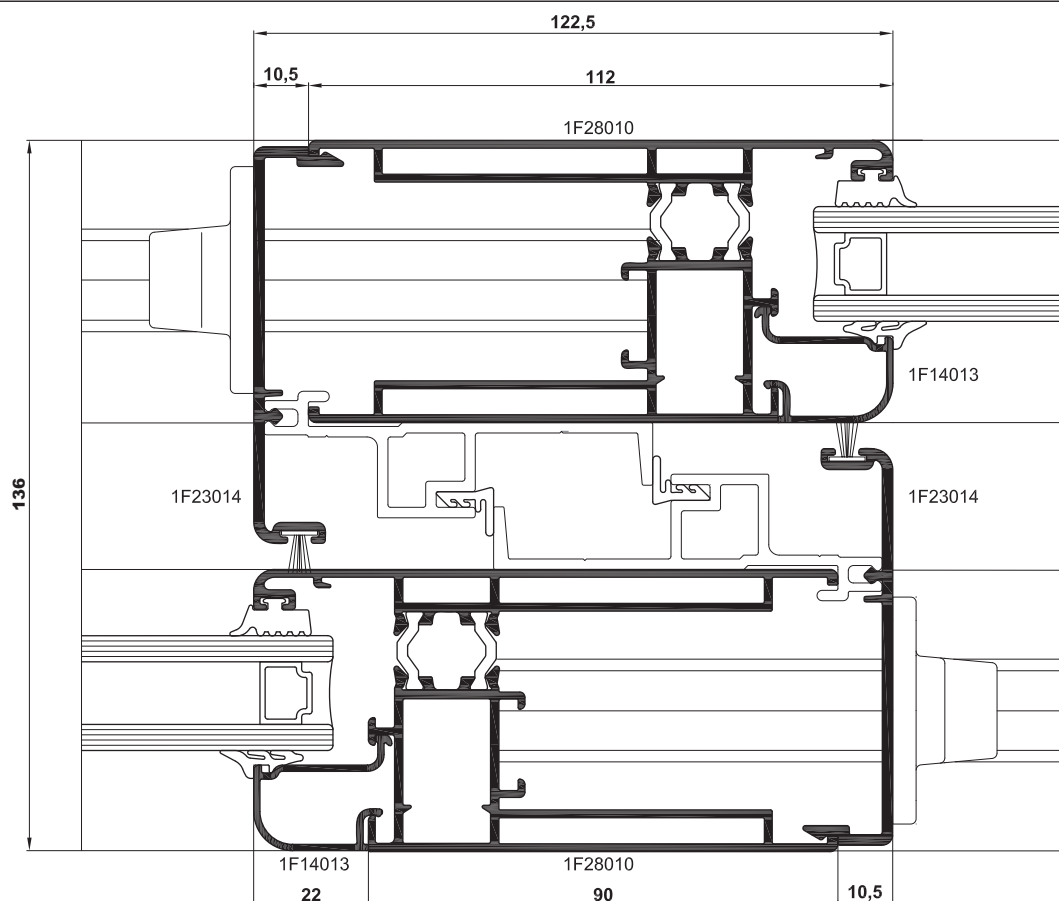


Original Systems®



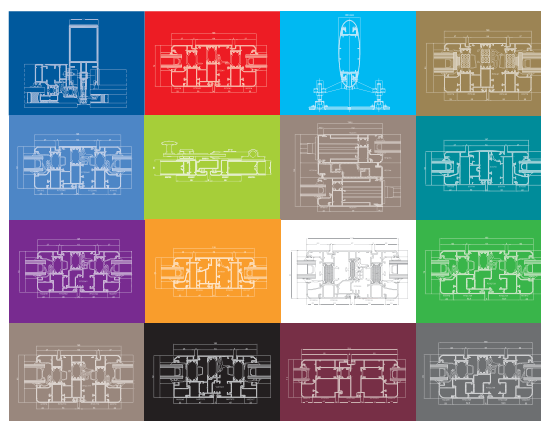
Teknowindow

WIN 140sa^{TT}
SYSTEM

Scorrevole con alzante - Lift and slide

Un solo sistema, progettato organicamente sia nei profilati sia negli accessori e nelle guarnizioni, basta per rispondere a tutte le esigenze dimensionali, tecnologiche ed architettoniche che il mercato richiede.

One single system, organically designed for profiles, accessories and weatherstrips, is enough to fulfill the dimensional, technological and architectural demands of the market.



sapa:

WIN | 140sa^{TT} SYSTEM

Finestre e porte scorrevoli alzante a taglio termico
thermal break lift-slide windows and doors

About the Sapa Group

Sapa develops, manufactures and markets value added profiles, profile-based building systems and heat-exchanger strip in the light-weight material aluminium and is one of the world's leading manufacturers.

Sapa's business concept is based on close co-operation with its customers, who are primarily located in Europe, North America and Asia. The largest customer segments are the construction, transport, domestic and office, and engineering sectors.

Sapa is organised into six Business Areas: Profiles North Europe, Profiles Central Europe, Profiles South Europe, Profiles North America, Building System and Heat Transfer.

Sapa Profiles

Sapa is the world's leading producer of extruded aluminium profiles and maintains extensive operations in the value-added fabrication of profiles.

The company has 111 presses and more than 12.000 employees and production facilities in 18 countries: Belgium, China, Denmark, France, Germany, Hungary, Italy, Lithuania, Mexico, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, the United Kingdom and the United States, plus sales representation in a number of additional countries.

With footprints in North and Central America, Europe and Asia we can serve customers on a worldwide basis.

Sapa Profili Srl

With 3 plants in Italy and the support of the rest of the group, Sapa Profili Srl is one of the largest extrusion companies within Italy.

Soft- and hard-alloy aluminium extrusions, standard rod and bars, seamless tube (round or shaped), simple or complex aluminium extrusion profiles (drawings), high fin ratio, tight tolerances with superior surface finish quality, or other demanding high-tech applications... There is a simple solution to almost any design problem: aluminium profiles by Sapa. The solutions are based on our unique experience in extrusion and our focus on the local market.

Sapa Profili Srl strategy is providing its customers with expertise, high quality and resources, releasing capacity to allow them to concentrate on their core operations. It's all about creating competitive, comprehensive solutions.

Il gruppo Sapa

Sapa sviluppa, produce e commercializza profili a valore aggiunto, profili per l'edilizia e scambiatori di calore in alluminio. Sapa è un leader tra i produttori nel mondo.

Un elemento determinante per il concetto di business di Sapa è la stretta collaborazione con il cliente maggiormente basati in Europa, Nord America ed Asia. I segmenti di mercato maggiori sono quelli dell'edilizia, il settore trasporti, casa ed uffici ed il settore della meccanica.

La Sapa è suddivisa in sei aree: Profili Nord Europa, Profili Europa centrale, Profili Sud Europa, Profili Nord America, Sistemi per l'edilizia ed il settore per gli scambiatori di calore.

Sapa Profili

Sapa è il maggior produttore di profili estrusi al mondo.

Questa nuova azienda dispone di 111 presse con oltre 12.000 dipendenti e con centri di produzione in 18 paesi: Belgio, Cina, Danimarca, Francia, Germania, Ungheria, Italia, Lituania, Messico, Olanda, Polonia, Portogallo, Romania, Slovenia, Spagna, Svezia, Gran Bretagna e negli stati uniti oltre ad avere rappresentanti commerciali in altri paesi.

Grazie alla presenza in America del Nord e Centrale, Europa ed Asia, possiamo servire i clienti in tutto il mondo.

Sapa Profili Srl

Con i 3 stabilimenti produttivi in Italia ed il supporto del resto del gruppo la Sapa Profili Srl diventa uno dei maggiori estrusori in Italia.

Estrusioni di alluminio in lega leggera o dura, profili standard o barrame, tubi tondi o a disegno senza saldature, profili estrusi semplici o complessi a disegno, elevato rapporto di alettatura, tolleranze ristrette con qualità superficiale elevata o qualsiasi altra esigenza per applicazioni high tech... esiste una semplice soluzione a quasi tutte le esigenze di design: profili in alluminio Sapa. Le soluzioni basano sulla nostra esperienza unica e focalizzata sul mercato locale..

La strategia di Sapa Profili Srl è quella di fornire al cliente competenza, qualità superiore e risorse, per permettere loro di concentrarsi sulle proprie operazioni essenziali. Plasmiamo il futuro creando soluzioni comprehensive e competitive.

sapa:



Teknowindow
Scorrevole - Sliding

Sapa keys to Build the future

Since its beginnings Sapa has been recognized as an innovator. Through the years, we've balanced experience with innovation. We've listened to our customers, and we are dedicated to providing the tools our customers need to succeed.

Following this spirit, in the market of B&C Sapa offers a comprehensive line of architectural aluminum building products and systems for residential and non-residential buildings framing systems, windows and curtain wall systems.

In Italian B&C market, Teknowindow offers the most complete and advanced technological solution to construct doors and windows.

The primary value of Teknowindow system is the capability to propose a complete system, able to satisfy with compatible profiles, accessories and gaskets all the markets needs, both for its technical and architectural characteristics.

From the smallest Win54 to the largest Win140s sections, from the "cold" to the thermal-break solutions (up to class 1.0), from the various types of opening (casement window, tilt-and-turn window, pivoting window, sliding window, lifting-sliding window, etc.) to the different aesthetic forms (squared, blunt, rounded, unframed, etc.), this system is able to satisfy whatever need.

High performance levels and manufacturing and assembling simplicity make this a state-of-the-art system in the Italian and foreign market.



Le chiavi Sapa per costruire il futuro

Fin dalle sue origini, Sapa è stata riconosciuta come innovatrice. Attraverso gli anni, abbiamo equilibrato l'esperienza con l'innovazione. Abbiamo ascoltato i nostri clienti e ci siamo dedicati a fornir loro i mezzi necessari per avere successo.

Seguendo questo spirito, nel mercato dell'edilizia, Sapa offre una completa linea di prodotti architettonici in alluminio e sistemi strutturali per edifici residenziali e non, finestre e pareti divisorie.

Nel mercato dell'edilizia, il sistema Teknowindow offre le soluzioni tecnologiche più complete ed avanzate per costruire porte e finestre.

Il pregio principale del sistema Teknowindow è dato dalla capacità di proporre un sistema completo, in grado di soddisfare con profilati, accessori e guarnizioni compatibili tra loro, tutte le esigenze del mercato, sia per quanto riguarda le caratteristiche tecniche che quelle architettoniche.

Dalle sezioni più piccole della Win54 a quelle maggiori della Win140s, dalle soluzioni "fredde" a quelle a Taglio Termico (sino alla classe 1.0), dai vari tipi di apertura (a battente, ad anta-ribalta, a bilico, a scorrevole, ad alza-e-scorri, ecc.) alle differenti forme estetiche (squadrata, smussata, arrotondata, scorniciata, ecc.), questo sistema è in grado di soddisfare ogni necessità.

Livelli prestazionali elevati, uniti alla facilità di lavorazioni e di montaggio, ne fanno un sistema all'avanguardia nel panorama dell'edilizia in Italia ed all'estero.

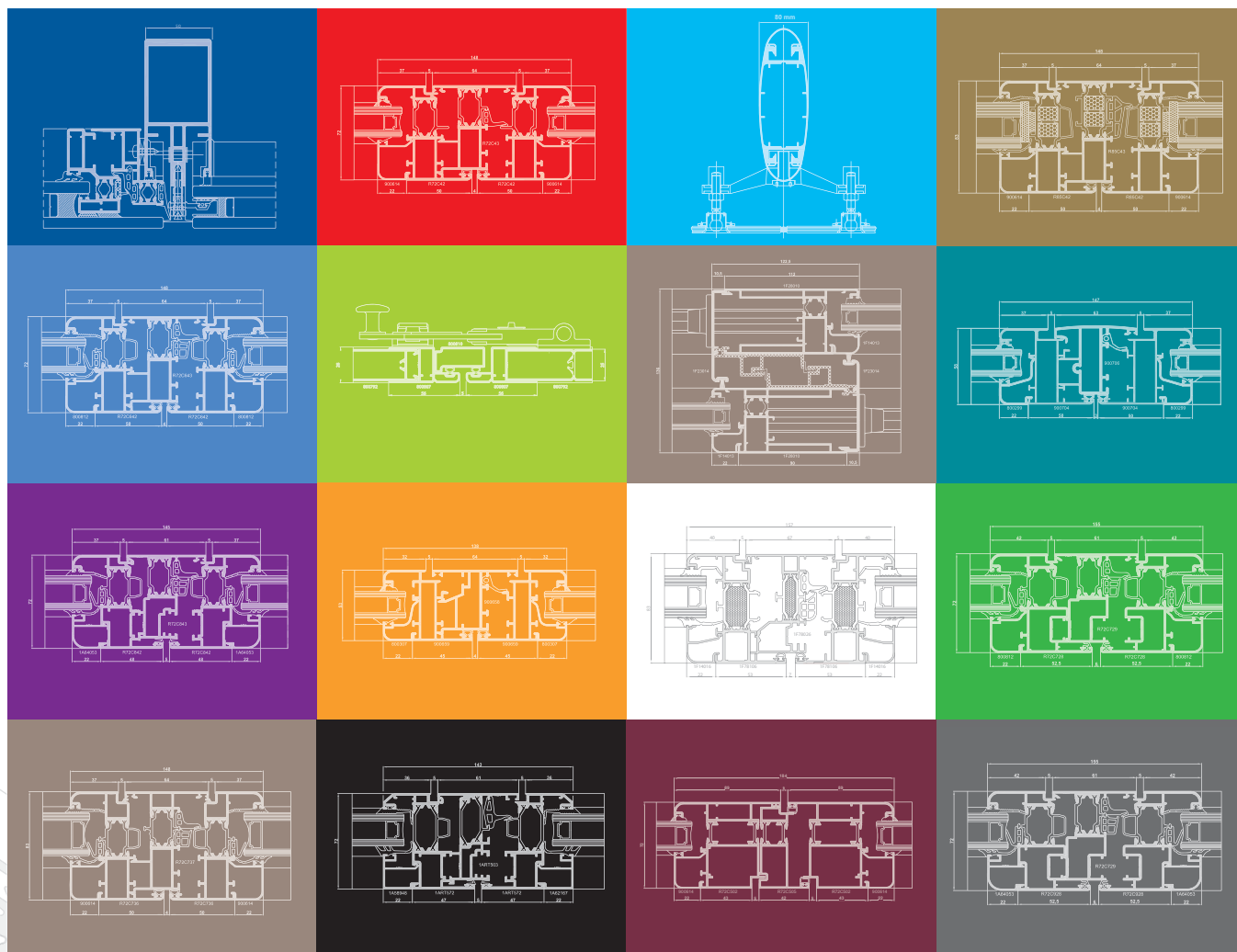
sapa:



Teknowindow
Scorrevole - Sliding

Original Systems®
sapa:

Le serie dei sistemi di Sapa



Scegliere con **serenità**

sapa:
Creiamo il futuro

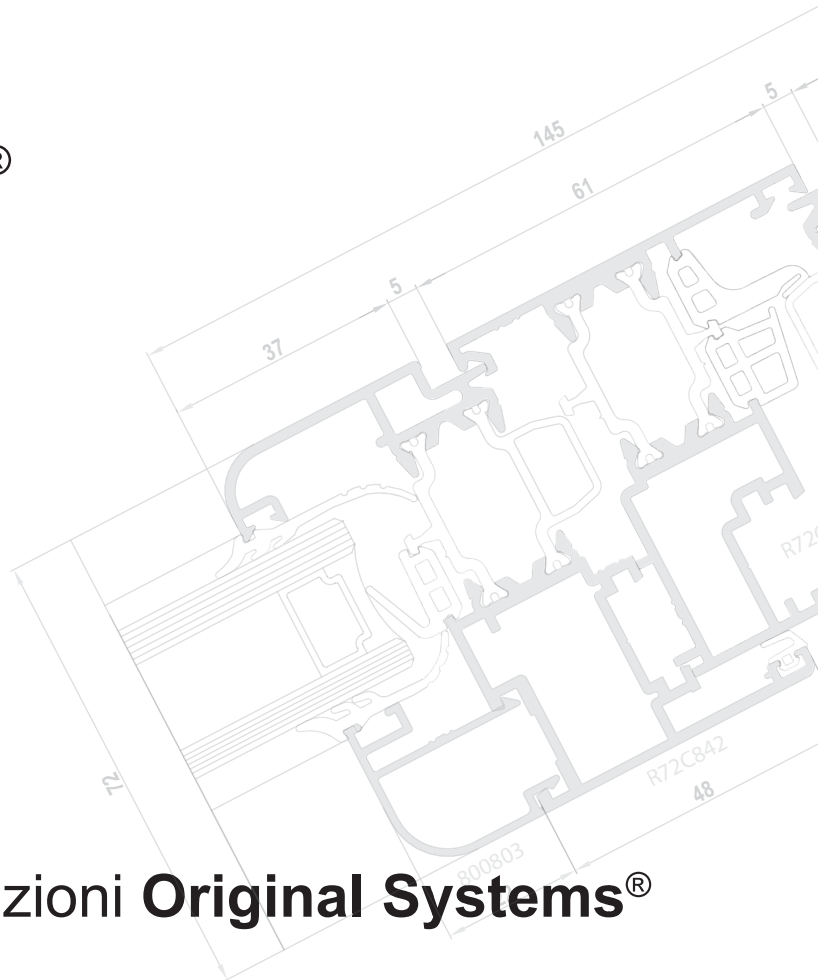
sapa:

Original Systems®

... scegliere con serenità

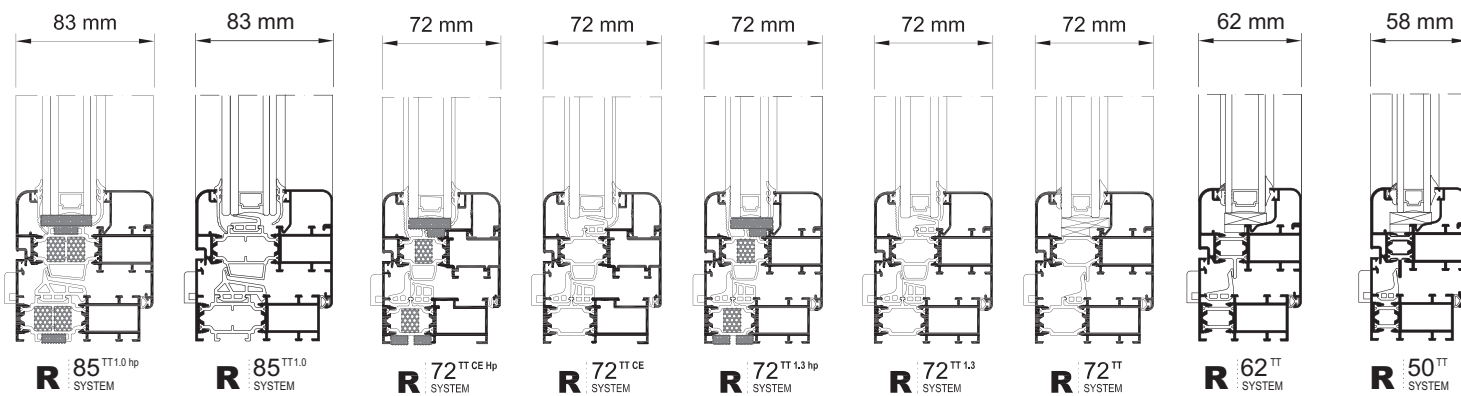
Original Systems Sapa non è soltanto un profilo in alluminio: è una soluzione completa per tutti gli attori della filiera, con l'obiettivo di fornire il miglior prodotto, col più alto valore aggiunto, dalla bauxite al serramento.

L'assistenza tecnica pre e post vendita, i certificati delle prestazioni dei serramenti, la formazione della Scuola del Serramento di Bareggio (MI), i software di calcolo, le soluzioni Autocad, gli opuscoli tecnici, i cataloghi, la comunicazione ed una capillare e competente Rete di Distribuzione Original Systems Sapa vi danno la serenità di aver fatto la scelta migliore.

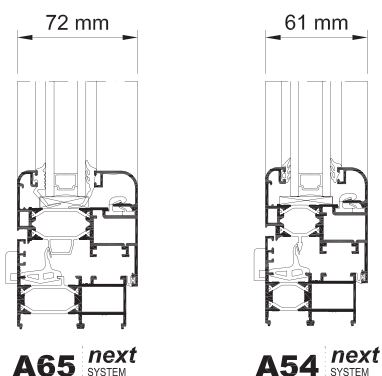


soluzioni Original Systems®

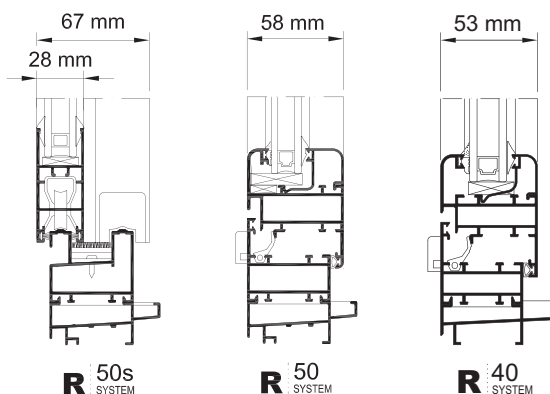
Sistema R^{TT}



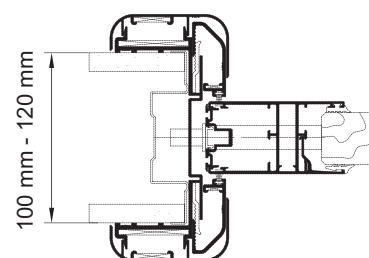
Alfil *next*



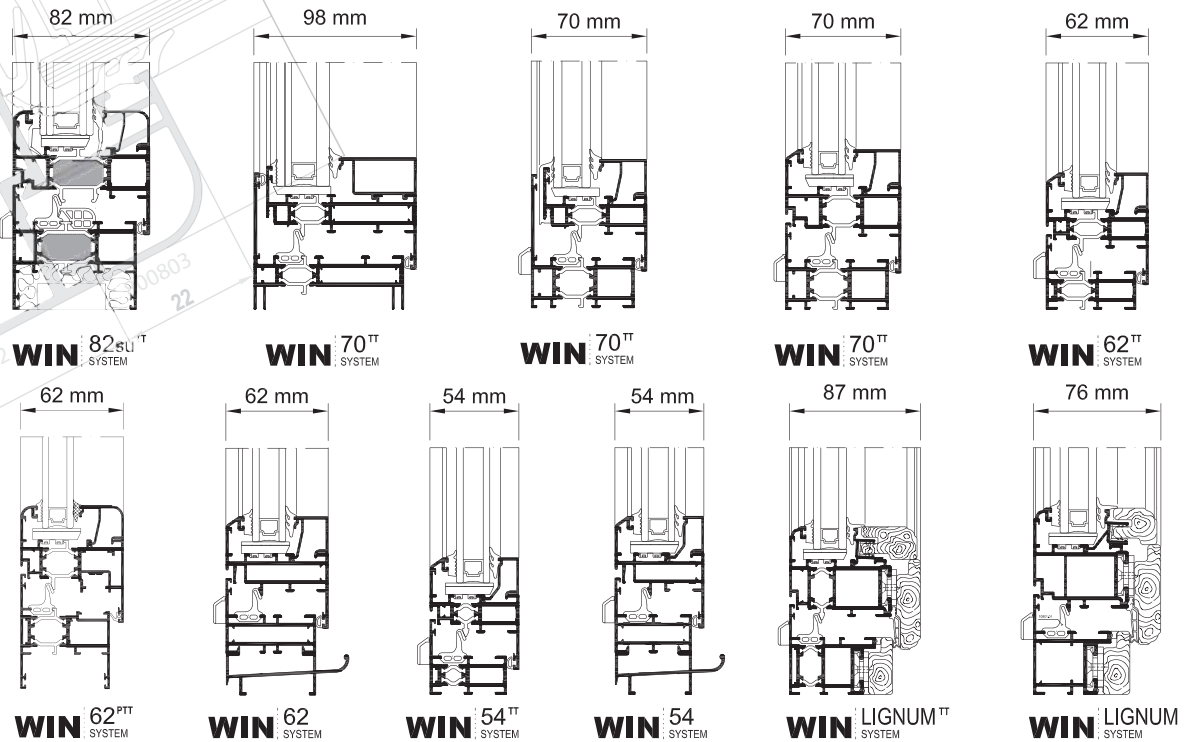
Sistema R



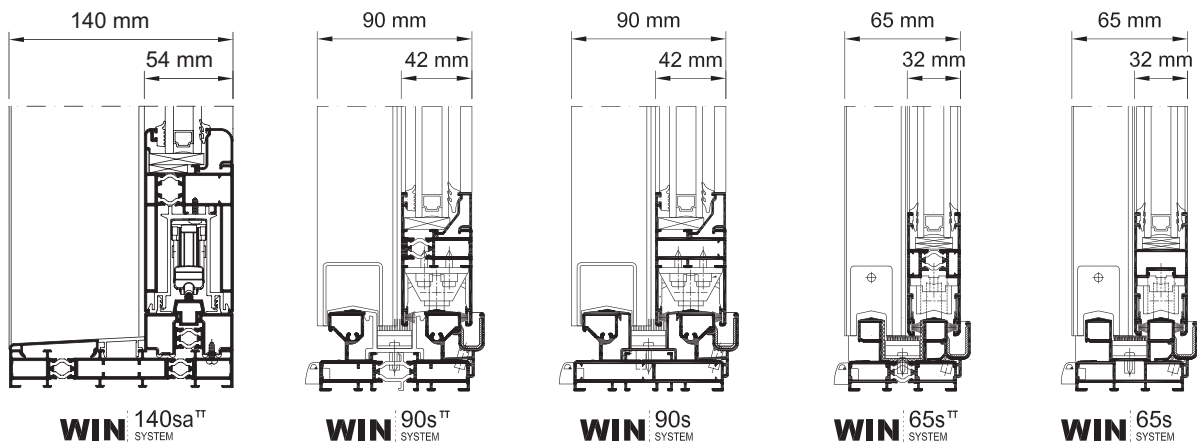
Mr. Hide SYSTEM



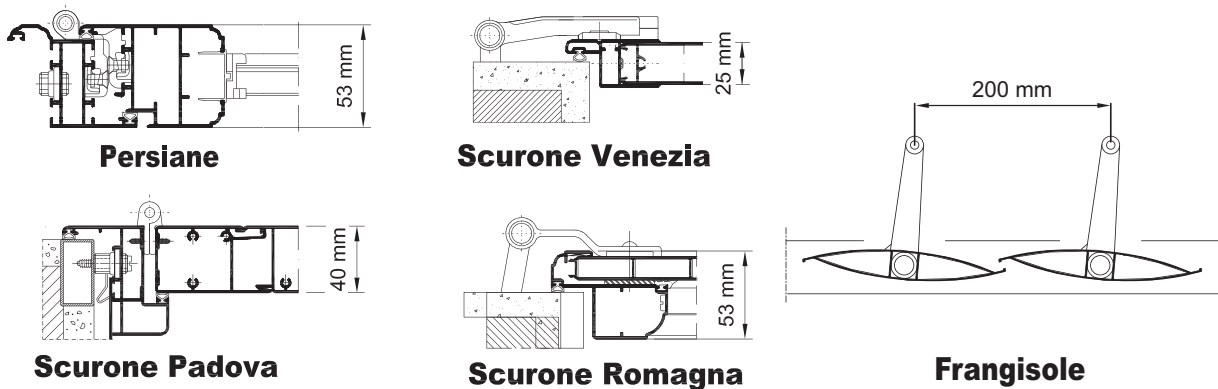
Teknowindow Battente

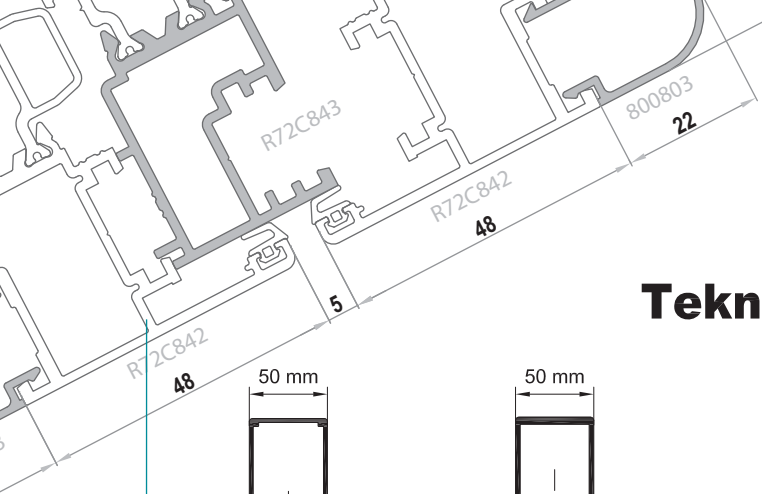


Teknowindow Scorrevole

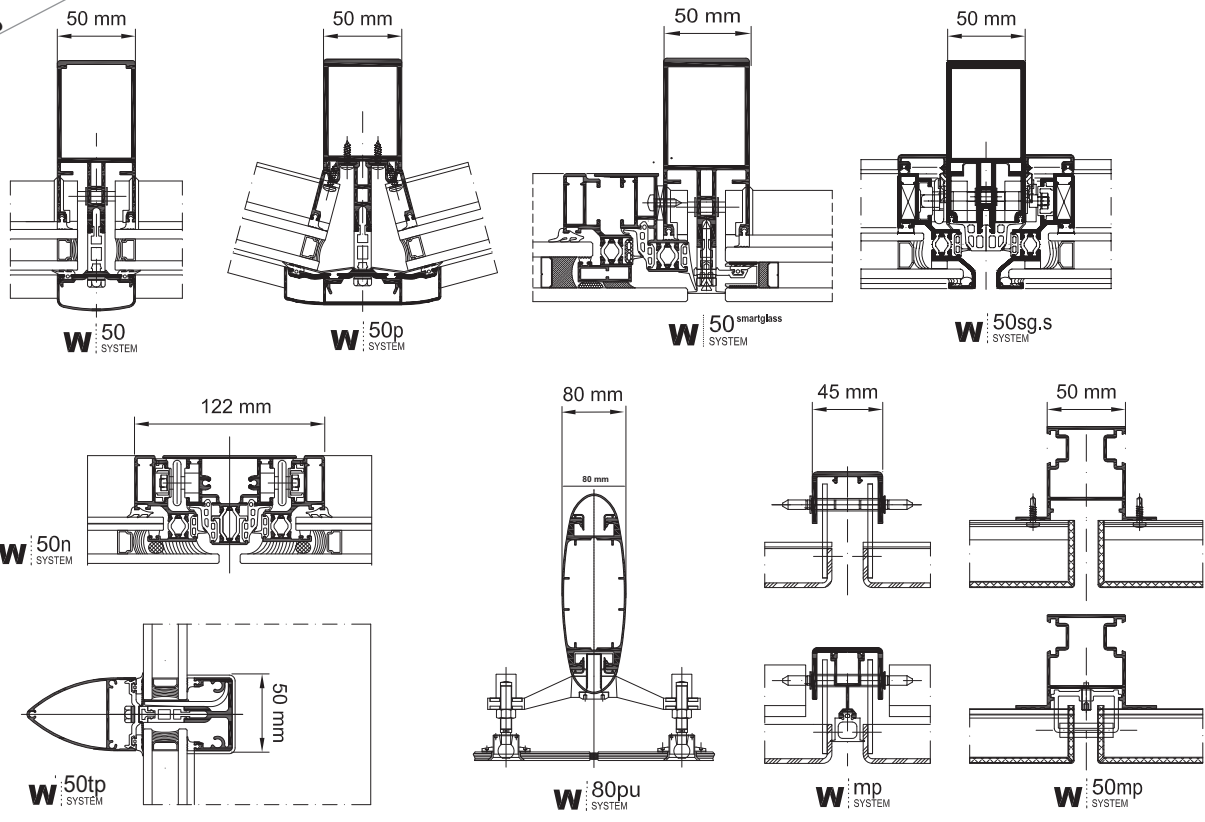


Sistemi Oscuranti

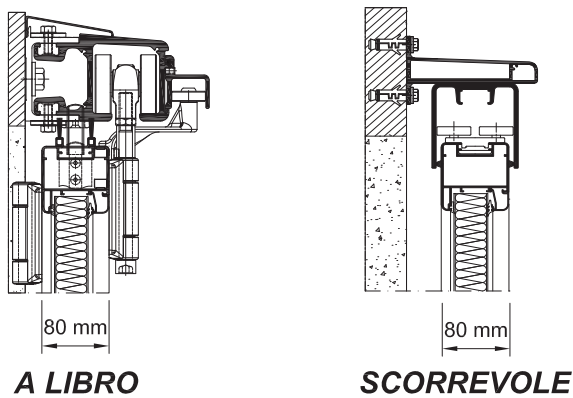




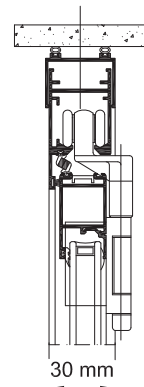
Teknowall



Portoni

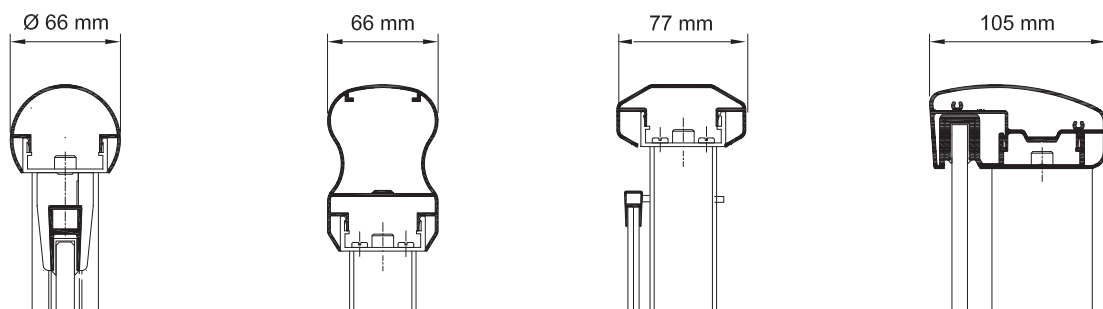


Veranda a Libro



GR 14 SYSTEM

plus® SYSTEM



RINGHIERE E BALCONI

I Profilati:

Estrusi in lega di alluminio primario da lavorazione plastica EN AW 6060 UNI-EN 573-3 sottoposti ad un processo di trattamento termico applicato secondo Normativa UNI EN 755-2 (bonifica con tempra in aria alla pressa, seguita da invecchiamento artificiale) per ottenere lo stato T5. Per dettagli tecnici vedere pagina F1-140sa-A.04

Trattamenti superficiali:

I trattamenti superficiali di ossidazione anodica, elettrocolorazione e di verniciatura eseguiti negli impianti di proprietà Sapa, sono nel rispetto di quanto previsto dalle normative richieste dai marchi Qualanod (per ossidazione) e Qualicoat (per la verniciatura).

Vetratura:

La scelta ed il tipo di vetro sarà in funzione del suo campo di impiego, per il montaggio attenersi scrupolosamente alle prescrizioni dei produttori.

Il Sistema consente l'inserimento di vetri aventi spessori da 4 a 20 mm per Win 65; da 4 a 29 mm per Win 90; da 16 a 25 per Win 90 vetro ad infilare; da 20 a 38 mm per Win 140sa.

Le guarnizioni di tenuta vetro sono in EPDM ed inseribili e sostituibili a serramento assemblato, studiate in vari spessori che, interpolati nel modo idoneo, garantiscono un'adeguata compressione sulla lastra di vetro. La tassellatura sarà effettuata con appositi tasselli di regolazione e spessoramento aventi posizioni nel serramento ideali e rinforzate. Solo la completa e totale osservanza della tecnica di vetratura potrà garantire uno scatto vincolante e sicuro del fermavetro e la garanzia di durata agli sforzi di normale utenza.

Calcolo dimensioni massime serramenti:

Nel definire le misure massime dei diversi tipi di serramento, si devono considerare oltre agli elementi costruttivi dell'infilso (sezione dei profilati e loro campi d'impiego, tipo di attacco al muro, spessore e tipo del vetro), le caratteristiche di utilizzo, nonché le varianti metereologiche (esposizione dell'infilso, velocità dei venti agenti nella zona, altezza dal suolo alla quale sarà installato l'infilso, ecc.).

Consigliamo a tal fine la consultazione delle prescrizioni Uncsaal.

Attrezzature:

Le attrezzature raccomandate (Comall e Tekna) sono state appositamente progettate e realizzate per le particolari caratteristiche del sistema e per l'applicazione specifica degli accessori a catalogo.

Peso dei profilati:

I pesi indicati sono puramente indicativi (peso teorico ricavato sullo spessore nominale del profilato); Le matrici di estrusione sono soggette ad un normale processo di usura che porta il peso dell'estruso da un minimo (matrice nuova) ad un massimo (matrice usurata al limite delle tolleranze dimensionali).

NB:

Il mancato impiego, anche parziale, dei prodotti originali, esclude qualsiasi possibilità di rivalsa nei confronti di Sapa.

Al fine di migliorare i propri prodotti, Sapa si riserva la facoltà di apportare, in qualsiasi momento e senza preavviso, le modifiche che riterrà opportuno.

I dati riportati su questo catalogo sono indicativi e non impegnativi.

The sections

These are extruded in primary aluminium alloy from EN AW 6060 UNI-EN 573-3 plastic manufacturing, subject to a thermal treatment, applied according to UNI EN 755-2 regulation (austempering through air tempering at the press, followed by artificial ageing) in order to achieve the T5 physical state.

For technical detail refer to page F1-140sa-A.04

Surface treatments:

The surface treatments of anodization, electrocoloration and painting carried out in Sapa Italy plants, respect the regulations required by the brands: Qualanod (for anodization) and Qualicoat (for painting).

Glazing:

The choice and the type of glass will depend on its final use.

While assembling, it is essential to follow scrupulously the manufacturers' instructions.

With this System it is possible to insert glass with thickness of 4 to 20 mm for Win65; 4 to 29 mm Win 90; 16 to 25 mm for Win 90 glass insertion; 20 to 38 mm Win140sa.

The weatherstrips for the glass containment is in EPDM and is conceived in different thickness. If interpolated in the correct way, it assures a proper compression on the glass.

The plugging will be carried out through proper adjusting and shimming plugs, located in ideal and reinforced positions in the fastening. Only the full respect of the glazing technique will assure the proper functioning of the glass beading and will guarantee a long term resistance to the normal uses.

Window maximum dimensions:

During the definition of the maximum dimensions of the different sorts of windows, beside the structural elements of the frame (section, uses, juncture to the wall, thickness and sort of glass), the final use and the weather conditions (exposure of the window frame, speed of the wind in the area, distance from the ground where the frame will be installed, etc.) have to be taken into account.

To this purpose, we suggest to consult the Uncsaal regulations.

Equipment:

The recommended equipment (Comall and Tekna) has been planned and realized on purpose according to the particular characteristics of the system and to the specific application of the catalogue accessories.

Weight:

Any weight is shown just as an indication (theoretical weight made out of the nominal thickness of the section) The extrusion dies are subject to the natural wear and tear, therefore the section weight varies from a minimum when the dies is new, to a maximum weight when the die is at highest dimensional tolerances limits

NB:

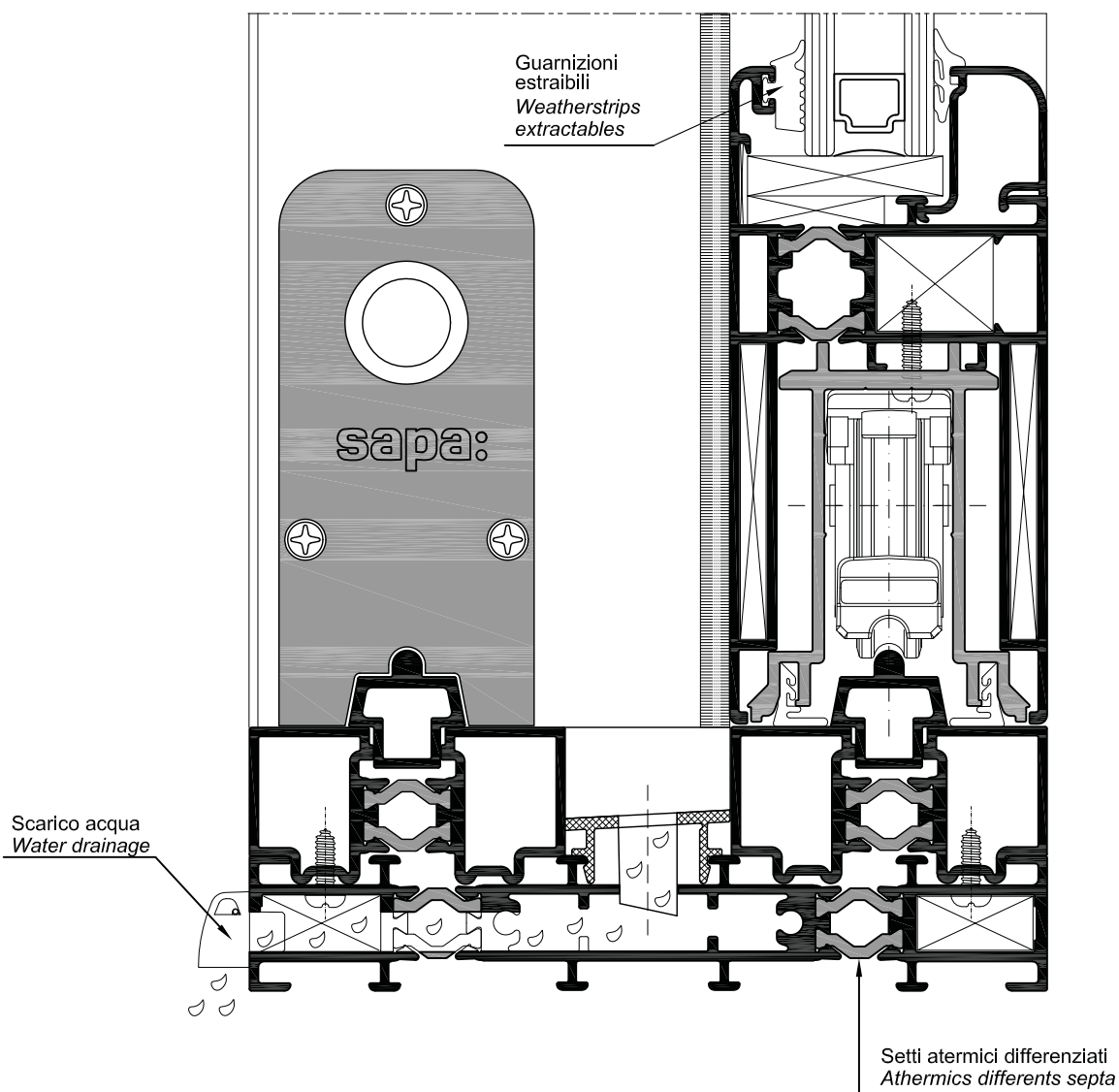
Sapa declines any responsibility in case of use or partial use of non original products.

With the aim of improving it's products, Sapa reserves the possibility to make changes to this document at any moment and with no advise.

The data reported in this catalogue are indicative and not binding.

L'esecuzione del serramento dovrà prevedere tutte le operazioni necessarie per il buon funzionamento del "componente finestra" quali la sigillatura e il bloccaggio sicuro degli angoli, il fissaggio a muro adeguato e, necessariamente, l'utilizzo di accessori e guarnizioni originali. Le lavorazioni, proprio per garantire la giusta applicazione dei particolari, dovranno essere eseguite con attrezzature originali e collaudate sul sistema stesso. Gli scarichi dell'acqua e le asole di aerazione per vetri camera dovranno essere di dimensione e numero ottimale in funzione della dimensione e della tipologia del serramento.

The frame construction must include all the operations necessary for good working of the "window component", such as sealing and safe blocking of corners, suitable wall fixtures and the use of the original accessories and weatherstrips. In order to guarantee the correct application of the parts, works must be carried out with original equipment that has been tested on the system. The size and number of water drains and ventilation slots for double glazing must correspond to the size and type of window frame.



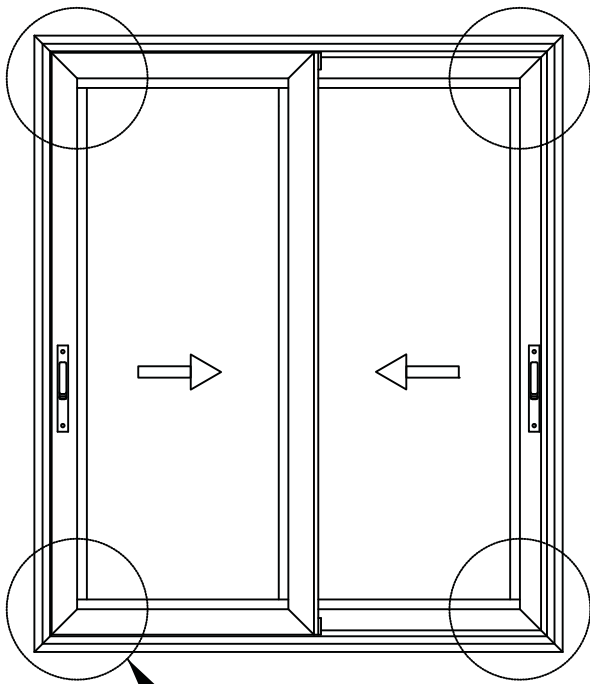
ACCESSORI DI ASSEMBLAGGIO E MOVIMENTO
ASSEMBLY AND MOVEMENT ACCESSORIES

Gli accessori, brevettati, originali Teknowindow, sono frutto della collaborazione con le migliori aziende specializzate del settore. Sono realizzati con materiali equivalenti, per prestazioni e resistenza alla corrosione, a quelli dei telai; i perni sono in acciaio inox, le boccole ed i particolari di scorrimento sono realizzati in nylon rinforzato con bloccaggio del tipo a contrasto. Le squadrette di serraggio angoli, ad avvitare, a spinare ed a cianfrinare, sono realizzate con leghe di alluminio diverse secondo le esigenze del loro impiego.

The original patented Teknowindow accessories are the result of the collaboration with the best a specialized company in the sector.

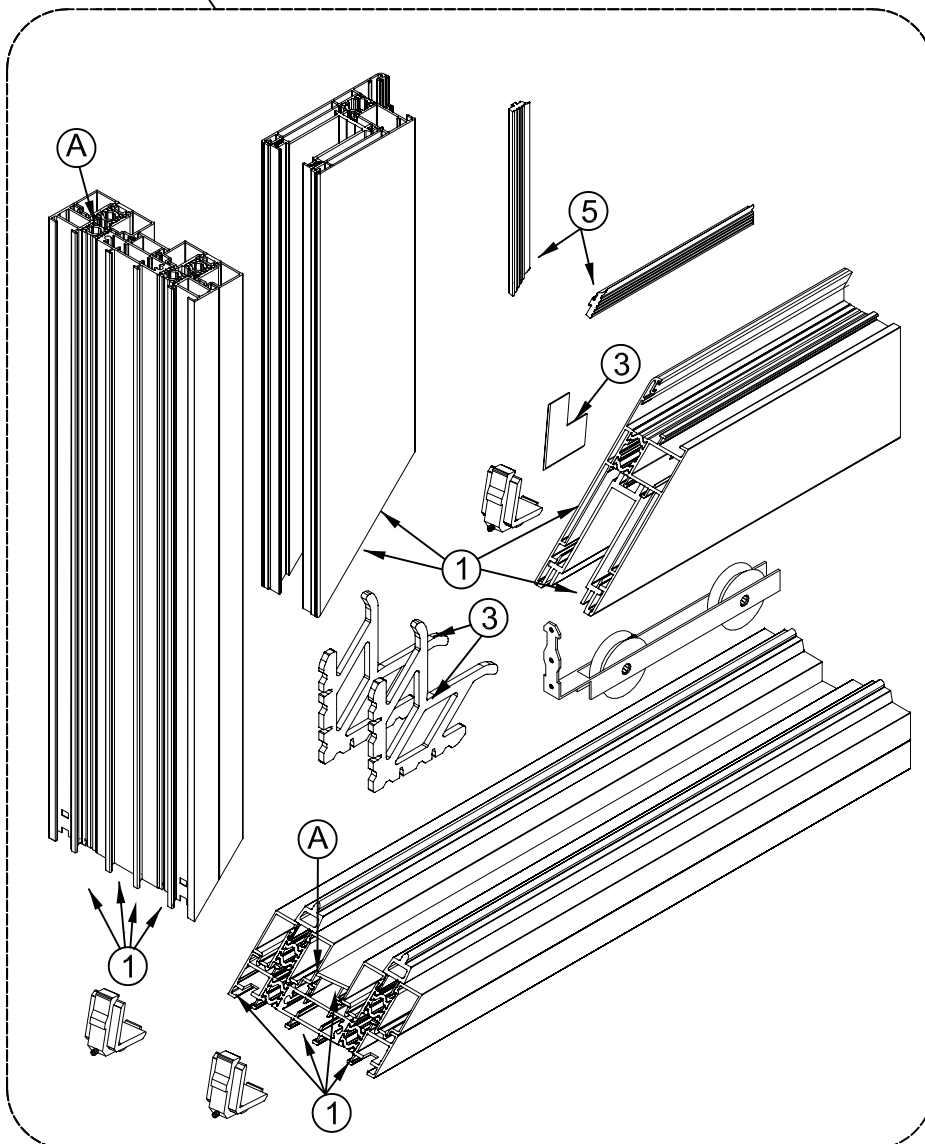
They are constructed with materials of equivalent performance and corrosion resistance to the frames; the pins are in stainless steel, the bushes and sliding parts in reinforced nylon with blocking of the type with contrast.

The screwing, pinning and caulking corner joints are constructed with different aluminium alloys depending on their use



AVVERTENZE PER L'ASSEMBLAGGIO

1. Sigillare tutte le unioni tra profilati, nei tagli a 45° e nei collegamenti tra montanti e traversi
2. Sigillare in "A" per tutta la lunghezza del profilo
3. Le squadrette a cianfrinare e di allinamento battuta devono essere incollate con collante poliuretano monocomponente .
4. Nei profilati a taglio termico, ove utilizzate squadrette a cianfrinare, devono essere prima incollate e poi cianfrinate. Cianfrinatura eseguibile anche con attrezzatura manuale (Art. M. 2001.00).
5. Le guarnizioni cingivetro interne ed esterne devono essere tagliate a 45° ed unite agli angoli con sigillante.
6. Le guarnizioni di battuta perimetrali devono essere tagliate a 45° ed unite sulla base degli angoli con collante cianoacrilico LOCTITE 406.



ASSEMBLY INSTRUCTIONS

1. Seal all the joints between sections, in the 45° cuts and in the connections between uprights and transoms.
2. Seal in position "A" for the all lenght of section
3. The caulking, levelling and rabbet alignment corner joints must be glued with monocomponent polyurethan adhesive.
4. In the thermal break section, if you use crimping corner joints, these must be glued and caulked. Caulking may also be carried out by hand (Art. M.2001.00).
5. The internal and external glass-clamping weatherstrips must be cut at 45° and united to the corners with sealer
6. The perimetral rabbet weatherstrips must be cut at 45° and united on the base of the corners with LOCTITE 406

Una corretta posa in opera, evita spesso il decadimento delle prestazioni ottenute in laboratorio, curare in maniera appropriata la posa valorizza tutto il processo produttivo dalla progettazione all'installazione.

Fare una pulizia periodica con prodotti neutri riduce notevolmente i rischi di corrosione ed allunga sicuramente la vita dell'infisso. Per una corretta installazione, manutenzione e pulizia dei serramenti, Vi raccomandiamo di consultare le prescrizioni riportate sulle seguenti note tecniche UNCSAAL:

UX42 - "Guida alla posa in opera dei serramenti"

UX10 - "La pulizia delle superfici di serramenti e facciate continue"

A correct installation, often avoids the decay of the performances obtained in the laboratory. Taking appropriate care of the installation increases the value of the whole production process from the planning to the installation.

Cleaning periodically with neutral products reduces remarkably the corrosion risk and extends surely the life of the frame.

For a correct installation, maintenance and cleaning of the sections, we recommend you refer to the prescriptions quoted in the following technical notes of UNCSAAL UX42 and UX10



LEGHE IN ALLUMINIO DA BONIFICA - PROFILATI ESTRUSI
HEAT-TREATABLE ALUMINIUM ALLOYS - EXTRUSION SECTIONS

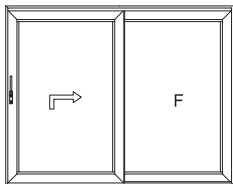
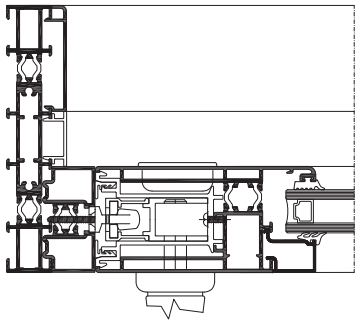
Leghe / Alloys		6060 UNI EN 573-3				
Composizione chimica normale / Normal chemical compos		Mg 0,4 Si 0,4 Fe 0,2				
Stato / State		0	T1	T5	T6	
Caratteristiche meccaniche <i>Mechanical Characteristics</i>	Carico di rottura a trazione <i>Ultimate tensile stress</i>	R _m N/mm ²	140 Max	120	185	205
	Carico al limite di snervamento <i>Yield point</i>	R _p N/mm ²	80 Max	50	145	165
	Allungamento <i>Elongation</i>	A %	20	16	11	10
Caratteristiche fisiche <i>Physical Characteristics</i>	Peso specifico <i>Specific weight</i>	Kg/dm ³	2,70			
	Conduttività termica a 20°C <i>Heat conductivity at 20°C</i>	W/ (cm °K)	≈ 2,09		≈ 1,75	
	Resistività elettrica a 20°C <i>Electrical resistivity at 20°C</i>	μΩ · cm	≈ 3,14		≈ 3,25	
	Coef. di dilatazione termica lineare da 20° a 200°C <i>Linear thermal expansion coefficient from 20° to 200° C</i>		24 · 10 ⁻⁶ K ⁻¹			

PRESTAZIONI AGLI AGENTI ATMOSFERICI
ATMOSPHERIC AGENTS PERFORMANCES

WIN 140sa^{TT}
 SYSTEM

Per garantire il massimo delle prestazioni in funzionalità e durata, il sistema TEKNOWINDOW scorrevole Serie Win140sa TT è stato sottoposto ai collaudi prescritti dalle vigenti Normative europee ottenendo ottimi risultati

To guarantee the maximum functionality and wear, TEKNOWINDOW slide Win140sa TT system has been tested according to the running european norms.

CERTIFICATI		CERTIFICATES					Sezioni Cross section	Laboratorio Certificato n° Laboratory Certificate nr.
Sistema System	Tipologia Windows and doors	Dimensioni Dimensions L x H mm	Risultati prove Test values					
			Aria Air	Acqua Water	Vento Wind			
WIN 140sa ^{TT} SYSTEM		3200 X 2200	C4	8A	C5		ISTEDIL 1810/2011	

Tecnicamente, viene definito "a taglio termico" un profilato metallico che, una volta impiegato nella costruzione di un infisso, presenti il lato rivolto all'interno nettamente diviso dal lato esposto all'esterno per impedire lo scambio termico. Le due parti della sezione devono essere perciò separate da un materiale diverso, con bassi valori di conducibilità termica.

Il taglio termico del sistema Teknowindow, realizzato con barrette in poliammide rinforzato, si colloca su bassi valori di trasmittanza termica, in linea con i sistemi a taglio termico più avanzati.

Per evitare slittamenti dei vari componenti del profilato a taglio termico è prescritta la pre-zigrinatura dei particolari di bloccaggio prima dell'operazione meccanica di accoppiamento.

A metal section which, when used in the construction of a frame, has the side facing inwards clearly divided from that facing outwards to prevent heat exchange is technically defined as "thermal break". The two parts of the section must therefore be separated by a different material, with low conductivity values.

The thermal break of the Teknowindow system, produced with reinforced polyamide bars, is placed on low Uf values (heat transmission coefficient), in line with the most advanced thermal break systems.

To prevent the components of the thermal break section from slipping, it is advisable to pre-knurl the blocking parts before carrying out the mechanical coupling operation.

Tutti i profilati a taglio termico venduti da Sapa sono sempre riconoscibili.

Il marchio, impresso a laser è stato previsto per essere sempre visibile nel profilato assemblato come dalla figura sottostante

All thermal break sections are always recognizable. The laser impressed brand is always visible on the assembled sections as you can see in the picture here under



Sapa non risponde di eventuali difetti imputabili ad accoppiamenti non eseguiti nei propri stabilimenti e/o dovuti all'utilizzo di macchine non idonee e/o mal regolate.

Sapa will not be responsible for any incidental defects due to couplings which have not been carried out in its own premises and/or due to the use of not proper and/or not well-regulated machines.

I valori di trasmittanza termica U_f sotto riportati sono i risultati di calcolo eseguiti dall'Istituto ISTEDIL, secondo la normativa UNI EN ISO 10077-2

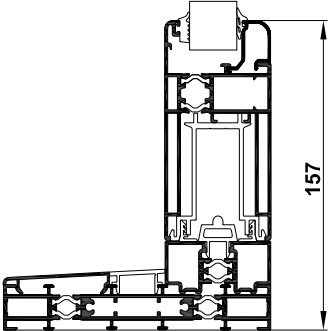
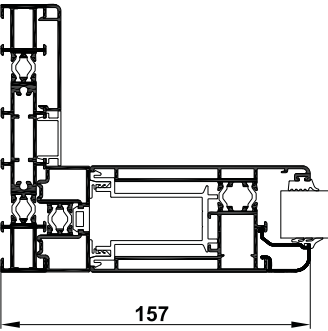
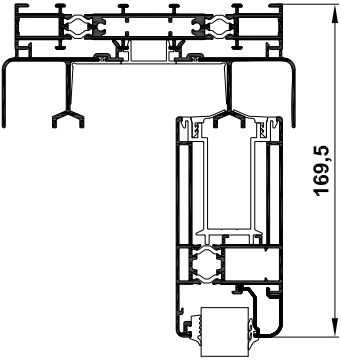
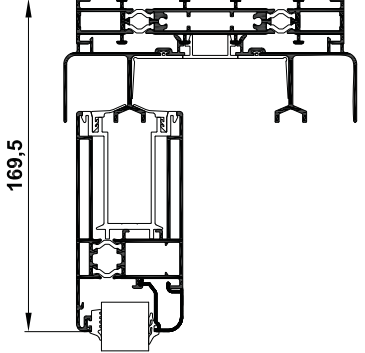
The thermal performance values U_f hereunder reported are calculation results from the Institute ISTEDIL, in accordance with the norm UNI EN ISO 10077-2

Nella porzione di tubolarità delimitata dalle barrette del taglio termico si assume:

- Il valore pari a 0,90 per l'emissività dell'alluminio verniciato
- Il valore pari a 0,30 per l'emissività dell'alluminio non verniciato

The equivalent thermal conductivity of the cavity between aluminium and polyamid bars is:

- 0,90 If the aluminium is painted
- 0,30 If the aluminium is mill finish

CERTIFICATI	CERTIFICATES	Risultati calcolo Calculus values		Laboratorio Certificato n° Laboratory Certificate nr.
Sistema System	Sezioni Cross section	$U_f = W/m^2 \cdot ^\circ K$		
		$\epsilon = 0,9$	$\epsilon = 0,3$	
WIN 140sa ^{TT} SYSTEM		3,24	3,15	ISTEDIL 56/2012
WIN 140sa ^{TT} SYSTEM		3,31	3,22	ISTEDIL 56/2012-A
WIN 140sa ^{TT} SYSTEM		4,83	4,78	ISTEDIL 56/2012-B
WIN 140sa ^{TT} SYSTEM		6,17	6,09	ISTEDIL 56/2012-C

I valori di trasmittanza termica U_f sotto riportati sono i risultati di calcolo eseguiti dall'Istituto ISTEDIL, secondo la normativa UNI EN ISO 10077-2

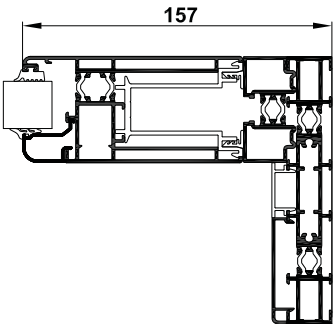
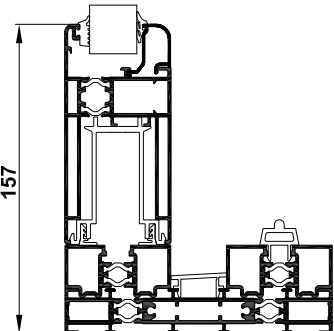
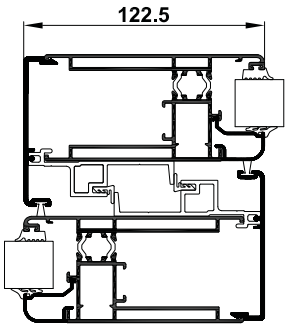
The thermal performance values U_f hereunder reported are calculation results from the Institute ISTEDIL, in accordance with the norm UNI EN ISO 10077-2

Nella porzione di tubolarità delimitata dalle barrette del taglio termico si assume:

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The equivalent thermal conductivity of the cavity between aluminium and polyamid bars is:

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CERTIFICATI		CERTIFICATES			
Sistema System	Sezioni Cross section	Risultati calcolo Calculus values		Laboratorio Certificato n° Laboratory Certificate nr.	
		$U_f = W/m^2 \cdot K$			
		$\epsilon = 0,9$	$\epsilon = 0,3$		
WIN 140sa ^{TT} SYSTEM		3,54	3,45	ISTEDIL 56/2012-D	
WIN 140sa ^{TT} SYSTEM		3,36	3,27	ISTEDIL 56/2012-E	
WIN 140sa ^{TT} SYSTEM		4,32	4,28	ISTEDIL 56/2012-F	

"Valido solo per il territorio ITALIANO"

"Applicable only for Italy"

Requisiti della prestazione energetica degli edifici

Decreto legislativo 29 dicembre 2006, n. 311

Disposizioni correttive ed integrative al decreto legislativo 19 agosto 2005, n. 192, recante attuazione alla direttiva 2002/91/CE, relativa al rendimento energetico nell'edilizia.

Stabilisce i valori massimi della trasmittanza termica dei vetri e delle chiusure trasparenti comprensive di vetri e profilati metallici.

Tabella 4a Valori limite della trasmittanza termica U delle chiusure trasparenti comprensive degli infissi espressa in W/m ² K			
Zona climatica	Dall' 1 gennaio 2006 U (W/m ² K)	Dall' 1 gennaio 2008 U (W/m ² K)	Dall' 1 gennaio 2010 U (W/m ² K)
A	5,5	5,0	4,6
B	4,0	3,6	3,0
C	3,3	3,0	2,6
D	3,1	2,8	2,4
E	2,8	2,4	2,2
F	2,4	2,2	2,0

Tabella 4b Valori limite della trasmittanza U dei vetri espressa in W/m ² K			
Zona climatica	Dall' 1 gennaio 2006 U (W/m ² K)	Dall' 1 gennaio 2008 U (W/m ² K)	Dall' 1 gennaio 2011 U (W/m ² K)
A	5,0	4,5	3,7
B	4,0	3,4	2,7
C	3,0	2,3	2,1
D	2,6	2,1	1,9
E	2,4	1,9	1,7
F	2,3	1,7	1,3

Il territorio nazionale è suddiviso nelle seguenti zone climatiche in funzione dei gradi-giorno, indipendentemente dalla ubicazione geografica:

Zona A - Comuni che presentano un numero di gradi-giorno non superiore a 600;

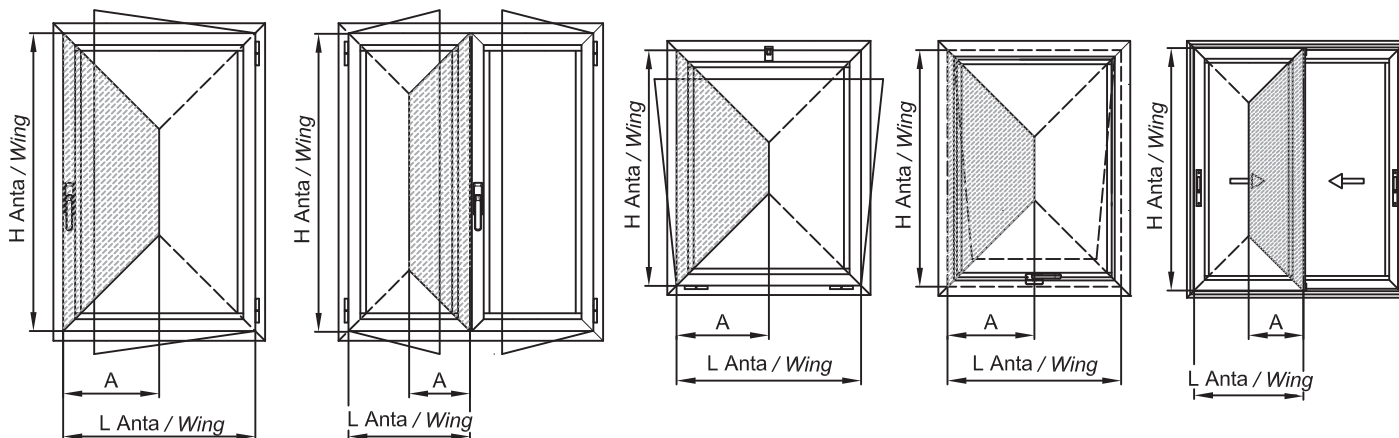
Zona B - Comuni che presentano un numero di gradi-giorno maggiore di 600 e non superiore a 900;

Zona C - Comuni che presentano un numero di gradi-giorno maggiore di 900 e non superiore a 1400;

Zona D - Comuni che presentano un numero di gradi-giorno maggiore di 1400 e non superiore a 2100;

Zona E - Comuni che presentano un numero di gradi-giorno maggiore di 2100 e non superiore a 3000;

Zona F - Comuni che presentano un numero di gradi-giorno maggiore di 3000.



I grafici di seguito riportati sono stati ottenuti con la seguente formula:

The graphs below were created using the following formula:

$$J(\text{cm}^4) = \frac{q(\text{Kgf/cm}^2) \times H^4(\text{cm}) \times A(\text{cm})}{1920 \times E(\text{Kgf/cm}^2) \times f(\text{cm})} \times \left[25-40 \times \left(\frac{A}{H} \right)^2 + 16 \times \left(\frac{A}{H} \right)^4 \right]$$

Dove:

- Jx = Momento d'inerzia (cm⁴)
- q = Carico del vento (Kgf/cm²)
- H = Altezza anta (cm)
- A = Larghezza anta : 2 (cm)
- E = Modulo di elasticità (Kgf/cm²)
- f = Freccia (cm)

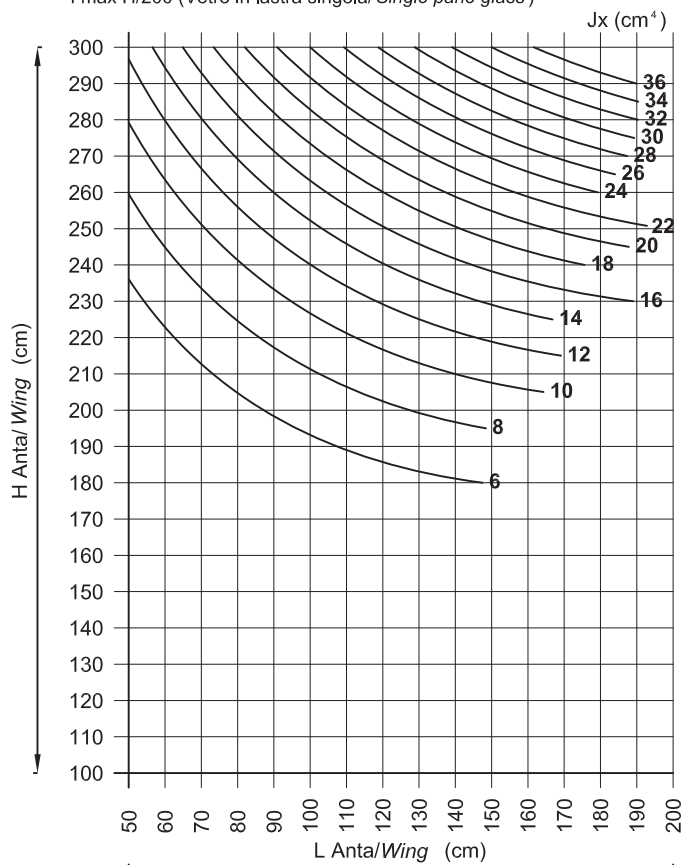
Were:

- Jx = Moment of inertia (cm⁴)
- q = Wind load (Kgf/cm²)
- H = Wing height (cm)
- A = Wing/2 width (cm)
- E = Coefficient of elasticity (Kgf/cm²)
- f = Camber (cm)

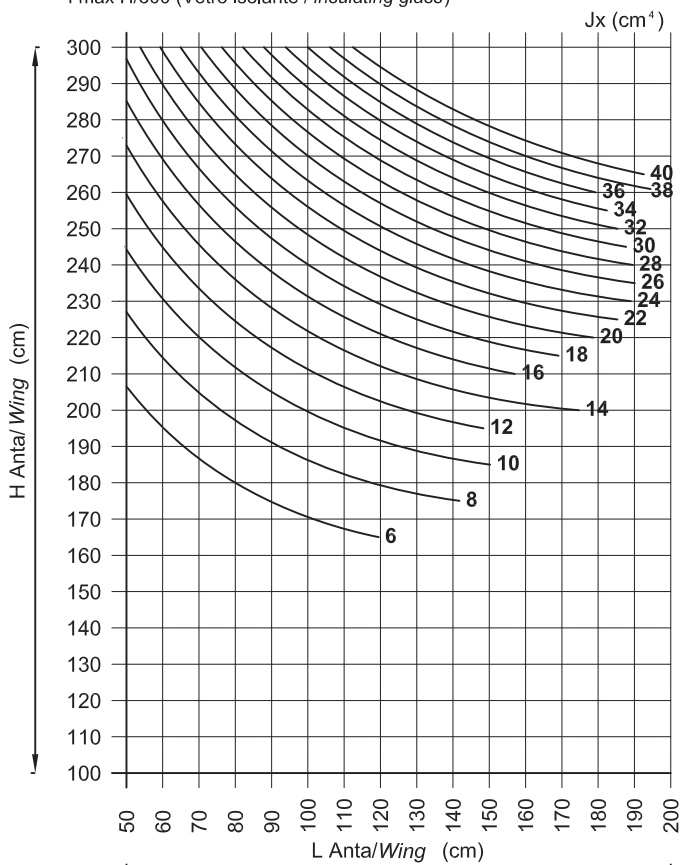
Essa è riferita al dimensionamento delle ante rispetto all'inerzia del profilato, per cui verificare sempre che il peso delle ante sia compatibile con la portata degli accessori impiegati, cerniere ecc. Inoltre verificare sempre che la freccia dei profilati sia compatibile con il vetro impiegato.

This refers to the size of the wings compared with the section inertia so always make sure the weight of the wings is compatible with the load of accessories hinge etc. used. Also always check that the section camber is suitable for the glass used.

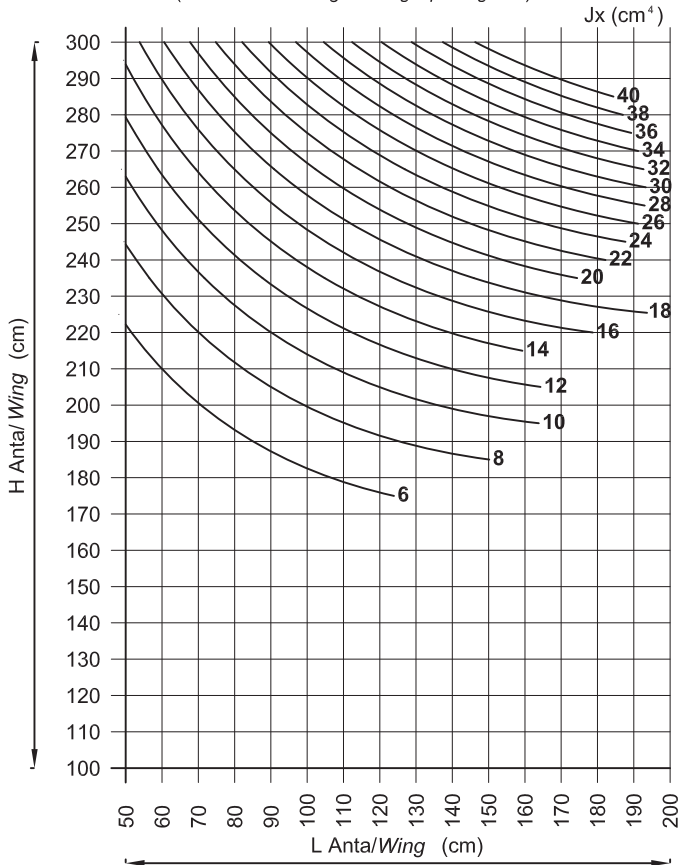
CARICO DEL VENTO/ WIND LOAD : q= 50 Kgf/m²
 f max H/200 (Vetro in lastra singola/ Single pane glass)



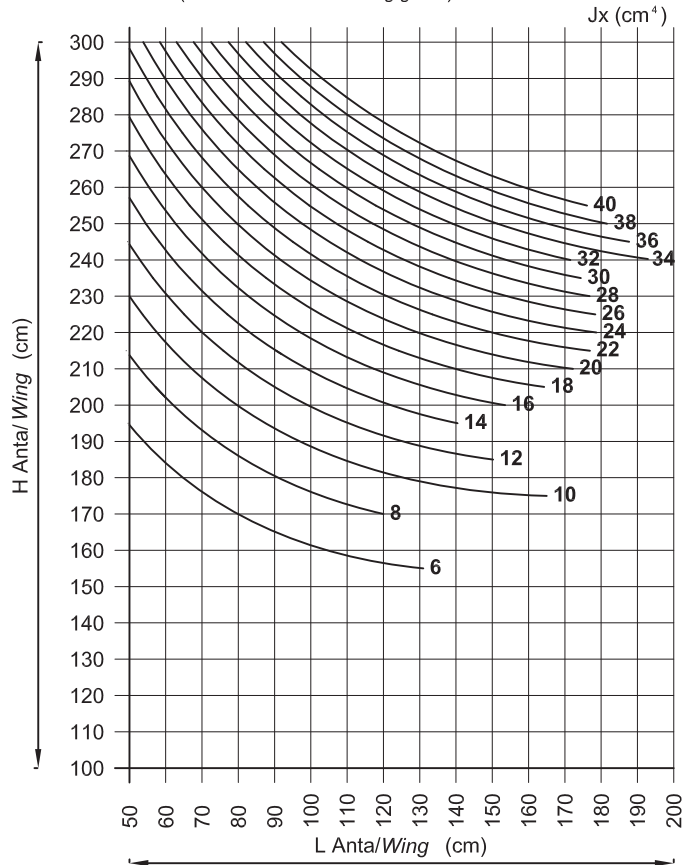
CARICO DEL VENTO/ WIND LOAD : q= 50 Kgf/m²
 f max H/300 (Vetro isolante / insulating glass)



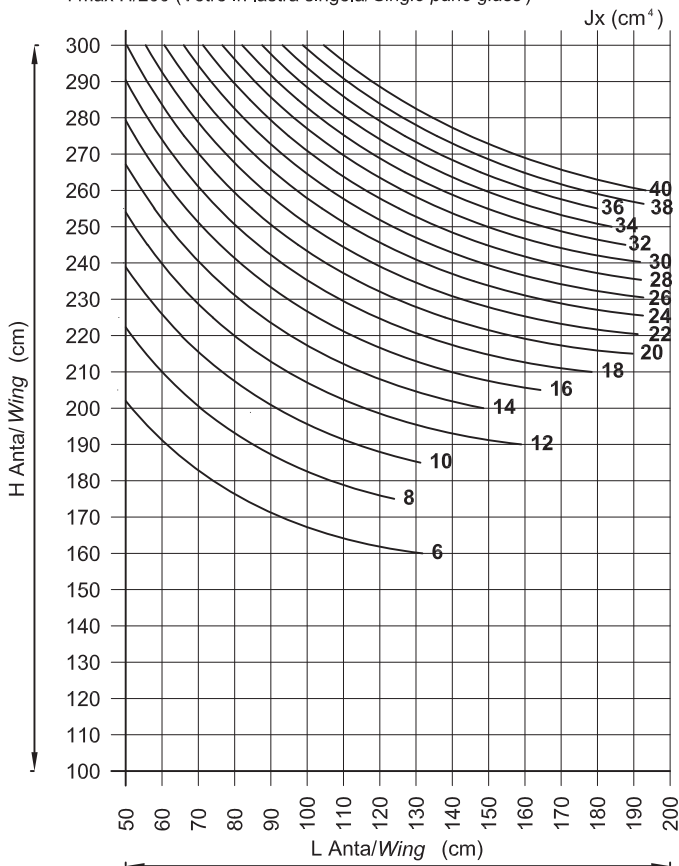
CARICO DEL VENTO/ WIND LOAD : $q=60 \text{ Kg/m}^2$
 f max H/200 (Vetro in lastra singola/ Single pane glass)



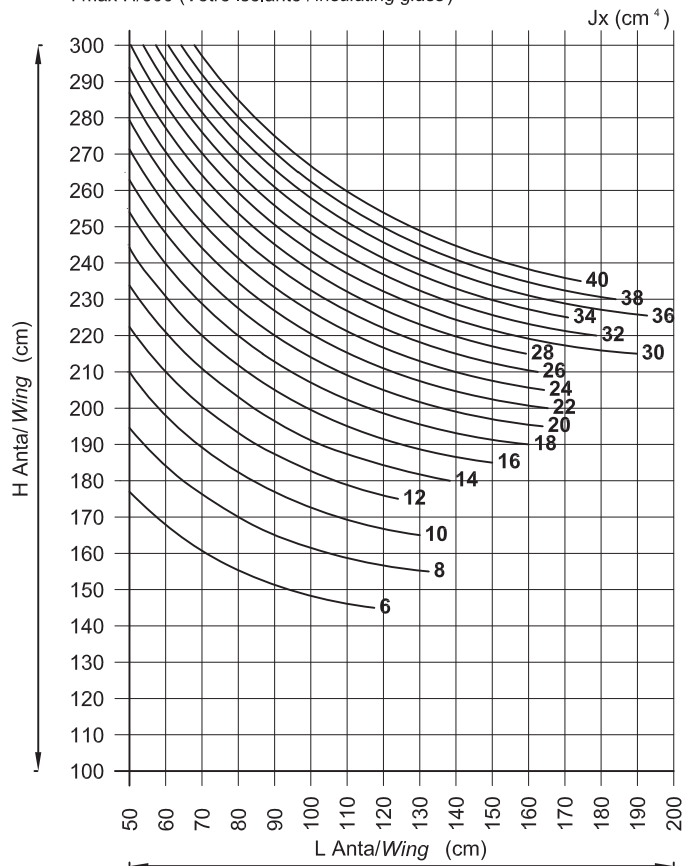
CARICO DEL VENTO/ WIND LOAD : $q=60 \text{ Kg/m}^2$
 f max H/300 (Vetro isolante / Insulating glass)



CARICO DEL VENTO/ WIND LOAD : $q=80 \text{ Kg/m}^2$
 f max H/200 (Vetro in lastra singola/ Single pane glass)



CARICO DEL VENTO/ WIND LOAD : $q=80 \text{ Kg/m}^2$
 f max H/300 (Vetro isolante / Insulating glass)

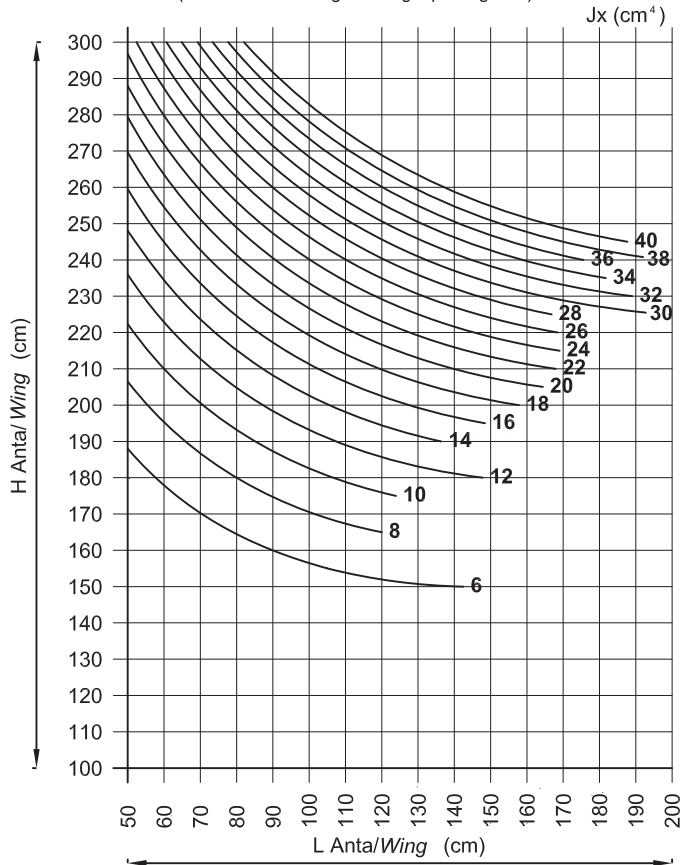


DIAGRAMMI PER IL DIMENSIONAMENTO STATICO DELLE ANTE

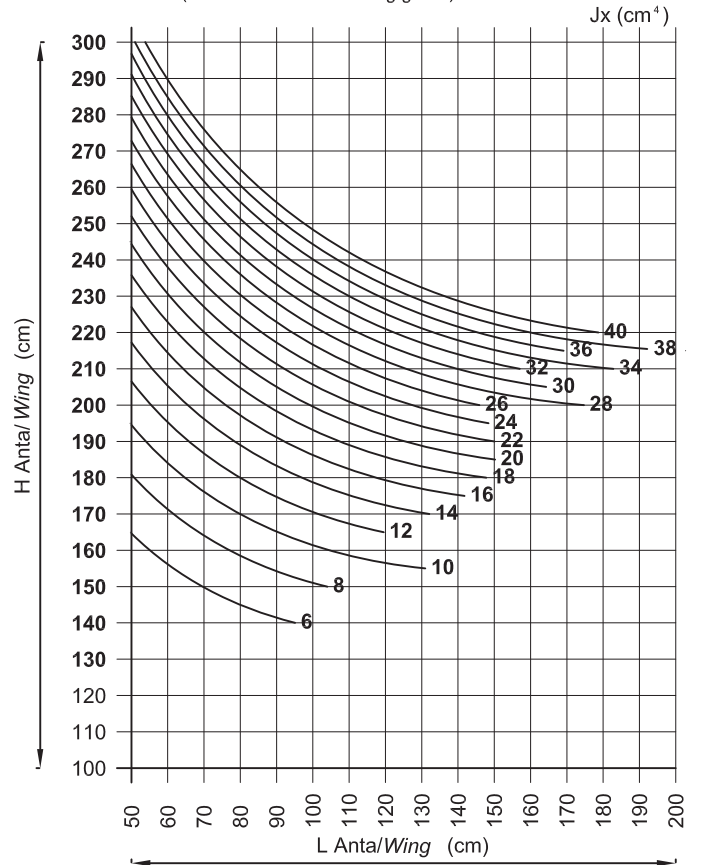
STATIC WING-SIZING DIAGRAMS

WIN 140sa^{TT}
SYSTEM

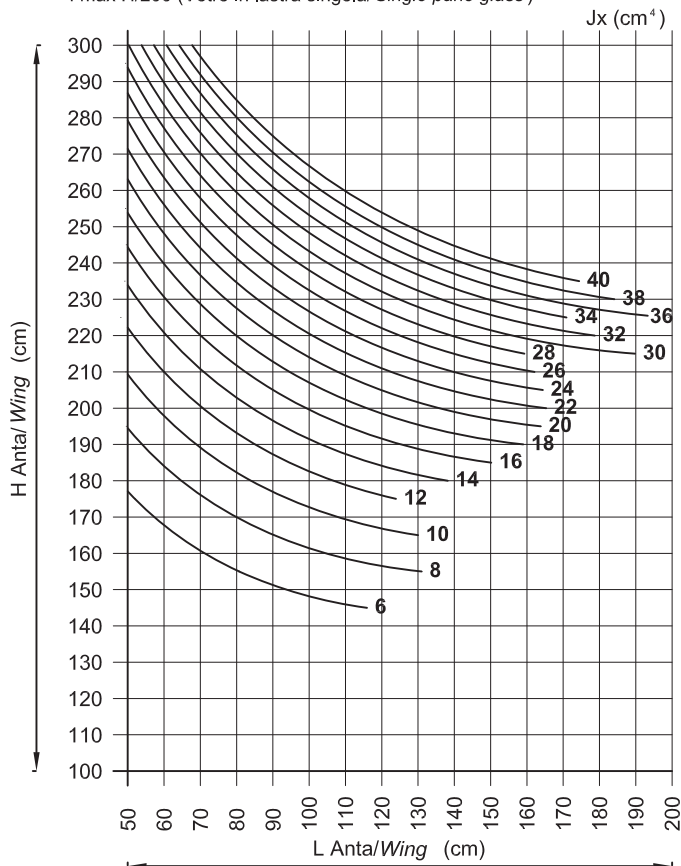
CARICO DEL VENTO/ WIND LOAD : $q = 100 \text{ Kg/m}^2$
f max H/200 (Vetro in lastra singola/ Single pane glass)



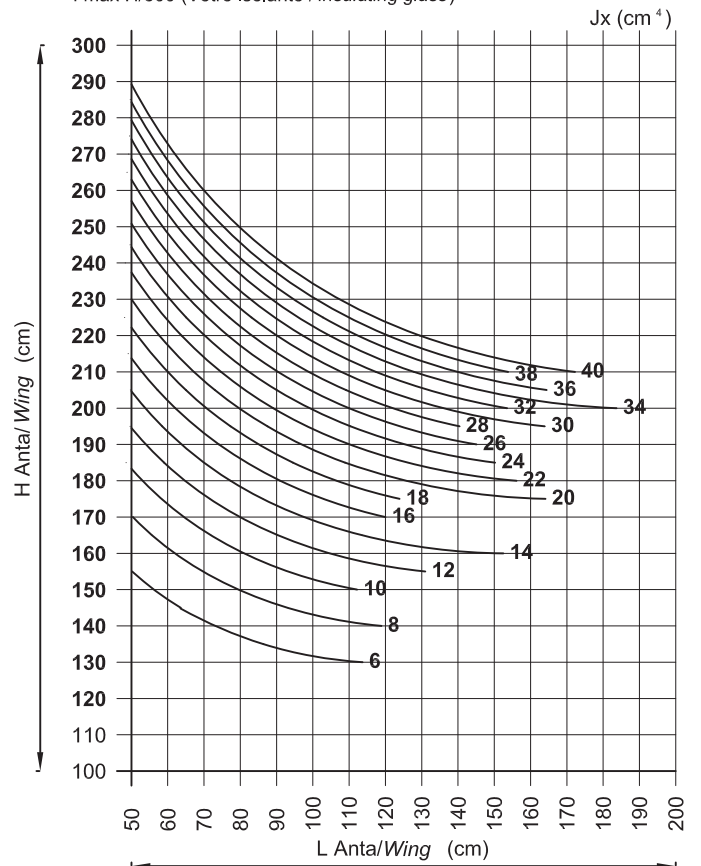
CARICO DEL VENTO/ WIND LOAD : $q = 100 \text{ Kg/m}^2$
f max H/300 (Vetro isolante / Insulating glass)



CARICO DEL VENTO/ WIND LOAD : $q = 120 \text{ Kg/m}^2$
f max H/200 (Vetro in lastra singola/ Single pane glass)



CARICO DEL VENTO/ WIND LOAD : $q = 120 \text{ Kg/m}^2$
f max H/300 (Vetro isolante / Insulating glass)



Gli accessori originali, progettati appositamente e specifici del Sistema TEKNOWINDOW, sono gli unici collaudati e garantiscono nel tempo la qualità del prodotto finale.

Only the original accessories in the TEKNOWINDOW System guarantee lasting quality of products

AVVERTENZA
NOTE

Per gli articoli indicati con ^(XXX) è possibile scegliere tra diversi produttori, tali articoli sono comunque forniti da Sapa. Le combinazioni possibili sono le seguenti:

For the articles indicating ^(XXX) there is the possibility to choose between different manufacturers although the goods will be supplied by Sapa. Here following the different combinations:

(BP) - Prodotte da BMP e PRODUCTA.

(BP) - Produced by BMP and PRODUCTA.

Per ordinare tali prodotti, è necessario inserire al termine del codice i seguenti numeri:

To order the articles you will need to indicate following numbers at the end of the code:

01 - Per BMP

01 - For manufacturer BMP

03 - Per PRODUCTA

03 - For manufacturer PRODUCTA

Esempio: Art. G.0004.EN ^(BP) La scelta può essere fatta tra BMP (ordinando il codice G.0004.EN.01) e PRODUCTA (codice G.0004.EN.03).

Example: Article G.0004.EN ^(BP) the choice may be between BMP (ordering art. G.0004.EN.01) and PRODUCTA (ordering art. G.0004.EN.03).

AVVERTENZA
NOTE

I prodotti descritti con il suffisso **.XX**, potranno essere forniti nelle finiture sotto indicate, sostituendo in sede di ordinazione l'indicazione **.XX** con i codici qui elencati:

*Products described with the suffix **.XX** can be supplied with the finished by replacing the **.XX** with the codes listed below when ordering:*

00 = Grezzo

00 = Raw

01 = Nero su materiali plastici

01 = Black on plastics

02 = Ossidato argento

02 = Anodized silver

06 = Ossidato bronzo

06 = Anodized bronze

15 = Elettro 5

15 = Electro 5

19 = Ossidato nero

19 = Anodized black

37 = Verniciato argento

37 = Painted silver

39 = Verniciato elettro 5

39 = Painted electro 5

41 = Verniciato bianco RAL 9010

41 = Painted white RAL 9010

43 = Verniciato avorio RAL 1013

43 = Painted ivory RAL 1013

50 = Verniciato nero RAL 9005

50 = Painted black RAL 9005

60 = Verniciato su commessa ***

*60 = Painted to order ****

B5 = Alluminio Titanio

B5 = Aluminum titanium

B6 = Alluminio ottone lucido

B6 = Aluminum polished brass

B7 = Alluminio cromo satinato

B7 = Aluminum chrome satin

KA = Acciaio grezzo

KA = raw steel

VA = Vari grezzo

VA = Various raw

*** Quantitativi e prezzi da concordare

**** Quantities and prices to be agreed*








Esempio:

La maniglia con coprirosetta e conchiglia corta art. A.5213.xx, se ordinata come A.5213.41 verrà fornita verniciata bianca RAL 9010.

For example:

Single handle with short basin code A.5213.xx, will be supplied painted white RAL 9010 if ordered as A.5213.41



SQUADRETTE
CORNER JOINTS

Articolo Item	Immagine Picture	Descrizione Description
10001.00		Squadretta allineamento battuta Corner joint for alignment rabbet
10040.01		In zama Zamac
		In nylon Nylon
10008.00		Squadretta a cianfrinare Corner joint to be crimped 9,8 x 20,3 mm
10009.00		Squadretta a cianfrinare Corner joint to be crimped 16,8 x 20,3 mm
10026.00		Squadretta ad avvitare Corner joint to be screwed 9,8 x 20,3 mm
10027.00		Squadretta ad avvitare Corner joint to be screwed 16,8 x 20,3 mm
A.2916.AA		Squadretta allineamento aletta anta Alignment corner joint on section 50 x 5 mm
092 (Mont.)		Spina in acciaio inox per squadretta A.2916.AA Pinned stainless to corner joint A.2916.AA




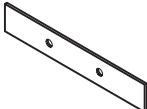
ELEMENTI DI FISSAGGIO
FIXING ELEMENTS

A.1500.NN		Basetta in nylon per regolo mobile Nylon plate for adjustable fixing
10410.00		Grano per regolo mobile Dowel for adjustable fixing
10411.00		16,5 mm
10425.00		Molla aggancio coprifili Edge cover coupling spring



TAPPI
PLUGS

Articolo Item	Immagine Picture	Descrizione Description
A.2169.NN		Kit tappi terminali guida superiore Plug terminal kit for superior track
A.2185.TN		Coppia tappi per profilato 1F28005 Pair of plug for section 1F28005

GIUNTI E SCARICHI ACQUA
JOINTS AND WATER DRAINAGES

10501.01		Cappetta scarico acqua Water drain cover
A.2201.NN		Cappetta drenaggio acqua Water drainage cover
A.2202.NN		Boccola drenaggio acqua Water drainage bush Ø 16 mm
A.2186.ON		Guarnizione adesiva unione profilati su 1F28006 adhesive seal for union profiles on section 1F28006







ACCESSORI COMPLEMENTARI
COMPLEMENTARY ACCESSORIES

10545.xx		Angolo stampato per fermavetri arrotondati Moulded for snap-on rounded glass beading
F.9000.01		Aggancio fermavetri arrotondati Rounded glass beading coupling



ACCESSORI PER SCORREVOLI
SLIDING UNIT ACCESSORIES

ACCESSORI PER SCORREVOLI
SLIDING UNIT ACCESSORIES

Articolo Item	Immagine Picture	Descrizione Description
A.5200.VA		Kit base movimentazione un'anta portata 300 Kg Basic kit for one wing movement load 300 Kg
A.5201.KA A.5202.KA A.5203.KA A.5204.KA A.5205.KA		Barra di collegamento linking bar L= 692 mm L Anta da 720 a 1300 L= 1196 mm " " da 1225 a 1800 L= 1700 mm " " da 1730 a 2305 L= 2204 mm " " da 2235 a 2810 L= 2708 mm " " da 2740 a 3385
A.5206.XX A.5207.XX A.5208.XX A.5209.XX A.5210.XX A.5211.XX A.5212.XX		Serratura alzante Lifting locking Altezza anta da 730 a 1360 mm Altezza anta da 1260 a 1760 mm Altezza anta da 1660 a 2160 mm Altezza anta da 2060 a 2560 mm Altezza anta da 2460 a 2860 mm Altezza anta da 2760 a 3360 mm Altezza anta da 3260 a 3860 mm
A.5213.XX		Maniglia con coprirosetta e conchiglia corta Single handle with short basin
A.5214.XX		Maniglia con coprirosetta con foro cilindrico e conchiglia corta Single handle with short basin and hole for cylinder
A.5215.XX		Maniglia doppia con foro cilindro Double handle with hole cylinder
A.5216.VA		Perno di chiusura su piastra per aerazione Pin to lock on plate aeration
A.5217.VA		Perno di chiusura su piastra Pin to lock on plate
A.5218.VA		Guida posizionamento anta su binario ribassato 1F23013 Guide wing placement for lower-track 1F23013
A.5219.XX		Paracolpo in zama su anta Buffer in zamak













Articolo Item	Immagine Picture	Descrizione Description
A.5220.02		Paracolpi a tubo L 45mm Buffer tubes L 45mm
A.5221.02		Paracolpi a tubo L 65mm Buffer tubes L 65mm
A.5222.ZA		Delimitatore per 4 ante Delimiter for four wing
A.5223.VA		Kit carrelli supplementari per portata 400 Kg Additional roller kit for capacity Kg 400
A.9899.VA		Kit bloccaggio anta fissa Blocking kit for fix wing
U.5290.YA		Dima per foratura binario fissaggio accessorio A.5222.ZA Template to drill of the track trough to fix accessories A.5222.ZA


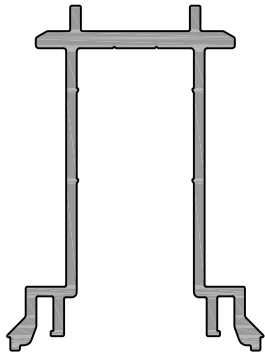


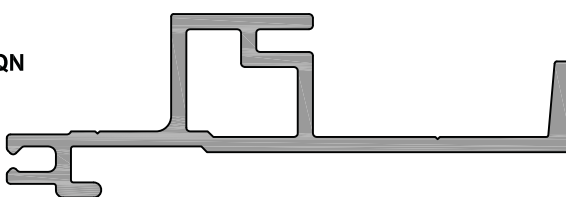
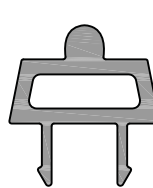
SPESSORAMENTO VETRI
SHIM FOR GLASSES

10510.01		Base spessore 5 mm per tassello regolazione vetro Glass registration dolly block 5 mm
10511.01		Spessore regolazione vetro Glass registration spacer
10512.01		2 mm
10513.01		3 mm
		4 mm

GUARNIZIONI
WEATHERSTRIPS







GUARNIZIONI POLIAMMIDE
POLYAMIDE WEATHERSTRIPS















Articolo Item	Immagine Picture	Descrizione Description
10821.01		Guarnizione di battuta in EPDM EPDM weatherstrip of rabbet
10841.01		Guarnizione vetro lato esterno in EPDM spessore 3 mm EPDM weatherstrip thickness mm 3 for external glazing
10851.01		Guarnizione vetro lato esterno in EPDM spessore 5 mm EPDM weatherstrip thickness mm 5 for external glazing
10852.01		Guarnizione vetro lato esterno in EPDM spessore 8 mm EPDM weatherstrip thickness mm 8 for external glazing
G.0004.EN ^(BP)		Guarnizione vetro lato interno in EPDM spessore 3 mm EPDM weatherstrip thickness mm 3 for internal glazing
G.0005.EN ^(BP)		Guarnizione vetro lato interno in EPDM spessore 4 mm EPDM weatherstrip thickness mm 4 for internal glazing
10861.01		Guarnizione vetro lato interno sp. 5 mm Weatherstrip internal glazing thickness 5 mm
10862.01		EPDM
10871.01		Guarnizione vetro lato interno sp. 6 mm Weatherstrip internal glazing thickness 6 mm
10872.01		EPDM
G.0097.EN		Guarnizione coprigiunto 1F28004 Coverjoint on 1F28004 section
G.0098.EN		Guarnizione coprigiunto 1F23006 Coverjoint on 1F23006 section
G.0099.EN ^(BP)		Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide
G.0100.EN ^(BP)		Guarnizione di tenuta perimetrale Sealing weatherstrip perimeter

Articolo Item	Immagine Picture	Descrizione Description
G.0167.HA		Spazzolino Hi-Fin 6,9x8,5 Protective fiber Hi-Fin 6,9x8,5
G.0309.QN		Coprigiunto anta Win 140SA Joint covering wing Win 140SA
G.0310.LN		Coprigiunto telaio Win 140SA Joint covering frame Win 140SA
G.0311.LN		Coprigiunto telaio Win 140SA Joint covering frame Win 140SA
G.0312.QN		Incontro centrale due ante Win 140SA Two wings striker plate Win 140SA
G.0319.LN		Bimario Win 140SA Track Win 140SA IN ALLESTIMENTO UNDER CONSTRUCTION

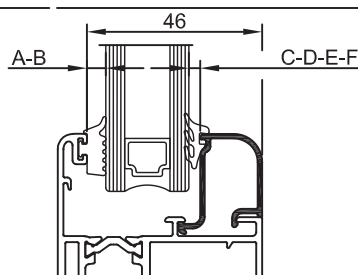
INSERIMENTO GUARNIZIONI, VETRI E FERMAVETRI
WEATHERSTRIPS, GLASS AND GLASS BEADINGS INSERTION

WIN 140sa^{TT}
 SYSTEM

Articolo Item	Guarnizioni esterne External weatherstrips	Sezione Section	Articolo Item	Guarnizioni interne Internal weatherstrips	Sezione Section
10841.01	A = 3 mm		10861.01 10862.01	C = 5 mm	
10851.01	B = 5 mm		10871.01 10872.01	D = 6 mm	
WIN 140sa ^{TT} SYSTEM			G.0004.EN	E = 3 mm	
			G.0005.EN	F = 4 mm	
Spessore vetri Glass thickness	Guarnizioni Weatherstrips	Dimensione fermavetri Glass beading size	Sezione Fermavetri Glass beading section		

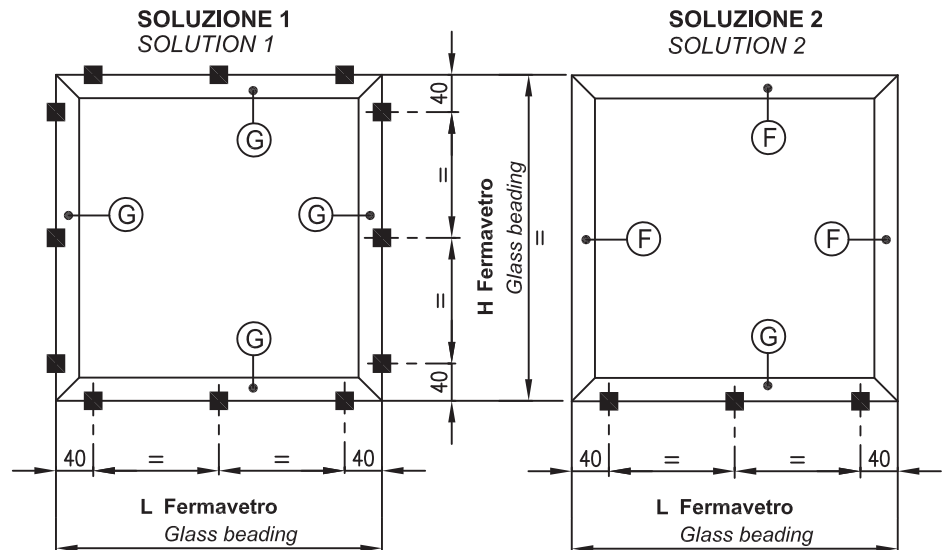
20	A+E	20,5 mm	 	
20 21	A+F A+E	19 mm		
20 21 22 23 24	B+C B+F A+C / B+E A+F A+E	16,5 mm	 	
21 22 23 24 25 26	B+D B+C B+F A+C / B+E A+F A+E	14,5 mm		
23 24 25 26 27 28	B+D B+C B+F A+C / B+E A+F A+E	12,5 mm	 	
25 26 27 28 29 30	B+D B+C B+F A+C / B+E A+F A+E	10,5 mm		
27 28 29 30 31 32	B+D B+C B+F A+C / B+E A+F A+E	8,5 mm	 	
31 32 33 34 35 36	B+D B+C B+F A+C / B+E A+F A+E	4,5 mm		
33 34 35 36 37 38	B+D B+C B+F A+C / B+E A+F A+E	2,5 mm		

B+D	= 11
B+C	= 10
B+F	= 9
A+C / B+E	= 8
A+F	= 7
A+E	= 6



N.B.: Le combinazioni sopra indicate sono state ottenute considerando le quote teoriche. Si consiglia sempre di verificare le tolleranze per applicare vetri, fermavetri e guarnizioni ottimali
The above combinations are based on theoretical dimensions. It is always best to check tolerances to apply correct glass, glass beadings and weatherstrips.

Sezione fermavetri Glass beading section		Dimensione Size
(F)	(G)	
		28,5 mm
1F14016	1F14054	
		24,5 mm
1F14015	1F14053	
		20,5 mm
1F14014	1F14052	
		16,5 mm
1F14013	1F14051	
		14,5 mm
1F14055	1F14049	



■ = Art. F.9000.01

Per L/H ≤ 1000 mm

n. 3 pz.

Per L/H > 1000 mm ≤ 1500 mm

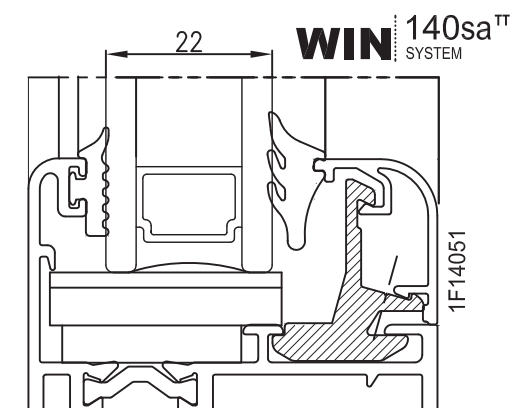
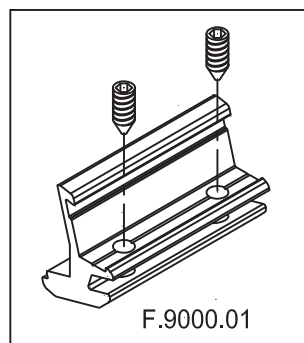
n. 4 pz.


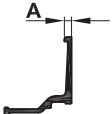
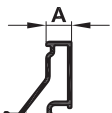
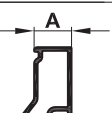
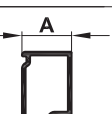
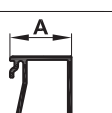
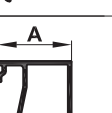
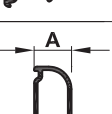
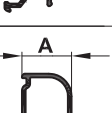
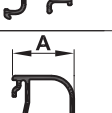
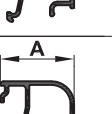
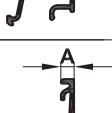
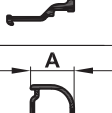
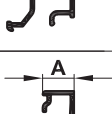
Per L/H > 1500 mm

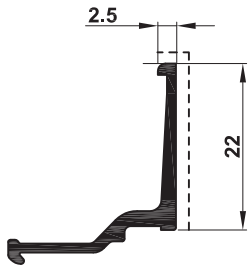
n. 5 pz.

(F) = Fermavetro arrotondato a scatto
 Rounded glass beading with snap mechanism

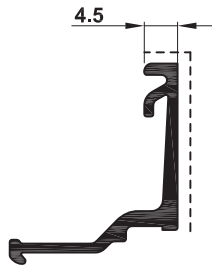
(G) = Fermavetro arrotondato con accessorio F.9000.01
 Rounded glass beading with accessory F.9000.01



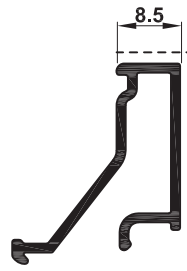
Profilato Section	Sezione Cross section 	A mm	Peso Weight Kg/m	Perimetro Perimeter mm	Superficie in vista Exposed surface m ² /m	Jx cm ⁴	Wx cm ³	Jy cm ⁴	Wy cm ³
1F14002		2,5	0,196	95	0,024	—	—	—	—
1F14003		8,5	0,236	146	0,030	—	—	—	—
1F14004		12,5	0,245	151	0,034	—	—	—	—
1F14005		16,5	0,253	156	0,038	—	—	—	—
1F14006		20,5	0,281	170	0,042	—	—	—	—
1F14007		24,5	0,297	181	0,046	—	—	—	—
1F14012		12,5	0,235	145	0,032	—	—	—	—
1F14013		16,5	0,243	150	0,036	—	—	—	—
1F14014		20,5	0,272	165	0,040	—	—	—	—
1F14015		24,5	0,288	173	0,044	—	—	—	—
1F14044		4,5	0,222	108	0,026	—	—	—	—
1F14055		14,5	0,240	148	0,034	—	—	—	—
1F14062		10,5	0,242	123	0,032	—	—	—	—



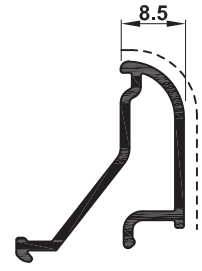
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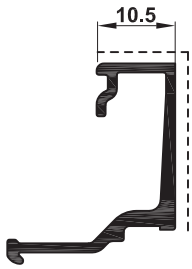
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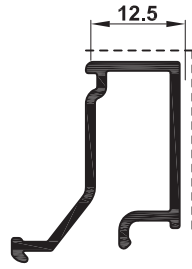
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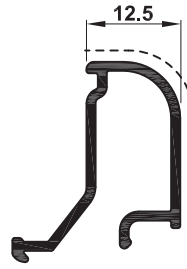
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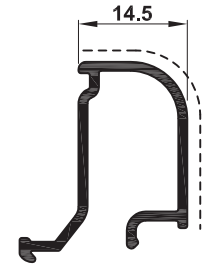
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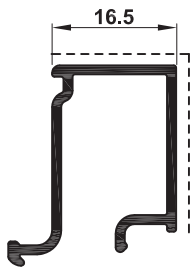
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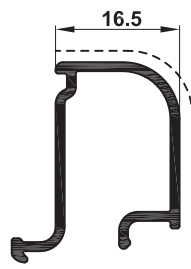
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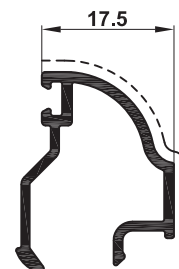
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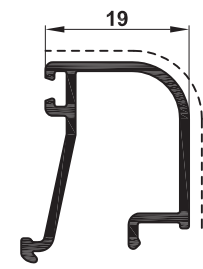
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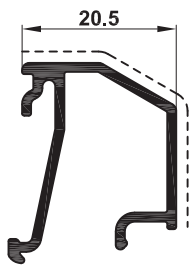
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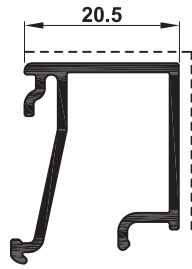
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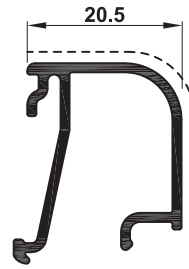
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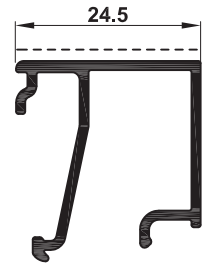
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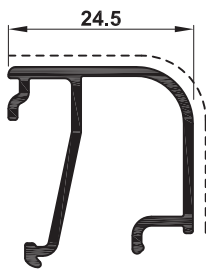
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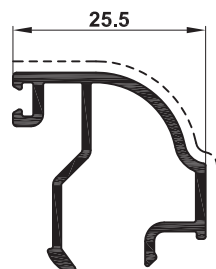
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1F14007










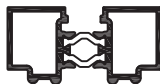
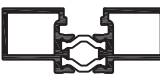

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1F14072

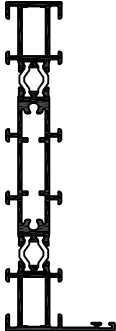
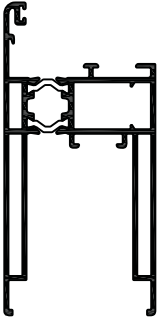
ELENCO PROFILATI
LIST OF SECTIONS

WIN 140sa^{TT}
SYSTEM

Profilato Section	Comp.ne Composition	Sezione Cross section 	Peso Weight Kg/m	Perimetro Perimeter mm	Superficie in vista Exposed surface m ² /m	Jx cm ⁴	Wx cm ²	Jy cm ⁴	Wy cm ³
1F23003			0,280	153	0,061	0,08	0,10	3,33	1,18
1F23004			0,304	162	0,064	0,09	0,10	3,75	1,35
1F23006			0,755	344	0,044	4,82	1,97	9,18	2,72
1F23012			0,327	73	0,044	-	-	-	-
1F23013			0,454	130	0,077	-	-	-	-
1F23014			0,595	233	0,090	0,36	0,26	14,92	3,84
1F28004	1F25031 A.0311.LN A.0311.LN 1F25031		0,996	196	0,090	2,51	1,92	9,15	3,40
1F28005	1F25033 A.0311.LN A.0311.LN 1F25033		0,850	181	0,076	1,29	1,15	7,38	2,75
1F28006	1F15002 A.0311.LN A.0311.LN 1F25034 A.0311.LN A.0311.LN 1F15002		2,232	517	0,046	132,11	19,43	2,87	2,50


ELENCO PROFILATI
LIST OF SECTIONS

WIN 140sa^{TT}
SYSTEM

Profilato Section	Comp.ne Composition	Sezione Cross section	Peso Weight Kg/m	Perimetro Perimeter mm	Superficie in vista Exposed surface m ² /m	Jx cm ⁴	Wx cm ²	Jy cm ⁴	Wy cm ³
1F28008	1F15002 A.0311.LN A.0311.LN 1F25034 A.0311.LN A.0311.LN 1F15001		2,338	576	0,071	149,01	20,88	5,12	1,59
1F28010	1F25041 A.0311.LN A.0311.LN 1F25042		2,169	585	0,219	59,14	10,25	34,81	11,91

ELENCO BARRETTE IN POLIAMMIDE
LIST OF REINFORCED POLYAMIDE BARS

WIN 140sa^{TT}
SYSTEM





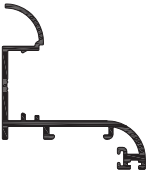

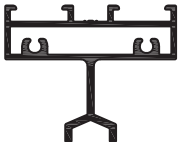
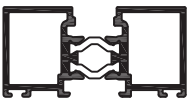
Codice Code	Sezione Cross section	Peso Weight Kg/m
A.0311.LN		0,045

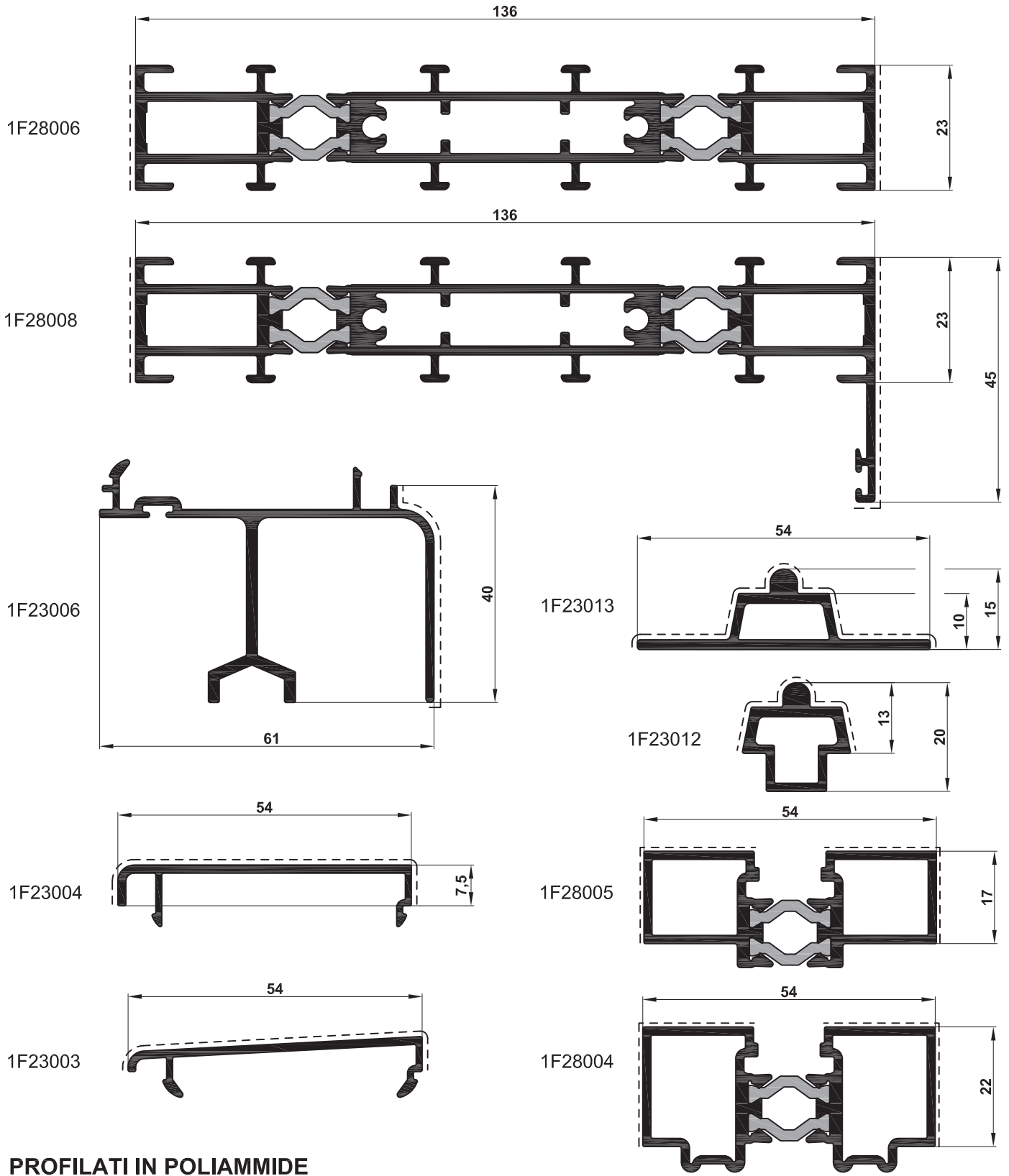
Scala 1:1
Scale 1:1



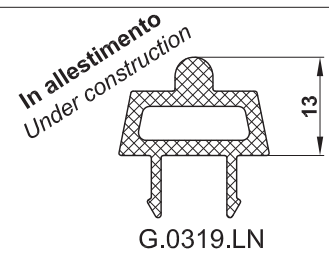
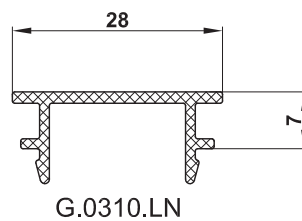
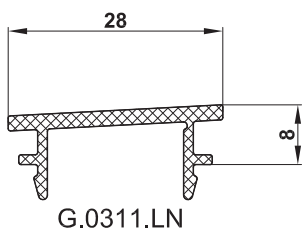
ELENCO PROFILATI " PORTA SCORREVOLE A SCOMPARSA "
LIST OF SECTIONS " SLIDING HIDDEN DOOR "

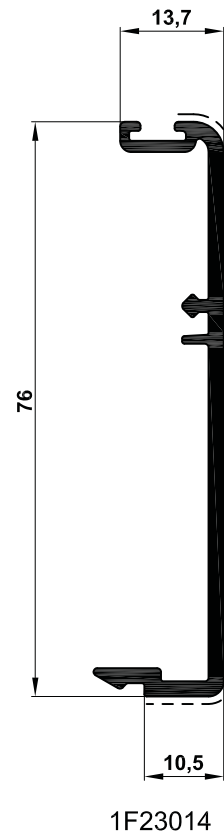
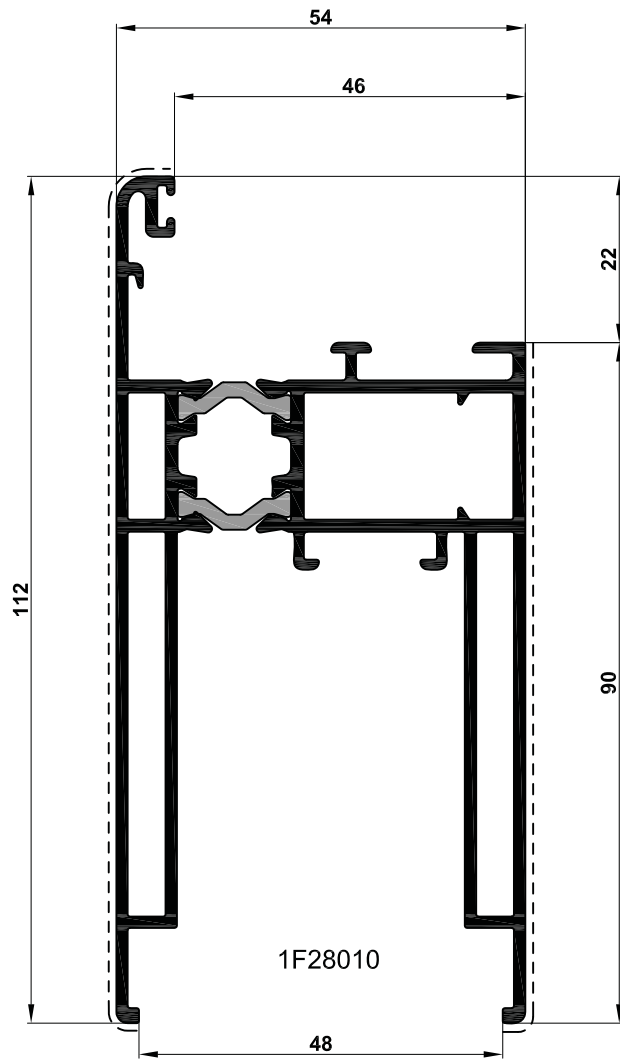
WIN 140sa^{TT}
 SYSTEM

Profilato Section	Sezione Cross section	Peso Weight Kg/m	Perimetro Perimeter mm	Superficie in vista Exposed surface m ² /m	Jx cm ⁴	Wx cm ³	Jy cm ⁴	Wy cm ³
800738		0,170	92	0,027	0,48	0,35	0,05	0,06
800814		0,613	224	0,000	2,00	0,80	6,41	2,31
800815		0,465	192	0,027	0,86	0,73	3,62	1,58
800816		0,585	295	0,117	1,85	0,63	13,19	3,55
1F23009		0,811	334	0,070	7,69	2,03	10,10	3,21
1F23010		0,285	105	0,000	0,11	0,13	1,05	0,71
1F23011		0,979	267	0,000	4,62	1,68	8,79	3,27
1F28009	1F25040 A.0311.LN A.0311.LN 1F25040 	0,998	247	0,120	2,60	1,96	9,72	3,61

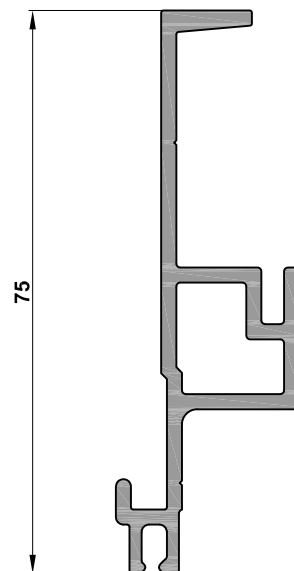
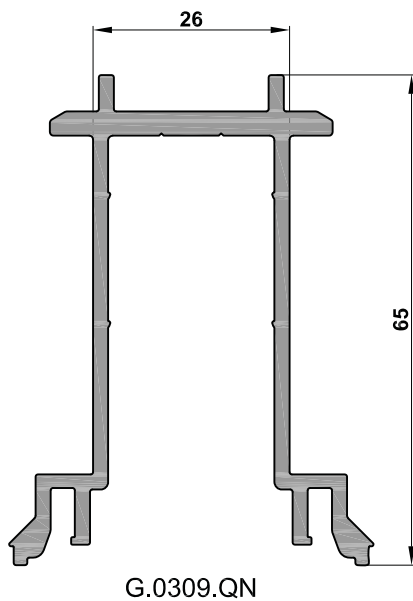


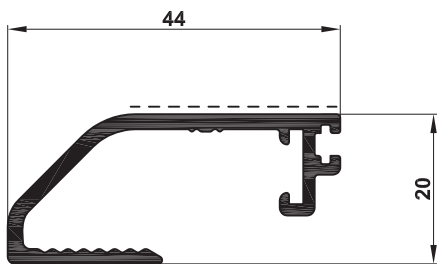
PROFILATI IN POLIAMMIDE
POLYAMIDE SECTIONS



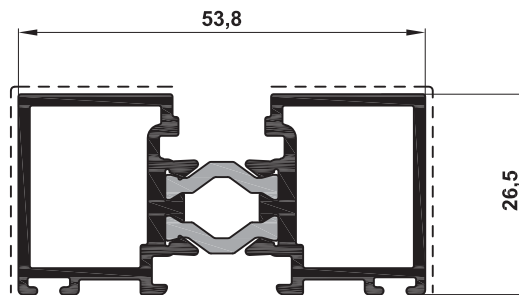


PROFILATI IN PVC - RIGIDO
PVC SECTIONS

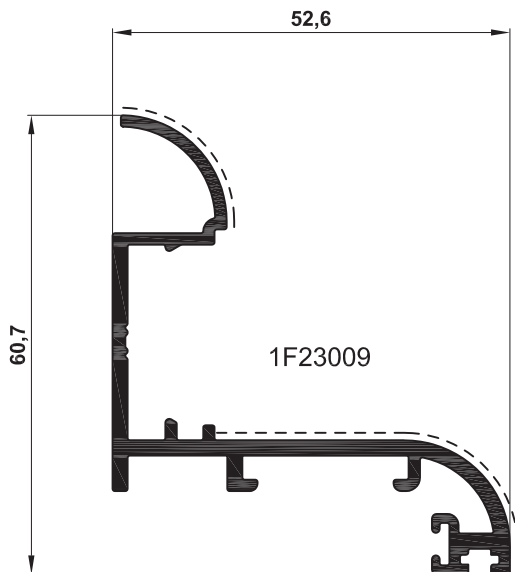




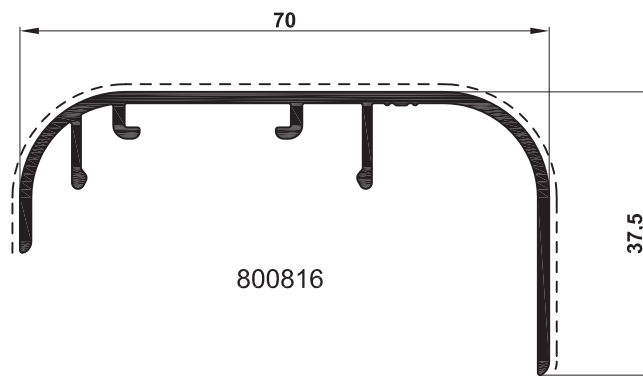
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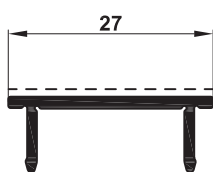
1F28009



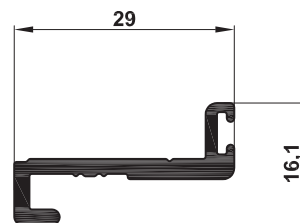
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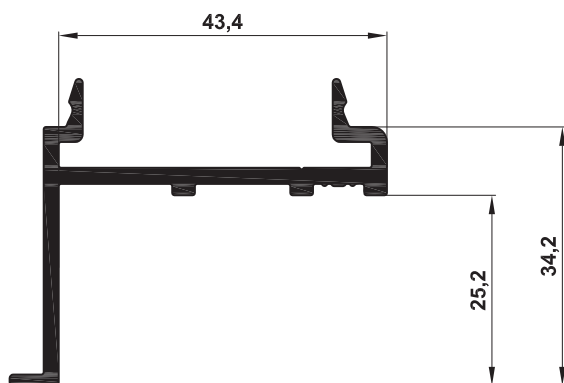
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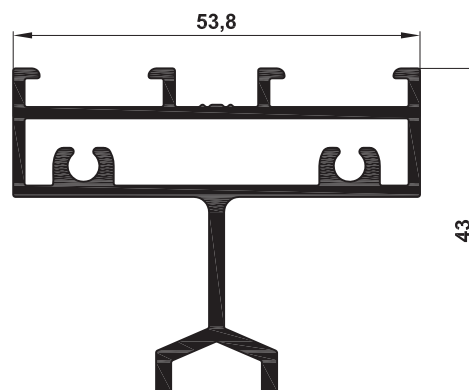
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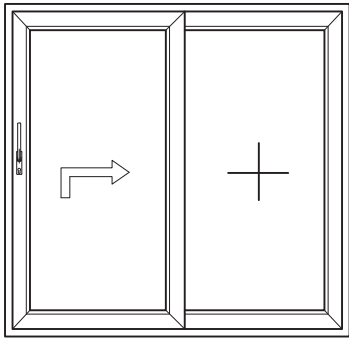
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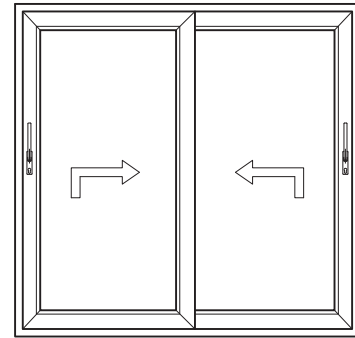
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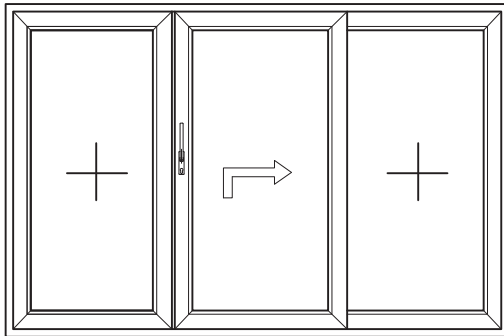
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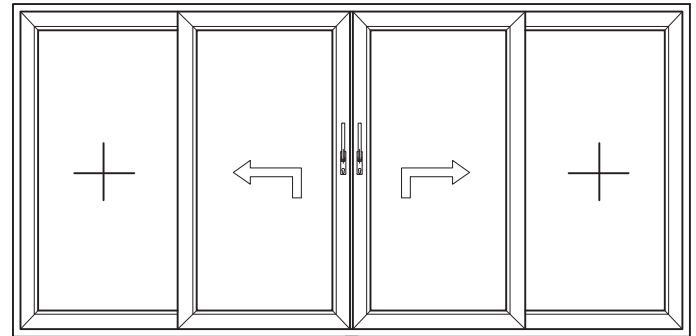
Schema A
1 anta mobile, 1 anta fissa
disegno montaggio a sinistra
*1 mobile wing, 1 fix wing
left side mounting scheme*



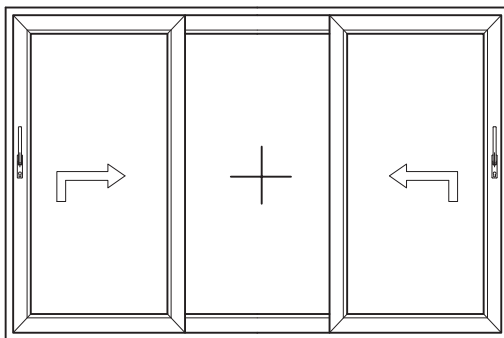
Schema D
2 ante mobili
disegno montaggio a sinistra e a destra
*2 mobile wings
left and right side mounting scheme*



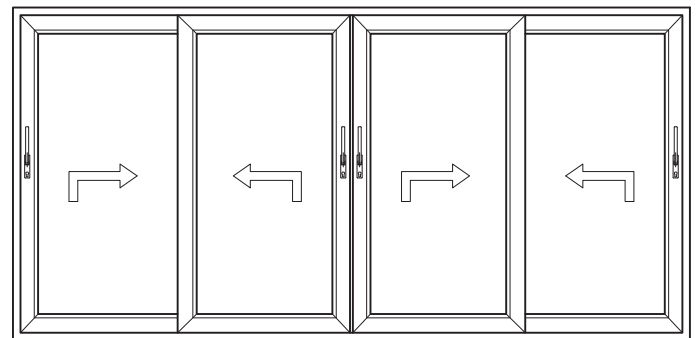
Schema G
1 anta mobile, 2 ante fisse
disegno montaggio a sinistra
*1 mobile wing, 2 fix wings
left side mounting scheme*



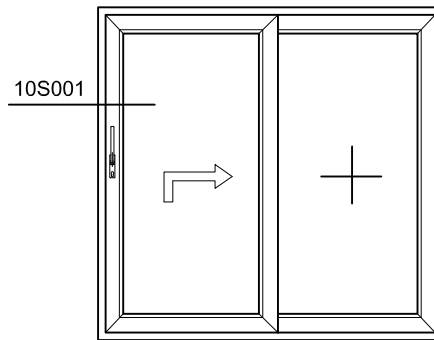
Schema C
2 ante mobili, 2 ante fisse
disegno montaggio a sinistra e a destra
*2 mobile wings, 2 fix wings
left and right side mounting scheme*



Schema K
2 ante mobili, 1 anta fissa
disegno montaggio a sinistra e a destra
*2 mobile wings, 1 fix wings
left and right side mounting*

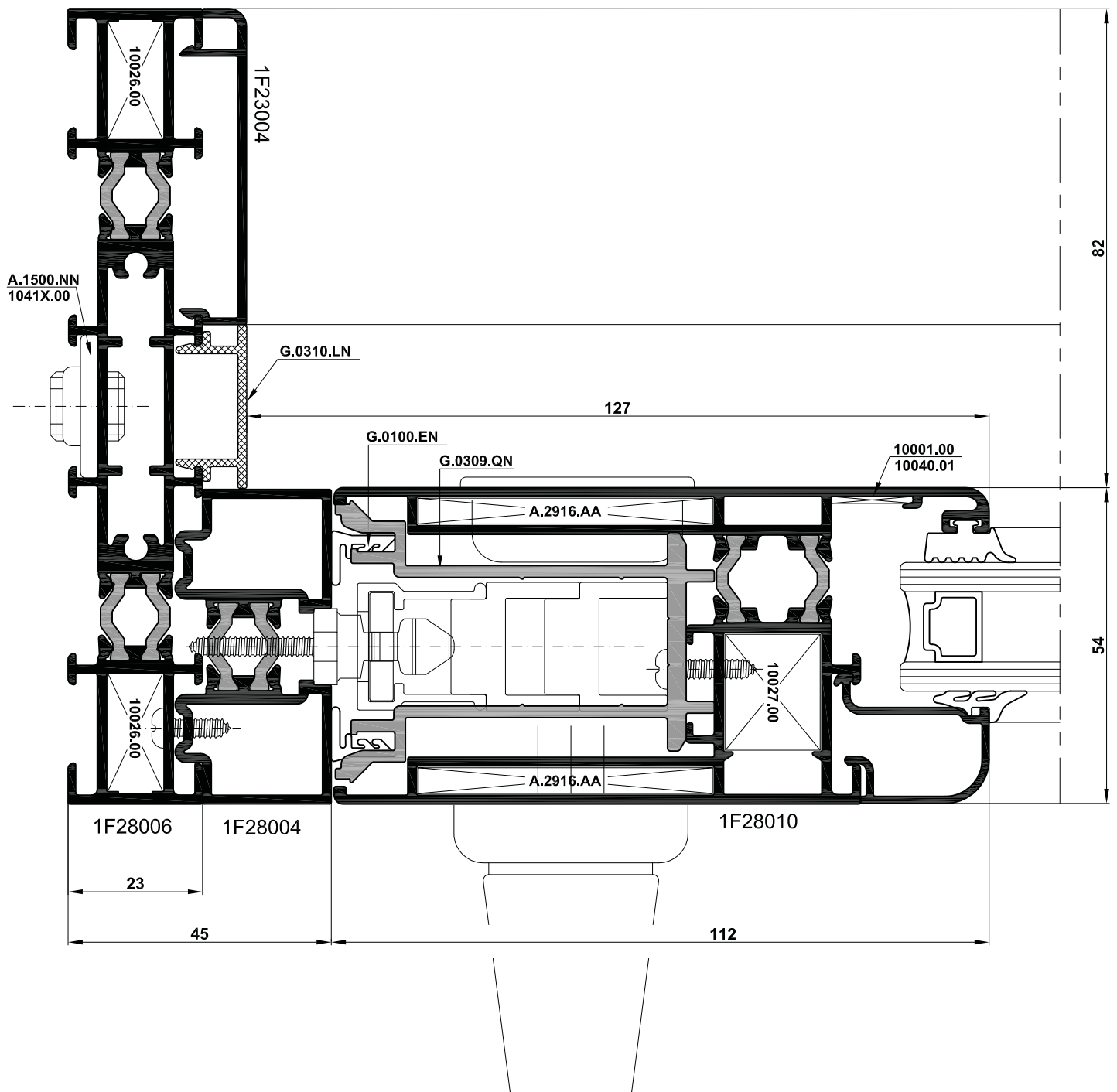


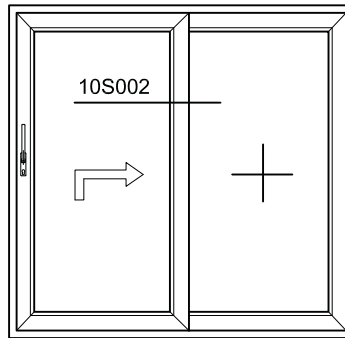
Schema F
4 ante mobili
disegno montaggio a sinistra e a destra
*2 mobile wings, 2 fix wings
left and right side mounting*



Schema A

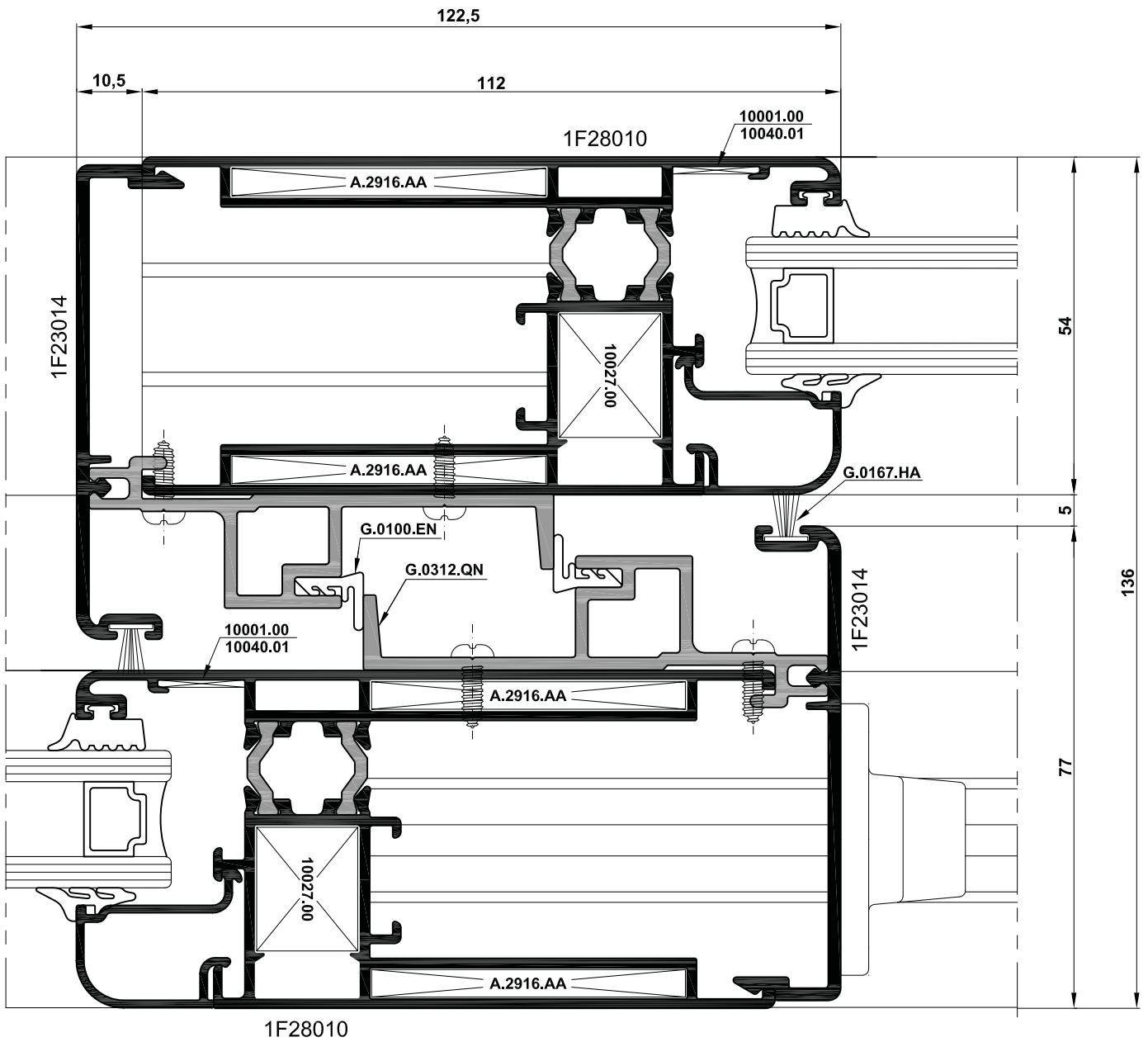
SEZ. 10S001

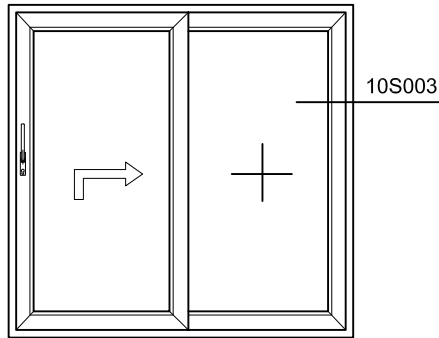




Schema A

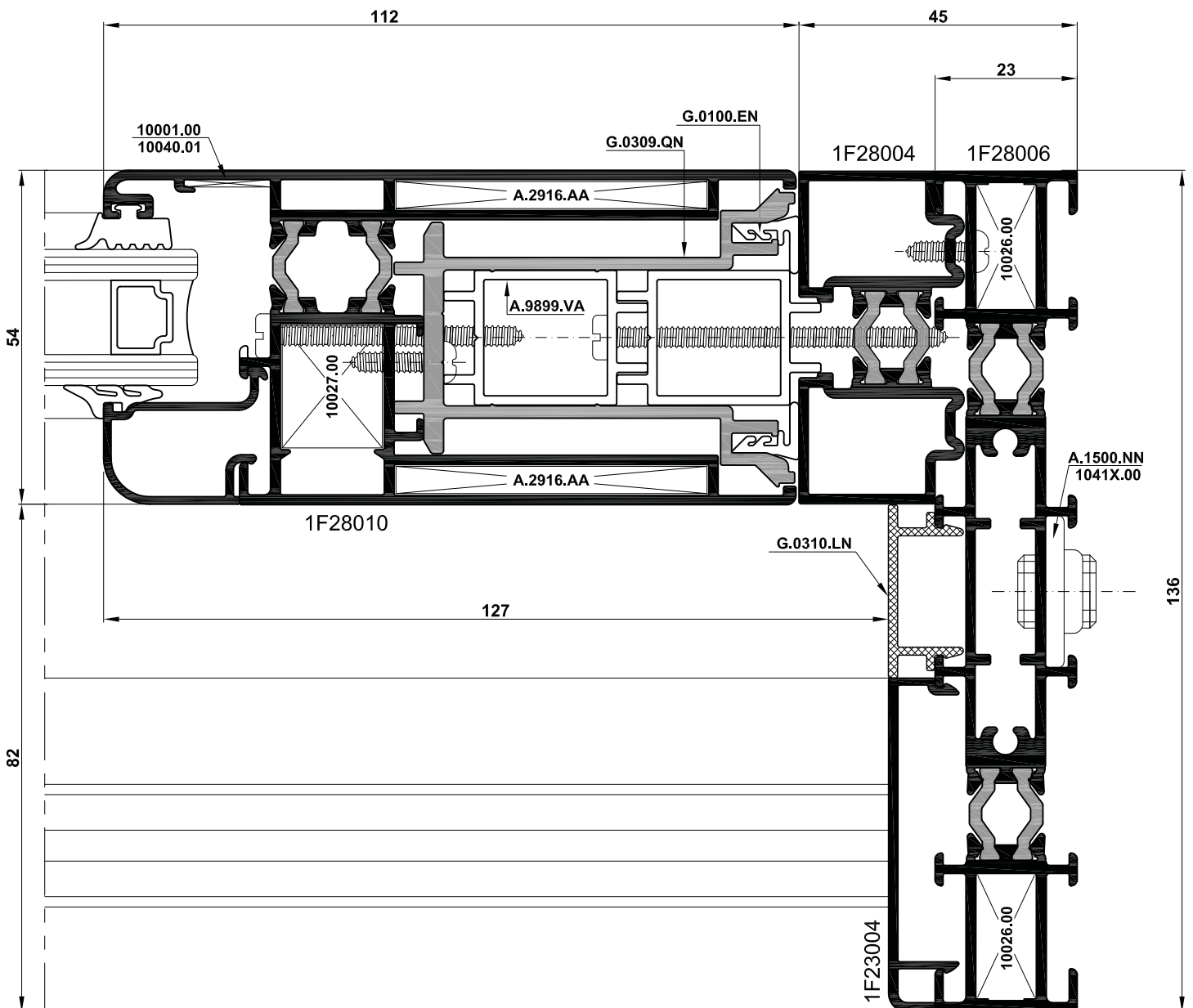
SEZ. 10S002

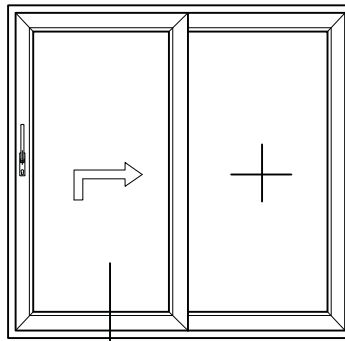




Schema A

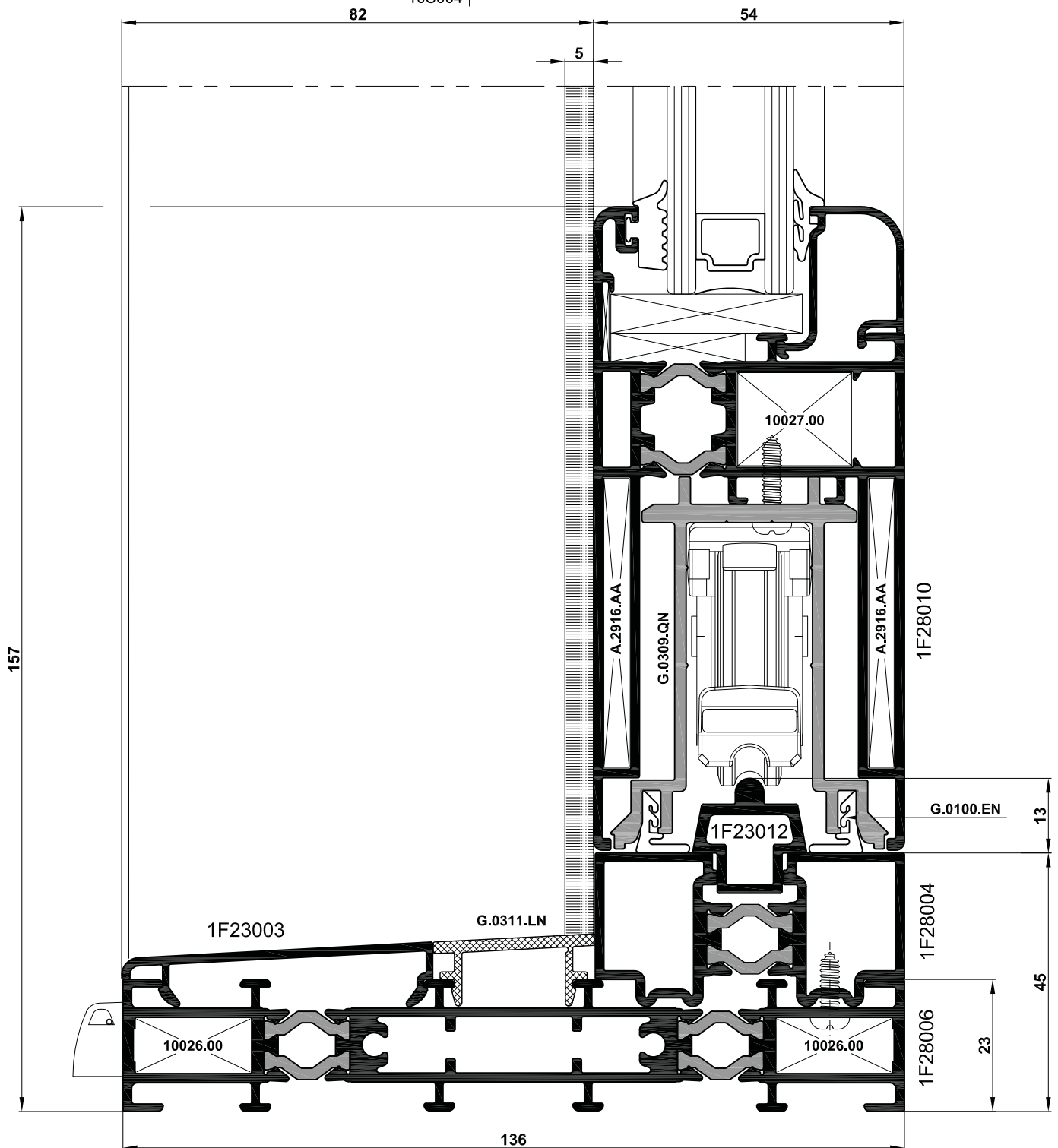
SEZ. 10S003



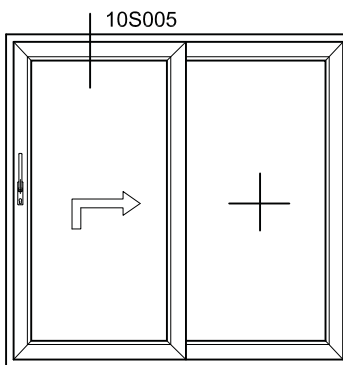


Schema A

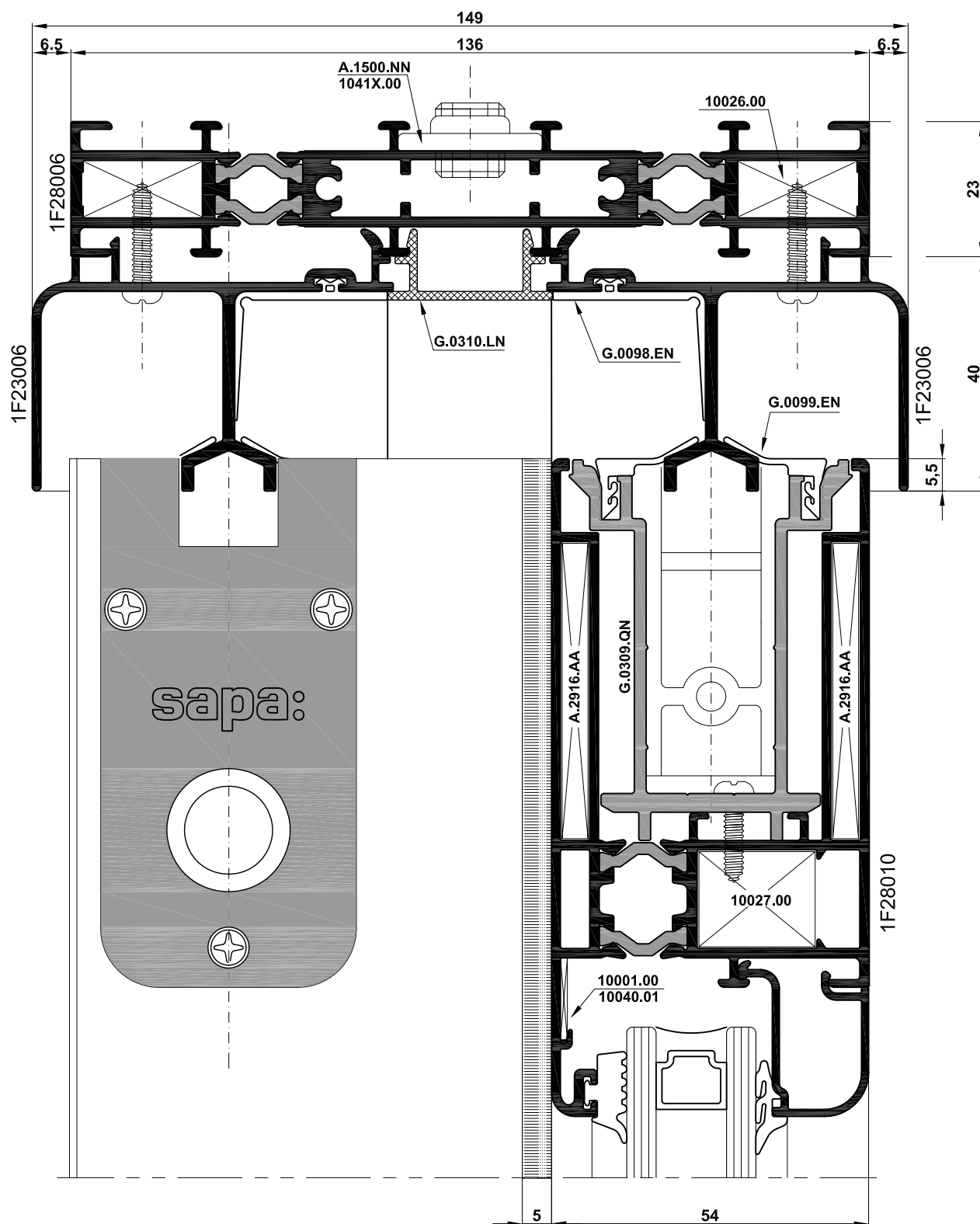
SEZ. 10S004

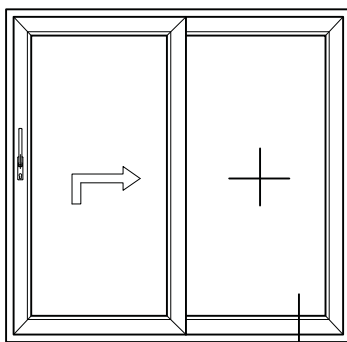


SEZ. 10S005



Schema A

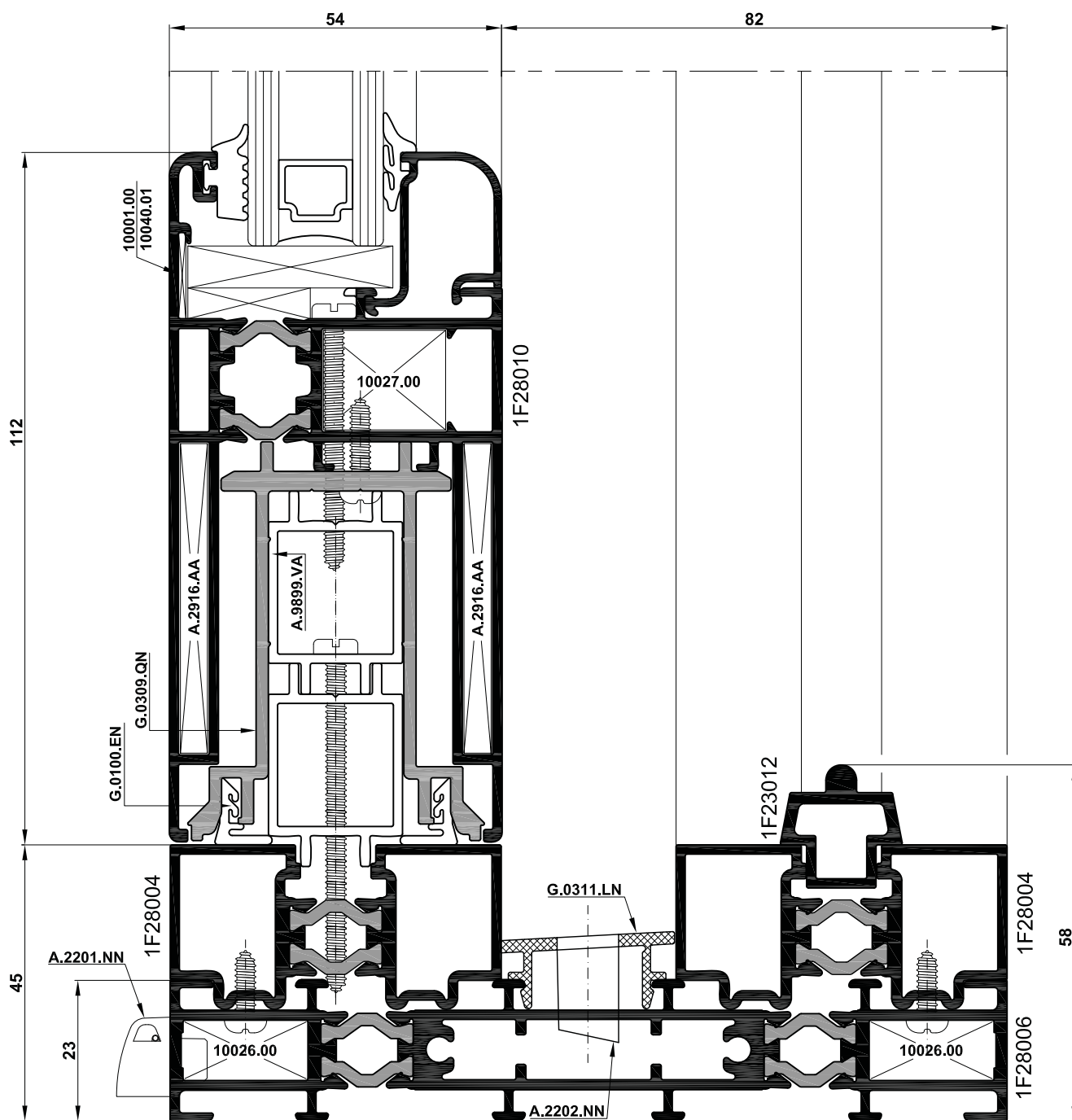


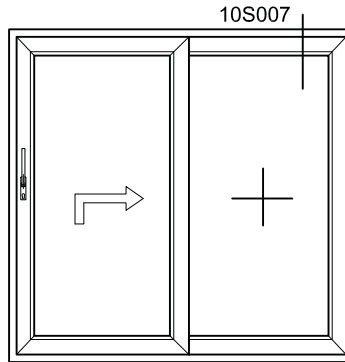


Schema A

SEZ. 10S006

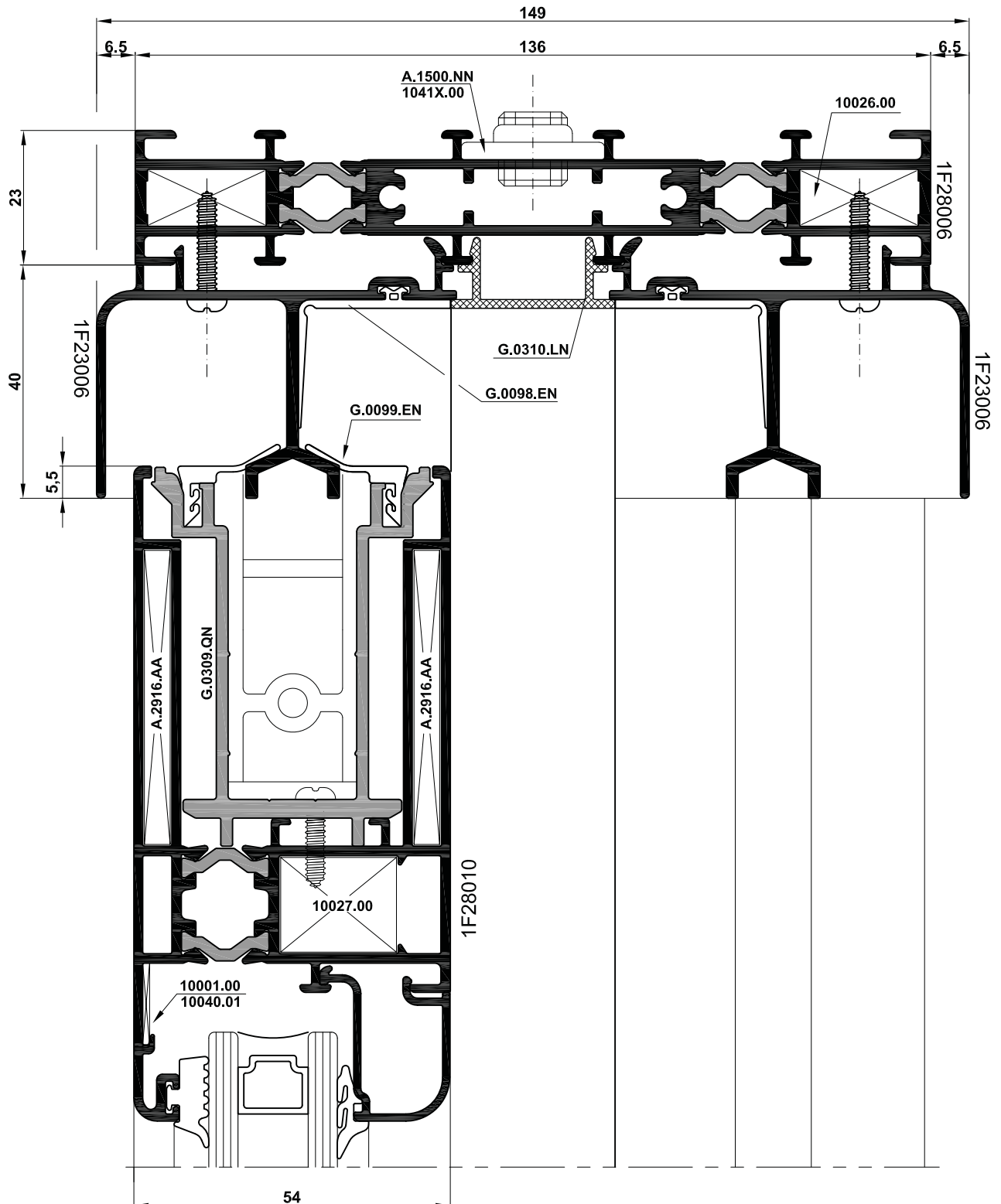
10S006

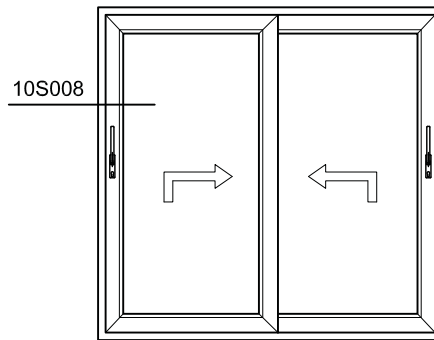




Schema A

SEZ. 10S007

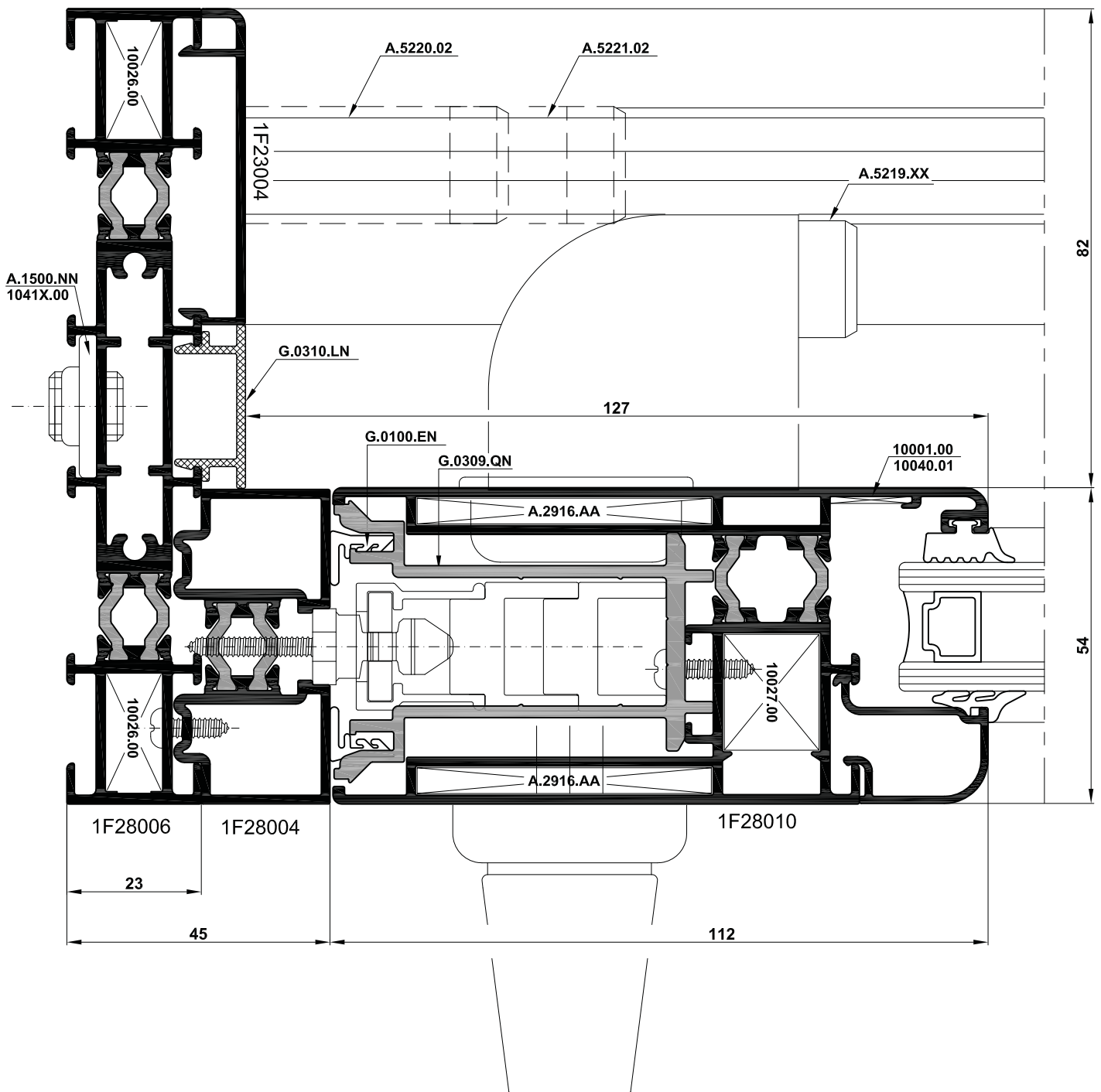


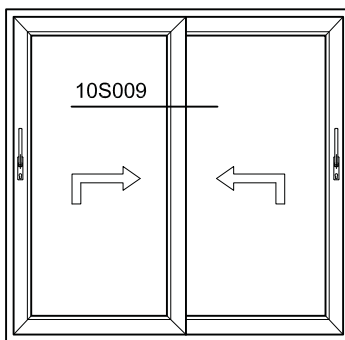


Schema D

SEZ. 10S008

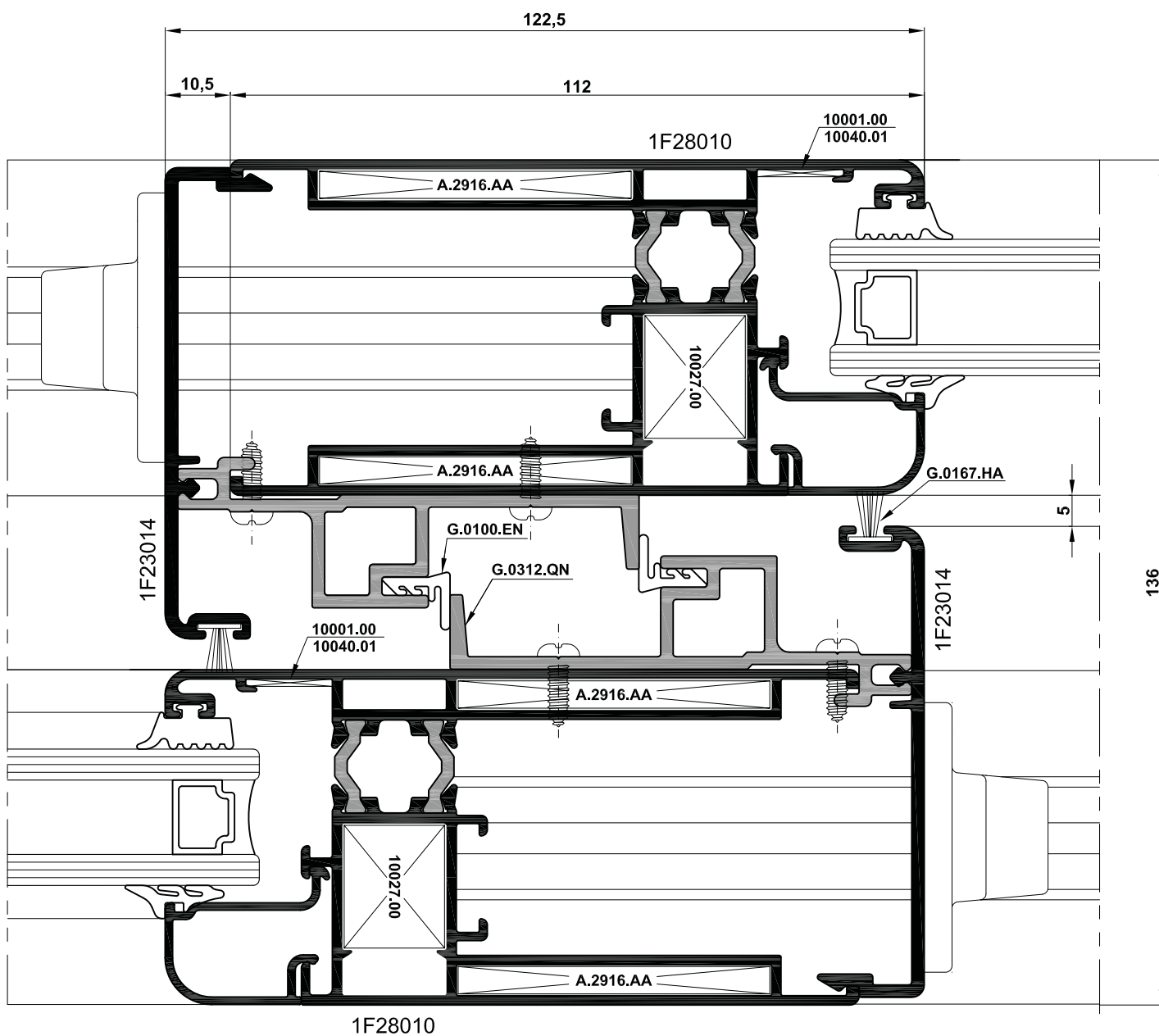
- A.5220.02 Variante paracolpo per ante asimmetriche - Variant bumpers wings asymmetric
- A.5221.02 Variante paracolpo per ante simmetriche - Variant bumpers wings symmetric

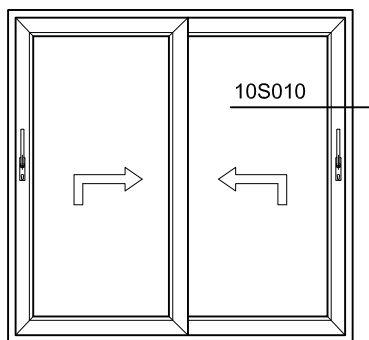




Schema D

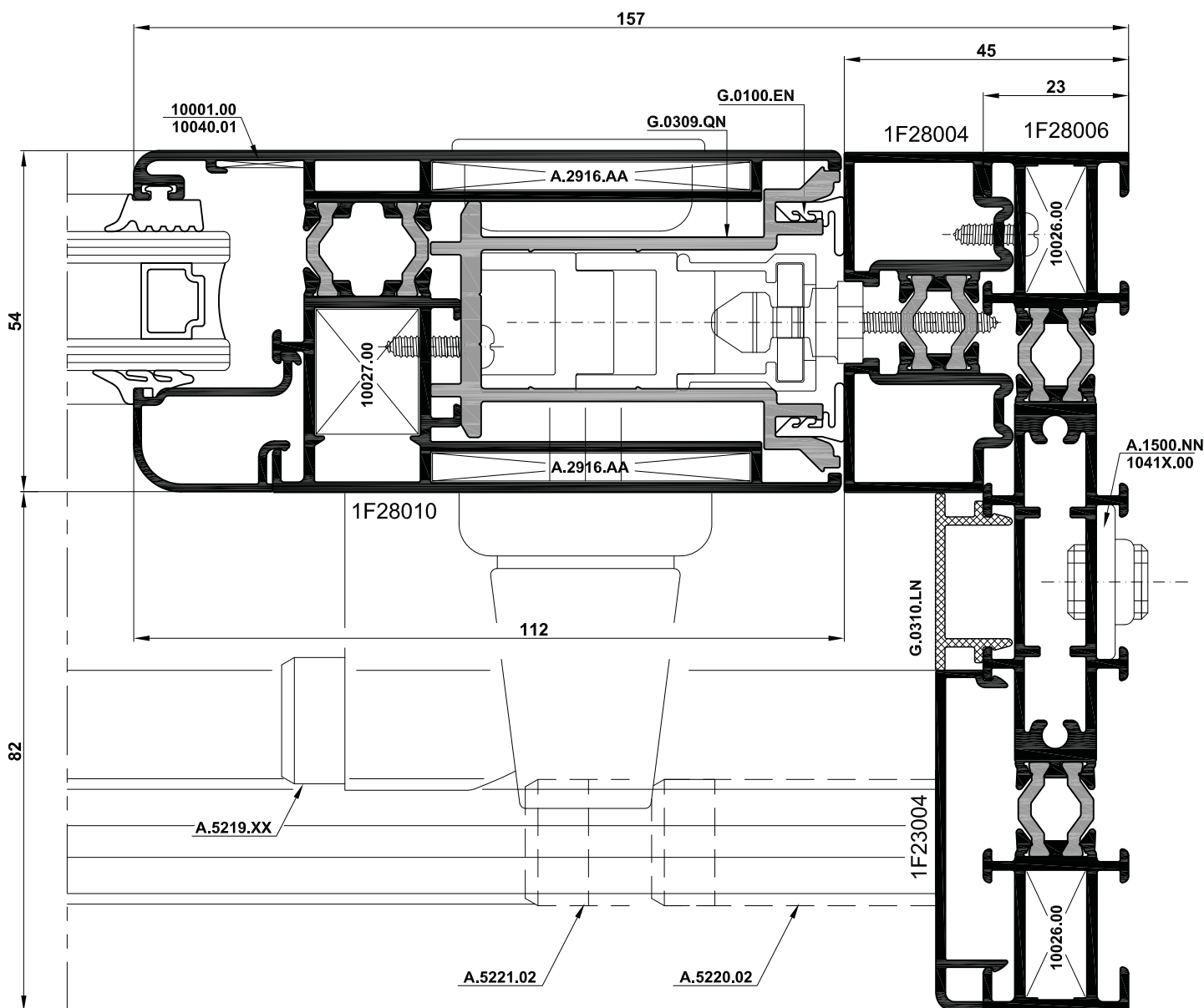
SEZ. 10S009



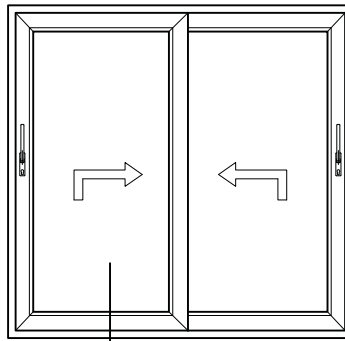


Schema D

SEZ. 10S010



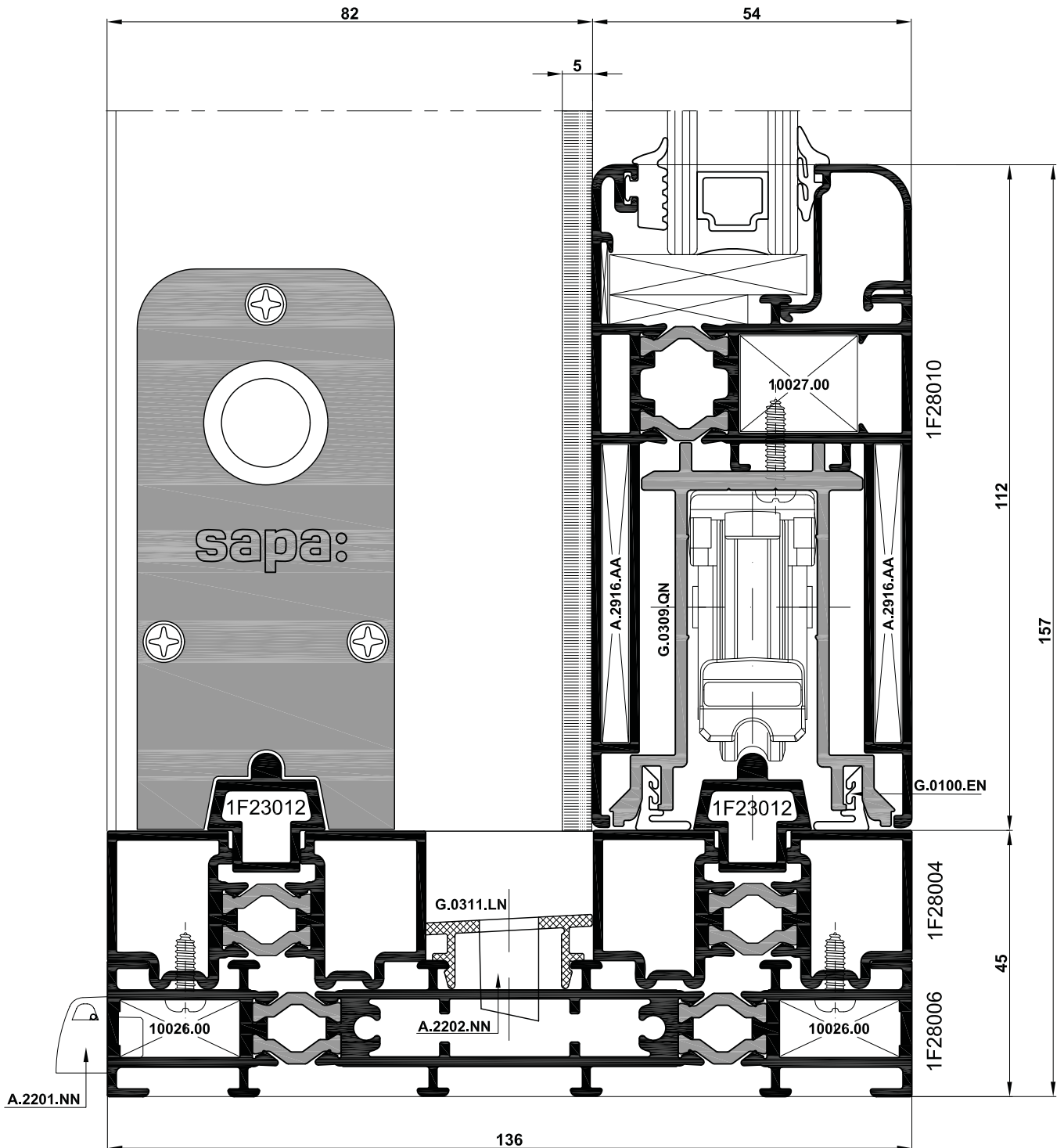
- A.5220.02 Variante paracolpo per ante asimmetriche - Variant bumpers wings asymmetric
 A.5221.02 Variante paracolpo per ante simmetriche - Variant bumpers wings symmetric

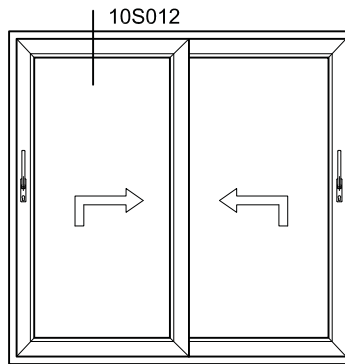


Schema D

SEZ. 10S011

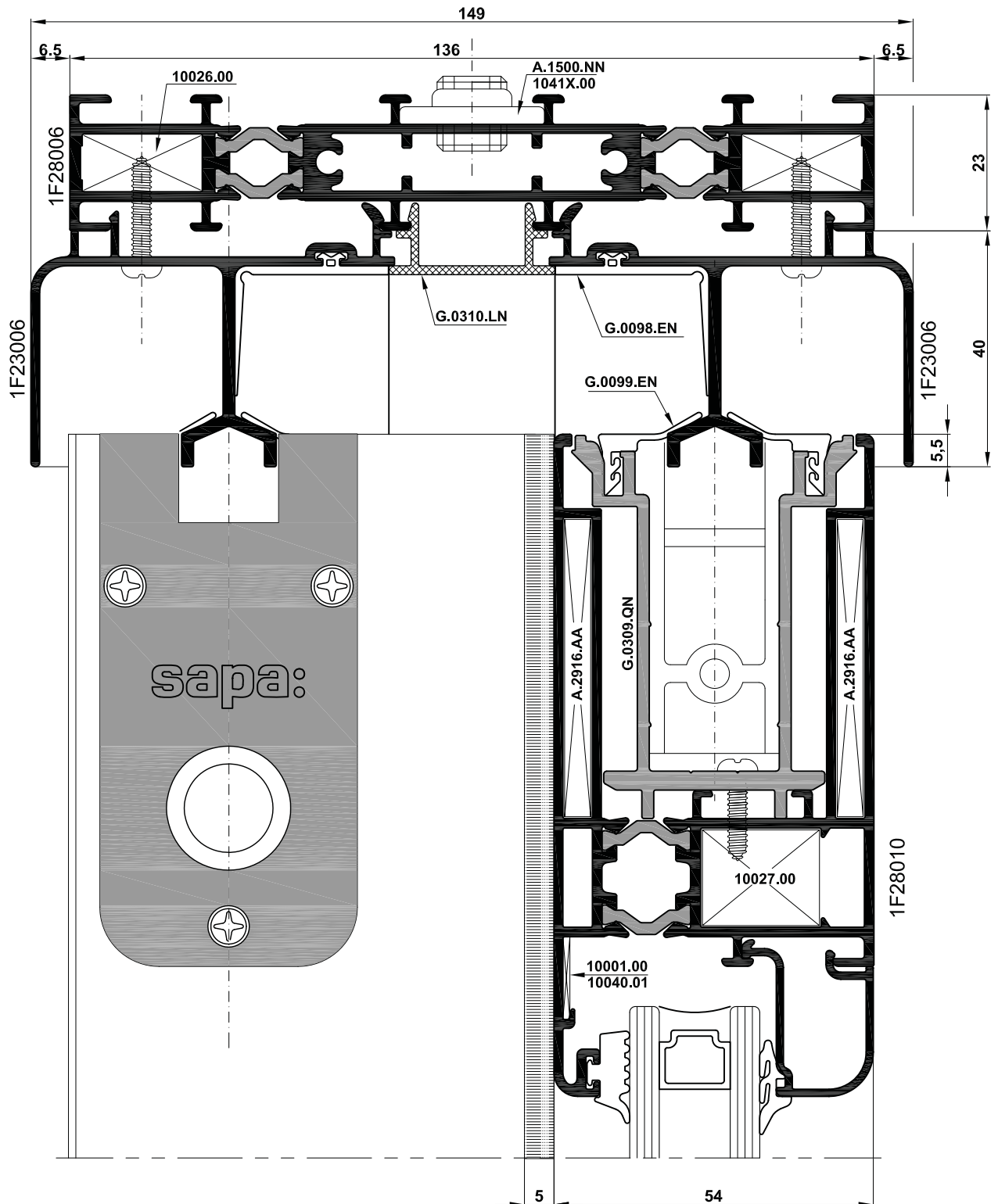
10S011



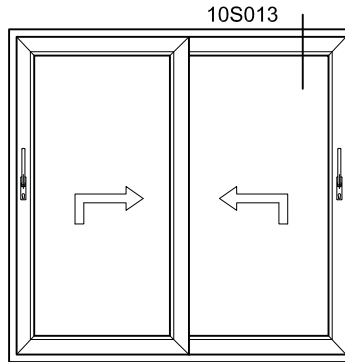


Schema D

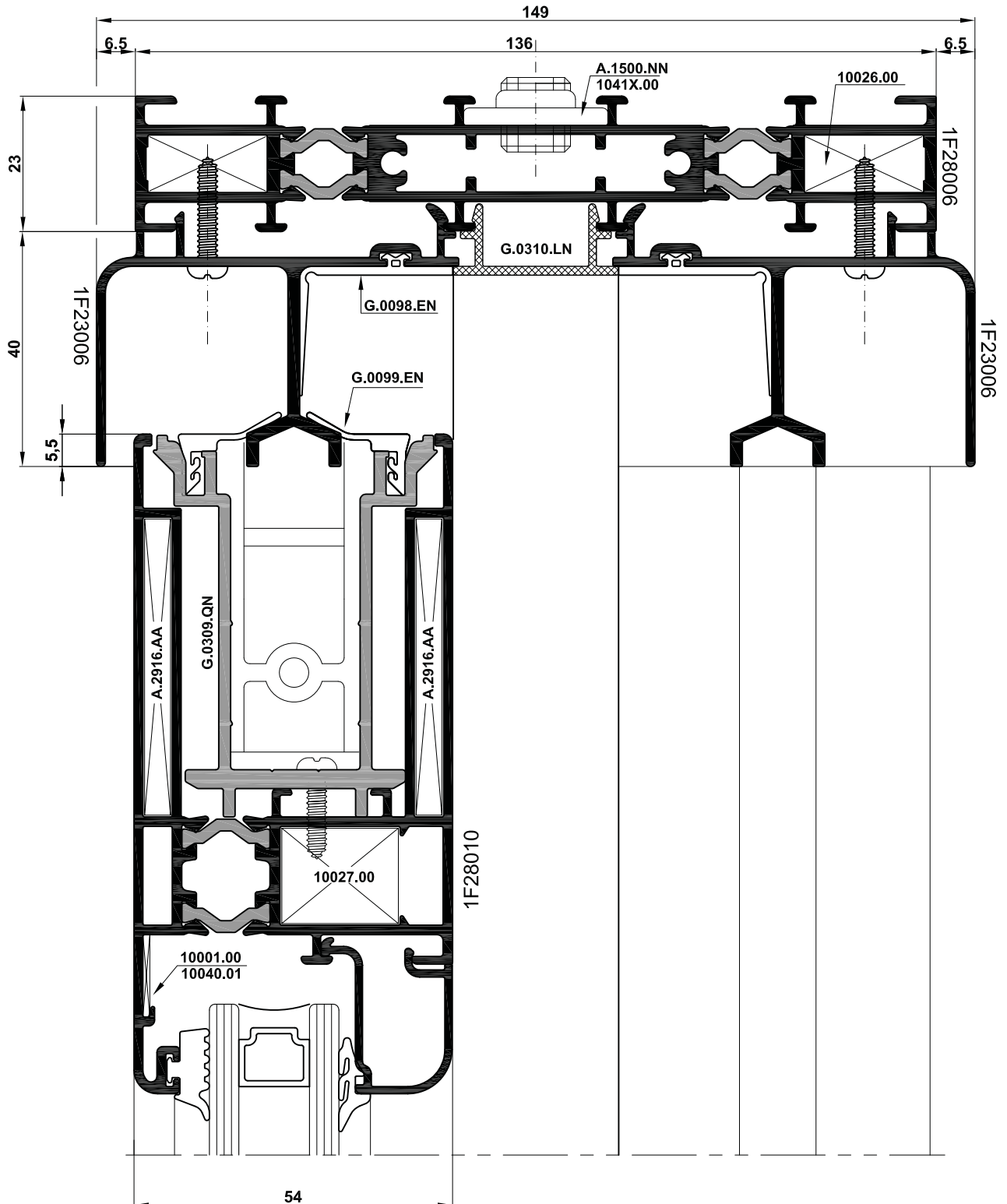
SEZ. 10S012

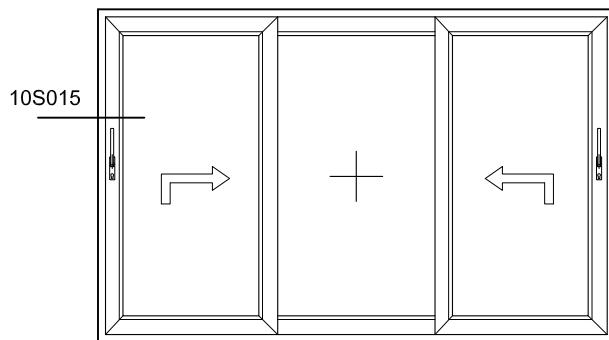


SEZ. 10S013



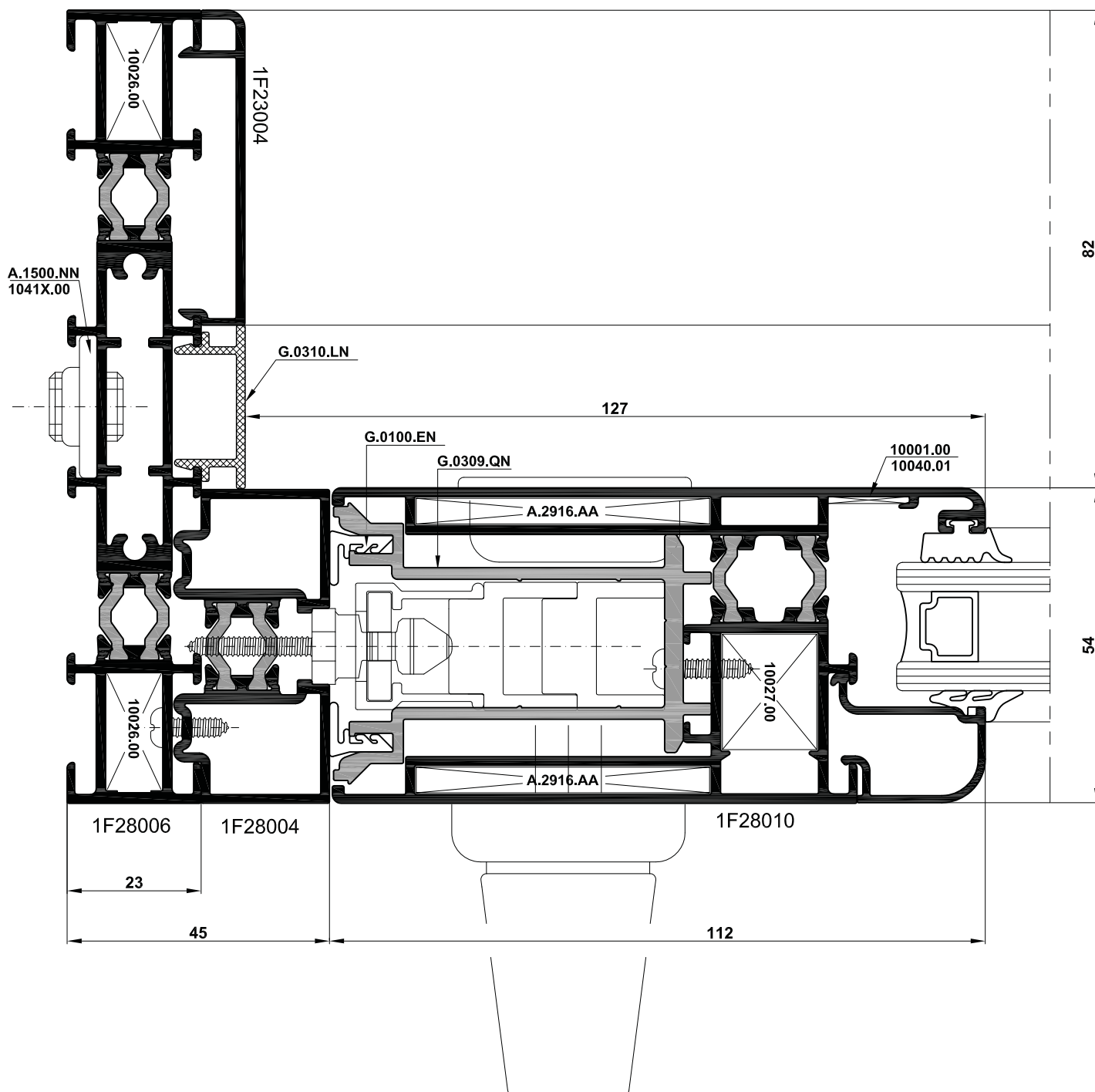
Schema D

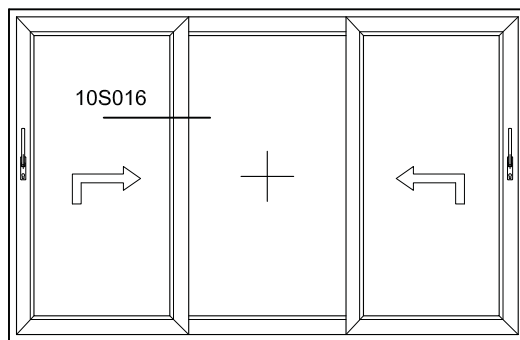




Schema K

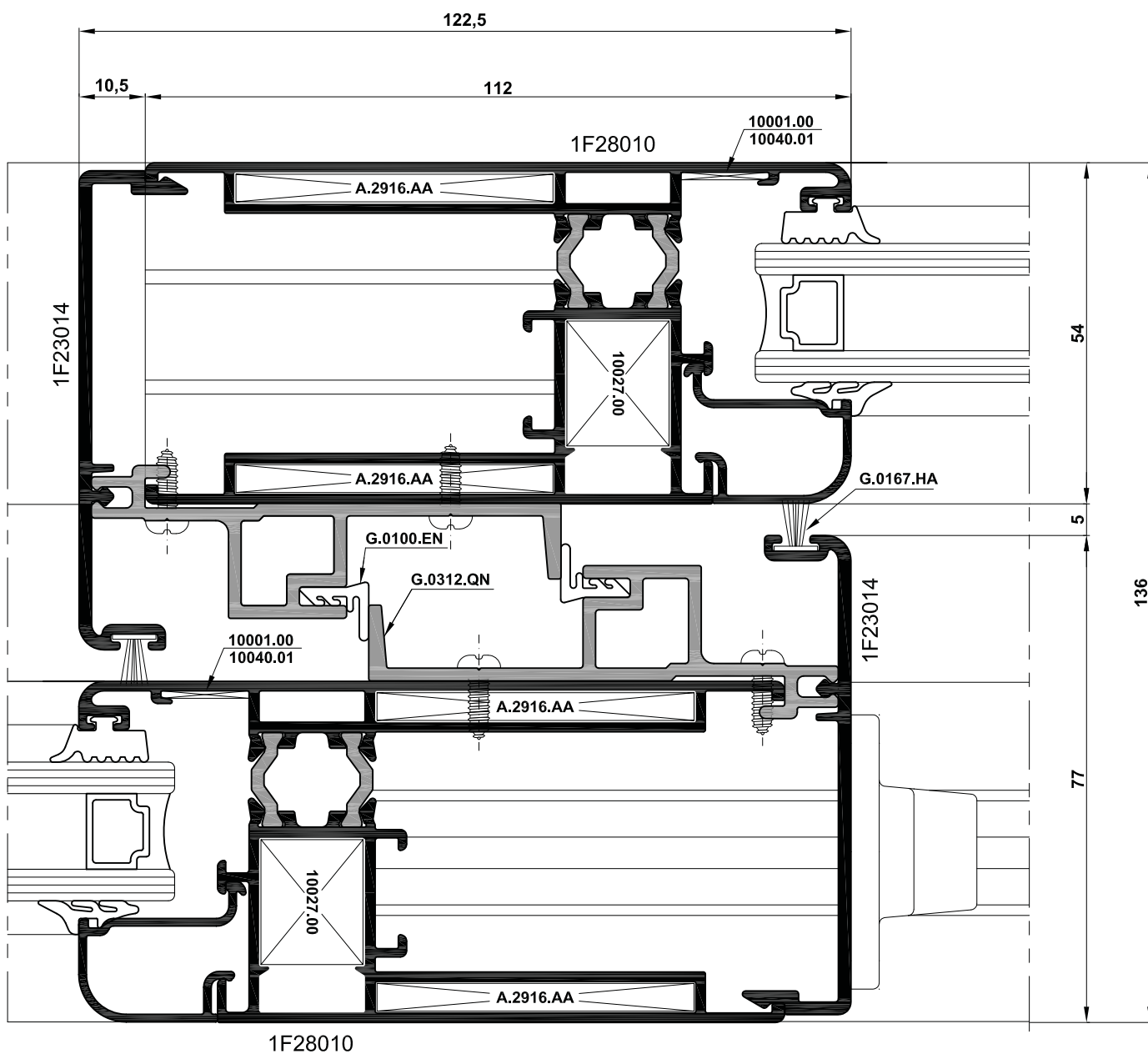
SEZ. 10S015

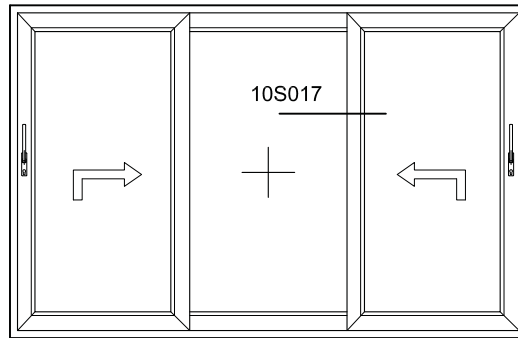




Schema K

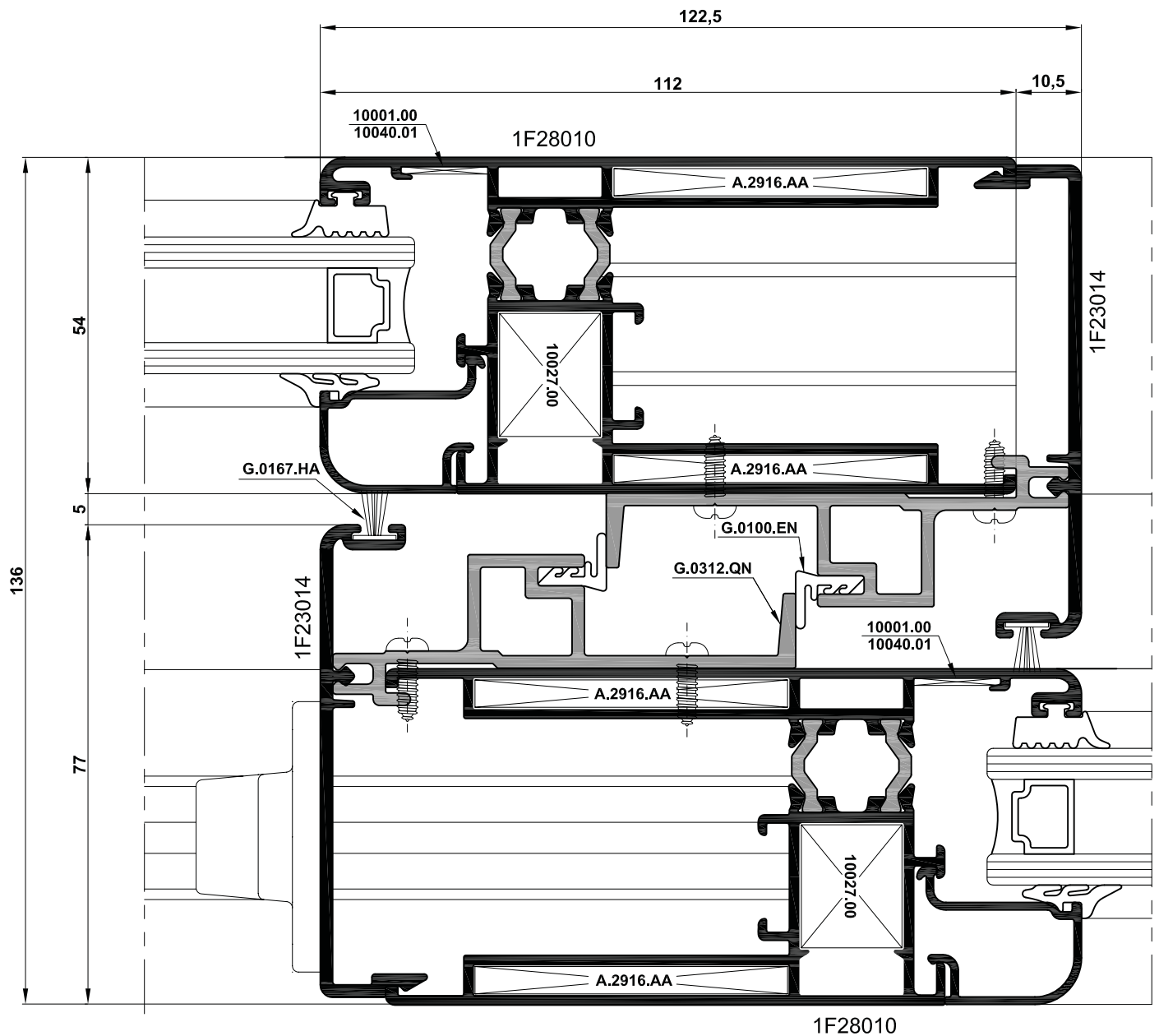
SEZ. 10S016

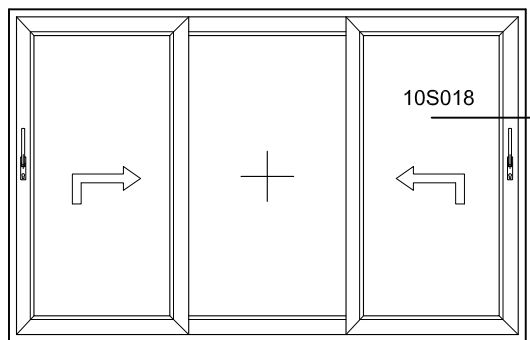




Schema K

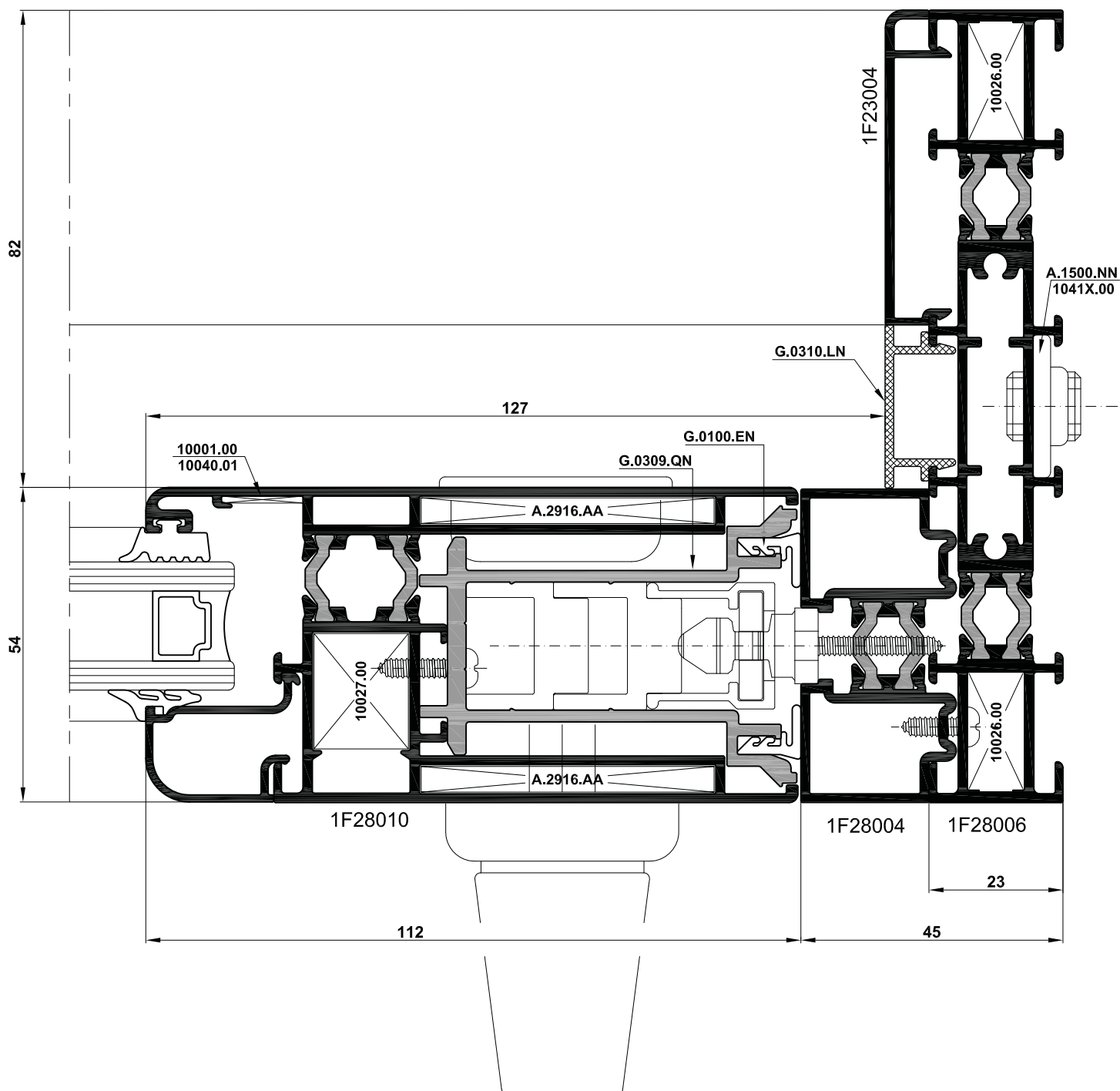
SEZ. 10S017

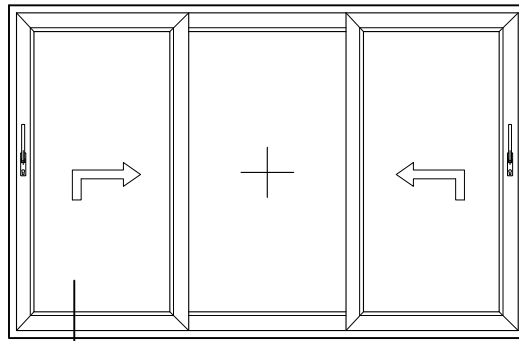




Schema K

SEZ. 10S018

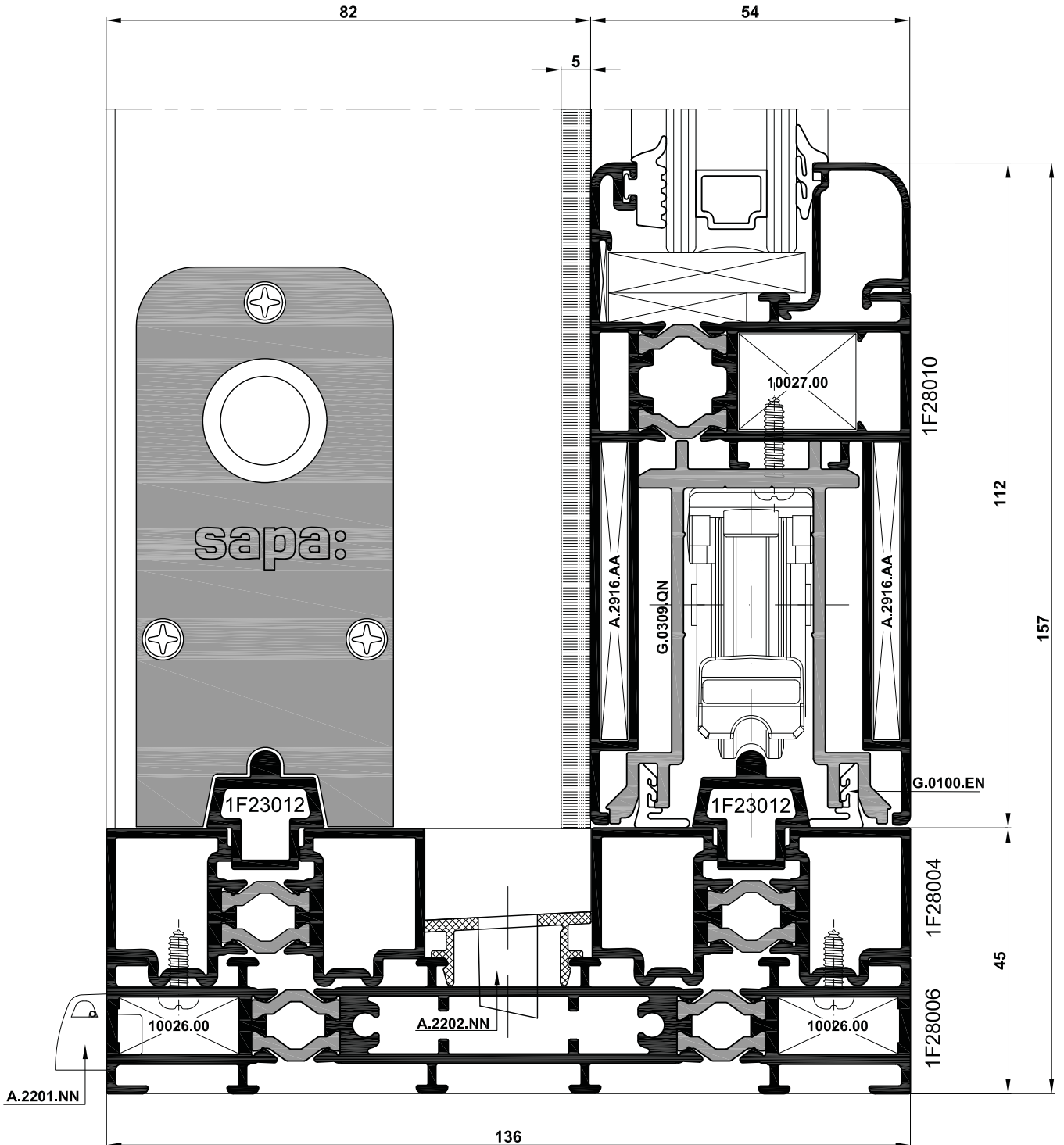




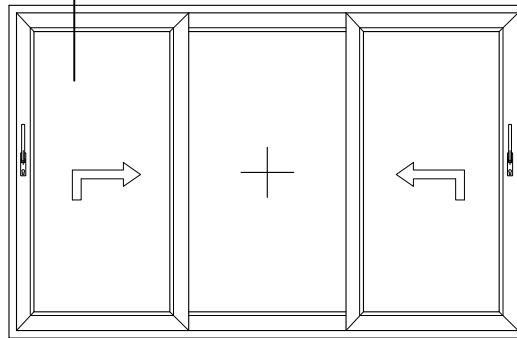
Schema K

SEZ. 10S019

10S019

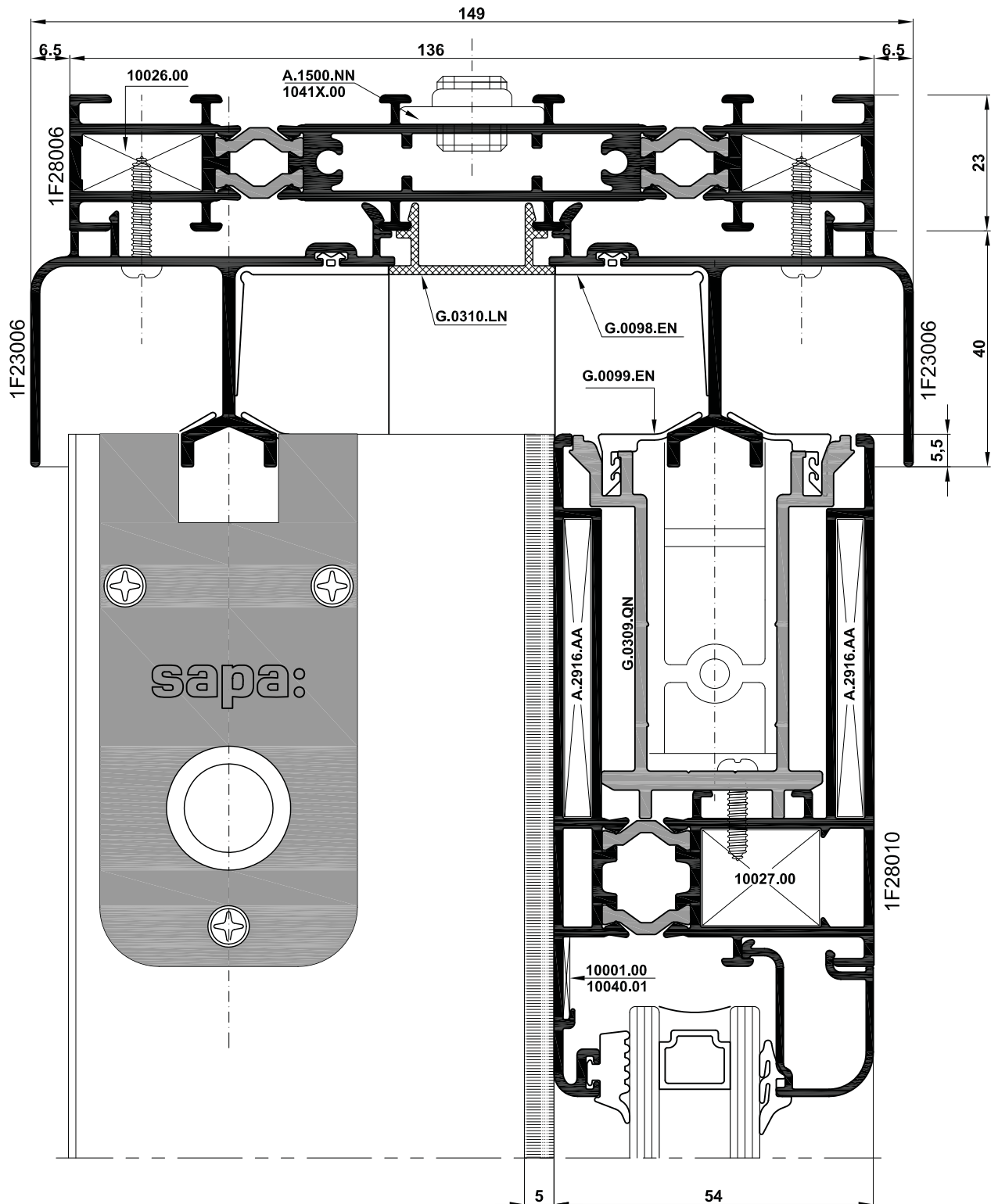


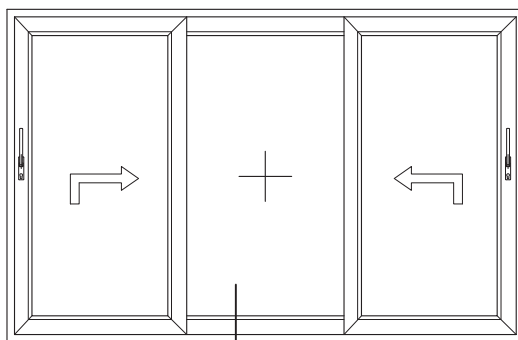
10S020



Schema K

SEZ. 10S020

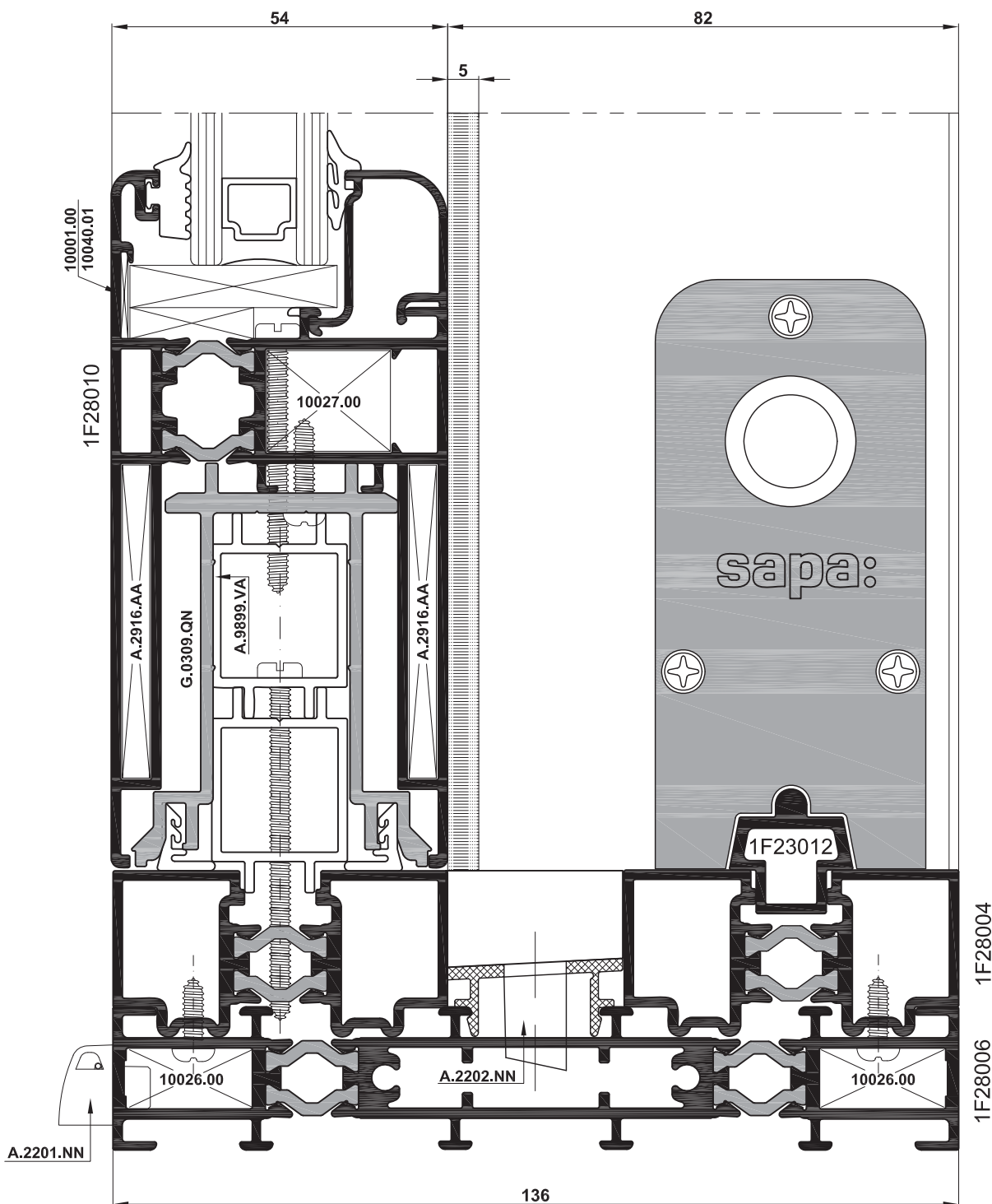




Schema K

SEZ. 10S021

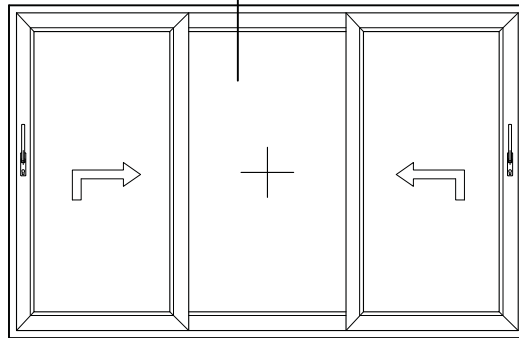
10S021



SEZIONI - FINESTRA 3 ANTE - APRIBILE + FISSO + APRIBILE
SECTIONS - THREE-WINGS WINDOW - OPEN + FIX + OPEN

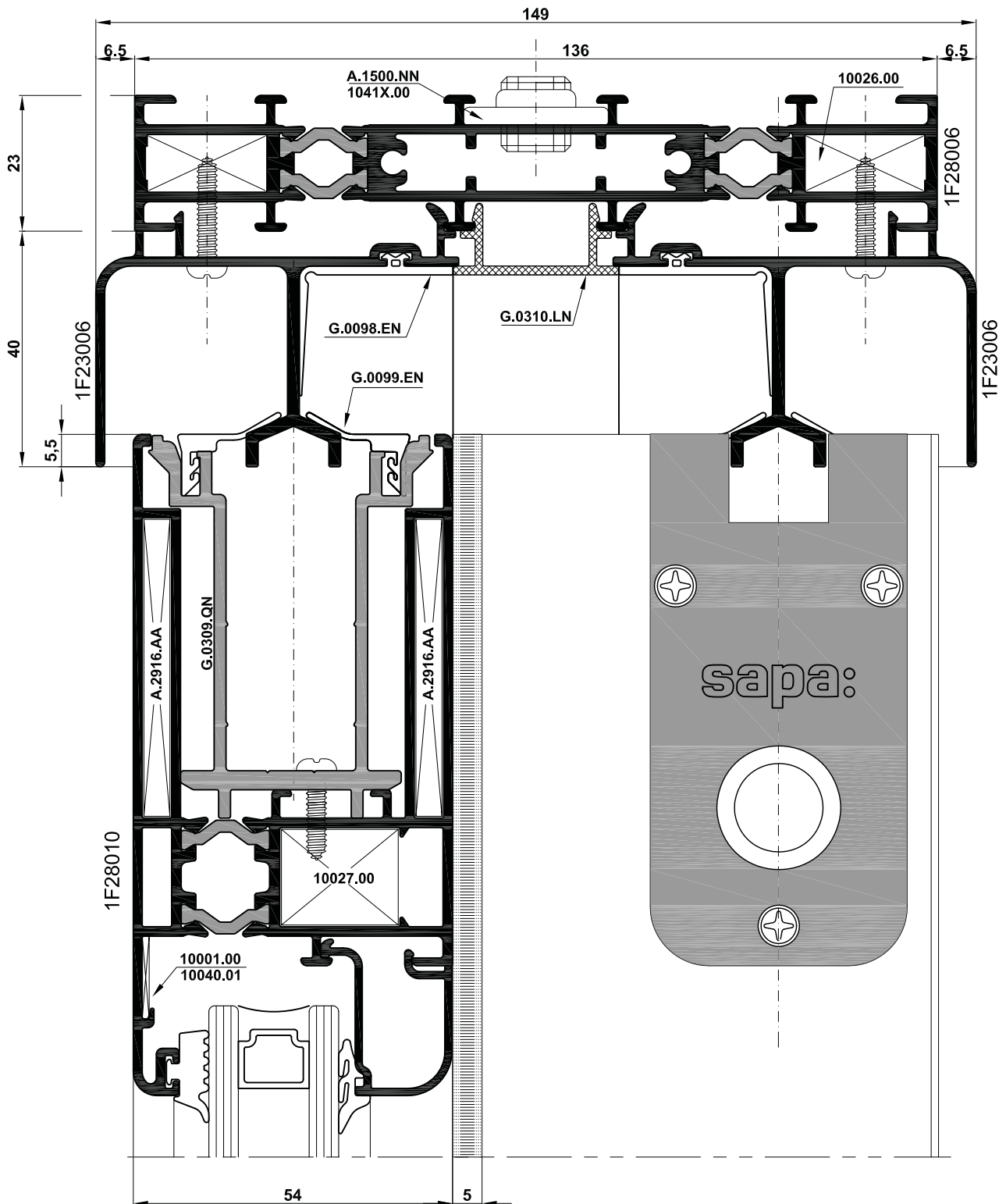
WIN 140sa^{TT}
 SYSTEM

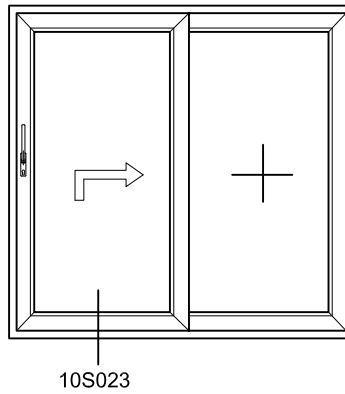
10S022



Schema K

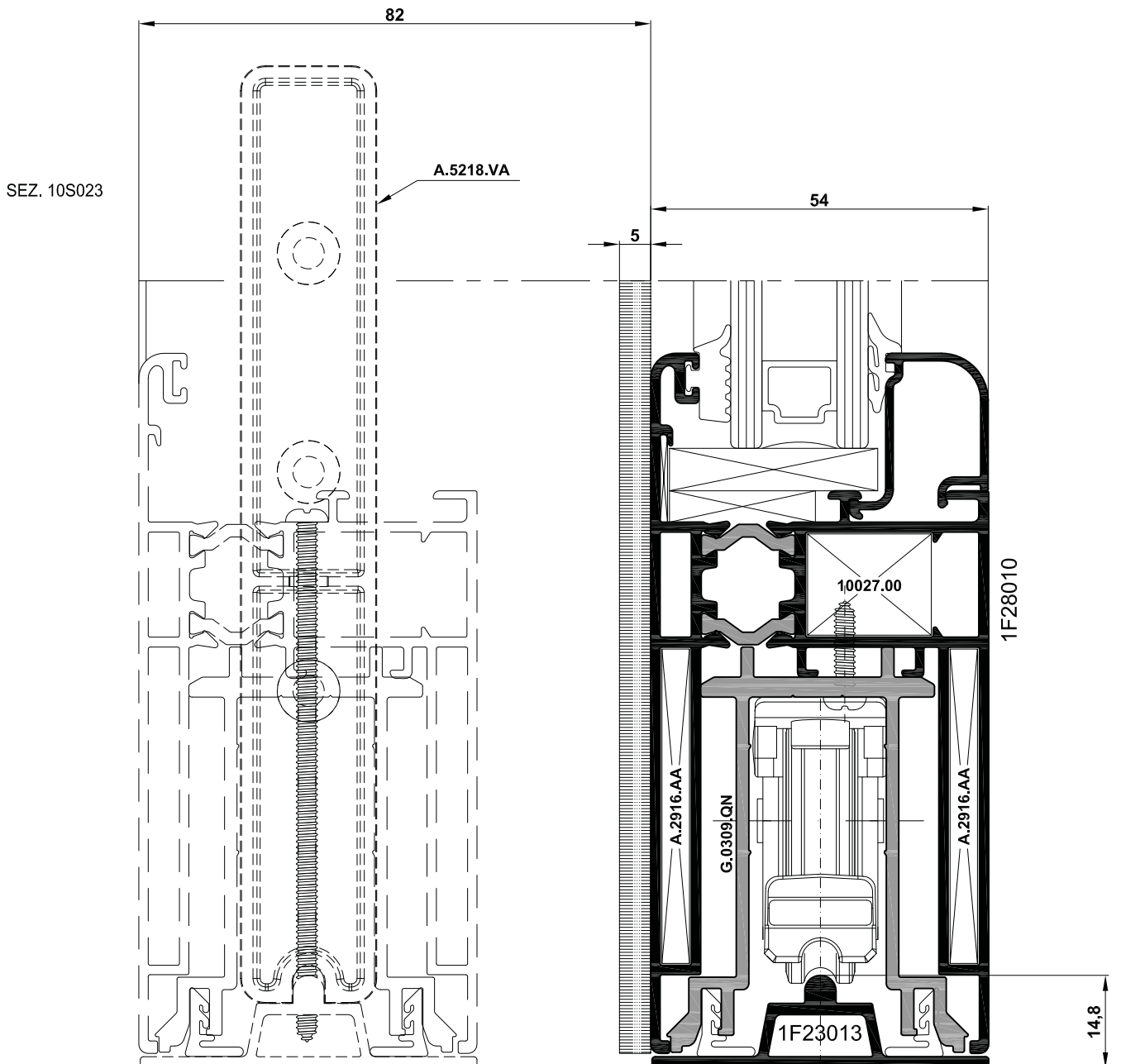
SEZ. 10S022





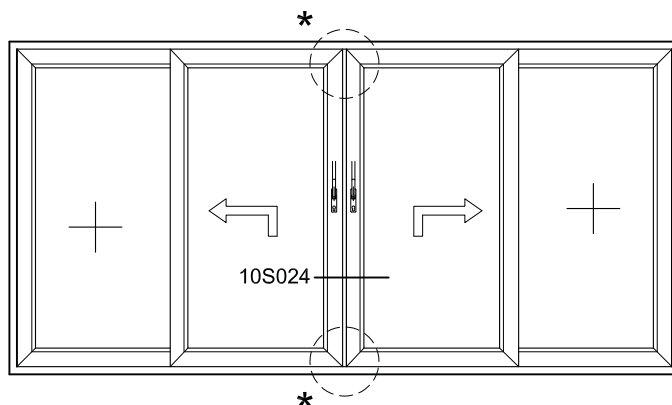
Schema A

10S023



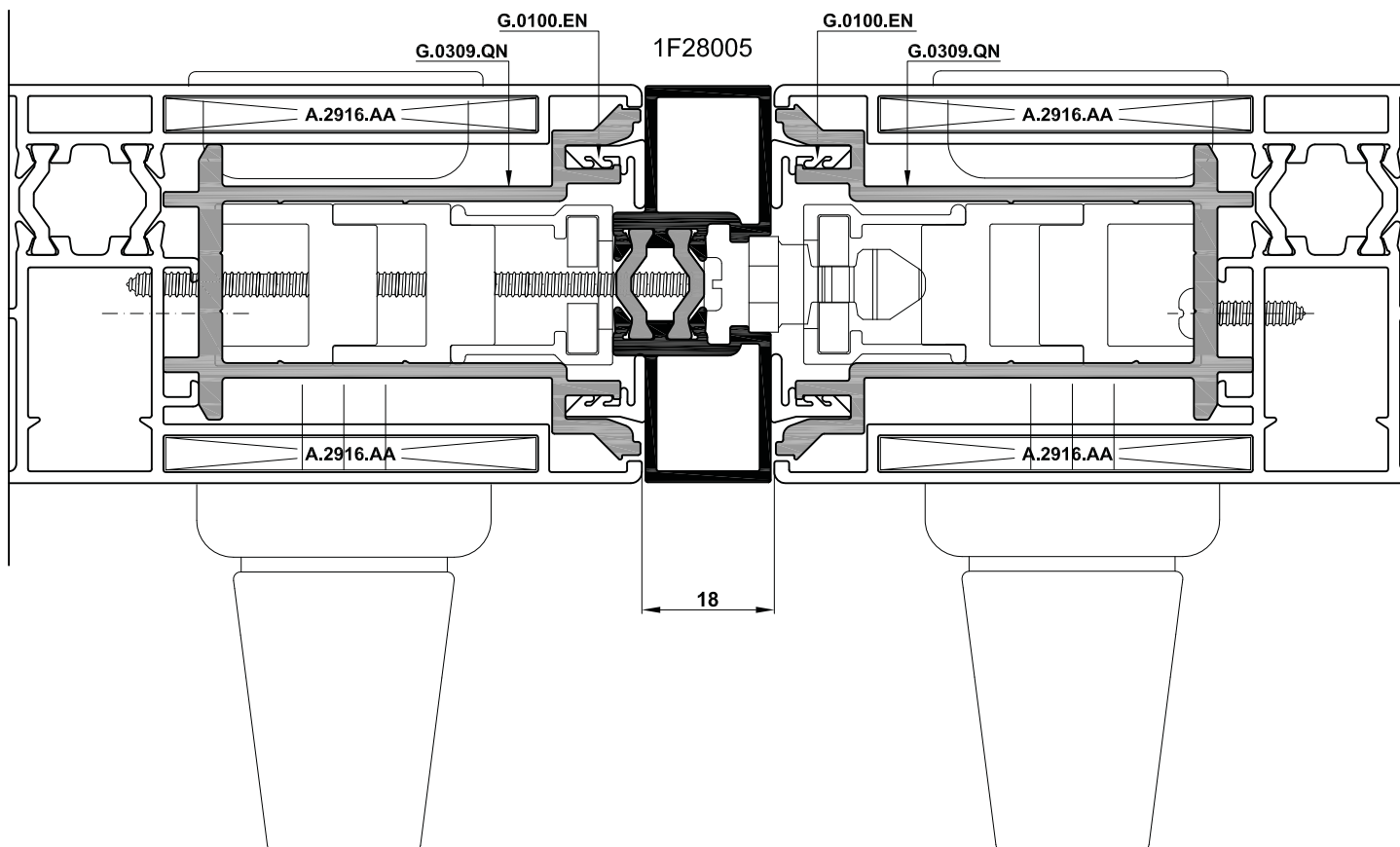
NB: La soluzione con binario "basso" 1F23013 deve essere utilizzata solamente nel caso in cui il serramento sia protetto da pensilina e non esposto, in quanto non viene garantita la perfetta tenuta agli agenti atmosferici.

Lower track solution 1F23013 must be used only when the casement window is not directly exposed. As perfect sealing to atmospheric agents cannot be guaranteed.



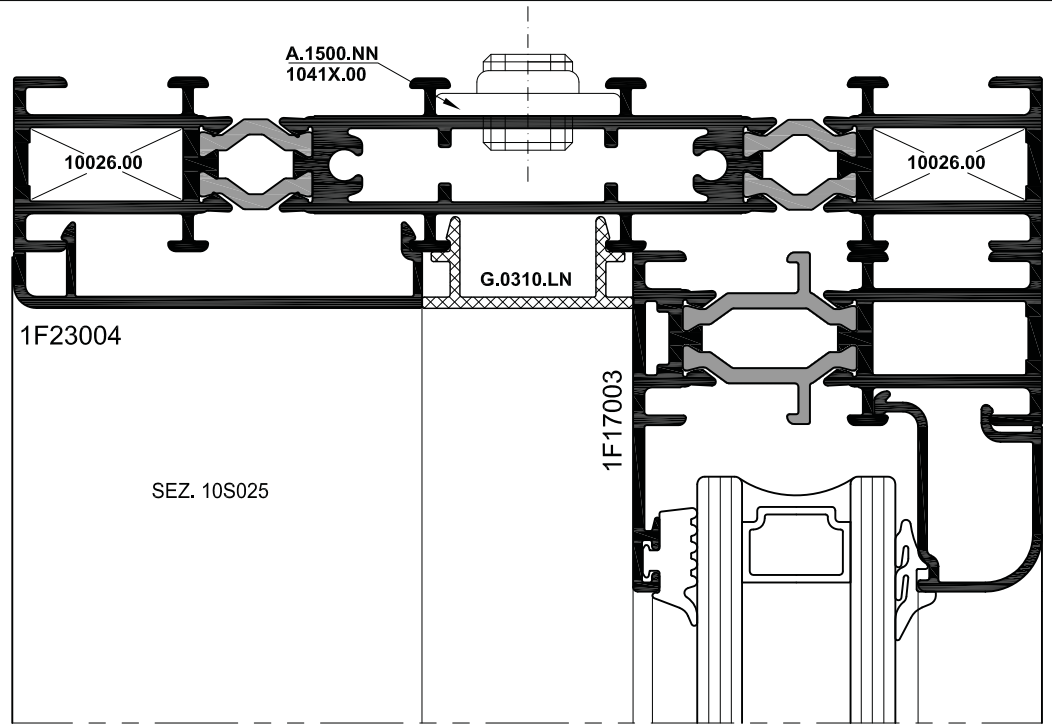
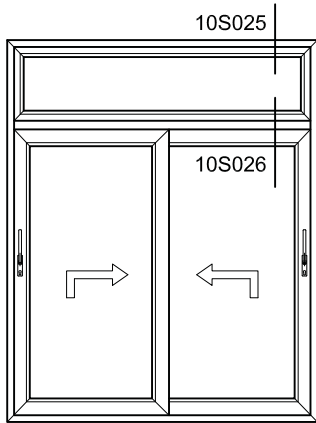
- * ART. A.2185.TN : COPPIA TAPPI SU PROFILATO 1F28005
- * ART. A.2185.TN : PAIR OF PLUGS ON SECTION 1F28005

SEZ. 10S024

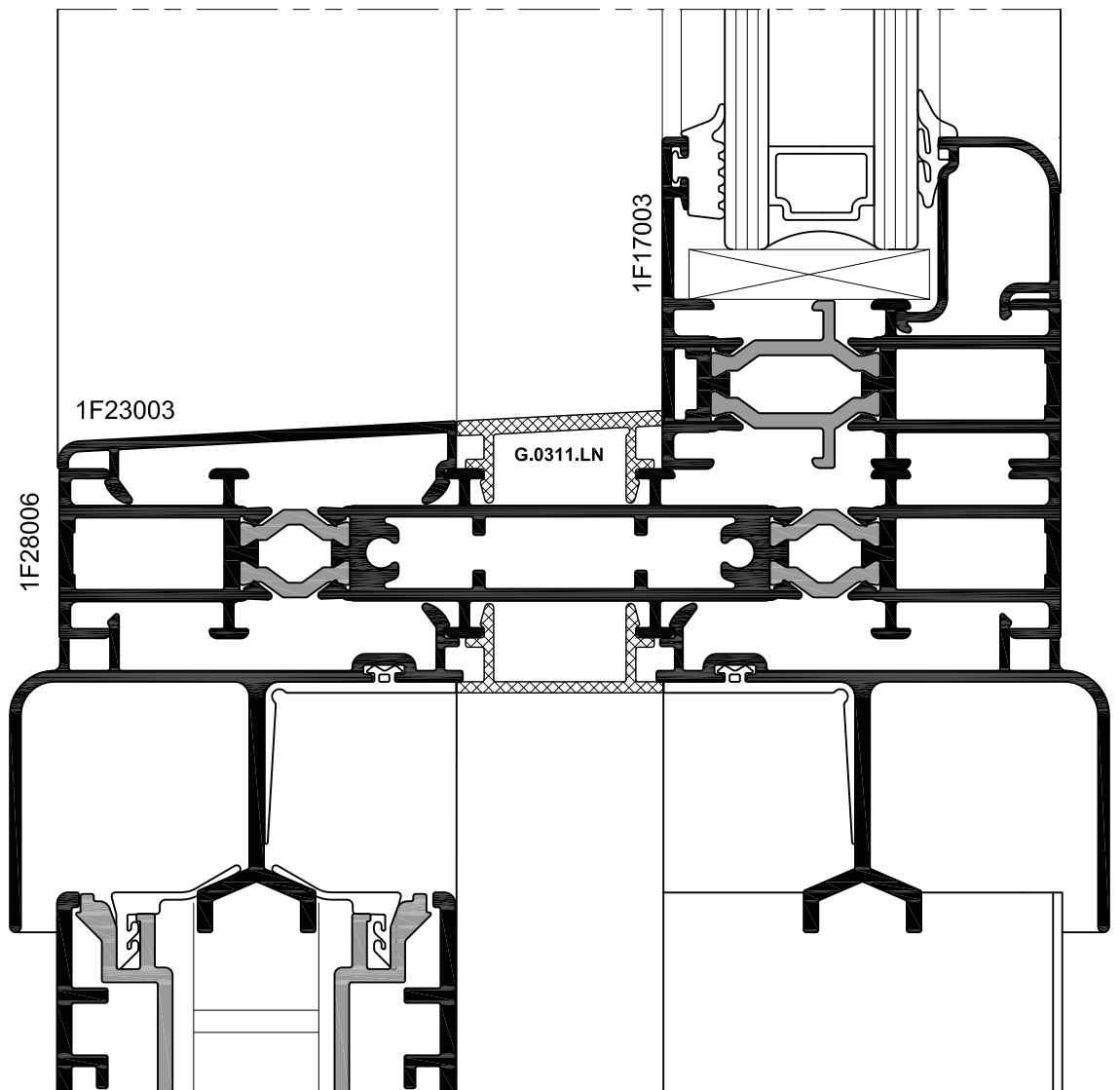


SEZIONI - FINESTRA 2 ANTE CON SOPRALUCE
SECTIONS - TWO-WINGS WINDOWS WITH FANLIGHT

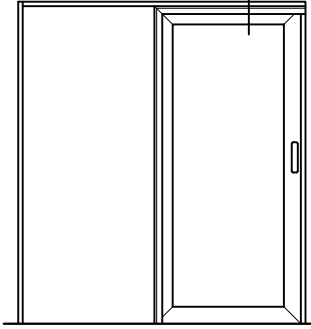
WIN 140sa^{TT}
 SYSTEM



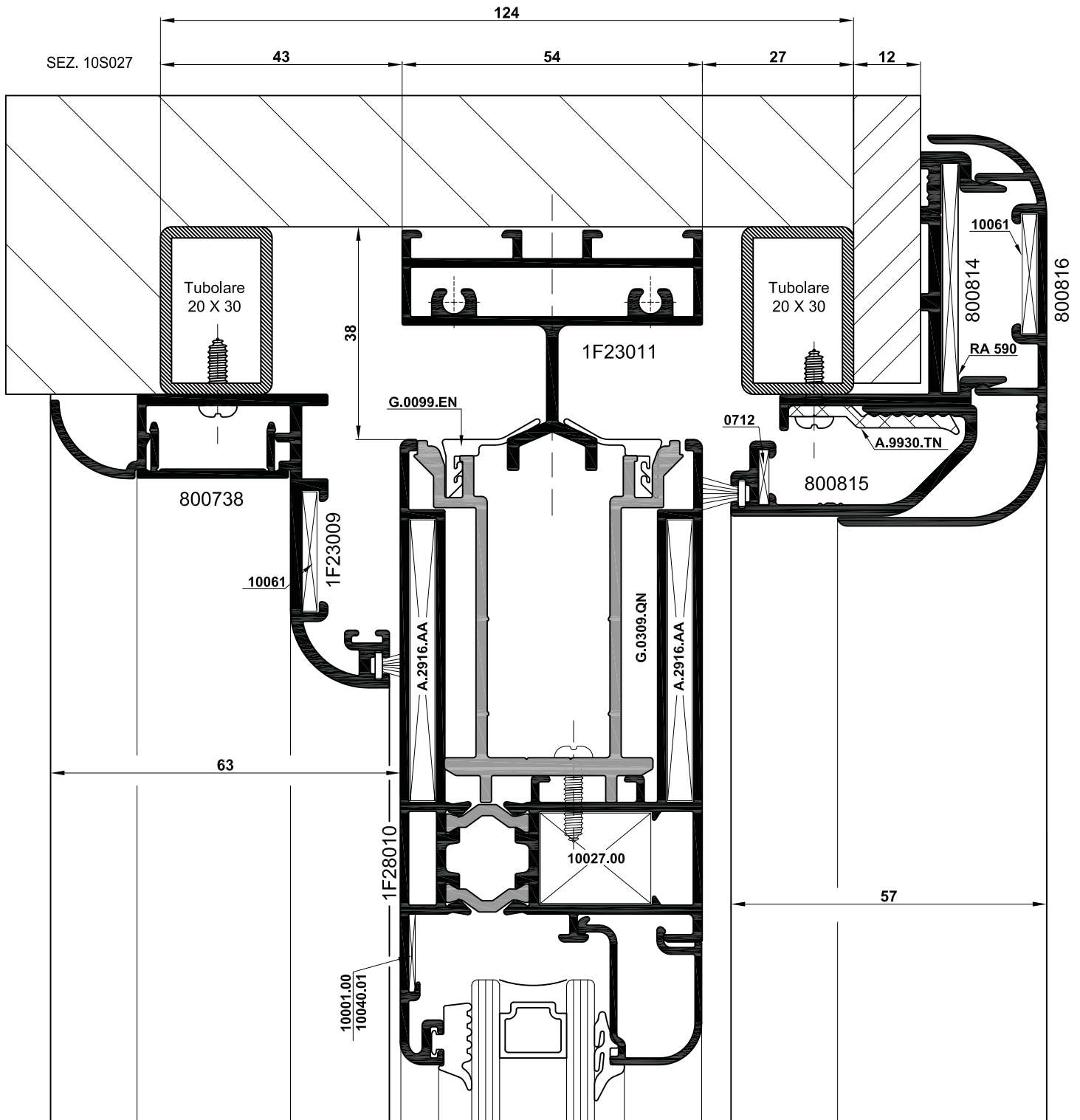
SEZ. 10S026

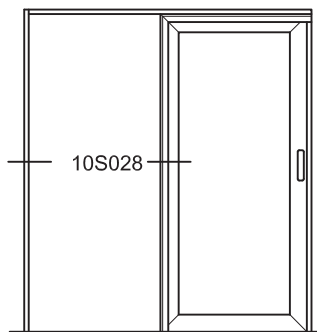


10S027

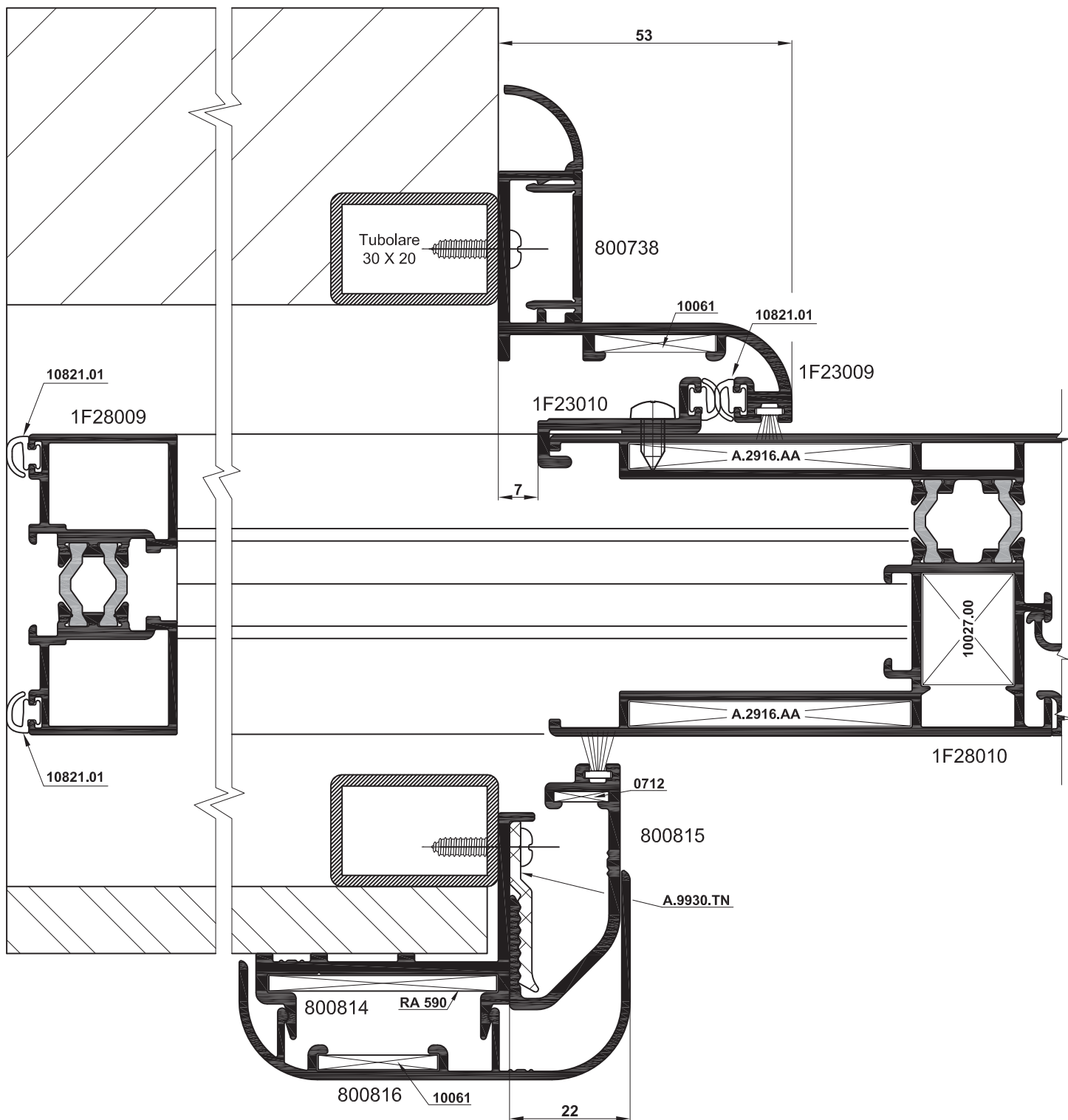


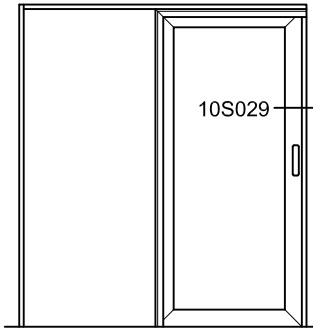
Per accessori e guarnizioni non indicati consultare catalogo Mr-Hide.
For accessories and weatherstrips not indicated see catalogue Mr-Hide.



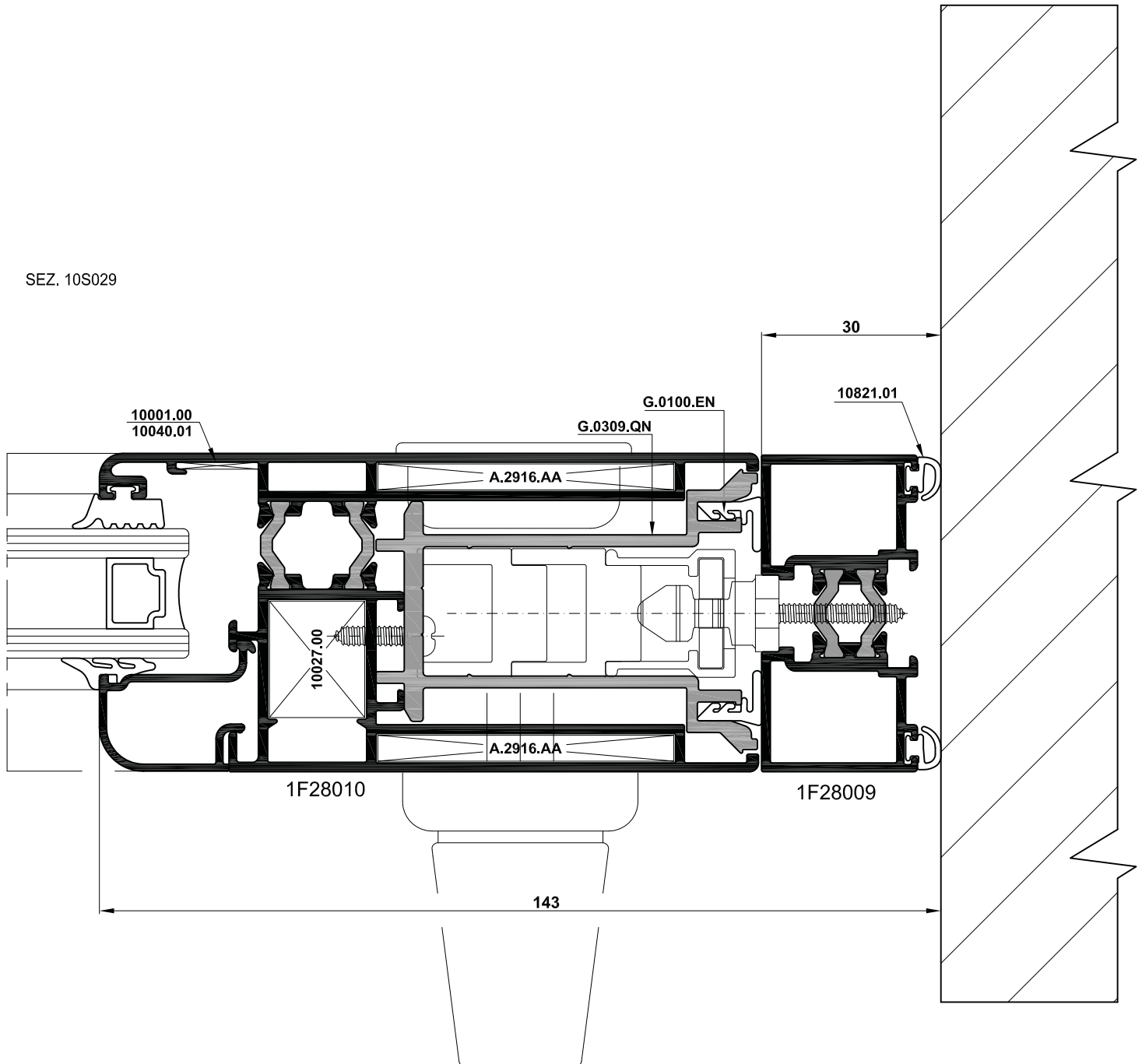


SEZ. 10S028





SEZ. 10S029

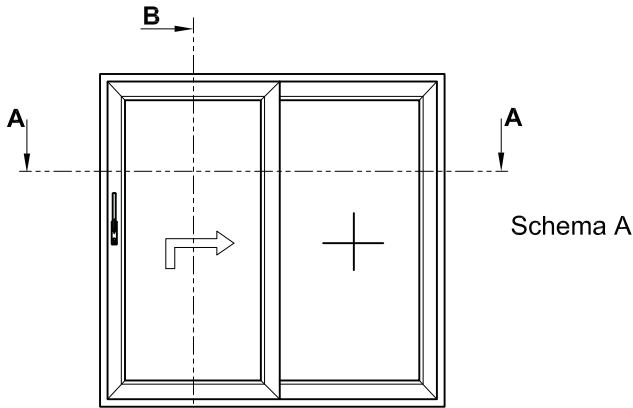


DISTINTE DI TAGLIO

CUT LIST

N.B.: - Le dimensioni di taglio e di lavorazione indicate nelle pagine seguenti sono state ottenute considerando le quote teoriche. Pertanto è necessario verificare sempre le dimensioni dei profilati prima di effettuare i tagli.
 Sapa declina ogni responsabilità per errori dovuti al mancato controllo da parte del costruttore.

N.B.: - The cutting and processing dimensions, indicated in the following pages, are obtained considering theoretical values. It is, therefore, always necessary to check the dimensions of the profiles before executing the cutting.
 Sapa declines any responsibility from errors caused from the missing dimensional check of the carpenter



DIMENSIONI VETRO
 GLASS SIZE

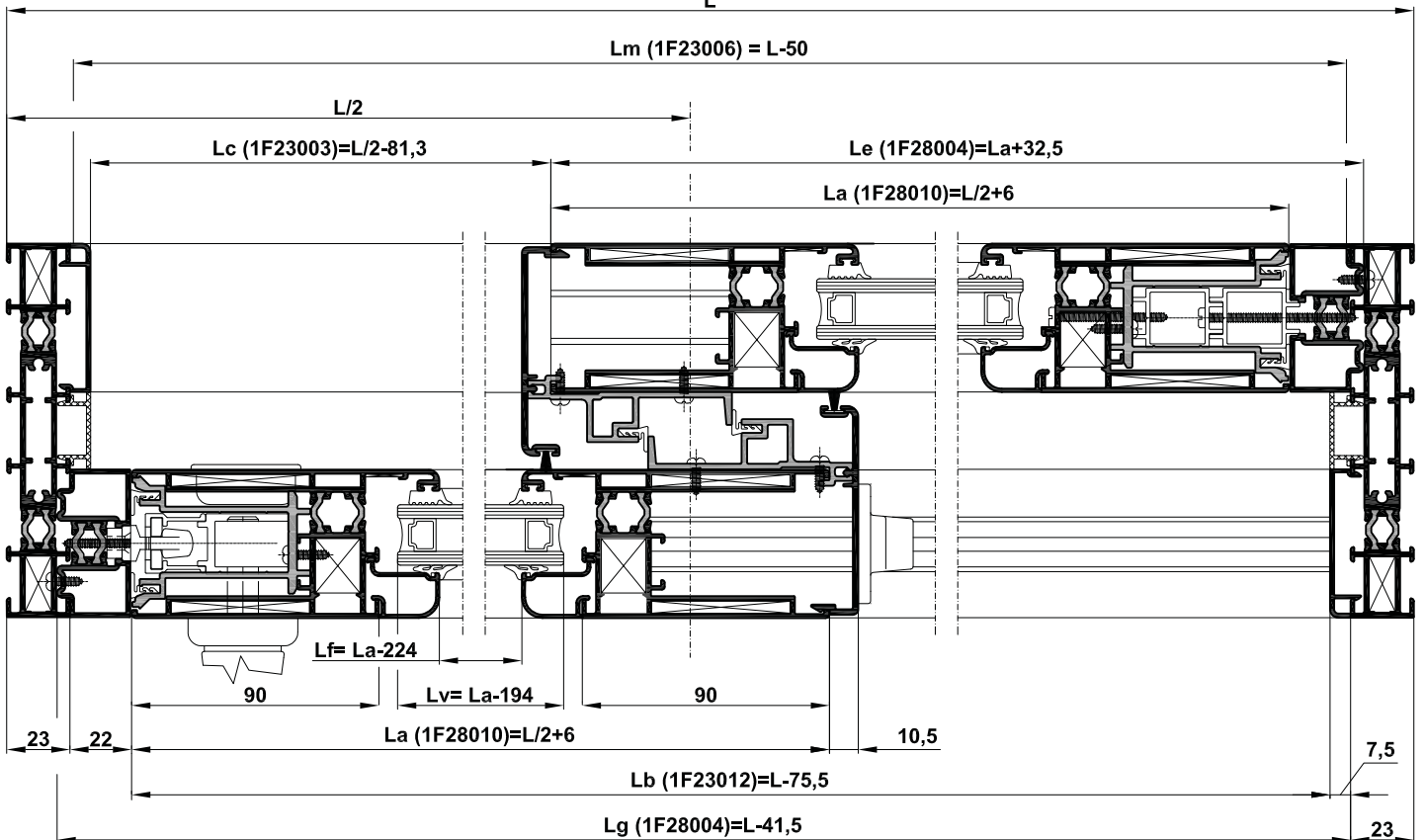
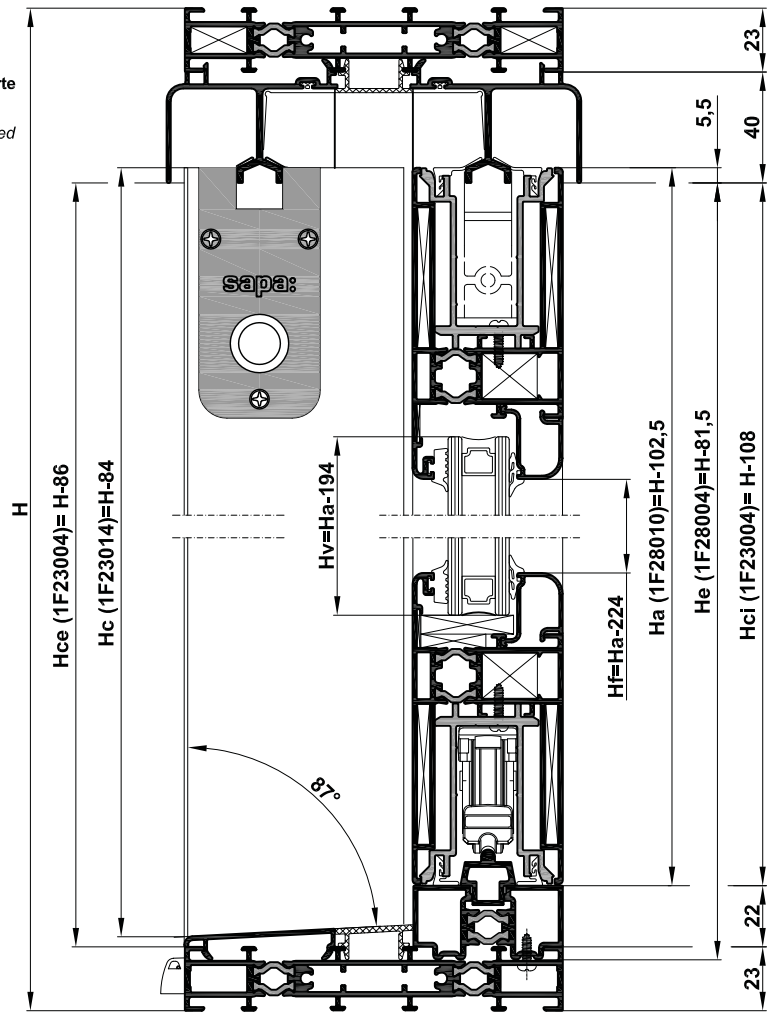
N. 2 PEZZI

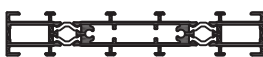
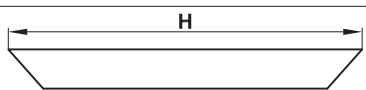
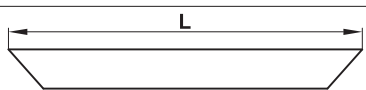
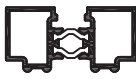
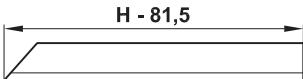
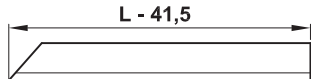
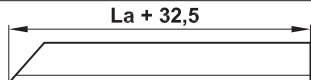

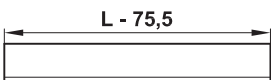

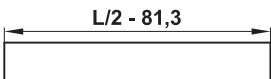

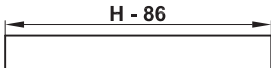
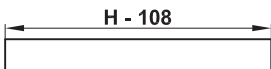

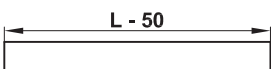

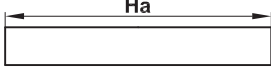
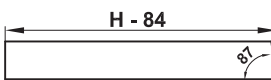

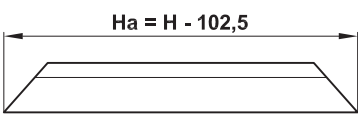
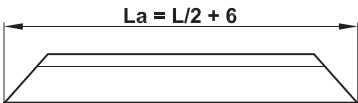

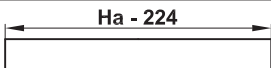
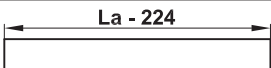
Ha - 194
 La - 194

N.B.: Spessore vetro considerato 20 mm (4+12+4)
 Gioco perimetrale tra profilato e vetro 7 mm
 For glass with 20 mm thickness
 Space between glass and profile 7 mm

SEZ. A-A

SEZ. B-B



PROFILATO SECTION	N.Pz N.Pz	TAGLIO CUT	N.Pz N.Pz	TAGLIO CUT
1F28006 	2		2	
1F28004 	2		1	
			1	
1F23012 G.0319.LN 			1	
1F23003 			1	
1F23004 	1			
	1			
1F23006 			2	
1F23014 	1			
	1			
1F28010 	4		4	
1F14013 	4		4	

ACCESSORI
ACCESSORIES

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
10001.00	Squadretta allineamento aletta Alignment corner joint on fin.	8	A.2169.NN	Kit tappi terminali guida superiore (1F23006) Plug terminal kit for superior track (1F23006)	1	A.52XX.XX	Serratura alzante Lifting locking	1
10026.00	Squadretta ad avvitare mm 9,8x20,3 (telajo) Corner joint to be screwed 9,8x20,3 mm (frame)	8	A.2916.AA	Squadretta allineamento aletta anta Alignment corner joint on fin wing	16	A.520X.KA	Barra di collegamento Linking bar	1
10027.00	Squadretta ad avvitare mm 16,8x20,3 (anta) Corner joint to be screwed 16,8x20,3 mm (wing)	8	A.9899.VA	Kit bloccaggio anta fissa Blocking kit for fix wing	4	A.2201.NN	Cappetta drenaggio acqua (Ved. pag. F8-140sa-A.03) Water drainage cover (See page F8-140sa-A.03)	
A.1500.NN	Basetta unificata per regolo mobile Unified plate for adjustable block	16	A.5200.VA	Kit base movimentazione un'anta Basic Kit for one wing movement	1	A.2202.NN	Boccola drenaggio acqua (Ved. pag. F8-140sa-A.03) Water drainage bush (See page F8-140sa-A.03)	
10410.01	Regolo mobile da 16,5 mm Adjustable block mm 16,5	16	A.5213.XX	Maniglia con coprirosetta e conchiglia corta Single handle with short basin	1	10545.XX	Angolo stampato per fermavetro arrotondati Moulded for snap-on rounded glass beading	8
			A.5217.VA	Perno di chiusura su piastra (Vedi schema) Pin to lock on plane (See the scheme)	1	A.5219.XX	Paracolpo in zama su anta Buffer in zamak	1

GUARNIZIONI
WEATHERSTRIPS

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
G.0097.EN	Guarnizione copri giunto su prof. 1F28004 Weatherstrip coverjoint on 1F28004 section	1H	* G.0309.QN	Guida di contenimento accessori Accessories guide	2H 4La	10851.01	Guarnizione tenuta esterna vetro External glazing weatherstrip	4H 2L
G.0098.EN	Guarnizione copri giunto su prof. 1F23006 Weatherstrip coverjoint on 1F23006 section	2L	G.0310.LN	Copri giunto verticale e superiore Vertical and upper coverjoint	2H 1L	10861.01	Guarnizione tenuta interna vetro Internal glazing weatherstrip	4H 2L
G.0099.EN	Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide	2L	G.0311.LN	Copri giunto inferiore Inferior coverjoint	1L	G.0167.HA	Spazzolino HI-Fin su prof. 1F23014 Protective fiber HI-Fin on profile 1F23014	2H
G.0100.EN	Guarnizione tenuta perimetrale Sealing weatherstrip perimeter	6H 2L	G.0312.QN	Ripporto centrale Central filling	2H			

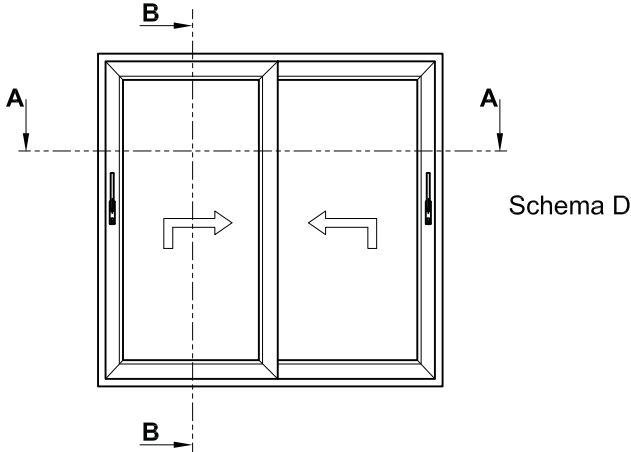
* Consigliamo di tagliare il profilato in poliammide a 45°, unitamente all' 1F28010
 We recommend cutting polyamide profile at 45°, together with 1F28010

DISTINTE DI TAGLIO - FINESTRA 2 ANTE - APRIBILI
CUT LIST - 2 WINGS WINDOW - BOTH OPEN

WIN 140sa^{TT}
 SYSTEM

N.B.: - Le dimensioni di taglio e di lavorazione indicate nelle pagine seguenti sono state ottenute considerando le quote teoriche. Pertanto è necessario verificare sempre le dimensioni dei profilati prima di effettuare i tagli.
 Sapa declina ogni responsabilità per errori dovuti al mancato controllo da parte del costruttore.

N.B.: - The cutting and processing dimensions, indicated in the following pages, are obtained considering theoretical values. It is, therefore, always necessary to check the dimensions of the profiles before executing the cutting.
 Sapa declines any responsibility from errors caused from the missing dimensional check of the carpenter



DIMENSIONI VETRO
GLASS SIZE

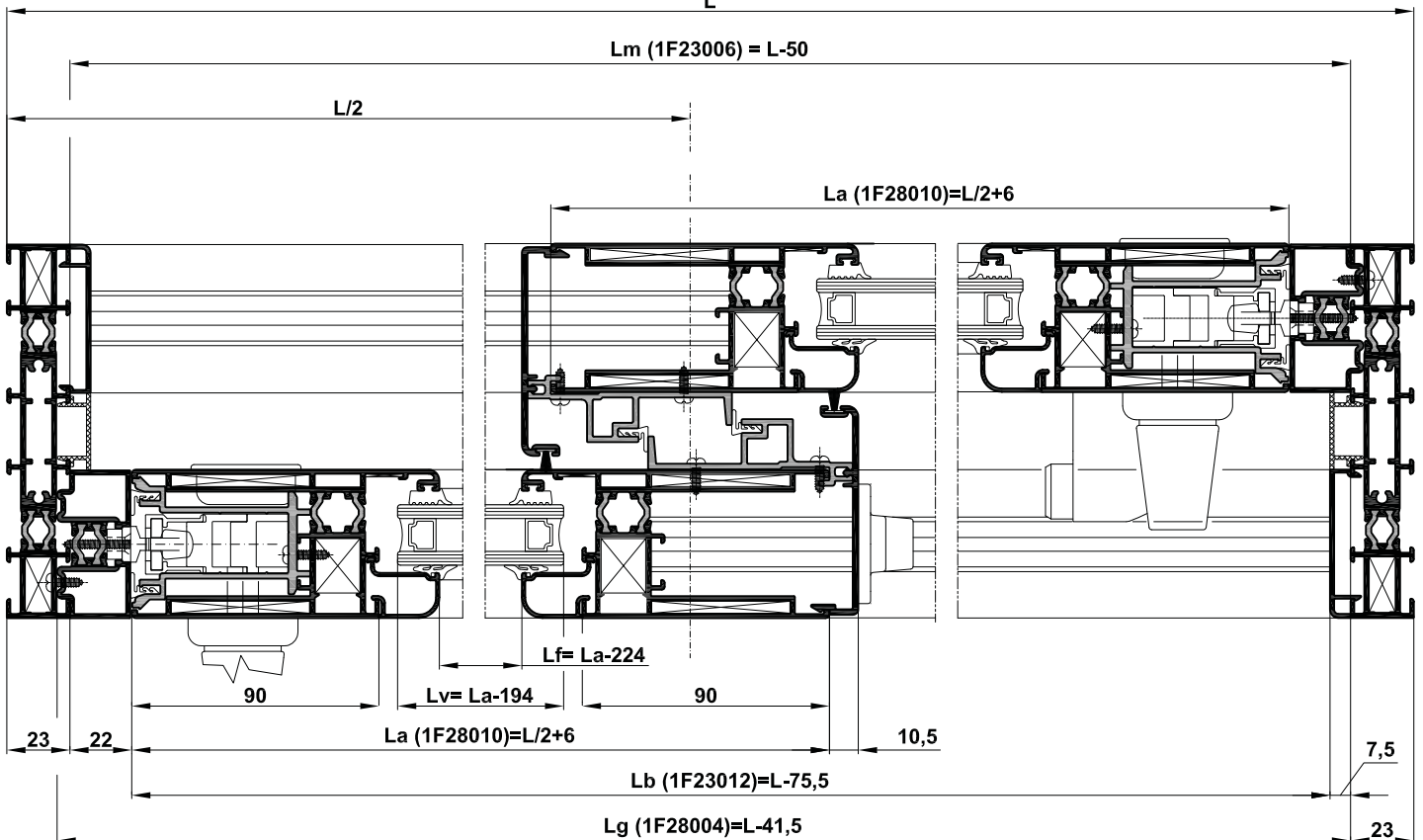
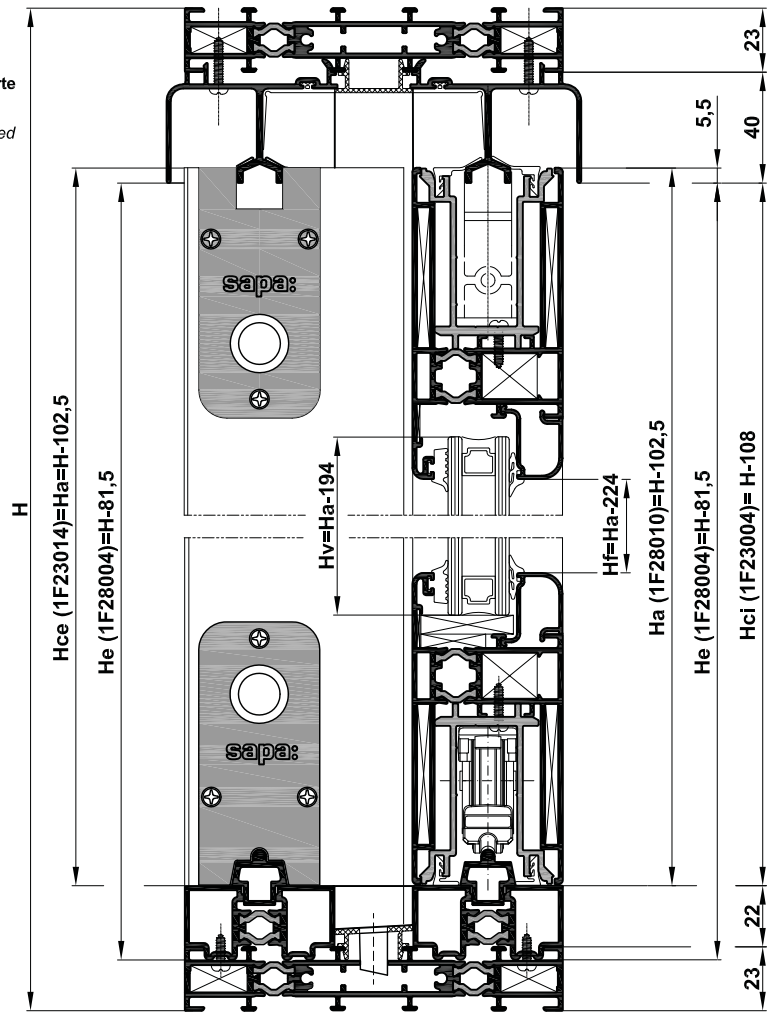
N. 2 PEZZI

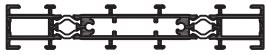
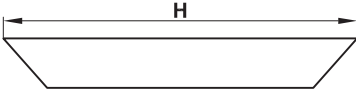
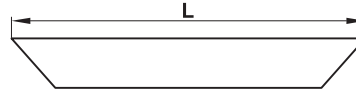

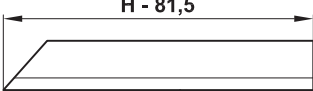
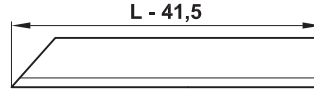

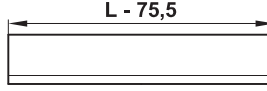

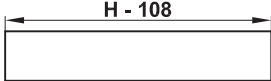

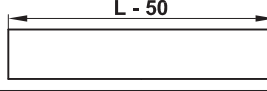

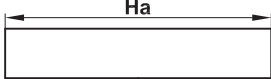
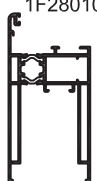
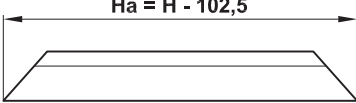
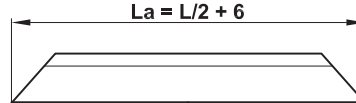

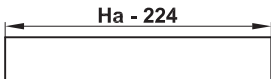
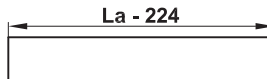
Ha - 194
 La - 194

N.B.: Spessore vetro considerato 20 mm (4+12+4)
 Gioco perimetrale tra profilato e vetro 7 mm
 For glass with 20 mm thickness
 Space between glass and profile 7 mm

SEZ. A-A

SEZ. B-B



PROFILATO SECTION	N.Pz N.Pz	TAGLIO CUT	N.Pz N.Pz	TAGLIO CUT
1F28006 	2		2	
1F28004 	2		2	
1F23012 G.0319.LN 			2	
1F23004 	2			
1F23006 			2	
1F23014 	2			
1F28010 	4		4	
1F14013 	4		4	

ACCESSORI
ACCESSORIES

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
10001.00	Squadretta allineamento aletta Alignment corner joint on fin.	8	A.2169.NN	Kit tappi terminali guida superiore (1F23006) Plug terminal kit for superior track (1F23006)	1	A.520X.KA	Barra di collegamento Linking bar	2
10026.00	Squadretta ad avvitare mm 9,8x20,3 (telajo) Corner joint to be screwed 9,8x20,3 mm (frame)	8	A.2916.AA	Squadretta allineamento aletta anta Alignment corner joint on fin wing	16	A.2201.NN	Cappetta drenaggio acqua (Ved. pag. F8-140sa-A.03) Water drainage cover (See page F8-140sa-A.03)	
10027.00	Squadretta ad avvitare mm 16,8x20,3 (anta) Corner joint to be screwed 16,8x20,3 mm (wing)	8	A.5200.VA	Kit base movimentazione un'anta Basic Kit for one wing movement	2	A.2202.NN	Boccola drenaggio acqua (Ved. pag. F8-140sa-A.03) Water drainage bush (See page F8-140sa-A.03)	
A.1500.NN	Basetta unificata per regolo mobile Unified plate for adjustable block	16	A.5219.XX	Paracolpo in zama su anta Buffer in zamak	1	10545.XX	Angolo stampato per fermavetri arrotondati Moulded for snap-on rounded glass beading	8
10410.01	Regolo mobile da 16,5 mm Adjustable block mm 16,5	16	A.5213.XX	Maniglia con coprirosetta e conchiglia corta Single handle with short basin	2			
			A.52XX.XX	Serratura alzante Lifting locking	2			

GUARNIZIONI
WEATHERSTRIPS

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
G.0097.EN	Guarnizione copri giunto su prof. 1F28004 Weatherstrip coverjoint on 1F28004 section	1H	* G.0309.QN	Guida di contenimento accessori Accessories guide	2H 4La	10851.01	Guarnizione tenuta esterna vetro External glazing weatherstrip	4H 2L
G.0098.EN	Guarnizione copri giunto su prof. 1F23006 Weatherstrip coverjoint on 1F23006 section	2L	G.0310.LN	Copri giunto verticale e superiore Vertical and upper coverjoint	2H 1L	10861.01	Guarnizione tenuta interna vetro Internal glazing weatherstrip	4H 2L
G.0099.EN	Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide	2L	G.0311.LN	Copri giunto inferiore Inferior coverjoint	1L	G.0167.HA	Spazzolino HI-Fin su prof. 1F23014 Protective fiber HI-Fin on profile 1F23014	2H
G.0100.EN	Guarnizione tenuta perimetrale Sealing weatherstrip perimeter	6H 2L	G.0312.QN	Ripporto centrale Central filling	2H			

* Consigliamo di tagliare il profilato in poliammide a 45°, unitamente all' 1F28010
 We recommend cutting polyamide profile at 45°, together with 1F28010

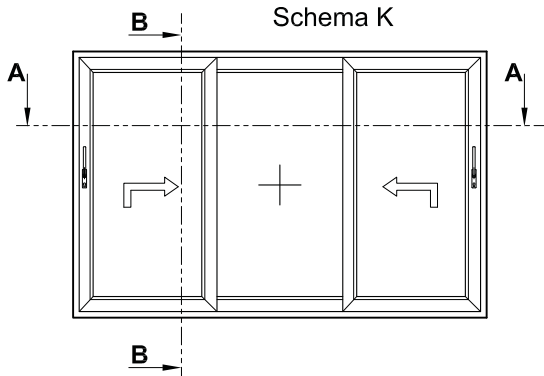
DISTINTE DI TAGLIO - FINESTRA 3 ANTE - APRIBILI + FISSO

CUT LIST - 3 WINGS WINDOW - OPEN + FIX

WIN 140sa^{TT}
SYSTEM

N.B.: - Le dimensioni di taglio e di lavorazione indicate nelle pagine seguenti sono state ottenute considerando le quote teoriche.
Pertanto è necessario verificare sempre le dimensioni dei profilati prima di effettuare i tagli.
Sapa declina ogni responsabilità per errori dovuti al mancato controllo da parte del costruttore.

N.B.: - The cutting and processing dimensions, indicated in the following pages, are obtained considering theoretical values.
It is, therefore, always necessary to check the dimensions of the profiles before executing the cutting.
Sapa declines any responsibility from errors caused from the missing dimensional check of the carpenter



SEZ. A-A

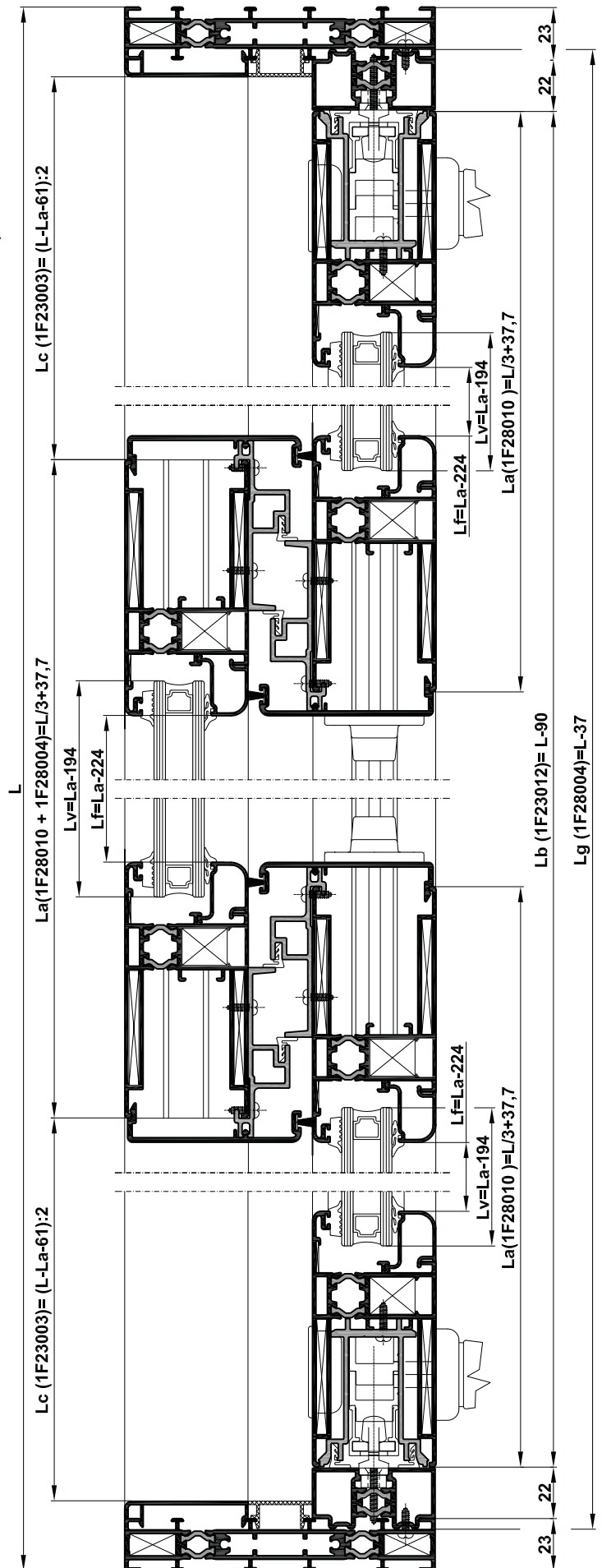
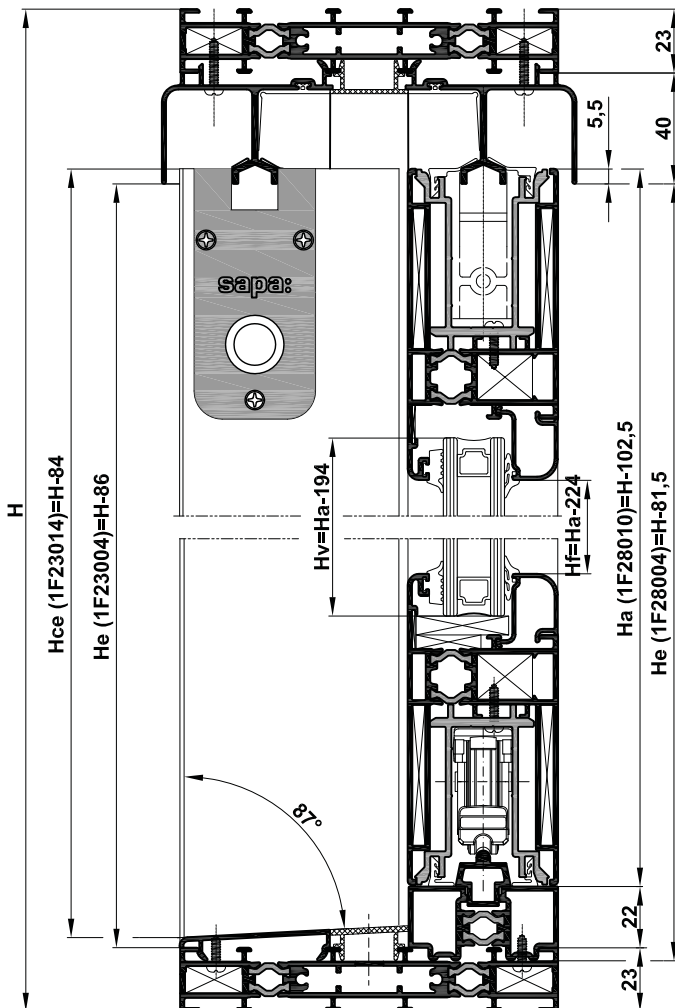
DIMENSIONI VETRO
GLASS SIZE

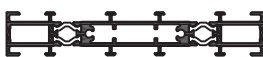
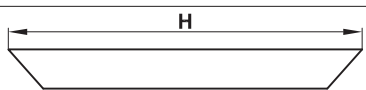
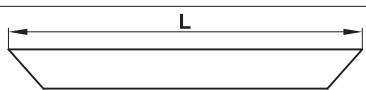
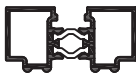
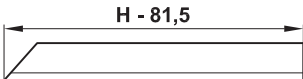
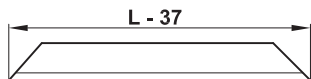
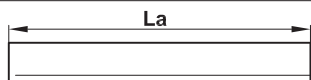

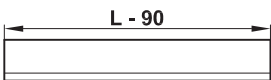

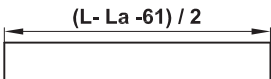
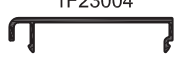
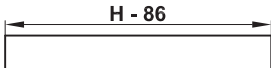

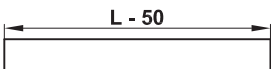

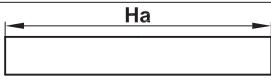
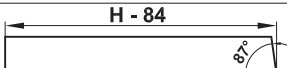
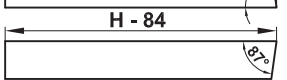
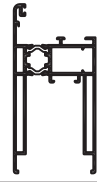
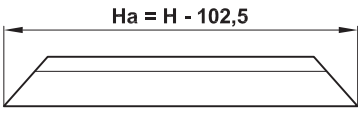
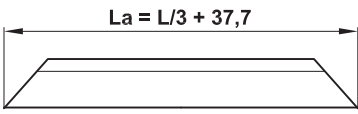

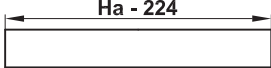
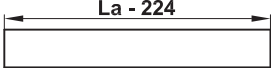
N. 3 PEZZI

Ha - 194
La - 194

N.B.: Spessore vetro considerato
20 mm (4+12+4)
Gioco perimetrale tra
profilato e vetro 7 mm
For glass with 20 mm thickness
Space between glass
and profile 7 mm

SEZ. B-B



PROFILATO SECTION	N.Pz N.Pz	TAGLIO CUT	N.Pz N.Pz	TAGLIO CUT
1F28006 	2		2	
1F28004 	2		1	
			1	
1F23012 G.0319.LN 			1	
1F23003 			1	
1F23004 	2			
1F23006 			2	
1F23014 	2			
	1			
	1			
1F28010 	4		4	
1F14013 	4		4	

ACCESSORI
ACCESSORIES

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
10001.00	Squadretta allineamento aletta Alignment corner joint on fin.	12	A.2169.NN	Kit tappi terminali guida superiore (1F23006) Plug terminal kit for superior track (1F23006)	1	A.52XX.XX	Serratura alzante Lifting locking	2
10026.00	Squadretta ad avvitare mm 9,8x20,3 (telaio) Corner joint to be screwed 9,8x20,3 mm (frame)	8	A.2916.AA	Squadretta allineamento aletta anta Alignment corner joint on fin wing	24	A.520X.KA	Barra di collegamento Linking bar	2
10027.00	Squadretta ad avvitare mm 16,8x20,3 (telaio) Corner joint to be screwed 16,8x20,3 mm (frame)	12	A.9899.VA	Kit bloccaggio anta fissa Blocking kit for fix wing	3	A.2201.NN	Cappetta drenaggio acqua (Ved. pag. F8-140sa-A.03) Water drainage cover (See page F8-140sa-A.03)	
A.1500.NN	Basetta unificata per regolo mobile Unified plate for adjustable block	16	A.5200.VA	Kit base movimentazione un'anta Basic Kit for one wing movement	2	A.2202.NN	Boccola drenaggio acqua (Ved. pag. F8-140sa-A.03) Water drainage bush (See page F8-140sa-A.03)	
10410.01	Regolo mobile da 16,5 mm Adjustable block mm 16,5	16	A.5213.XX	Maniglia con copripiletta e conchiglia corta Single handle with short basin	2	10545.XX	Angolo stampato per fermavetri arrotondati Moulded for snap-on rounded glass beading	12

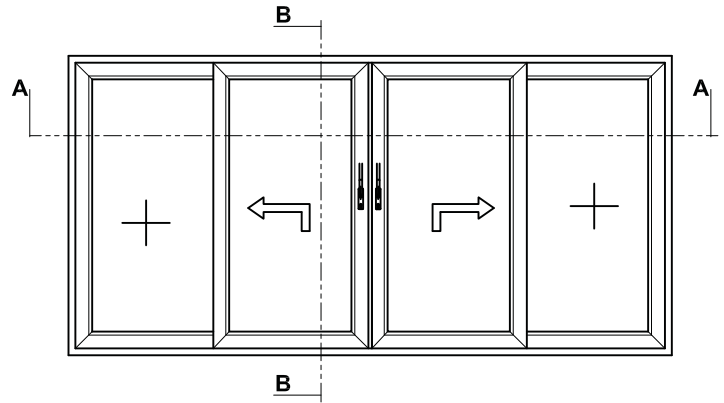
GUARNIZIONI
WEATHERSTRIPS

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
G.0097.EN	Guarnizione copri giunto su prof. 1F23004 Weatherstrip coverjoint on 1F23004 section	1H	* G.0309.QN	Guida di contenimento accessori Accessories guide	2H 6La	10851.01	Guarnizione tenuta esterna vetro External glazing weatherstrip	6H 2L
G.0098.EN	Guarnizione copri giunto su prof. 1F23006 Weatherstrip coverjoint on 1F23006 section	2L	G.0310.LN	Copri giunto verticale e superiore Vertical and upper coverjoint	2H 1L	10861.01	Guarnizione tenuta interna vetro Internal glazing weatherstrip	6H 2L
G.0099.EN	Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide	2L	G.0311.LN	Copri giunto inferiore Inferior coverjoint	1L	G.0167.HA	Spazzolino HI-Fin su prof. 1F23014 Protective fiber Hi-Fin on profile 1F23014	4H
G.0100.EN	Guarnizione tenuta perimetrale Sealing weatherstrip perimeter	8H 2L	G.0312.QN	Ripporto centrale Central filling	4H			

* Consigliamo di tagliare il profilato in poliammide a 45°, unitamente all' 1F28010
 We recommend cutting polyamide profile at 45°, together with 1F28010

N.B: - Le dimensioni di taglio e di lavorazione indicate nelle pagine seguenti sono state ottenute considerando le quote teoriche.
 Pertanto è necessario verificare sempre le dimensioni dei profilati prima di effettuare i tagli.
 Sapa declina ogni responsabilità per errori dovuti al mancato controllo da parte del costruttore.

N.B: - The cutting and processing dimensions, indicated in the following pages, are obtained considering theoretical values.
 It is, therefore, always necessary to check the dimensions of the profiles before executing the cutting.
 Sapa declines any responsibility from errors caused from the missing dimensional check of the carpenter



DIMENSIONI VETRO
GLASS SIZE

N. 4 PEZZI	N.B.: Spessore vetro considerato 20 mm (4+12+4)
Ha - 194	Gioco perimetrale tra profilato e vetro 7 mm
La - 194	For glass with 20 mm thickness Space between glass and profile 7 mm

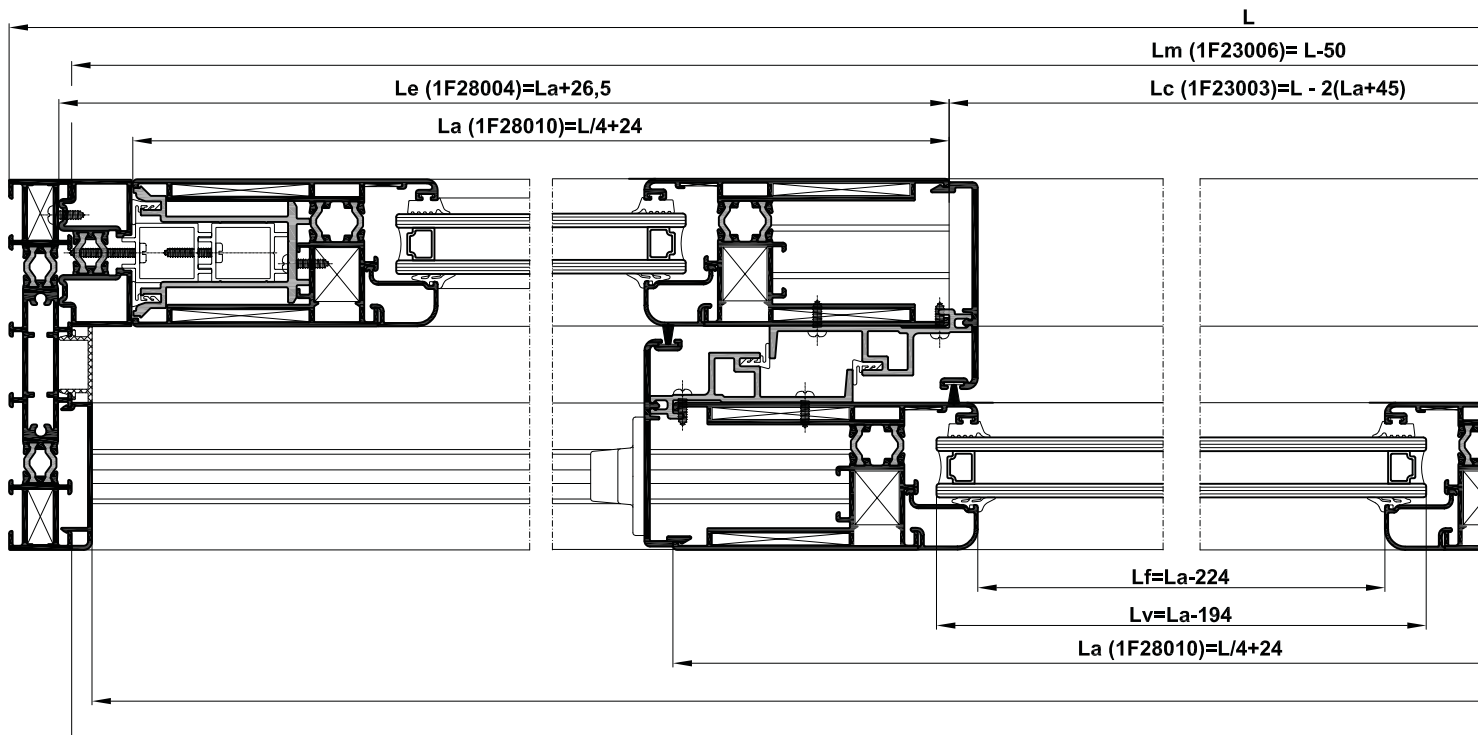
ACCESSORI
ACCESSORIES

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
10001.00	Squadretta allineamento aletta Alignment corner joint on fin.	16	A.2169.NN	Kit tappi terminali guida superiore (1F23006) Plug terminal kit for superior track (1F23006)	1	A.5219.XX	Paracolpo in zama su anta Buffer in zamak	2
10026.00	Squadretta ad avvitare mm 9,8x20,3 (telaio) Corner joint to be screwed 9,8x20,3 mm (frame)	8	A.9899.VA	Kit bloccaggio anta fissa Blocking kit for fix wing	8	A.2185.TN	Kit tappi terminali su profilato 1F28005 Plug terminal kit on profile 1F28005	1
10027.00	Squadretta ad avvitare mm 16,8x20,3 (anta) Corner joint to be screwed 16,8x20,3 mm (wing)	16	A.5200.VA	Kit base movimentazione un'anta Basic Kit for one wing movement	2	A.2201.NN	Cappetta drenaggio acqua Water drainage cover (Ved. pag. F8-140sa-A.03) (See page F8-140sa-A.03)	
A.2916.AA	Squadretta allineamento aletta anta Alignment corner joint on fin wing	32	A.5213.XX	Maniglia con coprirosetta e conchiglia corta Single handle with short basin	2	A.2202.NN	Boccola drenaggio acqua Water drainage bush (Ved. pag. F8-140sa-A.03) (See page F8-140sa-A.03)	
A.1500.NN	Basetta unificata per regolo mobile Unified plate for adjustable block	16	A.52XX.XX	Serratura alzante Lifting locking	2	10545.XX	Angolo stampato per fermavetro arrotondati Moulded for snap-on rounded glass beading	16
10410.01	Regolo mobile da 16,5 mm Adjustable block mm 16,5	16	A.520X.KA	Barra di collegamento Linking bar	2	A.5222.ZA	Delimitatore per 4 Ante Delimiter for four wing	2

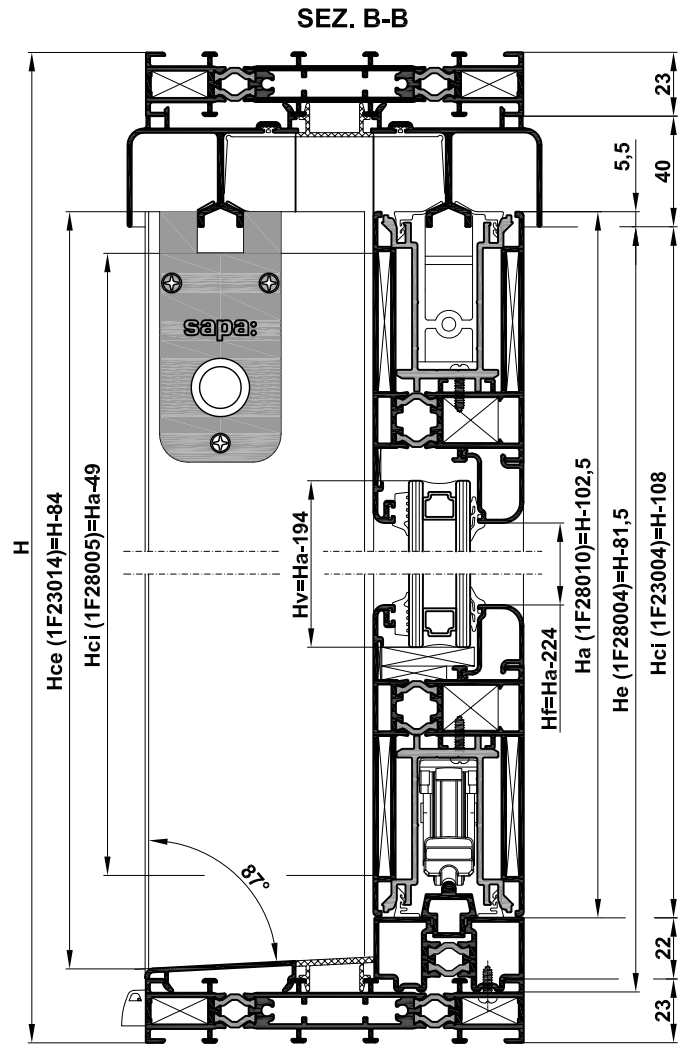
GUARNIZIONI
WEATHERSTRIPS

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
G.0097.EN	Guarnizione coprigiunto su prof. 1F28005 Weatherstrip coverjoint on 1F28005 section	1H	* G.0309.QN	Guida di contenimento accessori Accessories guide	4H 8La	10851.01	Guarnizione tenuta esterna vetro External glazing weatherstrip	8H 2L
G.0098.EN	Guarnizione coprigiunto su prof. 1F23006 Weatherstrip coverjoint on 1F23006 section	2L	G.0310.LN	Coprigiunto verticale e superiore Vertical and upper coverjoint	2H 1L	10861.01	Guarnizione tenuta interna vetro Internal glazing weatherstrip	8H 2L
G.0099.EN	Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide	2L	G.0311.LN	Coprigiunto inferiore Lower coverjoint	1L	G.0167.HA	Spazzolino Hi-Fin su prof. 1F23014 Protective fiber Hi-Fin on profile 1F23014	4H
G.0100.EN	Guarnizione tenuta perimetrale Sealing weatherstrip perimeter	8H 2L	G.0312.QN	Ripporto centrale Central filling	4H			

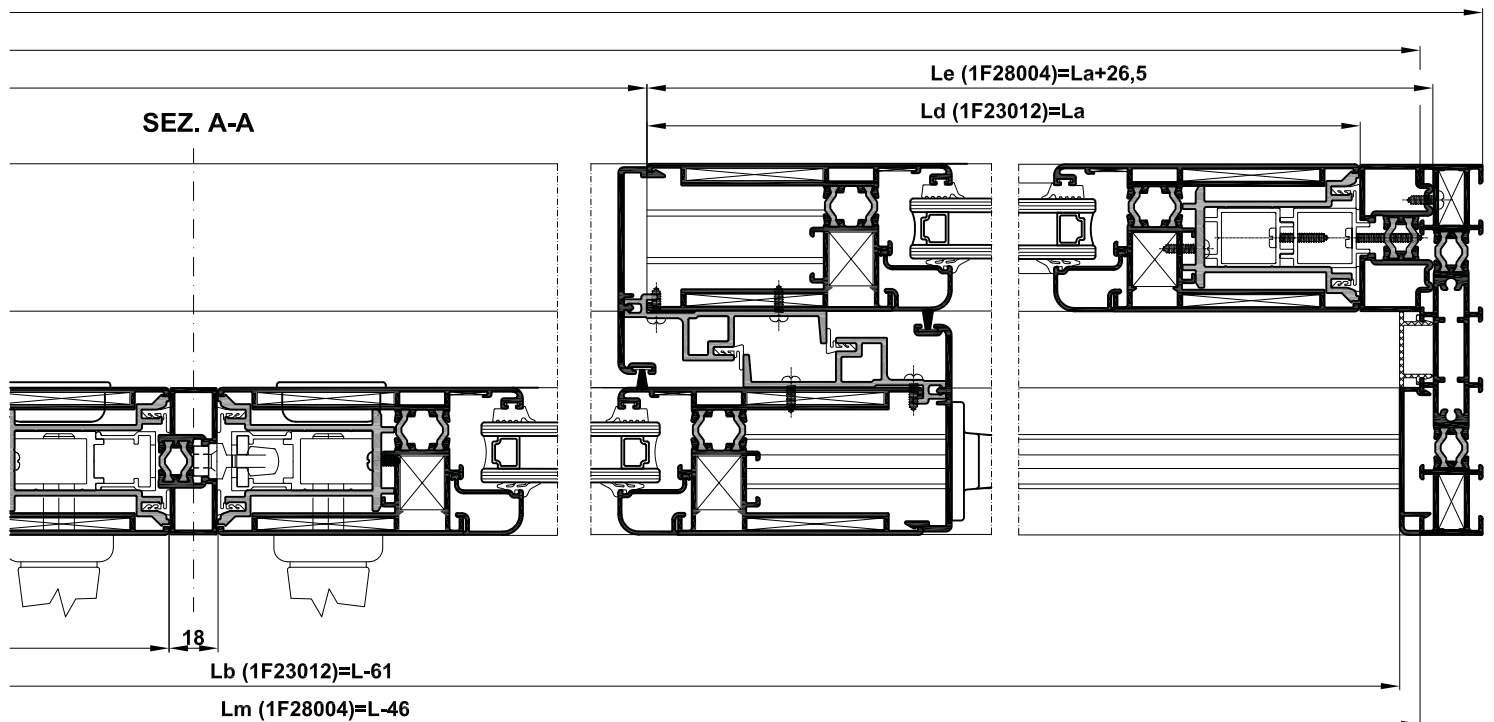
* Consigliamo di tagliare il profilato in poliamide a 45°, unitamente all' 1F28010
 We recommend cutting polyamide profile at 45°, together with 1F28010



PROFILATO SECTION	N.Pz N.Pz	TAGLIO CUT	N.Pz N.Pz	TAGLIO CUT
1F28006	2		2	
1F28004	2		2	
			1	
1F23012 G.0319.LN			1	
1F23003			1	
1F23006			2	
1F23004	2			
1F23014	2			
1F28010	8		8	
1F14013	8		8	
1F28005	1			

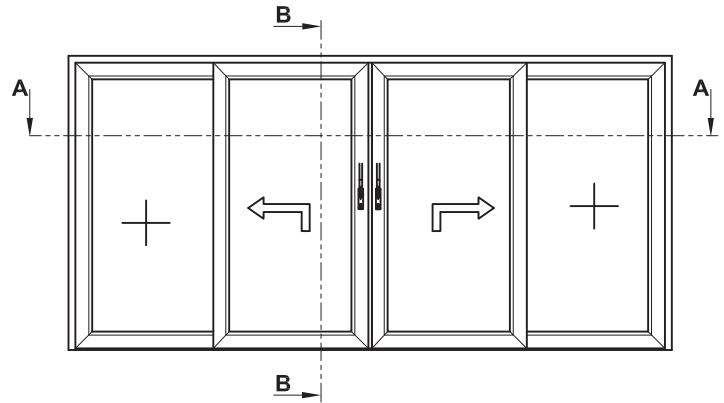


SEZ. A-A



N.B: - Le dimensioni di taglio e di lavorazione indicate nelle pagine seguenti sono state ottenute considerando le quote teoriche.
 Pertanto è necessario verificare sempre le dimensioni del profilato prima di effettuare i tagli.
 Sapa declina ogni responsabilità per errori dovuti al mancato controllo da parte del costruttore.

N.B: - The cutting and processing dimensions, indicated in the following pages, are obtained considering theoretical values.
 It is, therefore, always necessary to check the dimensions of the profiles before executing the cutting.
 Sapa declines any responsibility from errors caused from the missing dimensional check of the carpenter



DIMENSIONI VETRO
GLASS SIZE

N. 4 PEZZI	N.B.: Spessore vetro considerato 20 mm (4+12+4)
Ha - 194	Gioco perimetrale tra profilato e vetro 7 mm
La - 194	For glass with 20 mm thickness Space between glass and profile 7 mm

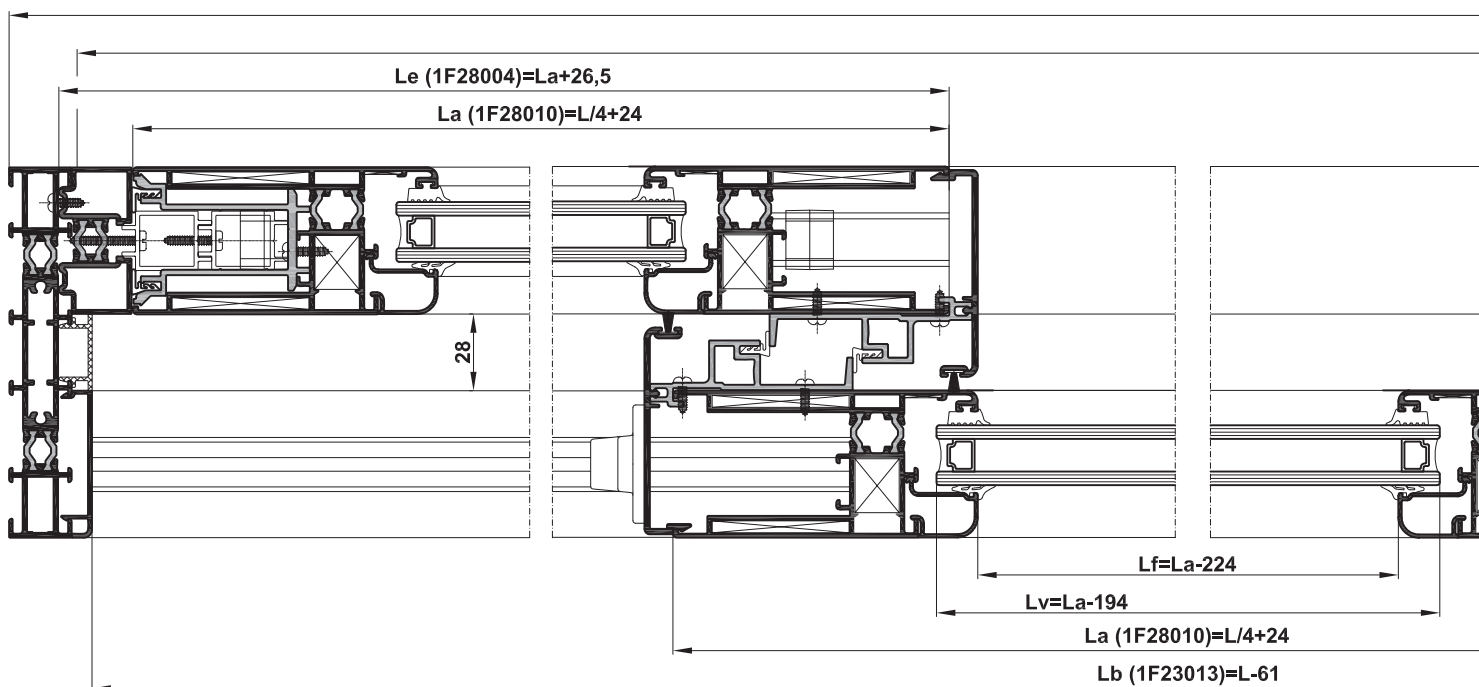
ACCESSORI
ACCESSORIES

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
10001.00	Squadretta allineamento aletta Alignment corner joint on fin.	16	10410.01	Regolo mobile da 16,5 mm Adjustable block mm 16,5	16	A.52XX.XX	Serratura alzante Lifting locking	2
10026.00	Squadretta ad avvitare mm 9,8x20,3 (telaio) Corner joint to be screwed 9,8x20,3 mm (frame)	4	A.2169.NN	Kit tappi terminali guida superiore (1F23006) Plug terminal kit for superior track (1F23006)	1	A.520X.KA	Barra di collegamento Linking bar	2
10027.00	Squadretta ad avvitare mm 16,8x20,3 (anta) Corner joint to be screwed 16,8x20,3 mm (wing)	16	A.9899.VA	Kit bloccaggio anta fissa Blocking kit for fix wing	8	A.5219.XX	Paracolpo in zama su anta Buffer in zamak	2
A.2916.AA	Squadretta allineamento aletta anta Alignment corner joint on fin wing	32	A.5200.VA	Kit base movimentazione un'anta Basic Kit for one wing movement	2	A.2185.TN	Kit tappi terminali su profilato 1F28005 Plug terminal kit on profile 1F28005	1
A.1500.NN	Basetta unificata per regolo mobile Unified plate for adjustable block	16	A.5213.XX	Maniglia con copritrosetta e conchiglia corta Single handle with short basin	2	10545.XX	Angolo stampato per fermavetro arrotondati Moulded for snap-on rounded glass beading	16
			A.5222.ZA	Delimitatore per 4 Ante Delimiter for four wing	2	A.5218.VA	Guida posizionamento Ante Guide wing placement	4

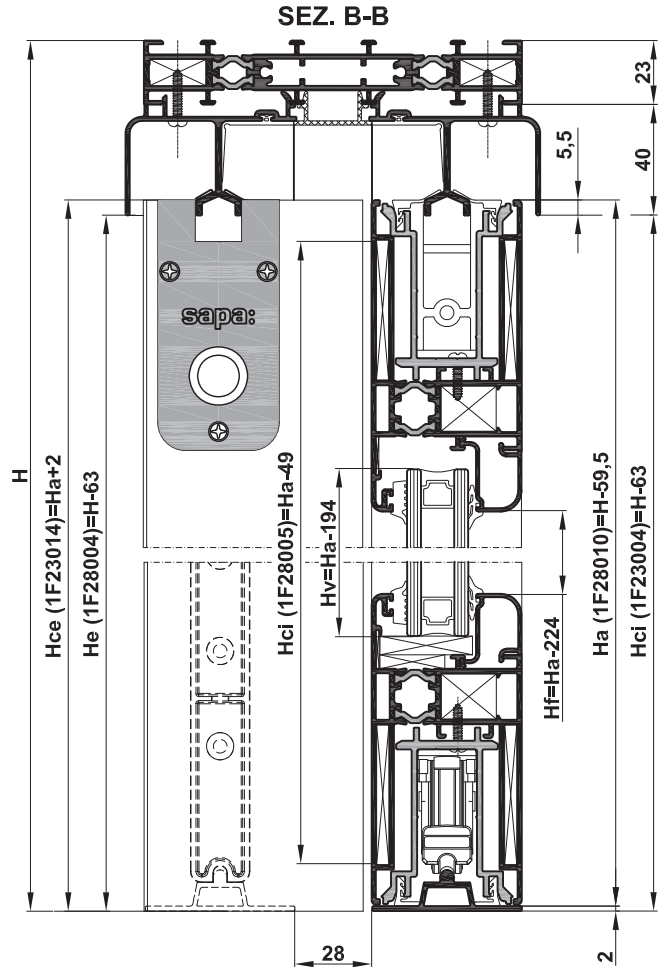
GUARNIZIONI
WEATHERSTRIPS

ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
G.0097.EN	Guarnizione coprigiunto su prof. 1F28005 Weatherstrip coverjoint on 1F28005 section	1H	* G.0309.QN	Guida di contenimento accessori Accessories guide	4H 8La	10861.01	Guarnizione tenuta interna vetro Internal glazing weatherstrip	8H 2L
G.0098.EN	Guarnizione coprigiunto su prof. 1F23006 Weatherstrip coverjoint on 1F23006 section	2L	G.0310.LN	Coprigiunto verticale e superiore Vertical and upper coverjoint	2H 1L	G.0167.HA	Spazzolino Hi-Fin su prof. 1F23014 Protective fiber Hi-Fin on profile 1F23014	4H
G.0099.EN	Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide	2L	G.0312.QN	Ripporto centrale Central filling	4H			
G.0100.EN	Guarnizione tenuta perimetrale Sealing weatherstrip perimeter	8H 2L	10851.01	Guarnizione tenuta esterna vetro External glazing weatherstrip	8H 2L			

* Consigliamo di tagliare il profilato in poliammide a 45°, unitamente all' 1F28010
 We recommend cutting polyamide profile at 45°, together with 1F28010



PROFILATO SECTION	N.Pz N.Pz	TAGLIO CUT	N.Pz N.Pz	TAGLIO CUT
1F28006	2		1	
1F28004	2			
1F23013			1	
			2	
1F23004	2			
1F23006			2	
1F23014	2			
	2			
1F28010	8		8	
1F14013	4		4	
1F28005	1			



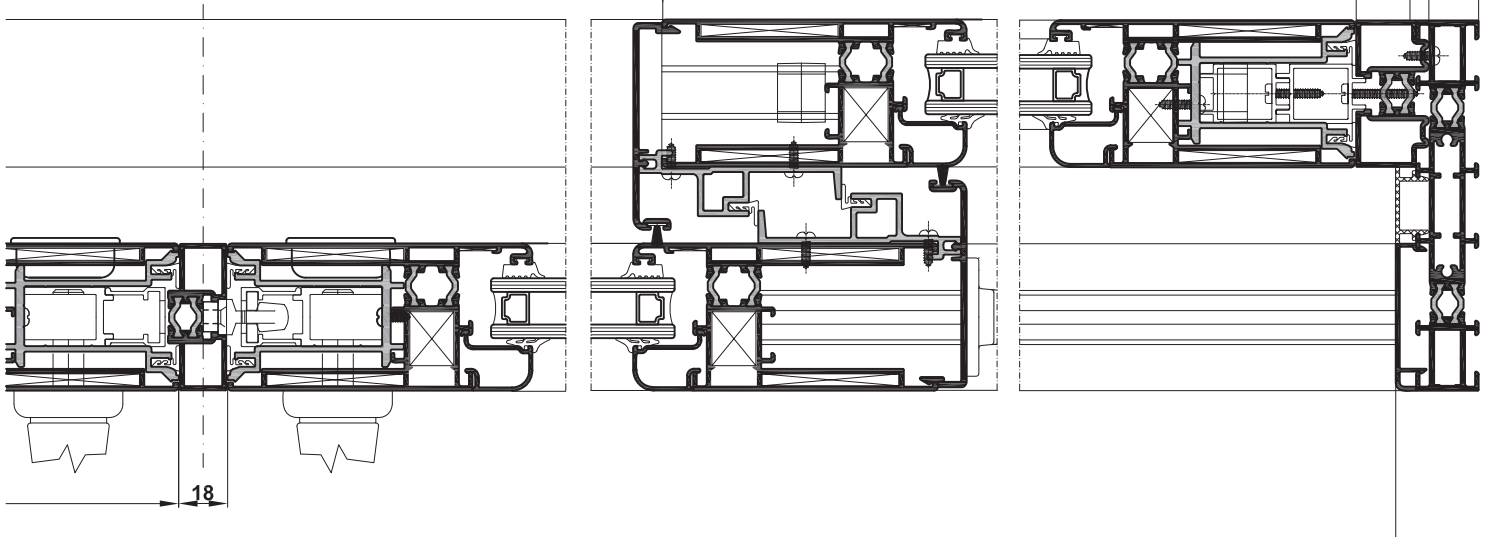
NB: La soluzione con binario "basso" 1F23013 deve essere utilizzata solamente nel caso in cui il serramento sia protetto da pensilina e non esposto, in quanto non viene garantita la perfetta tenuta agli agenti atmosferici.

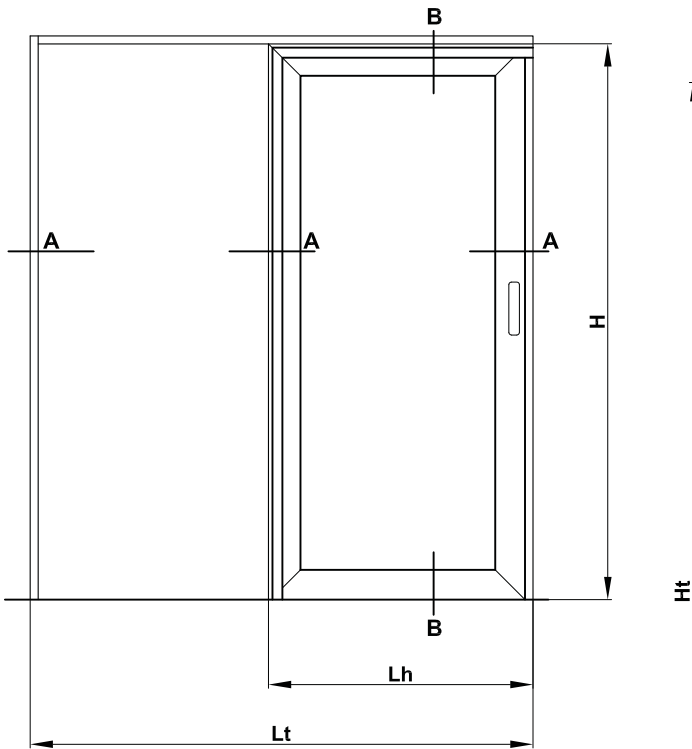
Lower track solution 1F23013 must be used only when the casement window is not directly exposed. As perfect sealing to atmospheric agents cannot be guaranteed.

L
 $L_m (1F23006) = L - 50$

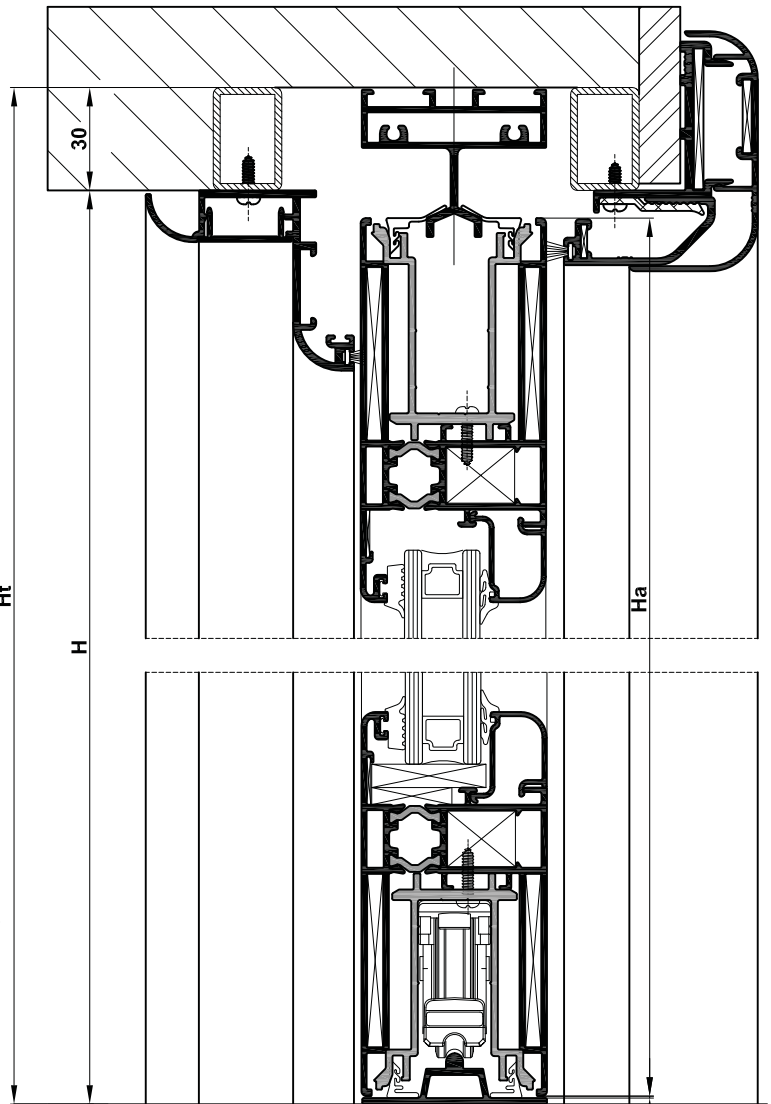
SEZ. A-A

$L_e (1F28004) = L_{a+26,5}$
 $L_d (1F23013) = L_a$



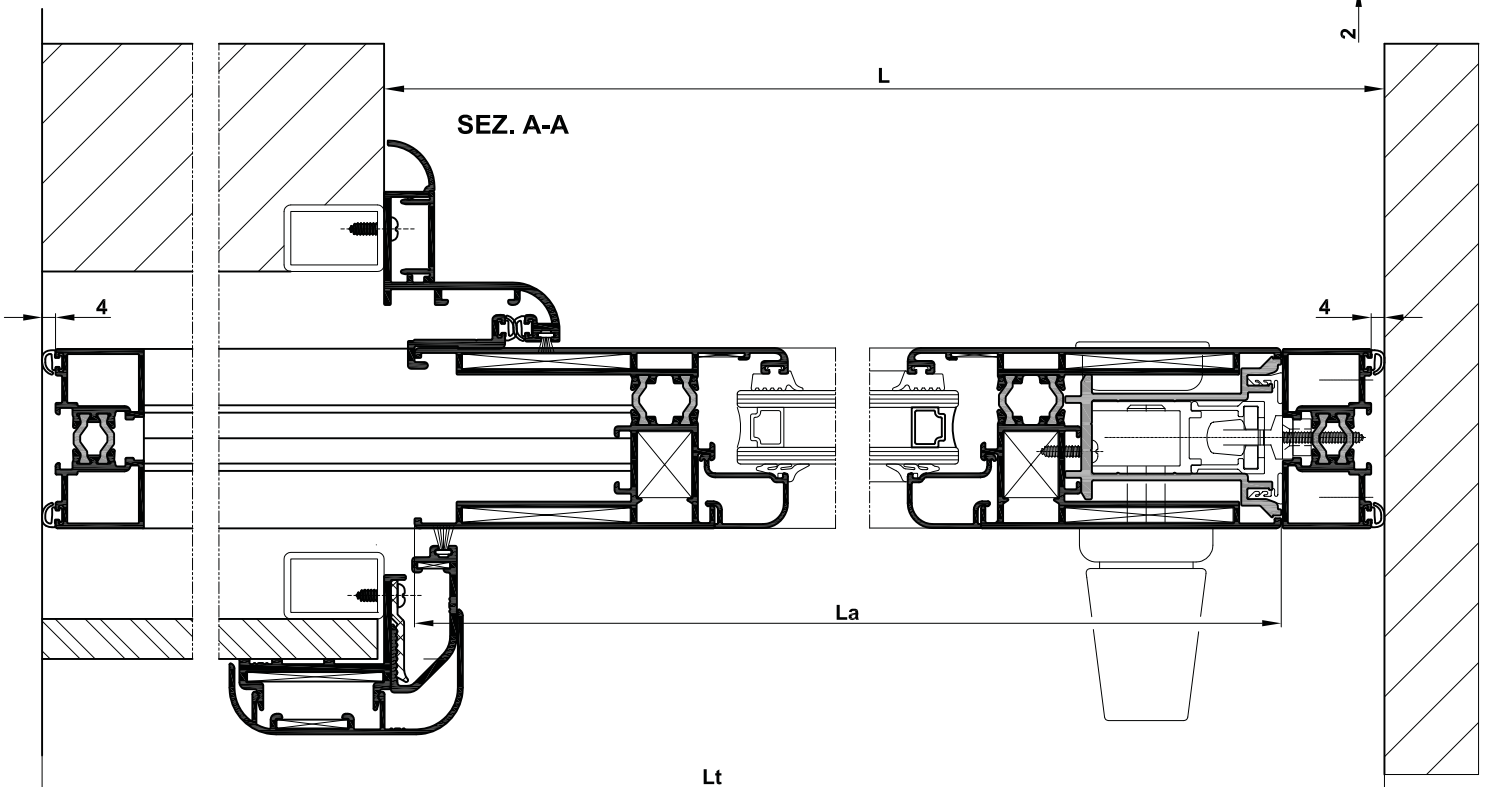



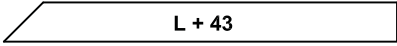
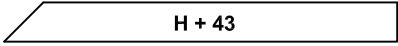


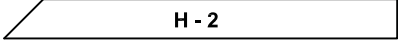
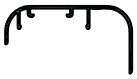
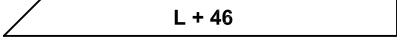
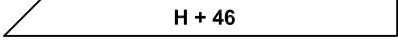


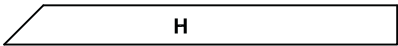

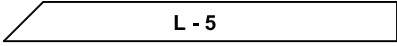
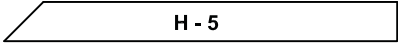

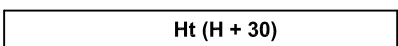
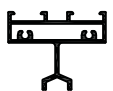
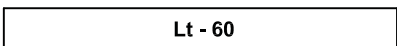

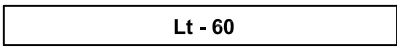
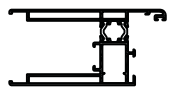
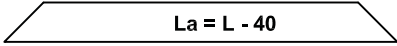
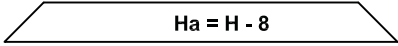

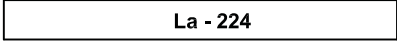
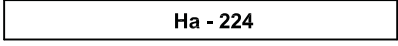

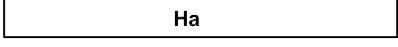
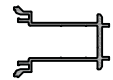
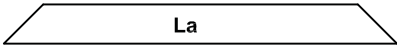
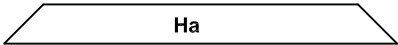
SEZ. B-B



N.B: - Le dimensioni di taglio e di lavorazione indicate nelle pagine seguenti sono state ottenute considerando le quote teoriche. Pertanto è necessario verificare sempre le dimensioni dei profilati prima di effettuare i tagli. Sapa declina ogni responsabilità per errori dovuti al mancato controllo da parte del costruttore.

N.B: - The cutting and processing dimensions, indicated in the following pages, are obtained considering theoretical values. It is, therefore, always necessary to check the dimensions of the profiles before executing the cutting. Sapa declines any responsibility from errors caused from the missing dimensional check of the carpenter



PROFILATO SECTION	N.Pz N.Pz	TAGLIO CUT	N.Pz N.Pz	TAGLIO CUT
800814 	1	 L + 43	1	 H + 43
800815 	1	 L - 2	1	 H - 2
800816 	1	 L + 46	1	 H + 46
1F23009 	1	 L	1	 H
800738 	1	 L - 5	1	 H - 5
1F28009 			2	 Ht (H + 30)
1F23011 	1	 Lt - 60		
1F23013 	1	 Lt - 60		
1F28010 	2	 La = L - 40	2	 Ha = H - 8
1F14012 	2	 La - 224	2	 Ha - 224
1F23010 			1	 Ha
* G.0309.QN 	2	 La	1	 Ha

ACCESSORI
ACCESSORIES

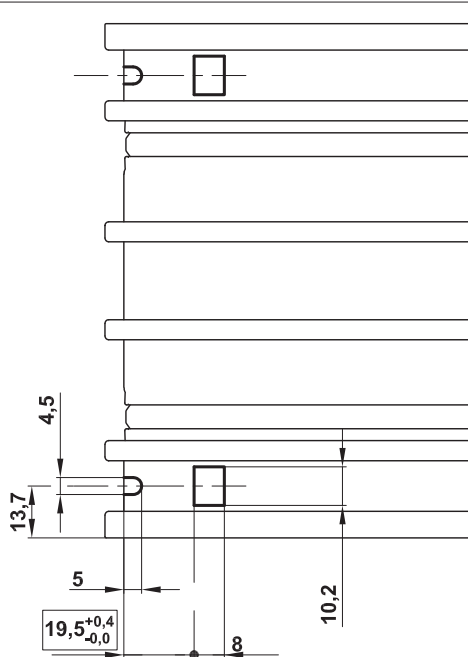
ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
10001.00	Squadretta allineamento aletta Alignment corner joint on fin.	4	A.5200.VA	Kit base movimentazione un'anta Basic Kit for one wing movement	1	RA 590	Squadretta allineamento su profilato 800814 Alignment corner joint on section 800814	1
10027.00	Squadretta ad avvitare mm 16,8x20,3 (anta) Corner joint to be screwed 16,8x20,3 mm (wing)	4	A.5213.XX	Maniglia con coprirosetta e conchiglia corta Single handle with short basin	1	0712	Squadretta allineamento su profilato 800815 Alignment corner joint on section 800815	1
A.1500.NN	Basetta unificata per regolo mobile Unified plate for adjustable block	8	A.52XX.XX	Serratura alzante Lifting locking	1	A.9930.TN	Molletta per aggancio compensatore 800815 Clips to compensator for section 800815	20
10410.01	Regolo mobile da 16,5 mm Adjustable block mm 16,5	8	A.520X.KA	Barra di collegamento Linking bar	1	10061	Squadretta allineamento su profilato 800816 Alignment corner joint on section 800816	1
A.2916.AA	Squadretta allineamento aletta anta Alignment corner joint on fin wing	8	10545.XX	Angolo stampato per fermavetri arrotondati Moulded for snap-on rounded glass beading	4			

GUARNIZIONI
WEATHERSTRIPS

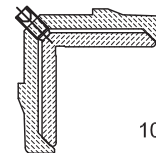
ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.	ARTICOLO ITEM	DESCRIZIONE DESCRIPTION	N.
G.0097.EN	Guarnizione copri giunto su prof. 1F28009 Weatherstrip coverjoint on 1F28009 section	1H	10861.01	Guarnizione tenuta interna vetro Internal glazing weatherstrip	2H 2L			
G.0099.EN	Guarnizione tenuta guida superiore Sealing weatherstrip upper slide guide	2L	10821.01	Guarniz. prof. 1F28009 - 1F23009 - 1F23010 Weatherstrip to 1F28009 - 1F23009 - 1F23010	4H			
G.0100.EN	Guarnizione tenuta perimetrale Sealing weatherstrip perimeter	2H 2L		Spazzolino 4,8x8mm Protective fiber 4,8x8mm	2H 2L			
10851.01	Guarnizione tenuta esterna vetro External glazing weatherstrip	2H 2L						

* Consigliamo di tagliare il profilato in poliammide a 45°, unitamente all' 1F28010
 We recommend cutting polyamide profile at 45°, together with 1F28010

SQUADRETTE AD AVVITARE
CORNER JOINTS TO BE SCREWED



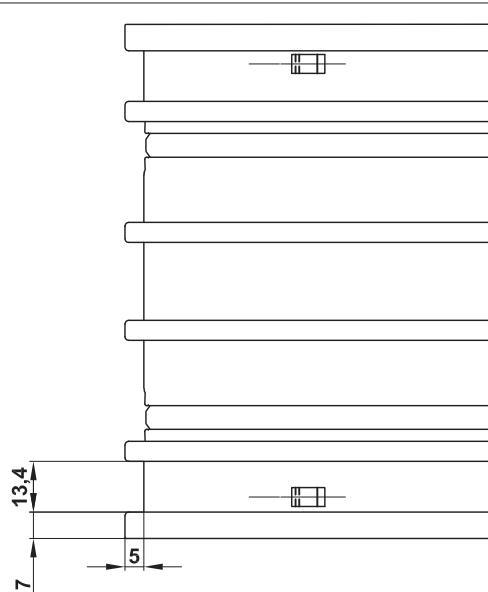
1F28006
1F28008



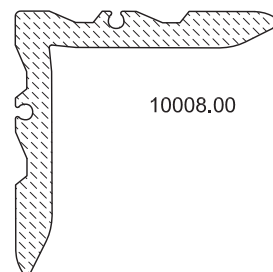
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Attrezzatura: PUNZONATRICE
Tooling: PUNCHING MACHINE

SQUADRETTE A CIANFRINARE
CORNER JOINTS TO BE CRIMPED



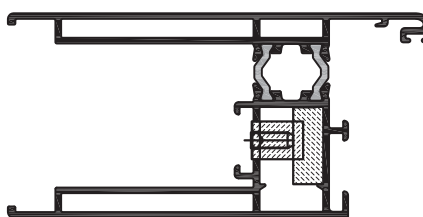
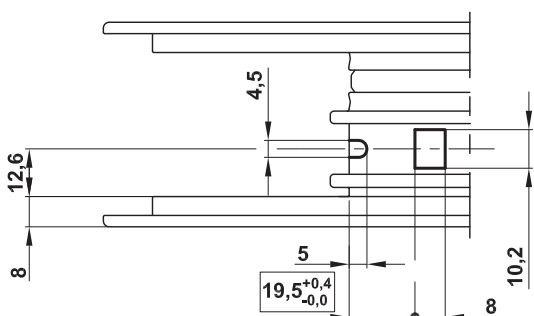
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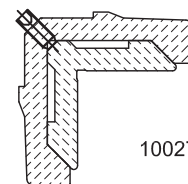
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Attrezzatura: CIANFRINATRICE
Tooling: CRIMPING MACHINE

SQUADRETTE AD AVVITARE
CORNER JOINTS TO BE SCREWED



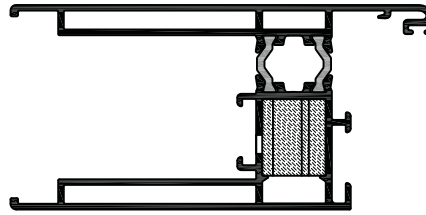
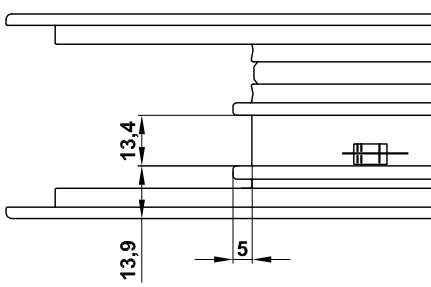
1F28010
1F28011



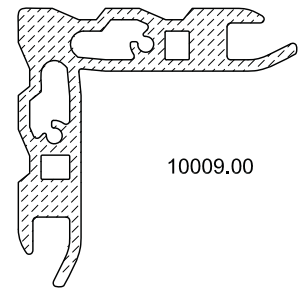
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Attrezzatura: PUNZONATRICE
Tooling: PUNCHING MACHINE

SQUADRETTE A CIANFRINARE
CORNER JOINTS TO BE CRIMPED



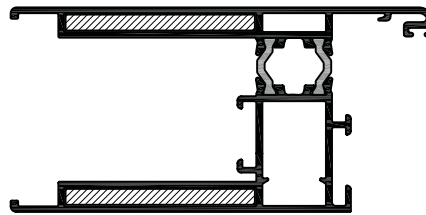
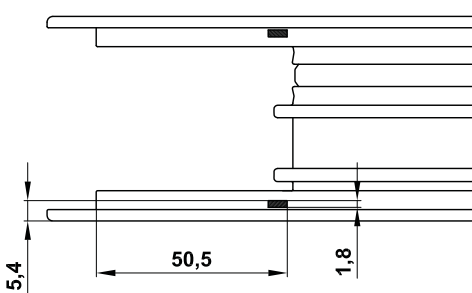
1F28010
1F28011



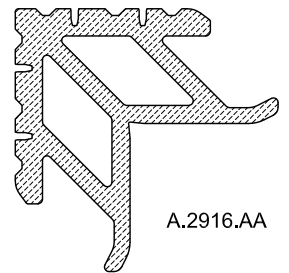
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Attrezzatura: CIANFRINATRICE
Tooling: CRIMPING MACHINE

SQUADRETTE A CIANFRINARE
CORNER JOINTS TO BE CRIMPED



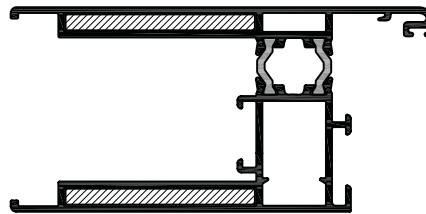
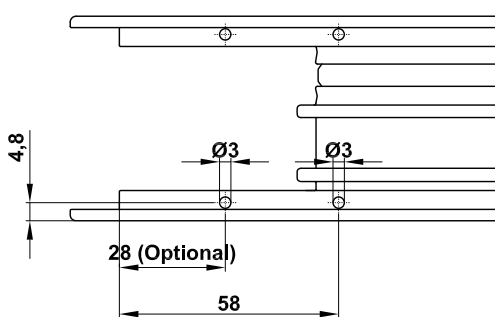
1F28010
1F28011



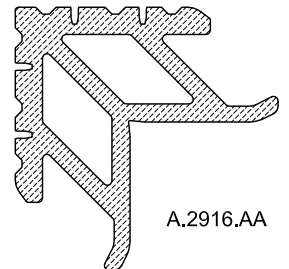
A.2916.AA

Attrezzatura: CIANFRINATRICE
Tooling: CRIMPING MACHINE

SQUADRETTE A SPINARE
CORNER JOINTS TO BE PINNED



1F28010
1F28011

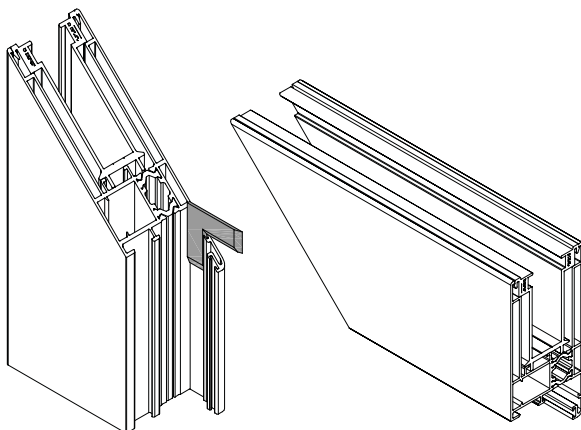


A.2916.AA

SPINA 092 Monticelli

Attrezzatura: TRAPANO
Tooling: DRILL

SQUADRETTA ALLINEAMENTO ALETTA
CORNER JOINT FOR ALIGNMENT RABBET

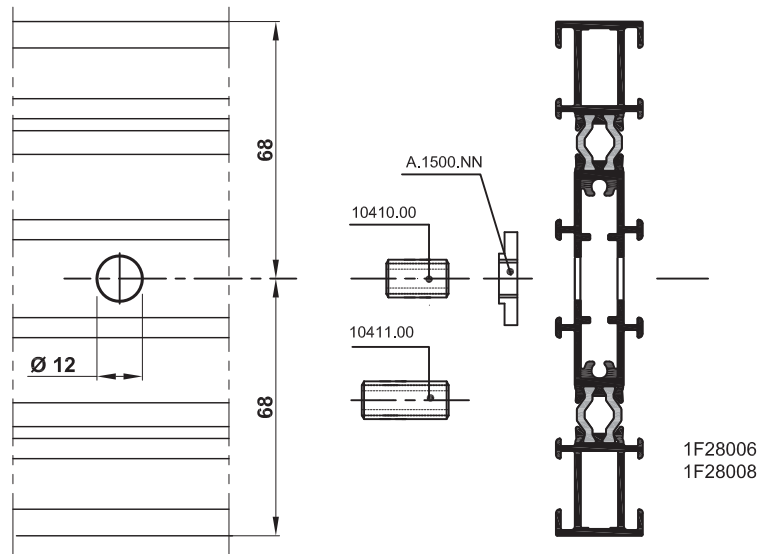


10001.00



10040.01

REGOLO MOBILE
ADJUSTABLE FIXING

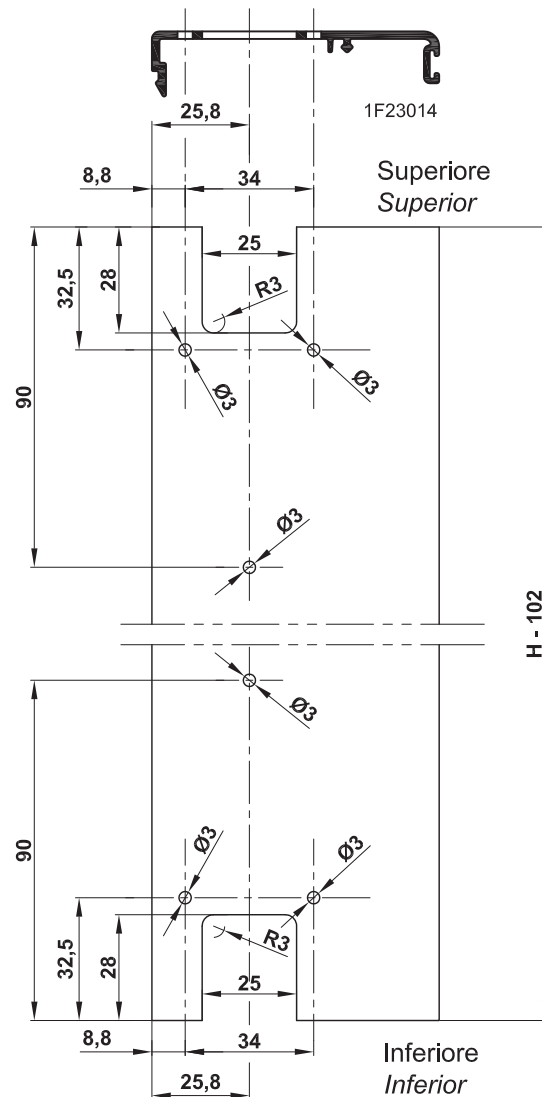
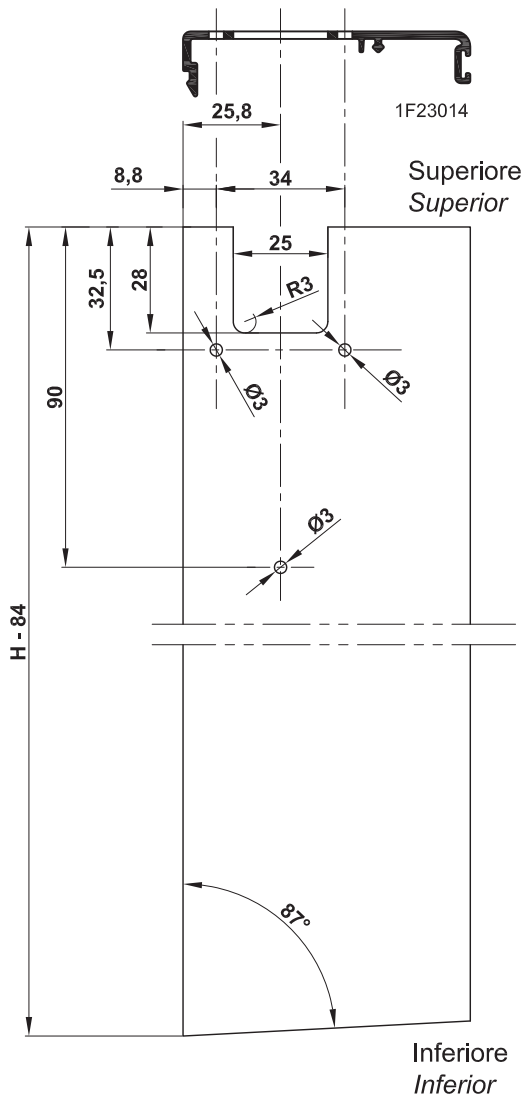


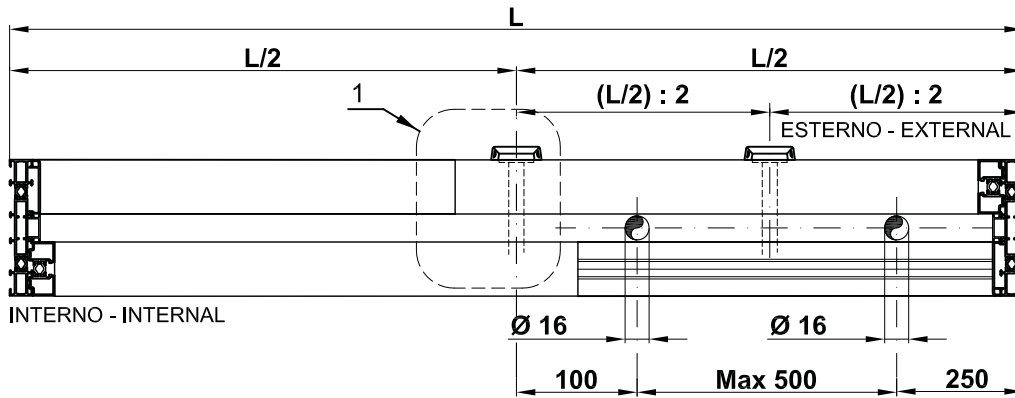
LAVORAZIONI PROFILATO 1F23014
PROCESSING SECTION 1F23014

Attrezzatura: TRAPANO
Tooling: DRILL

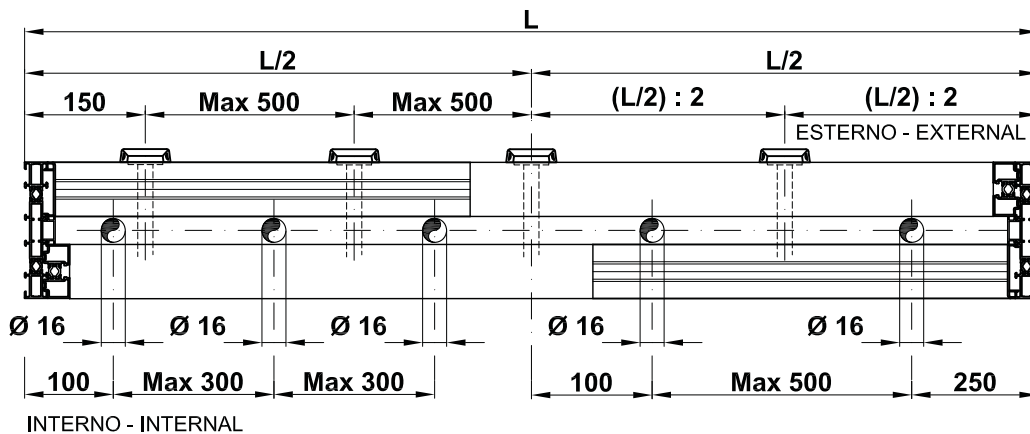
Lavorazione per Schema A e K
Processing for scheme A and K

Lavorazione per Schema D
Processing for scheme D

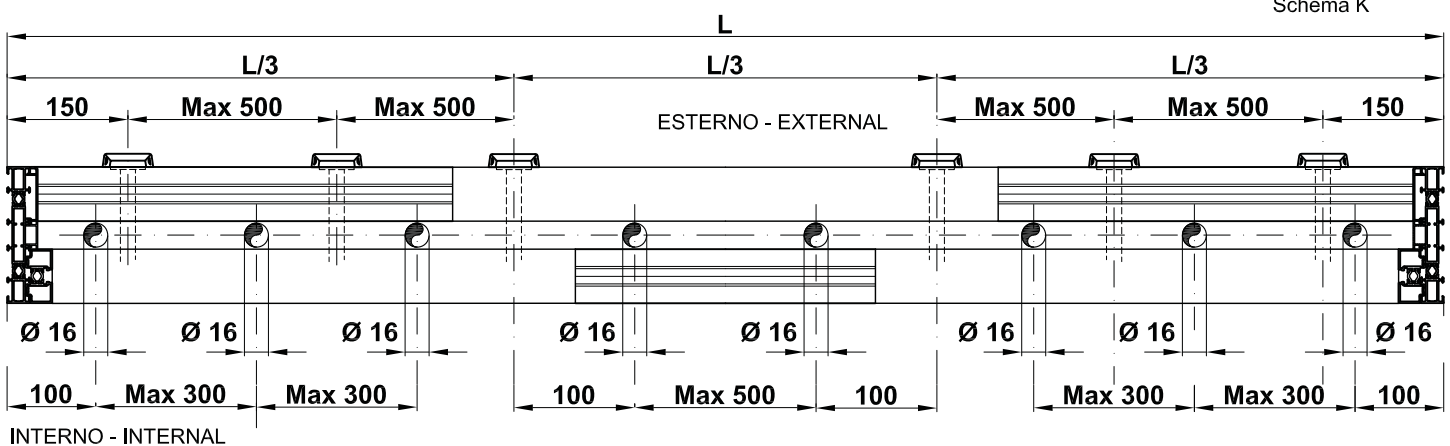




Schema A



Schema D



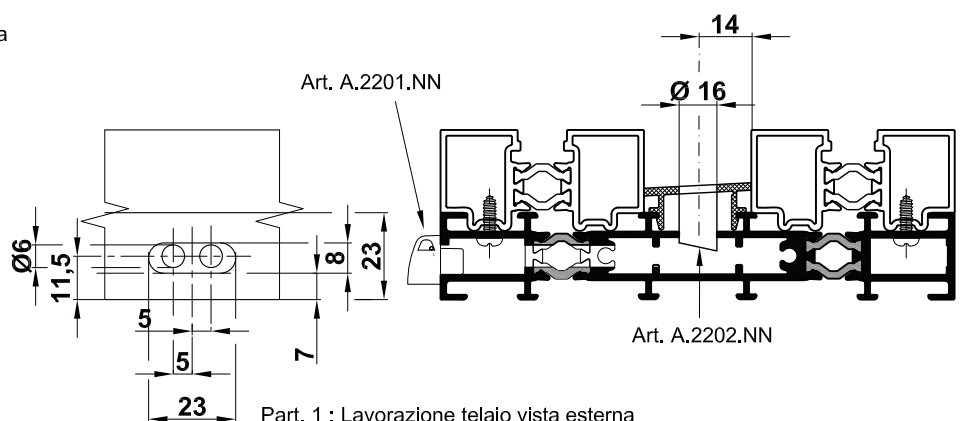
Schema K

Raccomandiamo di prestare la **MASSIMA** attenzione alle sigillature del telaio di seguito elencate (già indicate a pag. F1-140sa-A.03) per una buona tenuta all'acqua del serramento:

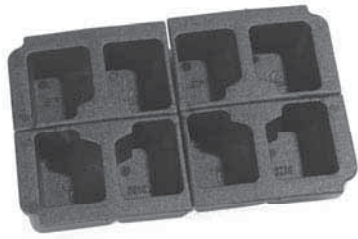
- interno tubolarità, perimetro taglio a 45° e fori tiraggio squadrette telaio 1F28006
- perimetro taglio a 45° e fori fissaggio viti 1F28004
- nel punto di contatto dei profilati 1F28006 e 1F28004 su tutta la larghezza del telaio inferiore

We recommend to pay **MAXIMUM** attention to the here below listed sealing on the frame (as indicated at page F1-140sa-A.03) to guarantee a good water tightness of the window:

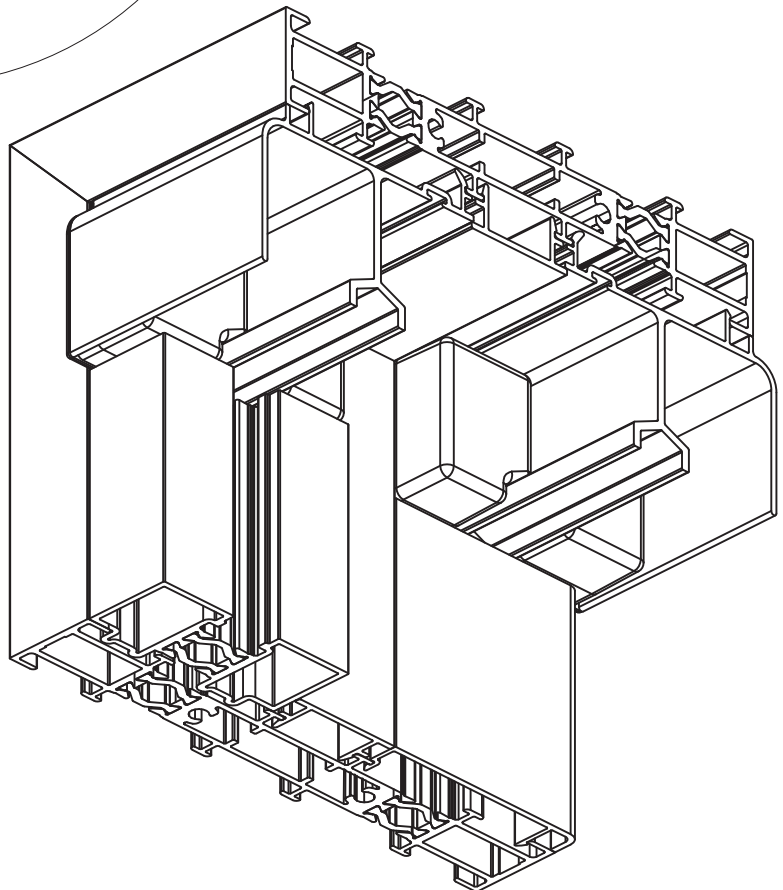
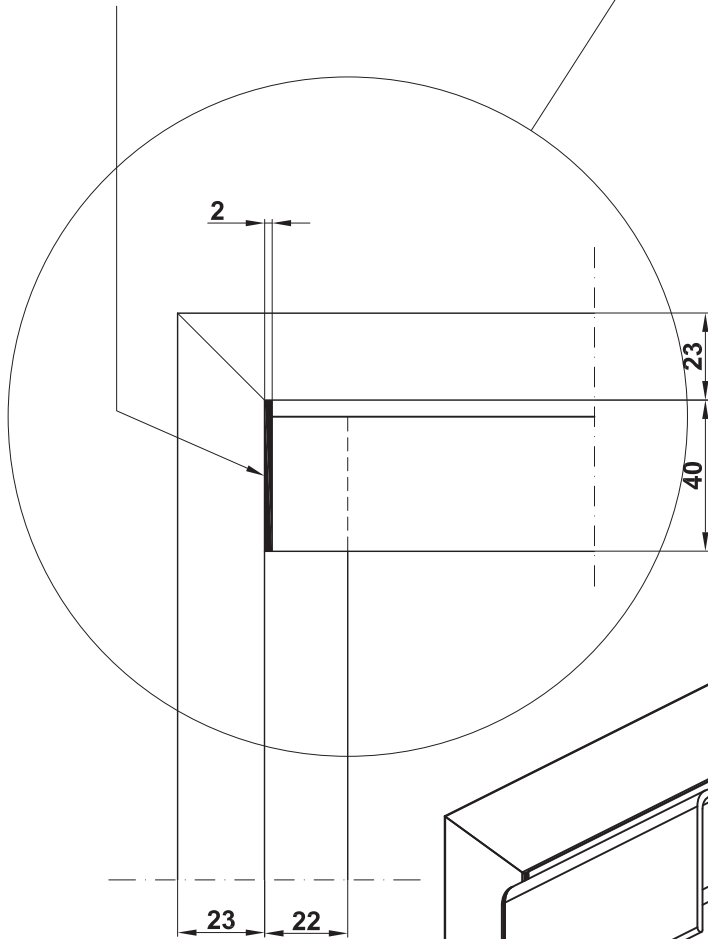
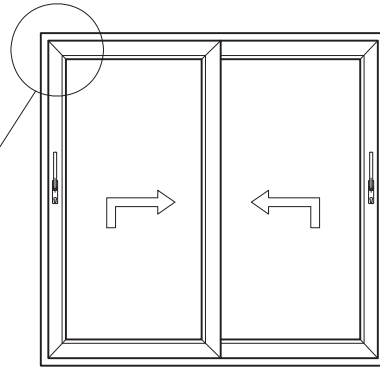
- internal tubularity, 45° cut perimeter and corner joints holes on wing 1F28006
- 45° cut perimeter and fixing screw holes for 1F28004 on 1F28006
- at the contact point between the profiles 1F28006 and 1F28004 on the whole length of the lower frame

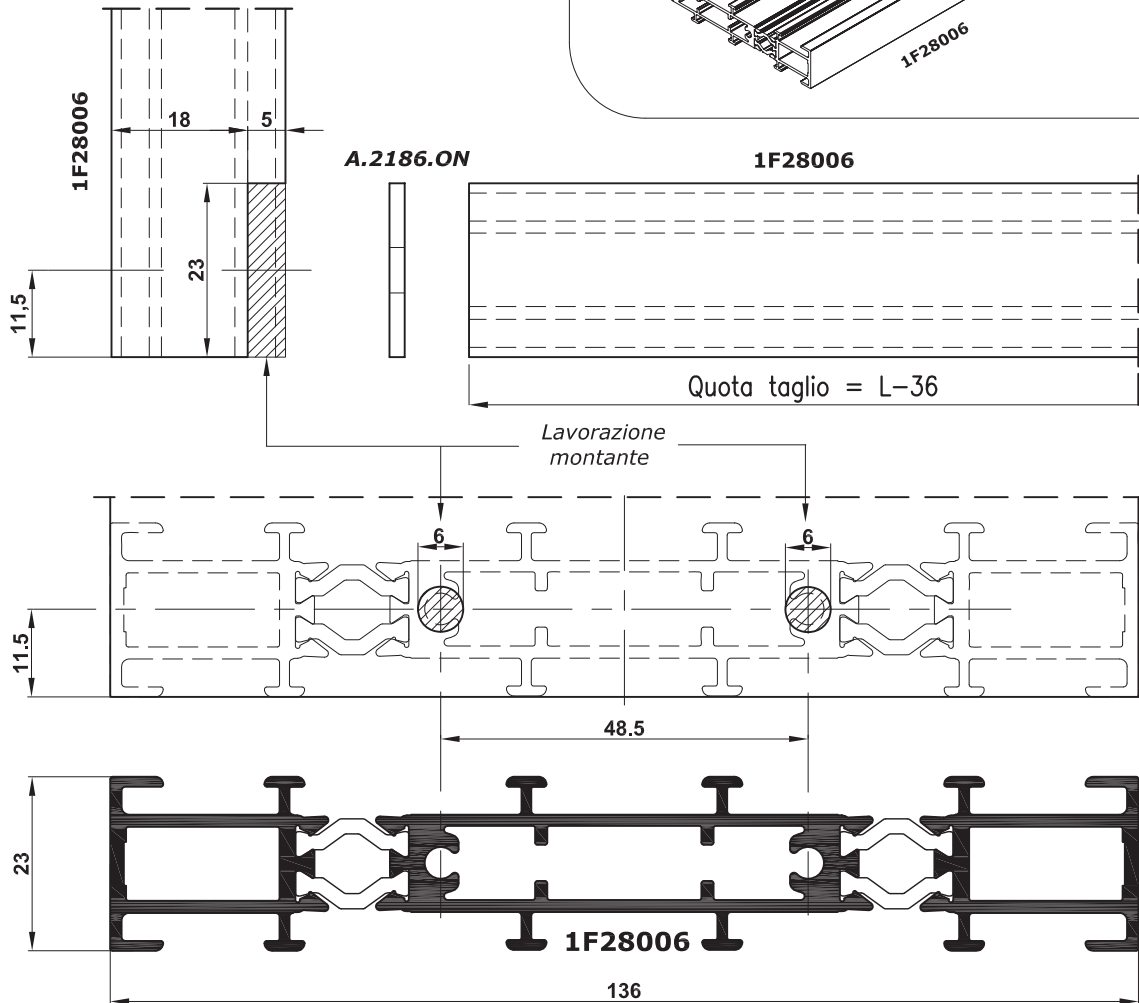
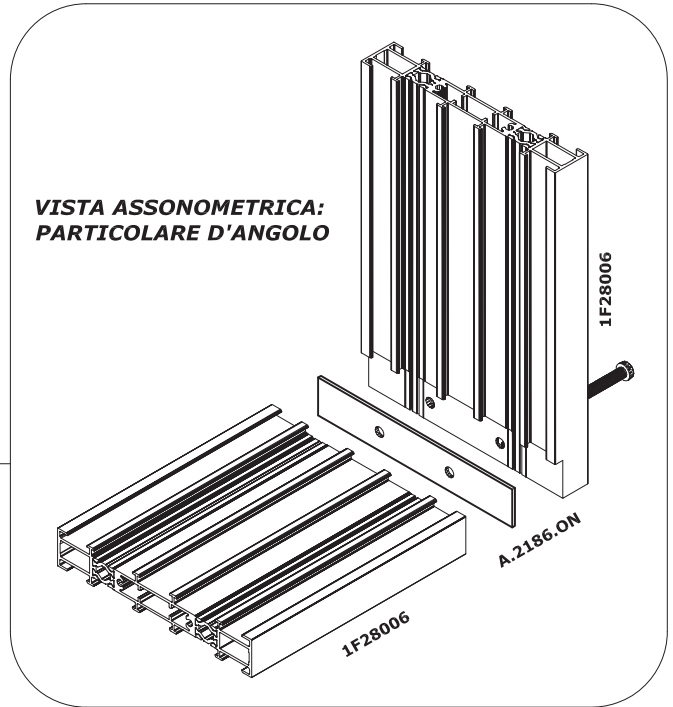
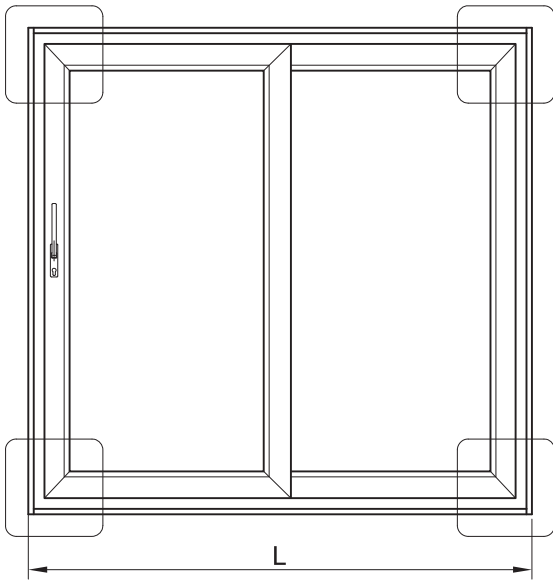


Part. 1 : Lavorazione telaio vista esterna
Detail 1 : Processing frame external view

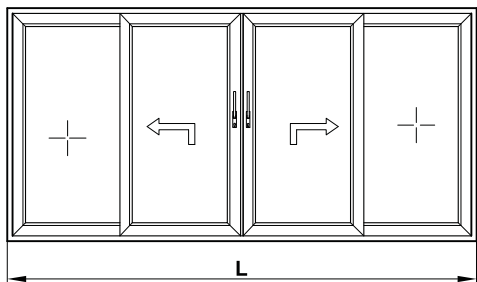


A.2169.NN

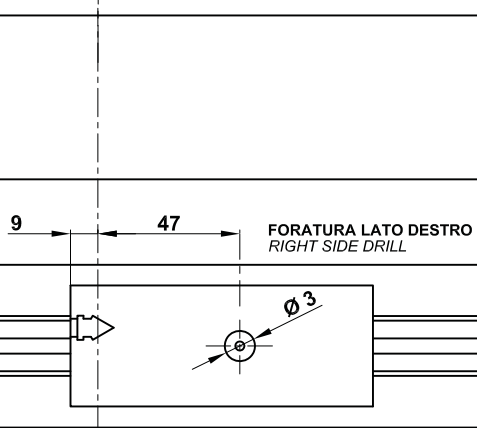
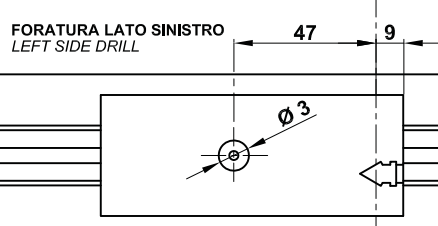
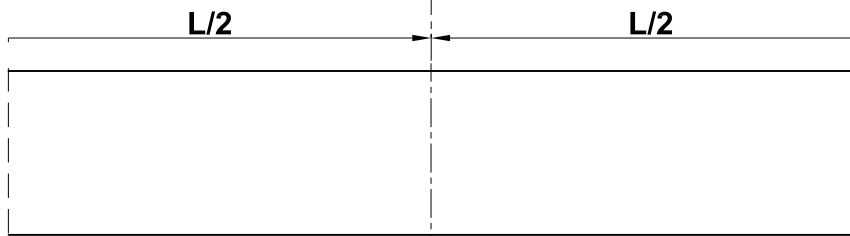
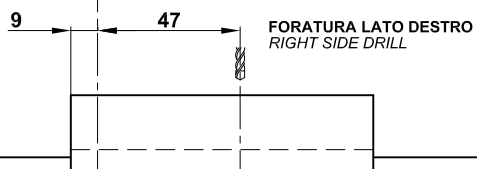
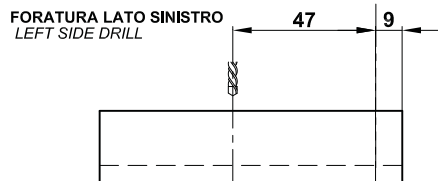
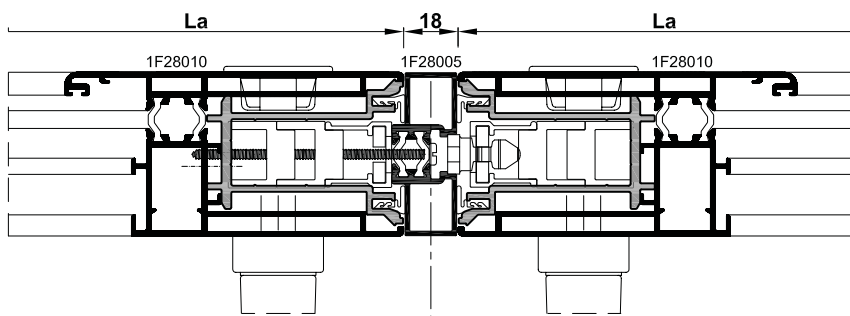
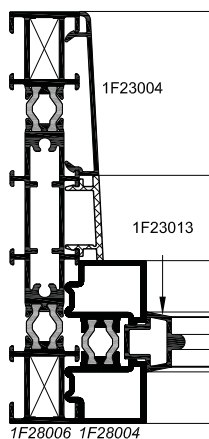
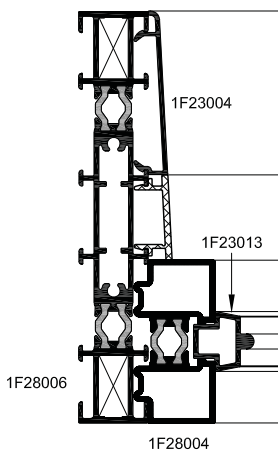
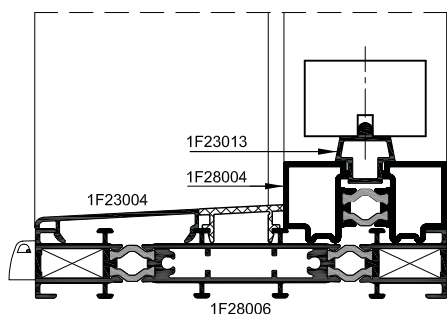


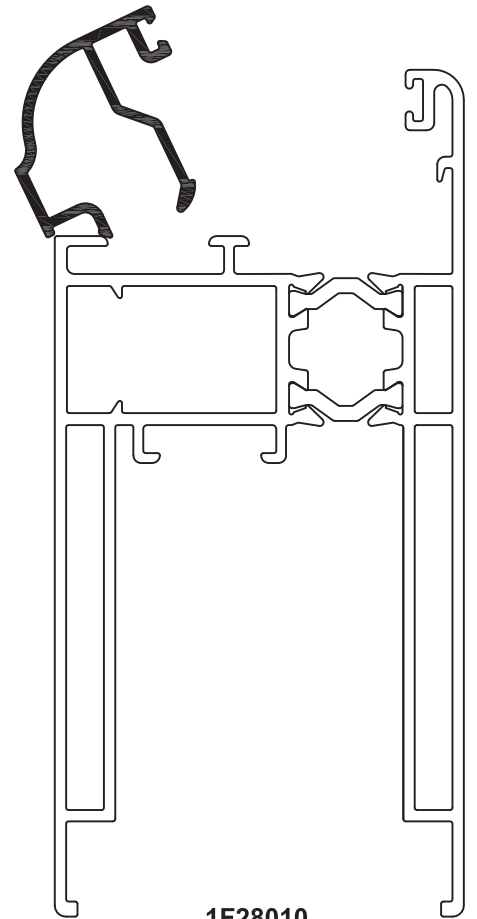
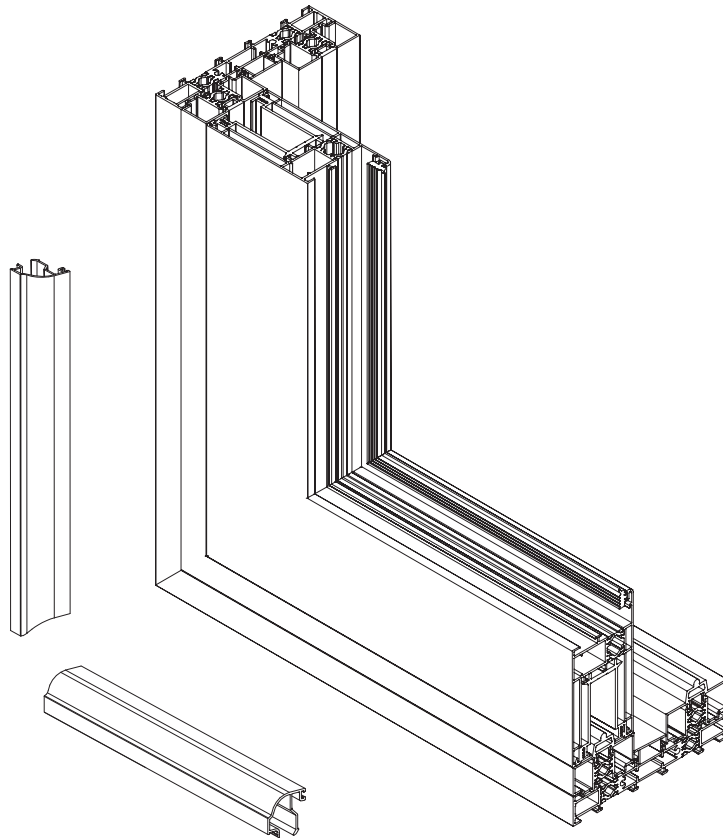


FORATURA BINARIO 1F23013 TRAMITE DIMA U.5290.YA
DRILL OF THE TRACK 1F23013 TROUGH TEMPLATE U.5290.YA



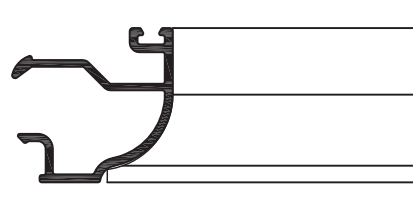
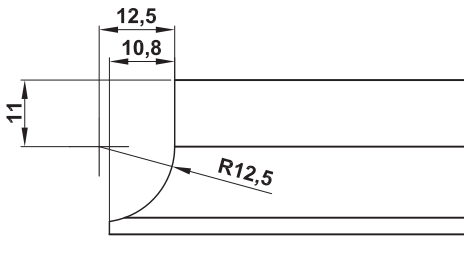
U.5290.YA





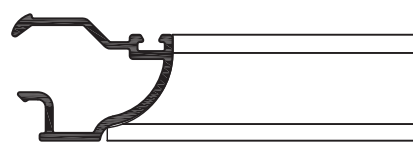
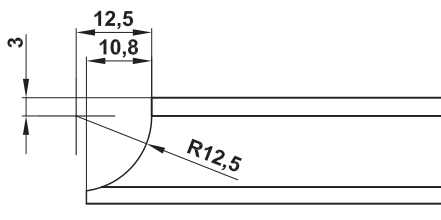
INTESTATURA FERMAVETRO "1F14072"
GLASS BEADING "1F14072" BUTTING

1F28010



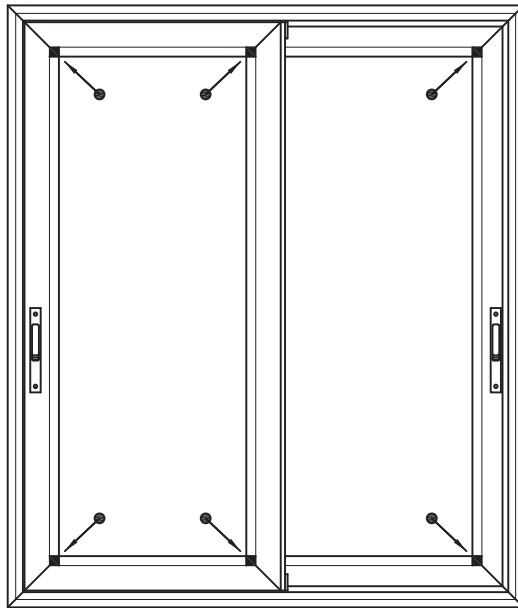
INTESTATURA FERMAVETRO "1F14073"
GLASS BEADING "1F14073" BUTTING

Attrezzatura: GRUPPO FRESE
 Tooling: MILLING CUTTER GROUP

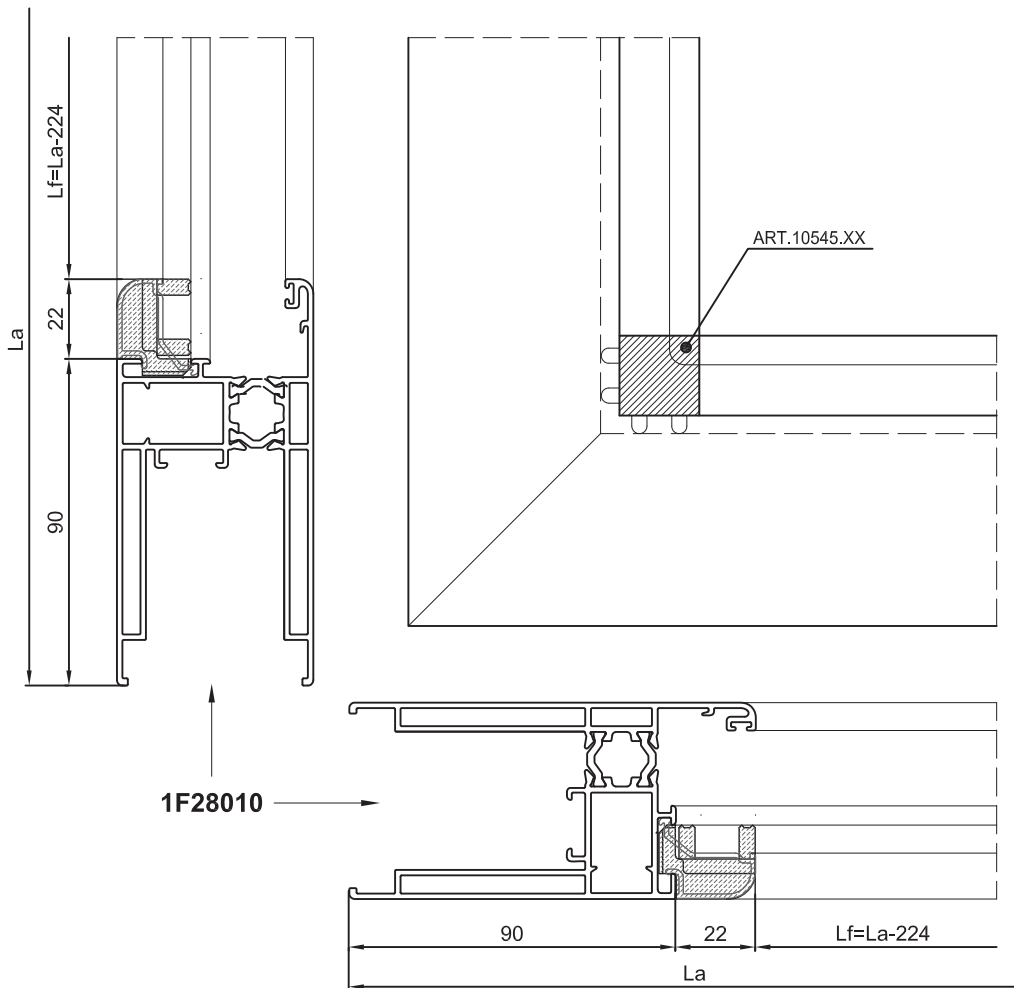


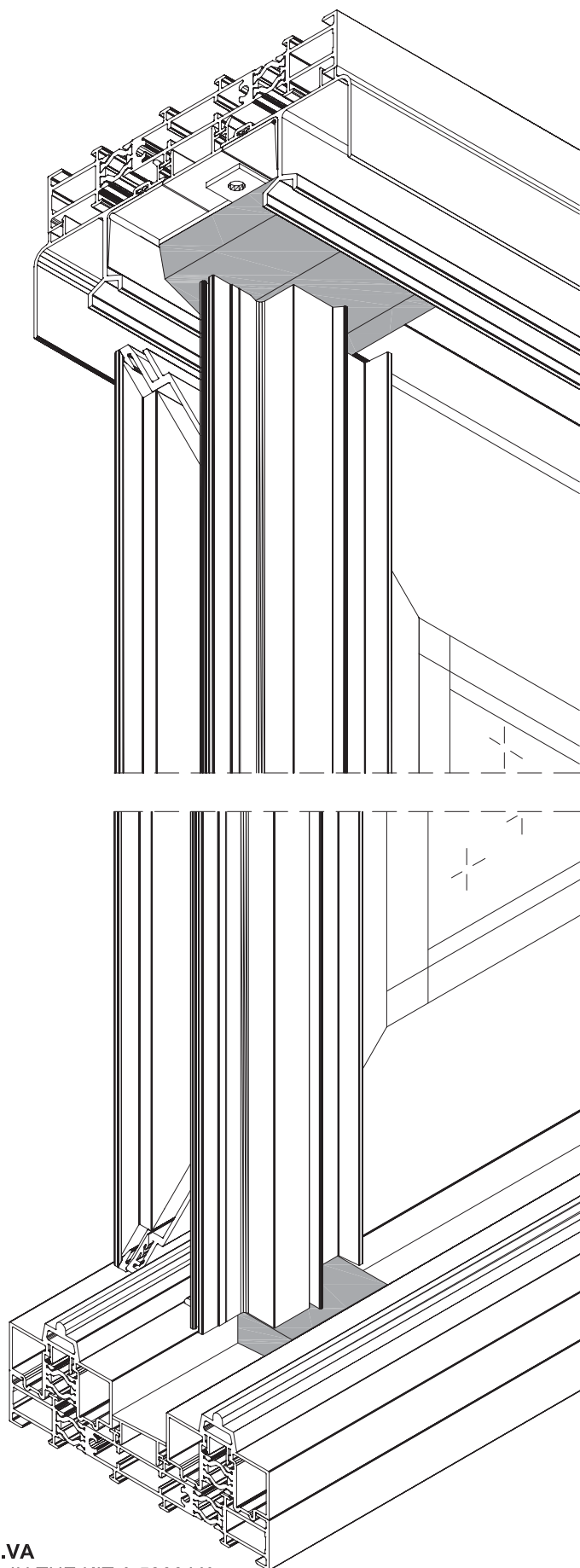
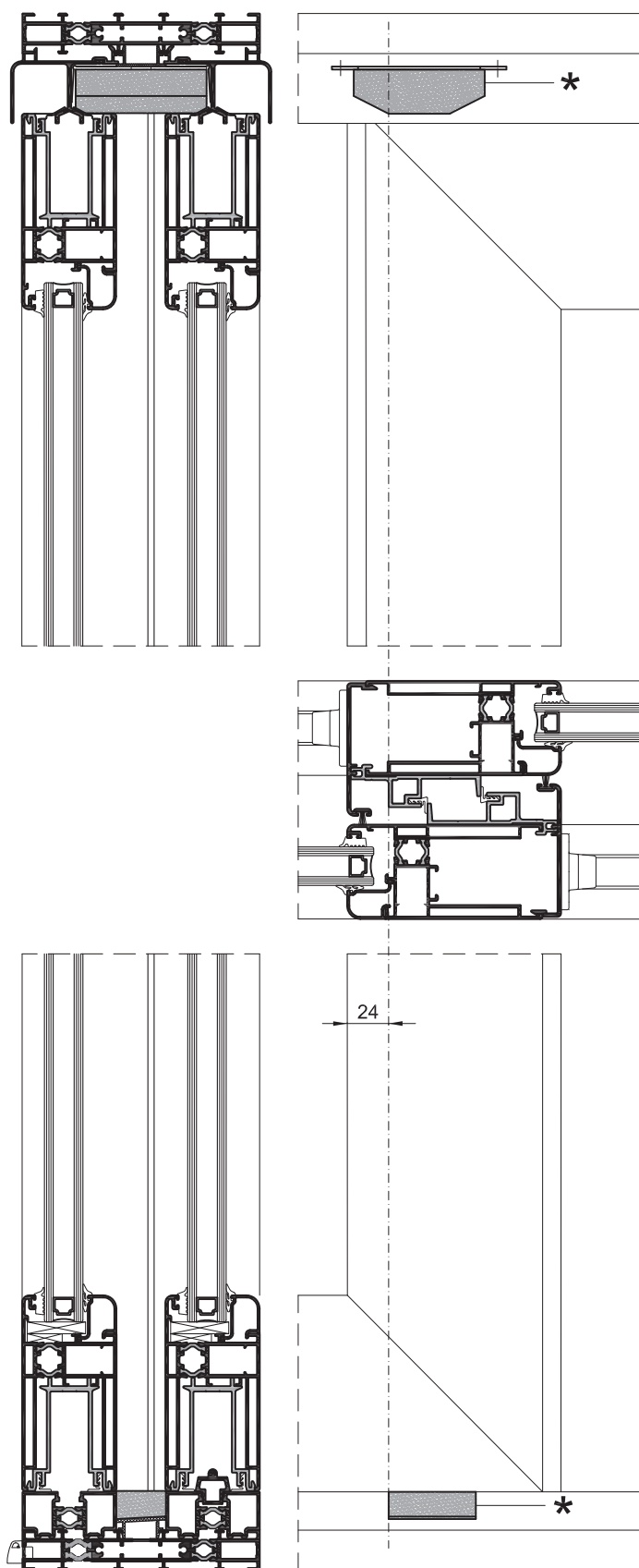
Attrezzatura: GRUPPO FRESE
 Tooling: MILLING CUTTER GROUP

APPLICAZIONE ANGOLO STAMPATO PER FERMAVETRI ARROTONDATI A SCATTO
MOULDED CORNER FOR SNAP-ON ROUNDED GLASS BEADING APPLICATION



Angolo stampato per fermavetri arrotondati anta 1F28010
Moulded for snap-on rounded glass beading wing 1F28010
● ART.10545.XX

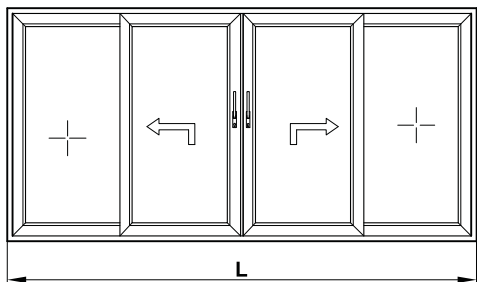




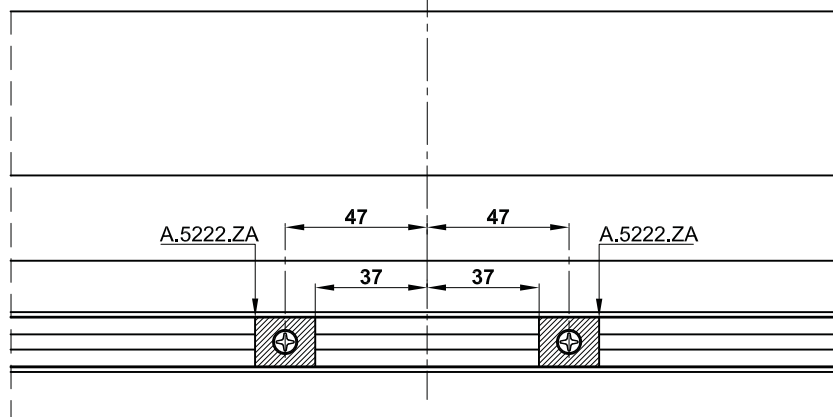
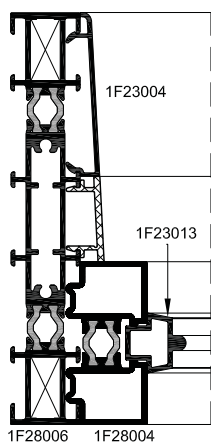
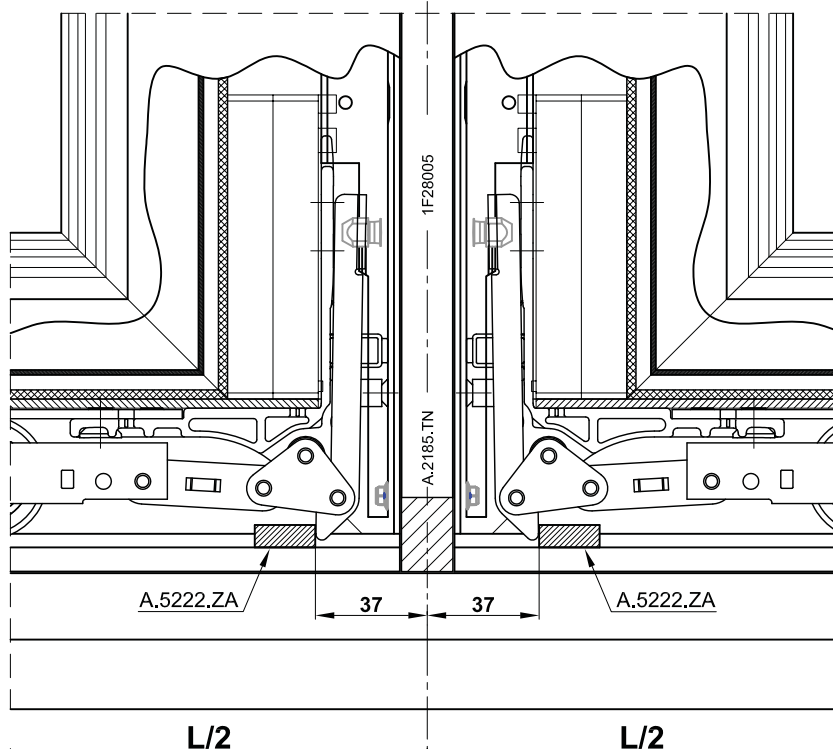
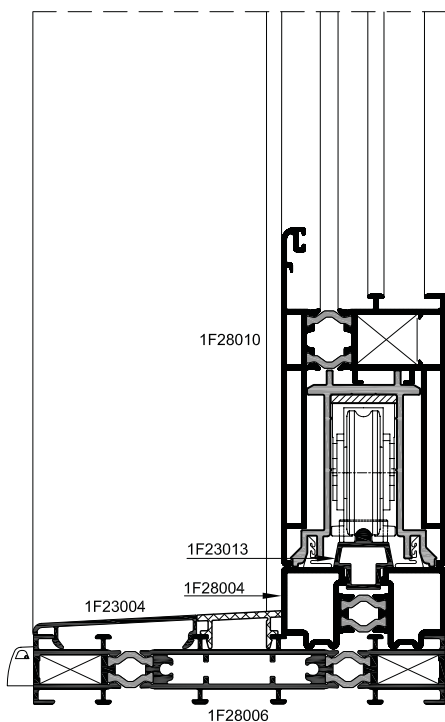
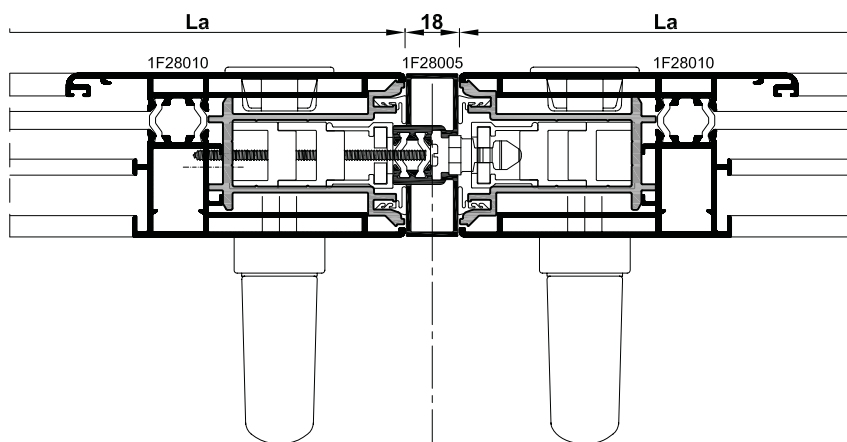
* I TAPPI DI TENUTA SONO COMPRESI NEL KIT BASE A.5200.VA
THE UPPER AND LOWER PLUGS AIR-TIGHT ARE INCLUDED IN THE KIT A.5200.VA

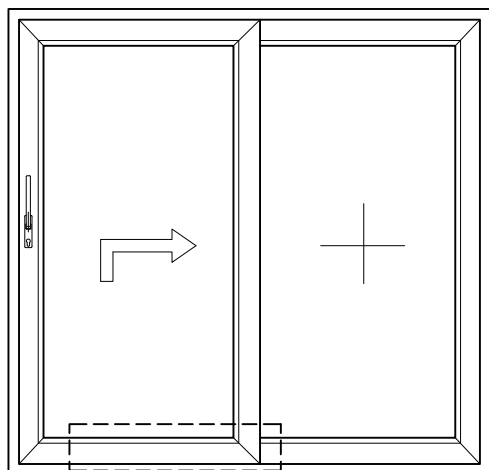
ACCESSORIO DELIMITATORE DI APERTURA PER 4 ANTE A.5222.ZA
OPENING DELIMITING ACCESSORY FOR 4 WING A.5222.ZA

WIN 140sa^{TT}
 SYSTEM



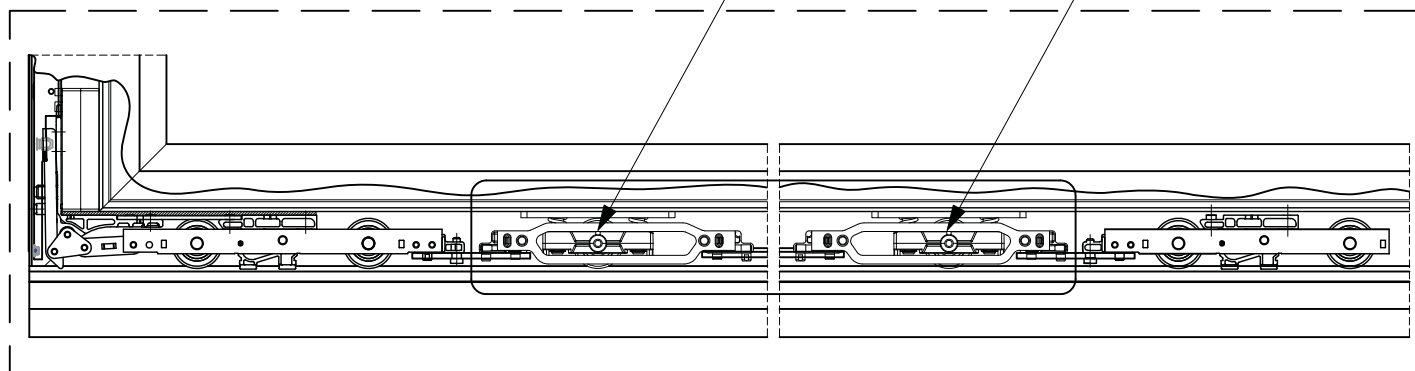
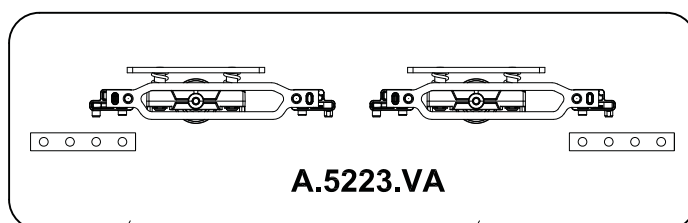
A.5222.ZA





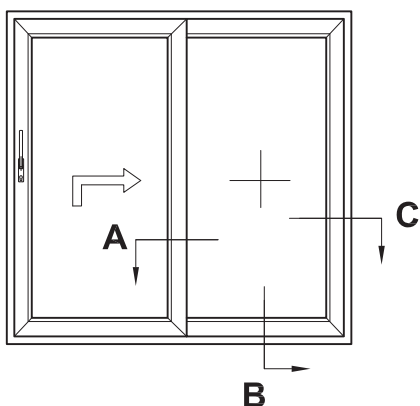
Kit A.5223.VA da utilizzare in aggiunta al Kit base A.5200.VA, per aumentare il peso dell' anta sino a 400 Kg.

Kit A.5223.VA to be used in addition to the standard kit A.5200.VA, to increase the weight of the wing up to 400 Kg.

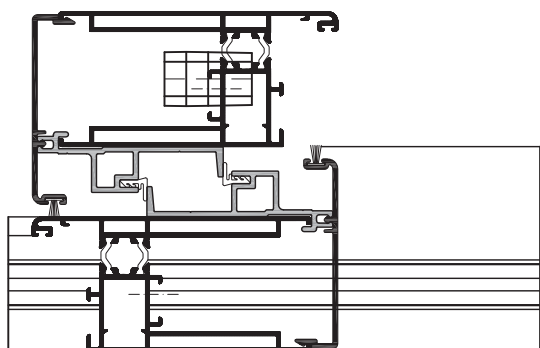


Asta di collegamento
 Linking bar

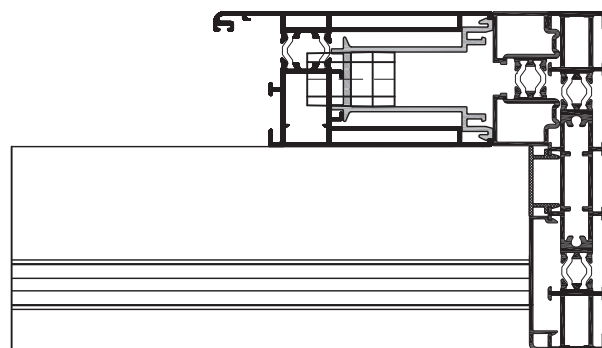
A.5201.KA	Lanta= 1200-1770	130mm (min 80mm)
A.5202.KA	Lanta= 1700-2275	130mm (min 80mm)
A.5203.KA	Lanta= 2200-2780	130mm (min 80mm)
A.5204.KA	Lanta = 2705-3280	130mm (min 80mm)
A.5205.KA	Lanta= 3210-3385	130mm (min 80mm)



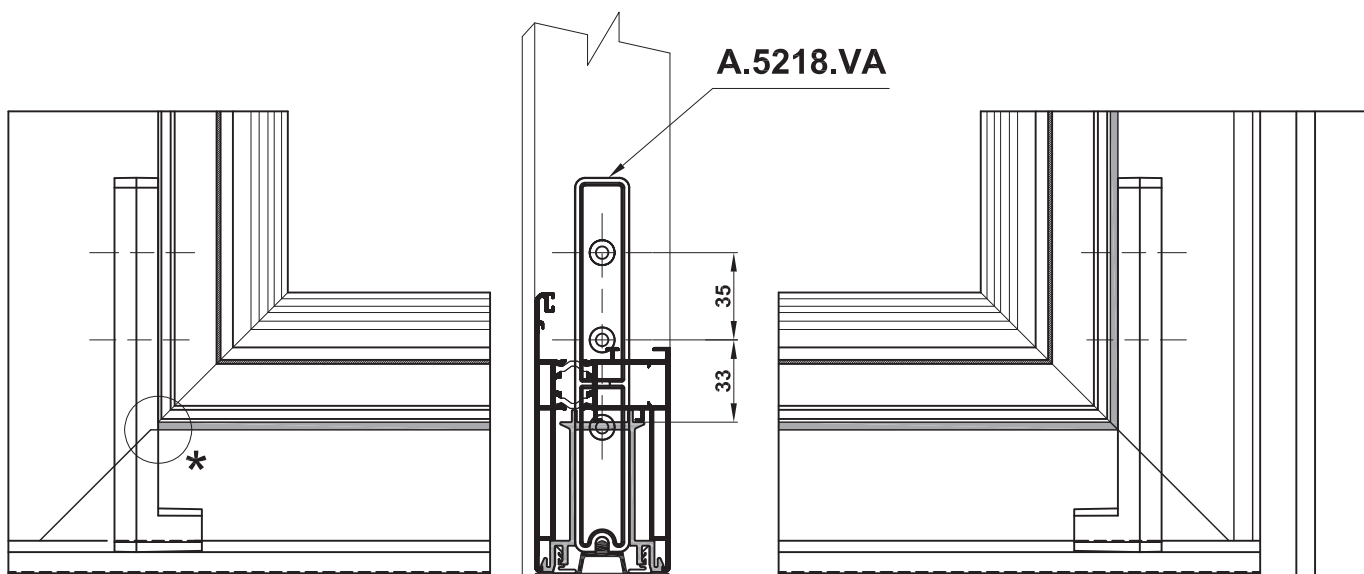
SEZ A-A



SEZ C-C



SEZ B-B



* TAGLIARE LA GUARNIZIONE G.0309.QN IN CORRISPONDENZA DELLA TUBULARITA' DEL PROFILATO 1F28010
CUT G.0309.QN IN CORRESPONDENCE OF THE 1F28010 PROFILE'S TUBULARITY

Sapa sviluppa, produce e commercializza in tutto il mondo profili a valore aggiunto. Sapa si avvale di oltre 13.000 dipendenti e centri di produzione in 30 paesi che collaborano per soddisfare tutte le esigenze dei clienti dei mercati più disparati.

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