

Saphir

Edition 3th quarter 2006

FX-FXi

Saphir

FX-FXi

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Care and maintenance

■ Profiles

Aluminium is an excellent material, nonetheless certain precautions should be taken to ensure maximum longevity. TECHNAL products should be periodically maintained and their use should be in accordance with specified aims.

ADAL (association for the development of anodized and painted aluminium) recommendations should be followed.

When the environment contains no aggressive elements, as is generally the case in rural or low-density urban areas, cleaning should generally be carried out annually, but with frequency variations according to environmental conditions. Regularly maintained surfaces can be sponge-washed using water and neutral detergent. This may be carried out at the same time as window cleaning.

Do not use abrasive products.

■ Glass

Cleaning should be carried out using water only or with neutral detergents. Avoid the use of tools likely to scratch the glass. During maintenance, care should be taken to avoid damage leading to tearing of SSG silicone sealant bonding or weathering barriers. Some special glazing requires specific maintenance which should be specified by the glass supplier.

■ Drainage

The various rebates, gutters, and rails should be kept clean and free from obstructions to ensure proper movement of leaves and drainage of water ingress. Drainage, guttering and pressure balancing openings should also be kept clean and free from obstruction.

■ Ventilation

Air inlets on joinery or façades should be cleaned with great regularity. Maintenance consists chiefly of removing dust and ensuring vents are kept free from obstructions. Satisfactory building hygrometry is directly related to proper maintenance of these air inlets.

■ Hardware

Moving parts should be checked, adjusted, and lubricated at least once a year. Particular attention should be paid to screw tightening. In the case of intensive use, maintenance should be suitably scheduled to ensure joinery remains in good condition and meets safety standards.

All non-plastic mechanisms should be lubricated with oil or resin- and acid-free grease. Any damaged parts should be replaced.

Casement windows: (tilt-and-turn, in-opening, top-hung, horizontal-pivot and vertical-pivot windows). All hinge hardware moving parts (except braking systems) and locking points should be lubricated.

FX product overview

Product overview

OUTER FRAME

- 2-chamber 52 mm module profiles
- Mitre-cut assembly using self-locating crimp or pin corner cleats to join cut sections
- Flush rebate bracket
- Infill volumes identical to opening lights from 5 – 35 mm.
- Marine quality EPDM wraparound gaskets with reduced flashing
- Square or rounded mitre-cut glazing beads
- Drainage concealed in outer frame groove
- Concealed drainage option for bottom or top fixed light transoms using patented drainage spouts
- Grooveless outer frame option

OPENING FRAME

- 2-chamber, 60 mm module profiles, flush with outside of outer frame for patio doors.
- Mitre-cut assembly using self-locating crimp or pin corner cleats to join cut sections
- Support bracket in external tubing
- Flush rebate bracket
- Infill volumes identical to those for fixed lights from 5 – 35 mm.
- Marine quality EPDM wraparound gaskets with reduced flashing
- Square or rounded mitre-cut glazing beads
- Drainage via concealed oblong apertures
- Aluminium plugs for 2-leaf windows in identical colour to profiles
- Rounded central rebate. Identical window and patio door opening frames.
- Locking patio door opening frame option.

ACCESSORIES

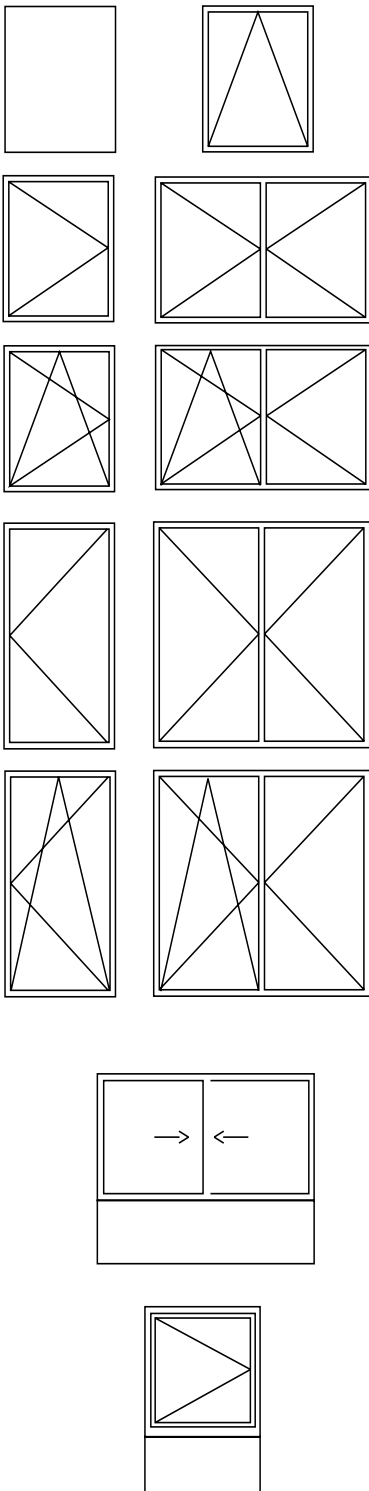
- Aluminium or zamak accessories
- Adjustable aluminium hinges with polyamide bushings and stainless shafts
- Tilt-and-turn hardware for 90kg weight with 130kg option. Identical appearance for tilt-and-turn and in-opening hardware on inside for 2-leaf frames.
- TECHNAL® designed handle and latch
- Stainless screws
- 1- or 3-point locking for patio doors with rods in rebate
- Bottom-hung in-opening handle 'SF' option for tilt-first T/T version
- Square-shaft handle option with embedded espagnolette and 43mm escutcheon

APPLICATIONS

- Fixed frame
- In-opening, 1 and 2-leaf window and patio- door
- Tilt-and-turn 1 and 2-leaf window and patio-door
- Bottom-hung window
- 1 and 2-leaf locking patio door
- 1-leaf window on bottom fixed light composite frame

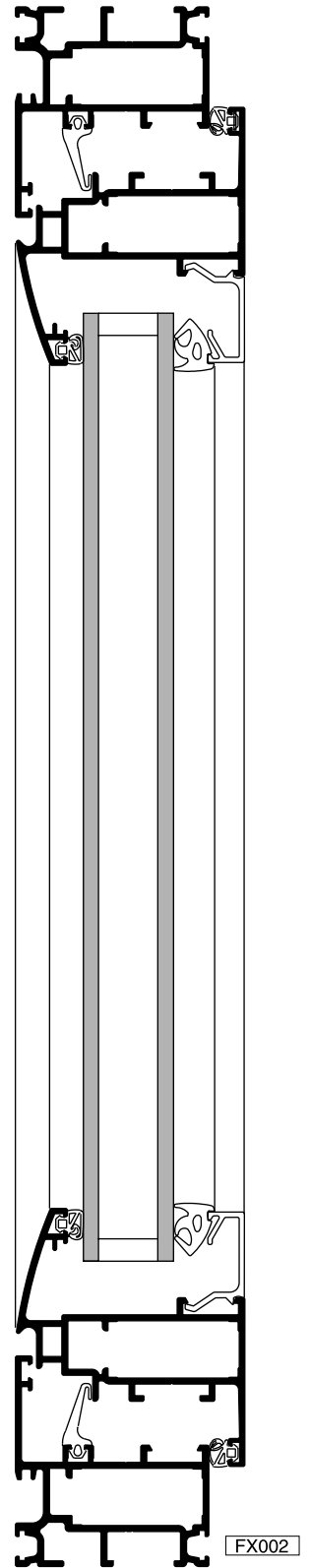
INSTALLATION

- Using jackscrews
- Using fixing lugs

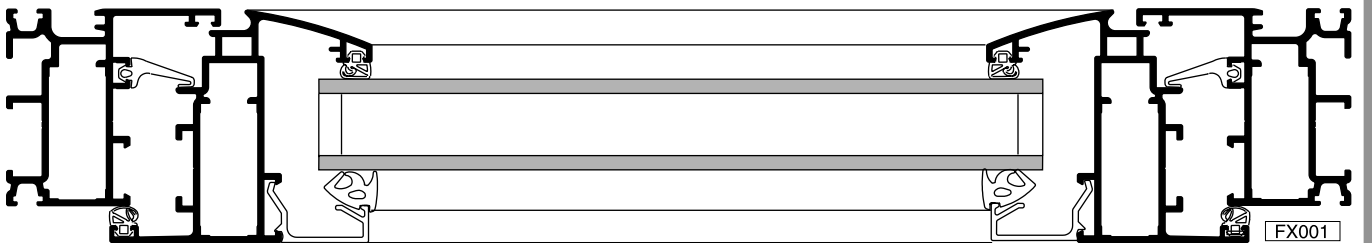




Vertical section scale 1/2



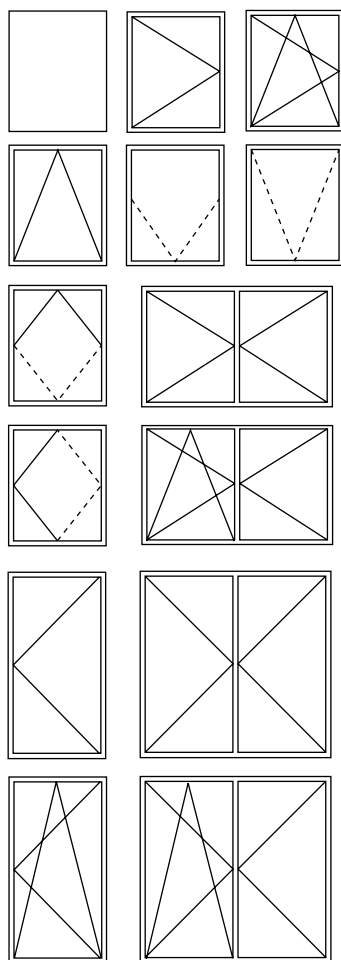
Horizontal section scale 1/2



TECHNAL®

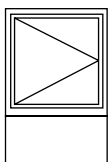
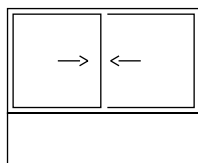
FXi product overview

Product overview



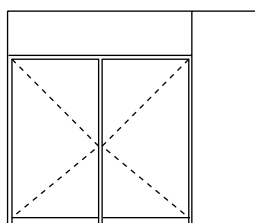
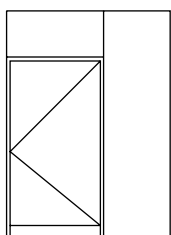
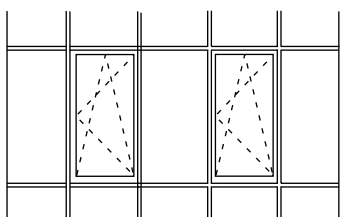
OUTER FRAME

- 3-chamber, thermal-break, 52 mm-module tubular profiles
- Mitre-cut assembly using self-locating crimp or pin corner cleats to join cut sections
- Flush rebate bracket
- Infill volumes identical to those for fixed lights from 14 – 35 mm.
- Marine quality EPDM wraparound gaskets with reduced flashing
- Square or rounded mitre-cut glazing beads
- Drainage via oblong apertures protected by storm deflectors
- Drainage concealed in outer frame groove.
- **Options:**
 - Drainage concealed in top or bottom fixed light transom using patented drainage spouts
 - Subframe outer frame
 - Outer frame with integrated architrave
 - Grooveless outer frame



OPENING FRAME

- 3-chamber, thermal-break, 60 mm-module tubular profiles flush with outer frame on outside
- Mitre-cut assembly using self-locating crimp or pin corner cleats to join cut sections
- Support bracket in external tubing
- Flush rebate bracket
- Infill volumes identical to opening lights from 14 – 35 mm.
- Marine quality EPDM wraparound gaskets with reduced flashing
- Square or rounded mitre-cut glazing beads
- Drainage via concealed oblong apertures
- Aluminium plugs for 2-leaf windows in identical colour to profiles
- Rounded central rebate. Identical window and patio door opening frames.



ACCESSORIES

- Aluminium or zamak accessories
- Adjustable aluminium hinges with polyamide bushings and stainless shafts
- Tilt-and-turn hardware for 90kg weight with 130kg option. Identical appearance for tilt-and-turn and in-opening hardware on inside for 2-leaf frames.
- TECHNAL® designed handle and latch
- Stainless screws
- 1- or 3-point locking for patio doors with rods in rebate
- Bottom-hung in-opening handle 'SF' option for tilt-first T/T version
- Square-shaft handle option with embedded espagnolette and 43mm escutcheon

APPLICATIONS

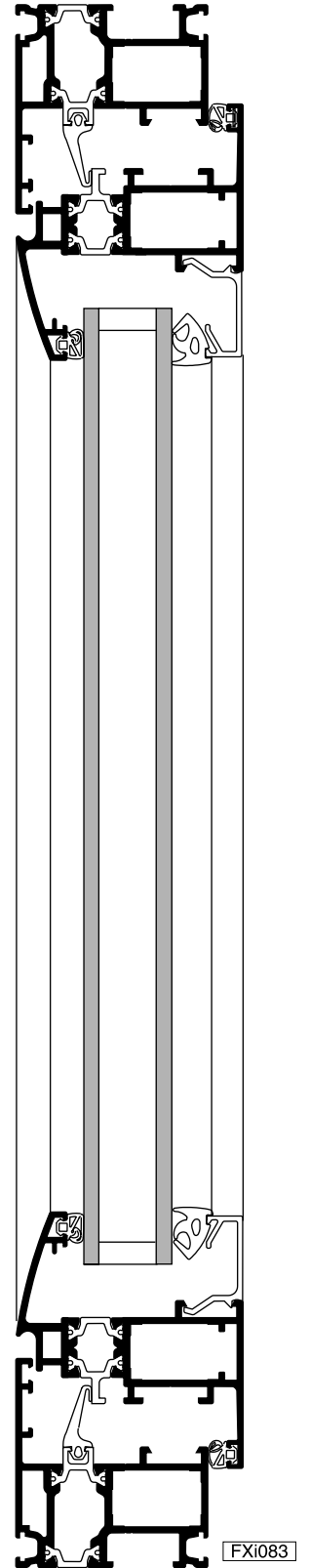
- Fixed frame
- In-opening, 1 and 2-leaf window and patio-door
- Tilt-and-turn 1 and 2-leaf window and patio-door
- Bottom-hung window
- Horizontal-pivot window
- Vertical-pivot window
- Top-hung window
- Top-hung window on butt hinges
- 1 and 2-leaf locking patio door
- ECLAT version window and patio-door
- 1 leaf window on bottom fixed light composite frame
- FXi composites
- GXi series sliding frame composites
- PXi series integration
- MX series integration

INSTALLATION

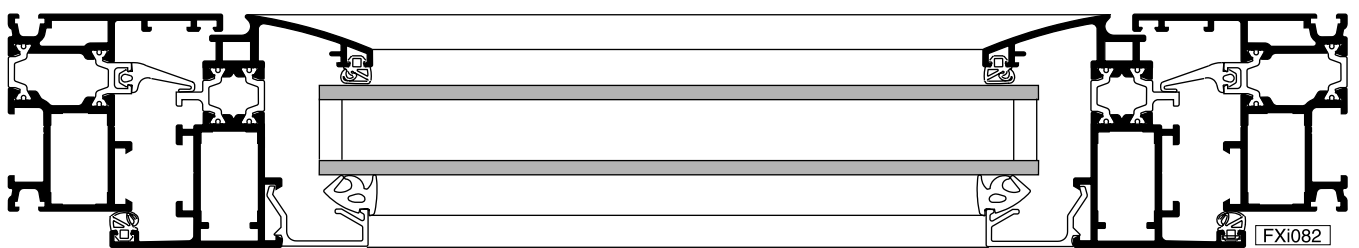
- Using jackscrews
- Using fixing lugs specially designed to avoid thermal bridges
- Flashing for additional 80-160 mm linings
- Outer frame with integrated subframe for 100 mm lining
- Single-piece inside sill for 100 – 120 mm offset sill installation



Vertical section scale 1/2



Horizontal section scale 1/2



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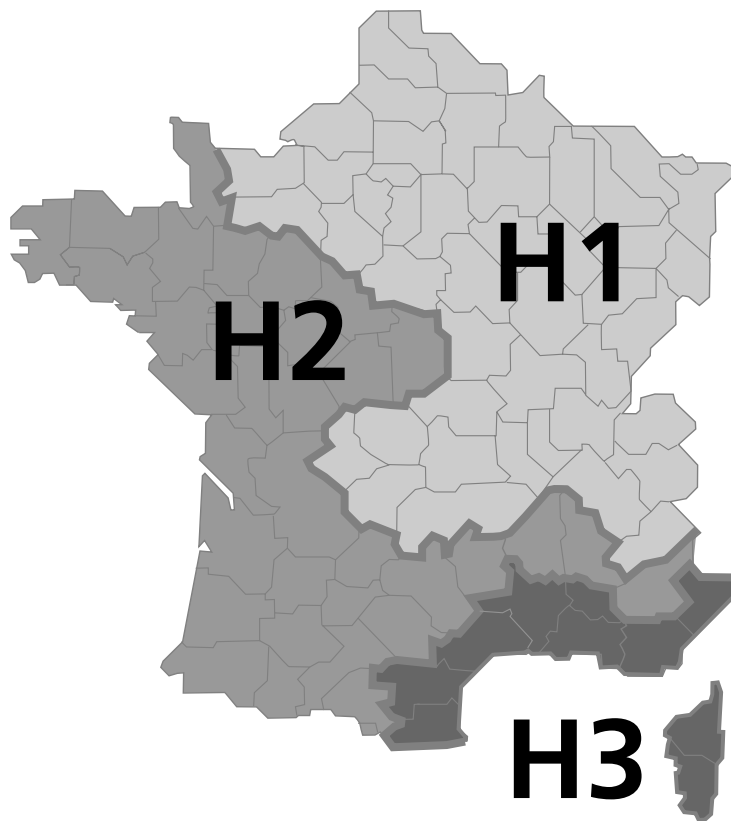
FXi performance

Thermal performance

■ Regulation

New building and renovations with planning permission		Zone H1 - H2	Zone H3
		RT2000	RT2000
Reference values for window only	Uw	2.4	2.6
Reference values for window with shutter	Ujn	2.0	2.3
Maximum authorised values	Uw	2.9	
Maximum authorised values with compensation (walls, floors, roofing)	Uw Ujn	Acceptable thermal performance lies between reference values and 2.9	

*Uw and Ujn values certified by the CSTB:
study EWT/HTO 2001-388
+ mesure iFT 2003-402
23458/2*



■ Shutter values

ΔR-values by shutter type according to ThU 2000 (EN 13125)	ΔR m².K/W
- Accordion-type shutter, adjustable-louver shutter including all-metal external venetian blinds, swing shutters or fixed-louvred shutters	0.08
- Shutter without louvres in deployed position, aluminium roller shutters	0.14
- PVC roller shutter (thickness < or = 12 mm) - Sliding louvred shutter or PVC swing shutter, wooden swing shutter (thickness < 22mm)	0.19
- Sliding fixed-louvred PVC shutter and wooden swing shutter (thickness > 22 mm) - PVC roller shutter (thickness > 12mm)	0.25
- ref V303 40 mm PVC roller louver blind - ref V302 60 mm PVC roller louver blind	0.22 0.26

FXi performance

Thermal performance

■ Glass values

Glass	U-values according to glazing components Vertical glazing – certified emissivity according to ThU 2000 (EN 673)						Glazing solar factors		
	emissivity	AIR or ARGON airspace thickness (mm)	Glazing U- value with AIR airspace		Glazing Ug-value with 85% ARGON		g		
			Glass thickness		15% AIR airspace		4+4	6+6	
			4+4	4+10	4+4	4+10			
Clear standard	0.89	6	3.3				Clear Climalit Clear Antelio Cool Lite SS108 Clear Planibel Green Planibel Grey Thermobel Stopsol	0.76	0.72
		8	3.1						0.48
		10	2.9						0.12
		12	2.8						0.78
		14	2.8						0.75
		16	2.7						0.54
Sunergy (Glaverbel)	0.28	6	2.8	2.8	2.5	2.5	Clear Sunergy Green Sunergy Azure Sunergy	0.54	0.52
		8	2.5	2.5	2.2	2.2			0.33
		10	2.3	2.3	2.1	2.1			0.36
		12	2.2	2.2	2.0	1.9			
		14	2.1	2.0	1.9	1.8			
		16	2.0	2.0	1.8	1.8			
K Glass (Pilkington) Planibel K Glass (Glaverbel)	0.16	6	2.7	2.6	2.3	2.3	K Glass Planibel K Glass	0.72	0.69
		8	2.3	2.3	2.0	2.0			0.71
		10	2.1	2.1	1.8	1.8			
		12	1.9	1.9	1.7	1.7			
		14	1.8	1.8	1.6	1.6			
		16	1.7	1.7	1.5	1.5			
Luxguard low e 1.1 Luxguard low e 1.3	0.10	6	2.6	2.5	2.2	2.2	Luxguard low e 1.1 Luxguard low e 1.3	0.65	
		8	2.2	2.2	1.9	1.9			
		10	2.0	2.0	1.7	1.7			
		12	1.8	1.8	1.5	1.5			
		14	1.7	1.6	1.4	1.4			
		16	1.6	1.6	1.4	1.4			
Planibel Plus (Glaverbel)	0.09	6	2.6	2.5	2.2	2.1	Planibel Plus	0.67	0.65
		8	2.2	2.2	1.9	1.8			
		10	2.0	1.9	1.6	1.6			
		12	1.8	1.8	1.5	1.5			
		14	1.6	1.6	1.4	1.4			
		16	1.6	1.5	1.3	1.3			
Planitherm Futur N (SGG) Planibel Top N Thermo Plus Energy (Glaverbel)	0.05	6	2.5	2.5	2.1	2.1	Planitherm Futur N Planibel Top N Thermo Plus Energy	0.63	0.60
		8	2.1	2.1	1.8	1.7			0.62
		10	1.9	1.9	1.5	1.5			0.39
		12	1.7	1.7	1.4	1.4			
		14	1.5	1.5	1.2	1.2			
		16	1.4	1.4	1.2	1.2			
Optitherm SN (Pikington) i Plus S (Interpane) i Plus colourless 52/29 i Plus blue 40/23	0.04 certified	8	2.1	2.1	1.7	1.7	Optitherm i Plus S i Plus colourless 52/29 i Plus blue 40/23	0.63	
		10	1.8	1.8	1.5	1.5			0.43
		12	1.6	1.6	1.3	1.3			0.32
		14	1.5	1.5	1.2	1.2			0.32
		16	1.4	1.4	1.2	1.2			0.26
		18	1.4	1.4	1.2	1.2			0.26
i Plus SE (Interpane) i Plus sun I Plus neutre 73/39 Planistar (SGG) Planitherm ultra N (SGG)	0.03 certified	12					i Plus SE i Plus sun i Plus neutre 73/39 Planistar Planitherm ultra N	0.54	
		14	1.5	1.4	1.2	1.2			0.42
		16	1.4	1.4	1.1	1.1			0.41
		18	1.4	1.4	1.2	1.1			0.60
i Plus colourless 50/25 - 68/34 i Plus natura 67/34	0.02 certifié	14	1.4	1.4	1.1	1.1	I Plus colourless 50/25 i Plus colourless 68/34 I Plus nature 67/34	0.28	0.28
		16	1.3	1.3	1.1	1.1			0.38
		18	1.3	1.3	1.1	1.1			0.38
		20	1.4	1.3	1.1	1.1			0.38

list given for example purposes, other glass available

list given for example purposes, other glass available

FXi performance

Thermal performance

■ Values for 1-leaf and 2-leaf windows

	Uw value of glass unit centre pane (W/m².K)	Uw value of window only (W/m².K)	Ujn (W/m².K) for complementary thermal resistance ΔR (m².K/W) of: (see table of shutter types)			
			0.08	0.14	0.19	0.25
1-leaf window W = 1.25 m H = 1.48 m With HF008 outer frame + HF001 opening frame	1.1	1.8	1.7	1.6	1.6	1.5
	1.2	1.9	1.8	1.7	1.6	1.6
	1.3	1.9	1.8	1.7	1.6	1.6
	1.4	2.0	1.9	1.9	1.8	1.7
	1.5	2.1	1.9	1.9	1.8	1.7
	1.6	2.1	1.9	1.9	1.8	1.7
	1.7	2.2	2.0	1.9	1.9	1.8
	1.8	2.3	2.1	2.0	2.0	1.9
	1.9	2.3	2.1	2.0	2.0	1.9
	2.0	2.4	2.2	2.1	2.0	2.0
	2.1	2.5	2.3	2.2	2.1	2.0
	2.2	2.6	2.4	2.3	2.2	2.1
	2.3	2.6	2.4	2.3	2.2	2.1
	2.4	2.7	2.5	2.3	2.2	2.2
2.5	2.8	2.5	2.4	2.3	2.2	
2.6	2.8	2.5	2.4	2.3	2.2	
2.7	2.9	2.6	2.5	2.4	2.3	
2-leaf window W = 1.45 m H = 1.48 m With HF008 outer frame + HF001 opening frame + HF001 mullion	1.1	2.1	1.9	1.9	1.8	1.7
	1.2	2.1	1.9	1.9	1.8	1.7
	1.3	2.2	2.0	1.9	1.9	1.8
	1.4	2.2	2.0	1.9	1.9	1.8
	1.5	2.3	2.1	2.0	2.0	1.9
	1.6	2.4	2.2	2.1	2.0	2.0
	1.7	2.4	2.2	2.1	2.0	2.0
	1.8	2.5	2.3	2.2	2.1	2.0
	1.9	2.5	2.3	2.2	2.1	2.0
	2.0	2.6	2.4	2.3	2.2	2.1
	2.1	2.7	2.5	2.3	2.2	2.2
	2.2	2.7	2.5	2.3	2.2	2.2
	2.3	2.8	2.5	2.4	2.3	2.2
	2.4	2.8	2.5	2.4	2.3	2.2
2.5	2.9	2.6	2.5	2.4	2.3	
2.6	2.9	2.6	2.5	2.4	2.3	
2.7	3.0	2.7	2.6	2.5	2.4	
RT2000: maximum value of door and window pane-only Uw coefficients is 2.9 for new buildings.						

max. glass thickness 35 mm (55 mm with rebate widener ref 2100)

Sw glazing solar factor (including any solar protection)	Sw solar factor winter		Sw solar factor summer	
	Default value α according to joinery colour			
	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue
1-leaf window - W = 1.25 m x H = 1.48 m				
0.1	0.08	0.09	0.09	0.12
0.2	0.14	0.16	0.15	0.18
0.3	0.21	0.23	0.22	0.25
0.4	0.28	0.29	0.28	0.31
0.5	0.34	0.36	0.35	0.38
0.6	0.41	0.43	0.42	0.45
0.7	0.48	0.49	0.48	0.51
0.8	0.54	0.56	0.55	0.58
2-leaf window - W = 1.45 m x H = 1.48 m				
0.1	0.07	0.10	0.09	0.12
0.2	0.13	0.16	0.15	0.18
0.3	0.19	0.22	0.21	0.24
0.4	0.25	0.28	0.27	0.30
0.5	0.31	0.34	0.33	0.36
0.6	0.38	0.40	0.39	0.42
0.7	0.44	0.46	0.45	0.48
0.8	0.50	0.52	0.51	0.54

FXi performance

Thermal performance

■ Values for ECLAT
1-leaf and 2-leaf
windows

	Uw value of glass unit centre pane (W/m ² .K)	Uw value of window only (W/m ² .K)	Ujn (W/m ² .K) for complementary thermal resistance ΔR (m ² .K/W) of: (see table of shutter types)			
			0.08	0.14	0.19	0.25
2-leaf ECLAT window W = 1.45 m H = 1.48 m With HF008 outer frame + HF001 opening frame + FF001 + FF002 central mullion	1.1	< 2.0	1.9	1.8	1.7	1.7
	1.2	2.0	1.9	1.8	1.7	1.7
	1.3	2.1	1.9	1.9	1.8	1.7
	1.4	2.2	2.0	1.9	1.9	1.8
	1.5	2.2	2.0	1.9	1.9	1.8
	1.6	2.3	2.1	2.0	2.0	1.9
	1.7	2.3	2.1	2.0	2.0	1.9
	1.8	2.4	2.2	2.1	2.0	2.0
	1.9	2.5	2.3	2.2	2.1	2.0
	2.0	2.5	2.3	2.2	2.1	2.0
	2.1	2.6	2.4	2.3	2.2	2.1
	2.2	2.6	2.4	2.3	2.2	2.1
	2.3	2.7	2.5	2.3	2.2	2.2
	2.4	2.8	2.5	2.4	2.3	2.2
2.5	2.8	2.5	2.4	2.3	2.2	
2.6	2.9	2.6	2.5	2.4	2.3	
2.7	2.9	2.6	2.5	2.4	2.3	
2-leaf ECLAT window W = 145 m H = 2.18 m With HF008 outer frame + HF001 opening frame + FF001 + FF002 central mullion	1.1	1.9	1.8	1.7	1.6	1.6
	1.2	< 2.0	1.9	1.8	1.7	1.7
	1.3	2.0	1.9	1.8	1.7	1.7
	1.4	2.1	1.9	1.9	1.8	1.7
	1.5	2.1	1.9	1.9	1.8	1.7
	1.6	2.2	2.0	1.9	1.9	1.8
	1.7	2.3	2.1	2.0	2.0	1.9
	1.8	2.3	2.1	2.0	2.0	1.9
	1.9	2.4	2.2	2.1	2.0	2.0
	2.0	2.5	2.3	2.2	2.1	2.0
	2.1	2.5	2.3	2.2	2.1	2.0
	2.2	2.6	2.4	2.3	2.2	2.1
	2.3	2.7	2.5	2.3	2.2	2.2
	2.4	2.7	2.5	2.3	2.2	2.2
2.5	2.8	2.5	2.4	2.3	2.2	
2.6	2.9	2.6	2.5	2.4	2.3	
2.7	2.9	2.6	2.5	2.4	2.4	

RT2000: maximum value of door and window pane-only Uw coefficients is 2.9 for new buildings.

Sw glazing solar factor (including any solar protection)	Default value α according to joinery colour			
	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue
2-leaf ECLAT window - W = 1.45 m x H = 1.48 m				
0.1	0.08	0.10	0.09	0.12
0.2	0.14	0.16	0.15	0.18
0.3	0.20	0.22	0.21	0.24
0.4	0.26	0.28	0.27	0.31
0.5	0.32	0.34	0.33	0.37
0.6	0.38	0.40	0.39	0.43
0.7	0.45	0.47	0.46	0.49
0.8	0.51	0.53	0.52	0.55
2-leaf ECLAT patio-door - W = 145 m x H = 2.18 m				
0.1	0.08	0.10	0.09	0.12
0.2	0.14	0.16	0.15	0.18
0.3	0.21	0.22	0.22	0.25
0.4	0.27	0.29	0.28	0.31
0.5	0.34	0.35	0.34	0.38
0.6	0.40	0.42	0.41	0.44
0.7	0.46	0.48	0.47	0.51
0.8	0.53	0.55	0.54	0.57

FXi performance Thermal performance

■ Values for 1-leaf patio-door and 2-leaf patio-door

	Uw value of glass unit centre pane (W/m².K)	Uw value of window only (W/m².K)	Ujn (W/m².K) for complementary thermal resistance ΔR (m².K/W) of: (see table of shutter types)			
			0.08	0.14	0.19	0.25
1-leaf window W = 1.25 m H = 1.48 m With HF008 outer frame + HF001 opening frame	1.1	1.7	1.6	1.5	1.5	1.4
	1.2	1.8	1.7	1.6	1.6	1.5
	1.3	1.9	1.8	1.7	1.6	1.6
	1.4	1.9	1.8	1.7	1.6	1.6
	1.5	2.0	1.9	1.8	1.7	1.7
	1.6	2.1	1.9	1.9	1.8	1.7
	1.7	2.1	1.9	1.9	1.8	1.7
	1.8	2.2	2.0	1.9	1.9	1.8
	1.9	2.3	2.1	2.0	2.0	1.9
	2.0	2.4	2.2	2.1	2.0	2.0
	2.1	2.4	2.2	2.1	2.0	2.0
	2.2	2.5	2.3	2.2	2.1	2.0
	2.3	2.6	2.4	2.3	2.2	2.1
	2.4	2.7	2.5	2.3	2.2	2.2
2.5	2.7	2.5	2.3	2.2	2.2	
2.6	2.8	2.5	2.4	2.3	2.2	
2.7	2.9	2.6	2.5	2.4	2.3	
2-leaf window W = 1.45 m H = 1.48 m With HF008 outer frame + HF001 opening frame + HF001 central mullion	1.1	< 2.0	1.9	1.8	1.7	1.7
	1.2	2.0	1.9	1.8	1.7	1.7
	1.3	2.1	1.9	1.9	1.8	1.7
	1.4	2.2	2.0	1.9	1.9	1.8
	1.5	2.2	2.0	1.9	1.9	1.8
	1.6	2.3	2.1	2.0	2.0	1.9
	1.7	2.3	2.1	2.0	2.0	1.9
	1.8	2.4	2.2	2.1	2.0	2.0
	1.9	2.5	2.3	2.2	2.1	2.0
	2.0	2.5	2.3	2.2	2.1	2.0
	2.1	2.6	2.4	2.3	2.2	2.1
	2.2	2.7	2.5	2.3	2.2	2.2
	2.3	2.7	2.5	2.3	2.2	2.2
	2.4	2.8	2.5	2.4	2.3	2.2
2.5	2.9	2.6	2.5	2.4	2.3	
2.6	2.9	2.6	2.5	2.4	2.3	
2.7	3.0	2.7	2.6	2.5	2.4	

RT2000: maximum value of door and window pane-only Uw coefficients is 2.9 for new buildings.

max. glass thickness 35 mm (55 mm with rebate widener ref 2100)

Sw glazing solar factor (including any solar protection)	Sw solar factor winter		Sw solar factor summer	
	Default value α according to joinery colour			
	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue
1-leaf window - W = 1.25 m x H = 2.18 m				
0.1	0.08	0.09	0.09	0.11
0.2	0.15	0.16	0.16	0.18
0.3	0.22	0.23	0.23	0.25
0.4	0.29	0.30	0.29	0.32
0.5	0.36	0.37	0.36	0.39
0.6	0.43	0.44	0.43	0.46
0.7	0.50	0.51	0.50	0.53
0.8	0.57	0.58	0.57	0.60
2-leaf window - W = 1.45 m x H = 2.18 m				
0.1	0.08	0.10	0.09	0.12
0.2	0.14	0.16	0.15	0.18
0.3	0.20	0.22	0.21	0.25
0.4	0.26	0.28	0.27	0.31
0.5	0.33	0.35	0.34	0.37
0.6	0.39	0.41	0.40	0.43
0.7	0.45	0.47	0.46	0.50
0.8	0.52	0.54	0.53	0.56

FXi performance

Thermal performance

■ Values for fixed frame and 1-leaf horizontal pivot window

	Uw value of glass unit centre pane (W/m ² .K)	Uw value of window only (W/m ² .K)	Ujn (W/m ² .K) for complementary thermal resistance ΔR (m ² .K/W) of: (see table of shutter types)			
			0.08	0.14	0.19	0.25
Fixed frame W = 1.25 m H = 1.48 m with HF008 outer frame	1.1	1.7	1.6	1.5	1.5	1.5
	1.2	1.8	1.7	1.6	1.6	1.5
	1.3	1.8	1.7	1.6	1.6	1.5
	1.4	1.9	1.8	1.7	1.6	1.6
	1.5	< 2.0	1.9	1.8	1.7	1.7
	1.6	2.1	1.9	1.9	1.8	1.7
	1.7	2.2	2.0	1.9	1.9	1.8
	1.8	2.2	2.0	1.9	1.9	1.8
	1.9	2.3	2.1	2.0	2.0	1.9
	2.0	2.4	2.2	2.1	2.0	2.0
	2.1	2.5	2.3	2.2	2.1	2.0
	2.2	2.5	2.3	2.2	2.1	2.0
	2.3	2.6	2.4	2.3	2.2	2.1
	2.4	2.7	2.5	2.3	2.2	2.2
2.5	2.8	2.5	2.4	2.3	2.2	
2.6	2.9	2.6	2.5	2.4	2.3	
2.7	2.9	2.6	2.5	2.4	2.3	
1-leaf horizontal pivot window W = 1.25 m H = 1.48 m with HF008 outer frame + inverter FF042 + HF028 opening frame	1.1	2.2	2.0	1.9	1.9	1.8
	1.2	2.2	2.0	1.9	1.9	1.8
	1.3	2.3	2.1	2.0	2.0	1.9
	1.4	2.4	2.2	2.1	2.0	2.0
	1.5	2.5	2.3	2.2	2.1	2.0
	1.6	2.5	2.3	2.2	2.1	2.0
	1.7	2.6	2.4	2.3	2.2	2.1
	1.8	2.7	2.5	2.3	2.2	2.2
	1.9	2.8	2.5	2.4	2.3	2.2
	2.0	2.8	2.5	2.4	2.3	2.2
	2.1	2.9	2.6	2.5	2.4	2.3
	2.2	3.0	2.7	2.6	2.5	2.4
	2.3	3.1	2.8	2.6	2.5	2.4
	2.4	3.1	2.8	2.6	2.5	2.4
2.5	3.2	2.9	2.7	2.6	2.5	
2.6	3.3	3.0	2.8	2.7	2.6	
2.7	3.4	3.0	2.9	2.7	2.6	
RT2000: maximum value of door and window pane-only Uw coefficients is 2.9 for new buildings.						

max. glass thickness 35 mm (55 mm with rebate widener ref 2100)

Sw glazing solar factor (including any solar protection)	Sw solar factor winter		Sw solar factor summer	
	Default value α according to joinery colour			
	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue	0.4 White. yellow. orange. light red	1.0 Black. dark brown. dark blue
Fixe frame - W = 1.25 m x H = 2.18 m				
0.1	0.08	0.10	0.09	0.11
0.2	0.16	0.17	0.16	0.19
0.3	0.23	0.25	0.24	0.26
0.4	0.31	0.32	0.32	0.34
0.5	0.39	0.40	0.39	0.41
0.6	0.46	0.47	0.47	0.49
0.7	0.54	0.55	0.54	0.56
0.8	0.61	0.62	0.62	0.64
1-leaf horizontal pivot window - W = 1.25 m x H = 1.48 m				
0.1	0.09	0.11	0.10	0.14
0.2	0.16	0.19	0.17	0.21
0.3	0.23	0.26	0.25	0.28
0.4	0.31	0.33	0.32	0.36
0.5	0.38	0.41	0.39	0.43
0.6	0.45	0.48	0.46	0.50
0.7	0.53	0.55	0.54	0.58
0.8	0.60	0.62	0.61	0.65

FX performance

Acoustic performance

■ Acoustic performances:

Sound insulation measurements						
Tests carried out according to NF S31 – 051 -ISO 140 and ISO 177 standards						
Frame dimensions H x W (1.48 m x 1.47 m)						
Applications	Glass	Measurement reference	Results			Notes
			RW	RA	RA,tr	
In-opening 2-leaf window	Climalit 4/12/4	625449	33 dB	33 dB	30 dB	
In-opening 2-leaf window	35-20 4/6/10	625450	37 dB	37 dB	34 dB	
In-opening 2-leaf window	38-23 44-1R/6/8	625448	39 dB	39 dB	36 dB	
In-opening 2-leaf window	40-31 44-1R/12/10	625447	41 dB	40 dB	38 dB	
In-opening 2-leaf window	40-31 44-1R/12/10	625617	42 dB	42 dB	39 dB	With JF008 gasket
In-opening 2-leaf window	409A if 44-2S/20/642S	625776	42 dB	42 dB	40 dB	With widener ref 2100 + JF008

Sound insulation measurements						
Tests carried out according to NF S31 – 051 -ISO 140 and ISO 177 standards						
Frame dimensions H x W (1.48 m x 1.23 m)						
Applications	Glass	Measurement reference	Results			Notes
			RW	RA	RA,tr	
T/T	35-20 4/6/10	625444	37 dB	37 dB	35 dB	
T/T	38-23 44-1R/6/8	625445	40 dB	39 dB	37 dB	
T/T	40-31 44-1R/12/10	625443	41 dB	40 dB	38 dB	
T/T	43-40 44-2R/20/642R	625446	42 dB	41 dB	39 dB	with widener ref 2100
T/T	43-40 44-2R/20/642R	625449	44 dB	44 dB	42 dB	With widener ref 2100 + JF008

Estimated values: results to be confirmed by Technical Evaluation Document

Maximum dimensions

Type of application	Opening frame max. H	Opening frame max. W	Opening frame max. weight
In-opening window	1600	1000	(see charts)
In-opening patio door	2150	1000	(see charts)
T/T window	1600	1200	(see charts)
T/T patio door	2150	1200	80 kgs (see charts)
Bottom-hung	800	1200	60 kgs with 2 sash bolts if W > 800
Locking door and patio door	2150	1000	(see charts)

FXi performance

Acoustic and weathering performance

Acoustic performance:

Sound insulation measurements					
Tests carried out according to NF S31 – 051 -ISO 140 and ISO 177 standards					
Frame dimensions H x W (1.48 m x 1.47 m)					
Applications	Glass	Measurement reference	Results		
			RW	RA	RA,tr
In-opening 2-leaf window	Climalit 4/12/4	625389	34 dB	33 dB	30 dB
In-opening 2-leaf window	35-20 4/6/10	625391	37 dB	37 dB	34 dB
In-opening 2-leaf window	38-23 44-1R/6/8	625392	39 dB	39 dB	36 dB
In-opening 2-leaf window	40-31 44-1R/12/10	625390	40 dB	39 dB	38 dB

Sound insulation measurements					
Tests carried out according to NF S31 – 051 -ISO 140 and ISO 177 standards					
Frame dimensions H x W (1.48 m x 1.23 m)					
Applications	Glass	Measurement reference	Results		
			RW	RA	RA,tr
T/T	Climalit 4/12/4	625395	33 dB	32 dB	30 dB
T/T	35-20 4/6/10	625394	37 dB	37 dB	35 dB
T/T	38-23 44-1R/6/8	625396	40 dB	40 dB	38 dB
T/T	38-23 44-1R/6/8	625393	42 dB	41 dB	39 dB
T/T*	Stratophone 66/2-15-10	AC 3999	45 dB	43 dB	41 dB

*Trials carried out with offset glazing bead **FJ189**

Estimated values: results to be confirmed by Technical Evaluation Document

Air-wind-water performance:

Applications	Overall dimensions mm (H x W)	Test reference n°	Classification
1-leaf in-opening window	1210 x 1050	Test CEBTP n°E223.01.013	$A^*_4 E^*_{A9} V^*_{C4}$
Top-hung window	1800 x 1470	Test n°0800-01	$A^*_4 E^*_{1200} V^*_{C4}$
Horizontal pivot window	2190 x 2500	Test n°0800-03	$A^*_4 E^*_{600} V^*_{C3}$
FXi 2-leaf on bottom light	1660 x 2160	Test CEBTP n°E223.01.005	$A^*_4 E^*_{A8} V^*_{C4}$

Maximum dimensions

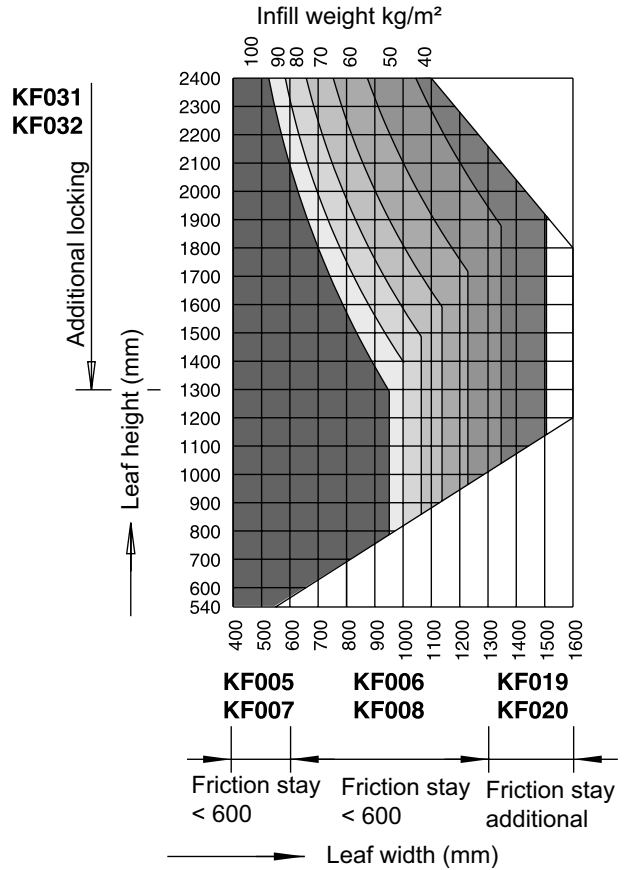
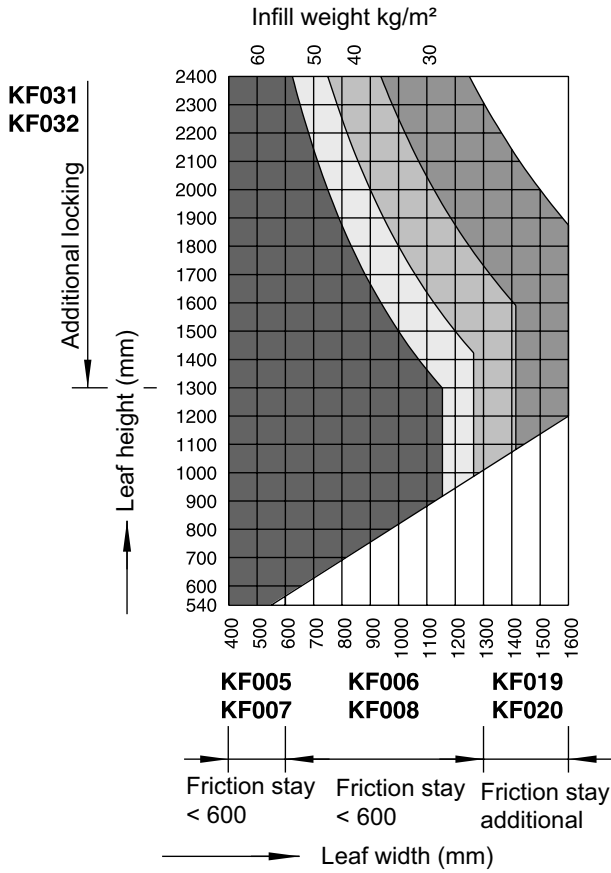
Type	Opening frame max. H	Opening frame max. W	Opening frame max. weight
In-opening window	1600	1000	(see charts)
In-opening patio door	2150	1000	(see charts)
T/T window	1600	1200	80 kgs (see charts)
T/T patio door	2150	1200	80 kgs(see charts)
Bottom-hung	800	1200	60 kgs with 2 sash bolts if W > 800
Small friction stay top-hung	1200	1750	80 kgs
Large friction stay top-hung	2000	1500	120 kgs
Horizontal-pivot	2200	2500	200 kgs
Vertical-pivot	2150	1800	150 kgs
Top-hung butt-hinged	1500	1500	60 kg with 2 hinges 80 kg with 3 hinges or W > 1200
Locking door and patio door	2150	1000	(see charts)

FX - FXi performance

Usage charts for T/T hardware

TECHNAL®

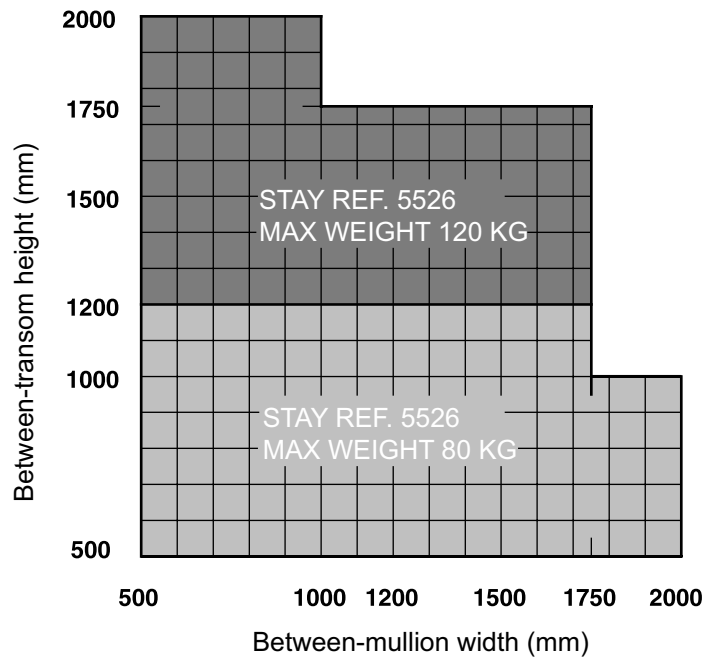
Standard T/T hardware KF001 - KF002 :



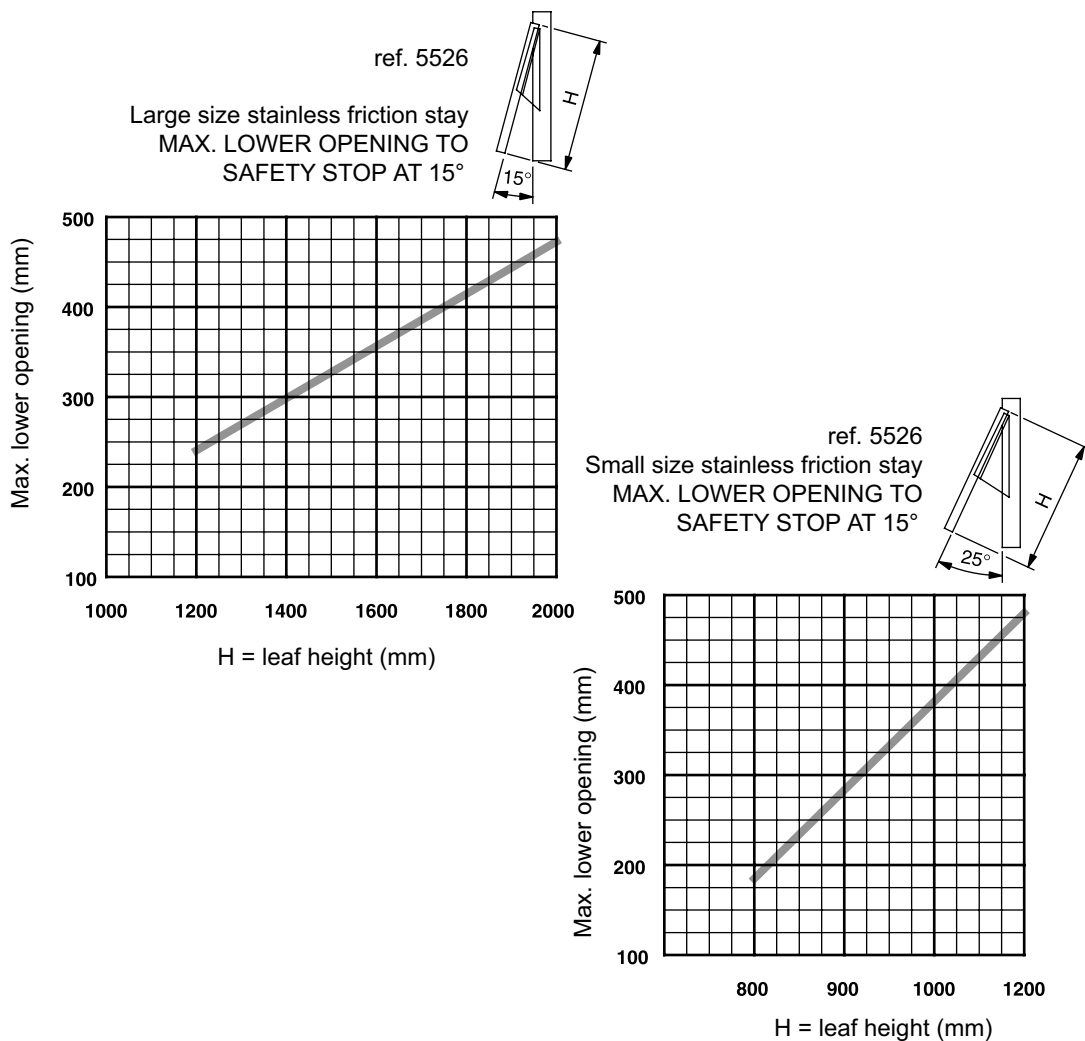
FX- FXi performance

Friction stay selection for top-hung frames

■ Usage limits for friction stays 5526 – 5527

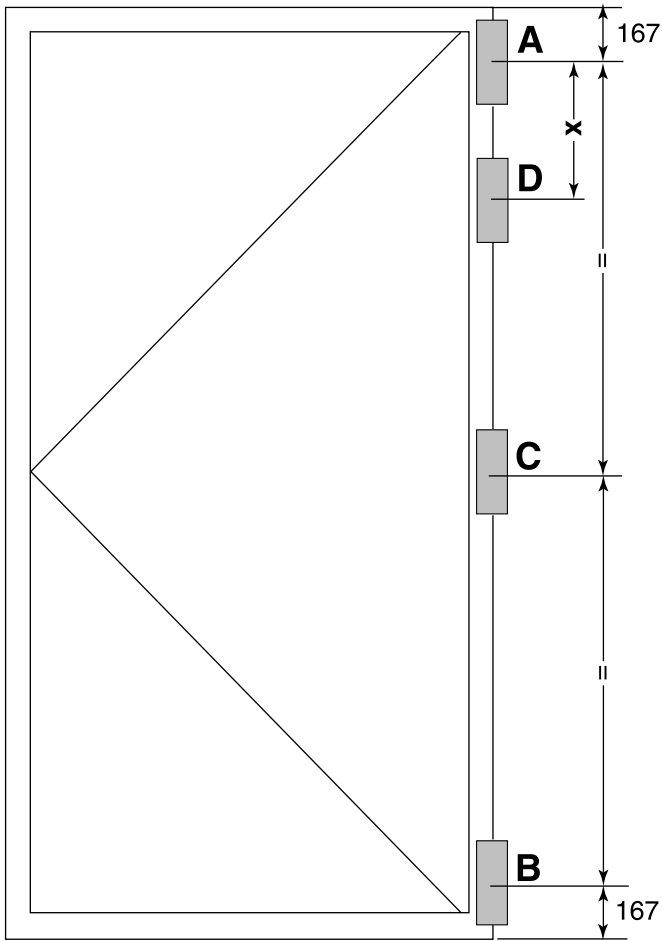


■ Usage charts for friction stays 5526 – 5527



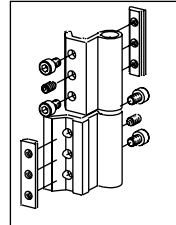
FX - FXi performance

Hinge selection CF019 – CF021

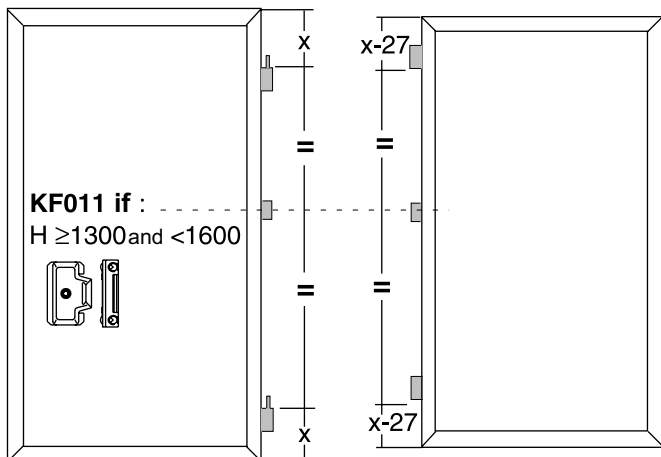
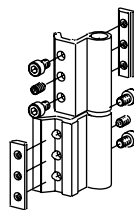
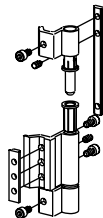
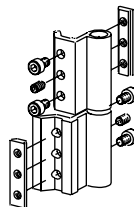
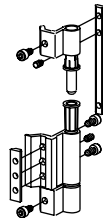
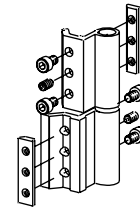
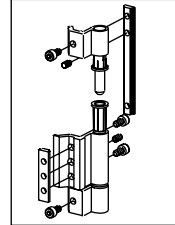


2 hinges : A + B
 3 hinges : A + B + C
 4 hinges : A + B + C + D

2-body hinge
CF019



3-body hinge
CF021



Quantity: 2 or 3 or 4
 2 hinges if
 $1300 \leq H \leq 1300$

3 hinges if $H \geq 1300$

4 hinges if
 $H \geq 1700$

Quantity: 2 or 3 or 4
 2 hinges if
 $1300 \leq H \leq 1300$

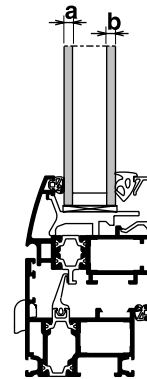
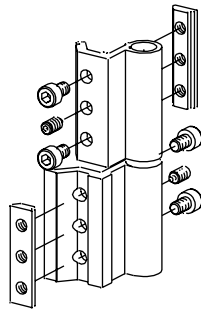
3 hinges if $H \geq 1300$

4 hinges if
 $H \geq 1700$

FX - FXi performance

Glass thickness, usage limits and quantity table

■ 2 body hinge CF019 :



Maximum glass thickness comprising glazing

$$E_p = a + b$$

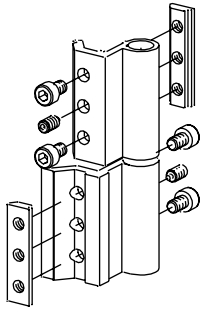
2 hinges
 3 hinges
 4 hinges

Leaf height (mm)	400	500	600	700	800	900	1000	1100	1200
2200	22	22	21	19	17				
2100	22	22	22	20	18	15			
2000	22	22	22	20	18	16	14		
1900	22	22	22	21	19	17	15	12	
1800	22	22	22	22	20	18	16	12	
1700	22	22	22	22	21	19	17	12	
1600	22	22	22	22	22	21	18	10	8
1500	22	22	22	22	22	21	19	10	8
1400	22	22	22	22	22	21	20	10	10
1300	22	22	22	22	22	21	20	10	10
1200	22	22	22	22	22	22	21	15	12
1100	22	22	22	22	22	22	22	14	12
1000	22	22	22	22	22	22	22	13	12
900	22	22	22	22	22	22	20	12	
800	22	22	22	22	22	22	15		
700	22	22	22	22	22	16			
600	22	22	22	22	17				
500	22	22	22	17					
400	22	22	13						

FX - FXi performance

Glass thickness, usage limits and quantity table

■ 3 body hinge CF021 :



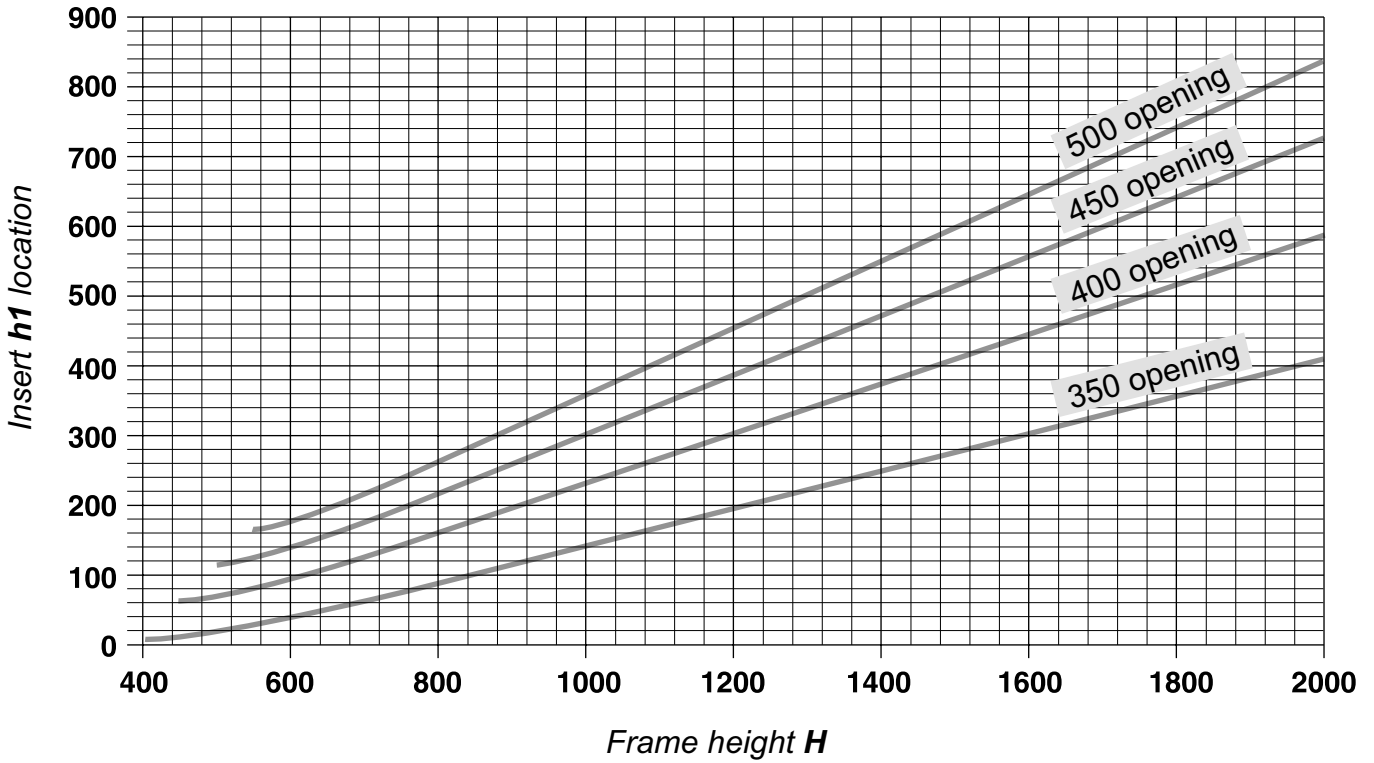
Maximum glass thickness comprising glazing
 $E_p = a + b$

- 2 hinges
- 3 hinges
- 4 hinges

Leaf height (mm)	400	500	600	700	800	900	1000	1100	1200
2200	22	22	22	22	20	15	12	8	8
2100	22	22	22	22	21	17	14	8	8
2000	22	22	22	22	21	19	16	12	10
1900	22	22	22	22	22	20	18	12	12
1800	22	22	22	22	22	21	19	12	12
1700	22	22	22	22	22	21	19	12	12
1600	22	22	22	22	22	21	19	12	12
1500	22	22	22	22	22	22	19	15	14
1400	22	22	22	22	22	22	21	19	14
1300	22	22	22	22	22	22	22	20	14
1200	22	22	22	22	22	22	22	22	14
1100	22	22	22	22	22	22	22	22	14
1000	22	22	22	22	22	22	22	18	14
900	22	22	22	22	22	22	22	14	
800	22	22	22	22	22	22	19		
700	22	22	22	22	22	21			
600	22	22	22	22	22				
500	22	22	22	22					
400	22	22	22	22					

FX - FXi performance Top-hung butt-hinged frame

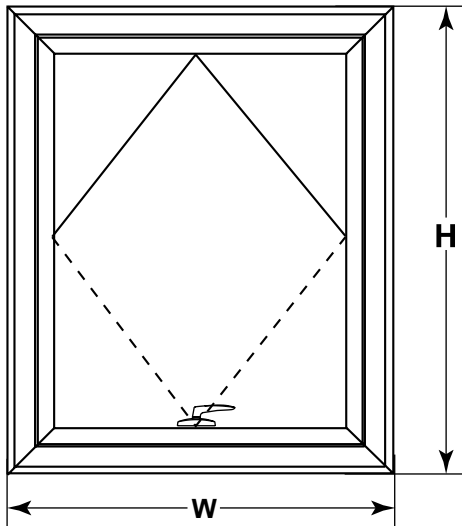
■ Usage charts for friction stay 2298:



Maximum dimensions for horizontal/vertical-pivot frames

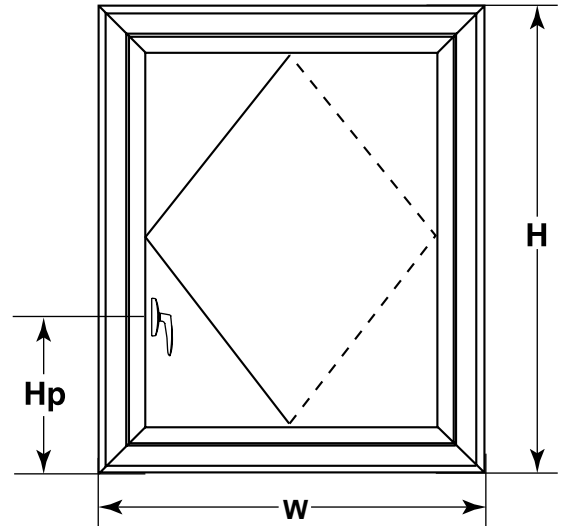
HORIZONTAL-PIVOT

H mini = 900
W mini = 600



VERTICAL-PIVOT



H mini = 600
Min handle height **H_p = 220**
W mini = 900


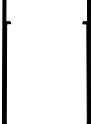



TECHNAL®


FX inertia
Inertia values


TECHNAL®

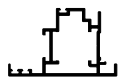
	Ref.	$I_{xx'}$ (cm ⁴)	$I_{yy'}$ (cm ⁴)	$I_{xx'}/v$ (cm ³)	$I_{yy'}/v$ (cm ³)
	FF008	14.37	8.14	4.76	2.21

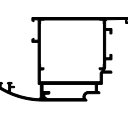
	Ref.	$I_{xx'}$ (cm ⁴)	$I_{yy'}$ (cm ⁴)	$I_{xx'}/v$ (cm ³)	$I_{yy'}/v$ (cm ³)
	FF036	17.34	14.81	4.02	6.31

	FF012	14.45	8.02	2.18	4.79
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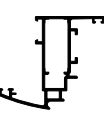
	FF038	0.08	0.19	0.09	0.22
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	FF018	14.17	8.10	4.74	2.20
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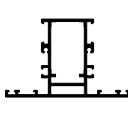
	FF042	9.96	13.24	3.61	3.30
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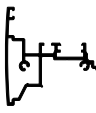
	FF019	33.72	37.42	10.23	7.34
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	FF021	19.16	8.93	6.17	2.48
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	FF023	16.61	15.50	5.10	3.74
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

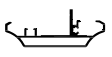
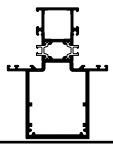
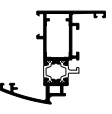
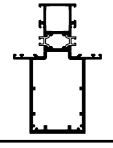
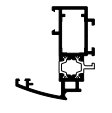
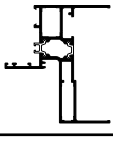
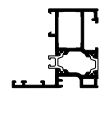
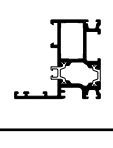
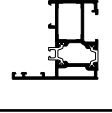
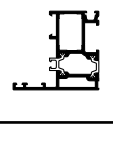
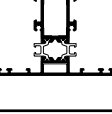
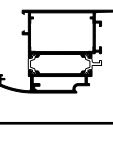
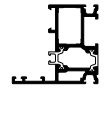
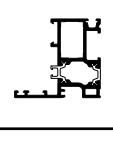
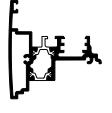

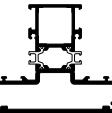
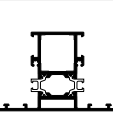
	FF025	9.34	15.29	2.66	3.85
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	FF032	4.29	2.74	2.03	1.53
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	FF035	1.24	5.84	0.68	2.70
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
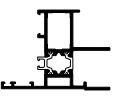
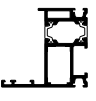
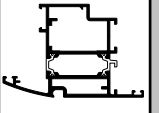
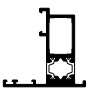

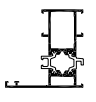
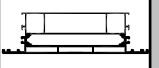
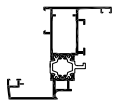
FXi inertia

Inertia values

	Ref.	$I_{xx'}$ (cm ⁴)	$I_{yy'}$ (cm ⁴)	$I_{xx'}/v$ (cm ³)	$I_{yy'}/v$ (cm ³)		Ref.	$I_{xx'}$ (cm ⁴)	$I_{yy'}$ (cm ⁴)	$I_{xx'}/v$ (cm ³)	$I_{yy'}/v$ (cm ³)
	FF058	0.87	8.63	0.51	2.46		HF015	88.30	29.33	14.93	7.08
	HF001	15.91	7	5.03	1.96		HF016	126.73	33.09	19.18	7.99
	HF002	12.85	4.76	3.92	1.43		HF017	53.49	15.63	9.92	3.43
	HF005	11.53	6.52	3.90	1.74		HF018	14.16	8.10	4.83	2.16
	HF006	11.75	6.47	3.95	1.73		HF019	11.70	6.49	3.95	1.73
	HF007	12.06	8.28	3.77	2.18		HF020	27.90	29.65	8.48	5.70
	HF008	11.64	6.45	3.93	1.72		HF021	14.35	8.18	4.87	2.18
	HF011	7.37	12.86	2.54	4.09		HF022	18.24	13.74	6.89	3.06
	HF014	39.71	41.78	8.10	10.09		HF023	16.85	14.68	5.27	3.54

FX inertai

Inertia values

	Ref.	$I_{xx'}$ (cm ⁴)	$I_{yy'}$ (cm ⁴)	$I_{xx'}/v$ (cm ³)	$I_{yy'}/v$ (cm ³)
	HF024	8.73	11.96	2.26	3.74
	HF027	6.71	12.90	1.78	4.62
	HF028	23.61	23.47	4.98	6.28
	HF030	4.46	9.73	1.32	2.88
	HF033	3.13	10.75	1.81	4.05
	HF040	10.68	4.57	3.57	1.33
	HF054	40.11	256.19	13.11	27.55
	HF806	17.96	8.81	5.76	2.51

FX

Applications

■	Fixed frame	P. 27
■	In-opening, 1-leaf window and patio-door	P. 28
■	In-opening, 2-leaf window and patio-door	P. 30
■	T/T, 1-leaf window and patio door	P. 32
■	T/T, 2-leaf window and patio door	P. 34
■	Bottom-hung window	P. 36
■	1-leaf locking patio door	P. 38
■	2-leaf locking patio door	P. 40
■	1-leaf window on bottom fixed light composite frame	P. 42




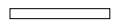
FX applications

Fixed frame



Description with glazing 24 mm

PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
FE026			2 2	W - 65 H - 111
FF018			2 2	W H

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
CF005	Double glazing wedge	4
CF023	Rebate bracket	4
EE005	Self-locating corner cleat 15x35	4

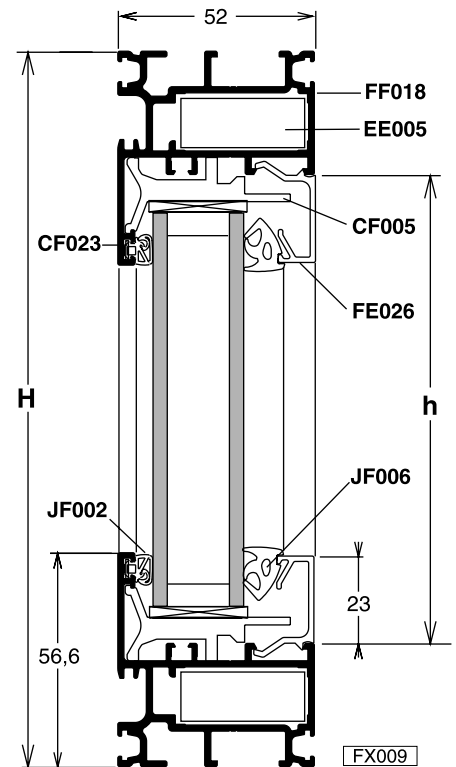
GASKETS

Ref.	Descriptions	Quantity
JF002	Dual function gasket	2W + 2H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

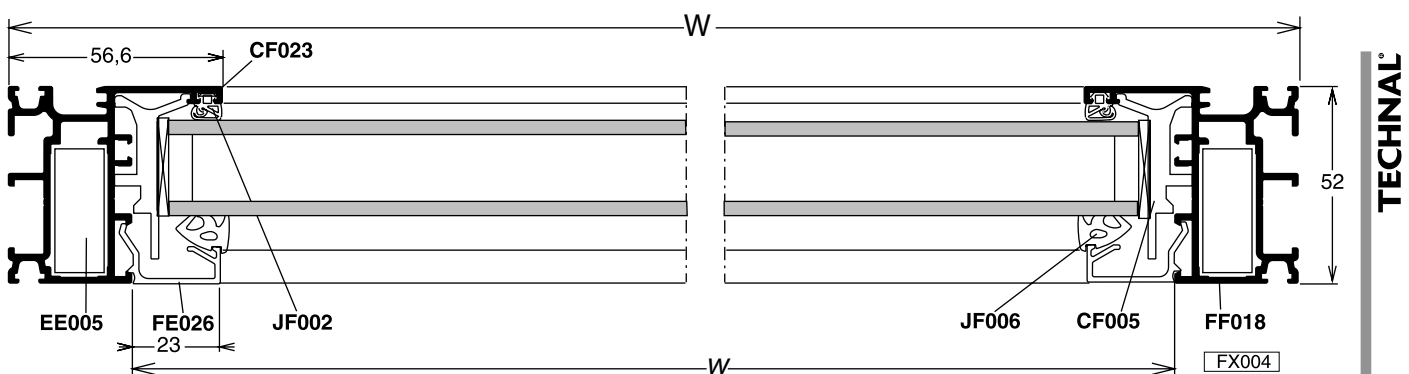
Glazing dimensions

H - 83	W - 83
h - 18	w - 18

Vertical section scale 1/2

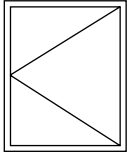


Horizontal section scale 1/2



FX applications

In-opening, 1-leaf window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
CF005	Double glazing wedge	4
CF013	Standard rebate reinforcement	1
CF018	Central gasket corner gasket	2
CF019	Single hinge	2
CF023	Rebate bracket	8
EE005	Self-locating corner cleat 15x35	8
KF012	Closing mechanism with rods	1
KF030	Driver	1
KF037	Espagnolette	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

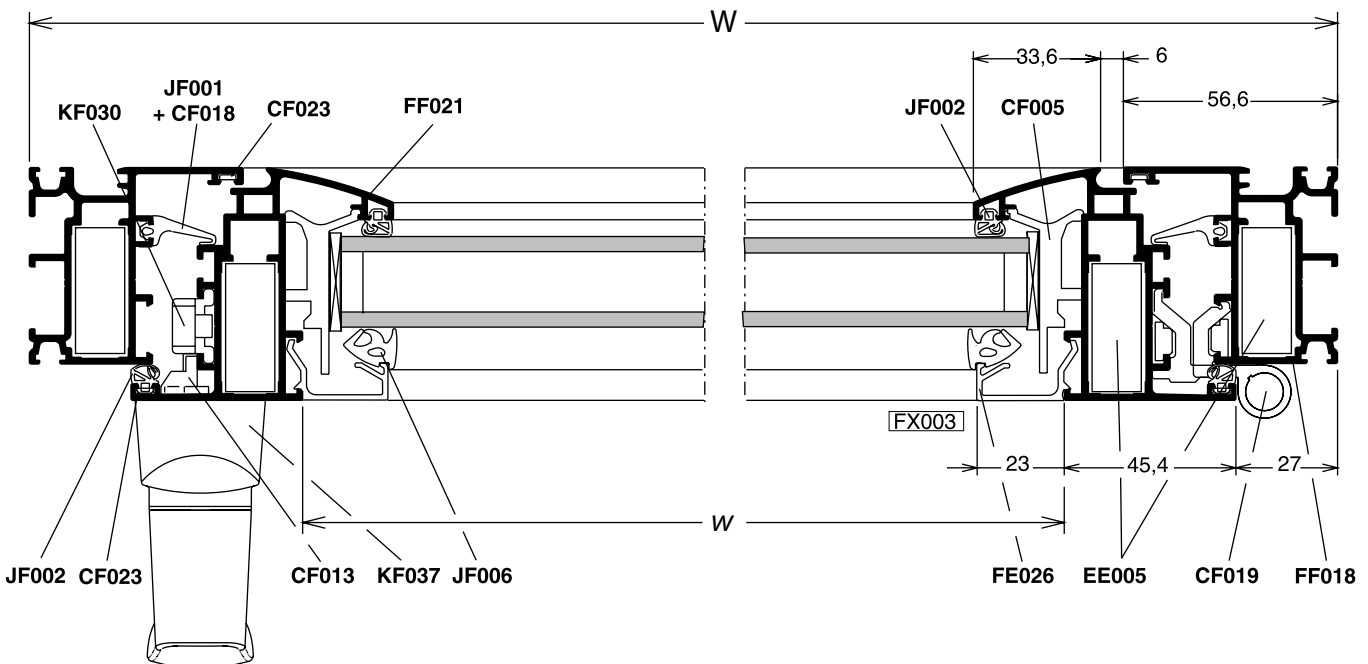
Porte-fenêtre

Ref.	Descriptions	Quantity
CF019	Single hinge	3
KF046	Strike plate	1


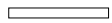

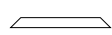

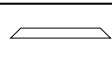

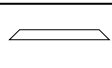
Glazing dimensions

H - 162 W - 162
h - 18 w - 18

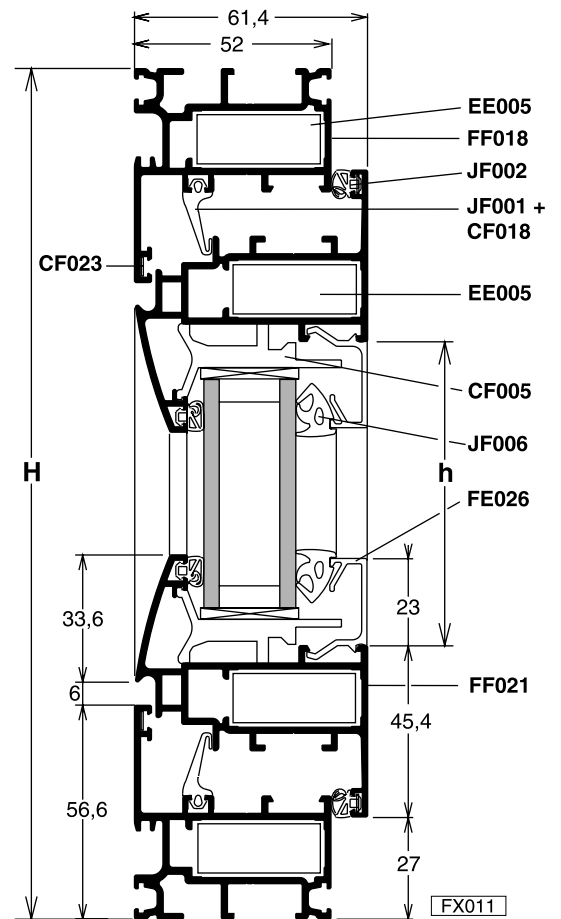
Horizontal section scale 1/2



PROFILES

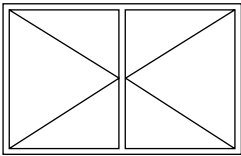
Ref.	Profiles	Sections	Quantity	Dimensions
8015			1	H
FE026			2 2	W - 144 H - 190
FF018			2 2	W H
FF021			2 2	W - 54 H - 54

Vertical section scale 1/2



FX applications

In-opening, 2-leaf window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
8647	Self-drilling screw SR2 4 x 37	3/ml/H
CF005	Double glazing wedge	8
CF007	Flexible plug for central gasket	1
CF009	Supplementary rebate plug	1
CF013	Standard rebate reinforcement	1
CF018	Central gasket corner gasket	2
CF019	Single hinge	4
CF023	Rebate bracket	12
EE005	Self-locating corner cleat 15x35	12
KF012	Closing mechanism with rods	1
KF024	Opening frame support	1
KF030	Driver	1
KF037	Espagnolette	1
VE003	Square headed screw 3.9 x 25	4

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 7H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1 H

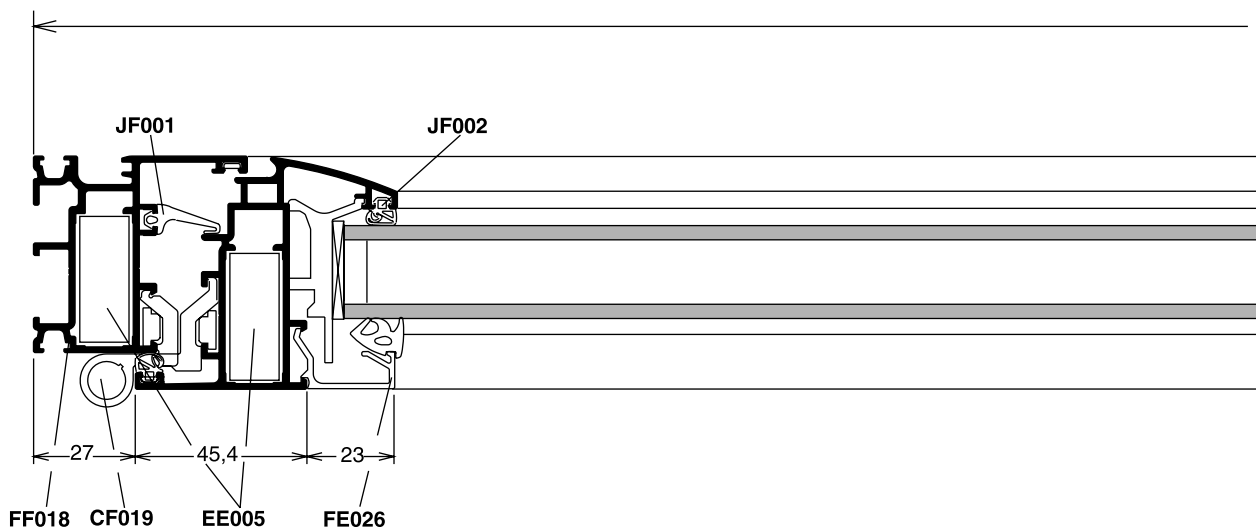
Porte-fenêtre

Ref.	Descriptions	Quantity
CF019	Single hinge	6
KF017	Sash bolt	1
KF046	Strike plate	1

Glazing dimensions

H - 162 W/2 - 138
h - 18 w - 18

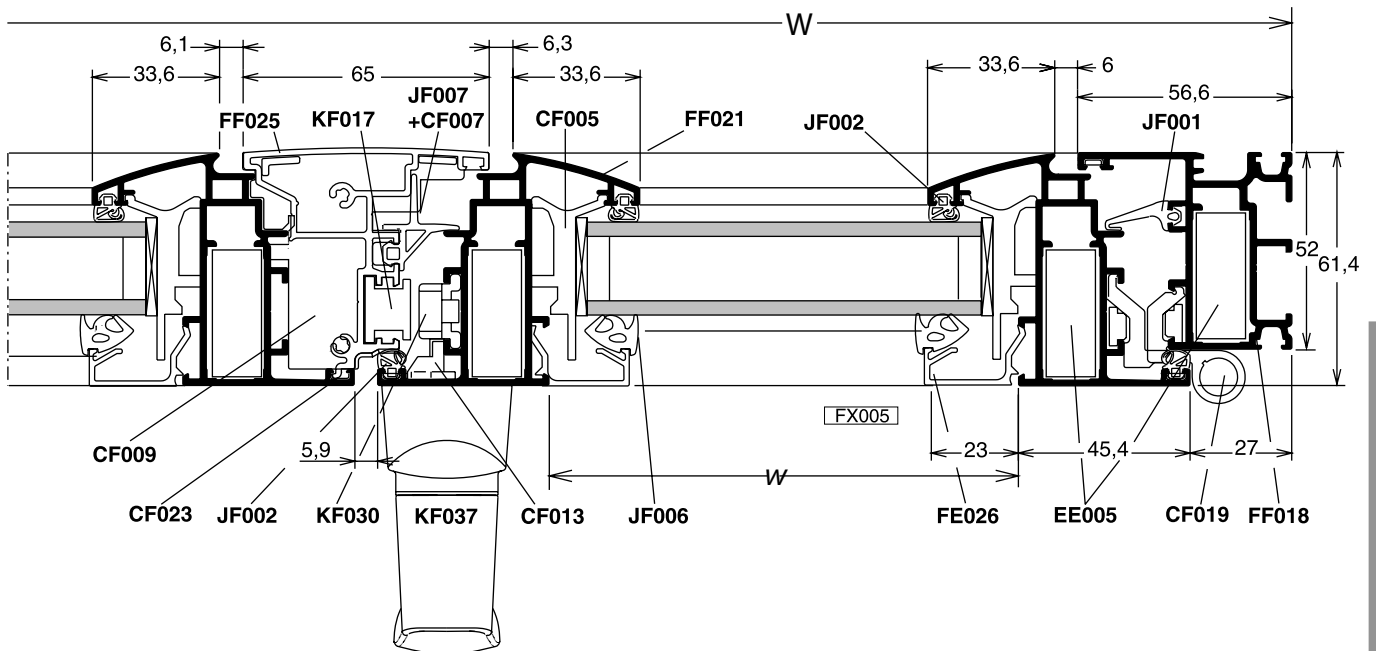
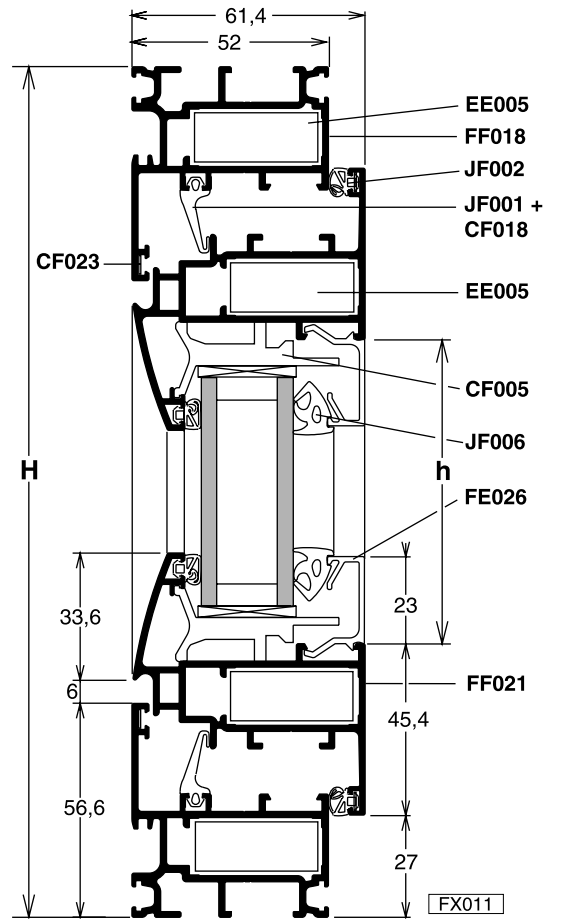
Horizontal section scale 1/2



PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
8015			1	H
FE026			4 4	W/2 - 121 H - 190
FF018			2 2	W H
FF021			4 4	W/2 - 30 H - 54
FF025			1	H - 129

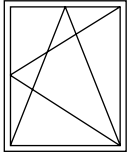
Vertical section scale 1/2



TECHNAL

FX applications

1-leaf T/T window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
CF005	Double glazing wedge	6
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	8
EE005	Self-locating corner cleat 15x35	8
KF001	T/T hardware 90 kgs	1
KF004	ECLAT/SF bearing element	1
KF008	Friction stay > 600 mm SF	1
KF037	Espagnolette	1
KF082	Driver T/T	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

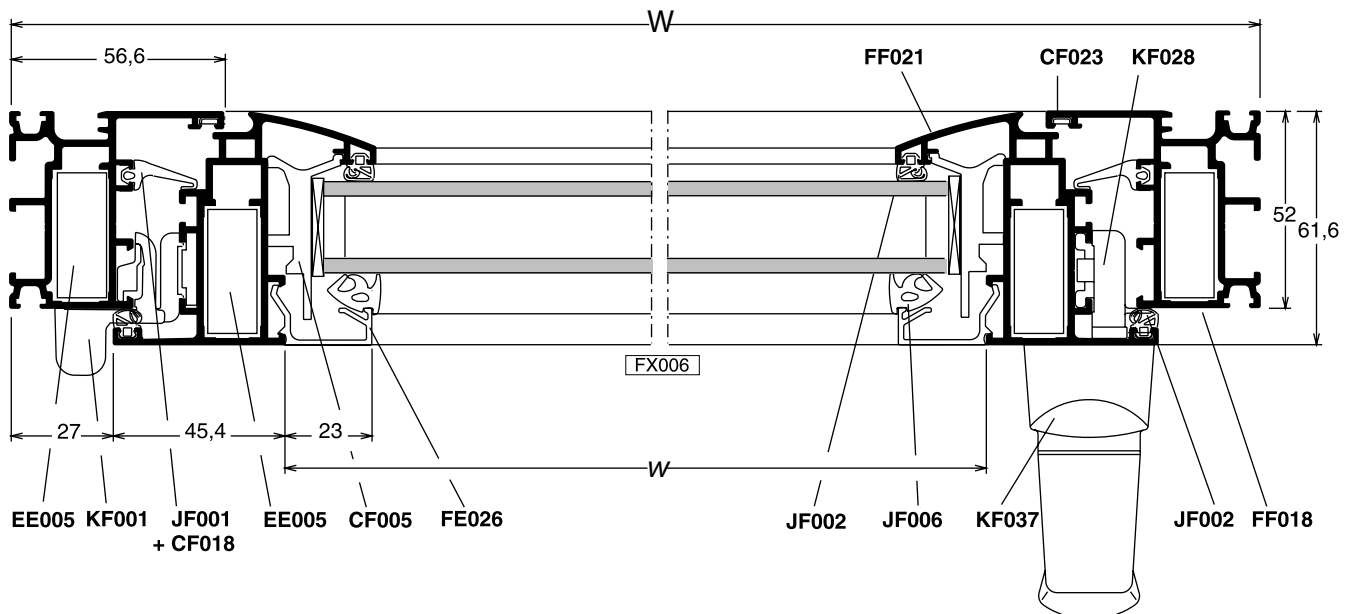
Porte-fenêtre

Ref.	Descriptions	Quantity
KF031	Outsize T/T complement	1









Glazing dimensions

H - 162 W - 162
h - 18 w - 18

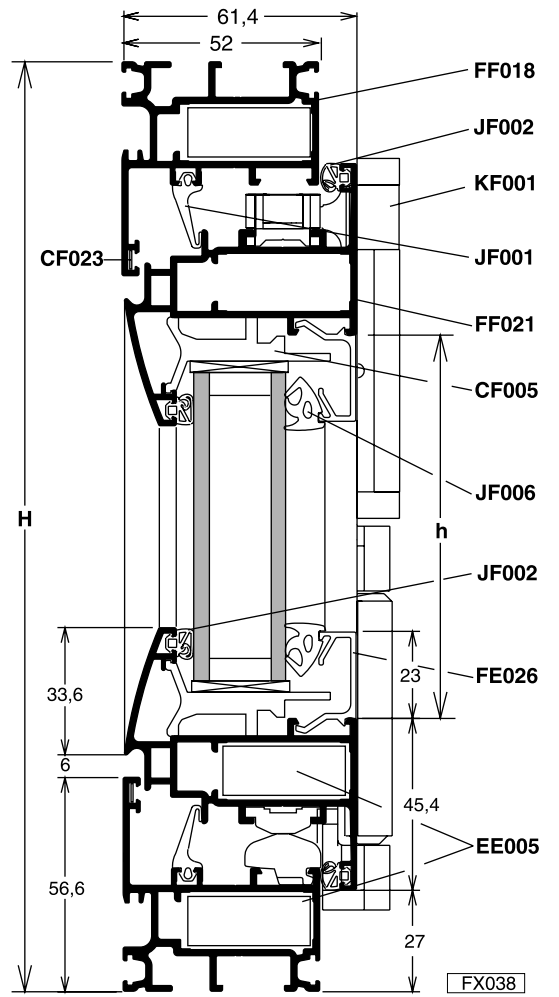
Horizontal section scale 1/2



PROFILES

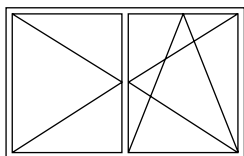
Ref.	Profies	Sections	Quantity	Dimensions
8015			1 1	W H
FE026			2 2	W - 144 H - 190
FF018			2 2	W H
FF021			2 2	W - 54 H - 54

Vertical section scale 1/2



FX applications

2-leaf T/T window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
8647	Self-drilling screw SR2 4 x 37	3/m on H
CF005	Double glazing wedge	10
CF007	Flexible plug for central gasket	1
CF009	Supplementary rebate plug	1
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	12
EE005	Self-locating corner cleat 15x35	12
KF001	T/T hardware 90 kgs	1
KF004	ECLAT/SF bearing element	1
KF008	Friction stay > 600 mm SF	1
KF017	Sash bolt	1
KF033	Semi-fixed T/T hinge	1
KF037	Espagnolette	1
KF082	Driver T/T	1
VE003	Square headed screw 3.9 x 25	4

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 7H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1H

Porte-fenêtre

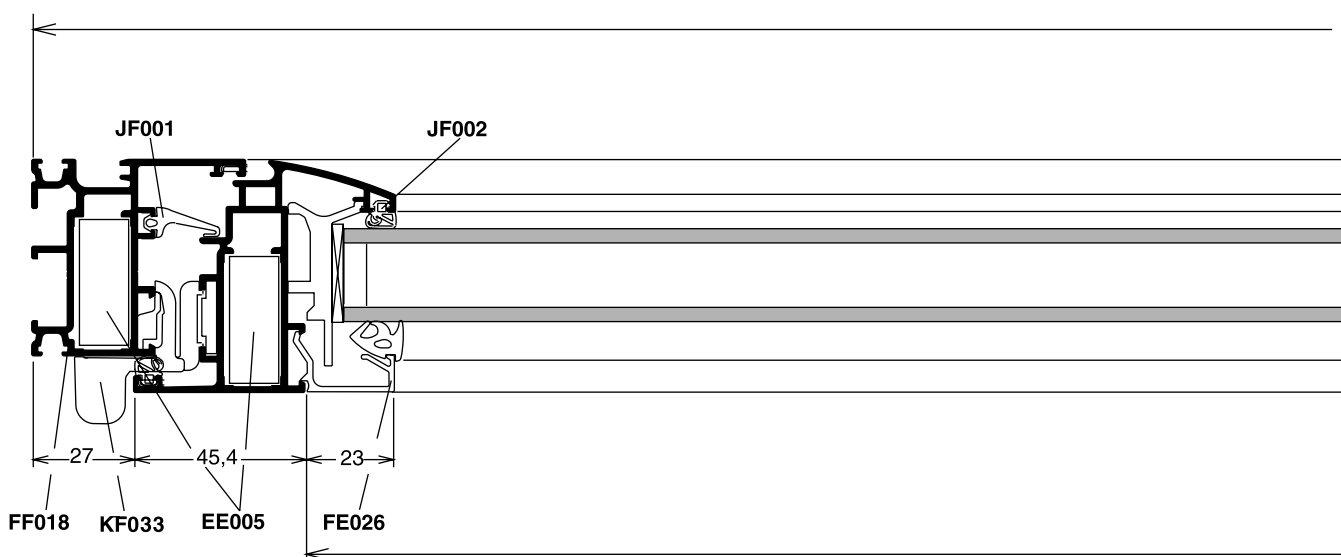
Ref.	Descriptions	Quantity
KF011	Mid point	1
KF031	Outsize T/T complement	1

Glazing dimensions

H - 162 W/2 - 138

h - 18 w - 18

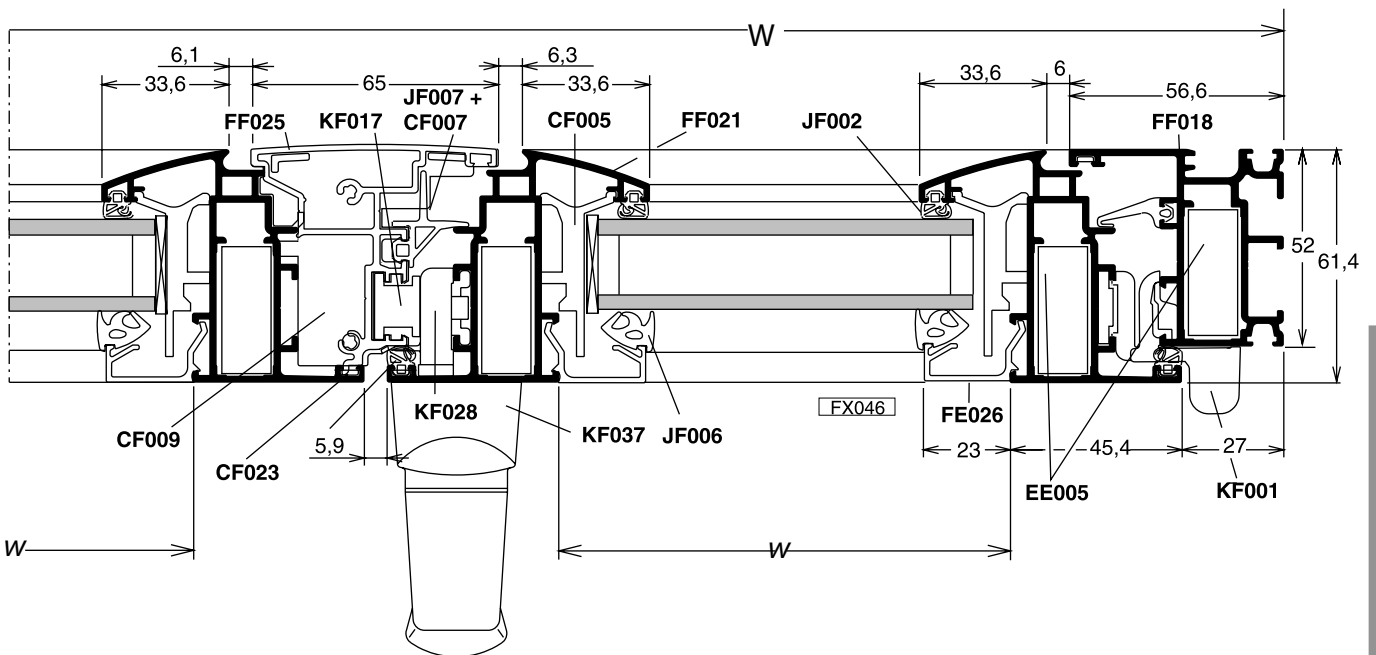
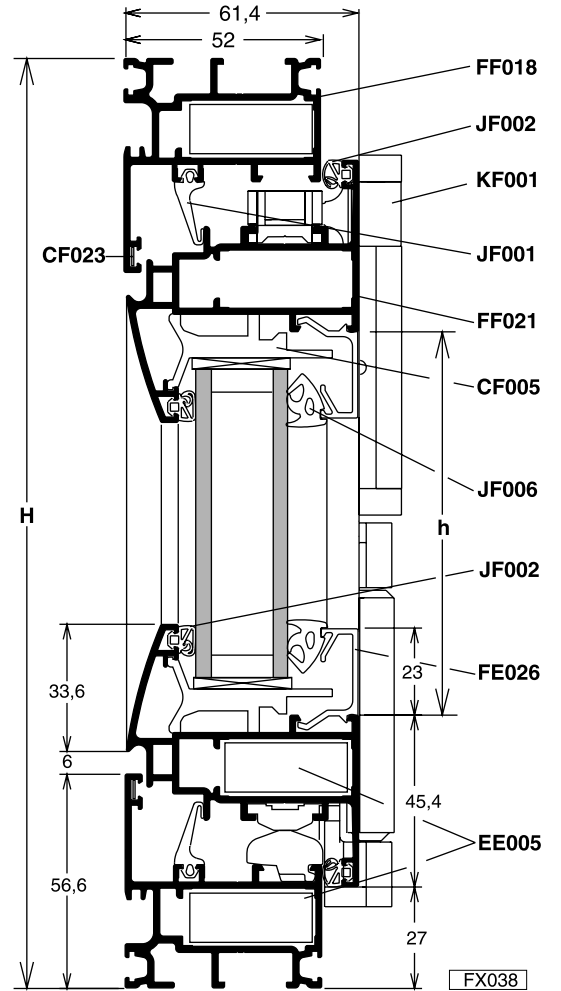
Horizontal section scale 1/2



PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
8015			1 1	H W/2
FE026			4 4	W/2 - 121 H - 190
FF018			2 2	W H
FF021			4 4	W/2 - 30 H - 54
FF025			1	H - 129

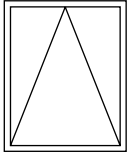
Vertical section scale 1/2



TECHNAL

FX applications

Bottom-hung window



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
CF005	Double glazing wedge	8
CF018	Central gasket corner gasket	2
CF019	Single hinge	2
CF020	Latch	1
CF023	Rebate bracket	8
EE005	Self-locating corner cleat 15x35	8
KF014	Top-hung friction stay	1

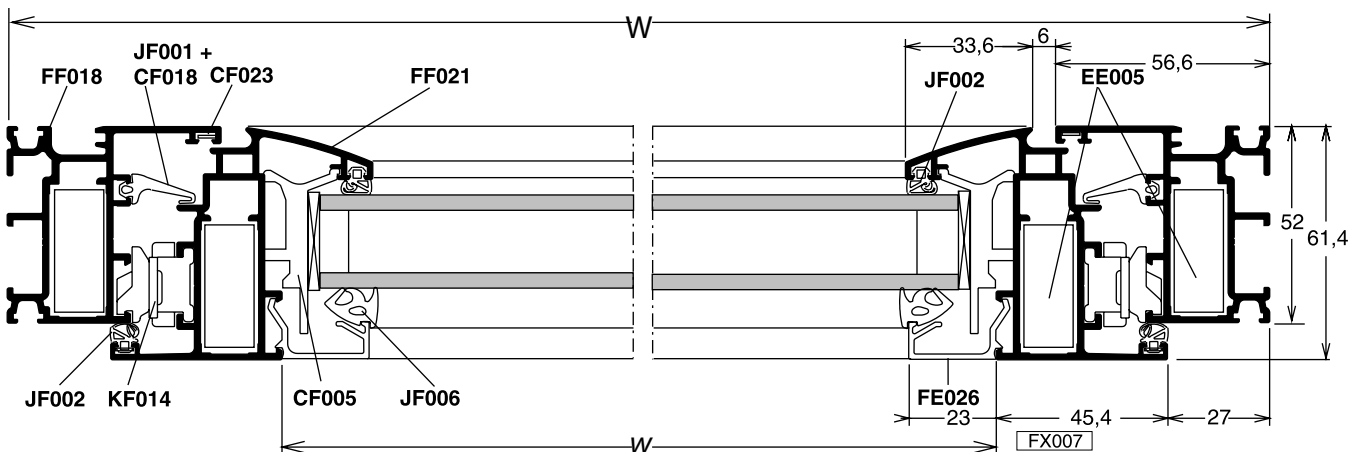
GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H






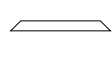
Glazing dimensions

H - 162 W - 162
h - 18 w - 18

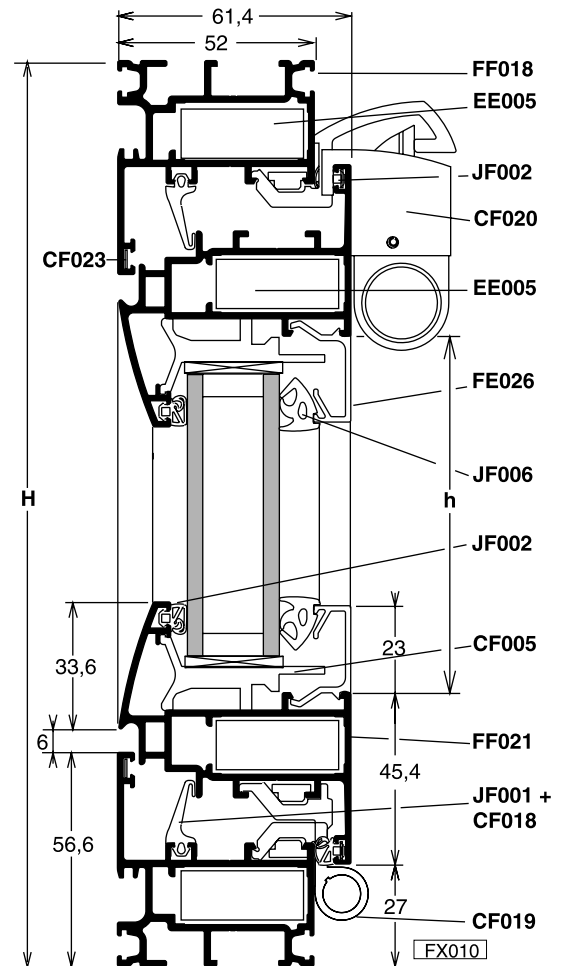
Horizontal section scale 1/2



PROFILES

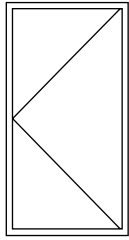
Ref.	Profies	Sections	Quantity	Dimensions
FE026			2 2	W - 144 H - 190
FF018			2 2	W H
FF021			2 2	W - 54 H - 54

Vertical section scale 1/2



FX applications

1-leaf locking patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1053	30 x 50 cylinder	1
CF005	Double glazing wedge	4
CF016	Lock and deadbolt set	1
CF018	Central gasket corner gasket	2
CF021	3-body hinge	3
CF023	Rebate bracket	8
CF028	Patio door strike plate	1
CP007	Cylinder escutcheon	1
EE005	Self-locating corner cleat 15x35	4
EE009	Crimp corner cleat 38.4 x 5.2	4
EE013	Self-locating corner cleat for 46 x 35 chamber	4
KF024	Opening frame support	1
KF050	Door handle	1

GASKETS

Ref.	Descriptions	Quantity
2920	Multi-usage gasket	2W + 2H
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	2w + 2H
JF006	Internal glazing gasket 9 mm clearance	2w + 2H

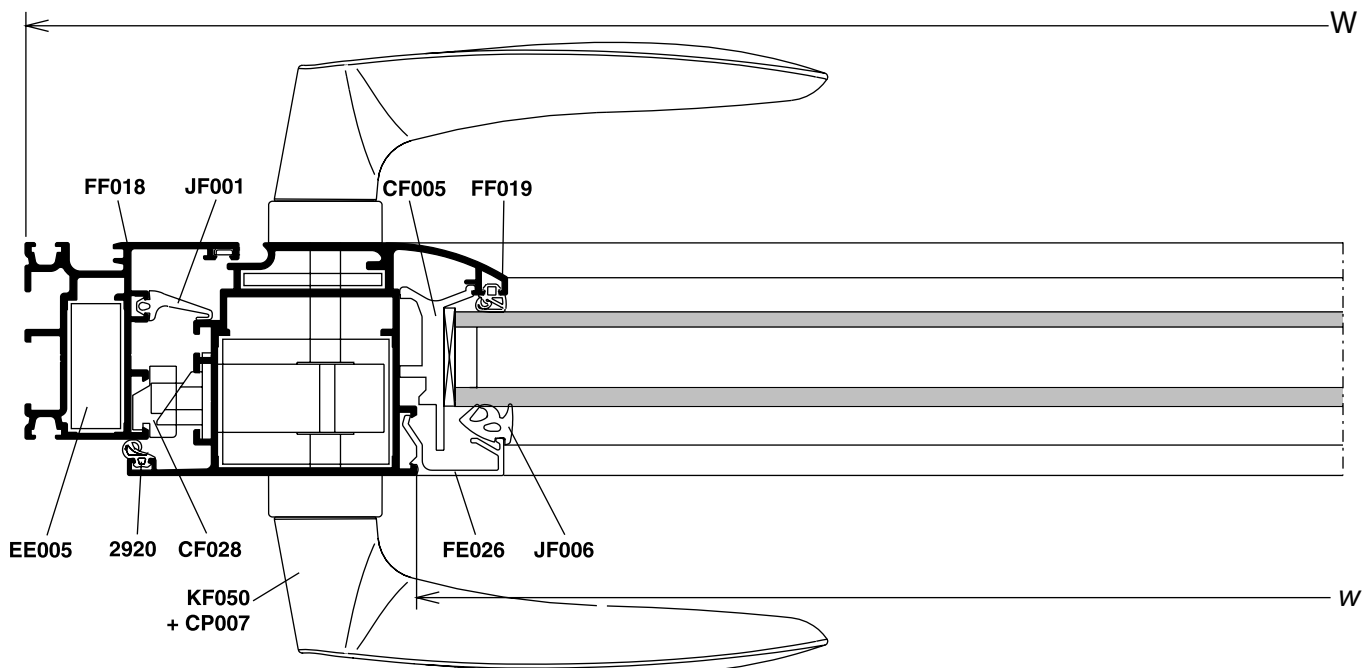
3 point lock

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
CF017	3-point lock set	1
CF027	Espagnolette connector set	1
KF012	Closing mechanism with rods	1

Glazing dimensions




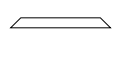

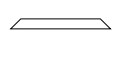
H - 224 W - 224
h - 18 w - 18

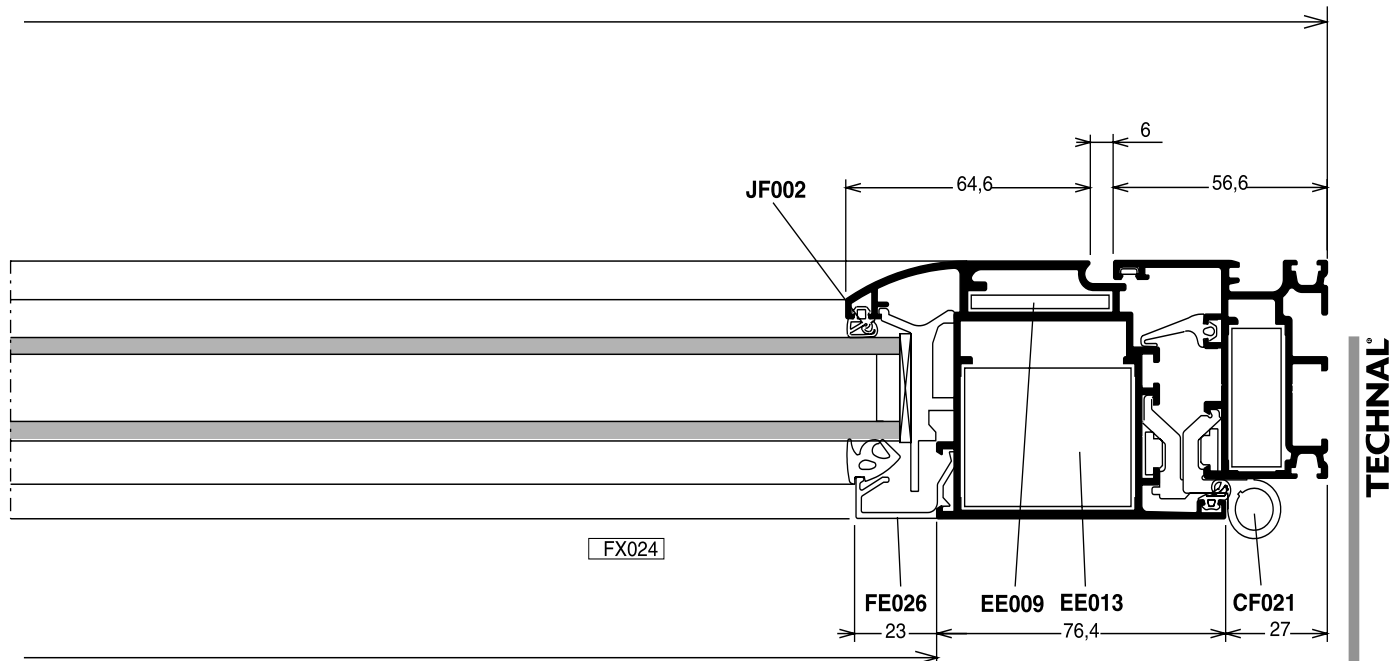
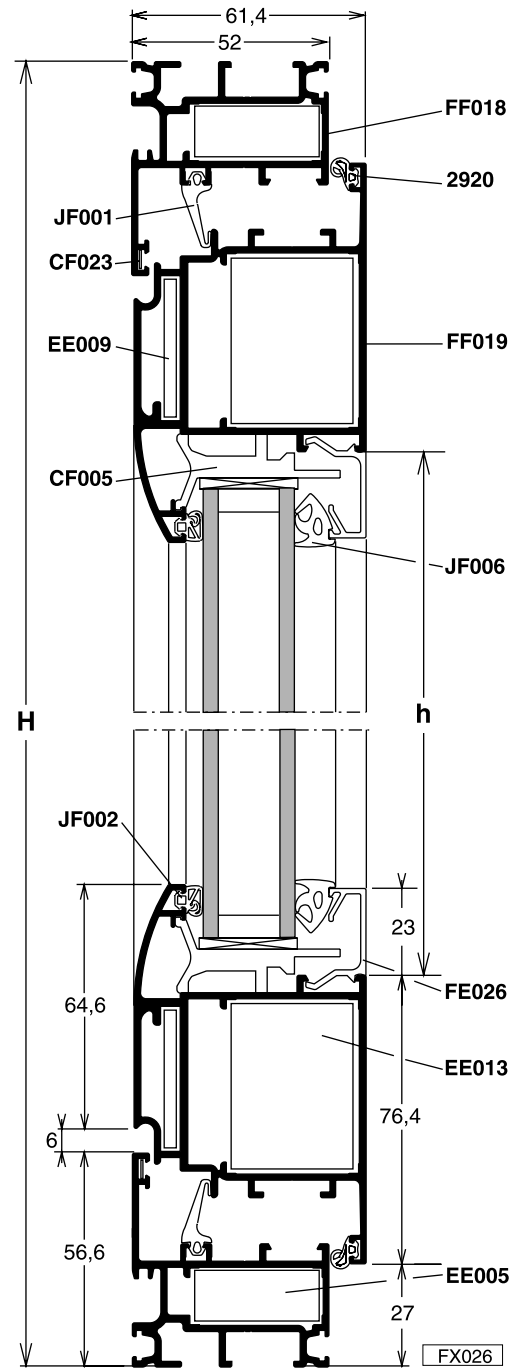
Horizontal section scale 1/2



Vertical section scale 1/2

PROFILES

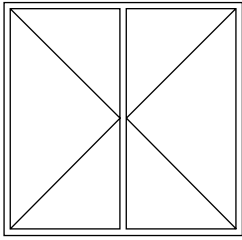
Ref.	Profies	Sections	Quantity	Dimensions
FE026			2 2	W - 206 H - 252
FF018			2 2	W H
FF019			2 2	W - 54 H - 54



TECHNAL®

FX applications

2-leaf locking patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1053	30 x 50 cylinder	1
8647	Self-drilling screw SR2 4 x 37	3/lm on H
CF005	Double glazing wedge	8
CF007	Flexible plug for central gasket	1
CF009	Supplementary rebate plug	1
CF016	Lock and deadbolt set	1
CF018	Central gasket corner gasket	2
CF021	3-body hinge	6
CF023	Rebate bracket	12
CF028	Patio door strike plate	1
CP007	Cylinder escutcheon	1
EE005	Self-locating corner cleat 15x35	4
EE009	Crimp corner cleat 38.4 x 5.2	8
EE013	Self-locating corner cleat for 46 x 35 chamber	8
KF017	Sash bolt	1
KF024	Opening frame support	1
KF050	Door handle	1
VE003	Square headed screw 3.9 x 25	4

GASKETS

Ref.	Descriptions	Quantity
2920	Multi-usage gasket	2W + 3H
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	2W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1 H

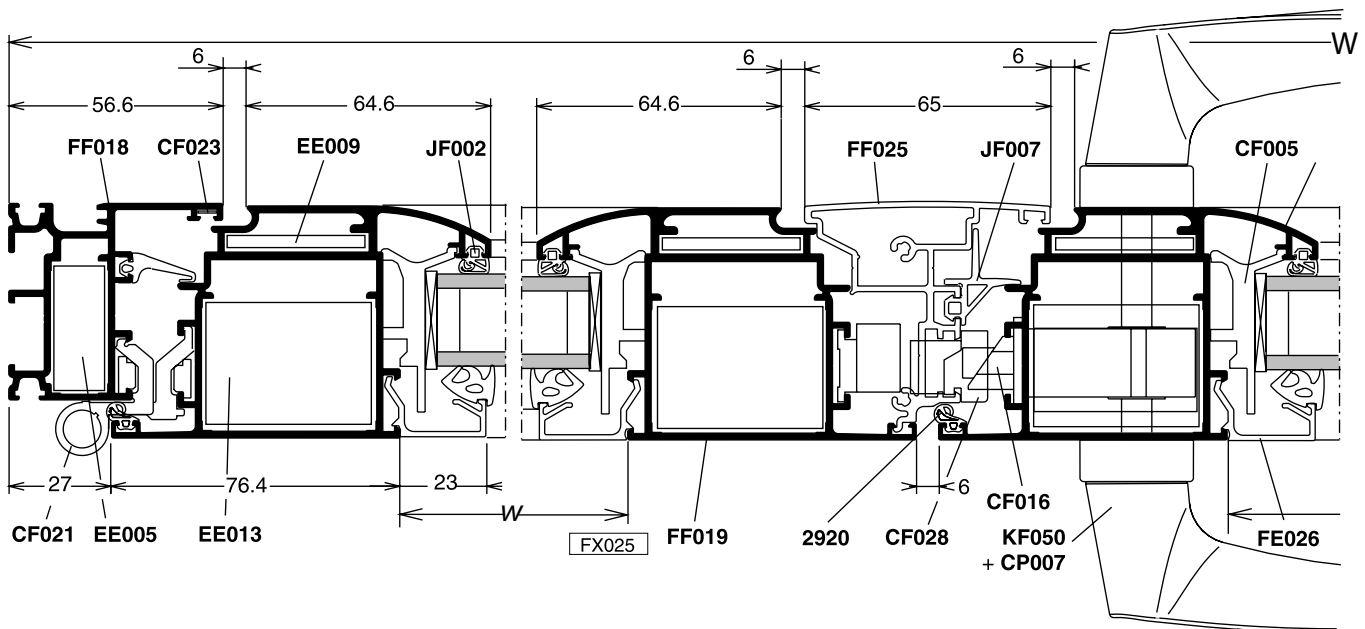
3 point lock

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
CF017	3-point lock set	1
CF027	Espagnolette connector set	1
KF012	Closing mechanism with rods	1

Glazing dimensions

H - 224 W/2 - 200
h - 18 w - 18

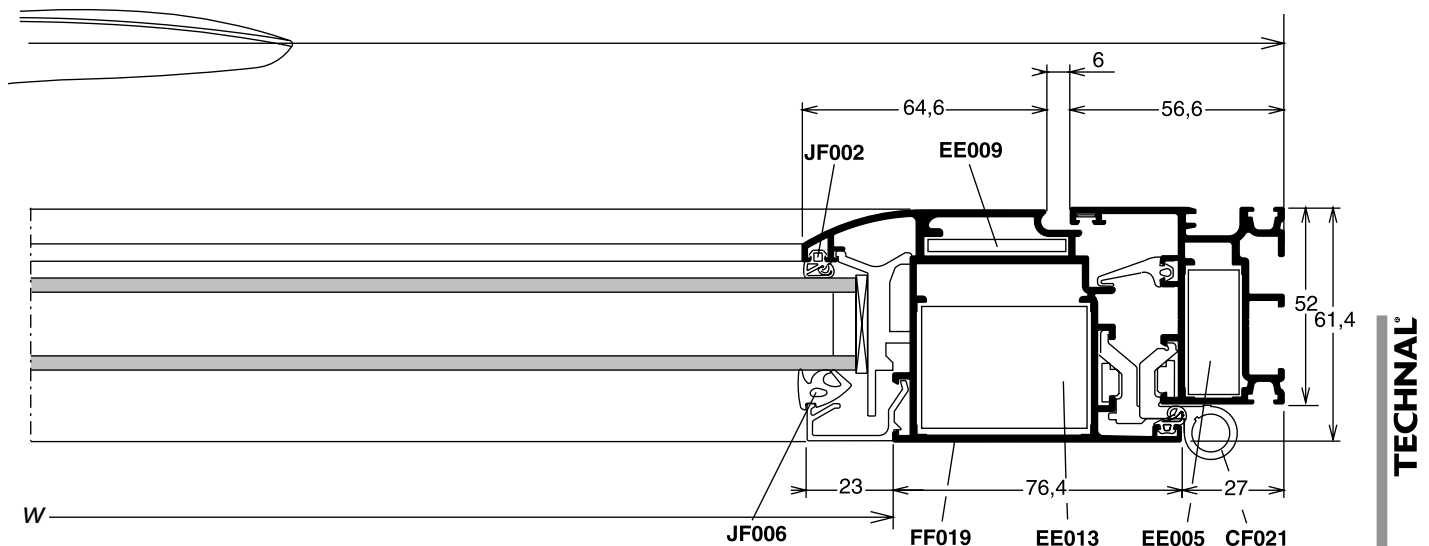
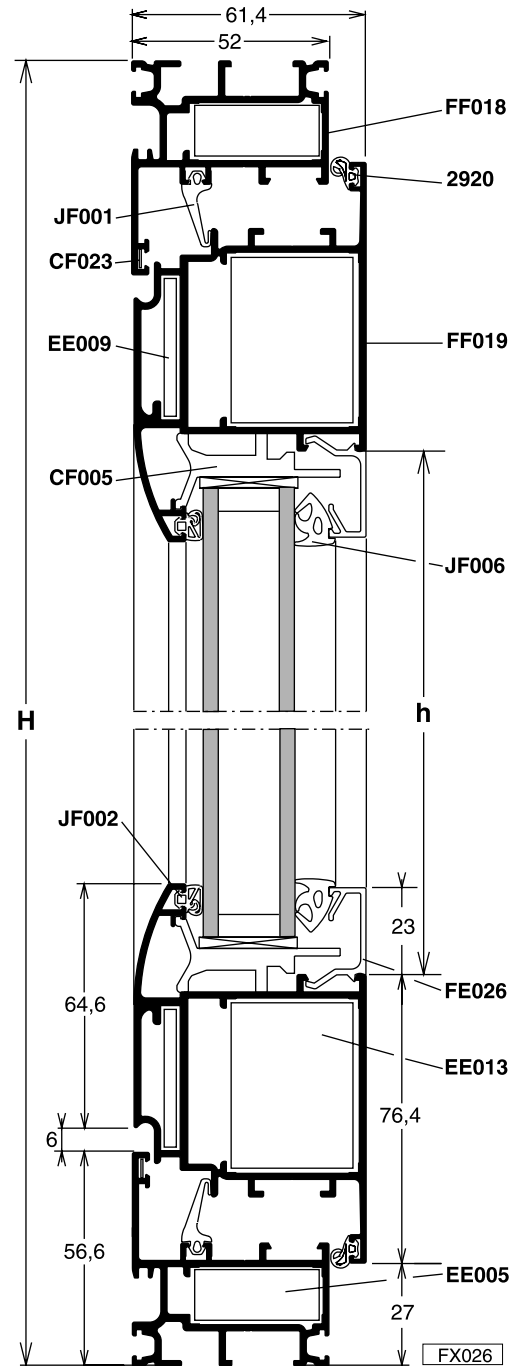
Horizontal section scale 1/2



Vertical section scale 1/2

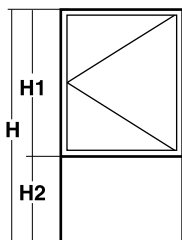
PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
FE026			4 4	W/2 - 183 H - 252
FF018			2 2	W H
FF019			4 4	W - 30 H - 54
FF025			1	H - 129



FX applications

1-leaf window on bottom fixed-light



Description with glazing 24 mm

ACCESSORIES

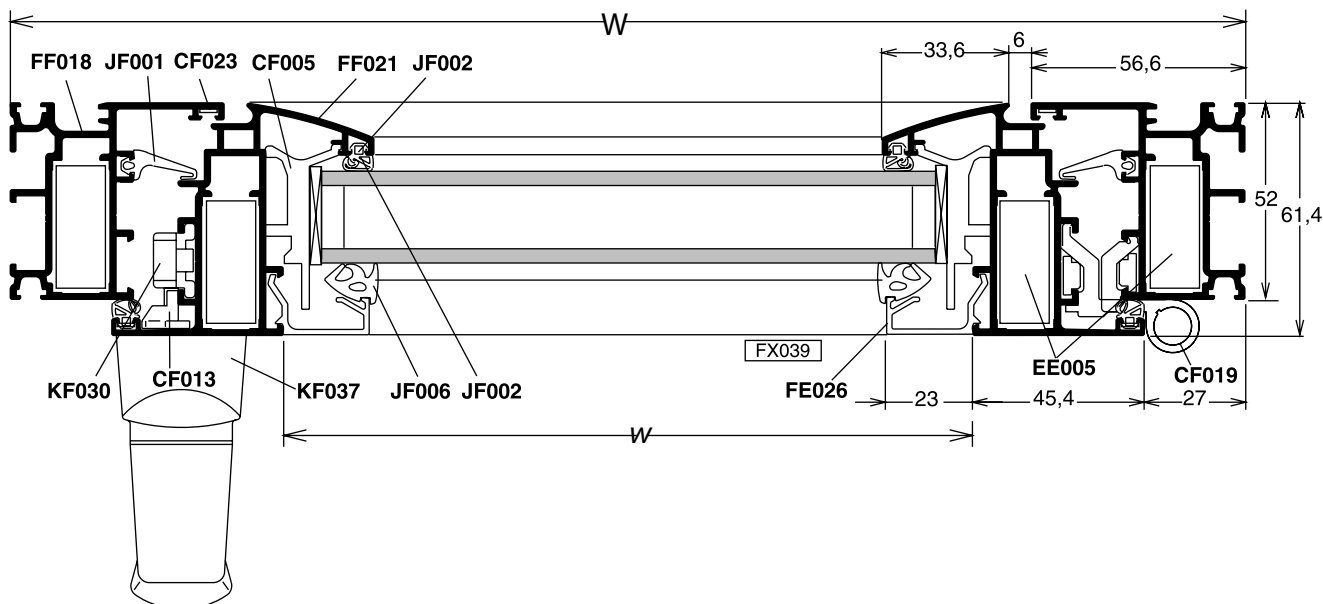
Ref.	Descriptions	Quantity
CF003	Drainage spout	3
CF005	Double glazing wedge	8
CF013	Standard rebate reinforcement	1
CF018	Central gasket corner gasket	2
CF019	Single hinge	2
CF023	Rebate bracket	8
CF025	Plug for 83 mm mullion	2
EE005	Self-locating corner cleat 15x35	8
EE011	Mullion connector for 22 x 24 chamber	2
EF001	Right angle anti-distortion part	4
KF012	Closing mechanism with rods	1
KF030	Driver	1
KF037	Espagnolette	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	6W + 2H2 + 3H1
JF006	Internal glazing gasket 9 mm clearance	4W + 2H





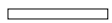




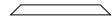



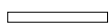
Glazing dimensions ouvrant	Glazing dimensions fixe
H1 - 147	H2 - 68
W - 162	W - 83

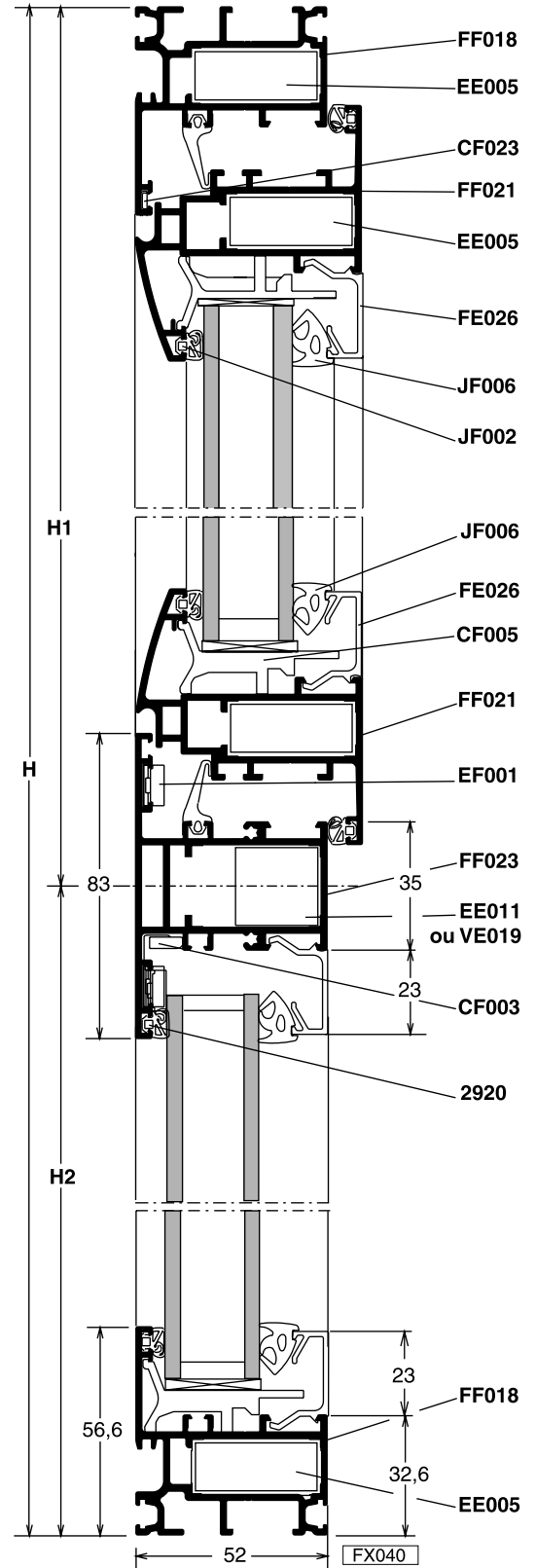
Horizontal section scale 1/2



Vertical section scale 1/2

PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
FE026	 opening frame		2	W - 144
			2	H1 - 174.5
	 fixed		2	W - 65
			2	H2 - 96
FF018			2 2	W H
FF021			2 2	W - 54 H1 - 38
FF023			1	W - 65
8015			1	H1



TECHNAL®

FXi

Applications

■ Fixed frame	P. 45
■ 1-leaf window and patio-door	P. 46
■ 2-leaf window and patio-door	P. 48
■ 2-leaf ECLAT window and patio-door	P. 50
■ 1-leaf T/T window and patio-door	P. 52
■ 2-leaf T/T window and patio-door	P. 54
■ 2-leaf T/T ECLAT window and patio-door	P. 56
■ Bottom-hung window	P. 58
■ Horizontal-pivot window	P. 60
■ Vertical-pivot window	P. 62
■ Top-hung window	P. 64
■ Top-hung window on butt hinges	P. 66
■ 1 leaf window on bottom fixed light composite frame	P. 68
■ 1-leaf locking patio door	P. 70
■ 2-leaf locking patio door	P. 72
■ Integration of GXi slider	P. 74
■ Integration of T/T in MX façade	P. 76
■ Integration of 1-leaf PXi in-opening door with top and side fixed lights	P. 78
■ Integration of 2-leaf PXi out-opening door with top and side fixed lights	P. 80

FXi applications

Fixed frame



Description with glazing 24 mm

PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
FE026			2 2	W - 65 H - 111
HF008			2 2	W H

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
CF005	Double glazing wedge	4
CF023	Rebate bracket	4
EE001	Self-locating corner cleat 15x24	4

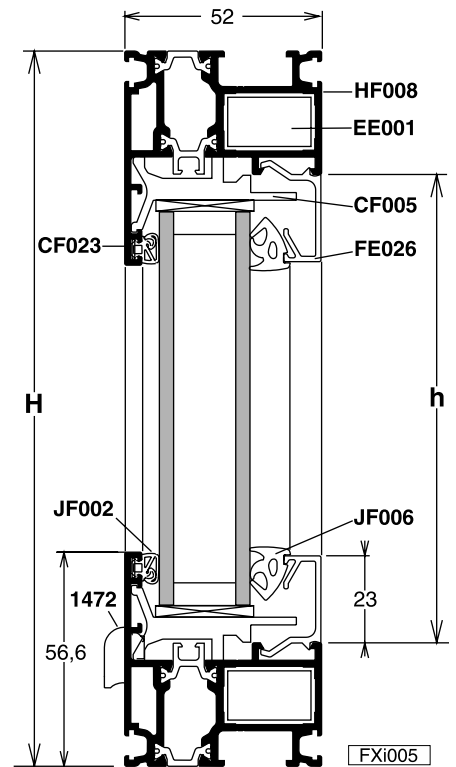
GASKETS

Ref.	Descriptions	Quantity
JF002	Dual function gasket	2W + 2H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

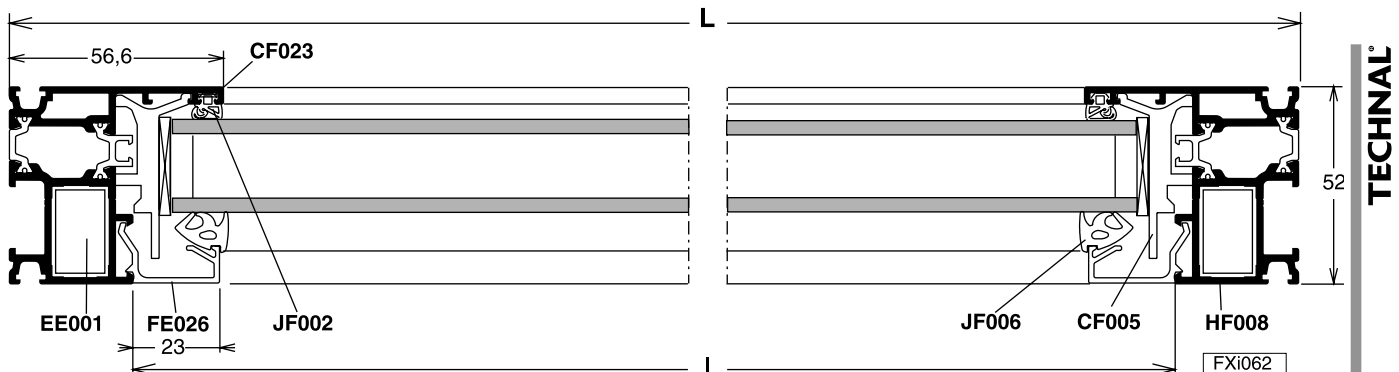
Glazing dimensions

H - 83 W - 83
h - 18 w - 18

Vertical section scale 1/2

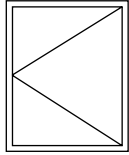


Horizontal section scale 1/2



FXi applications

1-leaf window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
CF005	Double glazing wedge	4
CF013	Standard rebate reinforcement	1
CF018	Central gasket corner gasket	2
CF019	Single hinge	2
CF023	Rebate bracket	8
EE001	Self-locating corner cleat 15x24	8
EE012	Crimp corner cleat for 7.5 x 5 chamber	
KF012	Closing mechanism with rods	1
KF030	Driver	1
KF037	Espagnolette	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2w + 2H

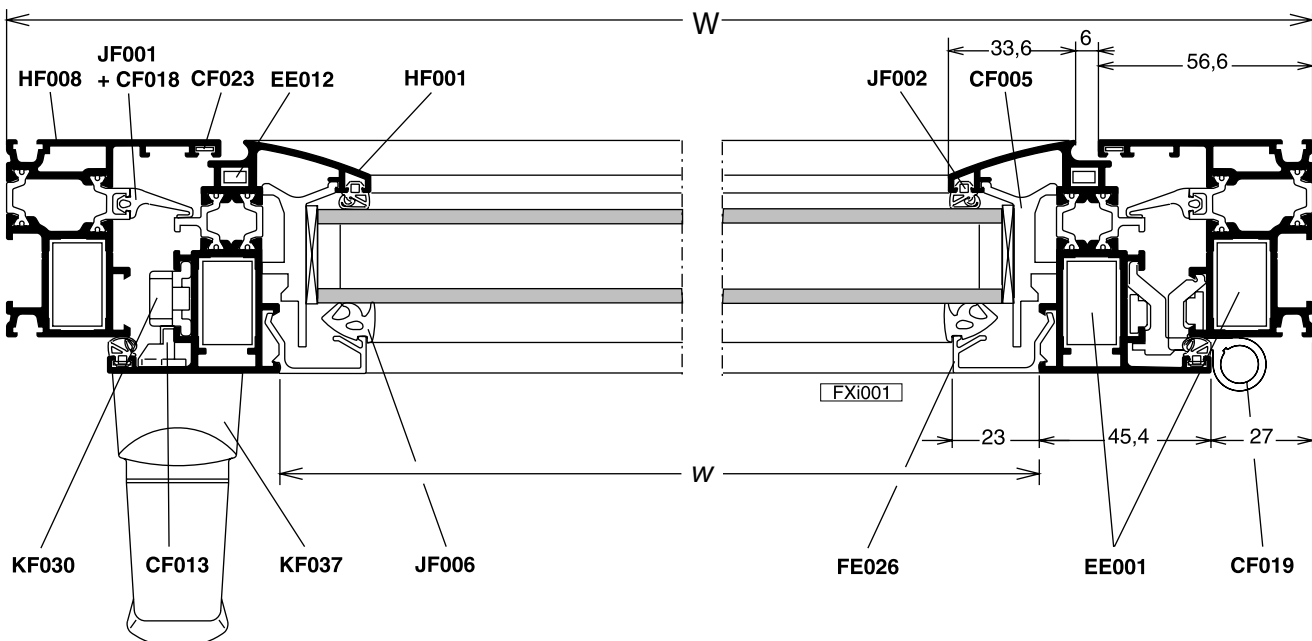
Patio-door

Ref.	Descriptions	Quantity
CF019	Single hinge	3
KF046	Strike plate	1

Glazing dimensions

H - 162 W - 162
h - 18 w - 18

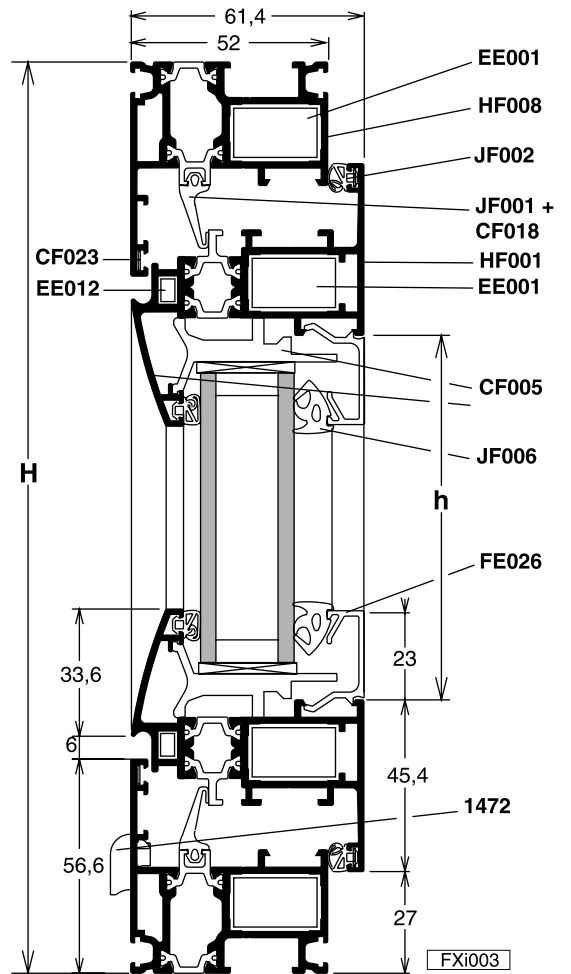
Horizontal section scale 1/2



PROFILES

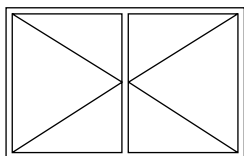
Ref.	Profiles	Sections	Quantity	Dimensions
8015				H
FE026			2 2	W - 144 H - 190
HF001			2 2	W - 54 H - 54
HF008			2 2	W H

Vertical section scale 1/2



FXi applications

2-leaf window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	3
CF005	Double glazing wedge	8
CF007	Flexible plug for central gasket	1
CF009	Supplementary rebate plug	1
CF013	Standard rebate reinforcement	1
CF018	Central gasket corner gasket	2
CF019	Single hinge	4
CF023	Rebate bracket	12
EE001	Self-locating corner cleat 15x24	12
EE012	Crimp corner cleat for 7.5 x 5 chamber	8
KF012	Closing mechanism with rods	1
KF024	Opening frame support	1
KF030	Driver	1
KF037	Espagnolette	1
VE003	Square headed screw 3.9 x 25	4
VE017	Sheet screw SR2 3.9 x 38	3/m on H

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 7H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1 H

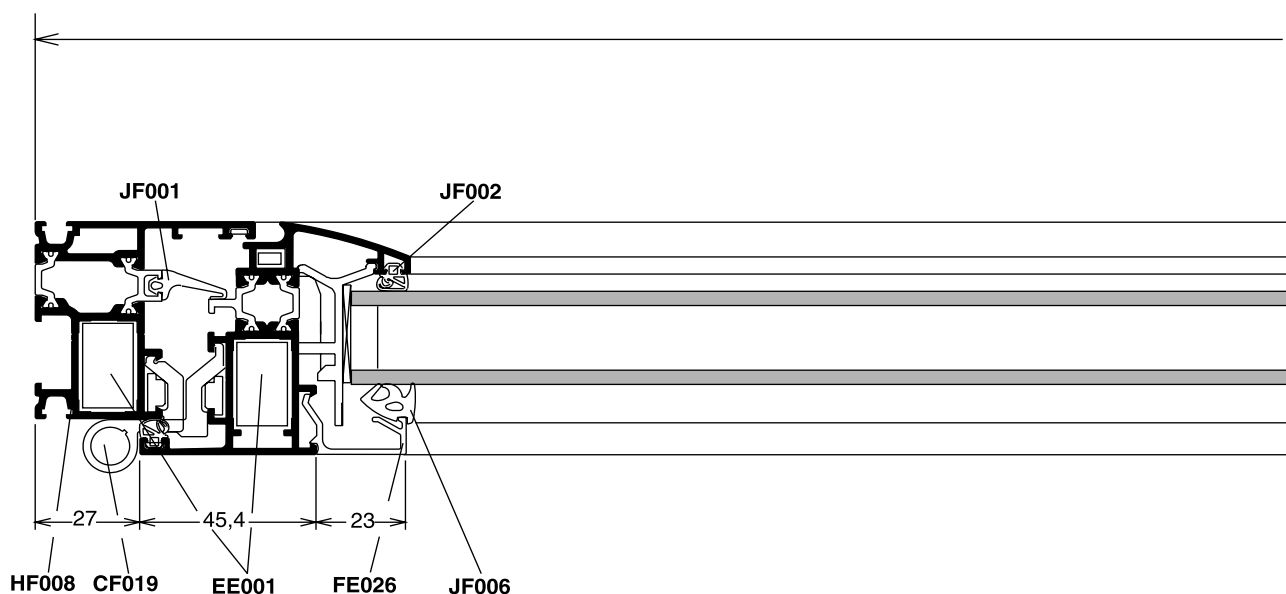
Patio-door

Ref.	Descriptions	Quantity
CF019	Single hinge	6
KF017	Sash bolt	1
KF046	Strike plate	1

Glazing dimensions

H - 162 W/2 - 138
h - 18 w - 18

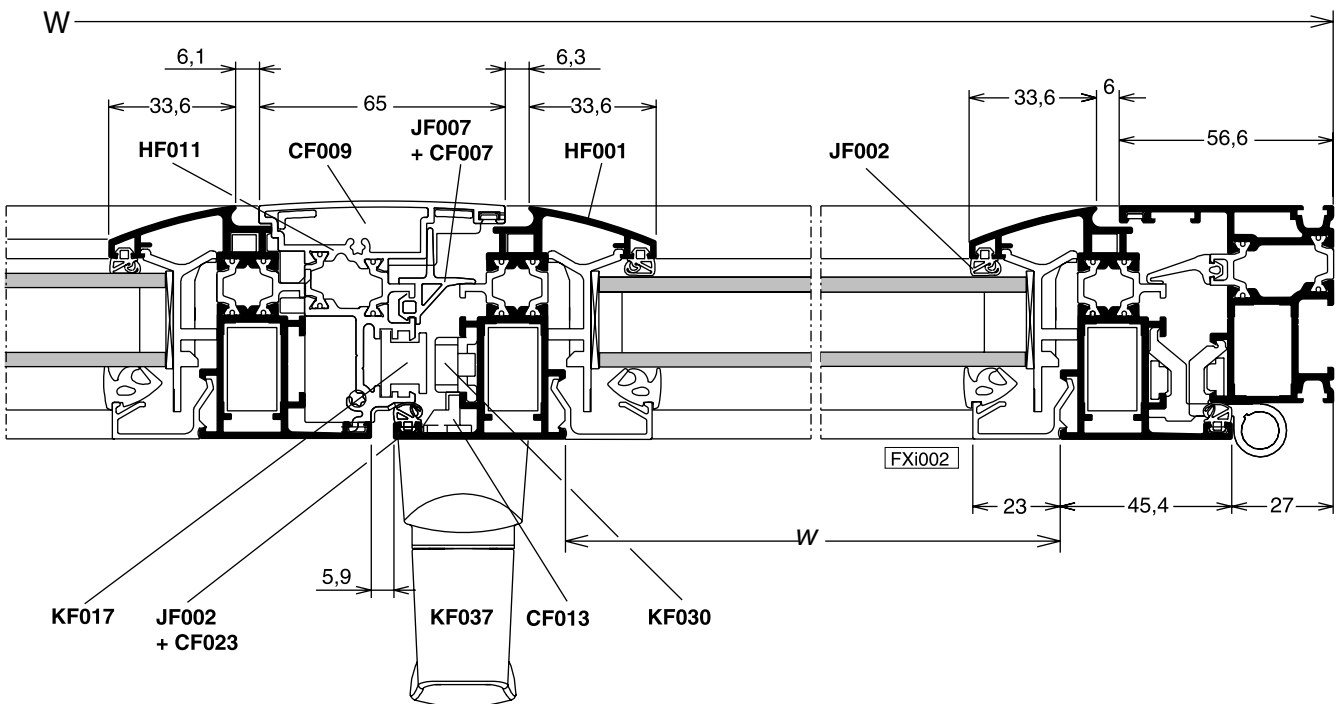
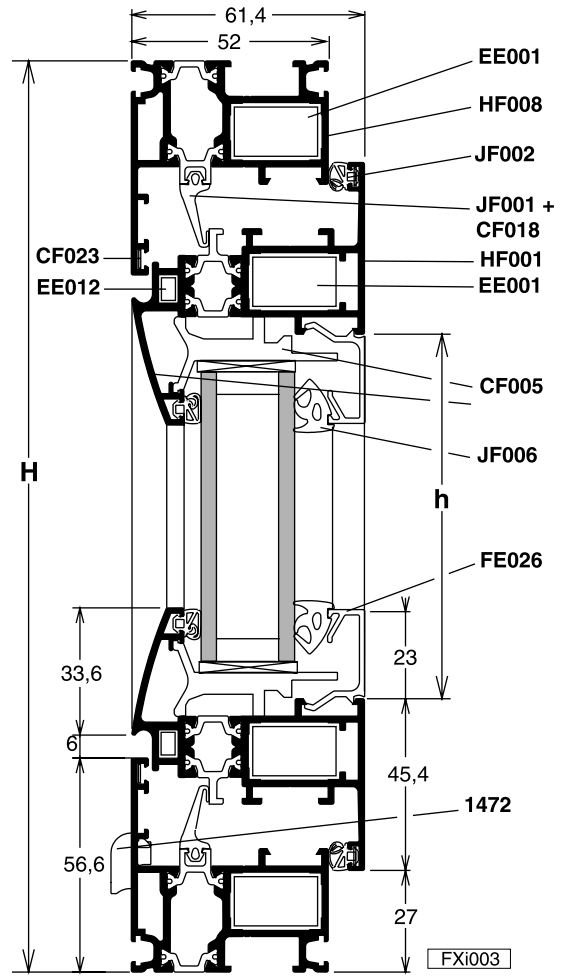
Horizontal section scale 1/2



PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
8015				H
FE026			4 4	W/2 - 121 H - 190
HF001			4 4	W/2 - 30 H - 54
HF008			2 2	w H
HF011			1	H - 129

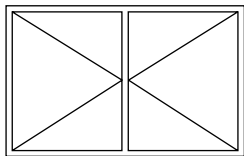
Vertical section scale 1/2



TECHNAL

FXi applications

2-leaf ECLAT window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1110	Clip	3/lm on H
1472	Deflector	3
1841	Sheet screw TCB Ø 4.2 x 16	6/lm on H + 2
1842	Sheet screw Ø 3.9 x 16	3/lm on H + 4
2649	Rounded glazing bead clip	5/lm
CF001	Rebate plug ECLAT	1
CF002	ECLAT rebate plug	1
CF005	Double glazing wedge	8
CF007	Flexible plug for central gasket	1
CF014	Standard rebate reinforcement ECLAT	2
CF019	Single hinge	4
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	12
EE001	Self-locating corner cleat 15x24	12
EE012	Crimp corner cleat for 7.5 x 5 chamber	8
KF012	Closing mechanism with rods	1
KF024	Opening frame support	1
KF037	Espagnolette	1
KF042	Driver ECLAT	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 7H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1 H

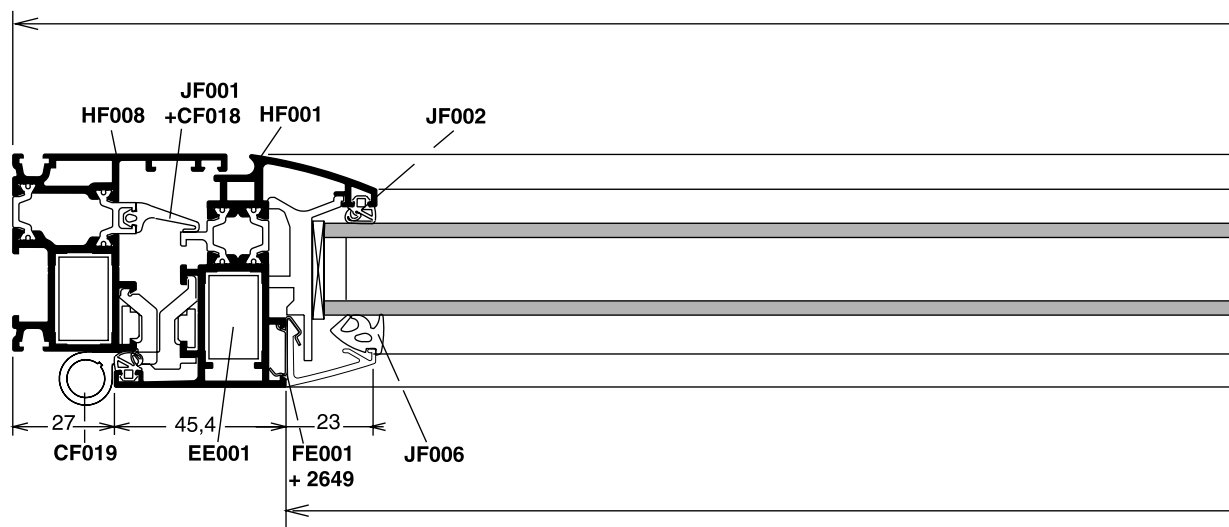
Patio-door

Ref.	Descriptions	Quantity
CF019	Single hinge	6
KF018	Sash bolt ECLAT	1
KF047	Strike plate eCLAT	1

Glazing dimensions

H - 162 W/2 - 125
h - 18 w - 18

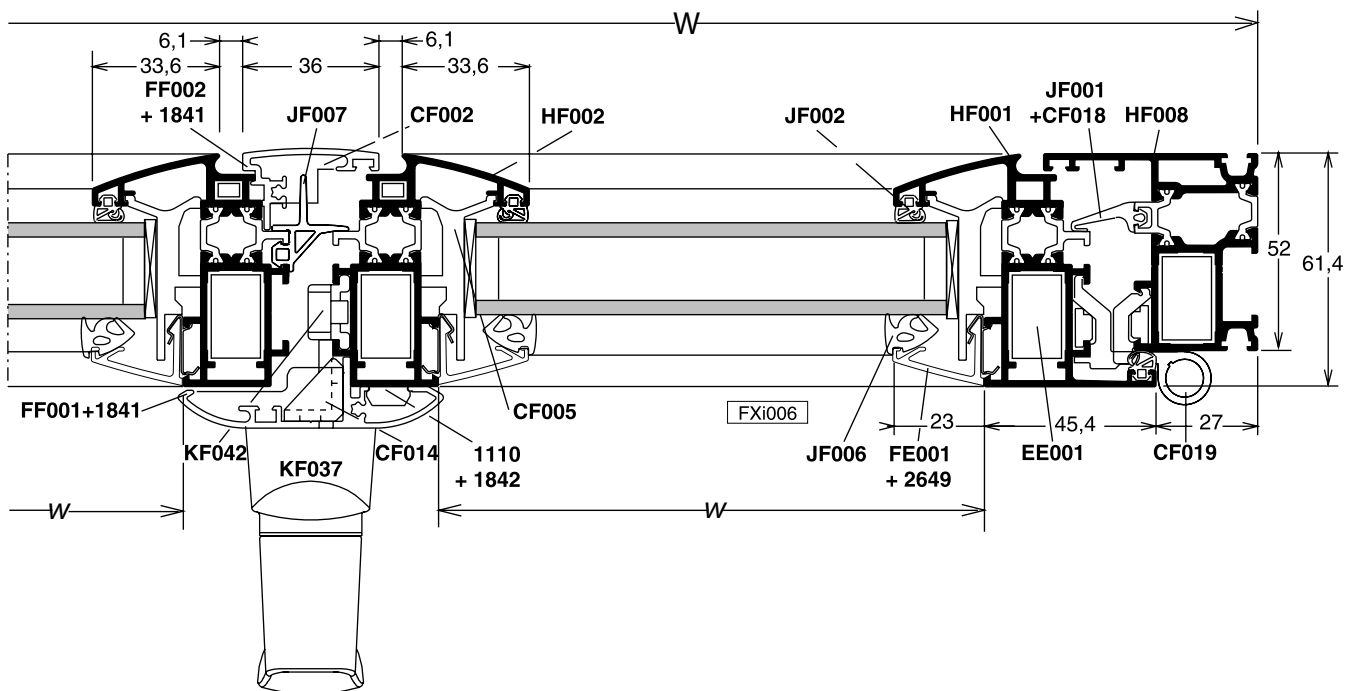
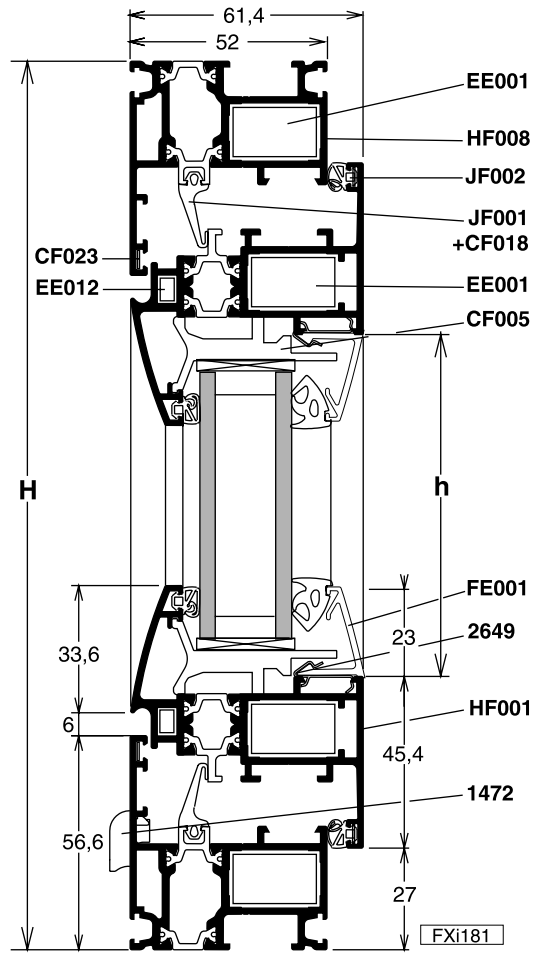
Horizontal section scale 1/2



Profies

Ref.	Profies	Sections	Quantity	Dimensions
8015				H
FE001			4 4	W/2 - 106 H - 144
FF001			1	H - 62
FF002			1	H - 129
HF001			4 2	W/2 - 16 H - 54
HF002			2	H - 89
HF008			2 2	w H

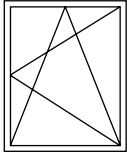
Vertical section scale 1/2



TECHNAL

FXi applications

1-leaf T/T window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
CF005	Double glazing wedge	6
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	8
EE001	Self-locating corner cleat 15x24	8
EE012	Crimp corner cleat for 7.5 x 5 chamber	4
KF001	T/T hardware 90 kgs	1
KF004	ECLAT/SF bearing element	1
KF008	Friction stay > 600 mm SF	1
KF037	Espagnolette	1
KF082	Driver T/T	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

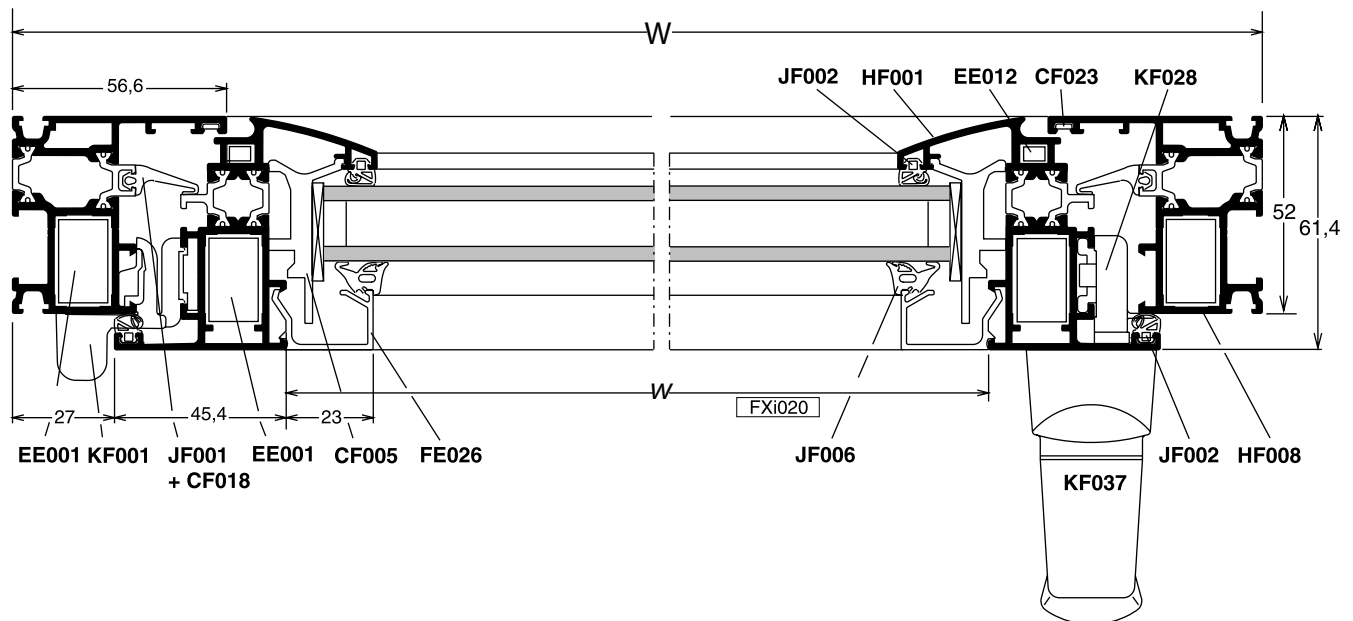
Patio-door

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
KF031	Outsize T/T complement	1








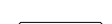
Glazing dimensions

H - 162 W - 162
h - 18 w - 18

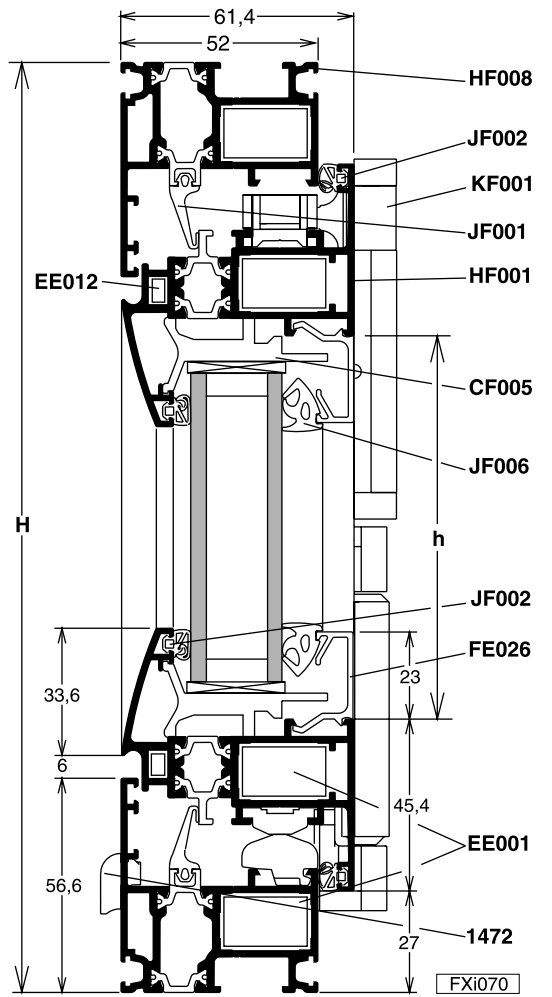
Horizontal section scale 1/2



PROFILES

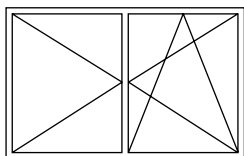
Ref.	Profiles	Sections	Quantity	Dimensions
8015				H + W
FE026			2 2	W - 144 H - 190
HF001			2 2	W - 54 H - 54
HF008			2 2	W H

Vertical section scale 1/2



FXi applications

2-leaf T/T window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	3
CF005	Double glazing wedge	10
CF007	Flexible plug for central gasket	1
CF009	Supplementary rebate plug	1
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	12
EE001	Self-locating corner cleat 15x24	12
EE012	Crimp corner cleat for 7.5 x 5 chamber	8
KF001	T/T hardware 90 kgs	1
KF004	ECLAT/SF bearing element	1
KF008	Friction stay > 600 mm SF	1
KF017	Sash bolt	1
KF033	Semi-fixed T/T hinge	1
KF037	Espagnolette	1
KF082	Driver T/T	1
VE003	Square headed screw 3.9 x 25	4
VE017	Self-drilling screw SR2 4.2 x 28	3/lm on H

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 7H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1H

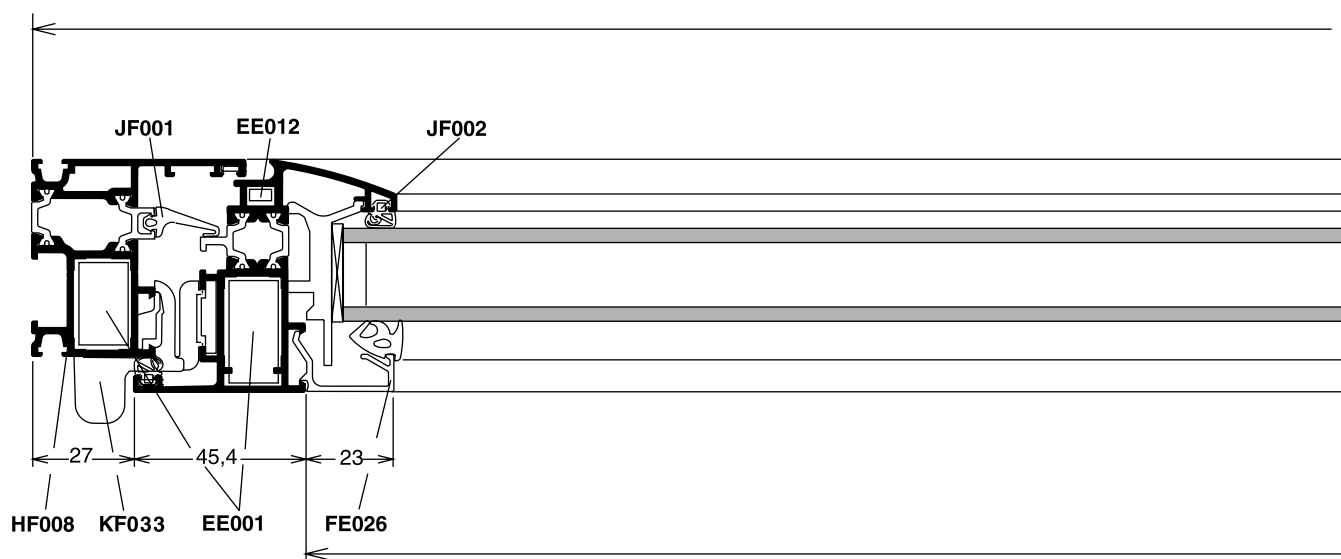
Porte-fenêtre

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
KF011	Mid point	1
KF031	Outsize T/T complement	1

Glazing dimensions

H - 162 W/2 - 138
h - 18 w - 18

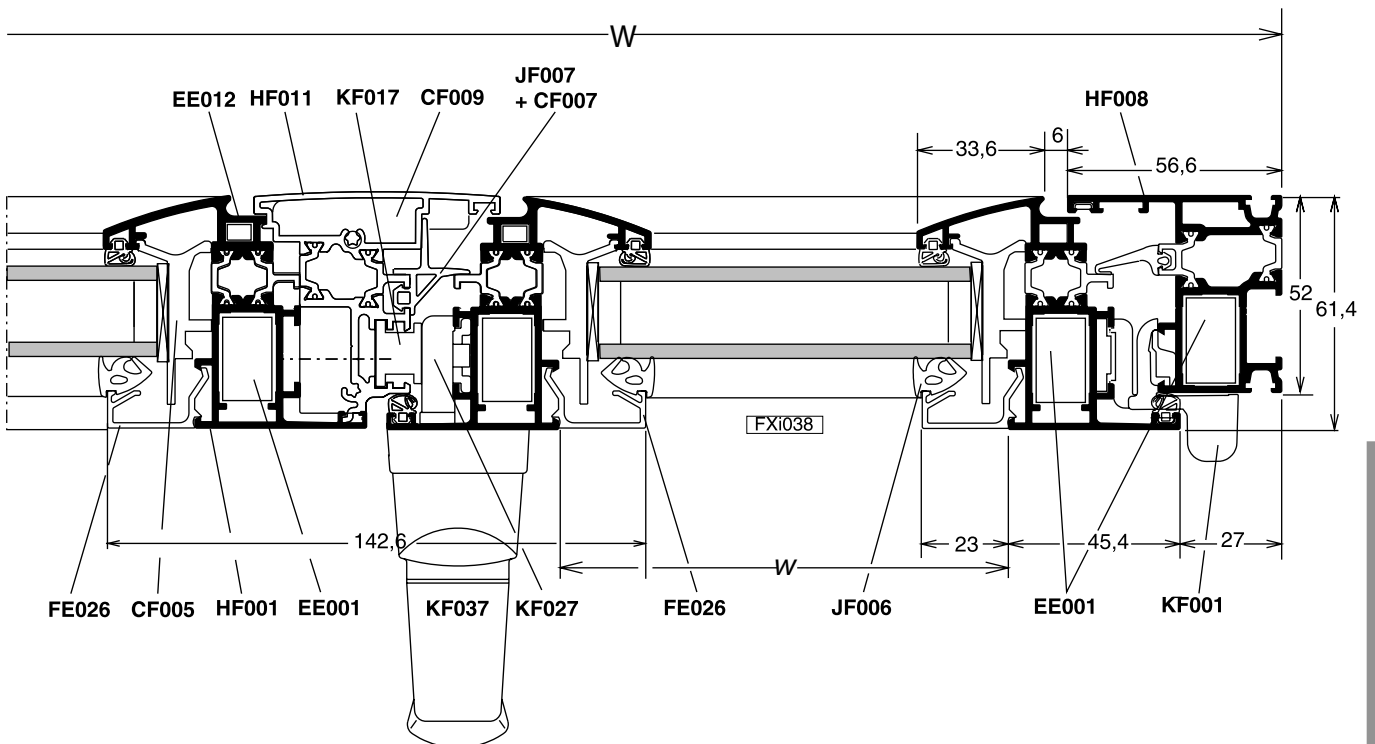
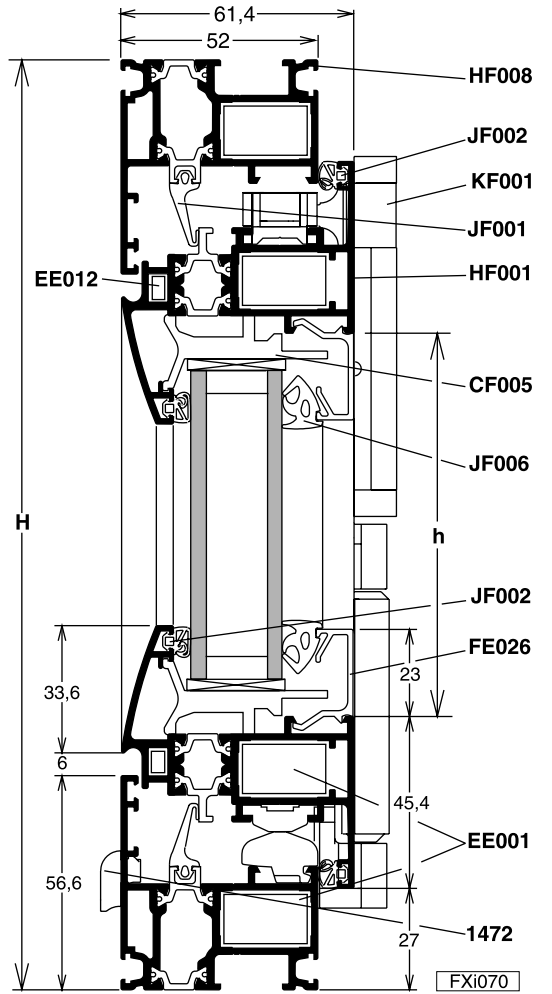
Horizontal section scale 1/2



PROFILES

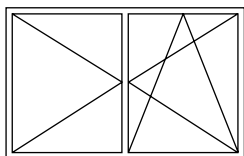
Ref.	Profiel	Sections	Quantity	Dimensions
8015				H + W/2
FE026			4 4	W/2 - 121 H - 190
HF001			4 4	W/2 - 30 H - 54
HF008			2 2	W H
HF011			1	H - 129

Vertical section scale 1/2



FXi applications

2-leaf T/T ECLAT window and patio-door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1110	Clip	3/lm on H
1472	Deflector	3
1841	Sheet screw TCB Ø 4.2 x 16	6/lm on H + 2
1842	Sheet screw Ø 3.9 x 16	3/lm on H + 4
2649	Rounded glazing bead clip	5/lm
CF001	Rebate plug ECLAT	1
CF002	Bouchon de battue ECLAT	1
CF005	Double glazing wedge	10
CF007	Flexible plug for central gasket	1
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	12
EE001	Self-locating corner cleat 15x24	12
EE012	Crimp corner cleat for 7.5 x 5 chamber	8
KF001	T/T hardware 90 kgs	1
KF004	ECLAT/SF bearing element	1
KF006	Friction stay > 600 mm	1
KF018	Sash bolt ECLAT	1
KF033	Semi-fixed T/T hinge	1
KF037	Espagnolette	1
KF041	Driver T/T ECLAT	1

GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 7H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1H

Porte-fenêtre

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
KF011	Mid point	1
KF032	Outsize T/T complement	1

NB:

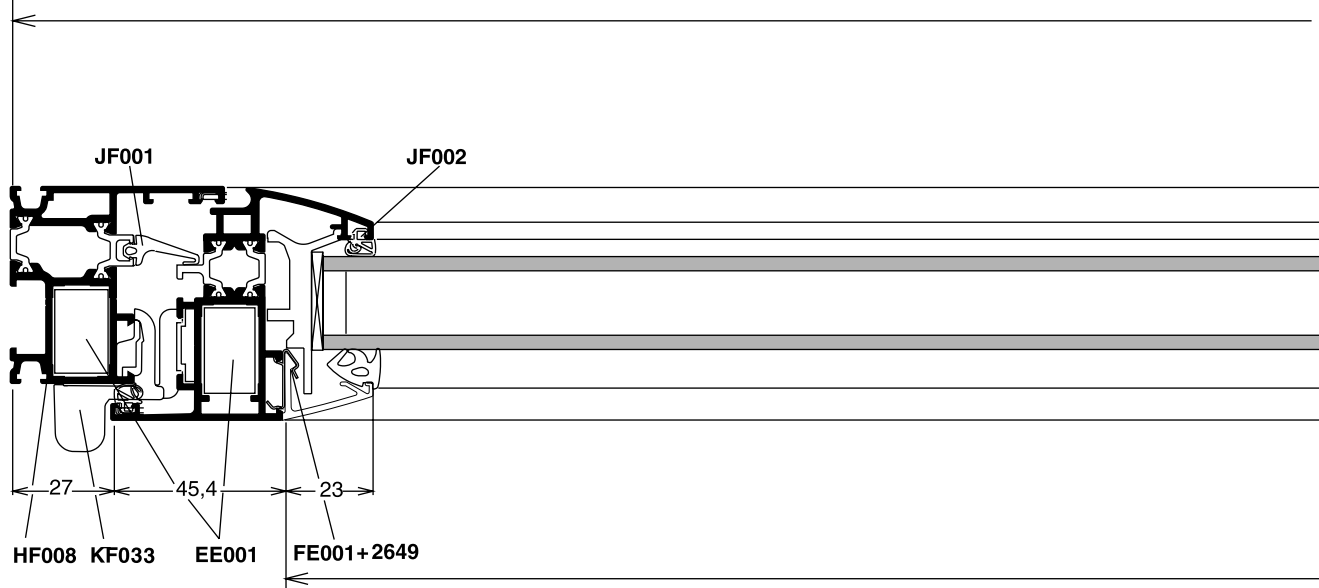
Minimum width of service leaf with **KF006** = 650 mm without outsize height complement

Minimum width of service leaf with **KF006** = 700 mm if KF032 outsize height complement used

Glazing dimensions

H - 162 W/2 - 125
h - 18 w - 18

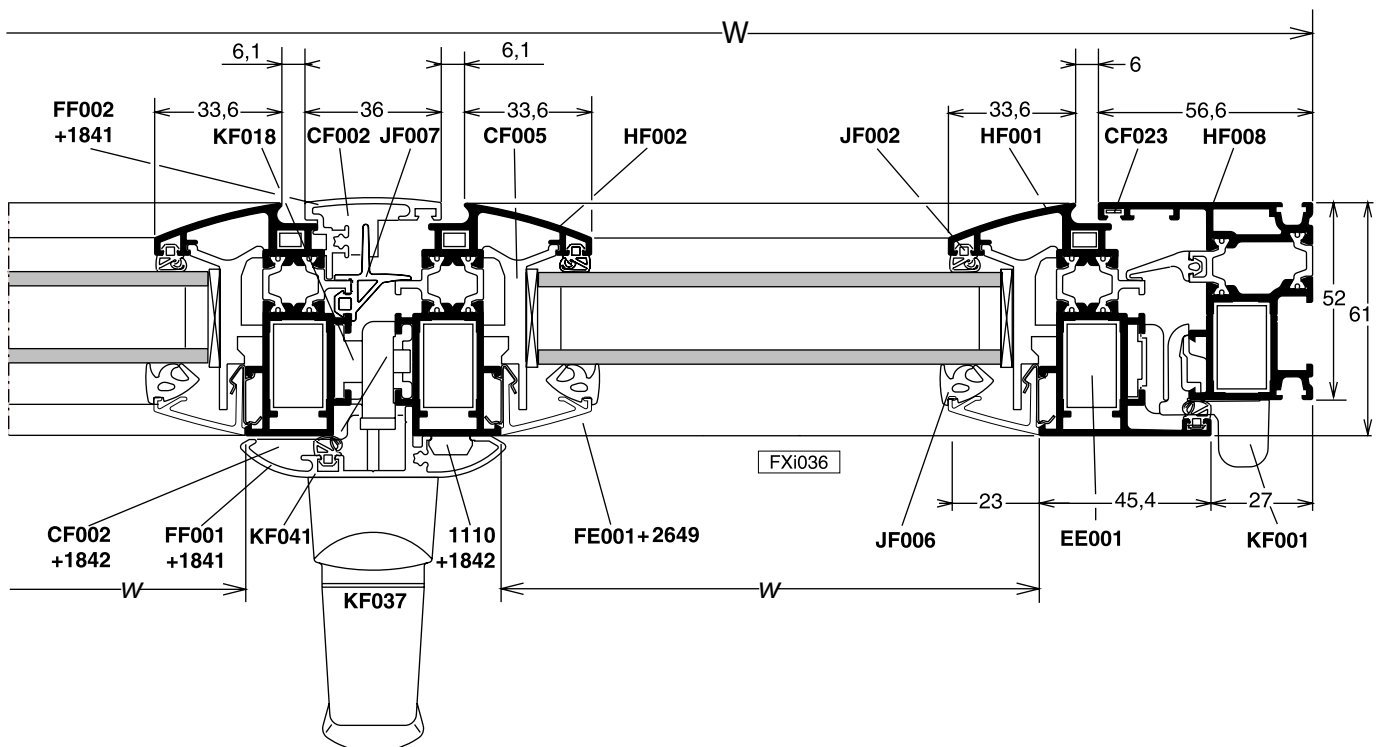
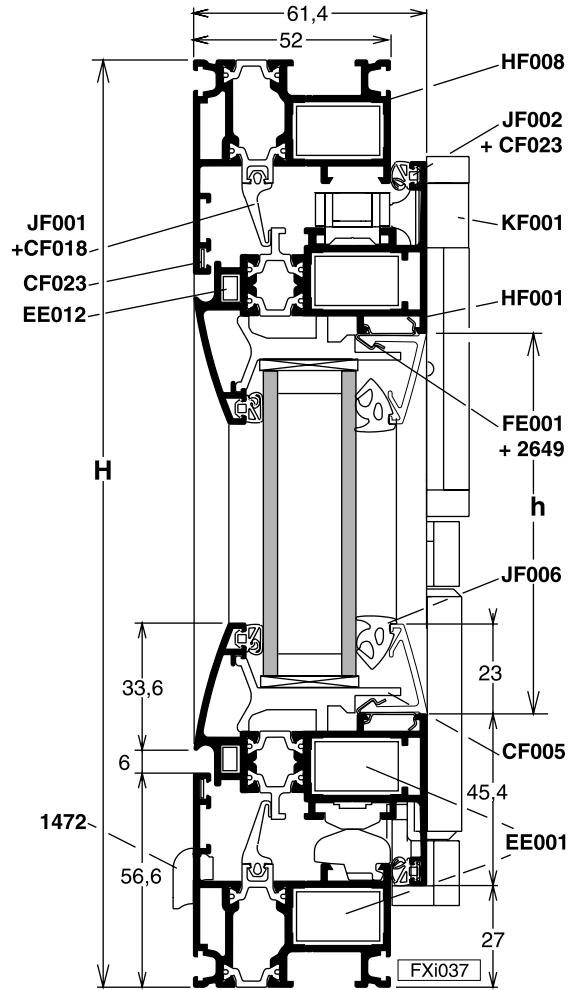
Horizontal section scale 1/2



PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
8015				H + W/2
FE001			4 4	W/2 - 106 H - 144
FF001			1	H - 62
FF002			1	H - 129
HF001			4 2	W/2 - 16 H - 54
HF002			2	H - 89
HF008			2 2	H W

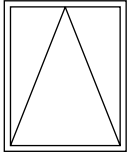
Vertical section scale 1/2



TECHNAL

FXi applications

Bottom-hung window



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
CF005	Double glazing wedge	8
CF018	Central gasket corner gasket	2
CF019	Single hinge	2
CF020	Latch	1
CF023	Rebate bracket	8
EE001	Self-locating corner cleat 15x24	8
EE012	Crimp corner cleat for 7.5 x 5 chamber	4
KF014	Top-hung friction stay	1

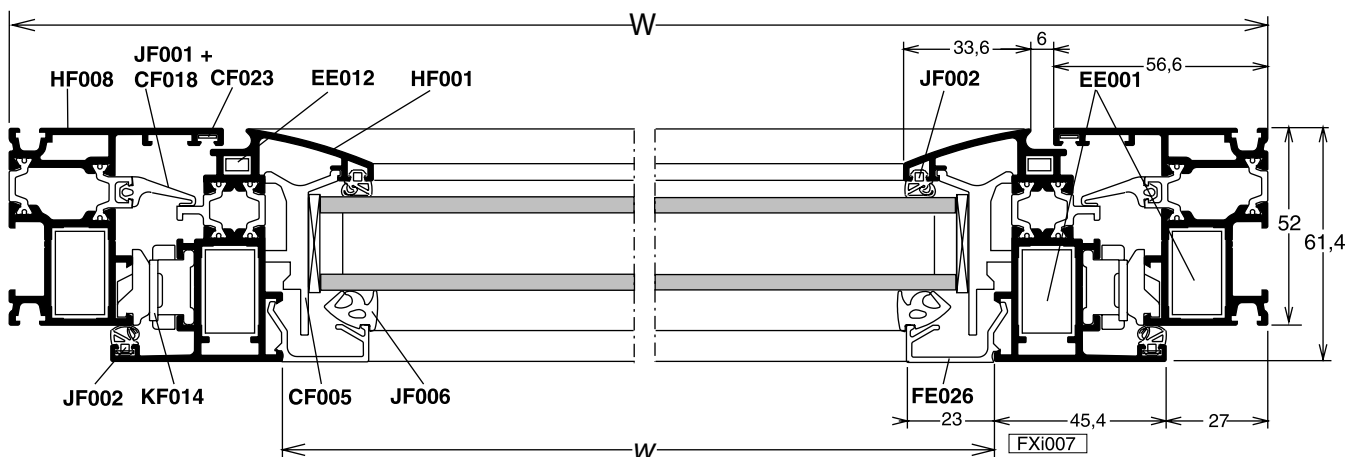
GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W+2H


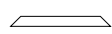



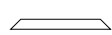
Glazing dimensions

H - 162 W - 162
h - 18 w - 18

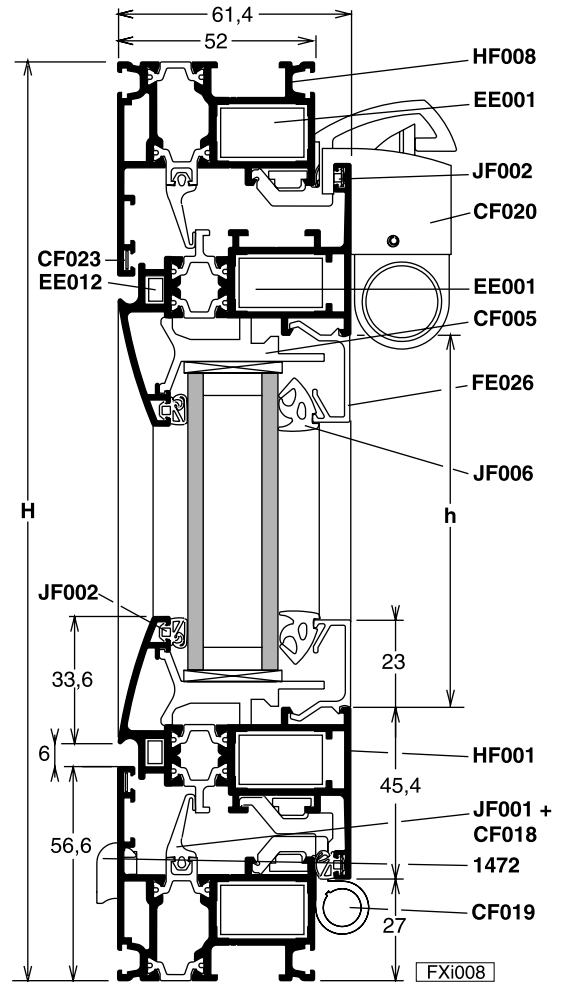
Horizontal section scale 1/2



PROFILES

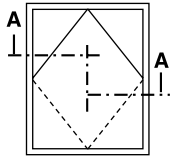
Ref.	Profiles	Sections	Quantity	Dimensions
FE026			2 2	W - 144 H - 190
HF001			2 2	W - 54 H - 54
HF008			2 2	W H

Vertical section scale 1/2



FXi applications

Horizontal pivot window



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
3165	Self-drilling screw SR2 4.2 x 23	3/m on 2W+2H
CF005	Double glazing wedge	8
CF023	Rebate bracket	8
CF032	Inside sill plug	1
CF038	4.5 x 2 wedge	3/m on W+H
CF039	Horizontal-pivot 180° locking mechanism	1
CF040	Vertical-pivot fixing set	1
EE001	Self-locating corner cleat 15x24	4
EE156	Self-locating corner cleat size 36 x 20	4
EE157	Self-locating corner cleat 29.5 x 19.4 chamber	4
EE165	Cleat for top-hung opening frame 36 x 5 chamber	4
KF014	Top-hung friction stay	1
KF037	Espagnolette	1
KF047	Strike plate ECLAT	2
KF053	Concealed pivot for horizontal-pivot	1
KF060	Locking bolt	2

GASKETS

Ref.	Descriptions	Quantity
2920	Multi-usage gasket	6W + 6H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H
JF010	Horizontal-pivot gasket	2W + 2H

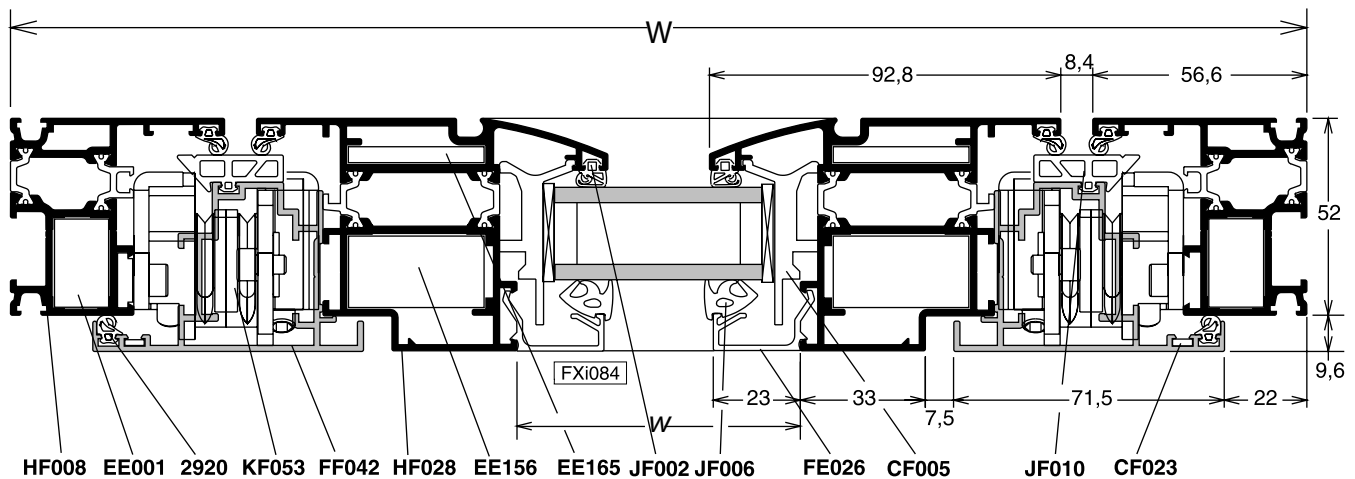
PERIMETRAL LOCKING OPTION

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	(see fab catalogue)
KF046	Strike plate	3
KF055	Corner return	2
KF060	Locking bolt	3

Glazing dimensions

H - 286 W - 286
h - 18 w - 18

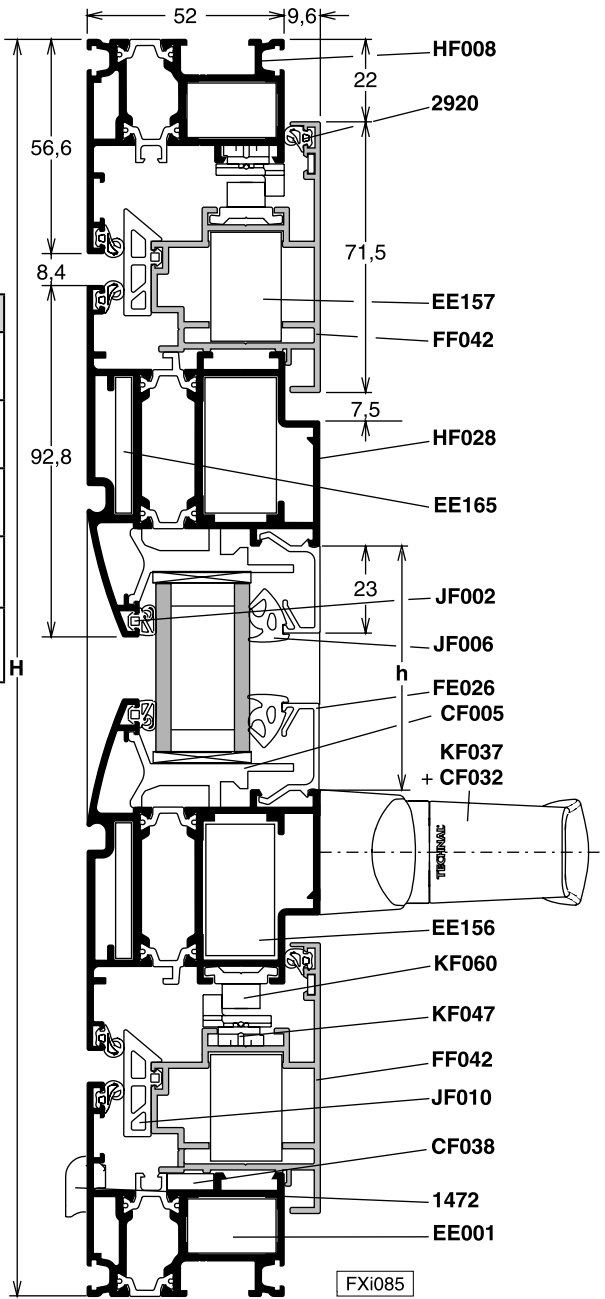
Horizontal section AA scale 1/2



Vertical section scale 1/2

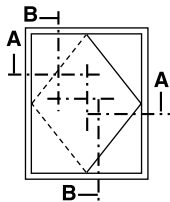
PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
8015			1	W - 362
FE026			2 2	W - 268 H - 314
FF042			2 4	W - 43.5 H/2 - 22
HF008			2 2	W H
HF028			2 2	W - 130 H - 130



FXi applications

Vertical pivot window



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
3165	Self-drilling screw SR2 4.2 x 23	3/lm on 2W+2H
CF005	Double glazing wedge	10
CF023	Rebate bracket	8
CF032	Inside sill plug	1
CF038	4.5 x 2 wedge	3/lm on W+H
CF040	Vertical-pivot fixing set	1
EE001	Self-locating corner cleat 15x24	4
EE156	Self-locating corner cleat size 36 x 20	4
EE157	Self-locating corner cleat 29.5 x 19.4 chamber	4
EE165	Cleat for top-hung opening frame 36 x 5 chamber	4
KF014	Top-hung friction stay	1
KF037	Espagnolette	1
KF047	Strike plate ECLAT	1
KF053	Concealed pivot for horizontal-pivot	1
KF060	Locking bolt	2

GASKETS

Ref.	Descriptions	Quantity
2920	Multi-usage gasket	6W + 6H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H
JF010	Horizontal-pivot gasket	2W + 2H

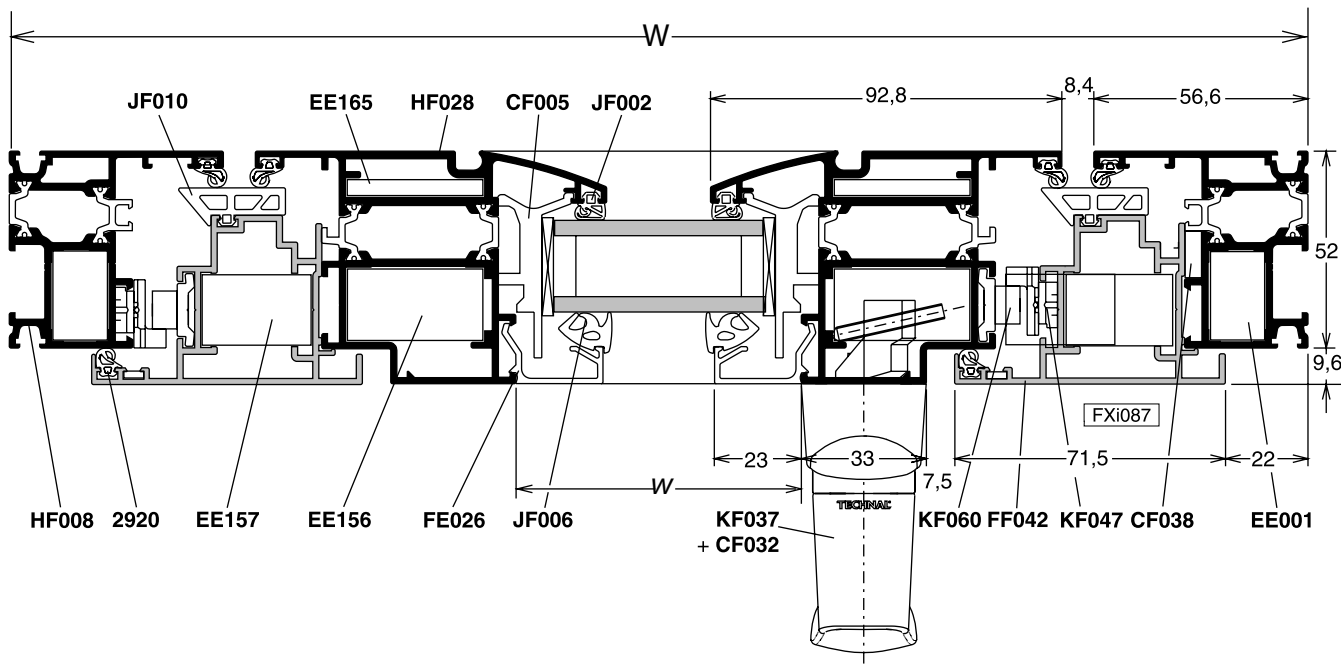
PERIMETRAL LOCKING OPTION

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	(see fab catalogue)
KF046	Strike plate	3
KF055	Corner return	2
KF060	Locking bolt	3

Glazing dimensions

H - 286 W - 286
h - 18 w - 18

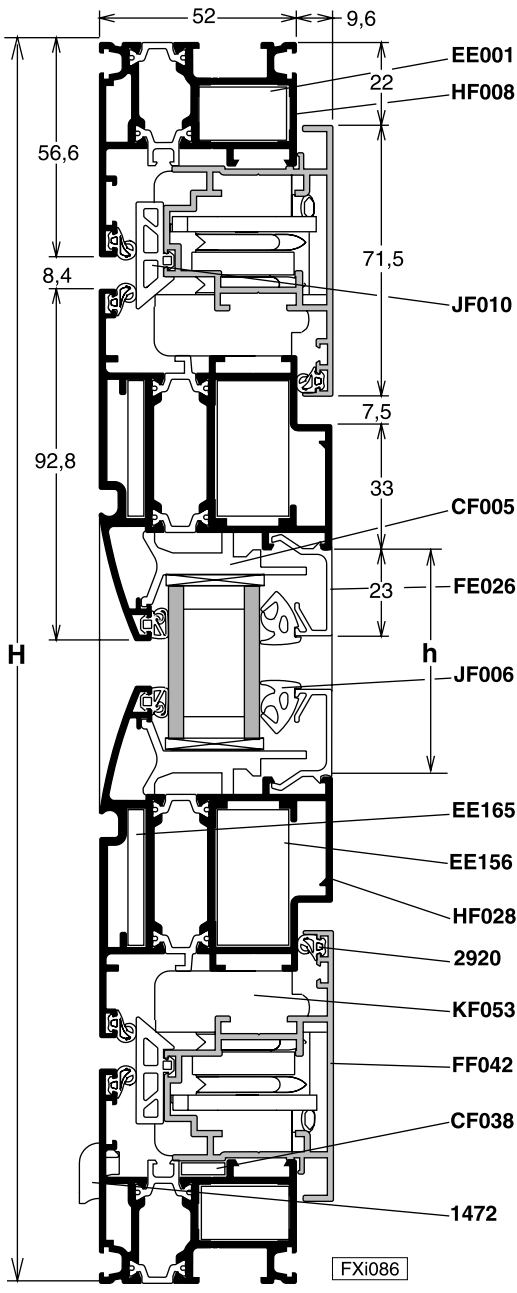
Horizontal section AA scale 1/2



Vertical section BB scale 1/2

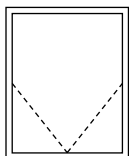
PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
8015			1	H - 362
FE026			2 2	W - 268 H - 314
FF042			2 4	H - 43.5 W/2 - 22
HF008			2 2	W H
HF028			2 2	W - 130 H - 130



FXi applications

Top-hung window



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
5526 or 5527	Small friction stay	1
	Large friction stay	1
CF005	Double glazing wedge	8
CF023	Rebate bracket	4
CF029 or CF030	Small friction stay wedge	1
	Large friction stay wedge	1
CF032	Inside sill plug	1
EE001	Self-locating corner cleat 15x24	4
EE156	Self-locating corner cleat size 36 x 20	4
EE165	Cleat for top-hung opening frame 36 x 5 chamber	4
KF037	Espagnolette	1
KF048	Additional roller bolt	2
KF054	Adjustable strike plate	2
KM600	Spacer	1

GASKETS

Ref.	Descriptions	Quantity
JF002	Dual function gasket	6W+ 6H
JF006	Internal glazing gasket 9 mm clearance	2W +2H

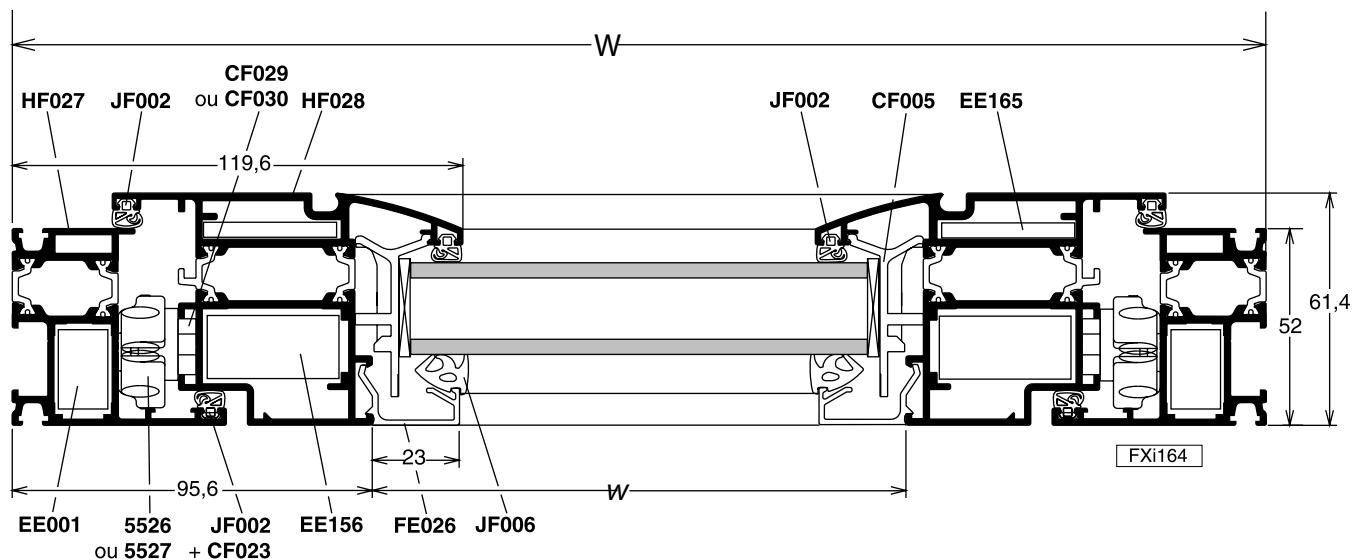
PERIMETRAL LOCKING OPTION

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	(see fab catalogue)
KF048	Additional roller bolt	4
KF054	Adjustable strike plate	4
KF055	Corner return	2

Glazing dimensions

H - 211 W - 211
h - 18 w - 18

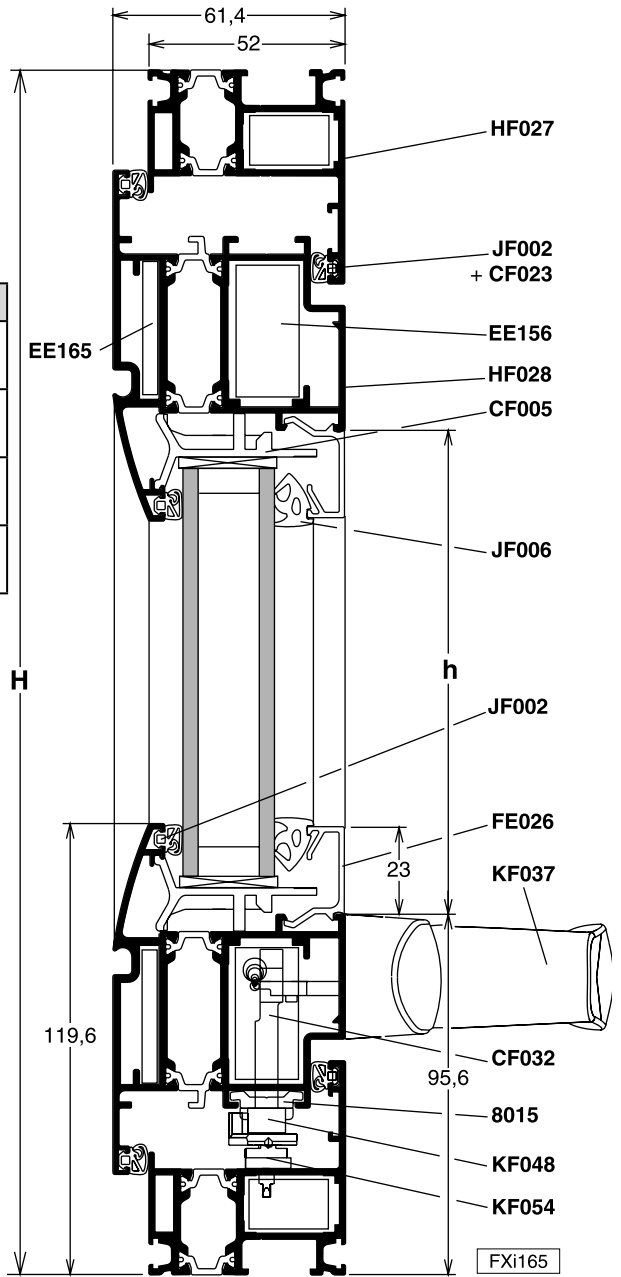
Horizontal section scale 1/2



Vertical section scale 1/2

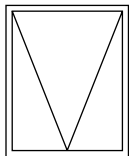
PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
8015			1	W - 337
FE026			2 2	W - 193 H - 239
HF027			2 2	W H
HF028			2 2	W - 55 H - 55



FXi applications

Top-hung window on butt hinges



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
2298	Top-hung butt-hinged friction stay	2
CF005	Double glazing wedge	8
CF023	Rebate bracket	4
CF031	3-body hinge	2 or 3
CF032	Inside sill plug	1
CF036	Strike plate	2
EE001	Self-locating corner cleat 15x24	4
EE156	Self-locating corner cleat size 36 x 20	4
EE165	Cleat for top-hung opening frame 36 x 5 chamber	4
KF037	Espagnolette	1
KF048	Additional roller bolt	2
KM600	Spacer	1

GASKETS

Ref.	Descriptions	Quantity
JF002	Dual function gasket	6W + 6H
JF006	Internal glazing gasket 9 mm clearance	2W +2H

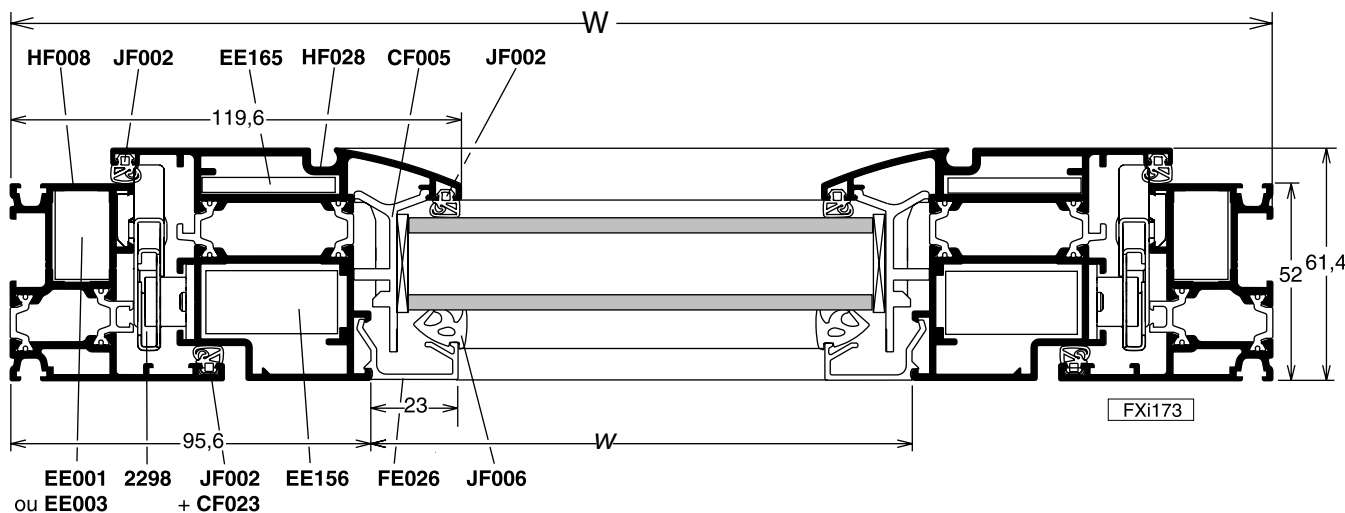
PERIMETRAL LOCKING OPTION

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	(see fab catalogue)
CF036	Strike plate	4
KF048	Additional roller bolt	4
KF055	Corner return	2

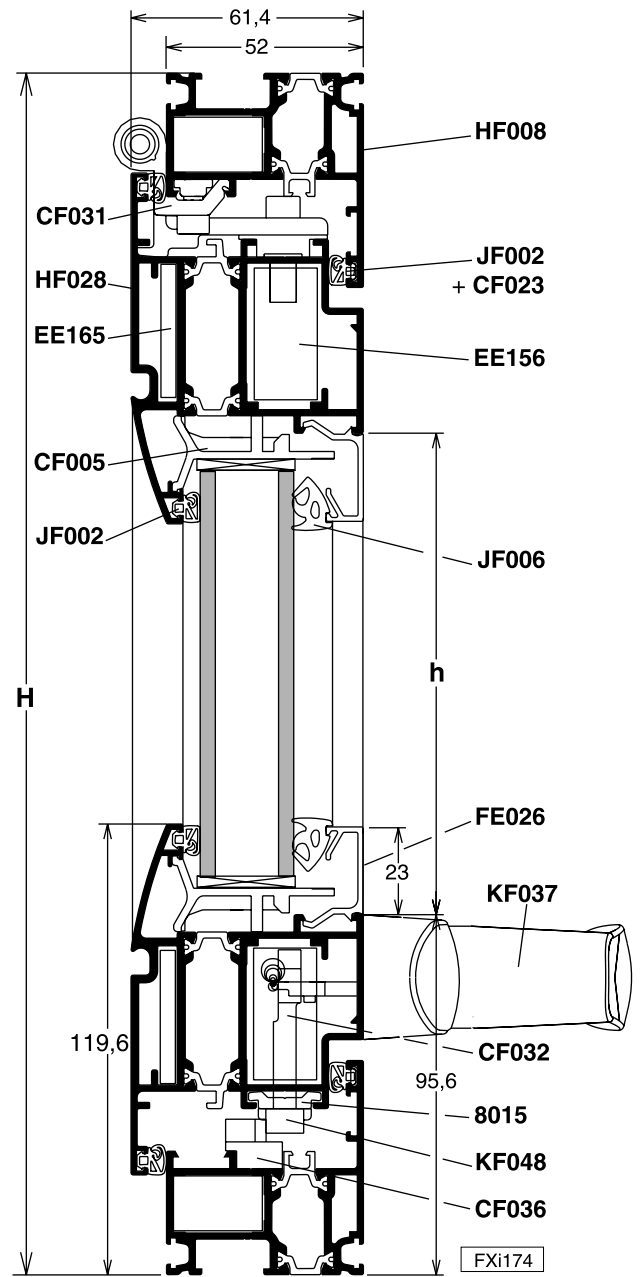
Glazing dimensions

H - 211 W - 211
h - 18 w - 18

Horizontal section scale 1/2



Vertical section scale 1/2



PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
8015			1	W - 337
FE026			2 2	W - 193 H - 239
HF008			2 2	W H
HF028			2 2	W - 55 H - 55

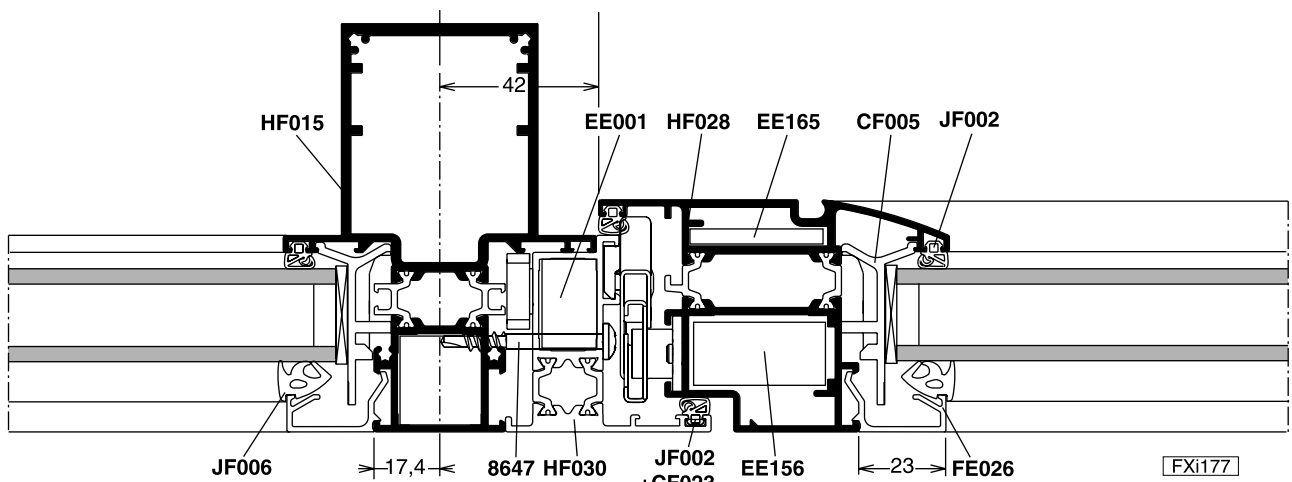
REVERSER PROFILE OPTION

Ref.	Profies	Sections	Quantity
HF030			as per composition

Ref.	Descriptions	Quantity
2595	Adhesive glass wedge	3/lm on 2H+2W
8647	Self-drilling screw SR2 4 x 37	3/lm on 2H+2W
EE001	Self-locating corner cleat 15x24	8

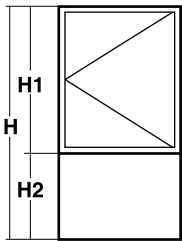
Dimensions vary according to application

Horizontal section with HF030 reverser



FXi applications

1 leaf window on bottom fixed light composite frame



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
CF003	Drainage spout	3
CF004	76 mm mullion plug	2
CF005	Double glazing wedge	8
CF013	Standard rebate reinforcement	1
CF018	Central gasket corner gasket	2
CF019	Single hinge	2
CF023	Rebate bracket	8
EE001	Self-locating corner cleat 15x24	8
EE010	Mullion connector for 15 x 24 chamber	2
EE012	Crimp corner cleat for 7.5 x 5 chamber	4
EF001	Right angle anti-distortion part	4
KF012	Closing mechanism with rods	1
KF030	Driver	1
KF037	Espagnolette	1

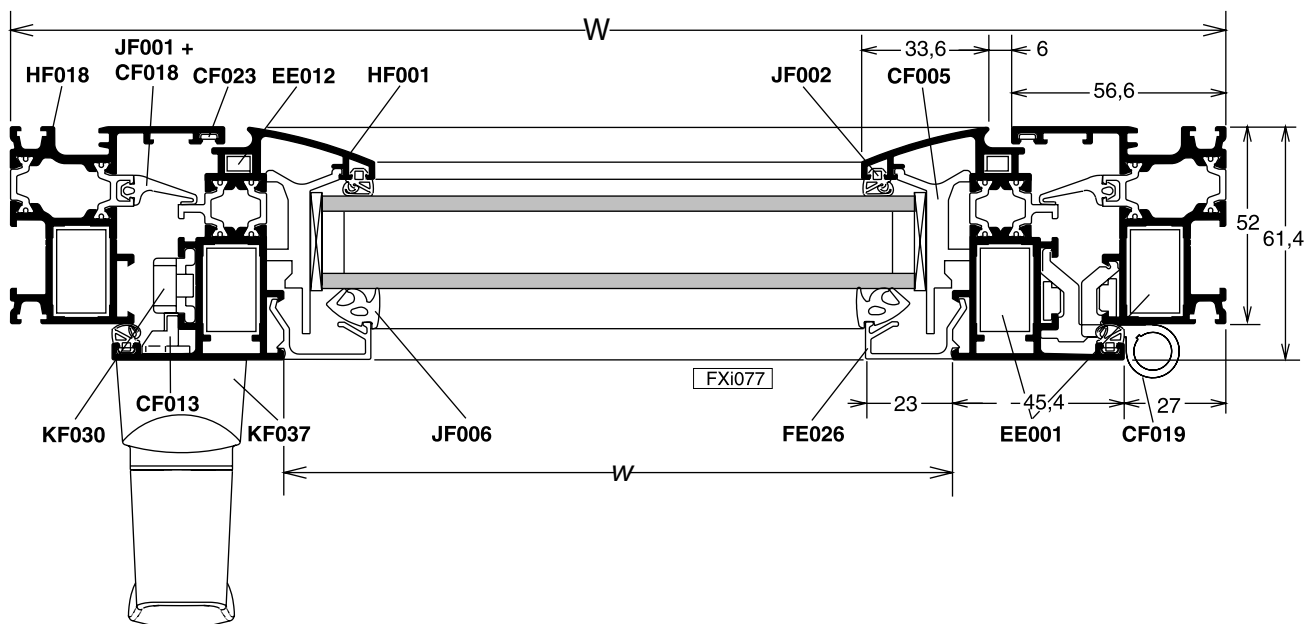
GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	6W + 2H2 + 3H1
JF006	Internal glazing gasket 9 mm clearance	4W + 2H

**Glazing dimensions
ouvrant**
H1 - 144
W - 162


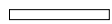
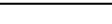






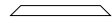

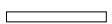


**Glazing dimensions
fixe**
H2 - 65
W - 83

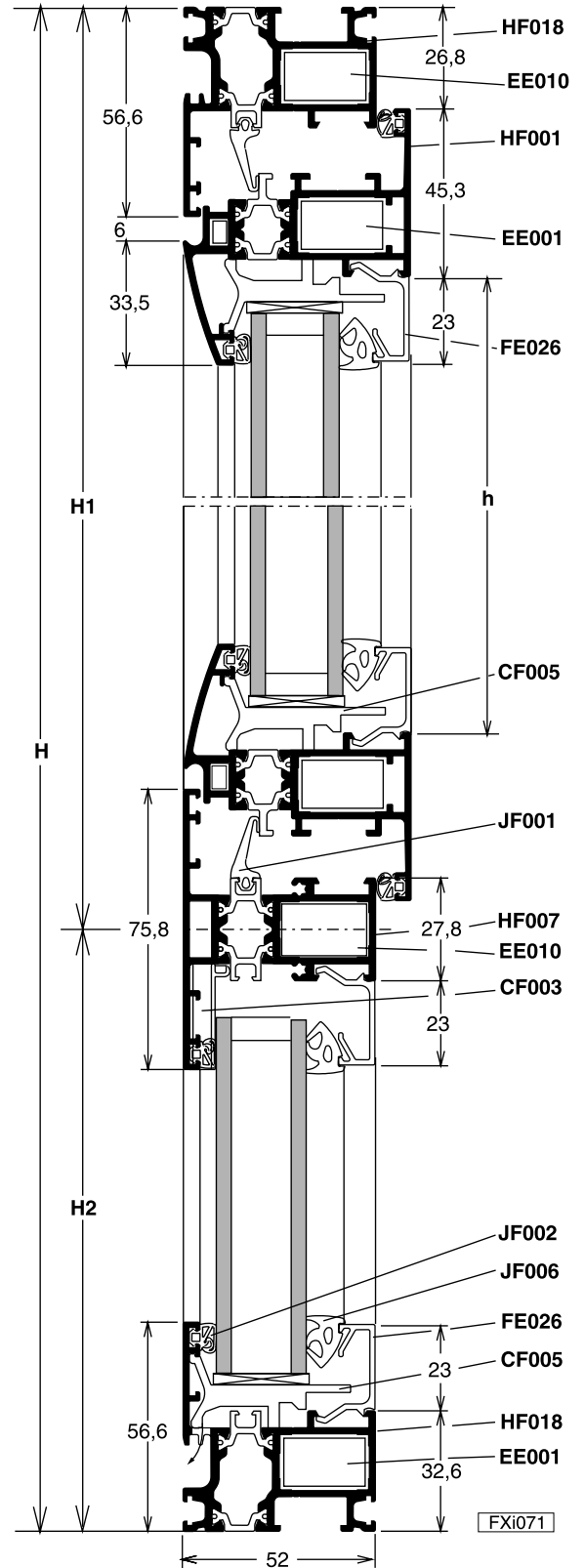
Horizontal section scale 1/2



Vertical section scale 1/2

PROFILES

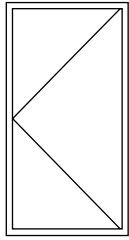
Ref.	Profiles	Sections	Quantity	Dimensions
FE026	 opening frame		2	W - 144
			2	H1 - 171,5
	 fixed		2	W - 65
			2	H2 - 92,5
HF001			2	W - 54 H1 - 35
HF007			1	W - 65
HF018			2	W H
8015			1	H1



TECHNAL®

FXi applications

1-leaf locking patio door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1053	30 x 50 cylinder	1
1472	Deflector	2
CF005	Double glazing wedge	4
CF016	Lock and deadbolt set	1
CF018	Central gasket corner gasket	2
CF021	3-body hinge	3
CF023	Rebate bracket	8
CF028	Patio door strike plate	1
CP007	Cylinder escutcheon	1
EE001	Self-locating corner cleat 15x24	4
EE008	Self-locating corner cleat 46x24	4
EE009	Crimp corner cleat 38.4 x 5.2	4
KF024	Opening frame support	1
KF050	Door handle	1

GASKETS

Ref.	Descriptions	Quantity
2920	Multi-usage gasket	2W + 2H
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	2W + 2H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

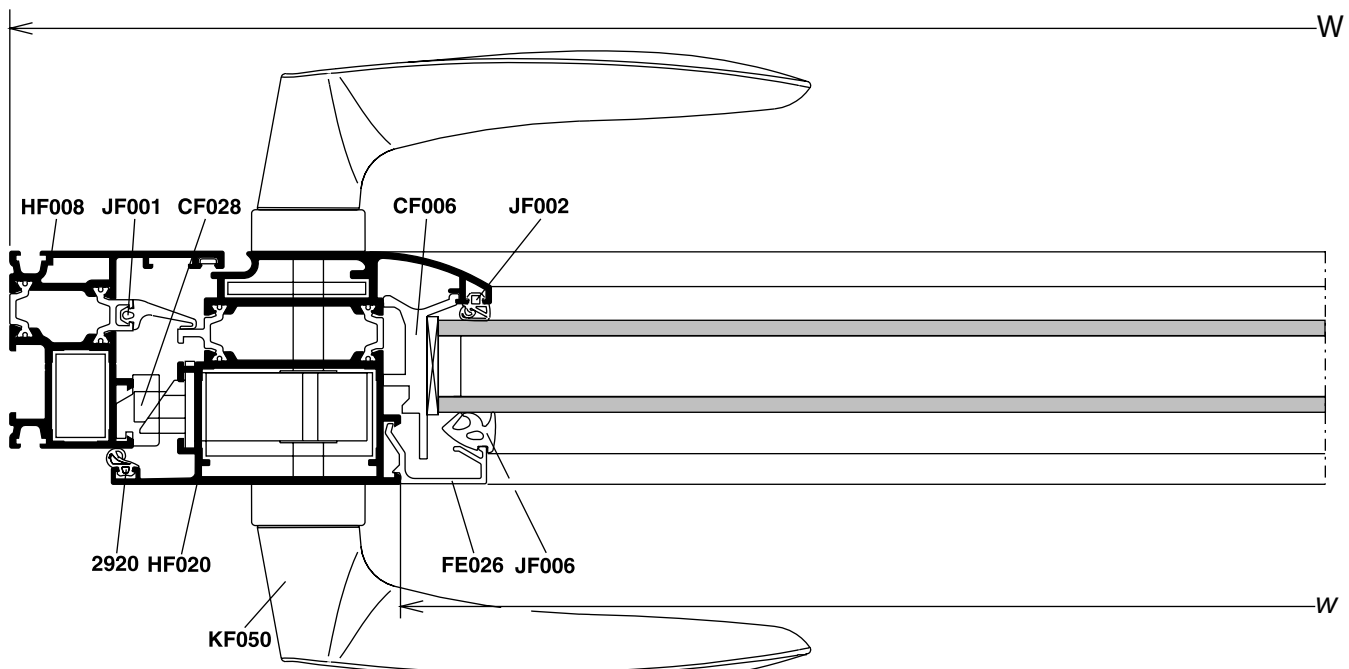
3 point lock

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
CF017	3-point lock set	1
CF027	Espagnolette connector set	1
KF012	Closing mechanism with rods	1

Glazing dimensions


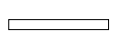

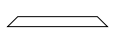

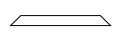
H - 224 W - 224
h - 18 w - 18

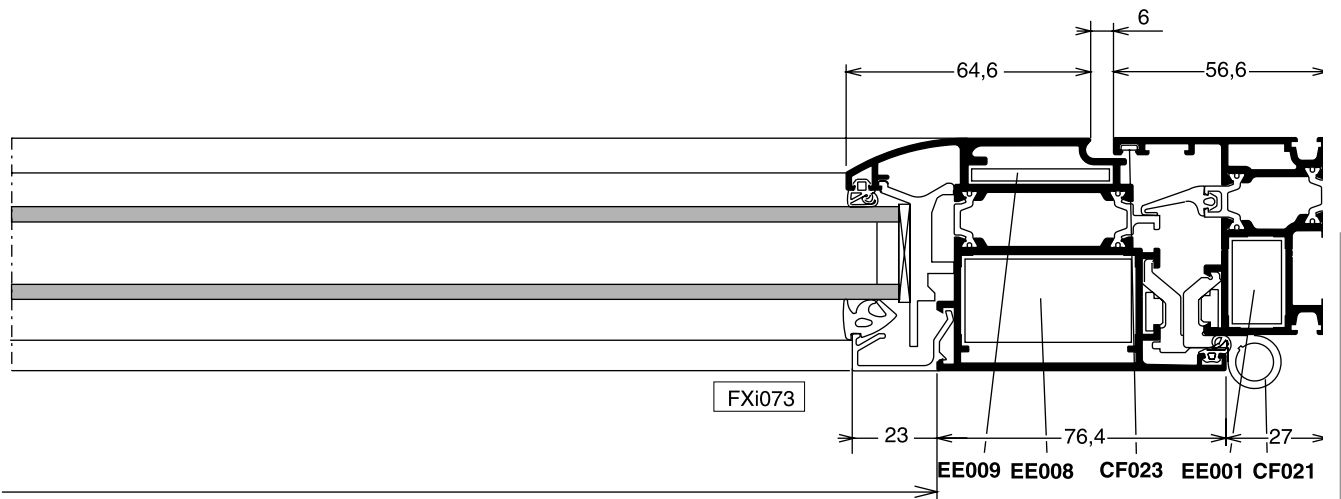
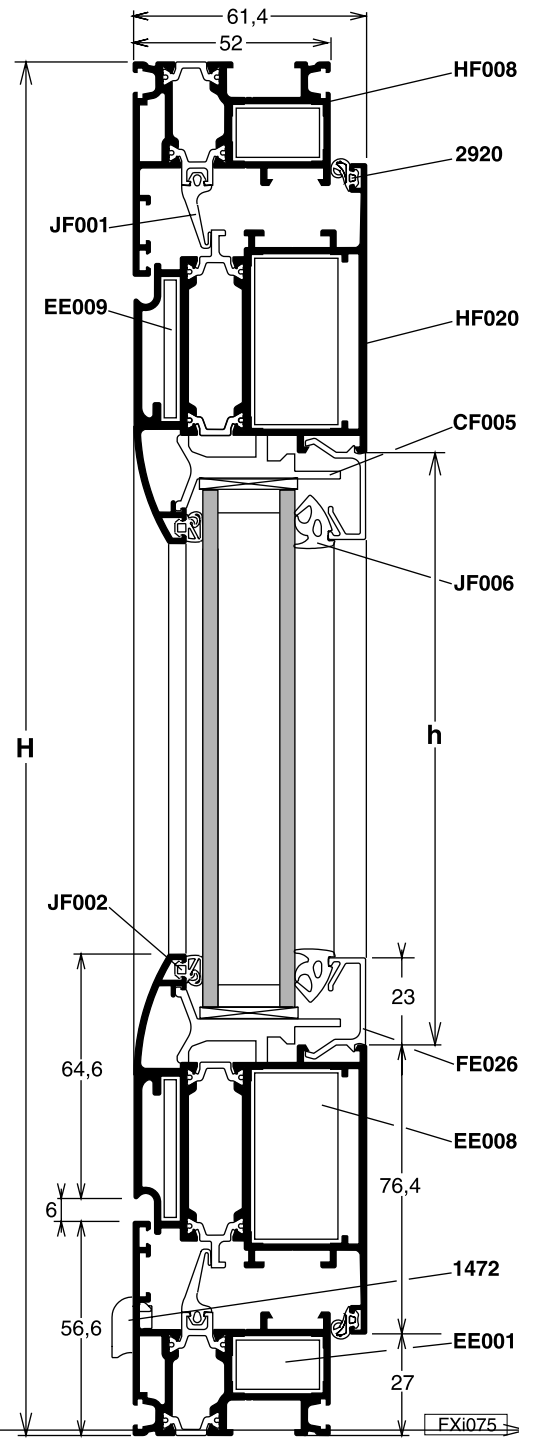
Horizontal section scale 1/2



Vertical section scale 1/2

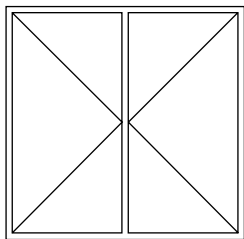
PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
FE026			2 2	W - 206 H - 252
HF008			2 2	W H
HF020			2 2	W - 54 H - 54



FXi applications

2-leaf locking patio door



Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1053	30 x 50 cylinder	1
1472	Deflector	2
CF005	Double glazing wedge	8
CF007	Flexible plug for central gasket	1
CF009	Supplementary rebate plug	1
CF016	Lock and deadbolt set	1
CF018	Central gasket corner gasket	2
CF021	3-body hinge	6
CF023	Rebate bracket	12
CF028	Patio door strike plate	1
CP007	Cylinder escutcheon	1
EE001	Self-locating corner cleat 15x24	4
EE008	Self-locating corner cleat 46x24	8
EE009	Crimp corner cleat 38.4 x 5.2	8
KF017	Sash bolt	1
KF024	Opening frame support	1
KF050	Door handle	1
VE003	Square headed screw 3.9 x 25	4
VE017	Sheet screw SR2 3.9 x 38	3/lm on H

GASKETS

Ref.	Descriptions	Quantity
2920	Multi-usage gasket	2W + 3H
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	2W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 4H
JF007	Central mullion gasket	1 H

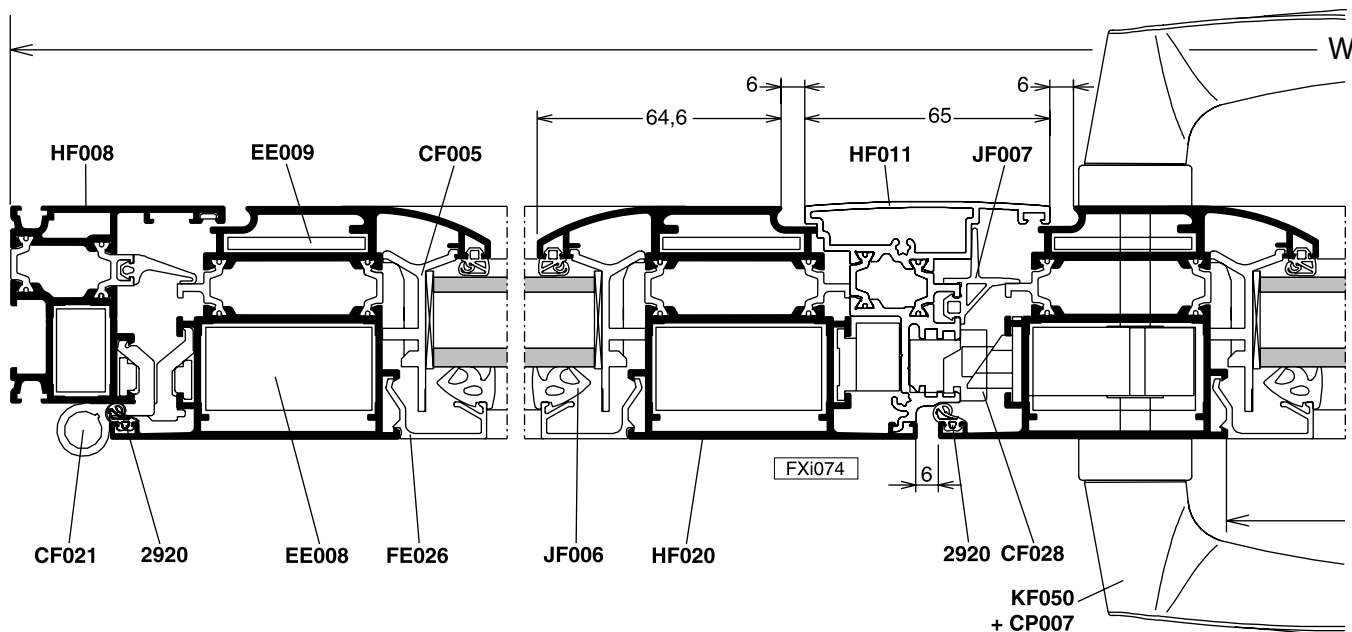
3 point lock

Ref.	Descriptions	Quantity
8015	Espagnolette rod profile	H
CF017	3 point lock	1
CF027	Espagnolette connector set	1
KF012	Closing mechanism with rods	1

Glazing dimensions


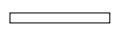

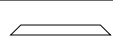

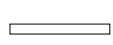


H - 224 W/2 - 200
h - 18 w - 18

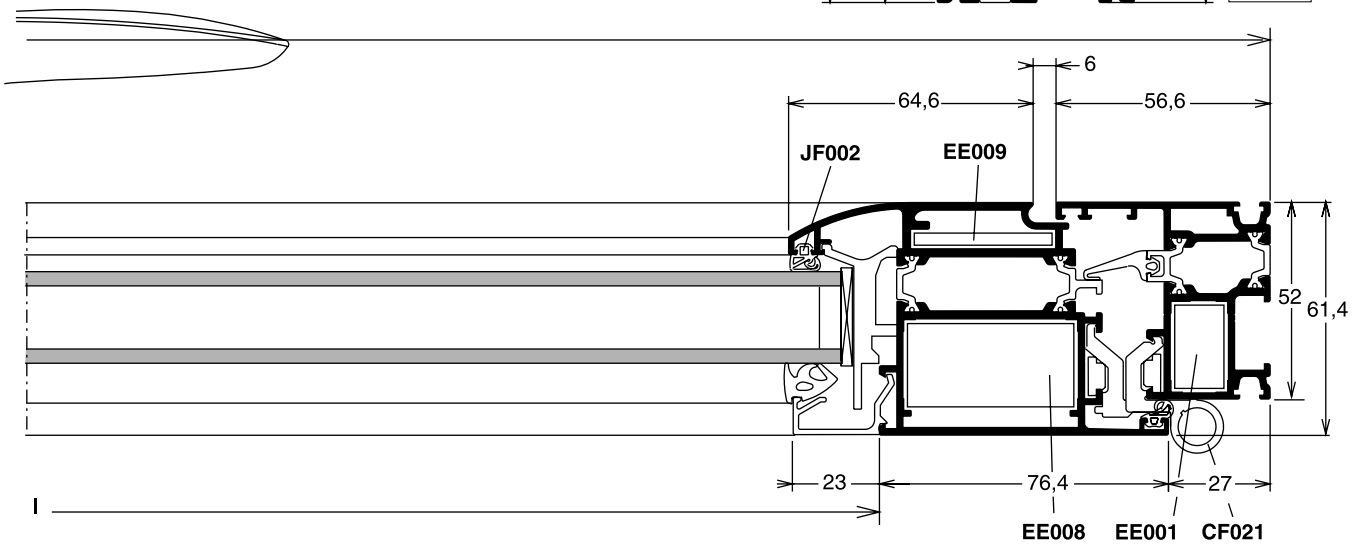
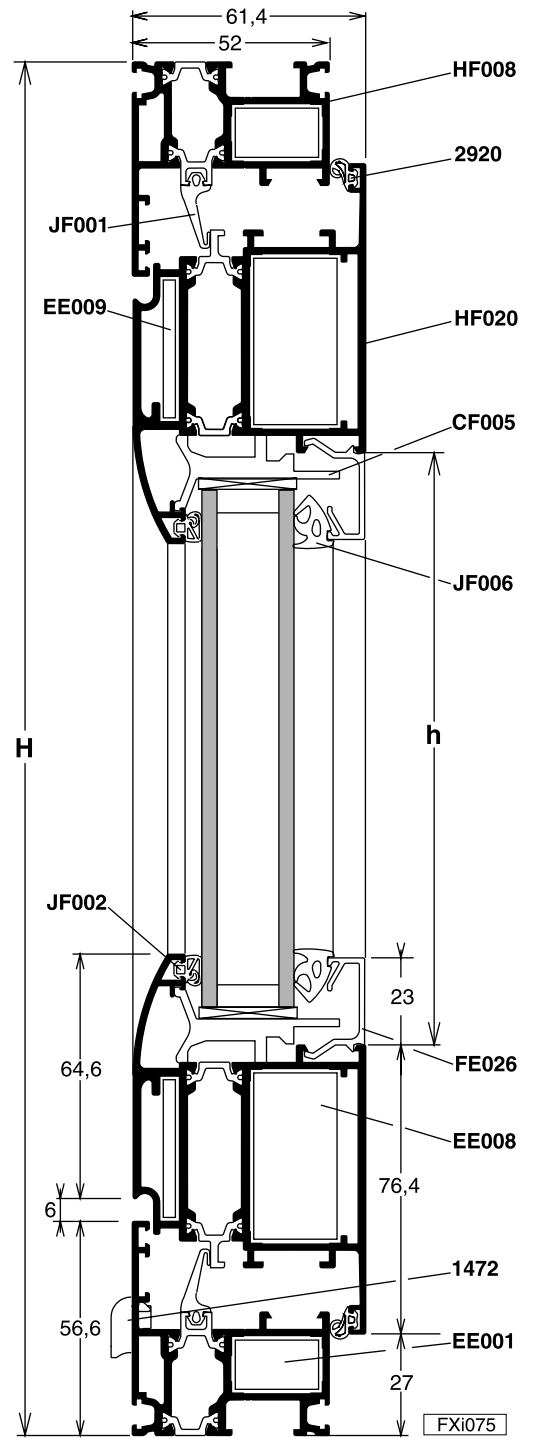
Horizontal section scale 1/2



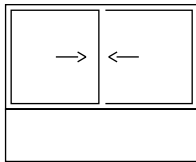
Vertical section scale 1/2

PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
FE026			4 4	W/2 - 183 H - 252
HF008			2 2	W H
HF011			1	H - 129
HF020			4 4	W/2 - 30 H - 54



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FXi applications

Integration of GXi slider

TECHNAL®

Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1838	Stanless screw Ø 4	8
3225	Weathering plug	3
CG001	Lateral plugs set	2
CG002	Central plugs set	2
CG003	Central guide	4
CG004	Lock half-moon	1
CG007	Drain pipe plug set	1
CG008	Central weathering plug	1
CG009	Deflector	2
CG010	Roller	4
CG012	Strike plate	1
CG013	Catch center punch	1
CG028	Corner cleat	4
EE001	Self-locating corner cleat 15x24	1
KG001	Lock	1
VE015	Self-drilling screw SA3/2-4-4.2 x-1	3/lm

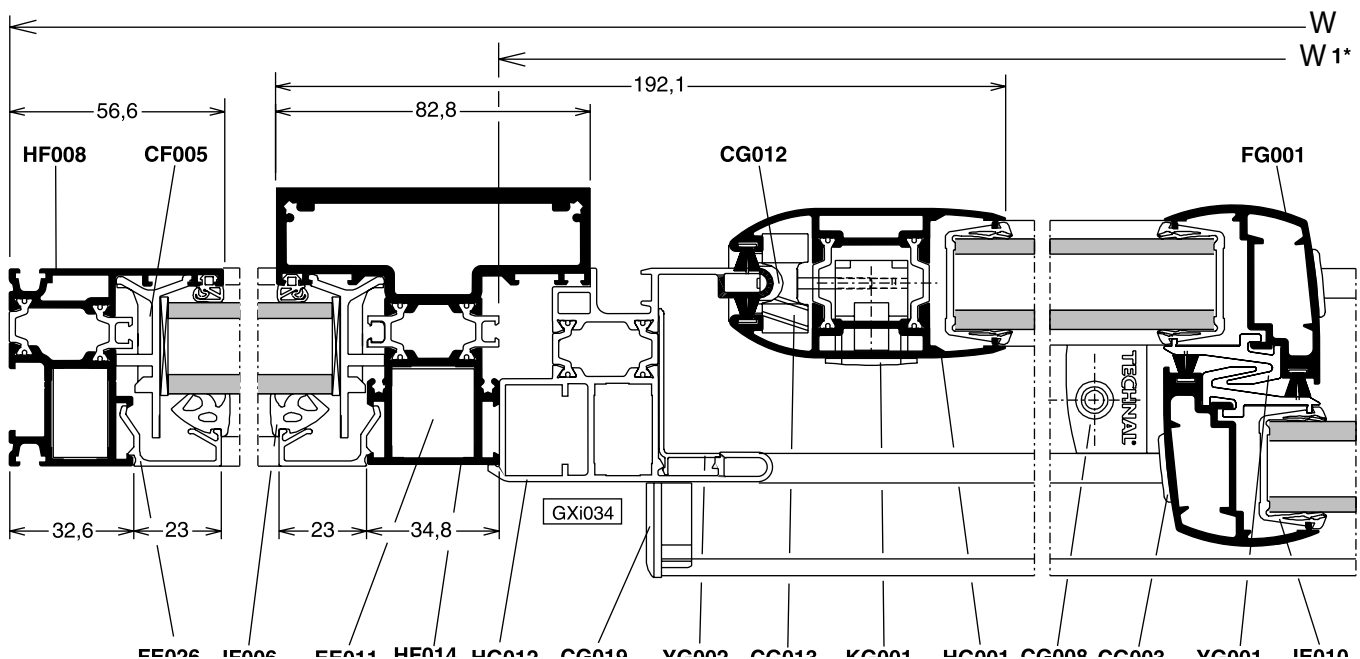
GASKETS

Ref.	Descriptions	Quantity
1311	Weatherpile gasket	4W1 + 6H1
JE010	24 mm glazing gasket	2W1 + 4H1

Glazing dimensions

H1 - 255 W1/2 - 127
h + 23 w + 27

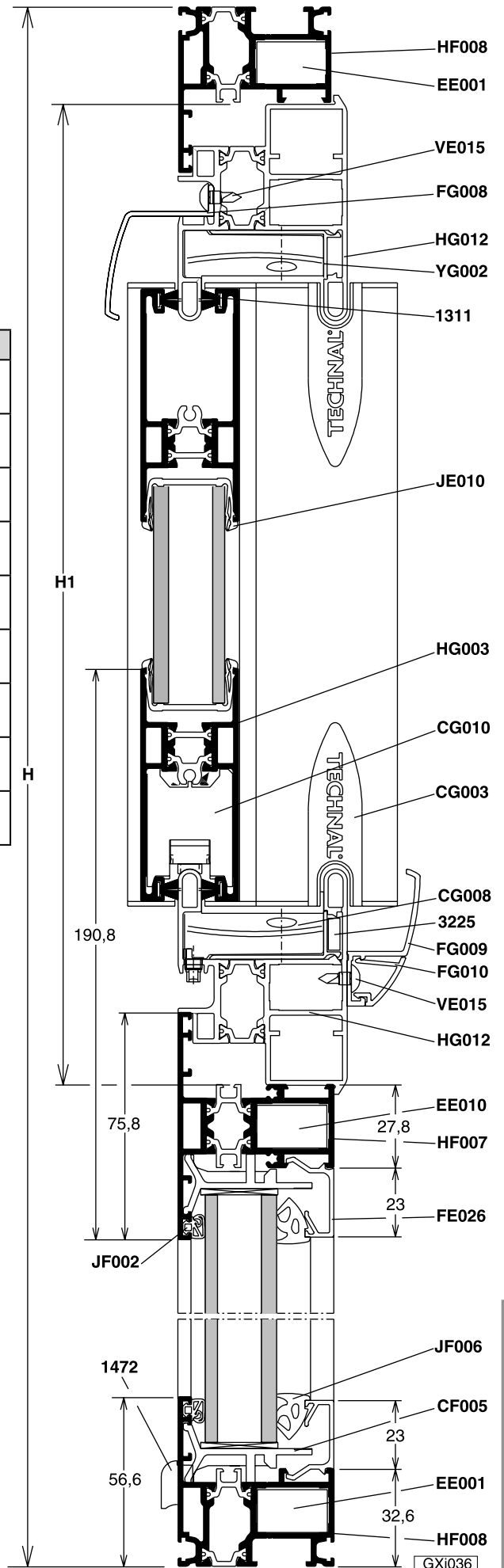
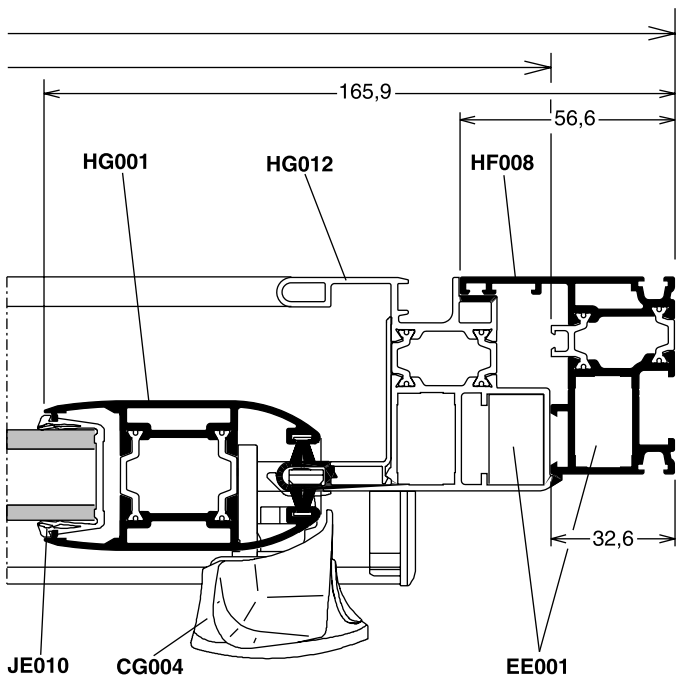
Horizontal section scale 1/2



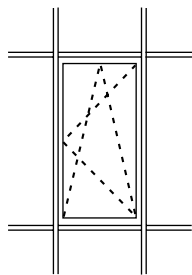
Vertical section scale 1/2

PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
FG001			2	H1 - 123
FG008			1	W1 - 30
FG009			1	W1 - 40
FG010			1	W1 - 40
HG001			2	H1 - 123
HG003			4	W1/2 - 114
HG012			2 2	W1 + 6 H1 + 6
YG001			2	H1 - 123
YG002			2 2	W1 - 84 H1 - 84



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FXi applications

Integration of T/T in MX façade

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Description with glazing 24 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1472	Deflector	2
CF005	Double glazing wedge	6
CF018	Central gasket corner gasket	2
CF023	Rebate bracket	8
EE001	Self-locating corner cleat 15x24	8
EE012	Crimp corner cleat for 7.5 x 5 chamber	4
KF001	T/T hardware 90 kgs	1
KF004	ECLAT/SF bearing element	1
KF008	Friction stay > 600 mm SF	1
KF028	Driver T/T	1
KF037	Espagnolette	1

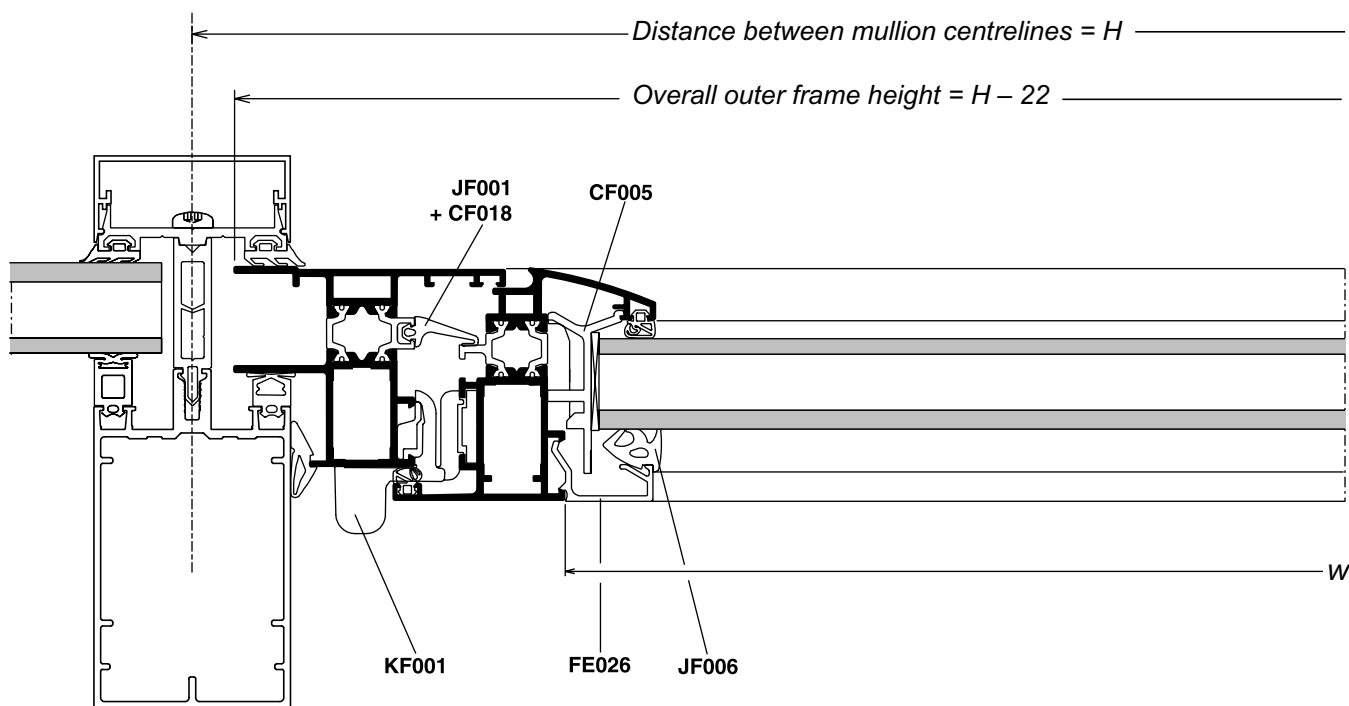
GASKETS

Ref.	Descriptions	Quantity
JF001	Central gasket	2W + 2H
JF002	Dual function gasket	4W + 4H
JF006	Internal glazing gasket 9 mm clearance	2W + 2H

Glazing dimensions


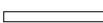



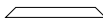

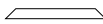
H - 215 W - 215
h - 18 w - 18

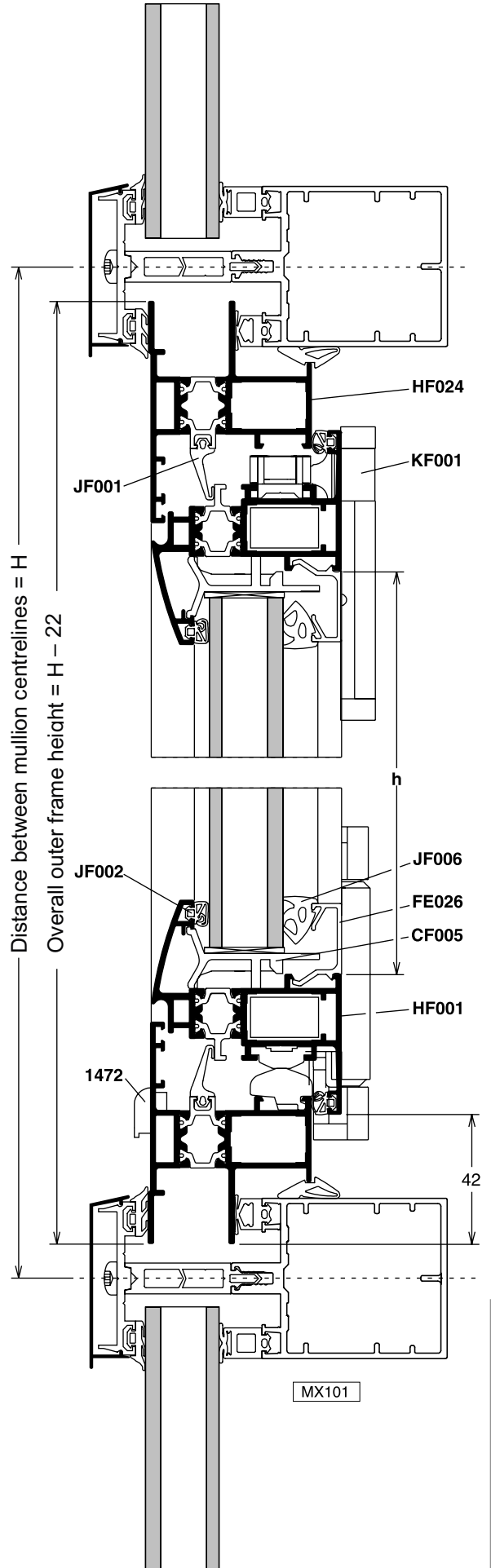
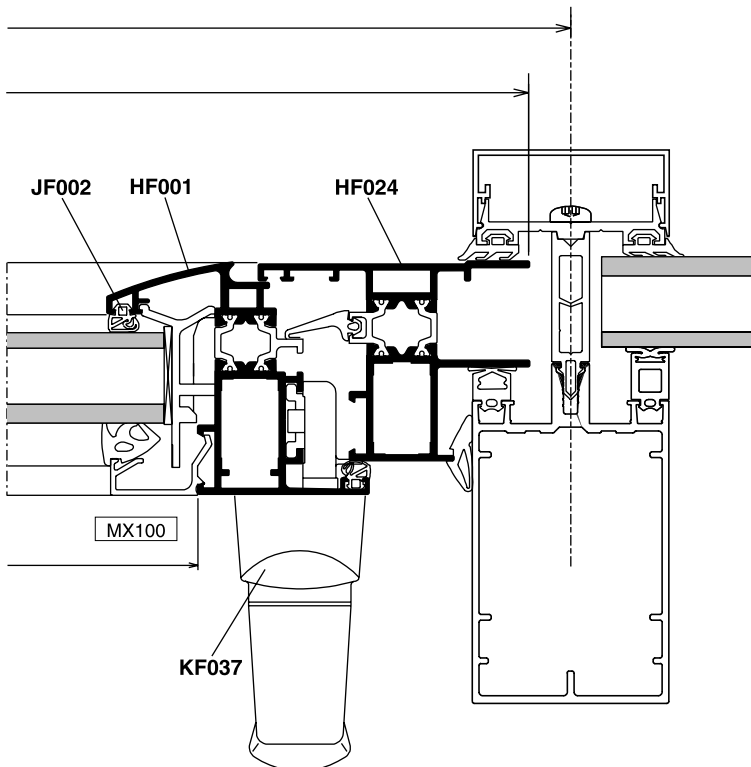
Horizontal section scale 1/2

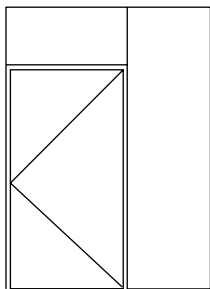


Vertical section scale 1/2

PROFILES

Ref.	Profiles	Sections	Quantity	Dimensions
8015			1	H
FE026			2 2	W - 197 H - 243
HF001			2 2	W - 106 H - 106
HF024			2 2	W - 22 H - 22





FXi applications

Integration of 1-leaf PXi in-opening door with top and side fixed lights

TECHNAL®

Descriptif avec Glass 20 mm

ACCESSORIES

Ref.	Descriptions	Quantity
1020	Lock	1
1044	Cylinder 40 x 30	1
1472	Deflector	4
2649	Rounded glazing bead clip	5/ml
3165	Screw SR2 Ø 4.2 x 23	3/ml
CF005	Glazing wedge support	12
CF023	Rebate bracket	3
CF025	Plug for 83 mm mullion	2
CP004	Cash	1
CP007	Rosette	1
CP020	Hinge nut expander	2
CP034	Insert	4
CP053	PXi jamb plug	1
CP100	Hinge (axis=21)	2
EE011	Mullion connector for 22 x 24 chamber	7
EE017	Self locating corner cleat	5
EE023	Pin connector	1
EF001	Right angle anti-distortion part	7
KF050	Door handle	1
VE017	Sheet screw SR2 3.9 x 38	3/ml
VE037	Self drilling screw SR2 Ø 4,2 x 22	4

GASKETS

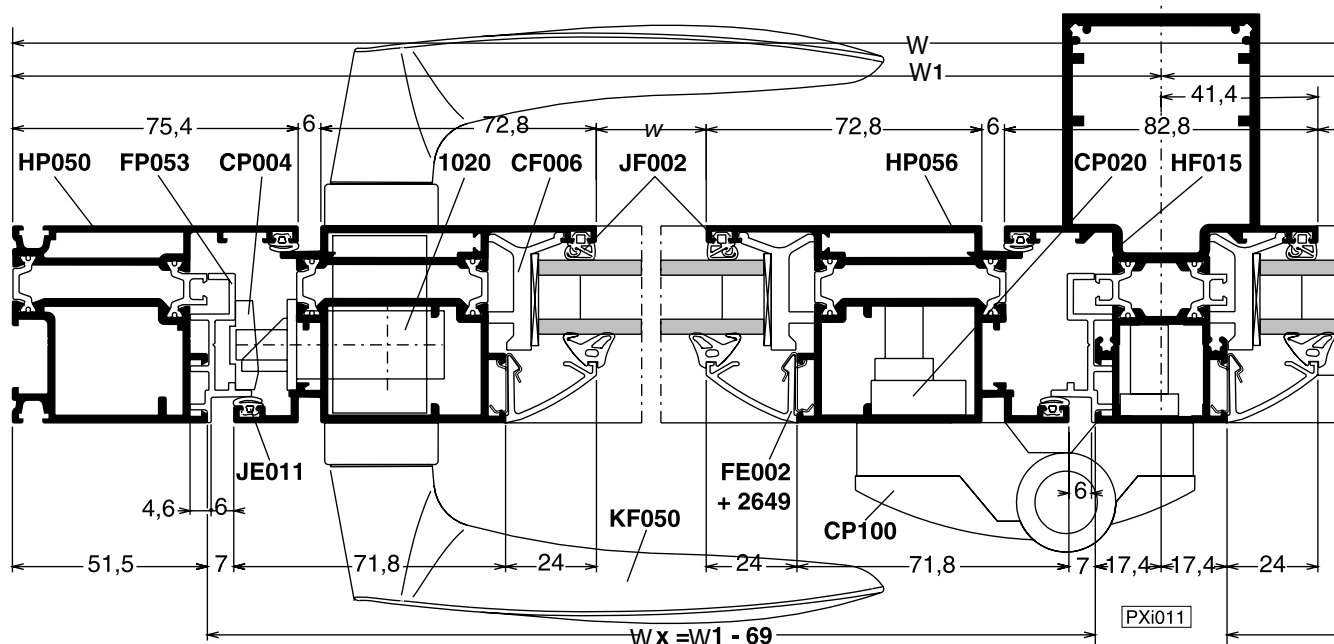
Ref.	Descriptions	Quantity
1398	Weatherpile gasket 11 mm	2W1
JE011	Rebate gasket	2W1+ 4H1
JF002	Multi-usage gasket	4W1 + 2W2 + 2H1 + 2H2 + 2H
JF005	Internal glazing gasket 7 mm clearance	4W1 + 2W2 + 2H1 + 2H2 + 2H

Glazing dimensions	
H1 - 229.5	W1 - 243.5
h + 31	w + 31

Glazing dimensions top fixed light	
H2 - 86.5	W1 - 86.5
h + 31	w + 31

Glazing dimensions side fixed light	
H - 125.5	W2 - 86.5
h + 31	w + 31

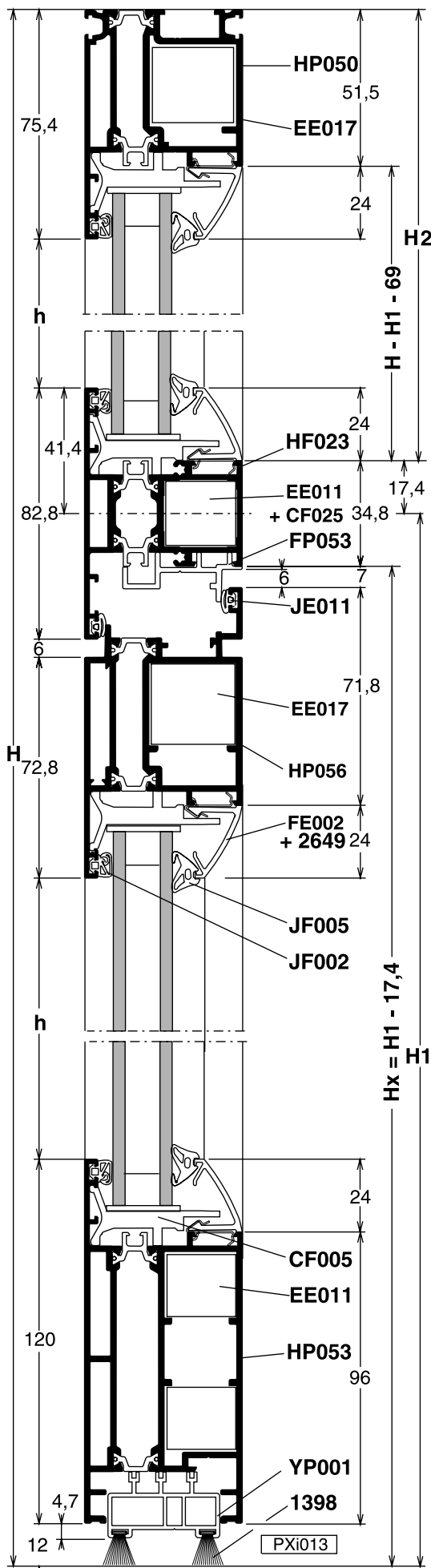
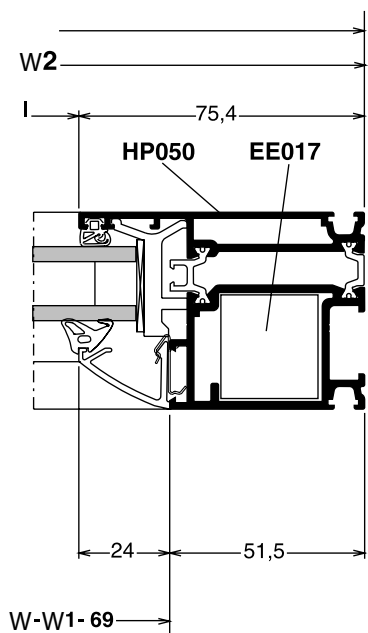
Horizontal section scale 1/2



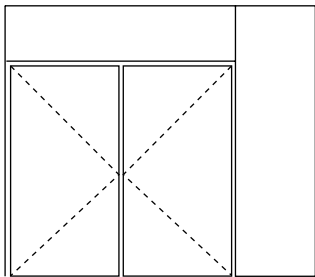
Vertical section scale 1/2

PROFILES

Ref.	Profies	Sections	Quantity	Dimensions
FE002			2	W1 - 69
			2	W - W1 - 69
			2	H - 108
			2	H - H1 - 69
			2	Wx - 157.5
			2	Hx - 187
FP053			1	W1 - 59.5
			2	H1 - 13
HF015			1	H - 51.5
HF023			1	W1 - 69
HP050			1	W
			1	(c) W - W1 - 17.5
			1	(a) H
			1	(b) H - 5
HP053			1	Wx - 157.5
HP056			1	Wx - 14
			2	Hx - 19
YP001			1	Wx - 157.5



TECHNAL



Descriptif avec Glass 20 mm

FXi applications

Integration of 2-leaf PXi in-opening door with top and side fixed lights

ACCESSORIES

Ref.	Descriptions	Quantity
1020	Lock	1
1044	Cylinder 40 x 30	1
1222	Lock	2
1472	Deflector	4
2649	Rounded glazing bead clip	5/ml
3166	Self-drilling screw SR2 4.2 x 23	3/ml
CF005	Double glazing wedge	16
CF023	Rebate bracket	3
CF025	Plug for 83 mm mullion	2
CP004	Cash	1
CP005	Strike plate top	1
CP007	Rosette	1
CP020	Hinge nut expander	6
CP024	Adjusting spacer set	12
CP034	Insert	6
CP035	Strike plate bottom	1
CP043	Nut and hinge set	2
CP052	2 leaves plug set	1
CP053	PXi jamb plug	2
CP055	Unhinging axis	4

ACCESSORIES

Ref.	Descriptions	Quantity
CP103	Composed hinge (axis=36)	2
CP104	Reinforced mullion hinge	2
EE011	Mullion connector for 22 x 24 chamber	11
EE017	Self locating corner cleat	7
EE022	Fitting block	2
EE023	Pin corner cleat 27.4 x 24	1
EF001	Right angle anti-distortion part	9
KF050	Door handle	1
VE017	Sheet screw SR2 3.9 x 38	3/ml
VE037	Self drilling screw SR2 Ø 4.2 x 22	5

GASKETS

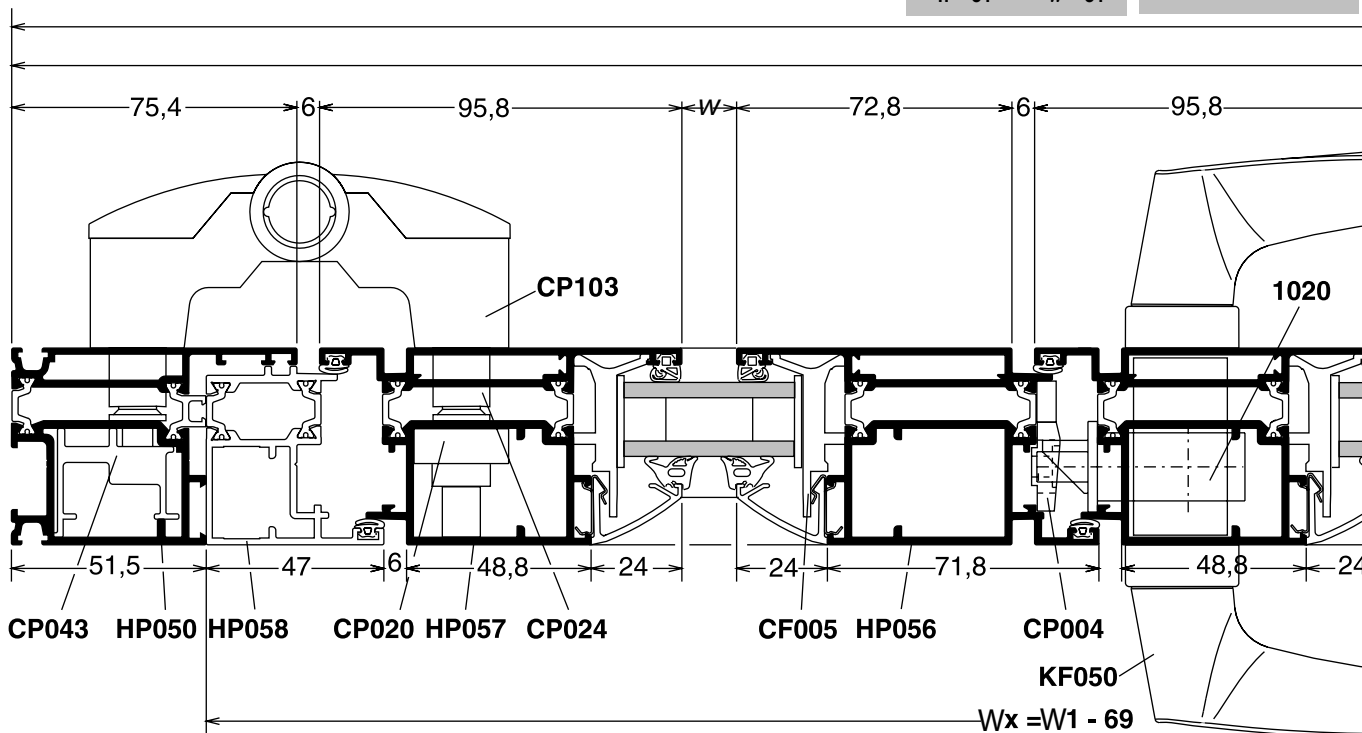
Ref.	Descriptions	Quantity
1398	Weatherpile gasket black	2W1
JF002	Multi-usage gasket	4W1 + 2W2 + 4H1 + 2H2 + 2H
JF005	Internal glazing gasket 7 mm clearance	4W1 + 2W2 + 4H1 + 2H2 + 2H
JE011	Rebate gasket	2W1 + 6H1

Glazing dimensions
 H1 - 244 W1/2 - 216.5
 h + 31 w + 31

Glazing dimensions top fixed light
 H2 - 86.5 W1 - 86.5
 h + 31 w + 31

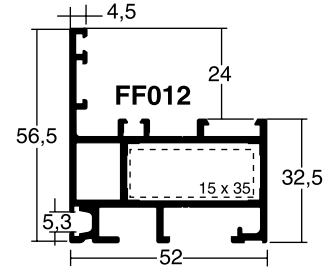
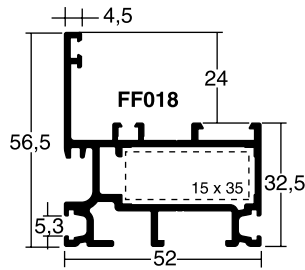
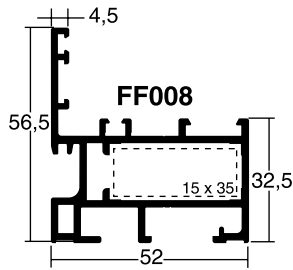
Glazing dimensions side fixed light
 H - 125.5 W2 - 86.5
 h + 31 w + 31

Horizontal section scale 1/2

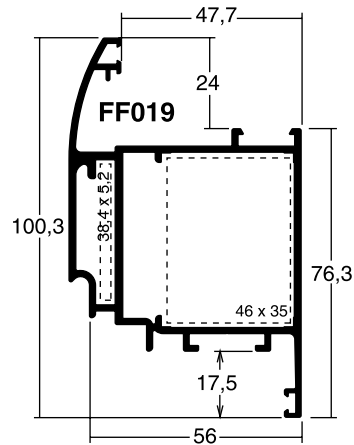
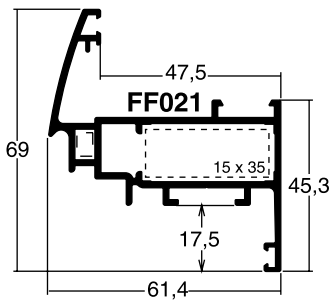


Options

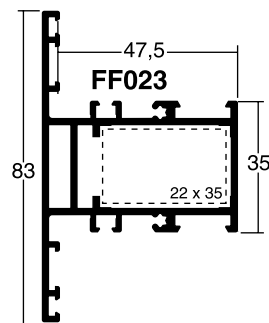
Outer frame FX series alternatives



Opening frame FX series alternatives



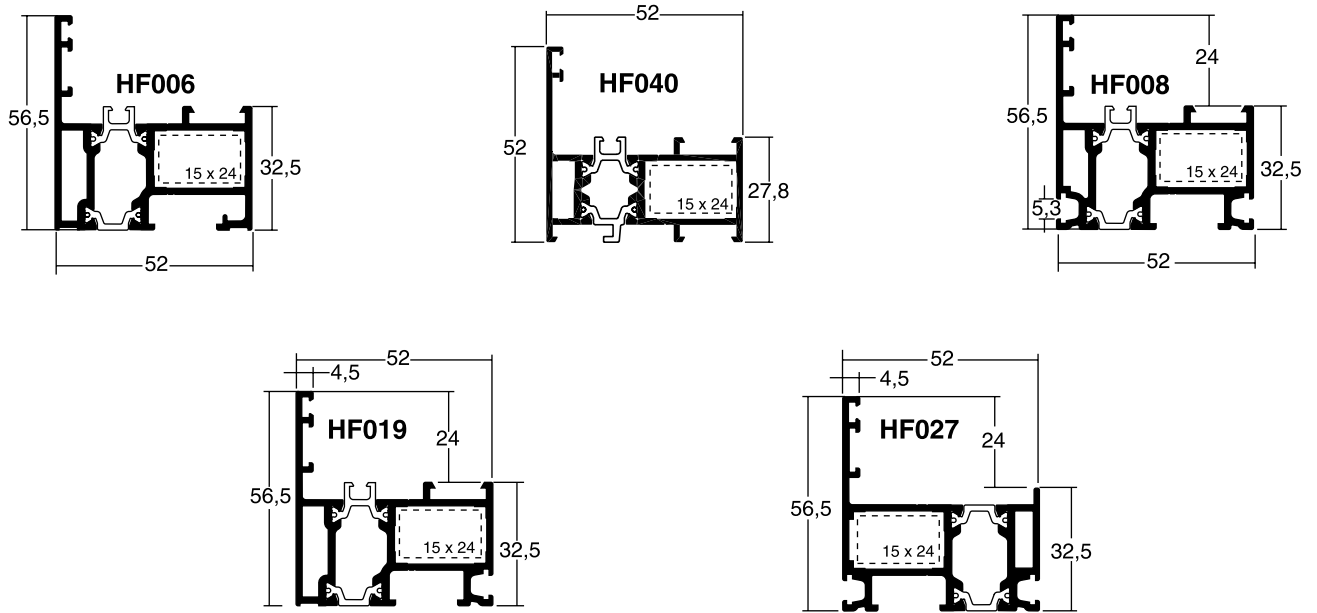
Mullion/transom FX series alternatives



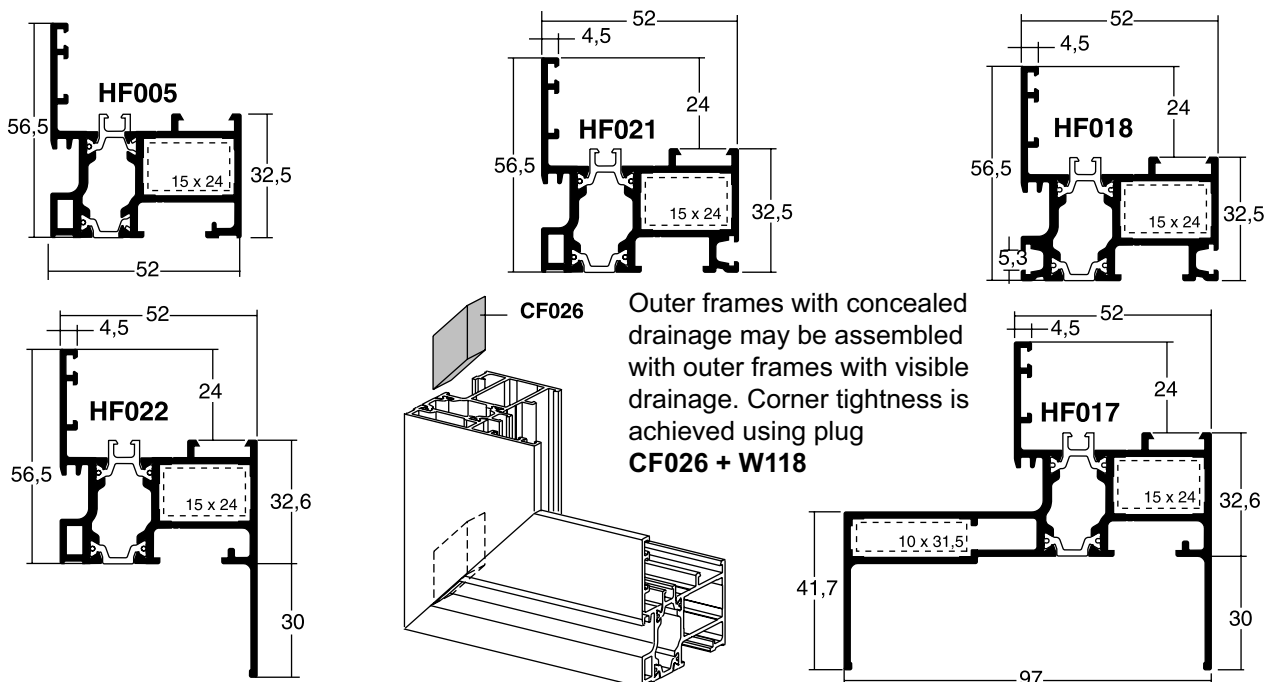
Options

Outer frame FXi series alternatives

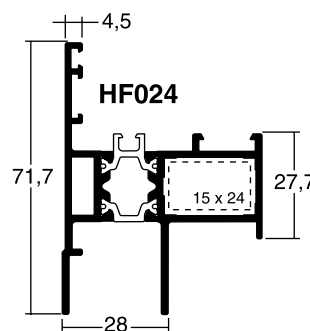
■ Outer frames with visible drainage



■ Outer frames with concealed drainage

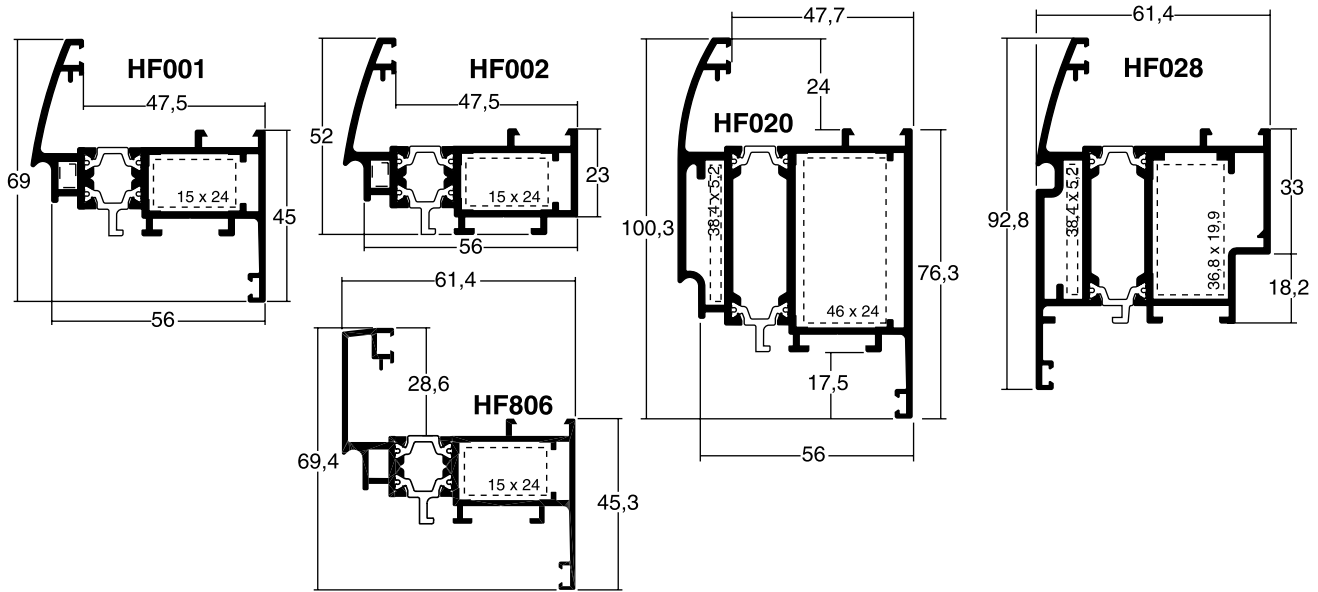


■ Outer frame for MX integration

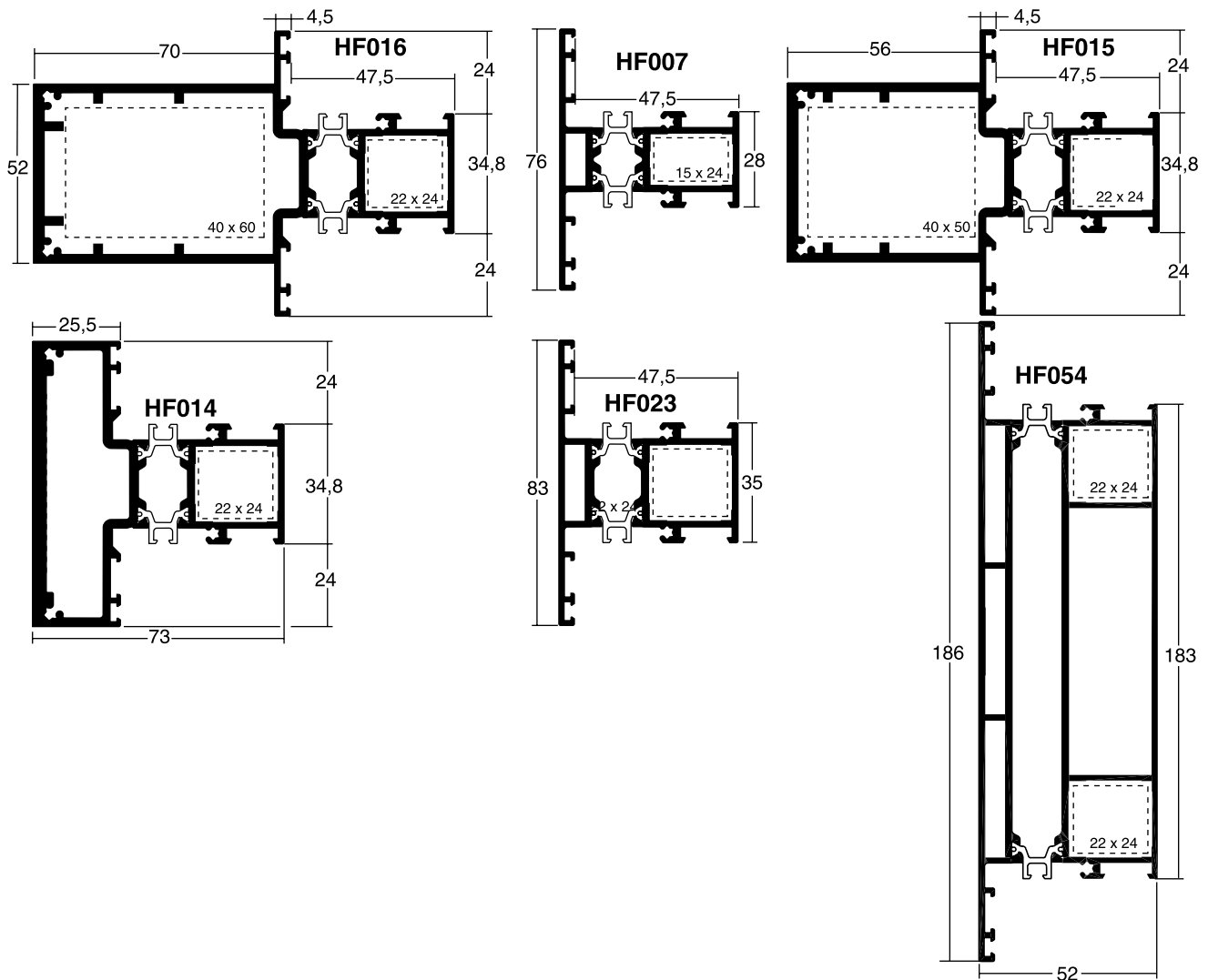


Options

Outer frame FXi series alternatives

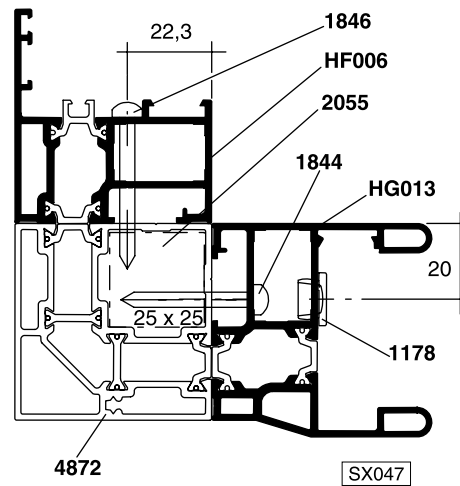
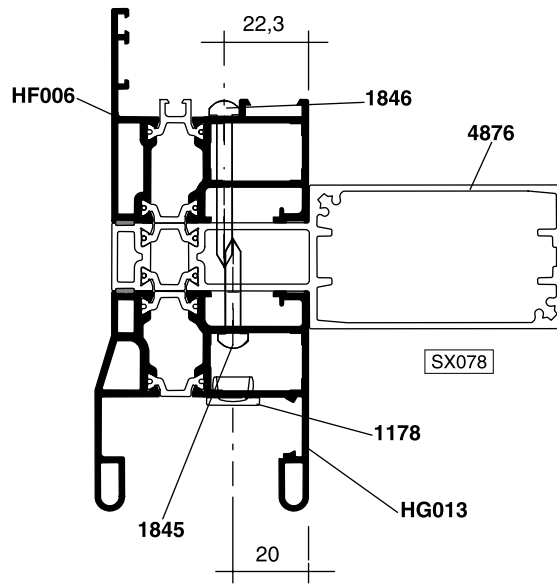


Mullion/transom FXi series alternatives

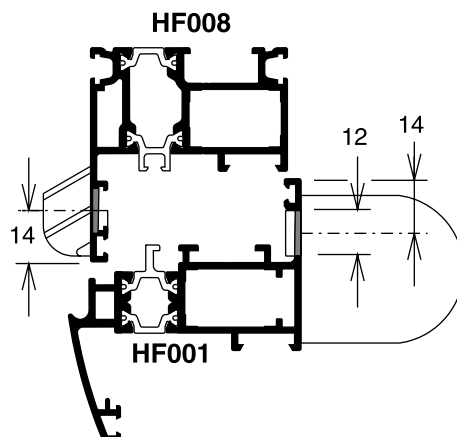
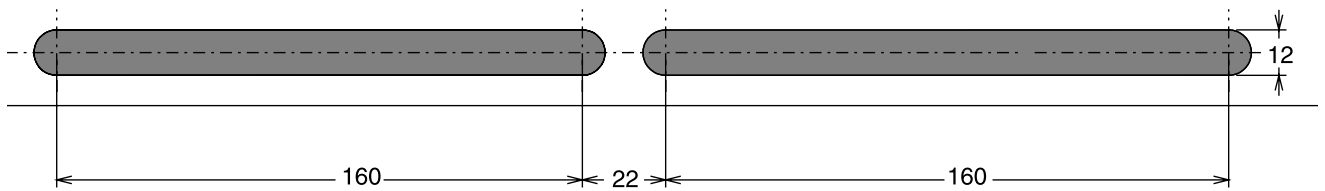


Options

Conservatory SX integration



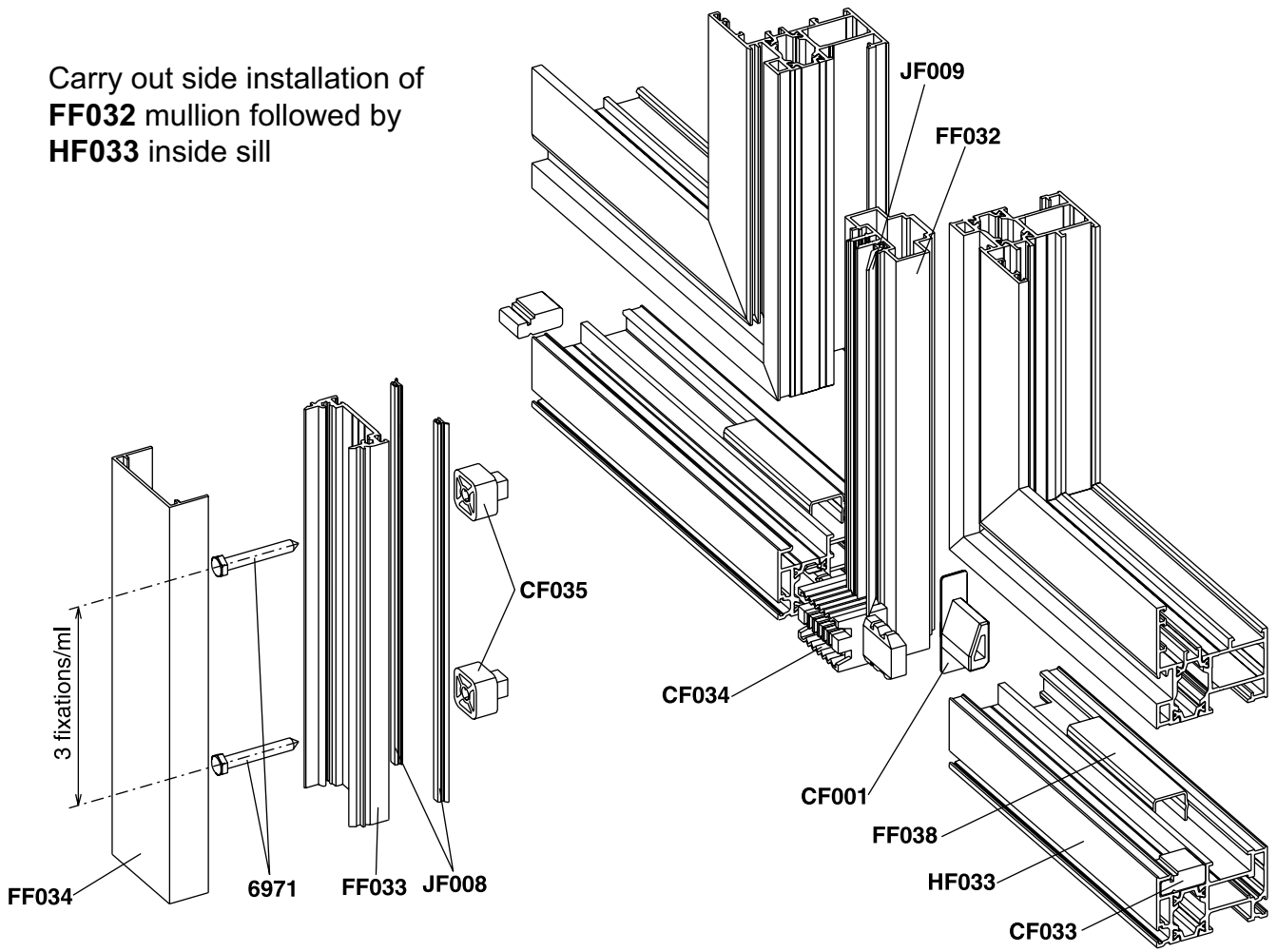
Ventilation



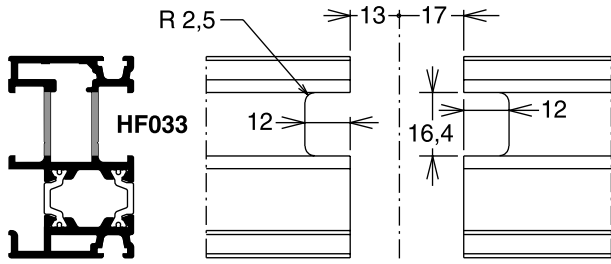
Options
Expansion

■ Assembly

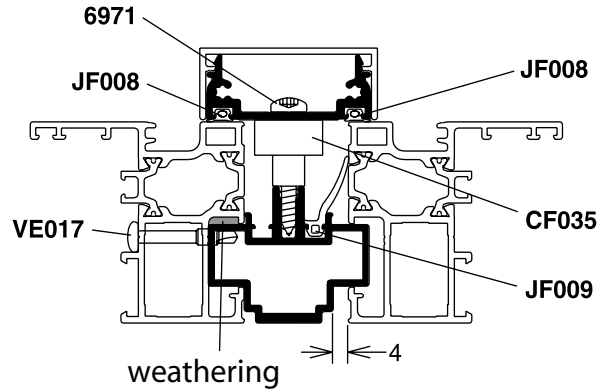
Carry out side installation of **FF032** mullion followed by **HF033** inside sill



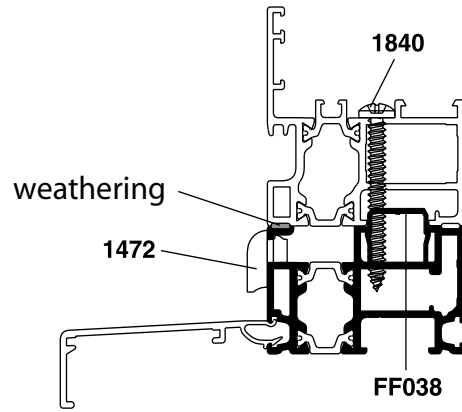
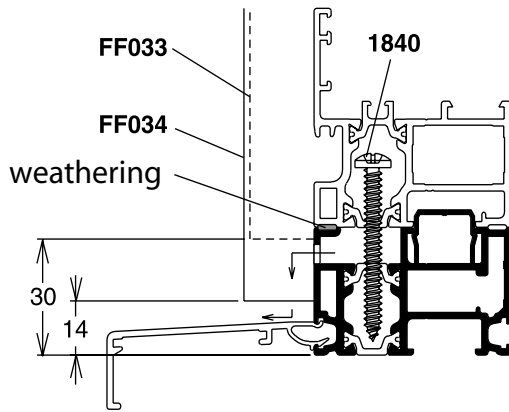
■ Machining



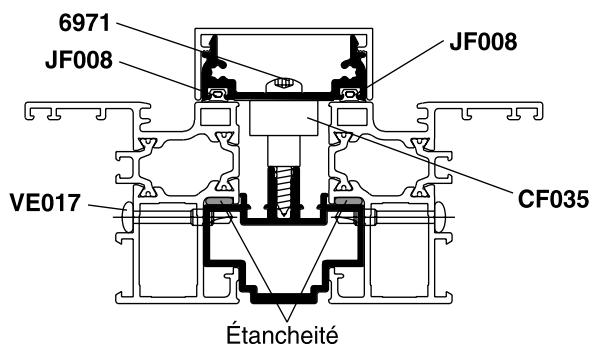
■ Expansion



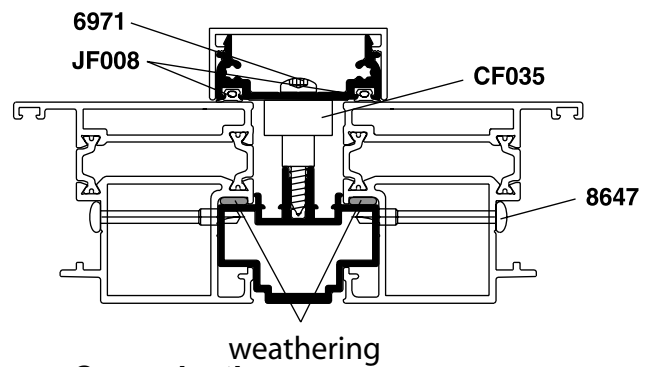
■ Linking on inside sill



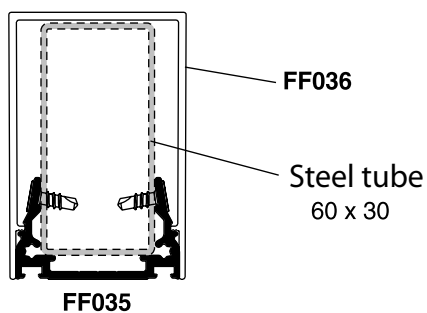
■ Linking for frame



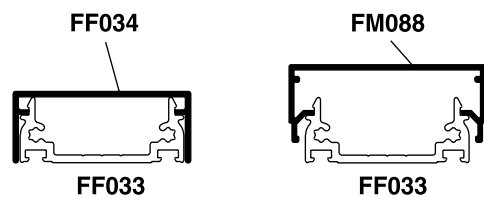
■ PXi linking



■ Linking for reinforced expansion



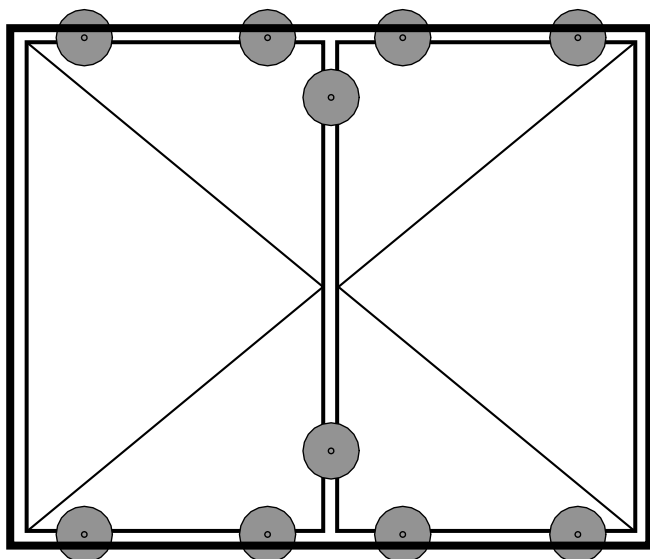
■ Cap selection



Options

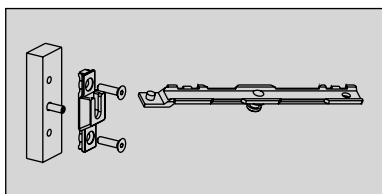
Security ACCESSORIES « anti-burglary »

Installation points using:
KF045 - KF057 - KF058 - KF061



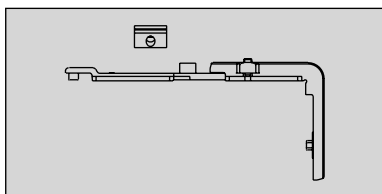
KF045

Security insert and strike plate set

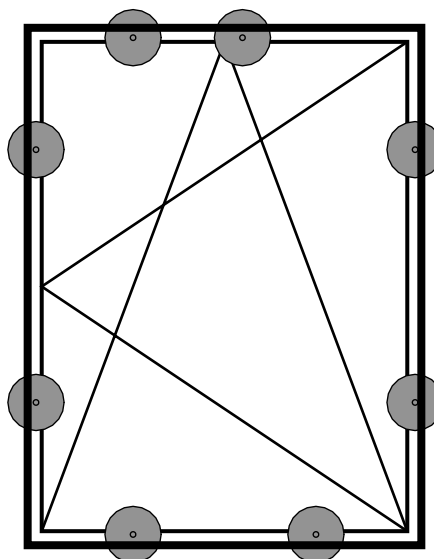


KF057

Security corner return

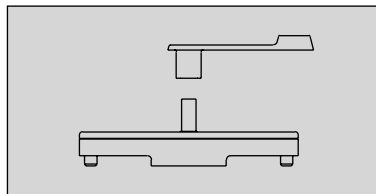


Installation points using:
KF045



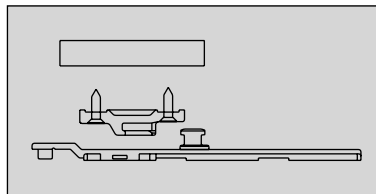
KF058

Security casing for semi-fixed lever



KF061

Security insert and strike plate



Applications		1 leaf In-opening	2 leaves In-opening frame	1 leaf T/T	2 leaves T/T
security ACCESSORIES		Qty	Qty	Qty	Qty
KF045	Security insert and strike plate set	8	8	8	8
KF057	Security corner return	2	4		
KF058	Security casing for semi-fixed lever		1		
KF061	Security insert and strike plate		2		

Options

Selection of crimp/pin/self-locating cleats, connectors, and variable angle cleats

Ref.	Descriptions	Chamber mm	Crimp/pin/self-locating/bonding/support cleats	Variable angle connectors or cleats	Perfopack tool	Drill jig
FF008	Grooveless o.frame profile with concealed drainage	15 x 35 15 x 35	EE005 EE006 + 3159	EE014 (OF602) EE015 (OF602)	OF001 OF001	OF601 OF601
FF012	O. frame profile with 1 outside groove	15 x 35 15 x 35	EE005 EE006 + 3159	EE014 (OF602) EE015 (OF602)	OF001 OF001	OF601 OF601
FF018	O. frame profile with 2 grooves and concealed drainage	15 x 35 15 x 35	EE005 EE006 + 3159	EE014 (OF602) EE015 (OF602)	OF001 OF001	OF601 OF601
FF019	Opening frame profile 46 mm chamber	46 x 35 38 x 5	EE013 EE009 (W201)			OF601
FF021	Window and patio door opening frame profile	15 x 35 15 x 35	EE005 EE006 + 3159	EE014 (OF602) EE015 (OF602)		OF601
FF023	Mullion profile 83 mm	22 x 24		EE011	OF003	OF601
FF042	Reverser profile for horizontal/vertical pivot	19 x 29	EE157			OF601
HF001	Opening frame profile 46 mm chamber standard	15 x 24 15 x 24 7,5 x 5	EE001 EE003 + 3159 EE012 (W201)	EE002 (OF602) EE004 (OF602)		OF601 OF601
HF002	Opening frame profile without rebate	15 x 24 15 x 24 7,5 x 5	EE001 EE003 + 3159 EE012 (W201)	EE002 (OF602) EE004 (OF602)		OF601 OF601
HF005	Grooveless o.frame profile with concealed drainage	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF006	Single grooveless outer frame profile	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF007	Mullion profile 76 mm	15 x 24 15 x 24 15 x 24		EE010 EE002 (OF602) EE004 (OF602)	OF003	OF601
HF008	Single outer frame with double groove	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF014	Mullion profile 40 cm4	22 x 24		EE011	OF003	OF601
HF015	Mullion profile 90 cm4	22 x 24		EE011	OF003	OF601
HF016	Mullion profile 130 cm4	22 x 24		EE011	OF003	OF601
HF017	Outer frame subframe profile	15 x 24 15 x 24 10 x 31	EE001 EE003 + 3159 3201 + 3159		OF001 OF001 OF001	OF601 OF601 OF601
HF018	Out. frame double groove conc. drainage profile	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF019	Outer frame profile with inside groove	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF020	Patio door opening frame, 46 mm chamber profile	24 x 46 38,5 x 5	EE008 EE009 (W201)			OF601
HF021	Out. frame inside gr. + conc. drainage profile	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF022	Out. frame + architr. + conc. drainage profile	x 24 15 x 2	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF024	Façade integration outer frame profile	5 x 24 15 x 2	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF023	Mullion profile 83 mm	22 x 24		EE011	OF003	OF601 OF601
HF027	Top-hung outer frame profile with grooves	15 x 24 15 x 24	EE001 EE003 + 3159		F001 OF001	OF601 OF601
HF028	Top-hung opening frame profile	19 x 36 37 x 5	EE156 EE165 (W201)			OF601
HF030	Top-hung butt-hinged reverser profile	15 x 24 15 X 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601

Options

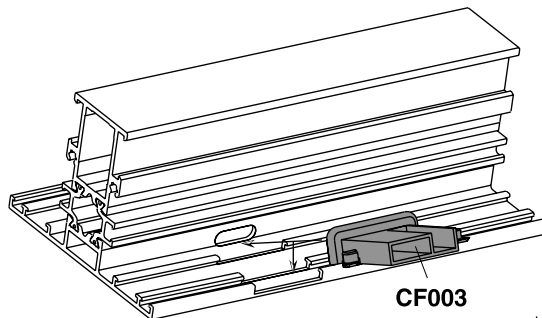
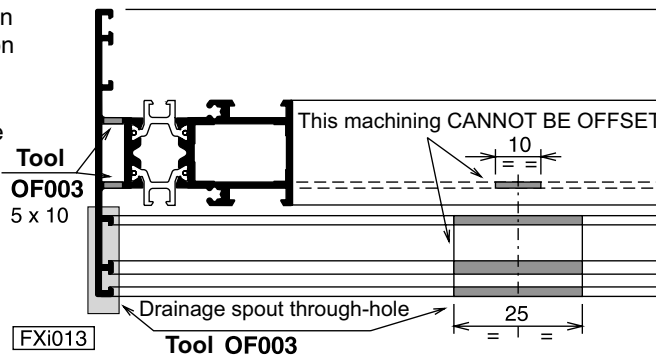
Selection of crimp/pin/self-locating cleats, connectors, and variable angle cleats

Ref.	Descriptions	Chamber mm	Crimp/pin/self-locating/bonding/support cleats	Variable angle connectors or cleats	Perfopack tool	Drill jig
HF040	Outer frame profile with double groove	15 x 24 15 x 24	EE001 EE003 + 3159	EE002 (OF602) EE004 (OF602)	OF001 OF001	OF601 OF601
HF054	Mullion profile 186 mm	22 x 24		EE011	OG001	OF601
HF806	Opening frame profile	15 x 24 15 x 24 7,5 x 5	EE001 EE003 + 3159 EE012 (W201)	EE002 (OF602) EE004 (OF602)		OF601 OF601

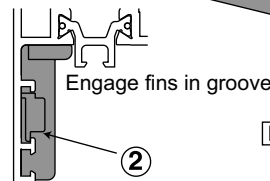
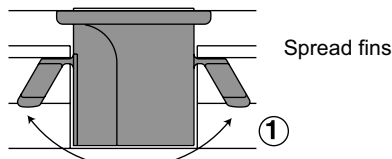
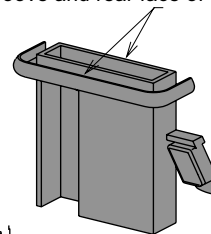
Transom concealed drainage

NB: Intermediate transom can be drained in standard fashion (visible deflector 1472).

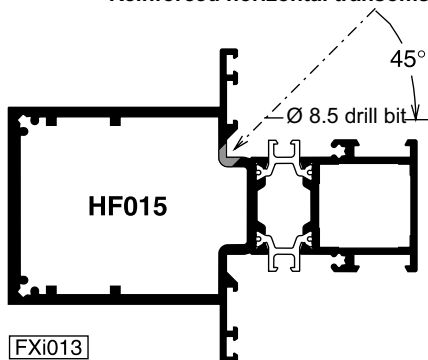
Note: if there is an opening frame above the intermediate transom, allow at least 3 CF003 drainage spouts



Seal fully using W118 silicone sealant in the groove and rear face of the spout



Reinforced horizontal transoms

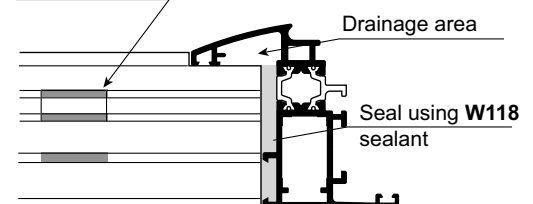


Drill 1 $\varnothing 8.5$ hole (using jig OF603) 100 mm from each transom end + 1 additional hole for each additional 0.5 m length if $W > 1$ m. Allow at least 3 holes if there is an opening frame above the transom.

Intermediate opening frame transom

Tool OG001

Pare $W = 12$ flush with surface



1 drainage at each end
Allow 1 additional drainage in transom centre if rebate is > 1 m long and use spout CF003 in this case.

Hardware FX - FXi

Standard T/T hardware

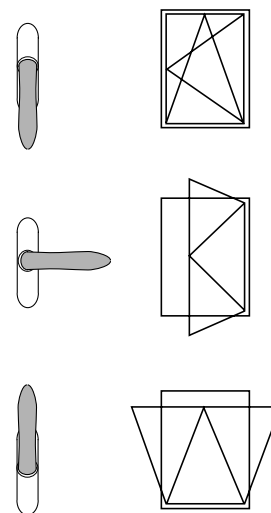
TECHNICAL

ACCESSORY selection

Accessories for standard T/T window and patio door

Ref.	Descriptions	1 leaf	2 leaves
KF001 or KF002	90 kg T/T hardware (if leaf ≤ 90 kg) 130 kg T/T hardware (if leaf > 90 kg and ≤ 130 kg)	1	1
KF003	Bearing element	1	1
KF005 or KF006	Friction stay < 600 (if W ≤ 600 mm) Friction stay > 600 mm (if W ≥ 600 mm)	1	1
KF011	Mid point (if H ≥ 1300 mm)		1
KF015 or KF017	Embedded lock Sash bolt		1
KF019	T/T friction stay (if W ≥ 1300 mm)	1	1
KF031	T/T complement (if W ≥ 1300 mm)	1	1
KF033	T/T hinge		1

Standard opening



Options

Ref.	Descriptions	1 leaf	2 leaves
KF003	Bearing element	1 (FXi)	1 (FXi)
KF025	Bearing element	1 (FX)	1 (FX)

Driver system selection

- 1 – Select espagnolette or handle (qty: 1)
- 2 – Select relevant driver

Espagnolette / Driver	1-bolt espagnolette		Square shaft handle
	Standard KF037	Keyed KF038	Standard KF039
Embedded espagnolette KF036			1
Driver T/T KF028	1	1	

Additional locking point selection if leaf height H ≥ 1300 mm

Select additional locking point by driver

Additional point / Driver	KF028 T/T	or	Embedded espagnolette KF036
Additional point KF021 or Additional roller bolt KF048	Option: 1 instead of locking point on driver		1 or 1
T/T complement large height/width KF031	1		1

For all T/T frames:

- W > 1300 in private premises
- In public places

to avoid any deliberate or accidental misuse of the fool-proof mechanism leading to the opening frame feathering, the following installations are strongly recommended:

- KF025 lock on standard versions
- KF049 keyed espagnolette on SF versions

Hardware FXi

ECLAT version T/T hardware

■ ACCESSORY selection

Accessories for standard T/T window and patio door

Ref.	Descriptions	2 leaves
KF001 or KF002	T/T hardware 90 kgs (if leaf ≤ 90 kg) T/T hardware 130 kgs (if leaf > 90 kg and ≤ 130 kg)	1 1
KF004	ECLAT/SF bearing element	1
KF005 or KF006	Friction stay < 600 (if W1 ≤ 650 mm) Friction stay > 600 mm (if W1 ≥ 600 mm)	1 1
KF011	Mid point (si H ≥ 1300 mm)	1
KF018	Sash bolt ECLAT	1
KF032	Outsize T/T complement ECLAT (si H ≥ 1300 mm et si W ≥ 700 mm)	1
KF033	T/T hinge	1

■ Driver system selection

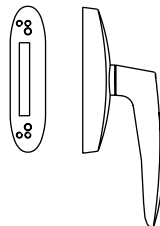
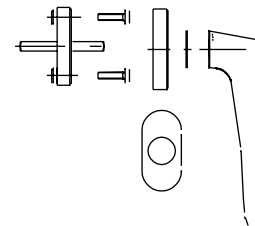
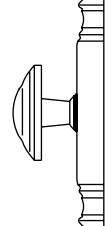
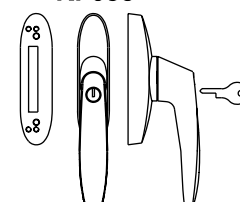
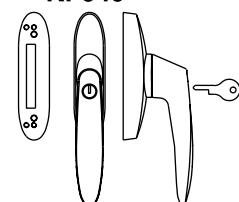
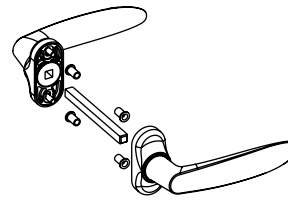
		1-bolt espagnolette	
		Standard KF037	Keyed KF038
Driver	Espagnolette		
	Driver T/T ECLAT KF041	1	1

For all T/T frames:

- W>1300 in private premises
 - In public places
- to avoid any deliberate or accidental misuse of the fool-proof mechanism leading to the opening frame feathering, the following installations are strongly recommended **KF025** lock

Hardware FX - FXi

Select espagnolette and handle

In-opening T/T	 KF037 Espagnolette door	 KF039 Square shaft espagnolette	 KF065 Renovation espagnolette
In-opening T/T	 KF038 Pass-keyed locking espagnolette	 KF049 Pass-keyed locking espagnolette SF	
Locking patio door	 KF050 Door handle		

Hardware FX - FXi

Tilt-first T/T hardware

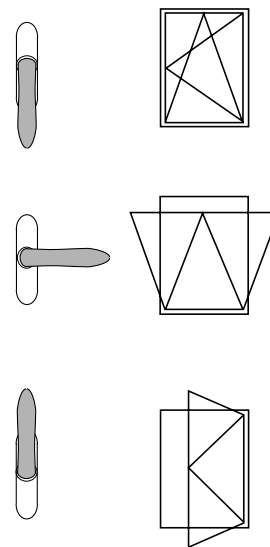
TECHNICAL

ACCESSORY selection

Accessories for bottom-hung in-opening 'SF' standard T/T window and patio door

Ref.	Descriptions	1 leaf	2 leaves
KF001 or KF002	T/T hardware 90 kgs (if leaf ≤ 90 kg)	1	1
KF002	T/T hardware 130 kgs (if leaf > 90 kg et ≤ 130 kg)	1	1
KF004	Bearing element and ECLAT	1	1
KF007 or KF008	Friction stay SF < 600 (si W ≤ 600 mm)	1	1
KF008	Friction stay > 600 mm SF (if W ≥ 600 mm)	1	1
KF011	Mid point (si H ≥ 1300 mm)		1
KF015 or KF017	Semi-fixed embedded lock Sash bolt		1
KF020	Friction stay SF large width (if W ≥ 1300 mm)	1	1
KF033	Semi-fixed T/T hinge		1

Tilt-first opening



Driver system selection

- 1 – Select espagnolette or handle (qty: 1)
- 2 – Select relevant driver

		1-bolt espagnolette		Square shaft handle	
		Standard KF037	Keyed KF038	Keyed SF KF049	Standard KF039
Driver	Espagnolette				
	Embedded espagnolette KF036				1
	Driver T/T KF028	1	1	1	

Additional locking point selection if leaf height H ≥ 1300 mm

Select additional locking point by driver

Additional point	Driver	OB KF028	or	Embedded espagnolette KF036
Additional point KF021 or Additional roller bolt KF048		Option: 1 instead of locking point on driver		1 or 1
T/T complement large height/width KF031		1		1

Additional locking point selection if leaf width W ≥ 1300 mm

Additional point	STANDARD SF	
	1 leaf	2 leaves
KF021 or KF048	1	1
KF046	2	2

For all T/T frames:

- W > 1300 in private premises
- In public places

to avoid any deliberate or accidental misuse of the fool-proof mechanism leading to the opening frame feathering, the following installations are strongly recommended **KF049** lock.

Hardware FX - FXi

Tilt-first T/T ECLAT hardware

■ ACCESSORY selection

ACCESSORIES OB fenêtre et porte-fenêtre version ECLAT

Ref.	Descriptions	2 leaves
KF001 ou KF002	T/T hardware 90 kgs (if leaf ≤ 90 kg) T/T hardware 130 kgs (if leaf > 90 kg and ≤ 130 kg)	1 1
KF004	ECLAT/SF bearing element	1
KF007 ou KF008	Friction stay SF < 600 (if W1 ≤ 650 mm) Friction stay > 600 mm SF (if W1 ≥ 650 mm)	1 1
KF011	Mid point (if H ≥ 1300 mm)	1
KF018	Sash bolt ECLAT	1
KF032	Outsize T/T complement ECLAT (si H ≥ 1300 mm and if W ≥ 700 mm)	1
KF033	Semi-fixed T/T hinge	1

■ Driver system selection

Select espagnolette and match to driver **KF041**

		1-bolt espagnolette		
		Standard KF037	Keyed KF038	Keyed SF KF049
Driver	Espagnolette			
	Driver T/T ECLAT KF041	1	1	1

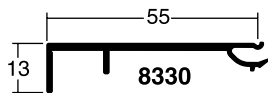
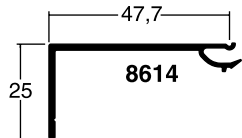
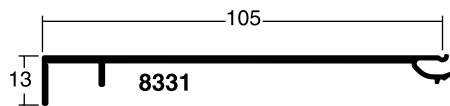
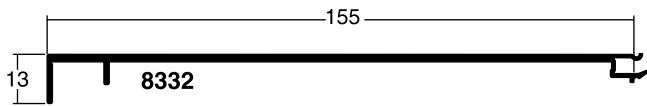
For all T/T frames:

- W>1300 in private premises
- In public places

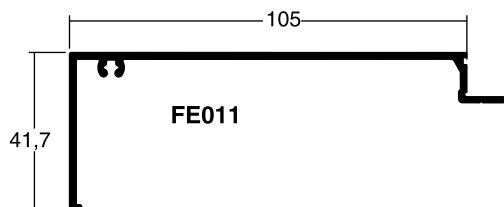
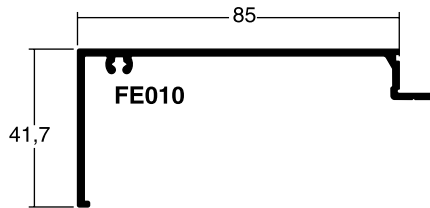
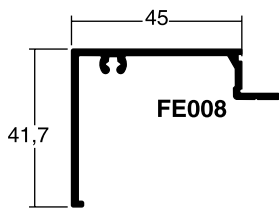
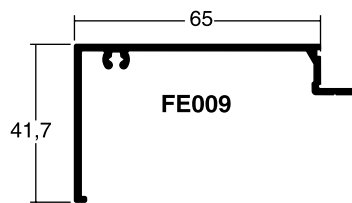
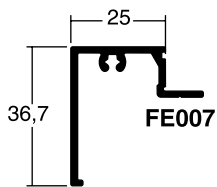
to avoid any deliberate or accidental misuse of the fool-proof mechanism leading to the opening frame feathering, the following installations are strongly recommended **KF049** lock.

Installation environment FX - FXi

Cladding flashing



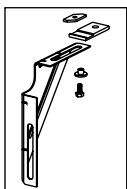
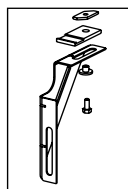
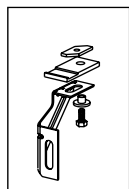
Lining flashing



Lining thickness	Flashing reference	Flashing plug
80 mm	FE007	CE001
100 mm	FE008	CE002
120 mm	FE009	CE003
140 mm	FE010	CE004
160 mm	FE011	CE005

Fixing lug

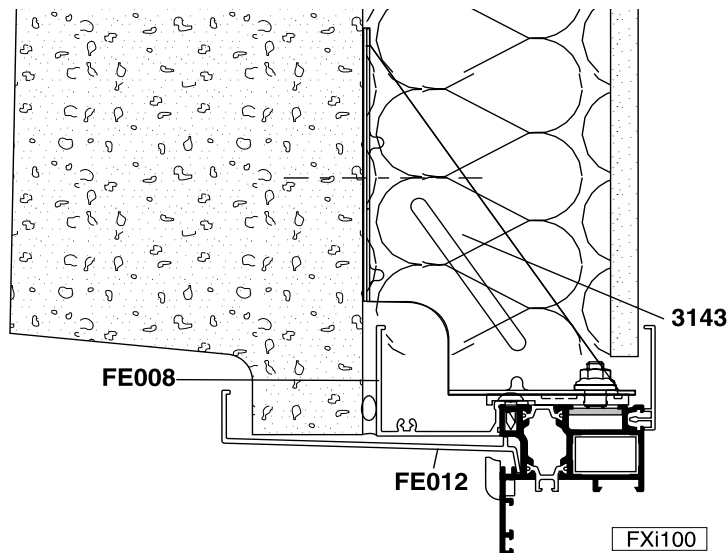
Lining thickness	Corner cleat
60 mm	3142
80 mm	3142
100 mm	3143
120 mm	3144
140 mm	3143
160 mm	3144



3142
Fixing corner cleat
60-80

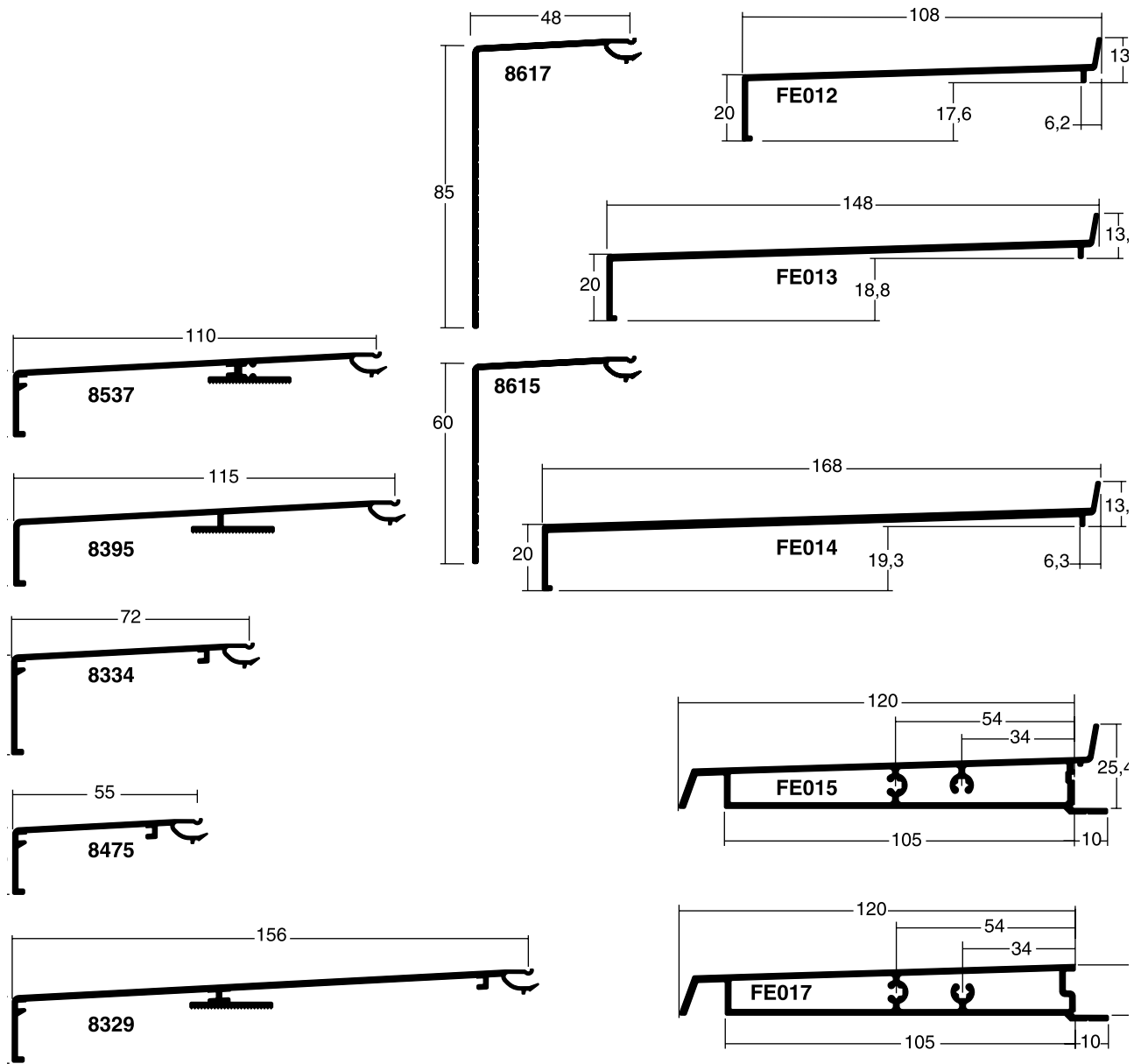
3143
Fixing corner cleat
100-140

3144
Fixing corner cleat
120-160

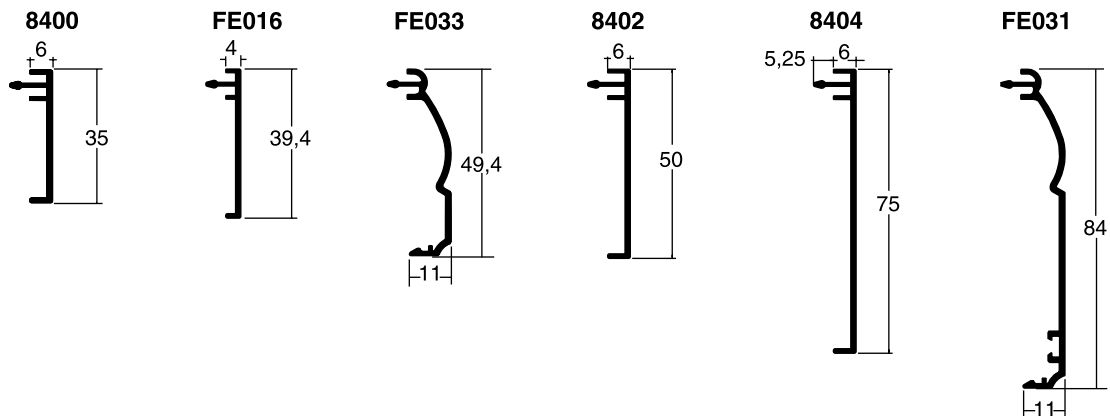


Installation environment FX - FXi

Sills



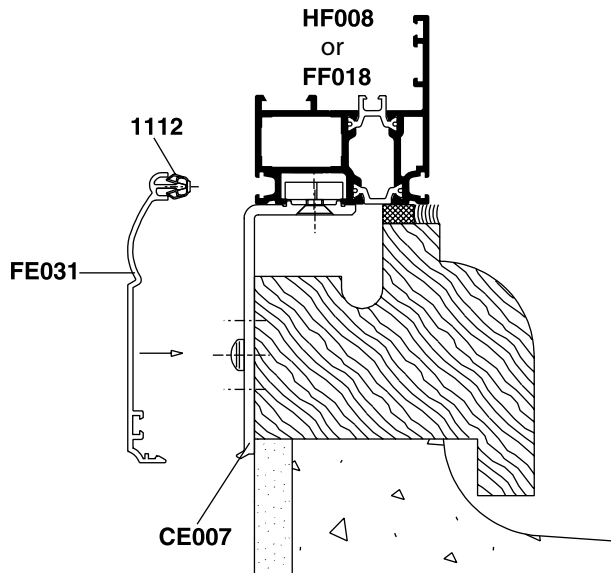
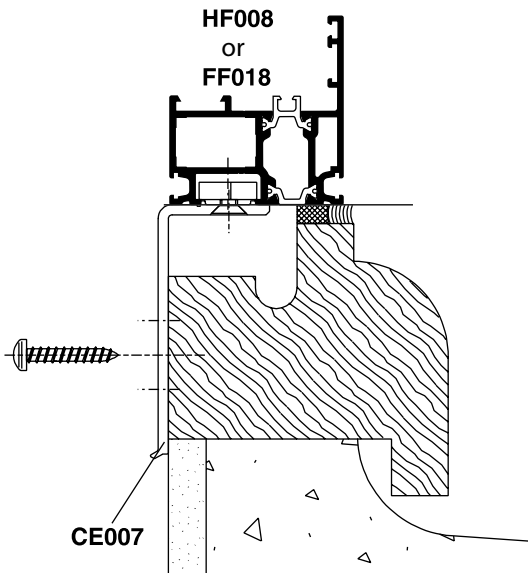
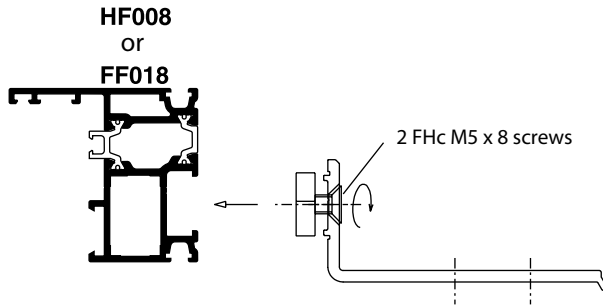
Architraves



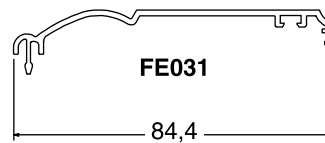
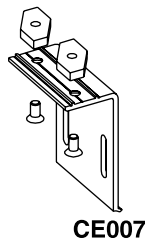
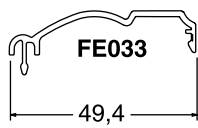
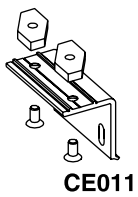
Environnement FX - FXi

Renovation

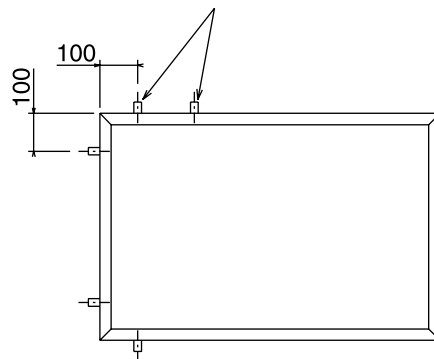
■ Face mounting using renovation architraves FE031 – FE033



FXi184

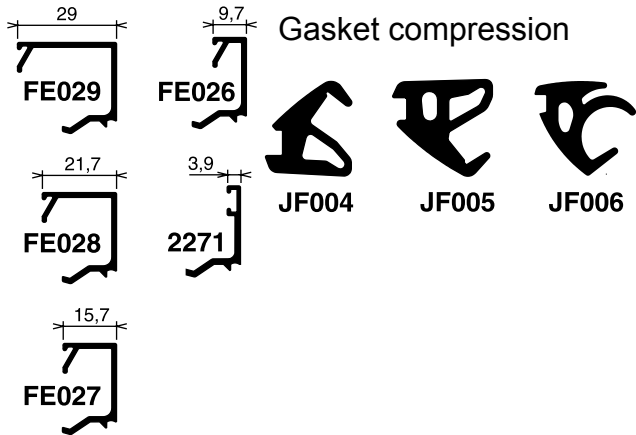


1 lug at each end + 3/lm



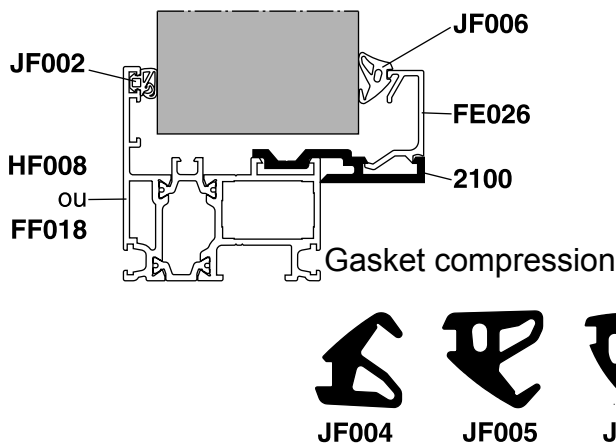
Infill volumes FX - FXi

Straight glazing bead selection



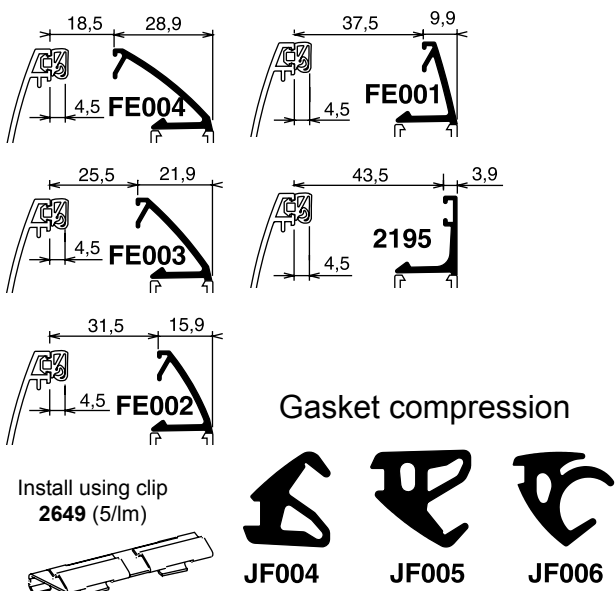
Thickness mm	Packing gasket	External gasket	Straight glazing bead
5 6	JF006	JF002	FE029
7 8	JF005	JF002	FE029
9 10	JF004	JF002	FE029
11 12 13	JF006	JF002	FE028
13 14 15	JF005	JF002	FE028
15 16 17	JF004	JF002	FE028
17 18 19	JF006	JF002	FE027
19 20 21	JF005	JF002	FE027
21 22 23	JF004	JF002	FE027
23 24 25	JF006	JF002	FE026
25 26 27	JF005	JF002	FE026
27 28 29	JF004	JF002	FE026
29 30 31	JF006	JF002	2271
31 32 33	JF005	JF002	2271
33 34 35	JF004	JF002	2271

Straight glazing bead selection with rebate widener 2100



Thickness mm	Packing gasket	External gasket	Straight glazing bead
31 32 33	JF006	JF002	FE029
33 34 35	JF005	JF002	FE029
35 36 37	JF004	JF002	FE029
37 38 39	JF006	JF002	FE028
39 40 41	JF005	JF002	FE028
41 42 43	JF004	JF002	FE028
43 44 45	JF006	JF002	FE027
45 46 47	JF005	JF002	FE027
47 48 49	JF004	JF002	FE027
49 50 51	JF006	JF002	FE026
51 52 53	JF005	JF002	FE026
53 54 55	JF004	JF002	FE026

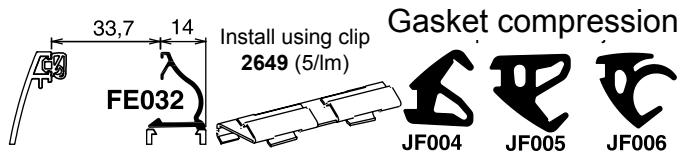
Rounded glazing bead selection



Thickness mm	Packing gasket	External gasket	Straight glazing bead
5 6	JF006	JF002	FE004
7 8	JF005	JF002	FE004
9 10	JF004	JF002	FE004
11 12 13	JF006	JF002	FE003
13 14 15	JF005	JF002	FE003
15 16 17	JF004	JF002	FE003
17 18 19	JF006	JF002	FE002
19 20 21	JF005	JF002	FE002
21 22 23	JF004	JF002	FE002
23 24 25	JF006	JF002	FE001
25 26 27	JF005	JF002	FE001
27 28 29	JF004	JF002	FE001
29 30 31	JF006	JF002	2195
31 32 33	JF005	JF002	2195
33 34 35	JF004	JF002	2195

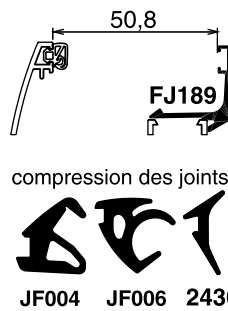
Infill volumes FX - FXi

Renovation glazing bead selection



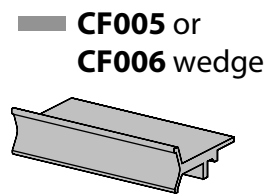
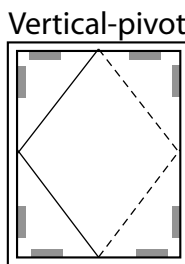
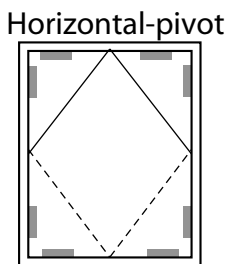
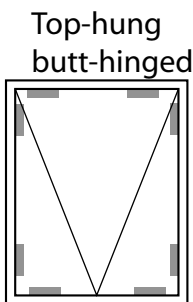
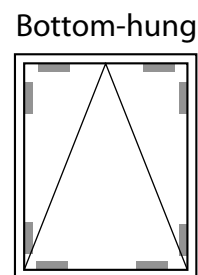
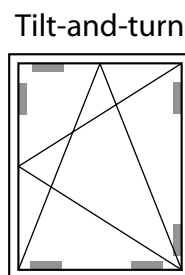
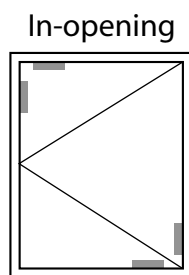
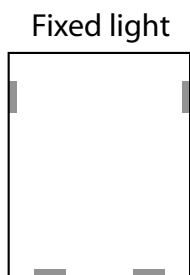
Thickness mm	Packing gasket	External gasket	Glazing bead
19 20 21	JF006	JF002	FE032
22 23 24	JF005	JF002	FE032
25 26 27	JF004	JF002	FE032

Offset glazing bead selection



Thickness mm	Packing gasket	External gasket	Glazing bead
36	JF006	JF002	FJ189
38	JF006	JF002	FJ189
40	JF004	JF002	FJ189
42	2436	JF002	FJ189

Installation and location of CF005 – CF006 wedges

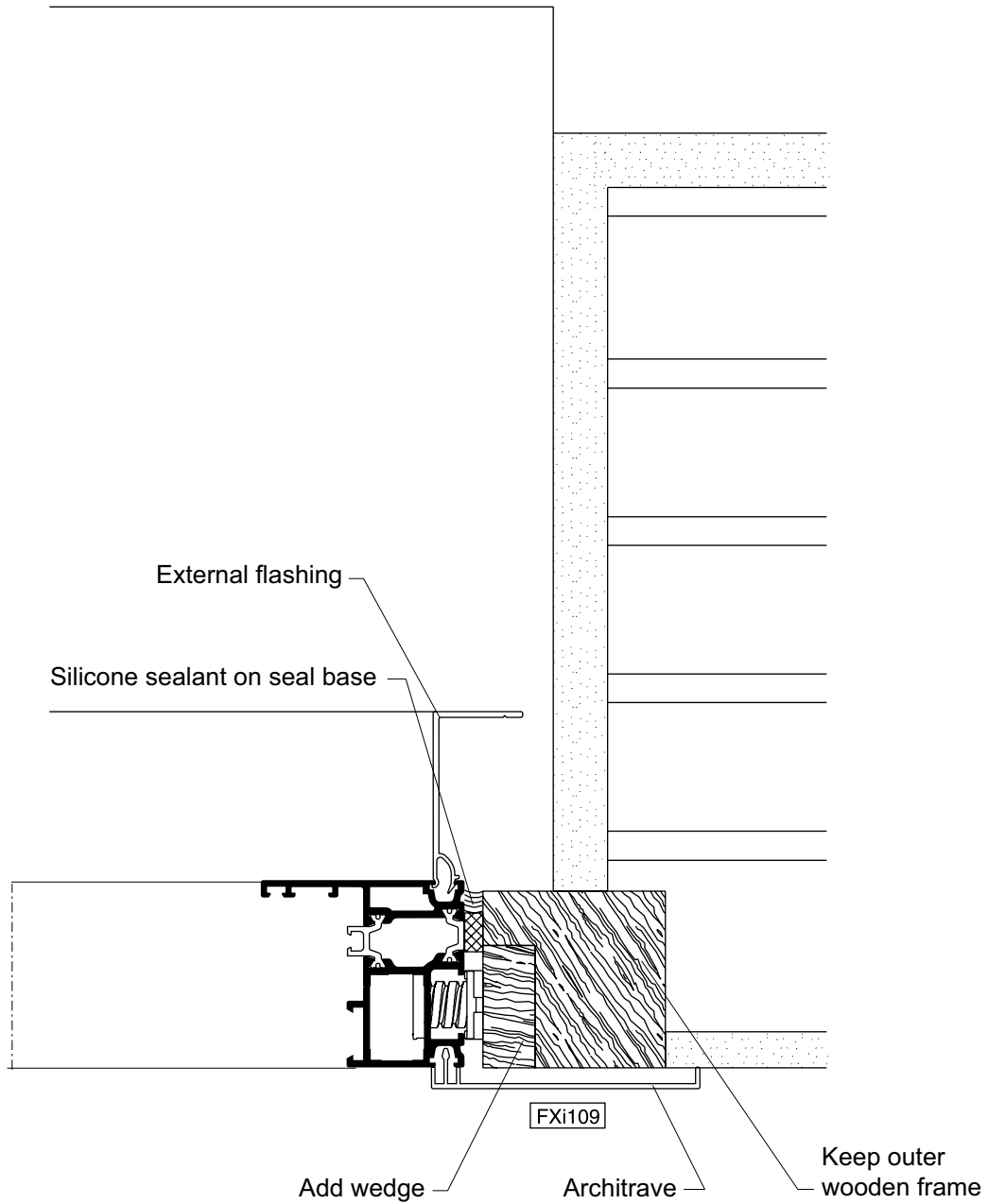


Installation examples FXi

Renovation installation

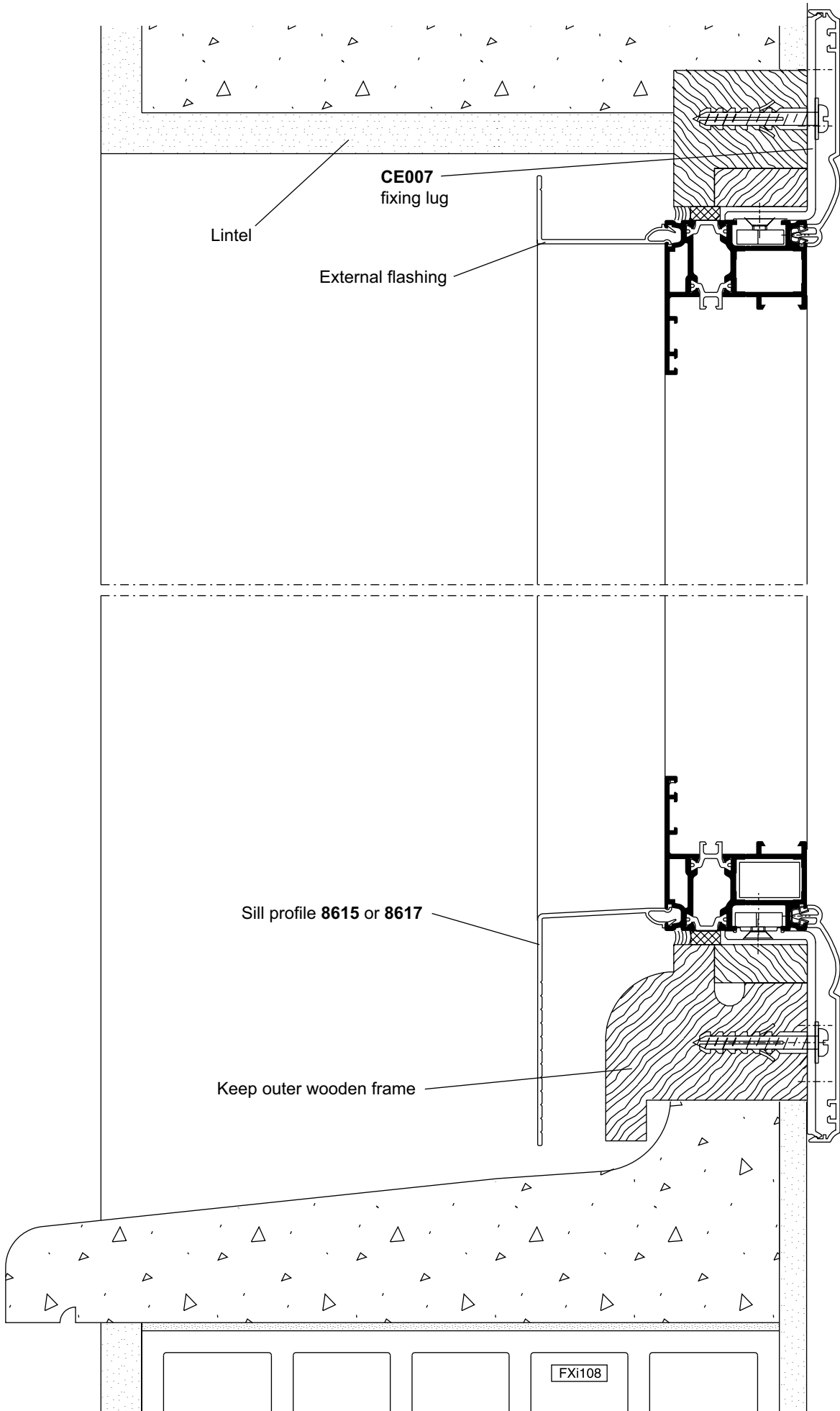
- On wooden outer frame

Horizontal section scale 1/2



■ Face mounting

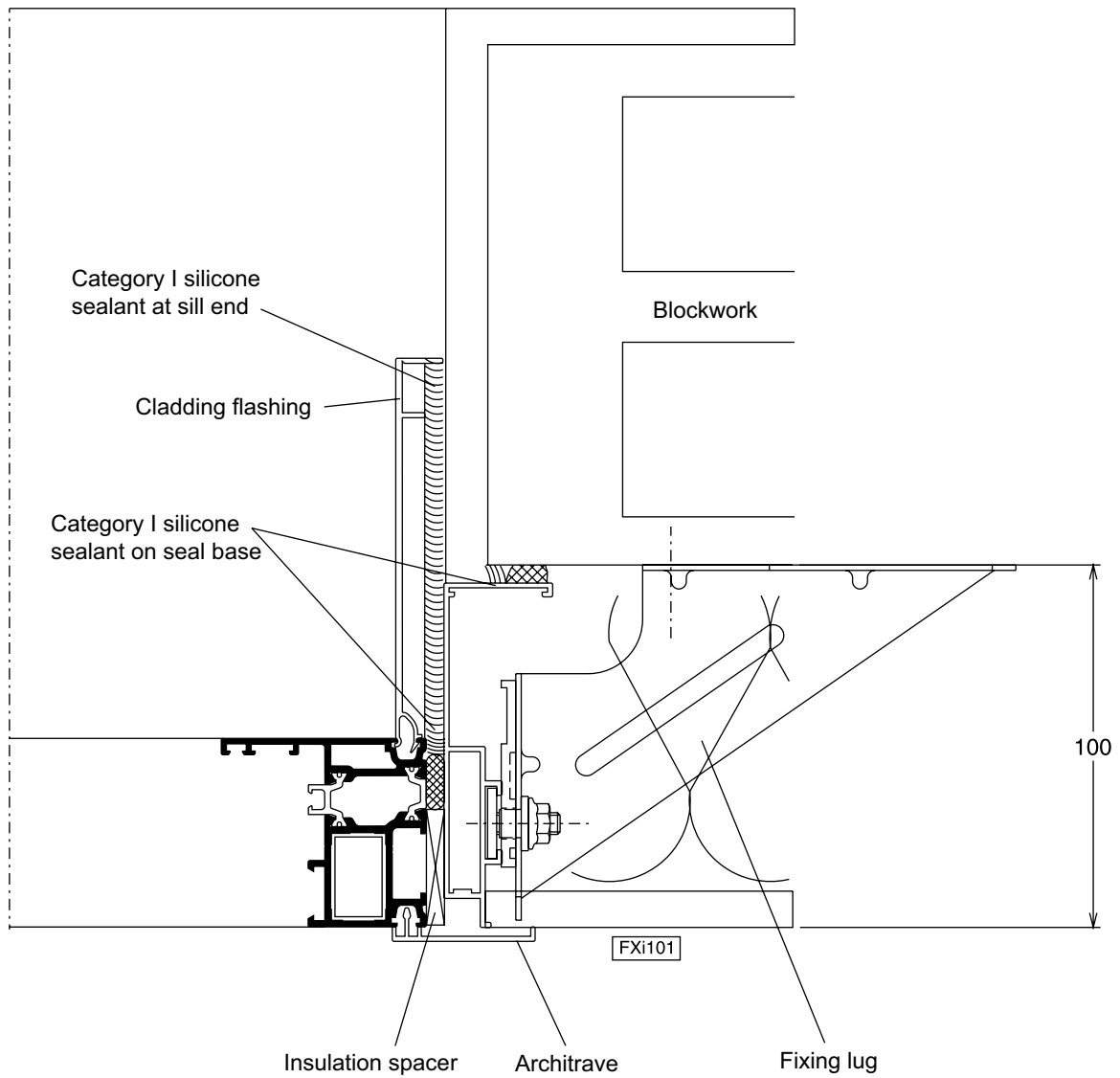
Vertical section scale 1/2



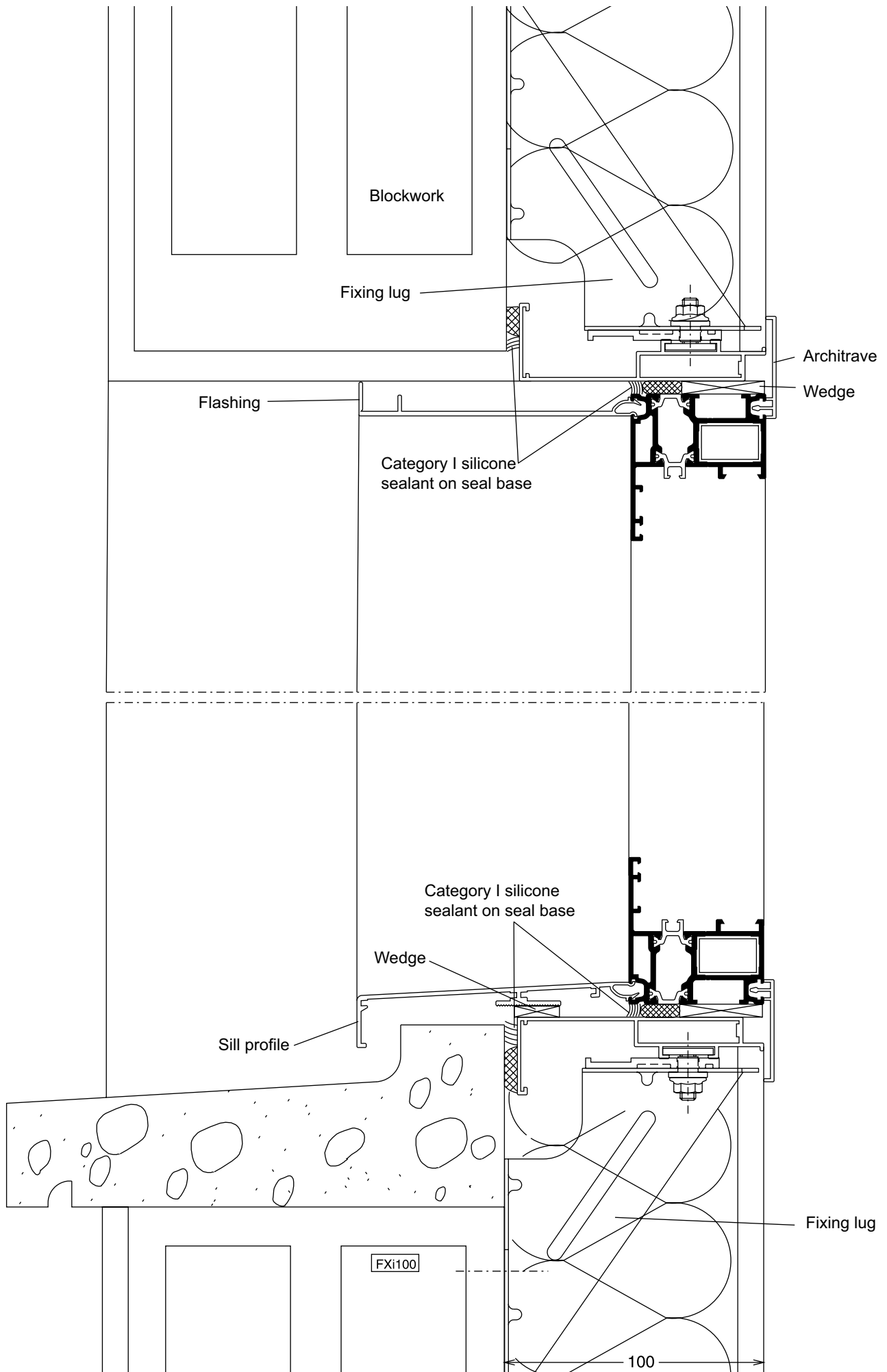
Installation examples FXi

Installation on TECHNAL aluminium subframe

Horizontal section scale 1/2



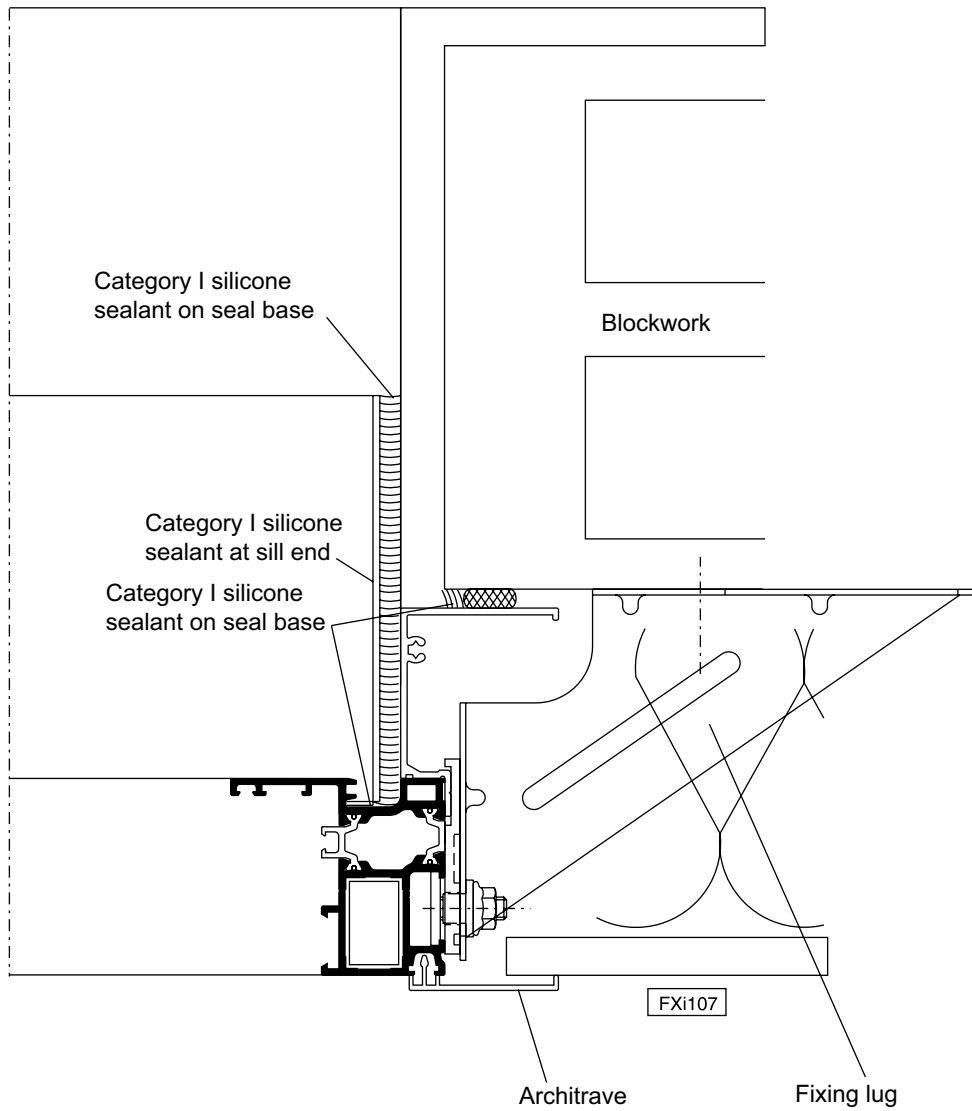
Vertical section scale 1/2



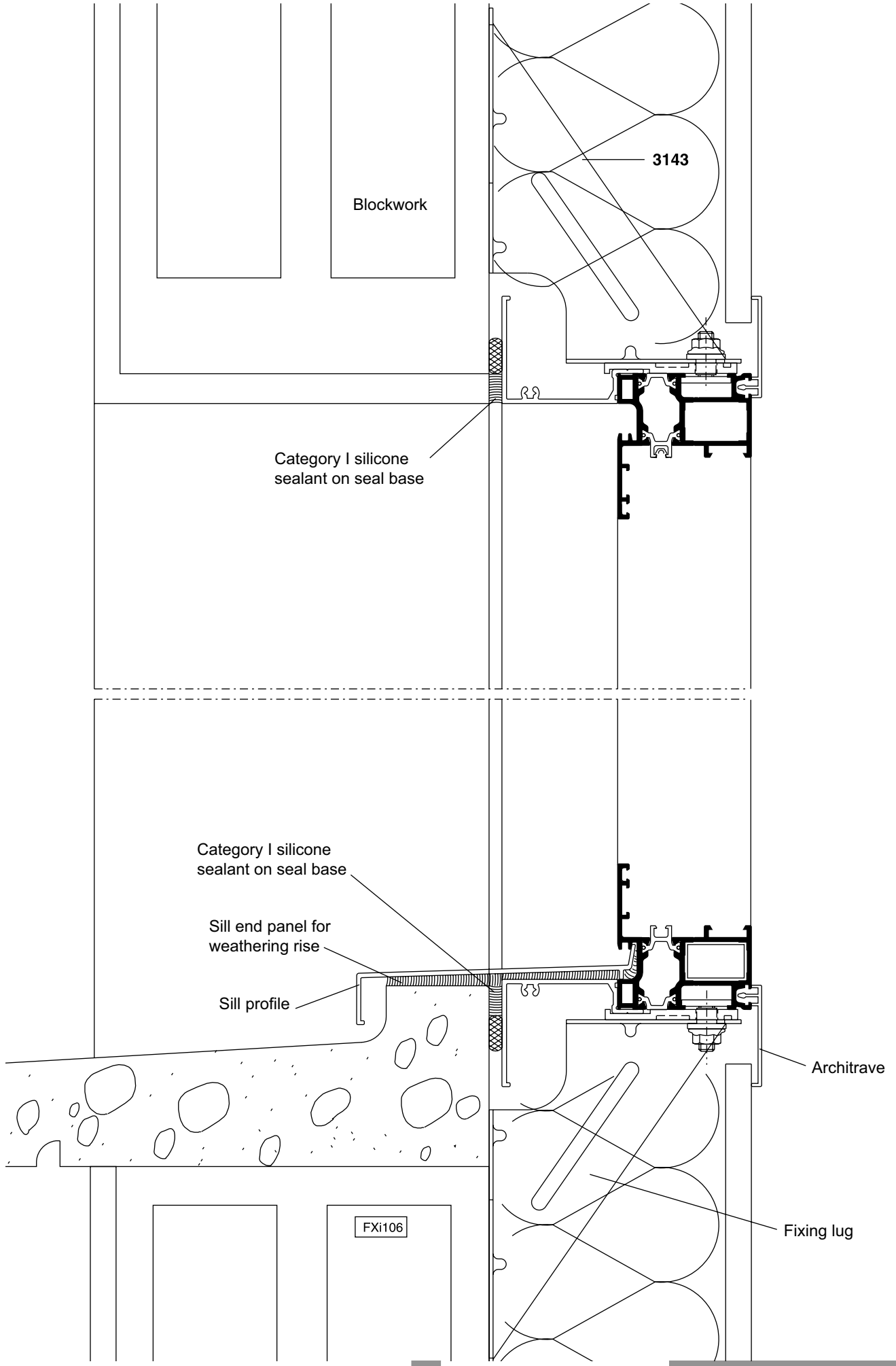
Installation examples FXi

Installation on outer frame with reconstituted subframe and supplementary flashing on sill

Horizontal section scale 1/2



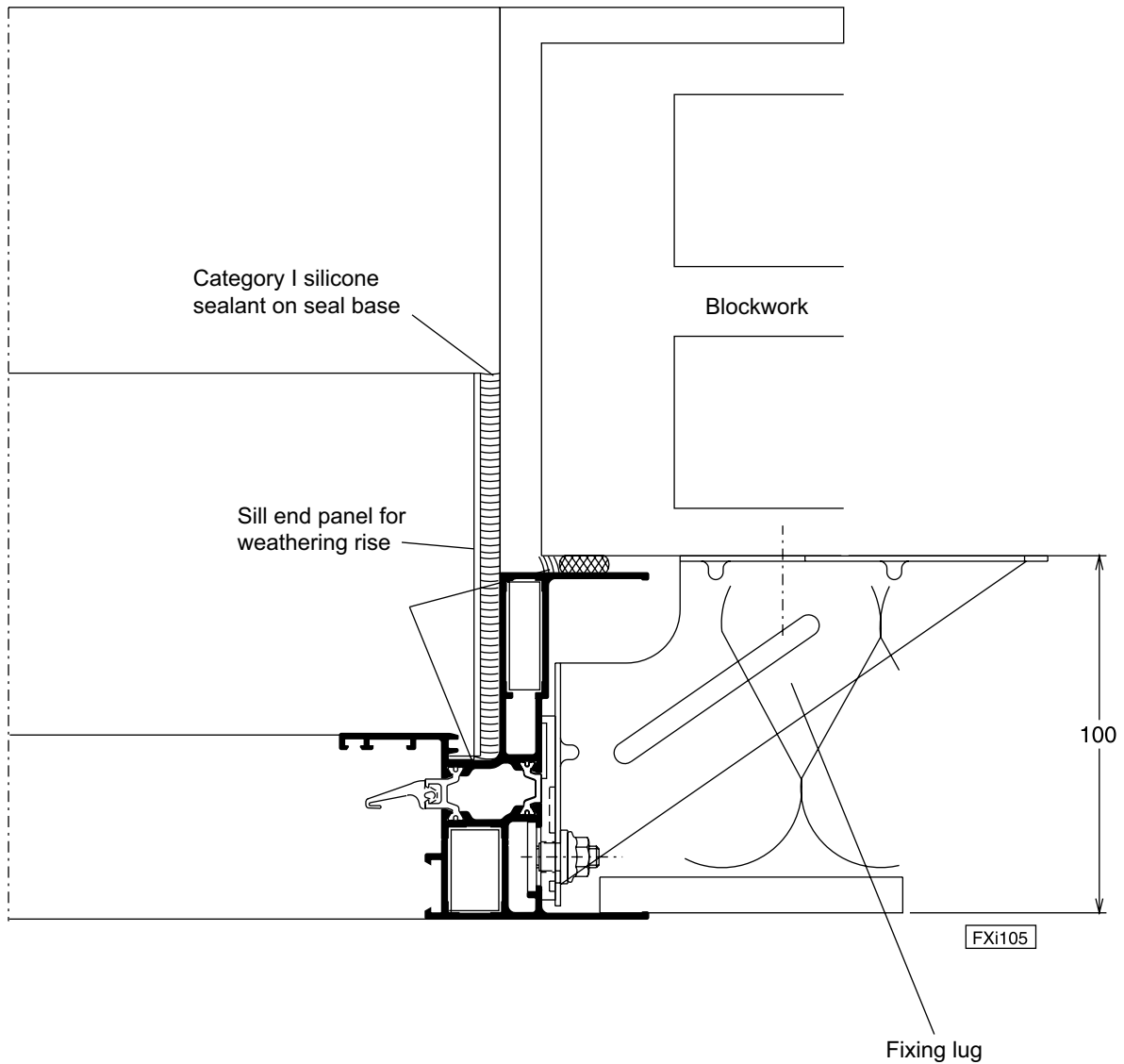
Vertical section scale 1/2



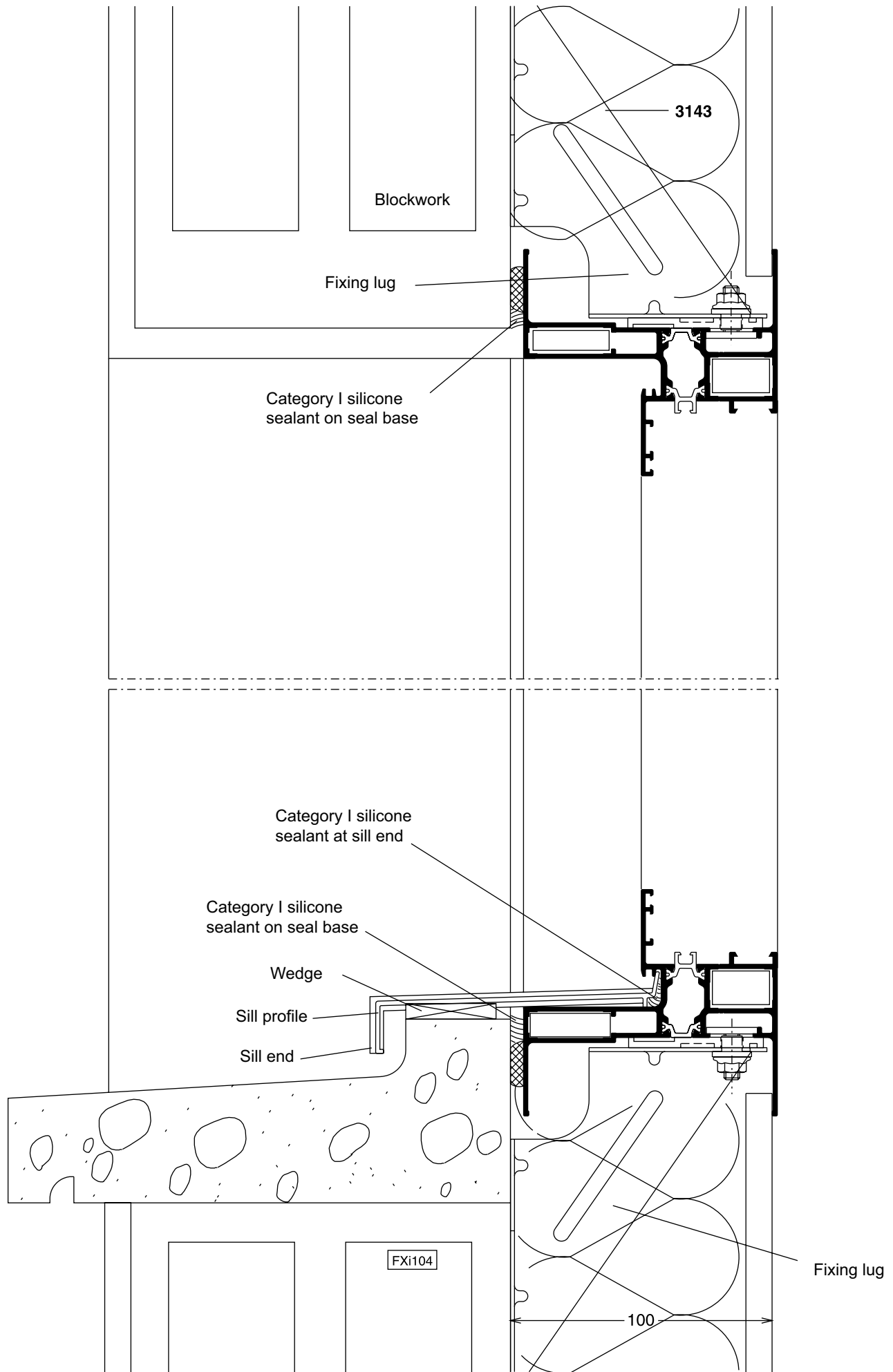
Installation examples FXi

Installation on outer frame with reconstituted subframe and sill (face fixed installation)

Horizontal section scale 1/2



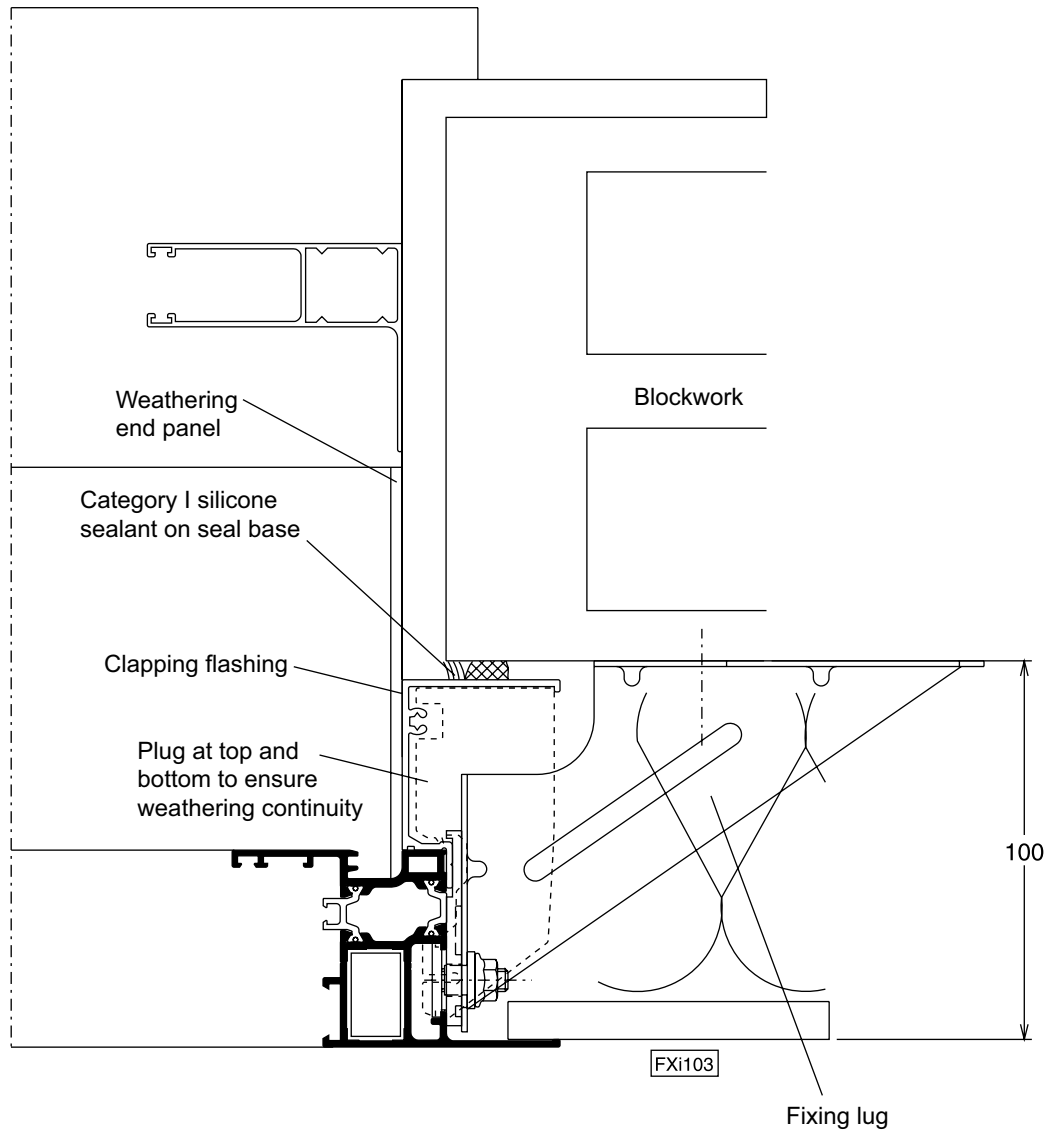
Vertical section scale 1/2



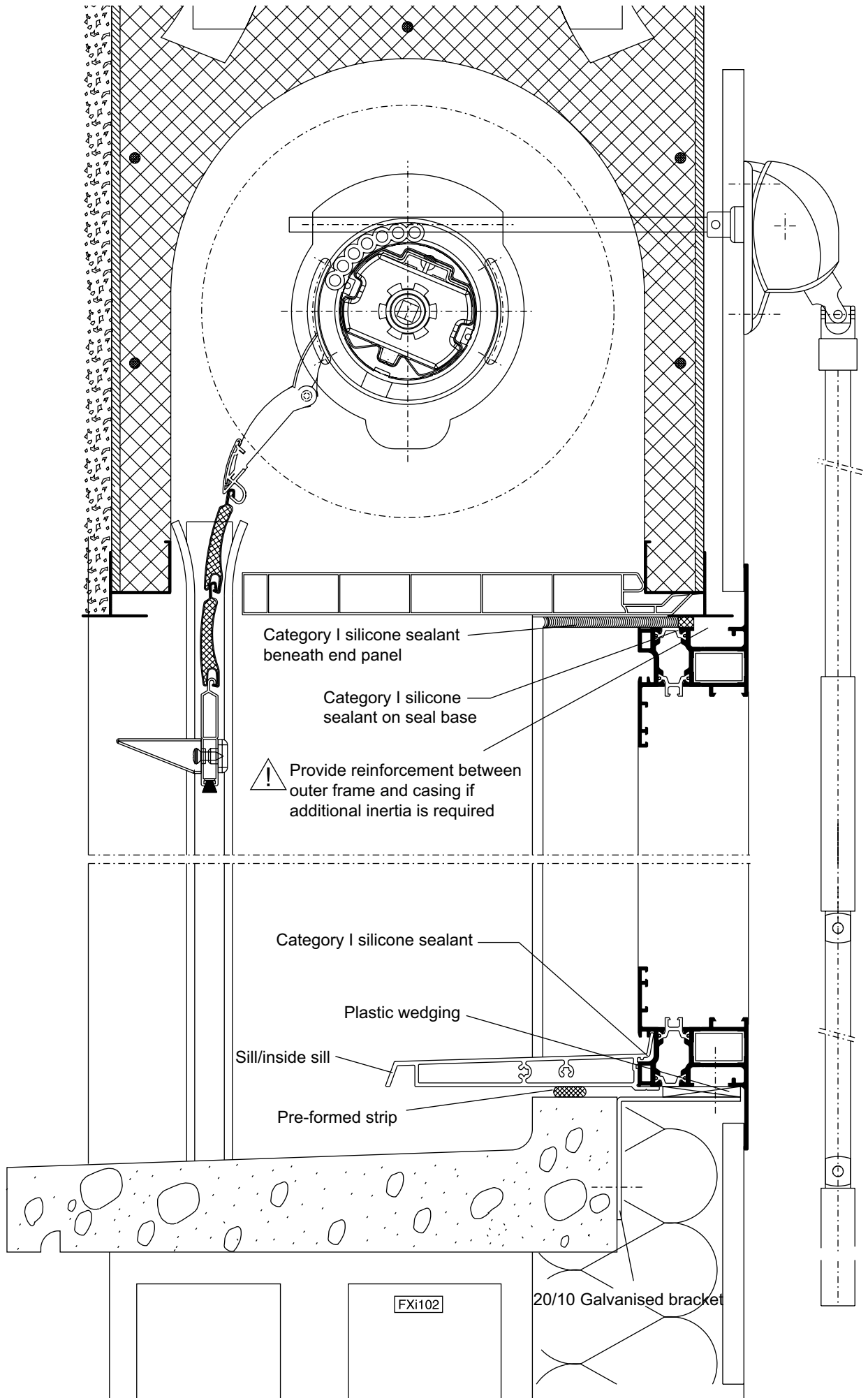
Installation examples FXi

Installation sous coffre tunnel with additional flashing

Horizontal section scale 1/2



Vertical section scale 1/2

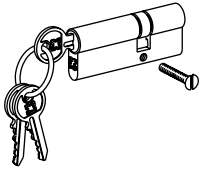


FXi102


20/10 Galvanised bracket

TECHNAL

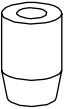
Accessory summary FX - FXi



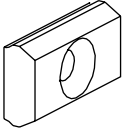
1053 30 x 50 cylinder



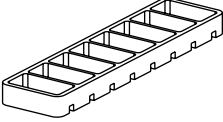
2436 Press gasket



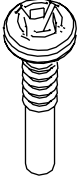
3159 Pin Ø8



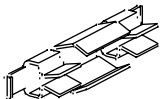
1110 Drip mould clip



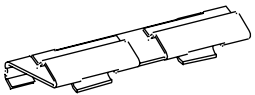
2595 Adhesive glass wedge



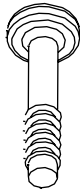
3165 Self-drilling SR2 Ø4.2 x 23



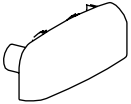
1112 Clip for casement frame FX - GX




2649 Rounded glazing bead clip



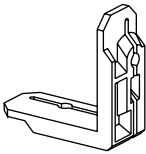
3173 Self-drilling SR2 Ø4.2 x 22




1472 Deflector for casement frame




2920 Multi-usage gasket



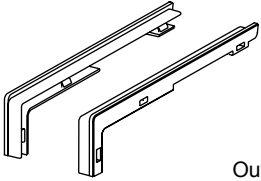
3201 Crimp/pin corner cleat 31 x 10 chamber



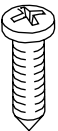
1840 Sheet screw Ø5 x 45



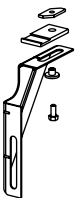
3142 Fixing bracket set 60 - 80



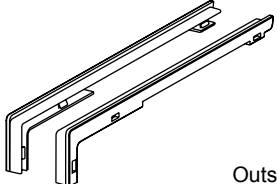
3271 Outside end plug (FE012 sill)



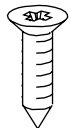
1841 Sheet screw TCB Ø 4.2 x 16




3143 Fixing bracket set 100 x 140



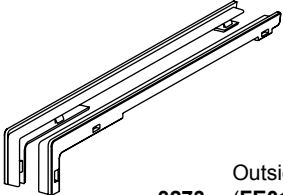
3272 Outside end plug (FE013 sill)



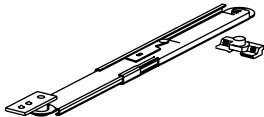
1842 Sheet screw Ø 3.9 x 16




3144 Fixing bracket set 120 x 160



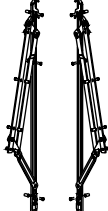
3273 Outside end plug (FE014 sill)



2298 Top-hung butt-hinged friction stay

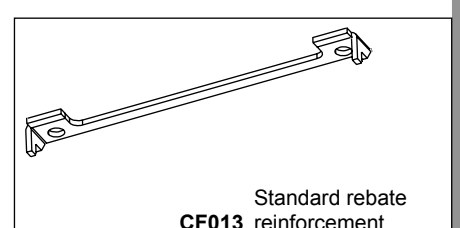
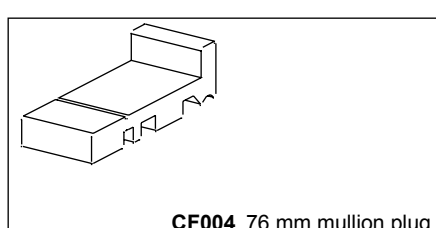
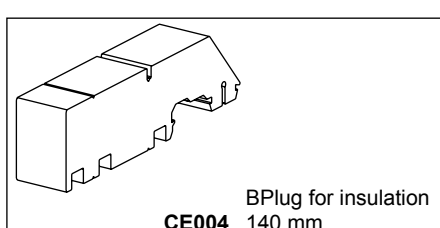
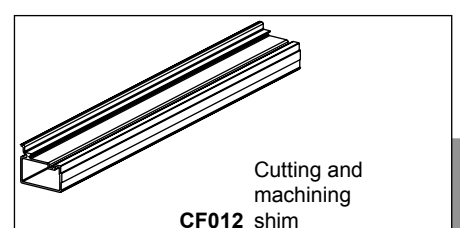
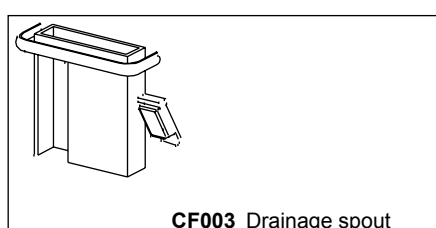
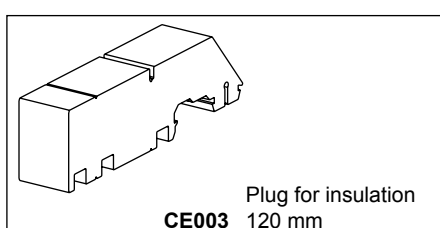
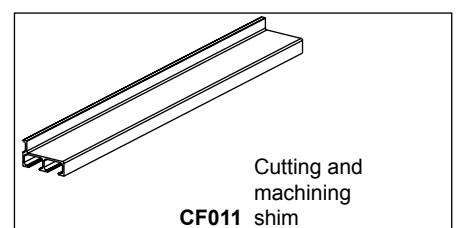
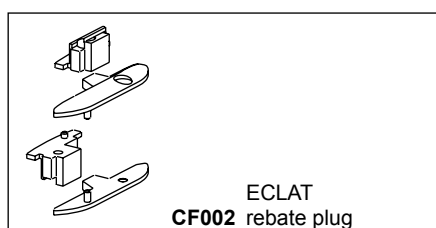
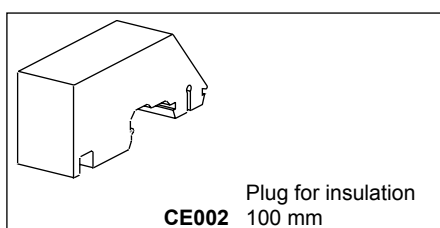
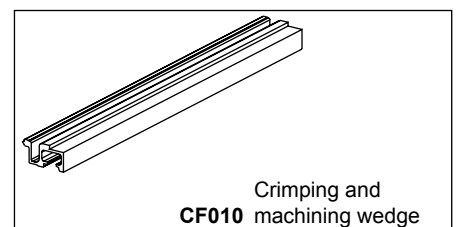
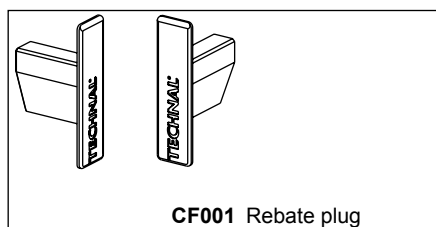
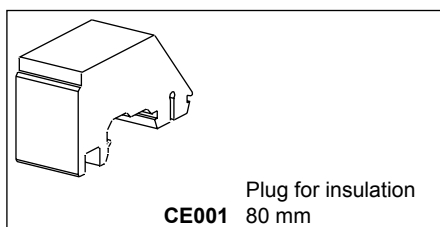
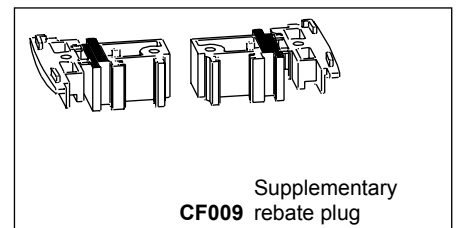
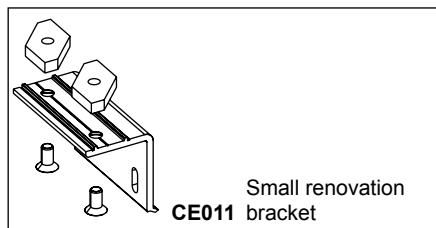
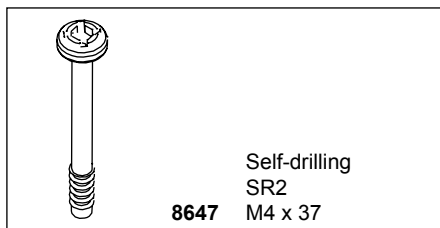
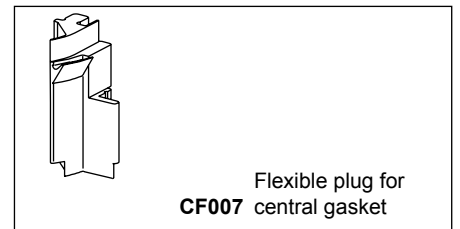
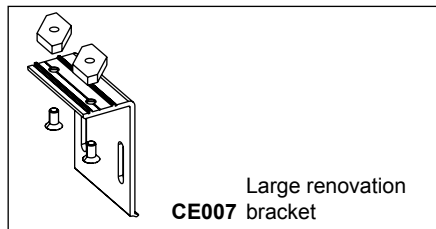
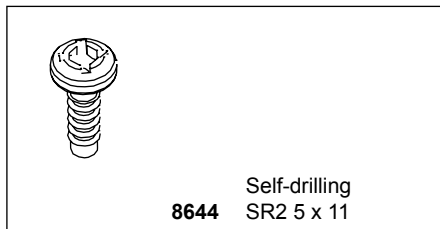
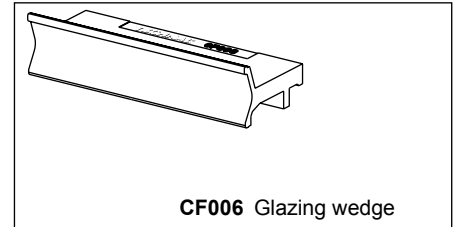
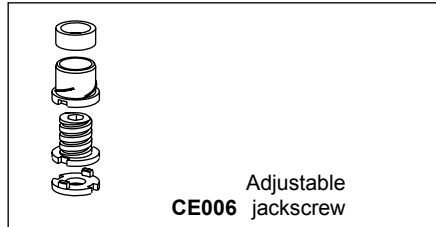
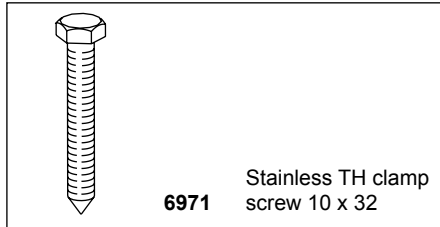
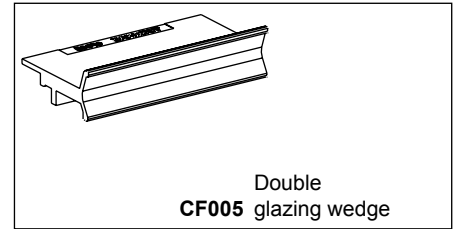
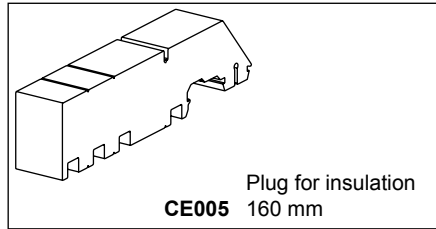
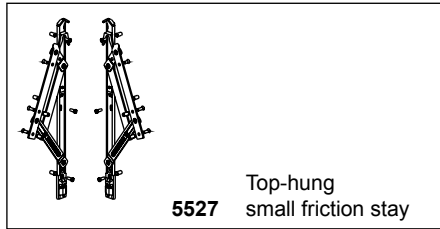


3145 Drip mould / gutter plug

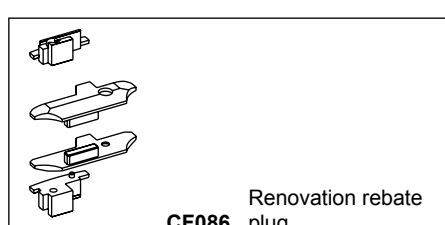
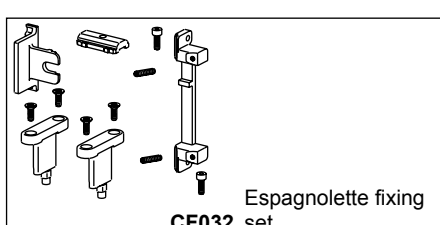
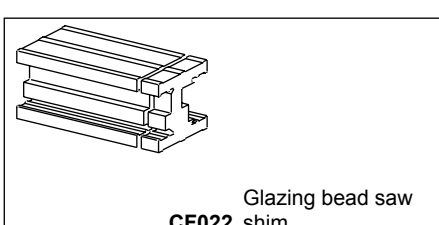
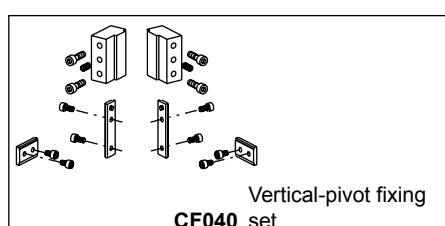
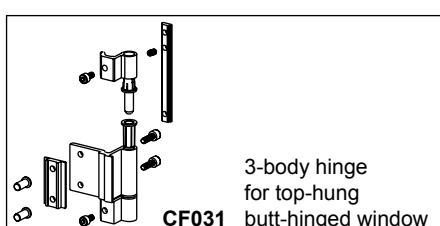
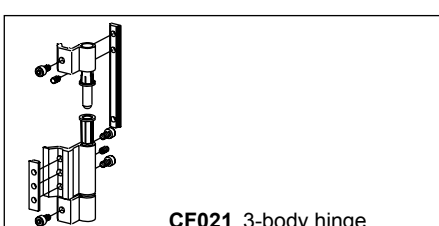
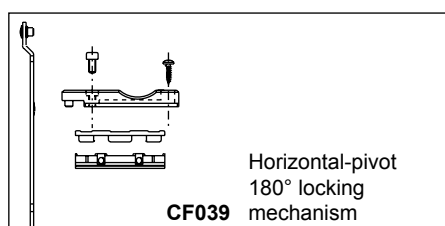
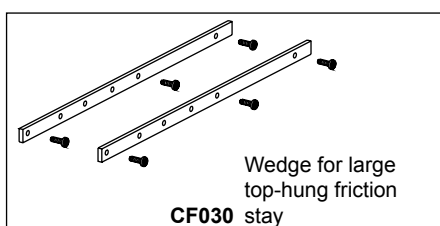
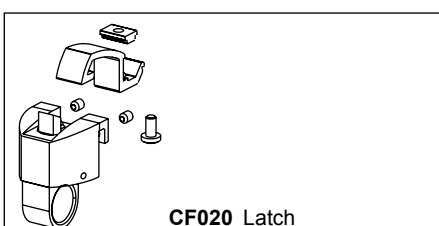
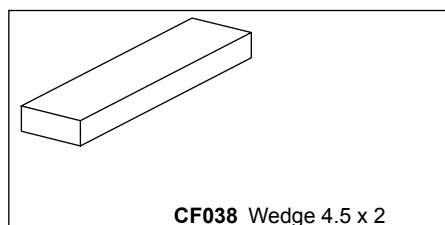
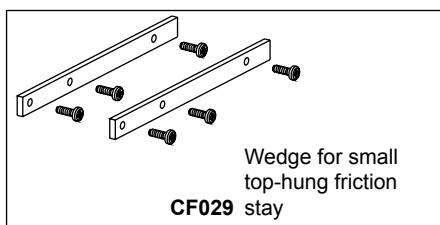
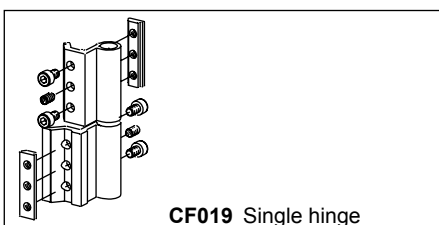
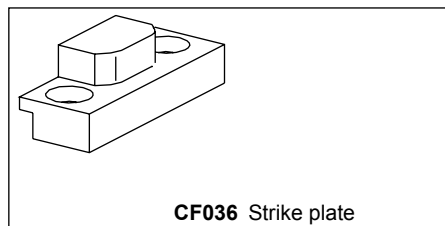
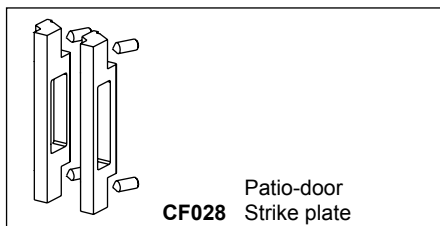
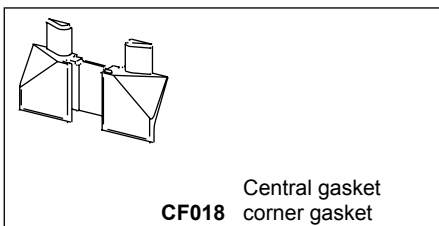
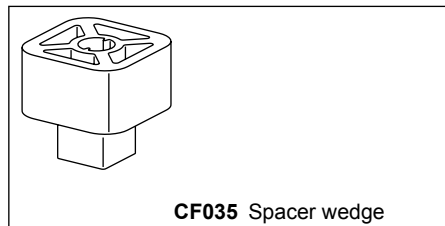
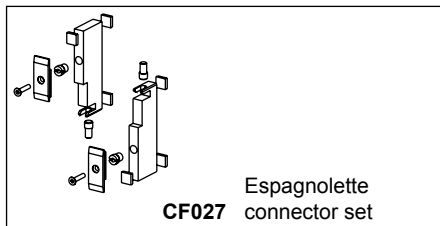
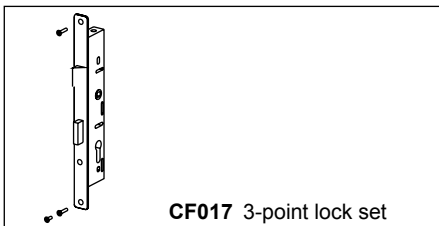
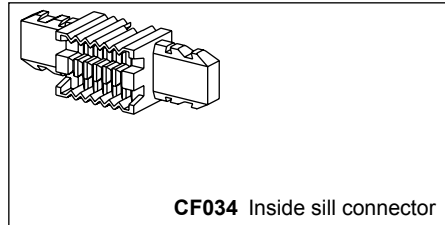
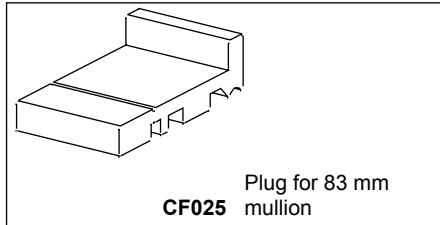
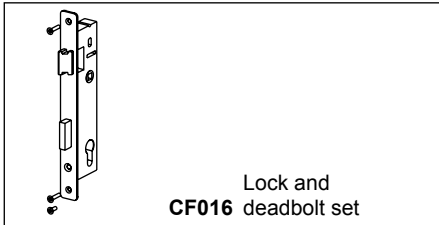
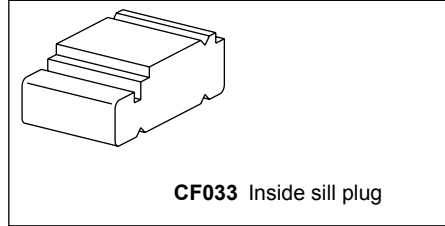
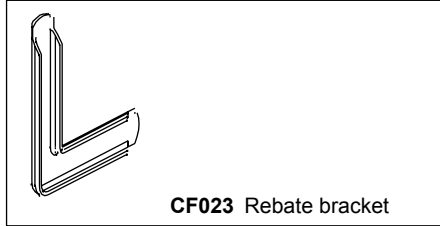
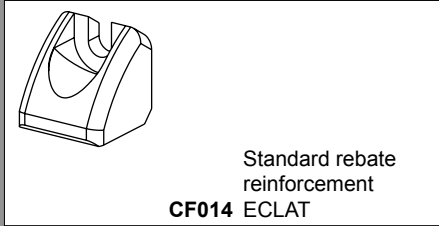


5526 Top-hung large friction stay

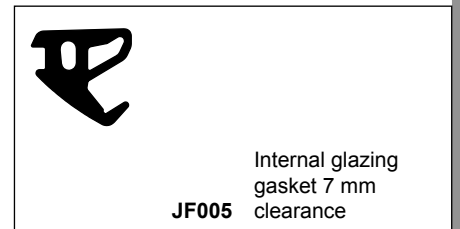
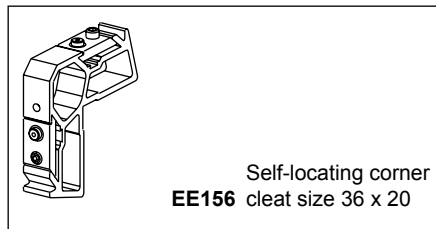
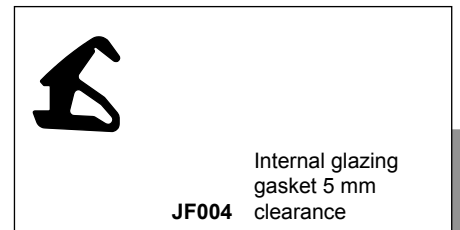
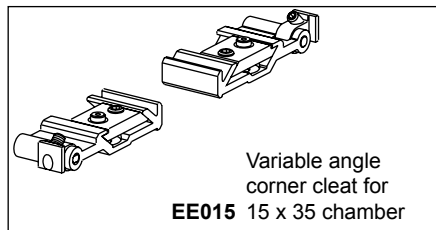
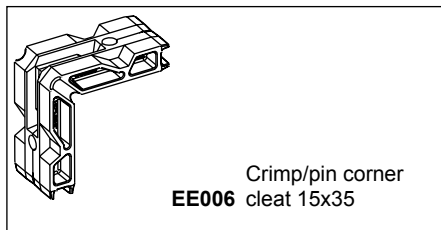
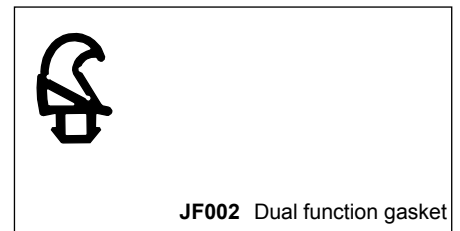
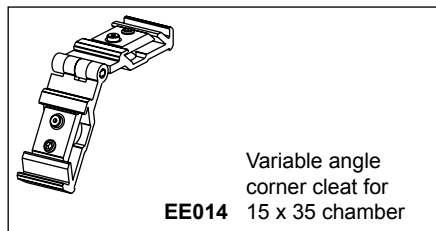
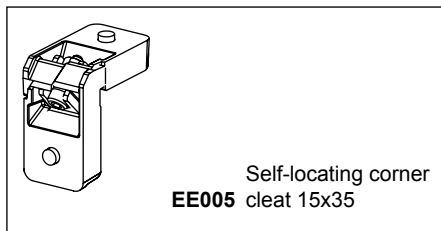
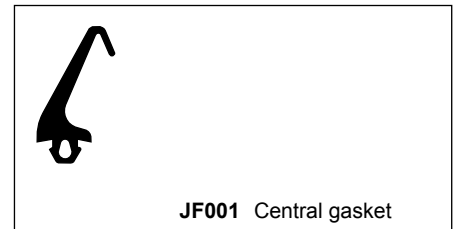
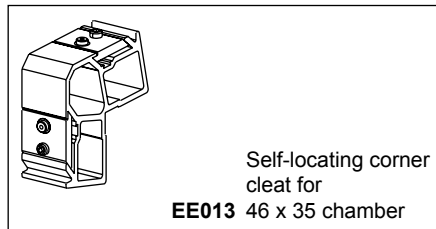
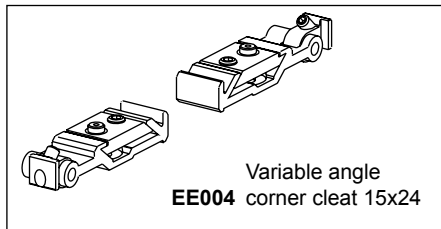
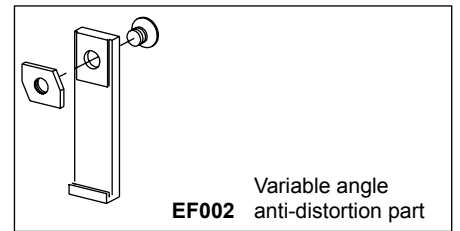
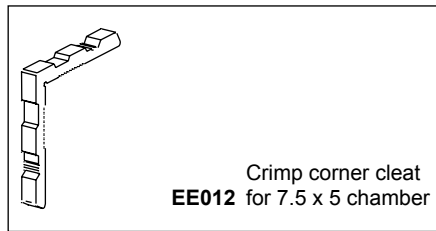
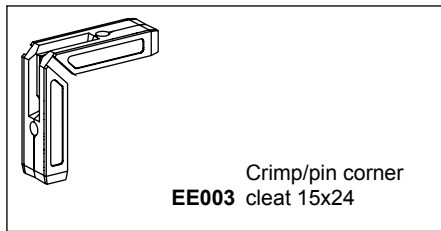
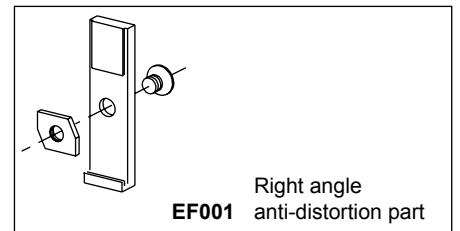
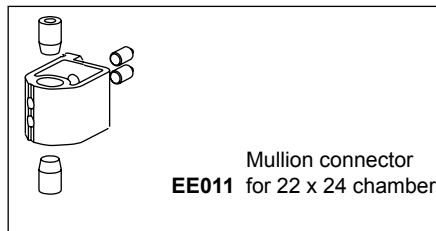
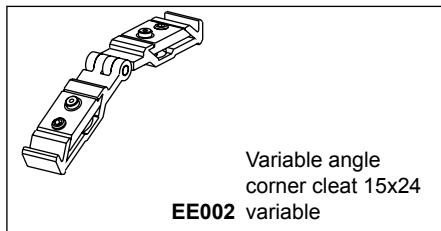
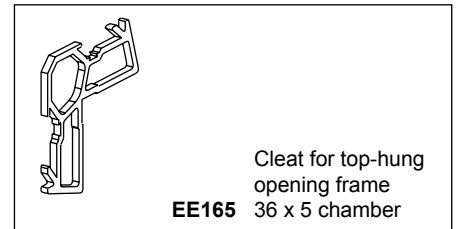
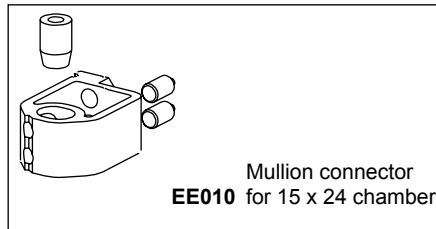
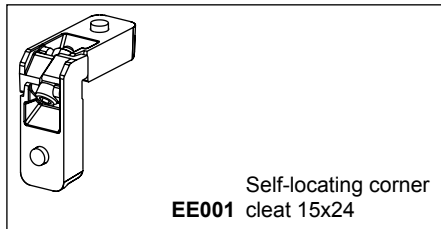
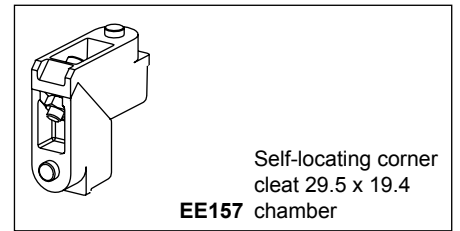
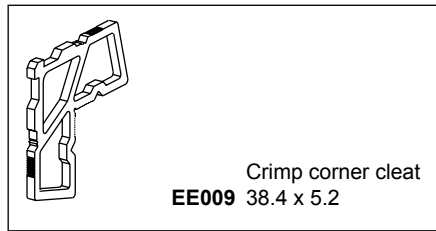
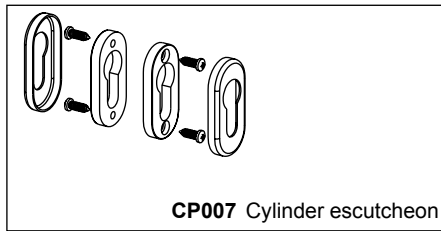
Accessory summary FX - FXi



Accessory summary FX - FXi



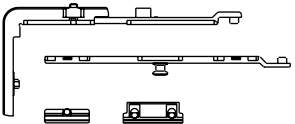
Accessory summary FX - FXi



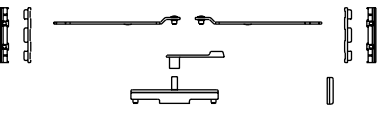
Accessory summary FX - FXi




JF006 Internal glazing gasket 9 mm clearance




KF004 Bearing element ECLAT/SF



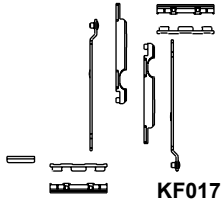
KF015 Semi-fixed embedded lock




JF007 Central mullion gasket




KF005 Friction stay < 600 mm



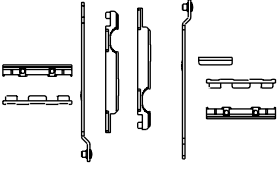
KF017 Sash bolt




JF008 External weathering gasket




KF006 Friction stay > 600 mm



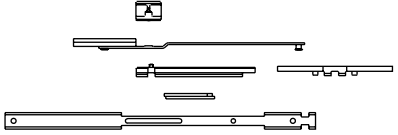
KF018 Sash bolt ECLAT




JF009 Linking/expansion gasket




KF007 Friction stay < 600 mm SF



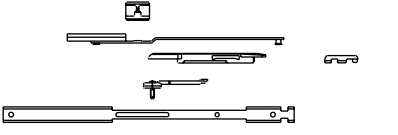
KF019 Large T/T friction stay



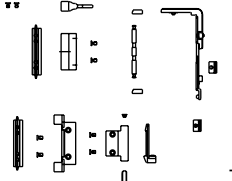
JF010 Horizontal-pivot gasket



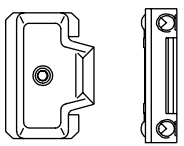
KF008 Friction stay > 600 mm SF




KF020 Large T/T friction stay SF



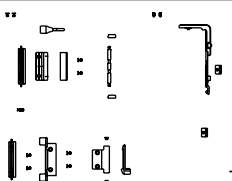
KF001 T/T hardware 90 kgs



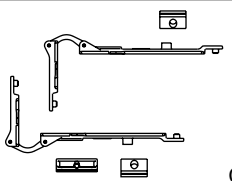
KF011 Mid point



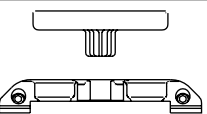
KF021 Adjustable additional locking point



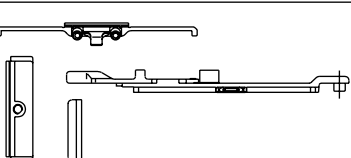
KF002 T/T hardware 130 kgs



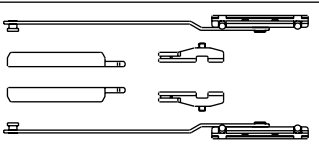
KF012 Closing mechanism with rods



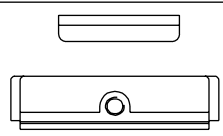
KF023 Latch



KF003 Bearing element

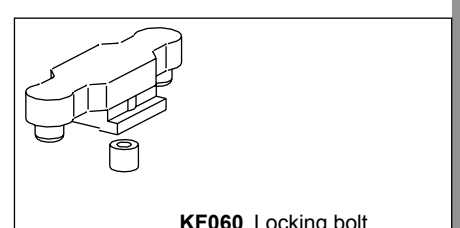
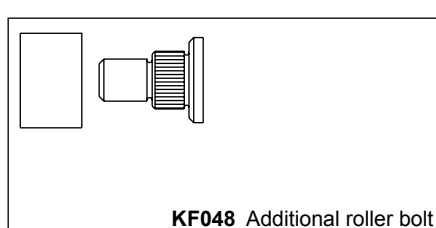
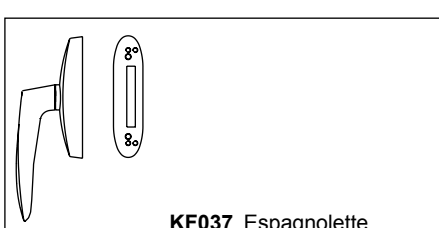
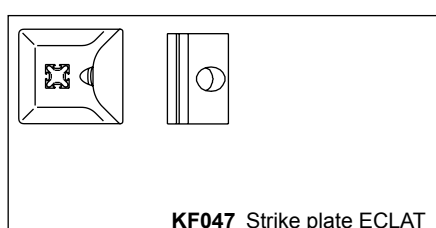
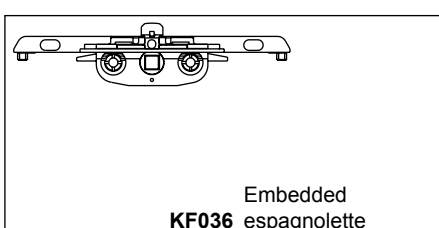
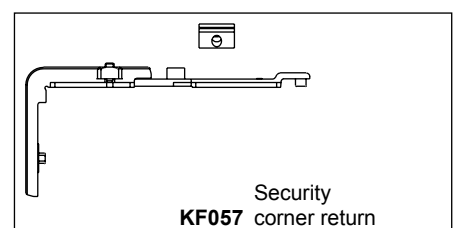
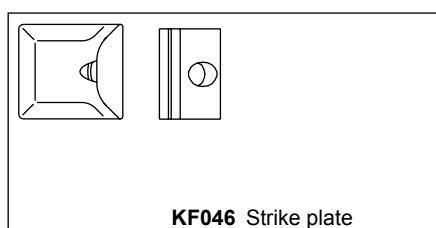
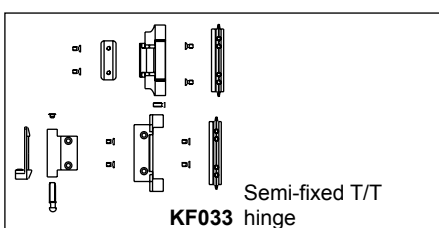
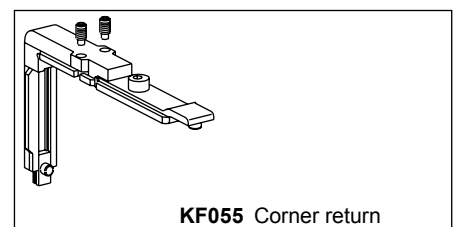
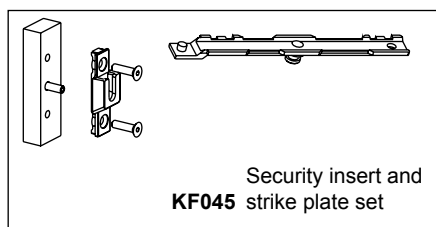
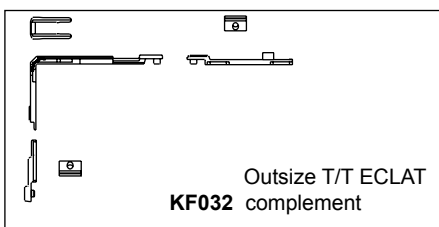
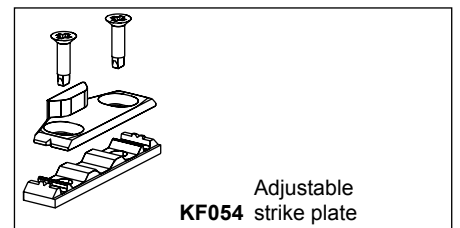
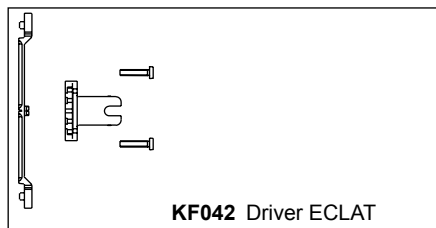
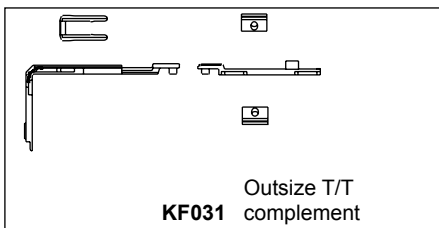
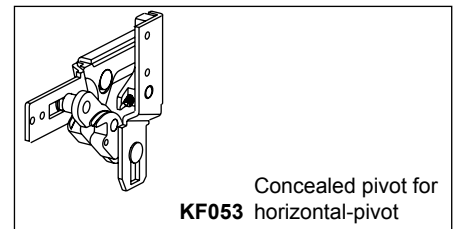
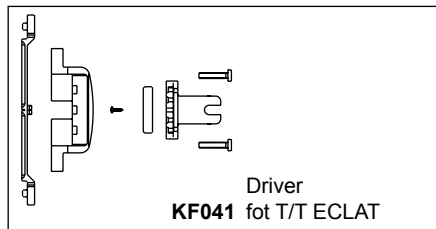
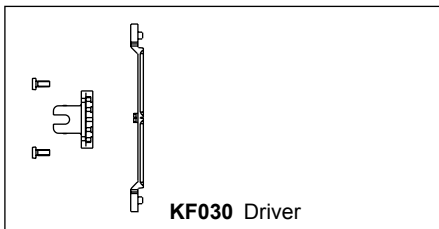
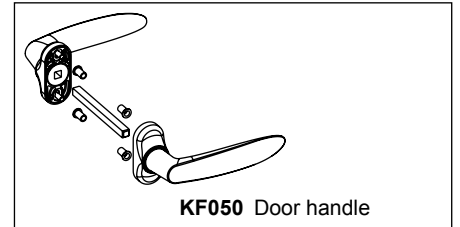
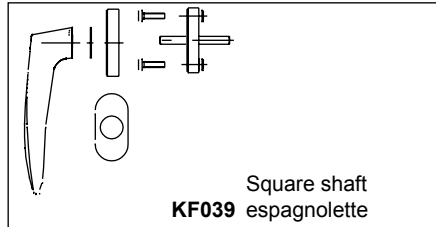
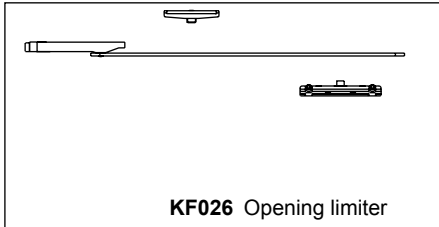
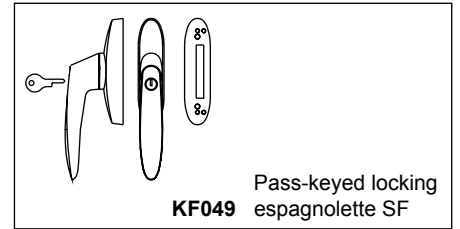
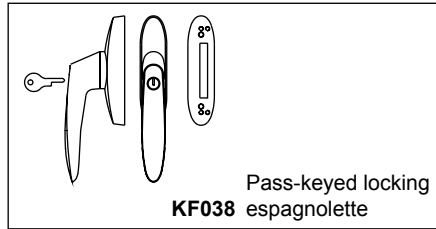
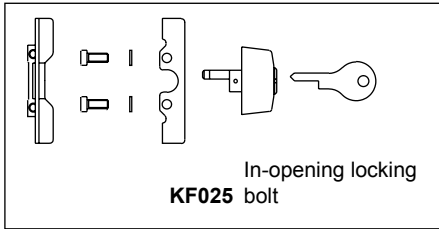


KF014 Top-hung friction stay

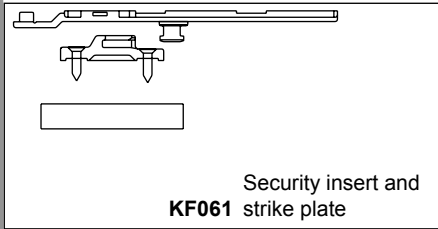


KF024 Opening frame support

Accessory summary FX - FXi



Accessory summary FX - FXi



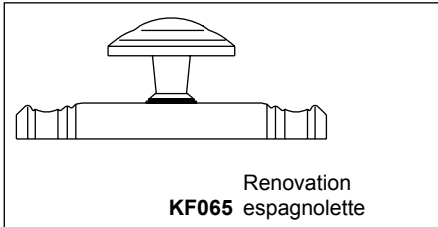
KF061 Security insert and strike plate



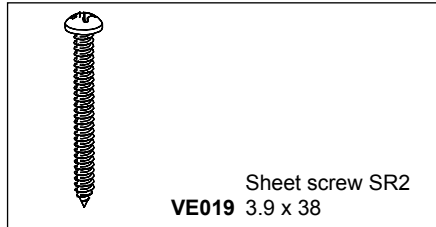
VE017 Self-drilling screw SR2 4.2 x 28



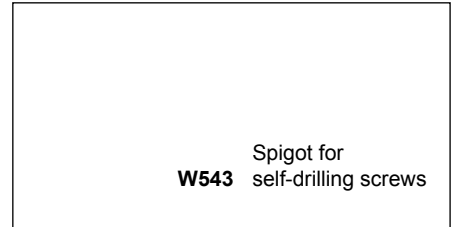
W202 Weathering adhesive for EPDM plugs



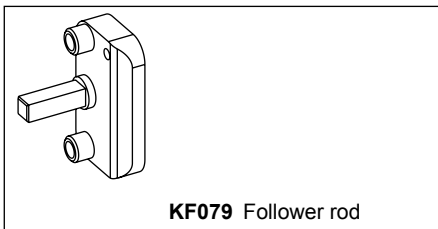
KF065 Renovation espagnolette



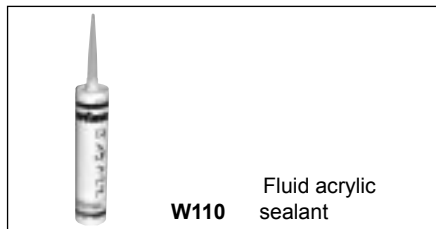
VE019 Sheet screw SR2 3.9 x 38



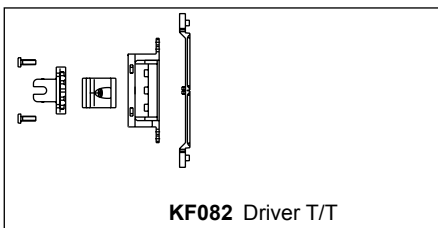
W543 Spigot for self-drilling screws



KF079 Follower rod



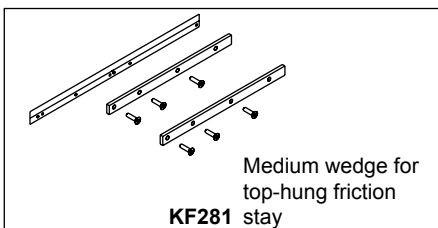
W110 Fluid acrylic sealant



KF082 Driver T/T



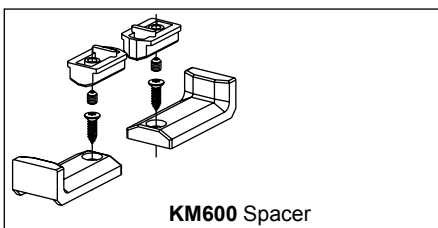
W112 Bronze silicone sealant



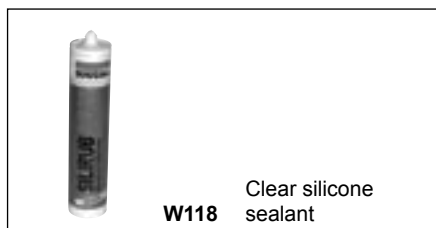
KF281 Medium wedge for top-hung friction stay



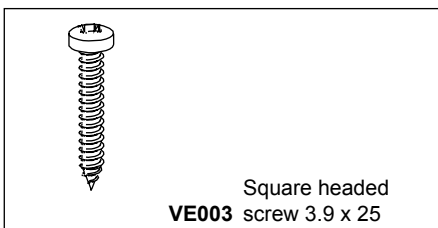
W115 White silicone sealant



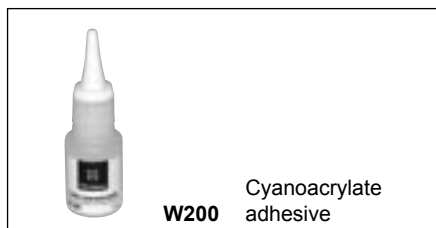
KM600 Spacer



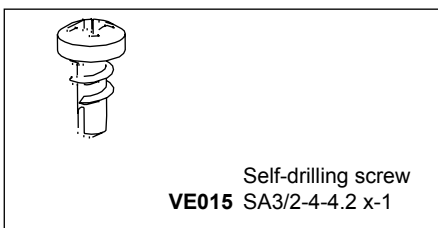
W118 Clear silicone sealant



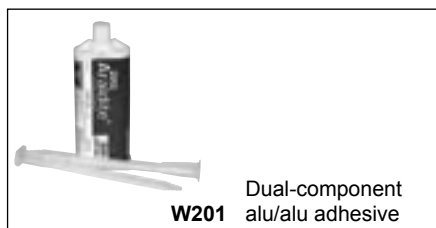
VE003 Square headed screw 3.9 x 25



W200 Cyanoacrylate adhesive

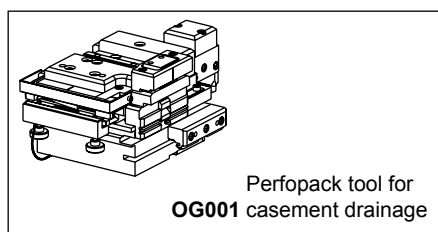
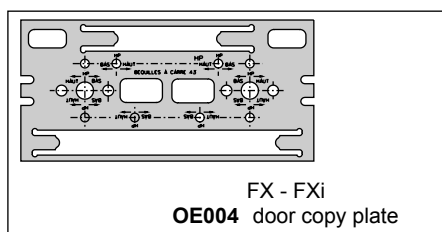
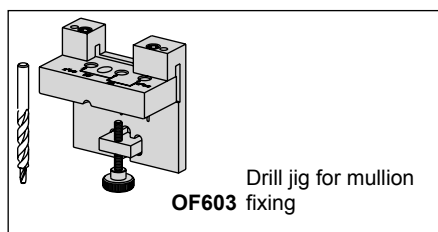
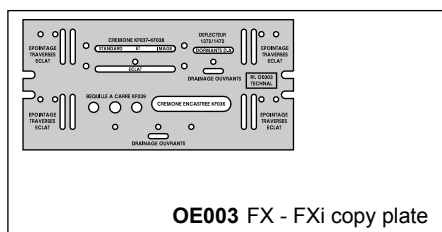
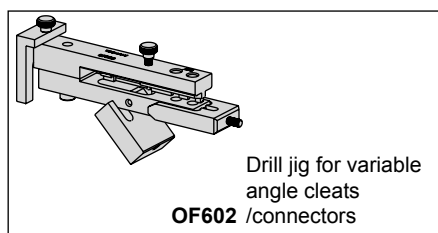
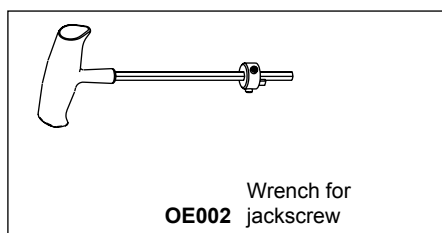
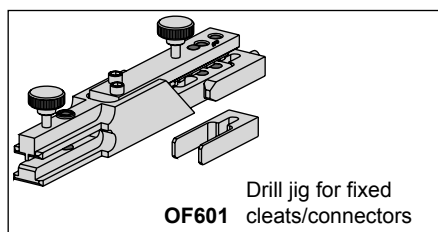
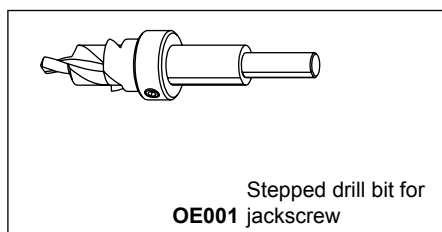
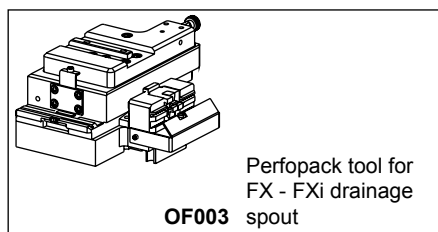
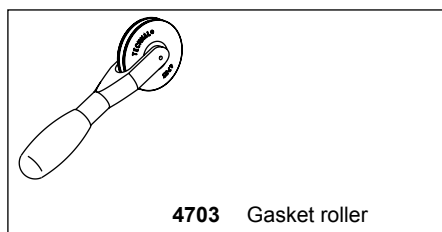
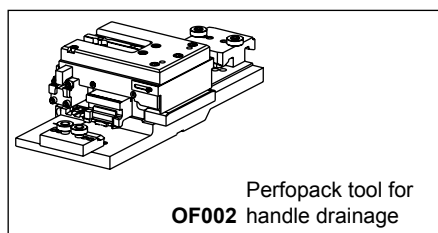
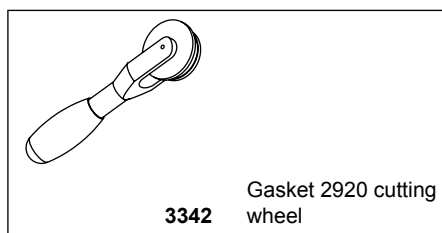
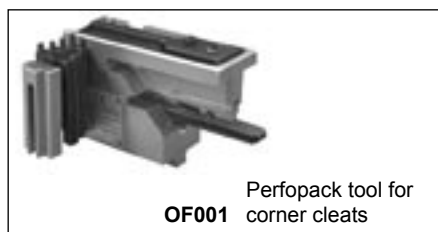
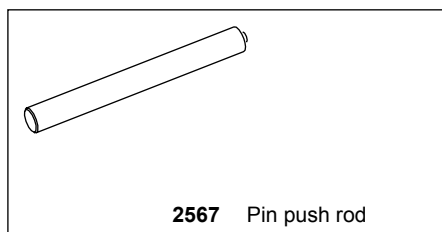
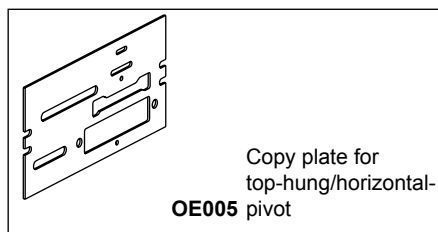
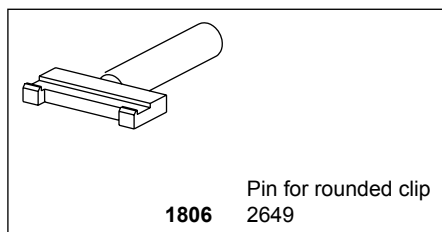


VE015 Self-drilling screw SA3/2-4-4.2 x-1



W201 Dual-component alu/alu adhesive

Tools summary FX - FXi



Tools summary FX Use by application

■ Optional selection

			Applications				
			Fixed light	In-opening	T/T	Bottom-hung	Locking door
Machining	Ref.	Types					
Punching for self-locating cleat EE005 , pin cleat EE006	OF001	Perfopack tool	•	•	•	•	•
	OF601	Drill jig	•	•	•	•	•
Paring fins for espagnolette rod through hole	OF001 or OF002	Perfopack tool		•	•		•
Outer frame drainage	OG001	Perfopack tool	•	•	•	•	•
Opening frame drainage	OF002	Perfopack tool		•	•	•	•
	OE003	Copy plate		•	•	•	•
Machining for closing mechanisms	OF002	Perfopack tool		•	•		
	OE003	Copy plate		•	•	•	
	OE004	Copy plate					•
Machining for espagnolette rod 8015 or FE006	OF002	Perfopack tool		•	•		•
Punching for lugs and drainage	OF002	Perfopack tool	•	•	•	•	•

Tools summary FX i

Use by application

■ Optional selection

			Applications					Bottom-hung	Locking door
			Fixed light	In-opening	In-opening version ECLAT	T/T	T/T version ECLAT		
Machining	Ref.	Types							
Punching for self-locating cleat EE001 , pin cleat EE003	OF001	Perfopack tool	•	•	•	•	•	•	
	OF601	Drill jig	•	•	•	•	•	•	

Tools summary FX i

Use by application

			Applications					Bottom-hung	Locking door
			Fixed light	In-opening	In-opening version ECLAT	T/T	T/T version ECLAT		
Machining	Ref.	Types							
Paring fins for espagnolette rod through hole	OF001 or OF002	Perfopack tool		•	•	•	•	•	
Outer frame drainage	OG001	Perfopack tool	•	•	•	•	•	•	
Opening frame drainage	OF002	Perfopack tool		•	•	•	•	•	
	OE003	Copy plate		•	•	•	•	•	
Machining for closing mechanisms	OF002	Perfopack tool		•	•	•	•		
	OE003	Copy plate		•	•	•	•		
	OE004	Copy plate						•	
Machining for espagnolette rod 8015	OF002	Perfopack tool		•	•	•	•	•	
Punching for lugs and drainage	OF003	Perfopack tool	•	•	•	•	•	•	

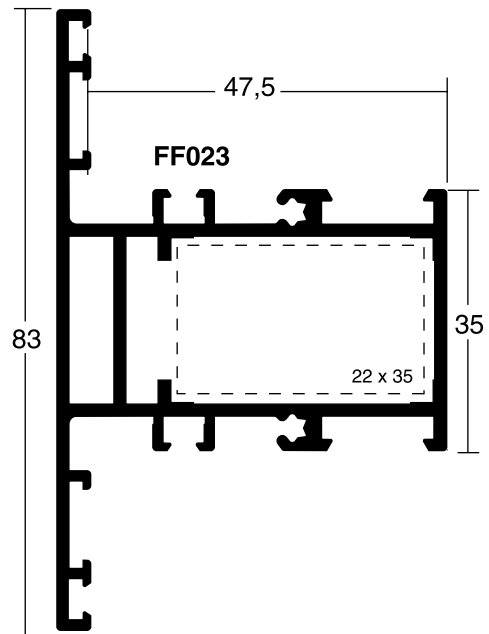
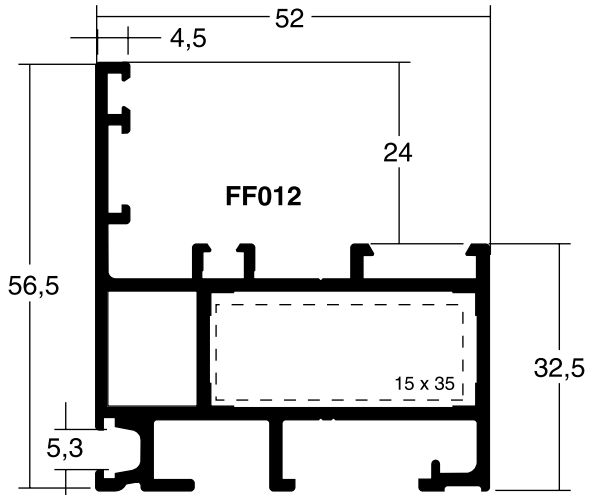
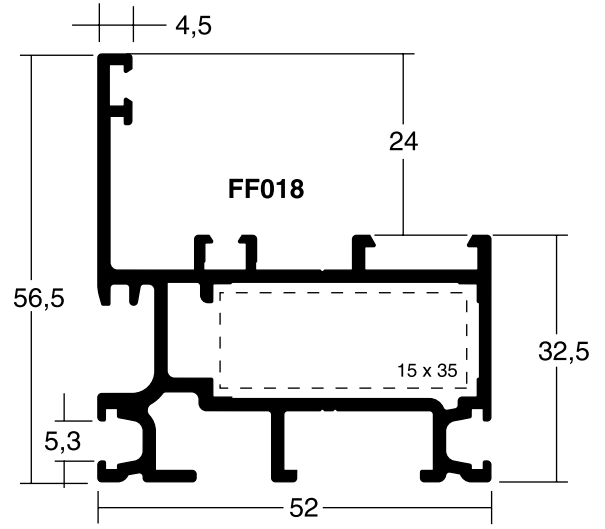
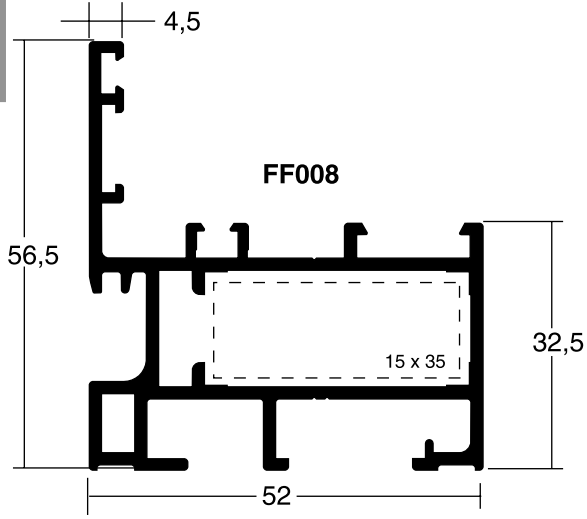
 **Optional selection**

			Applications			
			Top-hung	Top-hung butting	Horizontal-pivot	Vertical-pivot
Machining	Ref.	Types				
Punching for self-locating cleat EE001-EE005 , pin cleat EE003-EE006 EE157 bracket	OF001	Perfopack tool	•	•	•	•
	OF601	Drill jig	•	•	•	•
Paring fins for espagnolette rod through hole	OF001 or OF002	Perfopack tool	•	•	•	•
Drainage for outer frames and reversers	OF003 or OG001	Perfopack tool	•	•	•	•
Opening frame drainage	OF002	Perfopack tool	•	•	•	•
	OE005	Copy plate	•	•	•	•
Machining for closing mechanisms	OE005	Copy plate	•	•	•	•

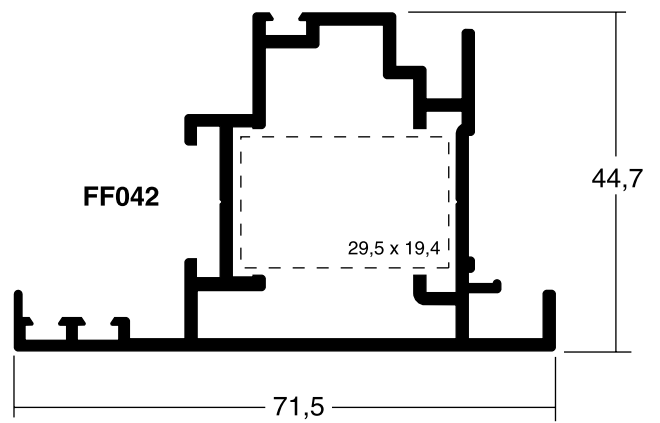
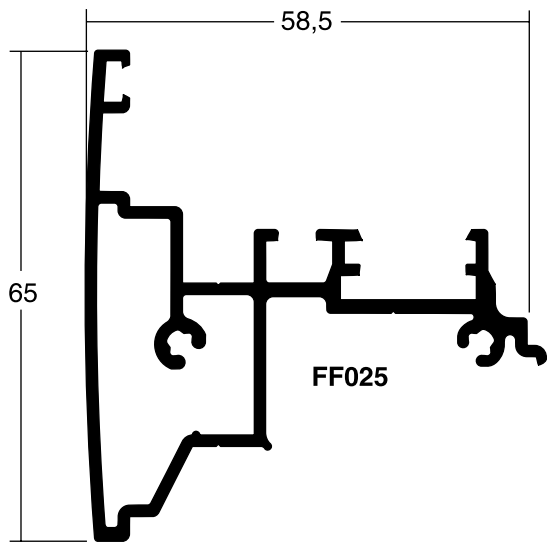
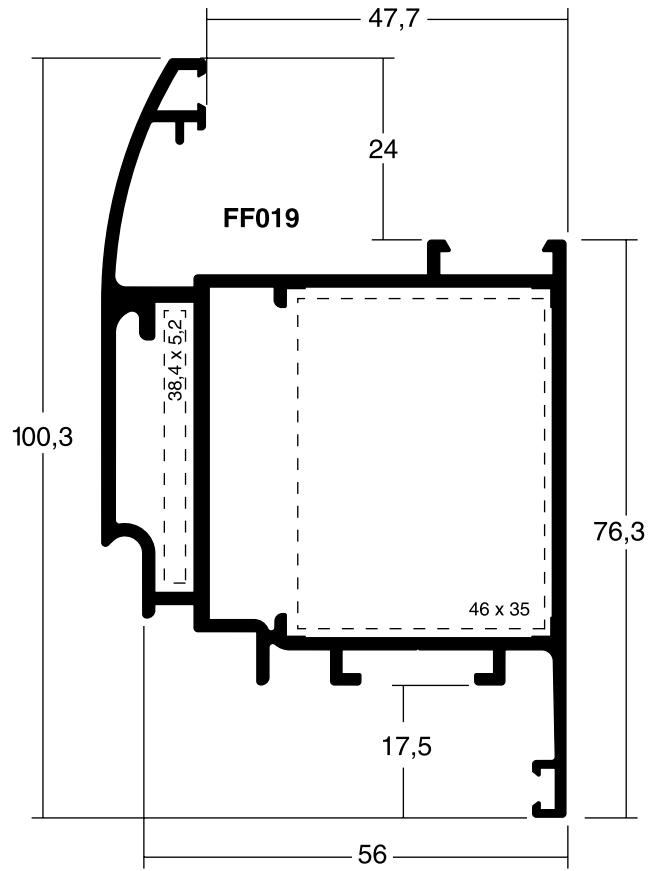
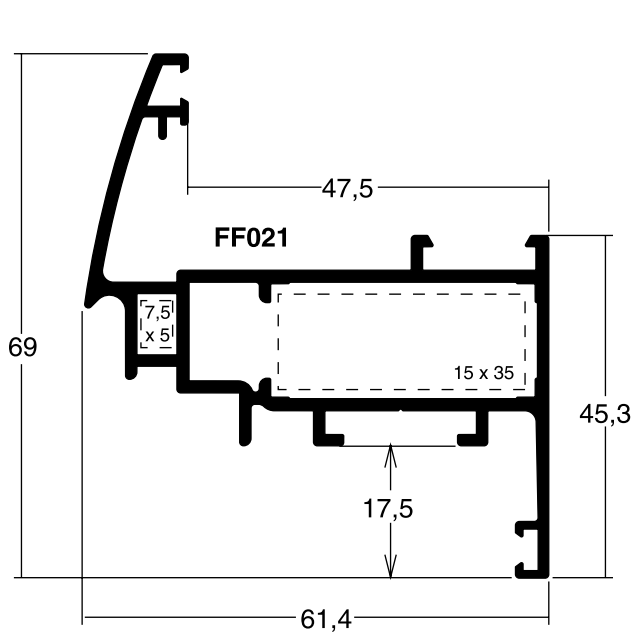
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Profile summary FX

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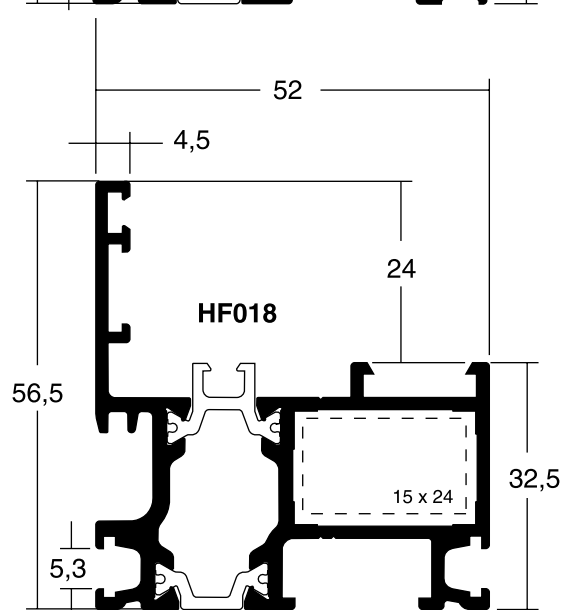
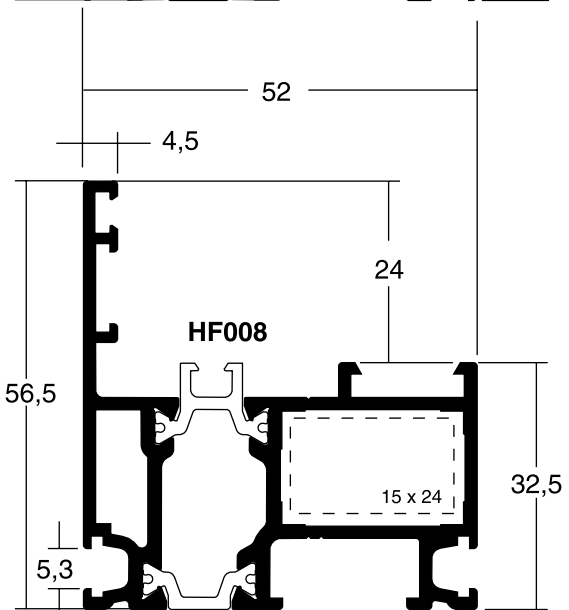
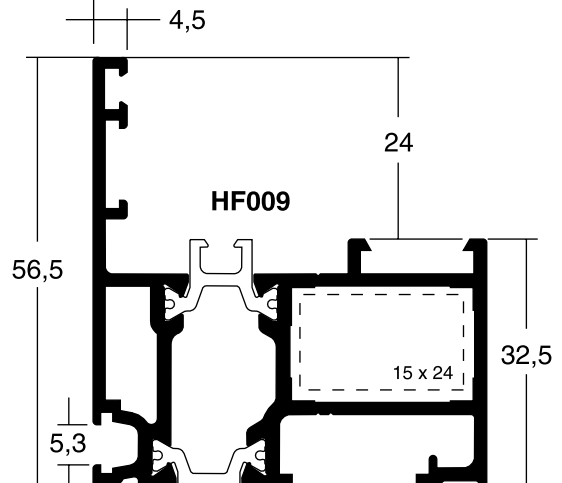
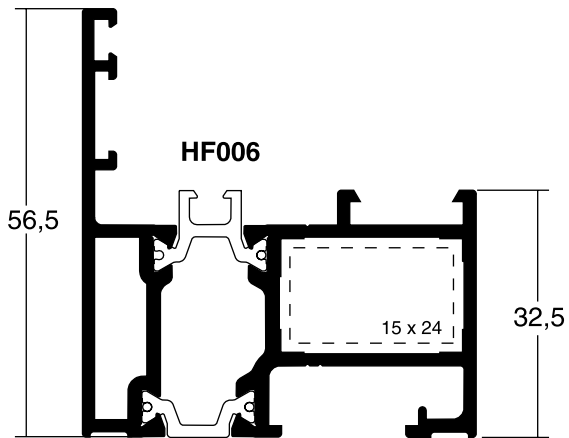
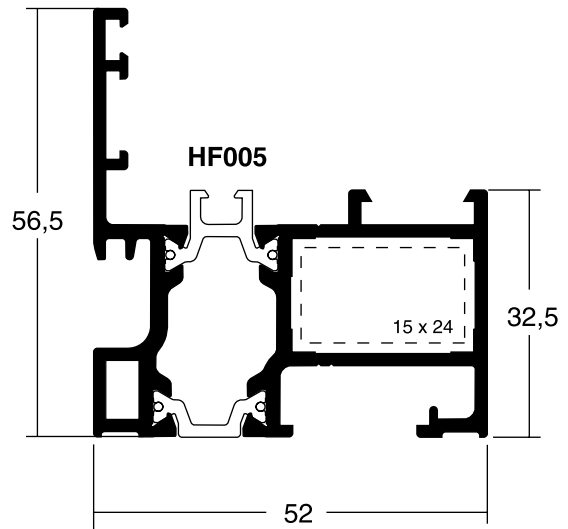
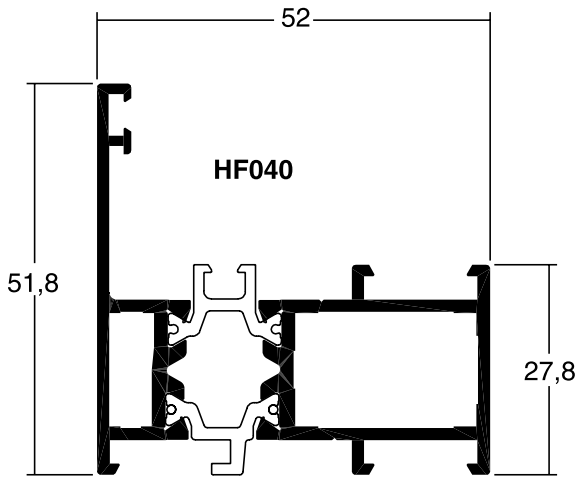
Profile summary FX



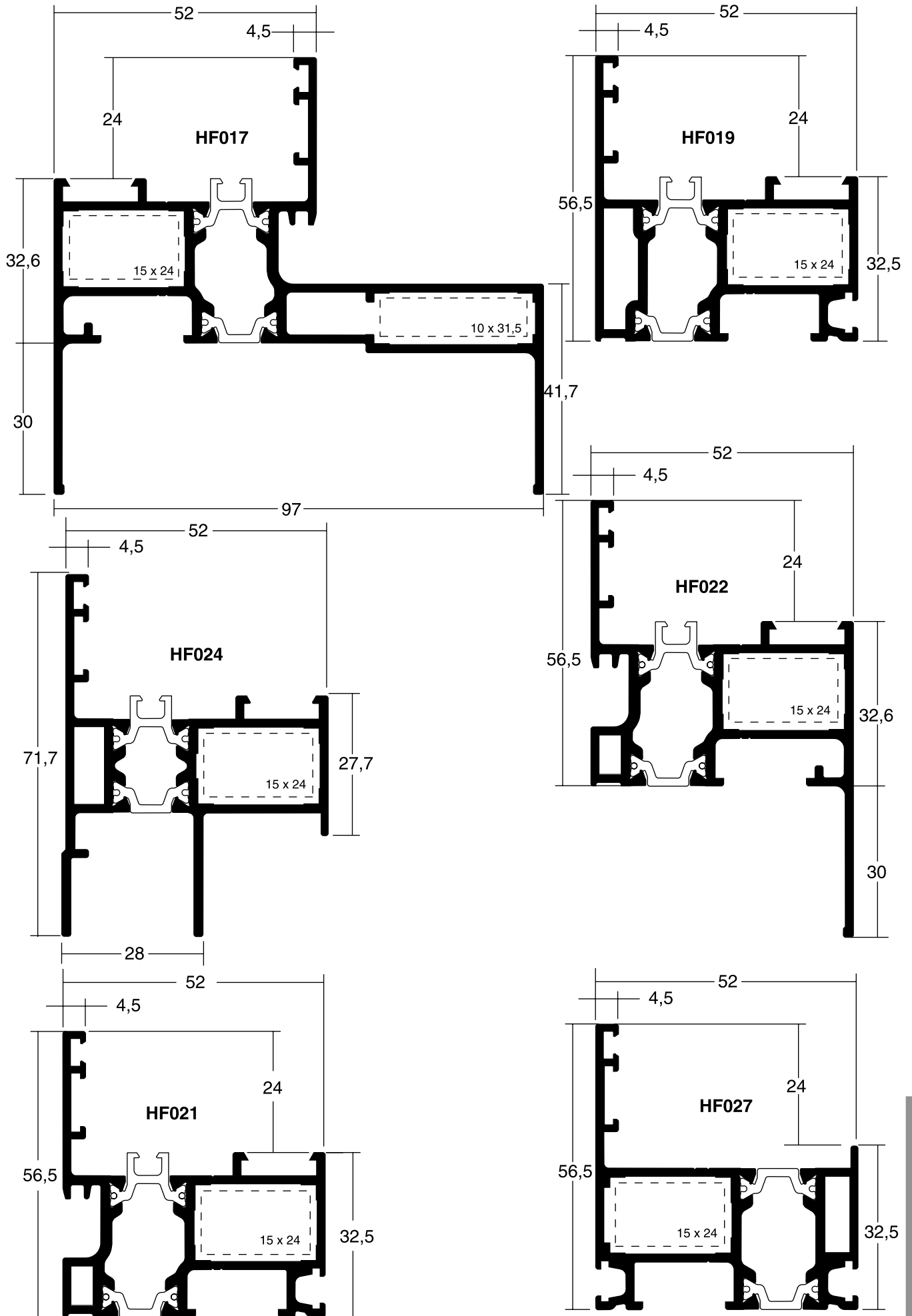
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Profile summary FXi

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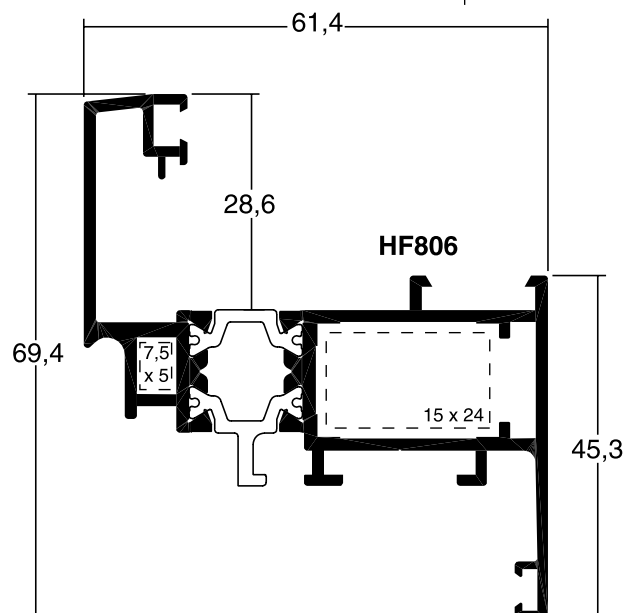
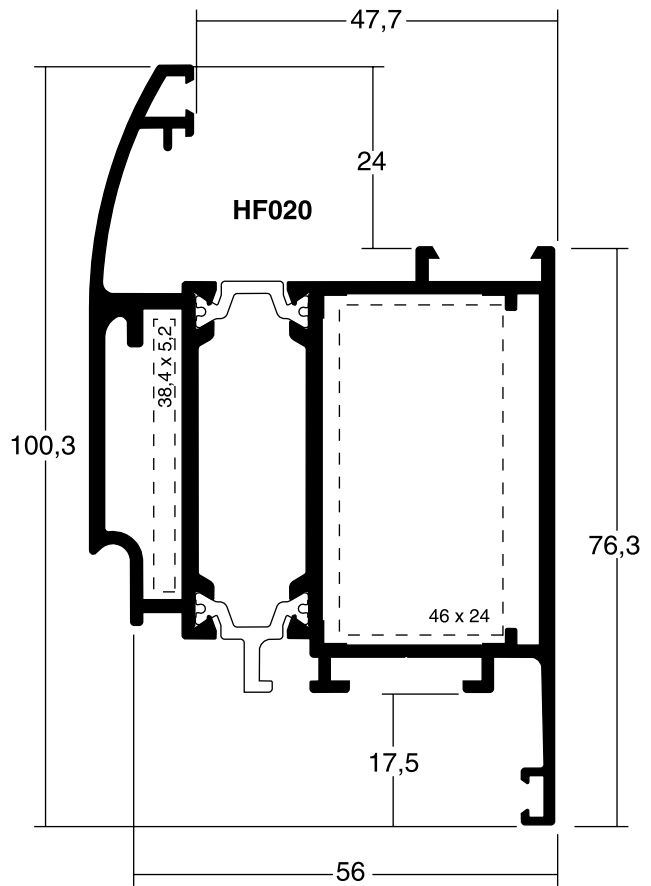
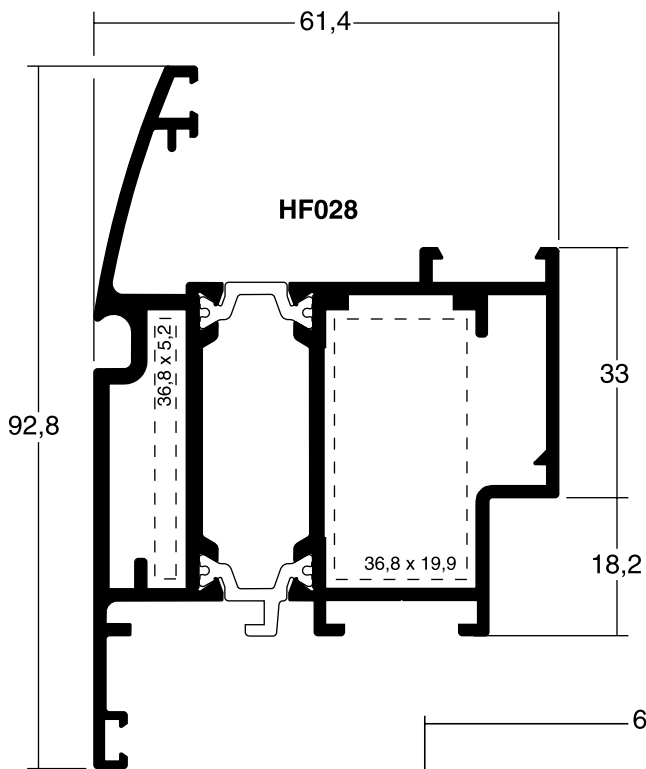
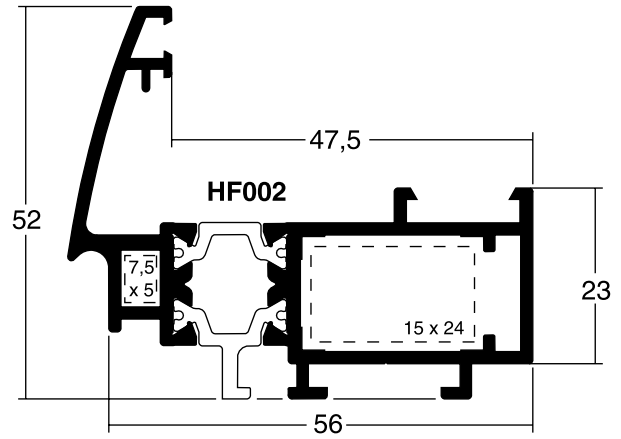
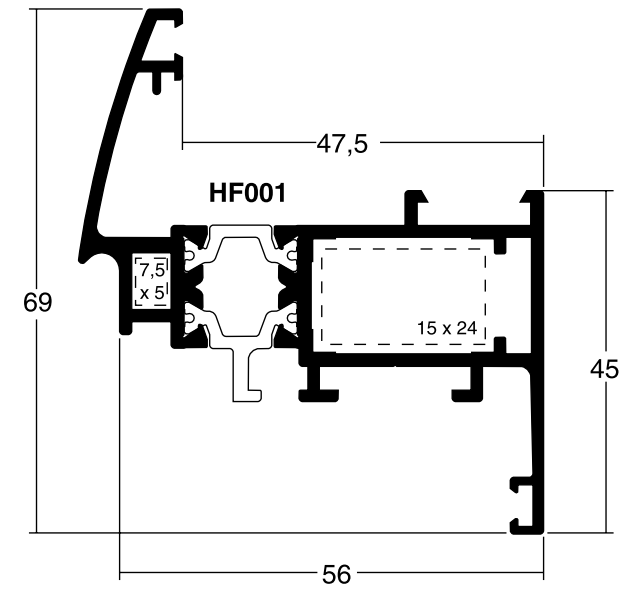


Profile summary FXi

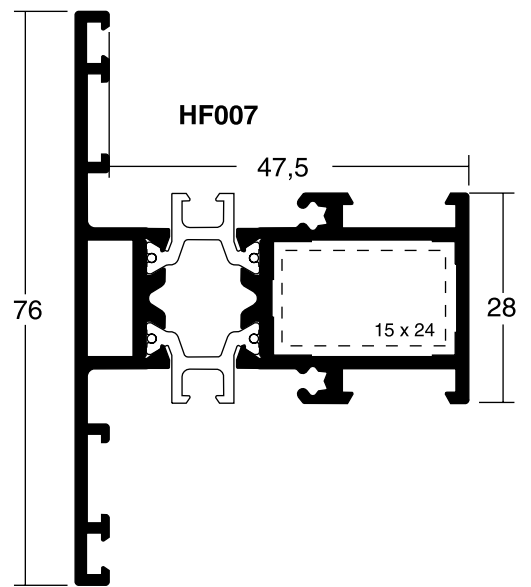
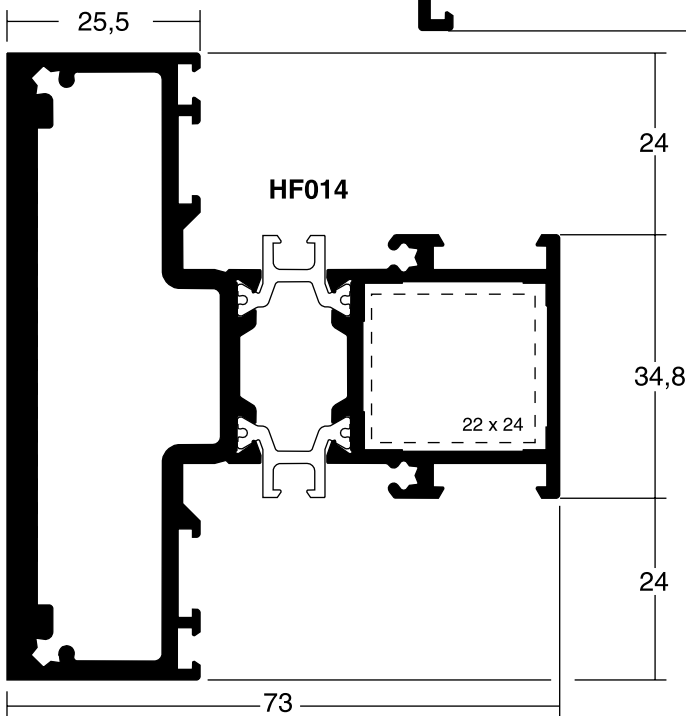
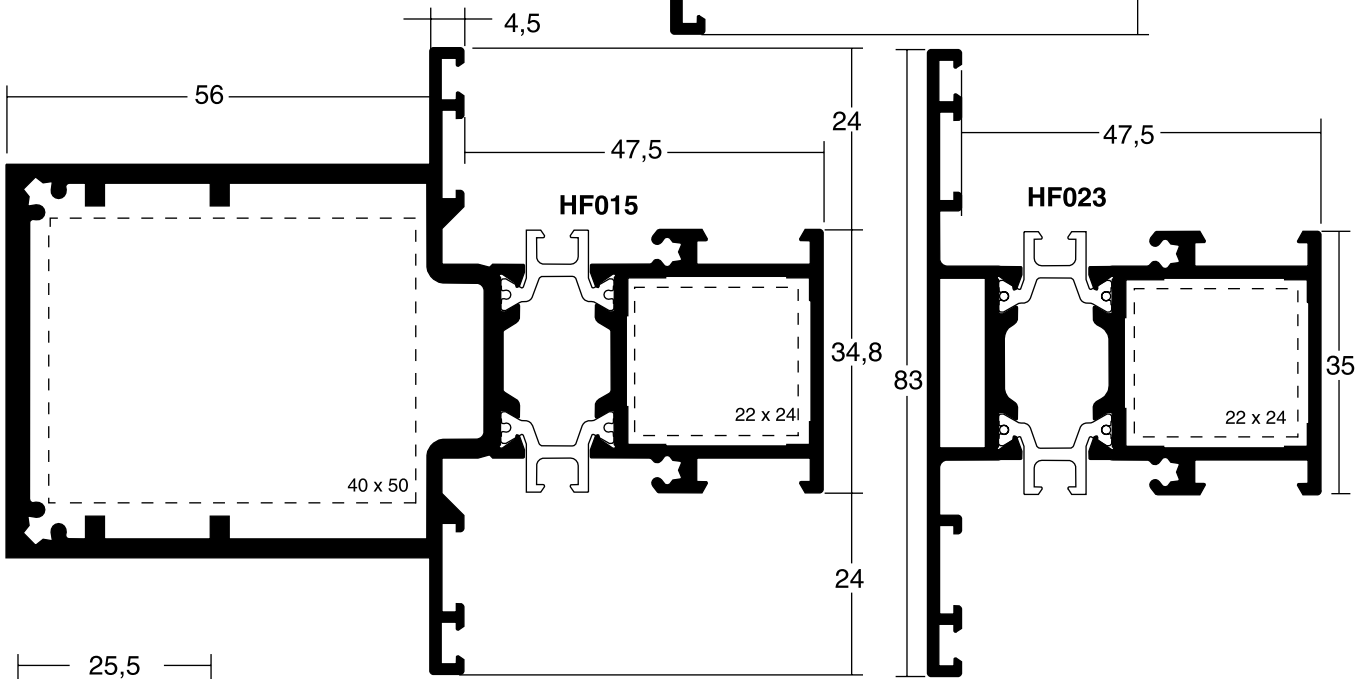
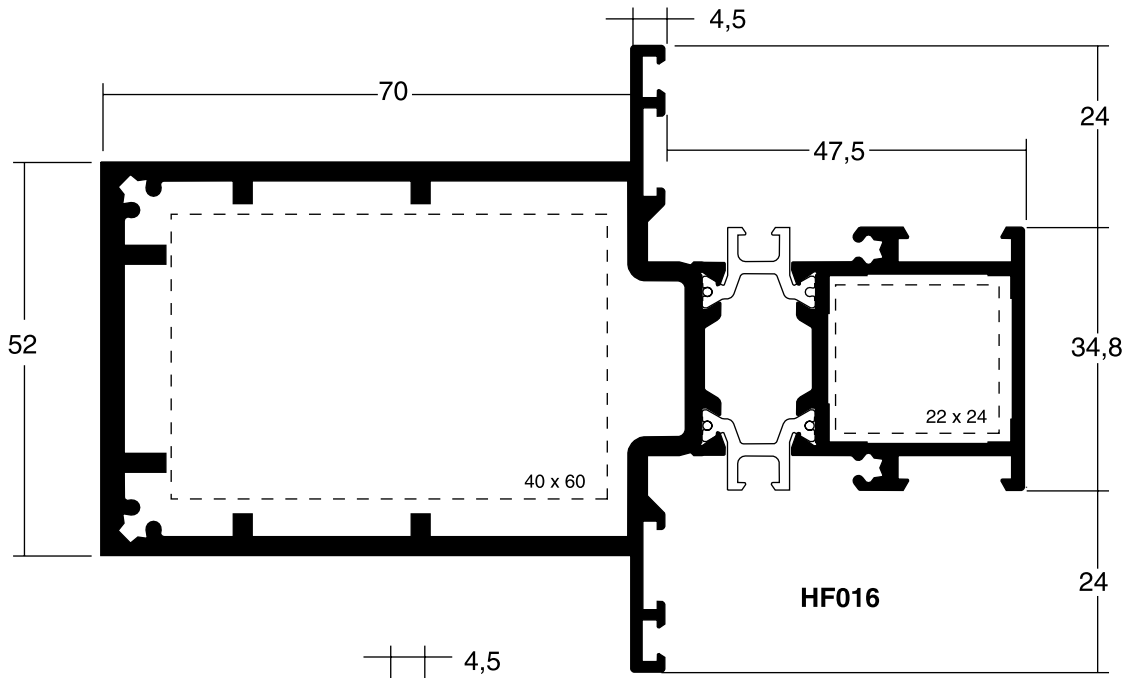


Profile summary FXi

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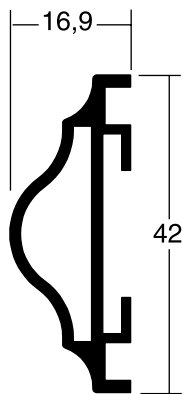
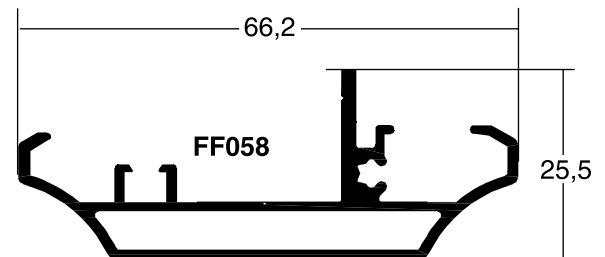
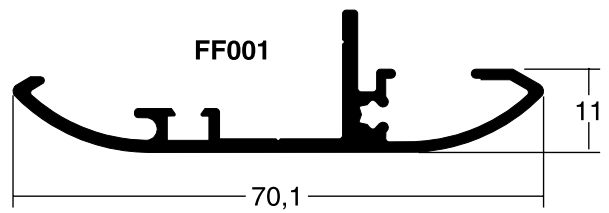
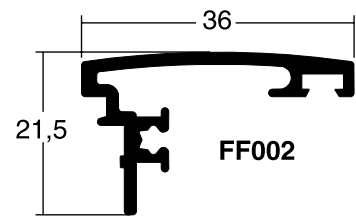
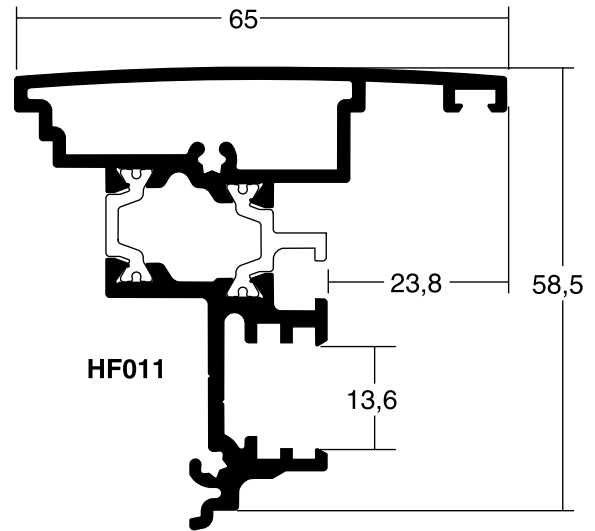
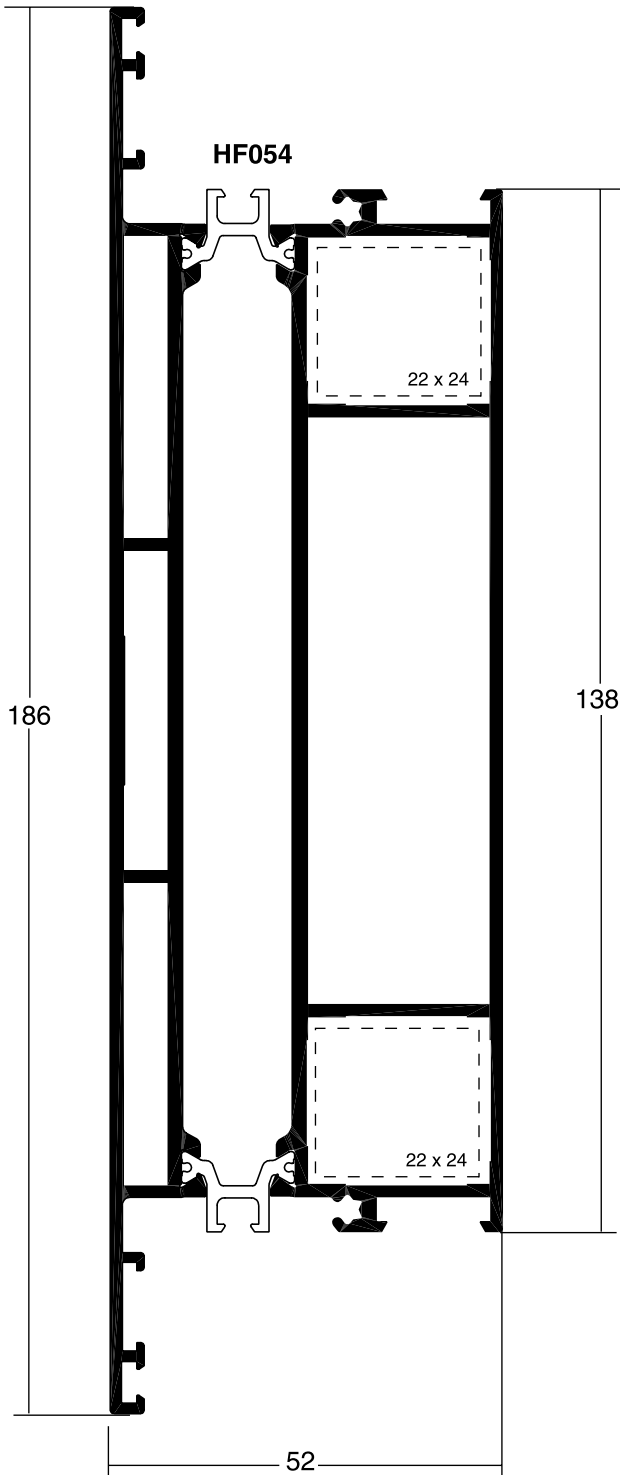


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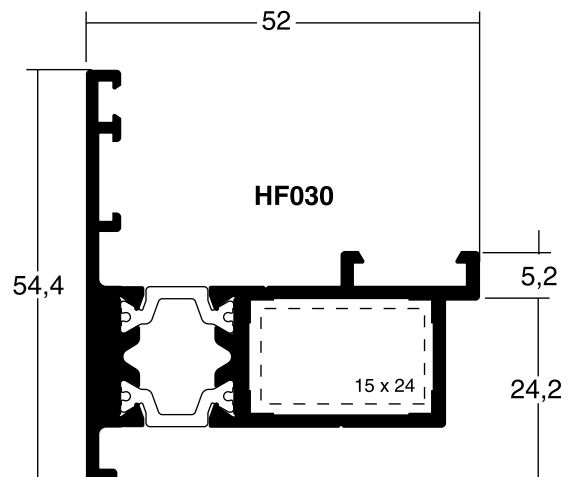


Profile summary FXi

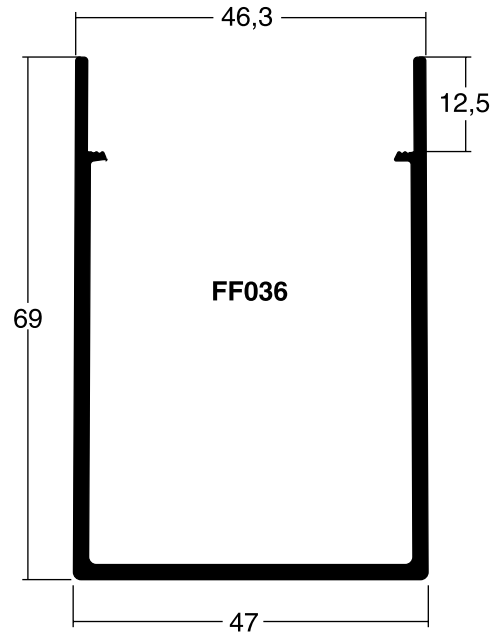
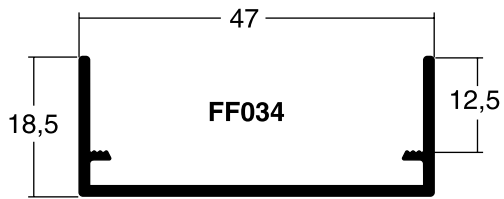
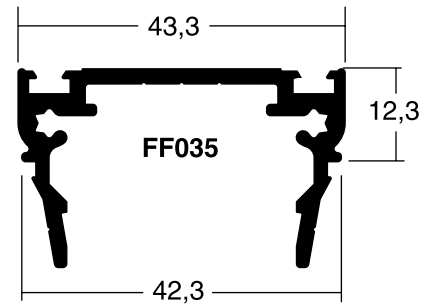
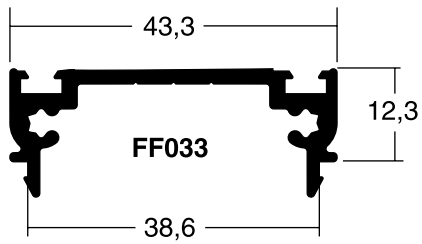
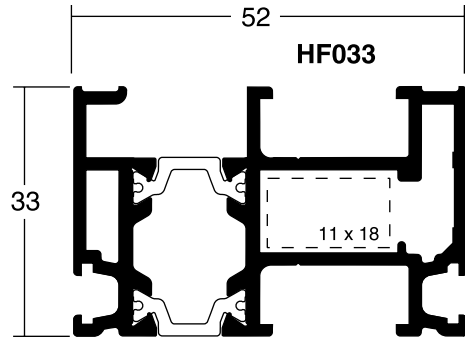
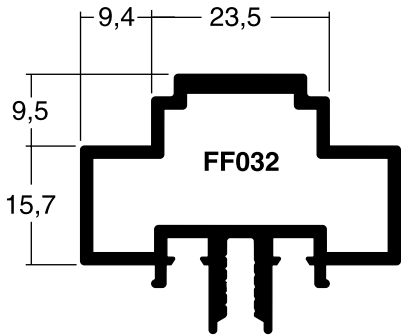
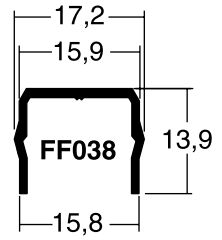
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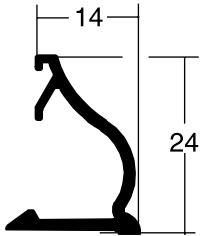
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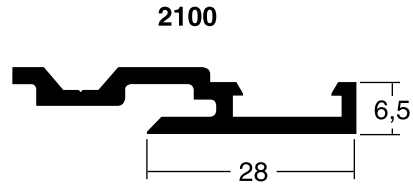
Profile summary FXi



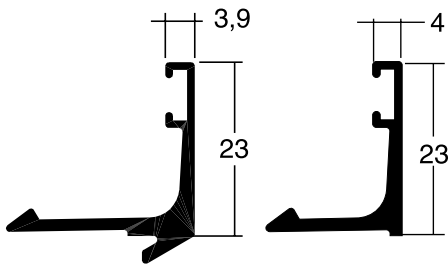
Profile summary FX - FXi



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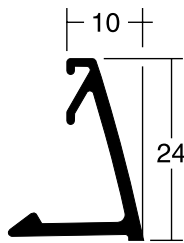


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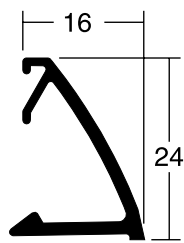


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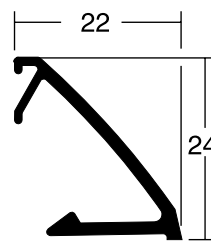
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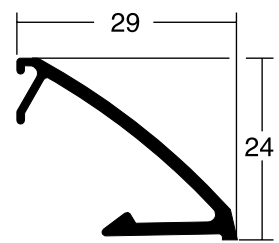
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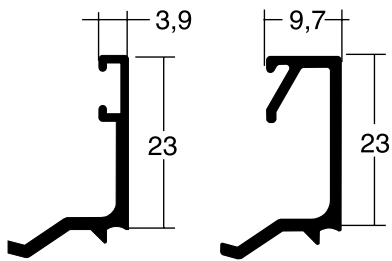
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FE003

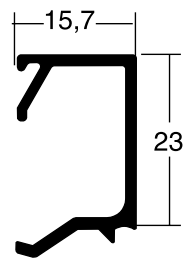


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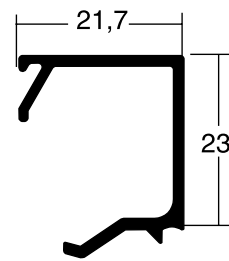


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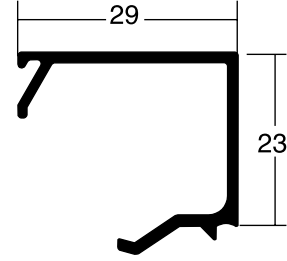
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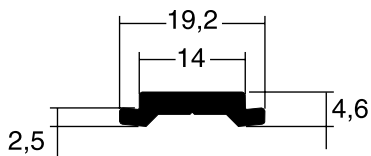
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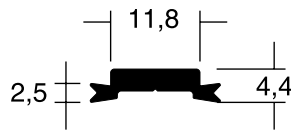
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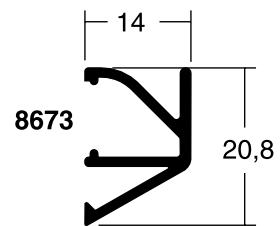
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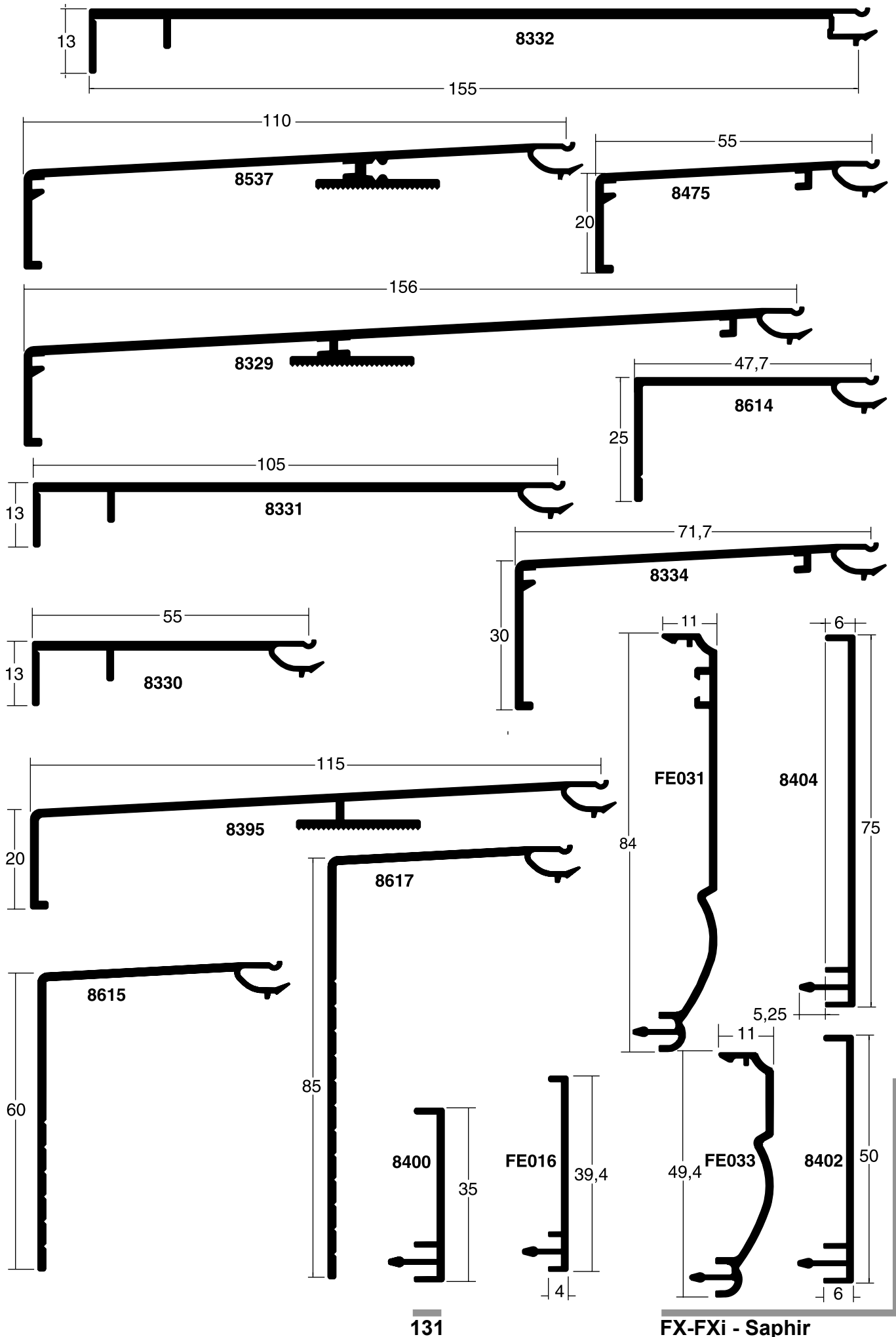


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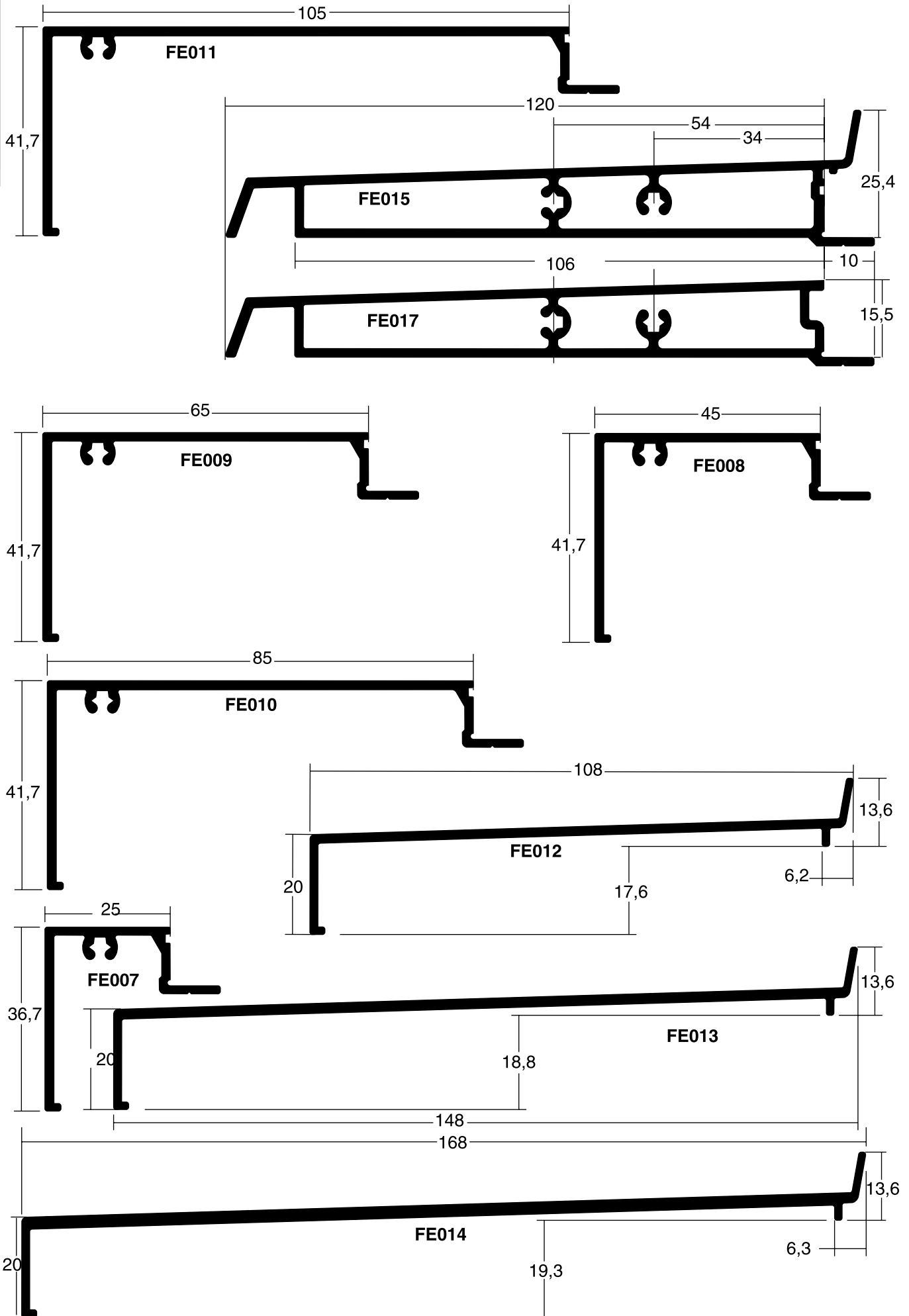
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Profile summary FX - FXi



Profile summary FX - FXi

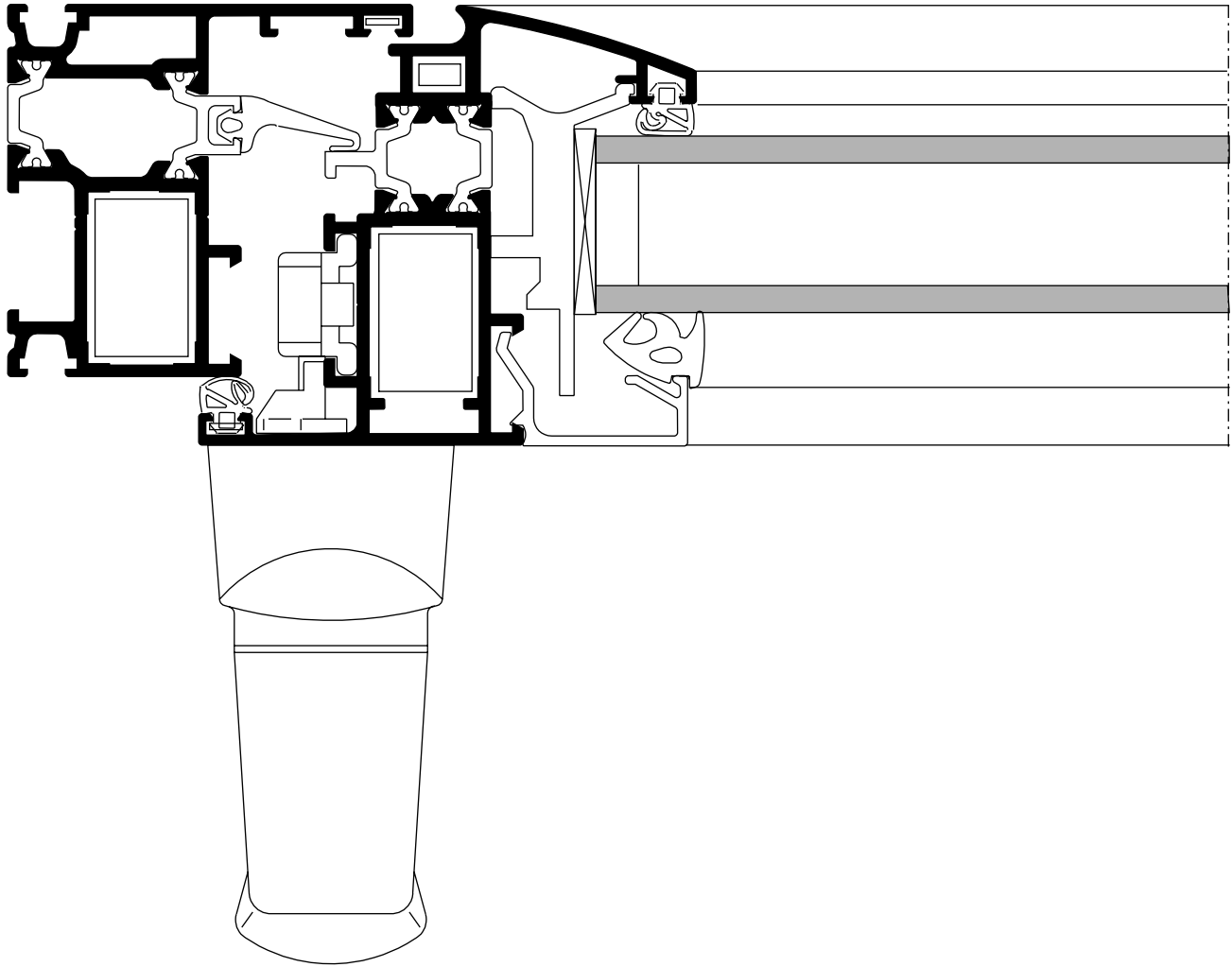
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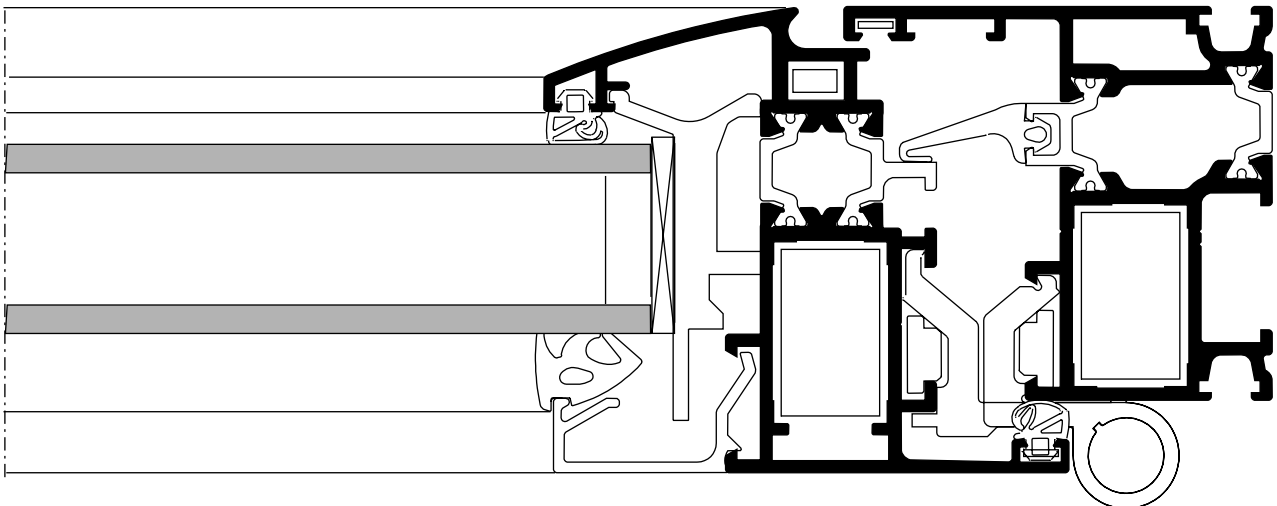
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Full scale node points

**Mullion for 1 leaf window,
handle side**

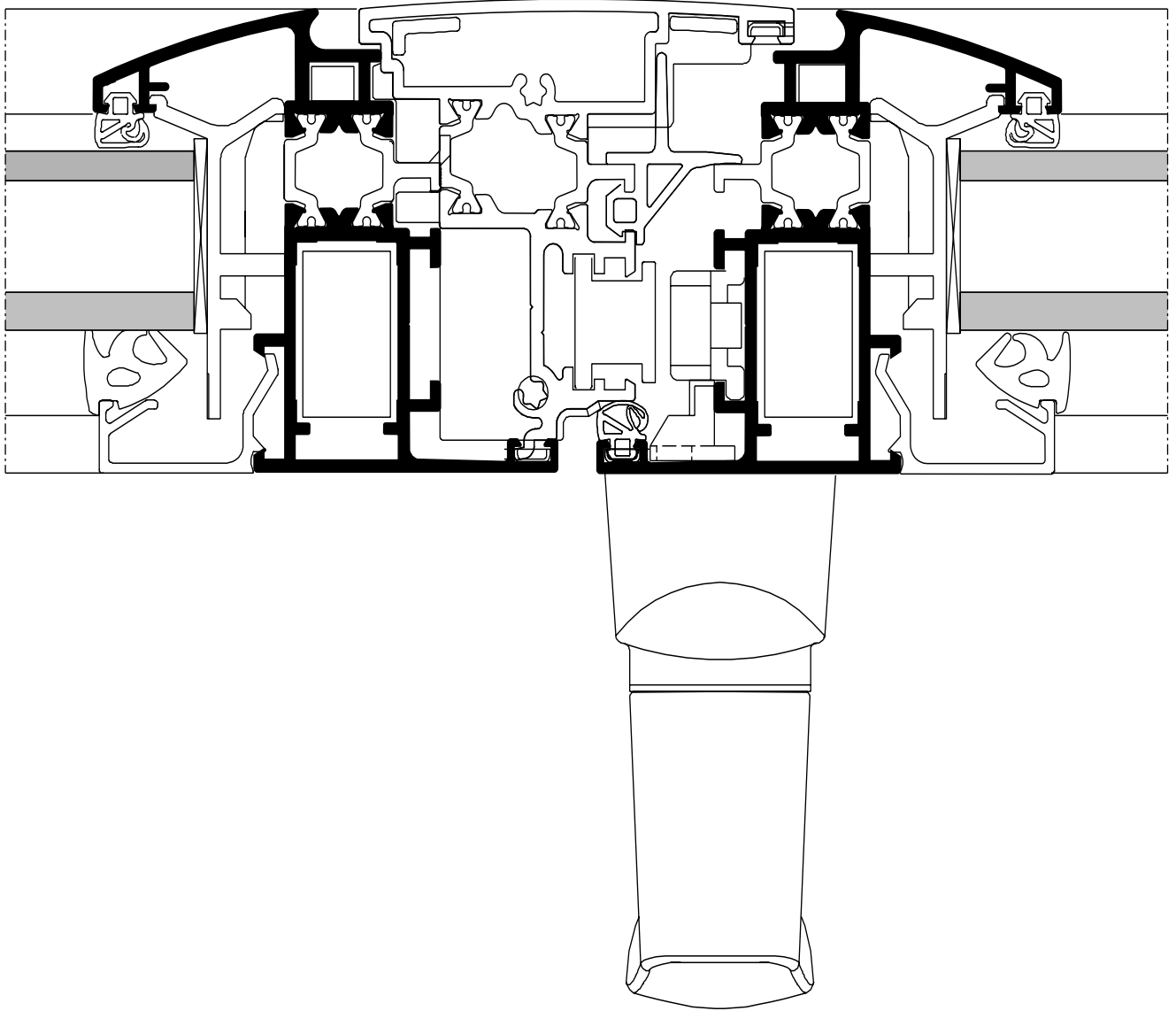


**Mullion for 1 leaf window,
hinge side**



Full scale node points

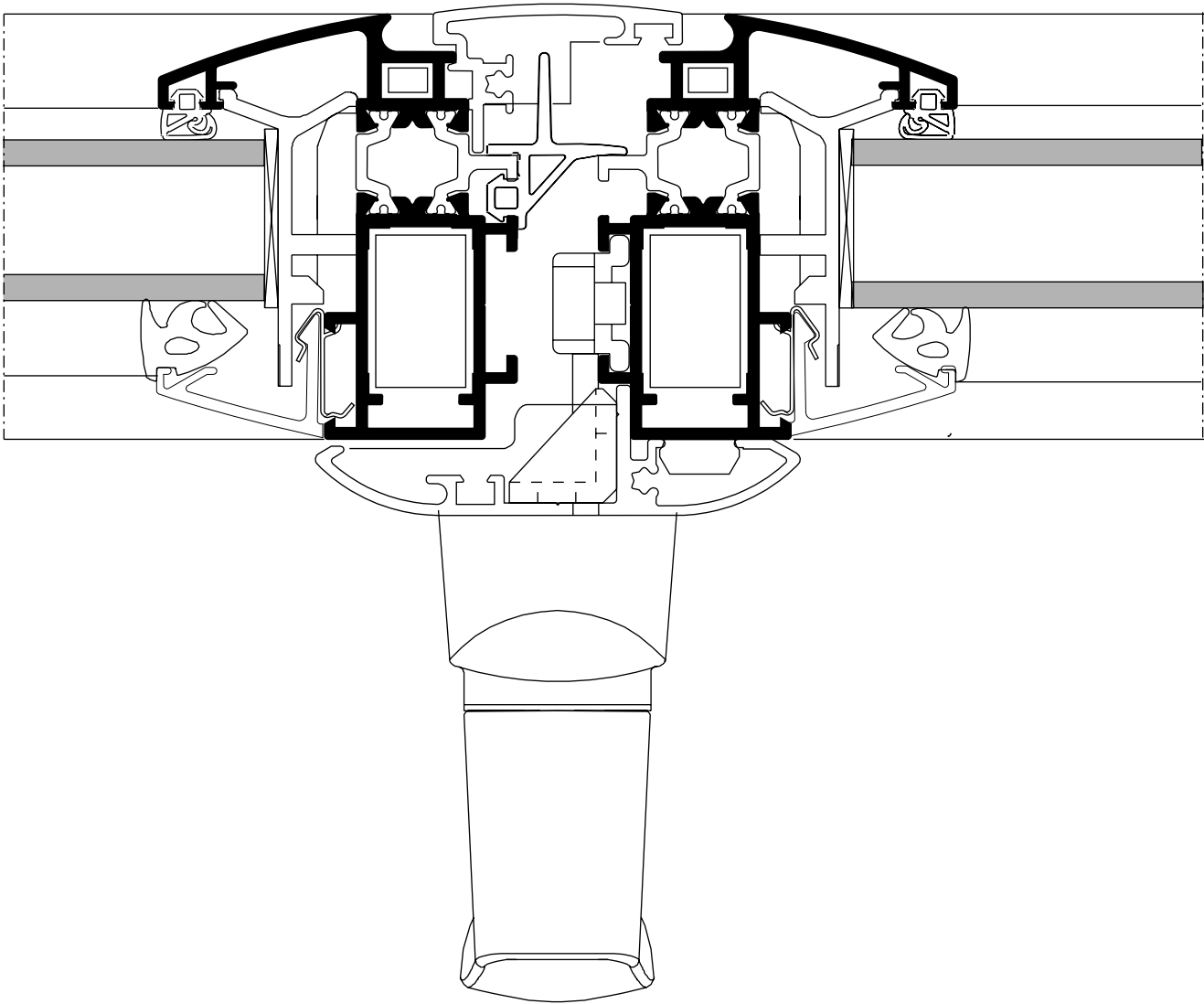
Central rebate for 2-leaf window,
handle side



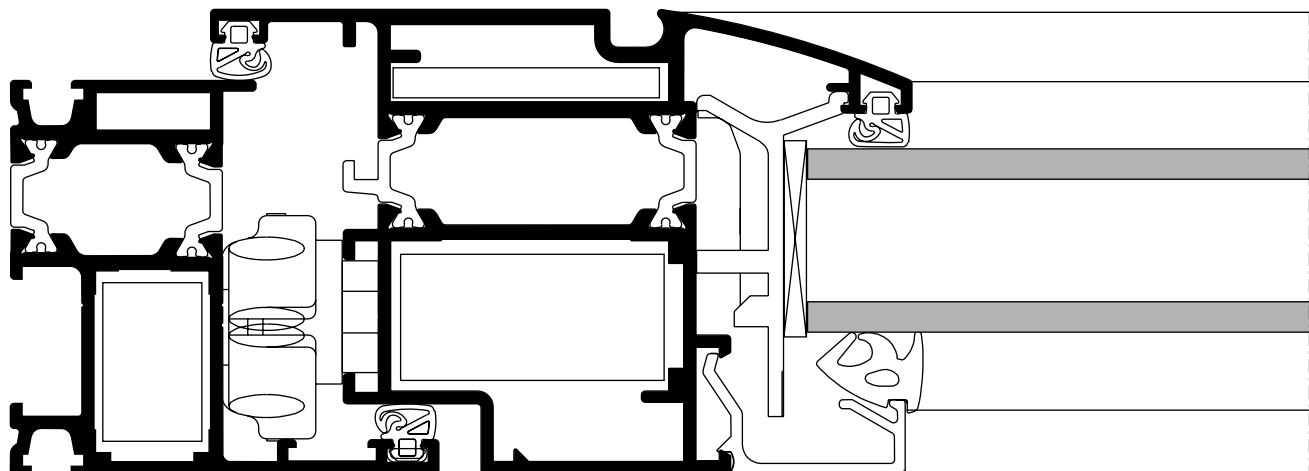
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Full scale node points

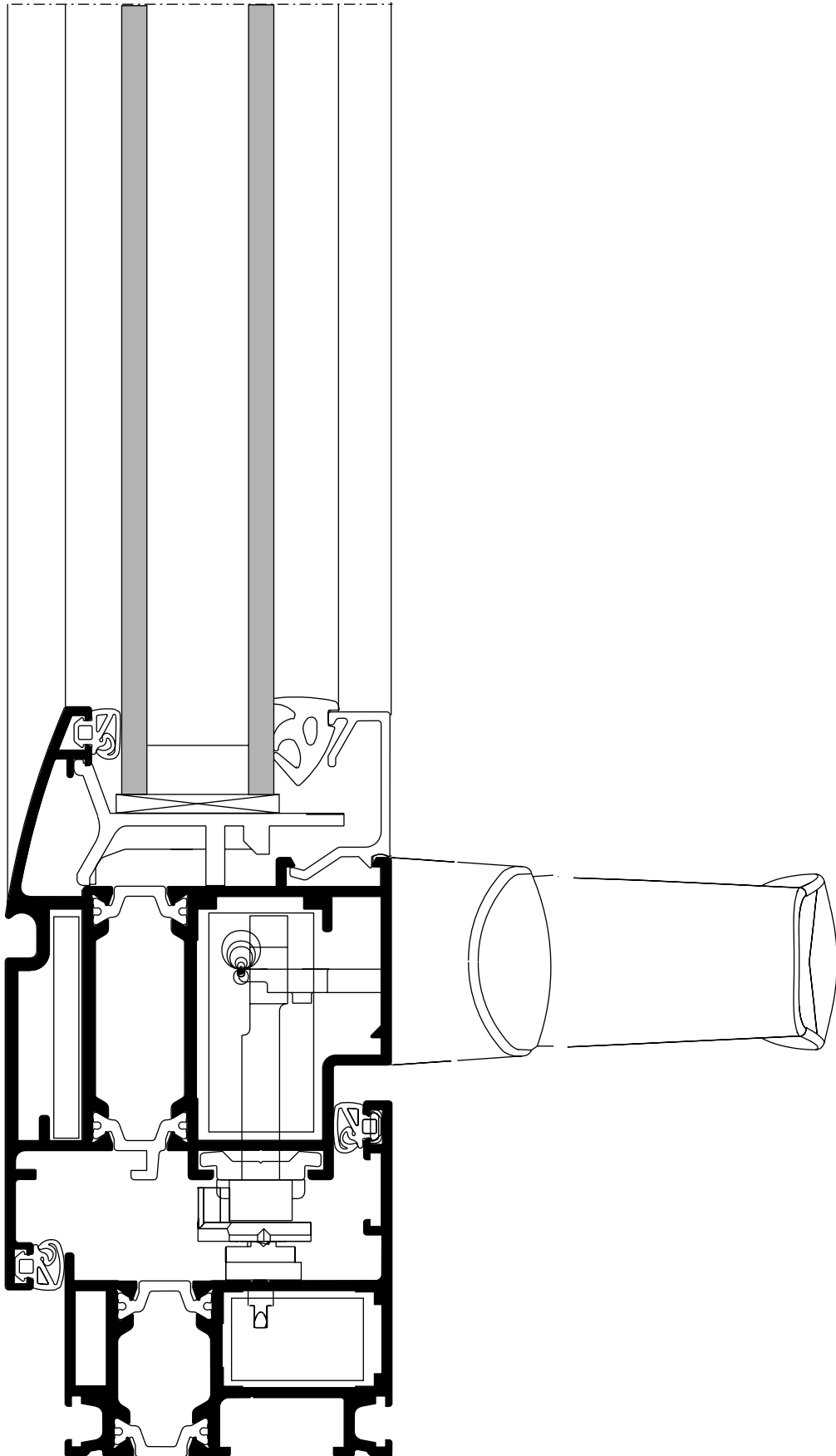
Central rebate for 2-leaf window,
ECLAT version, handle side



Mullion for top-hung frame



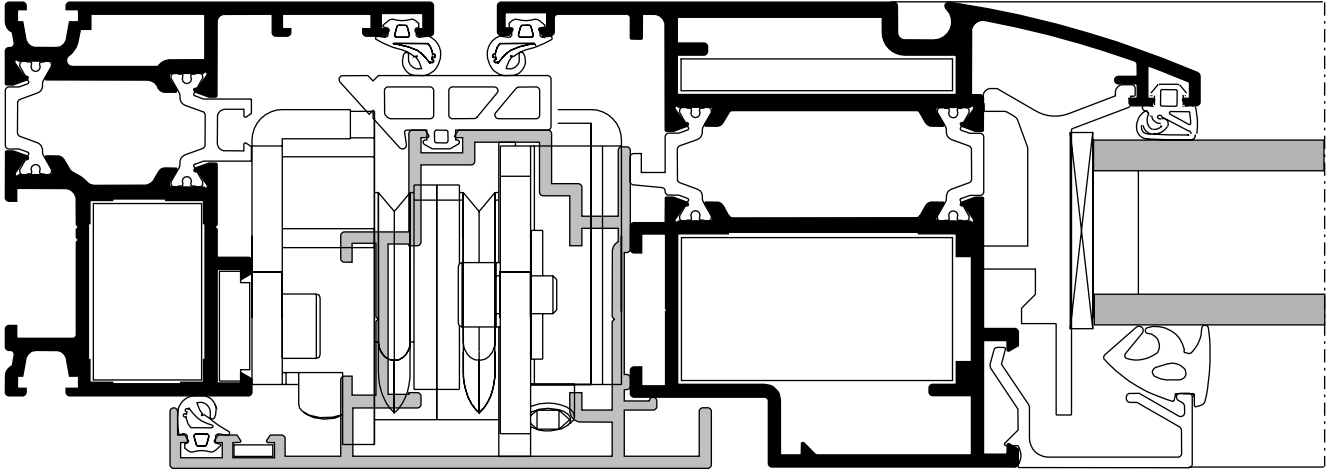
Full scale node points
Bottom transom section
for top-hung frame



Full scale node points

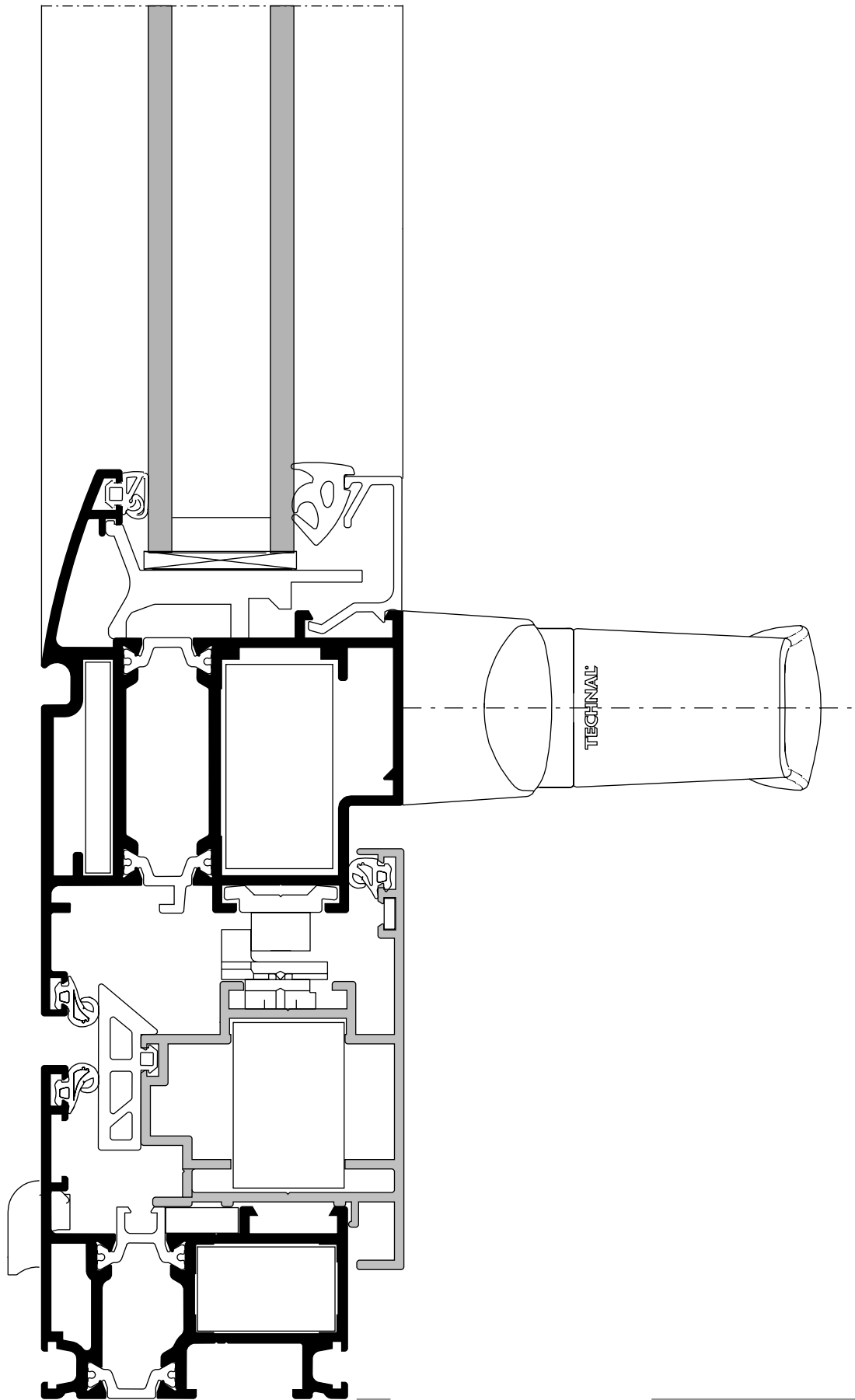
Horizontal-pivot frame mullion

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Full scale node points

Bottom transom section
for horizontal-pivot frame



Ref.	Descriptions	Long	Page	Ref.	Descriptions	Long	Page
1053	30 x 50 cylinder		112	CE005	Plug for insulation 160 mm		96-113
1110	Drip mould clip		112	CE006	Adjustable jackscrew		113
1112	Clip for casement frame		112	CE007	Large renovation bracket		98-113
1472	Deflector for casement frame		112	CE011	Small renovation bracket		98-113
1806	Pin for rounded clip 2649		119	CF001	Rebate plug		113
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