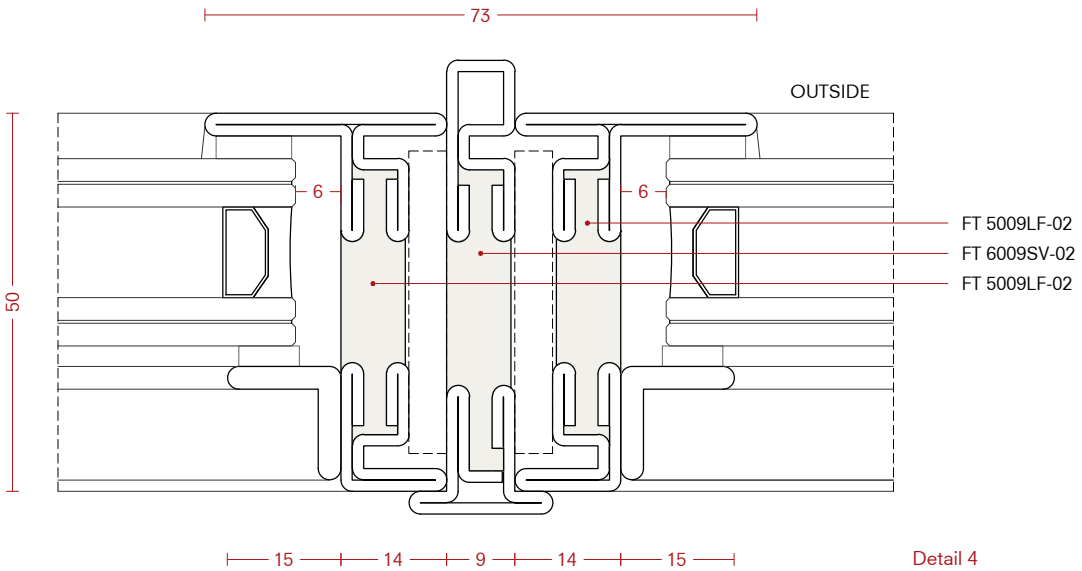

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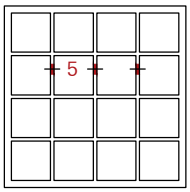
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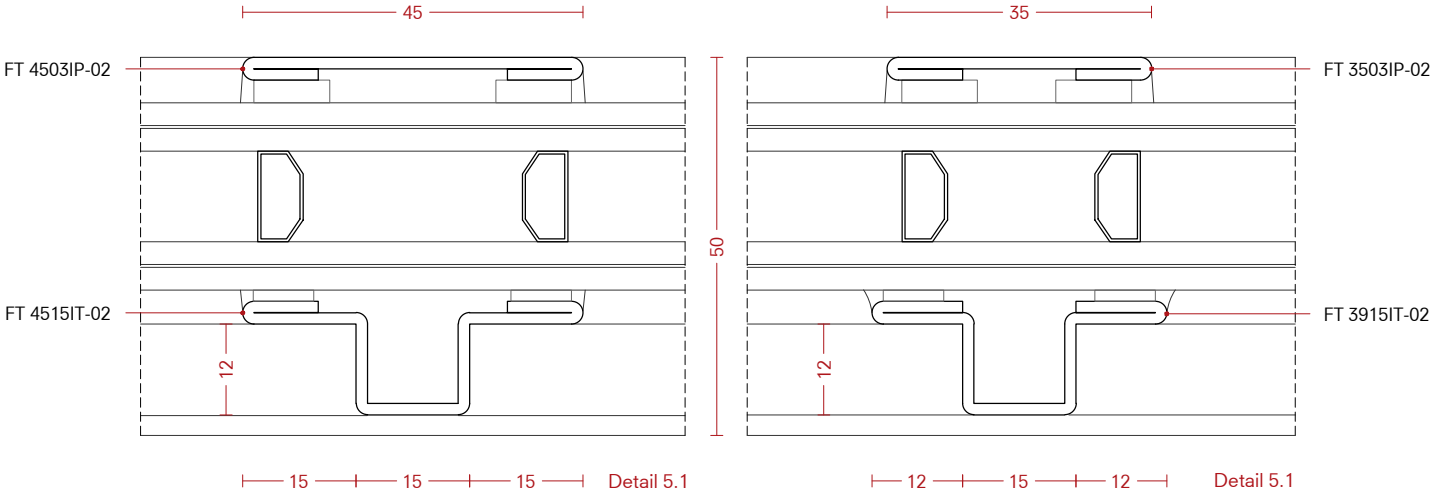
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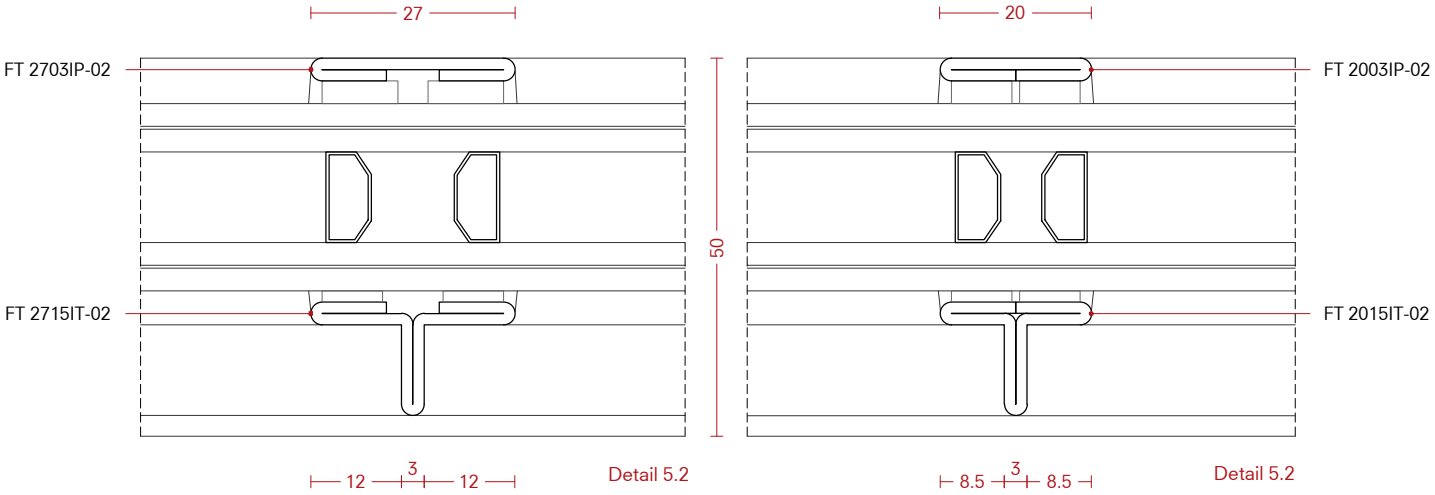
12
Detail 5.1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Detail 5.2

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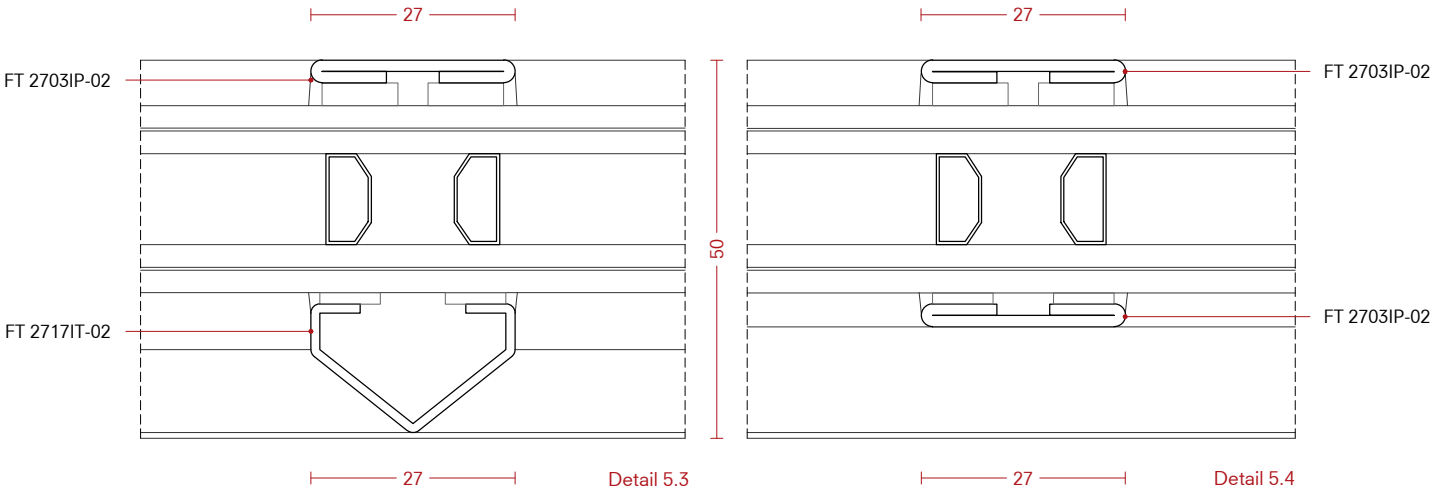
8.5
Detail 5.2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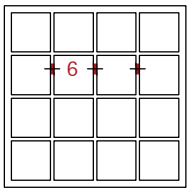
Detail 5.4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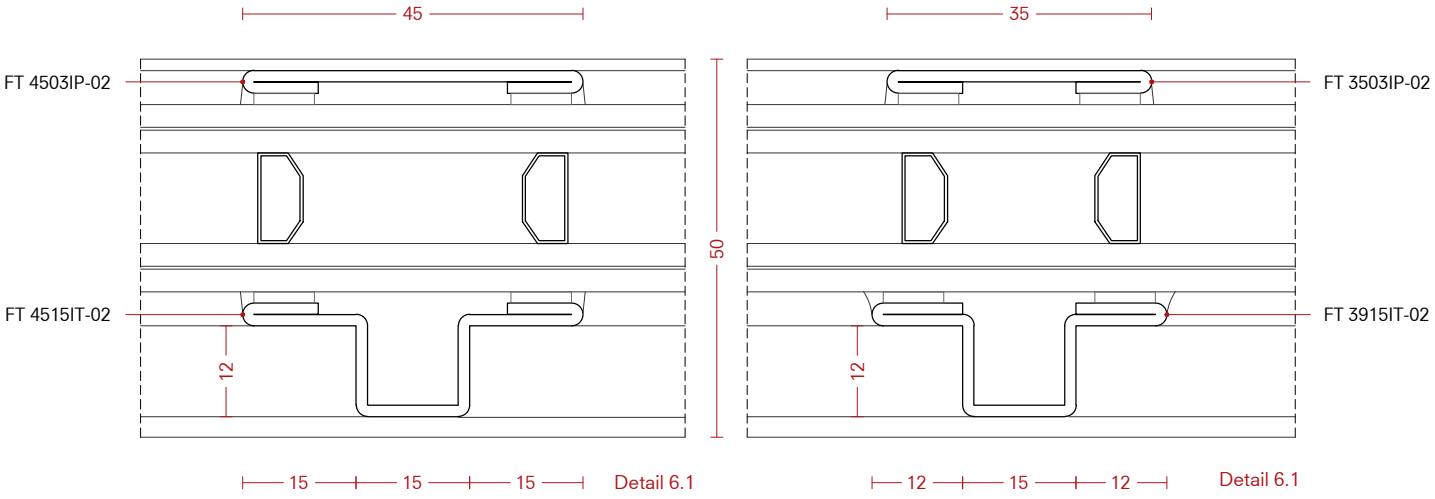
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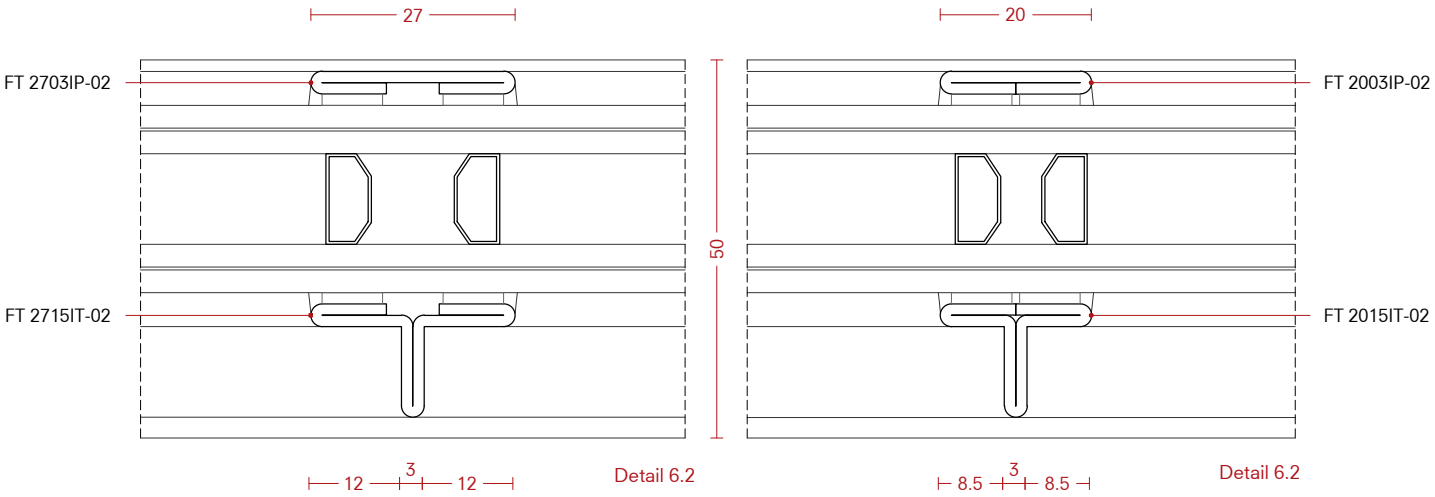
Detail 6.1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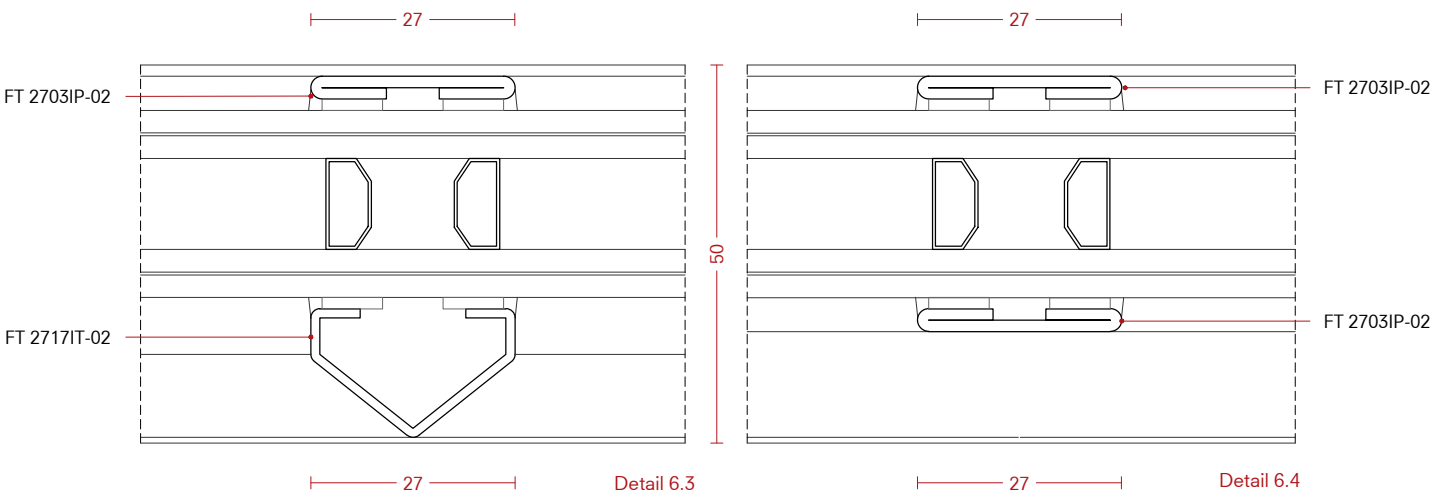
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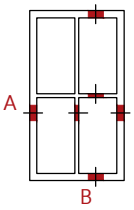
Detail 6.4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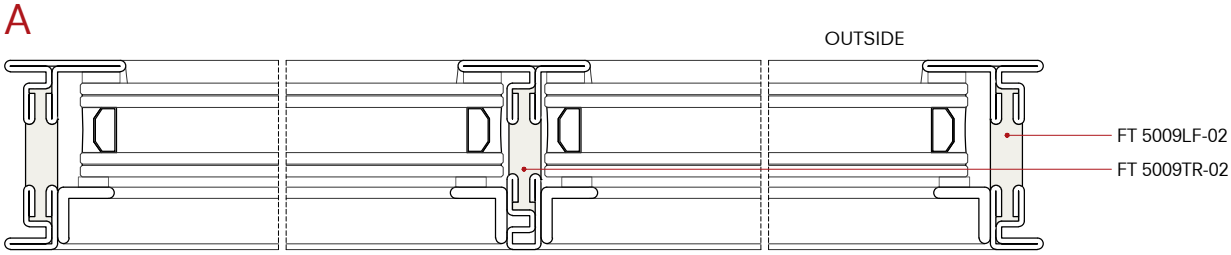
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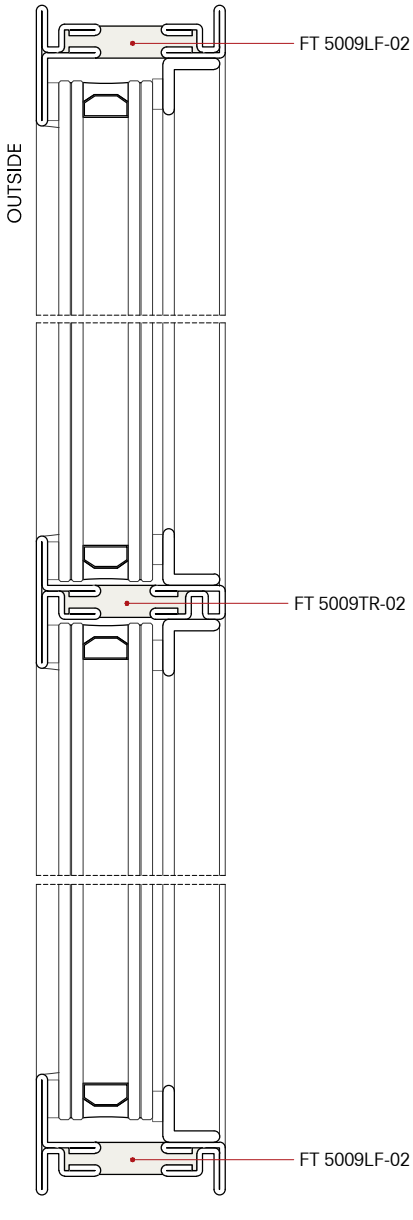
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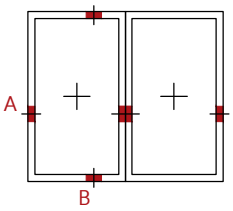
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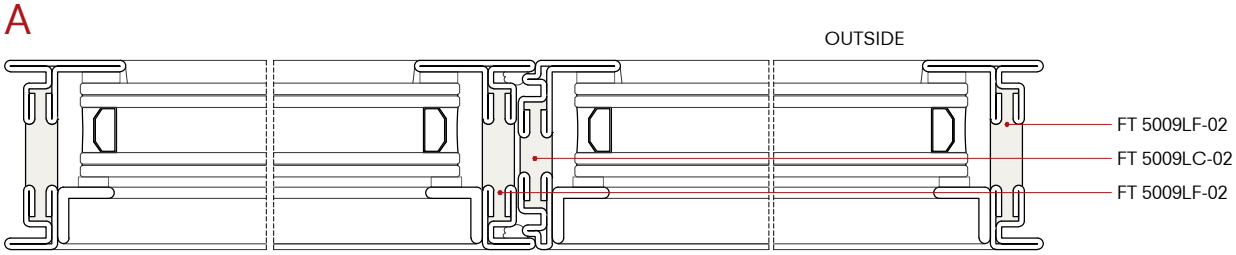
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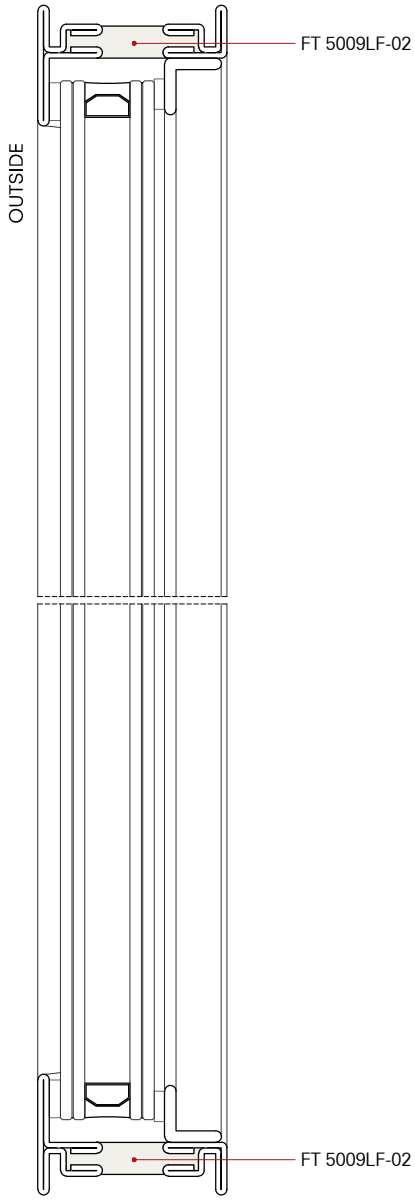
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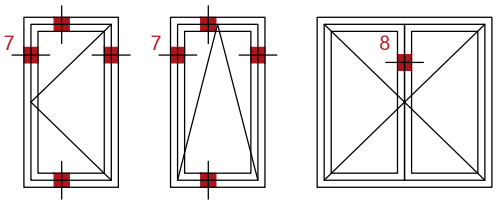
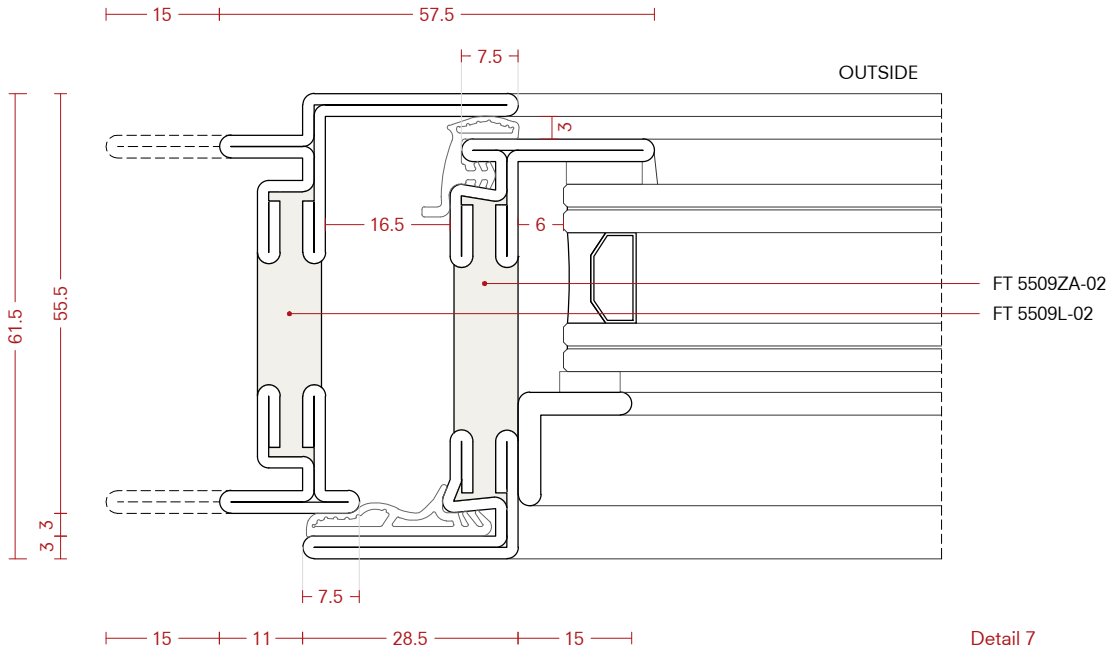
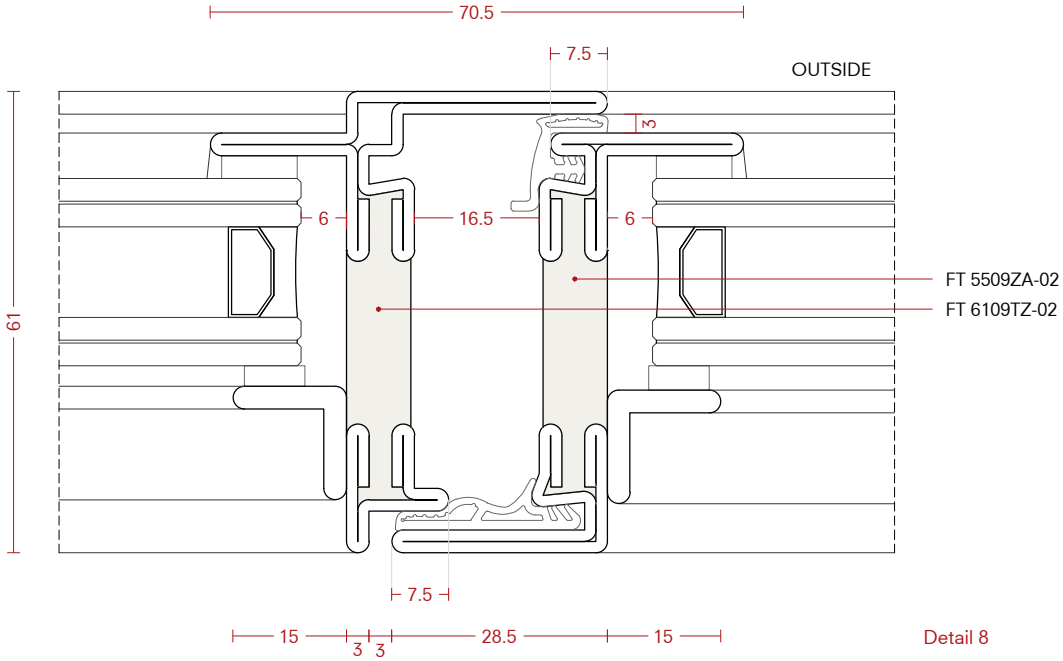




Detail 7



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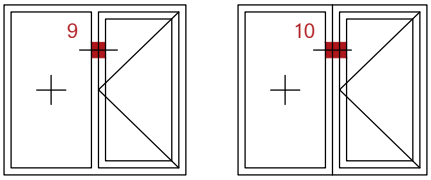

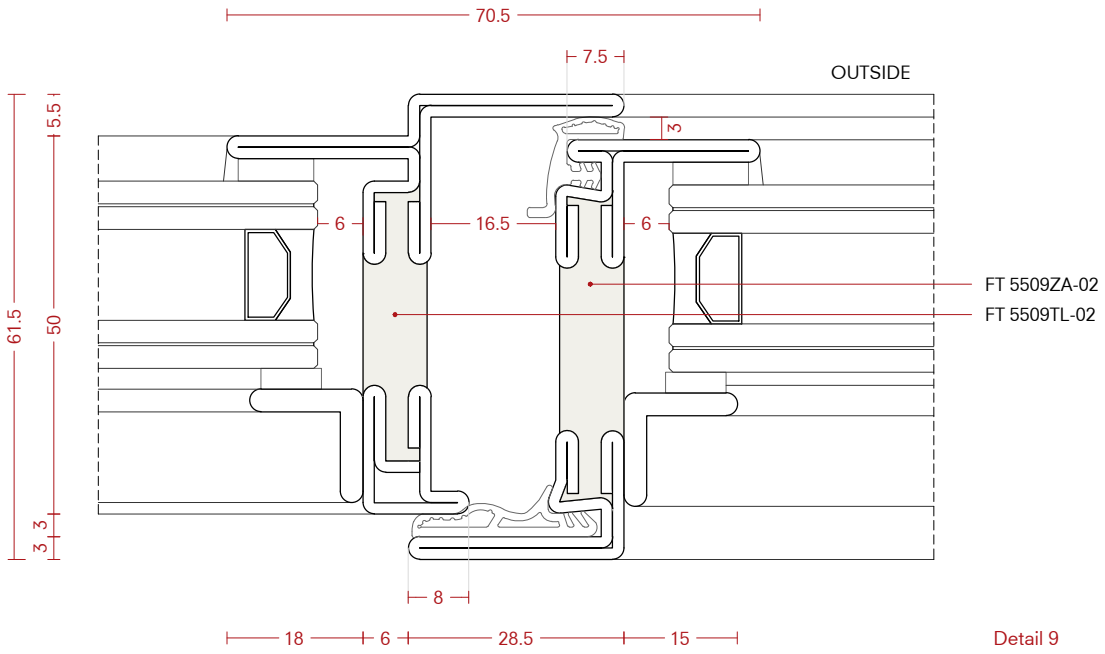

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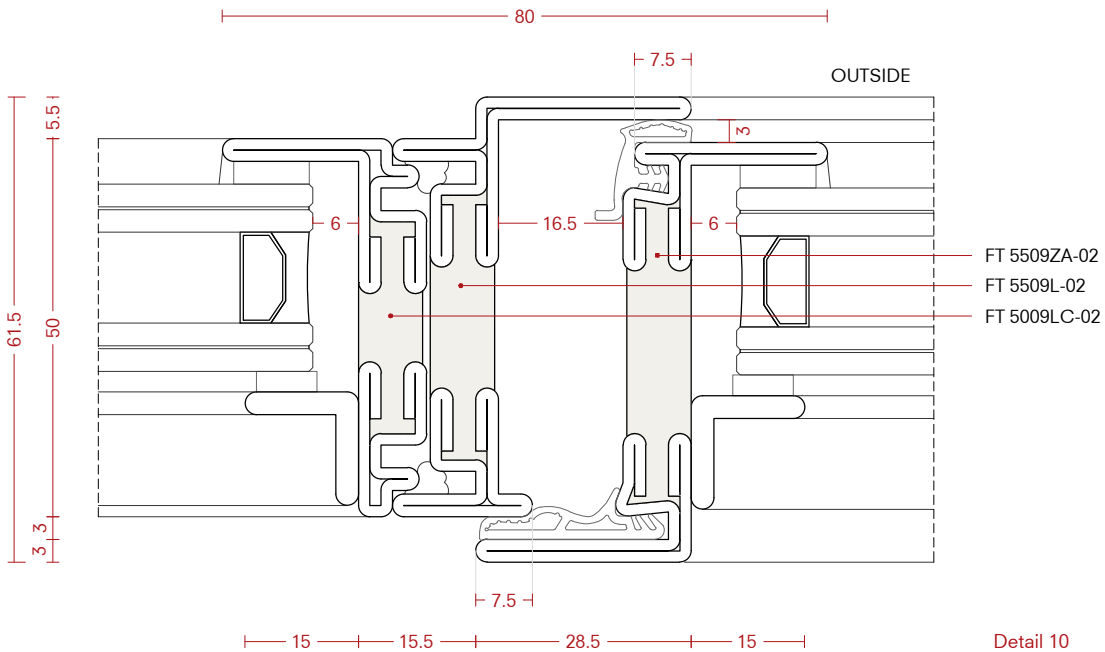

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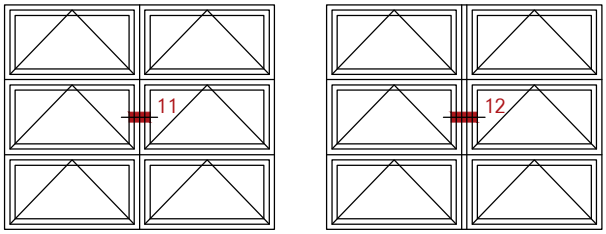

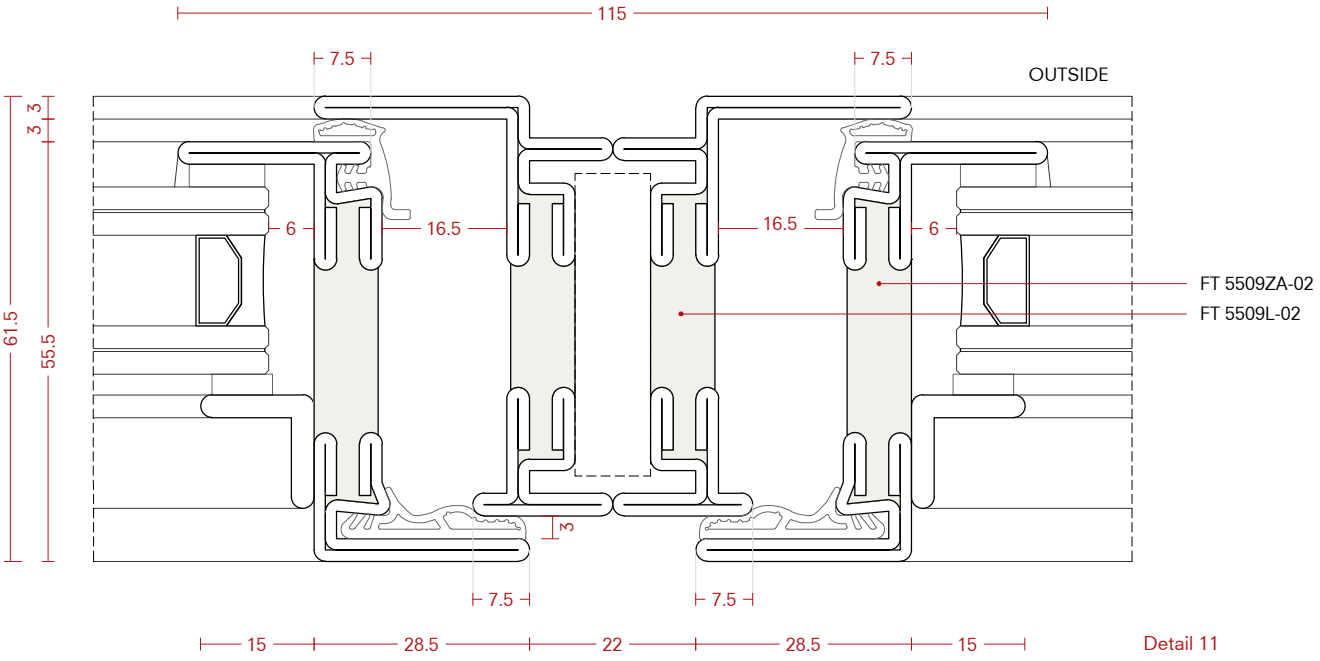

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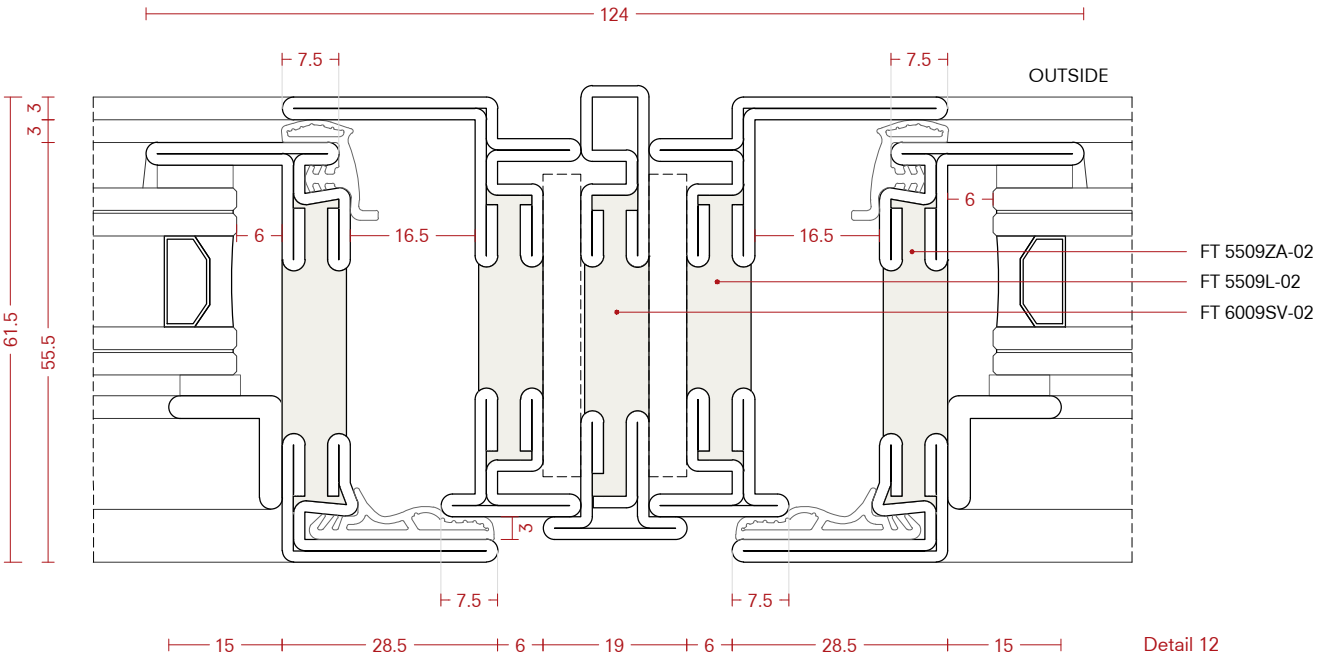

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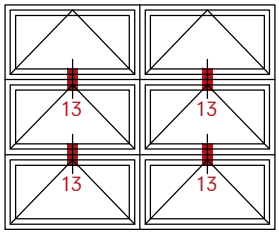
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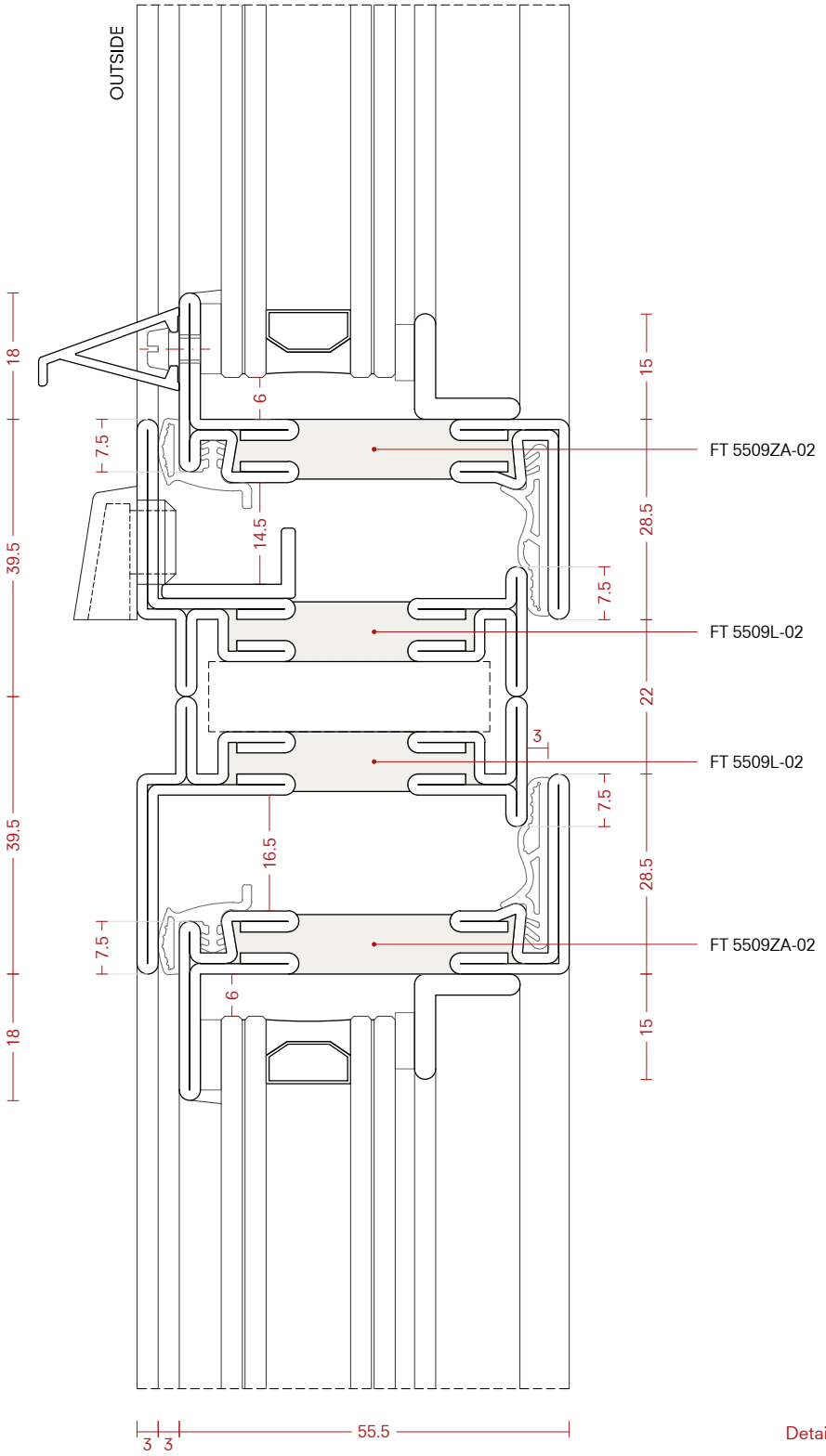
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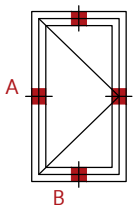
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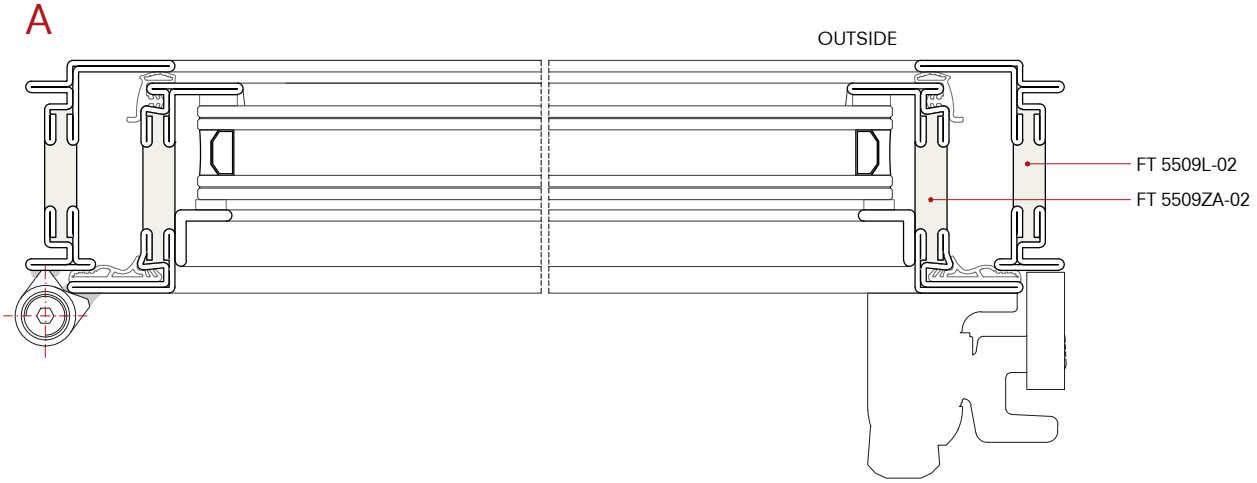
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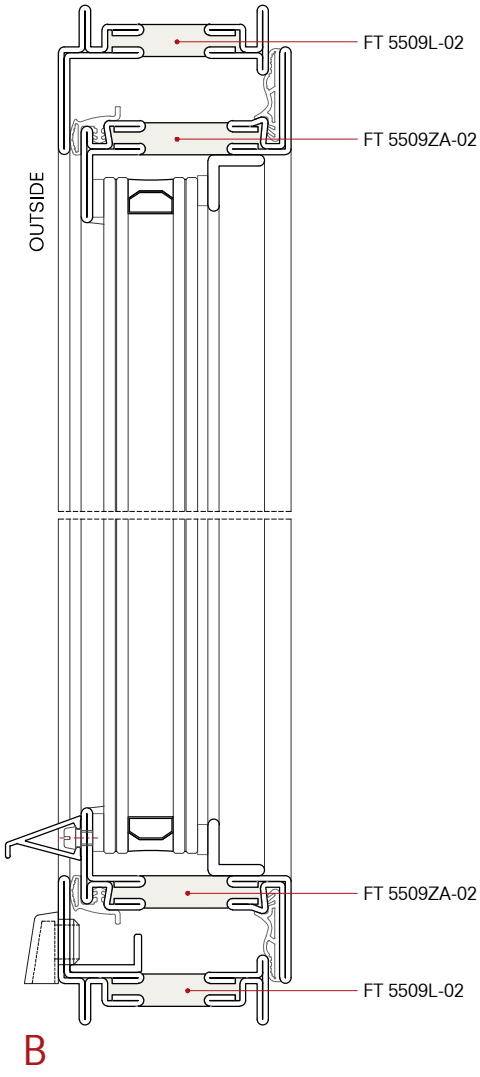
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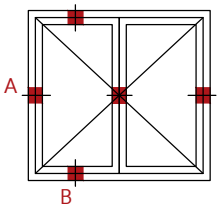
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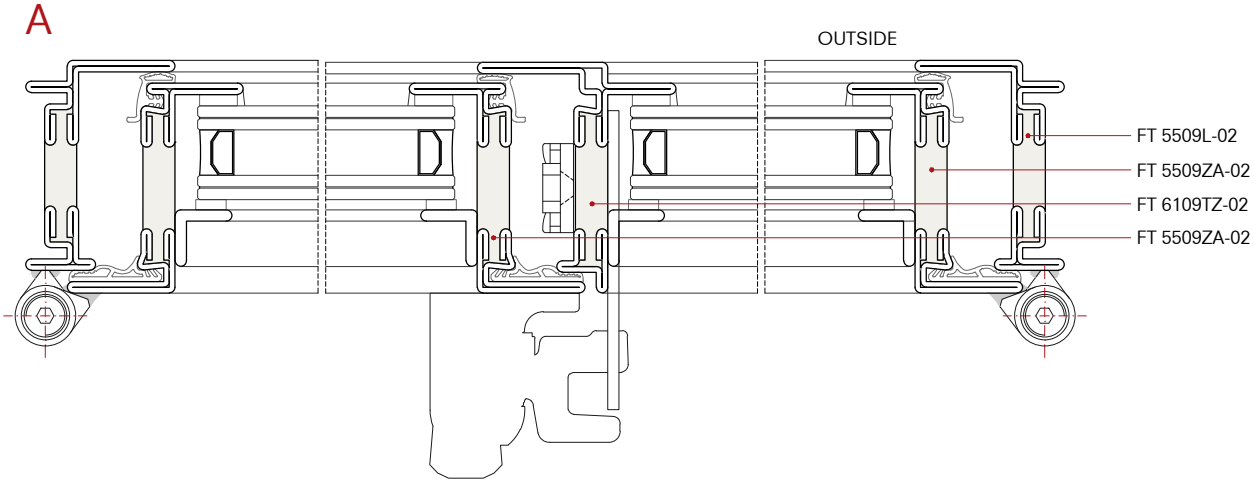
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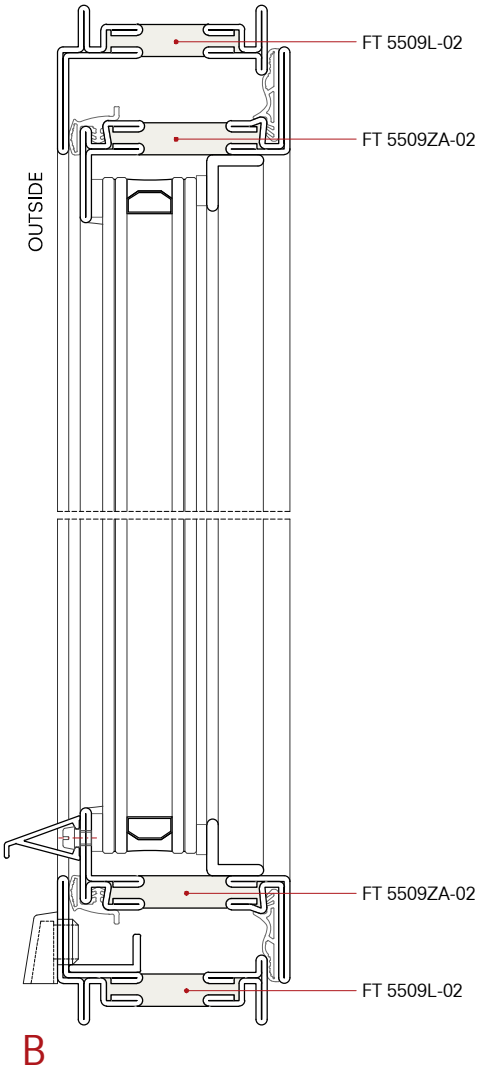
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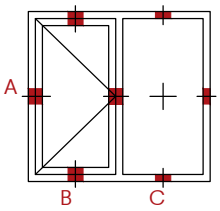
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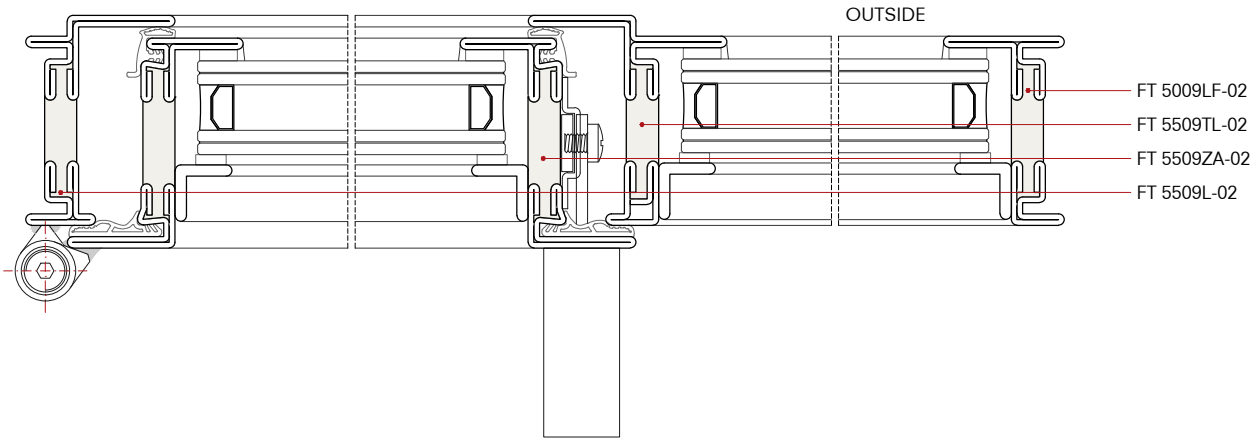
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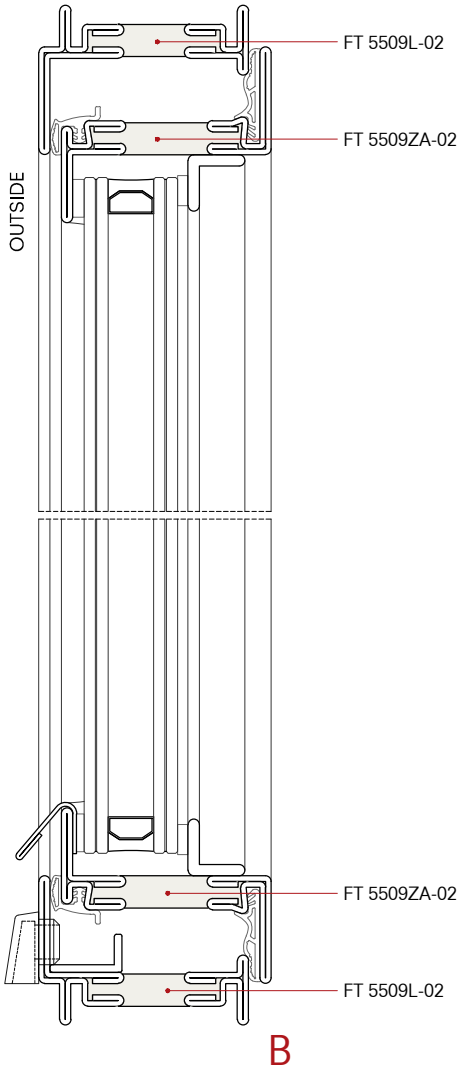
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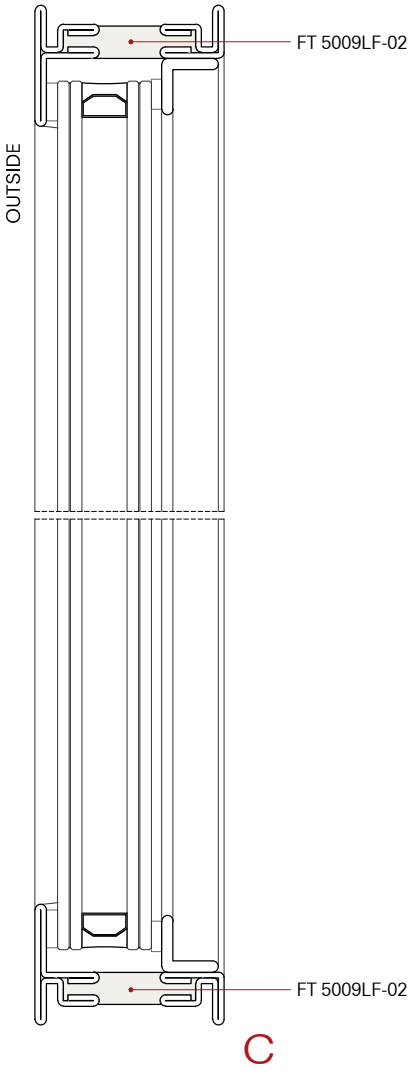
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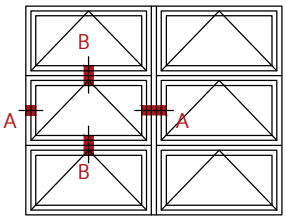
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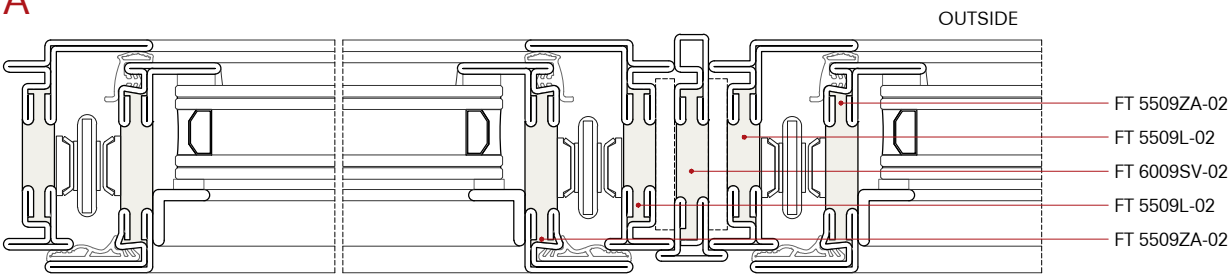
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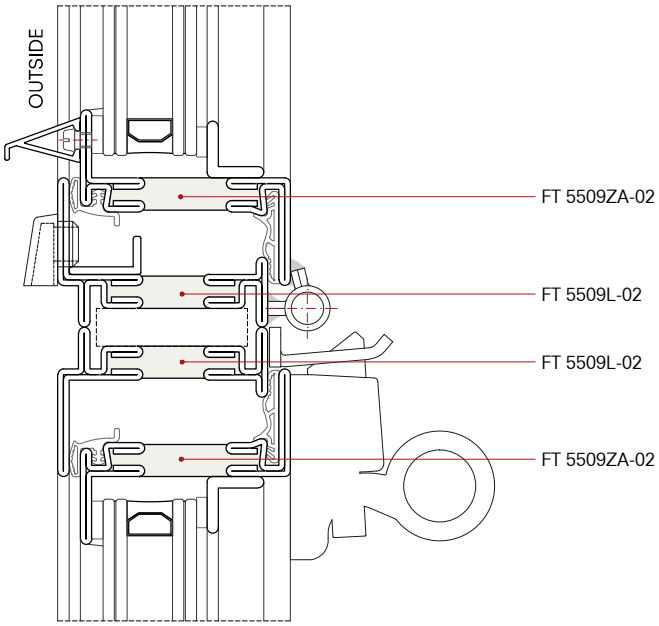
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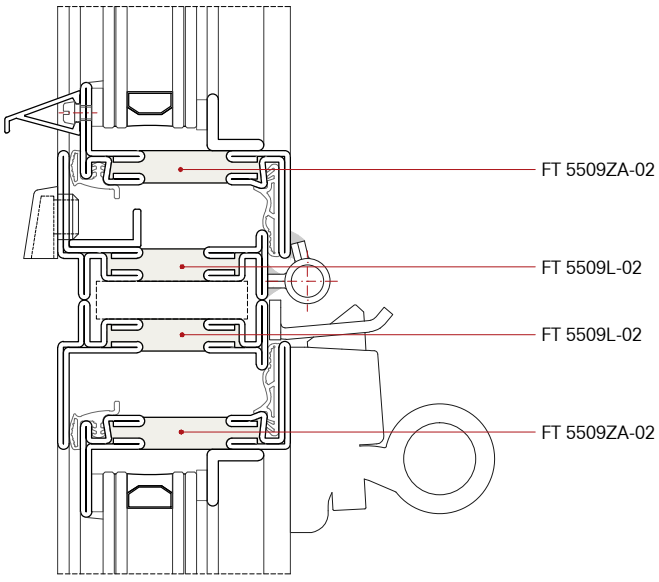
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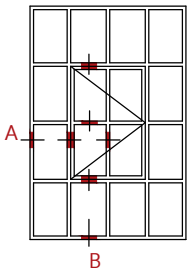
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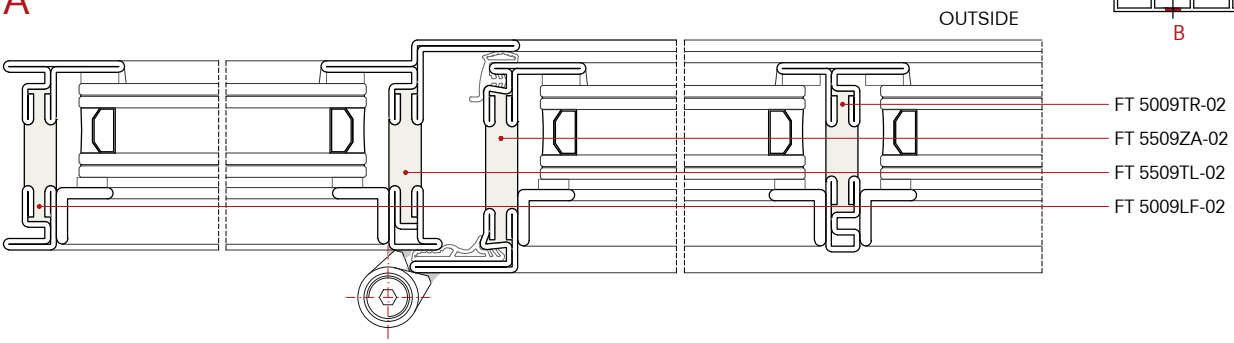
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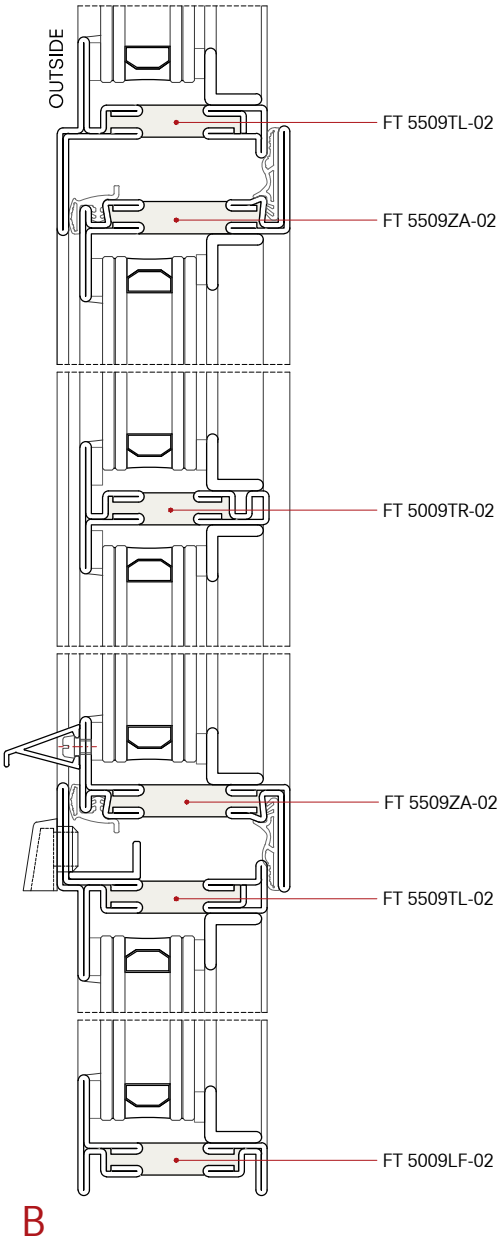
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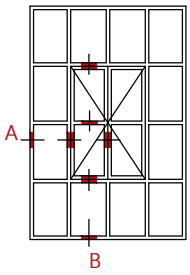
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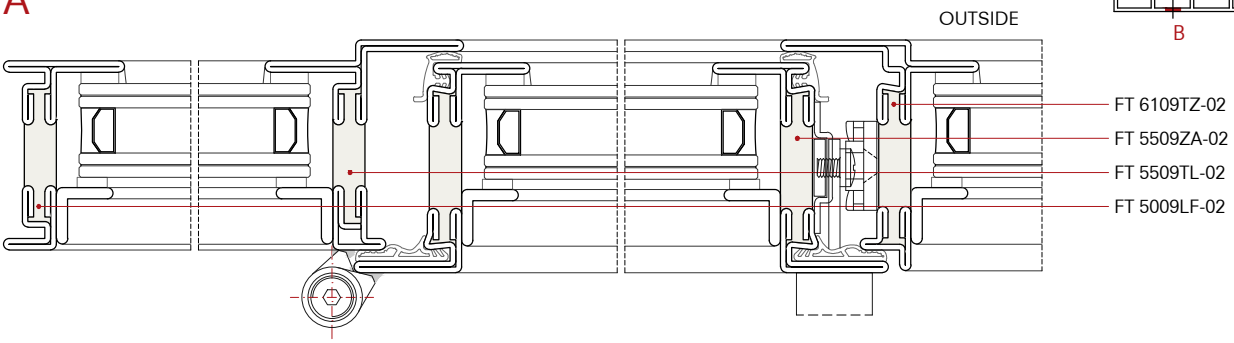
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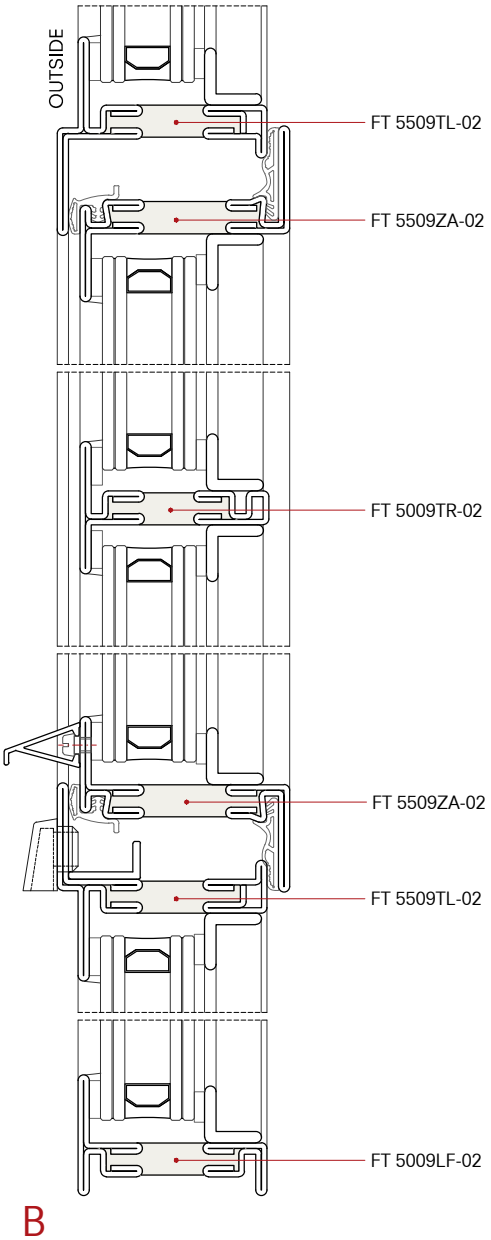
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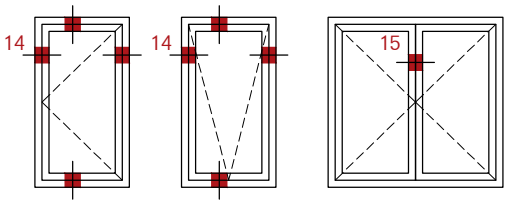

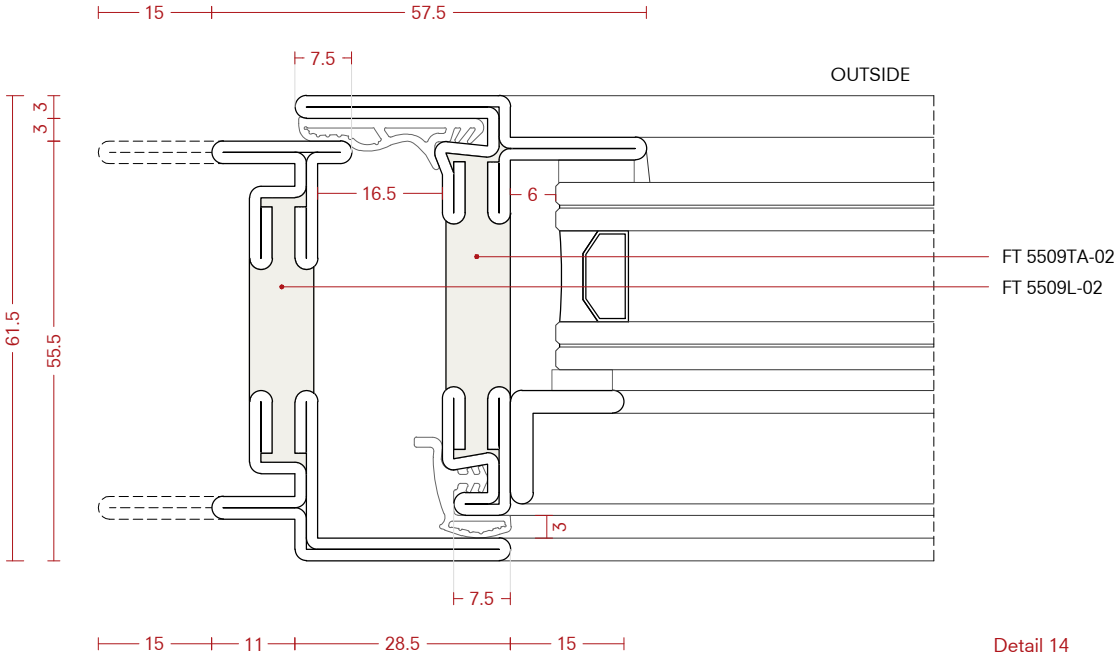

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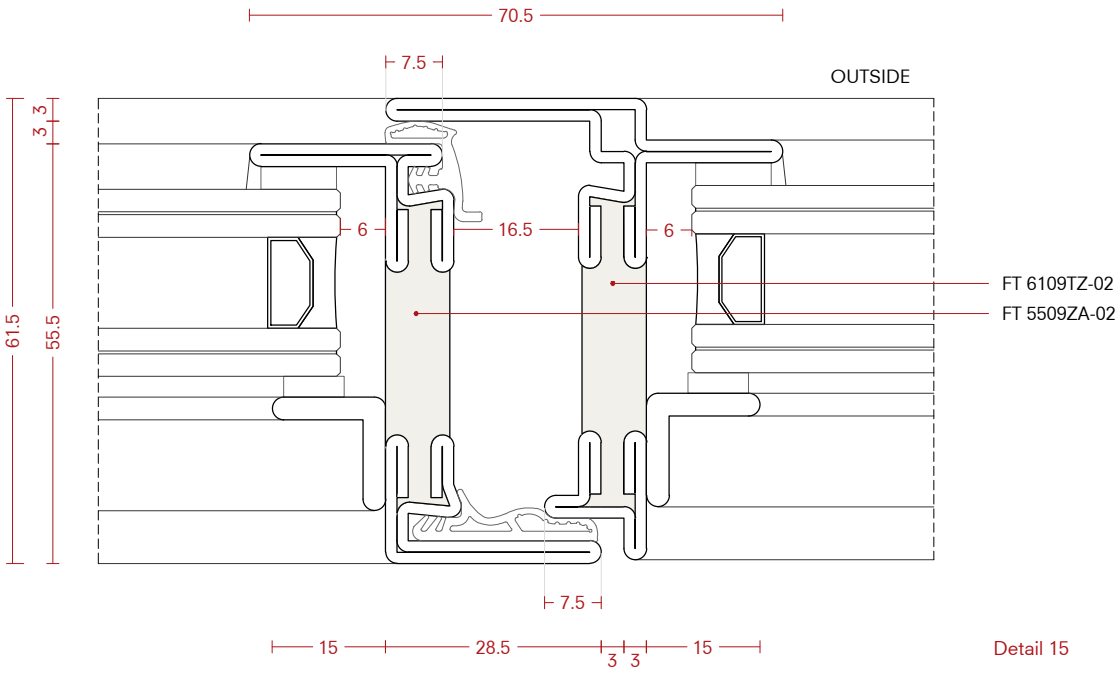

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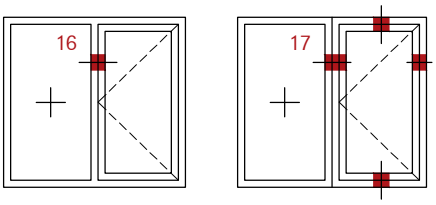

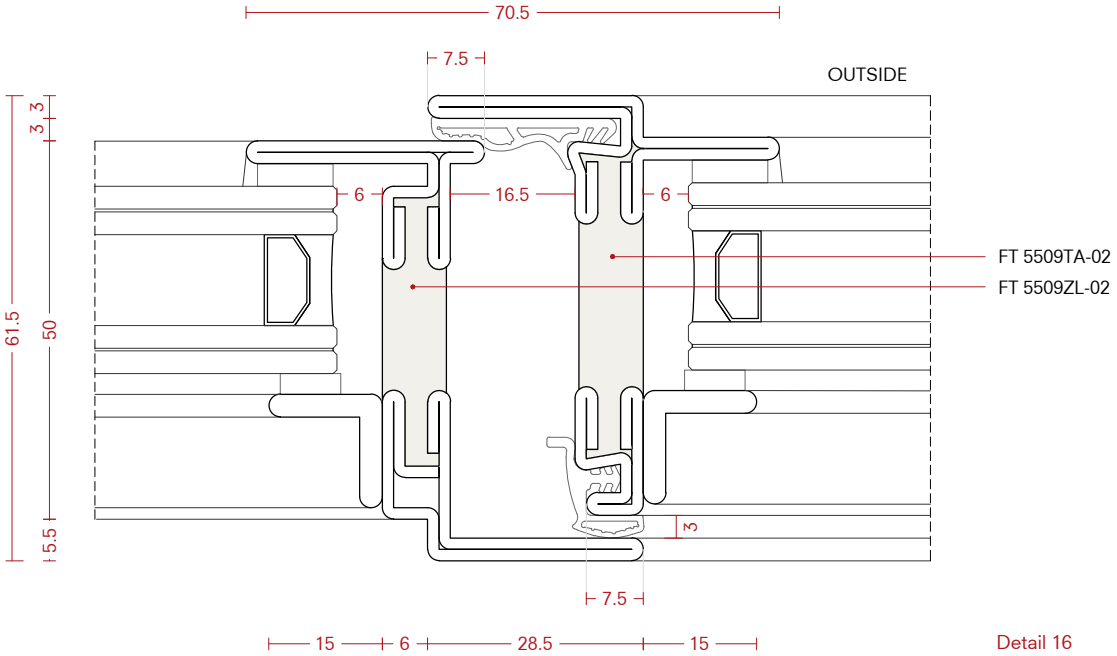

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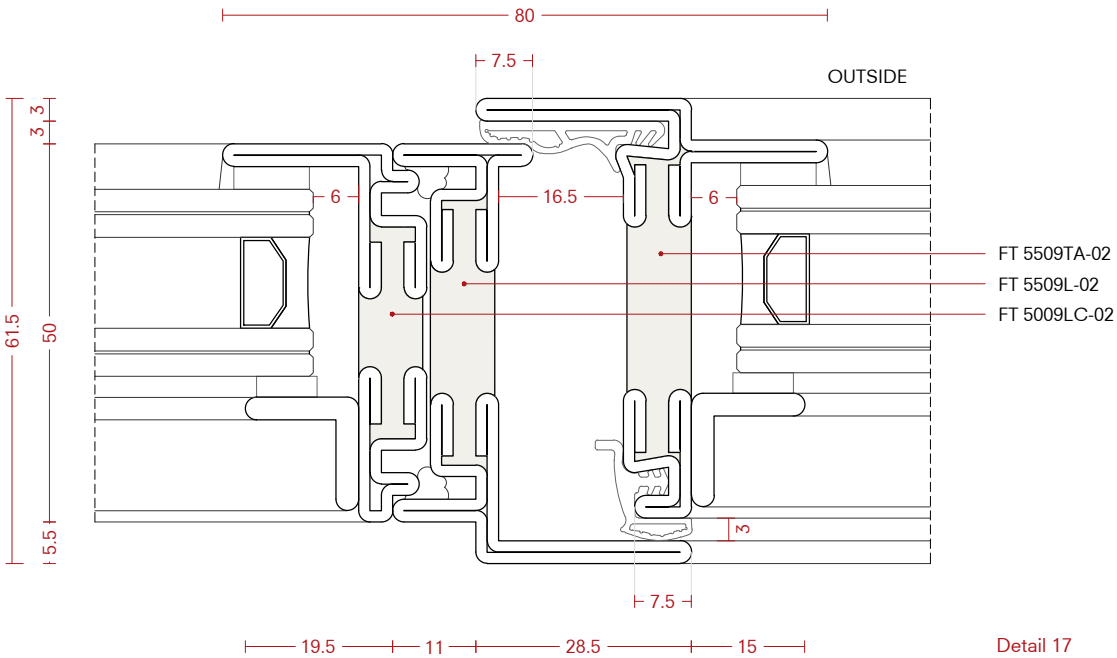

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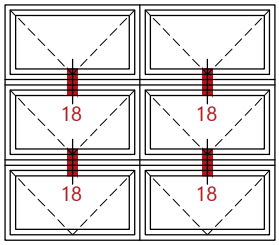
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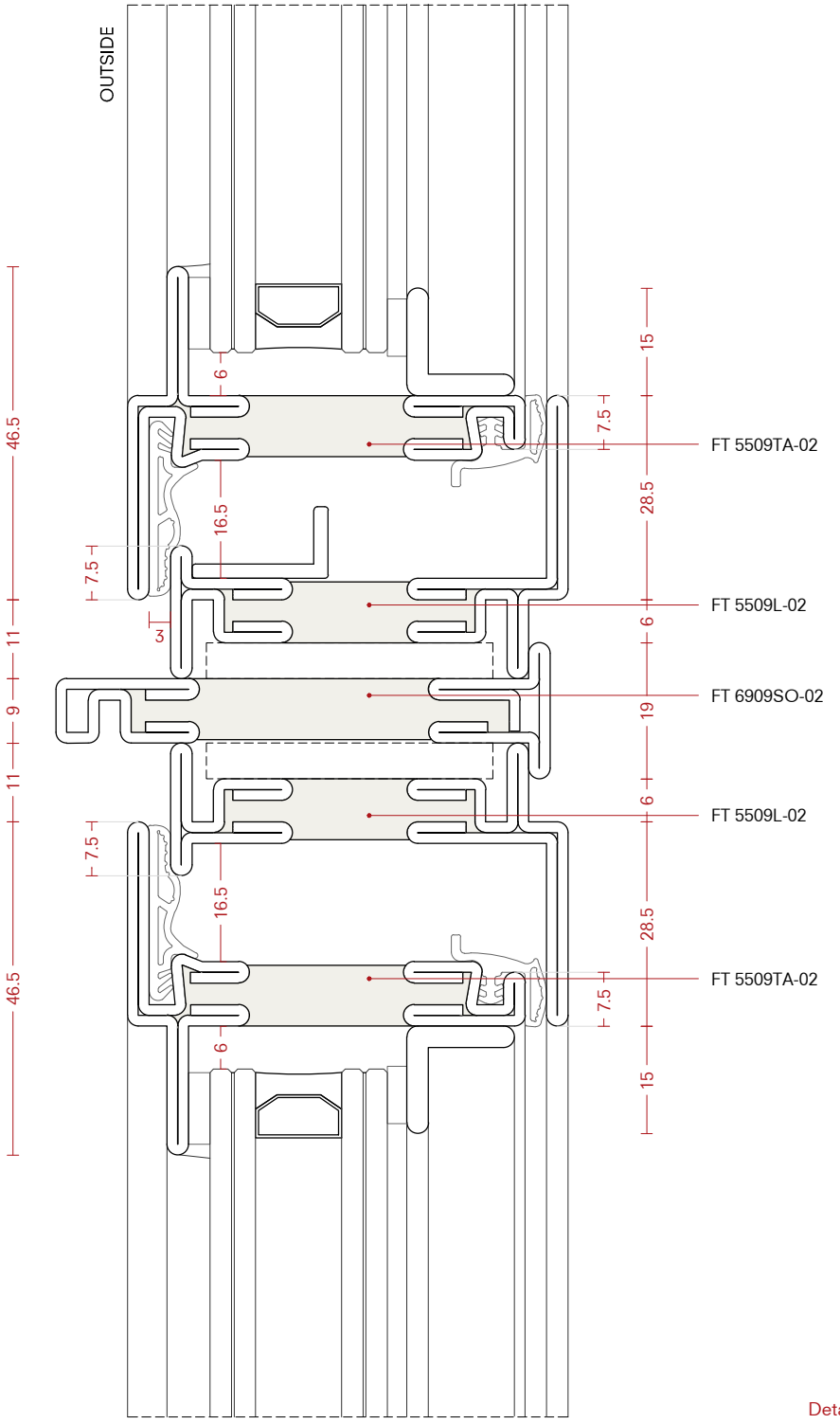
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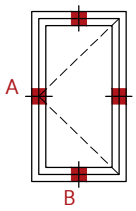
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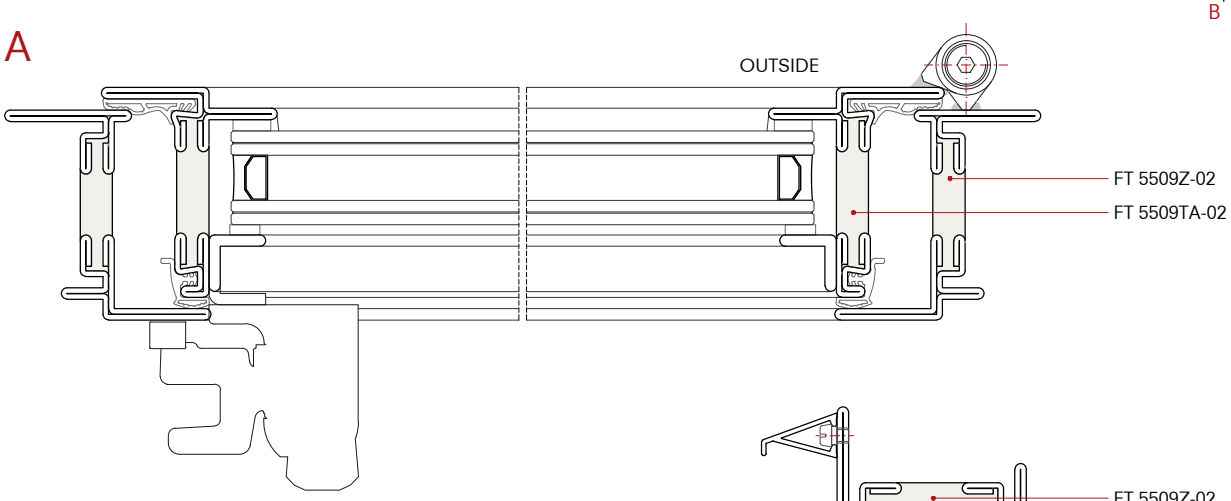
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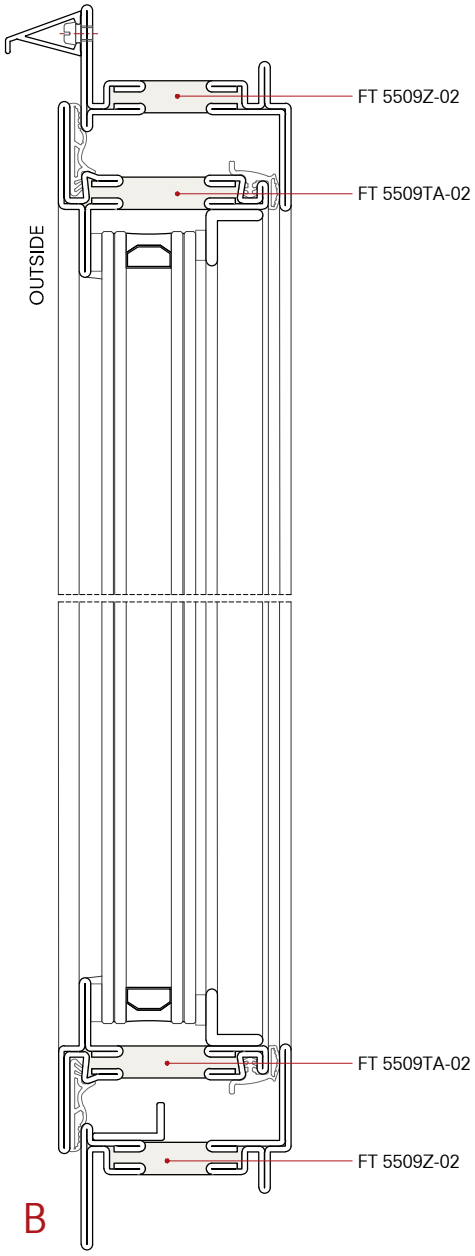
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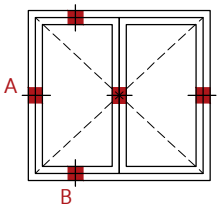
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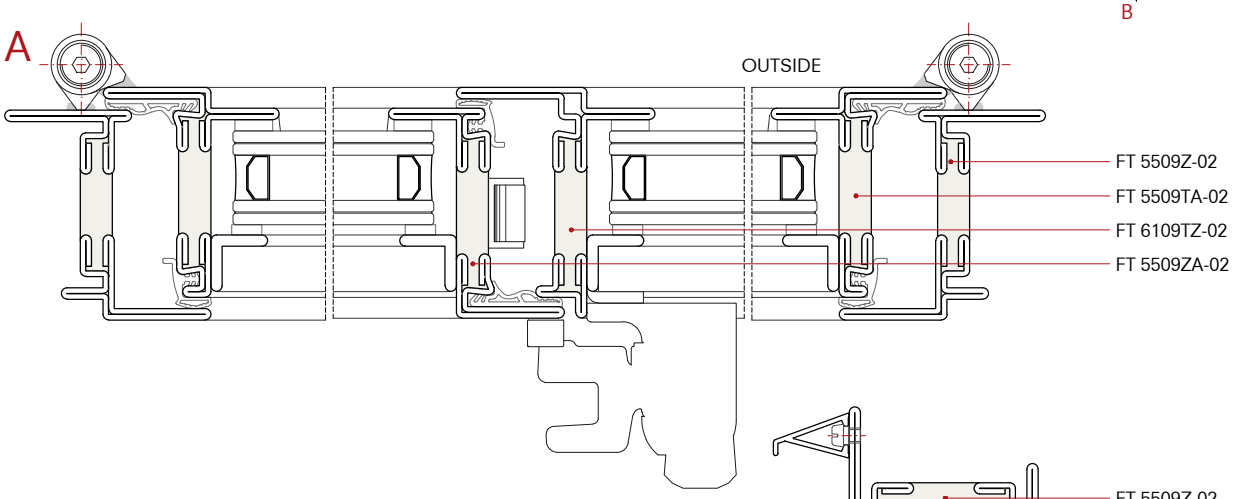
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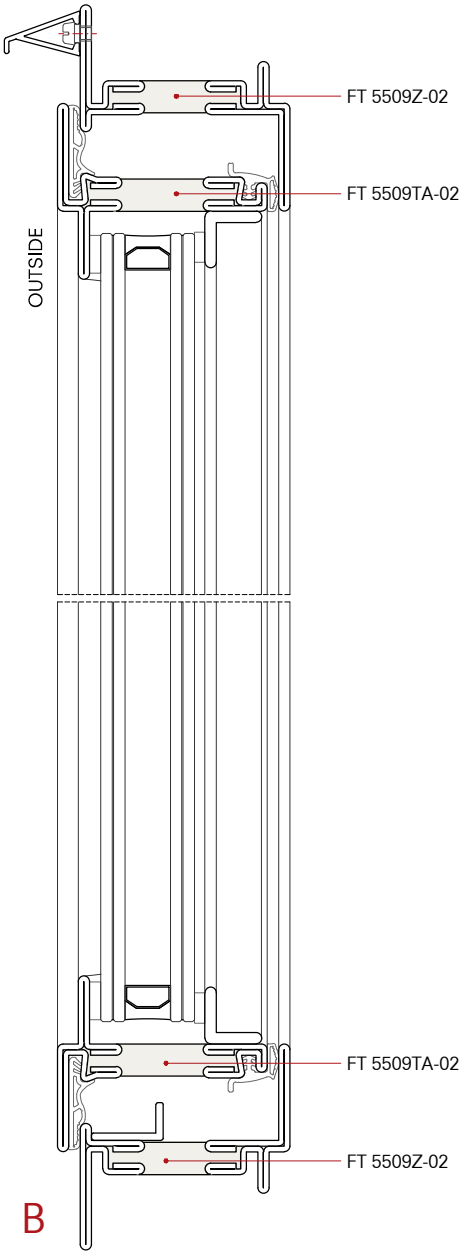
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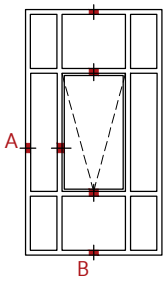
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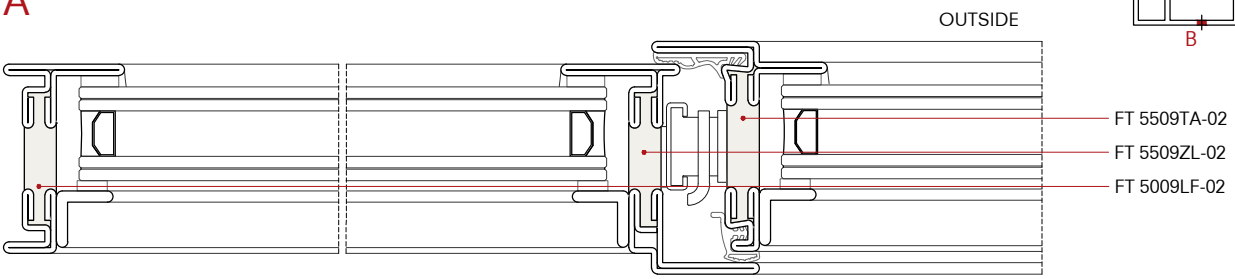
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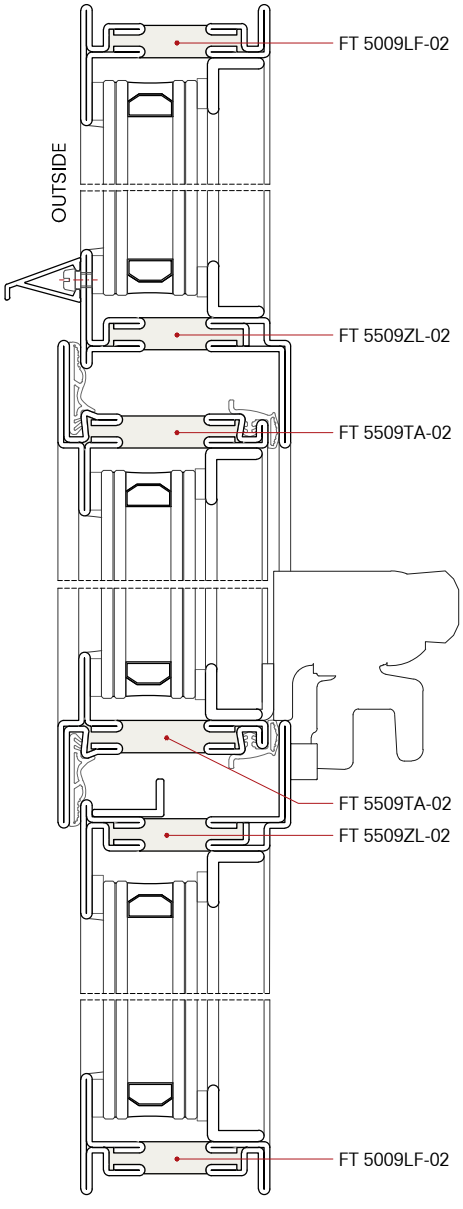
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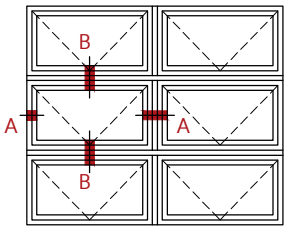
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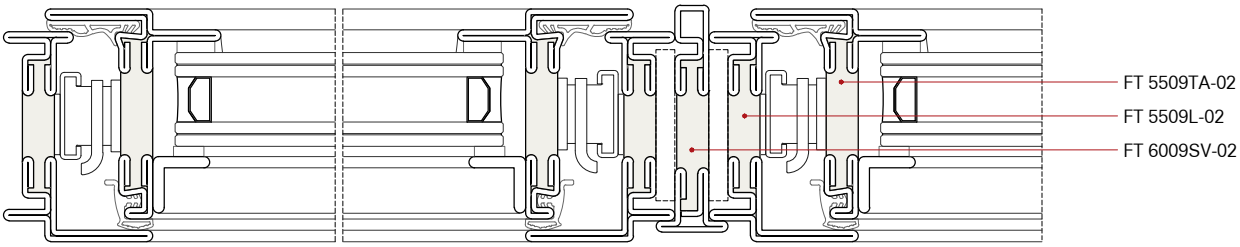
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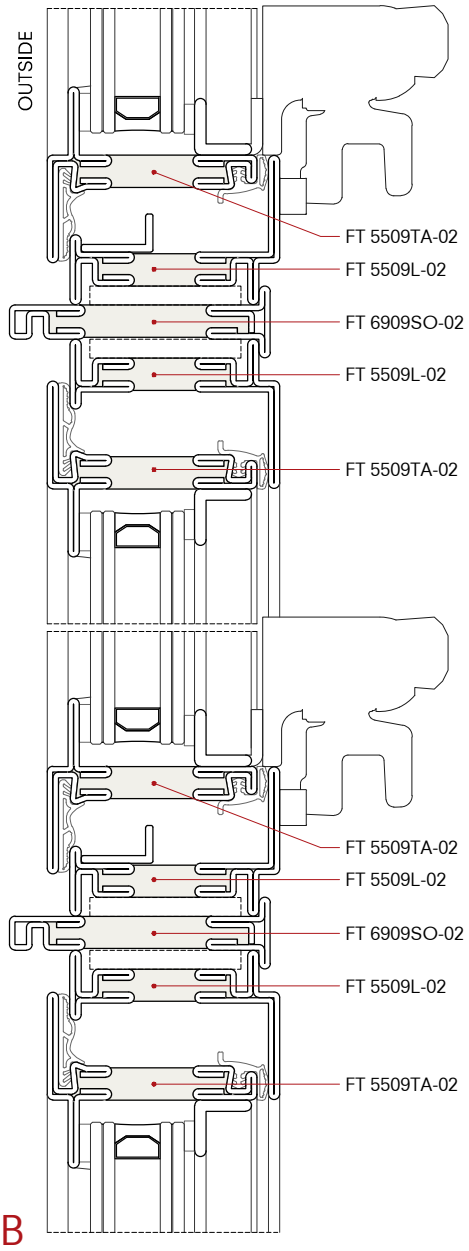
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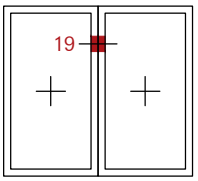
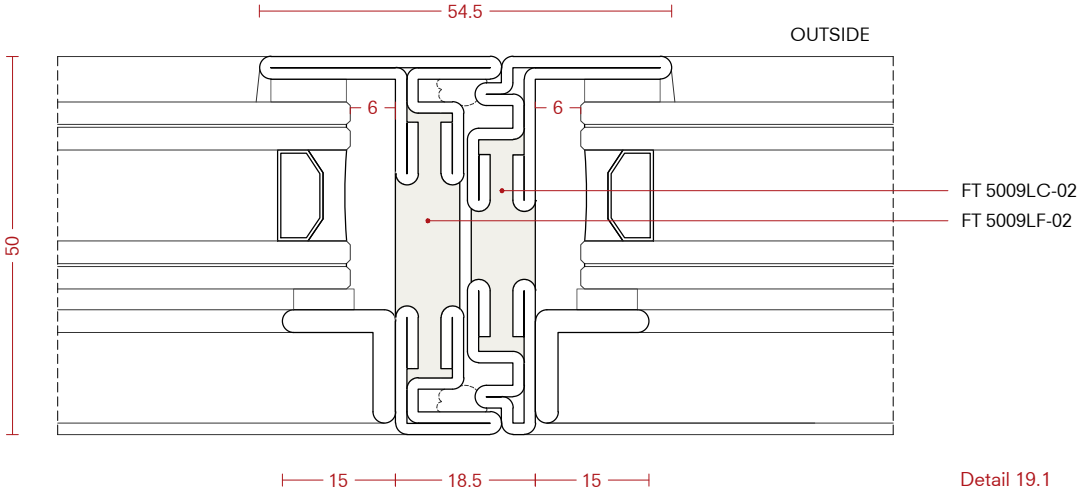
B

Profile matching

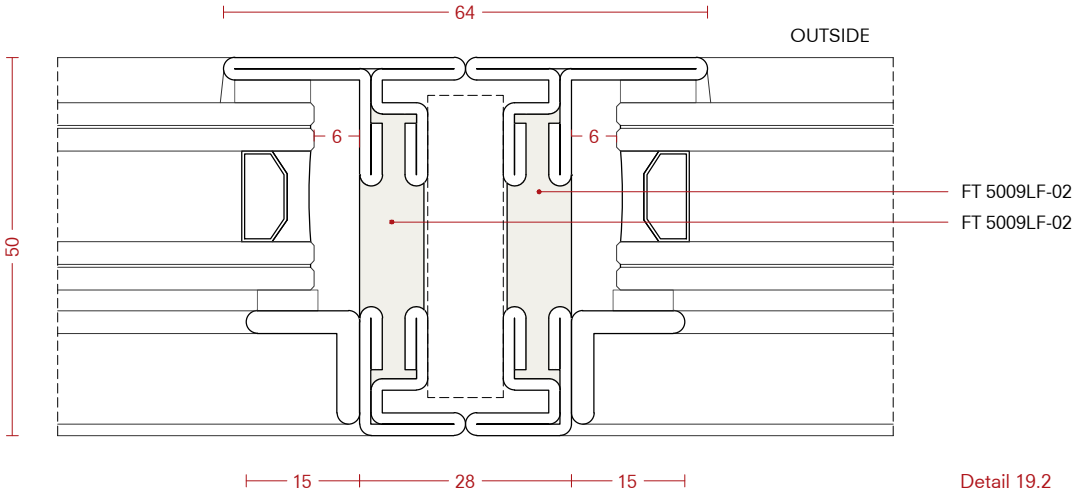
Accostamento telai

Combinación de marcos





Detail 19.1



Detail 19.2

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.

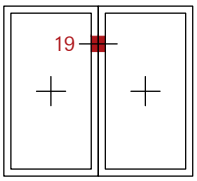
Nota:

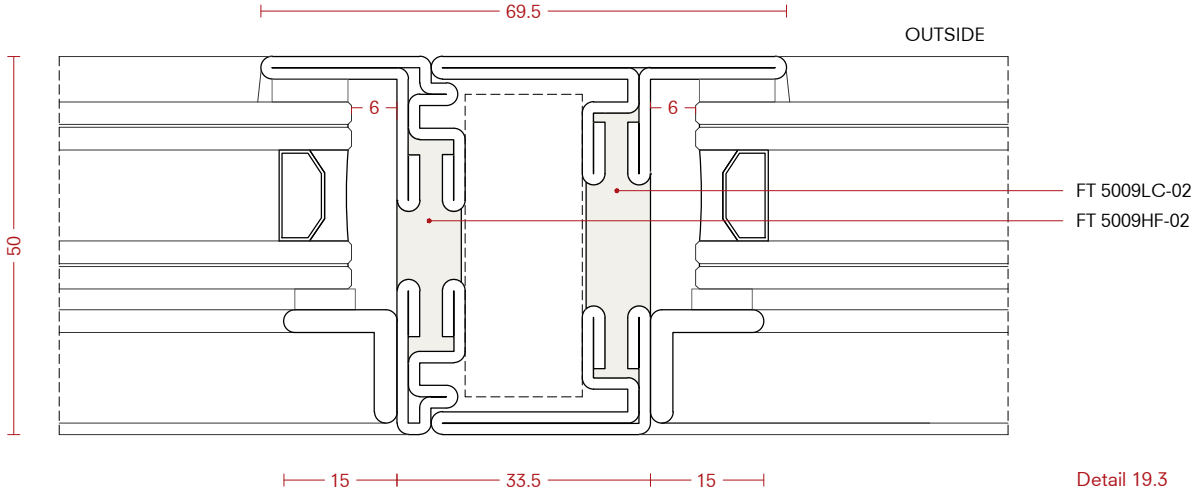
Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

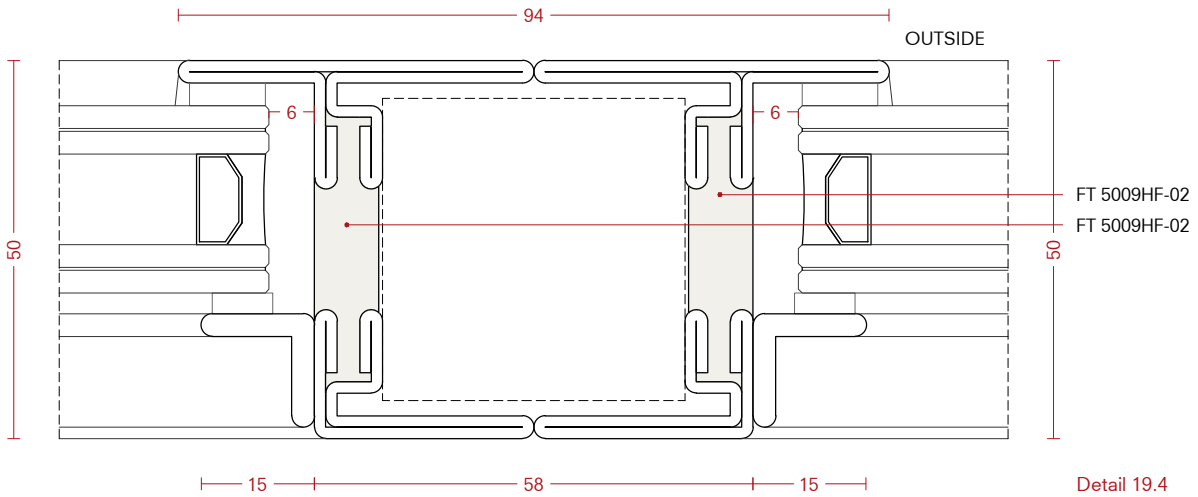
Accostamento telai

Combinación de marcos





Detail 19.3



Detail 19.4

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.

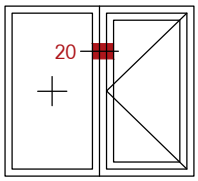
Nota:

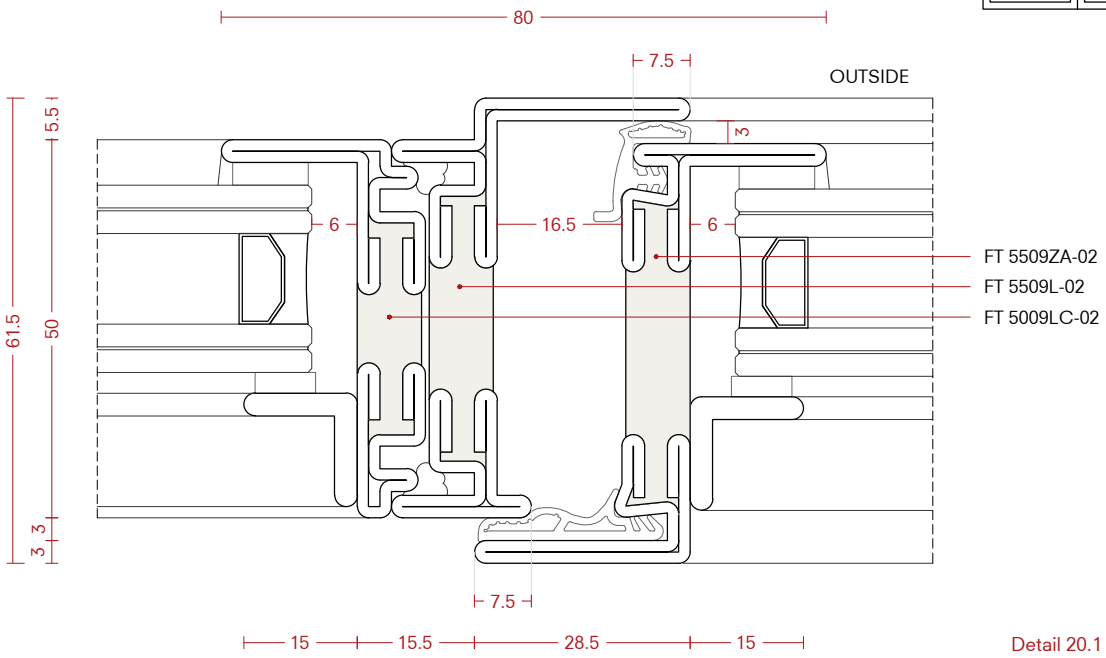
Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

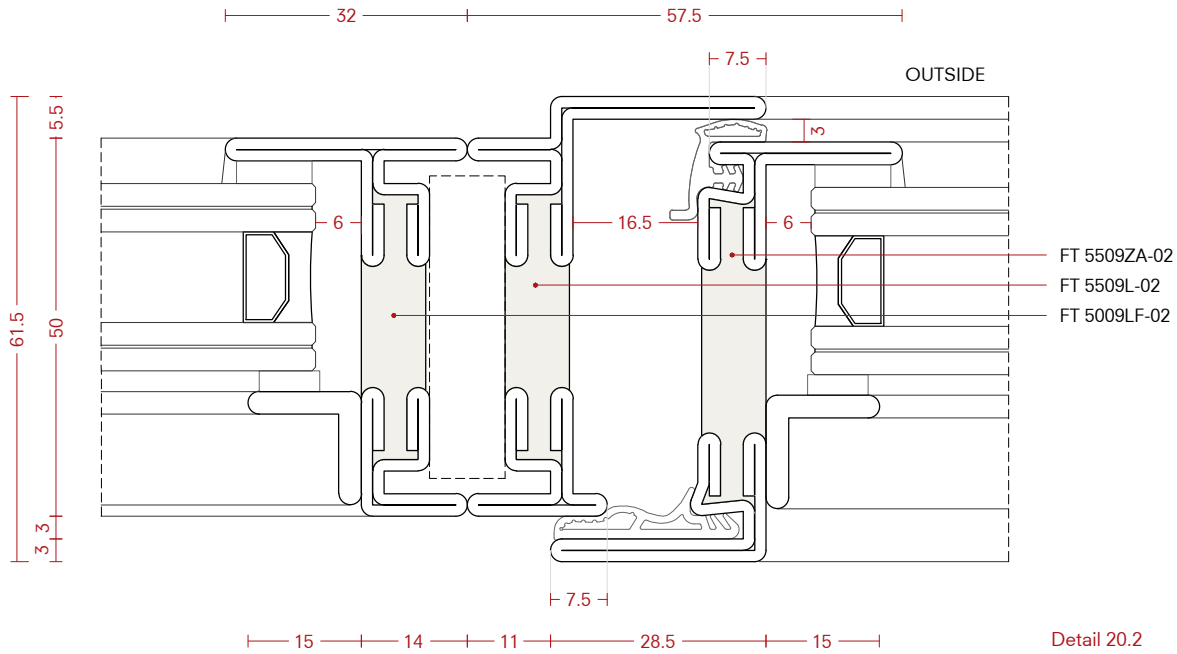
Accostamento telai

Combinación de marcos





Detail 20.1



Detail 20.2

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.

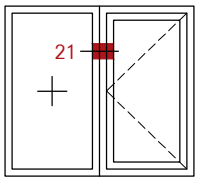
Nota:

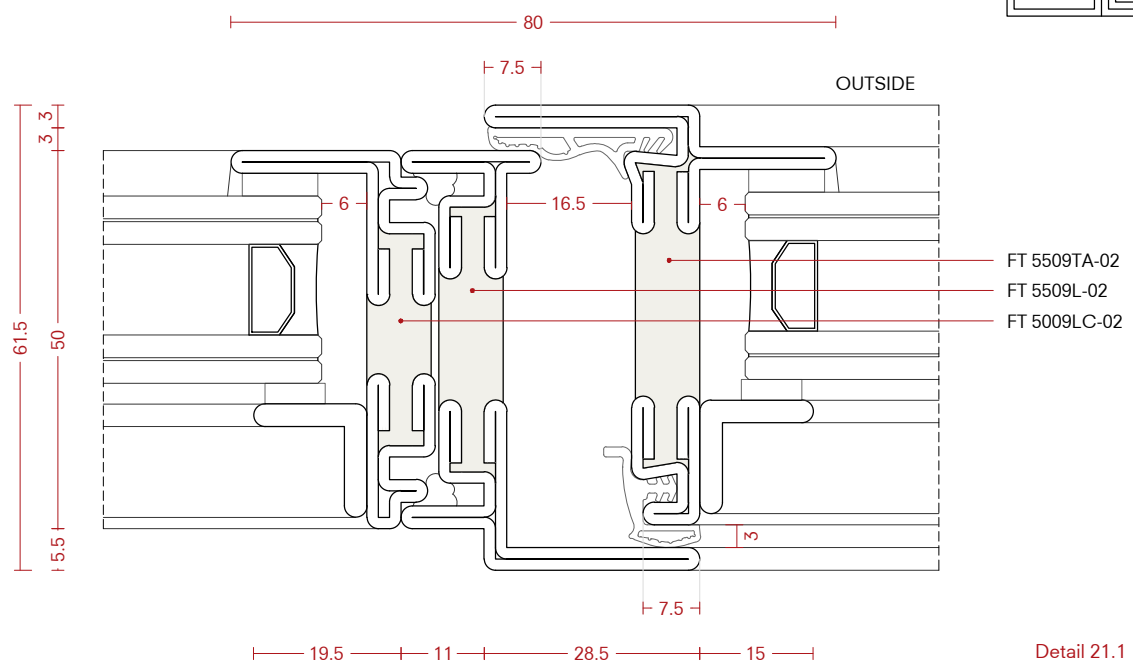
Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

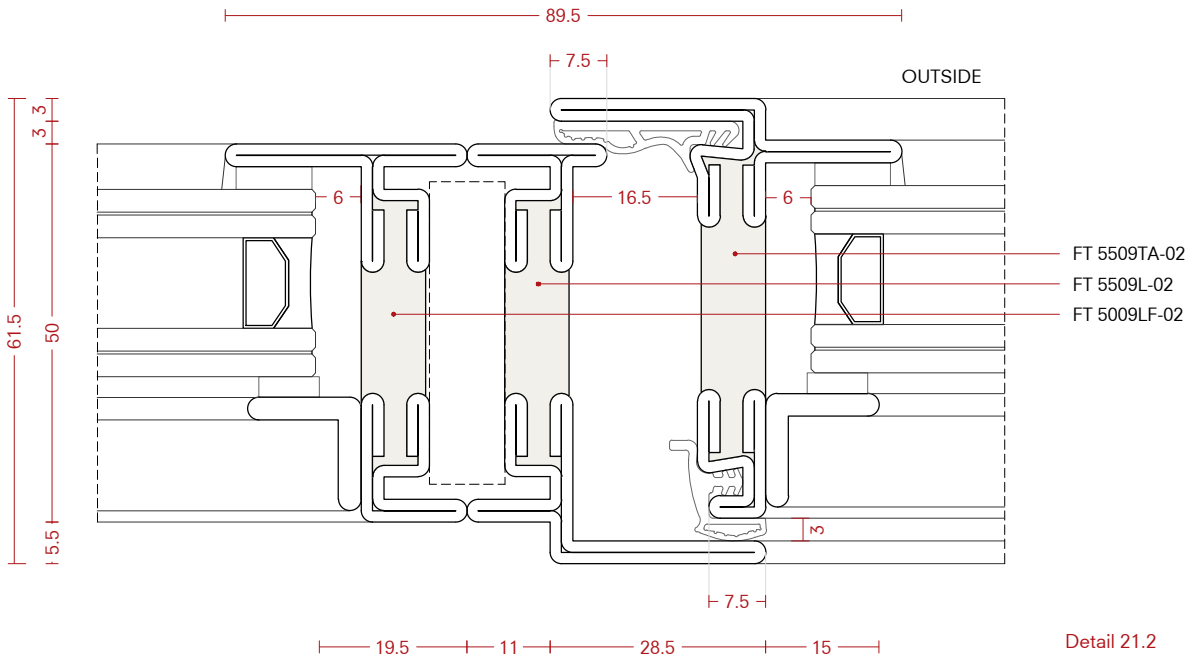
Accostamento telai

Combinación de marcos





Detail 21.1



Detail 21.2

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.

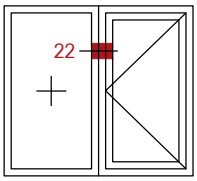
Nota:

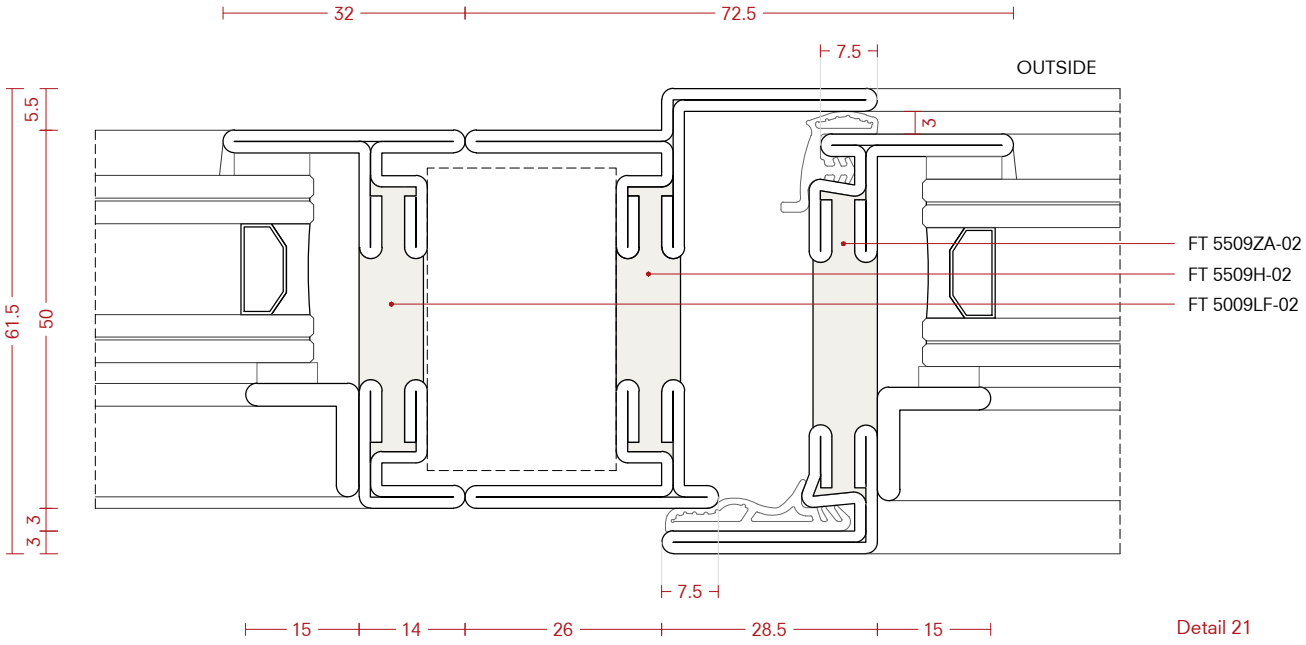
Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

Accostamento telai

Combinación de marcos





Detail 21

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.

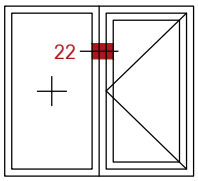
Nota:

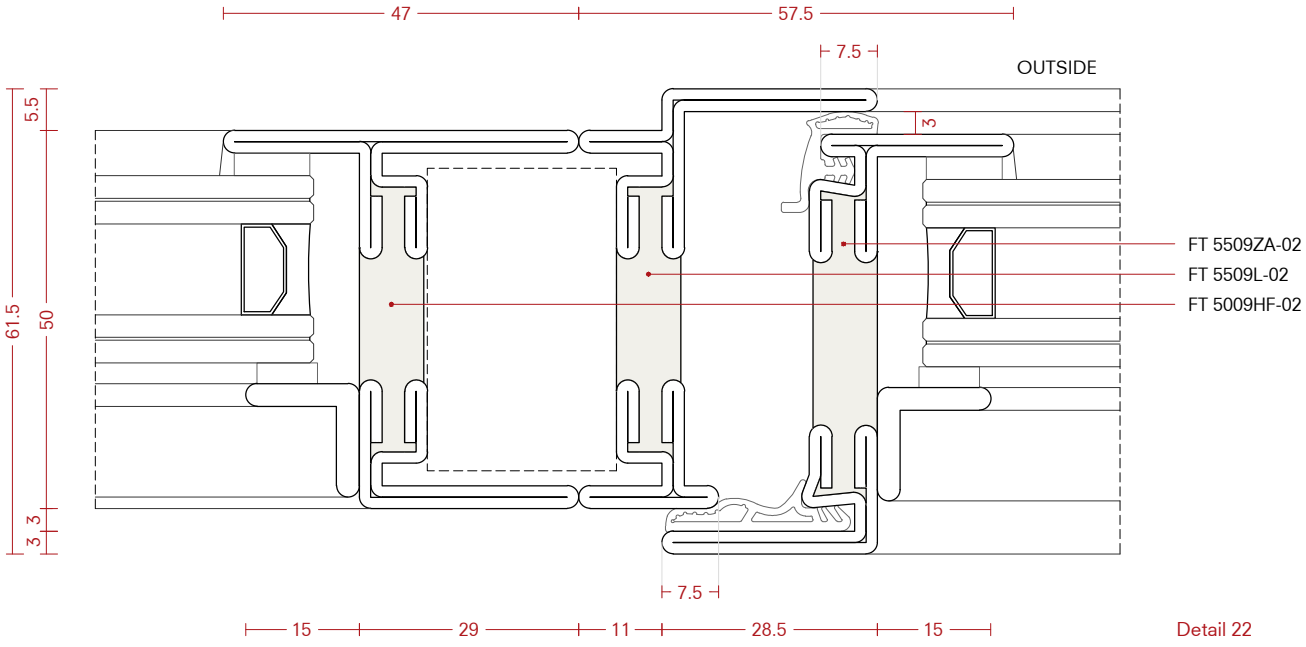
Para la lista de cortes, considere las tolerancias apropiadas de mecanizado y soldadura en relación con las áreas de colocación y los sellos elegidos.

Profile matching

Accostamento telai

Combinación de marcos





Detail 22

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

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 gasket.

Accostamento telai

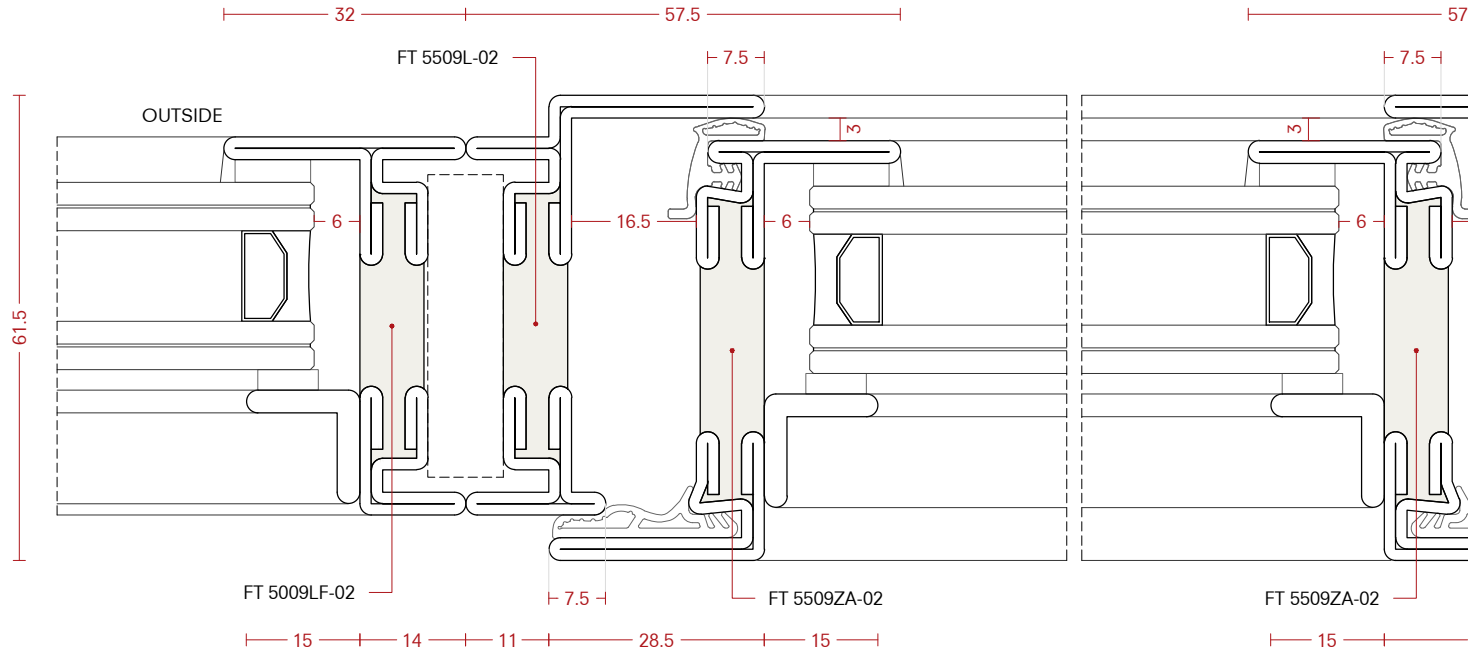
Nota:

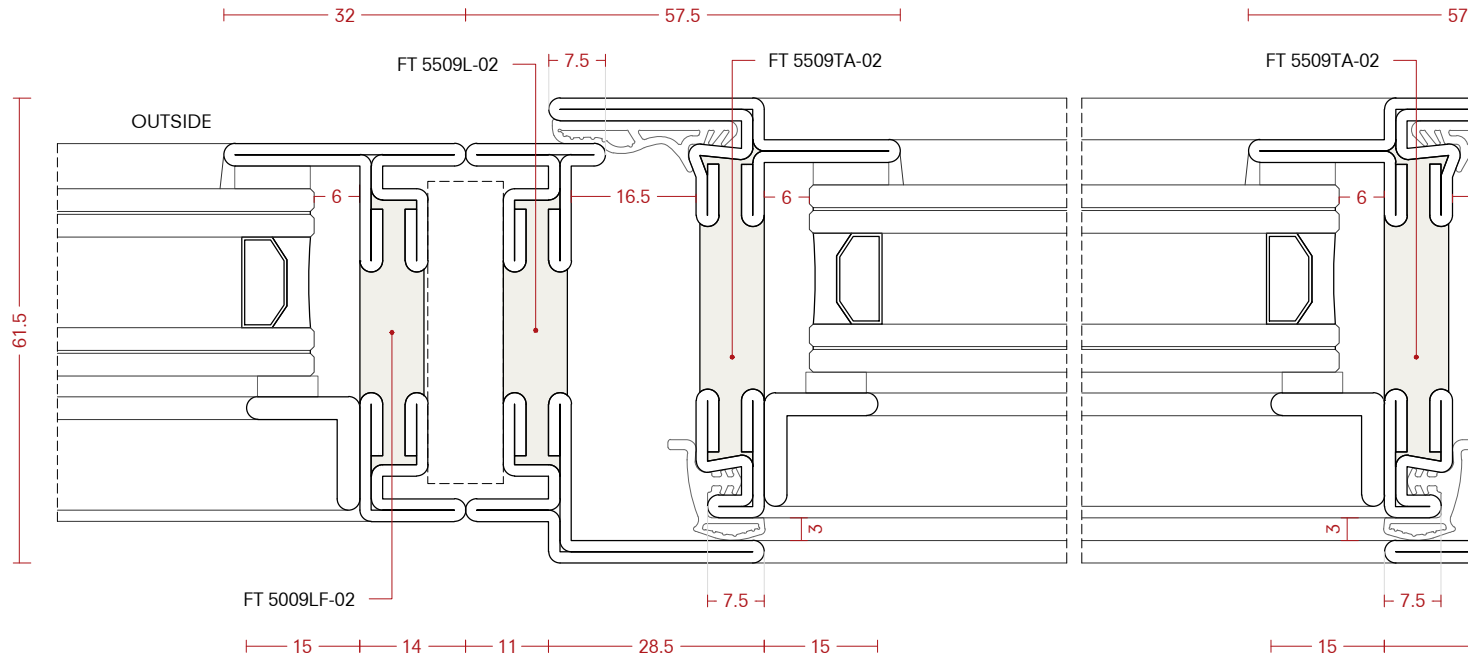
Per la distinta di taglio, considerare le corrette tolleranze di lavorazione e saldatura, in relazione all'aria necessaria nell'installazione e alla sigillatura scelta.

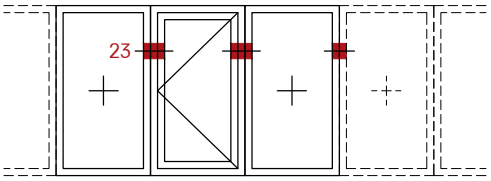
Combinación de marcos

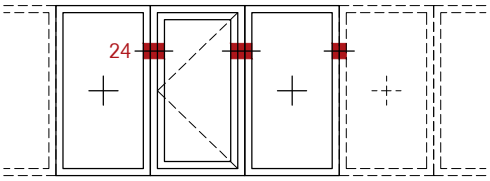
Nota:

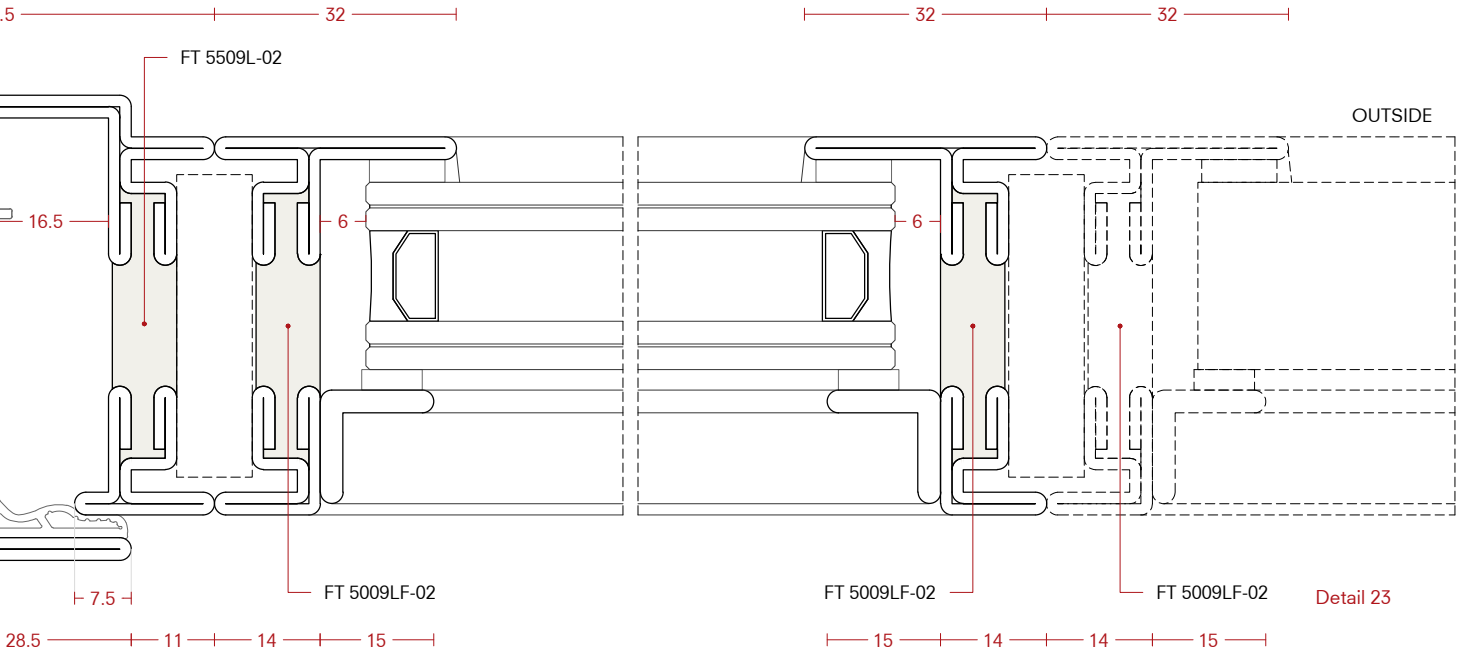
Para la lista de cortes, considere las correctas tolerancias de mecanizado y soldadura, en relación al aire requerido en la instalación y el sello elegido.



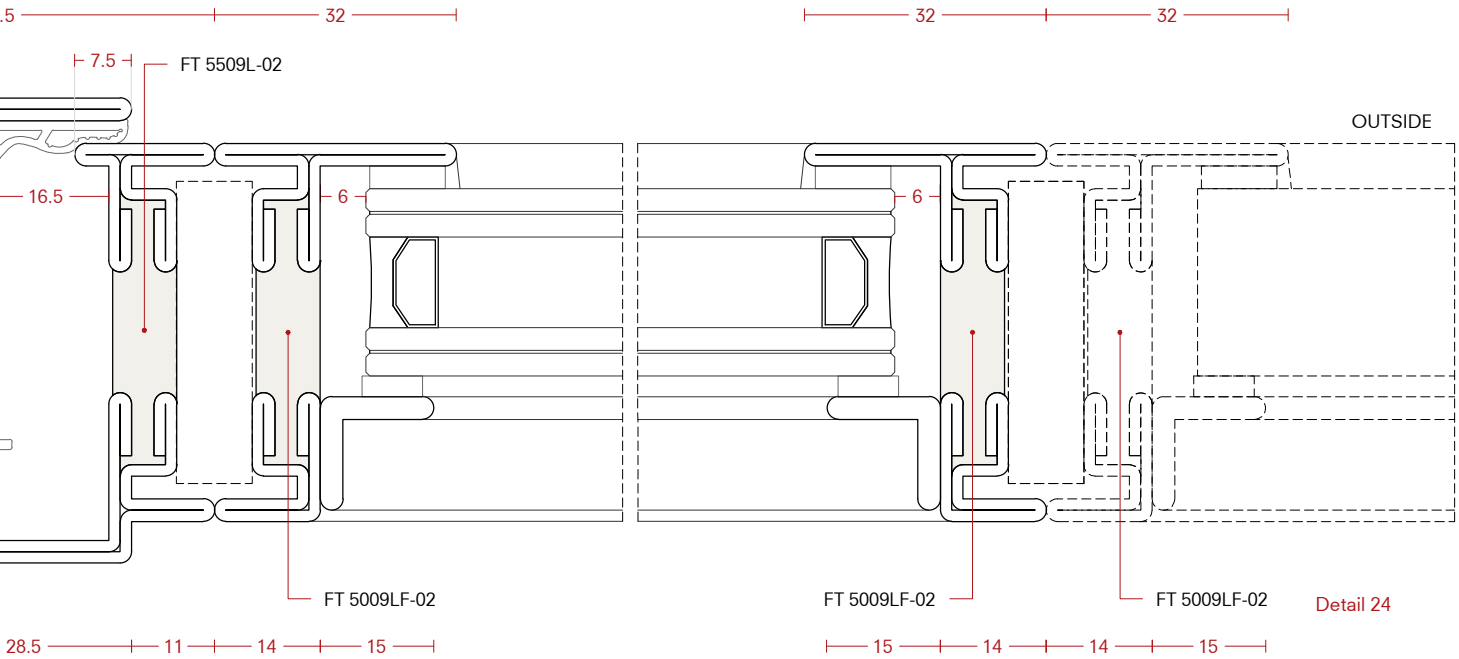








Detail 23



Detail 24

Door details

Sezioni porte

Detalles de puertas

Legend

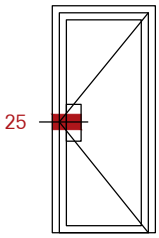
+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm
Scale 1:1 - 1:2

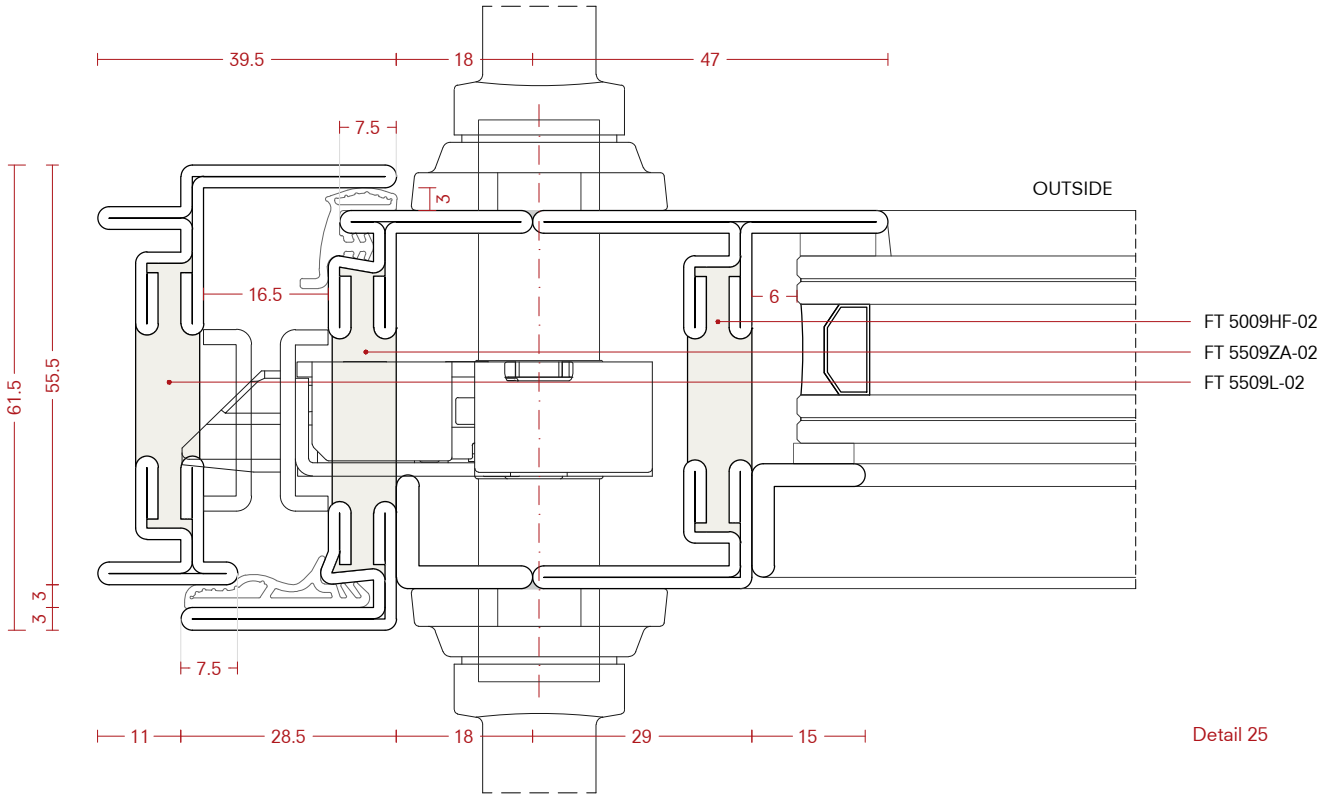
Legenda

+ = 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 25

Note:

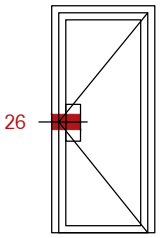
For the installation of the locks, please consult the processing sheets in the dedicated paragraph 5.4

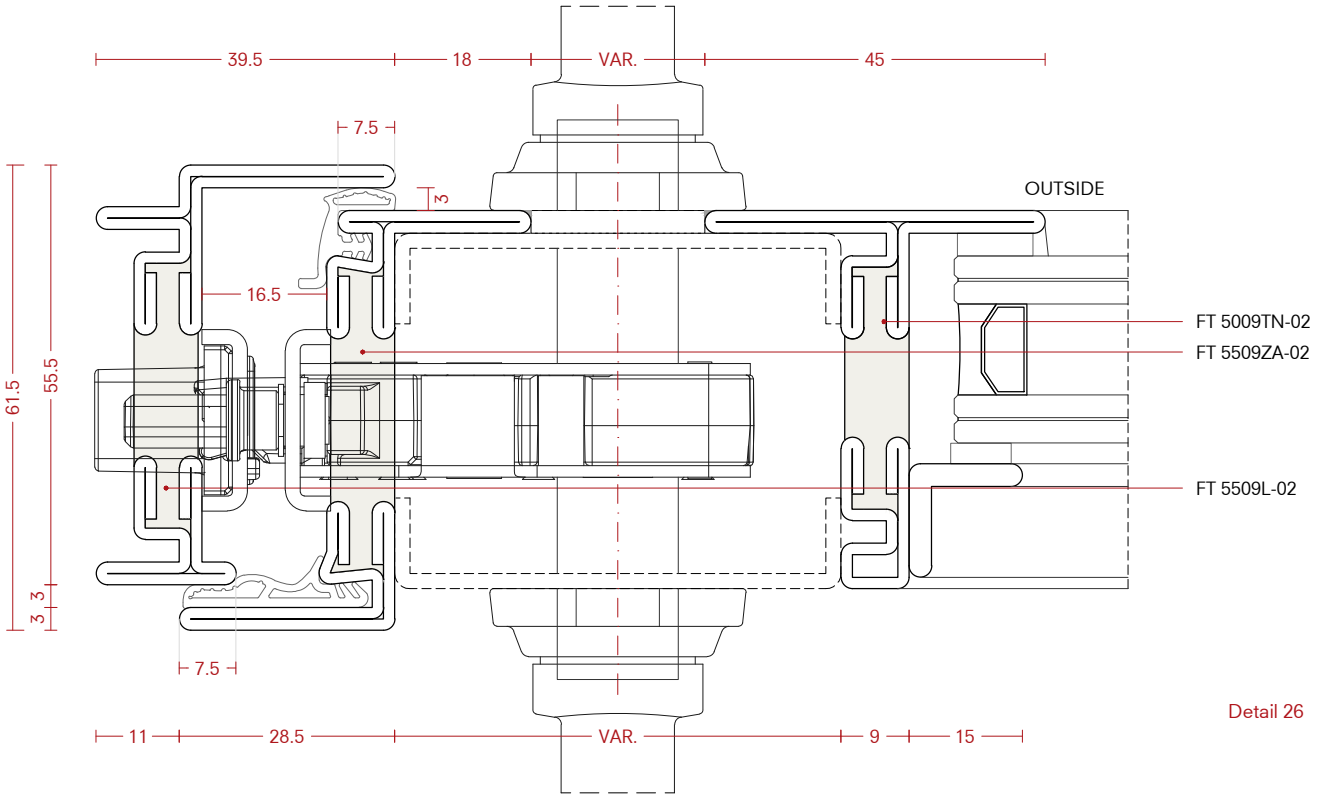
Nota:

Per l'installazione delle serrature si prega di consultare le schede di lavorazione al paragrafo dedicato 5.4

Nota:

Para la instalación de las cerraduras, consulte las hojas de procesamiento en el párrafo específico 5.4





Detail 26

Note:

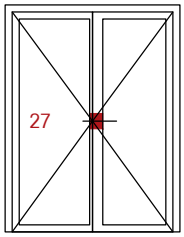
For the installation of the locks, please consult the processing sheets in the dedicated paragraph 5.4

Nota:

Per l'installazione delle serrature si prega di consultare le schede di lavorazione al paragrafo dedicato 5.4

Nota:

Para la instalación de las cerraduras, consulte las hojas de procesamiento en el párrafo específico 5.4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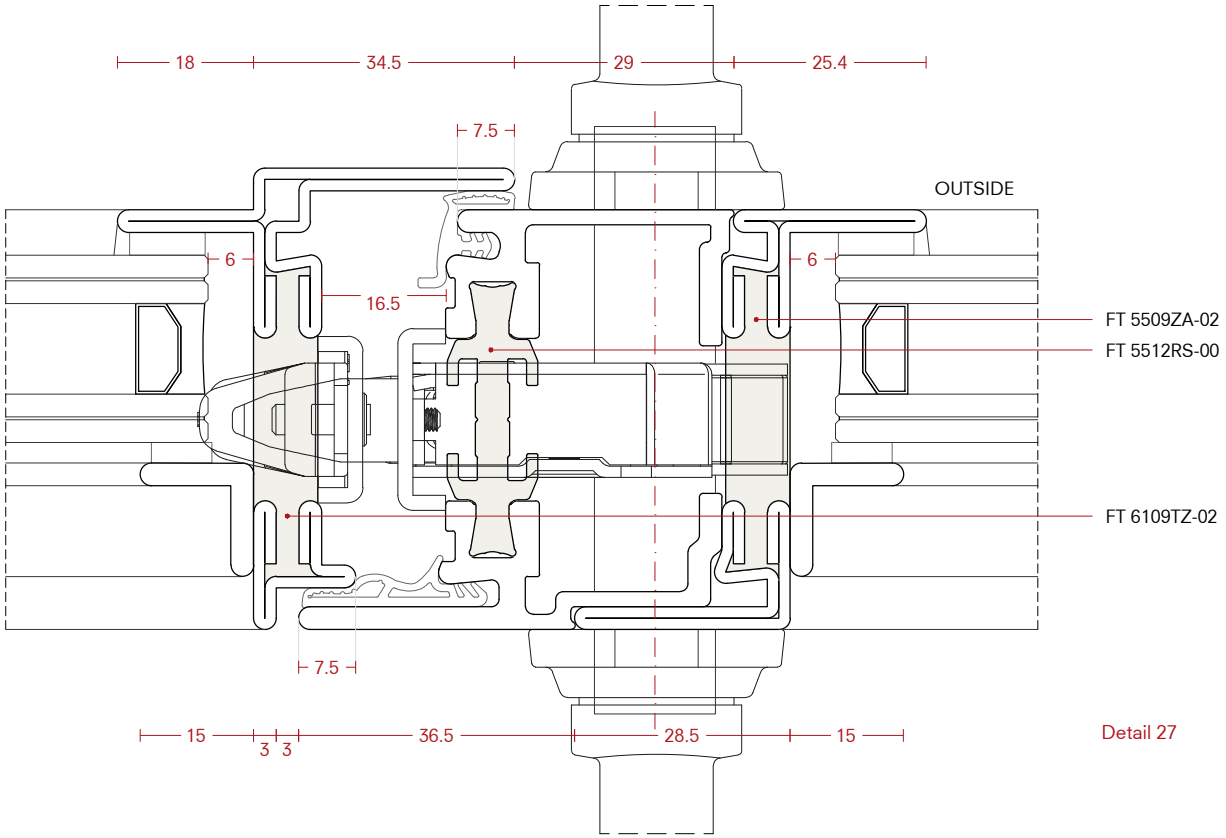
18
34.5
29
25.4
7.5
OUTSIDE
6
6
16.5
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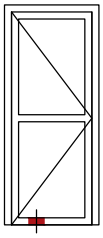
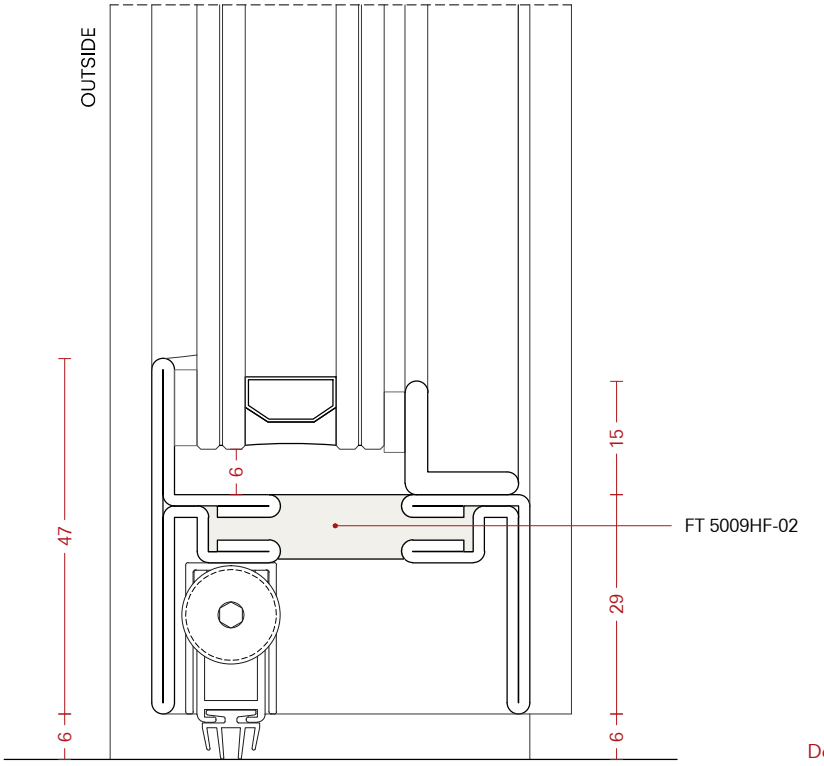
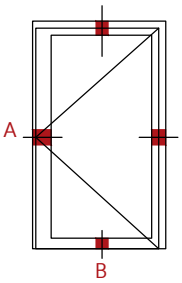
FT 5512RS-00
FT 6109TZ-02
7.5
15
3
3
36.5
28.5
15

Detail 27

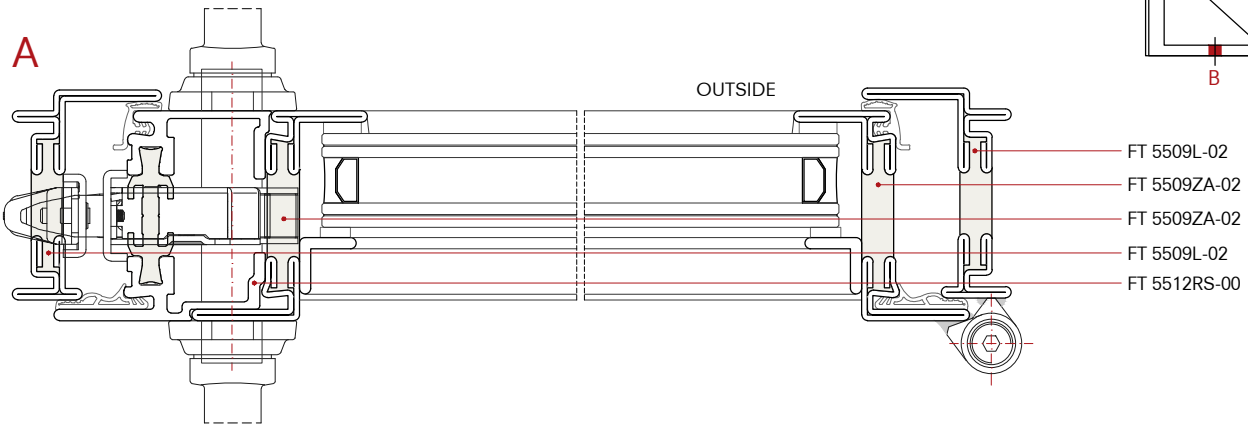




Detail 28


A
B

A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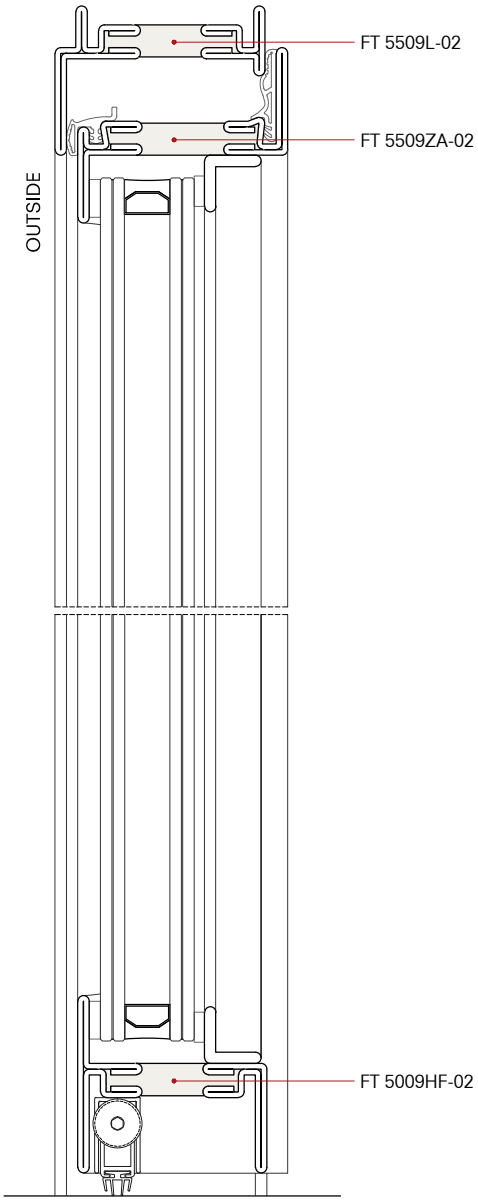
FT 5512RS-00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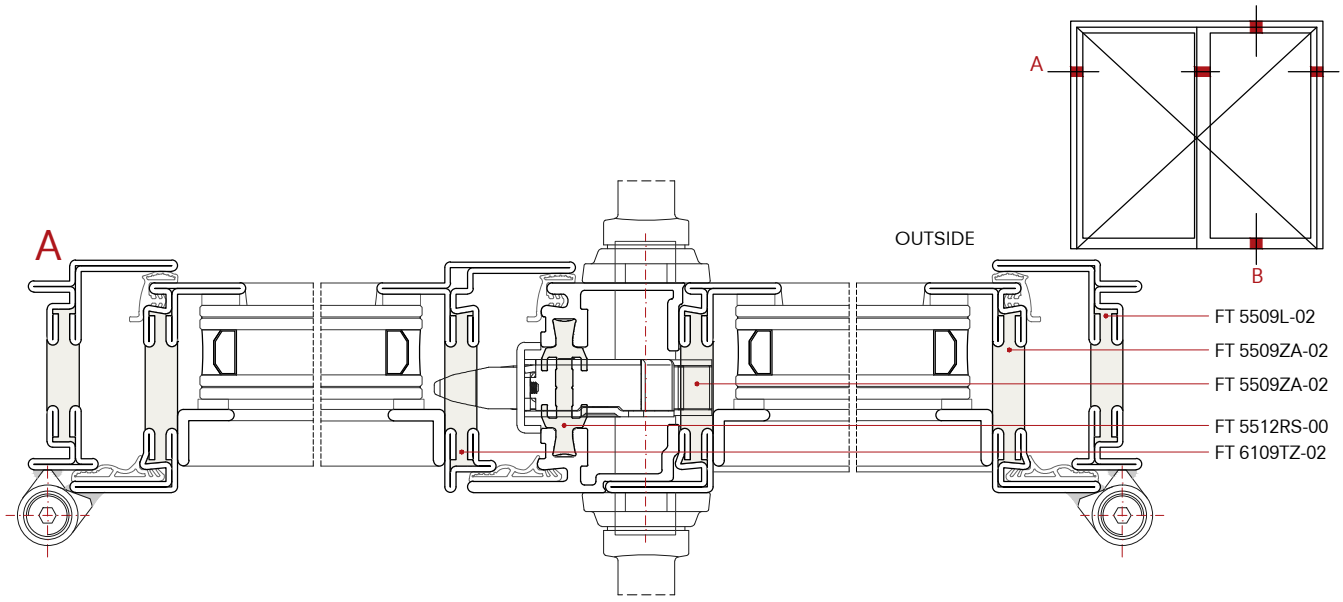
FT 5009HF-02

B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FT 5509ZA-02
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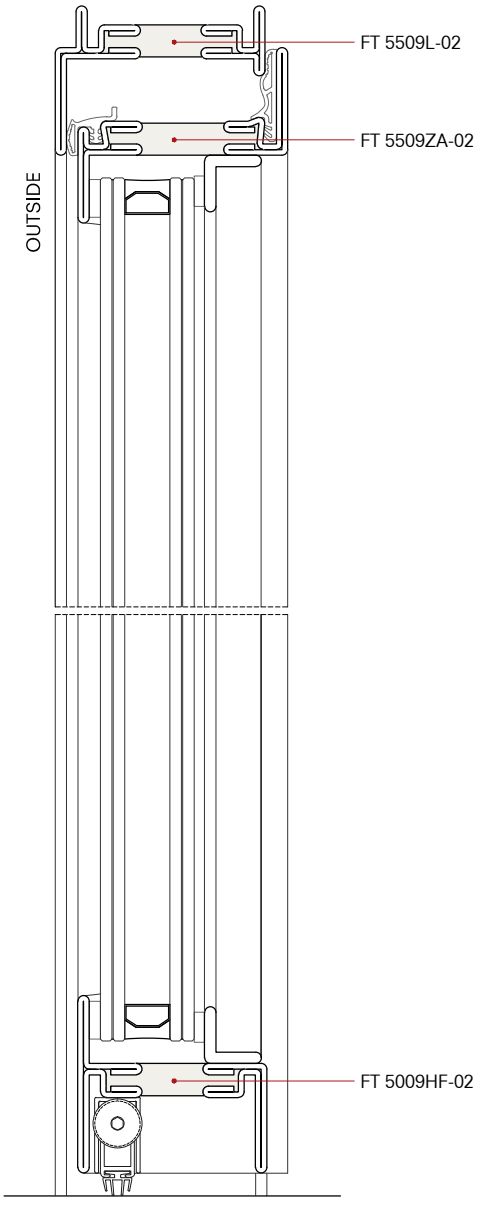
FT 6109TZ-02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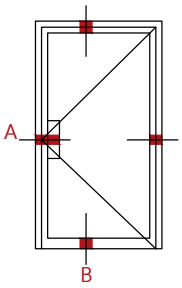
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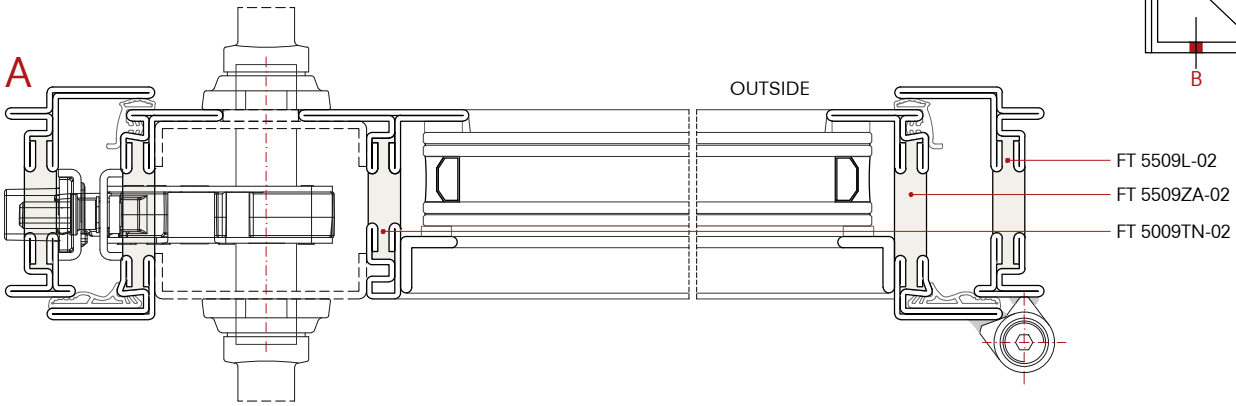
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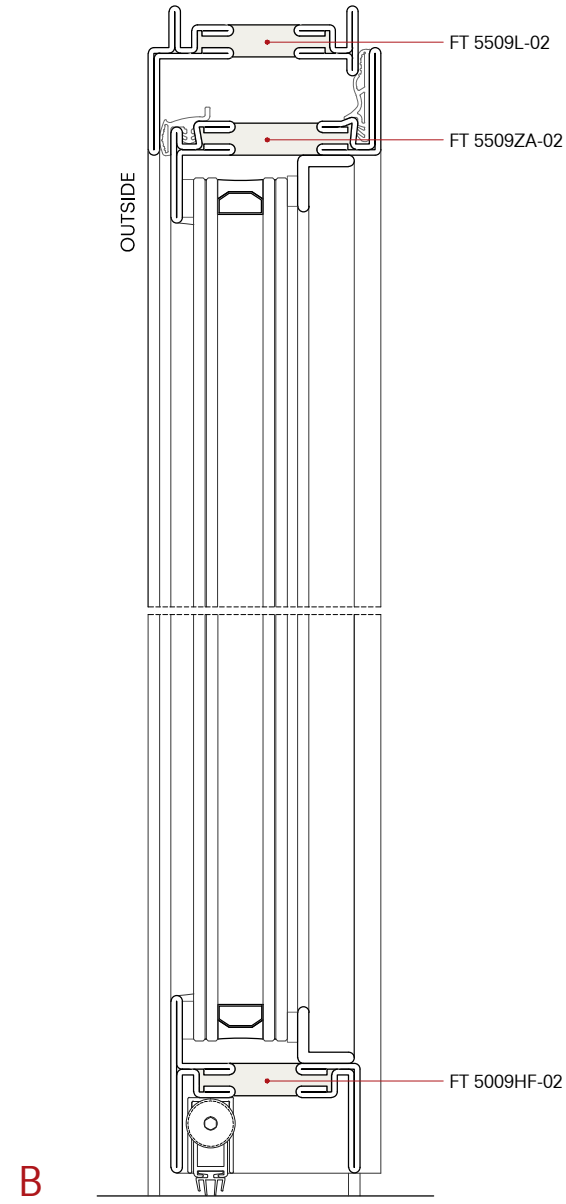
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OUTSIDE
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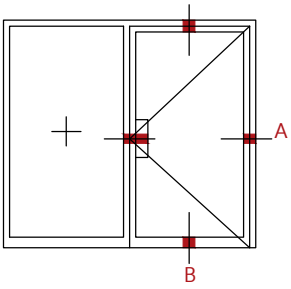
B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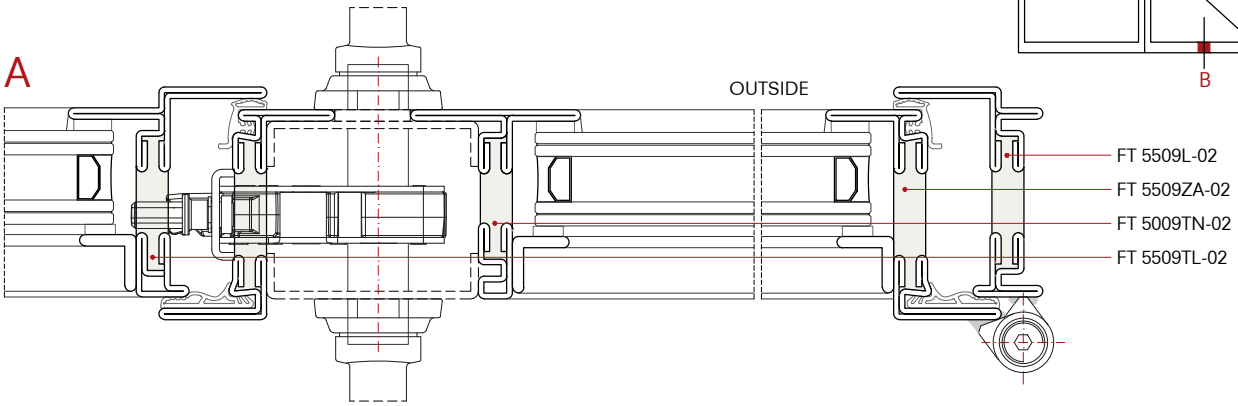
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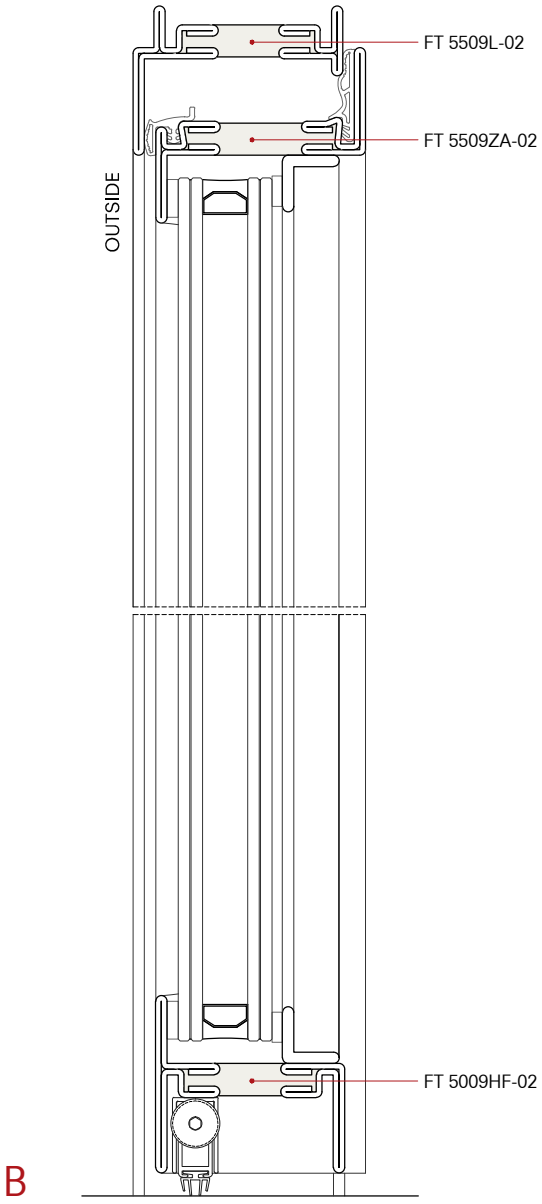
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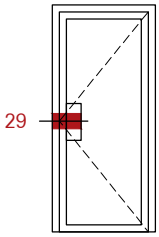
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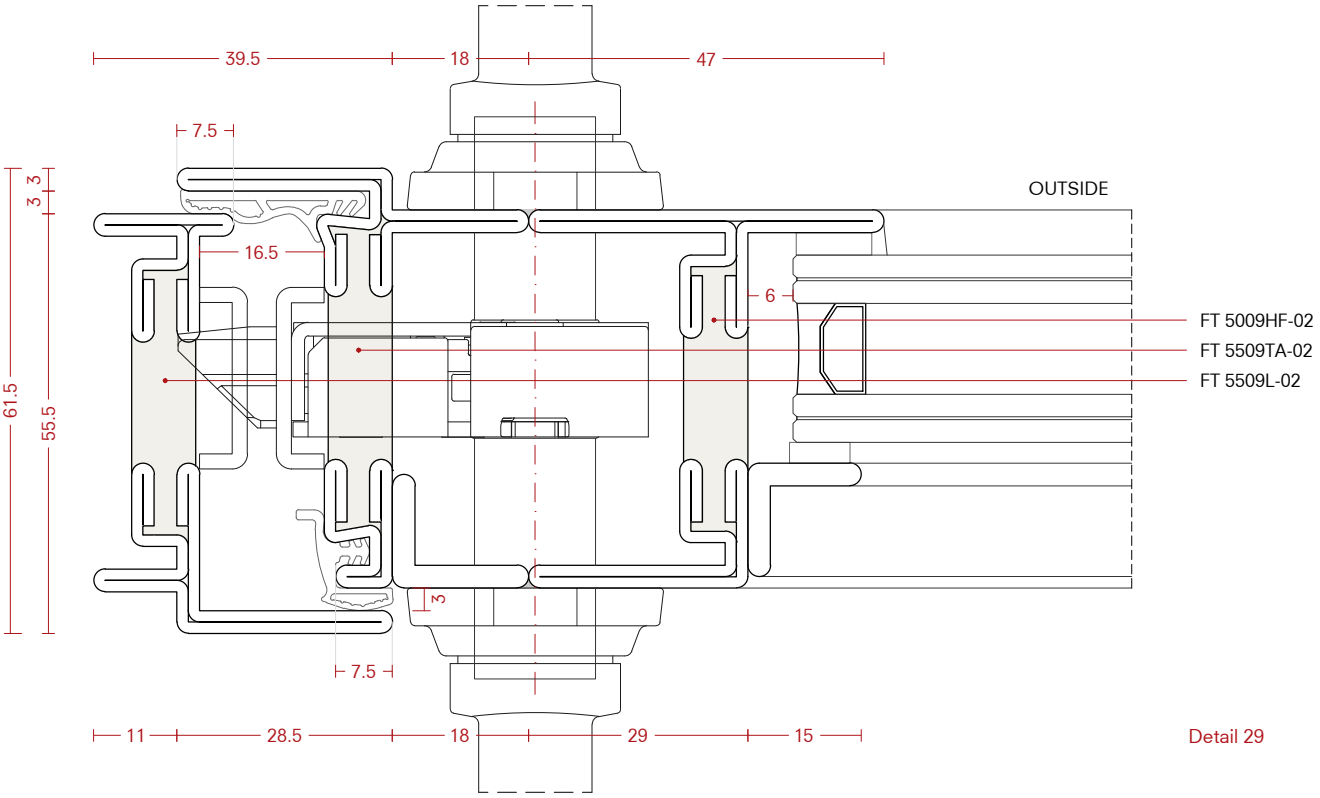
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11
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18
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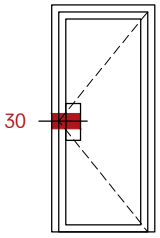
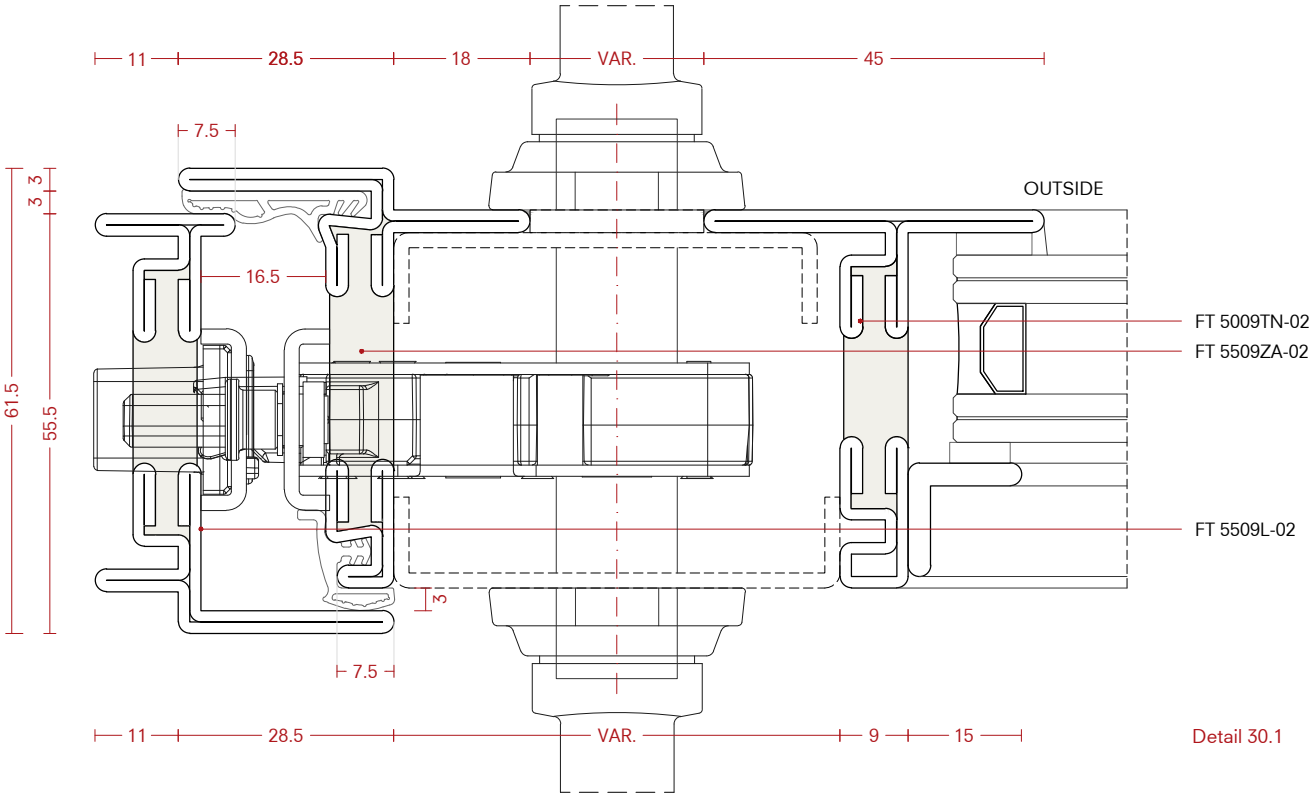
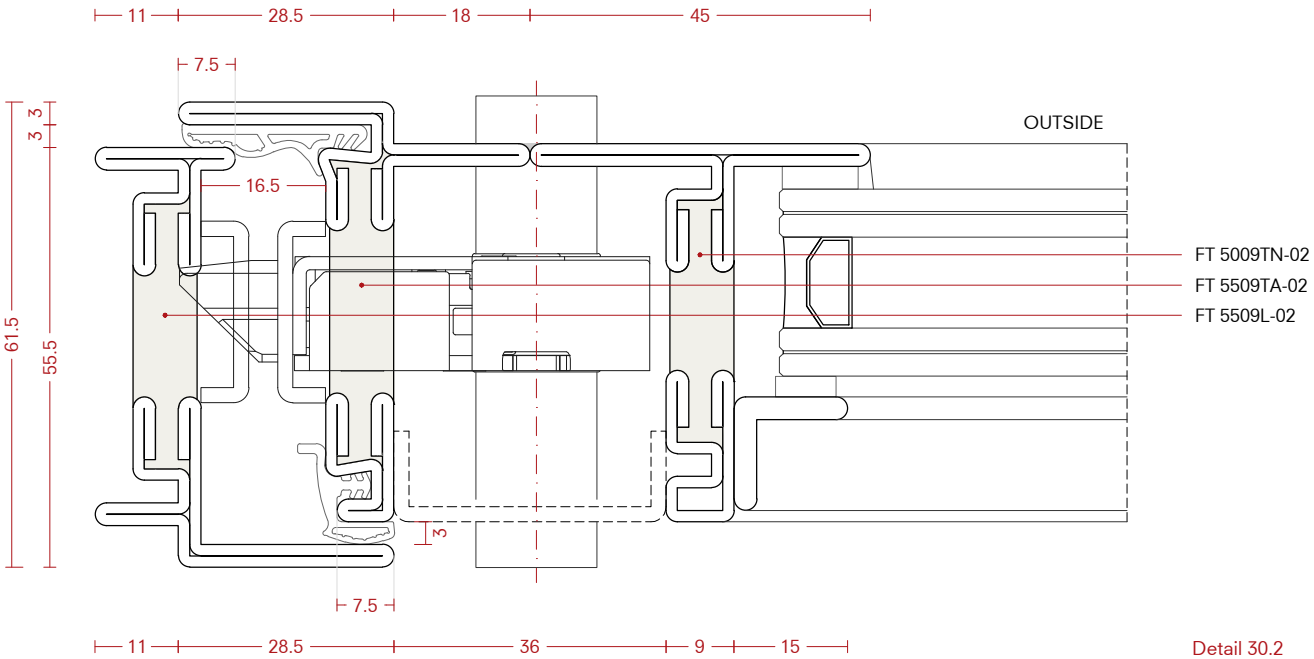
15

Detail 29





Detail 30.1



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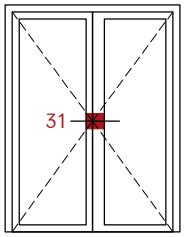
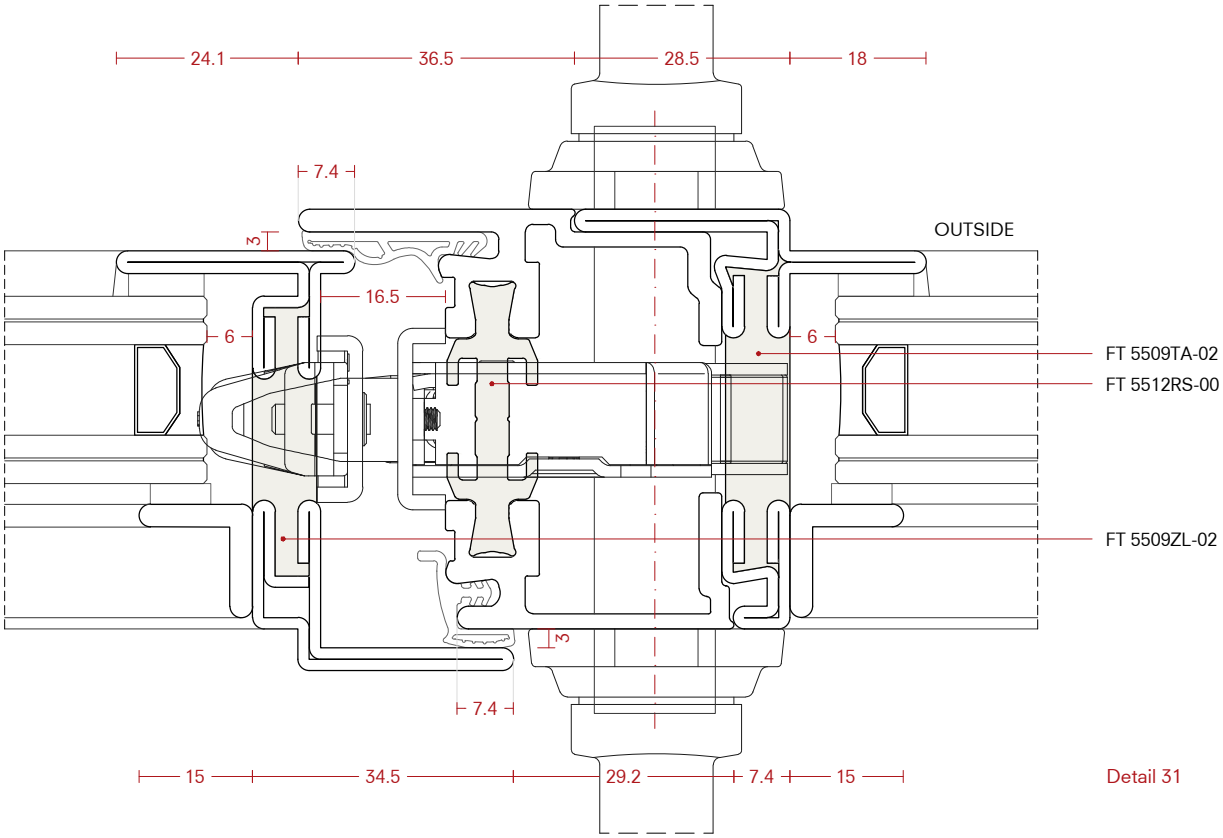




Note:

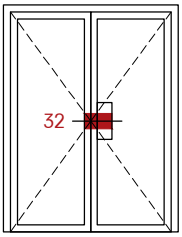
For the installation of the locks, please consult the processing sheets in the dedicated paragraph 5.4

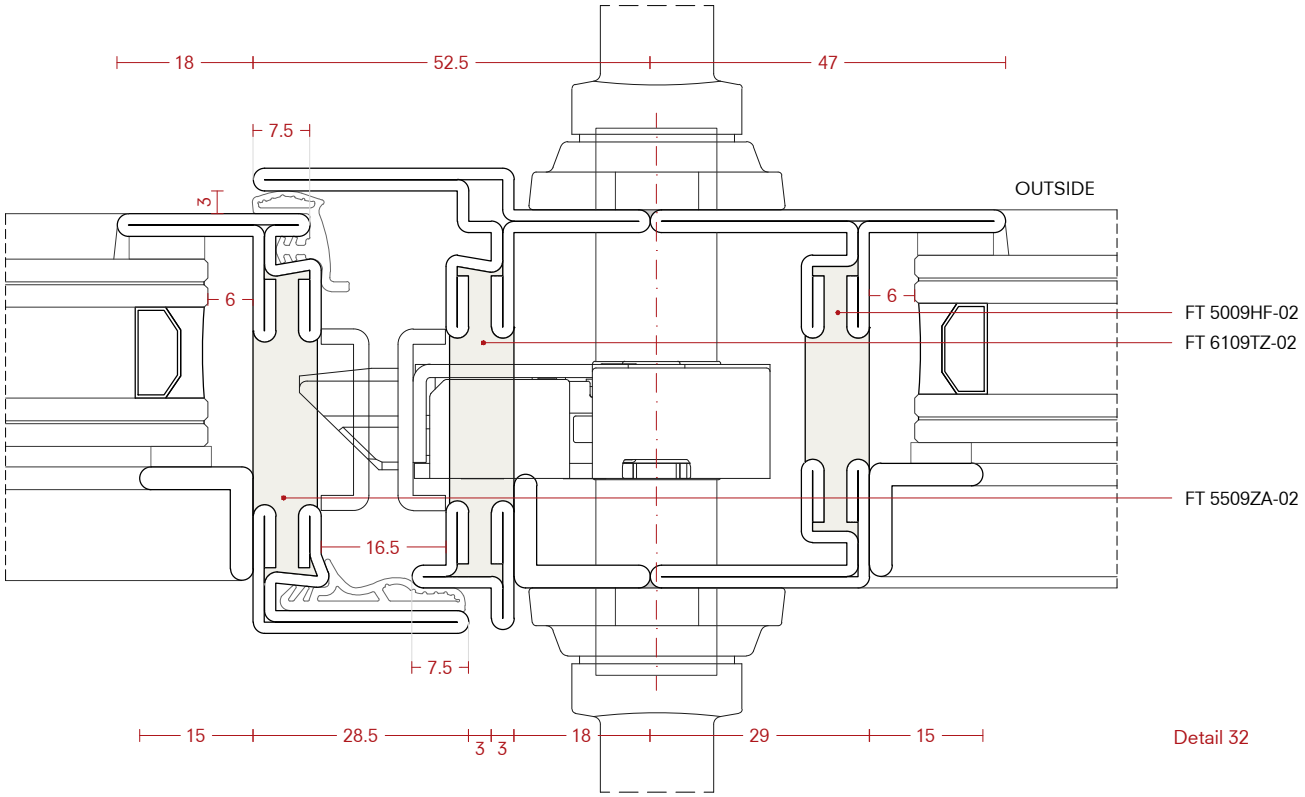
Nota:

Per l'installazione delle serrature si prega di consultare le schede di lavorazione al paragrafo dedicato 5.4

Nota:

Para la instalación de las cerraduras, consulte las hojas de procesamiento en el párrafo específico 5.4





Note:

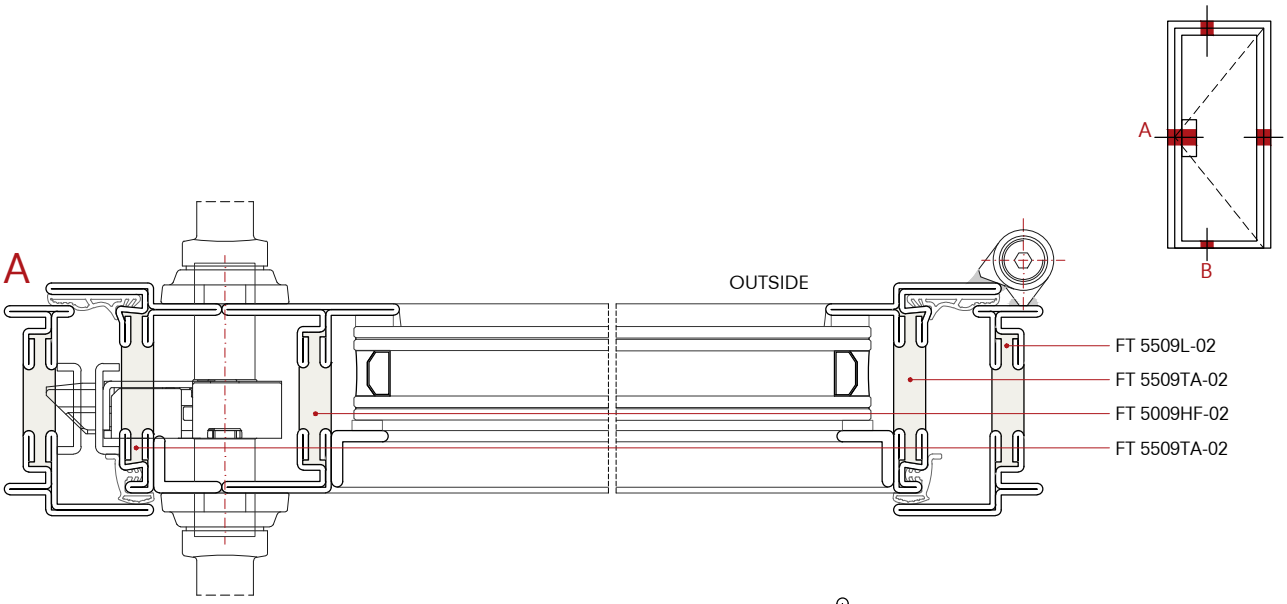
For the installation of the locks, please consult the processing sheets in the dedicated paragraph 5.4

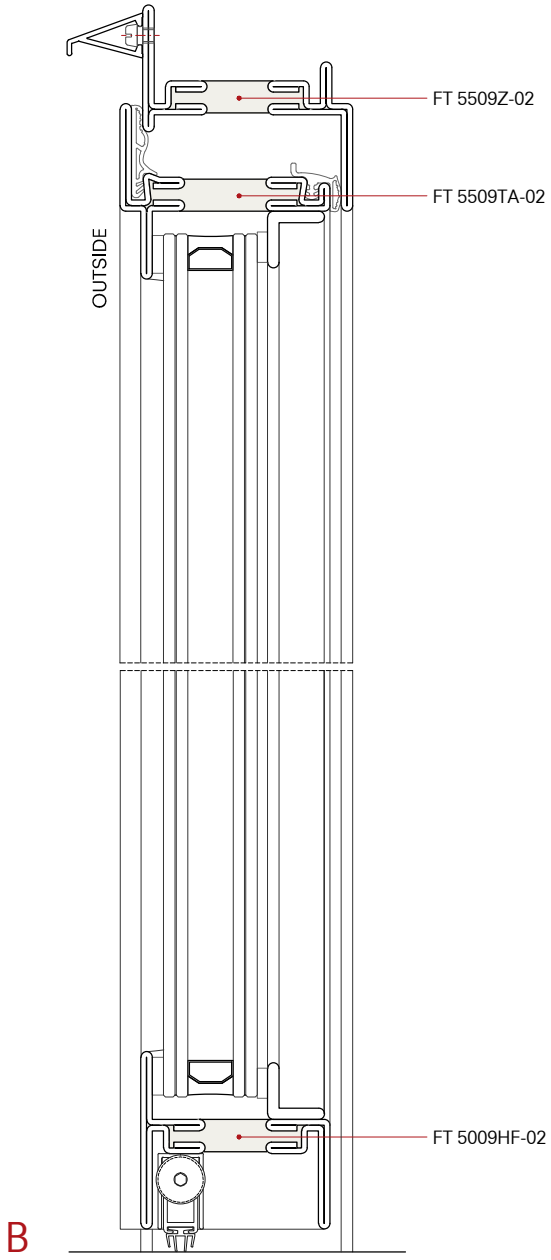
Nota:

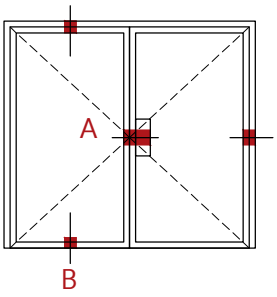
Per l'installazione delle serrature si prega di consultare le schede di lavorazione al paragrafo dedicato 5.4

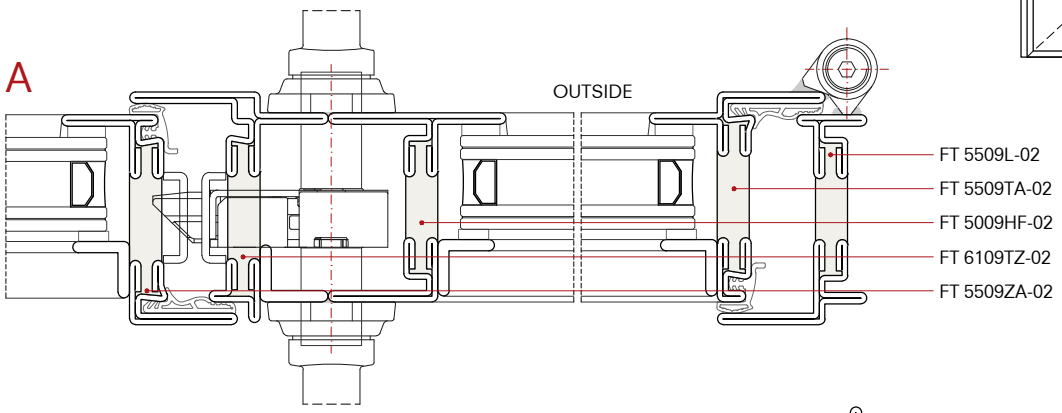
Nota:

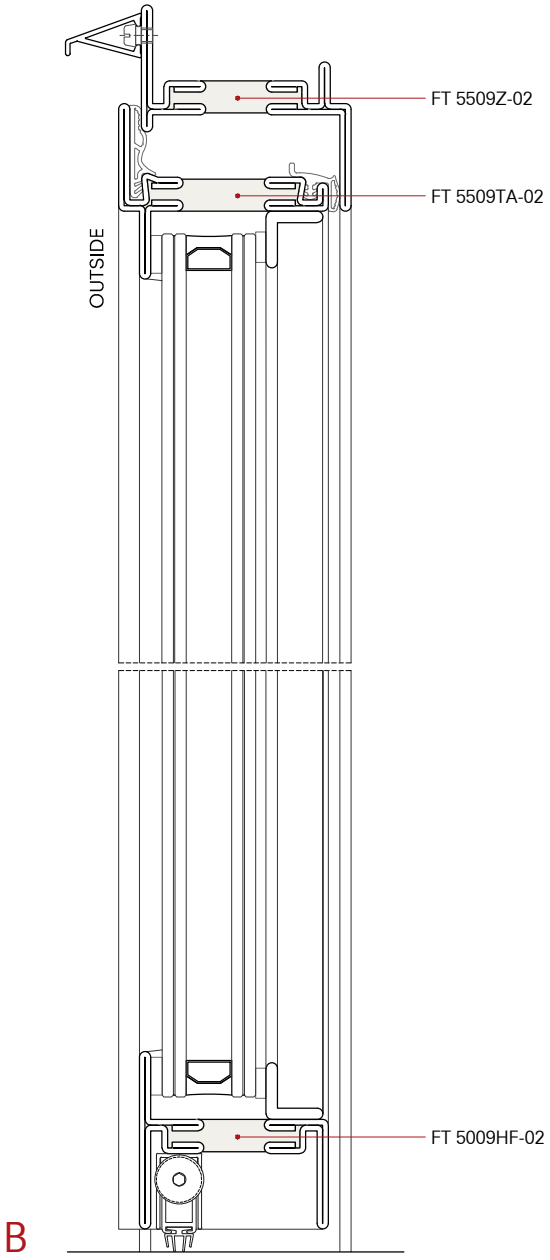
Para la instalación de las cerraduras, consulte las hojas de procesamiento en el párrafo específico 5.4

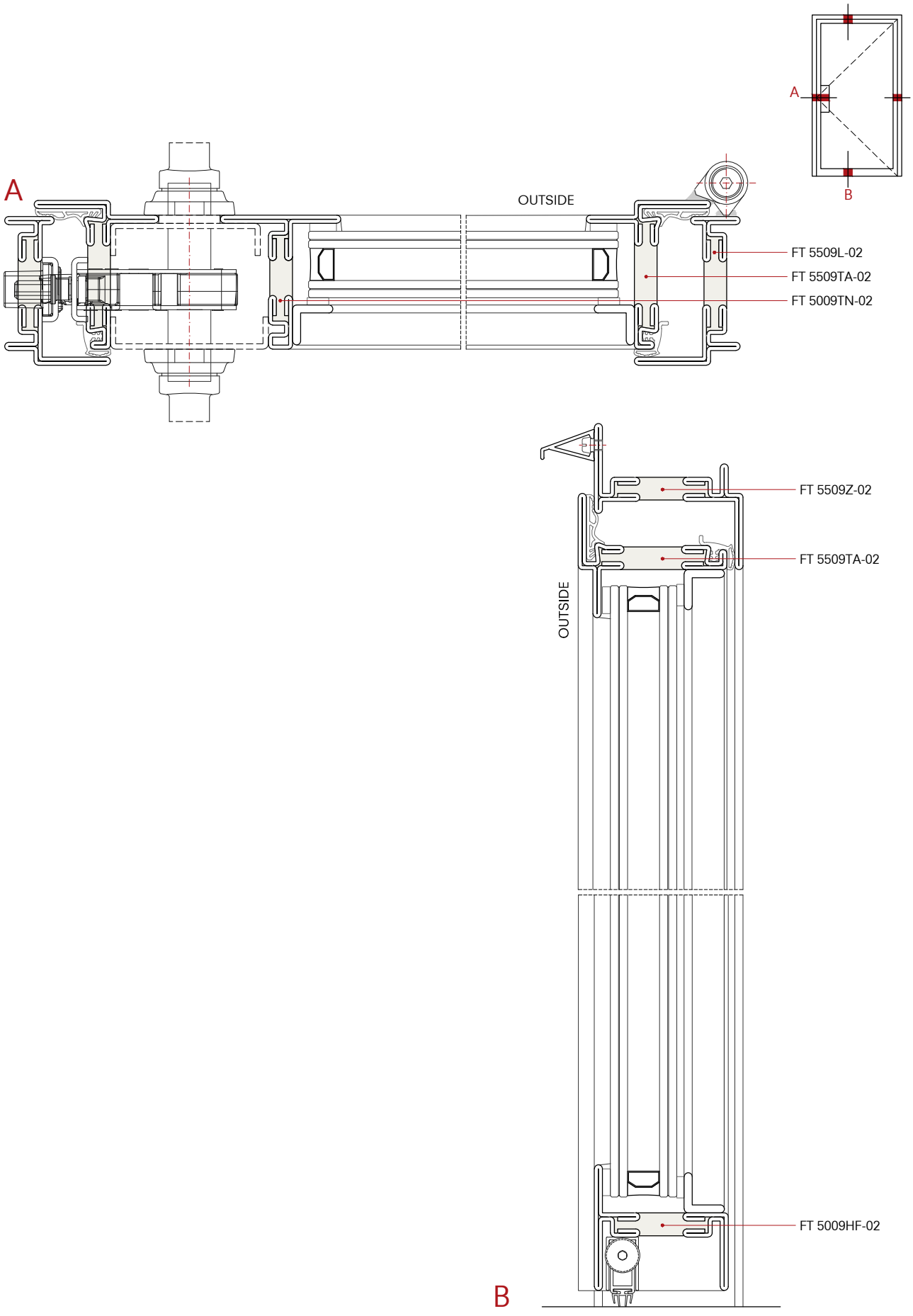

A
B
A
OUTSIDE
FT 5509L-02
FT 5509TA-02
FT 5009HF-02
FT 5509TA-02

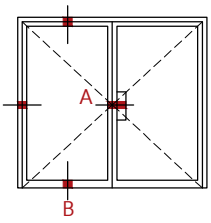

FT 5509Z-02
FT 5509TA-02
OUTSIDE
FT 5009HF-02
B

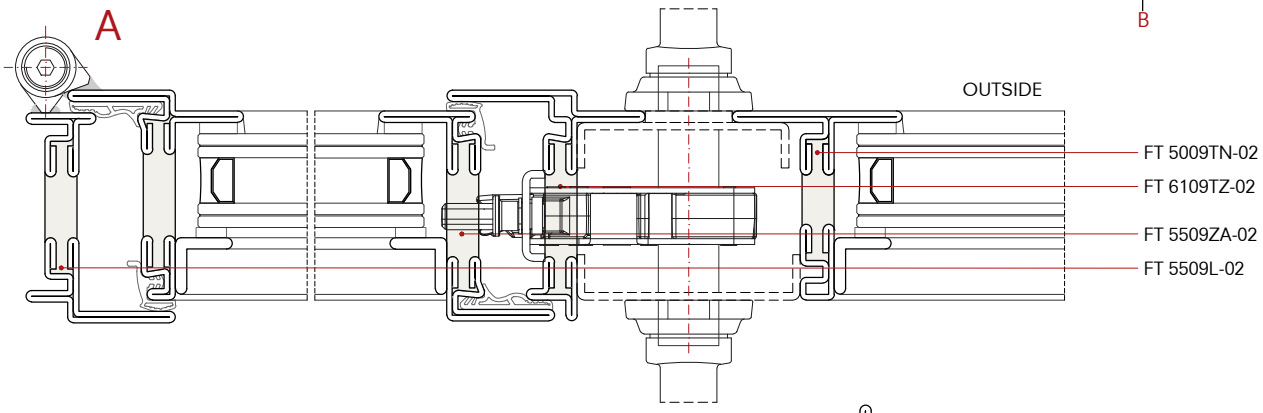

A
B

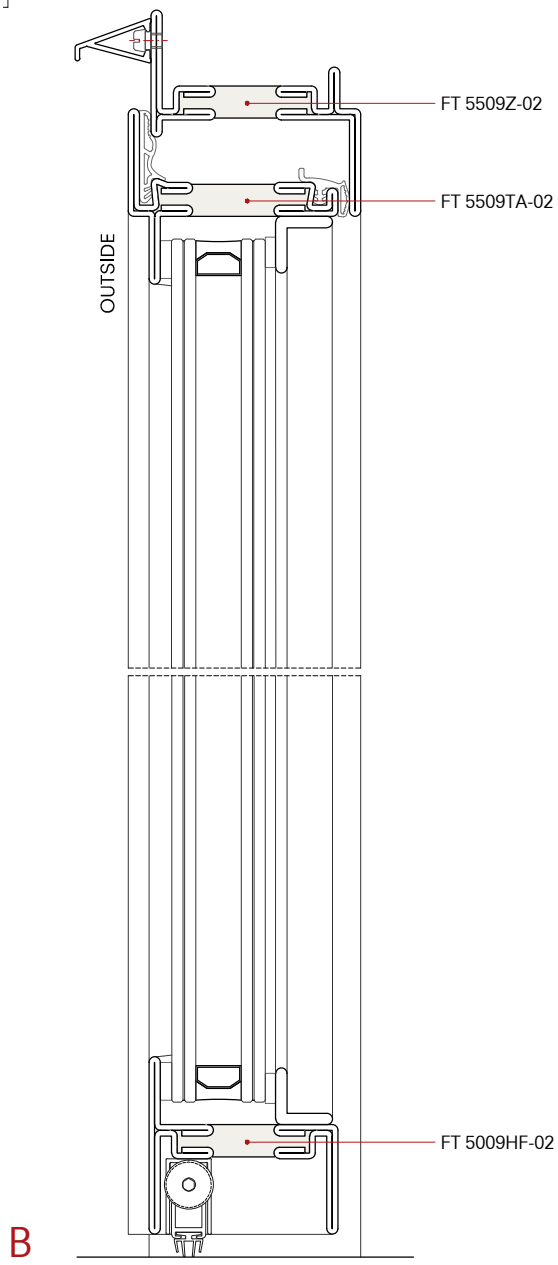

A
OUTSIDE
FT 5509L-02
FT 5509TA-02
FT 5009HF-02
FT 6109TZ-02
FT 5509ZA-02


FT 5509Z-02
FT 5509TA-02
OUTSIDE
FT 5009HF-02
B


A
B
A
OUTSIDE
FT 5509L-02
FT 5509TA-02
FT 5009TN-02
FT 5509Z-02
FT 5509TA-02
OUTSIDE
FT 5009HF-02
B


A
B


A
OUTSIDE
FT 5009TN-02
FT 6109TZ-02
FT 5509ZA-02
FT 5509L-02


FT 5509Z-02
FT 5509TA-02
OUTSIDE
FT 5009HF-02
B

Recommendations for installation

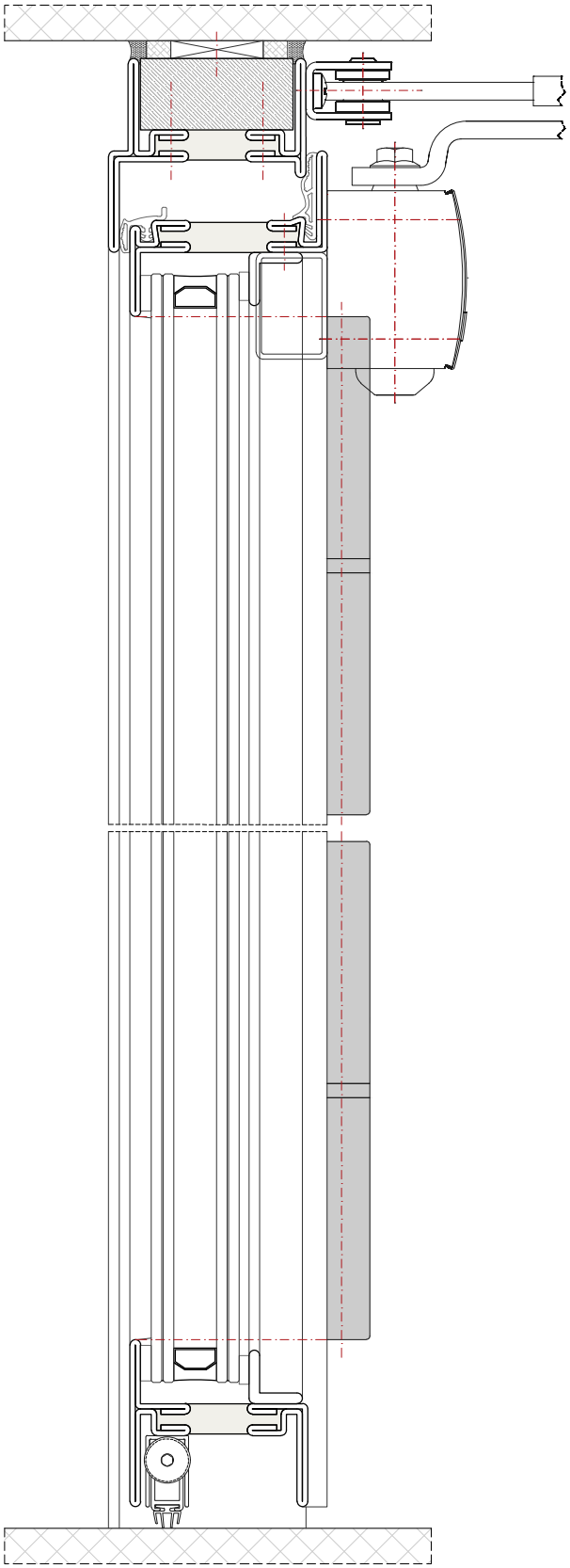
To instal an overhead door closer use profile FF 5509H-02

Raccomandazioni per l'installazione

Utilizzare il telaio FF 5509H-02 per installare il chiudiporta.

Recomendaciones para la instalación

Para el montaje de un cierrapuertas, utilizar el perfil FF 5509H-02



Details, structural connections

Dettagli di costruzione giunti d'angolo

Detalles de construcción

Legend

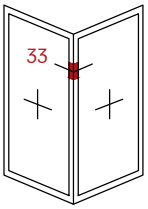
+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm
Scale 1:1

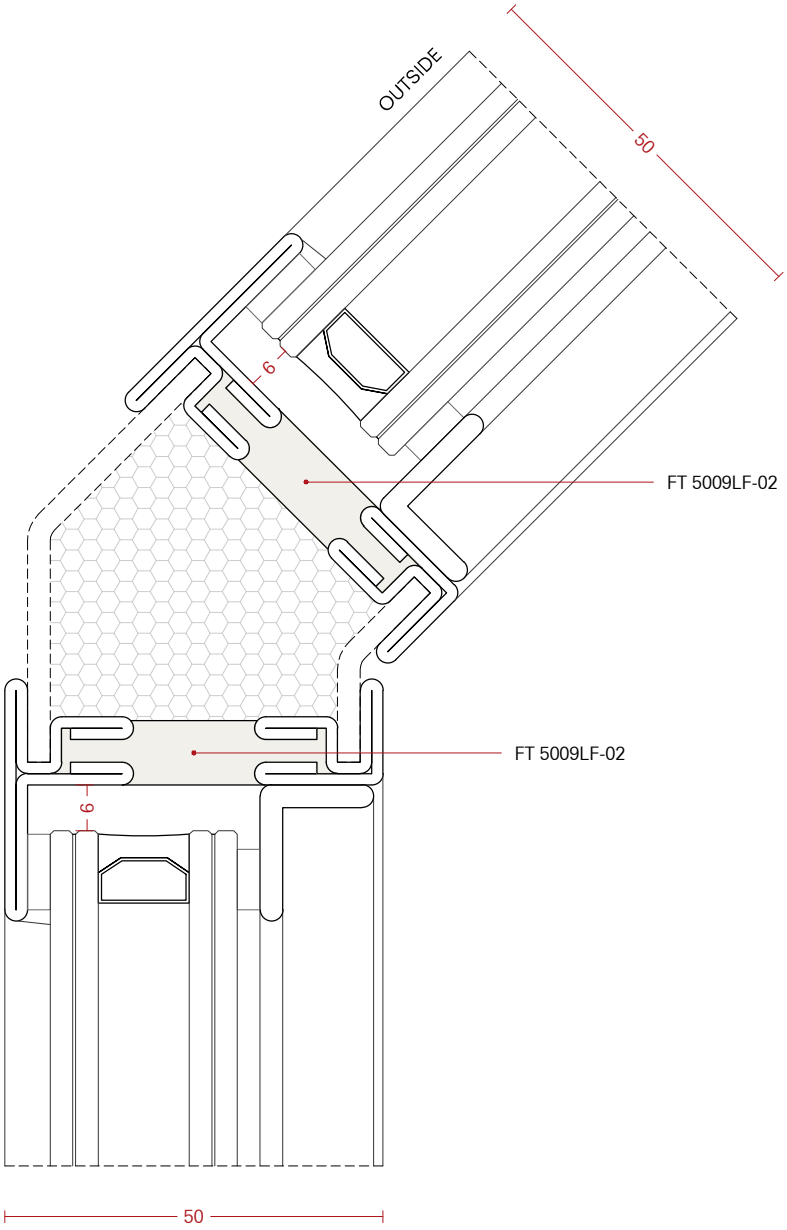
Legenda

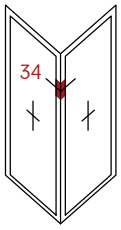
+ = Anta fissa
—— = Apertura interna
- - - = Apertura esterna
Misure in: mm
Scala 1:1

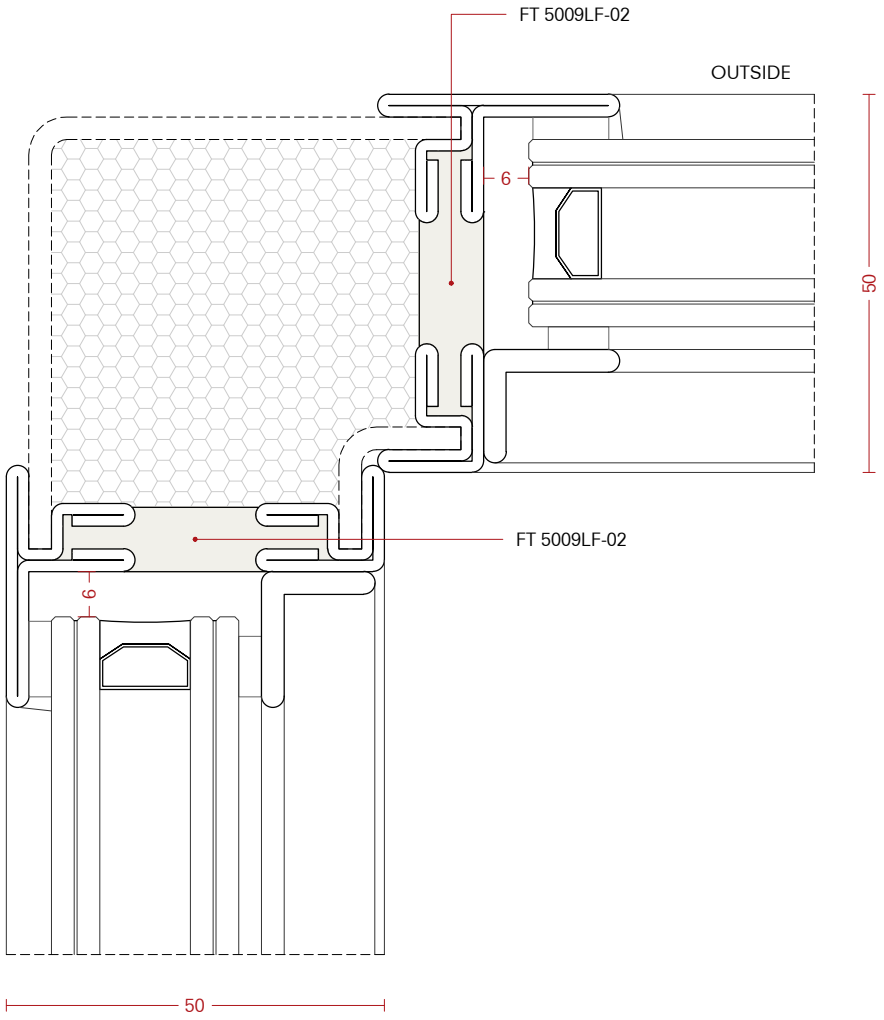
Leyenda

+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm
Escala 1:1


33


OUTSIDE
50
6
FT 5009LF-02
FT 5009LF-02
6
50


34


FT 5009LF-02
OUTSIDE
6
50
FT 5009LF-02
6
50

Wall connections
Attacchi a muro
Cierres constructivos

Legend

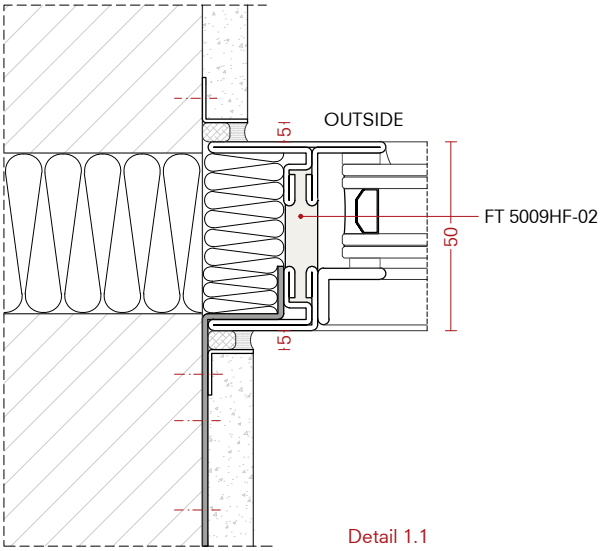
+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm
Scale 1:2

Legenda

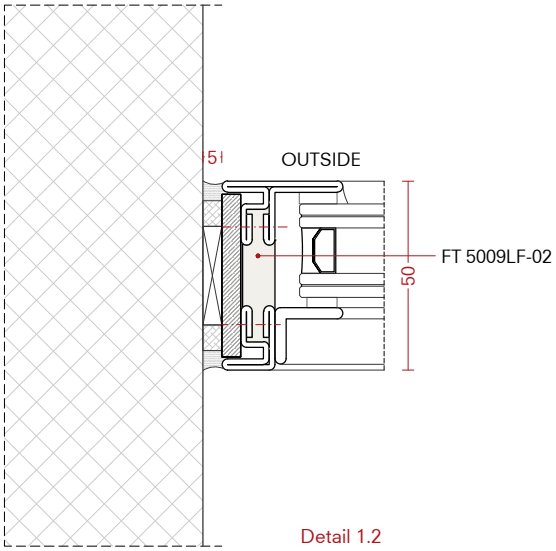
+ = Anta fissa
—— = Apertura interna
- - - = Apertura esterna
Misure in: mm
Scala 1:2

Leyenda

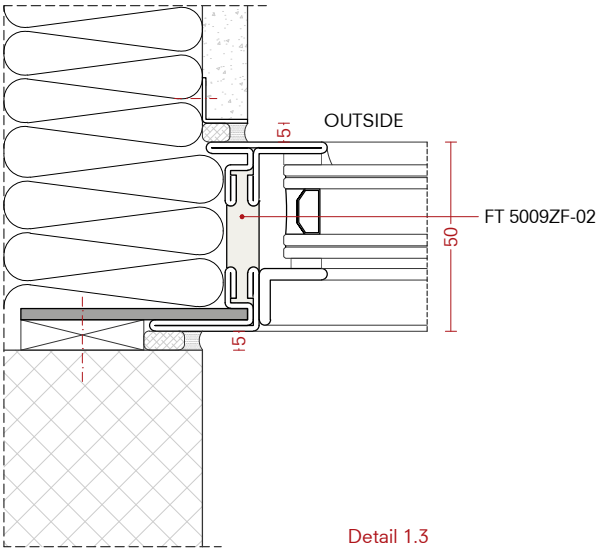
+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm
Escala 1:2



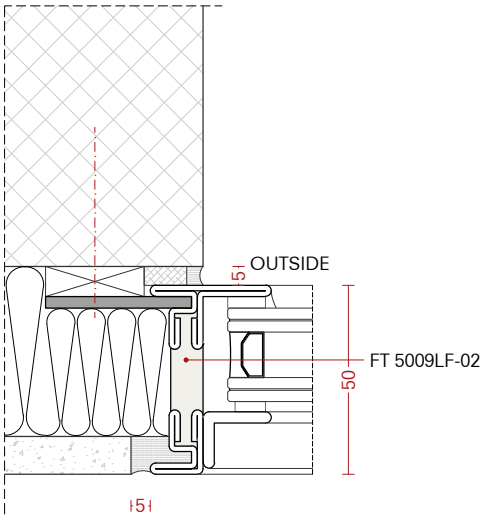
Detail 1.1



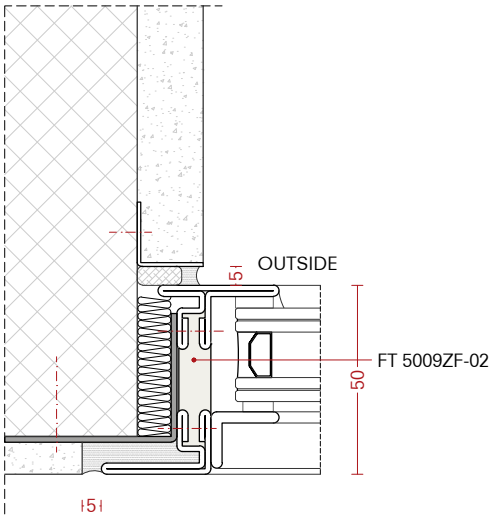
Detail 1.2



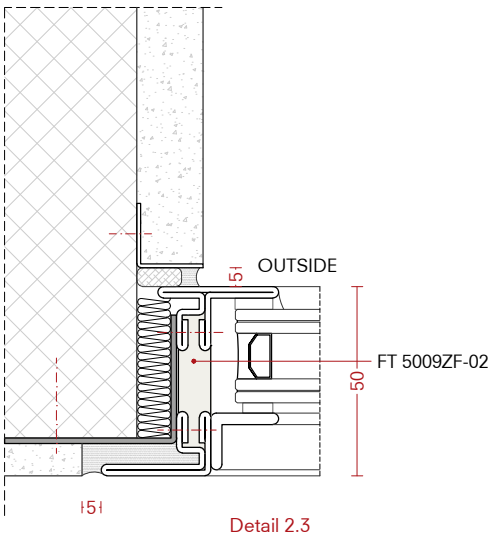
Detail 1.3



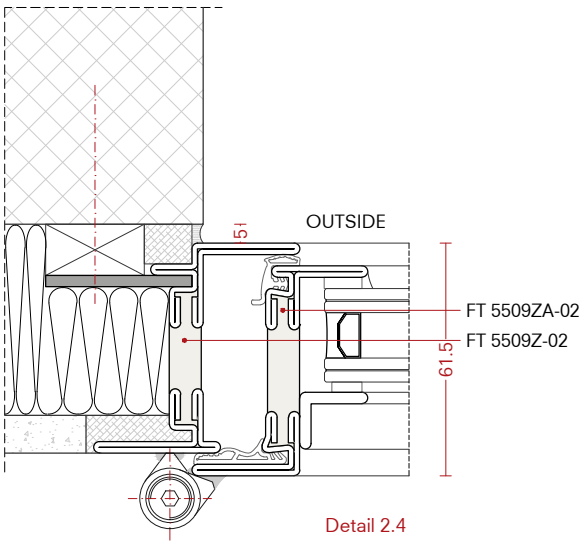
Detail 2.1



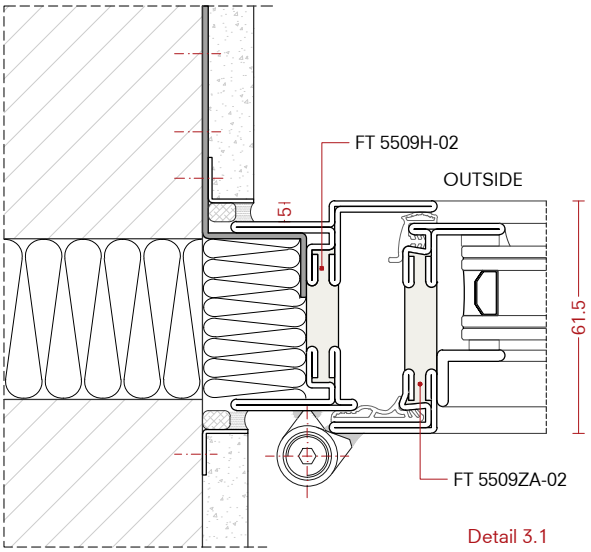
Detail 2.2



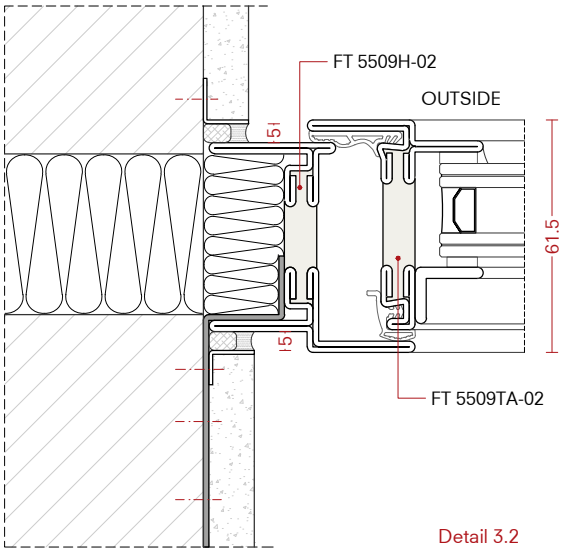
Detail 2.3



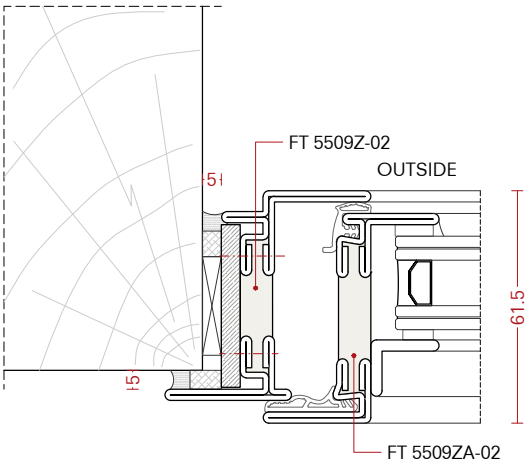
Detail 2.4



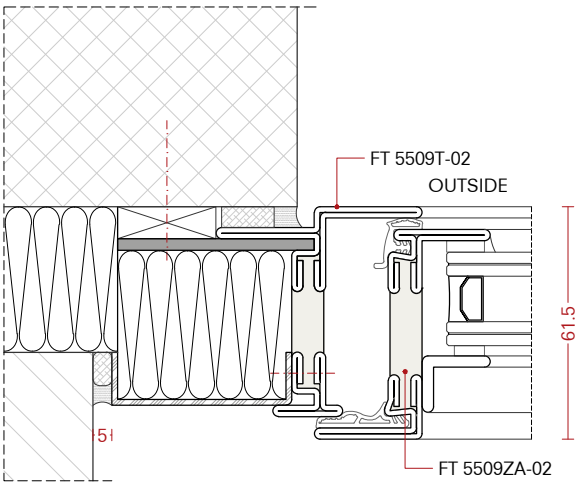
Detail 3.1



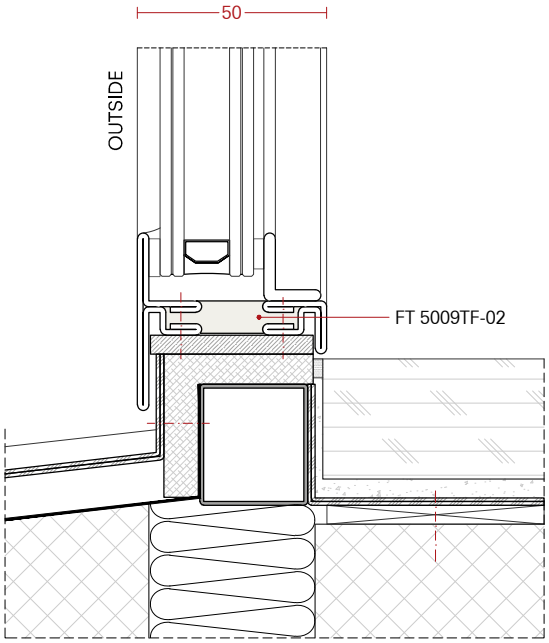
Detail 3.2



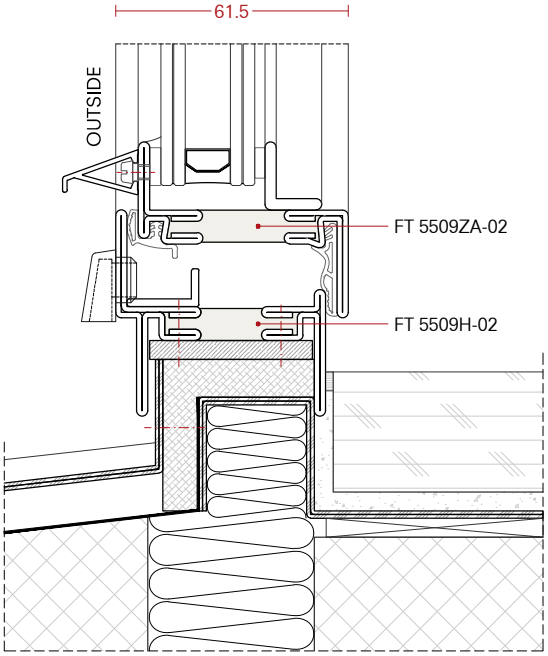
Detail 3.3



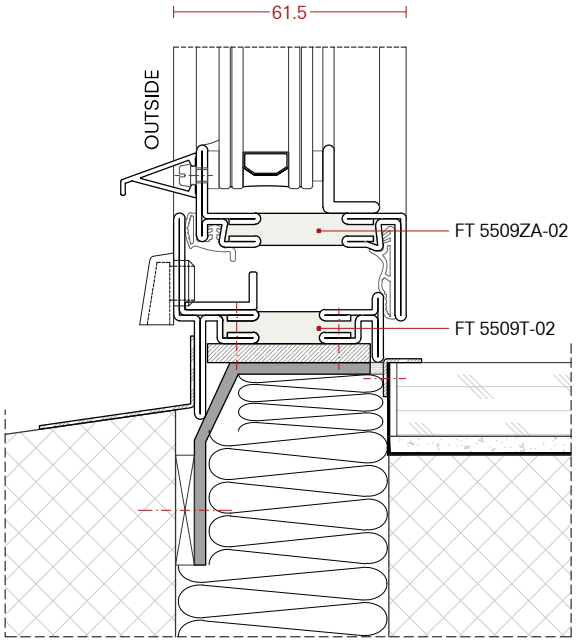
Detail 3.4



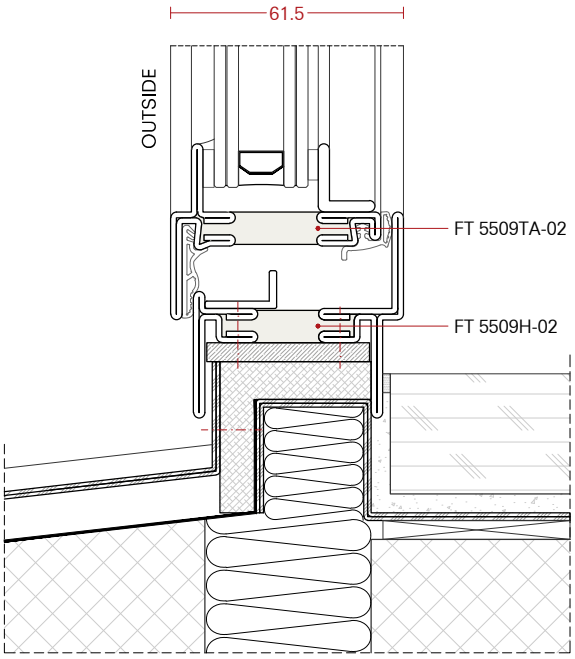
Detail 4.1



Detail 4.2



Detail 4.3



Detail 4.4

Processing	**Lavorazioni**	**Procesamiento**	5.0
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:	
Gaskets	Guarnizioni	Juntas de sellado	5.4
System accessories	Accessori di sistema	Accesorios del sistema	5.5
Hinges	Cerniere	Bisagras	5.6
Flush bolts	Catenacci	Pasador de canto	5.7
General fittings	Ferramenta generale	Herrajes generales	5.8
Handles	Maniglie	Manillas	5.9
Locks	Serrature	Cerraduras	5.10
Multipoint standard rods with lever handle installation	Montaggio Multipoint aste standard con cariglione	Montaje Multipoint varillas estándar con manija de bloqueo	5.11
Multipoint steel rods installation, with Heritage	Montaggio Multipoint aste in acciaio, con Heritage	Montaje Multipoint varillas de acero, con Heritage	5.12
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	5.13
Glazing	Vetrazione	Acristalamiento	5.14

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

W50 TB profiles with polyurethane 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 polyurethane 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 polyurethane items releases gaseous substances containing aldehydes and CO. 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 W50 TB a taglio termico con poliuretano 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 poliuretano 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 poliuretano libera sostanze gassose a base di aldeidi e CO: 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 W50 TB con separadores de poliuretano 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 poliuretano 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 poliuretano libera sustancias gaseosas basadas en aldehídos y monóxido de carbono: 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

W50 TB profiles can be cut with conventional steel saws. However, when cutting and, in particular, when creating mitre cuts, cutting templates (D040XX-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 lubrification during cutting operations.

For further information, see also the chapter “General Information”.

Taglio

I profili W50 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 (D040XX-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 W50 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 (D040XX-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

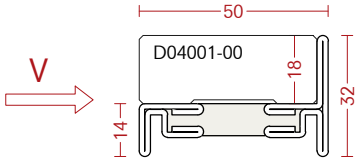
Legenda

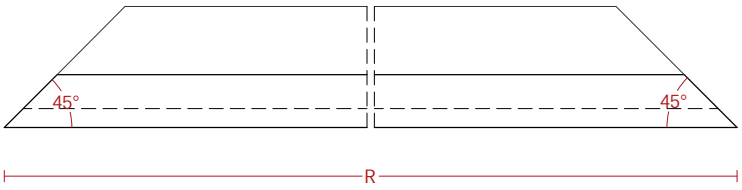
+ = Anta fissa
—— = Apertura interna
- - - = Apertura esterna
Misure in: mm
Scala 1:1 - 1:2
V = Vista
R = Riferimento lunghezza di taglio
CL = Lunghezza di taglio
HF = Altezza telaio
HG = Altezza vetro
HL = Altezza anta
WF = Larghezza telaio
WG = Larghezza vetro
WL = Larghezza anta

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 5009LF-02





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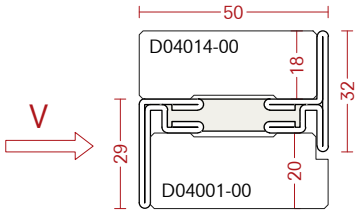

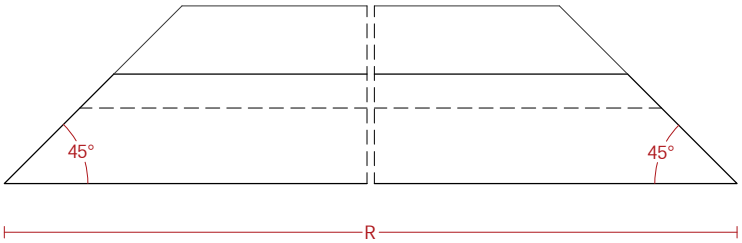

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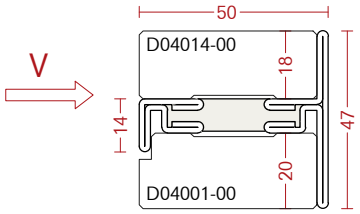

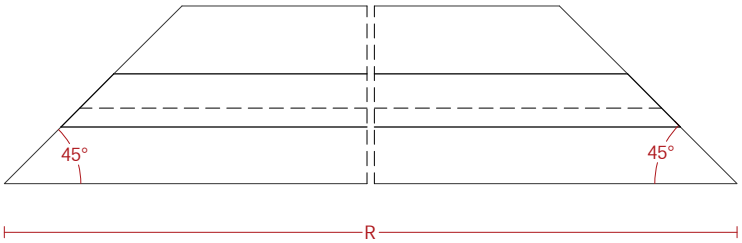

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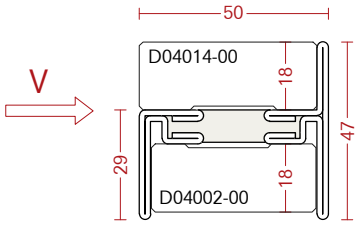

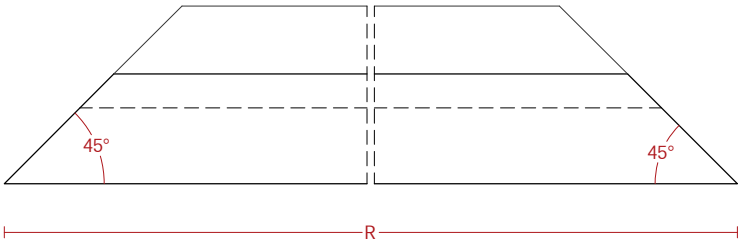

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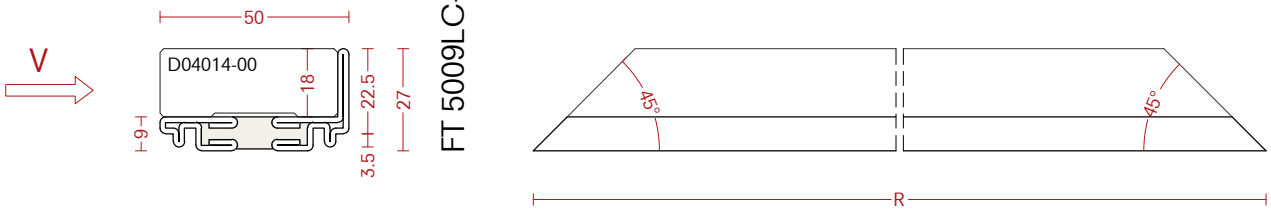

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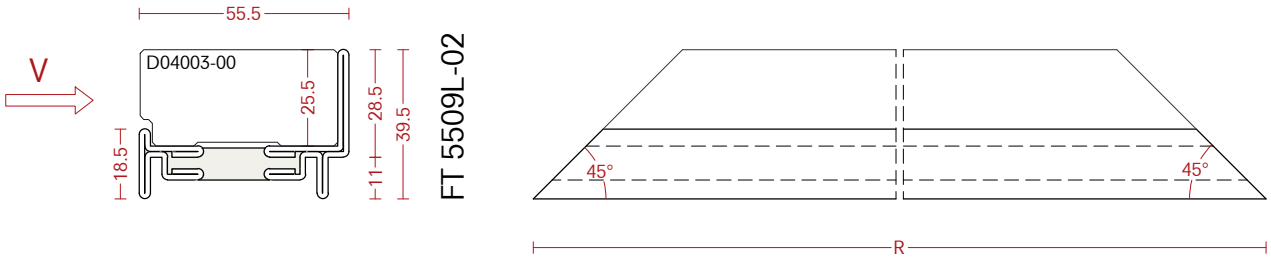

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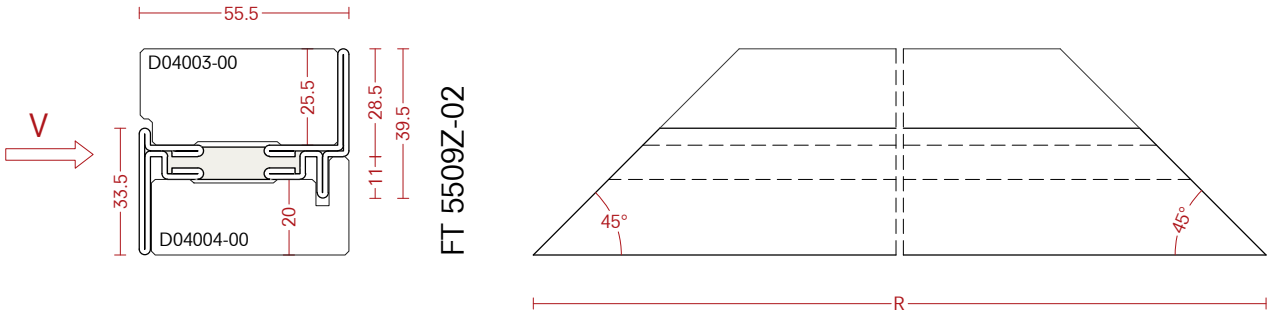

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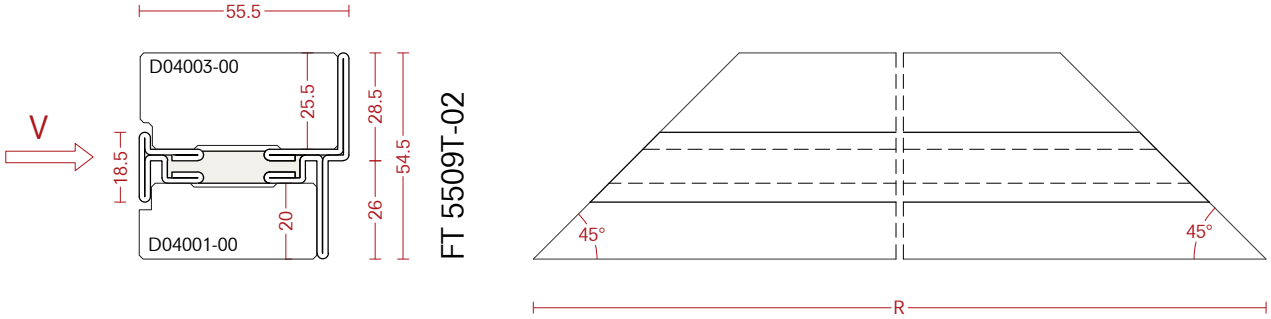

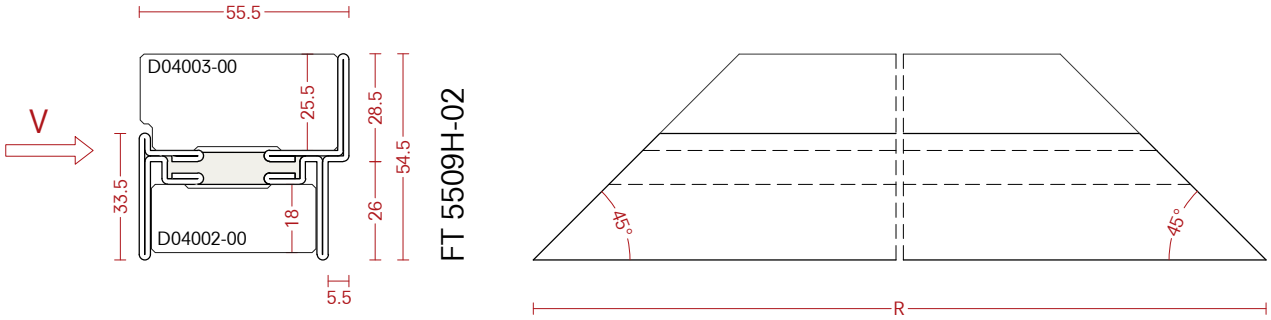

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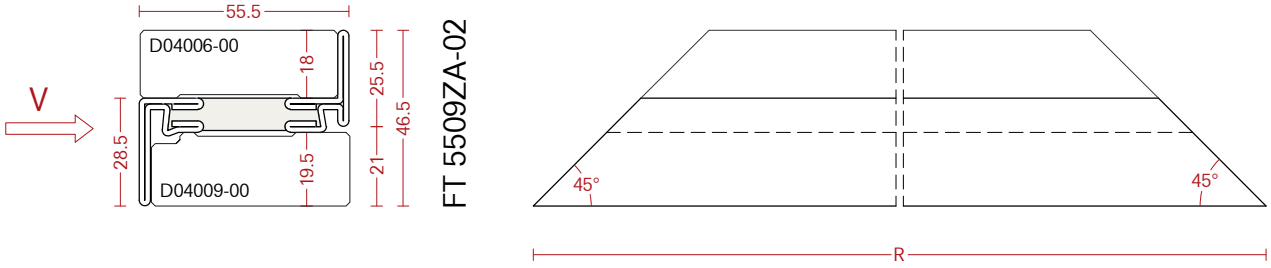

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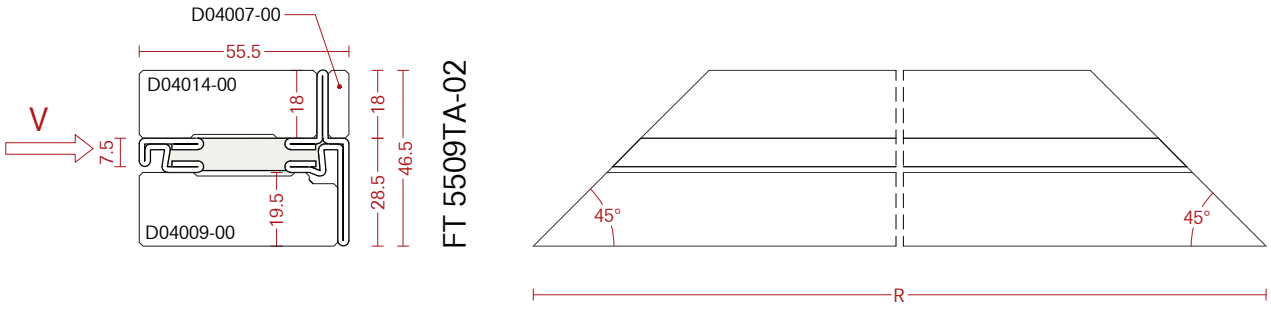

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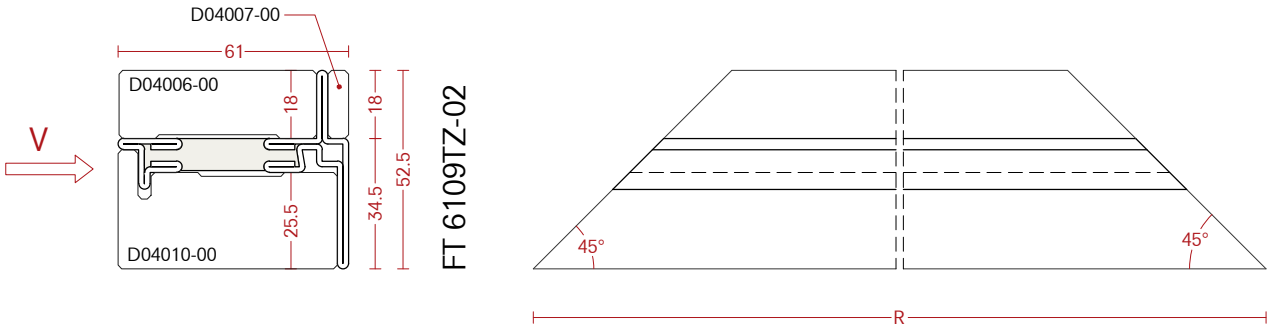

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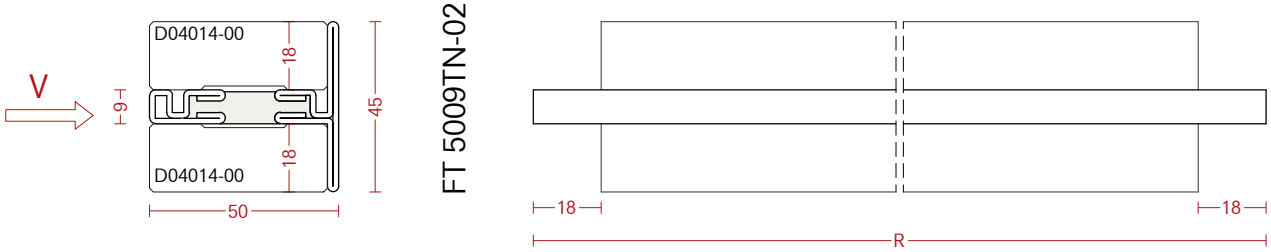

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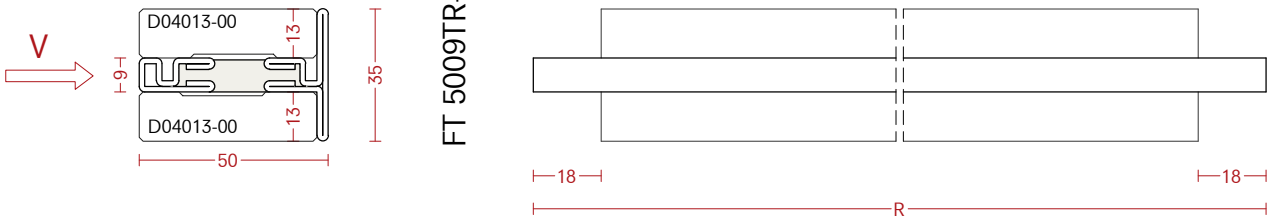

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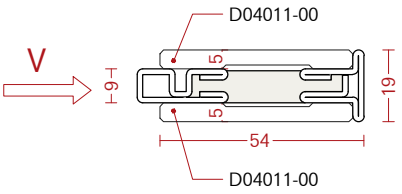

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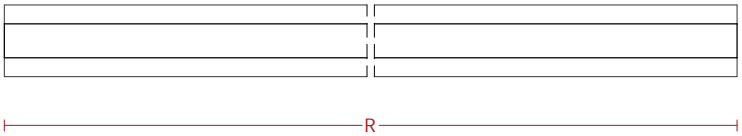

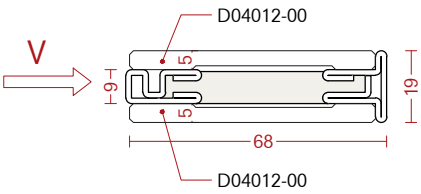

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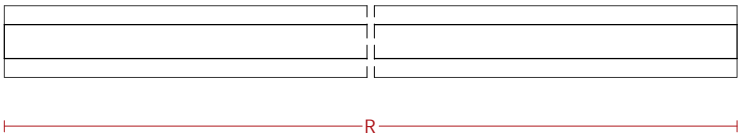

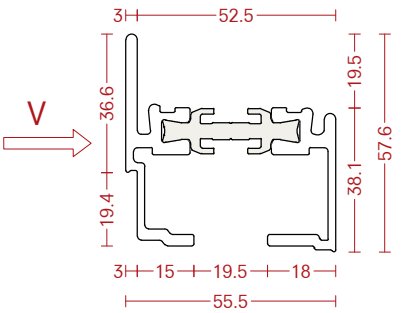

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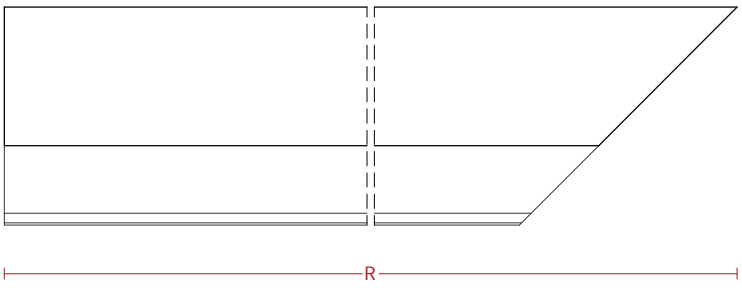
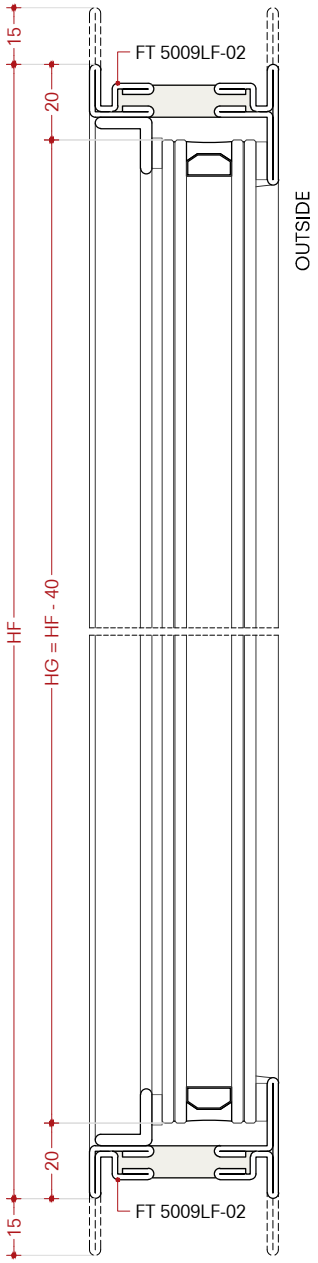
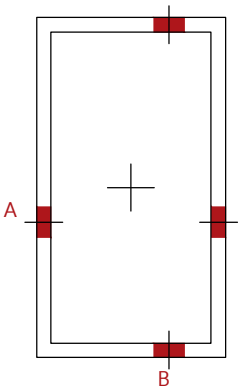


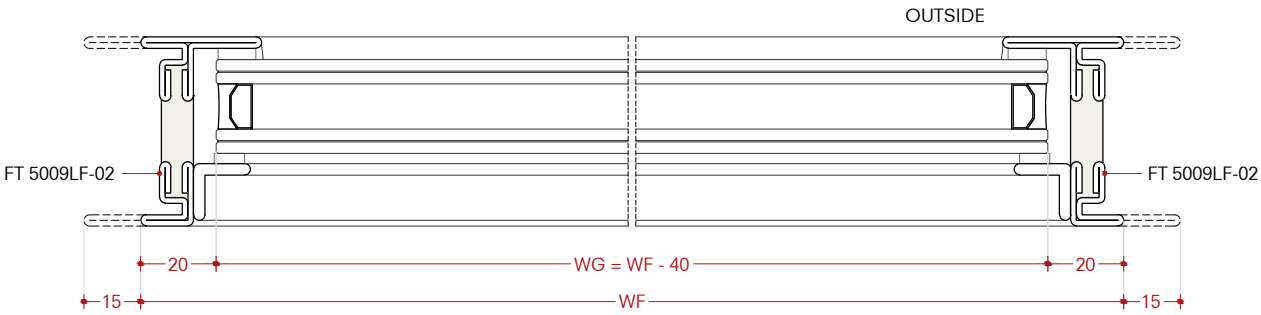
Cutting length
FT 5009LF-02
Fixed frame

Liste di taglio
FT 5009LF-02
Anta fissa

Longitud de corte
FT 5009LF-02
Ventana fija



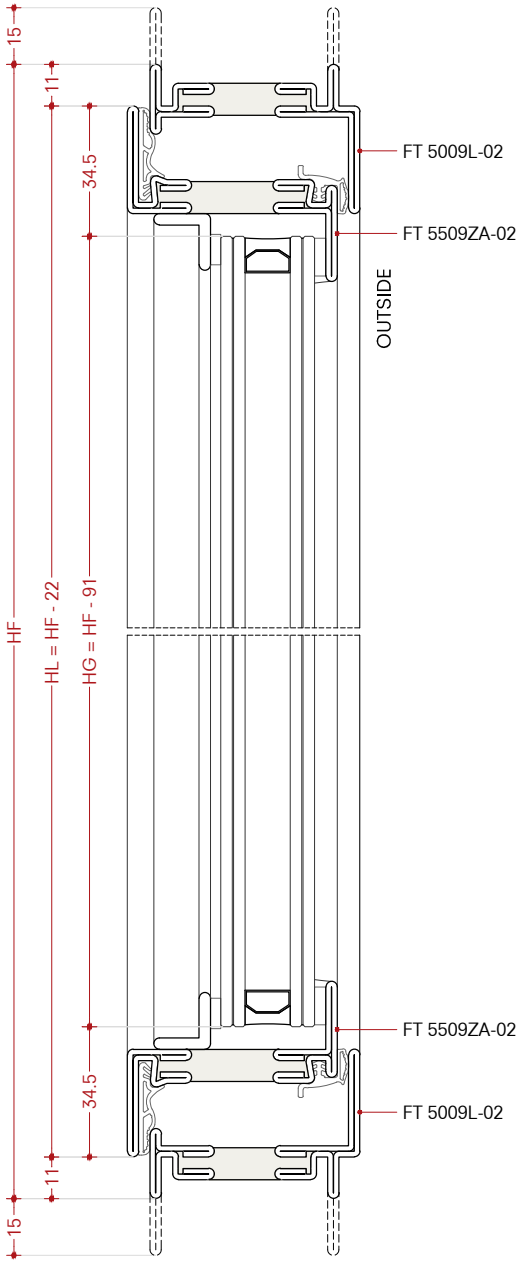


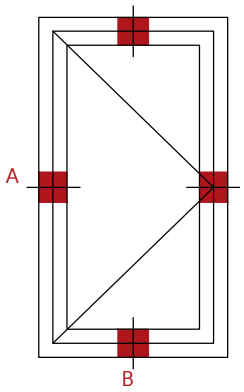


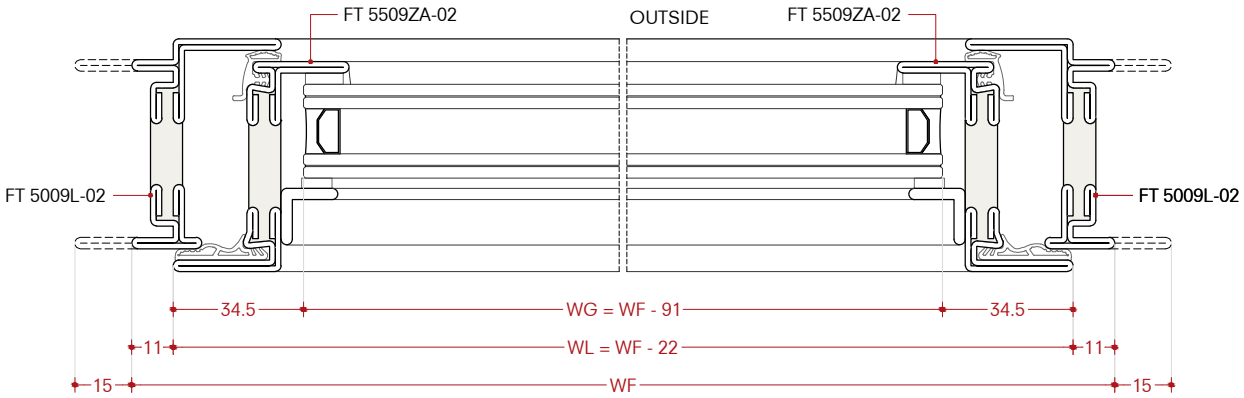
Cutting length
Single leaf window
Open in

Liste di taglio
Finestra a un battente
Apertura interna

Longitud de corte
Ventana de una hoja
Que se abre hacia dentro







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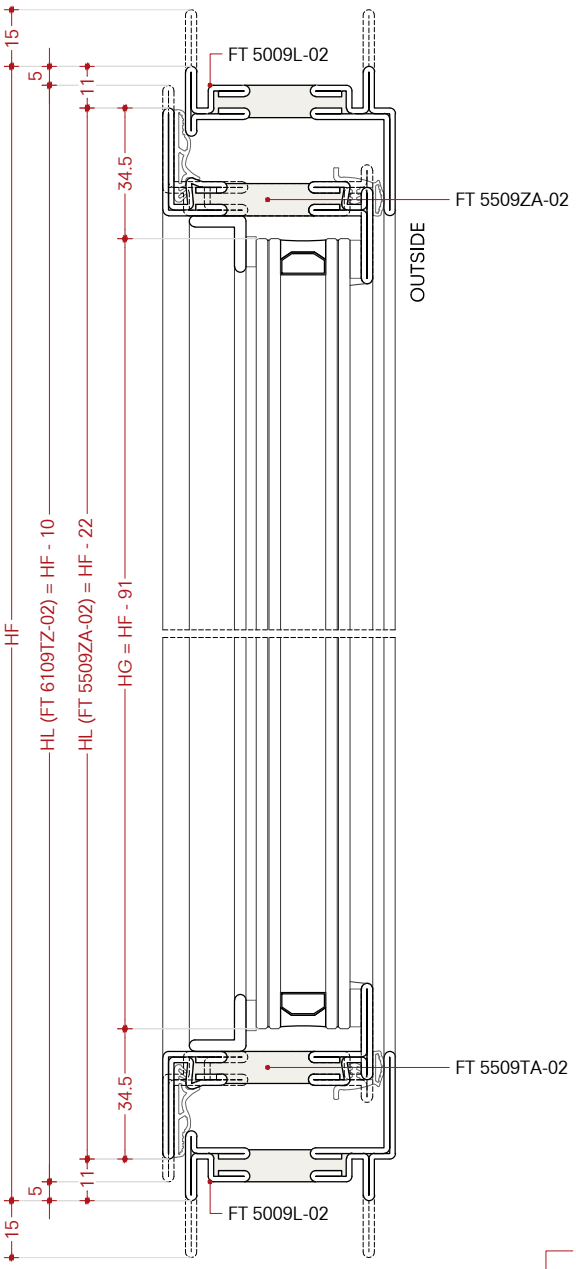
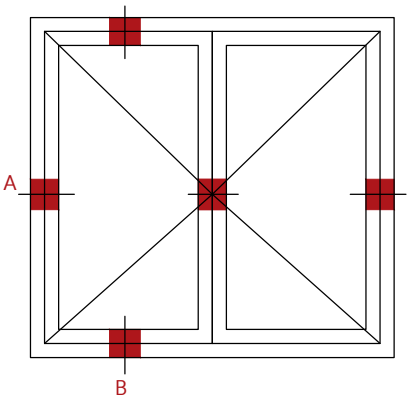
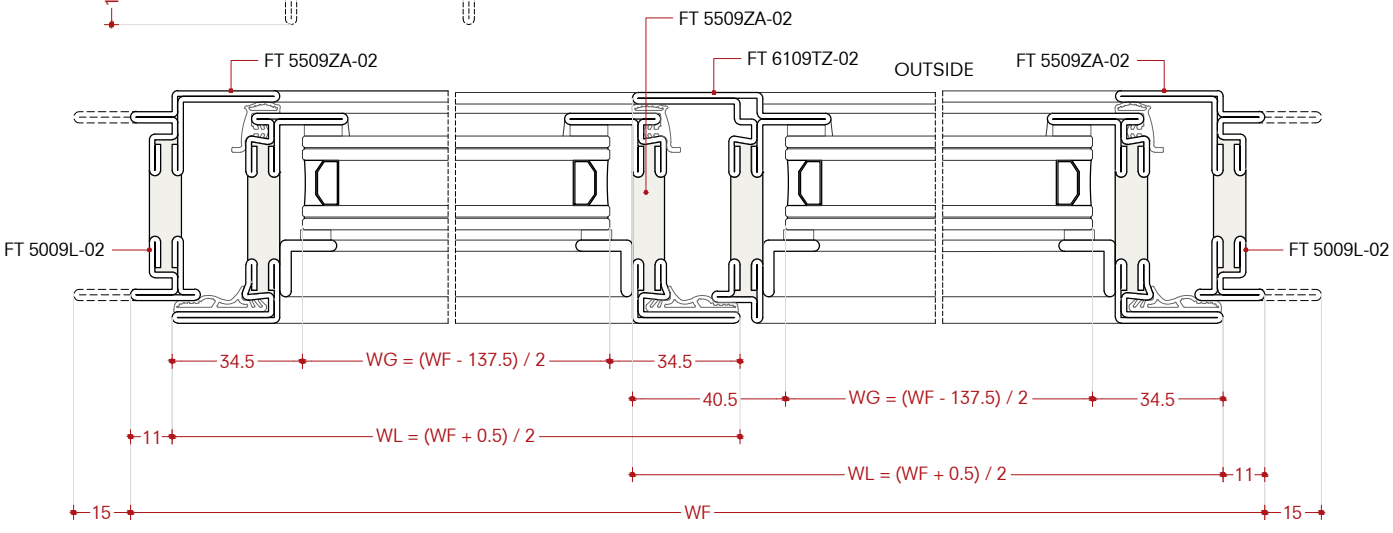
Liste di taglio
Finestra a due battenti
Apertura interna

Longitud de corte
Ventana de dos hojas
Que se abre hacia dentro







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Single leaf window
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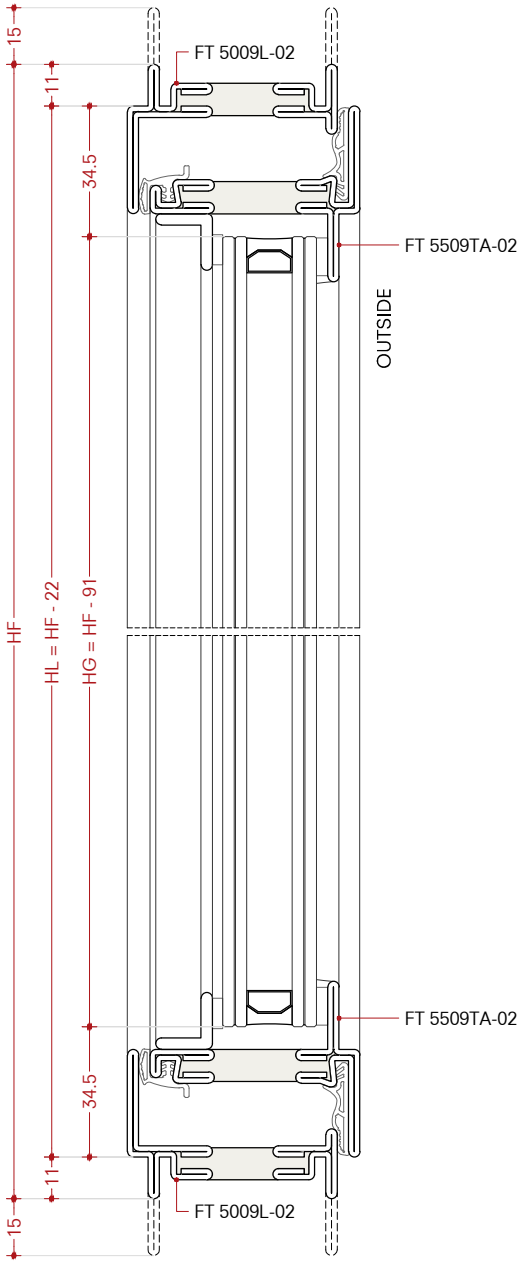
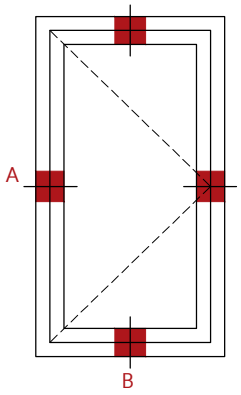
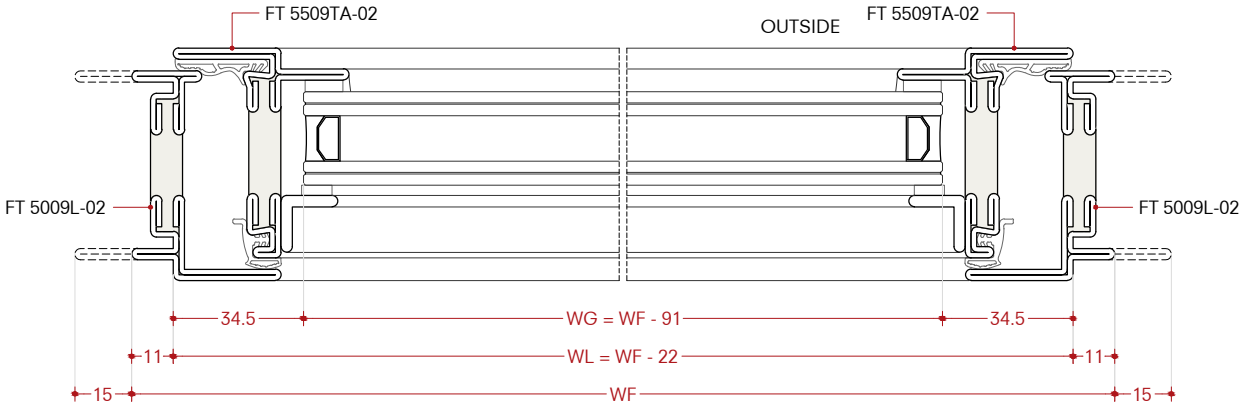
Liste di taglio
Finestra a un battente
Apertura esterna

Longitud de corte
Ventana de una hoja
Que se abre hacia fuera







Cutting length
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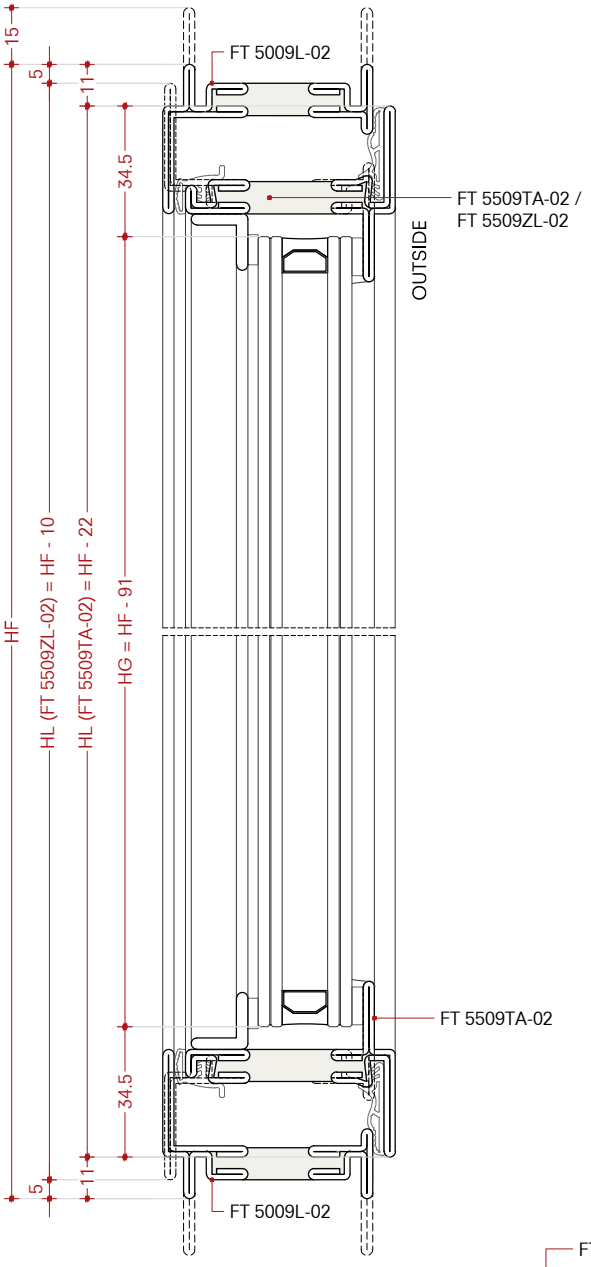
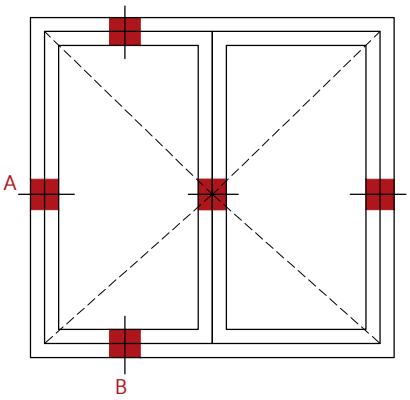
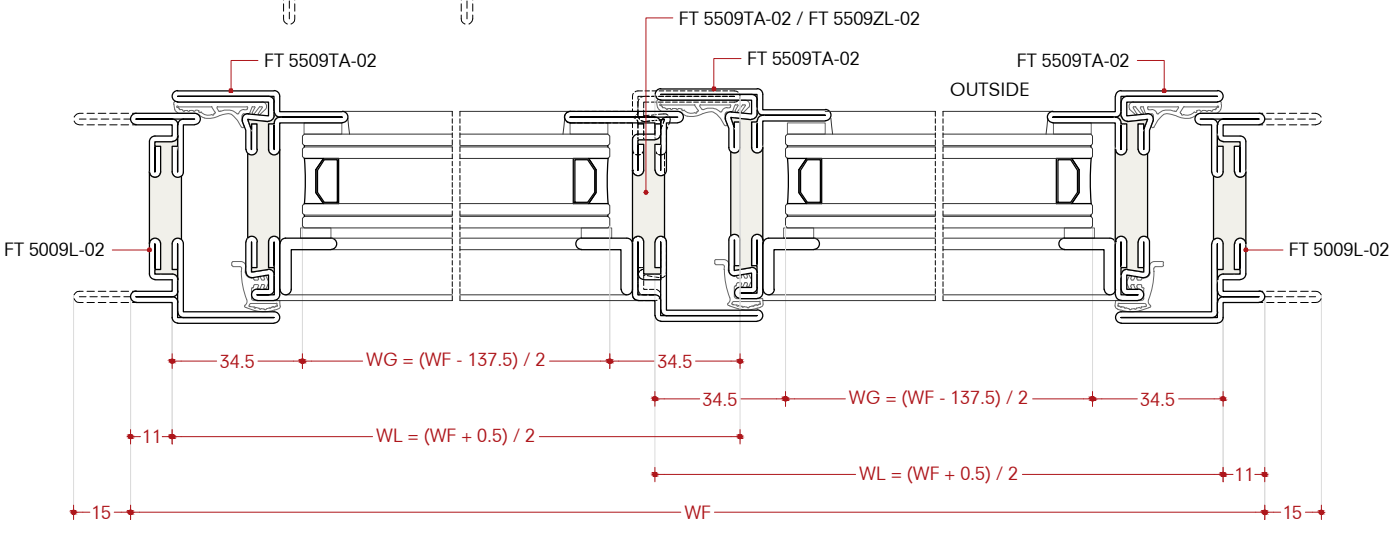
Liste di taglio
Finestra a due battenti
Apertura esterna

Longitud de corte
Ventana de dos hojas
Que se abre hacia fuera







Cutting length
Double leaf window
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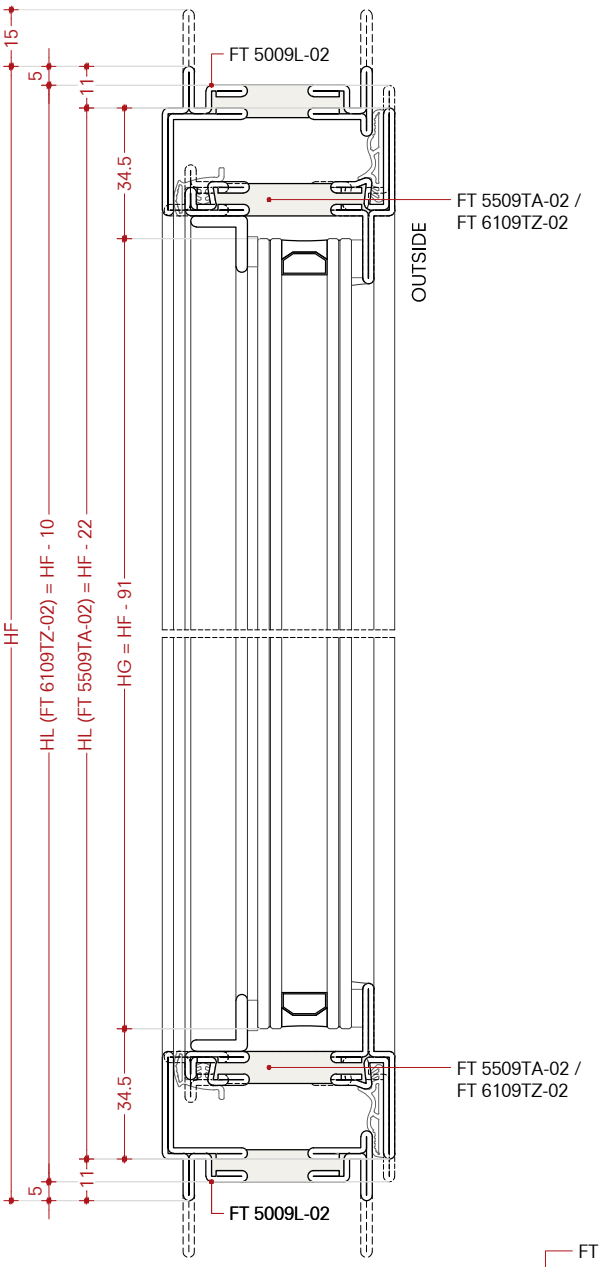
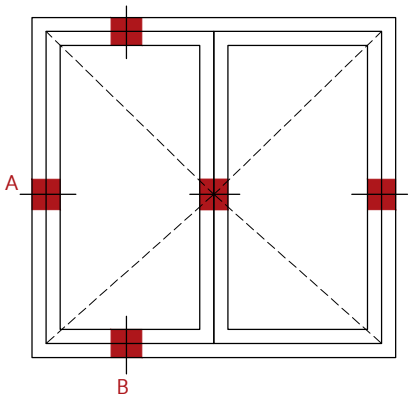
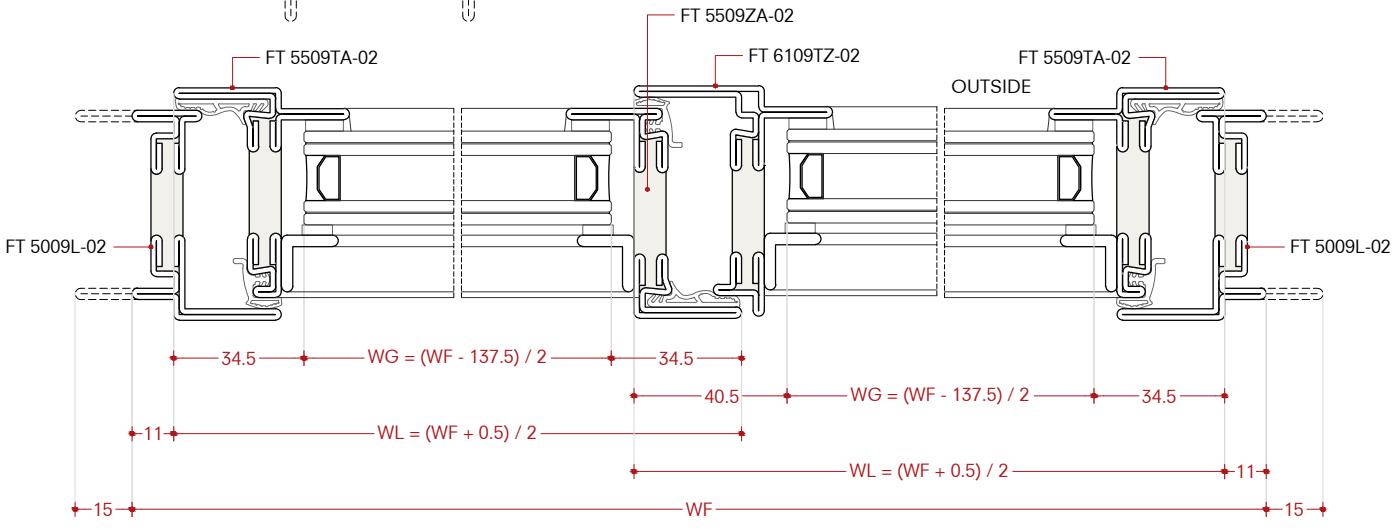
Liste di taglio
Finestra a due battenti
Apertura esterna

Longitud de corte
Ventana de dos hojas
Que se abre hacia fuera







Cutting length
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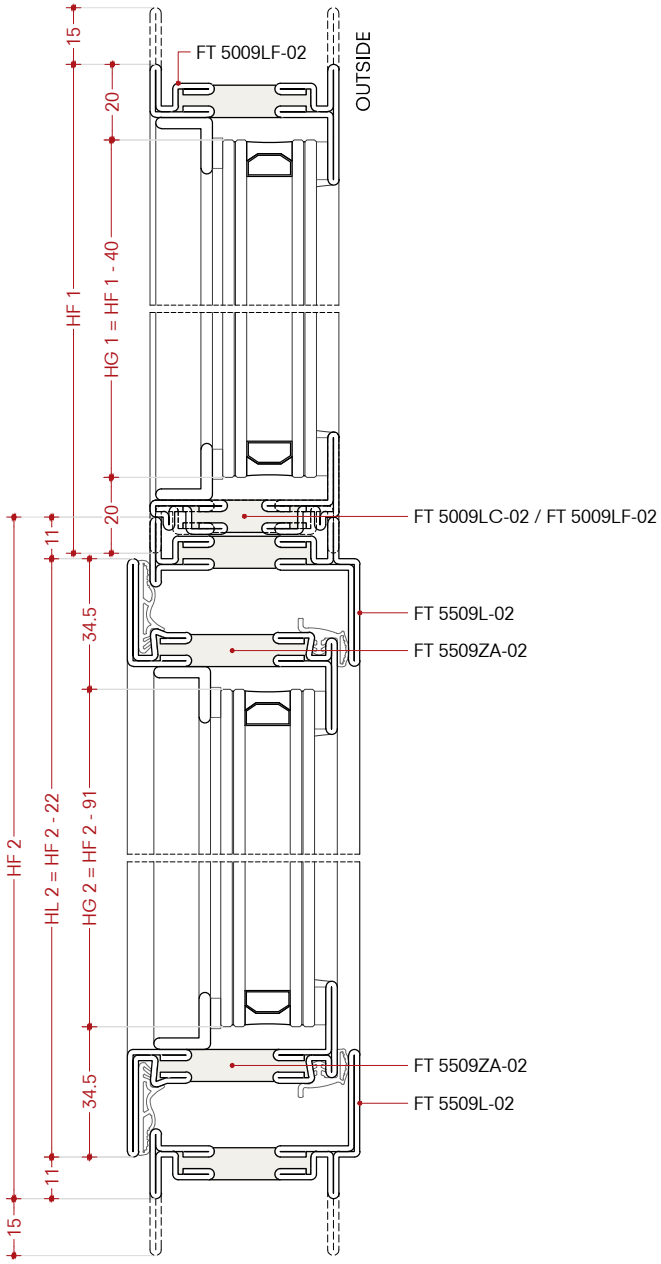
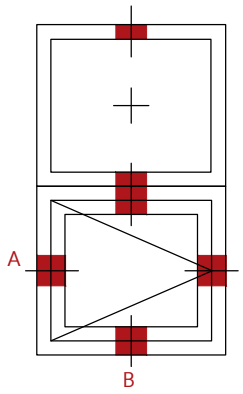
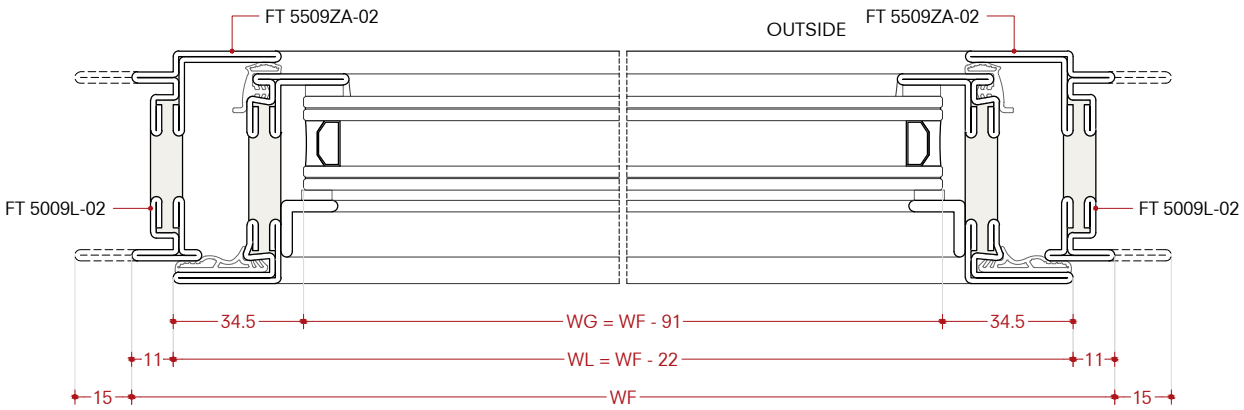
Liste di taglio
Apertura interna

Longitud de corte
Apertura hacia dentro







Cutting length
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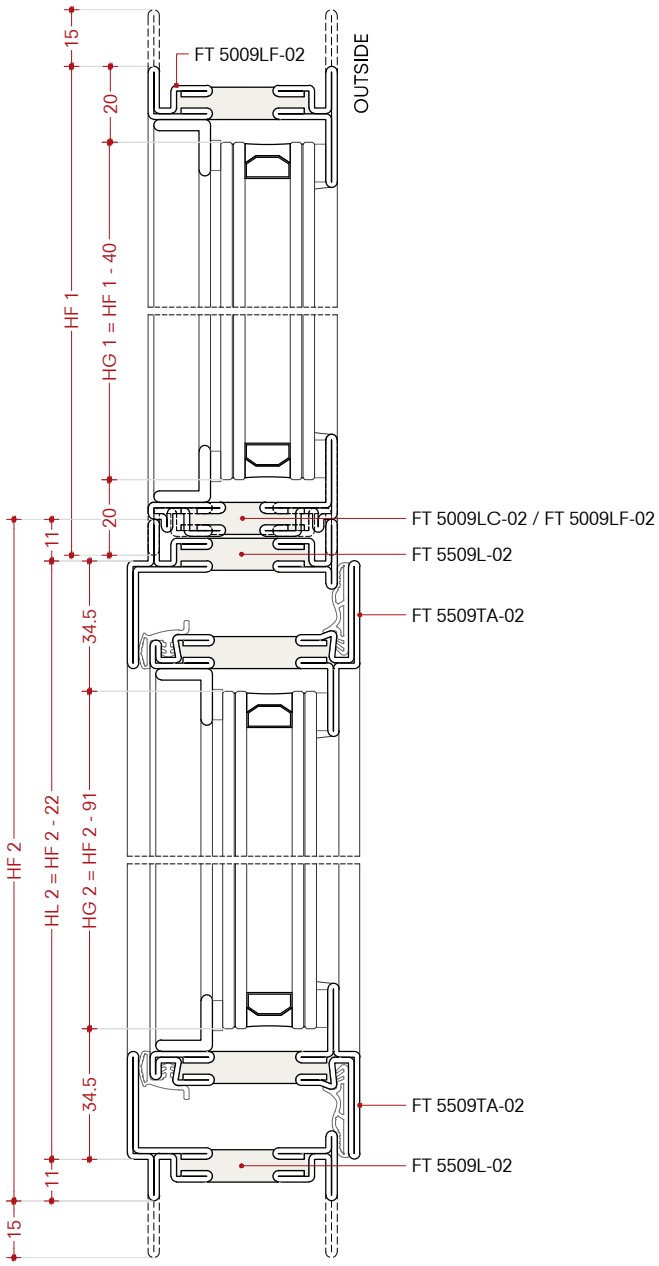
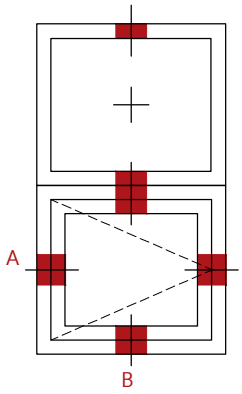
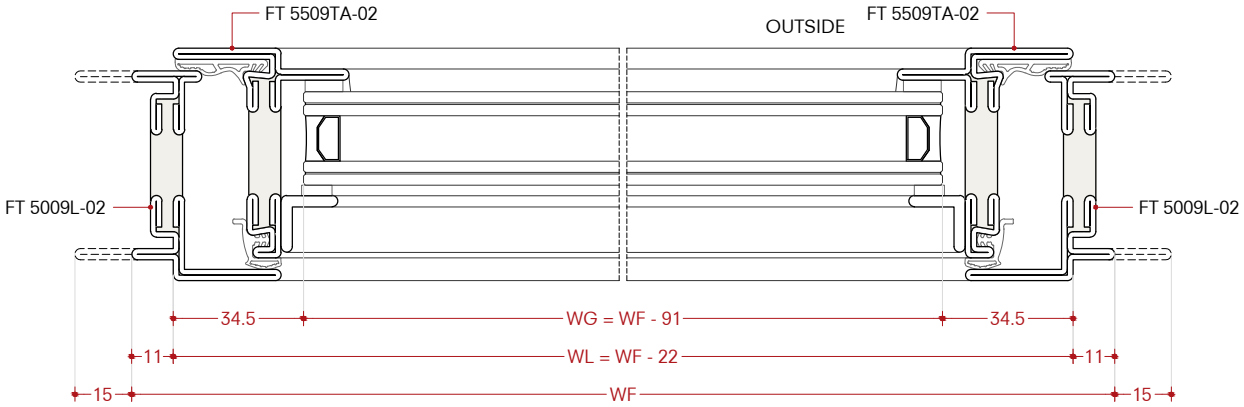
Liste di taglio
Apertura esterna

Longitud de corte
Que se abre hacia fuera



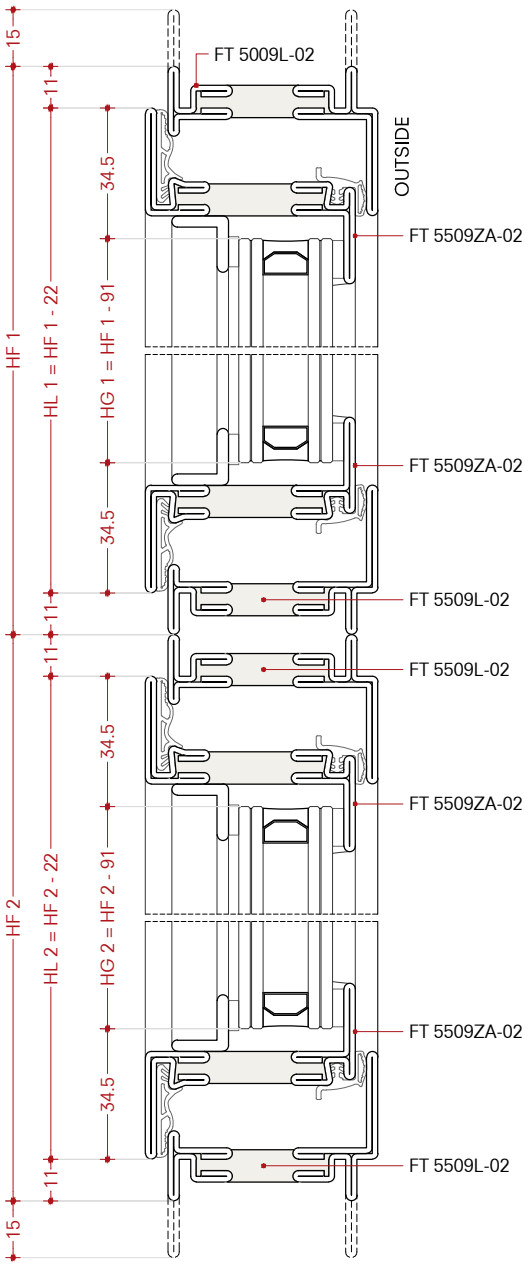


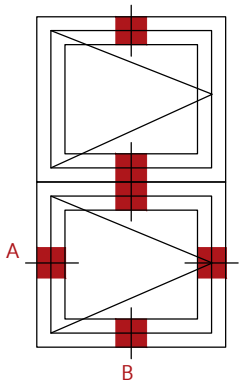
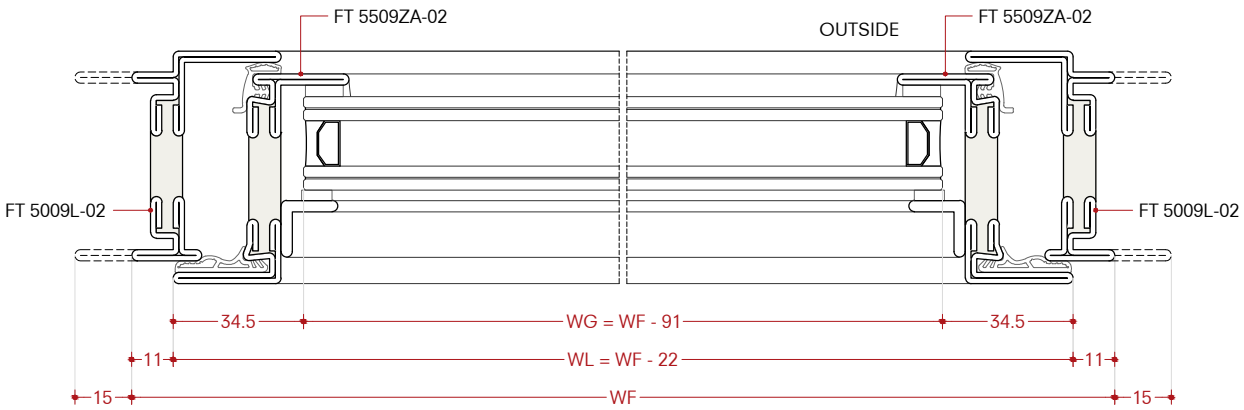


Cutting length
Open in

Liste di taglio
Apertura interna

Longitud de corte
Apertura hacia dentro

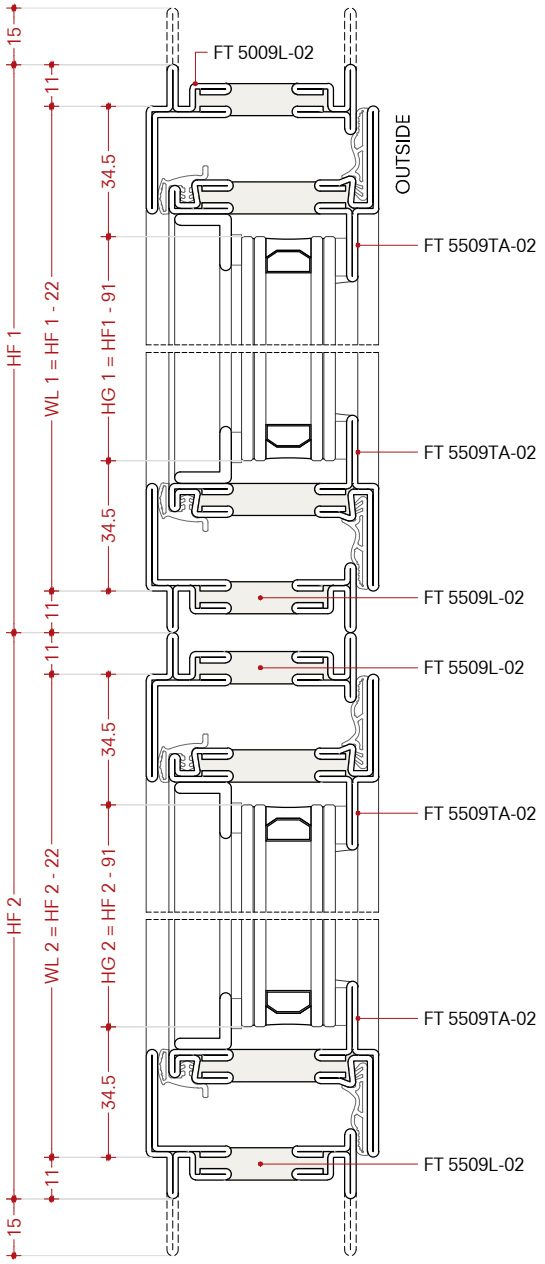


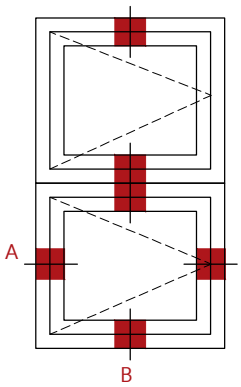


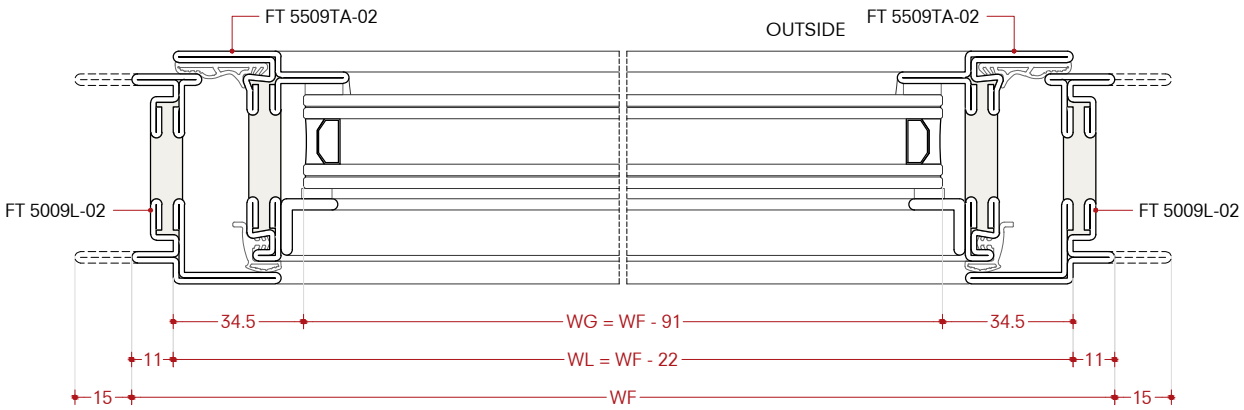
Cutting length
Open out

Liste di taglio
Apertura esterna

Longitud de corte
Que se abre hacia fuera



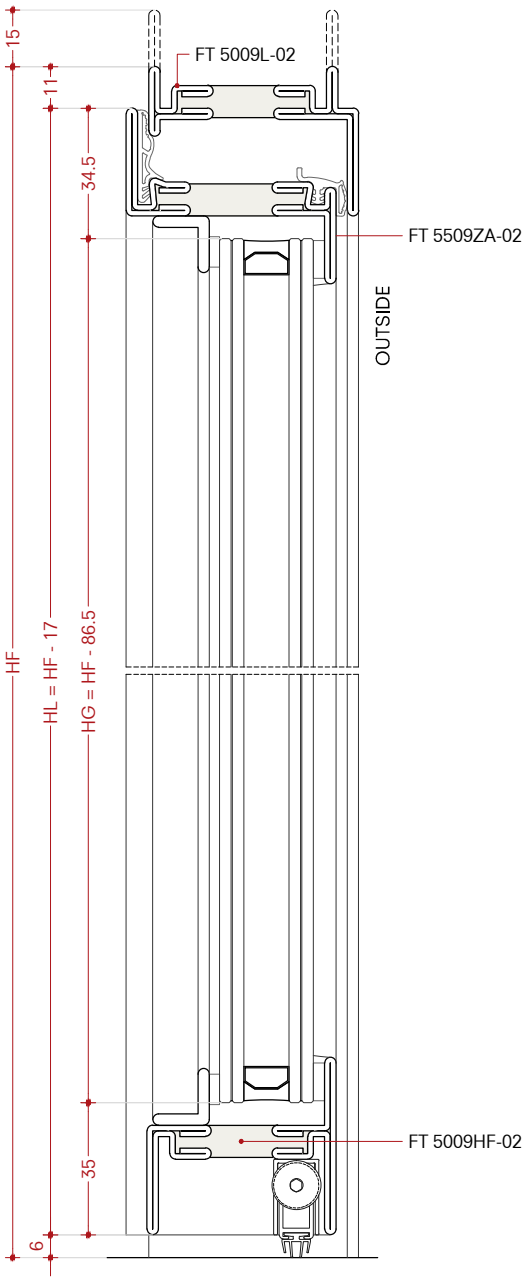


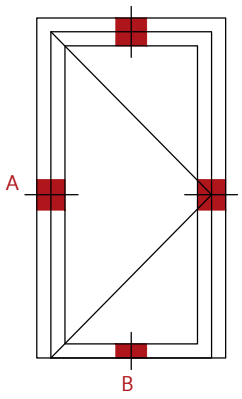


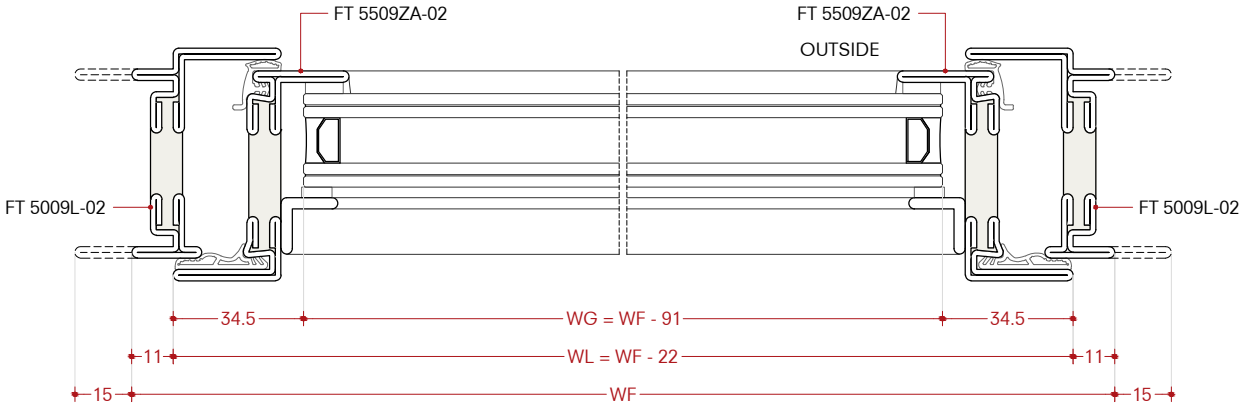
Cutting length
Single leaf door
Open in

Liste di taglio
Porta a un battente
Apertura interna

Longitud de corte
Puerta abatible de una hoja
Que se abre hacia dentro



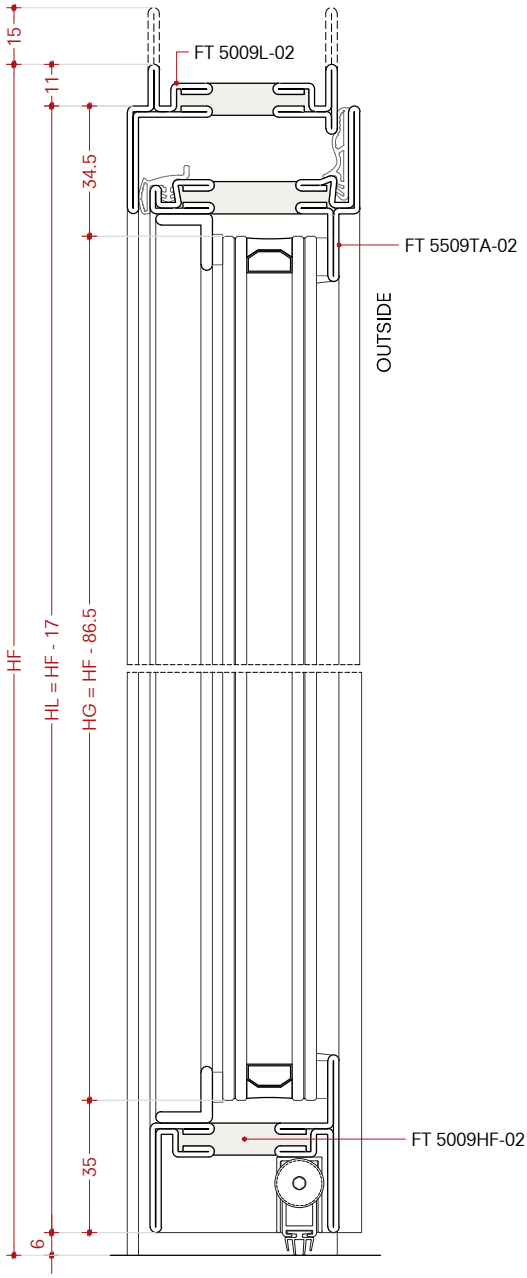


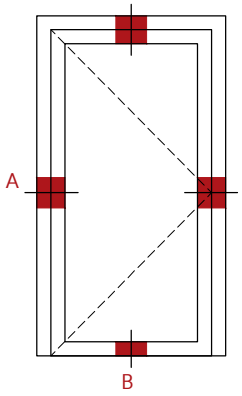


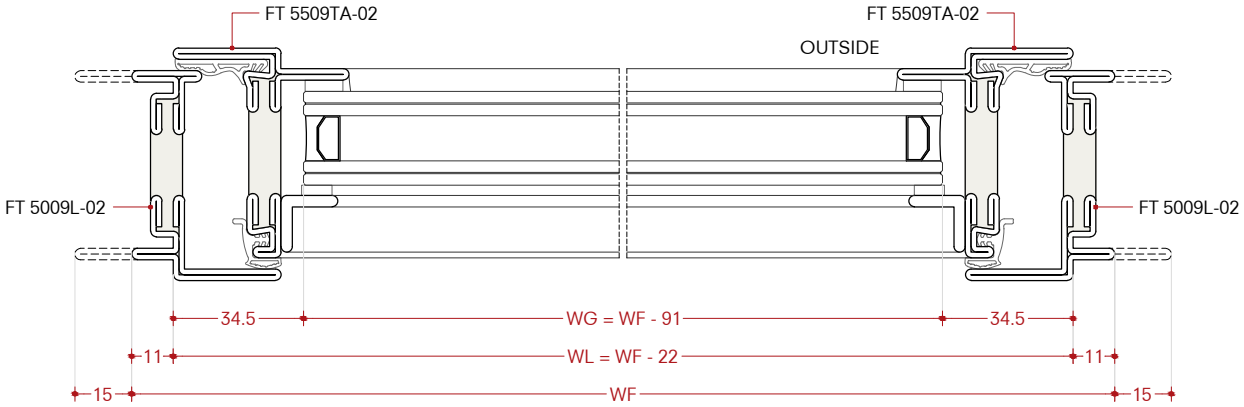
Cutting length
Single leaf door
Open out

Liste di taglio
Porta a un battente
Apertura esterna

Longitud de corte
Puerta abatible de una hoja
Que se abre hacia fuera



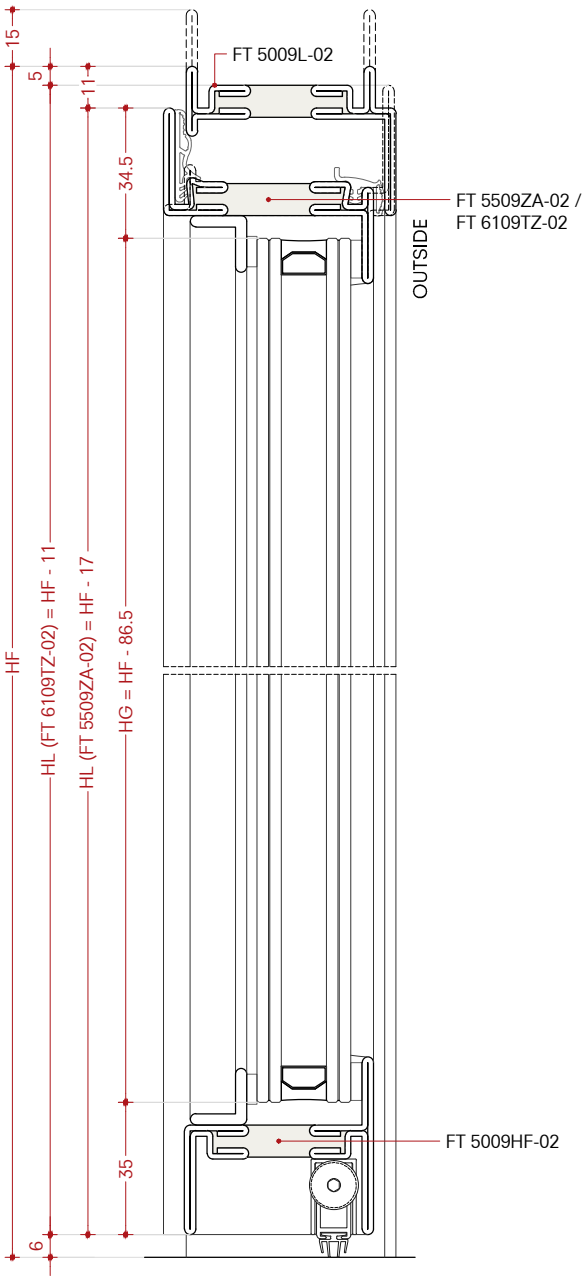


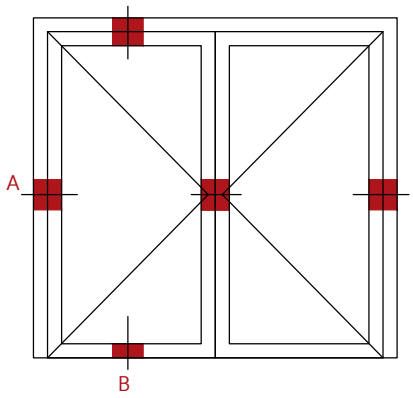


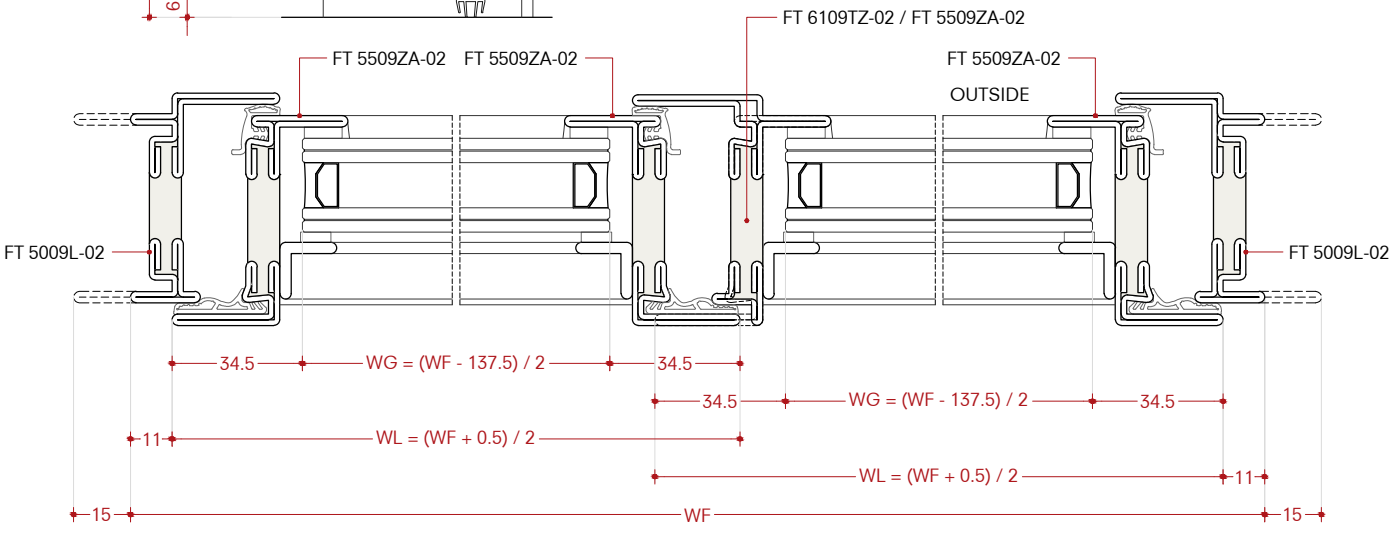
Cutting length
Double leaf door
Open in

Liste di taglio
Porta a due battenti
Apertura interna

Longitud de corte
Puerta abatible de dos hojas
Que se abre hacia dentro



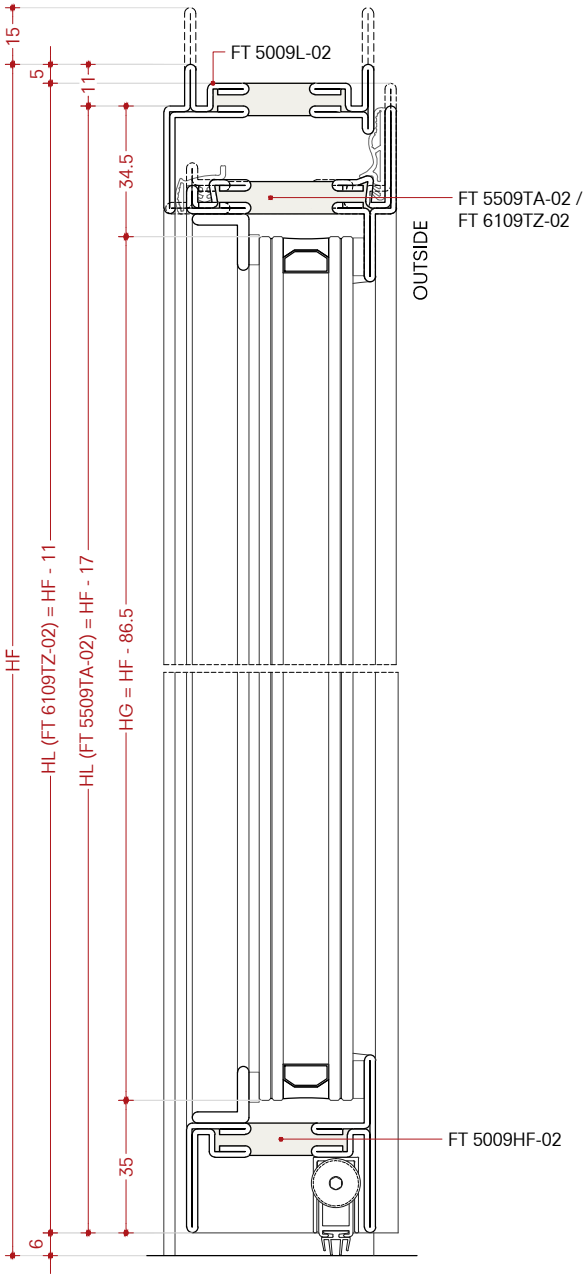


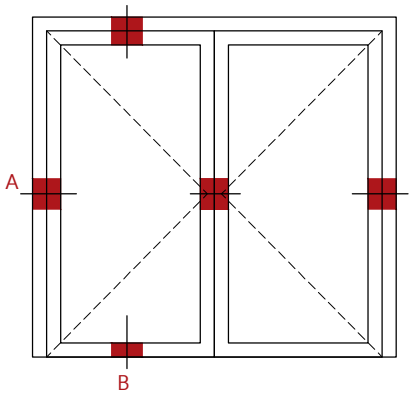


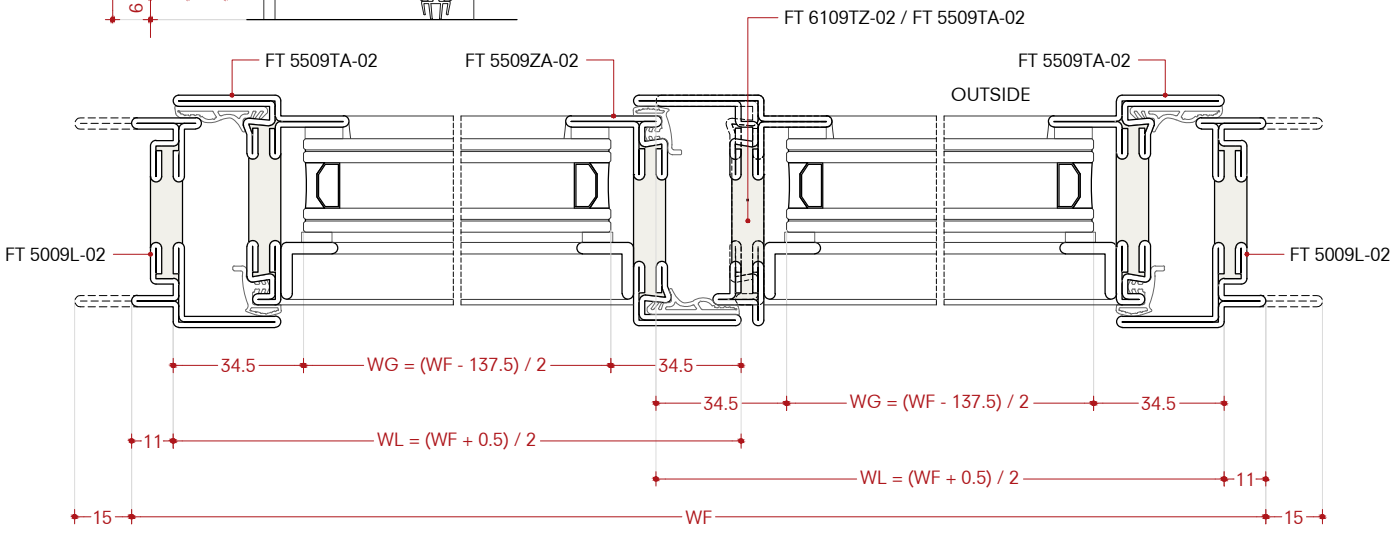
Cutting length
Double leaf door
Open out

Liste di taglio
Porta a due battenti
Apertura esterna

Longitud de corte
Puerta abatible de dos hojas
Que se abre hacia fuera



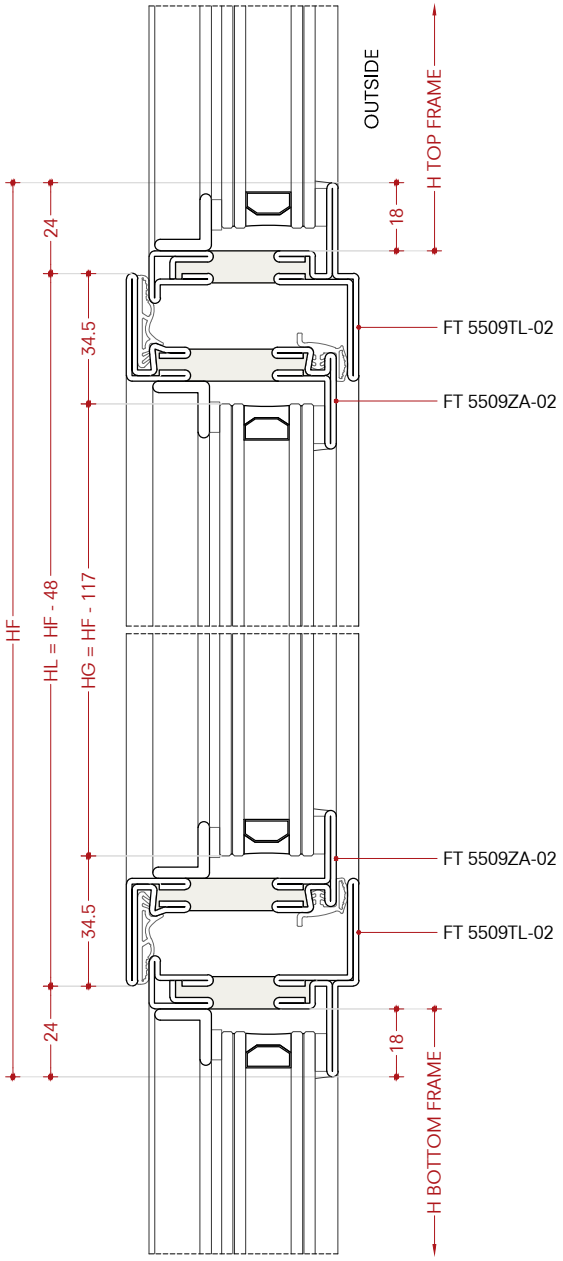


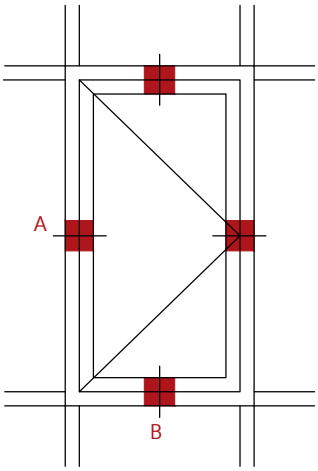


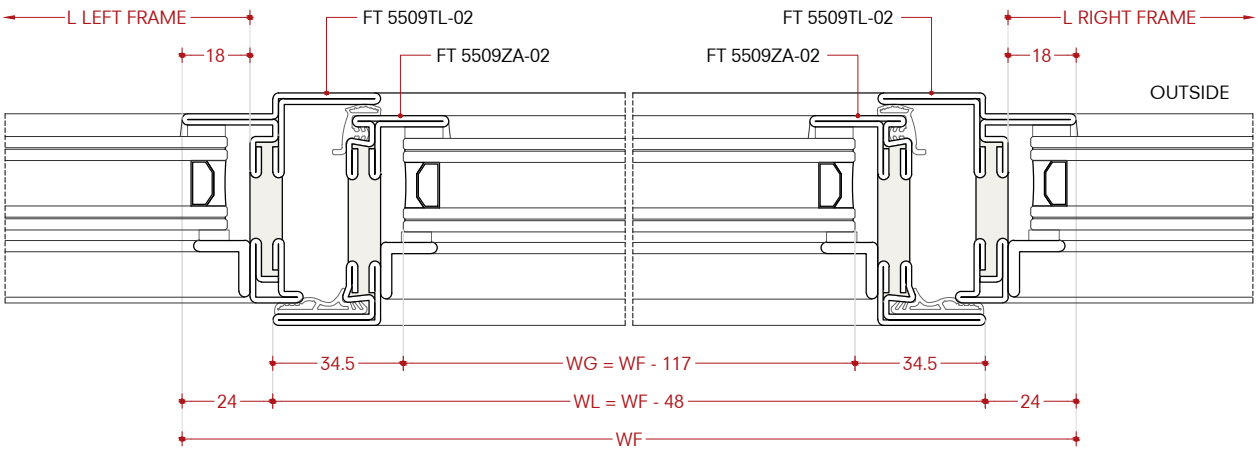
Cutting length
Single leaf in fixed frame
Open in

Liste di taglio
Anta singola su telaio fisso
Apertura interna

Longitud de corte
Hoja en marco fijo
Que se abre hacia dentro



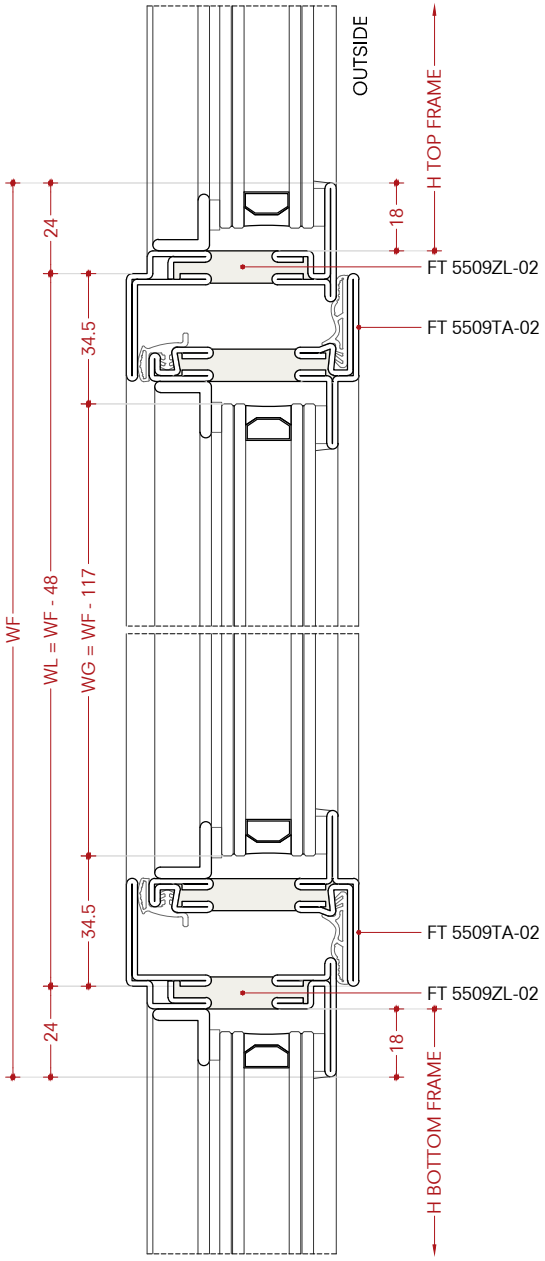


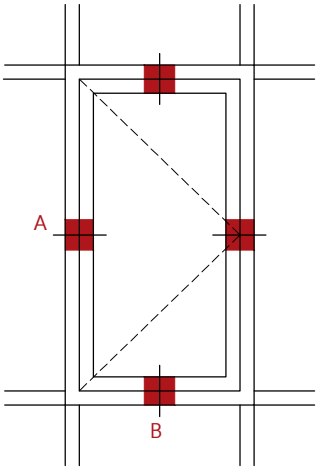


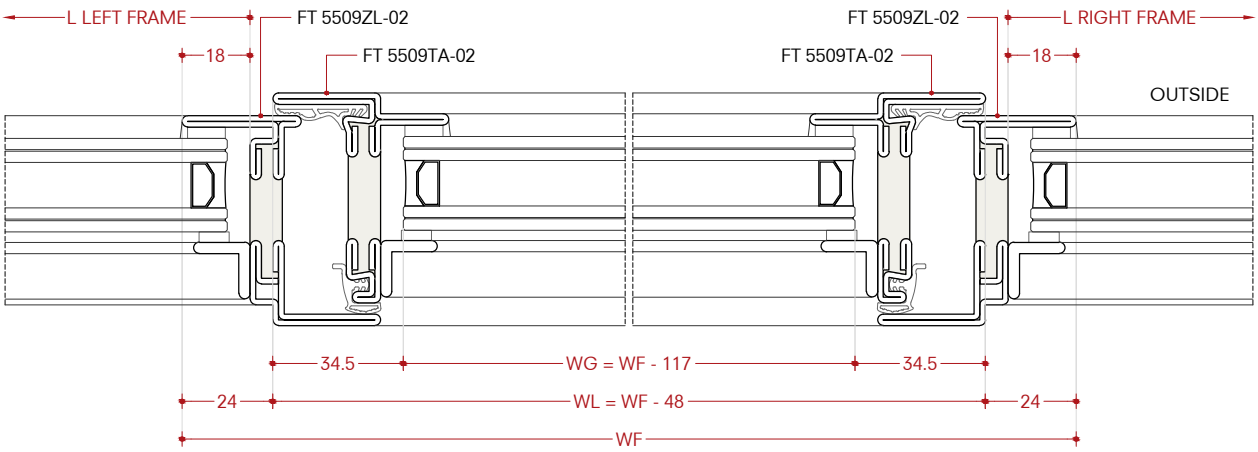
Cutting length
Single leaf in fixed frame
Open out

Liste di taglio
Anta singola su telaio fisso
Apertura esterna

Longitud de corte
Hoja en marco fijo
Que se abre hacia fuera



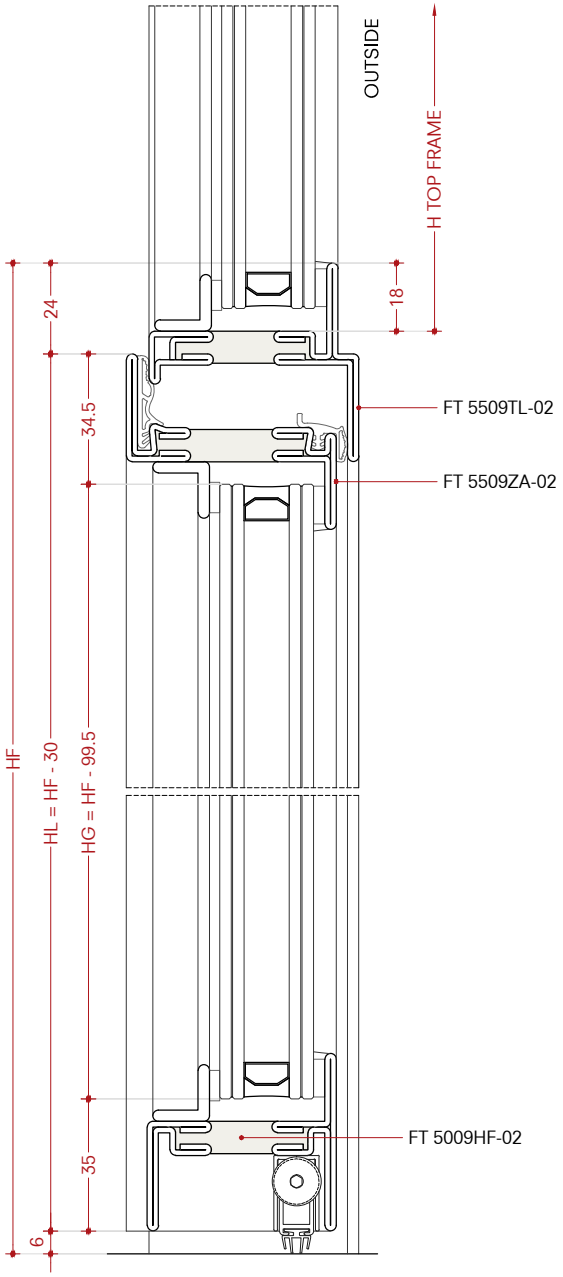


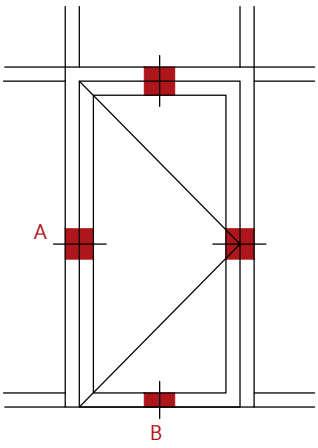


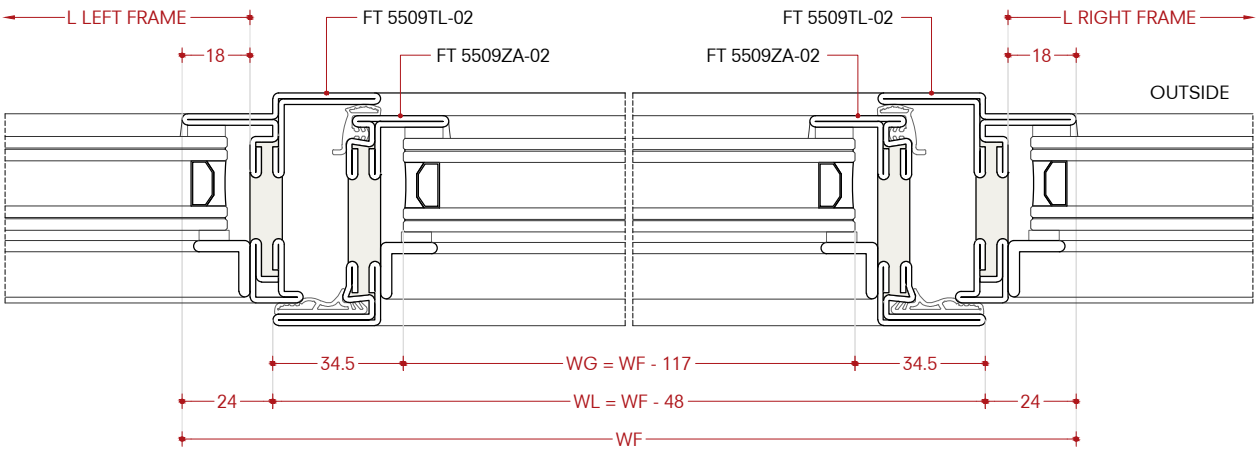
Cutting length
Door in fixed frame
Open in

Liste di taglio
Porta su telaio fisso
Apertura interna

Longitud de corte
Puerta en marco fijo
Que se abre hacia dentro



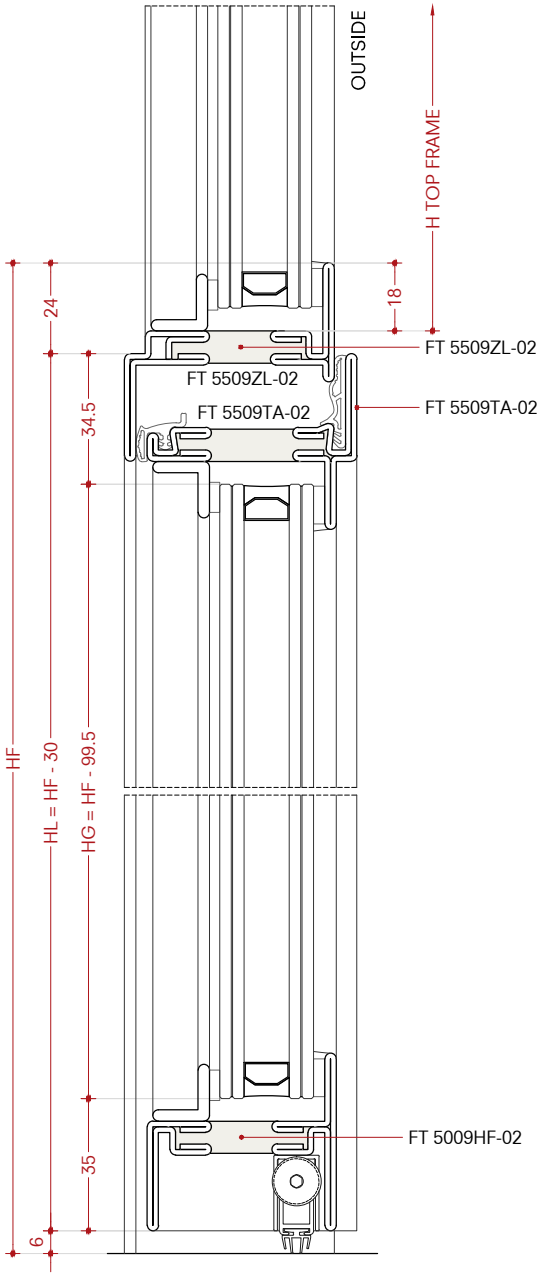


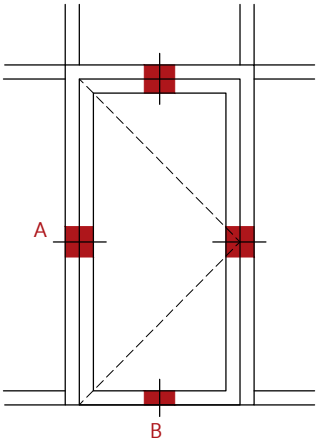


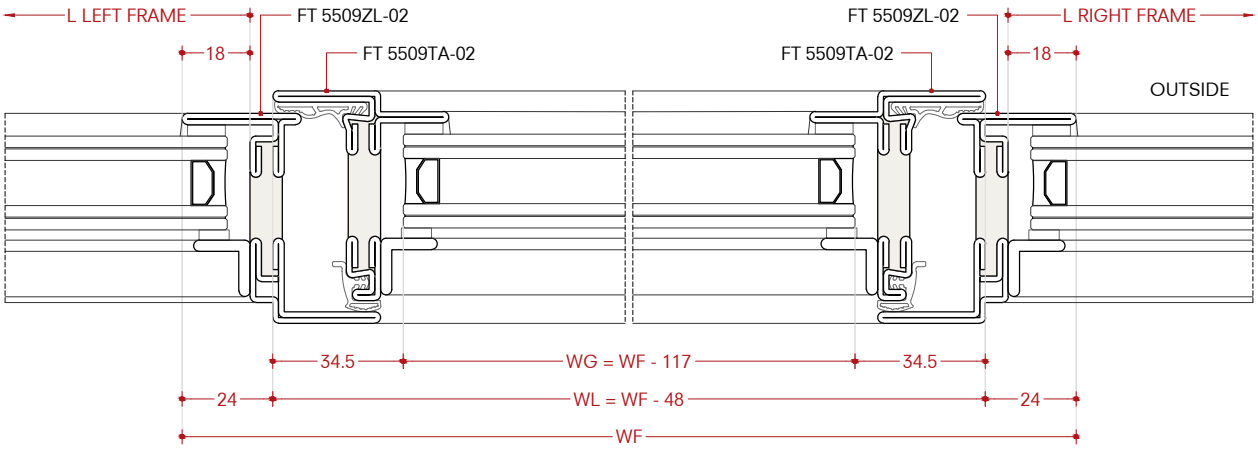
Cutting length
Door in fixed frame
Open out

Liste di taglio
Porta su telaio fisso
Apertura esterna

Longitud de corte
Puerta en marco fijo
Que se abre hacia fuera







Welding

Saldatura

Soldadura

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

W50 TB profiles can be welded without taking any particular precautions, using the standard MIG/MAG or CMT welding procedure. We recommend using a smoke extraction system and ensuring sufficient ventilation of the room. Ensure the welding is thorough and clean.
W50 TB profiles 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 polyurethane web.

Saldatura

I profili W50 TB possono essere saldati senza particolari precauzioni, utilizzando la procedura di saldatura standard MIG/MAG o CMT. Raccomandiamo di utilizzare un sistema di aspirazione fumi e di garantire una ventilazione sufficiente della stanza. Assicurarsi che la saldatura sia accurata e pulita. I profili W50 TB 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 deve essere disperso utilizzando controsagome in ottone, rame, alluminio.

Il cordone di saldatura va tenuto ad una distanza di almeno 3 mm dall'anima in poliuretano.

Soldadura

Los perfiles W50 TB pueden procesarse con los procedimientos de soldadura habituales, como MIG/MAG o CMT, sin ningún tipo de medida especial. Durante la soldadura, recomendamos utilizar un extractor de humos y garantizar la ventilación adecuada de la sala. Garantizar una soldadura concienzuda y limpia. Los perfiles W50 TB 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 poliuretano.

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 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 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

The best results were achieved using the following two welding procedures:

MAG (metal-arc active gas)

Inert gas: CAR 18 (18% CO_2 and 82% Argon sec. EN 439 M21)
Welding rod: DT-Ziro, Ø0.8 mm (Dratec)

Preparation of profile cut:
Bevel bar ends (ca. 1 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 MAG welding. Instead, filling should be done using the WIG 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 areas surrounding the welding area.

CMT (cold metal transfer)

Type of gas: 100% Argon
Welding rod:
A) $CuSi_3$, Ø0.8 mm (Dratec/Bedra)
B) DT-Ziro, Ø0.8 mm (Dratec)

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 $CuSi_3$ 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 $CuSi_3$ filling material is lower than that of DT-Ziro, which means that it should not be used with very large casement windows or doors. The resistance of corners is roughly comparable to welded architectural bronze or brass windows. Smaller and medium size window leaves can be welded with $CuSi_3$. However, steel hinges should be welded only with DT-Ziro filling material. 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

I migliori risultati di saldatura si raggiungono con i seguenti due metodi:

MAG (metal-arc active gas)

Tipo di gas: miscela CAR 18 (18% CO_2 e 82% Argon sec. EN 439 M21)
Materiale di riempimento: DT-Ziro, Ø0.8 mm (es. Dratec)

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 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.

CMT (cold metal transfer)

Tipo di gas: 100% Argon
Materiale di riempimento:
A) $CuSi_3$, Ø0.8 mm (Dratec/Bedra)
B) DT-Ziro, Ø0.8 mm (Dratec)

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 $CuSi_3$ ha il vantaggio di poter rettificare le saldature in pochissimo tempo.
La resistenza meccanica del riempitivo $CuSi_3$ è inferiore a quella del filler DT-Ziro, quindi non dovrebbe essere utilizzato su ante molto grandi. La resistenza meccanica è paragonabile a quella delle finestre di bronzo architettonico. Per tale motivo, questo tipo di saldatura 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. 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

Con los dos siguientes procedimientos de soldadura se consiguen los mejores resultados:

MAG (metal-arc active gas)

Gas de protección: CAR 18 (18% de CO_2 y 82% de argón, de acuerdo con EN 439 M21)
Cordón de soldadura: DT-ZiRo, diámetro de 0.8 mm (Dratec)

Preparación de los cortes del perfil:
Biselar los extremos de las barras (aprox. 1 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.

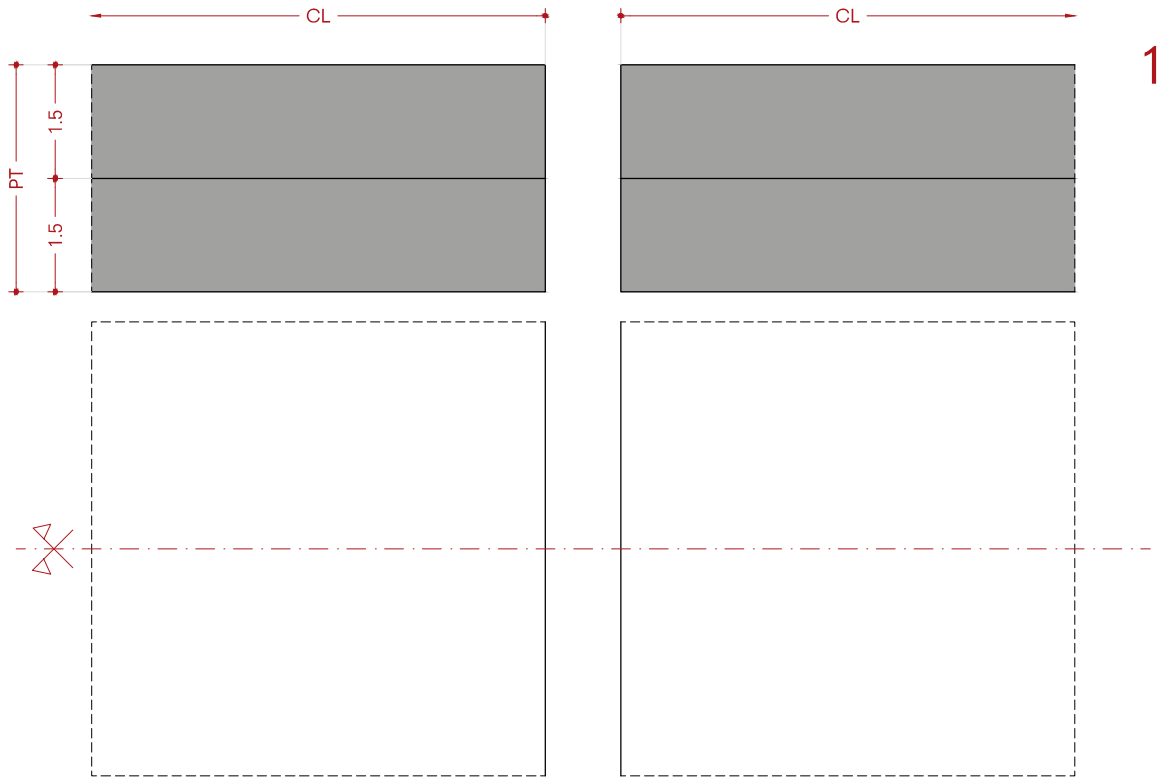
En la soldadura de acero galvanizado es posible que, ocasionalmente, aparezcan pequeños poros de soldadura. En el caso de que estos poros debieran cerrarse por motivos estéticos, recomendamos no hacer el repaso mediante el procedimiento MAG, sino con el WIG; o bien rellenarlos con una espátula de poliéster con la suficiente resistencia térmica (200°C).

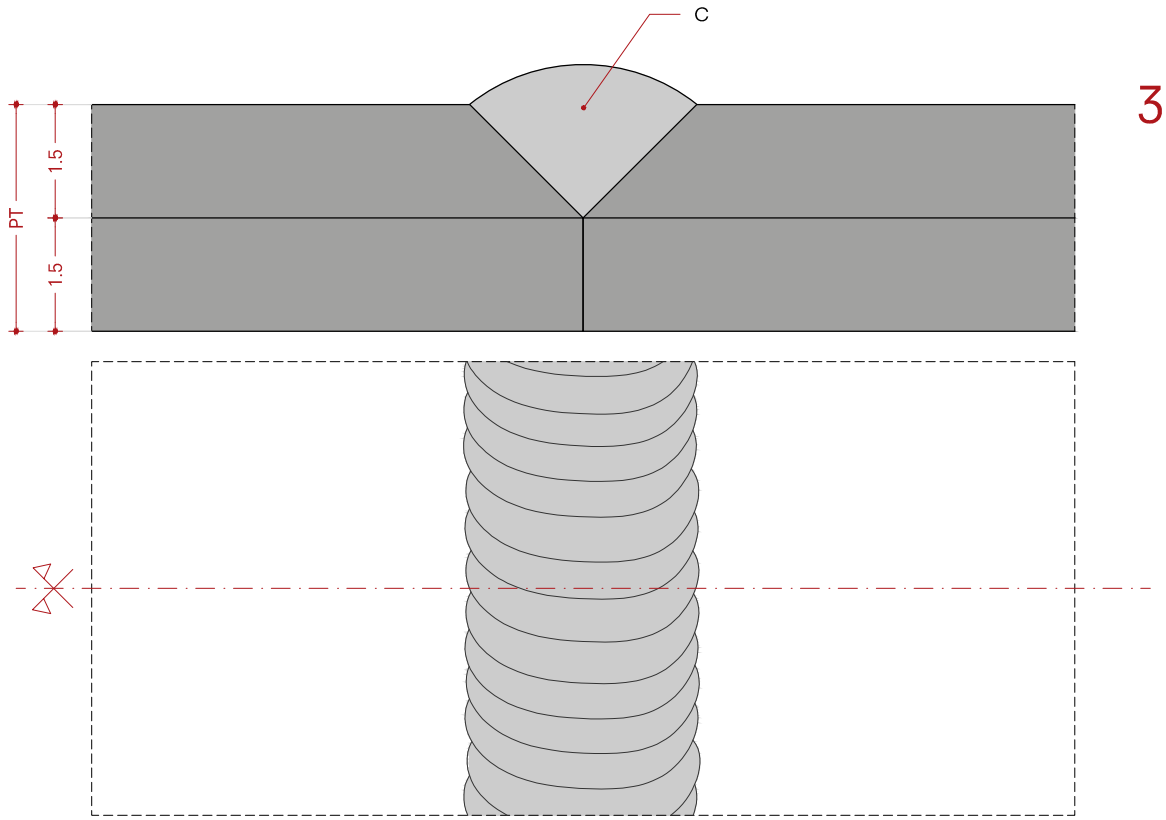
CMT (cold metal transfer)

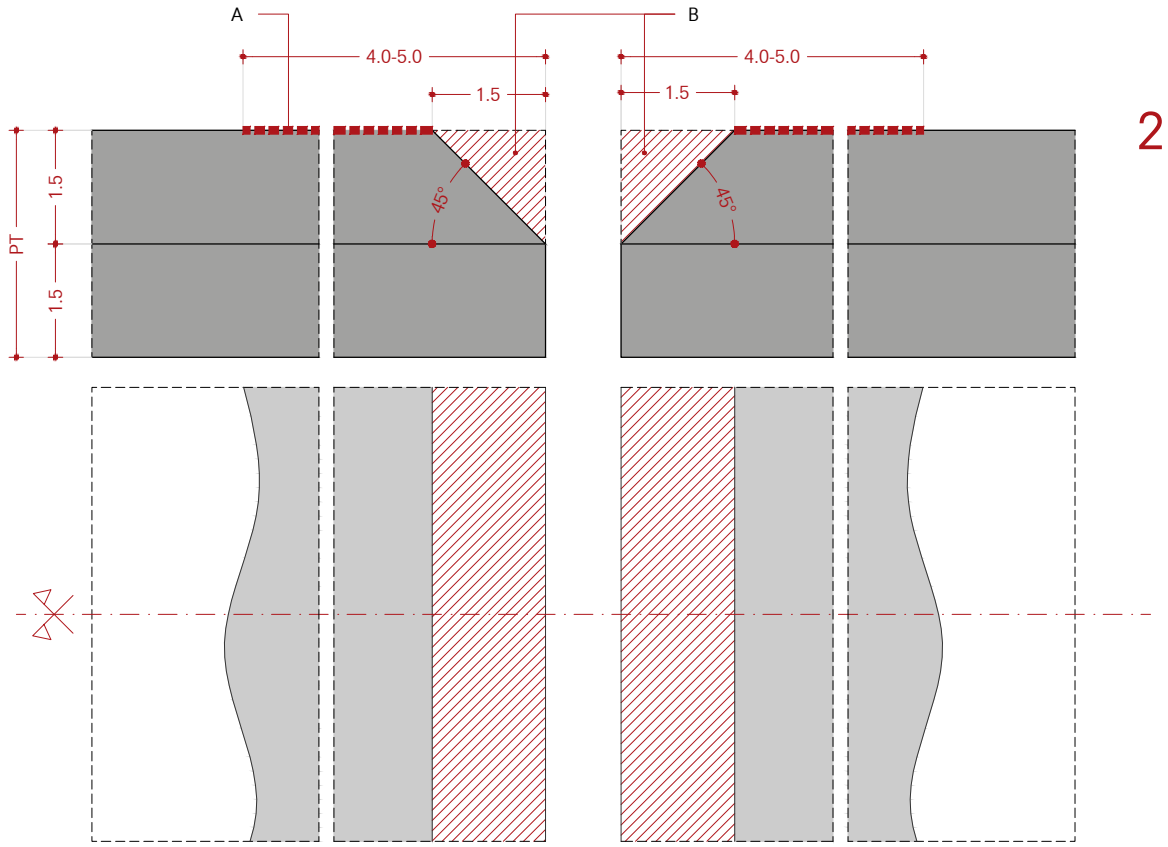
Gas de protección: 100% argón
Cordón de soldadura:
A) $CuSi_3$ diámetro 0.8 mm (Dratec/Bedra)
B) DT-ZiRo, diámetro de 0.8 mm (Dratec)

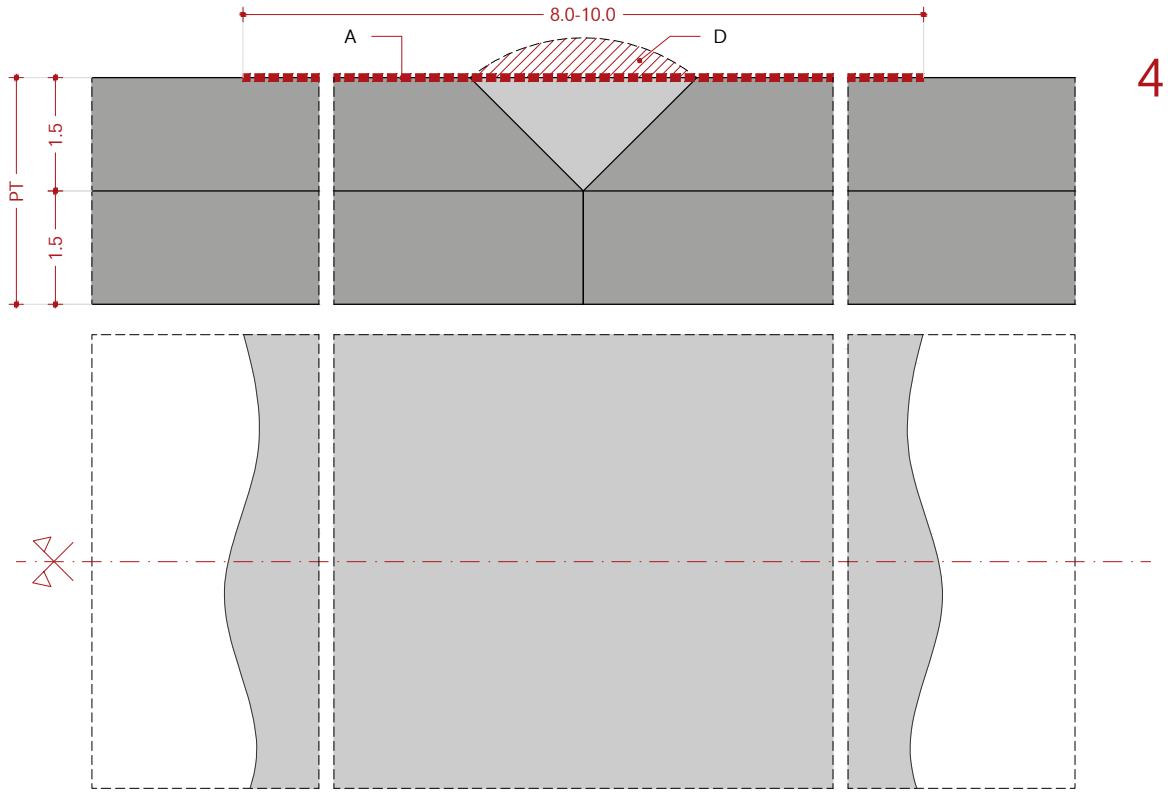
Preparación de los cortes del perfil:
Biselar los extremos de las barras (aprox. 1-1.5 mm x 45°). No biselar los últimos 5 mm del extremo exterior para evitar la abrasión del borde afilado. Puntear las esquinas interiores y exteriores; luego, tirar de la costura de soldadura desde dentro hacia fuera. 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 $CuSi_3$ 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, el agarre mecánico del material de relleno $CuSi_3$ 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 $CuSi_3$. Sin embargo, para la soldadura de bisagras de acero solo debe utilizarse el material de relleno DT-Ziro.

Welding instructions **Istruzioni saldatura** **Instrucciones de soldadura**









PT = Profile thickness

A) Remove zinc coating approx (4.0-5.0 mm) next to welding seam.
B) Chamfer
C) Welding
D) Grind excess part

PT = Spessore profilo

A) Rimuovere la zincatura di ca (4.0-5.0 mm) accanto alla saldatura.
B) Smussare
C) Saldatura
D) Smerigliare parte in eccesso

PT = Espesor de perfil

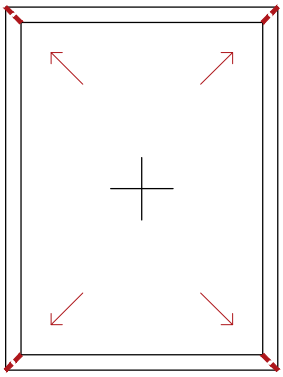
A) Retire la tira de galvanizado ca (4.0-5.0 mm) al lado de la soldadura.
B) Chaflán
C) Soldadura
D) Esmerilar la parte sobrante

FT 5009LF-02 / FT 5009LF-02

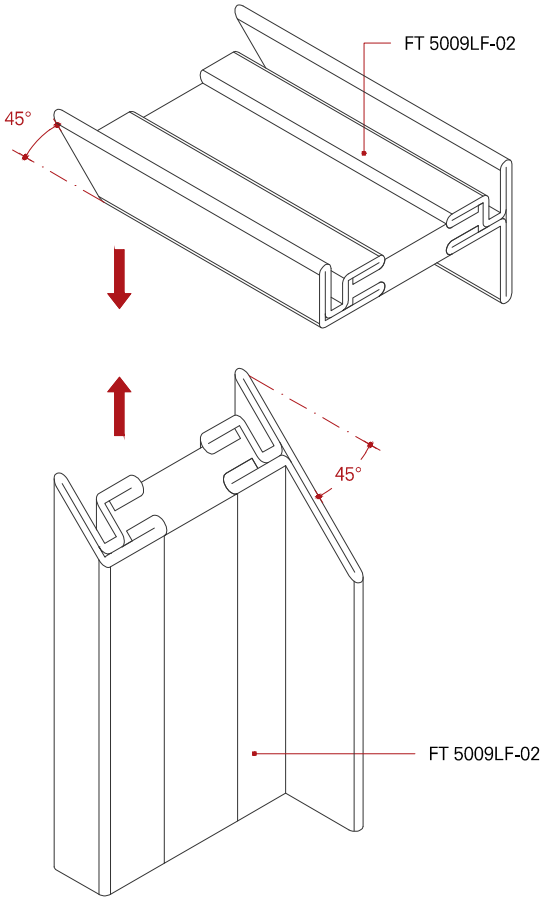
Fixed partition

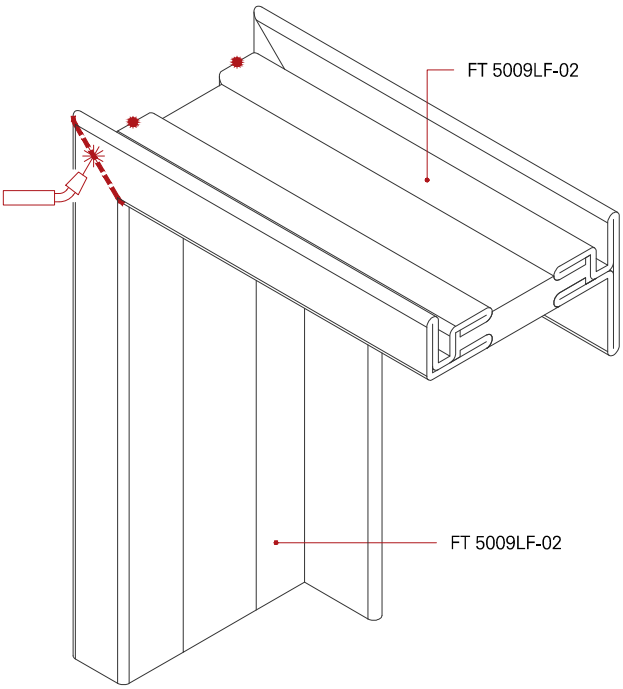
Finestra telaio fisso

Ventana fija



Internal view
Vista interna
Vista interna



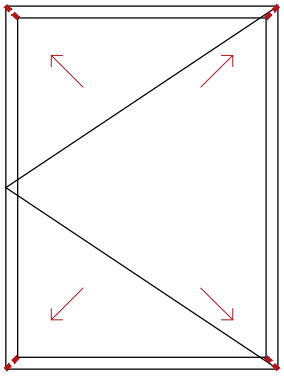


FT 5509ZA-02 / FT 5509ZA-02

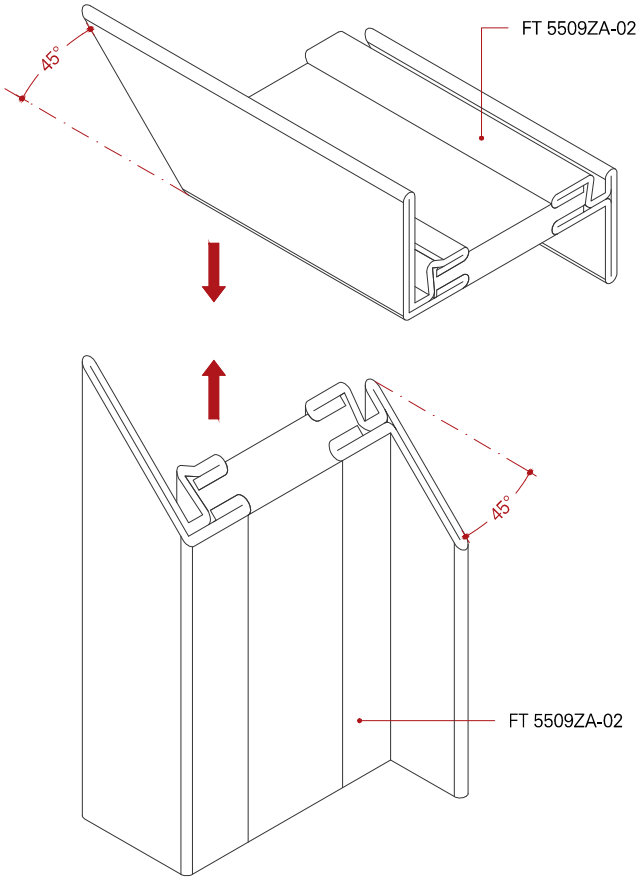
Single leaf window open in

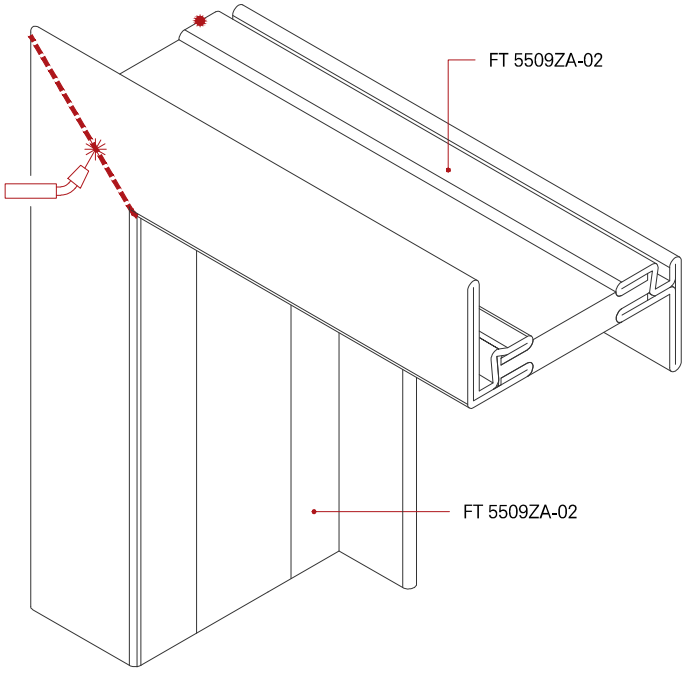
Finestra a un battente apertura interna

Ventana de una hoja que se abre hacia dentro



Internal view
Vista interna
Vista interna



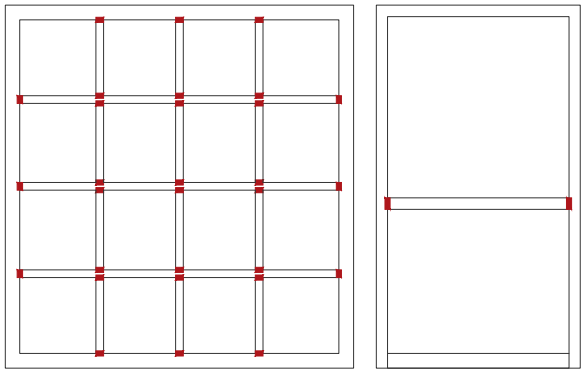


FT 5009LF-02 / FT 5009TN-02

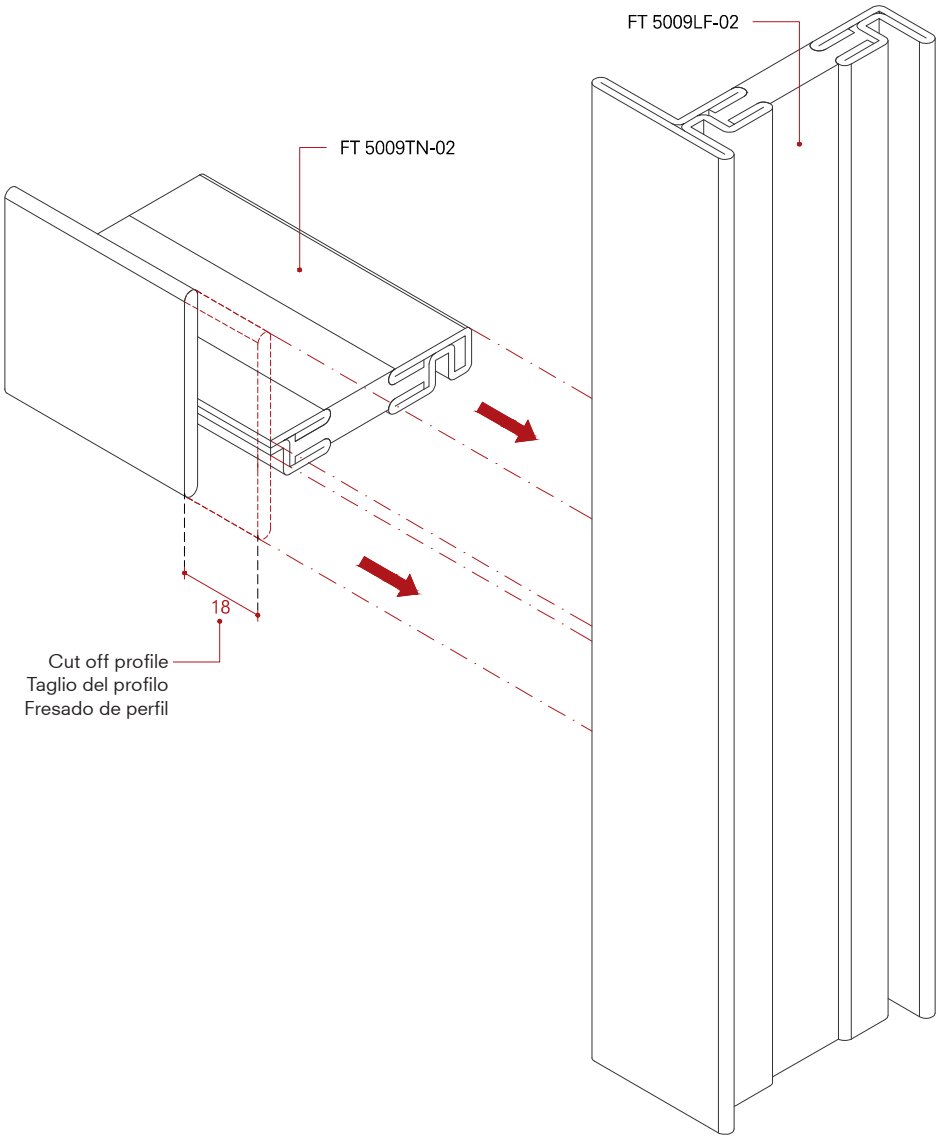
Fixed partitions

Partizioni fisse

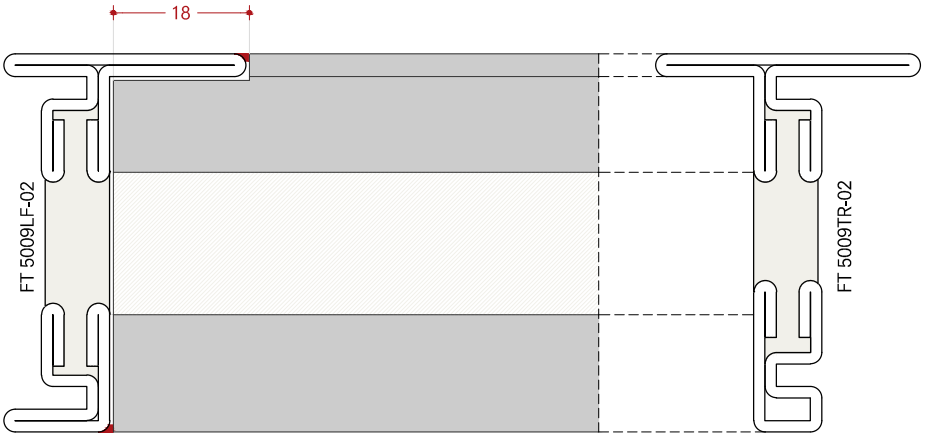
Particiones - secciones fijas

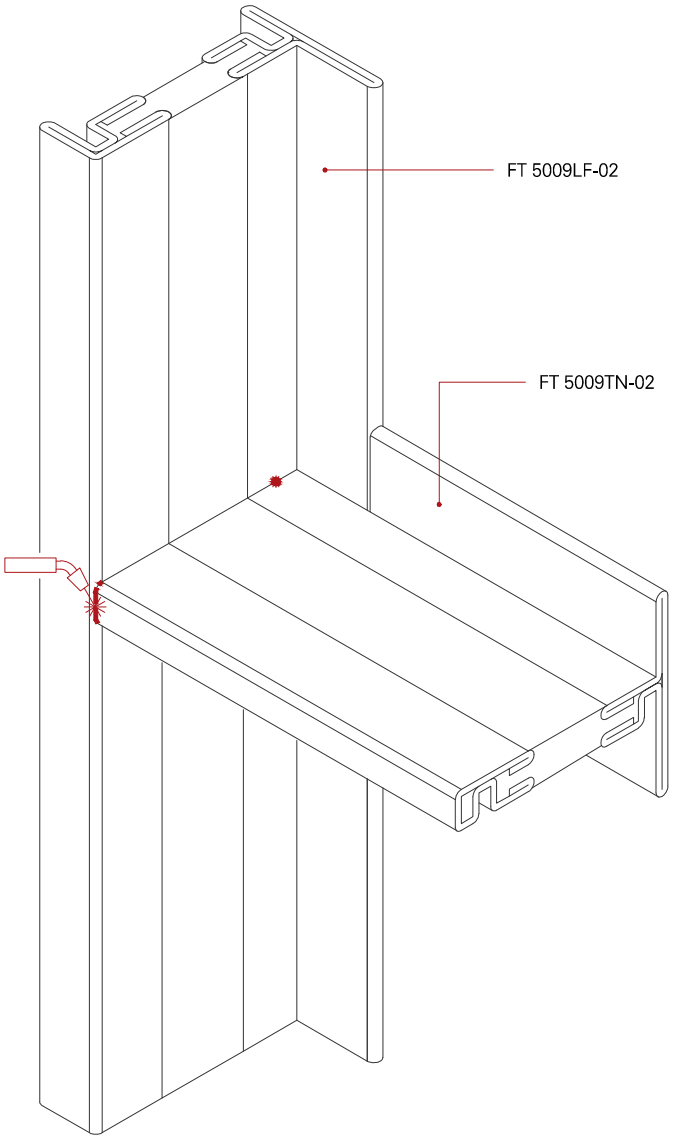


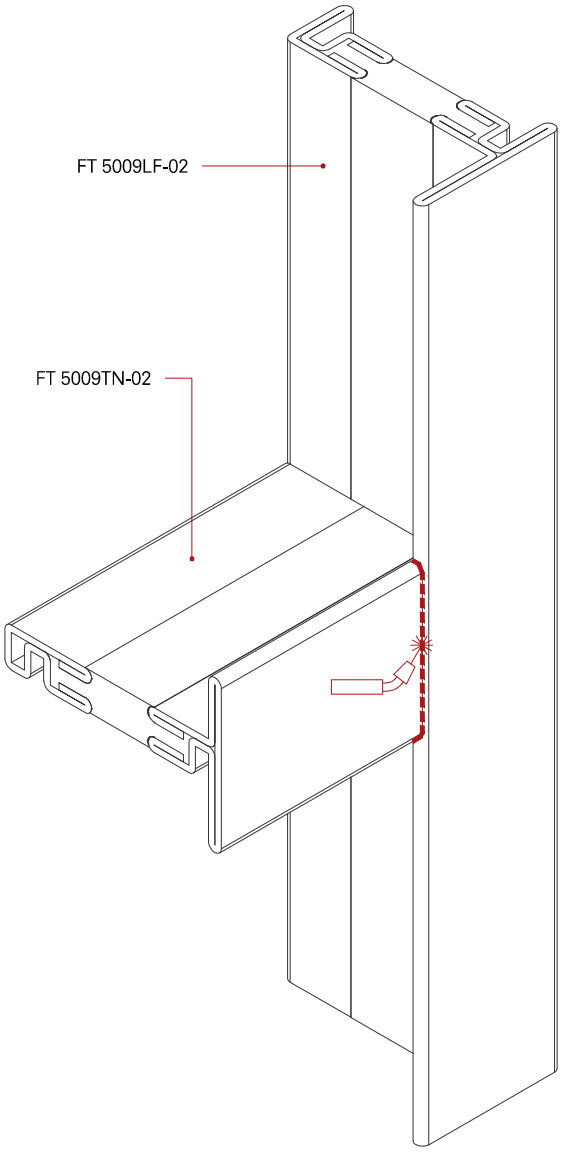
Internal view
Vista interna
Vista interna



External view
Vista esterna
Vista externa







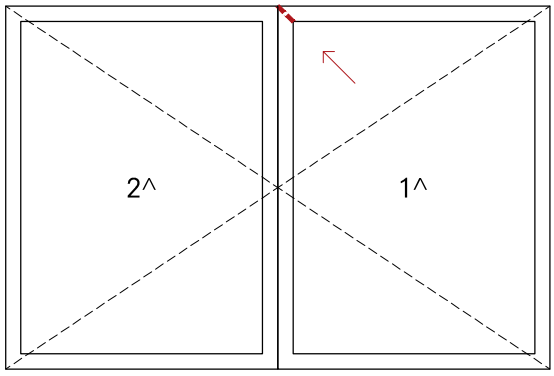
External view
Vista esterna
Vista externa

FT 6109TZ-02 / FT 5509TA-02

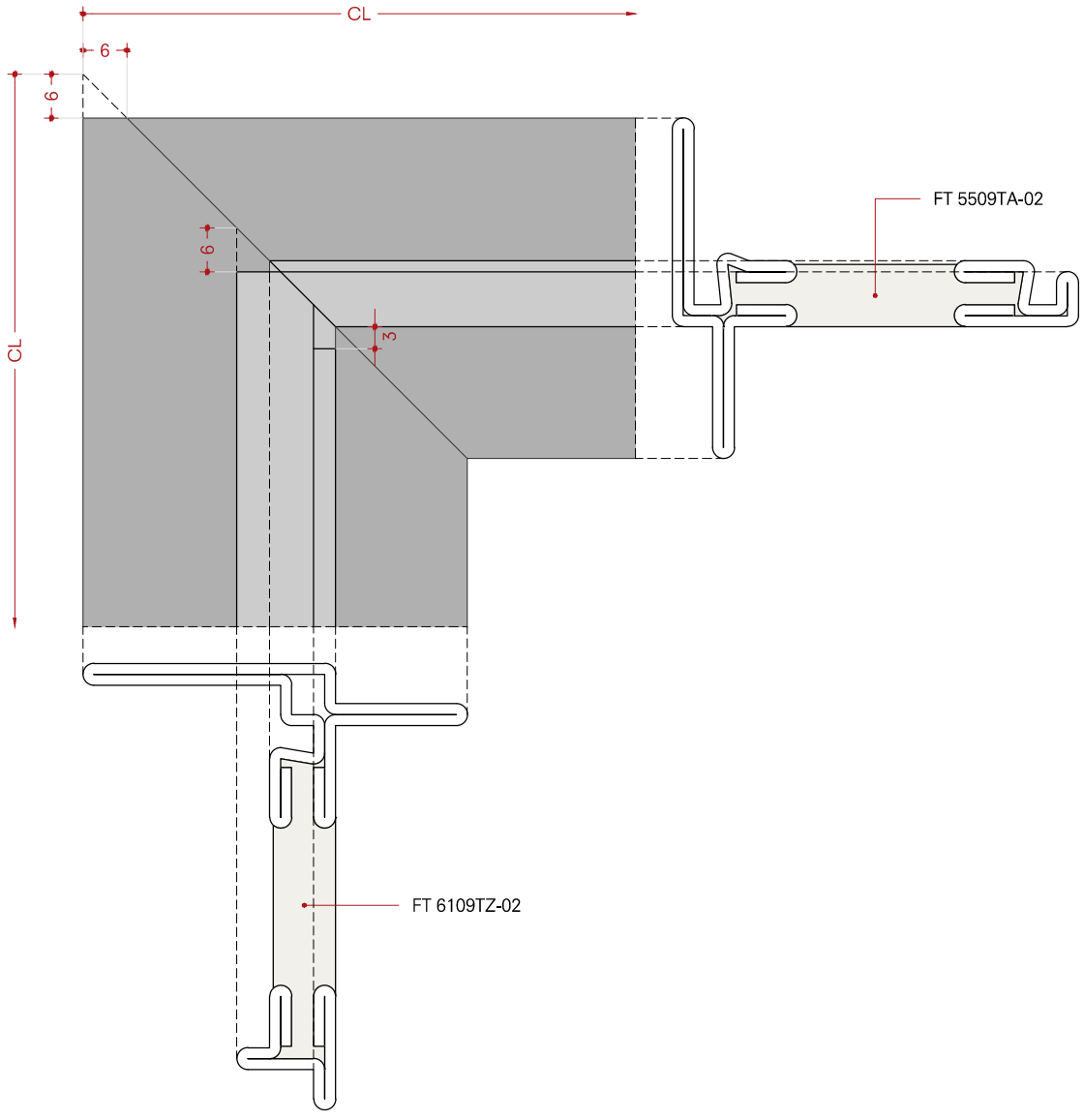
Double leaf window open out

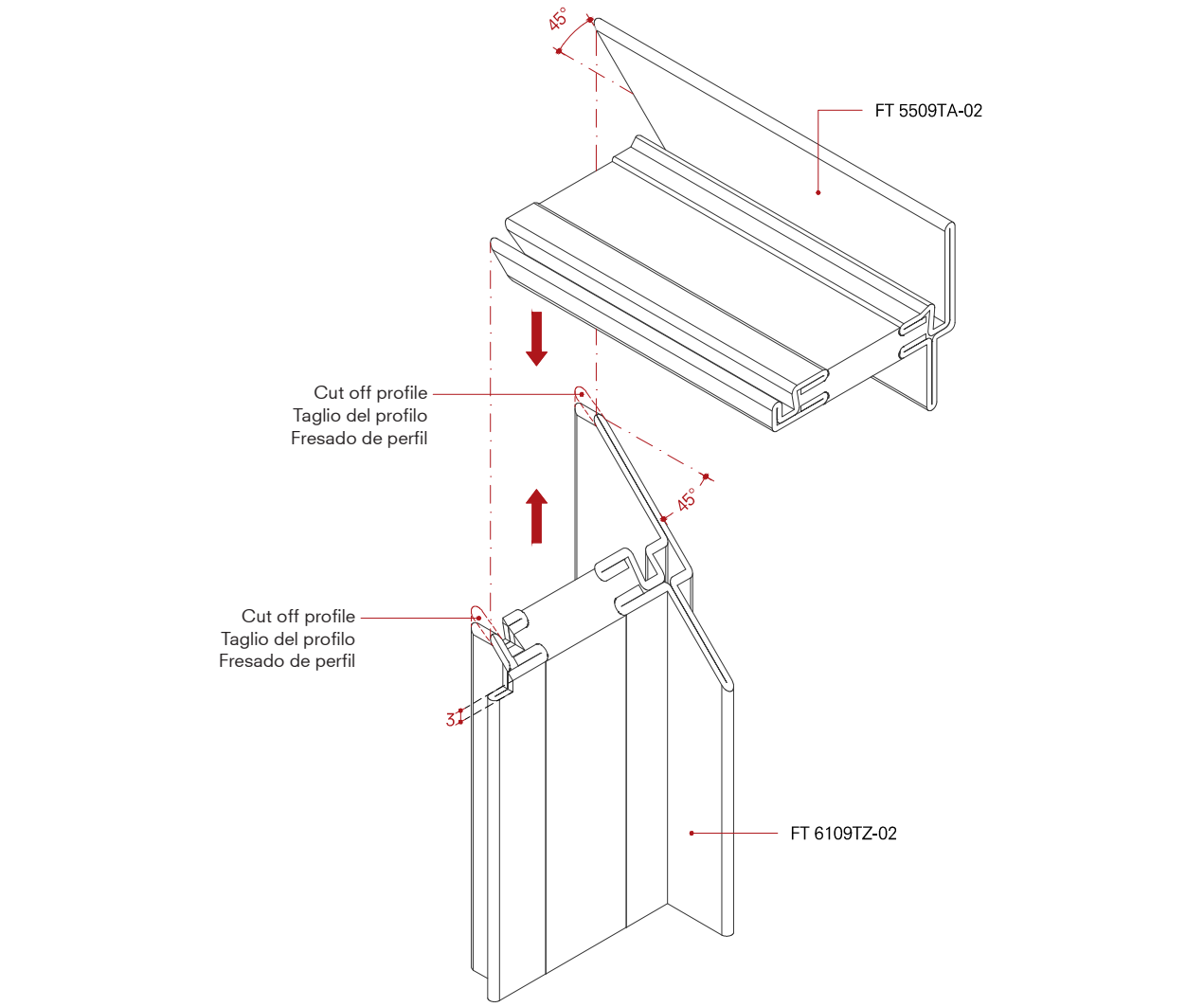
Finestra doppia anta apertura esterna

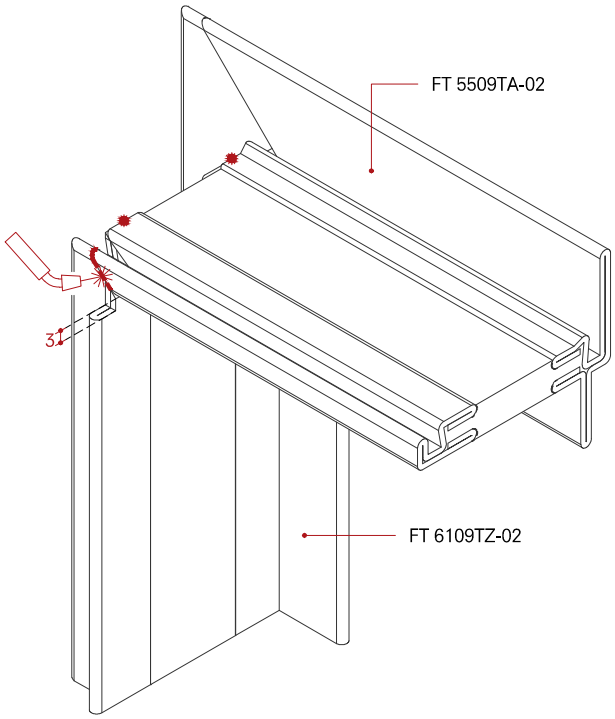
Doble ventana que se abre hacia fuera

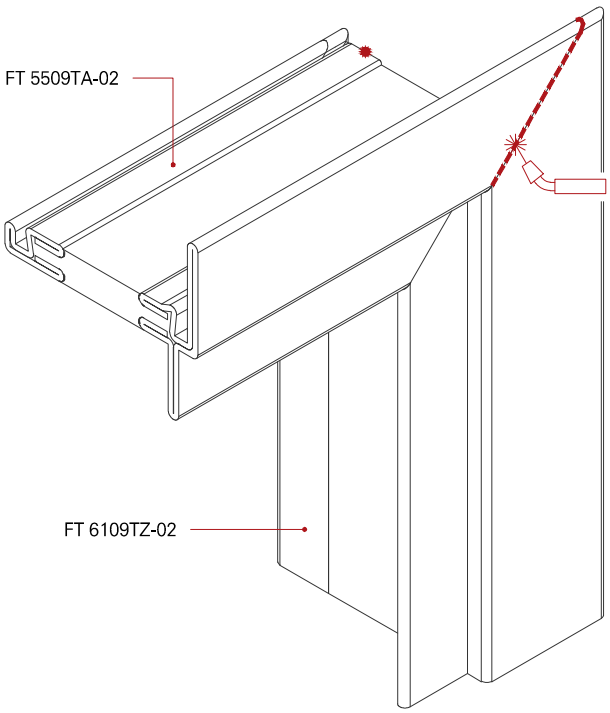


Internal view
Vista interna
Vista interna









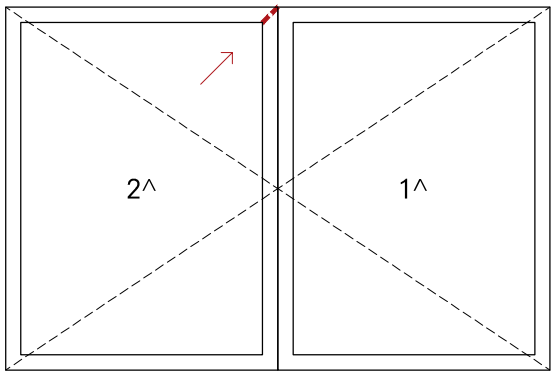
External view
Vista esterna
Vista externa

FT 5509ZA-02 / FT 5509TA-02

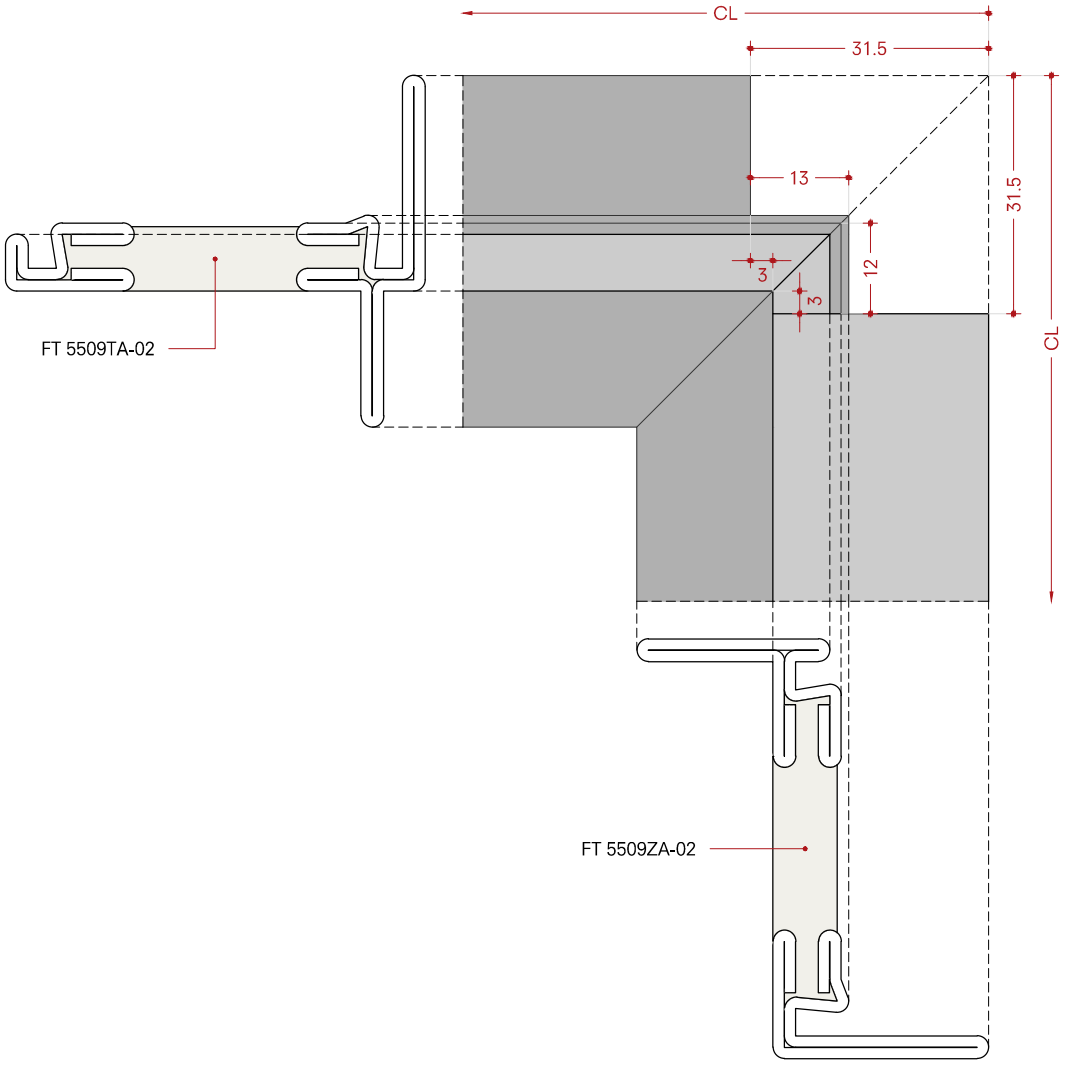
Double leaf window open out

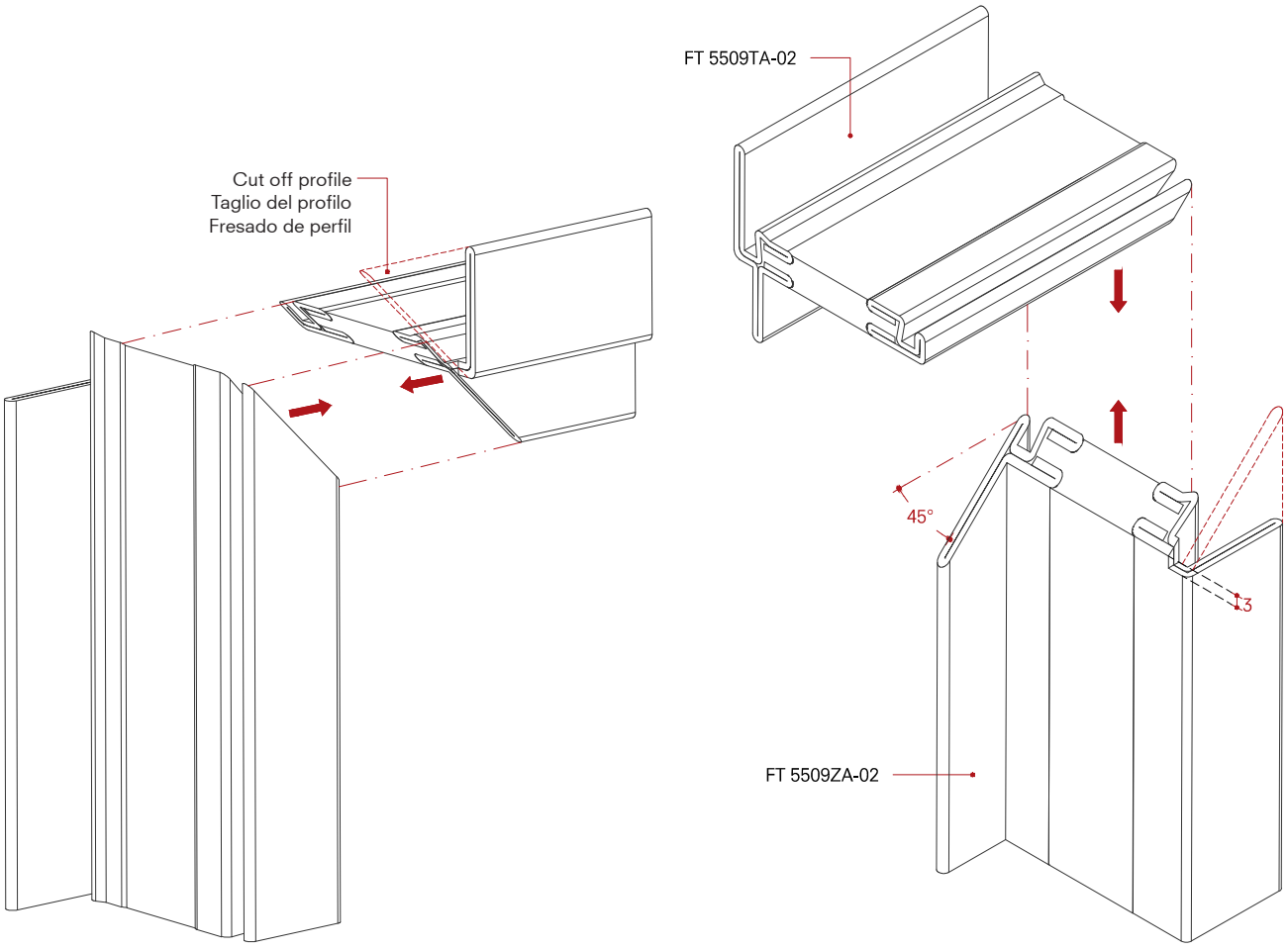
Finestra doppia anta apertura esterna

Doble ventana que se abre hacia fuera

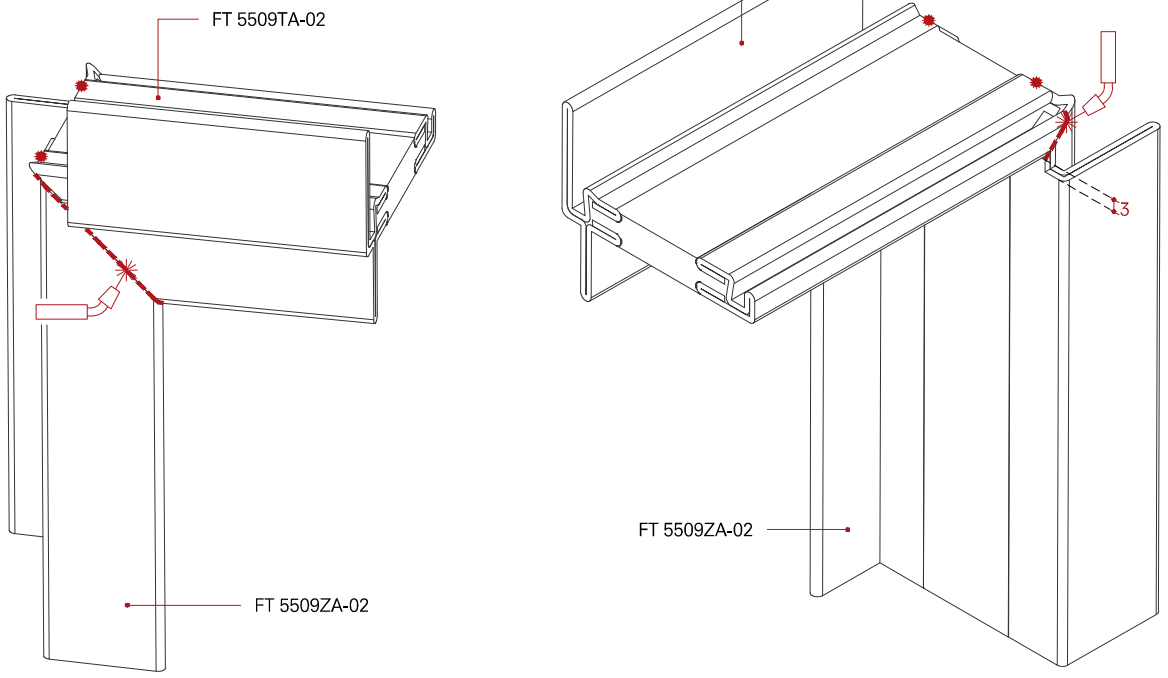


Internal view
Vista interna
Vista interna





External view
Vista esterna
Vista externa



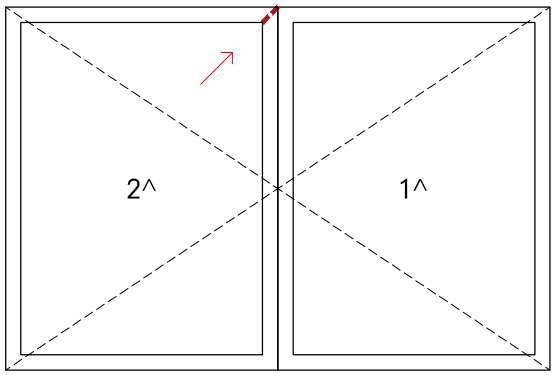
External view
Vista esterna
Vista externa

FT 5509ZL-02 / FT 5509TA-02

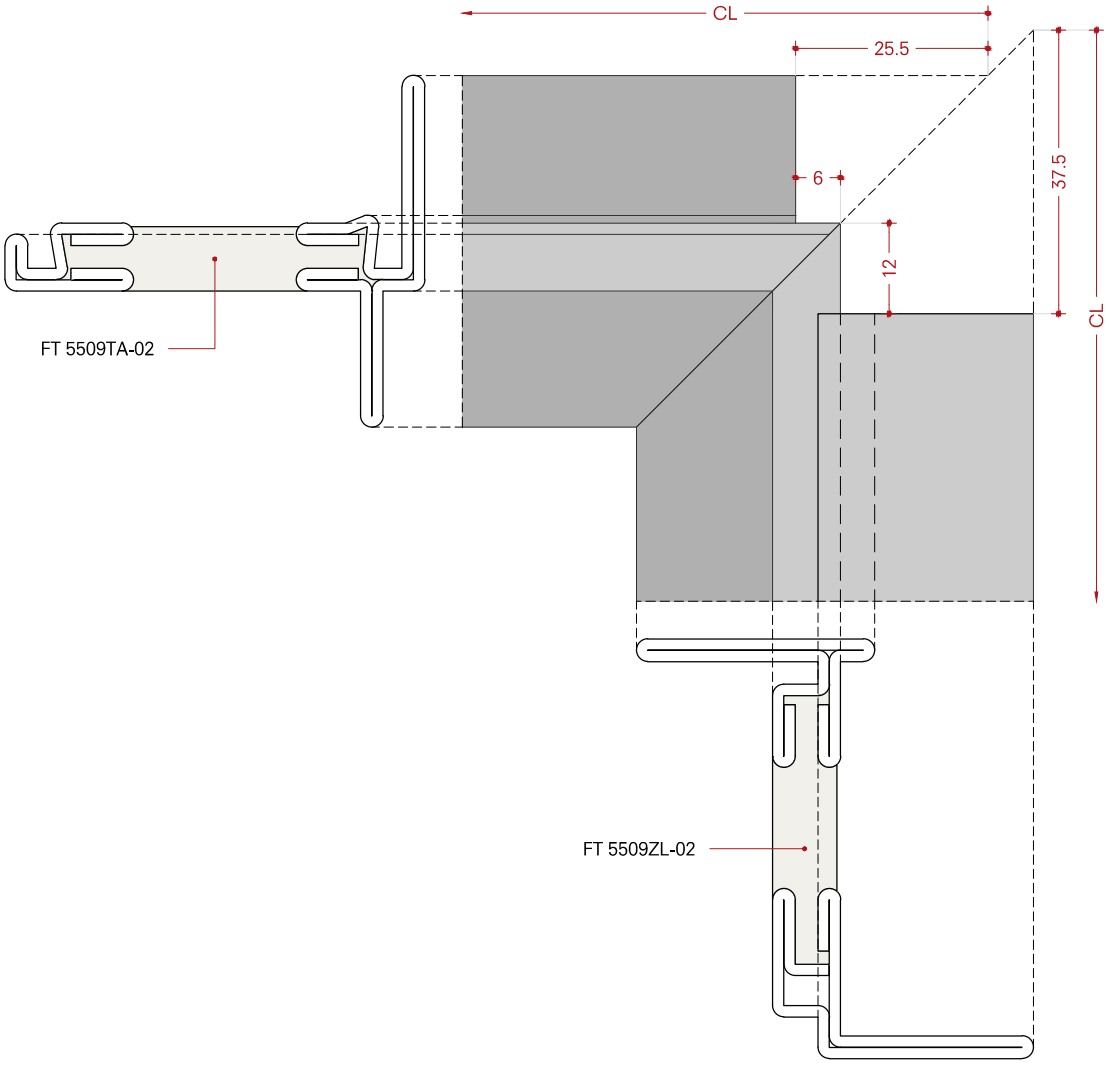
Double leaf window open out

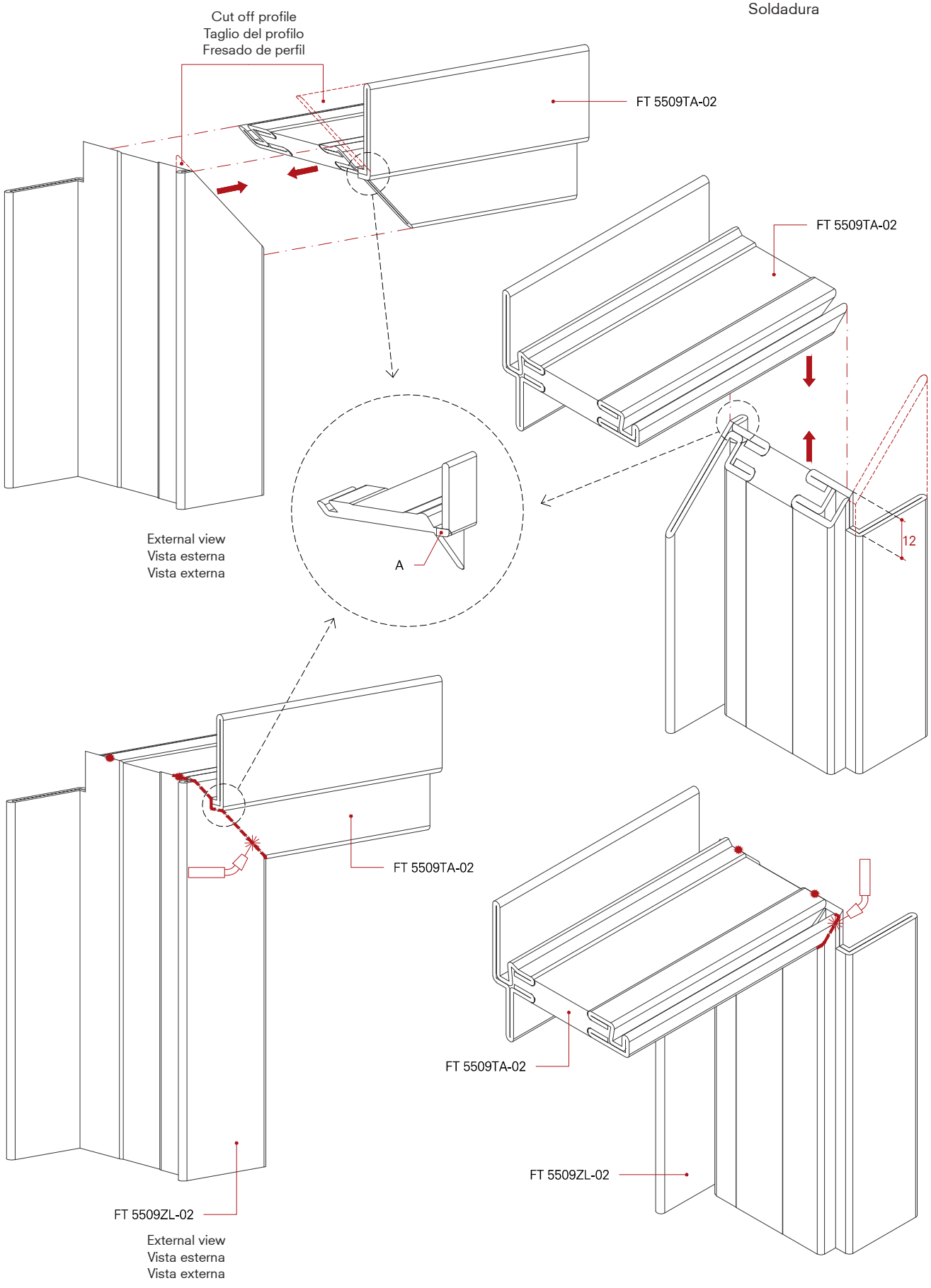
Finestra doppia anta apertura esterna

Doble ventana que se abre hacia fuera



Internal view
Vista interna
Vista interna





A) Do not remove this portion while cutting 45°.

A) Non rimuovere questa porzione durante il taglio a 45°.

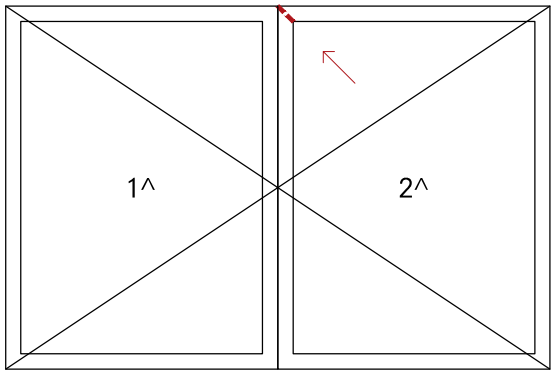
A) No retire esta parte mientras corta a 45°.

FT 6109TZ-02 / FT 5509ZA-02

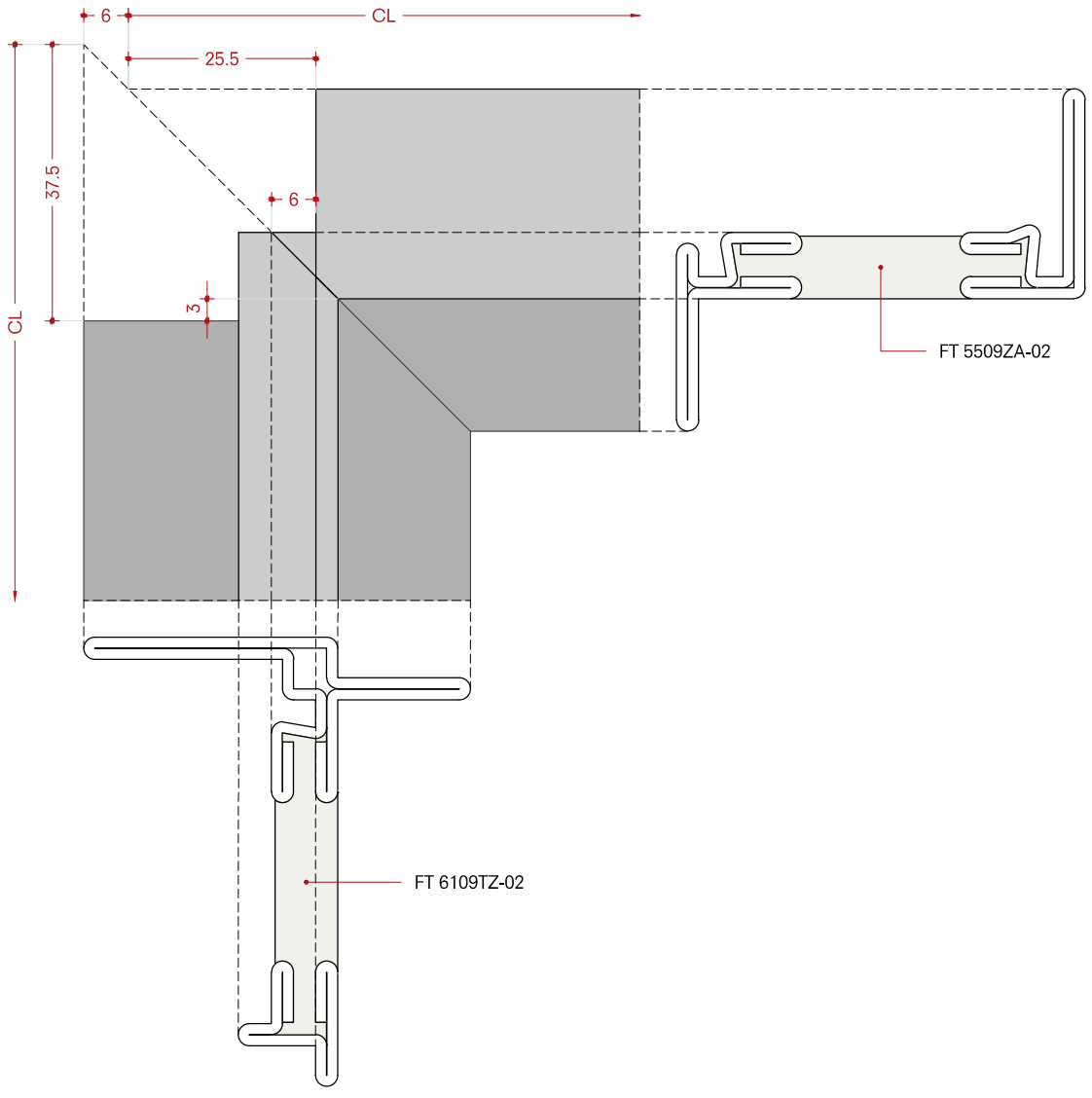
Double leaf window open in

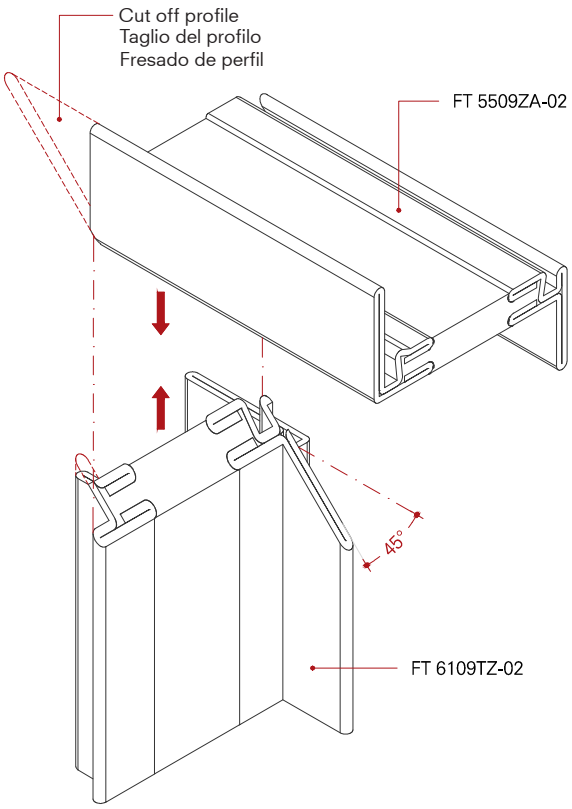
Finestra doppia anta apertura interna

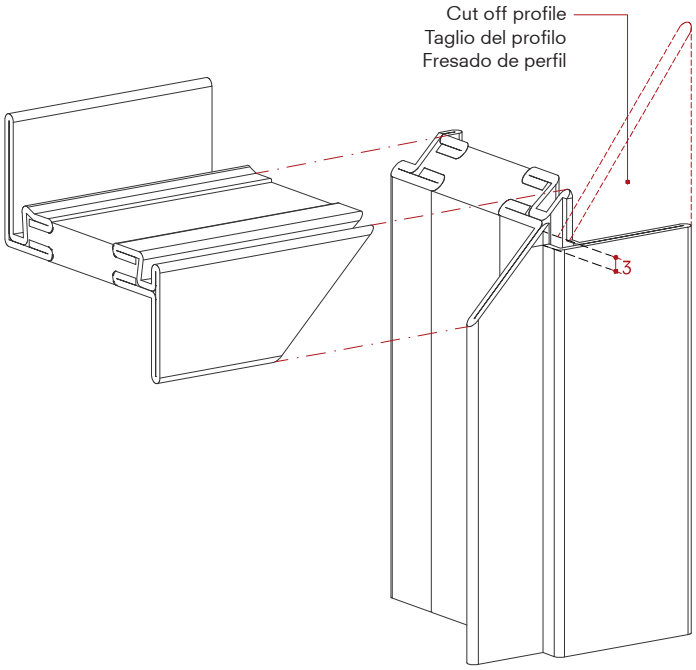
Doble ventana que se abre hacia dentro



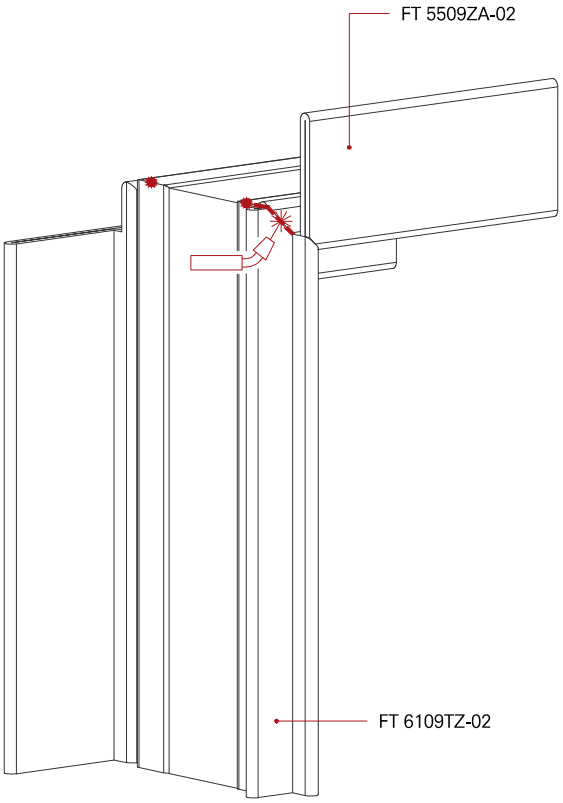
Internal view
Vista interna
Vista interna

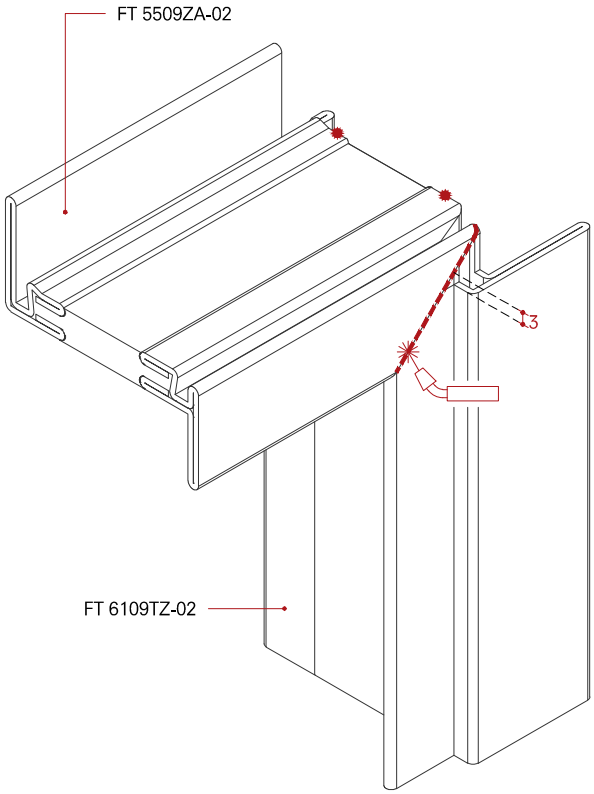






External view
Vista esterna
Vista externa





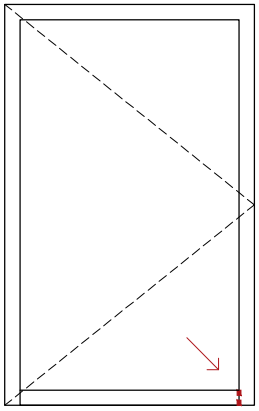
External view
Vista esterna
Vista externa

FT 5509TA-02 / FT 5009HF-02

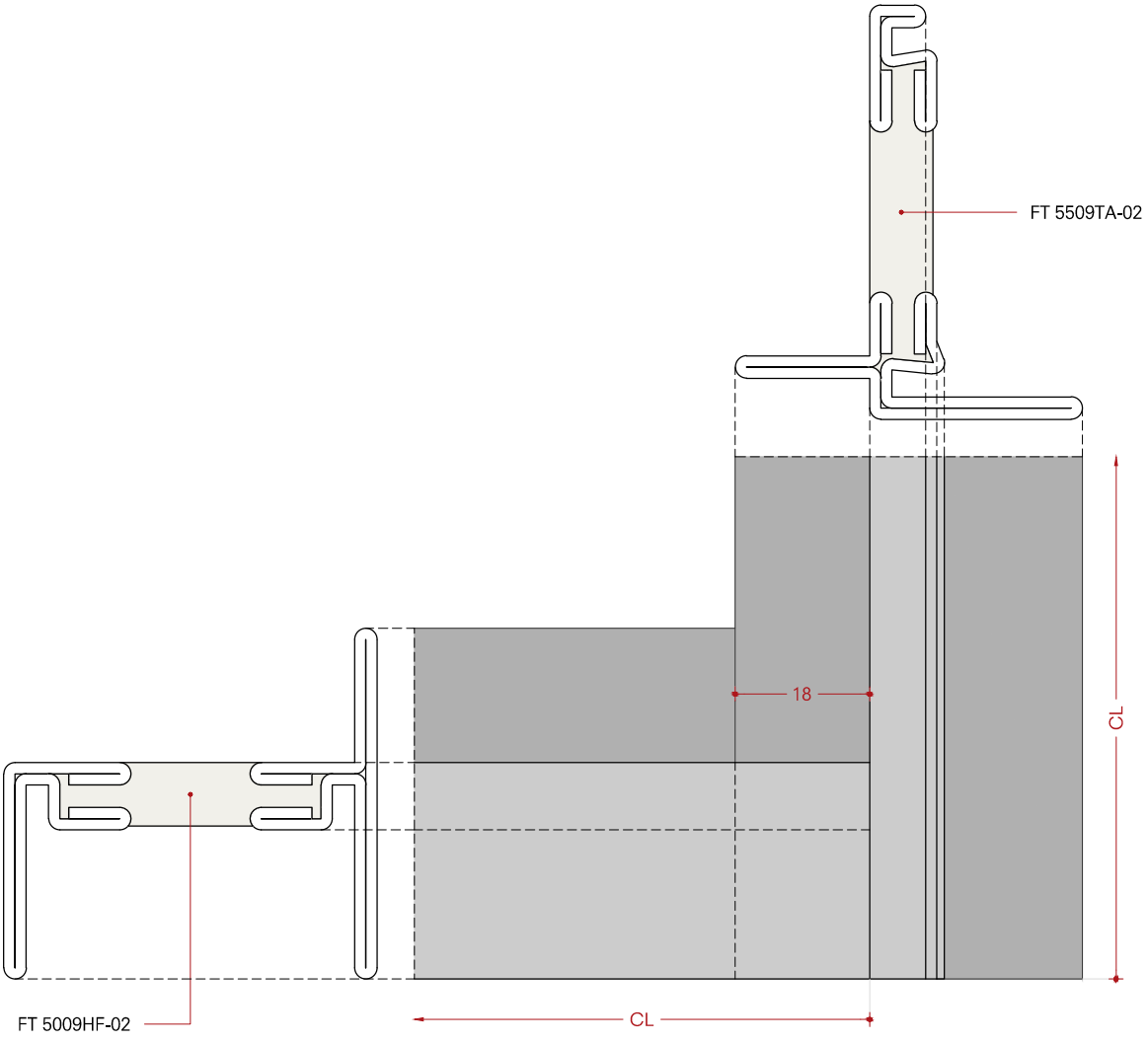
Single leaf door open out

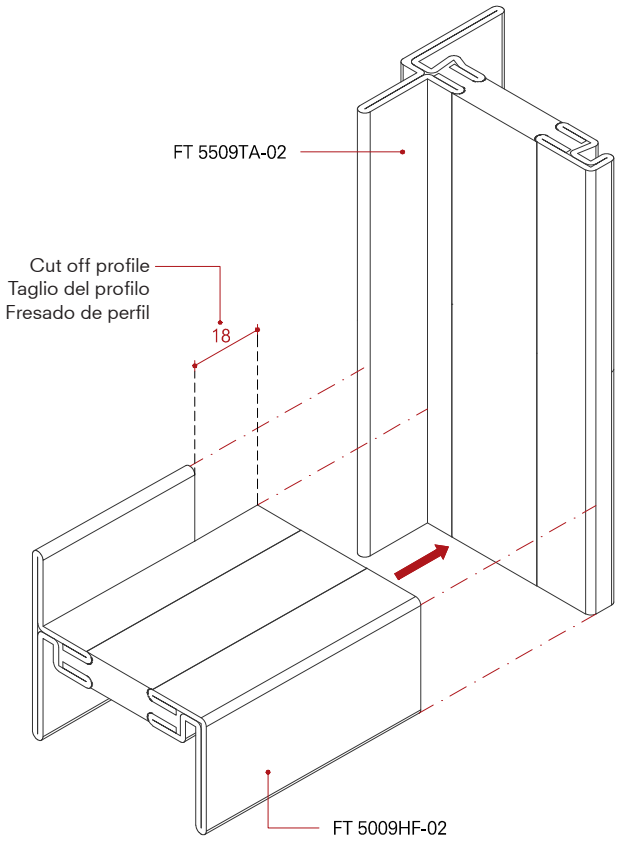
Porta a un battente apertura esterna

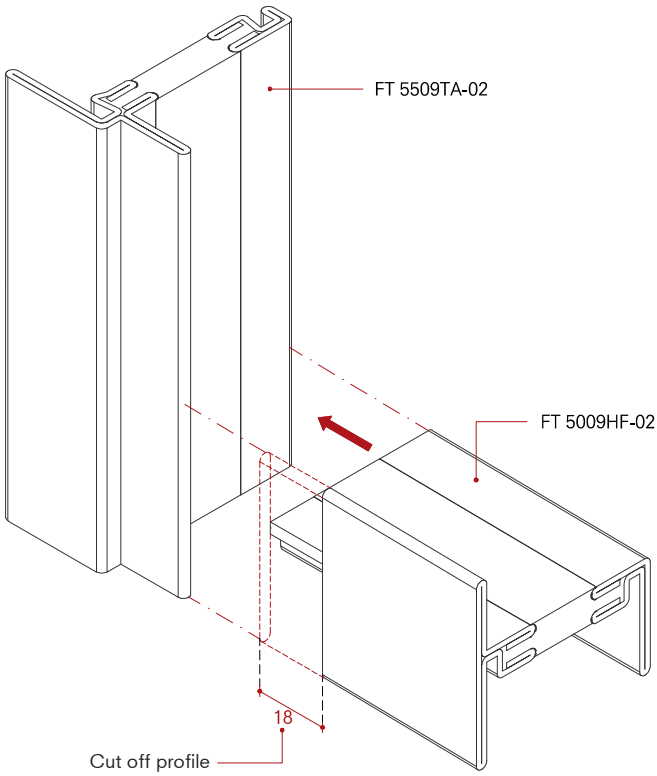
Puerta de una hoja apertura hacia fuera



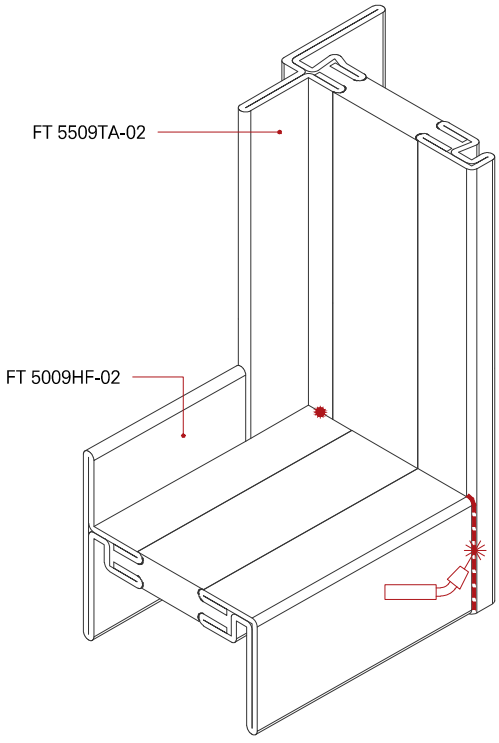
Internal view
Vista interna
Vista interna

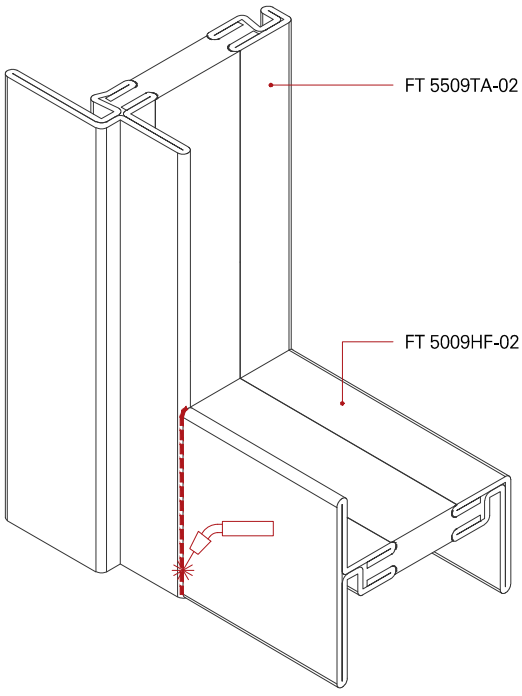






External view
Vista esterna
Vista externa





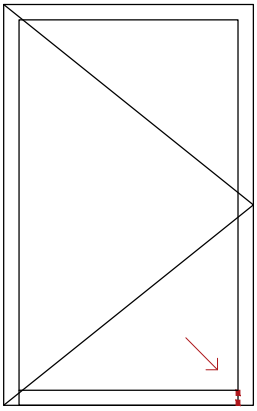
External view
Vista esterna
Vista externa

FT 5509ZA-02 / FT 5009HF-02

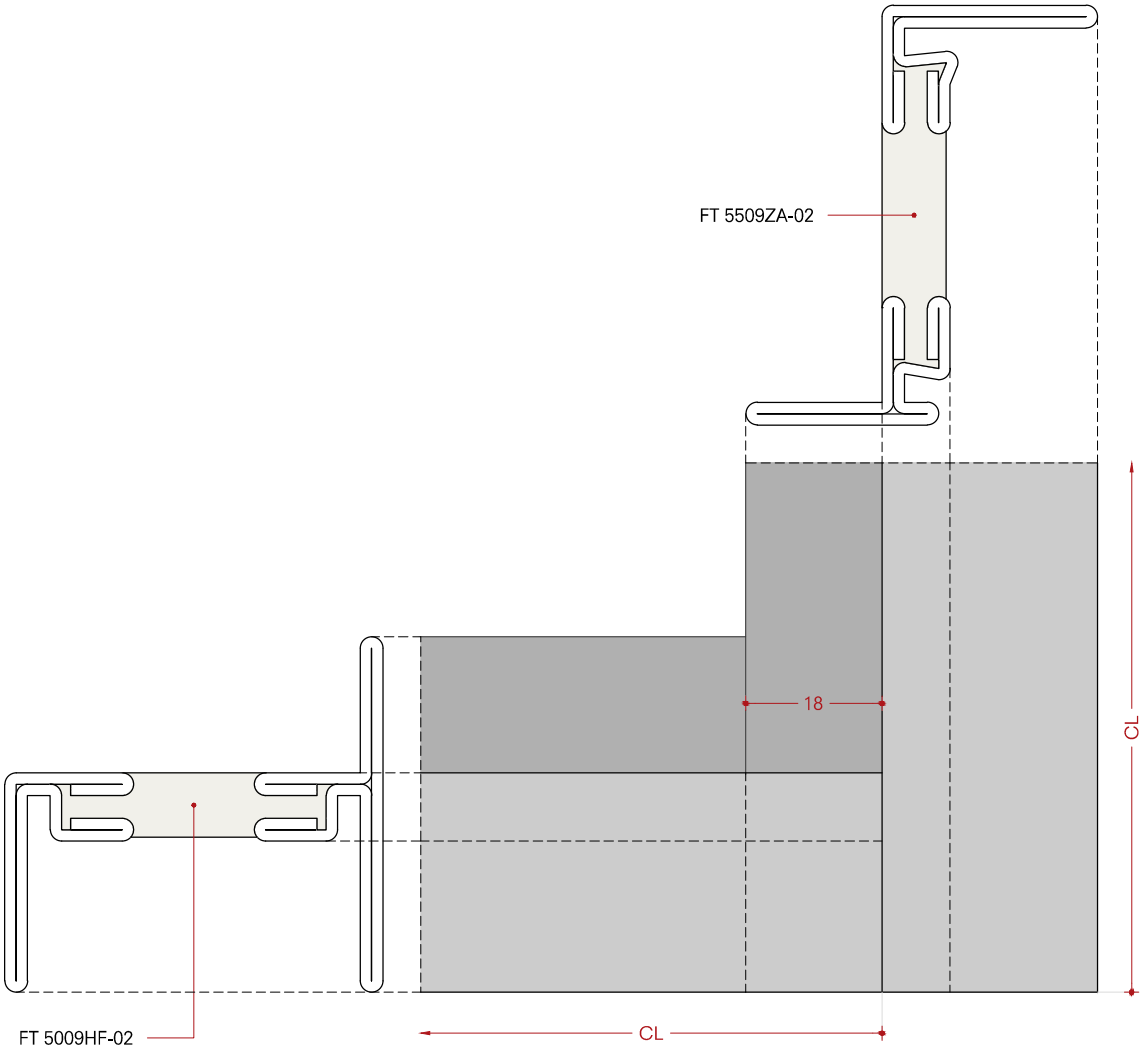
Single leaf door open in

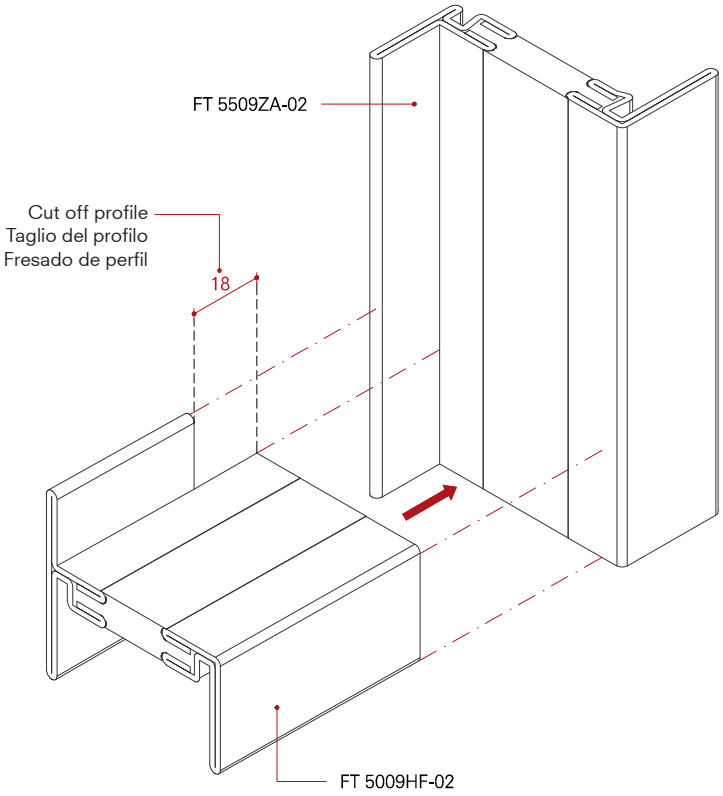
Porta a un battente apertura interna

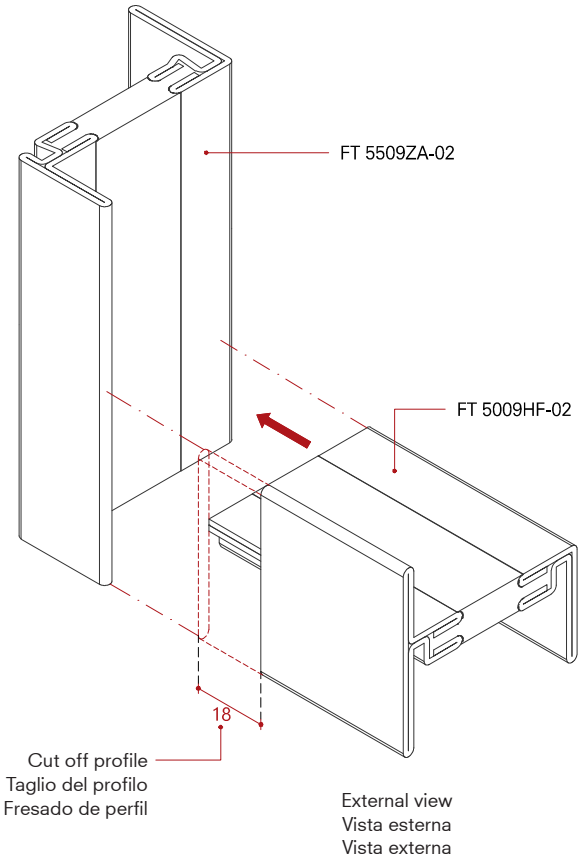
Puerta de una hoja apertura hacia dentro



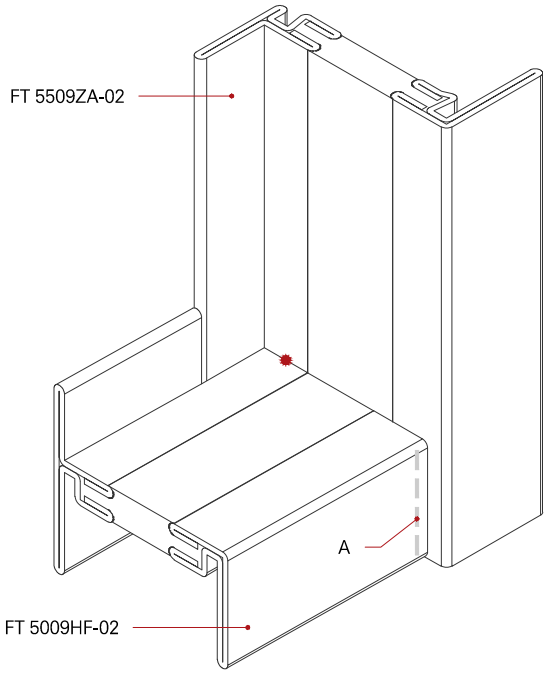
Internal view
Vista interna
Vista interna

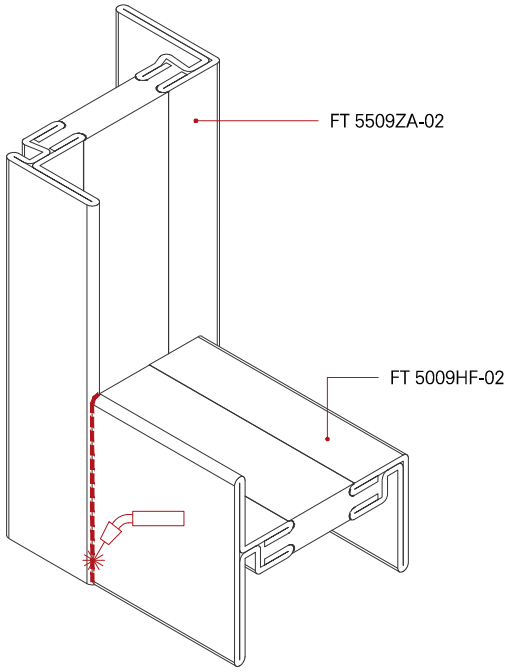






External view
Vista esterna
Vista externa





External view
Vista esterna
Vista externa

A) Welding from behind.

A) Saldatura da dietro.

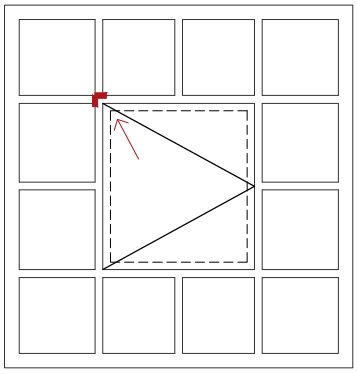
A) Soldar desde atrás.

FT 5509TL-02 / FT 5009TN-02

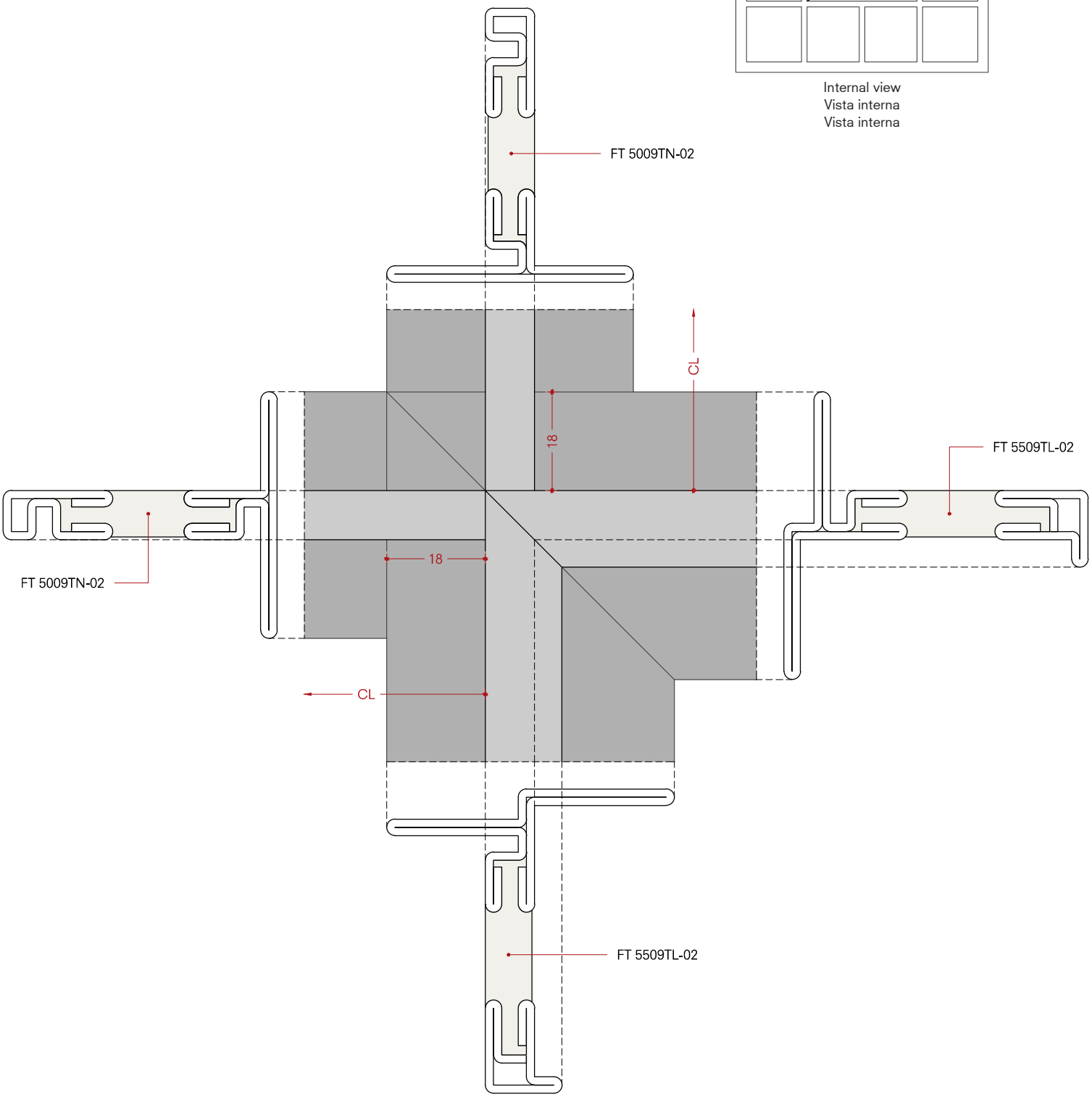
Window open in fixed partitions

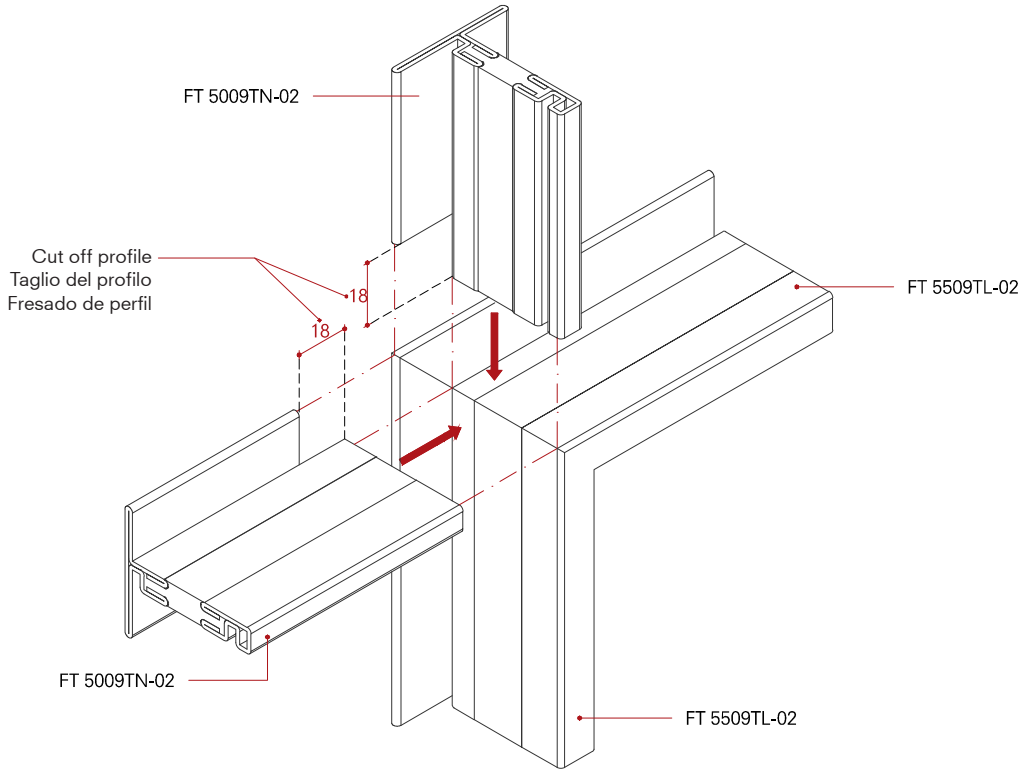
Finestra su partizioni fisse apertura interna

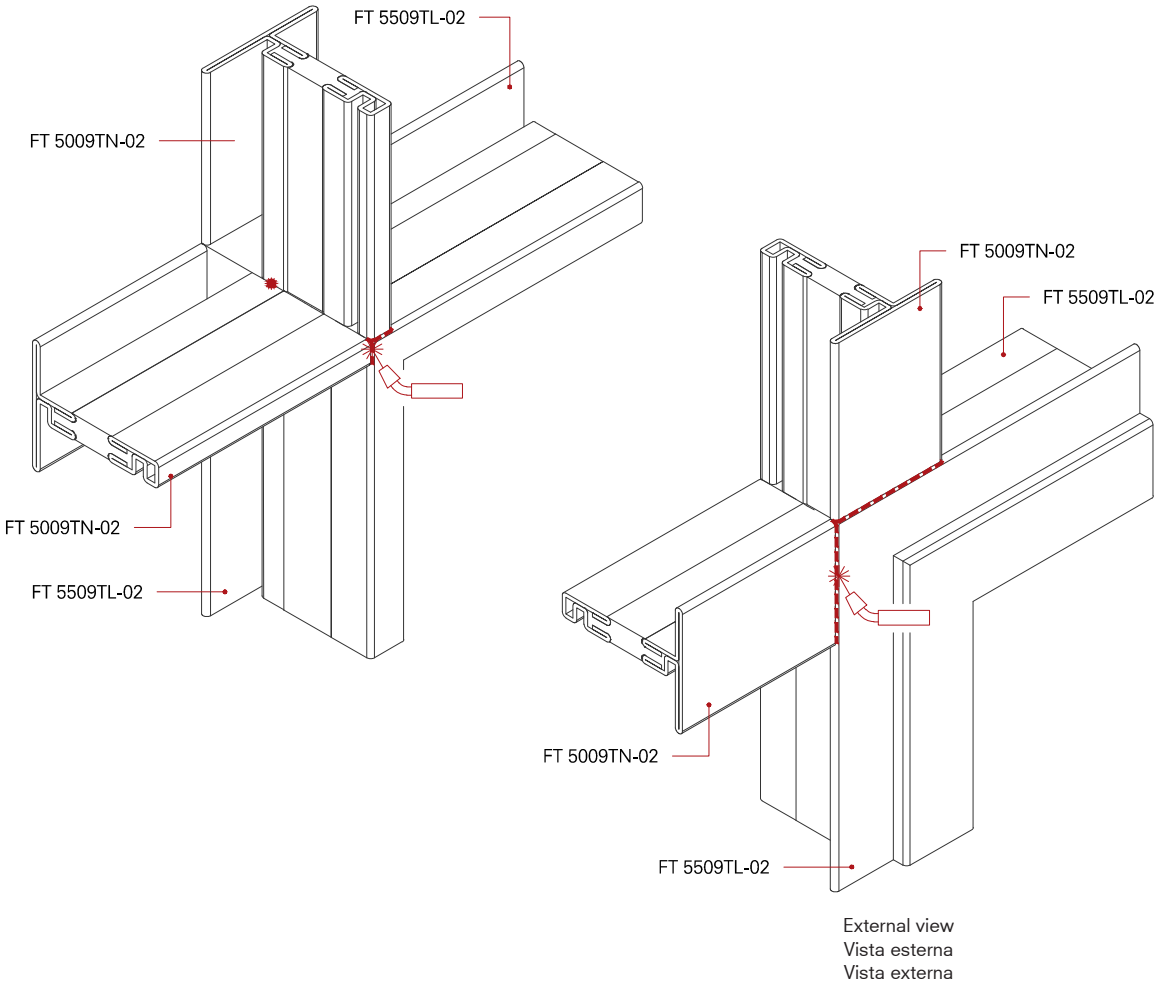
Ventana su particiones apertura hacia dentro



Internal view
Vista interna
Vista interna







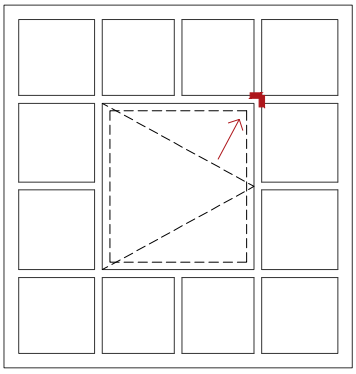
External view
Vista esterna
Vista externa

FT 5509ZL-02 / FT 5009TN-02

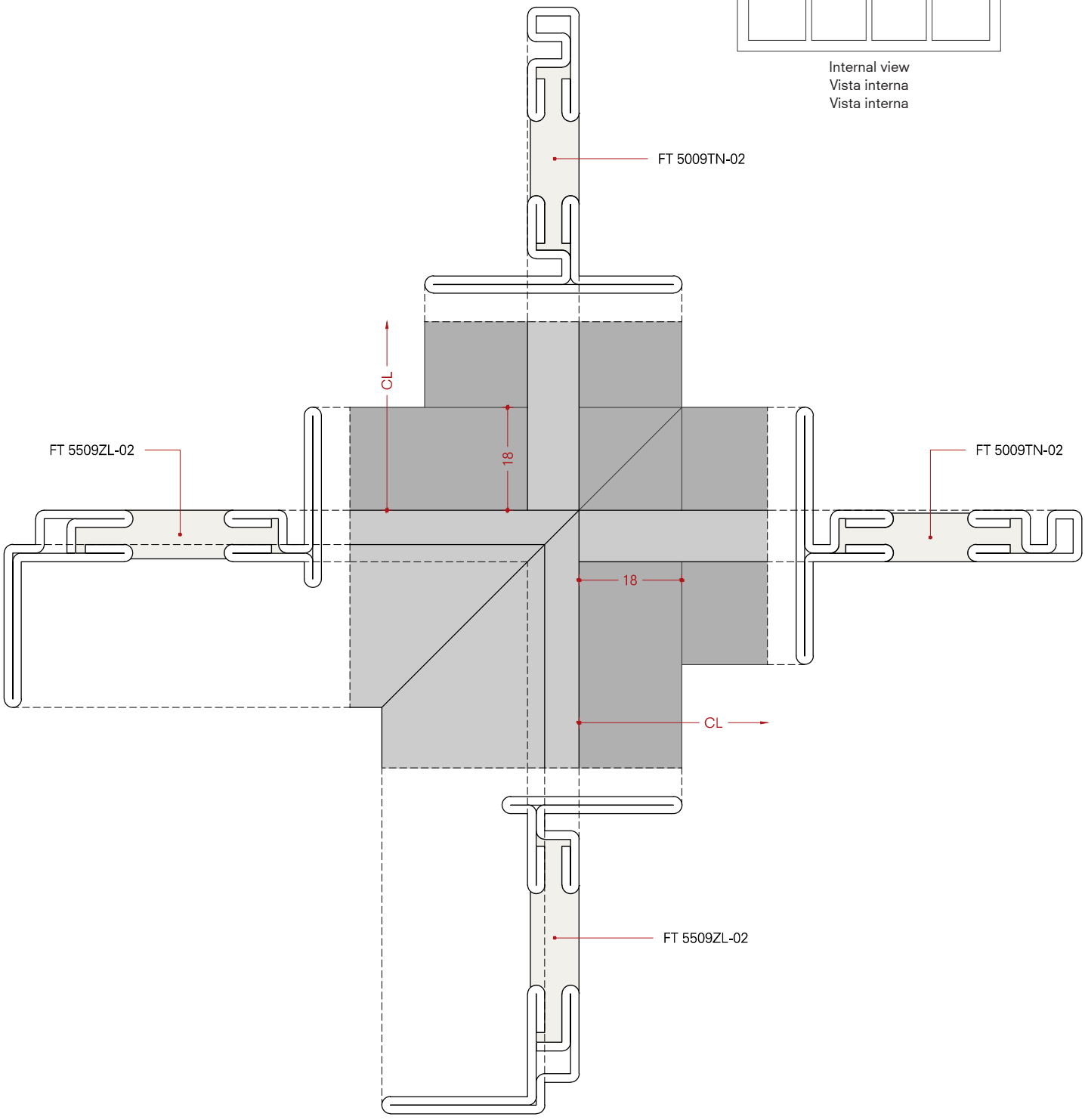
Window open out fixed partitions

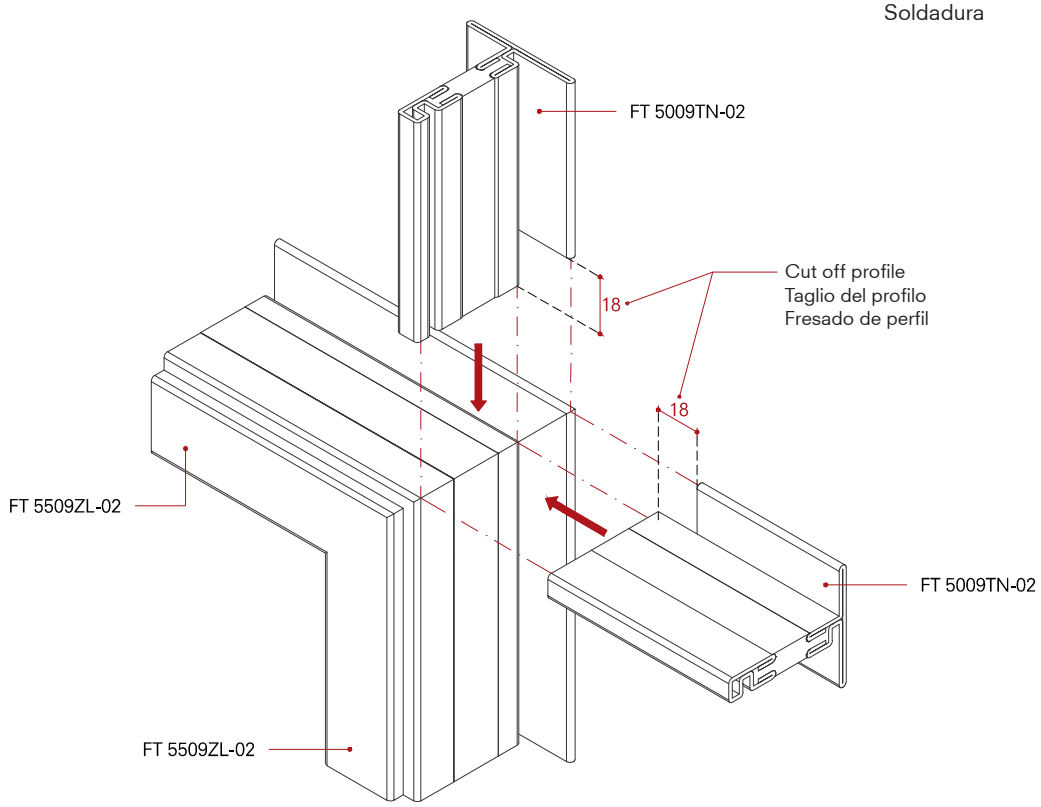
Finestra su partizioni fisse apertura esterna

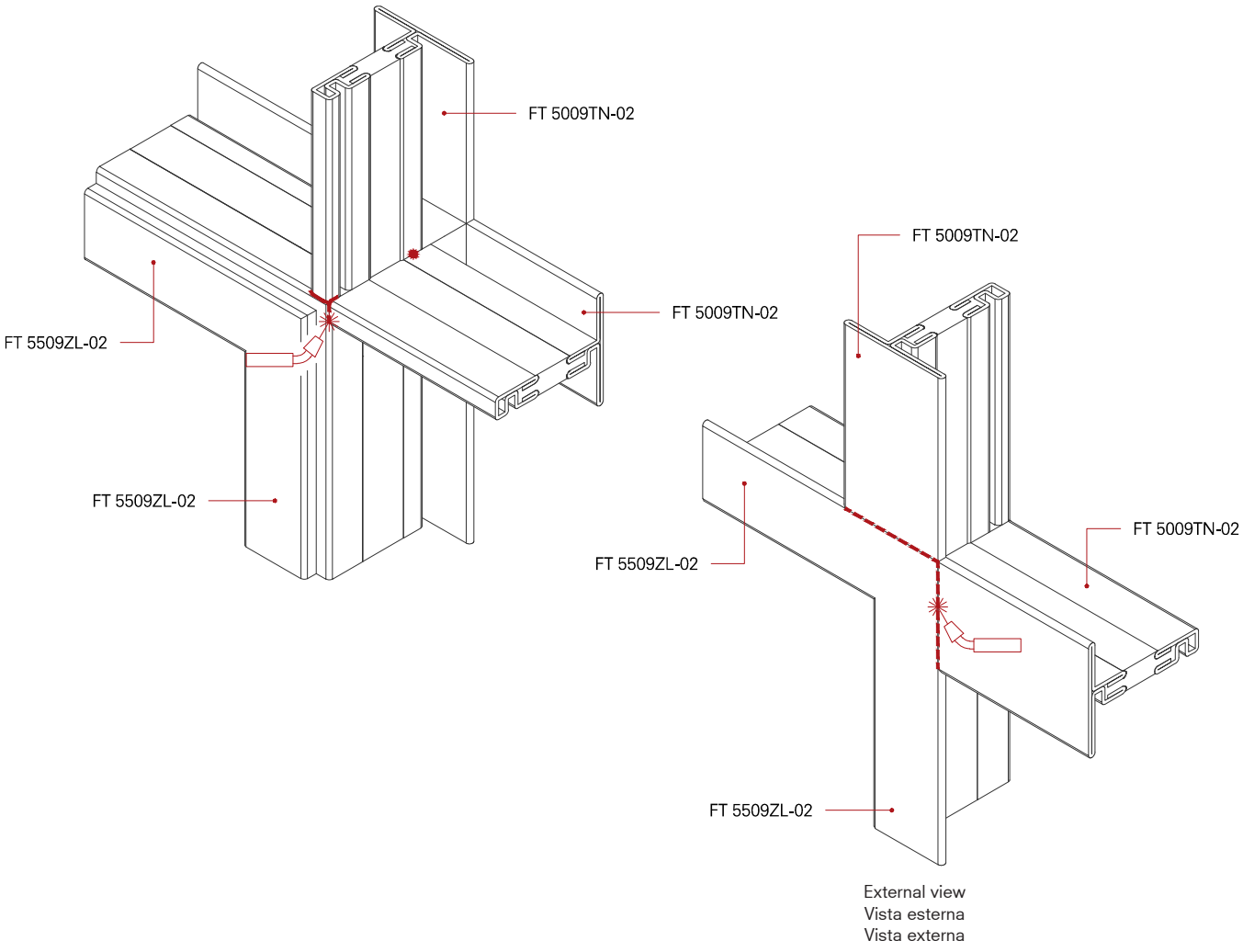
Ventana su particiones apertura hacia fuera



Internal view
Vista interna
Vista interna




FT 5009TN-02
18
Cut off profile
Taglio del profilo
Fresado de perfil
18
FT 5509ZL-02
FT 5009TN-02
FT 5509ZL-02

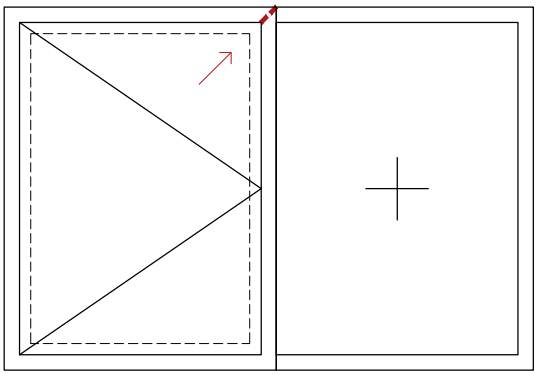

FT 5009TN-02
FT 5009TN-02
FT 5509ZL-02
FT 5509ZL-02
FT 5009TN-02
FT 5009TN-02
FT 5509ZL-02
FT 5509ZL-02
External view
Vista esterna
Vista externa

FT 5509TL-02 / FT 5509L-02 / FT 5009LF-02

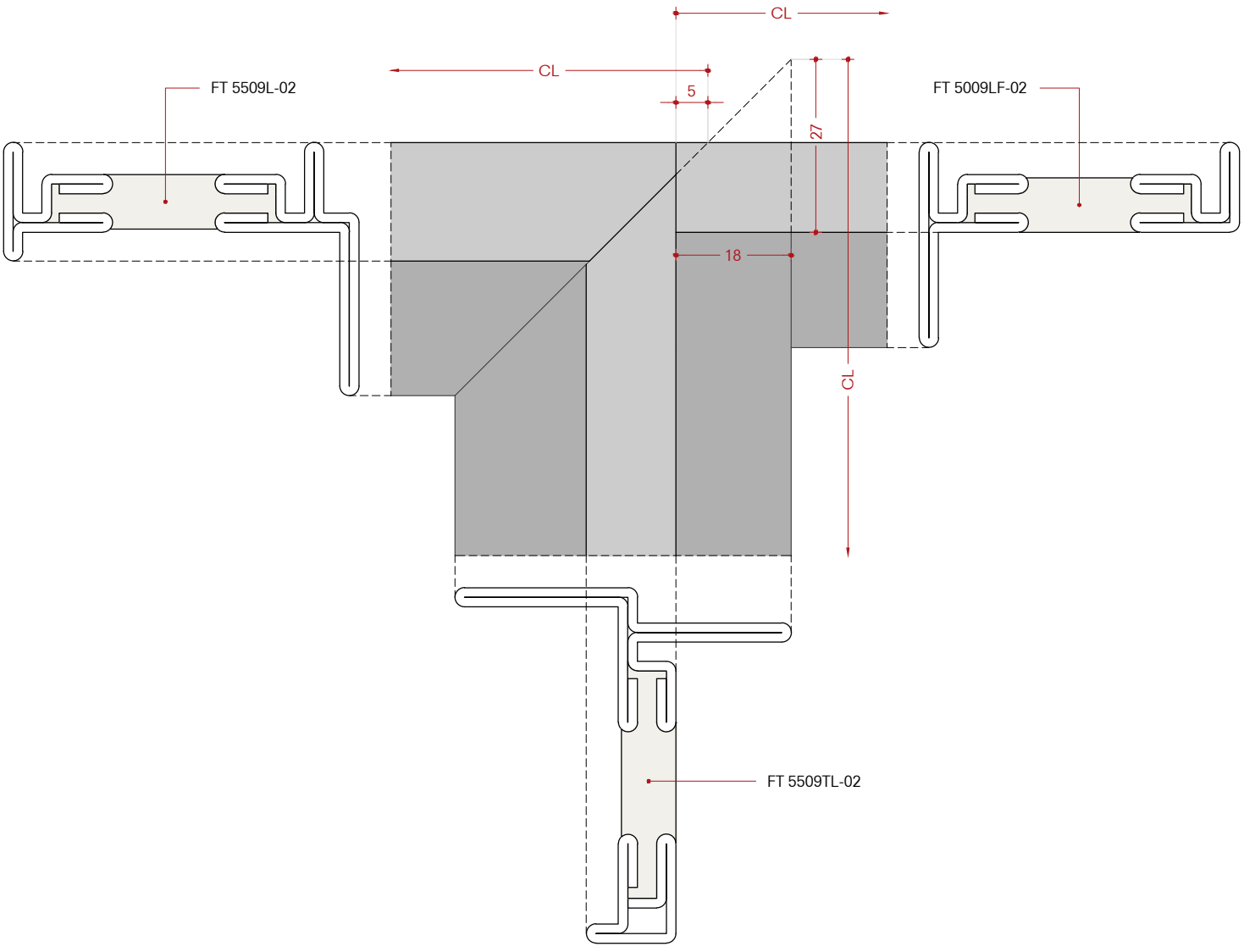
Window open in fixed partitions

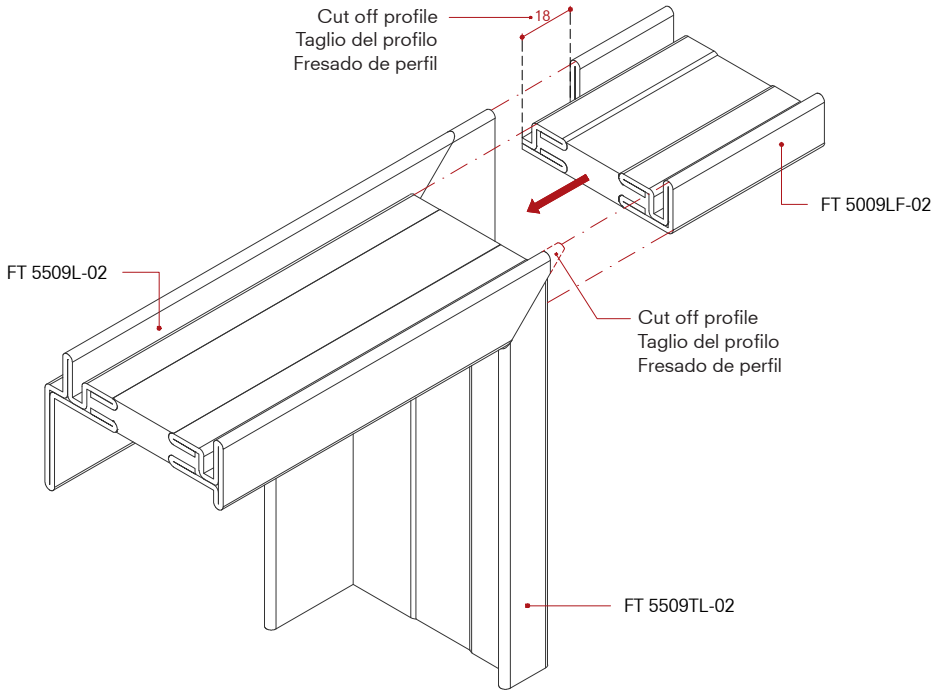
Finestra su partizioni fisse apertura interna

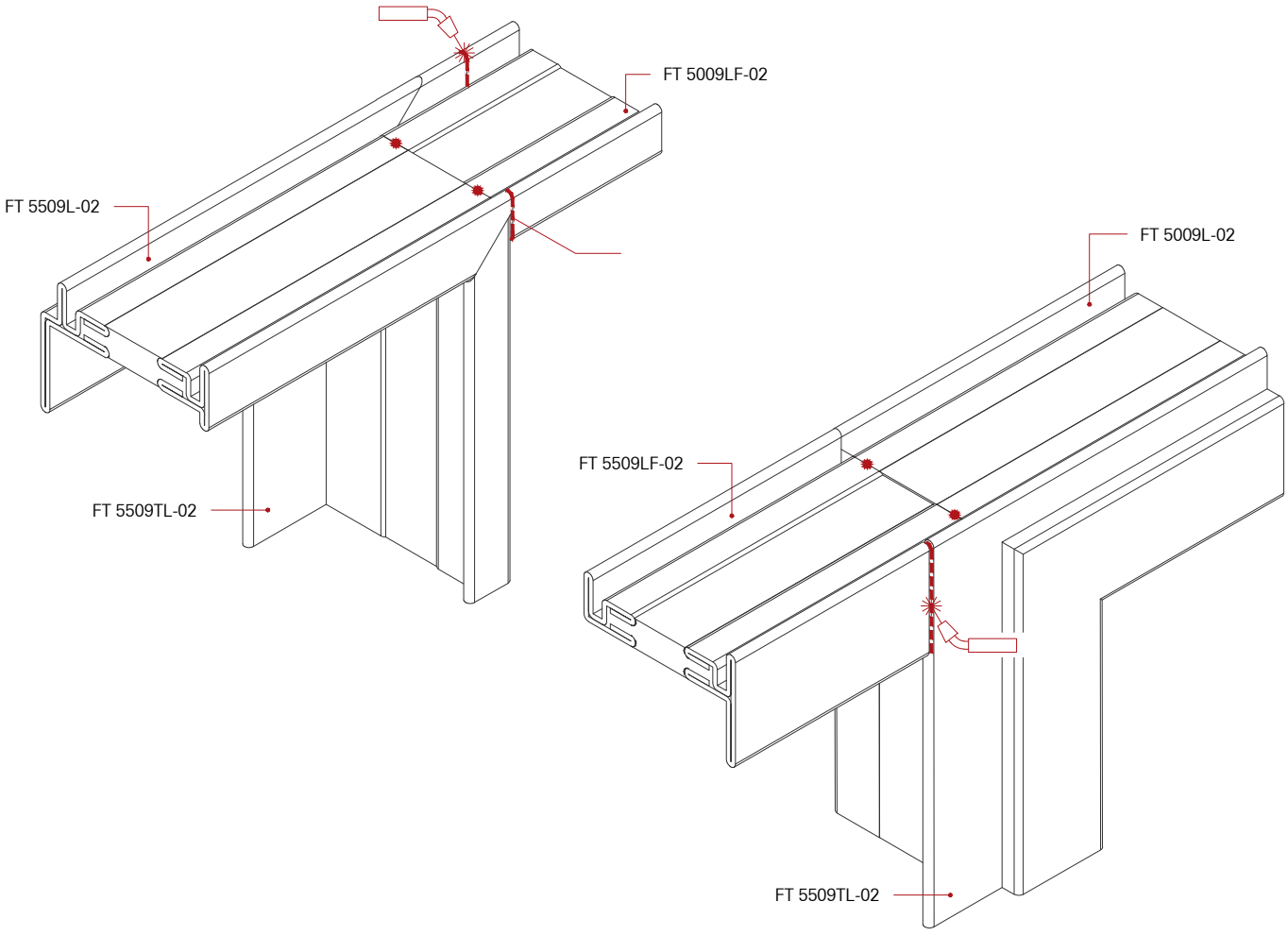
Ventana su particiones apertura hacia dentro



Internal view
Vista interna
Vista interna







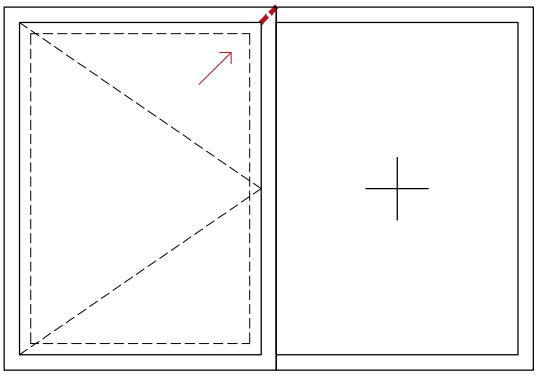
External view
Vista esterna
Vista externa

FT 5509ZL-02 / FT 5509L-02 / FT 5009LF-02

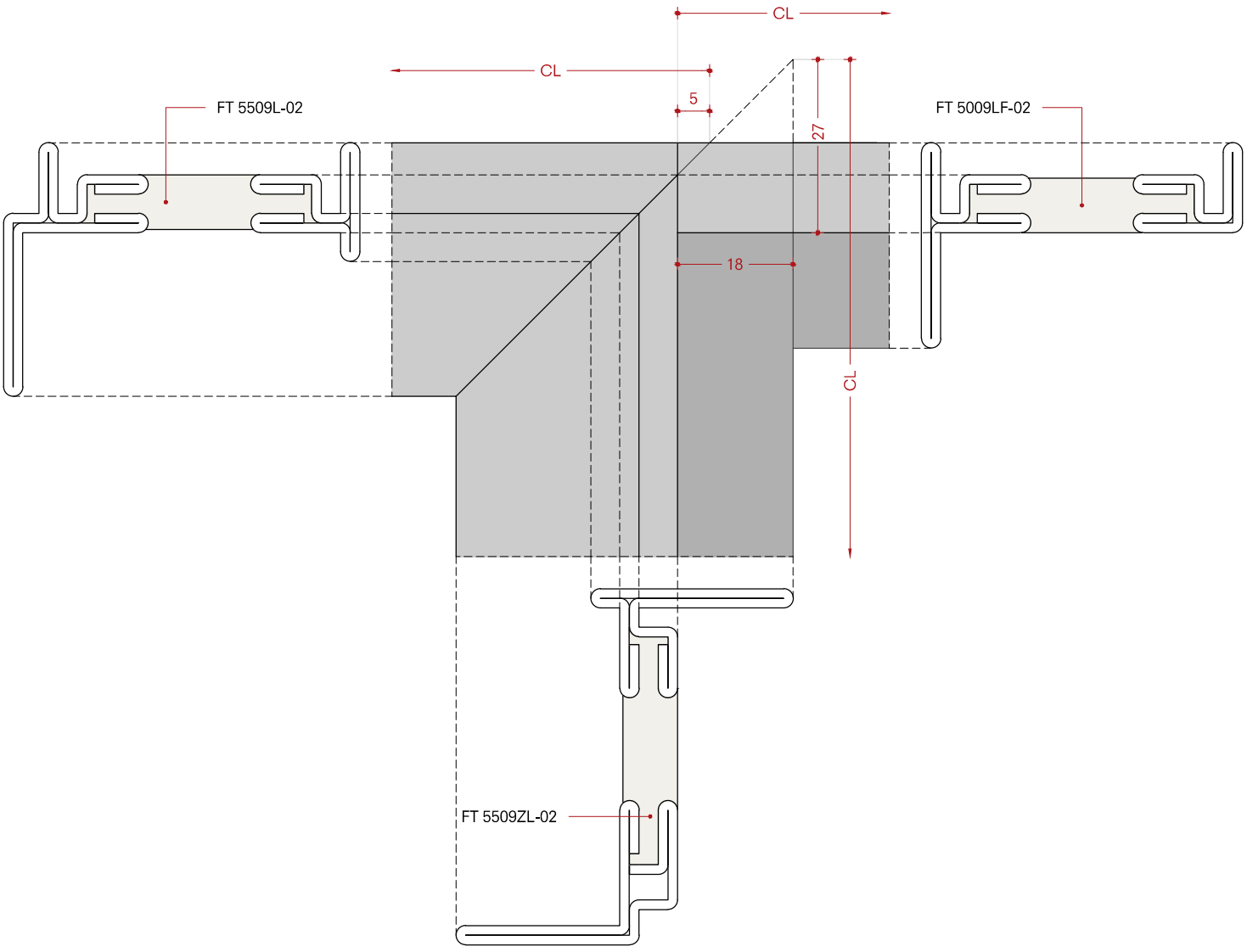
Window open out fixed partitions

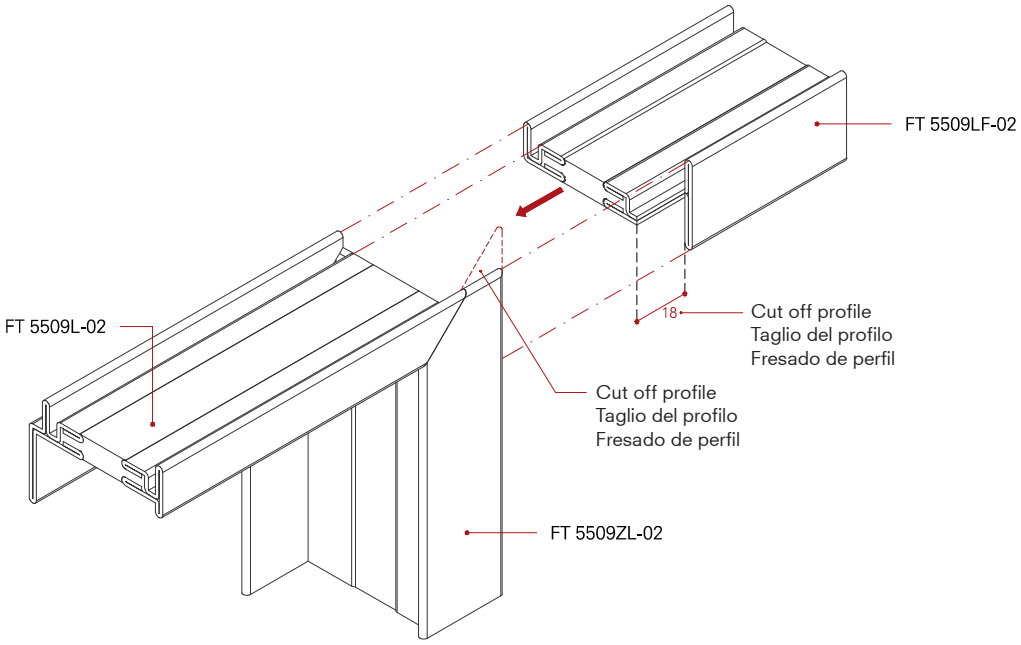
Finestra su partizioni fisse apertura esterna

Ventana su particiones apertura hacia fuera

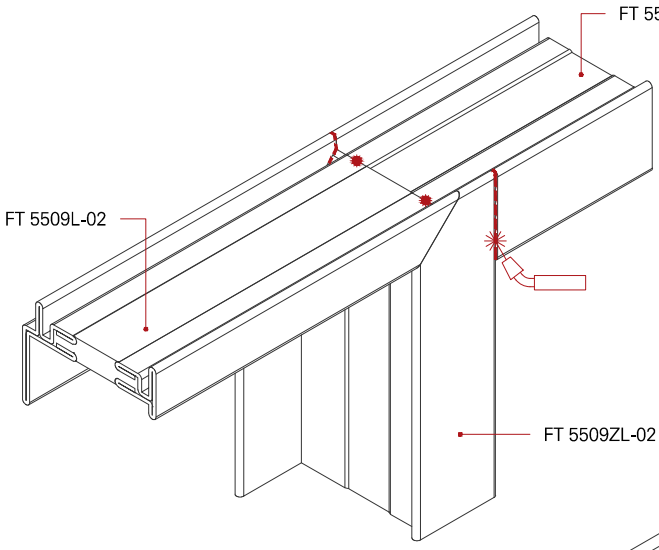


Internal view
Vista interna
Vista interna

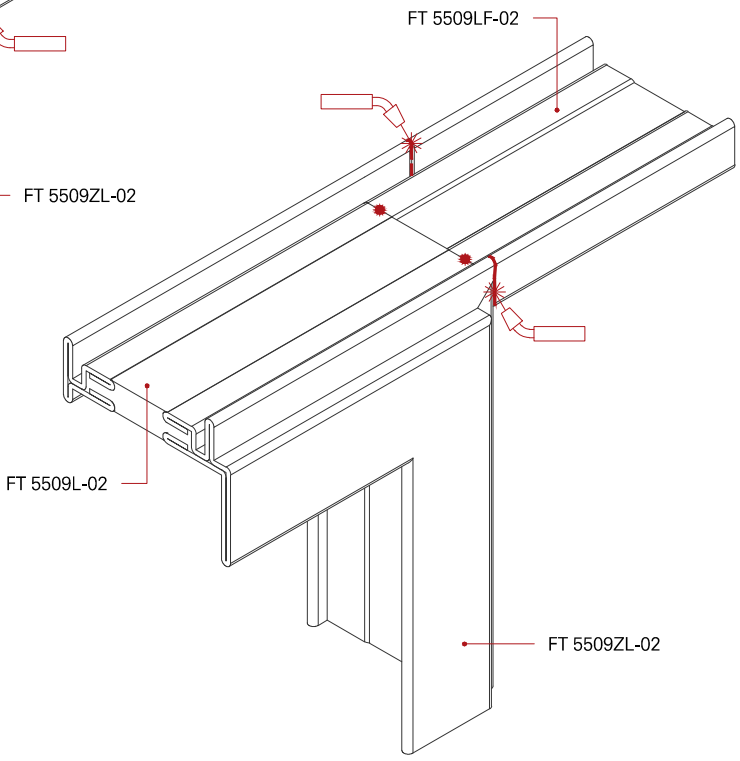




External view
Vista esterna
Vista externa



External view
Vista esterna
Vista externa

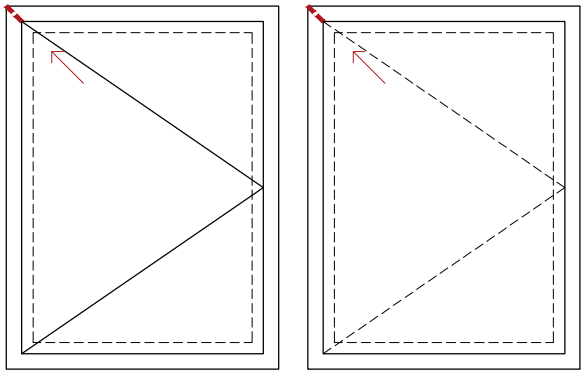


FT 5509L-02 / FT 5509T-02

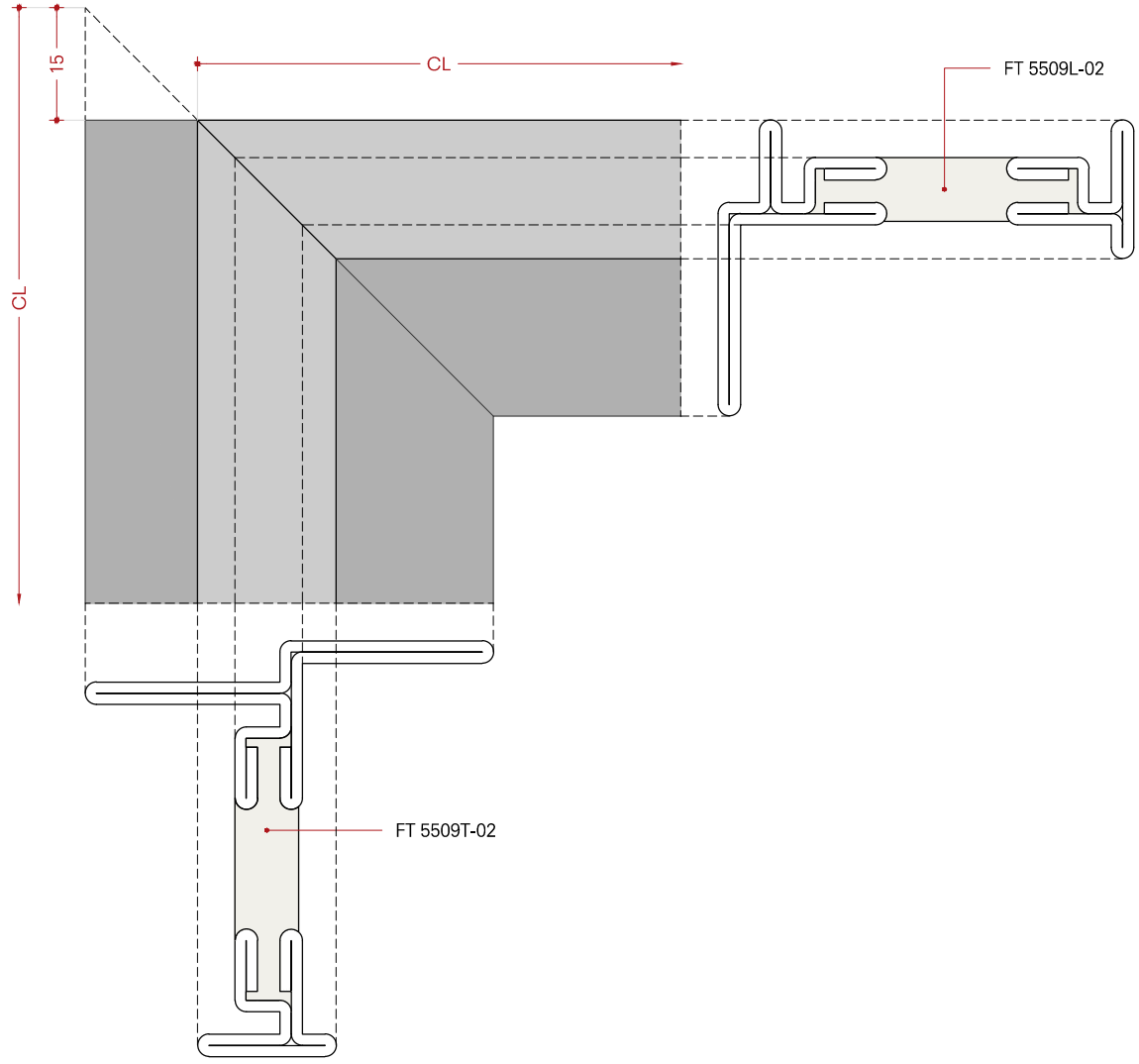
Window open in or open out

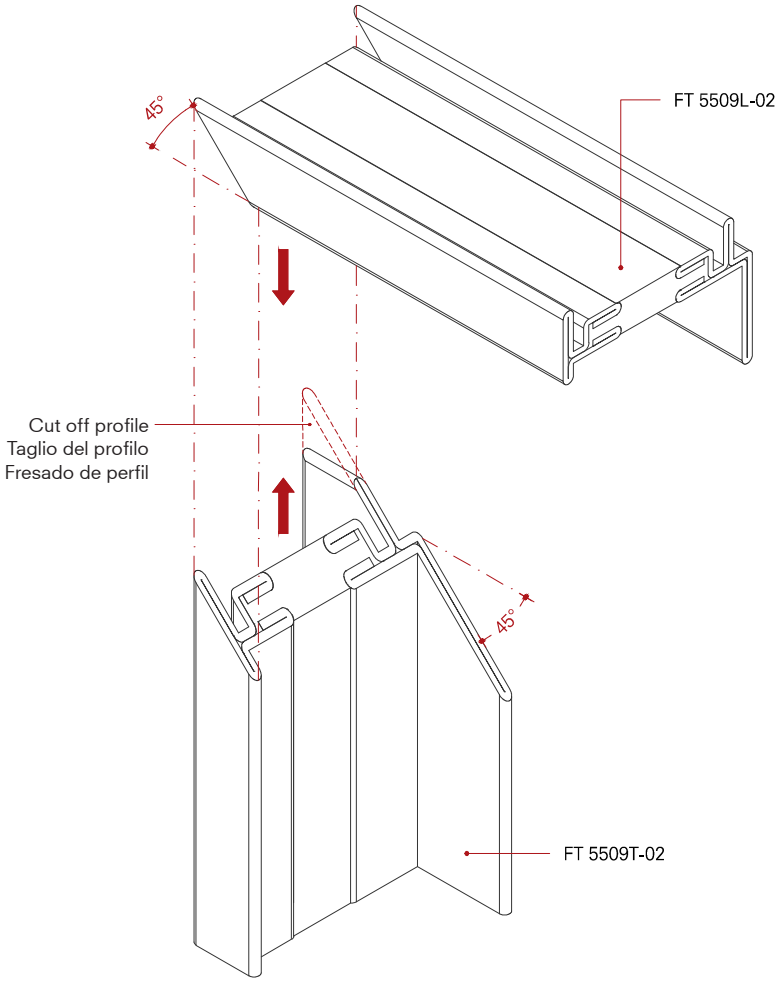
Finestra apertura interna o esterna

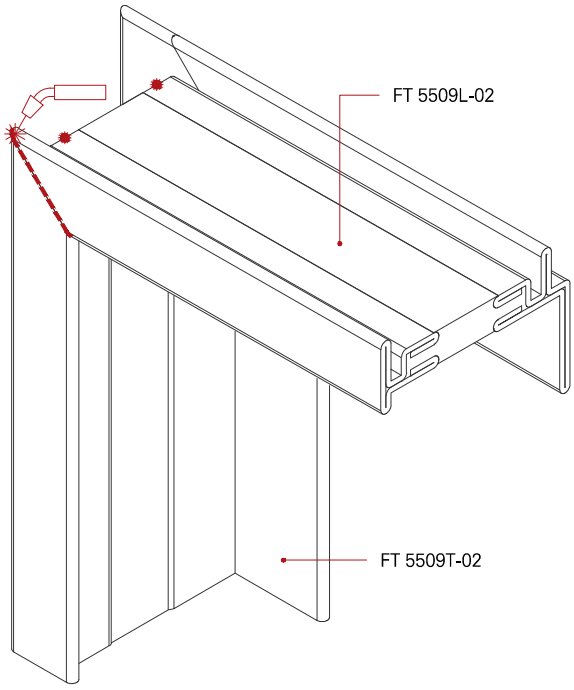
Ventana apertura hacia dentro o fuera

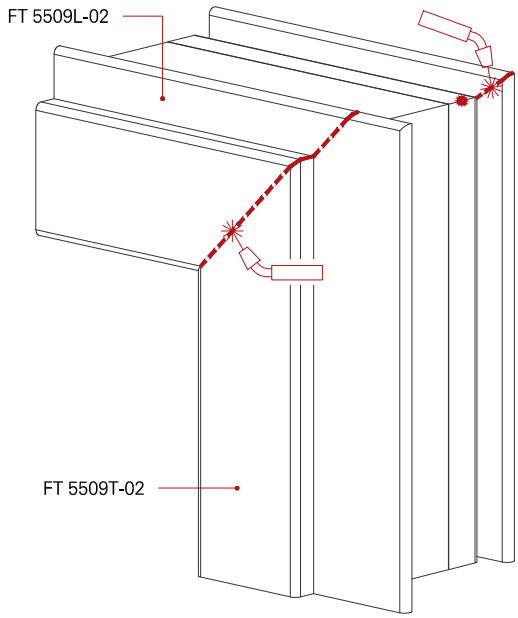


Internal view
Vista interna
Vista interna









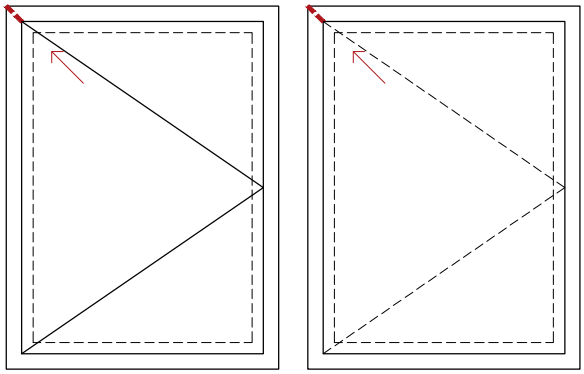
External view
Vista esterna
Vista externa

FT 5509L-02 / FT 5509Z-02

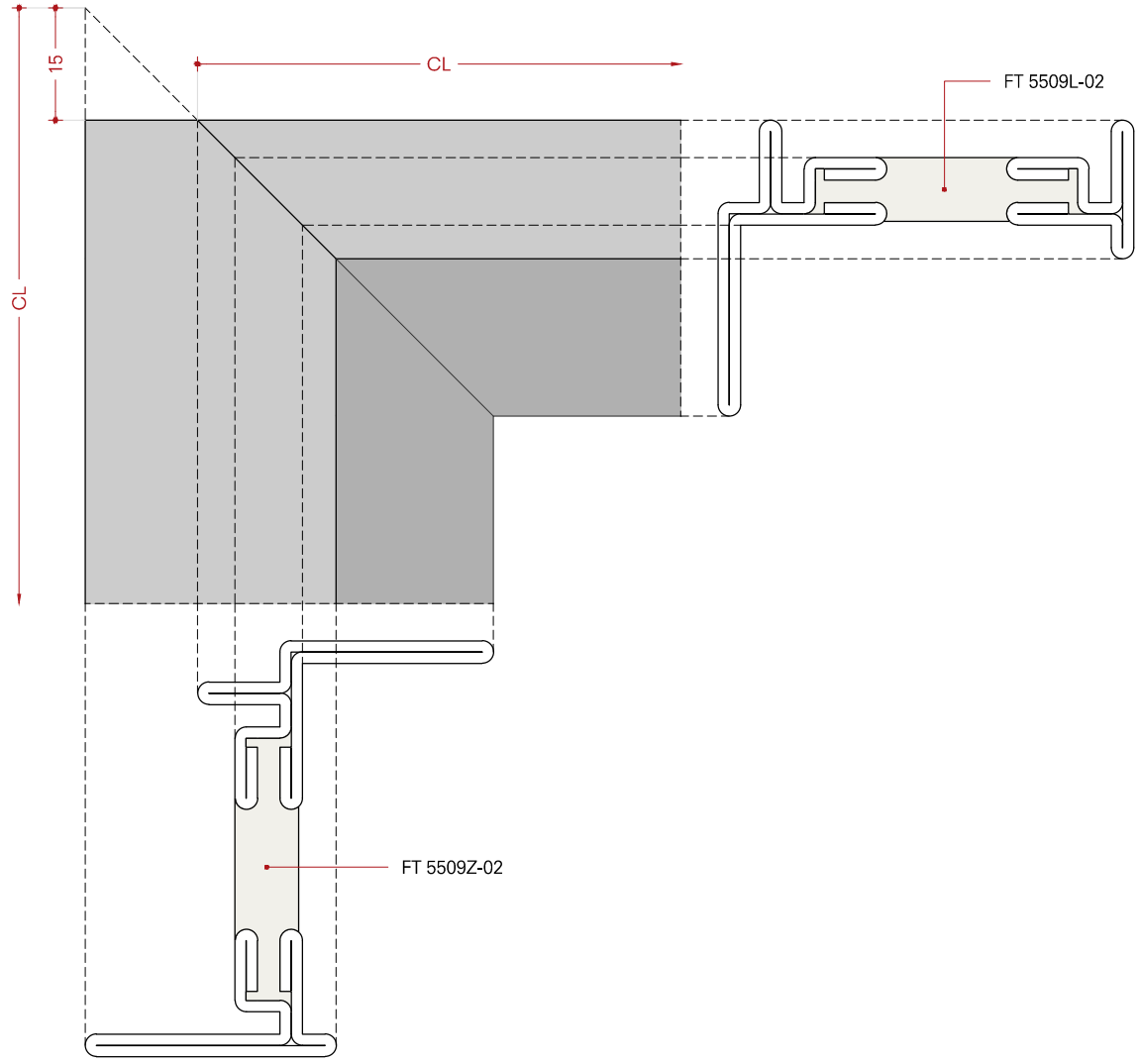
Window open in or open out

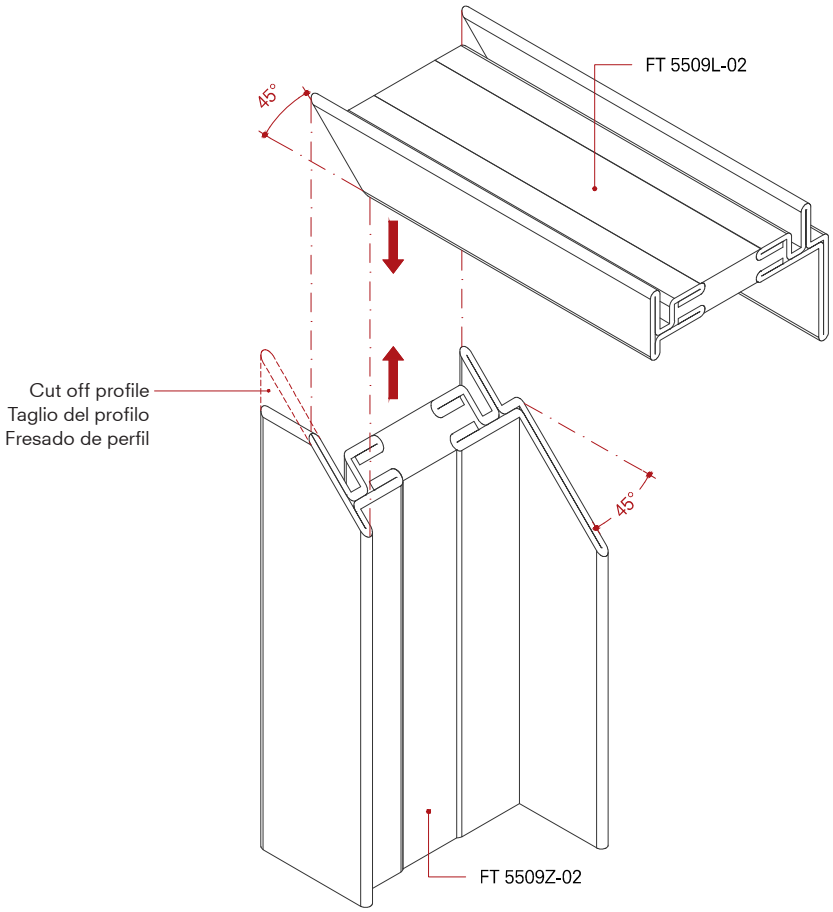
Finestra apertura interna o esterna

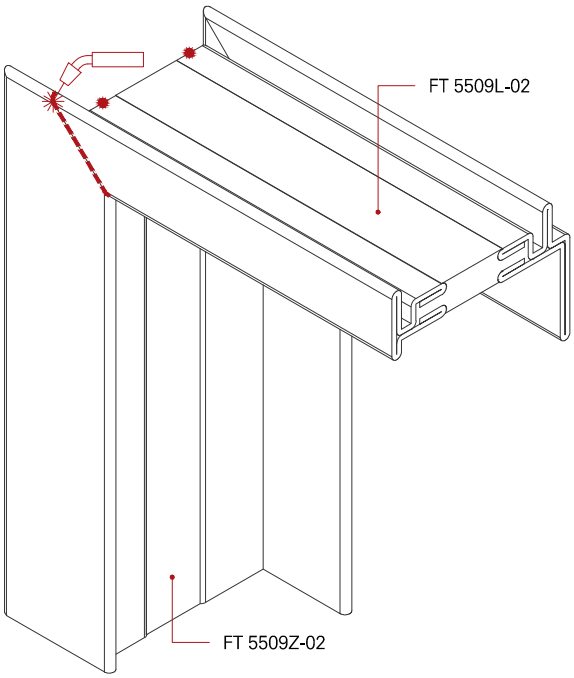
Ventana apertura hacia dentro o fuera

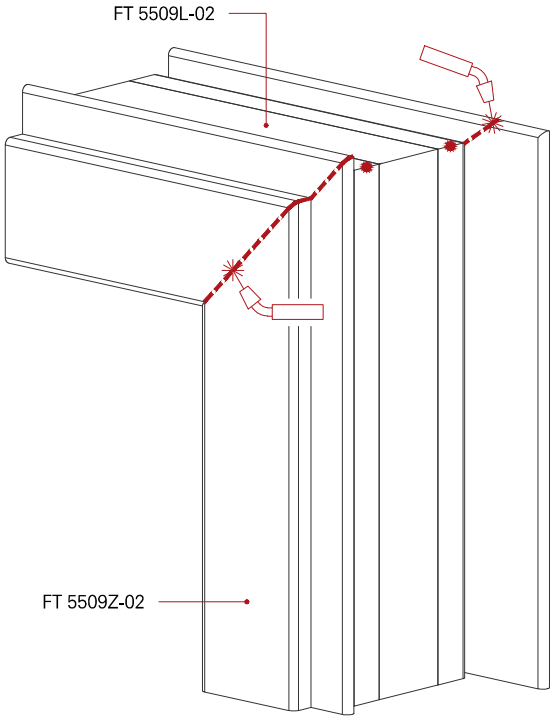


Internal view
Vista interna
Vista interna









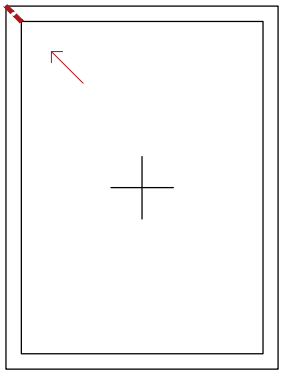
External view
Vista esterna
Vista externa

FT 5009LF-02 / FT 5009TF-02

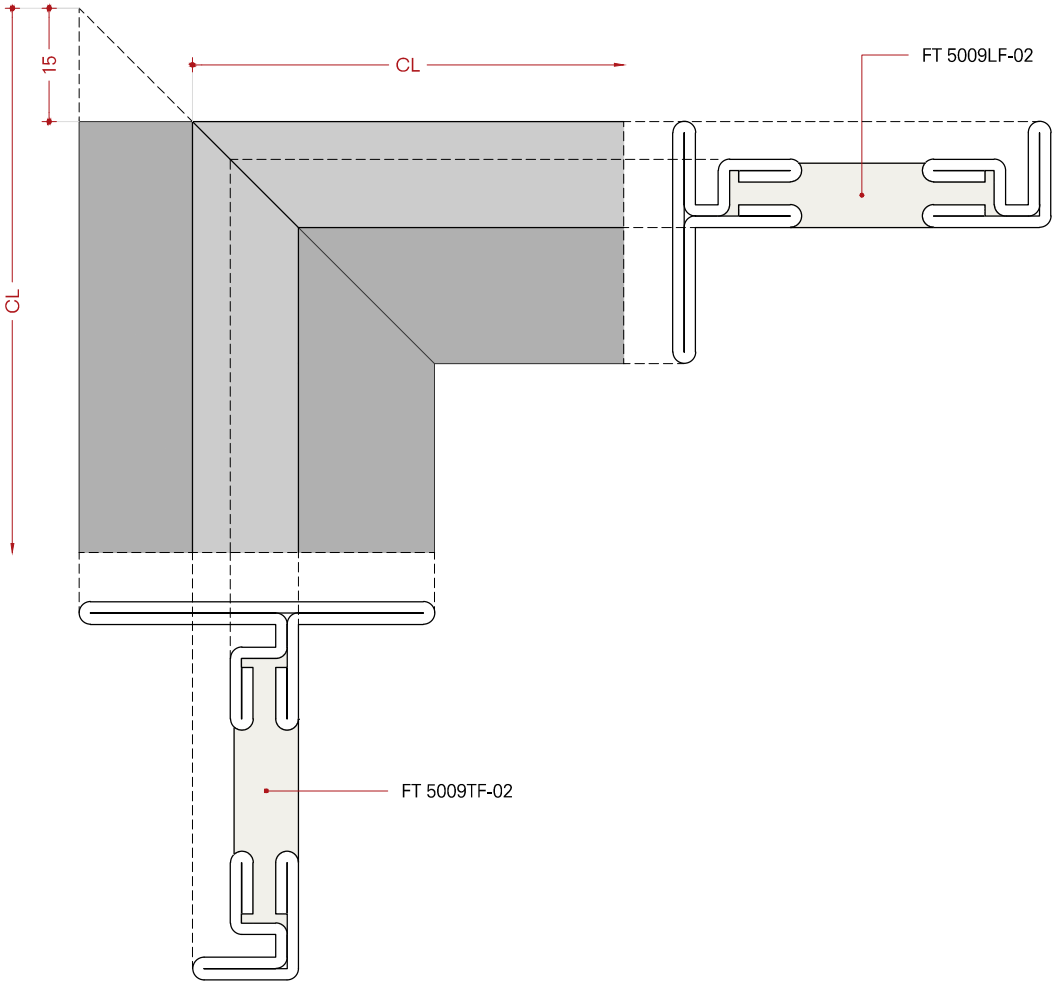
Fixed partition

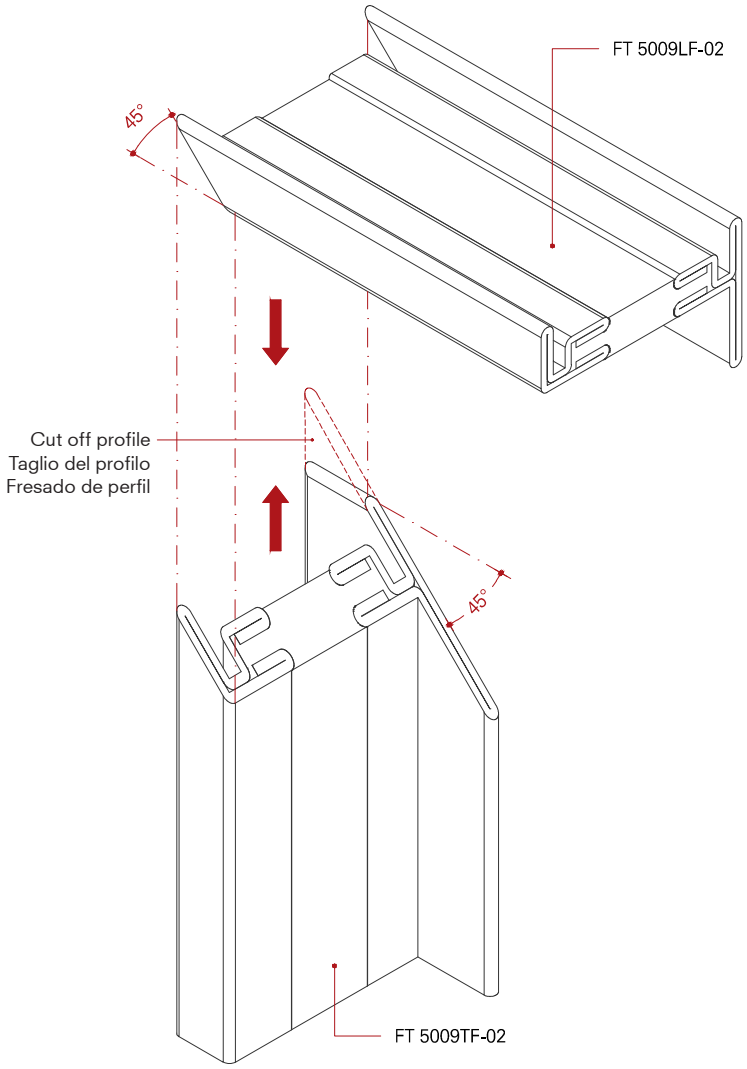
Finestra telaio fisso

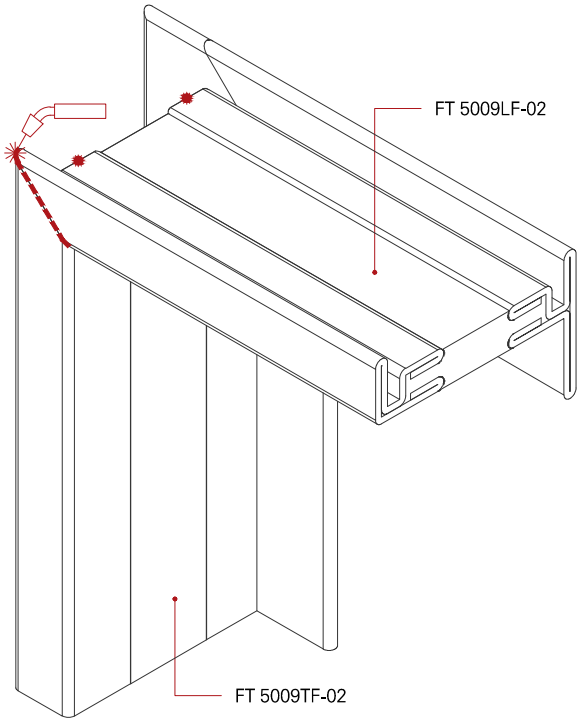
Ventana fija

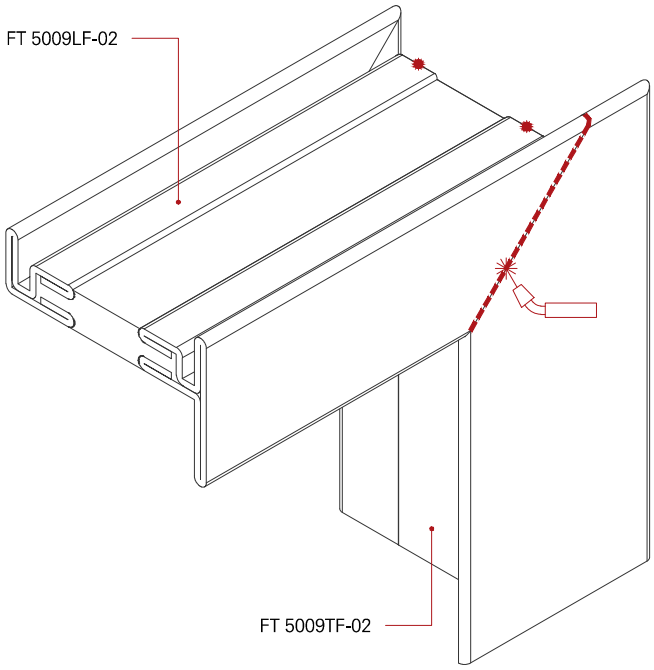


Internal view
Vista interna
Vista interna









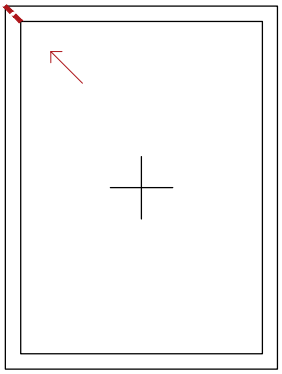
External view
Vista esterna
Vista externa

FT 5009LF-02 / FT 5009ZF-02

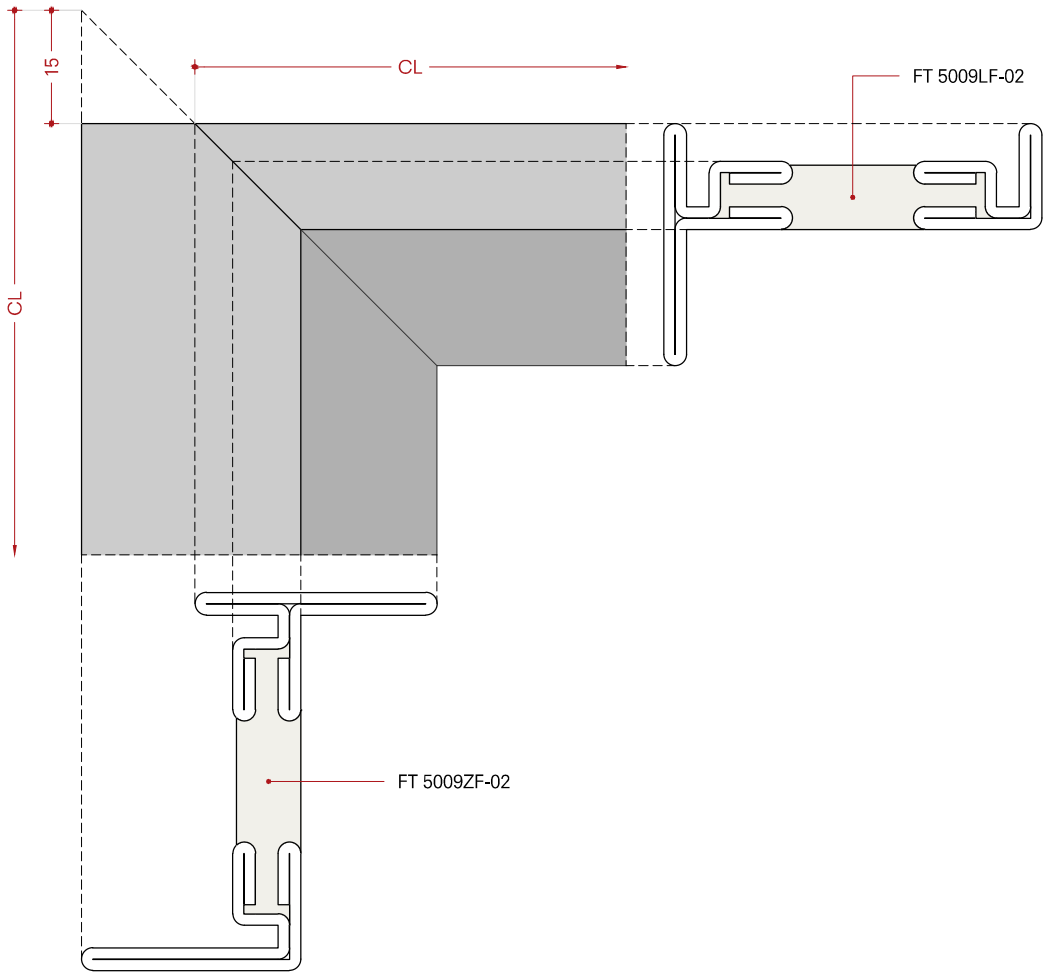
Fixed partition

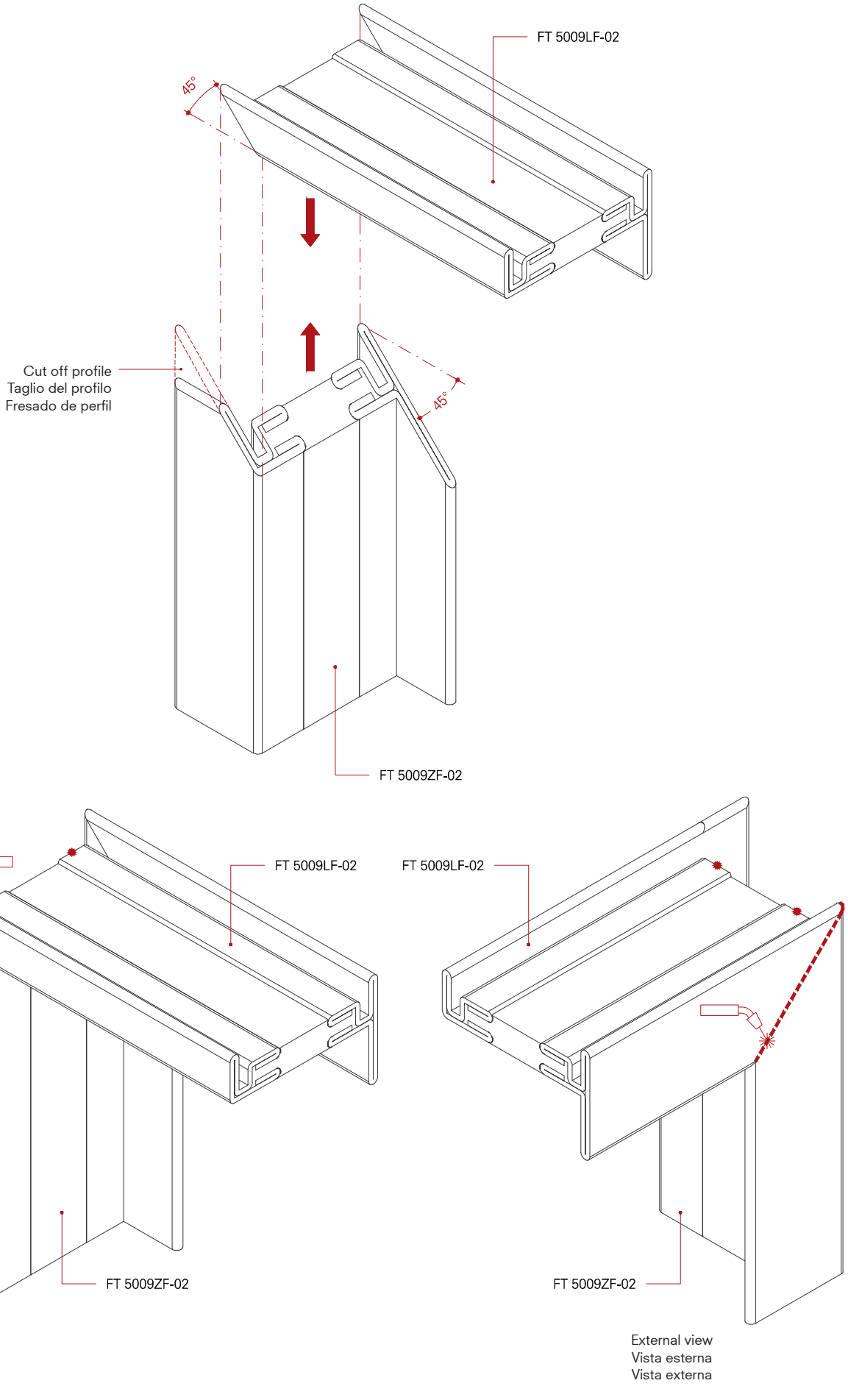
Finestra telaio fisso

Ventana fija



Internal view
Vista interna
Vista interna



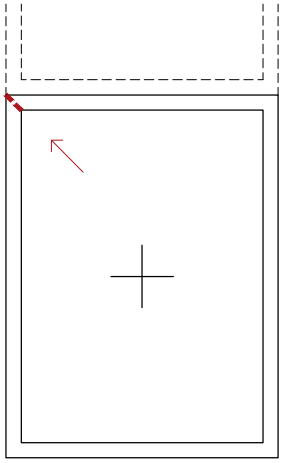

FT 5009LF-02
45°
Cut off profile
Taglio del profilo
Fresado de perfil
45°
FT 5009ZF-02
FT 5009LF-02
FT 5009ZF-02
FT 5009LF-02
FT 5009ZF-02
External view
Vista esterna
Vista externa

FT 5009LC-02 / FT 5009ZF-02

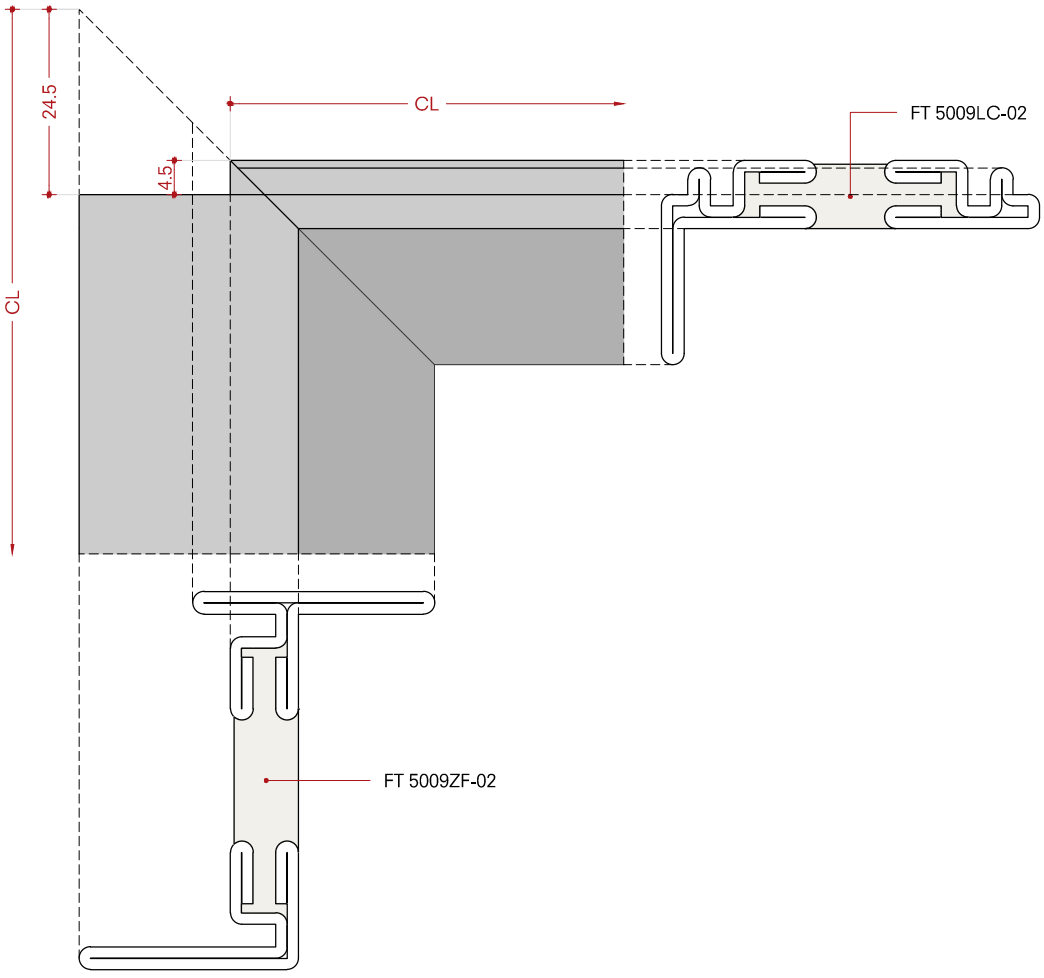
Fixed partition

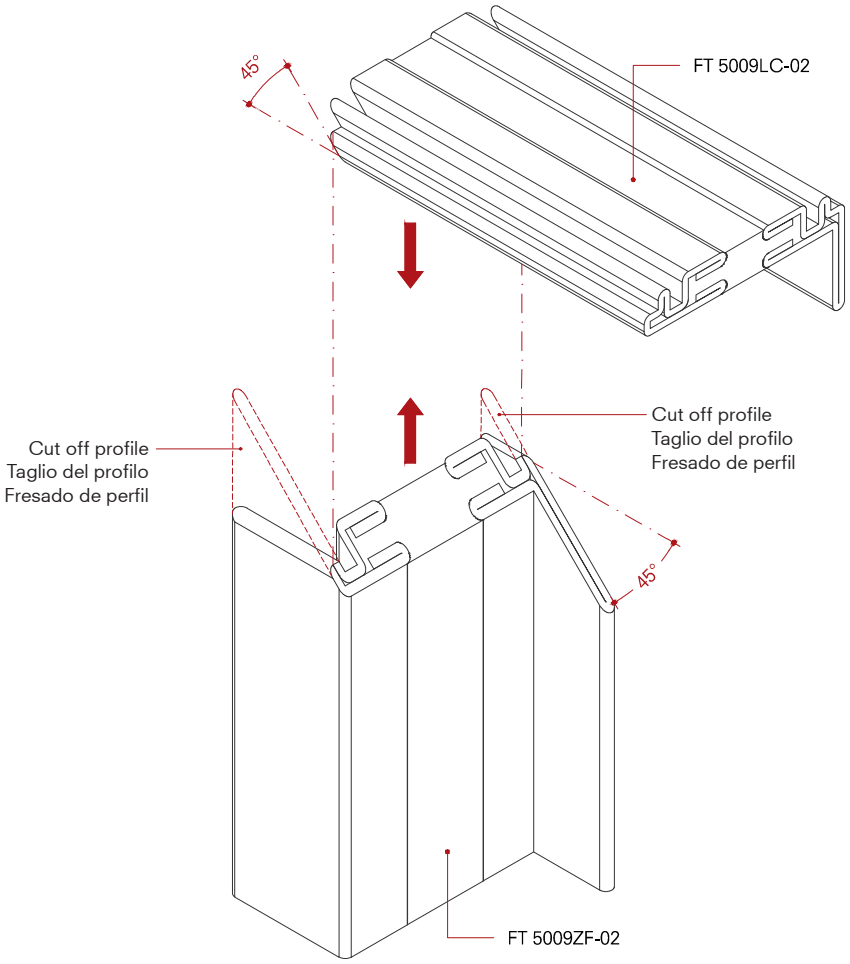
Finestra telaio fisso

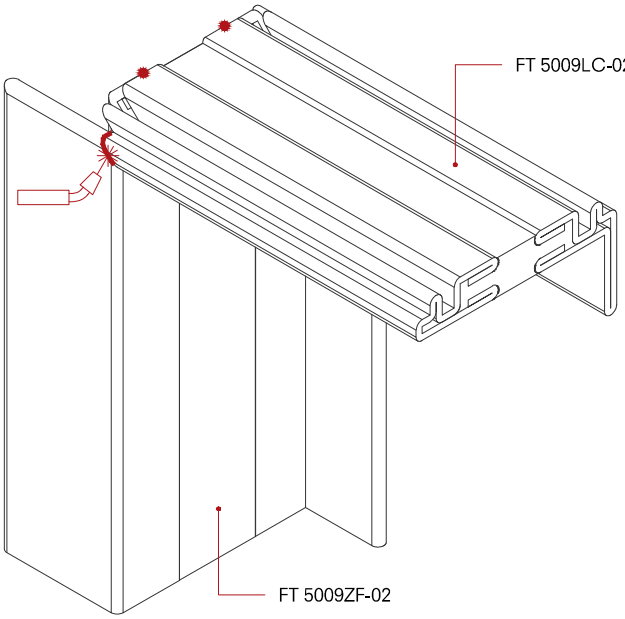
Ventana fija

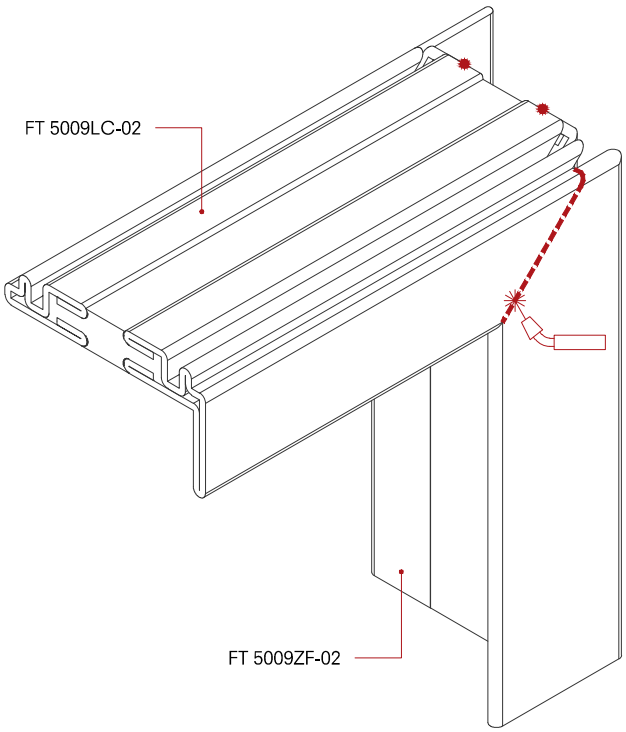


Internal view
Vista interna
Vista interna









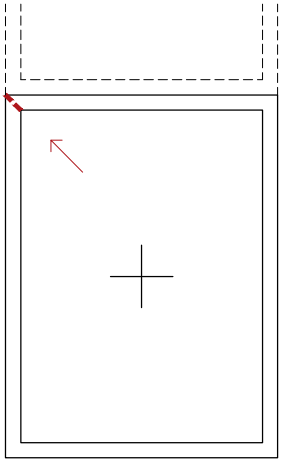
External view
Vista esterna
Vista externa

FT 5009LC-02 / FT 5009LF-02

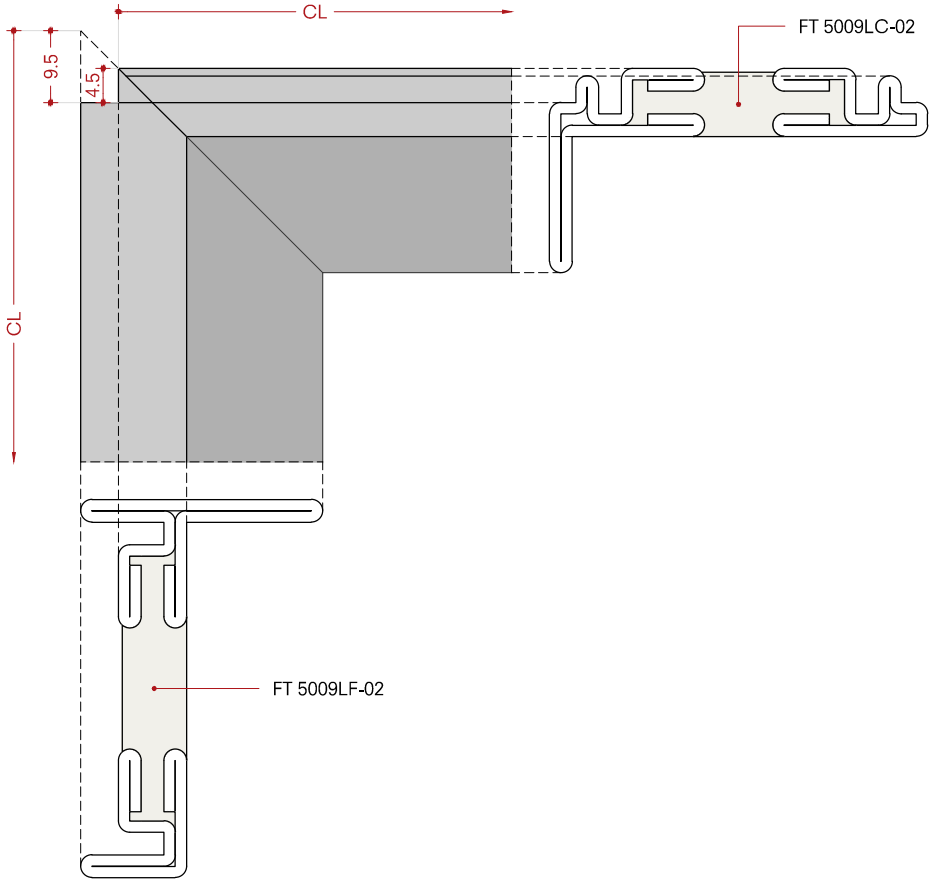
Fixed partition

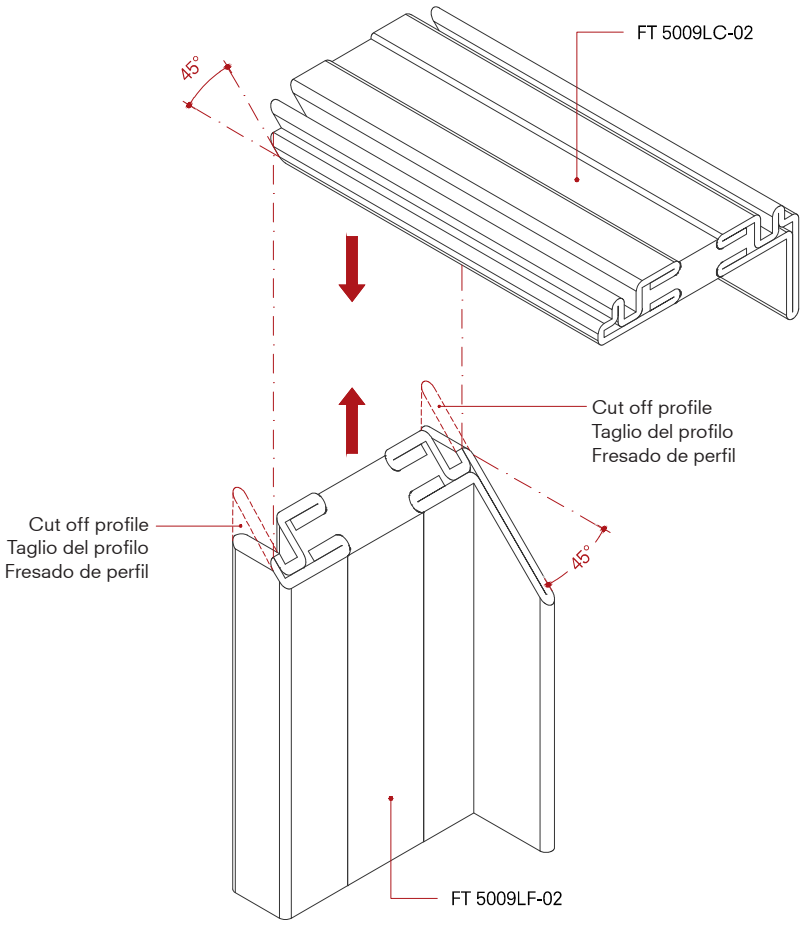
Finestra telaio fisso

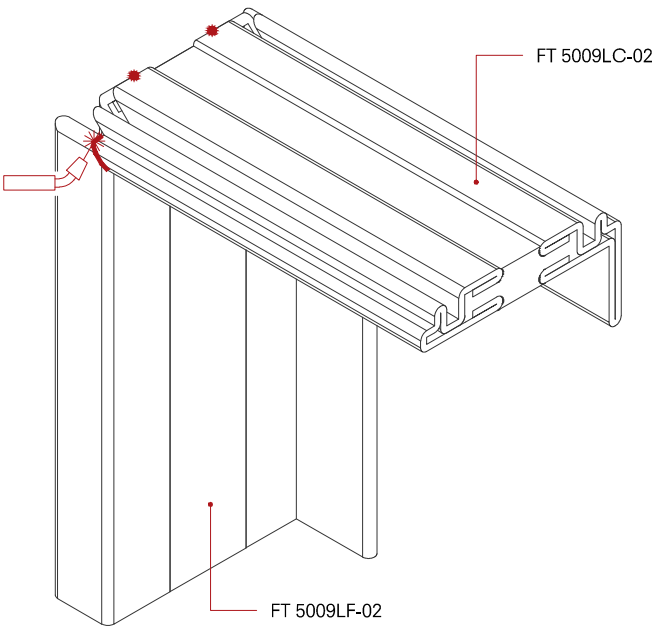
Ventana fija

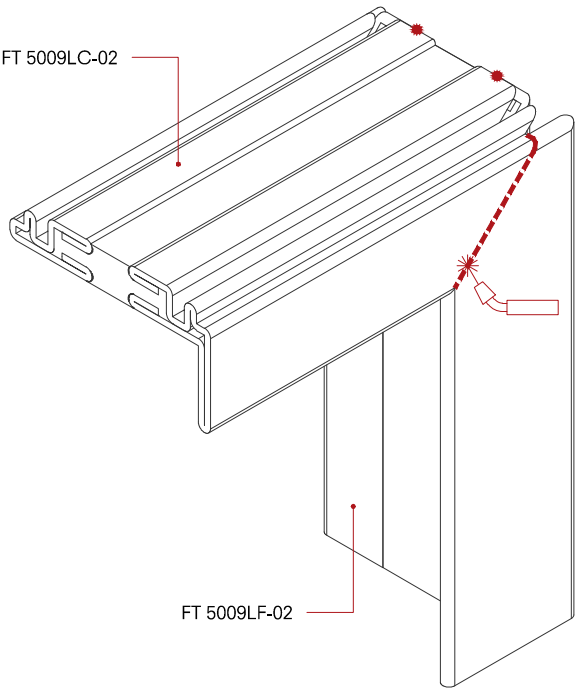


Internal view
Vista interna
Vista interna









External view
Vista esterna
Vista externa

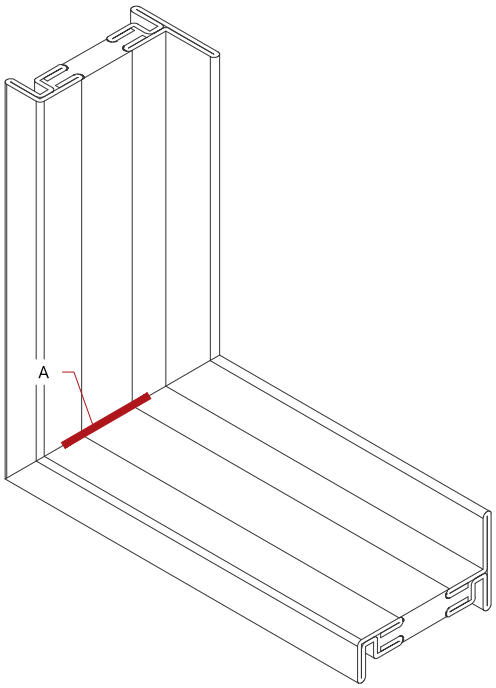
Accessories installation: **Montaggio accessori:** **Montaje accesorios:**

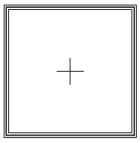
Gaskets **Guarnizioni** **Juntas de sellado** 5.4

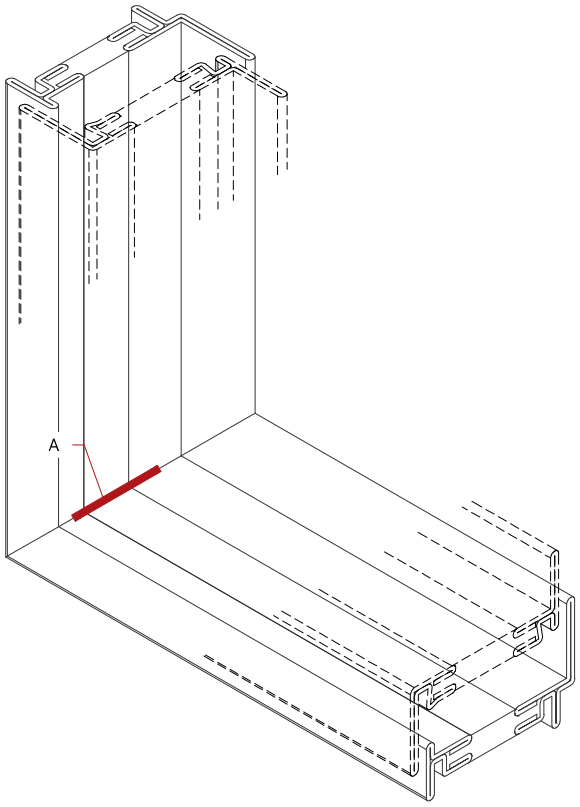
Sealing frame connections
Examples

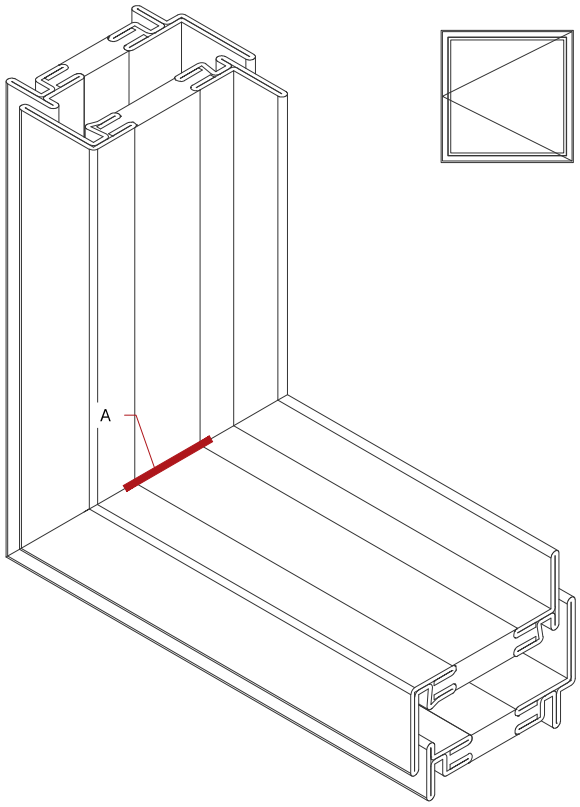
Sigillatura profili
Esempi

Sellado de perfiles
Ejemplos





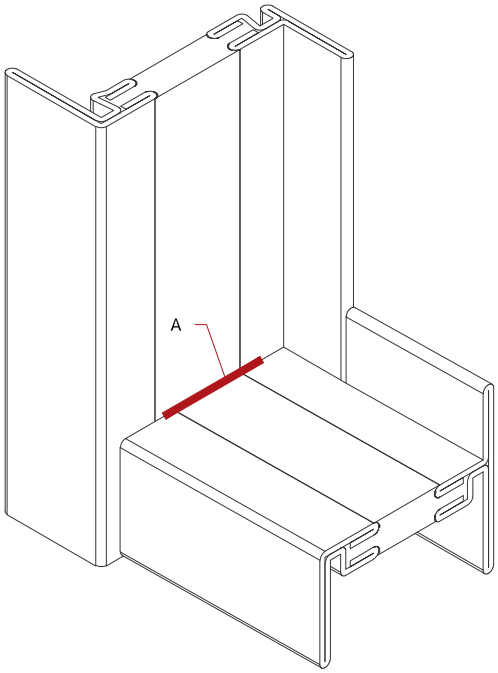


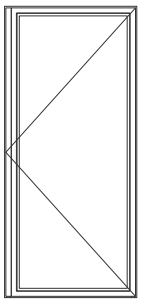


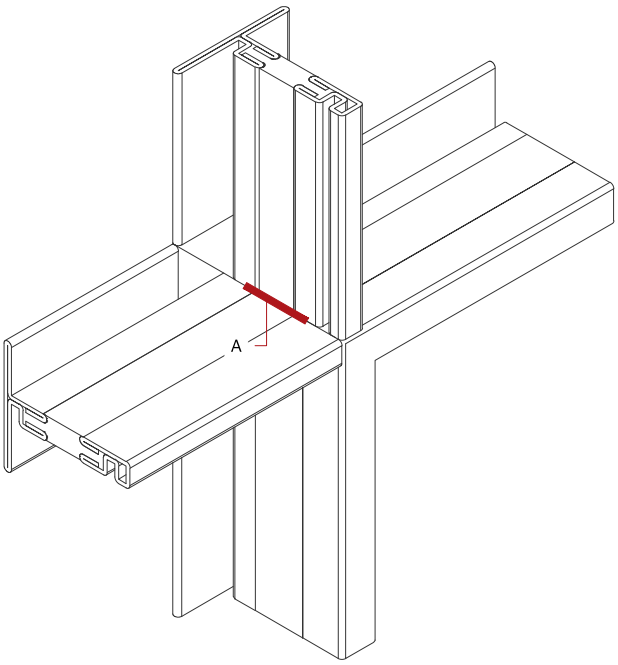
A) For the closure of the zones not closed by welding in joined frame connections, we strongly recommend using a narrow joint sealant on thermal break, for 45° and 90° cuttings after the painting.

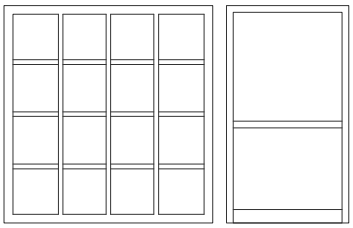
A) Per la chiusura delle fughe in corrispondenza delle giunzioni del telaio che non vengono saldate è necessario l'utilizzo di un apposito sigillante per fughe sottili sul taglio termico in poliuretano, per tagli a 45° e 90°, da eseguire dopo la verniciatura.

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.









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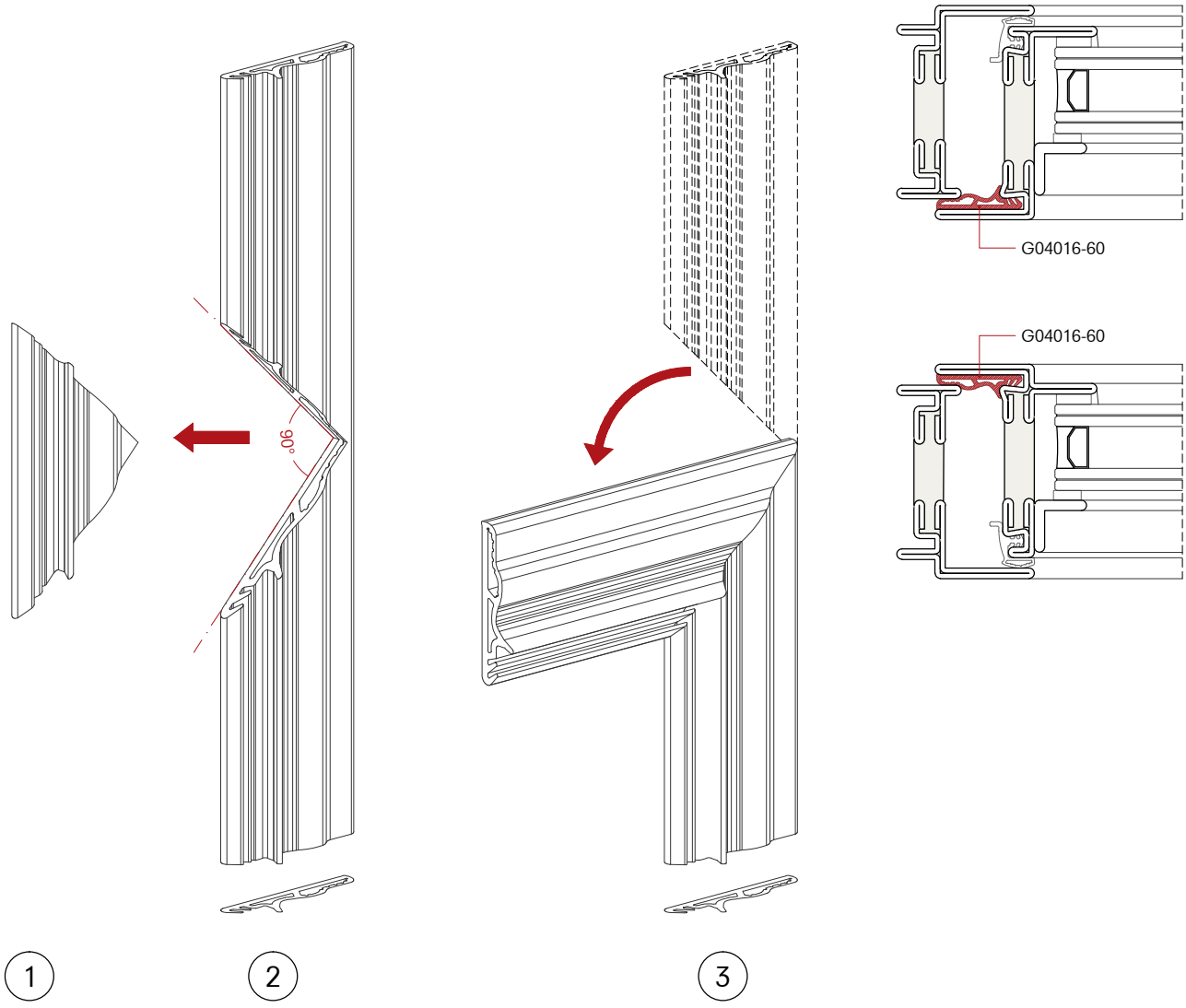
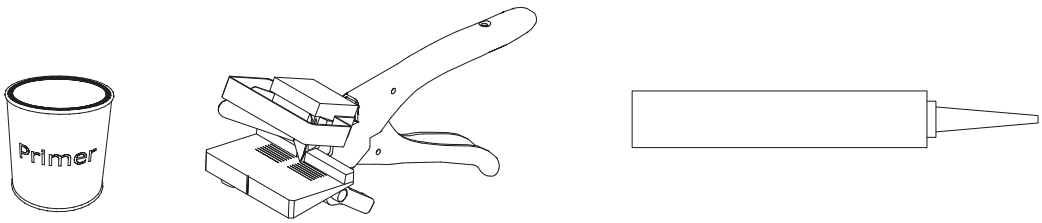
Cutting
Rebate gasket G04016-60 at 45°
Open in and open out

Taglio
Guarnizione di battuta G04016-60 a 45°
Apertura interna ed esterna

Corte
Junta de tope G04016-60 en 45°
Apertura interna ed externa





1) Clean surface and apply primer I99005-75
2) Use seal scissor D99543-02
3) Glue with sealant OS 364991

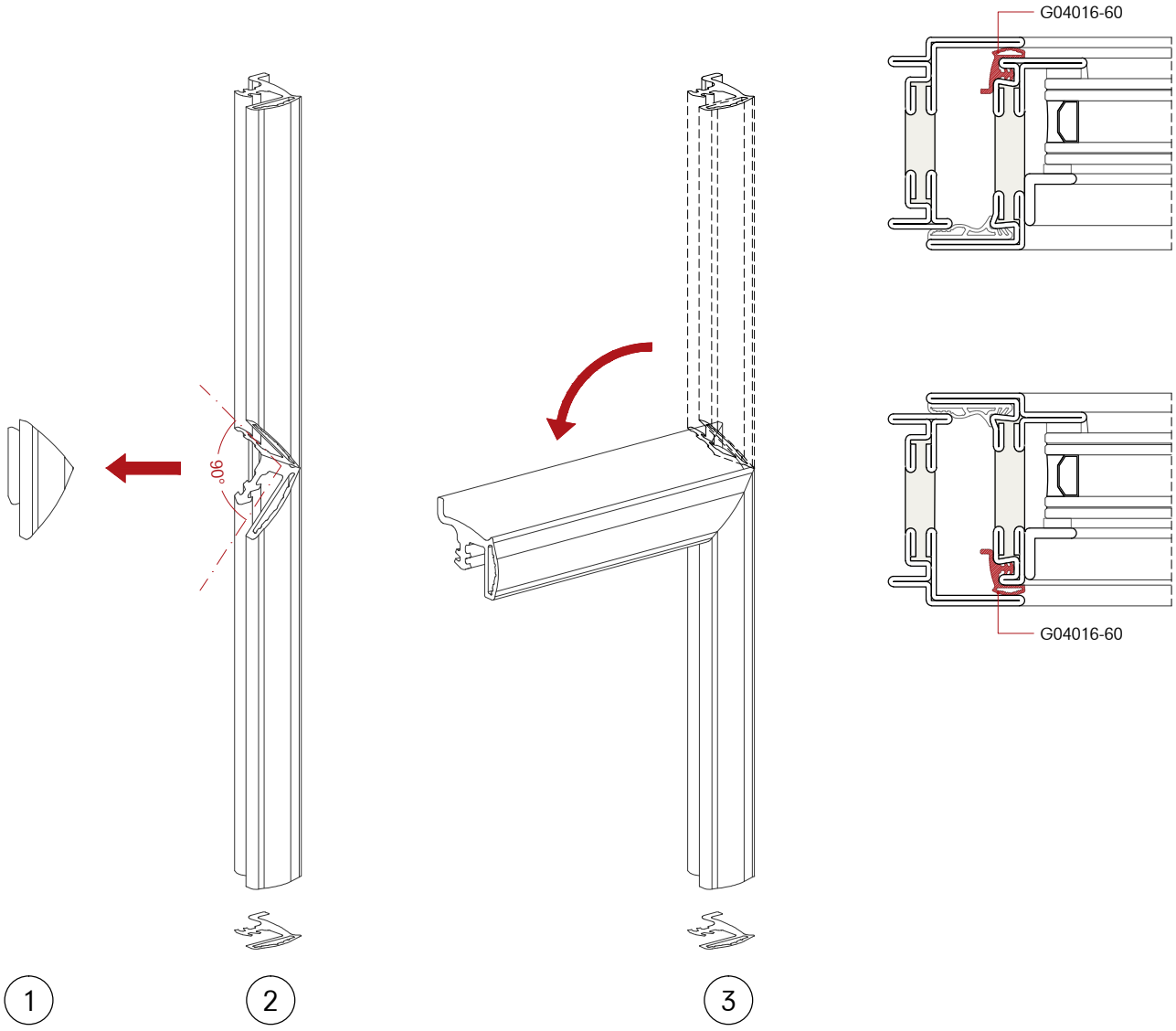
1) Pulire superficie e stendere primer I99005-75
2) Utilizzare la forbice per guarnizioni D99543-02
3) Incollare con sigillante OS 364991

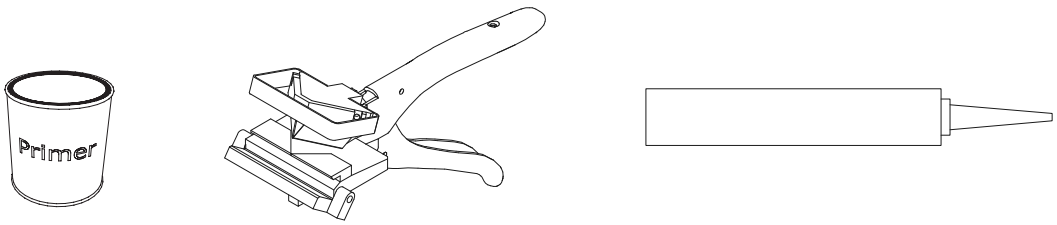
1) Limpiar la superficie y aplicar el Primer I99005-75
2) Use las tijeras para juntas D99543-02
3) Pegar con adherente OS 364991

Cutting
Rebate gasket G04018-60 at 45°
Open in and open out

Taglio
Guarnizione di battuta G04018-60 a 45°
Apertura interna ed esterna

Corte
Junta de tope G04018-60 en 45°
Apertura interna ed externa





1) Clean surface and apply primer I99005-75
2) Use seal scissor D99542-02
3) Glue with sealant OS 364991

1) Pulire superficie e stendere primer I99005-75
2) Utilizzare la forbice per guarnizioni D99542-02
3) Incollare con sigillante OS 364991

1) Limpiar la superficie y aplicar el Primer I99005-75
2) Use las tijeras para juntas D99542-02
3) Pegar con adherente OS 364991

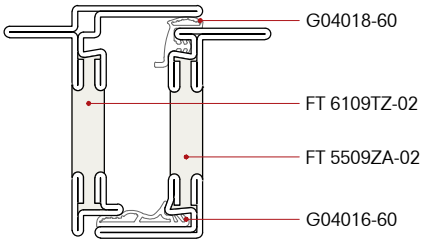
Accessories installation: **Montaggio accessori:** **Montaje accesorios:**

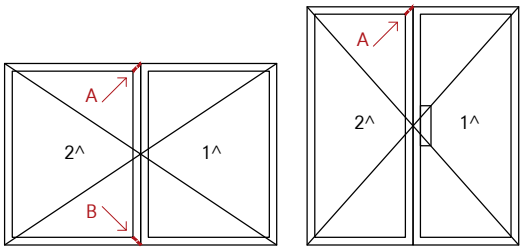
System accessories **Accessori di sistema** **Accesorios del sistema** 5.5

Profile processing
FT 5509ZA-02 + FT 6109TZ-02
Double leaf window
Open in

Lavorazione del profilo
FT 5509ZA-02 + FT 6109TZ-02
Finestra a due battenti
Apertura interna

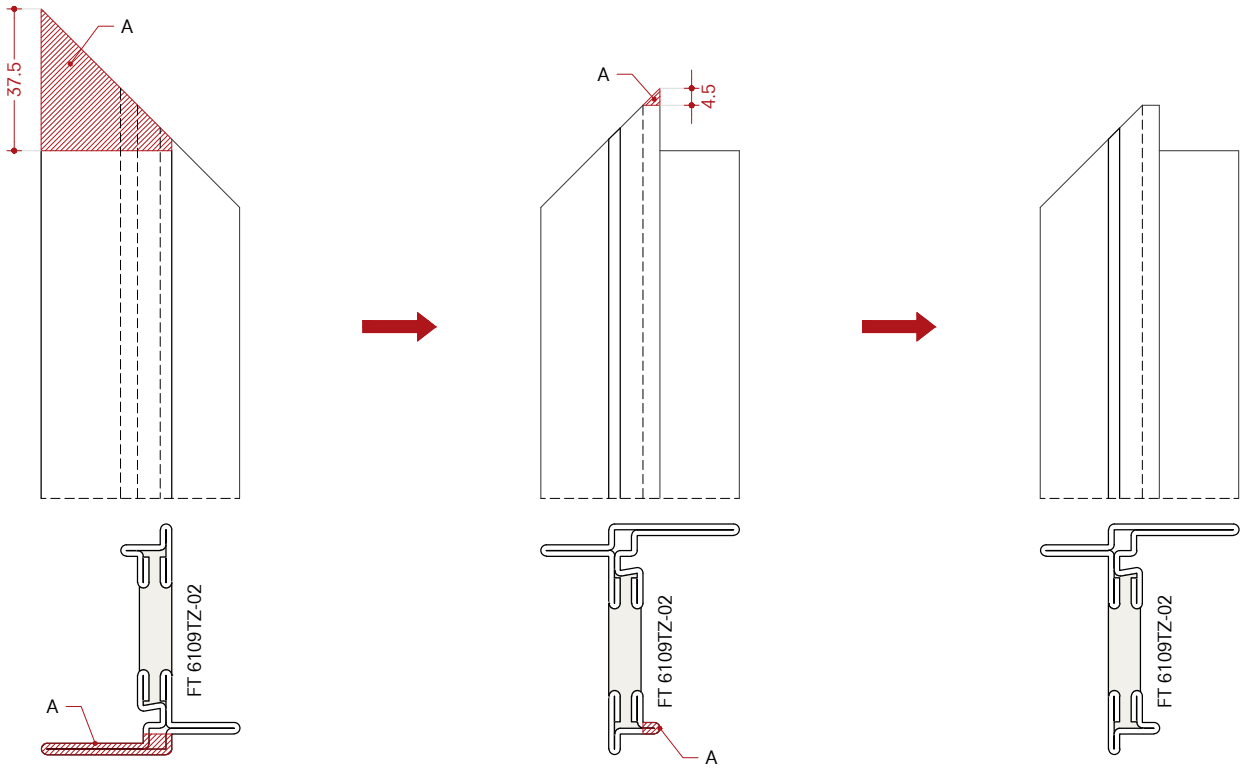
Mecanizado de perfil
FT 5509ZA-02 + FT 6109TZ-02
Ventana de dos hojas
Que se abre hacia dentro





Internal view
Vista interna
Vista interna

FT 6109TZ-02 profile milling
Parti da rimuovere profilo FT 6109TZ-02
Acortamientos de perfil FT 6109TZ-02

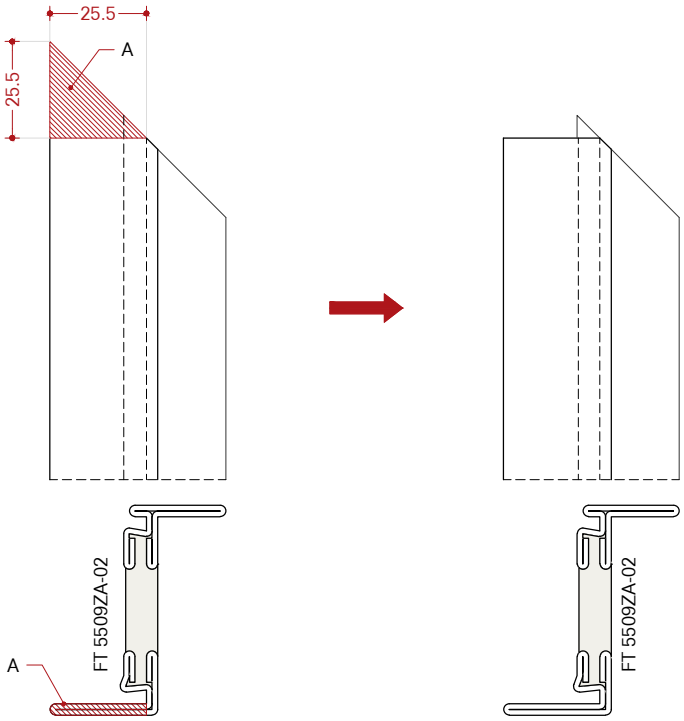


A) Cut outs

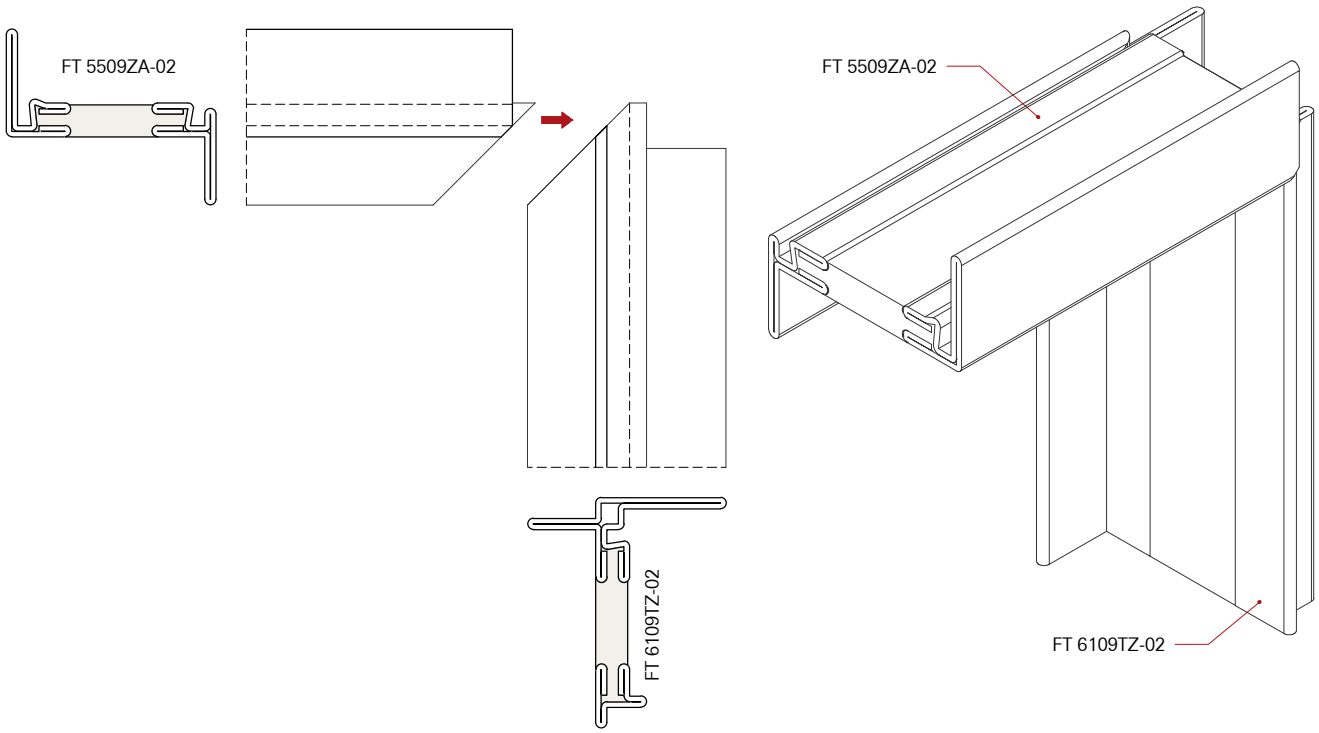
A) Fresate

A) Fresado

FT 5509ZA-02 profile milling
Parti da rimuovere profilo FT 5509ZA-02
Acortamientos de perfil FT 5509ZA-02



Assembling profile
Assemblaggio dei profili
Perfil de montaje



A) Cut outs

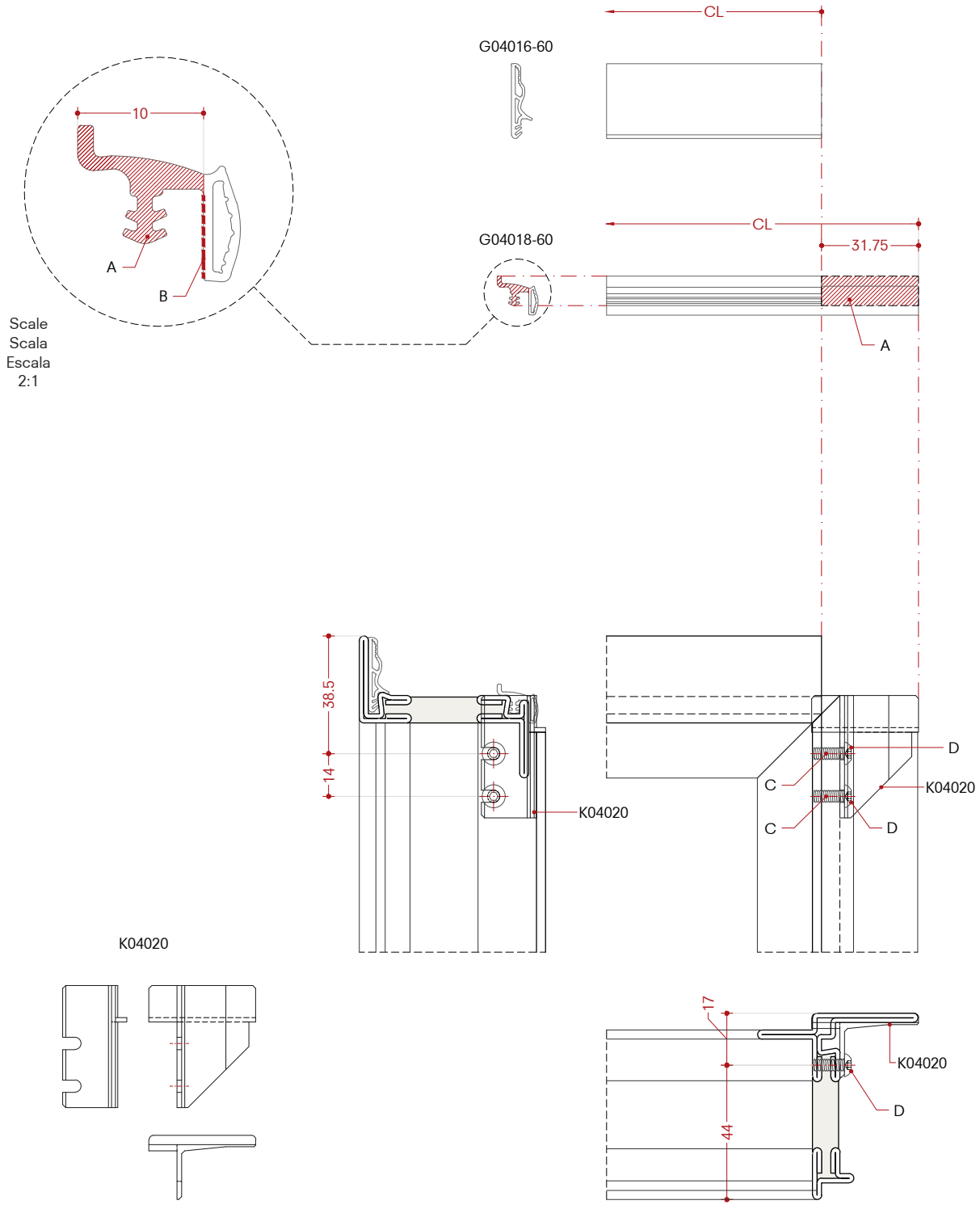
A) Fresate

A) Fresado

Processing and installation
G04016-60, G04018-60 and K04020
Double leaf open in

Installazione e montaggio
G04016-60, G04018-60 e K04020
Doppia anta apertura interna

Mecanizado y montaje
G04016-60, G04018-60 y K04020
Dos hojas apertura interna



CL = Cutting length

A) Cut outs
B) Sealant OS 364991
C) n°02 M4 holes on profile
D) Fastening with M4x10 ISO7380 screws

CL = Lunghezza di taglio

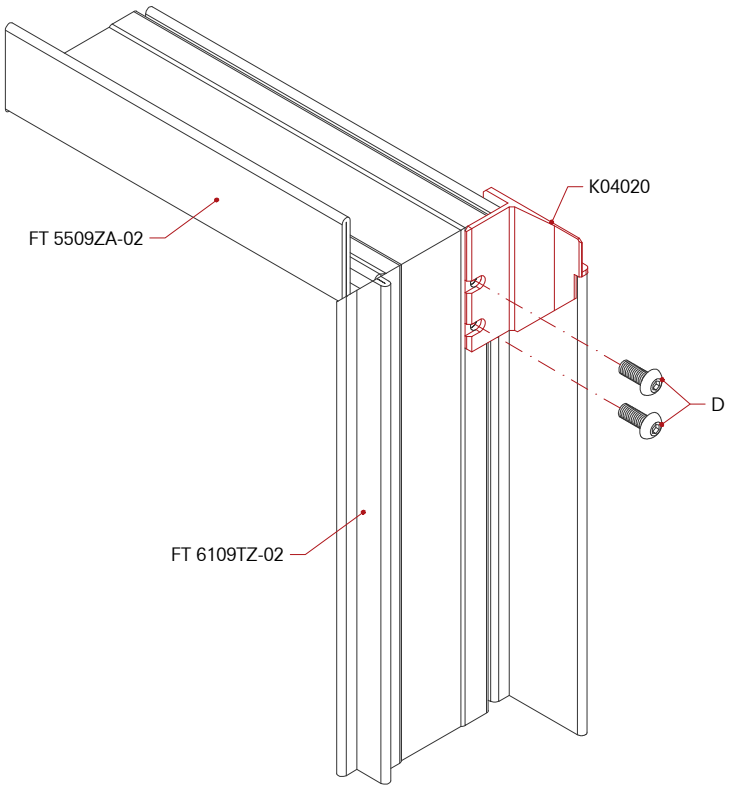
A) Fresate
B) Sigillante OS 364991
C) n°02 fori M4 sul profilo
D) Fissaggio con viti M4x10 ISO7380

CL = Longitud de corte

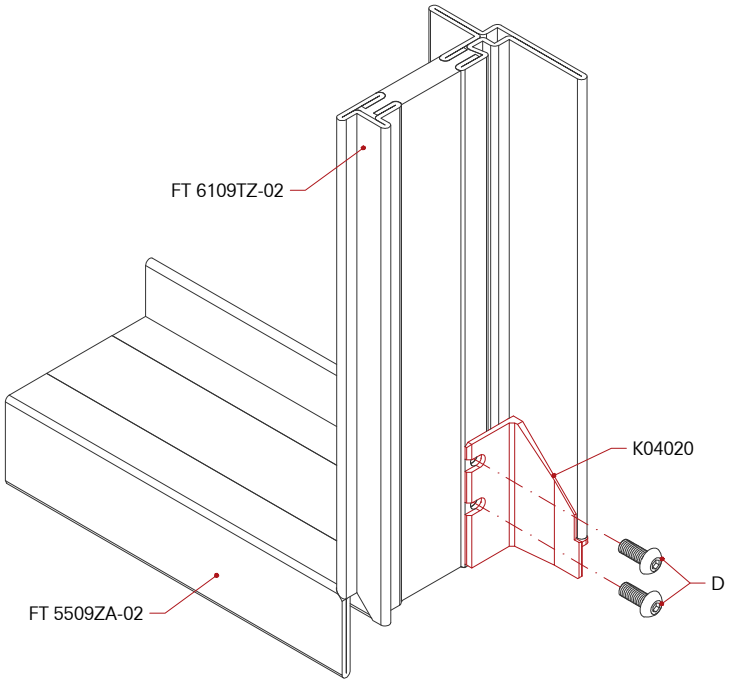
A) Fresado
B) Agente sellante OS 364991
C) n°02 orificios M4 en perfil
D) Fijación con tornillos M4x10 ISO7380

Assembling profile
Assemblaggio dei profili
Perfil de montaje

A



B



D) Fastening with M4x10 ISO7380 screws

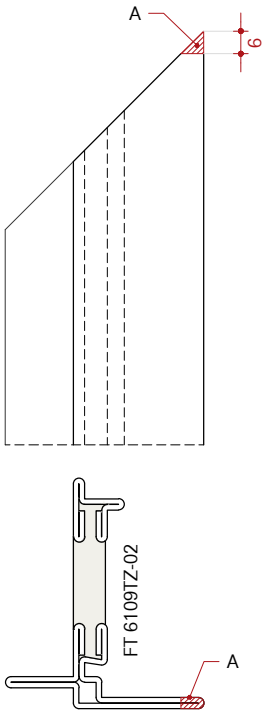
D) Fissaggio con viti M4x10 ISO7380

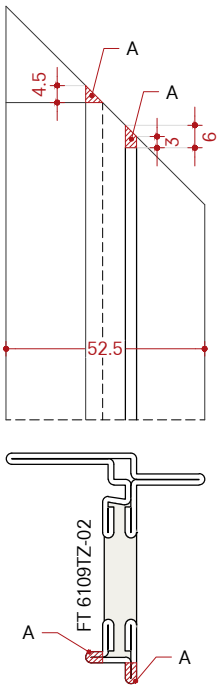
D) Fijación con tornillos M4x10 ISO7380

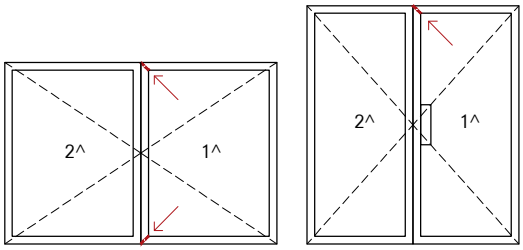
Profile processing
FT 5509TA-02 + FT 6109TZ-02
Double leaf window
Open out

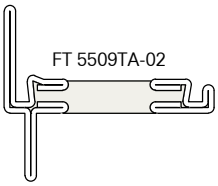
Lavorazione del profilo
FT 5509TA-02 + FT 6109TZ-02
Finestra a due battenti
Apertura esterna

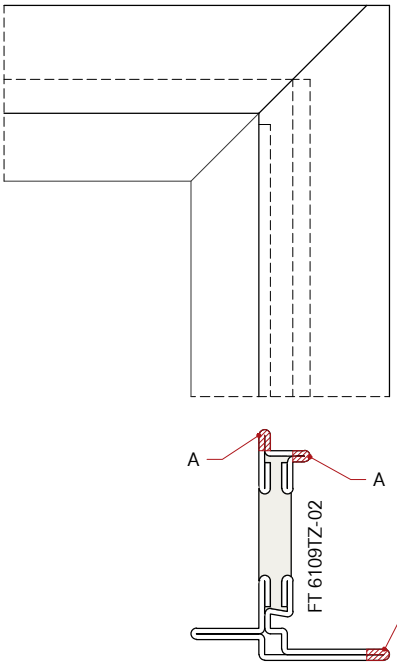
Mecanizado de perfil
FT 5509TA-02 + FT 6109TZ-02
Ventana de dos hojas
Que se abre hacia fuera

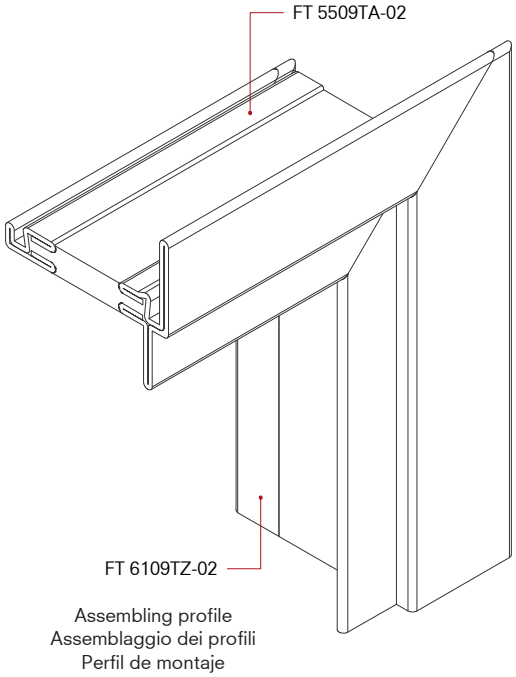








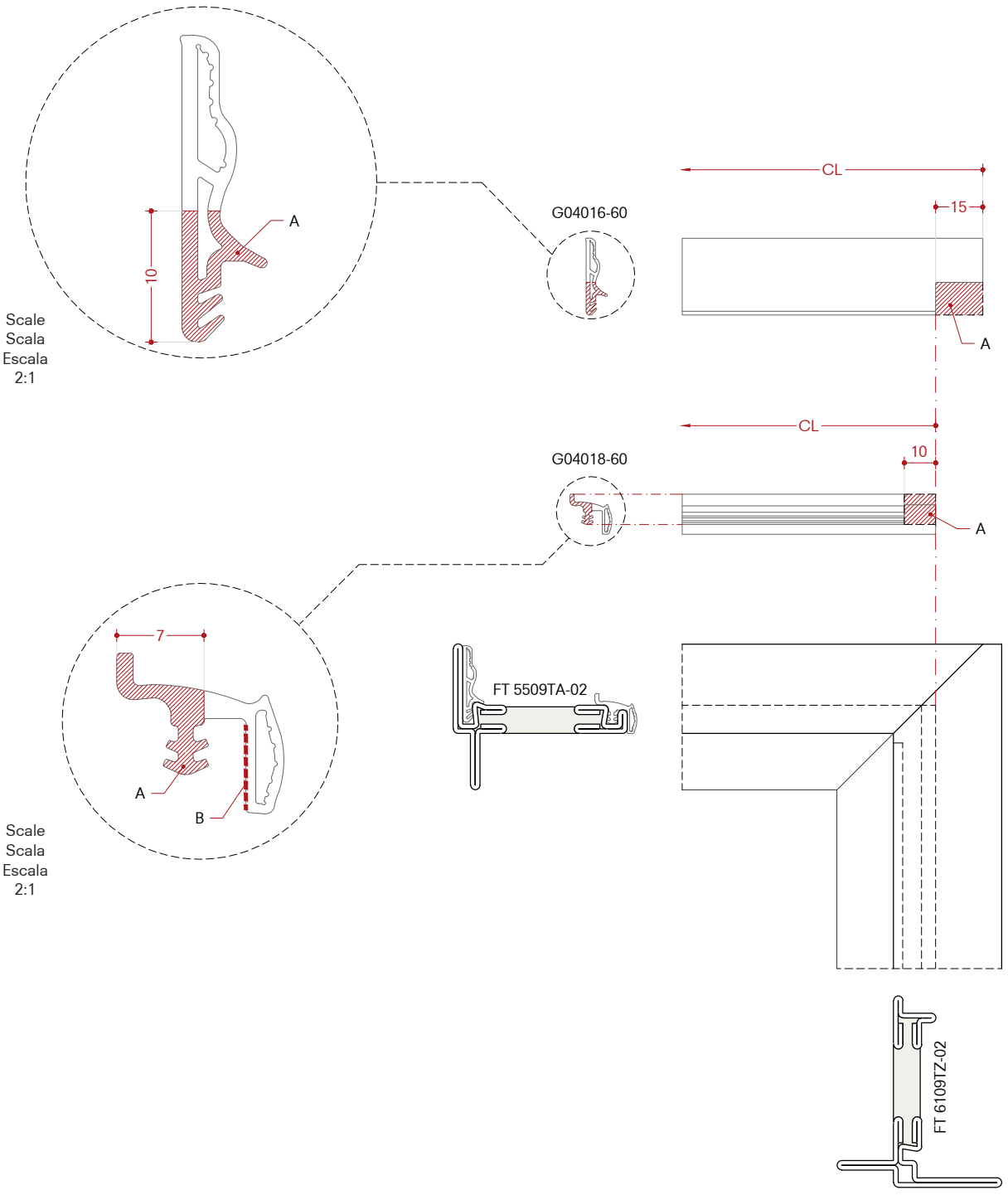




A) Cut outs

A) Fresate

A) Fresado



CL = Cutting length

A) Cut outs
B) Sealant OS 364991

CL = Lunghezza di taglio

A) Fresate
B) Sigillante OS 364991

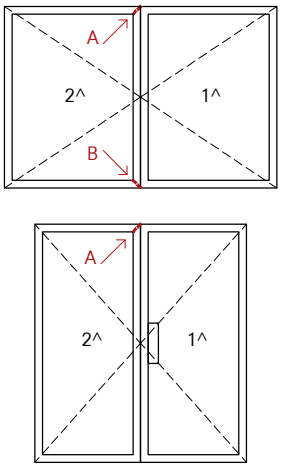
CL = Longitud de corte

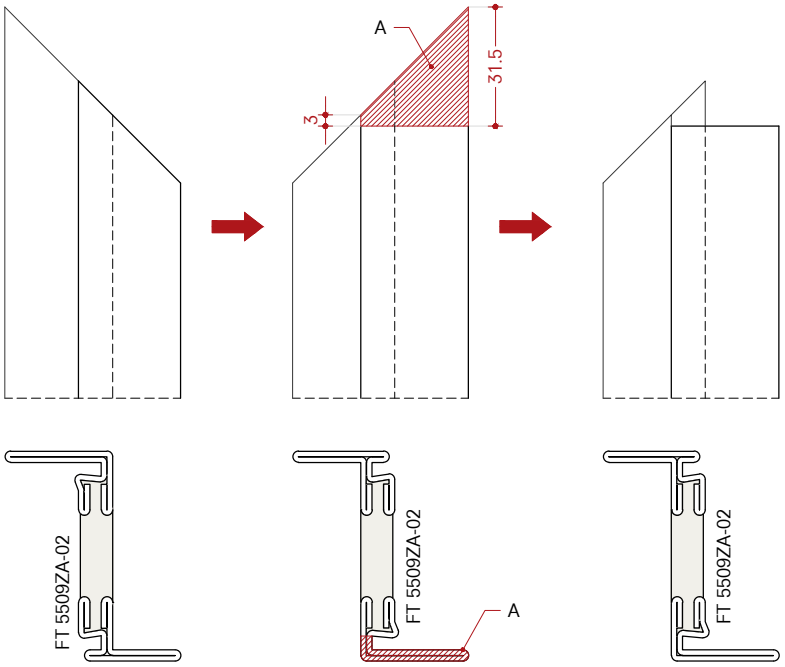
A) Fresado
B) Agente sellante OS 364991

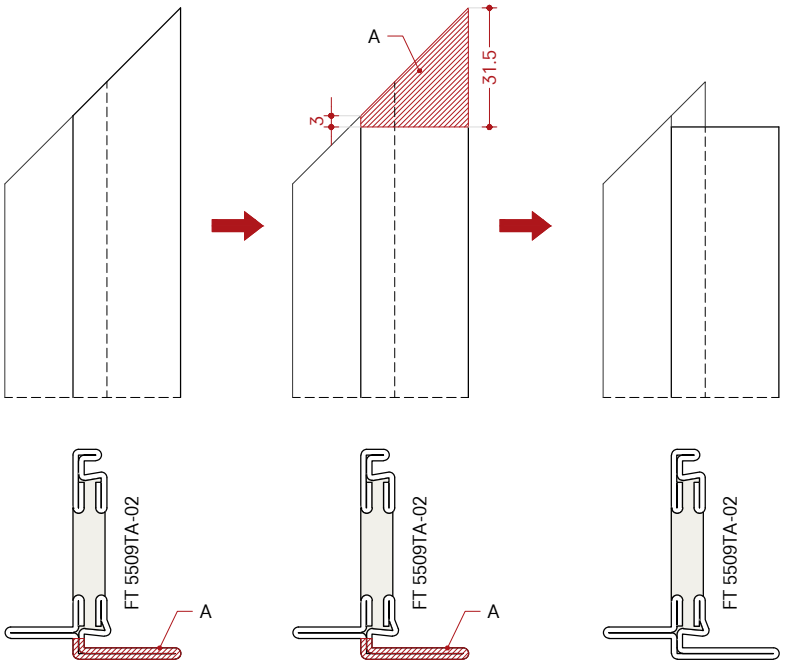
Profile processing
FT 5509ZA-02 + 5509TA-02
Double leaf window
Open out

Lavorazione del profilo
FT 5509ZA-02 + 5509TA-02
Finestra a due battenti
Apertura esterna

Mecanizado de perfil
FT 5509ZA-02 + 5509TA-02
Ventana de dos hojas
Que se abre hacia fuera



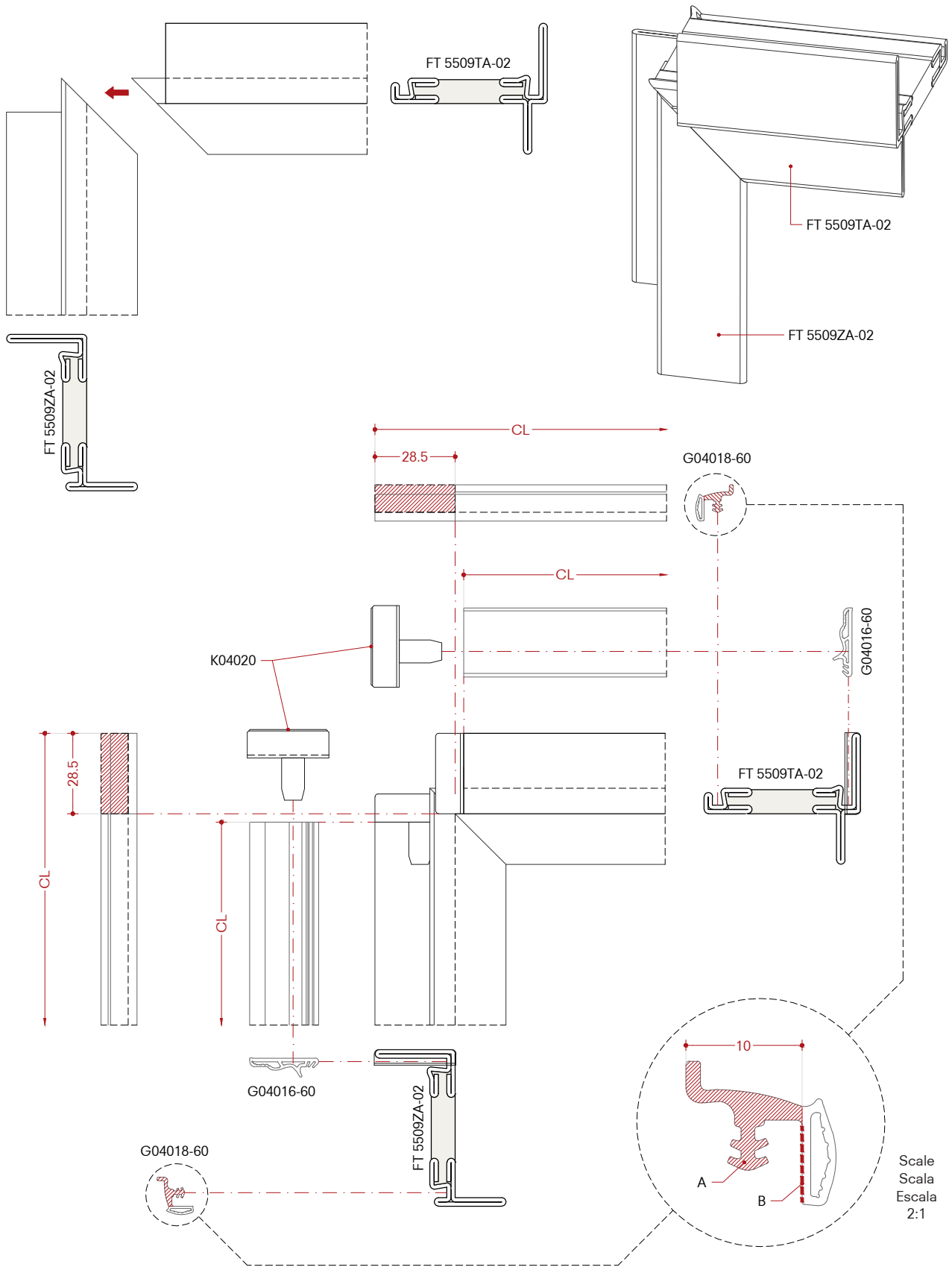




A) Cut outs

A) Fresate

A) Fresado



CL = Cutting length

A) Cut outs
B) Sealant OS 364991

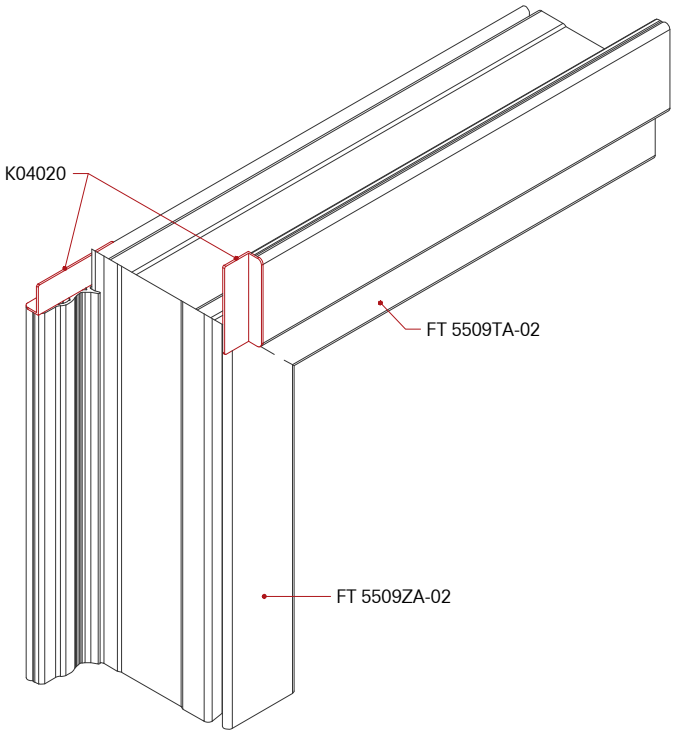
CL = Lunghezza di taglio

A) Fresate
B) Sigillante OS 364991

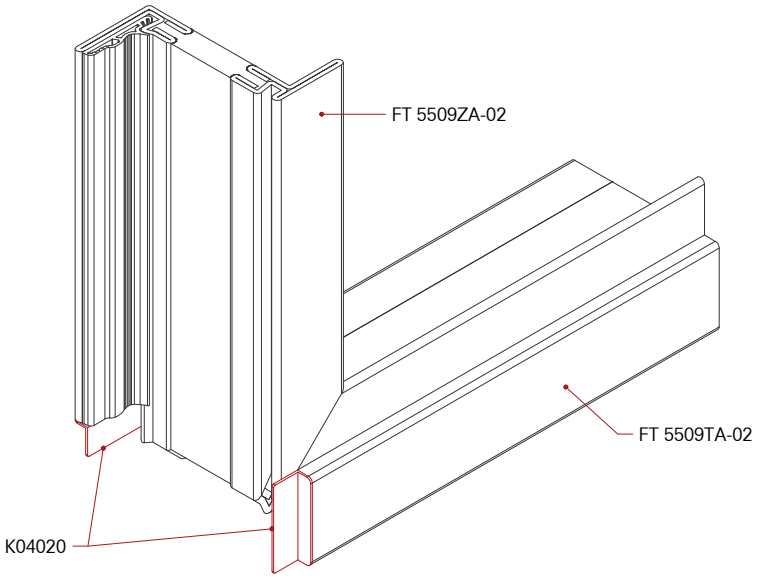
CL = Longitud de corte

A) Fresado
B) Agente sellante OS 364991

A


K04020
FT 5509TA-02
FT 5509ZA-02

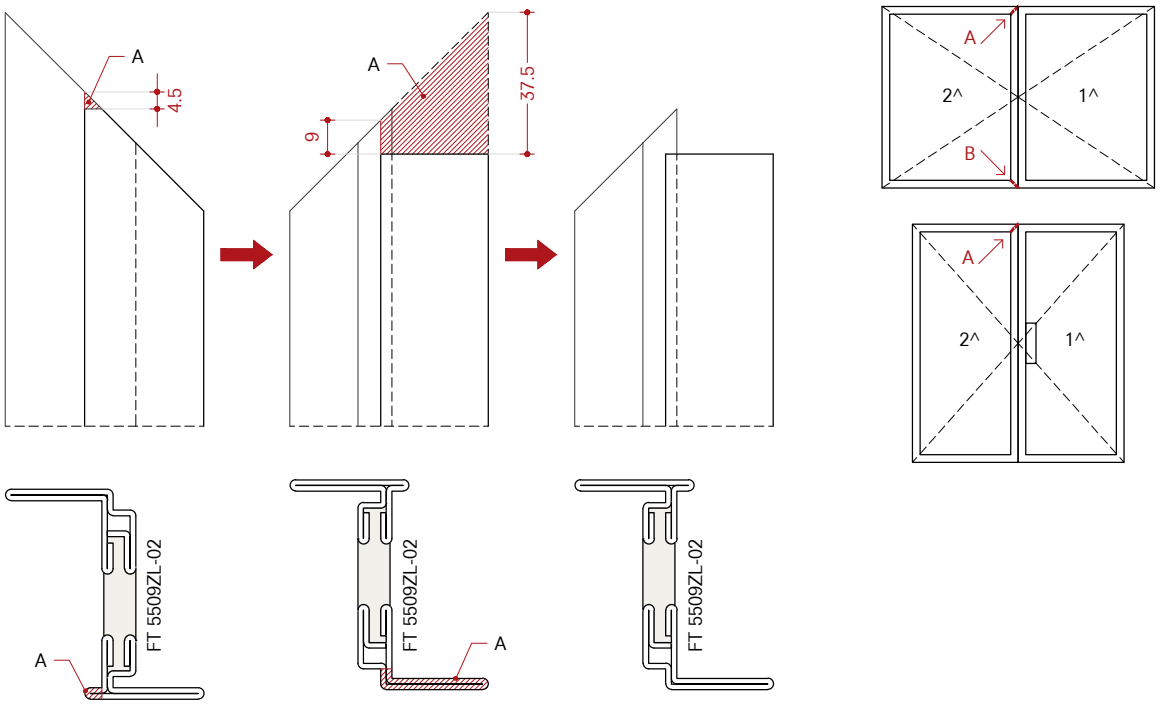
B

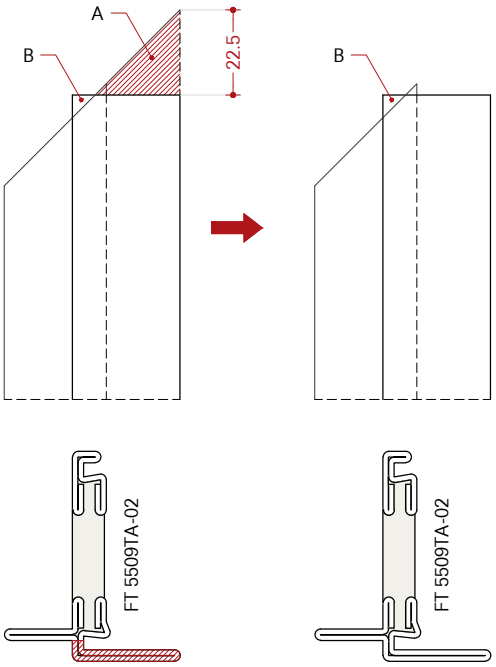

FT 5509ZA-02
FT 5509TA-02
K04020

Profile processing
FT 5509ZL-02 + 5509TA-02
Double leaf window
Open out

Lavorazione del profilo
FT 5509ZL-02 + 5509TA-02
Finestra a due battenti
Apertura esterna

Mecanizado de perfil
FT 5509ZL-02 + 5509TA-02
Ventana de dos hojas
Que se abre hacia fuera

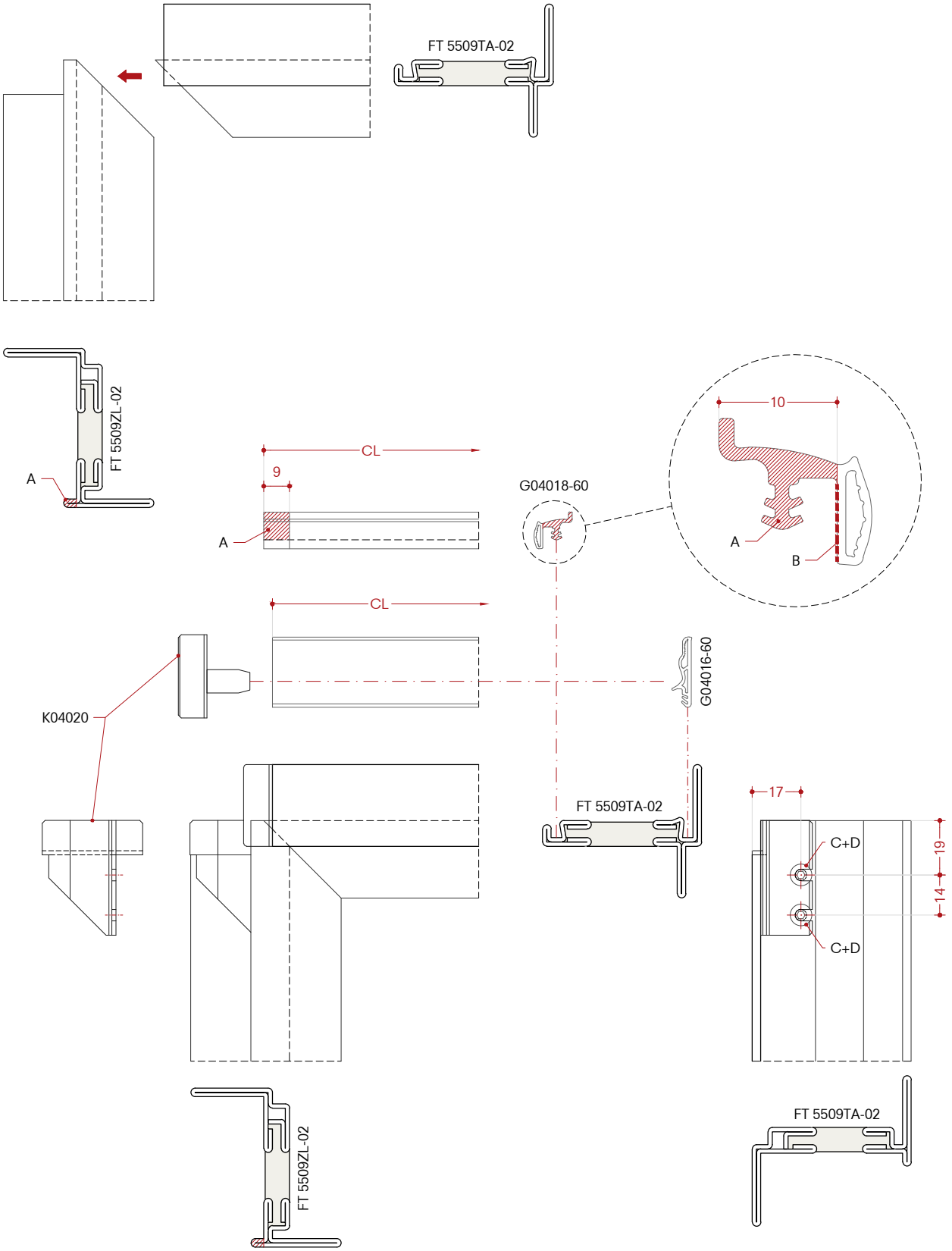




A) Cut outs
B) Do not remove this portion while cutting 45°

A) Fresate
B) Non rimuovere durante il taglio a 45°

A) Fresado
B) No retire esta parte mientras corta a 45°



CL = Cutting length

A) Cut outs
B) Sealant OS 364991
C) n°02 M4 holes on profile
D) Fastening with M4x10 ISO7380 screws

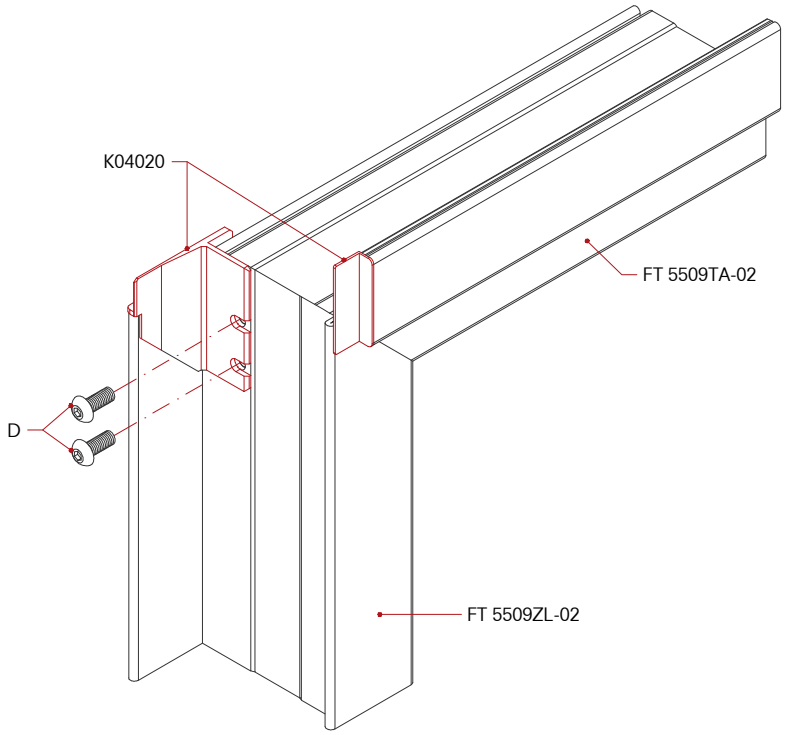
CL = Lunghezza di taglio

A) Fresate
B) Sigillante OS 364991
C) n°02 fori M4 sul profilo
D) Fissaggio con viti M4x10 ISO7380

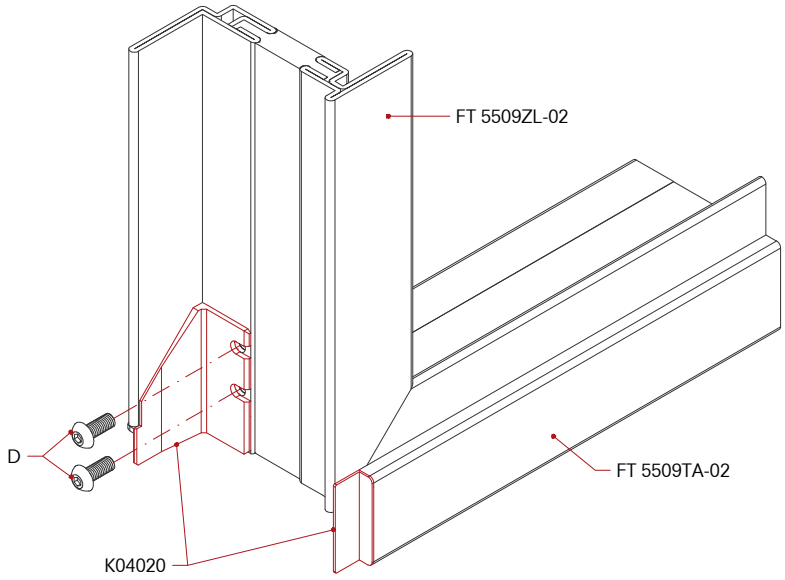
CL = Longitud de corte

A) Fresado
B) Agente sellante OS 364991
C) n°02 orificios M4 en perfil
D) Fijación con tornillos M4x10 ISO7380

A



B



D) Fastening with M4x10 ISO7380 screws

D) Fissaggio con viti M4x10 ISO7380

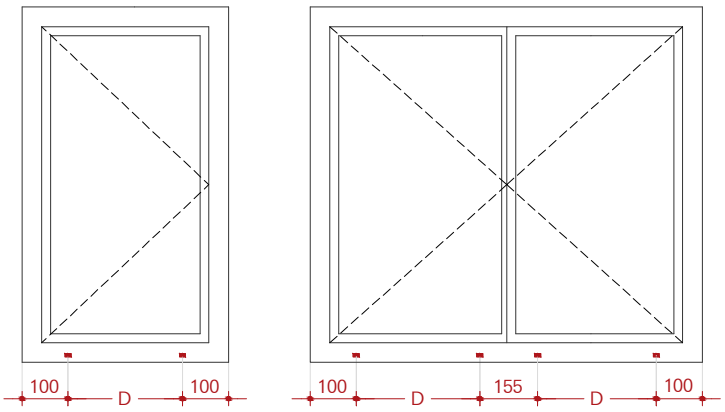
D) Fijación con tornillos M4x10 ISO7380

Assembling
Cover cap A99201-35
Open in
Drain holes with cover caps.

Schema di montaggio
Tappo scarico acqua A99201-35
Apertura interna
Fori di drenaggio con tappi di copertura.

Diagrama de montaje
Tapa de cubierta A99201-35
Ventana que se abre hacia dentro
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

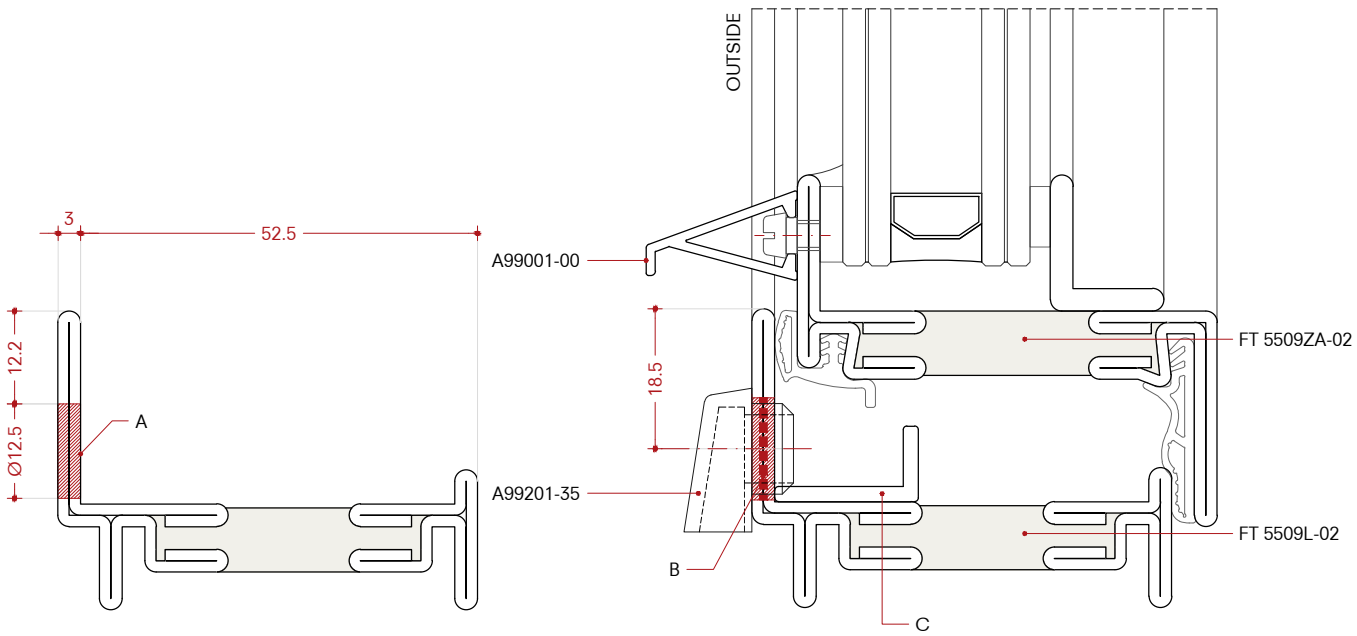
Min. n°04 drain holes/cover caps
For double leaf window

Minimo n°02 fori/tappi di scarico
Per finestra anta singola

Minimo n°04 fori/tappi di scarico
Per finestra anta doppia

Mínimo n°02 orificios/tapas de cubierta
Para ventana de una hoja

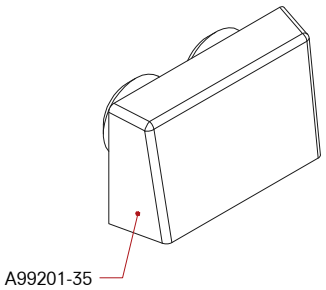
Mínimo n°04 orificios/tapas de cubierta
Para ventana de doble hoja



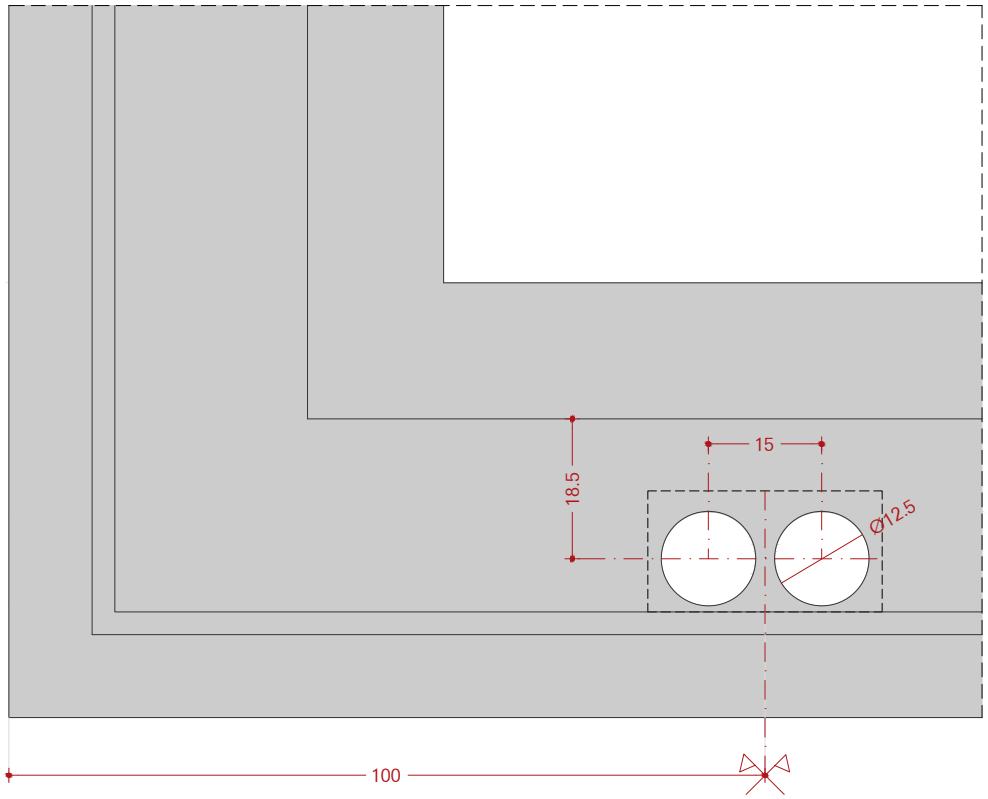
A) n°02 holes Ø12.5 mm frame profile
B) Sealing between cover cap and frame profile
C) A04102-06 drainage profile
D) Max. distance between drainage holes 1000 mm

A) n°02 fori Ø12.5 mm sul profilo telaio
B) Sigillatura tra tappo di scarico acqua e profilo telaio
C) A04102-06 vaschetta raccolta acqua
D) Massima distanza tra i fori di drenaggio 1000 mm

A) n°02 orificios Ø12.5 mm en perfil de marco
B) Agente sellante entre tapa de cubierta y perfil de marco
C) A04102-06 junta de galce
D) Distancia máxima entre orificios de desagüe 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

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

Nota:

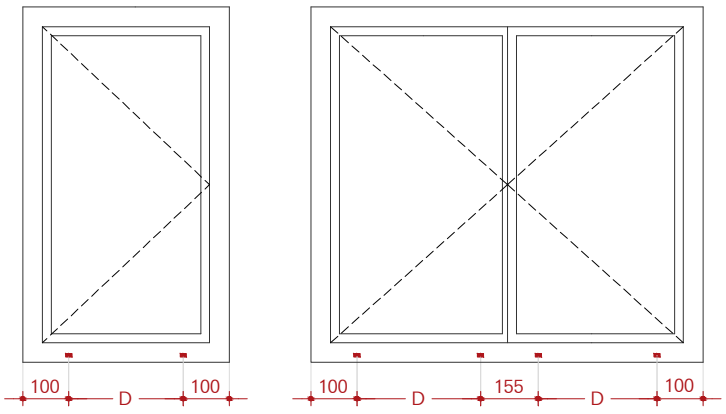
Al menos 2 tapas hasta 1000 mm de ancho de hoja
Al menos 4 tapas hasta 2000 mm de ancho de hoja

Assembling
Drains
Open out

Schema di montaggio
Drenaggio
Apertura esterna

Diagrama de montaje
Desagüe
Ventana que se abre hacia fuera

Outside view / Vista dall'esterno / Vista desde el exterior



Min. n°02 drain holes
For single leaf window

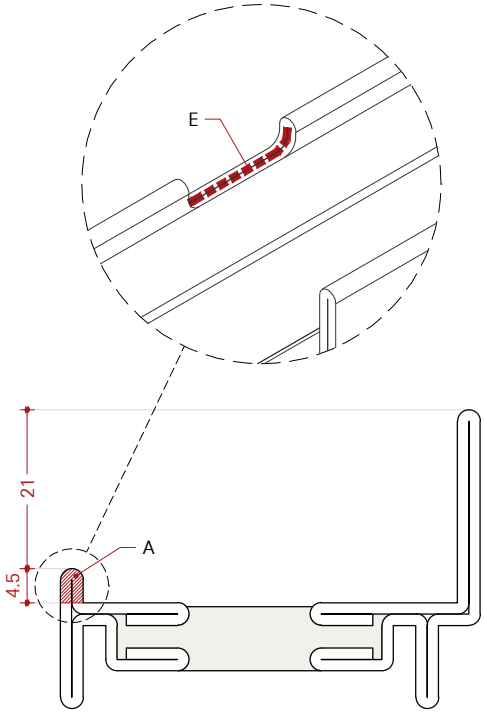
Min. n°04 drain holes
For double leaf window

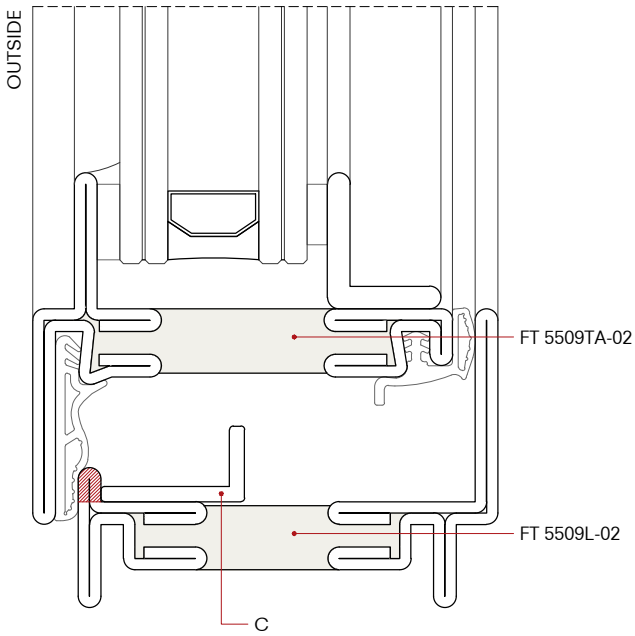
Minimo n°02 fori
Per finestra anta singola

Minimo n°04 fori
Per finestra anta doppia

Mínimo n°02 orificios
Para ventana de una hoja

Mínimo n°04 orificios
Para ventana de doble hoja

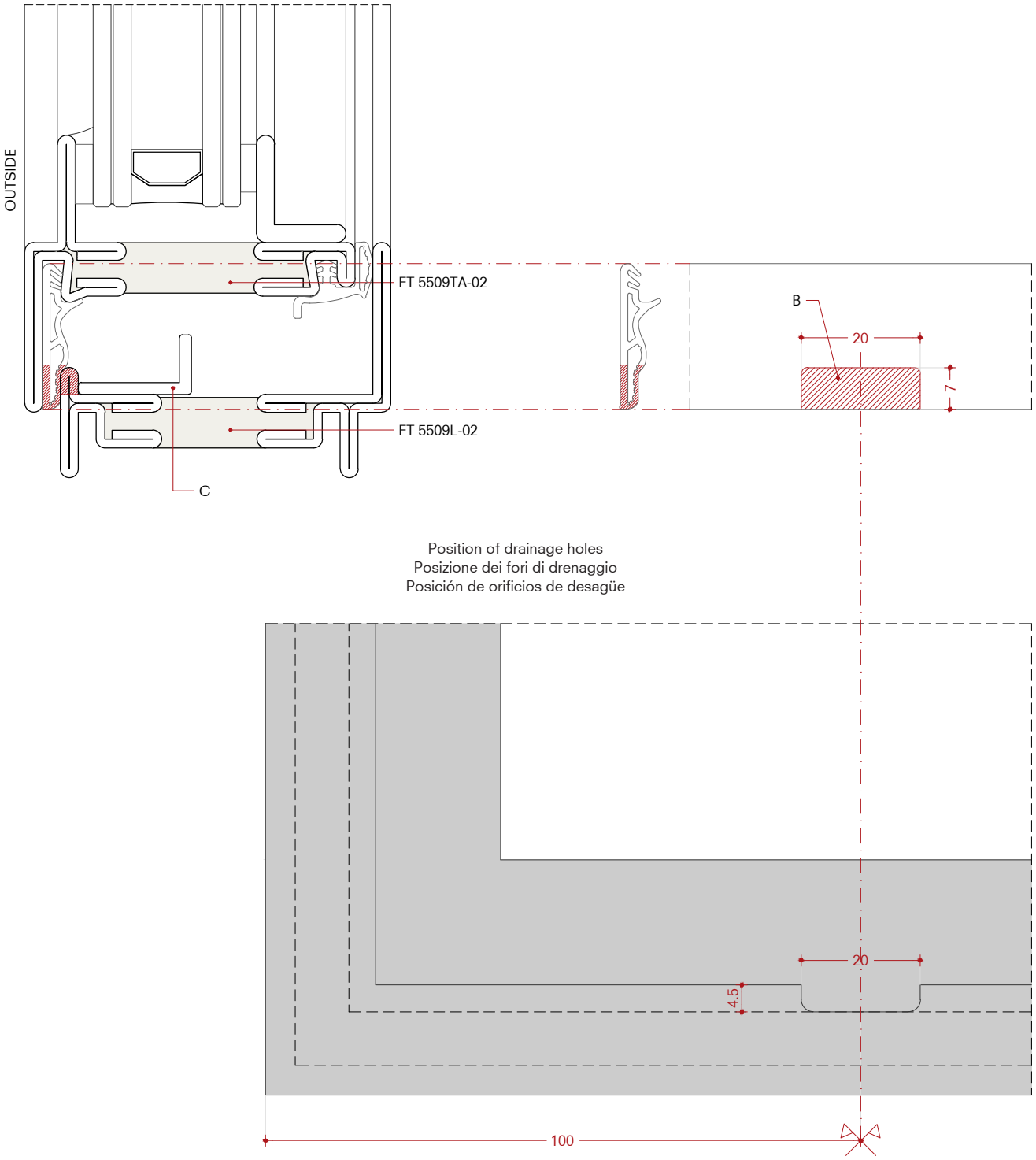




A) Cut outs 20x4.5 mm
B) Cut out 20x7 mm on gasket G04016-60
C) A04102-06 drainage profile
D) Max. distance between drainage holes 800 mm
E) Sealant

A) Fresate 20x4.5 mm
B) Taglio 20x7 mm su guarnizione G04016-60
C) A04102-06 vaschetta raccolta acqua
D) Massima distanza tra i fori di drenaggio 800 mm
E) Sigillante

A) Fresado 20x4.5 mm
B) Fresadas 20x7 mm con junta G04016-60
C) A04102-06 junta de galce
D) Distancia máxima entre orificios de desagüe 800 mm
E) Agente sellante

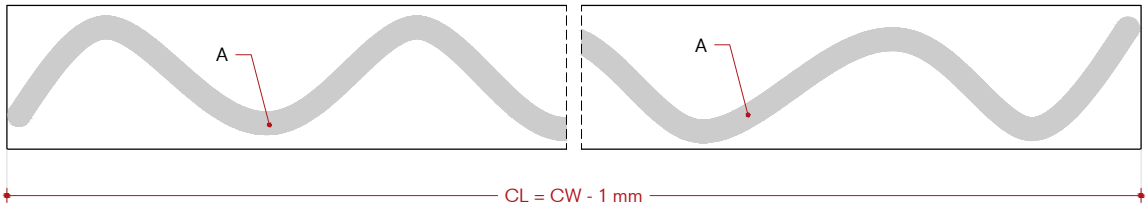

OUTSIDE
FT 5509TA-02
FT 5509L-02
C
B
20
7
Position of drainage holes
Posizione dei fori di drenaggio
Posición de orificios de desagüe
20
4.5
100

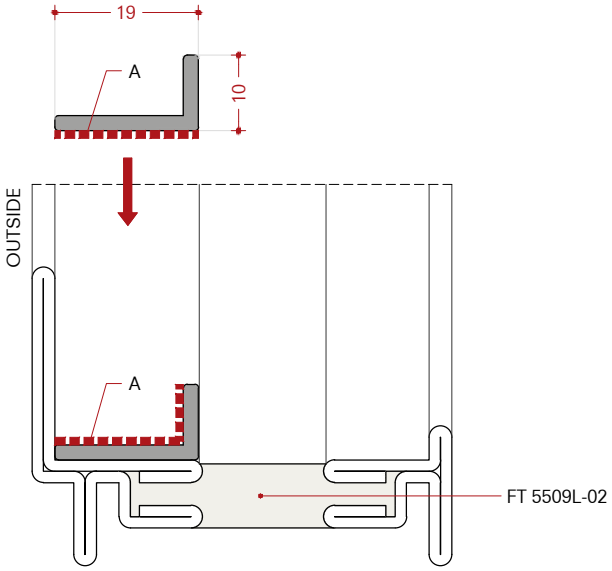
Installation
Drainage profile A04102-06
Open in window

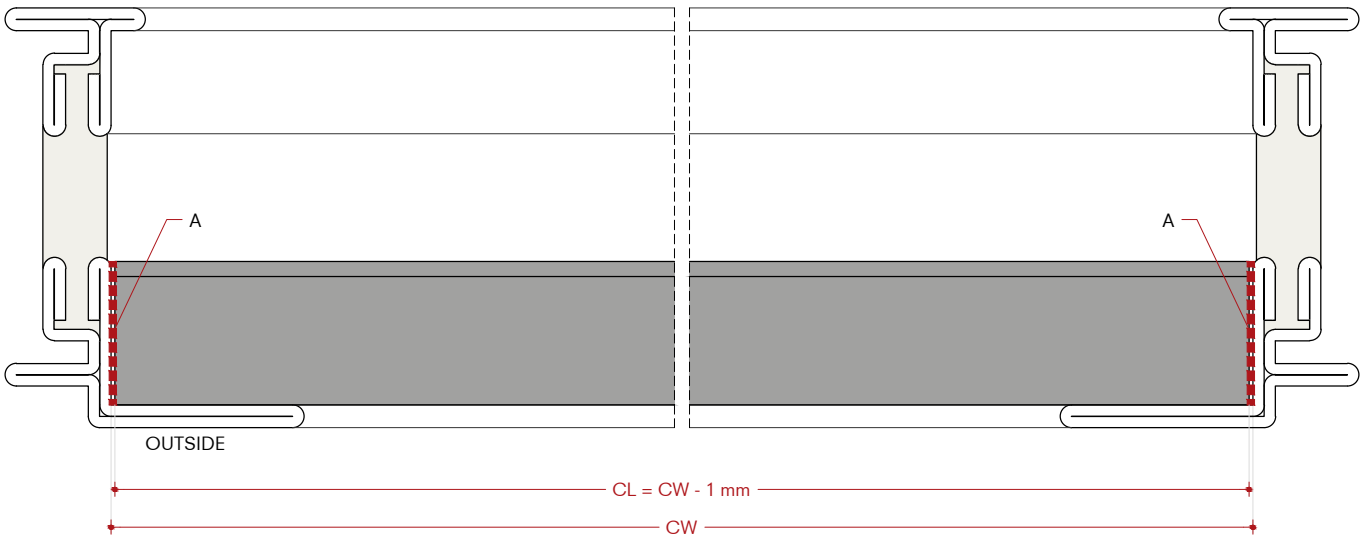
Montaggio
Vaschetta raccolta acqua A04102-06
Finestra apertura interna

Montaje
Junta de galce A04102-06
Ventana que se abre hacia dentro

A04102-06 bottom view
A04102-06 vista inferiore
A04102-06 vista inferior







Note:
To be sealed after coating.

CL = Cutting length
CW = Clearance width

A) Sealant

Nota:
Da sigillare dopo verniciatura.

CL = Lunghezza di taglio
CW= Luce interna

A) Sigillante

Nota:
Para ser sellado después de pintar

CL = Longitud de corte
CW = Longitud interne

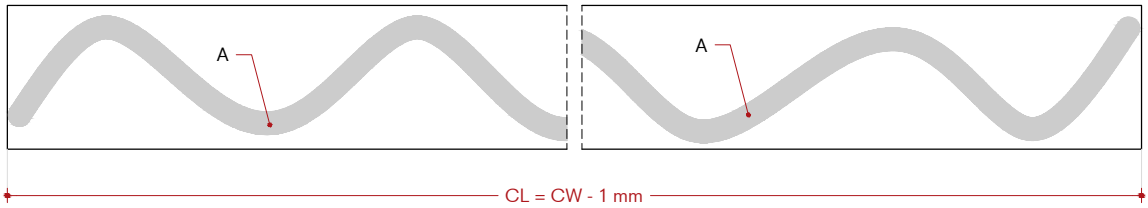
A) Agente sellante

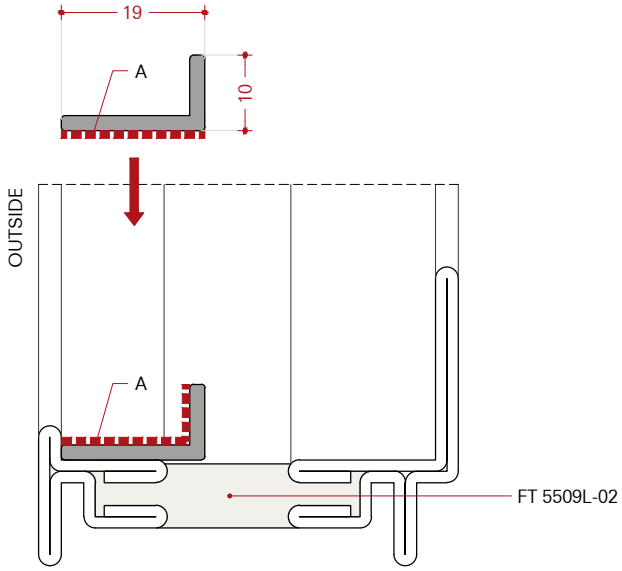
Installation
Drainage profile A04102-06
Open out window

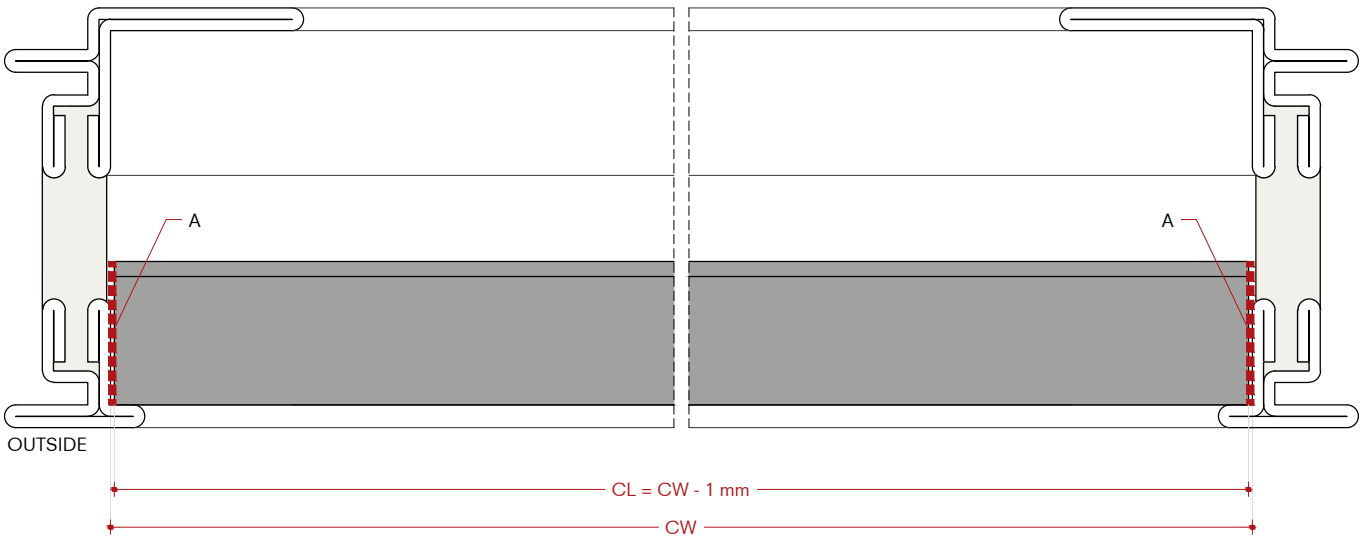
Montaggio
Vaschetta raccolta acqua A04102-06
Finestra apertura esterna

Montaje
Junta de galce A04102-06
Ventana que se abre hacia fuera

A04102-06 bottom view
A04102-06 vista inferiore
A04102-06 vista inferior







Note:
To be sealed after coating.

CL = Cutting length
CW = Clearance width

A) Sealant

Nota:
Da sigillare dopo verniciatura.

CL = Lunghezza di taglio
CW= Luce interna

A) Sigillante

Nota:
Para ser sellado después de pintar

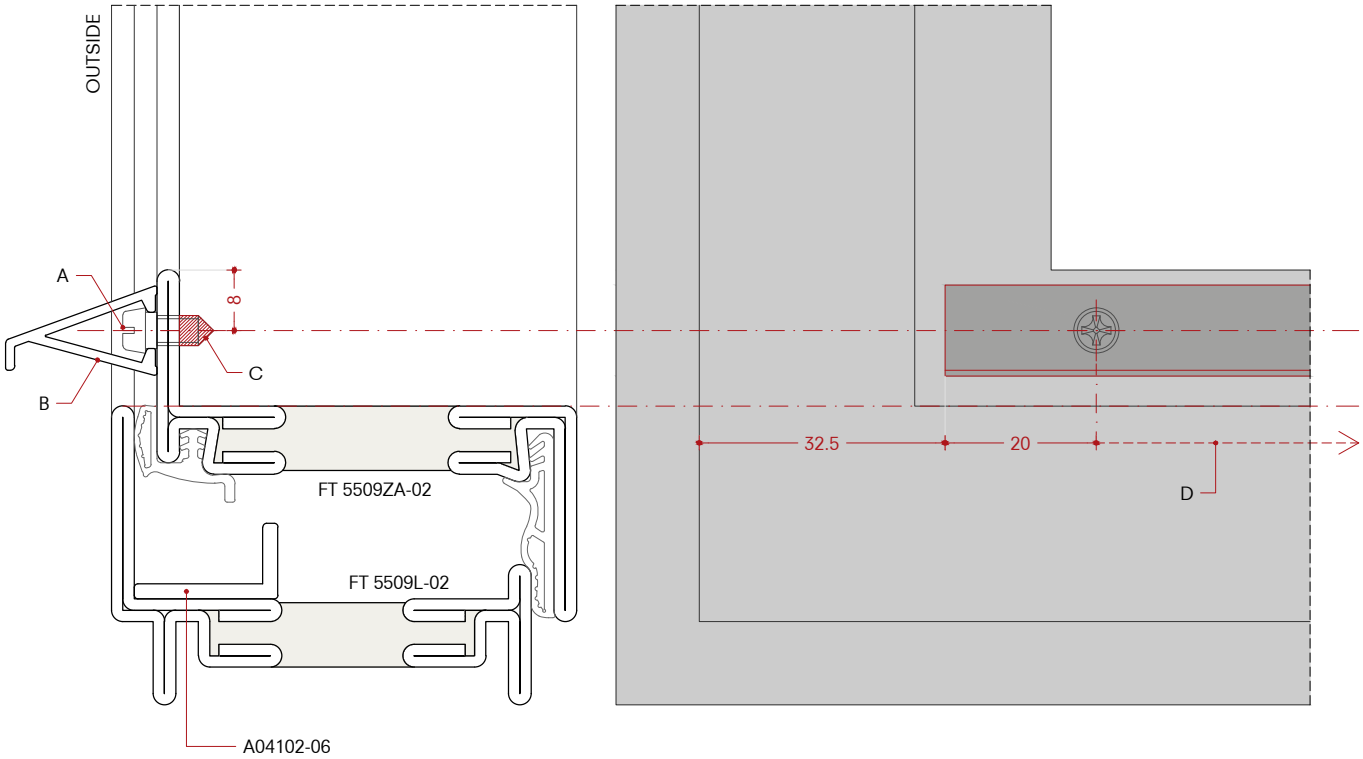
CL = Longitud de corte
CW = Longitud interne

A) 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



A) Fastening with screws D99901-02
B) A99001-00 weather bar
C) Cut the screw flush and paint the frame
D) Maximum pitch 240 mm

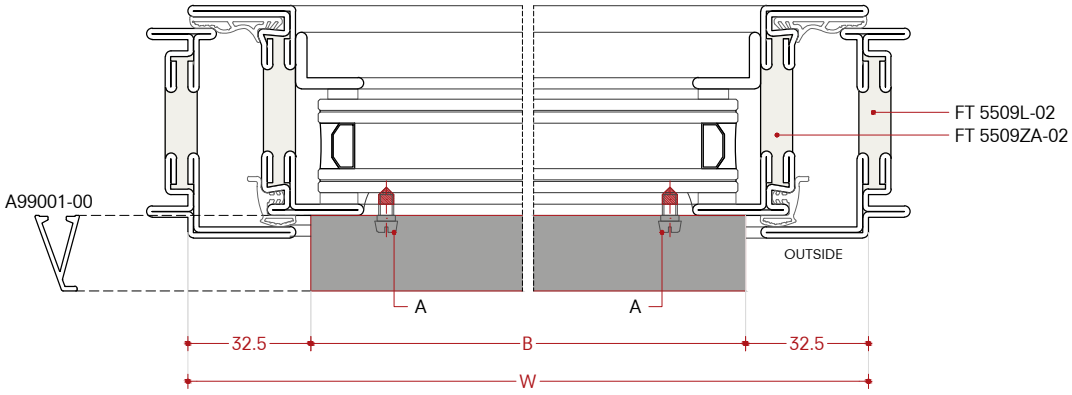
A) Fissaggio con viti D99901-02
B) Gocciolatoio A99001-00
C) Accorciare la vite in eccesso e verniciare il telaio
D) Distanza massima 240 mm

A) Fijación con tornillos D99901-02
B) Vierteaguas A99001-00
C) Recortar tornillo y pintar el marco
D) Distanza massima 240 mm

Single leaf window

Finestra anta singola

Ventana de una hoja



A) D99901-02 positioning - maximum pitch 240 mm; first D99901-02 at 20 mm from ending of the weather bar
B) Weather bar lenght = leaf width W - 65 mm

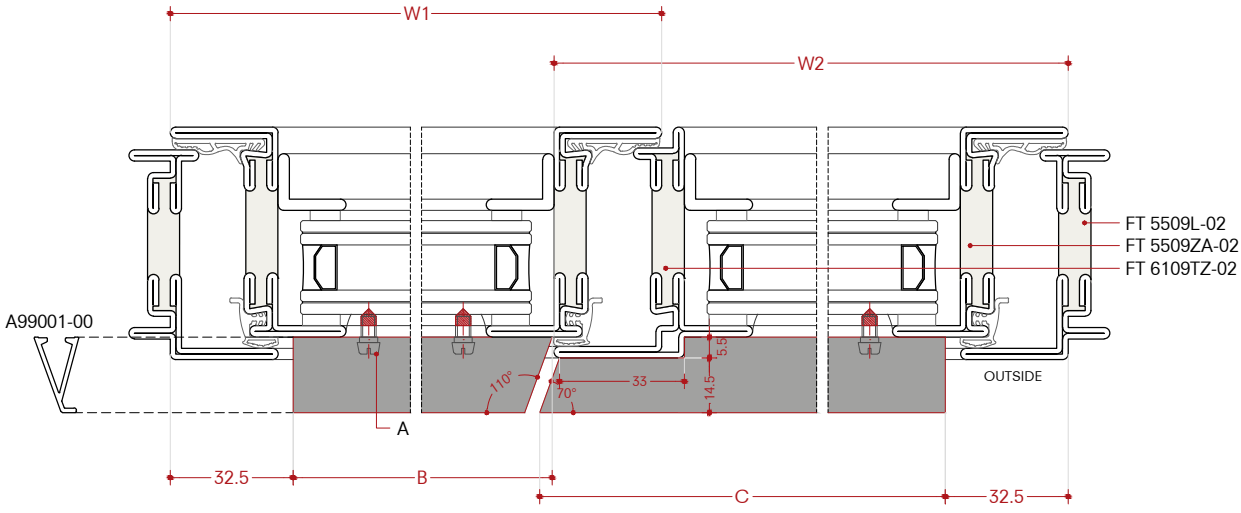
A) Posizione D99901-02 - distanza massima 240 mm; primo D99901-02 a 20 mm dalla parte terminale del gocciolatoio
B) Lunghezza gocciolatoio = larghezza anta W - 65 mm

A) Posición D99901-02 - distancia máxima 240 mm; primer D99901-02 a 20 mm del final de vierteaguas
B) Largo de vierteaguas = ancho de la hoja W - 65 mm

Double leaf window

Finestra doppia anta

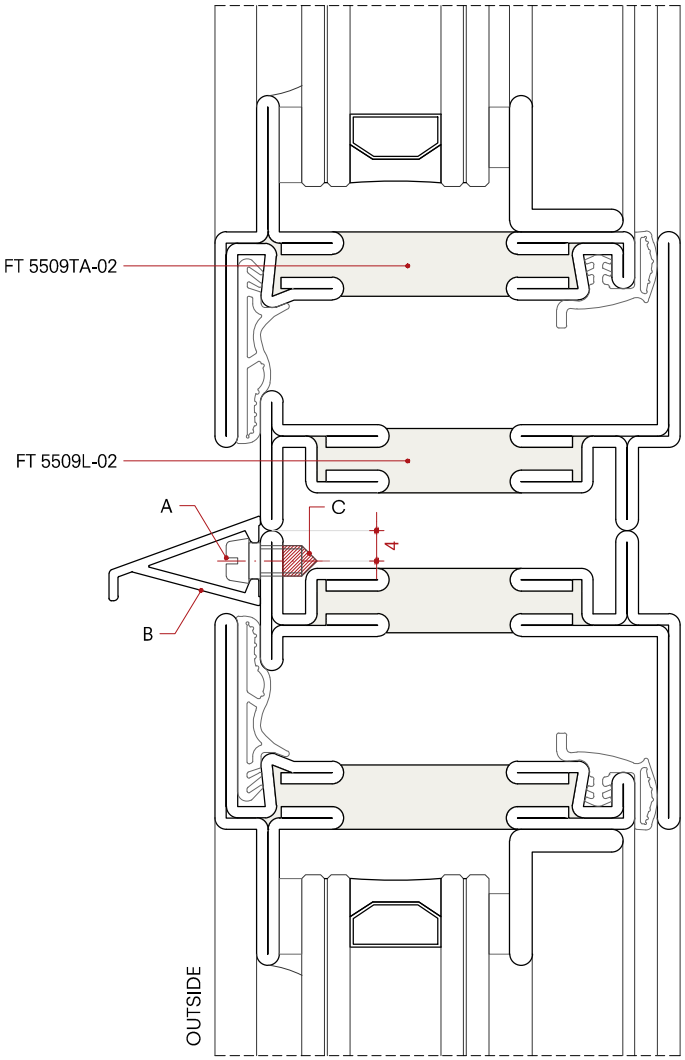
Ventana de dos hoja

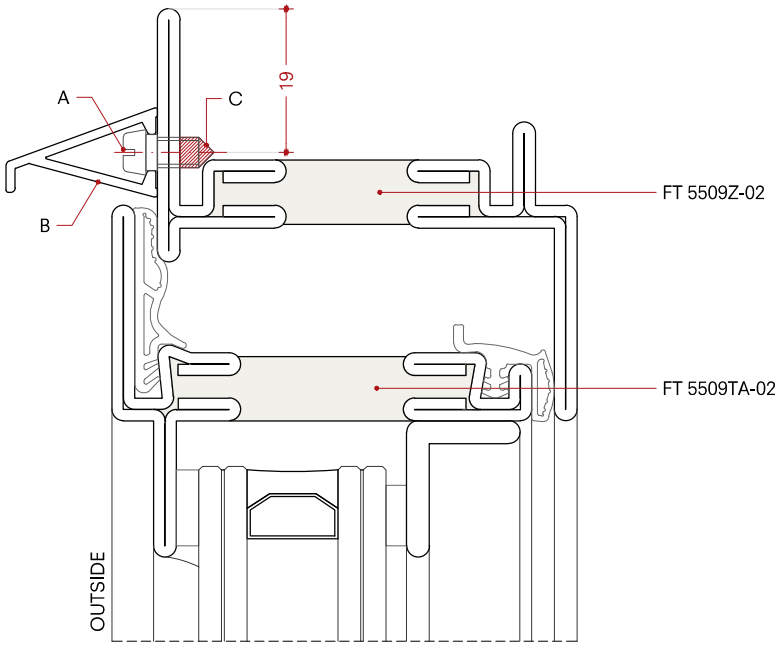


A) D99901-02 positioning - maximum pitch 240 mm; first D99901-02 at 20 mm from ending of the weather bar
B) Weather bar lenght = leaf width W1 - 65 mm
C) Weather bar lenght = leaf width W2 - 28.5 mm

A) Posizione D99901-02 - distanza massima 240 mm; primo D99901-02 a 20 mm dalla parte terminale del gocciolatoio
B) Lunghezza gocciolatoio = larghezza anta W1 - 65 mm
C) Lunghezza gocciolatoio = larghezza anta W2 - 28.5 mm

A) Posición D99901-02 - distancia máxima 240 mm; primer D99901-02 a 20 mm del final de vierteaguas
B) Largo de vierteaguas = ancho de la hoja W1 - 65 mm
C) Largo de vierteaguas = ancho de la hoja W2 - 28.5 mm

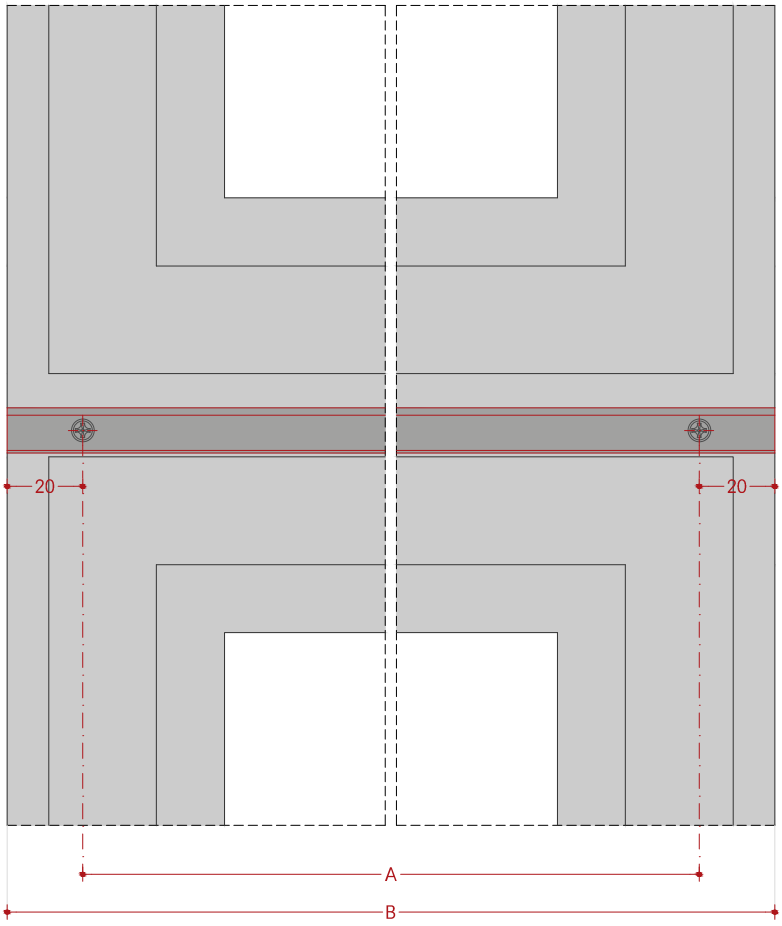


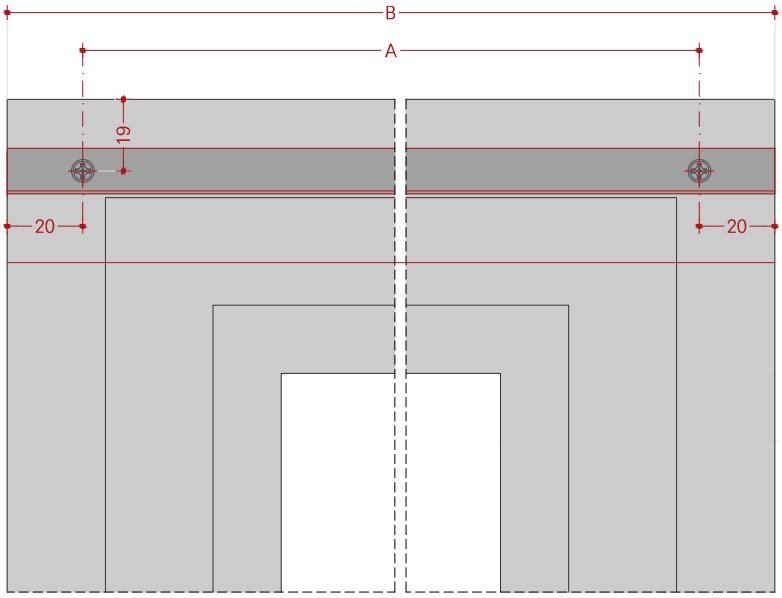


A) Fastening with screws D99901-02
B) A99001-00 weather bar
C) Cut the screw flush and paint the frame

A) Fissaggio con viti D99901-02
B) Gocciolatoio A99001-00
C) Accorciare la vite in eccesso e verniciare il telaio

A) Fijación con tornillos D99901-02
B) Vierteaguas A99001-00
C) Recortar tornillo y pintar el marco





A) D99901-02 positioning - maximum pitch 240 mm; first D99901-02 at 20 mm from ending of the weather bar
B) Weather bar lenght = frame width

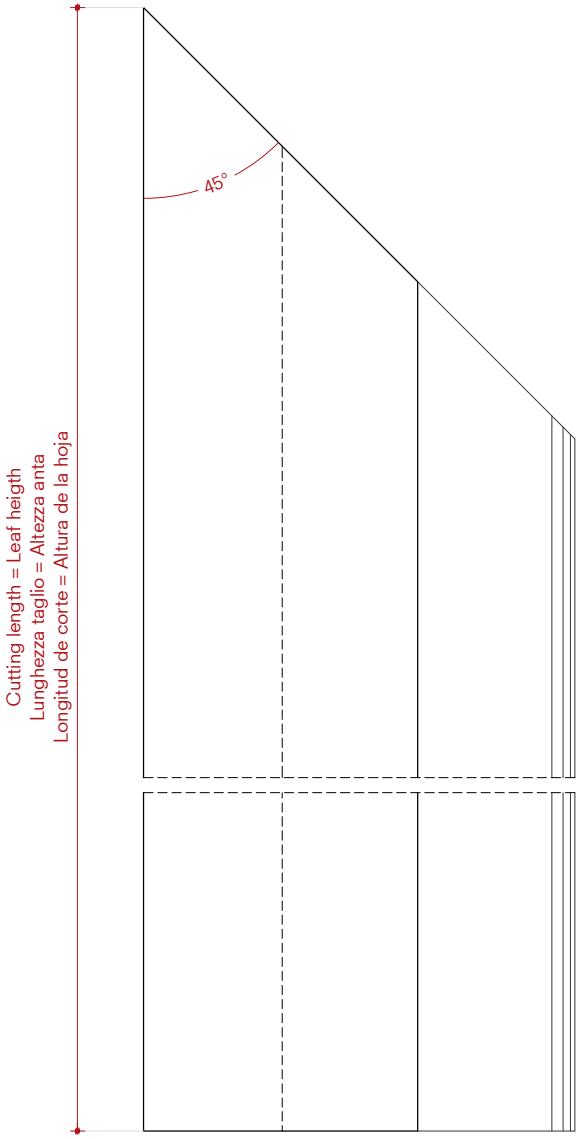
A) Posizione D99901-02 - distanza massima 240 mm; primo D99901-02 a 20 mm dalla parte terminale del gocciolatoio
B) Lunghezza gocciolatoio = larghezza telaio

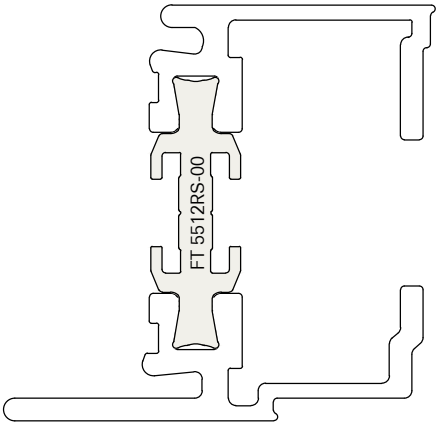
A) Posición D99901-02 - distancia máxima 240 mm; primer D99901-02 a 20 mm del final de vierteaguas
B) Largo de vierteaguas = ancho de marco

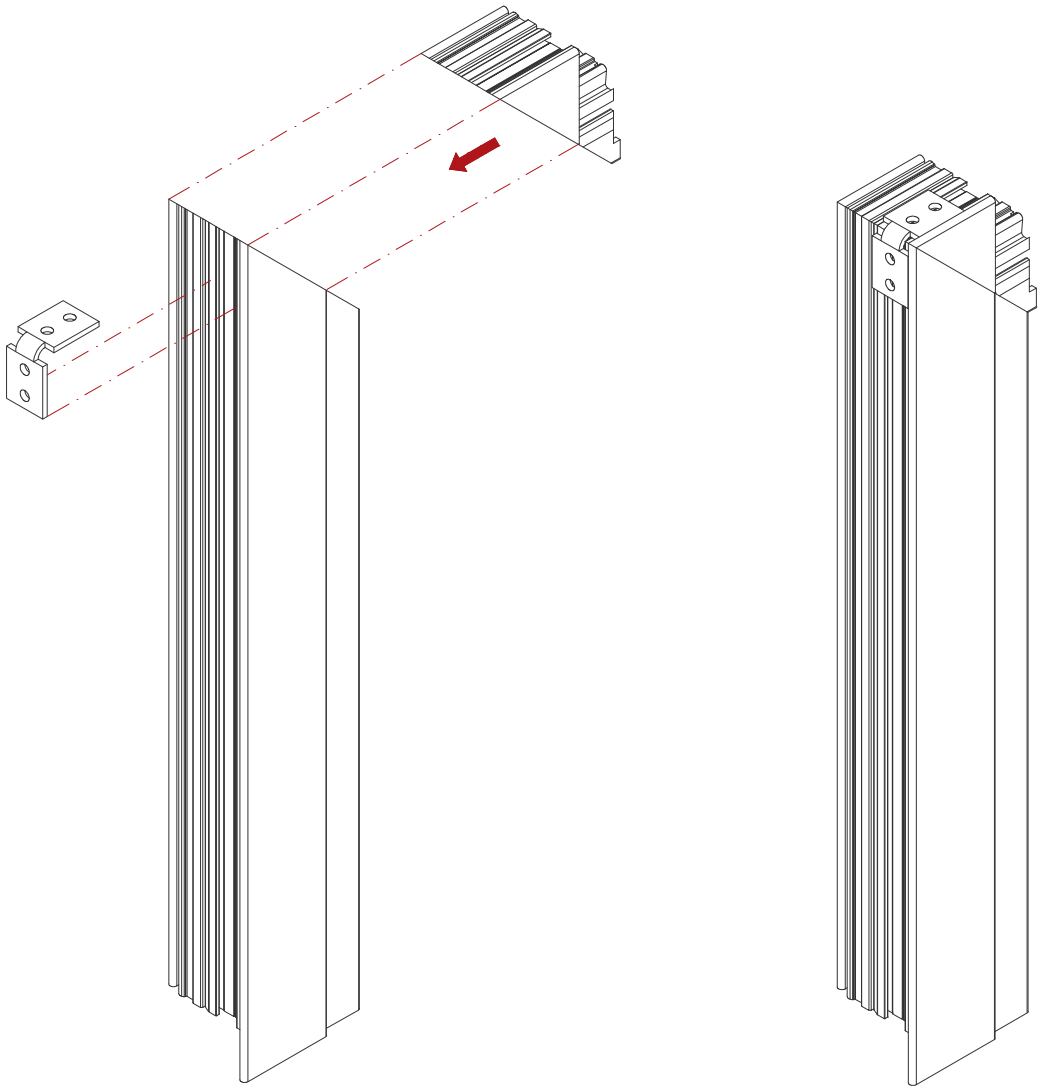
Installation
Added door profile set K04029-00

Installazione
Set profilo aggiuntivo porta K04029-00

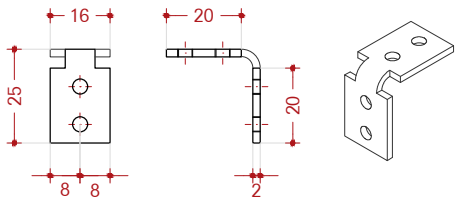
Montaje
Set perfil adicional de puerta K04029-00

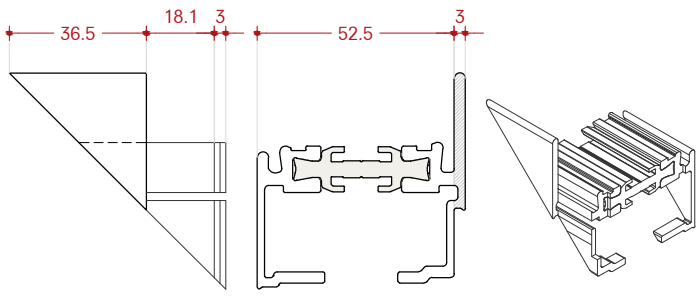


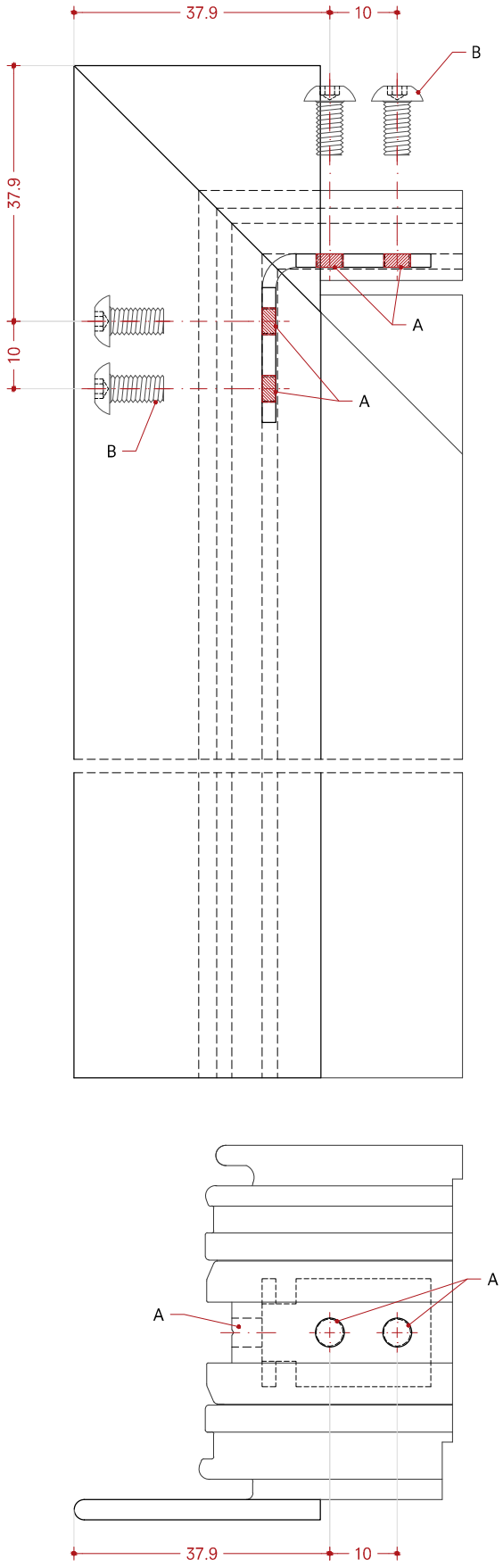




Installation of set K04029-00
Installazione kit K04029-00
Montaje kit K04029-00





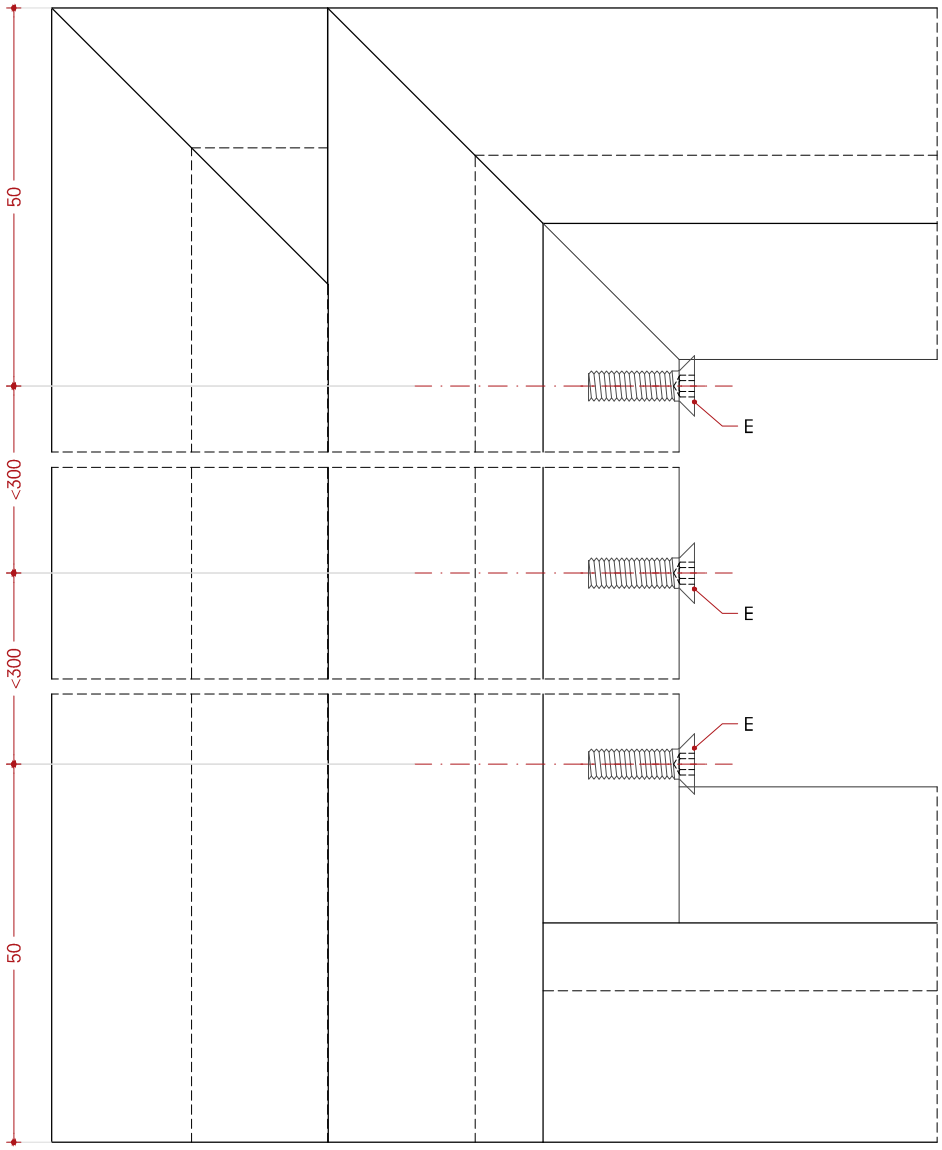


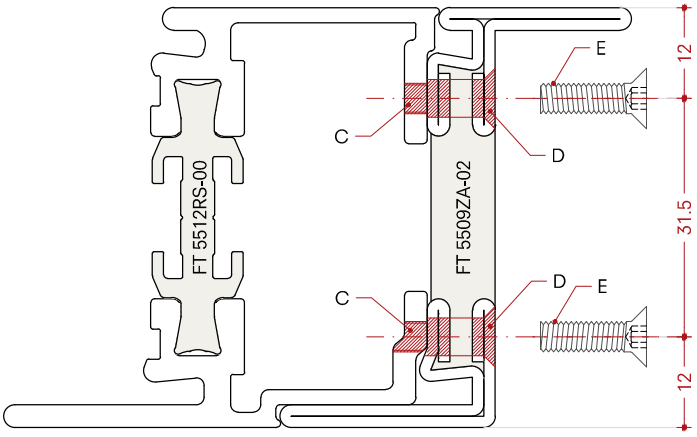
A) Hole M4 mm in door frame
B) Fastening with M4x8 mm ISO7380 screws

A) Foro M4 mm nel telaio della porta
B) Montaggio con viti M4x8 mm ISO7380

A) Oreficio de M4 mm en marco de la puerta
B) Montaje con tornillos M4x8 mm ISO7380

Open in
Apertura interna
Apertura hacia dentro



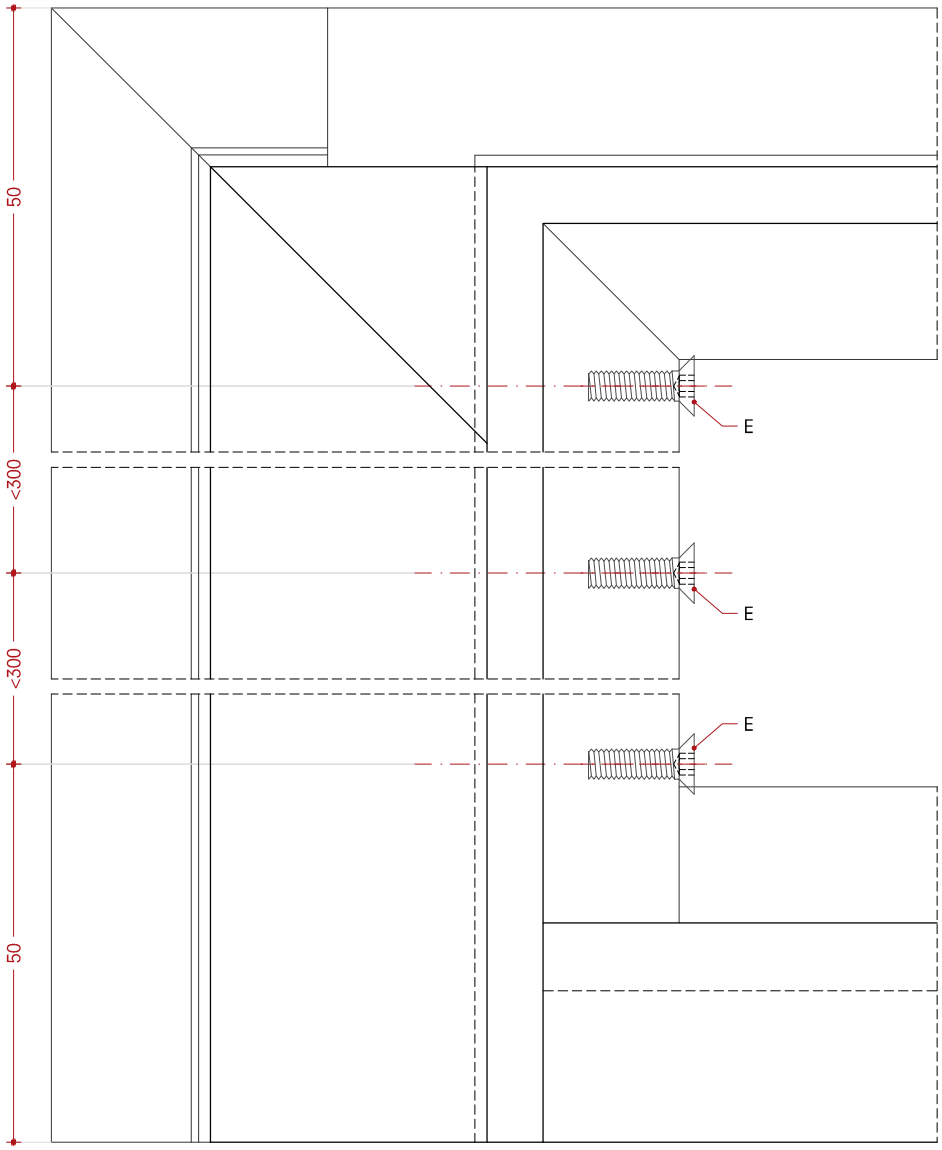


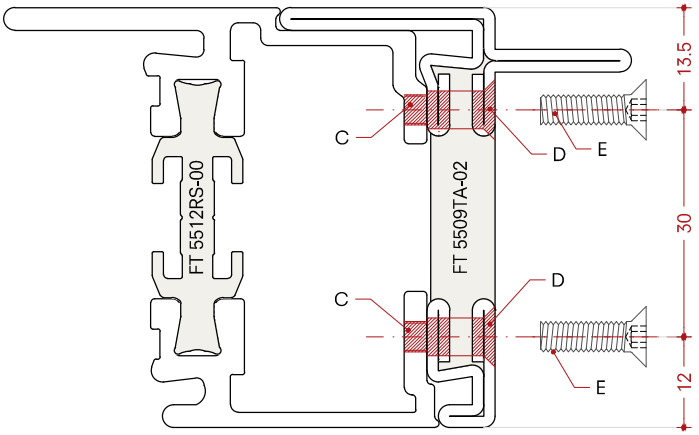
A) Hole M4 mm in door frame
B) Fastening with M4x8 mm ISO7380 screws
C) M4 holes on profile FT 5512RS-00
D) Ø5 holes on profile FT 5509ZA-02
E) Fastening with M4x14 mm ISO10642

A) Foro M4 mm nel telaio della porta
B) Montaggio con viti M4x8 mm ISO7380
C) Fori M4 sul profilo FT 5512RS-00
D) Fori Ø5 sul profilo FT 5509ZA-02
E) Montaggio con viti M4x14 mm ISO10642

A) Oreficio de M4 mm en marco de la puerta
B) Montaje con tornillos M4x8 mm ISO7380
C) Orificios M4 en perfil FT 5512RS-00
D) Orificios Ø5 en perfil FT 5509ZA-02
E) Montaje con tornillos M4x14 mm ISO10642

Open out
Apertura esterna
Que se abre hacia fuera





A) Hole M4 mm in door frame
B) Fastening with M4x8 mm ISO7380 screws
C) M4 holes on profile FT 5512RS-00
D) Ø5 holes on profile FT 5509TA-02
E) Fastening with M4x14 mm ISO10642

A) Foro M4 mm nel telaio della porta
B) Montaggio con viti M4x8 mm ISO7380
C) Fori M4 sul profilo FT 5512RS-00
D) Fori Ø5 sul profilo FT 5509TA-02
E) Montaggio con viti M4x14 mm ISO10642

A) Oreficio de M4 mm en marco de la puerta
B) Montaje con tornillos M4x8 mm ISO7380
C) Orificios M4 en perfil FT 5512RS-00
D) Orificios Ø5 en perfil FT 5509TA-02
E) Montaje con tornillos M4x14 mm ISO10642

Accessories installation:	Montaggio accessori:	Montaje accesorios:	
Hinges	**Cerniere**	**Bisagras**	5.6

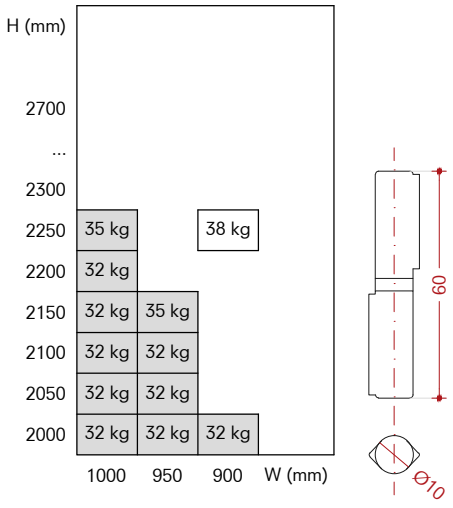
Load capacity tables
Weld-on hinges

Tabella portate
Cerniere a saldare

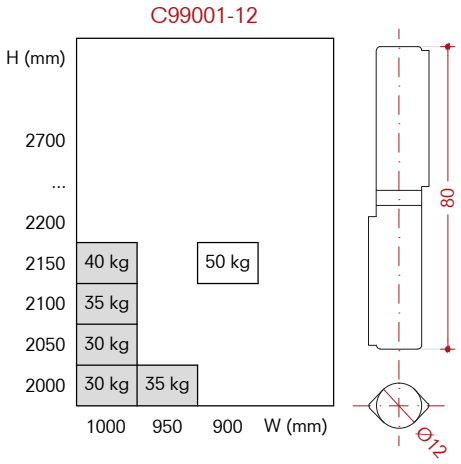
Tablas de peso
Bisagras de soldadura

	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C99000-12	Bright steel Acciaio decapato Acero bruto	Ø = 10 mm	60 mm	38 kg
C99001-12	Bright steel Acciaio decapato Acero bruto	Ø = 12 mm	80 mm	50 kg
C99002-12	Bright steel Acciaio decapato Acero bruto	Ø = 14 mm	100 mm	80 kg
C99003-12	Bright steel Acciaio decapato Acero bruto	Ø = 16 mm	120 mm	100 kg
C99004-12	Bright steel Acciaio decapato Acero bruto	Ø = 16 mm	140 mm	140 kg

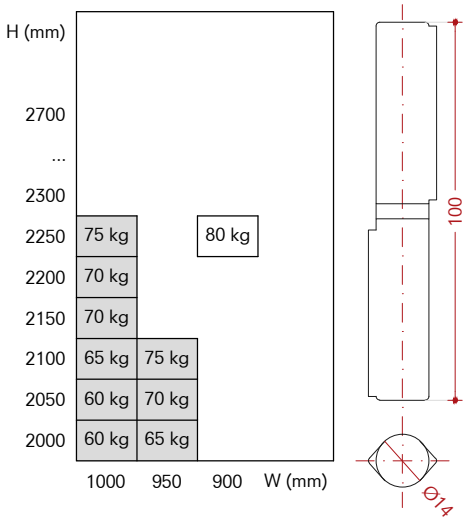
C99000-12



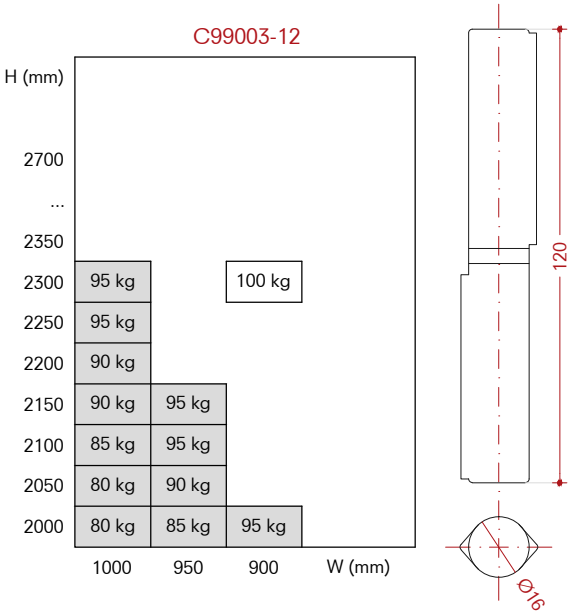
C99001-12



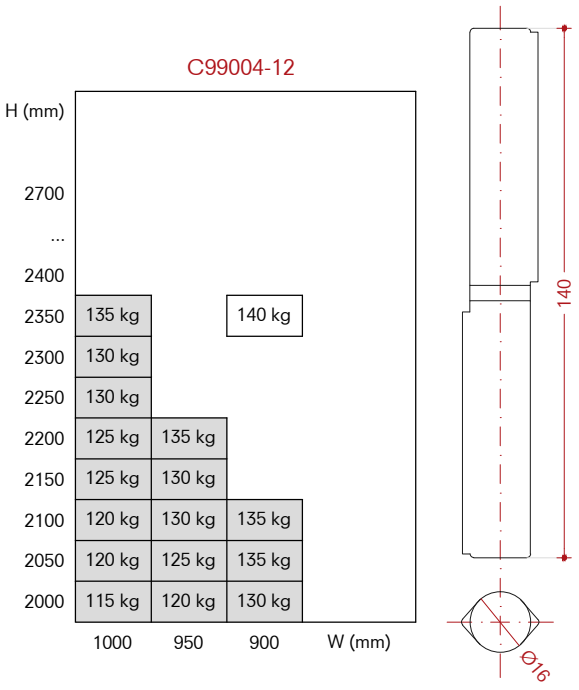
C99002-12

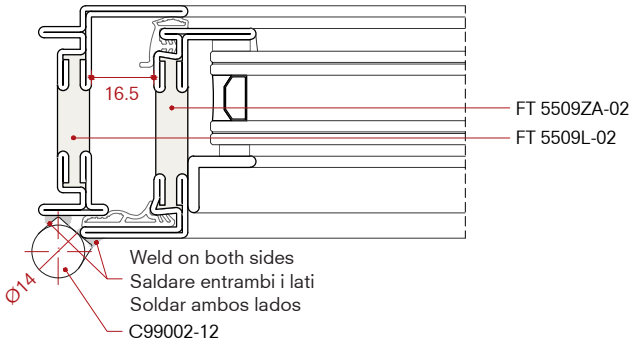


C99003-12



C99004-12

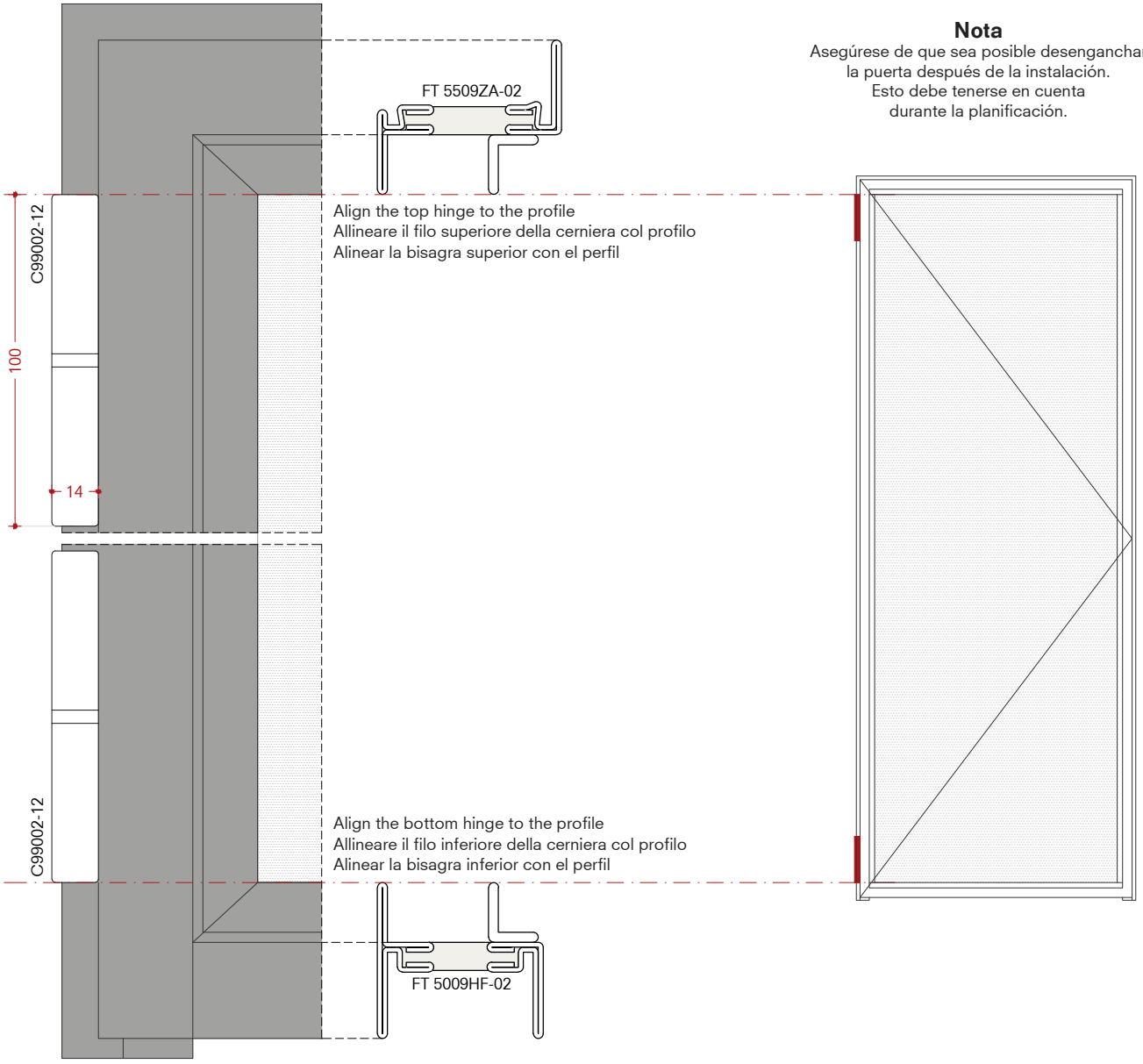




Note
Please ensure that it is possible to unhinge the door leaf after installation. This should be taken into account during the planning.

Nota
Assicurarsi che sia possibile smontare l'anta dopo l'installazione. Da considerarsi sempre in fase di progettazione.

Nota
Asegúrese de que sea posible desenganchar la puerta después de la instalación. Esto debe tenerse en cuenta durante la planificación.



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 forthe 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 polyurethane 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 poliuretano.

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 seenfríe 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 poliuretano.

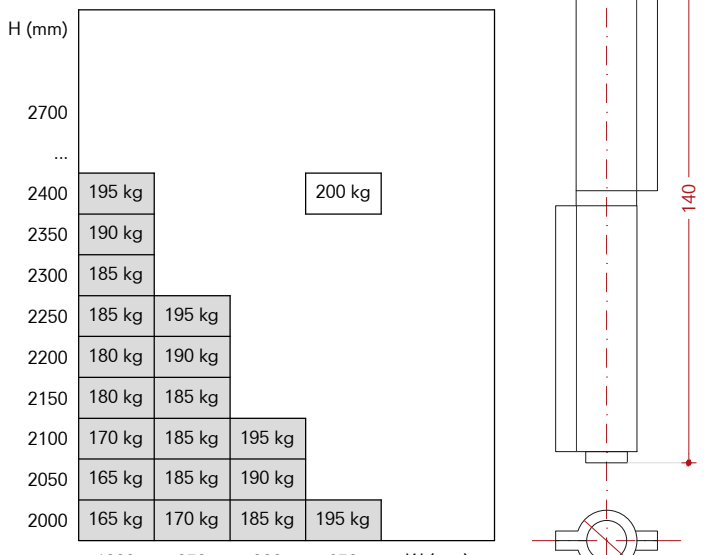
Load capacity tables
Weld-on hinges

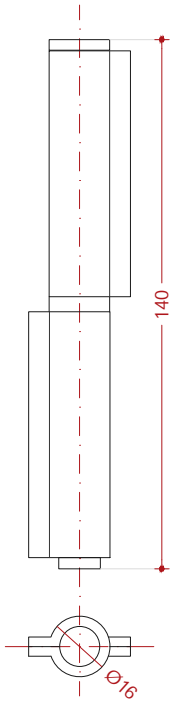
Tabella portate
Cerniere a saldare

Tablas de peso
Bisagras de soldadura

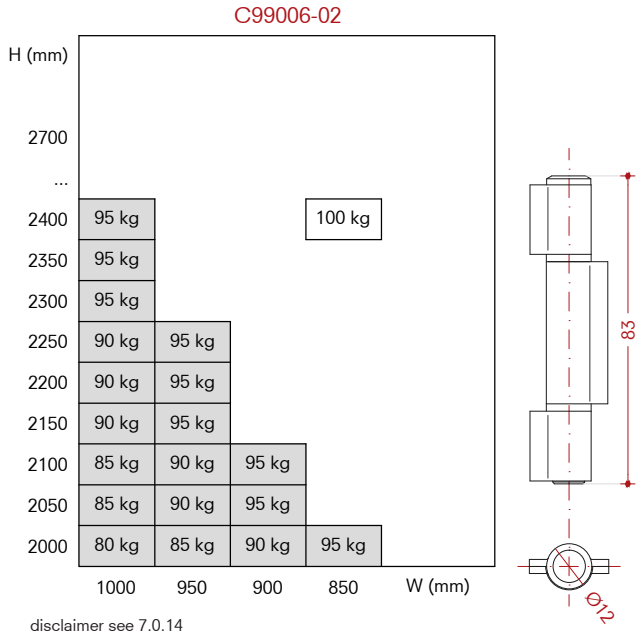
	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C99005-02	Galvanized steel Acciaio zincato Acero galvanizado	Ø = 16 mm	140 mm	200 kg
C99006-02	Galvanized steel Acciaio zincato Acero galvanizado	Ø = 12 mm	83 mm	100 kg
C99007-02	Galvanized steel Acciaio zincato Acero galvanizado	Ø = 16 mm	140 mm	230 kg

C99005-02

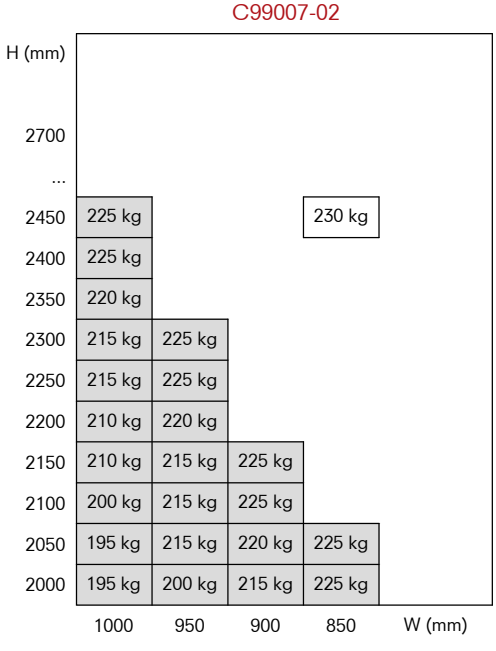


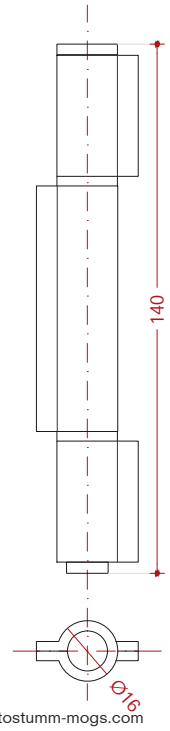


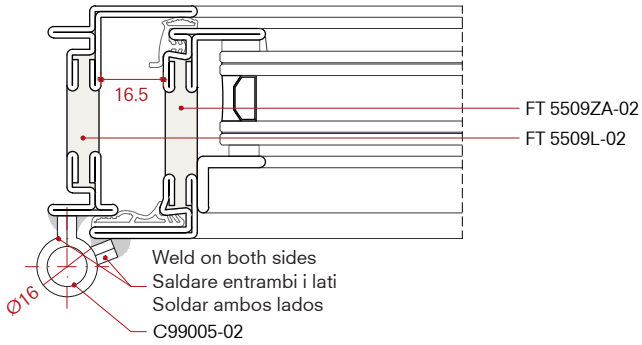
C99006-02



C99007-02



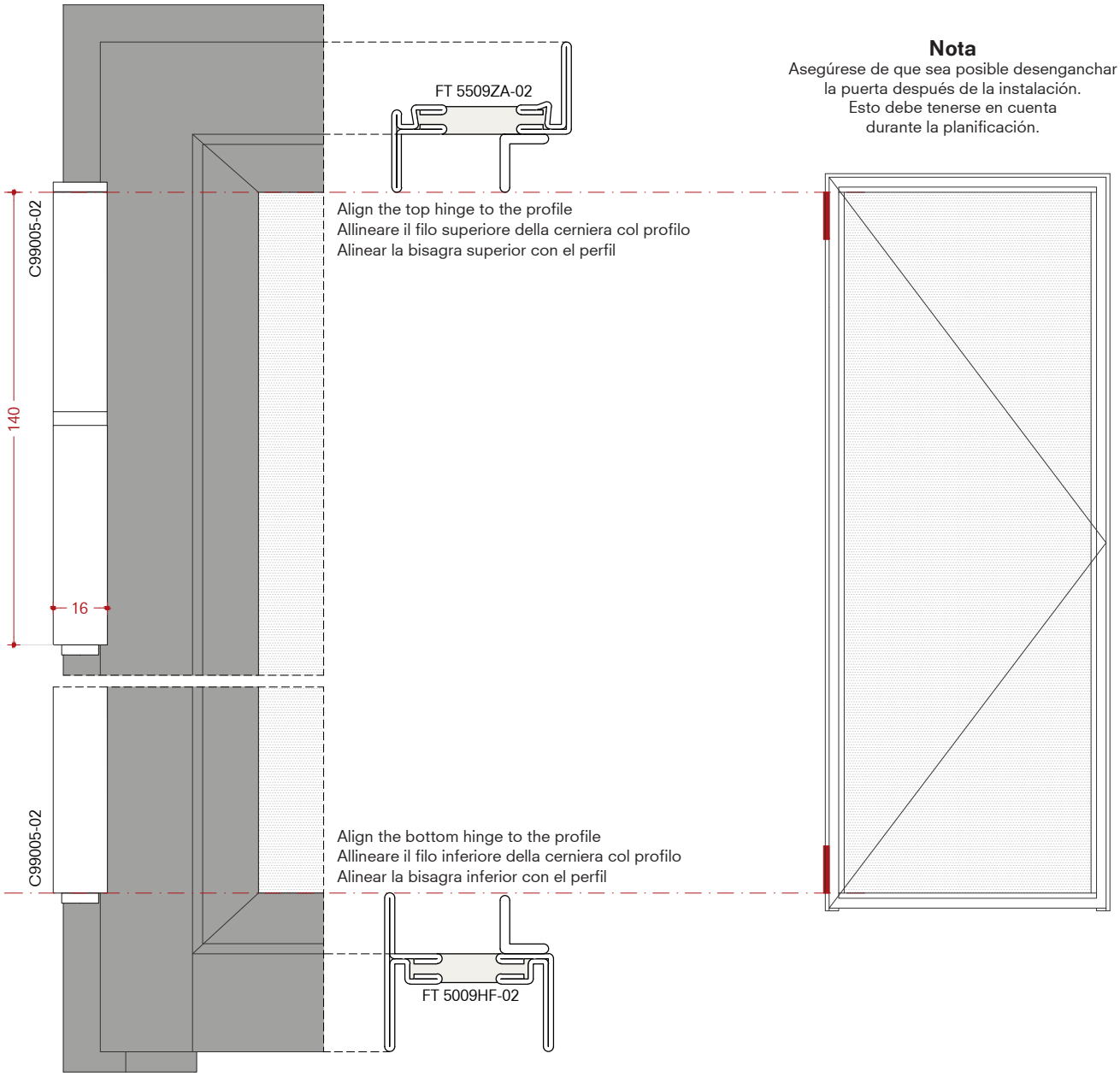




Note
Please ensure that it is possible to unhinge the door leaf after installation. This should be taken into account during the planning.

Nota
Assicurarsi che sia possibile smontare l'anta dopo l'installazione. Da considerarsi sempre in fase di progettazione.

Nota
Asegúrese de que sea posible desenganchar la puerta después de la instalación. Esto debe tenerse en cuenta durante la planificación.



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 forthe 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 polyurethane 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 poliuretano.

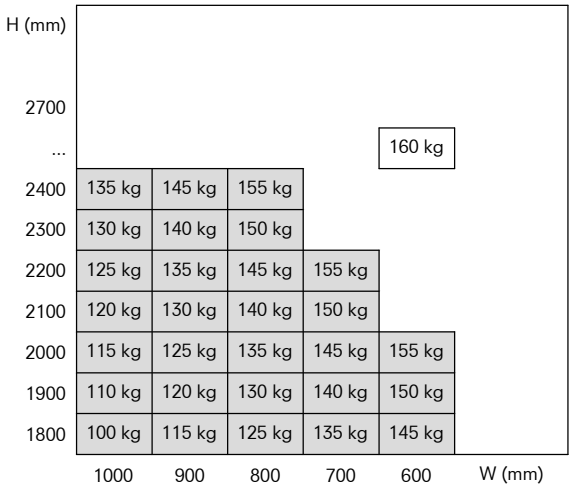
Nota
Durante la soldadura, se debe tener cuidado de no sobrecalentar los perfiles. Recomendamos el uso de disipadores en las inmediaciones del área afectada por la soldadura, proceder por tramos y esperar a que el perfil seenfríe antes de finalizar la operación. El calor generado durante la soldadura 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 poliuretano.

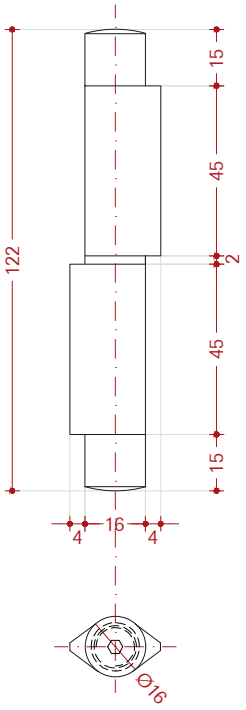
Load capacity tables
Weld-on hinges

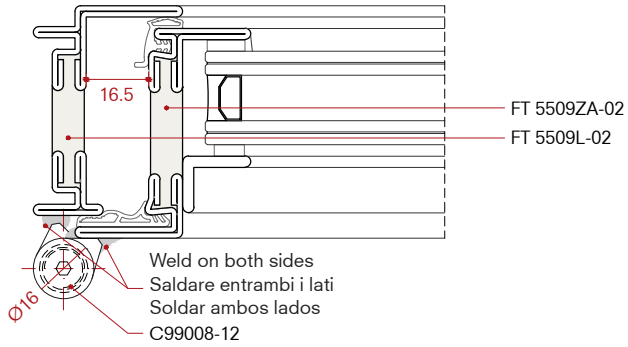
Tabella portate
Cerniere a saldare

Tablas de peso
Bisagras de soldadura

	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C99008-12 ADJUSTABLE 3D REGOLABILE 3D 3D AJUSTABLE	Bright steel Acciaio decapato Acero bruto	Ø = 16 mm	122 mm	160 kg



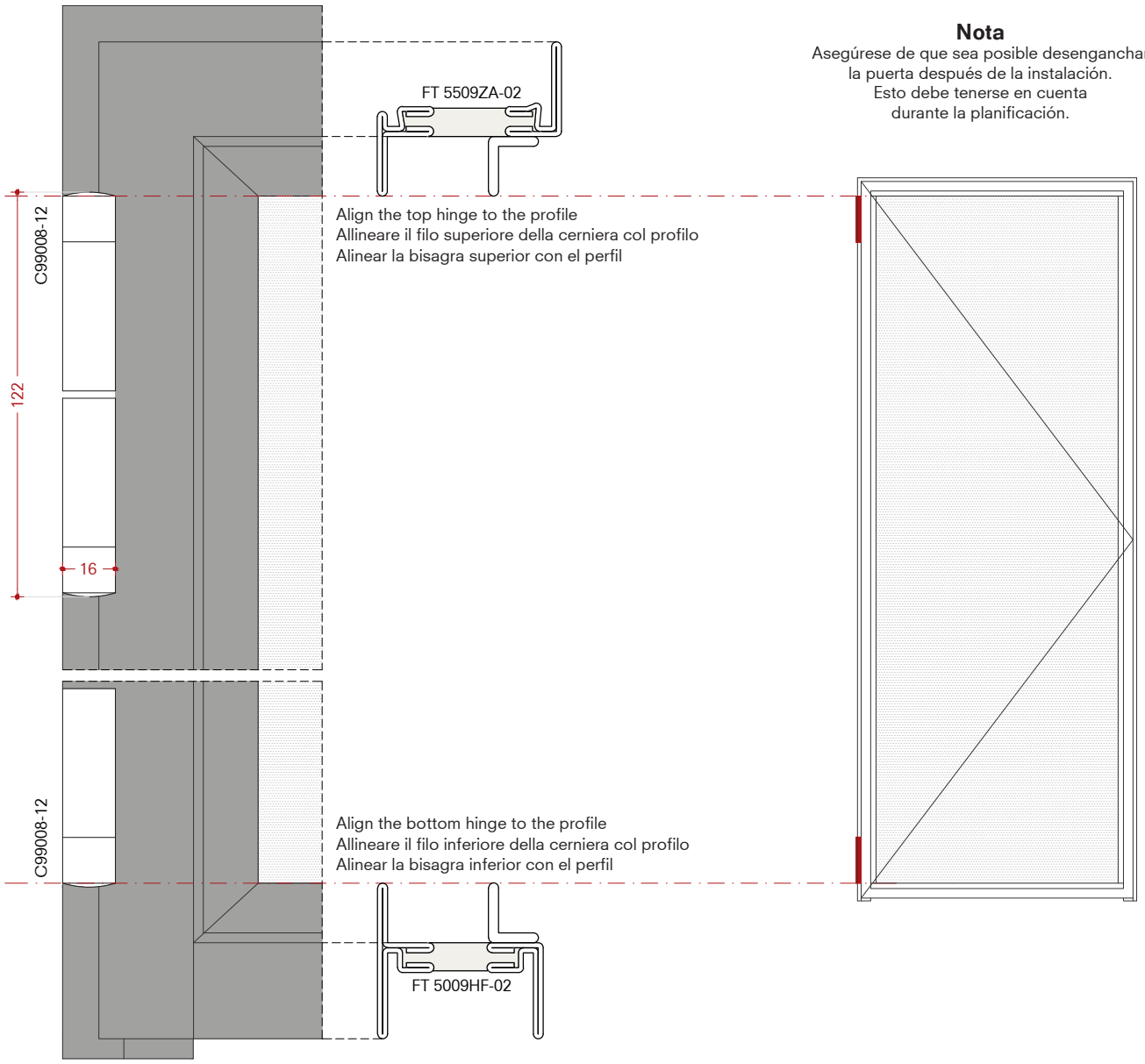




Note
Please ensure that it is possible to unhinge the door leaf after installation. This should be taken into account during the planning.

Nota
Assicurarsi che sia possibile smontare l'anta dopo l'installazione. Da considerarsi sempre in fase di progettazione.

Nota
Asegúrese de que sea posible desenganchar la puerta después de la instalación. Esto debe tenerse en cuenta durante la planificación.



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 forthe 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 polyurethane web.

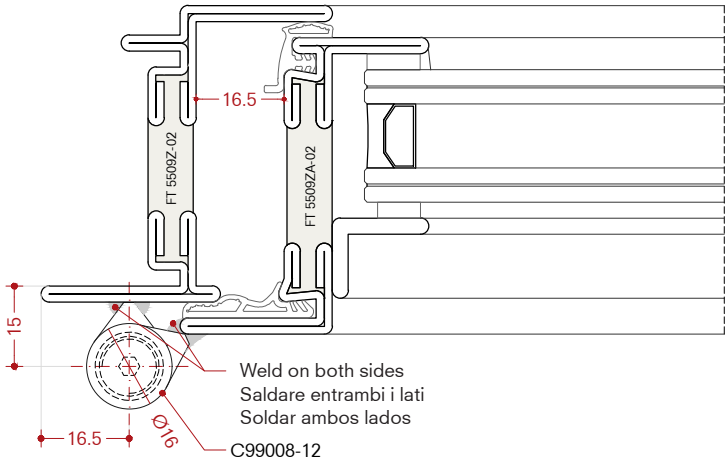
Nota
Durante la saldatura occorre prestare attenzione a non surriscaldare eccessivamente i profili. Consigliamo l'utilizzo di dissipatori di calore posizionati nelle immediate vicinanze della zona interessata dalla saldatura, di procedere per tratti e attendere che il profilo si raffreddi prima di terminare 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 poliuretano.

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 seenfríe 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 poliuretano.

Installation
Adjustable 3D weld-on hinge
C99008-12

Montaggio
Cerniera 3D regolabile a saldare
C99008-12

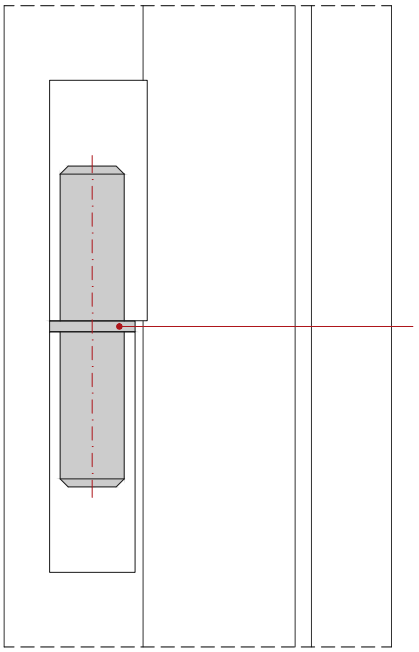
Montaje
Bisagra ajustable 3D para soldar
C99008-12



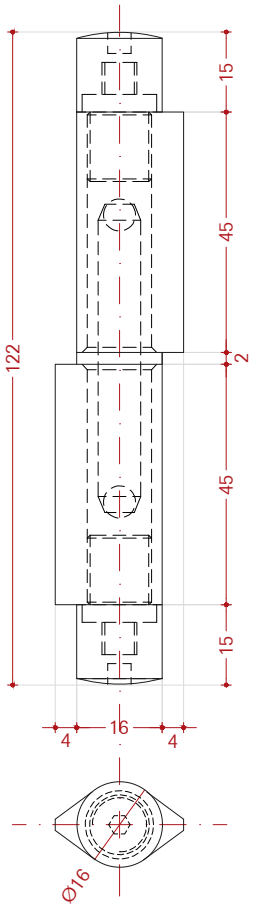
The hinge may only be welded on without brass bushings.

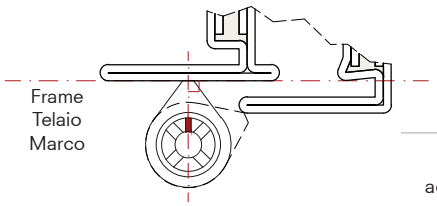
La cerniera deve essere saldata senza boccole in ottone.

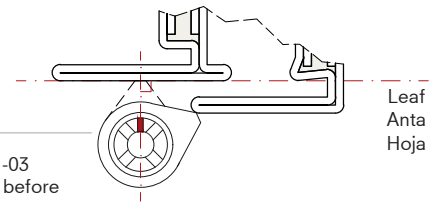
la bisagra solo se puede soldar sin casquillos.



Alignment pin for welding
(D99401-03, not included)
Spina di allineamento per saldare
(D99401-03, non incluso)
Perno de alineación para soldadura
(D99401-03, no incluido)







To adjust the brass bushing, use the D99501-03 adjusting tool. Adjust the top and bottom hinge before hooking the sash.

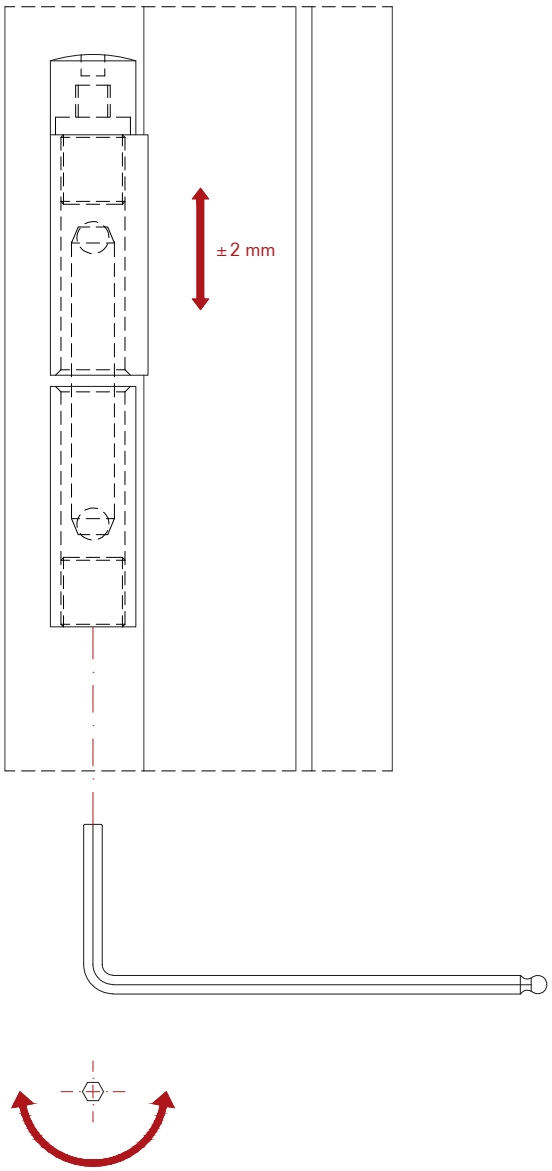
Per regolare la bussola in ottone utilizzare la chiave di regolazione D99501-03. Regolare la cerniera superiore e inferiore prima di agganciare il battente.

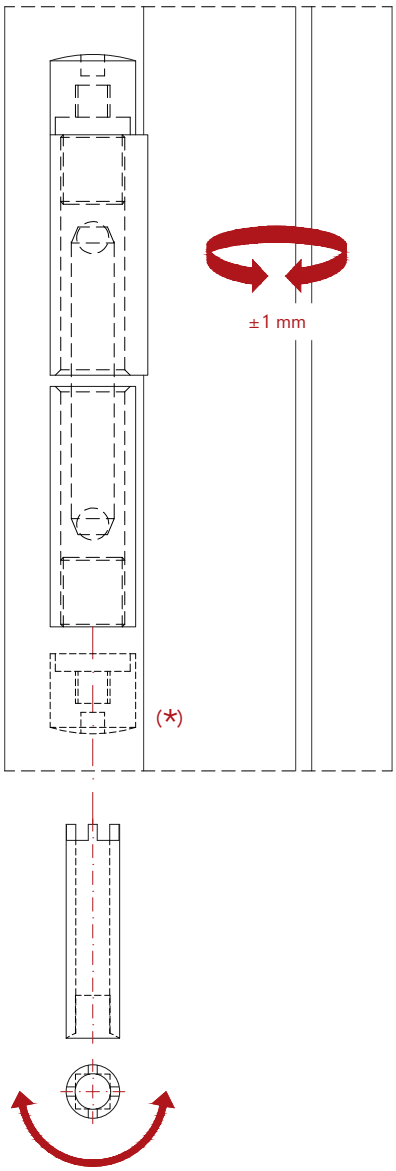
Para ajustar el casquillo de bronce, usar la llave de ajuste D99501-03. Ajustar bisagra superior e inferior antes de enganchar la hoja.

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 D99501-03
(Not included) for left and right setting

Per la regolazione destra e sinistra utilizzare
una chiave da 1/4" su D99501-03 (non inclusa)

Para el ajuste a izquierda y a derecha
use una llave allen 1/4" en D99501-03 (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:

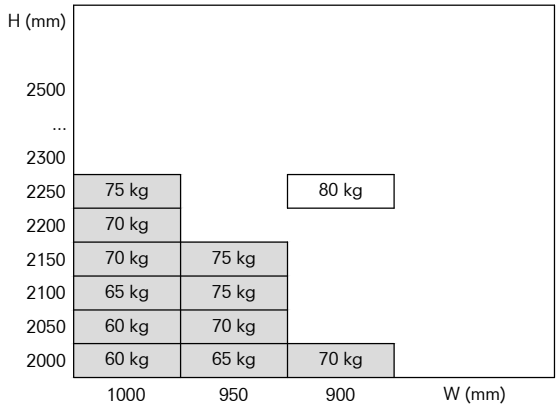
(*) Después de la instalación, monte todas las partes de las bisagras para detener los ajustes y arregla las tapas.

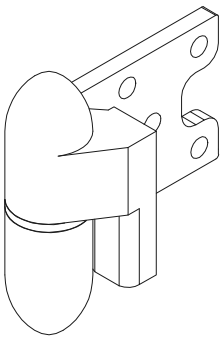
Load capacity tables
Screw-on hinges

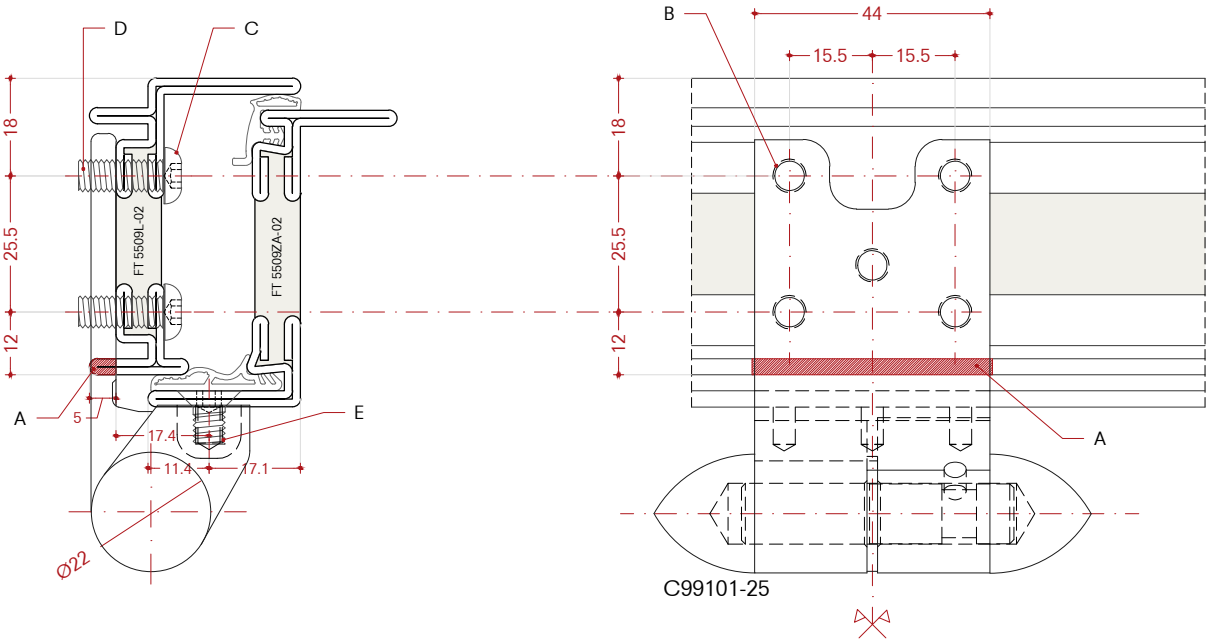
Tabella portate
Cerniere ad avvitare

Tablas de peso
Bisagras atornillable

		Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C99102-25 R	Right opening Apertura destra Apertura derecha	Natural brass Ottone naturale Latón natural	Ø = 22 mm	80 mm	80 kg
C99101-25 L	Left opening Apertura sinistra Apertura izquierda	Natural brass Ottone naturale Latón natural	Ø = 22 mm	80 mm	80 kg



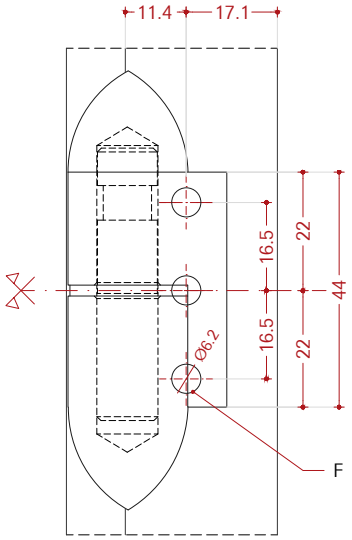




A) 5x45 mm cut off profile
B) Ø6.2 mm holes on profile
C) Fastening hinge to frame with M6x16 ISO7380 screws
D) Cut the screws
E) Fastening hinge to leaf with M6x10 ISO10642 screws
F) Ø6.2 mm holes on profile

A) 5x45 mm taglio del profilo
B) Fori Ø6.2 mm sul profilo
C) Fissaggio cerniera al telaio con viti M6x16 ISO7380
D) Accorciare le viti
E) Fissaggio cerniera all'anta con viti M6x10 ISO10642
F) Fori Ø6.2 mm sul profilo

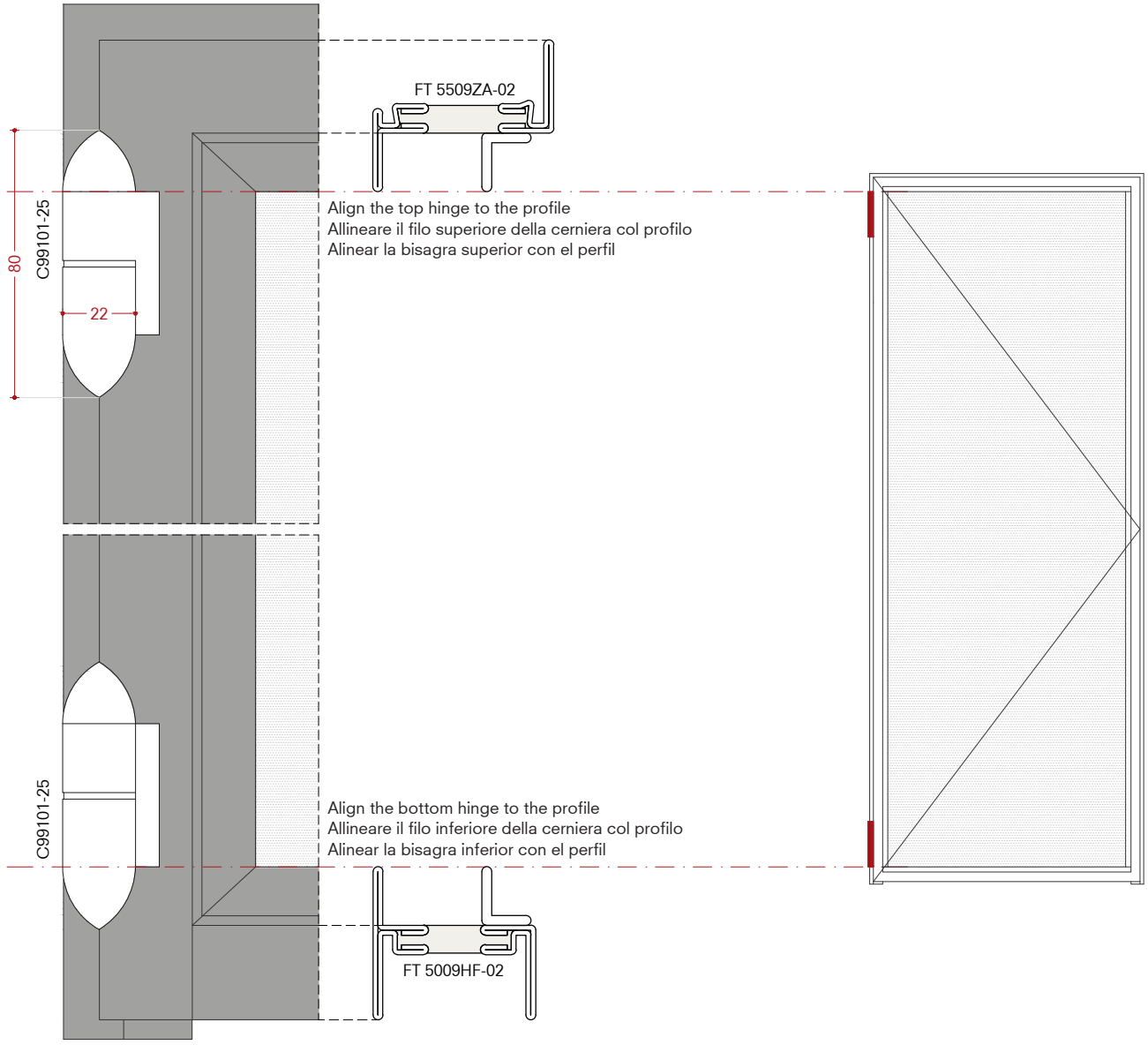
A) 5x45 mm fresado de perfil
B) Orificios Ø6.2 mm en perfil
C) Fijación bisagra en perfil con tornillos M6x16 ISO7380
D) Recortar tornillos
E) Fijación bisagra en hoja con tornillos M6x10 ISO10642
F) Orificios Ø6.2 mm en perfil



Note
Please ensure that it is possible
to unhinge the door leaf after installation.
This should be taken into account
during the planning.

Nota
Assicurarsi che sia possibile
smontare l'anta dopo l'installazione.
Da considerarsi sempre
in fase di progettazione.

Nota
Asegúrese de que sea posible desenganchar
la puerta después de la instalación.
Esto debe tenerse en cuenta
durante la planificación.

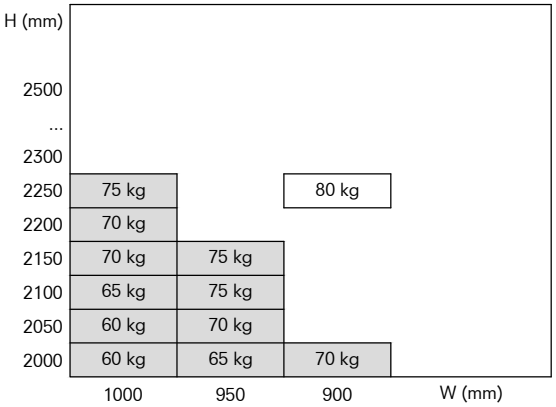


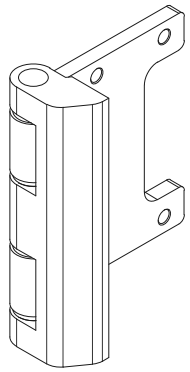
Load capacity tables
Screw-on hinges

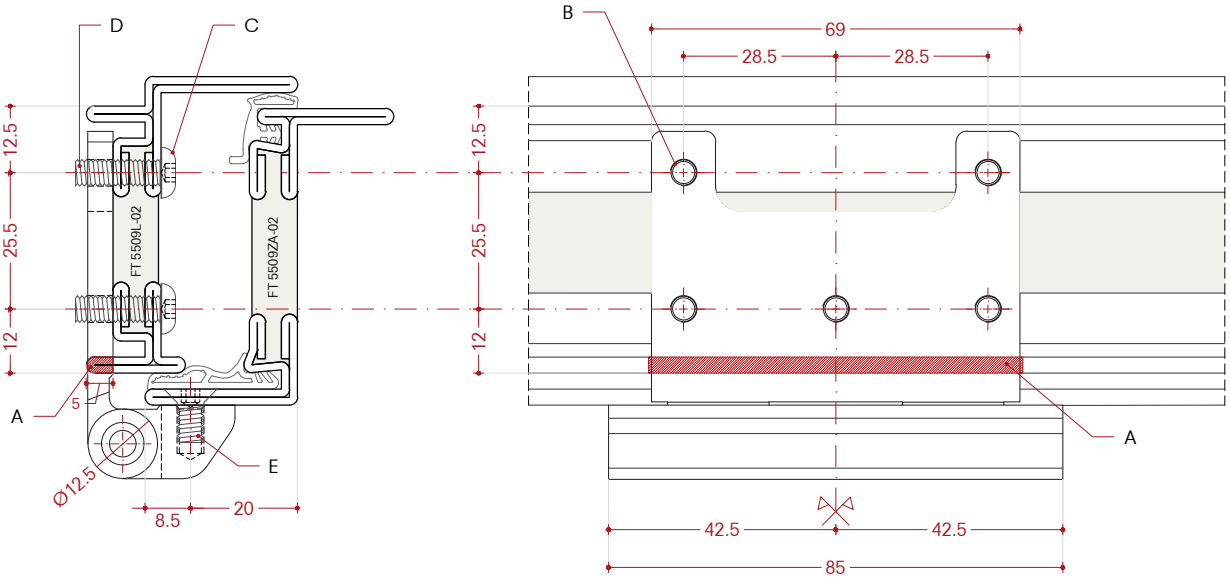
Tabella portate
Cerniere ad avvitare

Tablas de peso
Bisagras atornillable

	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C04103-25	Natural brass Ottone naturale Latón natural	Ø = 12.5 mm	85 mm	80 kg





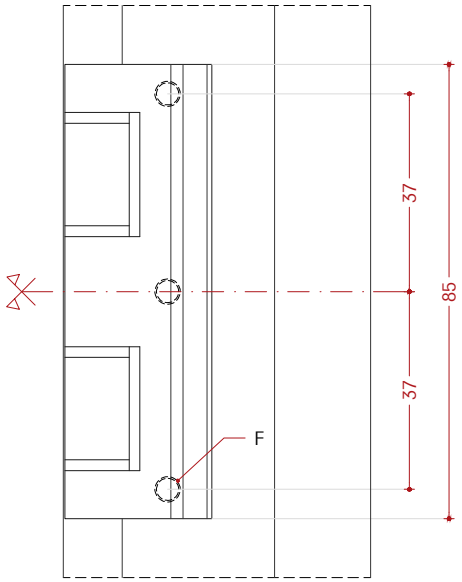


A) 5x70 mm cut off profile
B) Ø5.2 mm holes on profile
C) Fastening hinge to frame with M5x16 ISO7380 screws
D) Cut the screws
E) Fastening hinge to leaf with M5x10 ISO10642 screws
F) Ø5.2 mm holes on profile

A) 5x70 mm taglio del profilo
B) Fori Ø5.2 mm sul profilo
C) Fissaggio cerniera al telaio con viti M5x16 ISO7380
D) Accorciare le viti
E) Fissaggio cerniera all'anta con viti M5x10 ISO10642
F) Fori Ø5.2 mm sul profilo

A) 5x70 mm fresado de perfil
B) Orificios Ø5.2 mm en perfil
C) Fijación bisagra en perfil con tornillos M5x16 ISO7380
D) Recortar tornillos
E) Fijación bisagra en hoja con tornillos M5x10 ISO10642
F) Orificios Ø5.2 mm en perfil

View from rear
Vista dal retro
Vista desde atrás



Note
Please ensure that it is possible
to unhinge the door leaf after installation.
This should be taken into account
during the planning.

Nota
Assicurarsi che sia possibile
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Da considerarsi sempre
in fase di progettazione.

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Asegúrese de que sea posible desenganchar
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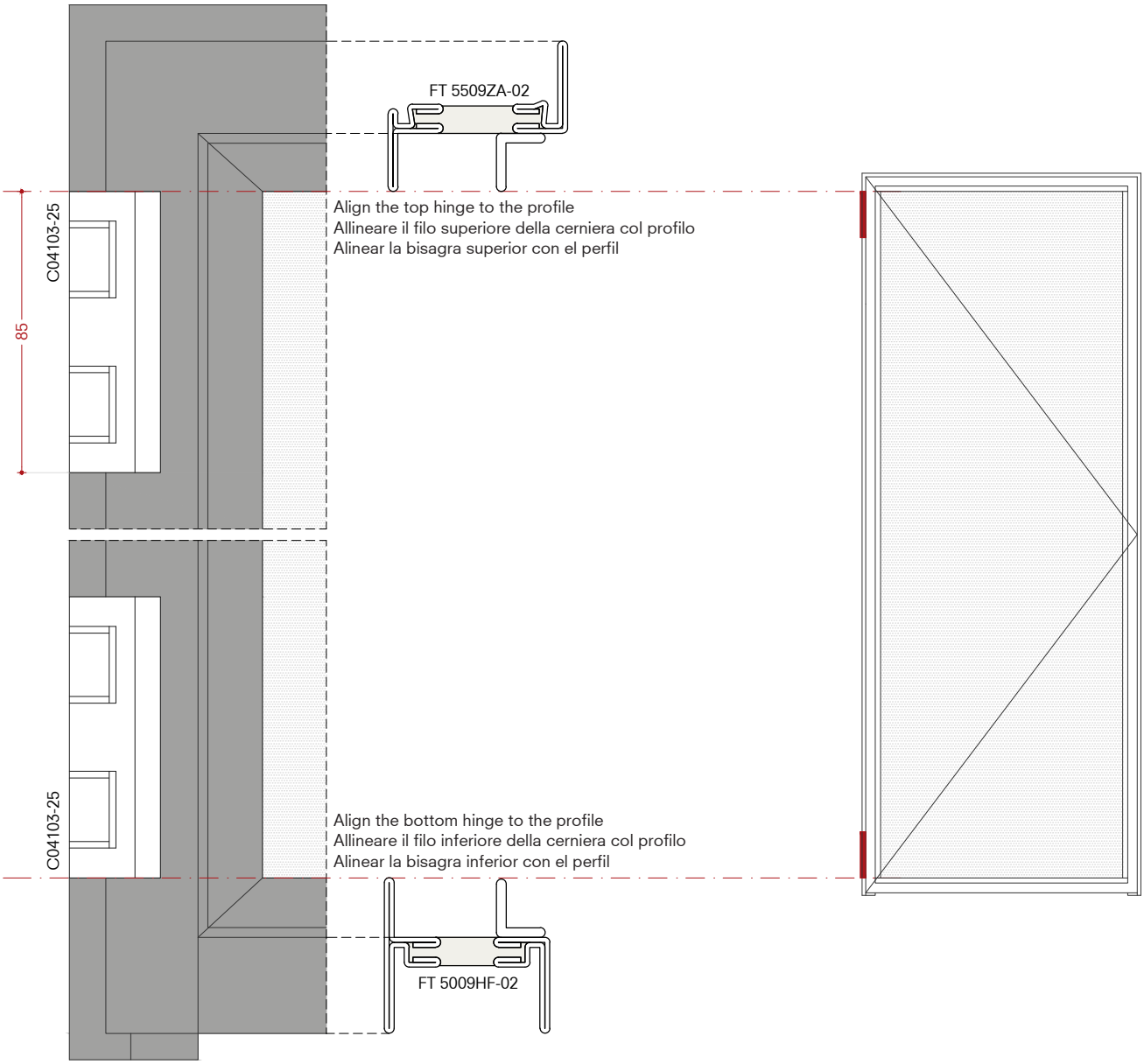
durante la planificación.

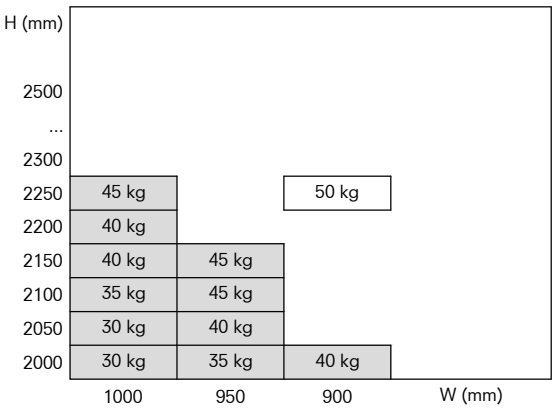


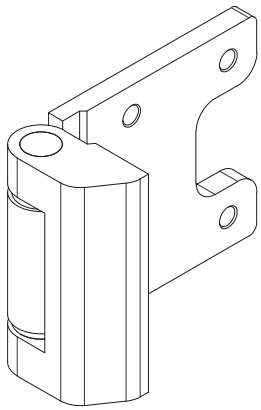
Load capacity tables
Screw-on hinges

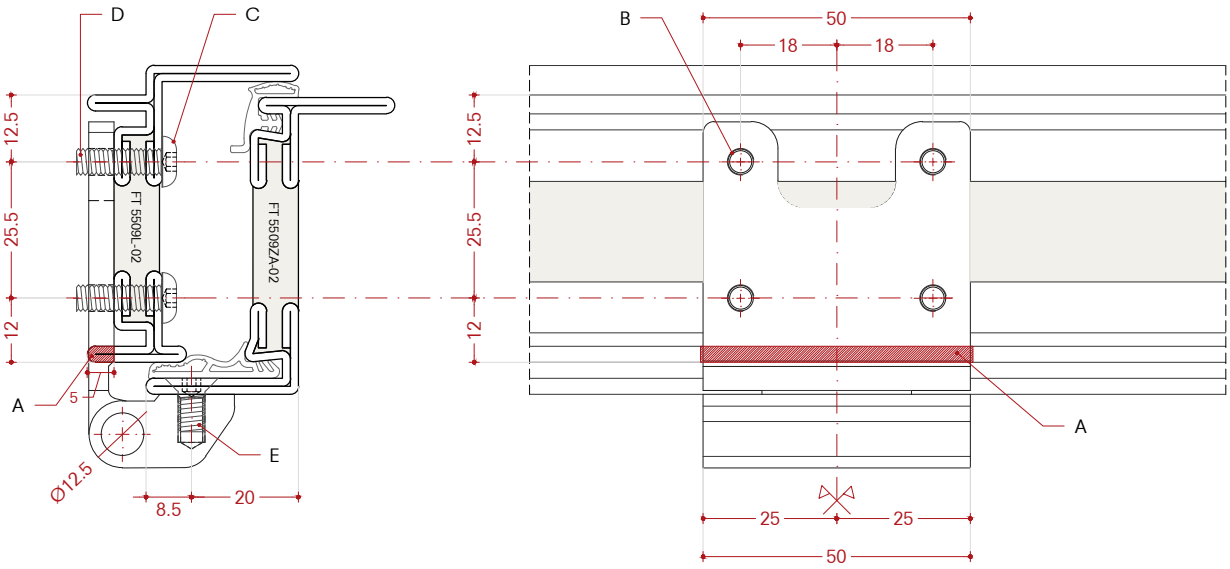
Tabella portate
Cerniere ad avvitare

Tablas de peso
Bisagras atornillable

	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C04104-25	Natural brass Ottone naturale Latón natural	Ø = 12.5 mm	50 mm	50 kg



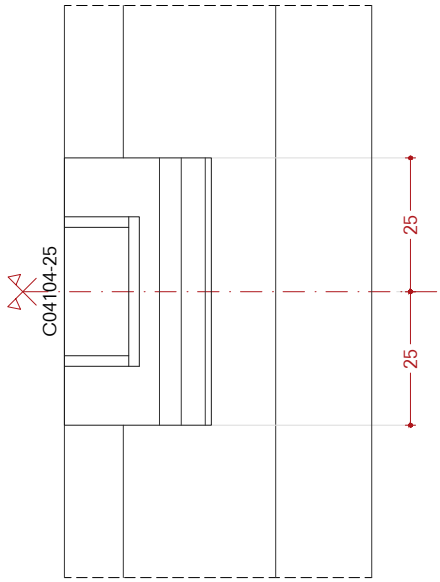




A) 5x51 mm cut off profile
B) Ø5.2 mm holes on profile
C) Fastening hinge to frame with M5x16 ISO7380 screws
D) Cut the screws
E) Fastening hinge to leaf with M5x10 ISO10642 screws
F) Ø5.2 mm holes on profile

A) 5x51 mm taglio del profilo
B) Fori Ø5.2 mm sul profilo
C) Fissaggio cerniera al telaio con viti M5x16 ISO7380
D) Accorciare le viti
E) Fissaggio cerniera all'anta con viti M5x10 ISO10642
F) Fori Ø5.2 mm sul profilo

A) 5x51 mm fresado de perfil
B) Orificios Ø5.2 mm en perfil
C) Fijación bisagra en perfil con tornillos M5x16 ISO7380
D) Recortar tornillos
E) Fijación bisagra en hoja con tornillos M5x10 ISO10642
F) Orificios Ø5.2 mm en perfil



Note
Please ensure that it is possible
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during the planning.

Nota
Assicurarsi che sia possibile
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Da considerarsi sempre
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Asegúrese de que sea posible desenganchar
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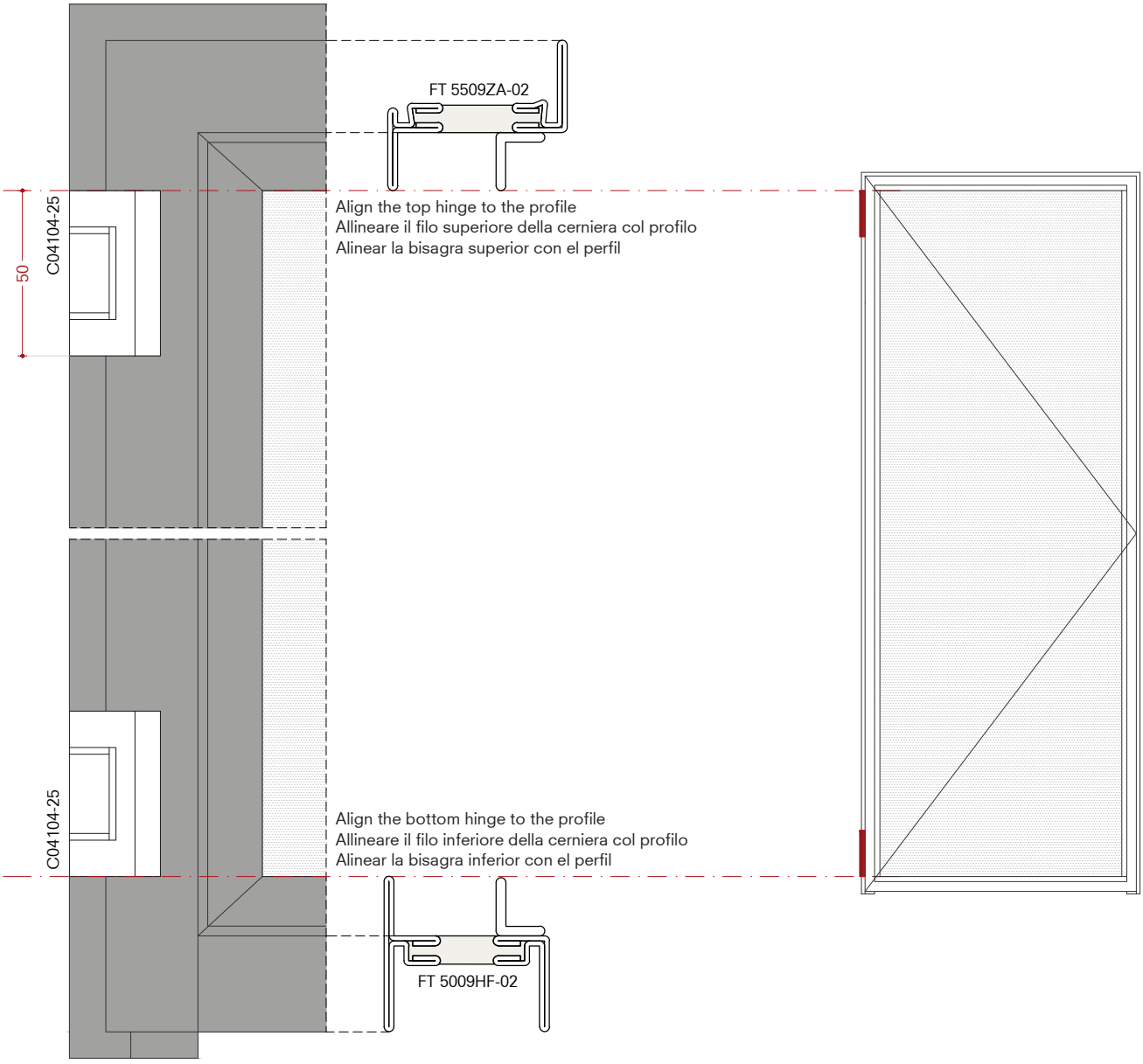
durante la planificación.

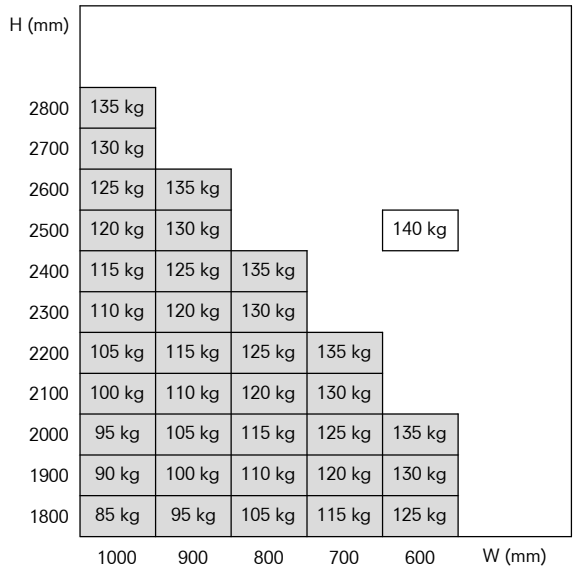


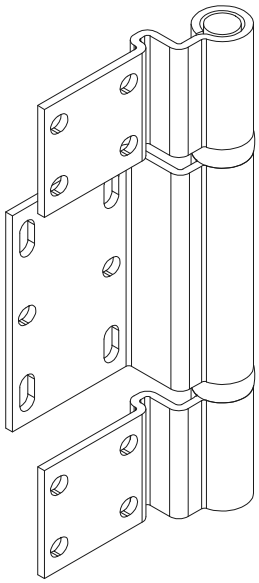
Load capacity tables
Screw-on hinges

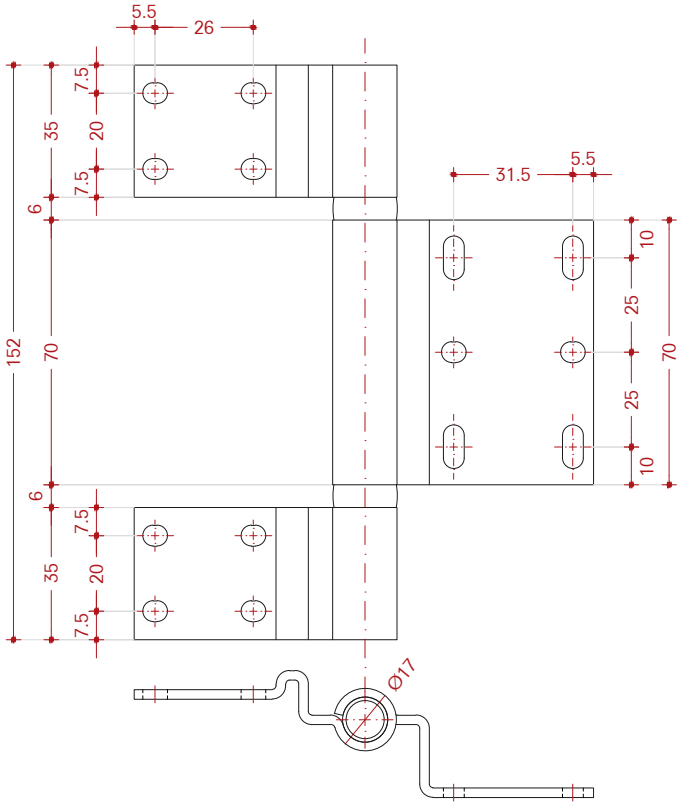
Tabella portate
Cerniere ad avvitare

Tablas de peso
Bisagras atornillable

	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C99125-02	Galvanized steel Acciaio zincato Acero galvanizado	Ø = 17 mm	152 mm	140 kg



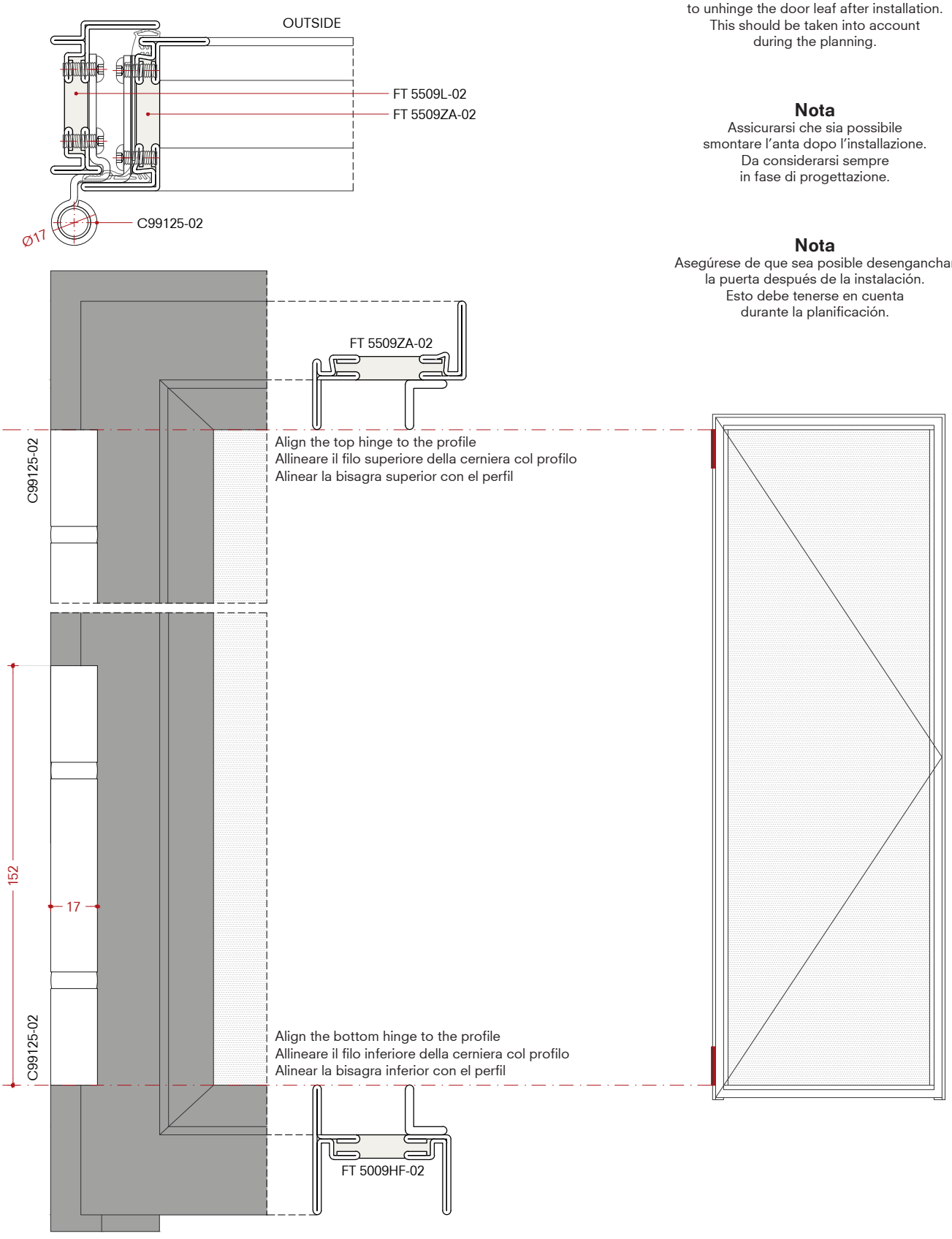




Note
Please ensure that it is possible
to unhinge the door leaf after installation.
This should be taken into account
during the planning.

Nota
Assicurarsi che sia possibile
smontare l'anta dopo l'installazione.
Da considerarsi sempre
in fase di progettazione.

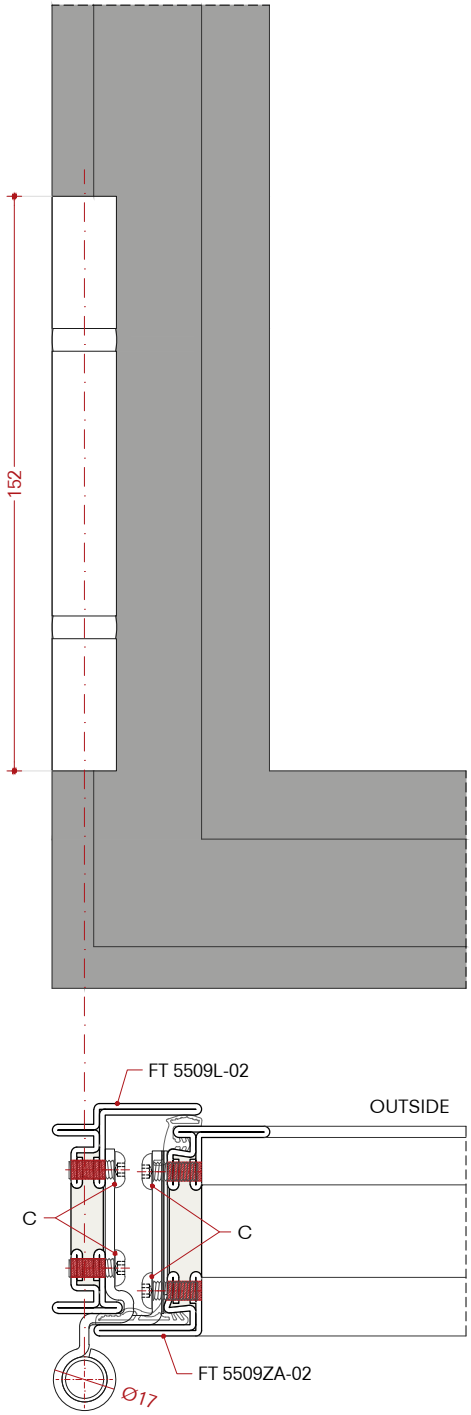
Nota
Asegúrese de que sea posible desenganchar
la puerta después de la instalación.
Esto debe tenerse en cuenta
durante la planificación.

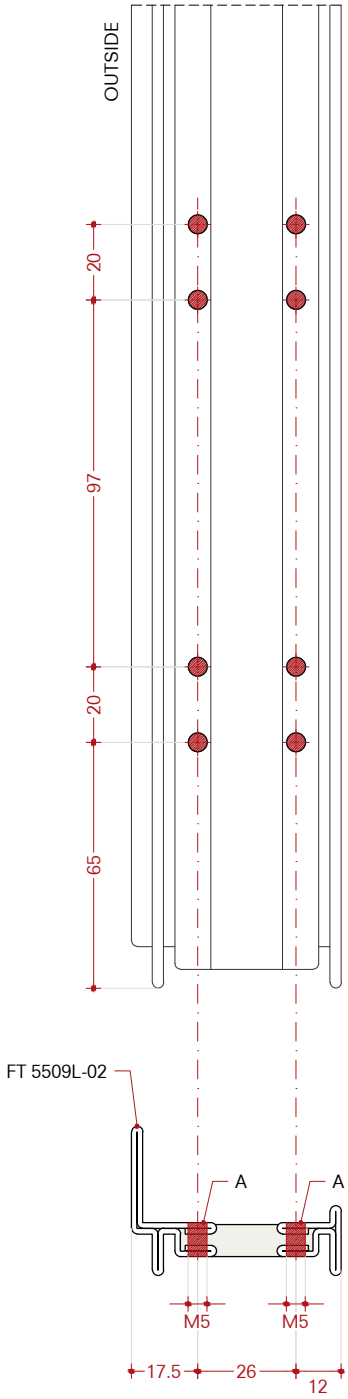


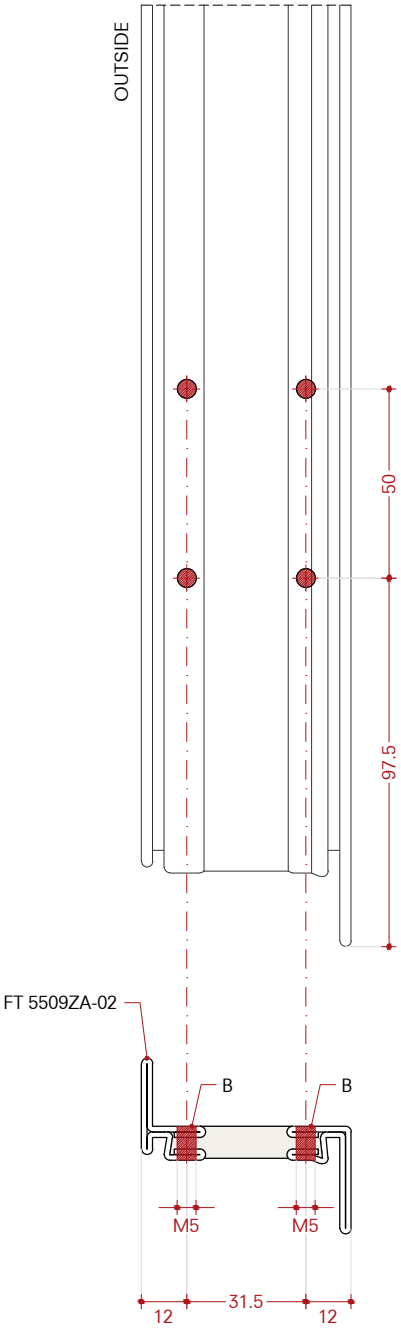
Installation
Screw-on hinge C99125-02
Open in
Maximum leaf weight 140 kg

Montaggio
Cerniera ad avvitare C99125-02
Apertura interna
Peso massimo anta 140 kg

Montaje
Bisagra atornillable C99125-02
Que se abre hacia dentro
Peso máximo de la hoja 140 kg



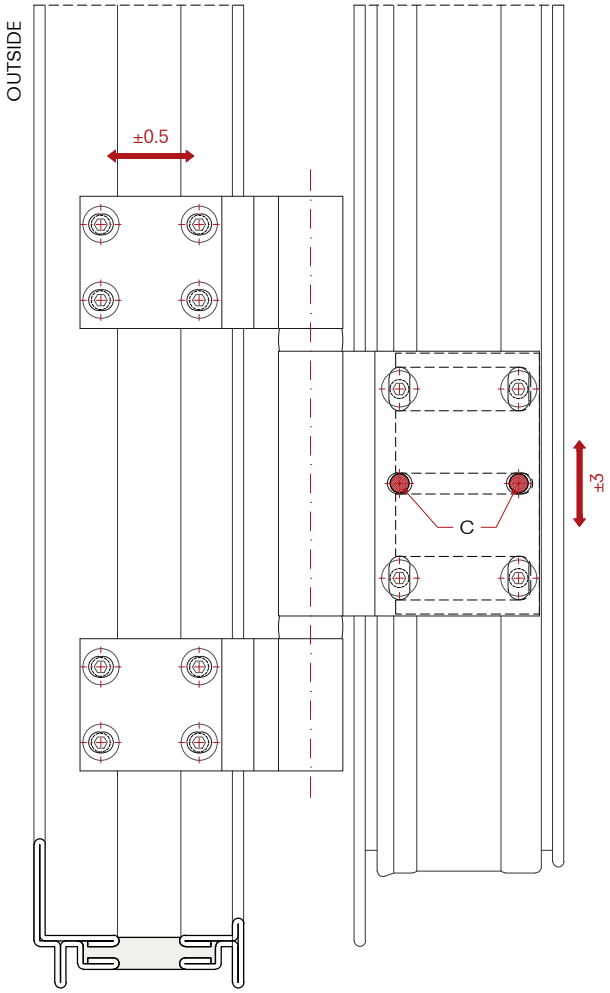


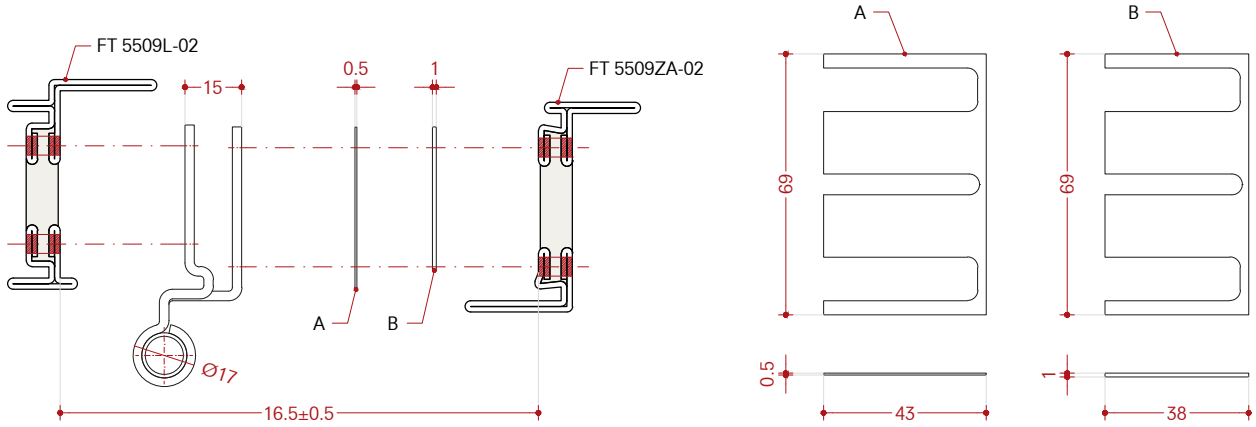


A) M5 holes on frame profile
B) M5 holes on leaf profile
C) Fastening hinge with M5x12 ISO7380 screws

A) Fori M5 sul profilo telaio
B) Fori M5 sul profilo anta
C) Fissaggio cerniera con viti M5x12 ISO7380

A) Orificios M5 en perfil de marco
B) Orificios M5 en perfil de hoja
C) Fijación bisagra con tornillos M5x12 ISO7380





A, B) Additional shims for adjustment 16.5±0.5
C) M5 holes and fastening with screw M5x12 ISO7380 after up and down adjustment.

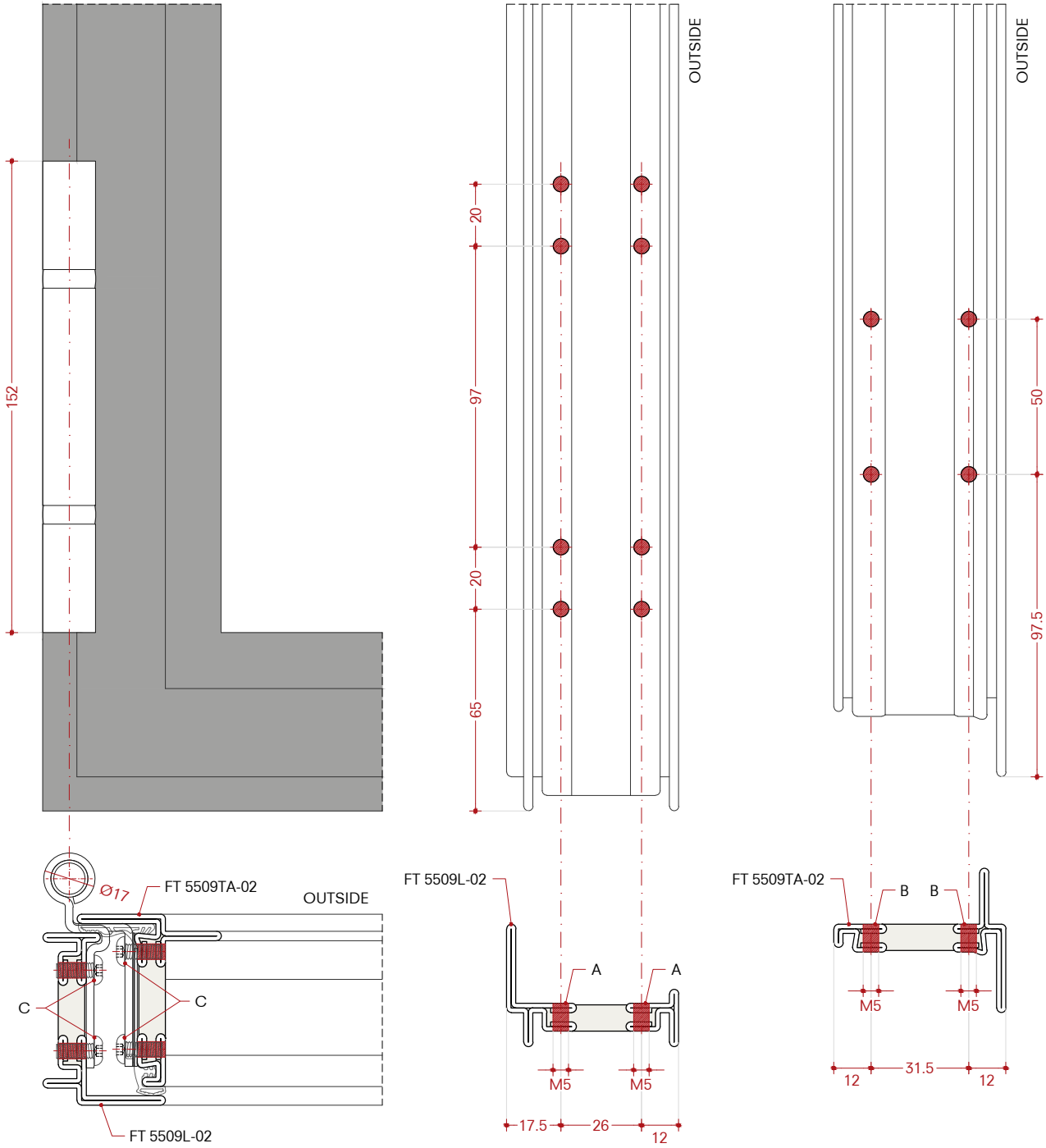
A, B) Spessori aggiuntivi per la regolazione 16.5±0.5
C) Fori M5 e fissaggio con vite M5x12 ISO7380 dopo la regolazione verticale.

A, B) Espesores adicionales para ajuste 16.5±0.5
C) Orificios M5 y fijación con tornillo M5x12 ISO7380 después del ajuste vertical.

Installation
Screw-on hinge C99125-02
Open out
Maximum leaf weight 140 kg

Montaggio
Cerniera ad avvitare C99125-02
Apertura esterna
Peso massimo anta 140 kg

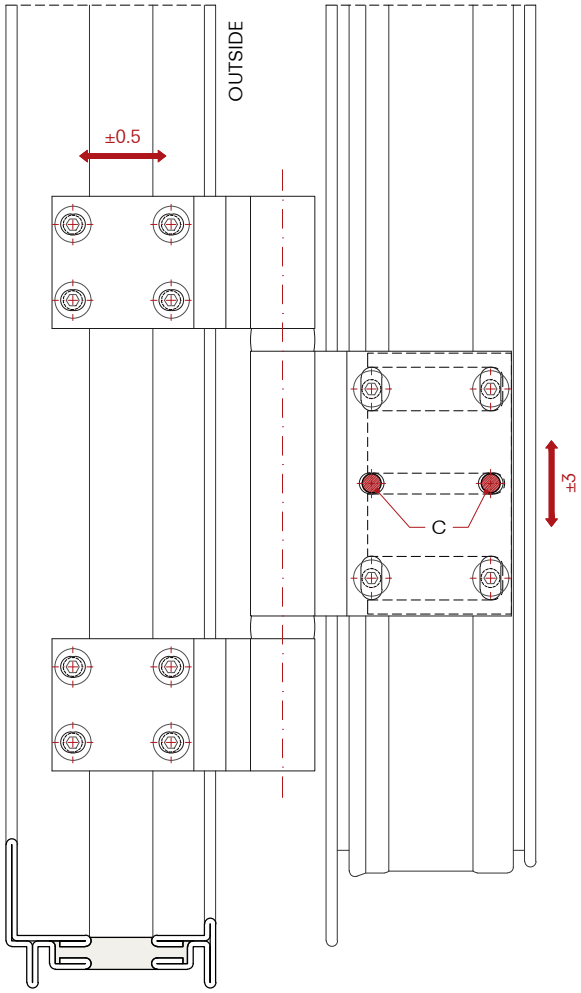
Montaje
Bisagra atornillable C99125-02
Que se abre hacia fuera
Peso máximo de la hoja 140 kg

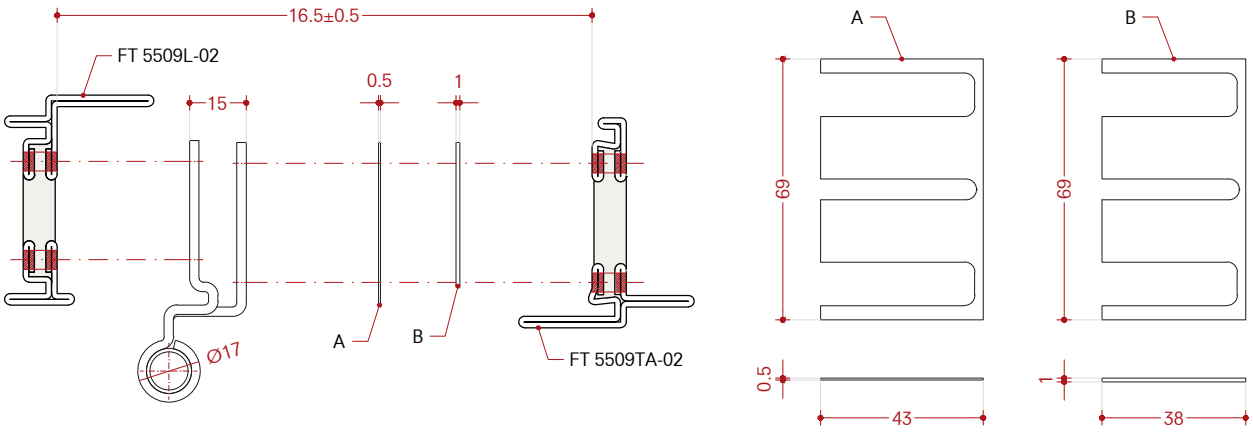


A) M5 holes on frame profile
B) M5 holes on leaf profile
C) Fastening hinge with M5x12 ISO7380 screws

A) Fori M5 sul profilo telaio
B) Fori M5 sul profilo anta
C) Fissaggio cerniera con viti M5x12 ISO7380

A) Orificios M5 en perfil de marco
B) Orificios M5 en perfil de hoja
C) Fijación bisagra con tornillos M5x12 ISO7380





A, B) Additional shims for adjustment 16.5±0.5
C) M5 holes and fastening with screw M5x12 ISO7380 after up and down adjustment.

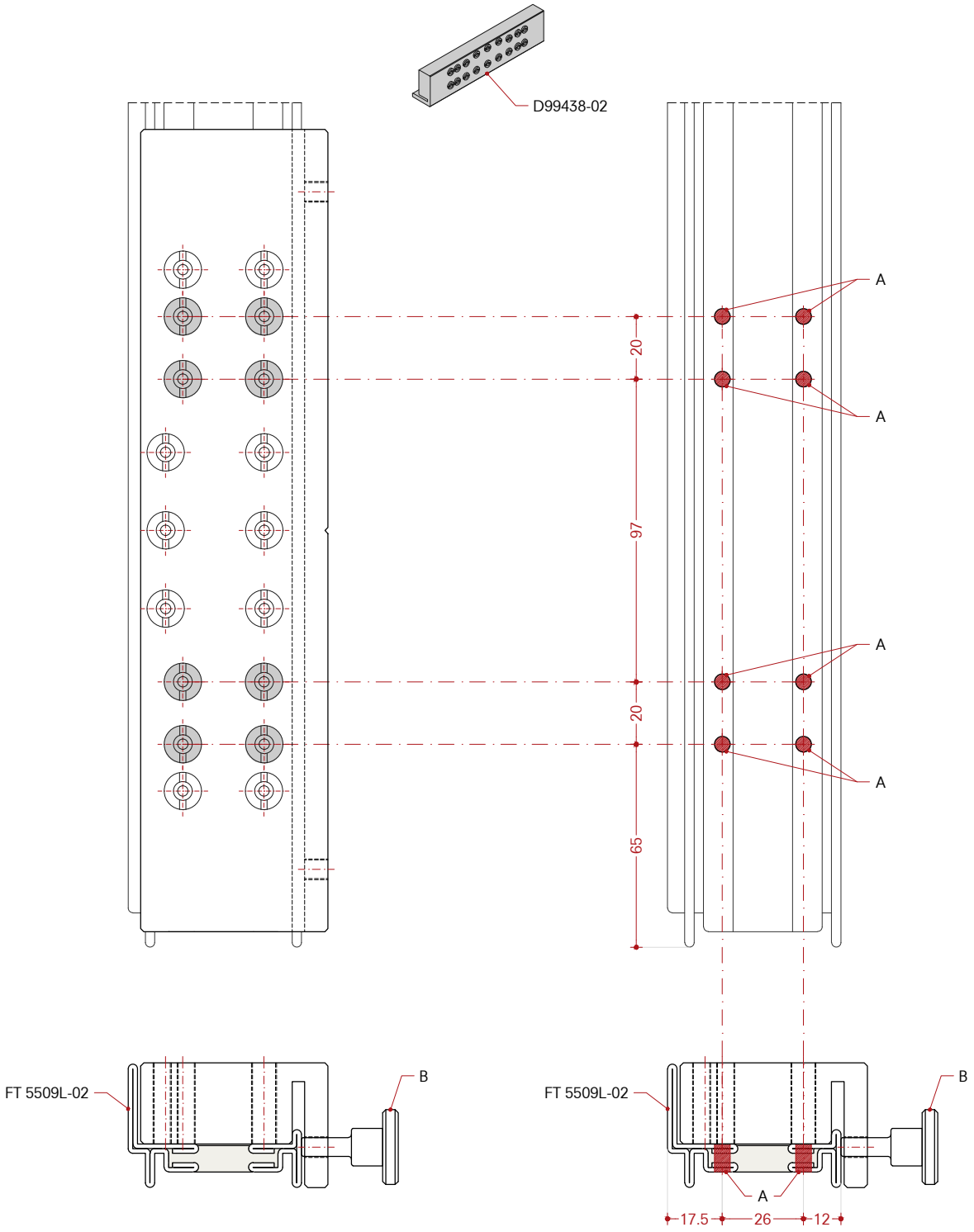
A, B) Spessori aggiuntivi per la regolazione 16.5±0.5
C) Fori M5 e fissaggio con vite M5x12 ISO7380 dopo la regolazione verticale.

A, B) Espesores adicionales para ajuste 16.5±0.5
C) Orificios M5 y fijación con tornillo M5x12 ISO7380 después del ajuste vertical.

Installation
Template D99438-00
for screw-on hinge C99125-02
Open in

Montaggio
Dima D99438-00
per cerniera ad avvitare C99125-02
Apertura interna

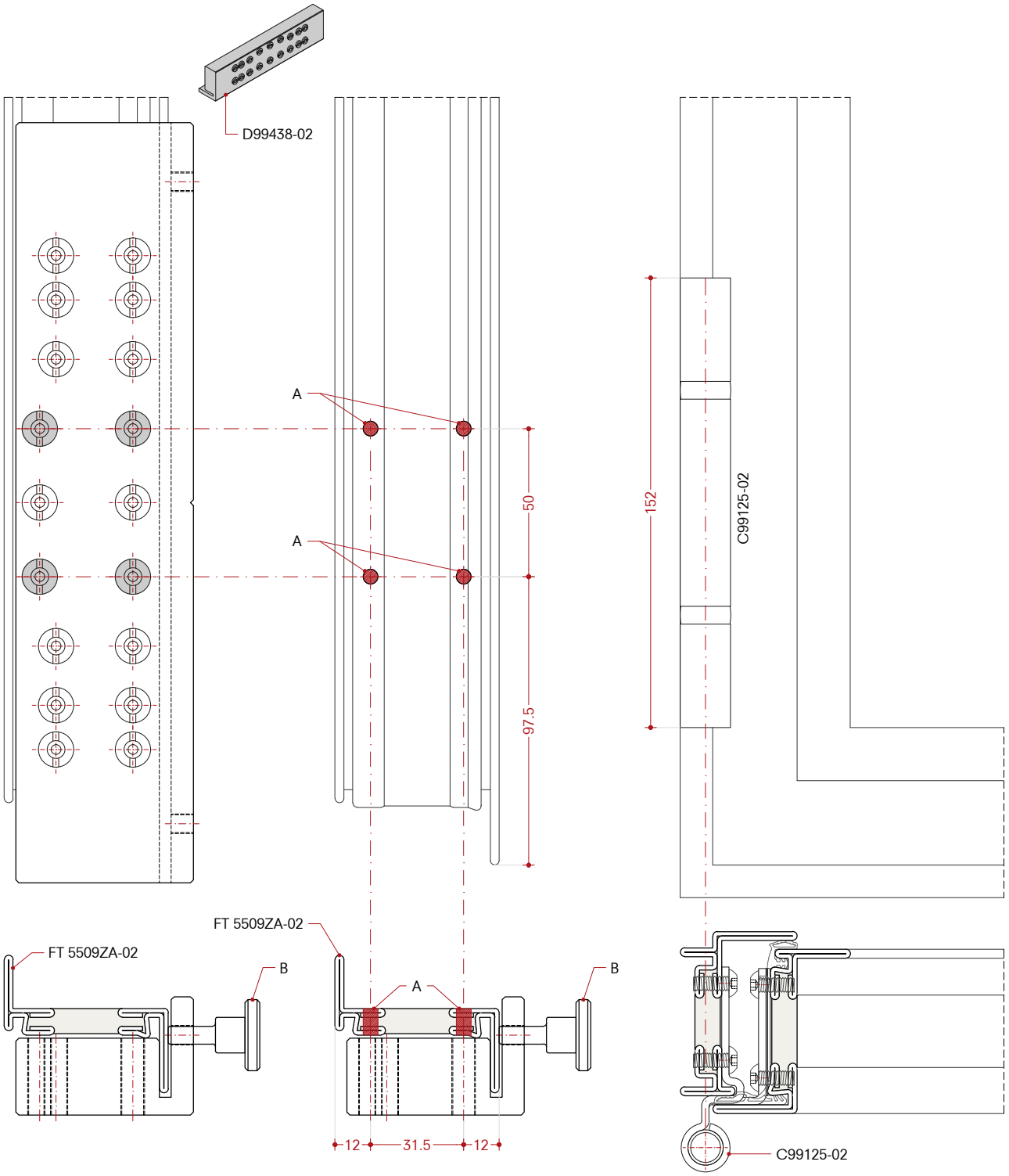
Montaje
Plantilla D99438-00
para bisagra atornillable C99125-02
Que se abre hacia dentro



A) M5 holes on frame profile
B) Not provided

A) Fori M5 sul profilo telaio
B) Non fornito

A) Orificios M5 en perfil de marco
B) No provisto



A) M5 holes on leaf profile
B) Not provided

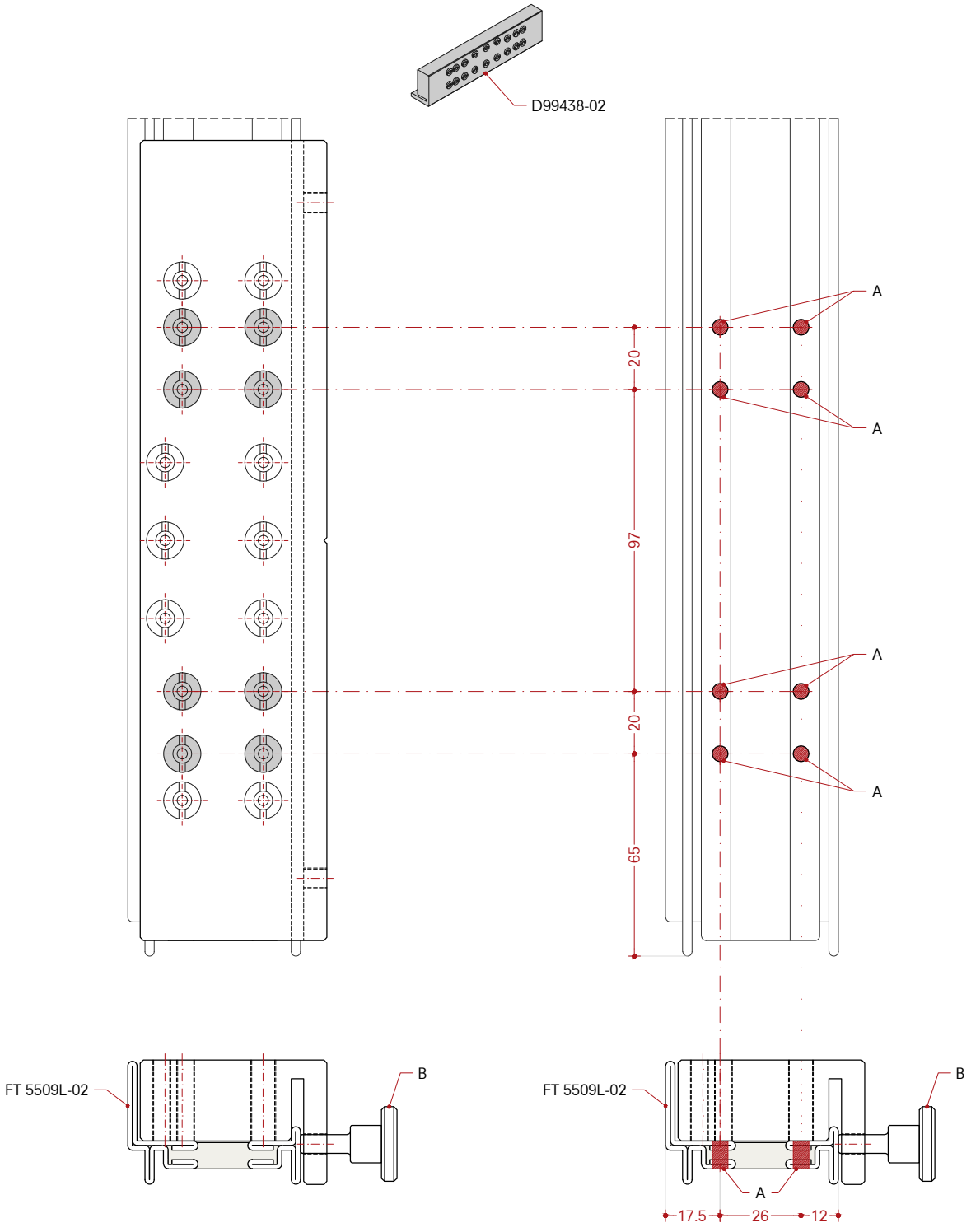
A) Fori M5 sul profilo anta
B) Non fornito

A) Orificios M5 en perfil de hoja
B) No provisto

Installation
Templates D99438-00
for screw-on hinge C99125-02
Open out

Montaggio
Dime D99438-00
per cerniera ad avvitare C99125-02
Apertura esterna

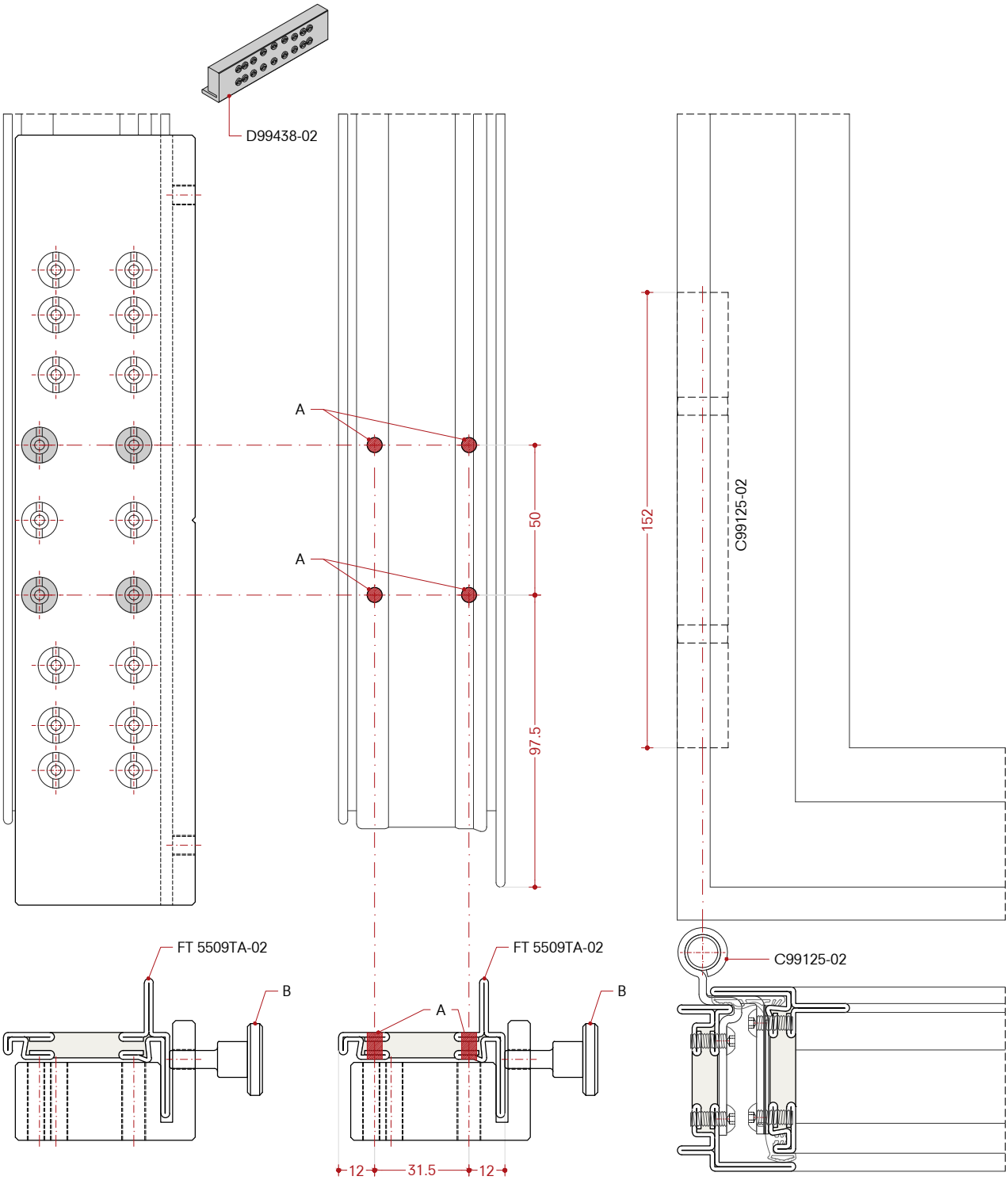
Montaje
Plantilla D99438-00
para bisagra atornillable C99125-02
Que se abre hacia fuera



A) M5 holes on frame profile
B) Not provided

A) Fori M5 sul profilo telaio
B) Non fornito

A) Orificios M5 en perfil de marco
B) No provisto



A) M5 holes on leaf profile
B) Not provided

A) Fori M5 sul profilo anta
B) Non fornito

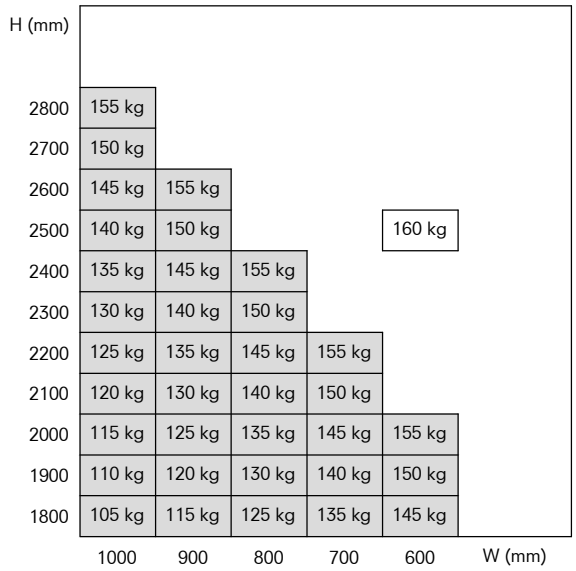
A) Orificios M5 en perfil de hoja
B) No provisto

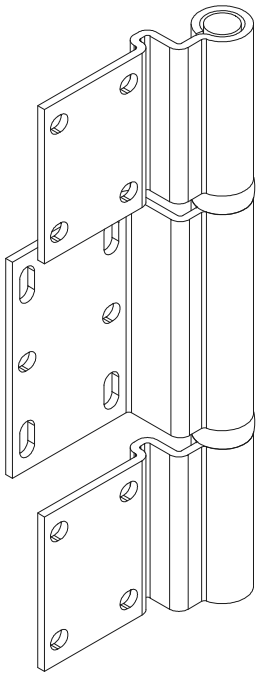
Load capacity tables
Screw-on hinges

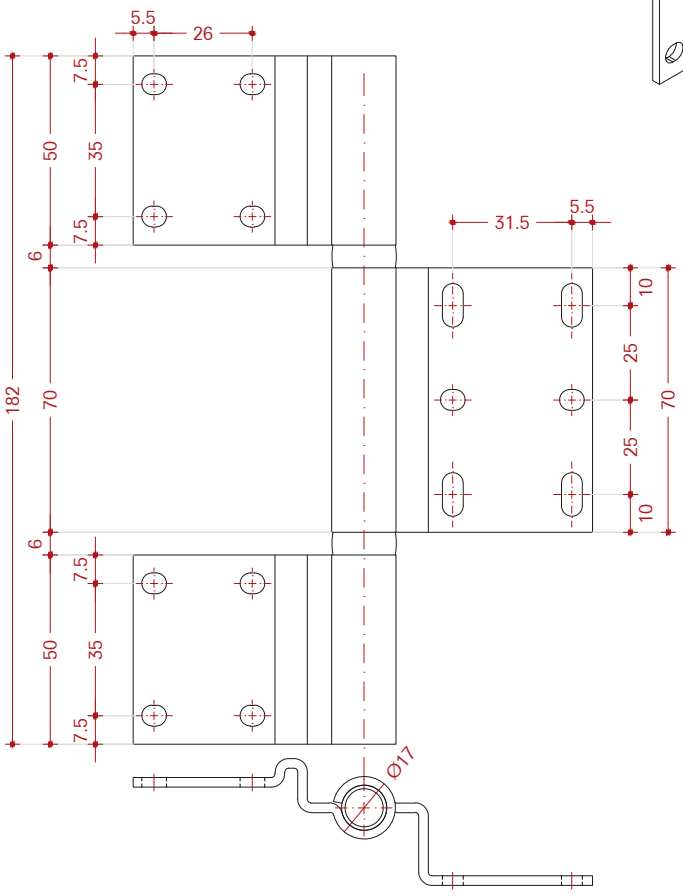
Tabella portate
Cerniere ad avvitare

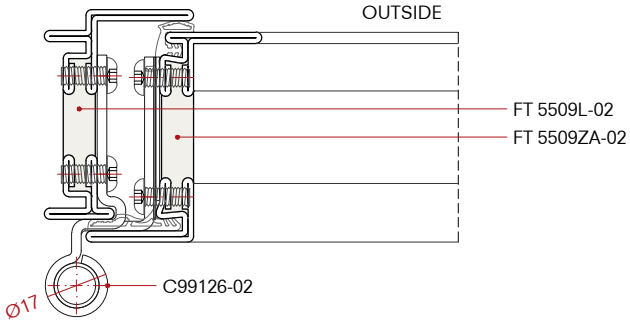
Tablas de peso
Bisagras atornillable

	Material Materiale Material	Diameter Diametro Diámetro	Length Lunghezza Longitud	Capacity (pair) Portata (coppia) Capacidad (par)
C99126-02	Galvanized steel Acciaio zincato Acero galvanizado	Ø = 17 mm	182 mm	160 kg





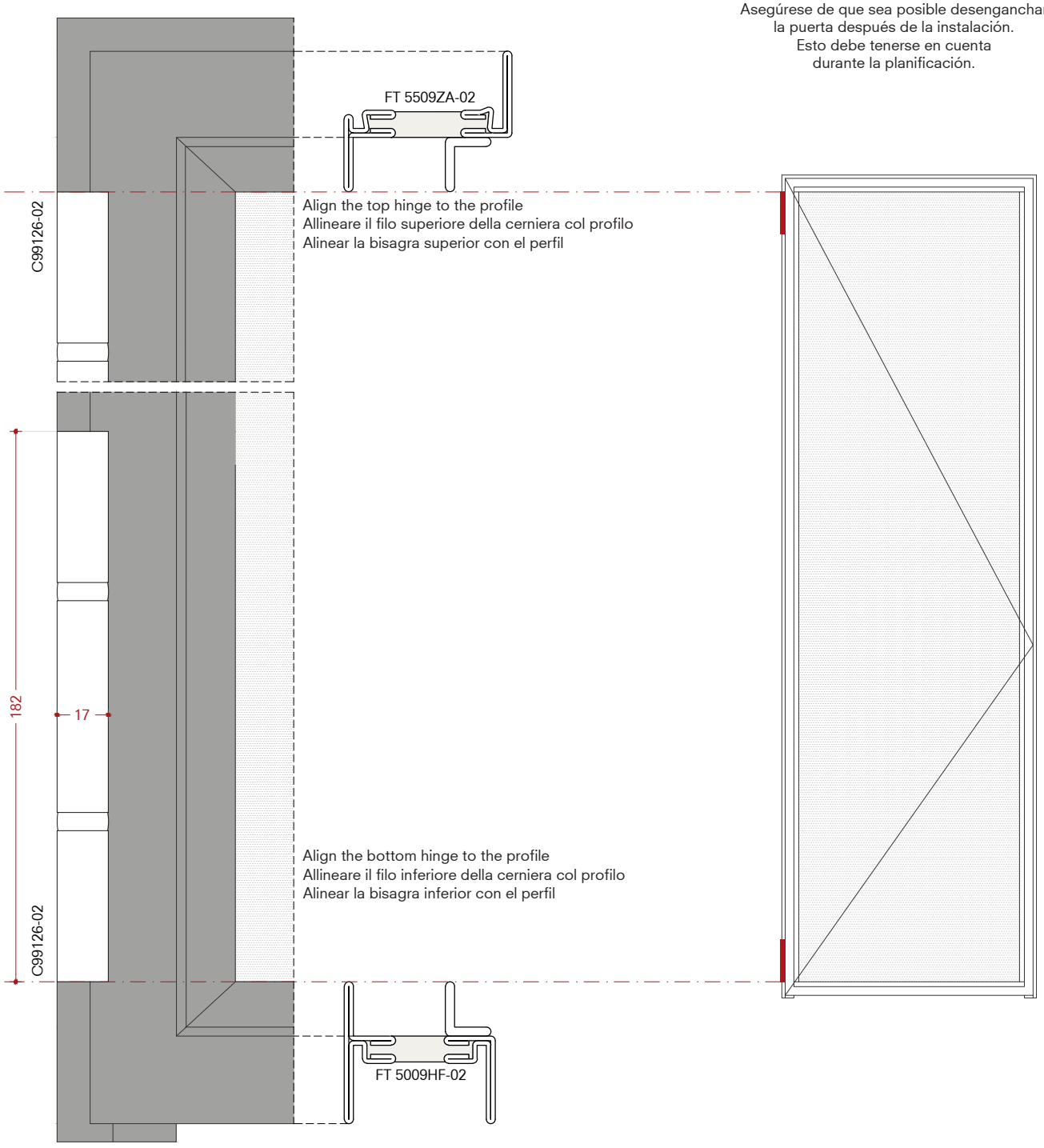




Note
Please ensure that it is possible
to unhinge the door leaf after installation.
This should be taken into account
during the planning.

Nota
Assicurarsi che sia possibile
smontare l'anta dopo l'installazione.
Da considerarsi sempre
in fase di progettazione.

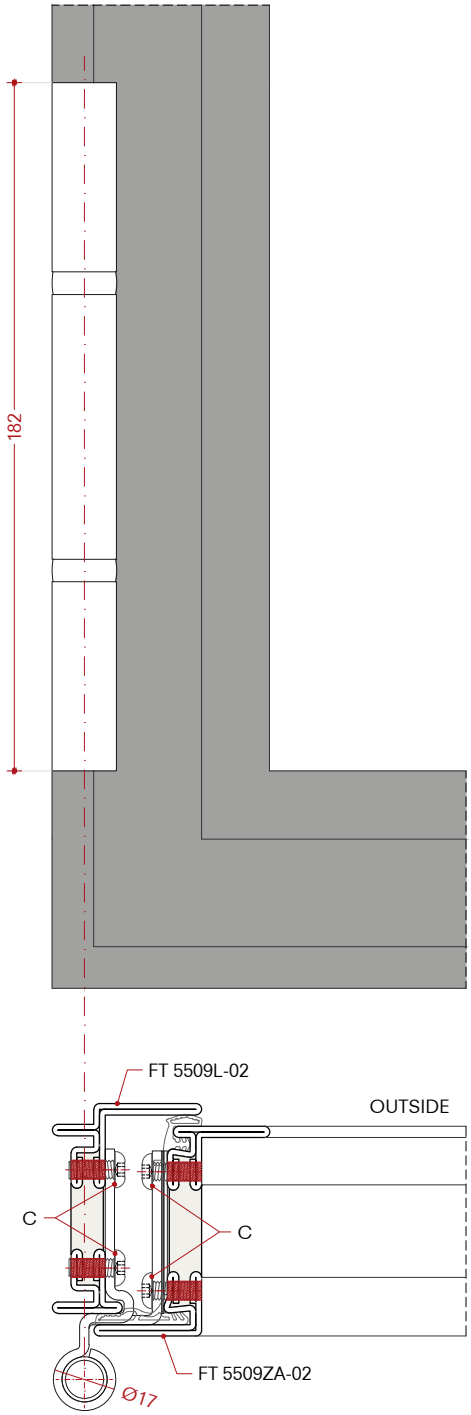
Nota
Asegúrese de que sea posible desenganchar
la puerta después de la instalación.
Esto debe tenerse en cuenta
durante la planificación.

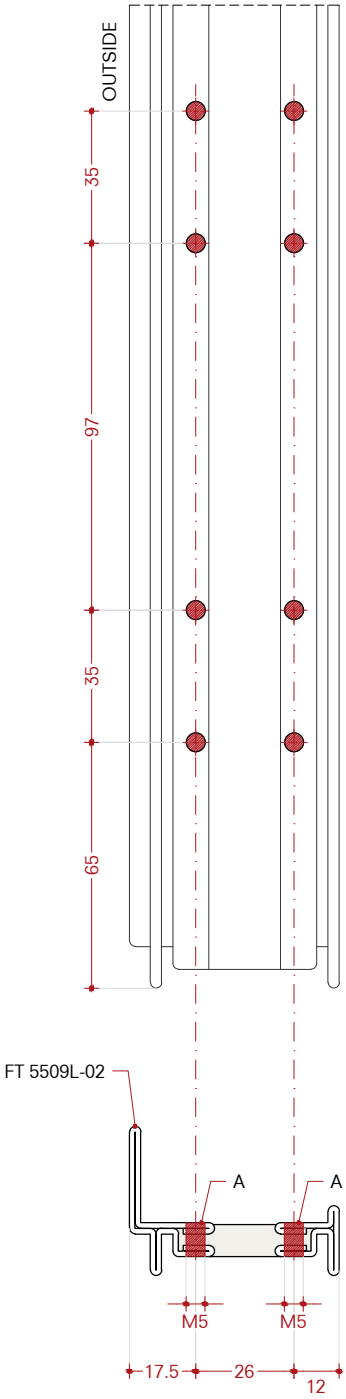


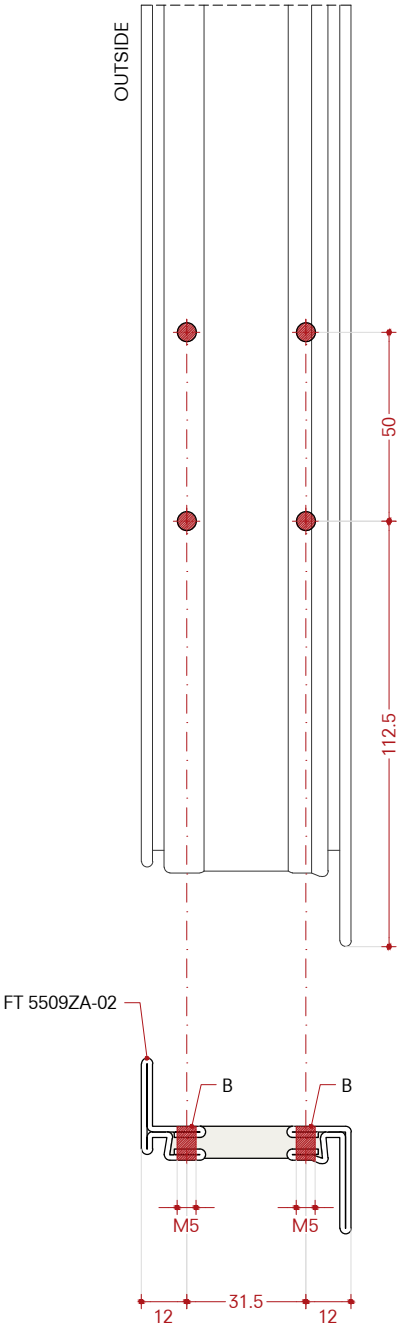
Installation
Screw-on hinge C99126-02
Open in
Maximum leaf weight 160 kg

Montaggio
Cerniera ad avvitare C99126-02
Apertura interna
Peso massimo anta 160 kg

Montaje
Bisagra atornillable C99126-02
Que se abre hacia dentro
Peso máximo de la hoja 160 kg



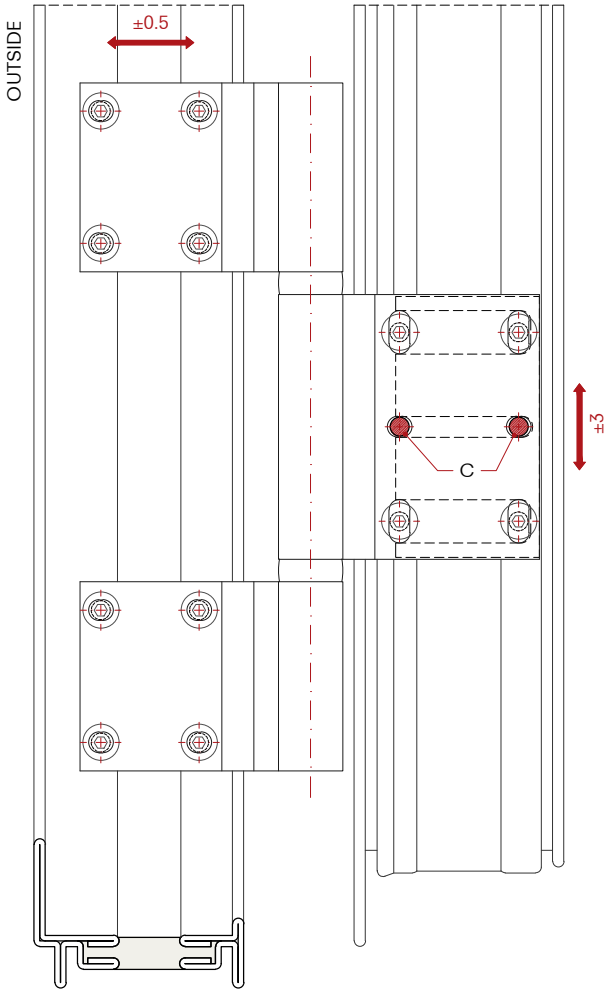


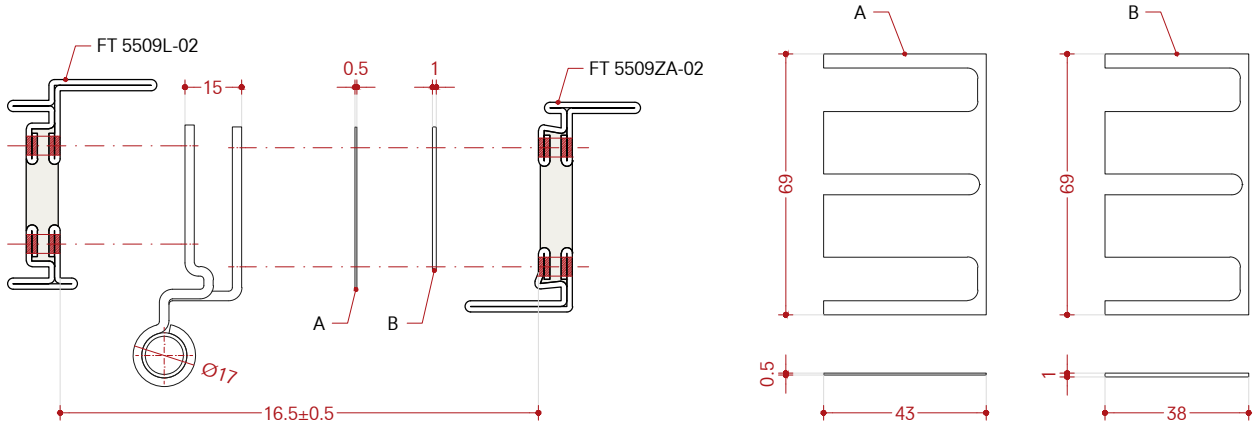


A) M5 holes on frame profile
B) M5 holes on leaf profile
C) Fastening hinge with M5x12 ISO7380 screws

A) Fori M5 sul profilo telaio
B) Fori M5 sul profilo anta
C) Fissaggio cerniera con viti M5x12 ISO7380

A) Orificios M5 en perfil de marco
B) Orificios M5 en perfil de hoja
C) Fijación bisagra con tornillos M5x12 ISO7380





A, B) Additional shims for adjustment 16.5±0.5
C) M5 holes and fastening with screw M5x12 ISO7380 after up and down adjustment.

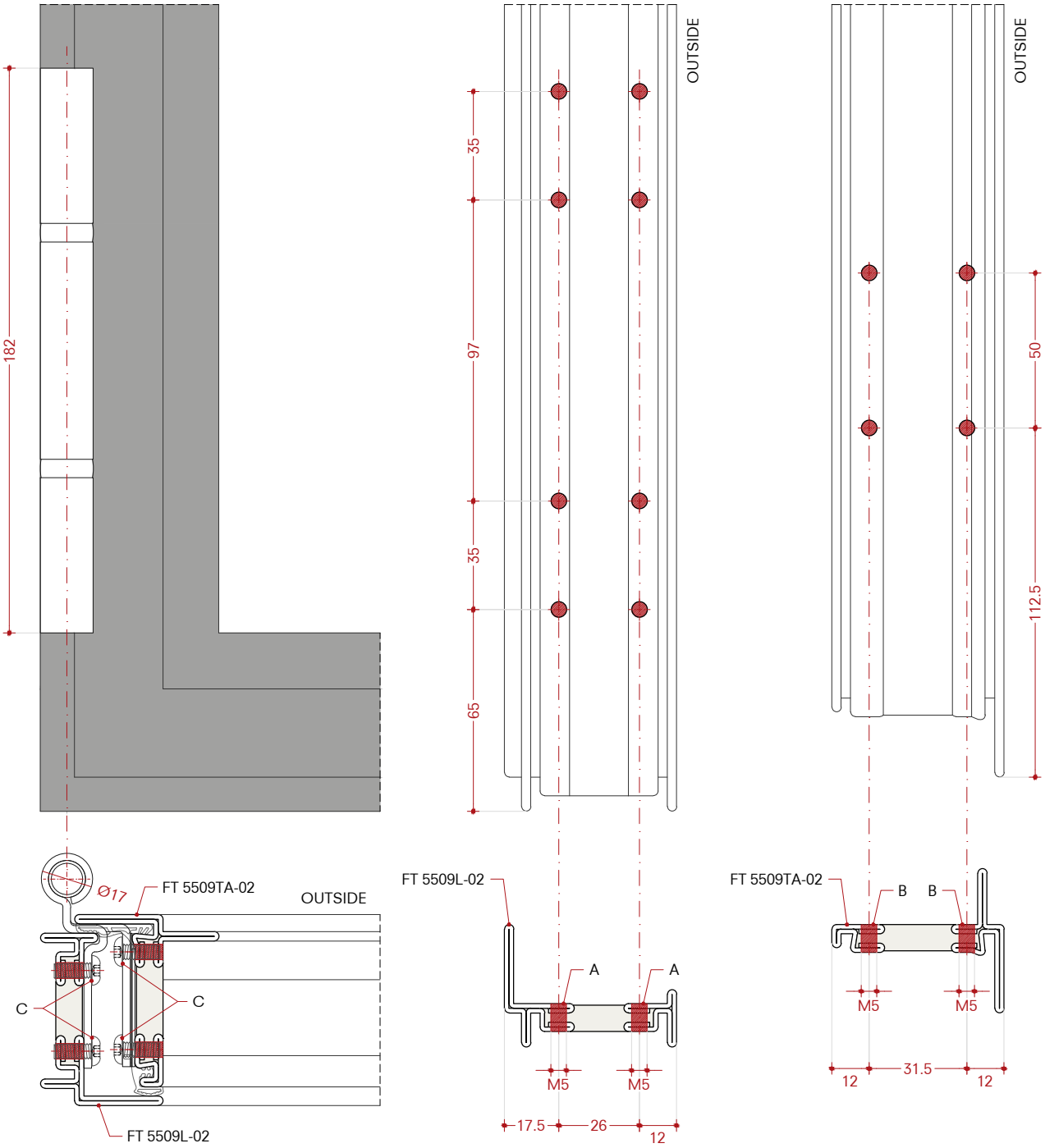
A, B) Spessori aggiuntivi per la regolazione 16.5±0.5
C) Fori M5 e fissaggio con vite M5x12 ISO7380 dopo la regolazione verticale.

A, B) Espesores adicionales para ajuste 16.5±0.5
C) Orificios M5 y fijación con tornillo M5x12 ISO7380 después del ajuste vertical.

Installation
Screw-on hinge C99126-02
Open out
Maximum leaf weight 160 kg

Montaggio
Cerniera ad avvitare C99126-02
Apertura esterna
Peso massimo anta 160 kg

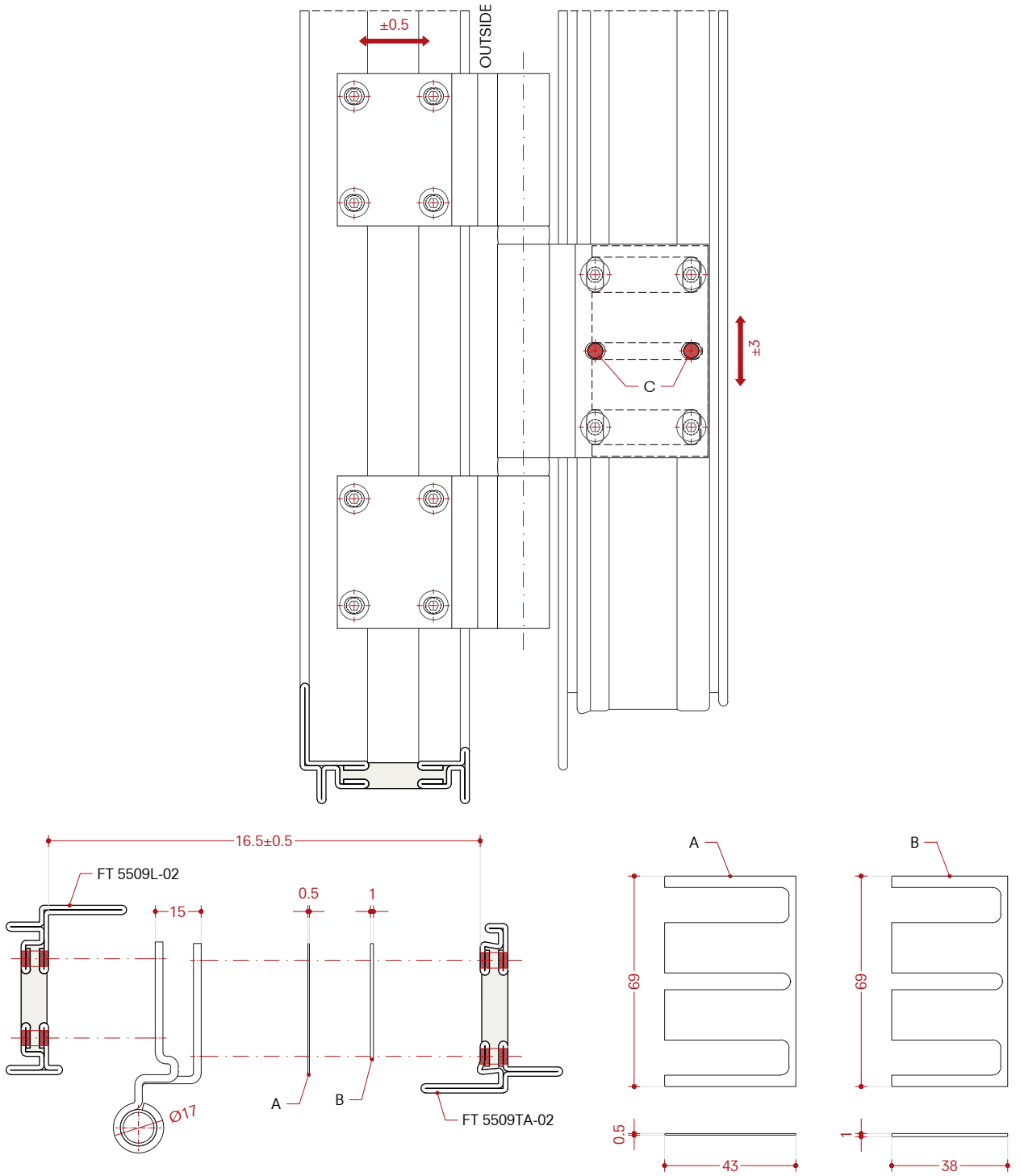
Montaje
Bisagra atornillable C99126-02
Que se abre hacia fuera
Peso máximo de la hoja 160 kg



A) M5 holes on frame profile
B) M5 holes on leaf profile
C) Fastening hinge with M5x12 ISO7380 screws

A) Fori M5 sul profilo telaio
B) Fori M5 sul profilo anta
C) Fissaggio cerniera con viti M5x12 ISO7380

A) Orificios M5 en perfil de marco
B) Orificios M5 en perfil de hoja
C) Fijación bisagra con tornillos M5x12 ISO7380



A, B) Additional shims for adjustment 16.5±0.5
C) M5 holes and fastening with screw M5x12 ISO7380 after up and down adjustment.

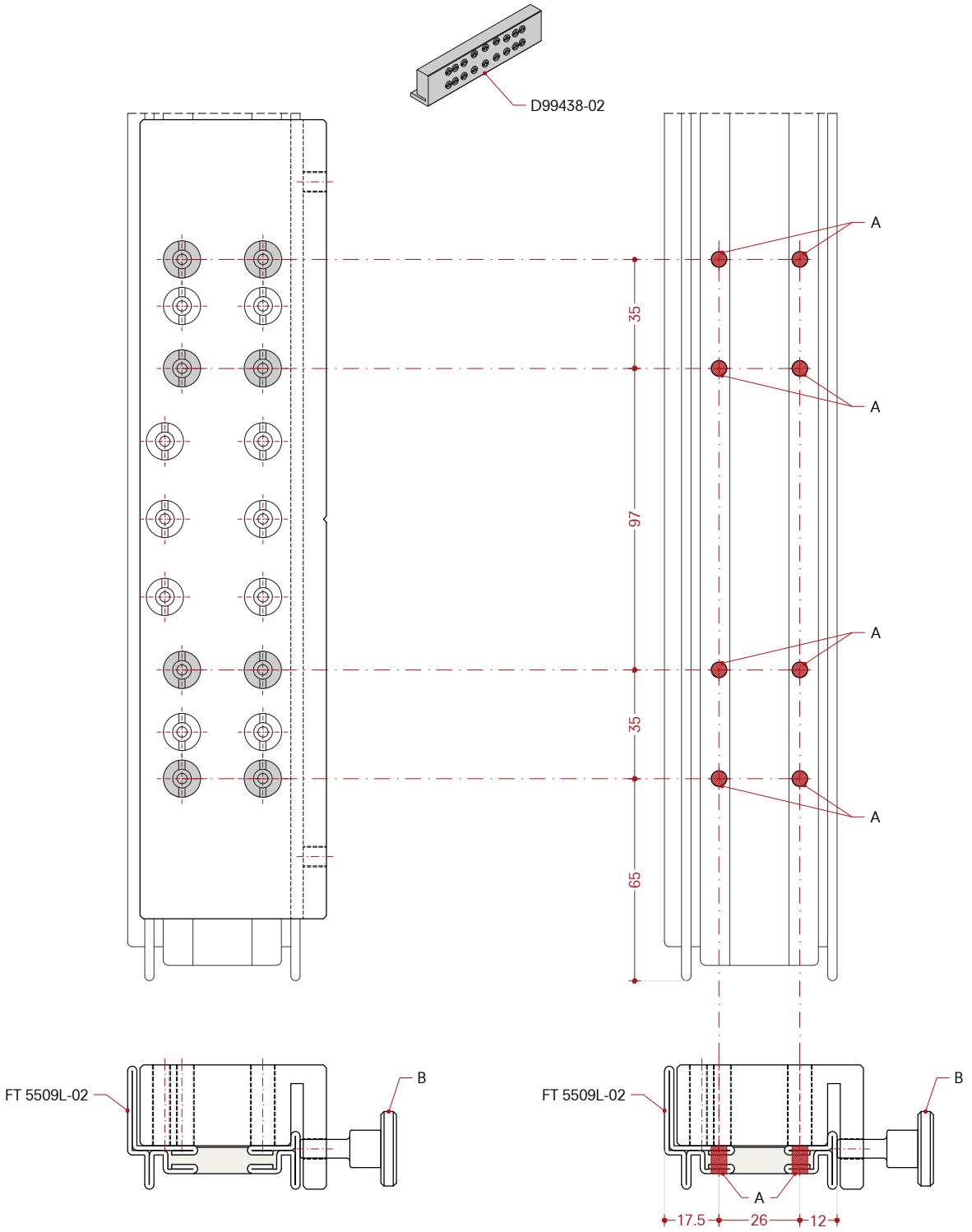
A, B) Spessori aggiuntivi per la regolazione 16.5±0.5
C) Fori M5 e fissaggio con vite M5x12 ISO7380 dopo la regolazione verticale.

A, B) Espesores adicionales para ajuste 16.5±0.5
C) Orificios M5 y fijación con tornillo M5x12 ISO7380 después del ajuste vertical.

Installation
Templates D99438-00
for screw-on hinge C99126-02
Open in

Montaggio
Dime D99438-00
per cerniera ad avvitare C99126-02
Apertura interna

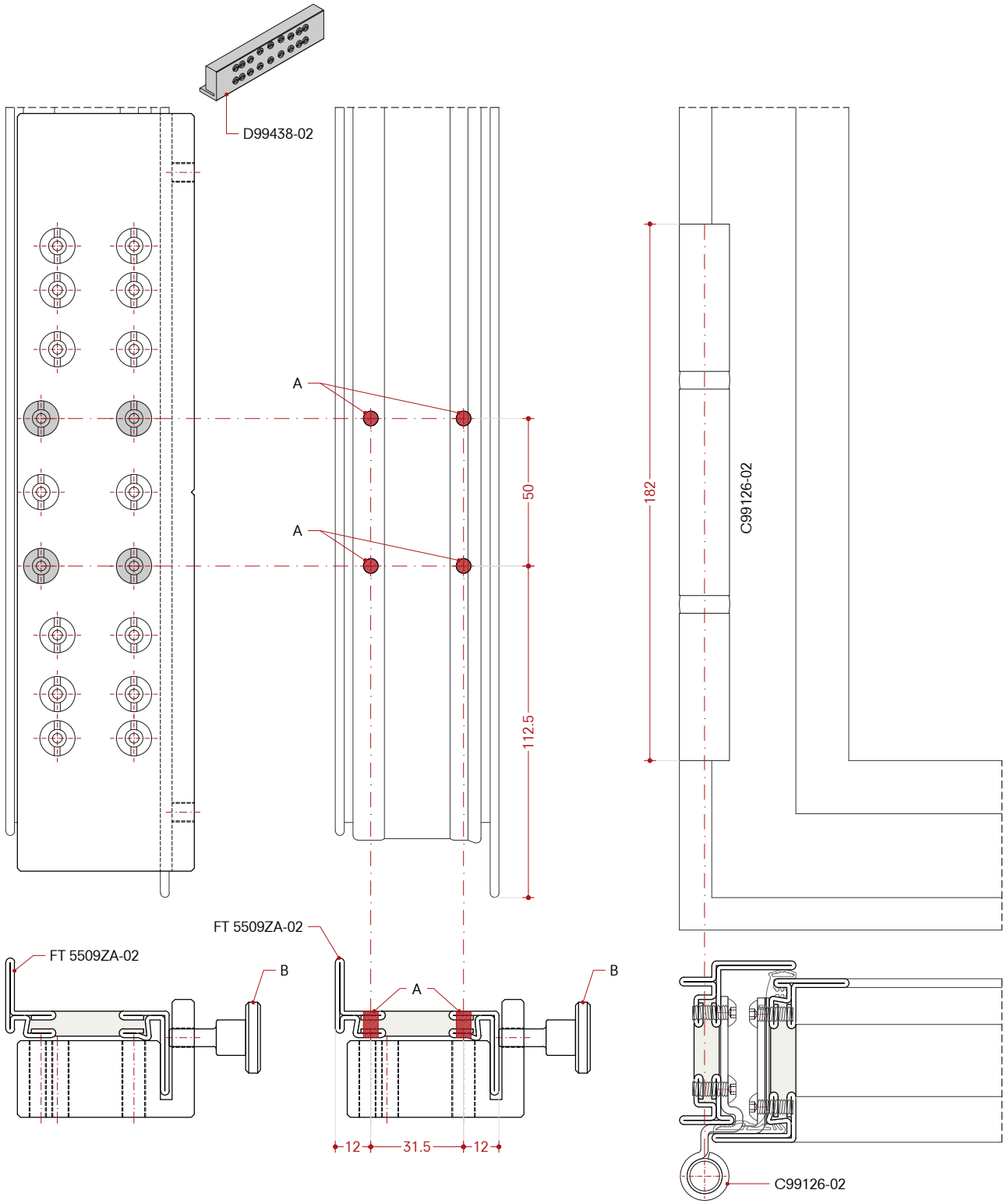
Montaje
Plantilla D99438-00
para bisagra atornillable C99126-02
Que se abre hacia dentro



A) M5 holes on frame profile
B) Not provided

A) Fori M5 sul profilo telaio
B) Non fornito

A) Orificios M5 en perfil de marco
B) No provisto



A) M5 holes on leaf profile
B) Not provided

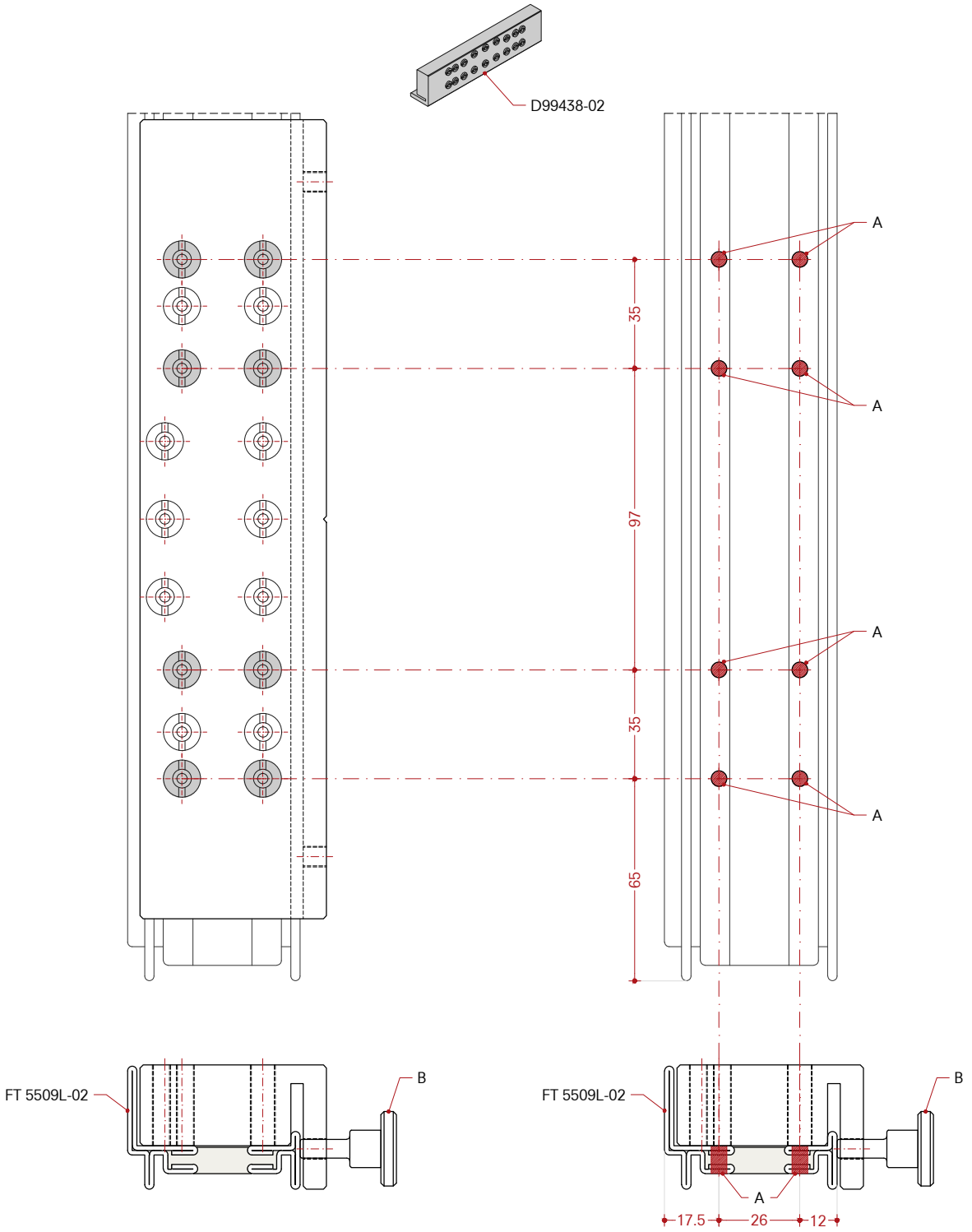
A) Fori M5 sul profilo anta
B) Non fornito

A) Orificios M5 en perfil de hoja
B) No provisto

Installation
Templates D99438-00
for screw-on hinge C99126-02
Open out

Montaggio
Dime D99438-00
per cerniera ad avvitare C99126-02
Apertura esterna

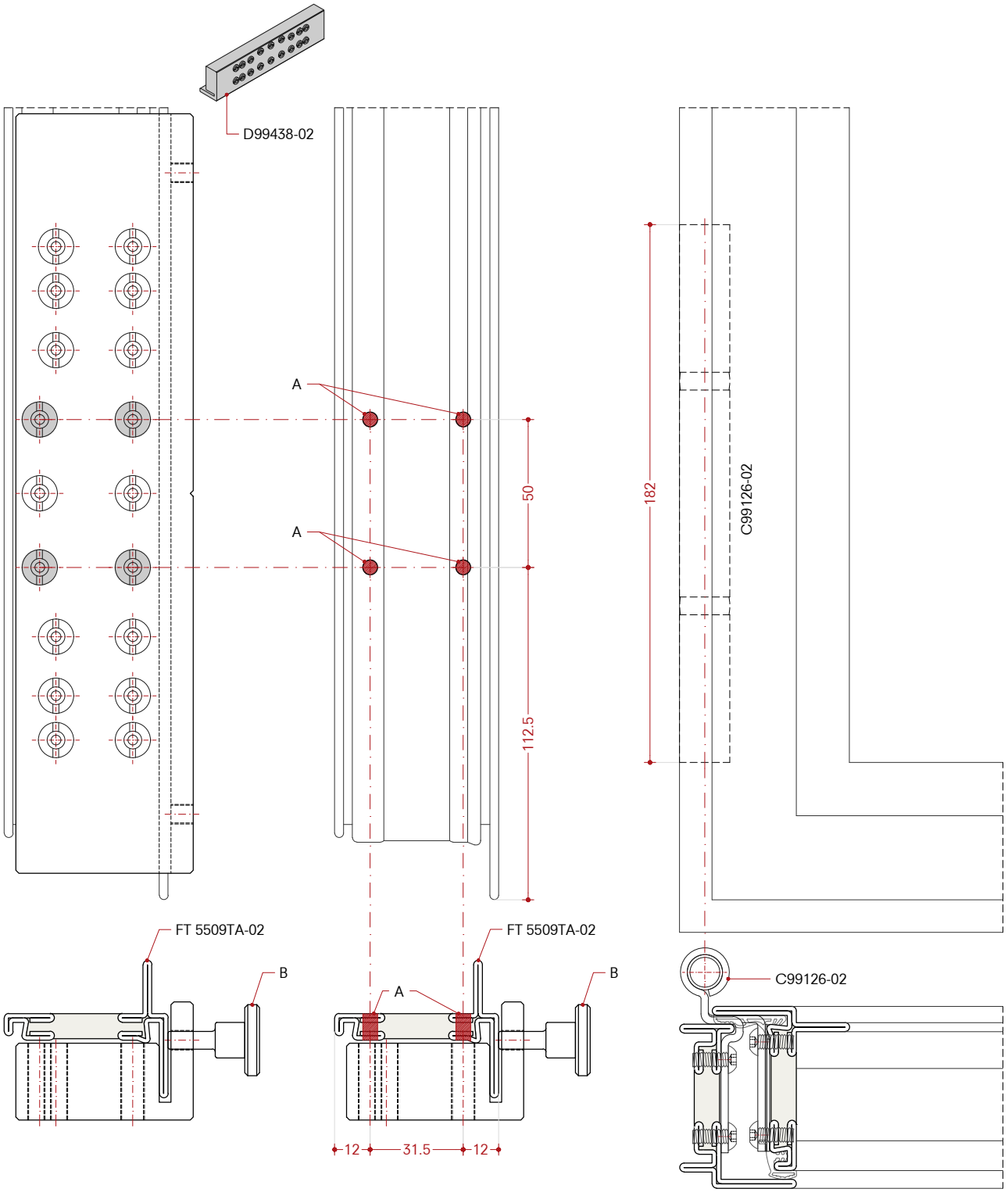
Montaje
Plantilla D99438-00
para bisagra atornillable C99126-02
Que se abre hacia fuera



A) M5 holes on frame profile
B) Not provided

A) Fori M5 sul profilo telaio
B) Non fornito

A) Orificios M5 en perfil de marco
B) No provisto



A) M5 holes on leaf profile
B) Not provided

A) Fori M5 sul profilo anta
B) Non fornito

A) Orificios M5 en perfil de hoja
B) No provisto

Recommendations for installation

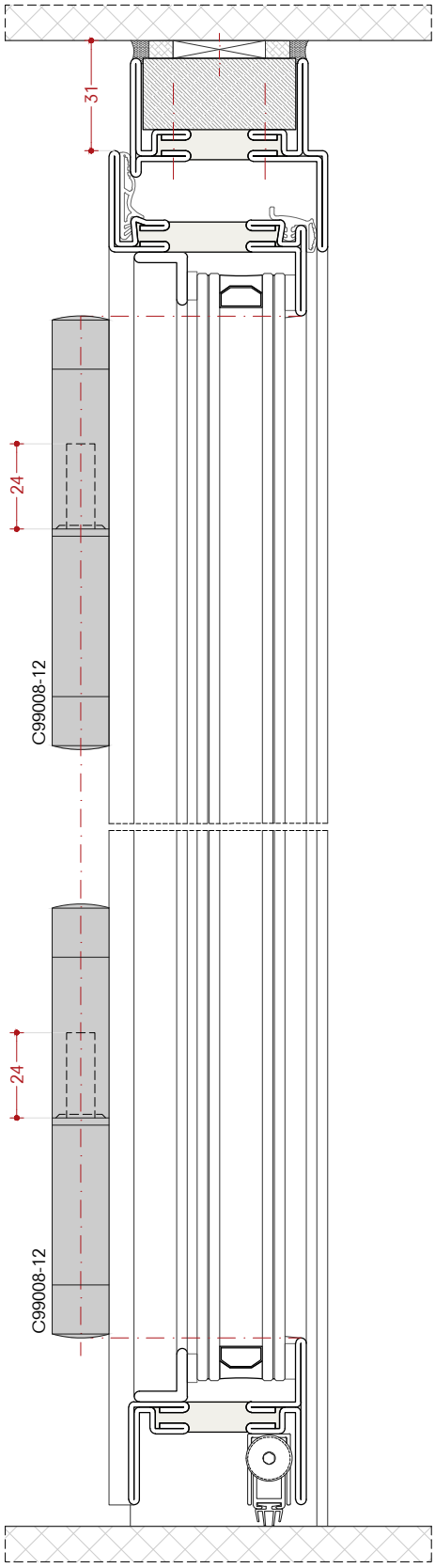
Raccomandazioni per l'installazione in luce

Recomendaciones para la instalación

For weld-on hinges C99001-nn, C99002-12, C99003-12, C99004-12 and C99008-12 please use a frame extension (top) E.G. FT 5509H-02 to unhook the leaf after installing.

Per cerniere a saldare C99001-nn, C99002-12, C99003-12, C99004-12 e C99008-12, utilizzare un profilo di sezione maggiorata (in alto) Per esempio FT 5509H-02 per rimuovere l'anta dopo l'installazione.

Para bisagras soldables C99001-nn, C99002-12, C99003-12, C99004-12 y C99008-12, use una extensión de marco (arriba) P.Ej. FT 5509H-02 para desenganchar la hoja después de la instalación.



Recommendations for installation

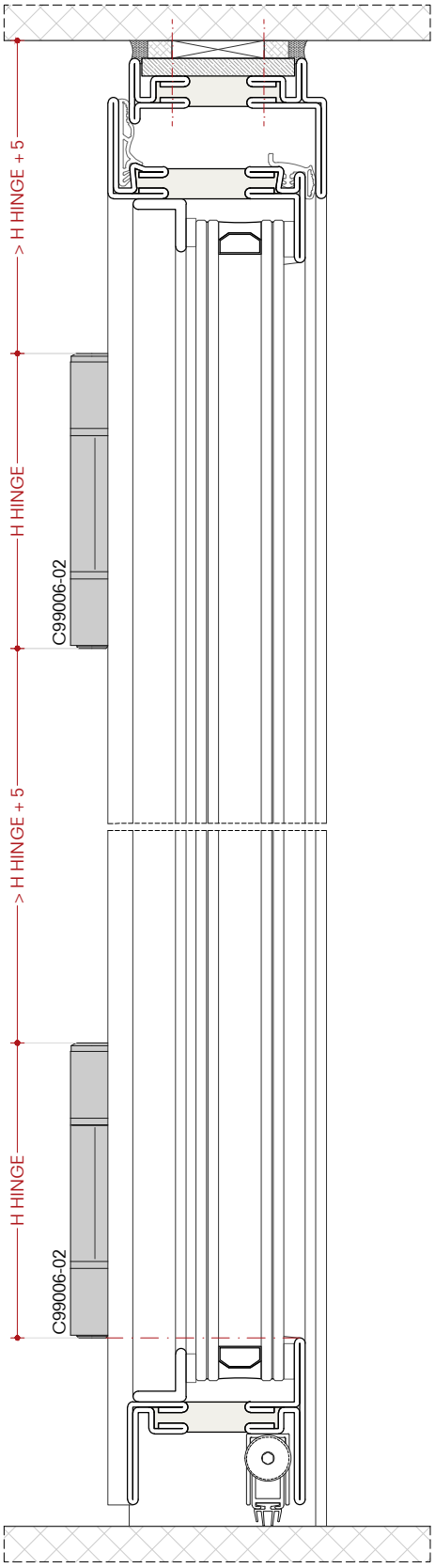
Leave at least H hinges + 5 mm
on top to remove the pin and the leaf.
Hinges code: C99005-02, C99006-02, C99007-02

Raccomandazioni per l'installazione in luce

Lasciare almeno 5 mm in più rispetto all'altezza
delle cerniere per poter rimuovere il perno e l'anta.
Codice cerniere: C99005-02, C99006-02, C99007-02

Recomendaciones para la instalación

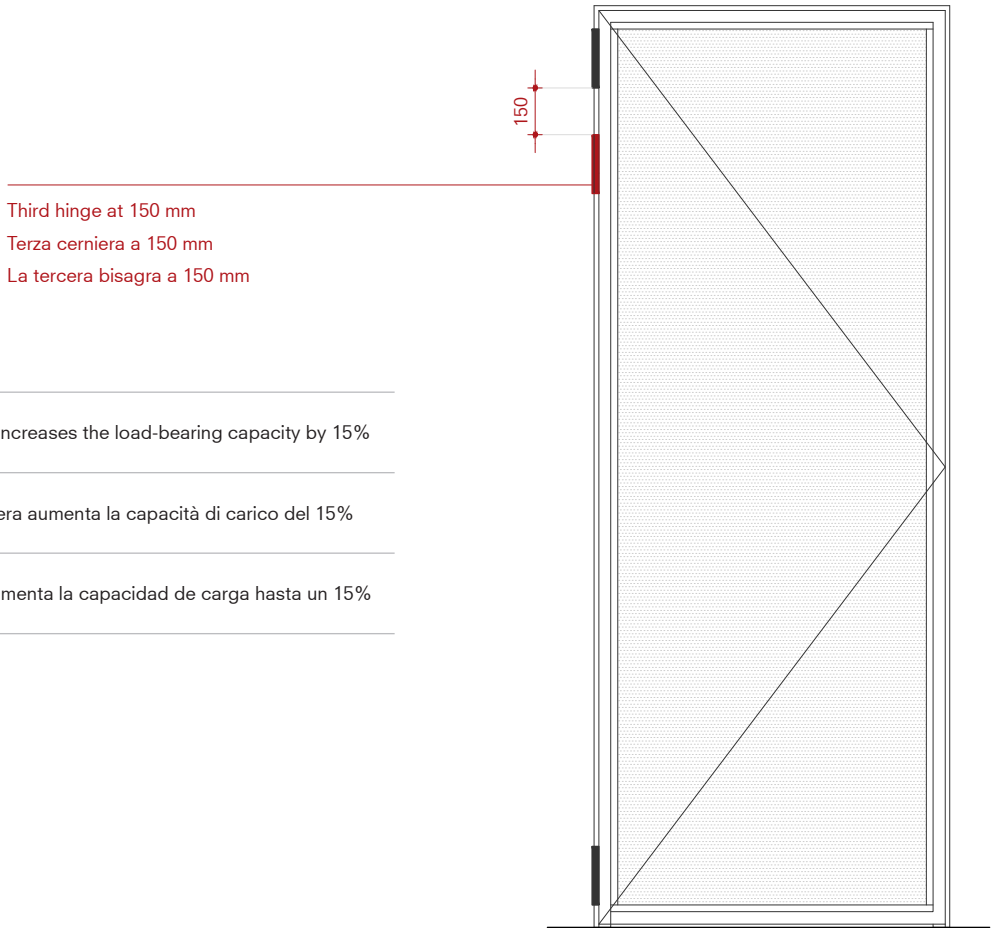
Deje al menos las bisagras + 5 mm
en la parte superior para retirar el pin y la ala.
Código de bisagras: C99005-02, C99006-02, C99007-02



Rules for third hinge

Regole per la terza cerniera

Normas para tercera bisagra



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%

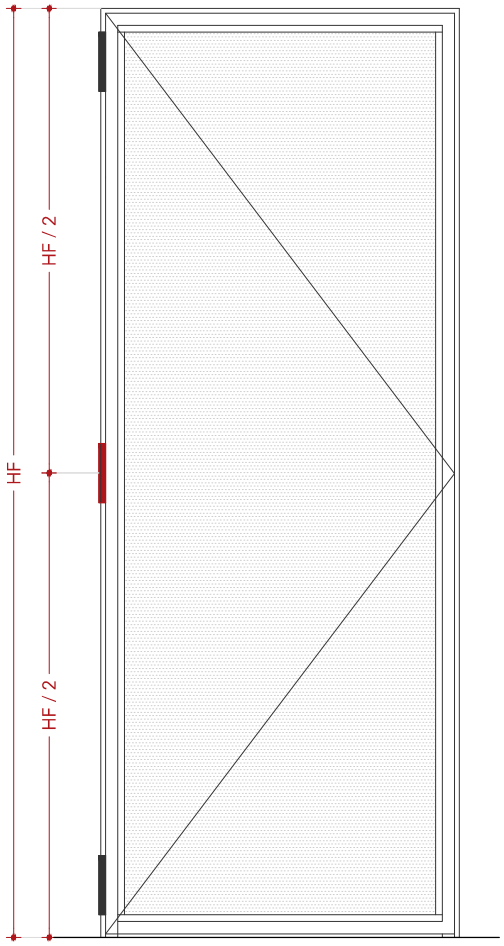
Use the third hinge if:
Terza cerniera consigliata in caso di:
Usar 3ª bisagra en los siguientes casos:

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 2100 mm
Porte di altezza superiore a 2100 mm
La altura de la puerta es superior a 2100 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:

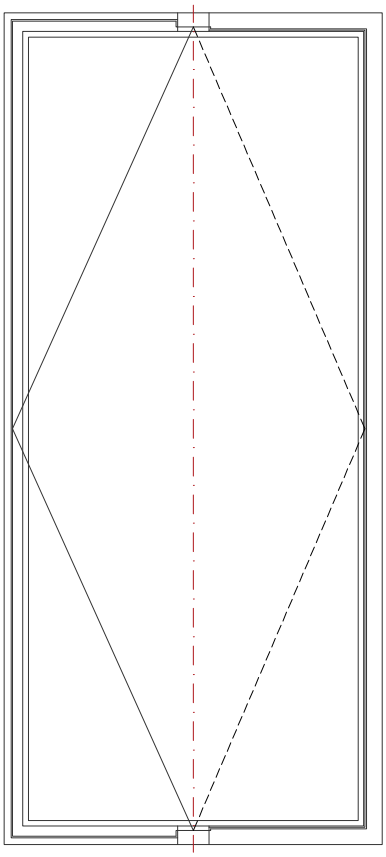
Asegúrese de que sea posible desenganchar la puerta después de la instalación. Esto debe tenerse en cuenta durante la planificación.

HF = Altura marco

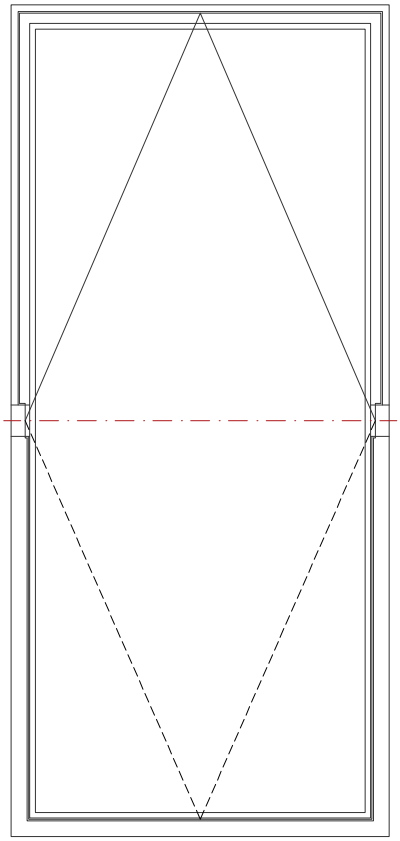
Load capacity pivot hinge
C99321-12

Portate cerniera pivot
C99321-12

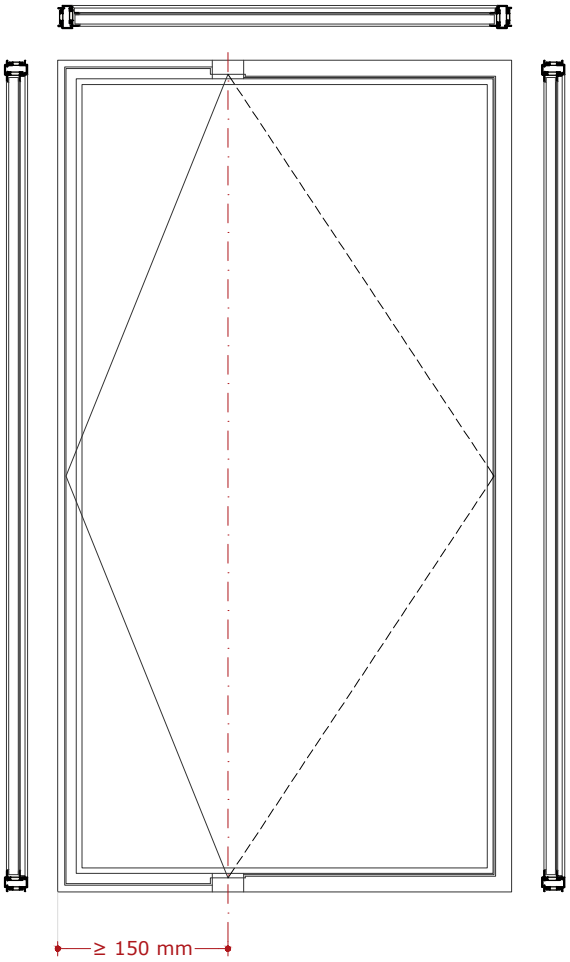
Alcance de la bisagra
C99321-12



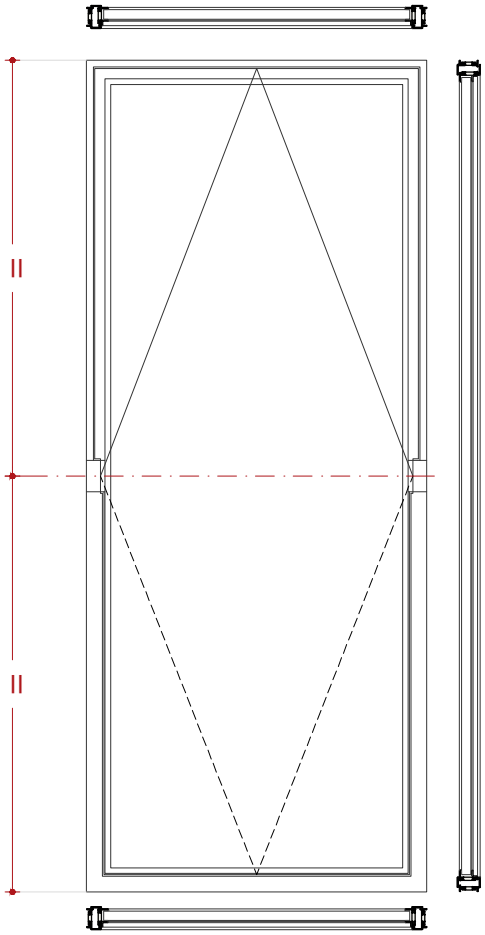
Vertical pivot - max weight 200 kg



Orizontal pivot - max weight 150 kg



Vertical pivot

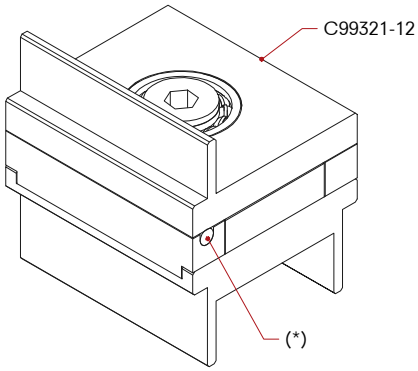


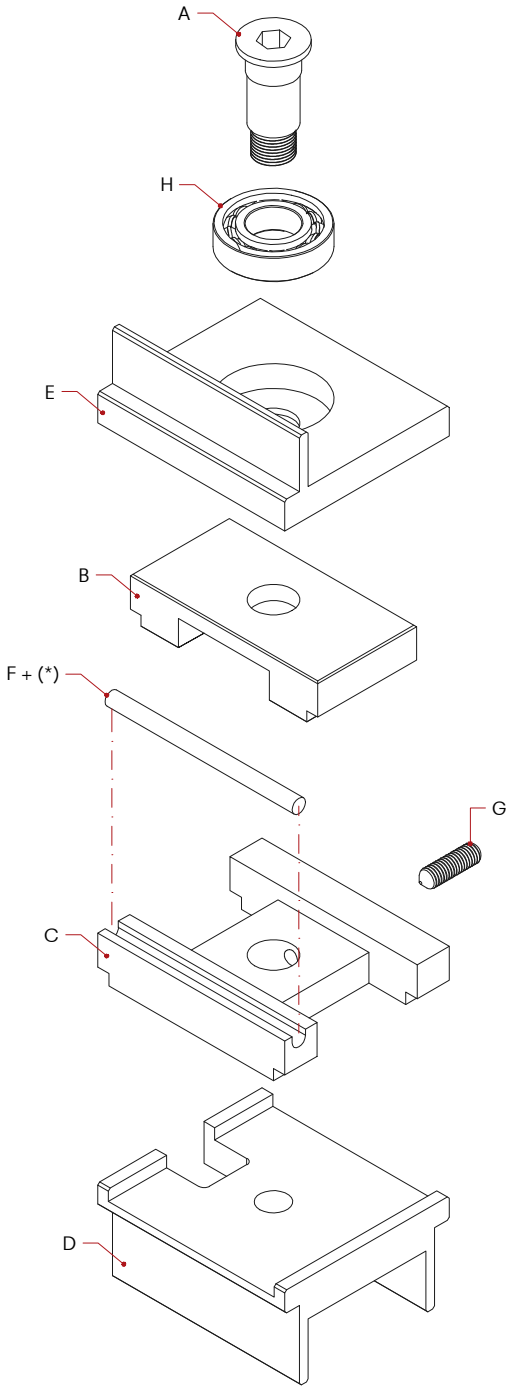
Orizontal pivot

Installation
C99321-12

Montaggio
C99321-12

Montaje
C99321-12





A) Pin
B) Skate
C) Shoe holder
D) Frame part
E) Leaf part
F) Gasket
G) M6x25 mm ISO4027
H) Bearing 6003SRS

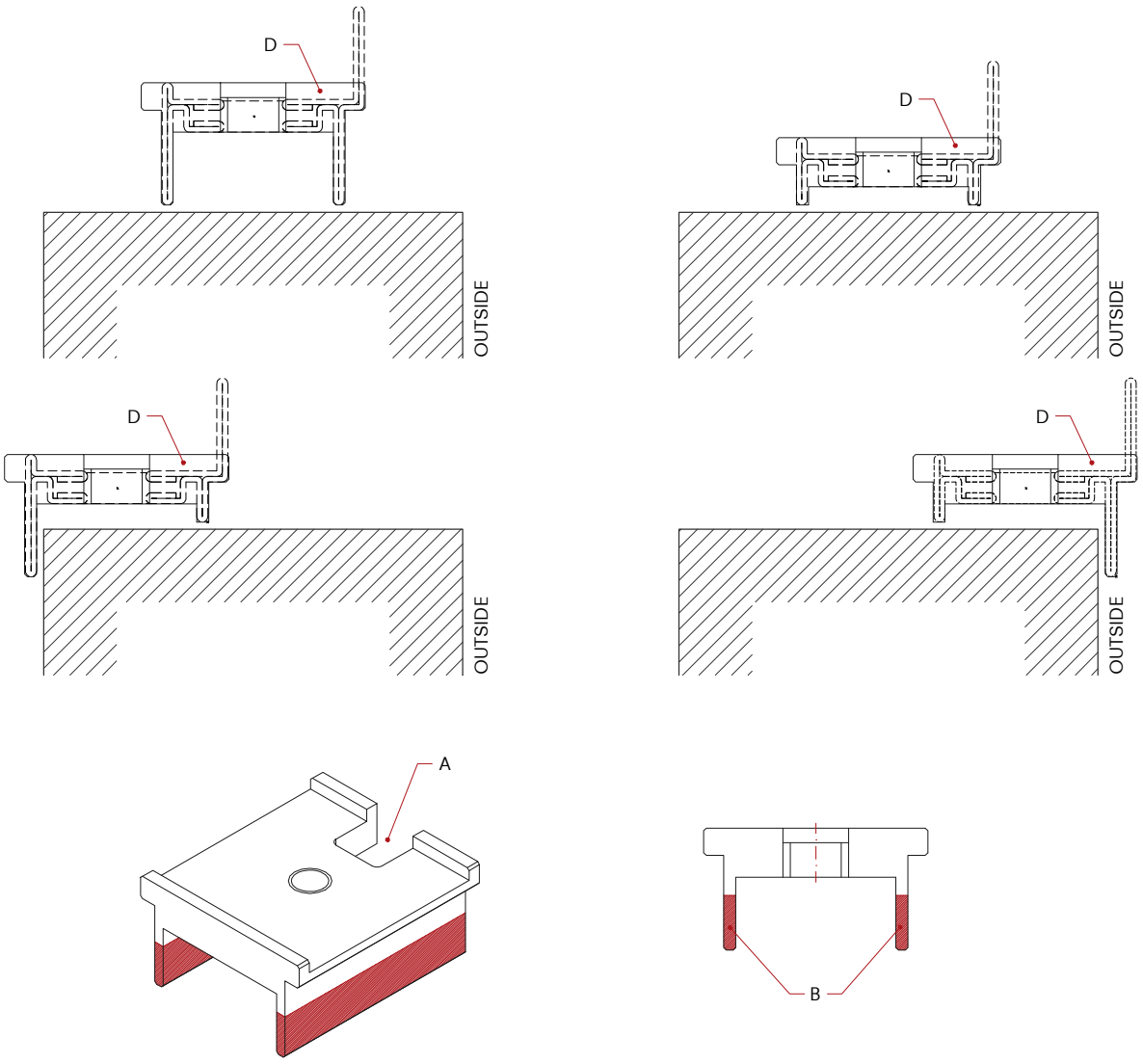
(*) Seal before assembly

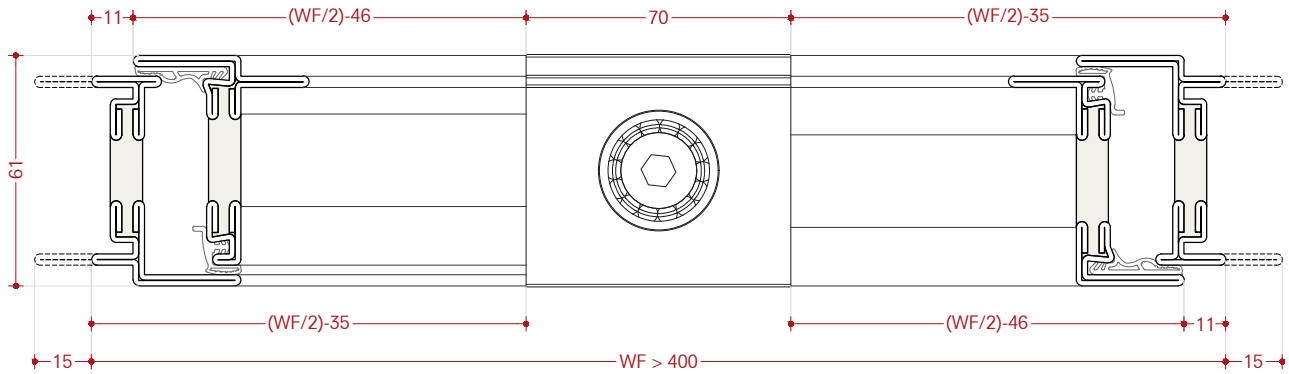
A) Perno
B) Pattino
C) Portapattino
D) Parte telaio
E) Parte anta
F) Guarnizione
G) Grano M6x25 mm ISO4027
H) Cuscinetto 6003SRS

(*) 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

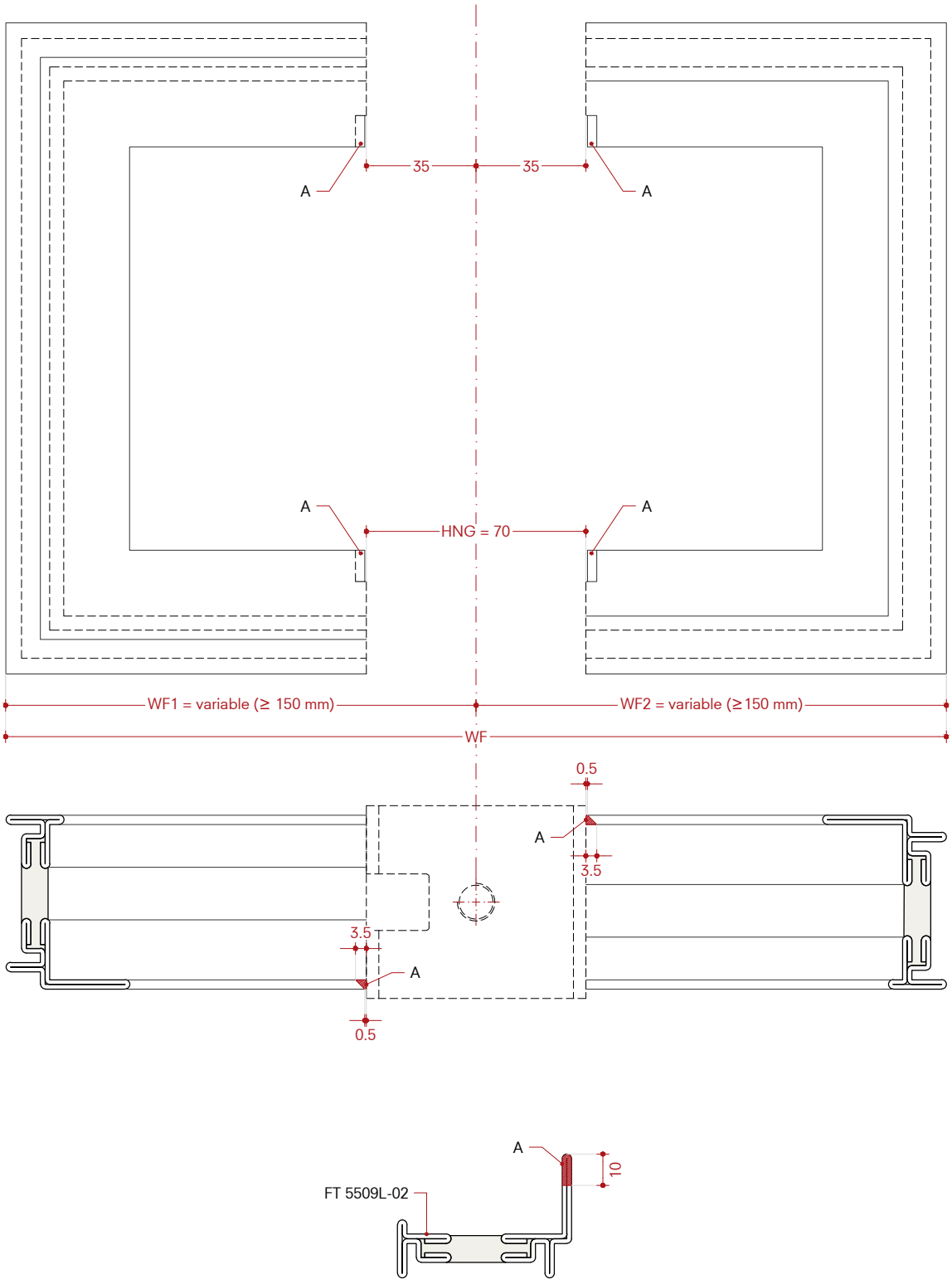
A) Saldare questa fessura sempre sul lato apertura dell'anta, saldare questo scarico sempre dalla parte del telaio con apertura verso l'interno
B) Rimuovere questa parte per profilo del telaio differente
D) Cerniera, parte telaio

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 5509L-02 / FT 5509L-02

Lavorazione del profilo telaio
FT 5509L-02 / FT 5509L-02

Mecanizado de perfil de marco
FT 5509L-02 / FT 5509L-02



WF = Frame Width
HNG = Hinge Length

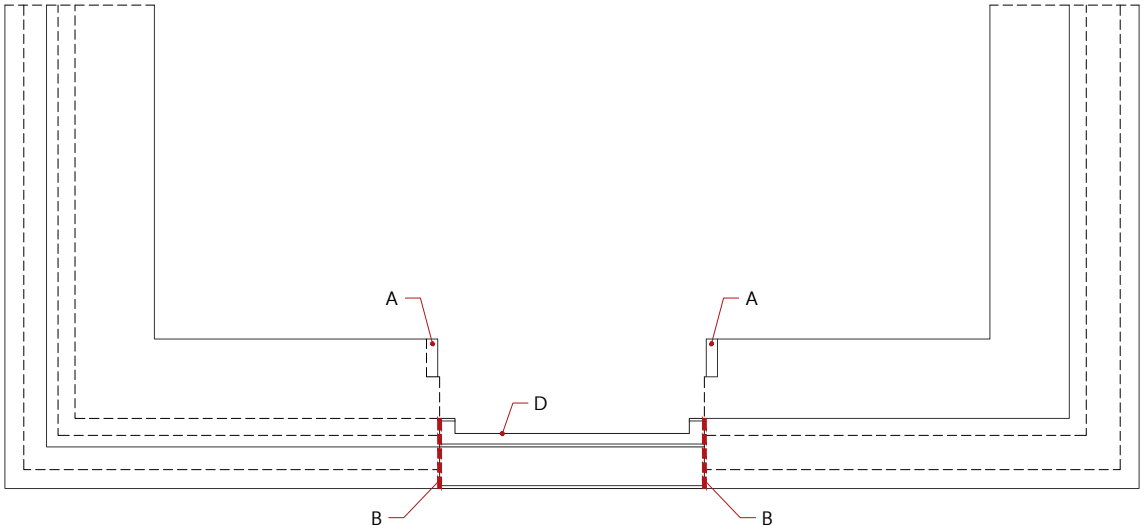
A) Cut-off profile

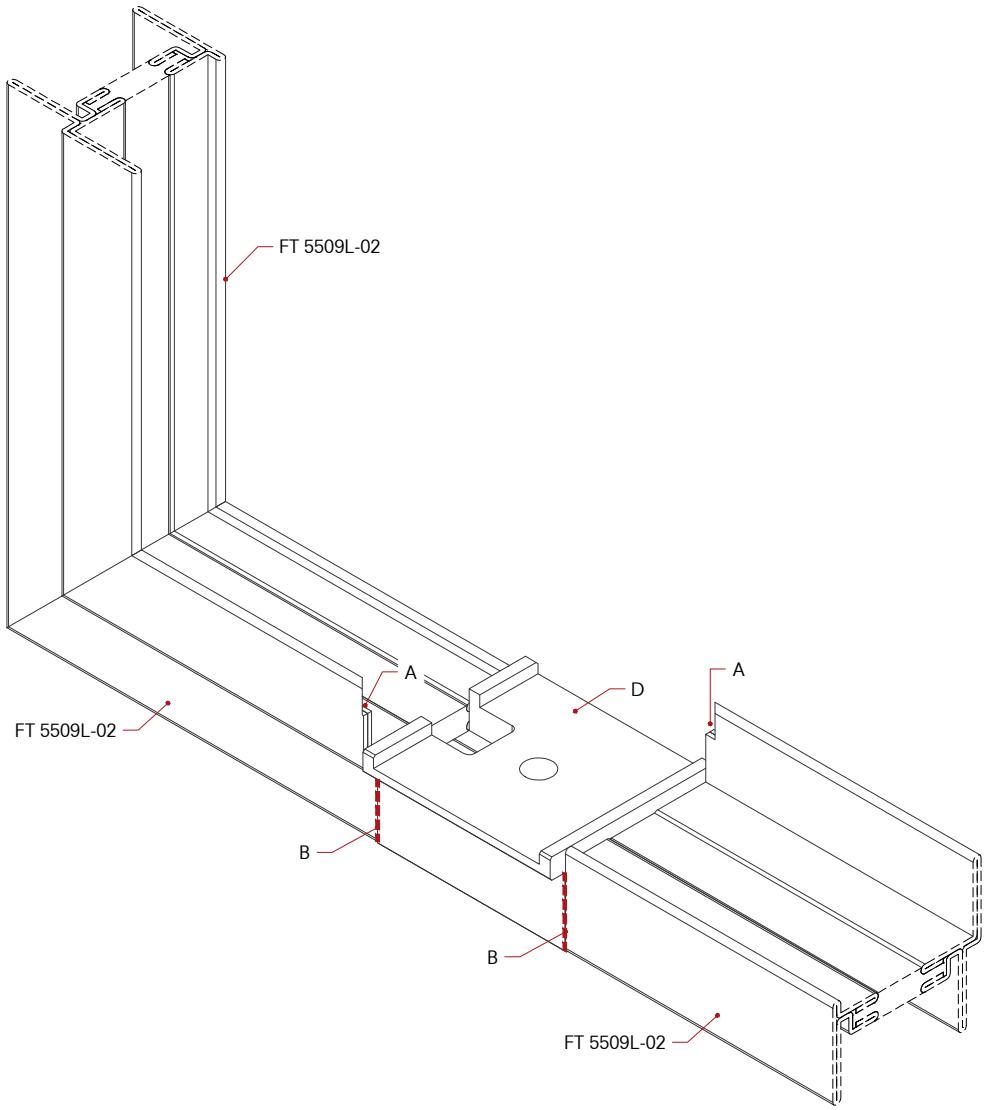
WF = Larghezza telaio
HNG = Larghezza cerniera

A) Taglio del profilo

WF = Longitud marco
HNG = Longitud de bisagra

A) Fresado de perfil





A) Cut-off profile
B) Welding
D) Hinge, frame part

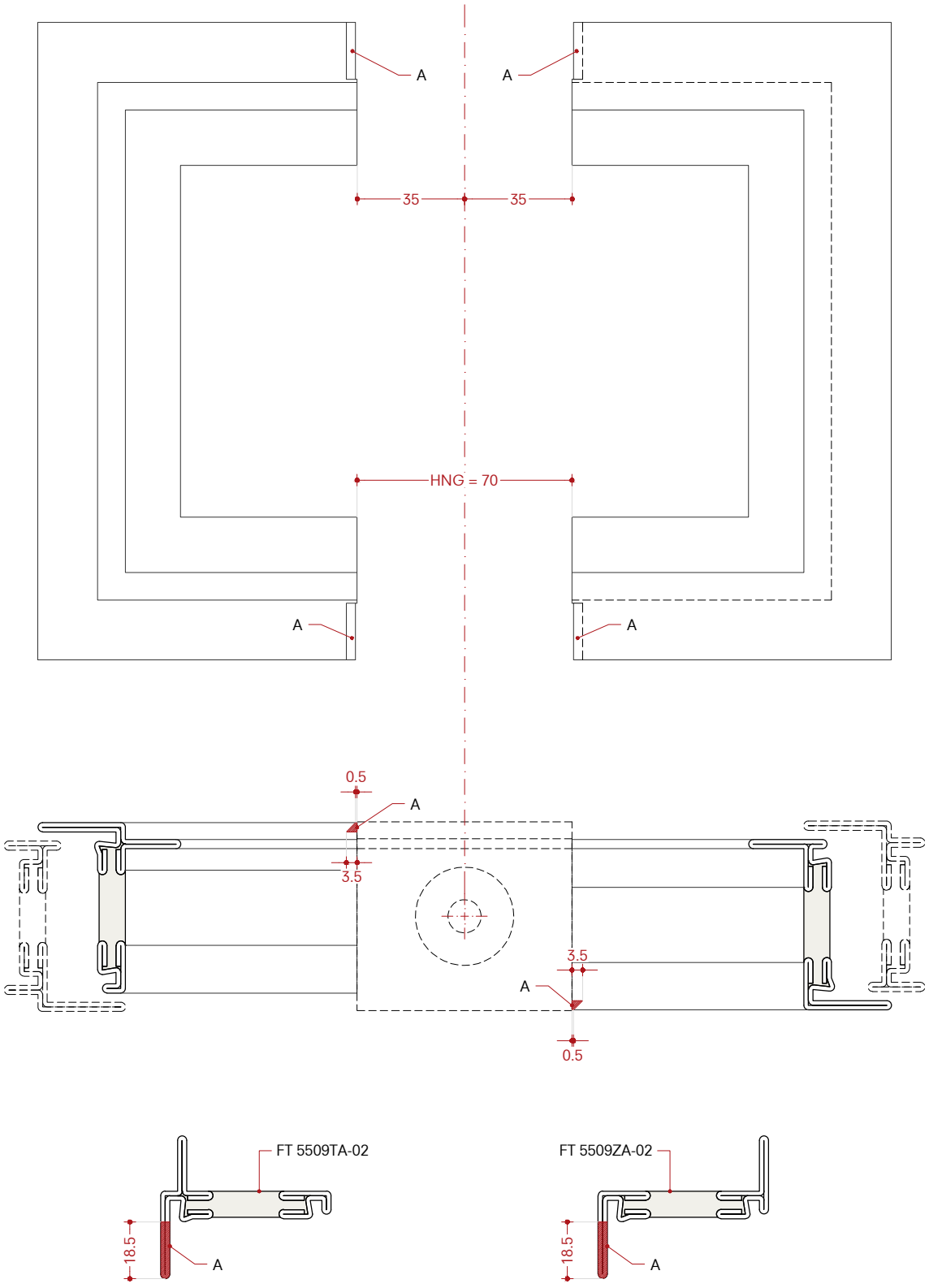
A) Taglio del profilo
B) Saldatura
D) Cerniera, parte telaio

A) Fresado de perfil
B) Soldadura
D) Bisagra, parte del marco

Leaf profile processing
FT 5509TA-02 / FT 5509ZA-02

Lavorazione del profilo dell'anta
FT 5509TA-02 / FT 5509ZA-02

Mecanizado de perfil de hoja
FT 5509TA-02 / FT 5509ZA-02



HNG = Hinge Length

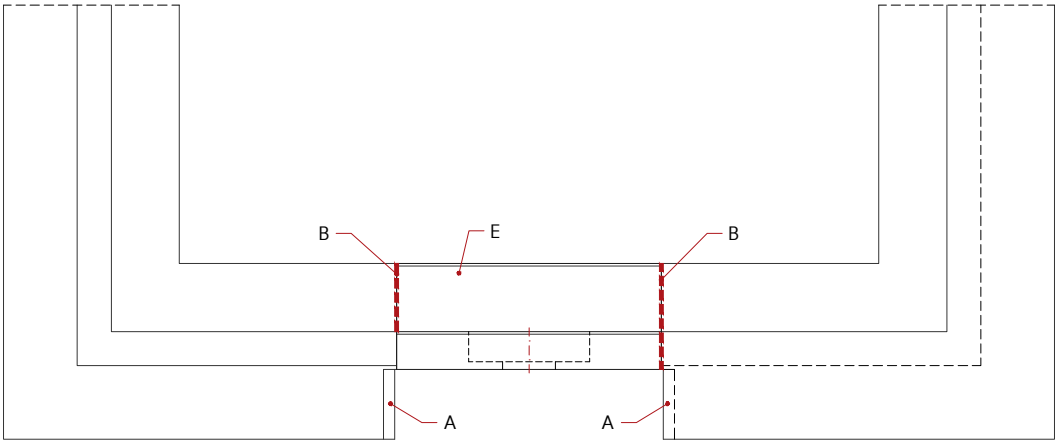
A) Cut-off profile

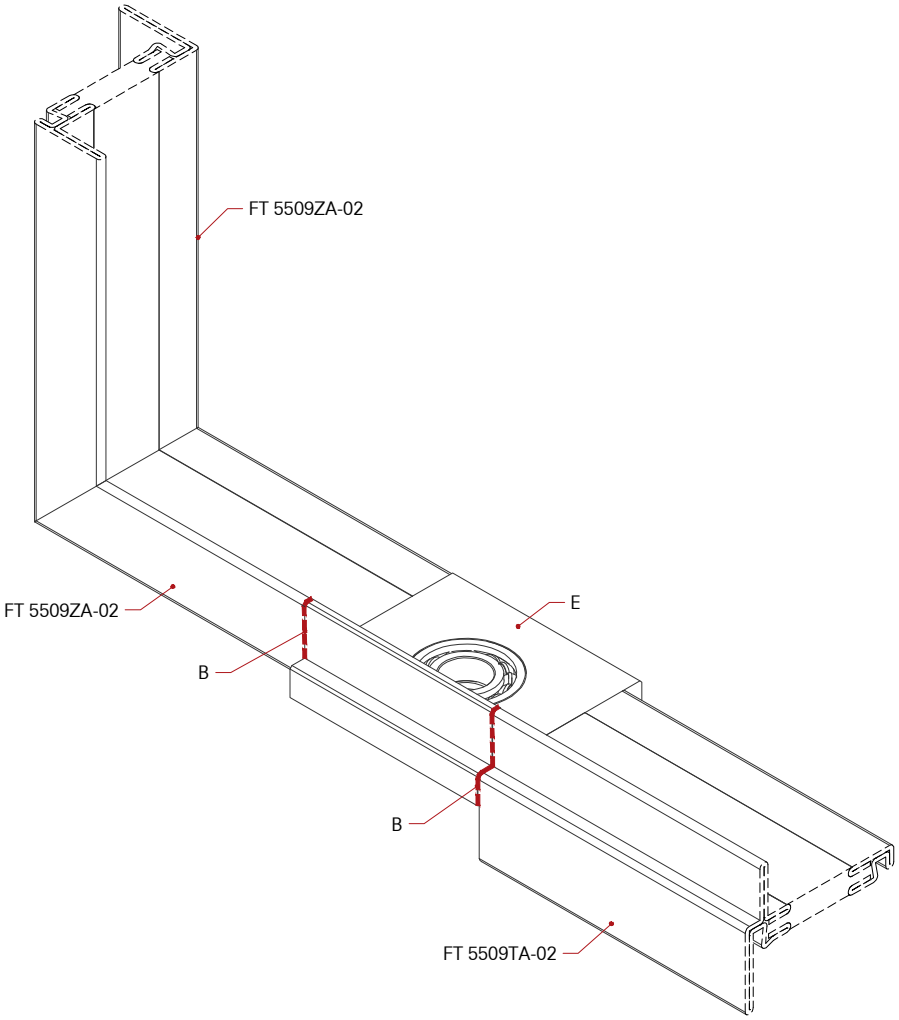
HNG = Larghezza cerniera

A) Taglio del profilo

HNG = Longitud de bisagra

A) Fresado de perfil





A) Cut-off profile
B) Welding
E) Hinge, leaf part

A) Taglio del profilo
B) Saldatura
E) Cerniera, parte anta

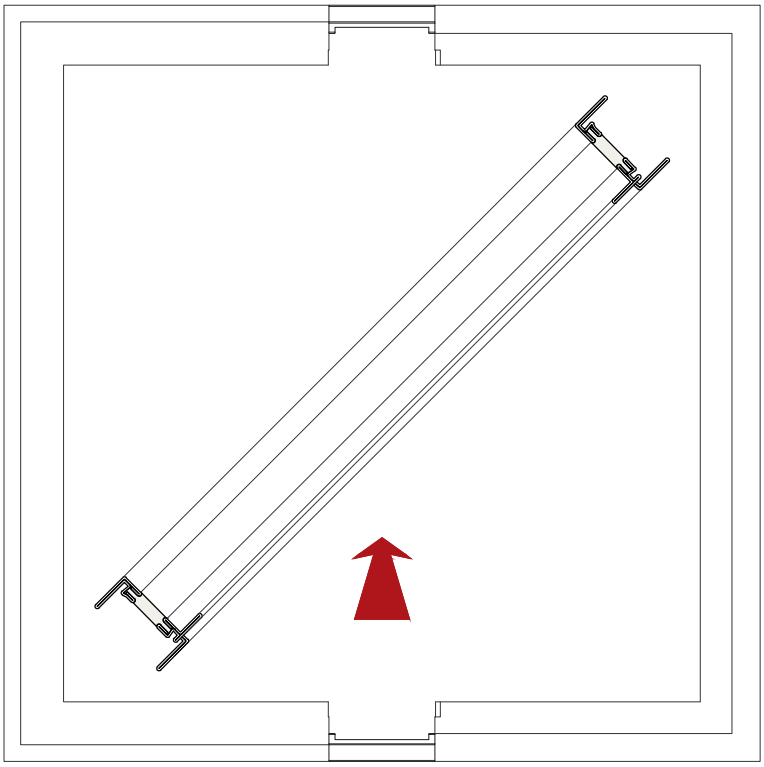
A) Fresado de perfil
B) Soldadura
E) Bisagra, parte del hoja

Window leaf assembly

Montaggio anta finestra

Montaje de la hoja de la ventana

1



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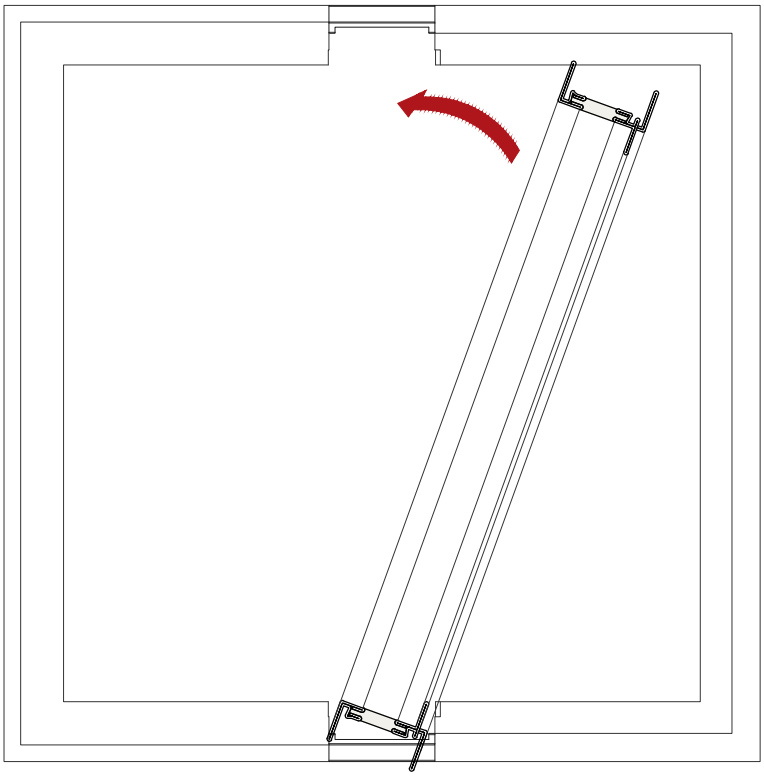

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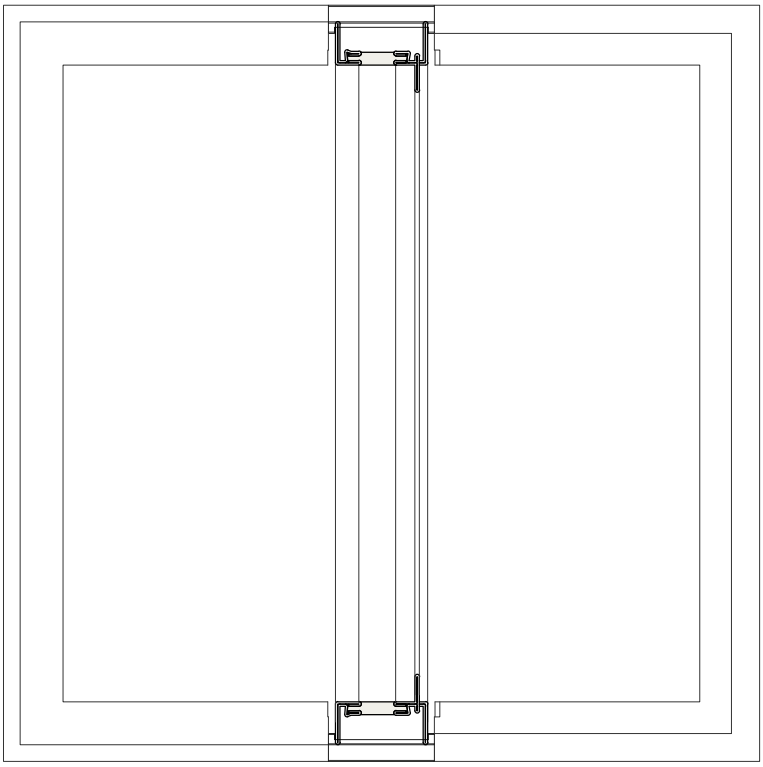

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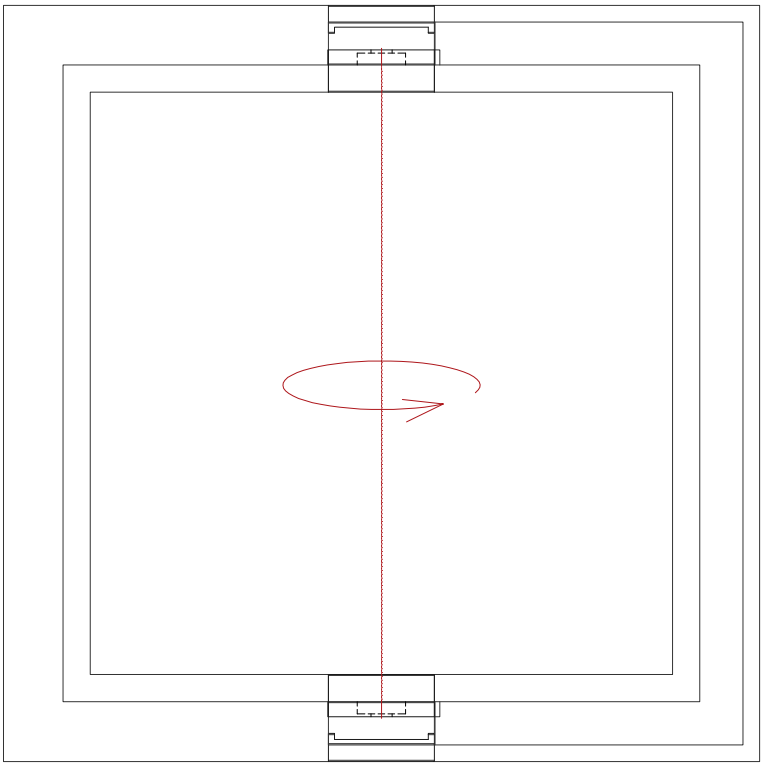
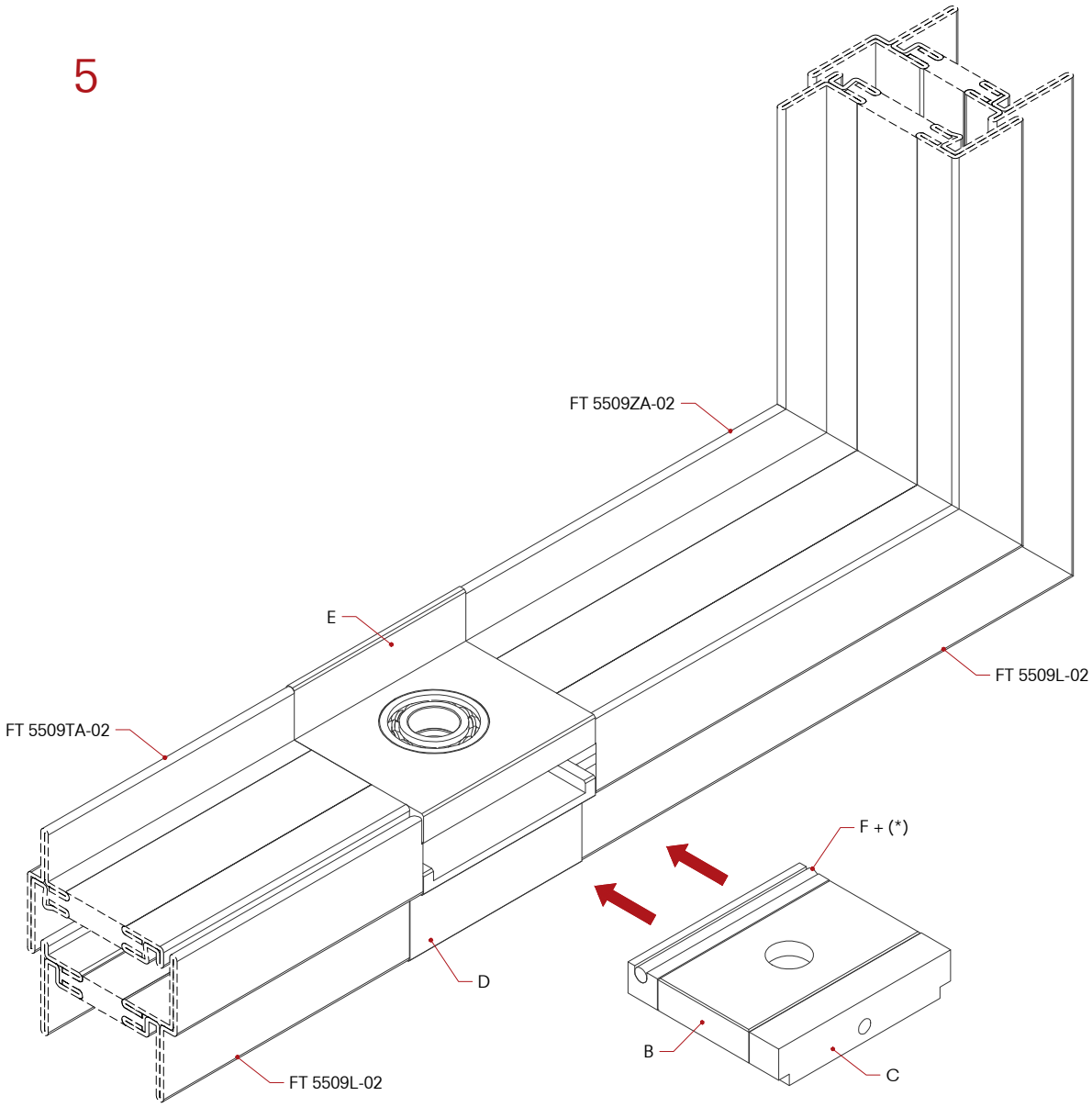


Assembling
C99321-12

Schema di montaggio
C99321-12

Diagrama de montaje
C99321-12

5



B) Skate
C) Shoe holder
D) Hinge, frame part
E) Hinge, leaf part
F) Gasket

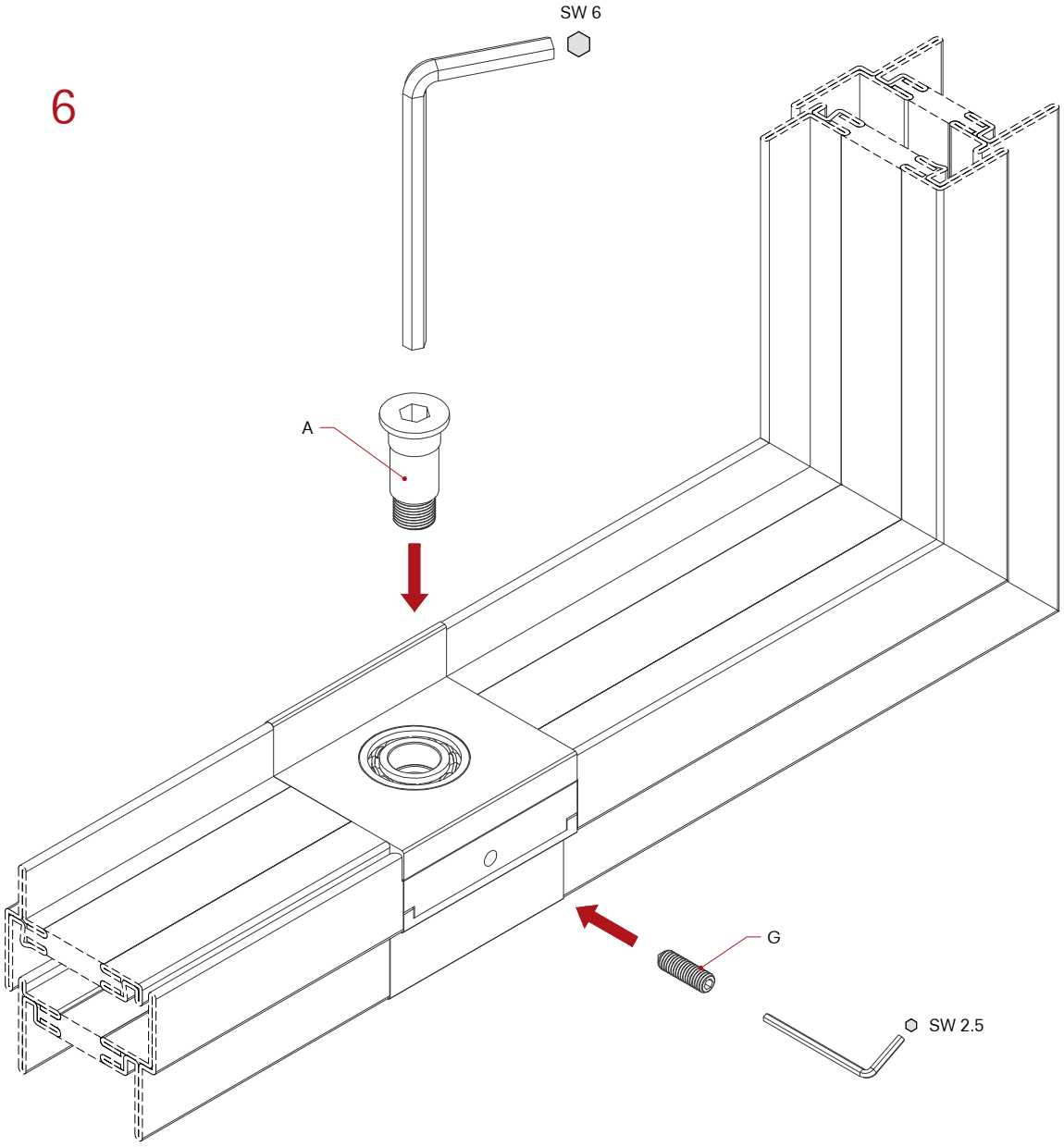
(*) Seal and bond with silicone before assembly

B) Pattino
C) Portapattino
D) Cerniera, parte telaio
E) Cerniera, parte anta
F) Guarnizione

(*) Sigillare e incollare con silicone prima del montaggio

B) Patino
C) Porta patino
D) Bisagra, parte del marco
E) Bisagra, parte del hoja
F) Empaquetadura

(*) Selle y pegue con silicona antes del montaje



A) Pin
G) M6x25 mm ISO4027

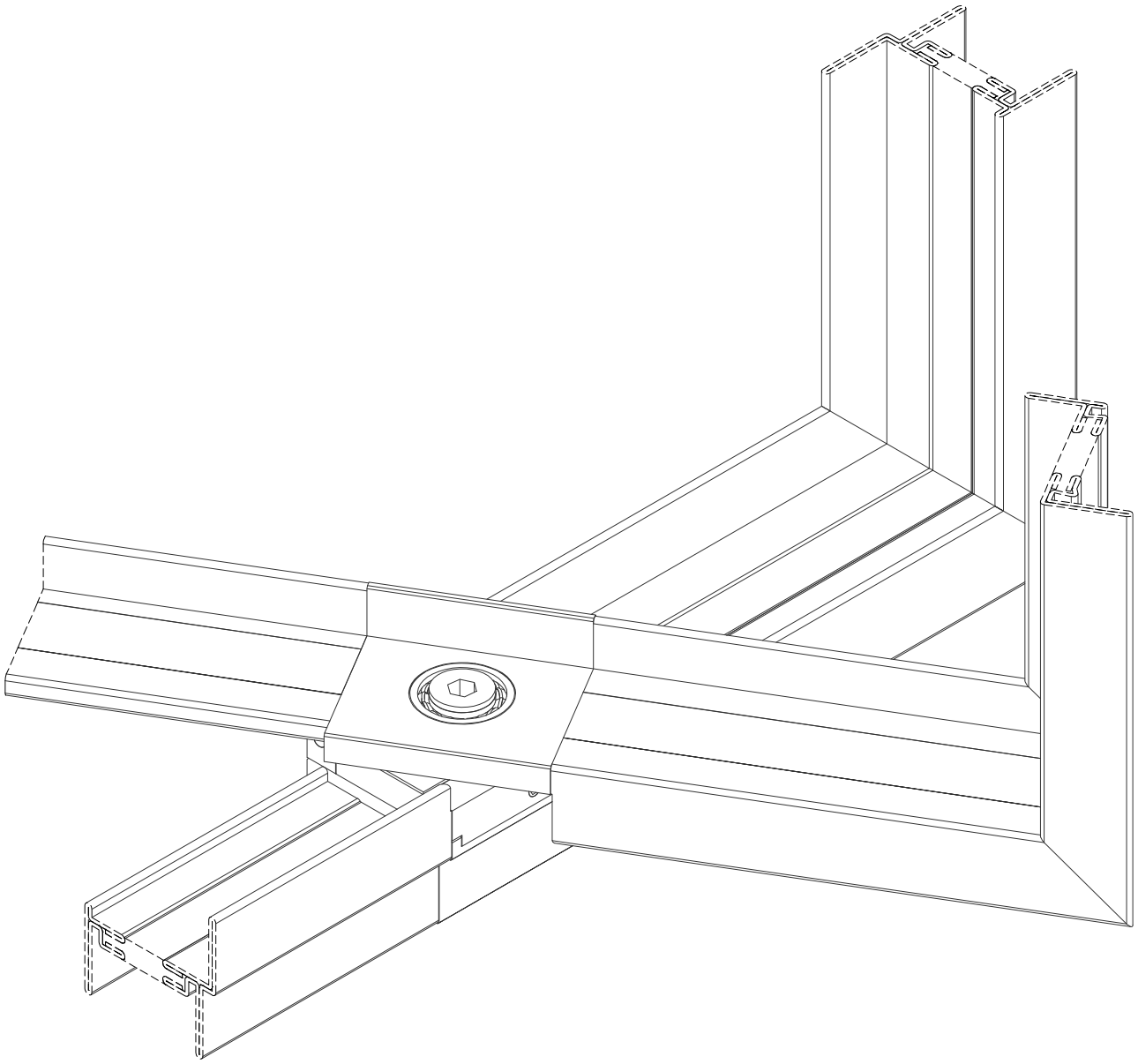
A) Perno
G) Grano M6x25 mm ISO4027

A) Alfiler
G) M6x25 mm ISO4027

Assembling
C99321-12

Schema di montaggio
C99321-12

Diagrama de montaje
C99321-12

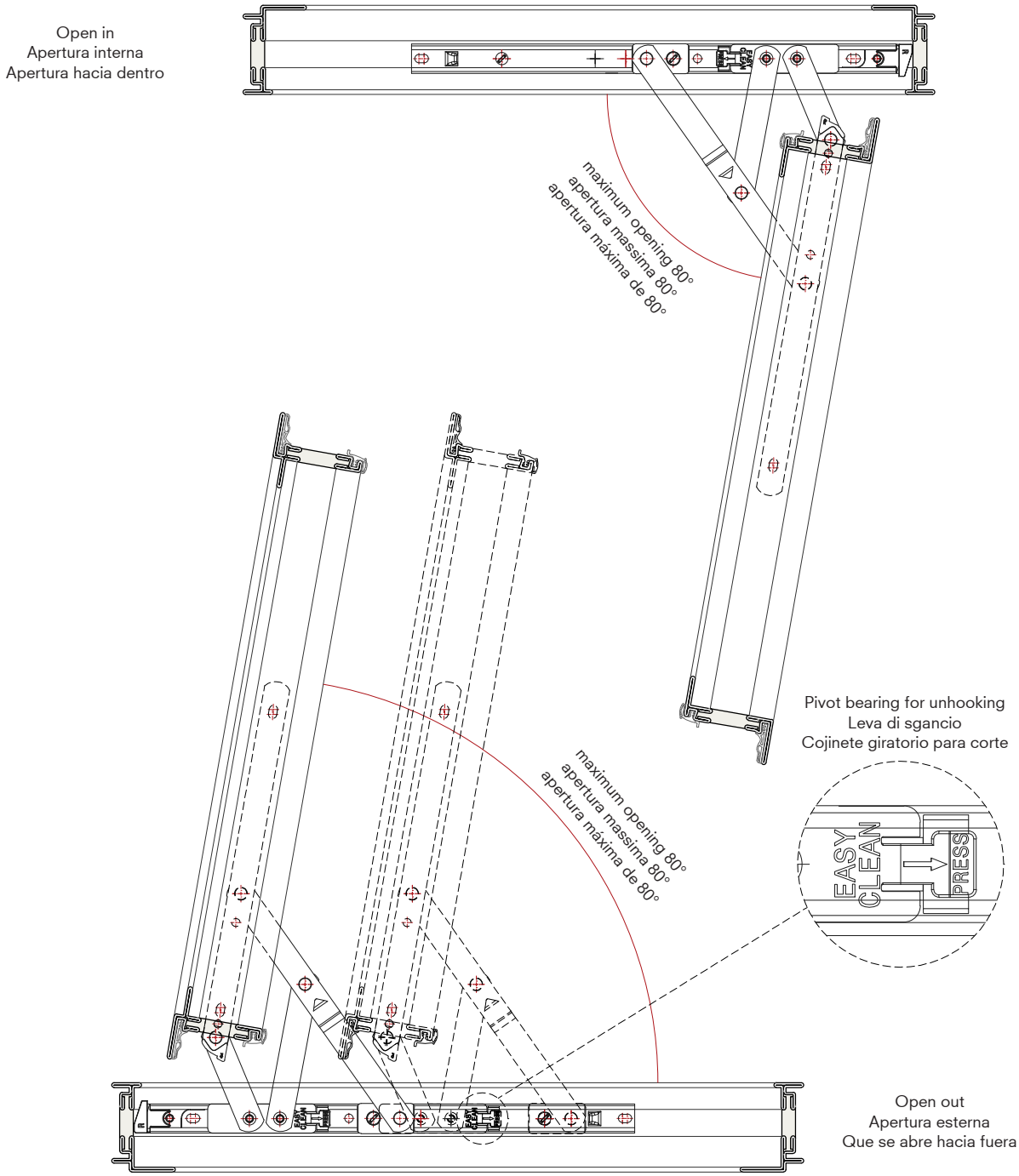


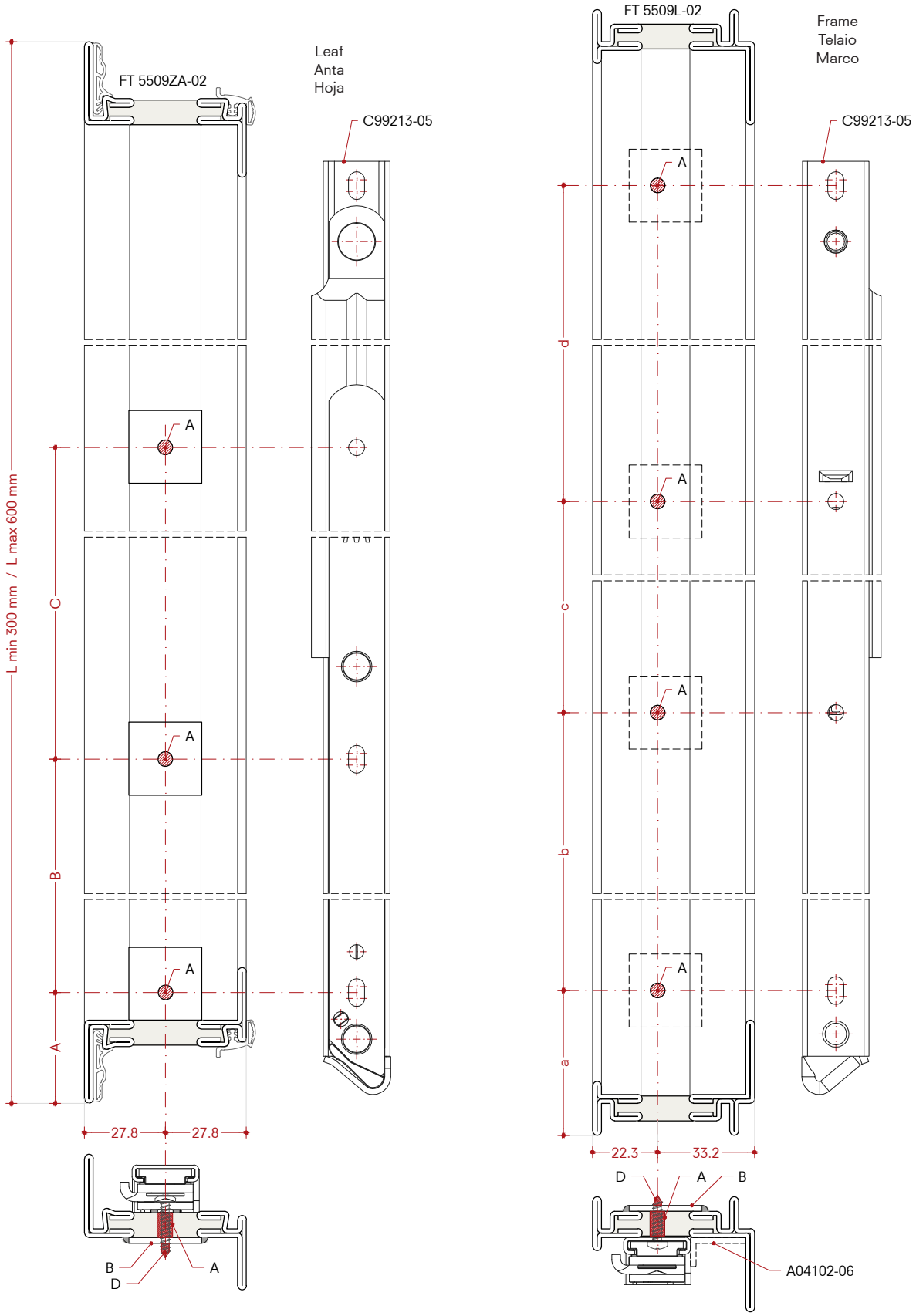
Installation
Friction stay C9921X-05

Montaggio
Bracci portanti C9921X-05

Montaje
Cizalla de apertura C9921X-05

	A	B	C	a	b	c	d	Capacity (pair) Portata (coppia) Capacidad (par) [Kg]	Height window Altezza finestra Altura ventana [mm]	Opening angle Angolo di apertura Ángulo de apertura
C99210-05	35.5	55.3	133	50.6	96.9	171.5	-	22	300÷600	80°
C99211-05	35.5	108.8	213.7	50.6	96.9	273.1	-	24	400÷700	90°
C99212-05	38	34	131.1	49.7	177.8	40.4	-	38	300÷660	85°
C99213-05	40	118.4	122.8	47.7	133.7	88.3	148.6	55	450÷840	60°





A) Ø5 mm holes
B) 25x25x2 mm plate welded on profile (not provided)
C) Ø12 mm stainless steel washer (not provided)
D) Fastening with Ø3.5x19 mm ISO7049 screws and cut the screws

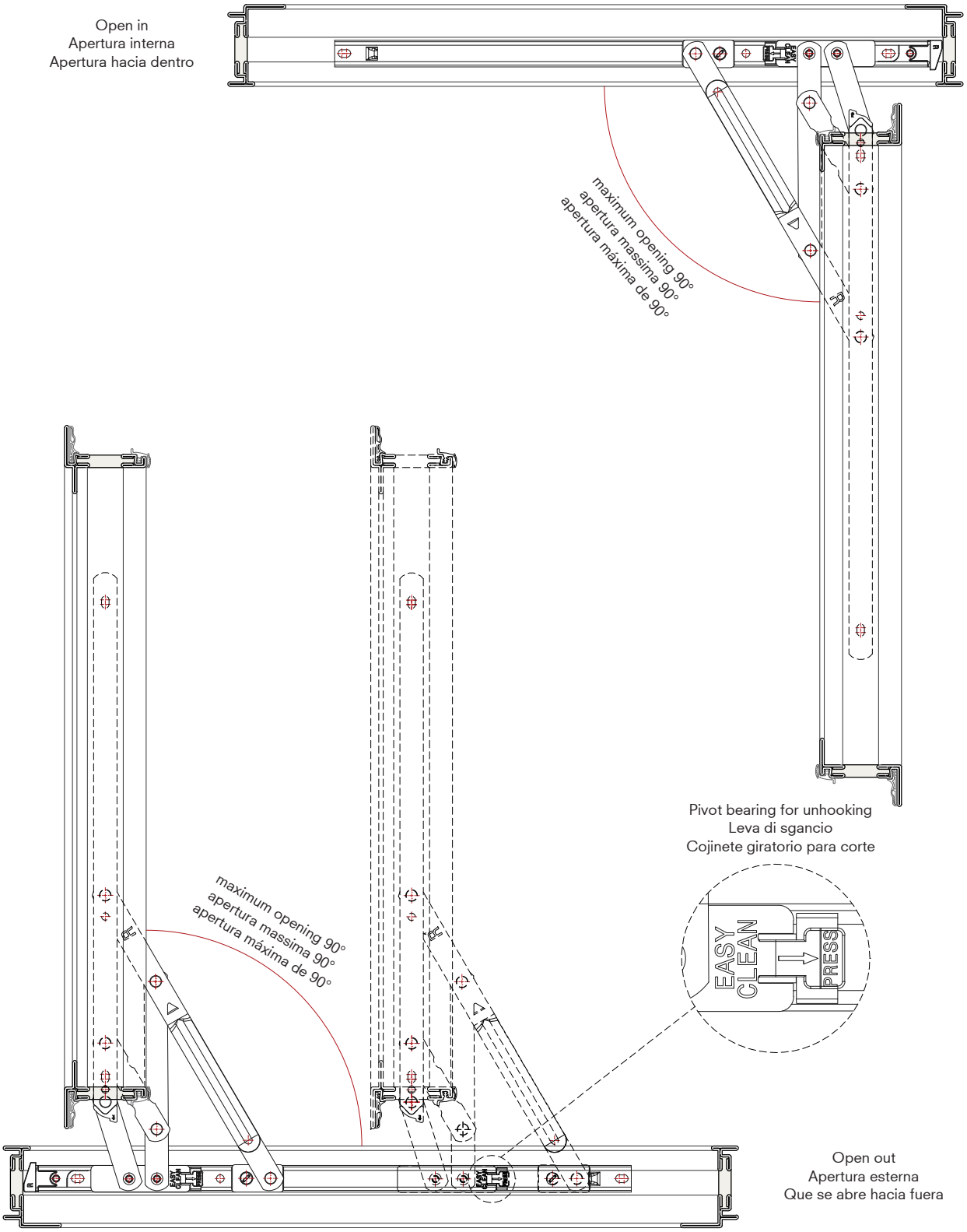
A) Fori Ø5 mm
B) Piastra 25x25x2 mm saldata al profilo (non fornita)
C) Rondella in acciaio inox Ø12 mm (non fornita)
D) Fissaggio con viti Ø3.5x19 mm ISO7049 e accorciare la vite

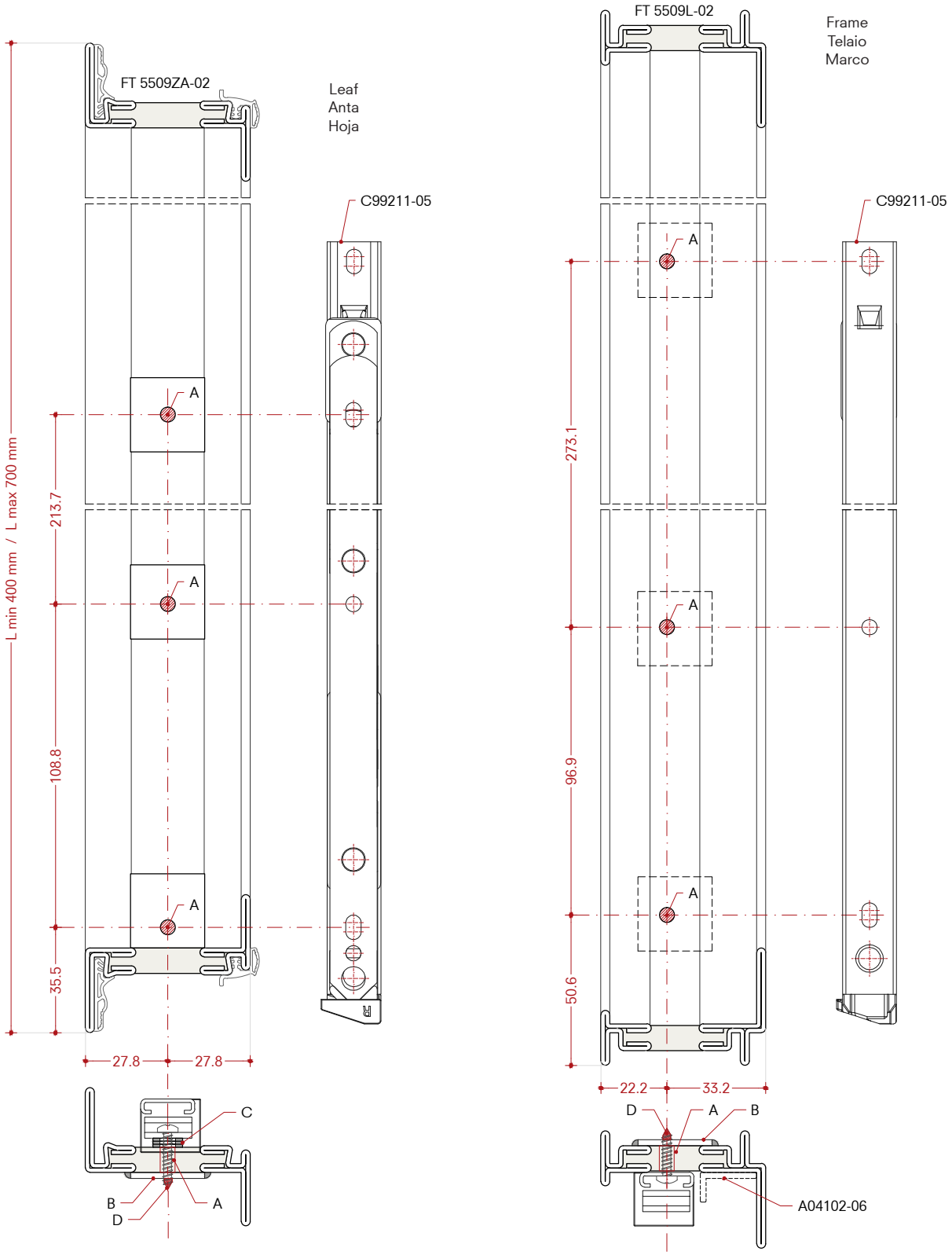
A) Oreficios Ø5 mm
B) Placa 25x25x2 mm soldada en perfil (no provisto)
C) Disco de acero inoxidable Ø12 mm (no provisto)
D) Fijación con tornillos Ø3.5x19 mm ISO7049 y recortar tornillo

Installation
Friction stay C99211-05

Montaggio
Bracci portanti C99211-05

Montaje
Cizalla de apertura C99211-05





A) Ø5 mm holes
B) 25x25x2 mm plate welded on profile (not provided)
C) Ø10 mm stainless steel washer (not provided)
D) Fastening with Ø3.5x19 mm ISO7049 screws and cut the screws

A) Fori Ø5 mm
B) Piastra 25x25x2 mm saldata al profilo (non fornita)
C) Rondella in acciaio inox Ø10 mm (non fornita)
D) Fissaggio con viti Ø3.5x19 mm ISO7049 e accorciare la vite

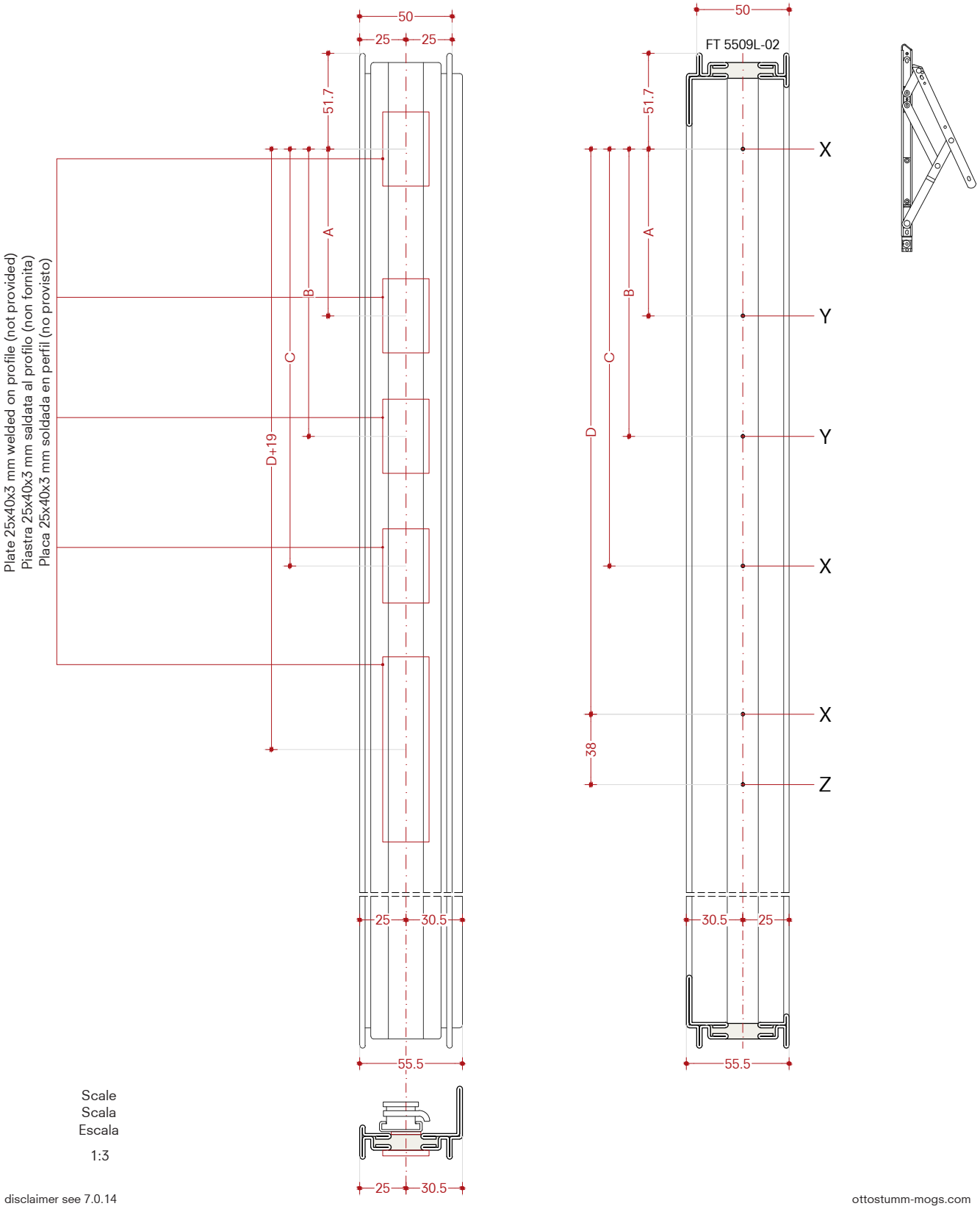
A) Oreficios Ø5 mm
B) Placa 25x25x2 mm soldada en perfil (no provisto)
C) Disco de acero inoxidable Ø10 mm (no provisto)
D) Fijación con tornillos Ø3.5x19 mm ISO7049 y recortar tornillo

Installation
Friction stay for top hung
Open out window

Montaggio
Braccio portante a sporgere
Finestra apertura esterna

Montaje
Cizalla de apertura descendente
Ventana que abre hacia fuera

	Capacity (pair) Portata (coppia) Capacidad (par) [Kg]	Height window Altezza finestra Altura ventana [mm]	Opening angle Angolo di apertura Ángulo de apertura
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°



Scale
Scala
Escala

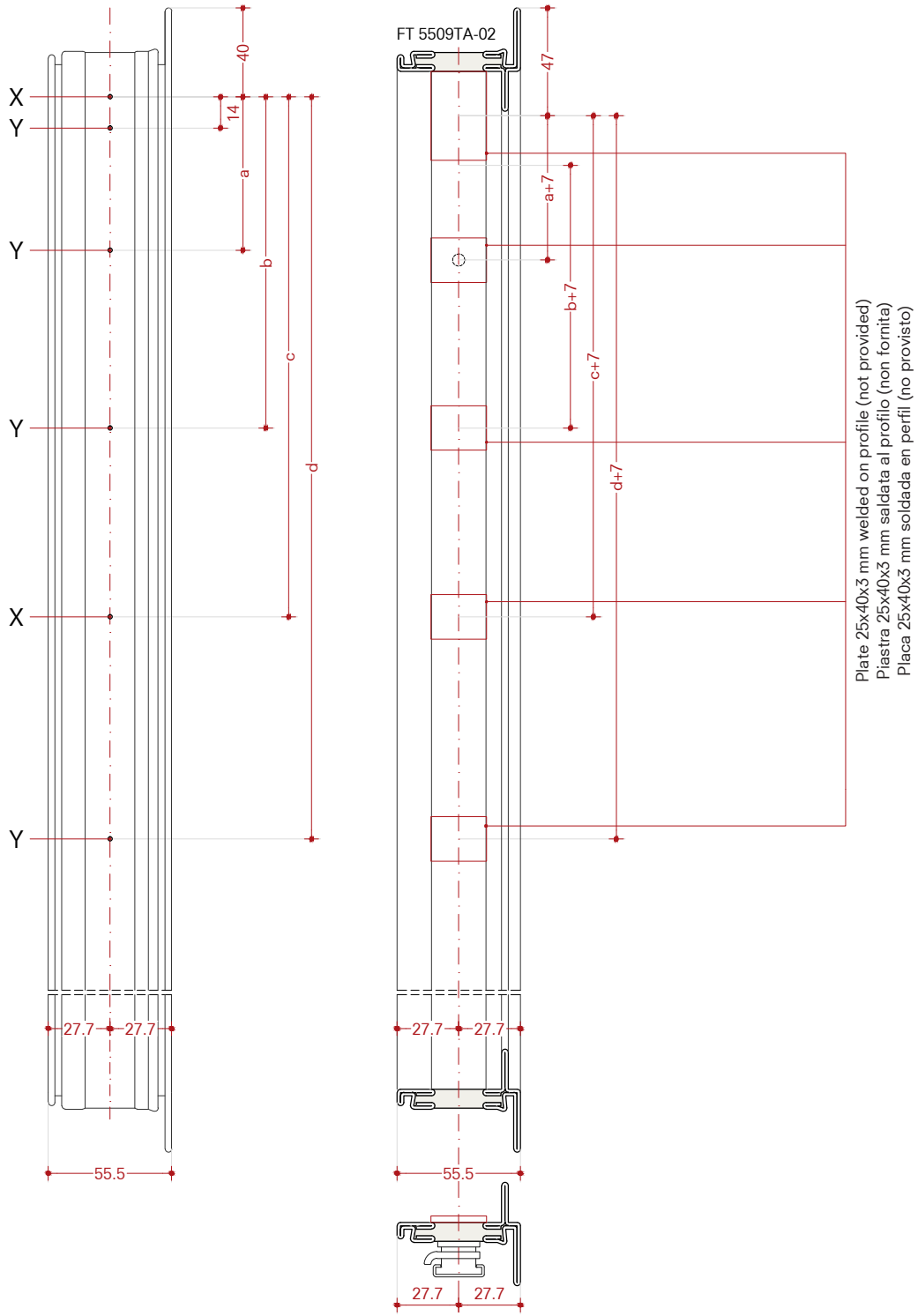
1:3

Table with distances between holes Tabella con passi di foratura Tabla con distancias de taladros								
	A (y)	B (y)	C (x)	D (x)	a (y)	b (y)	c (x)	d (y)
C99201-05	177.8	-	-	218.2	40.8	-	165.1	-
C99202-05	212.7	-	-	269.0	65.0	-	190.1	-
C99203-05	215.7	304.0	-	370.6	118.4	-	541.2	-
C99204-05	133.7	222.0	-	370.6	-	-	118.4	241.2
C99205-05	251.3	418.3	-	523.0	65.0	203.2	317.4	-
C99206-05	295.4	-	-	526.5	80.0	-	235.75	350.0
C99207-05	161.4	292.4	584.5	638.5	65.0	189.0	314.4	383.9

X M5 hole on profile
M5x14 mm ISO7045 screw
Foro M5 su profilo
Vite M5x14 mm ISO7045
Orificio M5 en perfil
Tornillo M5x14 mm ISO7045

Y Ø4.8x19 mm ISO7049
(Screws must be cut)
Ø4.8x19 mm ISO7049
(Le viti devono essere accorciate)
Ø4.8x19 mm ISO7049
(Los tornillos deben colocarse en cruz)

Z Hole Ø7 mm
Foro Ø7 mm
Orificio Ø7 mm



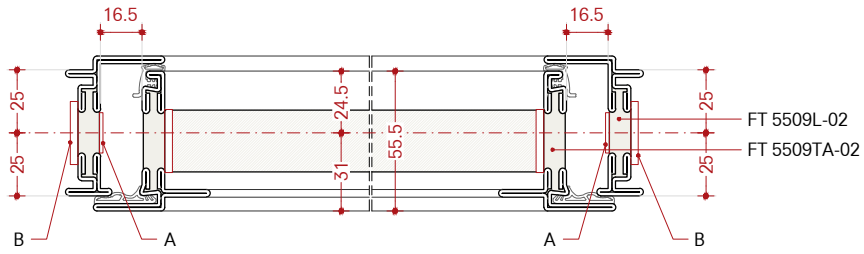
Scale
Scala
Escala

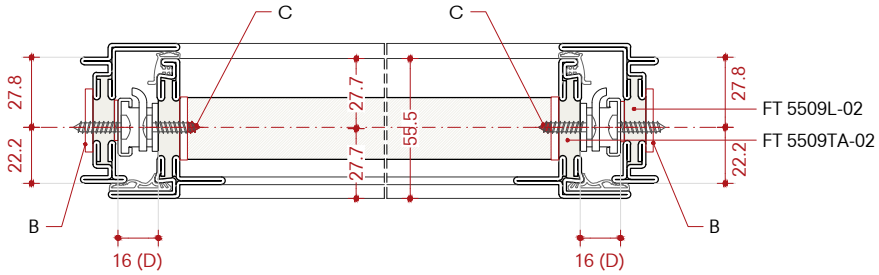
1:3

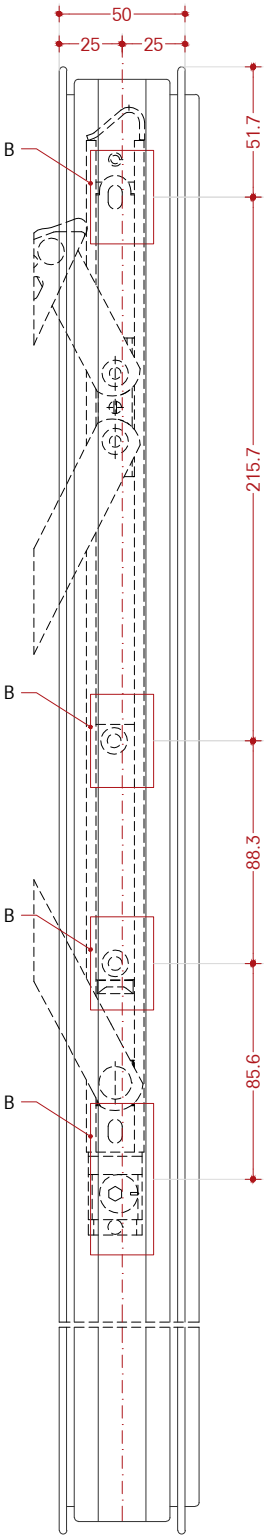
Installation
Example for friction stay C99203-05 up to 65 kg
Window height 800-1090 mm
Opening angle of 55°

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
M5x14 mm ISO7045 screw
Foro M5 su profilo
Vite M5x14 mm ISO7045
Orificio M5 en perfil
Tornillo M5x14 mm ISO7045

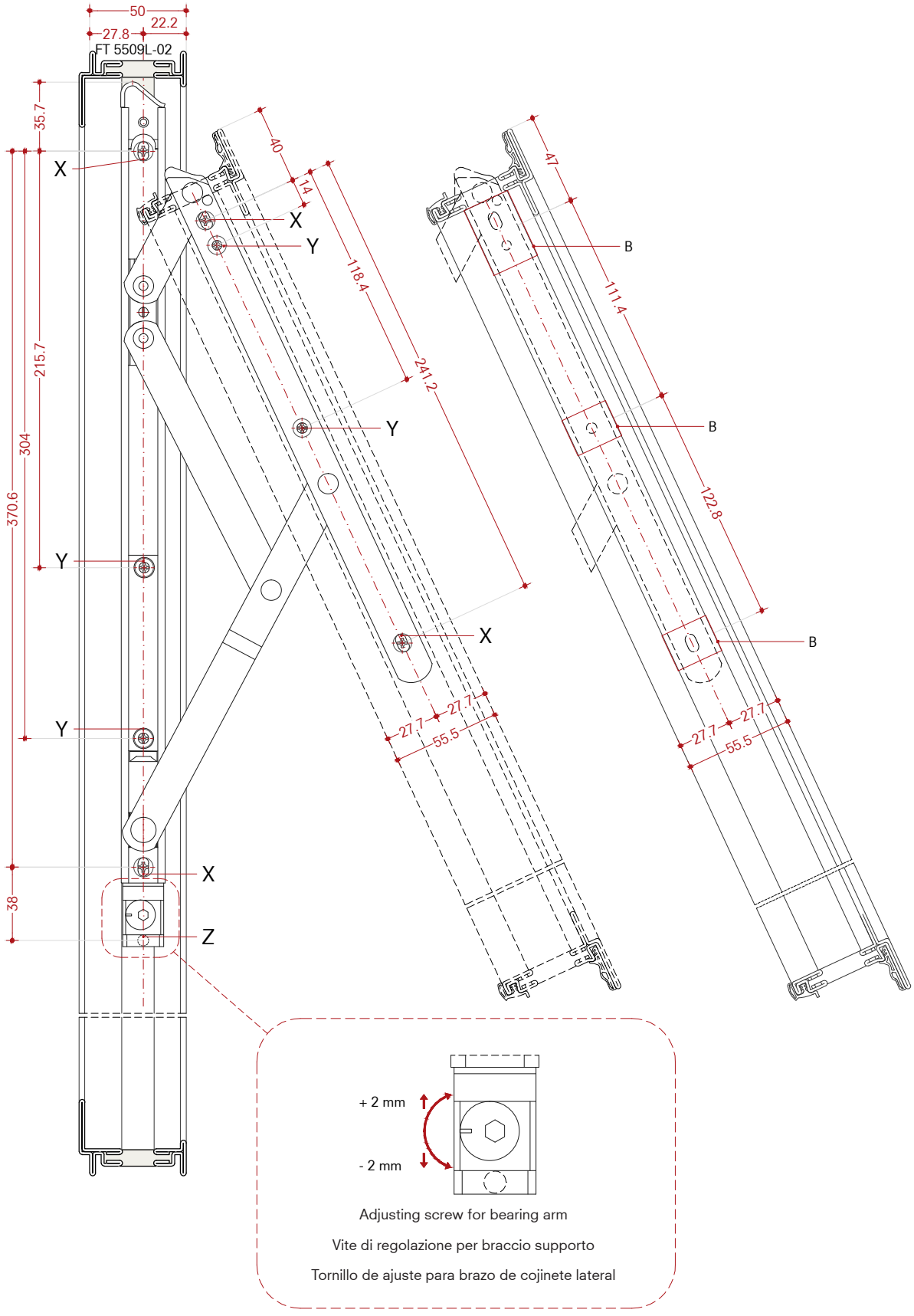
Y Ø4.8x19 mm ISO7049
(Screws must be cut)
Ø4.8x19 mm ISO7049
(Le viti devono essere accorciate)
Ø4.8x19 mm ISO7049
(Los tornillos deben colocarse en cruz)

Z Hole Ø7 mm
Foro Ø7 mm
Orificio Ø7 mm

Scale 1:3
A) 16x1.5 mm L=450 mm plate welded on profile (not provided)
B) 25x40x3 mm plate welded on profile (not provided)
C) Cut the screws
D) Friction stay - 16 mm

Scala 1:3
A) Piastra 16x1.5 mm L=450 mm saldata al profilo (non fornita)
B) Piastra 25x40x3 mm saldata al profilo (non fornita)
C) Accorciare la vite
D) Braccio a sporgere - 16 mm

Escala 1:3
A) Placa 16x1.5 mm L=450 mm soldada en perfil (no provisto)
B) Placa 25x40x3 mm soldada en perfil (no provisto)
C) Recortar tornillo
D) Cizalla descendente plegable - 16 mm


50
22.2
27.8
FT 5509L-02
35.7
215.7
304
370.6
38
X
Y
Z
40
14
118.4
241.2
27.7
27.7
55.5
47
111.4
122.8
B
+ 2 mm
- 2 mm
Adjusting screw for bearing arm
Vite di regolazione per braccio supporto
Tornillo de ajuste para brazo de cojinete lateral

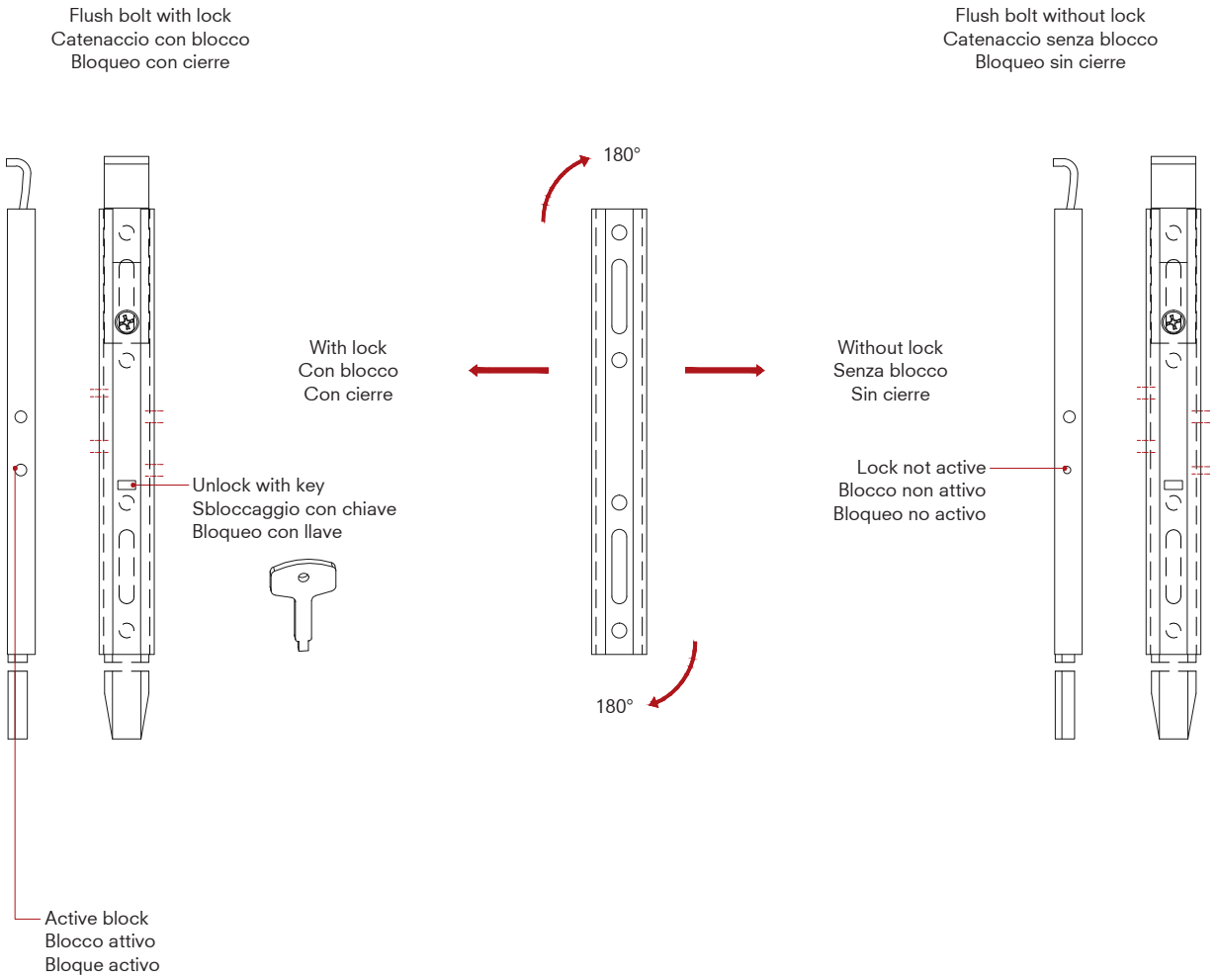
Accessories installation: **Montaggio accessori:** **Montaje accesorios:**

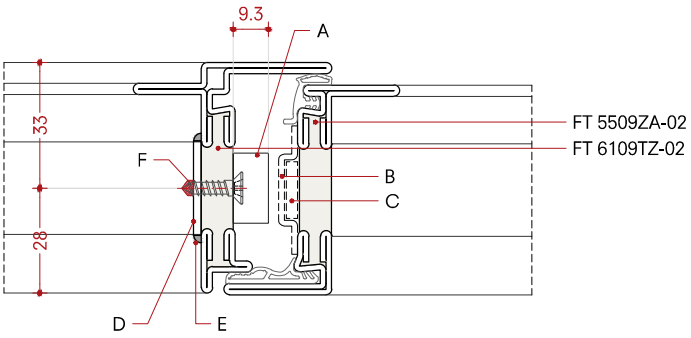
Flush bolts **Catenacci** **Pasador de canto** 5.7

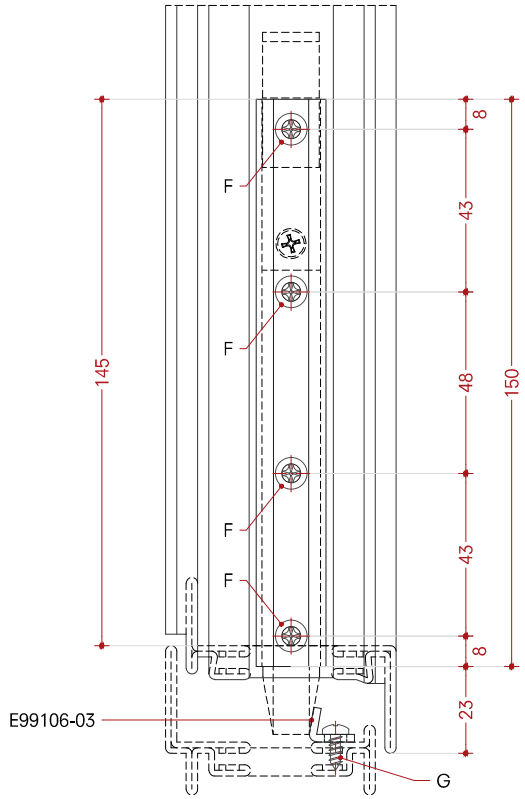
Installation
Flush bolt E99001-nn
(with or without lock)
L = 150 mm

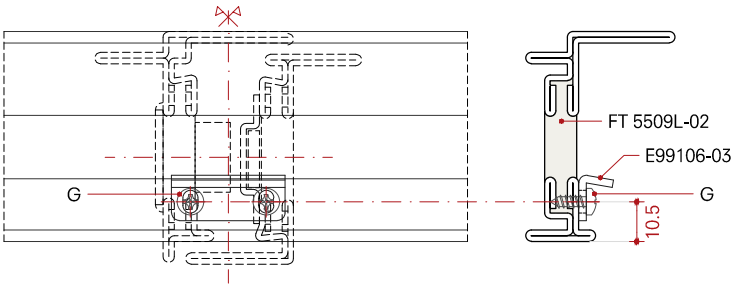
Montaggio
Catenaccio E99001-nn
(con o senza blocco)
L = 150 mm

Montaje
Pasador de canto E99001-nn
(con o sin cierre)
L = 150 mm









A) Flush bolt
B) Rod guide
C) Rod 15x3 mm
D) 25x2 mm L=145 mm plate welded on profile (not provided)
E) Welding
F) Fastening with Ø4.2x16 ISO7050 screws and cut the screws
G) Fastening with Ø3.5x9.5 ISO7049 screws

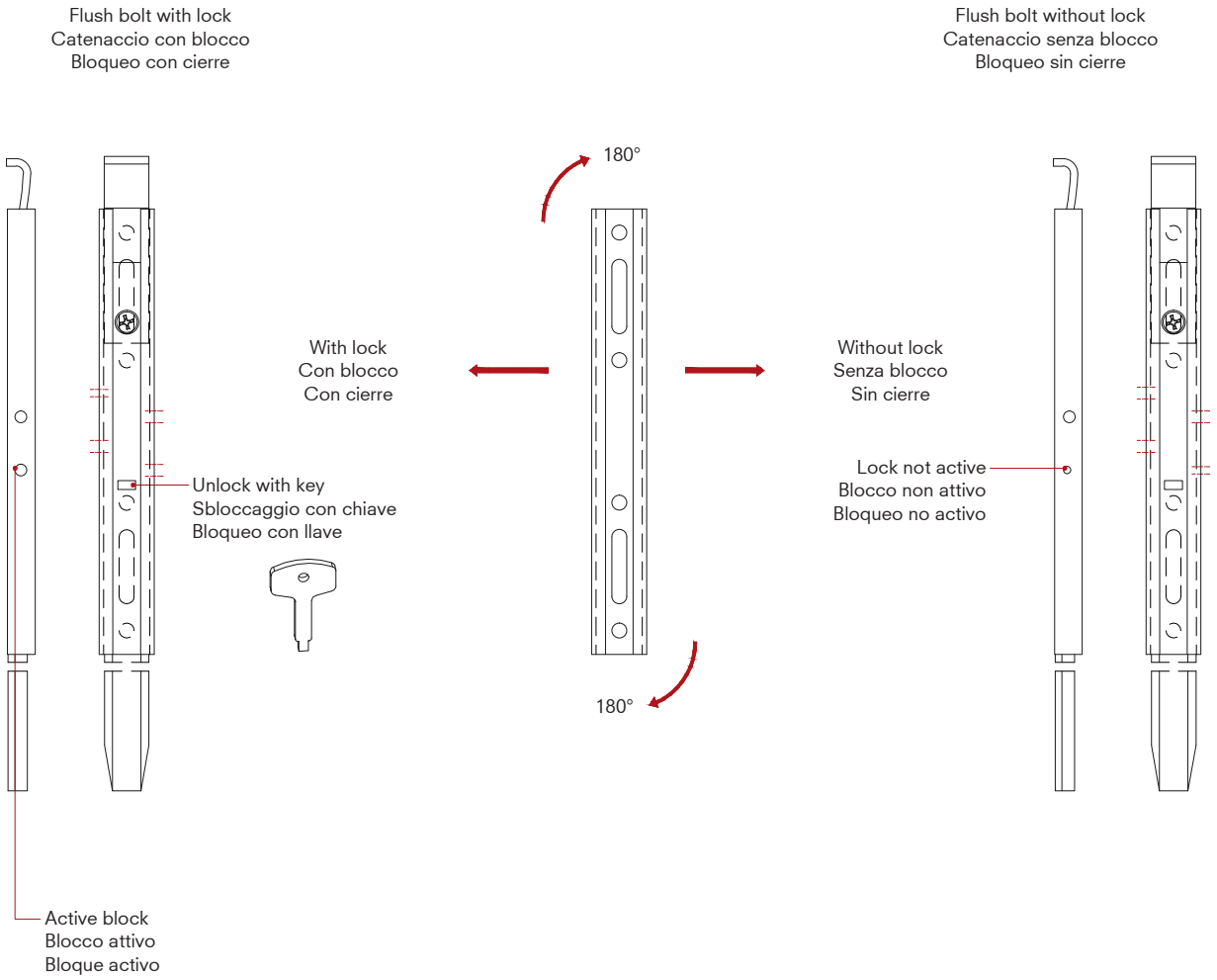
A) Catenaccio
B) Rod guide
C) Asta 15x3 mm
D) Piastra 25x2 mm L=145 mm saldata al profilo (non fornita)
E) Saldatura
F) Fissaggio con viti Ø4.2x16 ISO7050
G) Fissaggio con viti Ø3.5x9.5 ISO7049

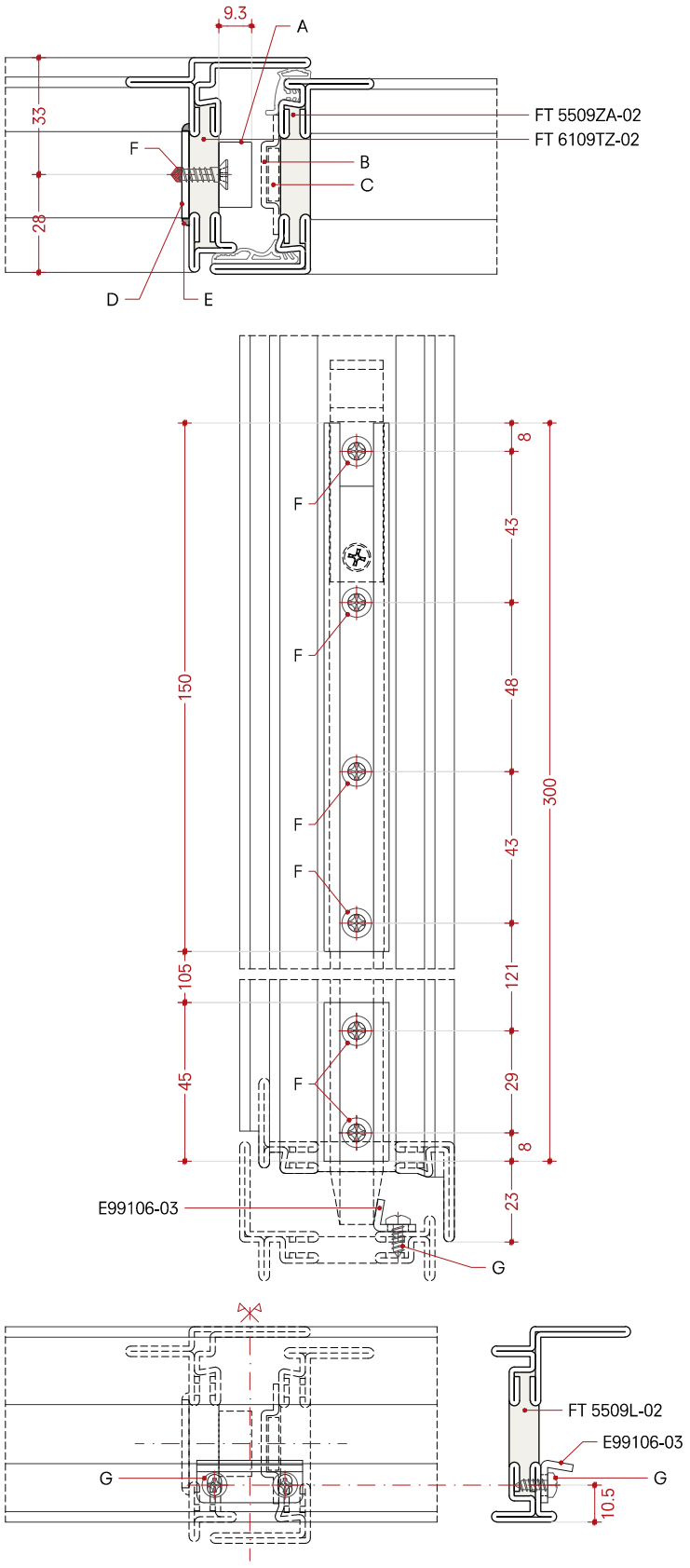
A) Bloqueo
B) Guía de barra
C) Barra de empuje15x3 mm
D) Placa 25x2 mm L=145 mm soldada en perfil (no provisto)
E) Soldadura
F) Fijación con tornillos Ø3.5x19 mm ISO7049 y recortar tornillo
G) Fijación con tornillos Ø3.5x9.5 ISO7049

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) Rod guide
C) Rod 15x3 mm
D) 25x2 mm L=145 mm plate welded on profile (not provided)
E) Welding
F) Fastening with Ø4.2x16 ISO7050 screws and cut the screws
G) Fastening with Ø3.5x9.5 ISO7049 screws

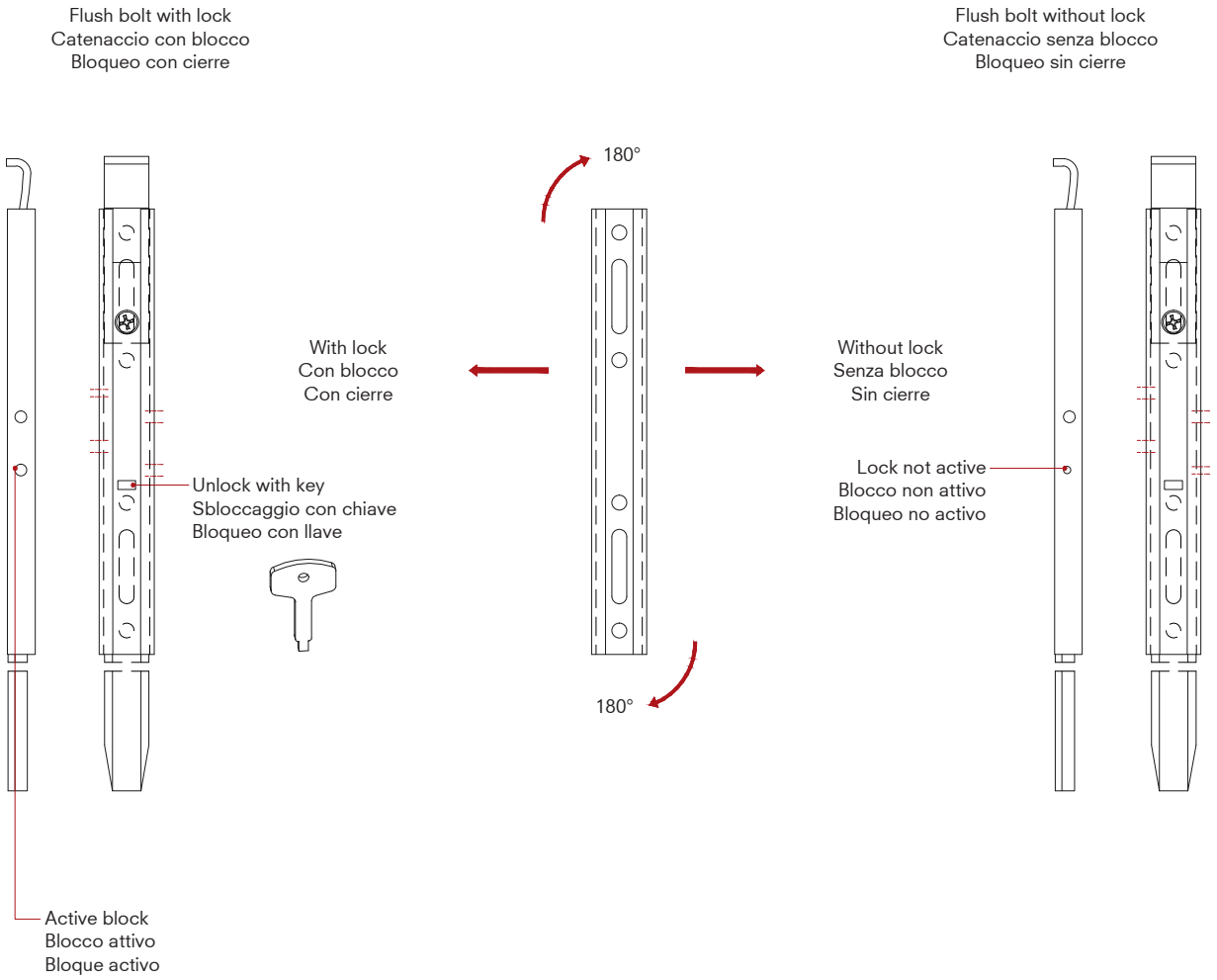
A) Catenaccio
B) Rod guide
C) Asta 15x3 mm
D) Piastra 25x2 mm L=145 mm saldata al profilo (non fornita)
E) Saldatura
F) Fissaggio con viti Ø4.2x16 ISO7050
G) Fissaggio con viti Ø3.5x9.5 ISO7049

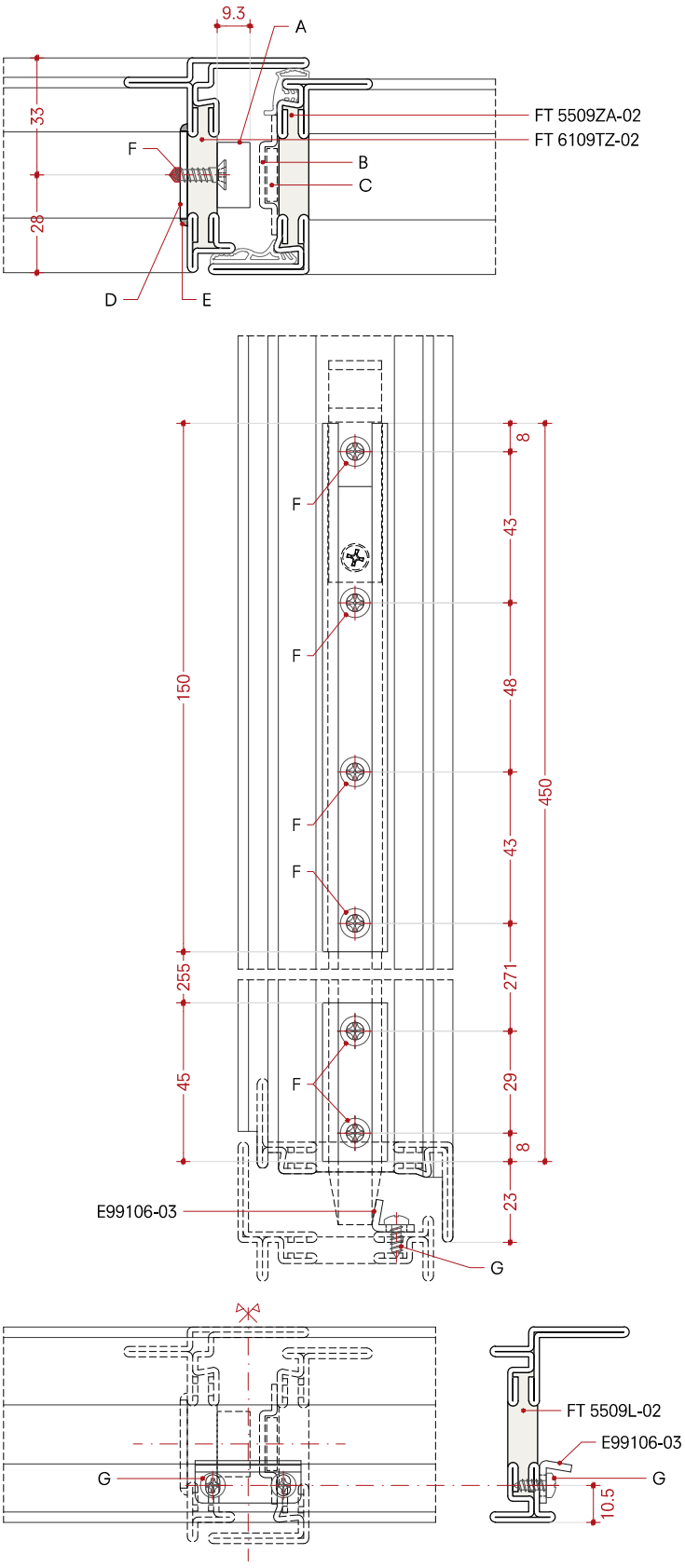
A) Bloqueo
B) Guía de barra
C) Barra de empuje15x3 mm
D) Placa 25x2 mm L=145 mm soldada en perfil (no provisto)
E) Soldadura
F) Fijación con tornillos Ø3.5x19 mm ISO7049 y recortar tornillo
G) Fijación con tornillos Ø3.5x9.5 ISO7049

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





A) Flush bolt
B) Rod guide
C) Rod 15x3 mm
D) 25x2 mm L=145 mm plate welded on profile (not provided)
E) Welding
F) Fastening with Ø4.2x16 ISO7050 screws and cut the screws
G) Fastening with Ø3.5x9.5 ISO7049 screws

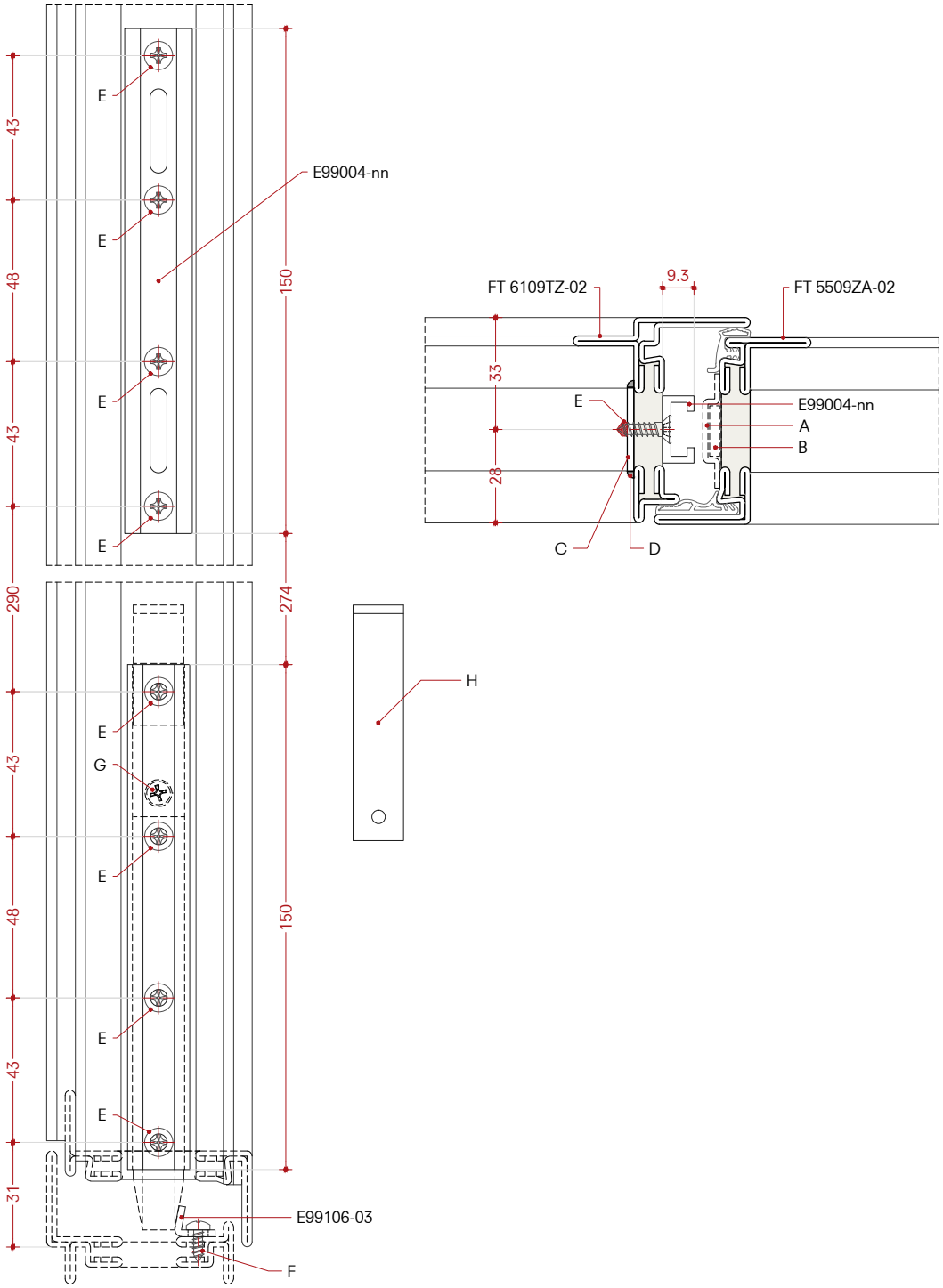
A) Catenaccio
B) Rod guide
C) Asta 15x3 mm
D) Piastra 25x2 mm L=145 mm saldata al profilo (non fornita)
E) Saldatura
F) Fissaggio con viti Ø4.2x16 ISO7050
G) Fissaggio con viti Ø3.5x9.5 ISO7049

A) Bloqueo
B) Guía de barra
C) Barra de empuje15x3 mm
D) Placa 25x2 mm L=145 mm soldada en perfil (no provisto)
E) Soldadura
F) Fijación con tornillos Ø3.5x19 mm ISO7049 y recortar tornillo
G) Fijación con tornillos Ø3.5x9.5 ISO7049

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

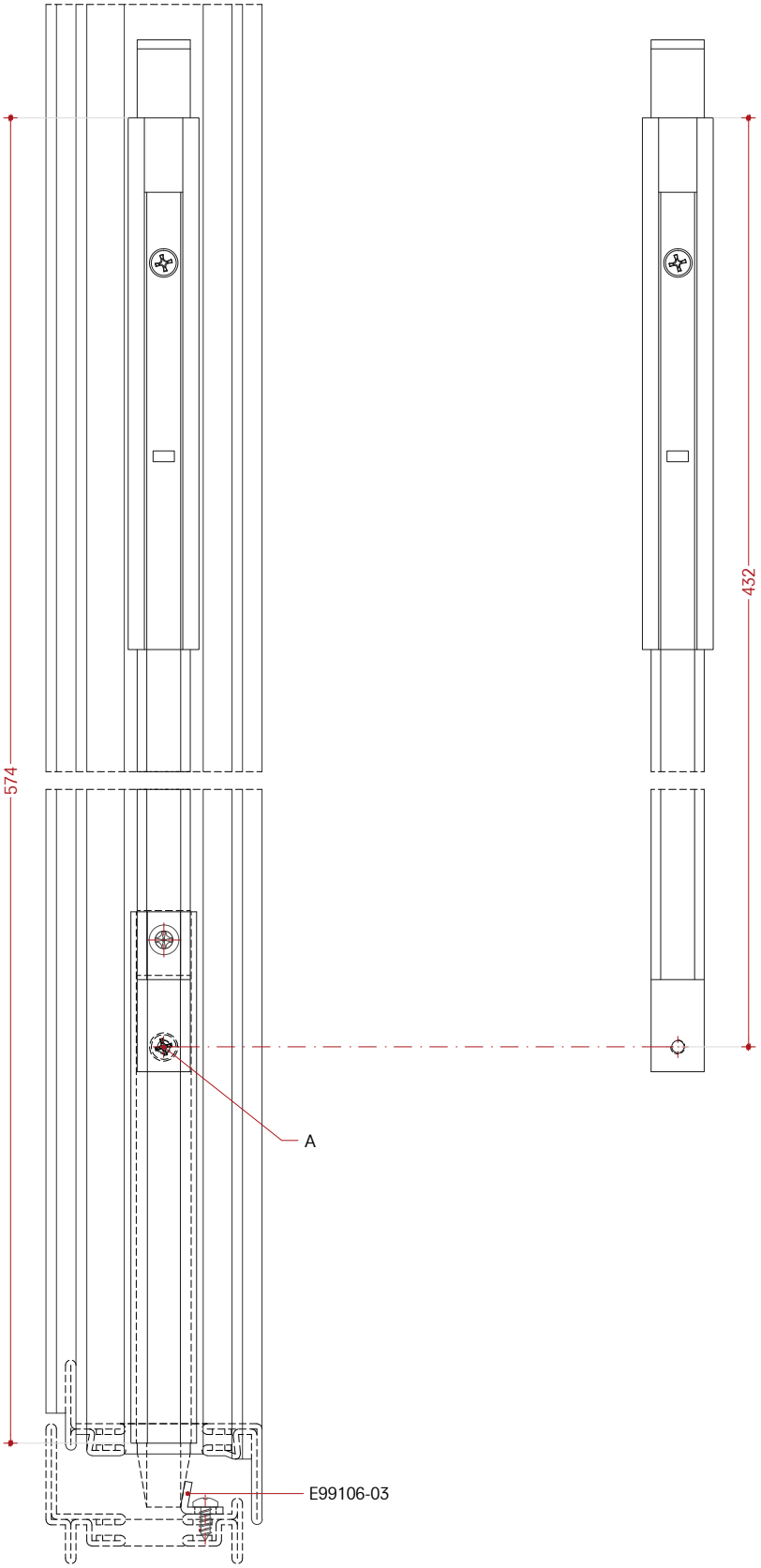
Montaje
Extensión E99004-nn para pasador de canto E99001-nn, E99002-nn, E99003-nn



A) Rod guide
B) Rod 15x3 mm
C) 25x2 mm L=145 mm plate welded on profile (not provided)
D) Welding
E) Fastening with Ø4.2x16 ISO7050 screws and cut the screws
F) Fastening with Ø3.5x9.5 ISO7049 screws
G) Remove this screw
H) Remove the lever part

A) Rod guide
B) Asta 15x3 mm
C) Piastra 25x2 mm L=145 mm saldata al profilo (non fornita)
D) Saldatura
E) Fissaggio con viti Ø4.2x16 ISO7050
F) Fissaggio con viti Ø3.5x9.5 ISO7049
G) Rimuovere questa vite
H) Rimuovere la parte della leva

A) Guía de barra
B) Barra de empuje15x3 mm
C) Placa 25x2 mm L=145 mm soldada en perfil (no provisto)
D) Soldadura
E) Fijación con tornillos Ø3.5x19 mm ISO7049 y recortar tornillo
F) Fijación con tornillos Ø3.5x9.5 ISO7049
G) Quitar este tornillo
H) Retire la parte de la palanca



A) Fix the extension part with the screw

A) Fissare la prolunga con la vite

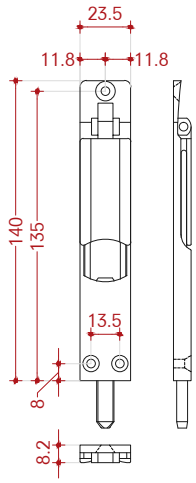
A) Arreglar la extensión con el tornillo

Flush bolt with lever
For doors

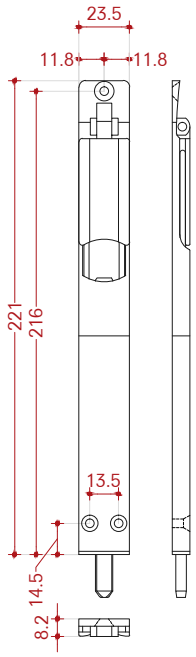
Catenaccio con leva
Per porte

Pasador de canto con palanca
Para puertas

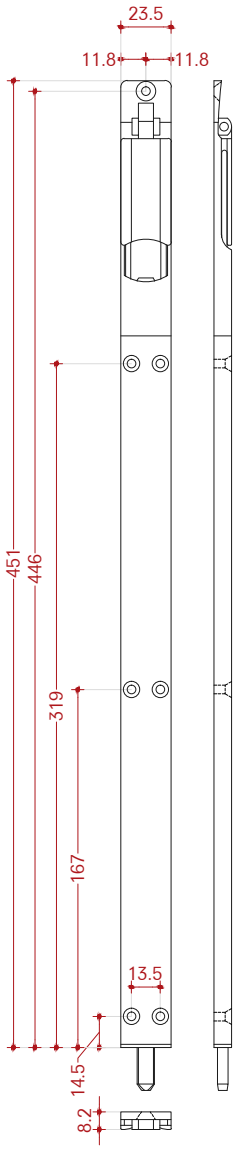
E99021-35



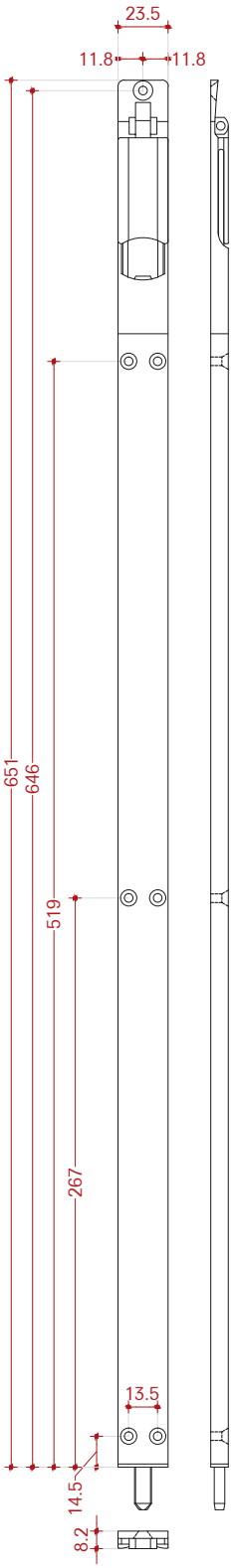
E99022-35



E99023-35



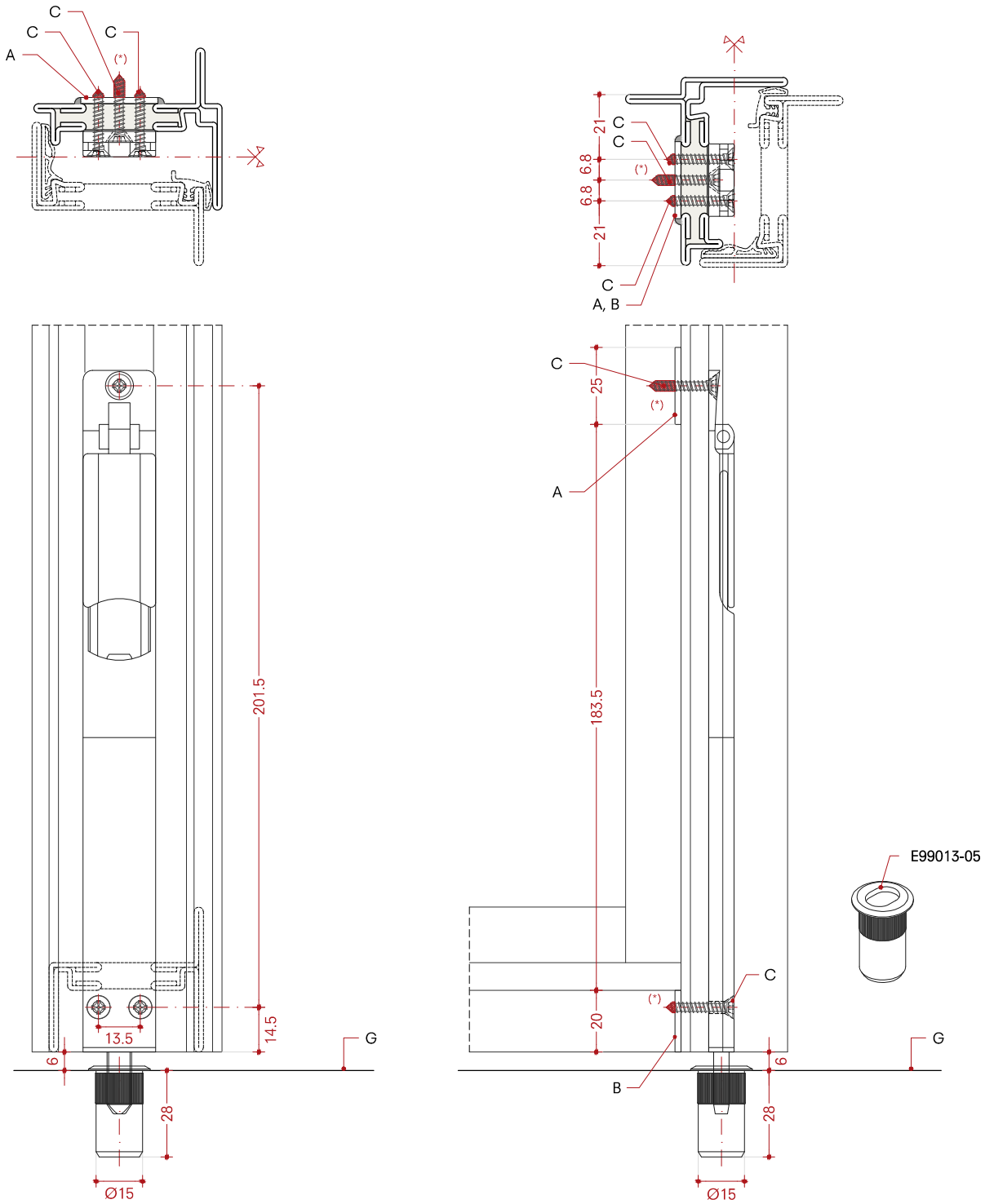
E99024-35



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 25x25x2 mm welded on profile (not provided)
B) Plate 25x20x2 mm welded on profile (not provided)
C) Fastening with Ø3.5x22 mm ISO7050 screws
D) Plate 50x25x2 mm welded on profile (not provided)
E) Ø3 mm hole on profile
F) Fastening with Ø3.9x22 mm ISO7050 screws
G) Finished floor

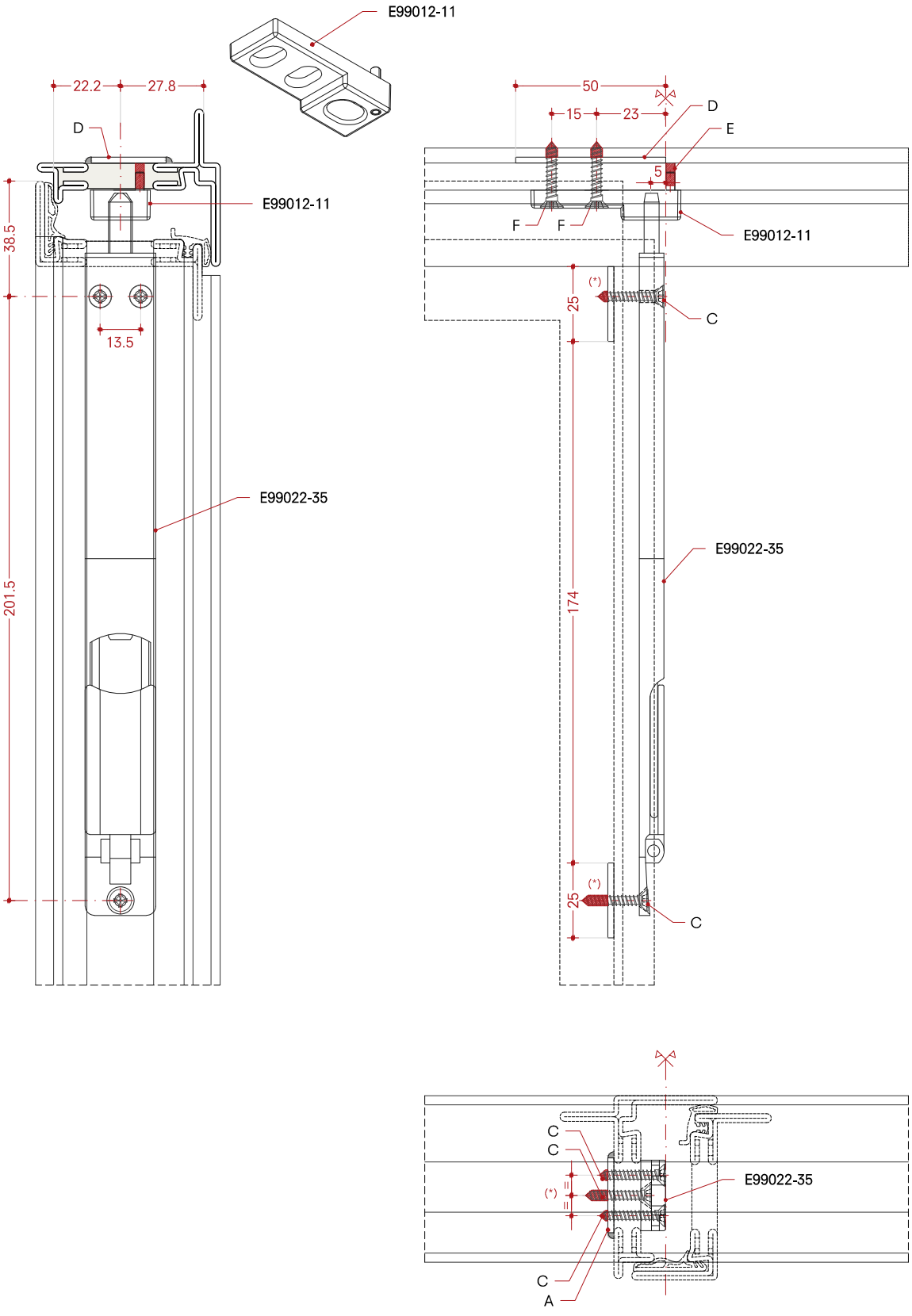
(*) Cut the screws

A) Piastra 25x25x2 mm saldata al profilo (non fornita)
B) Piastra 25x20x2 mm saldata al profilo (non fornita)
C) Fissaggio con viti Ø3.5x22 mm ISO7050
D) Piastra 50x25x2 mm saldata al profilo (non fornita)
E) Foro Ø3 mm sul profilo
F) Fissaggio con viti Ø3.9x22 mm ISO7050
G) Pavimento finito

(*) Accorciare le viti

A) Placa 25x25x2 mm soldado en perfil (no provisto)
B) Placa 25x20x2 mm soldado en perfil (no provisto)
C) Fijación con tornillos Ø3.5x22 mm ISO7050
D) Placa 50x25x2 mm soldado en perfil (no provisto)
E) Orificio Ø3 mm en perfil
F) Fijación con tornillos Ø3.9x22 mm ISO7050
G) Piso acabado

(*) Recortar tornillos


E99012-11
22.2
27.8
D
E99012-11
38.5
13.5
E99022-35
201.5
50
15
23
D
E
5
F
F
E99012-11
(*)
25
C
E99022-35
174
25
(*)
C
C
C
(*)
E99022-35
C
A

Accessories installation: **Montaggio accessori:** **Montaje accesorios:**

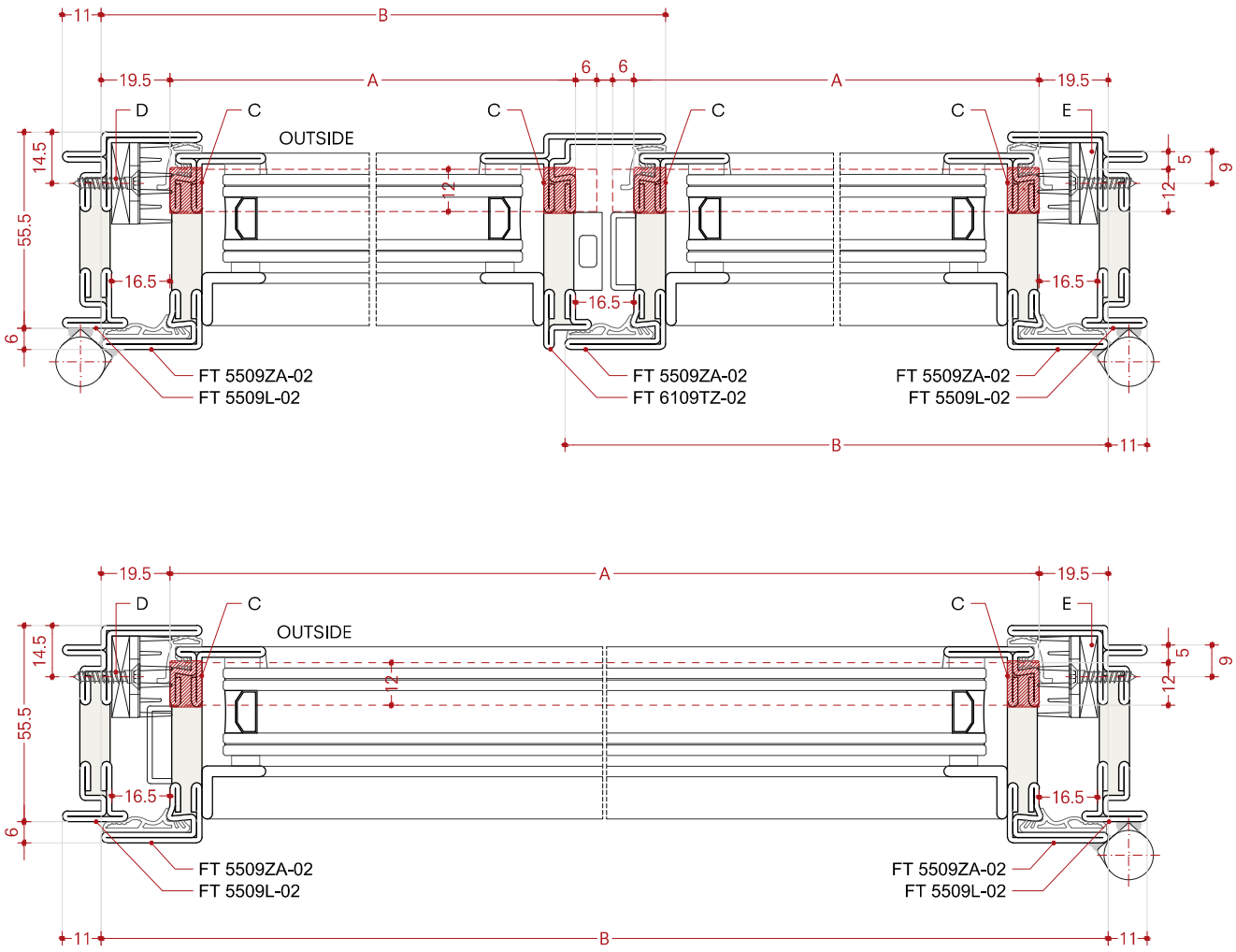
General fittings **Ferramenta generale** **Herrajes generales** 5.8

Installation
Automatic door seal
Single and double leaf door
Open in and open out

Montaggio
Guarnizione a ghigliottina
Porta a uno e due battenti
Apertura interna ed esterna

Montaje
Junta guillotina
Puerta de una e dos hojas
Que se abre hacia dentro y fuera

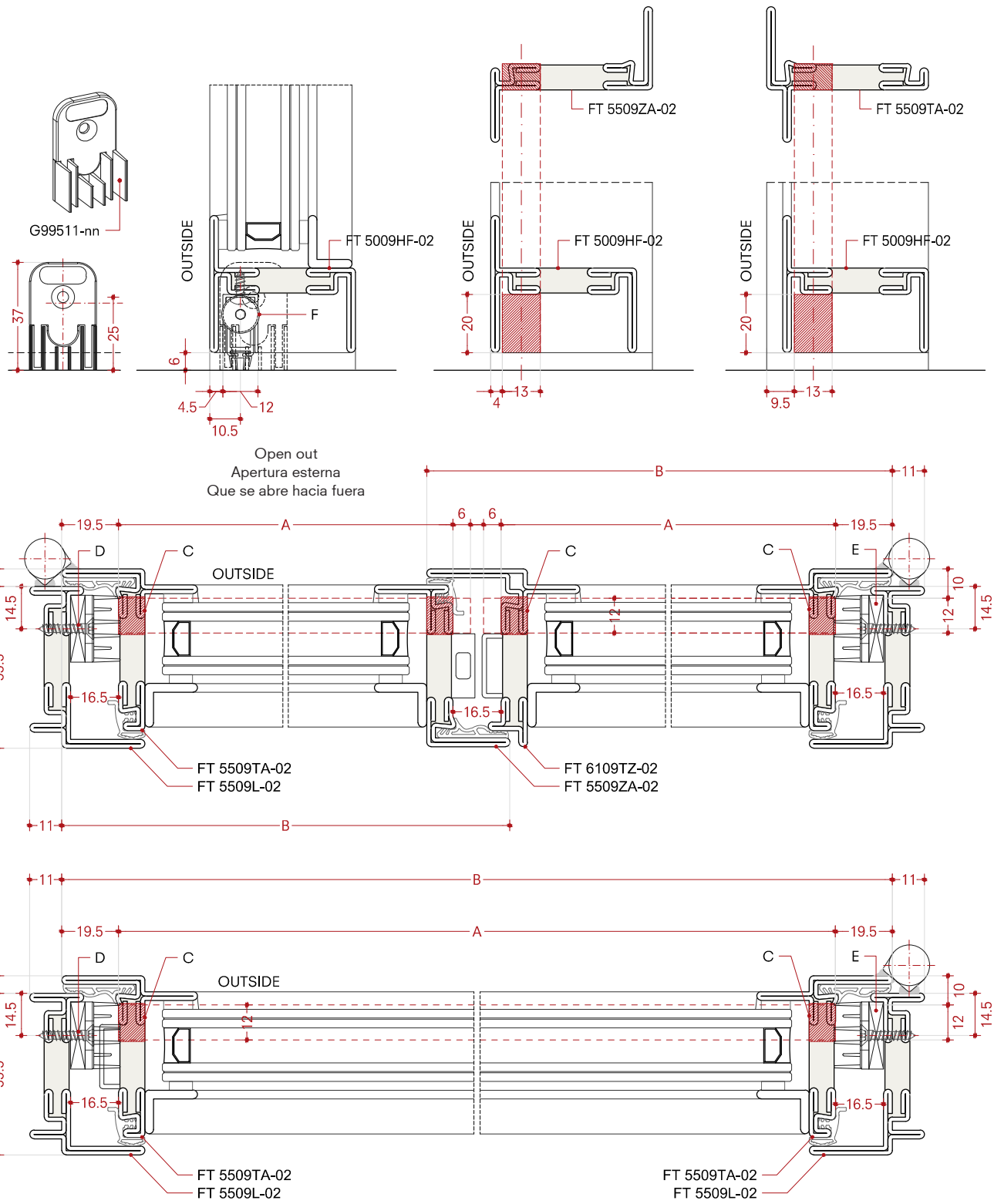
Open in
Apertura interna
Apertura hacia dentro



A) Automatic drop seal (aluminium profile)
B) Door leaf
C) 13x20 mm cutout
D) Fastening of G99511-nn with Ø3.5x19 mm ISO7050 screws
E) 23x5 L=37 mm PVC plate (not provided)

A) Guarnizione a ghigliottina automatica (profilo in alluminio)
B) Porta
C) Taglio 13x20 mm
D) Fissaggio G99511-nn con viti Ø3.5x19 mm ISO7050
E) Piastra in PVC 23x5 L=37 mm (non fornita)

A) Junta guillotina automática (perfil de aluminio)
B) Puerta
C) Corte 13x20 mm
D) Fijación G99511-nn con tornillos Ø3.5x19 mm ISO7050
E) Placa en PVC 23x5 L=37 mm (no provisto)



A) Automatic drop seal (aluminium profile)
B) Door leaf
C) 13x20 mm cutout
D) Fastening of G99511-nn with Ø3.5x19 mm ISO7050 screws
E) 23x5 L=37 mm PVC plate (not provided)
F) 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) Guarnizione a ghigliottina automatica (profilo in alluminio)
B) Porta
C) Taglio 13x20 mm
D) Fissaggio G99511-nn con viti Ø3.5x19 mm ISO7050
E) Piastra in PVC 23x5 L=37 mm (non fornita)
F) Fissaggio G995XX-62 con viti Ø3.5x9.5 mm ISO7049. Guarnizione a ghigliottina G995XX-62 lunghezza da 330 mm fino a 1230 mm

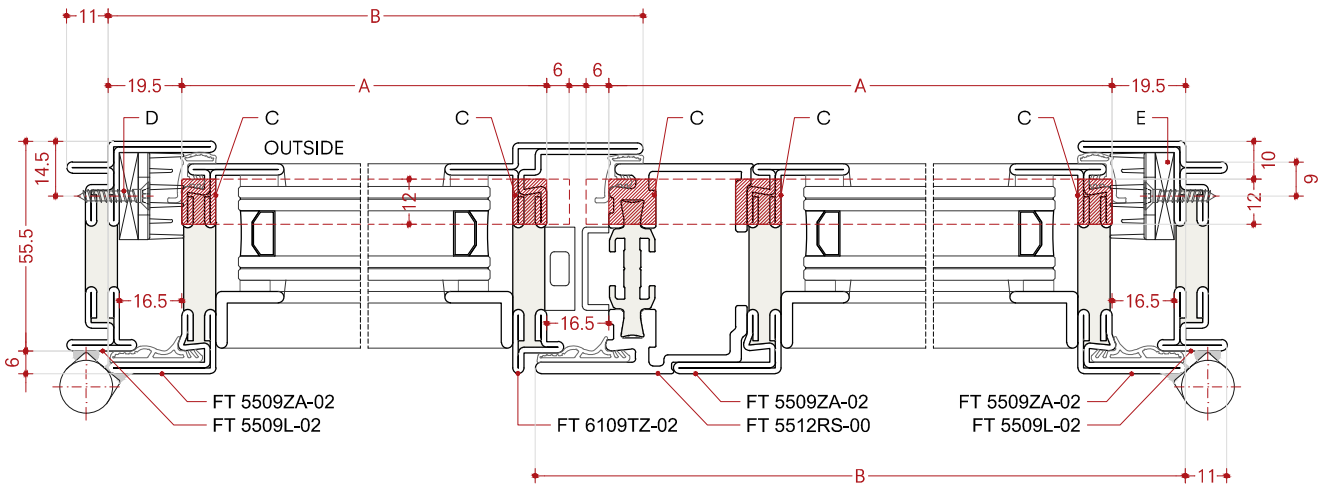
A) Junta guillotina automática (perfil de aluminio)
B) Puerta
C) Corte 13x20 mm
D) Fijación G99511-nn con tornillos Ø3.5x19 mm ISO7050
E) Placa en PVC 23x5 L=37 mm (no provisto)
F) Fijación G995XX-62 con tornillos Ø3.5x9.5 mm ISO7049. Junta guillotina G995XX-62 longitud de 330 mm a 1230 mm

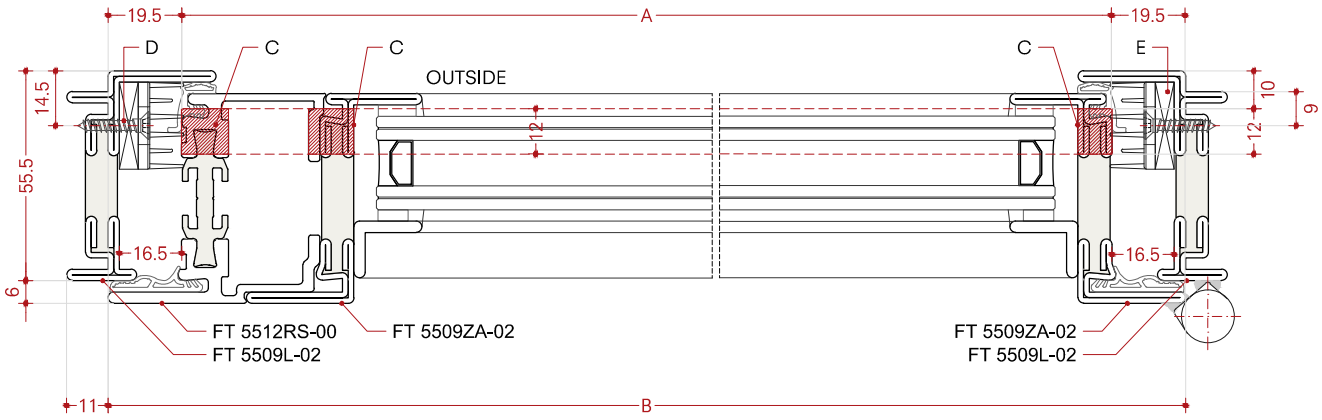
Installation
Automatic door seal
Single and double leaf door with added door profile set K04029-00
Open in and open out

Montaggio
Guarnizione a ghigliottina
Porta a uno e due battenti con set profilo aggiuntivo porta K04029-00
Apertura interna ed esterna

Montaje
Junta guillotina
Puerta de una e dos hojas con set perfil adicional de puerta K04029-00
Que se abre hacia dentro y fuera

Open in
Apertura interna
Apertura hacia dentro

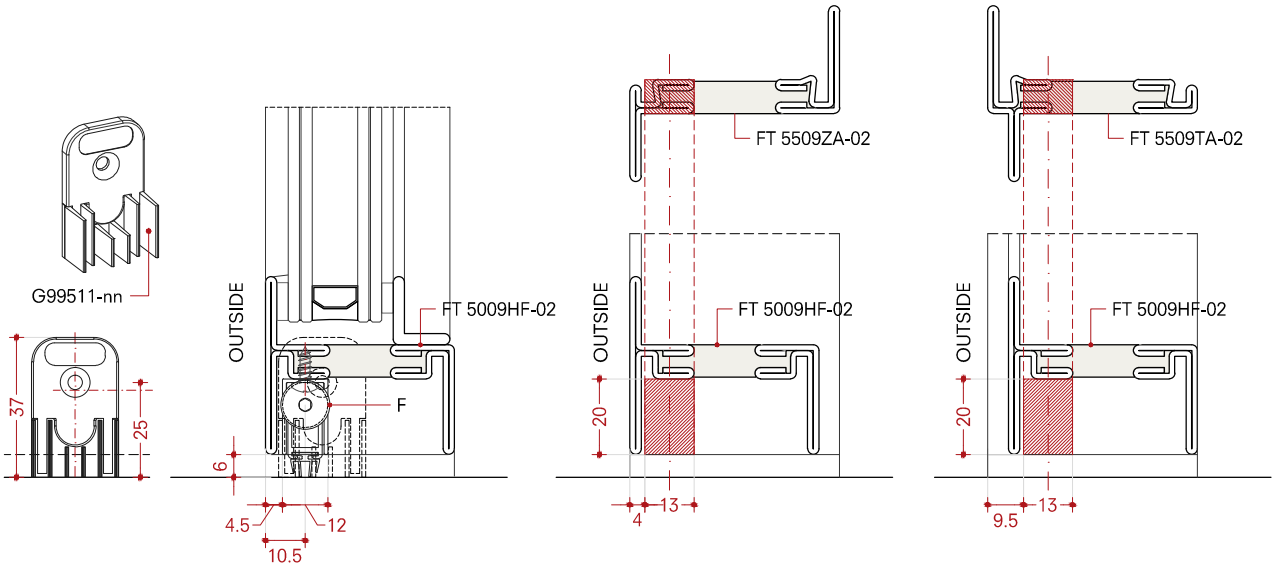




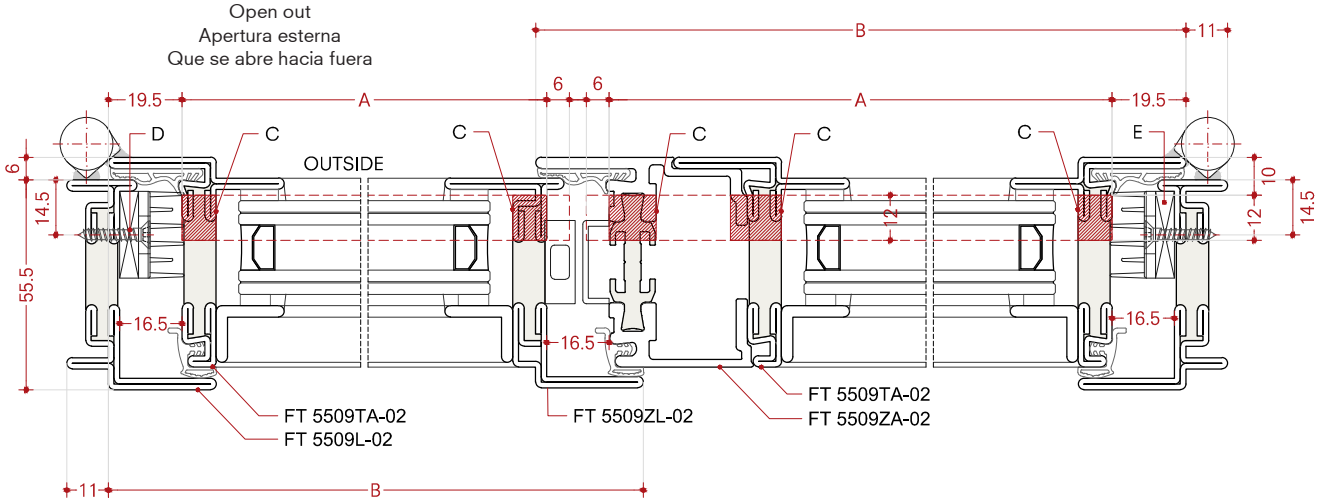
A) Automatic drop seal (aluminium profile)
B) Door leaf
C) 13x20 mm cutout
D) Fastening of G99511-nn with Ø3.5x19 mm ISO7050 screws
E) 23x5 L=37 mm PVC plate (not provided)

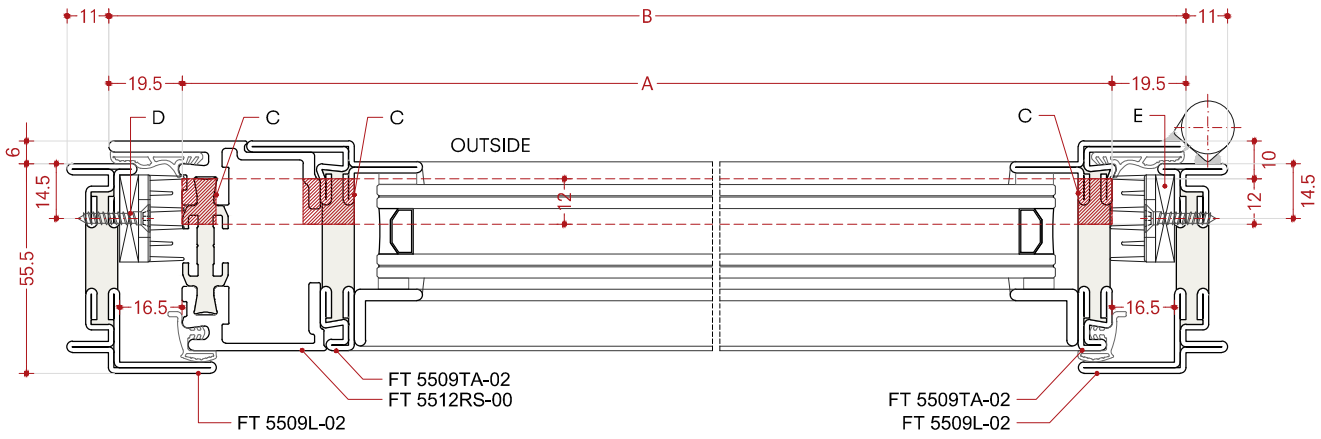
A) Guarnizione a ghigliottina automatica (profilo in alluminio)
B) Porta
C) Taglio 13x20 mm
D) Fissaggio G99511-nn con viti Ø3.5x19 mm ISO7050
E) Piastra in PVC 23x5 L=37 mm (non fornita)

A) Junta guillotina automática (perfil de aluminio)
B) Puerta
C) Corte 13x20 mm
D) Fijación G99511-nn con tornillos Ø3.5x19 mm ISO7050
E) Placa en PVC 23x5 L=37 mm (no provisto)



Open out
Apertura esterna
Que se abre hacia fuera





A) Automatic drop seal (aluminium profile)
B) Door leaf
C) 13x20 mm cutout
D) Fastening of G99511-nn with Ø3.5x19 mm ISO7050 screws
E) 23x5 L=37 mm PVC plate (not provided)
F) G995XX-62 bottom profile fastening with Ø3.5x9.5 mm ISO7049 screws. Automatic drop seal G995XX-62 length of 330 mm to 1230 mm

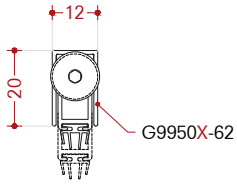
A) Guarnizione a ghigliottina automatica (profilo in alluminio)
B) Porta
C) Taglio 13x20 mm
D) Fissaggio G99511-nn con viti Ø3.5x19 mm ISO7050
E) Piastra in PVC 23x5 L=37 mm (non fornita)
F) Fissaggio G995XX-62 con viti Ø3.5x9.5 mm ISO7049. Guarnizione a ghigliottina G995XX-62 lunghezza da 330 mm fino a 1230 mm

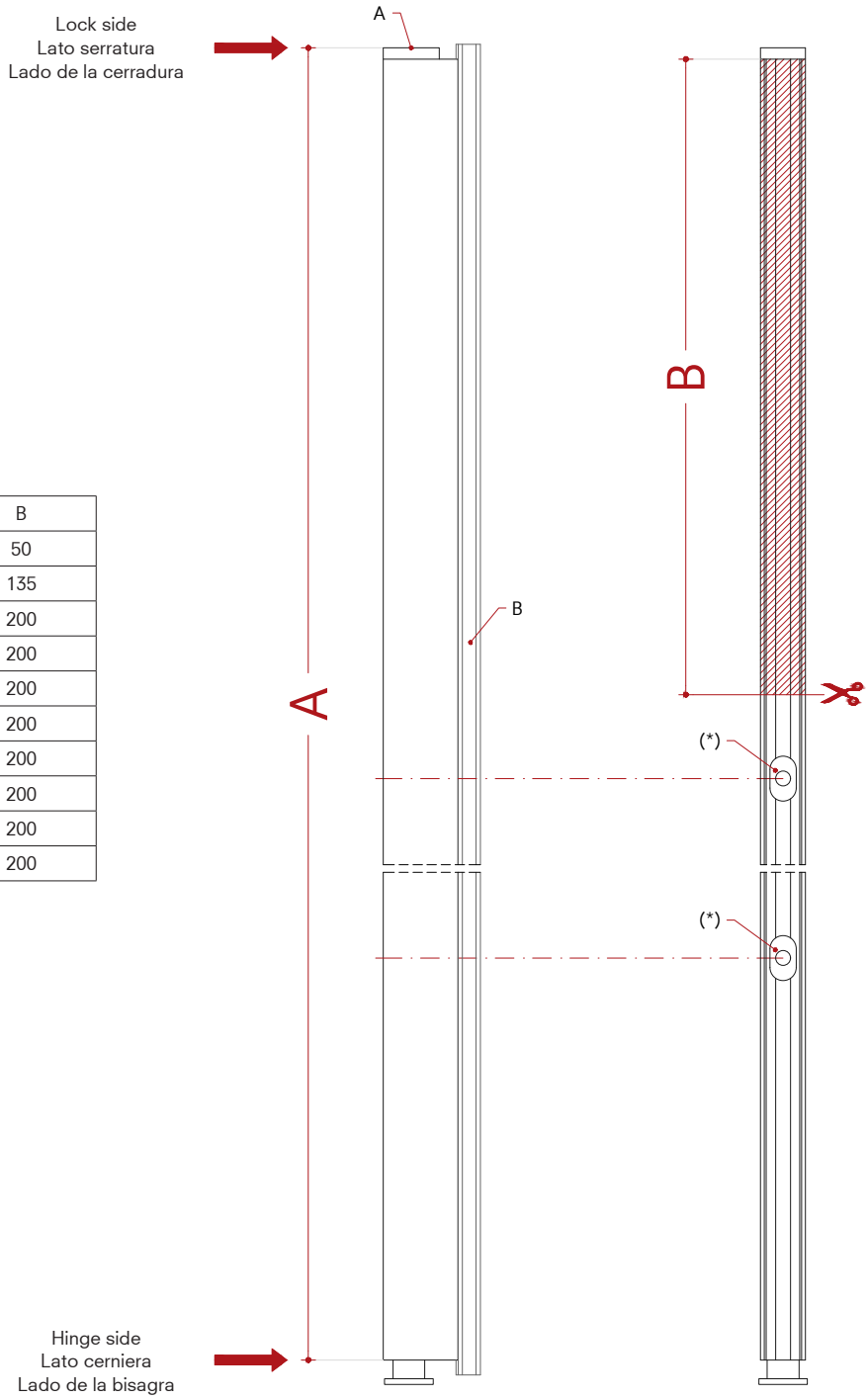
A) Junta guillotina automática (perfil de aluminio)
B) Puerta
C) Corte 13x20 mm
D) Fijación G99511-nn con tornillos Ø3.5x19 mm ISO7050
E) Placa en PVC 23x5 L=37 mm (no provisto)
F) Fijación G995XX-62 con tornillos Ø3.5x9.5 mm ISO7049. Junta guillotina G995XX-62 longitud de 330 mm a 1230 mm

Installation
Automatic door seal
G995XX-62 cut off profile

Montaggio
Guarnizione a ghigliottina
Taglio del profilo G9950X-62

Montaje
Junta guillotina
Fresado de perfil G9950X-62



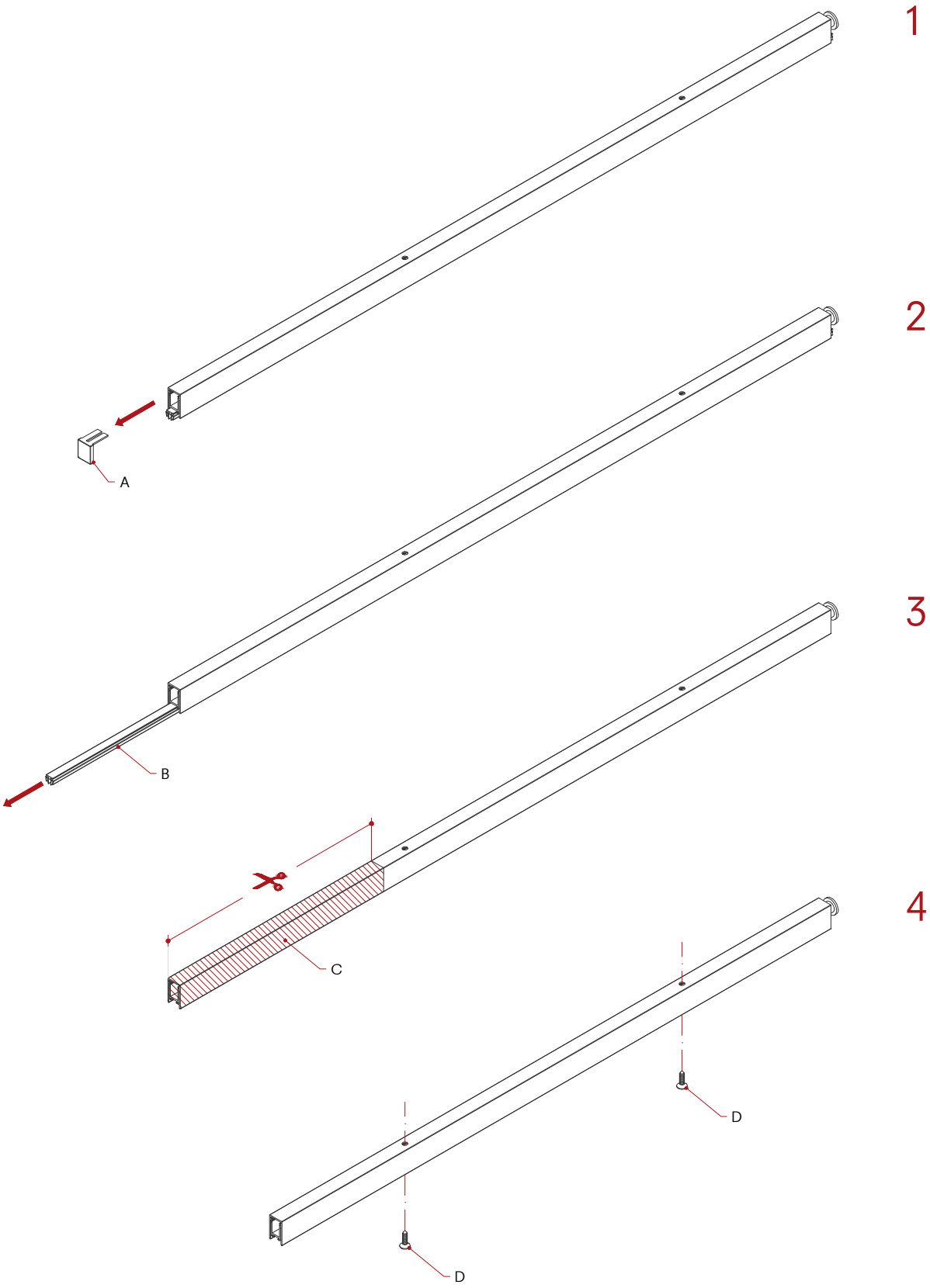


	A	B
G99501-62	330	50
G99502-62	430	135
G99503-62	530	200
G99504-62	630	200
G99505-62	730	200
G99506-62	830	200
G99507-62	930	200
G99508-62	1030	200
G99509-62	1130	200
G99510-62	1230	200

A) Remove the cap
B) Remove the gasket
(*) Existing hole

A) Rimuovere il tappo di chiusura
B) Rimuovere la guarnizione
(*) Foro esistente

A) Quitar la tapa
B) Quitar la junta
(*) Orificio existente



A) Remove the cap
B) Remove the gasket
C) Cut off profile
D) Fastening with selftapping Ø3.2 mm ISO14585 screws

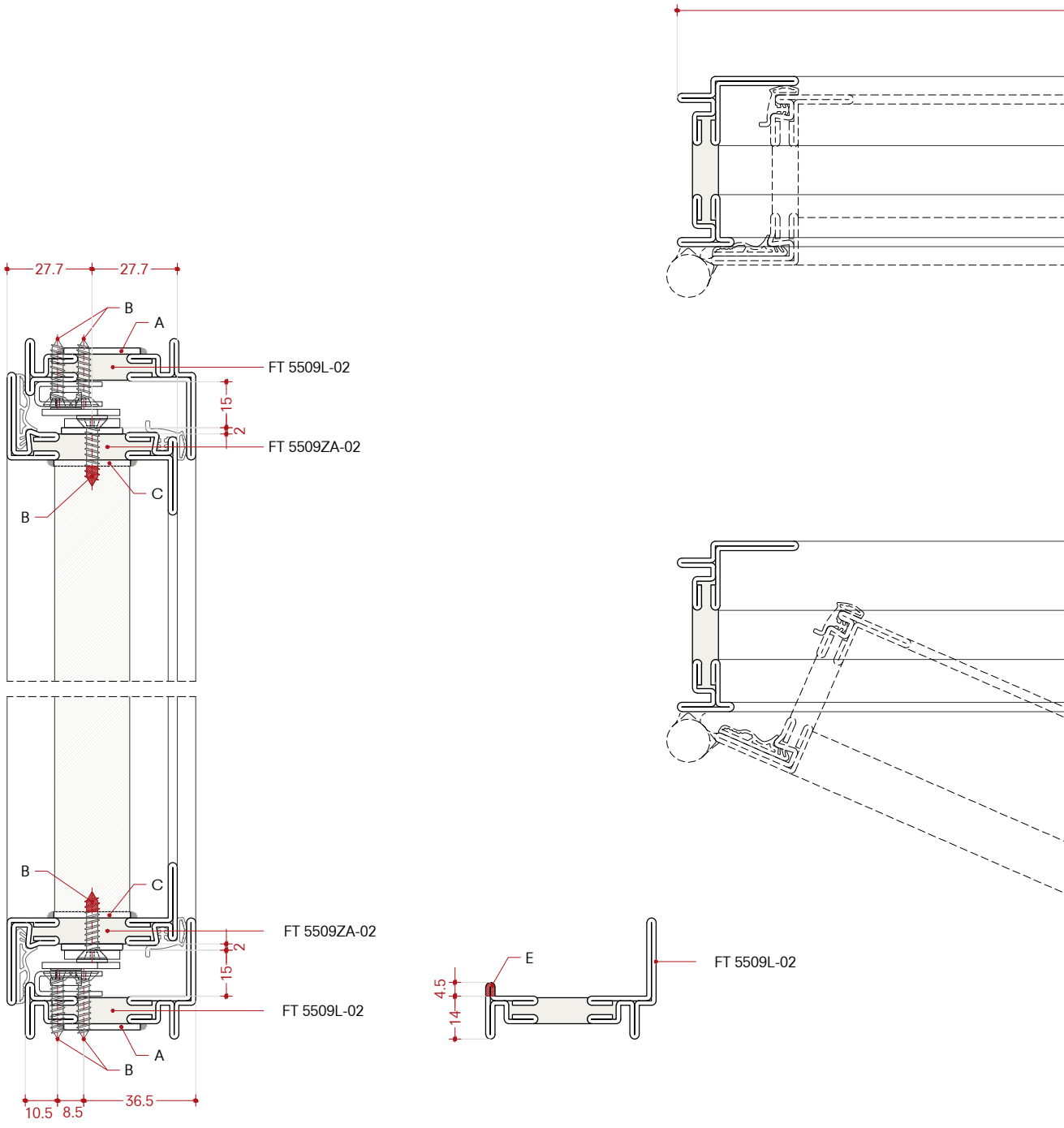
A) Rimuovere il tappo di chiusura
B) Rimuovere la guarnizione
C) Taglio del profilo
D) Fissaggio con viti autofilettanti Ø3.2 mm ISO14585

A) Quitar la tapa
B) Quitar la junta
C) Fresado de perfil
D) Fijación con tornillos autorroscantes Ø3.2 mm ISO14585

Installation
Opening restrictor E99201-02
Open in window

Montaggio
Limitatore di apertura E99201-02
Finestra apertura interna

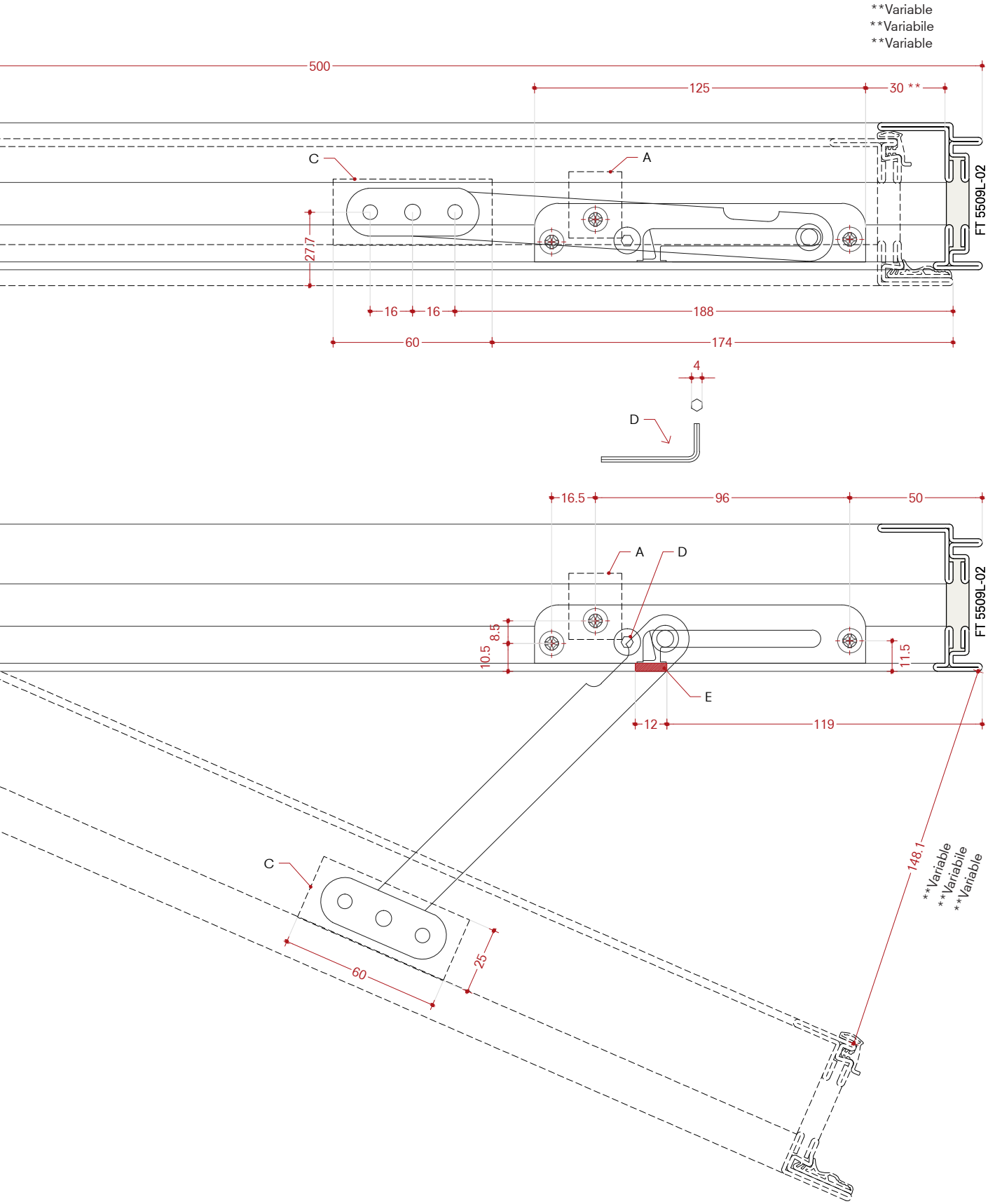
Montaje
Limitador de apertura 99201-02
Ventana que se abre hacia dentro



A) 25x20x2 mm plate welded on profile (not provided)
B) Fastening with Ø4.8x22 mm ISO7050 screws and cut the screws
C) 25x2 mm L = 60 mm plate welded on profile (not provided)
D) Unlock with hexagon allen key
E) Cut out

A) Piastra 25x20x2 mm saldata al profilo (non fornita)
B) Fissaggio con viti Ø4.8x22 mm ISO7050 e accorciare la vite
C) Piastra 25x2 mm L = 60 mm saldata al profilo (non fornita)
D) Sbloccare con chiave esagonale
E) Fresatura

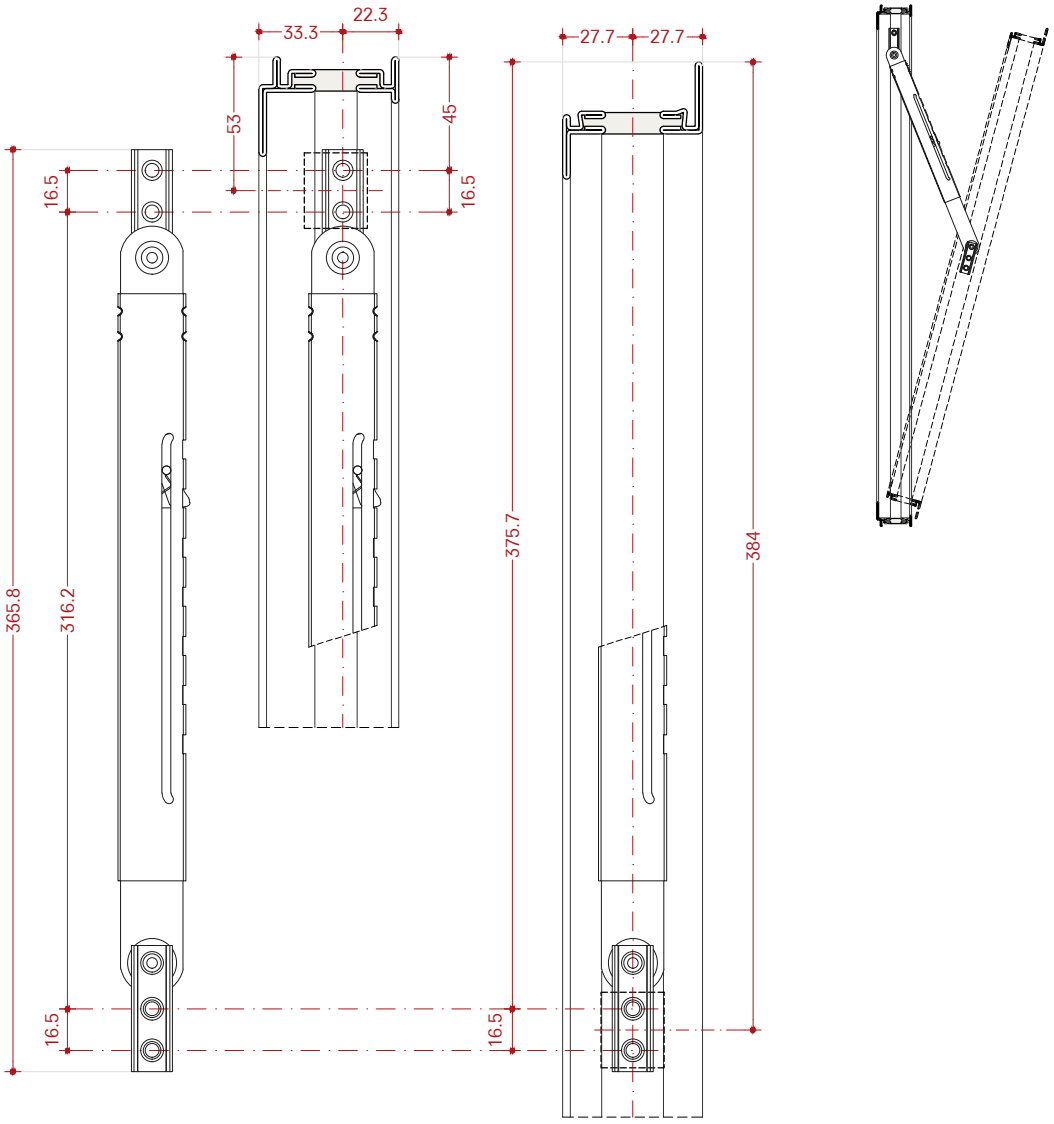
A) Placa 25x20x2 mm soldada en perfil (no provisto)
B) Fijación con tornillos Ø4.8x22 mm ISO7050 y recortar tornillo
C) Placa 25x2 mm L = 60 mm soldada en perfil (no provisto)
D) Desbloqueo con llave hexagonal
E) Perfil de fresado


**Variable
**Variable
**Variable
500
125
30 **
C
A
FT 5509L-02
27.7
16
16
188
60
174
4
D
16.5
96
50
A
D
FT 5509L-02
8.5
10.5
11.5
E
12
119
148.1
C
60
25
**Variable
**Variable
**Variable

Installation
Opening restrictor E99205-05
Bottom hung open in window

Montaggio
Limitatore di apertura E99205-05
Finestra vasistas apertura interna

Montaje
Limitador de apertura E99205-05
Ventana proyectante que se abre hacia dentro



Scale 1:3
A) 25x25x2 mm plate welded on profile (not provided)
B) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

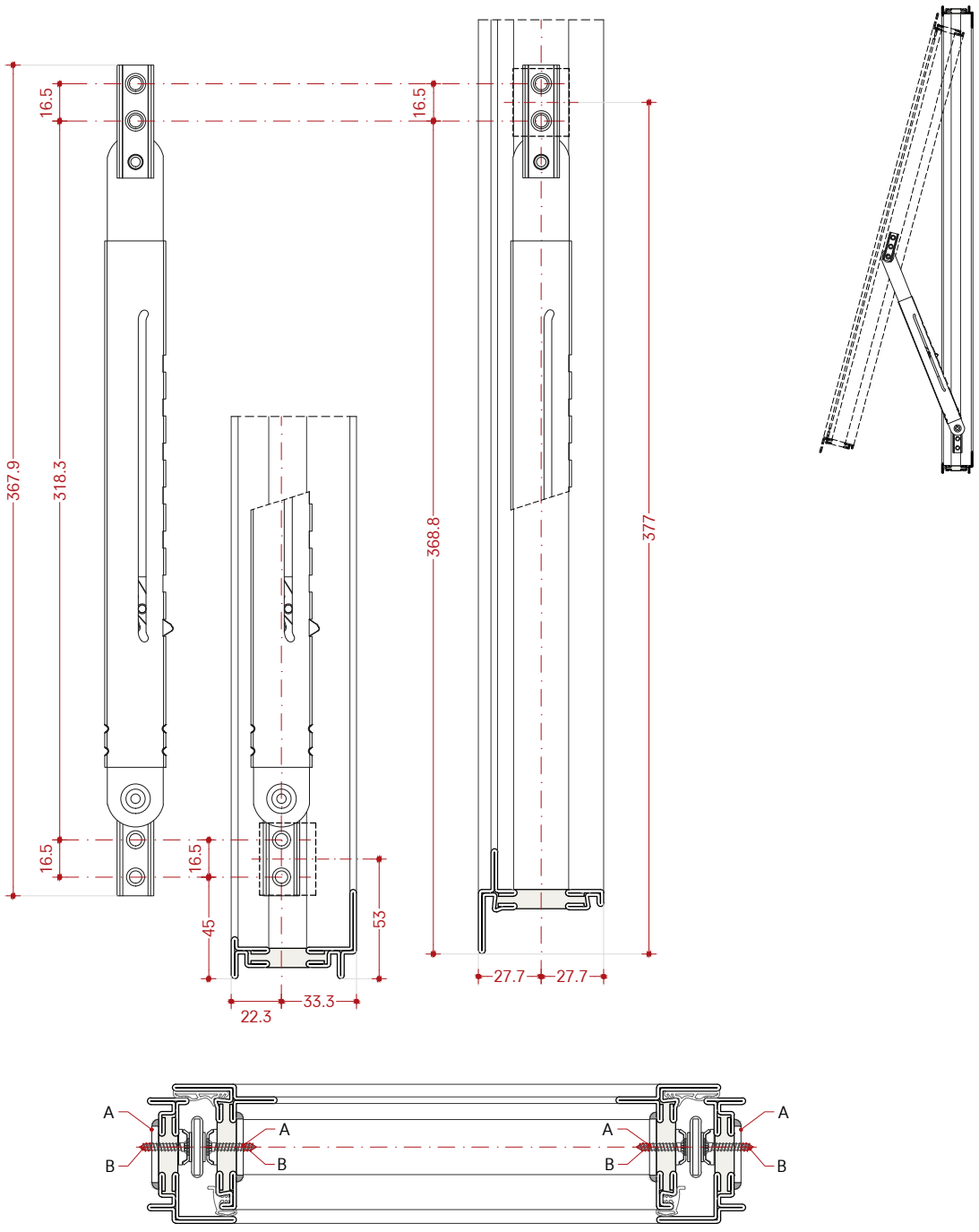
Scala 1:3
A) Piastra 25x25x2 mm saldata al profilo (non fornita)
B) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare la vite

Escala 1:3
A) Placa 25x25x2 mm soldada en perfil (no provisto)
B) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillo

Installation
Opening restrictor E99203-05
Top hung open out window

Montaggio
Limitatore di apertura E99203-05
Finestra a sporgere apertura esterna

Montaje
Limitador de apertura E99203-05
Ventana proyectante que se abre hacia fuera



Scale 1:3
A) 25x25x2 mm plate welded on profile (not provided)
B) Fastening with Ø3.9x22 mm ISO7050 screws and cut the screws

Scala 1:3
A) Piastra 25x25x2 mm saldata al profilo (non fornita)
B) Fissaggio con viti Ø3.9x22 mm ISO7050 e accorciare la vite

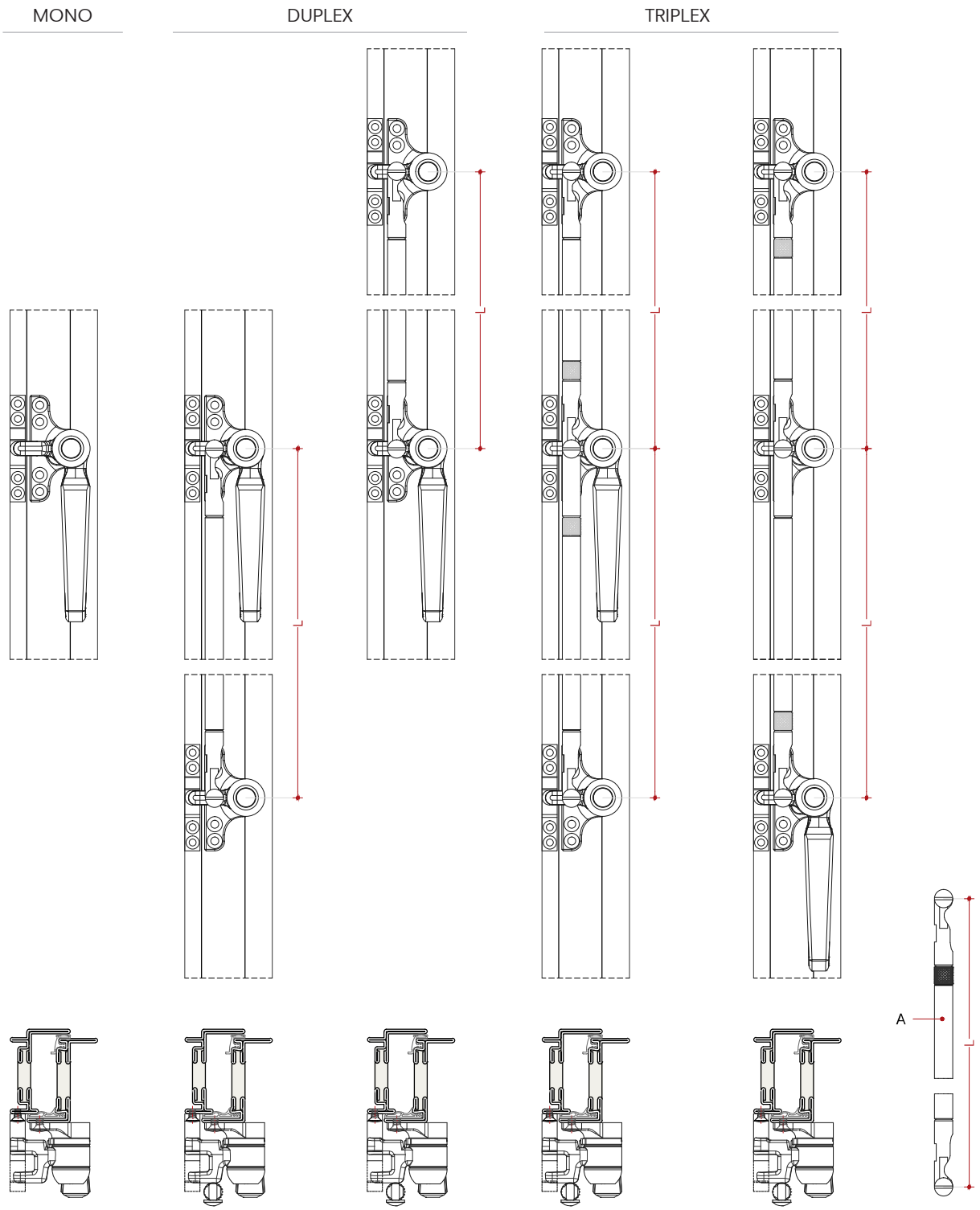
Escala 1:3
A) Placa 25x25x2 mm soldada en perfil (no provisto)
B) Fijación con tornillos Ø3.9x22 mm ISO7050 y recortar tornillo

Accessories installation:	Montaggio accessori:	Montaje accesorios:	
Handles	**Maniglie**	**Manillas**	5.9

Installation
Heritage window handle
Open in, single leaf window

Montaggio
Maniglia Heritage per finestra
Finestra a un battente apertura interna

Montaje
Manilla de ventana Heritage
Apertura hacia dentro, ventana de 1 hoja



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

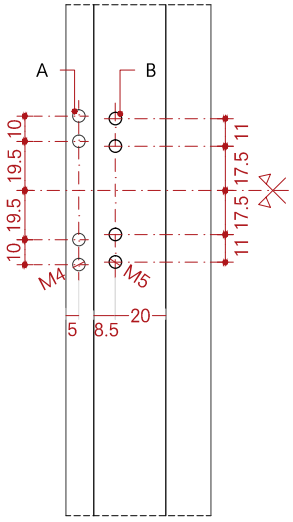
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

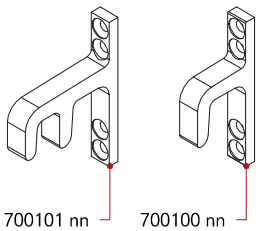
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

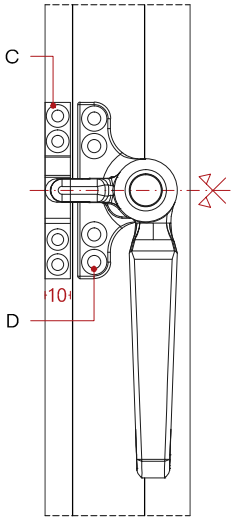
Assembly / Montaggio / Montaje

Profiles drilling
Foratura profili
Orificios en perfiles

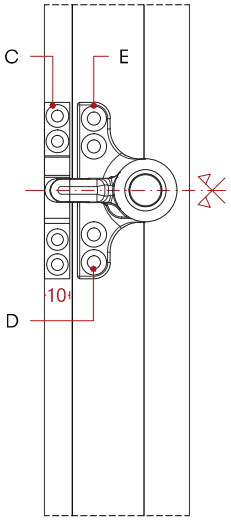


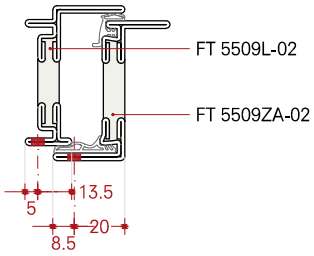
Handle and locking hook
Maniglia e gancio di chiusura
Manilla y gancho de cierre



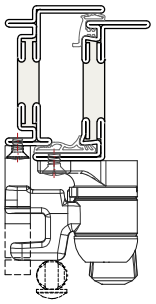


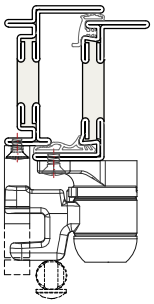
Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre



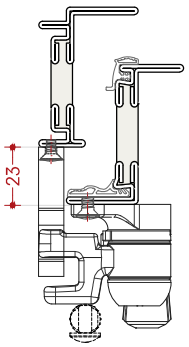


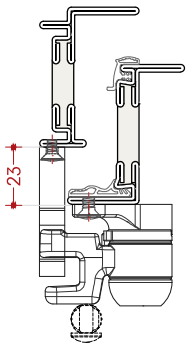
Locking
Chiusura
Fijación





Ventilation
Ventilazione
Ventilación





A) M4 holes on frame profile
B) M5 holes on leaf profile
C) Fastening of locking hook with M4x8 ISO2010/ISO7047 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 M4 sul profilo del telaio
B) Fori M5 su profilo anta
C) Fissaggio punto di chiusura e gancio addizionale con viti M4x8 ISO2010/ISO7047
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.

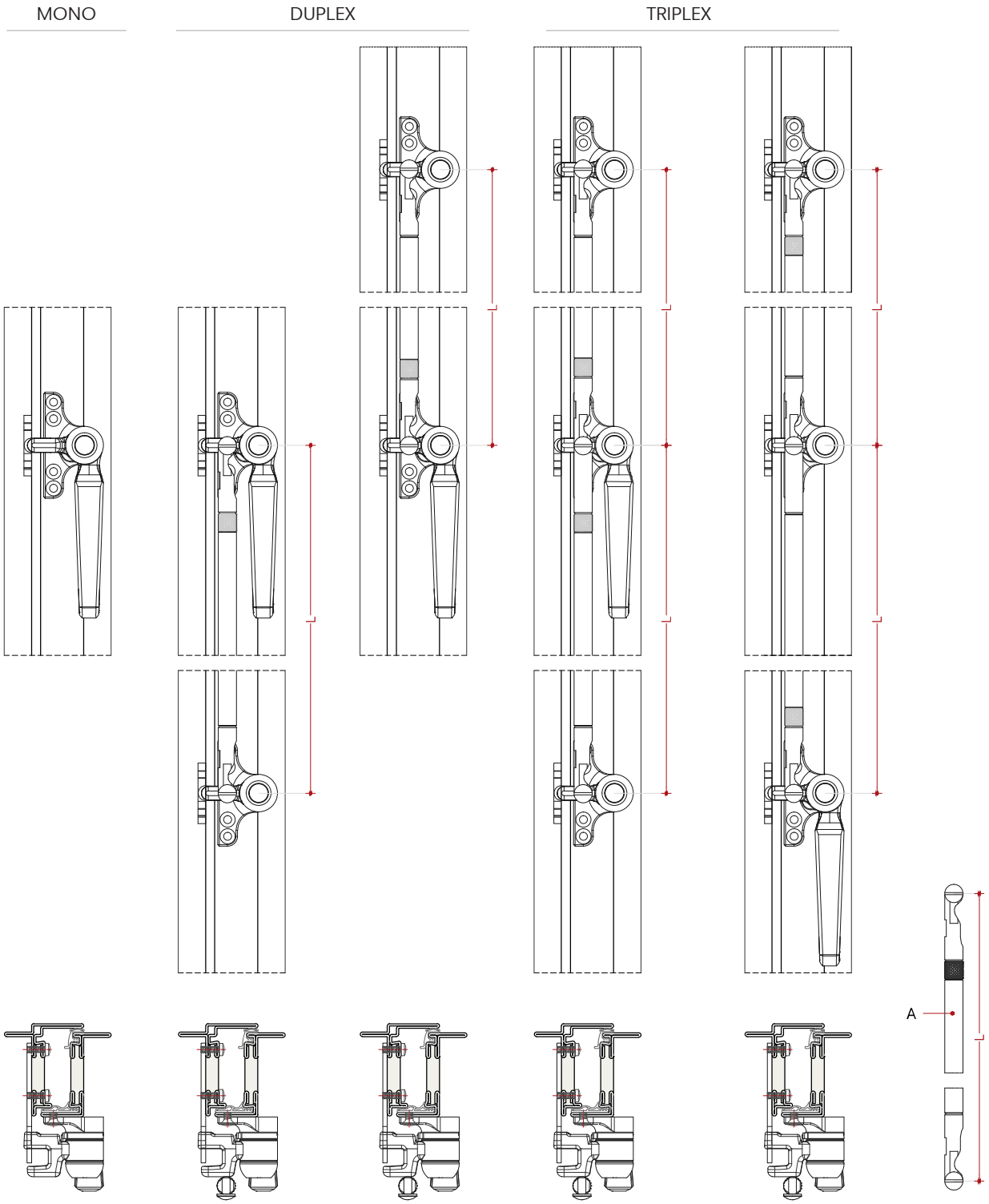
A) Oreficios M4 en el perfil del marco
B) Oreficios M5 en el perfil de la hoja
C) Fijación del punto de bloqueo y gancho adicional con tornillos M4x8 ISO2010/ISO7047
D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open in, double leaf window

Montaggio
Maniglia Heritage per finestra
Finestra a due battenti apertura interna

Montaje
Manilla de ventana Heritage
Apertura hacia dentro, ventana de 2 hojas



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

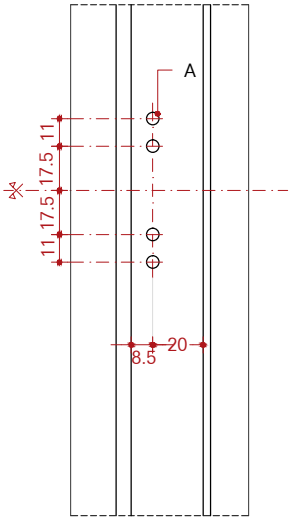
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

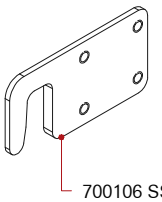
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

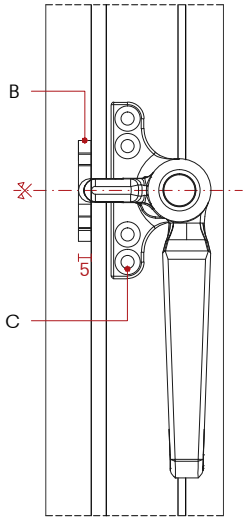
Assembly / Montaggio / Montaje

Profiles drilling
Foratura profili
Orificios en perfiles

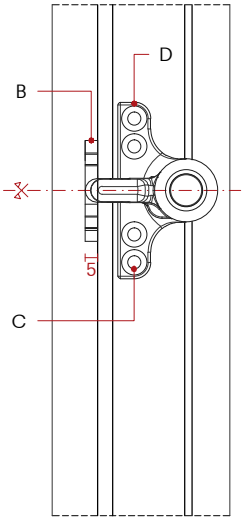


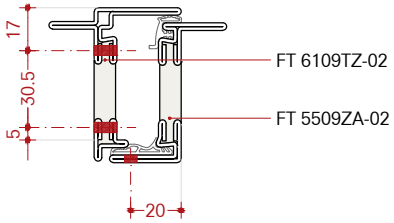
Handle and locking hook
Maniglia e gancio di chiusura
Manilla y gancho de cierre

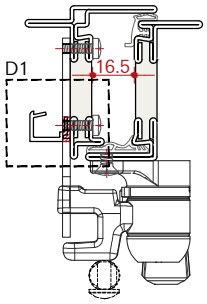


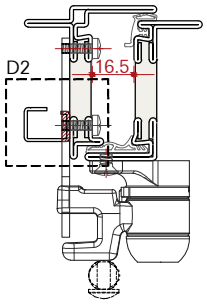


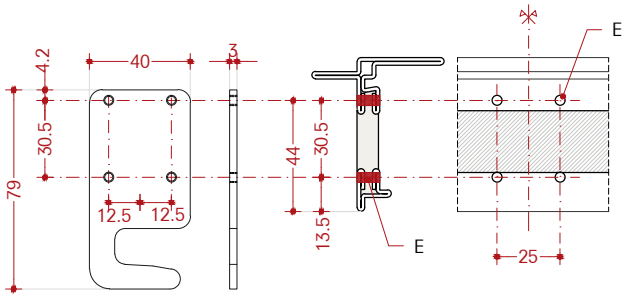
Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre

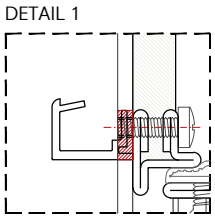


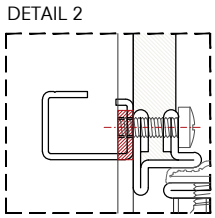












A) M5 holes
B) Fastening of locking hook with M4x12 ISO7045 screws
C) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
D) A 70122X nn connection rod required to connect the handle to additional locking nose
E) Ø4.2 mm holes on FT 6109TZ-02

Detail 1-2) Glazing beads - fastening examples: cut out glazing bead accordingly (71x3.2 mm)

For any additional information please contact our technical office.

A) Fori M5
B) Fissaggio punto di chiusura e gancio addizionale con viti M4x12 ISO7045
C) Fissaggio della maniglia con viti M5x8 ISO2010/ISO7047
D) 70122X nn asta di collegamento necessaria per collegare la maniglia al punto di chiusura addizionale
E) Fori Ø4.2 mm su FT 6109TZ-02

Detail 1-2) Fermavetro - esempi di fissaggio: lavorare il profilo fermavetro in base alla tipologia (71x3.2 mm)

Per ulteriori informazioni contattare l'ufficio tecnico.

A) Oreficios M5
B) Fijación del punto de bloqueo y gancho adicional con tornillos M4x12 ISO7045
C) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
D) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
E) Oreficios Ø4.2 mm en FT 6109TZ-02

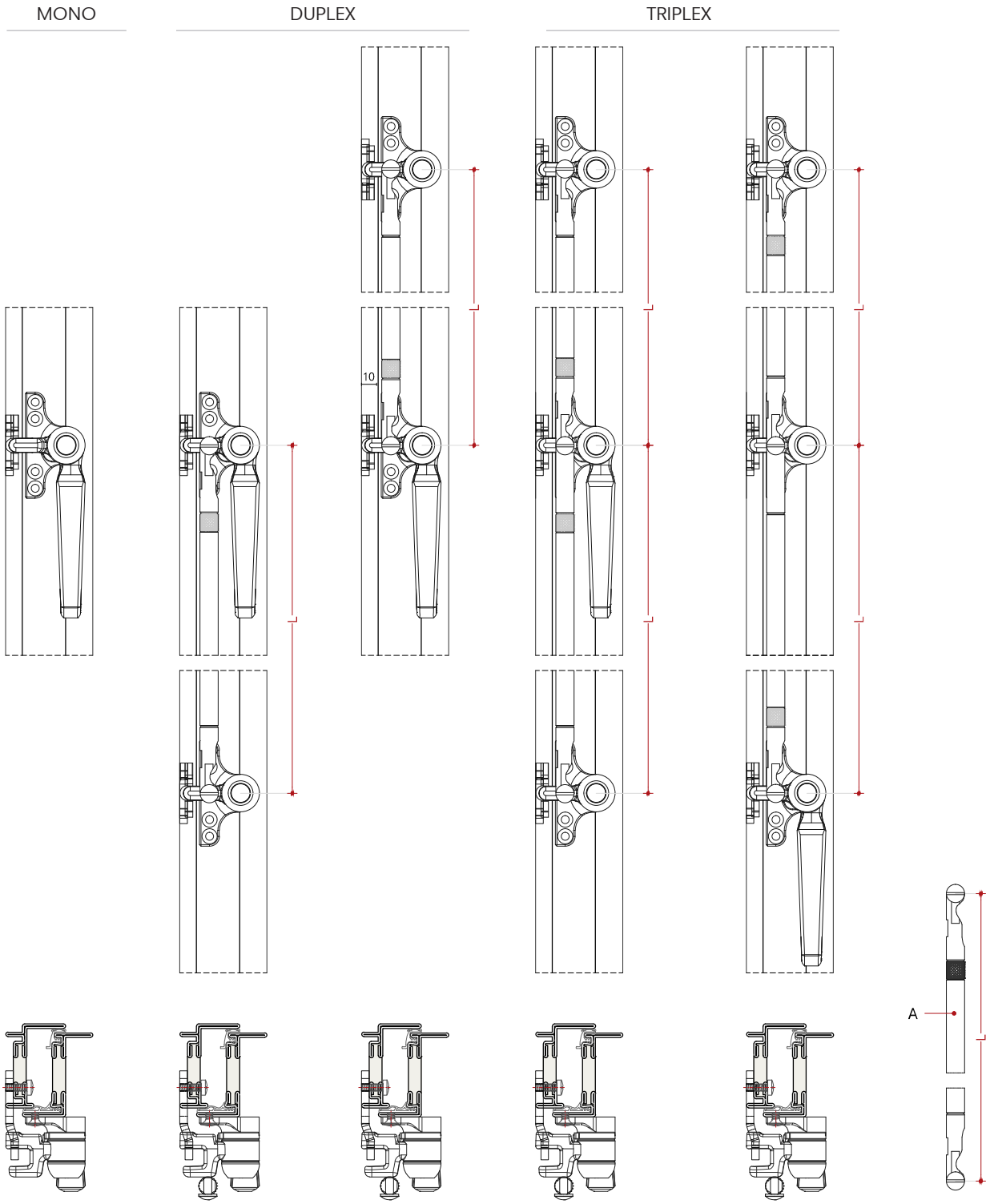
Detail 1-2) Barras de soporte de cristal - ejemplos de desenganche sujeción barra soporte cristal (71x3.2 mm)

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open in, single leaf window
Right opening window

Montaggio
Maniglia Heritage per finestra
Finestra a un battente apertura interna, apertura destra

Montaje
Manilla de ventana Heritage
Apertura hacia dentro, ventana de 1 hoja
Apertura derecha



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

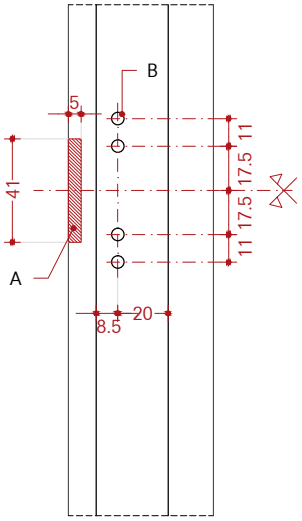
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

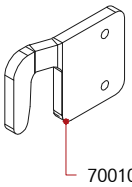
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

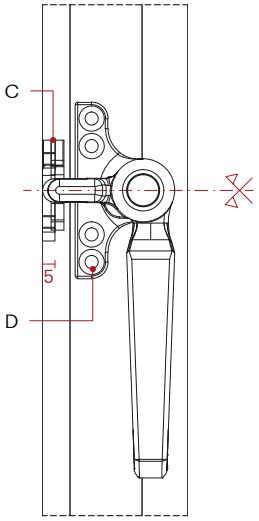
Assembly / Montaggio / Montaje

Profiles drilling
Foratura profili
Orificios en perfiles

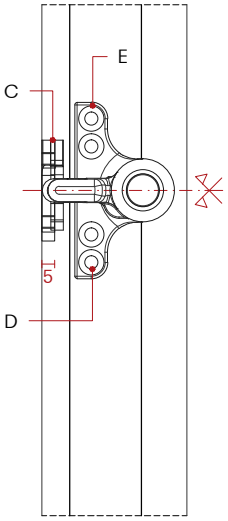


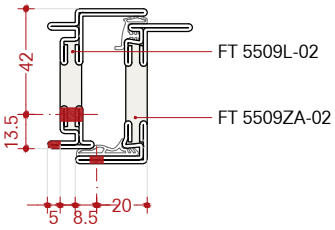
Handle and locking hook
Maniglia e gancio di chiusura
Manilla y gancho de cierre



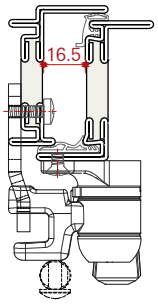


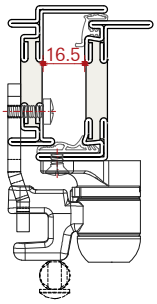
Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre

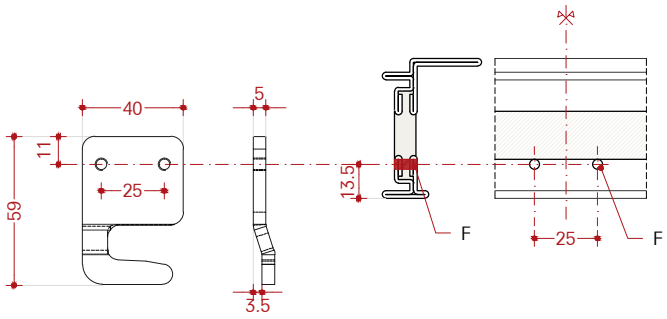




Locking
Chiusura
Fijación







A) Cut out 5x41 mm on frame profile
B) M5 holes on leaf profile
C) Fastening of locking hook with M5x14 ISO7045 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
F) Ø5.2 mm holes on FT 5509L-02

For any additional information please contact our technical office.

A) Rimuovere 5x41 mm sul profilo del telaio
B) Fori M5 su profilo anta
C) Fissaggio punto di chiusura e gancio addizionale con viti M5x14 ISO7045
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
F) Fori Ø5.2 mm su FT 5509L-02

Per ulteriori informazioni contattare l'ufficio tecnico.

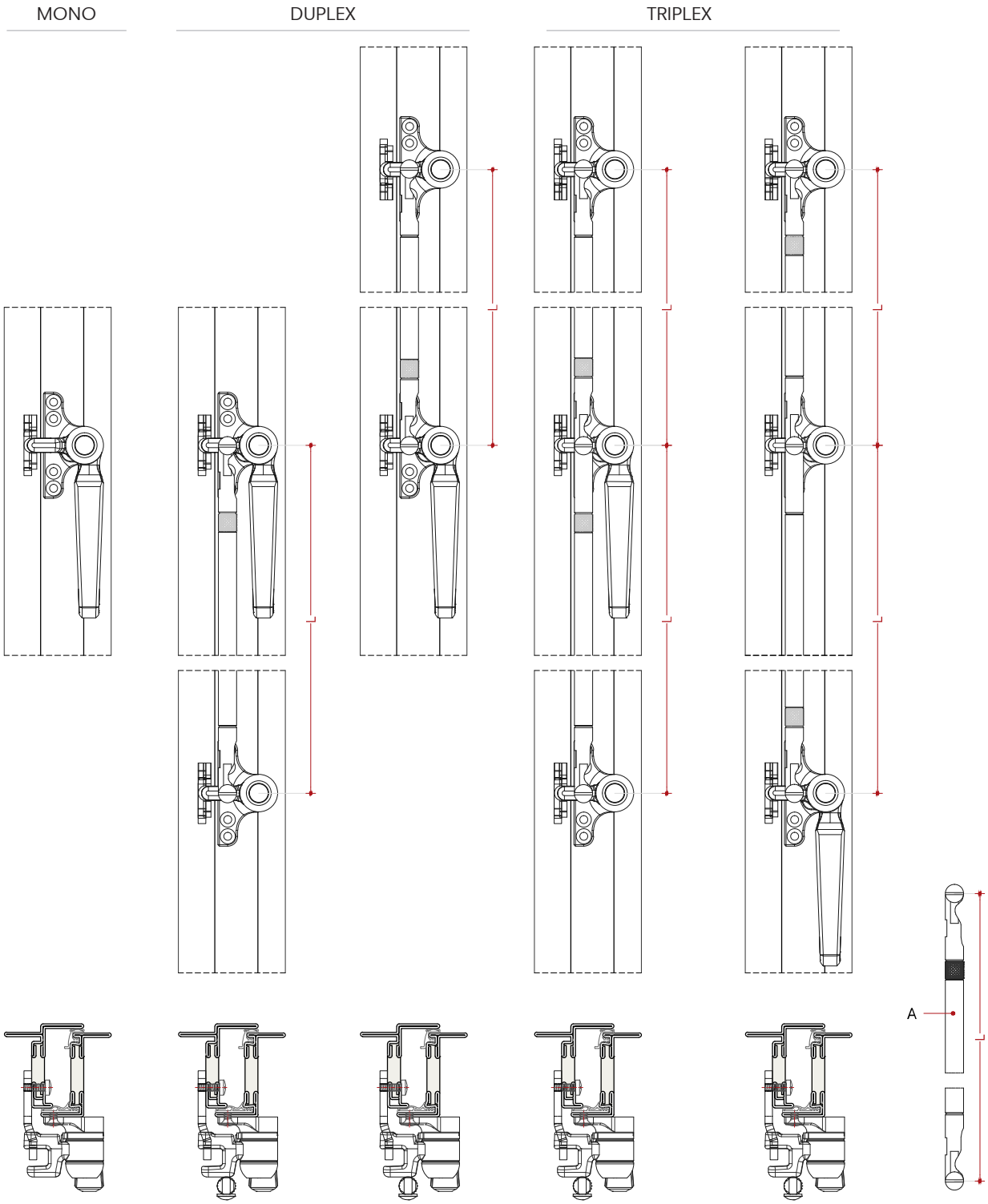
A) Pieza para retirar 5x41 mm en el perfil del marco
B) Oreficios M5 en el perfil de la hoja
C) Fijación del punto de bloqueo y gancho adicional con tornillos M5x14 ISO7045
D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
F) Oreficios Ø5.2 mm en FT 5509L-02

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open in, single leaf window
Right opening window

Montaggio
Maniglia Heritage per finestra
Finestra a un battente apertura interna, apertura destra

Montaje
Manilla de ventana Heritage
Apertura hacia dentro, ventana de 1 hoja
Apertura derecha



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

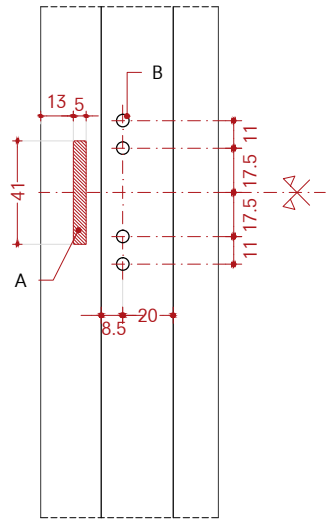
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

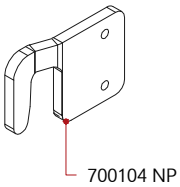
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

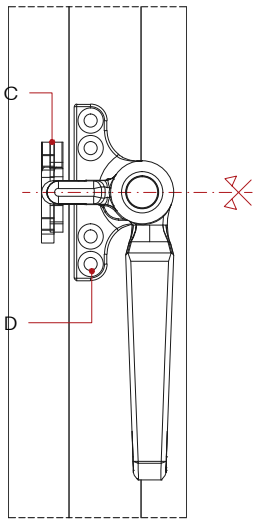
Assembly / Montaggio / Montaje

Profiles drilling
Foratura profili
Orificios en perfiles

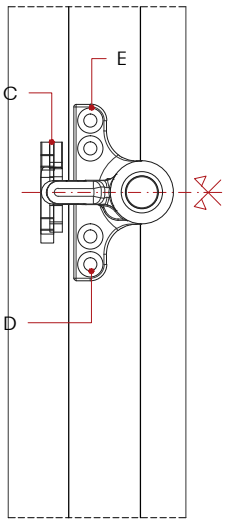


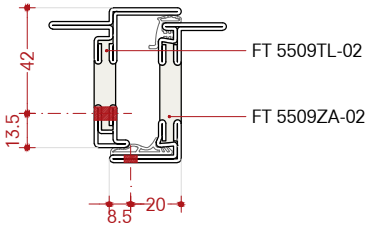
Handle and locking hook
Maniglia e gancio di chiusura
Manilla y gancho de cierre

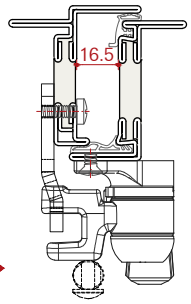


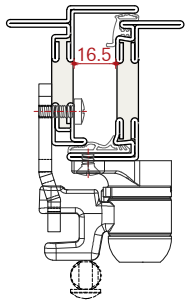


Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre

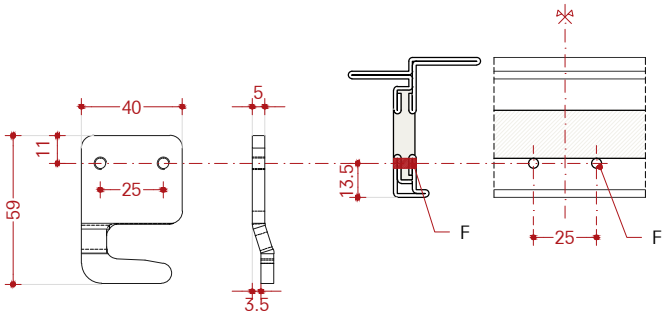








Locking
Chiusura
Fijación



A) Cut out 5x41 mm on frame profile
B) M5 holes on leaf profile
C) Fastening of locking hook with M5x14 ISO7045 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
F) Ø5.2 mm holes on FT 5509TL-02

For any additional information please contact our technical office.

A) Rimuovere 5x41 mm sul profilo del telaio
B) Fori M5 su profilo anta
C) Fissaggio punto di chiusura e gancio addizionale con viti M5x14 ISO7045
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
F) Fori Ø5.2 mm su FT 5509TL-02

Per ulteriori informazioni contattare l'ufficio tecnico.

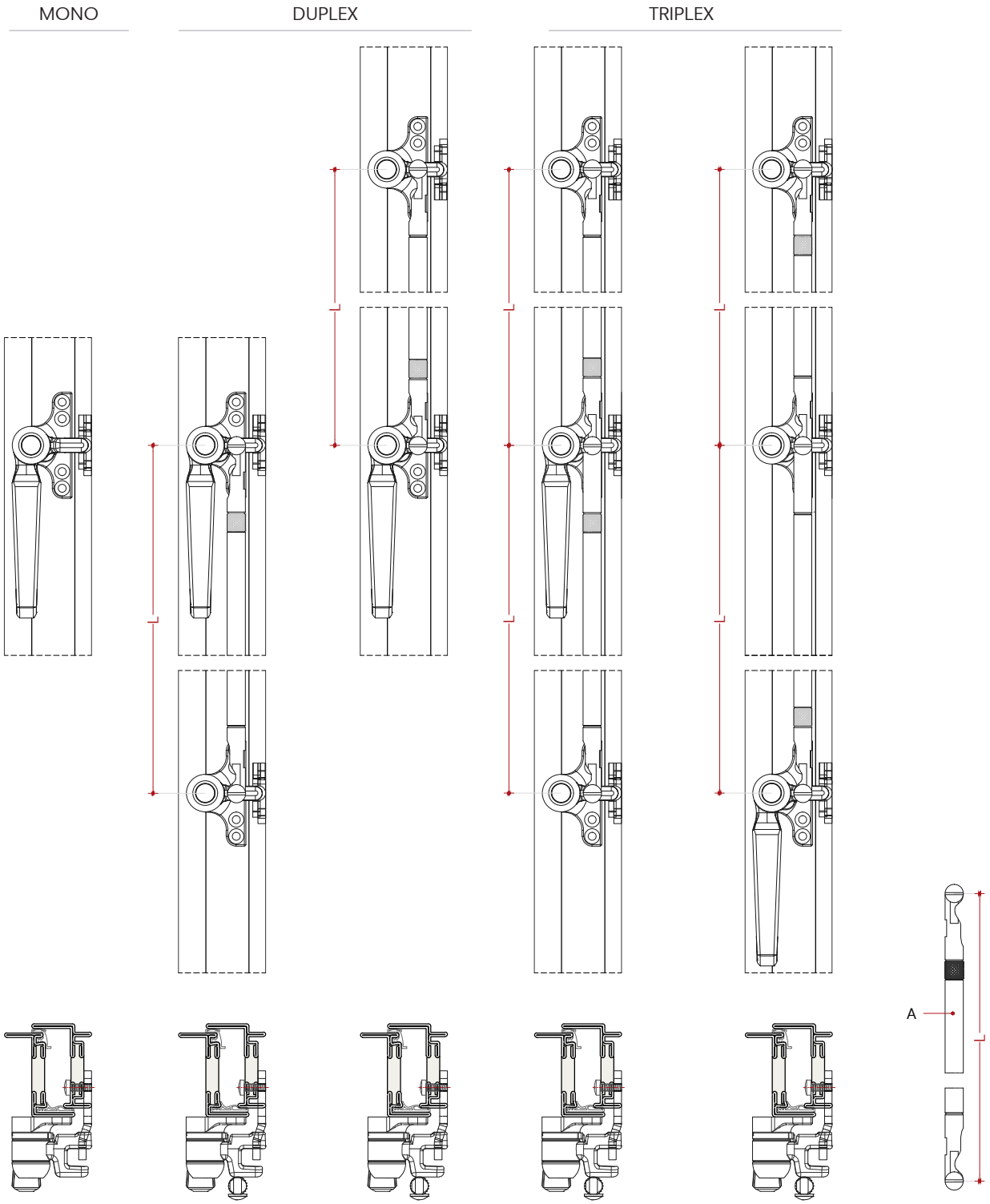
A) Pieza para retirar 5x41 mm en el perfil del marco
B) Oreficios M5 en el perfil de la hoja
C) Fijación del punto de bloqueo y gancho adicional con tornillos M5x14 ISO7045
D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
F) Oreficios Ø5.2 mm en FT 5509TL-02

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open in, single leaf window
Left opening window

Montaggio
Maniglia Heritage per finestra
Finestra a un battente apertura interna, apertura sinistra

Montaje
Manilla de ventana Heritage
Apertura hacia dentro, ventana de 1 hoja
Apertura izquierda



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

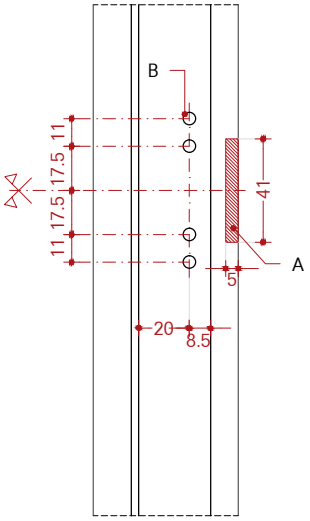
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

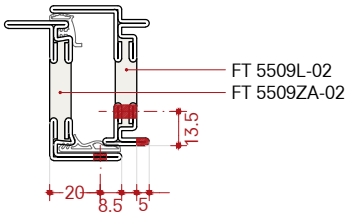
Escala 1:4
A) Barra de enlace

Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

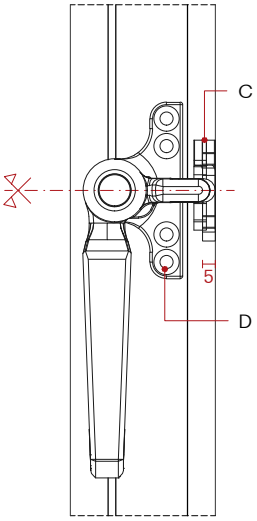
Assembly / Montaggio / Montaje

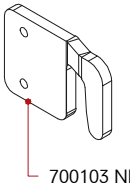
Profiles drilling
Foratura profili
Orificios en perfiles

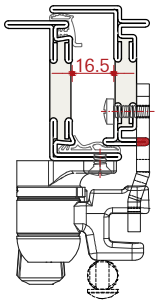




Handle and locking hook
Maniglia e gancio di chiusura
Manilla y gancho de cierre

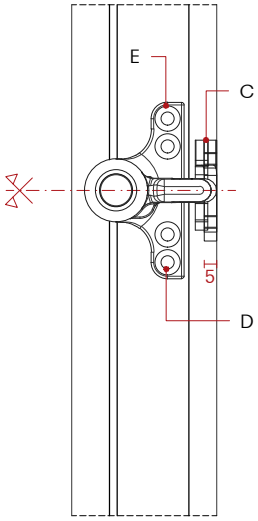


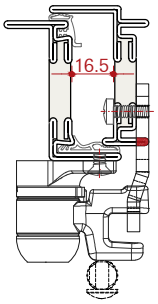


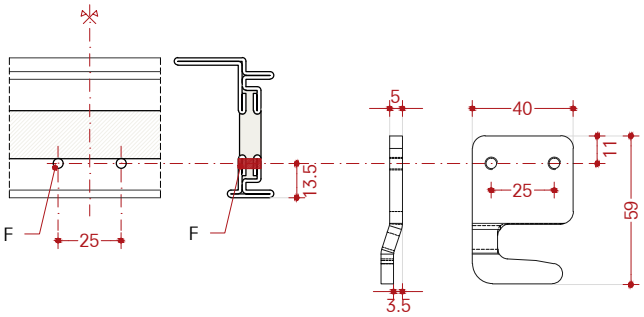


Locking
Chiusura
Fijación

Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre







A) Cut out 5x41 mm on frame profile
B) M5 holes on leaf profile
C) Fastening of locking hook with M5x14 ISO7045 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
F) Ø5.2 mm holes on FT 5509L-02

For any additional information please contact our technical office.

A) Rimuovere 5x41 mm sul profilo del telaio
B) Fori M5 su profilo anta
C) Fissaggio punto di chiusura e gancio addizionale con viti M5x14 ISO7045
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
F) Fori Ø5.2 mm su FT 5509L-02

Per ulteriori informazioni contattare l'ufficio tecnico.

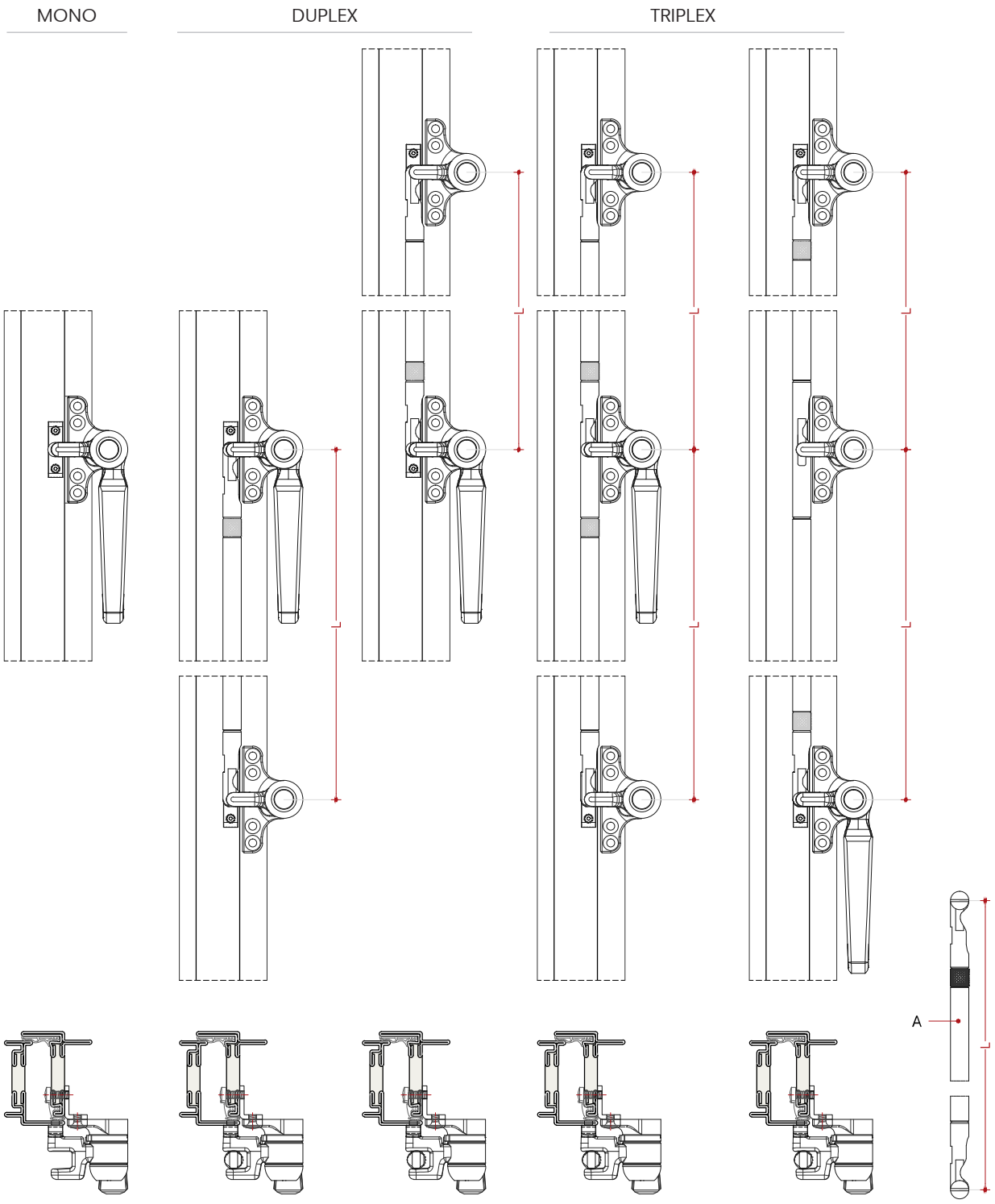
A) Pieza para retirar 5x41 mm en el perfil del marco
B) Oreficios M5 en el perfil de la hoja
C) Fijación del punto de bloqueo y gancho adicional con tornillos M5x14 ISO7045
D) Fijación del tirador con tornillos M5x8 ISO2010/ISO7047
E) 70122X nn varilla de conexión necesaria para conectar la manija al punto de bloqueo adicional
F) Oreficios Ø5.2 mm en FT 5509L-02

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open out, single leaf window

Montaggio
Maniglia Heritage per finestra
Finestra a un battente apertura esterna

Montaje
Manilla de ventana Heritage
Apertura hacia fuera, ventana de 1 hoja



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

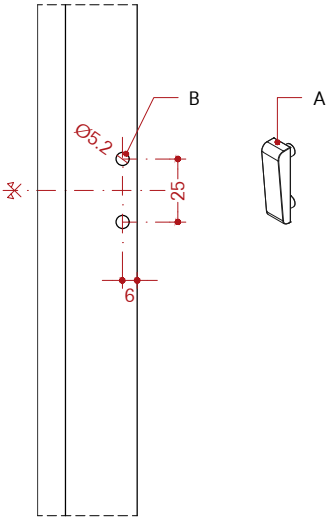
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

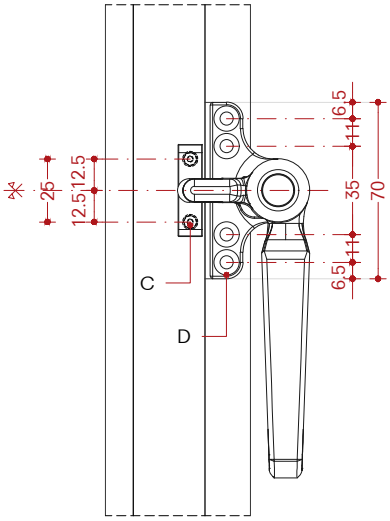
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Assembly / Montaggio / Montaje

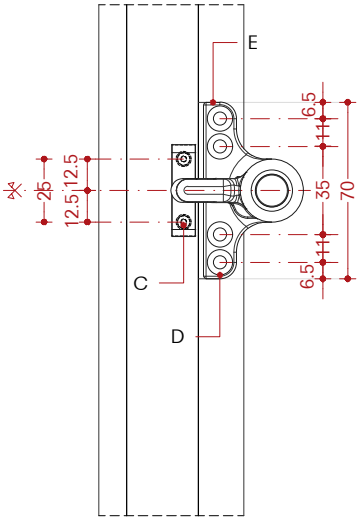
Profiles drilling
Foratura profili
Orificios en perfiles

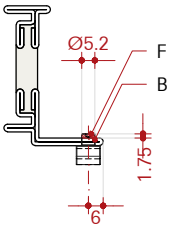


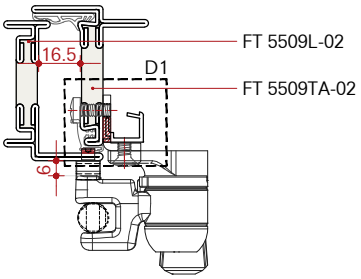
Handle and locking wedge
Maniglia e gancio di chiusura
Manilla y gancho de cierre

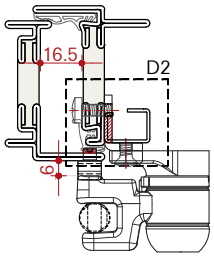


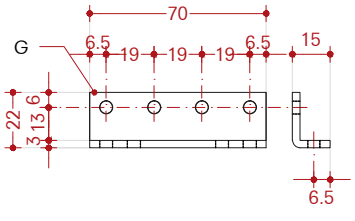
Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre

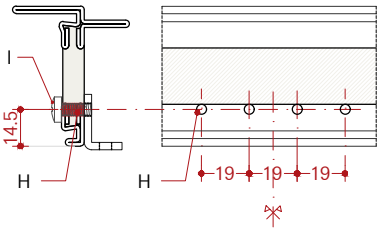


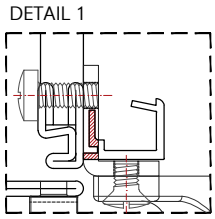


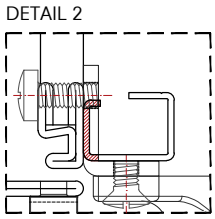












A) Wedge 700105 NB
B) Ø5 mm holes on frame profile
C) Fastening of 700105 NB on frame profile
D) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
E) A 70122X nn connection rod required to connect the handle to additional locking nose
F) Remove protrusions
G) Bracket D04121-03
H) Ø5.2 mm holes
I) Fastening with M5x12 ISO7045 screws

Detail 1-2) Glazing beads - fastening examples: cut out glazing bead accordingly (71x3.2 mm)

For any additional information please contact our technical office.

A) Cuneo 700105 NB
B) Fori Ø5 mm su profilo telaio
C) Fissaggio 700105 NB su profilo telaio
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
F) Rimuovere sporgenze
G) Staffa D04121-03
H) Fori Ø5.2 mm
I) Fissaggio con viti M5x12 ISO7045

Detail 1-2) Fermavetro - esempi di fissaggio: lavorare il profilo fermavetro in base alla tipologia (71x3.2 mm)

Per ulteriori informazioni contattare l'ufficio tecnico.

A) Cuña de bloqueo 700105 NB
B) Oreficios Ø5 mm en el perfil del marco
C) Fijación 700105 NB en el perfil del marco
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
F) Cortar
G) Ángulo D04121-03
H) Oreficios Ø5.2 mm
I) Fijación con tornillos M5x12 ISO7045

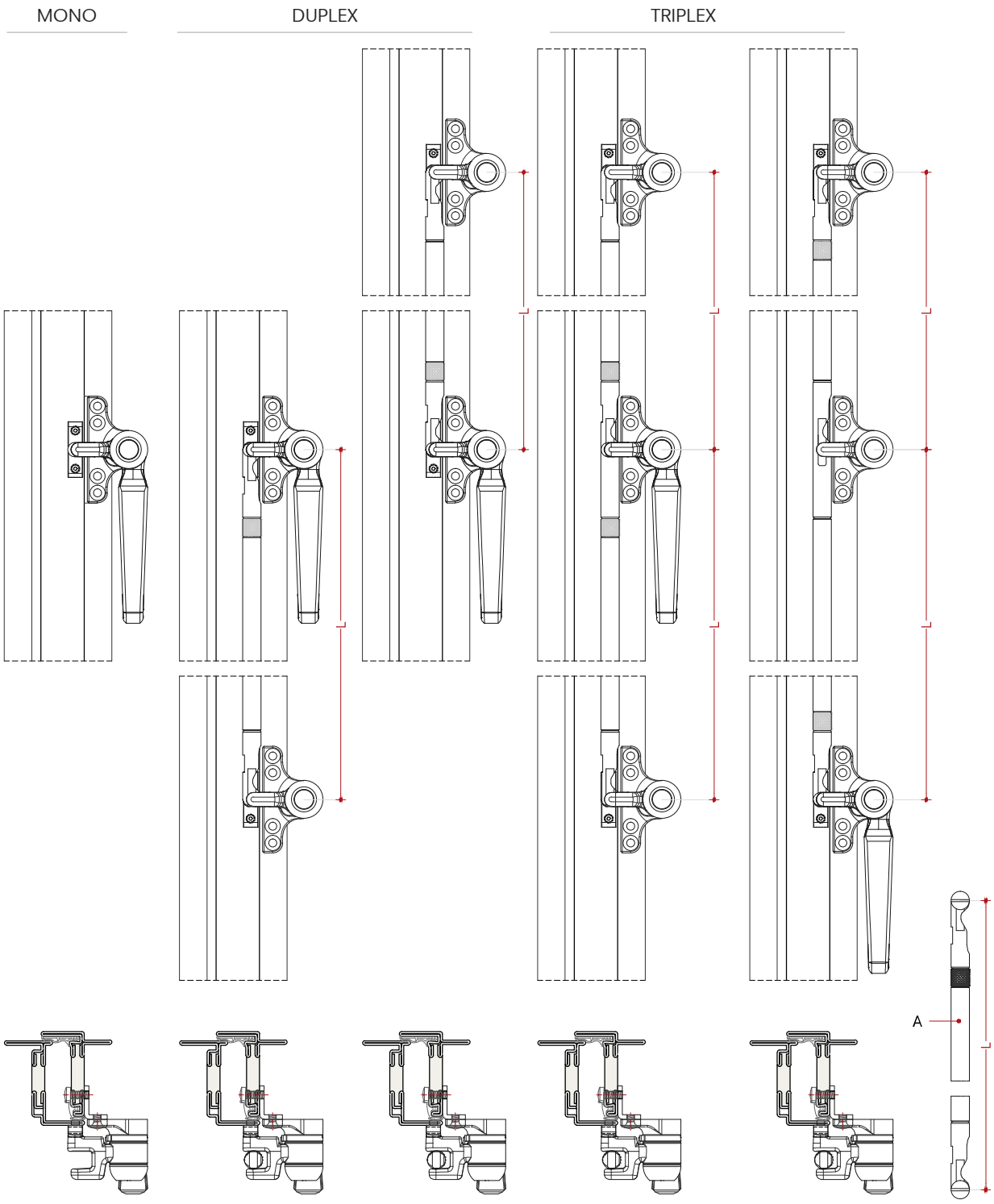
Detail 1-2) Barras de soporte de cristal - ejemplos de desenganche sujeción barra soporte cristal (71x3.2 mm)

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open out, single leaf window

Montaggio
Maniglia Heritage per finestra
Finestra a un battente apertura esterna

Montaje
Manilla de ventana Heritage
Apertura hacia fuera, ventana de 1 hoja



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

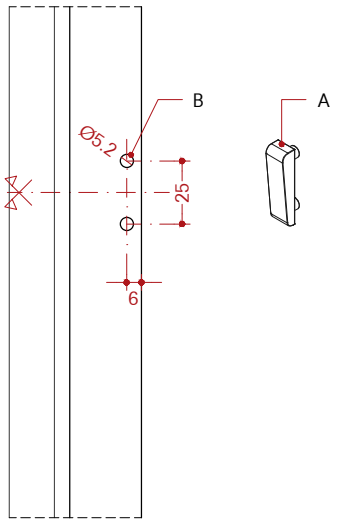
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

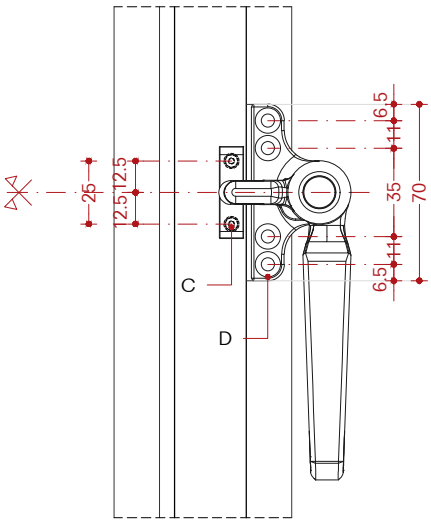
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Assembly / Montaggio / Montaje

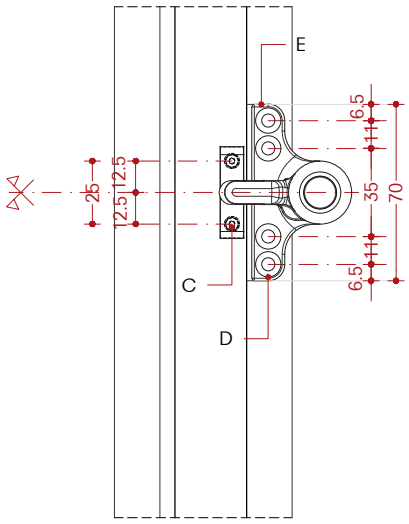
Profiles drilling
Foratura profili
Orificios en perfiles

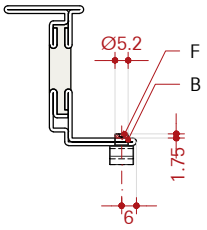


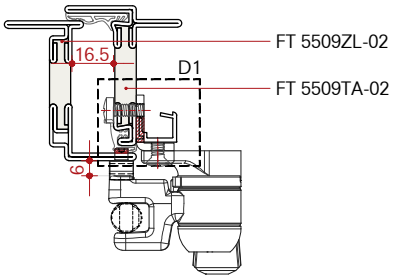
Handle and locking wedge
Maniglia e gancio di chiusura
Manilla y gancho de cierre

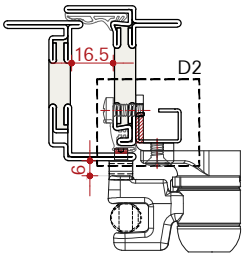


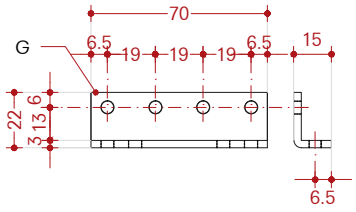
Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre

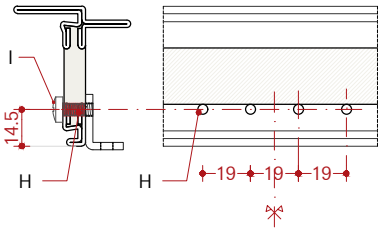


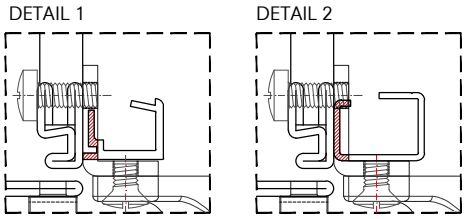












A) Wedge 700105 NB
B) Ø5 mm holes on frame profile
C) Fastening of 700105 NB on frame profile
D) Fastening of handle and of additional locking nose with M5x8 ISO2010/ISO7047 screws
E) A 70122X nn connection rod required to connect the handle to additional locking nose
F) Remove protrusions
G) Bracket D04121-03
H) Ø5.2 mm holes
I) Fastening with M5x12 ISO7045 screws

Detail 1-2) Glazing beads - fastening examples: cut out glazing bead accordingly (71x3.2 mm)

For any additional information please contact our technical office.

A) Cuneo 700105 NB
B) Fori Ø5 mm su profilo telaio
C) Fissaggio 700105 NB su profilo telaio
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
F) Rimuovere sporgenze
G) Staffa D04121-03
H) Fori Ø5.2 mm
I) Fissaggio con viti M5x12 ISO7045

Detail 1-2) Fermavetro - esempi di fissaggio: lavorare il profilo fermavetro in base alla tipologia (71x3.2 mm)

Per ulteriori informazioni contattare l'ufficio tecnico.

A) Cuña de bloqueo 700105 NB
B) Oreficios Ø5 mm en el perfil del marco
C) Fijación 700105 NB en el perfil del marco
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
F) Cortar
G) Ángulo D04121-03
H) Oreficios Ø5.2 mm
I) Fijación con tornillos M5x12 ISO7045

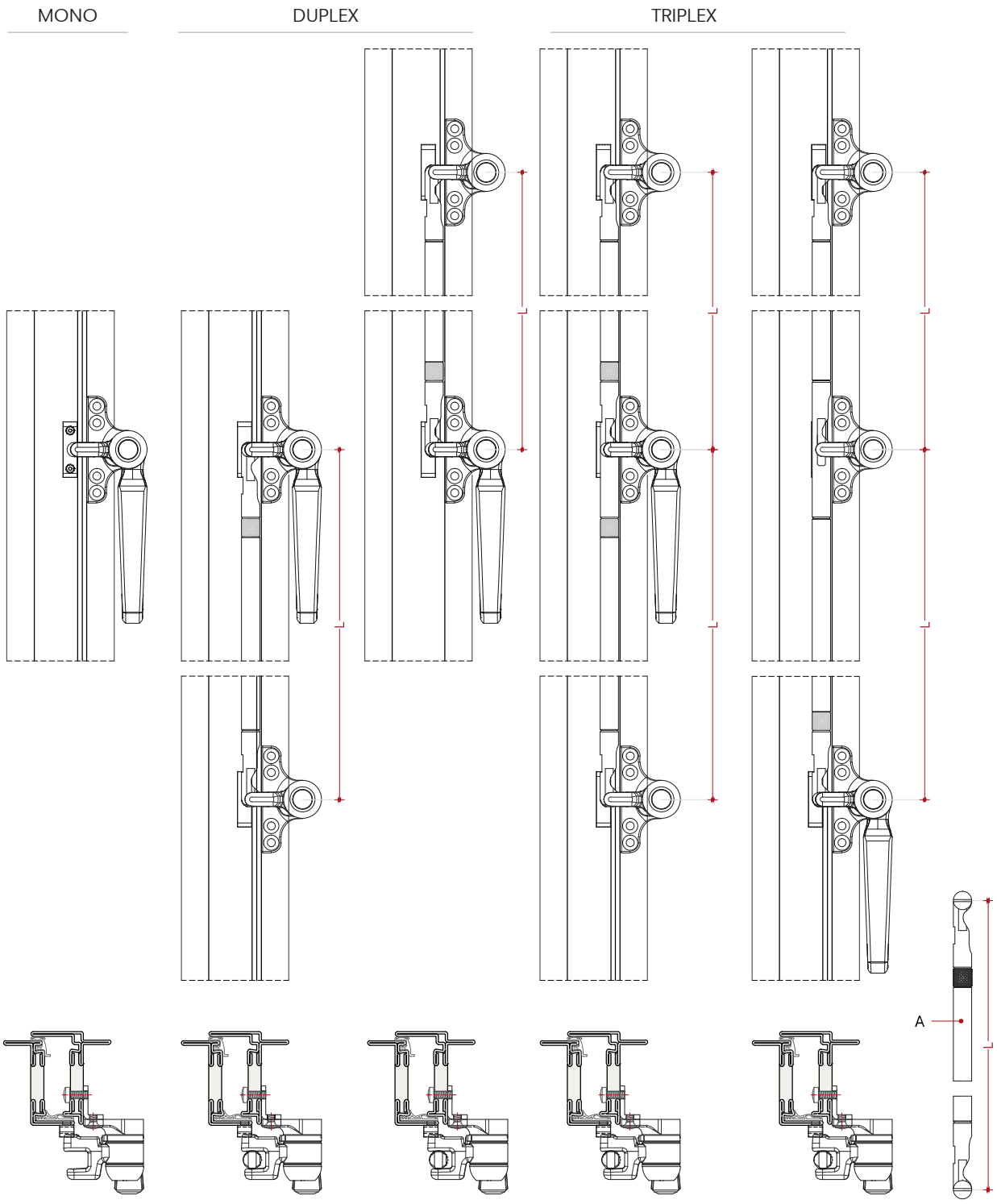
Detail 1-2) Barras de soporte de cristal - ejemplos de desenganche sujeción barra soporte cristal (71x3.2 mm)

Para más información contactar la nuestra oficina técnica.

Installation
Heritage window handle
Open out, double leaf window

Montaggio
Maniglia Heritage per finestra
Finestra a due battenti apertura esterna

Montaje
Manilla de ventana Heritage
Apertura hacia fuera, ventana de 2 hojas



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

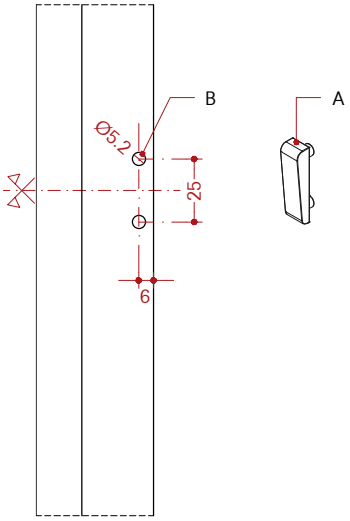
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Escala 1:4
A) Barra de enlace

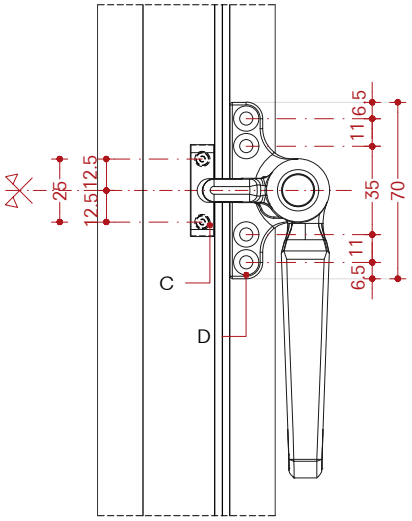
Code	L
701220 nn	600 mm
701221 nn	750 mm
701222 nn	900 mm
701223 nn	1050 mm
701224 nn	1200 mm

Assembly / Montaggio / Montaje

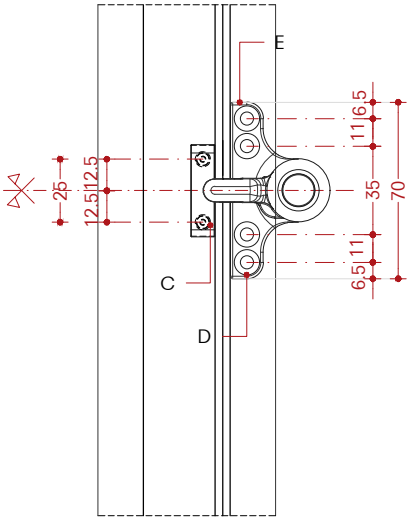
Profiles drilling
Foratura profili
Orificios en perfiles

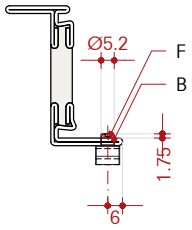


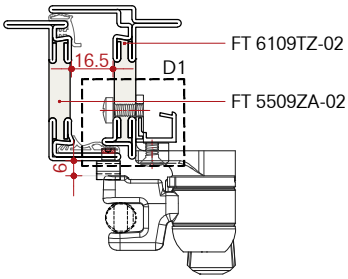
Handle and locking wedge
Maniglia e gancio di chiusura
Manilla y gancho de cierre

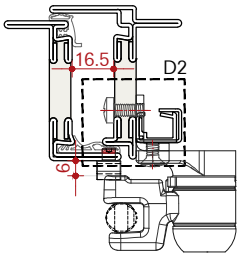


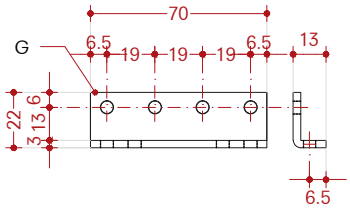
Additional locking nose and hook
Punto di chiusura e gancio addizionali
Cierre adicional y gancho de cierre

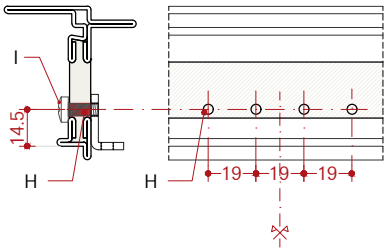




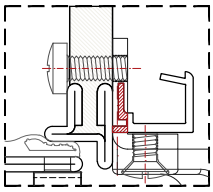




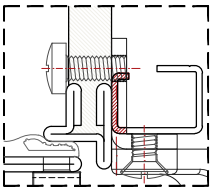




DETAIL 1



DETAIL 2



A) Wedge 700105 NB
B) Ø5 mm holes
C) Fastening of 700105 NB
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
F) Remove protrusions
G) Bracket D04122-03
H) Ø5.2 mm holes
I) Fastening with M5x12 ISO7045 screws

Detail 1-2) Glazing beads - fastening examples: cut out glazing bead accordingly (71x3.2 mm)

For any additional information please contact our technical office.

A) Cuneo 700105 NB
B) Fori Ø5 mm
C) Fissaggio 700105 NB
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
F) Rimuovere sporgenze
G) Staffa D04122-03
H) Fori Ø5.2 mm
I) Fissaggio con viti M5x12 ISO7045

Detail 1-2) Fermavetro - esempi di fissaggio: lavorare il profilo fermavetro in base alla tipologia (71x3.2 mm)

Per ulteriori informazioni contattare l'ufficio tecnico.

A) Cuña de bloqueo 700105 NB
B) Oreficios Ø5 mm
C) Fijación 700105 NB
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
F) Cortar
G) Ángulo D04122-03
H) Oreficios Ø5.2 mm
I) Fijación con tornillos M5x12 ISO7045

Detail 1-2) Barras de soporte de cristal - ejemplos de desenganche sujeción barra soporte cristal (71x3.2 mm)

Para más información contactar la nuestra oficina técnica.

Installation
Cremone for round rods

Montaggio
Cremonese per aste tonde

Montaje
Falleba para varillas redondas

K99088

Height 400 - 1000 mm

H99026-26 n°01 piece
E99141-26 n°01 piece
E99144-26 n°04 pieces
E99146-26 n°02 pieces

K99088

Altezza 400 - 1000 mm

K99088

Altura 400 - 1000 mm

K99089

Height 1001 - 1500 mm

H99026-26 n°01 piece
E99142-26 n°01 piece
E99144-26 n°04 pieces
E99146-26 n°02 pieces

K99089

Altezza 1001 - 1500 mm

K99089

Altura 1001 - 1500 mm

K99090

Height 1501 - 3000 mm

H99026-26 n°01 piece
E99143-26 n°01 piece
E99144-26 n°07 pieces
E99146-26 n°02 pieces

K99090

Altezza 1501 - 3000 mm

K99090

Altura 1501 - 3000 mm

K99091

Height 3001 - 3200 mm

H99026-26 n°01 piece
E99141-26 n°01 piece
E99143-26 n°01 piece
E99144-26 n°08 pieces
E99146-26 n°02 pieces

K99091

Altezza 3001 - 3200 mm

K99091

Altura 3001 - 3200 mm

Note:

Please evaluate the wind load.

Nota:

Necessario considerare la spinta del vento.

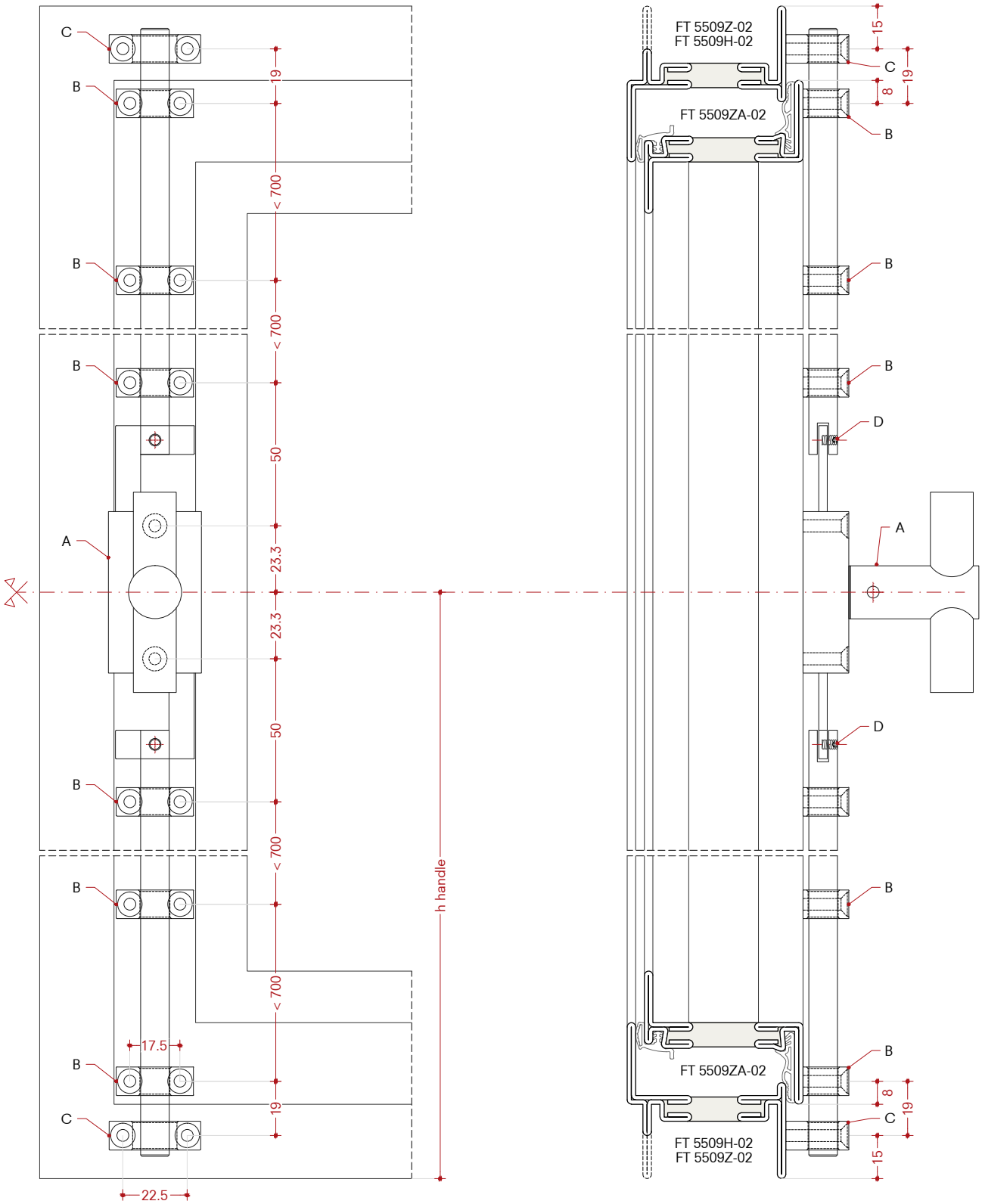
Nota:

Por favor, evalúe la carga de viento.

Installation
Cremone for round rods
Single leaf window

Montaggio
Cremonese per aste tonde
Finestra anta singola

Montaje
Falleba para varillas redondas
Ventana de una hoja



A) Handle and cremone H99026-26
B) Pass through guide E99144-26
C) Strike plate E99146-26
D) Stud

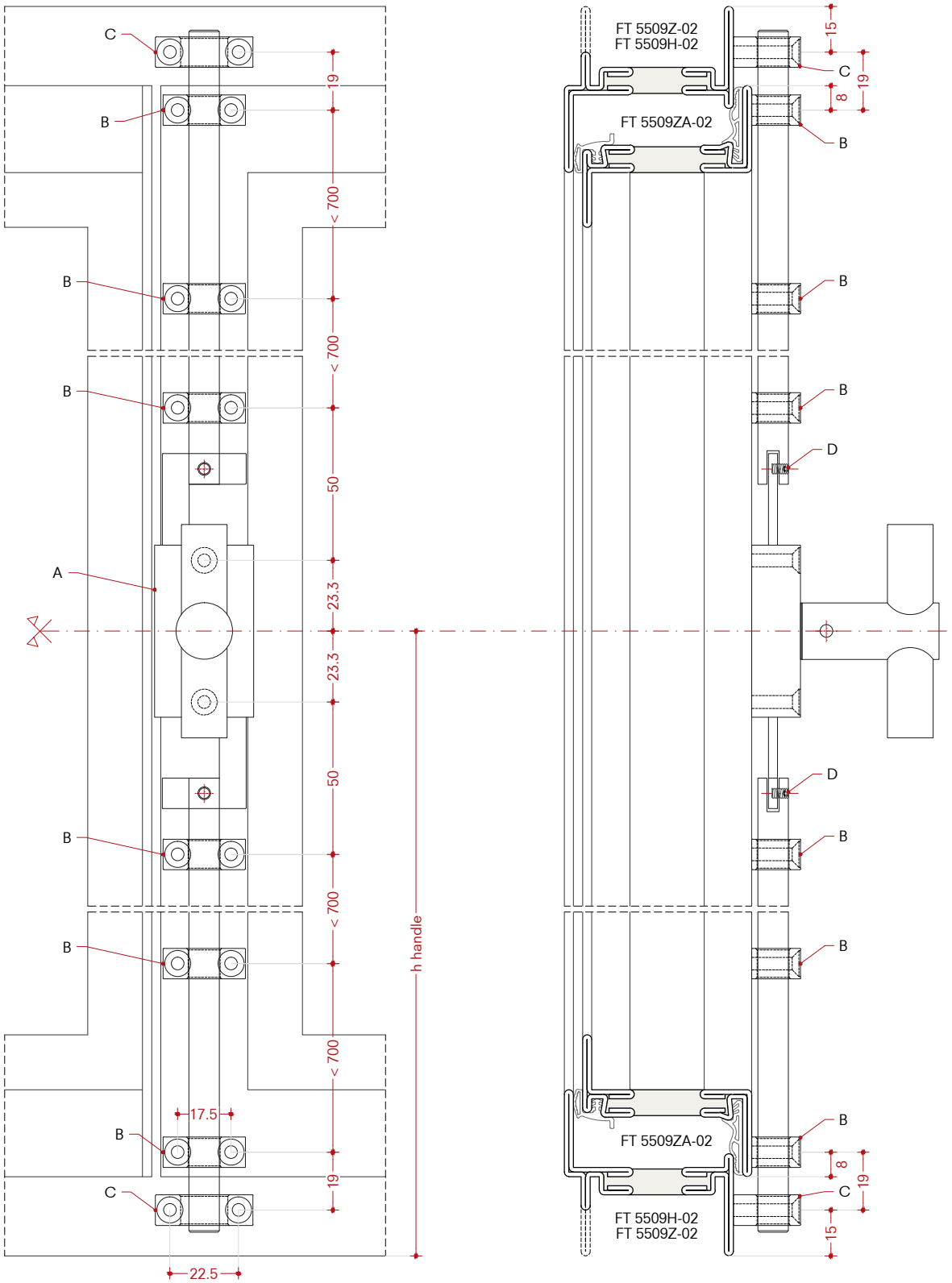
A) Maniglia e cremonese H99026-26
B) Passante asta E99144-26
C) Riscontro E99146-26
D) Nottolino

A) Manilla y falleba H99026-26
B) Guía de paso E99144-26
C) Chapa de cierre E99146-26
D) Alfiler

Installation
Cremone for round rods
Double leaf window

Montaggio
Cremonese per aste tonde
Finestra a due battenti

Montaje
Falleba para varillas redondas
Ventana de dos hojas



A) Handle and cremone H99026-26
B) Pass through guide E99144-26
C) Strike plate E99146-26
D) Stud

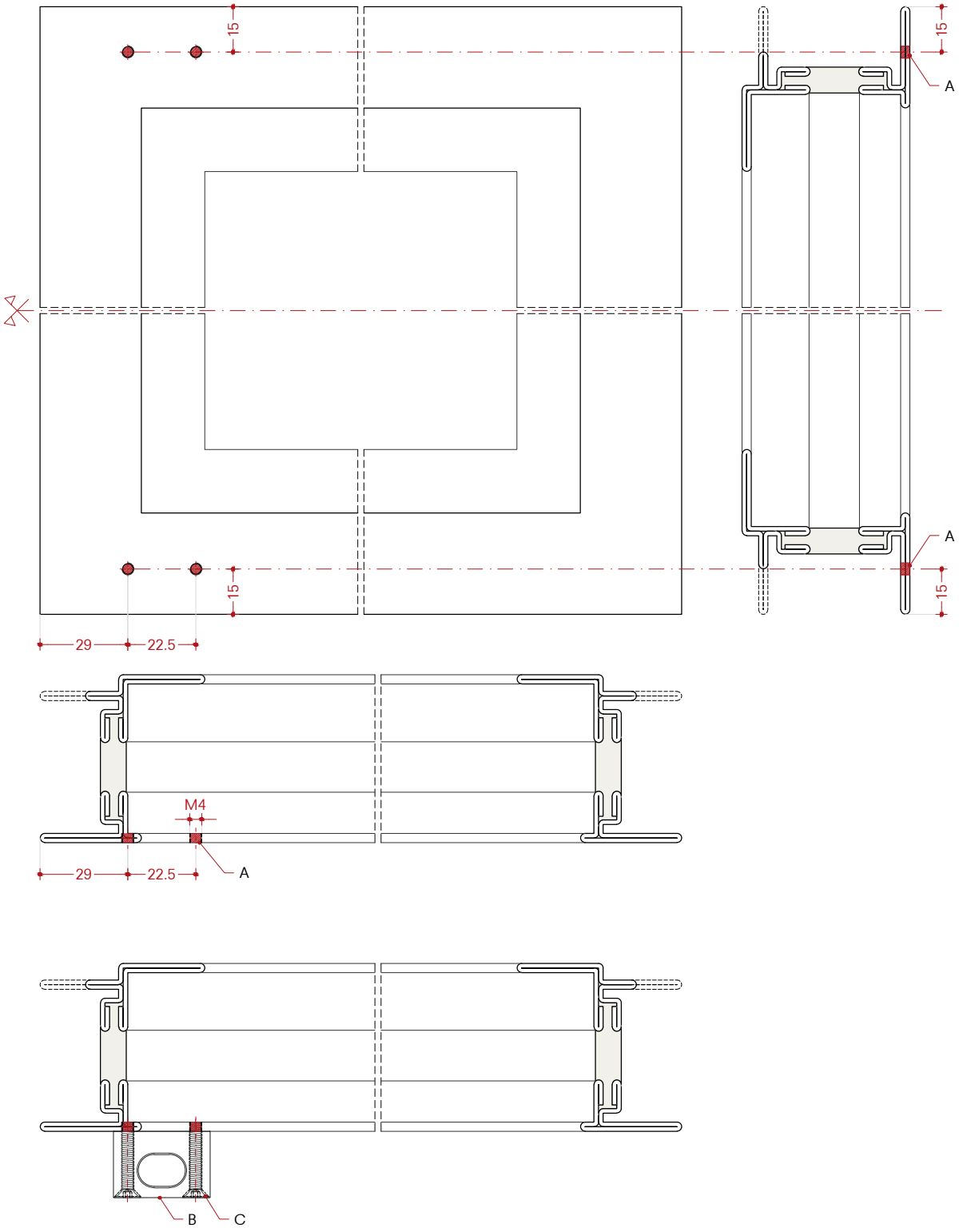
A) Maniglia e cremonese H99026-26
B) Passante asta E99144-26
C) Riscontro E99146-26
D) Nottolino

A) Manilla y falleba H99026-26
B) Guía de paso E99144-26
C) Chapa de cierre E99146-26
D) Alfiler

Installation
Cremone for round rods
Frame profile

Montaggio
Cremonese per aste tonde
Profilo telaio

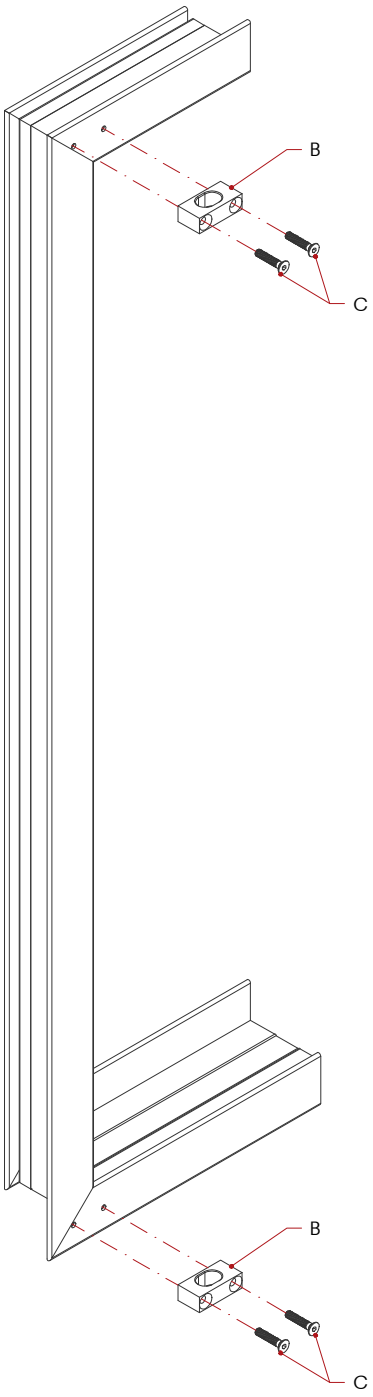
Montaje
Falleba para varillas redondas
Perfil del marco



A) M4 holes
B) Strike plate E99146-26
C) Fastening with M4x25 mm ISO10642 screws

A) Fori M4
B) Riscontro E99146-26
C) Fissaggio con viti M4x25 mm ISO10642

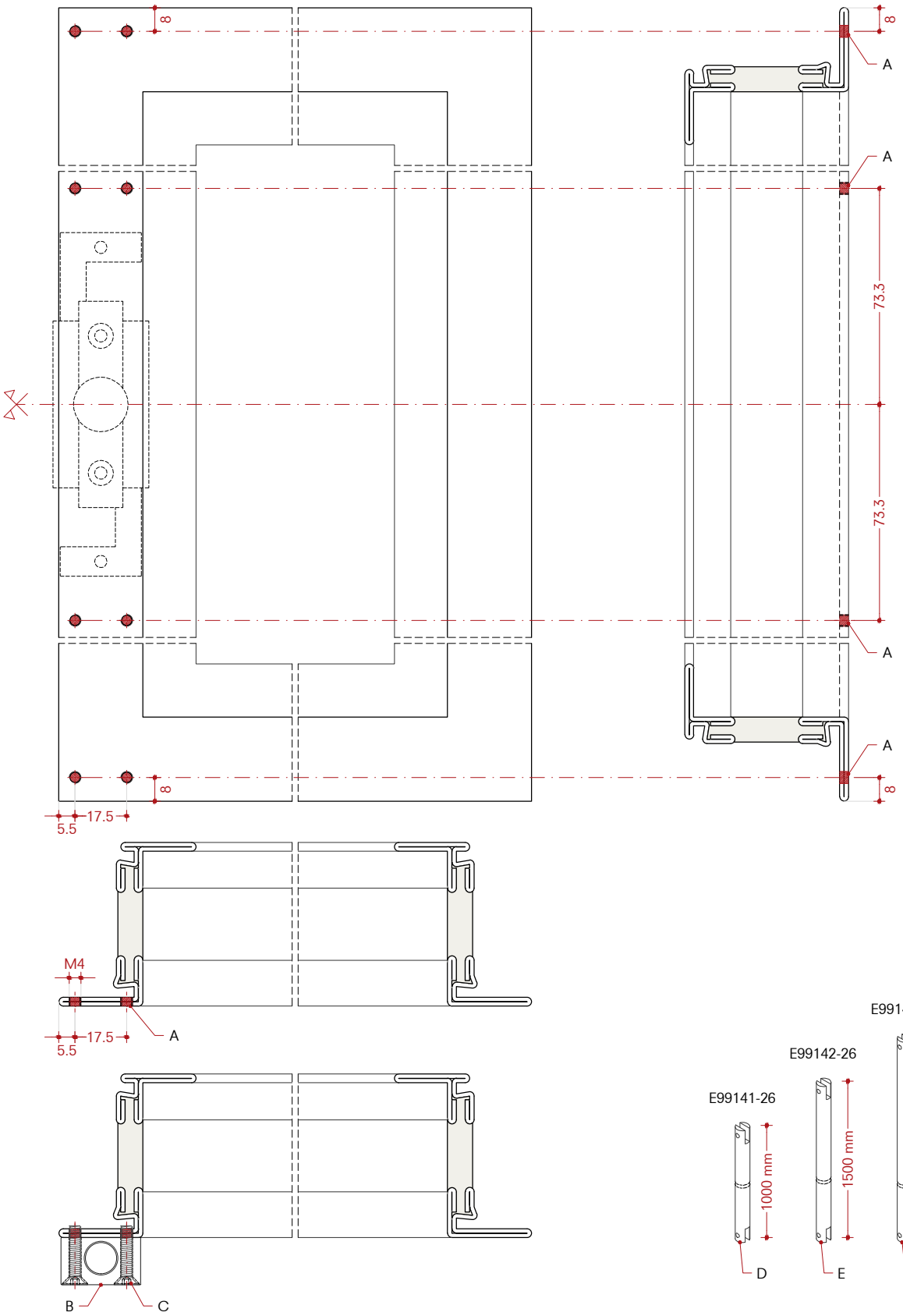
A) Orificios M4
B) Chapa de cierre E99146-26
C) Fijación con tornillos M4x25 mm ISO10642

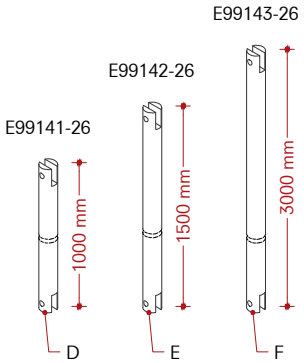

B
C
B
C

Installation
Cremone for round rods
Leaf profile

Montaggio
Cremonese per aste tonde
Profilo anta

Montaje
Falleba para varillas redondas
Perfil de la hoja

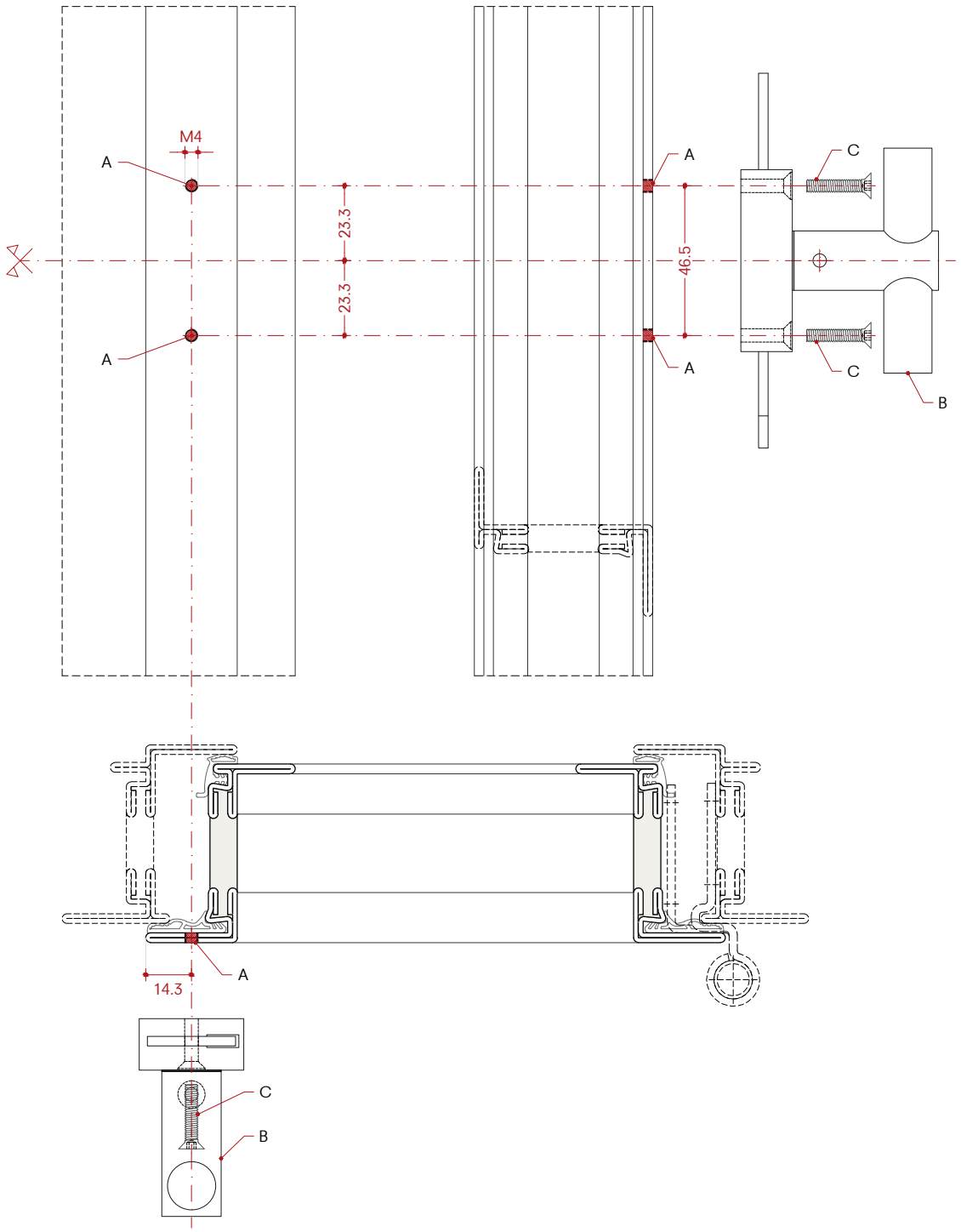




A) M4 holes
B) Pass through guide E99144-26
C) Fastening with M4x20 mm ISO10642 screws

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

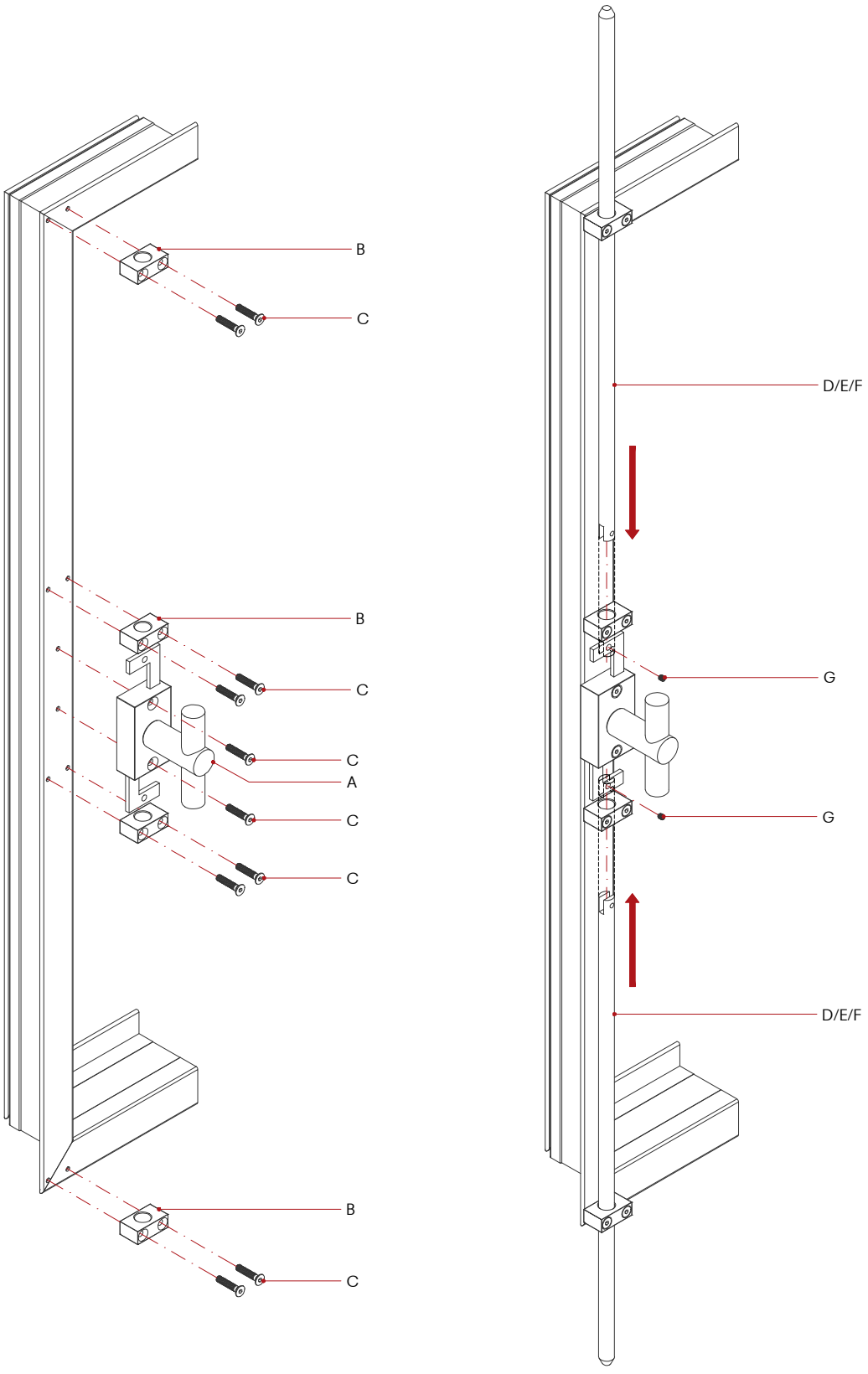
A) Fori M4
B) Maniglia e cremonese H99026-26
C) Fissaggio con viti M4x20 mm ISO10642

A) Orificios M4
B) Manilla y falleba H99026-26
C) Fijación con tornillos M4x20 mm ISO10642

Installation
Cremone for round rods
Leaf profile

Montaggio
Cremonese per aste tonde
Profilo anta

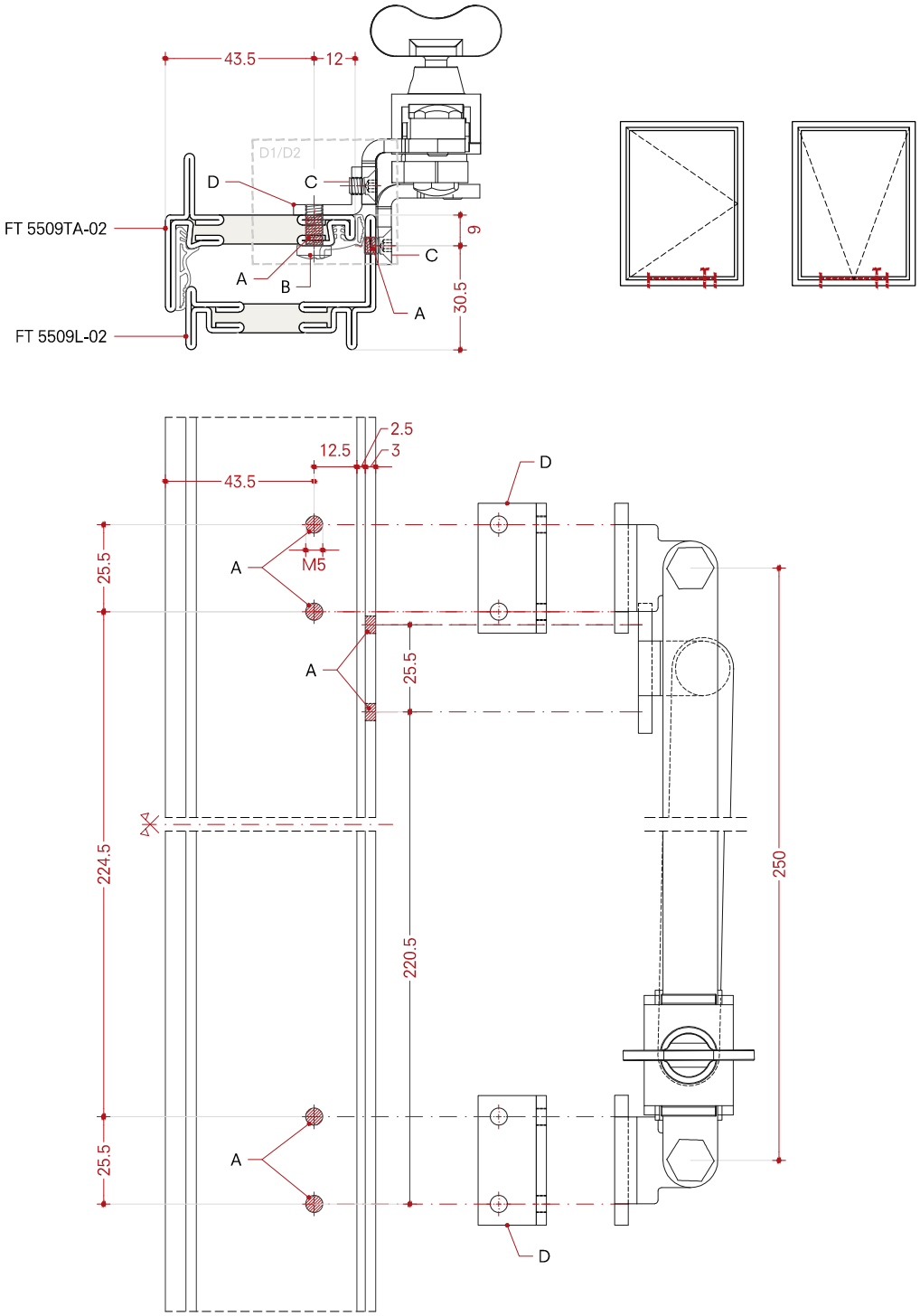
Montaje
Falleba para varillas redondas
Perfil de la hoja



Installation
Slide stay 700112 nn (L = 250)
Open out

Montaggio
Braccio di bloccaggio scorrevole
700112 nn (L = 250)
Apertura esterna

Montaje
Soporte deslizante
700112 nn (L = 250)
Apertura hacia fuera

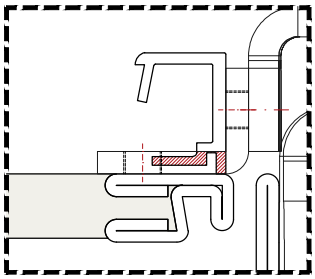


A) M5 holes
B) Fastening with M5x12 mm ISO7045 screws
C) Fastening with M5x8 mm ISO10642 screws
D) Peg stay brackets D99128-03

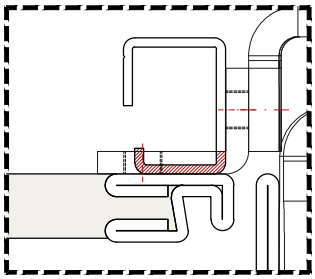
A) fori M5
B) Fissaggio con viti M5x12 mm ISO7045
C) Fissaggio con viti M5x8 mm ISO10642
D) Staffa D99128-03 per supporto braccio di bloccaggio

A) Orificios M5
B) Fijación con tornillos M5x12 mm ISO7045
C) Fijación con tornillos M5x8 mm ISO10642
D) Soportes angulares de acero inoxidable D99128-03

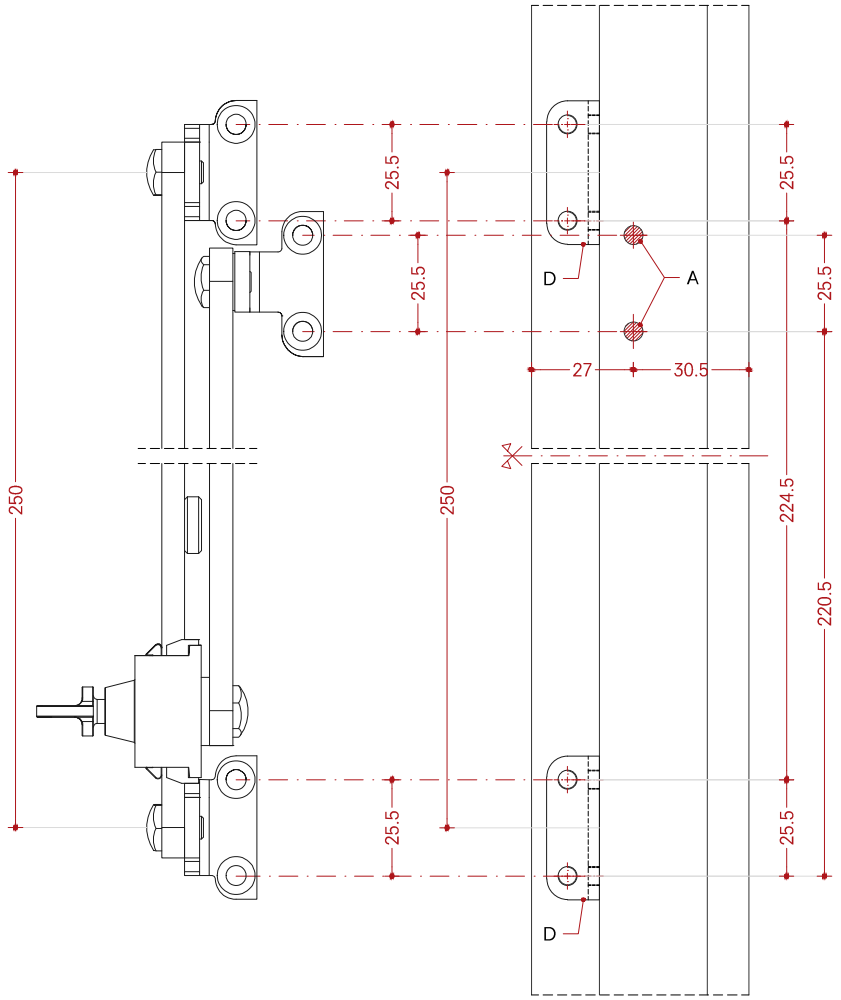
DETAIL 1



DETAIL 2



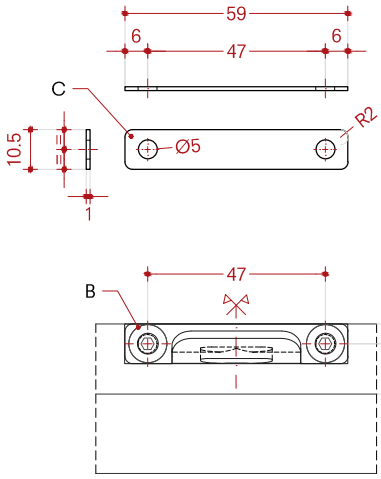
Glazing beads - fastening examples - glazing bead cut out (40x3.2 mm)
Profili fermavetro - esempi di fissaggio - lavorazione profili fermavetro (40x3.2 mm)
Perlas de esmalte - ejemplos de fijación - ajuste de la cuenta de esmaltar (cuenta de esmalte de esmalte 40x3.2 mm)

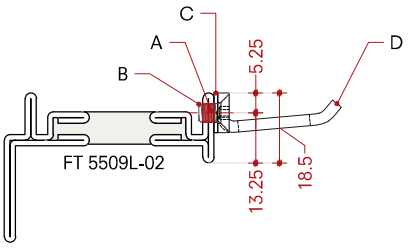


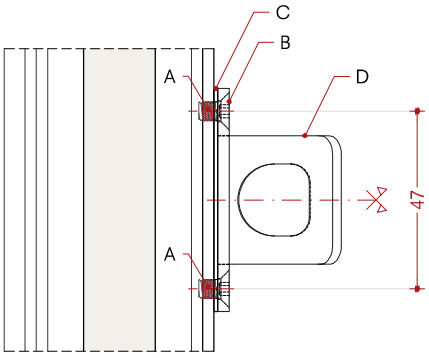
Installation
Spring catch 703000 nn
and spring catch plate 703001 nn

Montaggio
Cricchetto 703000 nn
e riscontro 703001 nn

Montaje
Pasador 703000 nn
y placa de fijador 703001 nn



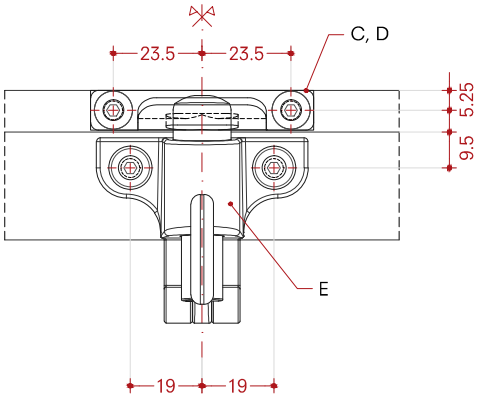


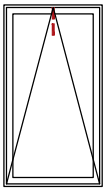


Single spring catch

Cricchetto singolo

Lengüeta de pasador

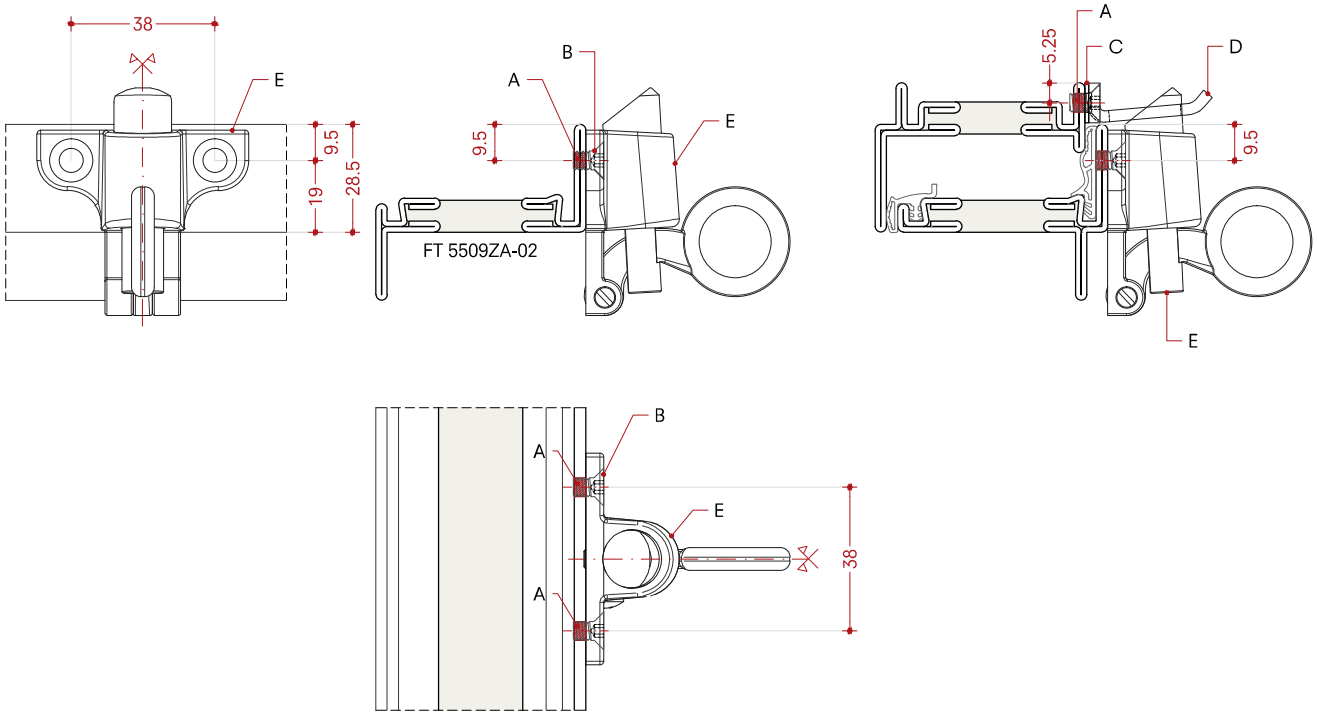




A) M5 holes
B) Fastening with M5x8 ISO10642 screws
C) Shim stainless steel AISI 304 in-house production
D) 703001 nn spring catch plate
E) 703000 nn spring catch

A) Fori M5
B) Fissaggio con viti M5x8 ISO10642
C) Piatto in acciaio inox AISI 304 (non fornito)
D) 703001 nn piastra per cricchetto
E) 703000 nn cricchetto

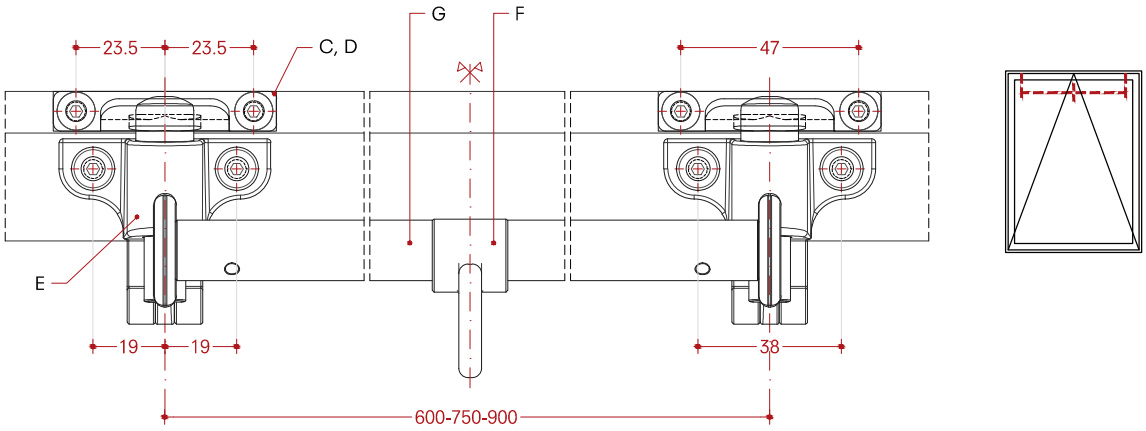
A) Oreficios M5
B) Fijación con tornillos M5x8 ISO10642
C) Placa de acero inoxidable AISI 304 (no provisto)
D) 703001 nn placa para lengüeta
E) 703000 nn lengüeta de pasador



Double spring catch

Cricchetto doppio

Lengüeta de pasador doble



A) M5 holes
B) Fastening with M5x8 ISO10642 screws
C) Shim stainless steel AISI 304 in-house production
D) 703001 nn spring catch plate
E) 703000 nn spring catch
F) 700520 nn connecting tube ring
G) Connecting tube
700510 nn L = 600
700511 nn L = 750
700512 nn L = 900

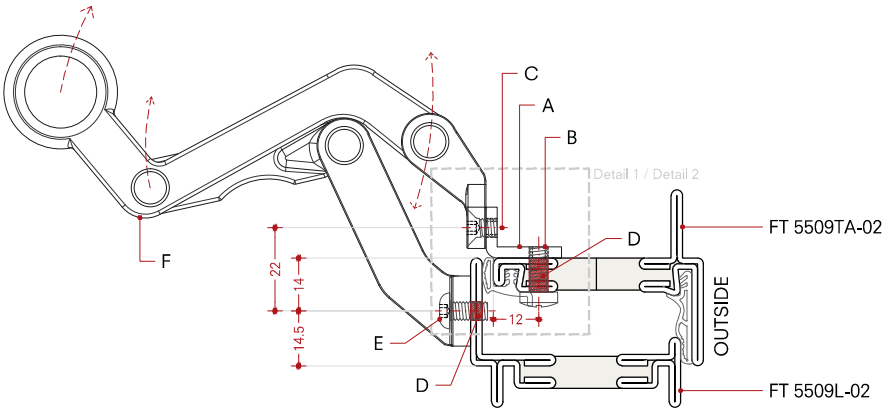
A) Fori M5
B) Fissaggio con viti M5x8 ISO10642
C) Piatto in acciaio inox AISI 304 (non fornito)
D) 703001 nn piastra per cricchetto
E) 703000 nn cricchetto
F) 700520 nn anello tubo collegamento
G) Tubo di collegamento
700510 nn L = 600
700511 nn L = 750
700512 nn L = 900

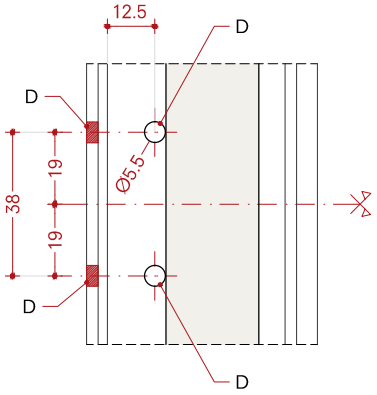
A) Oreficios M5
B) Fijación con tornillos M5x8 ISO10642
C) Placa de acero inoxidable AISI 304 (no provisto)
D) 703001 nn placa para lengüeta
E) 703000 nn lengüeta de pasador
F) 700520 nn anillo tubo de conexión
G) Tubo de conexión
700510 nn L = 600
700511 nn L = 750
700512 nn L = 900

Installation
Folding opener
700500 nn and 700501 nn

Montaggio
Braccio a compasso
700500 nn e 700501 nn

Montaje
Brazo articulado
700500 nn y 700501 nn

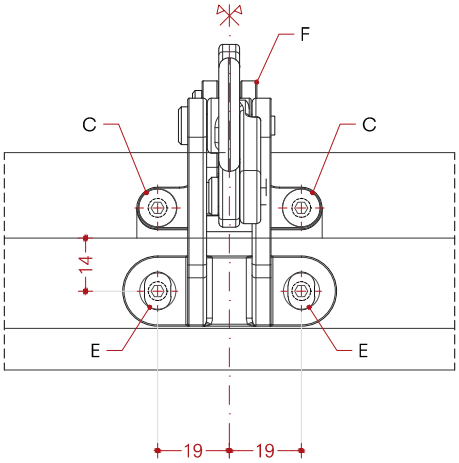


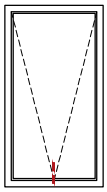


Single folding opener

Braccio a compasso singolo

brazo articulado

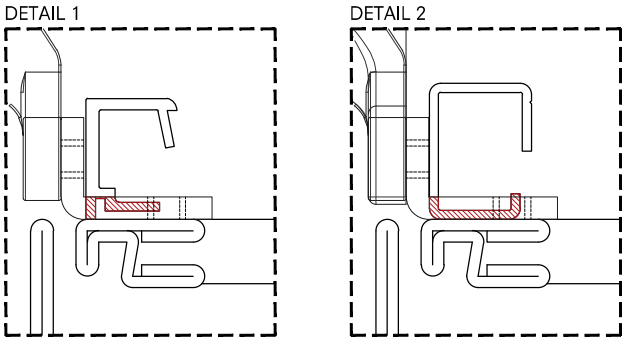




A) D04124-03 bracket folding opener
B) Fastening with M5x12 ISO7045 screws
C) Fastening with M5x8 ISO10642 screws
D) Hole Ø5.5 mm
E) Fastening with M5x10 ISO7380 screws
F) 700500 nn folding opener

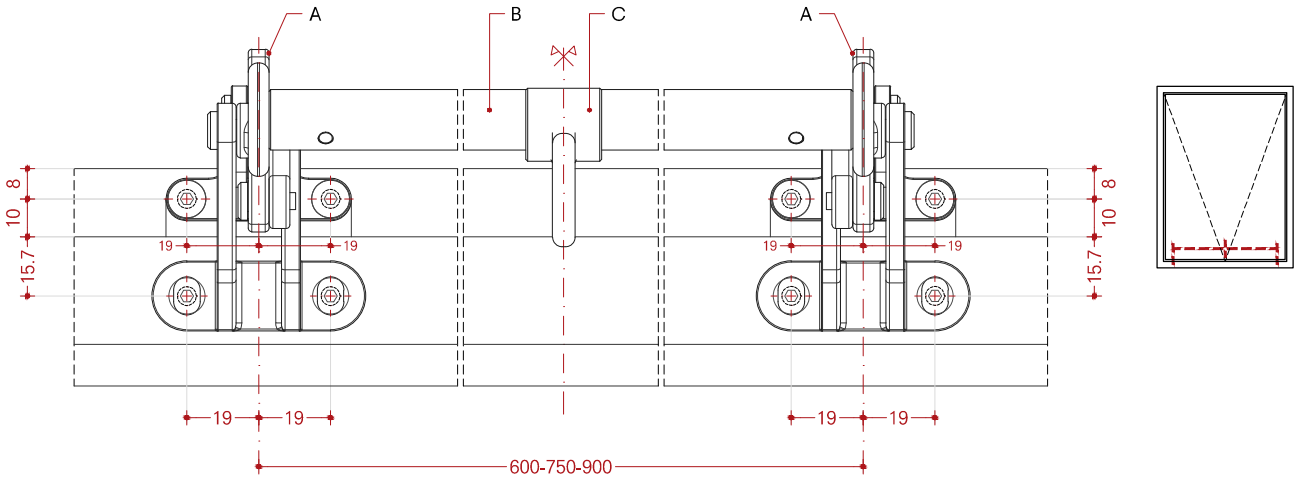
A) D04124-03 staffa per braccio a compasso
B) Fissaggio con viti M5x12 ISO7045
C) Fissaggio con viti M5x8 ISO10642
D) Foro Ø5.5 mm
E) Fissaggio con viti M5x10 ISO7380
F) 700500 nn braccio a compasso

A) D04124-03 soporte de brazo articulado
B) Fijación con tornillos M5x12 ISO7045
C) Fijación con tornillos M5x8 ISO10642
D) Oreficio Ø5.5 mm
E) Fijación con tornillos M5x10 ISO7380
F) 700500 nn brazo articulado



Glazing beads - fastening examples - glazing bead cut out (50x3.2 mm)
Profili fermavetro - esempi di fissaggio - lavorazione profili fermavetro (50x3.2 mm)
Perlas de esmalte - ejemplos de fijación - ajuste de la cuenta de esmaltar (cuenta de esmalte de esmalte 50x3.2 mm)

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

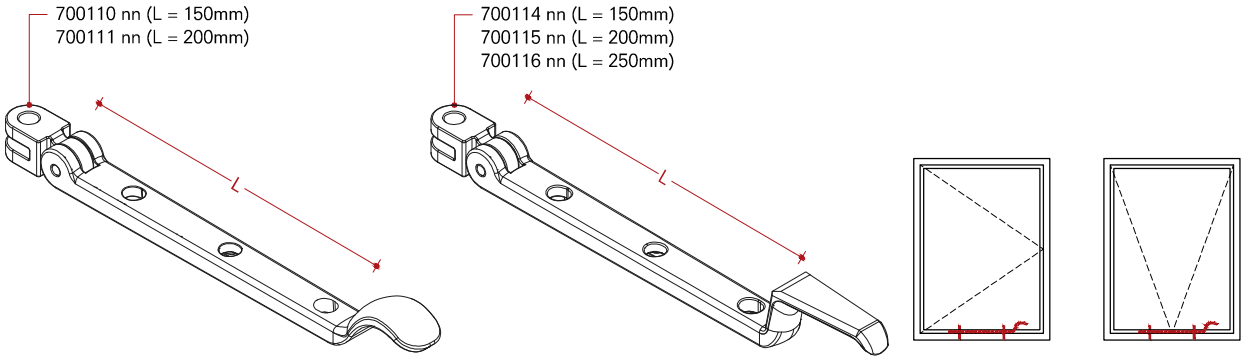
A) 700501 nn doppio braccio a compasso
B) 700520 nn anello tubo collegamento
C) Tubo di collegamento
700510 nn L = 600
700511 nn L = 750
700512 nn L = 900

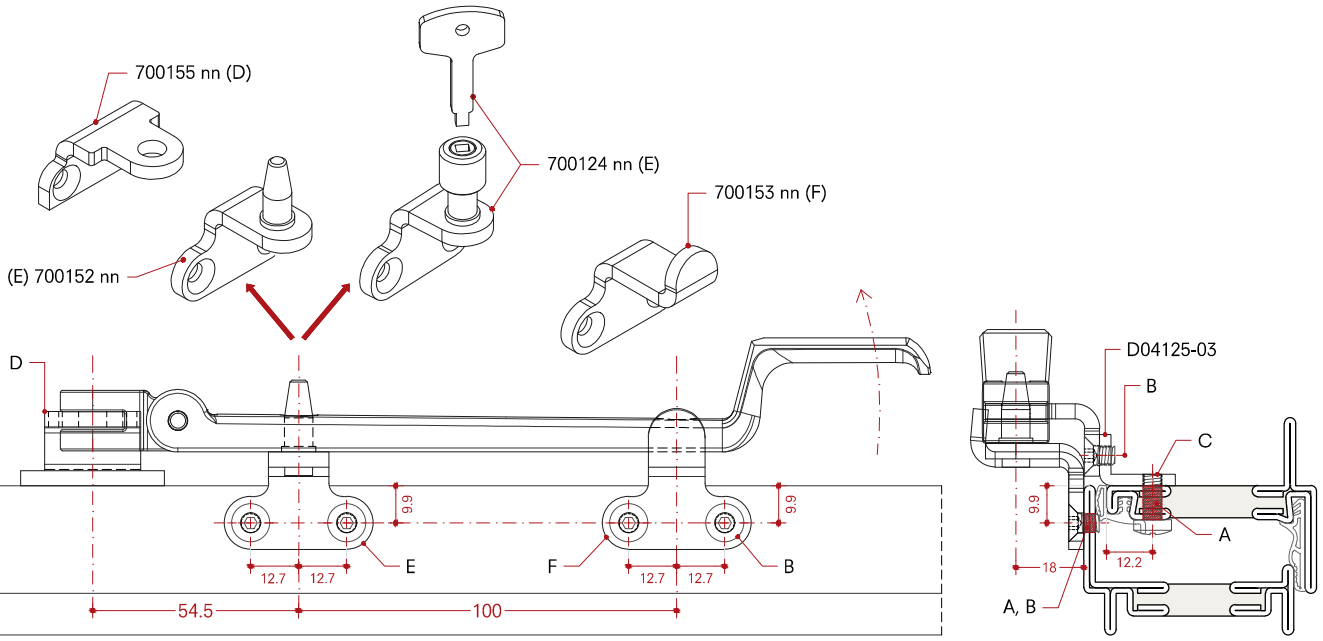
A) 700501 nn doble brazo articulado
B) 700520 nn anillo tubo de conexión
C) Tubo de conexión
700510 nn L = 600
700511 nn L = 750
700512 nn L = 900

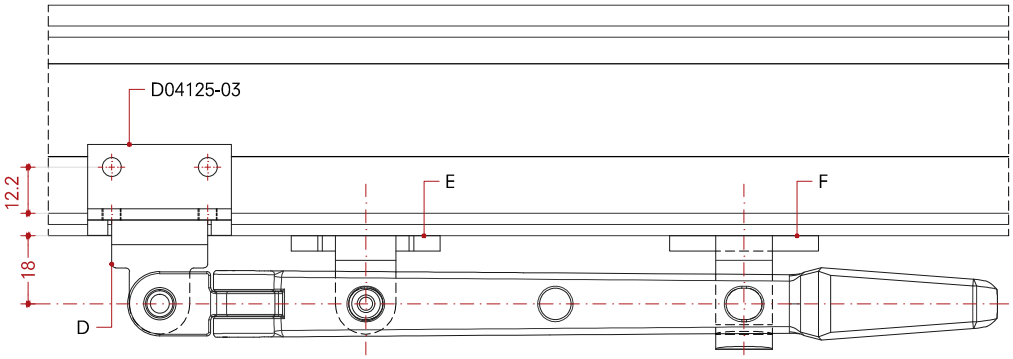
Installation
Peg stay 70011X nn
Glazed in
Open out

Montaggio
Braccio di bloccaggio
70011X nn
Fermavetro interno
Apertura esterna

Montaje
Brazo fijo
70011X nn
Junquillos interno
Apertura hacia fuera







A) M5 holes
B) Fastening with M5x8 ISO10642 screws
C) Fastening with M5x12 ISO7045 screws
D) Peg stay bracket 700155 nn
E) Peg stay pin 700152 nn option with key 700124 nn
F) Peg stay rest 700153 nn

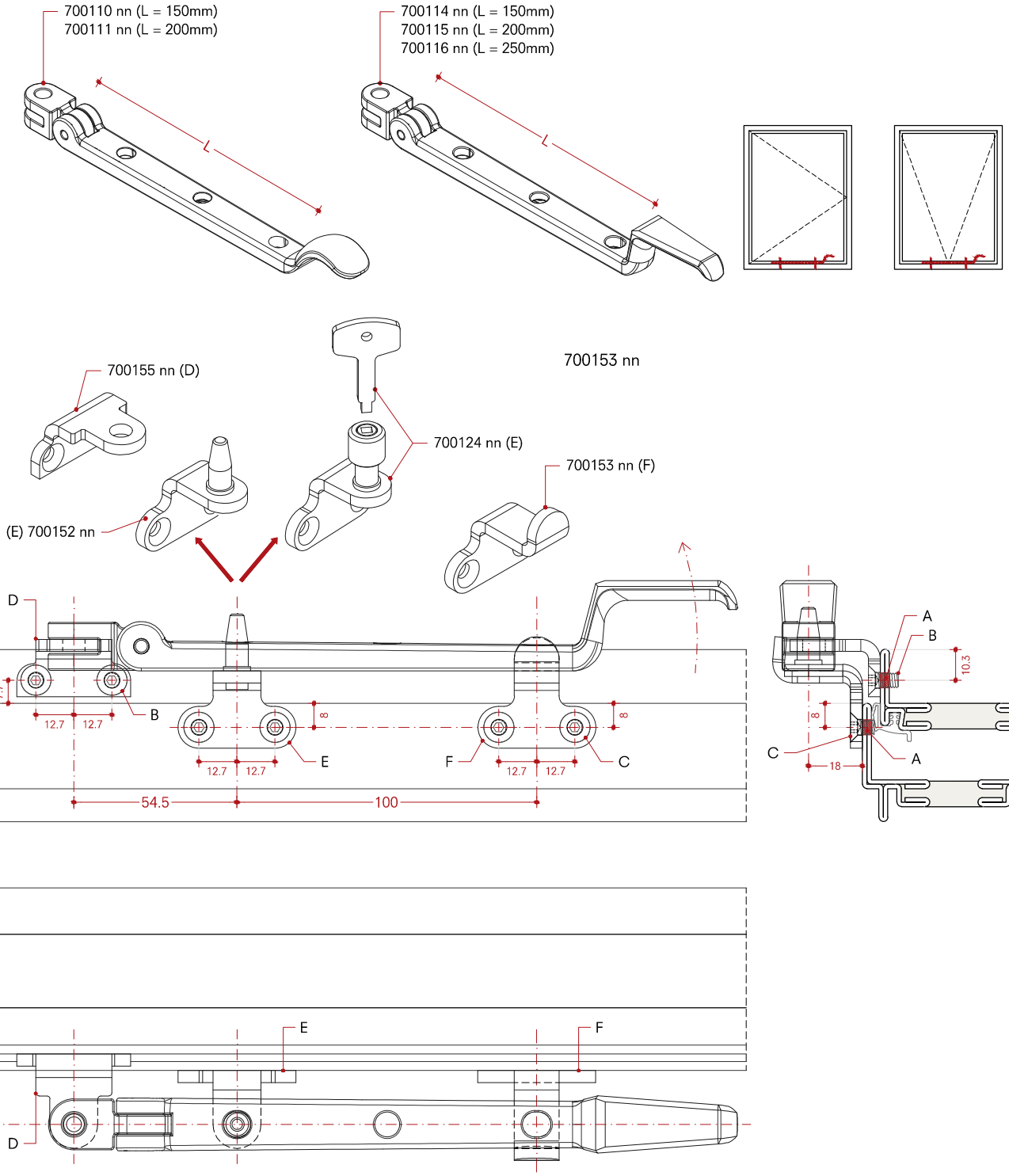
A) Fori M5
B) Fissaggio con viti M5x8 ISO10642
C) Fissaggio con viti M5x12 ISO7045
D) Staffa per braccio di bloccaggio 700155 nn
E) Perno fermo per braccio di bloccaggio 700152 nn opzione con chiave 700124 nn
F) Supporto per braccio di bloccaggio 700153 nn

A) Oreficios M5
B) Fijación con tornillos M5x8 ISO10642
C) Fijación con tornillos M5x12 ISO7045
D) Soporte para brazo de bloqueo 700155 nn
E) Pasador de tope para brazo de bloqueo 700152 nn opción con llave 700124 nn
F) Soporte para brazo de bloqueo 700153 nn

Installation
Peg stay 70011X nn
Glazed out
Open out

Montaggio
Braccio di bloccaggio
70011X nn
Fermavetro esterno
Apertura esterna

Montaje
Brazo fijo
70011X nn
Junquillos esterno
Apertura hacia fuera



A) M5 holes
B) Fastening with M5x8 ISO10642 screws
C) Fastening with M5x12 ISO7045 screws
D) Peg stay bracket 700155 nn
E) Peg stay pin 700152 nn option with key 700124 nn
F) Peg stay rest 700153 nn

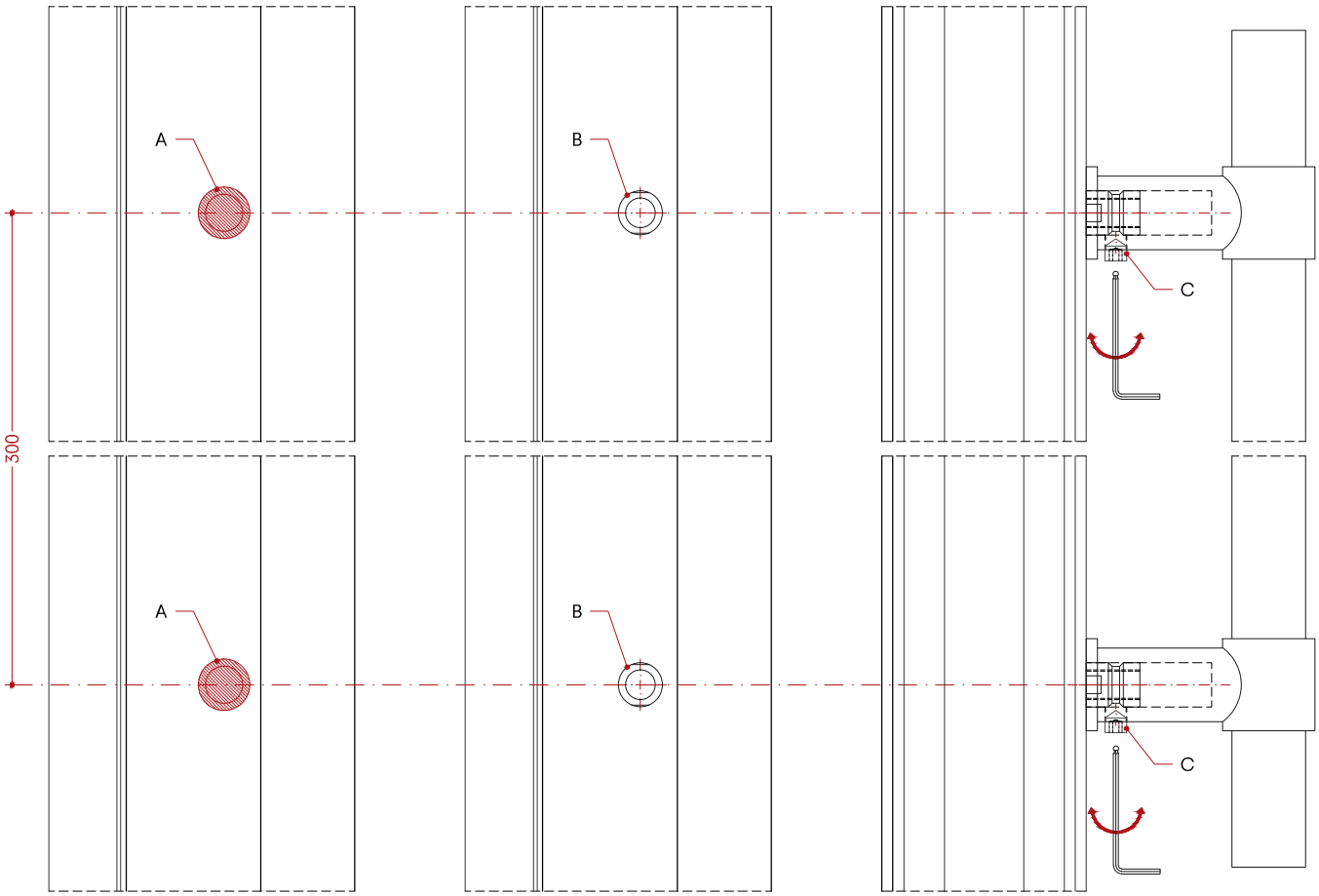
A) Fori M5
B) Fissaggio con viti M5x8 ISO10642
C) Fissaggio con viti M5x12 ISO7045
D) Staffa per braccio di bloccaggio 700155 nn
E) Perno fermo per braccio di bloccaggio 700152 nn opzione con chiave 700124 nn
F) Supporto per braccio di bloccaggio 700153 nn

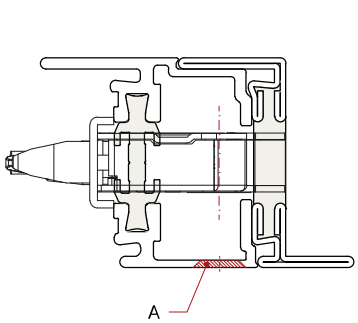
A) Oreficios M5
B) Fijación con tornillos M5x8 ISO10642
C) Fijación con tornillos M5x12 ISO7045
D) Soporte para brazo de bloqueo 700155 nn
E) Pasador de tope para brazo de bloqueo 700152 nn opción con llave 700124 nn
F) Soporte para brazo de bloqueo 700153 nn

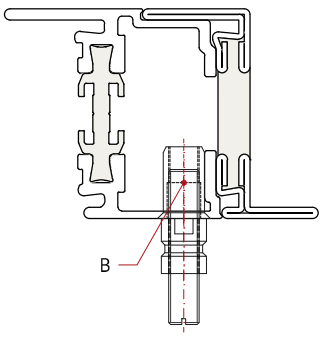
Installation
Pull handle 760600 nn L = 400
Side by side fastening on
FT 5512RS-00 + FT 5509ZA-02

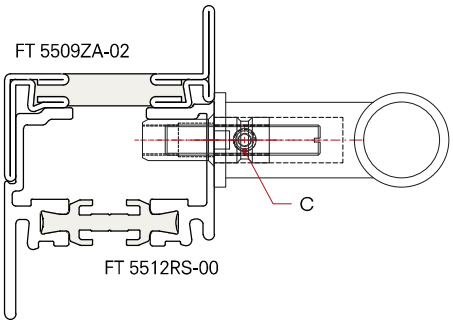
Montaggio
Maniglione 760600 nn L = 400
Fissaggio passante su
FT 5512RS-00 + FT 5509ZA-02

Montaje
Manilla de empuje 760600 nn L = 400
Fijación a un lado en
FT 5512RS-00 + FT 5509ZA-02









A) n°02 Ø10 mm countersunk holes
B) M8 rivet nut (not provided)
C) Fastening with M6x6 screws

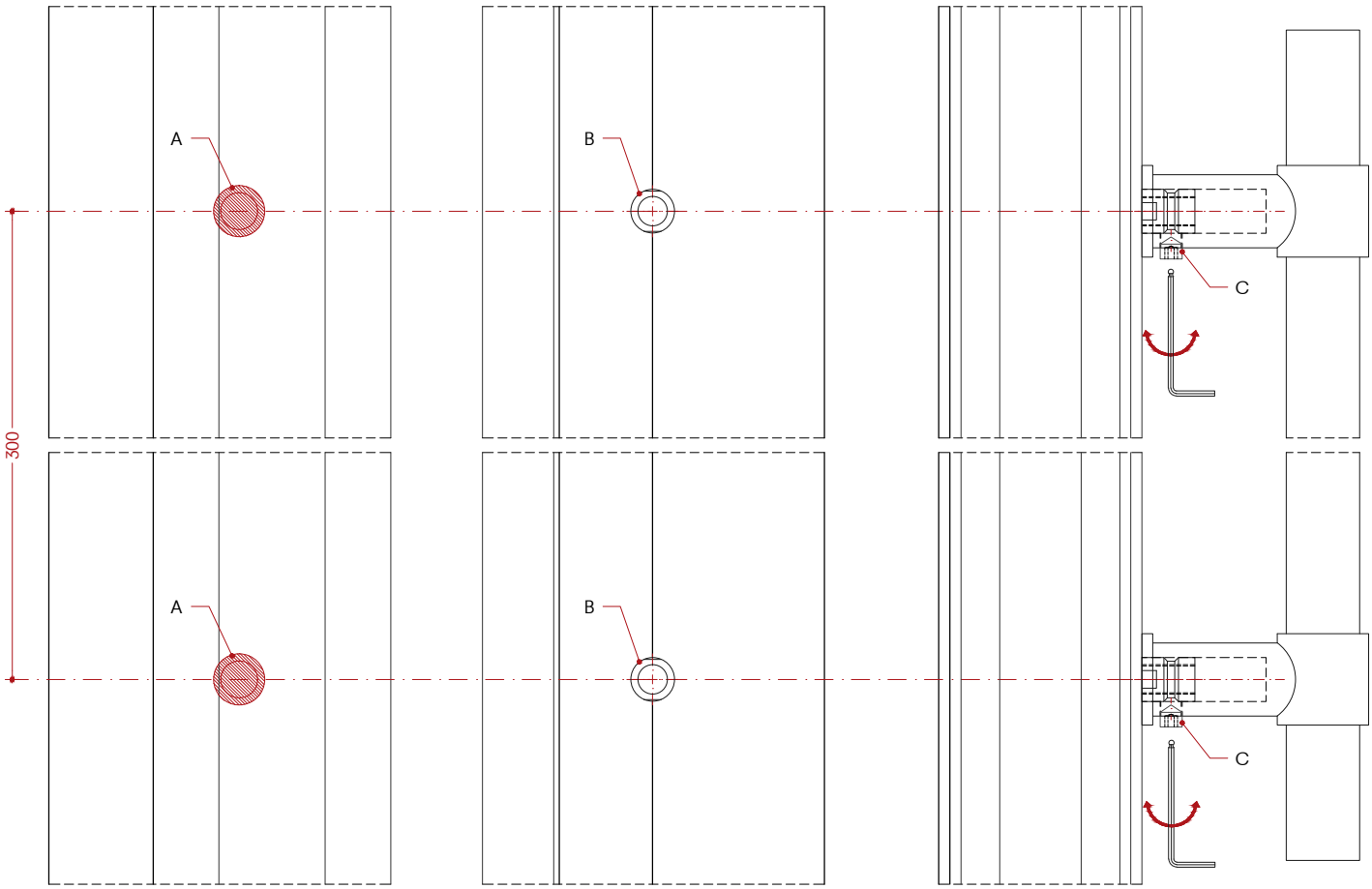
A) n°02 fori svasati Ø10 mm
B) Rivetto M8 (non fornito)
C) Fissaggio con viti M6x6

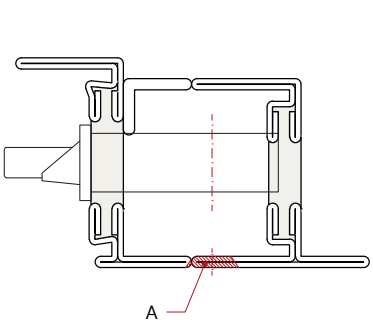
A) n°02 orificios avellanados Ø10 mm
B) Tuerca de remache M8 (no suministrada)
C) Fijación con tornillos M6x6

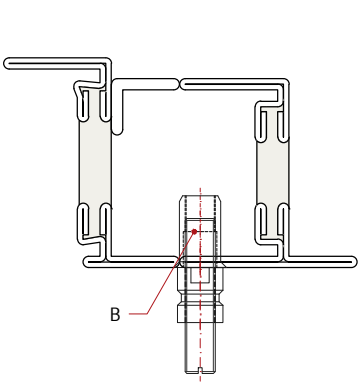
Installation
Pull handle 760600 nn L = 400
Side by side fastening on locking box

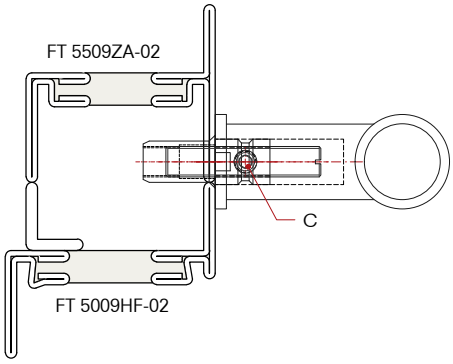
Montaggio
Maniglione 760600 nn L = 400
Fissaggio passante su scatola serratura

Montaje
Manilla de empuje 760600 nn L = 400
Fijación a un lado en serradura









A) n°02 Ø10 mm countersunk holes
B) M8 rivet nut (not provided)
C) Fastening with M6x6 screws

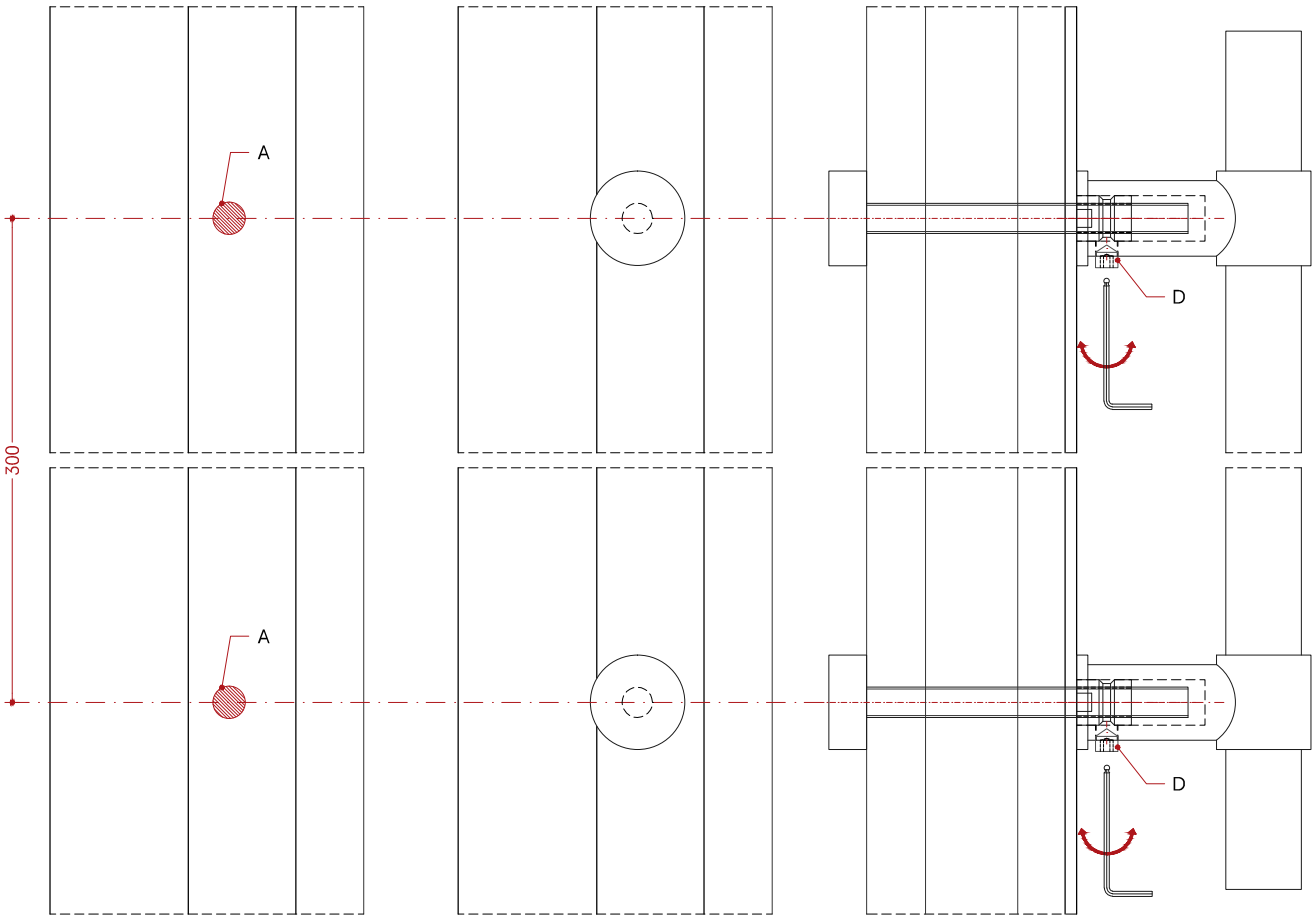
A) n°02 fori svasati Ø10 mm
B) Rivetto M8 (non fornito)
C) Fissaggio con viti M6x6 mm

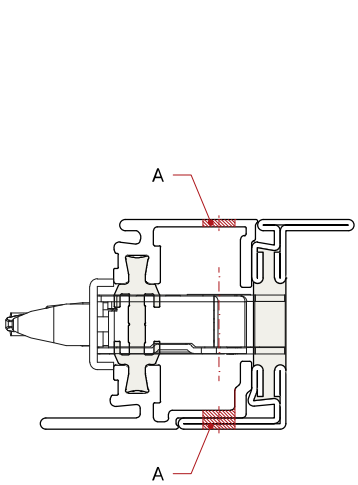
A) n°02 orificios avellanados Ø10 mm
B) Tuerca de remache M8 (no suministrada)
C) Fijación con tornillos M6x6

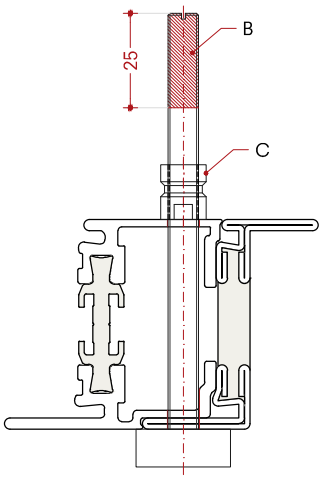
Installation
Pull handle 760605 nn L = 400
Side by side fastening on
FT 5512RS-00 + FT 5509ZA-02

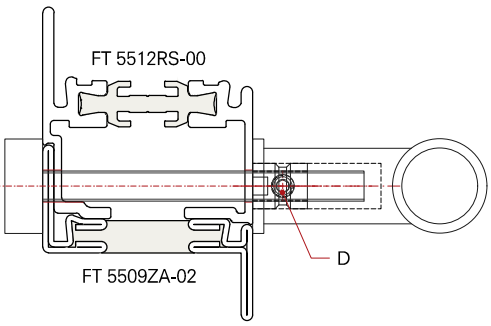
Montaggio
Maniglione 760605 nn L = 400
Fissaggio passante su
FT 5512RS-00 + FT 5509ZA-02

Montaje
Manilla de empuje 760605 nn L = 400
Fijación a un lado en
FT 5512RS-00 + FT 5509ZA-02









A) n°02 Ø8.5 mm countersunk holes
B) Cut the screws
C) M8 rivet nut (not provided)
D) Fastening with M6x6 screws

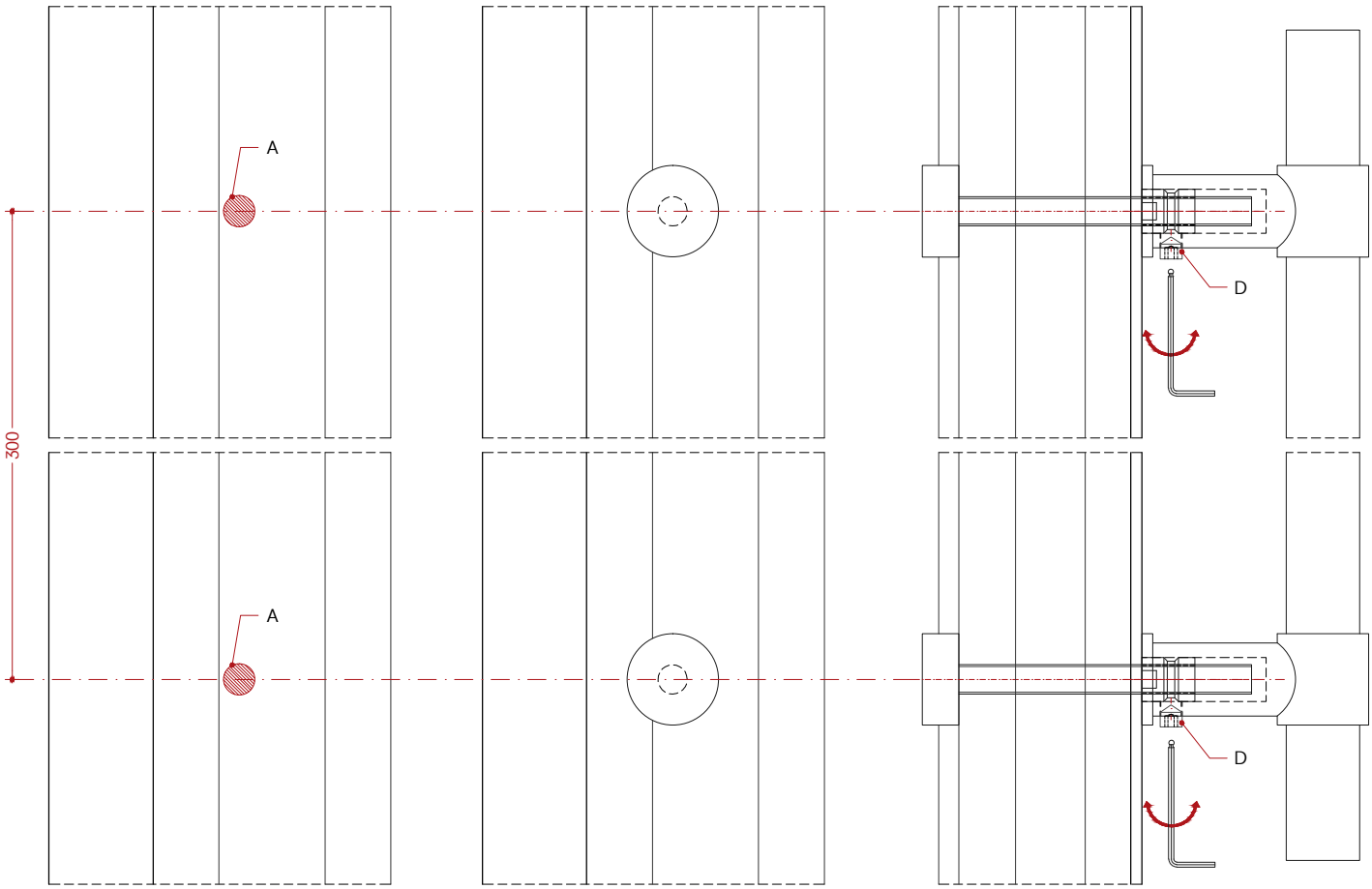
A) n°02 fori svasati Ø8.5 mm
B) Accorciare la vite
C) Rivetto M8 (non fornito)
D) Fissaggio con viti M6x6

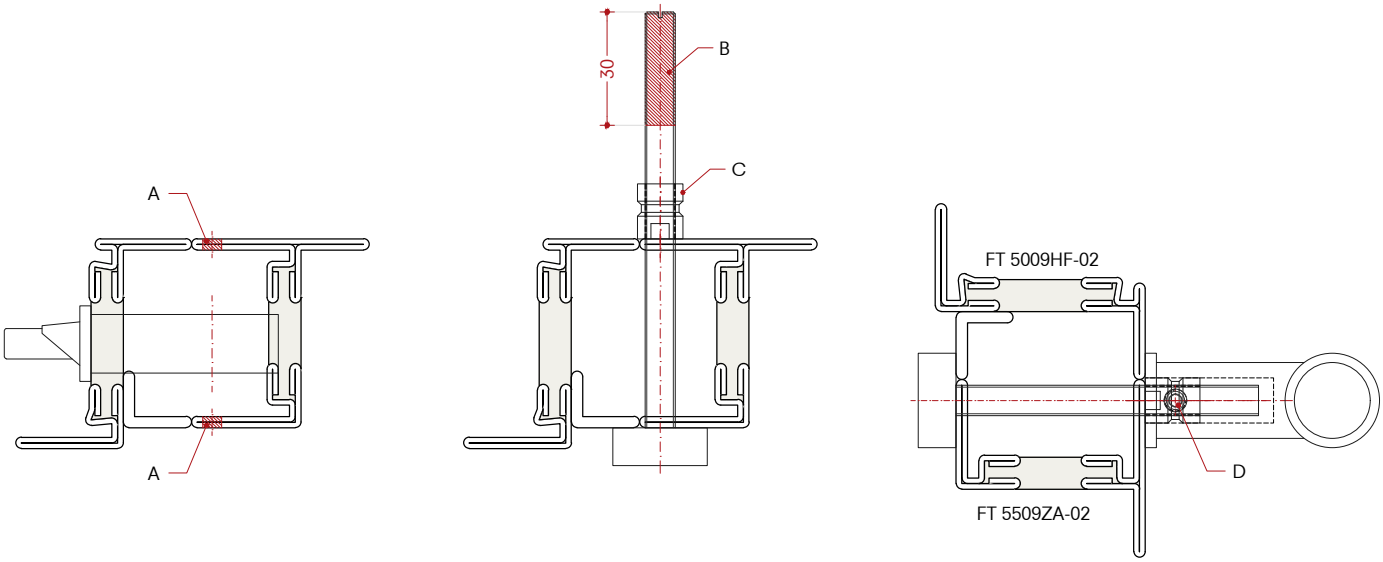
A) n°02 orificios avellanados Ø8.5 mm
B) Acortar el tornillo
C) Tuerca de remache M8 (no suministrada)
D) Fijación con tornillos M6x6

Installation
Pull handle 760605 nn L = 400
Side by side fastening on locking box

Montaggio
Maniglione 760605 nn L = 400
Fissaggio passante su scatola serratura

Montaje
Manilla de empuje 760605 nn L = 400
Fijación a un lado en serradura





A) n°02 Ø8.5 mm countersunk holes
B) Cut the screws
C) M8 rivet nut (not provided)
D) Fastening with M6x6 screws

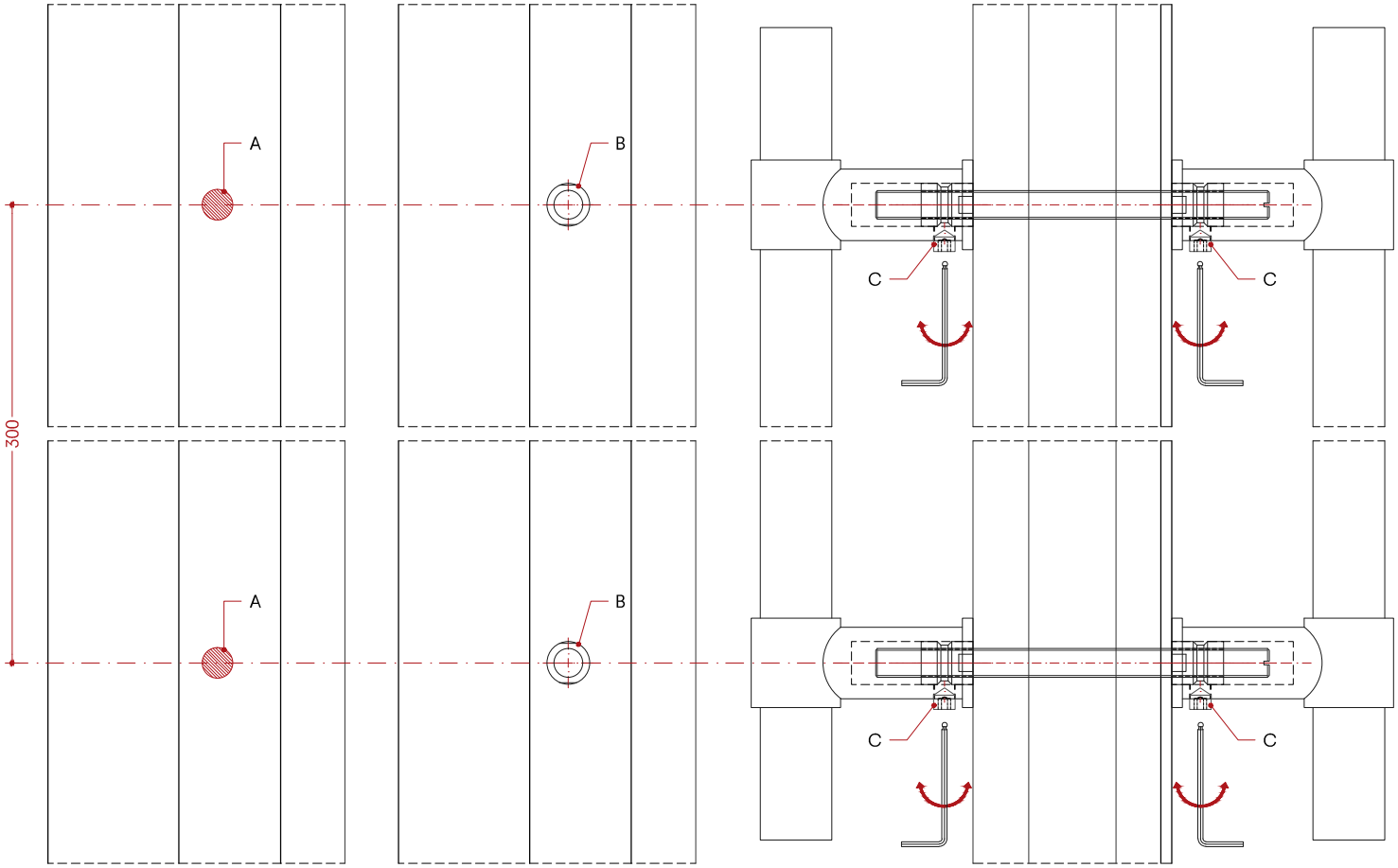
A) n°02 fori svasati Ø8.5 mm
B) Accorciare la vite
C) Rivetto M8 (non fornito)
D) Fissaggio con viti M6x6

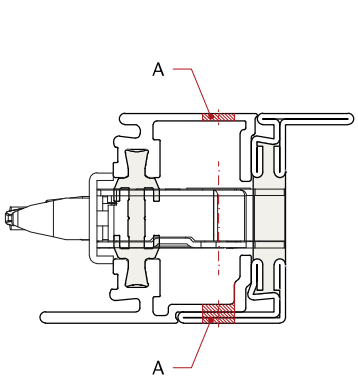
A) n°02 orificios avellanados Ø8.5 mm
B) Acortar el tornillo
C) Tuerca de remache M8 (no suministrada)
D) Fijación con tornillos M6x6

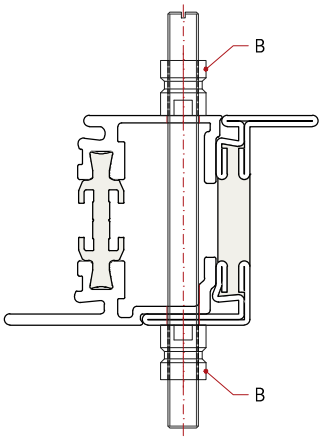
Installation
Pull handle 760610 nn L = 400
Side by side fastening on
FT 5512RS-00 + FT 5509ZA-02
Pull handle above the lock

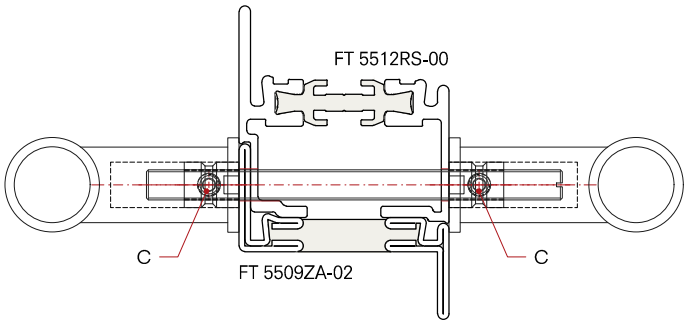
Montaggio
Maniglione 760610 nn L = 400
Fissaggio passante su
FT 5512RS-00 + FT 5509ZA-02
Maniglione sopra la serratura

Montaje
Manilla de empuje 760610 nn L = 400
Fijación a un lado en
FT 5512RS-00 + FT 5509ZA-02
Manilla encima de la cerradura









A) n°02 Ø8.5 mm countersunk holes
B) M8 rivet nut (not provided)
C) Fastening with M6x6 screws

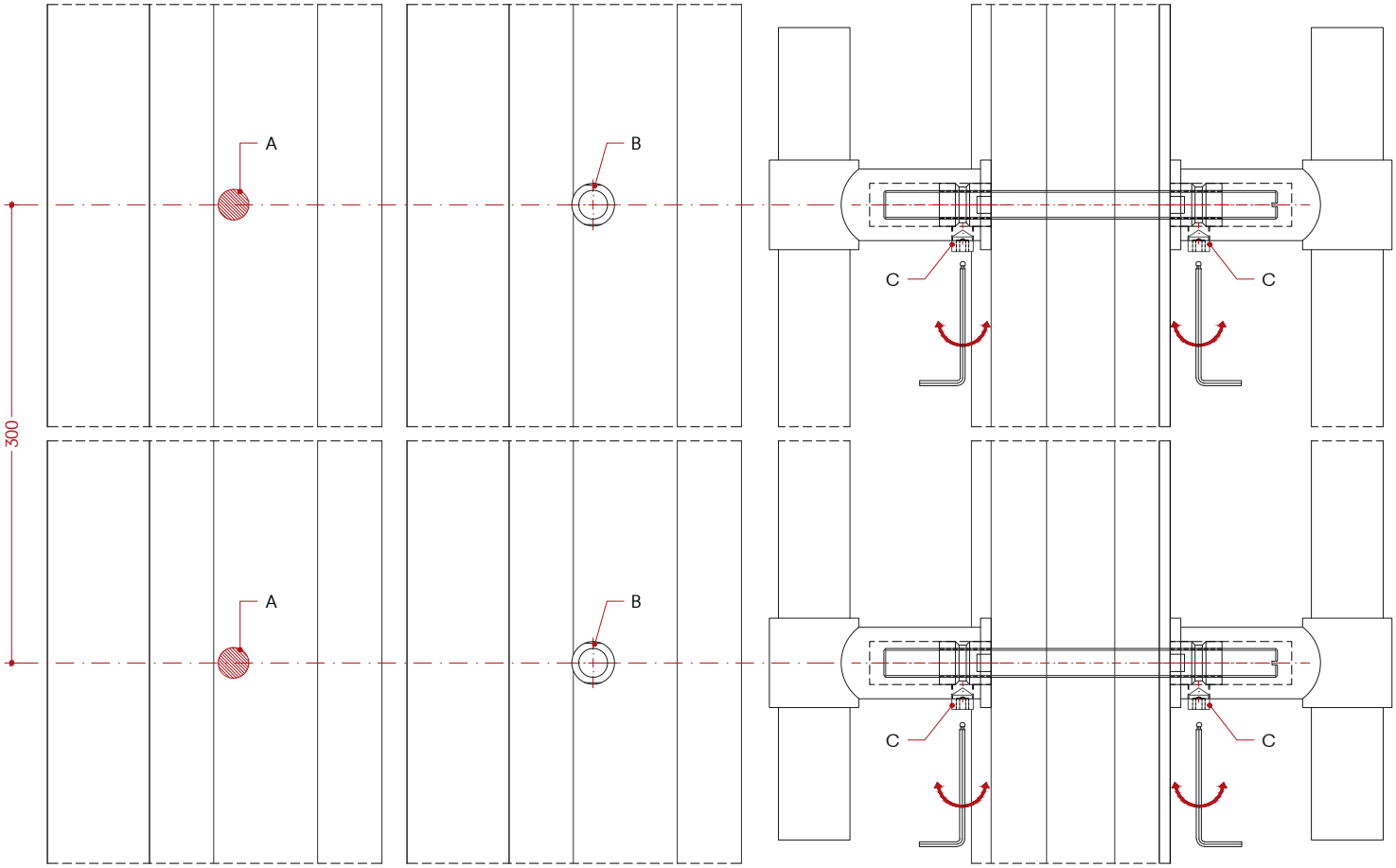
A) n°02 fori svasati Ø8.5 mm
B) Rivetto M8 (non fornito)
C) Fissaggio con viti M6x6

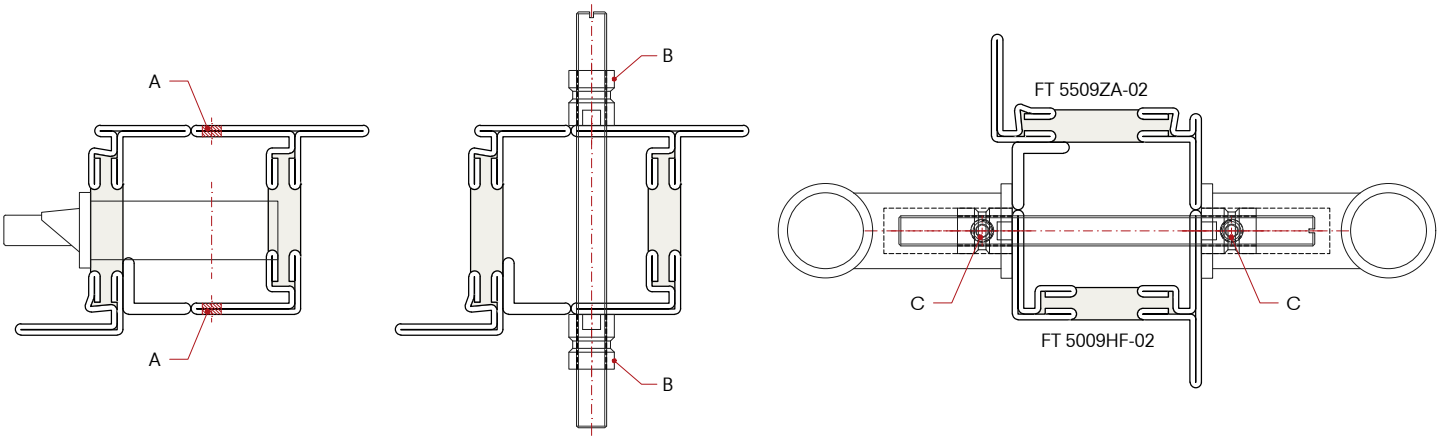
A) n°02 orificios avellanados Ø8.5 mm
B) Tuerca de remache M8 (no suministrada)
C) Fijación con tornillos M6x6

Installation
Pull handle 760610 nn L = 400
Side by side fastening on locking box
Pull handle above the lock

Montaggio
Maniglione 760610 nn L = 400
Fissaggio passante su scatola serratura
Maniglione sopra la serratura

Montaje
Manilla de empuje 760610 nn L = 400
Fijación a un lado en serradura
Manilla encima de la cerradura





A) n°02 Ø8.5 mm countersunk holes
B) M8 rivet nut (not provided)
C) Fastening with M6x6 screws

A) n°02 fori svasati Ø8.5 mm
B) Rivetto M8 (non fornito)
C) Fissaggio con viti M6x6

A) n°02 orificios avellanados Ø8.5 mm
B) Tuerca de remache M8 (no suministrada)
C) Fijación con tornillos M6x6

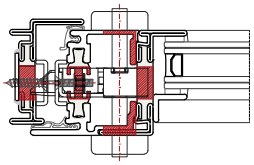
Accessories installation: **Montaggio accessori:** **Montaje accesorios:**

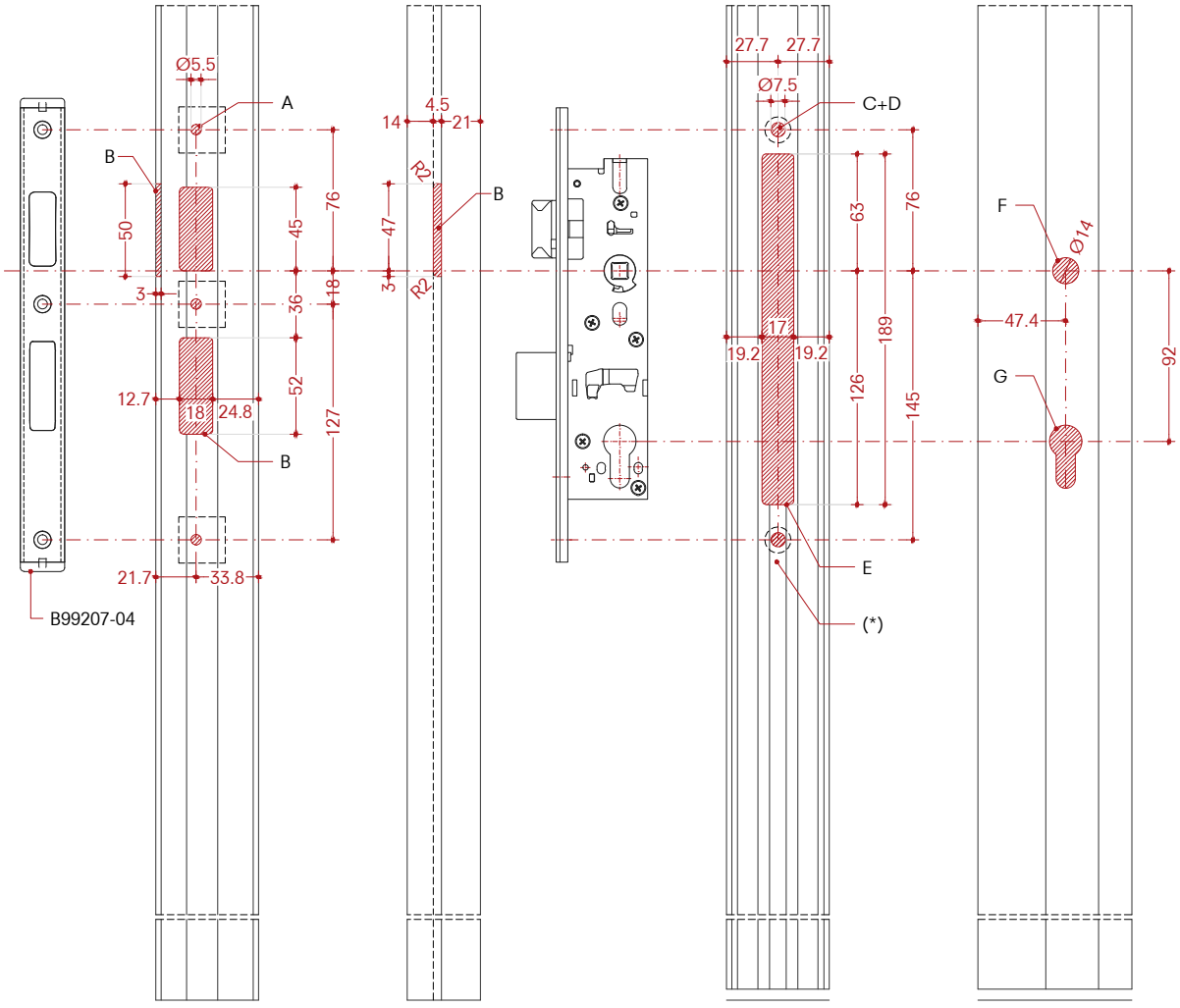
Locks **Serrature** **Cerraduras** 5.10

Installation
Lock B99015-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00
Open in door

Montaggio
Serratura B99015-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00
Porta apertura interna

Montaje
Cerradura B99015-02 con perfil
adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00
Puerta apertura hacia dentro





Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

(*) Pay attention to glazing bead clips position.

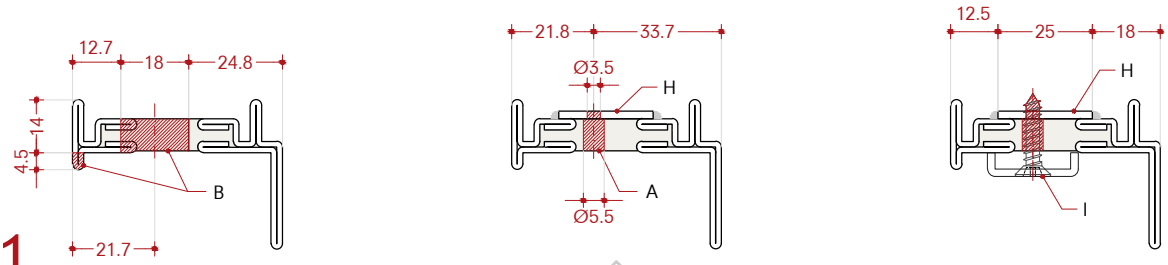
Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

(*) Prestare attenzione alla posizione di eventuali clip fermavetri.

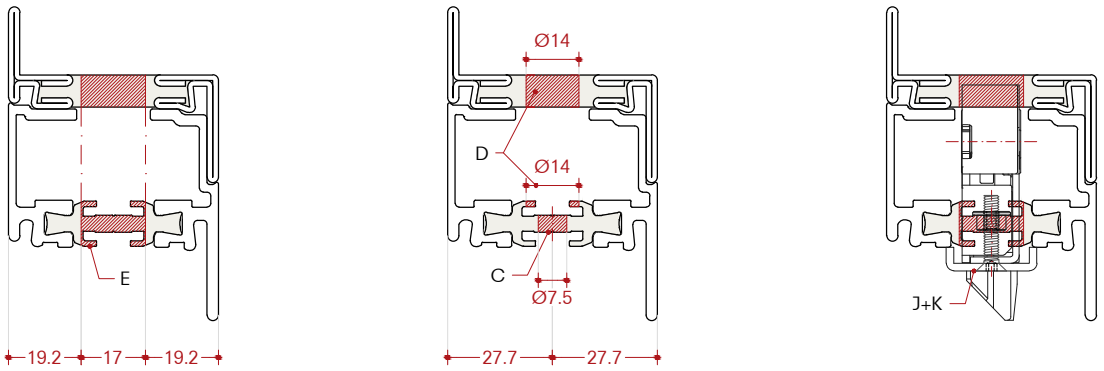
Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros

(*) Preste atención a la posición de los clips de los junquillos

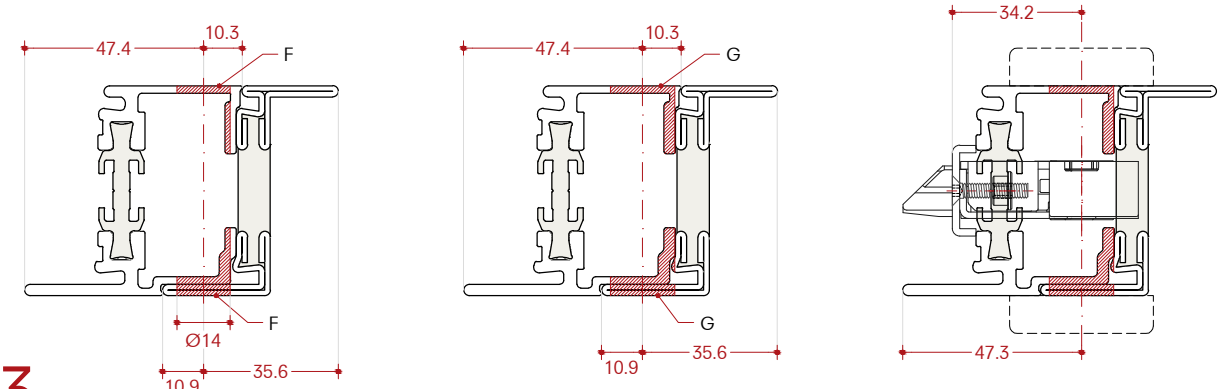
1

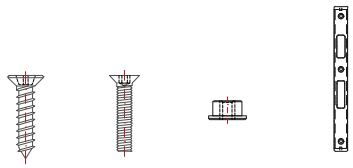


2



3





Ø4.8x22 ISO 7050 n° 3 pcs | M4x20 ISO 10642 n° 2 pcs | D99704-08 n° 2 pcs | B99207-04 n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

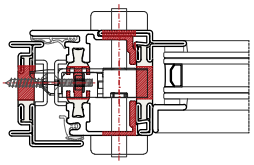
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

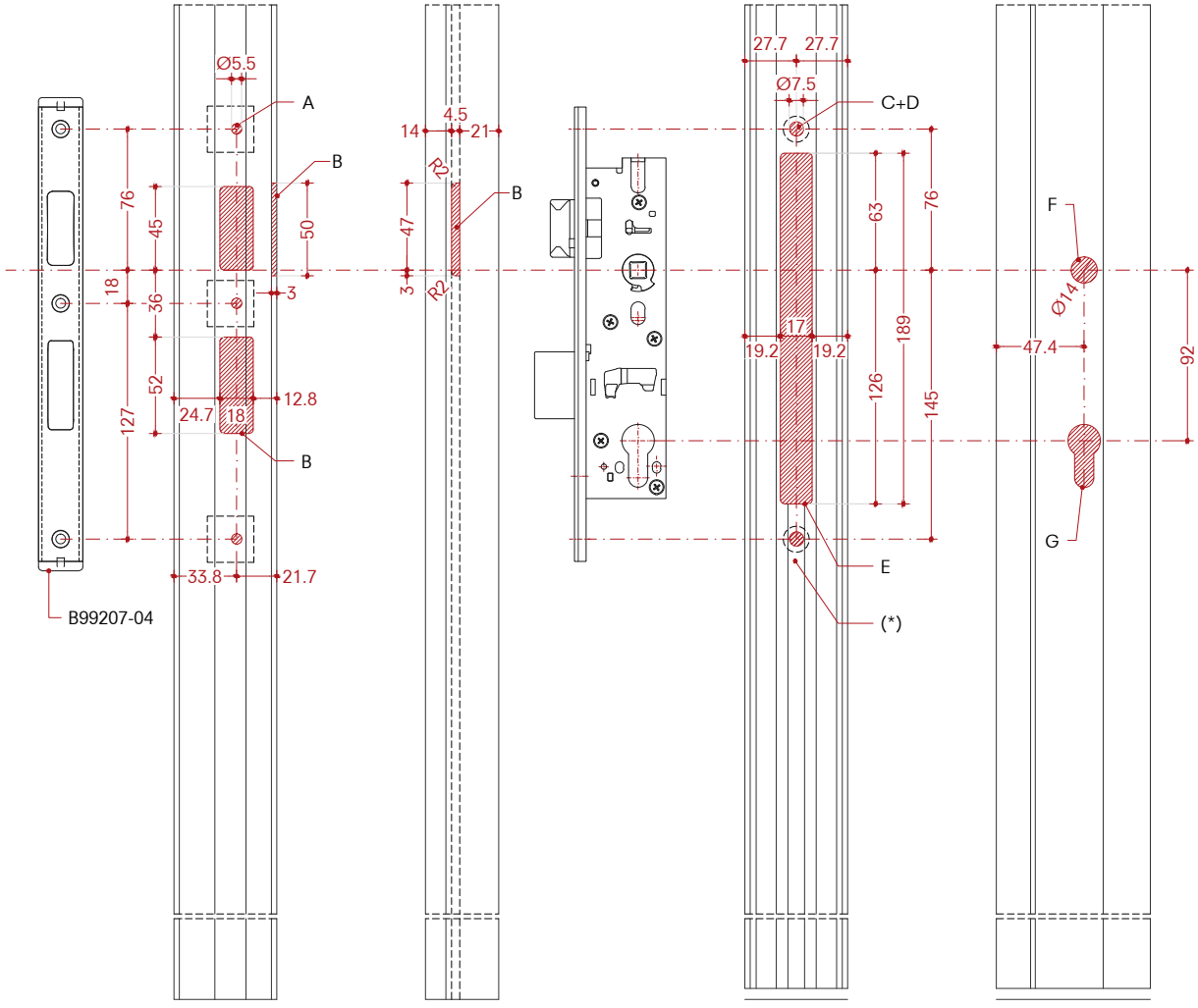
Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99015-02
with full height additional profile
FT 5512RS-00 + FT 5509TA-00
Open out door

Montaggio
Serratura B99015-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509TA-00
Porta apertura esterna

Montaje
Cerradura B99015-02 con perfil
adicional de altura completa
FT 5512RS-00 + FT 5509TA-00
Puerta apertura hacia fuera





Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

(*) Pay attention to glazing bead clips position.

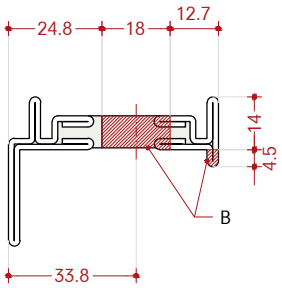
Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

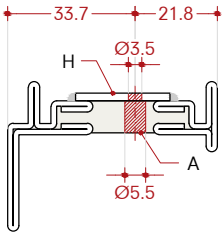
(*) Prestare attenzione alla posizione di eventuali clip fermavetri.

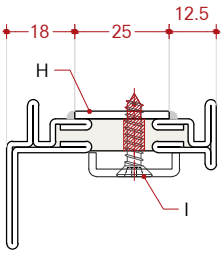
Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros

(*) Preste atención a la posición de los clips de los junquillos

1







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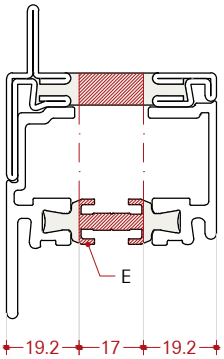

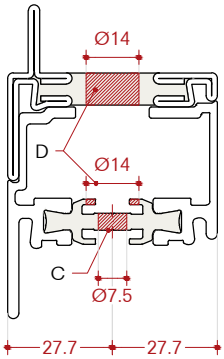

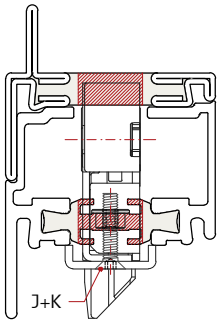

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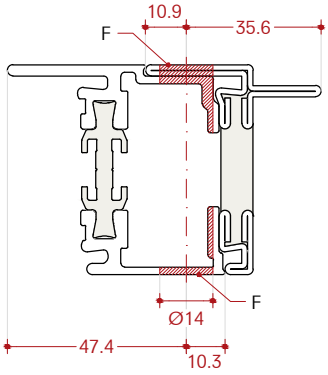
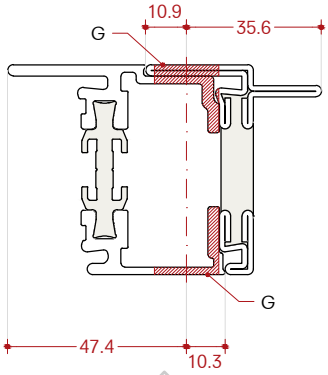
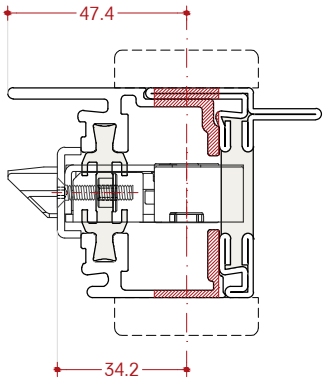
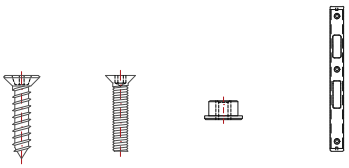








Ø4.8x22
ISO 7050
n° 3 pcs

M4x20
ISO 10642
n° 2 pcs

D99704-08
n° 2 pcs

B99207-04
n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

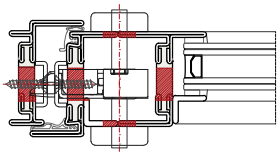
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

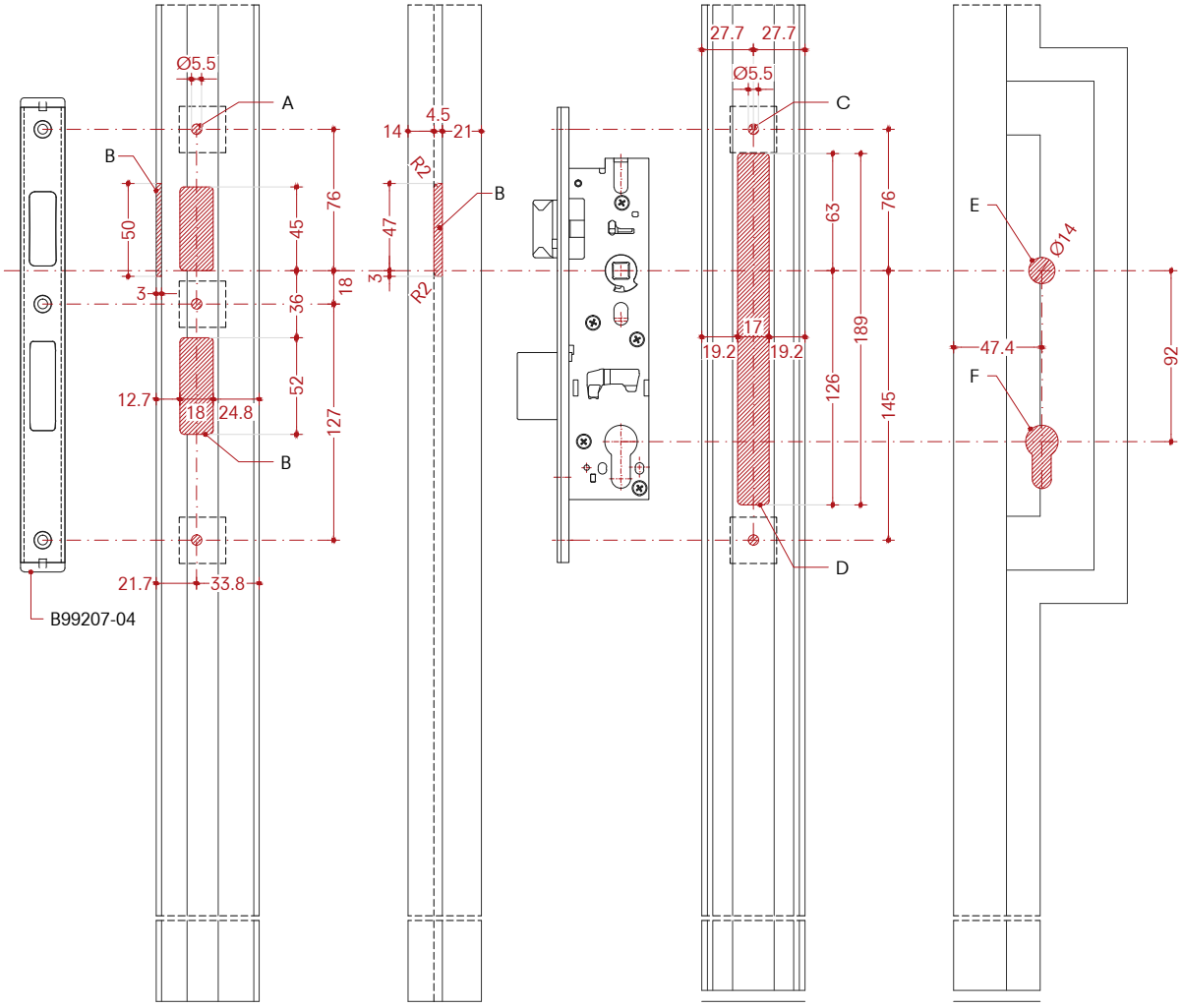
Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99015-02
with locking box FT 5009HF-02
Open in door

Montaggio
Serratura B99015-02
con scatola FT 5009HF-02
Porta apertura interna

Montaje
Cerradura B99015-02
con serradura FT 5009HF-02
Puerta apertura hacia dentro

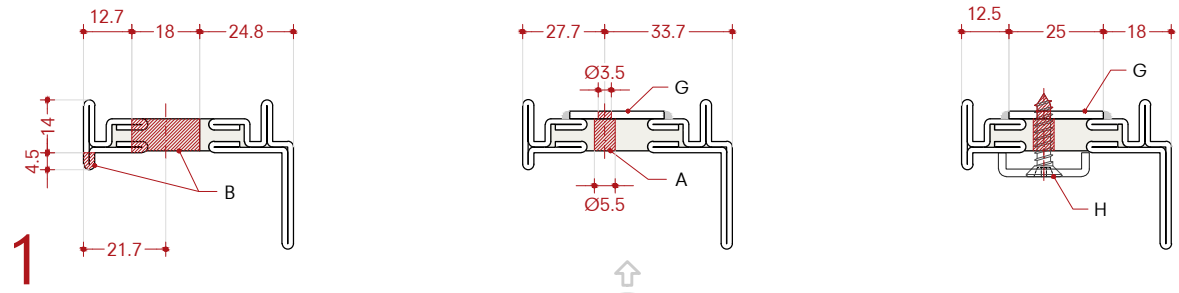


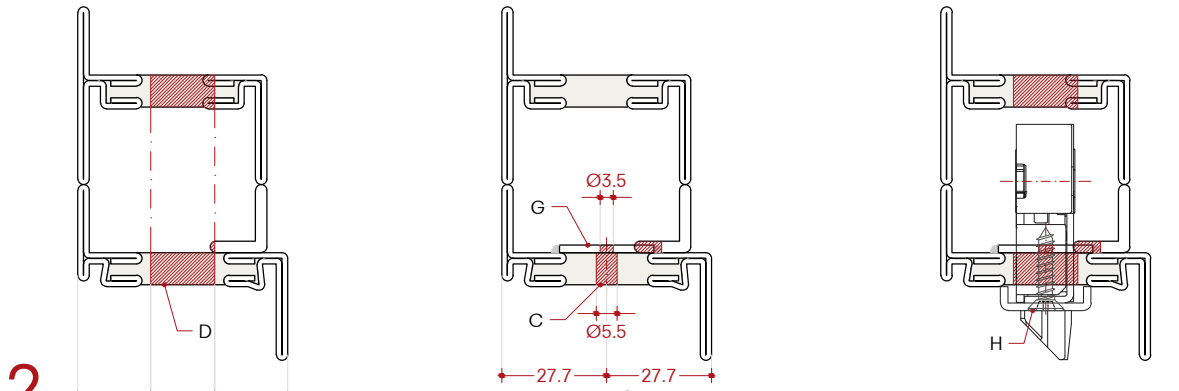


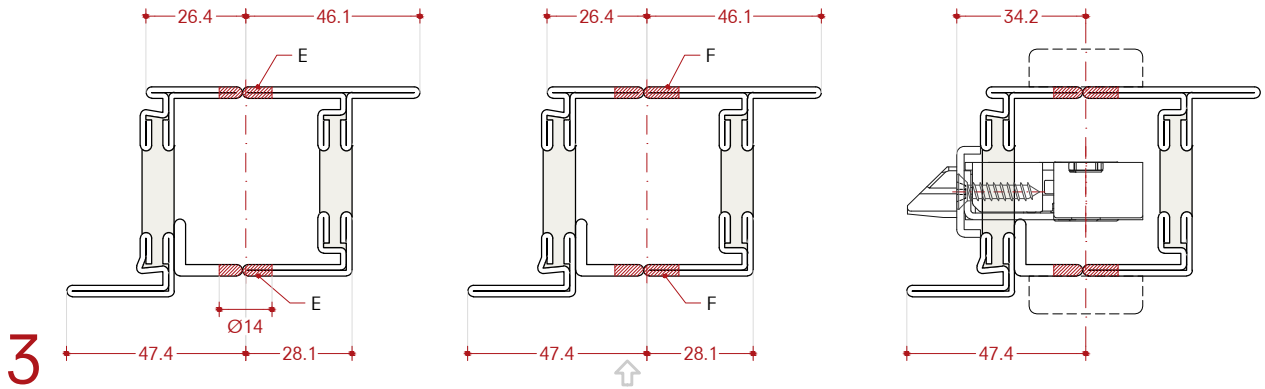
Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø5.5 mm in the door leaf
D) Cut-out in the door leaf
E) Lever handle bore Ø14 mm
F) Profile cylinder milling

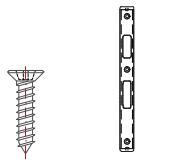
Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø5.5 mm nell'anta della porta
D) Fresatura nell'anta della porta
E) Foro leva maniglia Ø14 mm
F) Fresatura profili per i cilindri

Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø5.5 mm en hoja de la puerta
D) Fresado en hoja de la puerta
E) Palanca de perfil de Ø14 mm
F) Fresado en perfil para cilindros









Ø4.8x22
ISO 7050
n° 5 pcs

B99207-04
n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø5.5 mm in the door leaf
D) Cut-out in the door leaf
E) Lever handle bore Ø14 mm
F) Profile cylinder milling
G) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
H) Fastening with Ø4.8x22 ISO7050 screws and cut the screws

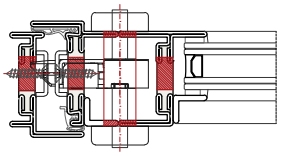
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø5.5 mm nell'anta della porta
D) Fresatura nell'anta della porta
E) Foro leva maniglia Ø14 mm
F) Fresatura profili per i cilindri
G) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
H) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti

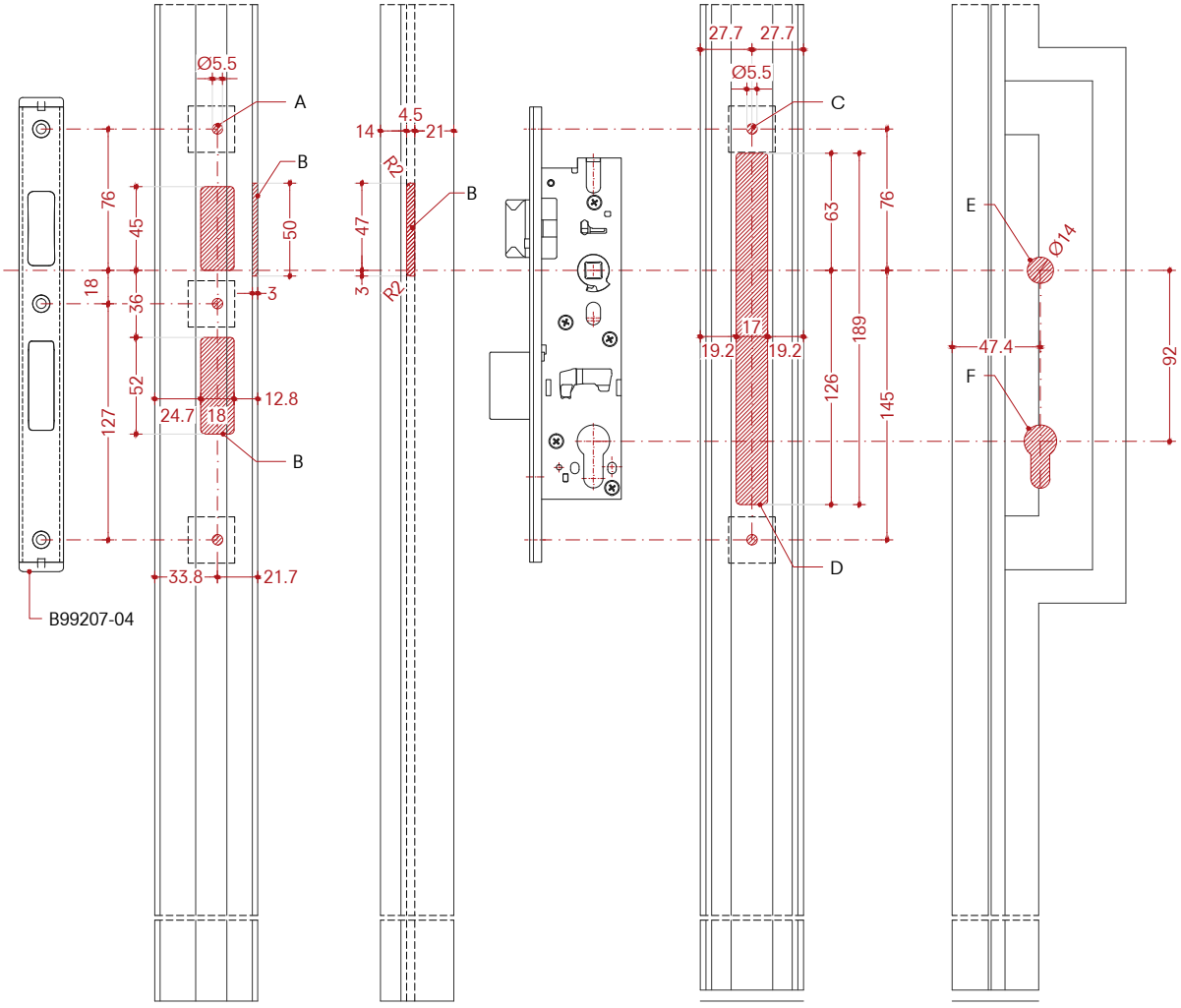
Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø5.5 mm en hoja de la puerta
D) Fresado en hoja de la puerta
E) Palanca de perfil de Ø14 mm
F) Fresado en perfil para cilindros
G) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
H) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos

Installation
Lock B99015-02
with locking box FT 5009HF-02
Open out door

Montaggio
Serratura B99015-02
con scatola FT 5009HF-02
Porta apertura esterna

Montaje
Cerradura B99015-02
con serradura FT 5009HF-02
Puerta apertura hacia fuera



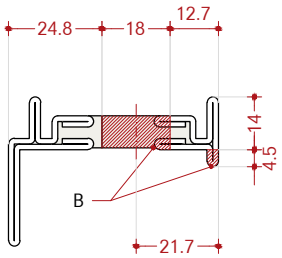


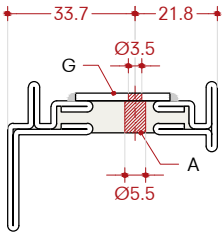
Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø5.5 mm in the door leaf
D) Cut-out in the door leaf
E) Lever handle bore Ø14 mm
F) Profile cylinder milling

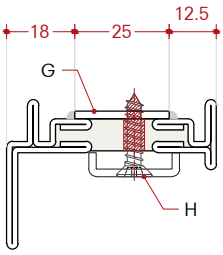
Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø5.5 mm nell'anta della porta
D) Fresatura nell'anta della porta
E) Foro leva maniglia Ø14 mm
F) Fresatura profili per i cilindri

Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø5.5 mm en hoja de la puerta
D) Fresado en hoja de la puerta
E) Palanca de perfil de Ø14 mm
F) Fresado en perfil para cilindros

1







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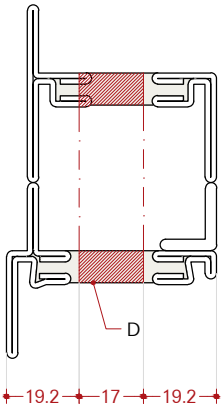

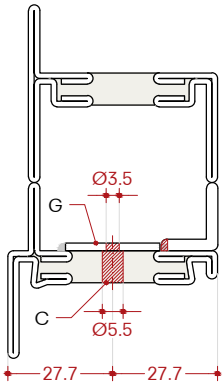

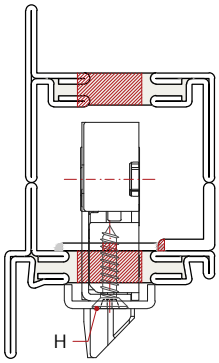

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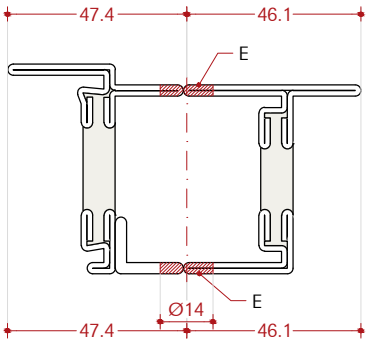
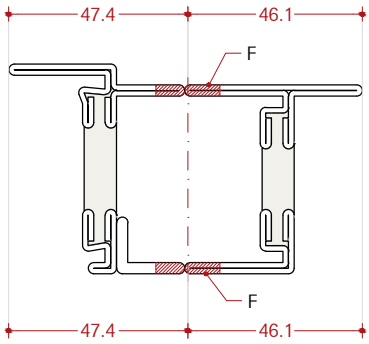
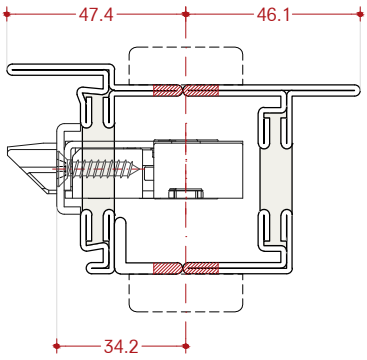
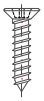








Ø4.8x22
ISO 7050
n° 5 pcs

B99207-04
n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø5.5 mm in the door leaf
D) Cut-out in the door leaf
E) Lever handle bore Ø14 mm
F) Profile cylinder milling
G) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
H) Fastening with Ø4.8x22 ISO7050 screws and cut the screws

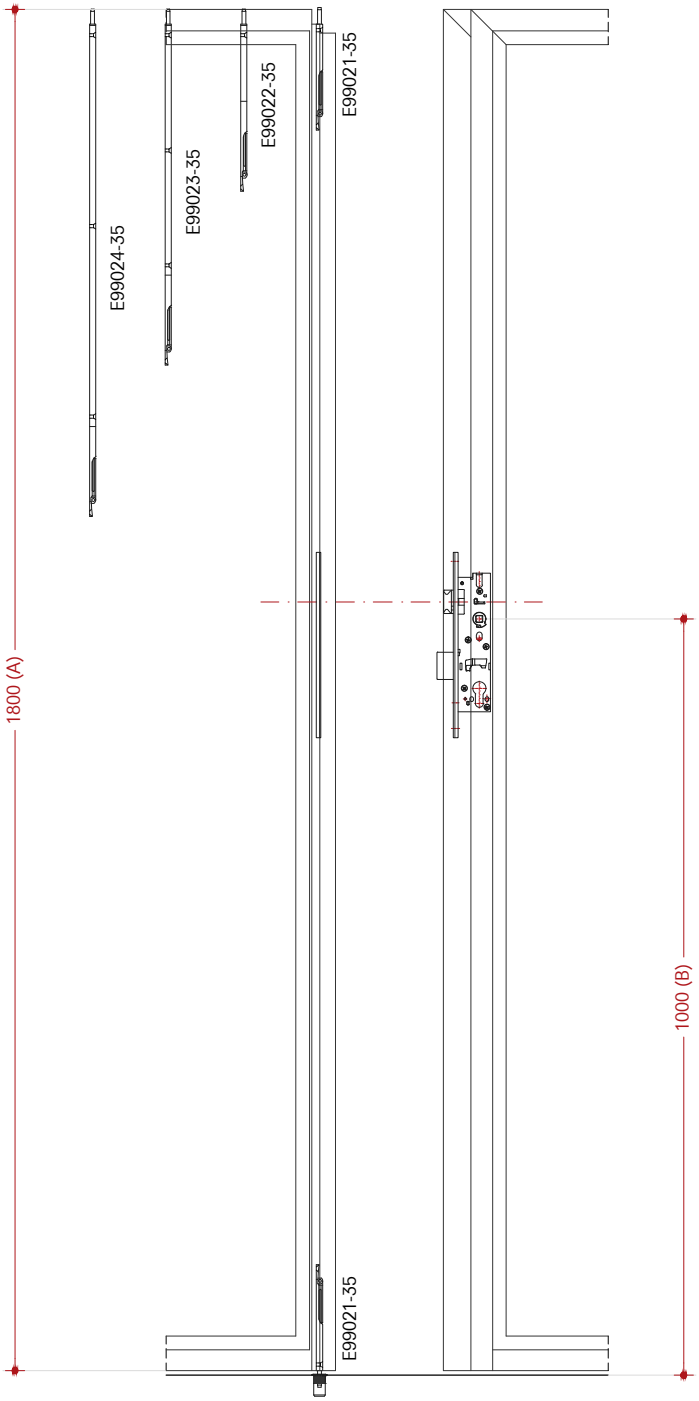
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø5.5 mm nell'anta della porta
D) Fresatura nell'anta della porta
E) Foro leva maniglia Ø14 mm
F) Fresatura profili per i cilindri
G) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
H) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti

Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø5.5 mm en hoja de la puerta
D) Fresado en hoja de la puerta
E) Palanca de perfil de Ø14 mm
F) Fresado en perfil para cilindros
G) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
H) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos

Installation
Flush bolt E9902X-35
Lock B99015-02
Double leaf door open in
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00

Montaggio
Catenaccio E9902X-35
Serratura B99015-02
Porta a due battenti apertura interna
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00

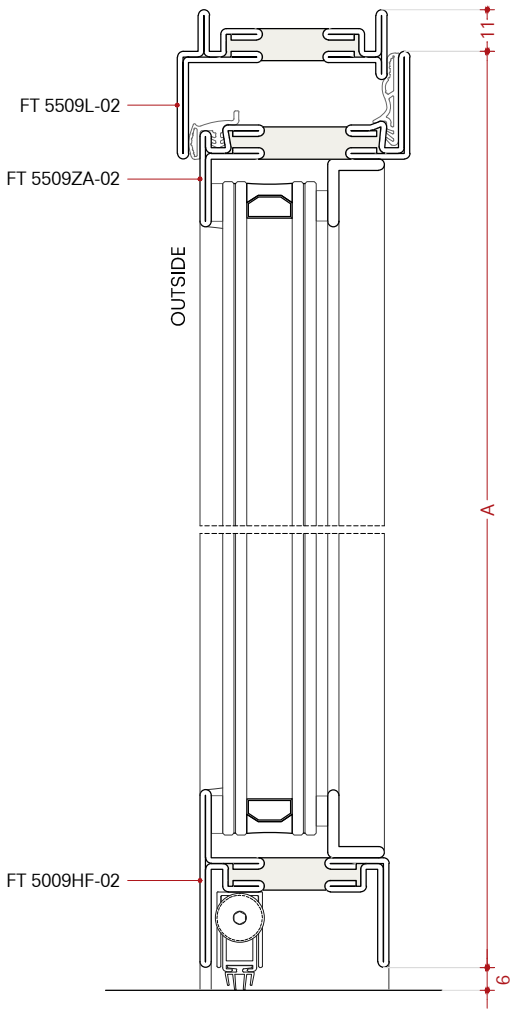
Montaje
Pasador de canto E9902X-35
Cerradura B99015-02
Puerta abatible de dos hojas que se abre
hacia dentro con adicional de altura
completa FT 5512RS-00 + FT 5509ZA-00

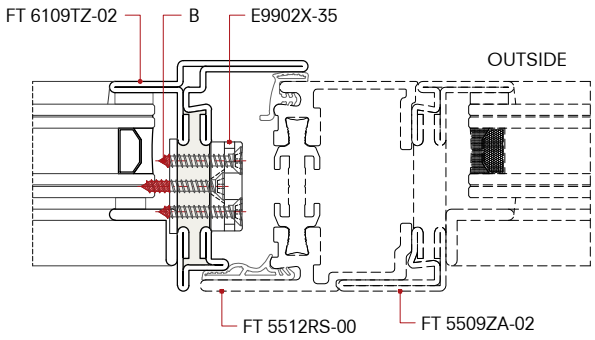


Scale 1:10
A) Minimum height leaf
B) Height handle

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 Ø3.5x22 mm ISO7050 screws and cut the screws

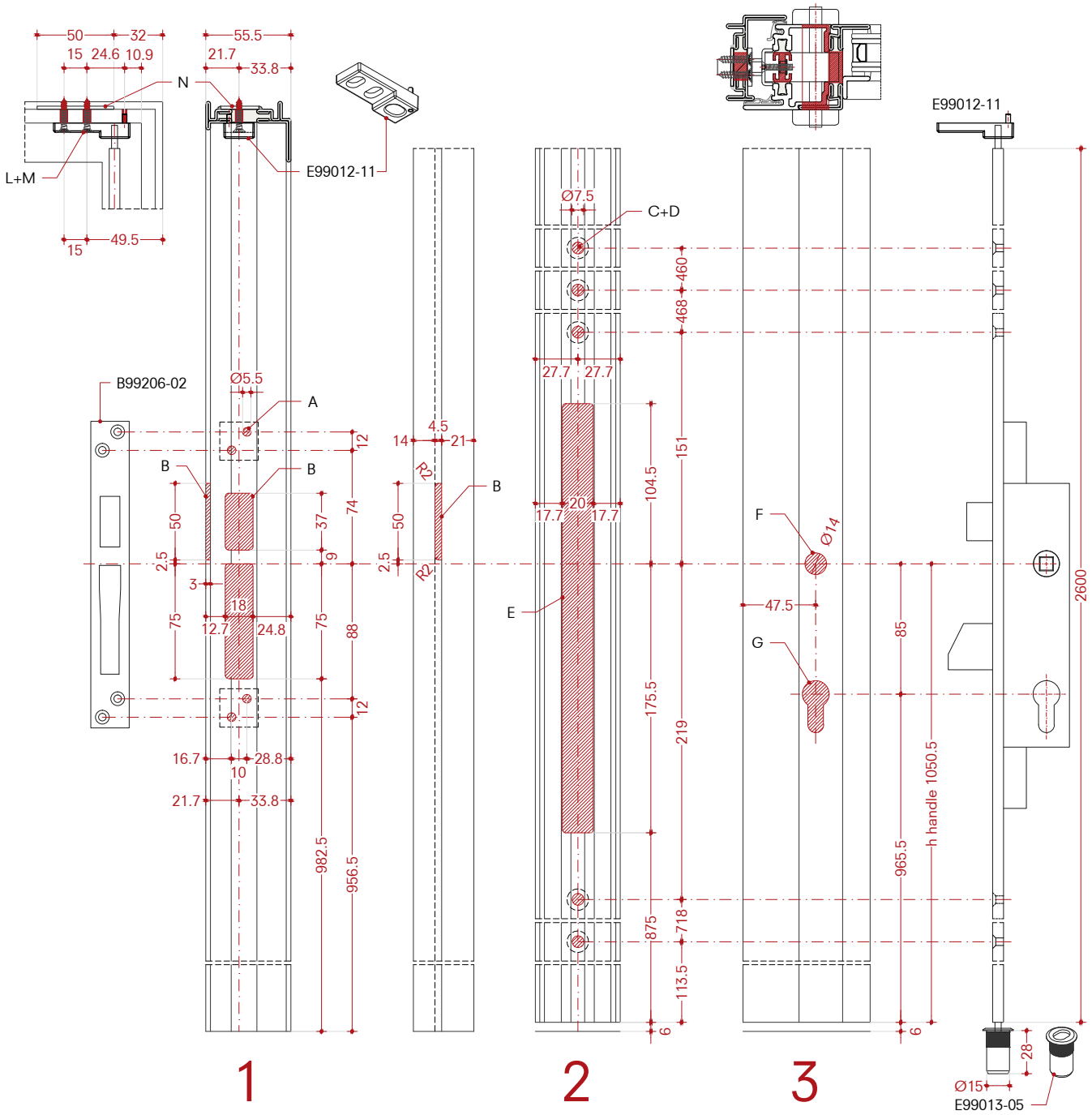
A) Altezza anta
B) Fissaggio con viti Ø3.5x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja
B) Fijación con tornillos Ø3.5x22 mm ISO7050 y recortar tornillos

Installation
Lock B99111-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-02
Open in door

Montaggio
Serratura B99111-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-02
Porta apertura interna

Montaje
Cerradura B99111-02 con perfil
adicional de altura completa
FT 5512RS-00 + FT 5509ZA-02
Puerta apertura hacia dentro

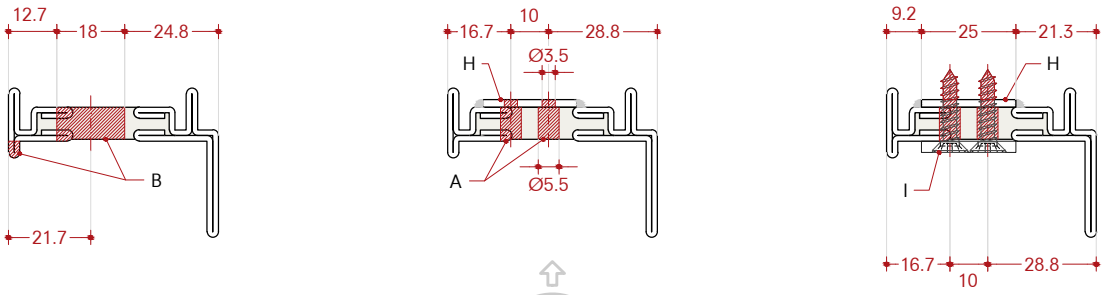


Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
L) Holes Ø5 mm in door frame
M) Fastening with Ø3.9x22 ISO7050 screws and cut the screws
N) Ø3.5 mm holes on 50x25x2 mm plate welded on profile (not provided)

Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
L) Fori Ø5 mm nel telaio della porta
M) Fissaggio con viti Ø3.9x22 ISO7050 e accorciare le viti
N) Fori Ø3.5 mm su piastra saldata al profilo 50x25x2 mm (non fornita)

Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
L) Orificios de Ø5 mm en marco de la puerta
M) Fijación con tornillos Ø3.9x22 ISO7050 y recortar tornillos
N) Orificios Ø3.5 mm en placa soldada en perfil 50x25x2 mm (no provisto)

1



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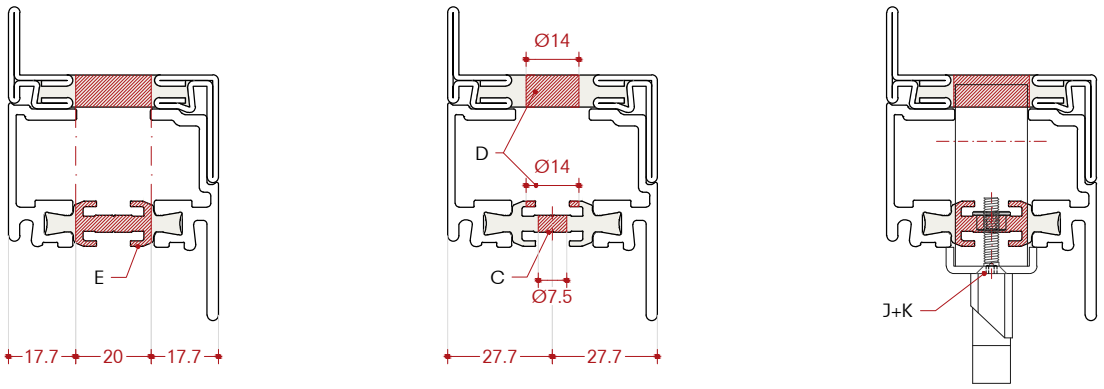

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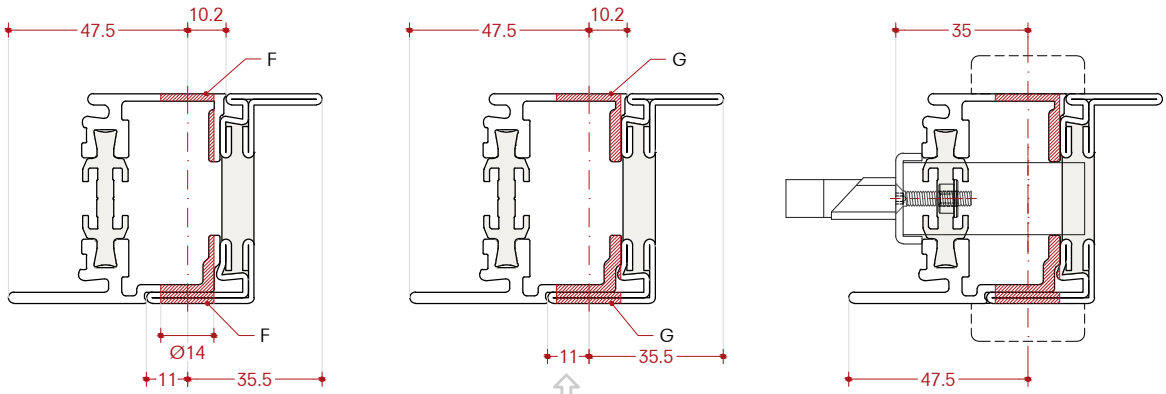
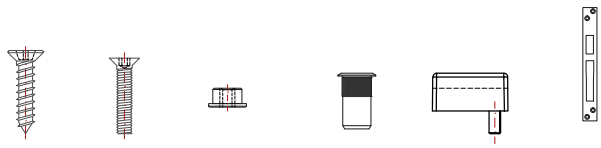




Ø4.8x22 ISO 7050 n° 6 pcs | M4x20 ISO 10642 n° 5 pcs | D99704-08 n° 5 pcs | E99013-05 n° 1 pc | E99012-11 n° 1 pc | B99206-02 n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

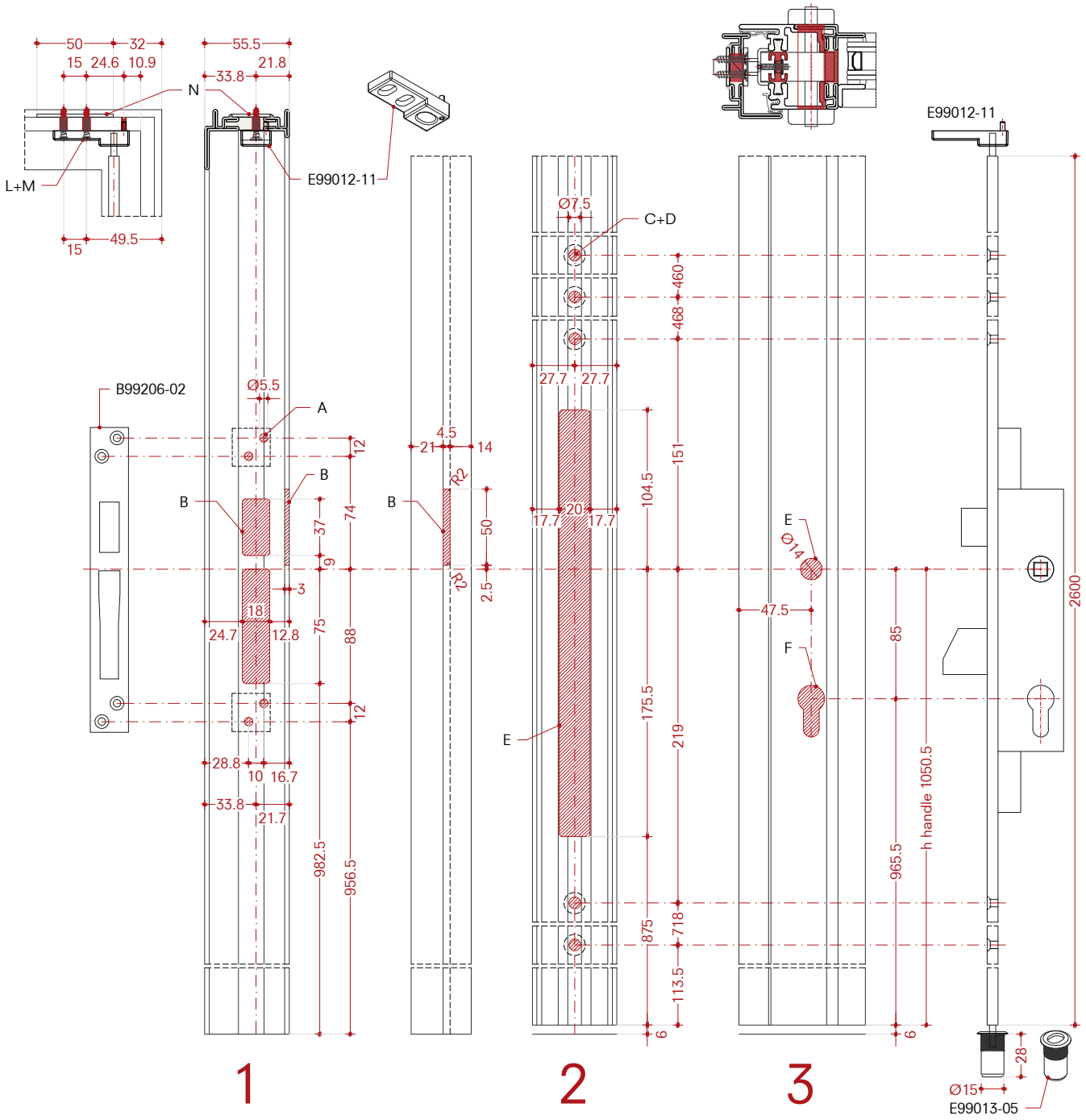
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99111-02
with full height additional profile
FT 5512RS-00 + FT 5509TA-00
Open out door

Montaggio
Serratura B99111-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509TA-00
Porta apertura esterna

Montaje
Cerradura B99111-02 con perfil
adicional de altura completa
FT 5512RS-00 + FT 5509TA-00
Puerta apertura hacia fuera

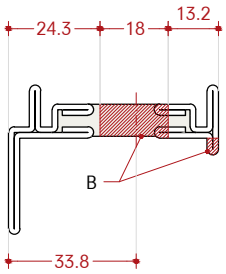


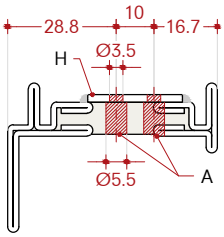
Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
L) Holes Ø5 mm in door frame
M) Fastening with Ø3.9x22 ISO7050 screws and cut the screws
N) Ø3.5 mm holes on 50x25x2 mm plate welded on profile (not provided)

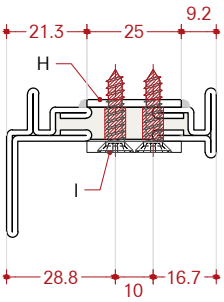
Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
L) Fori Ø5 mm nel telaio della porta
M) Fissaggio con viti Ø3.9x22 ISO7050 e accorciare le viti
N) Fori Ø3.5 mm su piastra saldata al profilo 50x25x2 mm (non fornita)

Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
L) Orificios de Ø5 mm en marco de la puerta
M) Fijación con tornillos Ø3.9x22 ISO7050 y recortar tornillos
N) Orificios Ø3.5 mm en placa soldada en perfil 50x25x2 mm (no provisto)

1







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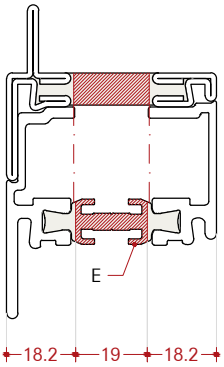

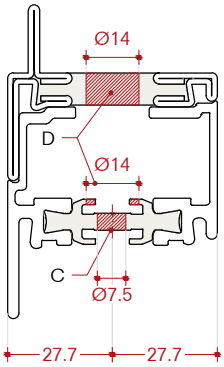

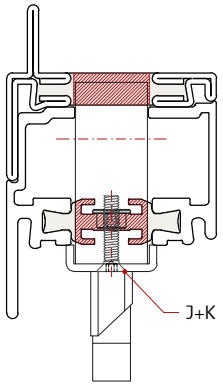

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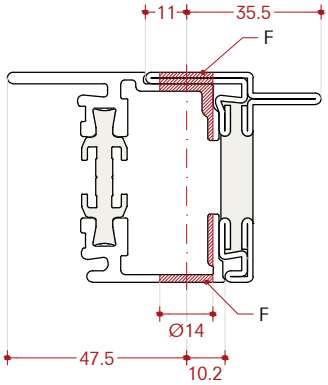
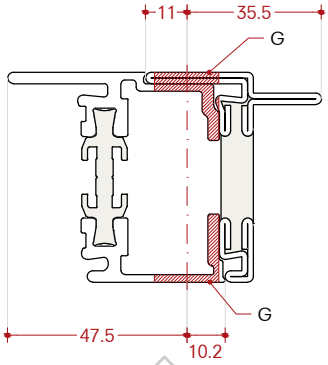
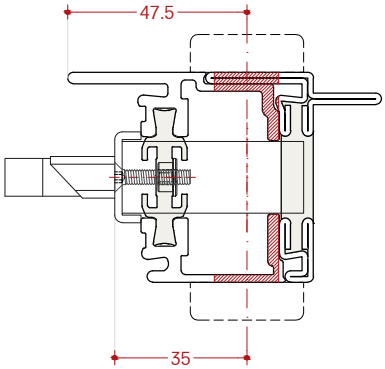






Ø4.8x22 ISO 7050 n° 6 pcs
M4x20 ISO 10642 n° 5 pcs
D99704-08 n° 5 pcs
E99013-05 n° 1 pc
E99012-11 n° 1 pc
B99206-02 n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

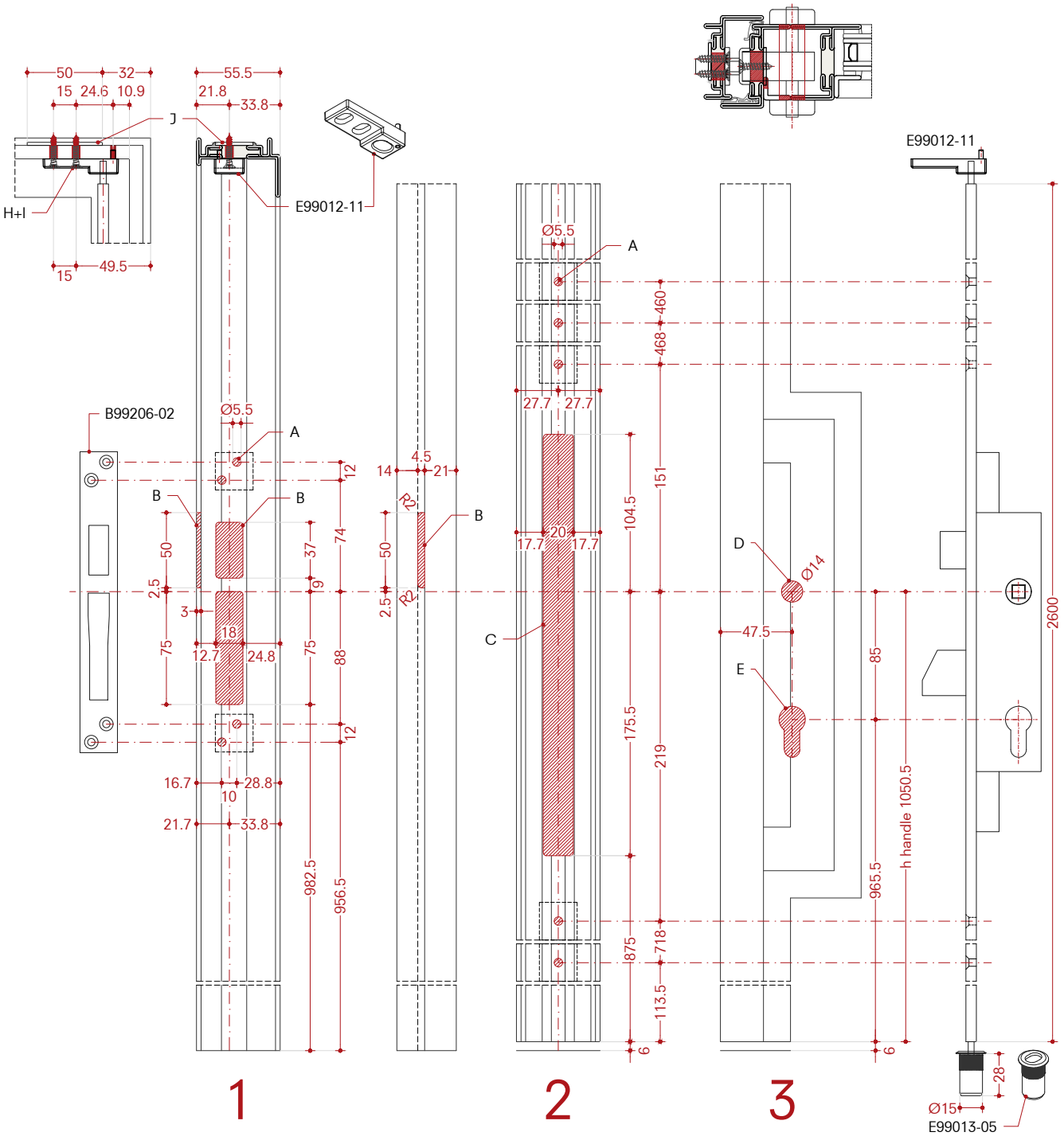
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99111-02
with locking box FT 5009HF-02
Open in door

Montaggio
Serratura B99111-02
con scatola FT 5009HF-02
Porta apertura interna

Montaje
Cerradura B99111-02
con serradura FT 5009HF-02
Puerta apertura hacia dentro

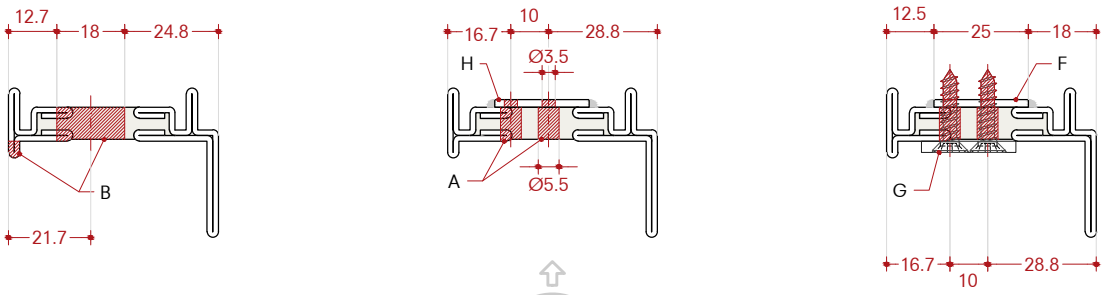


Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Cut-out in the door leaf
D) Lever handle bore Ø14 mm
E) Profile cylinder milling
H) Holes Ø5 mm in door frame
I) Fastening with Ø3.9x22 ISO7050 screws and cut the screws
J) Ø3.5 mm holes on 50x25x2 mm plate welded on profile (not provided)

Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fresatura nell'anta della porta
D) Foro leva maniglia Ø14 mm
E) Fresatura profili per i cilindri
H) Fori Ø5 mm nel telaio della porta
I) Fissaggio con viti Ø3.9x22 ISO7050 e accorciare le viti
J) Fori Ø3.5 mm su piastra saldata al profilo 50x25x2 mm (non fornita)

Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C)
D) Fresado en hoja de la puerta
E) Palanca de perfil de Ø14 mm
F) Fresado en perfil para cilindros
H) Orificios de Ø5 mm en marco de la puerta
I) Fijación con tornillos Ø3.9x22 ISO7050 y recortar tornillos
J) Orificios Ø3.5 mm en placa soldada en perfil 50x25x2 mm (no provisto)

1



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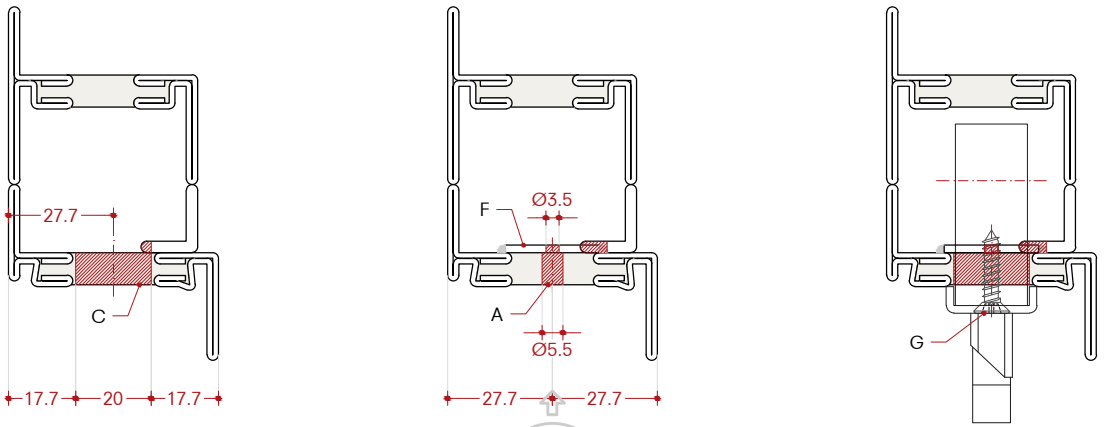

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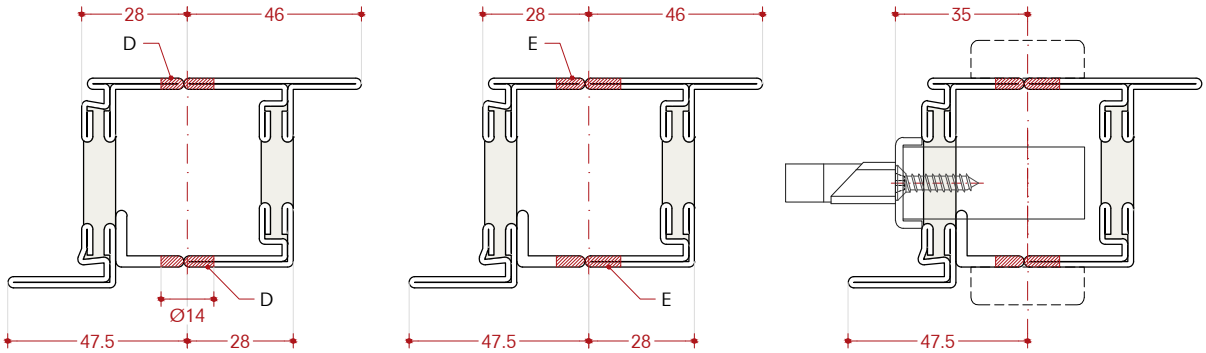
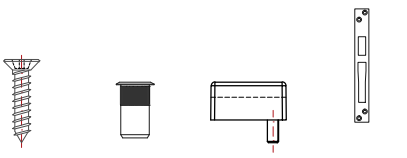




Ø4.8x22
ISO 7050
n° 11 pcs

E99013-05
n° 1 pc

E99012-11
n° 1 pc

B99206-02
n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Cut-out in door leaf
D) Lever handle bore Ø14 mm
E) Profile cylinder milling
F) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
G) Fastening with Ø4.8x22 ISO7050 screws and cut the screws

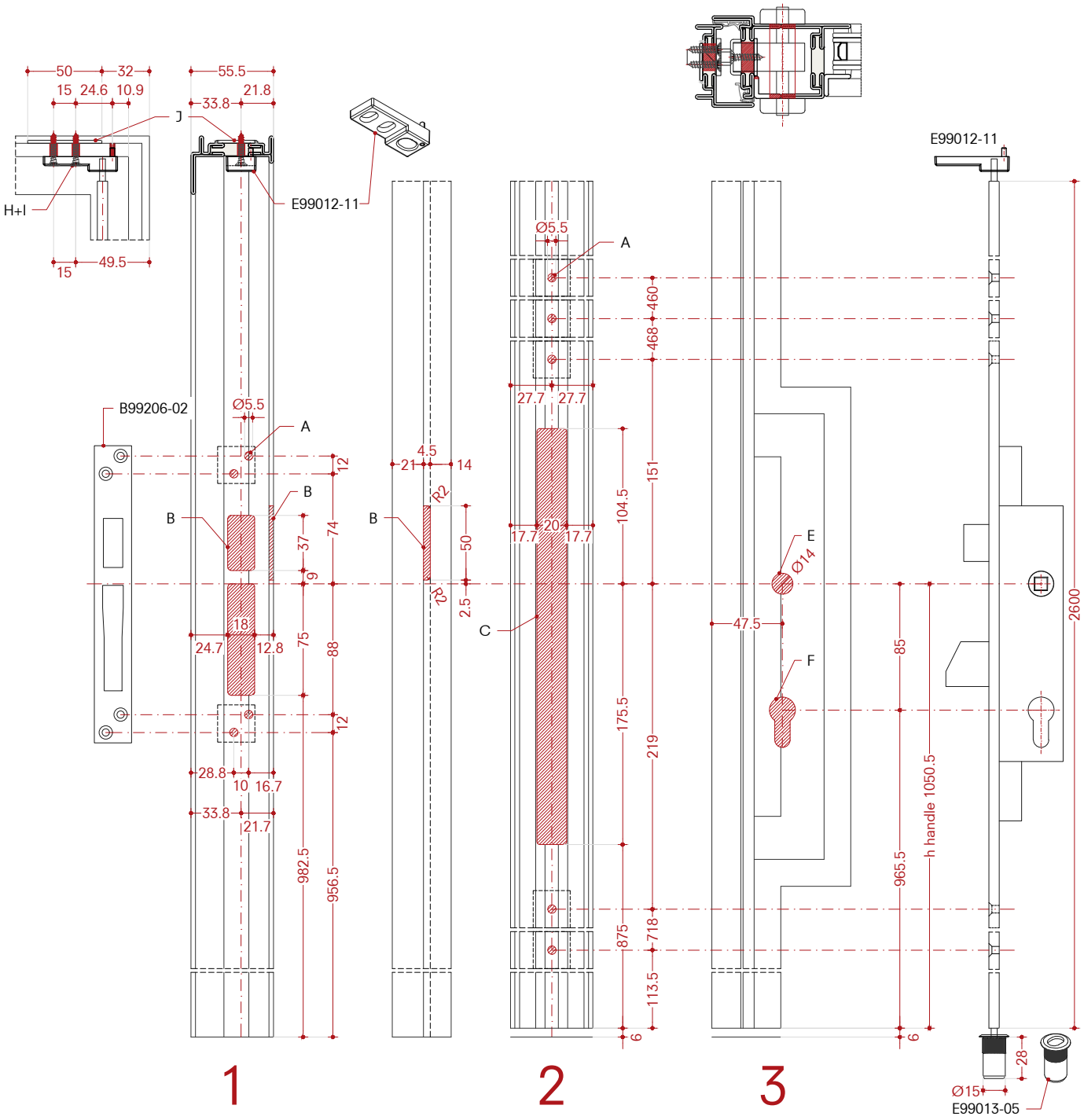
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fresatura nell'anta della porta
D) Foro leva maniglia Ø14 mm
E) Fresatura profili per i cilindri
F) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
G) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti

Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Fresado en hoja de la puerta
D) Palanca de perfil de Ø14 mm
E) Fresado en perfil para cilindros
F) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
G) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos

Installation
Lock B99111-02
with locking box FT 5009HF-02
Open out door

Montaggio
Serratura B99111-02
con scatola FT 5009HF-02
Porta apertura esterna

Montaje
Cerradura B99111-02
con serradura FT 5009HF-02
Puerta apertura hacia fuera

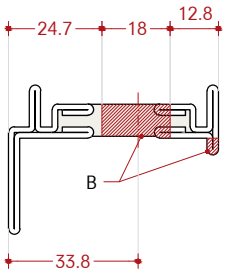


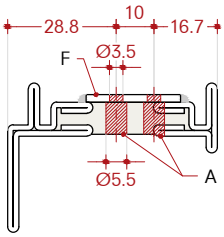
Scale 1:4
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Cut-out in the door leaf
D) Lever handle bore Ø14 mm
E) Profile cylinder milling
H) Holes Ø5 mm in door frame
I) Fastening with Ø3.9x22 ISO7050 screws and cut the screws
J) Ø3.5 mm holes on 50x25x2 mm plate welded on profile (not provided)

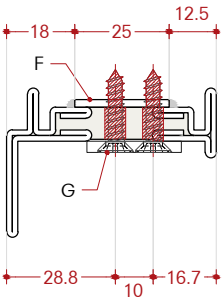
Scala 1:4
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fresatura nell'anta della porta
D) Foro leva maniglia Ø14 mm
E) Fresatura profili per i cilindri
H) Fori Ø5 mm nel telaio della porta
I) Fissaggio con viti Ø3.9x22 ISO7050 e accorciare le viti
J) Fori Ø3.5 mm su piastra saldata al profilo 50x25x2 mm (non fornita)

Escala 1:4
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C)
D) Fresado en hoja de la puerta
E) Palanca de perfil de Ø14 mm
F) Fresado en perfil para cilindros
H) Orificios de Ø5 mm en marco de la puerta
I) Fijación con tornillos Ø3.9x22 ISO7050 y recortar tornillos
J) Orificios Ø3.5 mm en placa soldada en perfil 50x25x2 mm (no provisto)

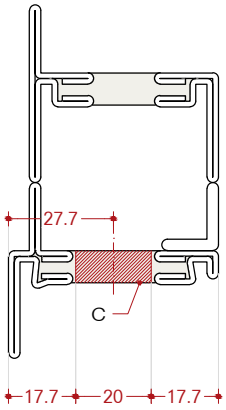
1

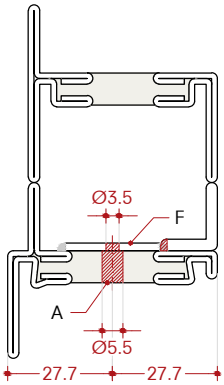


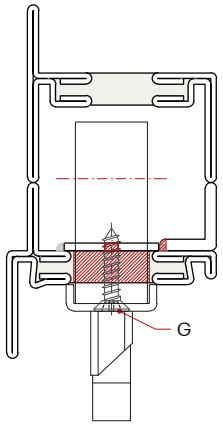




2







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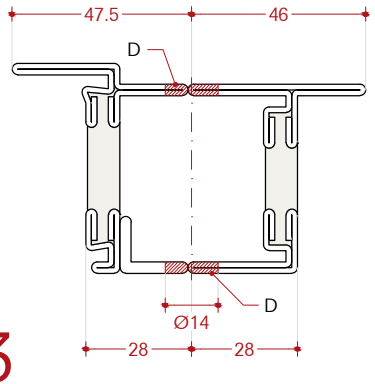
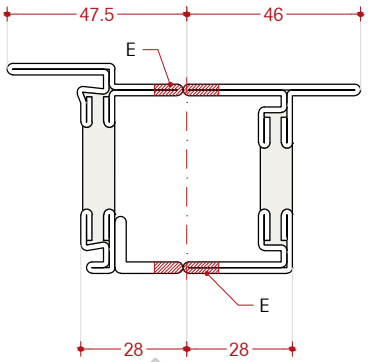
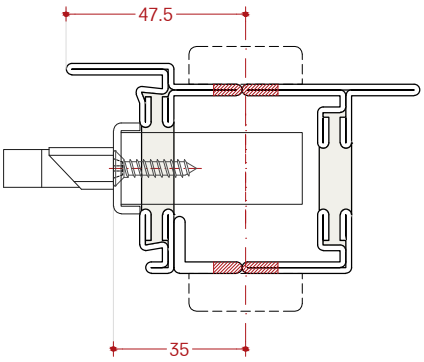
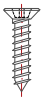








Ø4.8x22
ISO 7050
n° 11 pcs

E99013-05
n° 1 pc

E99012-11
n° 1 pc

B99206-02
n° 1 pc

Scale 1:2
A) Holes Ø5.5 mm in door frame
B) Cut-out in door frame
C) Cut-out in door leaf
D) Lever handle bore Ø14 mm
E) Profile cylinder milling
F) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
G) Fastening with Ø4.8x22 ISO7050 screws and cut the screws

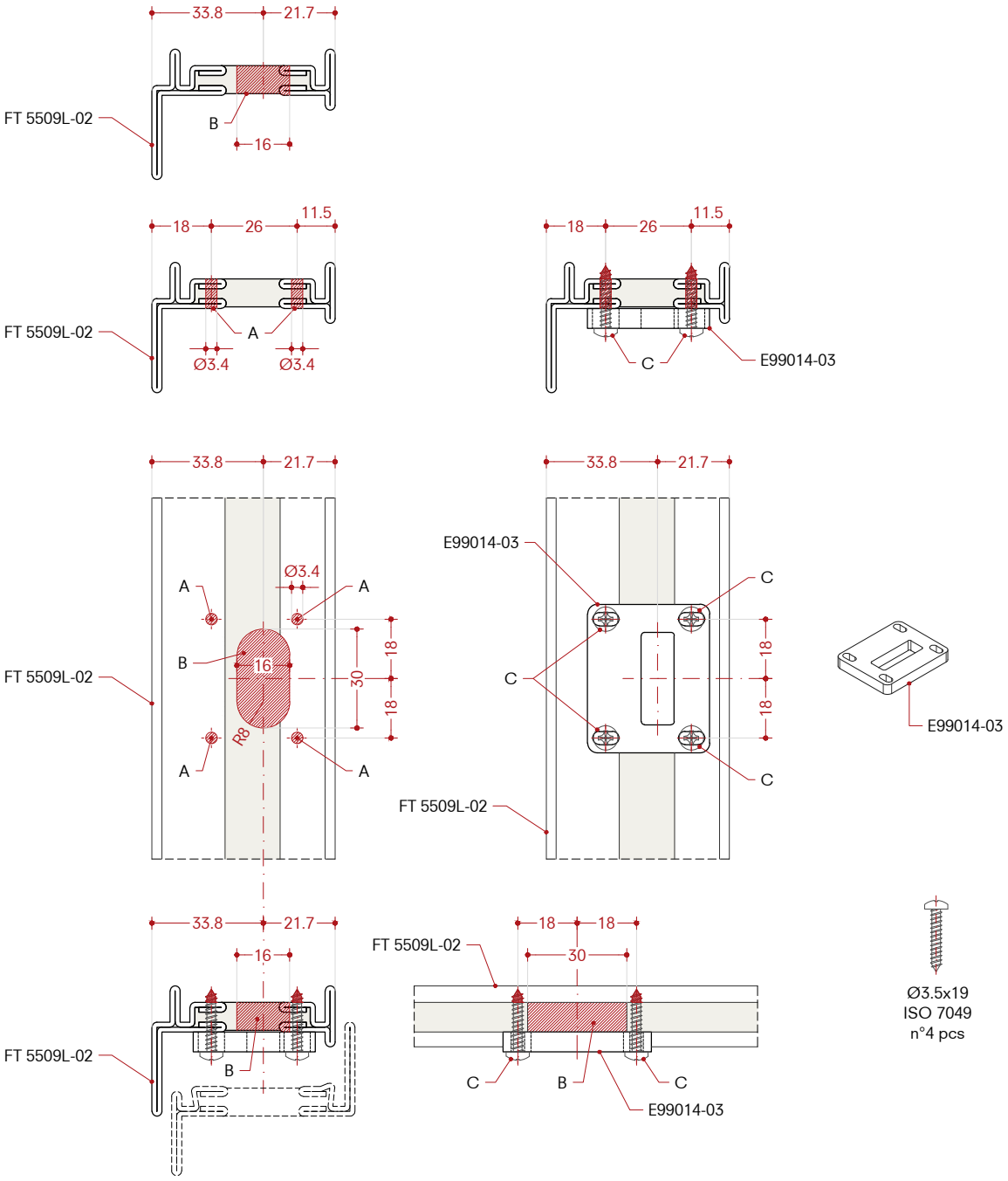
Scala 1:2
A) Fori Ø5.5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fresatura nell'anta della porta
D) Foro leva maniglia Ø14 mm
E) Fresatura profili per i cilindri
F) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
G) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti

Escala 1:2
A) Orificios de Ø5.5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Fresado en hoja de la puerta
D) Palanca de perfil de Ø14 mm
E) Fresado en perfil para cilindros
F) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
G) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos

Installation
Lock B99111-02
Double leaves
open in and open out door

Montaggio
Serratura B99111-02
Porta doppia anta
apertura interna ed esterna

Montaje
Cerradura B99111-02
Puerta de dos hojas
apertura hacia dentro y fuera



Scale 1:4
A) Holes Ø3.4 mm in door frame
B) Cut-out in door frame
C) Fastening with Ø3.5x22 ISO7049 screws and cut the screws

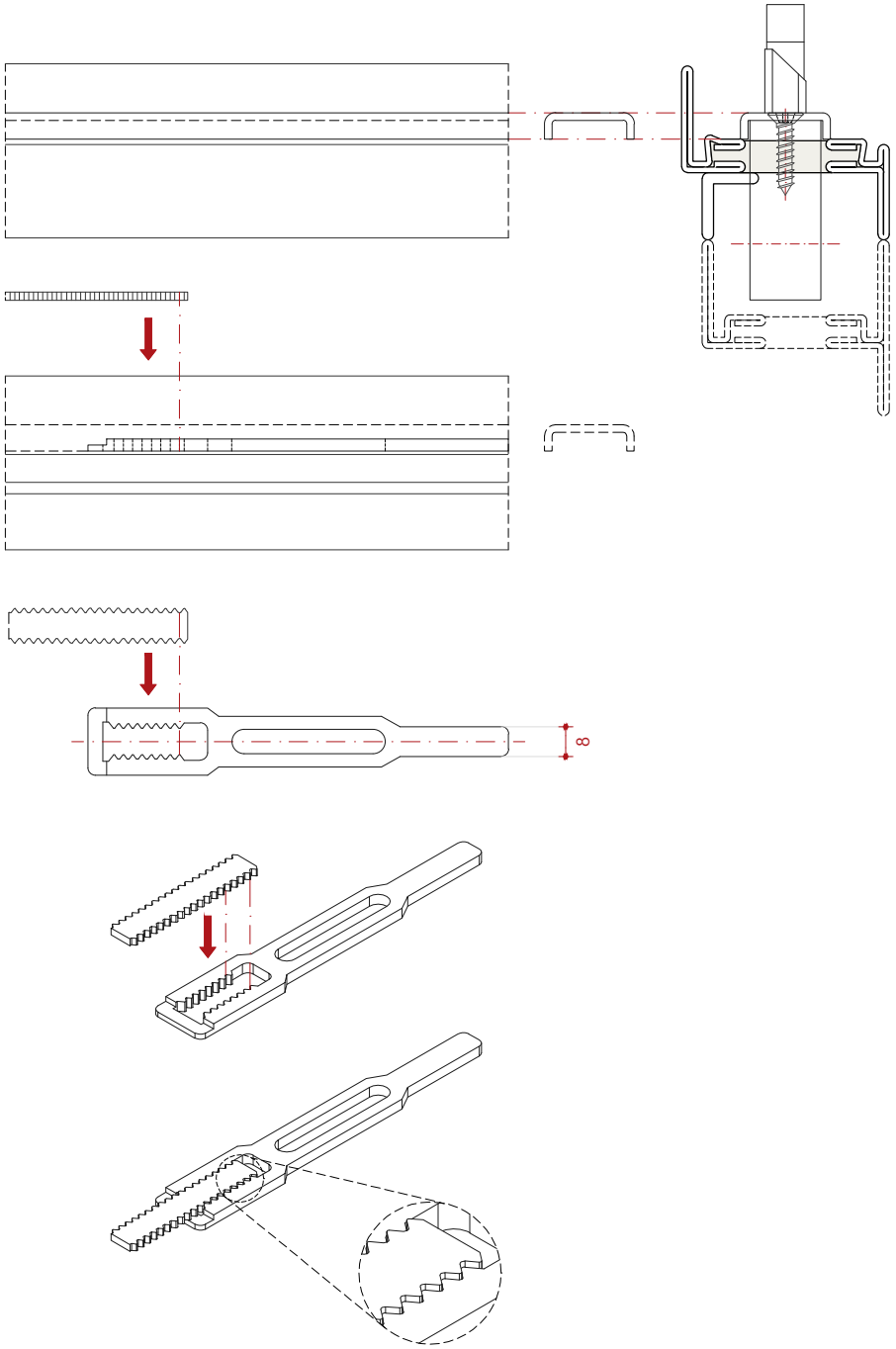
Scala 1:4
A) Fori Ø3.4 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fissaggio con viti Ø3.5x22 ISO7049 e accorciare le viti

Escala 1:4
A) Orificios de Ø3.4 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Fijación con tornillos Ø3.5x22 ISO7049 y recortar tornillos

Installation
Lock B99111-02
Connecting the lock tip

Montaggio
Serratura B99111-02
Collegamento del puntale serratura

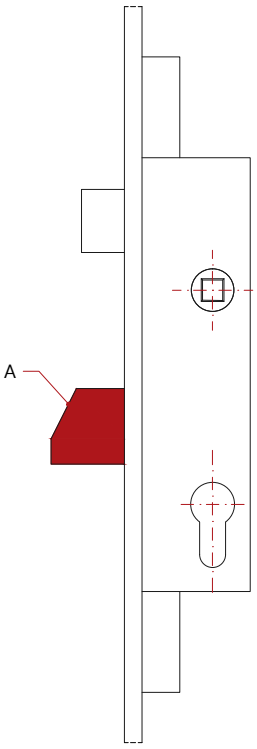
Montaje
Cerradura B99111-02
Conexión de la férula de bloqueo



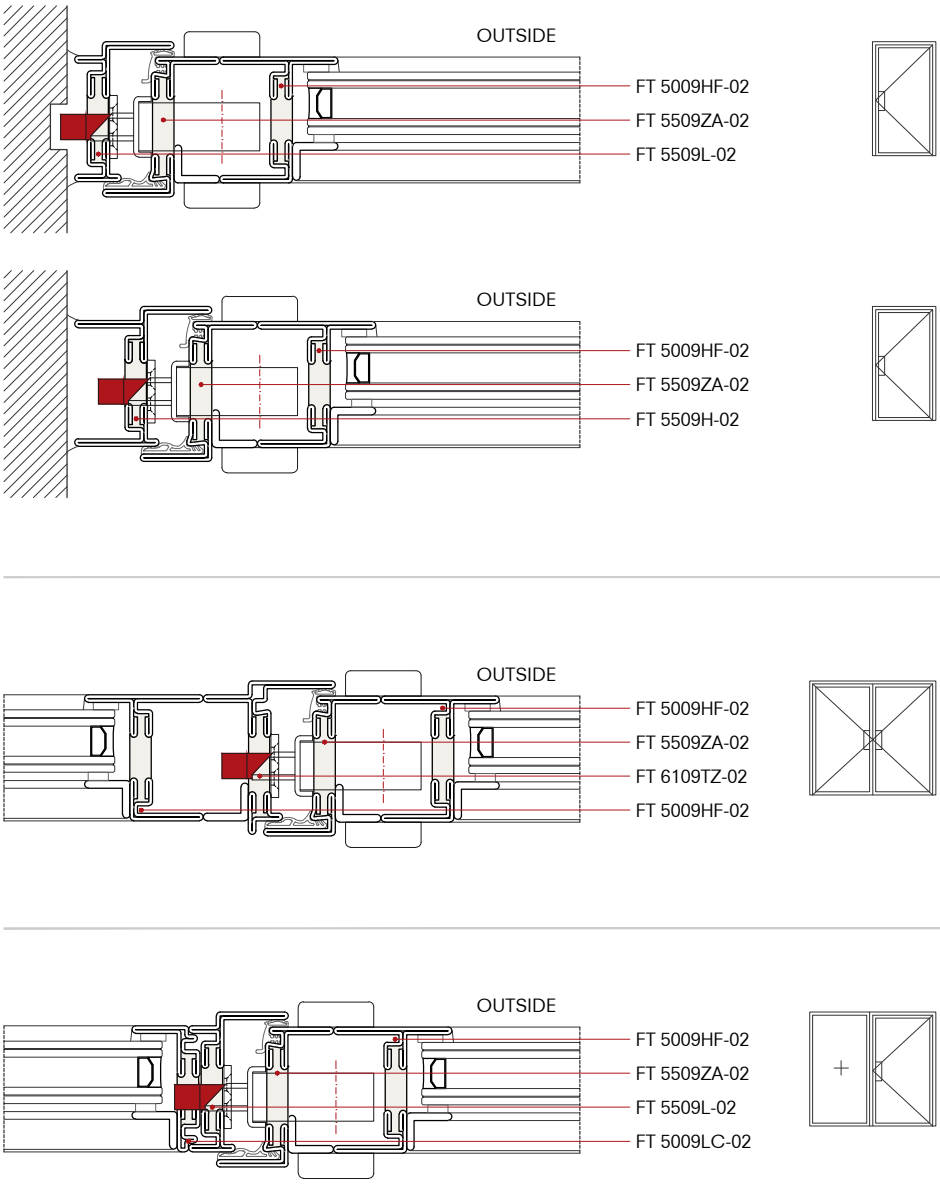
Installation
Lock B99111-02
Deadbolt
Open in door

Montaggio
Serratura B99111-02
Mandata
Porta apertura interna

Montaje
Cerradura B99111-02
Pestillo de bloqueo
Puerta apertura hacia dentro



B99111-02



Scale 1:3
A) Deadbolt

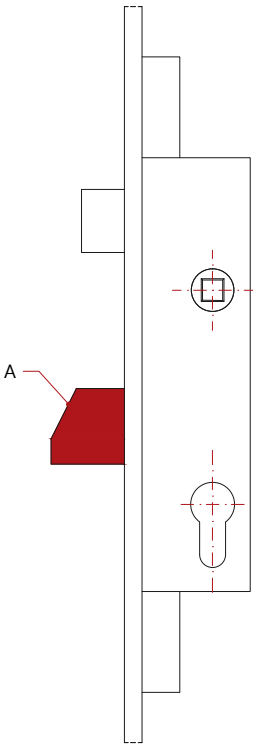
Scala 1:3
A) Mandata

Escala 1:3
A) Pestillo de bloqueo

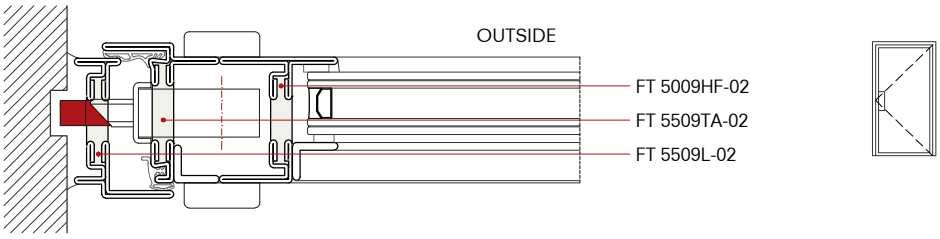
Installation
Lock B99111-02
Deadbolt
Open out door

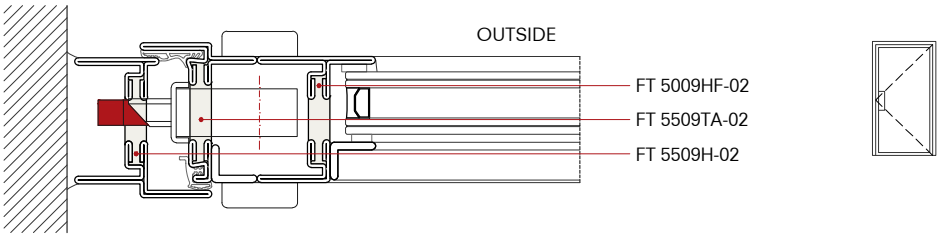
Montaggio
Serratura B99111-02
Mandata
Porta apertura esterna

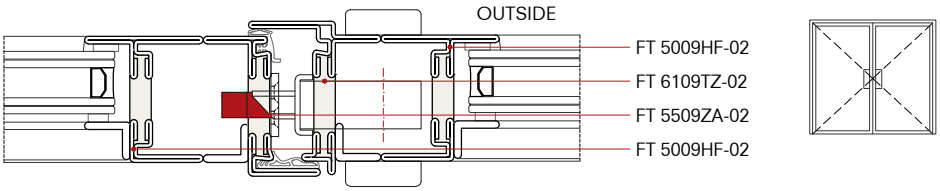
Montaje
Cerradura B99111-02
Pestillo de bloqueo
Puerta apertura hacia fuera

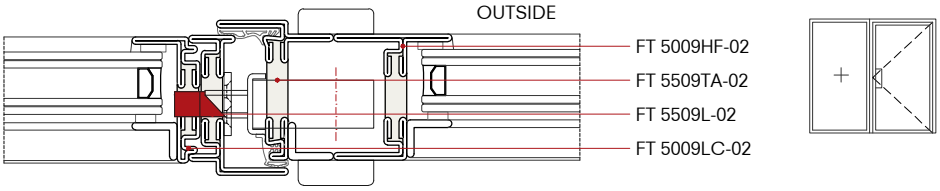


B99111-02









Scale 1:3
A) Deadbolt

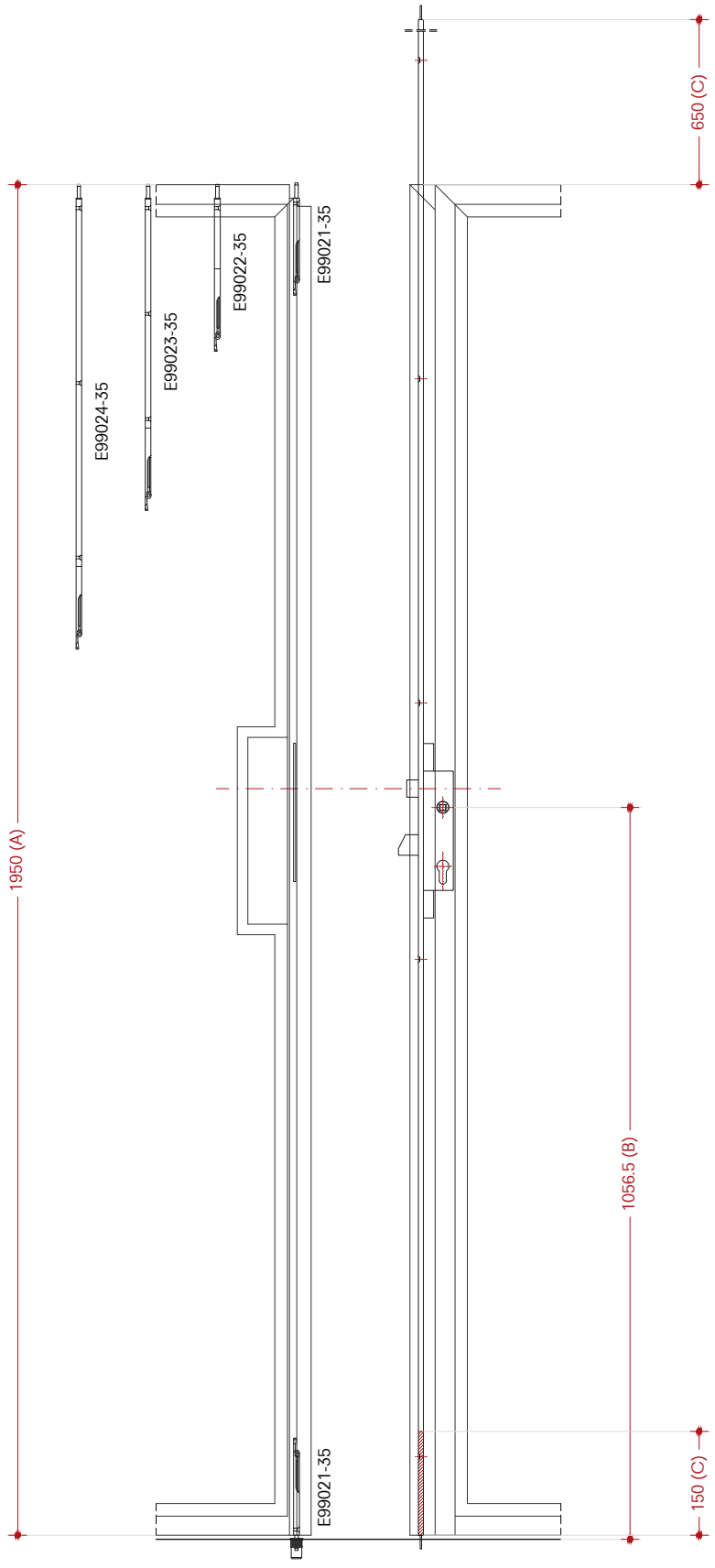
Scala 1:3
A) Mandata

Escala 1:3
A) Pestillo de bloqueo

Installation
Flush bolt E9902X-35
Lock B99111-02
Double leaf door open in
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00

Montaggio
Catenaccio E9902X-35
Serratura B99111-02
Porta a due battenti apertura interna
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00

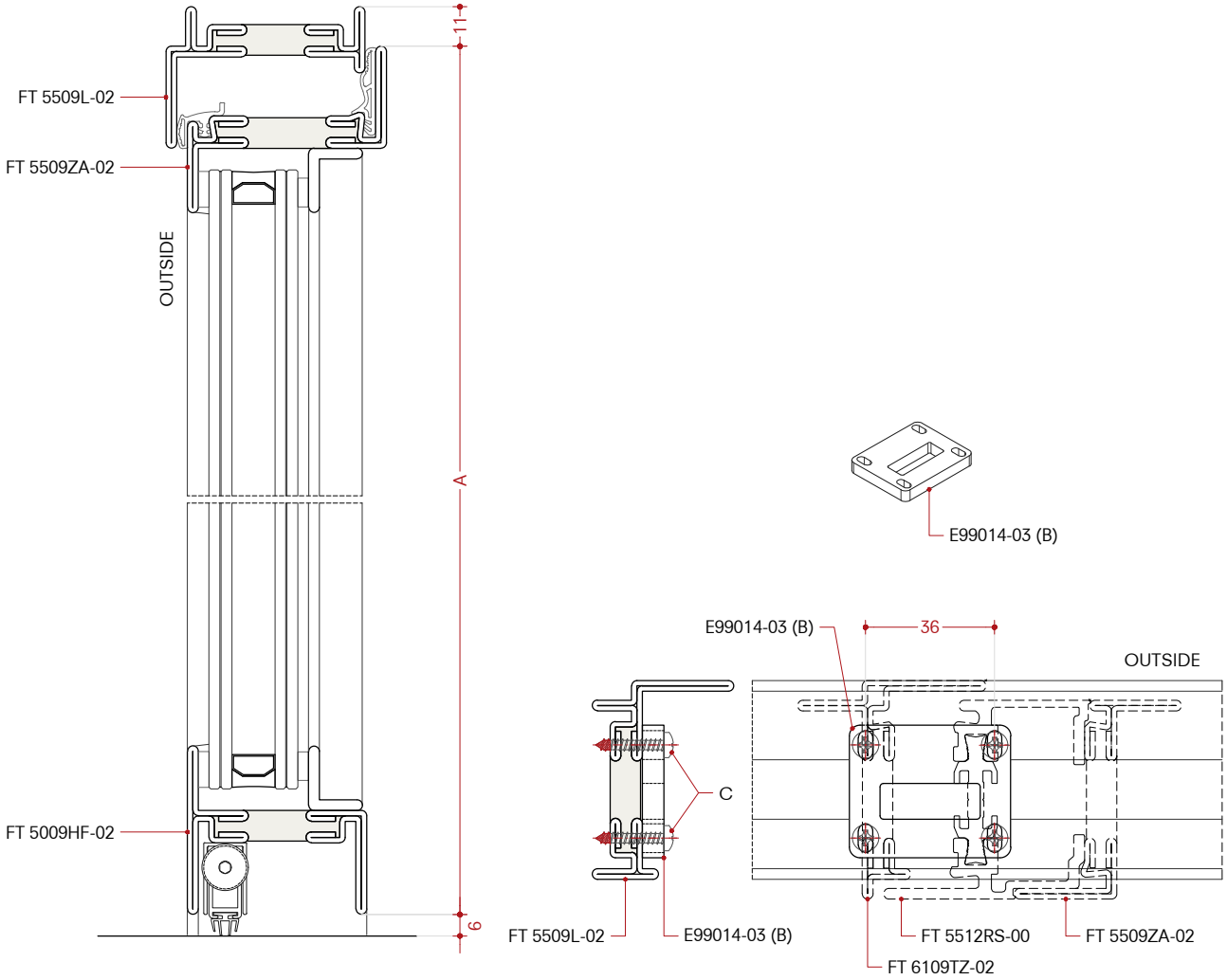
Montaje
Pasador de canto E9902X-35
Cerradura B99111-02 Puerta abatible de
dos hojas que se abre hacia dentro con
perfil adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00

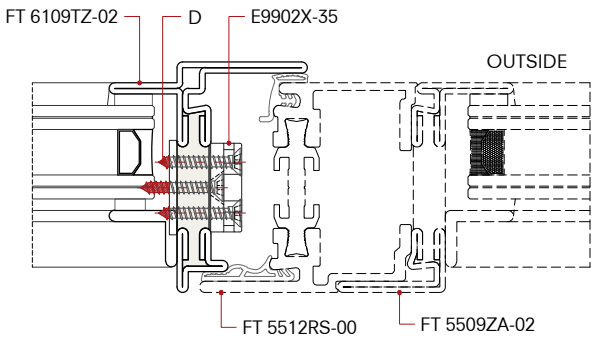


Escala 1:10
A) Altura mínima de la hoja
B) Altura de la manilla
C) Recorte máximo

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) E99014-03 only for double leaf door with B99111-02 + E9902X-35 (installation on top and bottom)
C) Fastening with Ø3.5x22 mm ISO7050 screws and cut the screws
D) Fastening with Ø3.5x22 mm ISO7049 screws and cut the screws

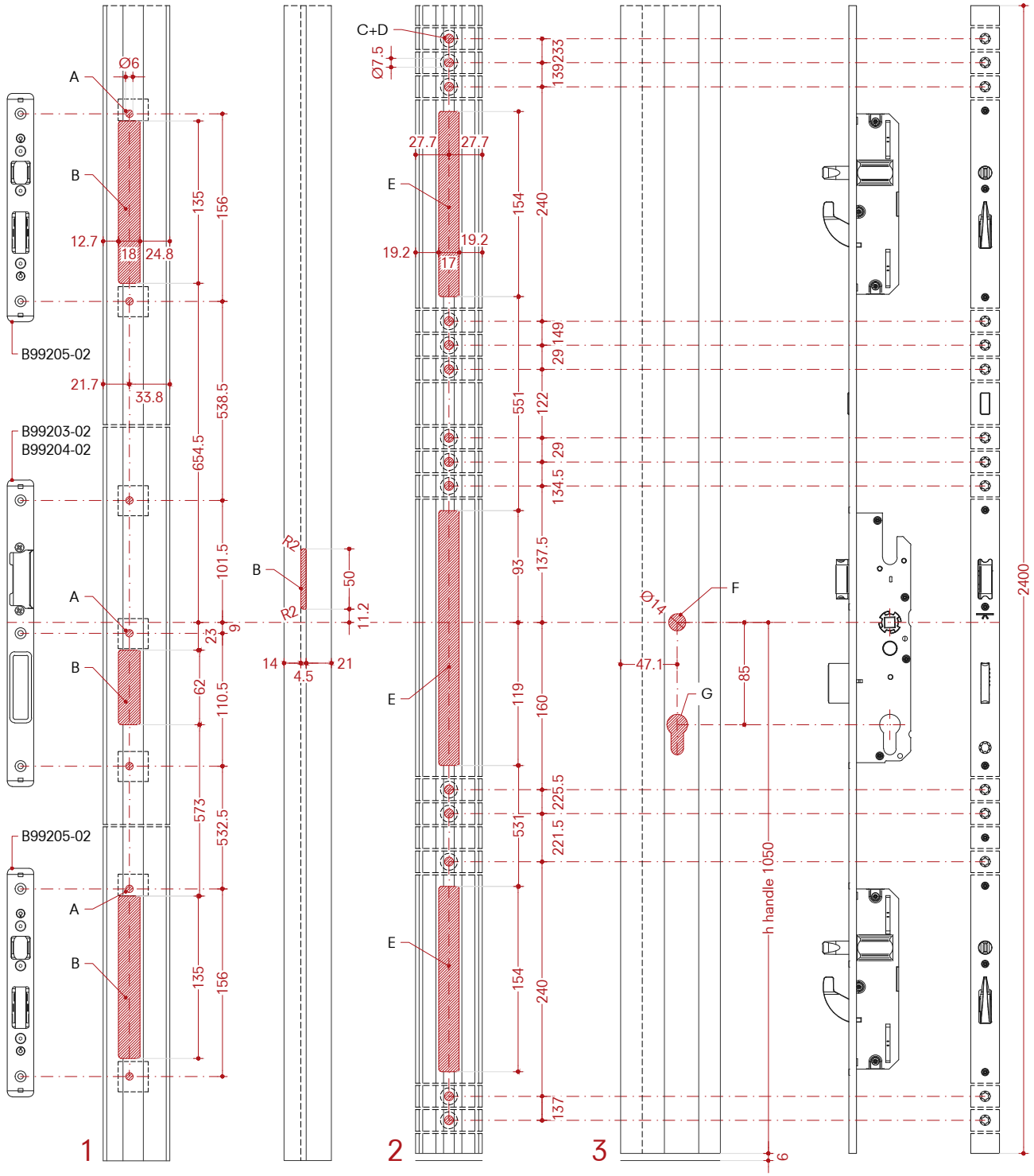
A) Altezza anta
B) E99014-03 solo per porta a due ante con B99111-02 + E9902X-35 (installazione superiore e inferiore)
C) Fissaggio con viti Ø3.5x22 mm ISO7050 e accorciare le viti
D) Fissaggio con viti Ø3.5x22 mm ISO7049 e accorciare le viti

A) Altura de la hoja
B) E99014-03 solo para puerta de dos hojas con B99111-02 + E9902X-35 (instalación en la parte superior e inferior)
C) Fijación con tornillos Ø3.5x22 mm ISO7050 y recortar tornillos
D) Fijación con tornillos Ø3.5x22 mm ISO7049 y recortar tornillos

Installation
Lock B99170-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00
Open in door

Montaggio
Serratura B99170-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00
Porta apertura interna

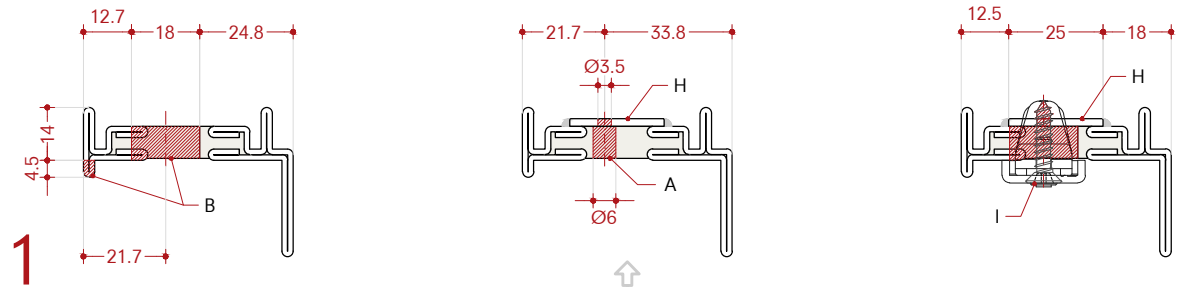
Montaje
Cerradura B99170-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00
Puerta apertura hacia dentro

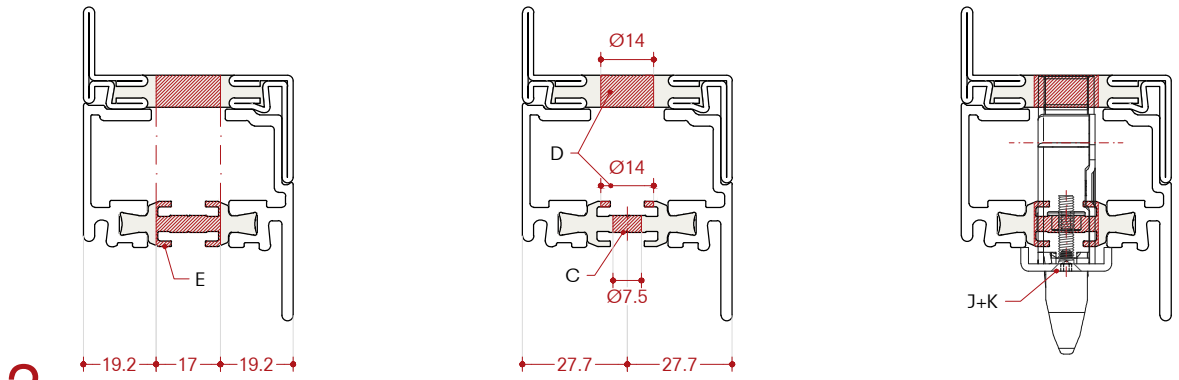


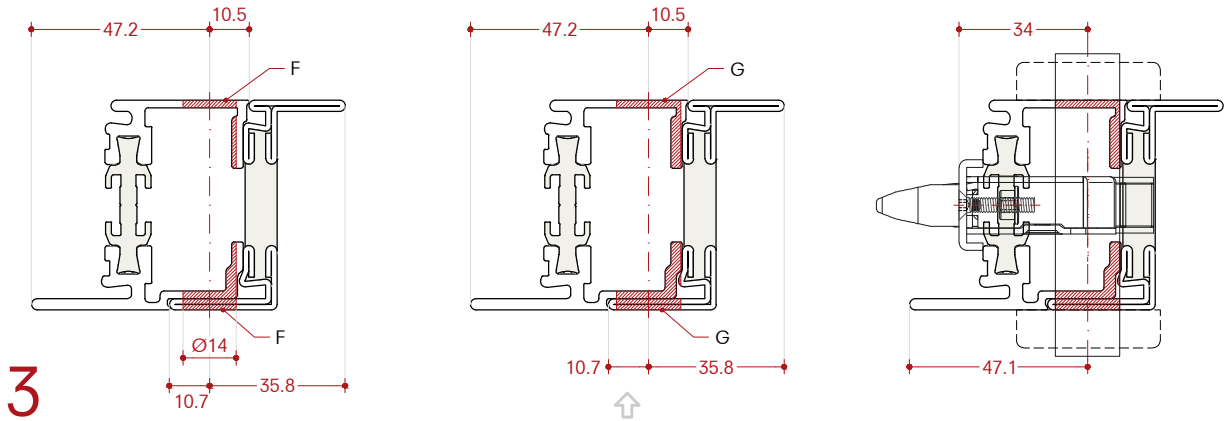
Scale 1:5
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

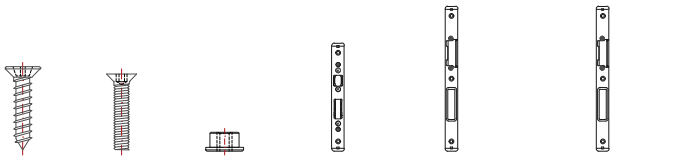
Scala 1:5
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

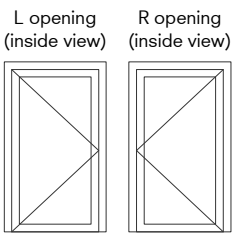
Escala 1:5
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros











Scale 1:2
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

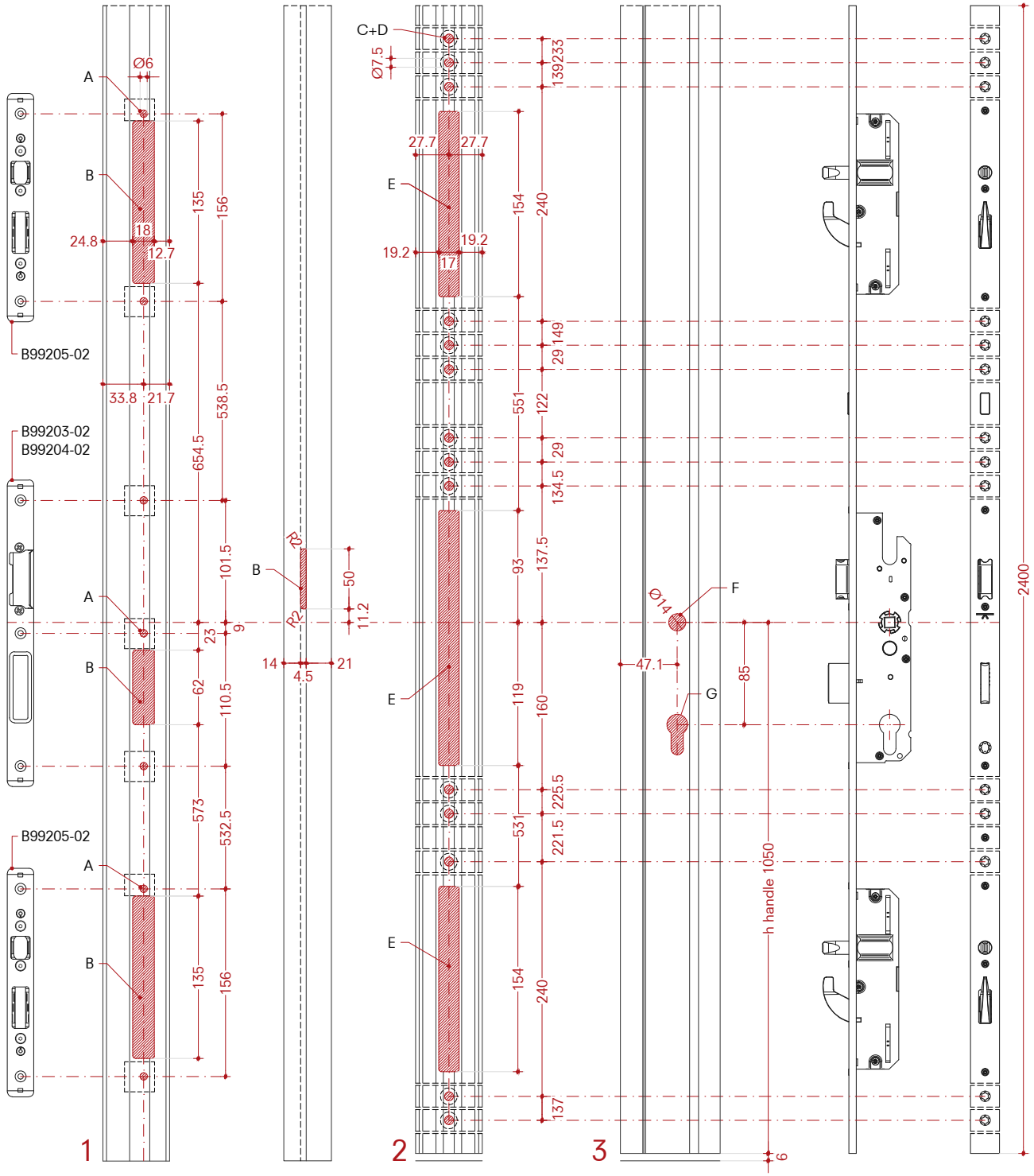
Scala 1:2
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99170-02
with full height additional profile
FT 5512RS-00 + FT 5509TA-00
Open out door

Montaggio
Serratura B99170-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509TA-00
Porta apertura esterna

Montaje
Cerradura B99170-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509TA-00
Puerta apertura hacia fuera

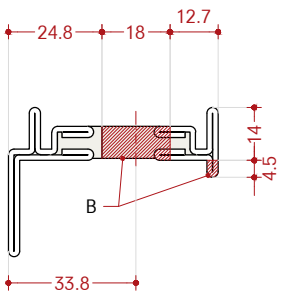


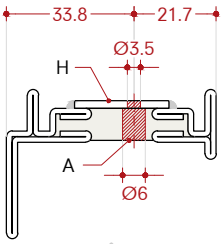
Scale 1:5
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

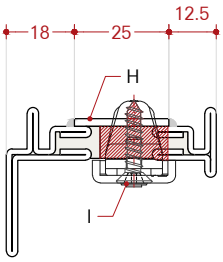
Scala 1:5
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

Escala 1:5
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros

1







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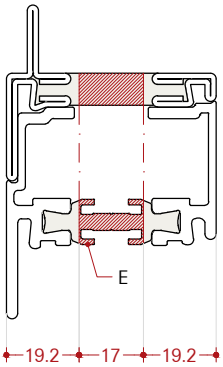

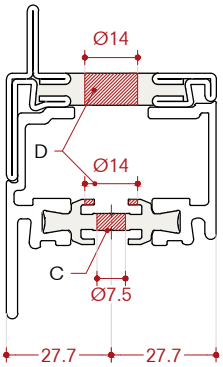

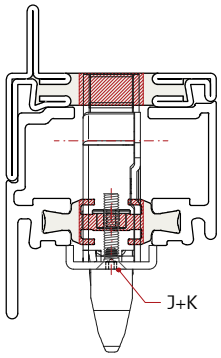

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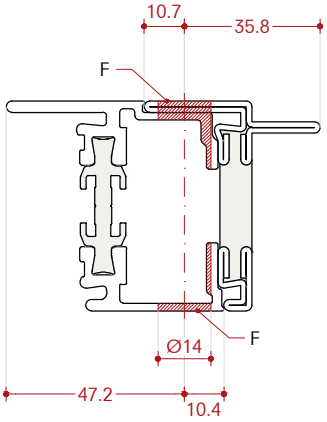
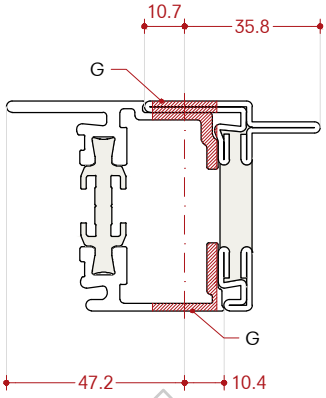
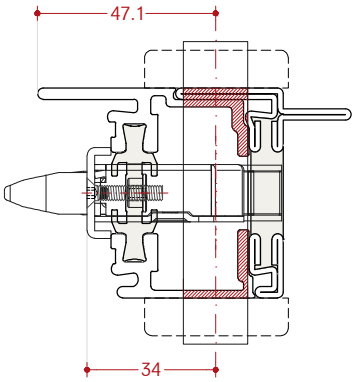
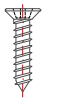







Ø4.8x22
ISO 7050
n° 7 pcs

M4x20
ISO 10642
n° 14 pcs

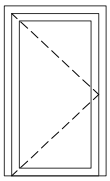
D99704-08
n° 14 pcs

B99205-02
n° 2 pcs

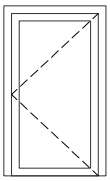
B99203-02
n° 1 pc
for Left opening

B99204-02
n° 1 pc
for Right opening

L opening
(inside view)



R opening
(inside view)



Scale 1:2
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

Scala 1:2
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Flush bolt E9902X-35
Lock B99170-02
Double leaf door open in
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00

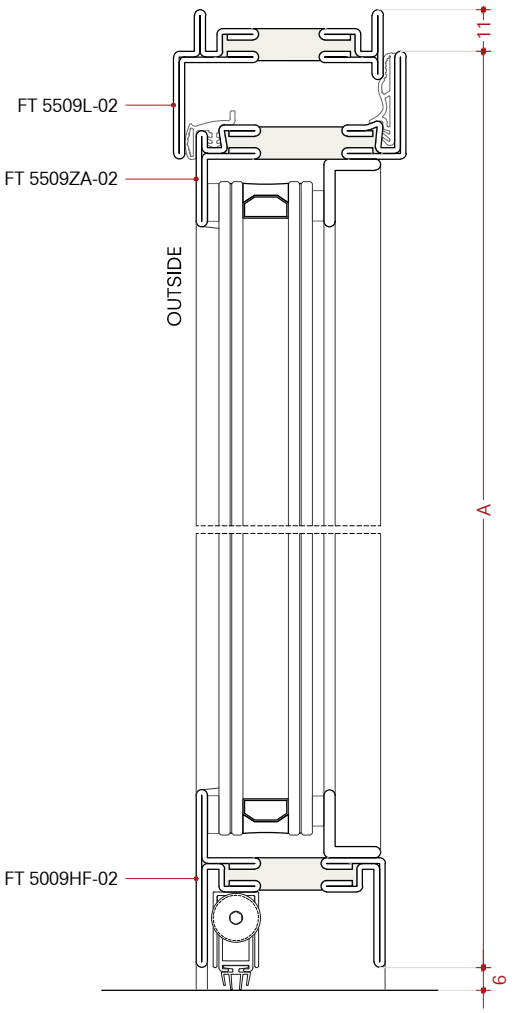
Montaggio
Catenaccio E9902X-35
Serratura B99170-02
Porta a due battenti apertura interna
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00

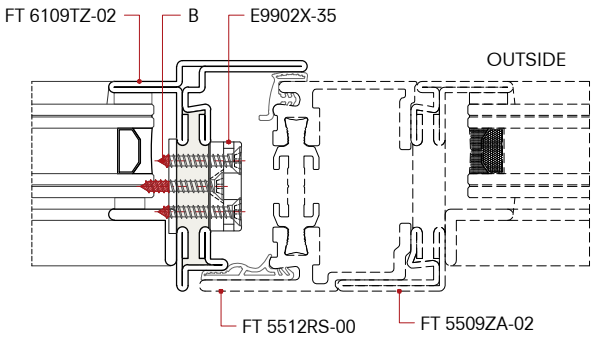
Montaje
Pasador de canto E9902X-35
Cerradura B99170-02
Puerta abatible de dos hojas que se
abre hacia dentro con perfil adicional
de altura completa
FT 5512RS-00 + FT 5509ZA-00

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 Ø3.5x22 mm ISO7050 screws and cut the screws

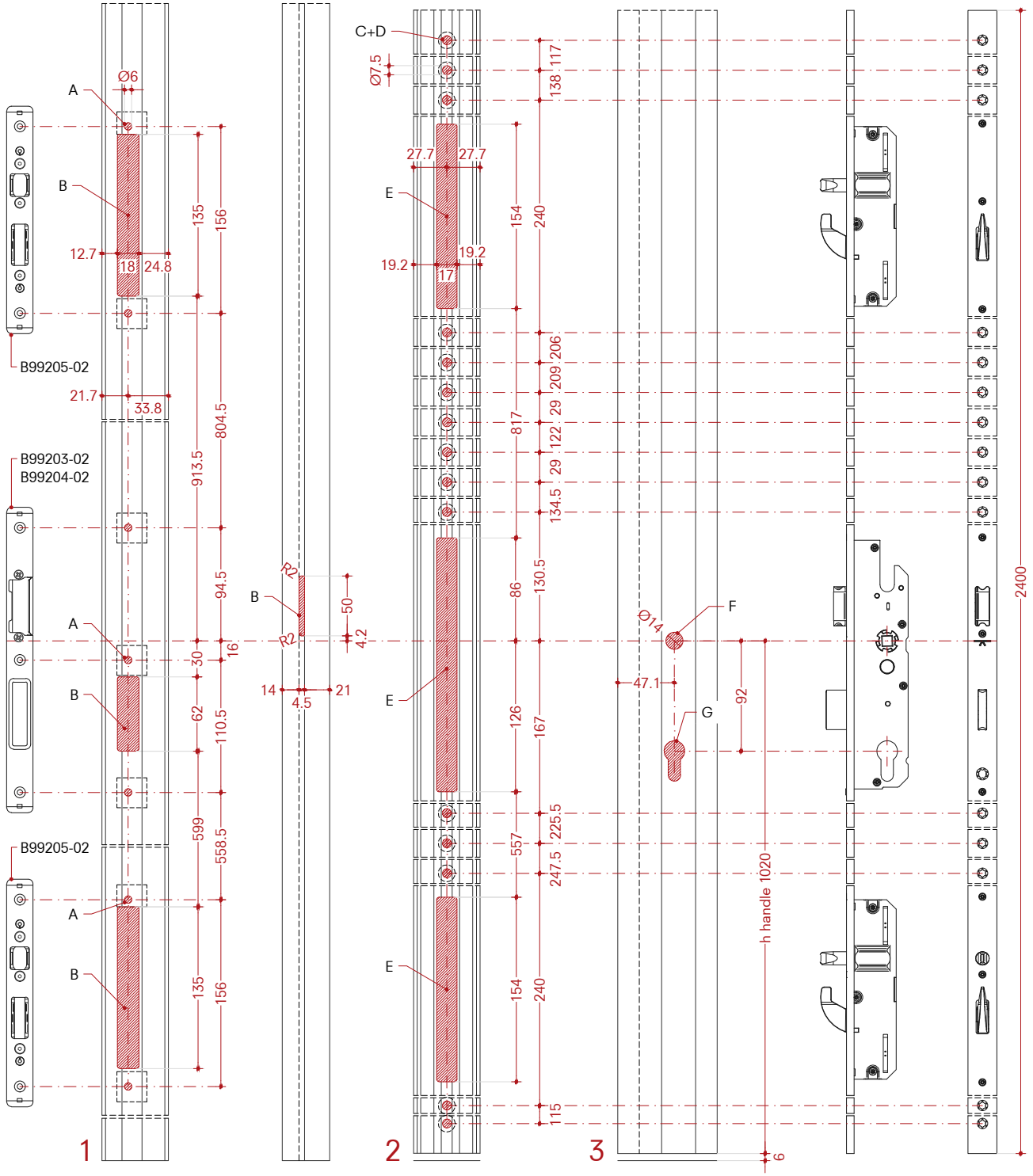
A) Altezza anta
B) Fissaggio con viti Ø3.5x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja
B) Fijación con tornillos Ø3.5x22 mm ISO7050 y recortar tornillos

Installation
Lock B99171-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00
Open in door

Montaggio
Serratura B99171-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00
Porta apertura interna

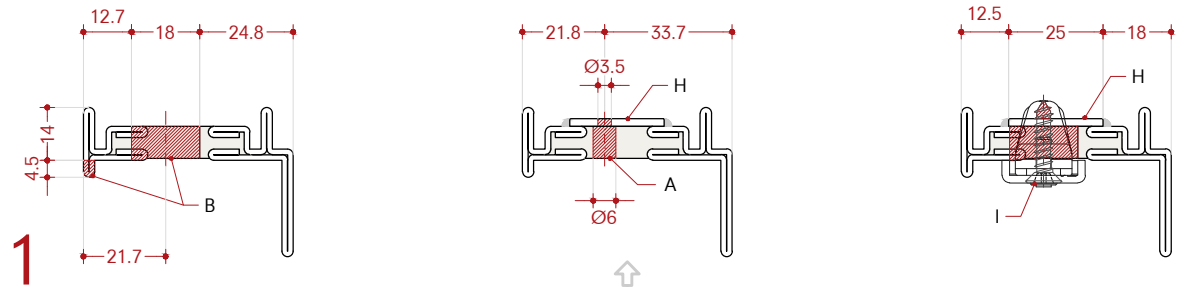
Montaje
Cerradura B99171-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00
Puerta apertura hacia dentro

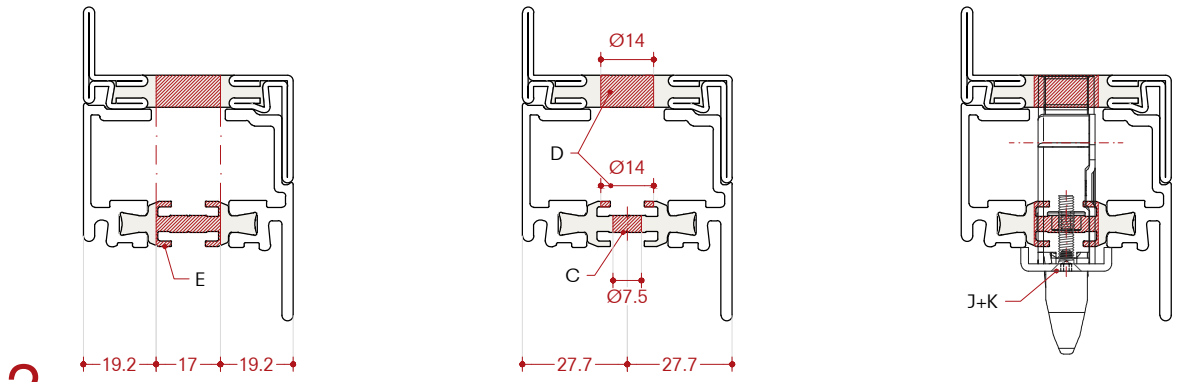


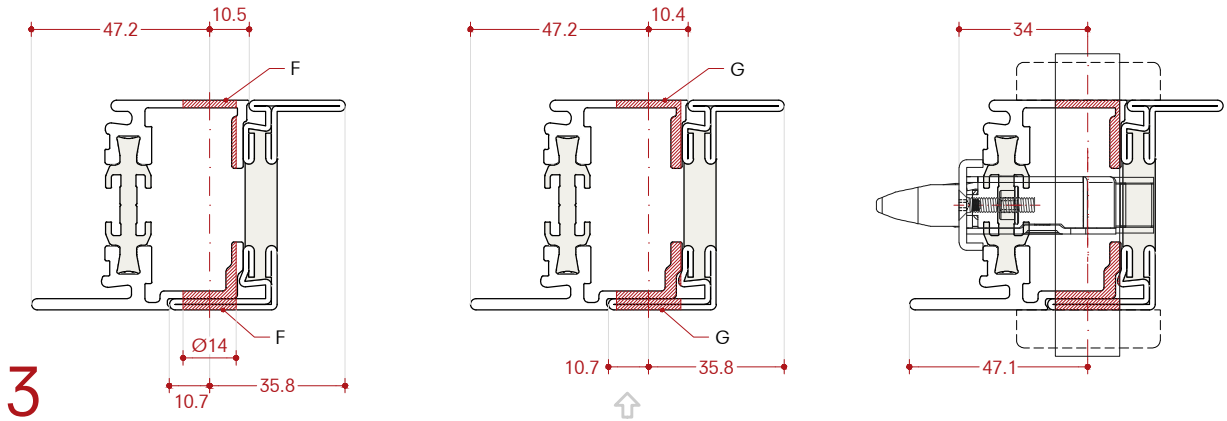
Scale 1:5
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

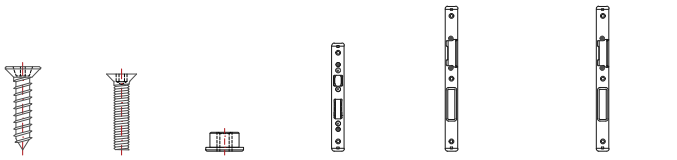
Scala 1:5
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

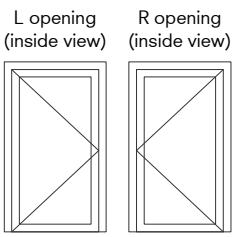
Escala 1:5
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros











Scale 1:2
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

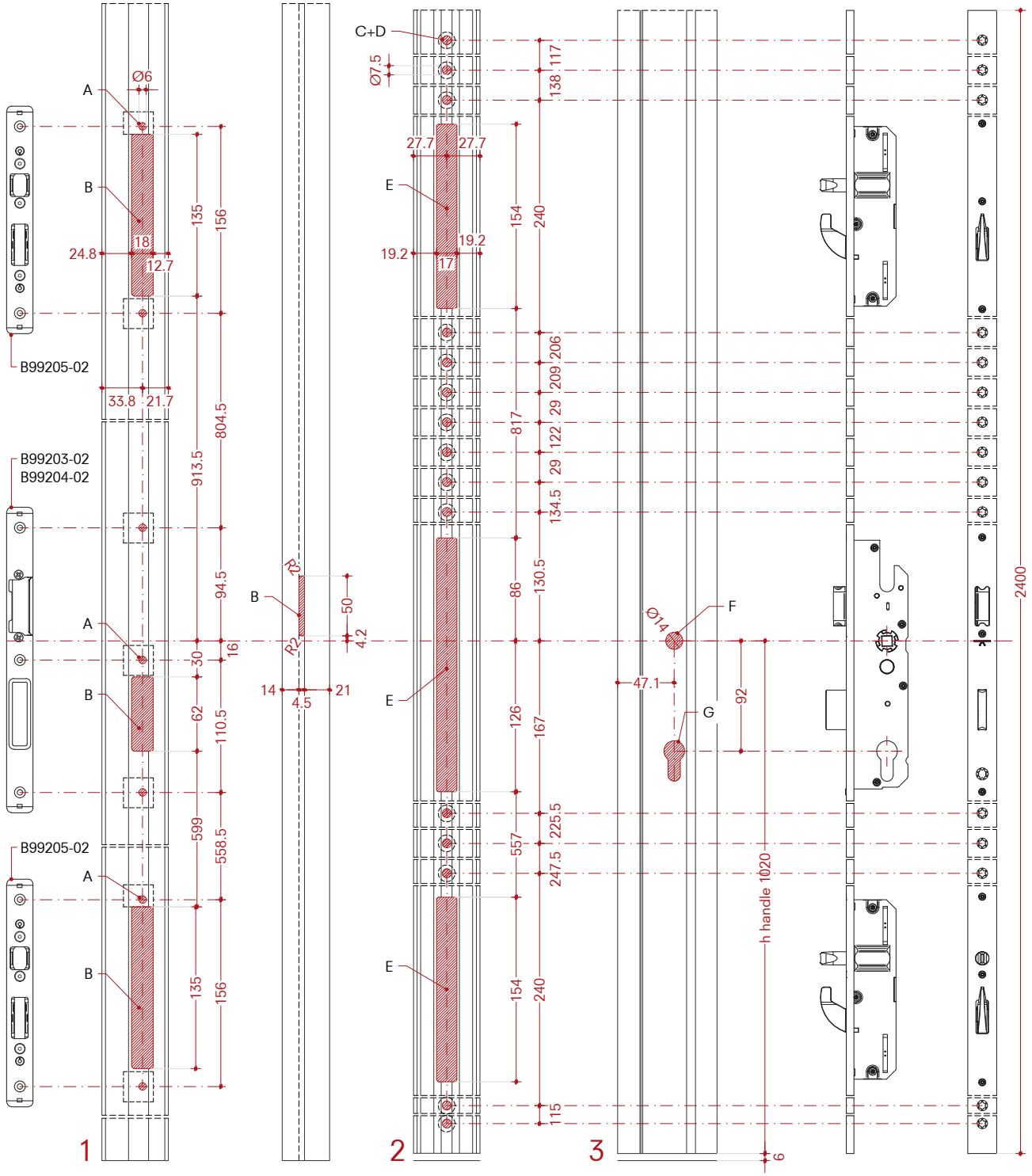
Scala 1:2
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99171-02
with full height additional profile
FT 5512RS-00 + FT 5509TA-00
Open out door

Montaggio
Serratura B99171-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509TA-00
Porta apertura esterna

Montaje
Cerradura B99171-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509TA-00
Puerta apertura hacia fuera

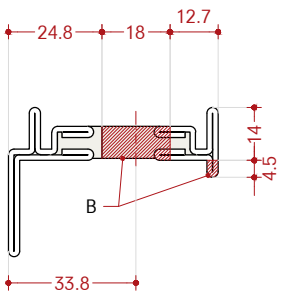


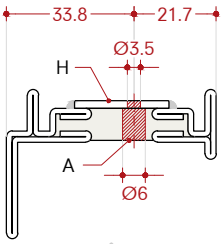
Scale 1:5
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

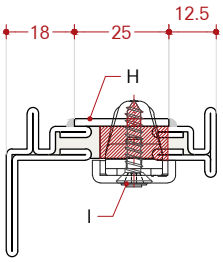
Scala 1:5
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

Escala 1:5
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros

1







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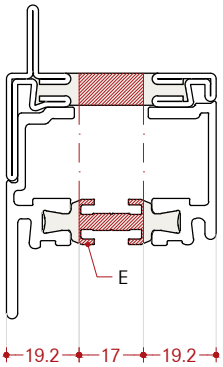

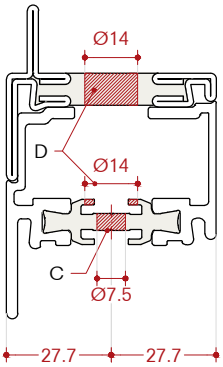

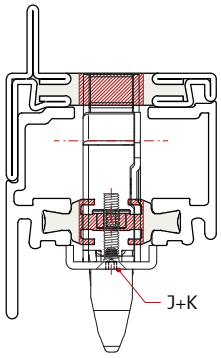

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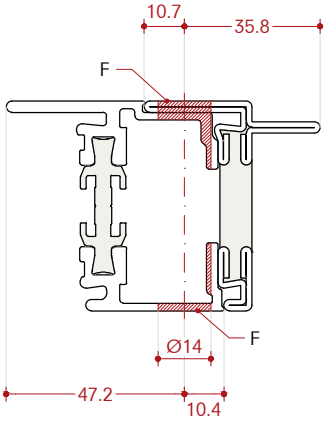
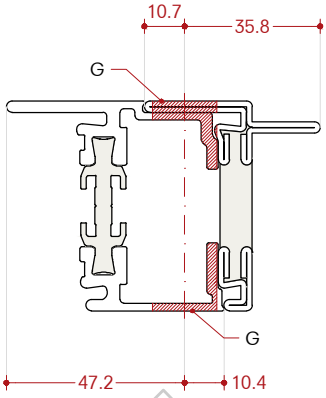
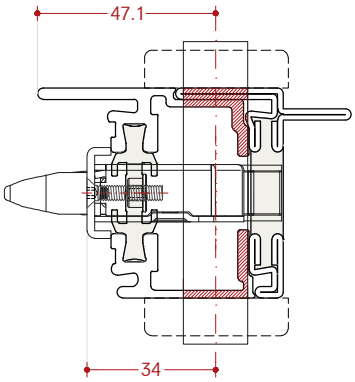
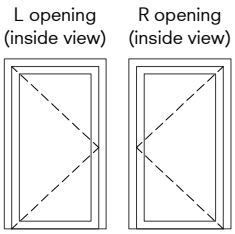






Ø4.8x22 ISO 7050 n° 7 pcs | M4x20 ISO 10642 n° 11 pcs | D99704-08 n° 11 pcs | B99205-02 n° 2 pcs | B99203-02 n° 1 pc for Left opening | B99204-02 n° 1 pc for Right opening



Scale 1:2
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

Scala 1:2
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Flush bolt E9902X-35
Lock B99171-02
Double leaf door open in
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00

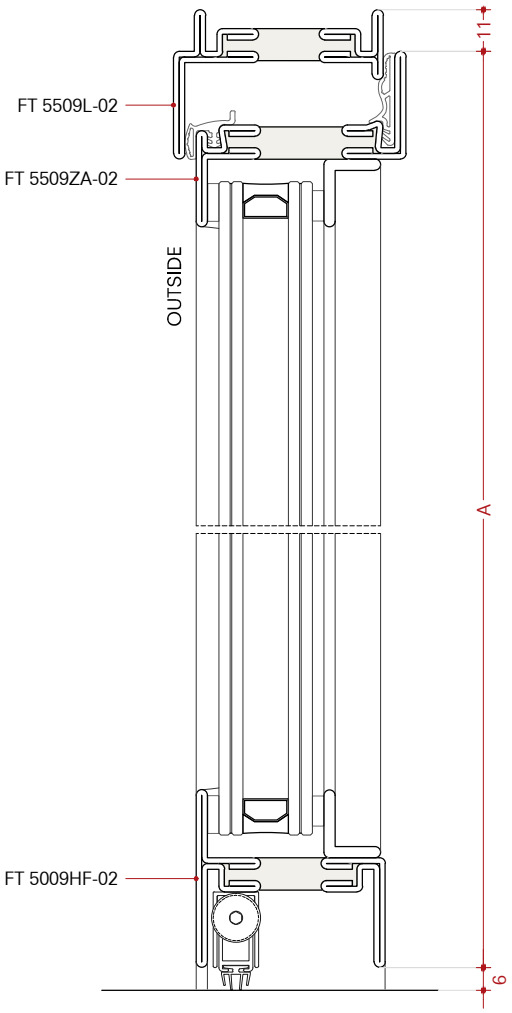
Montaggio
Catenaccio E9902X-35
Serratura B99171-02
Porta a due battenti apertura interna
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00

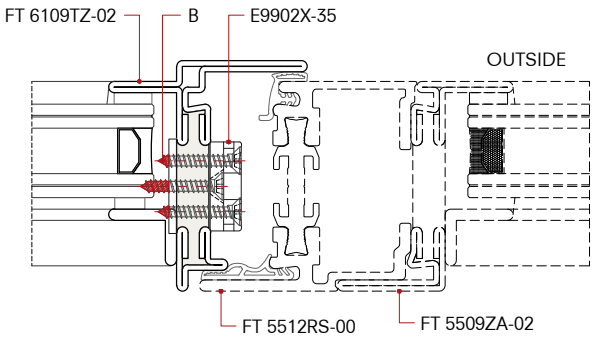
Montaje
Pasador de canto E9902X-35
Cerradura B99171-02
Puerta abatible de dos hojas que se
abre hacia dentro con perfil adicional
de altura completa
FT 5512RS-00 + FT 5509ZA-00

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 Ø3.5x22 mm ISO7050 screws and cut the screws

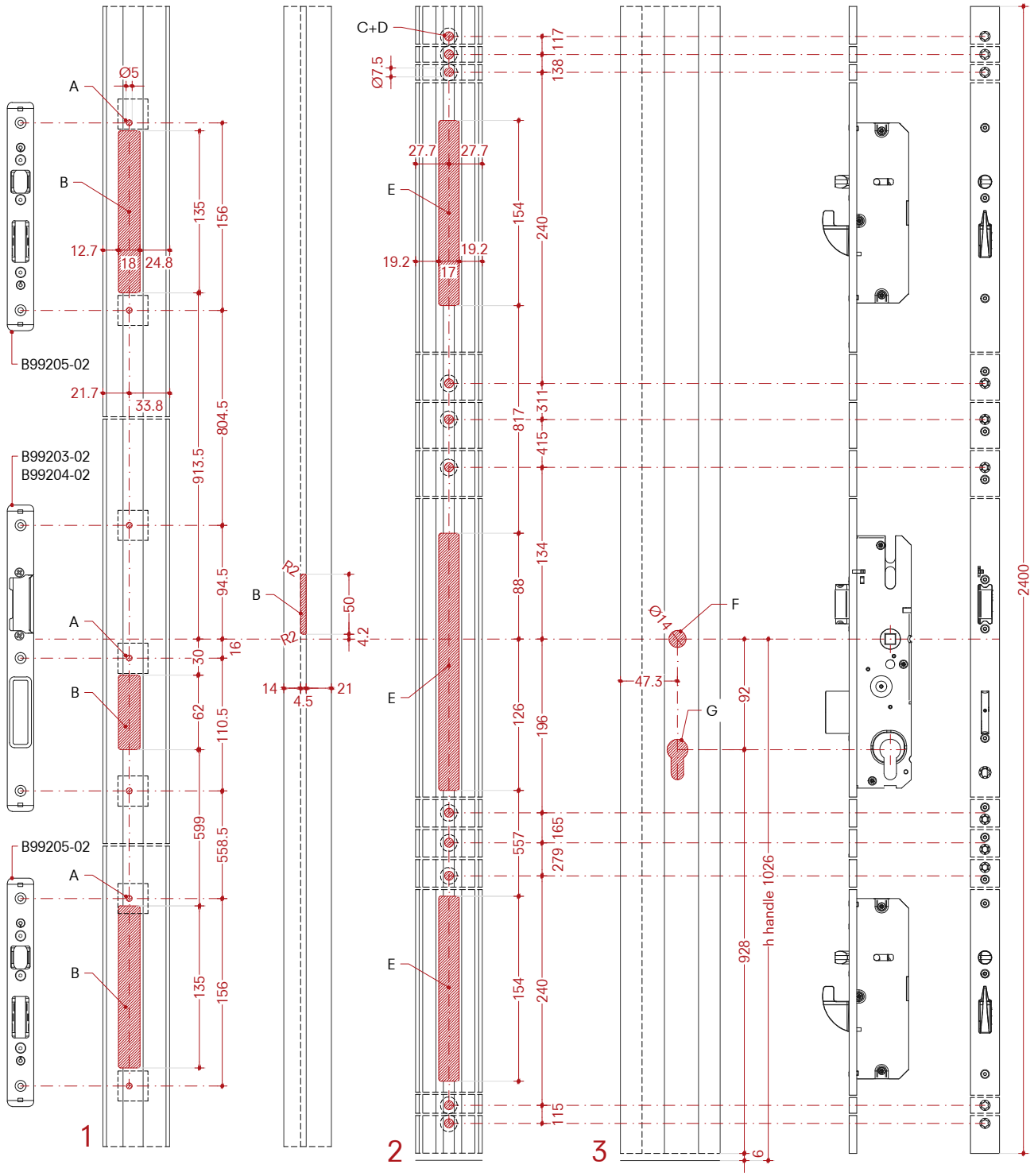
A) Altezza anta
B) Fissaggio con viti Ø3.5x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja
B) Fijación con tornillos Ø3.5x22 mm ISO7050 y recortar tornillos

Installation
Lock B99173-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00
Open in door

Montaggio
Serratura B99173-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00
Porta apertura interna

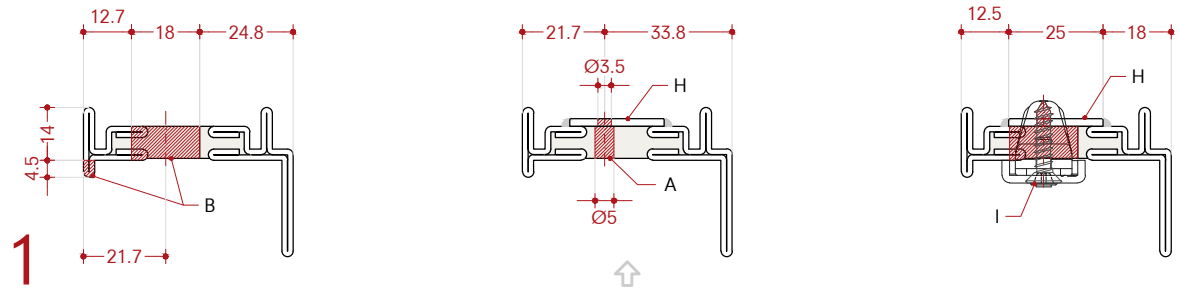
Montaje
Cerradura B99173-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00
Puerta apertura hacia dentro

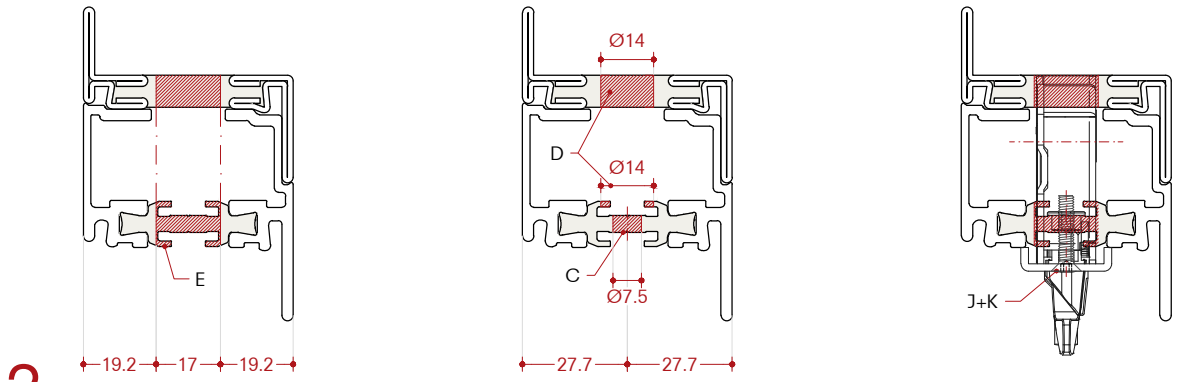


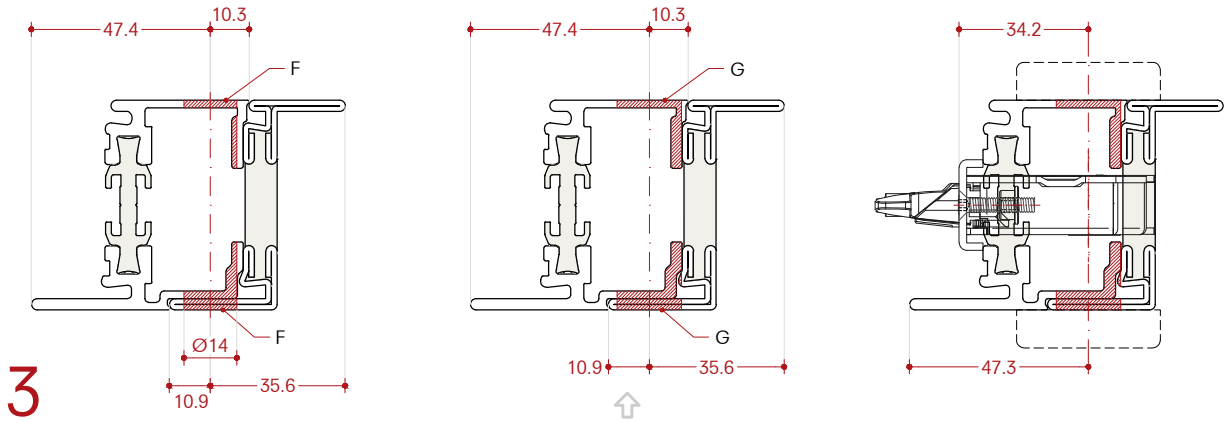
Scale 1:5
A) Holes Ø5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

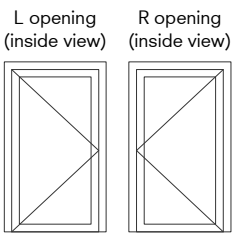
Scala 1:5
A) Fori Ø5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

Escala 1:5
A) Orificios de Ø5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros









Scale 1:2
A) Holes Ø5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

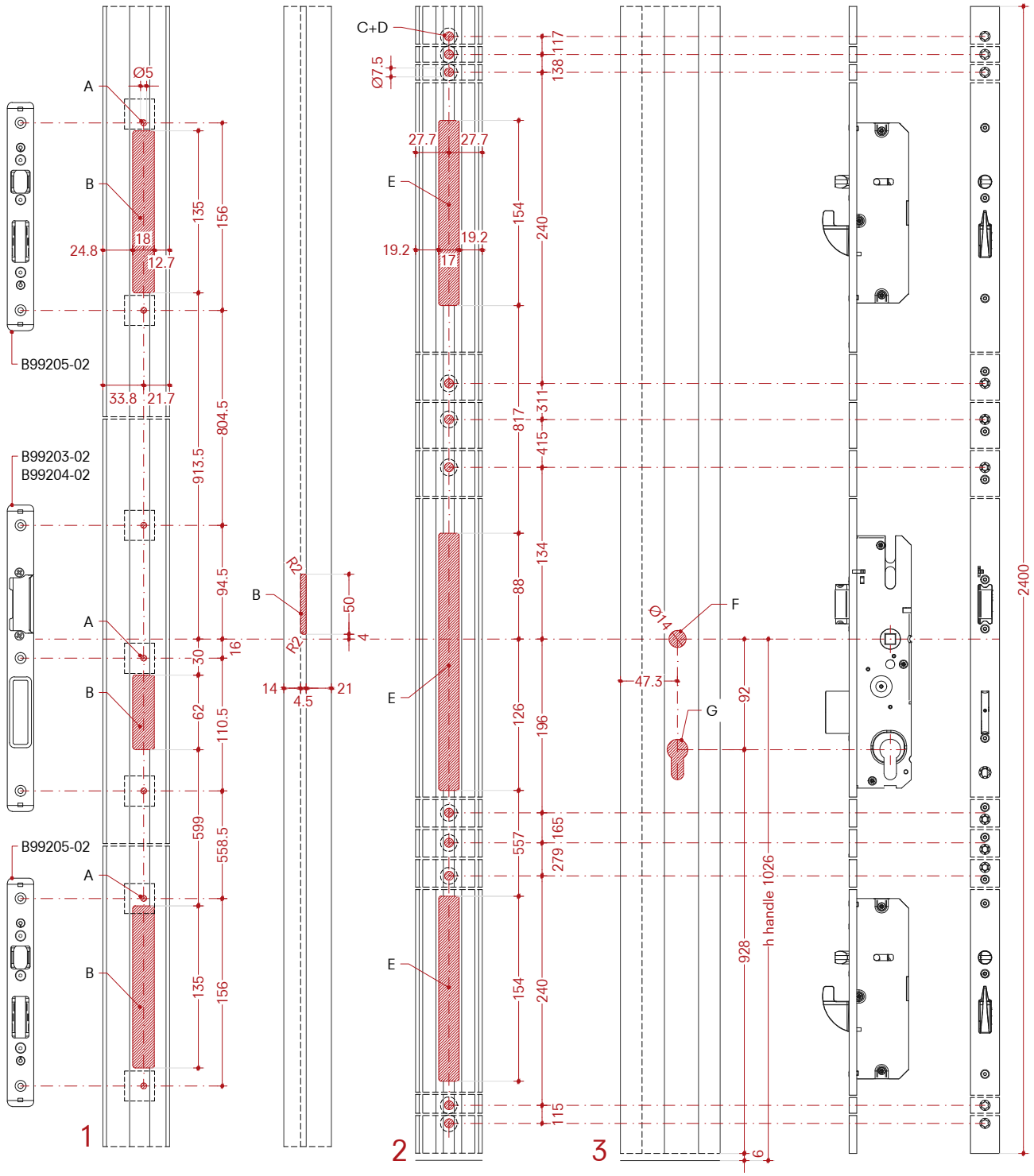
Scala 1:2
A) Fori Ø5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Lock B99173-02
with full height additional profile
FT 5512RS-00 + FT 5509TA-00
Open out door

Montaggio
Serratura B99173-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509TA-00
Porta apertura esterna

Montaje
Cerradura B99173-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509TA-00
Puerta apertura hacia fuera

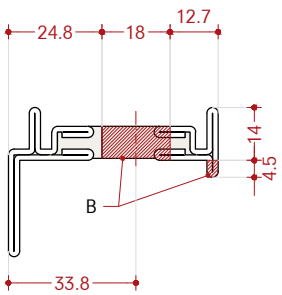


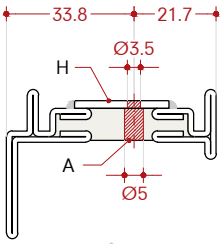
Scale 1:5
A) Holes Ø5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling

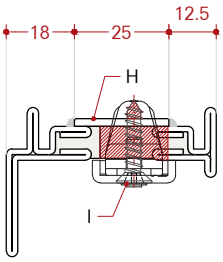
Scala 1:5
A) Fori Ø5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri

Escala 1:5
A) Orificios de Ø5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros

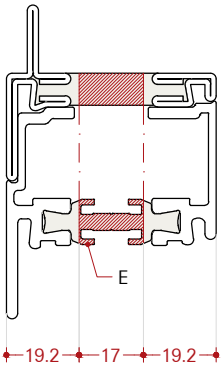
1

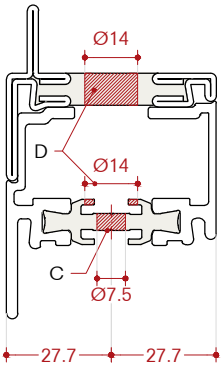


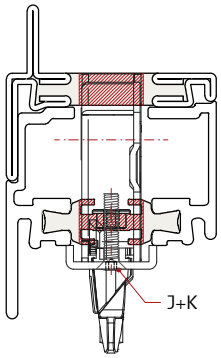




2







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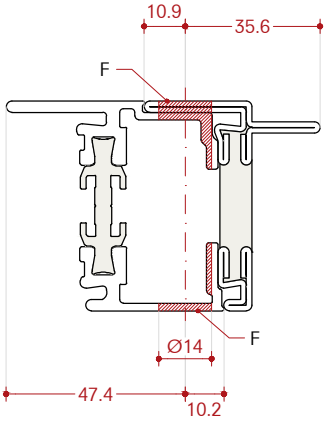
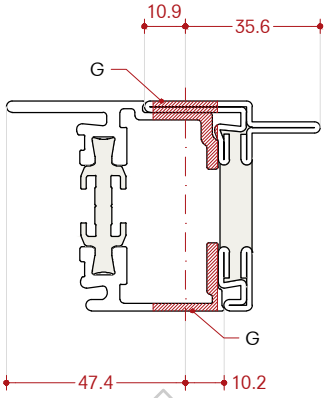
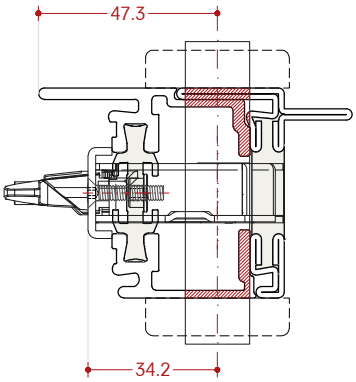
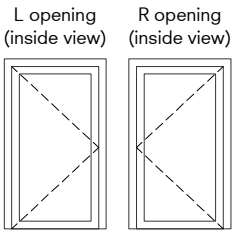






Ø4.8x22 ISO 7050 n° 7 pcs | M4x20 ISO 10642 n° 11 pcs | D99704-08 n° 11 pcs | B99205-02 n° 2 pcs | B99203-02 n° 1 pc for Left opening | B99204-02 n° 1 pc for Right opening



Scale 1:2
A) Holes Ø5 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Lever handle bore Ø14 mm
G) Profile cylinder milling
H) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
I) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
J) Fastening with M4x20 ISO10642 screws
K) D99704-08 M4 brass bushing

Scala 1:2
A) Fori Ø5 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Foro leva maniglia Ø14 mm
G) Fresatura profili per i cilindri
H) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
I) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
J) Fissaggio con viti M4x20 ISO10642
K) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø5 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Palanca de perfil de Ø14 mm
G) Fresado en perfil para cilindros
H) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
I) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
J) Fijación con tornillos M4x20 ISO10642
K) D99704-08 Casquillo en latón M4

Installation
Flush bolt E9902X-35
Lock B99173-02
Double leaf door open in
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00

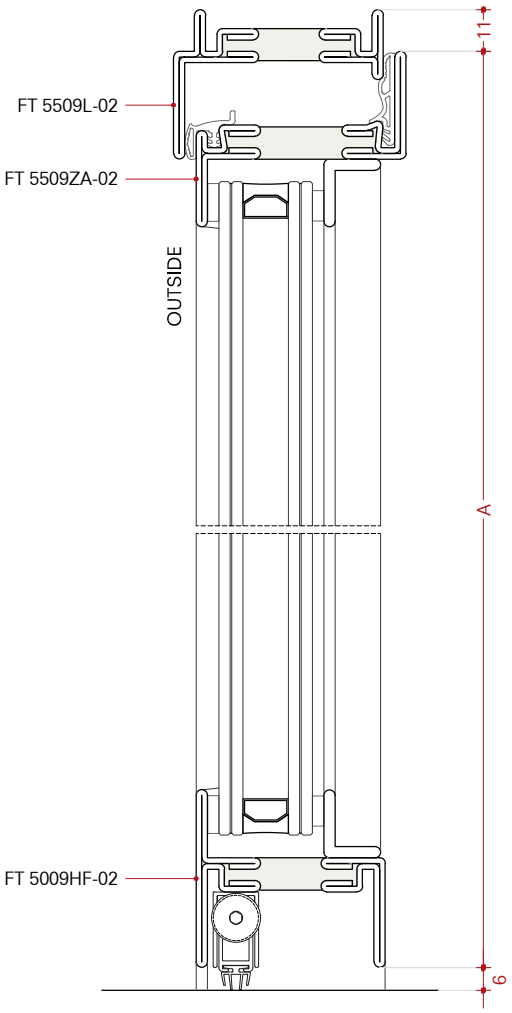
Montaggio
Catenaccio E9902X-35
Serratura B99173-02
Porta a due battenti apertura interna
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00

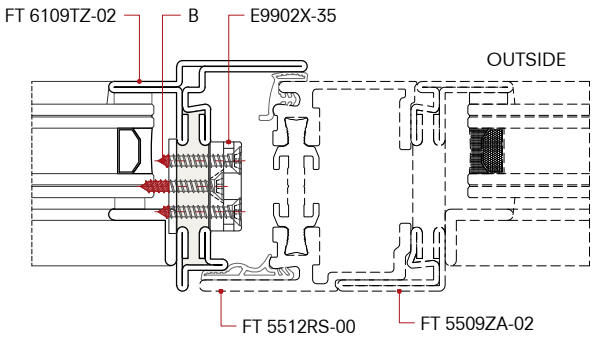
Montaje
Pasador de canto E9902X-35
Cerradura B99173-02
Puerta abatible de dos hojas que se
abre hacia dentro con perfil adicional
de altura completa
FT 5512RS-00 + FT 5509ZA-00

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 Ø3.5x22 mm ISO7050 screws and cut the screws

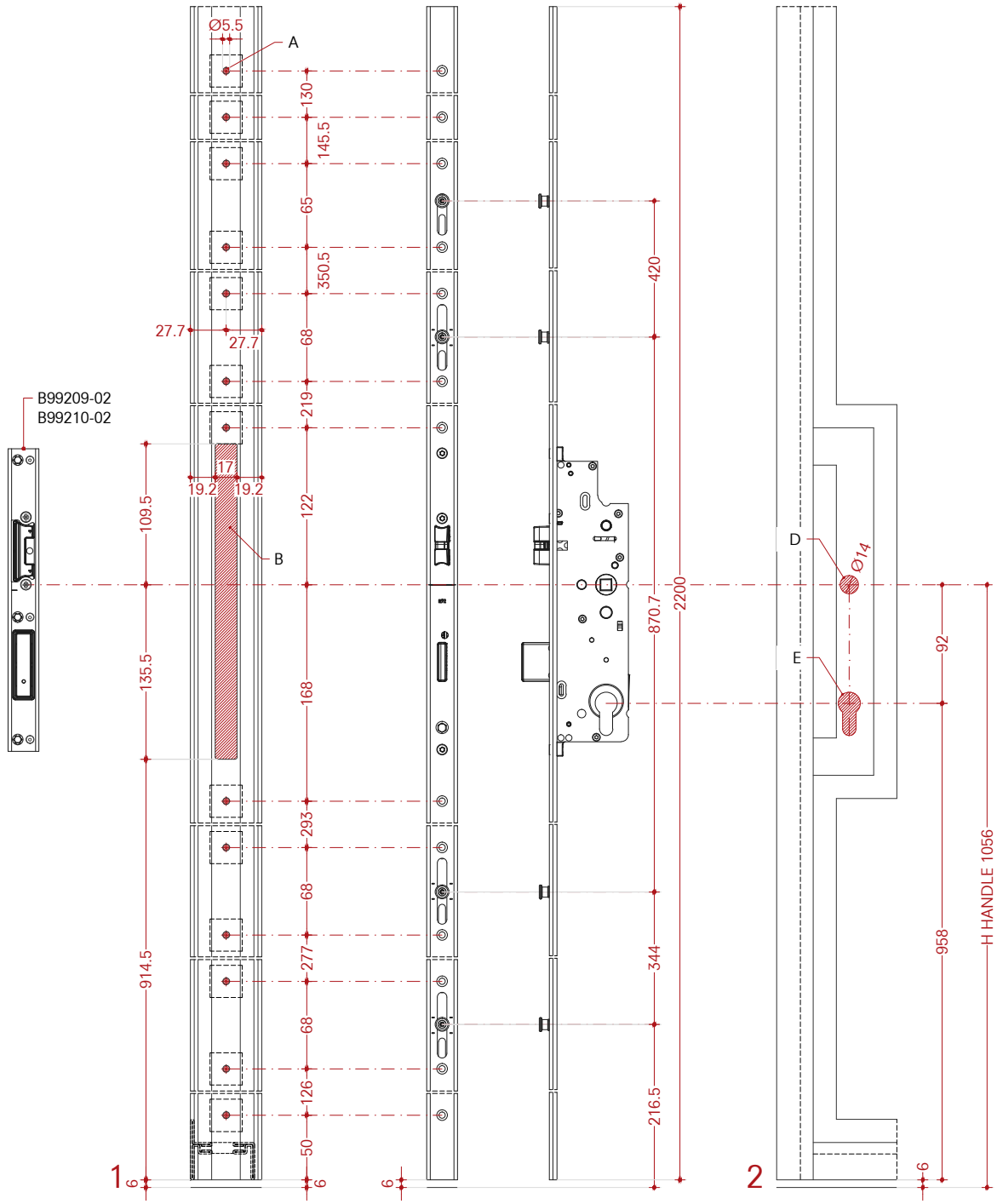
A) Altezza anta
B) Fissaggio con viti Ø3.5x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja
B) Fijación con tornillos Ø3.5x22 mm ISO7050 y recortar tornillos

Installation
Lock B99174-02
with locking box FT 5009HF-02
Open in door

Montaggio
Serratura B99174-02
con scatola FT 5009HF-02
Porta apertura interna

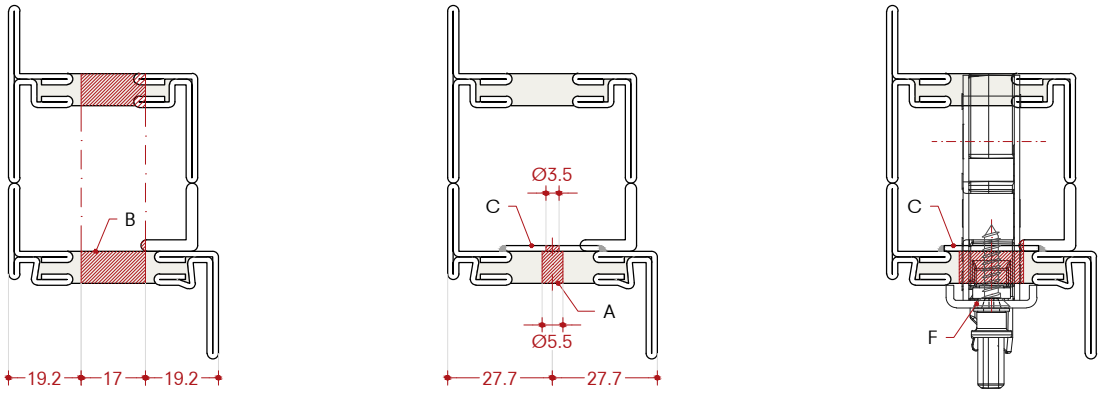
Montaje
Cerradura B99174-02
con serradura FT 5009HF-02
Puerta apertura hacia dentro



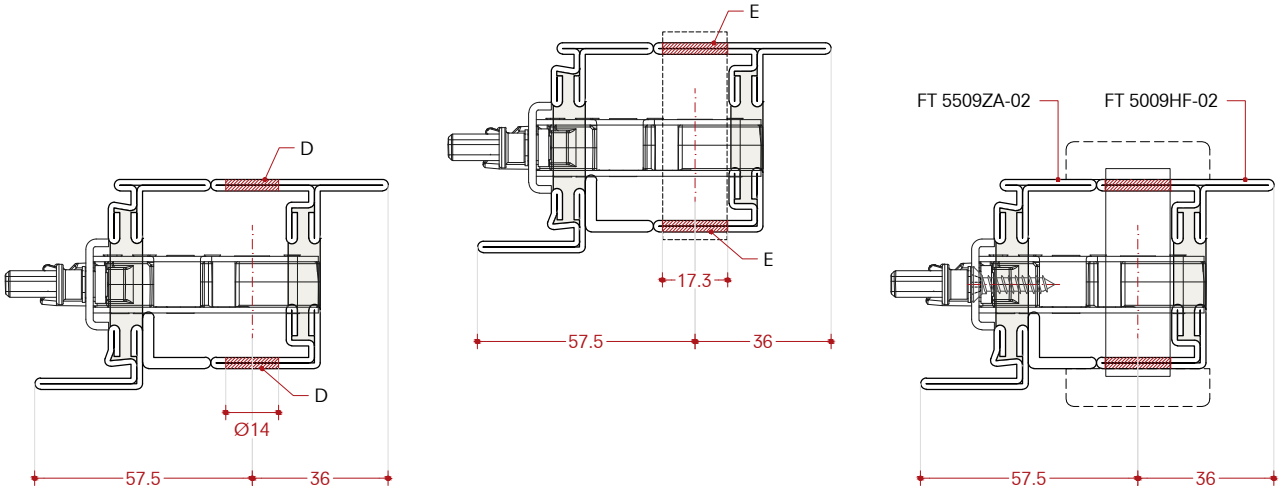
Scale 1:5

Scala 1:5

Escala 1:5



1

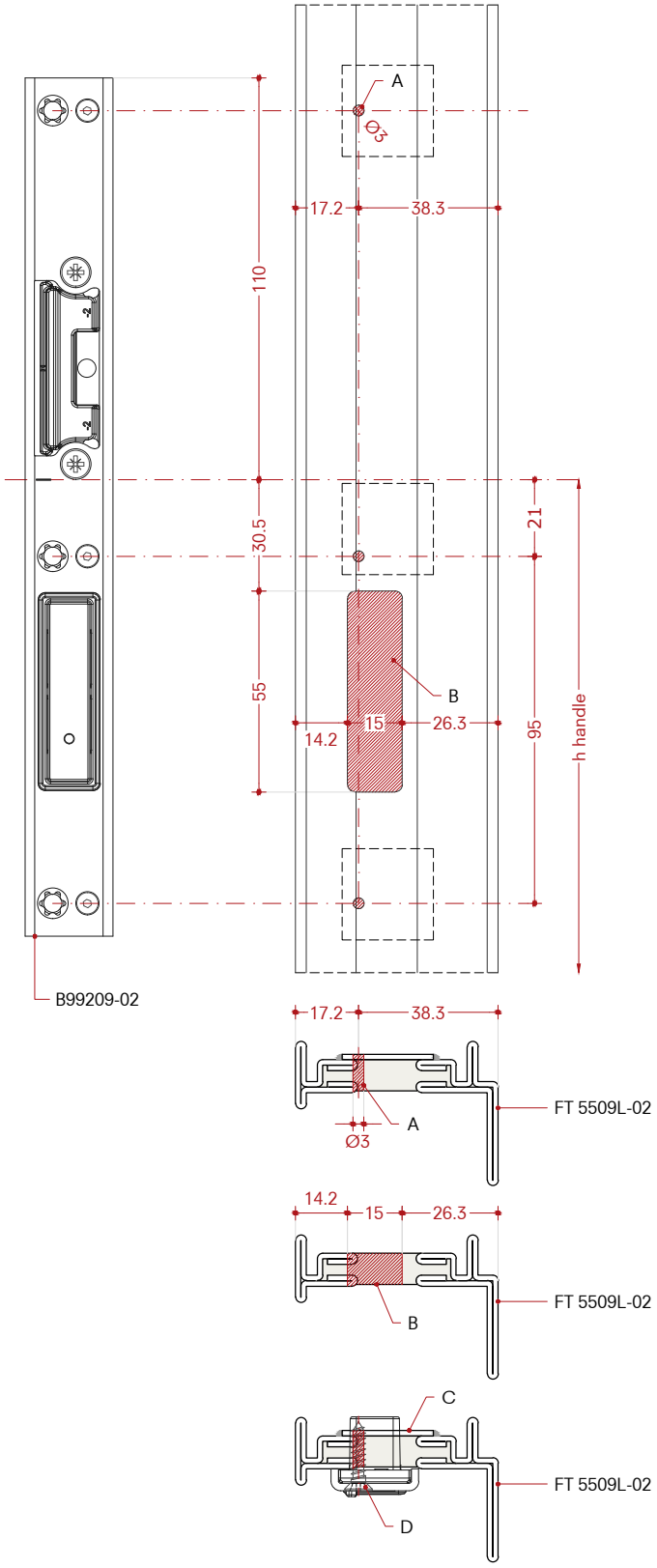


2

Scale 1:2
A) Holes Ø5.5 mm in door leaf
B) Cut-out in door leaf
C) Ø3.5 mm holes on 25x25x1.5 mm plate (not provided)
D) Lever handle bore Ø14 mm
E) Profile cylinder milling
F) Fastening with Ø4.8x22 ISO7050 screws and cut the screws

Scala 1:2
A) Fori Ø5.5 mm nell'anta della porta
B) Fresatura nell'anta della porta
C) Fori Ø3.5 mm su piastra 25x25x1.5 mm (non fornita)
D) Foro leva maniglia Ø14 mm
E) Fresatura profili per i cilindri
F) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti

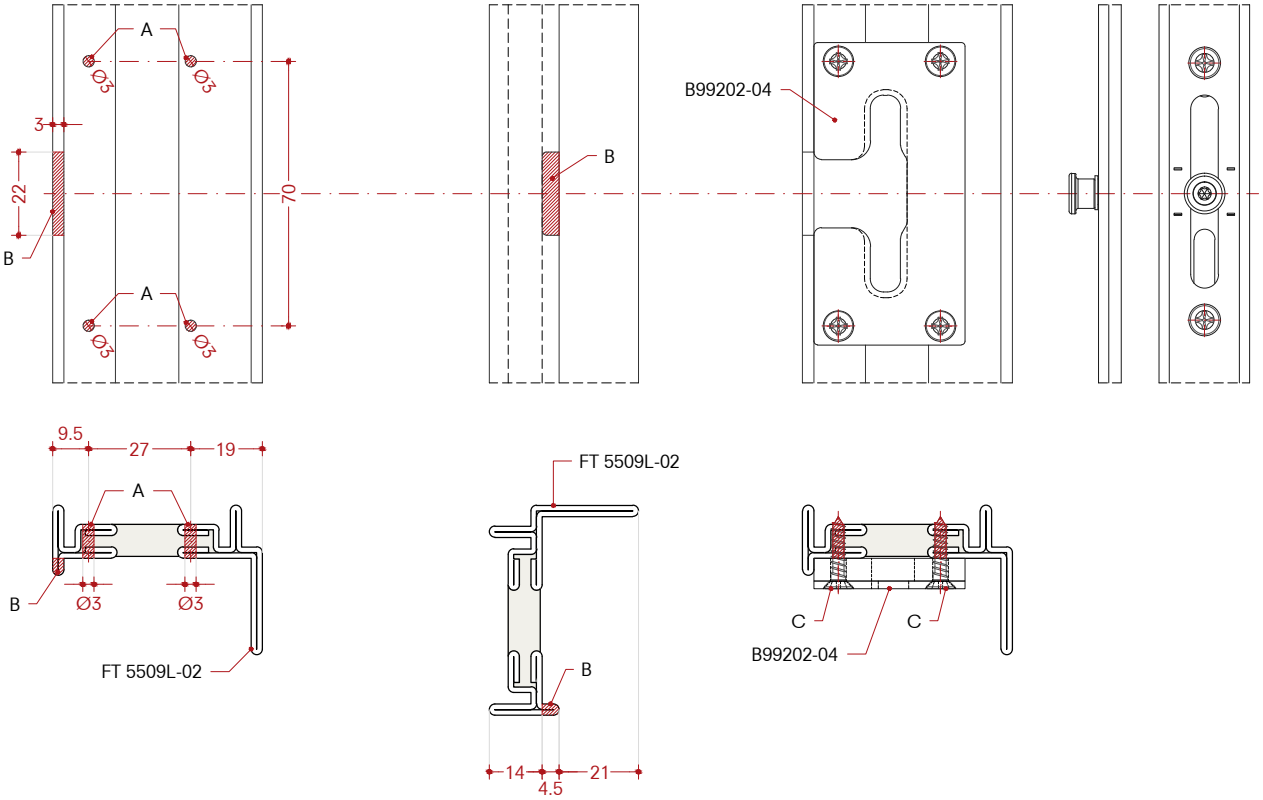
Escala 1:2
A) Orificios de Ø5.5 mm en hoja de la puerta
B) Fresado en hoja de la puerta
C) Orificios Ø3.5 mm en placa 25x25x1.5 mm (no provisto)
D) Palanca de perfil de Ø14 mm
E) Fresado en perfil para cilindros
F) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos

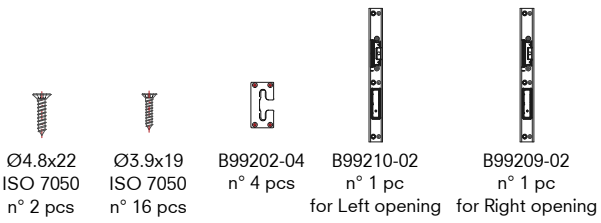


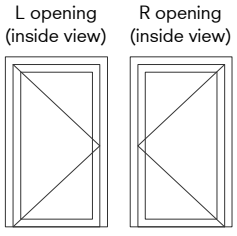
A) Holes Ø3 mm in door frame
B) Cut-out in door frame
C) Ø3 mm holes on 25x25x1.5 mm plate (not provided)
D) Fastening with Ø3.9x19 ISO7050 screws

A) Fori Ø3 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø3 mm su piastra 25x25x1.5 mm (non fornita)
D) Fissaggio con viti Ø3.9x19 ISO7050

A) Orificios de Ø3 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios Ø3 mm en placa 25x25x1.5 mm (no provisto)
D) Fijación con tornillos Ø3.9x19 ISO7050







A) Holes Ø3 mm in door frame
B) Cut-out in door frame
C) Fastening with Ø3.9x19 ISO7050 screws

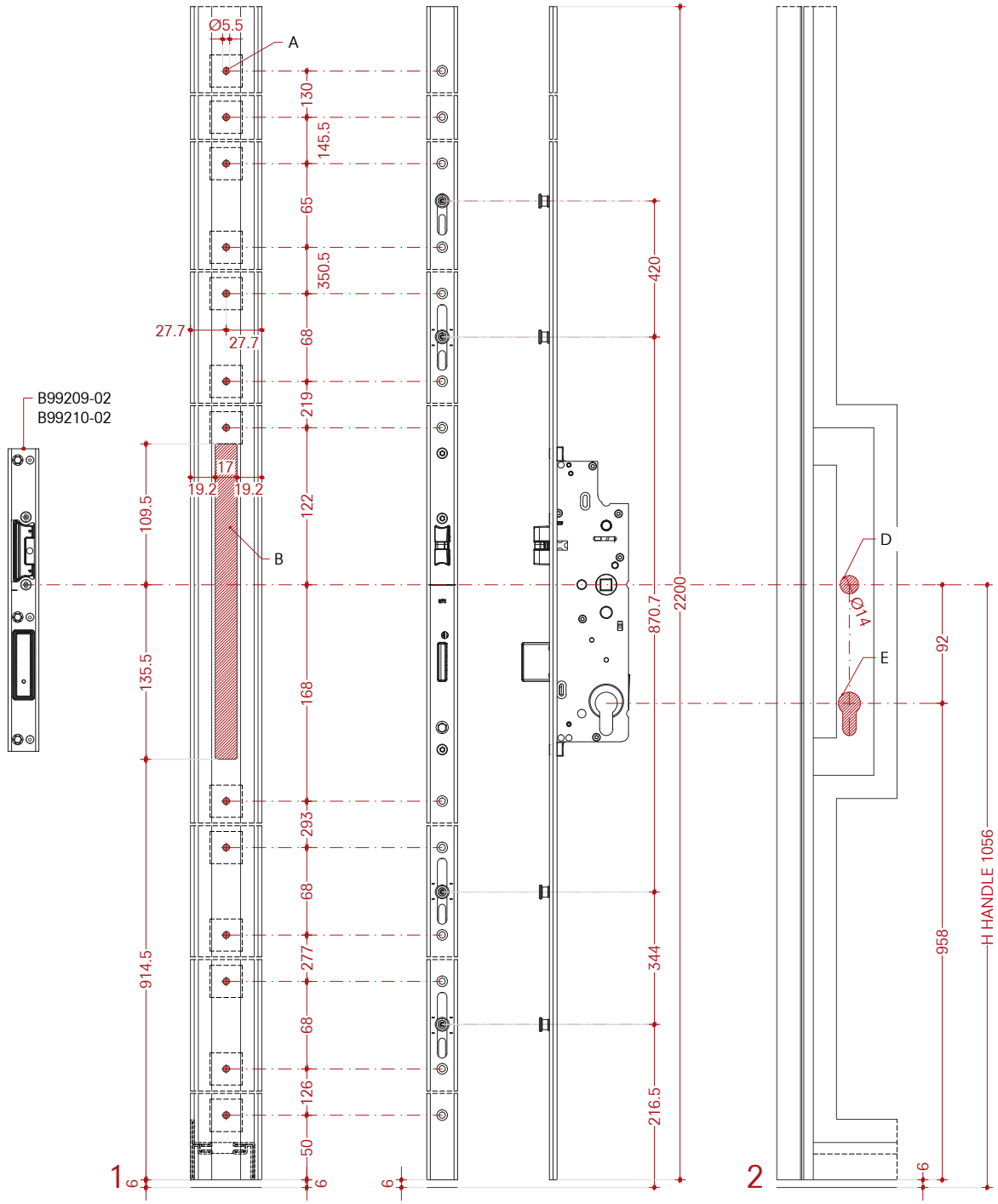
A) Fori Ø3 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fissaggio con viti Ø3.9x19 ISO7050

A) Orificios de Ø3 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Fijación con tornillos Ø3.9x19 ISO7050

Installation
Lock B99174-02
with locking box FT 5009HF-02
Open out door

Montaggio
Serratura B99174-02
con scatola FT 5009HF-02
Porta apertura esterna

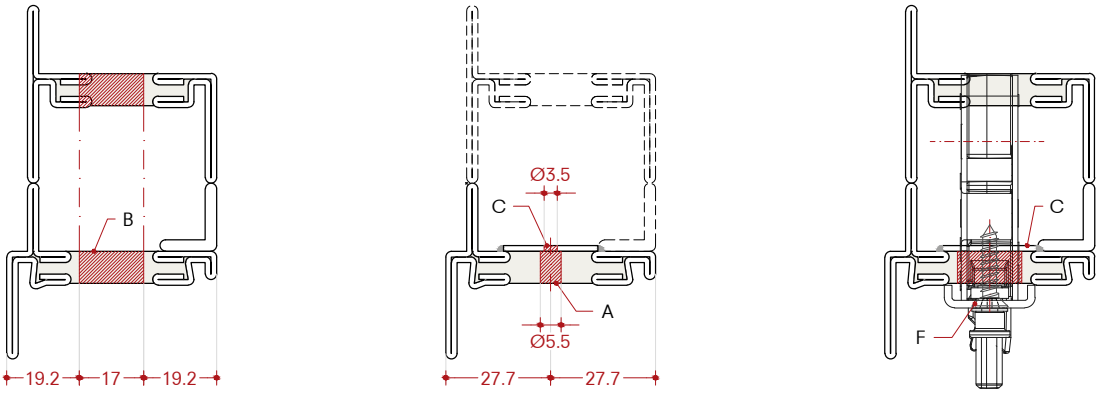
Montaje
Cerradura B99174-02
con serradura FT 5009HF-02
Puerta apertura hacia fuera



Scale 1:5

Scala 1:5

Escala 1:5



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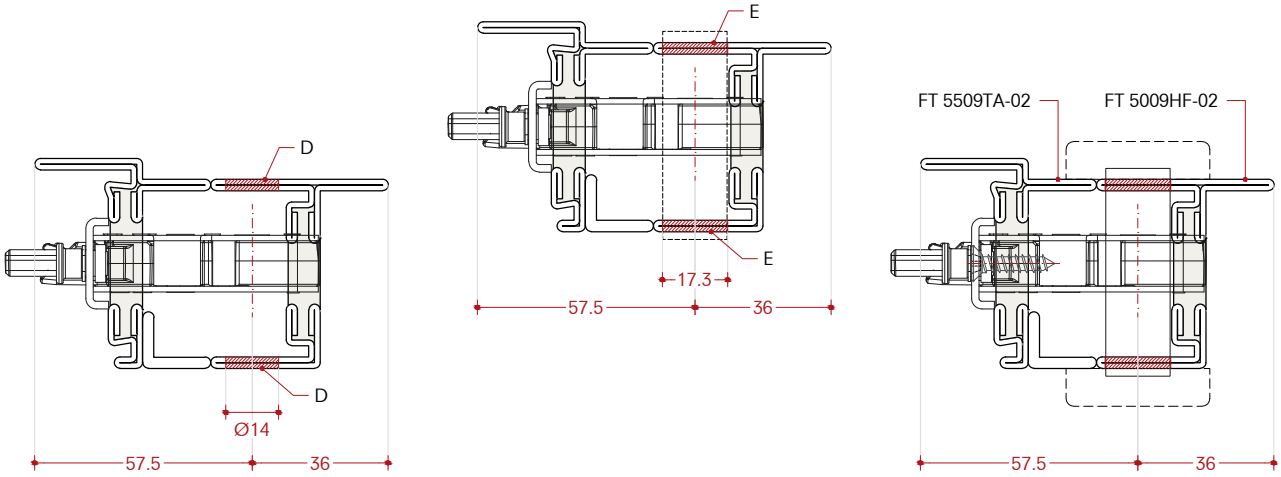
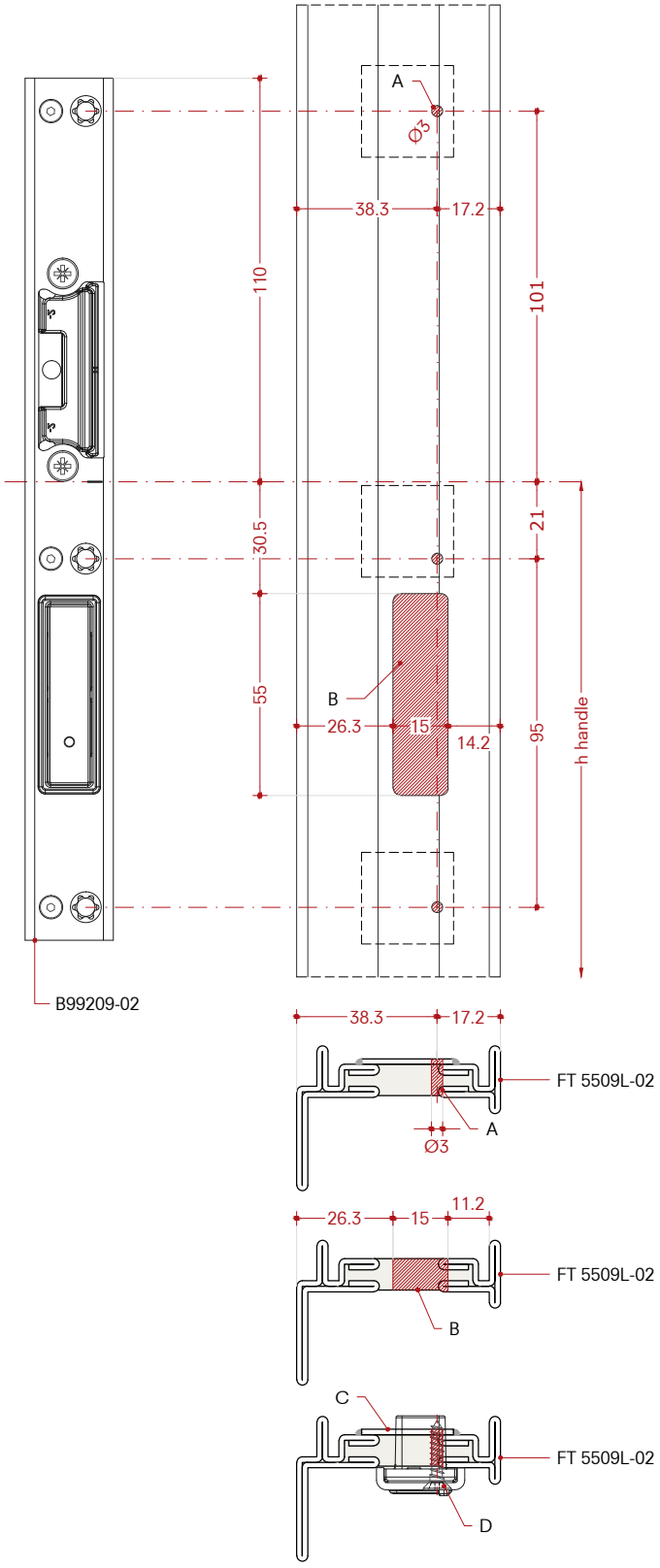


2

Scale 1:2
A) Holes Ø5.5 mm in door leaf
B) Cut-out in door leaf
C) Ø3.5 mm holes on 25x25x1.5 mm plate (not provided)
D) Lever handle bore Ø14 mm
E) Profile cylinder milling
F) Fastening with Ø4.8x22 ISO7050 screws and cut the screws

Scala 1:2
A) Fori Ø5.5 mm nell'anta della porta
B) Fresatura nell'anta della porta
C) Fori Ø3.5 mm su piastra 25x25x1.5 mm (non fornita)
D) Foro leva maniglia Ø14 mm
E) Fresatura profili per i cilindri
F) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti

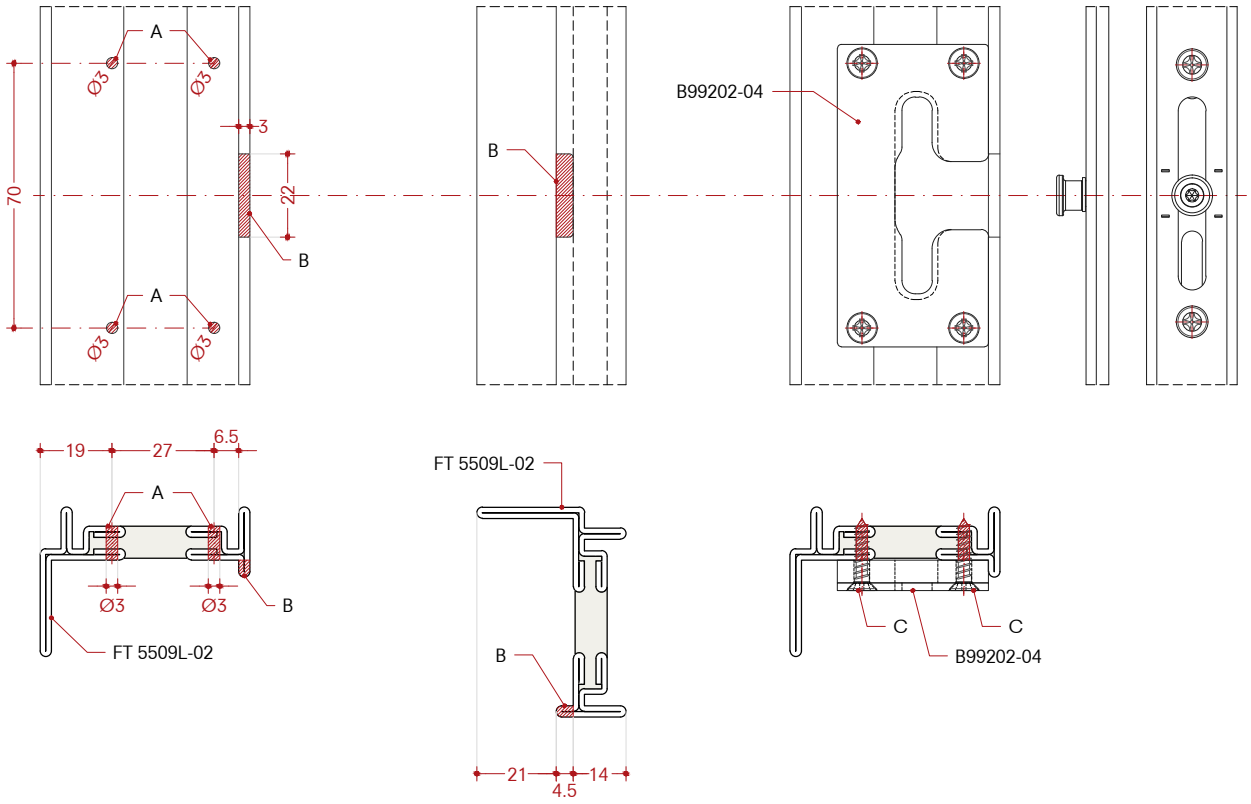
Escala 1:2
A) Orificios de Ø5.5 mm en hoja de la puerta
B) Fresado en hoja de la puerta
C) Orificios Ø3.5 mm en placa 25x25x1.5 mm (no provisto)
D) Palanca de perfil de Ø14 mm
E) Fresado en perfil para cilindros
F) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos

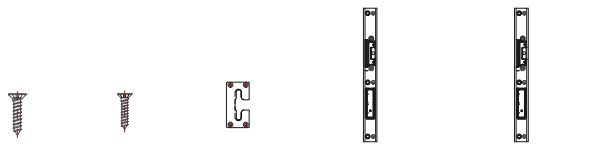


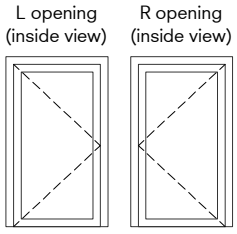
A) Holes Ø3 mm in door frame
B) Cut-out in door frame
C) Ø3 mm holes on 25x25x1.5 mm plate (not provided)
D) Fastening with Ø3.9x19 ISO7050 screws

A) Fori Ø3 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø3 mm su piastra 25x25x1.5 mm (non fornita)
D) Fissaggio con viti Ø3.9x19 ISO7050

A) Orificios de Ø3 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios Ø3 mm en placa 25x25x1.5 mm (no provisto)
D) Fijación con tornillos Ø3.9x19 ISO7050







A) Holes Ø3 mm in door frame
B) Cut-out in door frame
C) Fastening with Ø3.9x19 ISO7050 screws

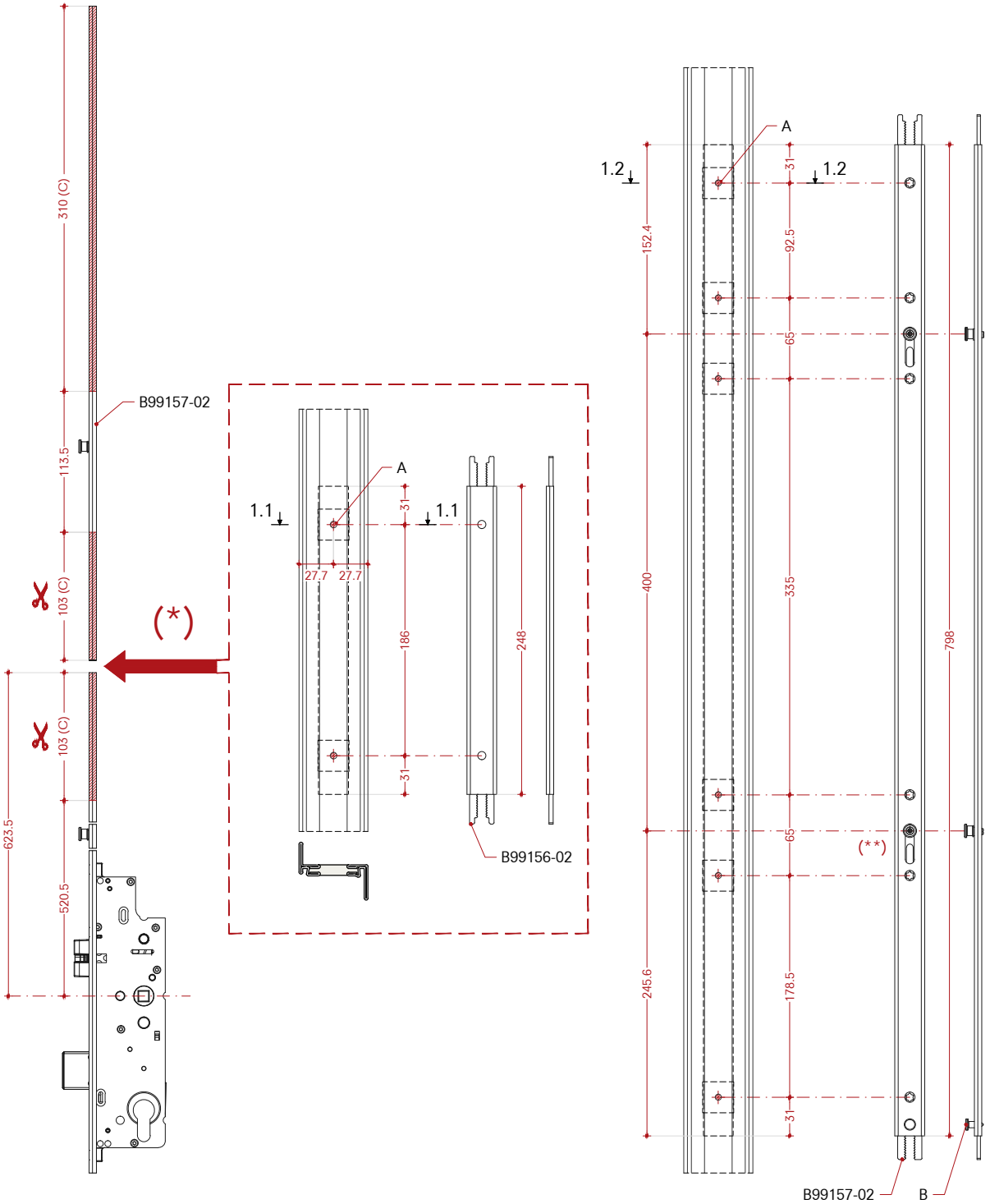
A) Fori Ø3 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fissaggio con viti Ø3.9x19 ISO7050

A) Orificios de Ø3 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Fijación con tornillos Ø3.9x19 ISO7050

Installation
1st leaf extensions B99156-02 and B99157-02 for B99174-02 / B99175-02 locks. Open in door

Montaggio
Prolunghe 1a anta B99156-02 e B99157-02 per serratura B99174-02 / B99175-02. Porta apertura interna

Montaje
Extensiones 1er hoja B99156-02 y B99157-02 para cerraduras B99174-02 / B99175-02. Puerta apertura hacia dentro



Scale 1:5
A) Holes Ø5.5 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 Ø5.5 mm
B) Rimuovere il perno dopo l'installazione
C) Rasabilità massima

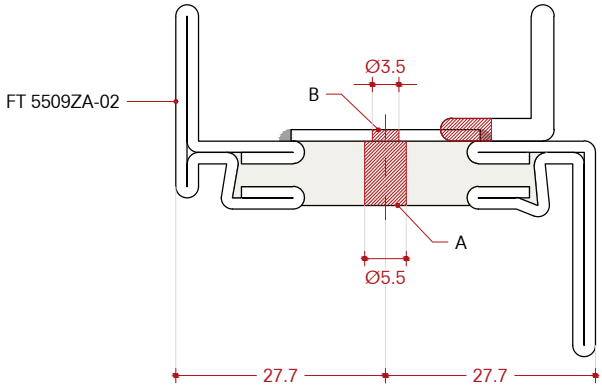
(*) Posizione estensione

(**) Prolunga in posizione aperta con nottolini in alto

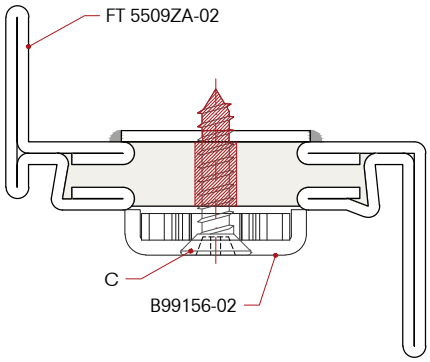
Escala 1:5
A) Orificios de Ø5.5 mm
B) Quitar el pasador después de la instalación
C) Recorte máximo

(*) Posición de extensión

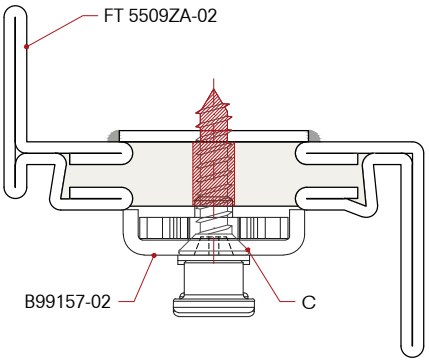
(**) Extensión en posición abierta con alfileres en la parte superior



1.1



1.2



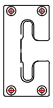
B99156-02

Ø4.8x22
ISO 7050
n° 2 pcs

B99157-02

Ø4.8x22
ISO 7050
n° 6 pcs

Ø3.9x19
ISO 7050
n° 15 pcs



B99202-04
n° 2 pcs

A) Holes Ø5.5 mm
B) Ø3.5 mm holes on 25x25x1.5 mm plate (not provided)
C) Fastening with Ø4.8x22 ISO7050 screws

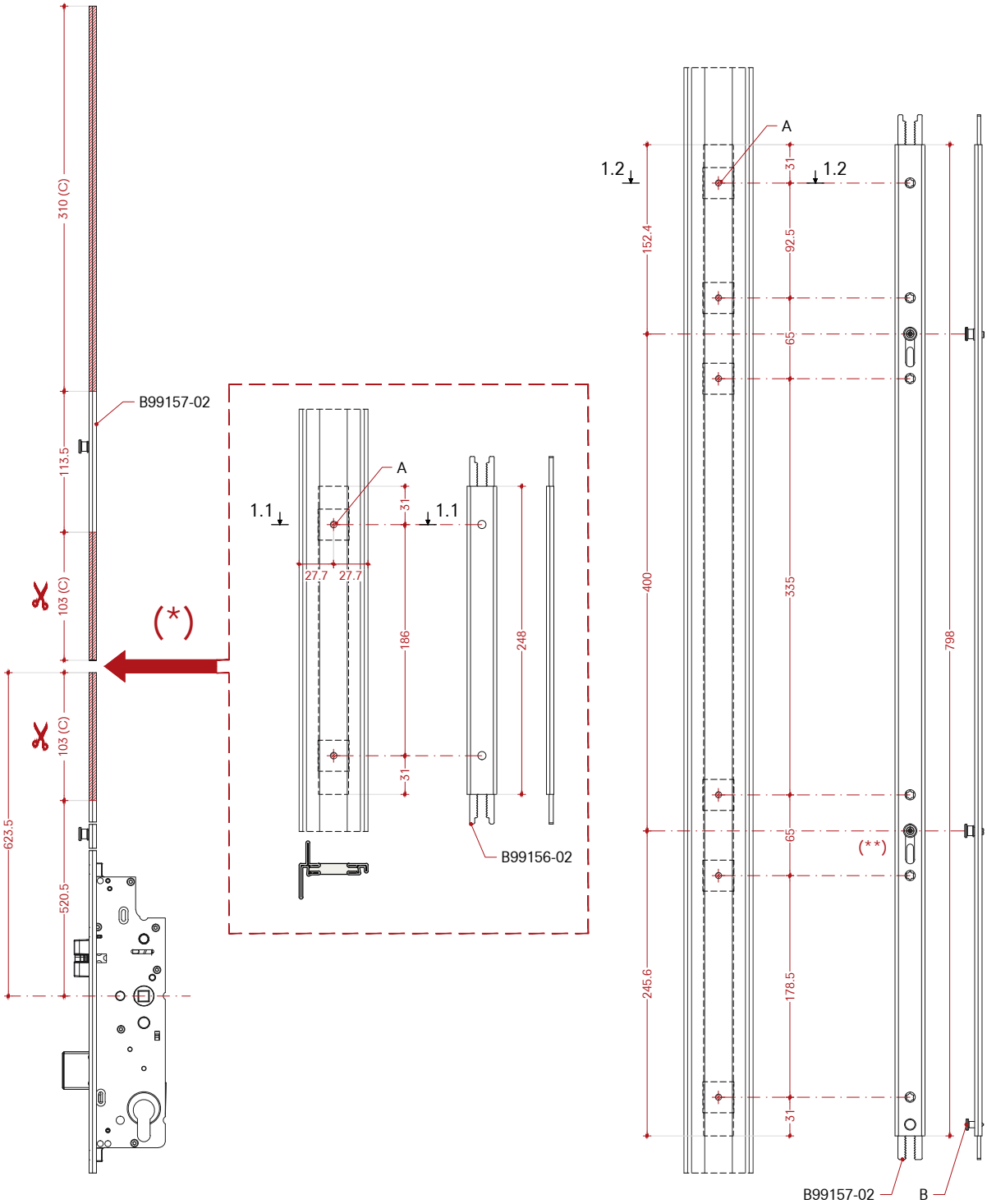
A) Fori Ø5.5 mm
B) Fori Ø3.5 mm su piastra 25x25x1.5 mm (non fornita)
C) Fissaggio con viti Ø4.8x22 ISO7050

A) Orificios de Ø5.5 mm
B) Orificios Ø3.5 mm en placa 25x25x1.5 mm (no provisto)
C) Fijación con tornillos Ø4.8x22 ISO7050

Installation
1st leaf extensions B99156-02 and B99157-02 for B99174-02 / B99175-02 locks. Open out door

Montaggio
Prolunghe 1a anta B99156-02 e B99157-02 per serratura B99174-02 / B99175-02. Porta apertura esterna

Montaje
Extensiones 1er hoja B99156-02 y B99157-02 para cerraduras B99174-02 / B99175-02. Puerta apertura hacia fuera



Scale 1:5
A) Holes Ø5.5 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 Ø5.5 mm
B) Rimuovere il perno dopo l'installazione
C) Rasabilità massima

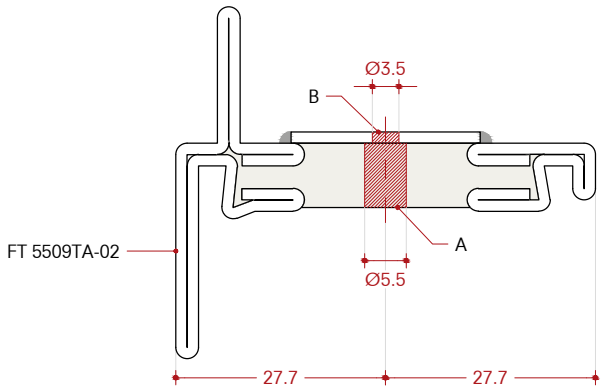
(*) Posizione estensione

(**) Prolunga in posizione aperta con nottolini in alto

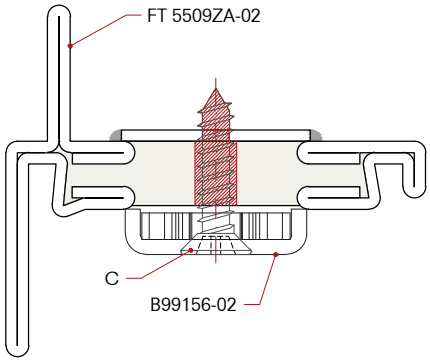
Escala 1:5
A) Orificios de Ø5.5 mm
B) Quitar el pasador después de la instalación
C) Recorte máximo

(*) Posición de extensión

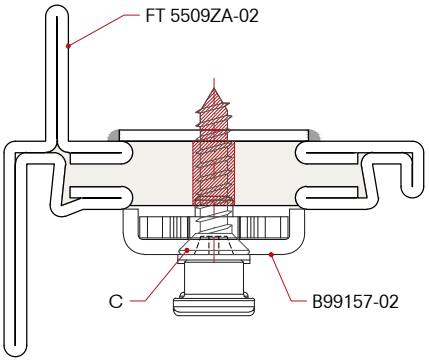
(**) Extensión en posición abierta con alfileres en la parte superior



1.1



1.2



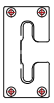
B99156-02

Ø4.8x22
ISO 7050
n° 2 pcs

B99157-02

Ø4.8x22
ISO 7050
n° 6 pcs

Ø3.9x19
ISO 7050
n° 15 pcs



B99202-04
n° 2 pcs

A) Holes Ø5.5 mm
B) Ø3.5 mm holes on 25x25x1.5 mm plate (not provided)
C) Fastening with Ø4.8x22 ISO7050 screws

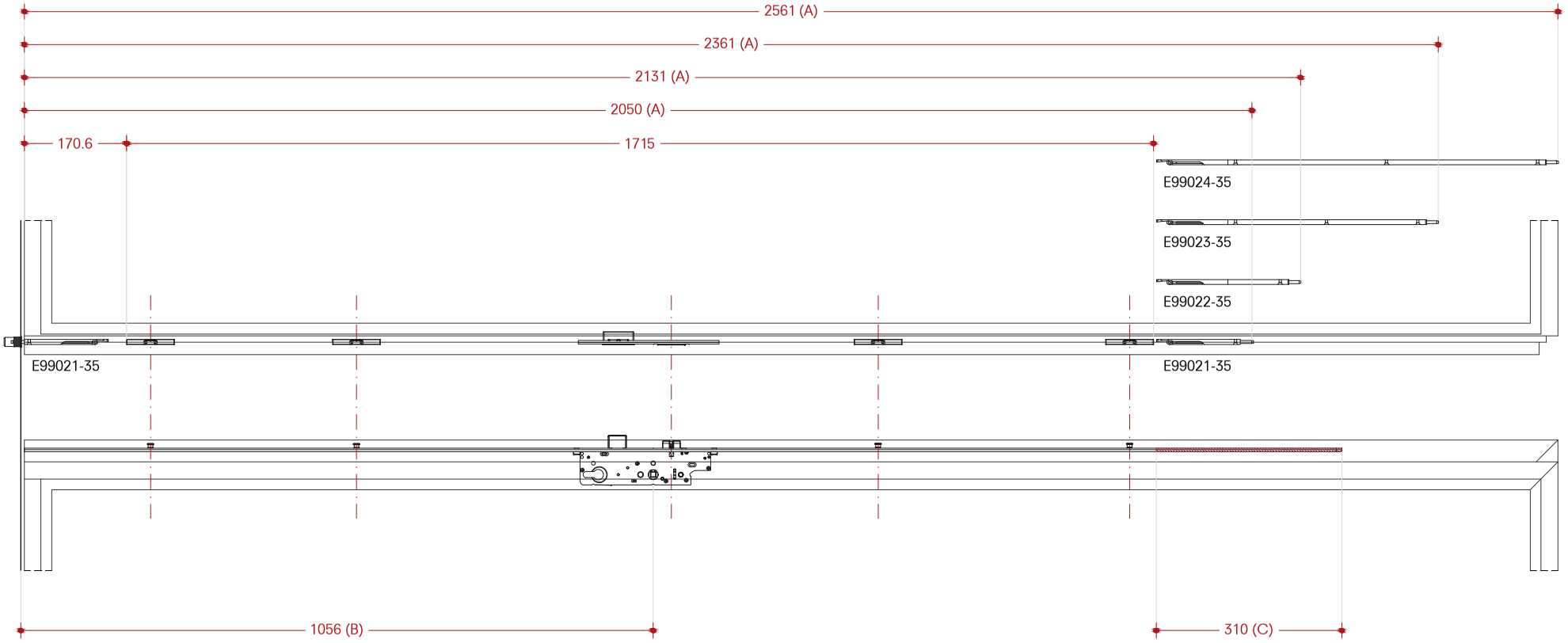
A) Fori Ø5.5 mm
B) Fori Ø3.5 mm su piastra 25x25x1.5 mm (non fornita)
C) Fissaggio con viti Ø4.8x22 ISO7050

A) Orificios de Ø5.5 mm
B) Orificios Ø3.5 mm en placa 25x25x1.5 mm (no provisto)
C) Fijación con tornillos Ø4.8x22 ISO7050

Installation
Flush bolt E9902X-35
Lock B99174-02
Double leaf door open in
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00

Montaggio
Catenaccio E9902X-35
Serratura B99174-02
Porta a due battenti apertura interna
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00

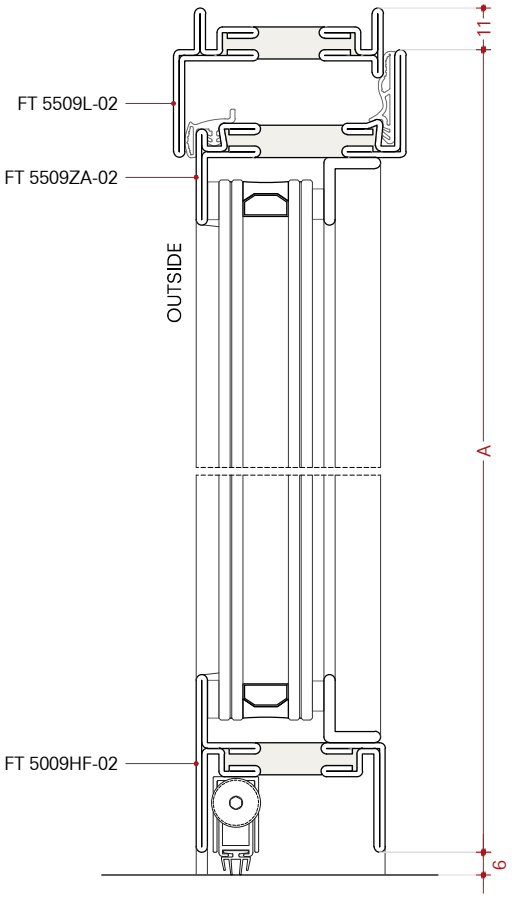
Montaje
Pasador de canto E9902X-35
Cerradura B99174-02
Puerta abatible de dos hojas que se
abre hacia dentro con perfil adicional
de altura completa
FT 5512RS-00 + FT 5509ZA-00

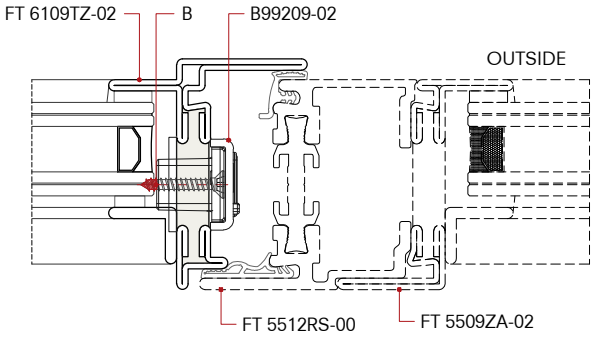


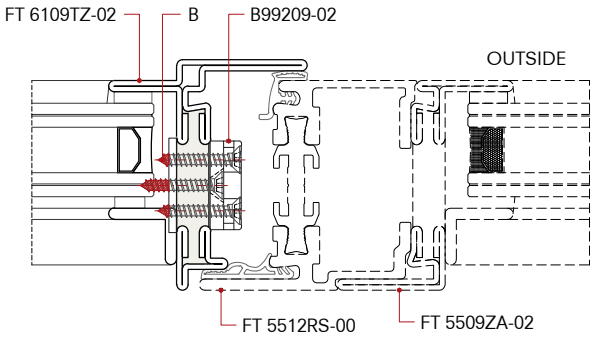
Scale 1:10
A) Minimum height leaf
B) Height handle
C) Maximum cropping

Scala 1:10
A) Altezza minima anta
B) Altezza maniglia
C) Rasabilità massima

Escala 1:10
A) Altura mínima de la hoja
B) Altura de la manilla
C) Recorte máximo







A) Height leaf
B) Fastening with Ø3.5x22 mm ISO7050 screws and cut the screws

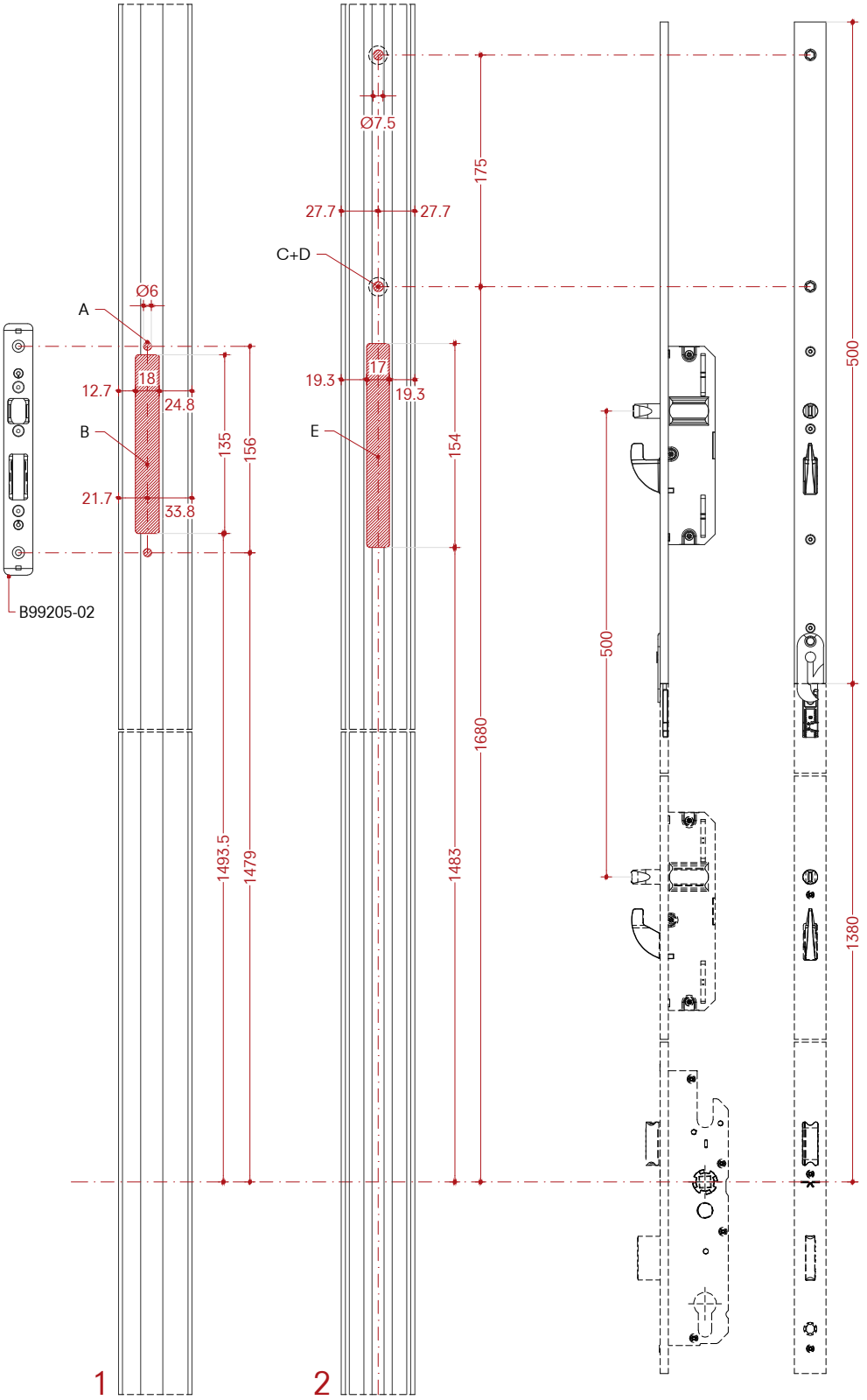
A) Altezza anta
B) Fissaggio con viti Ø3.5x22 mm ISO7050 e accorciare le viti

A) Altura de la hoja
B) Fijación con tornillos Ø3.5x22 mm ISO7050 y recortar tornillos

Installation
Lock extension B99169-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00
Open in door

Montaggio
Prolunga serratura B99169-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00
Porta apertura interna

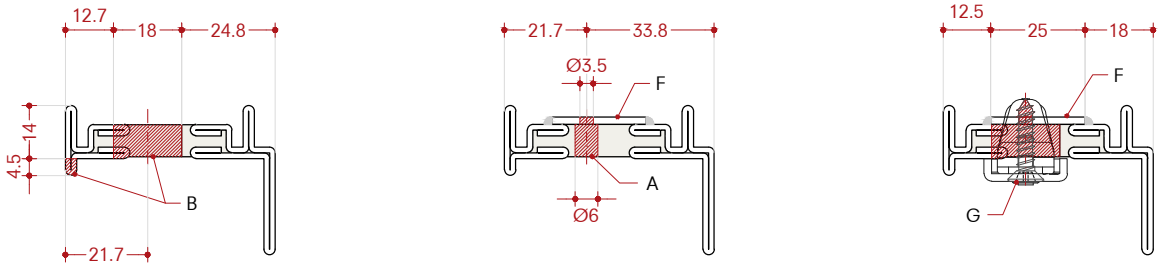
Montaje
Prolongación cerradura B99169-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00
Puerta apertura hacia dentro



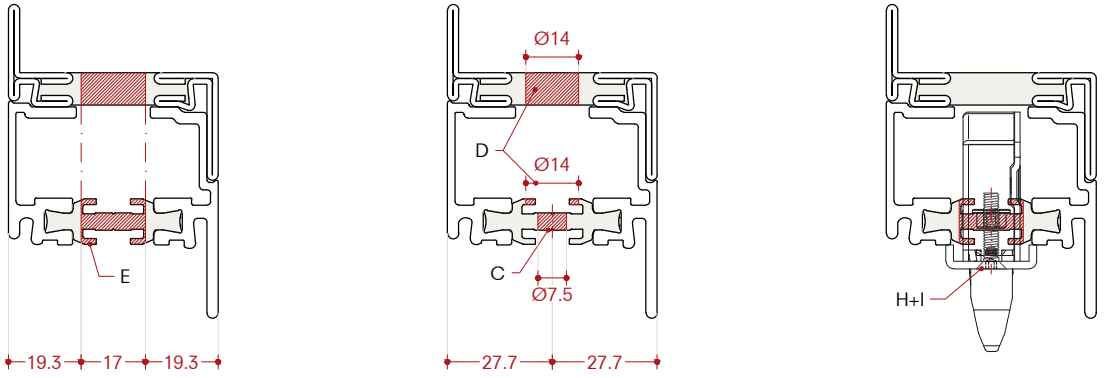
Scale 1:5
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf

Scala 1:5
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta

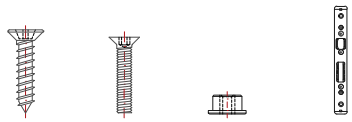
Escala 1:5
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta



1



2



Ø4.8x22 ISO 7050 n° 2 pcs
M4x20 ISO 10642 n° 2 pcs
D99704-08 n° 2 pcs
B99205-02 n° 1 pcs

Scale 1:2
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
G) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
H) Fastening with M4x20 ISO10642 screws
I) D99704-08 M4 brass bushing

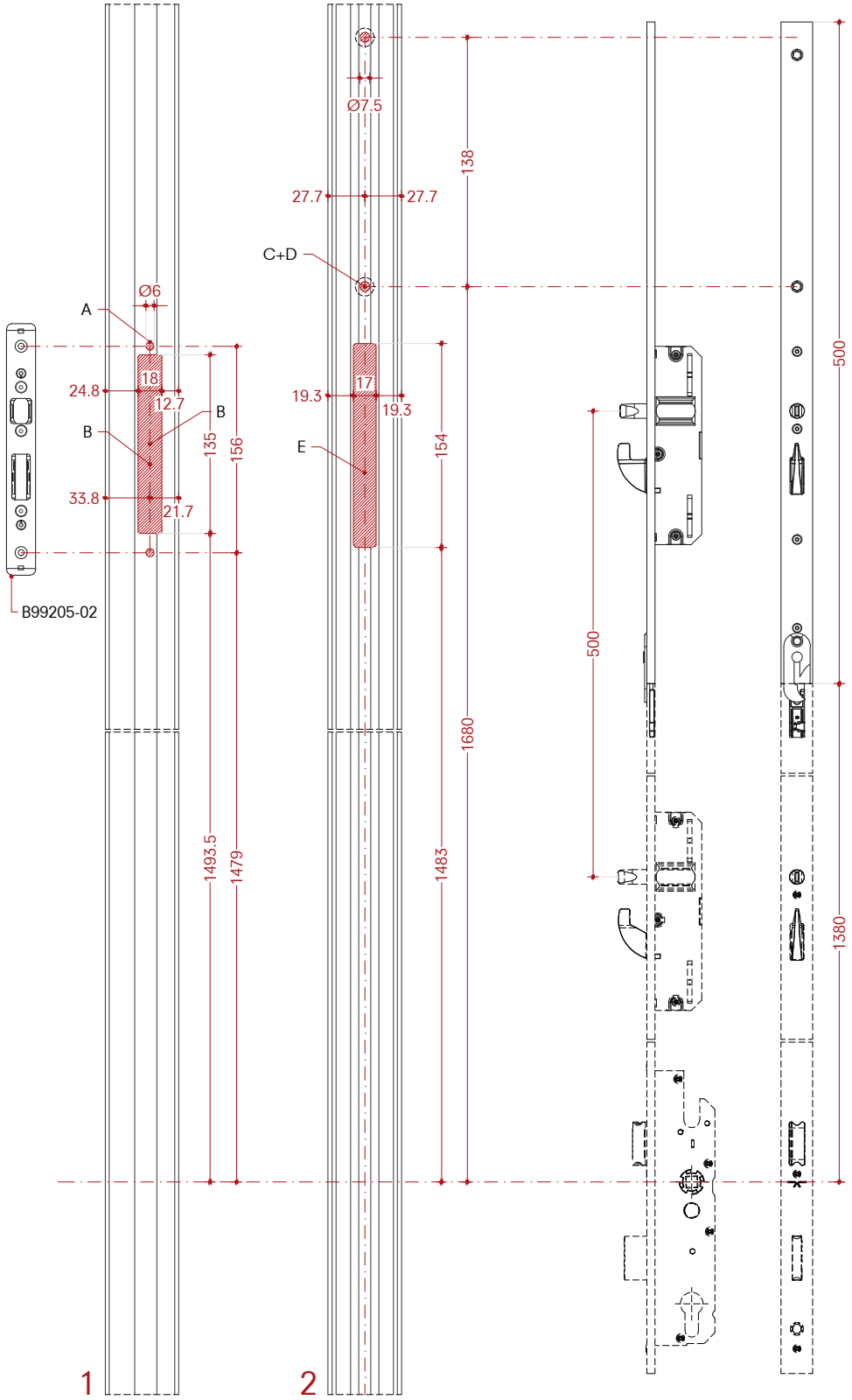
Scala 1:2
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
G) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
H) Fissaggio con viti M4x20 ISO10642
I) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
G) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
H) Fijación con tornillos M4x20 ISO10642
I) D99704-08 Casquillo en latón M4

Installation
Lock extension B99169-02
with full height additional profile
FT 5512RS-00 + FT 5509ZA-00
Open out door

Montaggio
Prolunga serratura B99169-02
con riporto serratura a tutt'altezza
FT 5512RS-00 + FT 5509ZA-00
Porta apertura esterna

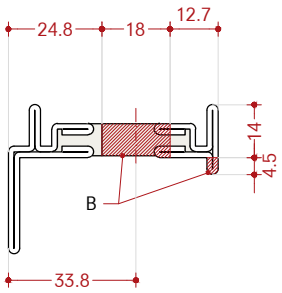
Montaje
Prolongación cerradura B99169-02
con perfil adicional de altura completa
FT 5512RS-00 + FT 5509ZA-00
Puerta apertura hacia fuera

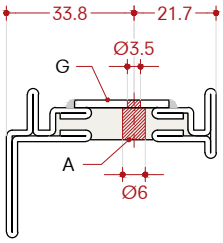


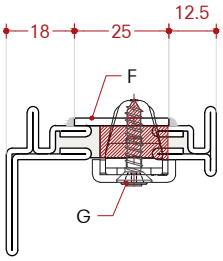
Scale 1:5
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf

Scala 1:5
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta

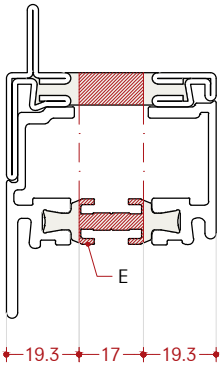
Escala 1:5
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta

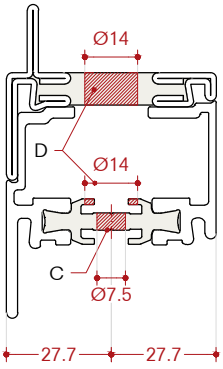


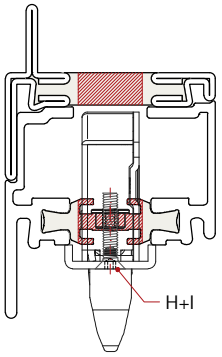




1







2

Ø4.8x22 ISO 7050 n° 2 pcs
M4x20 ISO 10642 n° 2 pcs
D99704-08 n° 2 pcs
B99205-02 n° 1 pcs

Scale 1:2
A) Holes Ø6 mm in door frame
B) Cut-out in door frame
C) Holes Ø7.5 mm in the door leaf
D) Holes Ø14 mm in the door leaf
E) Cut-out in the door leaf
F) Ø3.5 mm holes on 25x25x2 mm plate (not provided)
G) Fastening with Ø4.8x22 ISO7050 screws and cut the screws
H) Fastening with M4x20 ISO10642 screws
I) D99704-08 M4 brass bushing

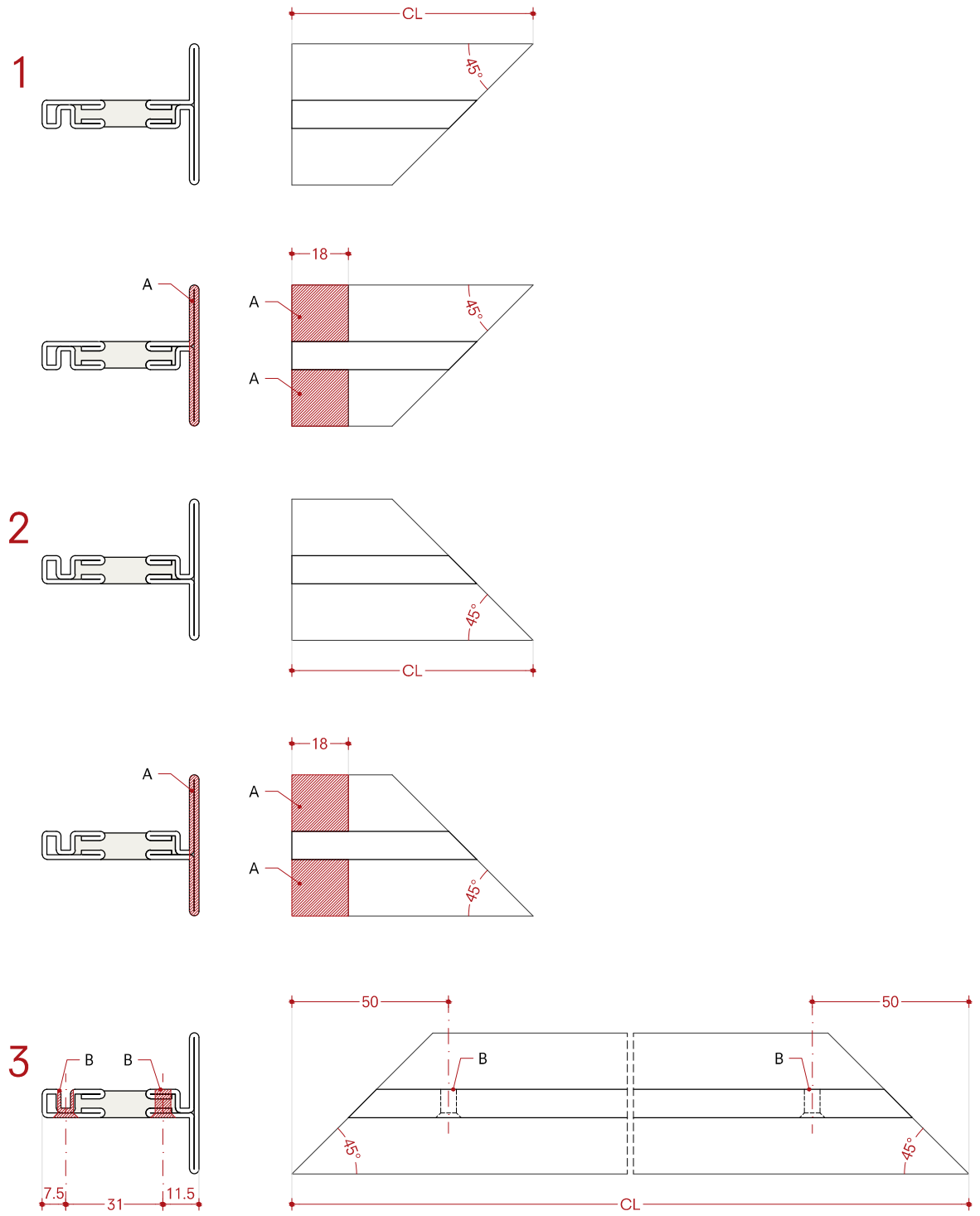
Scala 1:2
A) Fori Ø6 mm nel telaio della porta
B) Fresatura del telaio della porta
C) Fori Ø7.5 mm nell'anta della porta
D) Fori Ø14 mm nell'anta della porta
E) Fresatura nell'anta della porta
F) Fori Ø3.5 mm su piastra 25x25x2 mm (non fornita)
G) Fissaggio con viti Ø4.8x22 ISO7050 e accorciare le viti
H) Fissaggio con viti M4x20 ISO10642
I) D99704-08 Boccola in ottone M4

Escala 1:2
A) Orificios de Ø6 mm en marco de la puerta
B) Fresado en marco de la puerta
C) Orificios de Ø7.5 mm en hoja de la puerta
D) Orificios de Ø14 mm en hoja de la puerta
E) Fresado en hoja de la puerta
F) Orificios Ø3.5 mm en placa 25x25x2 mm (no provisto)
G) Fijación con tornillos Ø4.8x22 ISO7050 y recortar tornillos
H) Fijación con tornillos M4x20 ISO10642
I) D99704-08 Casquillo en latón M4

Processing
Locking box with FT 5009TN-02

Lavorazione
Scatola serratura con FT 5009TN-02

Mecanizado
Cerradura con FT 5009TN-02



CL = Cutting length

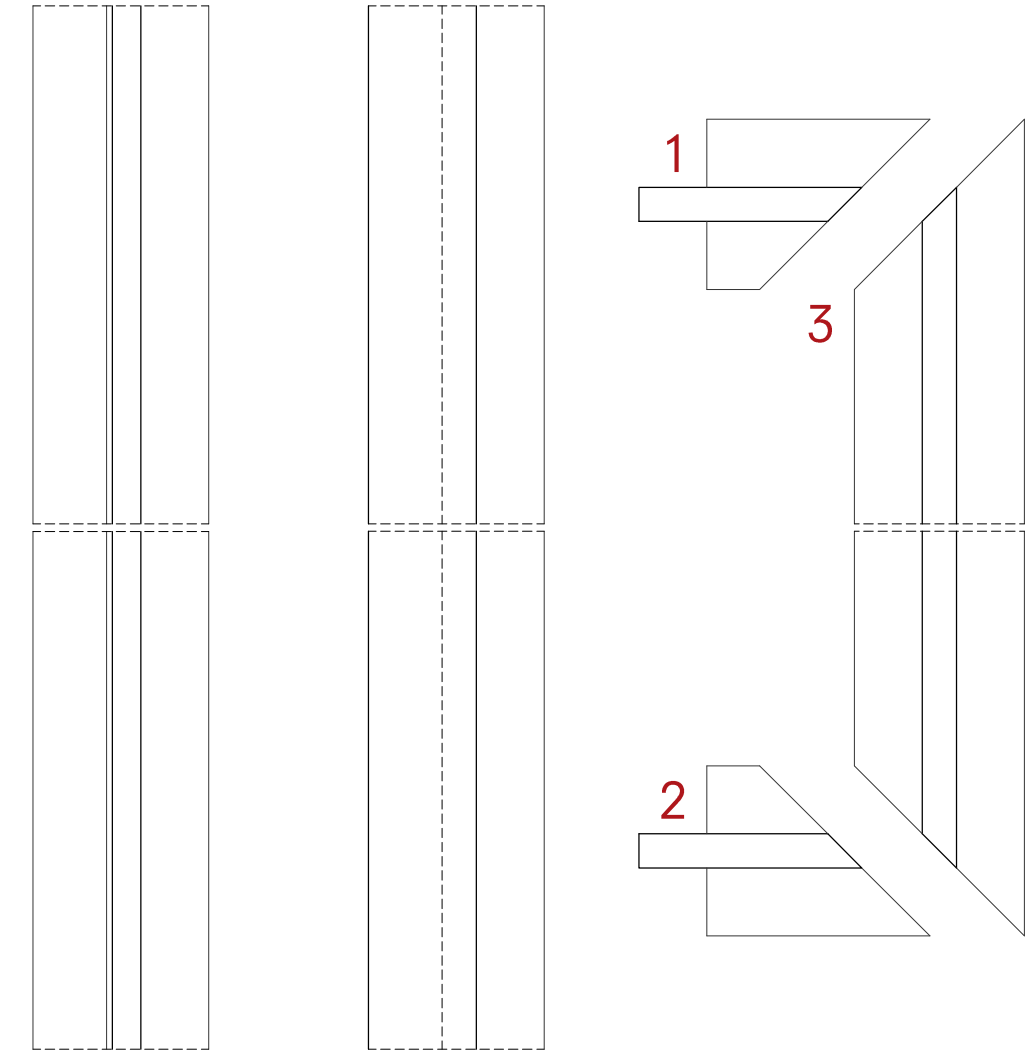
A) Cut outs
B) n°02 Ø5 holes

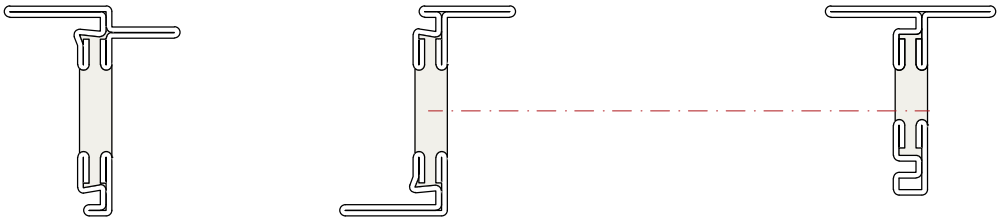
CL = Lunghezza di taglio

A) Fresate
B) n°02 fori Ø5

CL = Longitud de corte

A) Fresado
B) n°02 orificios Ø5

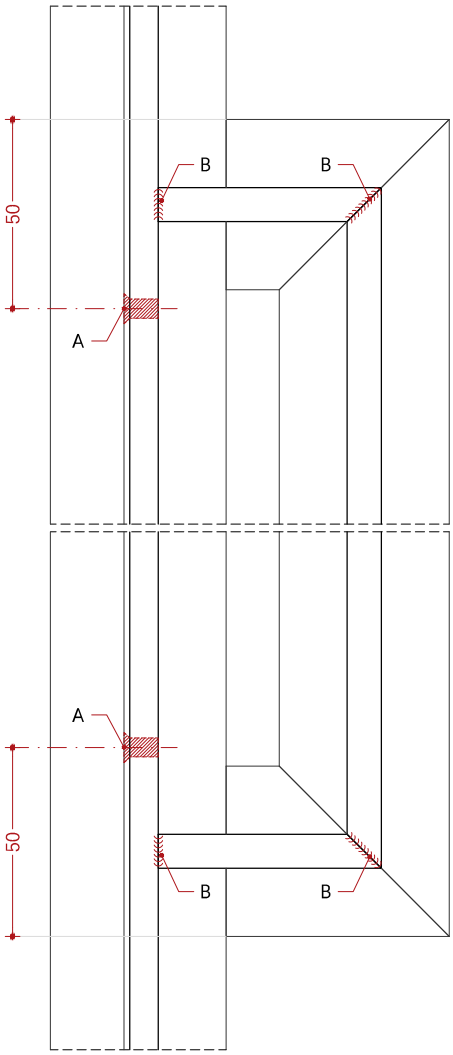


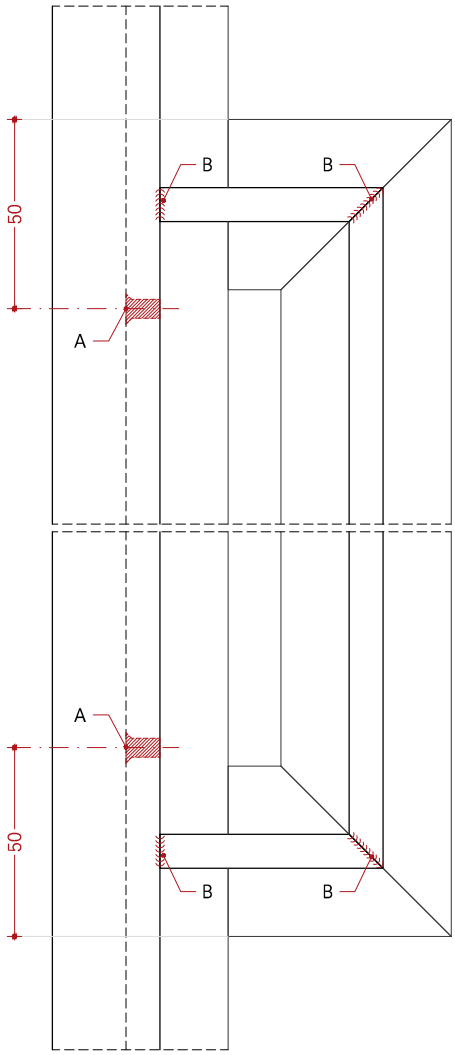


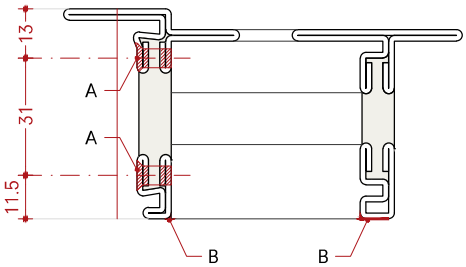
FT 5509TA-02
Open out
Apertura esterna
Que se abre hacia fuera

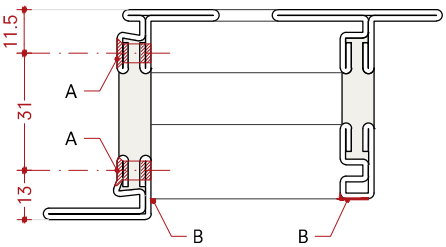
FT 5509ZA-02
Open in
Apertura interna
Apertura hacia dentro

FT 5009TN-02





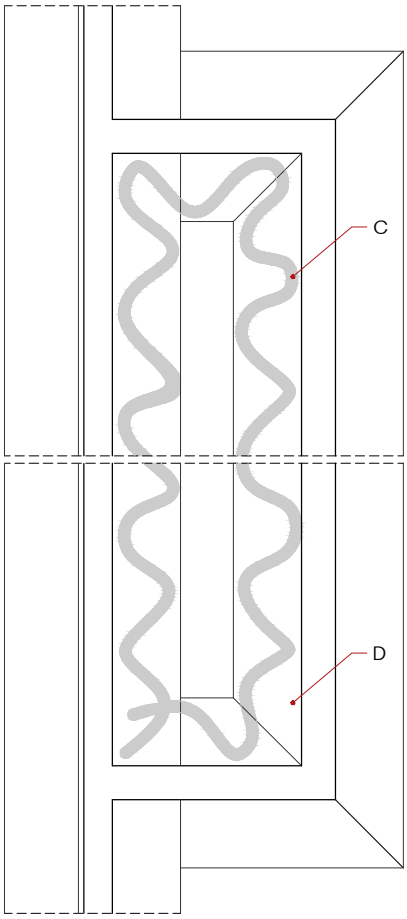


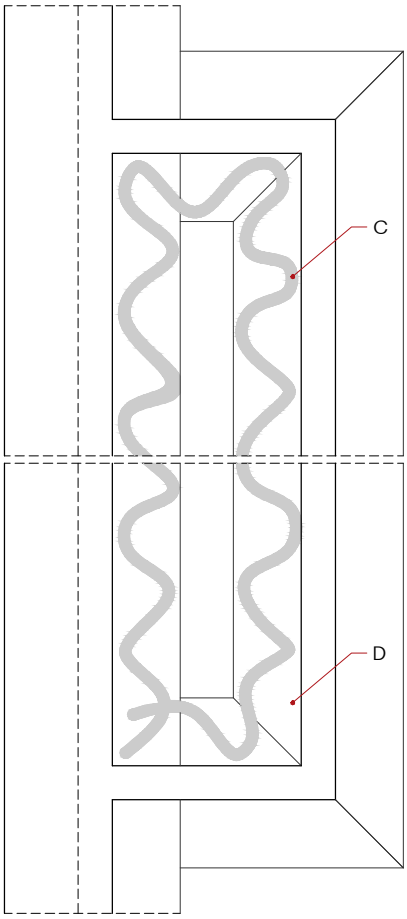


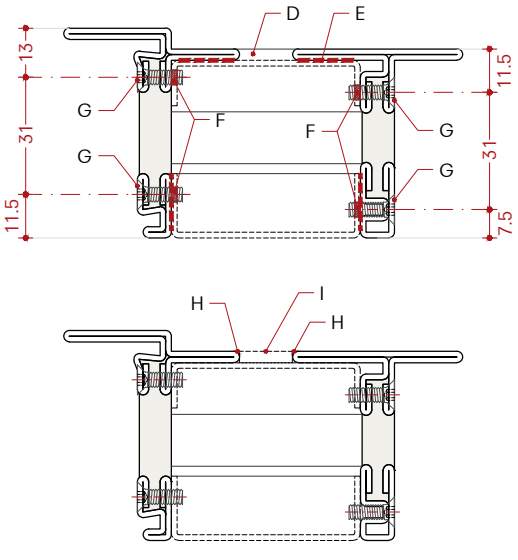
A) n°02 Ø5 holes
B) Welding

A) n°02 fori Ø5
B) Saldatura

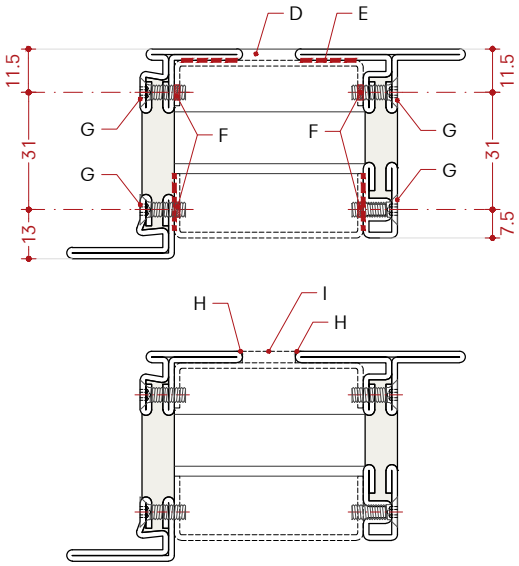
A) n°02 orificios Ø5
B) Soldadura







Locking box open out
Scatola serratura per apertura esterna
Caja de bloqueo apertura externa



Locking box open in
Scatola serratura per apertura interna
Caja de bloqueo apertura interna

C) Before screwing metal cover (not provided) apply sealant accordingly.
D) To be sealed after paiting
E) Sealant
F) n°02 M4 holes
G) Fastening with M4x12 mm ISO10642 screws
H) Welding
I) Cover plate (not provided)

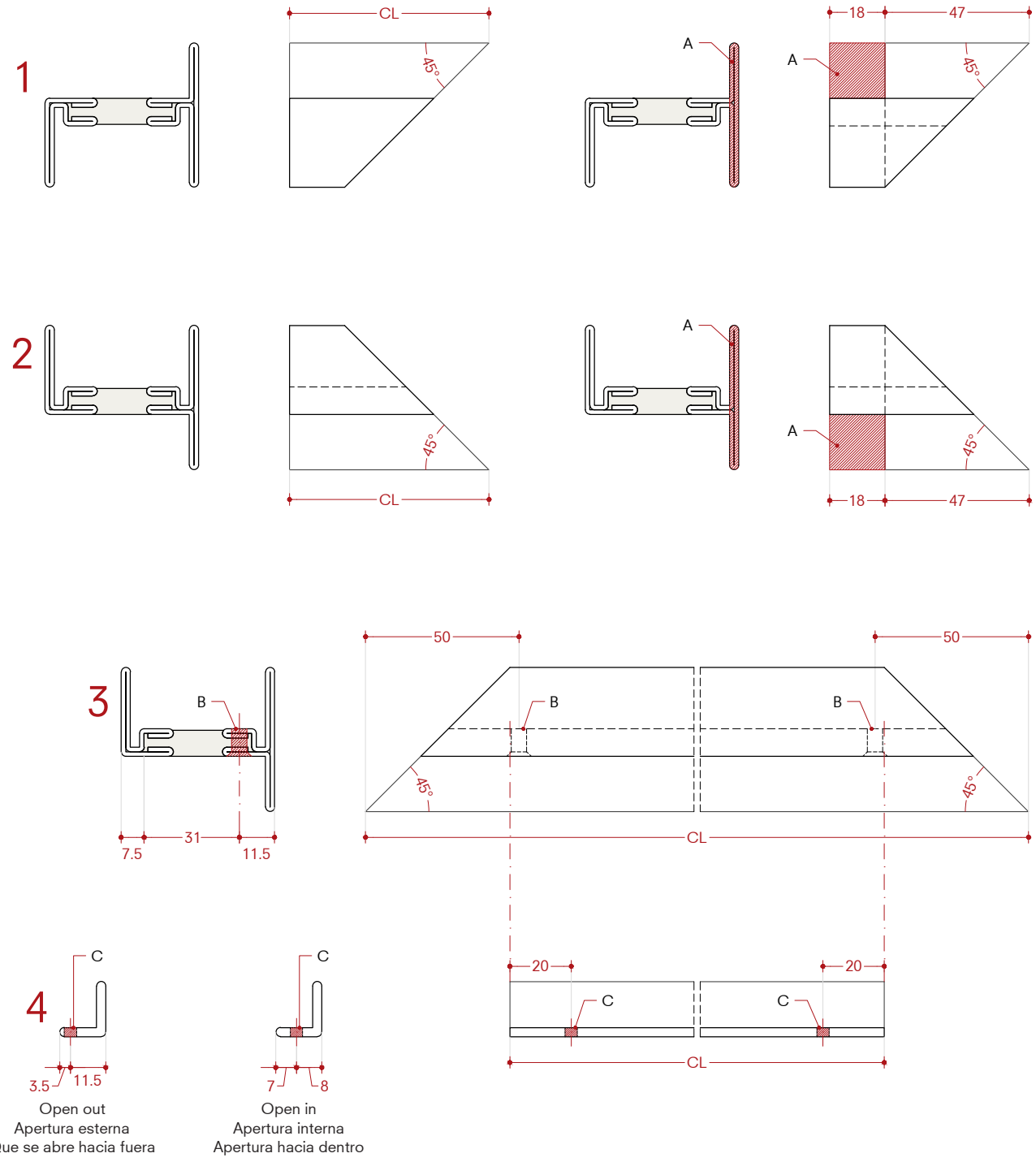
C) Prima di avvitare le lamiere di tamponamento (non fornite) applicare il sigillante adeguato.
D) Da sigillare dopo verniciatura
E) Sigillante
F) n°02 fori M4
G) Montaggio con viti M4x12 mm ISO10642
H) Saldatura
I) Piatto di chiusura (non fornito)

C) Antes de atornillar las chapas (no provisto), aplicar agente sellante según haga falta.
D) Para ser sellado después de pintar
E) Agente sellante
F) n°02 orificios M4
G) Montaje con tornillos M4x12 mm ISO10642
H) Soldadura
I) Placa

Processing
Locking box with FT 5009HF-02

Lavorazione
Scatola serratura con FT 5009HF-02

Mecanizado
Cerradura con FT 5009HF-02



CL = Cutting length

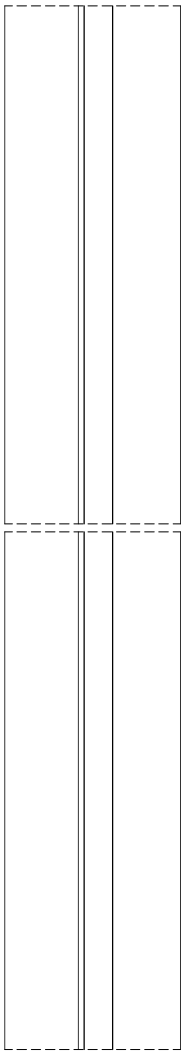
A) Cut outs
B) n°02 Ø5 holes
C) n°02 M4 holes

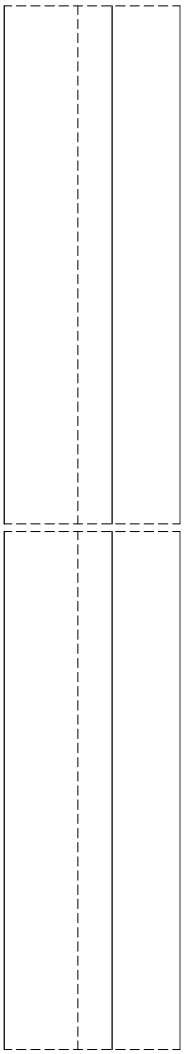
CL = Lunghezza di taglio

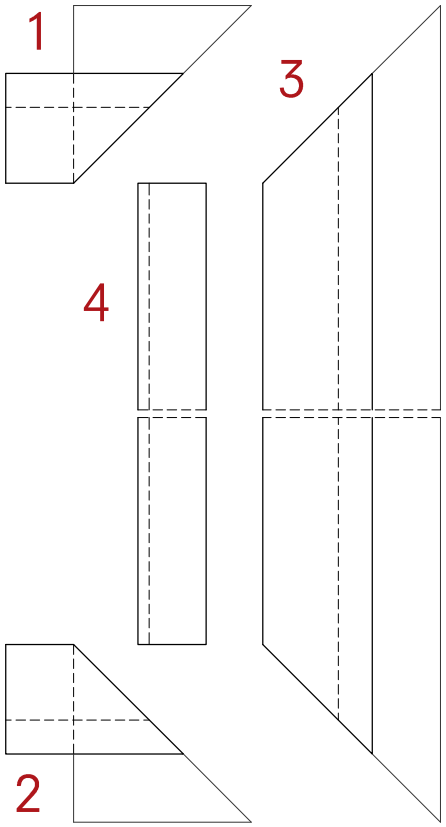
A) Fresate
B) n°02 fori Ø5
C) n°02 fori M4

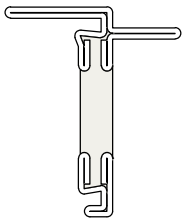
CL = Longitud de corte

A) Fresado
B) n°02 orificios Ø5
C) n°02 orificios M4



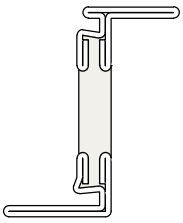






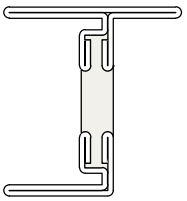
FT 5509TA-02

Open out
Apertura esterna
Que se abre hacia fuera

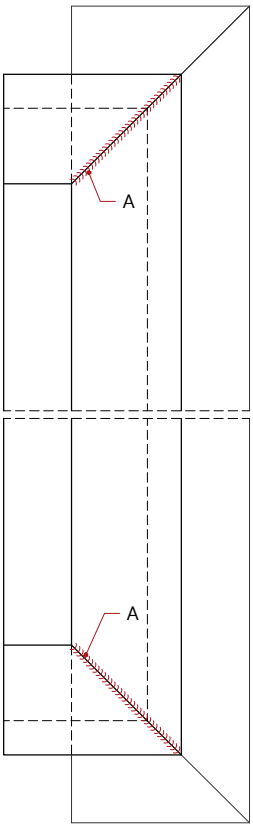


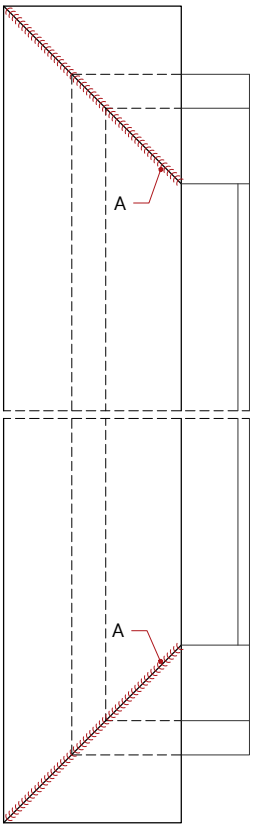
FT 5509ZA-02

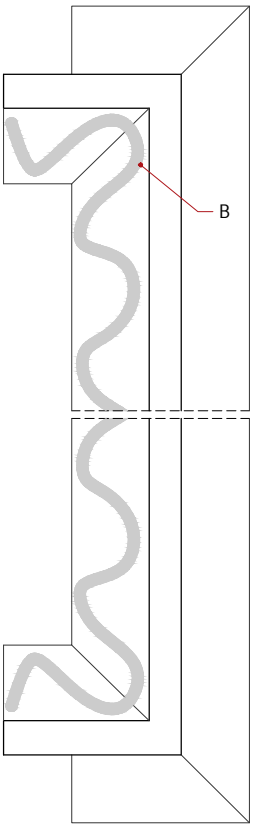
Open in
Apertura interna
Apertura hacia dentro

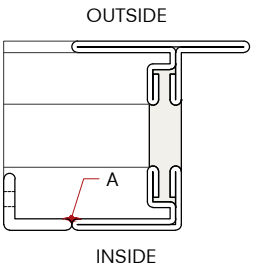


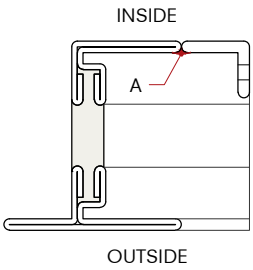
FT 5009HF-02

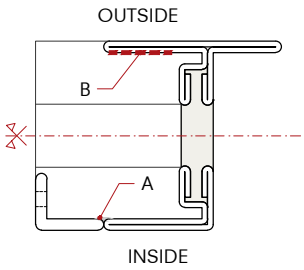


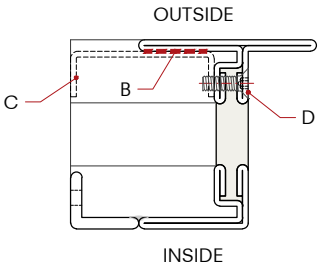








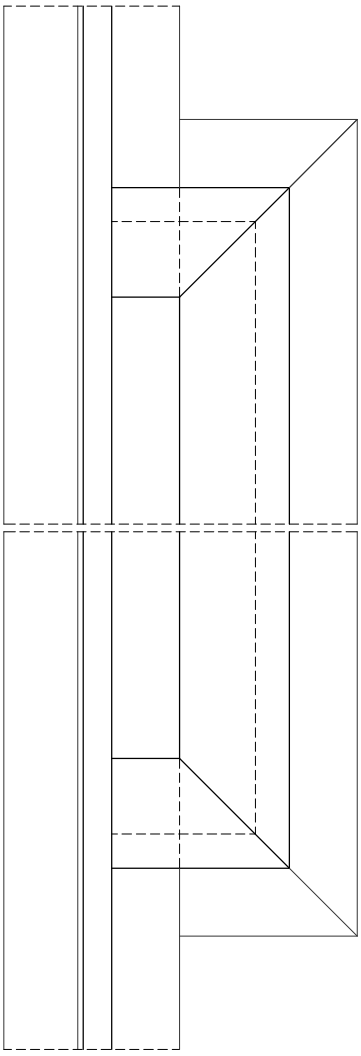


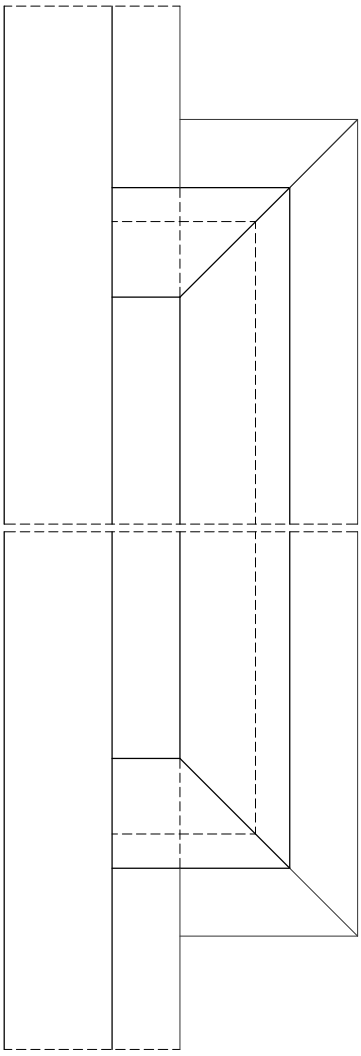


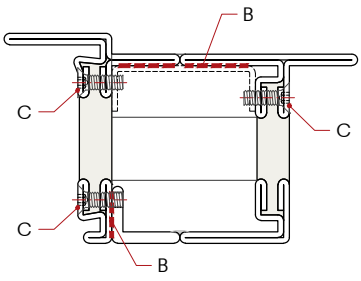
A) Welding
B) Sealant
C) Plate (not provided)
D) Fastening with M4x12 mm ISO10642 screws

A) Saldatura
B) Sigillante
C) Piastra (non fornita)
D) Montaggio con viti M4x12 mm ISO10642

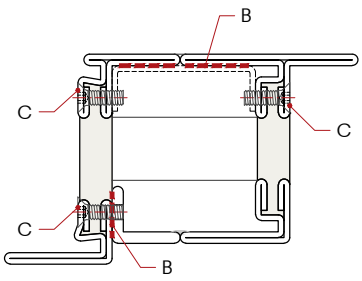
A) Soldadura
B) Agente sellante
C) Piastra (non fornita)
D) Montaje con tornillos M4x12 mm ISO10642







Locking box open out
Scatola serratura per apertura esterna
Caja de bloqueo apertura externa



Locking box open in
Scatola serratura per apertura interna
Caja de bloqueo apertura interna

A) Welding
B) Sealant
C) Fastening with M4x12 mm ISO10642 screws

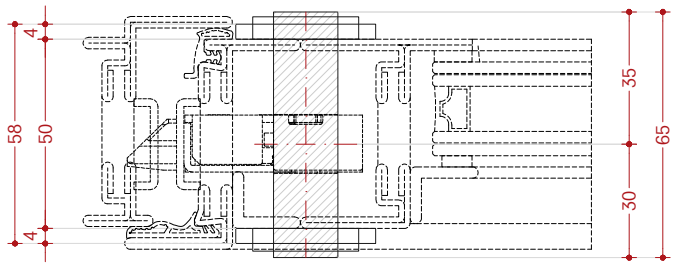
A) Saldatura
B) Sigillante
C) Montaggio con viti M4x12 mm ISO10642

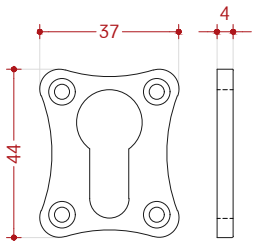
A) Soldadura
B) Agente sellante
C) Montaje con tornillos M4x12 mm ISO10642

Cylinder combinations
FT 5009HF-02 + FV 1815A-02
Locks:
B99015-02
B99170-02
B99171-02
B99173-02

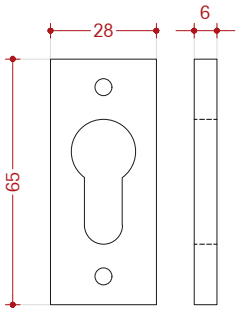
Combinazioni cilindro
FT 5009HF-02 + FV 1815A-02
Serrature:
B99015-02
B99170-02
B99171-02
B99173-02

Combinaciones cilindro
FT 5009HF-02 + FV 1815A-02
Cerraduras:
B99015-02
B99170-02
B99171-02
B99173-02





750060 nn



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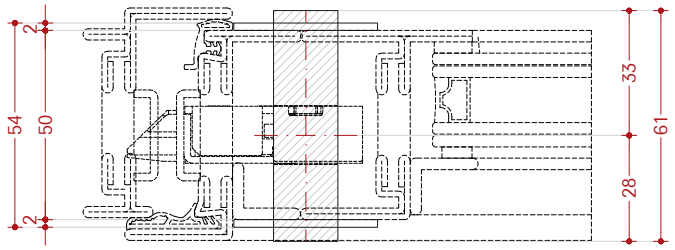

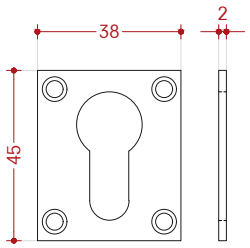

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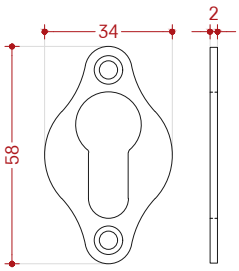
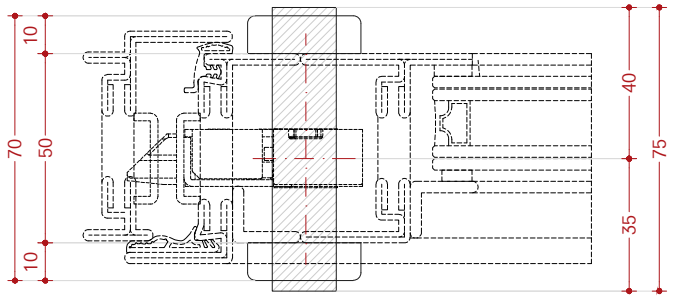
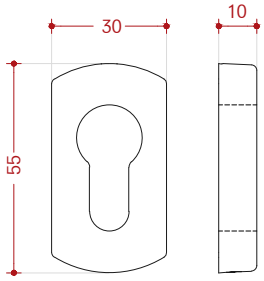
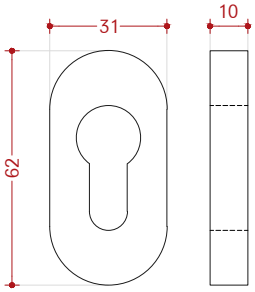


750085 nn

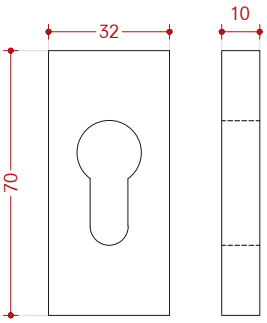




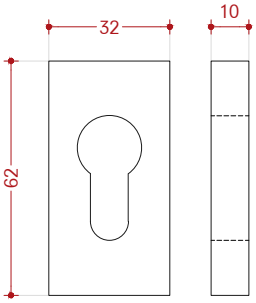
700910 nn



H99076 nn



760106 nn

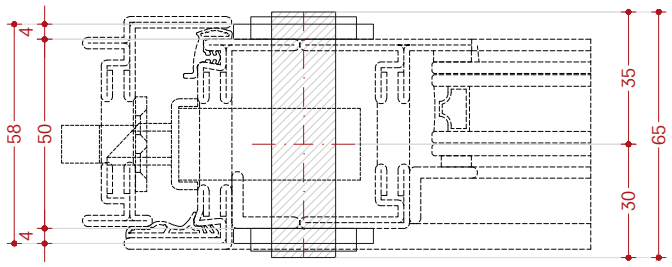


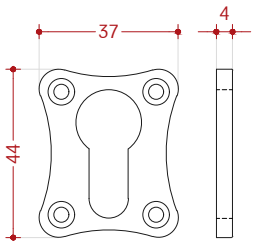
H99086 nn

Cylinder combinations
FT 5009HF-02 + FV 1815A-02
Locks:
B99111-02

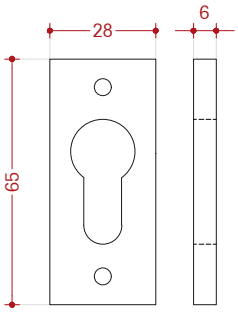
Combinazioni cilindro
FT 5009HF-02 + FV 1815A-02
Serrature:
B99111-02

Combinaciones cilindro
FT 5009HF-02 + FV 1815A-02
Cerraduras:
B99111-02

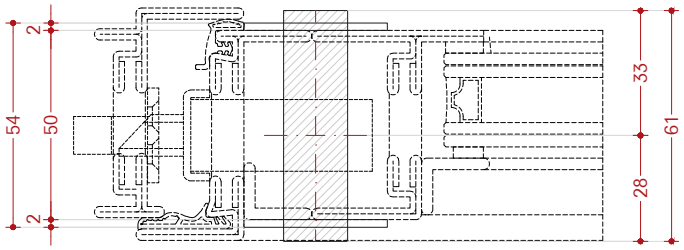


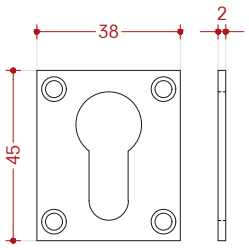


750060 nn



750154 nn





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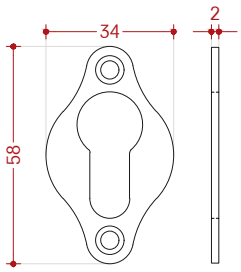
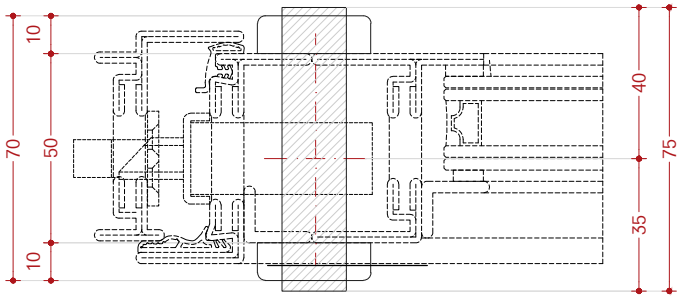
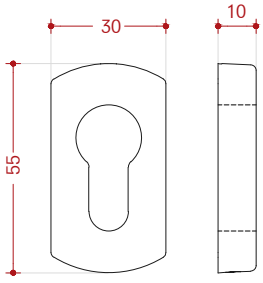
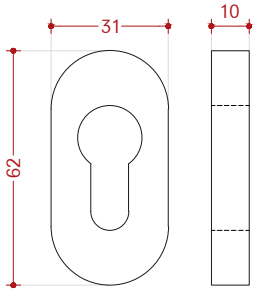


750085 nn

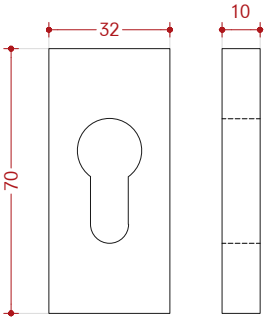




700910 nn



H99076 nn



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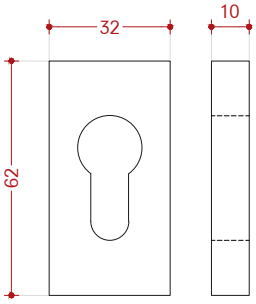
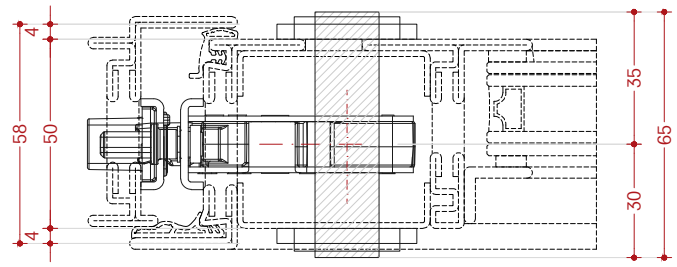


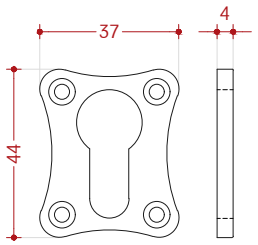
H99086 nn

Cylinder combinations
FT 5009TN-02
Locks:
B99172-02
B99174-02
B99175-02

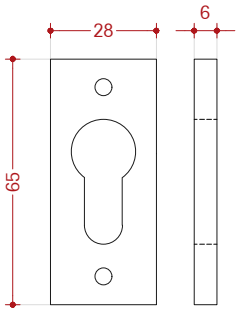
Combinazioni cilindro
FT 5009TN-02
Serrature:
B99172-02
B99174-02
B99175-02

Combinaciones cilindro
FT 5009TN-02
Cerraduras:
B99172-02
B99174-02
B99175-02

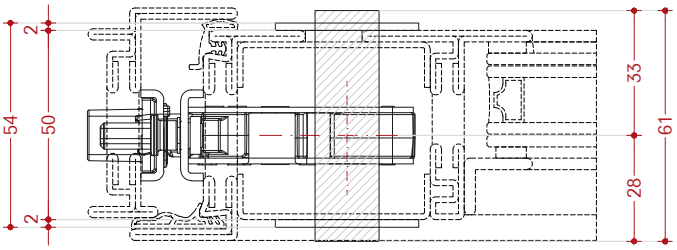


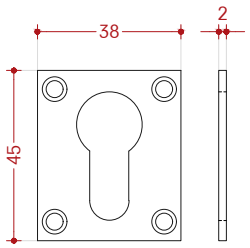


750060 nn



750154 nn





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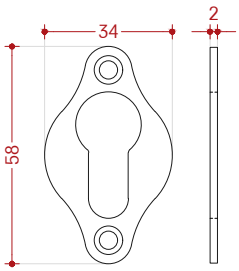
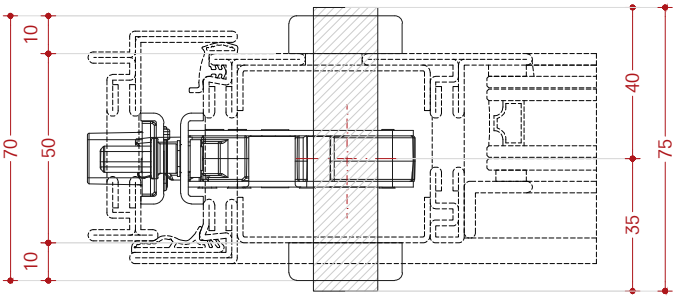
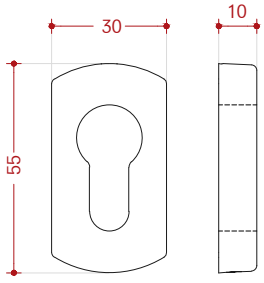


750085 nn





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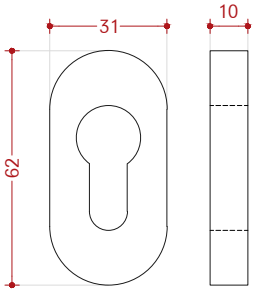
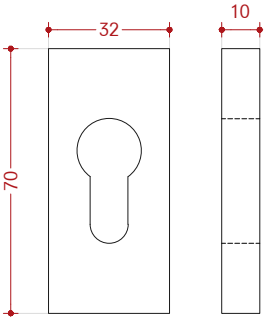


H99076 nn



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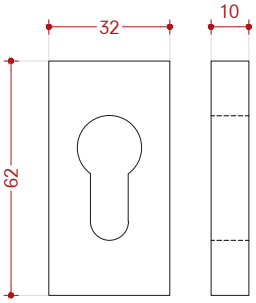
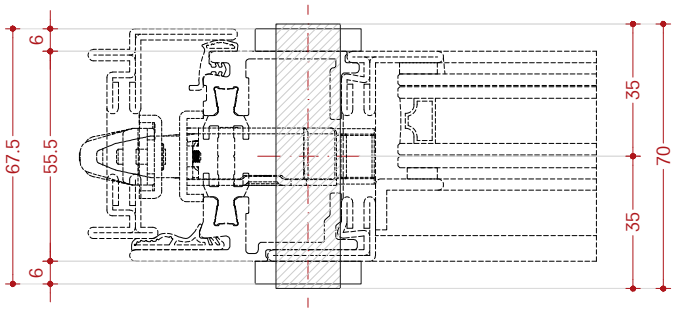


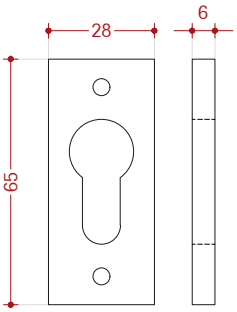
H99086 nn

Cylinder combinations
FT 5512RS-00
Locks:
B99015-02
B99170-02
B99171-02
B99173-02

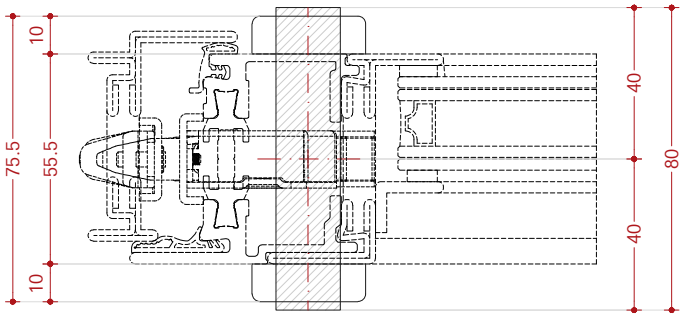
Combinazioni cilindro
FT 5512RS-00
Serrature:
B99015-02
B99170-02
B99171-02
B99173-02

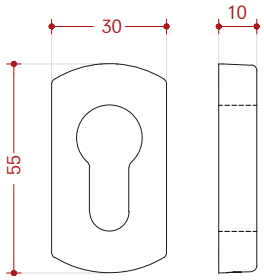
Combinaciones cilindro
FT 5512RS-00
Cerraduras:
B99015-02
B99170-02
B99171-02
B99173-02



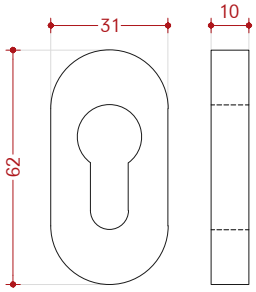


750154 nn

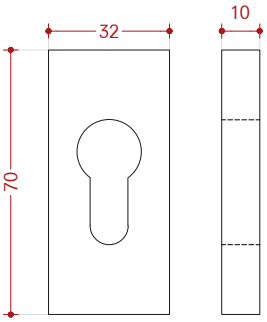




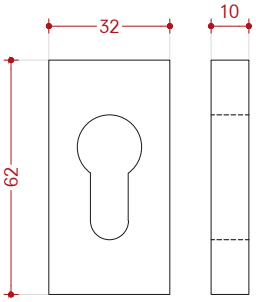
700910 nn



H99076 nn



760106 nn

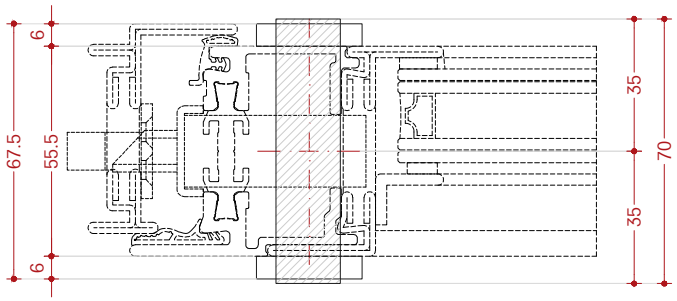


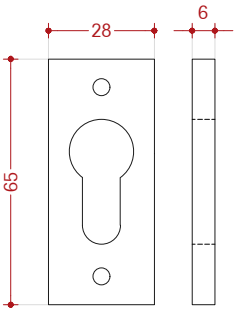
H99086 nn

Cylinder combinations
FT 5512RS-00
Locks:
B99111-02

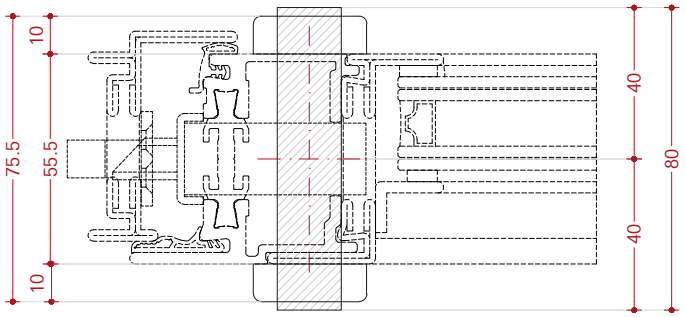
Combinazioni cilindro
FT 5512RS-00
Serrature:
B99111-02

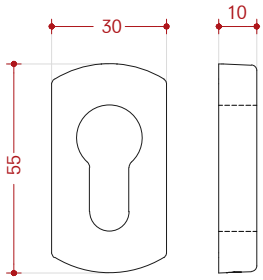
Combinaciones cilindro
FT 5512RS-00
Cerraduras:
B99111-02



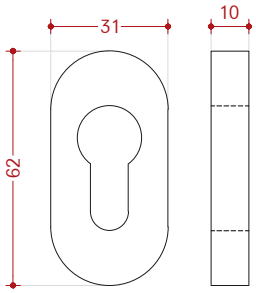


750154 nn

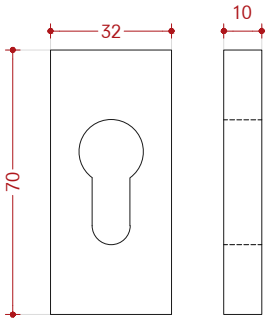




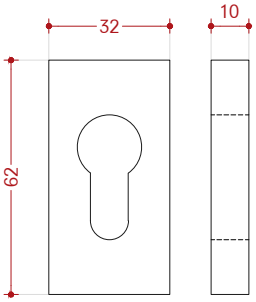
700910 nn



H99076 nn



760106 nn



H99086 nn

Accessories installation:

Multipoint standard rods with lever handle installation

Montaggio accessori:

Montaggio Multipoint aste standard con cariglione

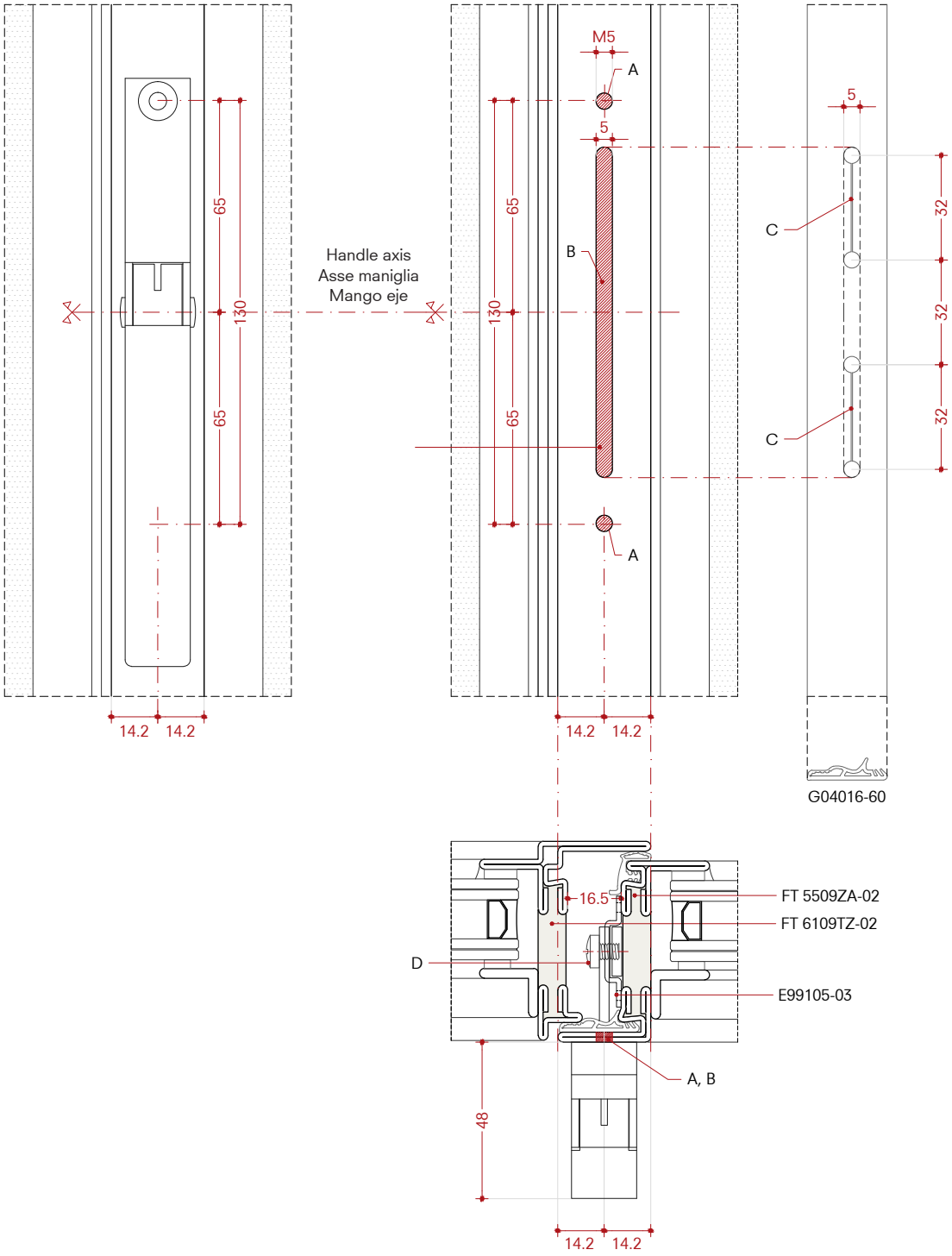
Montaje accesorios:

Montaje Multipoint varillas estándar con manija de bloqueo

Installation
Lever handle
H99001-nn - Lever handle
H99002-nn - Lever handle (with key)
Open in window

Montaggio
Maniglia a leva
H99001-nn - Maniglia a leva
H99002-nn - Maniglia a leva (con chiave)
Apertura interna

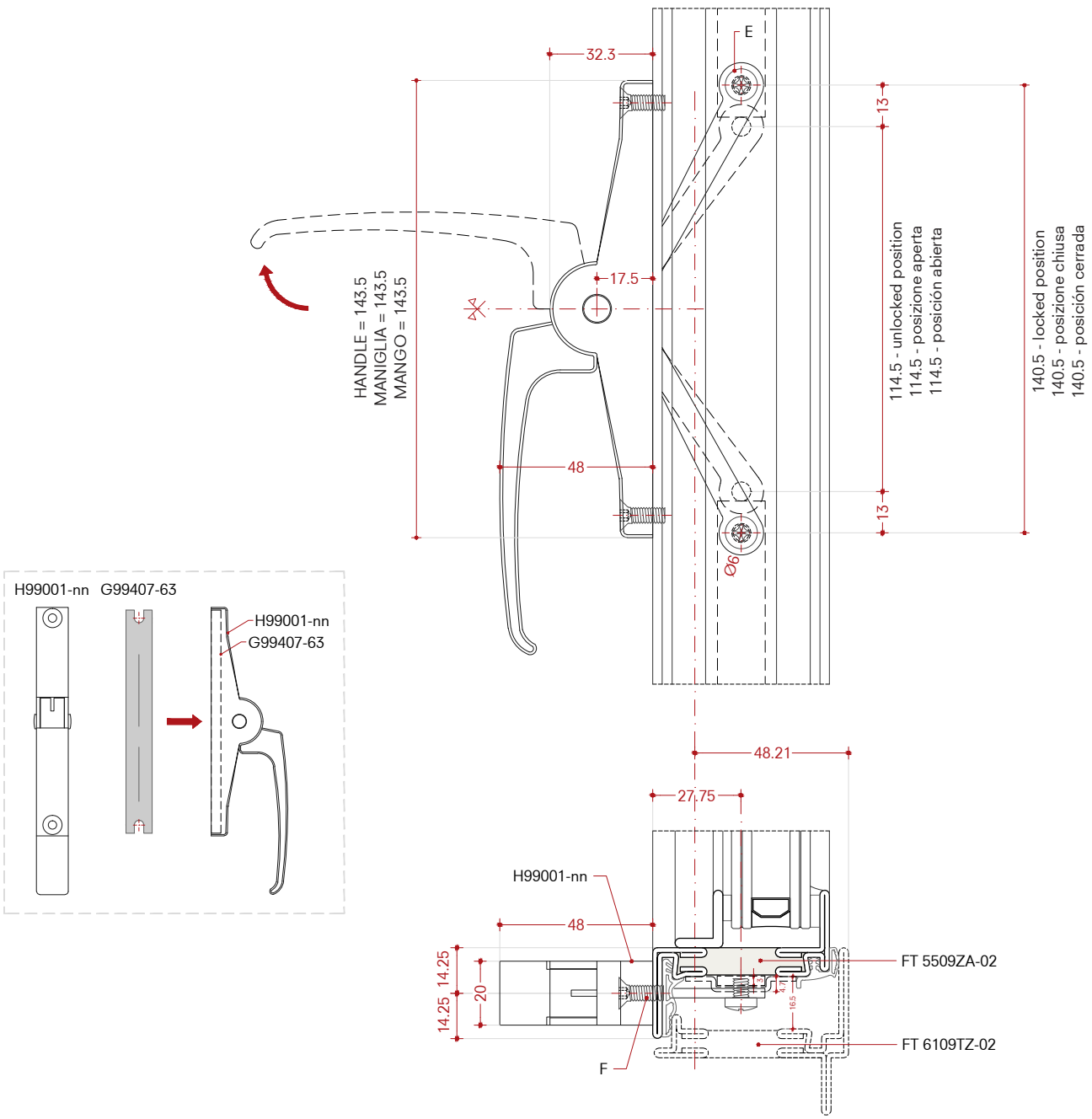
Montaje
Palanca
H99001-nn - mango de movimiento lineal
H99002-nn - mango de movimiento lineal (con llave)
Que se abre hacia dentro



A) M5 holes
B) Cut out 102x5 mm
C) M5 holes on gasket
D) Fastening with M5x6 mm ISO7045 screws
E) Lever handle fastening to rods with M5x6 mm ISO7045 screws with I99001-75
F) Lever handle fastening with M5x14 mm ISO10642 screws

A) Fori M5
B) Fresatura 102x5 mm
C) Fori M5 sulla guarnizione
D) Fissaggio con viti M5x6 mm ISO7045
E) Fissaggio maniglia a leva sulle aste con viti M5x6 mm ISO7045 con I99001-75
F) Fissaggio maniglia a leva con viti M5x14 mm ISO10642

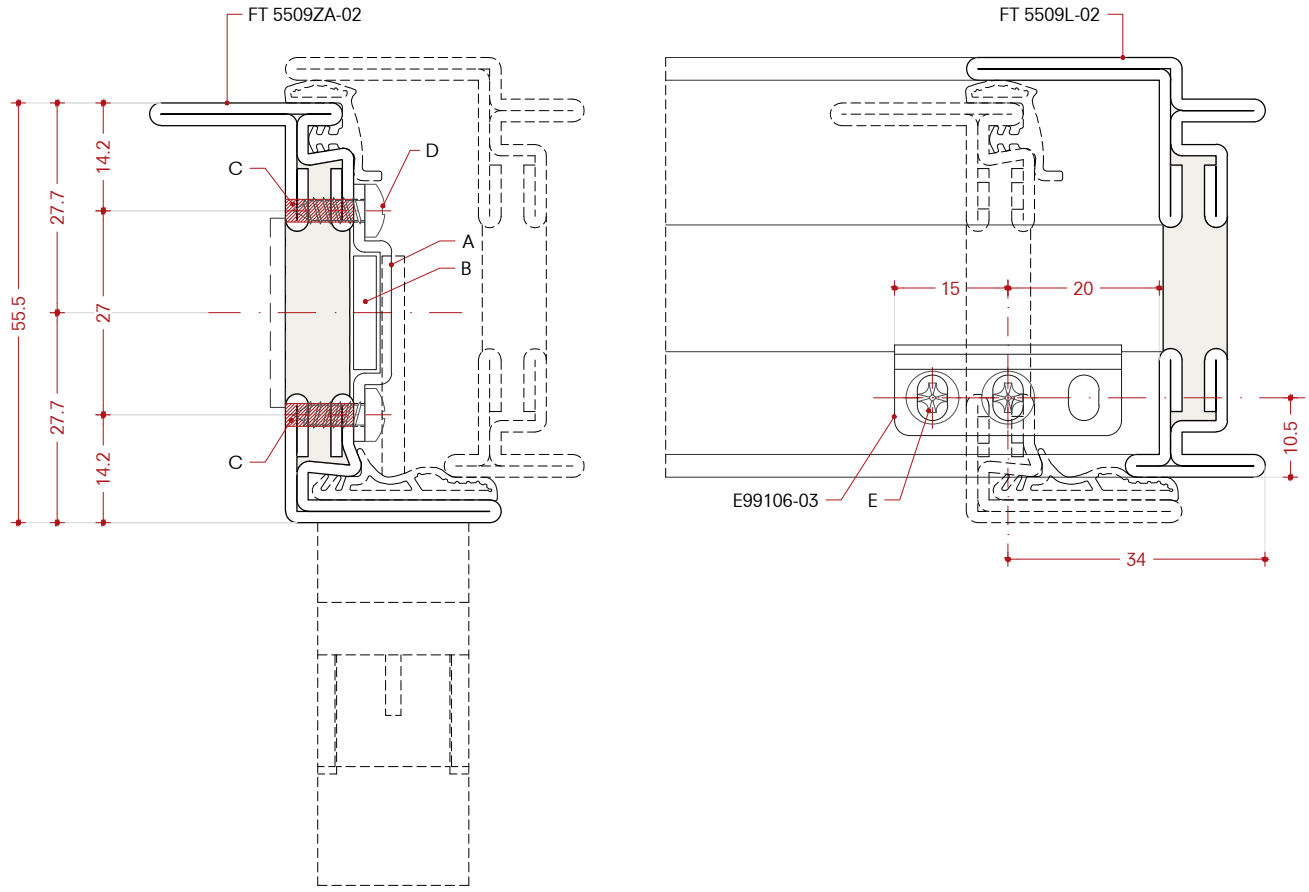
A) Orificios M5
B) Perfil de fresado 102x5 mm
C) Oreficios M5 en juntas
D) Fijación con tornillos M5x6 mm ISO7045
E) Fijación palanca en barras con tornillos M5x6 mm ISO7045 con I99001-75
F) Palanca de fijación con tornillos M5x14 mm ISO10642


32.3
E
13
114.5 - unlocked position
114.5 - posizione aperta
114.5 - posición abierta
140.5 - locked position
140.5 - posizione chiusa
140.5 - posición cerrada
HANDLE = 143.5
MANIGLIA = 143.5
MANGO = 143.5
17.5
48
Ø6
H99001-nn G99407-63
H99001-nn
G99407-63
48.21
27.75
H99001-nn
48
14.25 14.25
20
FT 5509ZA-02
FT 6109TZ-02
F

Installation
Lever handle
H99001-nn - Lever handle
H99002-nn - Lever handle (with key)
Open in window

Montaggio
Maniglia a leva
H99001-nn - Maniglia a leva
H99002-nn - Maniglia a leva (con chiave)
Apertura interna

Montaje
Palanca
H99001-nn - mango de movimiento lineal
H99002-nn - mango de movimiento lineal (con llave)
Que se abre hacia dentro



Scale 1:1 / 1:2
A) Rod guide E99105-03
B) Rod 15x3 mm E99108-03 (L 1000 mm), E99110-03 (L 2000 mm)
C) Ø3 mm holes
D) Fastening with Ø3.5x9.5 mm ISO7049 screws
E) Fastening of strike plate E99106-03 with Ø3.5x9.5 mm ISO7049 screws
F) Distance < 950 mm
G) Locked position
H) Ø13 mm hole

IMPORTANT:
Drilling the holes after cutting the rod.

Please evaluate the wind load.

Scala 1:1 / 1:2
A) Guida asta E99105-03
B) Asta 15x3 mm E99108-03 (L 1000 mm), E99110-03 (L 2000 mm)
C) Fori Ø3 mm
D) Fissaggio con viti Ø3.5x9.5 mm ISO7049
E) Fissaggio riscontro E99106-03 con viti Ø3.5x9.5 mm ISO7049
F) Distanza < 950 mm
G) Posizione chiusura
H) Foro Ø13 mm

IMPORTANTE:
Forare le aste dopo averle tagliate a misura.

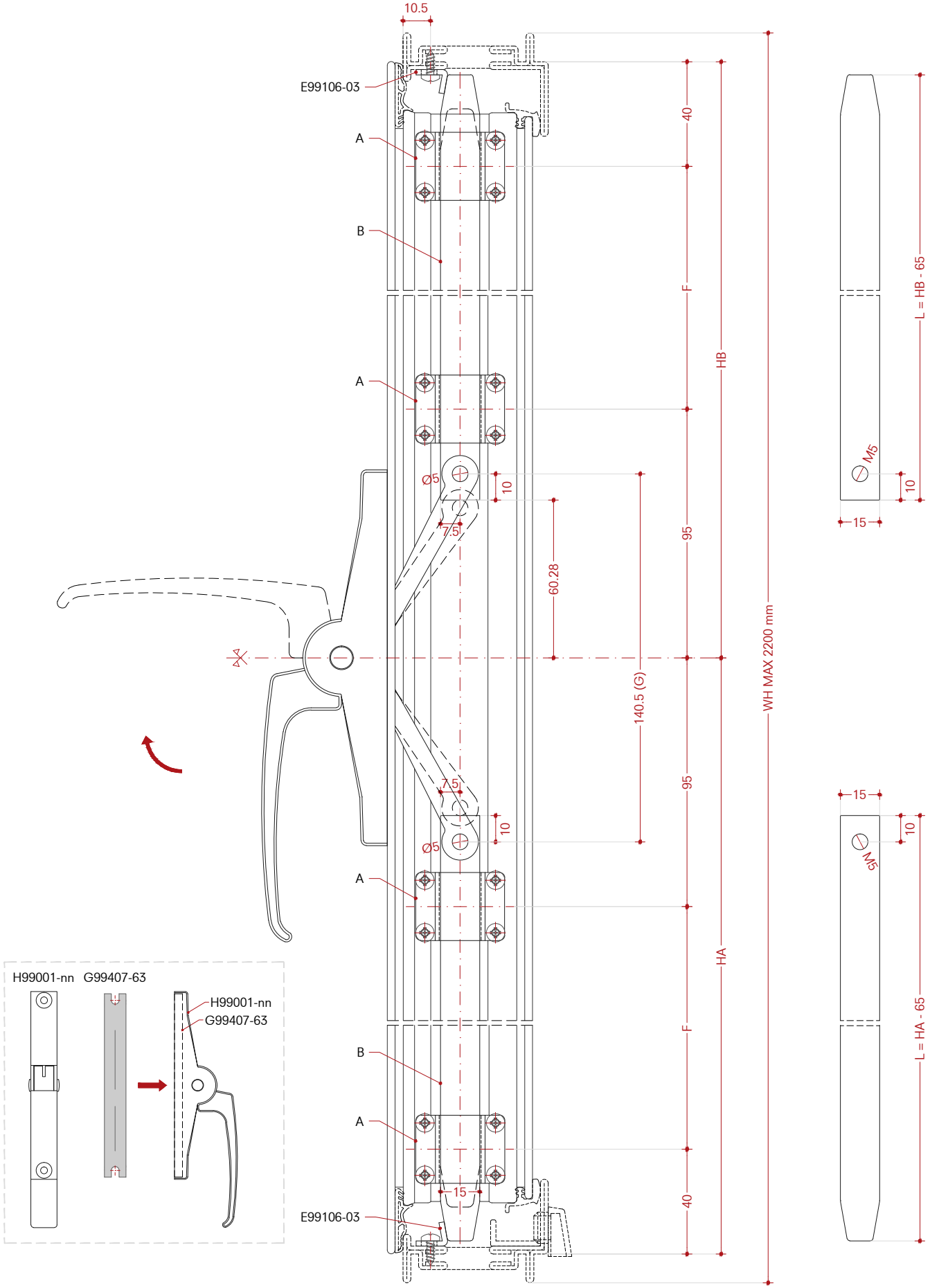
Necessario considerare la spinta del vento.

Escala 1:1 / 1:2
A) Guía de barra E99105-03
B) Barra de empuje 15x3 mm E99108-03 (L 1000 mm), E99110-03 (L 2000 mm)
C) Orificios Ø3 mm
D) Fijación con tornillos Ø3.5x9.5 mm ISO7049
E) Fijación de pieza de cierre E99106-03 con tornillos Ø3.5x9.5 mm ISO7049
F) Distance < 950 mm
G) Posición cerrada
H) Orificio Ø13 mm

IMPORTANTE:
Tras el recorte deben realizarse los orificios.

Por favor, evalúe la carga de viento.

5.11 Multipoint standard rods with lever handle installation
Montaggio Multipoint aste standard con cariglione
Montaje Multipoint varillas estándar con manija de bloqueo



Accessories installation:

Multipoint steel rods installation, with Heritage

Montaggio accessori:

Montaggio Multipoint aste in acciaio, con Heritage

Montaje accesorios:

Montaje Multipoint varillas de acero, con Heritage

Legend

+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm
Scale 1:2 - 1:4

Legenda

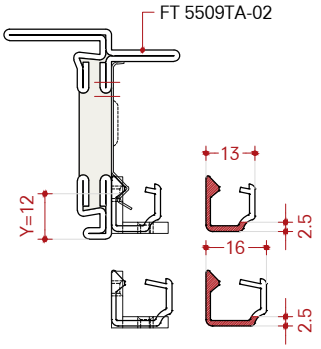
+ = Anta fissa
—— = Apertura interna
- - - = Apertura esterna
Misure in: mm
Scala 1:2 - 1:4

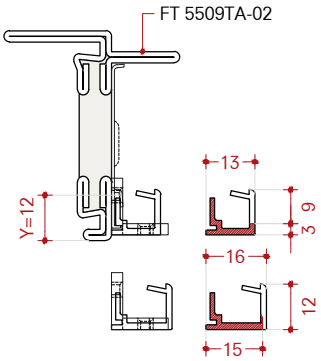
Leyenda

+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm
Escala 1:2 - 1:4

Multipoint steel rods installation, with Heritage

Glazing beads processing
for handle bracket
Open out only





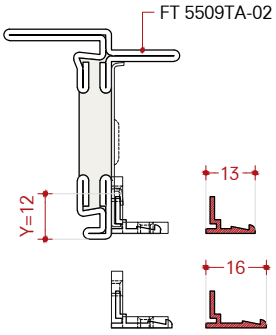
Scale 1:2
15 (*) - For L glazing beads are mandatory:
- bracket E99324-03;
- reversing and cutting of drive block;
- backset 7 mm of glazing beads;
- maximum glazing thickness 20 mm

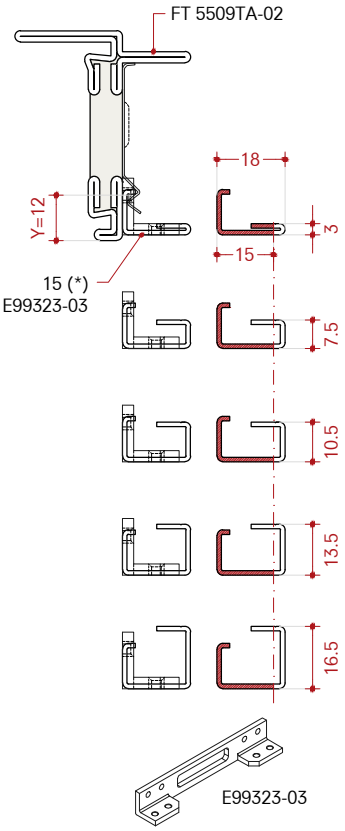
Glazing beads handle bracket cutout length: 95.5 mm centered on handle center line.

Aluminum L glazing beads must be completely cut at handle bracket.

Montaggio Multipoint aste in acciaio, con Heritage

Lavorazione fermavetri
per staffa maniglia
Solo per apertura esterna





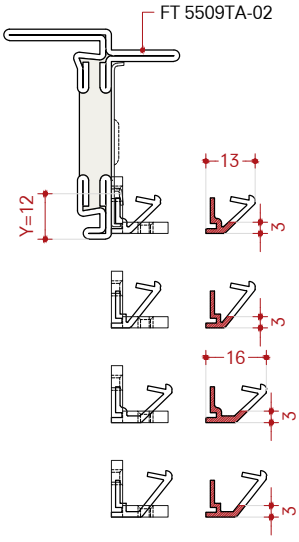
Scala 1:2
15 (*) - Per fermavetri a L sono obbligatori:
- staffa E99324-03;
- inversione e taglio del blocco guida;
- offset 7 mm del fermavetro;
- spessore massimo vetro 20 mm

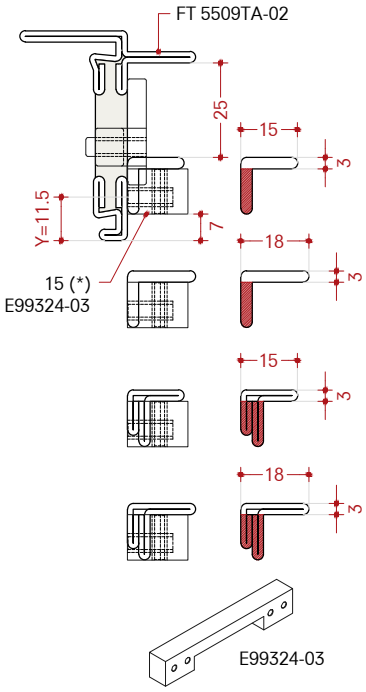
Lunghezza intagli 95.5 mm centrata sulla linea centrale del taglio della maniglia.

I fermavetri in alluminio a L devono essere tagliati completamente sulla staffa della maniglia.

Montaje Multipoint varillas de acero, con Heritage

Mecanizado de junquillos
para soporte de manija
Que se abre hacia fuera solo





Escala 1:2
15 (*) - Para las molduras de jnquillos en L son obligatorias:
- escuadra E99324-03;
- inversión y corte del bloque guía;
- retroceso del junquillo de 7 mm;
- grosor máx de acristalamiento 20 mm

Recorte de longitud 95.5 mm centrado en la línea central del mango.

Los junquillos de aluminio en L deben cortarse completamente en el soporte del mango.

Multipoint steel rods, with Heritage configuration

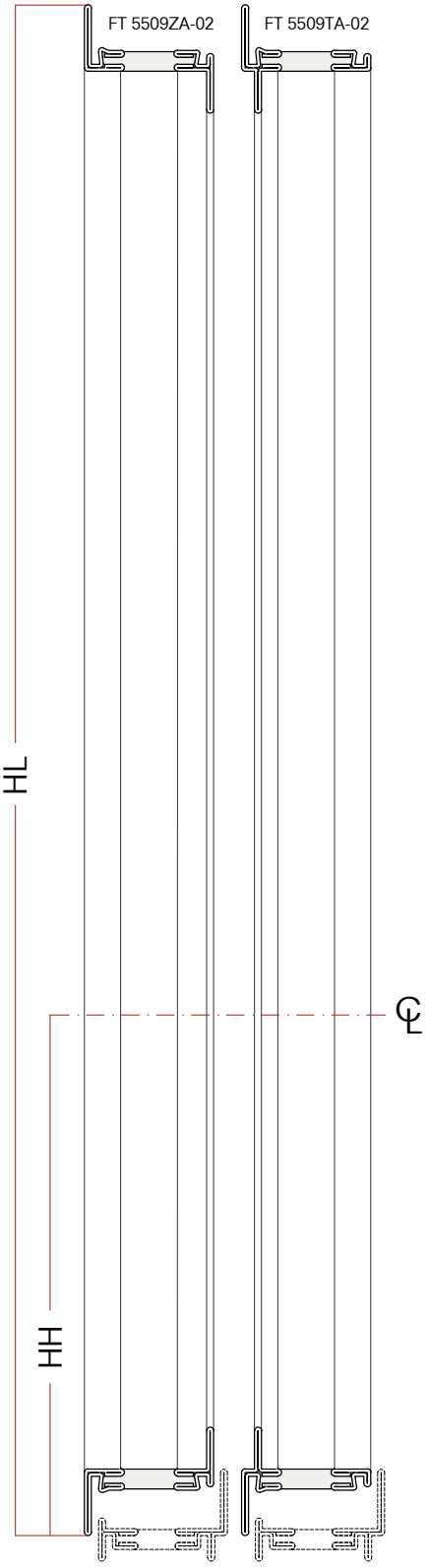
INPUT: HL = Height Leaf
HH = Height Handle
OUTPUT: Two CoFiCo (CONFIGURATION FIELD COORDINATES)
I; II; IIIa; III; IV; Va; V; VI and alfa; beta; gamma.
The two CoFiCo define the solution in the following pages.
= Symmetric handle
= Examples:
P1 (1800 / 450 mm) -> III + ß
P2 (2600 / 1000 mm) -> IV + Y
P3 (2000 / 900 mm) -> IIIa + Y

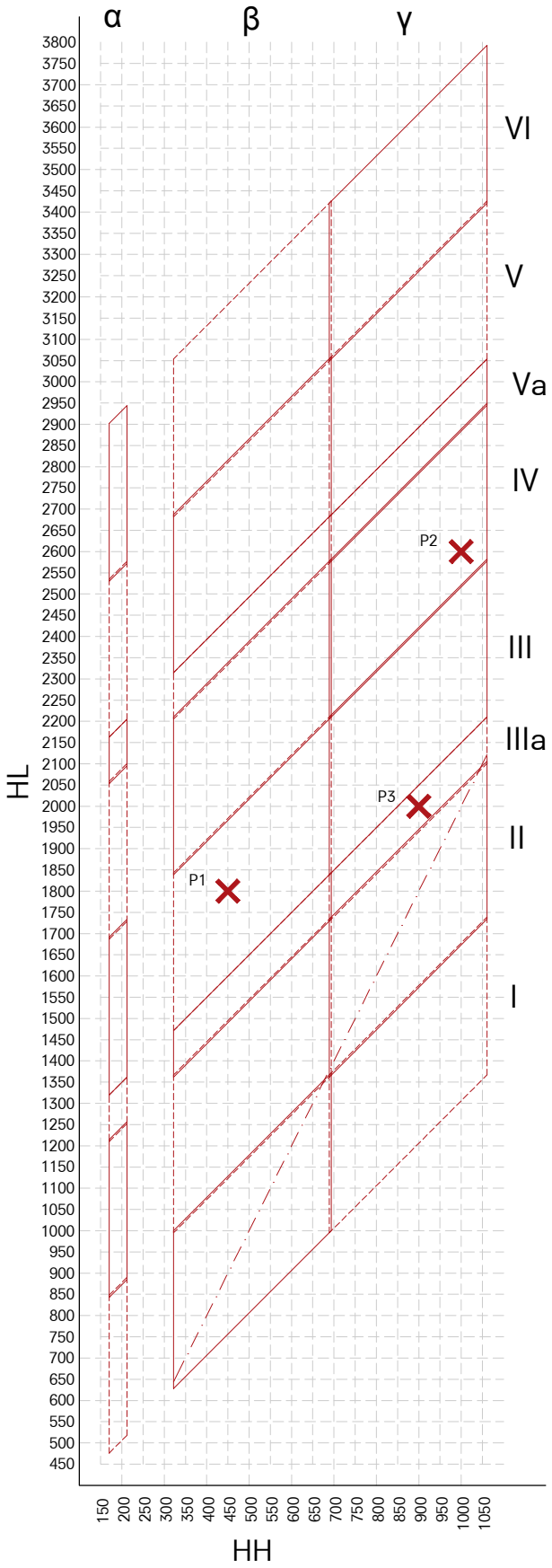
Multipoint aste in acciaio, con Heritage - configurazione

INPUT: HL = altezza anta
HH = altezza maniglia
OUTPUT: Due CoFiCo (CONFIGURATION FIELD COORDINATES)
I; II; IIIa; III; IV; Va; V; VI e alfa; beta; gamma.
I due CoFiCo definiscono la soluzione nelle pagine seguenti.
= Maniglia simmetrica
= Examples:
P1 (1800 / 450 mm) -> III + ß
P2 (2600 / 1000 mm) -> IV + Y
P3 (2000 / 900 mm) -> IIIa + Y

Multipoint varillas de acero, con Heritage - configuración

INPUT: HL = altura hoja
HH = altura manilla
OUTPUT: Dos CoFiCo (CONFIGURATION FIELD COORDINATES)
I; II; IIIa; III; IV; Va; V; VI y alfa; beta; gamma.
Los dos CoFiCos definen la solución en las siguientes páginas.
= Manilla simétrica
= Examples:
P1 (1800 / 450 mm) -> III + ß
P2 (2600 / 1000 mm) -> IV + Y
P3 (2000 / 900 mm) -> IIIa + Y

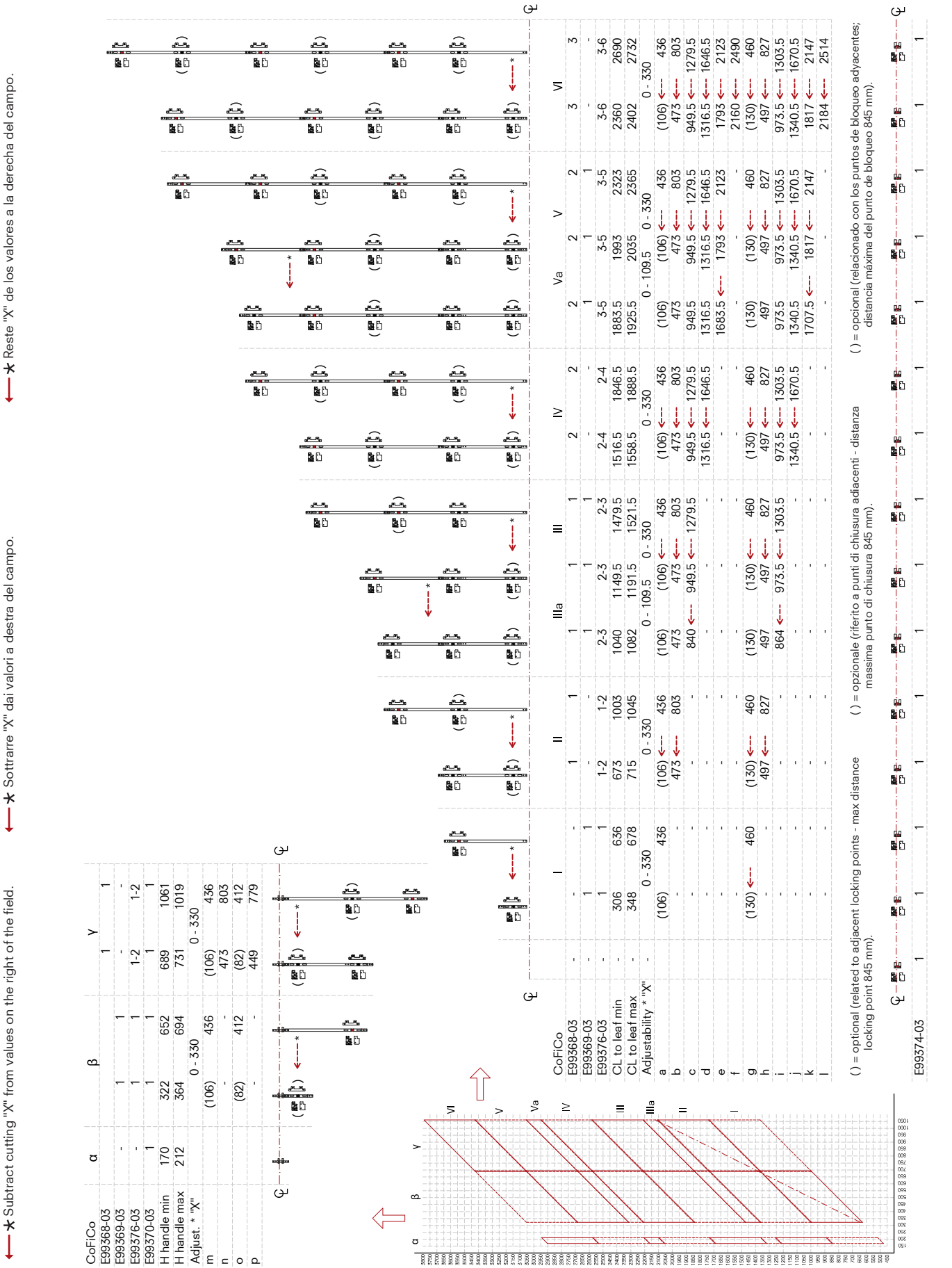




Multipoint configuration
Open in - Right opening

Multipoint configurazione
Apertura interna - Apertura destra

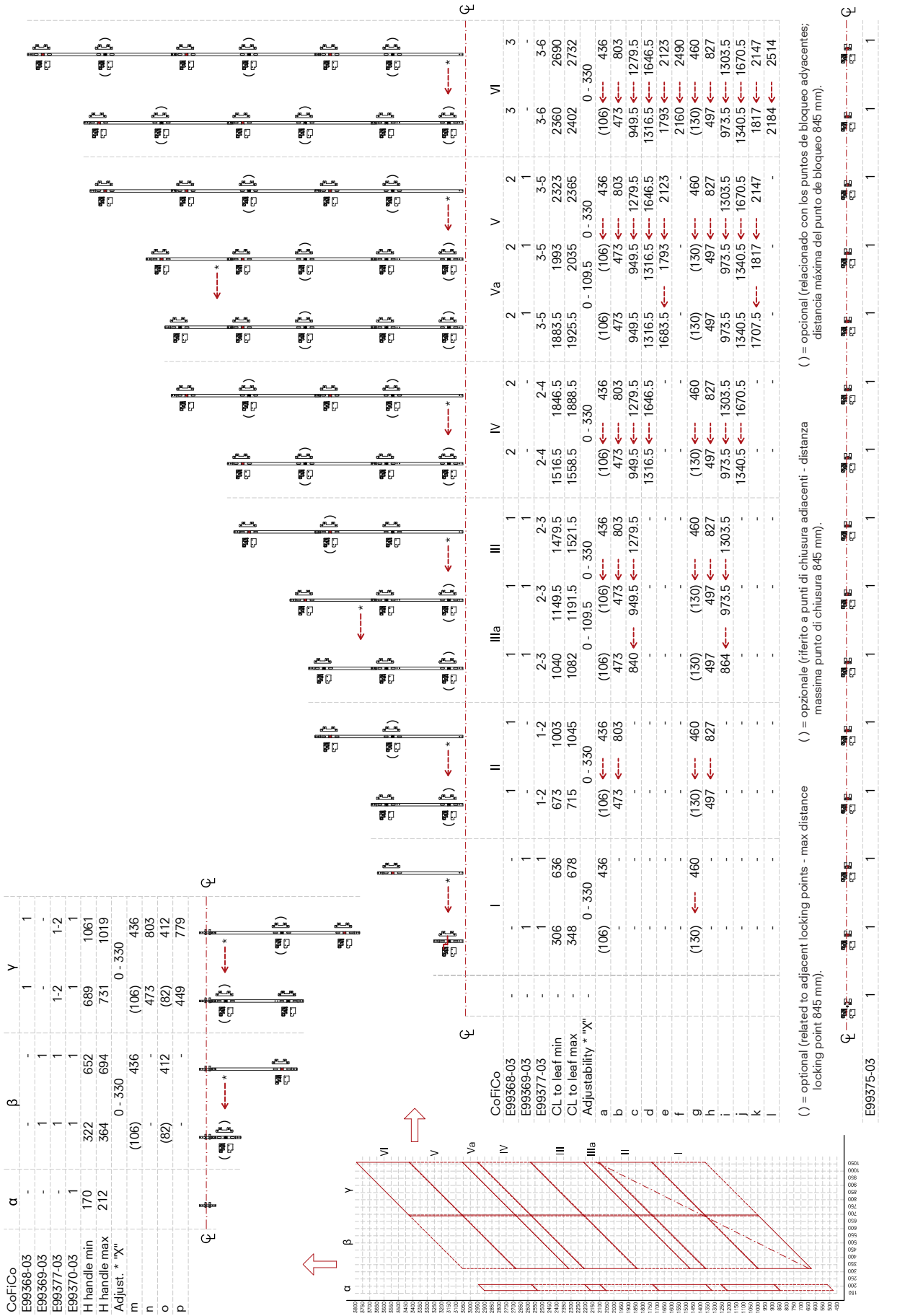
Multipoint configuración
Que se abre hacia dentro - Apertura derecha



Multipoint configuration
Open in - Left opening

Multipoint configurazione
Apertura interna - Apertura sinistra

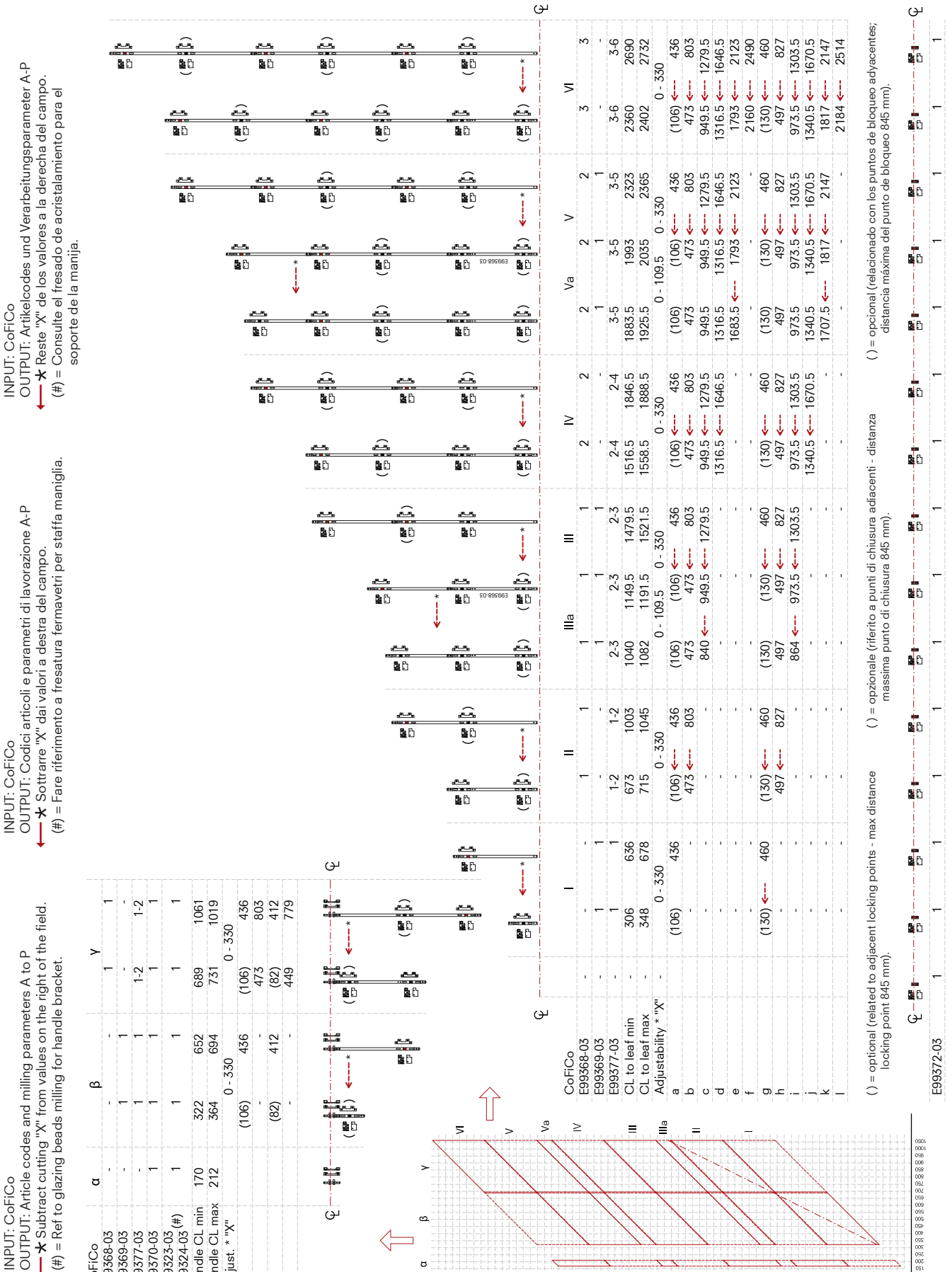
Multipoint configuración
Que se abre hacia dentro - Apertura izquierda



Multipoint configuration
Open out - Right opening

Multipoint configurazione
Apertura esterna - Apertura destra

Multipoint configuración
Que se abre hacia fuera - Apertura derecha



CoFiCo	α	β	γ
E99368-03	-	-	1
E99369-03	-	1	-
E99377-03	-	1	1-2
E99370-03	1	1	1
E99323-03	1	1	1
E99324-03 (#)	1	1	1
Handle CL min	170	322	689	1061
Handle CL max	212	364	694	731	1019
Adjust. * "X"	0 - 330			0 - 330	
m		(106)	436	(106)	436
n		-	-	473	803
o		(82)	412	(82)	412
p		-	-	449	779

CoFiCo	I	II	IIIa	III	IV	Va	V	VI
E99368-03	-	-	-	-	-	-	-	-
E99369-03	-	1	1	1	-	1	1	-
E99377-03	-	1	1-2	2-3	2-3	2-4	3-5	3-5	3-6
CL to leaf min	-	306	636	673	1003	1040	1149.5	1479.5	1516.5	1846.5	1883.5	1993	2323	2360	2690
CL to leaf max	-	348	678	715	1045	1082	1191.5	1521.5	1558.5	1888.5	1925.5	2035	2365	2402	2732
Adjustability * "X"	-	0 - 330		0 - 330		0 - 109.5		0 - 330		0 - 109.5		0 - 330			
a		(106) ←-- 436		(106) ←-- 436		(106) ←-- 436		(106) ←-- 436		(106) ←-- 436		(106) ←-- 436		(106) ←-- 436	
b		- 473 ←-- 803		473 ←-- 803		473 ←-- 803		473 ←-- 803		473 ←-- 803		473 ←-- 803		473 ←-- 803	
c		- -		- 840 ←-- 949.5 ←-- 1279.5		949.5 ←-- 1279.5		949.5 ←-- 1279.5		949.5 ←-- 1279.5		949.5 ←-- 1279.5		949.5 ←-- 1279.5	
d		- -		- -		1316.5 ←-- 1646.5		- -		1316.5 ←-- 1646.5		1316.5 ←-- 1646.5		1316.5 ←-- 1646.5	
e		- -		- -		- -		- -		1683.5 ←-- 1793 ←-- 2123		- -		1793 ←-- 2123	
f		- -		- -		- -		- -		- -		- -		2160 ←-- 2490	
g		(130) ←-- 460		(130) ←-- 460		(130) ←-- 460		(130) ←-- 460		(130) ←-- 460		(130) ←-- 460		(130) ←-- 460	
h		- 497 ←-- 827		497 ←-- 827		497 ←-- 827		497 ←-- 827		497 ←-- 827		497 ←-- 827		497 ←-- 827	
i		- -		- 864 ←-- 973.5 ←-- 1303.5		973.5 ←-- 1303.5		973.5 ←-- 1303.5		973.5 ←-- 1303.5		973.5 ←-- 1303.5		973.5 ←-- 1303.5	
j		- -		- -		1340.5 ←-- 1670.5		1340.5 ←-- 1670.5		1340.5 ←-- 1670.5		1340.5 ←-- 1670.5		1340.5 ←-- 1670.5	
k		- -		- -		- -		- -		1707.5 ←-- 1817 ←-- 2147		1817 ←-- 2147		1817 ←-- 2147	
l		- -		- -		- -		- -		- -		- -		2184 ←-- 2514	

( ) = optional (related to adjacent locking points - max distance locking point 845 mm).

( ) = opzionale (riferito a punti di chiusura adiacenti - distanza massima punto di chiusura 845 mm).

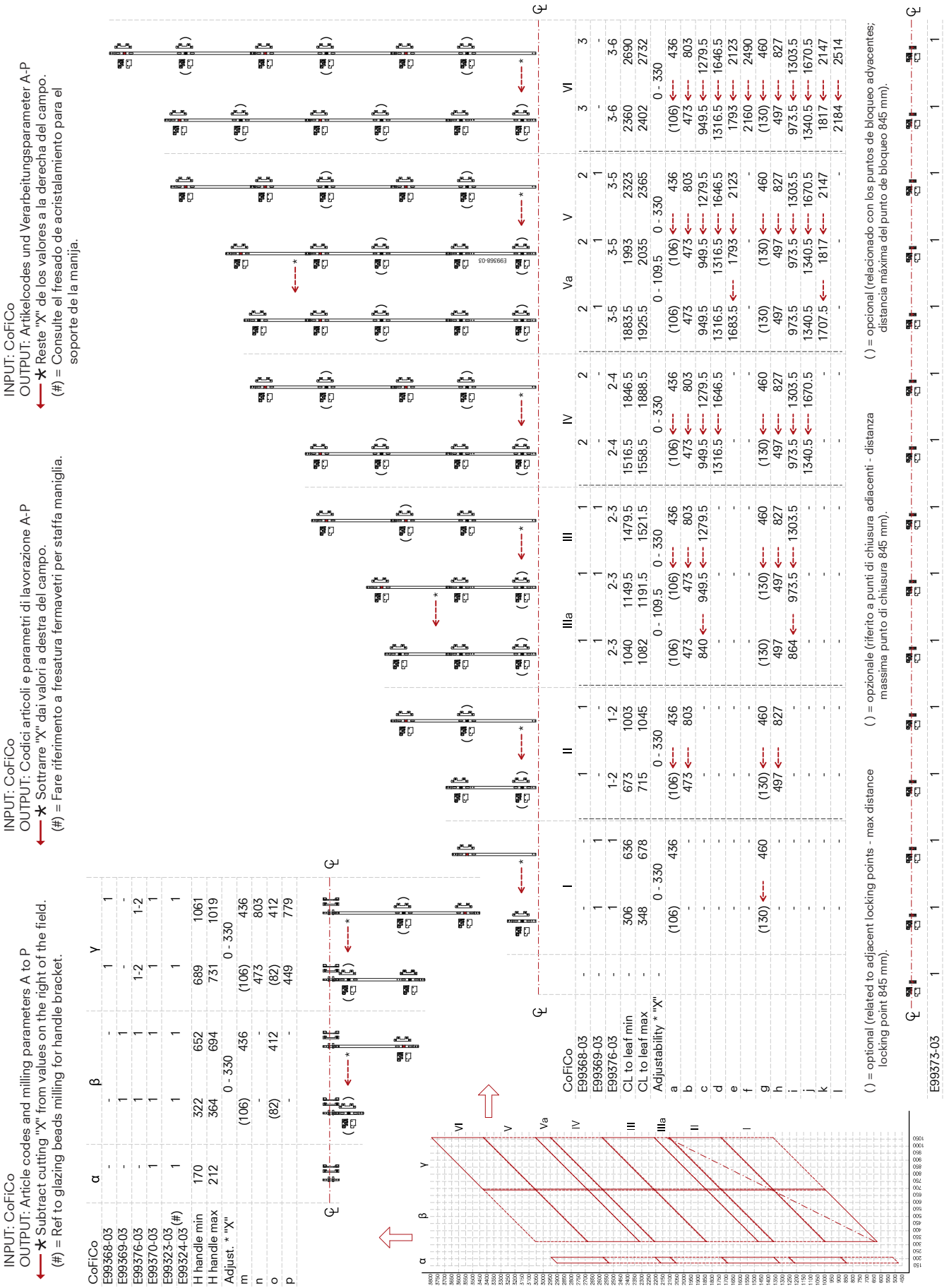
( ) = opcional (relacionado con los puntos de bloqueo adyacentes; distancia máxima del punto de bloqueo 845 mm).

CoFiCo	I	II	IIIa	III	IV	Va	V	VI
E99372-03	1	1	1	1	1	1	1	1

Multipoint configuration
Open out - Left opening

Multipoint configurazione
Apertura esterna - Apertura sinistra

Multipoint configuración
Que se abre hacia fuera - Apertura izquierda



CoFiCo	α	β	γ
E99368-03	-	-	1
E99369-03	-	1	-
E99376-03	-	1	1-2
E99370-03	1	1	1
E99323-03 (#)	1	1	1
E99324-03 (#)			
H handle min	170	322	689
H handle max	212	364	731
Adjust. * "X"		0 - 330	0 - 330
m		(106)	436
n		-	473
o		(82)	412
p		-	449

CoFiCo	I	II	IIIa	III	IV	Va	V	VI
E99368-03	-	-	1	1	2	2	2	3
E99369-03	-	1	1	1	-	1	1	-
E99376-03	-	1	2-3	2-3	2-4	3-5	3-5	3-6
CL to leaf min	-	306	636	1040	1149.5	1479.5	1516.5	1846.5	1883.5	1993	2323	2360	2690
CL to leaf max	-	348	678	1082	1191.5	1521.5	1558.5	1888.5	1925.5	2035	2365	2402	2732
Adjustability * "X"	-	0 - 330		0 - 330			0 - 330		0 - 109.5	0 - 330		0 - 330	
a		(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436	(106) 436
b		- 473	- 473	- 473	- 473	- 473	- 473	- 473	- 473	- 473	- 473	- 473	- 473
c		- -	- 840	- 949.5	- 949.5	- 949.5	- 949.5	- 949.5	- 949.5	- 949.5	- 949.5	- 949.5	- 949.5
d		- -	- -	- -	- 1316.5	- 1316.5	- 1316.5	- 1316.5	- 1683.5	- 1793	- 2123	- 1793	- 2123
e		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 2160	- 2490
f		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
g		(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460	(130) 460
h		- 497	- 497	- 497	- 497	- 497	- 497	- 497	- 497	- 497	- 497	- 497	- 497
i		- -	- 864	- 973.5	- 973.5	- 973.5	- 973.5	- 973.5	- 973.5	- 973.5	- 973.5	- 973.5	- 973.5
j		- -	- -	- -	- 1340.5	- 1340.5	- 1340.5	- 1340.5	- 1340.5	- 1340.5	- 1340.5	- 1340.5	- 1340.5
k		- -	- -	- -	- -	- -	- 1707.5	- 1817	- 1817	- 1817	- 2147	- 1817	- 2147
l		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 2184	- 2514

(106) = optional (related to adjacent locking points - max distance locking point 845 mm).

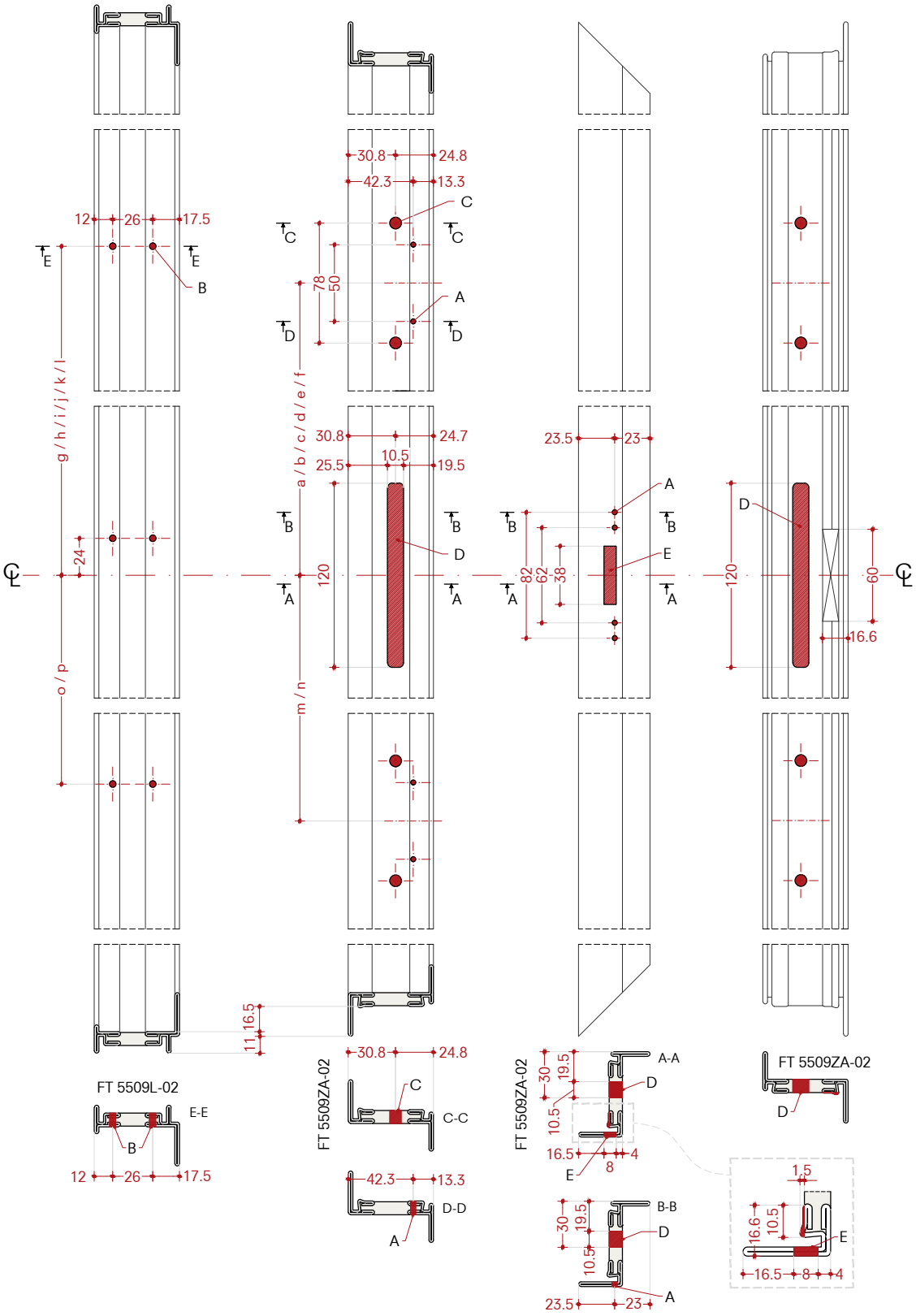
( ) = opzionale (riferito a punti di chiusura adiacenti - distanza massima punto di chiusura 845 mm).

( ) = opcional (relacionado con los puntos de bloqueo adyacentes; distancia máxima del punto de bloqueo 845 mm).

Multipoint steel rods installation, with Heritage
Single leaf window
Open in - Right opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra ad anta singola
Apertura interna - Apertura destra

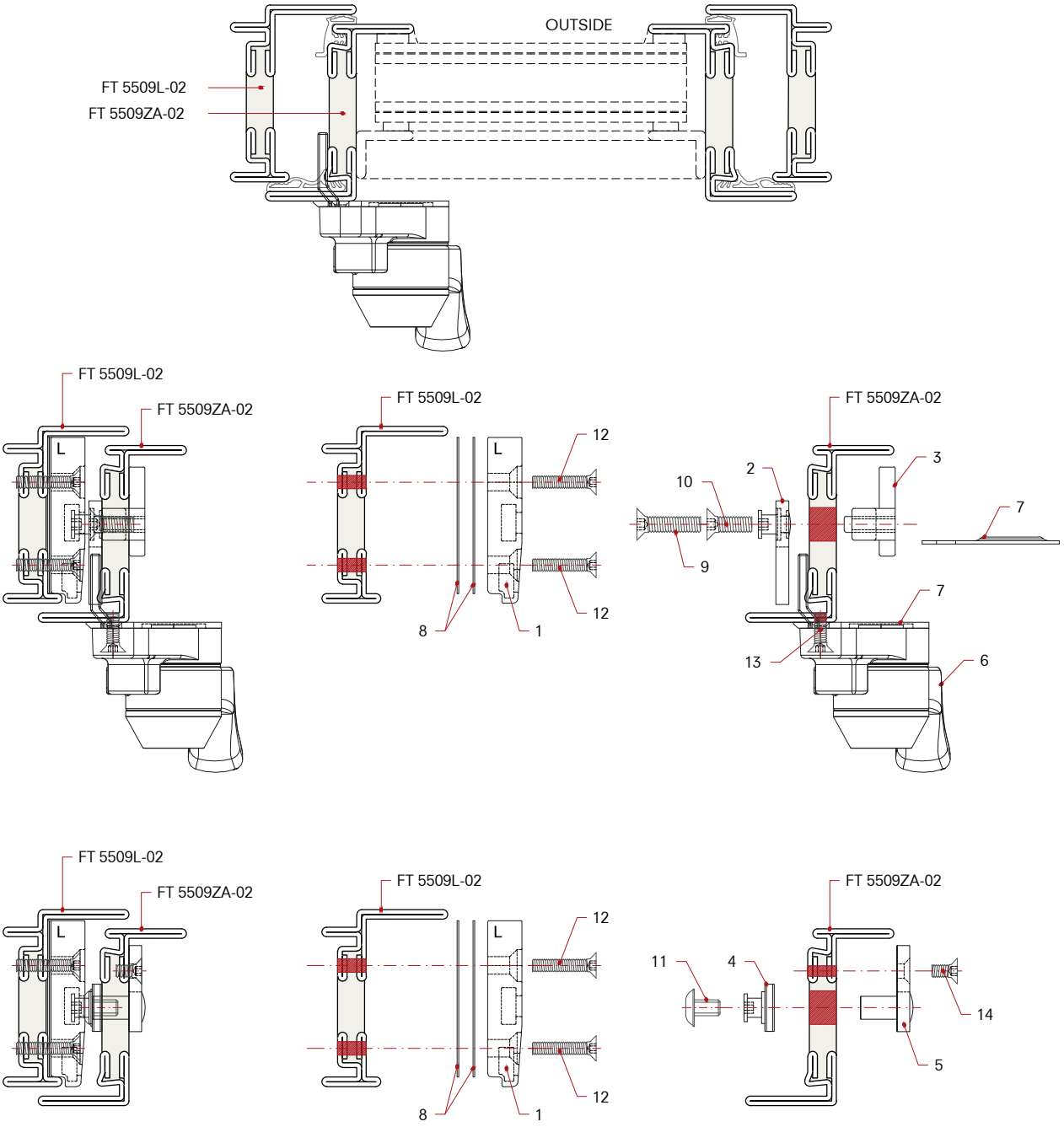
Montaje Multipoint varillas de acero, con Heritage
Ventana de una hoja
Que se abre hacia dentro - Apertura derecha



Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Cut out

Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fresatura

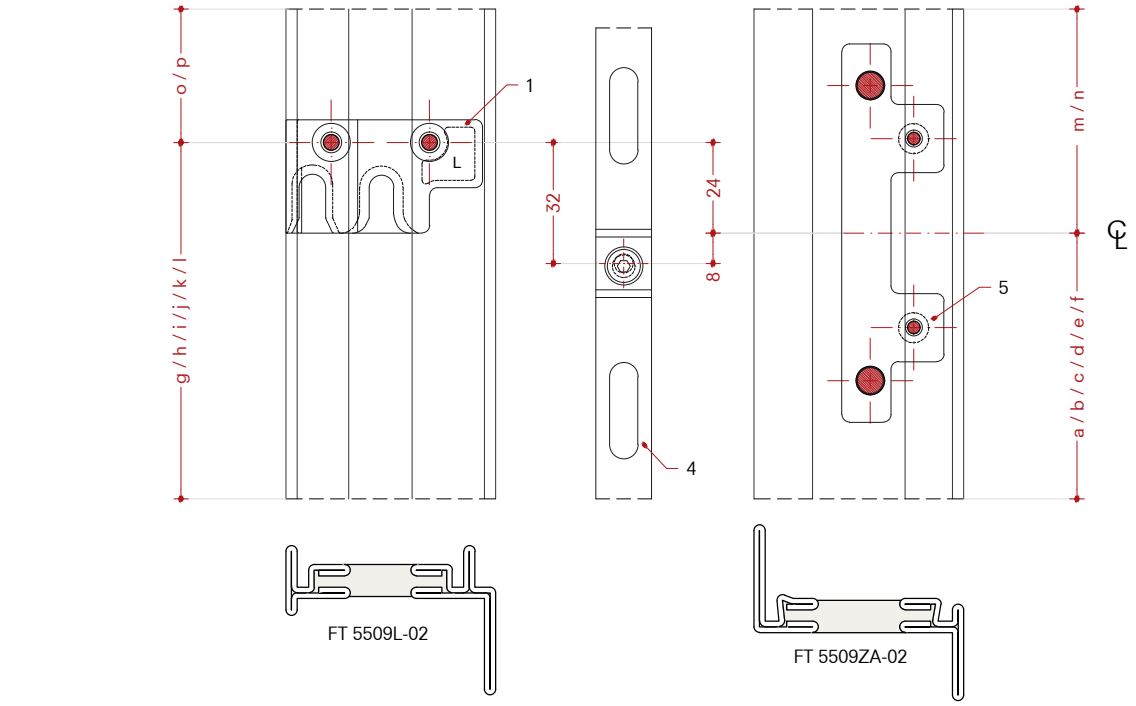
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Perfil de fresado

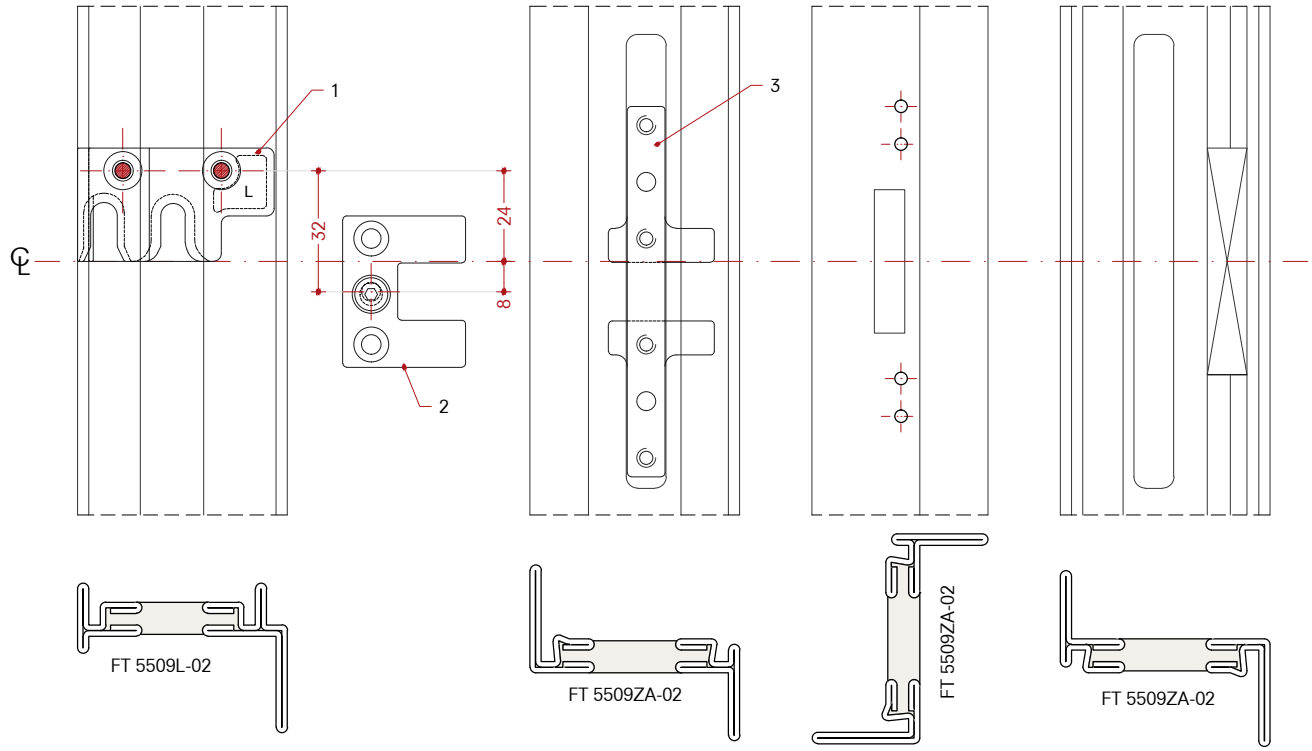


Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Connection E99344-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)

Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore E99344-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori E99342-03 (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izquierda)
2) Conector E99344-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores E99342-03 (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)





Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

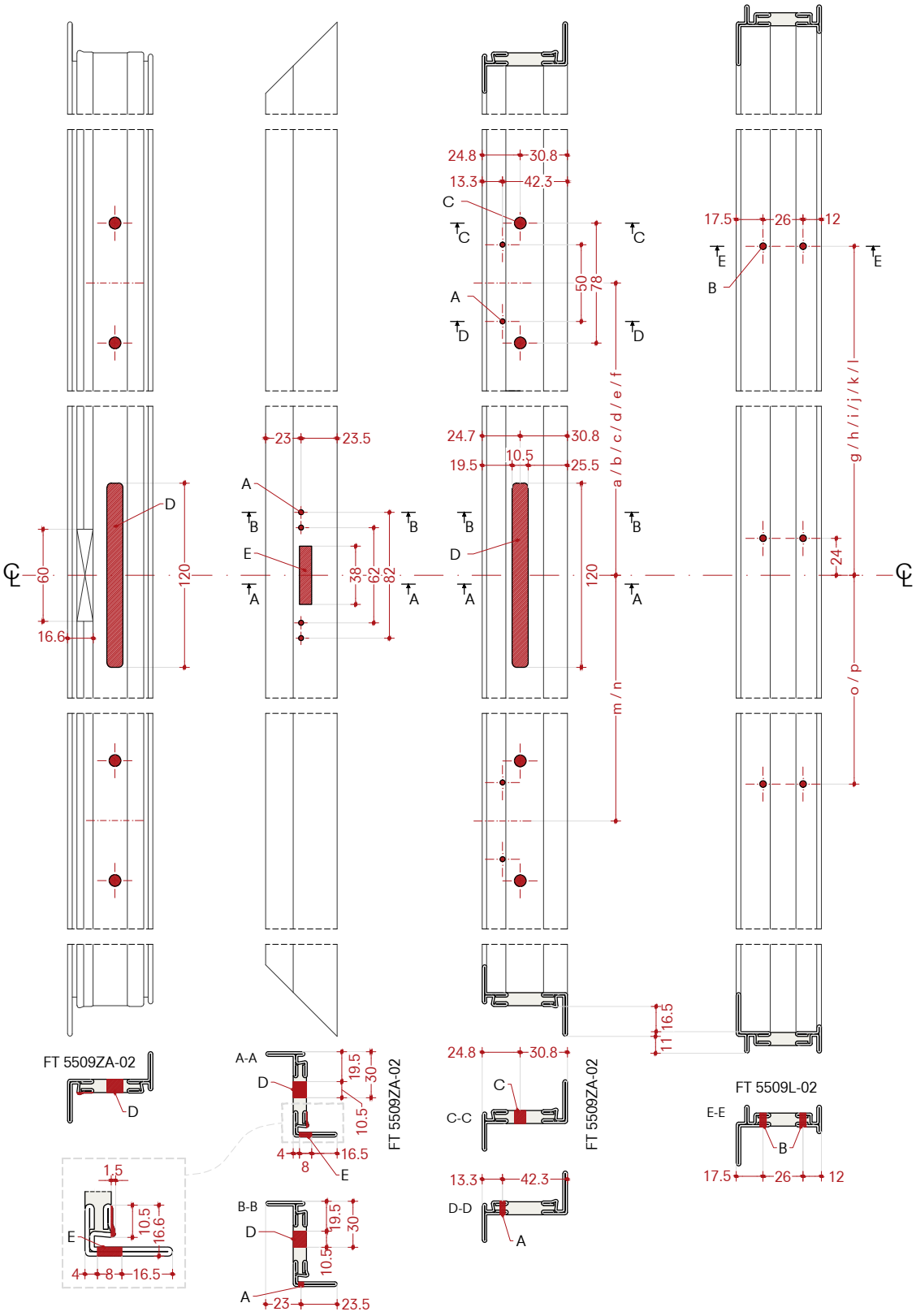
Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izquierda)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Single leaf window
Open in - Left opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra ad anta singola
Apertura interna - Apertura sinistra

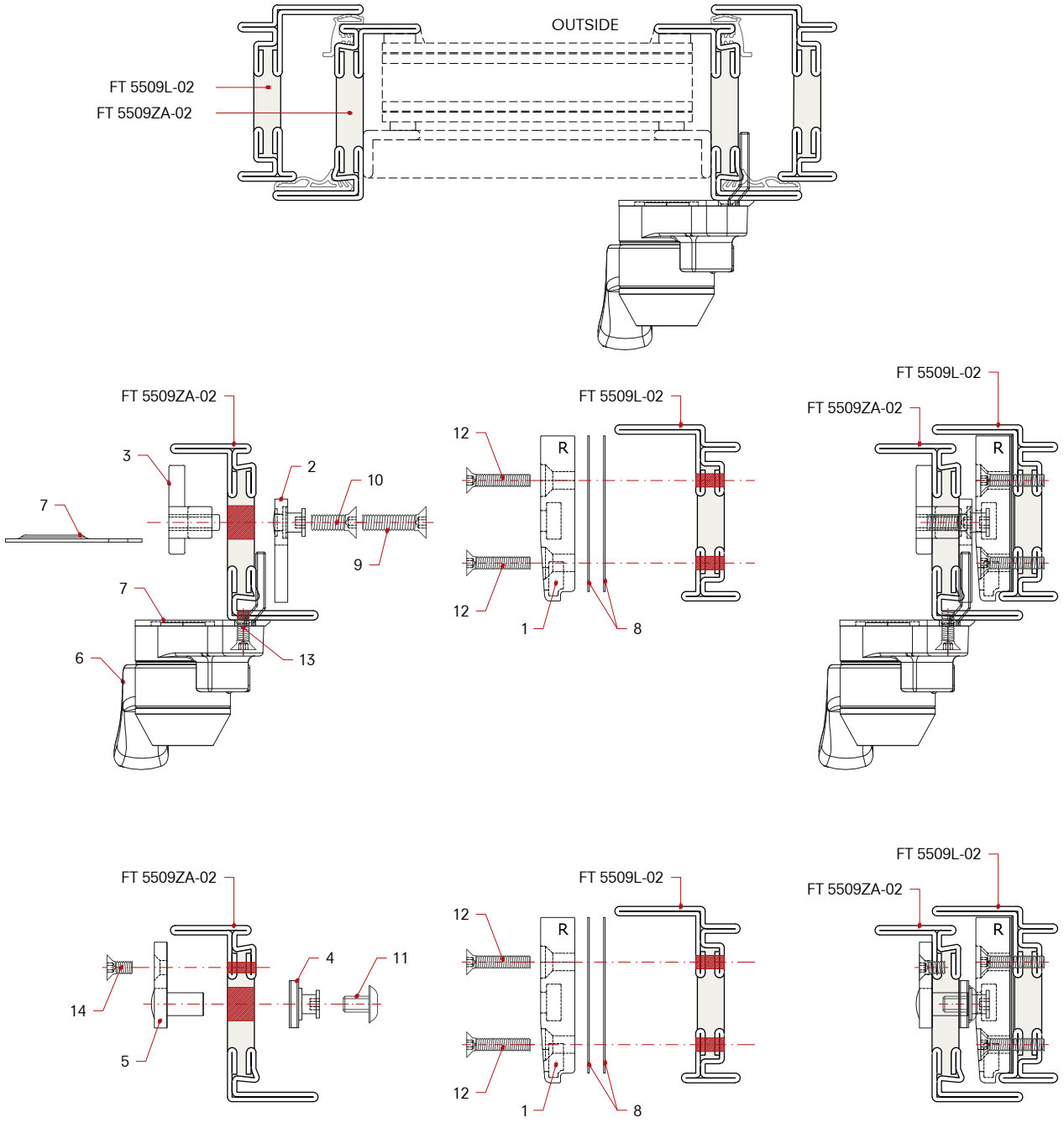
Montaje Multipoint varillas de acero, con Heritage
Ventana de una hoja
Que se abre hacia dentro - Apertura izquierda



Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Cut out

Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fresatura

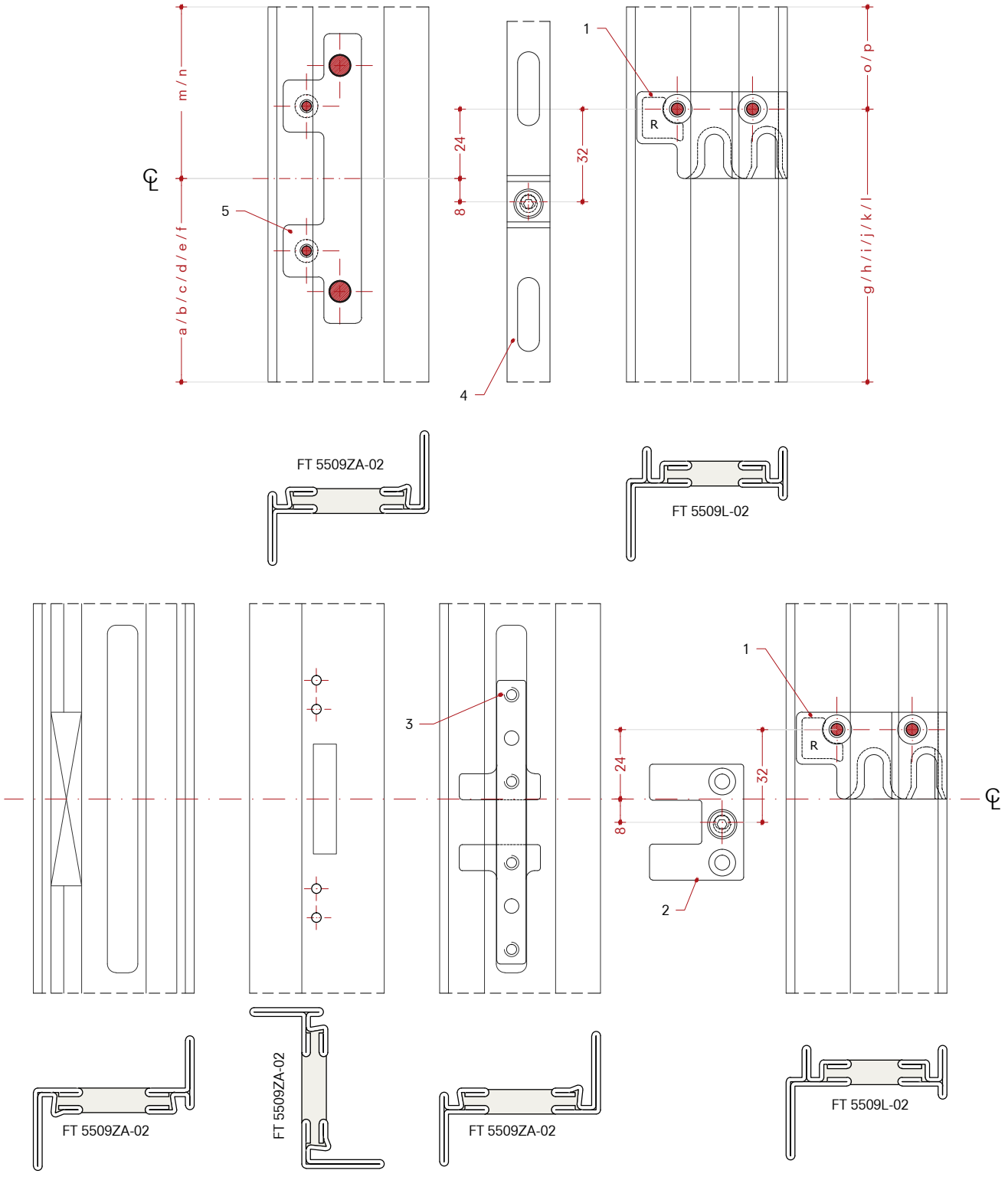
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Perfil de fresado



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Connection E99344-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)

Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore E99344-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector E99344-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

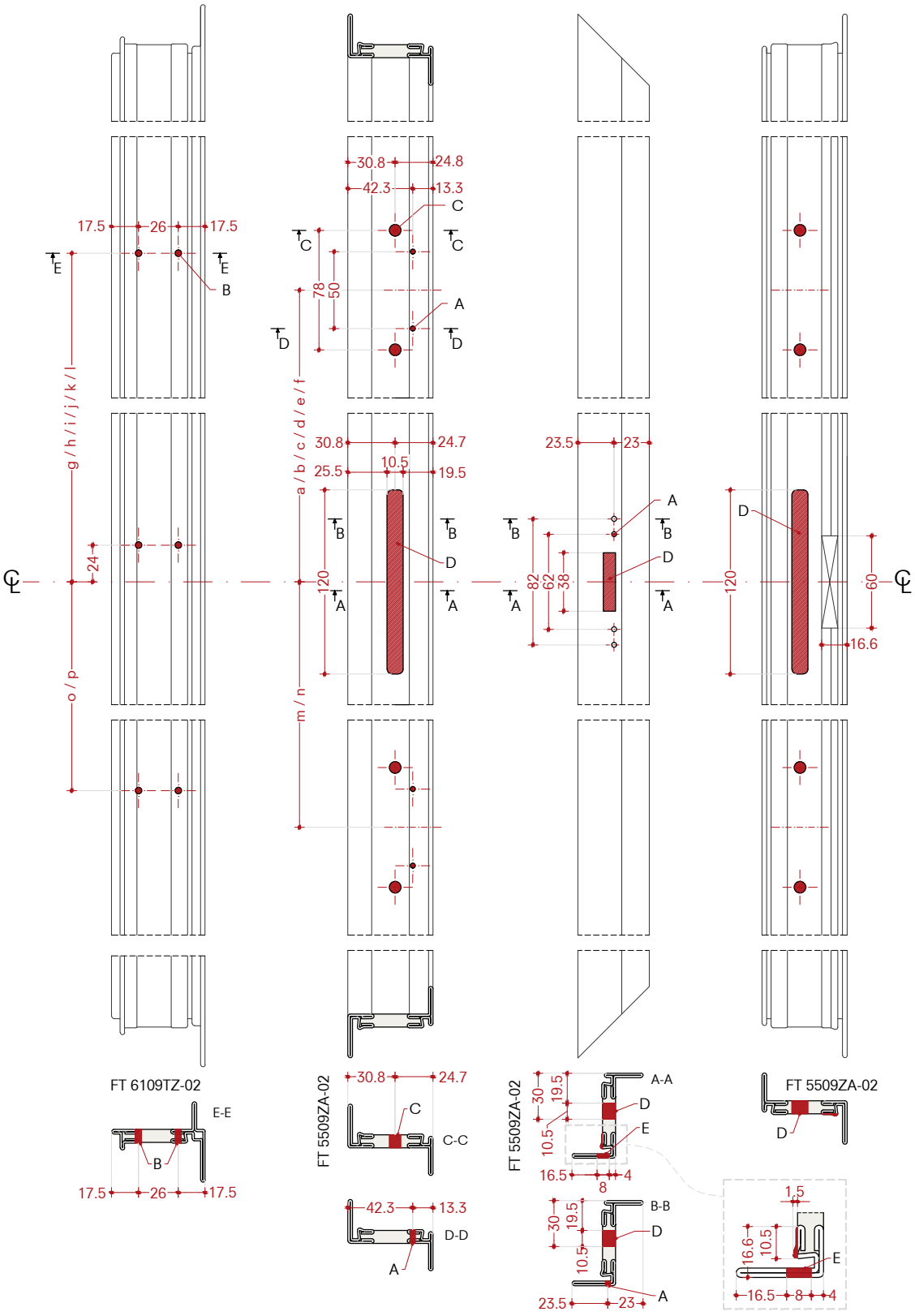
Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Double leaf window
Open in - Right opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra a due battenti
Apertura interna - Apertura destra

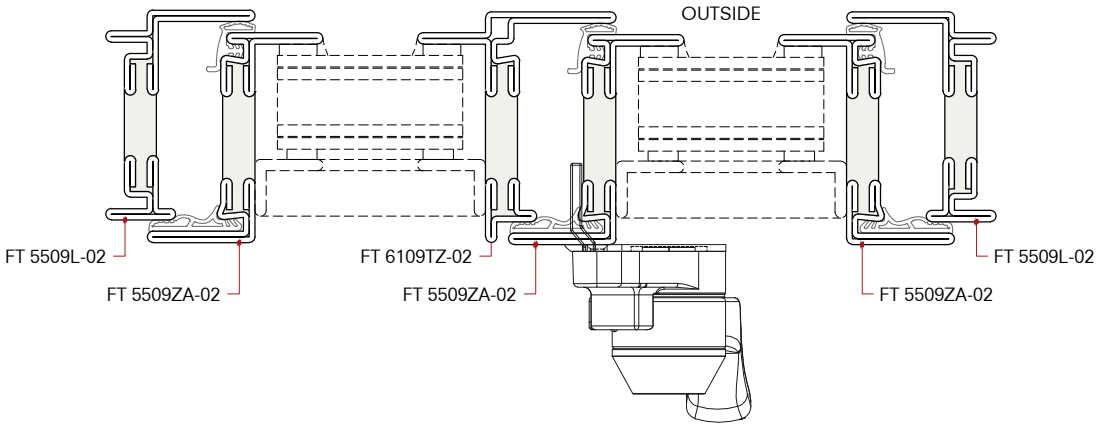
Montaje Multipoint varillas de acero, con Heritage
Ventana de dos hojas
Que se abre hacia dentro - Apertura derecha

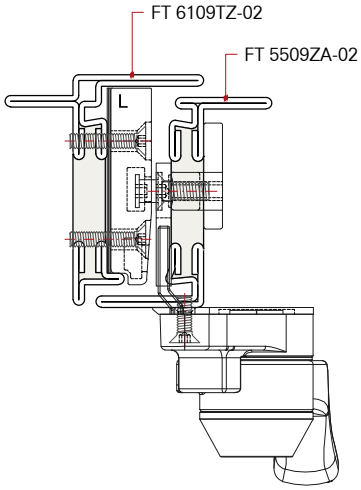


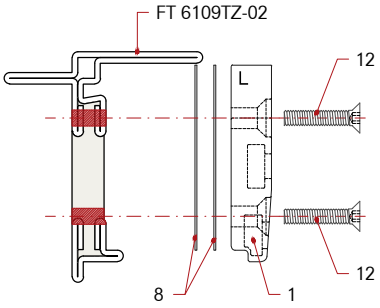
Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Cut out

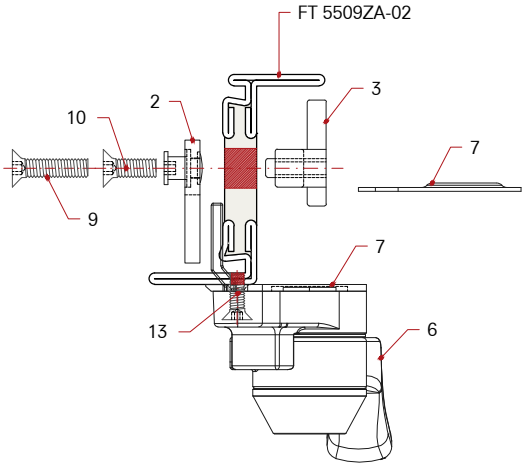
Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fresatura

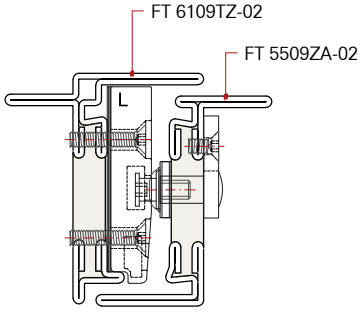
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Perfil de fresado

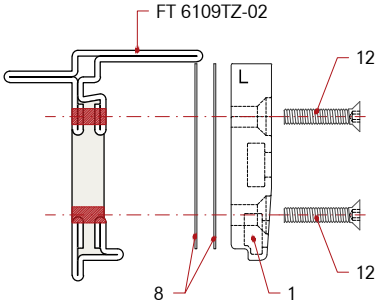


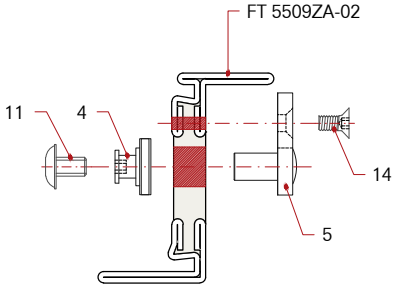








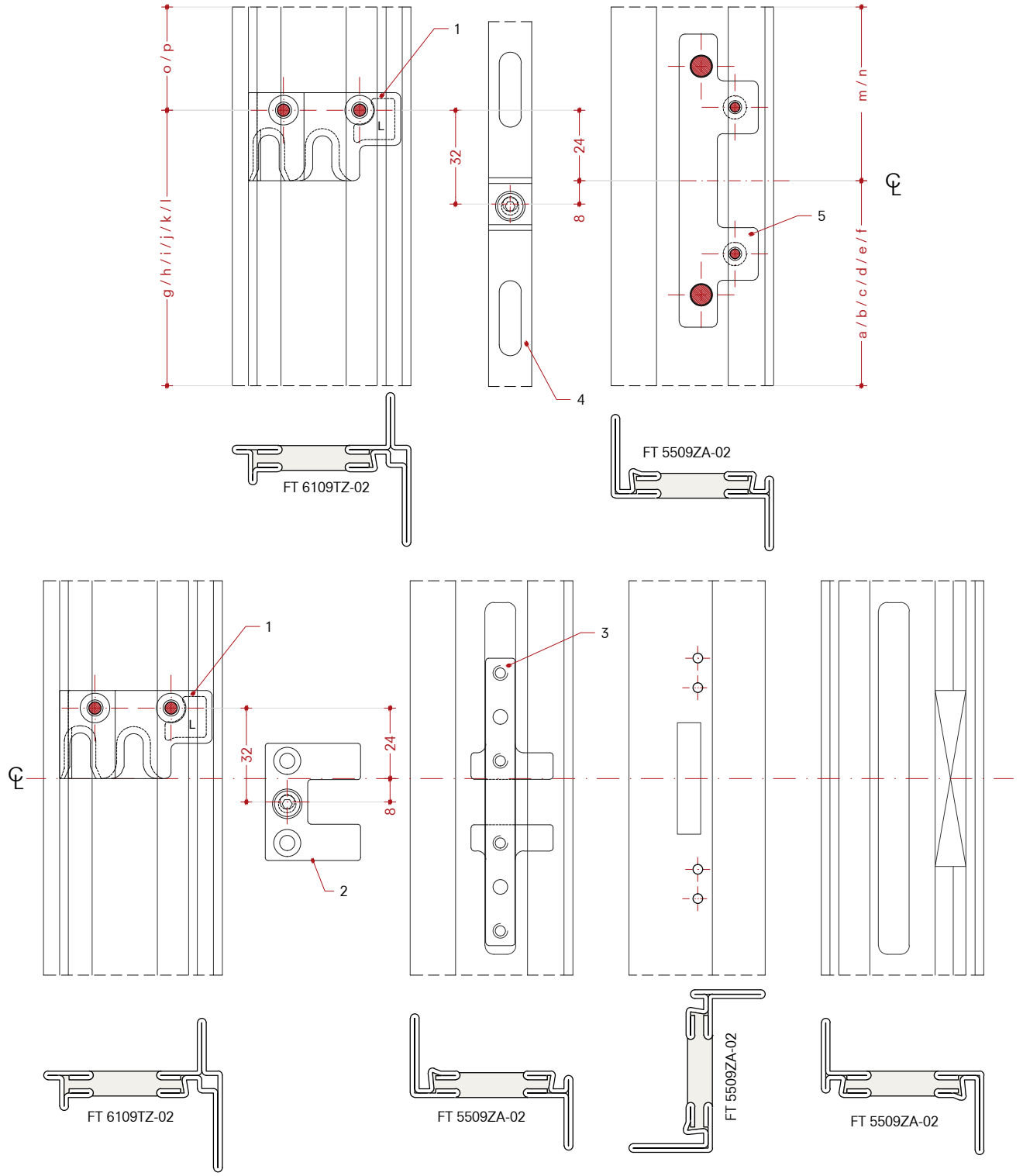




Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Connection E99344-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)

Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore E99344-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori E99342-03 (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izquierda)
2) Conector E99344-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores E99342-03 (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)



Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

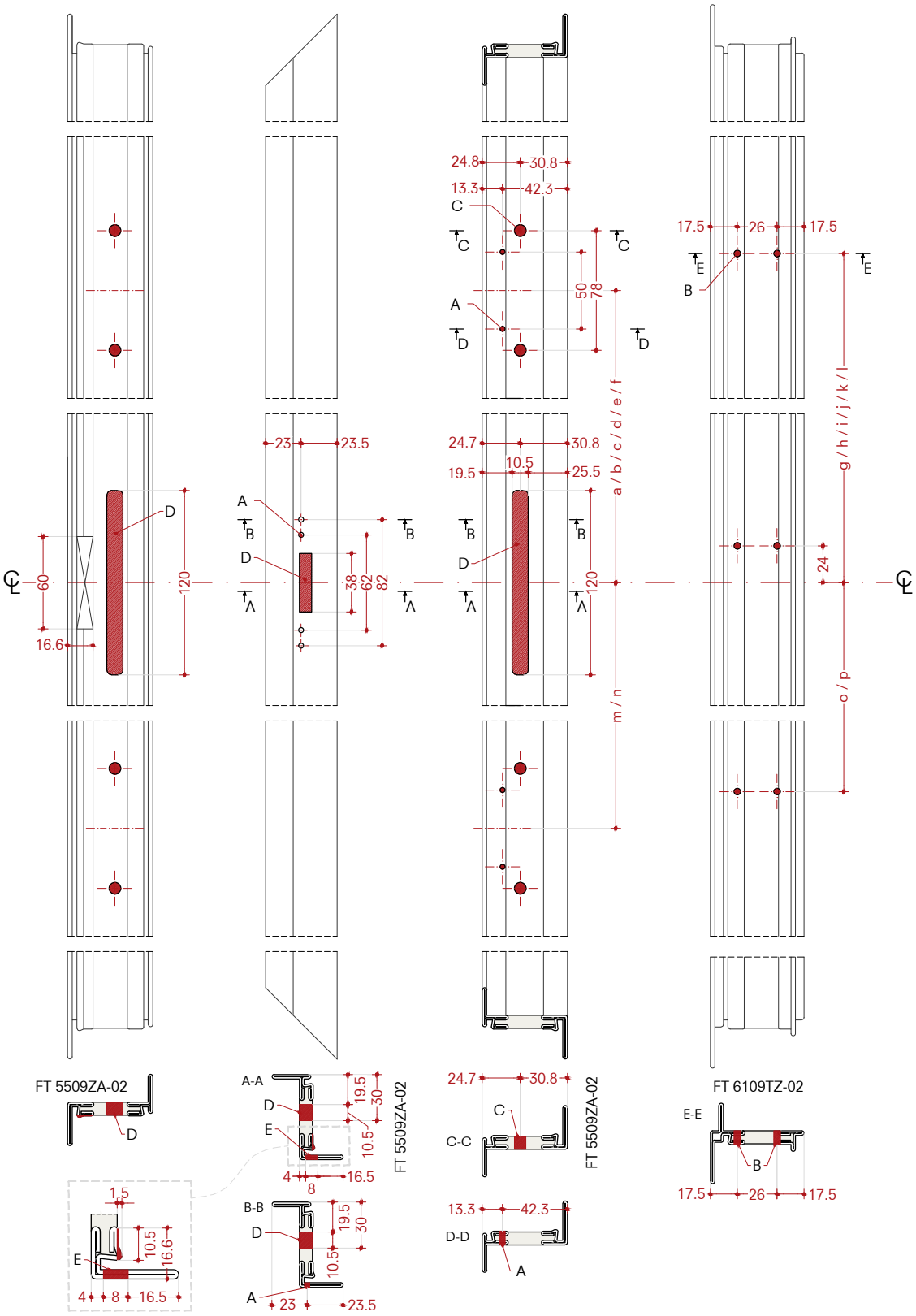
Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izquierda)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Double leaf window
Open in - Left opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra a due battenti
Apertura interna - Apertura sinistra

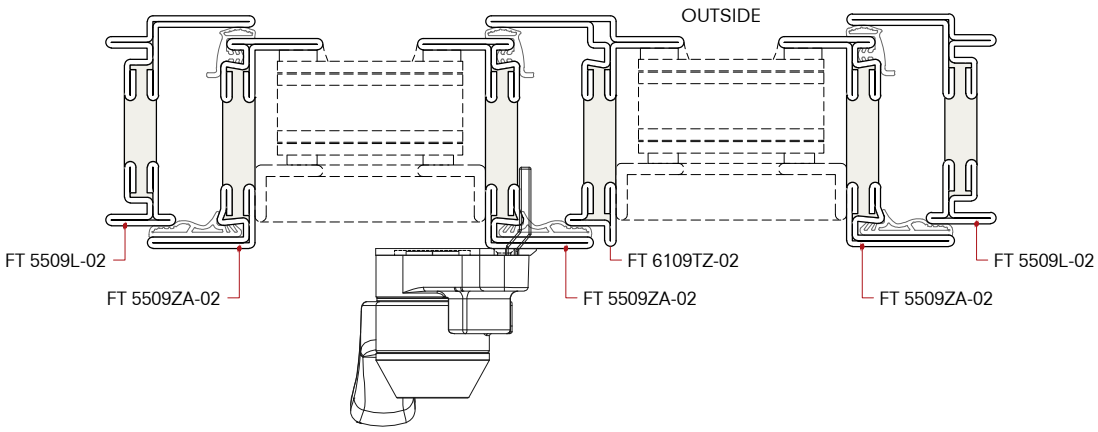
Montaje Multipoint varillas de acero, con Heritage
Ventana de dos hojas
Que se abre hacia dentro - Apertura izquierda

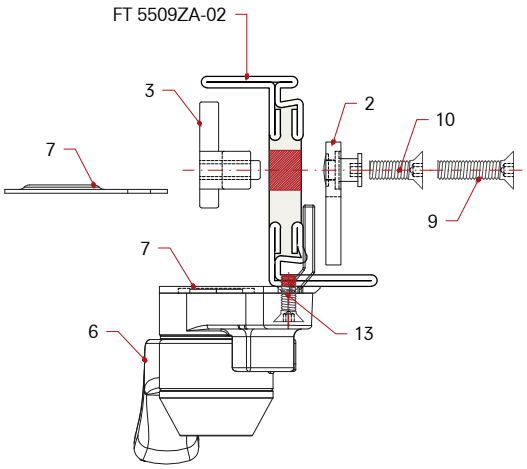


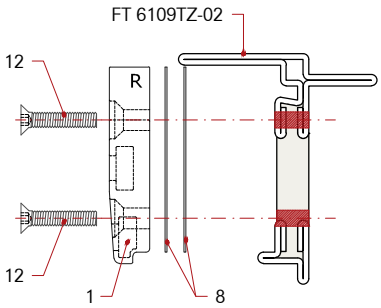
Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Cut out

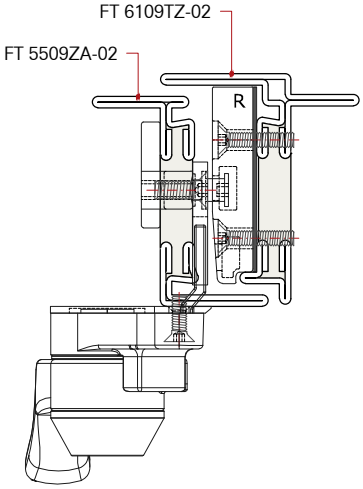
Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fresatura

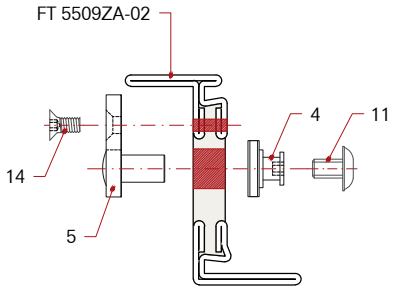
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Perfil de fresado

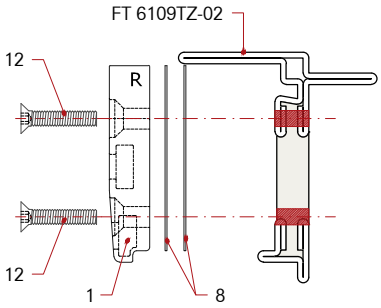


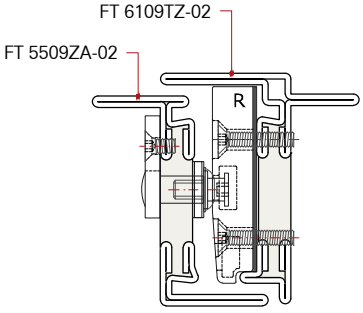








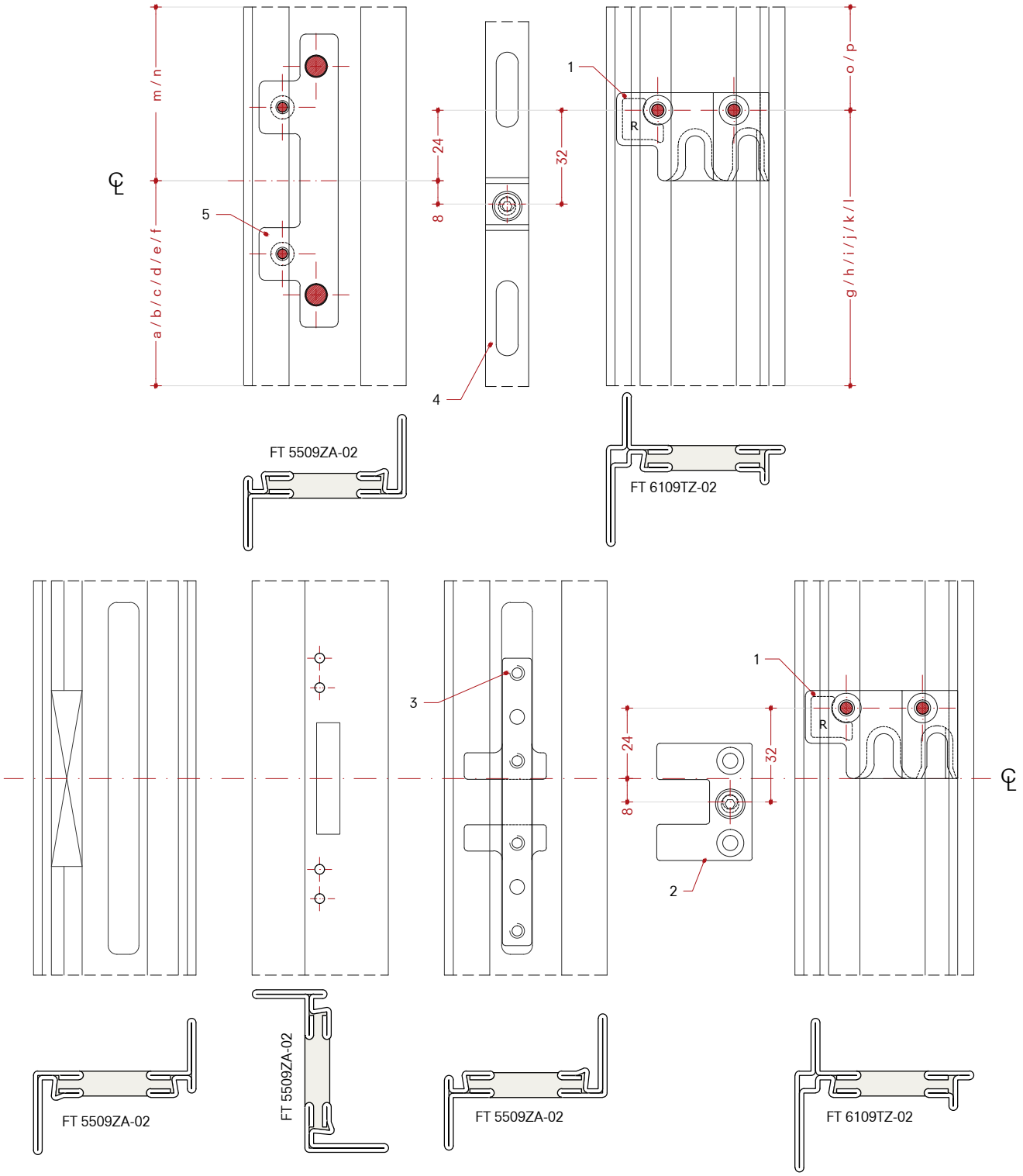




Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Connection E99344-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)

Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore E99344-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector E99344-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

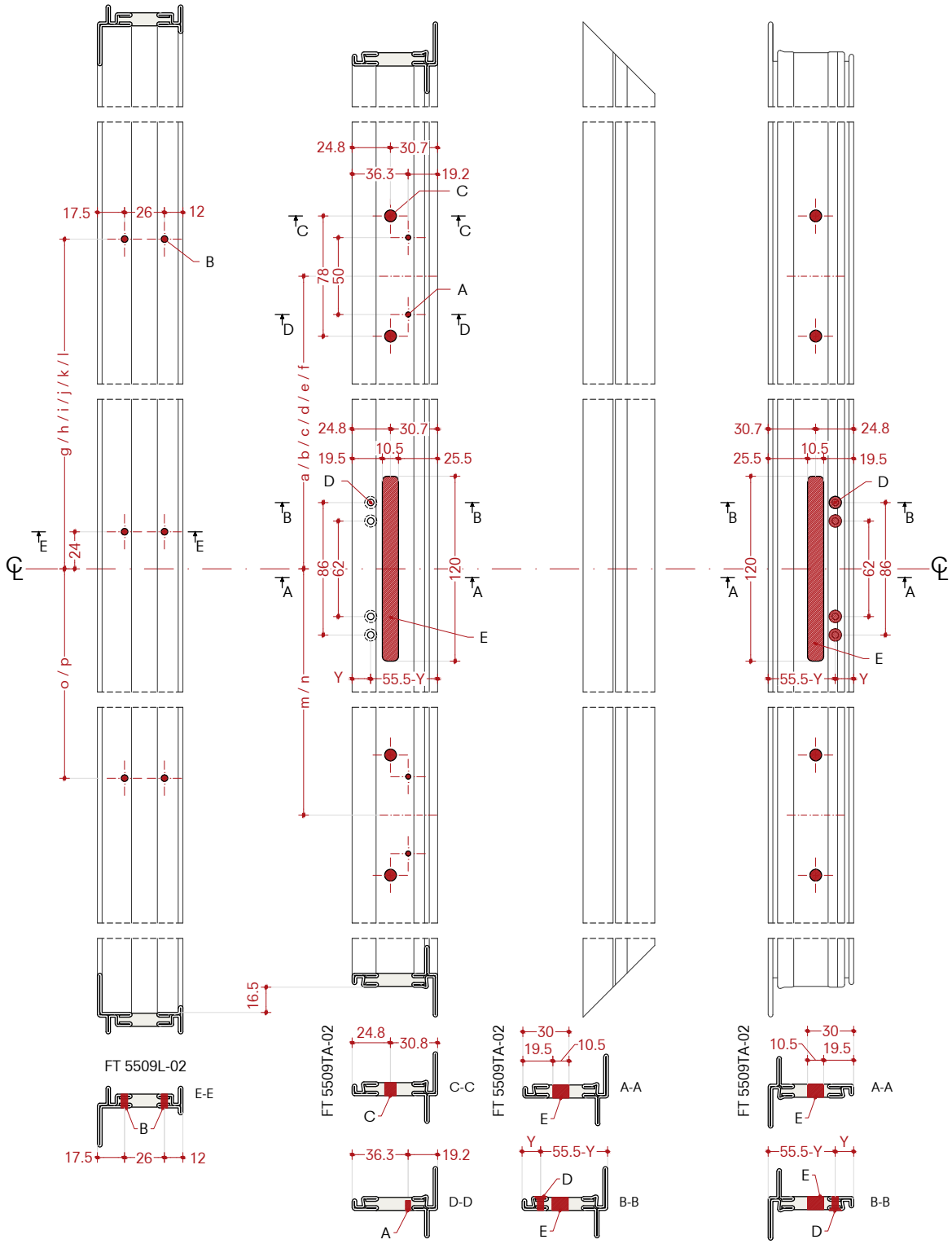
Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Single leaf window
Open out - Right opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra ad anta singola
Apertura esterna - Apertura destra

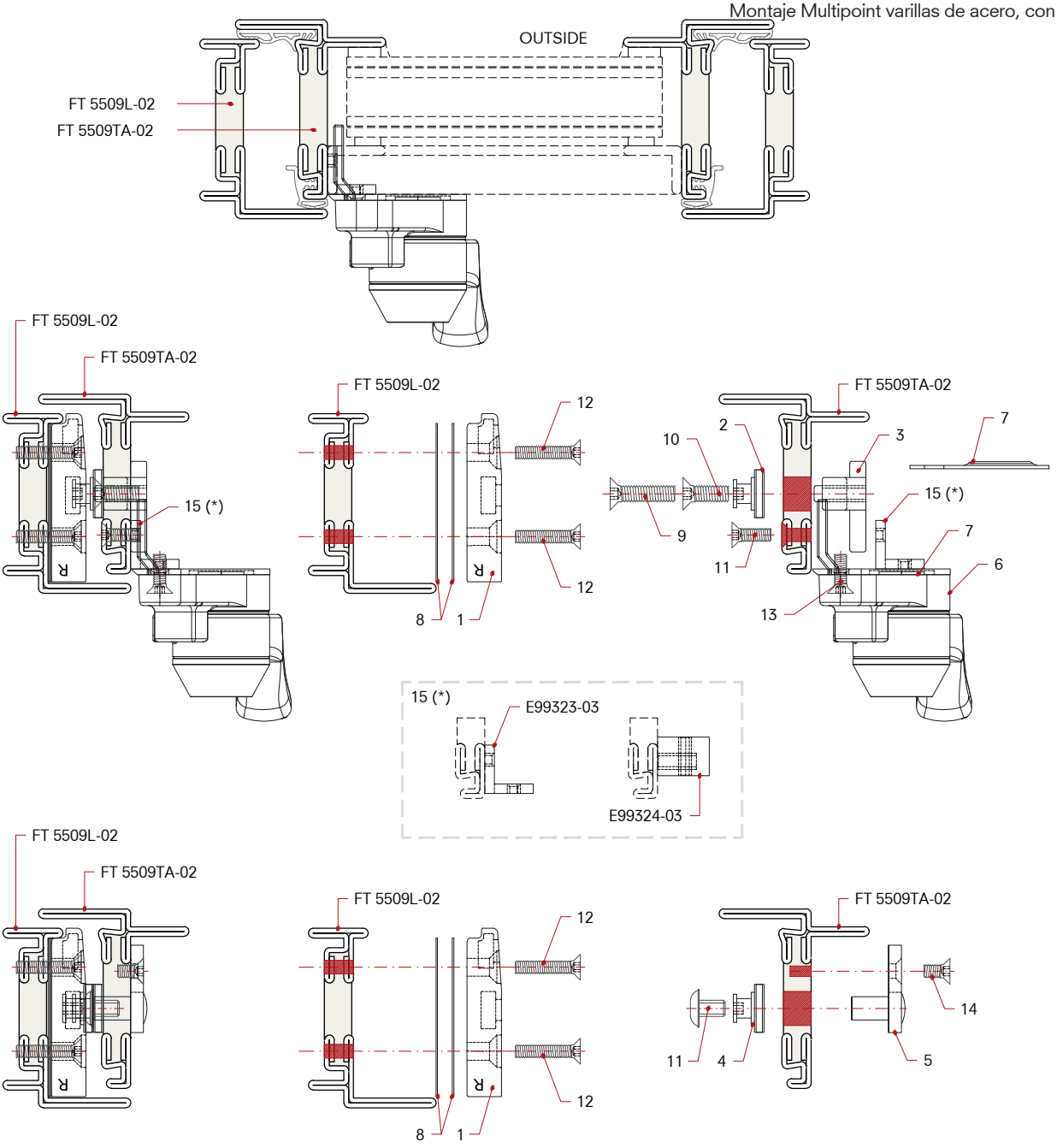
Montaje Multipoint varillas de acero, con Heritage
Ventana de una hoja
Que se abre hacia fuera - Apertura derecha



Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Ø4.2 mm countersunk holes
E) Cut out

Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fori svasati Ø4.2 mm
E) Fresatura

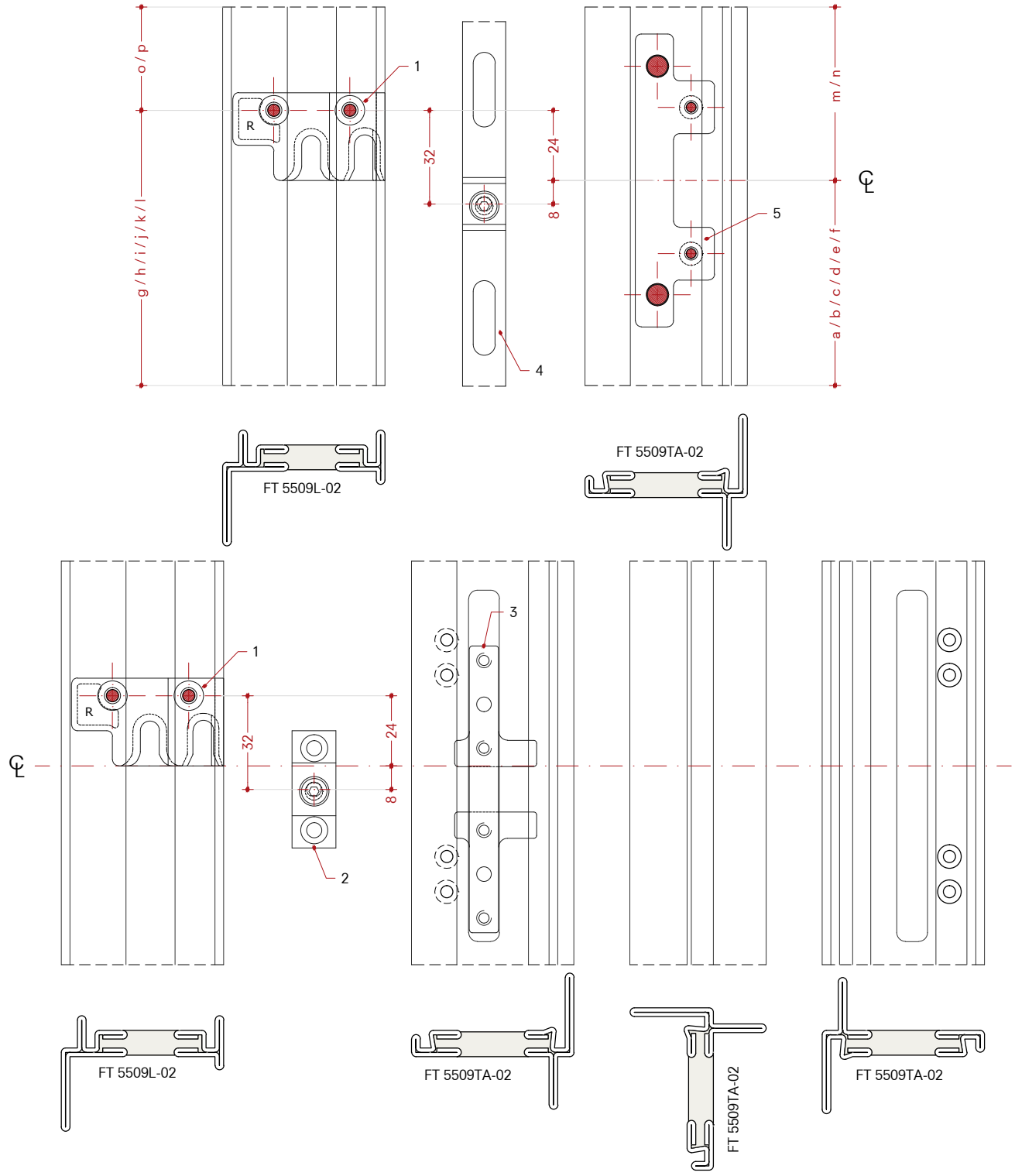
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Orificios avellanados Ø4.2 mm
E) Perfil de fresado



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Connection E99345-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)
15) Handle bracket - (*) check the open out glazing beads processing page for the choice of the handle bracket.

Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore E99345-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
15) Staffa maniglia - (*) controllare la pagina delle lavorazioni dei fermavetri, apertura esterna, per la scelta della staffa maniglia.

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector E99345-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
15) Soporte de manija - (*) verifique la mesa de procesamiento de junquillos, apertura hacia fuera, para elegir el soporte del mango.



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

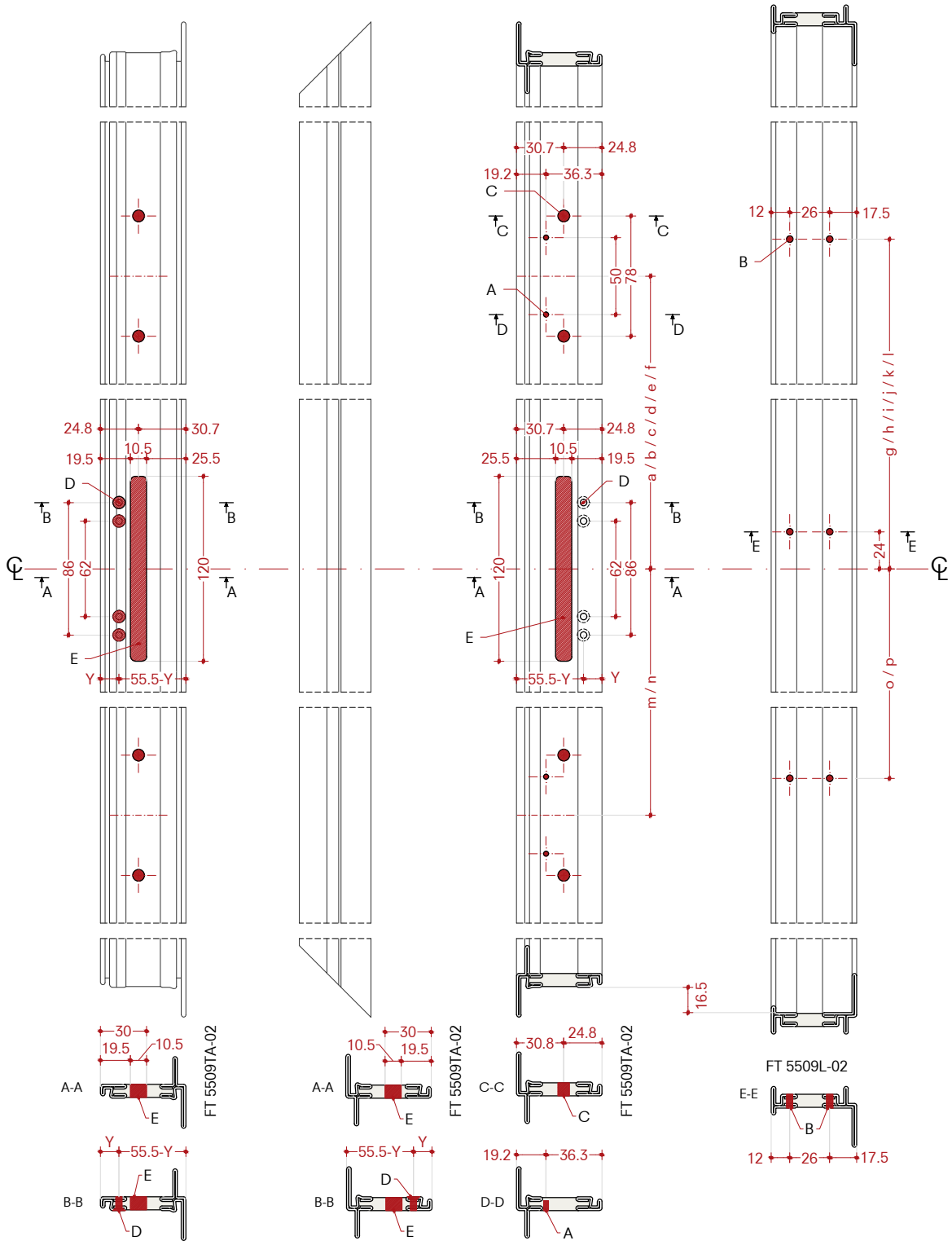
Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Single leaf window
Open out - Left opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra ad anta singola
Apertura esterna - Apertura sinistra

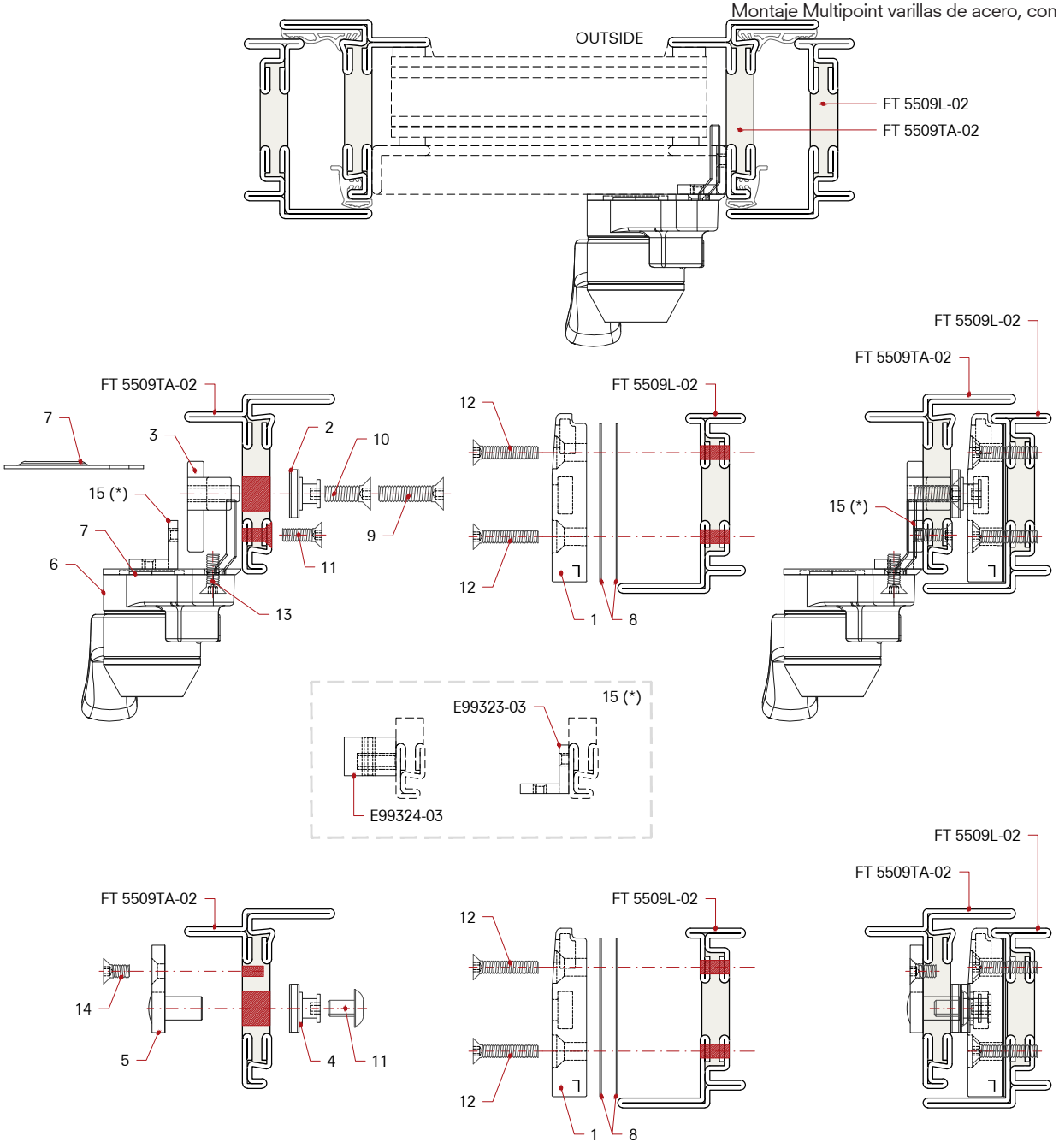
Montaje Multipoint varillas de acero, con Heritage
Ventana de una hoja
Que se abre hacia fuera - Apertura izquierda



Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Ø4.2 mm countersunk holes
E) Cut out

Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fori svasati Ø4.2 mm
E) Fresatura

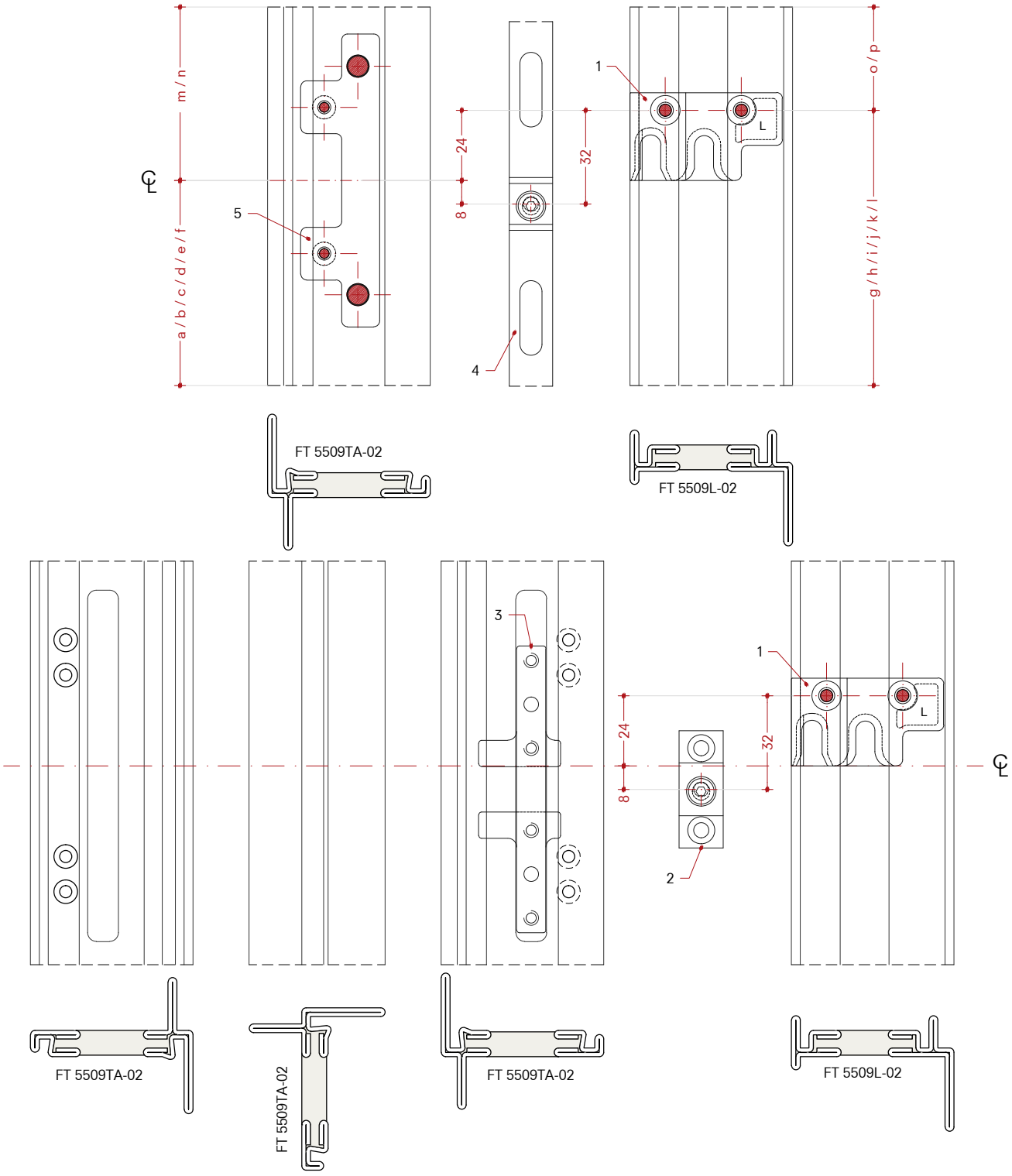
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Orificios avellanados Ø4.2 mm
E) Perfil de fresado



Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Connection E99345-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)
15) Handle bracket - (*) check the open out glazing beads processing page for the choice of the handle bracket.

Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore E99345-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
15) Staffa maniglia - (*) controllare la pagina delle lavorazioni dei fermavetri, apertura esterna, per la scelta della staffa maniglia.

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izuierda)
2) Conector E99345-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
15) Soporte de manija - (*) verifique la mesa de procesamiento de junquillos, apertura hacia fuera, para elegir el soporte del mango.



Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

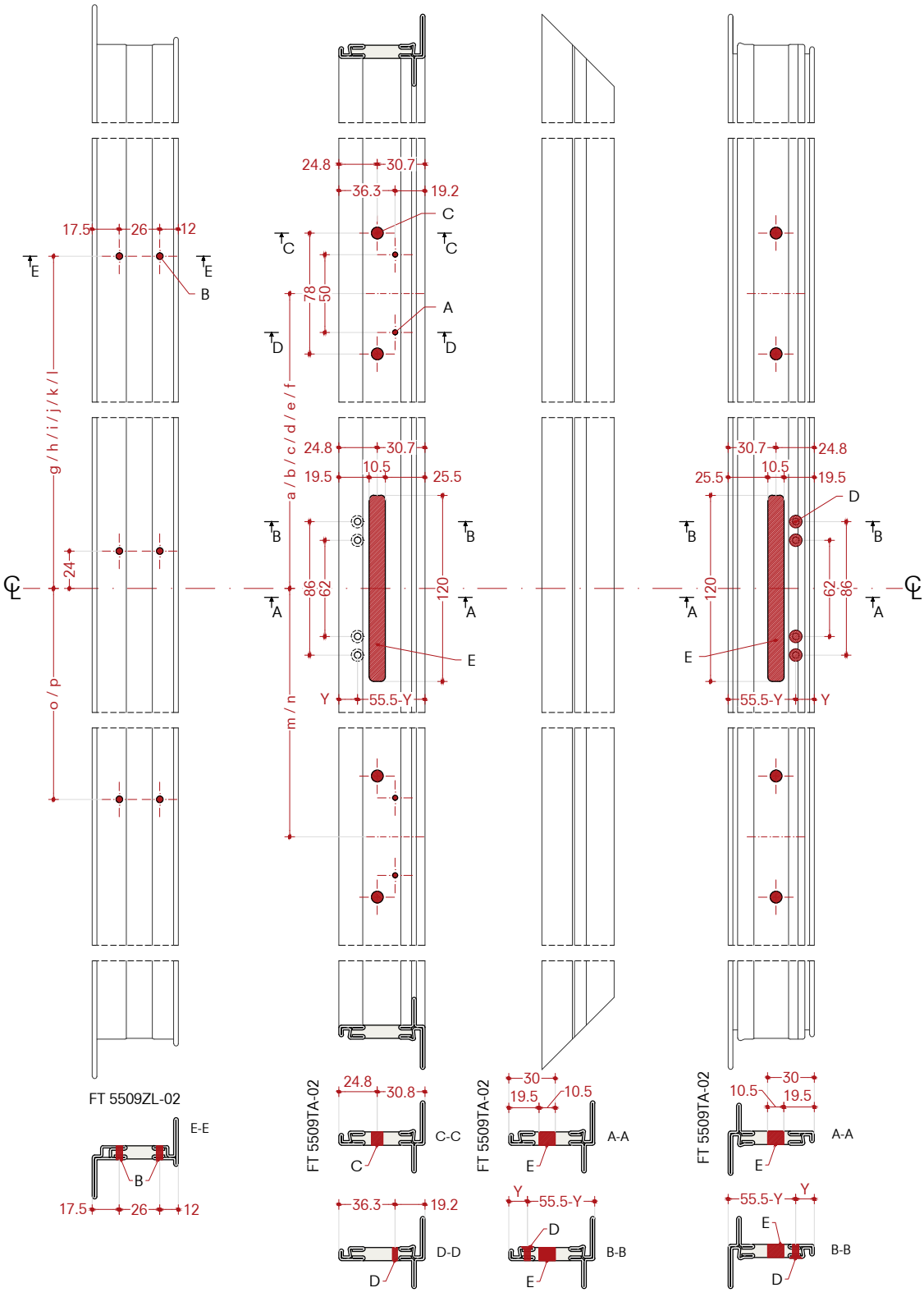
Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izquierda)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Double leaf window
Open out - Right opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra a due battenti
Apertura esterna - Apertura destra

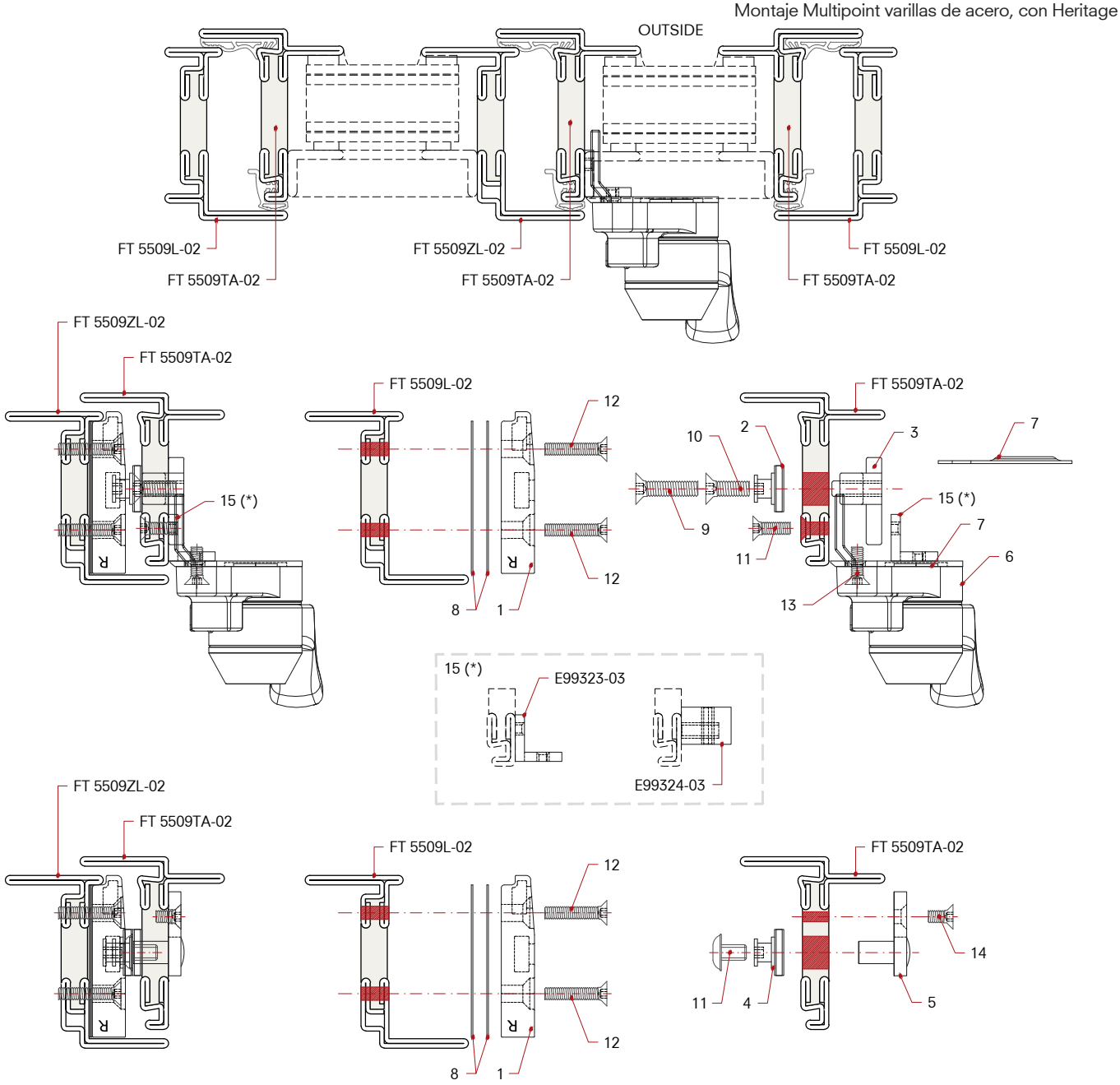
Montaje Multipoint varillas de acero, con Heritage
Ventana de dos hojas
Que se abre hacia fuera - Apertura derecha



Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Ø4.2 mm countersunk holes
E) Cut out

Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fori svasati Ø4.2 mm
E) Fresatura

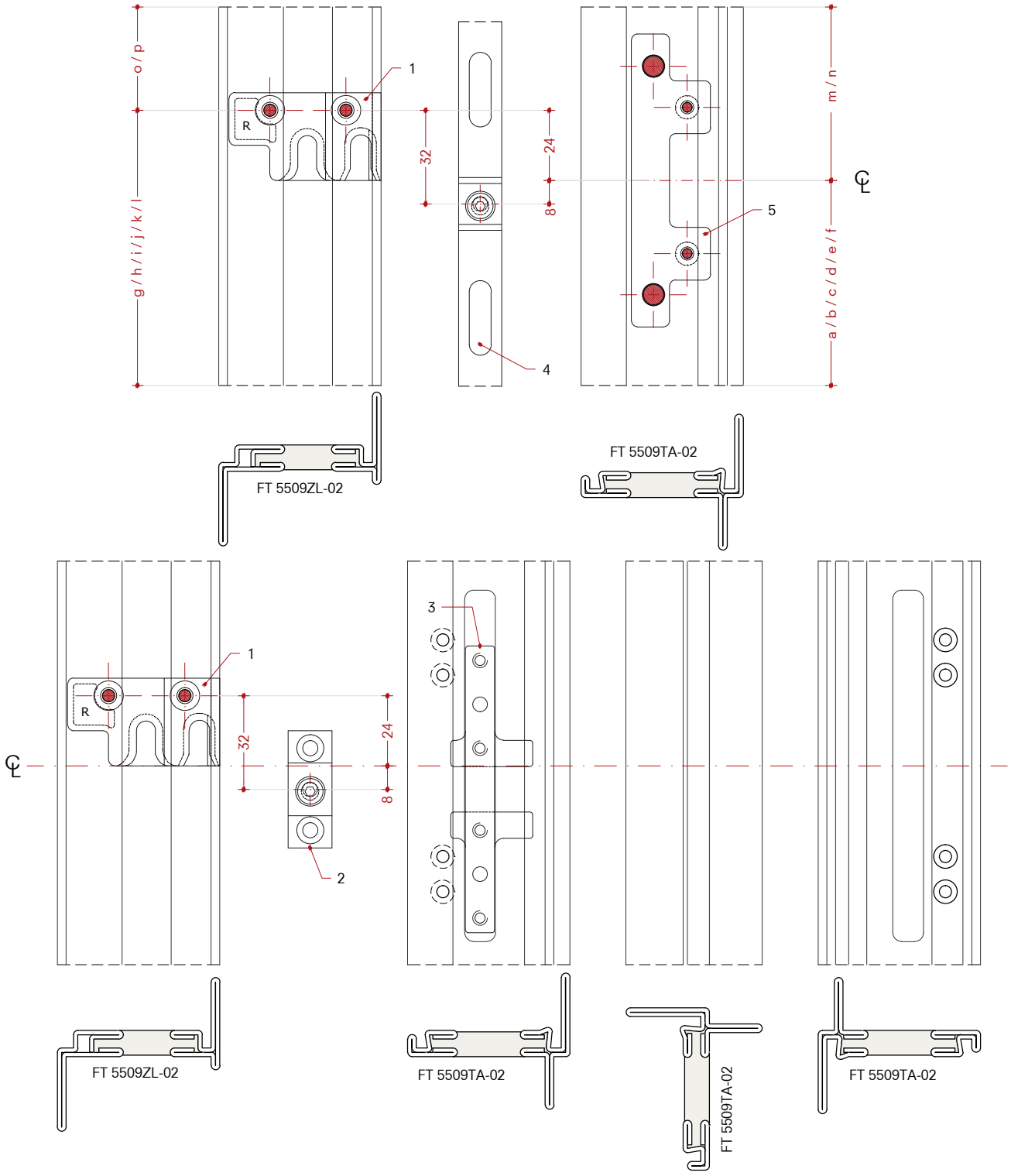
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Orificios avellanados Ø4.2 mm
E) Perfil de fresado



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Connection E99345-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)
15) Handle bracket - (*) check the open out glazing beads processing page for the choice of the handle bracket.

Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore E99345-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
15) Staffa maniglia - (*) controllare la pagina delle lavorazioni dei fermavetri, apertura esterna, per la scelta della staffa maniglia.

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector E99345-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
15) Soporte de manija - (*) verifique la mesa de procesamiento de junquillos, apertura hacia fuera, para elegir el soporte del mango.



Scale 1:2
1) Strike plate E99340-11 (right opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

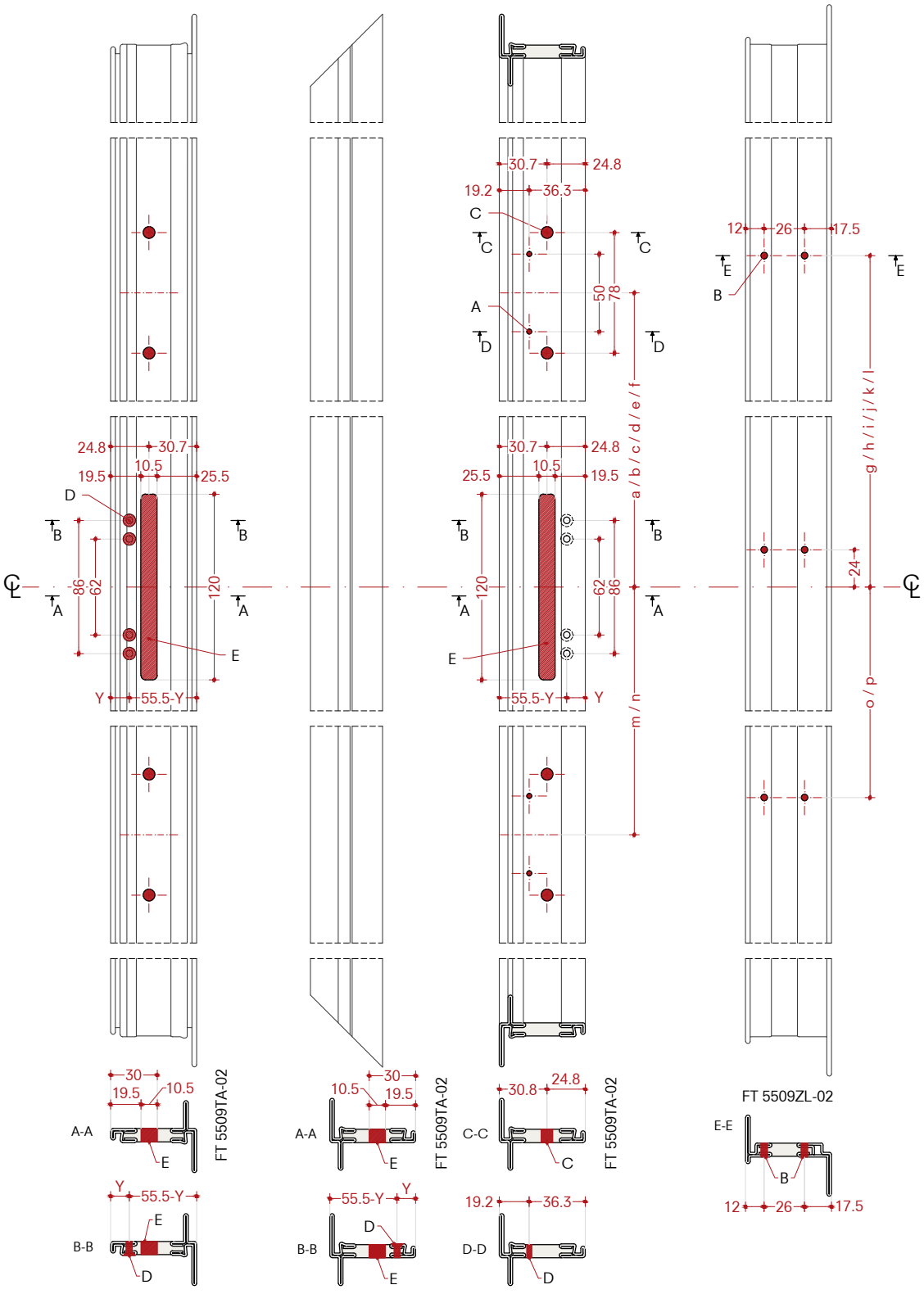
Scala 1:2
1) Riscontro E99340-11 (apertura destra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99340-11 (apertura derecha)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Multipoint steel rods installation, with Heritage
Double leaf window
Open out - Left opening

Montaggio Multipoint aste in acciaio, con Heritage
Finestra a due battenti
Apertura esterna - Apertura sinistra

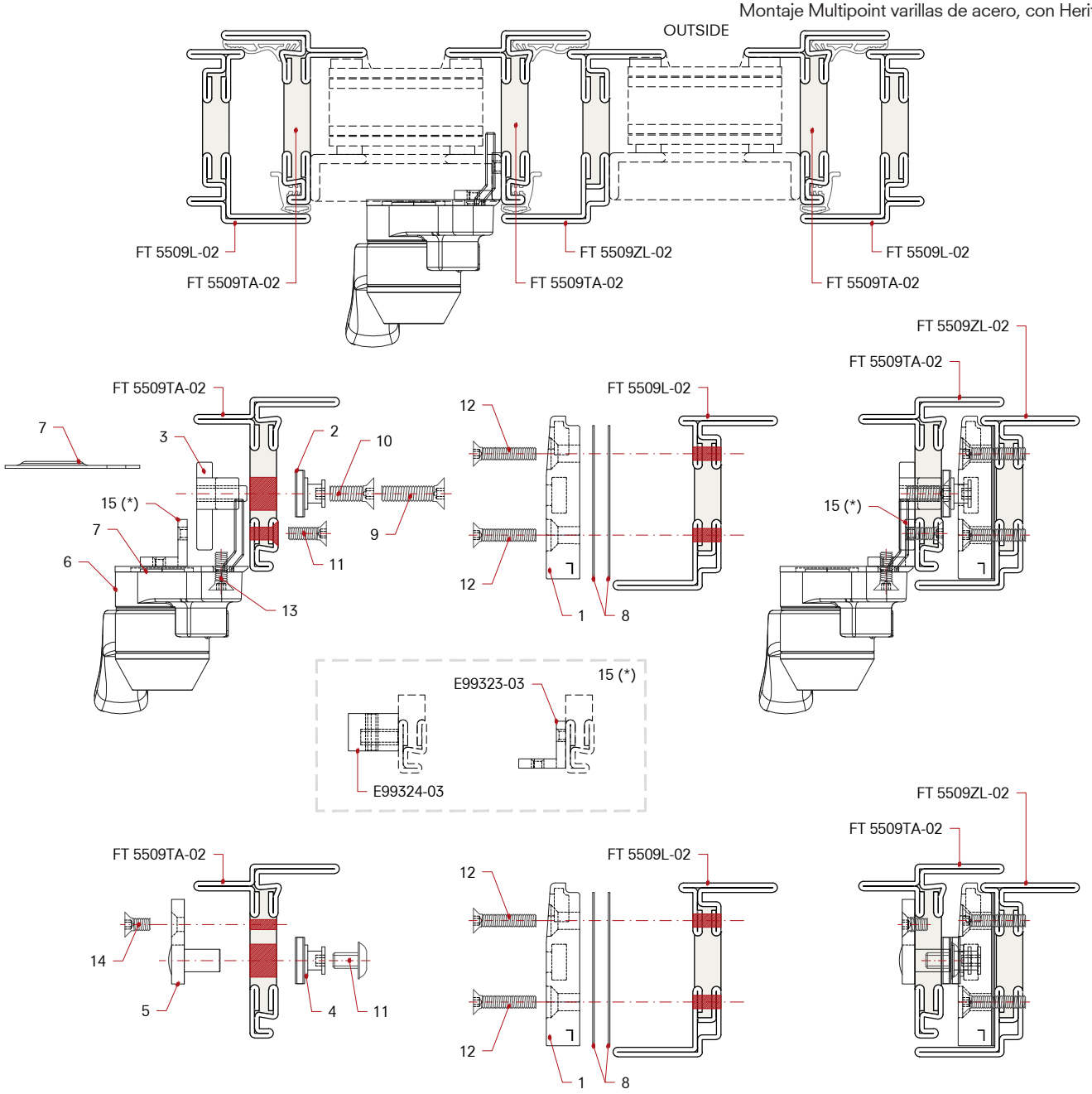
Montaje Multipoint varillas de acero, con Heritage
Ventana de dos hojas
Que se abre hacia fuera - Apertura izquierda



Scale 1:4
A) Ø3.3 mm threaded M4 holes
B) Ø4.2 mm threaded M5 holes
C) Ø7.5 mm holes
D) Ø4.2 mm countersunk holes
E) Cut out

Scala 1:4
A) Fori Ø3.3 mm filettati M4
B) Fori Ø4.2 mm filettati M5
C) Fori Ø7.5 mm
D) Fori svasati Ø4.2 mm
E) Fresatura

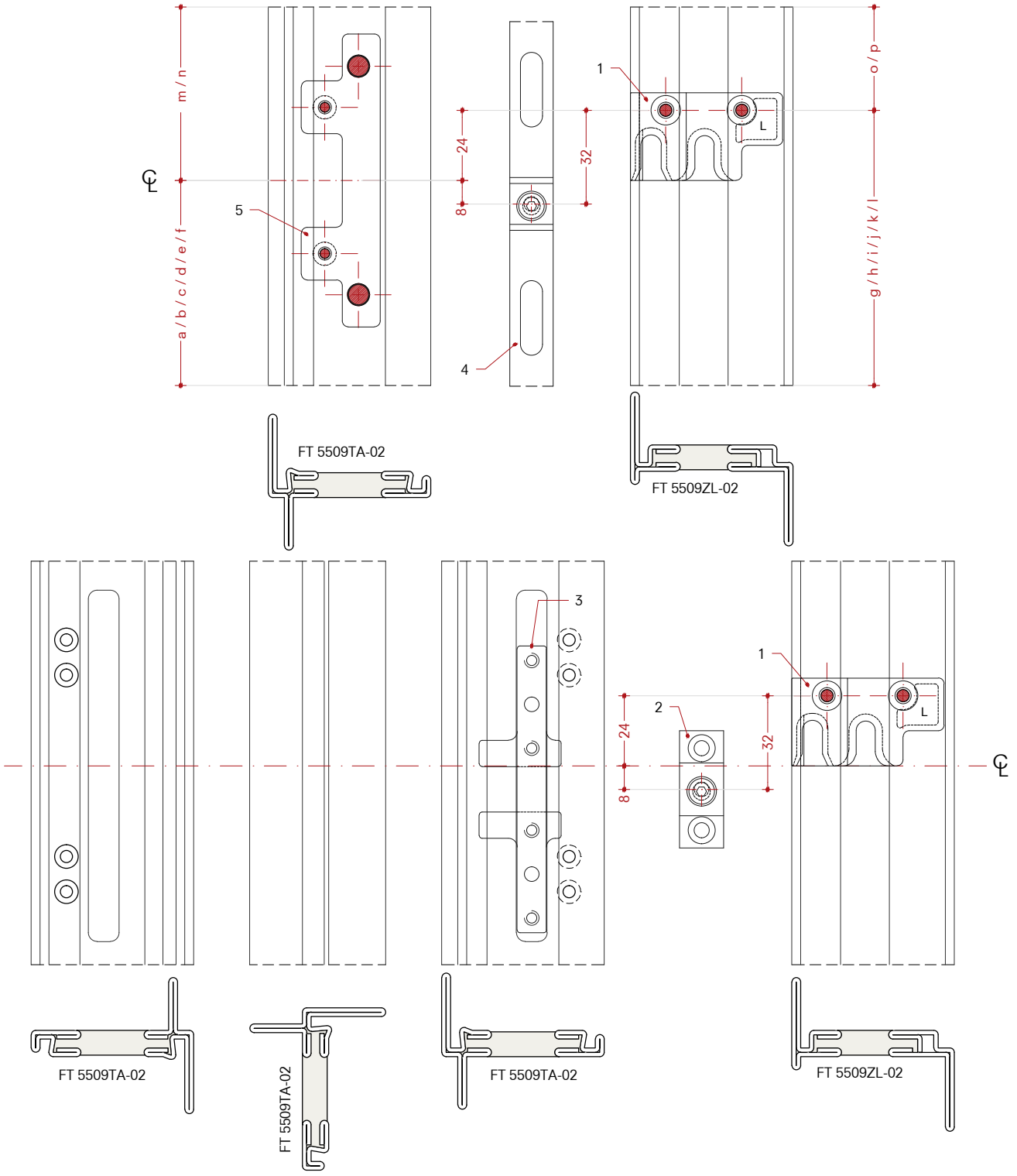
Escala 1:4
A) Orificios Ø3.3 mm roscados M4
B) Orificios Ø4.2 mm roscados M5
C) Orificios Ø7.5 mm
D) Orificios avellanados Ø4.2 mm
E) Perfil de fresado



Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Connection E99345-03
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03
6) Handle
7) Handle back cover
8) Shims E99342-03 (as needed)
9) Fastening with M5x20 mm ISO10642 screws
10) Fastening with M5x14 mm ISO10642 screws
11) Fastening with M4x12 mm screws. Do not overtighten and add medium thread-locker.
12) Fastening with M4x20 mm ISO10642 screws (not included)
13) Fastening with M4x12 mm ISO10642 screws (not included)
14) Fastening with M4x8 mm ISO10642 screws (not included)
15) Handle bracket - (*) check the open out glazing beads processing page for the choice of the handle bracket.

Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore E99345-03
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03
6) Maniglia
7) Coperchio posteriore maniglia
8) Spessori (se necessari)
9) Fissaggio con viti M5x20 mm ISO10642
10) Fissaggio con viti M5x14 mm ISO10642
11) Fissaggio con viti M4x12 mm Non stringere eccessivamente la vite e aggiungere un frenafiletti medio.
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x12 mm ISO10642 (non fornite)
14) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
15) Staffa maniglia - (*) controllare la pagina delle lavorazioni dei fermavetri, apertura esterna, per la scelta della staffa maniglia.

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izuierda)
2) Conector E99345-03
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03
6) Manija
7) Cubierta trasera de manija
8) Espesores (si es necesario)
9) Fijación con tornillos M5x20 mm ISO10642
10) Fijación con tornillos M5x14 mm ISO10642
11) Fijación con tornillos M4x12 mm No apriete demasiado y agregue fijador de roscas mediano.
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x12 mm ISO10642 (no provisto)
14) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
15) Soporte de manija - (*) verifique la mesa de procesamiento de junquillos, apertura hacia fuera, para elegir el soporte del mango.



Scale 1:2
1) Strike plate E99339-11 (left opening)
2) Handle connection
3) Drive block E99343-03
4) Rod E9936X-03
5) Drive plate E99341-03

Scala 1:2
1) Riscontro E99339-11 (apertura sinistra)
2) Connettore maniglia
3) Blocco guida E99343-03
4) Asta E9936X-03
5) Piatto guida E99341-03

Escala 1:2
1) Chapa de cierre E99339-11 (apertura izquierda)
2) Conector de manija
3) Bloque de guía E99343-03
4) Barra E9936X-03
5) Placa de guía E99341-03

Accessories installation:

Multipoint aluminum rods installation, with Graz and Mono

Montaggio accessori:

Montaggio Multipoint aste in alluminio, con Graz e Mono

Montaje accesorios:

Montaje Multipoint varillas de aluminio, con Graz y Mono

Legend

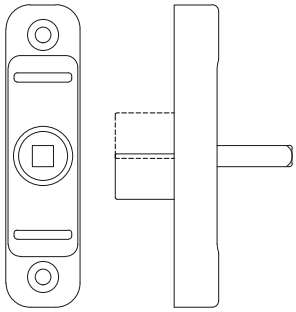
+ = Fixed
—— = Open in
- - - = Open out
Dimensions in: mm
Scale 1:2 - 1:4

Legenda

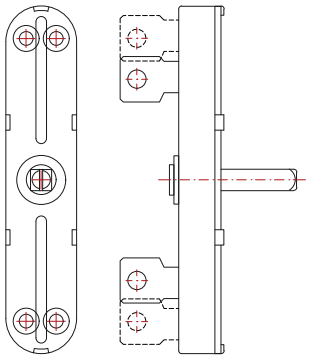
+ = Anta fissa
—— = Apertura interna
- - - = Apertura esterna
Misure in: mm
Scala 1:2 - 1:4

Leyenda

+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm
Escala 1:2 - 1:4

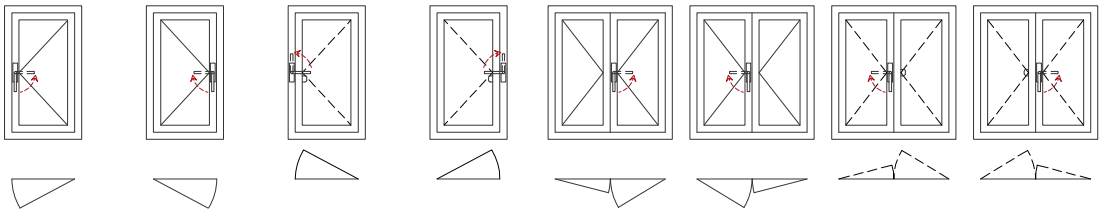


E99658-11

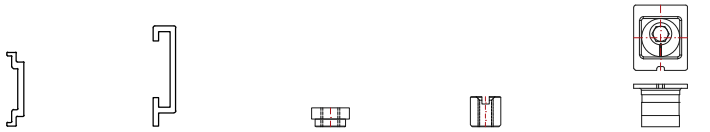


E99652-03
E99653-03

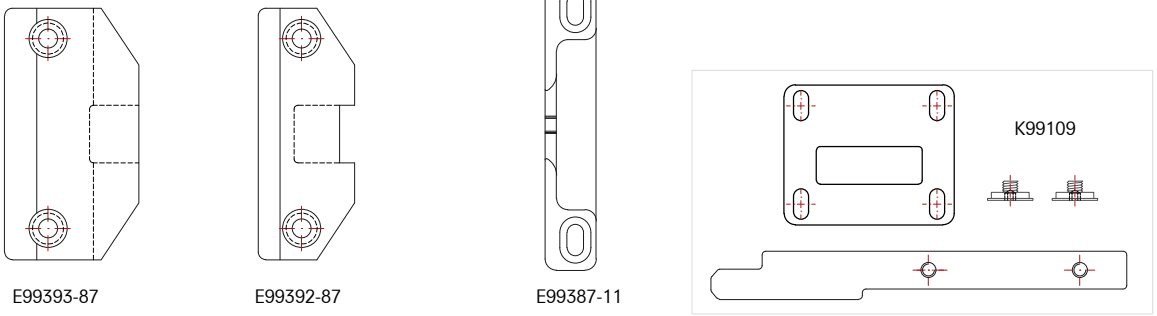
GRAZ				
opening	leaves	hand	cremone	
Open in	1 Leaf	Right opening	E99653-03	standard installation
Open in	1 Leaf	Left opening	E99652-03	standard installation
Open in	2 Leaves	Right opening	E99653-03	standard installation
Open in	2 Leaves	Left opening	E99652-03	standard installation
Open out	1 Leaf	Right 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)		O		O		O	O	
E99653-03 (R)	O		O		O			O
E99658-11 (R)		O		O		O	O	
E99658-11 (L)	O		O		O			O



E99385-52 E99502-00 D99709-02 D99711-02 E99397-03

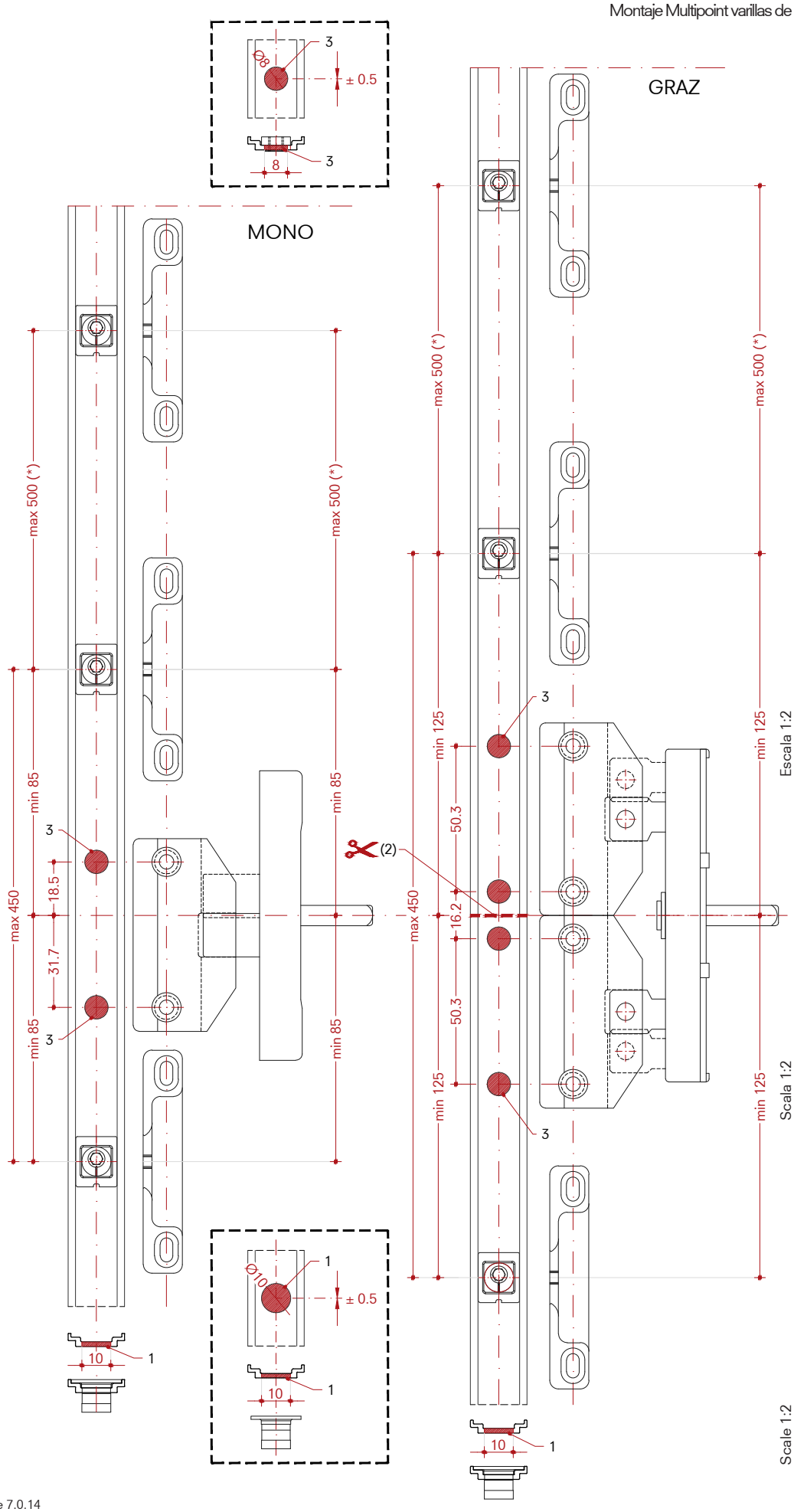


E99393-87 E99392-87 E99387-11

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



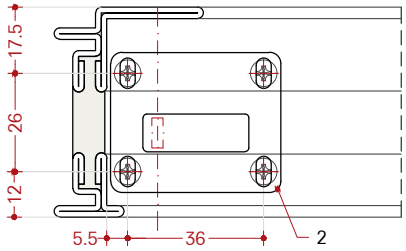
Scale 1:2
1) Ø10 mm holes
2) Rail cut
3) Ø8 mm holes
(*) Maximum distance to be reduced in case of heavy wind load conditions. Maximum distance 700 mm in case of long flush bolt on 2nd leaf. In this case shoot bolt on 1st leaf open-in is mandatory.

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.

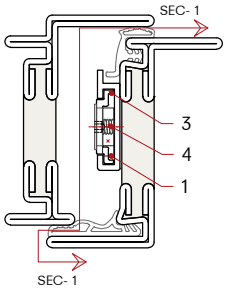
Escala 1:2
1) Orificios Ø10 mm
2) Corte de carril
3) Orificios Ø8 mm
(*) Distancia máxima a reducir en caso de fuerte carga de viento. Distancia máxima 700 mm en caso de pasador de canto largo en 2do hoja. En este caso, pasador de canto de la 1er hoja de apertura hacia dentro es obligatorio.

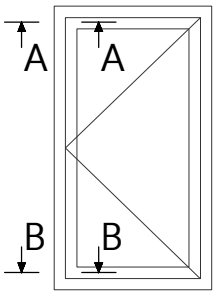
Single leaf window - Open in - Right opening (Left opening is specular)

FOR GRAZ SECTION B-B & A-A(SPECULAR)

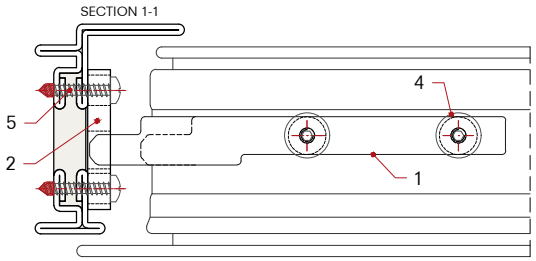


MONO INCLUDES ONLY SECTION A-A



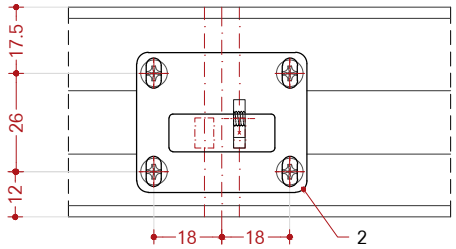


SECTION 1-1

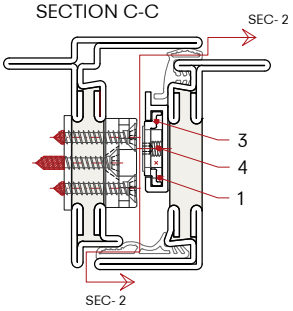


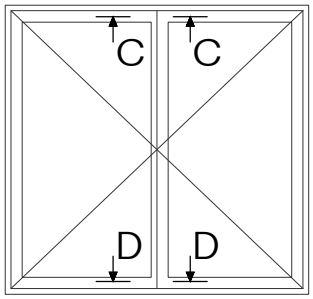
Double leaf window - Open in - Right opening (Left opening is specular)

FOR GRAZ SECTION D-D & C-C(SPECULAR)

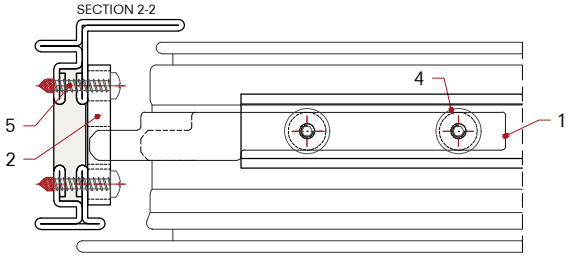


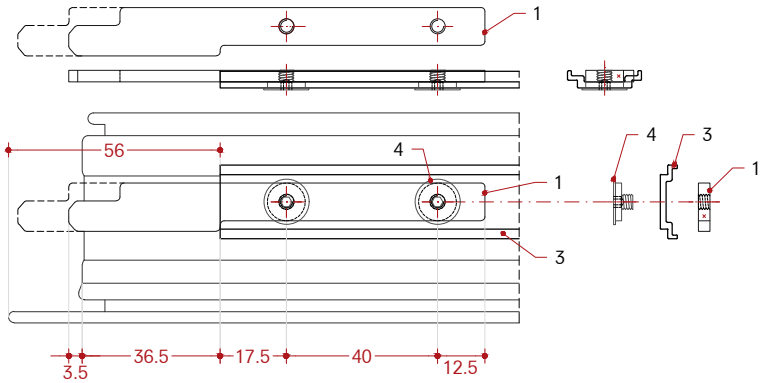
MONO INCLUDES ONLY SECTION C-C

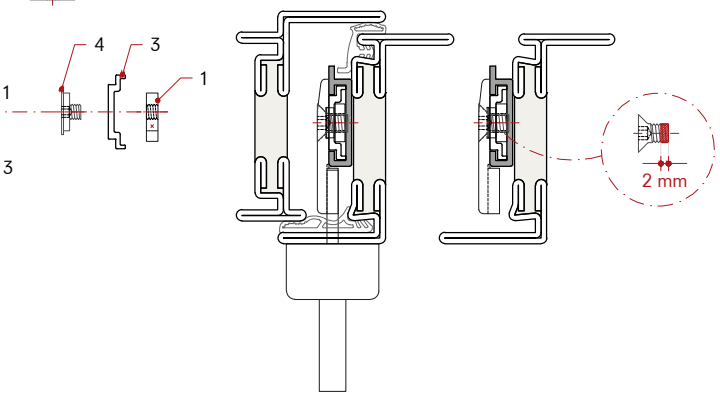




SECTION 2-2







UPPER / LOWER SHOOT BOLT (OPEN IN ONLY)

Scale 1:2
1) Shoot bolt K99109
2) Strike plate E99014-03 (provided)
3) Aluminum rod E99385-52
4) Bush for shoot bolt (provided)
5) Fastening with Ø3.5x19 mm ISO7049 screws (not included)

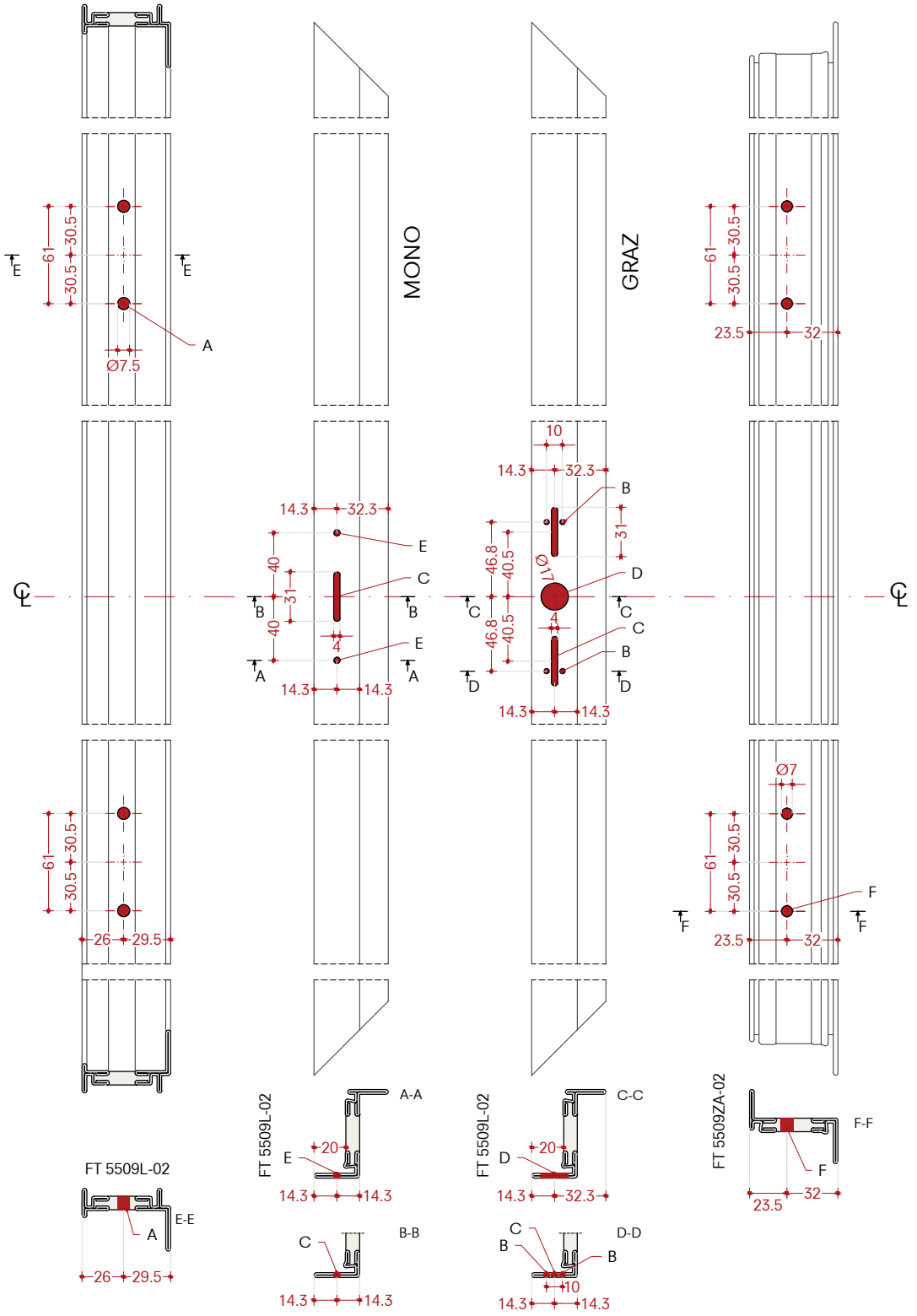
Scala 1:2
1) Puntale K99109
2) Riscontro E99014-03 (fornito)
3) Asta in alluminio E99385-52
4) Boccola fissaggio puntale (fornita)
5) Fissaggio con viti Ø3.5x19 mm ISO7049 (non fornite)

Escala 1:2
1) Pasador K99109
2) Chapa de cierre E99014-03 (provisto)
3) Varilla de aluminio E99385-52
4) Casquillo para pasador (provisto)
5) Fijación con tornillos Ø3.5x19 mm ISO7049 (no provisto)

Multipoint aluminum rods installation, with Graz and Mono
Single leaf window
Open in - Right opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra ad anta singola
Apertura interna - Apertura destra

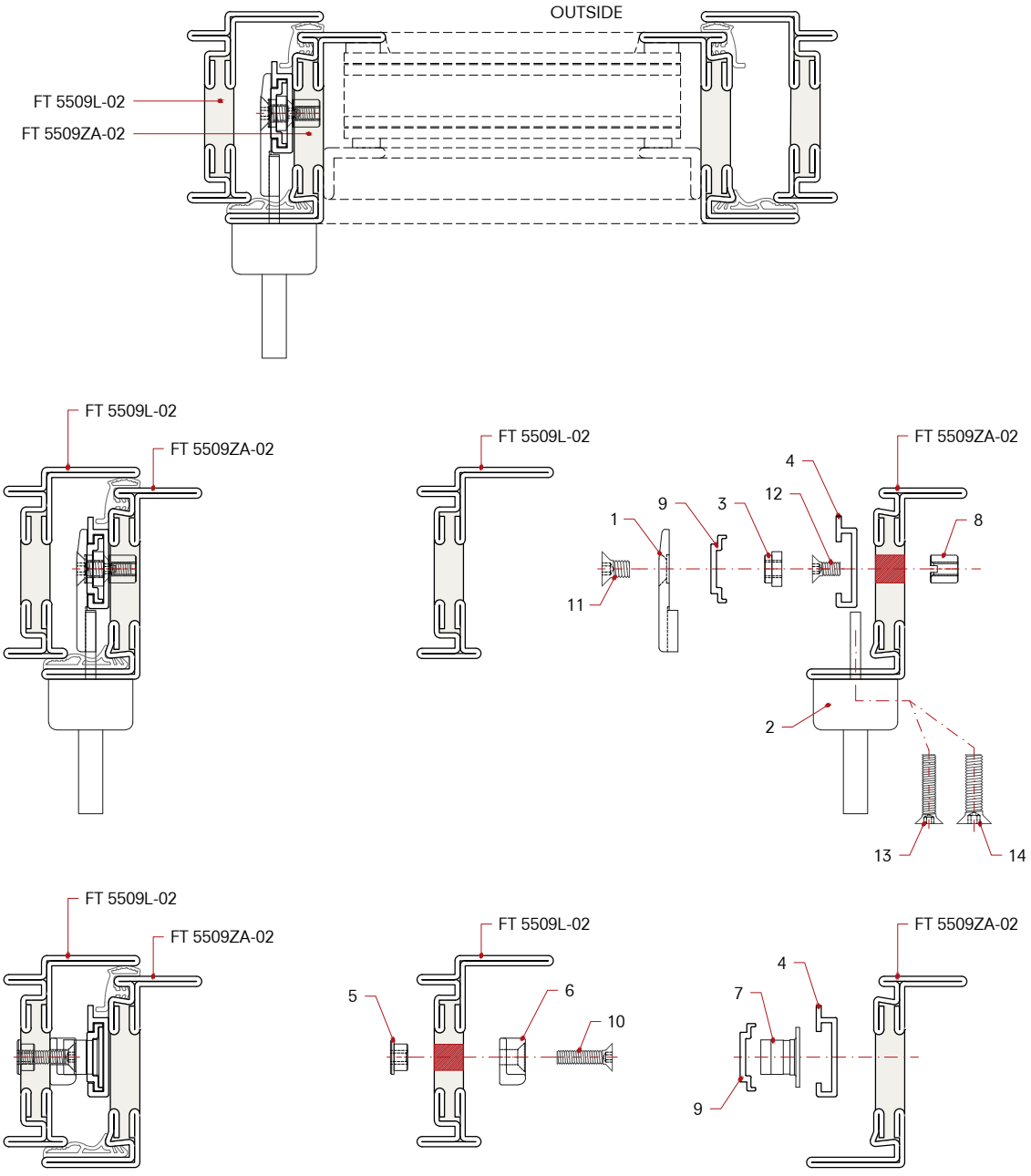
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de una hoja
Que se abre hacia dentro - Apertura derecha



Scale 1:4
A) Ø7.5 mm holes to be checked
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø7 mm threaded M8 holes (PU)

Scala 1:4
A) Fori Ø7.5 mm da verificare
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø7 mm filettati M8 (PU)

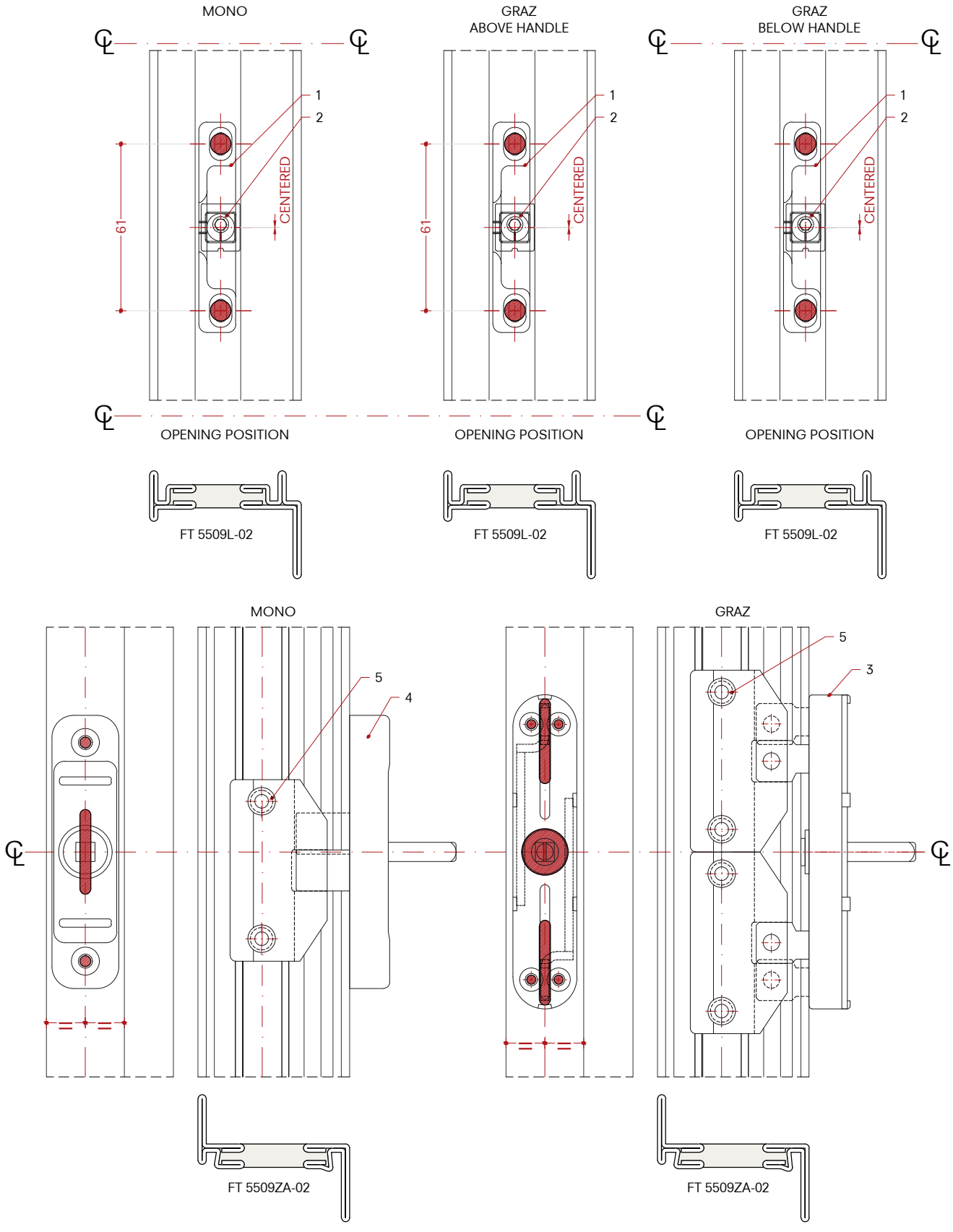
Escala 1:4
A) Orificios Ø7.5 mm por verificar
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø7 mm roscados M8 (PU)



Scale 1:2
1) Cremone gear connection E99393-87
2) Graz E99653-03 or Mono E99658-11 (right configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) M4 brass bushing D99704-08
6) Strike plate E99387-11
7) Stud E99397-03
8) Threaded adjustable insert D99711-02
9) Aluminum rod E99385-52
10) Fastening with M4x16 mm ISO10642 screws (not included)
11) Fastening with M5x8 mm ISO10642 screws (not included)
12) Fastening with M4x8 mm ISO10642 screws (not included)
13) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99653-03
14) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99393-87
2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Boccola in ottone M4 D99704-08
6) Riscontro E99387-11
7) Nottolino E99397-03
8) Inserto filettato regolabile D99711-02
9) Asta in alluminio E99385-52
10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
11) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
12) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99653-03
14) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99393-87
2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Casquillo en latón M4 D99704-08
6) Chapa de cierre E99387-11
7) Alfiler E99397-03
8) Inserto ajustable roscado D99711-02
9) Varilla de aluminio E99385-52
10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
11) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
12) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99653-03
14) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99653-03
4) Mono E99658-11 (right configuration)
5) Cremone gear connection E99393-87

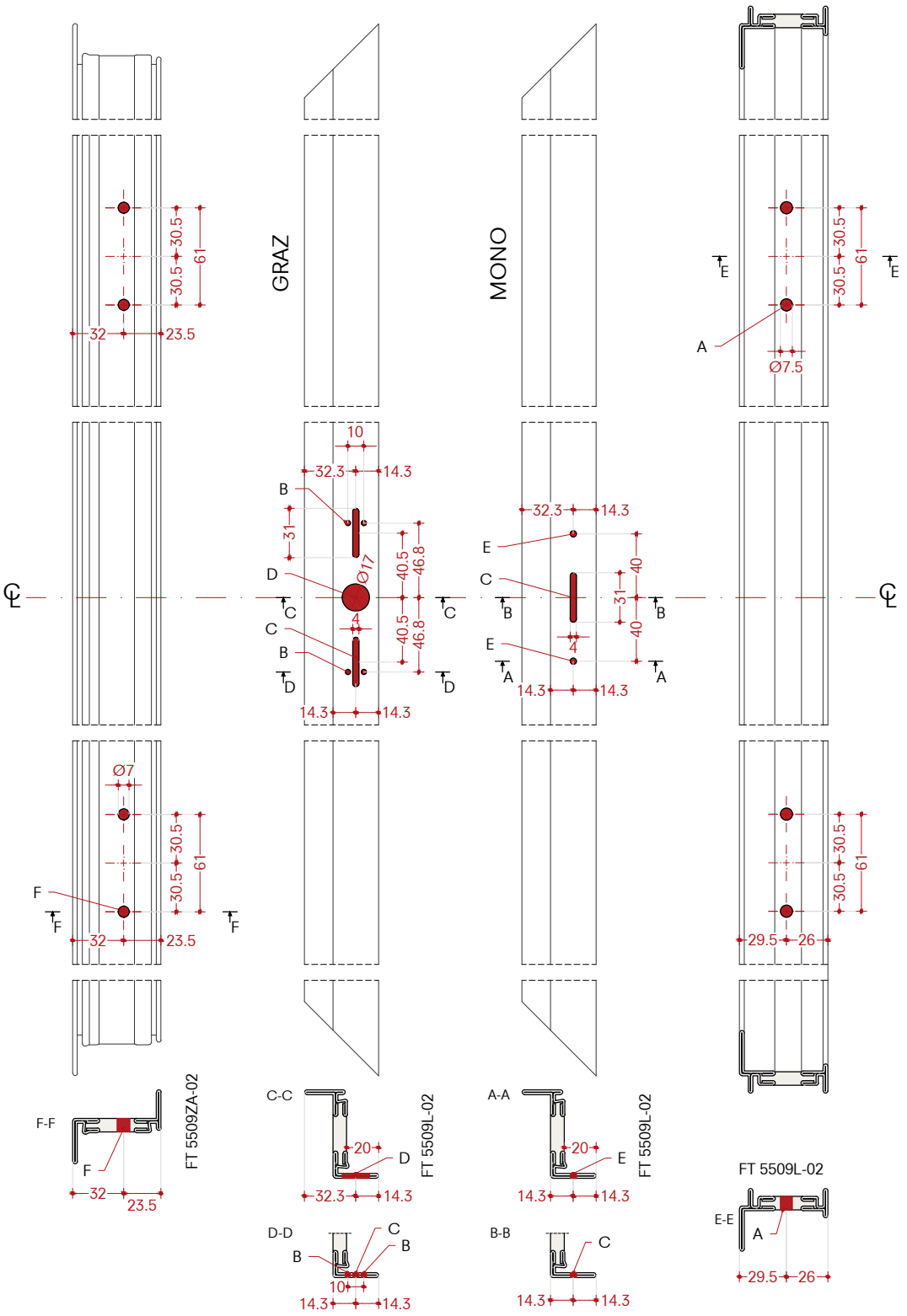
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99653-03
4) Mono E99658-11 (configurazione destra)
5) Connettore E99393-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99653-03
4) Mono E99658-11 (configuración derecha)
5) Connettore E99393-87

Multipoint aluminum rods installation, with Graz and Mono
Single leaf window
Open in - Left opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra ad anta singola
Apertura interna - Apertura sinistra

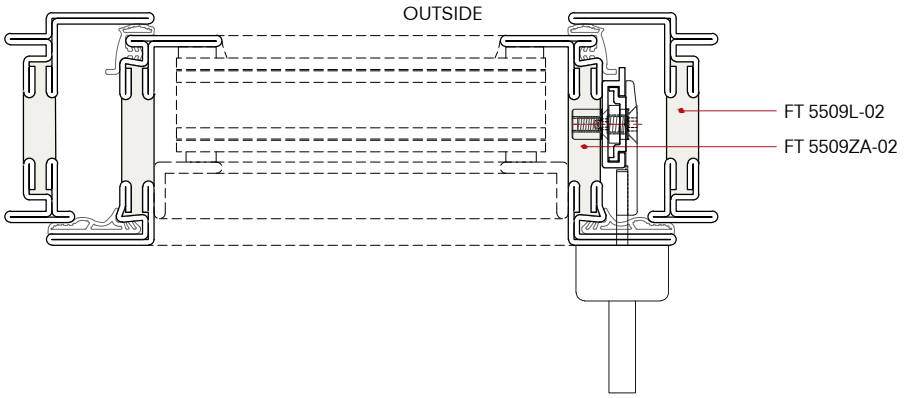
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de una hoja
Que se abre hacia dentro - Apertura izquierda

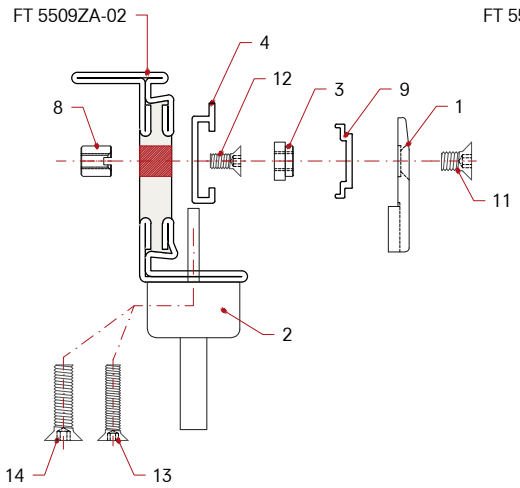


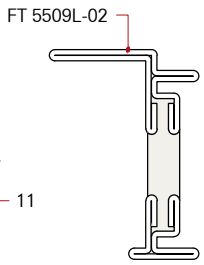
Scale 1:4
A) Ø7.5 mm holes to be checked
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø7 mm threaded M8 holes (PU)

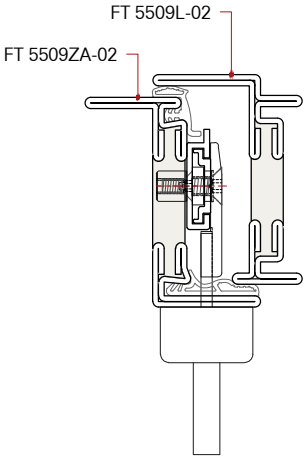
Scala 1:4
A) Fori Ø7.5 mm da verificare
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø7 mm filettati M8 (PU)

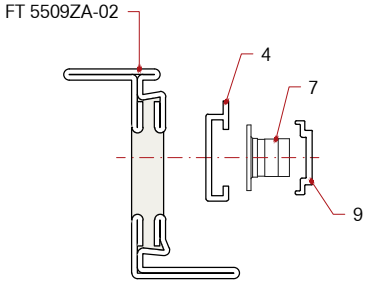
Escala 1:4
A) Orificios Ø7.5 mm por verificar
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø7 mm roscados M8 (PU)

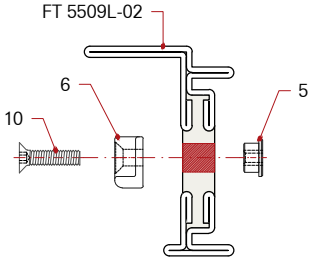


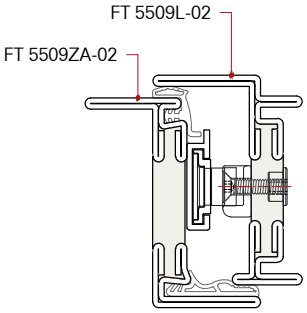








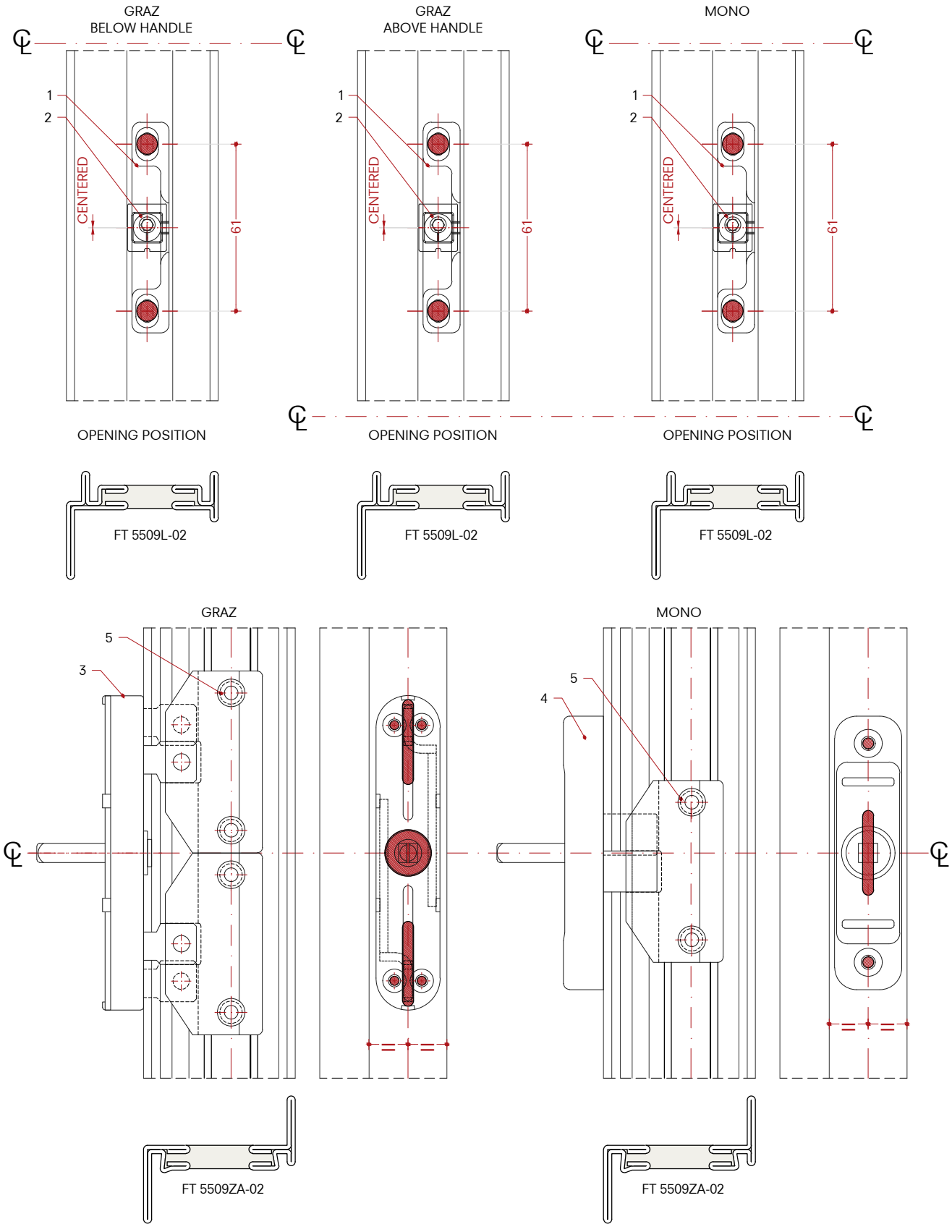




Scale 1:2
1) Cremone gear connection E99393-87
2) Graz E99652-03 or Mono E99658-11 (left configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) M4 brass bushing D99704-08
6) Strike plate E99387-11
7) Stud E99397-03
8) Threaded adjustable insert D99711-02
9) Aluminum rod E99385-52
10) Fastening with M4x16 mm ISO10642 screws (not included)
11) Fastening with M5x8 mm ISO10642 screws (not included)
12) Fastening with M4x8 mm ISO10642 screws (not included)
13) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99652-03
14) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99393-87
2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Boccola in ottone M4 D99704-08
6) Riscontro E99387-11
7) Nottolino E99397-03
8) Inserto filettato regolabile D99711-02
9) Asta in alluminio E99385-52
10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
11) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
12) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99652-03
14) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99393-87
2) Graz E99652-03 o Mono E99658-11 (configuración izquierda)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Casquillo en latón M4 D99704-08
6) Chapa de cierre E99387-11
7) Alfiler E99397-03
8) Inserto ajustable roscado D99711-02
9) Varilla de aluminio E99385-52
10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
11) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
12) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99652-03
14) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99652-03
4) Mono E99658-11 (left configuration)
5) Cremone gear connection E99393-87

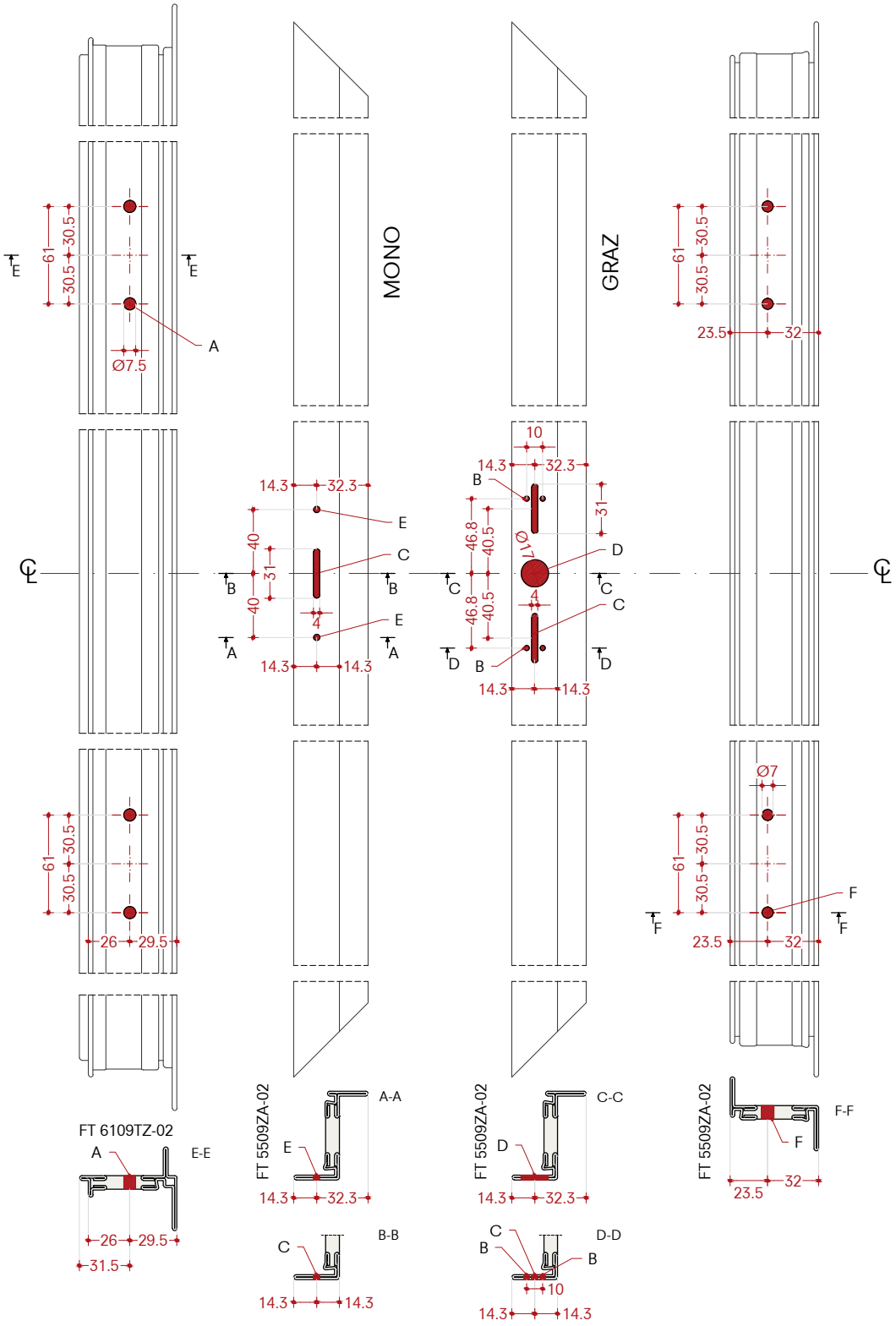
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99652-03
4) Mono E99658-11 (configurazione sinistra)
5) Connettore E99393-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99652-03
4) Mono E99658-11 (configuración izquierda)
5) Connettore E99393-87

Multipoint aluminum rods installation, with Graz and Mono
Double leaf window
Open in - Right opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra a due battenti
Apertura interna - Apertura destra

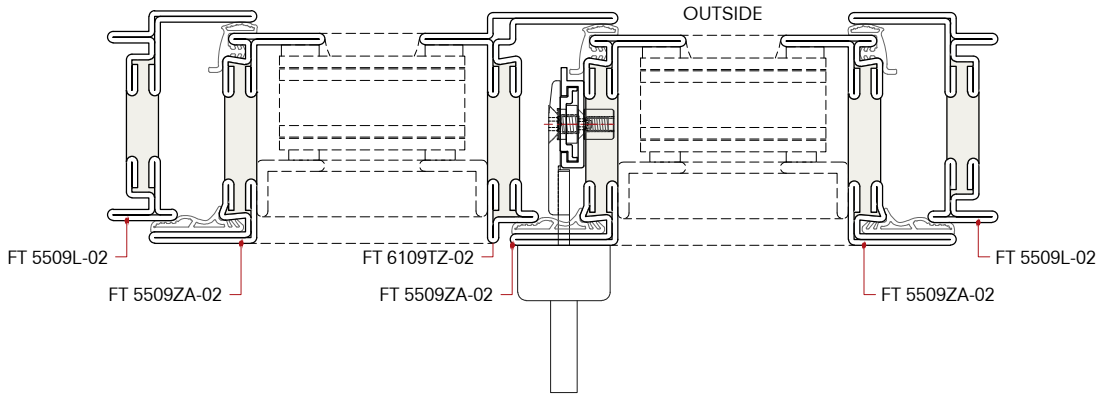
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de dos hojas
Que se abre hacia dentro - Apertura derecha

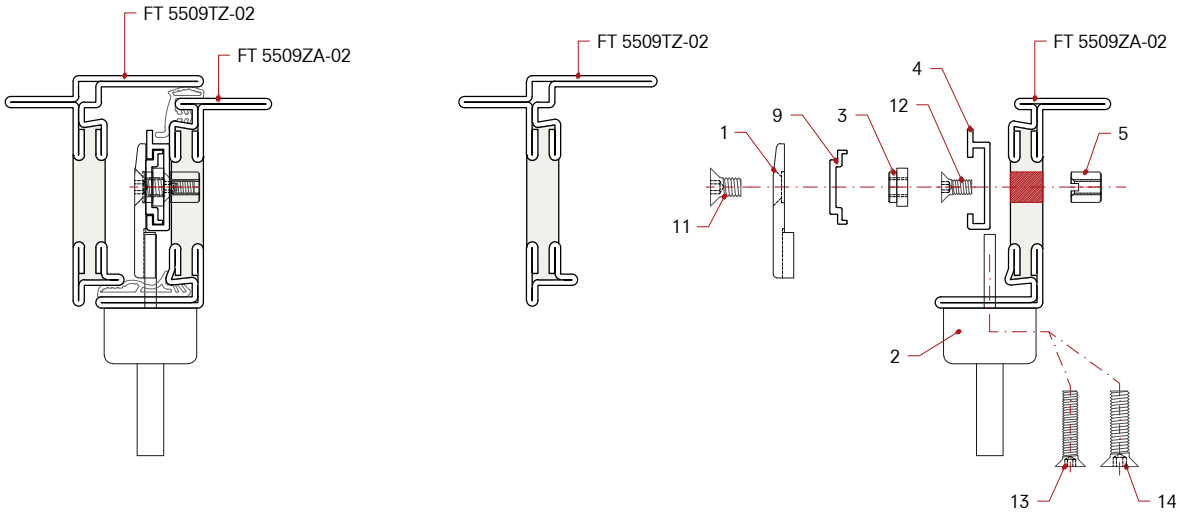


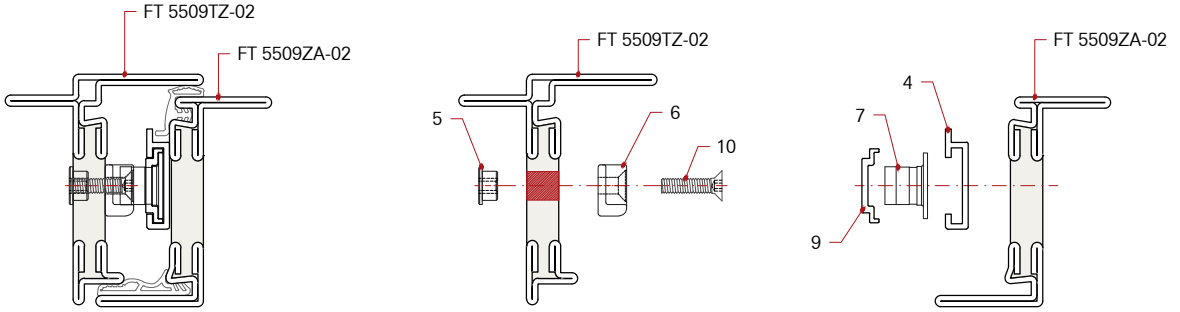
Scale 1:4
A) Ø7.5 mm holes to be checked
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø7 mm threaded M8 holes (PU)

Scala 1:4
A) Fori Ø7.5 mm da verificare
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø7 mm filettati M8 (PU)

Escala 1:4
A) Orificios Ø7.5 mm por verificar
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø7 mm roscados M8 (PU)



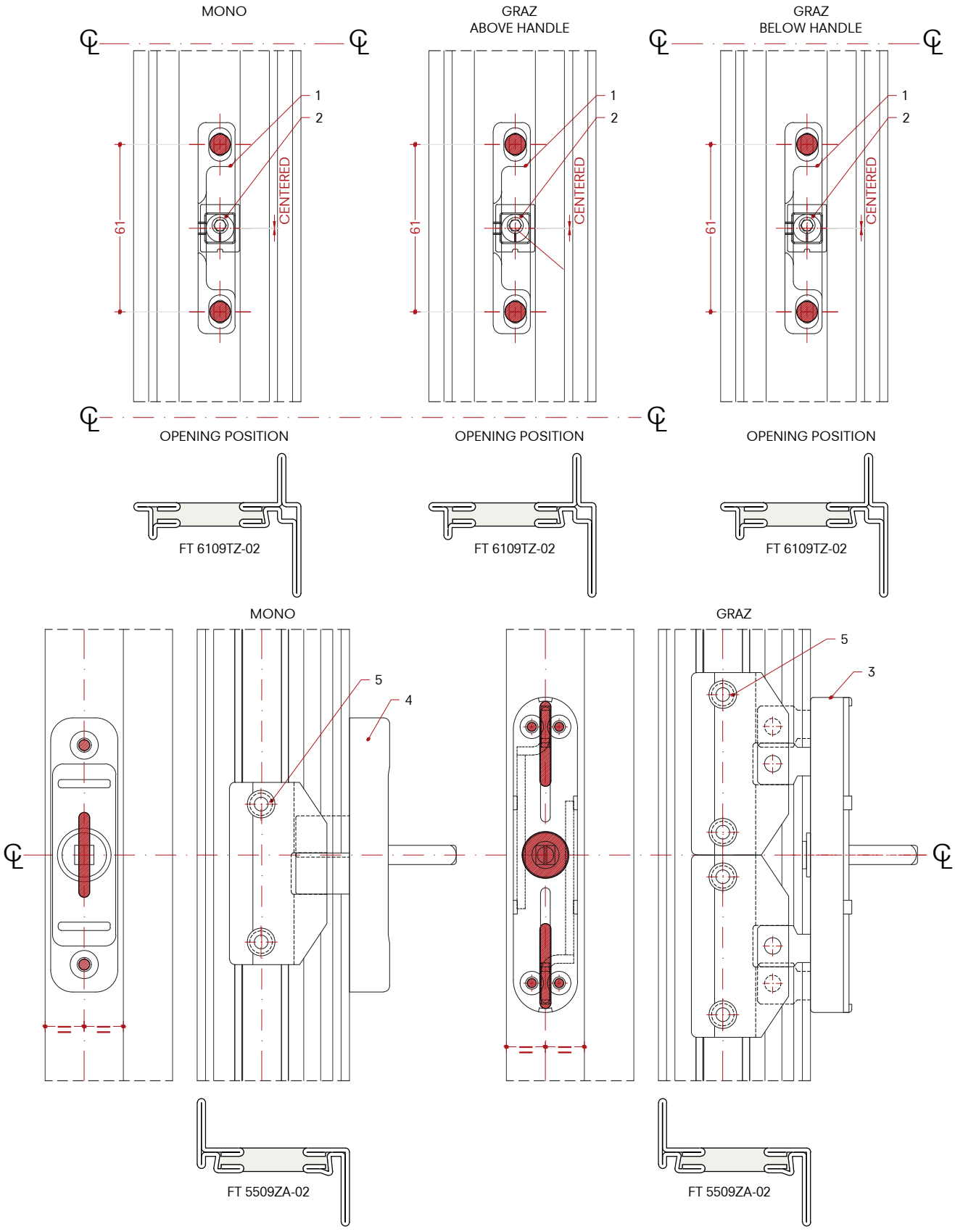




Scale 1:2
1) Cremone gear connection E99393-87
2) Graz E99653-03 or Mono E99658-11 (right configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) M4 brass bushing D99704-08
6) Strike plate E99387-11
7) Stud E99397-03
8) Threaded adjustable insert D99711-02
9) Aluminum rod E99385-52
10) Fastening with M4x16 mm ISO10642 screws (not included)
11) Fastening with M5x8 mm ISO10642 screws (not included)
12) Fastening with M4x8 mm ISO10642 screws (not included)
13) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99653-03
14) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99393-87
2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Boccola in ottone M4 D99704-08
6) Riscontro E99387-11
7) Nottolino E99397-03
8) Inserto filettato regolabile D99711-02
9) Asta in alluminio E99385-52
10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
11) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
12) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99653-03
14) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99393-87
2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Casquillo en latón M4 D99704-08
6) Chapa de cierre E99387-11
7) Alfiler E99397-03
8) Inserto ajustable roscado D99711-02
9) Varilla de aluminio E99385-52
10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
11) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
12) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99653-03
14) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99653-03
4) Mono E99658-11 (right configuration)
5) Cremone gear connection E99393-87

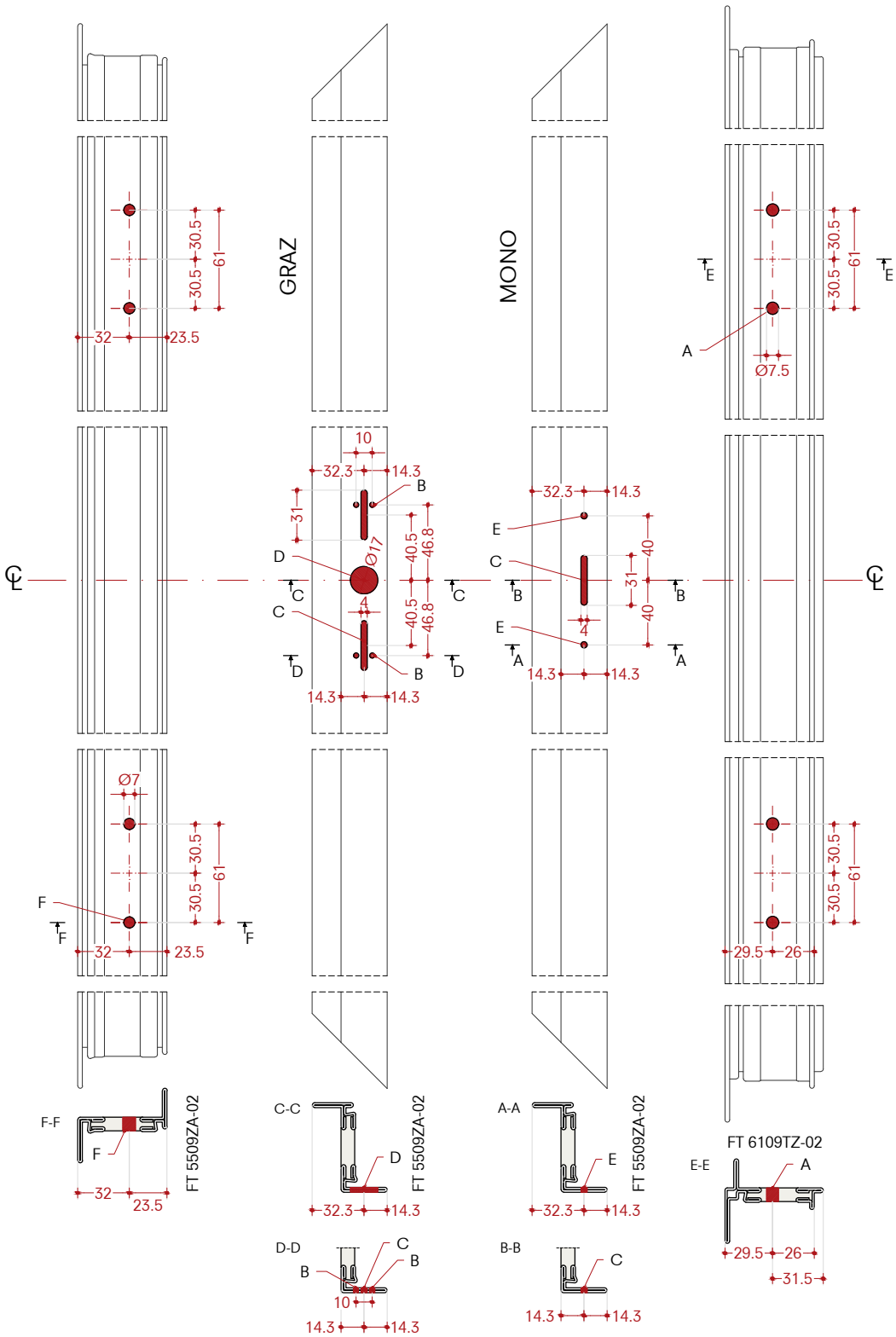
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99653-03
4) Mono E99658-11 (configurazione destra)
5) Connettore E99393-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99653-03
4) Mono E99658-11 (configuración derecha)
5) Connettore E99393-87

Multipoint aluminum rods installation, with Graz and Mono
Double leaf window
Open in - Left opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra a due battenti
Apertura interna - Apertura sinistra

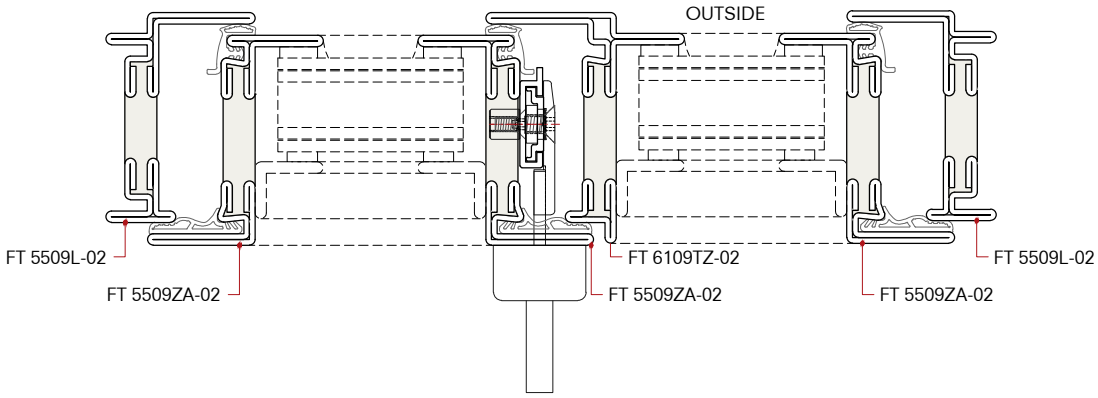
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de dos hojas
Que se abre hacia dentro - Apertura izquierda

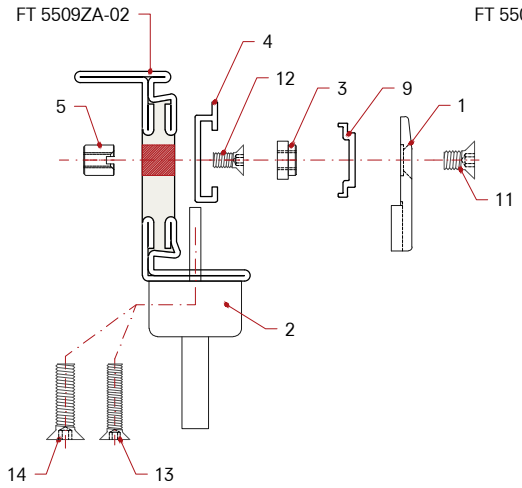


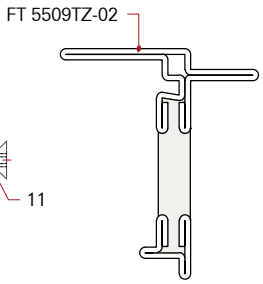
Scale 1:4
A) Ø7.5 mm holes to be checked
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø7 mm threaded M8 holes (PU)

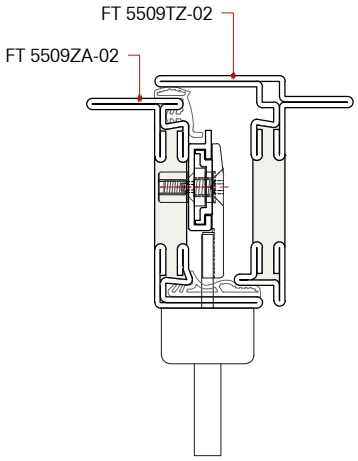
Scala 1:4
A) Fori Ø7.5 mm da verificare
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø7 mm filettati M8 (PU)

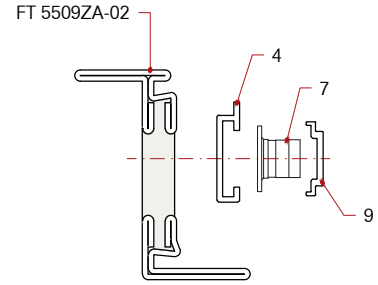
Escala 1:4
A) Orificios Ø7.5 mm por verificar
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø7 mm roscados M8 (PU)

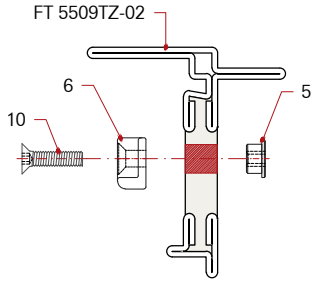


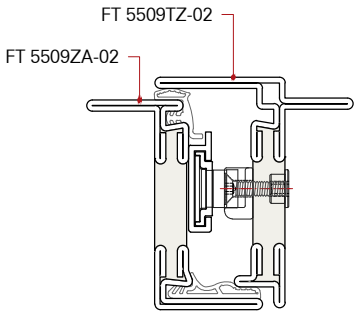








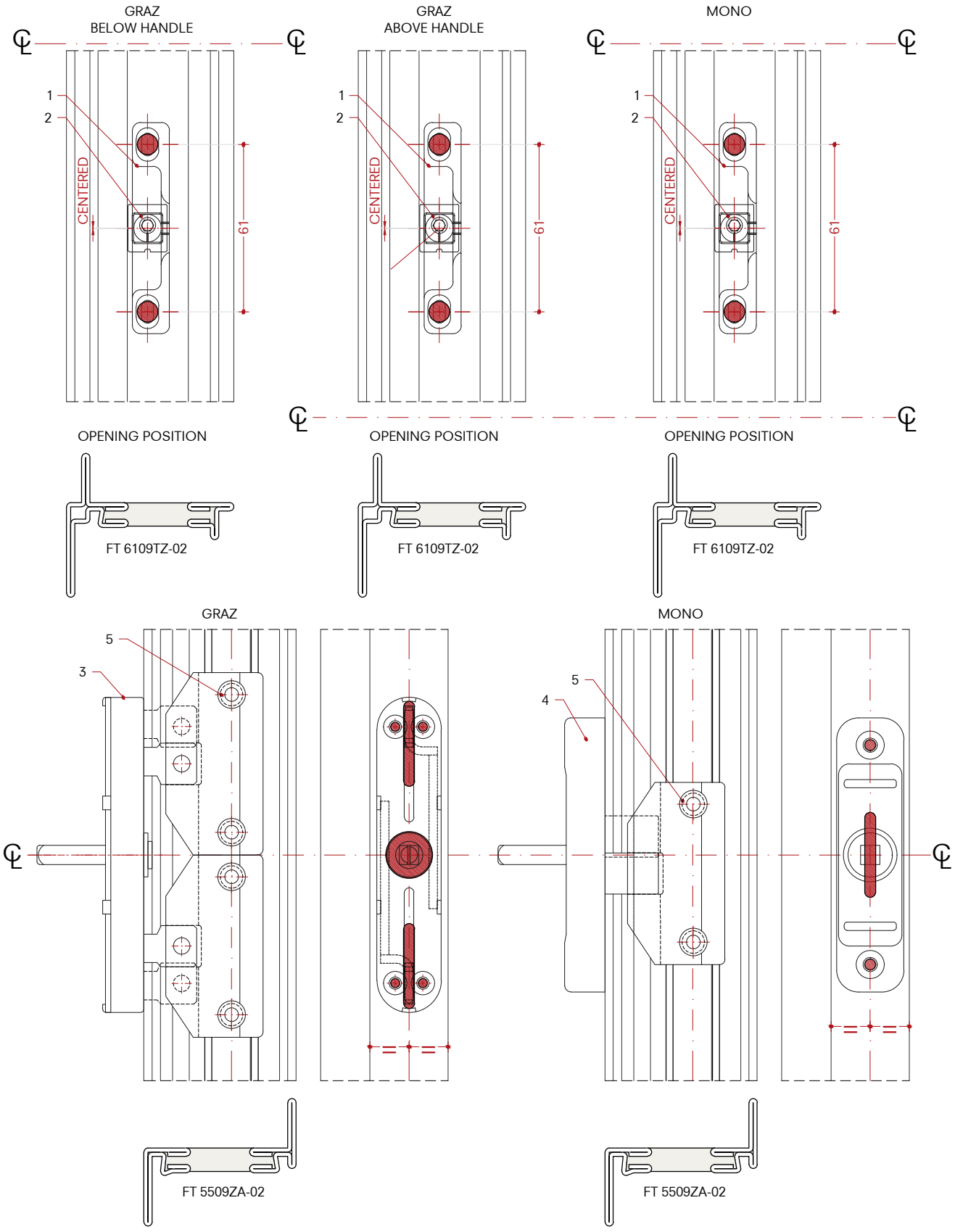




Scale 1:2
1) Cremone gear connection E99393-87
2) Graz E99652-03 or Mono E99658-11 (left configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) M4 brass bushing D99704-08
6) Strike plate E99387-11
7) Stud E99397-03
8) Threaded adjustable insert D99711-02
9) Aluminum rod E99385-52
10) Fastening with M4x16 mm ISO10642 screws (not included)
11) Fastening with M5x8 mm ISO10642 screws (not included)
12) Fastening with M4x8 mm ISO10642 screws (not included)
13) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99652-03
14) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99393-87
2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Boccola in ottone M4 D99704-08
6) Riscontro E99387-11
7) Nottolino E99397-03
8) Inserto filettato regolabile D99711-02
9) Asta in alluminio E99385-52
10) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
11) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
12) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
13) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99652-03
14) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99393-87
2) Graz E99652-03 o Mono E99658-11 (configuración izquierda)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Casquillo en latón M4 D99704-08
6) Chapa de cierre E99387-11
7) Alfiler E99397-03
8) Inserto ajustable roscado D99711-02
9) Varilla de aluminio E99385-52
10) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
11) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
12) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
13) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99652-03
14) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99652-03
4) Mono E99658-11 (left configuration)
5) Cremone gear connection E99393-87

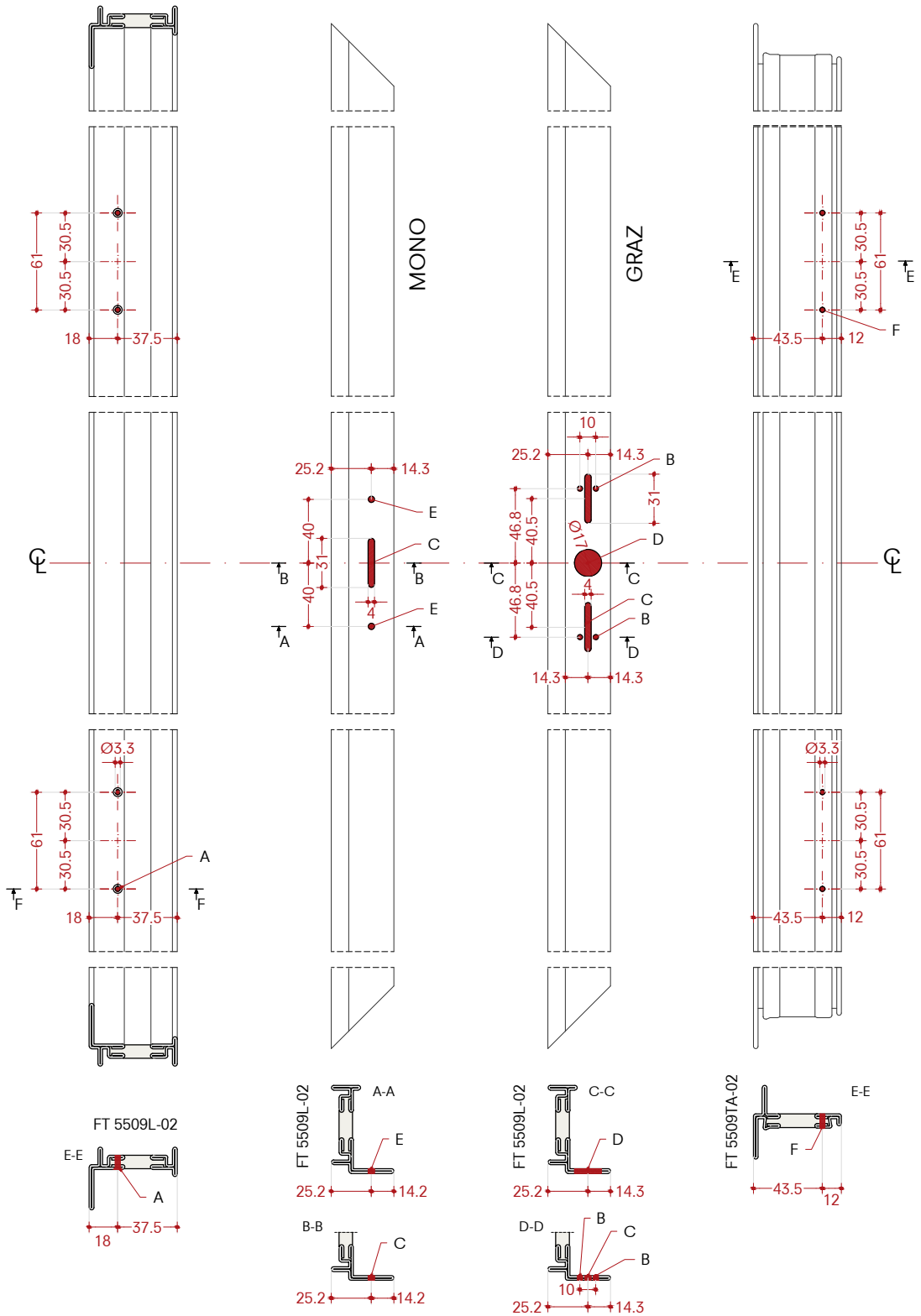
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99652-03
4) Mono E99658-11 (configurazione sinistra)
5) Connettore E99393-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99652-03
4) Mono E99658-11 (configuración izquierda)
5) Connettore E99393-87

Multipoint aluminum rods installation, with Graz and Mono
Single leaf window
Open out - Right opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra ad anta singola
Apertura esterna - Apertura destra

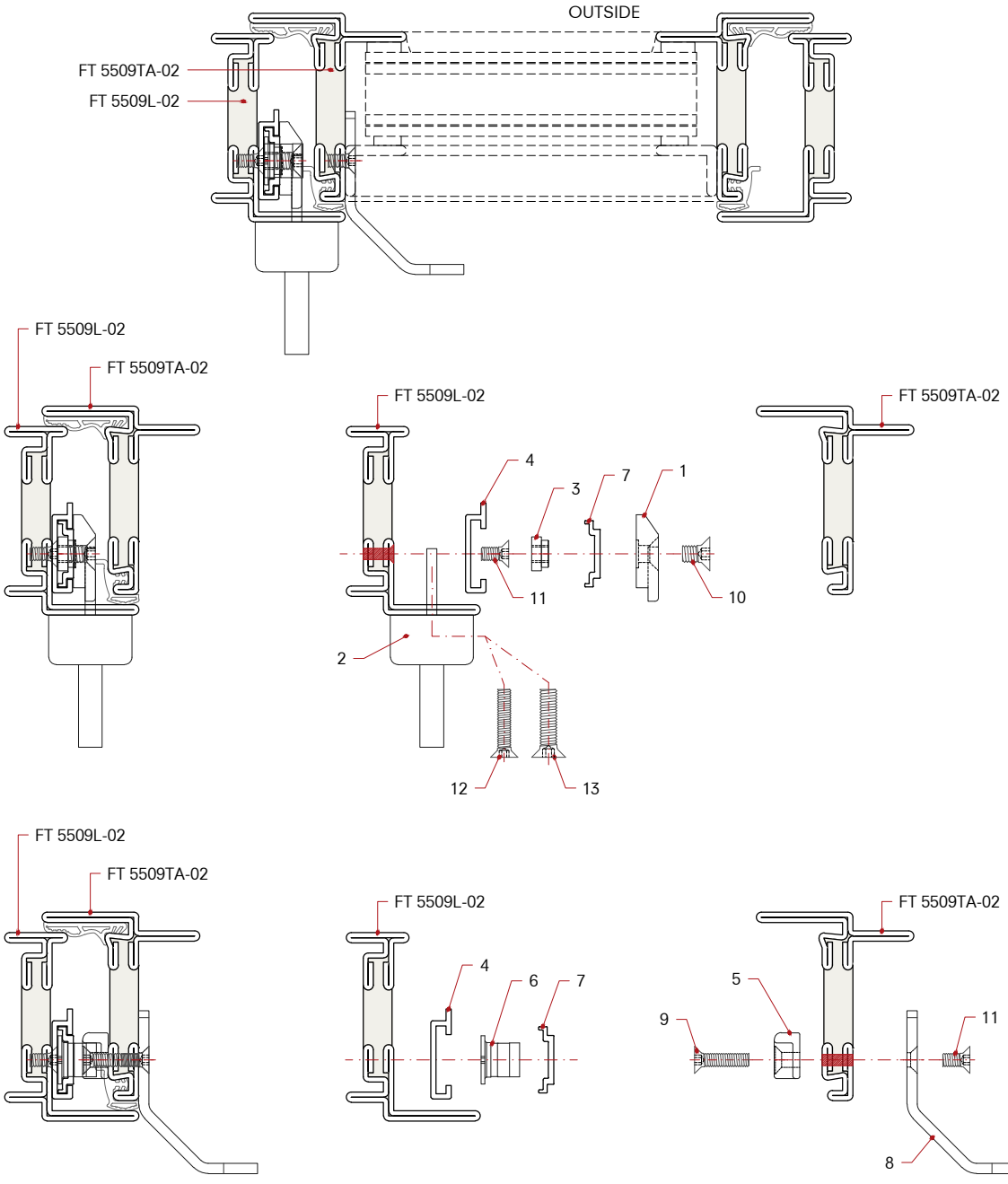
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de una hoja
Que se abre hacia fuera - Apertura derecha



Scale 1:4
A) Ø3.3 mm threaded M4 countersunk holes
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø3.3 mm threaded M4 holes (PU)

Scala 1:4
A) Fori Ø3.3 mm svasati filettati M4
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø3.3 mm filettati M4 (PU)

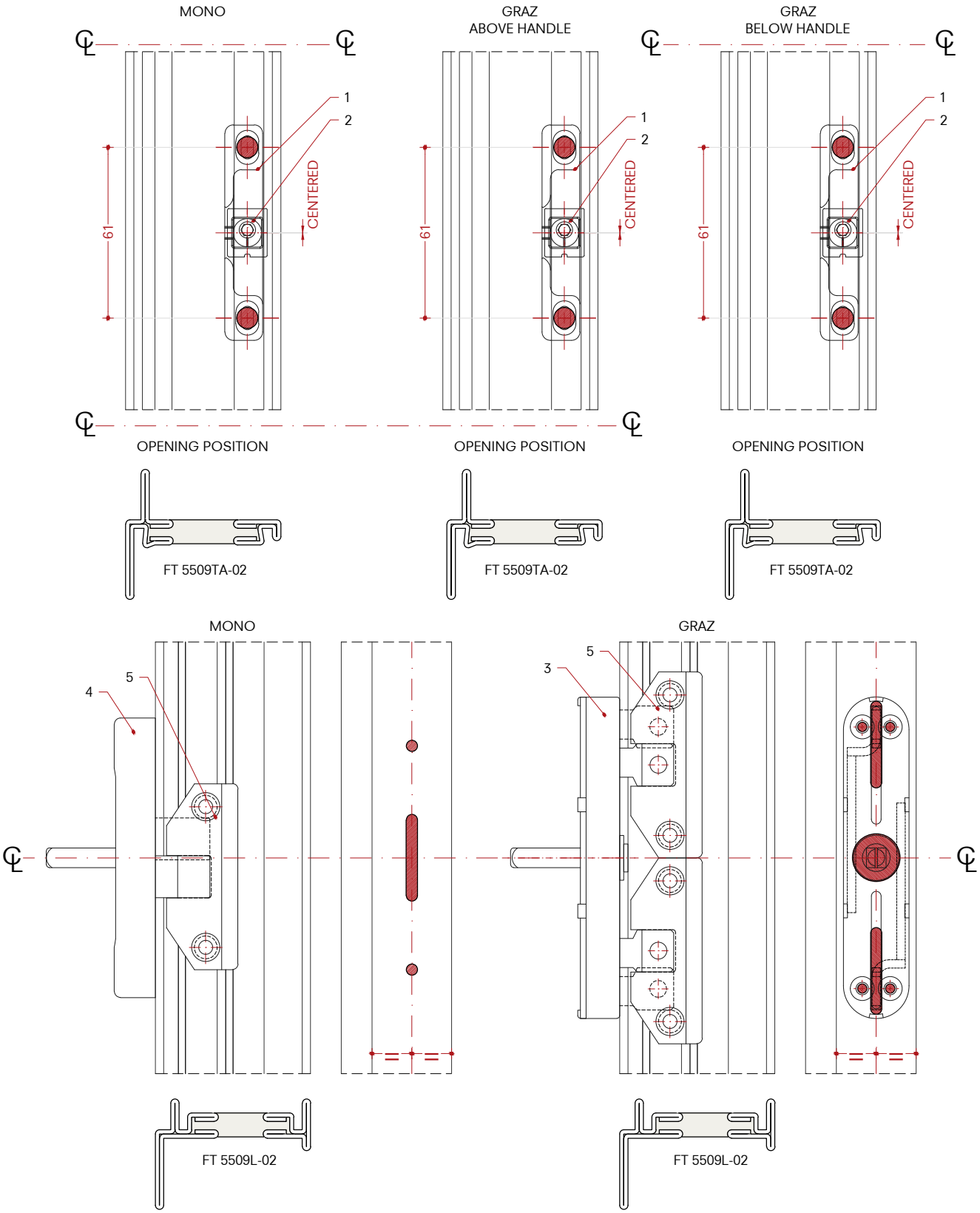
Escala 1:4
A) Orificios Ø3.3 mm avellanados roscados M4
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø7 mm roscados M4 (PU)



Scale 1:2
1) Cremone gear connection E99392-87
2) Graz E99653-03 or Mono E99658-11 (right configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) Strike plate E99387-11
6) Stud E99397-03
7) Aluminum rod E99385-52
8) Handle H99025-12
9) Fastening with M4x16 mm ISO10642 screws (not included)
10) Fastening with M5x8 mm ISO10642 screws (not included)
11) Fastening with M4x8 mm ISO10642 screws (not included)
12) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99653-03
13) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99392-87
2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Riscontro E99387-11
6) Nottolino E99397-03
7) Asta in alluminio E99385-52
8) Maniglia H99025-12
9) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
10) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
11) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99653-03
13) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99392-87
2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Chapa de cierre E99387-11
6) Alfiler E99397-03
7) Varilla de aluminio E99385-52
8) Manija H99025-12
9) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
10) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
11) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99653-03
13) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99653-03
4) Mono E99658-11 (right configuration)
5) Cremone gear connection E99392-87

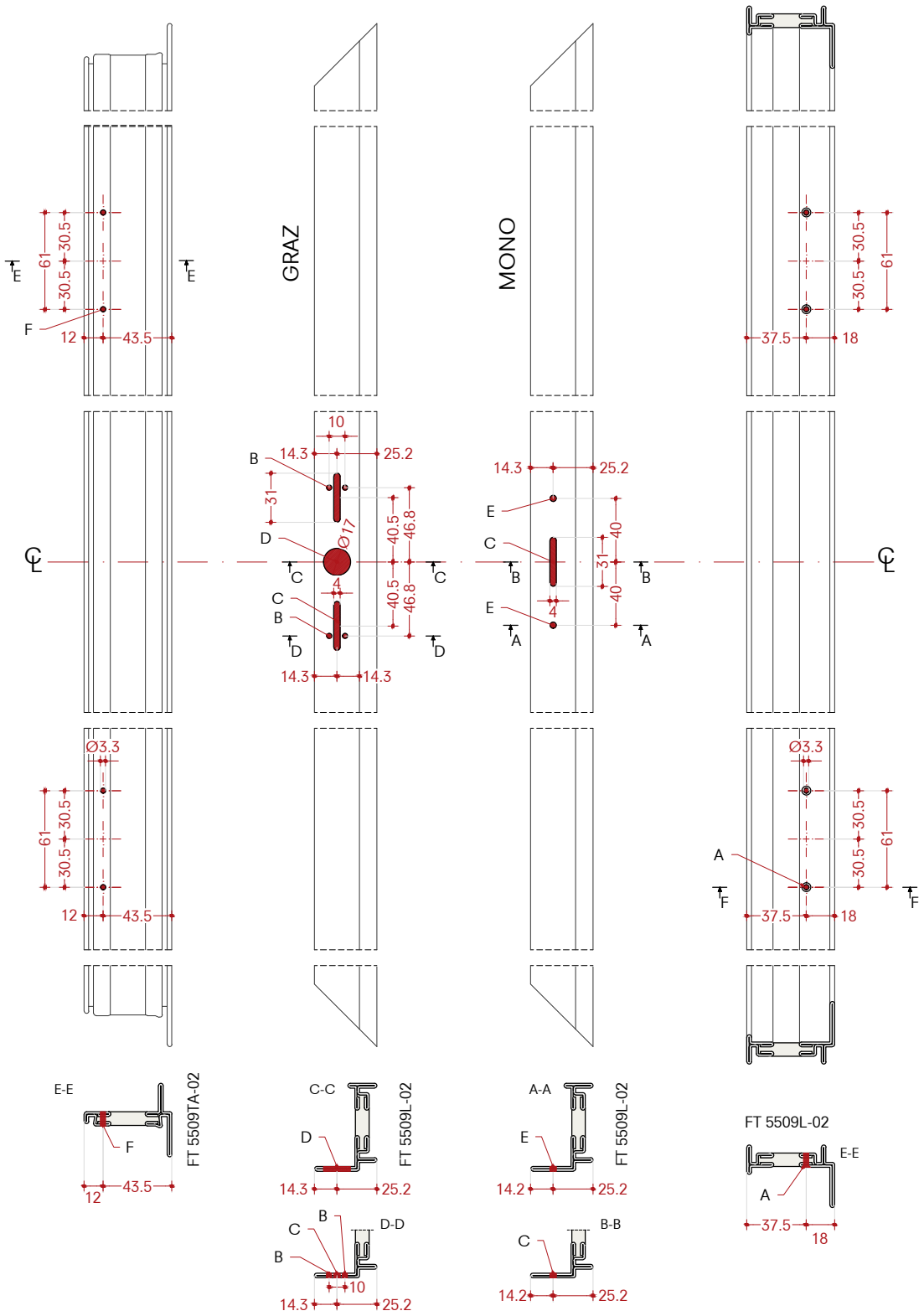
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99653-03
4) Mono E99658-11 (configurazione destra)
5) Connettore E99392-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99653-03
4) Mono E99658-11 (configuración derecha)
5) Connettore E99392-87

Multipoint aluminum rods installation, with Graz and Mono
Single leaf window
Open out - Left opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra ad anta singola
Apertura esterna - Apertura sinistra

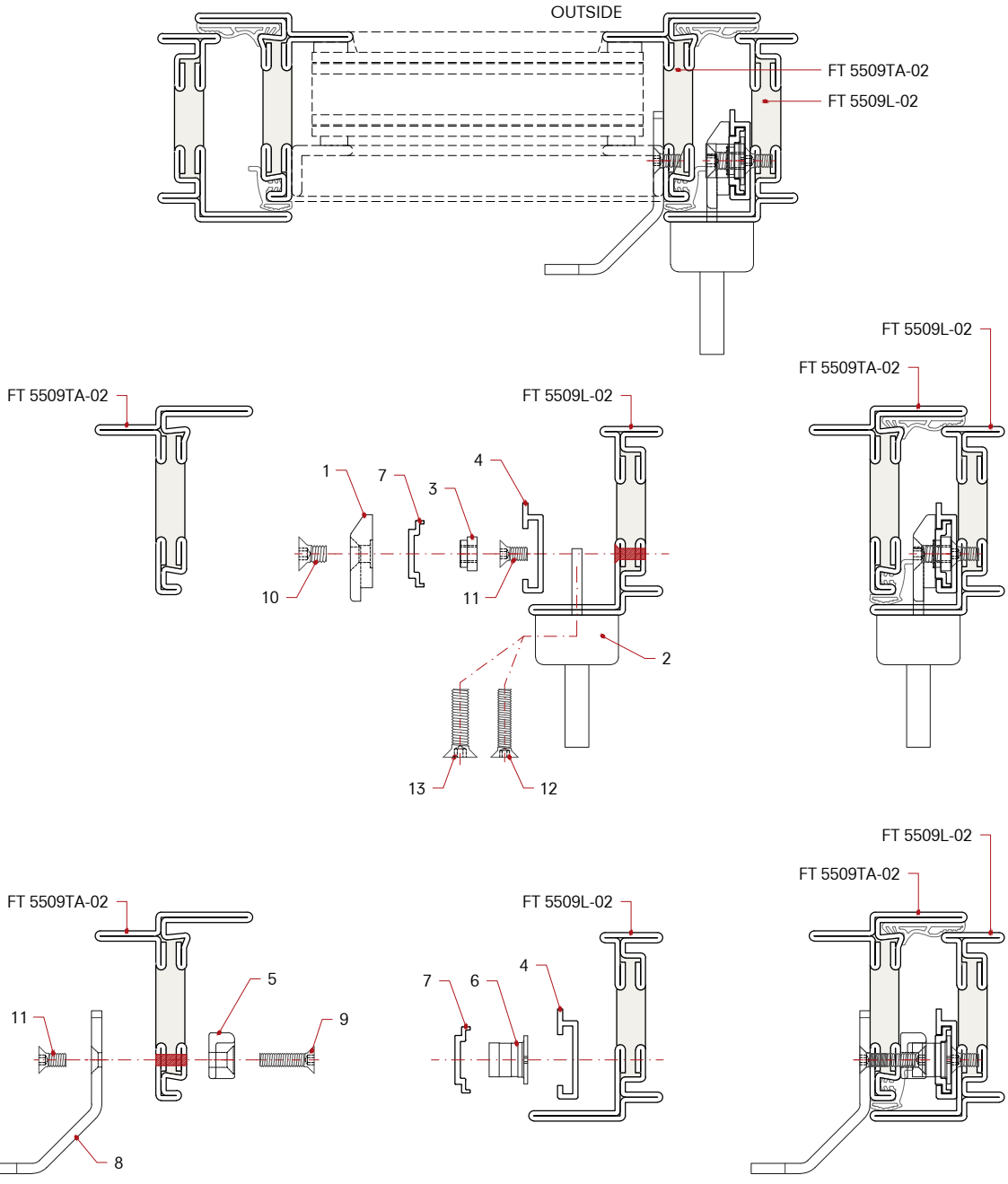
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de una hoja
Que se abre hacia fuera - Apertura izquierda



Scale 1:4
A) Ø3.3 mm threaded M4 countersunk holes
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø3.3 mm threaded M4 holes (PU)

Scala 1:4
A) Fori Ø3.3 mm svasati filettati M4
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø3.3 mm filettati M4 (PU)

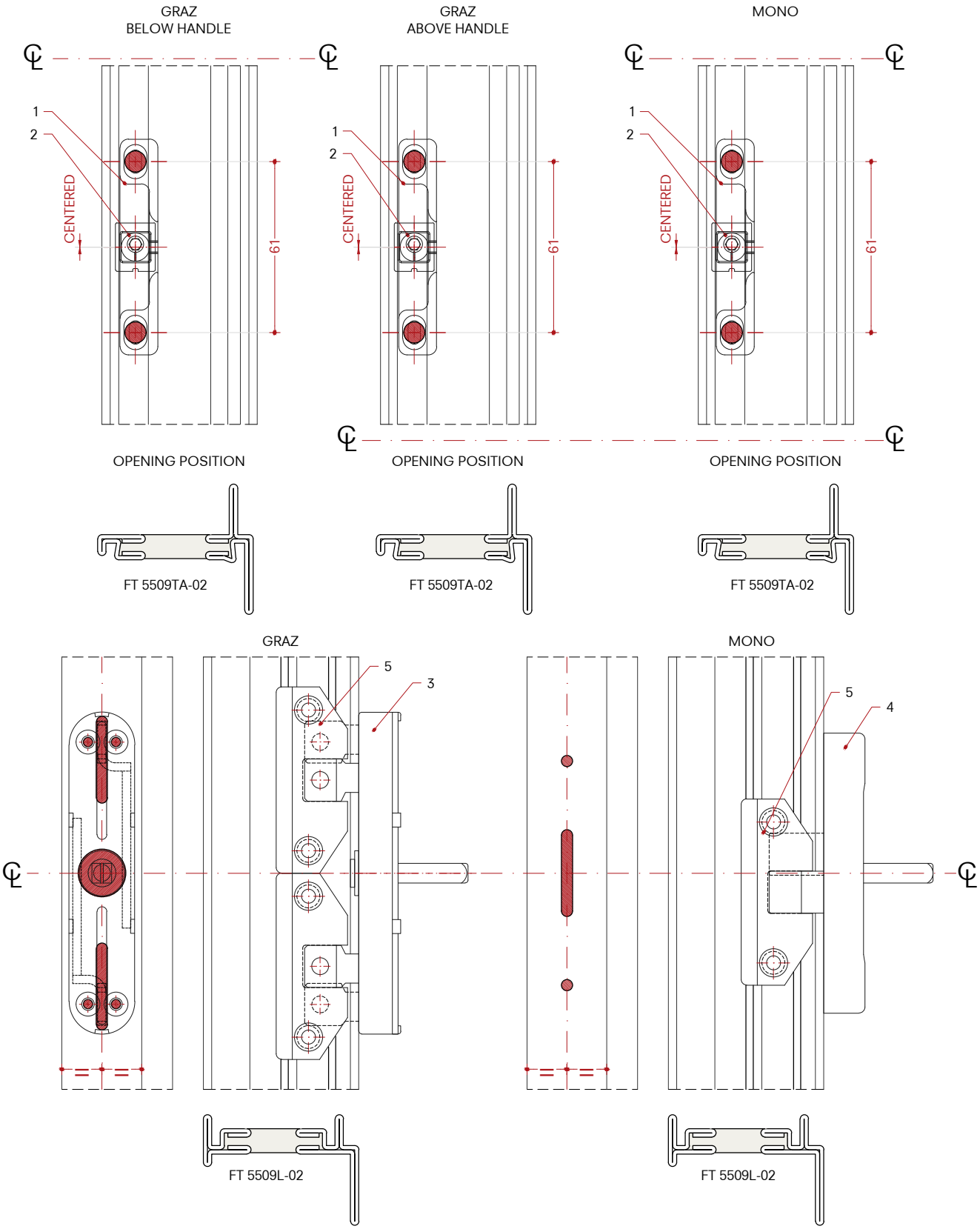
Escala 1:4
A) Orificios Ø3.3 mm avellanados roscados M4
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø3.3 mm roscados M4 (PU)



Scale 1:2
1) Cremone gear connection E99392-87
2) Graz E99652-03 or Mono E99658-11 (left configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) Strike plate E99387-11
6) Stud E99397-03
7) Aluminum rod E99385-52
8) Handle H99025-12
9) Fastening with M4x16 mm ISO10642 screws (not included)
10) Fastening with M5x8 mm ISO10642 screws (not included)
11) Fastening with M4x8 mm ISO10642 screws (not included)
12) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99652-03
13) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99392-87
2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Riscontro E99387-11
6) Nottolino E99397-03
7) Asta in alluminio E99385-52
8) Maniglia H99025-12
9) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
10) Fissaggio con viti M5x8 mm ISO10642 (non fornite)
11) Fissaggio con viti M4x8 mm ISO10642 (non fornite)
12) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99652-03
13) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99392-87
2) Graz E99652-03 o Mono E99658-11 (configuración izquierda)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Chapa de cierre E99387-11
6) Alfiler E99397-03
7) Varilla de aluminio E99385-52
8) Manija H99025-12
9) Fijación con tornillos M4x16 mm ISO10642 (no provisto)
10) Fijación con tornillos M5x8 mm ISO10642 (no provisto)
11) Fijación con tornillos M4x8 mm ISO10642 (no provisto)
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99652-03
13) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99652-03
4) Mono E99658-11 (left configuration)
5) Cremone gear connection E99392-87

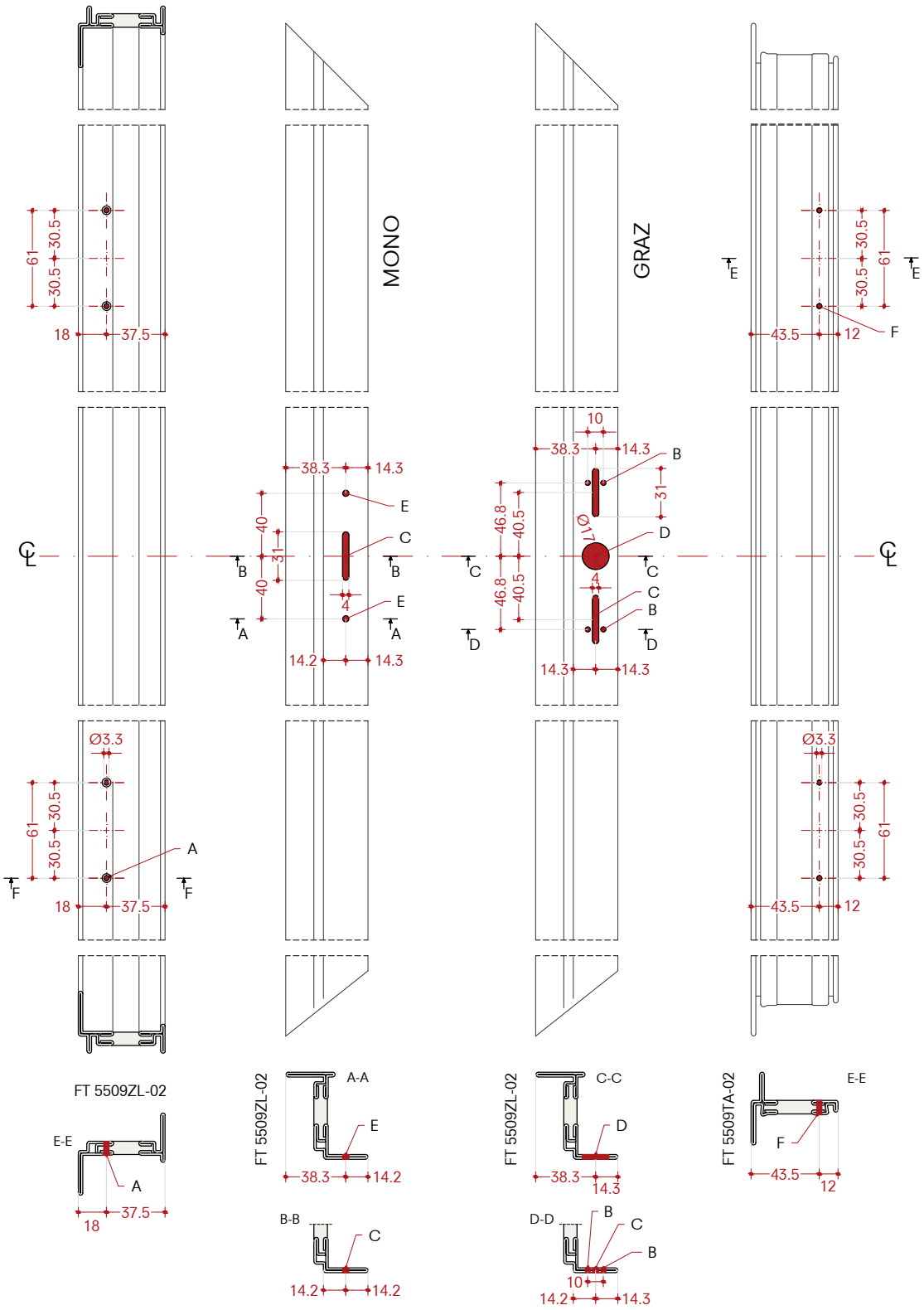
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99652-03
4) Mono E99658-11 (configurazione sinistra)
5) Connettore E99392-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99652-03
4) Mono E99658-11 (configuración izquierda)
5) Connettore E99392-87

Multipoint aluminum rods installation, with Graz and Mono
Double leaf window
Open out - Right opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra a due battenti
Apertura esterna - Apertura destra

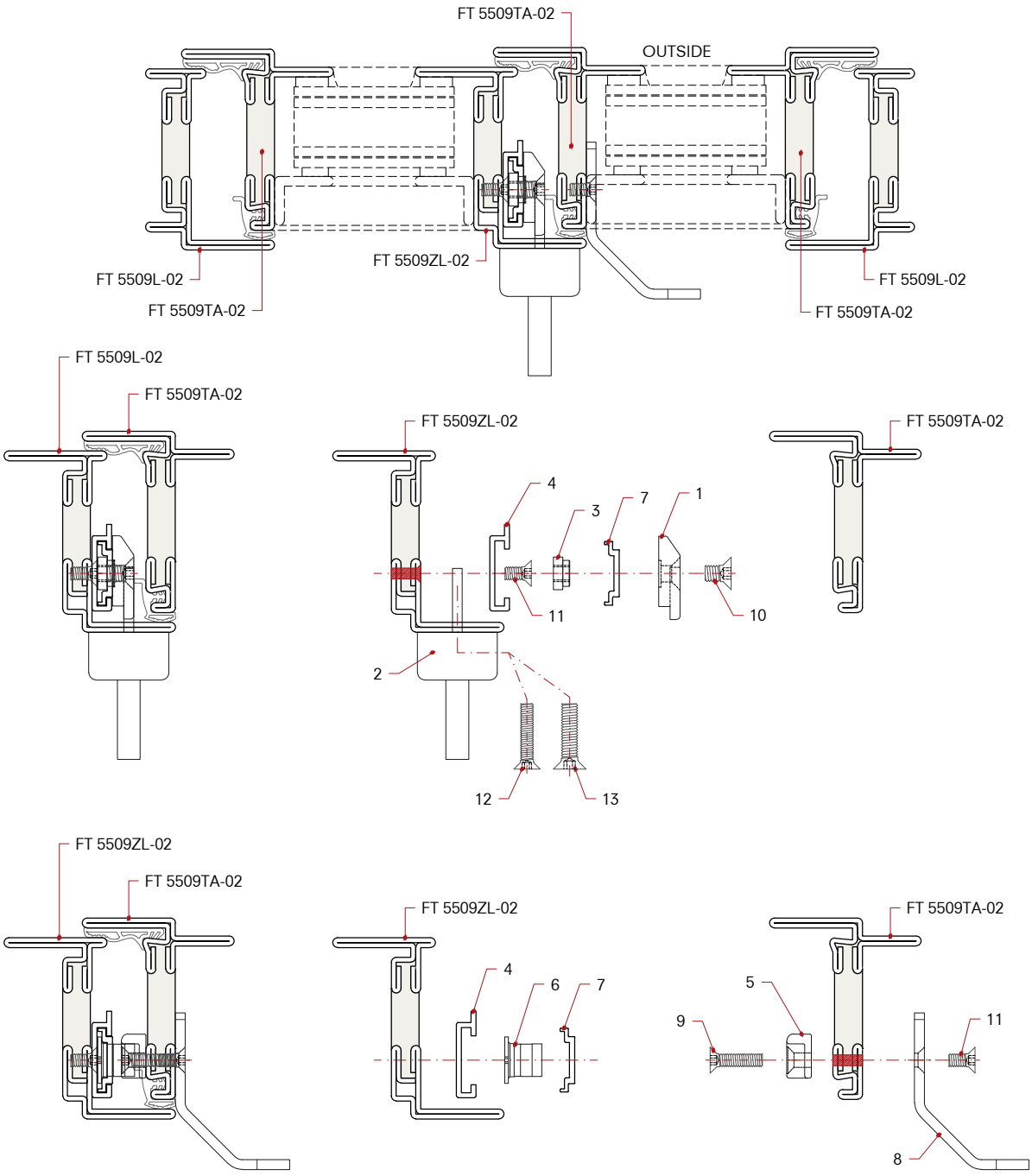
Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de dos hojas
Que se abre hacia fuera - Apertura derecha



Scale 1:4
A) Ø3.3 mm threaded M4 countersunk holes
B) Ø3.3 mm threaded M4 holes
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø3.3 mm threaded M4 holes (PU)

Scala 1:4
A) Fori Ø3.3 mm svasati filettati M4
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø3.3 mm filettati M4 (PU)

Escala 1:4
A) Orificios Ø3.3 mm avellanados roscados M4
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø3.3 mm roscados M4 (PU)



Scale 1:2
1) Cremone gear connection E99392-87
2) Graz E99652-03 or Mono E99658-11 (left configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) Strike plate E99387-11
6) Stud E99397-03
7) Aluminum rod E99385-52
8) Handle H99025-12
9) Fastening with M4x16 mm ISO10642 screws (not included)
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12) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99652-03
13) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99392-87
2) Graz E99652-03 o Mono E99658-11 (configurazione sinistra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Riscontro E99387-11
6) Nottolino E99397-03
7) Asta in alluminio E99385-52
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9) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
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12) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99652-03
13) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99392-87
2) Graz E99652-03 o Mono E99658-11 (configuración izquierda)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Chapa de cierre E99387-11
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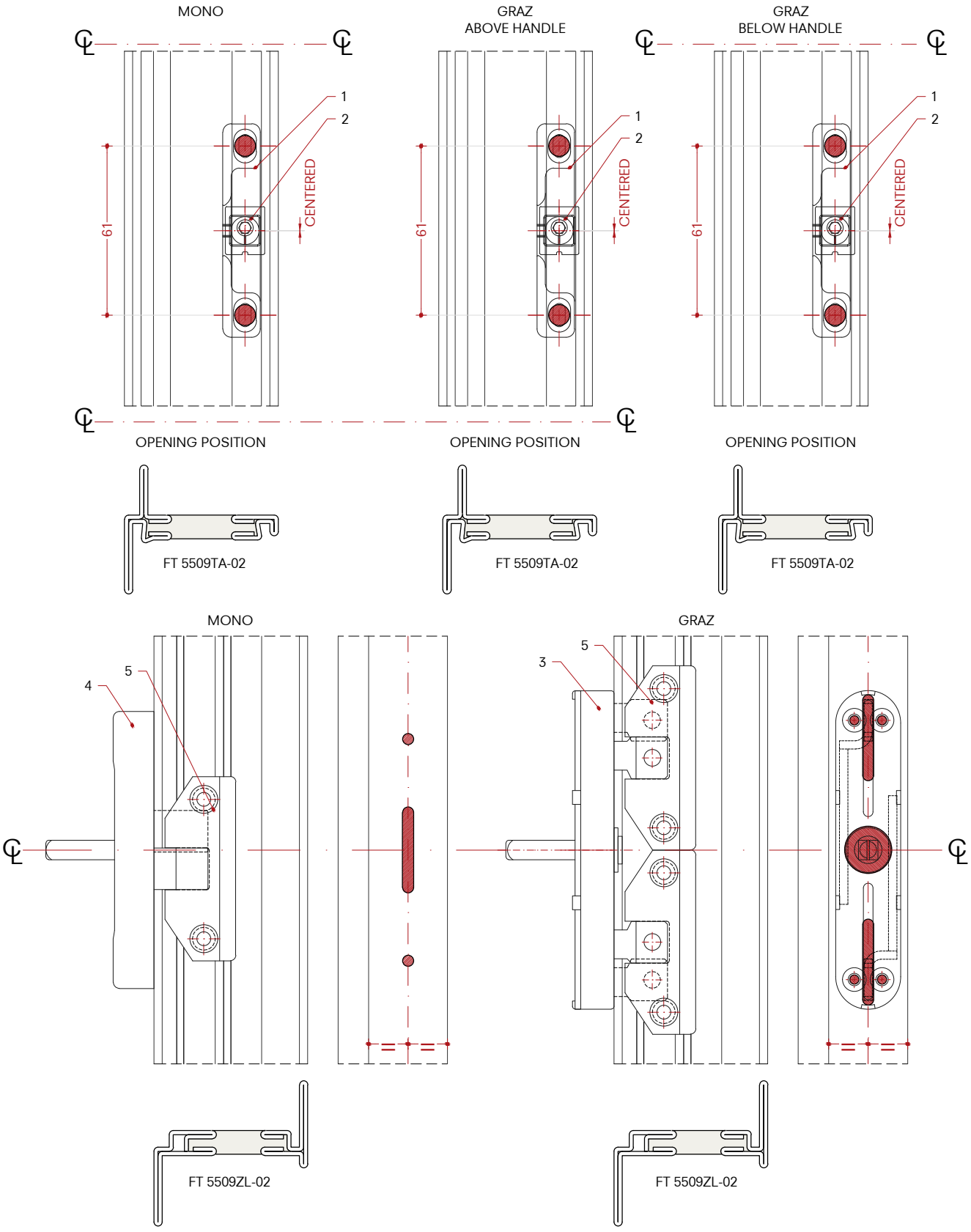
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99652-03
13) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99652-03
4) Mono E99658-11 (left configuration)
5) Cremone gear connection E99392-87

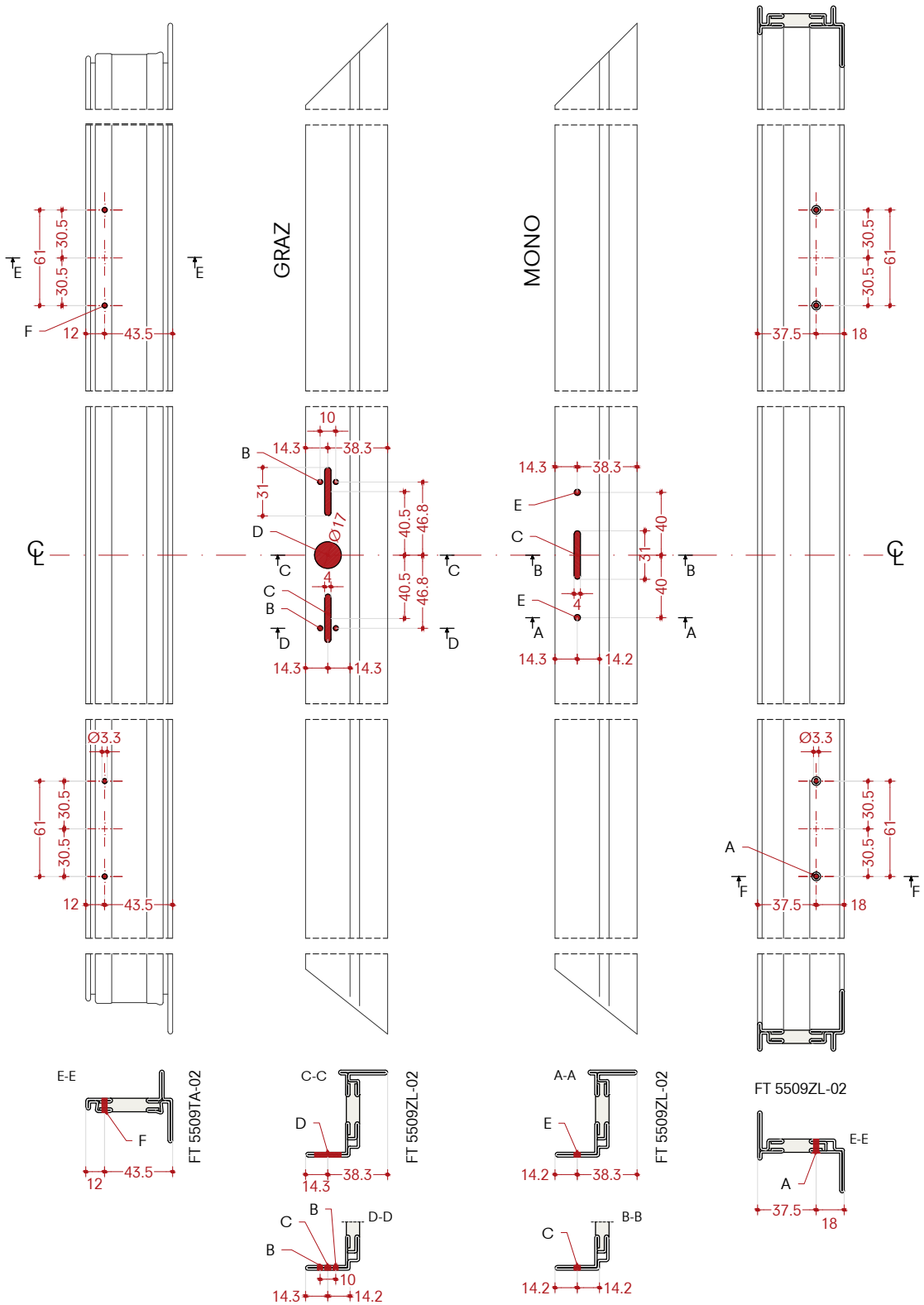
Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99652-03
4) Mono E99658-11 (configurazione sinistra)
5) Connettore E99392-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99652-03
4) Mono E99658-11 (configuración izquierda)
5) Connettore E99392-87

Multipoint aluminum rods installation, with Graz and Mono
Double leaf window
Open out - Left opening

Montaggio Multipoint aste in alluminio, con Graz e Mono
Finestra a due battenti
Apertura esterna - Apertura sinistra

Montaje Multipoint varillas de aluminio, con Graz y Mono
Ventana de dos hojas
Que se abre hacia fuera - Apertura izquierda



Scale 1:4
A) Ø3.3 mm threaded M4 countersunk holes
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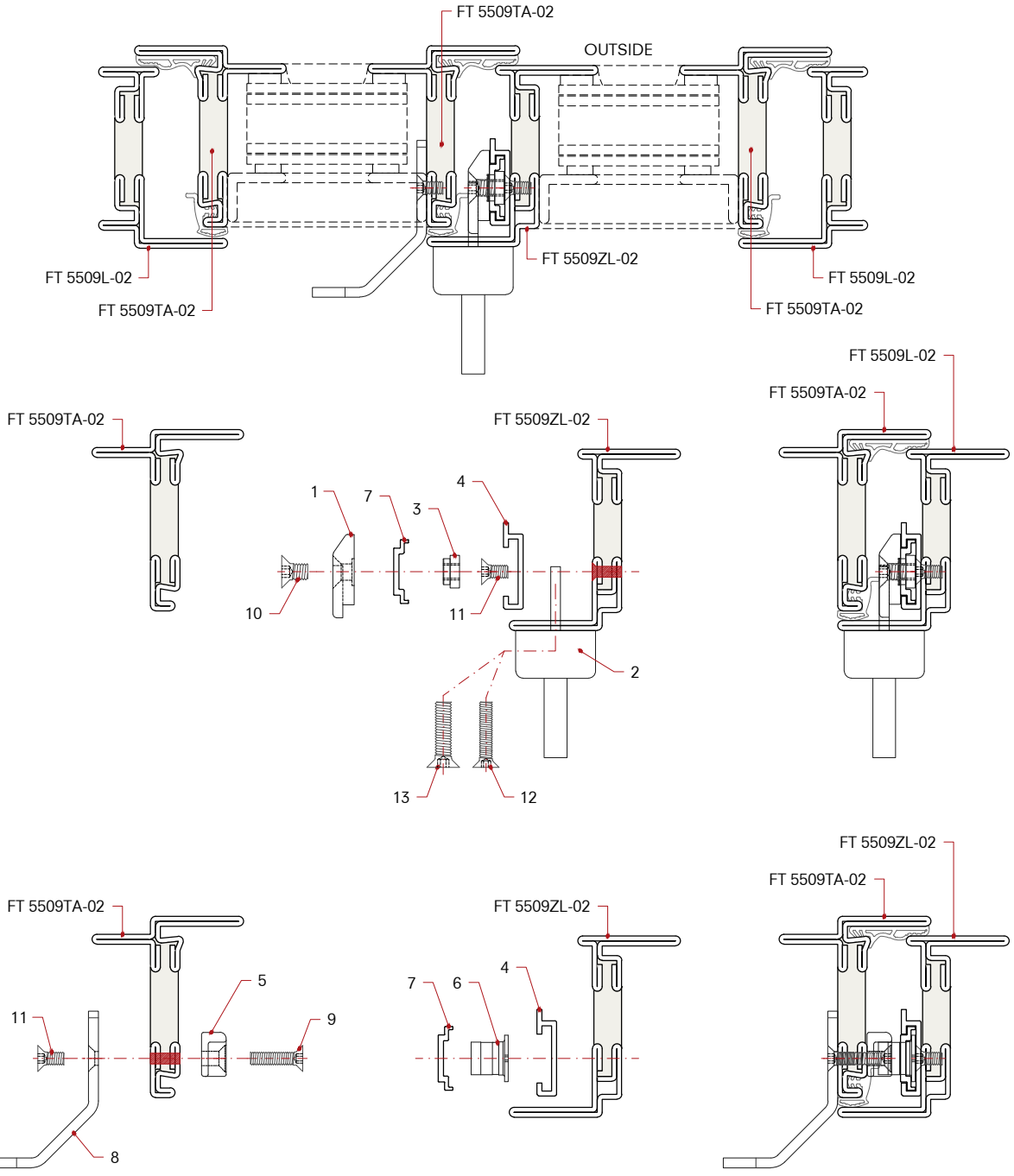
C) Cut out 31x4 mm
D) Ø17 mm hole
E) Ø4 mm threaded M5 holes
F) Ø3.3 mm threaded M4 holes (PU)

Scala 1:4
A) Fori Ø3.3 mm svasati filettati M4
B) Fori Ø3.3 mm filettati M4
C) Fresatura 31x4 mm
D) Foro Ø17 mm
E) Fori Ø4 mm filettati M5
F) Fori Ø3.3 mm filettati M4 (PU)

Escala 1:4
A) Orificios Ø3.3 mm avellanados roscados M4
B) Orificios Ø3.3 mm roscados M4
C) Fresado 31x4 mm
D) Orificio Ø17 mm
E) Orificios Ø4 mm roscados M5
F) Orificios Ø3.3 mm roscados M4 (PU)



Scale 1:2
1) Cremone gear connection E99392-87
2) Graz E99653-03 or Mono E99658-11 (right configuration)
3) Bush D99709-02
4) Aluminum rail E99502-00
5) Strike plate E99387-11
6) Stud E99397-03
7) Aluminum rod E99385-52
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12) Fastening with M4x20 mm ISO10642 screws (not included) for Graz E99653-03
13) Fastening with M5x20 mm ISO10642 screws (not included) for Mono E99658-11

Scala 1:2
1) Connettore E99392-87
2) Graz E99653-03 o Mono E99658-11 (configurazione destra)
3) Boccola D99709-02
4) Binario in alluminio E99502-00
5) Riscontro E99387-11
6) Nottolino E99397-03
7) Asta in alluminio E99385-52
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9) Fissaggio con viti M4x16 mm ISO10642 (non fornite)
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12) Fissaggio con viti M4x20 mm ISO10642 (non fornite) per Graz E99653-03
13) Fissaggio con viti M5x20 mm ISO10642 (non fornite) per Mono E99658-11

Escala 1:2
1) Conector E99392-87
2) Graz E99653-03 o Mono E99658-11 (configuración derecha)
3) Casquillo D99709-02
4) Carril de aluminio E99502-00
5) Chapa de cierre E99387-11
6) Alfiler E99397-03
7) Varilla de aluminio E99385-52
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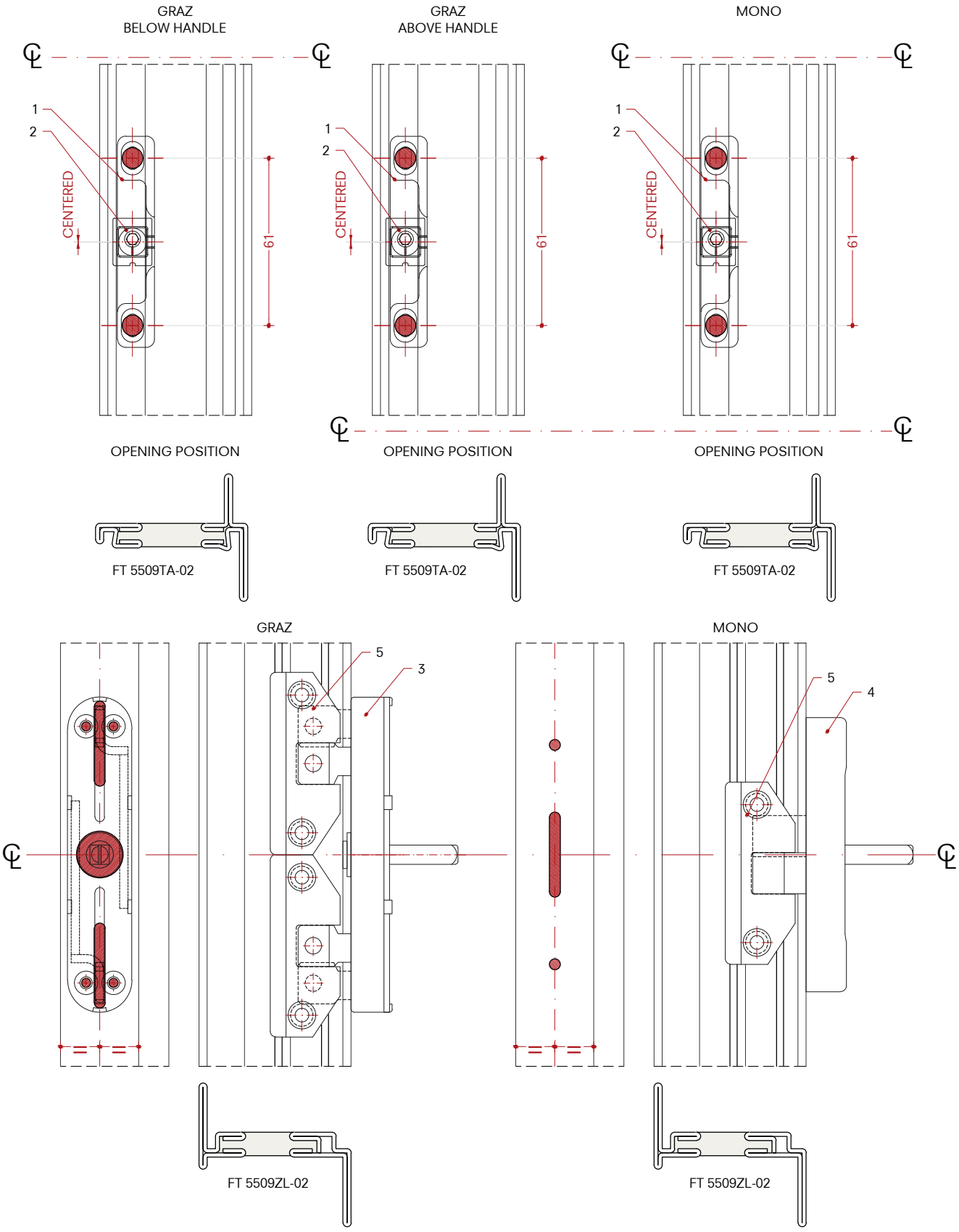
12) Fijación con tornillos M4x20 mm ISO10642 (no provisto) para Graz E99653-03
13) Fijación con tornillos M5x20 mm ISO10642 (no provisto) para Mono E99658-11



Scale 1:2
1) Strike plate E99387-11
2) Stud E99397-03, position on leaf
3) Graz E99653-03
4) Mono E99658-11 (right configuration)
5) Cremone gear connection E99392-87

Scala 1:2
1) Riscontro E99387-11
2) Nottolino E99397-03, posizione sull'anta
3) Graz E99653-03
4) Mono E99658-11 (configurazione destra)
5) Connettore E99392-87

Escala 1:2
1) Chapa de cierre E99387-11
2) Alfiler E99397-03, posición en la hoja
3) Graz E99653-03
4) Mono E99658-11 (configuración derecha)
5) Connettore E99392-87

Glazing

Vetrazione

Acristalamiento

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

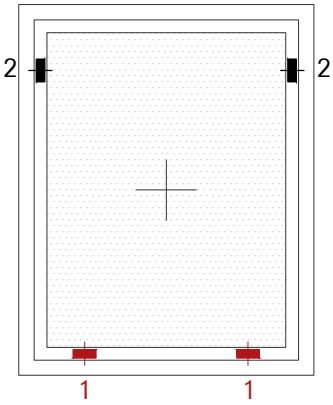
Leyenda

+ = Fijo
—— = Apertura interna
- - - = Apertura externa
Medidas en: mm
Escala 1:1 - 1:2

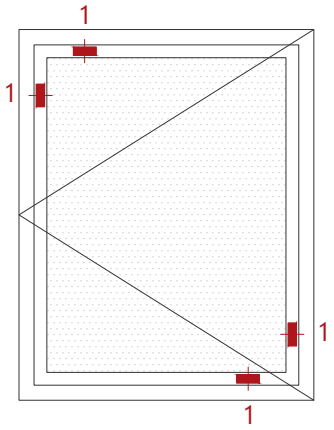
Installation
Glazing

Montaggio
Vetrazioni

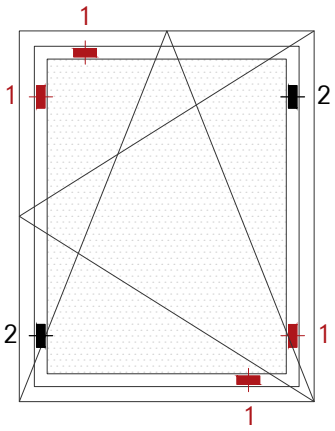
Montaje
Acristalamiento



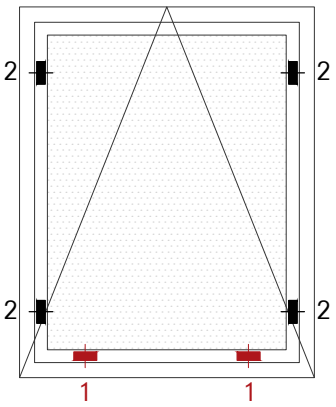
Fixed window (Windows and doors)
Finestra fissa (Serramenti esterni)
Ventana fija (Ventanas y puertas)



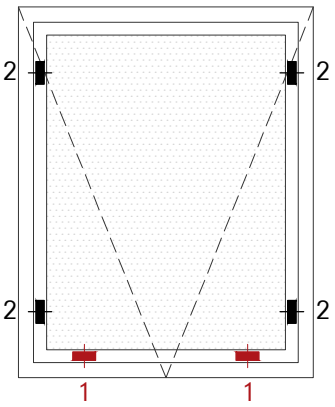
Single leaf window open in and open out
Finestra a un battente apertura interna e esterna
Ventana de una hoja que se abre hacia dentro y fuera



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

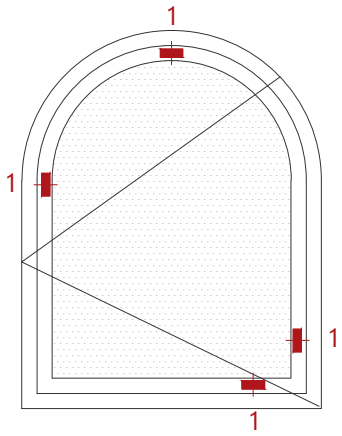


Top hung projecting window open out
Finestra a sporgere apertura esterna
Ventana proyectante que se abre hacia fuera

1) Support shims
2) Distance shims

1) Spessori di supporto
2) Spessori di distanza

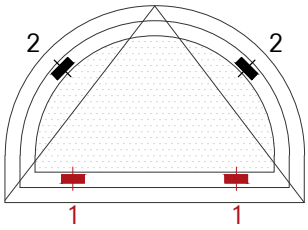
1) Espesores de soporte
2) Calzas de distancia



Single leaf 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

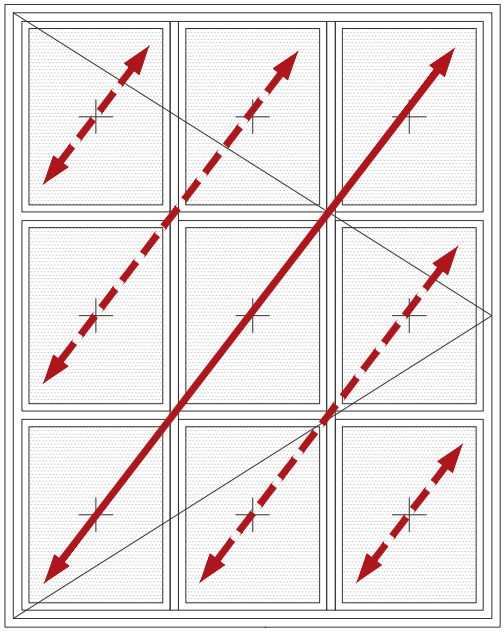
Finestra vasistas apertura interna

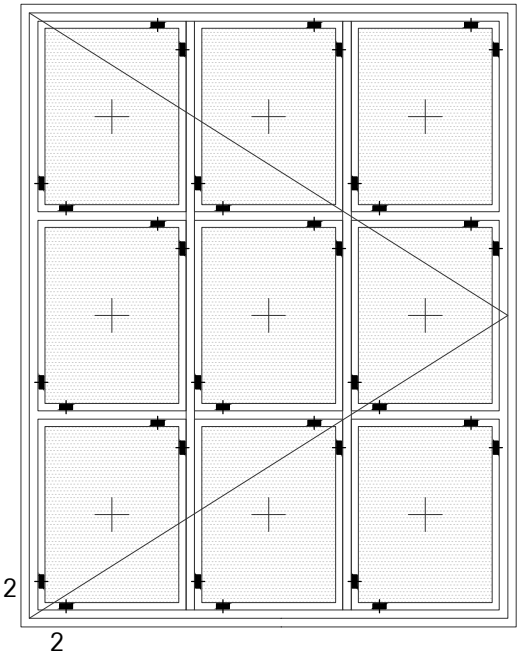
Ventana oscilante que se abre hacia dentro

1) Support shims
2) Distance shims

1) Spessori di supporto
2) Spessori di distanza

1) Espesores de soporte
2) Calzas de distancia





Single leaf window open in and open out

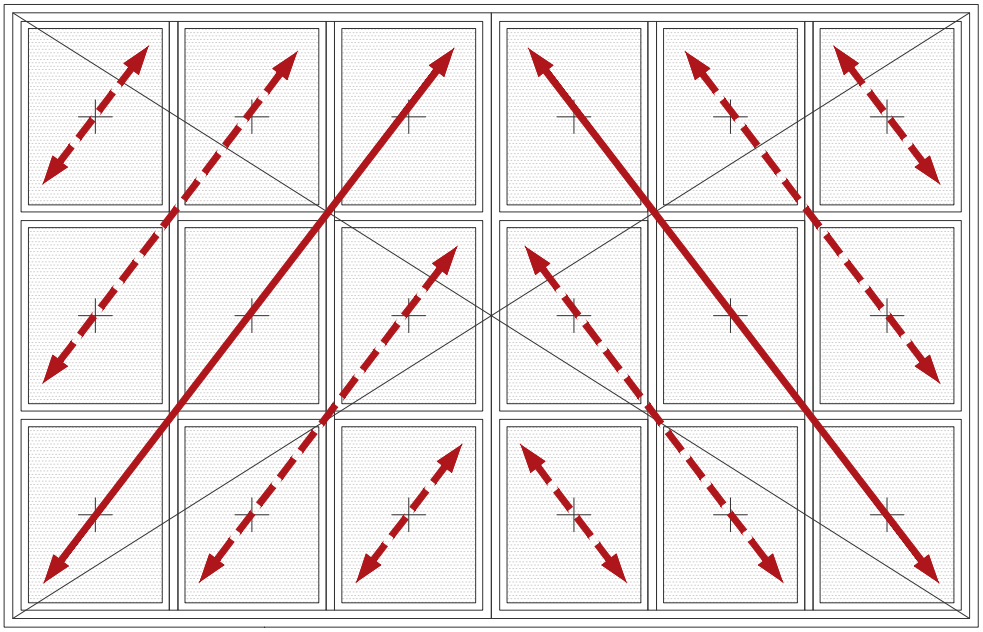
Finestra a un battente apertura interna ed esterna

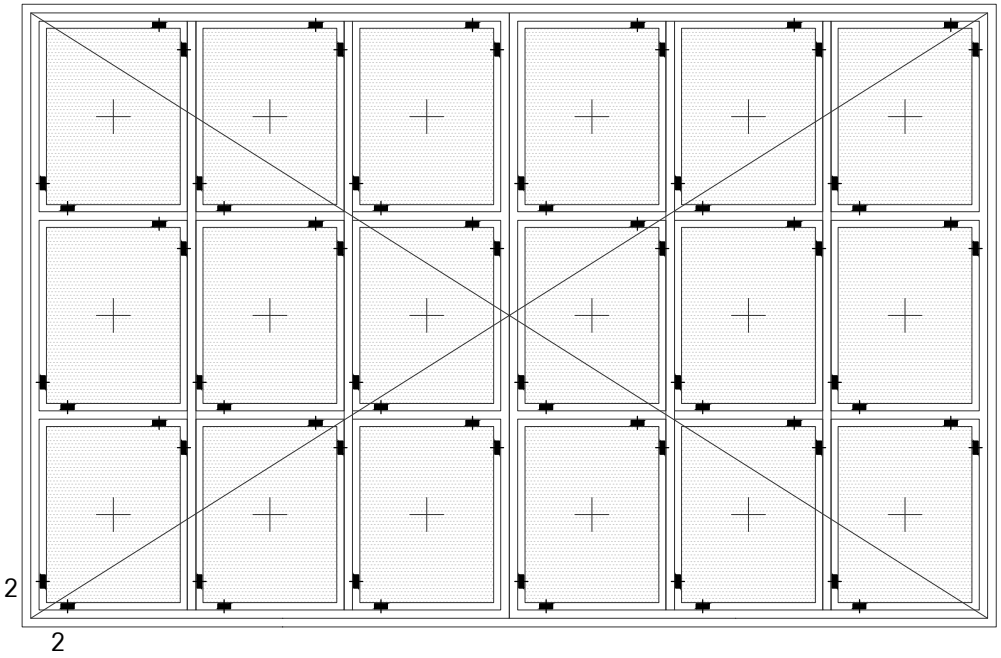
Ventana de una hoja que se abre hacia dentro y fuera

2) Distance shims

2) Spessori di distanza

2) Calzas de distancia





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.

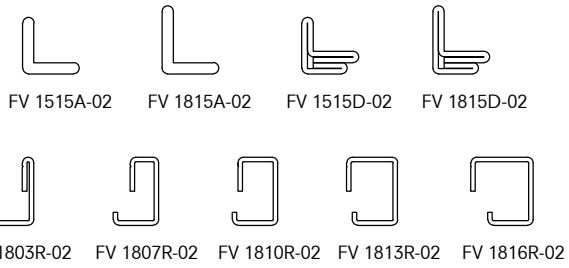
Taglio a 45° dei fermavetri angolari e saldatura degli angoli sul lato interno.

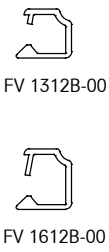
Corte de junquillos a 45° y soldado desde el interior.

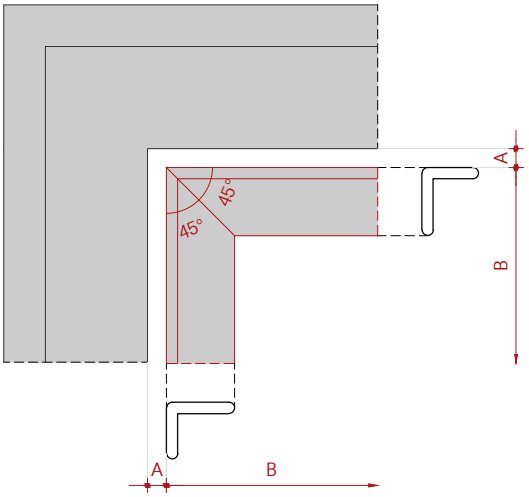
45° cutting of aluminium glazing beads.

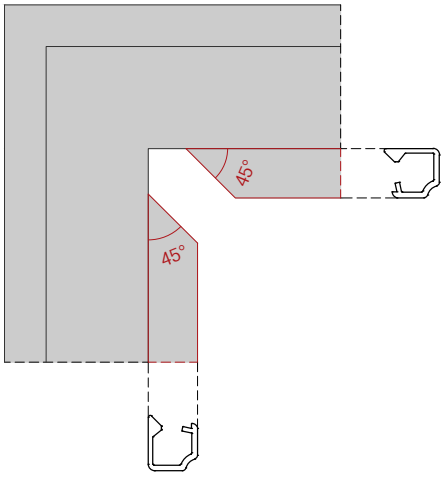
Taglio a 45° dei fermavetri in alluminio.

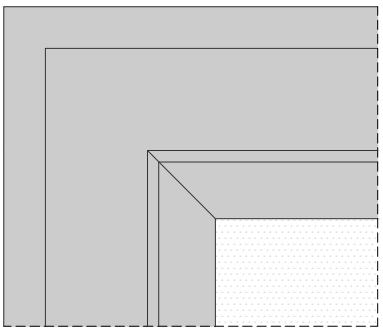
Corte de junquillos de aluminio a 45°.

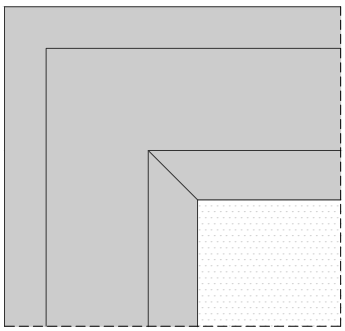












A) Shim between frame and glazing bead 0.5 mm (distance)
B) Cutting length

A) Aria di 0.5 mm
B) Lunghezza di taglio

A) Inserto de 0.5 mm como distancia
B) Longitud de corte

90° cutting of aluminium glazing beads.
Taglio a 90° dei fermavetri in alluminio.
Corte de junquillos de aluminio a 90°.

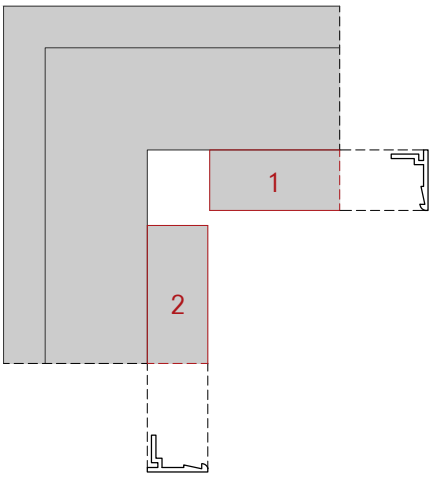
FV 1302R-00 FV 1312R-00

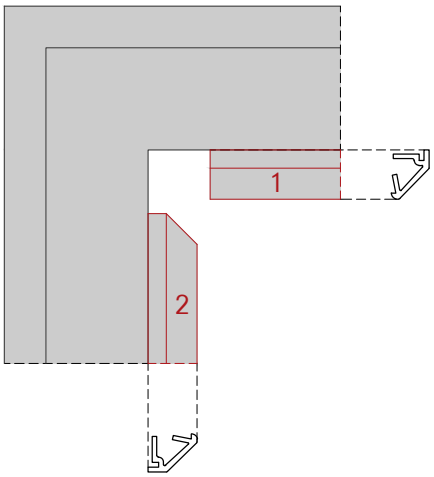
FV 1602R-00 FV 1612R-00

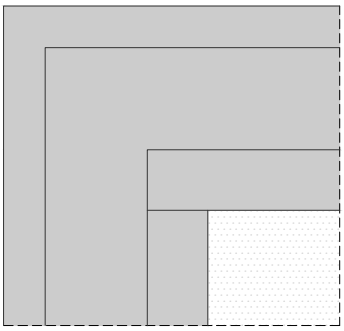
Shaped cutting of aluminium glazing beads.
Taglio sagomato dei fermavetri in alluminio.
Corte con forma de junquillos de aluminio.

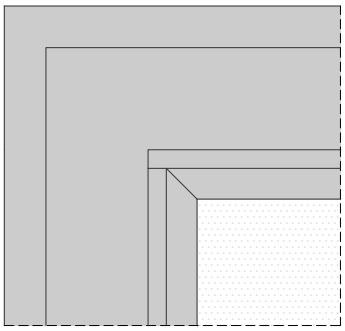
FV 1310S-00 FV 1312S-00

FV 1610S-00 FV 1612S-00





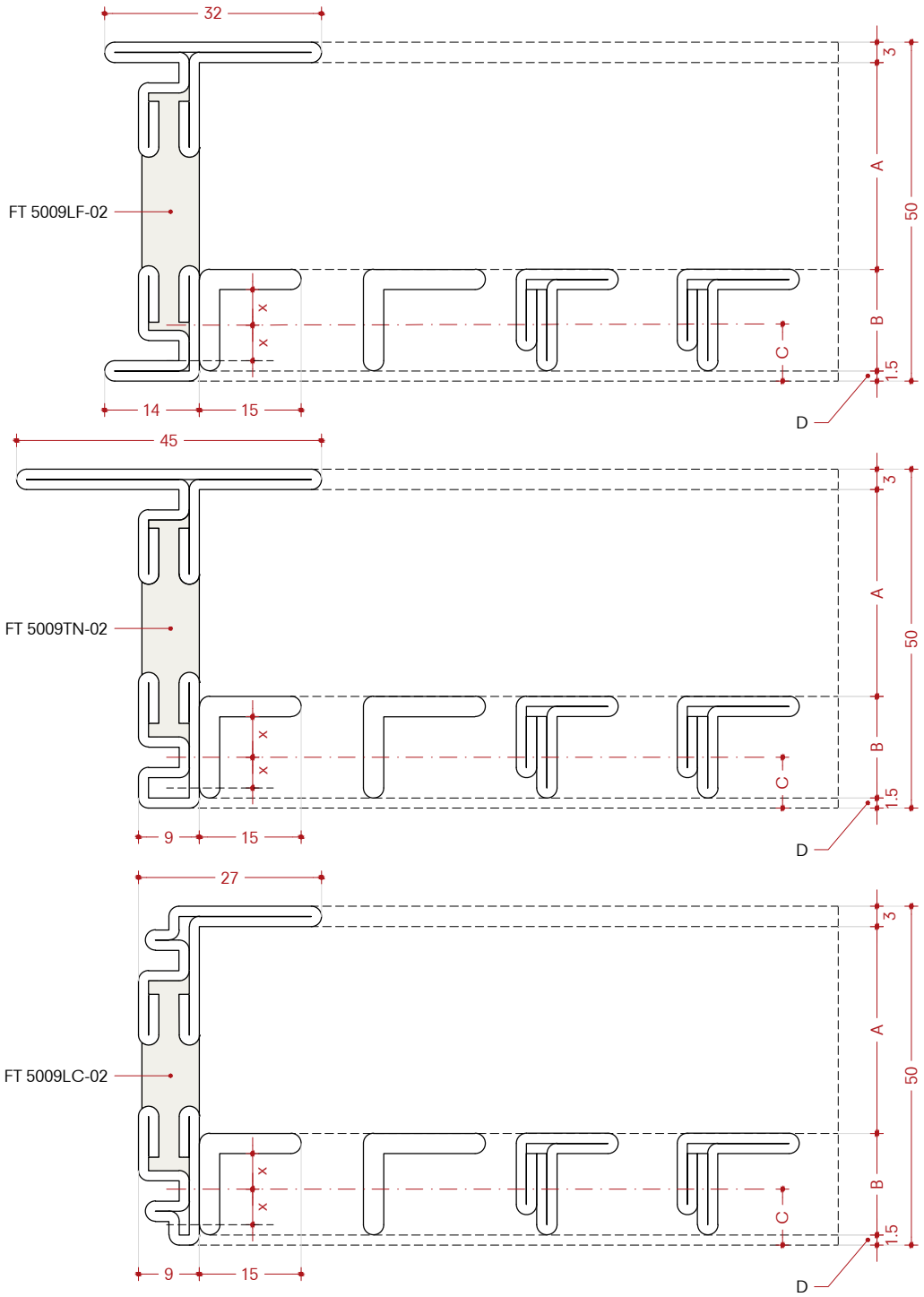




Installation
Glazing beads
Positioning of glazing bead

Montaggio
Fermavetri
Posizionamento fermavetro

Montaje
Junquillos
Colocación de junquillo



Dimensions see chapter 2.3
"Glazing table"

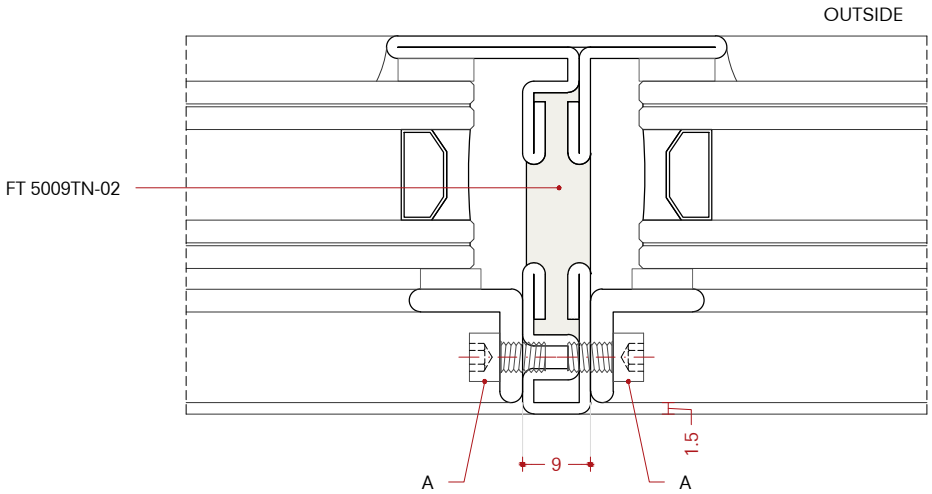
A) Glazing including internal gasket and external gasket
B) Depth of glazing bead
C) Position of the screw connection
D) Positioning of the glazing bead: recommendation offset 1.5 mm

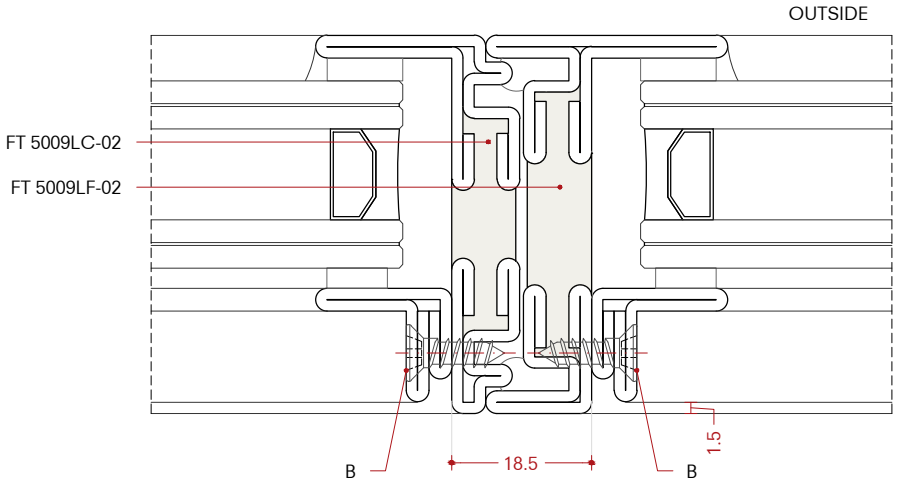
Dimensioni vedi capitolo 2.3
"Tabella vetrazioni"

A) Vetri comprensivi di guarnizione interna e guarnizione esterna
B) Profondità del fermavetro
C) Posizione della vite di fissaggio
D) Posizionamento del fermavetro: offset consigliato 1.5 mm

Dimensiones ver capítulo 2.3
"Tabla de acristalamiento"

A) Acristalamiento que incluye junta interna y junta externa
B) Profundidad del cordón de acristalamiento
C) Posición de tornillo
D) Posicionamiento del cordón de acristalamiento: recomendación de compensación 1.5 mm





A) Screws D99867-03 - D99866-03
(be careful to the vertical interferences)
B) Screws D99851-03 - D99868-03

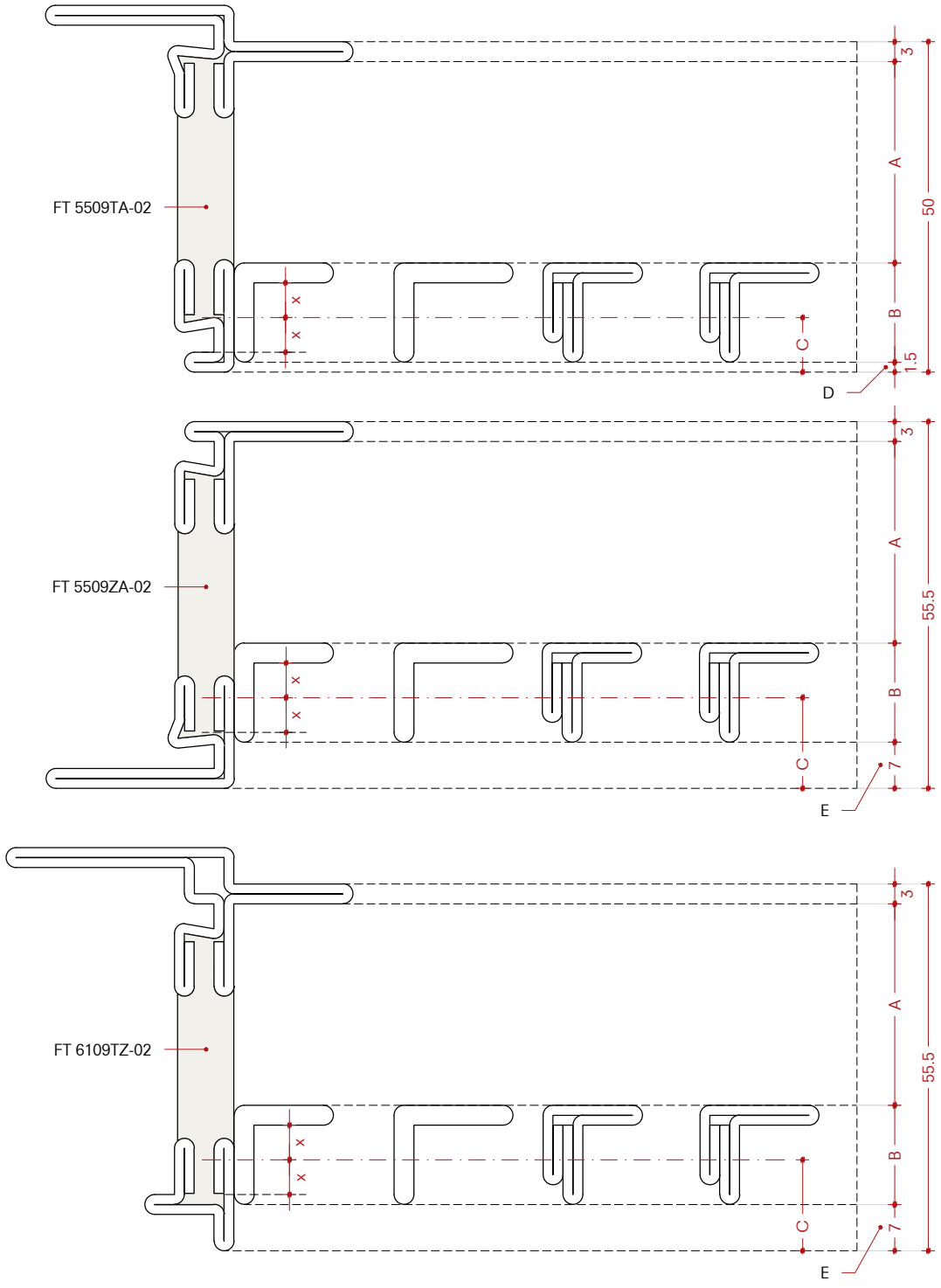
A) Viti D99867-03 - D99866-03
(attenzione alle interferenze verticali)
B) Viti D99851-03 - D99868-03

A) Tornillos D99867-03 - D99866-03
(cuidado con las interferencias verticales)
B) Tornillos D99851-03 - D99868-03

Installation
Glazing beads
Positioning of glazing bead

Montaggio
Fermavetri
Posizionamento fermavetro

Montaje
Junquillos
Colocación de junquillo



Dimensions see chapter 2.3
"Glazing table"

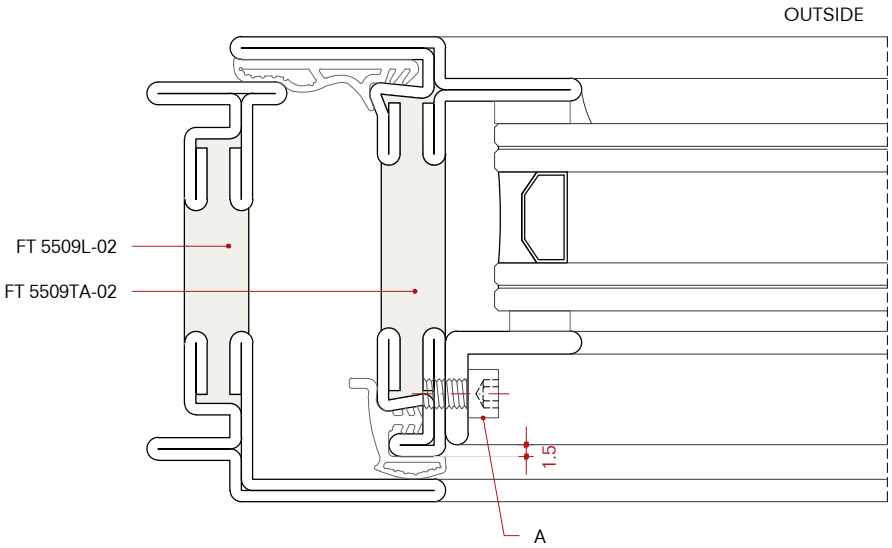
A) Glazing including internal gasket and external gasket
B) Depth of glazing bead
C) Position of the screw connection
D) Positioning of the glazing bead: recommendation offset 1.5 mm
E) Positioning of the glazing bead: recommendation offset 7 mm

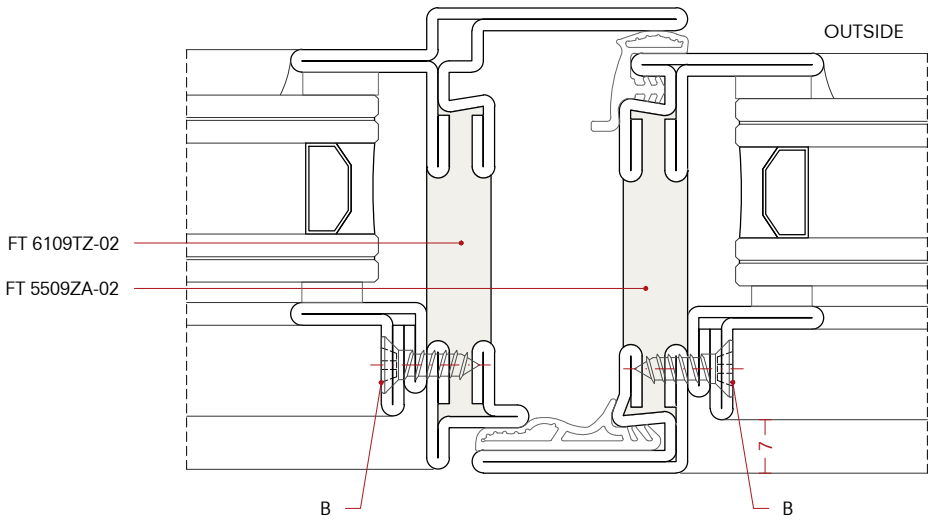
Dimensioni vedi capitolo 2.3
"Tabella vetrazioni"

A) Vetri comprensivi di guarnizione interna e guarnizione esterna
B) Profondità del fermavetro
C) Posizione della vite di fissaggio
D) Posizionamento del fermavetro: offset consigliato 1.5 mm
E) Posizionamento del fermavetro: offset consigliato 7 mm

Dimensiones ver capítulo 2.3
"Tabla de acristalamiento"

A) Acristalamiento que incluye junta interna y junta externa
B) Profundidad del cordón de acristalamiento
C) Posición de tornillo
D) Posicionamiento del cordón de acristalamiento: recomendación de compensación 1.5 mm
E) Posicionamiento del cordón de acristalamiento: recomendación de compensación 7 mm





A) Screws D99867-03 - D99866-03
B) Screws D99851-03 - D99868-03

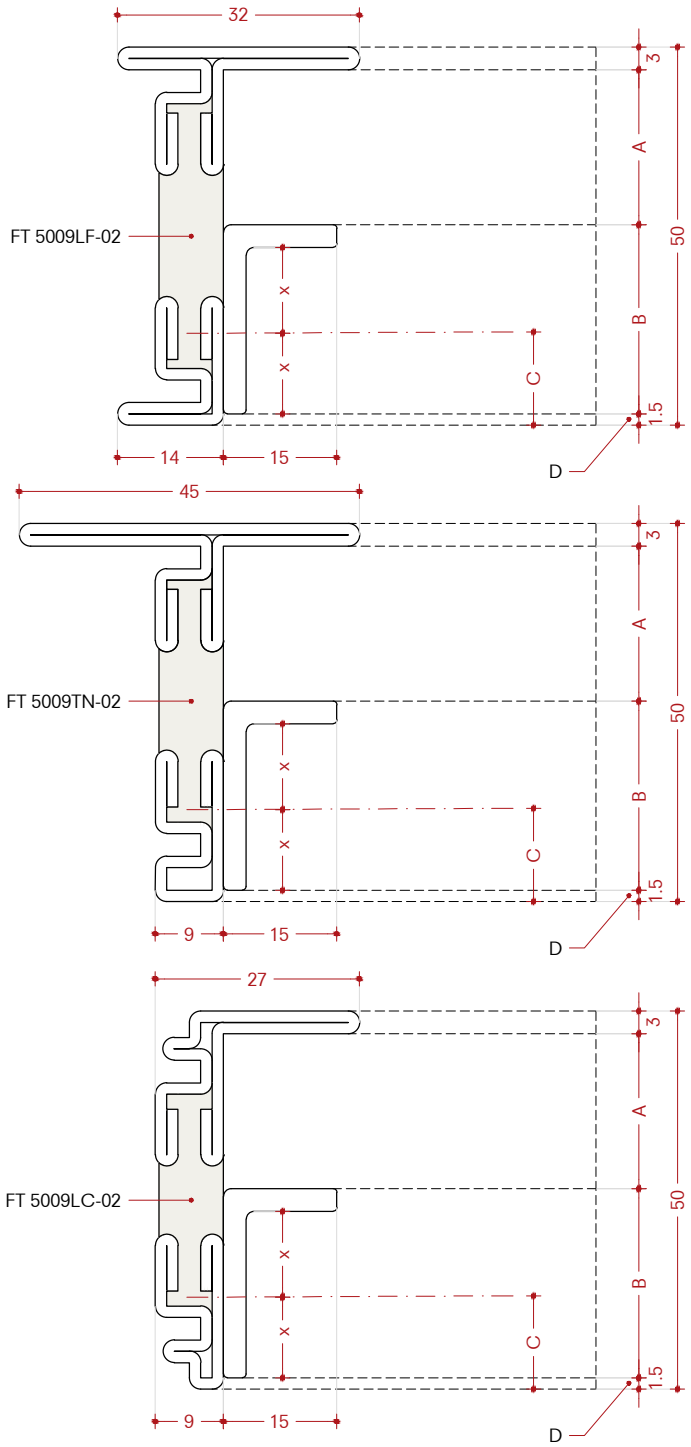
A) Viti D99867-03 - D99866-03
B) Viti D99851-03 - D99868-03

A) Tornillos D99867-03 - D99866-03
B) Tornillos D99851-03 - D99868-03

Installation
Glazing beads
Positioning of glazing bead
FV1525A-01

Montaggio
Fermavetri
Posizionamento fermavetro
FV1525A-01

Montaje
Junquillos
Colocación de junquillo
FV1525A-01



Dimensions see chapter 2.3
"Glazing table"

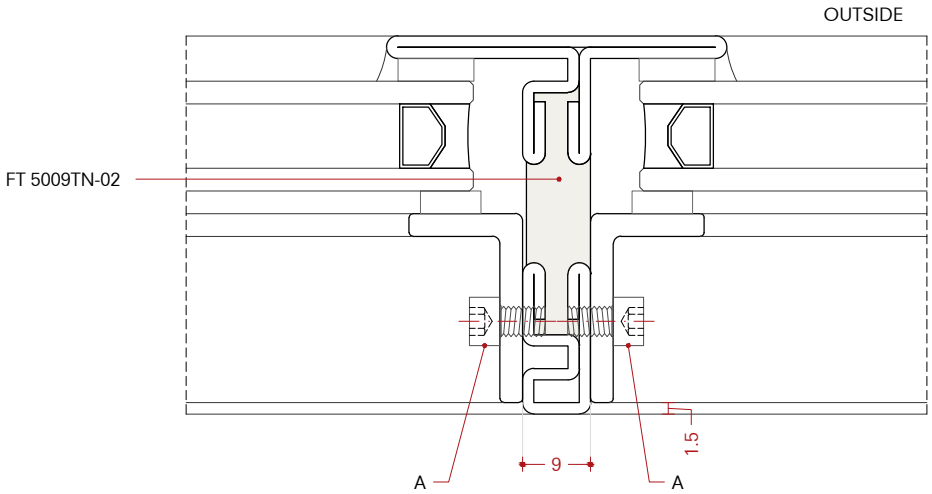
A) Glazing including internal gasket and external gasket
B) Depth of glazing bead
C) Position of the screw connection
D) Positioning of the glazing bead: recommendation offset 1.5 mm

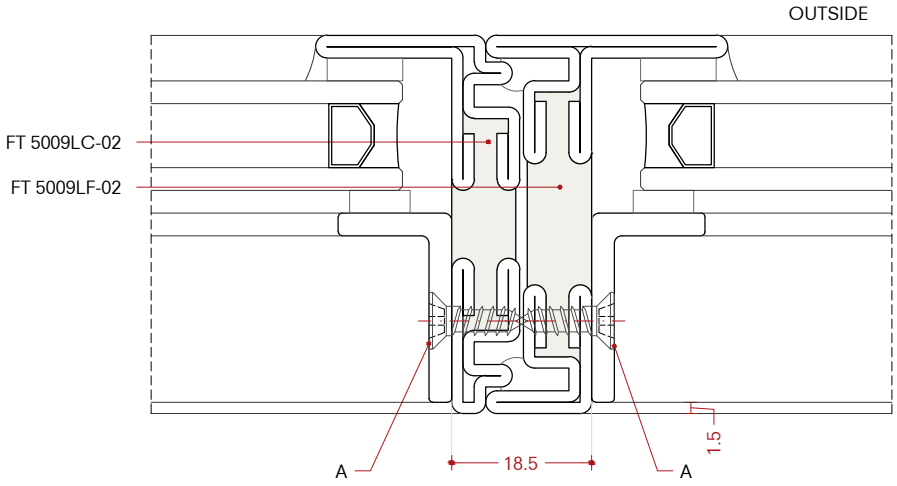
Dimensioni vedi capitolo 2.3
"Tabella vetrazioni"

A) Vetri comprensivi di guarnizione interna e guarnizione esterna
B) Profondità del fermavetro
C) Posizione della vite di fissaggio
D) Posizionamento del fermavetro: offset consigliato 1.5 mm

Dimensiones ver capítulo 2.3
"Tabla de acristalamiento"

A) Acristalamiento que incluye junta interna y junta externa
B) Profundidad del cordón de acristalamiento
C) Posición de tornillo
D) Posicionamiento del cordón de acristalamiento: recomendación de compensación 1.5 mm





A) Screws D99867-03 - D99866-03
(be careful to the vertical interferences)

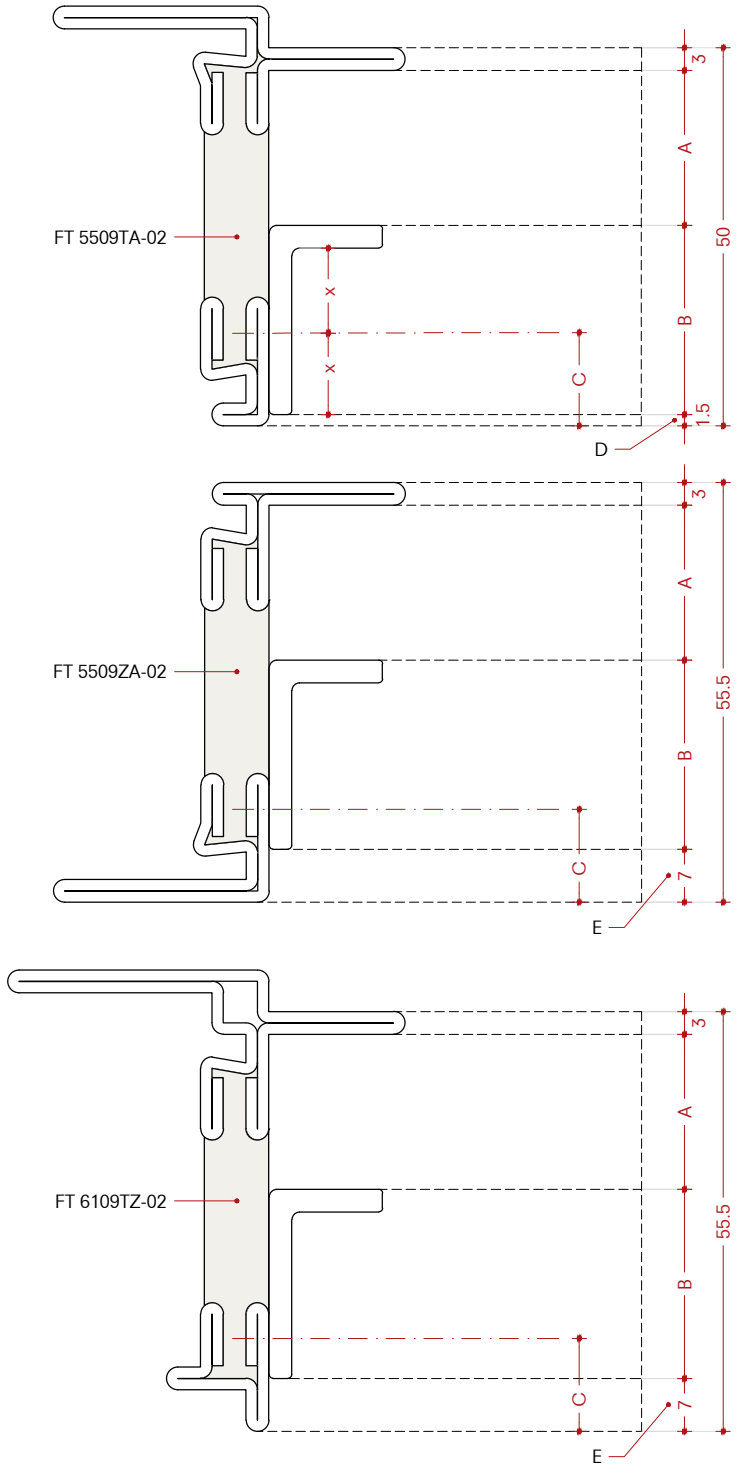
A) Viti D99867-03 - D99866-03
(attenzione alle interferenze verticali)

A) Tornillos D99867-03 - D99866-03
(cuidado con las interferencias verticales)

Installation
Glazing beads
Positioning of glazing bead
FV1525A-01

Montaggio
Fermavetri
Posizionamento fermavetro
FV1525A-01

Montaje
Junquillos
Colocación de junquillo
FV1525A-01



Dimensions see chapter 2.3
"Glazing table"

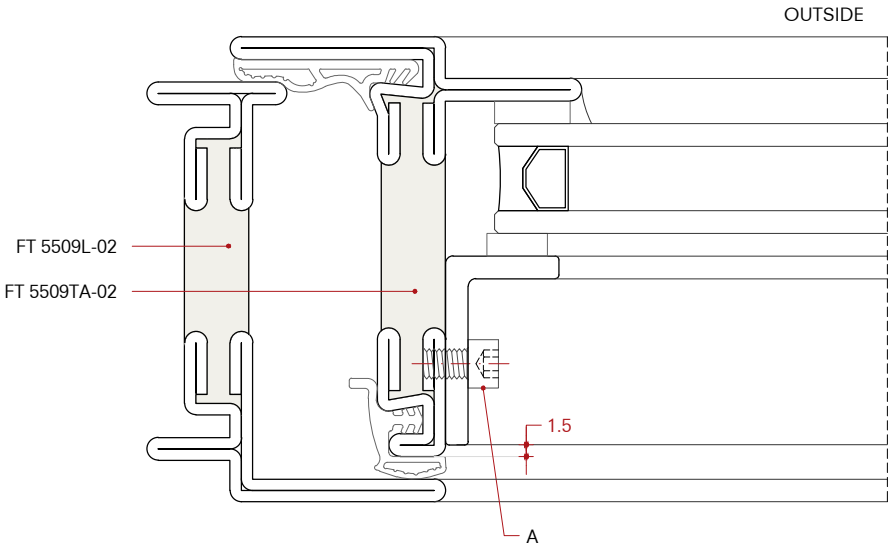
A) Glazing including internal gasket and external gasket
B) Depth of glazing bead
C) Position of the screw connection
D) Positioning of the glazing bead: recommendation offset 1.5 mm
E) Positioning of the glazing bead: recommendation offset 7 mm

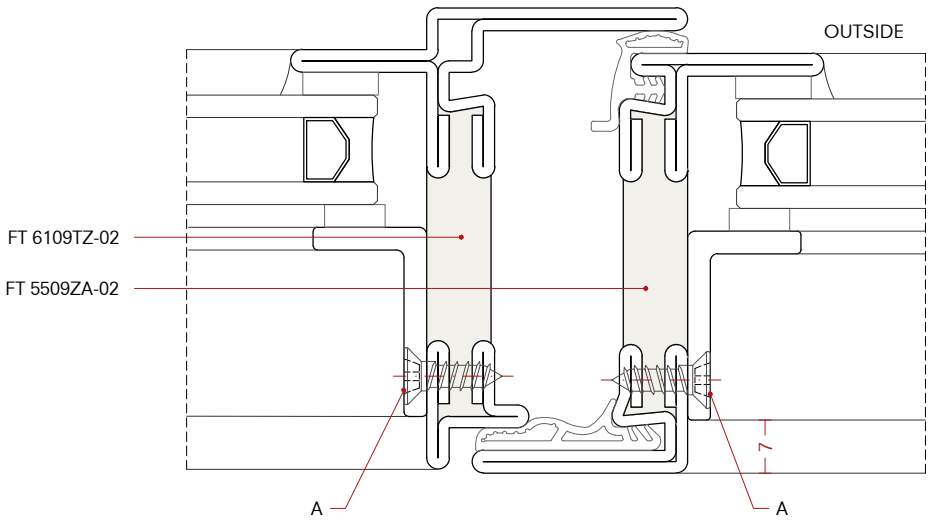
Dimensioni vedi capitolo 2.3
"Tabella vetrazioni"

A) Vetri comprensivi di guarnizione interna e guarnizione esterna
B) Profondità del fermavetro
C) Posizione della vite di fissaggio
D) Posizionamento del fermavetro: offset consigliato 1.5 mm
E) Posizionamento del fermavetro: offset consigliato 7 mm

Dimensiones ver capítulo 2.3
"Tabla de acristalamiento"

A) Acristalamiento que incluye junta interna y junta externa
B) Profundidad del cordón de acristalamiento
C) Posición de tornillo
D) Posicionamiento del cordón de acristalamiento: recomendación de compensación 1.5 mm
E) Posicionamiento del cordón de acristalamiento: recomendación de compensación 7 mm





A) Screws D99867-03 - D99866-03

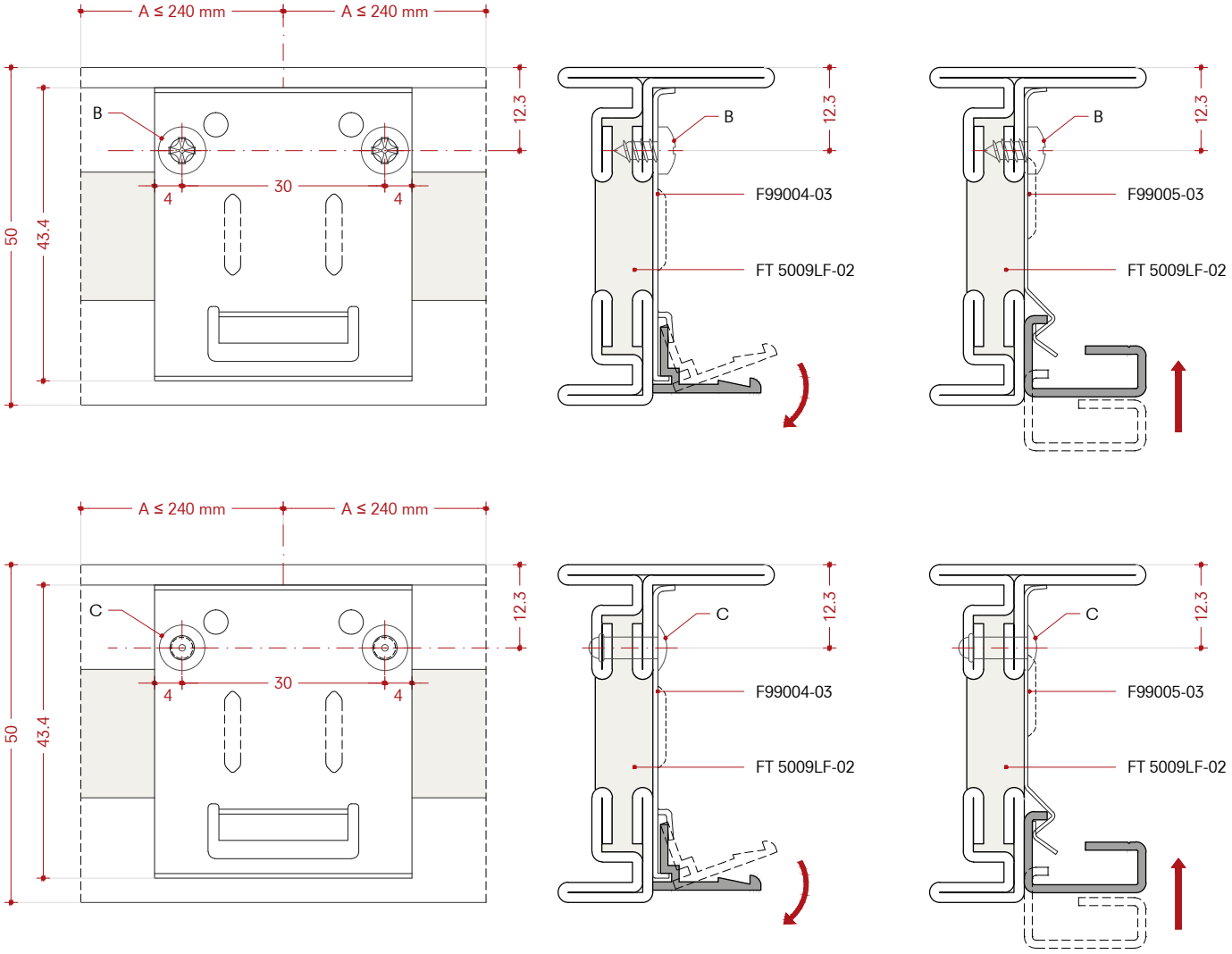
A) Viti D99867-03 - D99866-03

A) Tornillos D99867-03 - D99866-03

Installation
Glazing beads
For all profiles except FT 5509TA-02, FT 5009TN-02 and FT 5009TR-02

Montaggio
Fermavetri
Per tutti i profili eccetto FT 5509TA-02, FT 5009TN-02 e FT 5009TR-02

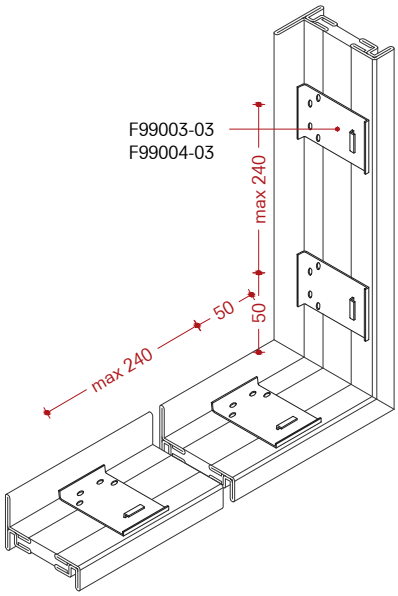
Montaje
Junquillos
Para todos los perfiles excepto FT 5509TA-02, FT 5009TN-02 y FT 5009TR-02

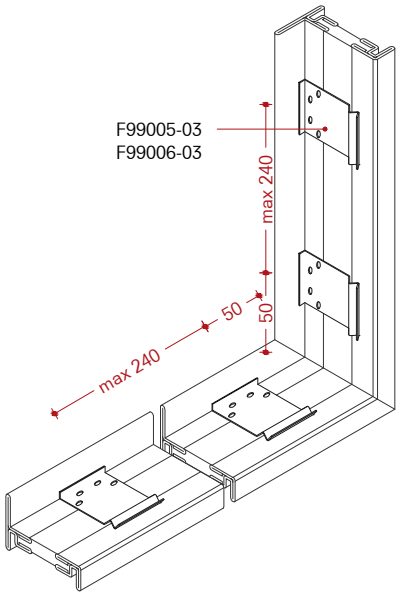


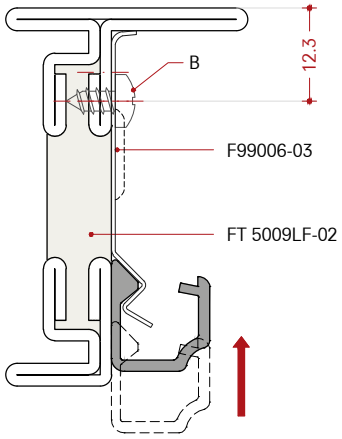
A) Maximum fixing distance
B) Fastening of clips with screws D99801-03 (see chapter 2.3 "Glazing table")
C) Fastening of clips with screws D99950-03 (see chapter 2.3 "Glazing table")

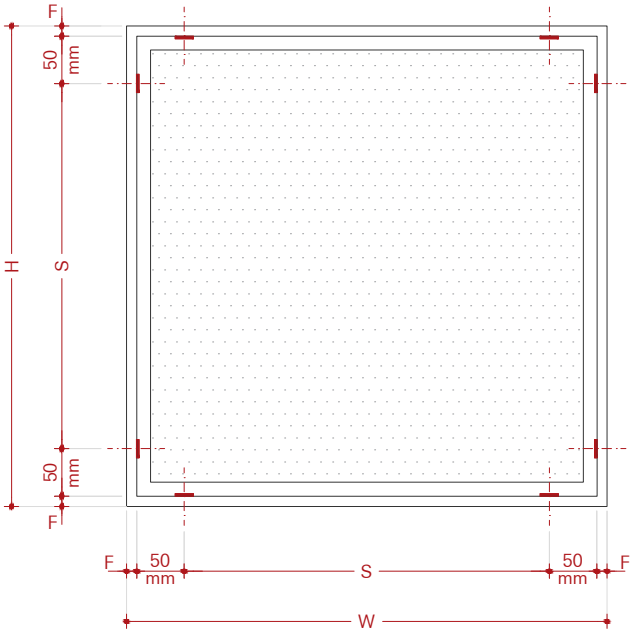
A) Distanza massima di fissaggio
B) Fissaggio clips con vite D99801-03 (vedi capitolo 2.3 "Tabella vetrazioni")
C) Fissaggio clips con vite D99950-03 (vedi capitolo 2.3 "Tabella vetrazioni")

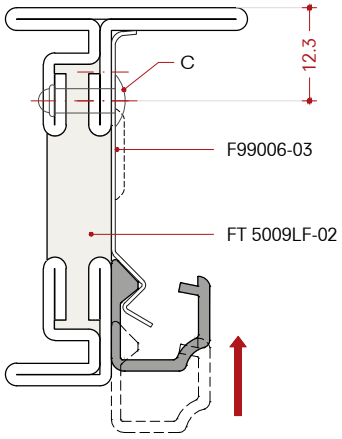
A) Distancia máxima de fijación
B) Fijación de clips con tornillos D99801-03 (ver capítulo 2.3 "Tabla de acristalamiento")
C) Fijación de clips con tornillos D99950-03 (ver capítulo 2.3 "Tabla de acristalamiento")











F) Internal profile width
H) Overall height
S) On-centre distance between the outer clips
W) Overall width

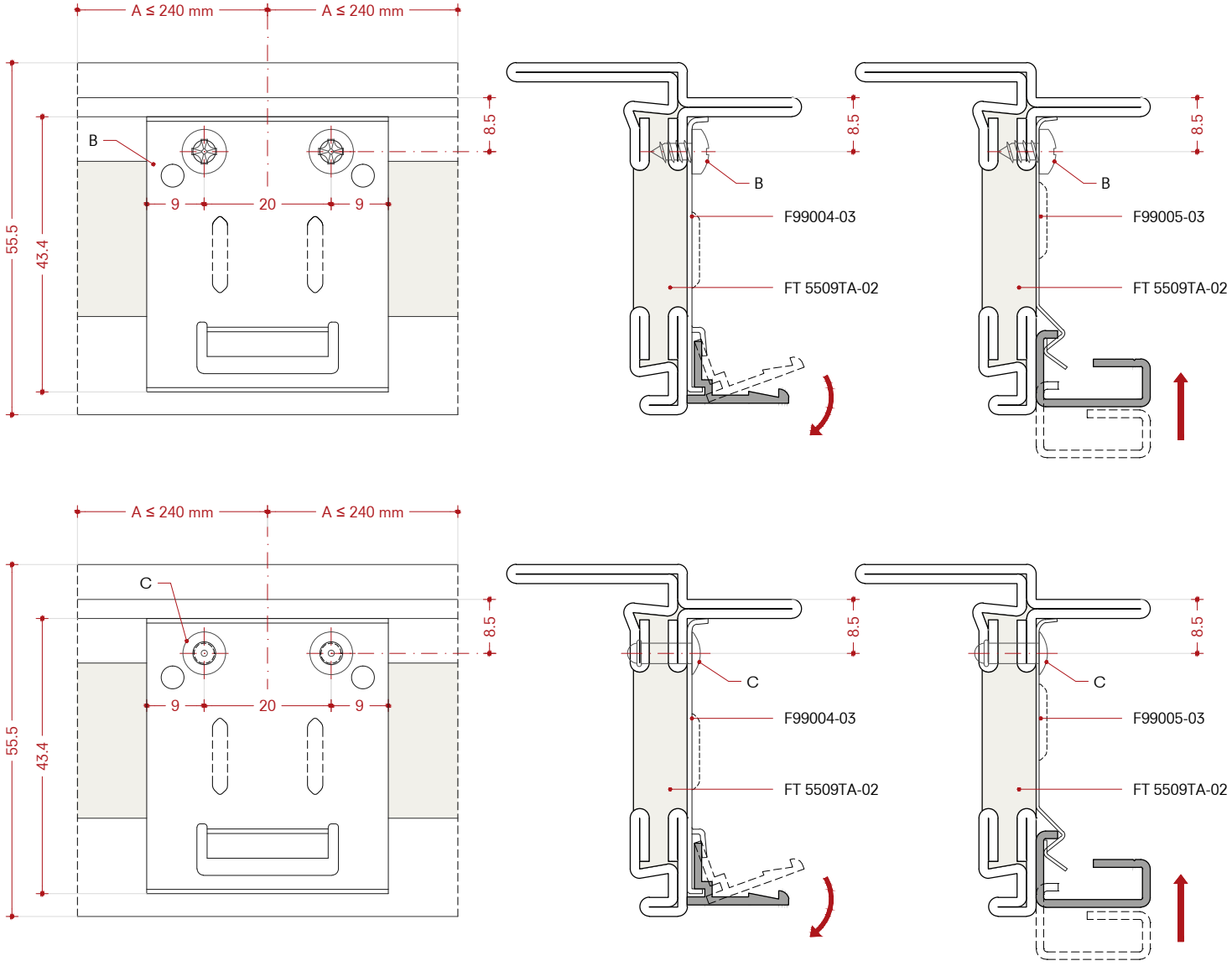
F) Larghezza profilo interno
H) Altezza totale
S) Distanzatra le clips esterne
W) Larghezza totale

F) Ancho del perfil interno
H) Altura total
S) Distancia entre clips externos
W) Ancho total

Installation
Glazing beads
Only for FT 5509TA-02 profile

Montaggio
Fermavetri
Solo per il profilo FT 5509TA-02

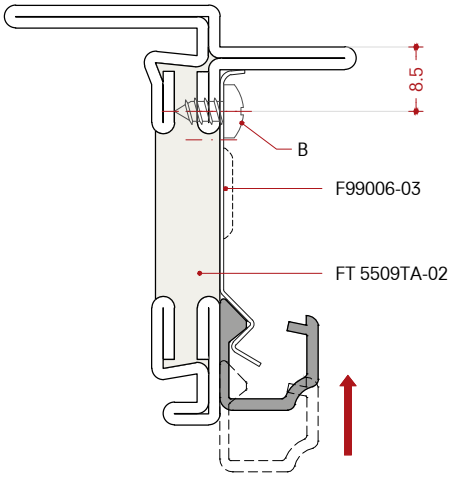
Montaje
Junquillos
Solo para el perfil FT 5509TA-02

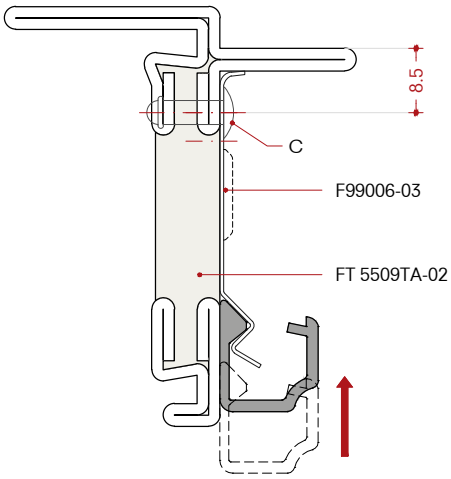


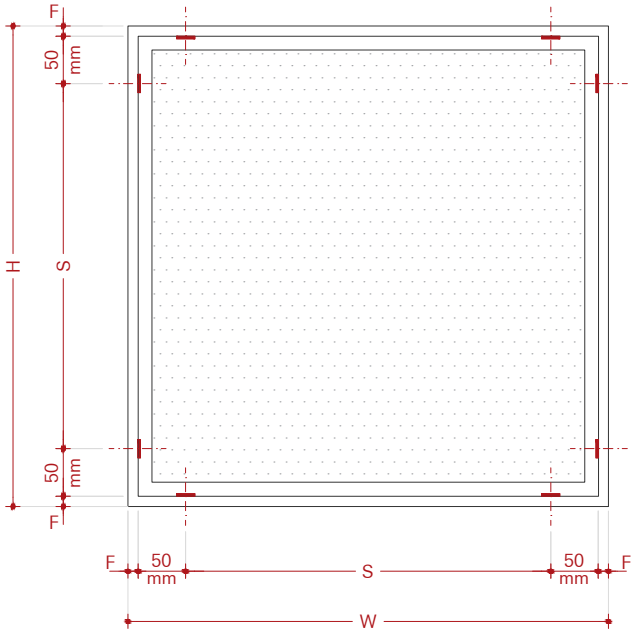
A) Maximum fixing distance
B) Fastening of clips with screws D99801-03 (see chapter 2.3 "Glazing table")
C) Fastening of clips with screws D99950-03 (see chapter 2.3 "Glazing table")

A) Distanza massima di fissaggio
B) Fissaggio clips con vite D99801-03 (vedi capitolo 2.3 "Tabella vetrazioni")
C) Fissaggio clips con vite D99950-03 (vedi capitolo 2.3 "Tabella vetrazioni")

A) Distancia máxima de fijación
B) Fijación de clips con tornillos D99801-03 (ver capítulo 2.3 "Tabla de acristalamiento")
C) Fijación de clips con tornillos D99950-03 (ver capítulo 2.3 "Tabla de acristalamiento")







F) Internal profile width
H) Overall height
S) On-centre distance between the outer clips
W) Overall width

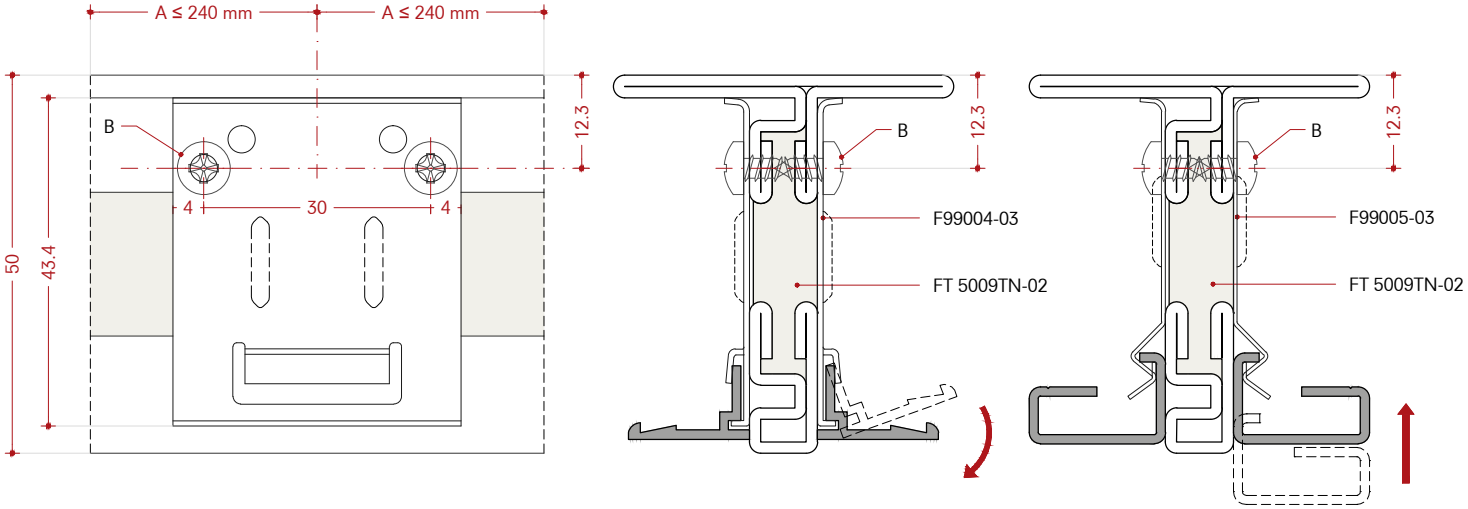
F) Larghezza profilo interno
H) Altezza totale
S) Distanzatra le clips esterne
W) Larghezza totale

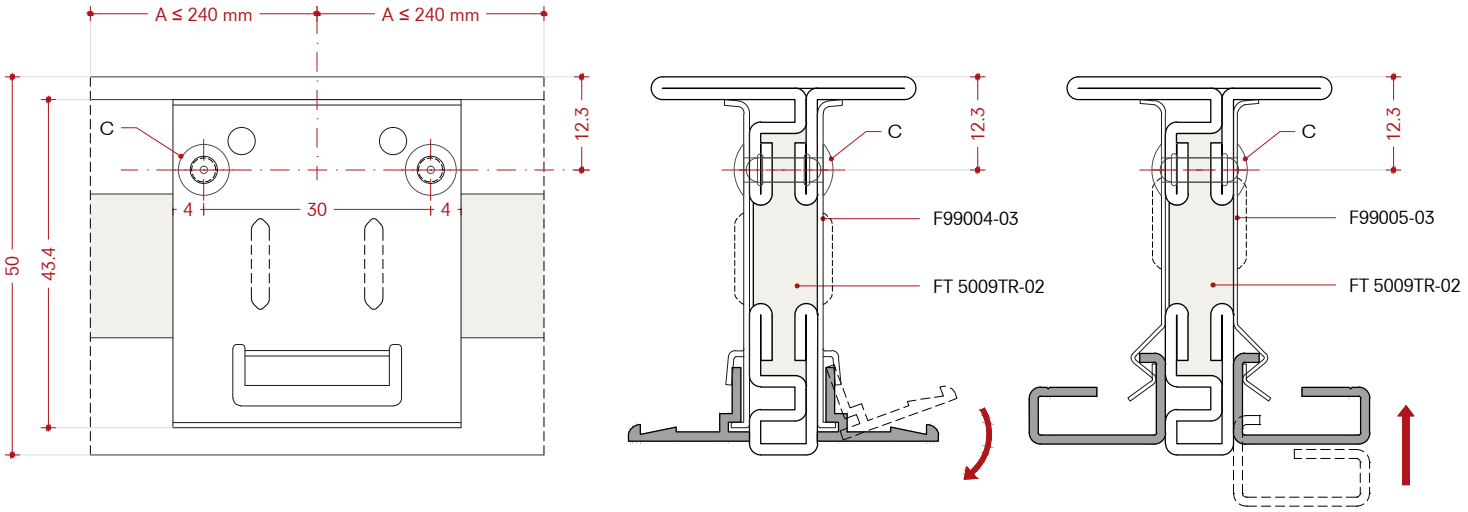
F) Ancho del perfil interno
H) Altura total
S) Distancia entre clips externos
W) Ancho total

Installation
Glazing beads
Only for FT 5009TN-02
and FT 5009TR-02 profiles

Montaggio
Fermavetri
Solo per i profili FT 5009TN-02
e FT 5009TR-02

Montaje
Junquillos
Solo para perfiles FT 5009TN-02
y FT 5009TR-02





NOTE:
Offset 10 mm clips position.

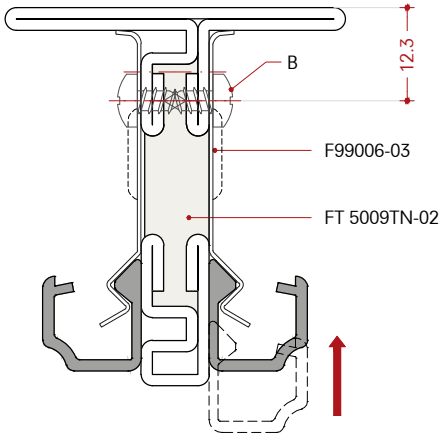
A) Maximum fixing distance
B) Fastening of clips with screws D99801-03
(see chapter 2.3 "Glazing table")
C) Fastening of clips with screws D99950-03
(see chapter 2.3 "Glazing table")

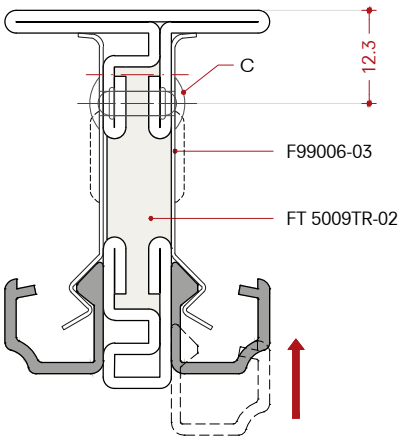
NOTA:
Sfalsare 10 mm posizione clips.

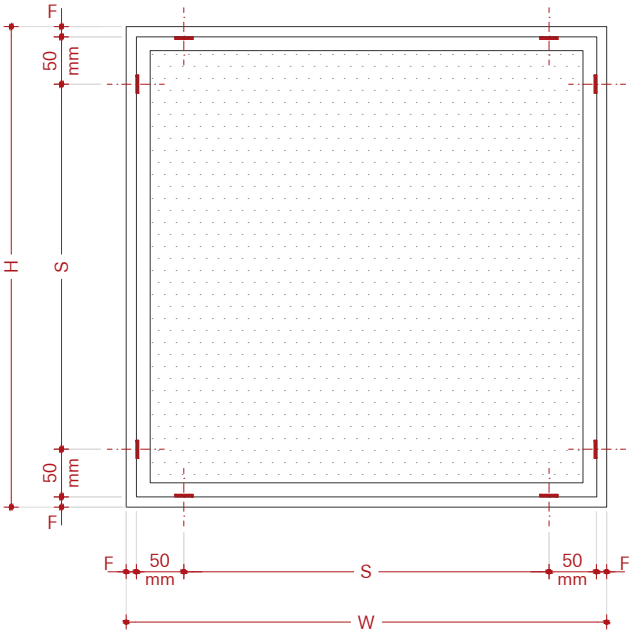
A) Distanza massima di fissaggio
B) Fissaggio clips con vite D99801-03
(vedi capitolo 2.3 "Tabella vetrazioni")
C) Fissaggio clips con vite D99950-03
(vedi capitolo 2.3 "Tabella vetrazioni")

NOTA:
Posición de clips 10 mm de espacio.

A) Distancia máxima de fijación
B) Fijación de clips con tornillos D99801-03
(ver capítulo 2.3 "Tabla de acristalamiento")
C) Fijación de clips con tornillos D99950-03
(ver capítulo 2.3 "Tabla de acristalamiento")







F) Internal profile width
H) Overall height
S) On-centre distance between the outer clips
W) Overall width

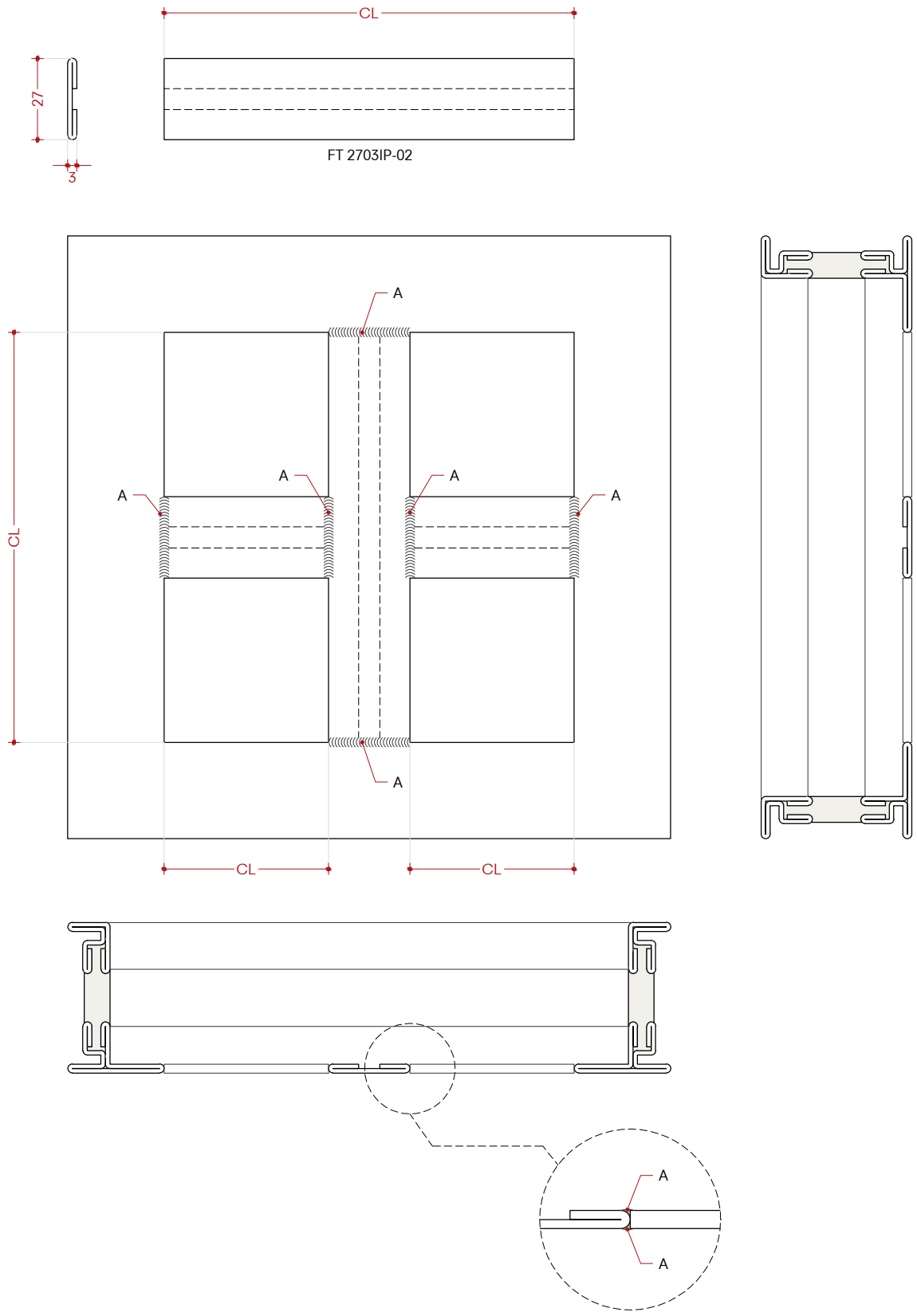
F) Larghezza profilo interno
H) Altezza totale
S) Distanzatra le clips esterne
W) Larghezza totale

F) Ancho del perfil interno
H) Altura total
S) Distancia entre clips externos
W) Ancho total

Installation
False muntins

Montaggio
Inglesine

Montaje
Listones



CL = Cutting length

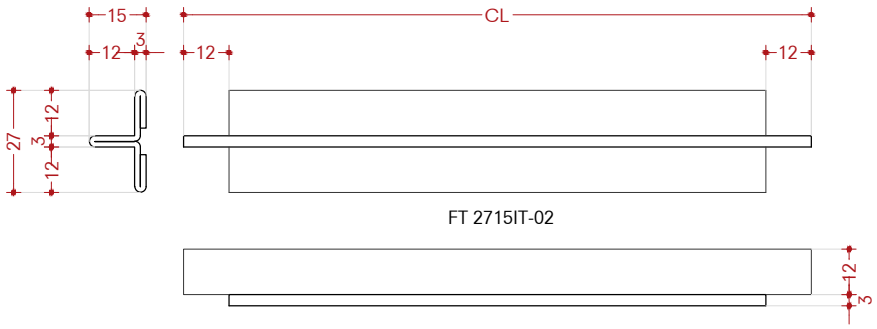
A) Welding on both sides
B) Silicon after painting

CL = Misura di taglio

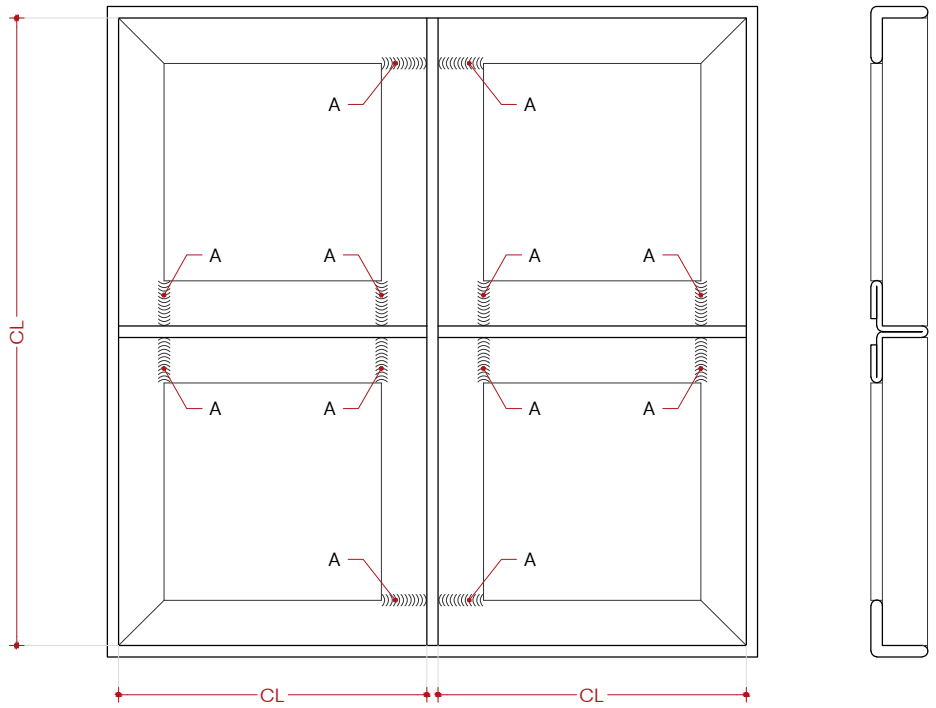
A) Saldatura su entrambi i lati
B) Silicone dopo la verniciatura

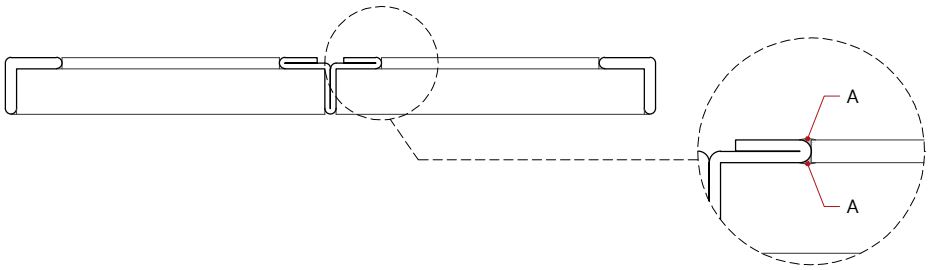
CL = Longitud de corte

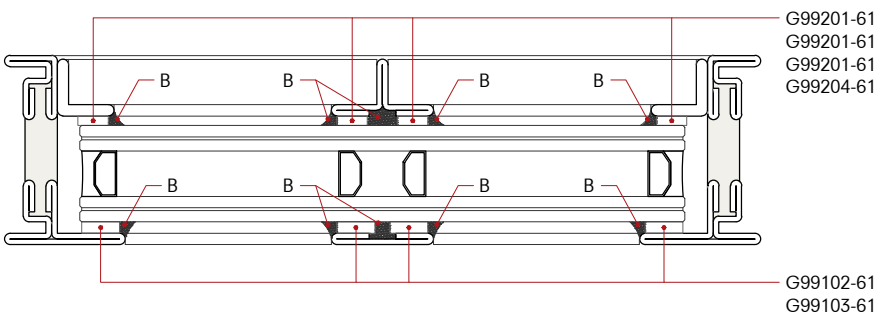
A) Soldadura en ambos lados
B) Silicona después de pintar



FT 2715IT-02







CL = Cutting length

A) Welding on both sides
B) Silicon after painting

CL = Misura di taglio

A) Saldatura su entrambi i lati
B) Silicone dopo la verniciatura

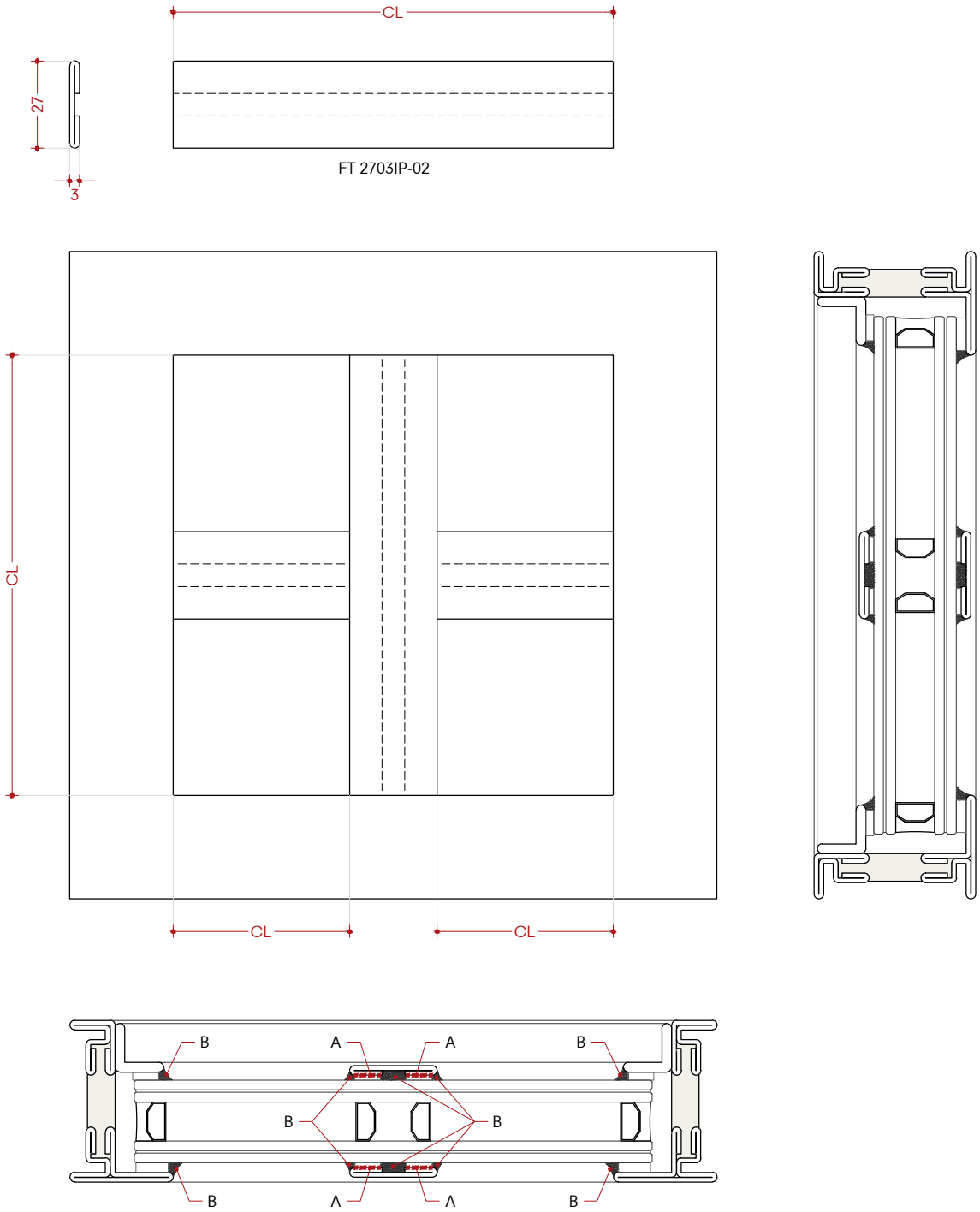
CL = Longitud de corte

A) Soldadura en ambos lados
B) Silicona después de pintar

Installation
False muntins

Montaggio
Inglesine

Montaje
Listones



CL = Cutting length

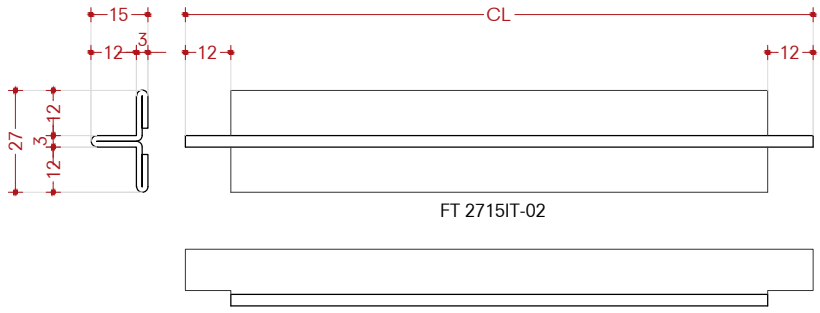
A) Sealant G99301-74
B) Silicon after painting

CL = Misura di taglio

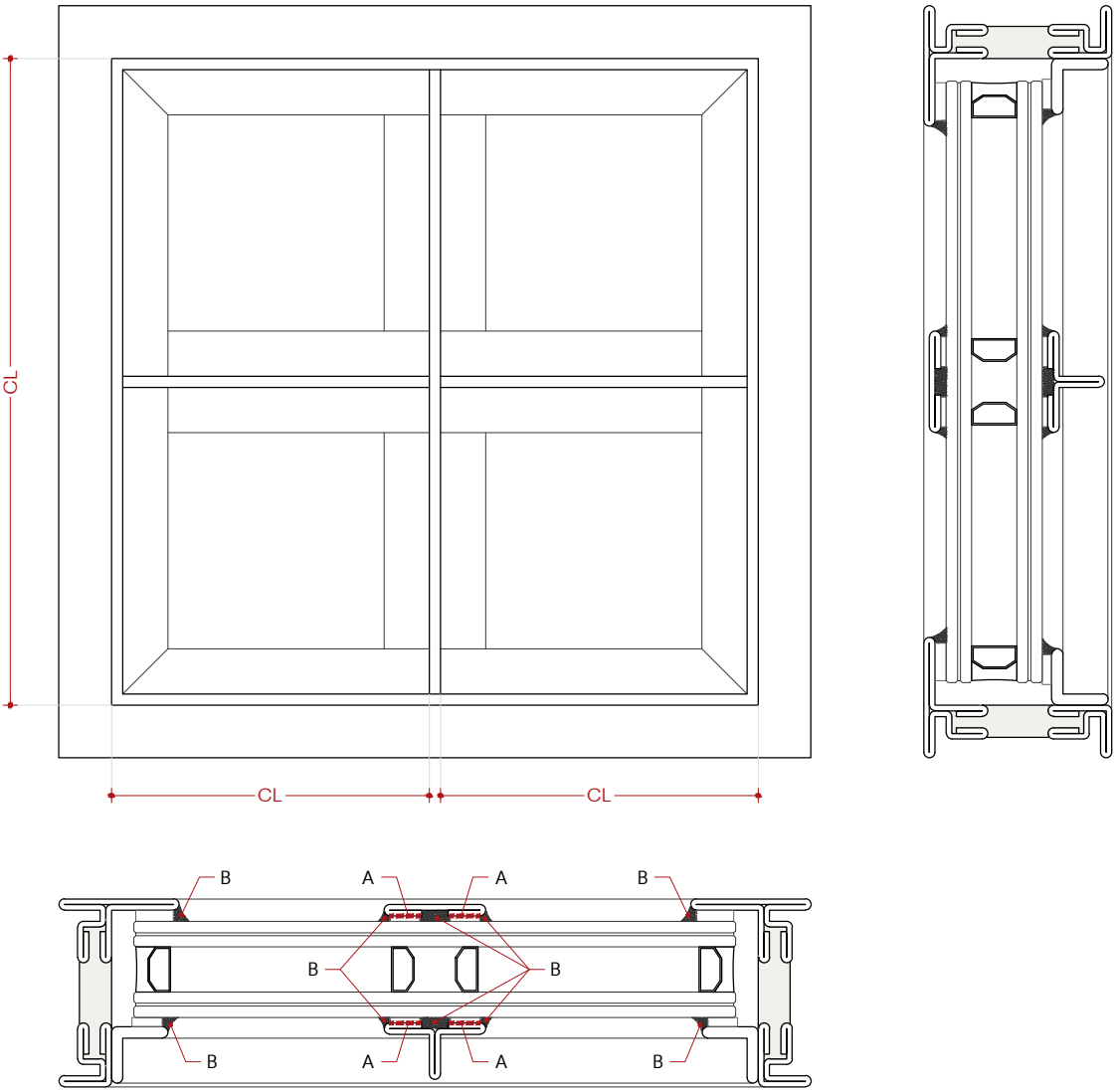
A) Sigillante G99301-74
B) Silicone dopo la verniciatura

CL = Longitud de corte

A) Sellador G99301-74
B) Silicona después de pintar



FT 2715IT-02



CL = Cutting length

A) Sealant G99301-74
B) Silicon after painting

CL = Misura di taglio

A) Sigillante G99301-74
B) Silicone dopo la verniciatura

CL = Longitud de corte

A) Sellador G99301-74
B) Silicona después de pintar

General technical instructions

Indicazioni tecniche generali

Instrucciones técnicas generales

6.0

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

Ventilation glazing rebate
Ventilazione vetrocamera
Ventilación del acristalamiento

6.1

Ventilation glazing rebate

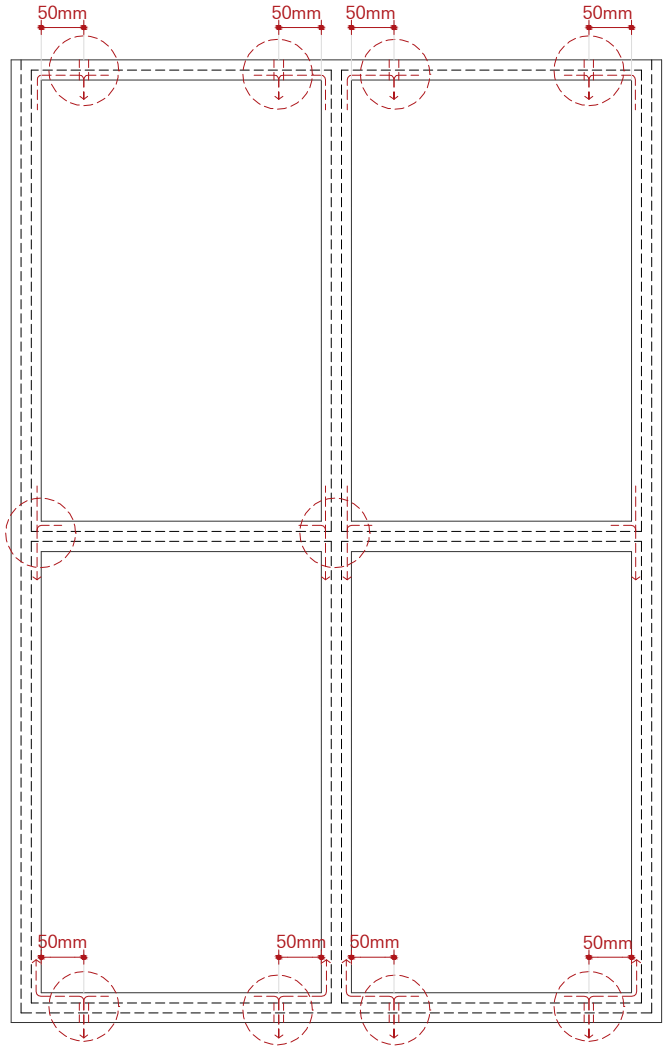
If there is a high chance of moisture forming in the glazing rebate, appropriate ventilation must be provided.
In such cases, drainage holes and outlets must be provided to enhance air circulation and to keep moisture away from the insulated glazing.

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

Raggi di curvatura

Radios de curvatura

Fixed frames Telai fissi Marcos fijos		
Profile Profilo Perfil	Description Descrizione Descripción	Minimum radius Raggio minimo Radio mínimo
FT 5009LF-02	L profile Profilo a L L perfil	500 mm
FT 5009ZF-02	Z profile Profilo a Z Z perfil	500 mm
FT 5009TF-02	T profile Profilo a T T perfil	500 mm
FT 5009HF-02	H profile Profilo a H H perfil	550 mm

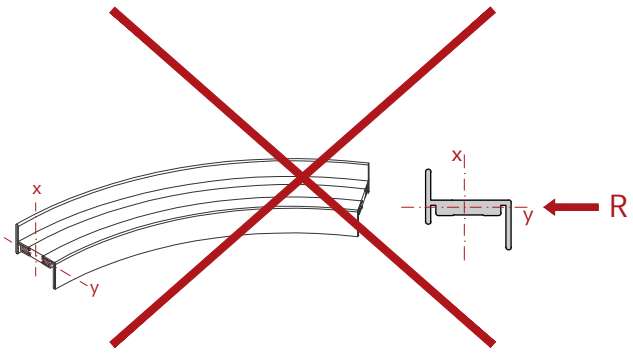
Window + Door Finestra + Porta Ventana + Puerta		
Profile Profilo Perfil	Description Descrizione Descripción	Minimum radius Raggio minimo Radio mínimo
FT 5509L-02	L profile Profilo a L L perfil	500 mm
FT 5509Z-02	Z profile Profilo a Z Z perfil	500 mm
FT 5509T-02	T profile Profilo a T T perfil	500 mm
FT 5509H-02	H profile Profilo a H H perfil	500 mm
FT 5509ZA-02	Z profile Profilo a Z Z perfil	475 mm
FT 5509TA-02	T profile Profilo a T T perfil	475 mm

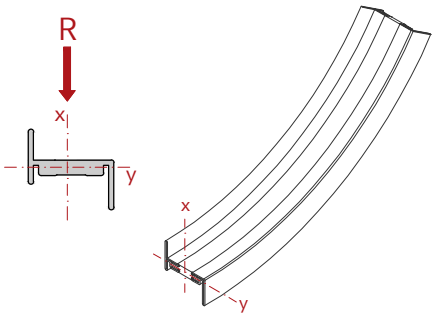
Profile Profilo Perfil	Description Descrizione Descripción	Minimum radius Raggio minimo Radio mínimo
FV 1515A-02	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1815A-02	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1525A-01	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1803R-02	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1807R-02	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1810R-02	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1813R-02	Glazing bead Profilo fermavetro Junquillos	450 mm
FV 1816R-02	Glazing bead Profilo fermavetro Junquillos	450 mm

The bending can only be performed along the x axis.

La calandratura è eseguibile solo lungo l'asse x.

El calandrado solo se puede realizar a lo largo del eje x.





Coating | Verniciatura | Pintura 6.3

Coating | Verniciatura a liquido | Pintura líquida

Painting procedure (ISO 12944) - based on Sherwin Williams liquid paints
Procedura di verniciatura (ISO 12944) - basata sulle vernici liquide Sherwin Williams
Procedimiento de pintura (ISO 12944) - basado en pinturas líquidas Sherwin Williams

Surface cleaning / Pulizia delle superfici / Limpieza de superficie

- 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.
- Clean up any debris of sand blasting with compressed air in order to obtain a perfectly cleaned surface.
- Apply the first primer layer within 2 hours from sand blasting or, in any case, before the oxidation process starts.

- Sabbiare i telai fino a quando il metallo diventa quasi bianco con graniglia Sa 2.5 per il ciclo C3-H/C4-M o sabbiare i telai fino a quando il metallo non diventa completamente bianco con graniglia Sa 3 per il ciclo C5M-H.
- Pulire dai residui della sabbiatura con aria compressa per ottenere una superficie perfettamente pulita.
- Applicare il primo strato di primer entro 2 ore dalla sabbiatura o, comunque, prima dell'inizio del processo di ossidazione.

- 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.
- Limpie cualquier residuo de chorro de arena con aire comprimido para obtener una superficie perfectamente limpia.
- 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.

Liquid painting options / Opzioni di verniciatura a liquido / Opciones de pintura líquida

C3-H	• Apply first layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 70 µm • Apply a second layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 70 µm • Apply a third layer of poly-acrylic enamel Inverplast/B pastel: 60 µm Colours and shades as per customer choice (*). • Total coating thickness: 200 µm	• Applicare il primo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 70 µm • Applicare un secondo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 70 µm • Applicare un terzo strato di smalto poliacrilico Inverplast/B pastello: 60 µm Colori e tonalità a scelta del cliente (*). • Spessore totale del rivestimento: 200 µm	• Aplique la primera capa de la imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 70 µm • Aplique una segunda capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 70 µm • Aplique una tercera capa de esmalte poliacrílico Inverplast/B pastel: 60 µm Colores y tonos según la elección del cliente (*). • Espesor total del recubrimiento: 200 µm.
C4-M	• Apply first layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm • Apply a second layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm • Apply a third layer of poly-acrylic enamel Inverplast/B pastel: 60 µm Colours and shades as per customer choice (*). • Total coating thickness: 240 µm	• Applicare il primo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm • Applicare un secondo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm • Applicare un terzo strato di smalto poliacrilico Inverplast/B pastello: 60 µm Colori e tonalità a scelta del cliente (*). • Spessore totale del rivestimento: 240 µm	• Aplique la primera capa de la imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm • Aplique una segunda capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm • Aplique una tercera capa de esmalte poliacrílico Inverplast/B pastel: 60 µm Colores y tonos según la elección del cliente (*). • Espesor total del recubrimiento: 240 µm.
C5M-H	• Apply first layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 80 µm • Apply a second layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm • Apply a third layer of the epoxy primer with zinc phosphate Macropoxy C400V3, grey or white 90 µm • Apply final layer of poly-acrylic enamel Inverplast/B pastel: 60 µm Colours and shades as per customer choice (*). • Total coating thickness: 320 µm	• Applicare il primo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 80 µm • Applicare un secondo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm • Applicare un terzo strato di primer epossidico con fosfato di zinco Macropoxy C400V3, grigio o bianco 90 µm • Applicare lo strato finale di smalto poliacrilico Inverplast/B pastello: 60 µm Colori e tonalità a scelta del cliente (*). • Spessore totale del rivestimento: 320 µm	• Aplique la primera capa de la imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 80 µm • Aplique una segunda capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm • Aplique una tercera capa de imprimación epoxi con fosfato de zinc Macropoxy C400V3, gris o blanco 90 µm • Aplique la capa final de esmalte poliacrílico Inverplast/B pastel: 60 µm Colores y tonos según la elección del cliente (*). • Espesor total del recubrimiento: 320 µm

Drying-curing process / Processo di essiccazione-indurimento / Proceso de secado-curado

- Dry frames for at least 5 hours at a room temperature of 15°C (60°F) between the different applications of epoxy primers.
- 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.
- Max. humidity level: 85%

- Asciugare i telai per almeno 5 ore a una temperatura ambiente di 15°C (60°F) un'applicazione e l'altra di primer epossodico.
- 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.
- Massimo livello di umidità: 85%

- Seque los marcos durante al menos 5 horas a una temperatura ambiente de 15°C (60°F) entre las diferentes aplicaciones de imprimaciones epoxi.
- 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.
- Max. nivel de humedad: 85%

(*) For colour selection and/or special touch up finishes, please contact directly Sherwin Williams.
(*) Per la selezione del colore e/o finiture speciali di ritocco, contattare direttamente Sherwin Williams.
(*) Para la selección de colores y/o acabados especiales de retoque, comuníquese directamente con Sherwin Williams.

VFF leaflet St. 01: 2015-10

Correlation of corrosivity categories, protection period and corrosion protection classes.

Scheda descrittiva VFF St. 01: 2015-10

Corrispondenze tra categorie di corrosività, durata della protezione e classi di protezione contro la corrosione.

Hoja de datos St. 01 VFF: 2015-10

Relación de categorías de corrosividad, duración de protección, accesibilidad y clases de protección contra corrosión.

Corrosivity category Categoria corrosività Categoría corrosividad	Protection period Periodo di protezione Período de protección	(1) Corrosion protection class Classe di protezione Clase de protección		Environment example outdoors Esempio di ambiente esterno Ejemplo de ambiente externo	Environment example indoors Esempio di ambiente interno Ejemplo de ambiente interno
C1 Insignificant Insignificante Insignificante	Low Basso Bajo	I	I		Heated building with neutral atmosphere. Edificio riscaldato con atmosfera neutra. Edificio climatizado con ambiente neutral.
	Médium Medio Medio	I	I		
	High Alto Alto	I	I		
C2 Low Basso Bajo	Low Basso Bajo	I	II	Rural areas with a low level of pollution. Zone rurali con basso livello di inquinamento. Zonas rurales con bajo nivel de contaminación.	Buildings where condensation may occasionally occur, e.g. gymnasiums. Edifici in cui può verificarsi occasionalmente condensa, ad es. palestre. Edificios donde puede producirse condensación ocasionalmente, p. Ej. gimnasios.
	Medium Medio Medio	I	II		
	High Alto Alto	I	III		
C3 Moderate Moderato Moderar	Low Basso Bajo	II	III	Urban and industrial atmosphere, moderate sulphur dioxide pollution, coastal area with low salt content. Ambiente urbano e industriale, moderato inquinamento da anidride solforosa, area costiera a basso contenuto di sale. 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. Ambiente urbano e industriale, moderato inquinamento da anidride solforosa, area costiera a basso contenuto di sale. Atmósfera urbana e industrial, contaminación moderada de dióxido de azufre, área costera con bajo contenido de sal.
	Medium Medio Medio	II	III		
	High Alto Alto	II	III		
C4 High Alto Alto	Low Basso Bajo	III	III	Industrial areas, tunnels, traffic junctions, moderate salt load. Aree industriali, gallerie, incroci stradali, carico di sale moderato. Zonas industriales, túneles, cruces de tráfico, carga salina moderada.	Chemical plants, swimming pools, slaughterhouses. Impianti chimici, piscine, macelli. Plantas químicas, piscinas, mataderos.
	Medium Medio Medio	III	III		
	High Alto Alto	III	> III (2)		
C5-I Very high Molto alto Muy alto	Low Basso Bajo	III	> III (2)	Industrial sectors with high moisture and aggressive atmosphere. Settori industriali con elevata umidità e atmosfera aggressiva. Sectores industriales con alta humedad y ambiente agresivo.	Buildings or areas with almost constant condensation and heavy pollution. Edifici o aree con condensa quasi costante e forte inquinamento. Edificios o áreas con condensación casi constante y fuerte contaminación.
	Medium Medio Medio	III	> III (2)		
	High Alto Alto	> III (2)	> III (2)		
C5-M Very high Molto alto Muy alto	Low Basso Bajo	III	> III (2)	Coastal and offshore areas with high salt concentration. Zone costiere e offshore con alta concentrazione di sale. Zonas costeras y mar adentro con alta concentración de sal.	Buildings or areas with almost constant condensation and heavy pollution. Edifici o aree con condensa quasi costante e forte inquinamento. Edificios o áreas con condensación casi constante y fuerte contaminación.
	Medium Medio Medio	III	> III (2)		
	High Alto Alto	> III (2)	> III (2)		

(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.

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7.1 Foreword

The profile systems from OTTOSTUMM | 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 | 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 | 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, apply.

7.1 Premessa

I sistemi per profili di OTTOSTUMM | 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 | Mogs.
- Il dimensionamento statico dei profili, degli ancoraggi, dei tasselli, delle viti e delle vetrature deve essere definito dalla ditta esecutrice sotto la propria responsabilità e in conformità alle norme, direttive e disposizioni vigenti in materia.
- In circostanze particolati deve esserne 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 | 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

7.1 Prólogo

Los sistemas de perfiles de OTTOSTUMM | 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 | 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 | Mogs no puede dar garantía alguna al respecto.

Para mayor información, diríjase 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.

7.2 Materials

OTTOSTUMM | Mogs profiles are produced in the following material variants:
A) Steel, material 1.0242, S250GD according to EN 10346 and 10143, continuously hot-dip galvanized.
B) Aluminium alloy EN AW 6060 according to EN 573-3, T 66 condition according to EN 755-2 for supplementary profiles and glazing beads.

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/dm³
0.2% yield strength: 280 N/mm²
Tensile strength: 360 N/mm²
Elongation at break: 18%
E module: 210000 N/mm²
The coating consists of zinc with 1-2 wt.% magnesium (abbreviation: ZM).
The total weight of coating is 130 g/m². 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.

7.2 Materiali

I profili OTTOSTUMM | Mogs sono realizzati nelle seguenti varianti di materiale:
A) Acciaio, materiale 1.0242, S250GD secondo EN 10346 e 10143 al carbonio zincato con processo in continuo mediante immersione a caldo.
B) Lega di alluminio EN AW 6060 secondo EN 573-3, stato T 66 secondo EN 755-2 per profili complementari e listelli fermavetro.

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/dm³
0,2% Limite di elasticità: 280 N/mm²
Resistenza alla trazione: 360 N/mm²
Resistenza alla rottura: 18%
Modulo E: 210000 N/mm²
Il rivestimento è in zinco con magnesio all'1-2% del peso
(abbreviazione ZM).
Il peso totale dello strato di zinco è 130 g/m², 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.

7.2 Materiales

Los perfiles OTTOSTUMM | Mogs se fabrican en las siguientes variantes de material:
A) Acero, material 1.0242, S250GD de conformidad con EN 10346 y 10143, galvanizado continuo en caliente.
B) Aleación de aluminio EN AW 6060 - de conformidad con EN 573-3, estado T 66 de conformidad con EN 755-2 para perfiles adicionales y junquillos.

La denominación normativa es:
S250GD+ZM 130-B-O de conformidad con EN 10346 y EN 10143
N.° de material 1.0244 de conformidad con la Tabla 2 EN 10346
Densidad: 7.85 kg/dm³
0,2% límite de expansión: 280 N/mm²
Resistencia de tracción: 360 N/mm²
Extensión de rotura: 18%
Módulo E: 210000 N/mm²
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/m². 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.

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.

7.4 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.

7.4 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 Transport and storage

OTTOSTUMM | 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 | 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.

7.5 Trasporto e stoccaggio

I profili OTTOSTUMM | 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 carroponte 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 | 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.

7.5 Transporte y almacenamiento

Los perfiles de OTTOSTUMM | 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 | 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 steel and stainless steel or aluminium. No tools of any kind must be mutually shared.
Width and height tolerances of ±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.
The profiles made of hot-dip galvanized carbon steel 1.0244 correspond in terms of their processability to commercially available carbon steel of comparable strength. Observe the wall thickness of 1.5 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, acciaio inox 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 ±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.
I profili in acciaio al carbonio 1.0244 zincati mediante immersione a caldo presentano una lavorabilità analoga a quella degli altri acciai al carbonio comunemente reperibili sul mercato. Da tenere in particolare considerazione è lo spessore della lamiera pari a 1.5 mm e la presenza del rivestimento in zinco-magnesio, specialmente durante la saldatura.
Durante la lavorazione degli acciai al carbonio, 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 o acero inoxidable y el 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 ±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.
Los perfiles de acero al carbono 1.0244 galvanizado en caliente cuentan con la misma procesabilidad que los aceros al carbono habituales del mercado con una resistencia comparable. Debe tenerse en cuenta su grosor de pared de 1.5 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 | Mogs profiles.
Cutting speed: 20-40 m/min.
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 | Mogs è richiesta una dentatura fine.
Velocità di taglio: 20-40 m/min.
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 | Mogs requieren un dentado fino.
Velocidad de corte: 20-40 m/min.
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 manutenuta (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 (reafilar). 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.]
3	1000	0.11
4.8	780	0.12
5.2	730	0.125
6	625	0.13
7	560	0.14
8	500	0.145
9.2	410	0.165

Foro Ø [mm]	Velocità [rpm]	Avanzamento [mm/giro]
3	1000	0.11
4.8	780	0.12
5.2	730	0.125
6	625	0.13
7	560	0.14
8	500	0.145
9.2	410	0.165

Taladro Ø [mm]	Velocidad [rpm]	Avance [mm/vuelta]
3	1000	0.11
4.8	780	0.12
5.2	730	0.125
6	625	0.13
7	560	0.14
8	500	0.145
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.

7.6.4 Filettatura

Utilizzare utensili HSS. È richiesta una velocità di taglio del 10% superiore a quella impiegata con gli acciai legati.

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 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).

7.6.5 Fresatura

Le frese - gamma comune (HSS) - devono essere affilate con precisione e l'affilatura deve essere costantemente manutenuta (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).

7.6.5 Fresado

La fresas, gama habitual (HSS), deben mantenerse siempre bien lijadas y afiladas (reafilar). 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 Welding

The carbon steel can be melt-welded and resistance-welded with all the processes commonly used in practice. As for alloyed steel, gas fusion welding is not recommended (distortion due to large-area heating of the profiles). Particularly suitable are:
- Metal active gas welding (MAG)
- Metal inert gas welding (MIG)

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 forthe 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 polyurethane web.

7.6.6 Saldatura

L'acciaio al carbonio può essere saldato 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 sono i seguenti:
- Saldatura ad arco con metallo sotto protezione di gas attivo (MAG)
- Saldatura ad arco con metallo sotto protezione di gas inerte (MIG)

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 poliuretano.

7.6.6 Soldadura

El acero al carbono se puede soldar a resistencia o a fusión con todos los procedimientos habituales en la práctica. Al igual que en el caso del acero de aleación, debe evitarse la soldadura de fusión de gas (deformación por calentamiento de grandes superficies de los perfiles). Los siguientes tipos son especialmente adecuados:
- Soldadura de metal por gas activo (MAG)
- Soldadura de metal por gas inerte (MIG)

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 seenfríe 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 poliuretano.

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.

7.6.7 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.

7.6.7 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.

7.6.8 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.

7.6.8 Enderezamiento

Si a pesar de tomar todas las precauciones surgen pequeñas deformaciones en el marco y las hojas, deben corregirse mediante prensas de husillo u otros dispositivos de ajuste.

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.

7.6.9 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.

7.6.9 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 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.

7.7.3 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 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.

7.7.3 Area del cordone di saldatura

Eliminare accuratamente perle di saldatura e scaglie di laminazione con la smerigliatrice; se necessario perfezionare con una pistola per sabbiatura e sabbia di corindone.

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 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 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.

7.7.4 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.

7.7.4 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 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.

7.7.5 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 sabbiatura 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 sabbiatura.

Avvertenza: in caso di profili zincati per immersione a caldo il rivestimento metallico non può essere rimosso.

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 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 oxideis only possible by mechanical treatment such as sweeping or grinding.

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 sabbiatura leggera (sweep) o smerigliatura.

7.7.6 Tratamiento químico de la superficie

El tratamiento químico para decapado de la superficie representa una alternativa al raspado mecánico. Deben tenerse en cuenta las normas de seguridad y las instrucciones del procedimiento. Utilice un método compatible con perfiles galvanizados. El óxido blanco solo se puede retirar mediante tratamiento mecánico como el Sweeping o el lijado.

7.7.7 Types of coating

W50 TB profiles can be wet painted.

You'll find the different painting techniques in a specific chapter of this documentation (6.3.0).

7.7.7 Tipi di verniciatura

I profili W50 TB possono essere verniciati a liquido.

Trovate le diverse metodologia di verniciatura nell'apposito capitolo di questa documentazione (6.3.0).

7.7.7 Tipos de pintura

Los perfiles W50 TB se pueden pintar en húmedo.

Encontrará las diferentes técnicas de pintura en un capítulo específico de esta documentación (6.3.0).

7.8 Installation on site

7.8.1 Glazing

The glazing systems of all OTTOSTUMM | 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 | 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 Posa in opera

7.8.1 Vetrazione

I sistemi di vetratura di tutte le serie OTTOSTUMM | 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 policarbonato (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 | 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 Montaje

7.8.1 Acristalamiento

Los sistemas de acristalamiento de todas las series OTTOSTUMM | 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 | 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 especificados 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 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:
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.

7.8.4 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:
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 detergenti, eseguire una prova su una superficie nascosta per verificare che non vi siano reazione 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.

7.8.4 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 | Mogs nos limitaremos a transmitirle las siguientes recomendaciones:
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 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.

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'infisso 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.

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 Emmigisoft 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 Emmigisoft 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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