

SAPA FACADE 4150/SX/PH

VERSATILE CURTAIN WALLING



sapa:

By  Hydro

Sapa Facade 4150/4150 SX/4150 PH

Sapa 4150 SX/4150 makes installation easy and allows considerable freedom in design and function. The facade elements can be used as a curtain wall, infill wall or cold system (without insulation).

4150 SX has a glass rebate suitable for triple-glazed units up to 56 mm thick.

4150 has a glass rebate suitable for double-glazed or triple-glazed units up to 48 mm thick.

Sapa Facade 4150 PH meets the stringent Passive House energy requirements covered by the German certification institute ift Rosenheim. The system achieves low $U_{cw} = 0,66 \text{ W/m}^2\text{K}$.

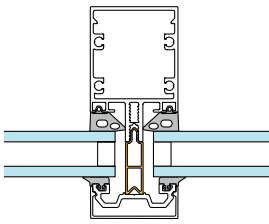
4150 is available in three versions: insulated, SX super-insulated and PH for Passive House.

A very versatile facade system with two-stage seal.

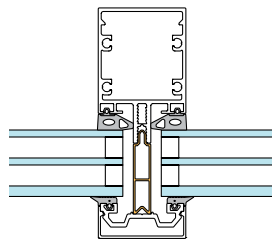
Exterior decorative profiles and interior transoms/mullions offer wide choice.



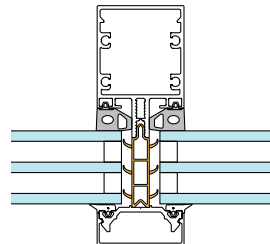
Facade system 4150 SX with decorative profile Expressive 42695 vertically, 68823 horizontally, anodised with "stainless finish"



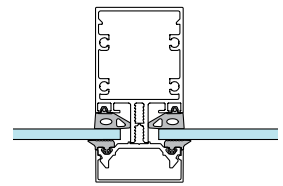
4150, double-glazed unit



4150, triple-glazed unit



4150 SX, triple-glazed unit



4150, single-glazed unit, without insulation for interior solutions

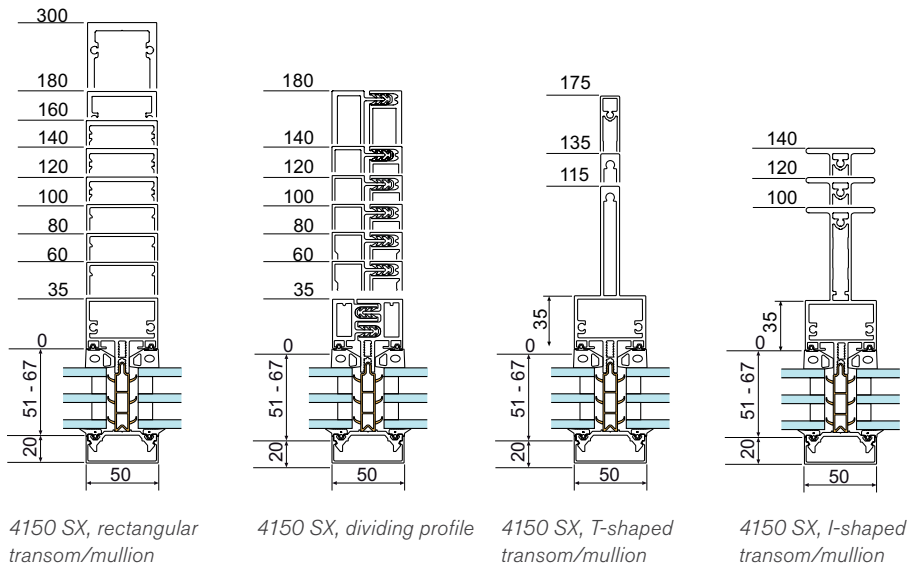
The system has single panel ventilation/drainage, i.e. each glass panel or infill panel is ventilated and drained separately, which permits a dry and warm facade solution. The system has a two-stage seal, with the outer gasket acting as a rain stop, and the inner gasket acting as the main seal (air/water).

The system is versatile and can easily be integrated with our door systems, window systems, solar shading and solar panels. There is also a wide selection of interior transoms/mullions and exterior decorative profiles that allow great freedom to create the desired look. 4150 available in versions for fire protection class E 30, EI 15 and EI 30.

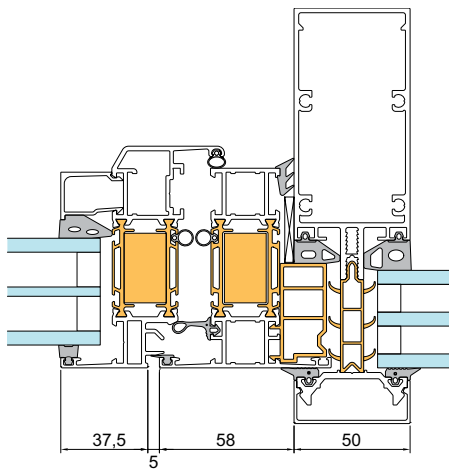


Sapa 4150 SX at the Science and Innovation Centre in Sarpsborg, Norway.

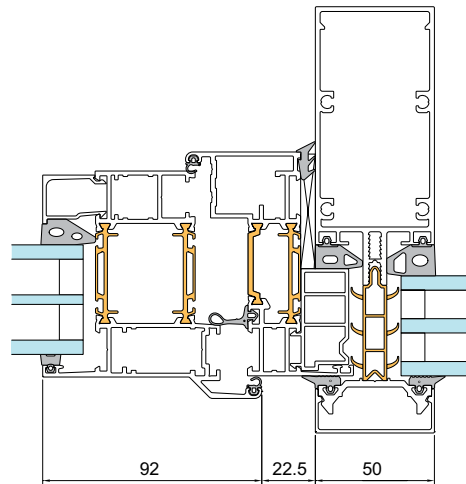
Facade system 4150 SX profiles and transoms/mullions



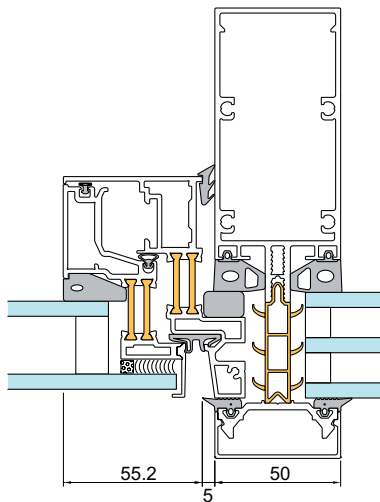
Windows/Doors in facade system 4150 SX



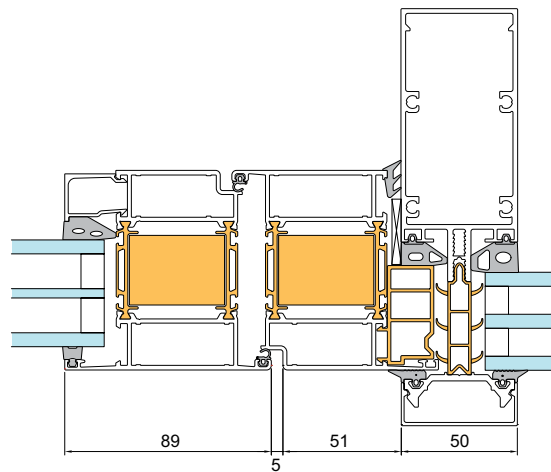
Window 1086 SX in facade



Outward-opening window 1086 in facade

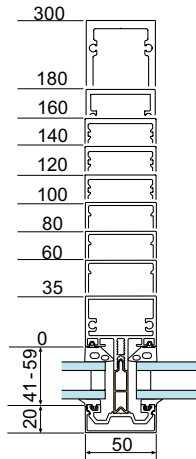


Facade window 4074 in facade

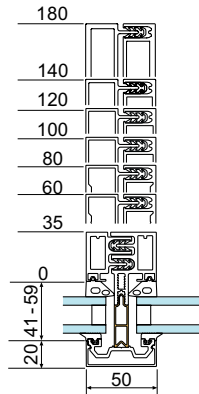


Door 2086 SX in facade

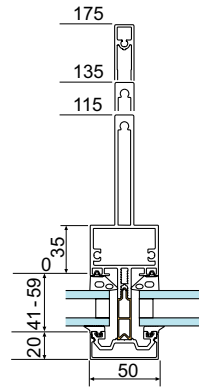
Facade system 4150 profiles and transoms/mullions



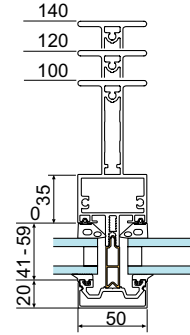
4150, rectangular transom/mullion



4150, dividing profile

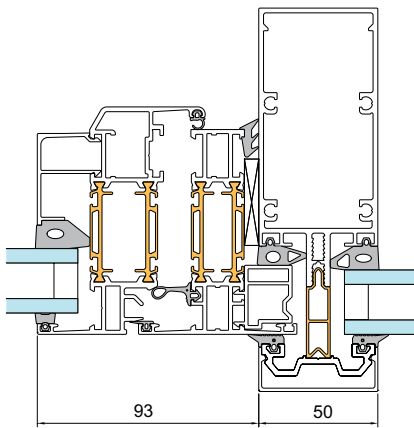


4150, T-shaped transom/mullion

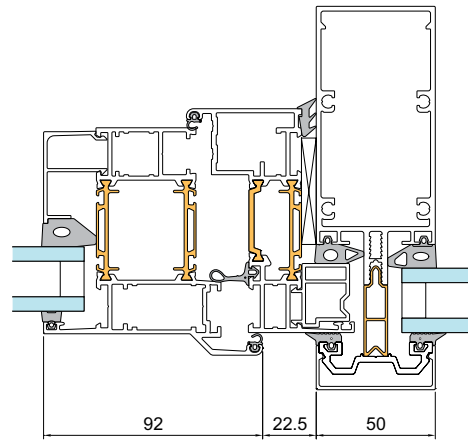


4150, I-shaped transom/mullion

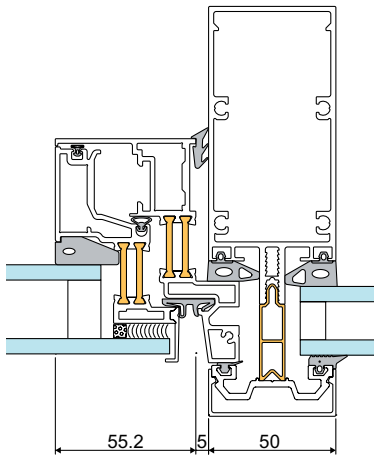
Windows/Doors in facade system 4150



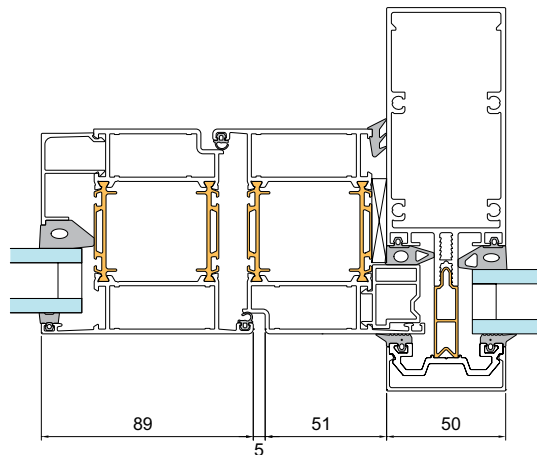
Inward-opening window 1086 in facade



Outward-opening window 1086 in facade



Facade window 4074 in facade



Door 2086 in facade

Sapa Facade System 4150, double-glazed

Glass, U_g W/m²K (centre point). Spacer, warm edge.

Profile share	1.0	1.1	1.2	1.3	1.4	1.5	1.6
5%	1.1	1.2	1.3	1.4	1.5	1.6	1.7
10%	1.2	1.3	1.4	1.5	1.6	1.7	1.8
15%	1.4	1.5	1.6	1.6	1.7	1.8	1.9

Sapa Facade System 4150, triple-glazed

Glass, U_g W/m²K (centre point). Spacer, warm edge.

Profile share	0.5	0.6	0.7	0.8	0.9	1.0
5%	0.60	0.70	0.79	0.89	0.98	1.1
10%	0.73	0.82	0.91	1.0	1.1	1.2
15%	0.85	0.94	1.0	1.1	1.2	1.3

Sapa Facade System 4150 SX, triple-glazed

Glass, U_g W/m²K (centre point). Spacer, warm edge.

Profile share	0.5	0.6	0.7	0.8	0.9	1.0
5%	0.59	0.68	0.78	0.87	0.97	1.1
10%	0.69	0.78	0.87	0.96	1.0	1.1
15%	0.79	0.88	0.96	1.0	1.1	1.2

Profile share | Glass sizes

5 %	approx. 2500x3000 mm
10 %	approx. 1100x1500 mm
15 %	approx. 800x800 mm

Project: Plassen Kulturhus
City: Molde, Norway
Architect: 3XN, Copenhagen
Facades: 4150

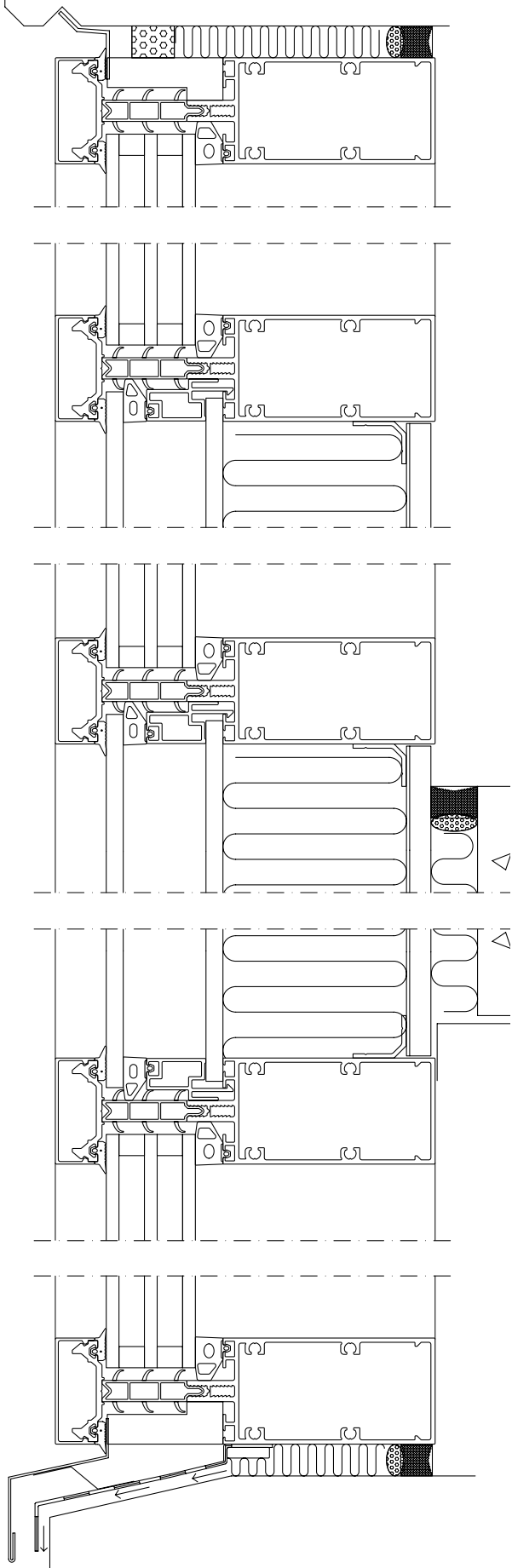


	4150 SX	4150	4150 PH
Glass thickness	glazing unit 33–56 mm	single-glazed 4–10 mm, glazing unit 23–48 mm	glazing unit 48-56 mm
Transoms/mullions	Rectangular, I- and T- profiles.		Rectangular profiles, min. 120 m
Decorative profiles	Add, Expressive and Optima (only vertical)		
Window system	1086/1086 SX inward-opening 4074 facade window outward-opening		1086 PX outward-opening
Door system	2086/2086 SX		2086 SX
Sliding door system	2050, 2074		2074
Solar shading	4550, Add profile for mounting		
Solar energy	Sapa Solar BIPV		
Fire protection, class	–	E 30, EI 15 or EI 30.	–
Burglar resistance, class	–	RC2/RC3 according to EN 1627	–
Watertightness, class	R7 according to EN 12154		
Airtightness, class	A4 according to EN 12152		

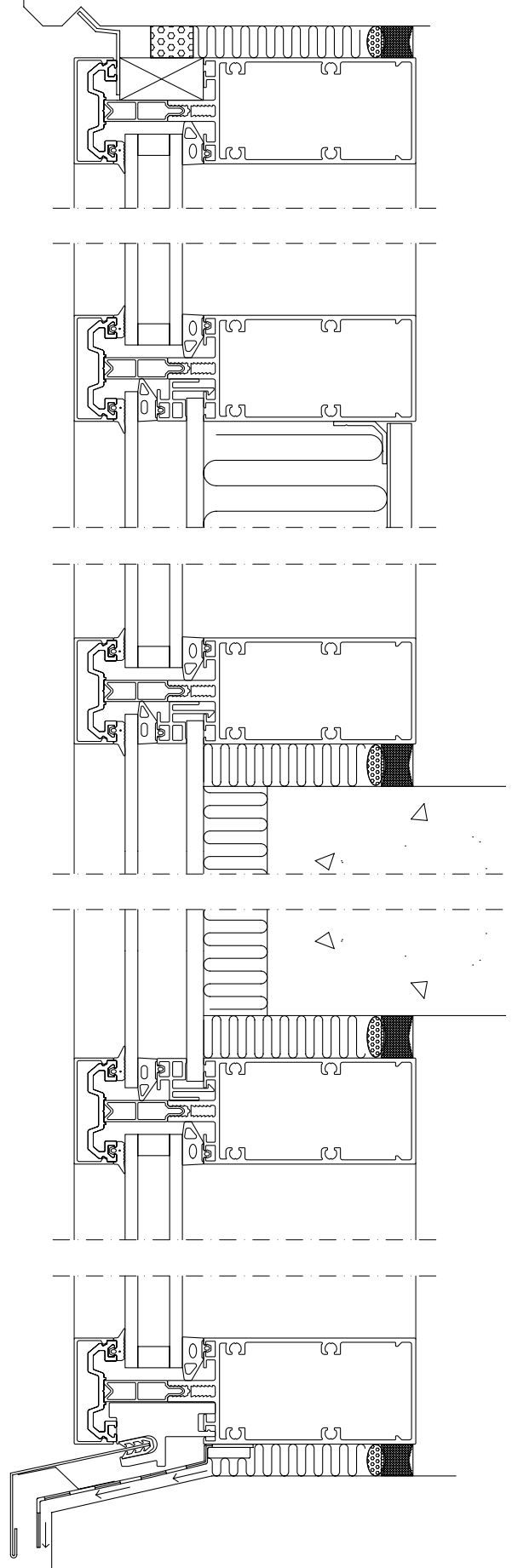
Same transom/mullion and decorative profile can be used vertically and horizontally, simplifying use of materials. Glazing installed from the outside. Easy installation simplifies the building process.



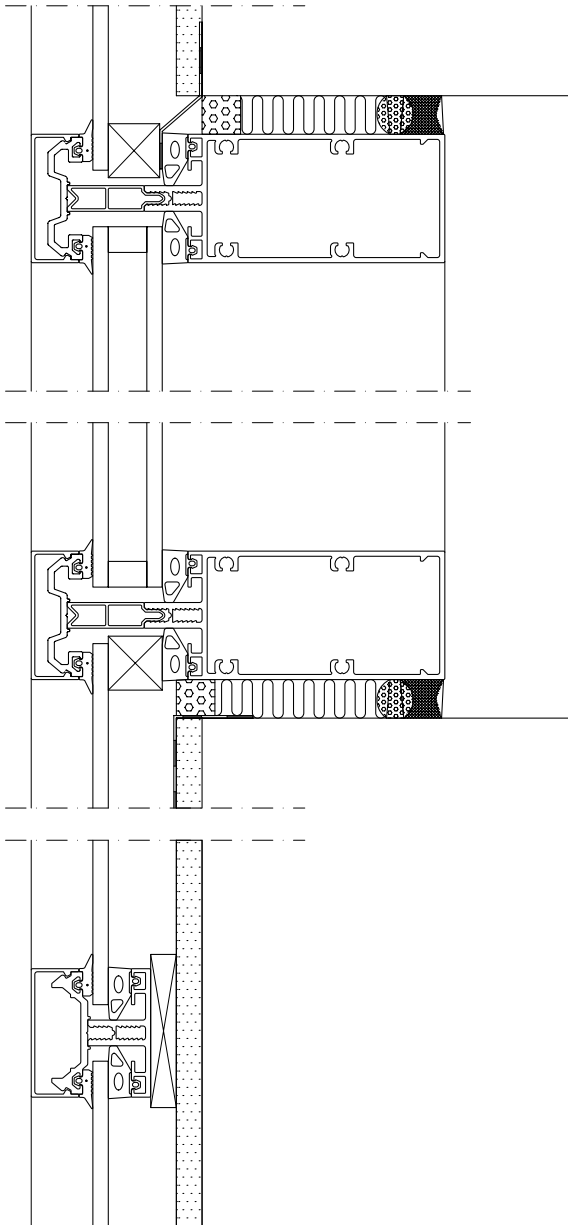
4150 SX, curtain wall



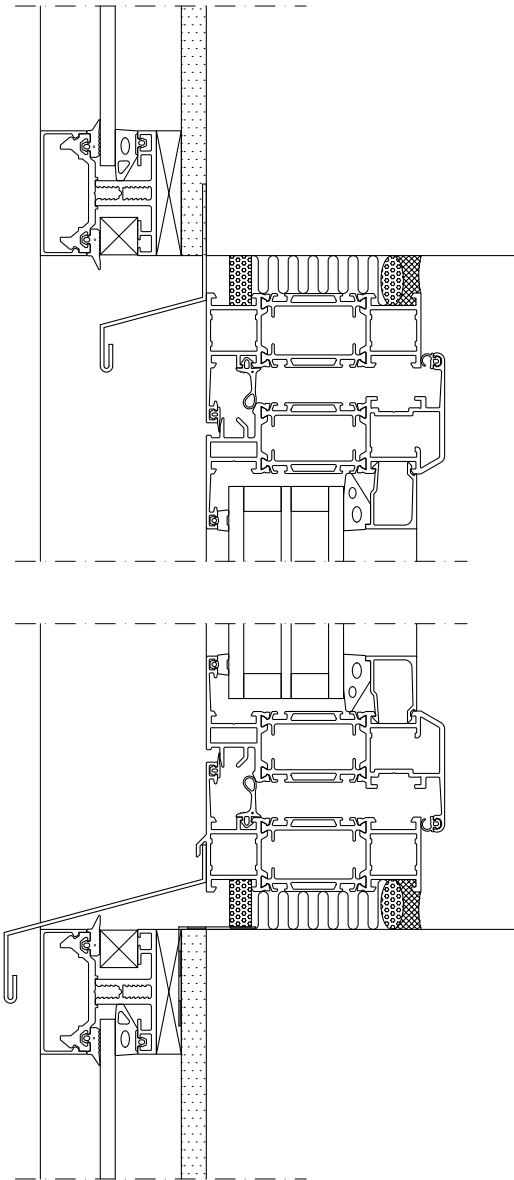
4150, infill wall



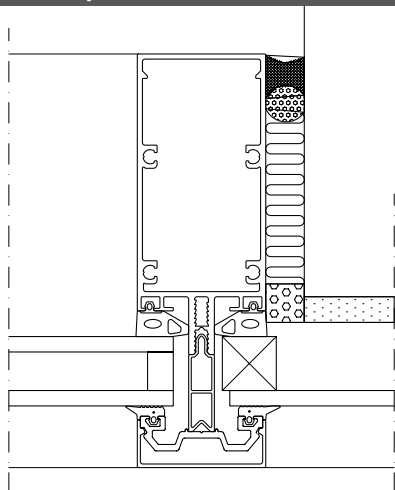
4150, cold system



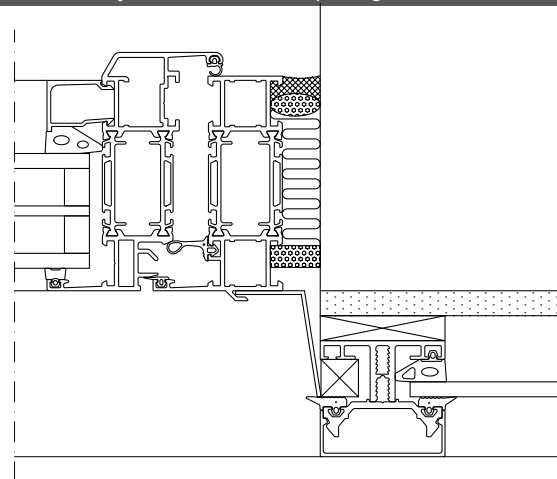
4150, cold system with inward-opening window 1086

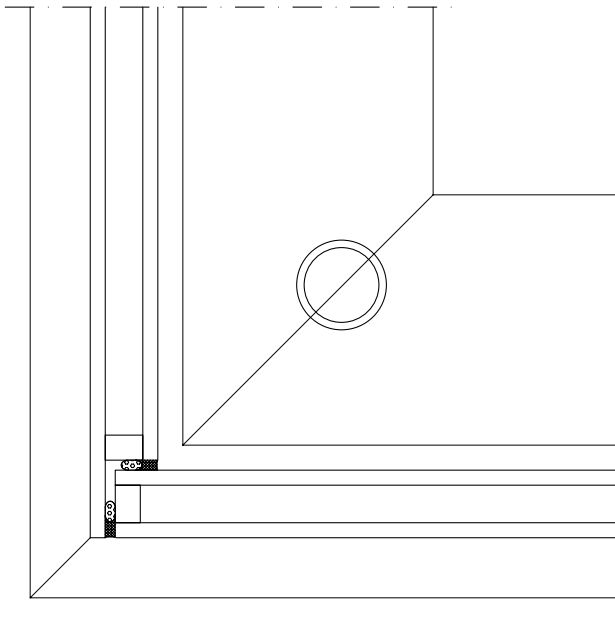
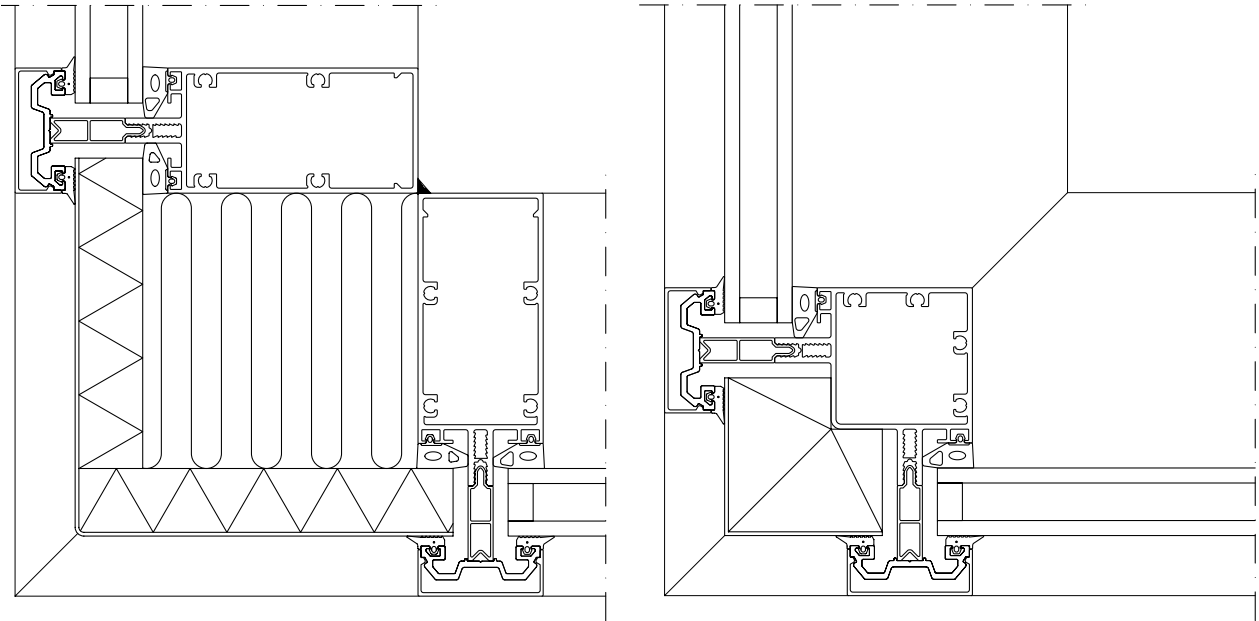


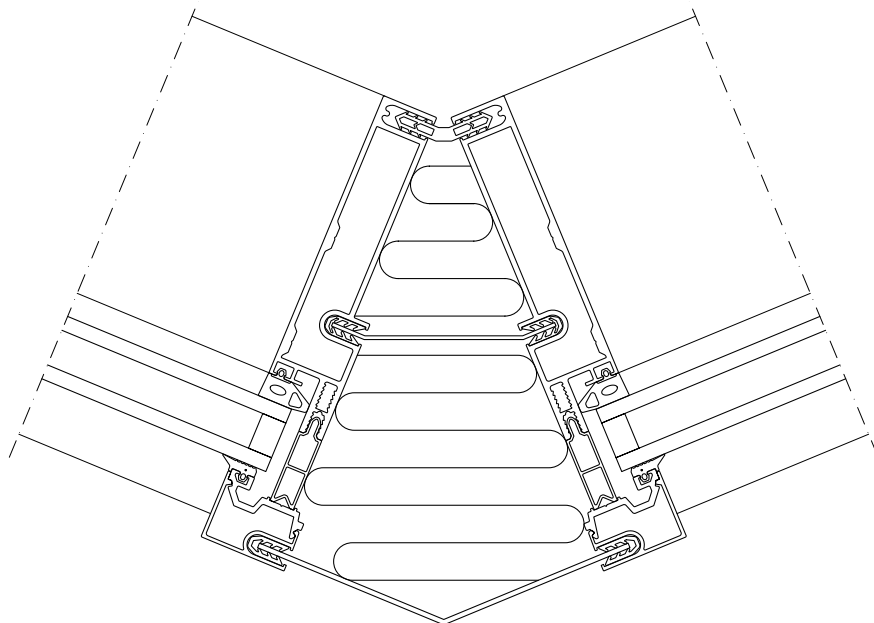
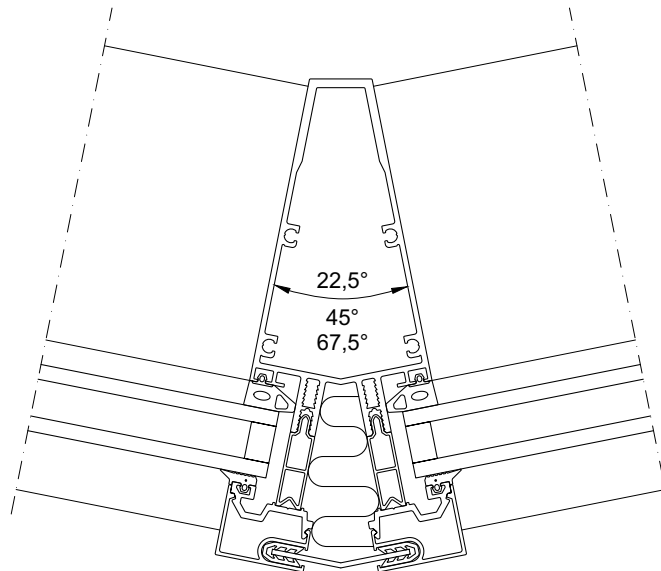
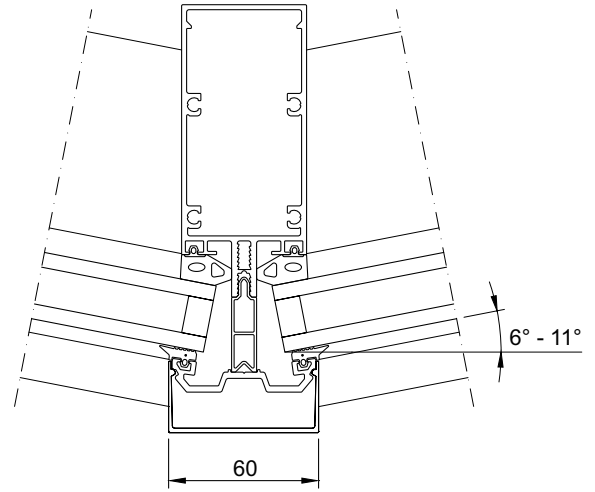
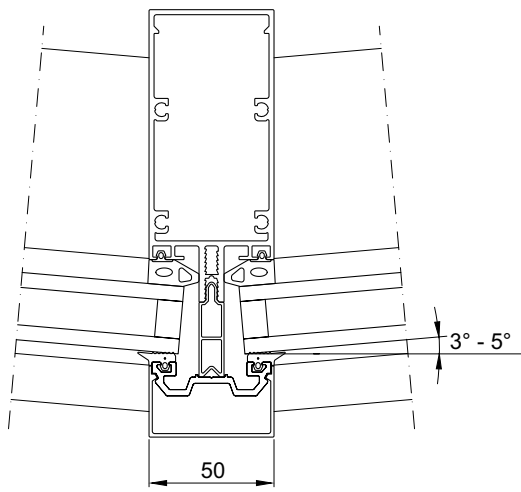
4150, cold system



4150, cold system with inward-opening window 1086

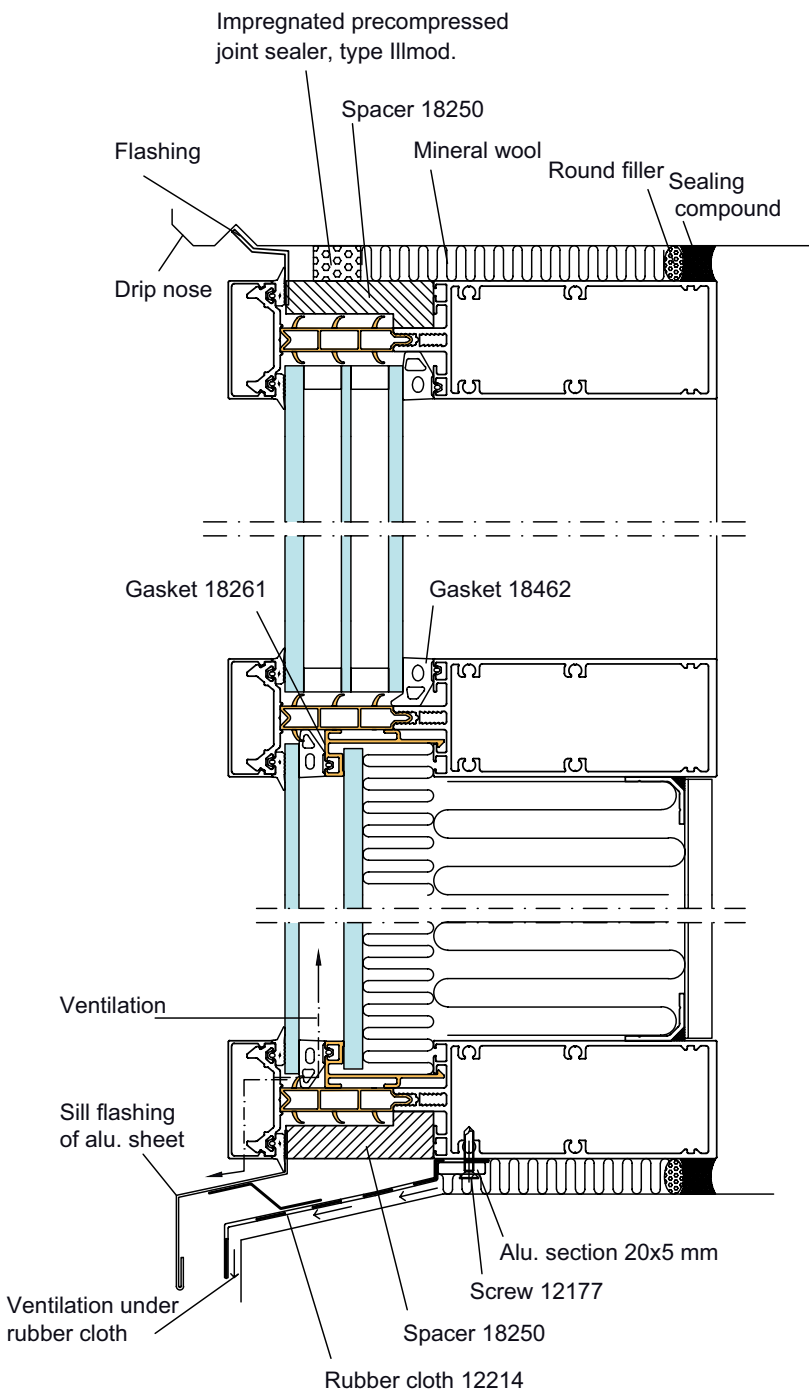






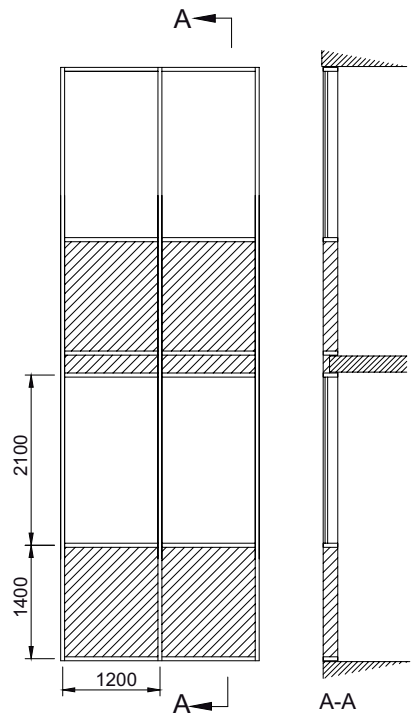
Sapa Facade 4150 PH

Sapa Facade 4150 PH meets the stringent Passive House energy requirements covered by the German certification institute ift Rosenheim. The system achieves low $U_{cw} = 0,66 \text{ W/m}^2\text{K}$.



Design basis Sapa Facade 4150 PH

Spandrel glass 6-10 mm
Air gap
Weather protection board, Masterboard or similar, 8 mm.
Mineral wool, stiff, 30 mm with $\lambda=0,033 \text{ W/mK}$
Mineral wool, min 105 mm with $\lambda=0,035 \text{ W/mK}$
Diffusion barrier 1 mm aluminium sheet
Interior board
<i>All materials in fillings and panels must be non-combustible.</i>



Energy calculation

Sapa Facade 4150 PH

$U_{cw} = 0,66 \text{ W/m}^2\text{K}$ (0,77 $\text{W/m}^2\text{K}$)

Calculation criteria according to ift Rosenheim

- Dimensions acc. illustration above
- Glass: min. 48 mm, $U_g=0,7 \text{ W/m}^2\text{K}$
- Filling: $U_p=0,25 \text{ W/m}^2\text{K}$

Should give $U_{cw} \leq 0,7 \text{ W/m}^2\text{K}$
(Fitted in the wall $U_{cw} \leq 0,85 \text{ W/m}^2\text{K}$)







sapa:

By  **Hydro**

Hydro Building Systems, region North

Sweden

SE-574 81 Vetlanda
T +46 (0)383 942 00
E sapa.se@hydro.com

Norway

NO-2027 Kjeller
T +47 63 89 21 00
E sapa.no@hydro.com

Denmark

DK-8240 Risskov
T +45 8616 0019
E sapa.dk@hydro.com

Finland

FI-02180 Espoo
T +358 (0)9 867 82 80
E system.fi@hydro.com

Lithuania/Estonia/Latvia

LT-02244 Vilnius
T +370 (0)5 210 25 87
E sapa.lt@hydro.com

Poland

92-620 Łódź, Polska
T +48 (0)42 683 63 73
E sapa.pl@hydro.com

sapabuildingsystem.com