

MANUALE TECNICO SISTEMA EKU 170 AS TT

EDIZIONE 05/2016



TECHNICAL MANUAL EKU 170 AS TT SYSTEM

EDITION 05/2016

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

PROPRIETA' DELL' ALLUMINIO :

LAVORABILITA'

Costituito da una moltitudine di leghe, con l'aggiunta di piccole quantità di altri metalli vengono esaltate le caratteristiche meccaniche e se ne permette l'impiego in svariate applicazioni e settori merceologici.

LEGGEREZZA

L' Alluminio è un metallo molto leggero: il suo peso specifico è 2,7 grammi al centimetro cubo.

RESISTENZA MECCANICA

Il processo di estrusione, la scelta della lega (serie 6000), la tempra più adatta e una libertà nel design del profilato offrono un numero di opportunità applicative infinite.

I più comuni elementi leganti sono il Magnesio, il Silicio, il Manganese, lo Zinco e il Rame.

RESISTENZA ALLA CORROSIONE

L' Alluminio ha uno strato spontaneo di ossido che lo protegge.

Ulteriori trattamenti superficiali, Anodizzazione e Verniciatura, possono aumentare questa caratteristica.

NOTE GENERALI SUI PROFILATI IN ALLUMINIO :

LEGA DI ALLUMINIO

I profilati sono estrusi in lega EN AW 6060 - EN 573/3 con stato di fornitura T5 EN 515.

LUNGHEZZA DELLE BARRE

La lunghezza commerciale delle barre è normalmente di 7000 mm.

Per dimensioni differenti, contattare il servizio commerciale PROFILATI.

TOLLERANZE DIMENSIONALI DEI PROFILATI

Le dimensioni riportate per i profilati sono quelle teoriche, potranno variare a causa delle tolleranze di estrusione (Norma EN 12020/2).

La variabilità può risultare evidente nelle cavità previste per l'inserimento degli accessori e delle guarnizioni.

Anche gli accoppiamenti dimensionali tra profilati (anta+fascia) possono risentire di queste variazioni dimensionali.

Le cave delle guarnizioni possono essere ridotte nel caso di profilati verniciati, dello spessore della vernice stessa.

PESO PROFILATI

Il peso indicato sul catalogo, per i profilati, è quello TEORICO, quindi potrà variare in funzione delle tolleranze dimensionali regolate dalle normative europee, Norma EN 12020/2.

LAVORAZIONE

Manovrare i profilati con estrema delicatezza ed accertarsi che l'ambiente di lavoro sia pulito.

Evitare il contatto con scorie e residui di limatura delle precedenti lavorazioni.

Usare la massima cura per la movimentazione dei pezzi.

ATTREZZATURE

Macchinari e utensili devono essere sempre efficienti e adatti al compito da eseguire, in particolare le lame delle troncatrici.

Per il raffreddamento degli utensili evitare prodotti che possano intaccare la finitura dei profilati.

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

SERRAMENTI DI ALLUMINIO :

DIMENSIONI DI TAGLIO

Nel presente catalogo sono riportati degli schemi di taglio e di lavorazione.

Le dimensioni teoriche sono esatte, ma nella pratica dovranno essere considerati gli arrotondamenti che la tecnica e l'attrezzatura della propria officina consigliano.

Prima di procedere alla produzione di infissi, si raccomanda di eseguire il controllo dimensionale dei profilati e della precisione di taglio delle attrezzature in dotazione.

COSTRUZIONE DEI SERRAMENTI

I riferimenti delle quote L-H indicati sul catalogo, coincidono con la parte tubolare del profilato e corrispondono ai riferimenti riportati sulle troncatrici.

SCHEMI, SEZIONI e COLLEGAMENTI ALLA MURATURA

Quelli riportati su questo catalogo non hanno valore limitativo, ma sono soluzioni consigliate ed esemplificazioni di alcune situazioni più comunemente riscontrate nella realtà. La posa in opera del serramento va eseguita rispettando quanto indicato nel documento UNCSAAL UX42 intitolato "Guida alla posa in opera dei serramenti".

TOLLERANZA POSA IN OPERA

Tra l'interno del controtelaio in acciaio e l'esterno della parete tubolare del serramento è consigliabile lasciare uno spazio di circa 7 mm. per lato (2 laterali - 1 superiore), al fine di avere uno spazio per potere sistemare a piombo il serramento.

DIMENSIONI DEI SERRAMENTI

Nel determinare le dimensioni dei serramenti occorre valutare diversi fattori:

Momento di inerzia dei profilati

Dimensioni delle ante e loro peso

Portata degli accessori

Tipo di fissaggio e la consistenza della muratura

Luogo della posa (altezza, esposizione, zona di vento, ecc.)

A tale scopo si consiglia la consultazione del Documento Tecnico UNCSAAL UX24.

PULIZIA E MANUTENZIONE ESTERNA

Pulire i profilati in alluminio è molto semplice: basta passarli con una spugna o con un panno morbido bagnato con un apposito detergente (vedi tabella).

La manutenzione dei profilati è spesso abbinata alla pulizia dei vetri; si consiglia di pulire le superfici quando non sono esposte a fonti di calore e raggi solari.

La frequenza degli interventi dipende dall'ambiente circostante e deve essere maggiore in prossimità delle coste, in zone industriali ed aree fortemente inquinate.

NON USARE

- Prodotti chimici alcalini (es. ammoniaca, ecc.)

- Prodotti ipocloridi (es. candeggina, ecc.)

- Prodotti ossidanti

- Solventi al nitro-acetone

N.B.: L'alluminio anodizzato e verniciato non può venire a contatto con malta umida o gesso.

Durante il lavoro di muratura quindi è consigliato sempre proteggere telai ed ante.

PULIZIA E MANUTENZIONE INTERNA

Per garantire un buon funzionamento occorre rimuovere residui e/o corpi estranei dalle guide e fessure del serramento. Tale operazione preserva l'eventuale otturazione dei fori di scarico acqua, consentendo al serramento di conservare le prestazioni.

MANUTENZIONE DEGLI ACCESSORI

Per garantire un buon funzionamento occorre lubrificare la parti apribili, i punti di chiusura e i punti di movimento con spray al silicone e/o al teflon, il velo protettivo migliora la movimentazione.

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO ECU 170 AS TT

Qualunque corpo solido di qualsivoglia materiale, sottoposto ad una variazione di temperatura subisce una variazione di volume. Un aumento della temperatura del corpo solido comporta un corrispondente incremento di volume e viceversa una riduzione della temperatura genera un decremento di volume.

Normalmente le suddette variazioni di volume avvengono isotropicamente, ovvero il corpo solido subisce la stessa variazione percentuale di volume nelle tre dimensioni dello spazio.

Esistono comunque moltissimi casi in cui una dimensione del corpo solido prevale in maniera così evidente sulle rimanenti da rendere trascurabili, su queste ultime, gli effetti delle deformazioni conseguenti a variazioni della temperatura.

Questo è proprio il caso dei profili estrusi in alluminio dove la lunghezza del profilato è notevolmente superiore alle dimensioni della sezione ortogonale alla lunghezza stessa.

In tal caso si può parlare di **dilatazione termica lineare**.

Il coefficiente di dilatazione termica lineare, indicato con il simbolo λ , in prima approssimazione può essere considerato una costante dipendente dal materiale ed esprime la variazione di lunghezza subita da una barra di un metro in seguito ad una variazione di temperatura di un grado centigrado.

L'entità della deformazione subita viene calcolata confrontando le dimensioni spaziali del corpo prima e dopo la variazione

della temperatura.

L'allungamento ΔL è proporzionale all'aumento di temperatura ed alla lunghezza iniziale della barra e si calcola con la seguente equazione:

Δ

$$L = L_t - L_o = \lambda L_o (t - t_o)$$

ovvero:

$$L = L_o + \lambda L_o (t - t_o) = L_o [1 + \lambda (t - t_o)]$$

dove:

t_o = temperatura iniziale ;

t = temperatura finale ;

L = lunghezza alla temperatura t ;

L_o = lunghezza alla temperatura t_o ;

λ = coefficiente di dilatazione termica (vedi tabella seguente) ;

Tabella coefficienti di dilatazione lineare: la tabella indica per alcuni tipi di materiale, in rapporto al proprio coefficiente di dilatazione lineare, di quanti mm si allunga una sbarra lunga 1 metro in seguito all'aumento di 1°C di temperatura.

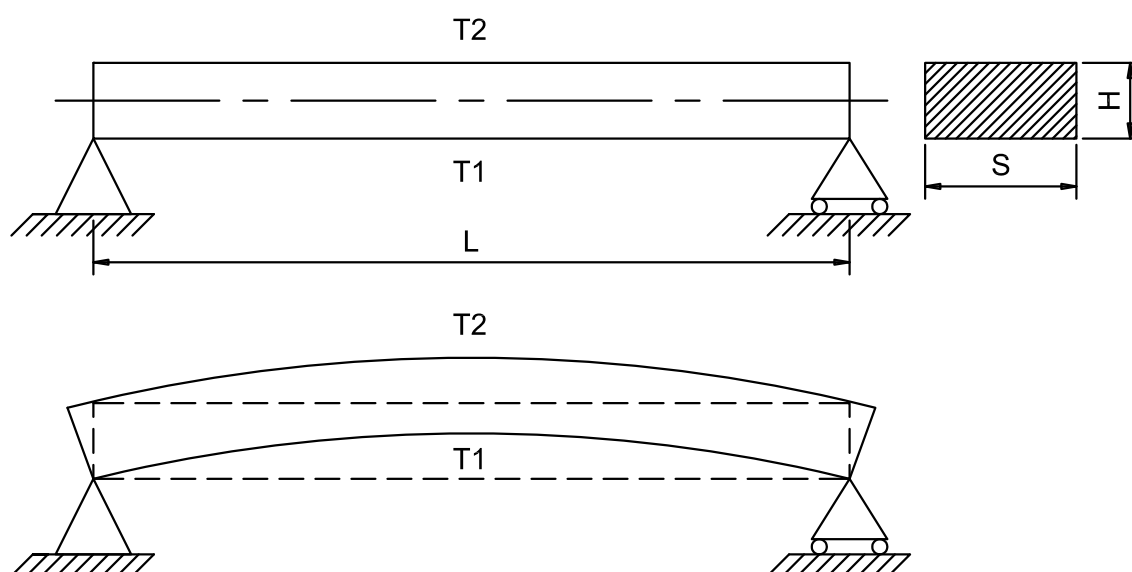
Materiale	$\lambda (^{\circ}\text{C}^{-1})$	Allungamento per aumento di 1°C per 1m di lunghezza (mm)
Acciaio	$11 \cdot 10^{-6}$	0,011
Alluminio	$24 \cdot 10^{-6}$	0,024
Ferro	$12 \cdot 10^{-6}$	0,012
P.V.C.	$70 \cdot 10^{-6}$	0,070
Vetro	$9 \cdot 10^{-6}$	0,009

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

I serramenti e le facciate continue tra le varie funzioni hanno anche quella, ben nota per il risparmio energetico, di separare ambienti aventi condizioni climatiche differenti. I profili estrusi in alluminio, siano essi a taglio termico o meno, sono quindi sottoposti a variazioni termiche notevoli. Queste variazioni sono particolarmente elevate nel periodo estivo quando la superficie esterna dei profilati è soggetta ad una elevata esposizione solare che, per il fenomeno dell'irraggiamento, genera un incremento di temperatura superficiale.

A causa di questo maggiore riscaldamento la parte esterna del profilo si dilata maggiormente rispetto a quella interna, generando una inflessione della barra, con estradosso rivolto verso l'esterno, che aumenta all'aumentare della differenza di temperatura tra le due superfici interna ed esterna del profilo stesso.

La situazione è illustrata nelle figure 1 e 2 dove il profilo è appoggiato alle estremità, è sottoposto ad una variazione termica lineare ΔT tra la superficie esterna, a temperatura T_2 esposta all'irraggiamento solare, e quella interna non esposta, a temperatura $T_1 < T_2$, e, a causa delle tensioni generate, subisce una inflessione con estradosso rivolto verso la superficie con temperatura più elevata.



Questo fenomeno, particolarmente visibile nelle aperture a nei profilati molto lunghi, è noto come **distorsione termica**, e questa deformazione, nei casi peggiori e durante le ore di maggiore irraggiamento solare, può causare difficoltà di apertura e chiusura di finestre e porte o generare altri tipi di malfunzionamento.

Il presente documento è da considerarsi di natura informativa ed ha l'unico scopo di informare i nostri clienti del fenomeno sopra descritto. La distorsione termica è sempre presente, in misura maggiore o minore, e non è completamente risolvibile con i materiali e le tecnologie attualmente disponibili per la costruzione di profilati per il settore edilizio.

La distorsione termica è ancor più evidente nei profili dotati di taglio termico che sono dotati di maggiori capacità isolanti e di conseguenza portano ad una maggiore differenza di temperatura tra le superfici interna ed esterna.

Esistono comunque alcune semplici procedure che, quando applicabili, possono considerevolmente ridurre gli effetti della deformazione termica:

- 1) ^lla riduzione dell'esposizione diretta ai raggi solari
- 2) ^lla riduzione della dimensione S della superficie esposta del profilo
- 3) ^ll'utilizzo di finiture chiare del profilo
- 4) ^lla riduzione della lunghezza L del profilo
- 5) ^ll'utilizzo di profili aventi sezione di altezza H maggiore lungo il flusso di calore

Per ogni altra informazione o consulenza sulla correttezza di utilizzo dei profili, preghiamo di contattare l'Ufficio Tecnico di Profilati S.p.A.

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

DESCRIZIONE TECNICA DEL SISTEMA EKU 170 AS TT

PROFILATI IN ALLUMINIO :	Estrusi in lega EN AW-6060 secondo norma EN 573/3
TRATTAMENTO TERMICO :	T6 secondo norma EN 515
TOLLERANZE DIMENSIONALI :	Secondo norma EN 12020/2
TIPO DI TENUTA ARIA-ACQUA :	Spazzolino sintetico
TIPO DI PROFILATO :	Ad interruzione del ponte termico ottenuto con l'inserimento di listelli in poliammide rinforzati con fibre di vetro. Il bloccaggio è meccanico mediante rullatura, le sedi porta listelli vengono preventivamente zigrinate, per garantire la tenuta allo scorrimento.

DIMENSIONI BASE DEL SISTEMA EKU 170 AS TT

TELAIO FISSO PROFONDITA' :	166 mm. (2 Binai - Monorotaia, taglio 45°) - 259 mm. (3 Binari, taglio 45°)
TELAIO MOBILE PROFONDITA' :	72 mm. (taglio 45°)
ALTEZZA ALETTA VETRO :	22 mm. (altezza netta)
SOVRAPPOSIZIONE ALLA MURATURA :	50-80 mm.
SPAZIO PER VETRAZIONE :	da 14,5 a 47,5 mm. a secondo del fermavetro utilizzato
TIPO DI FERMAVETRO :	rettangolari e stondati a scatto
IMPIEGO :	I profilati consentono la costruzione di finestre e porte/fin. a 1,2,3,4,6 ante - Fisse, - Scorrevoli, - Alzanti/Scorrevoli, - Monorotaia+Fisso, - utilizzando telai con 2/3 binari.

COLLAUDI :	Presso: CERT	con i seguenti risultati:
Tenuta all'aria:	classe 4	(UNI EN 12207 - UNI EN 1026)
Tenuta all'acqua :	classe 8A	(UNI EN 12208 - UNI EN 1027)
Resistenza al carico del vento:	classe C5	(UNI EN 12210 - UNI EN 12211)

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT**DESCRIZIONE CAPITOLATO :****MATERIALE**

I profilati per serramenti saranno in lega di alluminio EN AW 6060 (EN 573-3 e EN 755-2) con stato fisico di fornitura T5 EN 515.

I telai fissi e le ante mobili dovranno essere realizzati con profilati ad interruzione di ponte termico con barrette in poliammide PA 6.6 rinforzate con fibra di vetro.

SERRAMENTI

Le finestre e le porte/fin. dovranno avere un profilato di telaio con profondità da 166 mm. e l'anta mobile di 72 mm.

I telai potranno avere alette di battuta sulla muratura da 50-80 mm.

I profilati ante mobili dovranno prevedere una aletta esterna di battuta vetro con altezza minima di 22 mm.

ISOLAMENTO TERMICO

L'interruzione del ponte termico sarà ottenuta da barrette continue in poliammide da 28 mm.

L'assemblaggio dei profilati in alluminio a taglio termico dovrà garantire i valori di scorrimento tra profilati in alluminio e barrette in poliammide previsti dalla direttiva tecnica Europea (UEAtc).

DRENAGGI E VENTILAZIONE

I profilati esterni dei telai e delle ante dovranno prevedere una sede per la raccolta delle acque di infiltrazione onde poter permettere il deflusso delle stesse attraverso appositi scivoli e asole di scarico esterne a vista.

Le barrette in poliammide dovranno avere una conformazione geometrica tale da evitare l'eventuale ristagno di acque di infiltrazione.

ACCESSORI DI ASSEMBLAGGIO

Le giunzioni d'angolo tra profilati verticali e orizzontali dovranno essere perfettamente solidali ed unite mediante apposite squadrette in alluminio pressofuso e/o estruso, con metodo a bottone, cianfrinare, spinare e avvitare (45°). Le sezioni dovranno essere opportunamente sigillate prima di essere unite con le squadrette.

I fermavetri saranno accoppiati a scatto direttamente nei canali dei profilati in alluminio senza l'ausilio di accessori in materiale plastico.

ESTETICA

La giunzione a 45° o 90°, nelle soluzioni Scorrevole e Alzante/Scorrevole, permette di avere serramenti affiancati e/o nello stesso locale, con DIVERSA TIPOLOGIA di APERTURA, ma con IDENTICA ESTETICA.

GUARNIZIONI e SPAZZOLINI

Le guarnizioni, cingivetro, di tenuta, di battuta (Alzante) dovranno essere in elastomero (EPDM) e/o in silicone.

Gli spazzolini, di tenuta (Scorrevole) dovranno avere una pinna centrale in materiale plastico e del tipo t/t (silenziato) per facilitare lo scorrimento e attutire l'attrito con il telaio in alluminio.

PRESTAZIONI DEI SERRAMENTI

Dovranno avere prestazioni di permeabilità all'aria, tenuta all'acqua e resistenza ai carichi del vento conformi alle norme EN 12207-12208-12210-1026-1027-12211.

- Tenuta all'aria : classe 4
- Tenuta all'acqua : classe 8A
- Resistenza al carico del vento : classe C5

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO ECU 170 AS TT

PROPERTIES OF ALUMINIUM:

VERSATILITY

The mechanical characteristics and versatility of the wide range of alloys in Aluminium, is enhanced by adding small quantities of other metals, thus permitting its use in many diverse applications and sectors.

LIGHTWEIGHT

Aluminium is a very light metal, its specific weight is 2.7 gr/cm³

MECHANICAL CHARACTERISTICS

A certified extrusion process, a knowledgeable choice of the alloy (6000 series) and the most appropriate hardness, offer maximum freedom in profile design and infinite application possibilities.

CORROSION RESISTANCE

Aluminium has a layer of natural oxide that protects it.

Further surface treatments, such as anodizing and painting, increase this natural resistance.

GENERAL NOTES ON ALUMINIUM PROFILES:

ALUMINIUM ALLOY

Profiles are extruded in alloy EN AW 6060, EN 573/3, supply state T5 EN 515

BAR LENGTH

The standard commercial length is 7000mm.

For other lengths contact the commercial department of PROFILATI.

DIMENSIONAL TOLERANCES

The dimensions indicated for the profiles are theoretical, and may vary because of extrusion tolerances (Norm EN 12020/2).

These variations may be evident in the chambers/housing designed for the insertion of accessories and/or gaskets, and in the areas where profiles are joined. A layer of anodizing or painting may also reduce chambers/housing areas because of the thickness of the surface treatment.

PROFILE WEIGHT

The weight indicated in the catalogue for the profiles is theoretical, and thus may vary according to the tolerances established by the European Norm EN 12020/2.

WORKING

Profile handling has to be carried out with extreme care and in a clean work environment.

Contact with residues, scrap or filings from previous work operations have to be avoided.

Maximum care has to be taken when moving pieces.

MACHINERY AND EQUIPMENT

Machinery and equipment has to be always efficient and suitable for the operation to be carried out, in particular the saw blades.

Avoid the use of products for cooling down tools that may damage the surface finishing of the profiles.

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

ALUMINIUM WINDOW AND DOOR FRAMES:

CUTTING DIMENSIONS

In the present catalogue there are cutting and working diagrams.

The theoretical dimensions are exact, however in practice they have to be rounded depending on the technology and equipment being used.

Before proceeding with the manufacture of window and door frames, it is strongly recommended to carry out a dimensional control of the profiles and verify the precision of the cutting equipment in use.

WINDOW AND DOOR FRAME CONSTRUCTION

The dimensions L-H indicated in the catalogue, refer to the tubular part of the profile and correspond to the saw cutting references.

DIAGRAMS, SECTIONS AND WALL MOUNTING

The indications given in this catalogue are not to be considered limitative, they are solely recommended solutions and examples of situations most commonly found.

INSTALLATION TOLERANCES

Between the steel counterframe and the external side of the frame, it is recommended to leave a space of 7mm at the two sides and the upper part, this is to guarantee a correct insertion and installation of the frame.

WINDOW AND DOOR FRAME DIMENSIONS

In order to calculate the appropriate dimensions, the following factors have to be considered:

The moment of inertia of the frames

The dimensions of the wings and their weight

The accessory range

The type of mounting and the consistency of the wall

The place of the installation (height, sun exposure, wind force, etc..)

For this reason, it is recommended to consult the Technical Document UNCSAAL UX24

EXTERNAL CLEANING AND MAINTENANCE

The cleaning of aluminium profiles is very simple, use a sponge or cloth wet with an appropriate detergent (see table).

The maintenance of the frames is often connected with the glass cleaning, it is recommended to clean the surfaces when they are not exposed to heat or sunlight.

The frequency depends on the surrounding environment, and has to be more frequent near the coast, in industrial and heavily polluted areas.

DO NOT USE

- Chemical alkaline products such as ammonia etc
- Chemical hypochlorite products such as bleach etc.

- Oxidizing products
- Nitro-acetone solvents

N.B. Anodized and painted aluminium cannot come into contact with moist mortar or plaster.
During mounting it is always advisable to protect the frames and wings.

INTERNAL CLEANING AND MAINTENANCE

To guarantee the correct functioning of the system, it is necessary to remove foreign objects and other residues from the guides and frame slots. This is to prevent the blocking of the water drainage slots and to maintain intact the performance.

ACCESSORY MAINTENANCE

To ensure the correct functioning of the system, it is necessary to lubricate the moveable parts and the closing mechanism with a silicon spray and/or teflon, the protective layer obtained improves the movement.

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO ECU 170 AS TT

Every solid body, irrespective of the material, when exposed to temperature variations, undergoes a change in volume. An increase in temperature of the solid body means a corresponding increase in volume, whereas a decrease in temperature creates a reduction in volume.

Normally, the variations in volume are uniformly distributed, in other words the solid body has an equal change of volume in all three dimensions.

However, many cases exist where one dimension of the solid body is particularly affected thus rendering the deformations caused by temperature variations of the other dimensions almost negligible. This is exactly the case with extruded aluminium profiles where the length of the profiles is much greater compared to the orthogonal section of the same profile.

In this situation, the change in volume is referred to as **thermal linear expansion**

The coefficient of thermal linear expansion, indicated by the symbol λ , in general terms, can be considered a constant that depends on the material and represents the variation in length of a bar of one metre having undergone a temperature change of one degree.

The size of the deformation is calculated by comparing the dimensions of the bar before and after the temperature variation.

The increase in length ΔL is proportional to the increase in temperature and the initial length of the bar, it is calculated by using the following equation:

$$\Delta L = L_t - L_o = \lambda L_o (t - t_o)$$

or:

$$L_t = L_o + \lambda L_o (t - t_o) = L_o [1 + \lambda (t - t_o)]$$

where:

t_o = initial temperature ;

t = final temperature ;

L_t = length at temperature t ;

L_o = length at temperature t_o ;

λ = coefficient of thermal expansion (see following table) ;

The table below indicates for five materials the coefficient of thermal linear expansion, how many millimetres a one metre length bar expands having undergone a temperature increase of one degree.

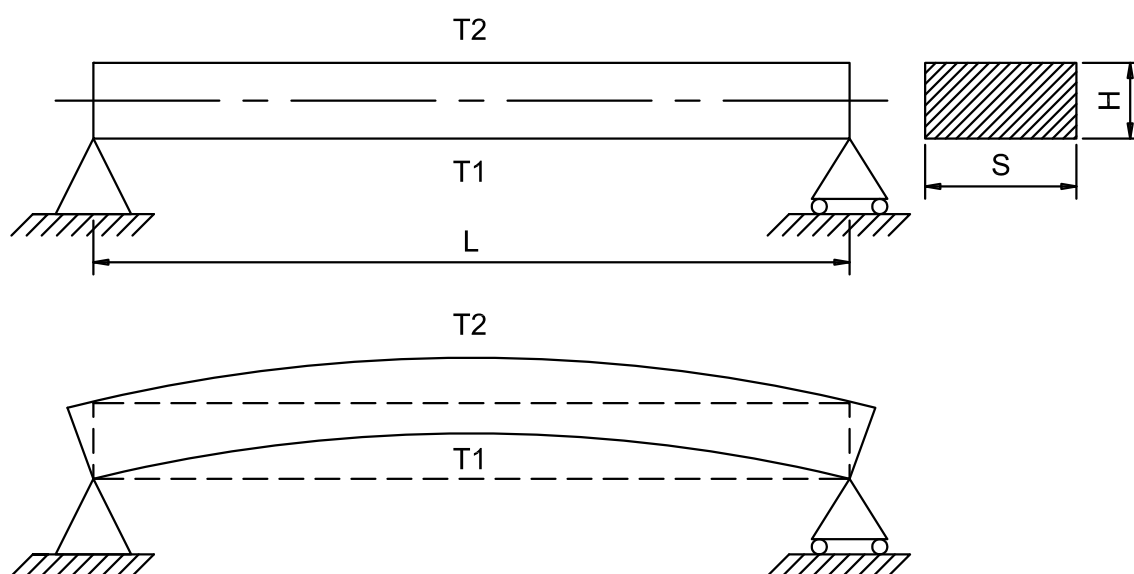
Material	$\lambda (^{\circ}\text{C}^{-1})$	Material length increase, 1 degree per 1m (mm)
Steel	$11 \cdot 10^{-6}$	0,011
Aluminium	$24 \cdot 10^{-6}$	0,024
Iron	$12 \cdot 10^{-6}$	0,012
P.V.C.	$70 \cdot 10^{-6}$	0,070
Glass	$9 \cdot 10^{-6}$	0,009

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

Window and door frames as well as curtain walling, among their many functions, well known for their energy-saving properties, to separate completely different environmental conditions. Extruded aluminium profiles that are used for window and door frames, either thermal break or not, are therefore exposed to large thermal variations. These variations are normally particularly extreme in the summer period, when the surface of the frames is subjected to strong sunlight that causes a substantial increase in temperature.

As a consequence of this heating, the surface exposed to the sun expands more compared to the side not exposed, thus causing an inflexion of the bar outward towards the external exposed surface, that increase with the difference of temperature between the internal and external surfaces of the profile.

The situation is illustrated in figure 1, where the profile is anchored at the ends, undergoes a temperature variation ΔT between the external exposed surface, at temperature T_2 , and the internal non-exposed surface, at temperature $T_1 < T_2$, and, because of the stress generated, an inflexion of the bar is caused, outward towards the more higher temperature surface.



This phenomenon, which is particularly visible on wing-opening and on very long transom, is known as **thermal distortion** and is the deformation that, in the worst cases and during the hours of max sunlight, can cause difficulty in opening and closing windows and doors or generate other types of malfunctioning.

The present document is intended to be only informative and has the purpose to inform all of our clients of the phenomenon described herein. The thermal distortion is always present, to a greater or lesser degree, and is not completely resolvable with the materials and technology currently available for the construction of profiles in the building sector.

The thermal distortion is even more evident in thermal break profiles as they have a larger insulating capacity, and as a consequence a greater difference in temperature between the exposed and non-exposed surfaces. Nevertheless, there are some simple procedures, where it is possible to apply them, that can considerably reduce the effects of the thermal distortion:

- 1) The reduction of the exposure to direct sunlight
- 2) The reduction in size S of the exposed surfaces of the profile
- 3) The use of light colour finishing on the profile
- 4) The reduction of the length L of the profile
- 5) The use of a higher profile width H where there is the heat flow

For any further information or advice on the correctness of specific building systems, please contact the Technical Office of Profilati S.p.A.

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

TECHNICAL DESCRIPTION EKU 170 AS TT SYSTEM

ALUMINIUM PROFILE:	Extruded alloy EN AW-6060 norm EN 573/3
HEAT TREATMENT:	T5 norm EN 515
DIMENSIONAL TOLERANCES:	norm EN 12020/2
AIR-WATER SEALING:	brush gaskets
PROFILE TYPE:	Thermal break obtained by insertion of polyamide bars reinforced with fibreglass. Mechanical blocking by rolling, the housing area is knurled for a better sliding mechanism.

STANDARD DIMENSIONS EKU 170 AS TT SYSTEM

FIXED FRAME WIDTH:	166mm (2 rails-monorail, cut 45°) -259mm (3 rails, cut 45°)
WING FRAME WIDTH:	72mm (cut 45°)
GLASS SEATING SPACE HEIGHT:	22mm (net height)
WALL OVERLAPPING:	50-80mm
GLASS SEATING SPACE WIDTH:	14.5 to 47.5mm, depending on glass beading used.
GLASS BEADING TYPE:	rectangular or rounded snap
APPLICATION:	windows and french windows, 1,2 ,3 ,4 and 6 wings - fixed - sliding - lift/slide - monorail+fixed - frames with 2/3 rails

TESTING/CERTIFICATION c/o CERT:

Air permeability:	class 4	(UNI EN 12207 - UNI EN 1026)
Water tightness:	class 8A	(UNI EN 12208 - UNI EN 1027)
Wind resistance:	class C5	(UNI EN 12210 - UNI EN 12211)

DESCRIZIONE TECNICA DEL SISTEMA PER SERRAMENTI ALZANTI/SCORREVOLI A TAGLIO TERMICO EKU 170 AS TT

TECHNICAL DESCRIPTION SPECIFICATIONS:

MATERIAL

The profiles for window and door frames are extruded in alloy EN AW 6060 (EN 573/3 and EN 755-2), supply state T5 EN 515.

The wings and fixed frames have to be made of thermal break profiles with the insertion of polyamide bars PA 6.6 reinforced with fibreglass.

WINDOW AND DOOR FRAME CONSTRUCTION

The windows and the french windows have to be constructed with a frame width of 166mm and a wing width of 72mm.

The frames can have an wall overlap of 50-80mm.

The wing profiles have to be constructed with a glass seating space height of 22mm.

THERMAL INSULATION

The thermal break shall be obtained by the insertion of 28mm polyamide bars PA 6.6 reinforced with fibreglass.

The assembly of the aluminium thermal break profiles has to guarantee the value of mechanical sliding resistance between the aluminum profiles and the polyamide bars, according to the European technical directive (UEAtc).

DRAINAGE AND VENTILATION

The external profiles of the frame and wings have to be built with a drainage system to collect and channel infiltrations of water towards drainage slots for external elimination.

The polyamide bars have to be designed with a shape to avoid the accumulation of water infiltrations.

ACCESSORIES

The joints of the vertical and horizontal profiles have to be perfectly connected by specific aluminium corner joints.

The sections have to be appropriately sealed before being joined with the corner joints.

The glass beading has to be snapped in the specific housing area without plastic accessories.

AESTHETICS

The solutions Sliding and Lift/Slide have a 45° joint and the same aesthetics as other opening systems.

SEALING GASKETS AND BRUSHING

All sealing gaskets have to be in EPDM and/or silicon.

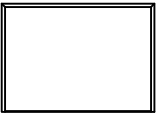
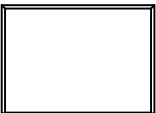
The brushing, in the sliding mechanism, has to have a central fin in plastic to aid the sliding and reduce friction with the aluminium frame.

PERFORMANCE

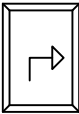
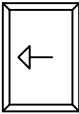
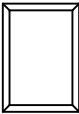
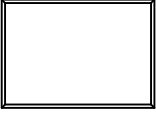
The window and door frame systems have to respect the norms for air permeability, water tightness and wind resistance EN 12207, EN 1026, EN 12208, EN 1027, EN 12210, EN 12211

Air permeability:	class 4
Water tightness:	class 8A
Wind resistance:	class C5

Accessori - Accessory

	art. EK-0001 Kit telaio 3 lati (2 binari) + soglia bassa 3 sides frame Kit (2 tracks) + low threshold	Composizione Kit: • Spina con manico N° 4 • Squadretta esterna telai N° 2 • Squadretta spinare N° 6 • Vite sagomata 8 mm N° 12 • Scivolo N° 6 • Tenuta centrale soglia N° 1 • Tenuta centrale superiore N° 1 • Tenuta laterale soglia N° 2 • Vite 3.5 x 14 N° 12
	art. EK-0002 Kit telaio 4 lati (2 binari) per ante scorrevoli 4 sides frame Kit (2 tracks) for sliding wings	Composizione Kit: • Spina con manico N° 8 • Squadretta esterna telai N° 4 • Squadretta spinare N° 12 • Vite sagomata 8 mm N° 24 • Scivolo N° 6 • Tenuta centrale inferiore e superiore N° 2 • Tappo drenaggio N° 6 • Vite 3.5 x 14 N° 12
	art. EK-0003 Kit telaio 4 lati (2 binari) per ante alzanti 4 sides frame Kit (2 tracks) for lift and slide wings	Composizione Kit: • Spina con manico N° 8 • Squadretta esterna telai N° 4 • Squadretta spinare N° 12 • Vite sagomata 8 mm N° 24 • Scivolo N° 6 • Tenuta centrale inferiore per alzante N° 1 • Tenuta centrale superiore per alzante N° 1 • Tappo drenaggio N° 6 • Vite 3.5 x 14 N° 12
	art. EK-0004 Kit telaio monorotaia per anta scorrevole Monorail frame Kit for sliding wing	Composizione Kit: • Spina con manico N° 8 • Squadretta esterna telai N° 4 • Squadretta di allineamento N° 4 • Squadretta spinare N° 12 • Vite sagomata 8 mm N° 24 • Spessore vetro N° 6 • Scivolo N° 6 • Fermo anta fissa N° 2 • Tenuta centrale superiore mono N° 2 • Tappo drenaggio N° 6 • Vite TECC 4,8 x 16 - Fermo anta N° 2 • Vite TSC 4,8 x 16 - Fermo anta N° 2 • Vite per spazzolini centrali N° 12
	art. EK-0005 Kit telaio monorotaia per anta alzante Monorail frame Kit for lift and slide wing	Composizione Kit: • Spina con manico N° 8 • Squadretta esterna telai N° 4 • Squadretta di allineamento N° 4 • Squadretta spinare N° 12 • Vite sagomata 8 mm N° 24 • Spessore vetro N° 6 • Scivolo N° 6 • Fermo anta fissa N° 2 • Tenuta centrale superiore mono N° 1 • Tenuta centrale inferiore mono N° 1 • Tappo drenaggio N° 6 • Vite TECC 4,8 x 16 - Fermo anta N° 2 • Vite TSC 4,8 x 16 - Fermo anta N° 2 • Vite per spazzolini centrali N° 12

Accessori - Accessory

	art. EK-0006 Kit anta alzante Lift and slide wing Kit	Composizione Kit: • Spina con manico N° 16 • Squadretta ante N° 8 • Squadretta allineamento N° 4 • Squadretta allineamento ante N° 8 • Squadretta a spinare N° 4 • Vite sagomata 8 mm N° 8 • Spessore vetro N° 6 • Tappo cop. sup. per alzante N°1 • Tappo copertura inferiore N° 1 • Supporto antisfilamento N° 1 • Distanziatore superiore N° 4 • Spessore carrelli (lungo + corto) N° 2 • Confezione carrelli N° 1 • Spessore cremonese N° 8 • Spessore angolare carrello N° 1 • Perni di chiusura inf. e sup. N° 2 • Minuterie HS N° 1 • Tappo ammortizzatore N° 2 • Spazzolino adesivo tappo N° 1 • Viti TSC 4,8 x lung. varie N° 25 • Grano TEI M4 x 14 N° 4 • Tappo ferma carrello N° 5
	art. EK-0007 Kit anta scorrevole Sliding wing Kit	Composizione Kit: • Spina con manico N° 16 • Squadretta ante N° 8 • Squadretta allineamento N° 4 • Squadretta allineamento ante N° 8 • Squadretta a spinare N° 4 • Vite sagomata 8 mm N° 8 • Spessore vetro N° 6 • Tappo copertura inferiore N°1 • Tappo copertura superiore N° 1 • Supporto antisfilamento N° 1 • Distanziatore superiore N° 4 • Supporto carrello N° 2 • Riscontri CS N° 2 • Carrello N° 2 • Tappo ammortizzatore N° 2 • Tappo ammortizzatore N° 2 • Viti TSC 4,8 x lung. varie N° 17 • Grano TEI M4 x 14 N° 4
	art. EK-0008 Kit anta fissa Fixed wing Kit	Composizione Kit: • Spina con manico N° 16 • Squadretta ante N° 8 • Squadretta allineamento N° 4 • Squadretta allineamento ante N° 8 • Squadretta a spinare N° 4 • Vite sagomata 8 mm N° 8 • Spessore vetro N° 6 • Tappo copertura inferiore N°1 • Tappo copertura superiore N° 1 • Supporto anta fissa inf. + lato N° 4 • Supporto anta fissa sup. + lato N° 2 • Tappo ammortizzatore N° 2 • Vite TSC 4,8 x 32 N° 2 • Vite TSC 3,5 x 14 N° 4 • Vite TCC 4,8 x 16 N° 10
	art. EK-0009 Kit telaio 4 lati (3 binari) per ante scorrevoli 4 sides frame Kit (3 tracks) for sliding wings	Composizione Kit: • Spina con manico N° 8 • Squadretta esterna telai N° 4 • Squadretta ad avvitare N° 20 • Vite sagomata 8 mm N° 40 • Tenuta centrale superiore N° 4 • Scarico acqua nero N° 20
	art. EK-0010 Kit telaio 4 lati (3 binari) per ante alzanti 4 sides frame Kit (3 tracks) for lift and slide wings	Composizione Kit: • Spina con manico N° 8 • Squadretta esterna telai N° 4 • Squadretta ad avvitare N° 20 • Vite sagomata 8 mm N° 40 • Tenuta centrale inferiore per alzante N° 2 • Tenuta centrale superiore per alzante N° 2 • Scarico acqua nero N° 20

Accessori - Accessory

art. EK-0011

Kit telaio 3 lati (3 binari) + soglia bassa

3 sides frame Kit (3 tracks) + low threshold

Composizione Kit:

- Spina con manico N° 4
- Squadretta esterna telai N° 2
- Squadretta avvitare N° 10
- Vite sagomata 8 mm N° 20
- Tenuta centrale soglia N° 2
- Tenuta centrale superiore N° 2
- Tenuta laterale soglia N° 2

art. EK-0012

Kit telaio 4 lati taglio 90° (3 binari) per ante scorrevoli

4 sides frame Kit 90° cutting (3 tracks) for sliding wings

Composizione Kit:

- Tappo angolo 90° N° 8
- Tenuta centrale superiore N° 4
- Scarico acqua nero N° 30

art. EK-0013

Kit telaio 4 lati taglio 90° (3 binari) per ante alzanti

4 sides frame Kit 90° cutting (3 tracks) for lift and slide wings

Composizione Kit:

- Tappo angolo 90° N° 8
- Tenuta centrale inferiore per alzante N° 2
- Tenuta centrale superiore N° 2
- Scarico acqua nero N° 20

art. EK-0014

Kit telaio 3 lati taglio 90° (3 binari) per scorrevoli o alzanti soglia ribassata

3 sides frame Kit 90° cutting (3 tracks) for slide or lift and slide wings low threshold

Composizione Kit:

- Tappo angolo 90° N° 4
- Tenuta centrale inferiore per alzante N° 2
- Tenuta centrale superiore N° 2
- Tenuta laterale soglia N° 2

art. EK-0015

Kit telaio 4 lati taglio 90° (2 binari) per ante scorrevoli

4 sides frame Kit 90° cutting (2 tracks) for sliding wings

Composizione Kit:

- Tappo angolo 90° N° 4
- Scivolo N° 6
- Tenuta centrale superiore N° 2
- Vite TSC 3,5 x 14 N° 12
- Scarico acqua nero N° 10

Accessori - Accessory

art. EK-0016

Kit telaio 4 lati taglio 90° (2 binari)
per ante alzanti



4 sides frame Kit 90° cutting (2 tracks)
for lift and slide wings

Composizione Kit:

- Tappo angolo 90° N° 4
- Scivolo N° 6
- Tenuta centrale inferiore per alzante N° 1
- Tenuta centrale superiore N° 1
- Vite TSC 3,5 x 14 N° 12
- Scarico acqua nero N° 10

art. EK-0017

Kit telaio 3 lati taglio 90° (2 binari)
per scorrevoli o alzanti soglia ribassata



3 sides frame Kit 90° cutting (2 tracks)
for slide or lift and slide wings
low threshold

Composizione Kit:

- Tappo angolo 90° N° 2
- Scivolo N° 6
- Tenuta centrale soglia N° 1
- Tenuta centrale superiore N° 1
- Tenuta laterale soglia N° 2
- Vite TSC 3,5 x 14 N° 12

Il principio è quello di avere KIT TELAI e KIT ANTA divisi, e permettere al cliente di espletare le molteplici soluzioni che consente il sistema ECU 170 AS TT.

- TELAI : a 3 LATI + soglia bassa (45°-90°) - ANTE : FISSA - MONOROTAIA + FISSO : SCORREVOLE
a 4 LATI (45°) SCORREVOLE ALZANTE
a 2/3 BINARI ALZANTE

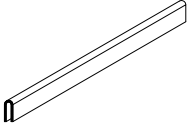
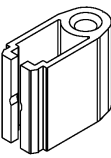
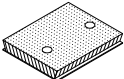
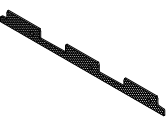
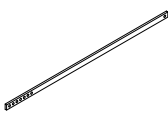
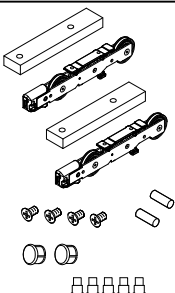
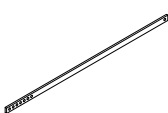
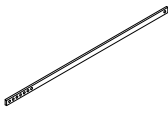
Le confezioni sono comprensive di tutti i componenti occorrenti l'assemblaggio, anche le viti di fissaggio.

The concept is to separate the kit frame and kit sash, to allow the costumer to use all solutions allowed by ECU 170 AS TT system.

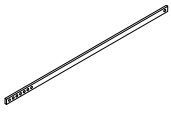
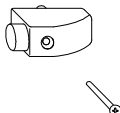
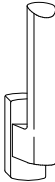
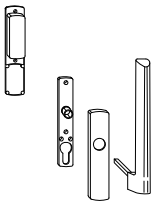
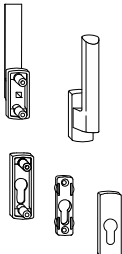
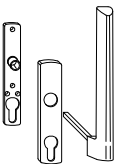
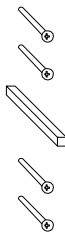
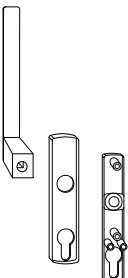
- Frames : 3 sides, low threshold - Sashes : fixed - Monorail + fixed : sliding
4 sides sliding lifting
2/3 tracks lifting

The packages include all the components for the assembly, fastening screws included.

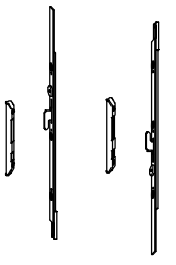
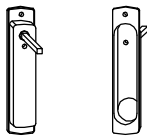
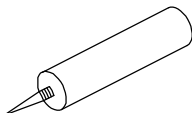
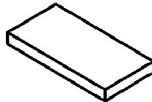
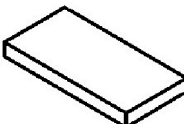
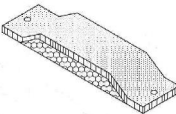
Accessori - Accessory

	AG-0001 Guida inferiore in Acciaio Inox L = 3000 Stainless Steel lower rail L = 3000		art. EA-0073AR Cremonese E=37.5 Argento H anta da 1776 mm a 2275 mm Lift locking gear E=37.5 Silver H wing from 1776 mm to 2275 mm
	art. EA-0031 Cavallotto interno per traverso anta Internal "T" joint for wing transom		art. EA-0074AR Cremonese E=37.5 Argento H anta da 2276 mm a 2675 mm Lift locking gear E=37.5 Silver H wing from 2276 mm to 2675 mm
	art. EA-0069 Tampone di tenuta inferiore e superiore ante complanari Upper and lower pledget for coplanar wings		art. EA-0075AR Prolunga cremonese H anta da 2676 mm a 3310 mm Extension for lift locking gear H wing from 2676 mm to 3310 mm
	art. EA-0070 Guarnizione laterale di tenuta soglia ribassata Lateral gasket for lowered threshold		art. EA-0076 Barra collegamento carrelli L anta da 720 mm a 1500 mm Carriage connection rod L wing from 720 mm to 1500 mm
	art. EA-0071 Kit carrelli aggiuntivi portata 400 Kg per alza scorri Additional carriages kit capacity 400 Kg for lift and slide		art. EA-0077 Barra collegamento carrelli L anta da 1501 mm a 2000 mm Carriage connection rod L wing from 1501 mm to 2000 mm
	art. EA-0072AR Cremonese E=37.5 Argento H anta da 1175 mm a 1775 mm Lift locking gear E=37.5 Silver H wing from 1175 mm to 1775 mm		art. EA-0078 Barra collegamento carrelli L anta da 2001 mm a 2500 mm Carriage connection rod L wing from 2001 mm to 2500 mm

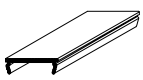
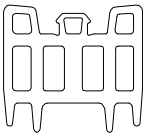
Accessori - Accessory

	art. EA-0079 Barra collegamento carrelli L anta da 2501 mm a 3350 mm Carriage connection rod L wing from 2501 mm to 3350 mm		art. EA-0089BI/EA-0090AR Coperchio con foro cilindro bianco/argento White/silver additional cylinder cover
	art. EA-0080BI/EA-0081NE Fine corsa bianco/nero White/black bumper		art. EA-0091BI/EA-0092AR Martellina per scorrevole bianco/argento White/silver handle for sliding
	art. EA-0082BI/EA-0083AR Maniglione interno + vaschetta esterna bianco/argento White/silver internal handle + external built-in handle		art. EA-0093BI/EA-0094AR Doppia martellina per scorrevole + rosetta cilindro bianco/argento White/silver Double handle for sliding + cylinder cover
	art. EA-0084BI/EA-0085AR Maniglione interno con foro cilindro bianco/argento White/silver internal handle + cylinder		art. EA-0095 Confezione viti maniglia Screws handle kit
	art. EA-0086BI/EA-0087AR Maniglione esterno con foro cilindro bianco/argento White/silver external Handle + cylinder		art. EA-0096 Cremonese per scorrevole H anta da 1010 mm a 1800 mm Screw handle kit
	art. EA-0088 Vite passante per maniglioni Through screw for handle		art. EA-0097 Cremonese per scorrevole + cilindro H anta da 1010 mm a 1800 mm Slide locking gear + cylinder H wing from 1010 mm to 1800 mm

Accessori - Accessory

	art. EA-0098 + EA-0100 Prolunga superiore e inferiore cremonese +riscontro H anta da 1801 mm a 2300 mm Upper and lower extension sliding locking gear + rest plate H wing from 1801 mm to 2300 mm		174-1591 Squadretta allineamento esterna per traverso anta External alignment corner joint for wing transom
	art. EA-0101BI/EA-0102AR Maniglia vaschetta colore bianco o argento Built in handle white or silver		170-892100115 Colla monocomponente per incollaggio squadrette Single component glue for corner joint
	art. EA-0103 Scatola anti trapano Anti-drill cover		104-600.01 Rapid Block Z/P Rapid Block Z/P
	art. EA-0312 Tenuta centrale soglia ribassata Central sealing for threshold		
	art. EA-0313 Tenuta centrale per alza scorri Central sealing for lift and slide		
	art. EA-0315 Tenuta centrale per alza scorri e scorrevole Central sealing for lift and slide and sliding		

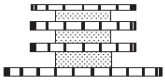
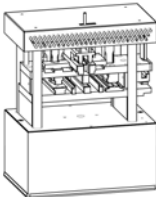
Guarnizioni - Gaskets

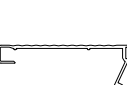
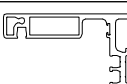
	art. EG-0010 Labirinto centrale in poliammide barra L = 5000 mm Central coupling polyamide rod L = 5000 mm		art. EG-0016 Guarnizione piccola per isolamento soglia Little gasket for lower frame insulation
	art. EG-0011 Copricava in poliammide barra L = 6000 mm Polyamide cover cavity rod L = 6000 mm		art. EG-0017/EG-0018/ EG-0019 Guarnizione copri-fuga 5 mm nera/bianca/marrone Black/white/brown cover cavity 5 mm gasket
	art. EG-0012 Guarnizione isolamento ante Wings insulation gasket		art. EG-0020 Spazzolino di tenuta con pinna centrale Waterproof brush with central fin
	art. EG-0013 Guarnizione scatto monorotaia Monorail gasket		art. EG-0021 Guarnizione per aggancio centrale Central coupling gasket
	art. EG-0014 Guarnizione di tenuta alzante Waterproof gasket lift and slide		art. EG-0022 Guarnizione copri-fuga 7 mm Cover cavity 7 mm gasket
	art. EG-0015 Guarnizione grande per isolamento soglia Big gasket for lower frame insulation		art. EG-0069 Guarnizione di vetratura esterna da 4 mm 4 mm external glass beading gasket

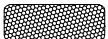
Guarnizioni - Gaskets

	art. 126-2194 Guarnizione di vetratura interna spessore 3/4 mm 3/4 mm internal glass beading gasket		
	art. 126-2195 Guarnizione di vetratura interna spessore 5/6 mm 5/6 mm internal glass beading gasket		
	art. 126-2197 Guarnizione di vetratura interna spessore 7/8 mm 7/8 mm internal glass beading gasket		
	art. 126-20157 Guarnizione di vetratura interna spessore 6/7 mm 6/7 mm internal glass beading gasket		

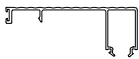
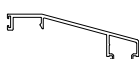
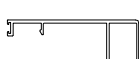
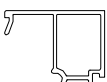
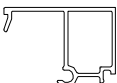
Attrezzature - Equipement

	art. EU-0003 Gruppo frese per traversi Milling cutter for transom		
	art. EP-0004 Punzonatrice Punching machine		

Elenco Profili - Profiles List				
SIGLA CODE	PROFILO PROFILE	PESO Kg/m WEIGHT Kg/m	IMPIEGO USE	PAGINA PAGE
4293		0.183	Fermavetro da 4 mm <i>Glass beading</i>	4-10
16185		0.237	Fermavetro da 10 mm <i>Glass beading</i>	4-11
16186		0.243	Fermavetro da 13 mm <i>Glass beading</i>	4-11
16189		0.252	Fermavetro da 17 mm <i>Glass beading</i>	4-11
16191		0.290	Fermavetro da 23 mm <i>Glass beading</i>	4-11
16193		0.303	Fermavetro da 27 mm <i>Glass beading</i>	4-11
16195		0.310	Fermavetro da 29 mm <i>Glass beading</i>	4-11
16197		0.316	Fermavetro da 31 mm <i>Glass beading</i>	4-11
19712		0.242	Fermavetro da 15 mm <i>Glass beading</i>	4-11
22618		0.271	Fermavetro da 20 mm <i>Glass beading</i>	4-11
24409		0.682	Riporto per rivestimento telaio <i>Cover for frame</i>	4-07
24410		0.620	Cartellina <i>Cover</i>	4-07
24411		0.263	Gocciolatoio <i>Water drainage</i>	4-07
24415		1.615	Rinforzo per nodo centrale <i>Reinforcement for central plug</i>	4-08
24416		1.922	Ferma anta <i>Wing stops</i>	4-08

Note:  = profilo non a stock
profile no stock

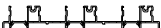
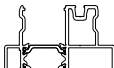
Elenco Profili - Profiles List

SIGLA CODE	PROFILO PROFILE	PESO Kg/m WEIGHT Kg/m	IMPIEGO USE	PAGINA PAGE
24417		0.574	Riporto laterale per serrature - anta scorrevole <i>Lateral profile for lock - sliding wing</i>	4-08
24420		0.744	Copertina orizzontale monorotaia <i>Horizontal cover for monorail</i>	4-09
24421		0.650	Copertina verticale monorotaia <i>Vertical cover for monorail</i>	4-09
24422		0.203	Copertina finitura per nodo centrale <i>Finishing cover for central plug</i>	4-10
24428		0.714	Copertina verticale monorotaia liscia <i>Smooth vertical cover for monorail</i>	4-09
24429		0.802	Copertina orizzontale monorotaia liscia <i>Smooth horizontal cover for monorail</i>	4-10
24430		0.160	Profilo copertina per telai 90° <i>Cover for 90° frames</i>	4-10
24431		0.575	Soglia ribassata <i>Threshold</i>	4-10
 24528		0.366	Fermavetro da 31 mm <i>Glass beading 31 mm</i>	4-13
 24556		0.372	Fermavetro da 33 mm <i>Glass beading 33 mm</i>	4-13
 24557		0.385	Fermavetro da 37 mm <i>Glass beading 37 mm</i>	4-13
 24565		0.233	Fermavetro da 4 mm <i>Glass beading 4 mm</i>	4-12
 24566		0.255	Fermavetro da 10 mm <i>Glass beading 10 mm</i>	4-12
 24567		0.265	Fermavetro da 13 mm <i>Glass beading 13 mm</i>	4-12
 24568		0.272	Fermavetro da 15 mm <i>Glass beading 15 mm</i>	4-12

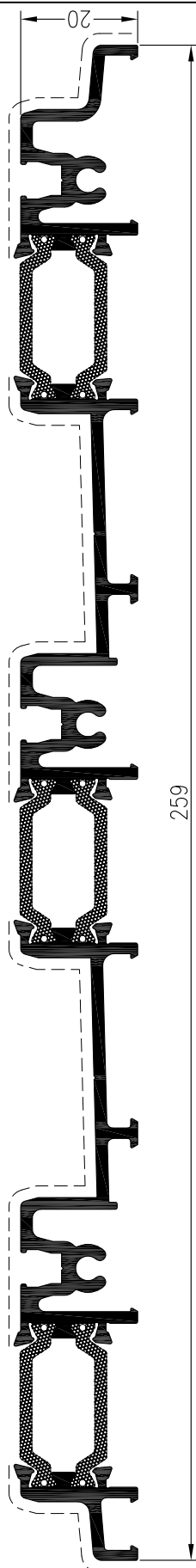
Note:  = profilo non a stock
profile no stock

Note:  = profilo non a stock
profile no stock

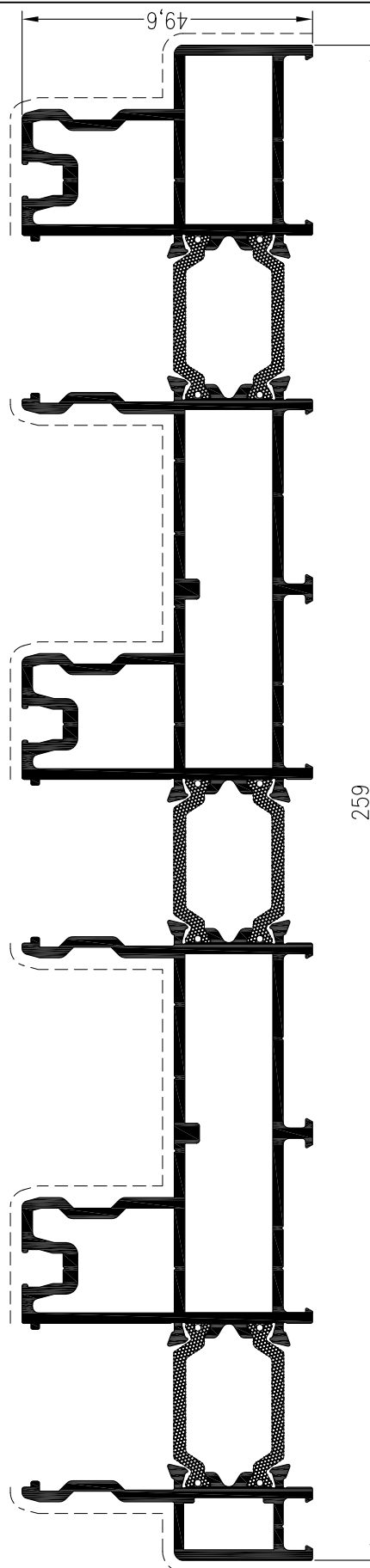
Elenco Profili - Profiles List

SIGLA CODE	PROFILO PROFILE	PESO Kg/m WEIGHT Kg/m	IMPIEGO USE	PAGINA PAGE
TT170.01		3.201	Soglia ribassata a 3 binari <i>3 rails lowered threshold</i>	4-01
TT170.02		5.233	Telaio a 3 binari <i>3 rails frame</i>	4-01
TT170.03		2.097	Soglia ribassata a 2 binari <i>2 rails lowered threshold</i>	4-02
TT170.04		3.469	Telaio a 2 binari <i>2 rails frame</i>	4-02
TT170.05		1.609	Incontro per ante contrapposte <i>Rest plate for opposite wings</i>	4-03
TT170.06		2.769	Anta <i>Wing</i>	4-03
TT170.07		3.124	Telaio monorotaia <i>Monorail frame</i>	4-04
TT170.09		1.705	Telaio monorotaia <i>Monorail frame</i>	4-06
TT170.10		0.993	Soglia monorotaia <i>Monorail threshold</i>	4-06
TT62-33		1.487	Traverso per anta <i>Transom for wing</i>	4-04
TT62-34		2.970	Fascia 150 mm per anta <i>150 mm transom for wing</i>	4-05

Profili 1:1 - Profiles 1:1



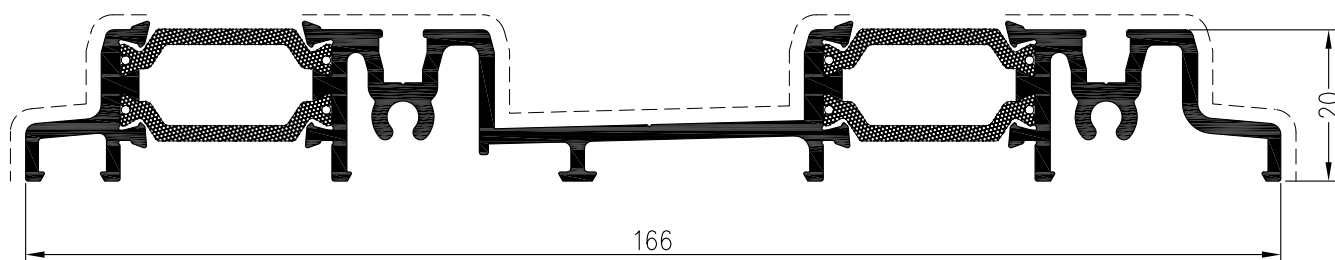
TT170.01	SOGLIA RIBASSATA A 3 BINARI 3 RAILS LOWERED THRESHOLD		X — Y Y — X	
	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x	J _y
	mm	mm	cm ⁴	cm ⁴
	985	263	3.42	679.34
PESO WEIGHT	Kg/m			
	3.201			



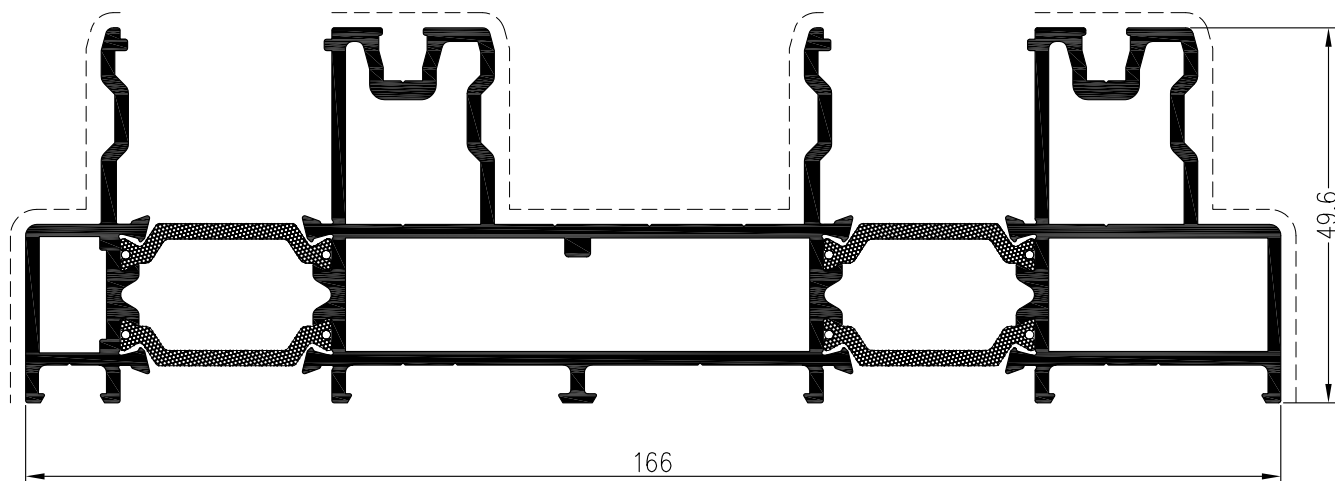
TT170.02	TELAIO A 3 BINARI 3 RAILS FRAME		X — Y Y — X	
	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x	J _y
	mm	mm	cm ⁴	cm ⁴
	1123	361	34.10	1075.98
PESO WEIGHT	Kg/m			
	5.233			

Profili 1:1 - Profiles 1:1

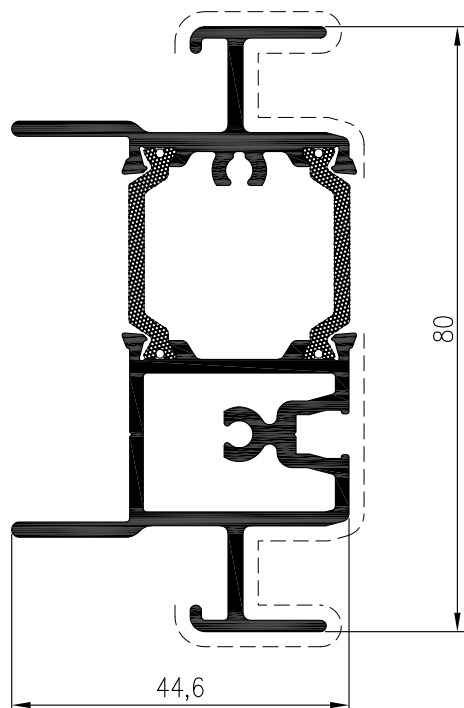
TT170.03	SOGLIA RIBASSATA A 2 BINARI 2 RAILS LOWERED THRESHOLD			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	2.097	645	172	2.26 182.86



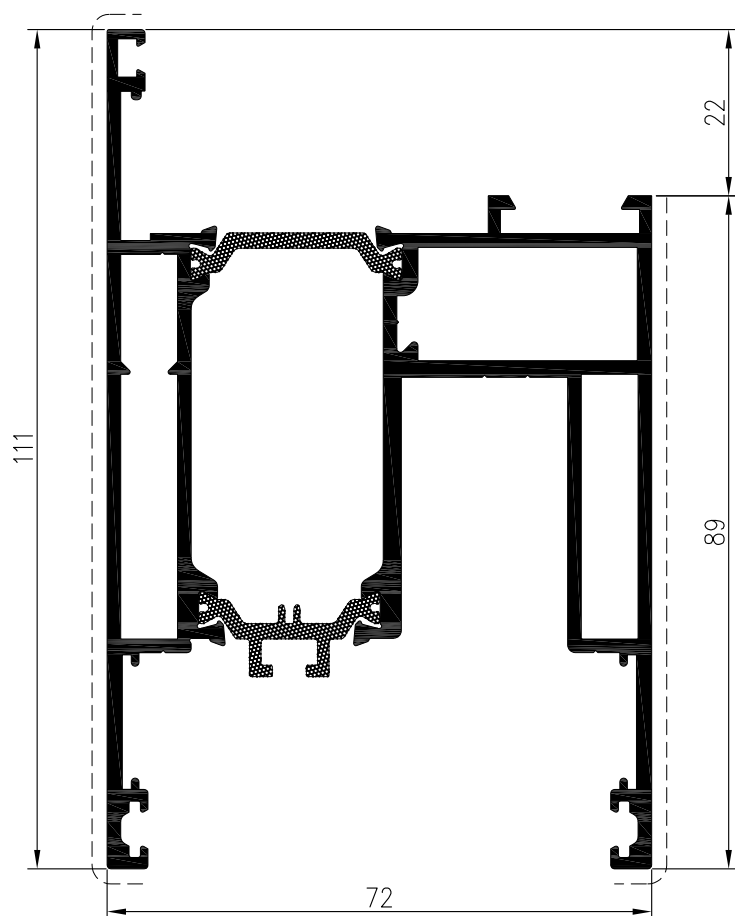
TT170.04	TELAIO A 2 BINARI 2 RAILS FRAME			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	3.469	749	248	22.65 299.42



Profili 1:1 - Profiles 1:1



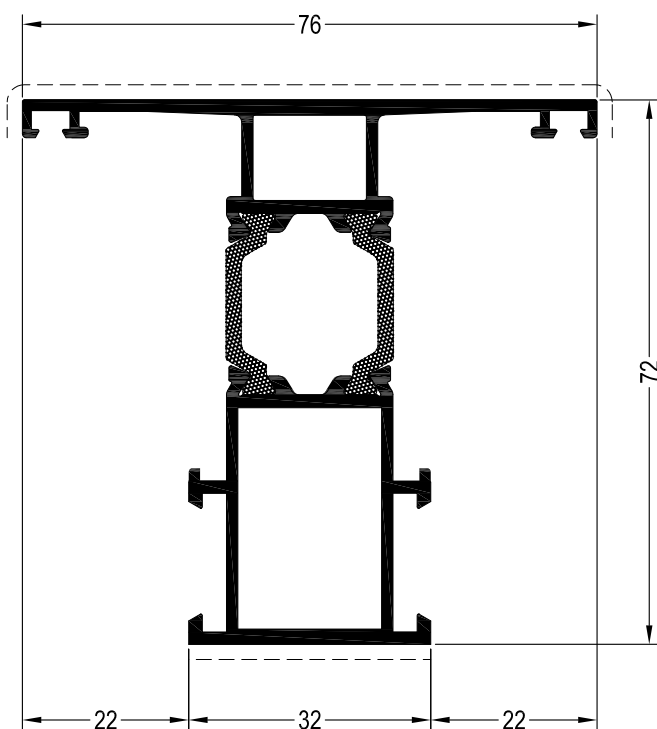
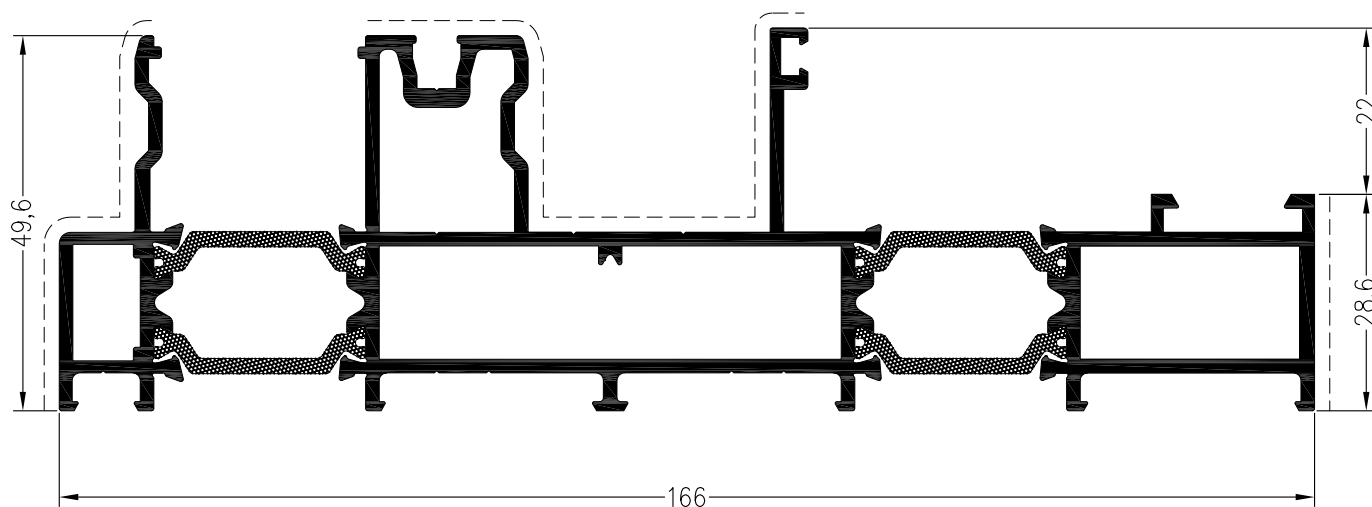
TT170.05	INCONTRO PER ANTE CONTRAPPOSTE REST PLATE FOR OPPOSITE WINGS			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	1.609	380	144	30.18 7.71



TT170.06	ANTA WING			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	2.769	627	216	65.94 73.65

Profili 1:1 - Profiles 1:1

TT170.07	TELAIO MONOROTAIA MONORAIL FRAME			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	3.124	794	202	17.89 284.00



TT62-33	T DA 76 mm PER ANTE COMPLANARI T-PROFILE 76 mm FOR COPLANAR WINGS			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	1.487	396	118	34.80 11.06

ACCESSORI / ACCESSORIES

CAVALLOTTI / T-JOINT

INT.	EXT.	
	ANTA / WING	TELAIO / FIXED FRAME
EA-0031	-	174-1591

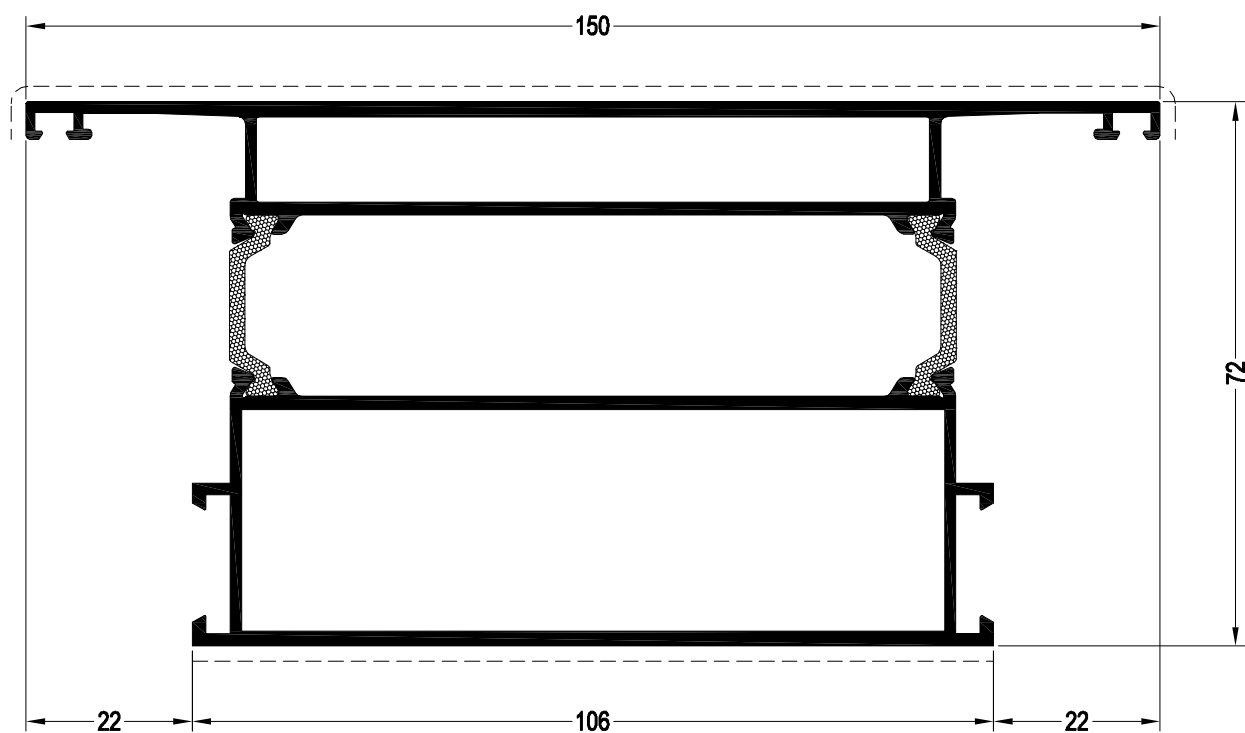
Profili 1:1 - Profiles 1:1

TT62-34	FASCIA DA 150 MM ANTE COMPLANARI HORIZONTAL TRANSOM 150 mm FOR COMPLANAR WINGS			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	J _x J _y
	Kg/m	mm	mm	cm ⁴ cm ⁴
	2.970	576	266	76.45 148.24

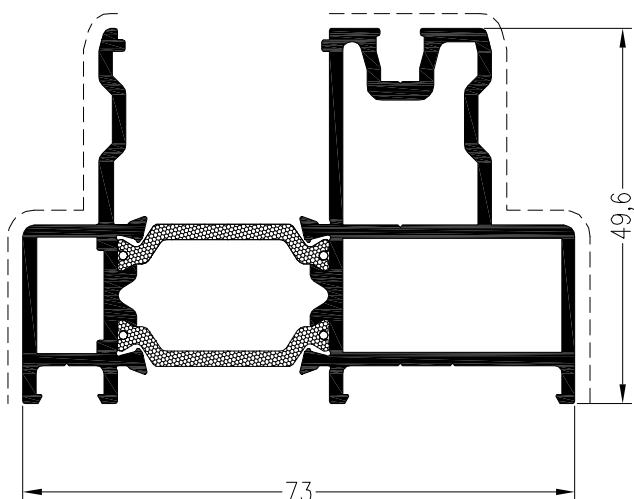
ACCESSORI / ACCESSORIES

CAVALLOTTI / T-JOINT

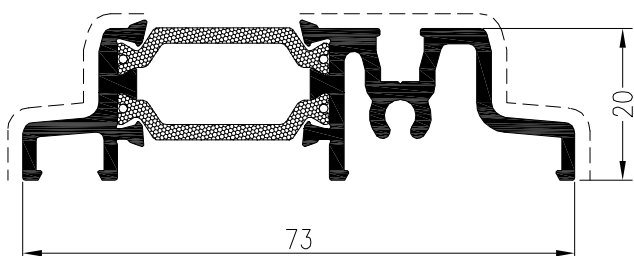
INT.	EXT.	
	ANTA / WING	TELAIO / FIXED FRAME
EA-0030	174-1591	-



Profili 1:1 - Profiles 1:1

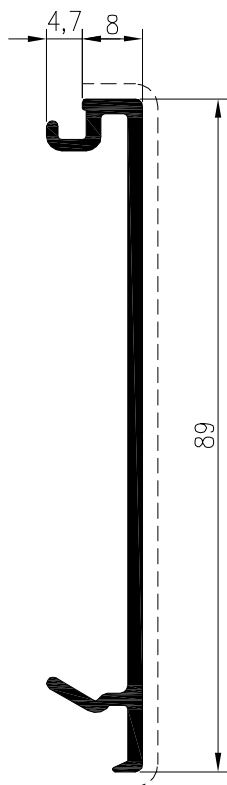


TT170.09	TELAIO MONOROTAIA MONORAIL FRAME			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	
	Kg/m	mm	mm	
	1.705	351	123	
			J _x	J _y
			cm ⁴	cm ⁴
			12.52	30.09

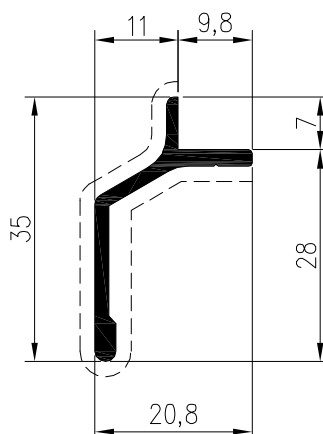


TT170.10	SOGLIA MONOROTAIA MONORAIL THRESHOLD			
	PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.	
	Kg/m	mm	mm	
	0.993	283	80	
			J _x	J _y
			cm ⁴	cm ⁴
			0.95	14.10

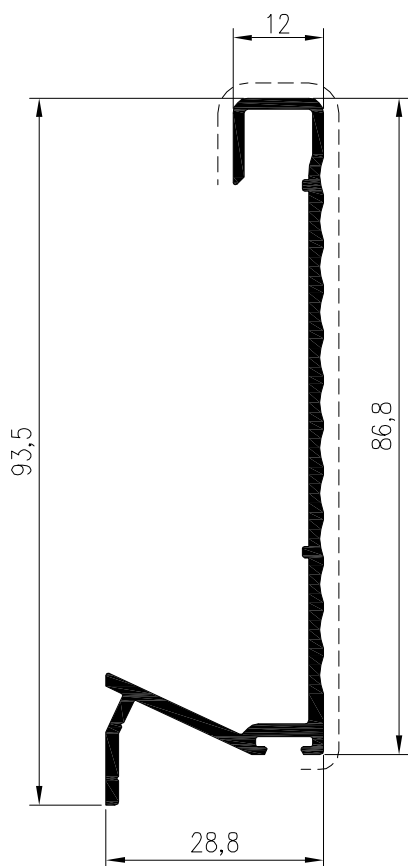
Profili 1:1 - Profiles 1:1



24410	CARTELLINA COVER	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.620	240	97

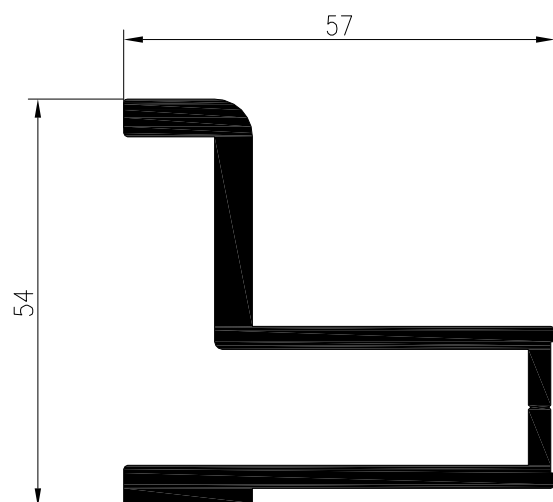


24411	GOCCIOLATOIO WATER DRAINAGE	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.263	103	83

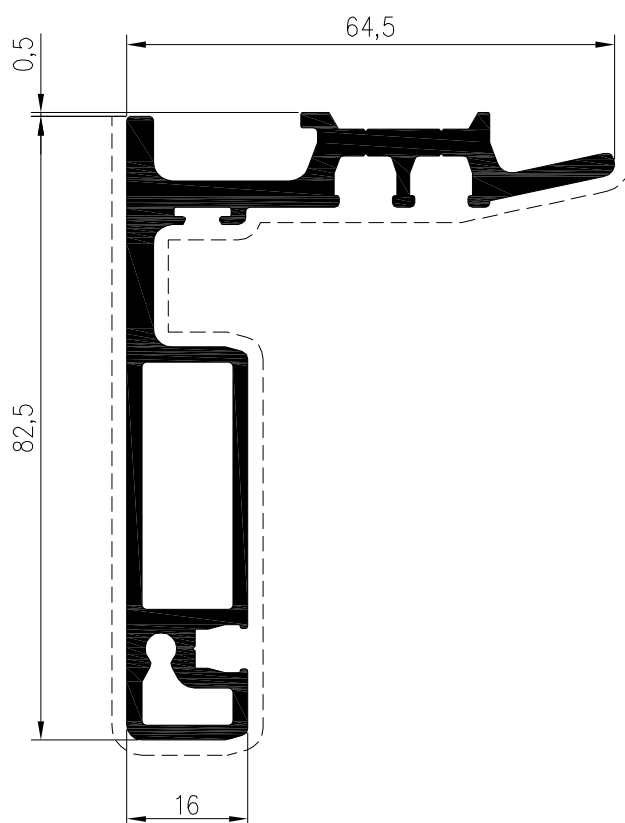


24409	RIPORTO PER RIVESTIMENTO TELAIO COVER FOR FRAME	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.682	308	110

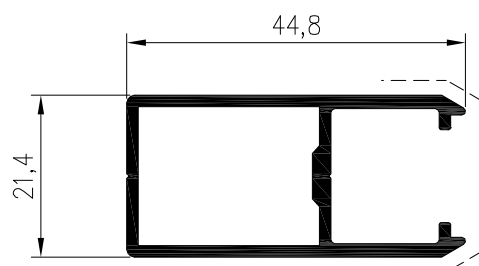
Profili 1:1 - Profiles 1:1



24415	RINFORZO PER NODO CENTRALE REINFORCEMENT FOR CENTRAL PLUG	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
1.615	327	0

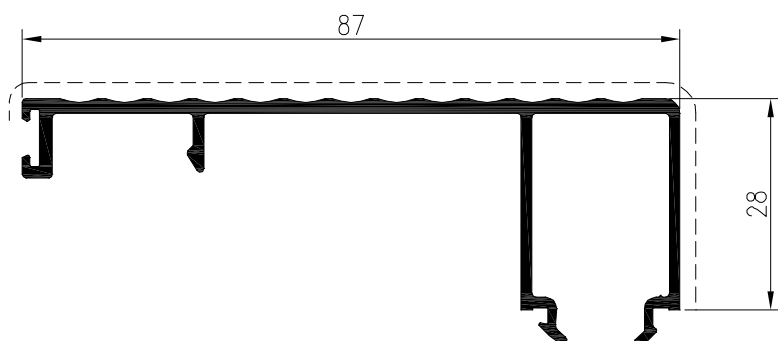


24416	FERMA ANTA WING STOPS	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
1.922	384	230

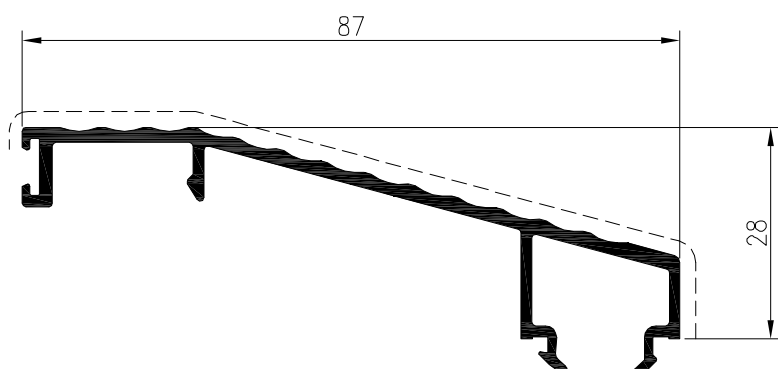


24417	RIPORTO LATERALE PER SERRATURE - ANTA SCORR. LATERAL PROFILE FOR LOCK - SLIDING WING	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.574	174	32

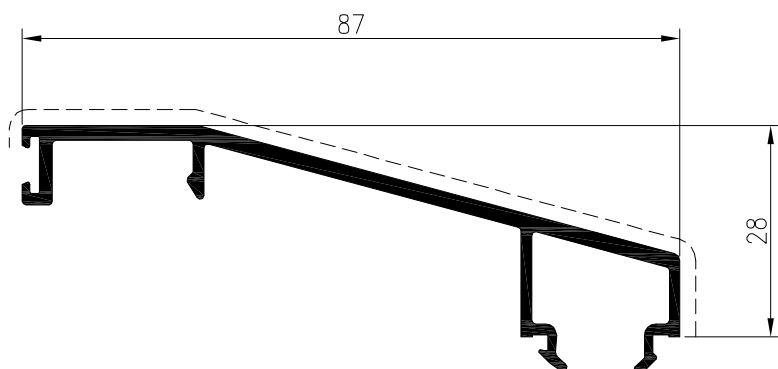
Profili 1:1 - Profiles 1:1



24420	COPERTINA ORIZZONTALE MONOROTAIA HORIZONTAL COVER FOR MONORAIL	
	PESO WEIGHT	SUP. VISTA SHOWN SURF.
	Kg/m	mm
	0.744	120

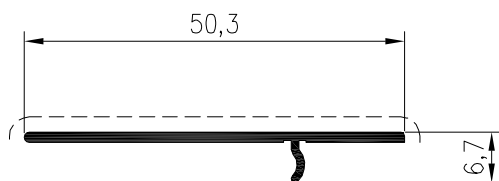


24421	COPERTINA VERTICALE MONOROTAIA VERTICAL COVER FOR MONORAIL	
	PESO WEIGHT	SUP. VISTA SHOWN SURF.
	Kg/m	mm
	0.650	104

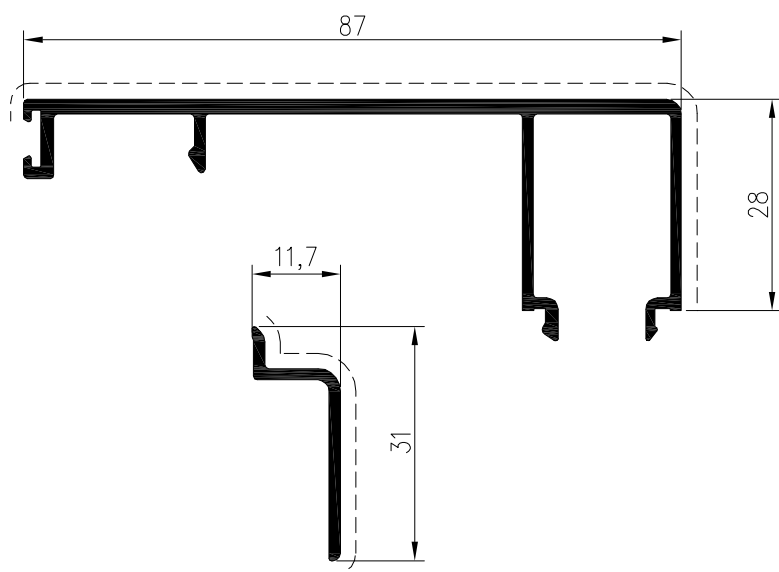


24428	COPERTINA VERTICALE MONOROTAIA LISCIA SMOOTH VERTICAL COVER FOR MONORAIL	
	PESO WEIGHT	SUP. VISTA SHOWN SURF.
	Kg/m	mm
	0.714	102

Profili 1:1 - Profiles 1:1

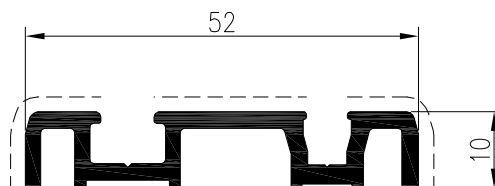


24422		
COPERTINA FINITURA PER NODO CENTRALE FINISHING COVER FOR CENTRAL PLUG		
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.203	115	53

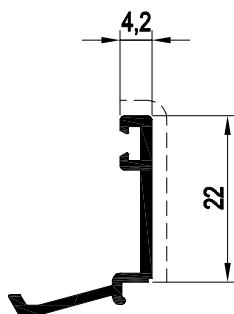


24429		
COPERTINA ORIZZONTALE MONOROTAIA LISCIA SMOOTH HORIZONTAL COVER FOR MONORAIL		
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.802	348	120

24430		
PROFILO COPERTINA PER TELAI 90° COVER FOR 90° FRAMES		
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.160	81	40

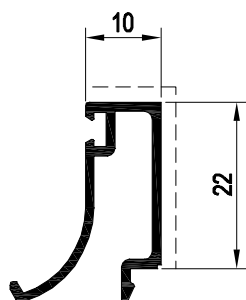


24431		
SOGLIA RIBASSATA THRESHOLD		
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.575	201	55

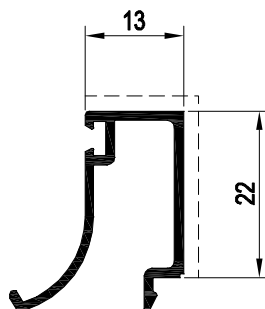


4293		
FERMAVETRO DA 4 mm GLASS BEADING 4 mm		
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.183	102	25

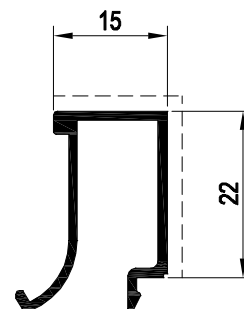
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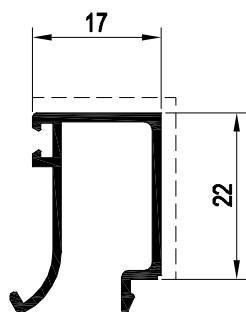
16185	FERMAVETRO DA 10 mm GLASS BEADING 10 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.237	150	31



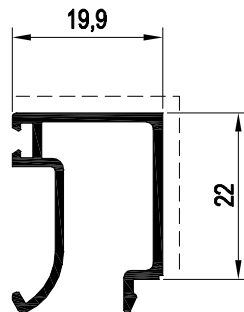
16186	FERMAVETRO DA 13 mm GLASS BEADING 13 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.243	152	35



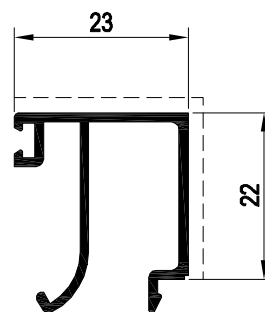
19712	FERMAVETRO DA 15 mm GLASS BEADING 15 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.242	149	36



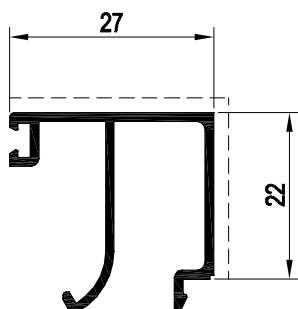
16189	FERMAVETRO DA 17 mm GLASS BEADING 17 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.252	159	39



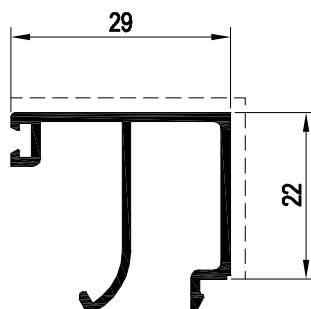
22618	FERMAVETRO DA 20 mm GLASS BEADING 20 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.271	170	42



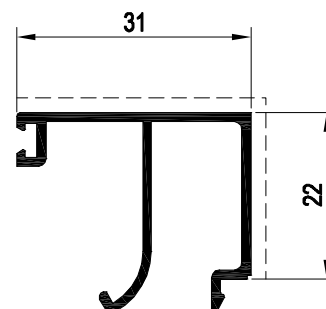
16191	FERMAVETRO DA 23 mm GLASS BEADING 23 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.290	183	44



16193	FERMAVETRO DA 27 mm GLASS BEADING 27 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.303	190	48

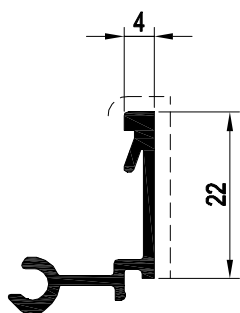


16195	FERMAVETRO DA 29 mm GLASS BEADING 29 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.310	195	50

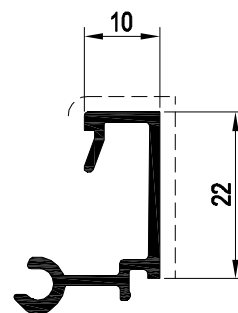


16197	FERMAVETRO DA 31 mm GLASS BEADING 31 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.316	199	52

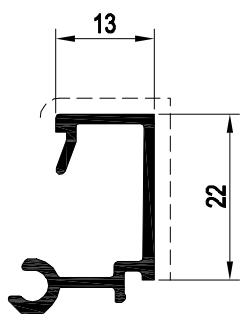
Profili 1:1 - Profiles 1:1



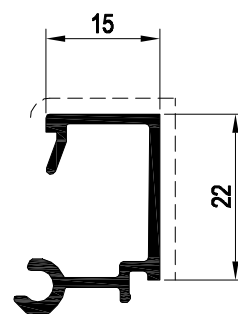
24565	FERMAVETRO DA 4 mm GLASS BEADING 4 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.233	115	26



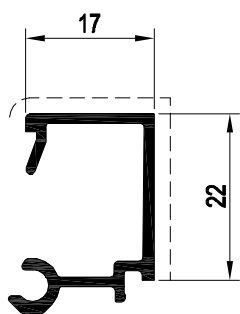
24566	FERMAVETRO DA 10 mm GLASS BEADING 10 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.255	133	32



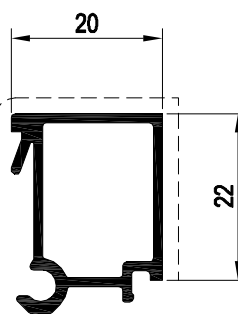
24567	FERMAVETRO DA 13 mm GLASS BEADING 13 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.265	139	35



24568	FERMAVETRO DA 15 mm GLASS BEADING 15 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.272	143	37



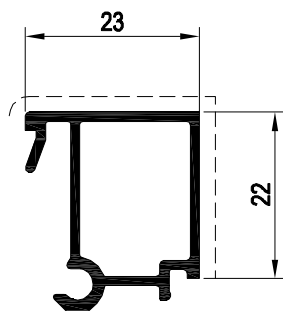
24569	FERMAVETRO DA 17 mm GLASS BEADING 17 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.279	147	39



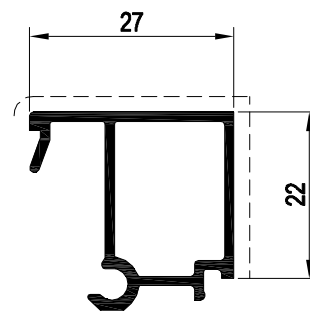
24570	FERMAVETRO DA 20 mm GLASS BEADING 20 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.332	114	42

Note:  = profilo non a stock
profile no stock

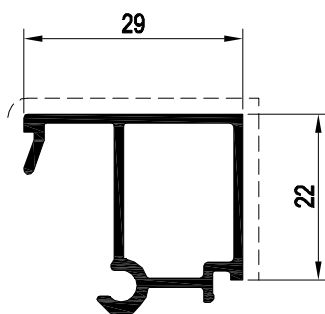
Profili 1:1 - Profiles 1:1



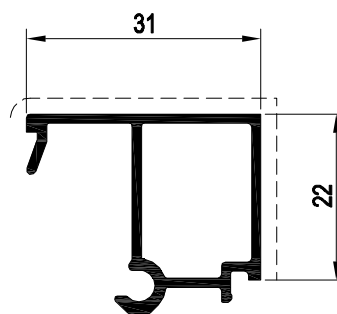
24571	FERMAVETRO DA 23 mm GLASS BEADING 23 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.340	125	45



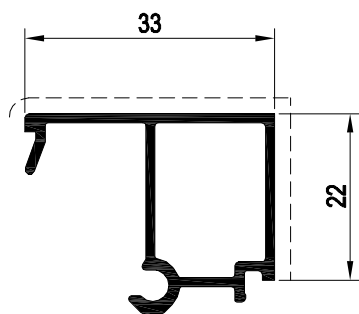
24572	FERMAVETRO DA 27 mm GLASS BEADING 27 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.352	133	49



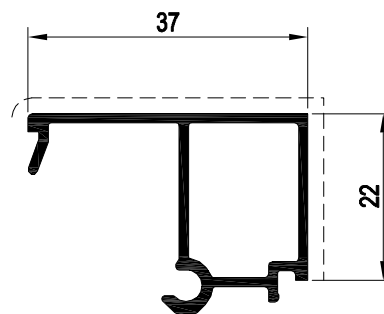
24573	FERMAVETRO DA 29 mm GLASS BEADING 29 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.359	137	51



24528	FERMAVETRO DA 31 mm GLASS BEADING 31 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.366	141	53



24556	FERMAVETRO DA 33 mm GLASS BEADING 33 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.372	145	55



24557	FERMAVETRO DA 37 mm GLASS BEADING 37 mm	
PESO WEIGHT	PERIMETRO PERIMETER	SUP. VISTA SHOWN SURF.
Kg/m	mm	mm
0.385	153	59

Note:  = profilo non a stock
profile no stock

Sezioni 1:1 - Cross sections 1:1

	2 Ante	3 Ante	4 Ante	6 Ante
2 Binari / tracks	 Schema A (versione dx-sx)		 Schema C	
	 Schema D (versione dx-sx)	 Schema G (versione dx-sx)	 Schema F	
		 Schema K		
3 Binari / tracks		 Schema E (versione dx-sx)		 Schema L
		 Schema E1 (versione dx-sx)		
		 Schema E2 (versione dx-sx)		

Anta Mobile / wing
 Anta Fissa / fixed wing

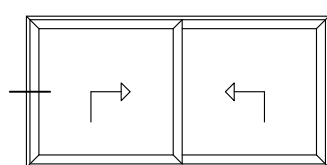
Schema E-E1 l'anta centrale è bloccata da quelle laterali
 Scheme E-E1 central wing is locked from the side

	2 Ante	3 Ante	4 Ante
Monorotaia	 Schema AM (versione dx-sx)	 Schema KM	 Schema CM

Anta Mobile / wing
 Fisso / fixed wing

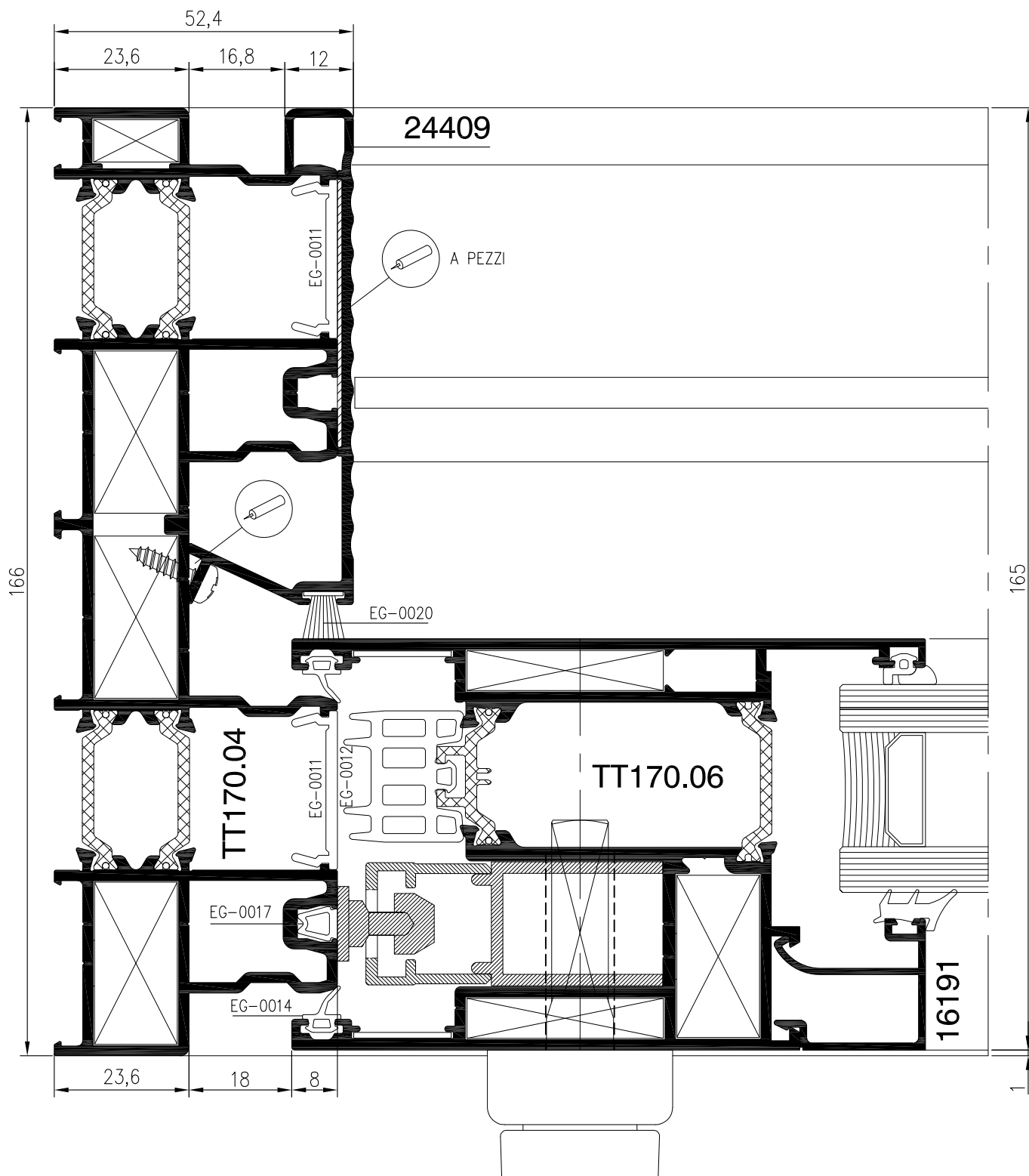
N.B. : Aperture ante valide sia per la tipologia "ALZANTE" (pag. 5-02, 5-12) che "SCORREVOLE" (pag. 5-13, 5-19)
 N.B. : Sash opening are effective for both "lift sliding" (see pages 5-02, 5-12) and "sliding" (see pages 5-13, 5-19)

Sezioni 1:1 - Cross sections 1:1



Schema **A/D**

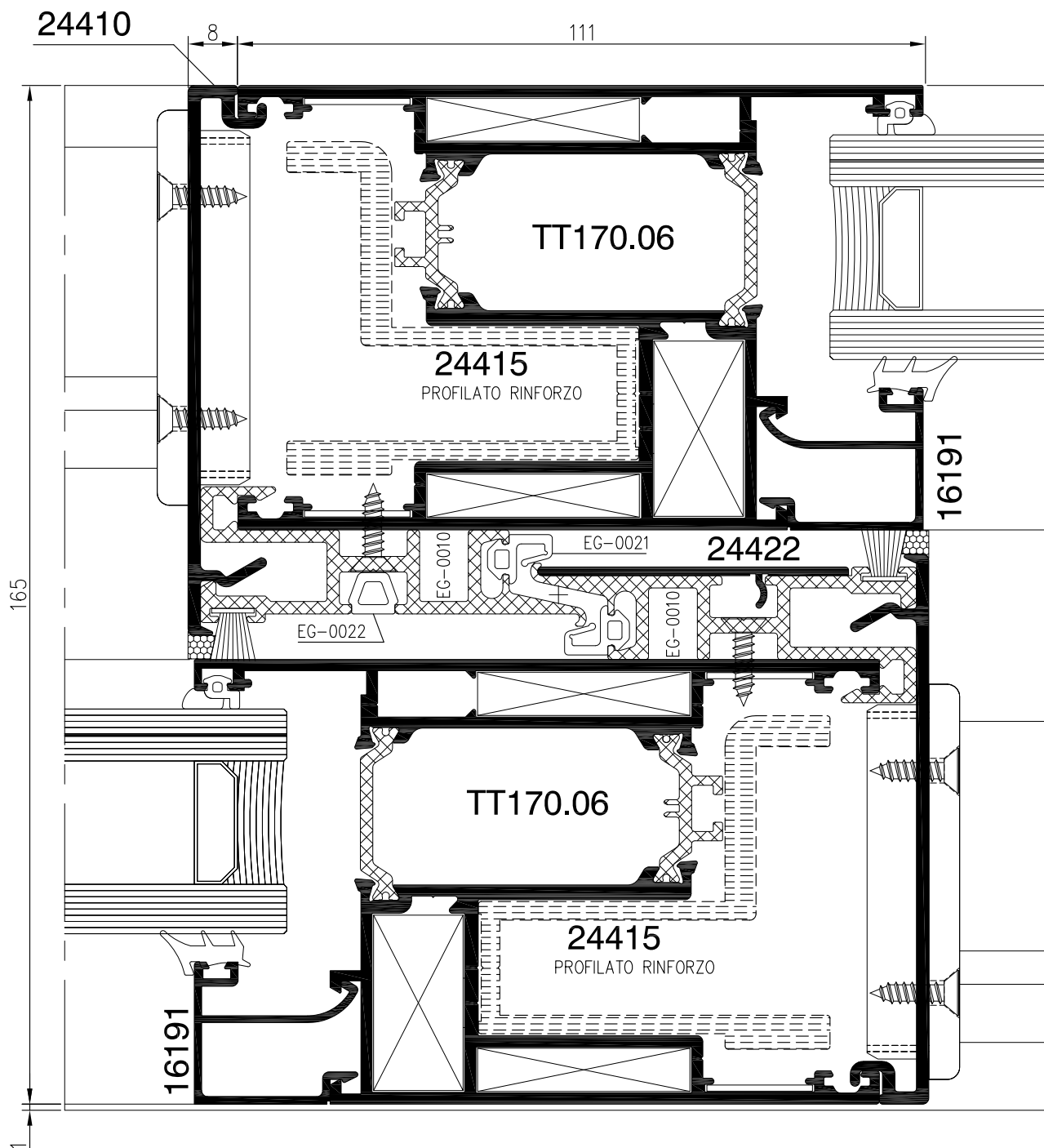
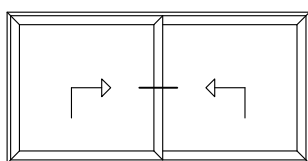
01



Sezioni 1:1 - Cross sections 1:1

02

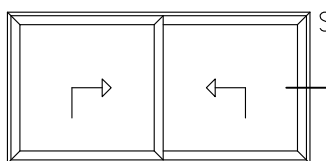
Schema **A/D**



N.B.:

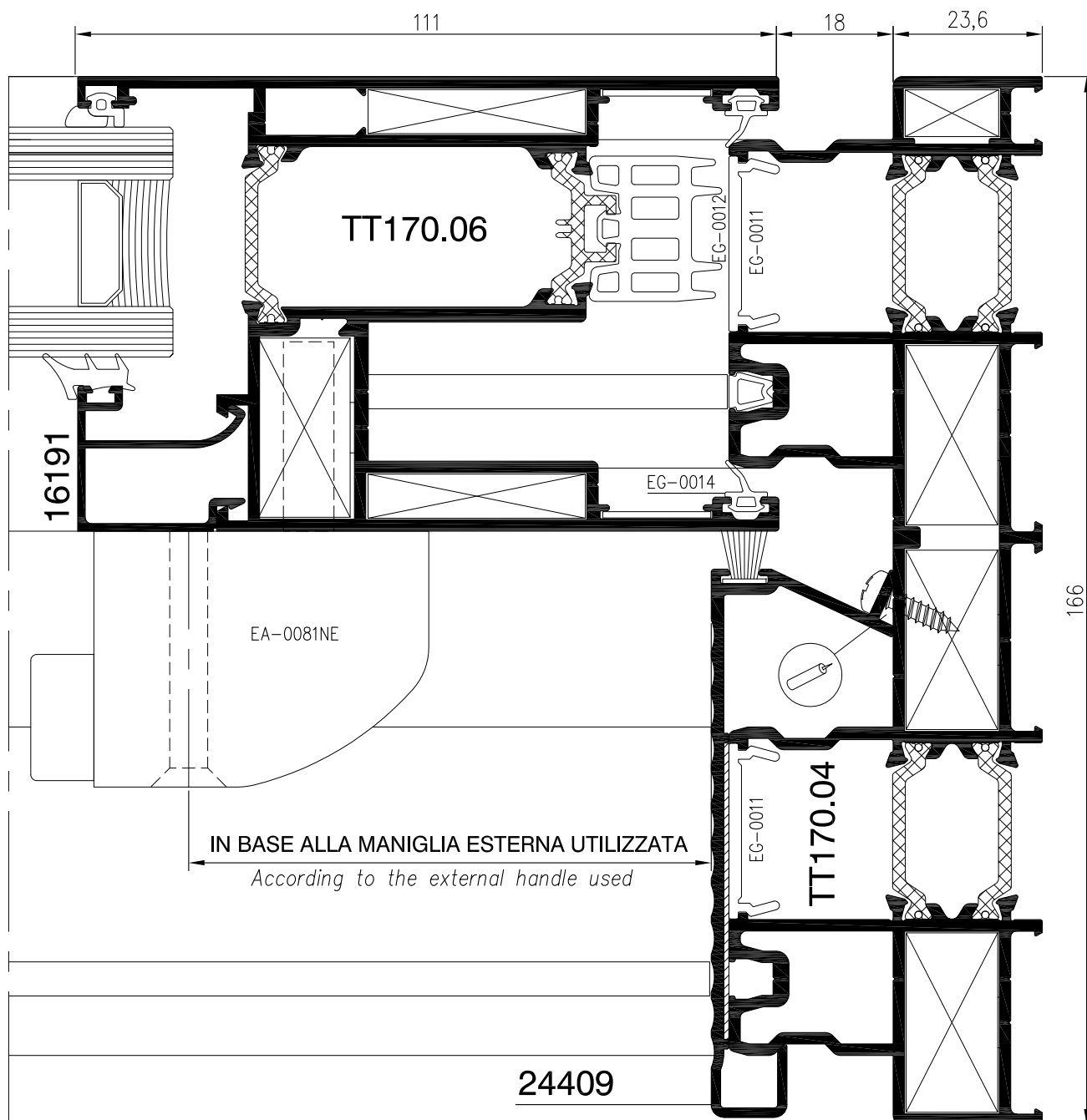
Nel nodo centrale sono illustrate le due possibili finiture, con guarnizione e/o profilato a scatto

Sezioni 1:1 - Cross sections 1:1

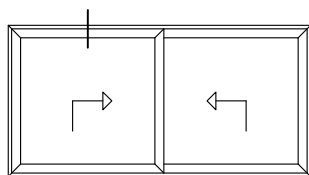


Schema **A/D**

03

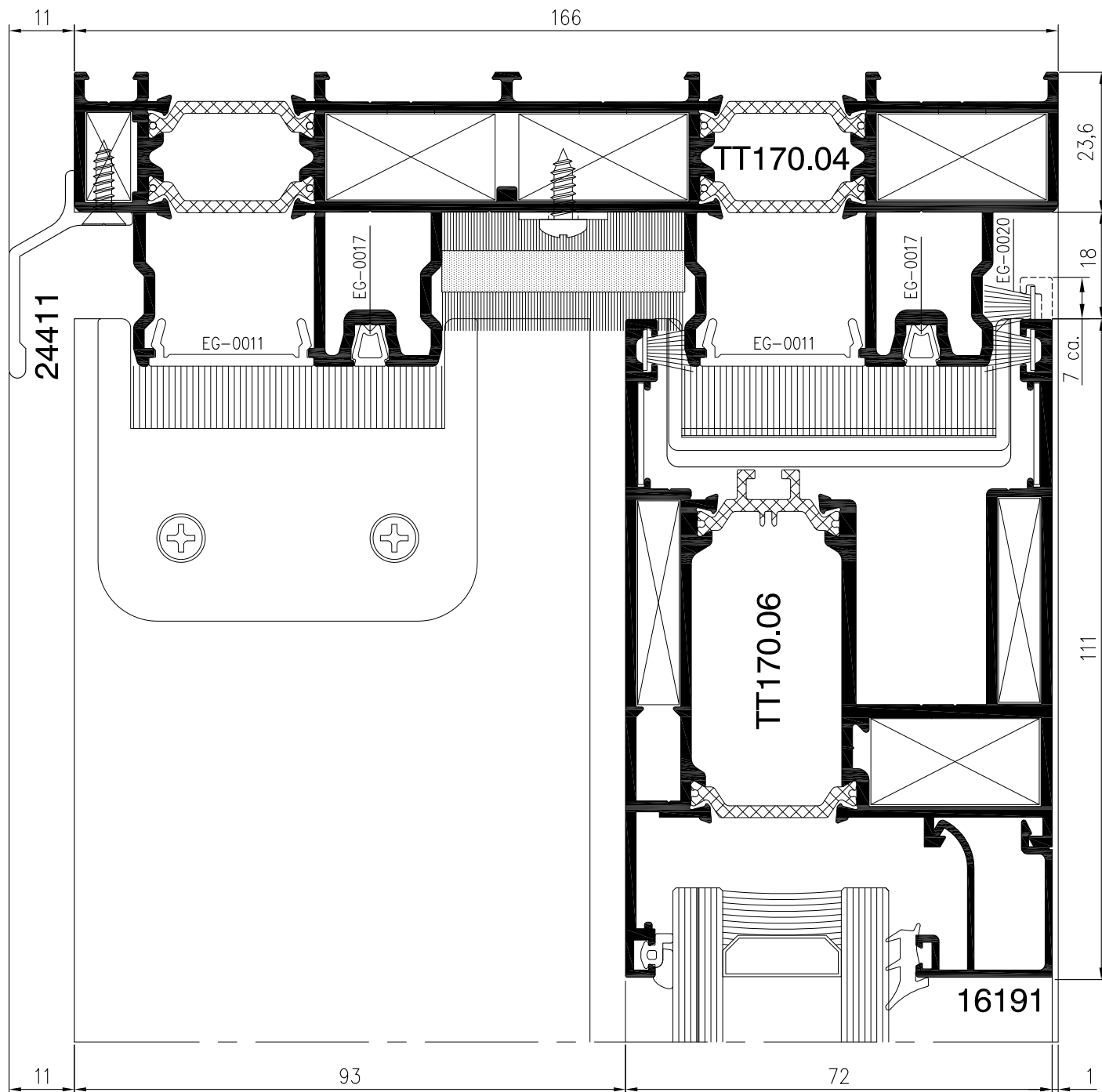


Sezioni 1:1 - Cross sections 1:1



Schema **A/D**

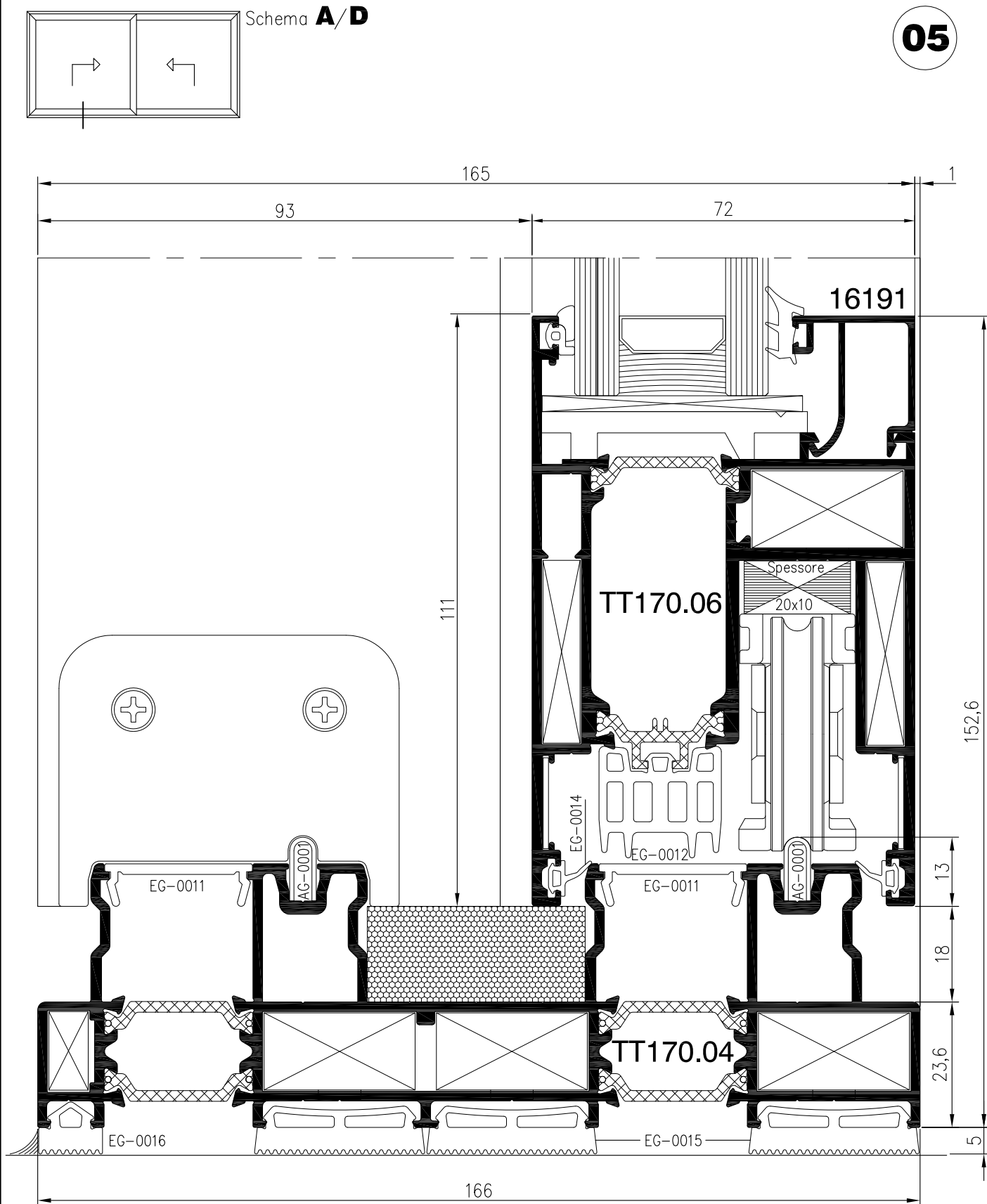
04



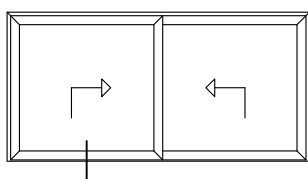
Sezioni 1:1 - Cross sections 1:1

05

Schema **A/D**

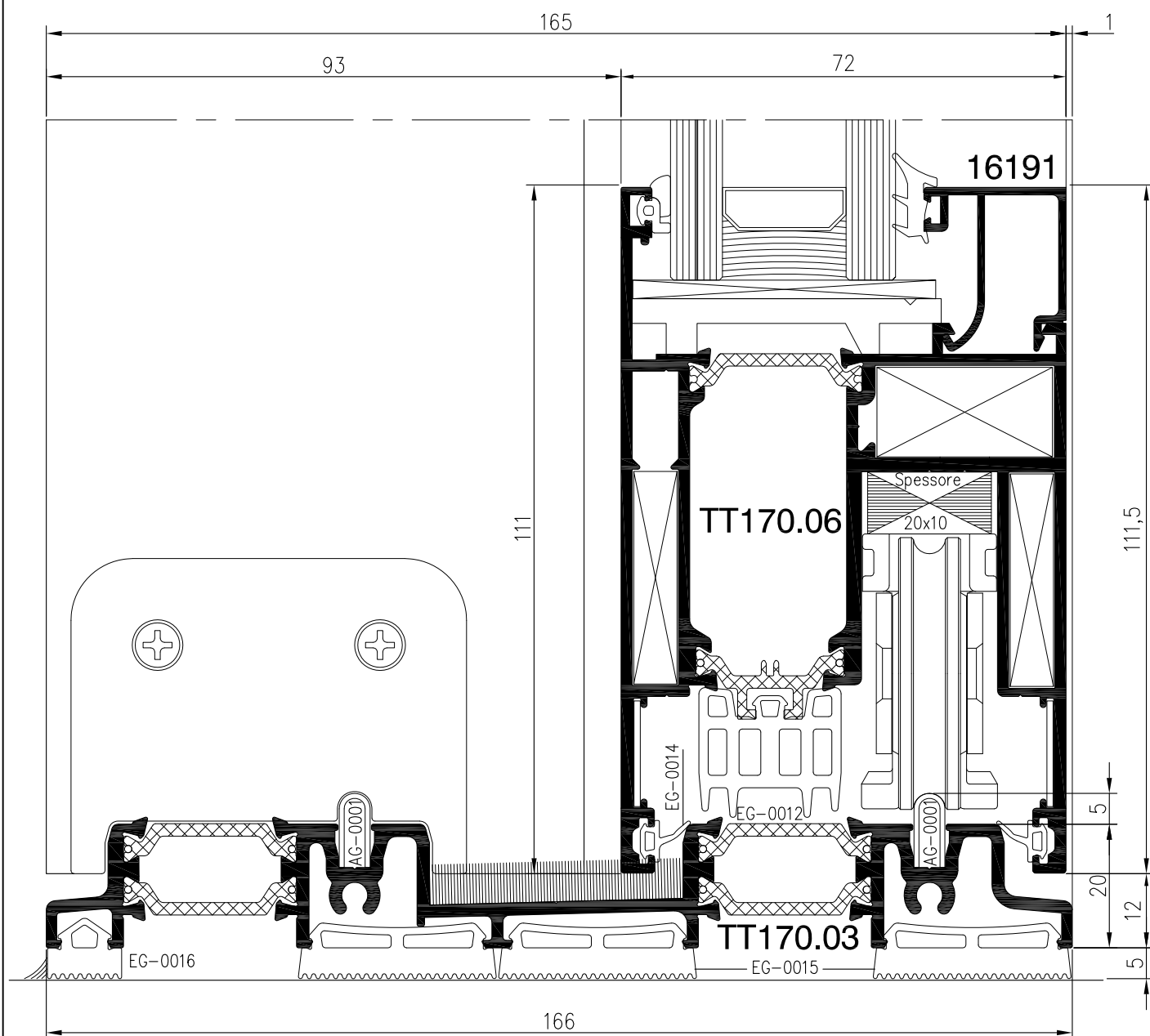


Sezioni 1:1 - Cross sections 1:1

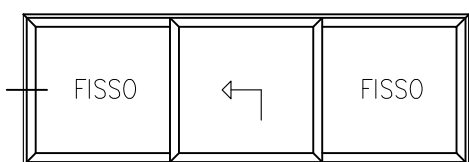


Schema **A/D**

06

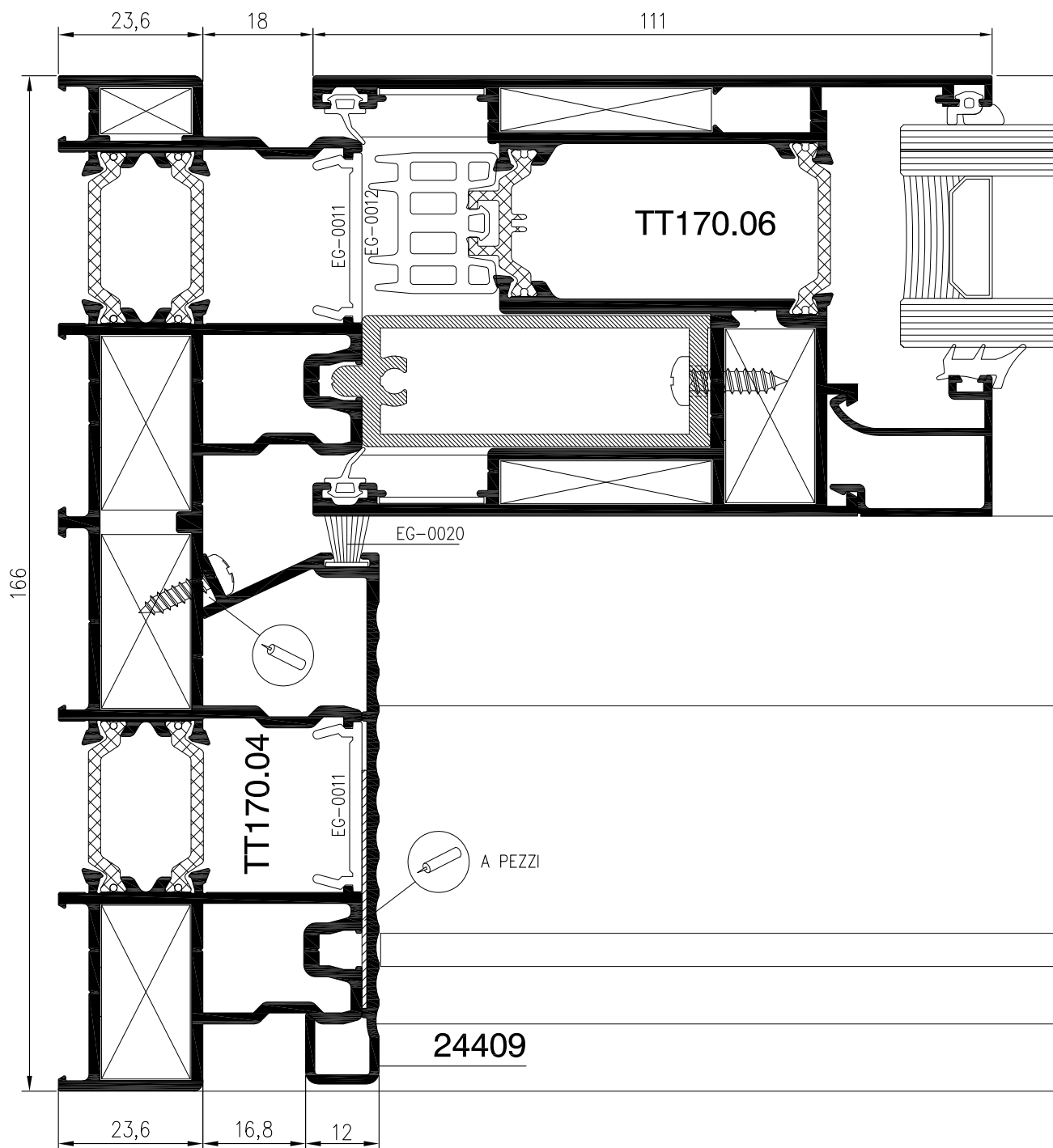


Sezioni 1:1 - Cross sections 1:1



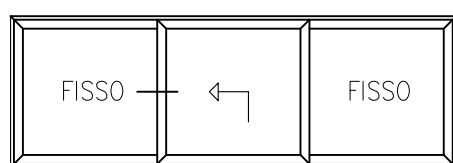
Schema **G**

08

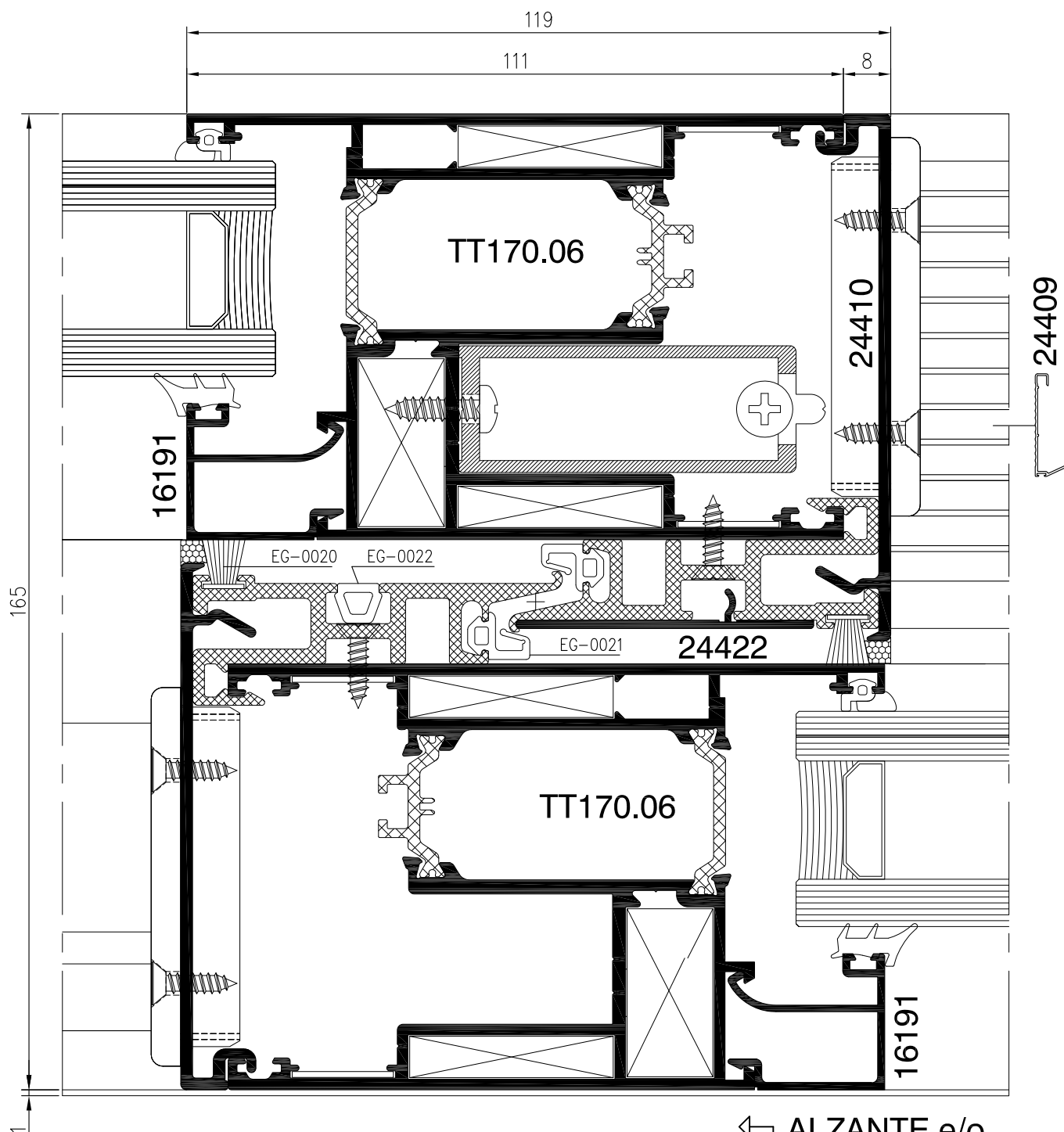


Sezioni 1:1 - Cross sections 1:1

09



Schema **G**



↖ ALZANTE e/o
↖ SCORREVOLE

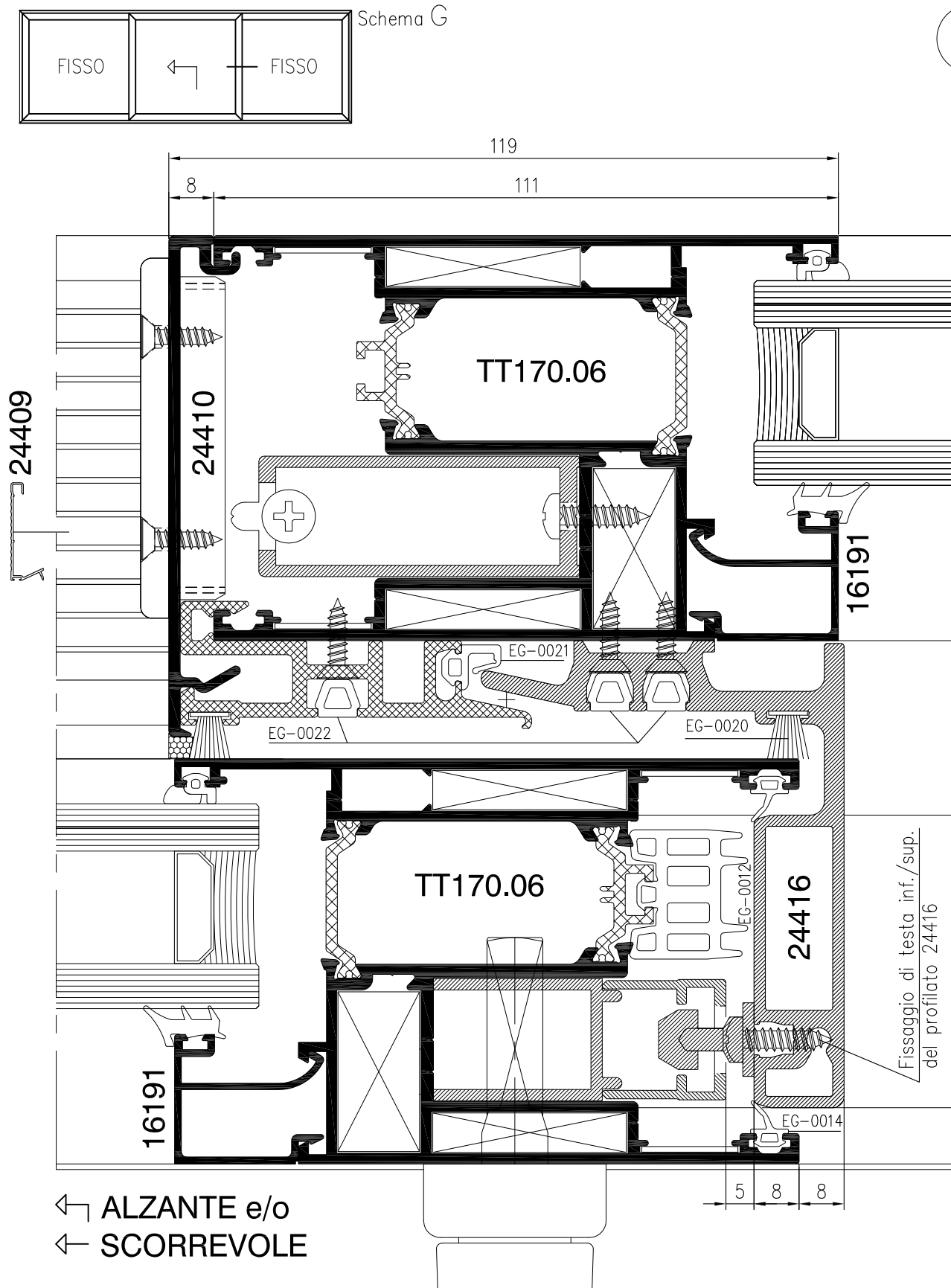
N.B.:

Nel nodo centrale sono illustrate le due possibili finiture, con guarnizione e/o profilato a scatto

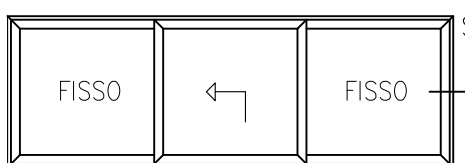
Sezioni 1:1 - Cross sections 1:1

10

Schema G

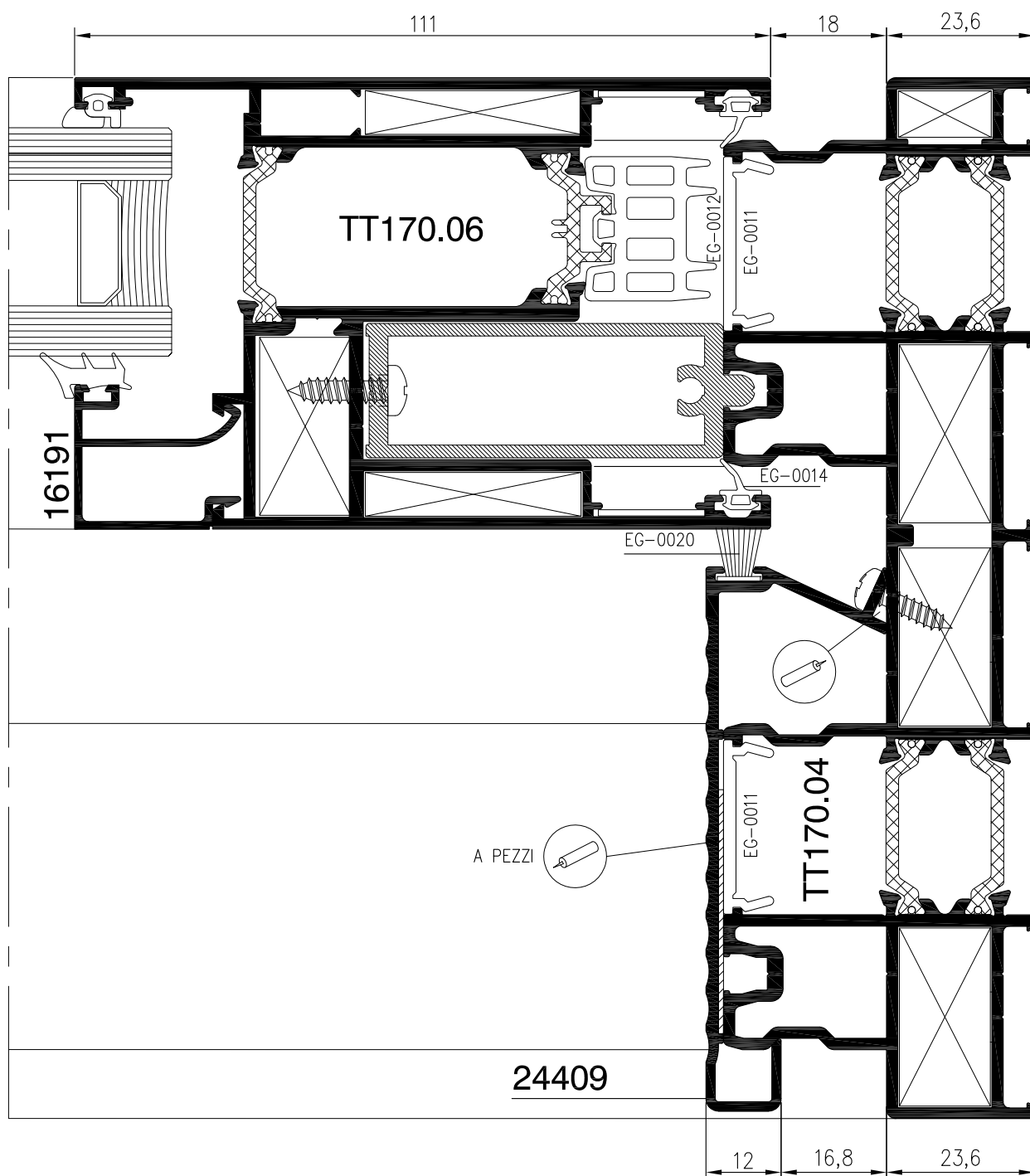


Sezioni 1:1 - Cross sections 1:1



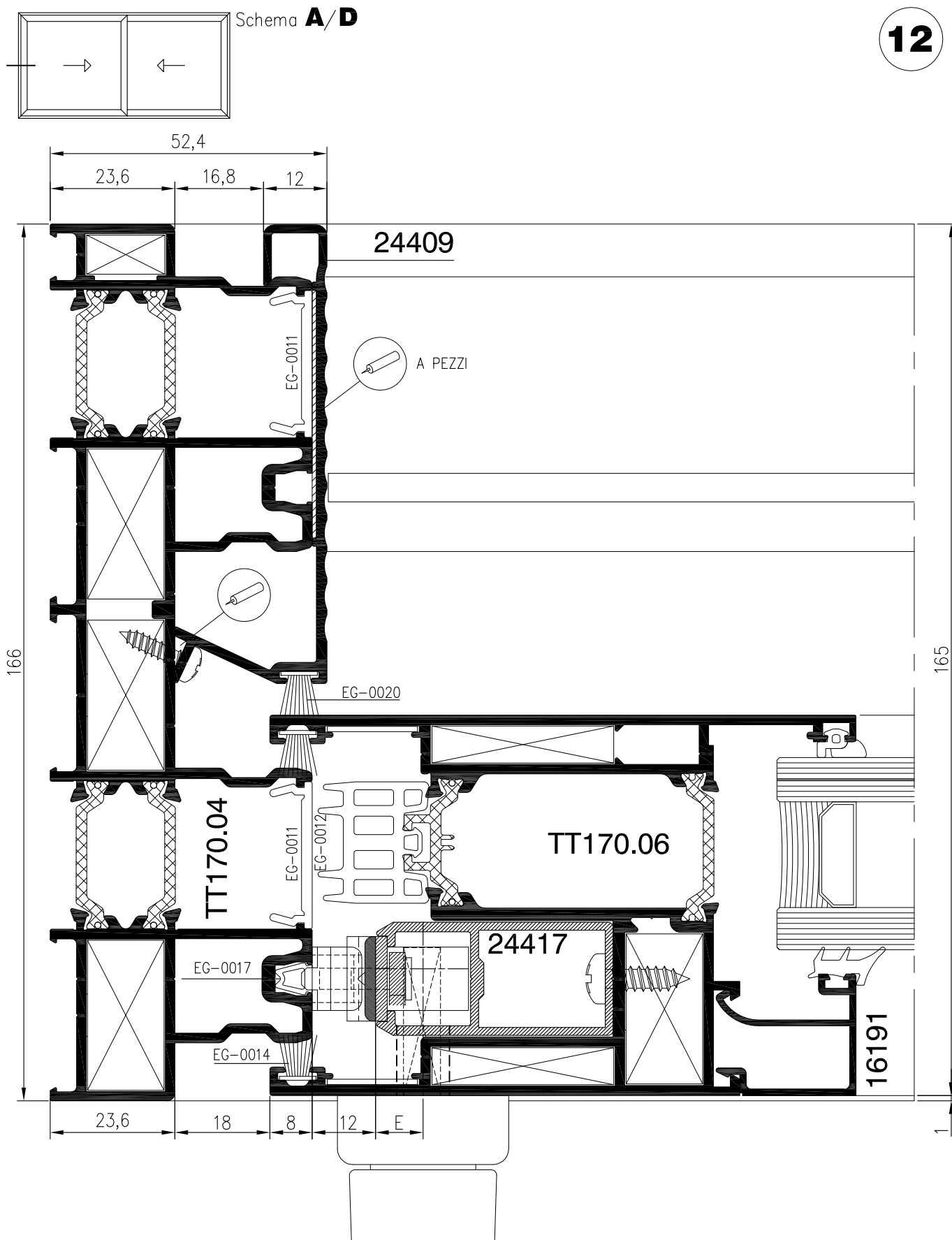
Schema G

11



Sezioni 1:1 - Cross sections 1:1

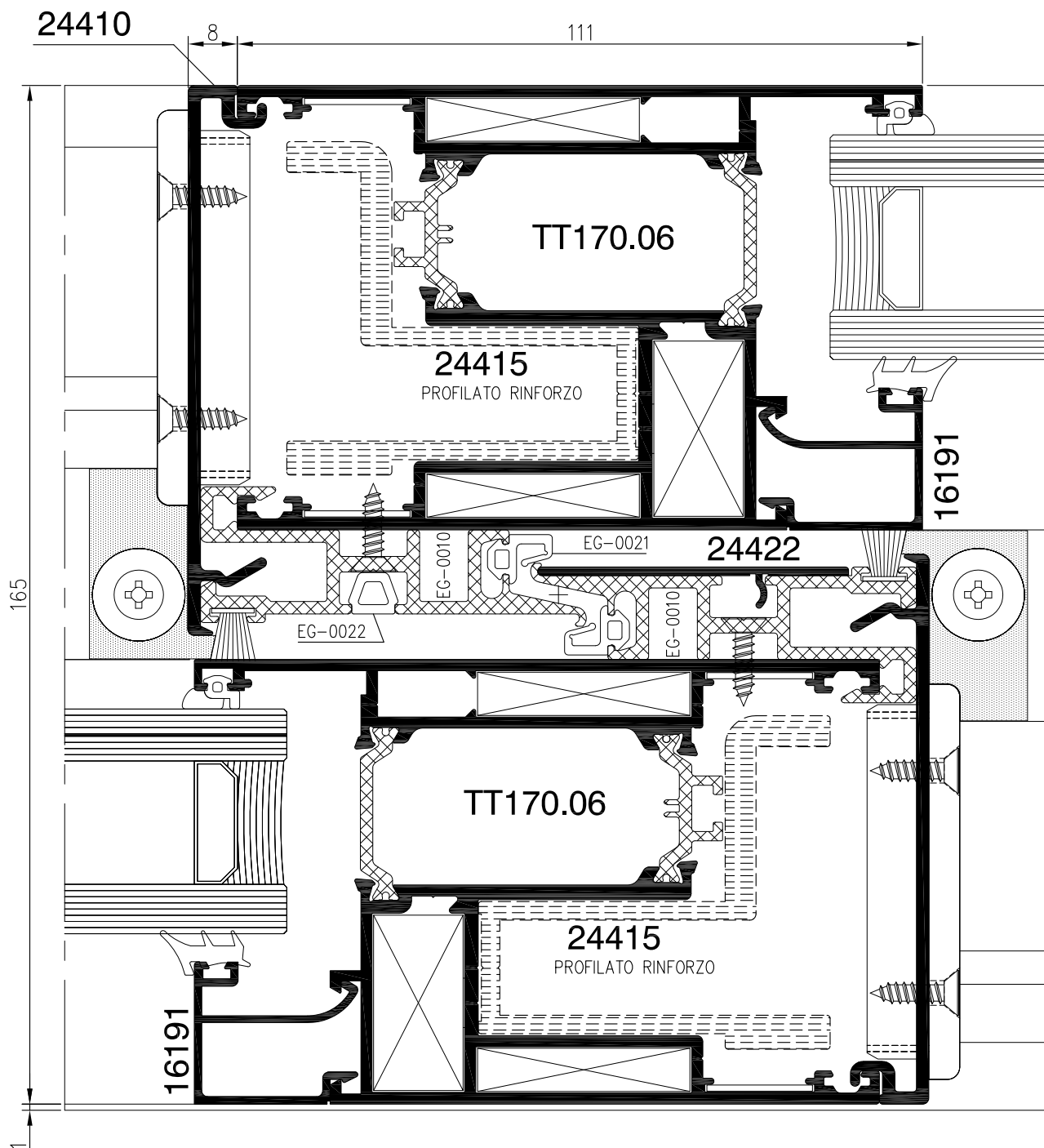
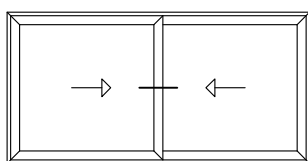
12



Sezioni 1:1 - Cross sections 1:1

13

Schema **A/D**

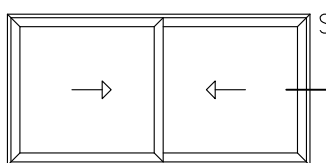


N.B.:

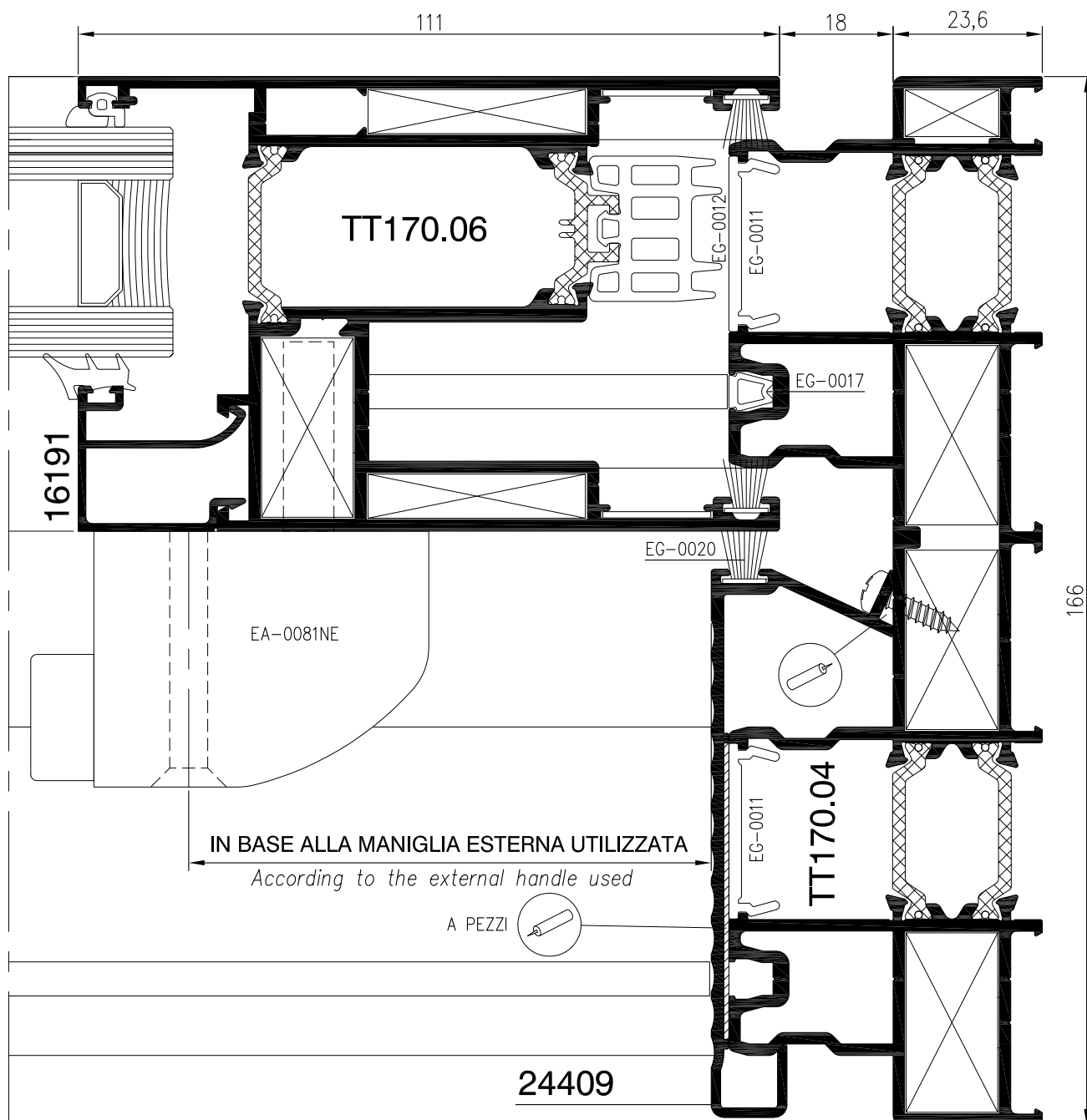
Nel nodo centrale sono illustrate le due possibili finiture, con guarnizione e/o profilato a scatto

Sezioni 1:1 - Cross sections 1:1

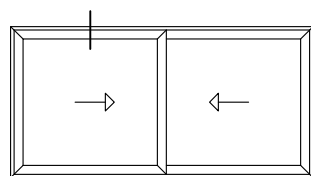
14



Schema **A/D**

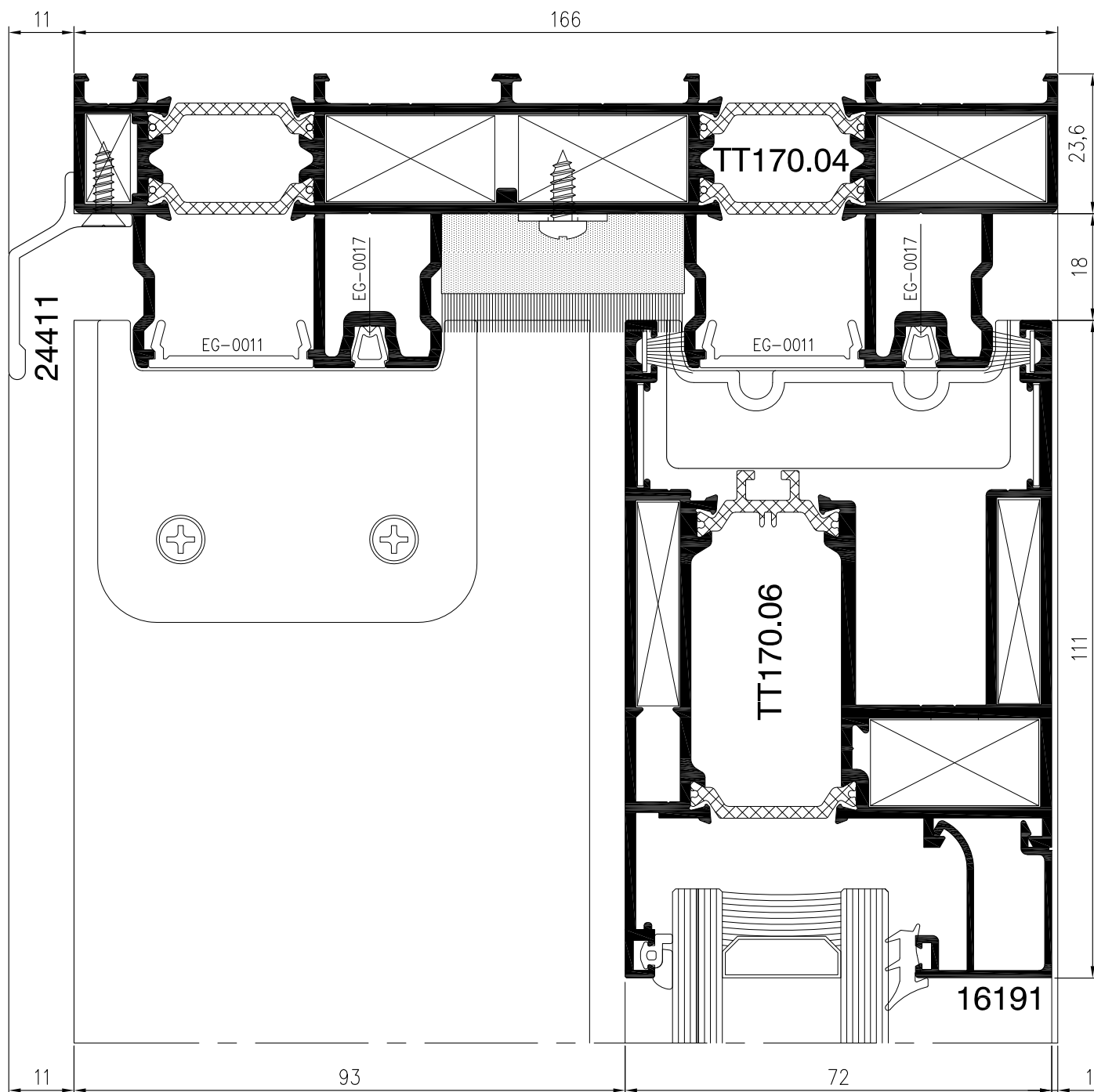


Sezioni 1:1 - Cross sections 1:1



Schema **A/D**

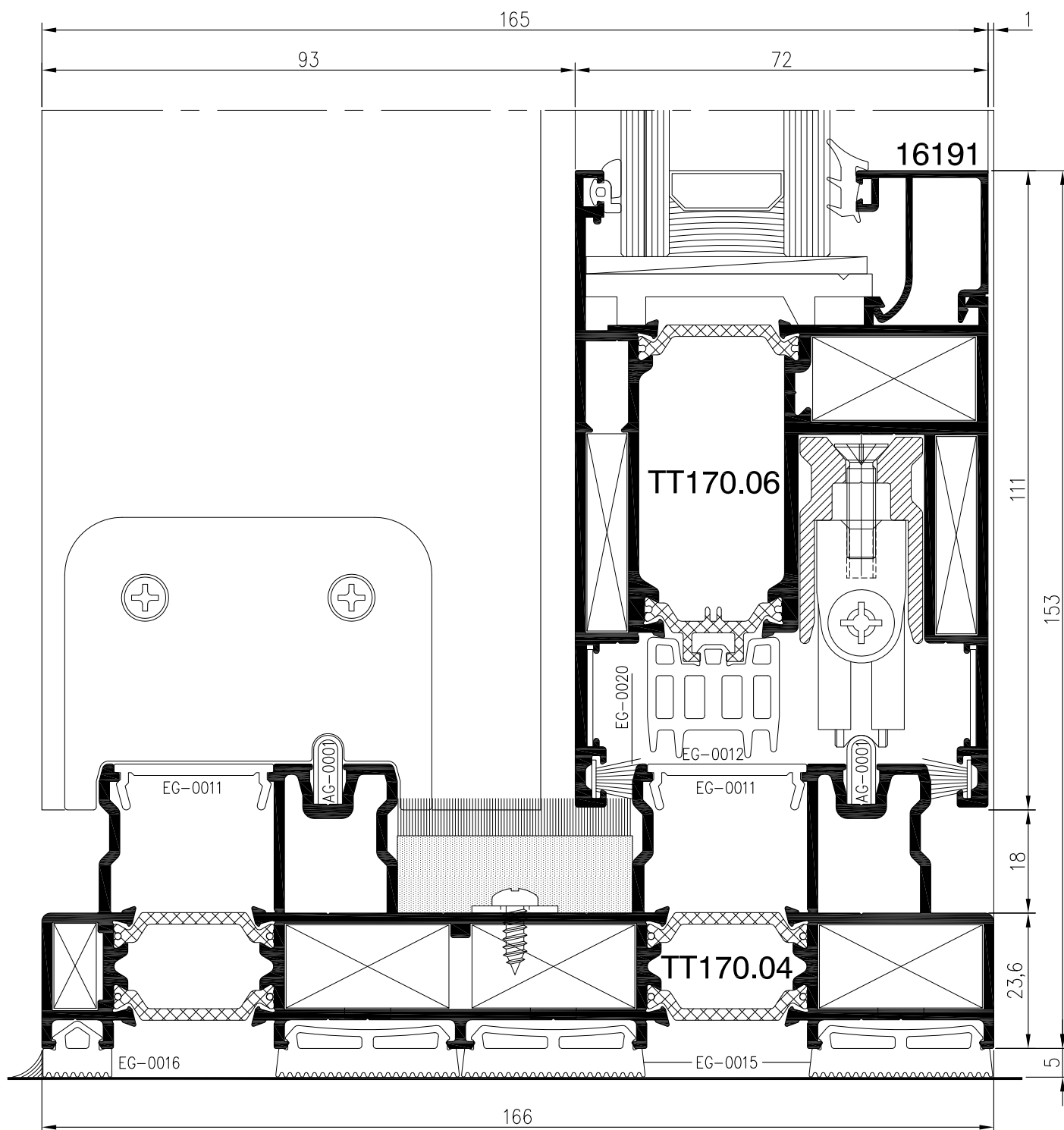
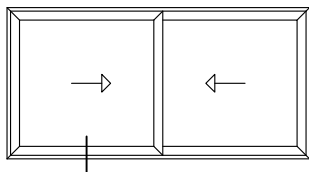
15



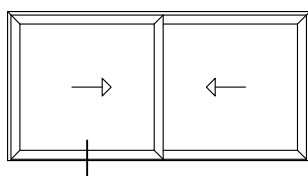
Sezioni 1:1 - Cross sections 1:1

16

Schema **A/D**

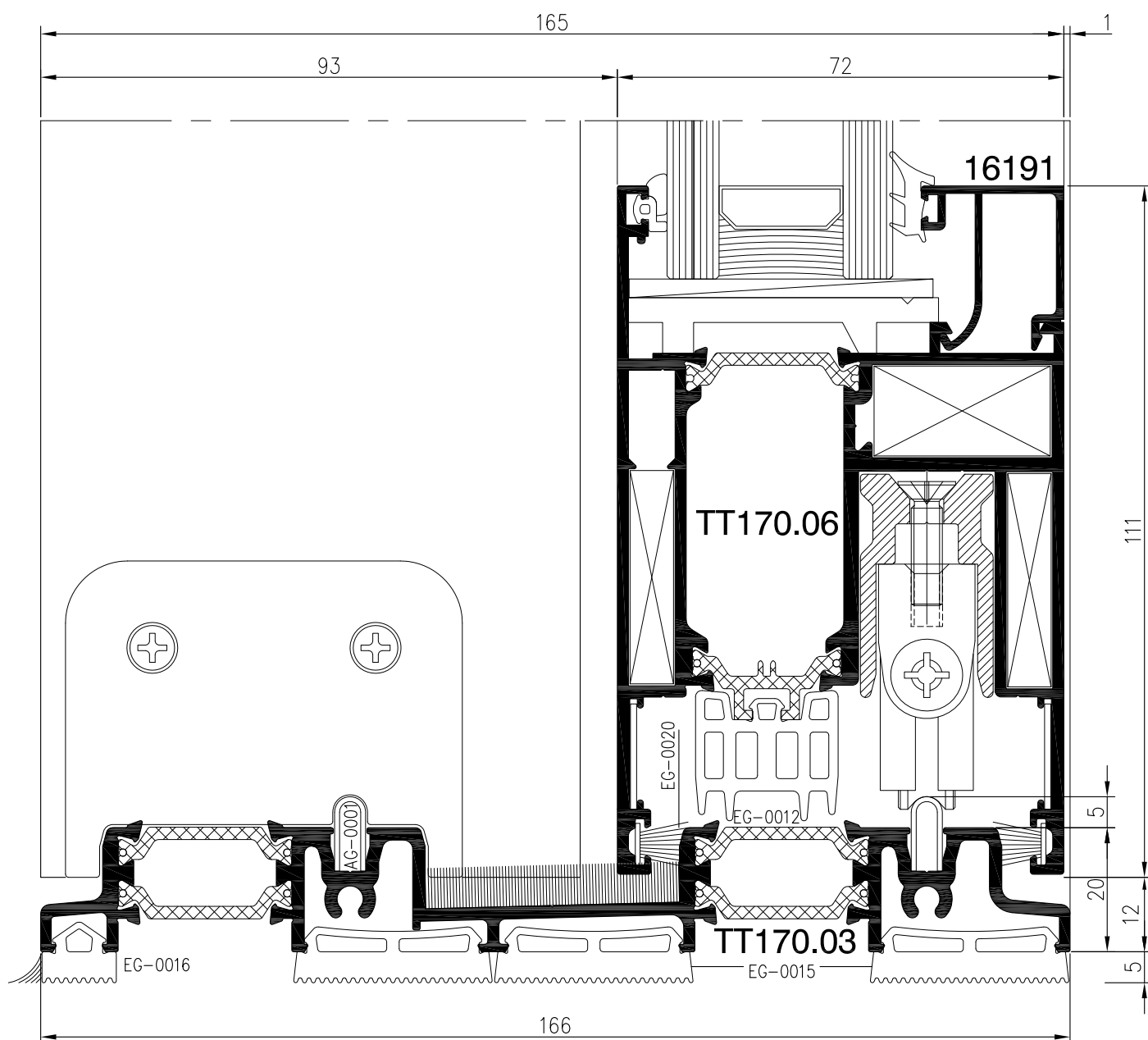


Sezioni 1:1 - Cross sections 1:1



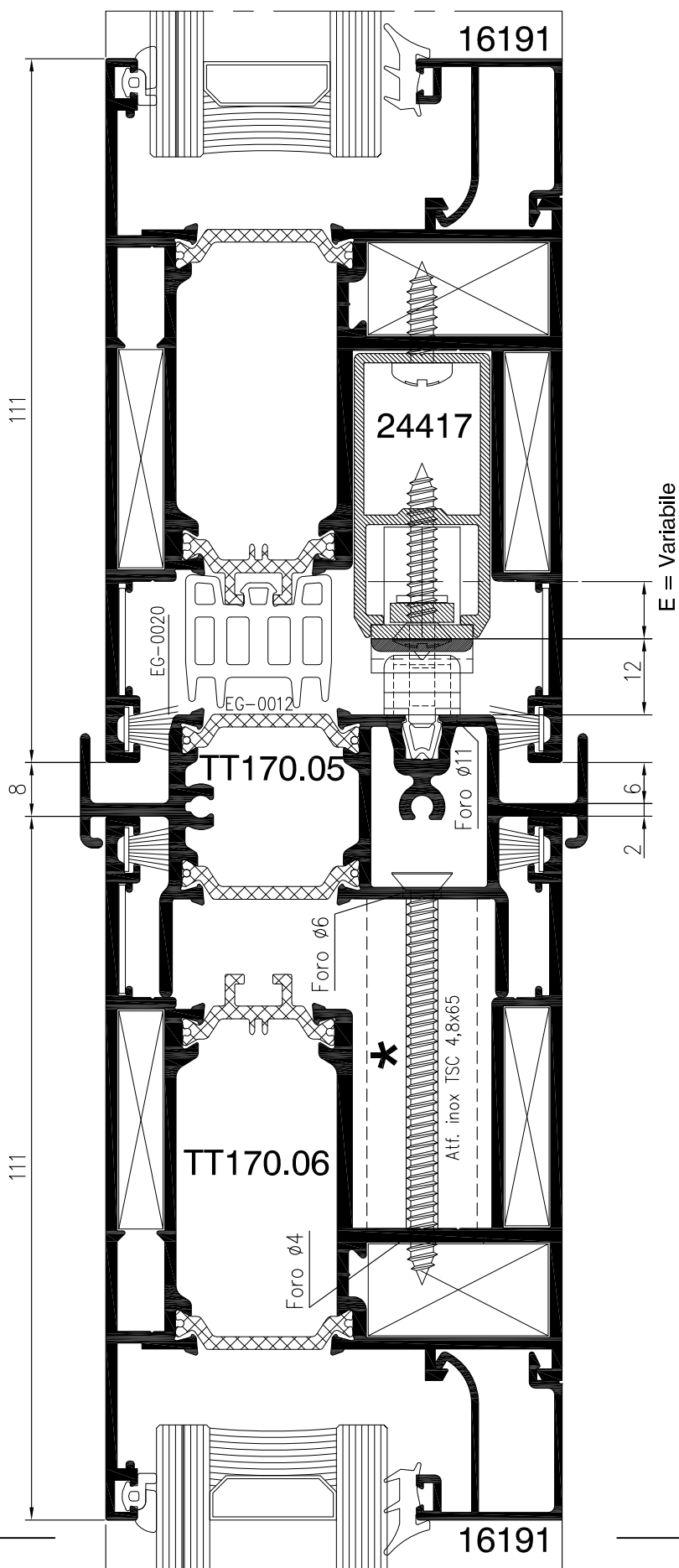
Schema **A/D**

17

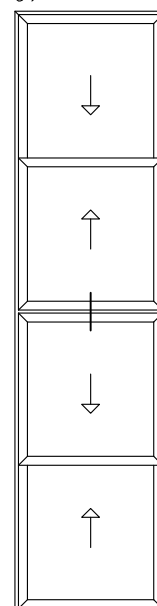


Sezioni 1:1 - Cross sections 1:1

18



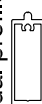
Schema **C/F**



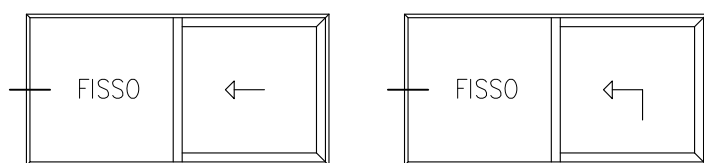
N.B.:

* Nella soluzione SCORREVOLE, ricavare degli spessori dal profilo

* In the SLIDING solution, cut some lengths from profile

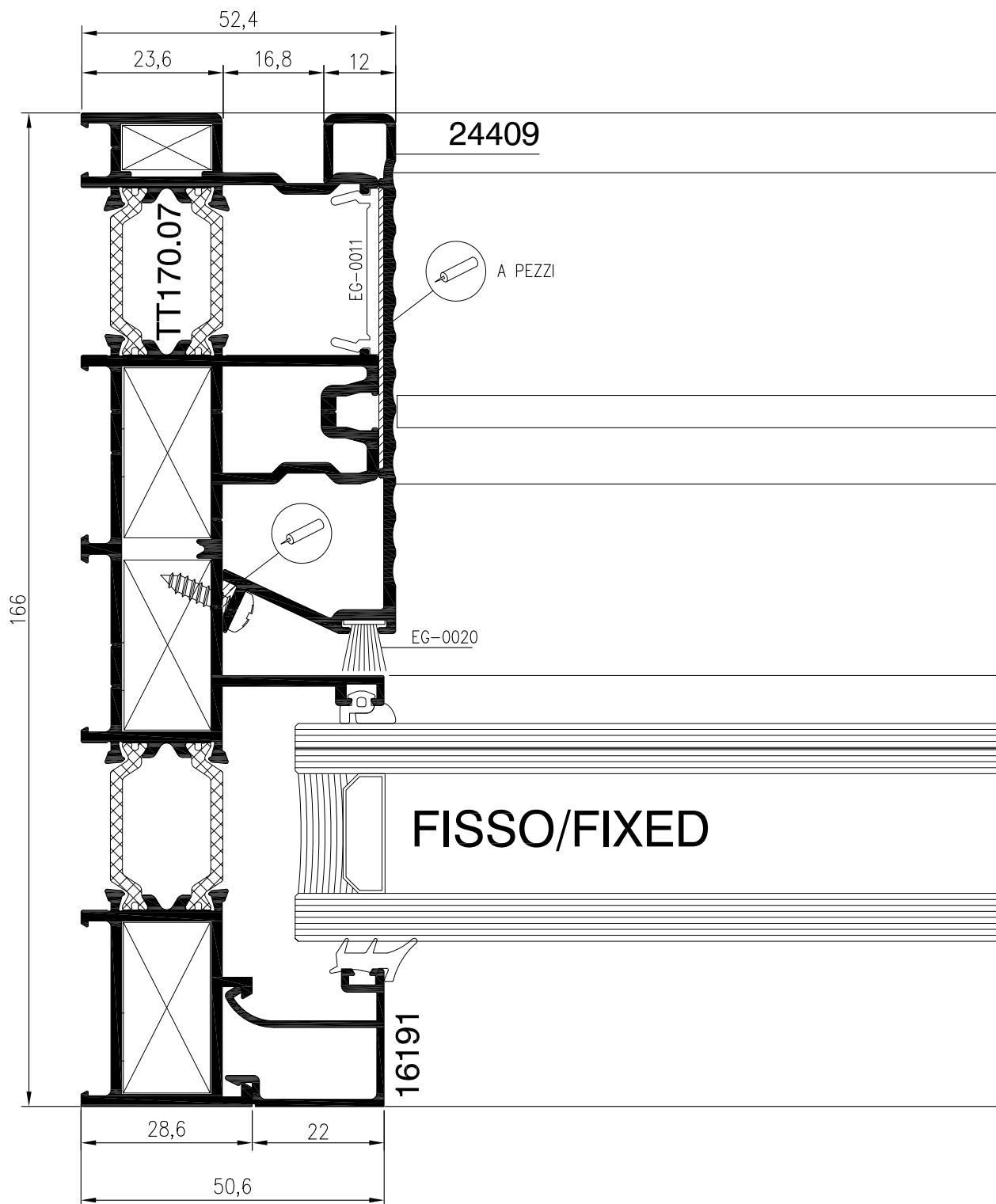


Sezioni 1:1 - Cross sections 1:1

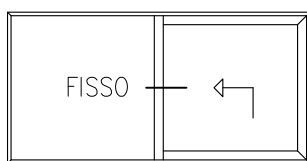
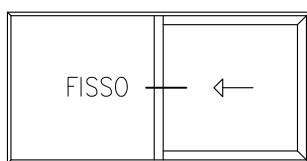


Schema **AM**

19

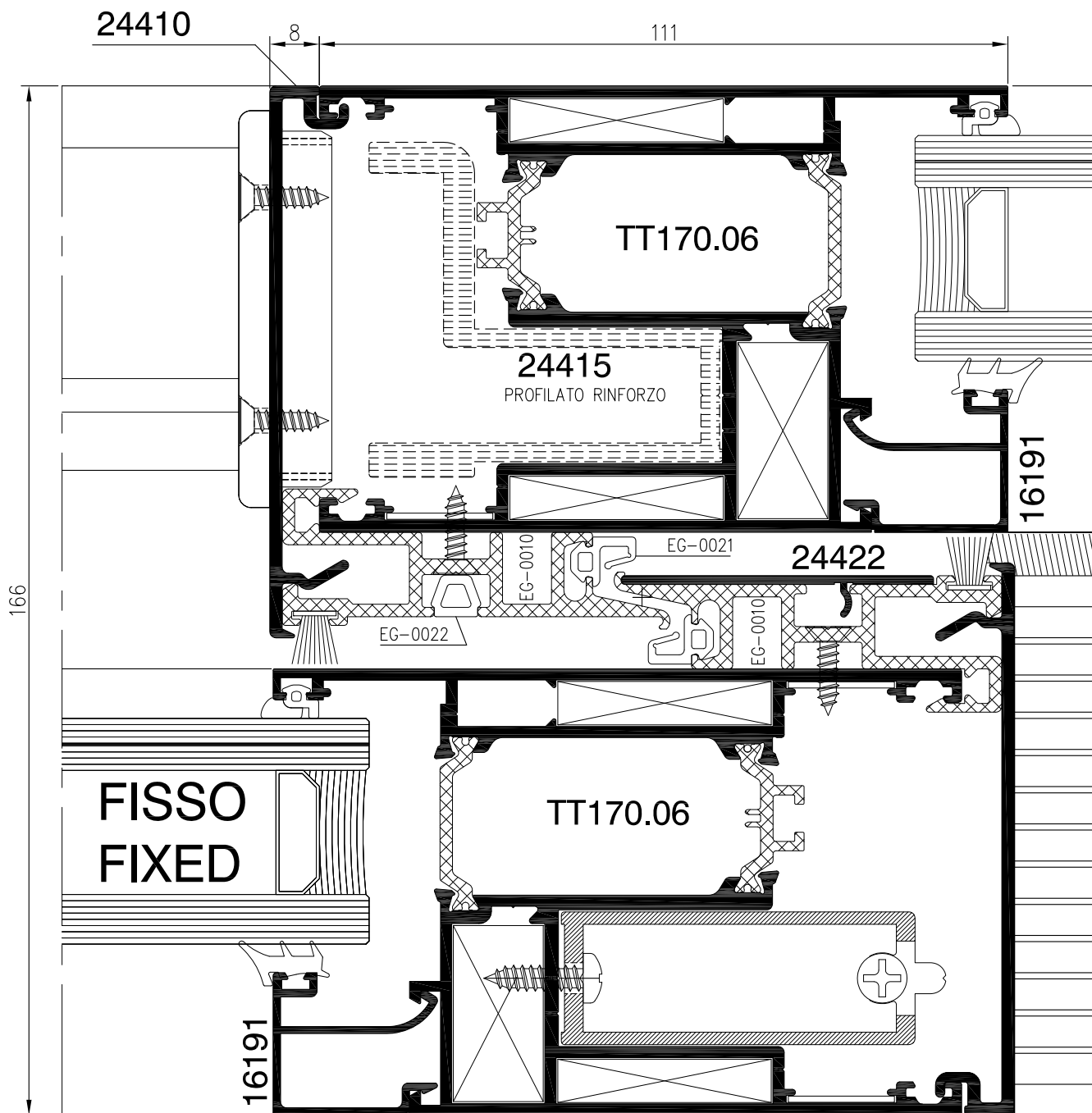


Sezioni 1:1 - Cross sections 1:1



Schema **AM**

20

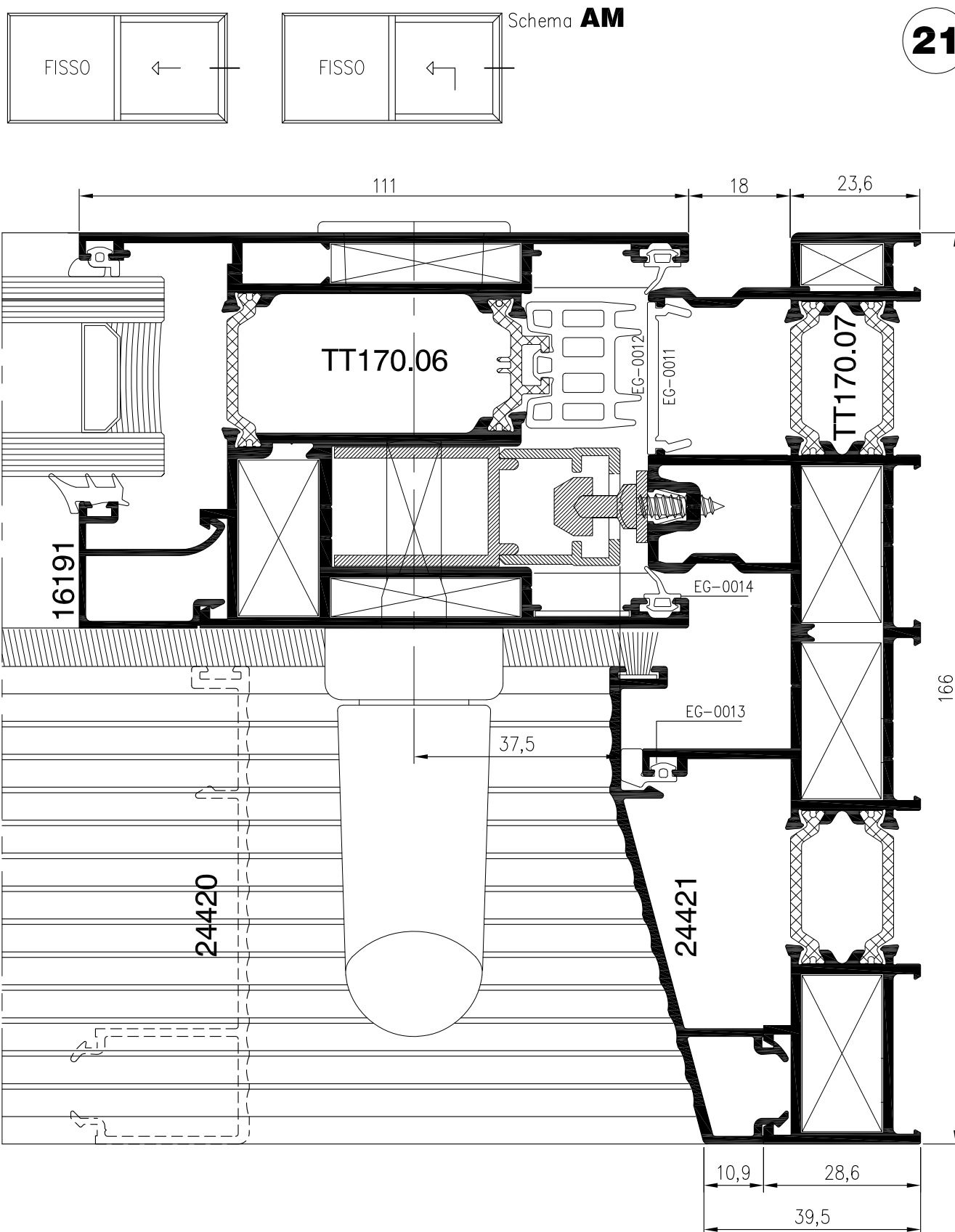


N.B.:

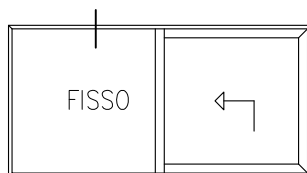
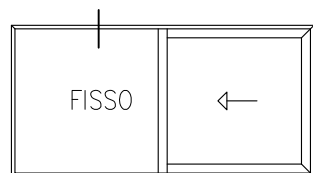
Nel nodo centrale sono illustrate le due possibili finiture, con guarnizione e/o con profilato a scatto

Sezioni 1:1 - Cross sections 1:1

21

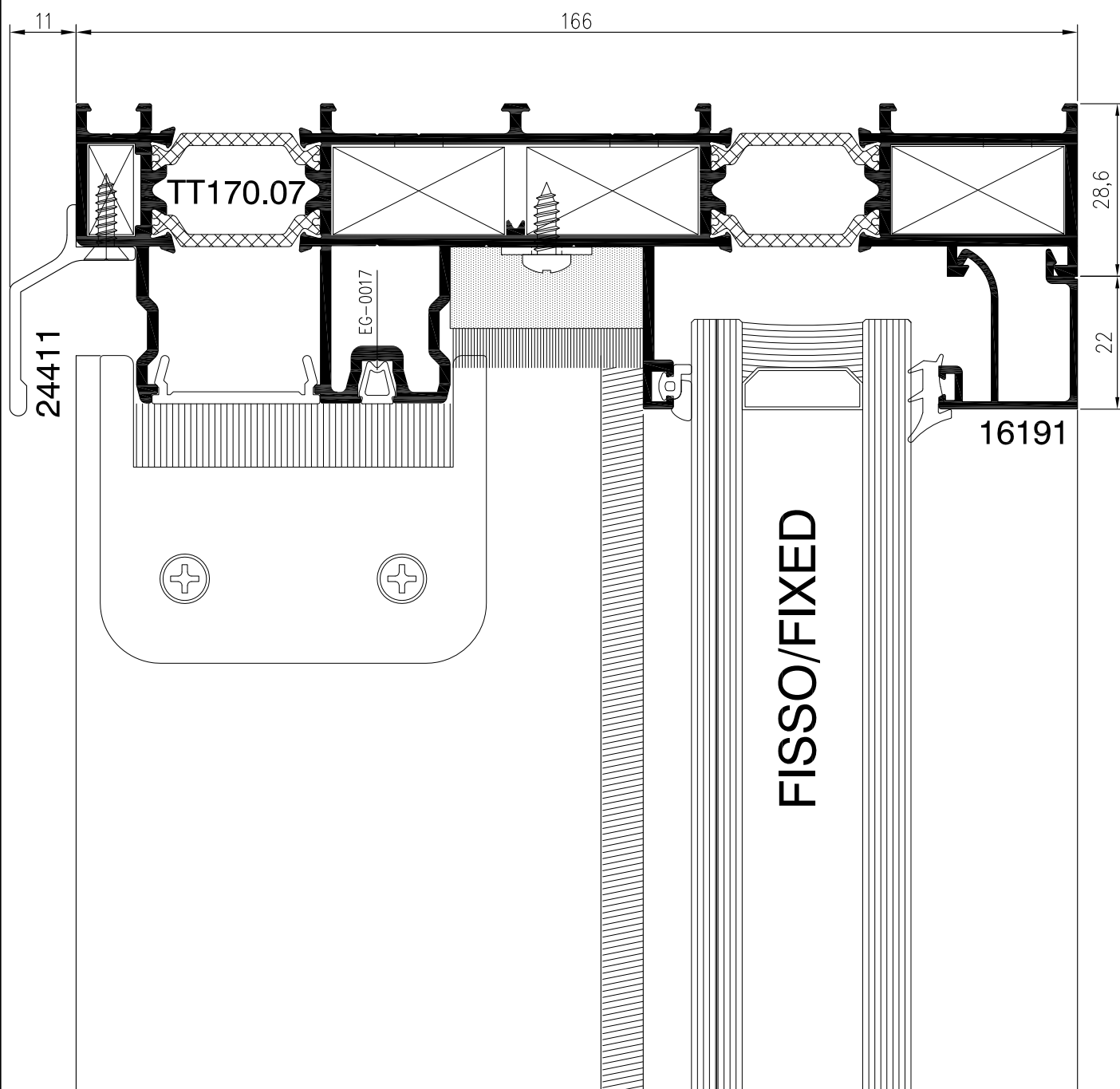


Sezioni 1:1 - Cross sections 1:1

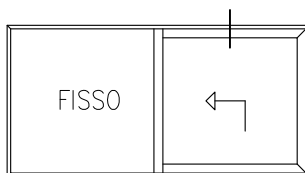
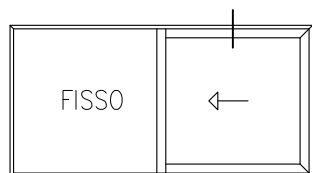


Schema **AM**

22

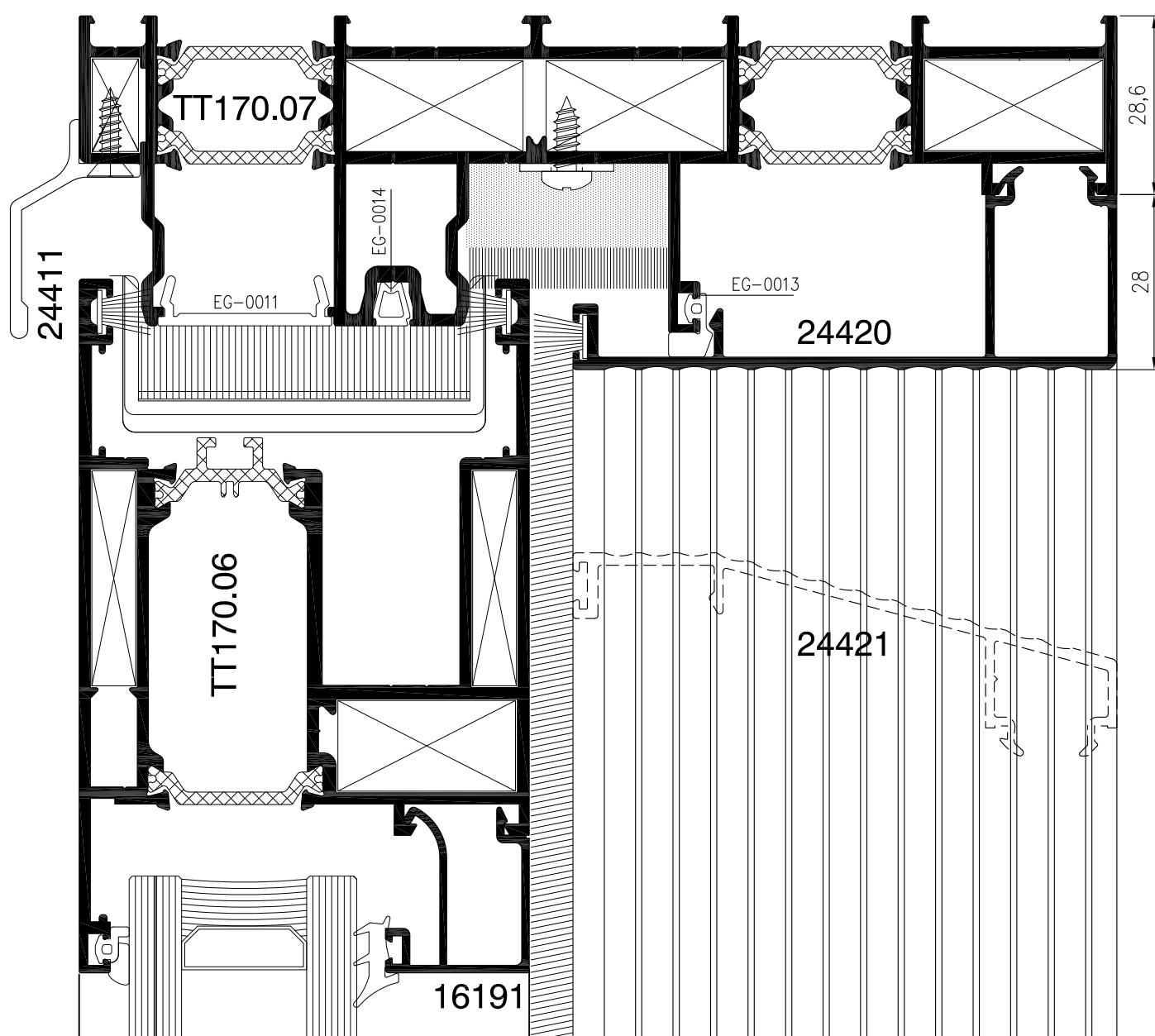


Sezioni 1:1 - Cross sections 1:1



Schema **AM**

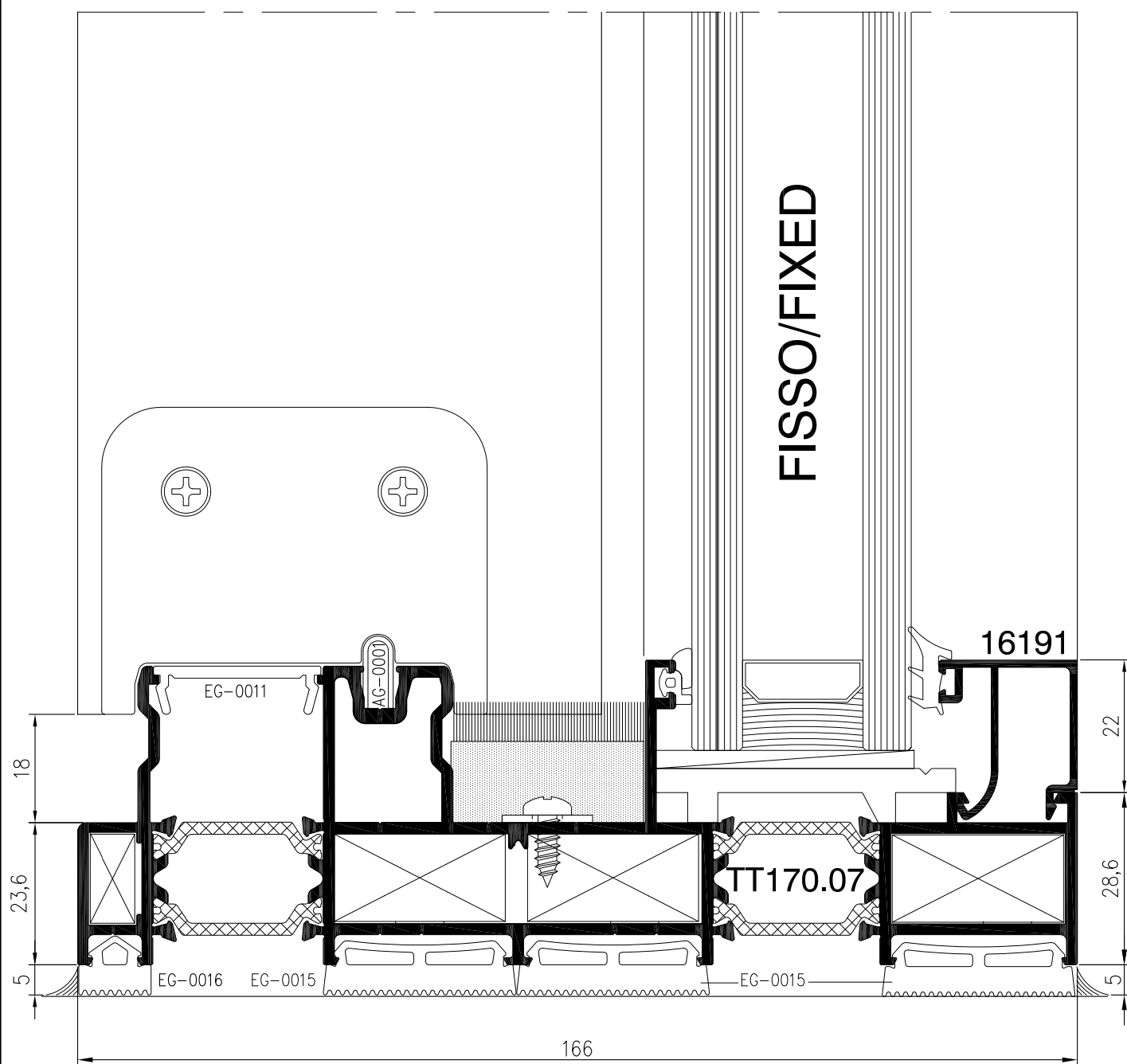
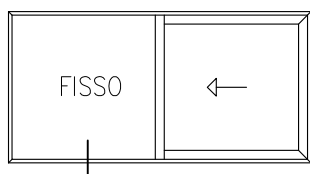
23



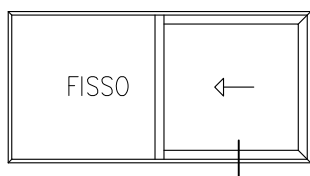
Sezioni 1:1 - Cross sections 1:1

24

Schema **AM**

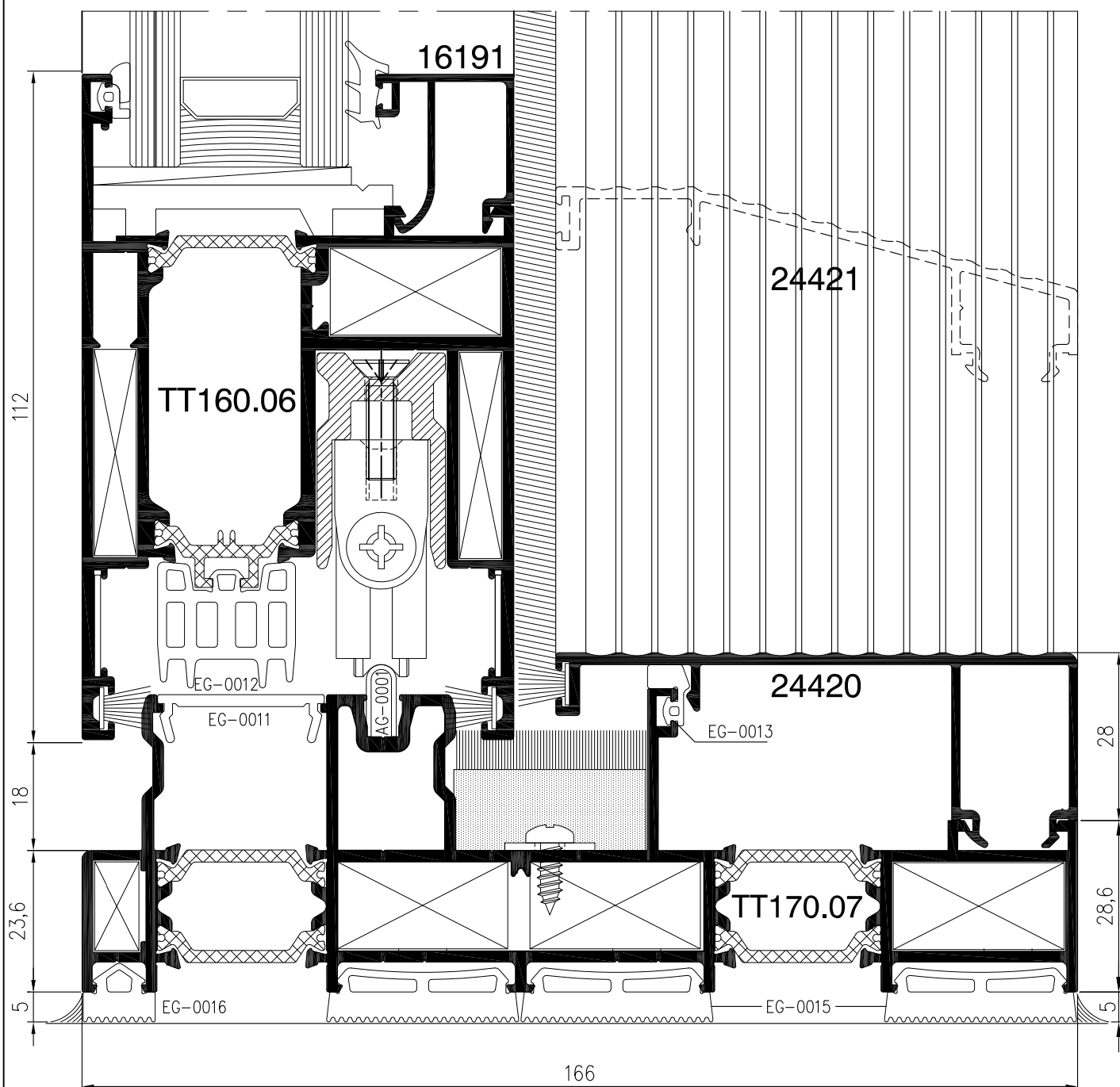


Sezioni 1:1 - Cross sections 1:1

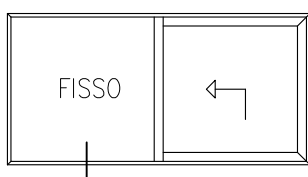


Schema **AM**

25

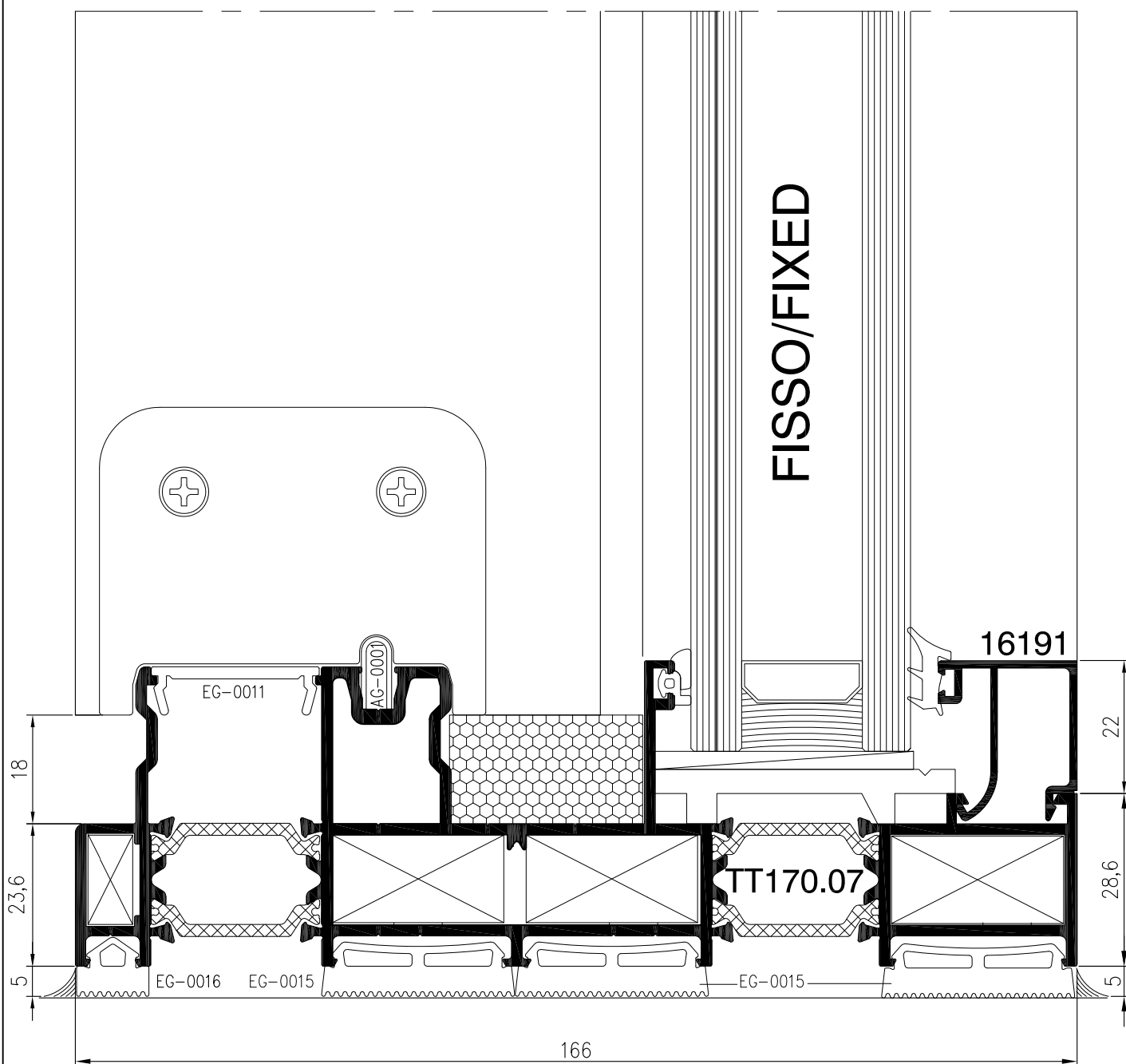


Sezioni 1:1 - Cross sections 1:1

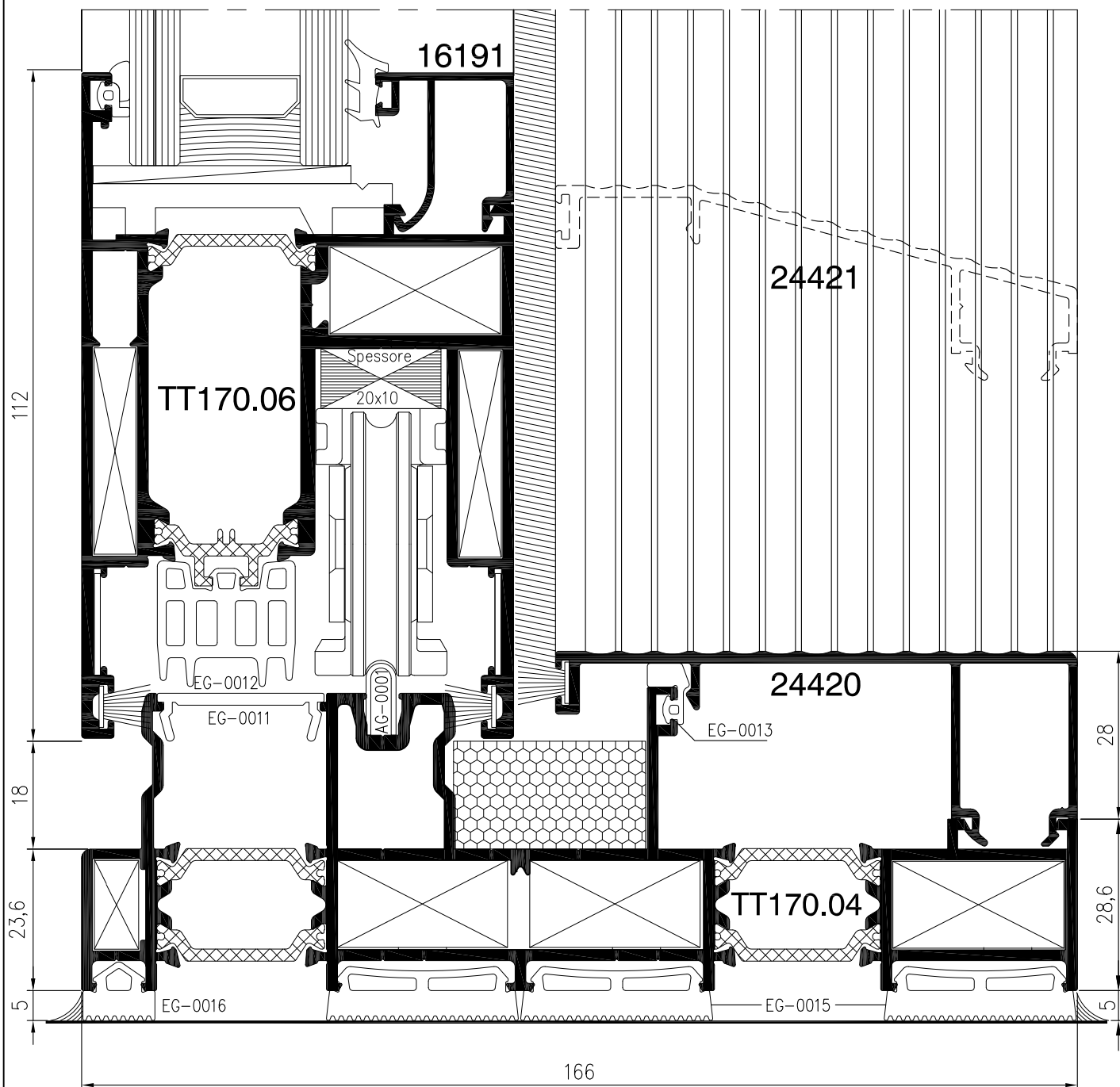


Schema **AM**

26



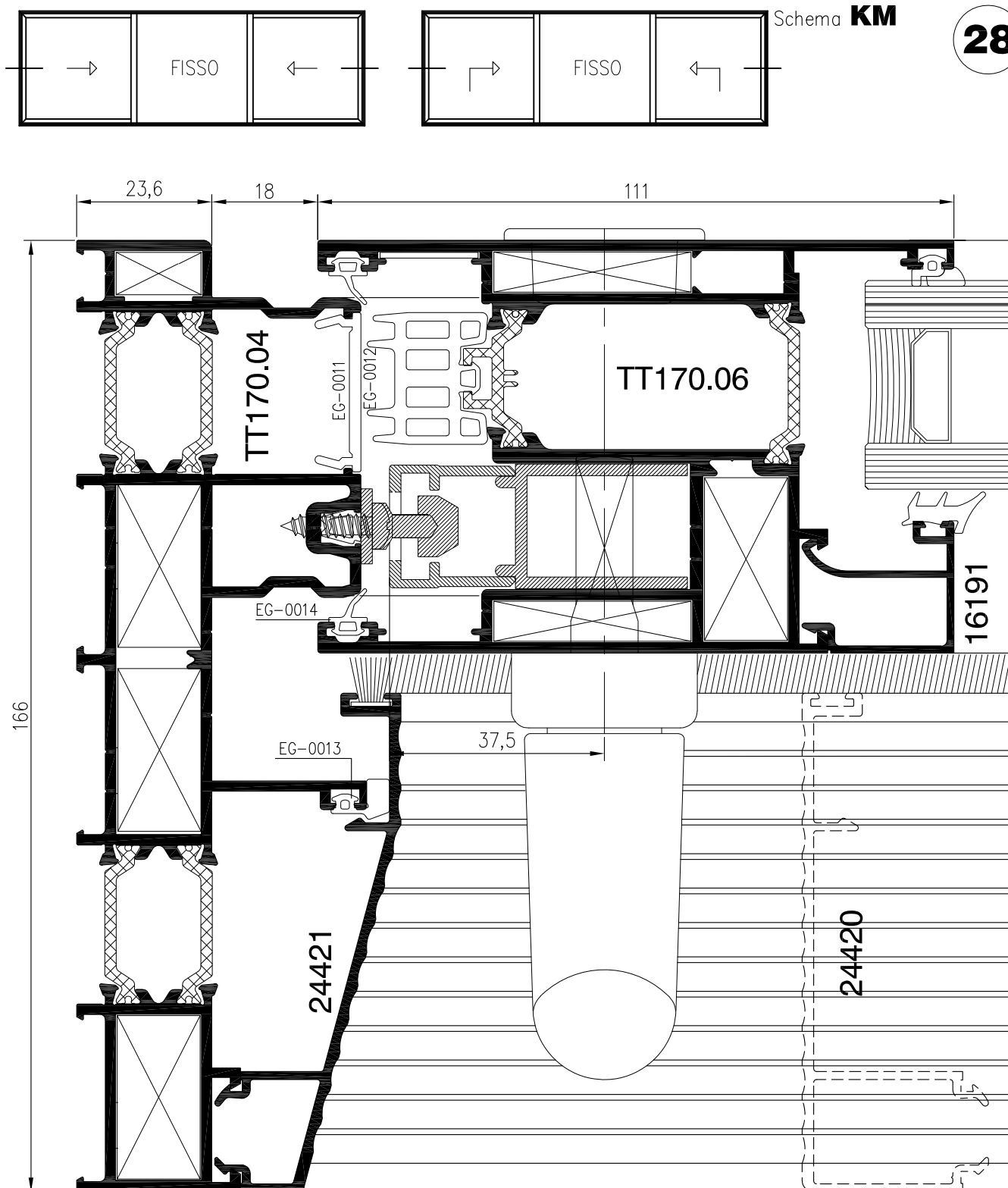
27



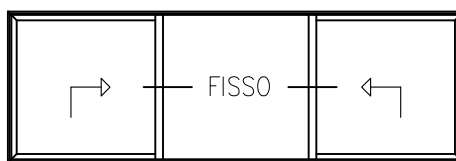
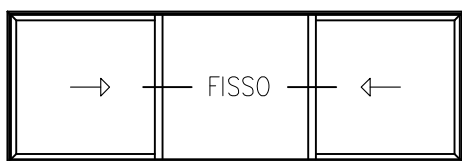
Sezioni 1:1 - Cross sections 1:1

Schema **KM**

28

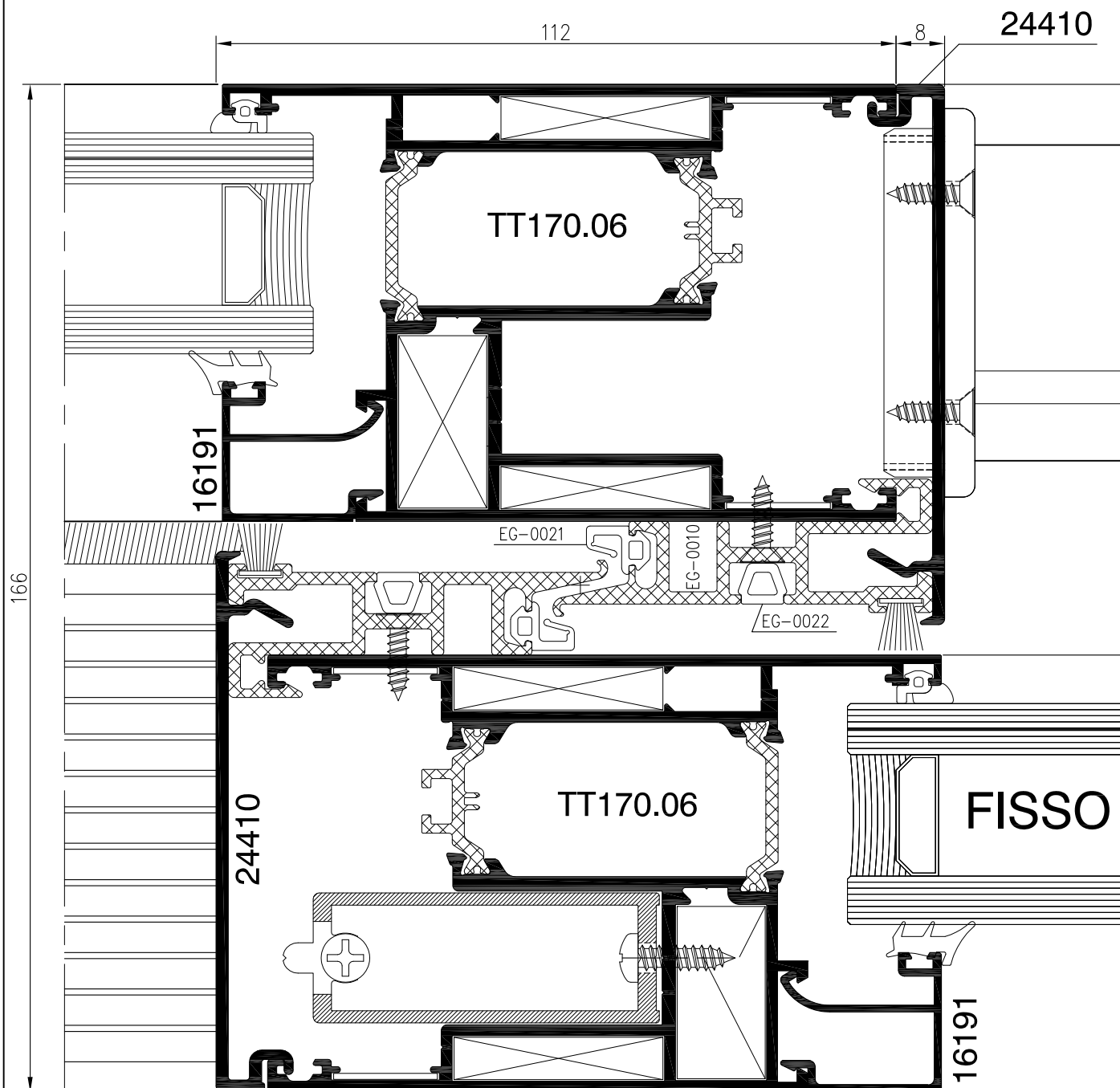


Sezioni 1:1 - Cross sections 1:1

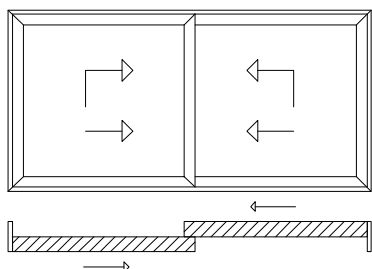


Schema **KM**

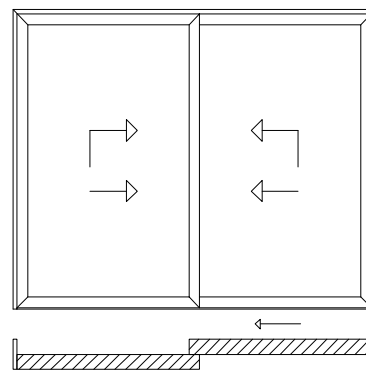
29



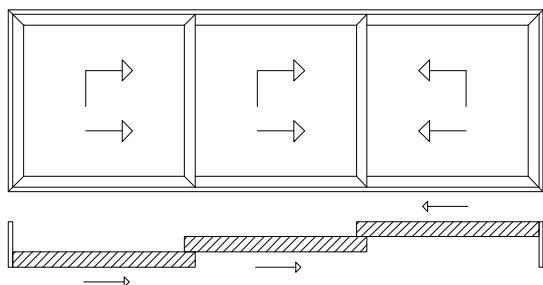
Finestre e porte alzanti e scorrevoli - Sliding or lift and slide windows/doors



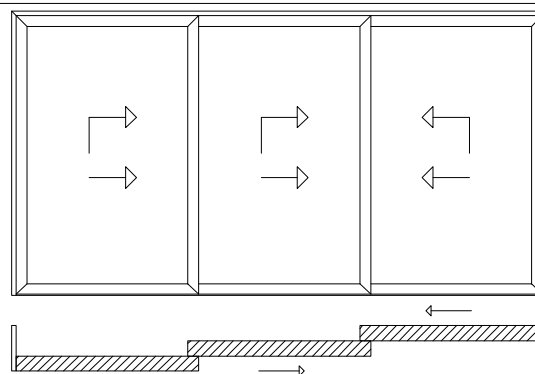
SCHEMA A/D - FINESTRA 2 ANTE (pag. 6-02/6-03)
A/D SCHEME - 2 WINGS WINDOW (pag. 6-02/6-03)



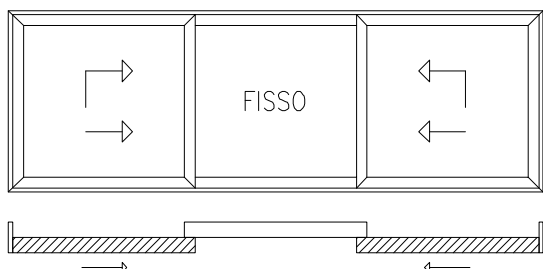
SCHEMA A/D - PORTA 2 ANTE (pag. 6-04/6-05)
A/D SCHEME - 2 WINGS DOOR (pag. 6-04/6-05)



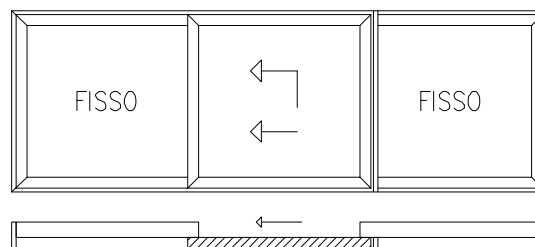
SCHEMA E - FINESTRA 3 ANTE (pag. 6-06/6-07)
E SCHEME - 3 WINGS WINDOW (pag. 6-06/6-07)



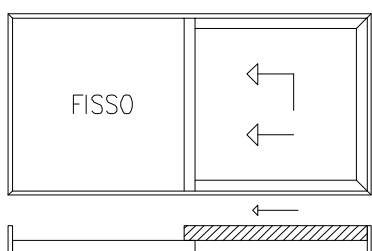
SCHEMA E - PORTA 3 ANTE (pag. 6-08/6-09)
E SCHEME - 3 WINGS DOOR (pag. 6-08/6-09)



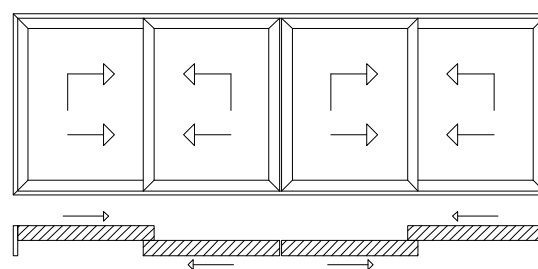
SCHEMA K - FINESTRA 3 ANTE (pag. 6-10/6-11)
K SCHEME - 3 WINGS WINDOW (pag. 6-10/6-11)



SCHEMA G - FINESTRA 3 ANTE (pag. 6-12/6-13)
G SCHEME - 3 WINGS WINDOW (pag. 6-12/6-13)



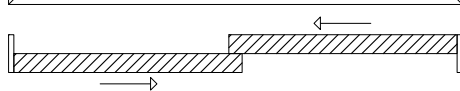
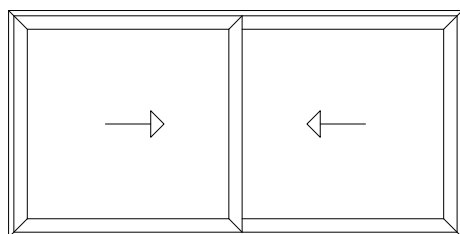
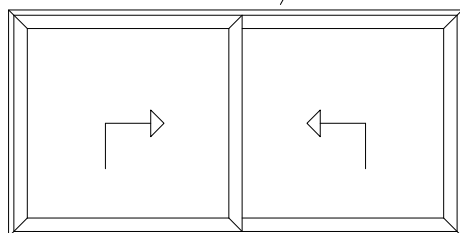
SCHEMA AM - MONOROTAIA+FISSO (pag. 6-14/6-15)
AM SCHEME - MONORAIL+FIXED (pag. 6-14/6-15)



SCHEMA F - FINESTRA 2 ANTE (pag. 6-16/6-17)
F SCHEME - 2 WINGS WINDOW (pag. 6-16/6-17)

Finestra a due ante - Two wings window

Schema **A/D**

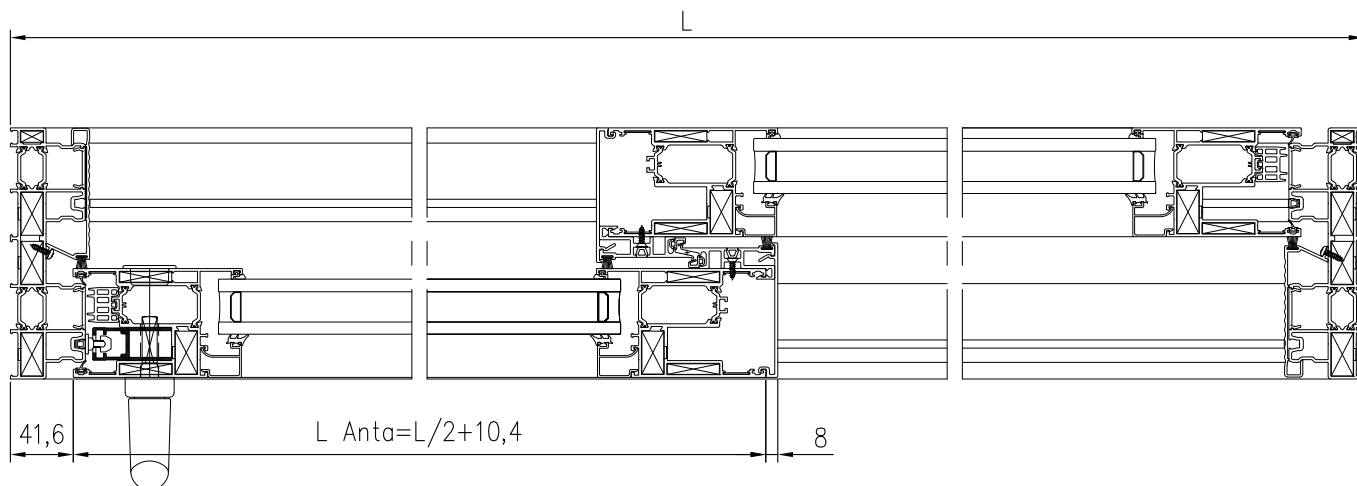
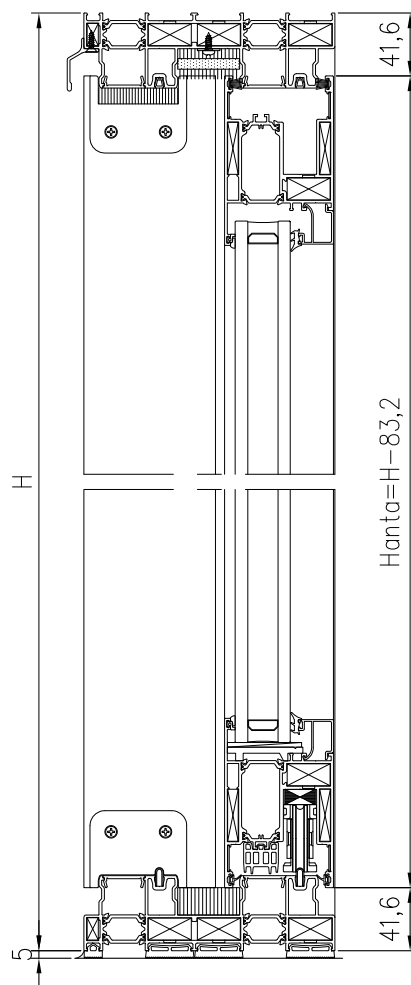


Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per anta = $(L-363) : 2$
Glasses N°1 piece for wing = $(H-275)$



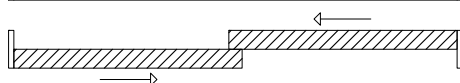
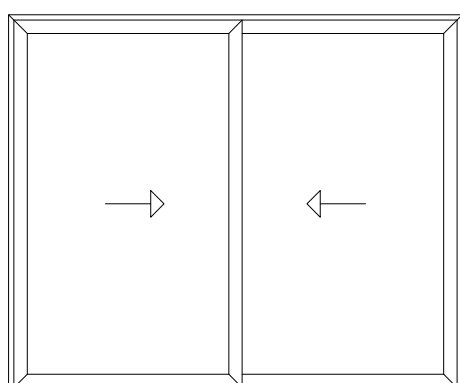
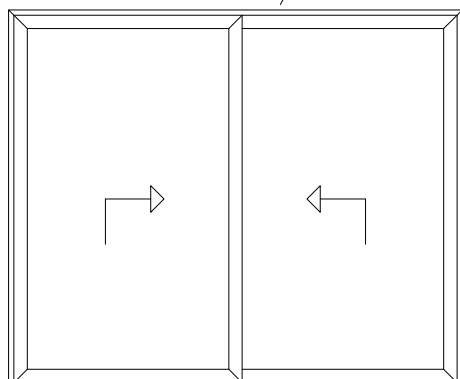
Finestra a due ante - Two wings window					
PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.04	2 2	L H	 16191	4 4	L/2-167,6 H-305,2
 TT170.06	4 4	L/2+10,4 H-83,2	 EG-0010	2	H-83,2
 24410	2	** H-83,2	 EG-0011	4 4	L-96,2 H-99,2
 24409	2	** H-48	 AG-0001	2	L-102
 24411	1	L-48			

**PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

* Vedi DIMENSIONI – See dimensions

Portafinestra a due ante - Two wings door

Schema **A/D**

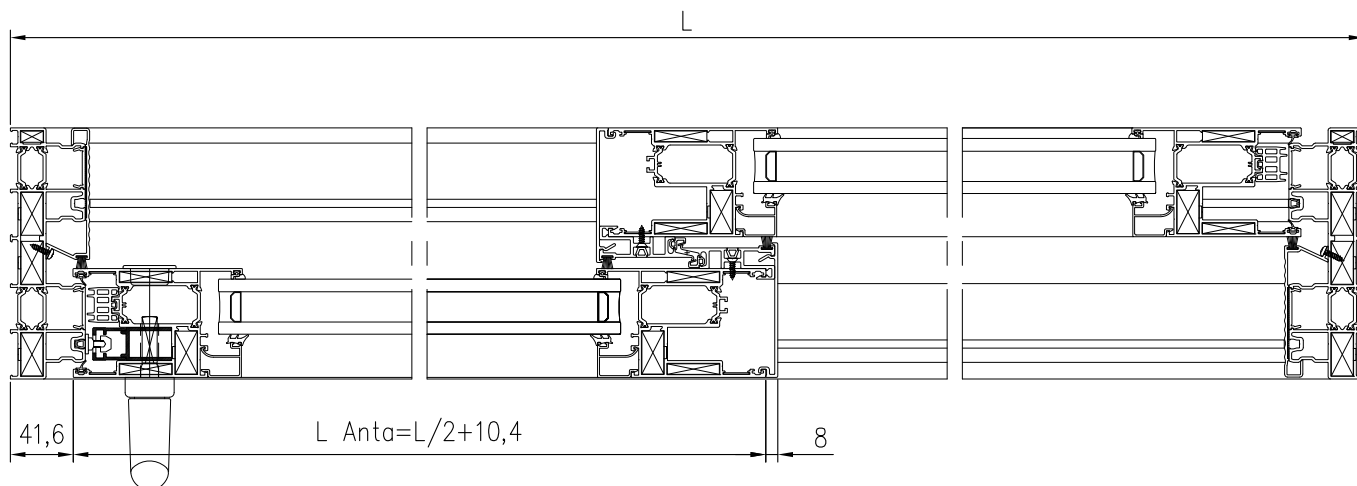
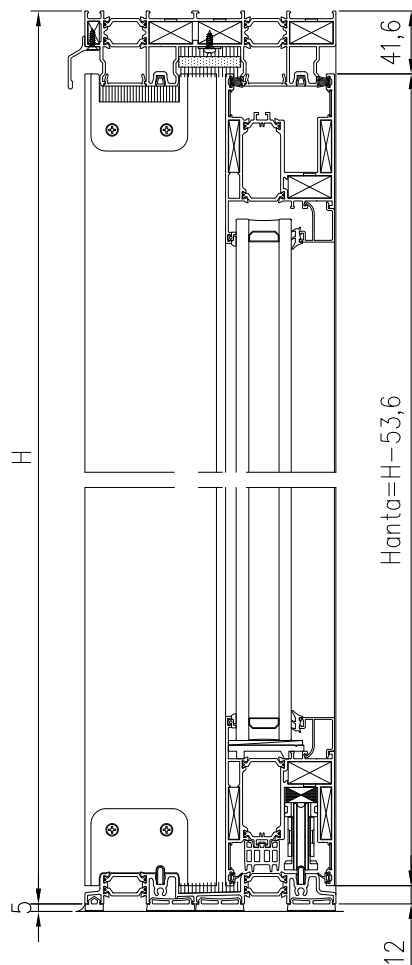


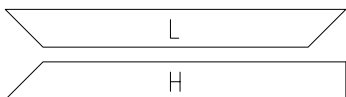
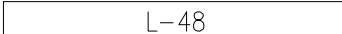
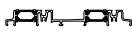
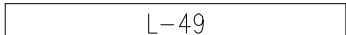
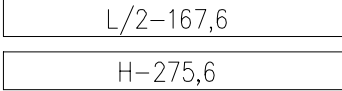
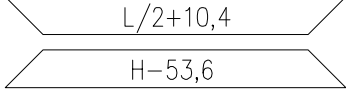
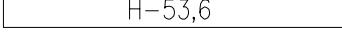
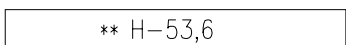
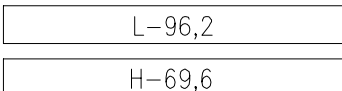
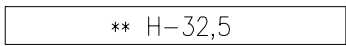
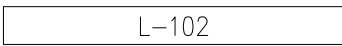
Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

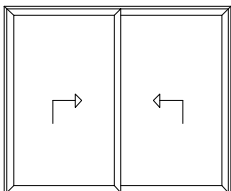
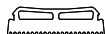
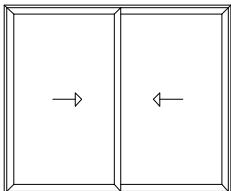
Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per anta = (L-363) : 2
Glasses N°1 piece for wing = (H-245,5)



PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.04	1 2		 24411	1	
 TT170.03	1		 16191	4 4	
 TT170.06	4 4		 EG-0010	2	
 24410	2		 EG-0011	2 4	
 24409	2		 AG-0001	2	

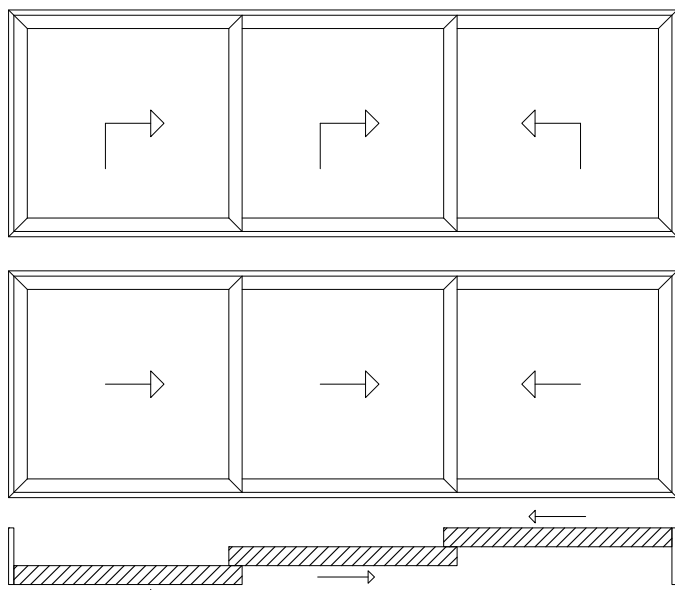
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item		N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	12	126-2195		2L+4H
	EK-0001	Kit telaio Sash kit	1	EG-0069		2L+4H
	EK-0006	Kit anta Frame kit	2	EG-0012		1L+2H
	*EA-0072AR	Cremonese Cremone	2	EG-0014		4L+4H
	*EA-0076	Barra di collegamento Connecting rod	2	EG-0015		3L
	EA-0081NE	Fine corsa Stop	1	EG-0016		1L
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	2	EG-0017		2L+2H
				EG-0020		4H
				EG-0021		2H
				EG-0022		2H

* Vedi DIMENSIONI - See dimensions

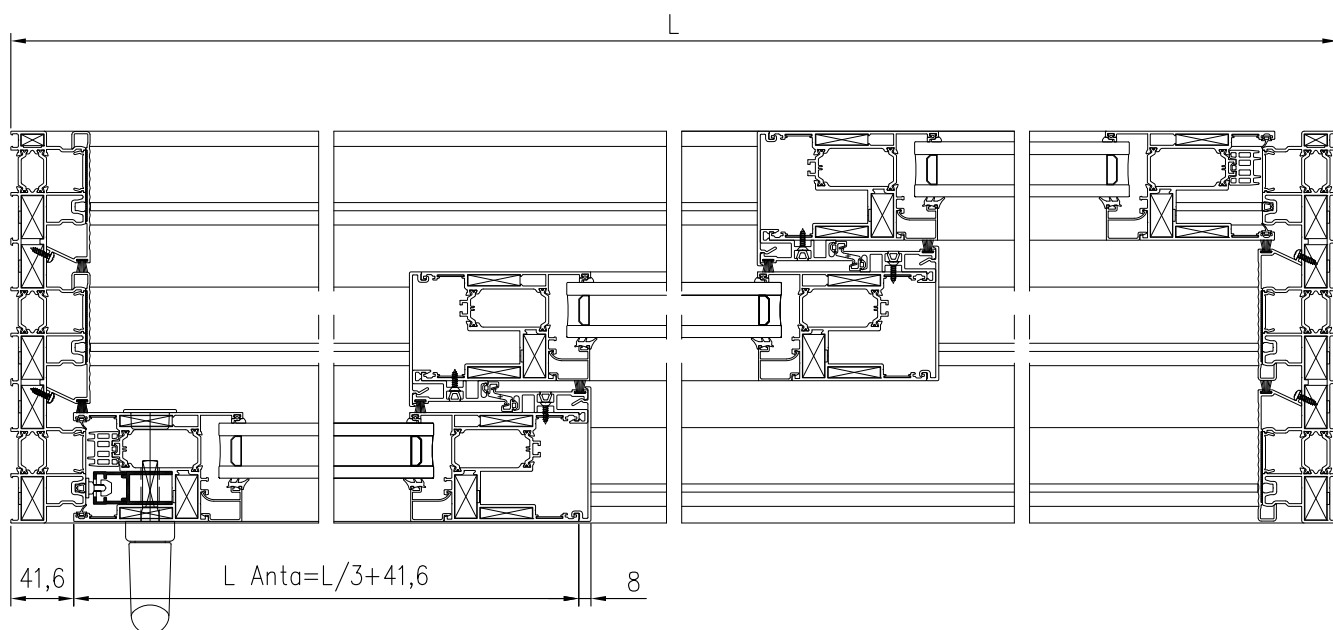
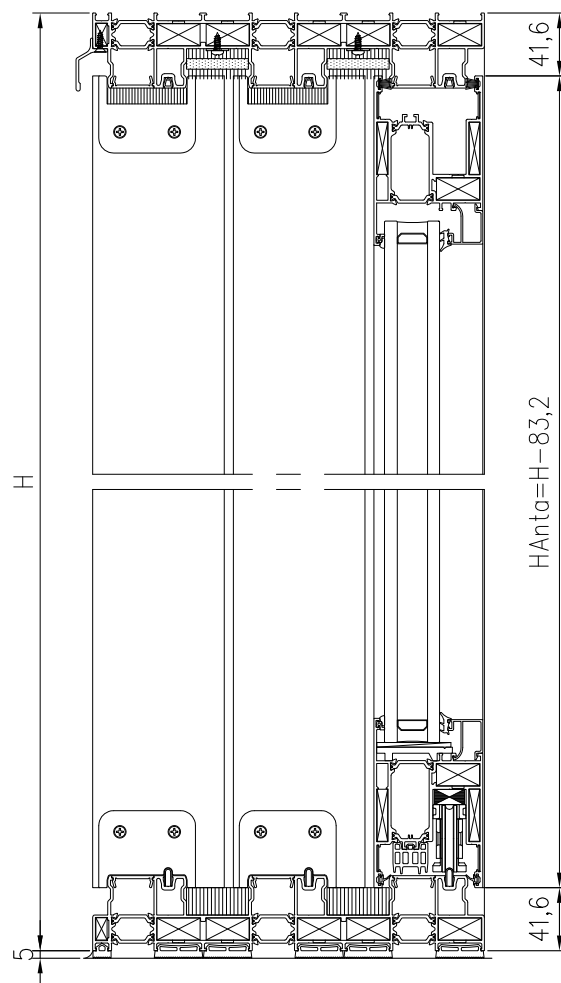
Finestra a tre ante - Three wings window

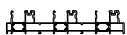
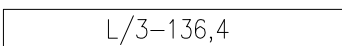
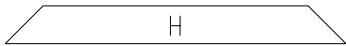
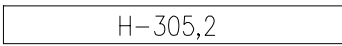
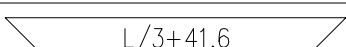
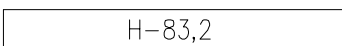
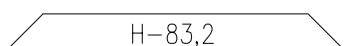
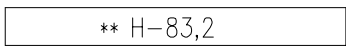
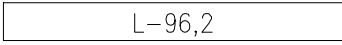
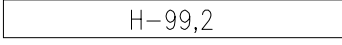
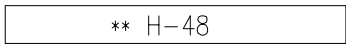
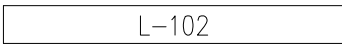
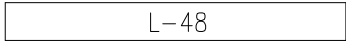
Schema **E**



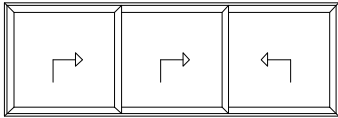
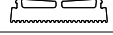
Note-Notes:

Spessore vetro considerato For glass with thickness	= 36 mm.
Gioco perimetrale tra profilo e vetro Space between glass and profile	= 7 mm.
Vetri N° 1 pezzo per anta Glasses N°1 piece for wing	= $(L-451) : 3$ = $(H-275)$



PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
	2			6	
TT170.02	2		16191	6	
	6			4	
TT170.06	6		EG-0010		
	4			6	
24410			EG-0011	6	
	4			3	
24409			AG-0001		
	1				
24411					

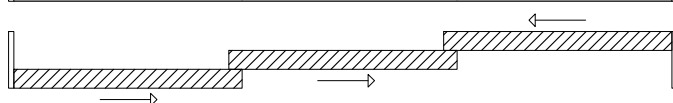
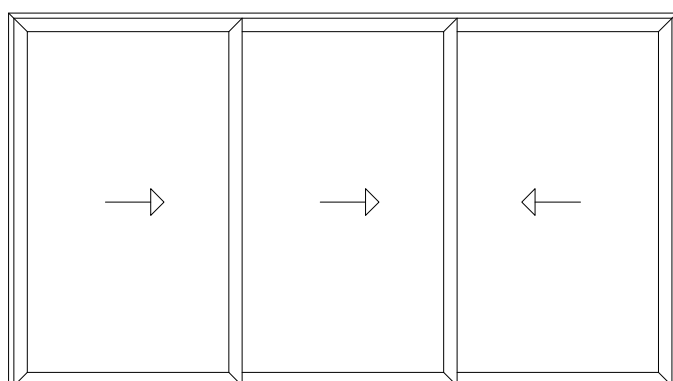
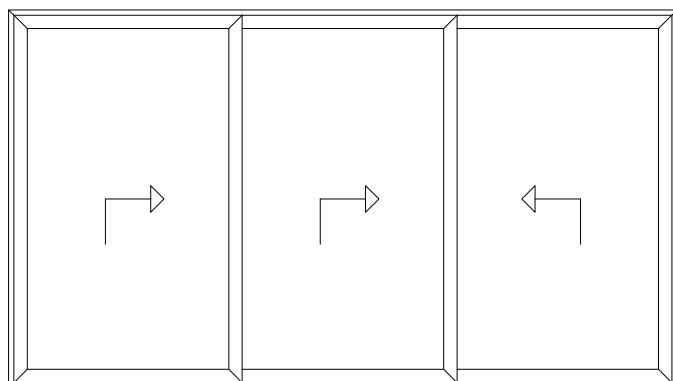
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item		N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	8	126-2195		2L+6H
	EK-0010	Kit telaio Sash kit	1	EG-0069		2L+6H
	EK-0006	Kit anta Frame kit	3	EG-0012		1L+2H
	*EA-0072AR	Cremonese Cremonese	3	EG-0014		4L+4H
	*EA-0076	Barra di collegamento Connecting rod	3	EG-0015		5L
	EA-0081NE	Fine corsa Stop	2	EG-0016		1L
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	3	EG-0017		3L+2H
				EG-0020		8H
				EG-0021		4H
				EG-0022		4H
	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item		N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	8	126-2195		2L+6H
	EK-0009	Kit telaio Sash kit	1	EG-0069		2L+6H
	EK-0007	Kit anta Frame kit	3	EG-0012		1L+2H
	EA-0092AR	Martellina M1 Handle M1	1	EG-0015		5L
	*EA-0096	Cremonese cs Cremonese cs	2	EG-0016		1L
	EA-0102AR	Maniglia a vaschetta CS 22 Handle CS 22	1	EG-0017		3L+2H
	EA-0081NE	Fine corsa Stop	2	EG-0020		4L+12H
	EA-0095	Confezione viti maniglia Screws handle kit	1	EG-0021		4H
				EG-0022		4H

* Vedi DIMENSIONI - See dimensions

Portafinestra a tre ante - Three wings door

Schema **E**

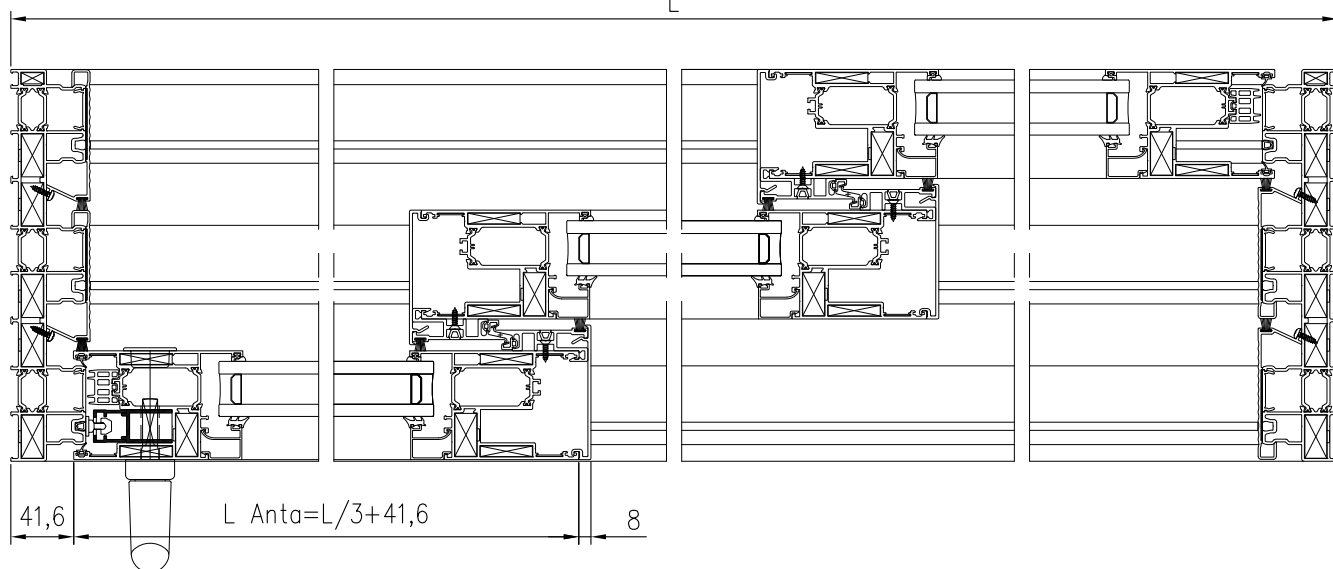
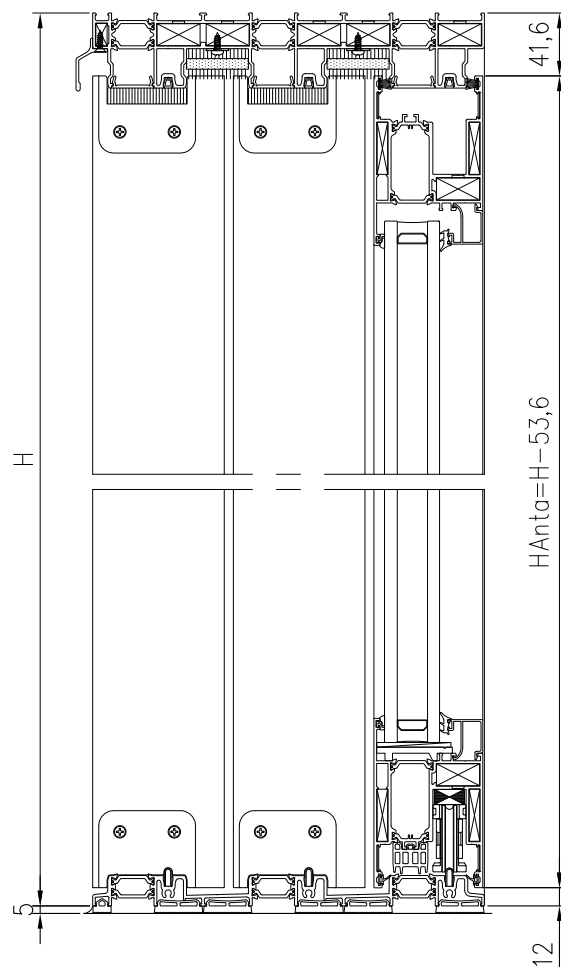


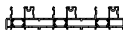
Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

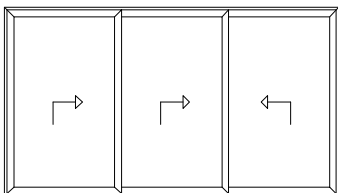
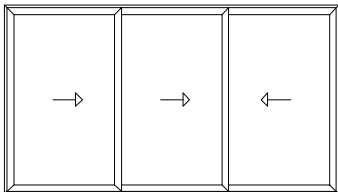
Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per anta = (L-451) : 3
Glasses N°1 piece for wing = (H-245,5)



PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.02	1 2	L H	 24411	1	L-48
 TT170.01	1	L-49	 16191	6 6	L/3-136,4 H-275,6
 TT170.06	6 6	L/3+41,6 H-53,6	 EG-0010	4	H-53,6
 24410	4	** H-53,6	 EG-0011	3 6	L-96,2 H-69,6
 24409	4	** H-32,5	 AG-0001	3	L-102

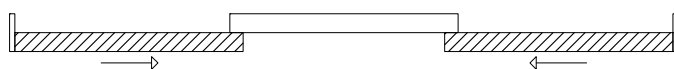
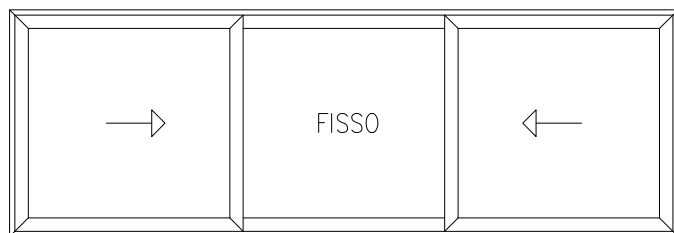
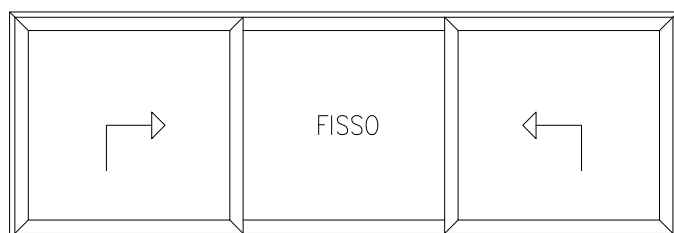
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

	Accessori - Accessories			Guarnizioni - Gaskets	
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item	N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	12	126-2195	2L+6H
	EK-0011	Kit telaio Sash kit	1	EG-0069	2L+6H
	EK-0006	Kit anta Frame kit	3	EG-0012	1L+2H
	*EA-0072AR	Cremonese Cremonese	3	EG-0014	4L+4H
	*EA-0076	Barra di collegamento Connecting rod	3	EG-0015	5L
	EA-0081NE	Fine corsa Stop	2	EG-0016	1L
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	3	EG-0017	3L+2H
				EG-0020	8H
				EG-0021	4H
				EG-0022	4H

* Vedi DIMENSIONI - See dimensions

Finestra a tre ante - Three wings window

Schema **K**

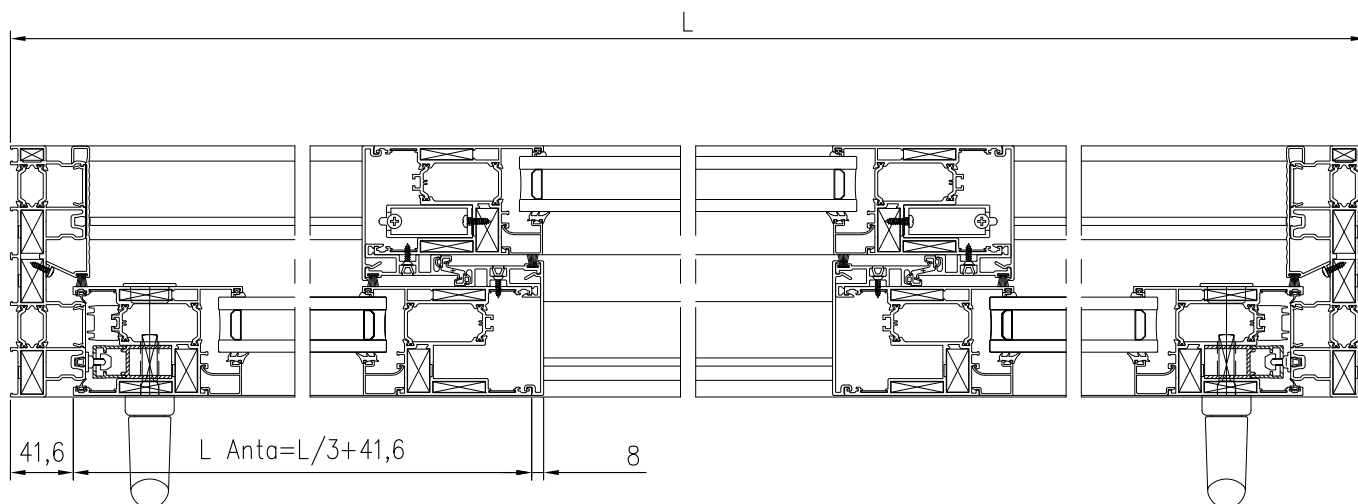
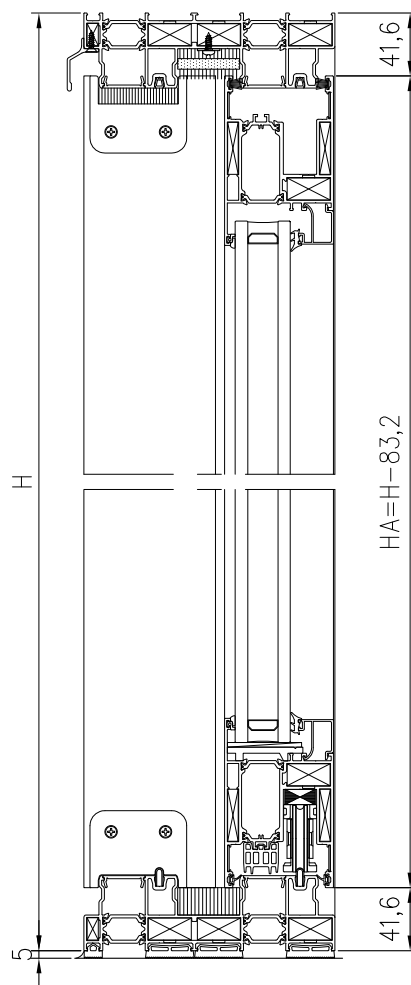


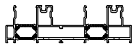
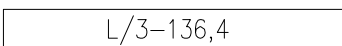
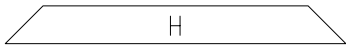
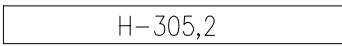
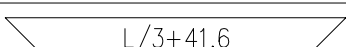
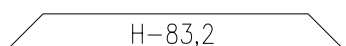
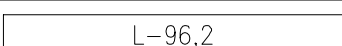
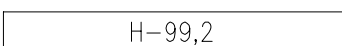
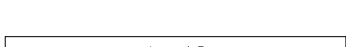
Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

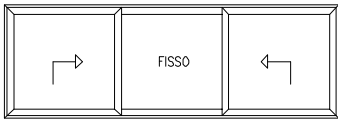
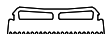
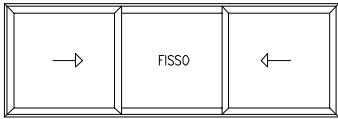
Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per anta = $(L-451) : 3$
Glasses N°1 piece for wing = $(H-275)$



PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
	2	 L		6	 L/3-136,4
TT170.04	2	 H	16191	6	 H-305,2
	6	 L/3+41,6		4	 H-83,2
TT170.06	6	 H-83,2	EG-0010		
	4	 ** H-83,2		4	 L-96,2
24410			EG-0011	4	 H-99,2
	2	 ** H-48		1	 L-102
24409			AG-0001		
	1	 L-48			
24411					

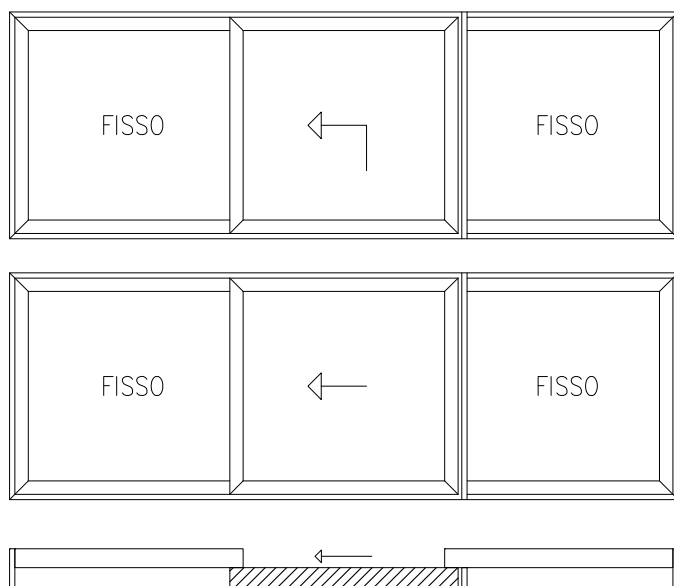
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item	N° pezzi Pcs	
	*104-600.01	Espansore Adjustable block	12	126-2195		2L+6H
	EK-0003	Kit telaio Sash kit	1	EG-0069		2L+6H
	EK-0006	Kit anta Frame kit	2	EG-0012		1L+2H
	EK-0008	Kit anta fissa Kit fixed wing	1	EG-0014		4L+4H
	*EA-0072AR	Cremonese Cremona	2	EG-0015		3L
	*EA-0076	Barra di collegamento Connecting rod	2	EG-0016		1L
	EA-0081NE	Fine corsa Stop	2	EG-0017		2L+2H
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	2	EG-0020		6H
				EG-0021		4H
				EG-0022		4H
	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item	N° pezzi Pcs	
	*104-600.01	Espansore Adjustable block	12	126-2195		2L+6H
	EK-0002	Kit telaio Sash kit	1	EG-0069		2L+6H
	EK-0007	Kit anta Frame kit	2	EG-0012		1L+2H
	EK-0008	Kit anta fissa Kit fixed wing	1	EG-0015		3L
	EA-0092AR	Martellina M1 Handle M1	2	EG-0016		1L
	*EA-0096	Cremonese cs Cremona cs	2	EG-0017		2L+2H
	EA-0081NE	Fine corsa Stop	2	EG-0020		4L+10H
	EA-0095	Confezione viti maniglia Screws handle kit	1	EG-0021		4H
				EG-0022		4H

* Vedi DIMENSIONI - See dimensions

Finestra a tre ante - Three wings window

Schema **G**

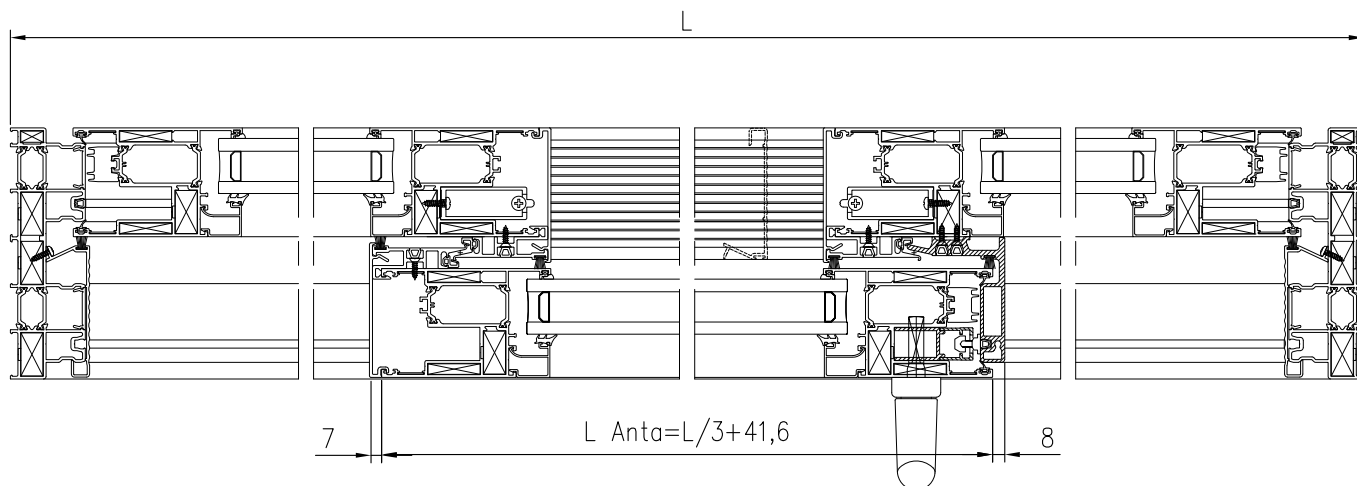
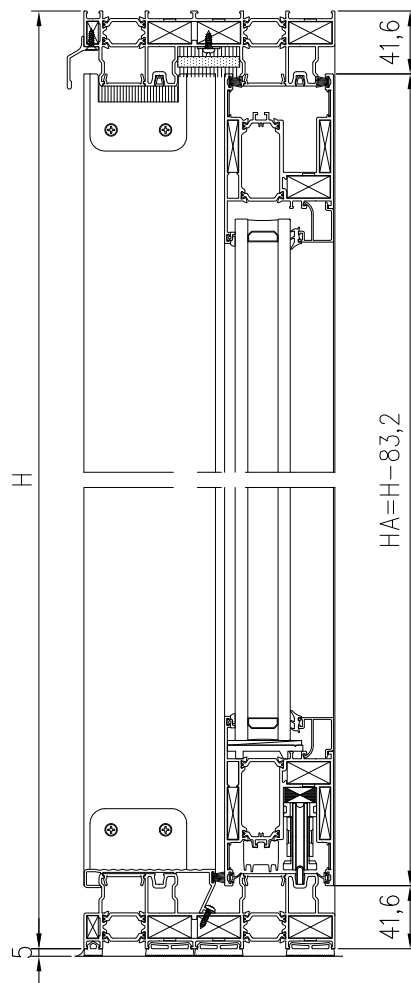


Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

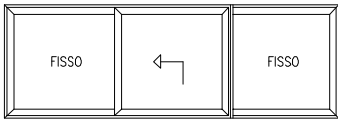
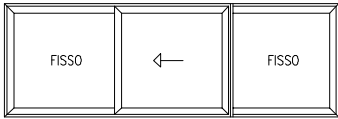
Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per anta = $(L-451):3$
Glasses N°1 piece for wing = $(H-275)$



PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.04	2 2	L H	 24416	1	** H-47,2
 TT170.06	6 6	L/3+41,6 H-83,2	 16191	6 6	L/3-136,4 H-305,2
 24410	3	** H-83,2	 EG-0010	4	H-83,2
 24409	1 2	L/3-182,4 ** H-48	 EG-0011	4 4	L-96,2 H-99,2
 24411	1	L-48	 AG-0001	1	L-102

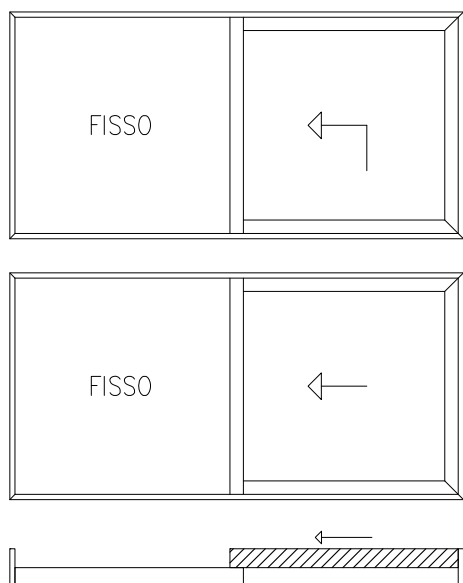
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

	Accessori - Accessories			Guarnizioni - Gaskets	
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item	N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	12	126-2195	2L+6H
	EK-0003	Kit telaio Sash kit	1	EG-0069	2L+6H
	EK-0006	Kit anta Frame kit	1	EG-0012	1L+3H
	EK-0008	Kit anta fissa Kit fixed wing	2	EG-0014	4L+6H
	*EA-0072AR	Cremonese Cremona	1	EG-0015	3L
	*EA-0076	Barra di collegamento Connecting rod	1	EG-0016	1L
	EA-0081NE	Fine corsa Stop	1	EG-0017	2L+3H
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	1	EG-0020	1L+6H
				EG-0021	3H
				EG-0022	5H
	*104-600.01	Espansore Adjustable block	12	126-2195	2L+6H
	EK-0002	Kit telaio Sash kit	1	EG-0069	2L+6H
	EK-0007	Kit anta Frame kit	1	EG-0012	1L+3H
	EK-0008	Kit anta fissa Kit fixed wing	2	EG-0015	3L
	EA-0092AR	Martellina M1 Handle M1	1	EG-0016	1L
	*EA-0096	Cremonese cs Cremona cs	1	EG-0017	2L+3H
	EA-0081NE	Fine corsa Stop	1	EG-0020	5L+12H
	EA-0095	Confezione viti maniglia Screws handle kit	1	EG-0021	3H
				EG-0022	5H

* Vedi DIMENSIONI - See dimensions

Portafinestra monorotaia + fisso - Monorail + fixed wing

Schema **AM**



Note-Notes:

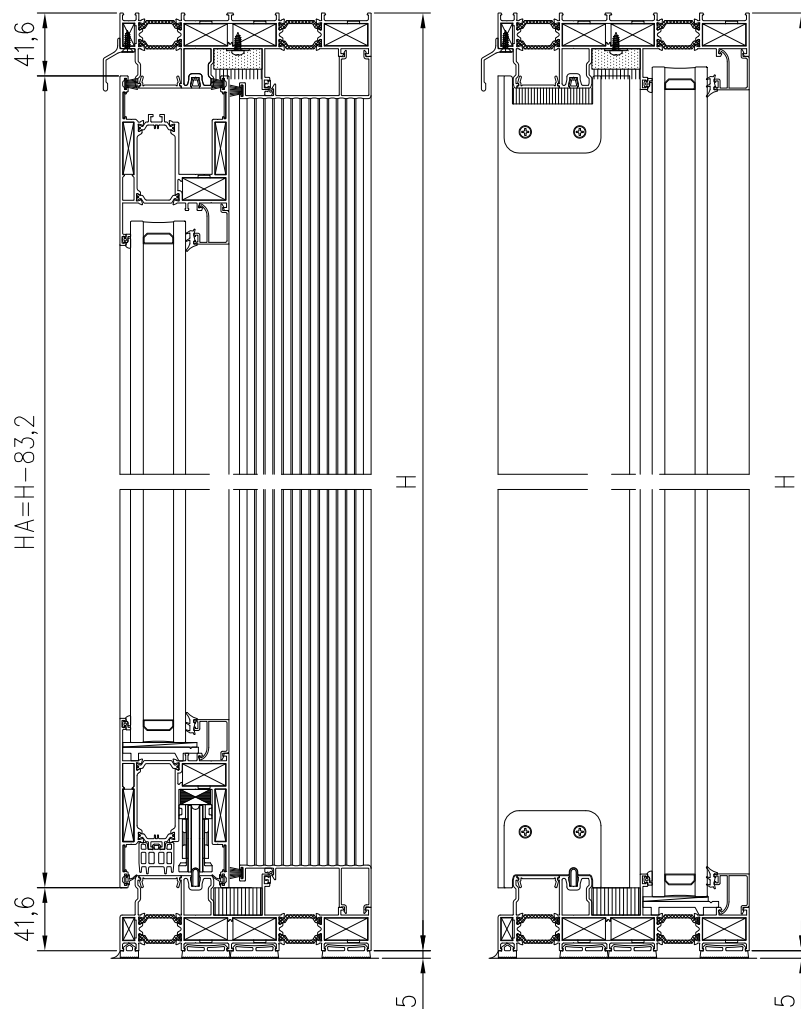
Spessore vetro considerato = 36 mm.
For glass with thickness

Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per Anta = $(L/2-181,5) \#$
Glasses N°1 piece for wing = $(H-275)$

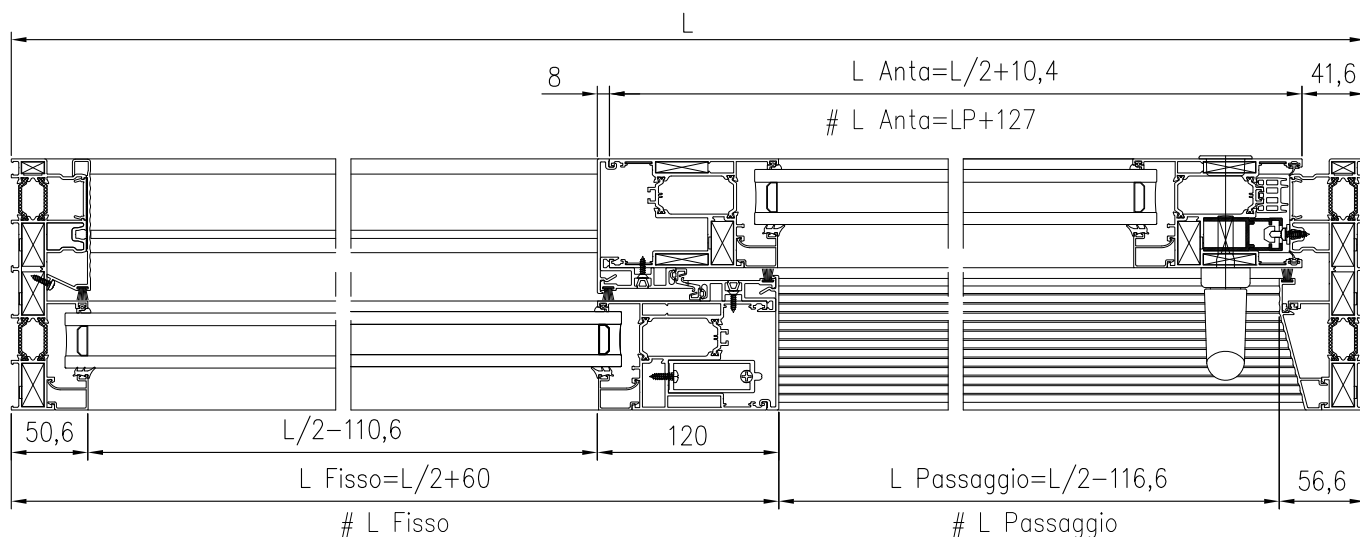
Vetri N° 1 pezzo per Fisso = $(L/2-79,5) \#$
Glasses N°1 piece for fixing = $(H-71)$

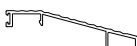
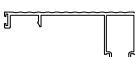
Formule L Passaggio < Vetro Anta = LP-65
Vetro Fisso = LF-139,5



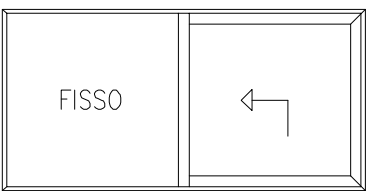
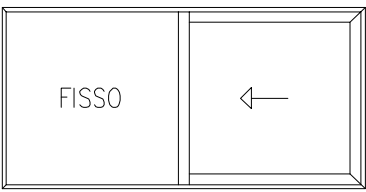
N.B.: Formule di taglio dell'Anta prevedono 2 soluzioni < Nodo centrale riferito alla MEZZERIA del serramento (distinta)
Nodo centrale riferito alla LARG. PASSAGGIO (parziali rif. #)

Per avere la LPN (Luce Passaggio Netta) verificare ingombri della MANIGLIA utilizzata (ad Anta APERTA)



PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.07	2 2	L H	 24421	1	** H-113,2
 TT170.06	2 2 1	L/2+10,4 H-83,2 ** H-48,2	 16191	2 2	L/2-65,6 FISSO H-101,2 FISSO
 24410	1 1	** H-83,2 ** H-58	 EG-0010	2 2	L/2-167,6 APRIBILE H-305,2 APRIBILE
 24409	1	** H-48	 EG-0011	2 2	** H-83,2 L-96,2 H-99,2
 24411	1	L-48	 AG-0001	1	L-102
 24420	2	** L/2-88,6			

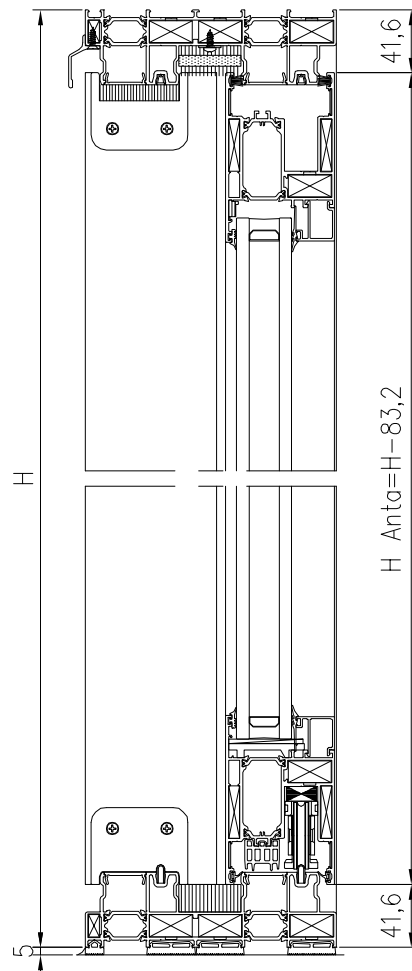
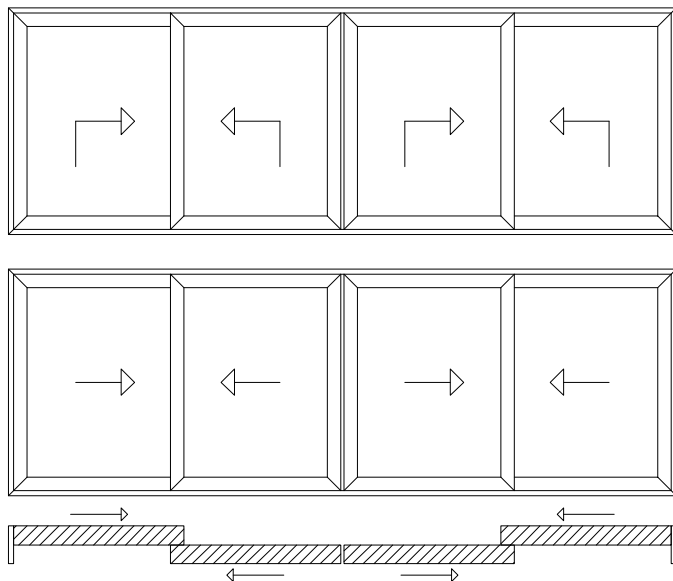
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-15/8-16 - Machinery see pages 8-13/8-14/8-15/8-16

	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item	N° pezzi Pcs	
	*104-600.01	Espansore Adjustable block	8	126-2195		4L+4H
	EK-0005	Kit telaio Sash kit	1	EG-0069		4L+4H
	EK-0006	Kit anta Frame kit	1	EG-0012		0,5L+1H
	*EA-0072AR	Cremonese Cremonese	1	EG-0013		1L+1H
	*EA-0076	Barra di collegamento Connecting rod	1	EG-0014		4L+2H
	EA-0081NE	Fine corsa Stop	1	EG-0015		3L
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	1	EG-0016		1L
	EG-0021		2H	EG-0017		1L+1H
	EG-0022		2H	EG-0020		2L+4H
	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item	N° pezzi Pcs	
	*104-600.01	Espansore Adjustable block	8	126-2195		4L+4H
	EK-0004	Kit telaio Sash kit	1	EG-0069		4L+4H
	EK-0007	Kit anta Frame kit	1	EG-0012		0,5L+1H
	EA-0092AR	Martellina M1 Handle M1	1	EG-0013		1L+1H
	*EA-0096	Cremonese cs Cremonese cs	1	EG-0015		3L
	EA-0081NE	Fine corsa Stop	1	EG-0016		1L
	EA-0095	Confezione viti maniglia Screws handle kit	1	EG-0017		1L+1H
	EG-0021		2H	EG-0020		6L+6H
	EG-0022		2H			

* Vedi DIMENSIONI - See dimensions

Finestra a quattro ante - Four wings window

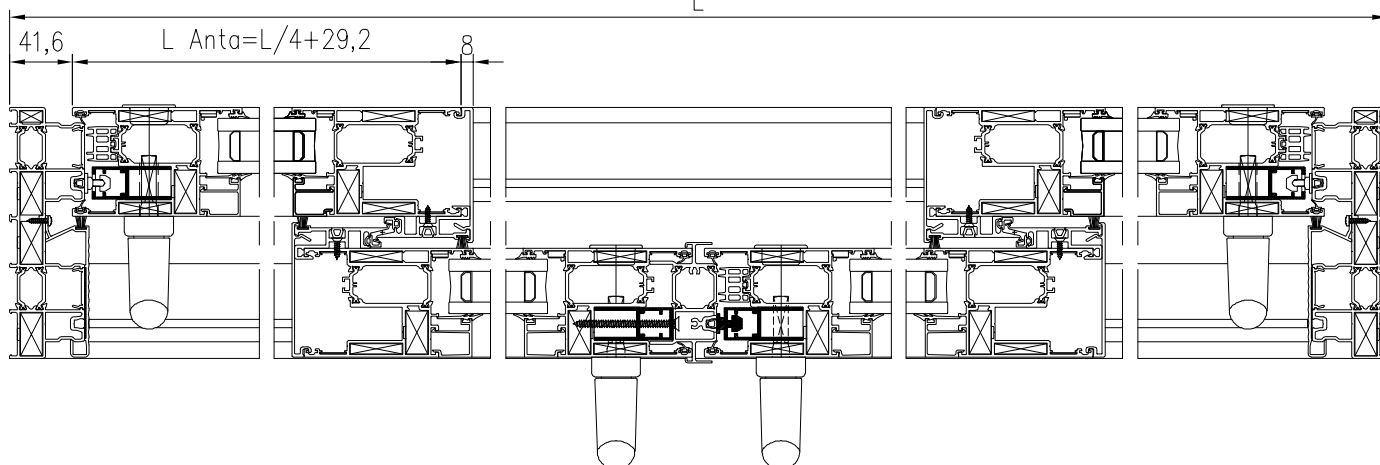
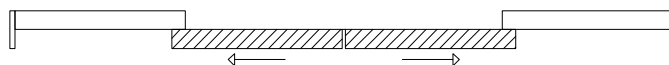
Schema **F**



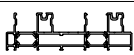
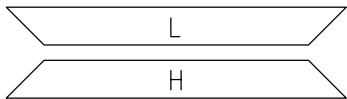
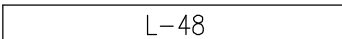
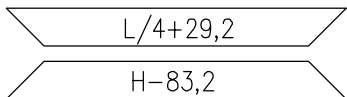
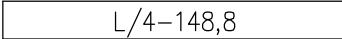
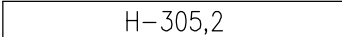
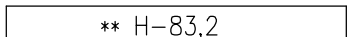
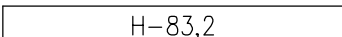
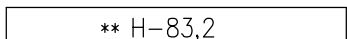
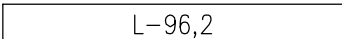
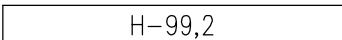
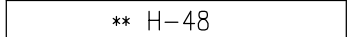
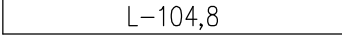
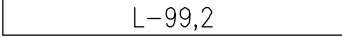
Note-Notes:

Spessore vetro considerato For glass with thickness	= 36 mm.
Gioco perimetrale tra profilo e vetro Space between glass and profile	= 7 mm.
Vetri N° 1 pezzo per anta Glasses N° 1 piece for wing	= (L-652) : 4 = (H-275)

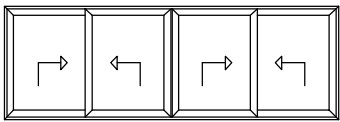
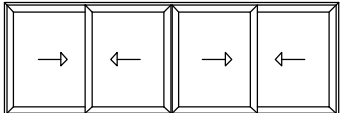
N.B.: Per schema **C** (ante centrali mobili e ante laterali fisse)
si devono eliminare : n° 2 Kit anta (alzante o scorrevole)
sostituirli con : n° 2 Kit anta fissa EK-0008,
dimezzare il numero delle: Cremonesi
Barre di collegamento
Maniglioni/Martelline



Finestra a quattro ante - Four wings window

PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.04	2 2		 24411	1	
 TT170.06	8 8		 16191	8 8	 
 TT170.05	1		 EG-0010	4	
 24410	4		 EG-0011	4 4	 
 24409	2		 AG-0001	1 1	 

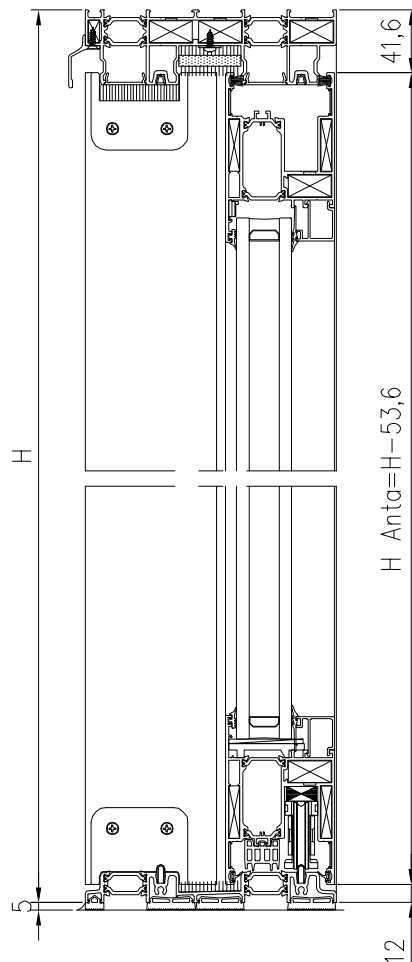
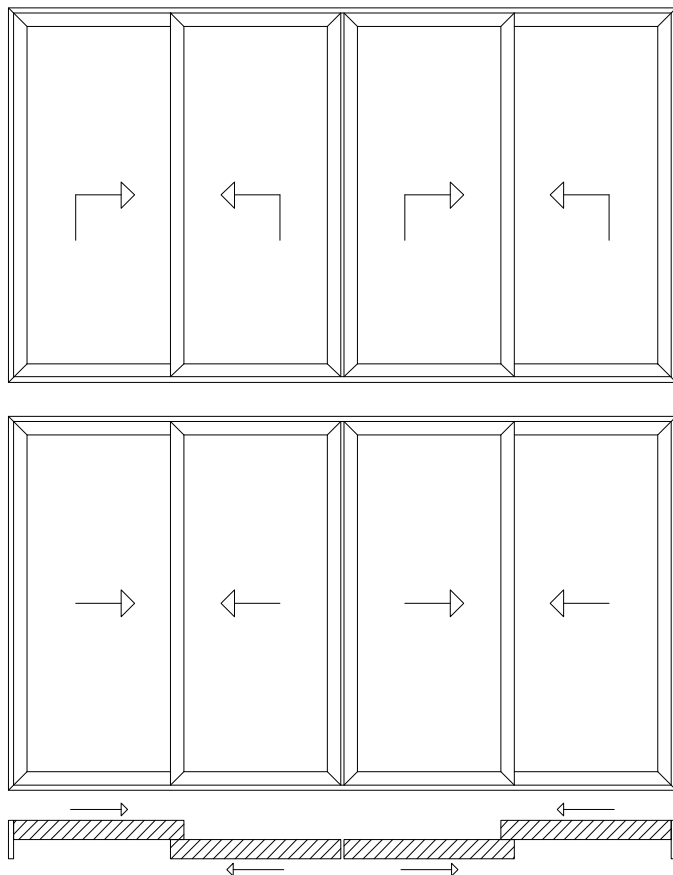
**PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-16/8-17/8-67/8-68 - See pages 8-13/8-14/8-16/8-17/8-67/8-68

	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item		N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	16	126-2195		2L+8H
	EK-0003	Kit telaio Sash kit	1	EG-0069		2L+8H
	EK-0006	Kit anta Frame kit	4	EG-0012		1L+3H
	*EA-0072AR	Cremonese Cremonese	4	EG-0014		2L+8H
	*EA-0076	Barra di collegamento Connecting rod	4	EG-0015		3L
	EA-0081NE	Fine corsa Stop	2	EG-0016		1L
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	4	EG-0017		2L+3H
	EA-0069	Tampone Pledget	2	EG-0020		2L+6H
	EA-0313	Tenuta centrale per alza scorri Central sealing for lift and slide	2	EG-0021		4H
	EA-0315	Tenuta centrale Central sealing	2	EG-0022		4H
	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item		N° pezzi Pcs
	*104-600.01	Espansore Adjustable block	16	126-2195		2L+8H
	EK-0002	Kit telaio Sash kit	1	EG-0069		2L+8H
	EK-0007	Kit anta Frame kit	4	EG-0012		1L+3H
	EA-0081NE	Fine corsa Stop	2	EG-0015		3L
	EA-0092AR	Martellina M1 Handle M1	4	EG-0016		1L
	*EA-0096	Cremonese CS Cremonese CS	4	EG-0017		2L+3H
	EA-0069	Tampone Pledget	2	EG-0020		4L+14H
	EA-0315	Tenuta centrale Central sealing	4	EG-0021		4H
				EG-0022		4H

*Vedi DIMENSIONI - See dimensions

Portafinestra a quattro ante - Four wings door

Schema **F**



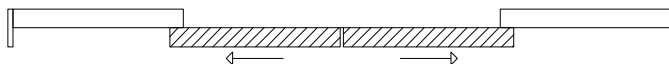
Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

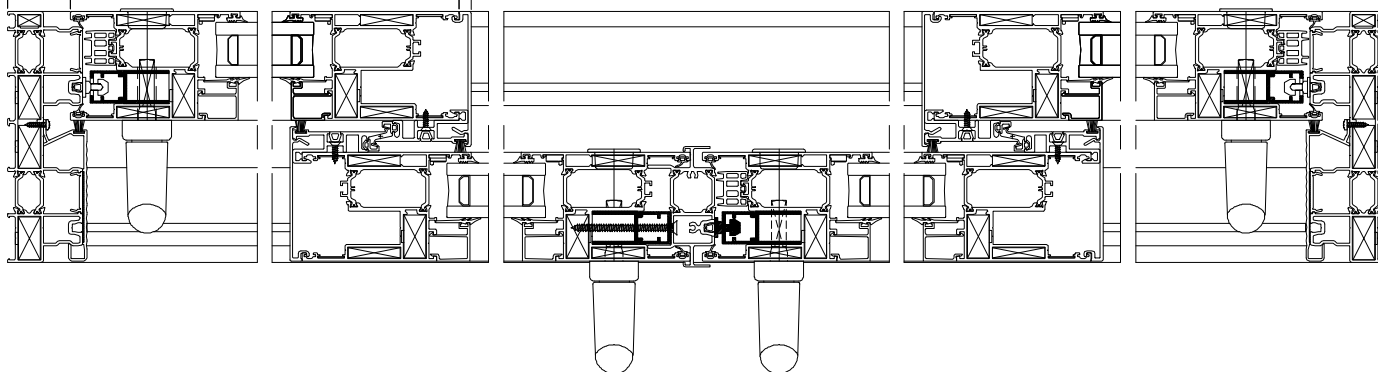
Vetri N° 1 pezzo per anta = (L-652) : 4
Glasses N° 1 piece for wing = (H-245,5)

N.B.: Per schema **C** (ante centrali mobili e ante laterali fisse) si devono eliminare : n° 2 Kit anta (alzante o scorrevole) sostituirli con : n° 2 Kit anta fissa EK-0008, dimezzare il numero delle: Cremonesi
Barre di collegamento
Maniglioni/Martelline

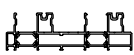
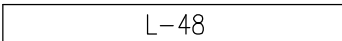
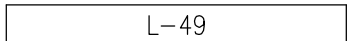
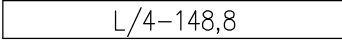
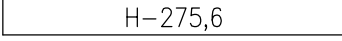
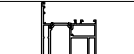
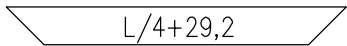
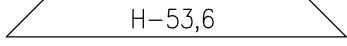
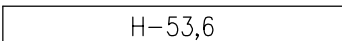
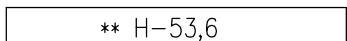
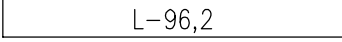
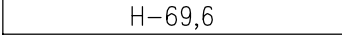
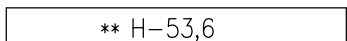
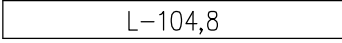
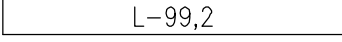
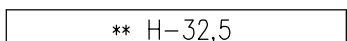


L

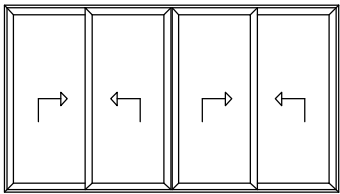
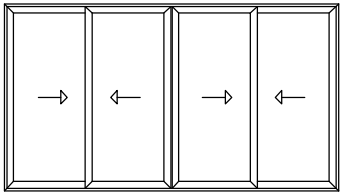
41,6 L Anta=L/4+29,2 8



Portafinestra a quattro ante - Four wings door

PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.04	1 2	 L  H	 24411	1	 L-48
 TT170.03	1	 L-49	 16191	8 8	 L/4-148,8  H-275,6
 TT170.06	8 8	 L/4+29,2  H-53,6	 EG-0010	4	 H-53,6
 TT170.05	1	 ** H-53,6	 EG-0011	4 4	 L-96,2  H-69,6
 24410	4	 ** H-53,6	 AG-0001	1 1	 L-104,8  L-99,2
 24409	2	 ** H-32,5			

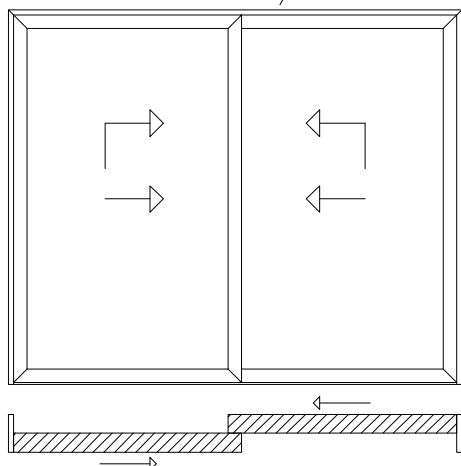
** PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-16/8-17/8-67/8-68 - See pages 8-13/8-14/8-16/8-17/8-67/8-68

	Accessori - Accessories			Guarnizioni - Gaskets		
	Art. Item	Descrizione Description	N° pezzi Pcs	Art. Item		N° pezzi Pcs
	* 104-600.01	Espansore Adjustable block	20	126-2195		2L+8H
	EK-0001	Kit telaio Sash kit	1	EG-0069		2L+8H
	EK-0006	Kit anta Frame kit	4	EG-0012		1L+3H
	* EA-0072AR	Cremonese Cremonese	4	EG-0014		2L+8H
	* EA-0076	Barra di collegamento Connecting rod	4	EG-0015		3L
	EA-0081NE	Fine corsa Stop	2	EG-0016		1L
	EA-0083AR	Conf. maniglione HS+conchiglia Handle HS	4	EG-0017		2L+3H
	EA-0069	Tampone Pledget	2	EG-0020		2L+6H
	EA-0312	Tenuta centrale soglia ribassata Central sealing for threshold	2	EG-0021		4H
	EA-0315	Tenuta centrale Central sealing	2	EG-0022		4H
	* 104-600.01	Espansore Adjustable block	20	126-2195		2L+8H
	EK-0001	Kit telaio Sash kit	1	EG-0069		2L+8H
	EK-0007	Kit anta Frame kit	4	EG-0012		1L+3H
	EA-0081NE	Fine corsa Stop	2	EG-0015		3L
	EA-0092AR	Martellina M1 Handle M1	4	EG-0016		1L
	* EA-0096	Cremonese CS Cremonese CS	4	EG-0017		2L+3H
	EA-0069	Tampone Pledget	2	EG-0020		4L+14H
	EA-0312	Tenuta centrale soglia ribassata Central sealing for threshold	2	EG-0021		4H
	EA-0315	Tenuta centrale Central sealing	2	EG-0022		4H

* Vedi DIMENSIONI - See dimensions

Portafinestra a due ante con soglia 24431 - Two wings door with threshold 24431

Schema **A/D**

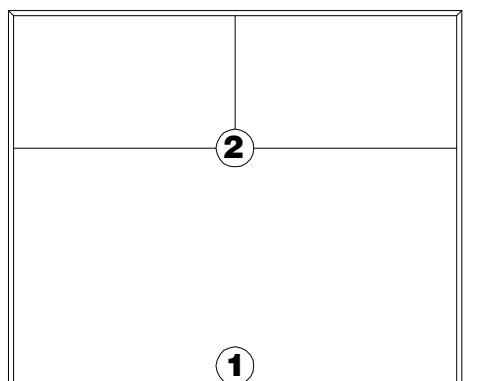
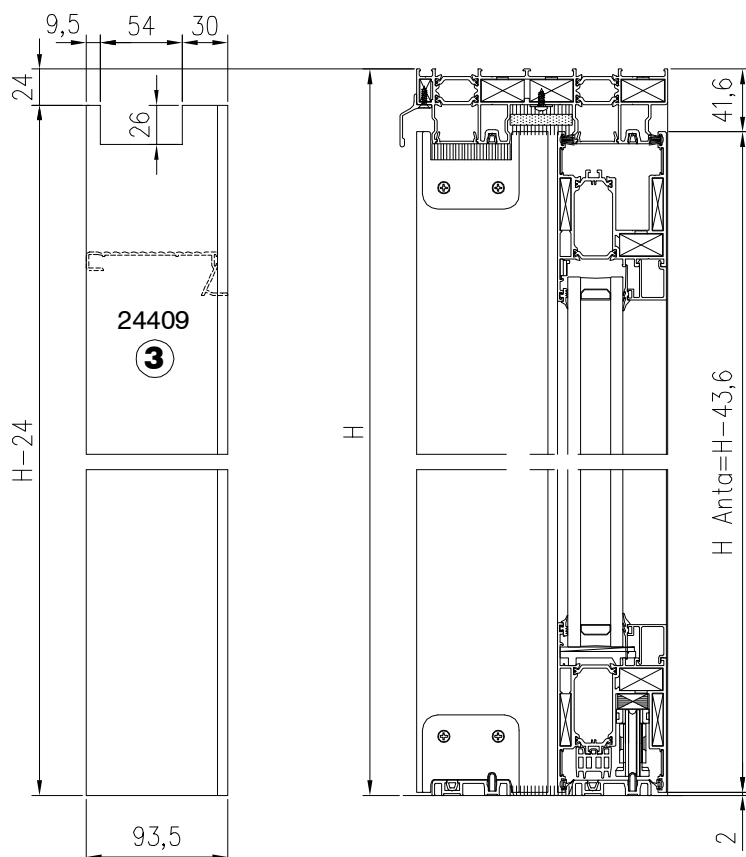


Note-Notes:

Spessore vetro considerato = 36 mm.
For glass with thickness

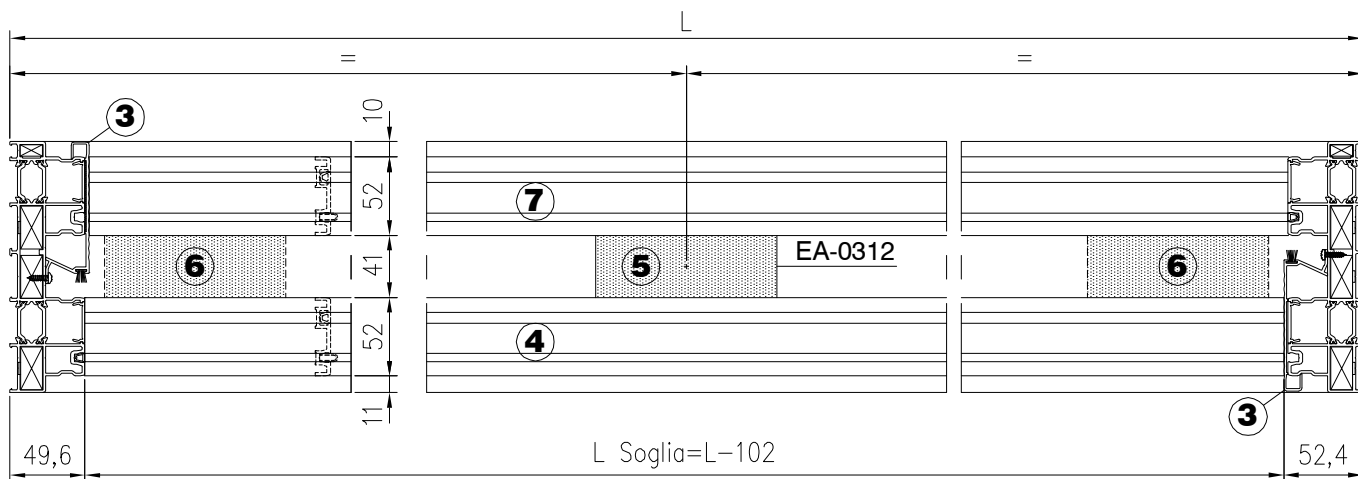
Gioco perimetrale tra profilo e vetro = 7 mm.
Space between glass and profile

Vetri N° 1 pezzo per anta = (L-363) : 2
Glasses N°1 piece for wing = (H-235,5)



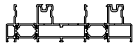
SEQUENZA DI MONTAGGIO

Pos.	Descrizione
1	VERIFICARE il piano della soglia in muratura
2	Fissare il telaio sui 3 lati (verificare il piombo e quota per 24431)
3	Fissare i due rivestimenti del telaio (24409)
4	Fissare la prima soglia 24431 (Attenzione sagoma del profilato)
5	Fissare al centro lo spazzolino (biadesivo)
6	Utilizzare gli spazzolini come distanziali (poi rimuoverli) *
7	Fissare la seconda soglia 24431 e siliconare la parte esterna



N.B.: Soluzione da utilizzare su serramenti posti al riparo dalle intemperie (sotto porticati, ecc.).

Portafinestra a due ante con soglia 24431 - Two wings door with threshold 24431

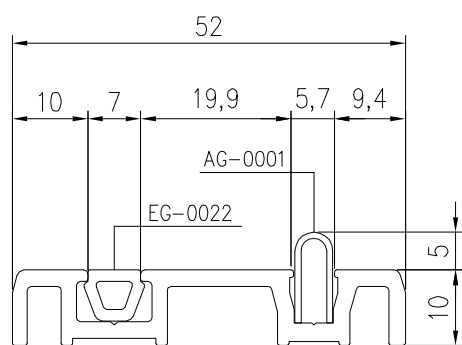
PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation	PROFILATO Profile	N° PEZZI Pieces	DISTINTA DI TAGLIO Preparation
 TT170.04	1 2	L H	 24431	2	L-102
 TT170.06	4 4	L/2+10,4 H-43,6	 16191	4 4	L/2-167,6 H-265,6
 24410	2	** H-43,6	 EG-0010	2	H-43,6
 24409	2	H-24	 EG-0011	2 4	L-96,2 H-59,6
 24411	1	L-48	 AG-0001	2	L-102

PER ACCESSORI E GUARNIZIONI VEDI PAGINA 6.05 - See page 6.05

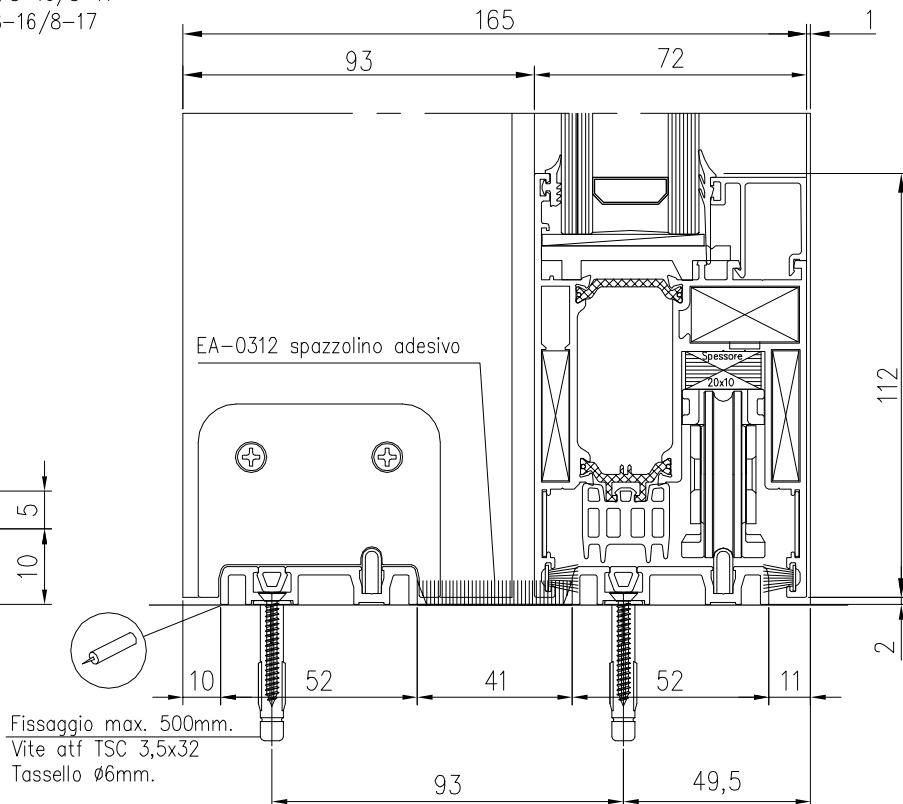
NB: togliere: EG-0015 
 togliere: EG-0016 
 aggiungere: 2L EG-0022 

* SPAZZOLINI EG-0312 A PERDERE

**PER LAVORAZIONE VEDI PAGINE 8-13/8-14/8-16/8-17
 See pages 8-13/8-14/8-16/8-17



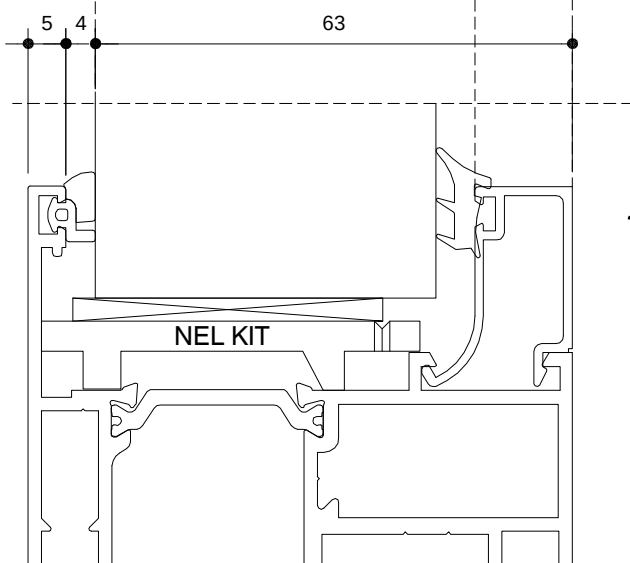
24431



N.B.: Soluzione da utilizzare su serramenti posti al riparo dalle intemperie (sotto porticati, ecc.).

Schema vetrazione anta - Wing glazing diagram

Spessore vetro	Guarnizione interna	Larghezza fermavetro	Tipologie fermavetro	
18	B	37		24557 *
19	B			
20	A			
21	A			
22	B	33		24556 *
23	B			
24	B	31	16197	24528 *
25	B			
26	A			
27	A			
26	B	29	16195	24573 *
27	B			
28	B	27	16193	24572 *
29	B			
30	A			
31	A			
32	B	23	16191	24571 *
33	B			
34	A			
35	A			
35	B	20	22618	24570 *
36	B			
37	A			
38	A			
38	B	17	16189	24569 *
39	B			
40	A			
41	A			
40	B	15	19712	24568 *
41	B			
42	B	13	16186	24567 *
43	B			
44	A			
45	A			



EG-0069

Guarnizione esterna da 4 mm



126-2195

Guarnizione interna da 5÷6 mm

- ★ Questi fermavetri vanno utilizzati con la guarnizione EG-0052
- Campi utilizzo:
- inferiore a 1000mm ÷ 2 pezzi
 - tra 100mm e 2000mm ÷ 3 pezzi
 - tra 2000mm e 3000mm ÷ 4 pezzi
- Confezione sacchetti da 100pz. di lunghezza 50mm



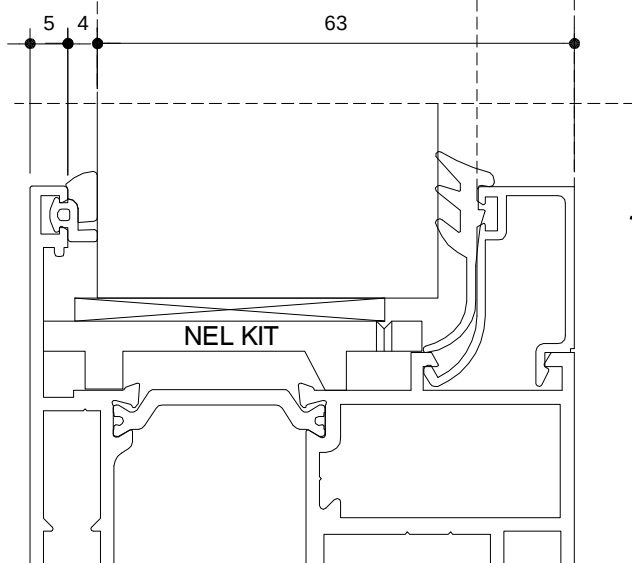
126-2197

Guarnizione interna da 7÷8 mm

Le tabelle per la vetrazione sono state realizzate considerando le quote nominali. Le dimensioni reali della vetrazione e dei profili, dipendenti dalle tolleranze di produzione, devono essere sempre verificate. Una differente scelta della guarnizione cingivetro interna puo' correggere l'eventuale discordanza tra quote nominali e reali.

Schema vetrazione anta - Wing glazing diagram

Spessore vetro	Guarnizione interna	Larghezza fermavetro	Tipologie fermavetro	
18	A	37		24557 *
19	A			
22	A	33		24556 *
23	A			
24	A	31	16197	24528 *
25	A			
26	A	29	16195	24573 *
27	A			
28	A	27	16193	24572 *
29	A			
32	A	23	16191	24571 *
33	A			
35	A	20	22618	24570 *
36	A			
38	A	17	16189	24569 *
39	A			
40	A	15	19712	24568 *
41	A			
42	A	13	16186	24567 *
43	A			



EG-0069

Guarnizione esterna
da 4 mm

- ★ Questi fermavetri vanno utilizzati con la guarnizione EG-0052
Campi utilizzo:
- inferiore a 1000mm ÷ 2 pezzi
- tra 1000mm e 2000mm ÷ 3 pezzi
- tra 2000mm e 3000mm ÷ 4 pezzi
Confezione sacchetti da 100pz. di lunghezza 50mm



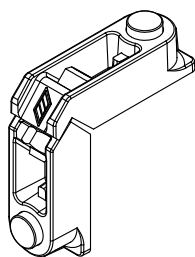
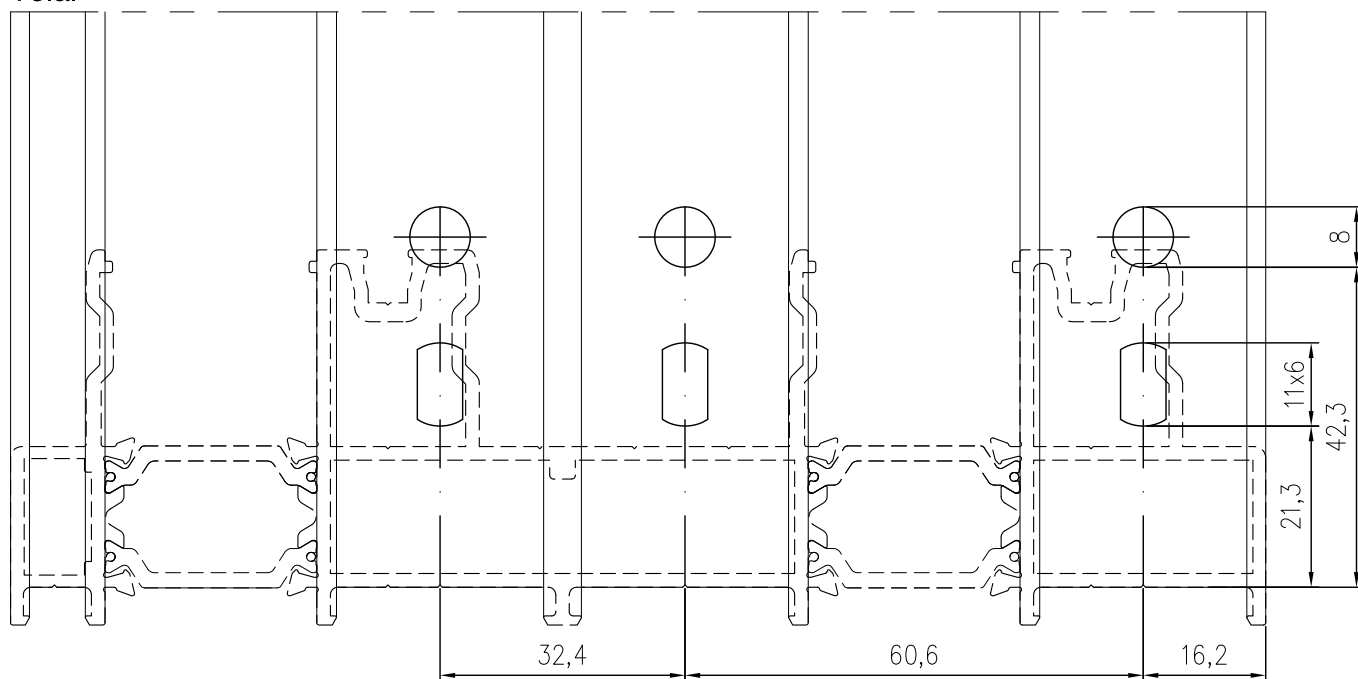
126-20157

Guarnizione interna
da 6÷7 mm

Le tabelle per la vetrazione sono state realizzate considerando le quote nominali. Le dimensioni reali della vetrazione e dei profili, dipendenti dalle tolleranze di produzione, devono essere sempre verificate. Una differente scelta della guarnizione cingivetro interna può correggere l'eventuale discordanza tra quote nominali e reali.

Lavorazioni - Tooling

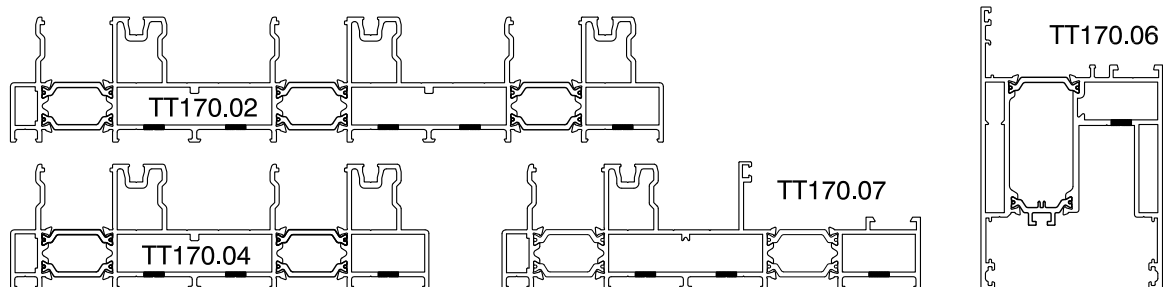
Telai



Squadretta a bottone nel Kit

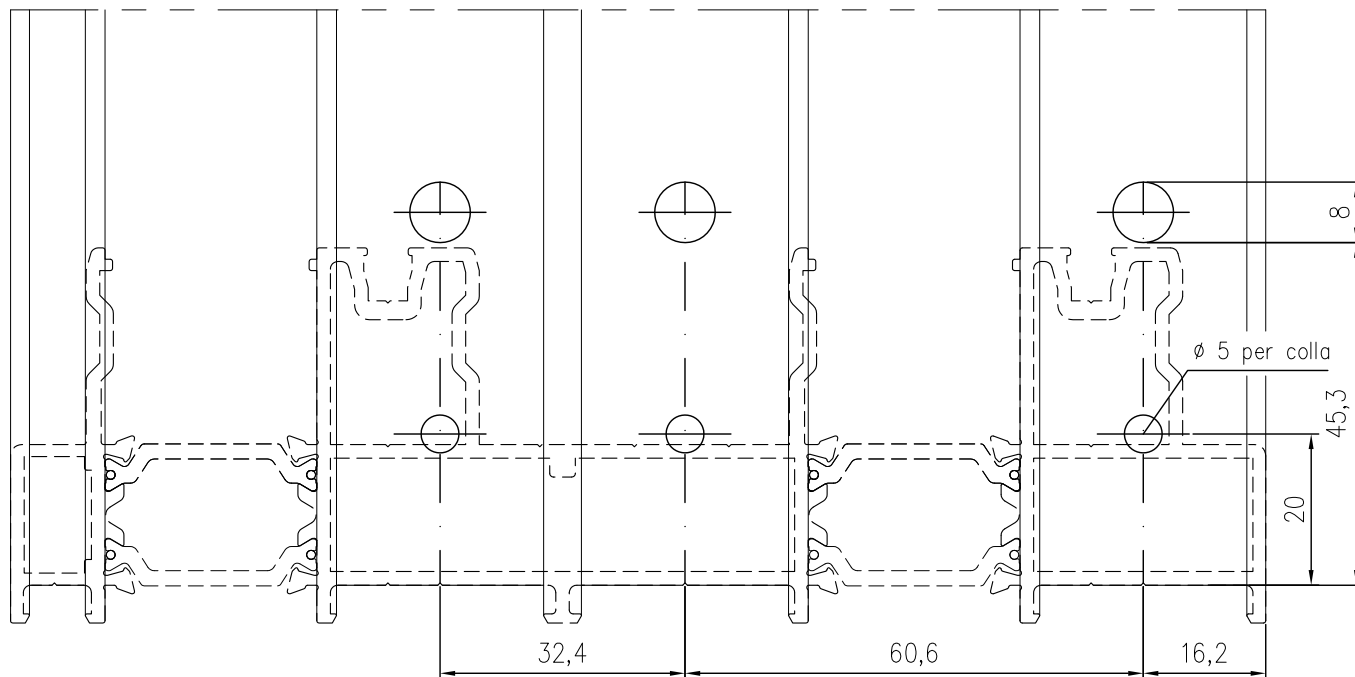


EP-0004



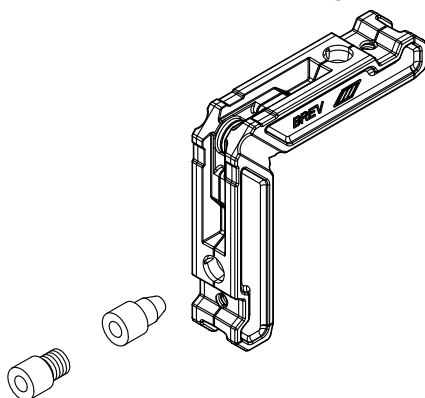
Lavorazioni - Tooling

Telai



Nel Kit
Vite VIL M5x14 Ø 8 mm.

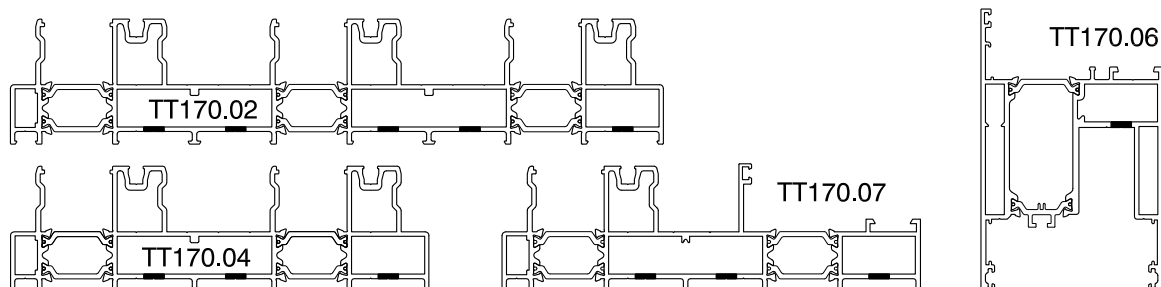
Nel Kit
Spina Ø8 x 14 sagomata



Squadretta avvitare/spinare nel Kit

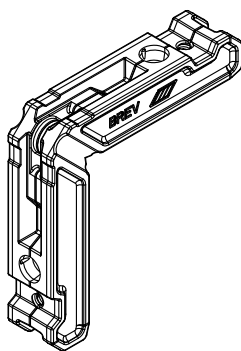
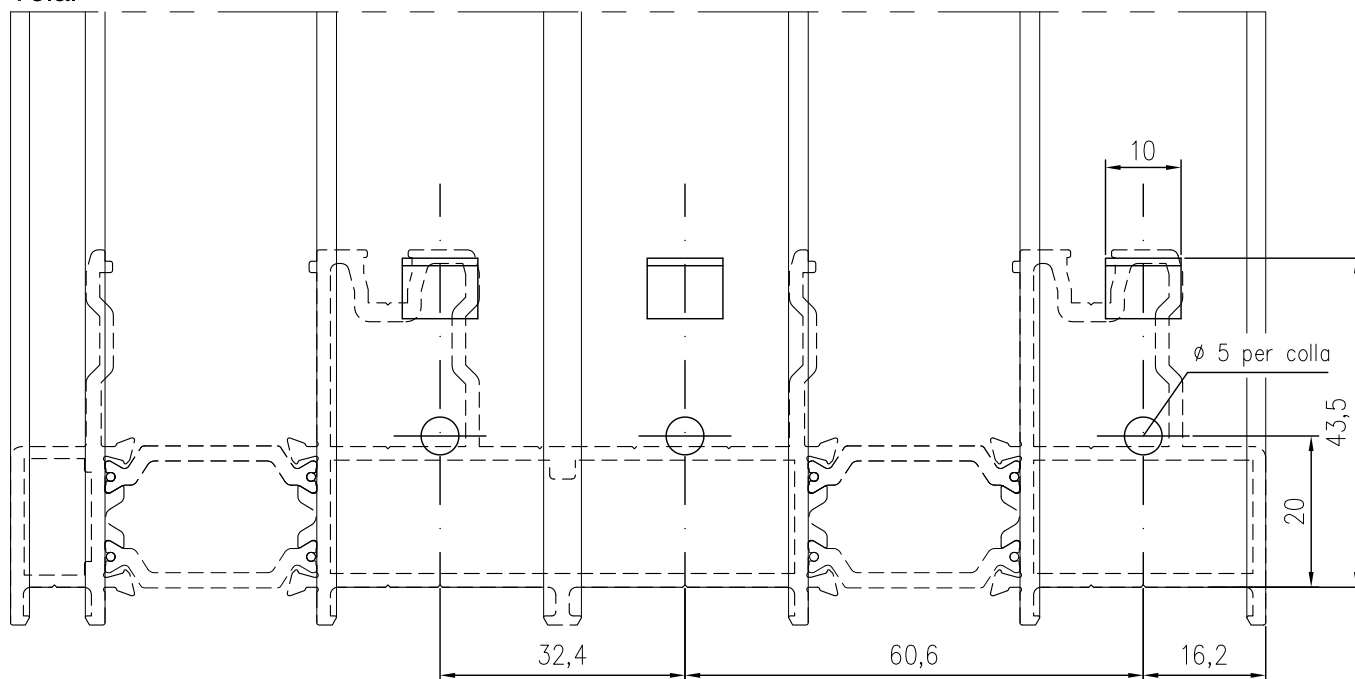


EP-0004



Lavorazioni - Tooling

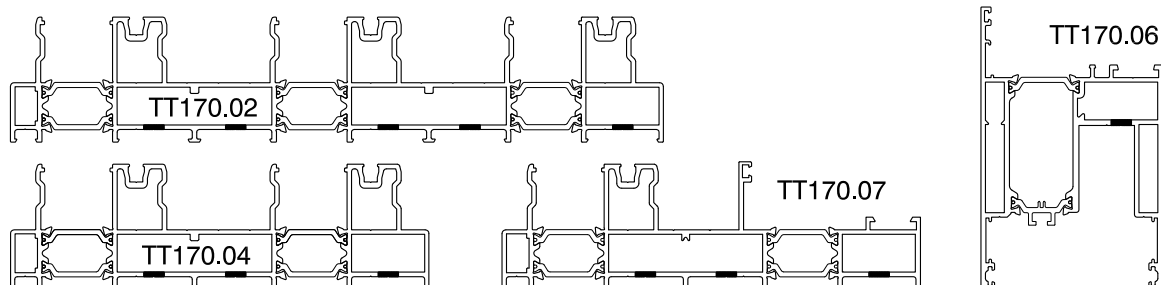
Telai



Squadretta per cianfrinare nel Kit

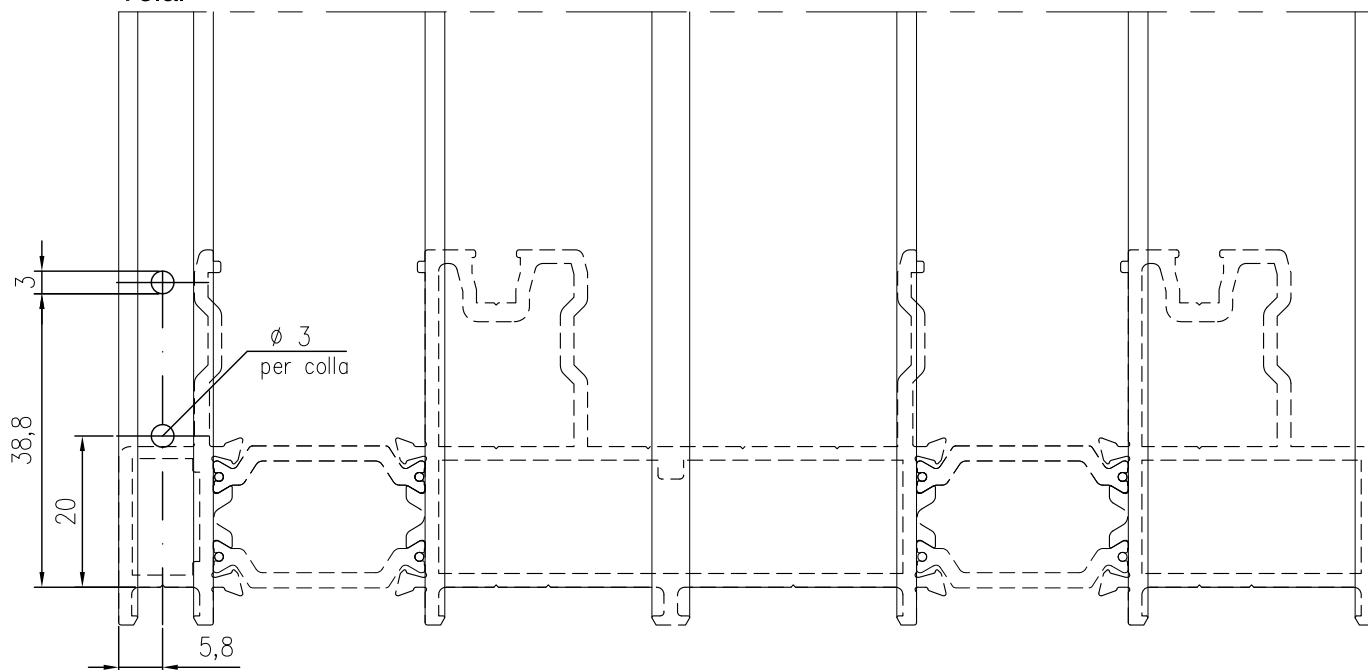


EP-0004



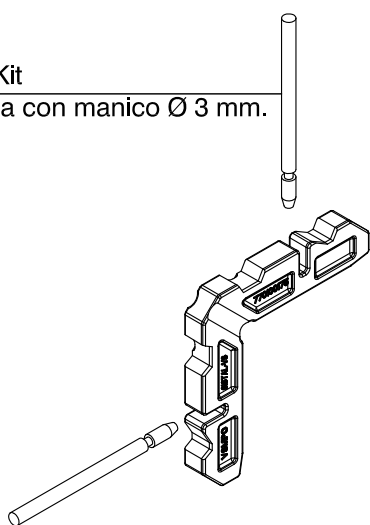
Lavorazioni - Tooling

Telai



Nel Kit

Spina con manico $\varnothing 3$ mm.



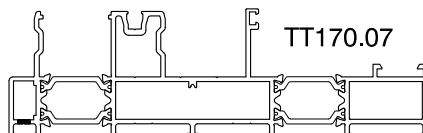
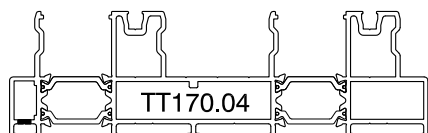
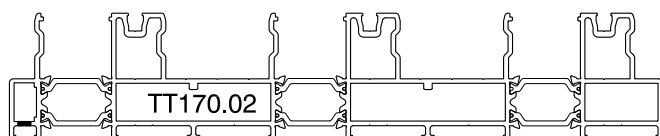
Squadretta per spinare nel Kit



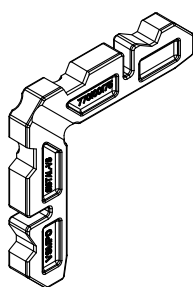
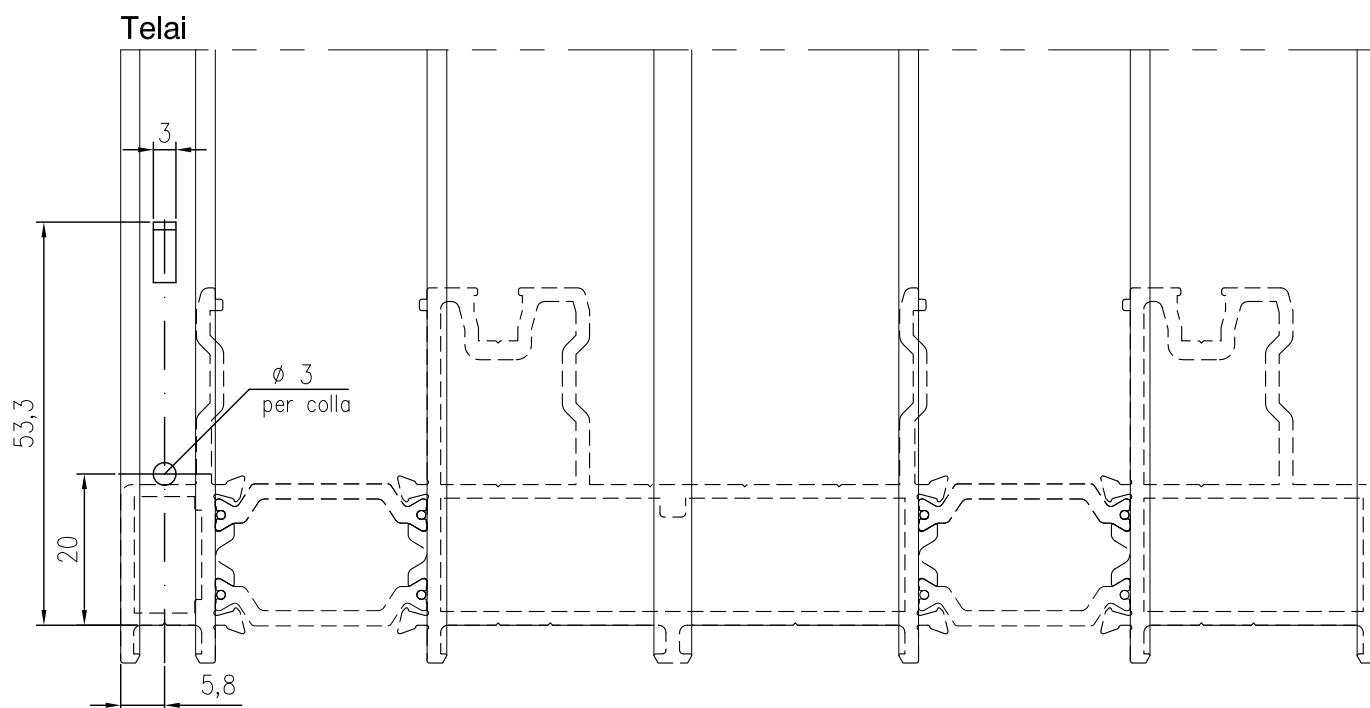
EP-0004

NOTA BENE:

Per facilitare l'inserimento della colla, riprendere il foro e portarlo a $\varnothing 5$ mm.



Lavorazioni - Tooling

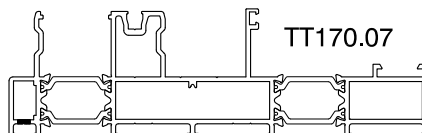
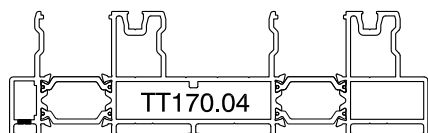
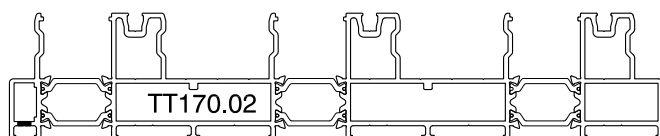


EP-0004

Squadretta per cinfrinare nel Kit

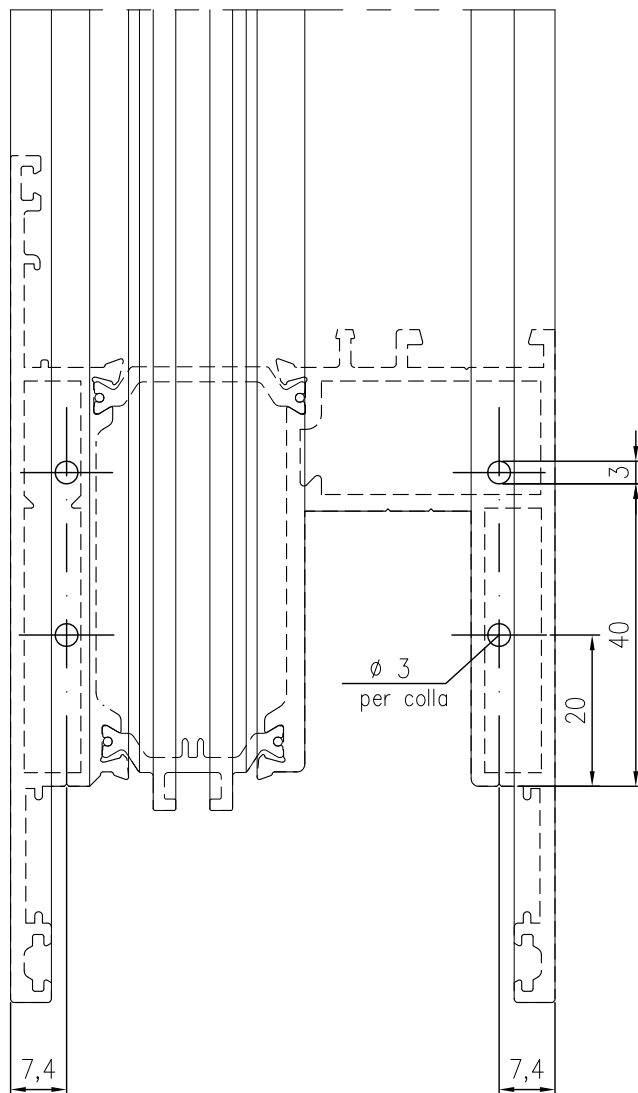
NOTA BENE:

Per facilitare l'inserimento della colla, riprendere il foro e portarlo a Ø 5mm.

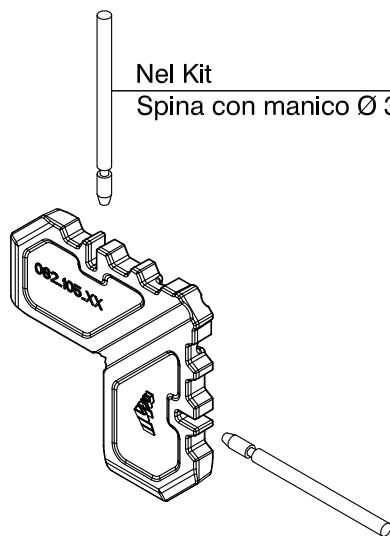


Lavorazioni - Tooling

Ante



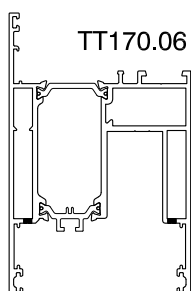
Nel Kit
Spina con manico Ø 3 mm.



Squadretta per spinare nel Kit



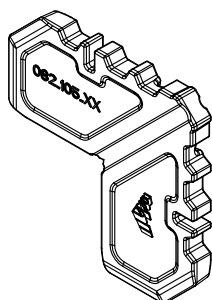
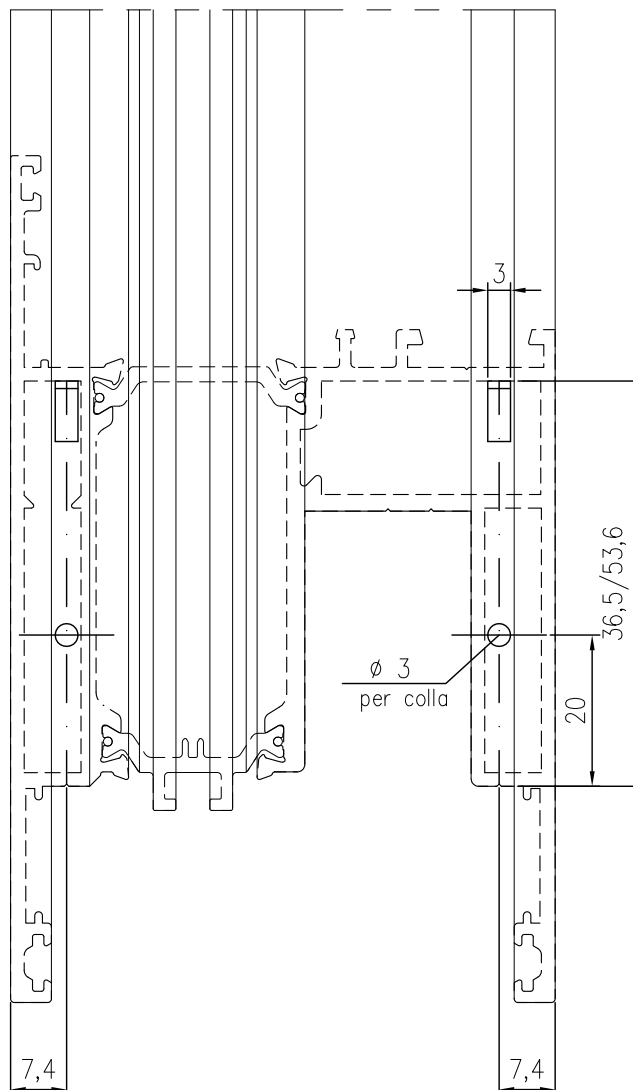
EP-0004



NOTA BENE:
Per facilitare l'inserimento della colla, riprendere il foro e portarlo a Ø 5 mm. (foratura inclinata).

Lavorazioni - Tooling

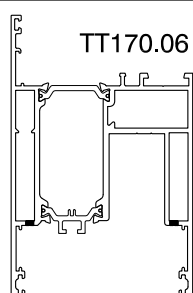
Ante



Squadretta per cianfrinare nel Kit



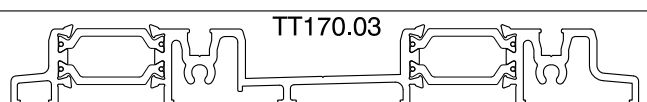
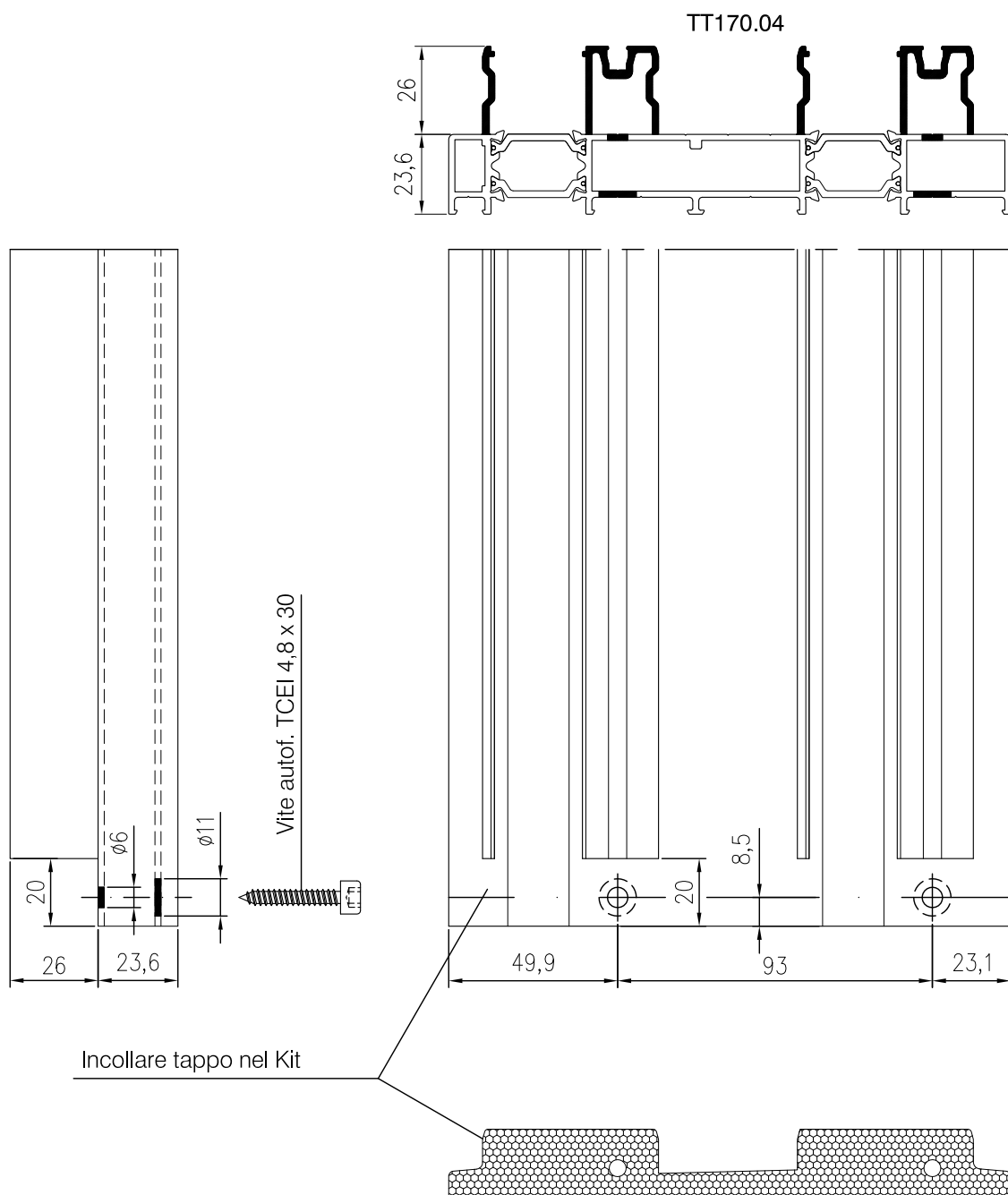
EP-0004

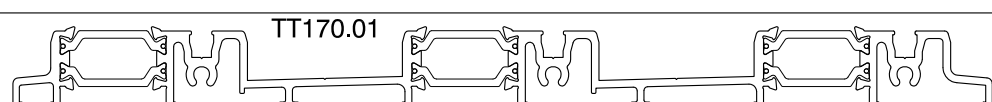


NOTA BENE:

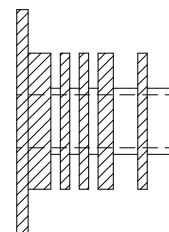
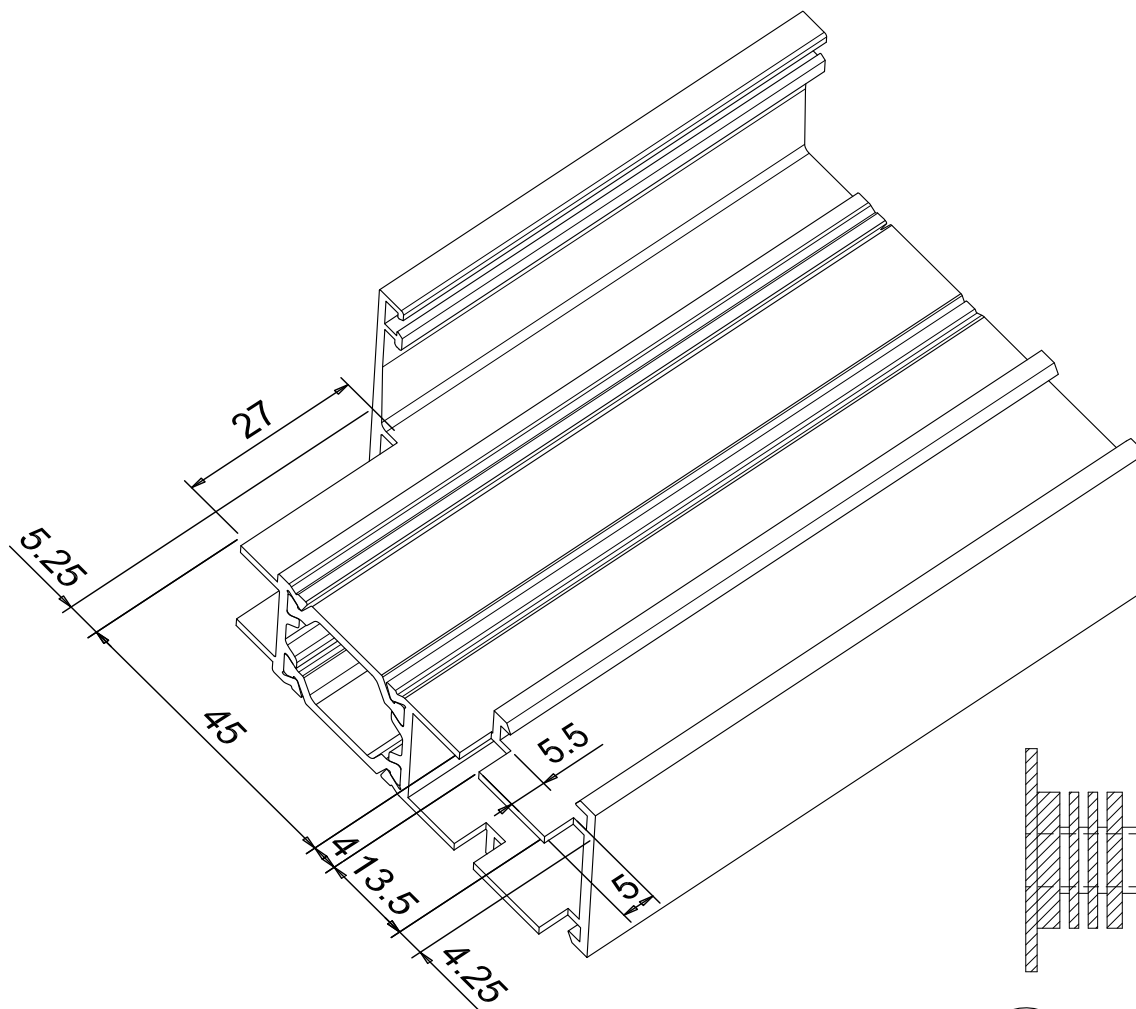
Per facilitare l'inserimento della colla, riprendere il foro e portarlo a $\varnothing 5$ mm. (foratura inclinata).

Lavorazioni - Tooling

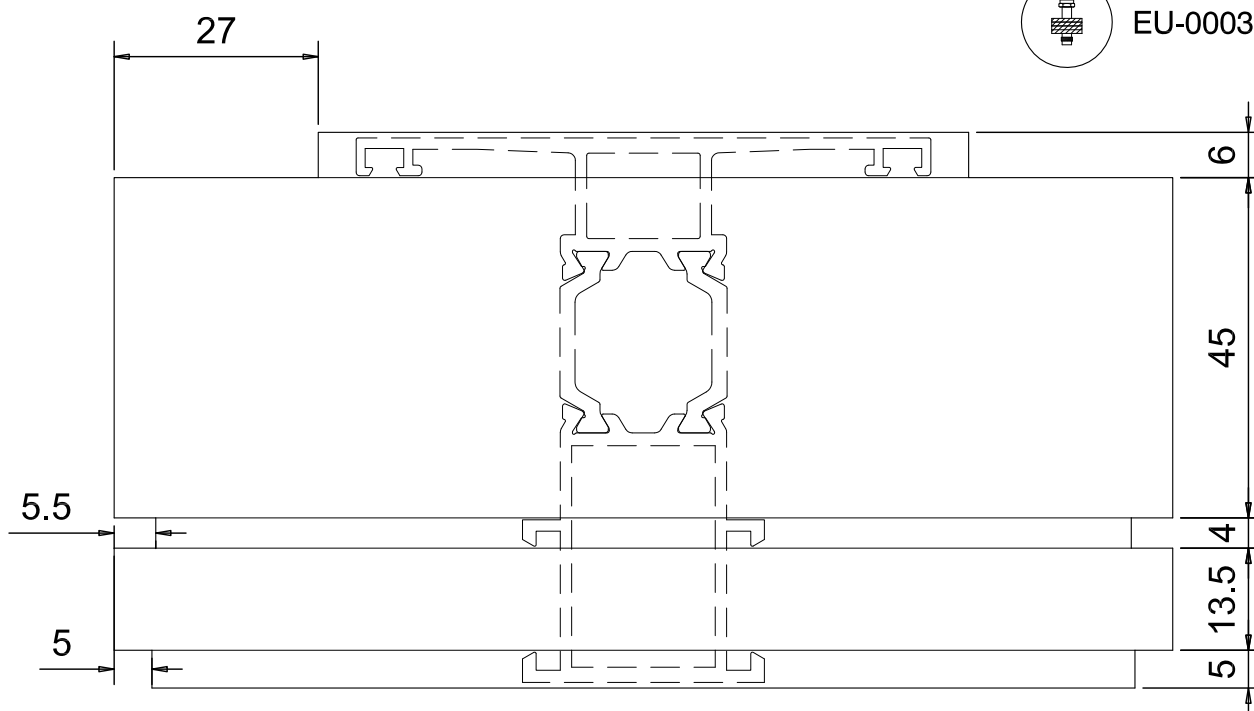




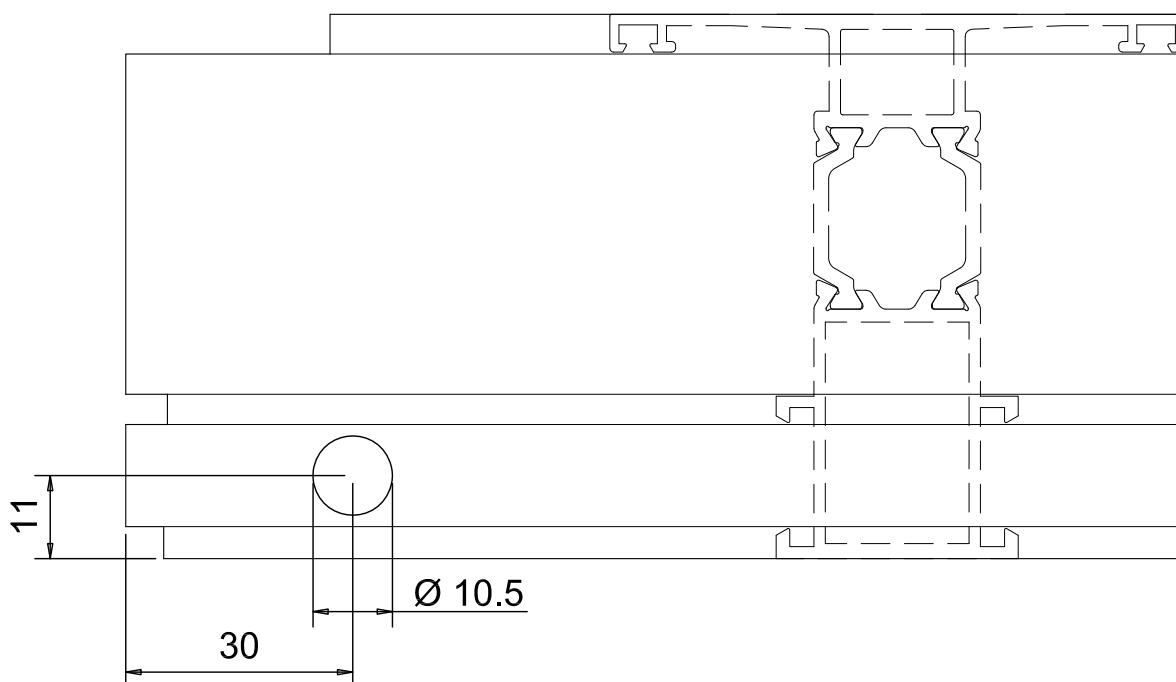
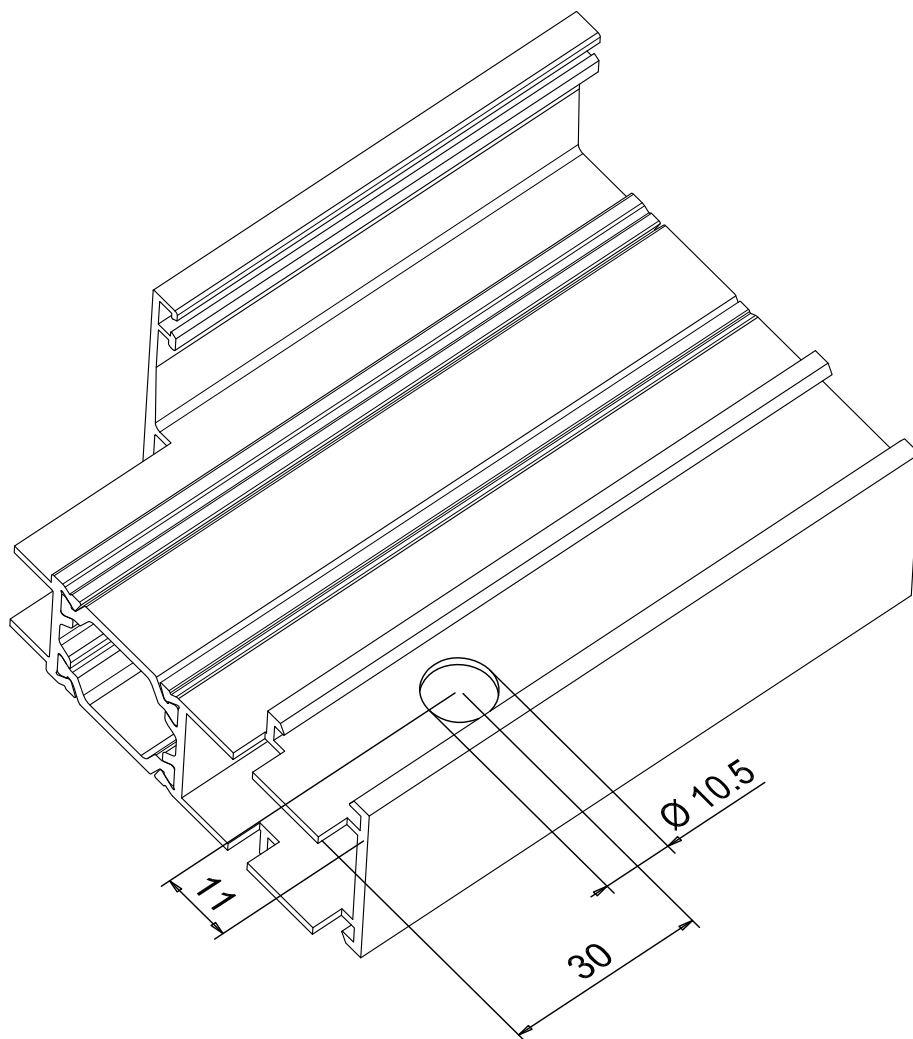
Lavorazioni - Tooling



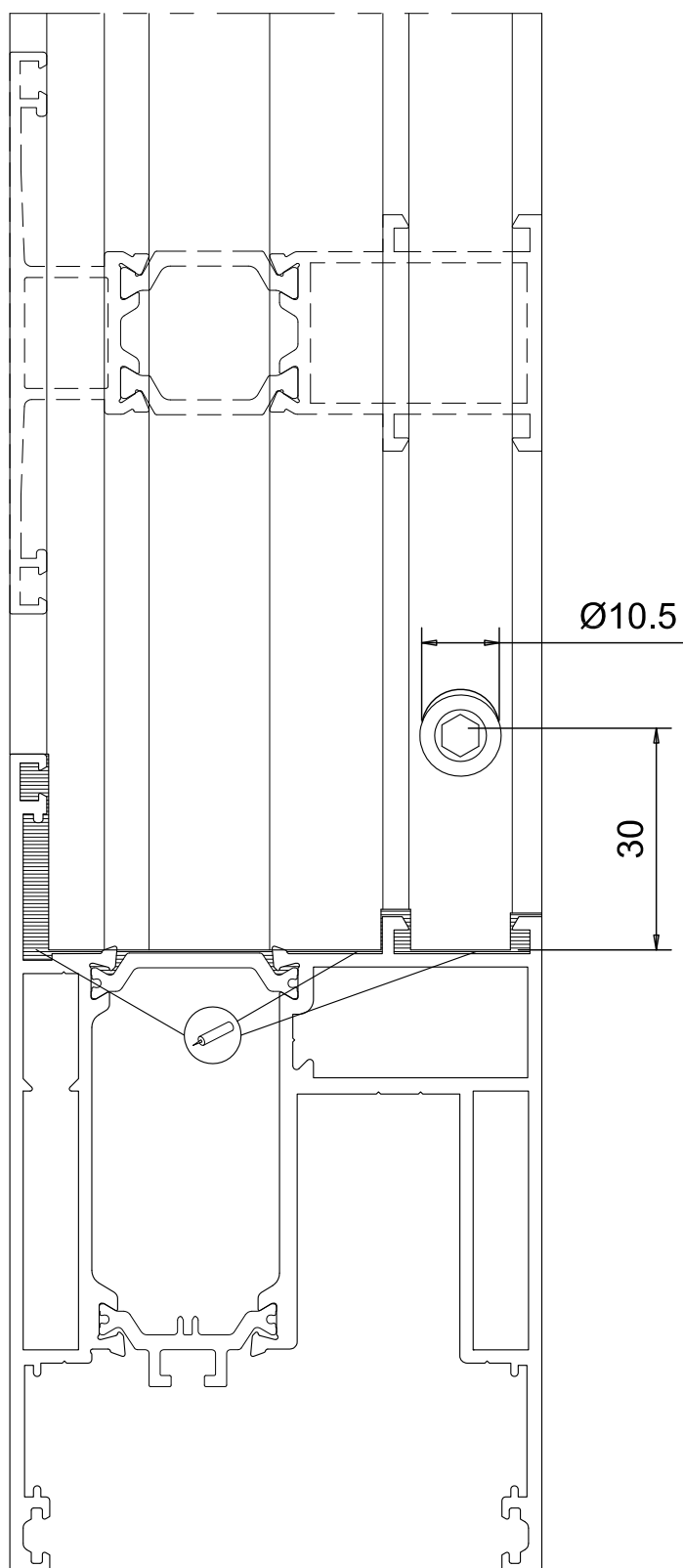
EU-0003



Lavorazioni - Tooling

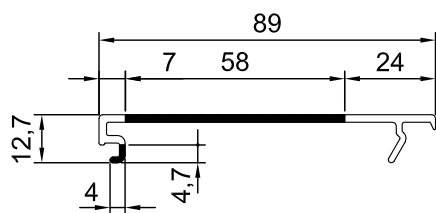


Lavorazioni - Tooling



Codice Profilo Trasverso	Codice Cavallotto Interno	Codice Cavallotto Esterno
TT78-33	EA-0031	174-1591
TT78-34	EA-0030	174-1591

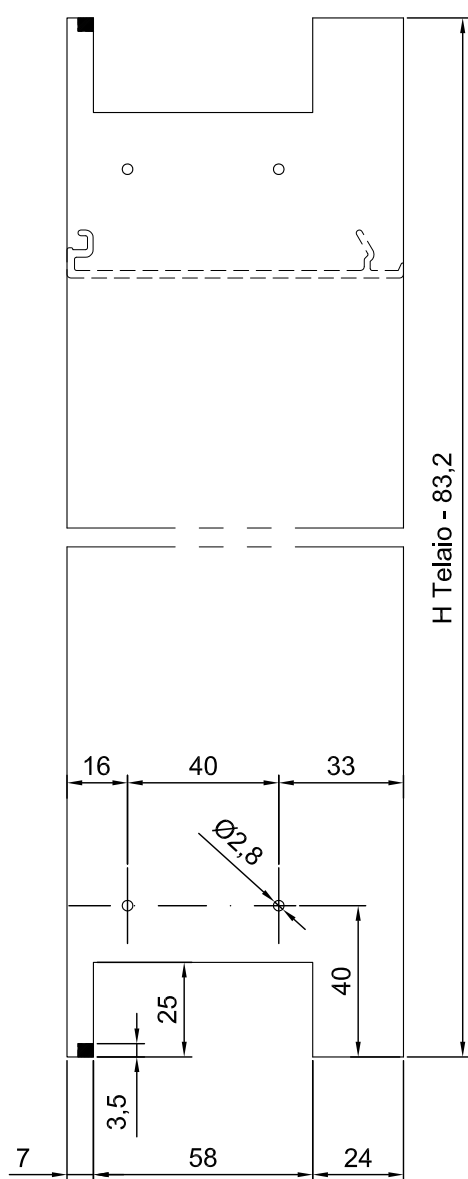
Lavorazioni - Tooling



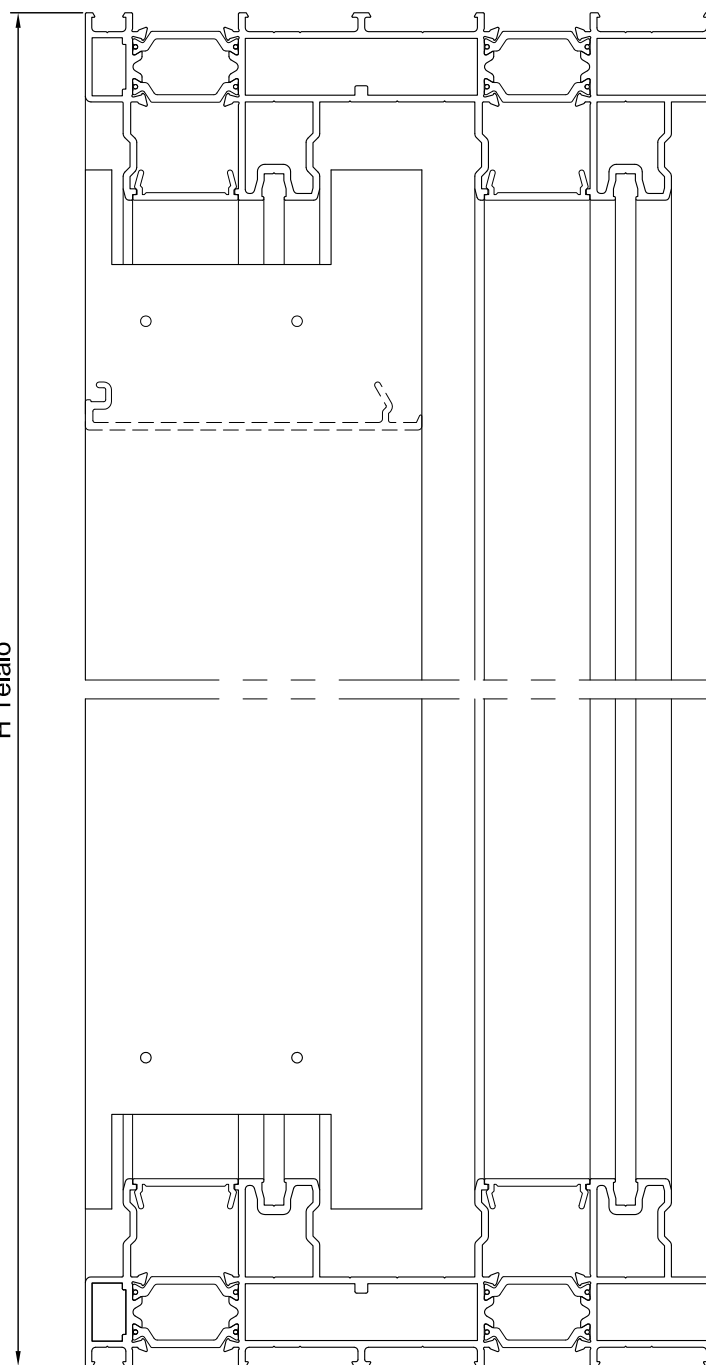
24410



EP-0004

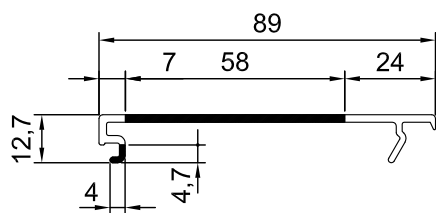


H Telaio



TT170.04

Lavorazioni - Tooling

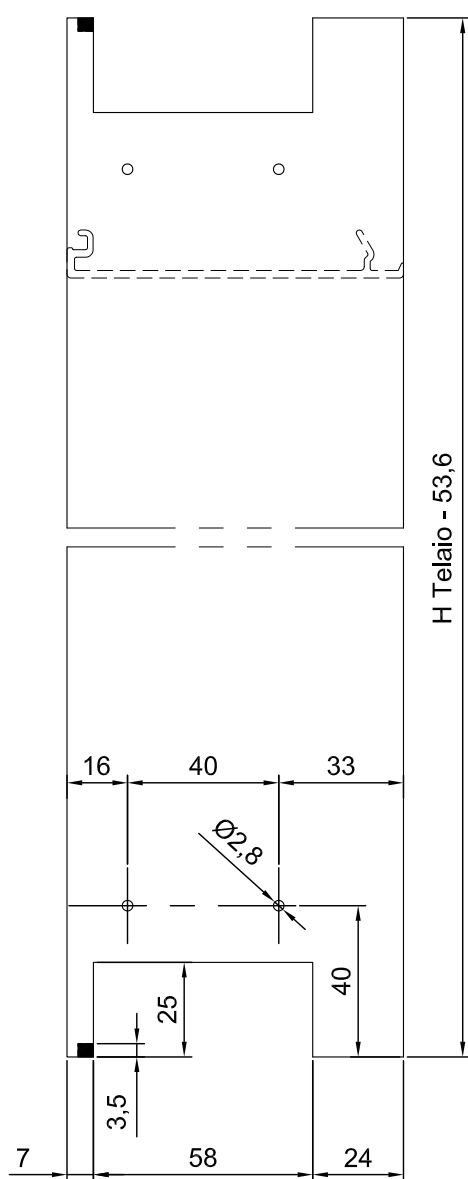


24410

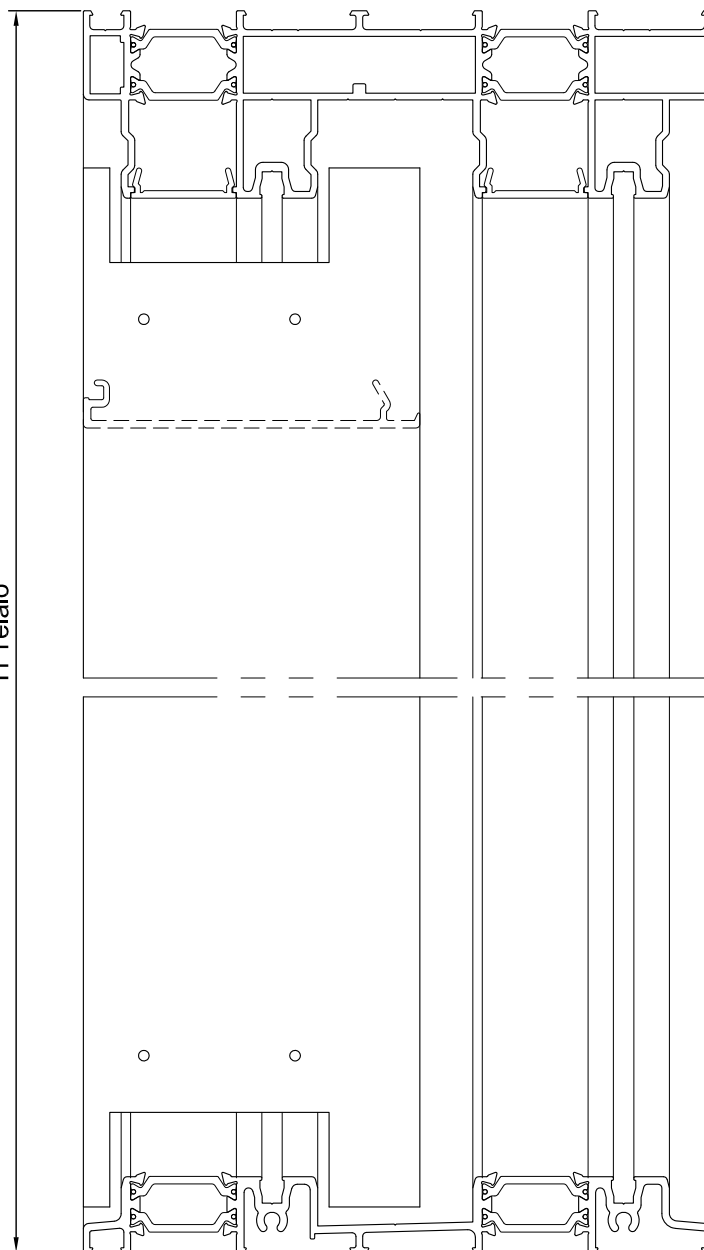


art. EP-0004

TT170.04

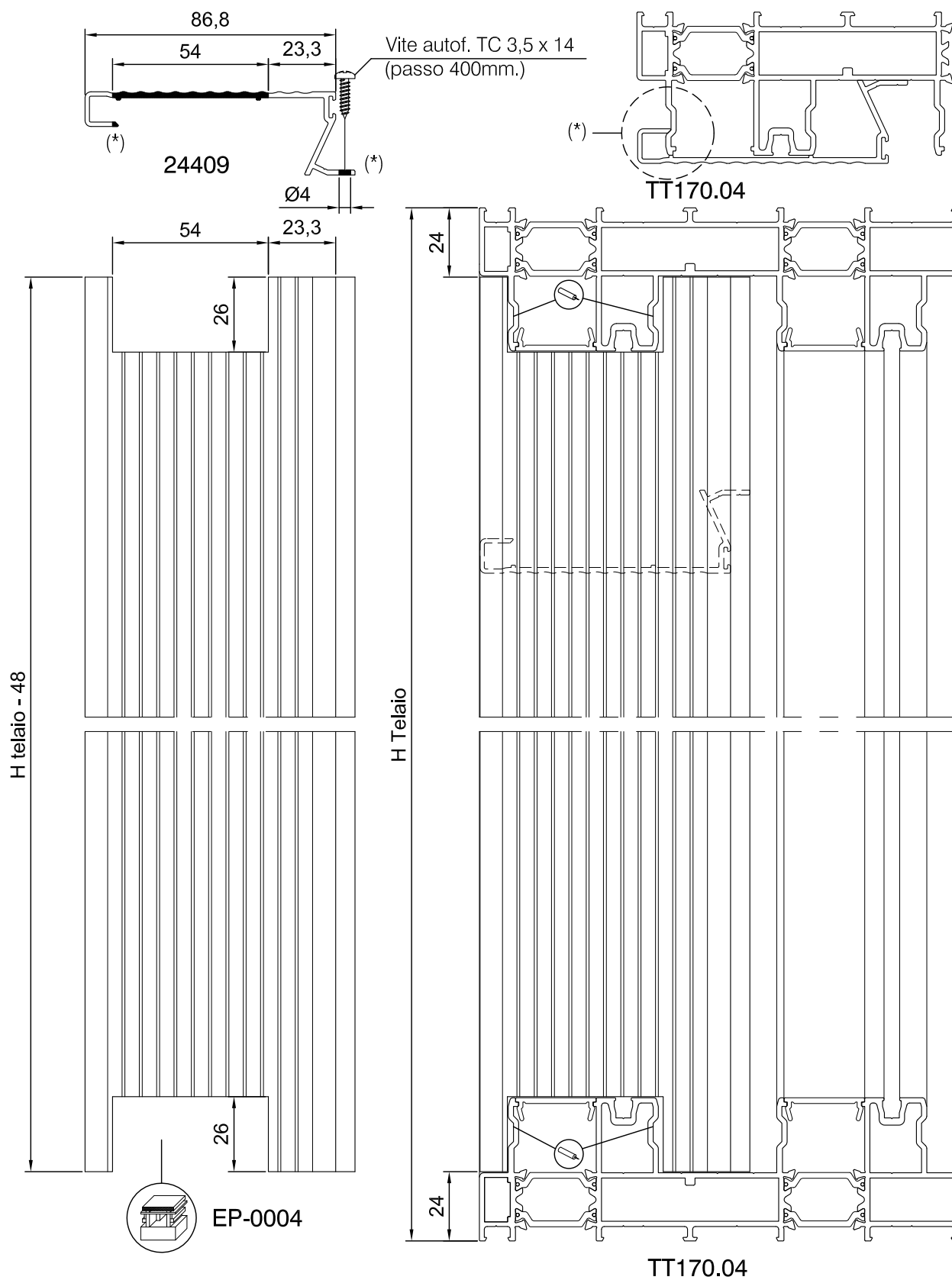


H Telaio

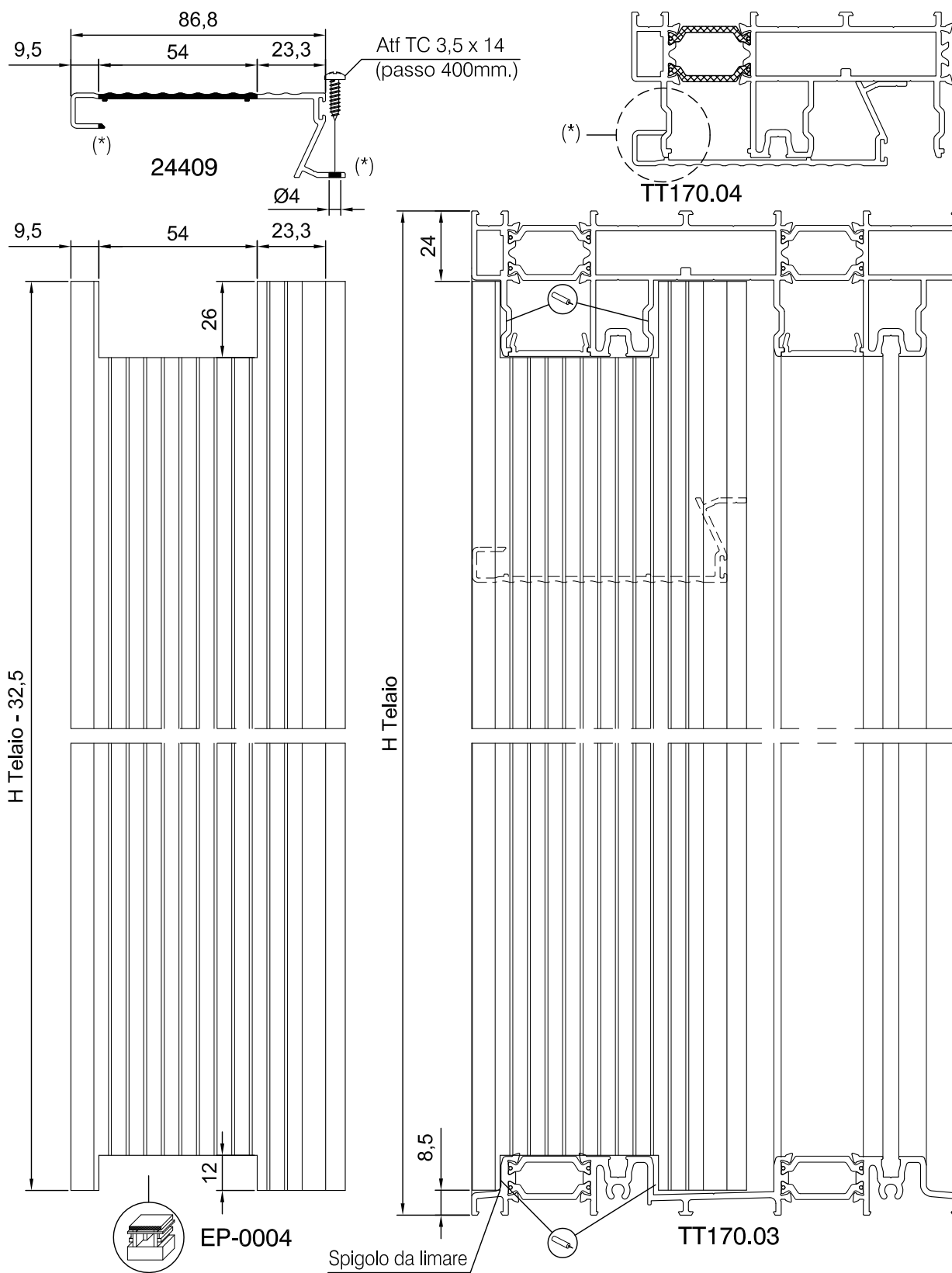


TT170.03

Lavorazioni - Tooling



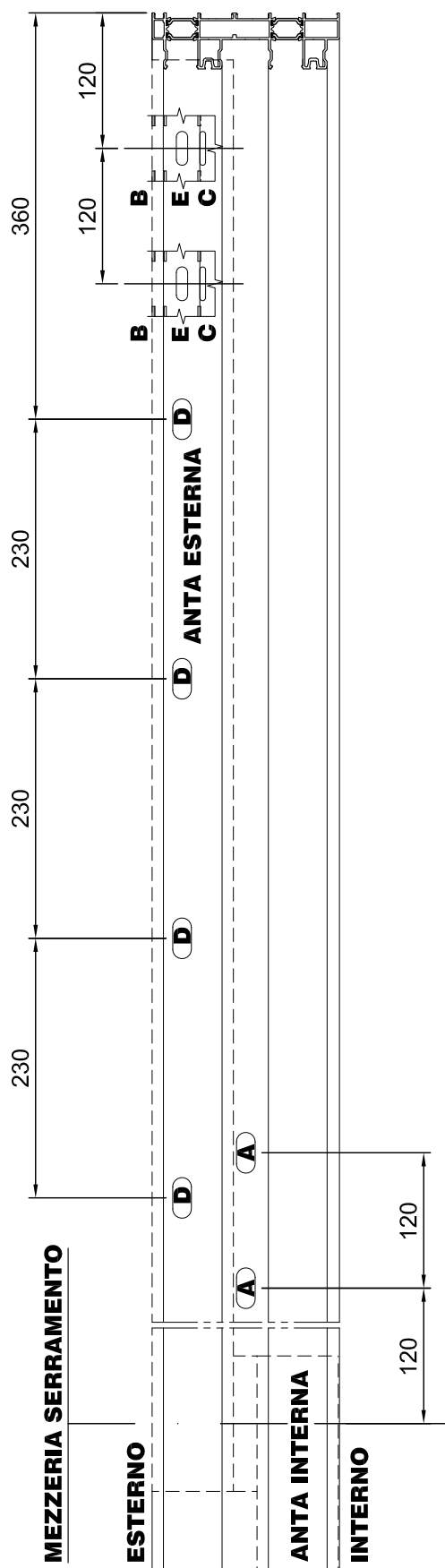
Lavorazioni - Tooling



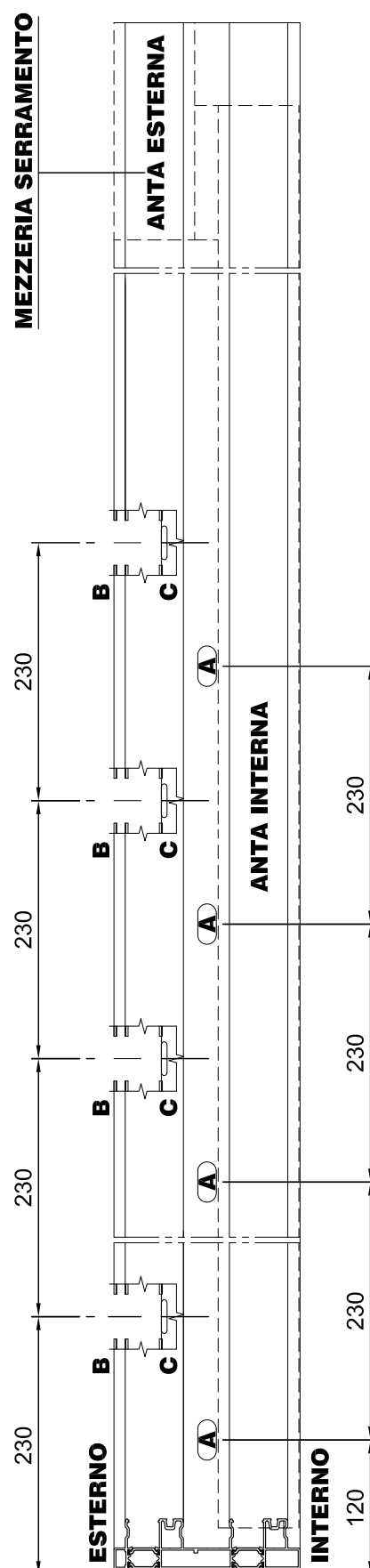
(*) Prima di effettuare il foro, per il fissaggio, accertarsi che il dentino posteriore sia agganciato al telaio.
Before drilling holes for fixing, make sure that the rear tooth is attached to the frame.

Lavorazioni - Tooling

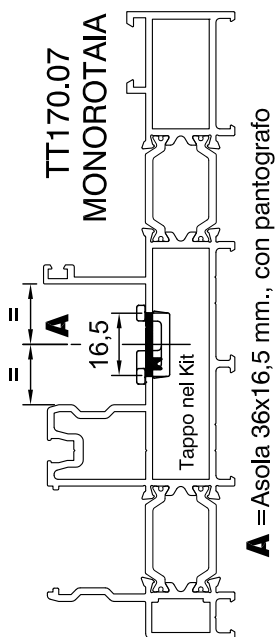
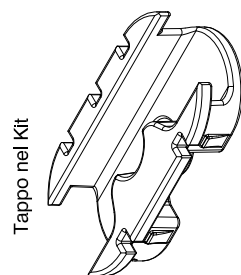
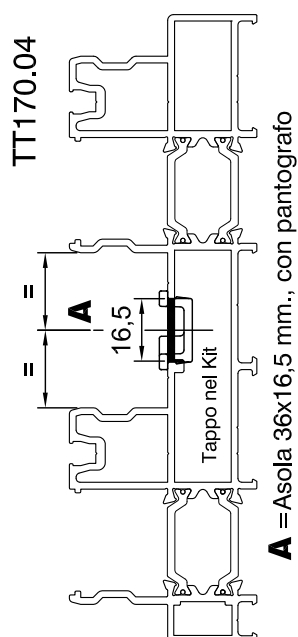
LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA ESTERNA



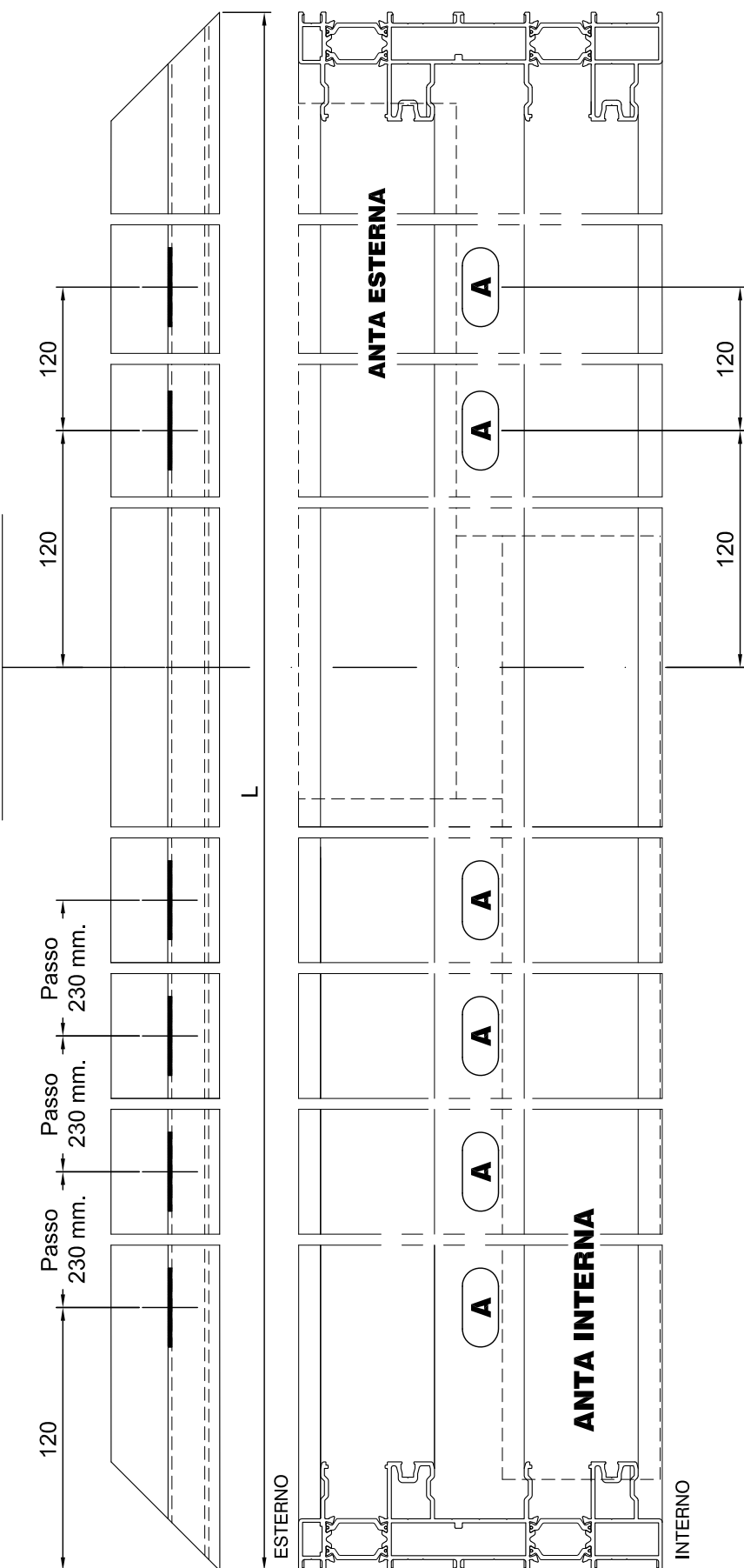
LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA INTERNA



SCARICO ACQUA SUPERIORE TELAI LATO ANTA INTERNA ED ESTERNA

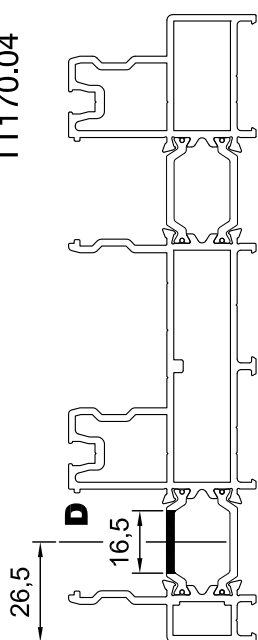


MEZZERIA SERRAMENTO

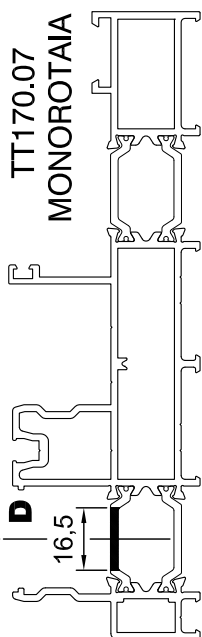


SCARICO ACQUA SUPERIORE TELAI LATO ANTA ESTERNA

TT170.04



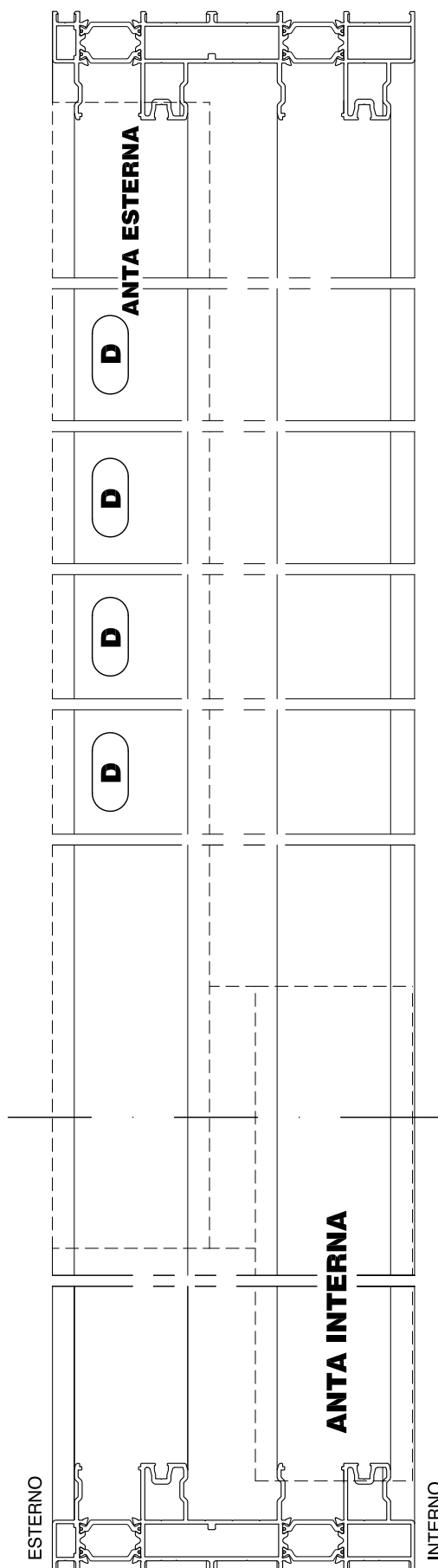
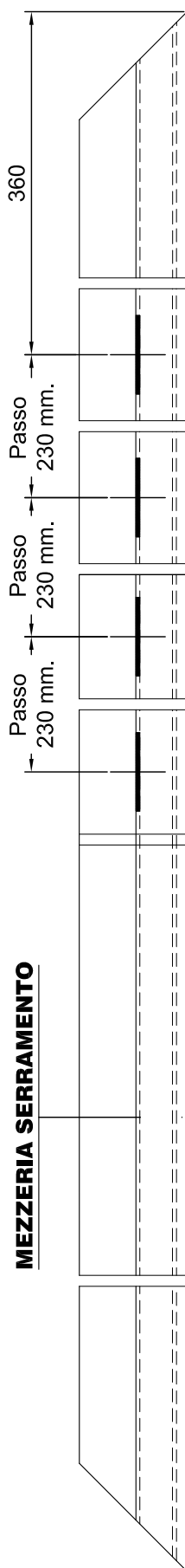
D = Asola 36x16,5 mm., con pantografo



TT170.07
MONOROTAIA

D = Asola 36x16,5 mm., con pantografo

MEZZERIA SERRAMENTO



ANTA ESTERNA

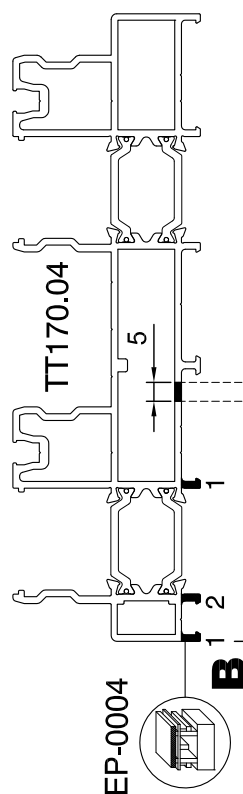
ANTA INTERNA

ESTERNO

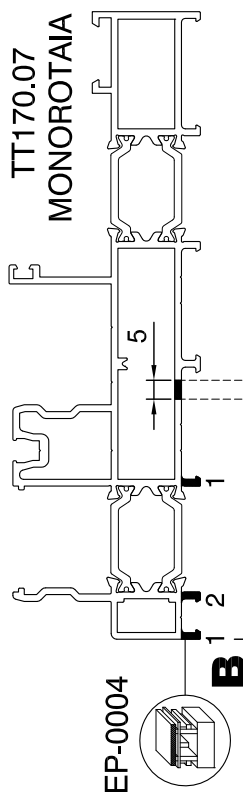
INTERNO

Lavorazioni - Tooling

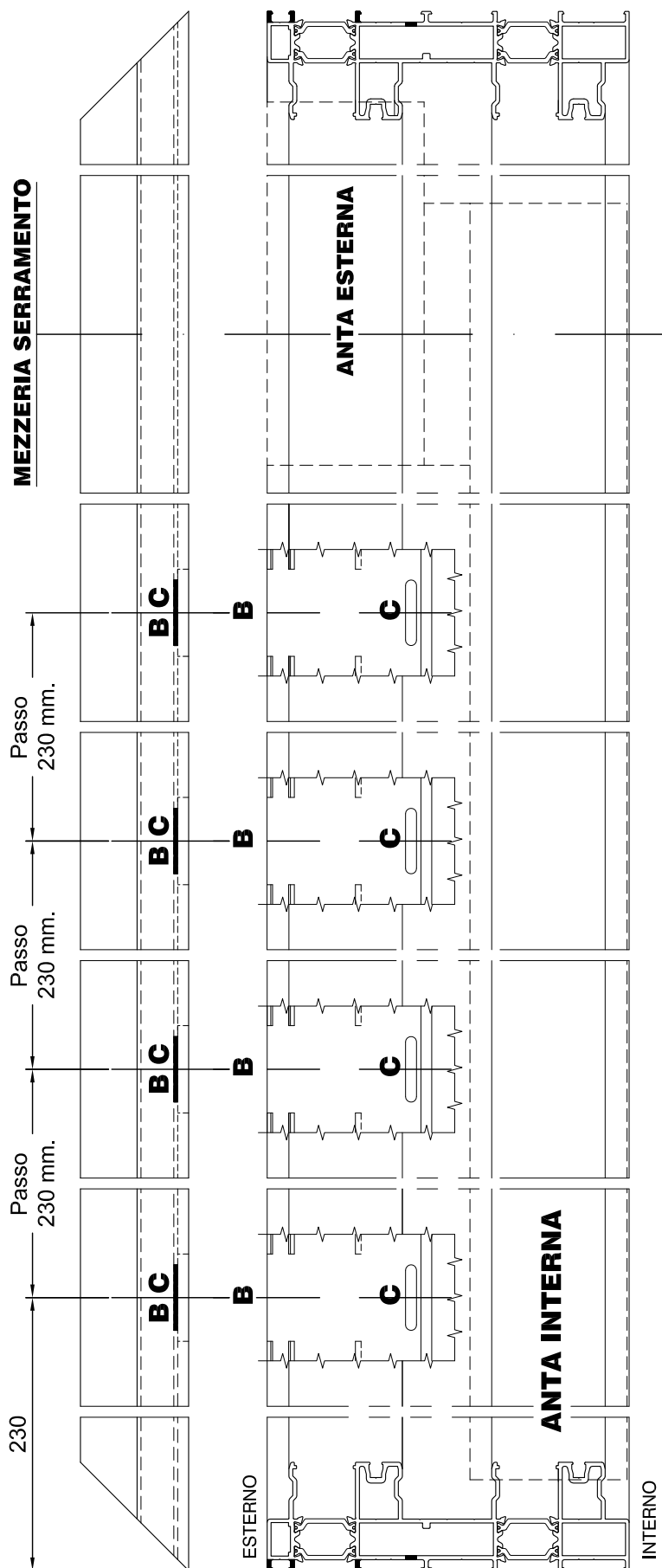
SCARICO ACQUA INFERIORE TELAI LATO ANTA INTERNA



C=Asola 30x5 mm., con pantografo
B=Asola 40x5 mm., con punzonatrice
(asportare alette 1-2)

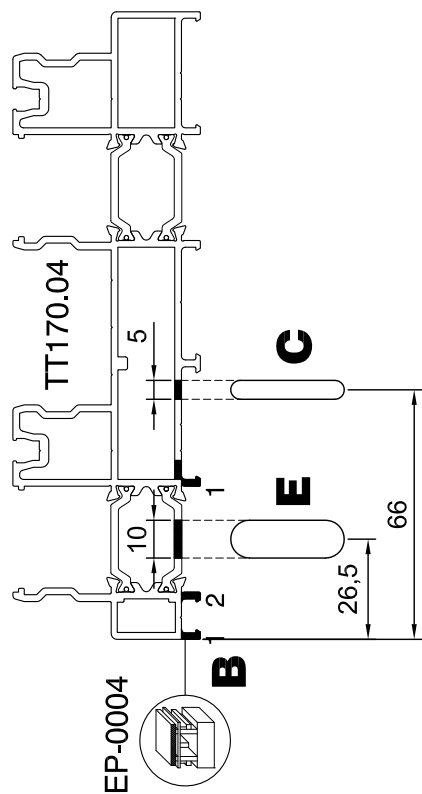


C=Asola 30x5 mm., con pantografo
B=Asola 40x5 mm., con punzonatrice
(asportare alette 1-2)

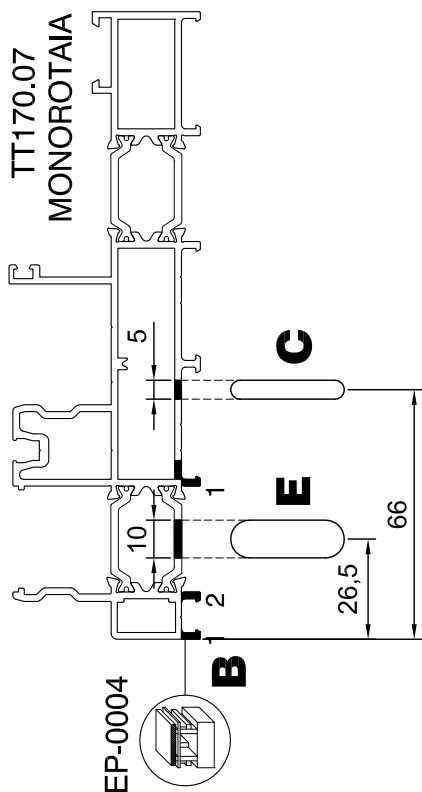


Lavorazioni - Tooling

SCARICO ACQUA INFERIORE TELAI LATO ANTA ESTERNA



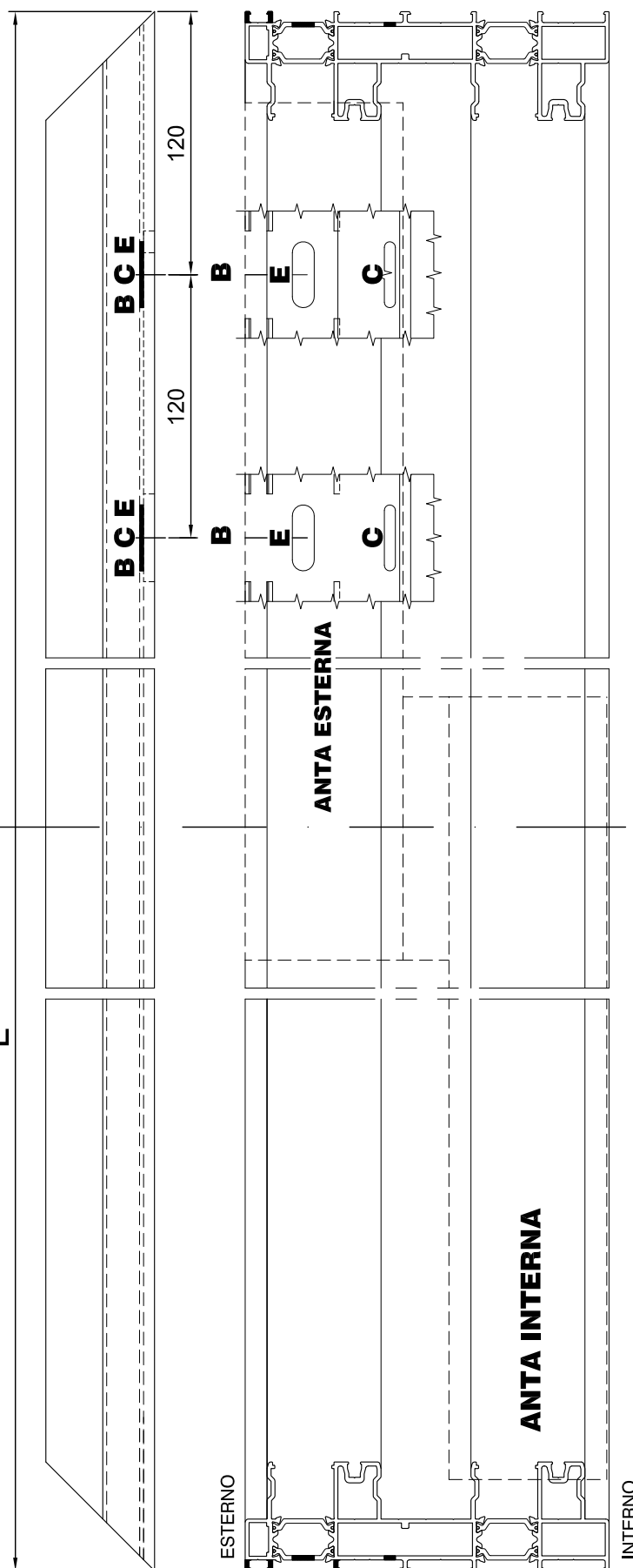
C=Asola 30x5 mm., con pantografo
E=Asola 30x10 mm., con pantografo
B=Asola 40x5 mm., con punzonatrice
 (asportare alette 1-2)



C=Asola 30x5 mm., con pantografo
E=Asola 30x10 mm., con pantografo
B=Asola 40x5 mm., con punzonatrice
 (asportare alette 1-2)

MEZZERIA SERRAMENTO

L

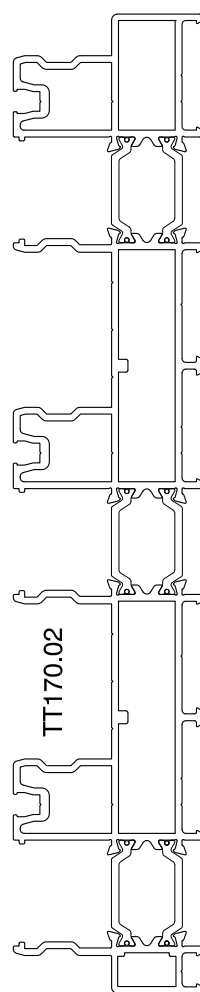


ESTERNO

INTERNO

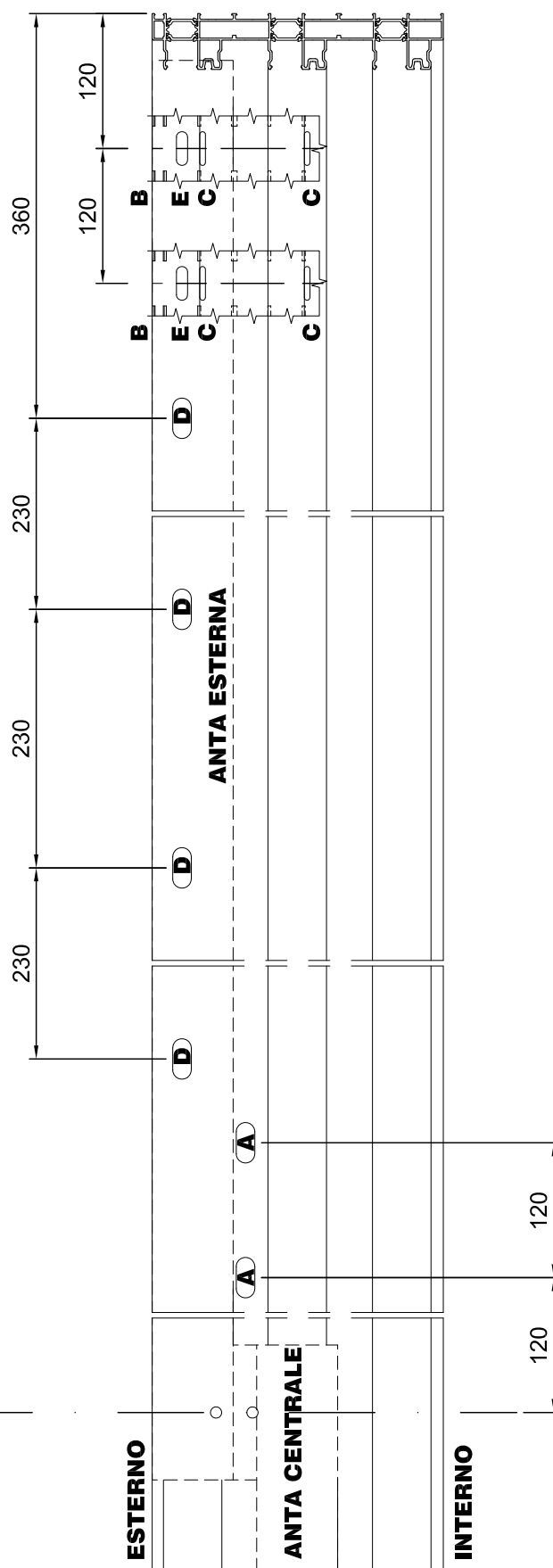
INTERNO

SCARICO ACQUA INFERIORE TELAI TRE VIE



LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA ESTERNA

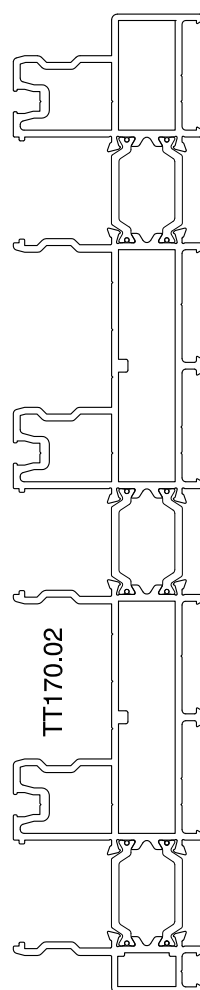
SORMONTO ANTE SCORREVOLI



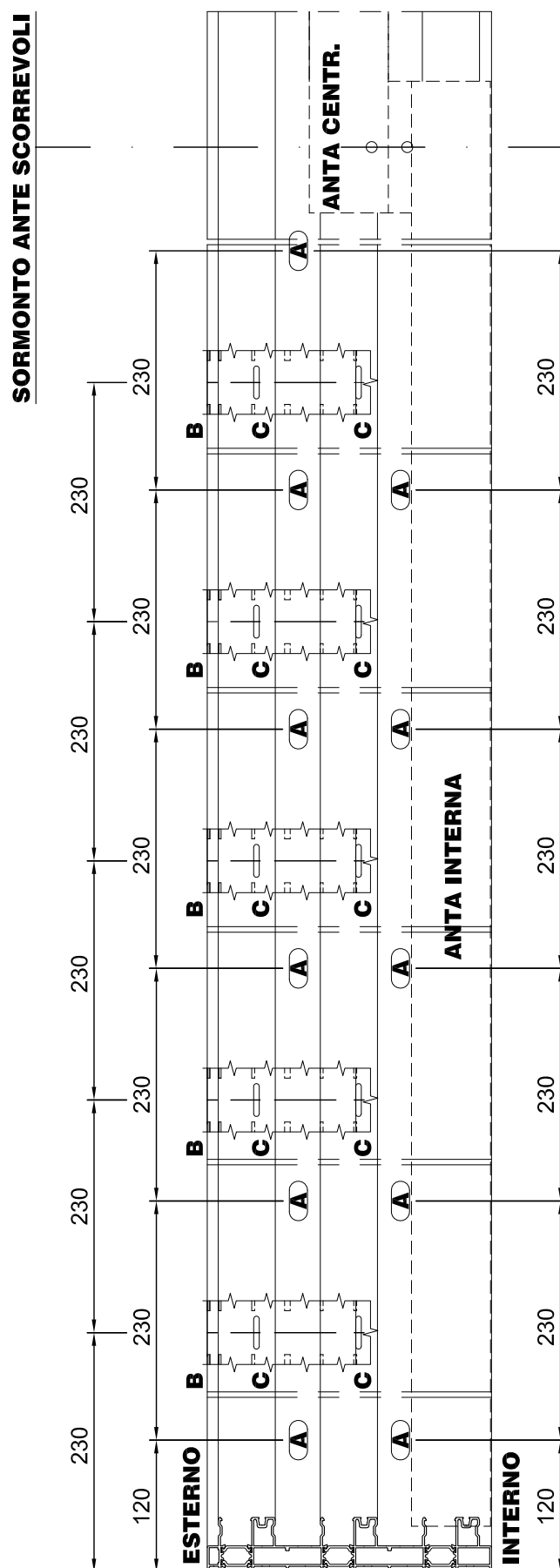
ATTENZIONE: NEI SERRAMENTI CON TELAIO TRE BINARI LA DISTANZA TRA UNO SCARICO ACQUA E L'ALTRO DEVE ESSERE VALUTATA DI VOLTA IN VOLTA A SECONDA DELLA LARGHEZZA DEL SERRAMENTO. IL PASSO RIPORTATO NEL PRESENTE CATALOGO E' PURAMENTE INDICATIVO



SCARICO ACQUA INFERIORE TELAI TRE VIE



LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA INTERNA

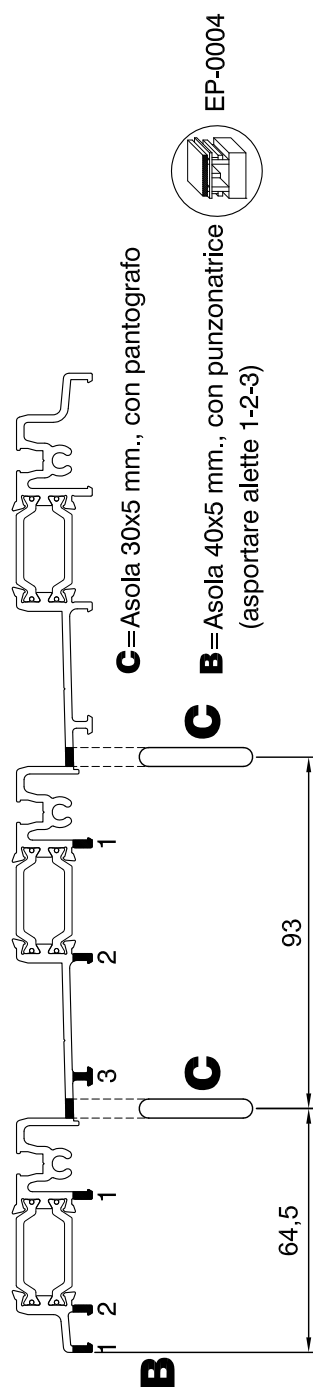


ATTENZIONE: NEI SERRAMENTI CON TELAIO TRE BINARI LA DISTANZA TRA UNO SCARICO ACQUA E L'ALTRO DEVE ESSERE VALUTATA DI VOLTA IN VOLTA A SECONDA DELLA LARGHEZZA DEL SERRAMENTO. IL PASSO RIPORTATO NEL PRESENTE CATALOGO E' PURAMENTE INDICATIVO

Lavorazioni - Tooling

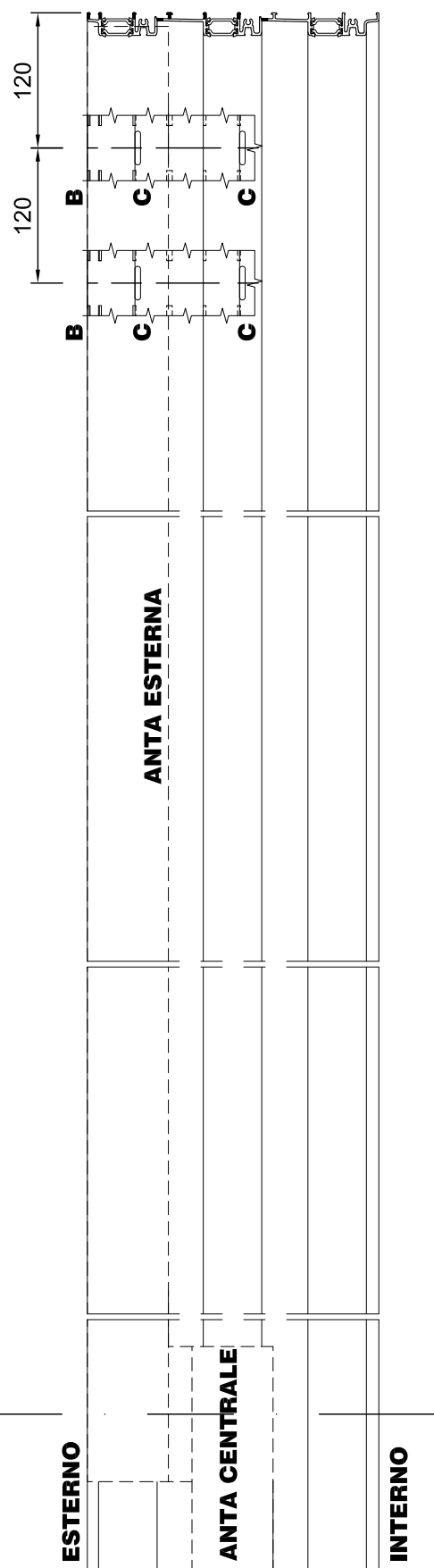
SCARICO ACQUA INFERIORE TELAI TRE VIE RIBASSATO

TT170.01



LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA ESTERNA

SORMONTO ANTE SCORREVOLI

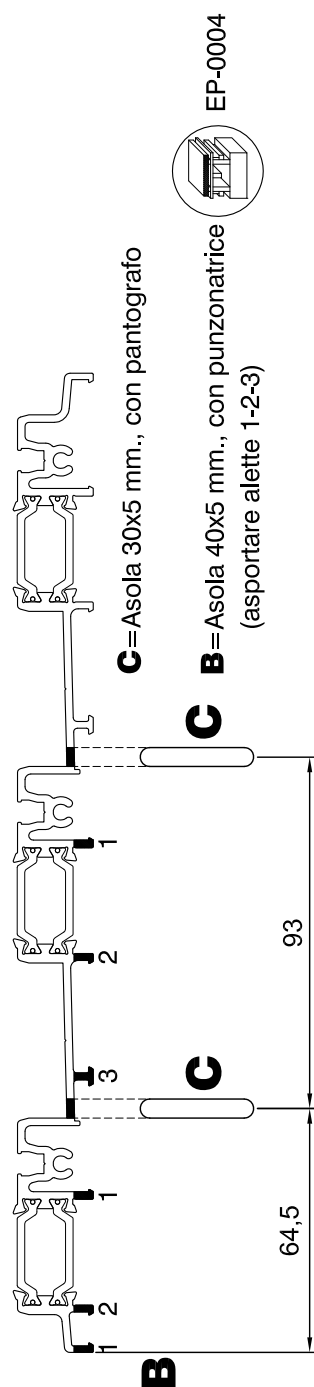


ATTENZIONE: NEI SERRAMENTI CON TELAIO TRE BINARI LA DISTANZA TRA UNO SCARICO ACQUA E L'ALTRO DEVE ESSERE VALUTATA DI VOLTA IN VOLTA A SECONDA DELLA LARGHEZZA DEL SERRAMENTO. IL PASSO RIPORTATO NEL PRESENTE CATALOGO E' PURAMENTE INDICATIVO

Lavorazioni - Tooling

SCARICO ACQUA INFERIORE TELAI TRE VIE RIBASSATO

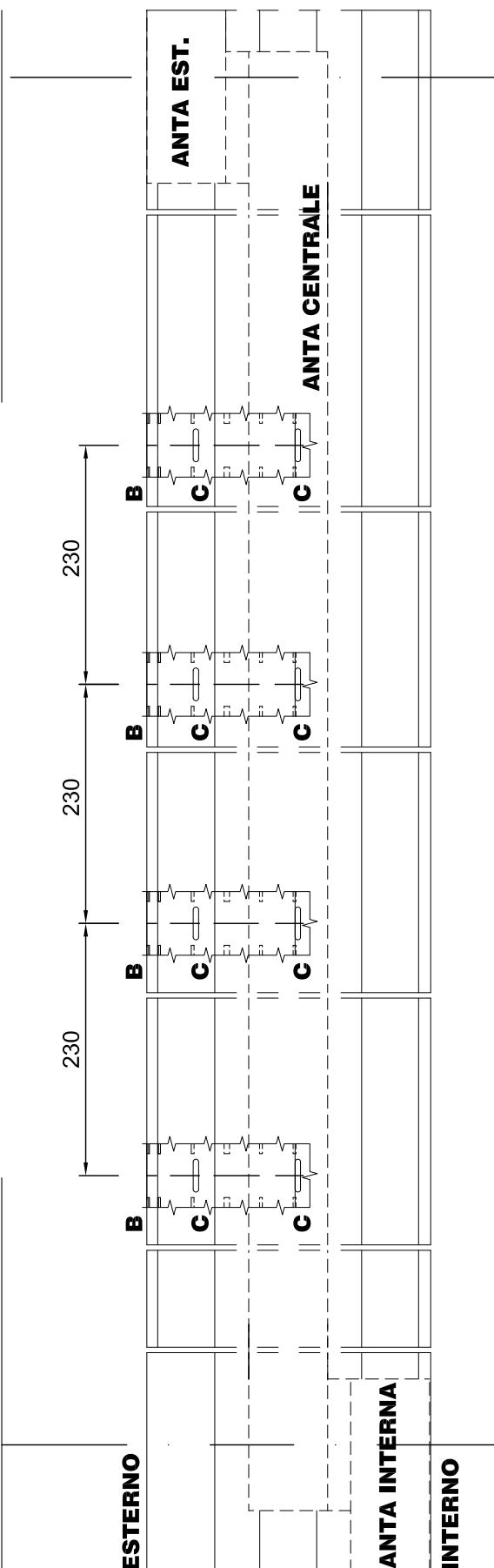
TT170.01



LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA CENTRALE

SORMONTO ANTE SCORREVOLI

SORMONTO ANTE SCORREVOLI

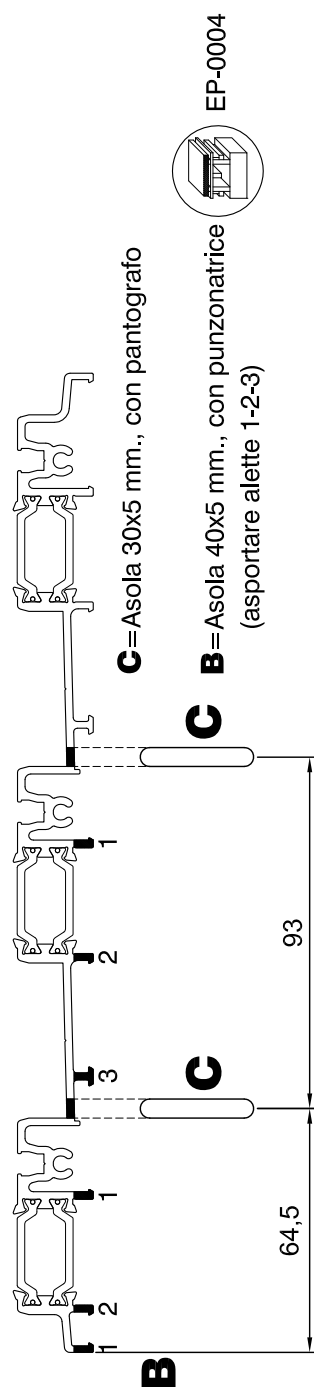


ATTENZIONE: NEI SERRAMENTI CON TELAIO TRE BINARI LA DISTANZA TRA UNO SCARICO ACQUA E L'ALTRO DEVE ESSERE VALUTATA DI VOLTA IN VOLTA A SECONDA DELLA LARGHEZZA DEL SERRAMENTO. IL PASSO RIPORTATO NEL PRESENTE CATALOGO E' PURAMENTE INDICATIVO

Lavorazioni - Tooling

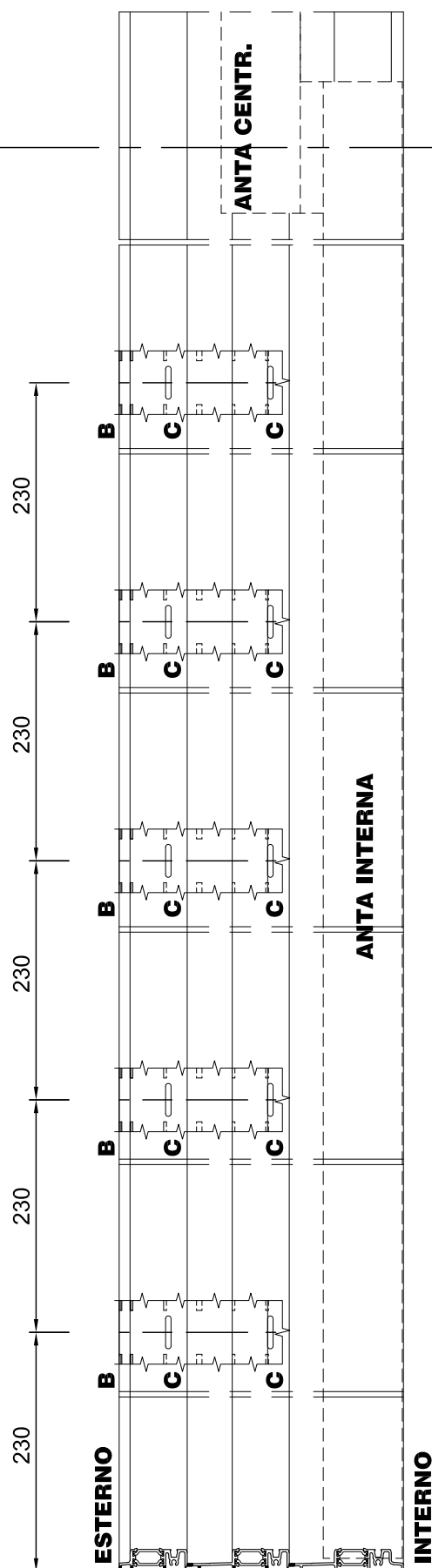
SCARICO ACQUA INFERIORE TELAI TRE VIE RIBASSATO

TT170.01



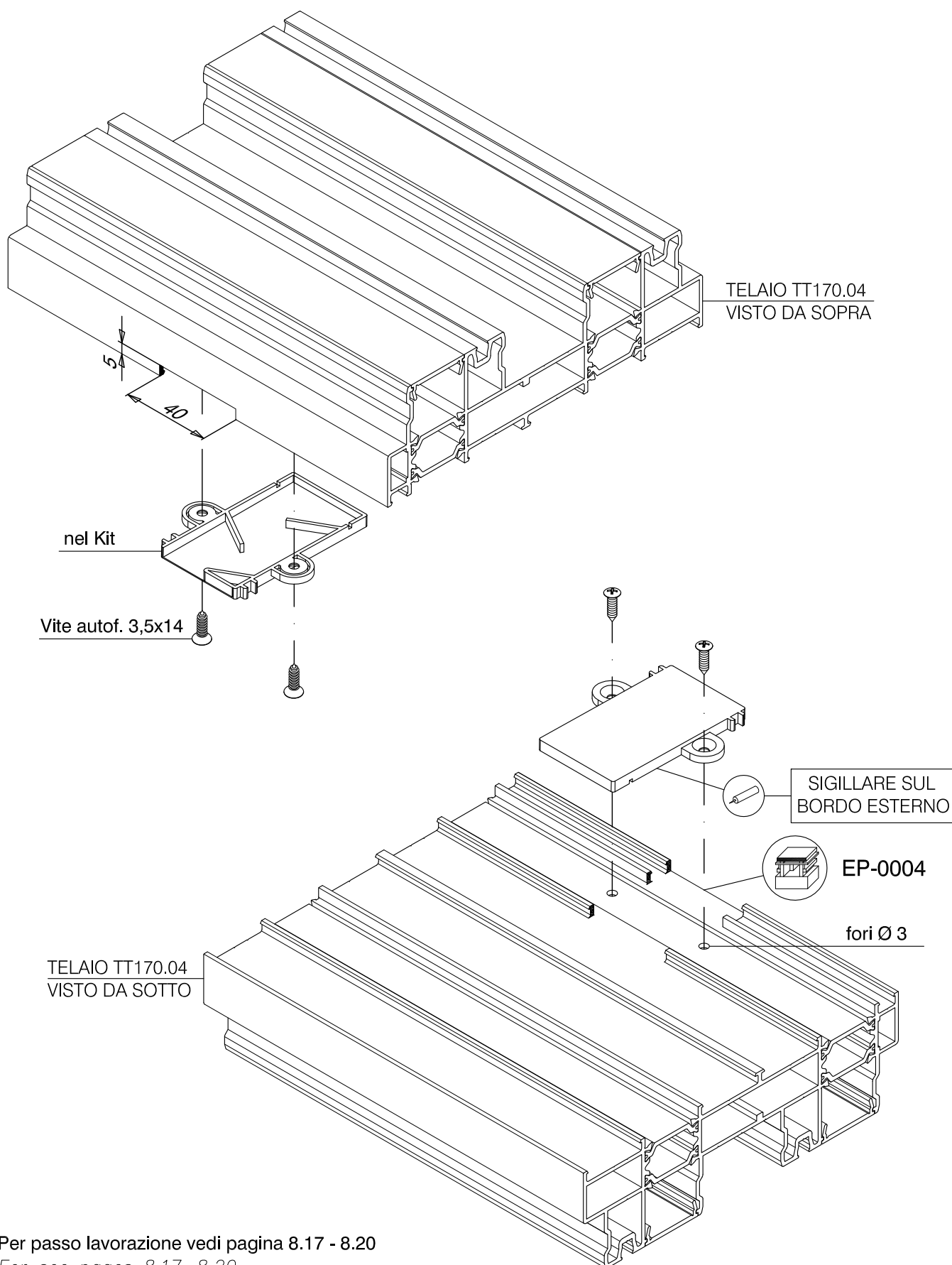
LAVORAZIONI SU TRAVERSO INFERIORE LATO ANTA INTERNA

SORMONTO ANTE SCORREVOLI



ATTENZIONE: NEI SERRAMENTI CON TELAIO TRE BINARI LA DISTANZA TRA UNO SCARICO ACQUA E L'ALTRO DEVE ESSERE VALUTATA DI VOLTA IN VOLTA A SECONDA DELLA LARGHEZZA DEL SERRAMENTO. IL PASSO RIPORTATO NEL PRESENTE CATALOGO E' PURAMENTE INDICATIVO

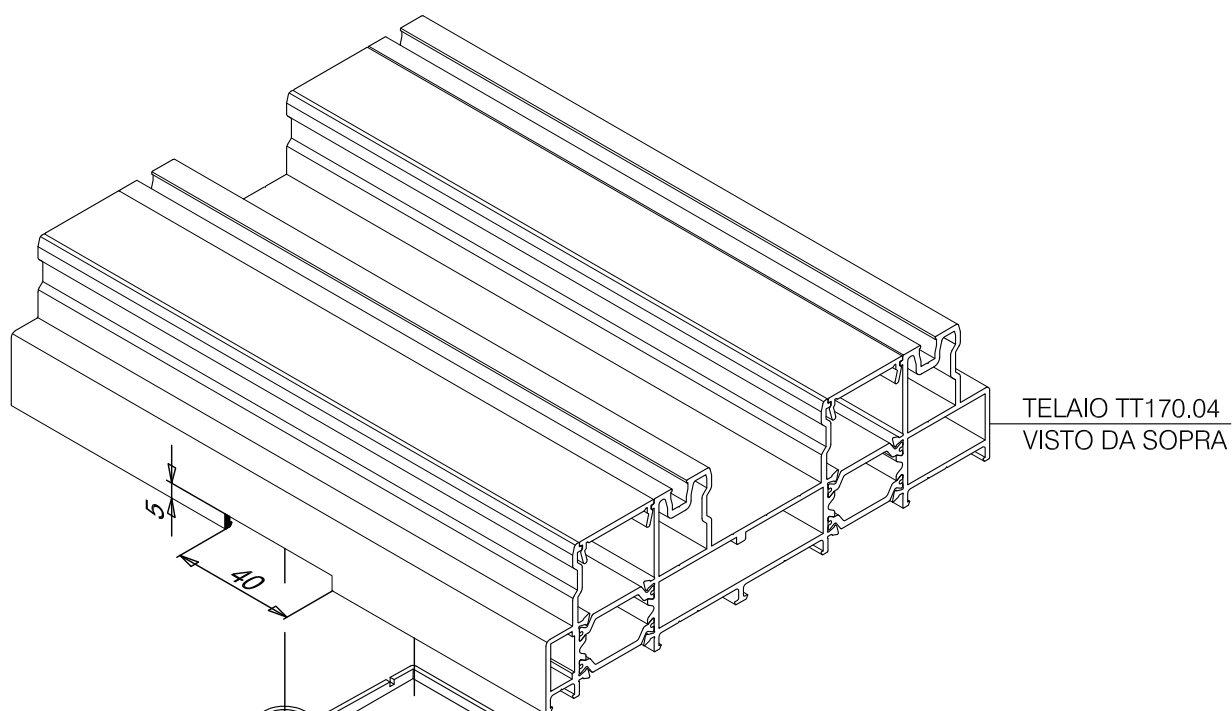
Lavorazioni - Tooling



Per passo lavorazione vedi pagina 8.17 - 8.20

For see pages 8.17-8.20

Lavorazioni - Tooling



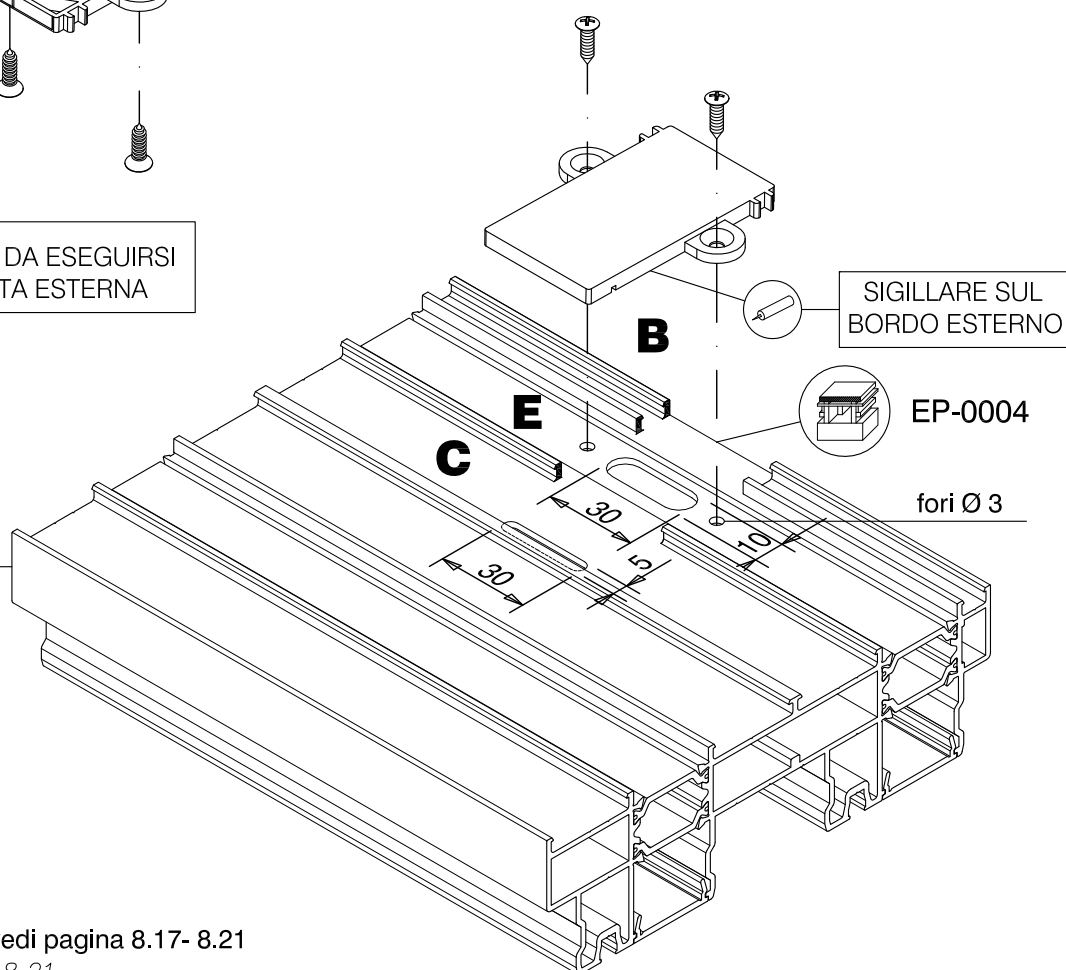
TELAIO TT170.04
VISTO DA SOPRA

nel Kit

Vite autof. 3,5x14

LAVORAZIONE **E** DA ESEGUIRSI
SOLO SU LATO ANTA ESTERNA

TELAIO TT170.04
VISTO DA SOTTO



SIGILLARE SUL
BORDO ESTERNO

EP-0004

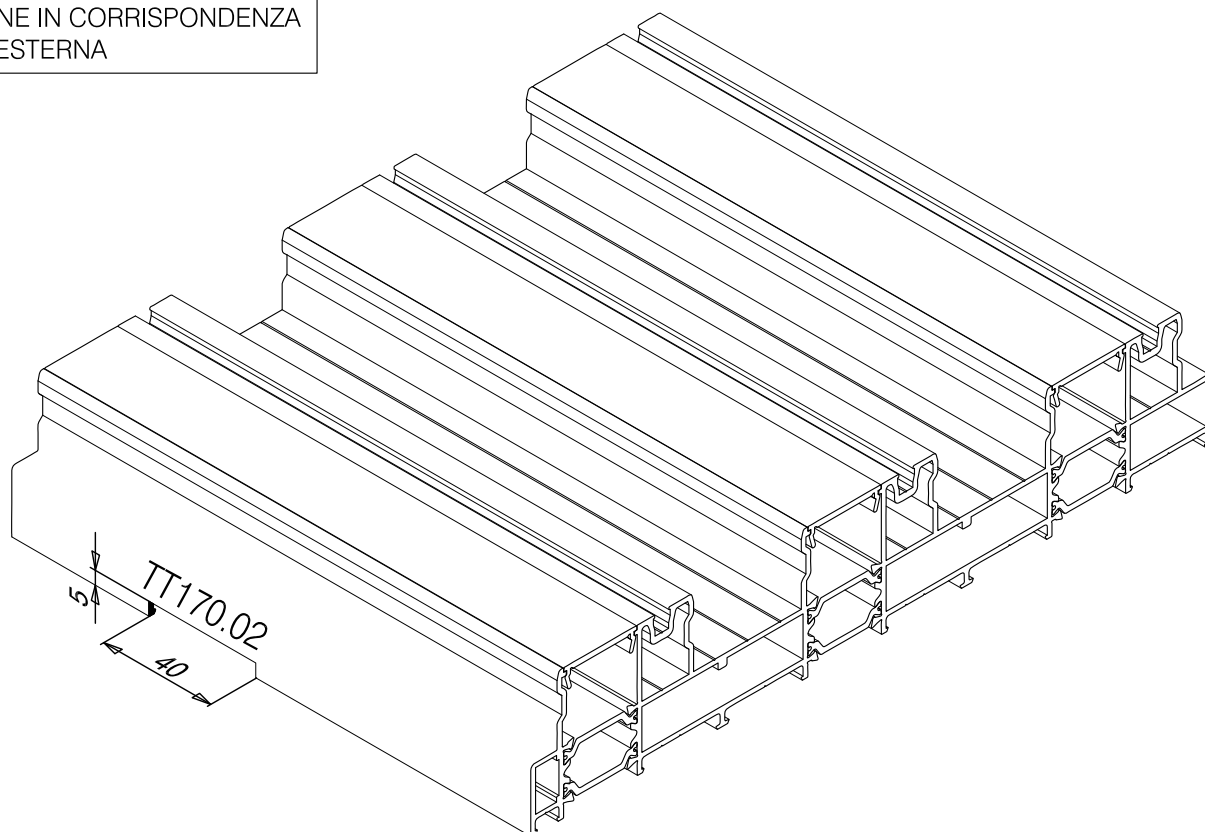
fori Ø 3

Per passo lavorazione vedi pagina 8.17- 8.21

For see pages 8.17-8.21

Lavorazioni - Tooling

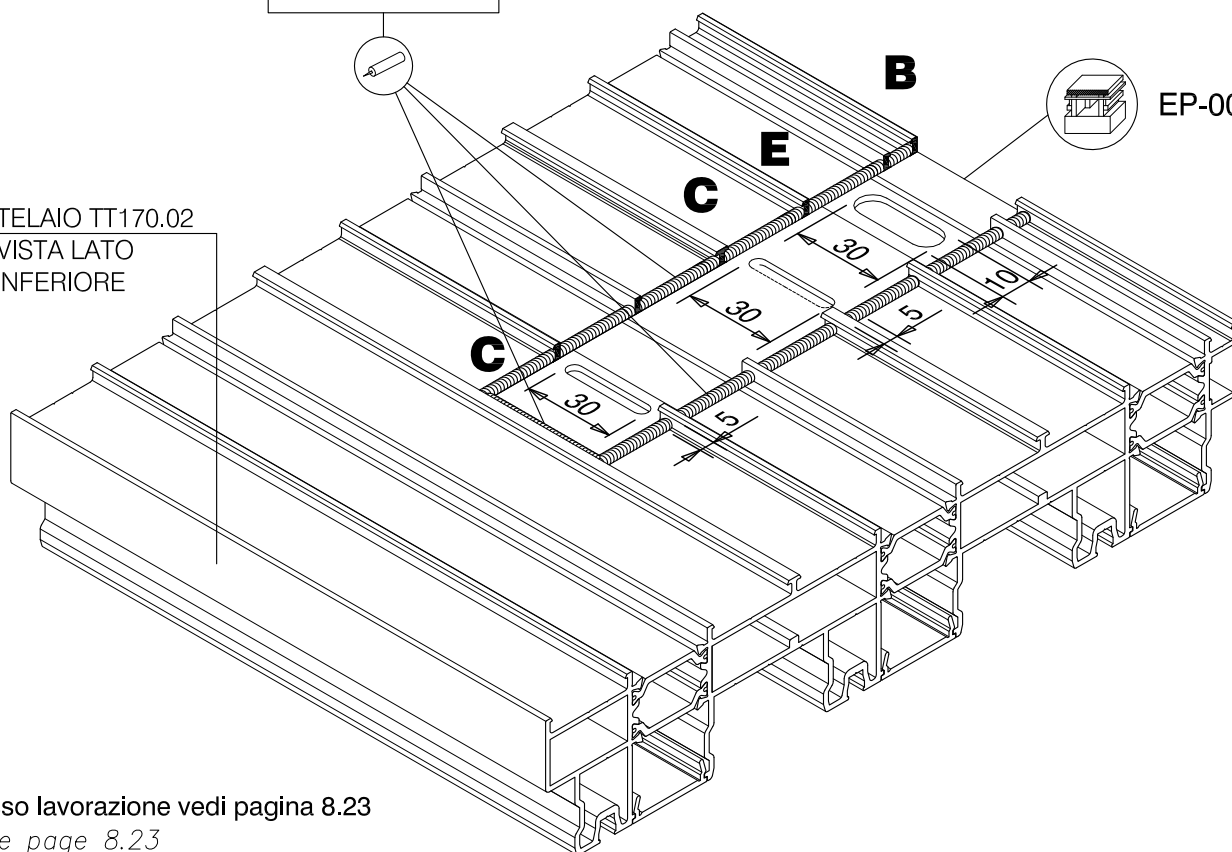
LAVORAZIONE IN CORRISPONDENZA
DELL'ANTA ESTERNA



SIGILLARE SUL
BORDO ESTERNO



TELAIO TT170.02
VISTA LATO
INFERIORE

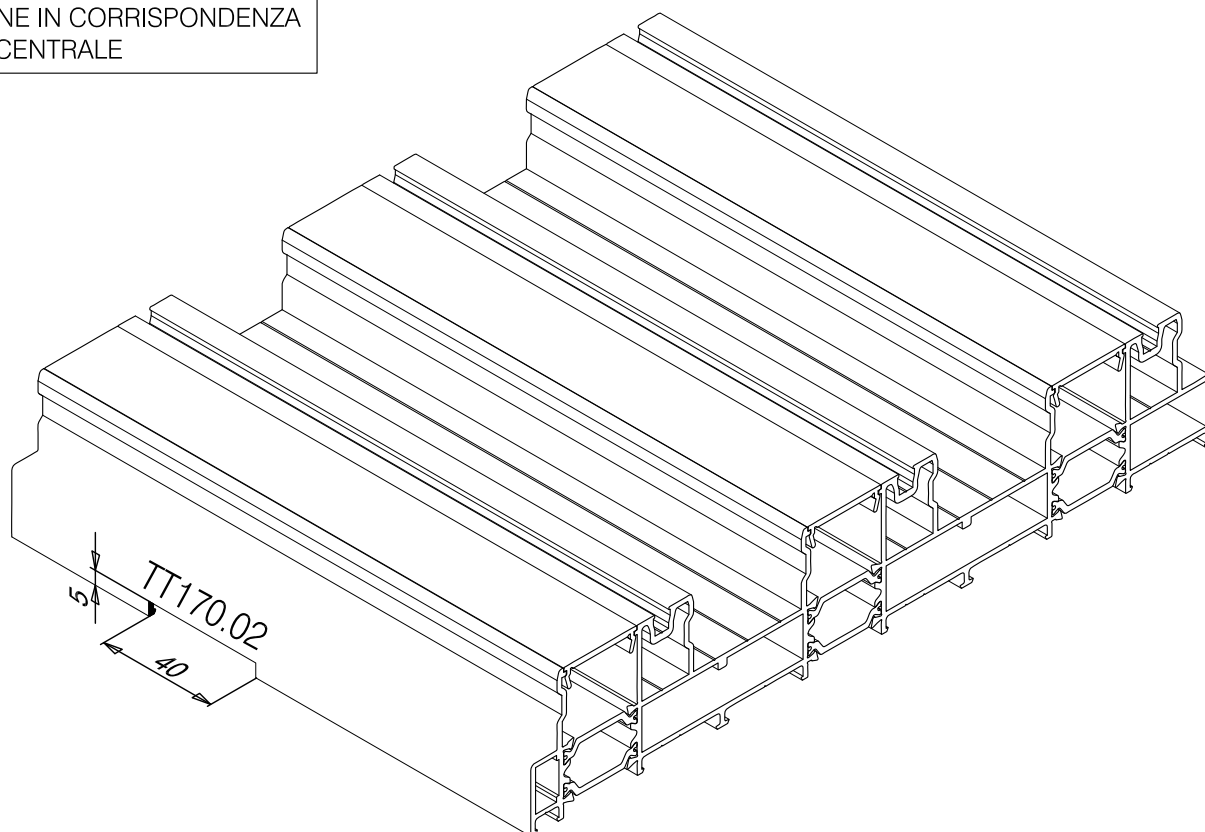


EP-0004

Per passo lavorazione vedi pagina 8.23
For see page 8.23

Lavorazioni - Tooling

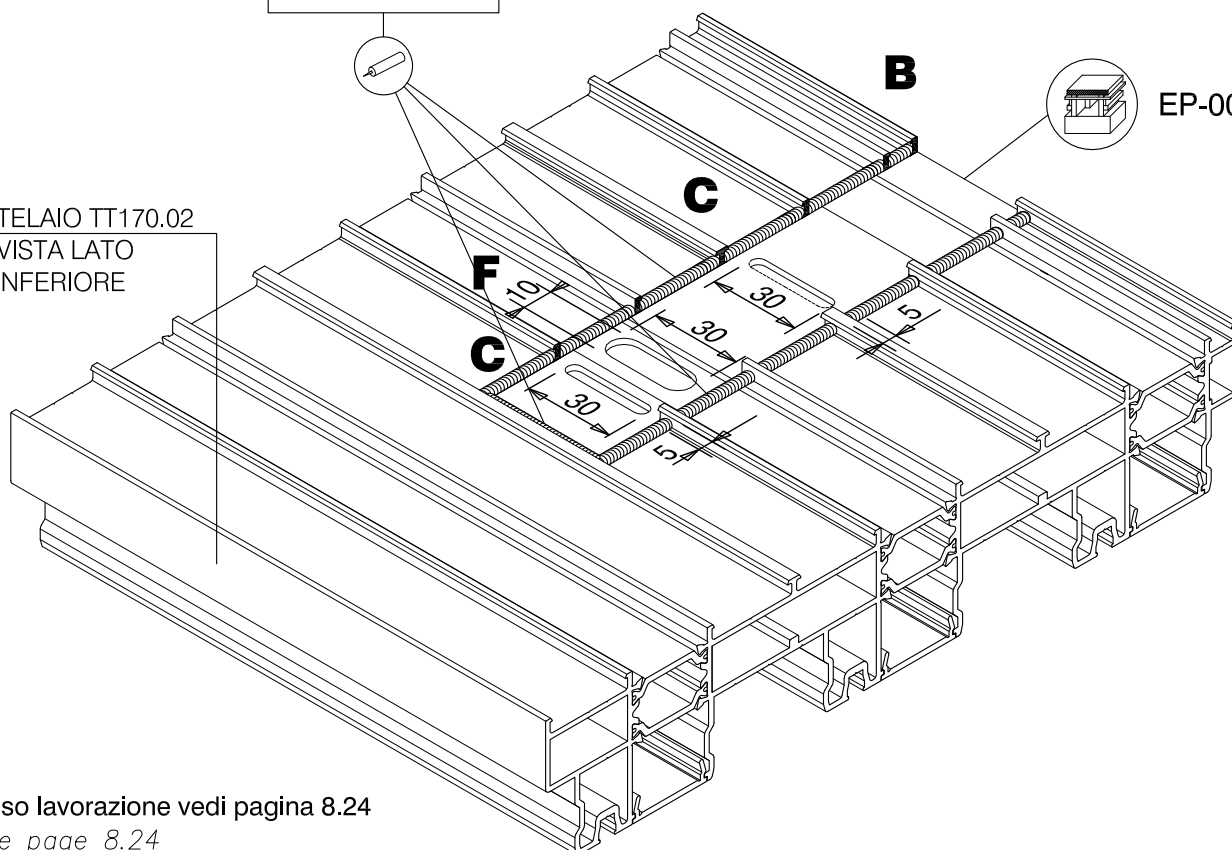
LAVORAZIONE IN CORRISPONDENZA
DELL'ANTA CENTRALE



SIGILLARE SUL
BORDO ESTERNO



TELAIO TT170.02
VISTA LATO
INFERIORE



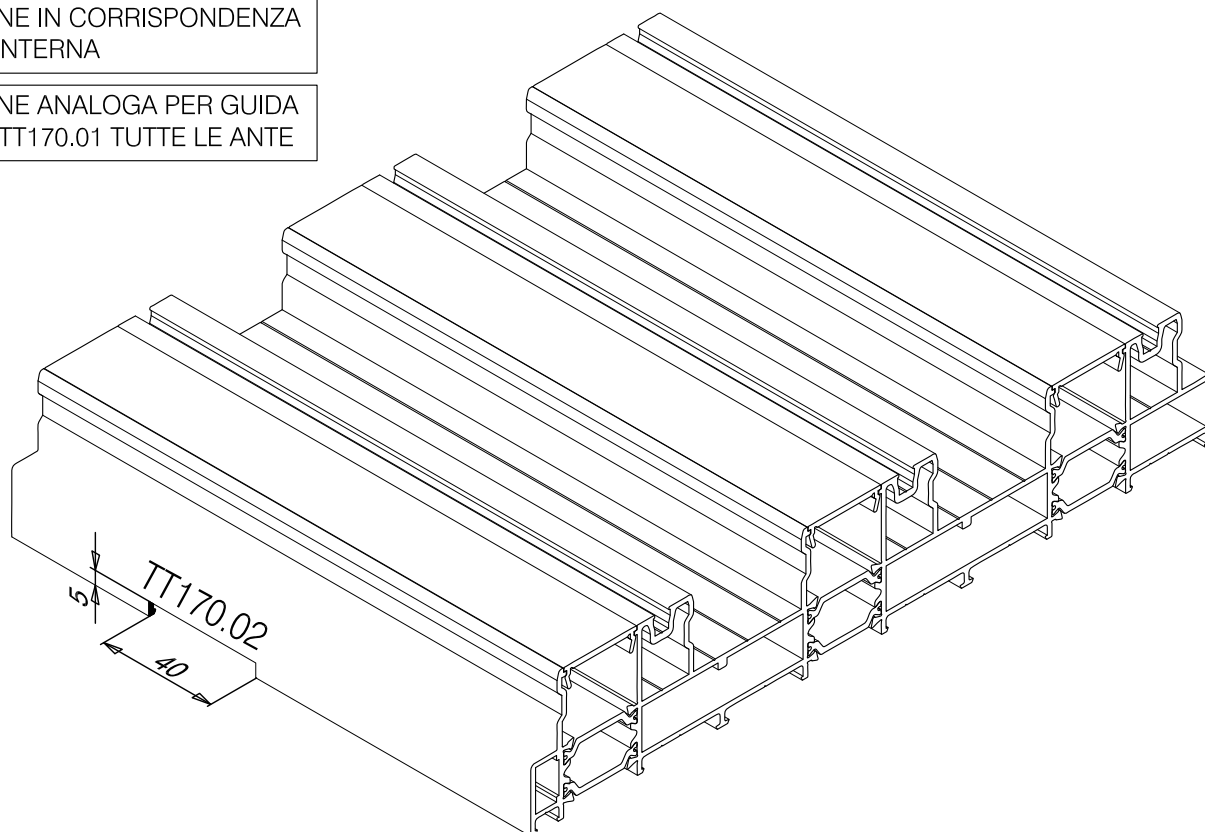
EP-0004

Per passo lavorazione vedi pagina 8.24
For see page 8.24

Lavorazioni - Tooling

LAVORAZIONE IN CORRISPONDENZA
DELL'ANTA INTERNA

LAVORAZIONE ANALOGA PER GUIDA
RIBASSATA TT170.01 TUTTE LE ANTE



SIGILLARE SUL
BORDO ESTERNO

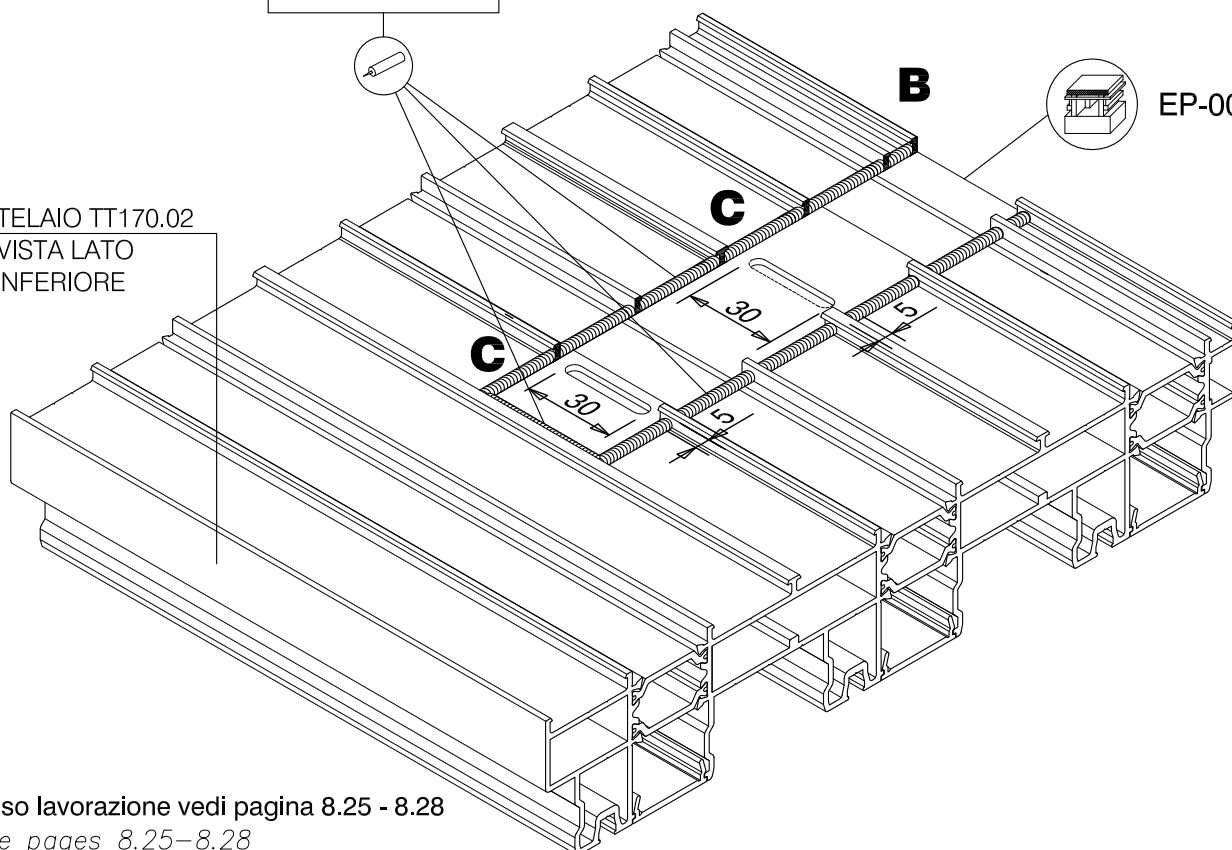


B



EP-0004

TELAIO TT170.02
VISTA LATO
INFERIORE

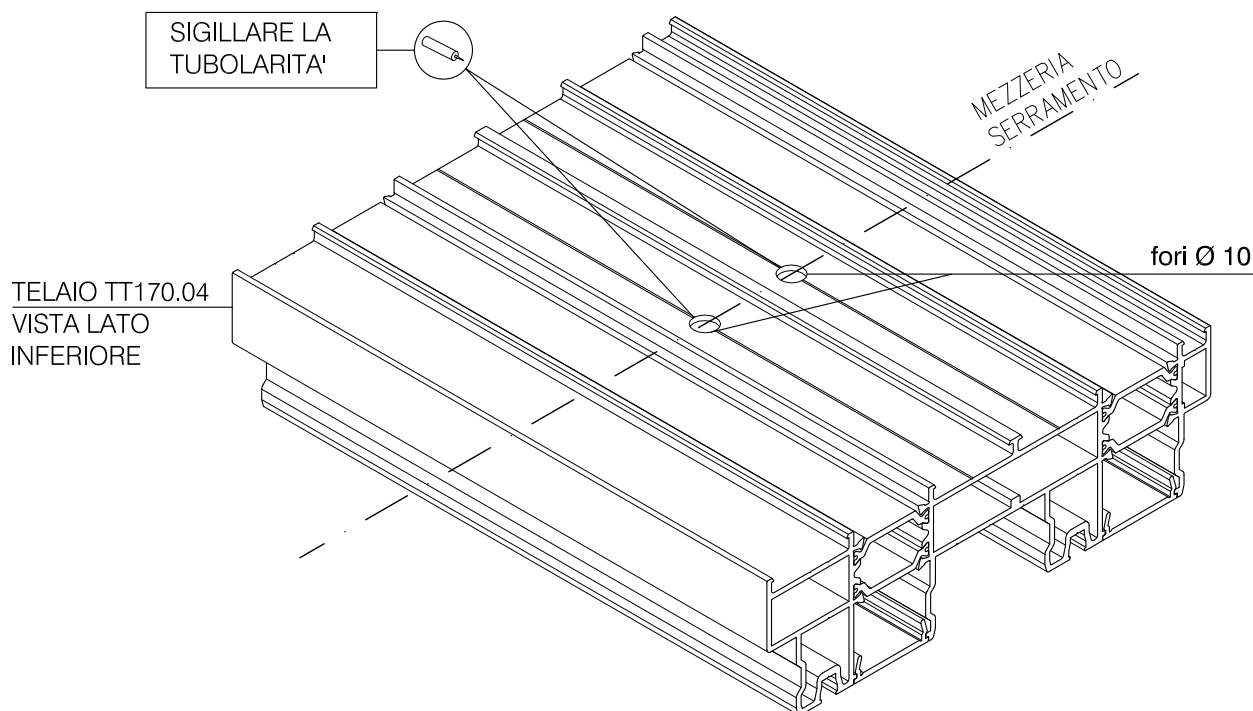


Per passo lavorazione vedi pagina 8.25 - 8.28

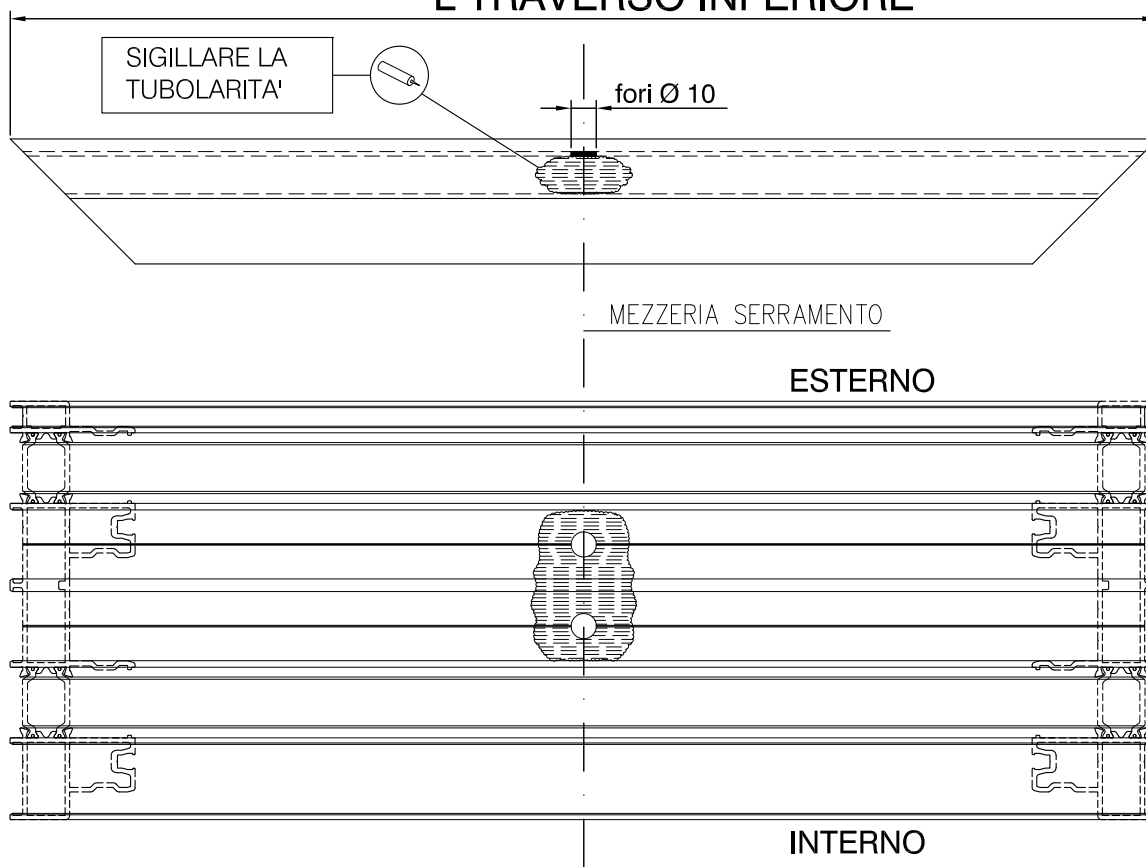
For see pages 8.25-8.28

Lavorazioni - Tooling

LAVORAZIONE MEZZERIA TRAVERSO INFERIORE

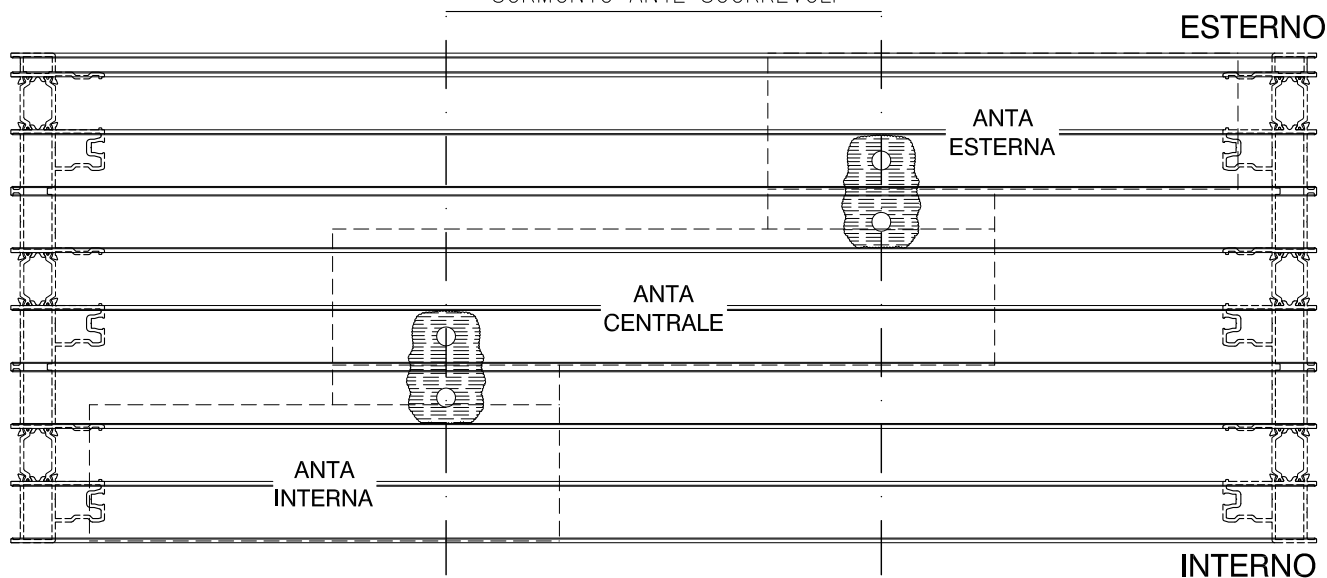
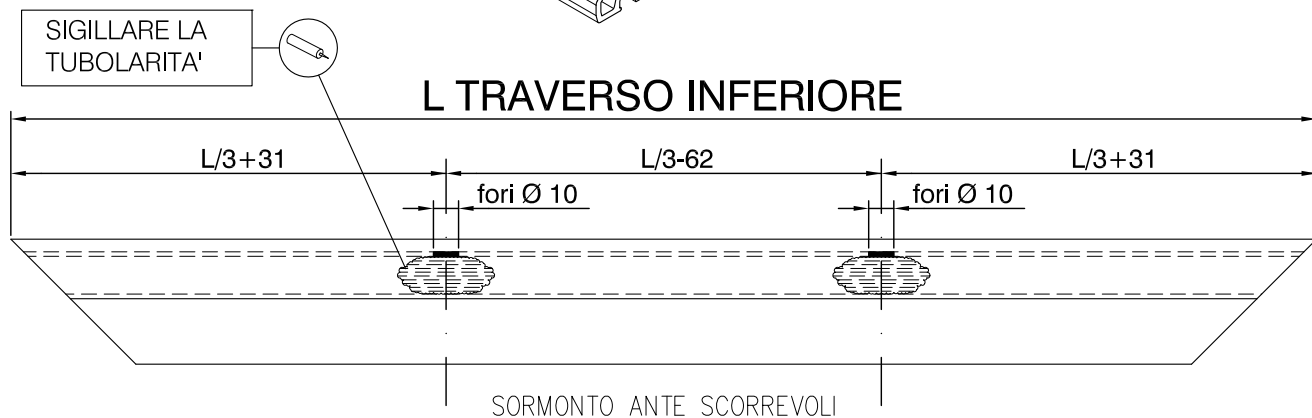
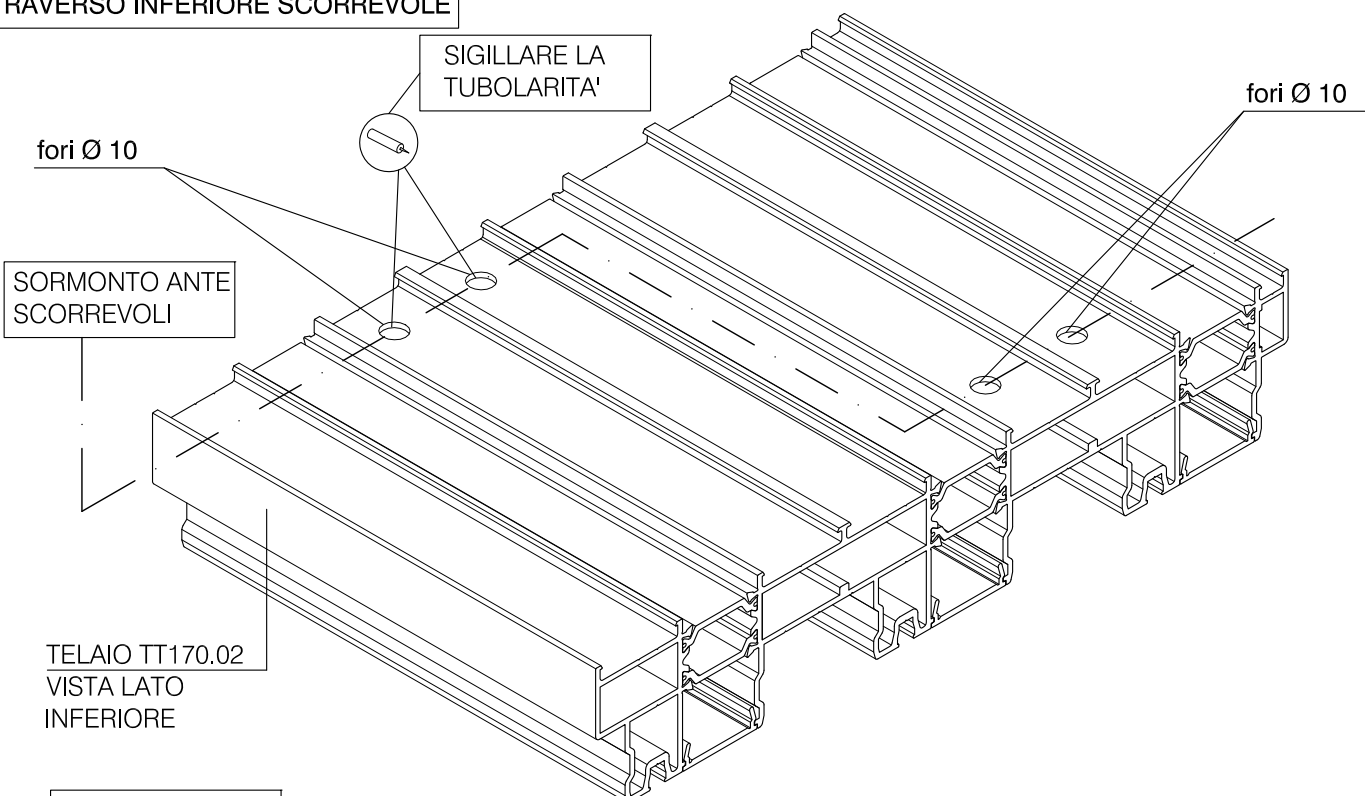


L TRAVERSO INFERIORE

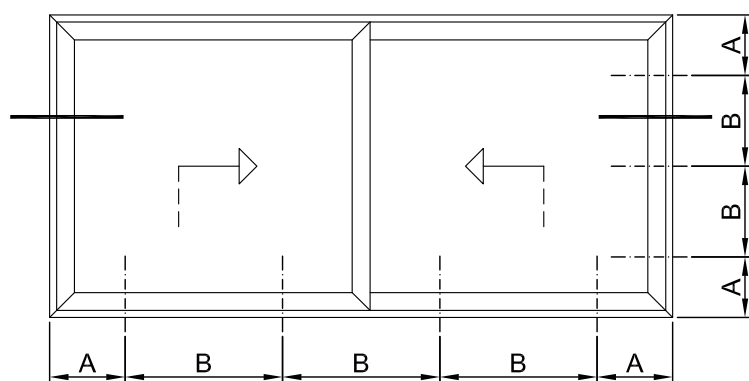


Lavorazioni - Tooling

**LAVORAZIONE SORMONTO
TRAVERSO INFERIORE SCORREVOLE**



Lavorazioni - Tooling



A = 100-200mm.

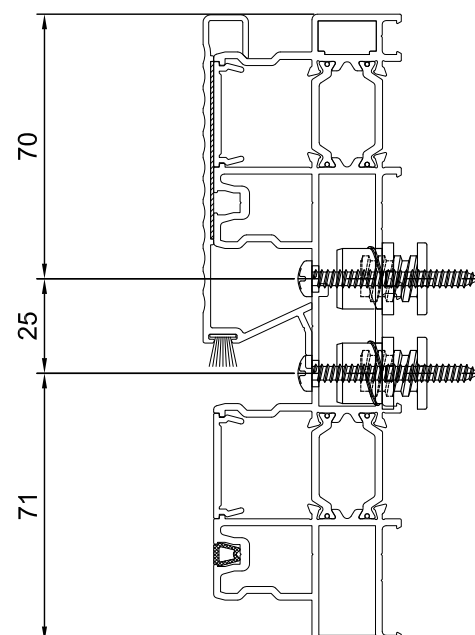
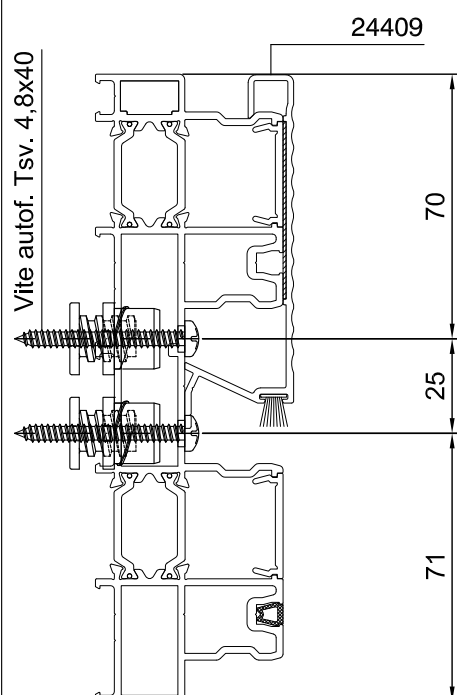
B = 500mm. Max.

PUNTI DI FISSAGGIO dei TRAVERSI SUP. e INF. = Finestre Porte/fin. 2 ante : min. 4 x lato

Fixing points for upper transom = Windows Balcony > 2 wings: min. 4 for side

PUNTI DI FISSAGGIO dei MONTANTI LATERALI = Finestre Porte/fin. 2 ante : min. 4 x lato

Fixing points for lateral jamb = Windows Balcony > 2 wings: min. 4 for side



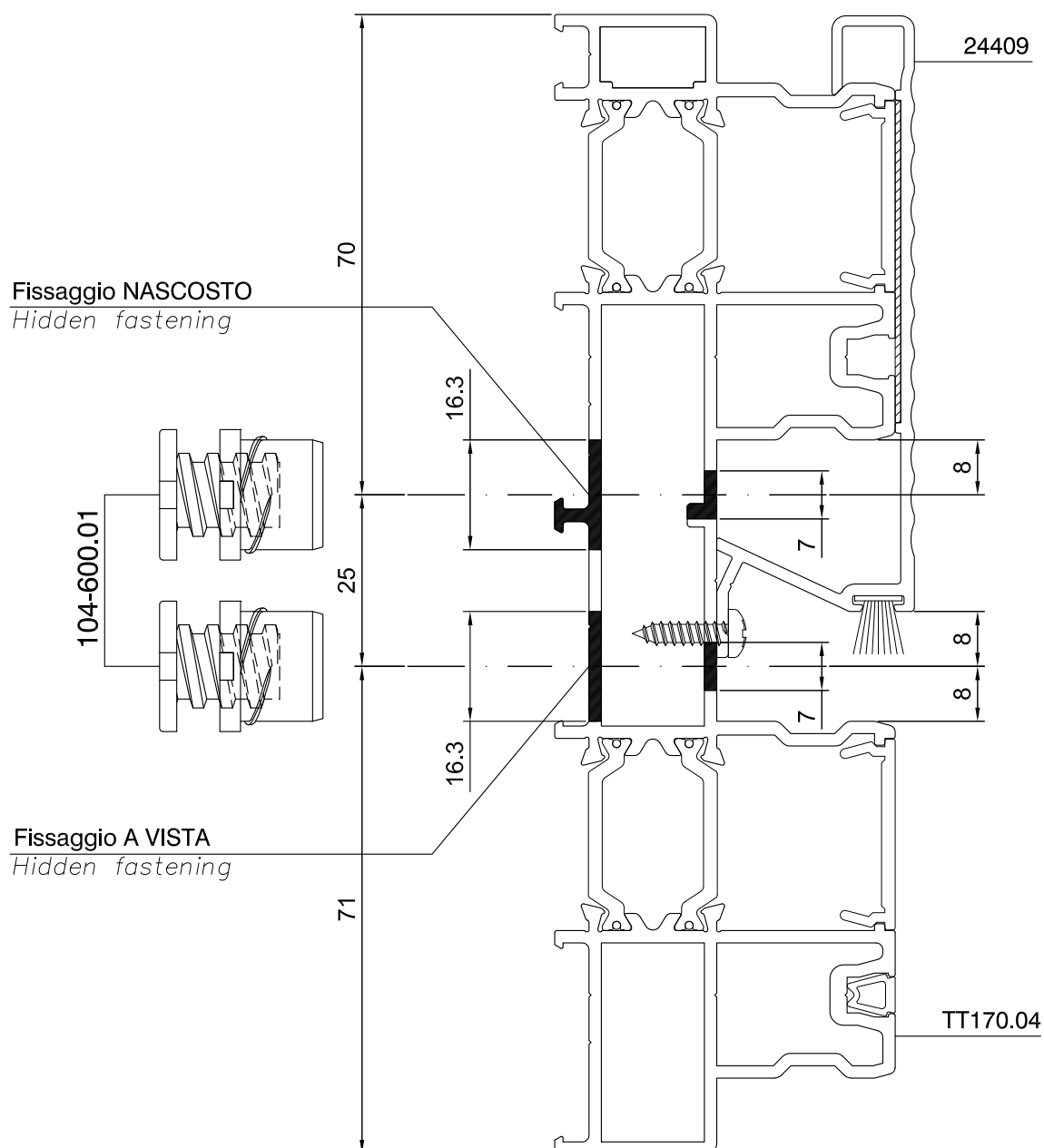
Fissaggio alternato come indicato nella sezione.

Dopo la regolazione e il fissaggio a muro, fissare il profilato 24409 come finitura (vedi pag. 8.15-8.16).

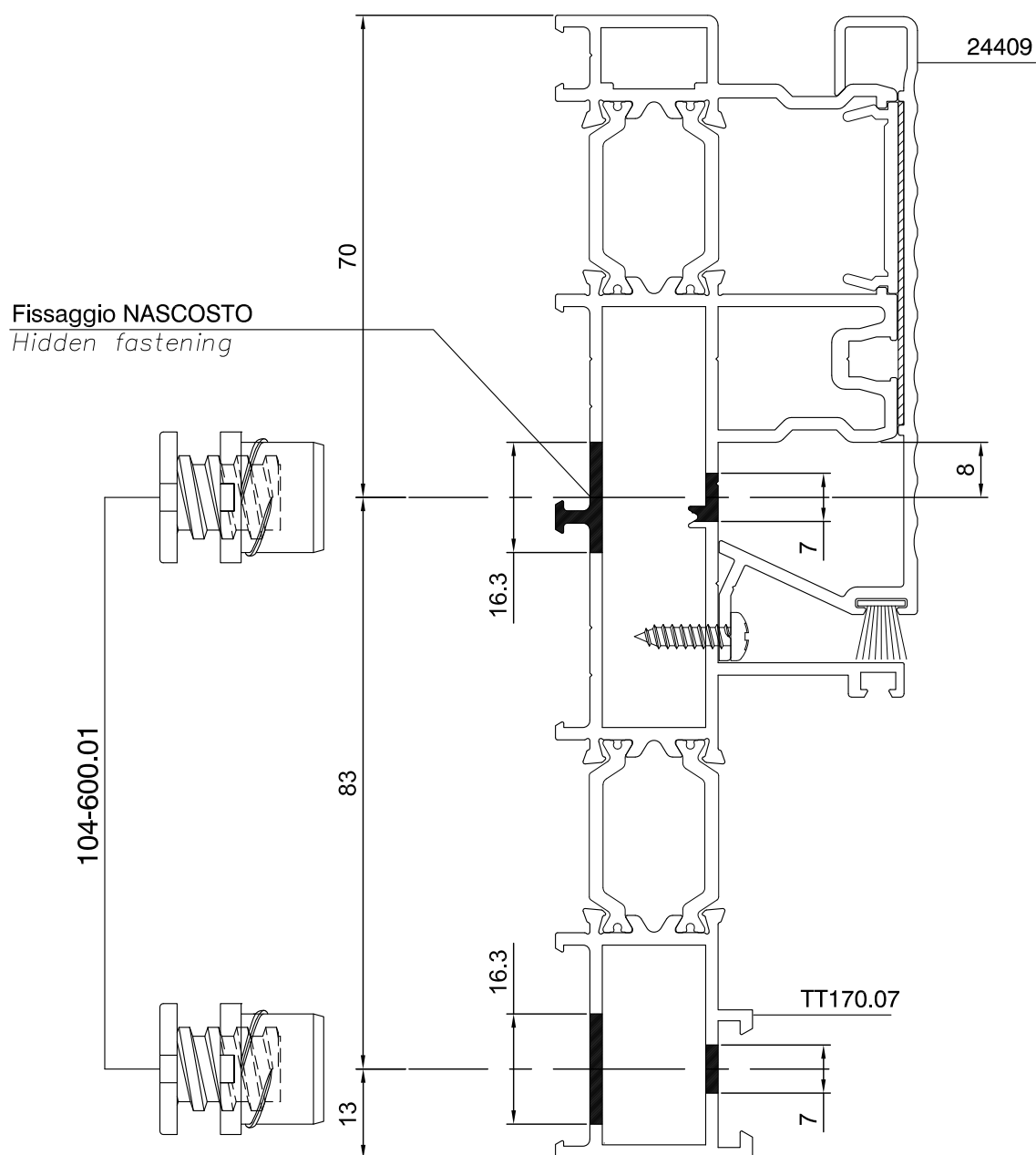
Alternating fastening as shown in section.

After the adjustment and the wall mounting, fix the 24409 profile, as a finishing (see pages 8.15-8.16).

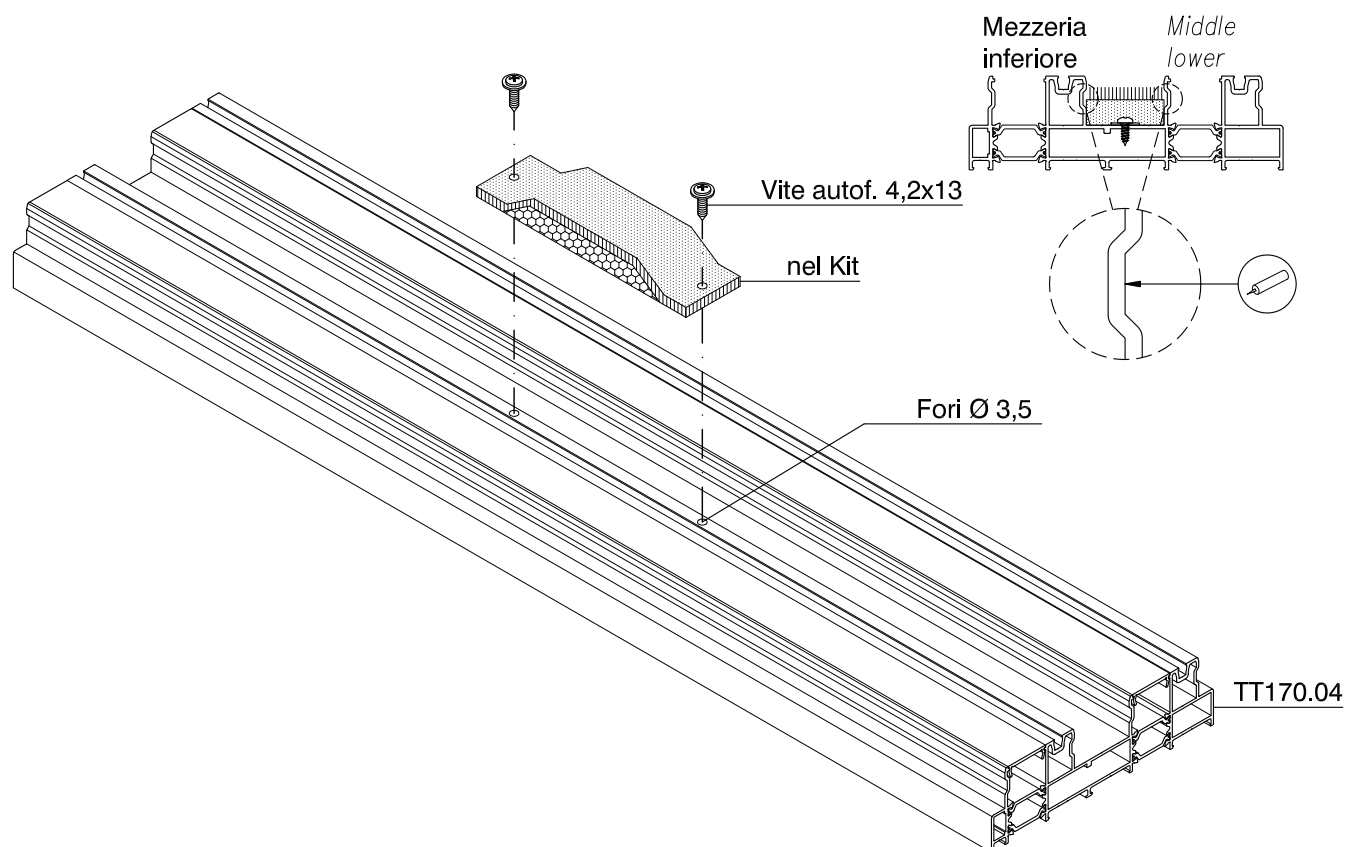
Lavorazioni - Tooling



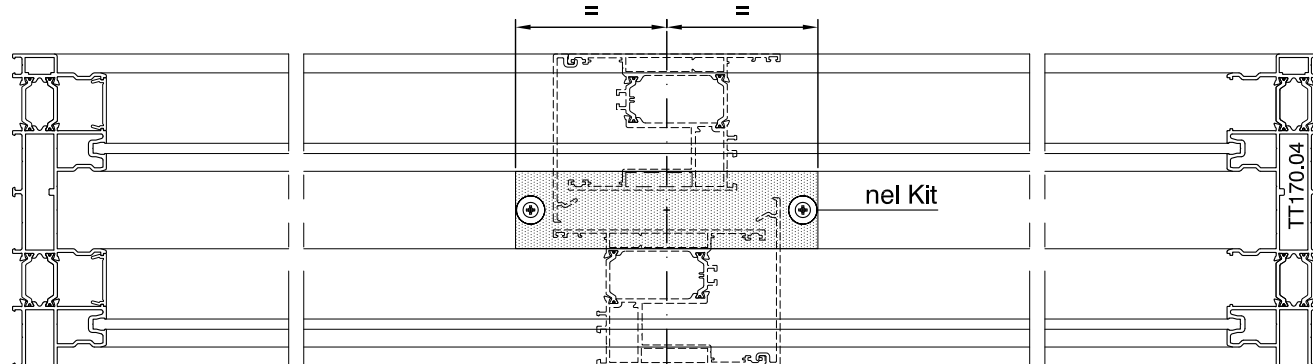
Lavorazioni - Tooling



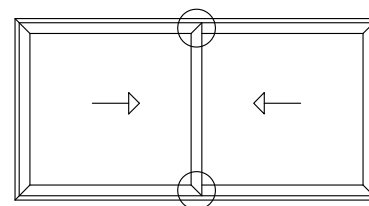
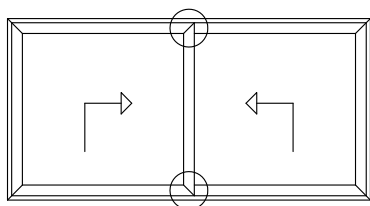
Lavorazioni - Tooling



POSIZIONARE AL CENTRO DELLA SEZIONE – Place in the middle of the section



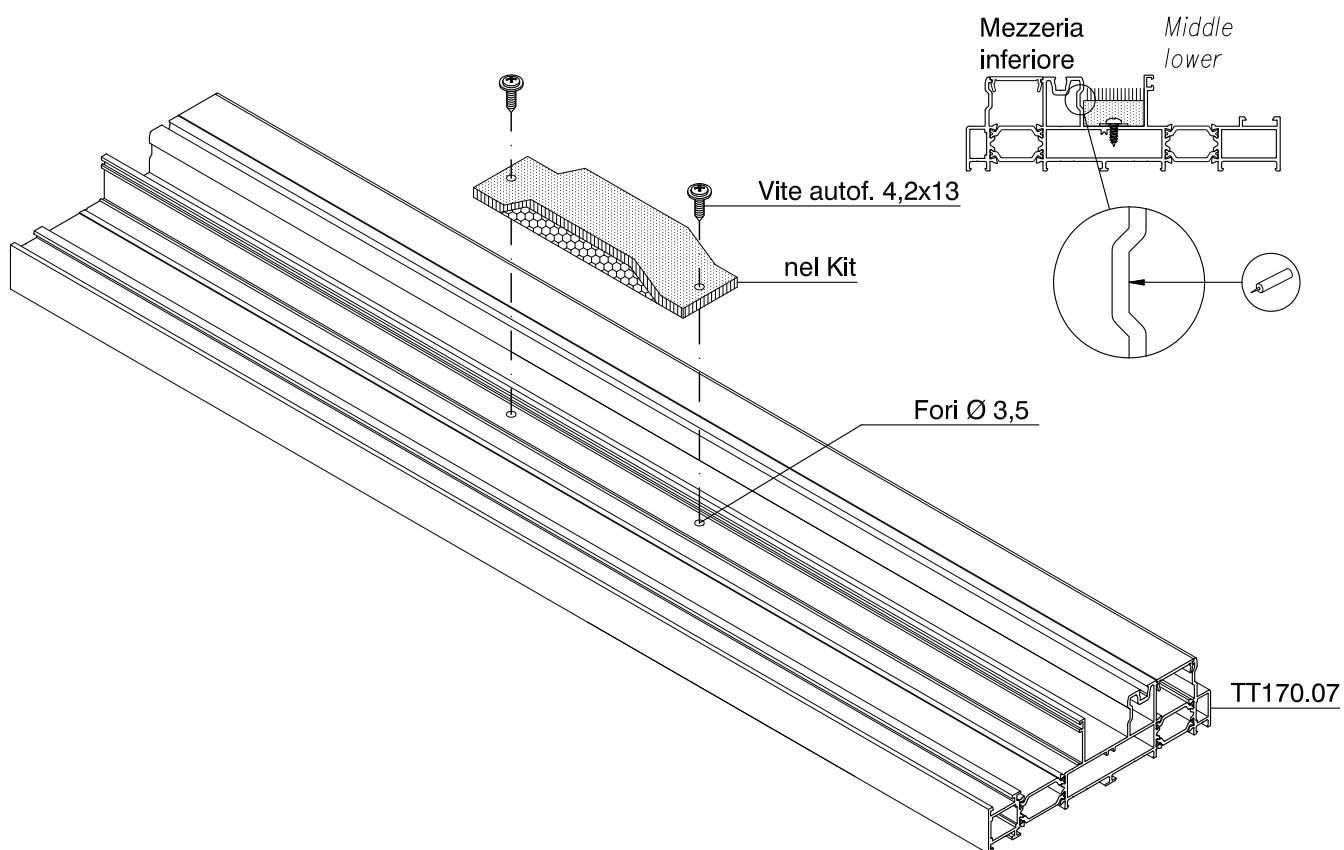
TAMPONE SENZA VITI, HA LA STESSA DIMENSIONE DEL NODO CENTRALE



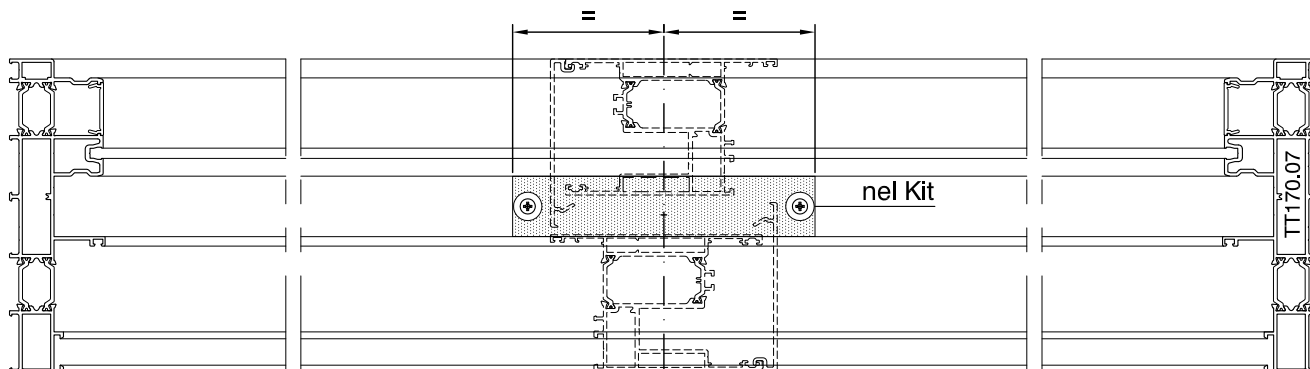
(*) Per TT170.03 , alzante e scorrevole, sostituire Kit

(*) For TT170.03 , lifting and sliding, replace Kit

Lavorazioni - Tooling

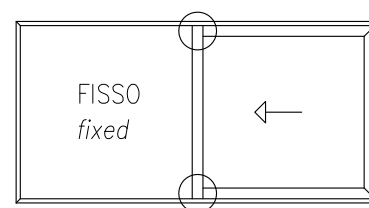
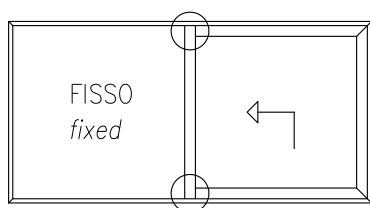


POSIZIONARE AL CENTRO DELLA SEZIONE – *Place in the middle of the section*

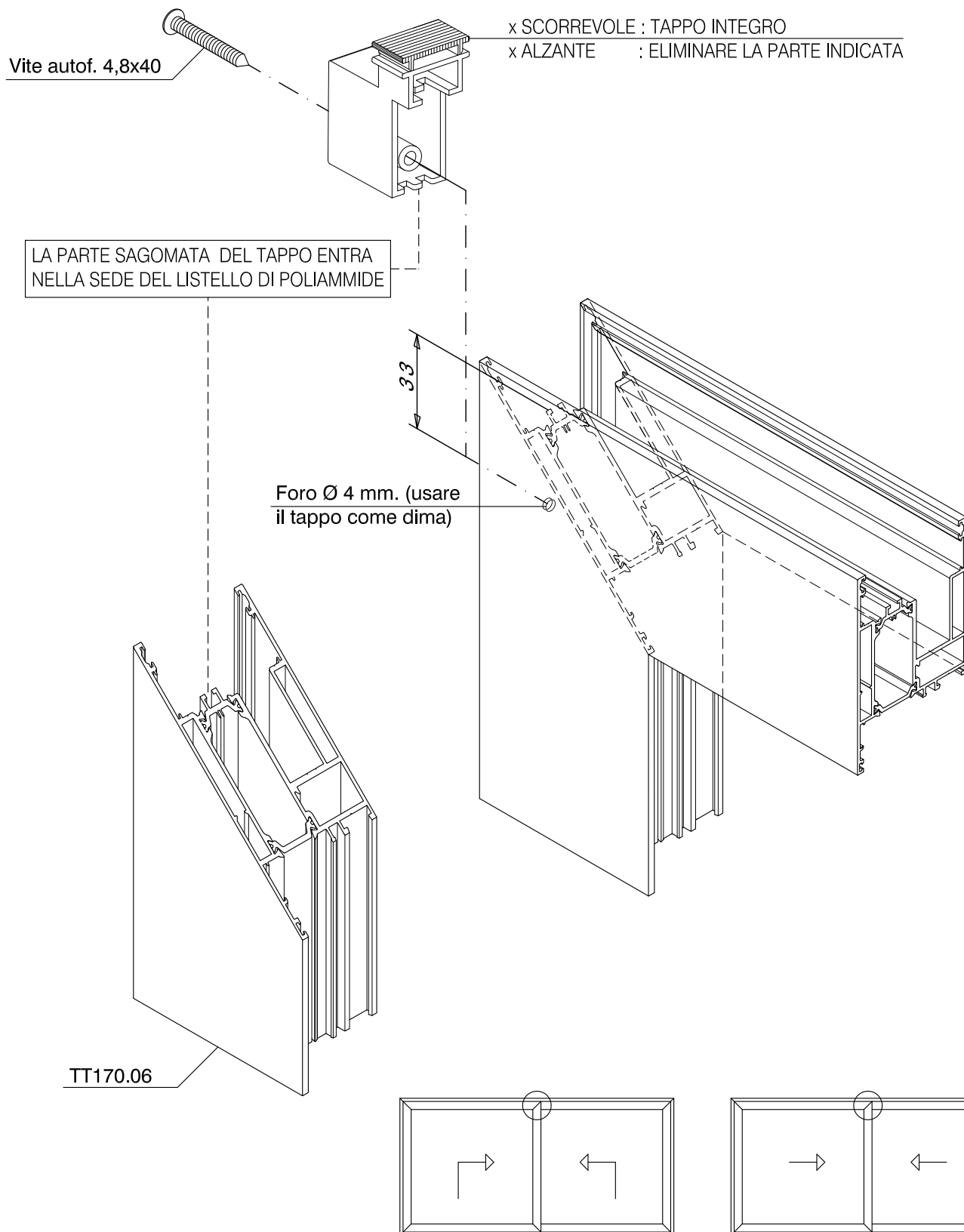


TAMPONE SENZA VITI, HA LA STESSA DIMENSIONE DEL NODO CENTRALE

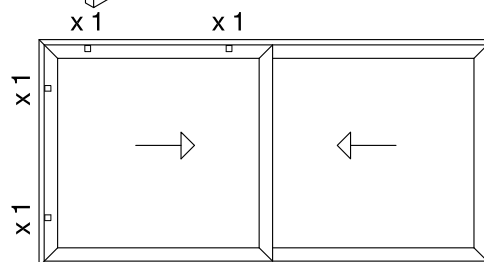
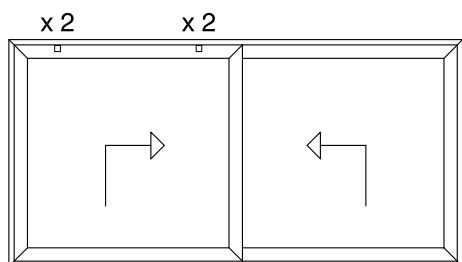
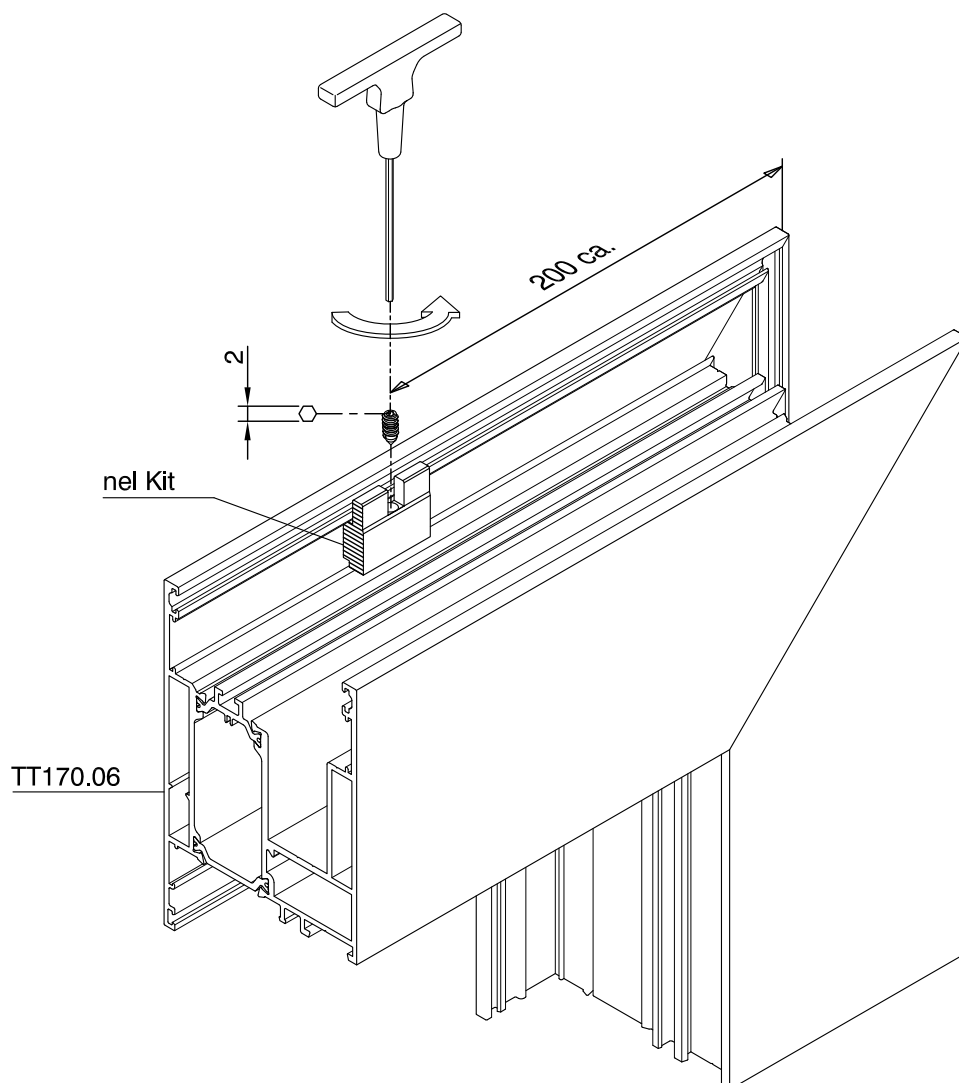
Buffer screwless, with same size of the central node



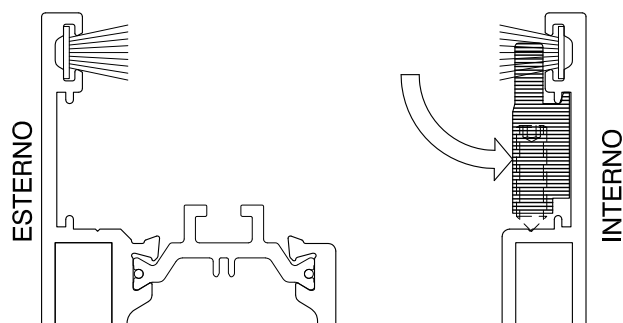
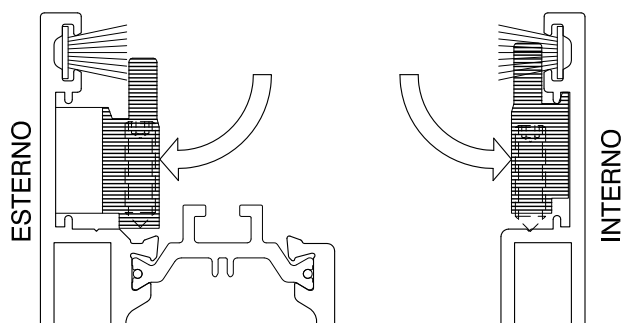
Lavorazioni - Tooling



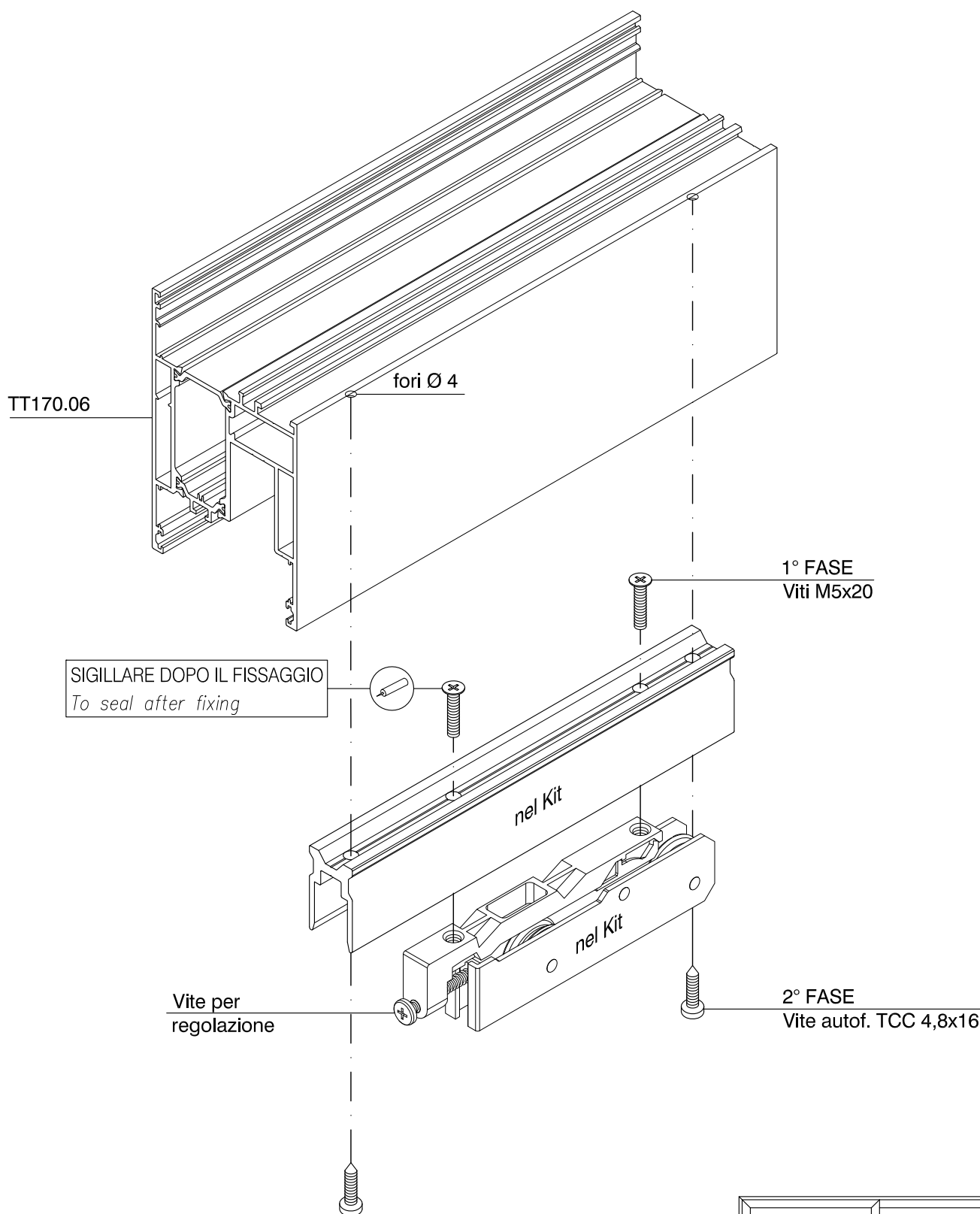
Lavorazioni - Tooling



Si inserisce anche ad anta assemblata - *It also enters with door assembled*



Lavorazioni - Tooling

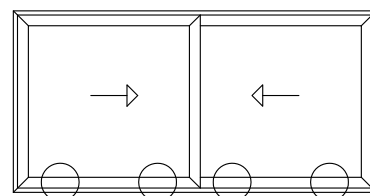


1° FASE : Fissaggio carrello al profilato SUPPORTO

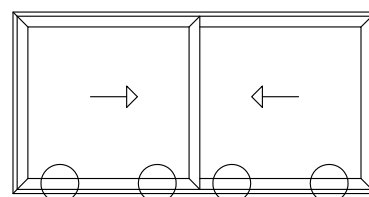
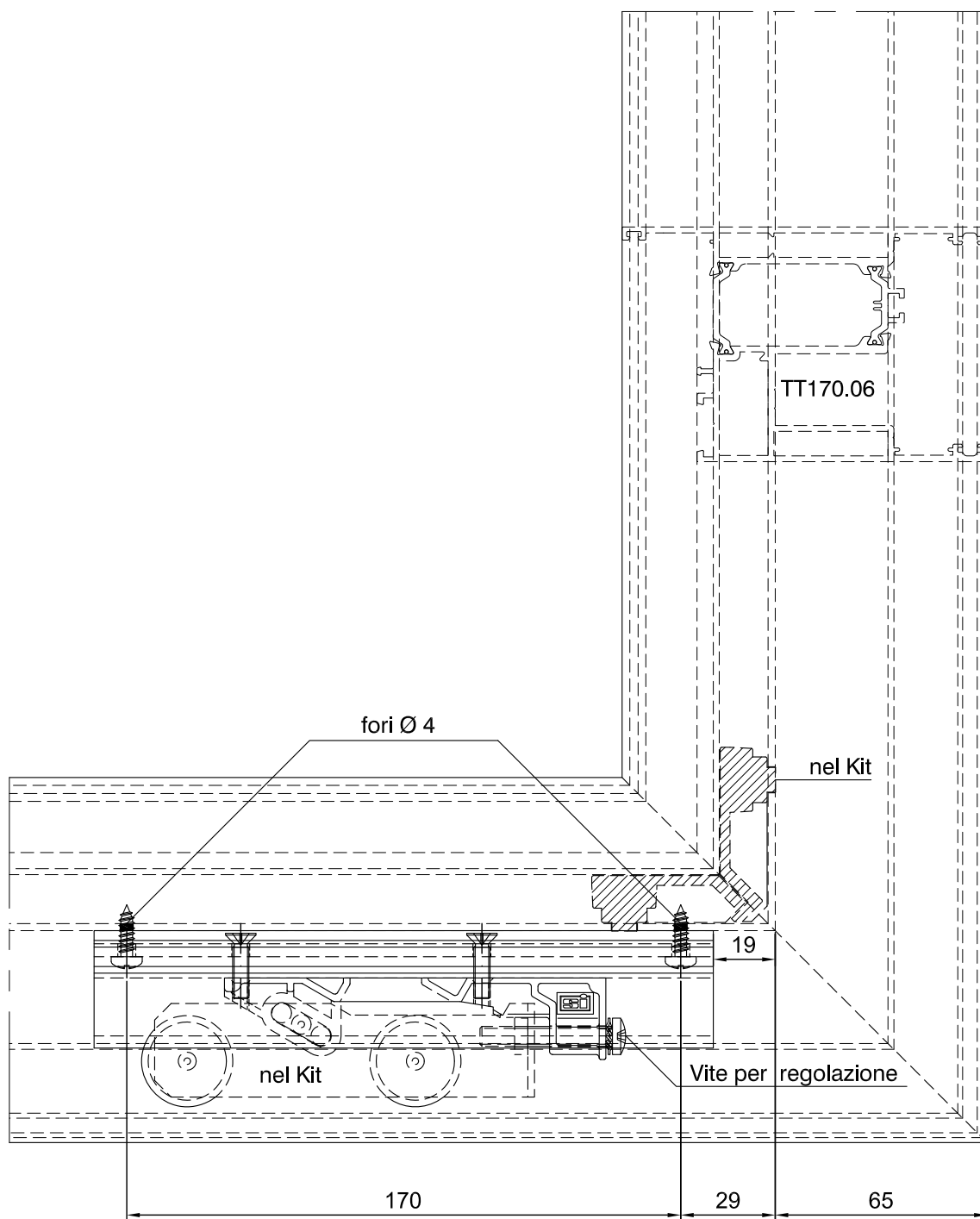
2° FASE : Fissaggio SUPPORTO all' anta (per posizione vedi pagina successiva)

1st version : Fixing adjustable pulley to the support profile

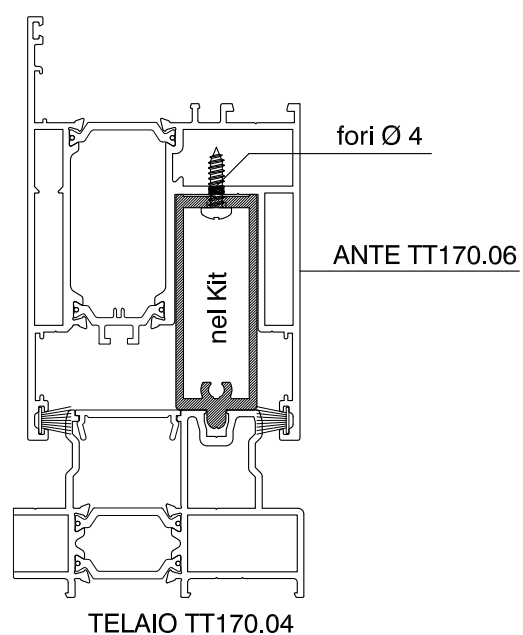
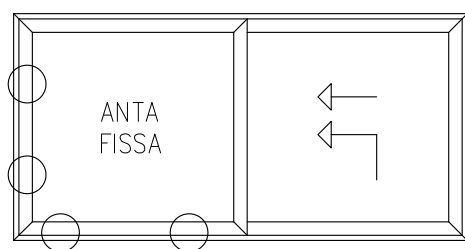
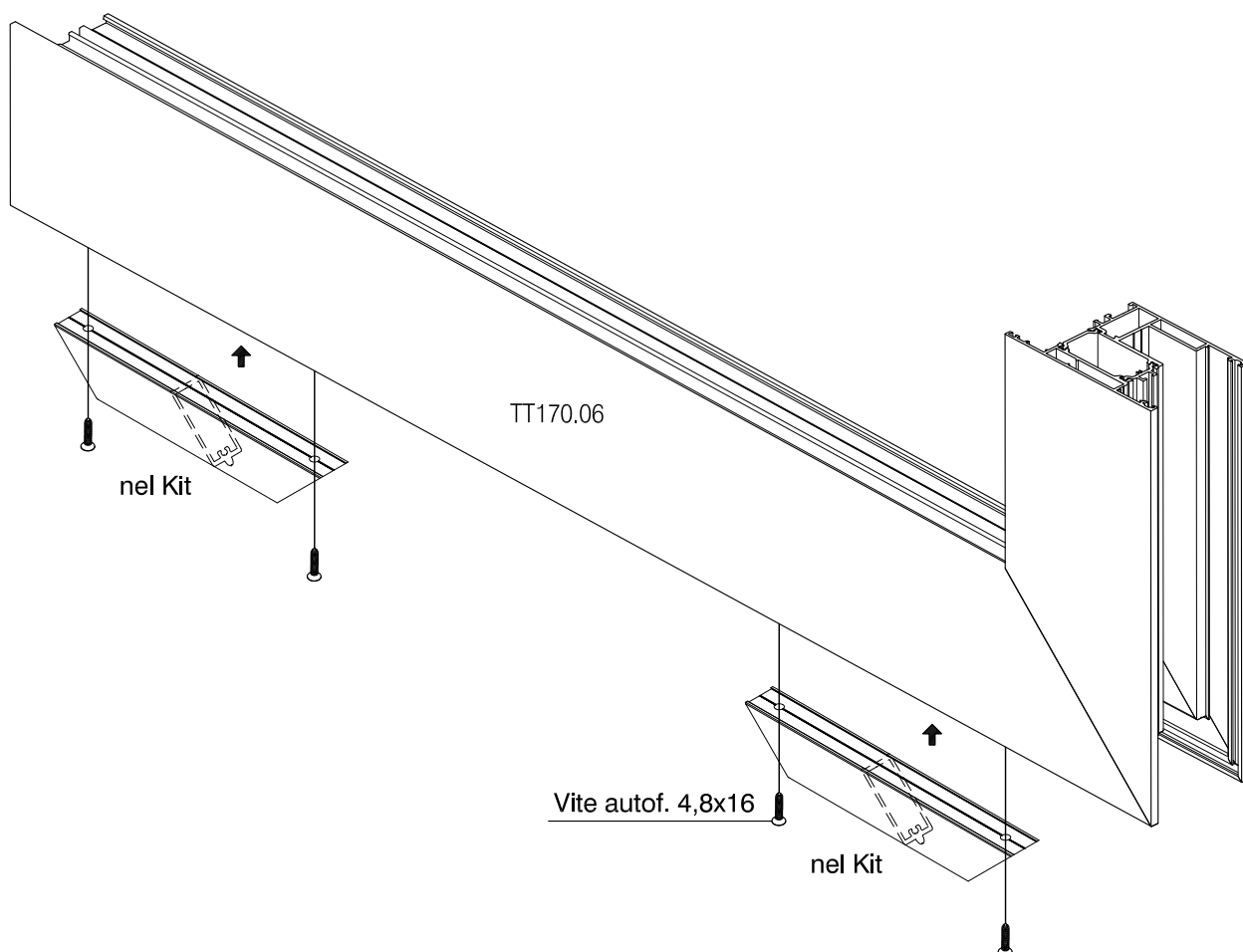
2nd version : Fixing support to the sliding windows (for position see next page)



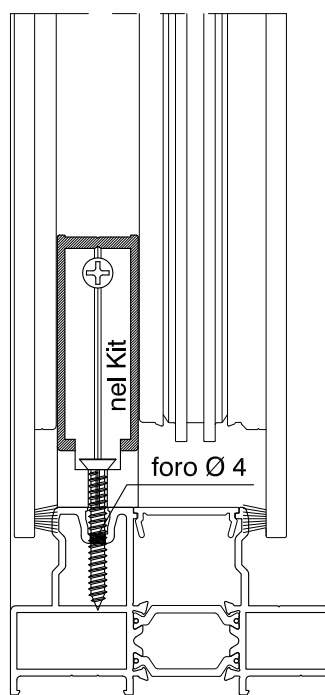
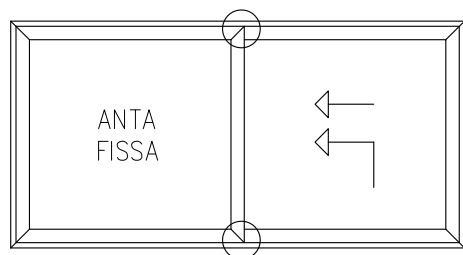
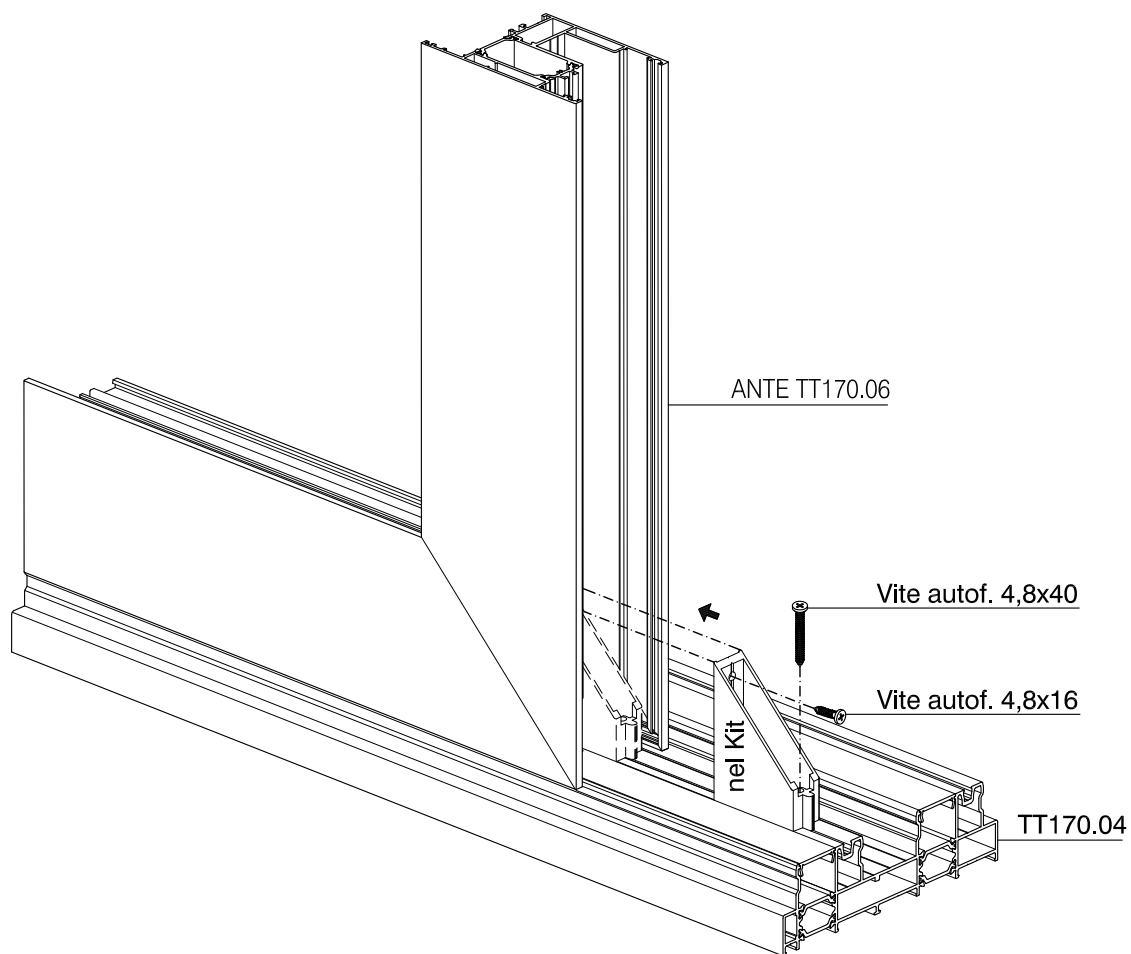
Lavorazioni - Tooling



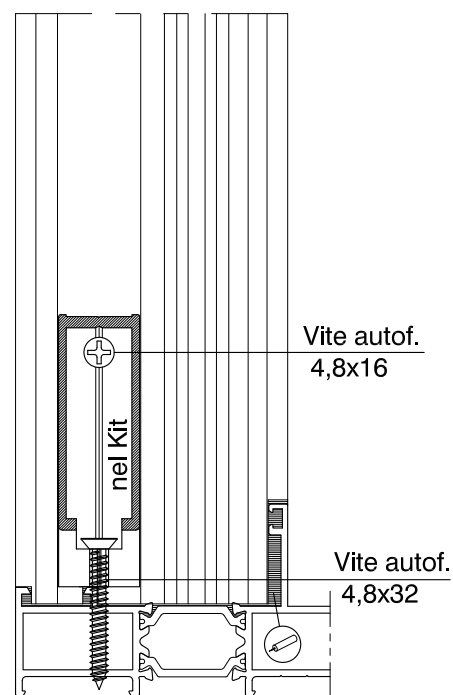
Lavorazioni - Tooling



Lavorazioni - Tooling

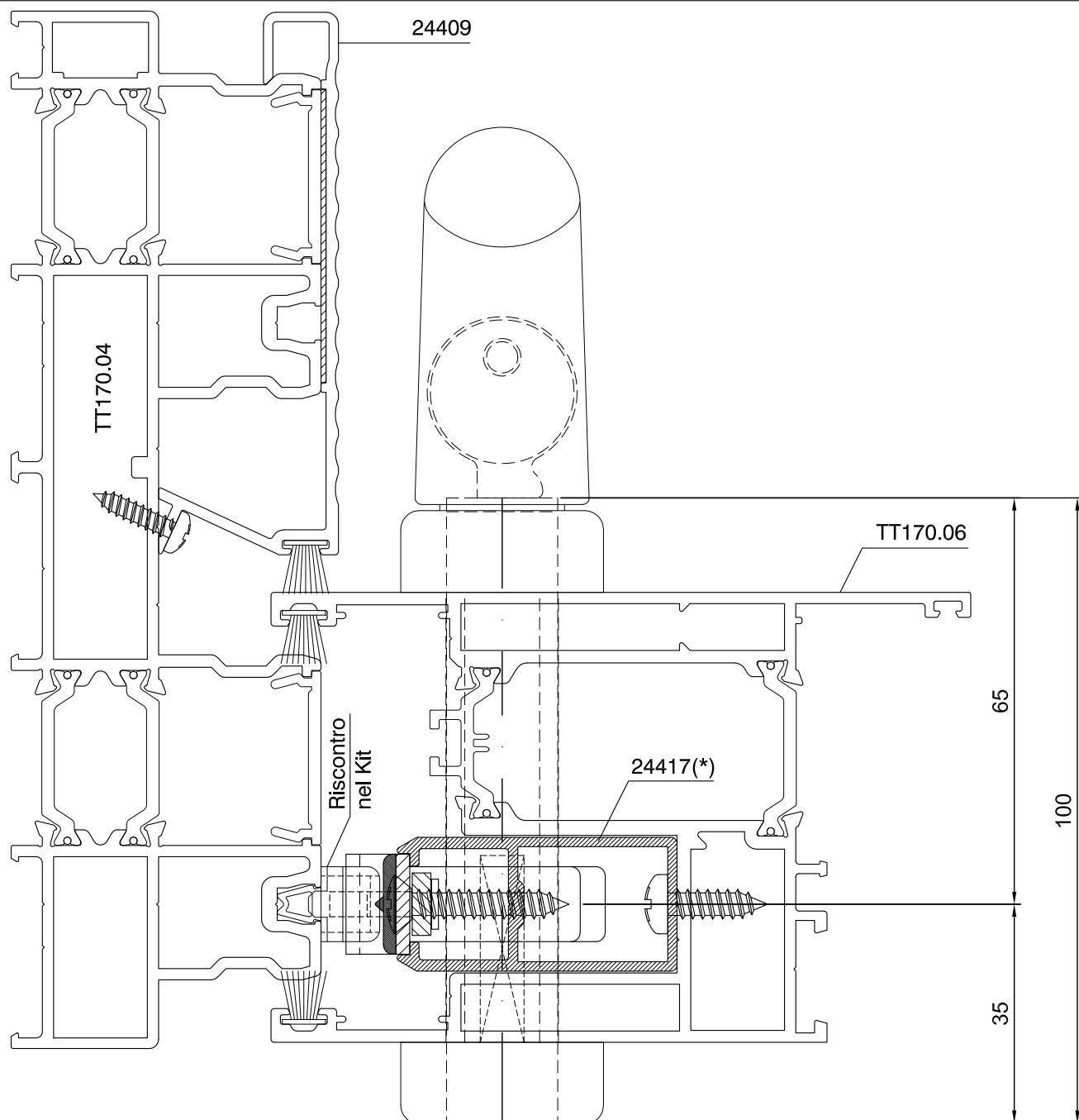


TELAIO TT170.04

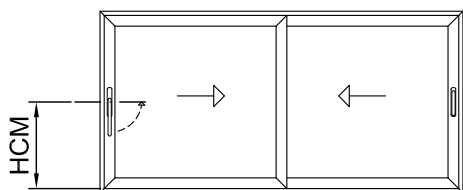


TELAIO TT170.07 (Monorotaia)

Lavorazioni - Tooling



PROSPETTO INTERNO



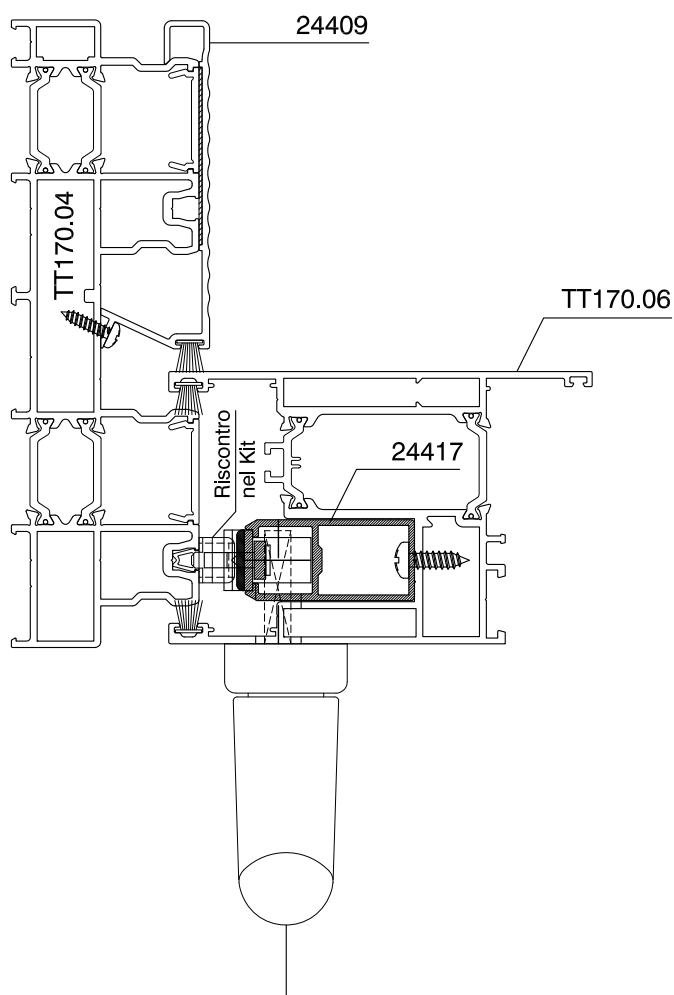
Descrizione Accessori	Codici
CREMONESE CS c/cilindro	EA-0097
CILINDRO L=100mm.(35-65)	
MARTELLINA	EA-0093/4
+ Conf. VITI e QUADRO	EA-0095

(*) Taglio 24417 uguale alla cremonese adottata (+ eventuale terminale inf.-sup.)

VISTA LATERALE

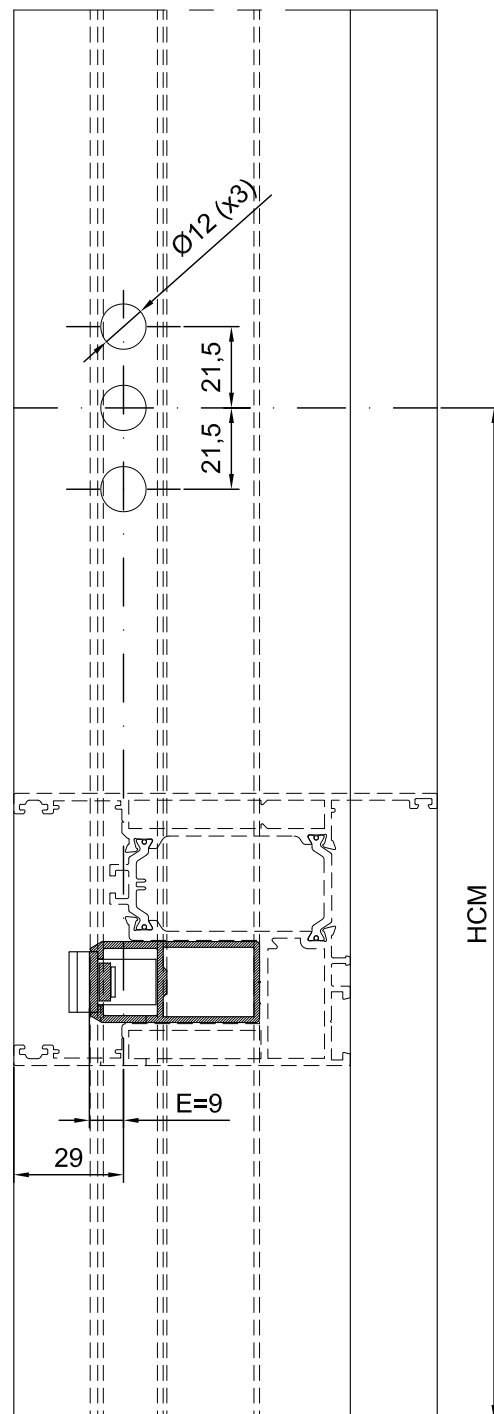


Lavorazioni - Tooling

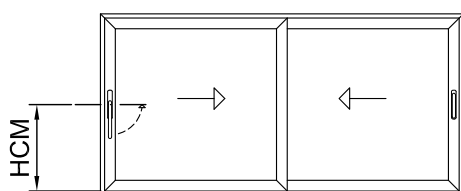


Descrizione Accessori	Codici
CREMONESE CS s/cilindro	EA-0096
MARTELLINA	EA-0091/2
+ Conf. VITI e QUADRO	EA-0095

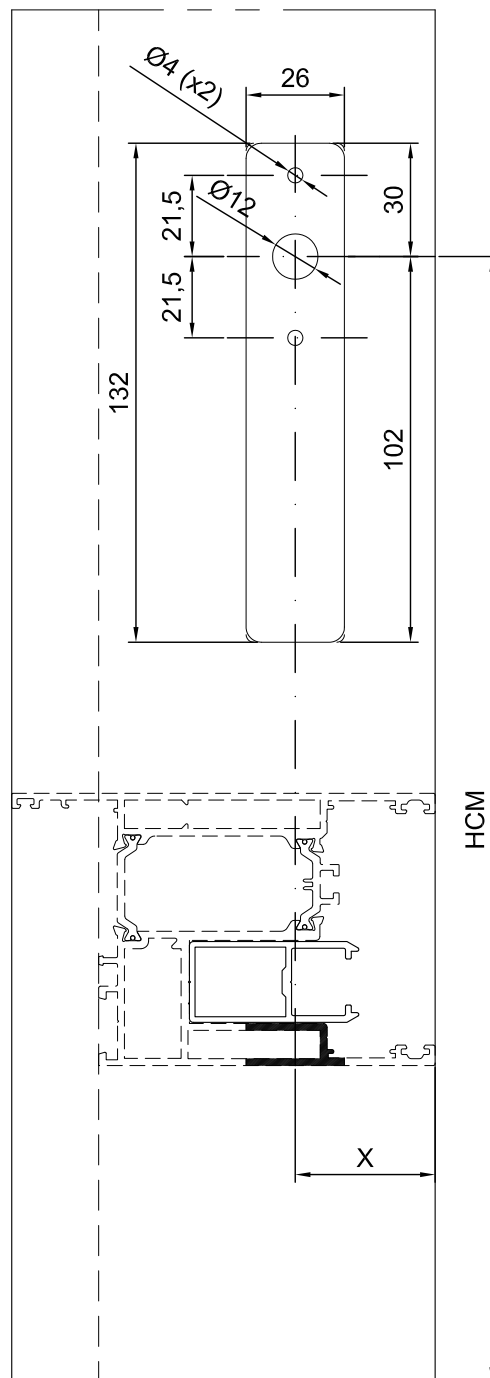
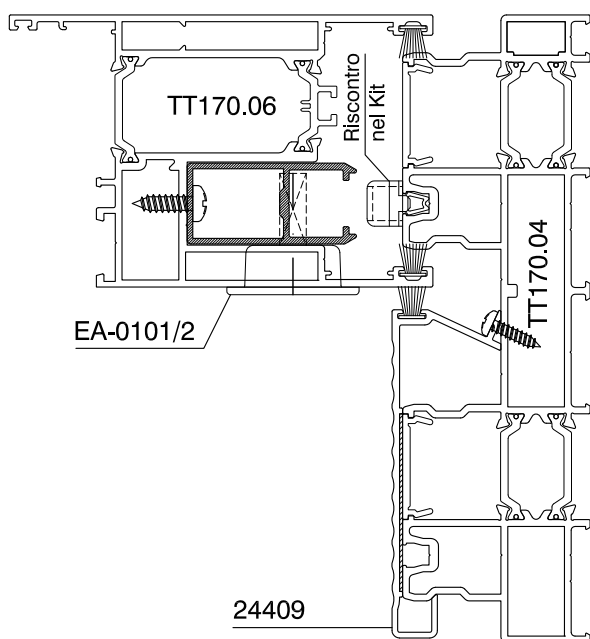
VISTA FRONTALE INTERNA



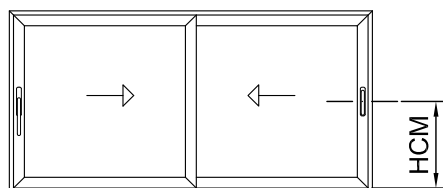
PROSPETTO INTERNO



VISTA FRONTALE INTERNA

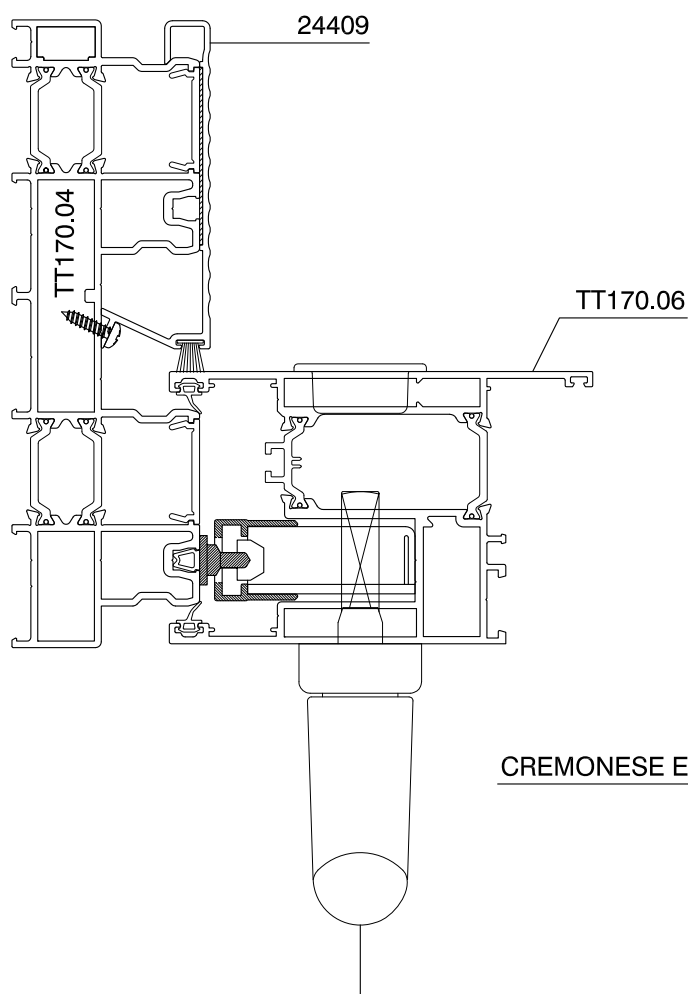


PROSPETTO INTERNO



Accessori da abbinare a EA-0101/2	Codici	X
CREMONESE CS s/cilindro	EA-0096	29
CREMONESE CS c/cilindro	EA-0097	37

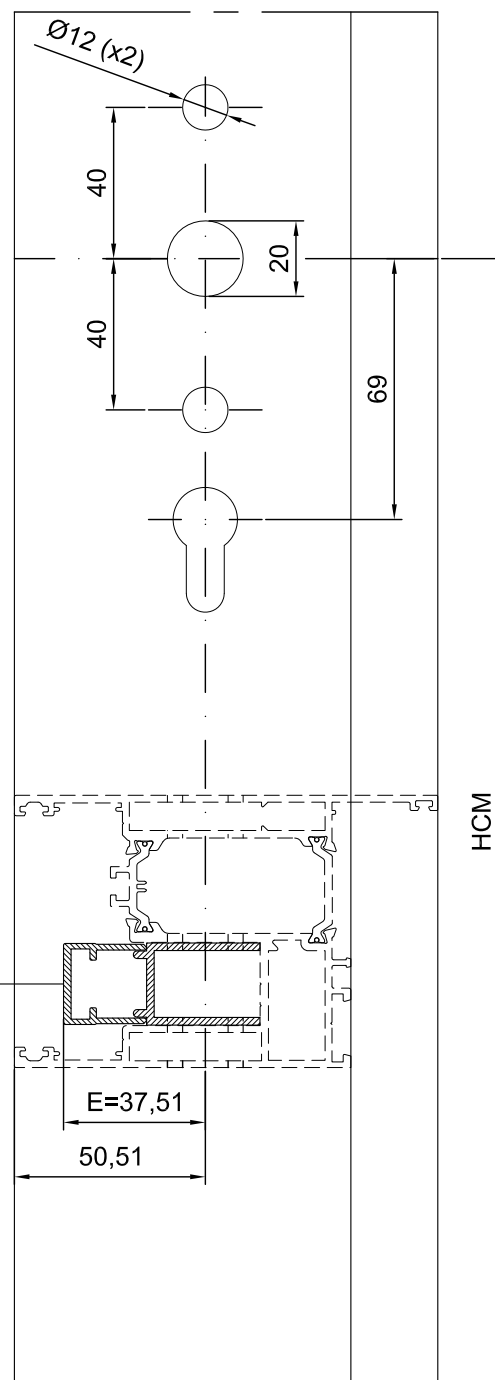
Lavorazioni - Tooling



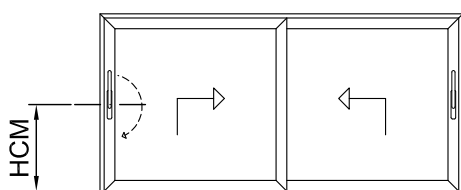
(*)

Descrizione Accessori	Codici
CREMONESE (vedi dimensioni)	EA-0072/3/4
MANIGLIONE + c/VASCHETTA	EA-0082/3

VISTA FRONTALE INTERNA



PROSPETTO INTERNO

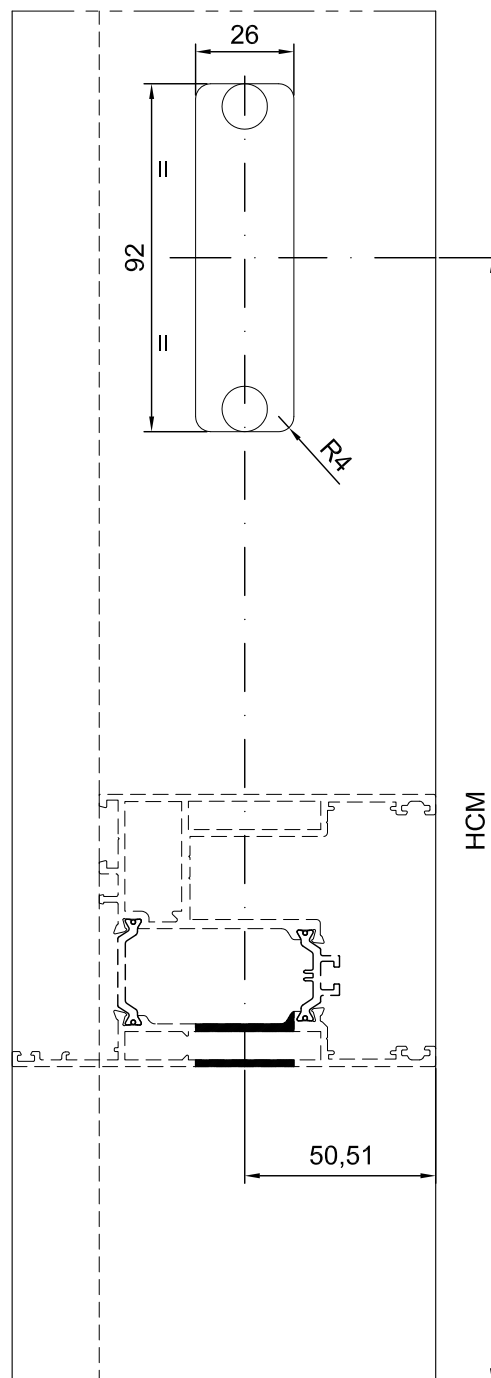
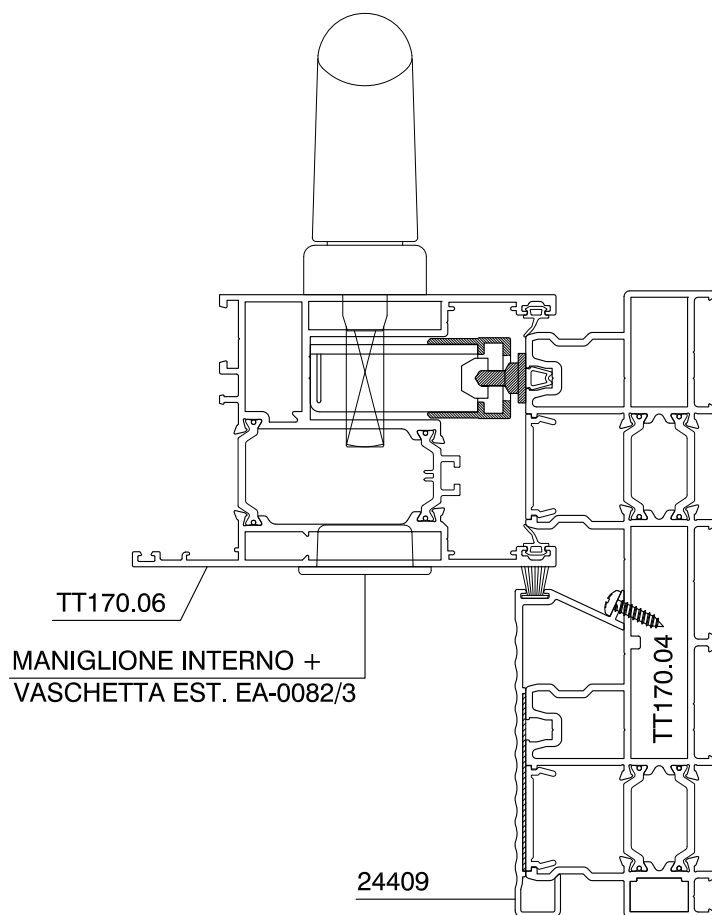


(*) In alternativa Maniglione Interno e Esterno

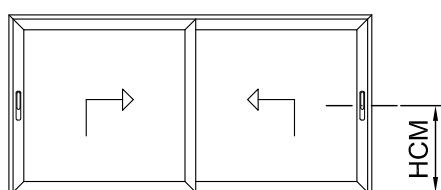
Descrizione Accessori	Codici
CREMONESE	EA-0072/3/4
MANIGLIONE c/CILINDRO int.	EA-0084/5
MANIGLIONE c/CILINDRO est.	EA-0086/7
VITE x MANIGLIONE passante	EA-0088 (2pz.)
COPERCHIETTO c/foro cilindro	EA-0089/90 (2pz.)
CILINDRO L=100mm.(35-65)	

Lavorazioni - Tooling

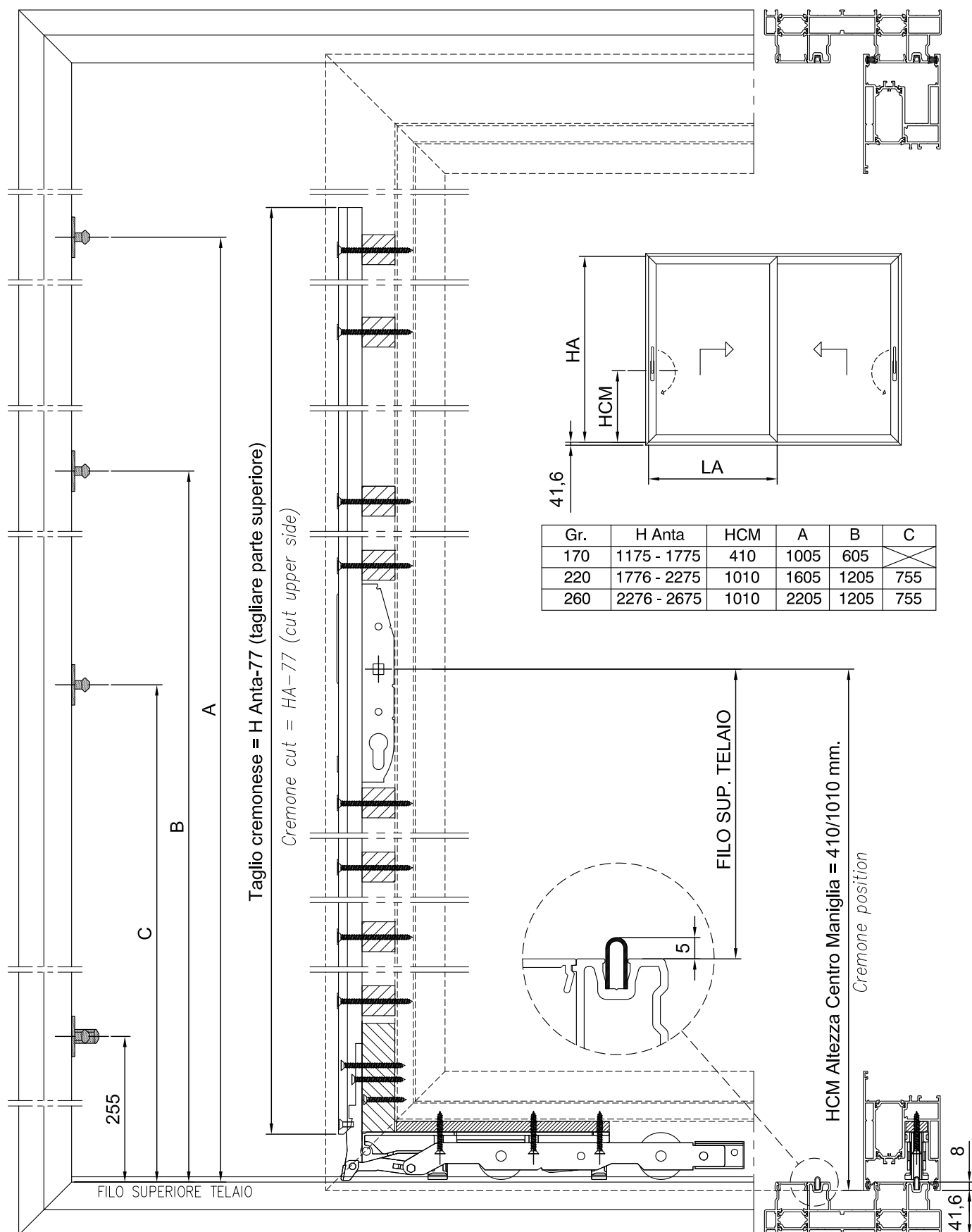
VISTA FRONTALE ESTERNA



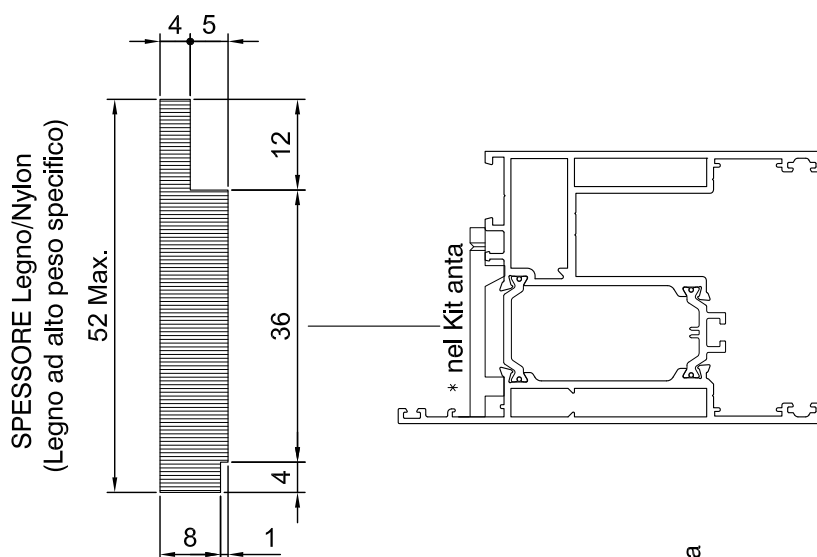
PROSPETTO ESTERNO



Lavorazioni - Tooling



Lavorazioni - Tooling

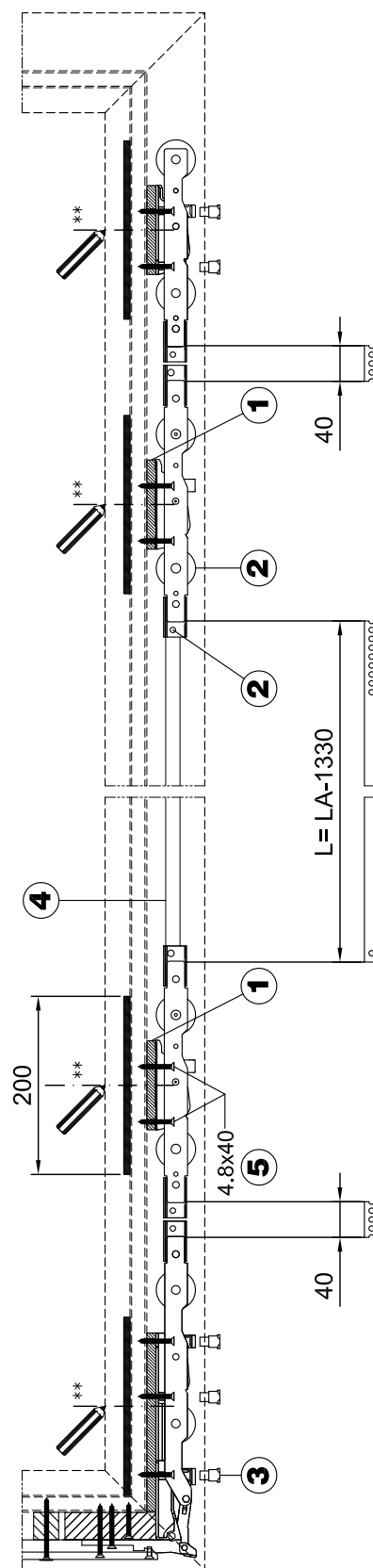


CARRELLI SUPPLEMENTARI per ANTE con peso fino a 400 Kg.				
Indichiamo i componenti, viti per il fissaggio, e la loro collocazione rispetto all'anta :				
Pos.	Descrizione	Codici	N° Pz.	
1	Spessore per carrello		2	
2	Carrelli M HS + spine cilindriche c/intagli 6x16	EA-0071	2	
3	Conf. fermi per carrelli HS		1	
4	Vite att. TCS 4,8x40		4	
5	Barra di collegamento carrelli	L Anta		
		2001 - 2500	EA-0078	1
		2501 - 3350	EA-0079	

ATTENZIONE

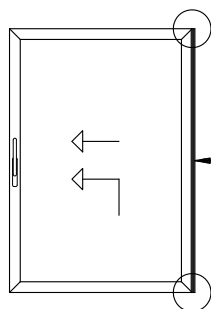
Per una distribuzione del peso sicura:

- * a) Sostituire lo spessore vetro nel Kit anta con spessori portanti in Legno/Nylon per aumentare il piano d'appoggio (vedi dis.)
- ** b) Posizionare gli spessori portanti esattamente sopra i carrelli
- c) Lato vetro, segnare la posizione degli spessori portanti dopo il fissaggio di tutti i carrelli per avere l'esatta posizione durante il montaggio del vetro.



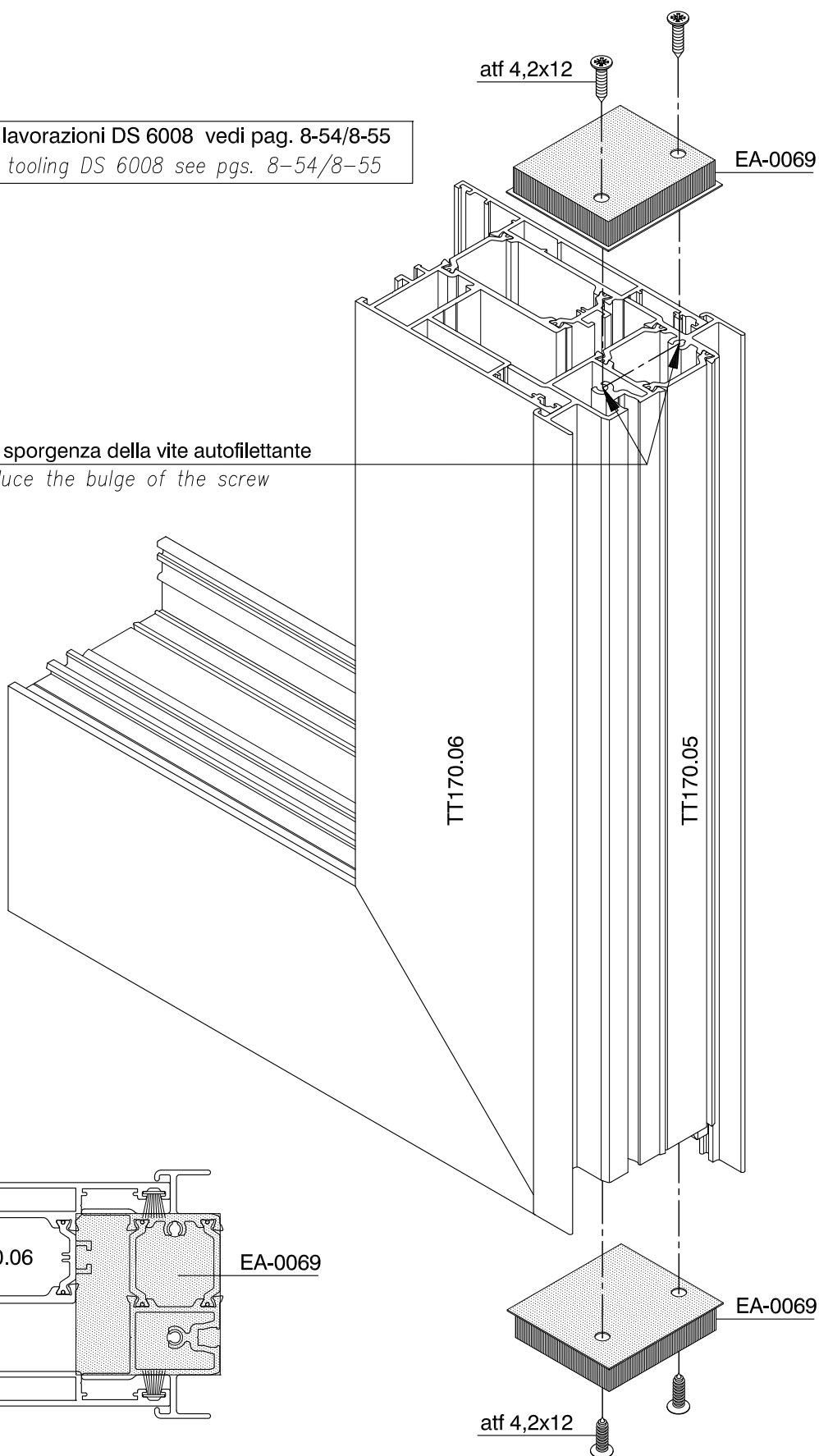
Schema di taglio della barra di collegamento carrelli

Lavorazioni - Tooling

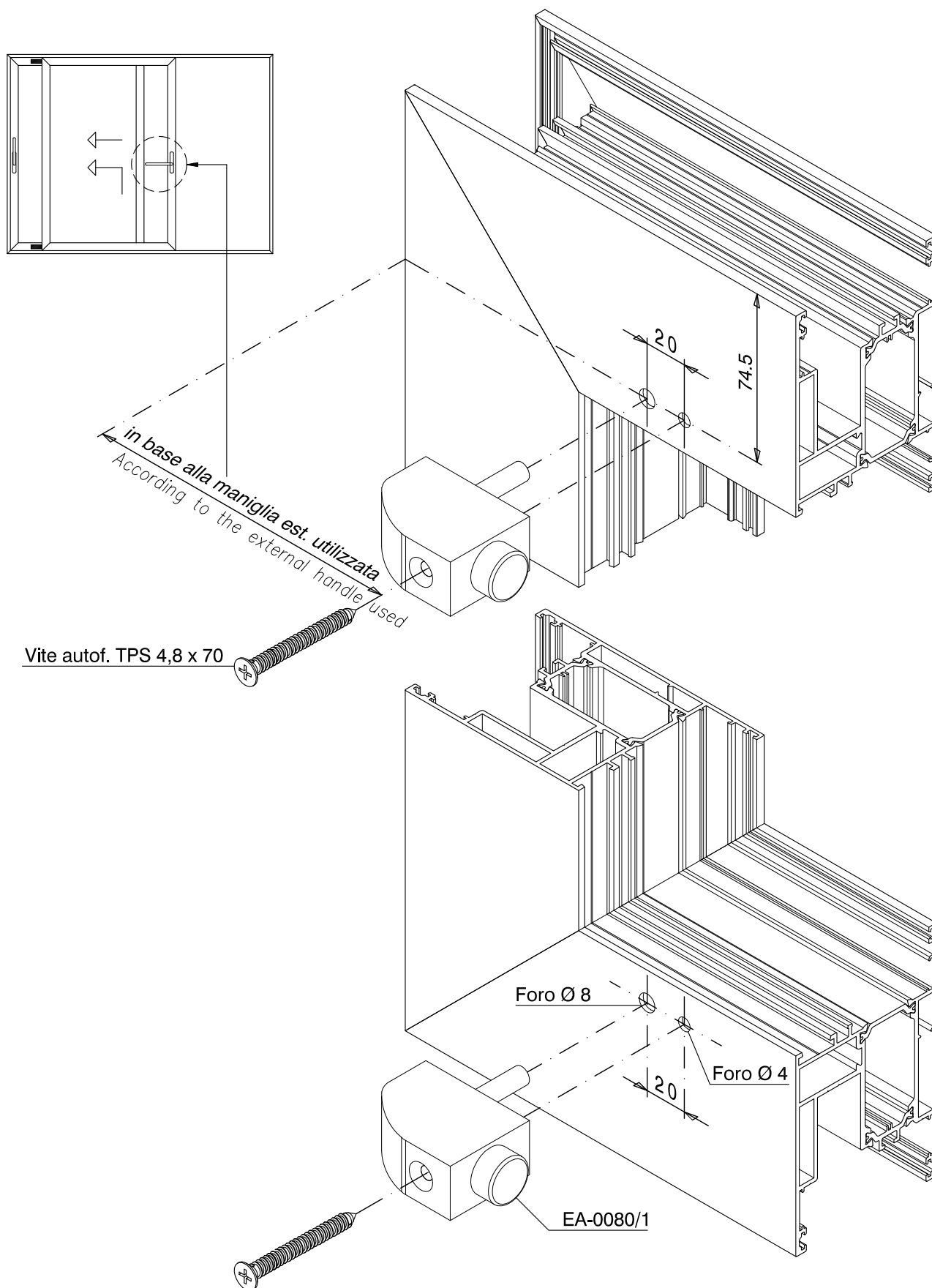


Per lavorazioni DS 6008 vedi pag. 8-54/8-55
For tooling DS 6008 see pgs. 8-54/8-55

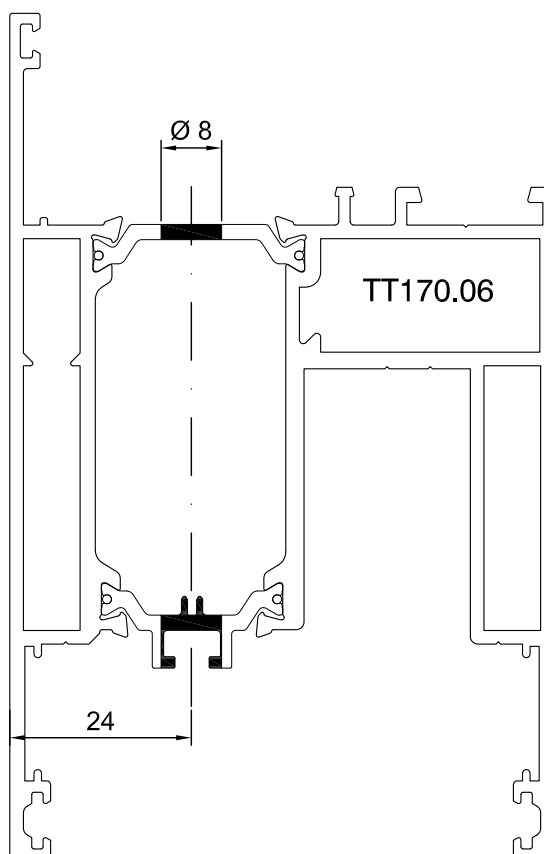
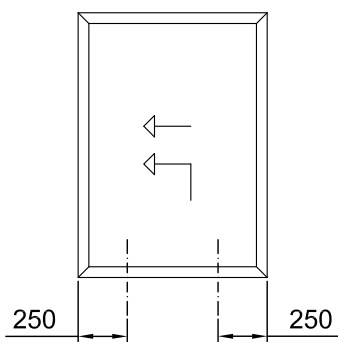
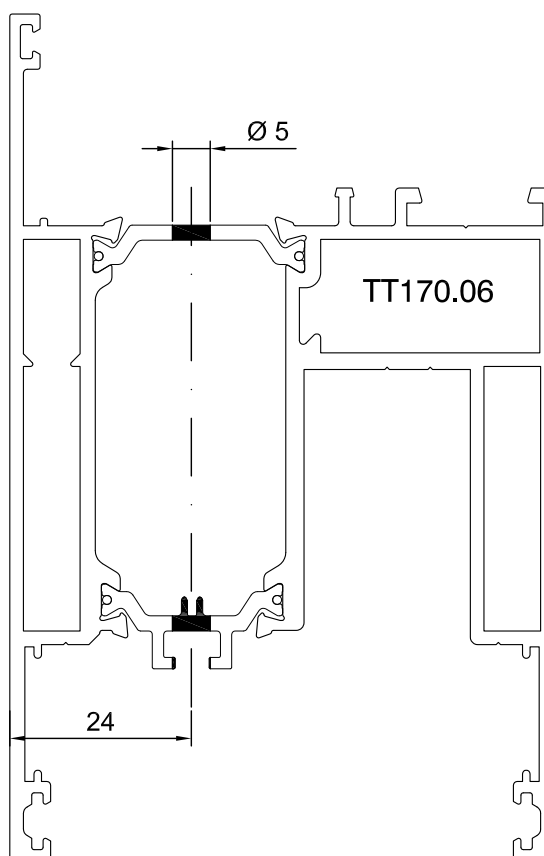
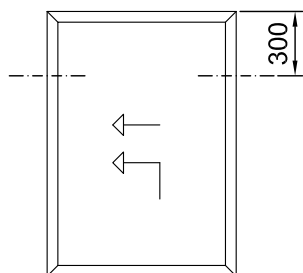
Svasare la sede per ridurre la sporgenza della vite autofilettante
Countersink the seat to reduce the bulge of the screw



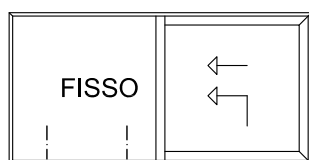
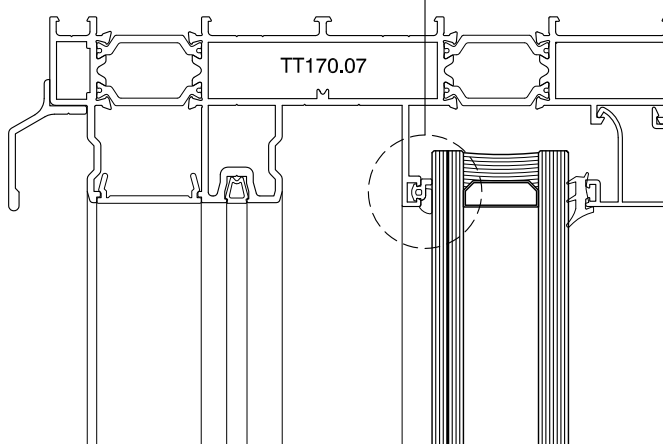
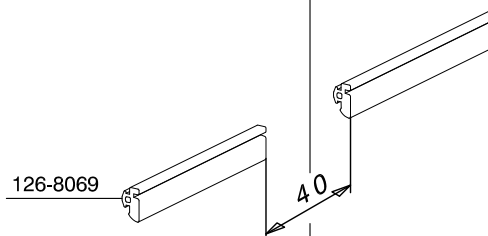
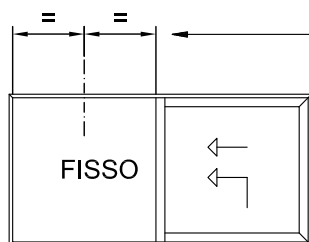
Lavorazioni - Tooling



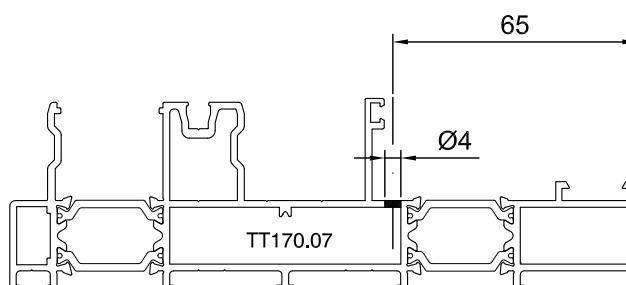
Lavorazioni - Tooling



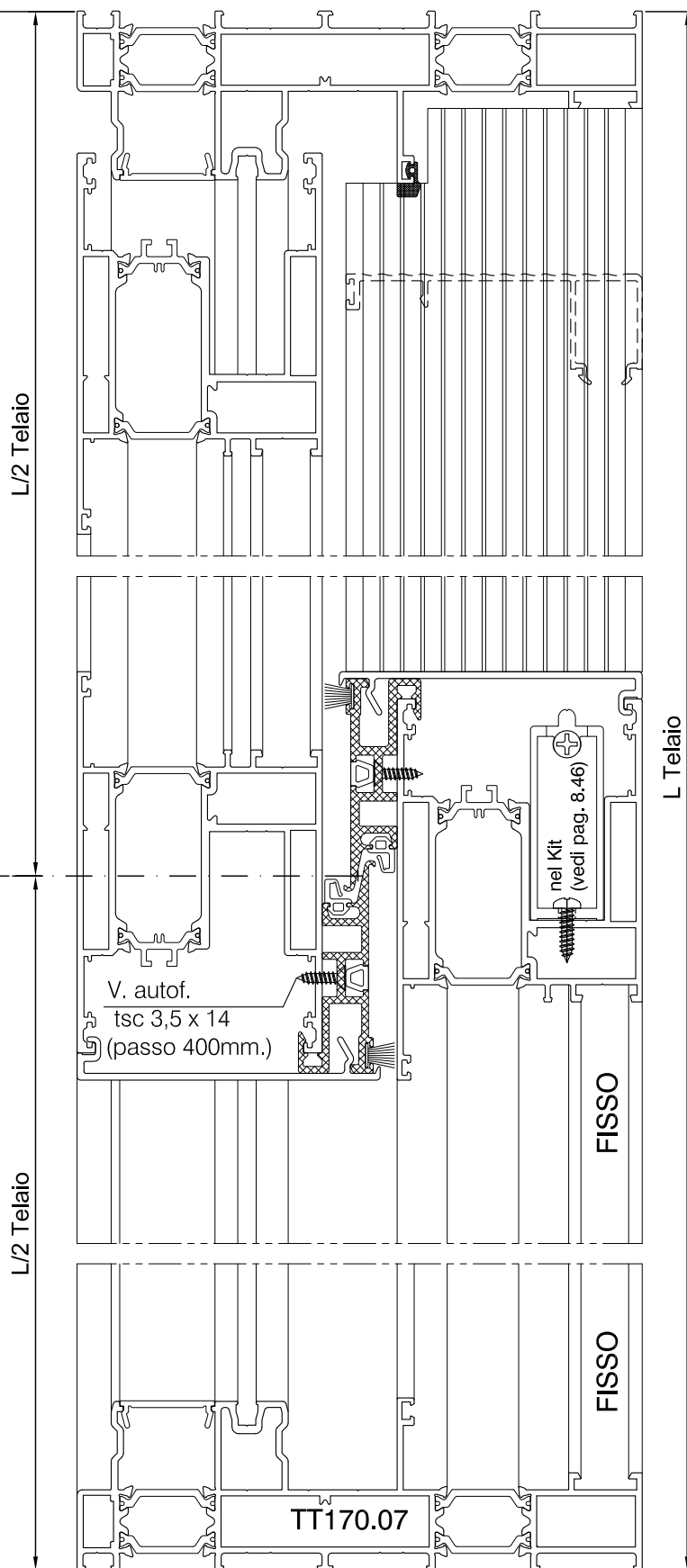
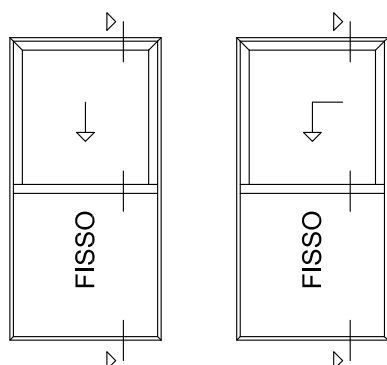
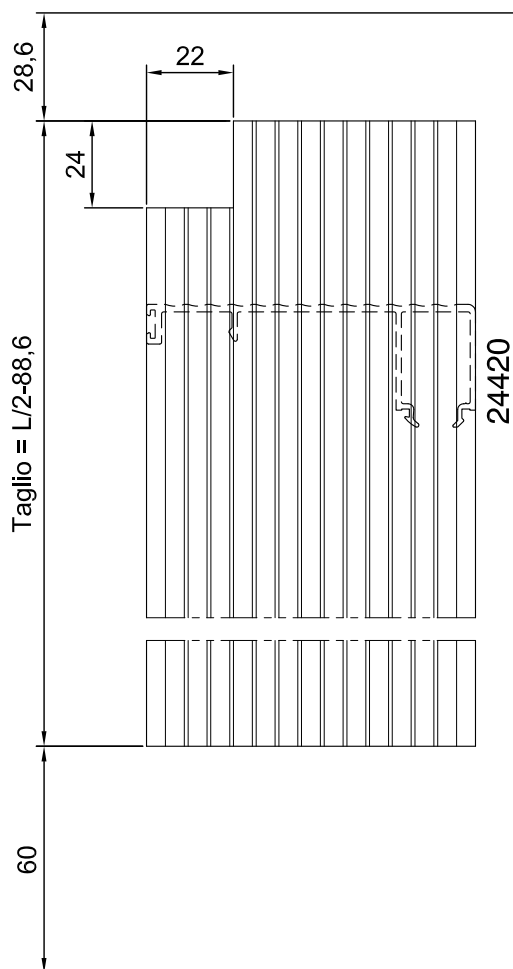
Lavorazioni - Tooling



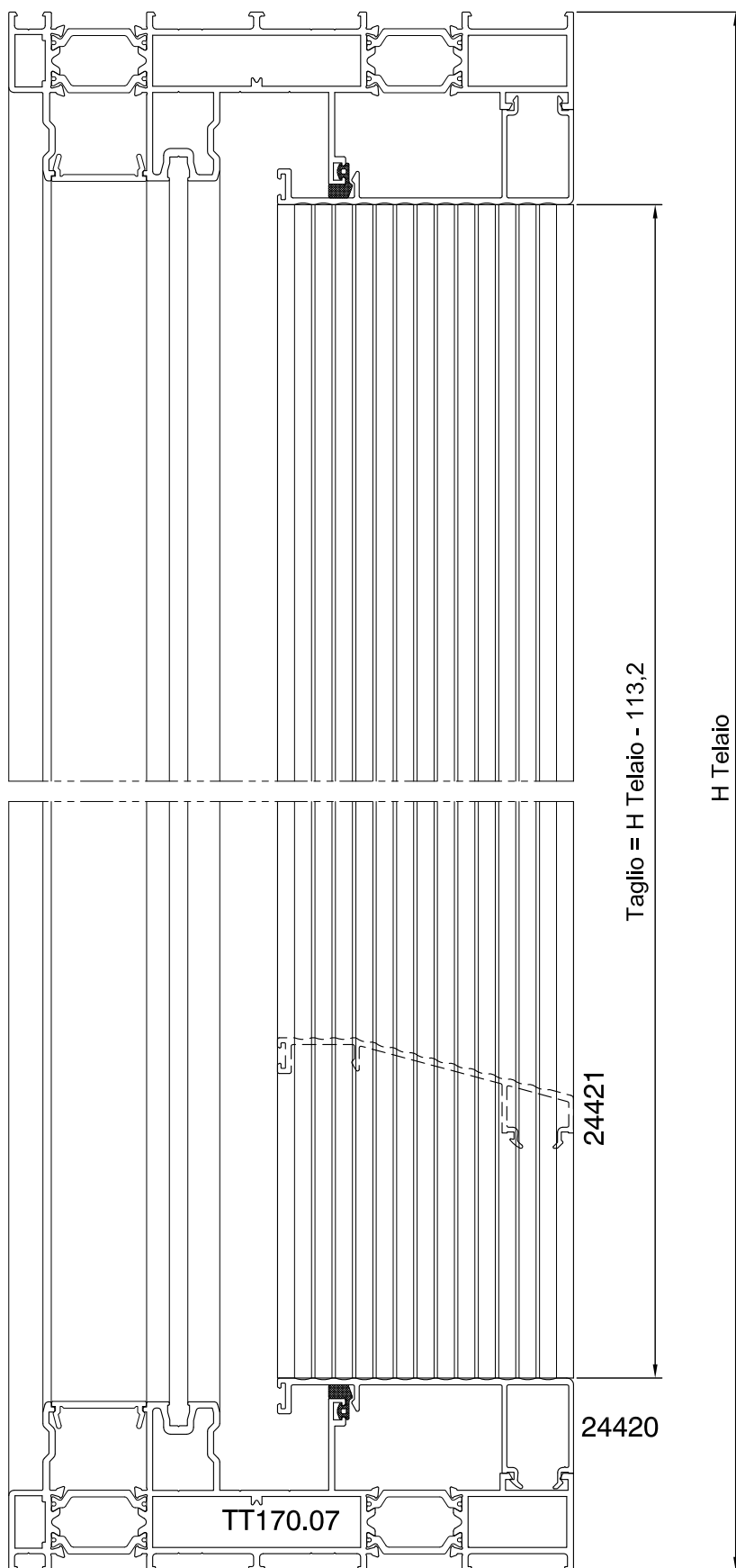
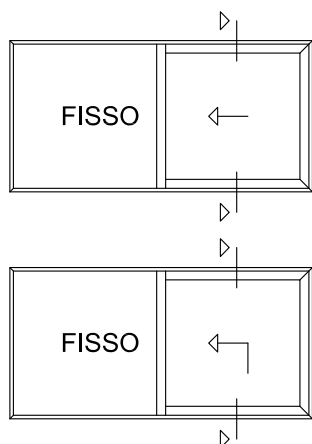
200 200



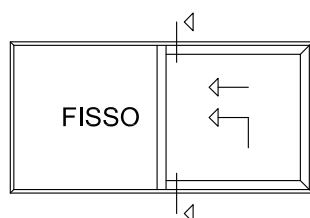
Lavorazioni - Tooling



Lavorazioni - Tooling



Lavorazioni - Tooling



Taglio = H Telaio - 48,2

Fresatura traverso
(vedi pag. 8-10)

TT170.06

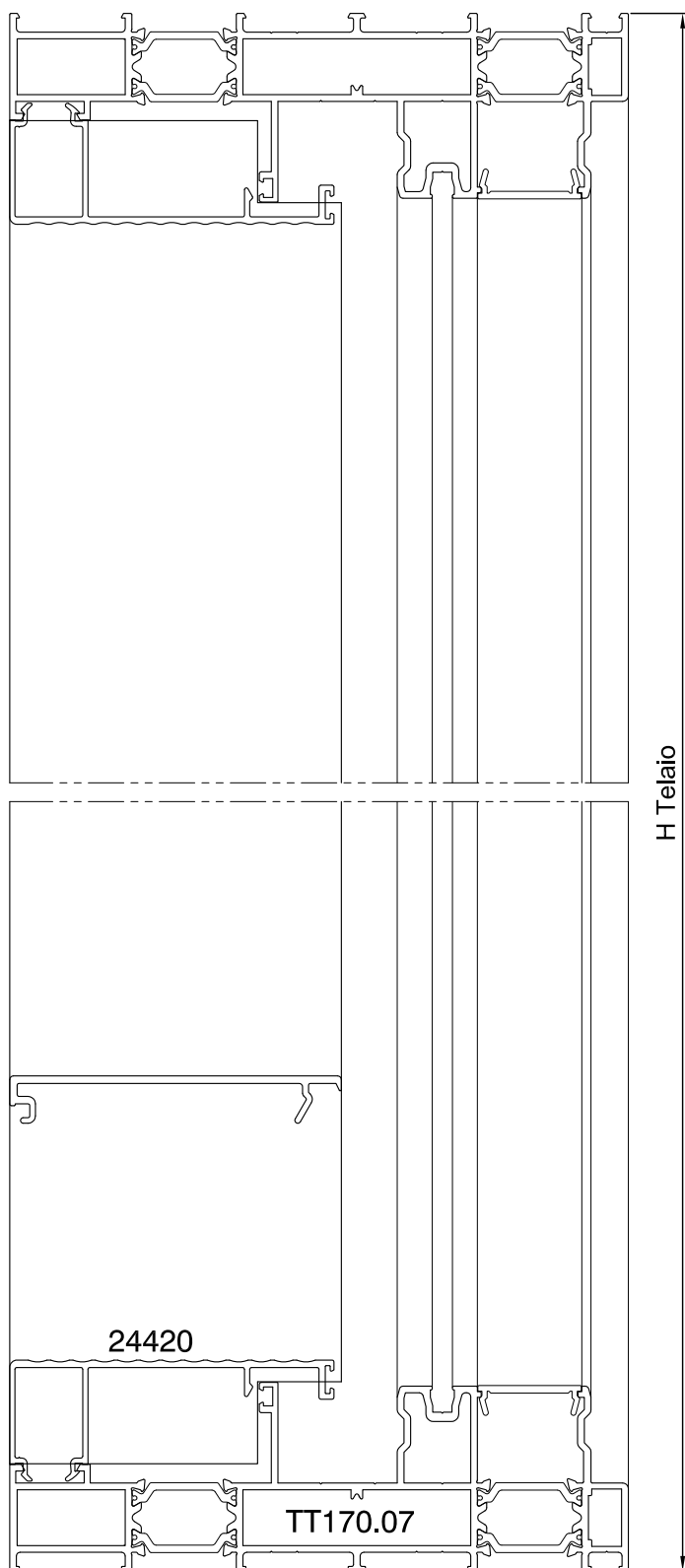
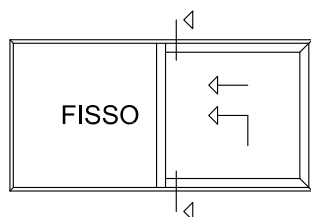
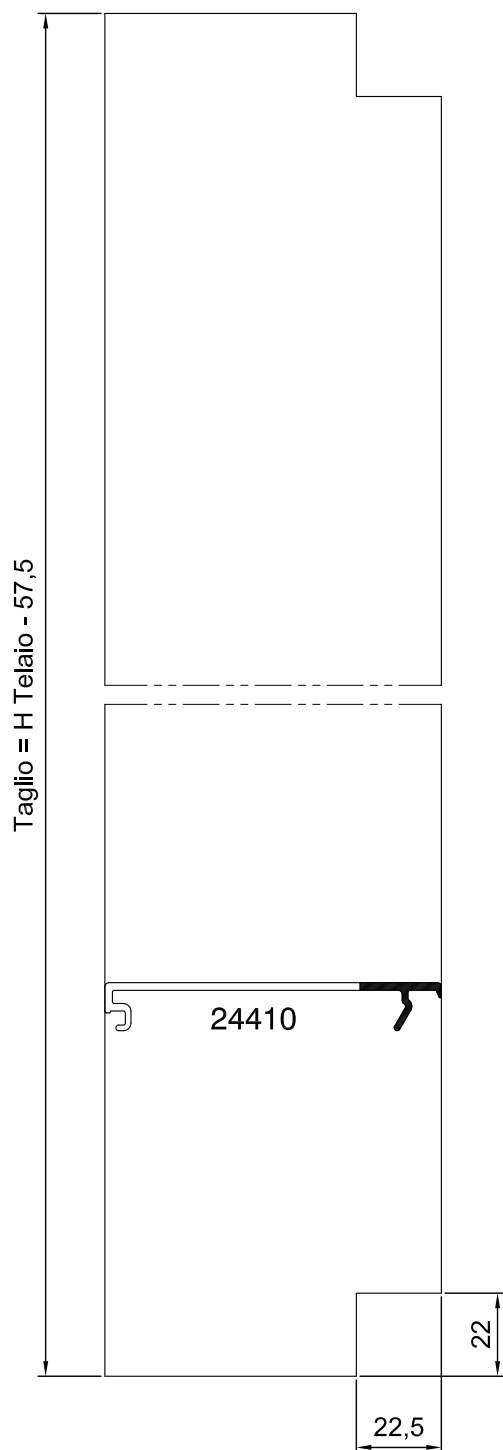
nel Kit
(vedi pag. 8-34)

EA-0031
(vedi pag. 8-12)

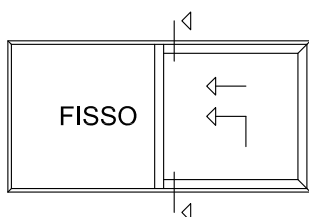
TT170.07

H Telaio

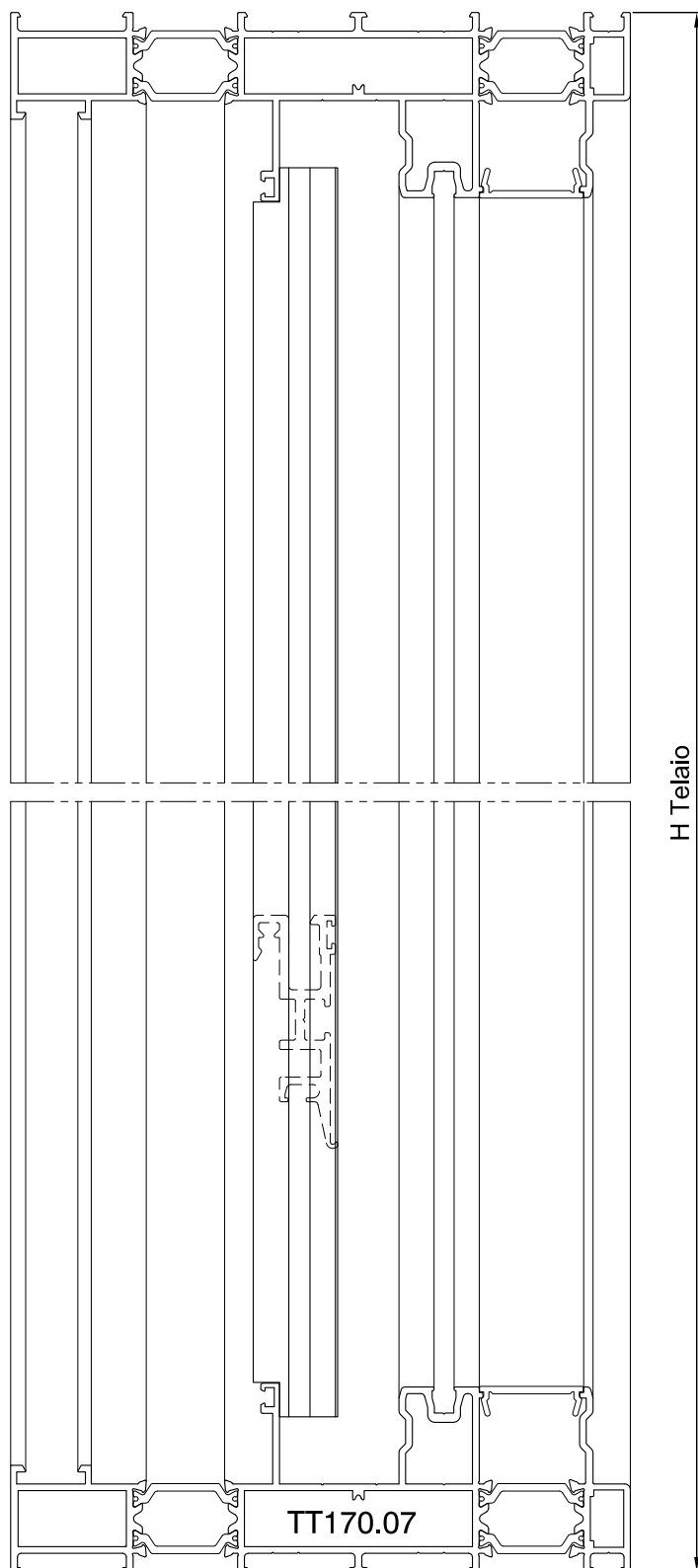
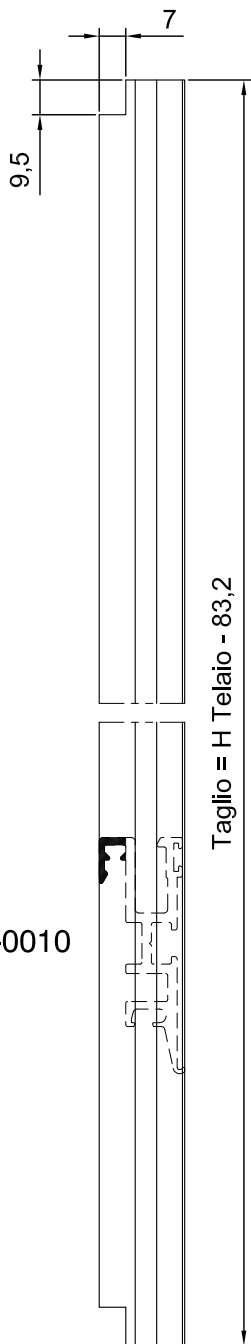
Lavorazioni - Tooling



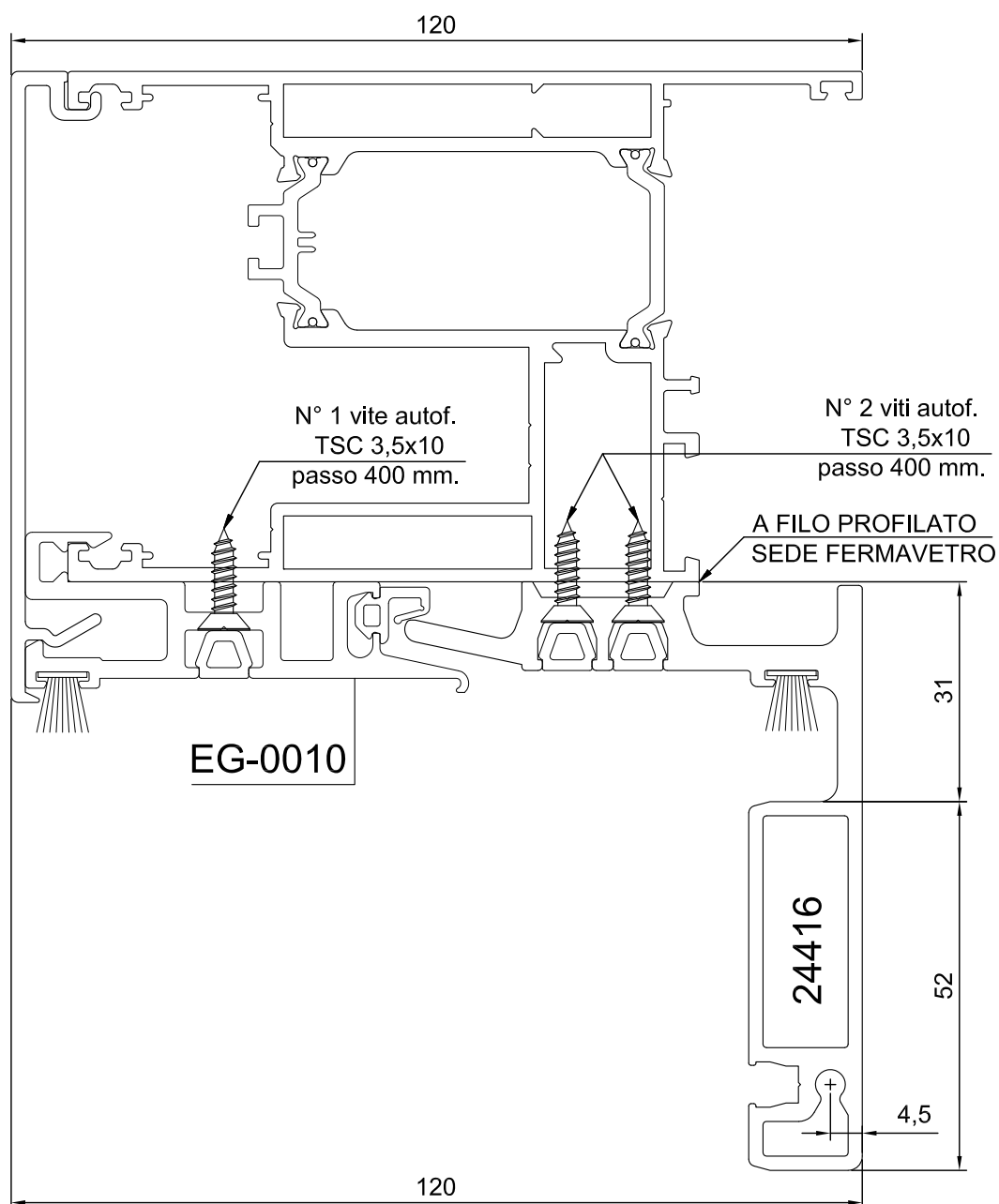
Lavorazioni - Tooling



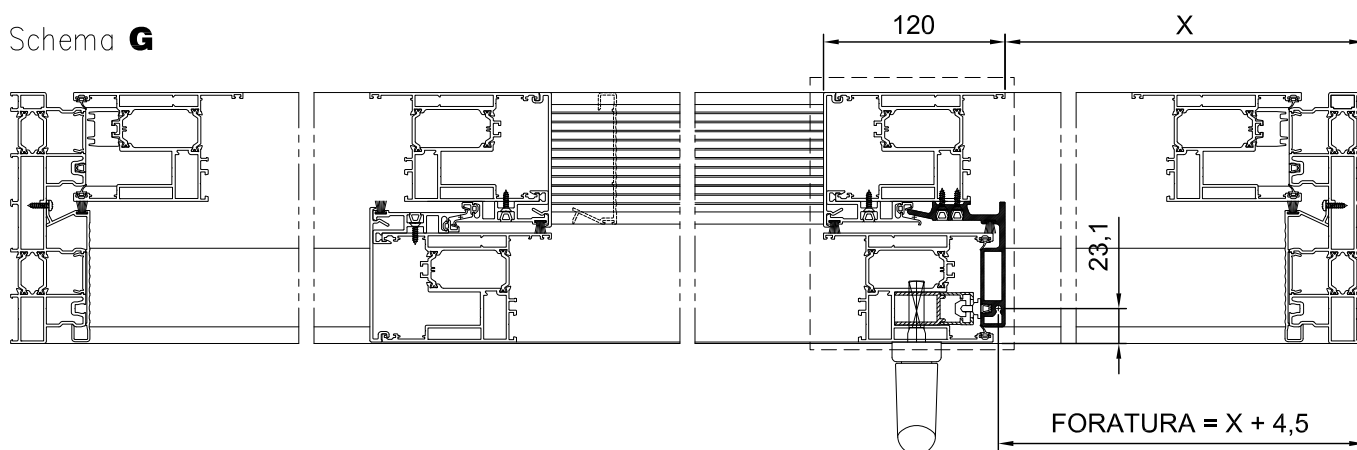
EG-0010



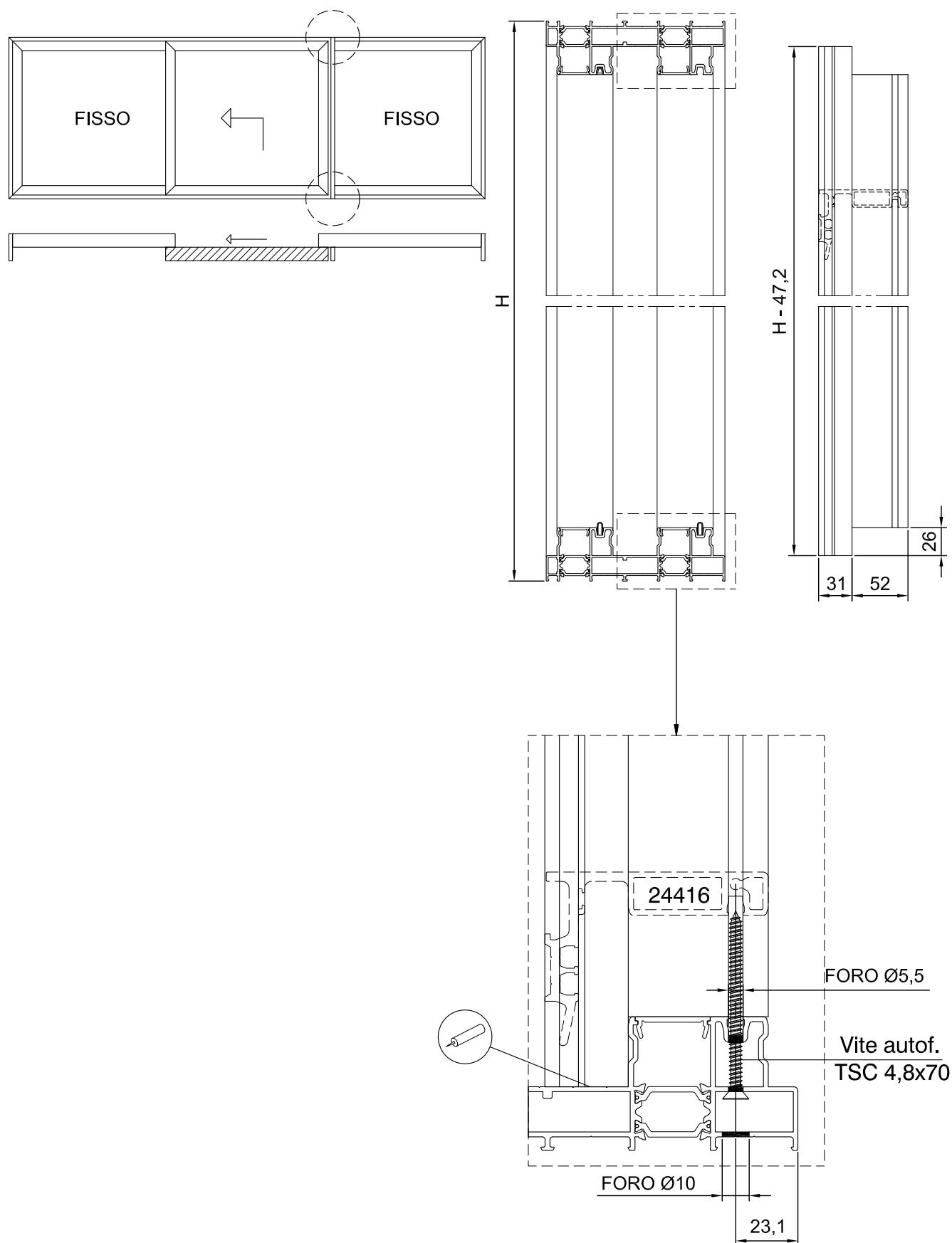
Lavorazioni - Tooling



Schema **G**

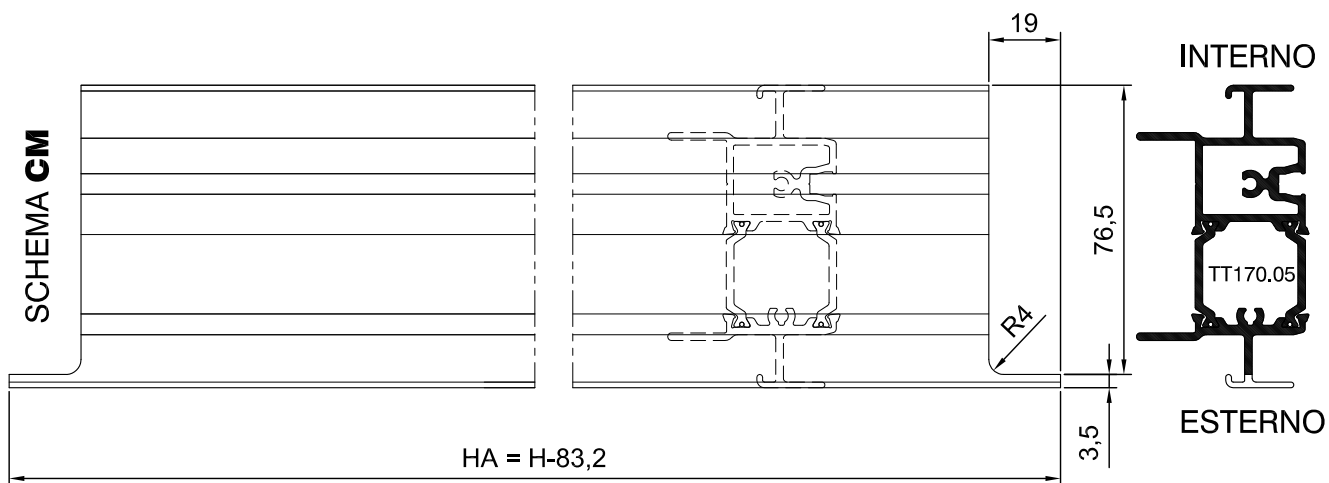


Lavorazioni - Tooling

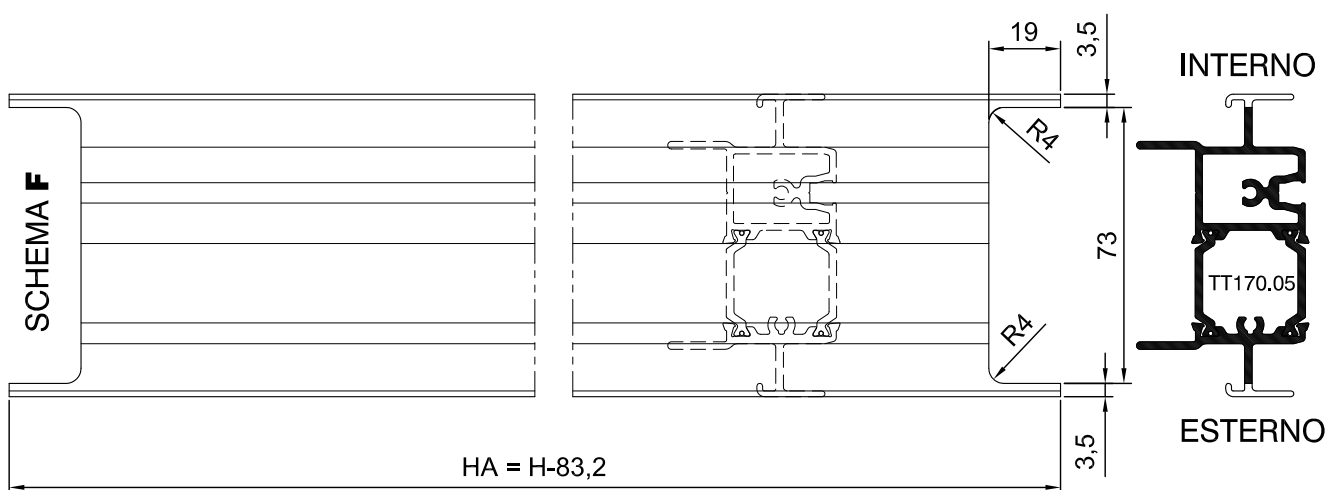


Lavorazioni - Tooling

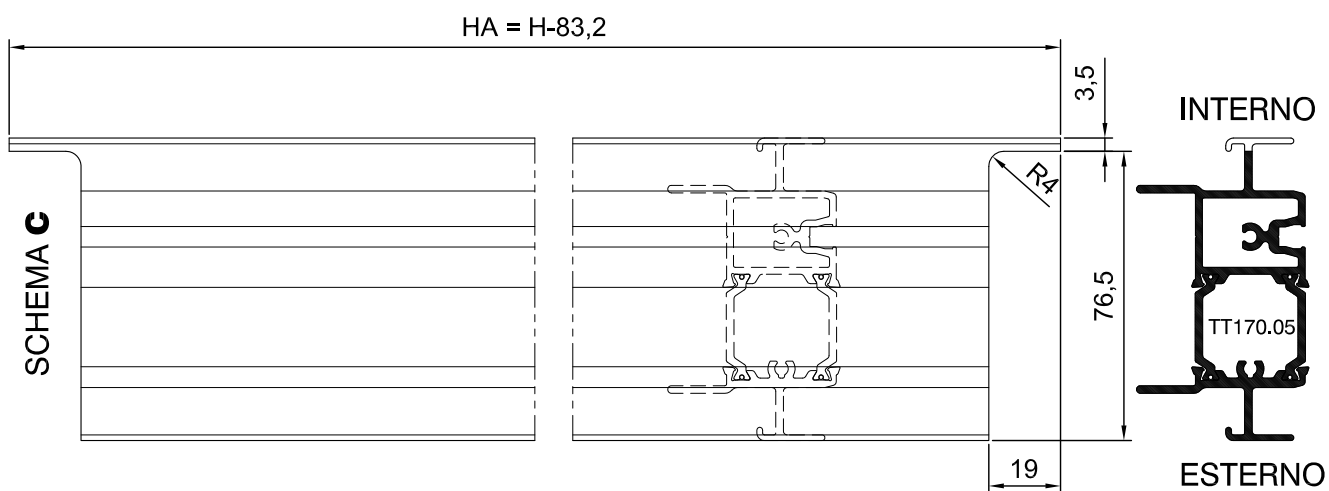
SCHEMA CM



SCHEMA F

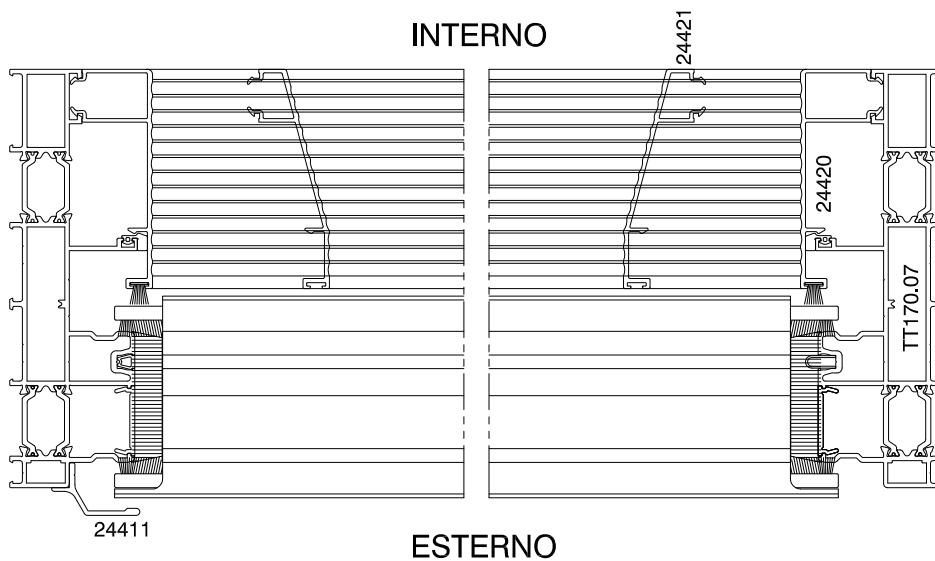
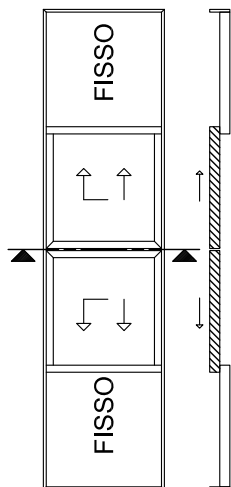


SCHEMA C

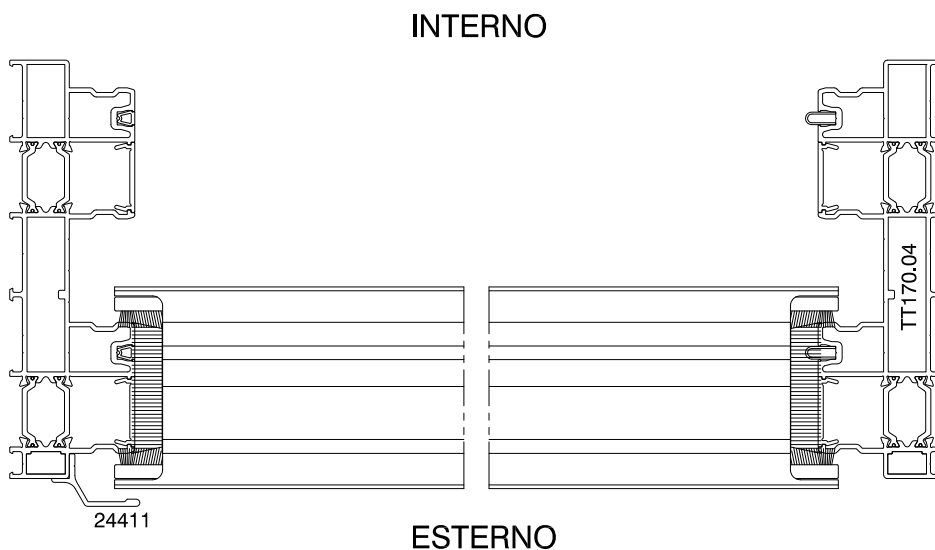
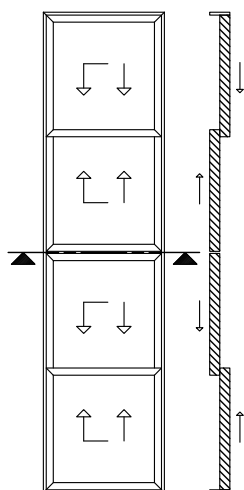


Lavorazioni - Tooling

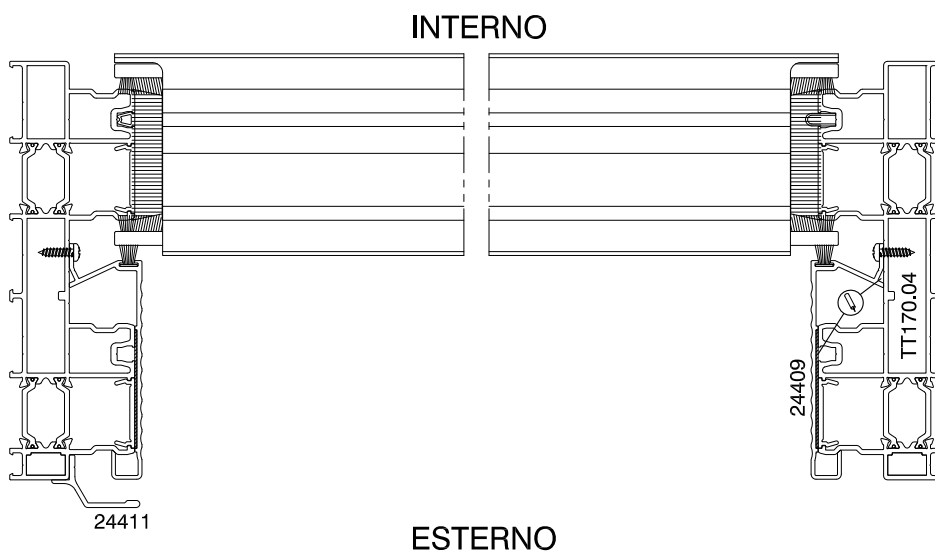
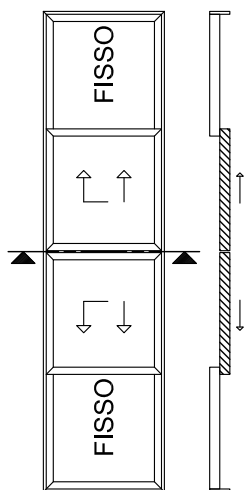
SCHEMA CM (prospetto interno)



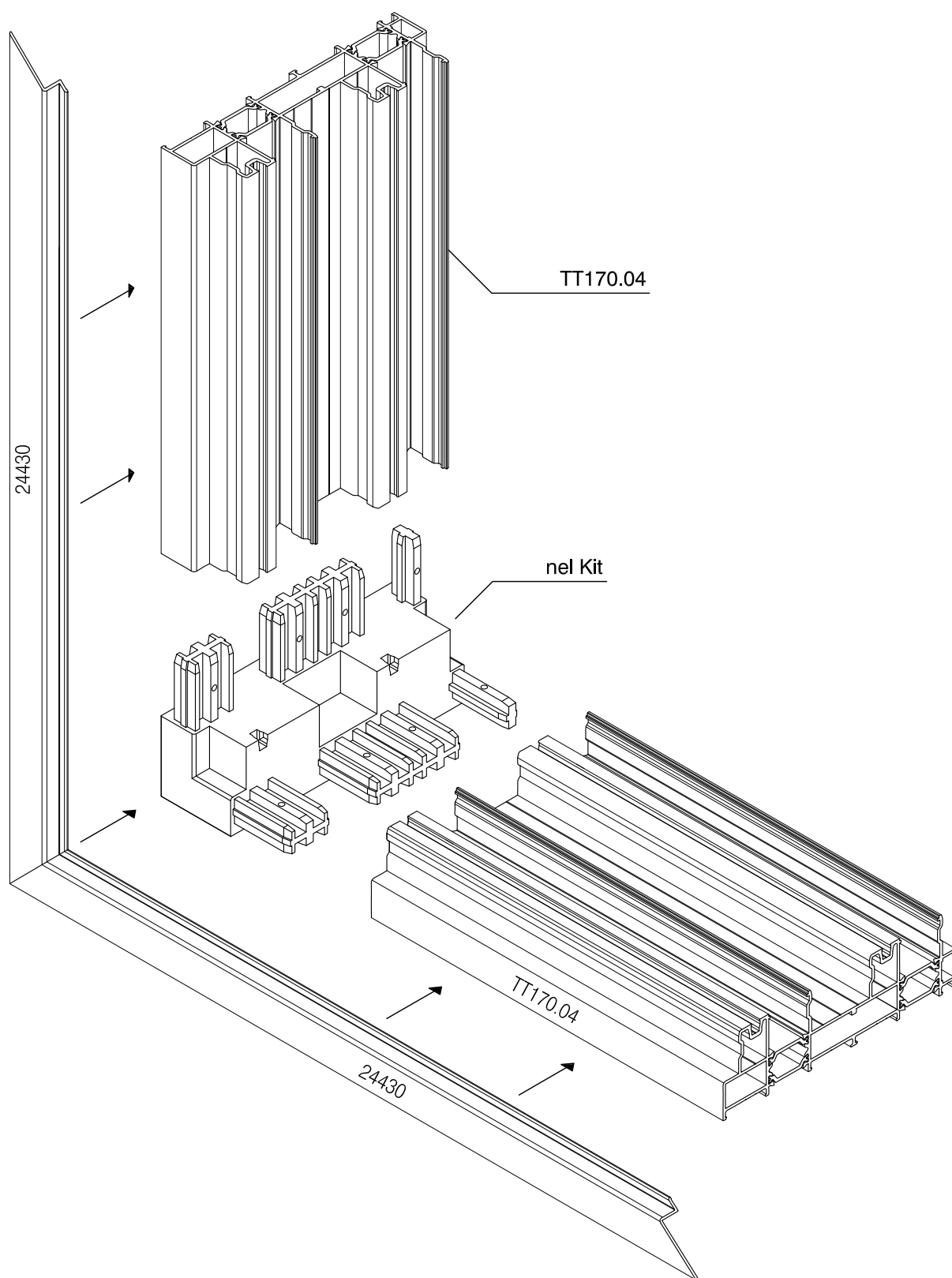
SCHEMA F (prospetto interno)



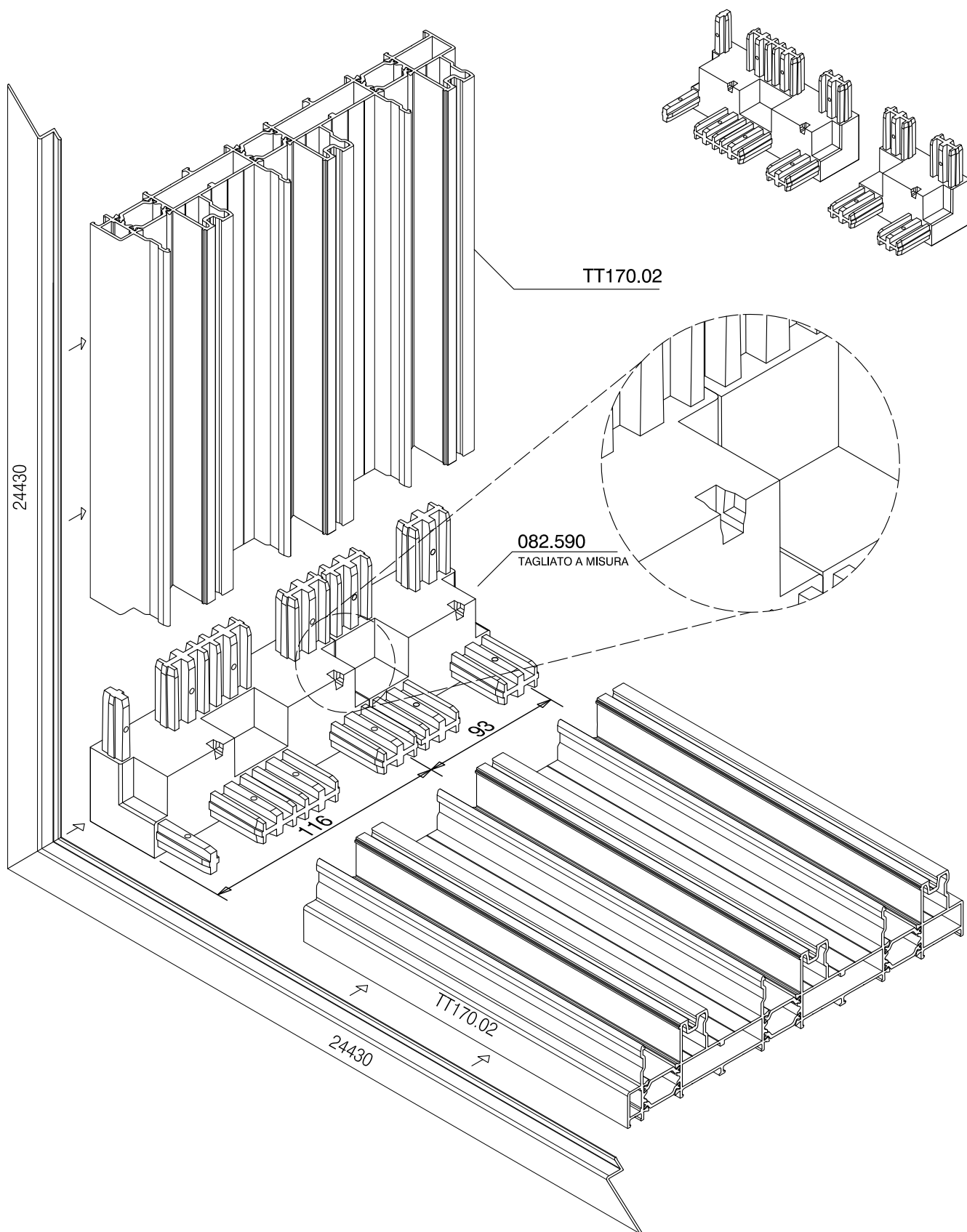
SCHEMA C (prospetto interno)



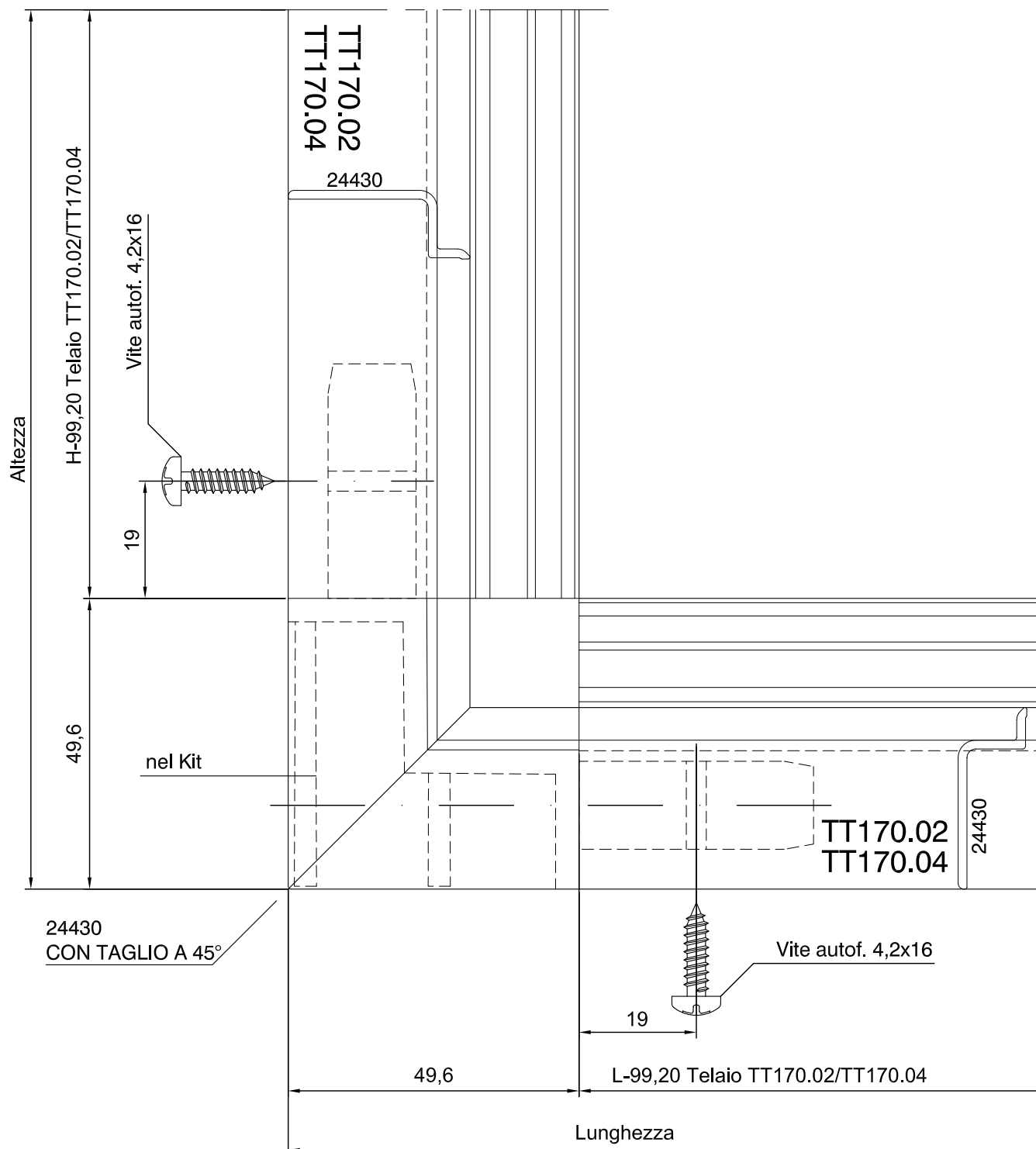
Lavorazioni - Tooling



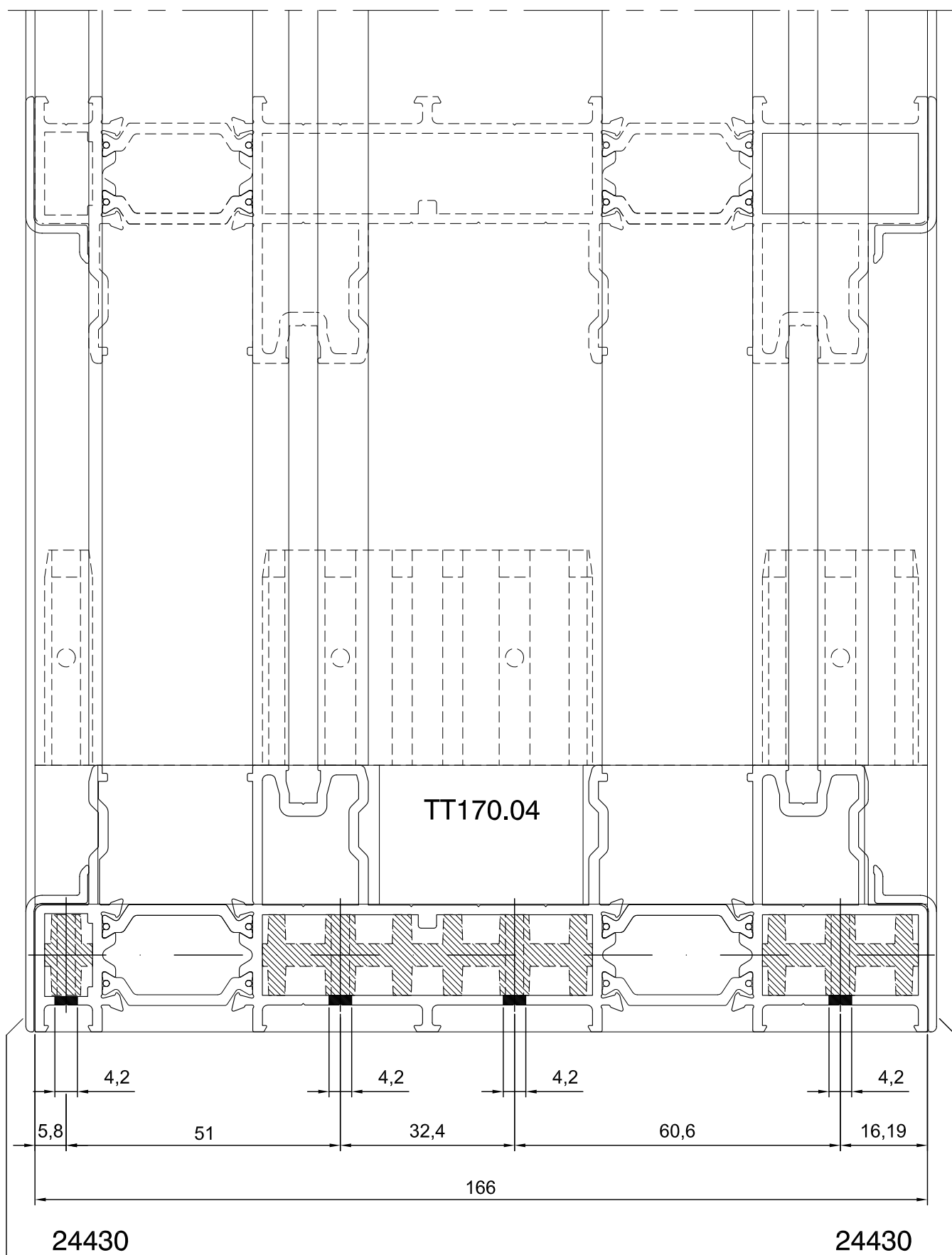
Lavorazioni - Tooling



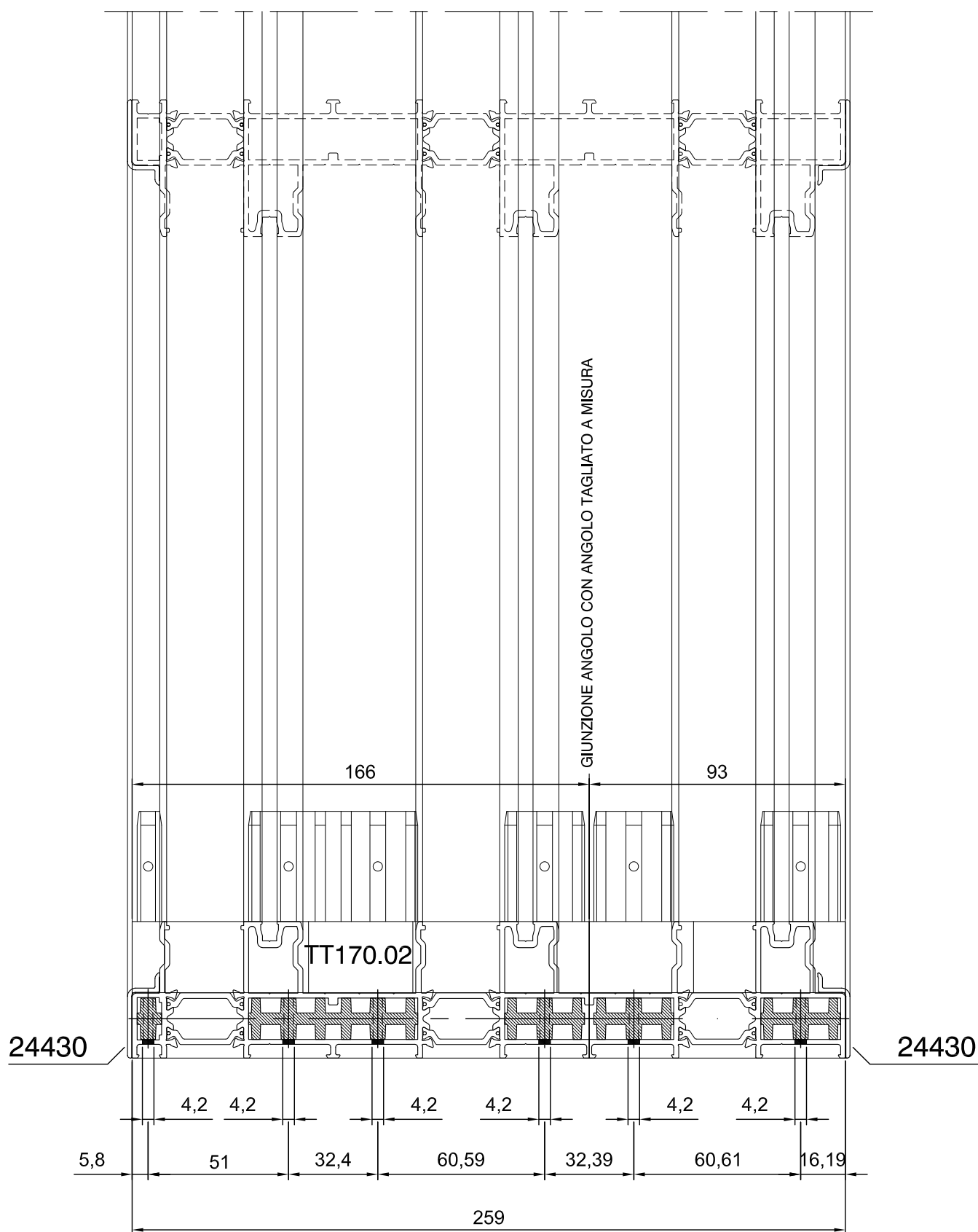
Lavorazioni - Tooling



Lavorazioni - Tooling



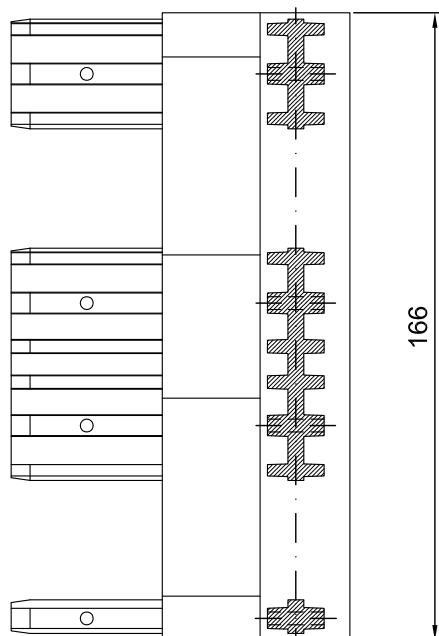
Lavorazioni - Tooling



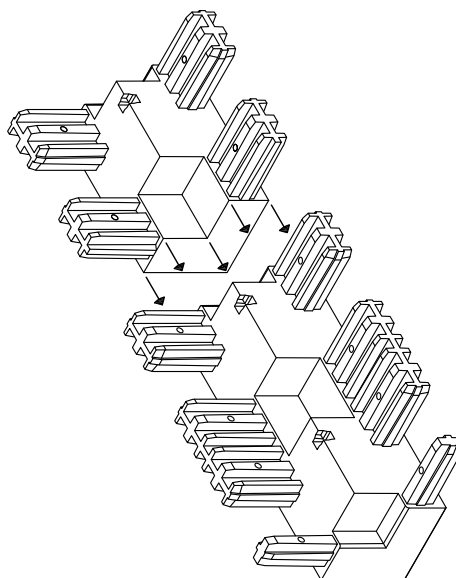
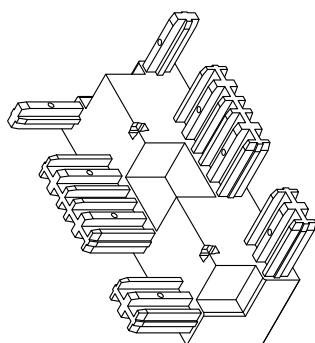
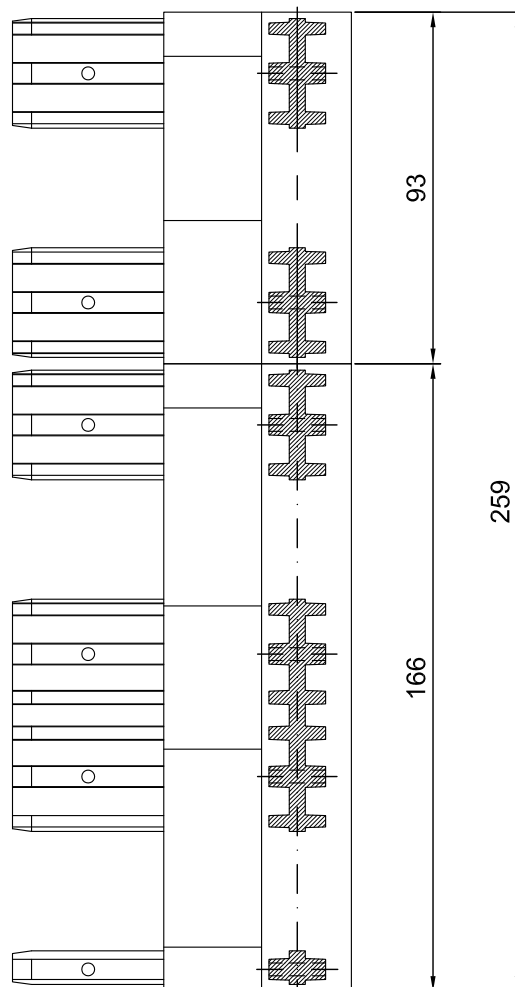
SCALA 1:2

Lavorazioni - Tooling

ANGOLO NEL KIT
GIUNZIONE PROFILO TT170.04

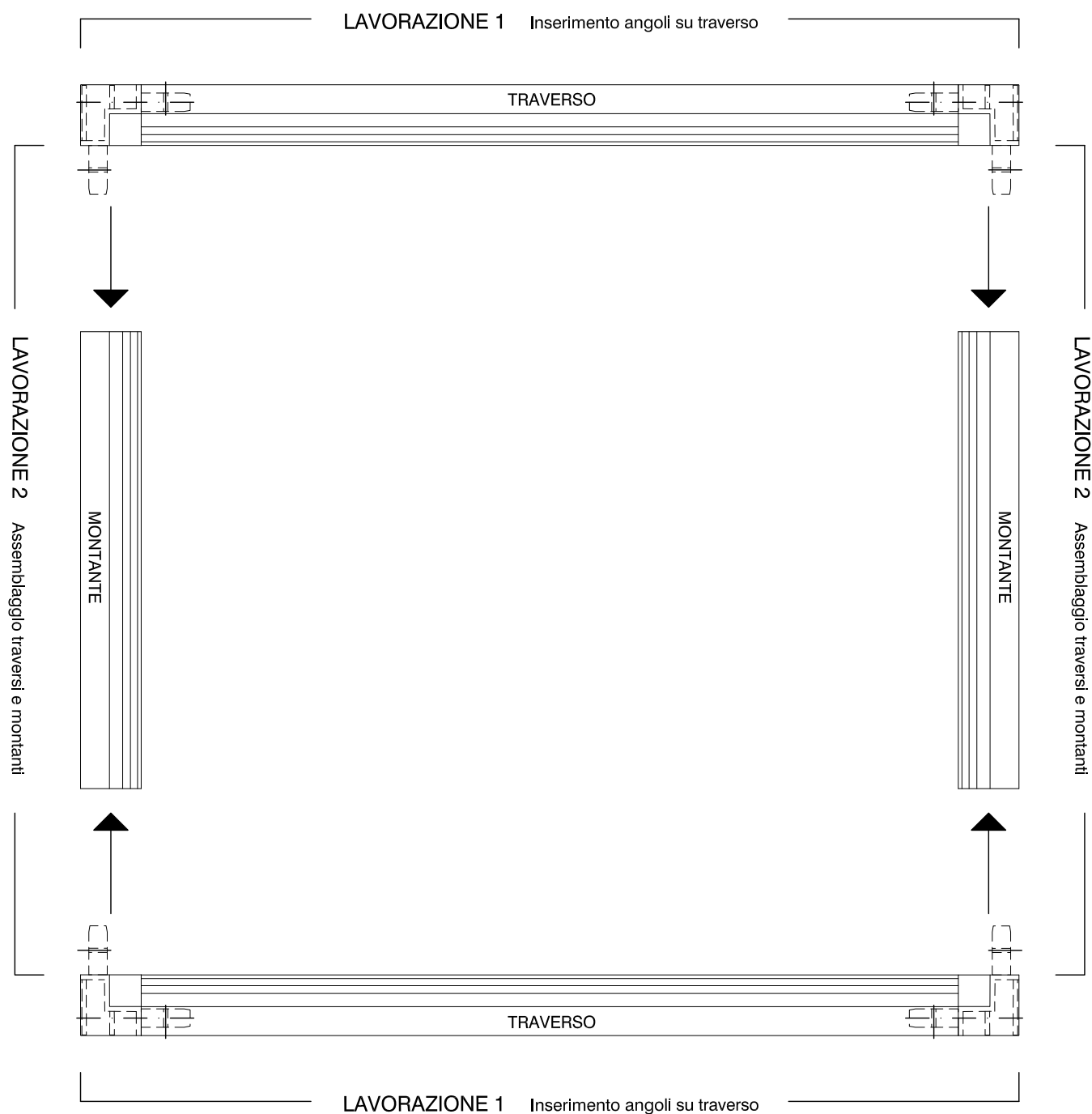


ANGOLO NEL KIT + ANGOLO NEL KIT (TAGLIATO A MISURA)
GIUNZIONE PROFILO TT170.02



SCALA 1:2

Lavorazioni - Tooling



ASSEMBLAGGIO TELAI TT170.04 (2 binari) - TT170.02 (3 binari) CON ANGOLI PRESENTI NEI KIT

LAVORAZIONE 1 Inserimento angoli su traverso superiore, inferiore e fissaggio vedi pagina 8.69/8.70

LAVORAZIONE 2 Assemblaggio montanti su traversi e fissaggio