Schüco Sliding Systems
AS FD 75/90.HI

Architect Information





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Basic principles

Basic principles

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24 Overview of sliding systems

The new Schüco AS FD 75/90.HI folding sliding system platform combines sliding functions with a glass façade. The result is a highly transparent building envelope which can be almost completely opened.





Folding sliding systems: a space-saving wonder

With maximum opening widths and high transparency, Schüco folding sliding systems open up new dimensions of space.



A glass façade with integrated sliding functions
The folding sliding systems complete the Schüco sliding system portfolio, which until now has consisted of lift-and-slide and Panorama Design systems and offers the pinnacle of function, convenience and design.

Whether open or closed, the large, foldable glass units and narrow profiles create a transparent connection between the inside and the outside. The folding sliding function ensures maximum opening widths for spacious doorways without fixed vents or fixed lights.



The system's generous glass façades with narrow face widths, flush-fitted profile transitions and largely concealed joints and fittings offer wide views in and out when closed. An optional side-hung door can also be integrated, offering quick access for additional user convenience.

Make use of the entire range of sliding functions when opening the doors. The individual units fold compactly to the side, opening up practically the entire glass façade. The units can be folded inwards or outwards, either in one direction or to the left and right like curtains. The platform can therefore be perfectly customised to suit diverse requirements and desires in both high-end residential and commercial construction.

Maximum planning freedom

With the Schüco AS FD (Aluminium Sliding Folding Door) 75 and Schüco AS FD 90.HI (High Insulated) folding sliding system platforms, new planning and design possibilities are opened up in the area of high-end residential and commercial construction.



Transparent architecture with maximum opening widths: achieve the highest level of convenience and design without compromising on thermal insulation



Schüco AS FD 75, outward-opening



Schüco AS FD 90.HI, inward-opening



New space is opened up for shops, hotels and restaurants, with level thresholds for convenient access

Schüco AS FD 75/90.HI combines two high-performance folding sliding systems in one system platform. With basic depths of 75 mm or 90 mm, the platform fulfils a wide range of requirements with regard to structure and thermal insulation.

The profile components, gaskets, fittings and accessories are identical for both systems – the only difference is in the insulation zone. This ranges from "thermally insulated" for Schüco AS FD 75 to "highly thermally insulated" for AS FD 90.HI.

The Schüco AS FD 75/90.HI system platform is therefore suitable for a diverse range of installation situations, both in residential and commercial construction.

Maximum planning freedom for diverse installation situations



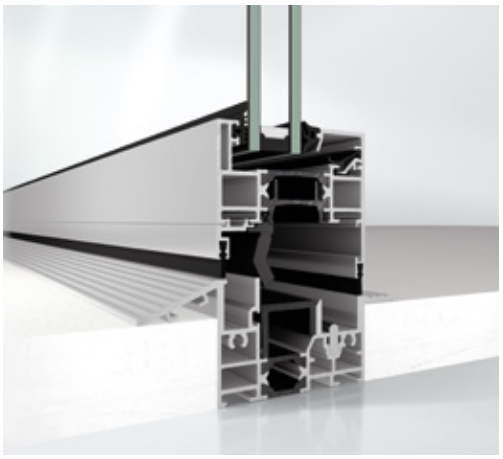
Schüco AS FD 75/90.HI is a highly flexible system platform which guarantees maximum planning freedom, even when very large folding sliding units are concerned.

Vent heights of up to 3000 mm for Schüco AS FD 75 and 3500 mm for AS FD 90.HI are possible. Even in the standard design, vent weights of up to 150 kg are possible for both basic depths.



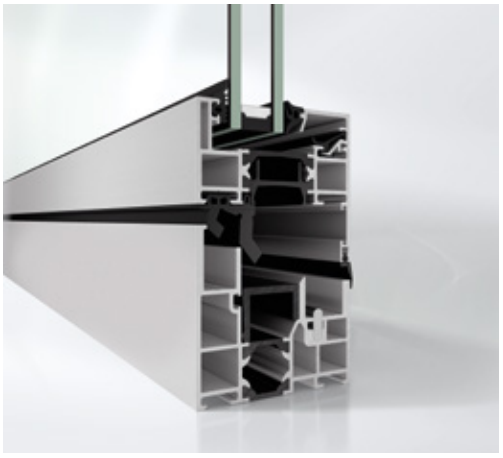
Schüco AS FD 75 with 4 mm threshold

The 4 mm threshold solution is particularly suitable for entrances which are frequently used, as trip hazards are avoided. The exclusive use of brush seals means that a canopy is necessary to provide additional protection against driving rain.



Schüco AS FD 75 with 15 mm threshold

The 15 mm flat threshold with a simple gasket stop is designed to offer convenient access. The rebate gasket and high drainage channel depth in the threshold profile ensure high levels of weathertightness and thermal insulation.



Schüco AS FD 75 with 71 mm outer frame

The 71 mm high continuous outer frame with a double gasket stop offers maximum performance with regard to weathertightness and thermal insulation. This threshold solution combined with the outward-opening variant is particularly suitable for renovation projects, as the outer frame profile can accommodate for height differences between the indoor and outdoor areas.

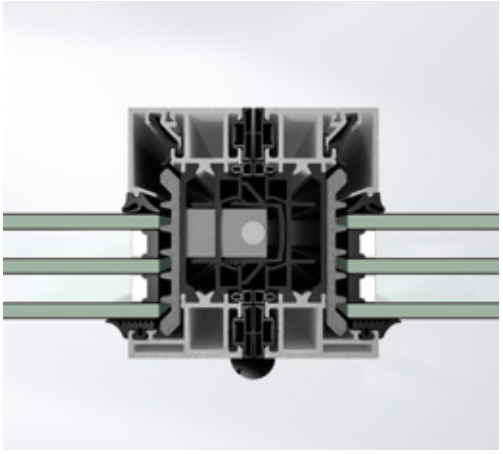
Design and architecture

Schüco folding sliding systems offer high-quality design solutions with slim profiles, integrated functions and a wide variety of opening types, and can blend harmoniously with modern, minimalist architecture.



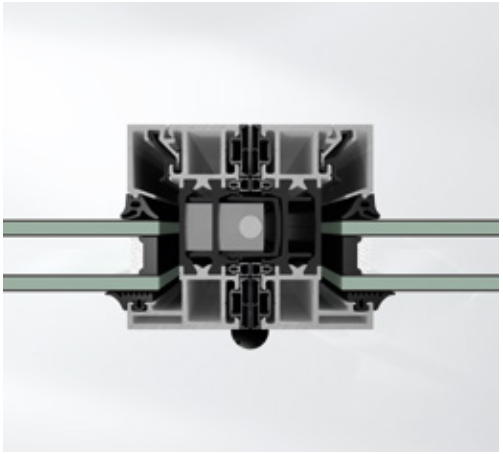
Schüco AS FD 75/90.HI allows fluid transitions from the living space to the patio

A clean, minimalist look
The field of high-end residential and commercial construction requires systems with a contemporary look which fulfil high architectural requirements and impress with every detail. For example, with a clean, minimalist aesthetic even when the system is open: the polymer profiles conceal vertical transition zones and can also conceal the step of the threshold.



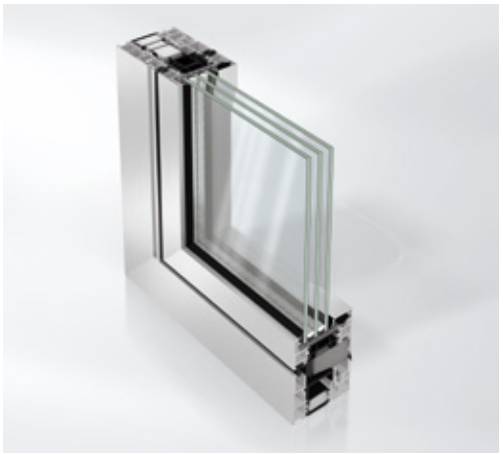
Schüco AS FD 90.HI – Vent frame with gearbox

Extremely narrow face widths
Schüco AS FD 75/90.HI offers impressive thermal insulation despite its extremely narrow face widths of 90 mm. The benefits of this are a large proportion of glass and thus a larger degree of transparency when the vents are closed, which is additionally enhanced by vent widths of up to 1500 mm. This ensures both generous views and indoor spaces flooded with light.



Schüco AS FD 75 – Vent frame with gearbox

The 90 mm narrow face widths are made possible by the innovative, space-saving vent frame concept, which involves the positioning of the shoot bolt and gearbox in the centre of the vent joint. When closed, the fittings components are concealed by a U-shaped Polymer profile.



Schüco AS FD 90.HI with 71 mm outer frame, inward-opening

Schüco AS FD 75/90.HI impresses with its entirely new profile concept which largely conceals the joints. The numerous standard supplementary profiles are integrated in the main profiles and are not visible. The result is a pure, two-dimensional overall impression, without distractions in the form of steps, offsets and protruding frames.

Unrestricted functionality

The versatile folding sliding system without fixed lights unites maximum flexibility of use with slim lines and a modern design.



Attractive folding sliding solutions with the integrated benefits of door and sliding systems

Multiple functions in one system
The large selection of opening and locking options enables diverse requirements and visions to be met without restrictions, for architects and planners as well as users.

The Schüco AS FD 75/90.HI folding sliding system platform impresses with its vents which are quick to open and operate almost silently. The system platform is made up of an optimum combination of doors and sliding systems. An optional side-hung door can be integrated to offer quick access, while the compact foldable sliding units open up living spaces and provide maximum transparency.



The Schüco AS FD 75/90.HI folding sliding systems can be perfectly adapted to the requirements and desires of diverse users



Schüco AS FD 75 – maximum opening width



Schüco AS FD 75 – integrated side-hung vent for quick access

Maximum opening widths alongside high transparency: the system offers generous views when closed and seamlessly extends living spaces when opened to almost 100%. Further benefits: no fixed lights and no fixed vents when open ensure optimum amounts of daylight and fresh air.

An optional side-hung vent similar to a standard house or room door offers quick access when the folding sliding system is closed. The comprehensive system program with various opening types and locking technology offers a wide range of planning possibilities.

Locking points and handles



AS FD 75 with additional locking (shoot bolt) in top of side-hung vent

The extended range of locking options offered for Schüco AS FD 75/90.HI provides increased convenience of use and improved watertightness and air permeability. Handle-operated multi-point locking is available for the side-hung vent and can be fitted with an additional shoot bolt for vent heights over 2600 mm.



Lever handle
Flat design, can be used inside and outside
Must be used with:
- Inward-opening systems on the inside
- Outward-opening systems on the outside



Handle
Straight design for locking the folding door with gearbox



Pull handle
Optional for outward-opening units; facilitates the closing of outward-opening vent stacks

Technical Information



Schüco AS FD 75: outward-opening with continuous outer frame



Schüco AS FD 90.HI: inward-opening with 15 mm threshold

Thermal transmittance U_w value in W/(m²K)

Schüco system	U_f value in W/(m²K)	Glass spacers	Ψ_g value in W/(mK)		U_g value in W/(m²K)			
			Double glazing	Triple glazing	Double glazing		Triple glazing	
					1,1	1,0	0,7	0,5
Schüco AS FD 90.HI								
	≥ 1,7	Chromatech	0,068	0,066	1,3	1,3	1,0	0,9
		TGI Spacer	0,049	0,044	1,3	1,2	1,0	0,8
		Swisspacer U	0,036	0,031	1,3	1,2	1,0	0,8
Schüco AS FD 75								
	≥ 2,9	Chromatech	0,068	0,066	1,6	1,5	1,3	1,1
		TGI Spacer	0,049	0,044	1,5	1,5	1,2	1,1
		Swisspacer U	0,036	0,031	1,5	1,4	1,2	1,1

Calculation basis
Folding sliding unit as type 3 LS / 3 RS with continuous outer frame and the dimensions (W x H) 4000 mm x 2500 mm

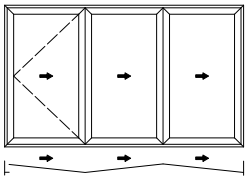
Technical Information	AS FD 75	AS FD 90.HI
Dimensions		
Basic depth of outer frame	75 mm	90 mm
Basic depth of vent frame	75 mm	90 mm
Face width of vent joint	90 mm / 104 mm	90 mm / 104 mm
Maximum vent weight	150 kg	150 kg
Maximum vent width	1.500 mm	1.500 mm
Maximum leaf height	3.000 mm	3.500 mm
Maximum glass thickness, 90 mm face width	15 mm to 38 mm	30 mm to 53 mm
Maximum glass thickness, 104 mm face width	5 mm to 50 mm	20 mm to 65 mm
Tests and standards		
Wind load resistance in accordance with DIN EN 12210	Class B5 / C3	Class B5 / C3
Air permeability in accordance with DIN EN 12207	Class 4	Class 4
Watertightness in accordance with DIN EN 12208	Class E750 (750 Pa)	Class E750 (750 Pa)
Burglar resistance in accordance with DIN EN 1627	Class RC 2, PAS 24	Class RC 2, PAS 24
Resistance to repeated opening and closing in accordance with DIN EN 12400	Class 3** / 4***	Class 3** / 4***

** Entire system: 20,000 cycles
*** Side-hung door: 50,000 cycles

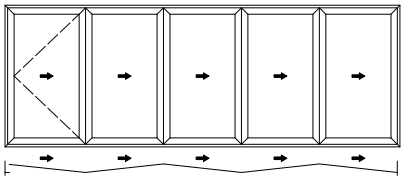
Opening types

1-sided, inward-opening unit Types

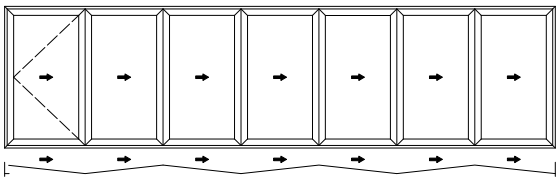
Type 3 LS



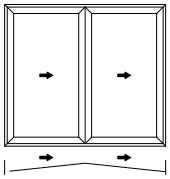
Type 5 LS*



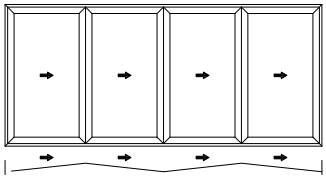
Type 7 LS*



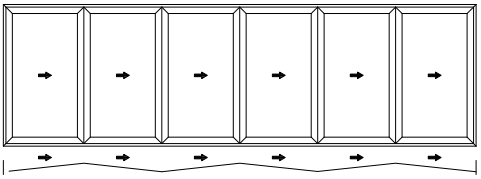
Type 2 LS



Type 4 LS



Type 6 LS**

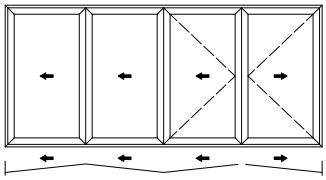


* Minimum leaf width: 500 mm (AS FD 75)/600 mm (AS FD 90.HI)
** Minimum leaf width: 600 mm (AS FD 75)/850 mm (AS FD 90.HI)

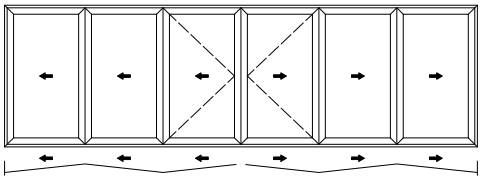
All types are suitable for systems opening to the left and right as well as for inward and outward-opening folding sliding systems. The types shown can have fewer or more vent pairs.

2-sided, inward-opening unit Types

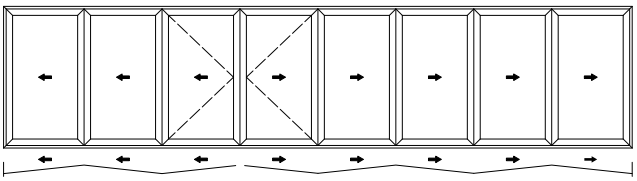
Type 1 LS/3 RS



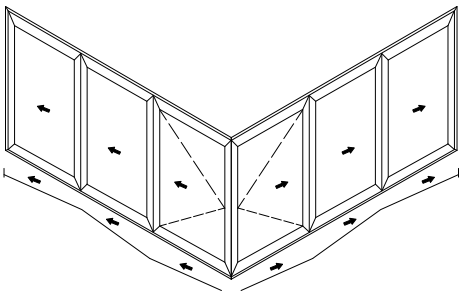
Typee 3 LS/3 RS*



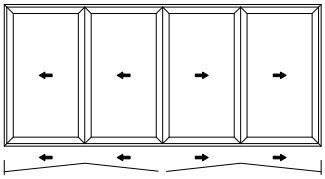
Type 5 LS/3 RS*



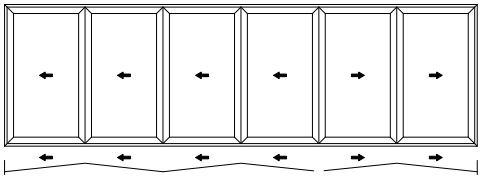
Type 3 LS/3 RS* – 90° Corner



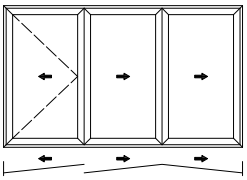
Type 2 LS/2 RS



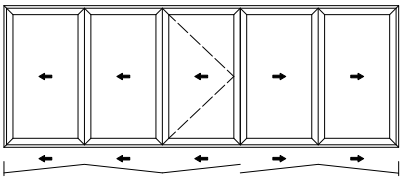
Type 2 LS/4 RS**



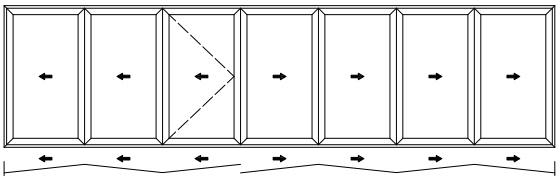
Type 2 LS/1 RS



Type 2 LS/3 RS



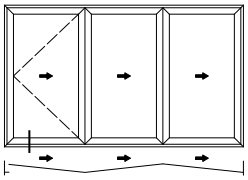
Type 4 LS/3 RS*

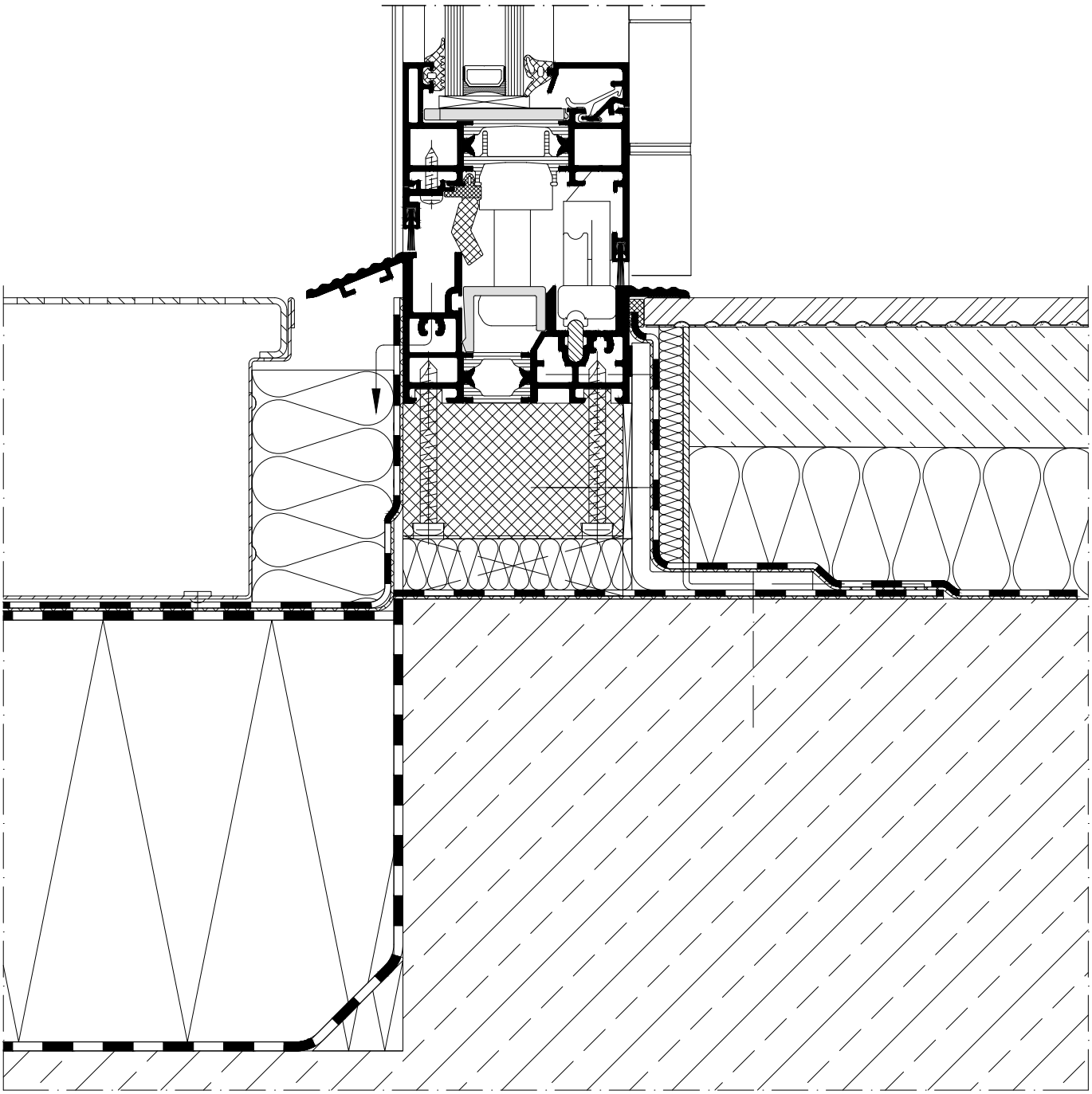


* Minimum leaf width: 500 mm (AS FD 75)/600 mm (AS FD 90.HI)
** Minimum leaf width: 600 mm (AS FD 75)/850 mm (AS FD 90.HI)

Attachments to building structure

Schüco AS FD 75 folding sliding system, bottom attachment with 15 mm threshold

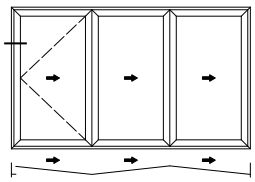


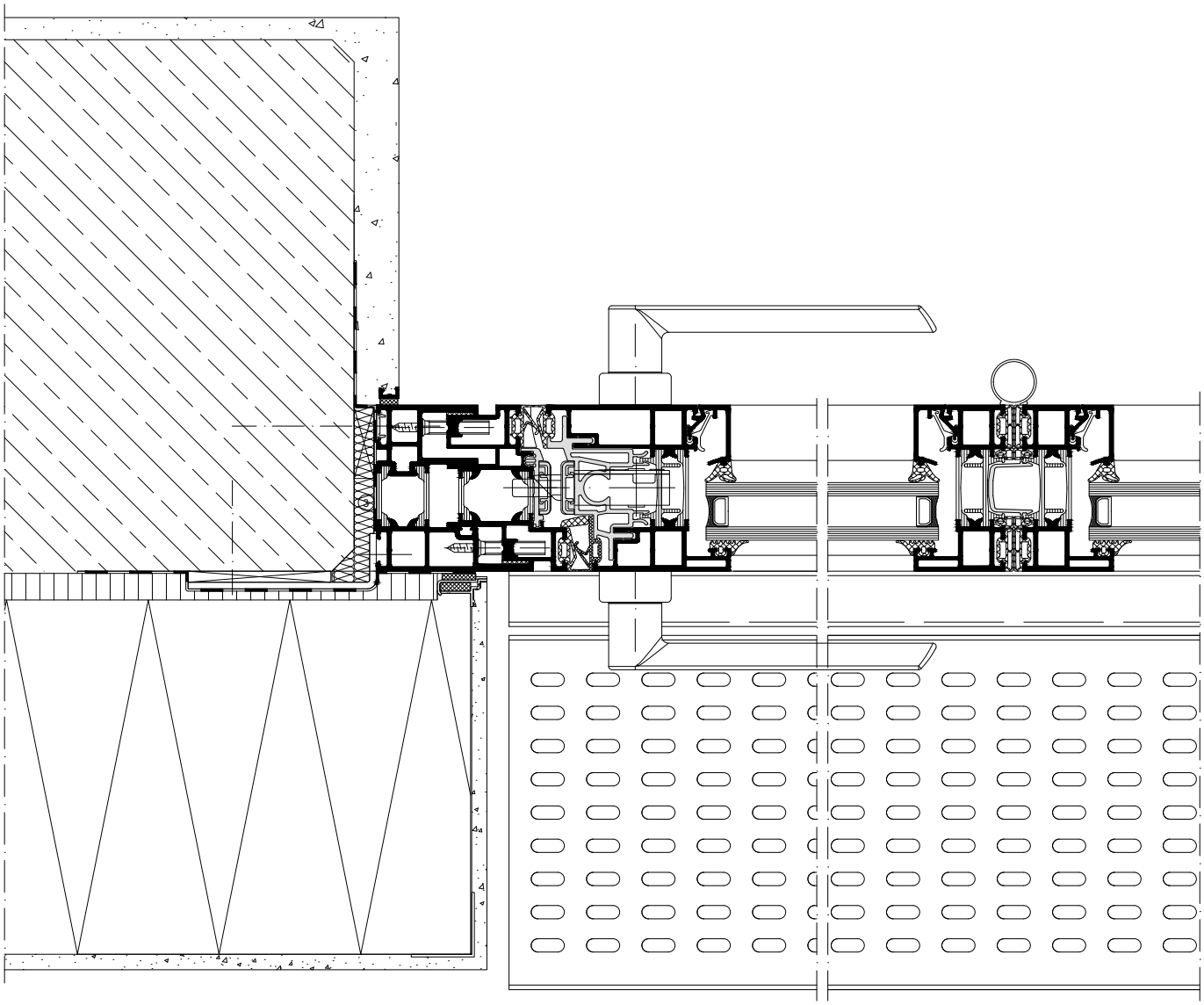


Scale 1:2

Further attachments to building structure can be found at:
dc.schueco.com/bka

Schüco AS FD 75 folding sliding system,
lateral attachment with composite thermal insulation system





Scale 1:3

Further attachments to building structure can be found at:
dc.schueco.com/bka

Overview of sliding systems

	Schüco ASE 80.HI	Schüco ASE 60	Schüco ASS 43 / ASS 48	Schüco ASS 39 SC	Schüco ASS 32 SC	Schüco ASS 70.HI	Schüco ASS 50	Schüco ASS 50.NI	Schüco ASS 77 PD.HI	Schüco ASS 77 PD.HI manual	Schüco ASE 67 PD	Schüco ASS 39 PD.NI	Schüco ASS 80 FD.HI	Schüco ASS 70 FD	Schüco AS FD 90.HI	Schüco AS FD 75
Series																
Energy																
Non-insulated								■				■				
Thermally insulated		■	■	■	■		■				■			■		■
Highly thermally insulated	■					■			■	■			■		■	
With maximum thermal insulation																
Design																
Basic depth of outer frame in mm	80	60	43	39	32	70	50	50	77	77	67	39	80	70	90	75
Maximum vent weight in kg	600	600	230	160	160	400	400	150	500	500	400	270	150 [4]	100	150	150
90° corner	■	■							■	■	■	■	■	■		
Continuous pull grip profile										■	■	■				
Number of tracks																
Single track	■	■	■	■		■	■						■	■	■	■
Double track	■	■	■	■	■	■	■	■	■	■	■	■				
Triple track	■	■	■	■	■	■	■		■	■	■	■				
Opening types																
Sliding vent	■	■	■	■	■	■	■	■	■	■	■	■				
Lift-and-slide vent	■	■				■	■	■								
Folding sliding door													■	■	■	■
Areas of use																
Window	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Door	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Balcony glazing			■	■	■								■	■		
Conservatory insert unit	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Fittings																
Crank handle	■	■				■	■	■								
Sliding handle	■	■		■	■	■	■	■	■	■	■	■				
Folding handle													■	■	■	■
Lever handle													■	■	■	■
Window handle			■	■	■											
Operating switch		■							■							
Pull handle													■	■	■	■

	Schüco ASE 80.HI	Schüco ASE 60	Schüco ASS 43 / ASS 48	Schüco ASS 39 SC	Schüco ASS 32 SC	Schüco ASS 70.HI	Schüco ASS 50	Schüco ASS 50.NI	Schüco ASS 77 PD.HI	Schüco ASS 77 PD.HI manual	Schüco ASE 67 PD	Schüco ASS 39 PD.NI	Schüco ASS 80 FD.HI	Schüco ASS 70 FD	Schüco AS FD 90.HI	Schüco AS FD 75
Series																
Automation																
Mechatronic operation	■	■							■							
Access control						■	■		■							
Security																
Burglar resistance in accordance with DIN EN 1627 (DIN V ENV 1627)																
Up to class RC 2 (WK2)	■	■	■	■	■	■	■	■	■ [3]	■	■		■	■	■	■
Monitoring of closing	■	■				■	■	■	■ [1]	■ [3]	■ [2]				■	■

1) In combination with building management system (BUS / KNX coupling)
2) With monitoring of opening
3) On request
4) In HD design



Schüco AS FD 75 folding sliding system

Schüco AS FD 75 folding sliding system 26

28 Unit section details

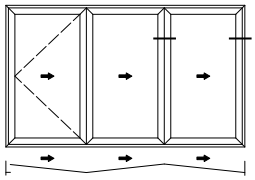
42 Statics diagrams

43 Preliminary calculation of glazing

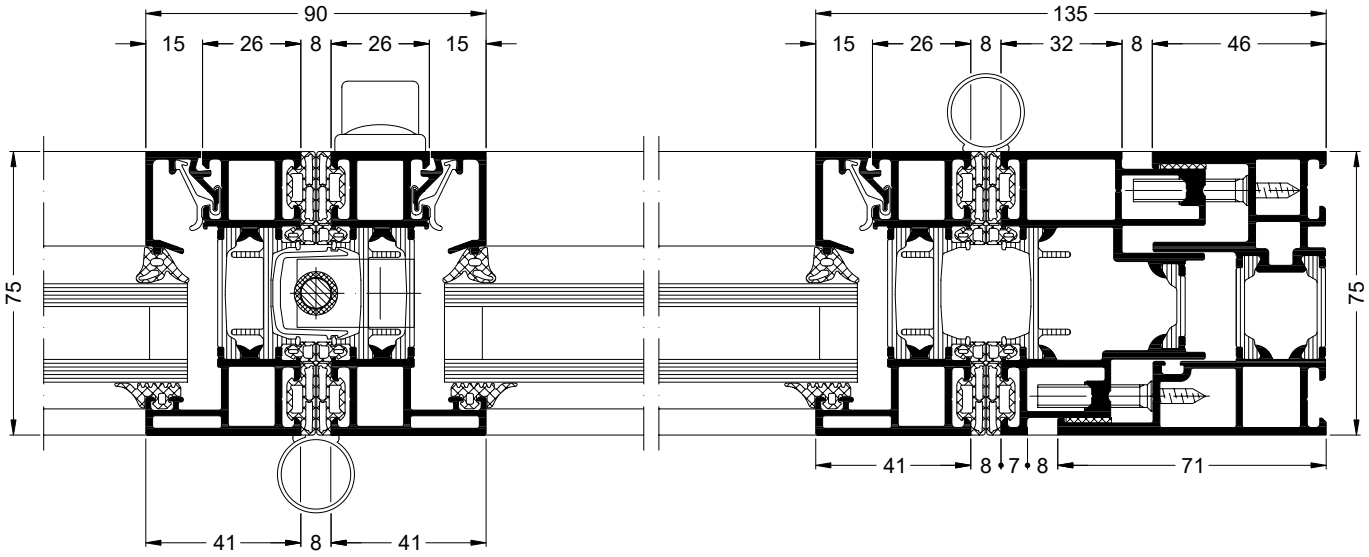
Graphical planning data such as detailed drawings, attachment to building structure drawings and CAD drawings, which you can find in our technical documentation (manuals, Architect Information and instructions) as well as our CAD and BIM data libraries and which you can save to your computer, are examples which are intended to help you plan and design your project. This content must be checked for its suitability in the relevant structural scenario. The technical and legal regulations, the site conditions, and the design and structural requirements, must be assessed and planned independently by the developer and observed by the company contracted to do the work.

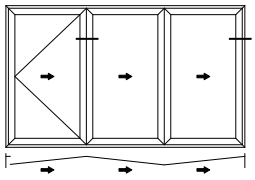
Unit section details

Schüco AS FD 75 as type 3 LS and as type 3 RS, horizontal section details through folding sliding vent

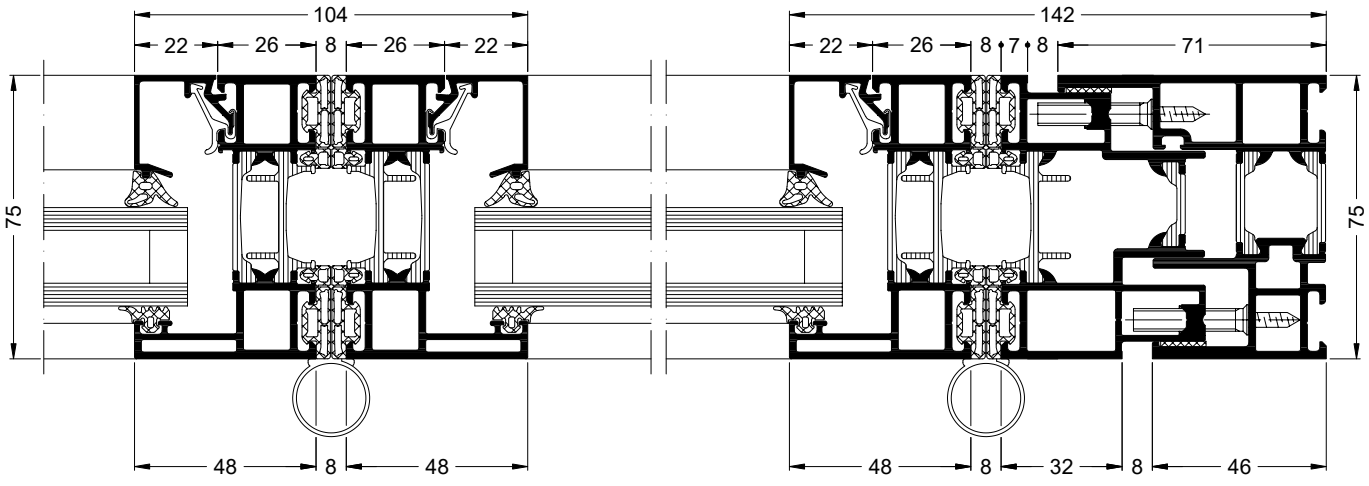


Inward-opening, 90 mm face width with 15 mm glazing bead



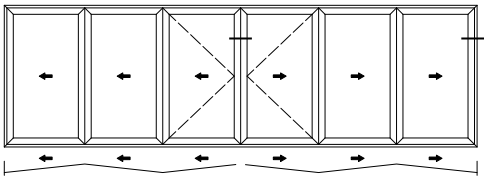


Outward-opening, 104 mm face width with 22 mm glazing bead

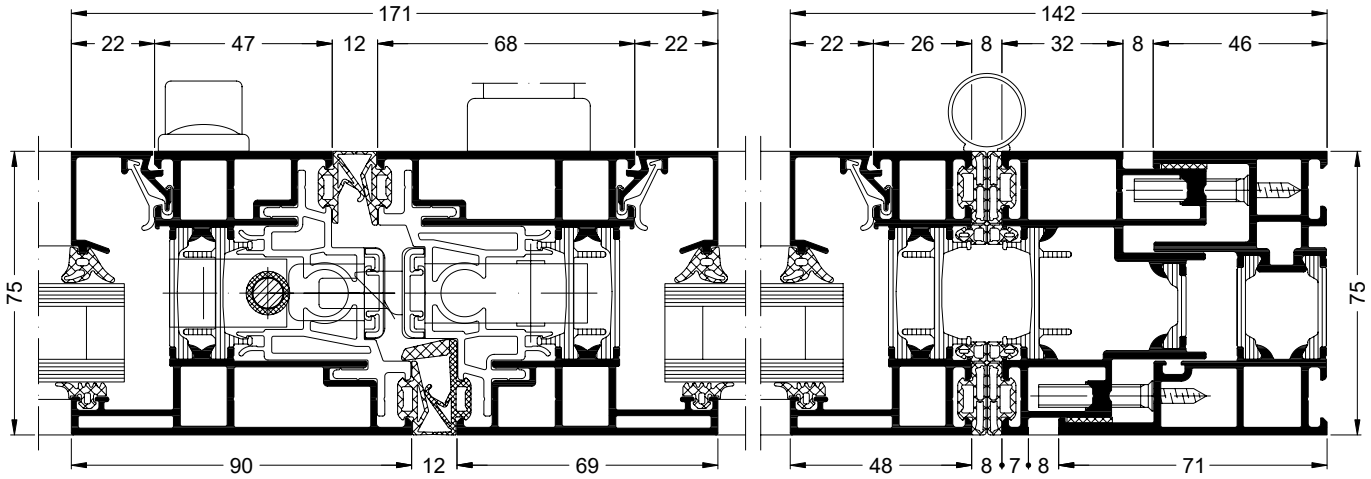


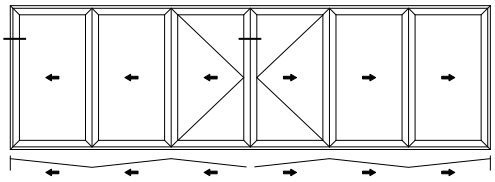
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Schüco AS FD 75 as type 3 LS + 3 RS, horizontal section detail through folding sliding vent

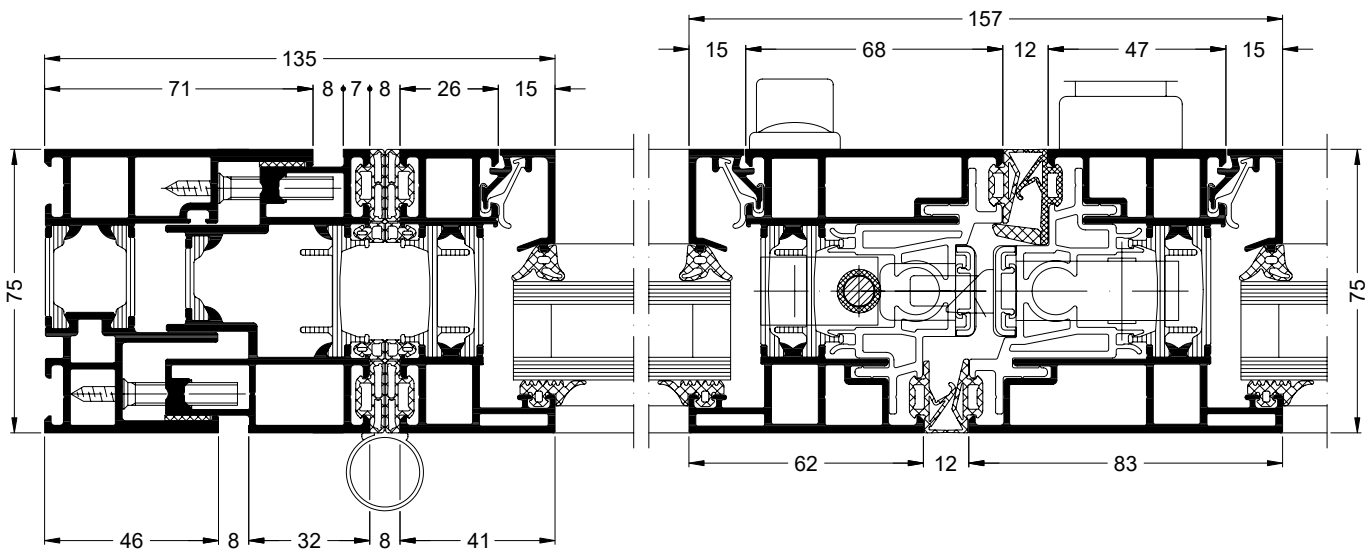


Inward-opening, 104 mm face width with 22 mm glazing bead



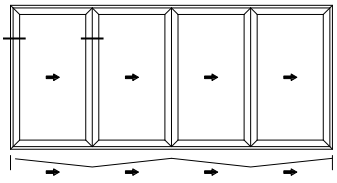


Outward-opening, 90 mm face width with 15 mm glazing bead

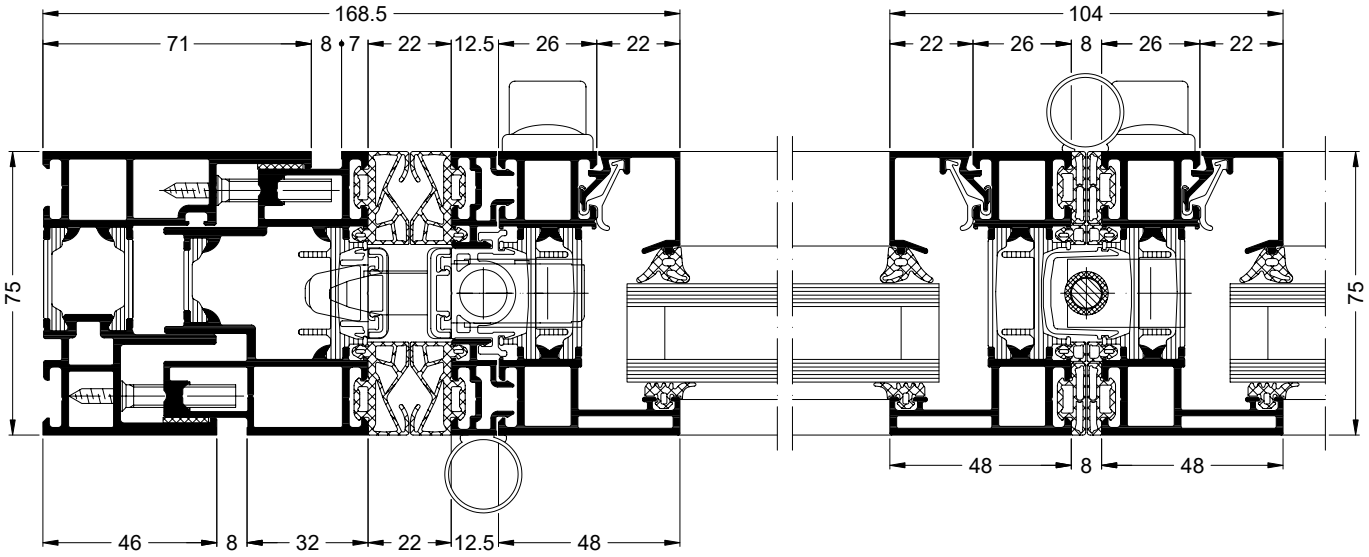


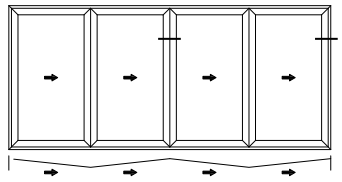
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Schüco AS FD 75 as type 4 RS, horizontal section details

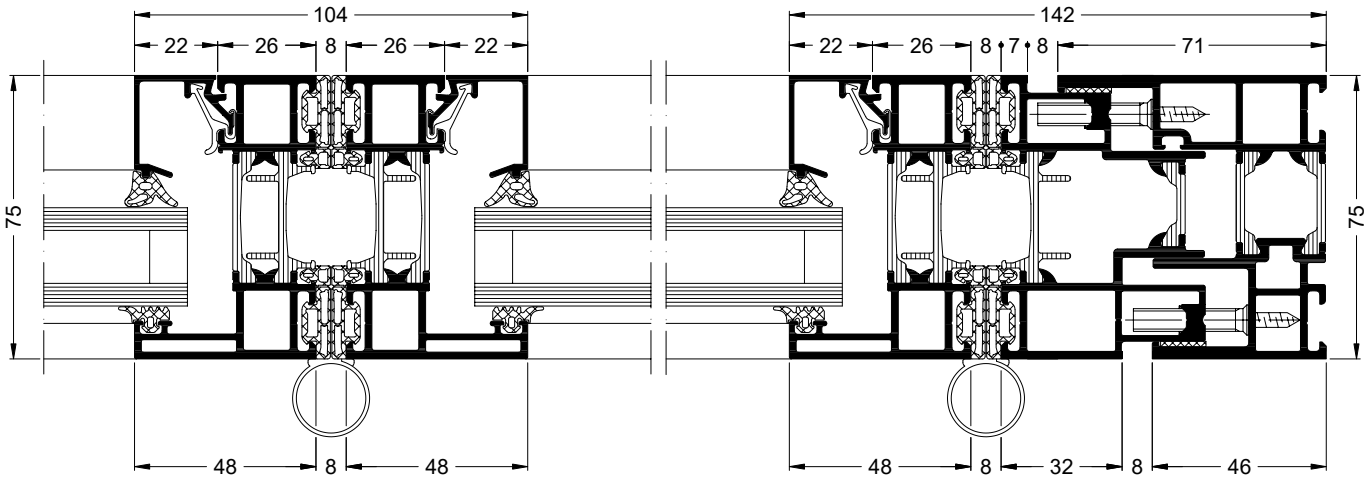


Outward-opening, 104 mm face width with 22 mm glazing bead



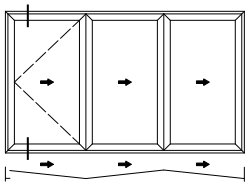


Outward-opening, 104 mm face width with 22 mm glazing bead

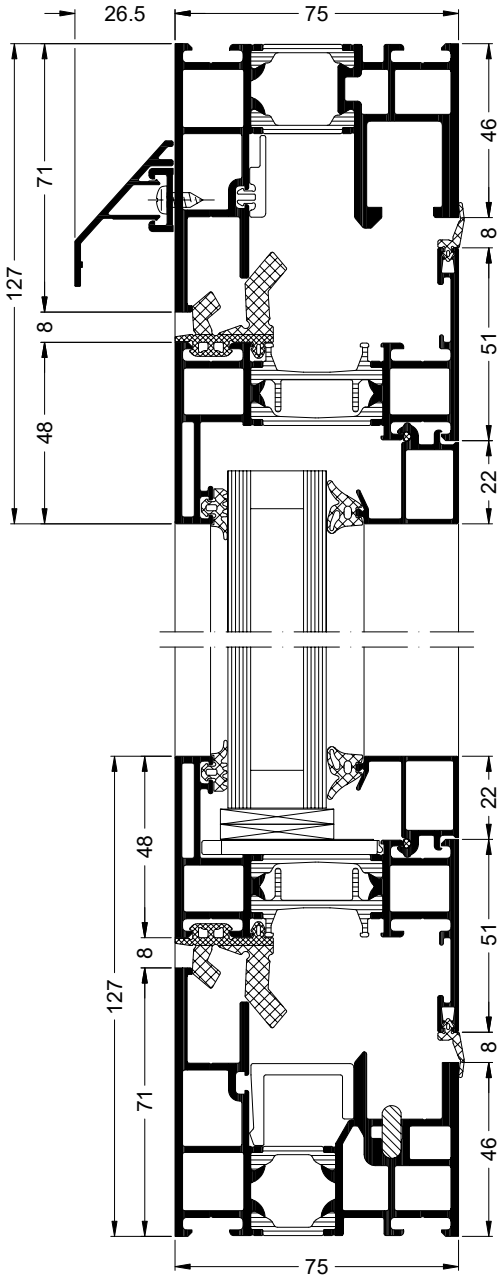


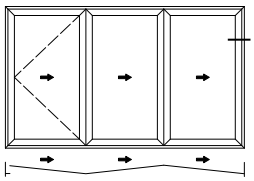
Scale 1:2

Schüco AS FD 75 as type 3 LS, vertical section detail through folding sliding vent

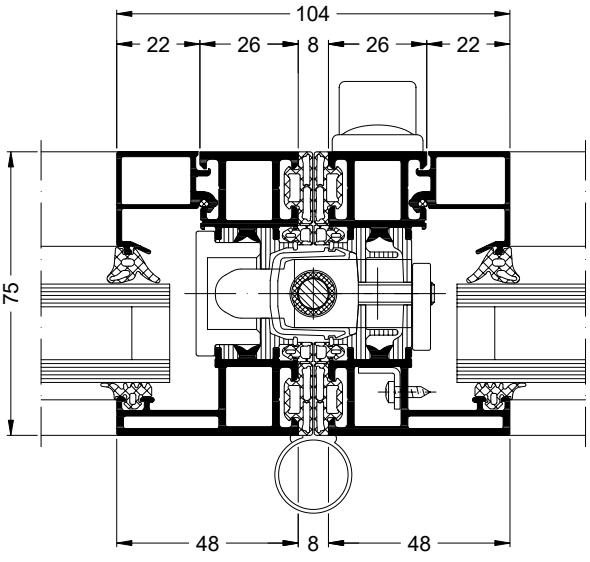


Inward-opening, 104 mm face width with 22 mm glazing bead
71 mm outer frame as security class RC 2



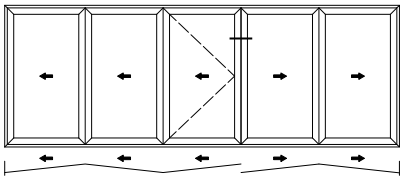


**Schüco AS FD 75 as type 3 LS,
horizontal section detail through folding sliding vent**

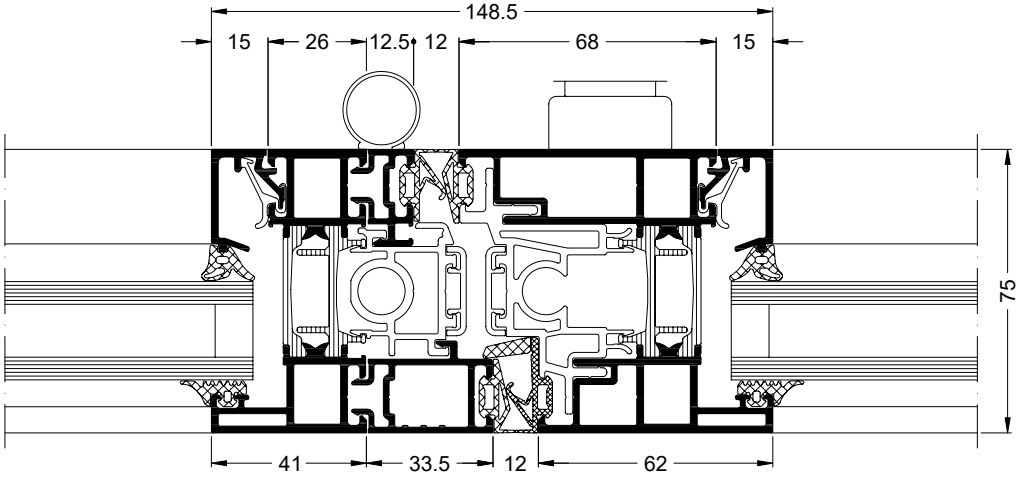


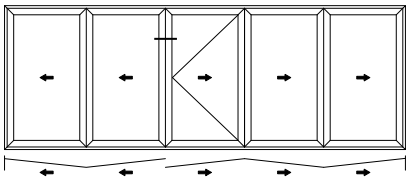
Scale 1:2

Schüco AS FD 75 as type 2 LS + 3 RS, horizontal section details through folding sliding vent

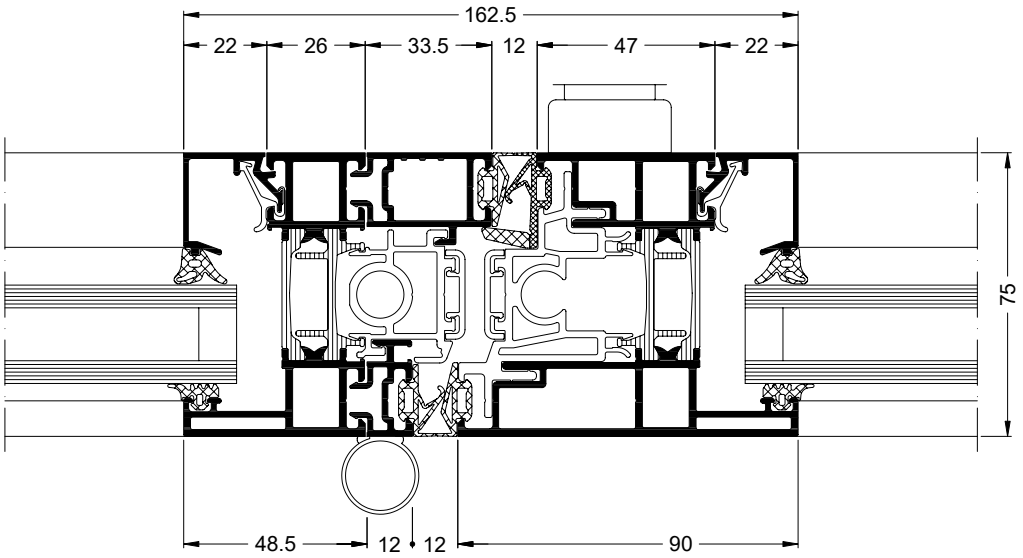


Inward-opening, 90 mm face width with 15 mm glazing bead



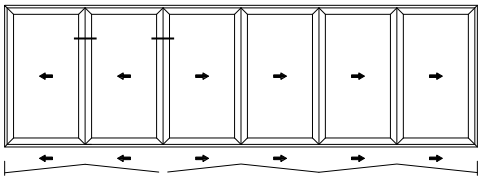


Outward-opening, 104 mm face width with 22 mm glazing bead

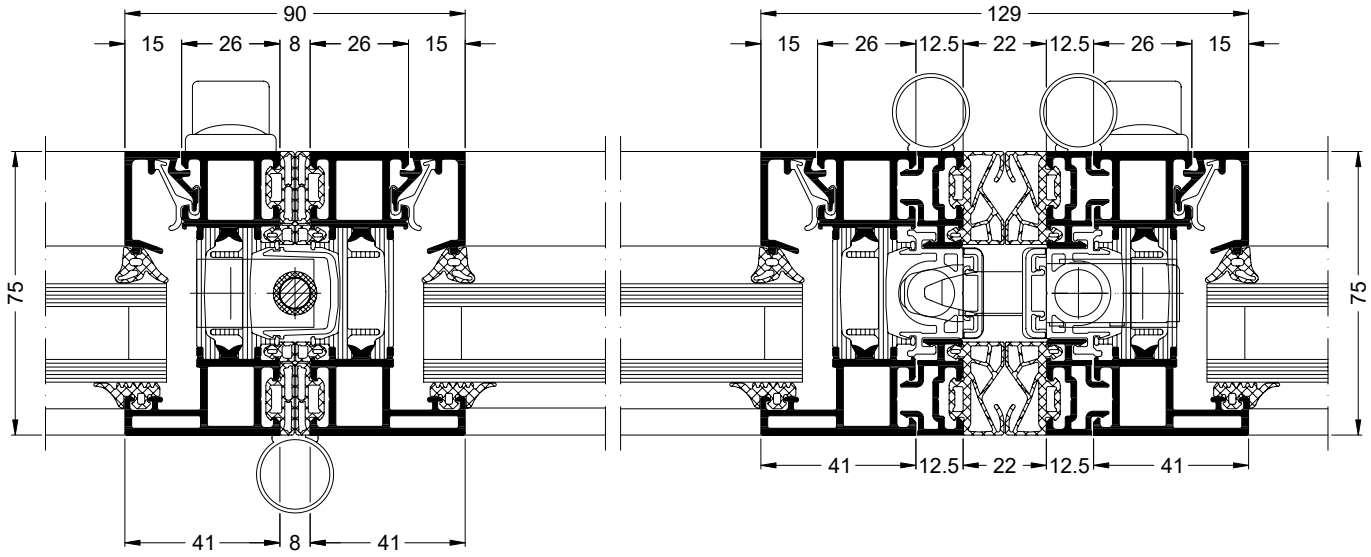


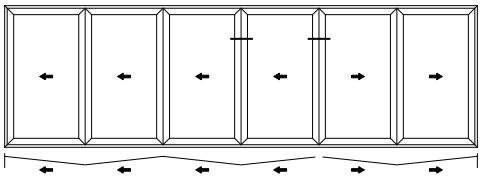
Scale 1:2

Schüco AS FD 75 as type 4 LS + 2 RS, horizontal section details through double vent

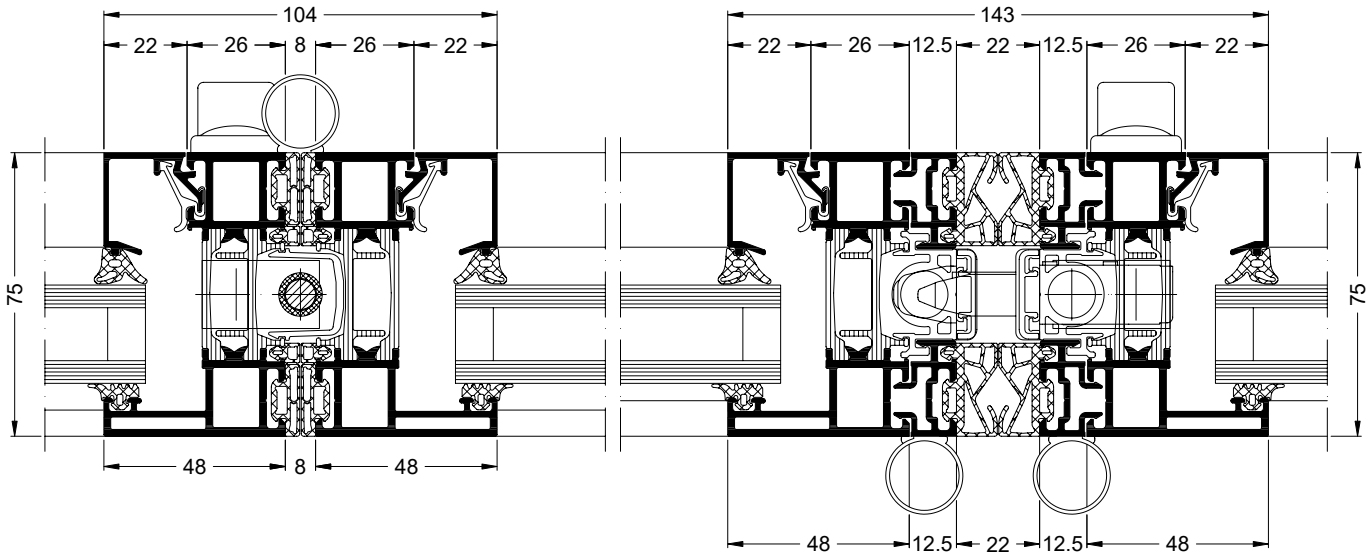


Inward-opening, 90 mm face width with 15 mm glazing bead



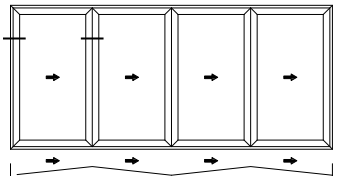


Outward-opening, 104 mm face width with 22 mm glazing bead

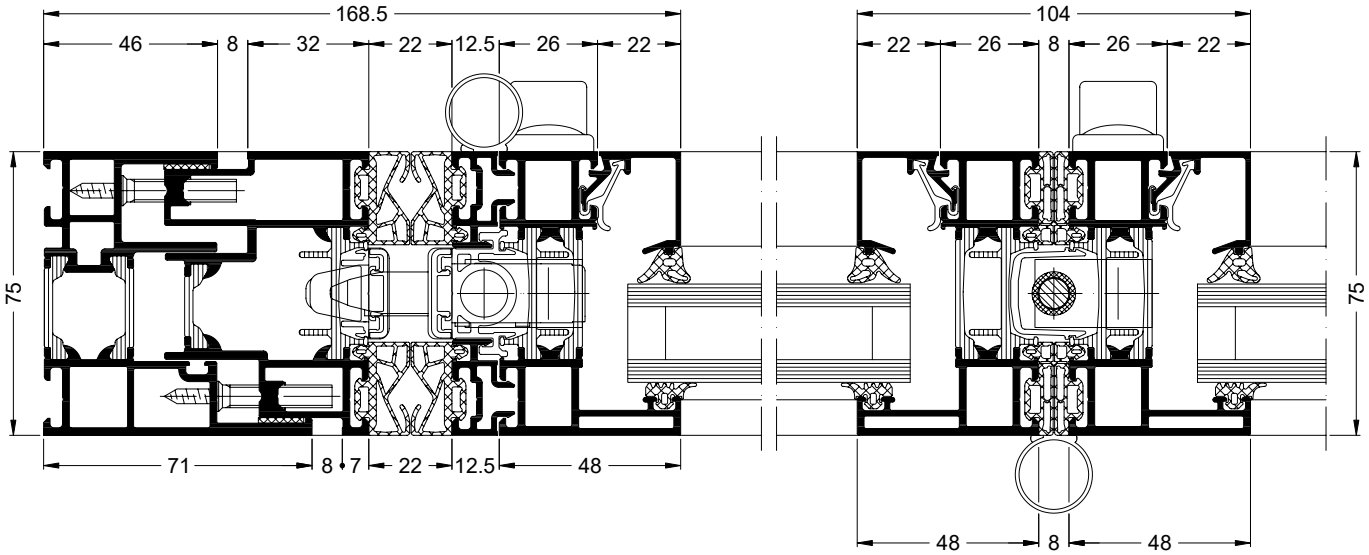


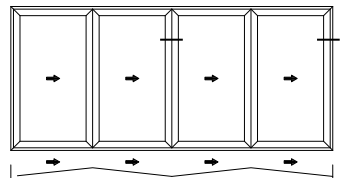
Scale 1:2

Schüco AS FD 75 as type 4 LS, horizontal section detail through folding sliding vent

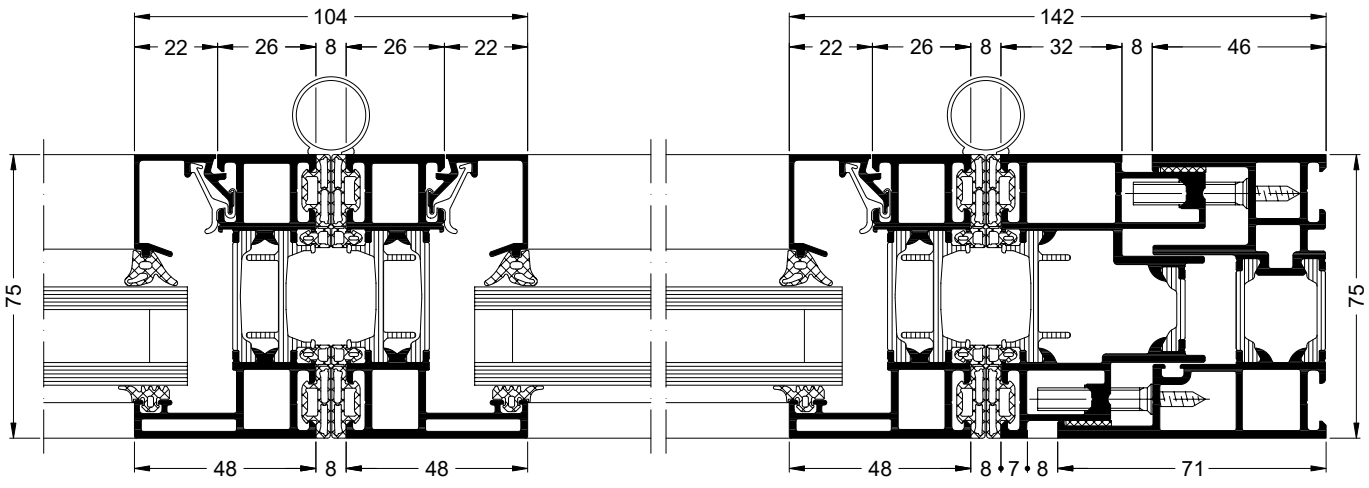


Inward-opening, 104 mm face width with 22 mm glazing bead



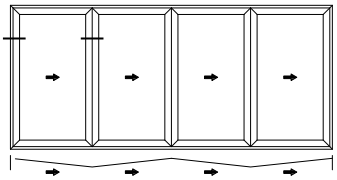


Inward-opening, 104 mm face width with 22 mm glazing bead

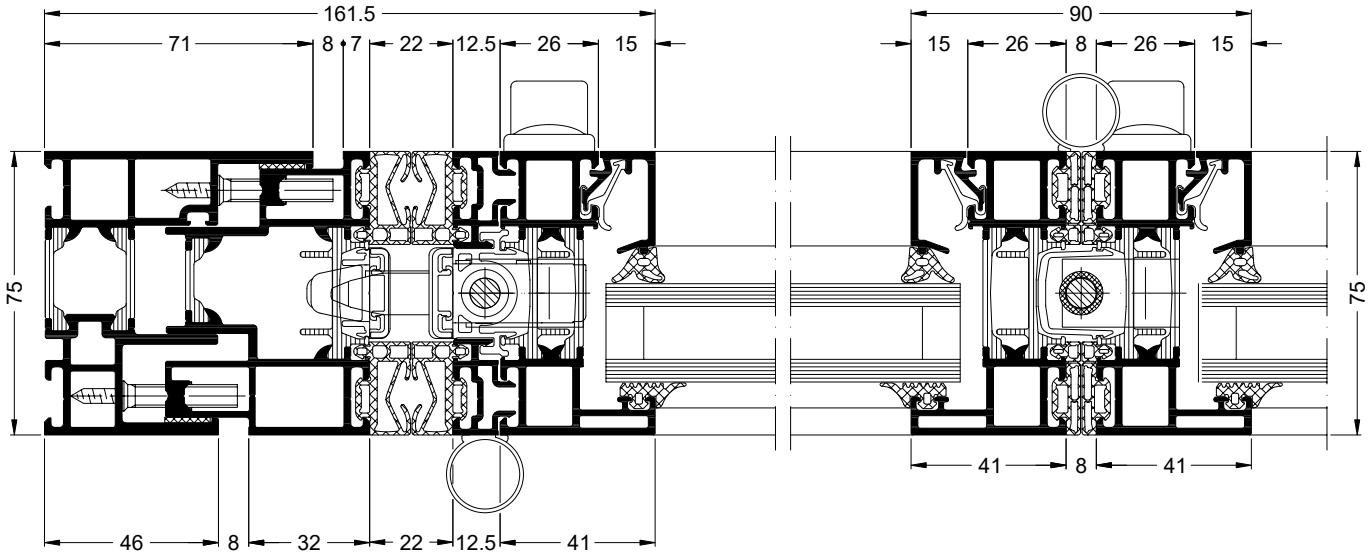


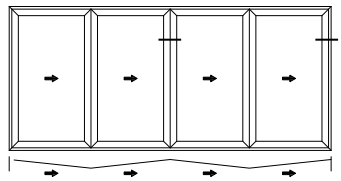
Scale 1:2

Schüco AS FD 75 as type 4 RS, horizontal section detail through folding sliding vent

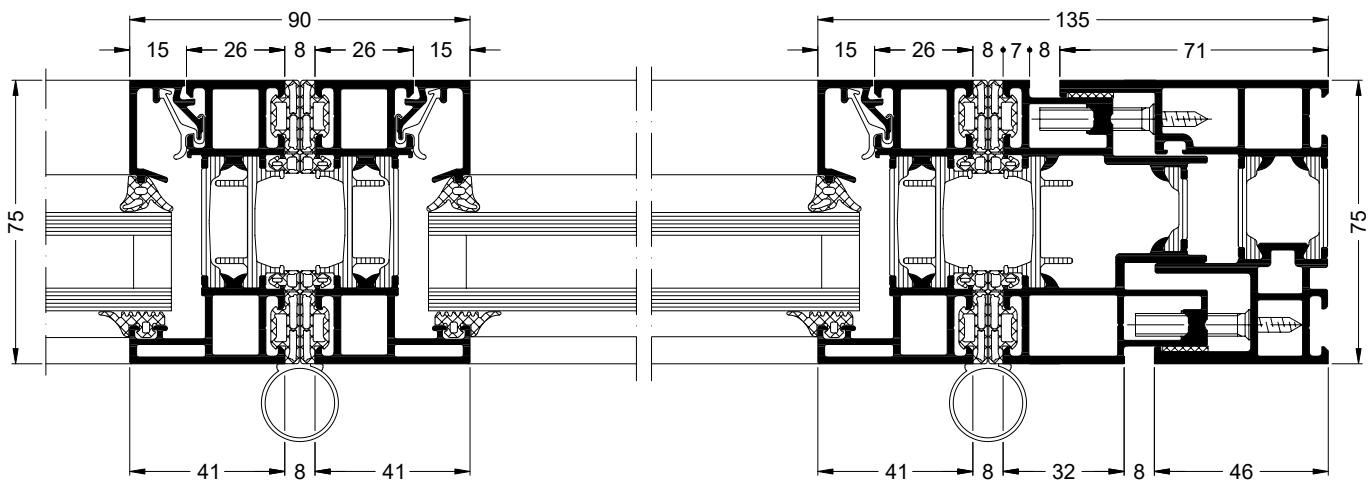


Outward-opening, 90 mm face width with 15 mm glazing bead



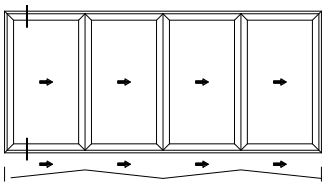


Outward-opening, 90 mm face width with 15 mm glazing bead

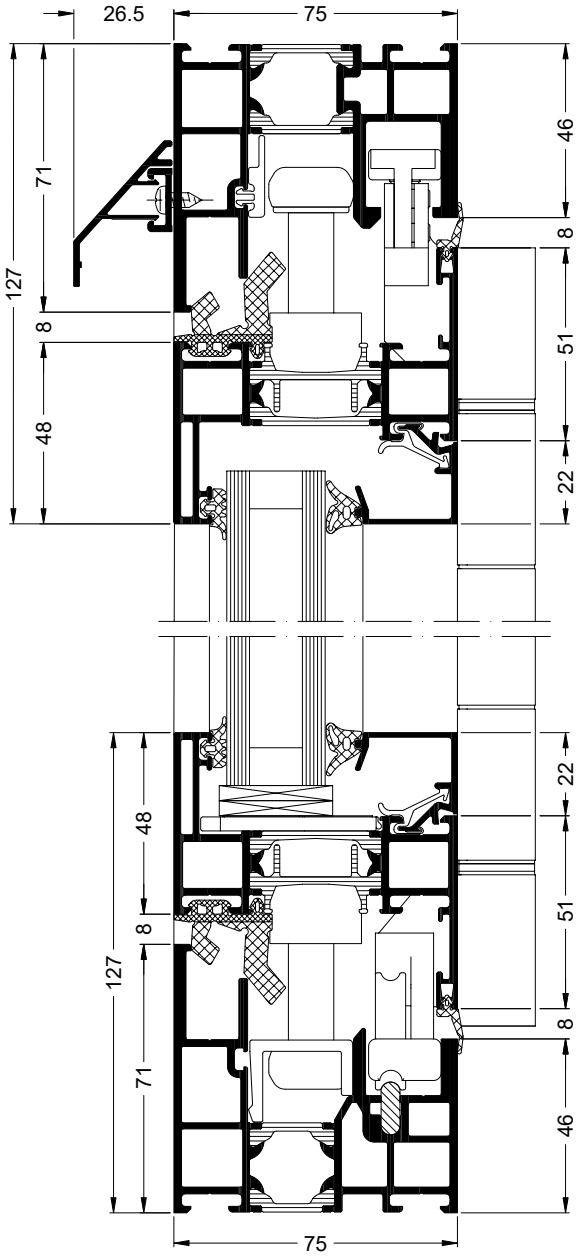


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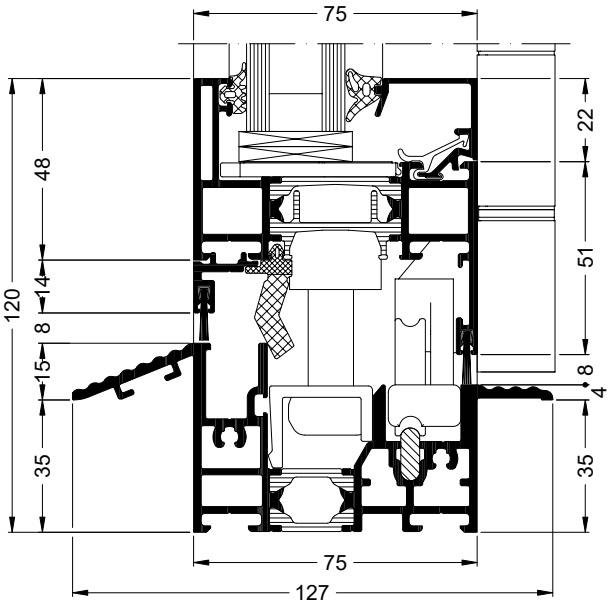
Schüco AS FD 75 as type 4 LS, vertical section detail through folding sliding vent



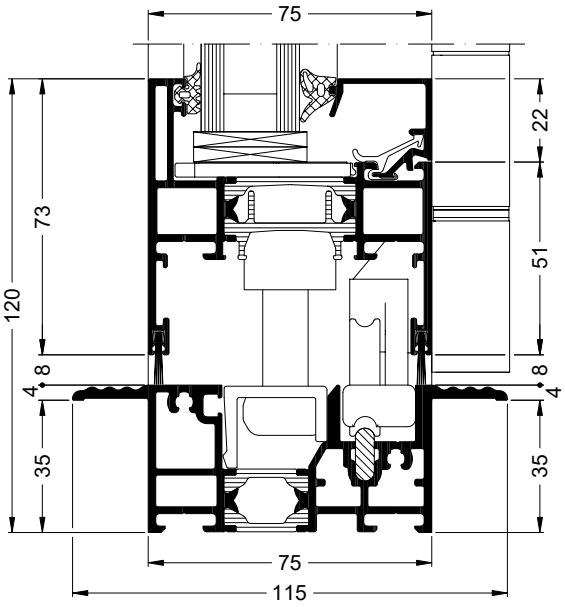
Inward-opening, 104 mm face width
with 22 mm glazing bead and 71 mm outer frame



Inward-opening, 104 mm face width
with 15 mm threshold

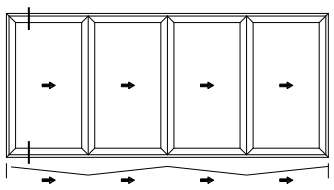


Inward-opening, 104 mm face width
with 4 mm threshold

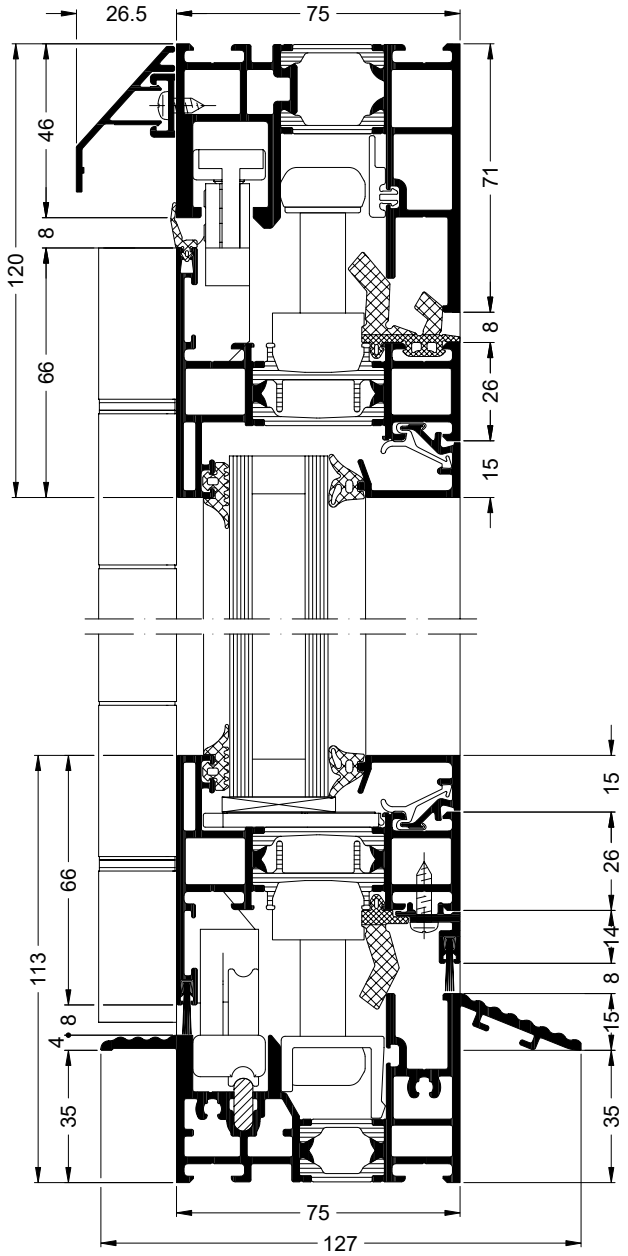


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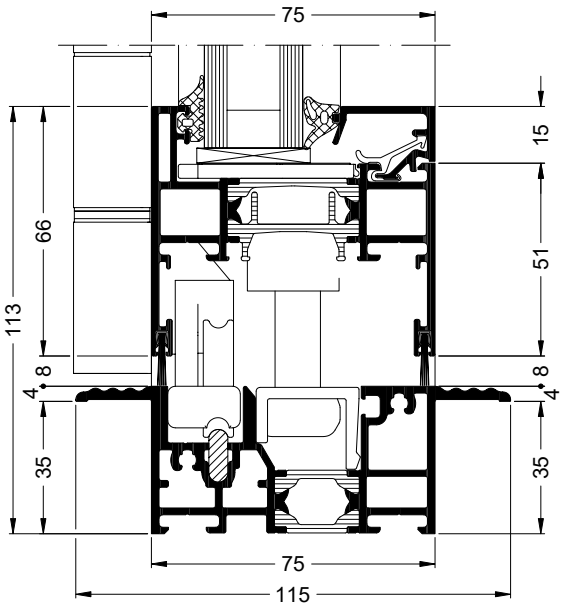
Schüco AS FD 75 as type 4 RS, vertical section detail through folding sliding vent



Outward-opening, 90 mm face width
with 15 mm glazing bead and 15 mm threshold

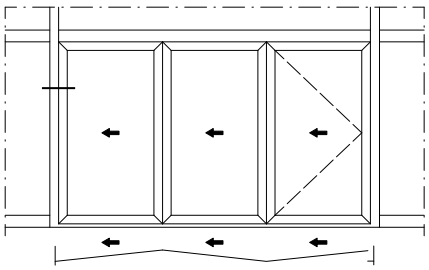


Outward-opening, 90 mm face width
with 15 mm glazing bead and 4 mm threshold

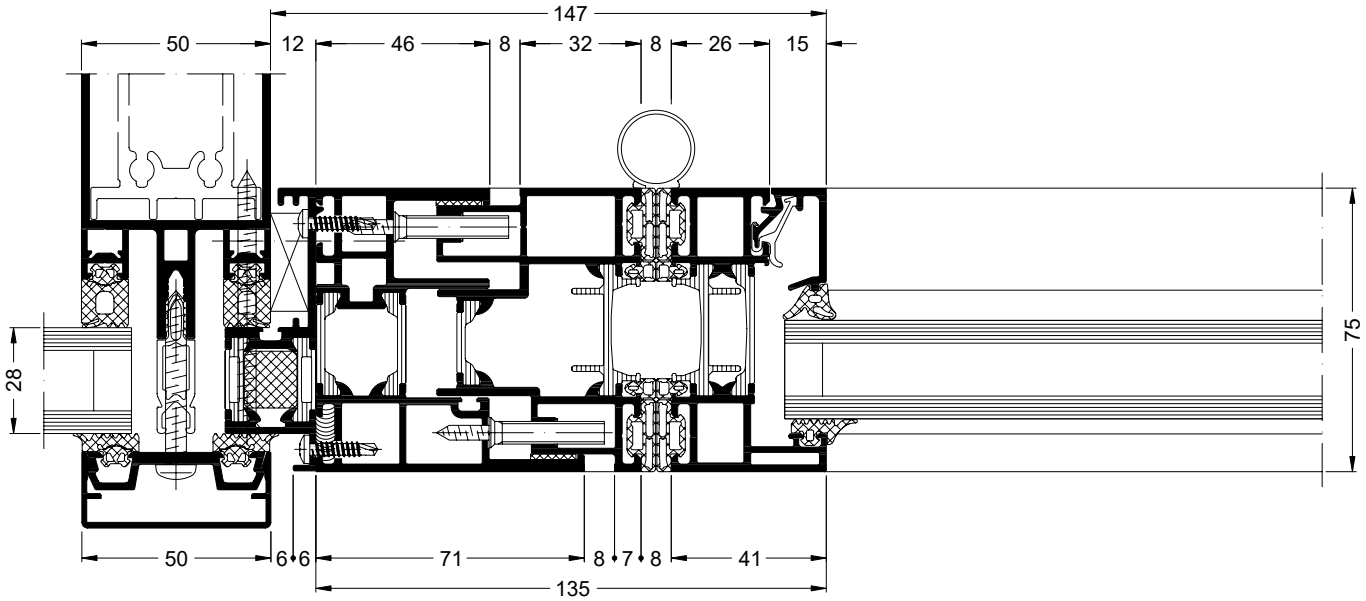


Scale 1:2

Schüco AS FD 75 as type 3 RS,
horizontal section detail through folding sliding vent

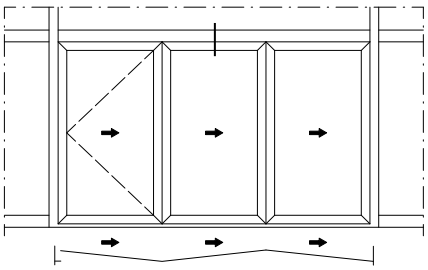


Inward-opening, 90 mm face width
with 15 mm glazing bead and 71 mm outer frame

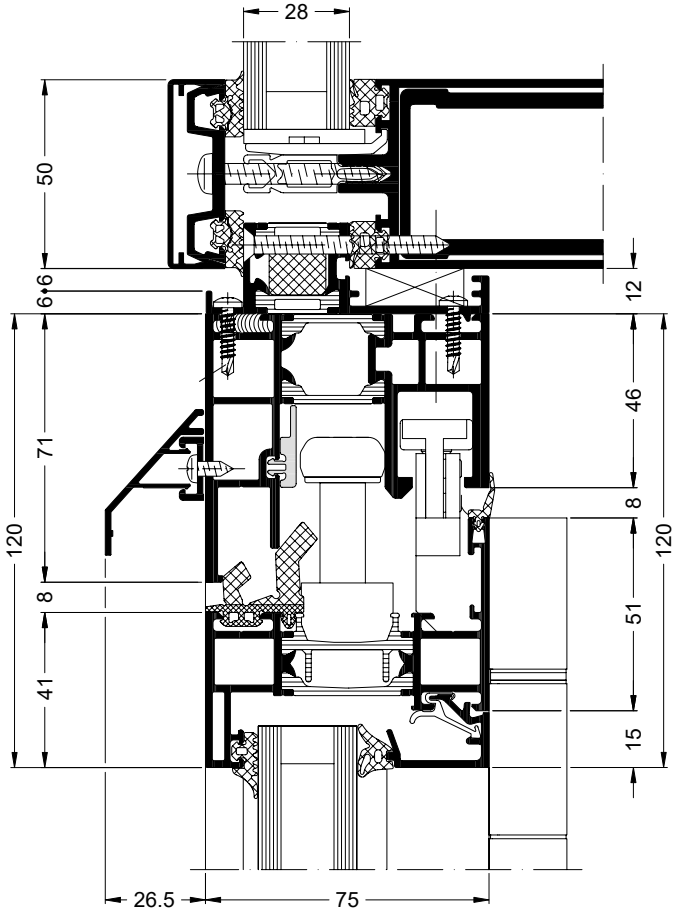


Scale 1:2

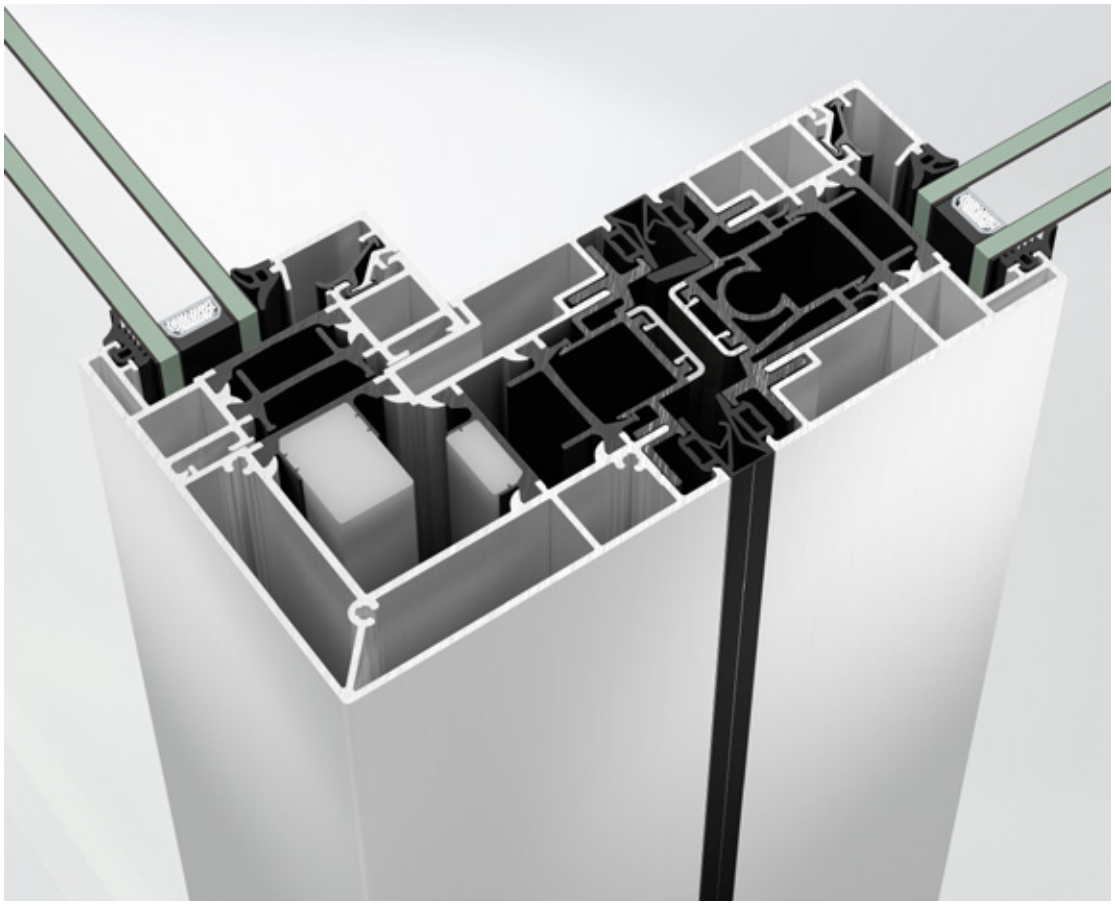
Schüco AS FD 75 as type 3 LS,
vertical section detail through folding sliding vent



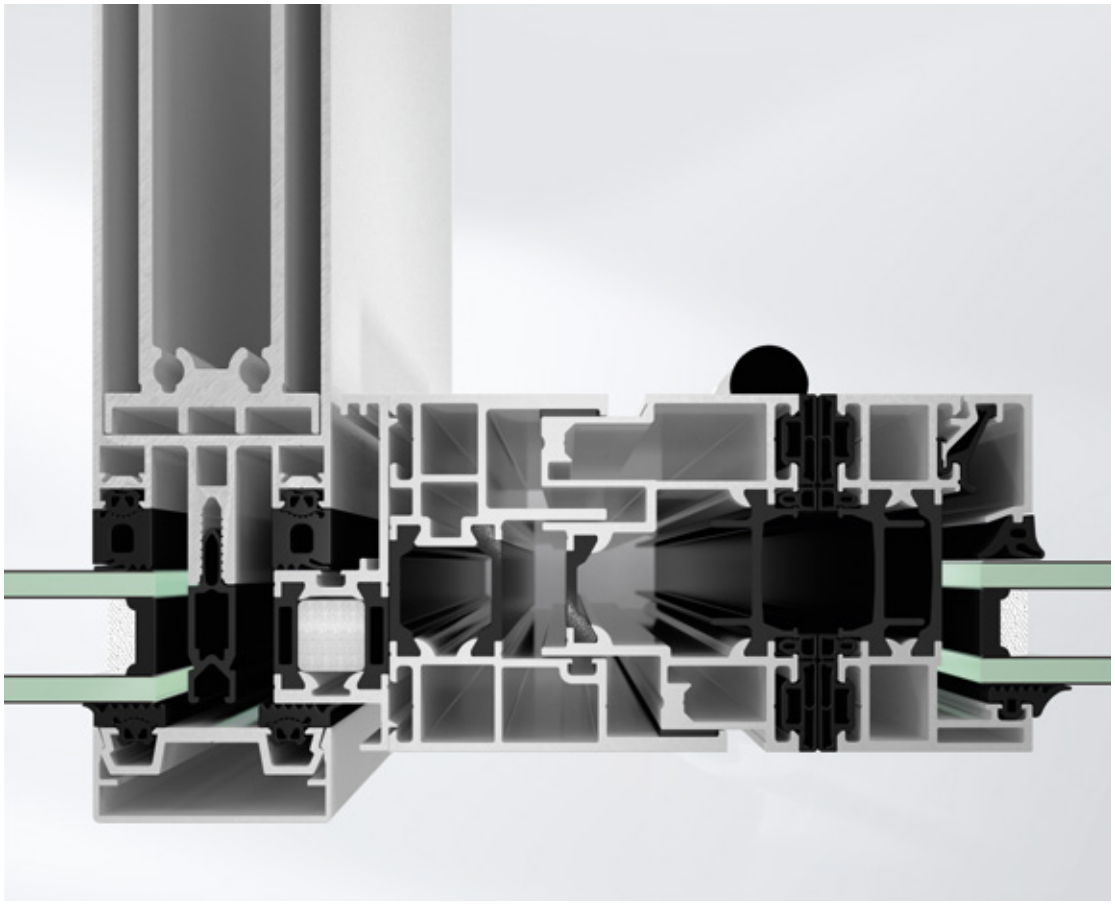
Inward-opening, 90 mm face width
with 15 mm glazing bead and 71 mm outer frame



Scale 1:2

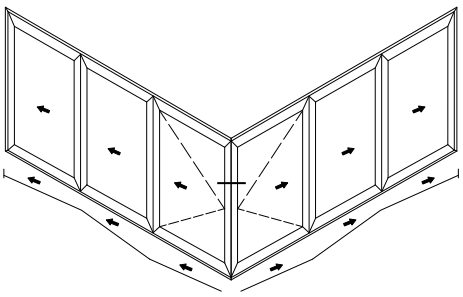


Schüco AS FD 75,
inward-opening,
90° corner

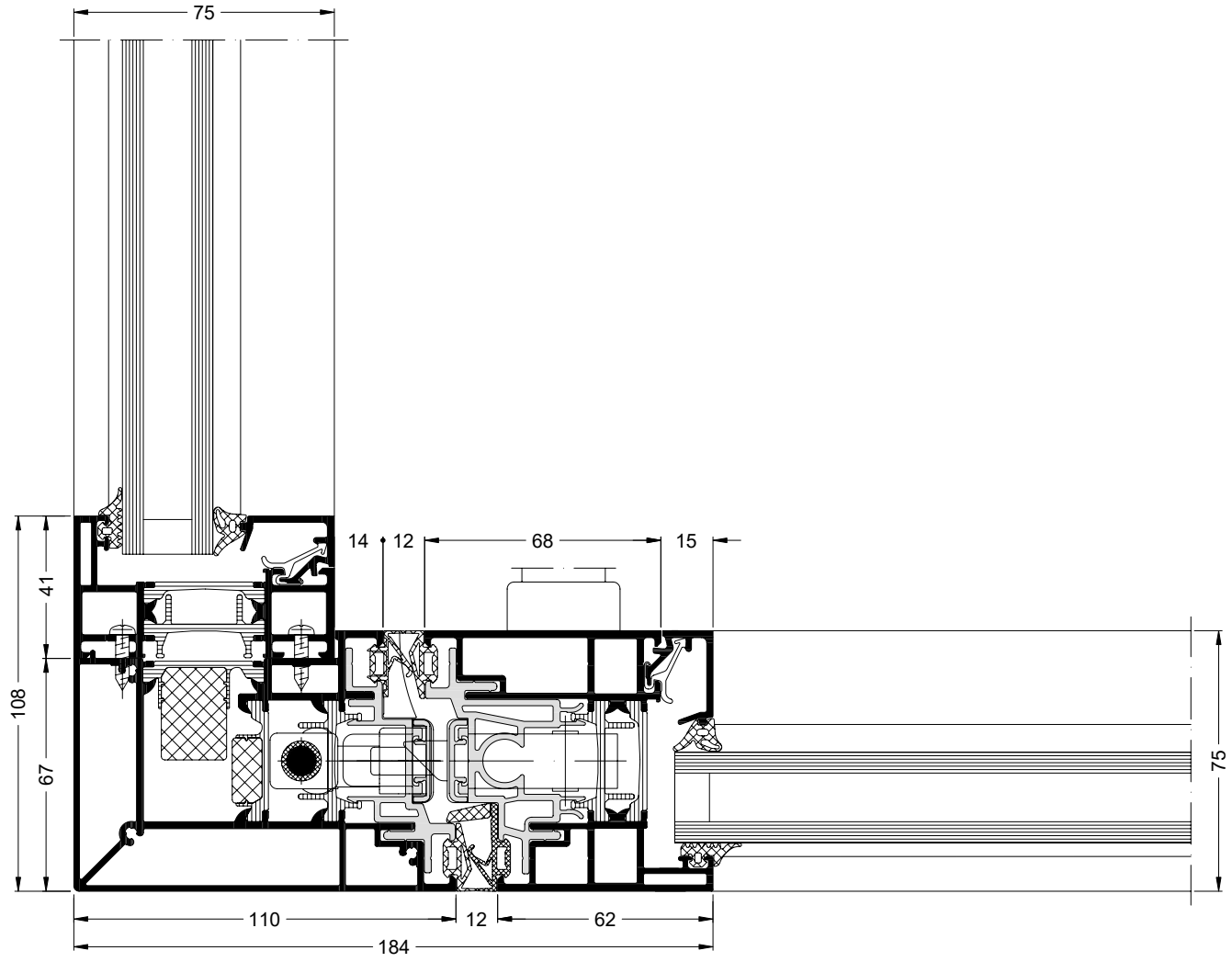


Schüco AS FD 75,
inward-opening,
Façade coupling

**Schüco AS FD 75 as type 3 LS and 3 RS,
vertical section detail through folding sliding vent**



Inward-opening, 90 mm face width
with 15 mm glazing bead

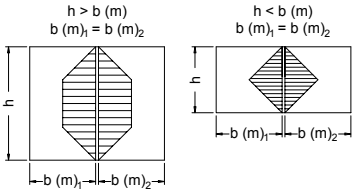


Scale 1:2

Statics diagram for Schüco AS FD 75

Statics diagrams for Schüco AS FD 75 folding sliding units

Structural systems



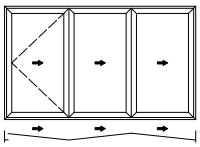
Test pressure used

1. 600 Pa
2. 800 Pa
3. 1.000 Pa
4. 1.200 Pa
5. 1.600 Pa
6. 2.000 Pa

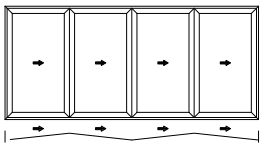
Resistance to wind load in accordance with DIN EN 12210 for the standard building area. Deflection limit L/200 or maximum 15 mm in accordance with the "Technical regulations for the use of glazing with linear supports" (TRLV). Differing deflection limits set by the double glazing manufacturer must be observed. These statics diagrams are intended for preliminary structural calculations and profile selection only (they are not a substitute for the structural calculation). Vent sizes below the line are structurally adequate.

Section detail overview

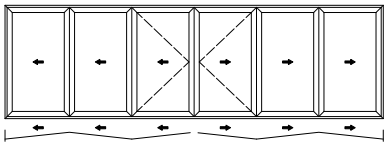
Type 3 LS



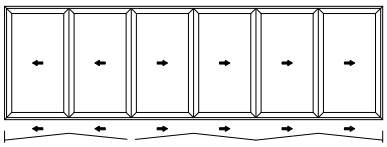
Type 4 LS



Type 3 LS/3 RS



Type 4 LS/2 RS



Type 3 LS/2 RS

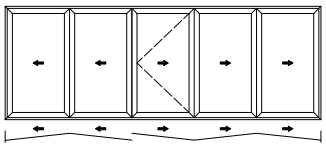
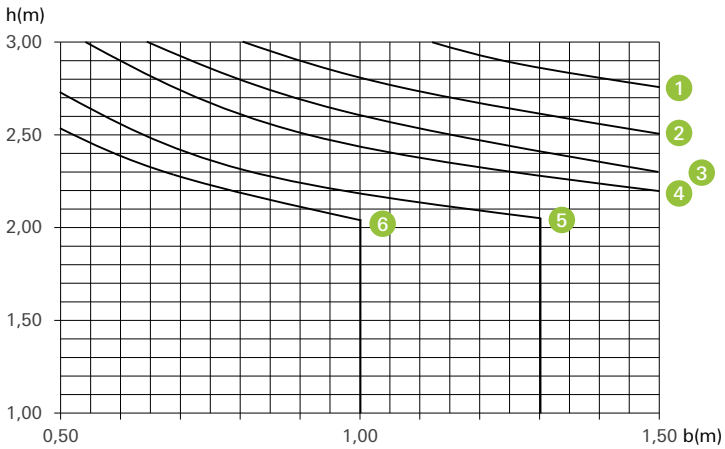
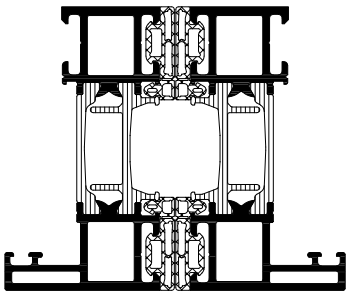


Diagram for calculating the maximum vent sizes depending on the profile combination

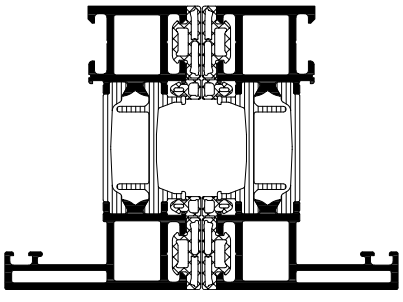


Vent profile 41 mm/face width 90 mm



513 880 513 880

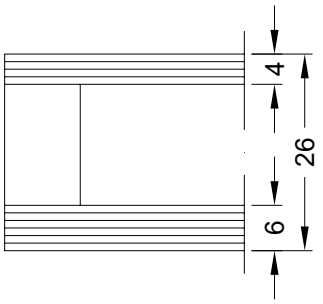
Vent profile 48 mm/face width 104 mm



513 960 513 960

I_x 2,00 m = 56,70 cm^4
I_x 2,25 m = 59,70 cm^4
I_x 2,50 m = 62,08 cm^4
I_x 2,75 m = 63,98 cm^4
I_x 3,00 m = 65,50 cm^4

Preliminary calculation of glazing



6 mm + 4 mm = 10 mm total glass thickness

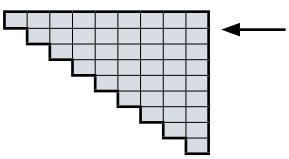
Max. vent weight = 150 kg
For vent weights greater than 120 kg, the height must be at least 1.8 times the width (width to height ratio of at least 1 to 1.8).

Examples:
Height = 2.5 m, width = 1.2 m, permitted vent weight = 150 kg
Height = 2.5 m, width = 1.4 m, permitted vent weight = 120 kg

Table values = max. total glass thickness (without spacers and foil)

Vent height (m) \ Vent width (m)	0,50	0,55	0,60	0,65	0,70	0,75	0,80	0,85	0,90	0,95	1,00	1,05	1,10	1,15	1,20	1,25	1,30	1,35	1,40	1,45	1,5
1,8	63	57	52	48	44	41	39	36	34	32	31	23	22	21	20	19	18	17	17	16	16
1,9	59	54	49	45	42	39	37	34	32	31	29	28	21	20	19	18	17	16	16	15	15
2,0	56	51	47	43	40	37	35	33	31	29	27	26	25	19	18	17	16	16	15	14	14
2,1	53	48	44	41	38	35	33	31	29	28	26	25	24	23	17	16	15	14	14	14	13
2,2	51	46	42	39	36	33	31	29	28	26	25	24	22	21	21	15	15	14	14	13	13
2,3	48	44	40	37	34	32	30	28	26	25	24	23	21	20	20	19	14	13	13	12	12
2,4	46	42	38	35	33	31	29	27	25	24	23	22	20	20	19	18	17	13	12	12	11
2,5	44	40	37	34	31	29	27	26	24	23	22	21	20	19	18	17	16	16	12	11	11
2,6	42	39	35	32	30	28	26	25	23	22	21	20	19	18	17	16	16	15	15	11	10
2,7	41	37	34	31	29	27	25	24	22	21	20	19	18	17	16	16	15	15	14	13	13
2,8	39	36	33	30	28	26	24	23	21	20	19	18	17	17	16	15	15	14	13	13	12
2,9	38	34	31	29	27	25	23	22	21	19	18	18	17	16	15	15	14	13	13	12	12
3,0	36	33	30	28	26	24	22	21	20	19	18	17	16	15	15	14	13	13	12	12	12
3,1	35	32	29	27	25	23	22	20	19	18	17	16	16	15	14	14	13	12	12	12	11
3,2	34	31	28	26	24	22	21	20	19	18	17	16	15	14	14	13	13	12	12	12	11
3,3	33	30	27	25	23	22	20	19	18	17	16	15	14	14	13	13	12	12	11	11	10
3,4	32	29	26	24	23	21	20	18	17	16	16	15	14	13	13	12	12	11	11	10	10
3,5	31	28	26	24	22	20	19	18	17	16	15	14	14	13	12	12	11	11	10	10	10

his table is only to be used for preliminary calculations of glazing. The values may vary for specific profile summaries.



Area in which the width/height ratio of 1.8 has not been met



Schüco AS FD 90.HI
folding sliding system

Schüco AS FD 90.HI folding sliding system

44

46 Unit section details

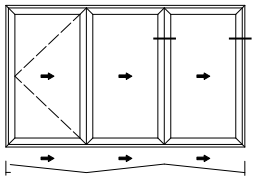
60 Statics diagram

61 Preliminary calculation of glazing

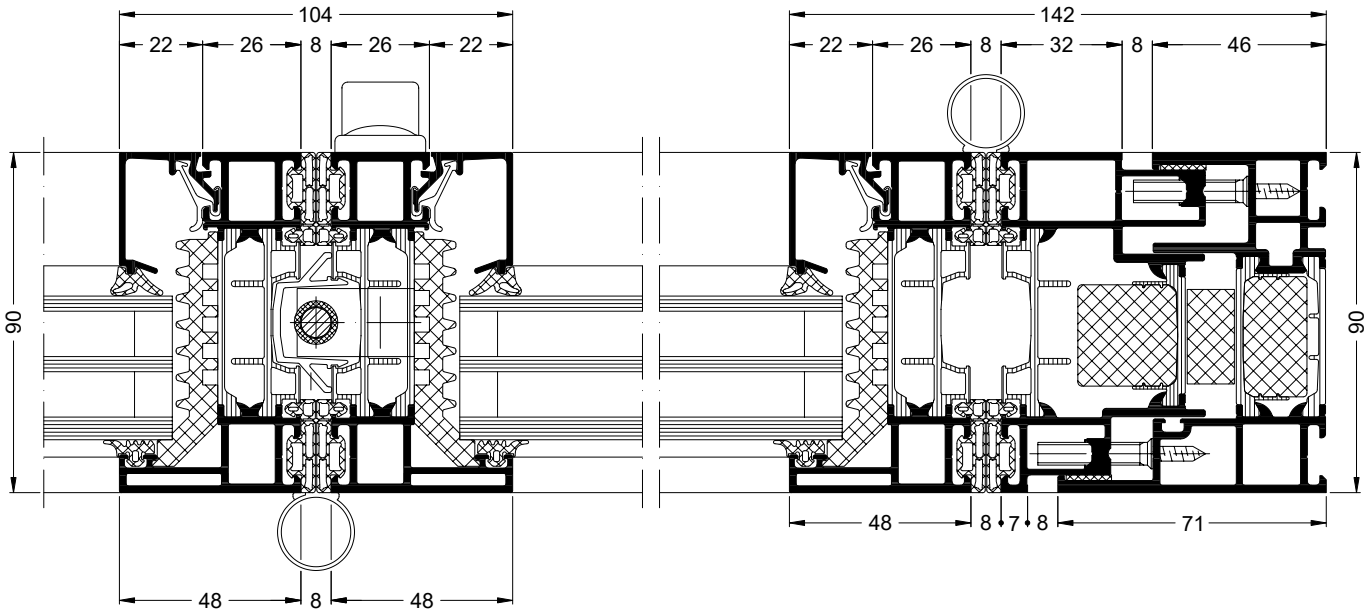
Graphical planning data such as detailed drawings, attachment to building structure drawings and CAD drawings, which you can find in our technical documentation (manuals, Architect Information and instructions) as well as our CAD and BIM data libraries and which you can save to your computer, are examples which are intended to help you plan and design your project. This content must be checked for its suitability in the relevant structural scenario. The technical and legal regulations, the site conditions, and the design and structural requirements, must be assessed and planned independently by the developer and observed by the company contracted to do the work.

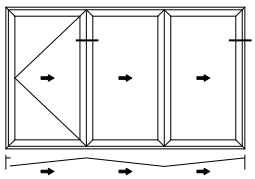
Unit section details

Schüco AS FD 90.HI as type 3 LS and as type 3 RS, horizontal section details through folding sliding vent

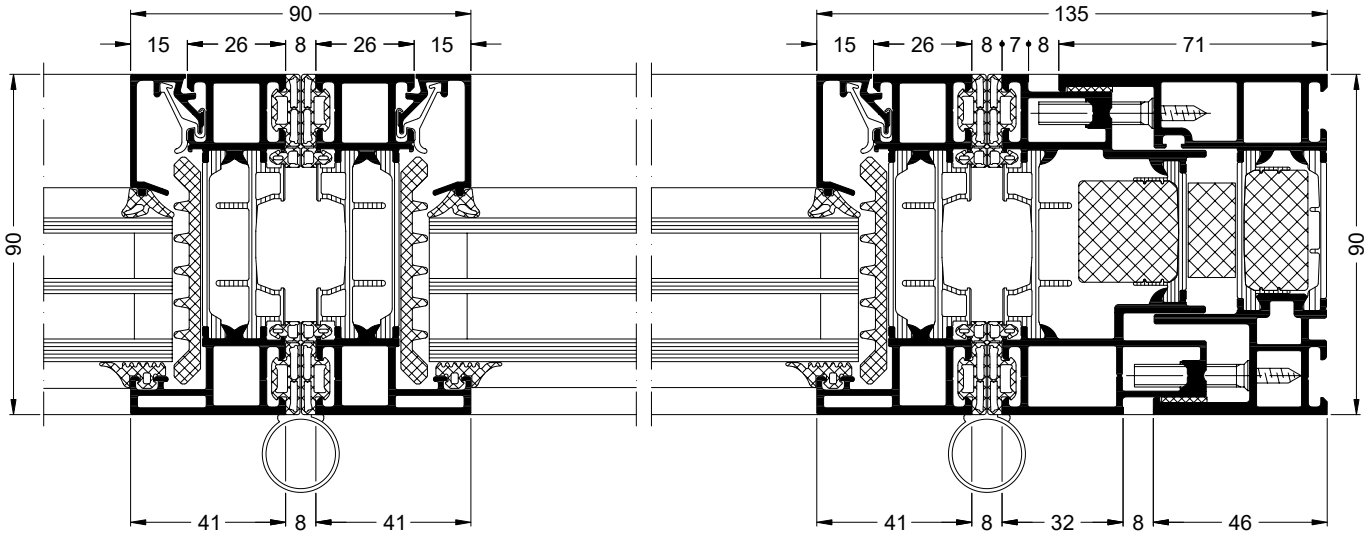


Inward-opening, 104 mm face width with 22 mm glazing bead



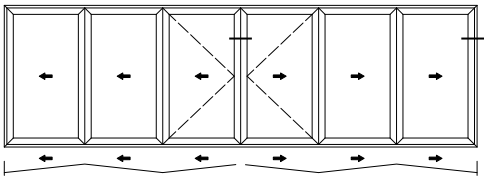


Outward-opening, 90 mm face width with 15 mm glazing bead

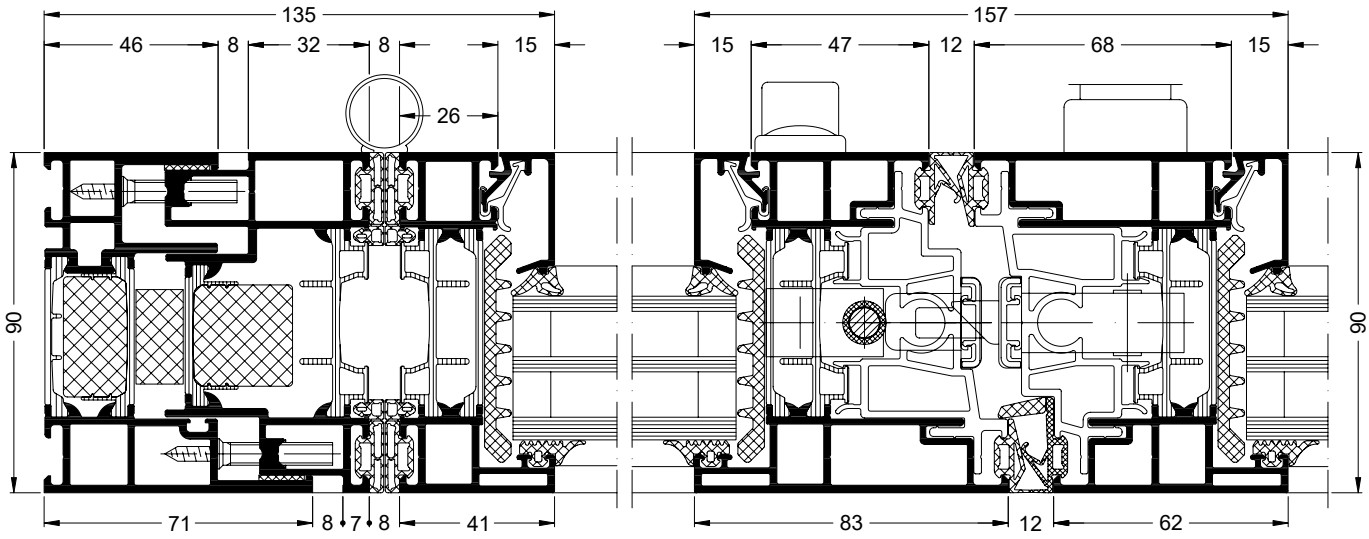


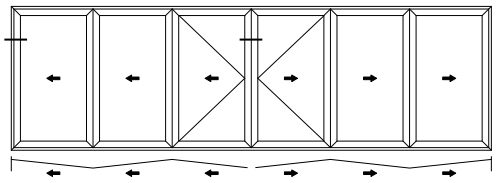
Scale 1:2

Schüco AS FD 90.HI as type 3 LS + 3 RS,
horizontal section details through double vent

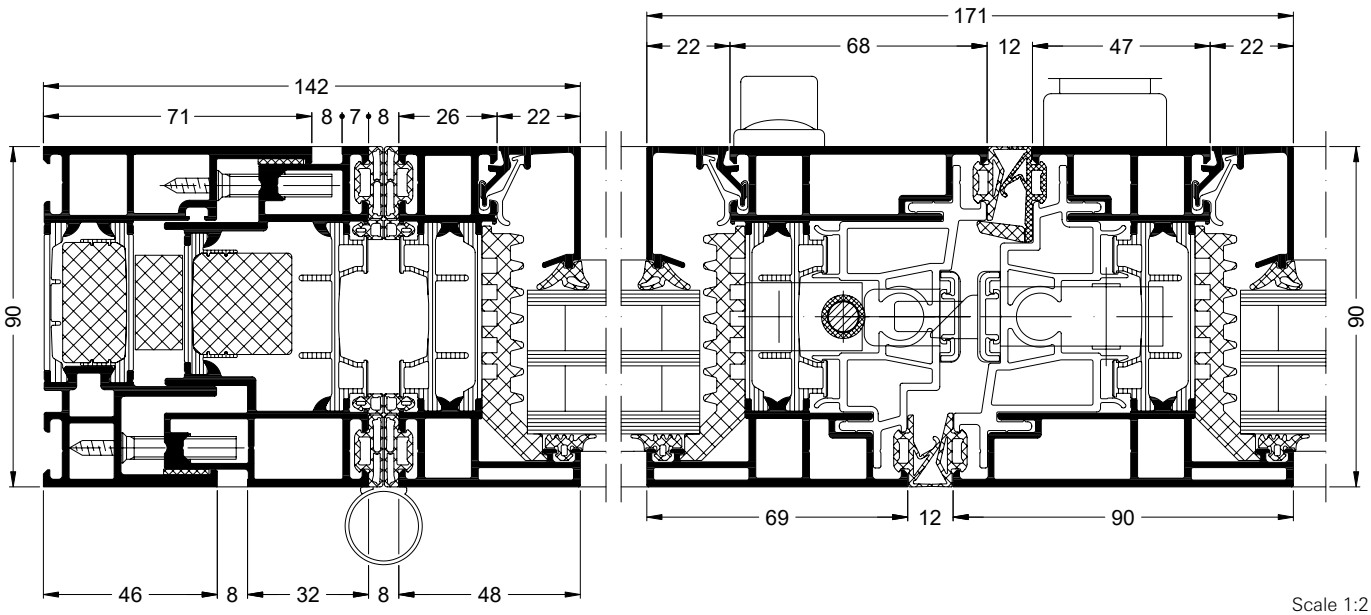


Inward-opening, 90 mm face width with 15 mm glazing bead



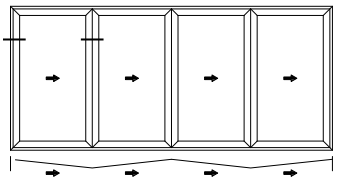


Outward-opening, 104 mm face width with 22 mm glazing bead

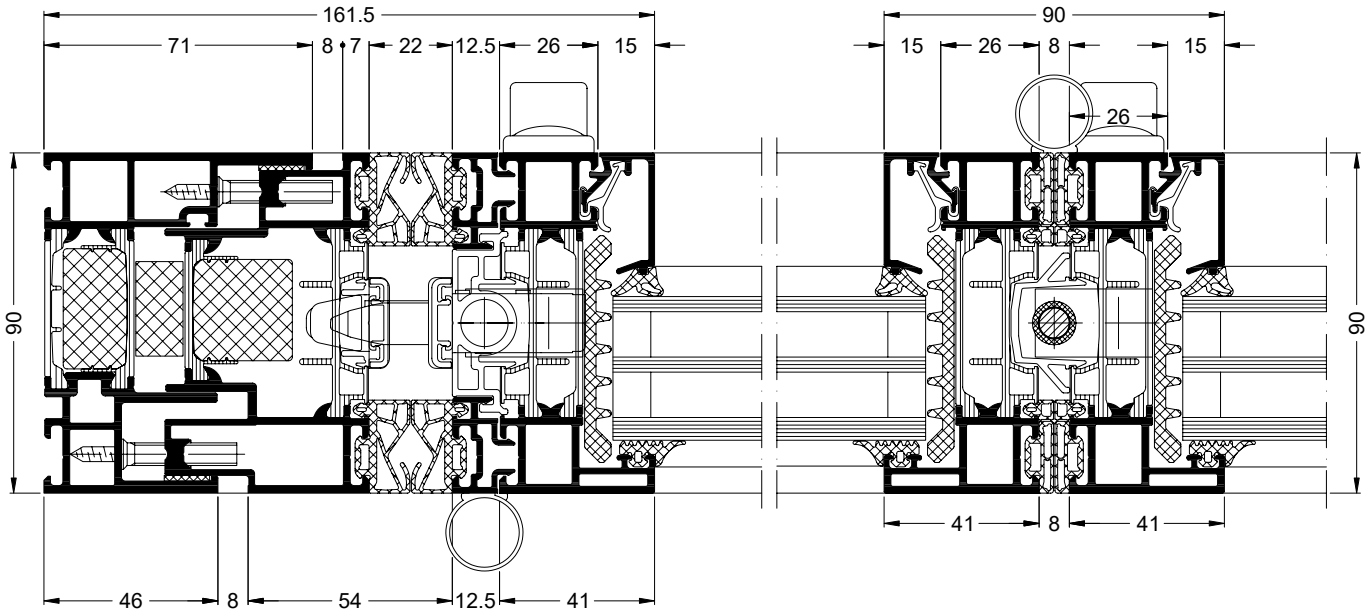


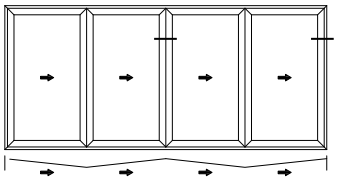
Scale 1:2

Schüco AS FD 90.HI as type 4 RS, horizontal section details

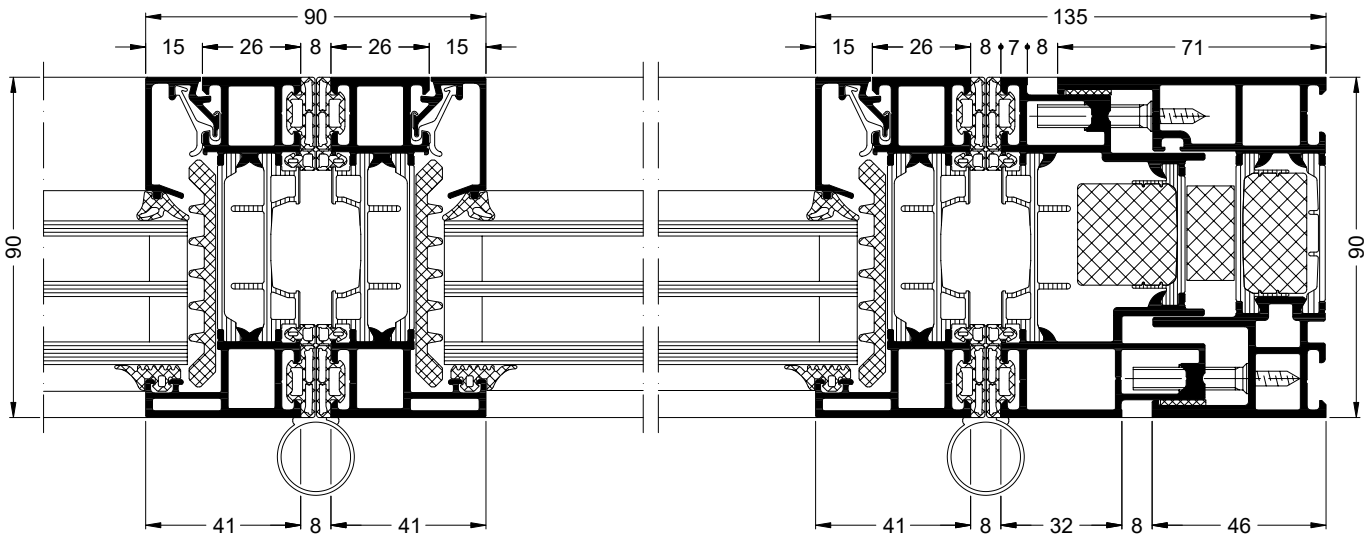


Outward-opening, 90 mm face width with 15 mm glazing bead



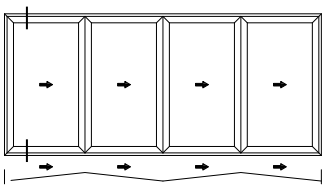


Outward-opening, 90 mm face width with 15 mm glazing bead

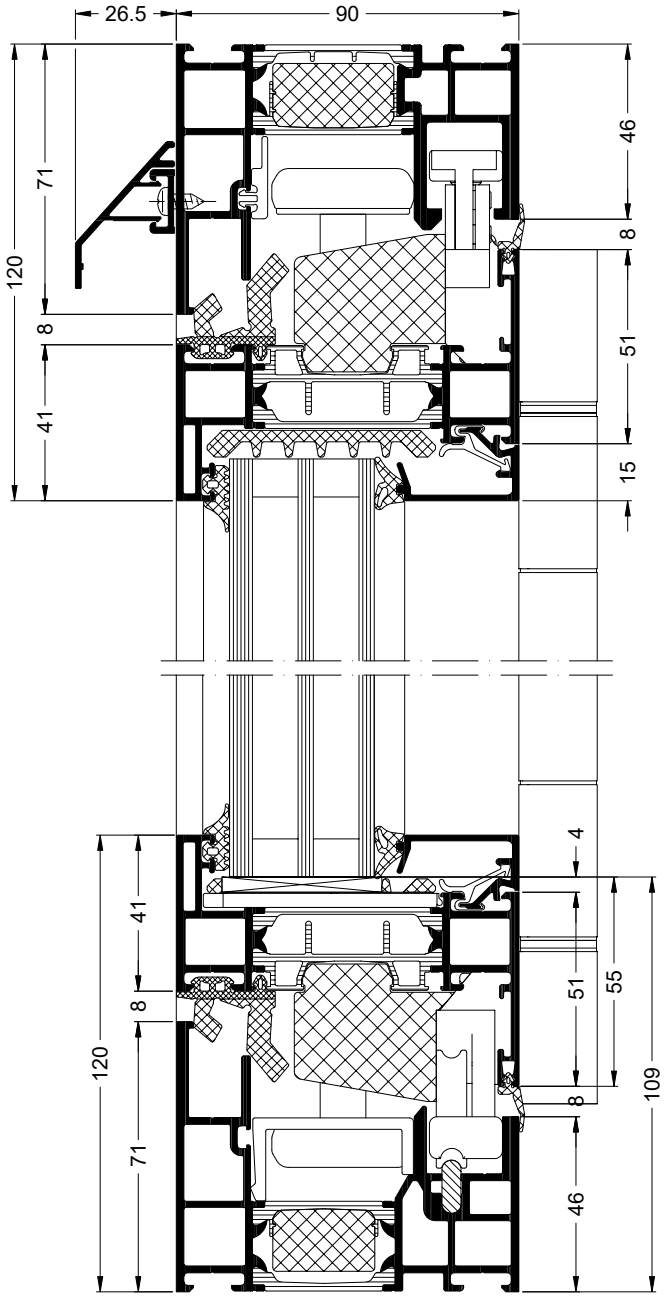


Scale 1:2

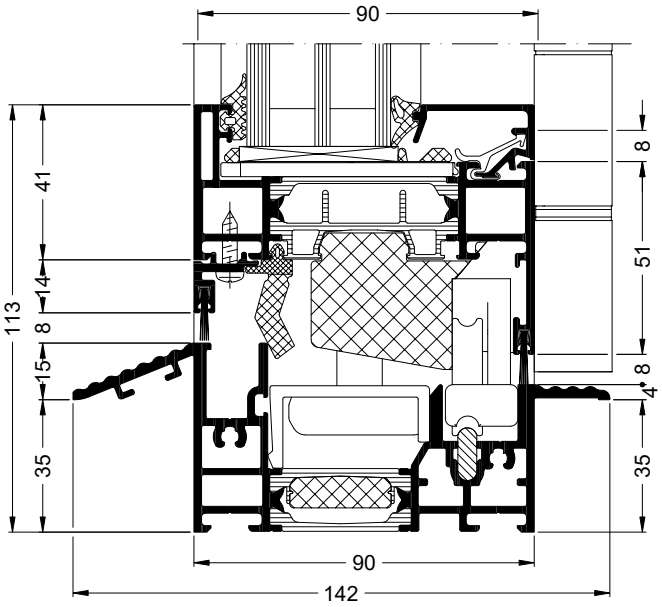
Schüco AS FD 90.HI as type 4 LS, vertical section detail through folding sliding vent



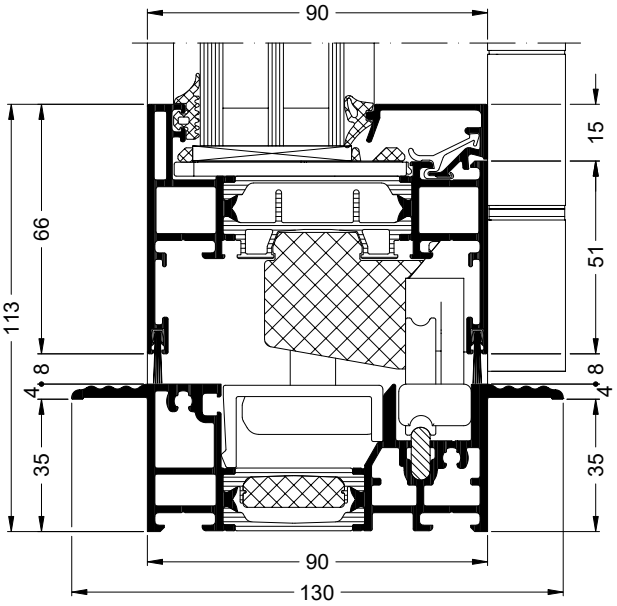
Inward-opening, 90 mm face width
with 15 mm glazing bead and 71 mm outer frame



Inward-opening, 90 mm face width
with 15 mm glazing bead and 15 mm threshold

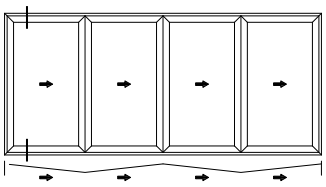


Inward-opening, 90 mm face width
with 15 mm glazing bead and 4 mm threshold

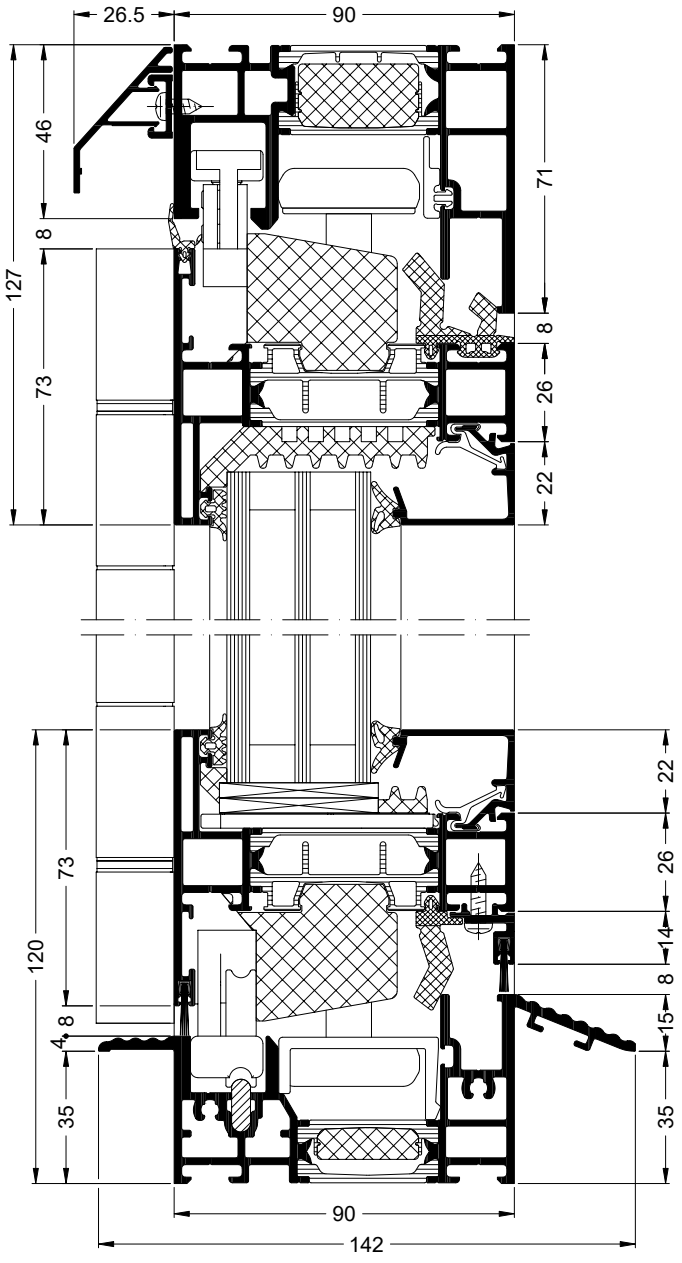


Scale 1:2

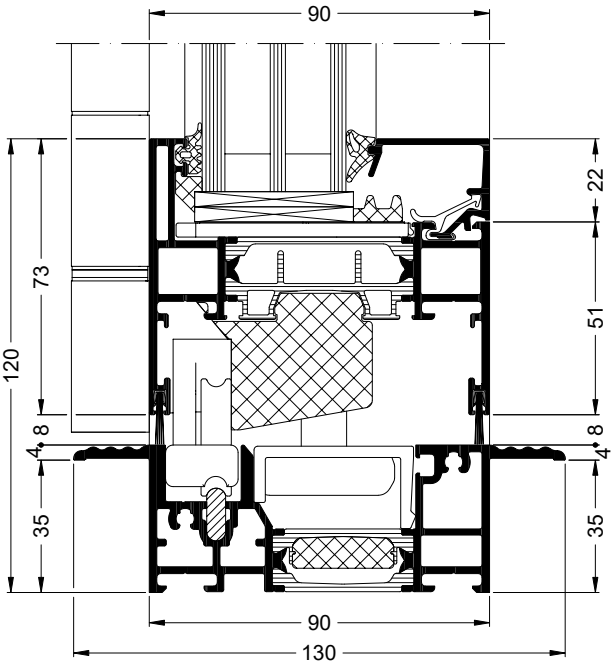
Schüco AS FD 90.HI as type 4 RS,
vertical section detail through folding sliding vent



Outward-opening, 104 mm face width
with 22 mm glazing bead and 15 mm threshold

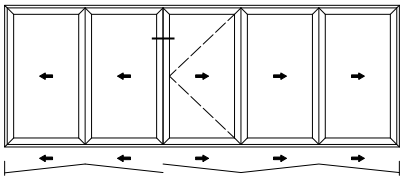


Outward-opening, 104 mm face width
with 22 mm glazing bead and 4 mm threshold

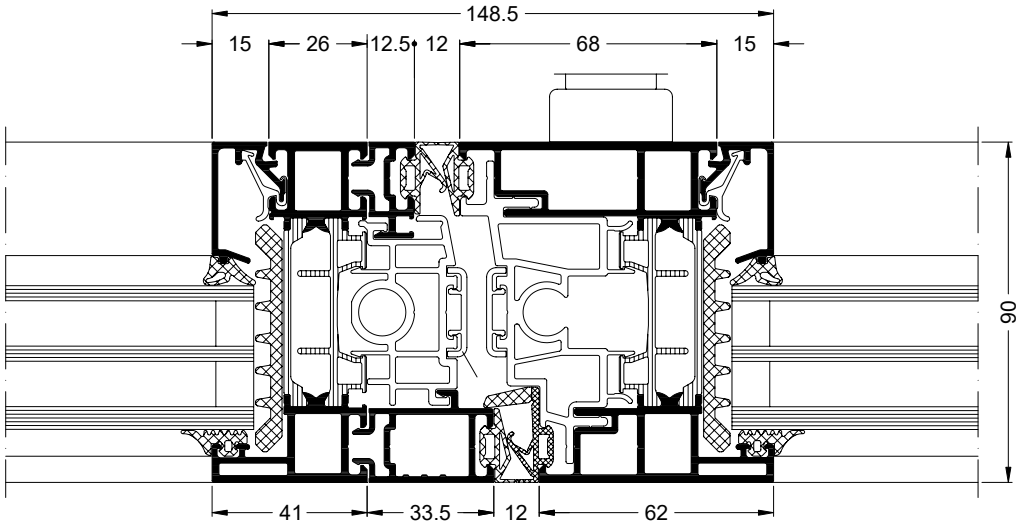


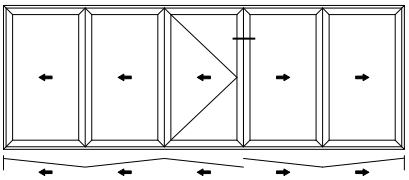
Scale 1:2

**Schüco AS FD 90.HI as type 3 LS + 2 RS,
horizontal section details through folding sliding vent**

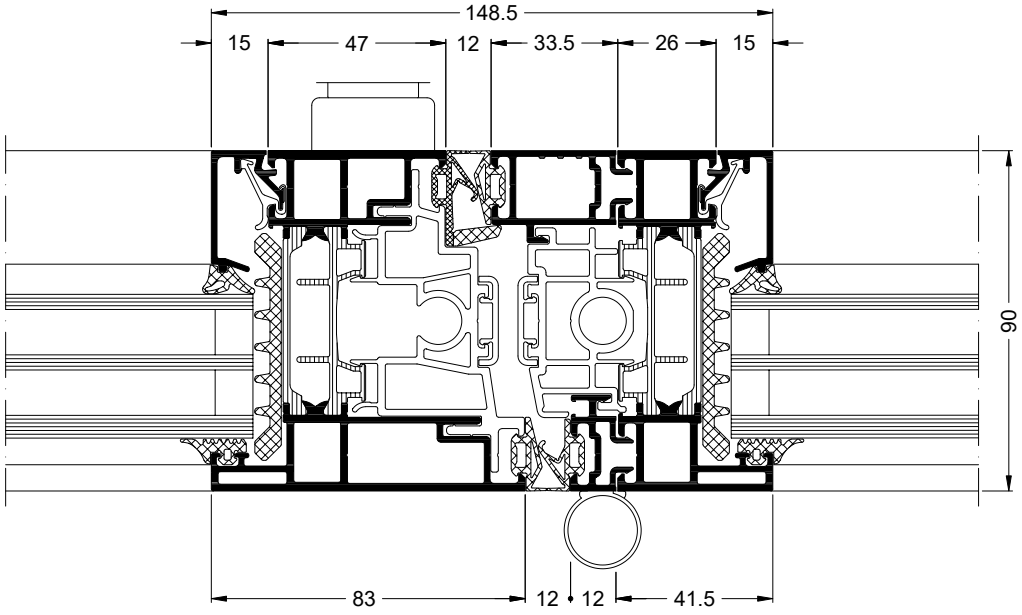


Inward-opening, 104 mm face width with 22 mm glazing bead



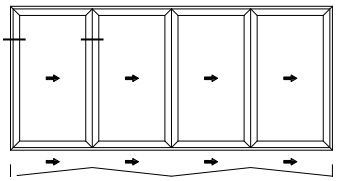


Outward-opening, 90 mm face width with 15 mm glazing bead

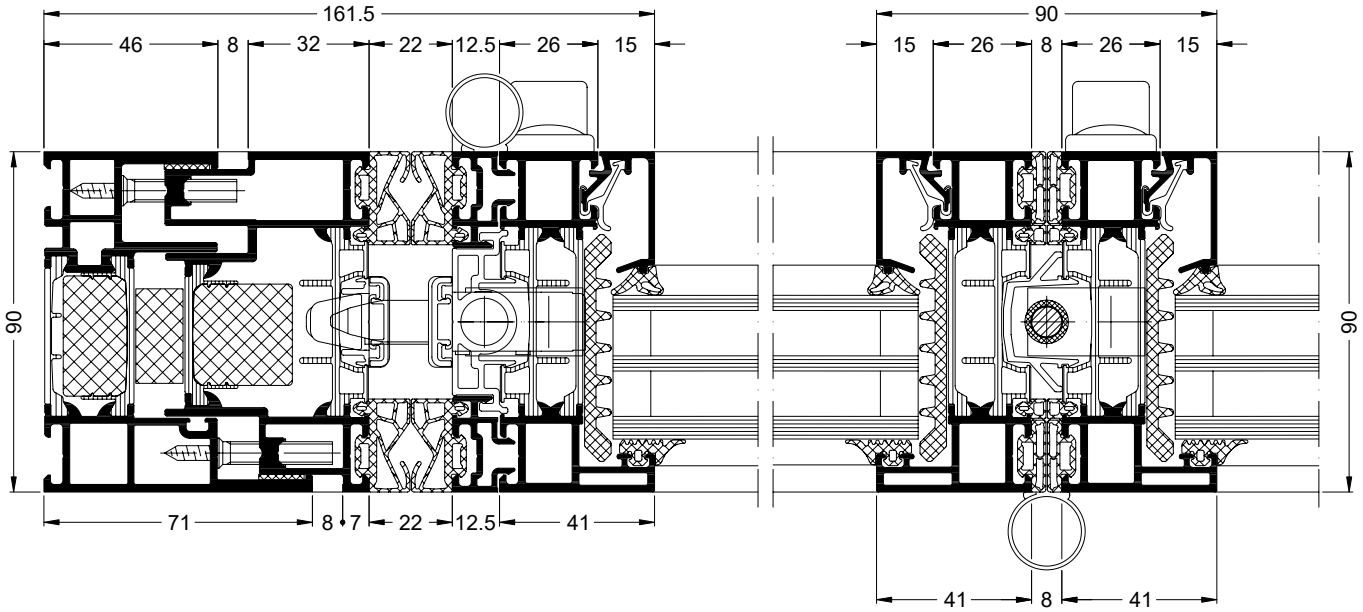


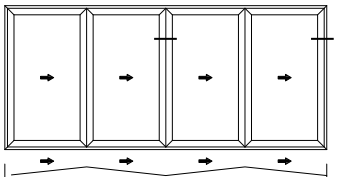
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Schüco AS FD 90.HI as type 4 LS, horizontal section details

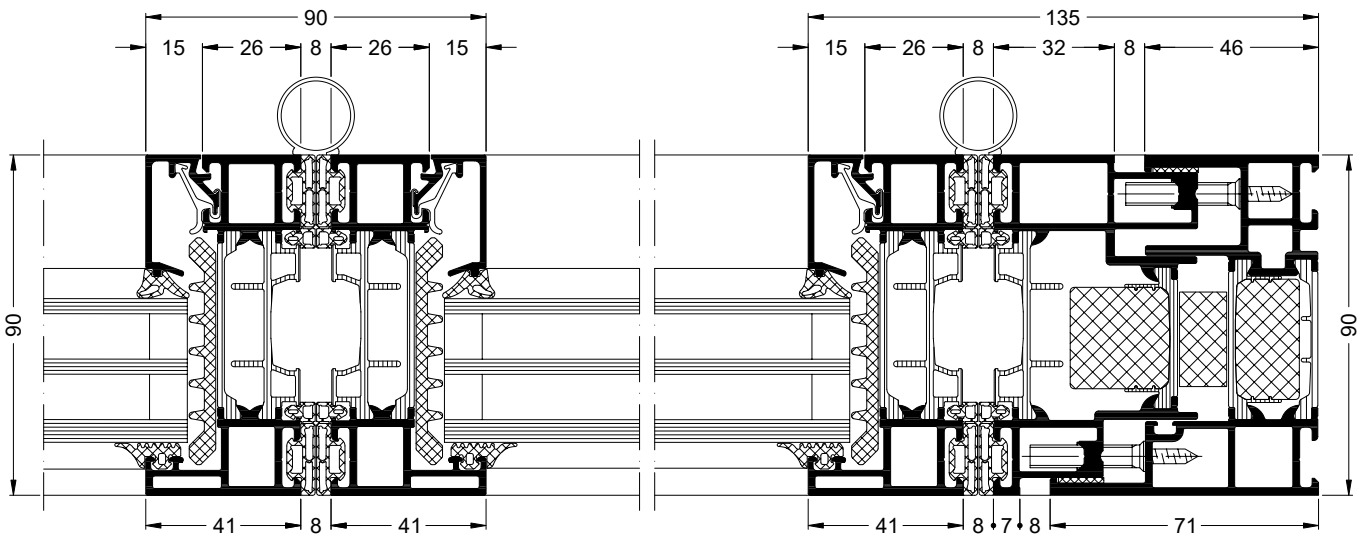


Inward-opening, 90 mm face width with 15 mm glazing bead



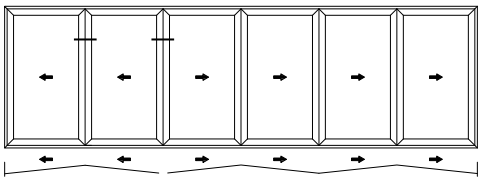


Inward-opening, 90 mm face width with 15 mm glazing bead

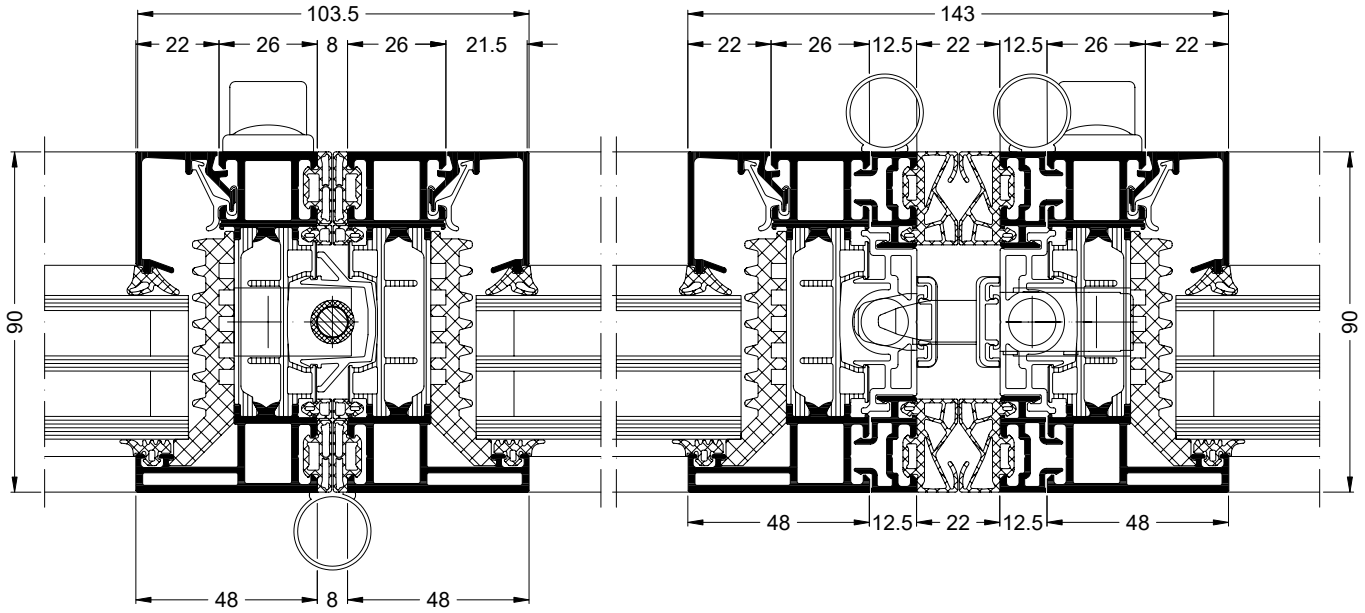


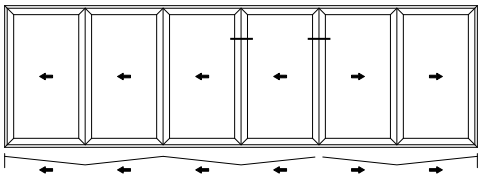
Scale 1:2

**Schüco AS FD 90.HI as type 4 LS + 2 RS,
horizontal section details through double vent**

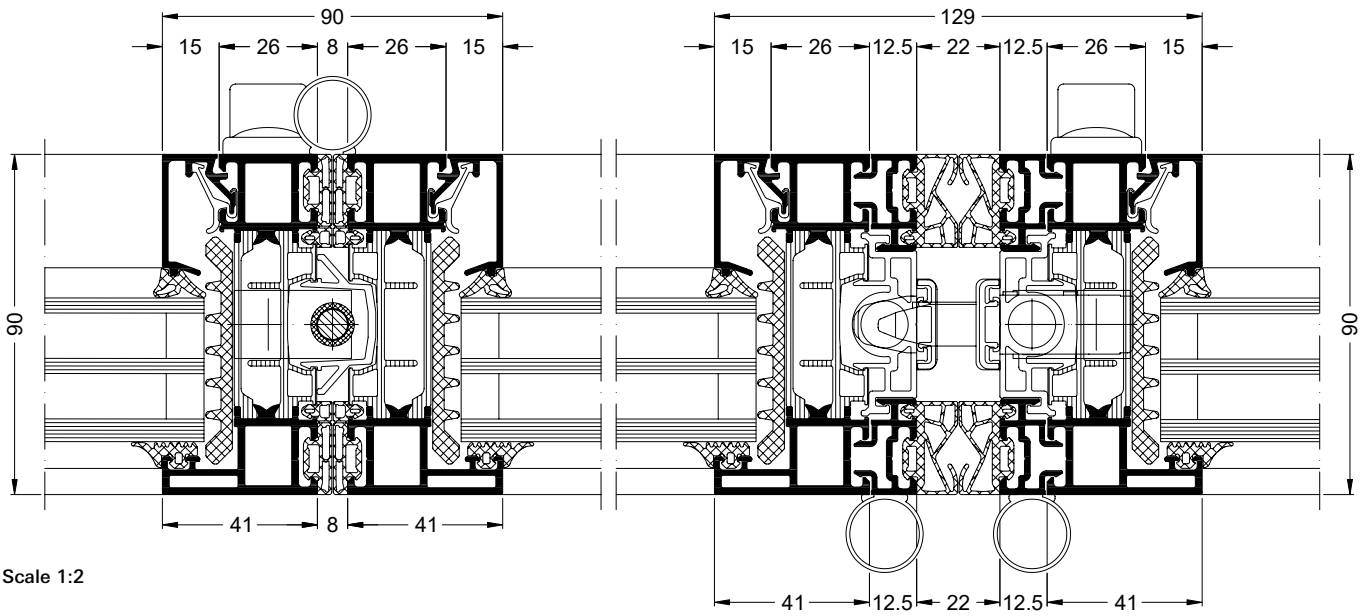


Inward-opening, 104 mm face width with 22 mm glazing bead



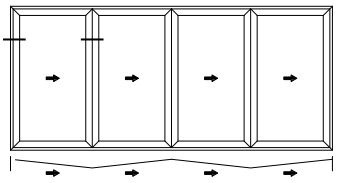


Outward-opening, 90 mm face width with 15 mm glazing bead

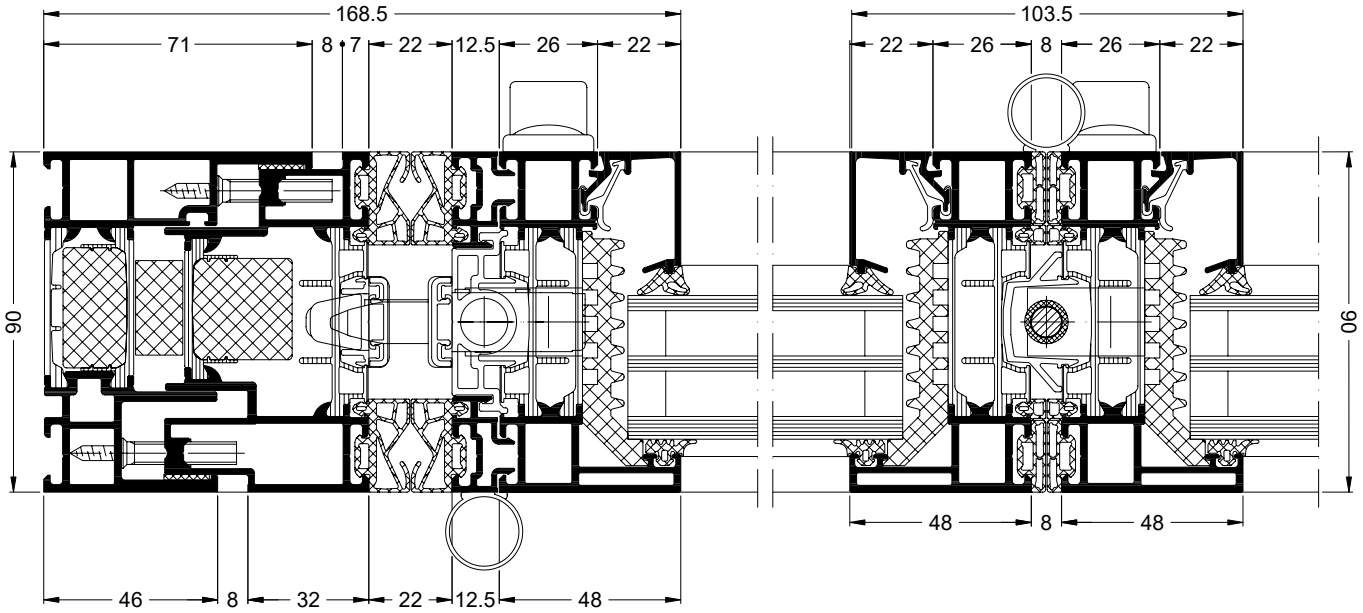


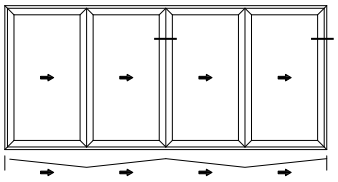
Scale 1:2

Schüco AS FD 90.HI as type 4 RS,
horizontal section details through folding sliding vent

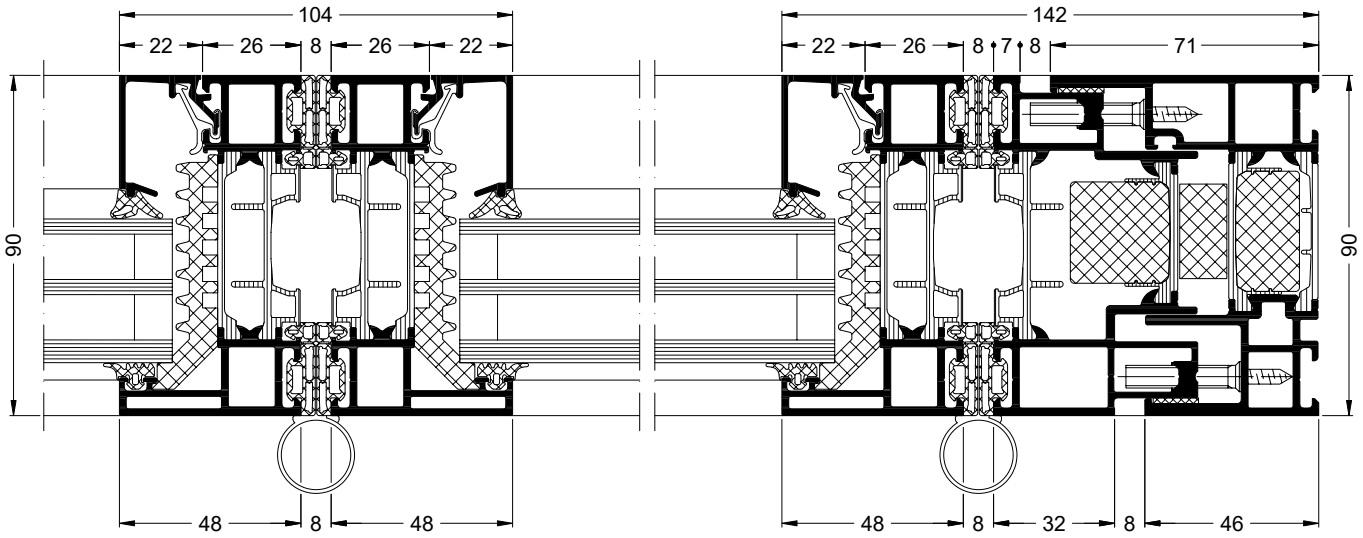


Outward-opening, 104 mm face width with 22 mm glazing bead



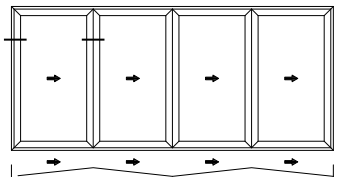


Outward-opening, 104 mm face width with 22 mm glazing bead

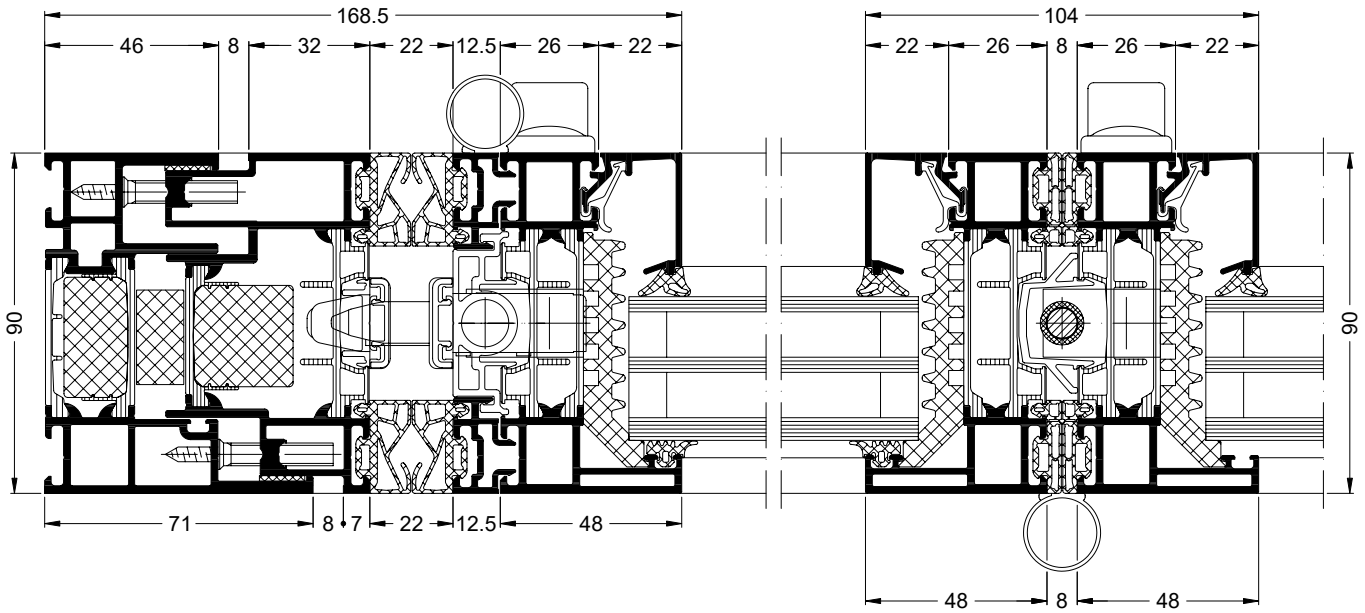


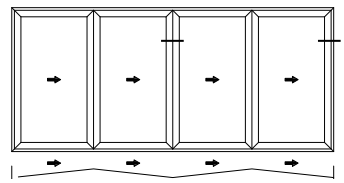
Scale 1:2

Schüco AS FD 90.HI as type 4 LS, horizontal section details

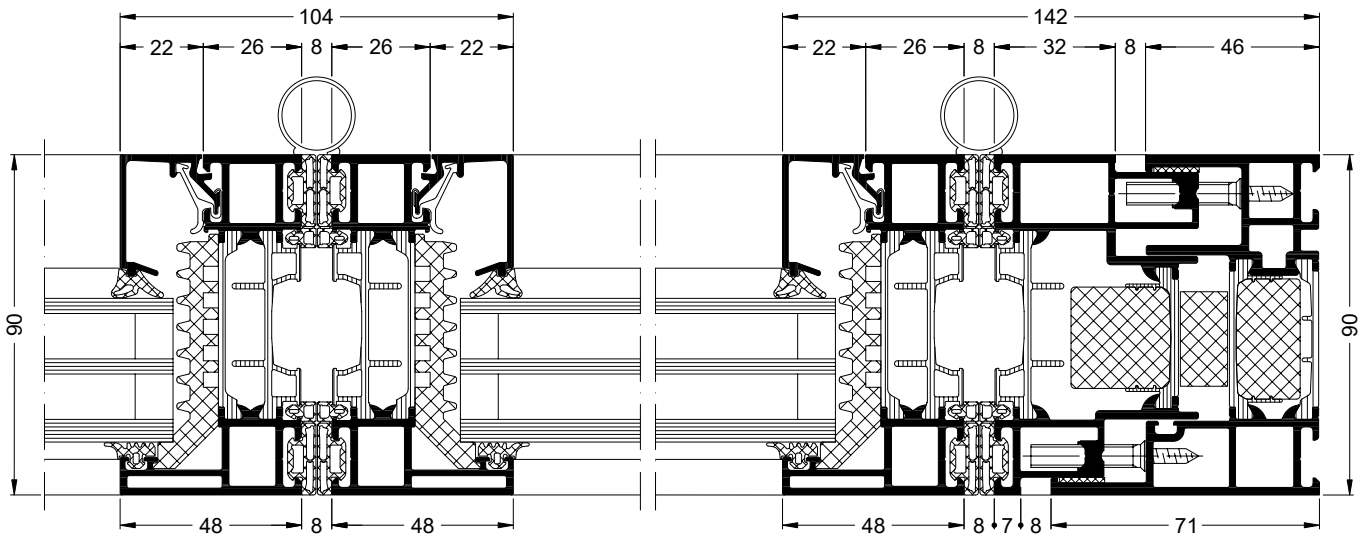


Inward-opening, 104 mm face width with 22 mm glazing bead



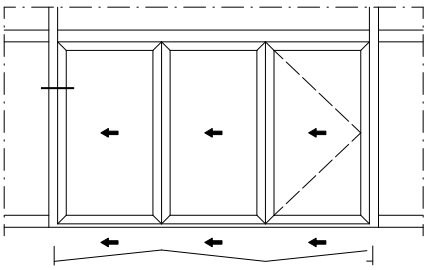


Inward-opening, 104 mm face width with 22 mm glazing bead

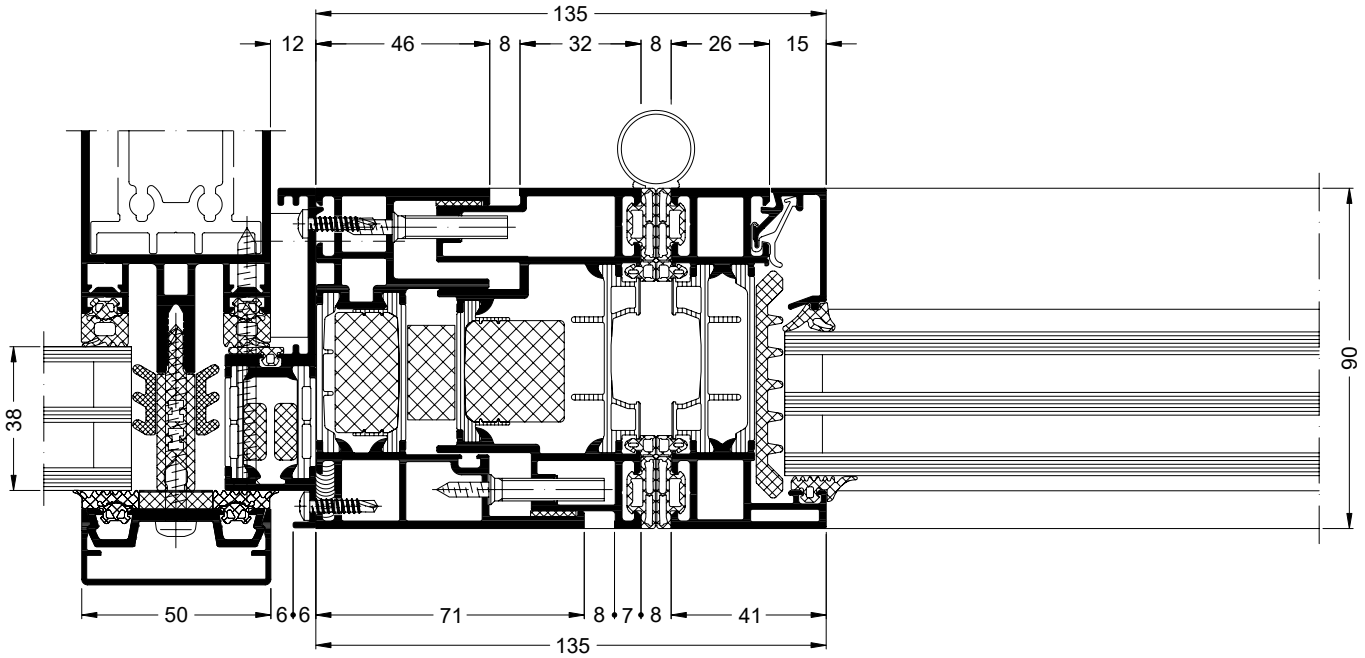


Scale 1:2

Schüco AS FD 90.HI as type 3 RS,
horizontal section detail through folding sliding vent

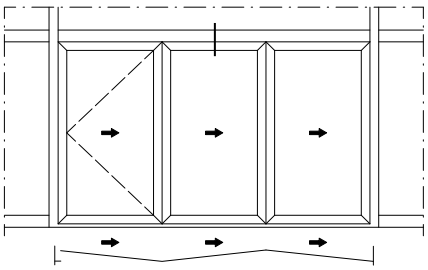


Inward-opening, 90 mm face width
with 15 mm glazing bead and 71 mm outer frame

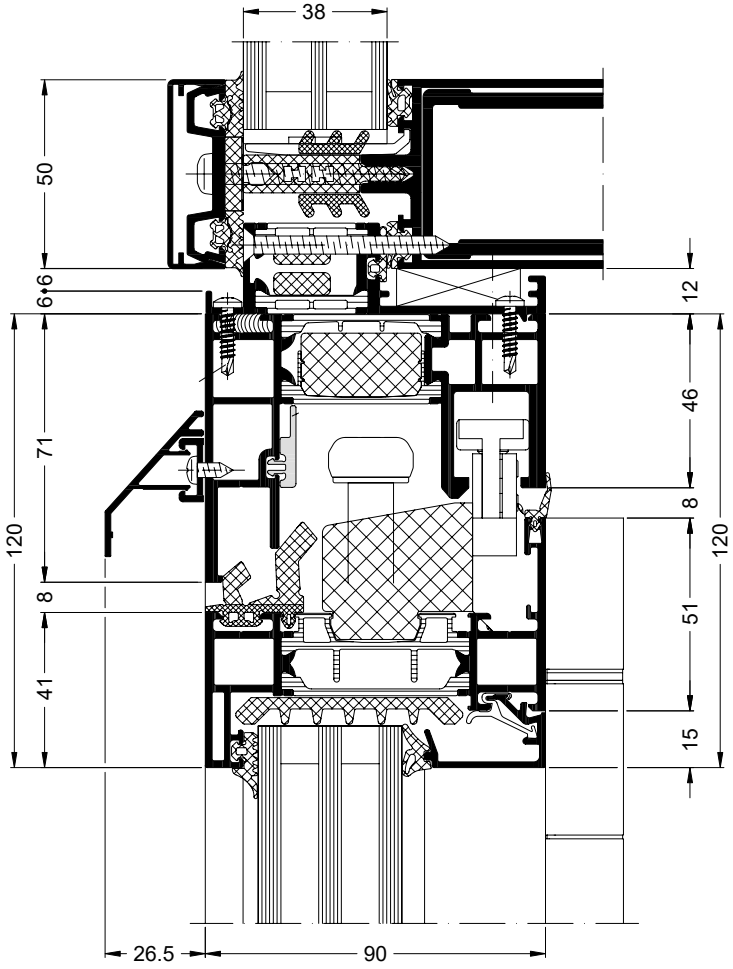


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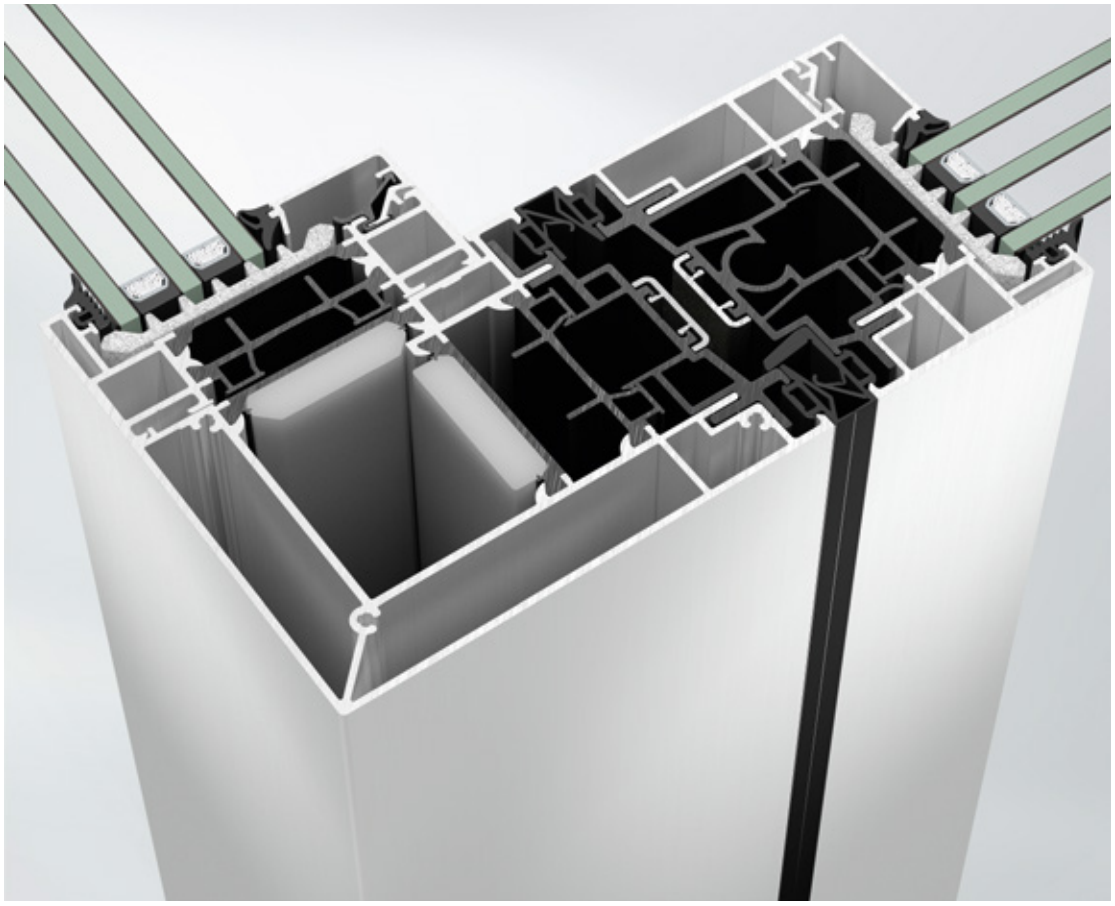
Schüco AS FD 90.HI as type 3 LS,
vertical section detail through folding sliding vent



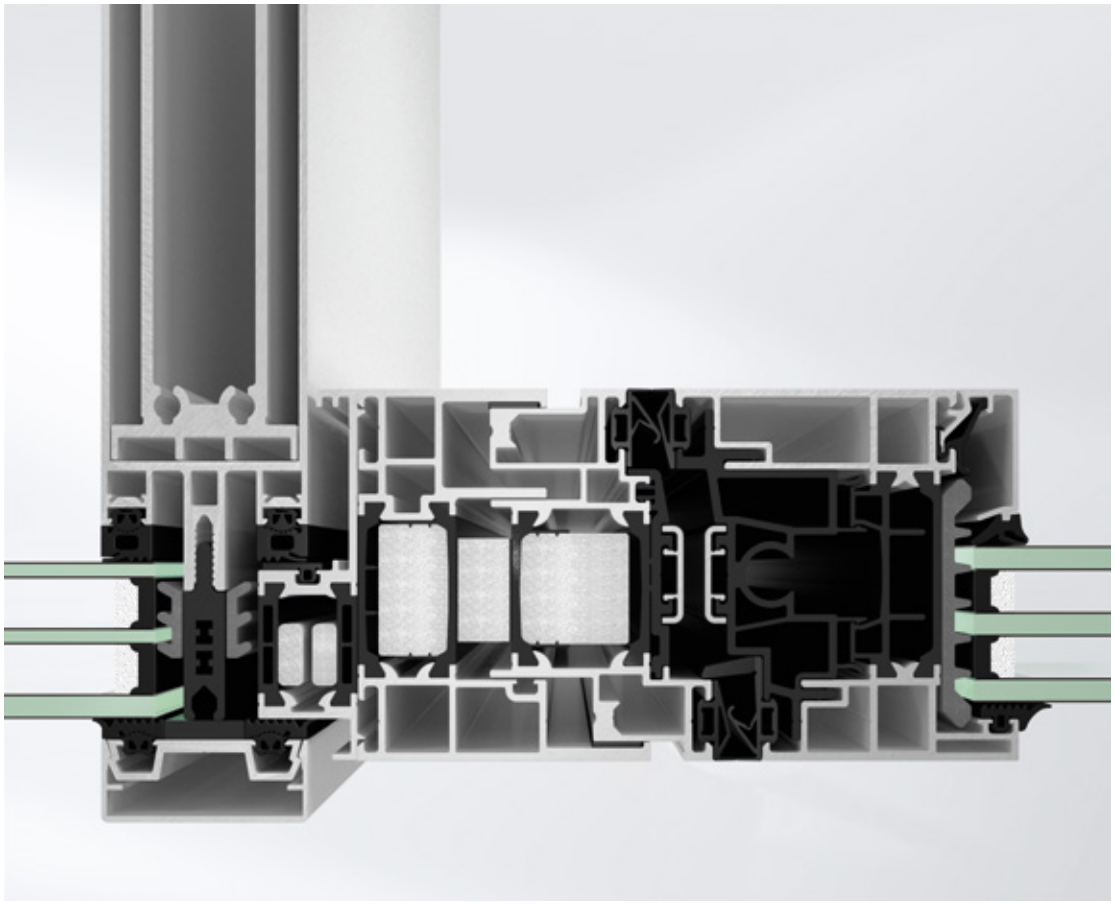
Inward-opening, 90 mm face width
with 15 mm glazing bead and 71 mm outer frame



Scale 1:2

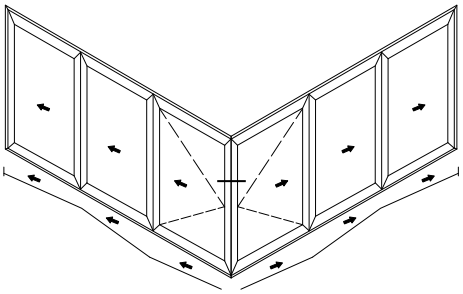


Schüco AS FD 90.HI,
inward-opening,
90° corner

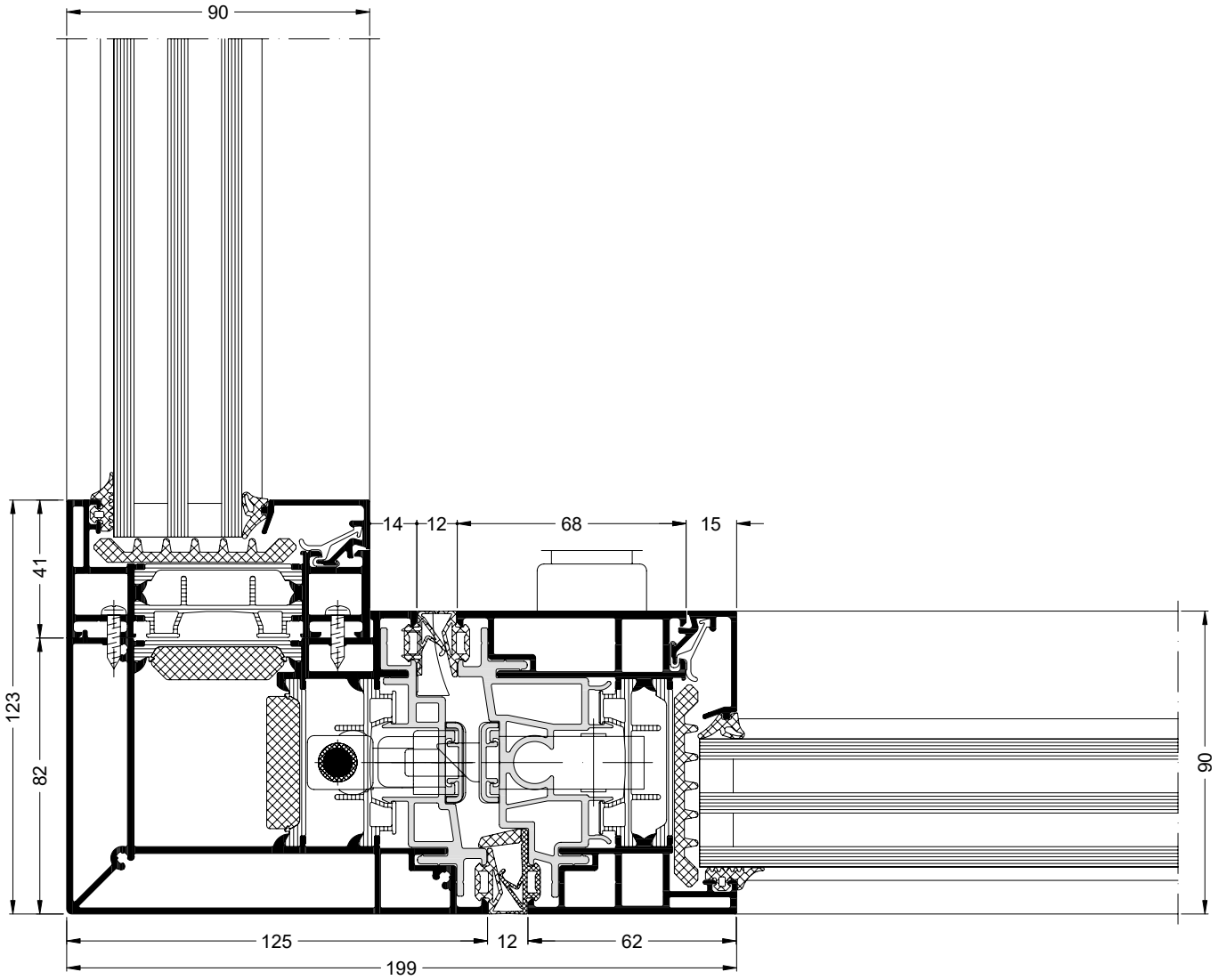


Schüco AS FD 90.HI,
inward-opening,
Façade coupling

Schüco AS FD 90.HI as type 3 LS and 3 RS,
vertical section detail through folding sliding vent



Inward-opening, 90 mm face width
with 15 mm glazing bead

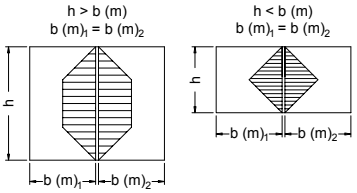


Scale 1:2

Statics diagram for Schüco AS FD 90.HI

Statics diagrams for Schüco AS FD 90.HI folding sliding units

Structural systems



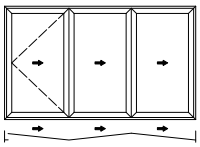
Test pressure used

1. 400 Pa
2. 600 Pa
3. 800 Pa
4. 1.000 Pa
5. 1.200 Pa
6. 1.600 Pa
7. 2.000 Pa

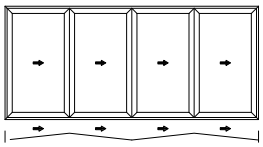
Resistance to wind load in accordance with DIN EN 12210 for the standard building area. Deflection limit L/200 or maximum 15 mm in accordance with the "Technical regulations for the use of glazing with linear supports" (TRLV). Differing deflection limits set by the double glazing manufacturer must be observed. These statics diagrams are intended for preliminary structural calculations and profile selection only (they are not a substitute for the structural calculation). Vent sizes below the line are structurally adequate.

Section detail overview

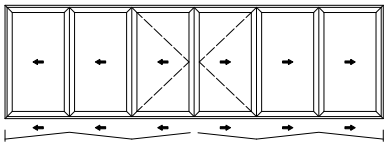
Type 3 LS



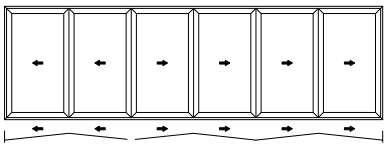
Type 4 LS



Type 3 LS/3 RS



Type 4 LS/2 RS



Type 3 LS/2 RS

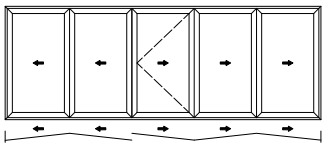
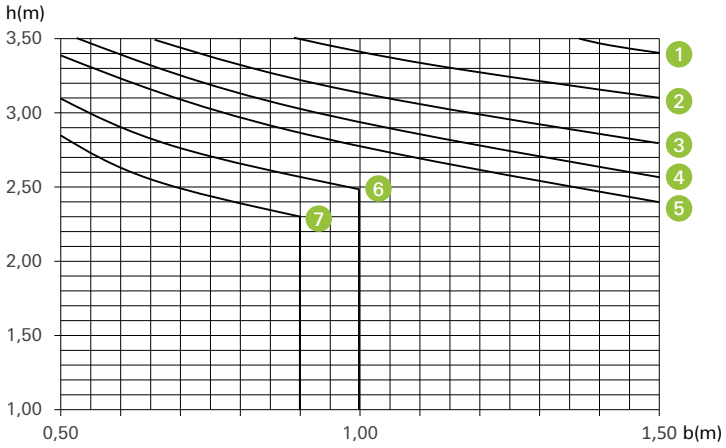
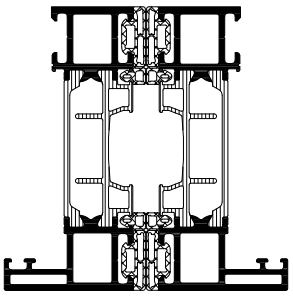


Diagram for calculating the maximum vent sizes depending on the profile combination

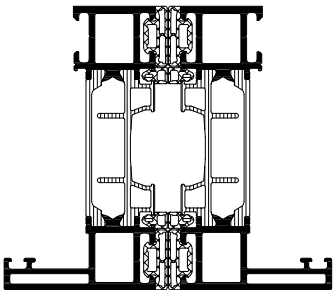


Vent profile 41 mm/Face width 90 mm



513 970 513 970

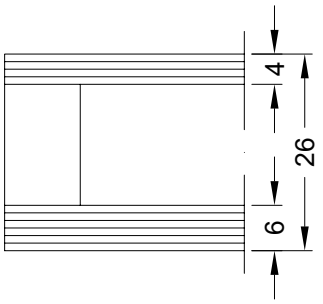
Vent profile 48 mm/Face width 104 mm



513 980 513 980

I_x 2,00 m = 74,82 cm^4
I_x 2,25 m = 80,92 cm^4
I_x 2,50 m = 85,98 cm^4
I_x 2,75 m = 90,18 cm^4
I_x 3,00 m = 93,68 cm^4
I_x 3,25 m = 96,62 cm^4
I_x 3,50 m = 99,08 cm^4

Preliminary calculation of glazing



6 mm + 4 mm = 10 mm total glass thickness

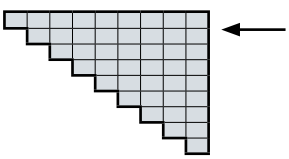
Max. vent weight = 150 kg
For vent weights greater than 120 kg, the height must be at least 1.8 times the width (width to height ratio of at least 1 to 1.8).

Examples:
Height = 2.5 m, width = 1.2 m, permitted vent weight = 150 kg
Height = 2.5 m, width = 1.4 m, permitted vent weight = 120 kg

Table values = max. total glass thickness (without spacers and foil)

Vent height (m) \ Vent width (m)	0,50	0,55	0,60	0,65	0,70	0,75	0,80	0,85	0,90	0,95	1,00	1,05	1,10	1,15	1,20	1,25	1,30	1,35	1,40	1,45	1,5
1,8	63	57	52	48	44	41	39	36	34	32	31	23	22	21	20	19	18	17	17	16	16
1,9	59	54	49	45	42	39	37	34	32	31	29	28	21	20	19	18	17	16	16	15	15
2,0	56	51	47	43	40	37	35	33	31	29	27	26	25	19	18	17	16	16	15	14	14
2,1	53	48	44	41	38	35	33	31	29	28	26	25	24	23	17	16	15	14	14	14	13
2,2	51	46	42	39	36	33	31	29	28	26	25	24	22	21	21	15	15	14	14	13	13
2,3	48	44	40	37	34	32	30	28	26	25	24	23	21	20	20	19	14	13	13	12	12
2,4	46	42	38	35	33	31	29	27	25	24	23	22	20	20	19	18	17	13	12	12	11
2,5	44	40	37	34	31	29	27	26	24	23	22	21	20	19	18	17	16	16	12	11	11
2,6	42	39	35	32	30	28	26	25	23	22	21	20	19	18	17	16	16	15	15	11	10
2,7	41	37	34	31	29	27	25	24	22	21	20	19	18	17	16	16	15	15	14	13	13
2,8	39	36	33	30	28	26	24	23	21	20	19	18	17	17	16	15	15	14	13	13	12
2,9	38	34	31	29	27	25	23	22	21	19	18	18	17	16	15	15	14	13	13	12	12
3,0	36	33	30	28	26	24	22	21	20	19	18	17	16	15	15	14	13	13	12	12	12
3,1	35	32	29	27	25	23	22	20	19	18	17	16	16	15	14	14	13	12	12	12	11
3,2	34	31	28	26	24	22	21	20	19	18	17	16	15	14	14	13	13	12	12	12	11
3,3	33	30	27	25	23	22	20	19	18	17	16	15	14	14	13	13	12	12	11	11	10
3,4	32	29	26	24	23	21	20	18	17	16	16	15	14	13	13	12	12	11	11	10	10
3,5	31	28	26	24	22	20	19	18	17	16	15	14	14	13	12	12	11	11	10	10	10

his table is only to be used for preliminary calculations of glazing. The values may vary for specific profile summaries.



Area in which the width/height ratio of 1.8 has not been met

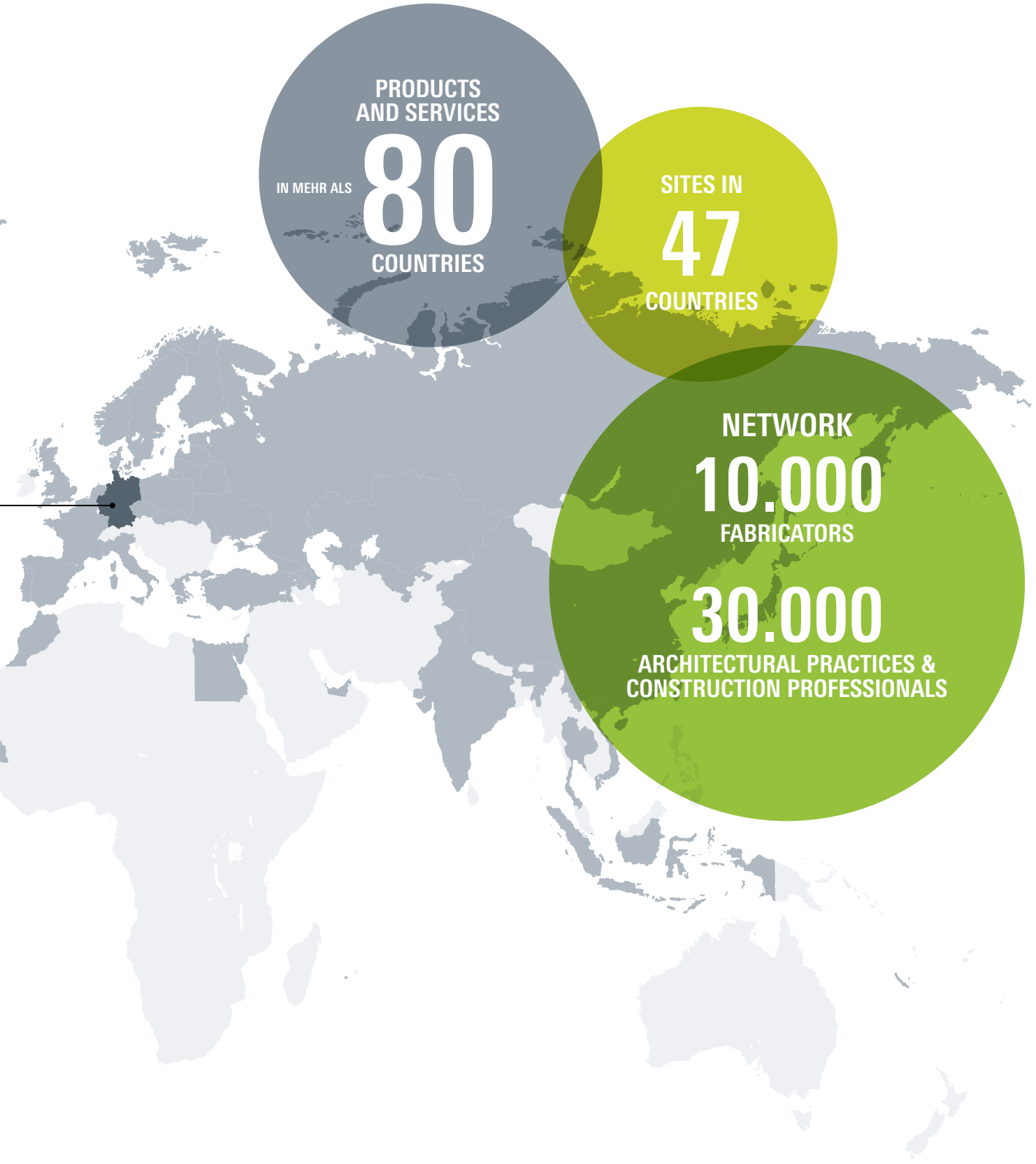
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Founded: 1951 in East-Westphalia

Expertise
Window systems, door systems, façade systems and more

Turnover 2023
2,11
Billion EUR



Employees worldwide

ca. 6.750

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International
ca. 2.750

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We develop recyclable solutions that minimise energy consumption and systematically conserve resources.

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We are answering the question of what the future of construction will look like with our approach to 360° sustainability, which takes into account the entire life cycle of a building, from construction to use and eventually to demolition. Accordingly, our products are not just manufactured in a way which conserves resources, but they also help day-by-day to save energy and thus sustainably reduce the electricity and heating requirements of buildings. When they have finished being used, the high-grade recyclable materials are fed back into the material cycle, without a loss in quality.

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