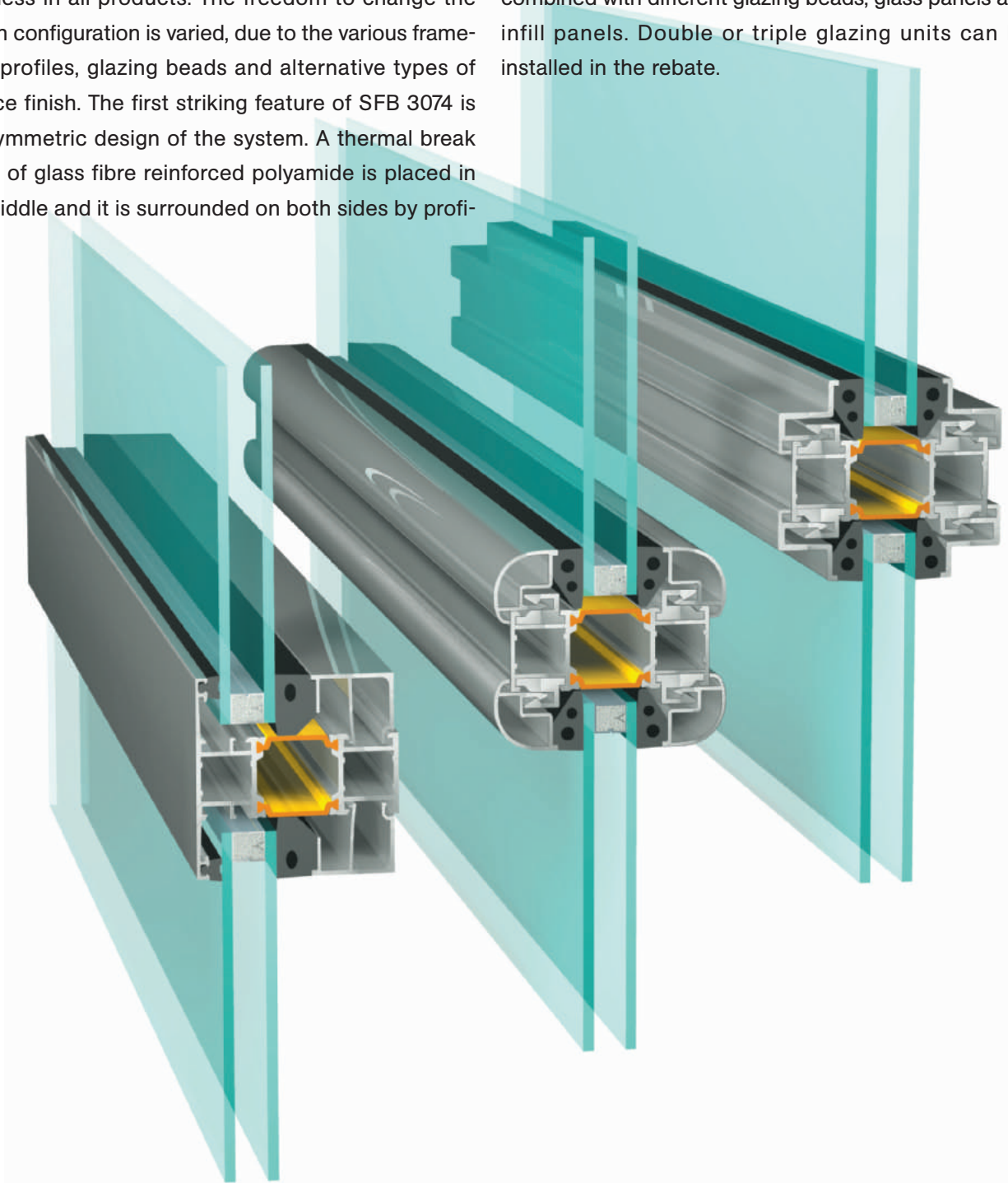


Glass partitions SFB 3074

Our facade system SFB 3074 is innovative in its design. We have made a great effort to obtain an energy effective system. The future requirements regarding the economical use of energy and environment protection are going to dominate in the construction sector. With SFB 3074 system we get a low U-value and high air tightness in all products. The freedom to change the design configuration is varied, due to the various framework profiles, glazing beads and alternative types of surface finish. The first striking feature of SFB 3074 is the symmetric design of the system. A thermal break made of glass fibre reinforced polyamide is placed in the middle and it is surrounded on both sides by profi-

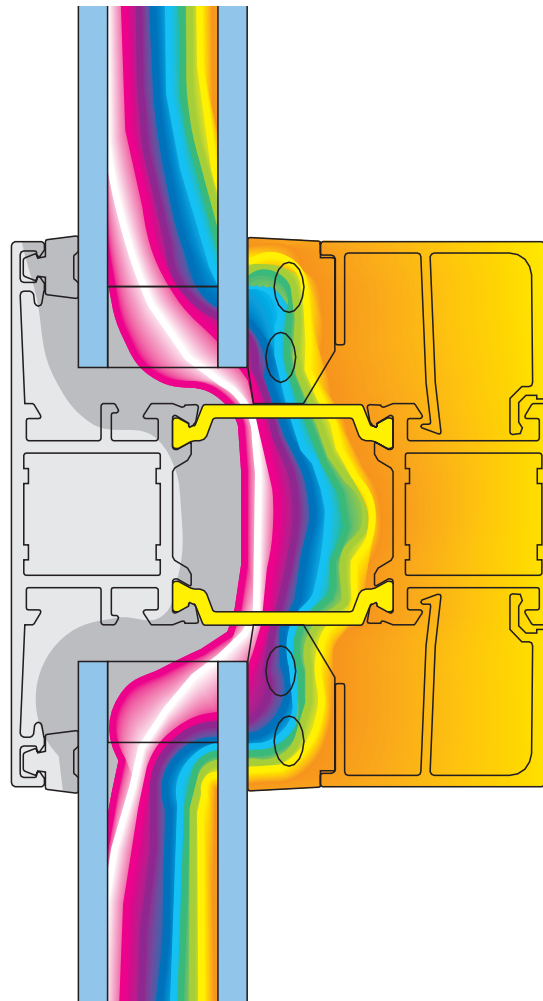
les with symmetric chambers and grooves. SFB 3074 has a low U-value over the profile section including the glass. SFB 3074 glass partitions fulfil the requirements as regards air and water tightness as well as wind load resistance according to SS-EN 12208, 12207 and 12210. SFB 3074 has various framework profiles which can be combined with different glazing beads, glass panels and infill panels. Double or triple glazing units can be installed in the rebate.



Glass partitions SFB 3074 with low U-value

SFB 3074 is available in two versions. In the first version the profiles are insulated with 30 mm glass fibre reinforced polyamide strips. In the second version the profiles are insulated by inserting further insulation in the form of cellular plastic between the thermal break. The cellular plastic insulation improves the U-value by 0.3 W/m²K over the profile section. The profile for SFB 3074 glass partitions have a low U-value. The location

of the glass partition in a wall is very important for high surface temperatures. The elements shall be always placed in the warmest part of a wall in order to eliminate thermal bridges. The glass partition profiles can be anodised, powder coated or coated using the Decoral method with various colours and types of surface finish on the inside and on the outside. Surface finish: see chapter M.



The temperature distribution over facade profiles is calculated theoretically with the use of "FRAME4" software.

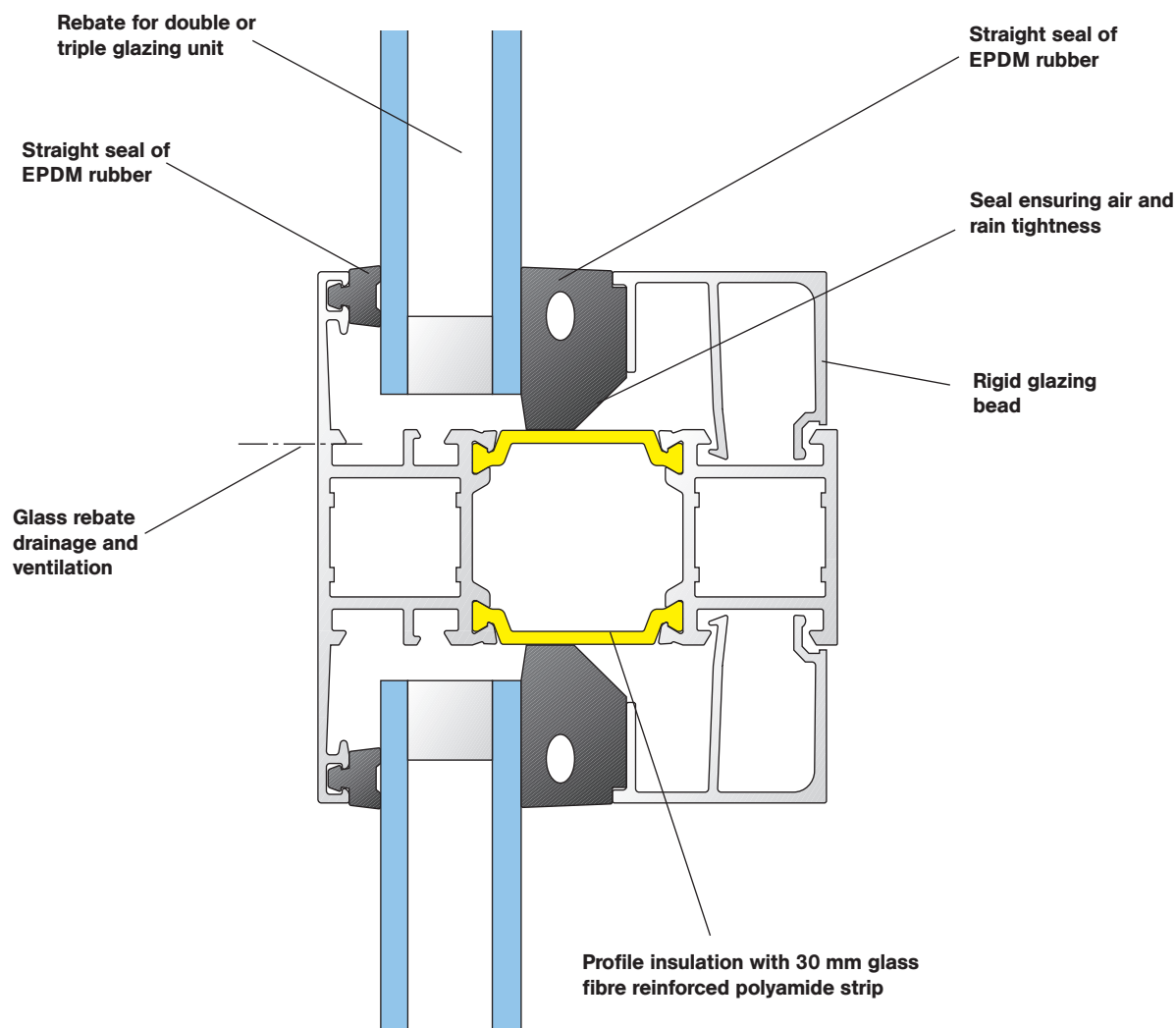


Functions

glass partitions SFB 3074

Facades/glass partitions SFB 3074 are based on many years of experience in the production of aluminium facades. The profiles are insulated with 30 mm glass fibre reinforced polyamide strips in order to obtain as low U-value as possible. The design of the profiles ensures effective ventilation and drainage of the rebate, which provides space for double or triple glazing units. Outside and inside seals have straight edges for maximum clear dimensions of the glass. The inside seal has

been designed to provide insulation between the glass and the glazing bead as well as to ensure the best air and rain tightness of the glass rebate. The basic version of the glass partition includes integrated glazing beads. They can be also produced with specially designed glazing beads and centrally placed glass panels. Infill panels can have U-value as low as $0.2 \text{ W/m}^2\text{K}$, depending on the choice of the material.



Principle details

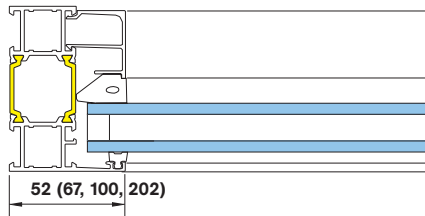
SFB 3074 glass partitions

SFB 3074 has various framework profiles which can be combined with different glazing beads, glass panels and infill panels. Double or triple glazing units can be installed in the rebate of SFB 3074. Infill panels can have U-value as low as 0.2 W/m²K, depending on the

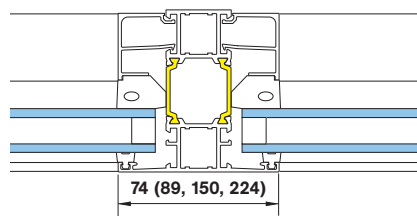
choice of the material. The facade system profiles can be anodised, powder coated or coated using the Decoral method with various colours and types of surface finish on the inside and on the outside.

Surface finish: see chapter M.

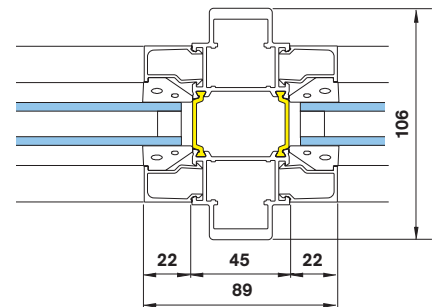
Frame and cross-bar alternatives



52 mm deep frame with integrated glazing beads on the outside. Rebate for double or triple glazing unit.

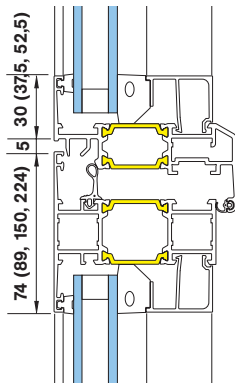


74 mm deep cross-bar with integrated glazing beads on the outside. Rebate for double or triple glazing unit.

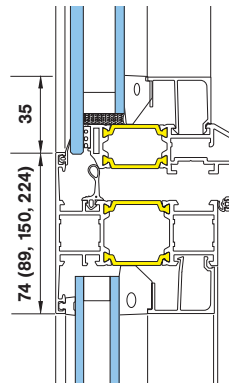


106 mm deep cross-bar for larger spans. Rebate for double or triple glazing unit.

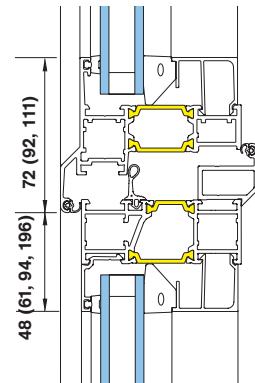
Windows in glass partitions



Sash profile for inward opening windows with rebate for double or triple glazing unit.



Sash profile (block window) for inward opening windows with rebate for double or triple glazing unit.

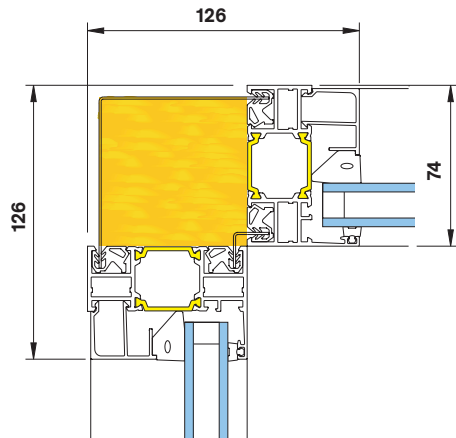


Sash profile for outward opening windows with rebate for double glazing unit.

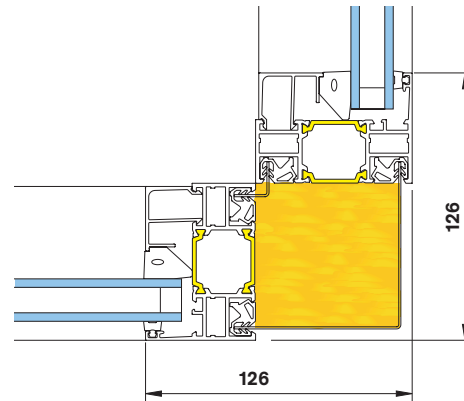
Principle details

SFB 3074 glass partitions

Corner solutions

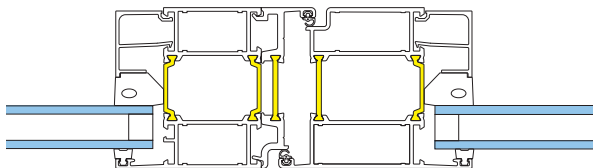


Inside corner 3074. Rebate for double or triple glazing unit.

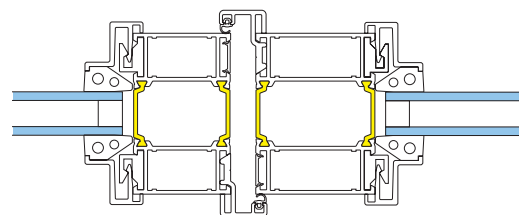


Outside corner 3074. Rebate for double or triple glazing unit.

Doors in glass partitions



Door leaf, narrow or modular profile, inward or outward opening, connected with facade/glass partition. Rebate for double or triple glazing unit.

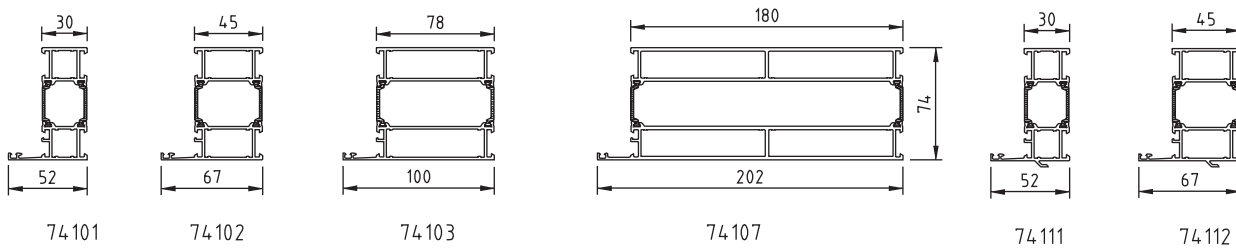
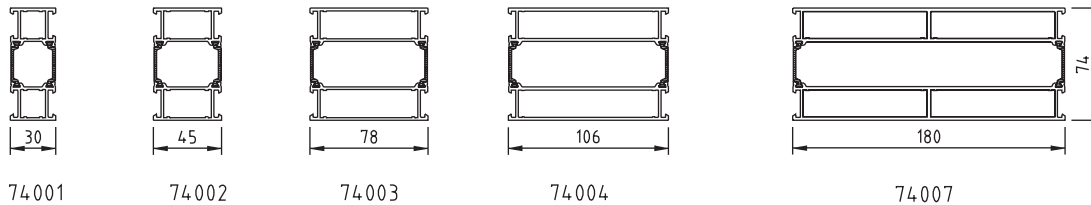


Door leaf with replaceable rebate profiles and Z-formed glazing beads. Inward or outward opening, connected with facade/glass partition. Rebate for double or triple glazing unit.

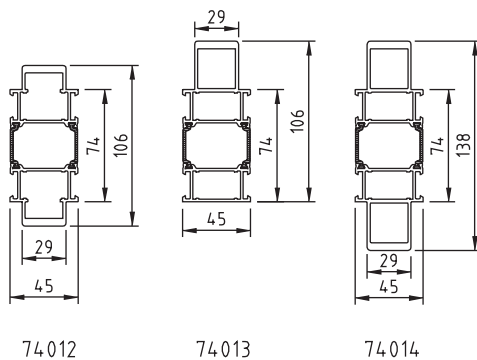
List of profiles

glass partitions SFB 3074

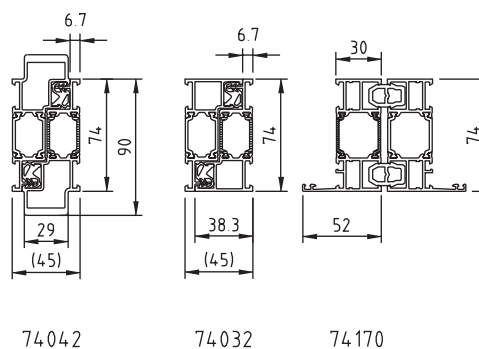
Frame profiles



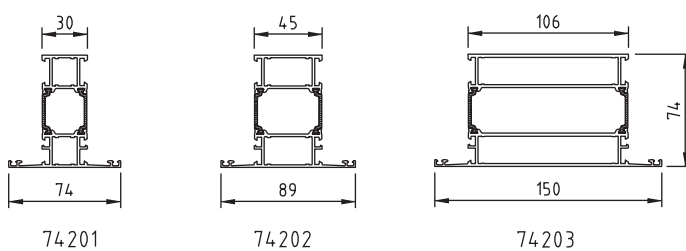
Cross-bar profiles



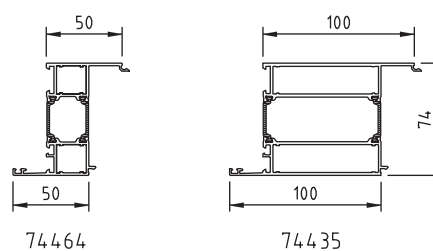
Dividing profiles



Cross-bar profiles



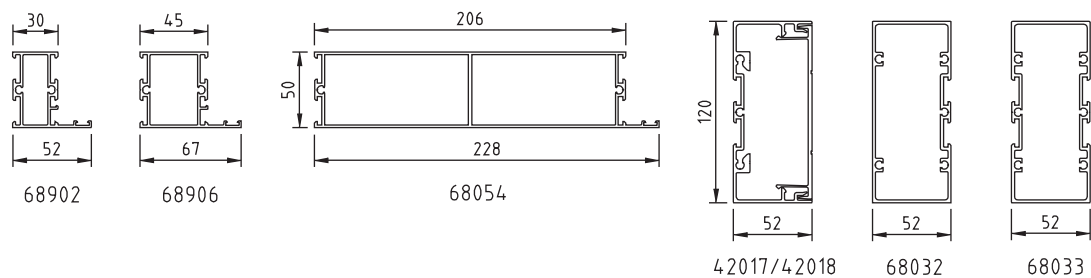
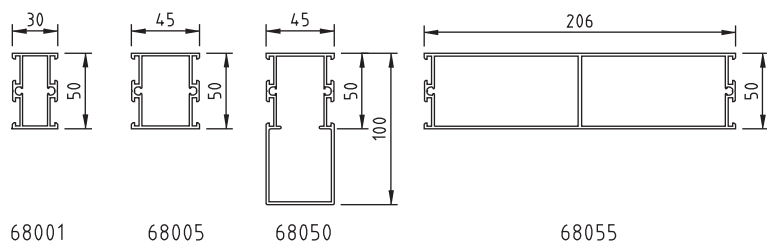
Extension profiles



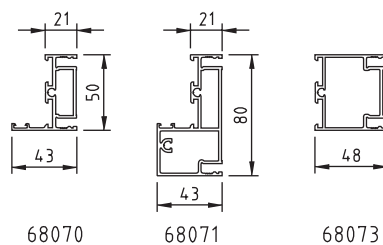
List of profiles

glass partitions SFB 3050

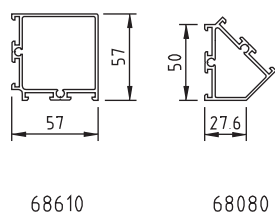
Frame profiles



Dividing profiles



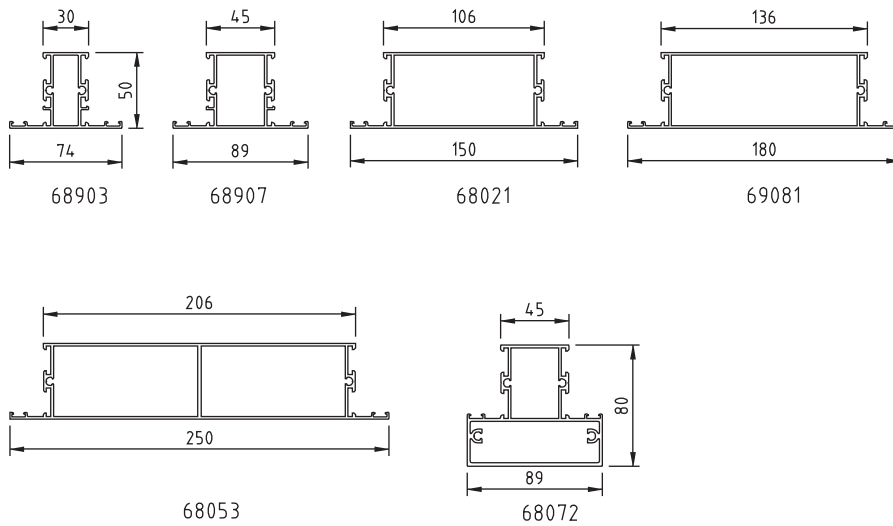
Corner profiles



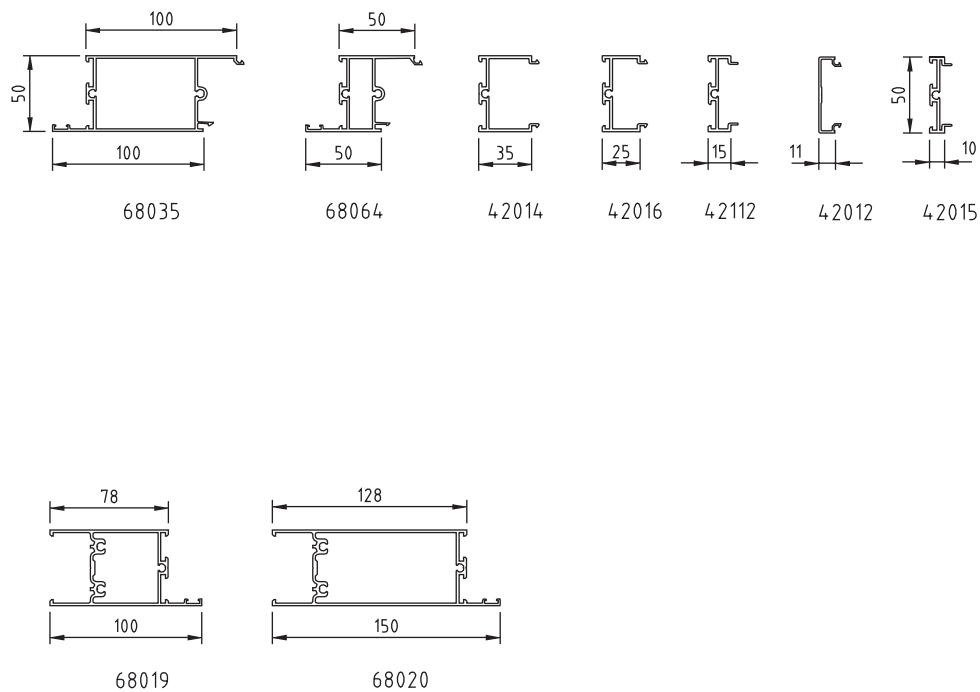
List of profiles

glass partitions SFB 3050

Cross-bar profiles



Extension profiles



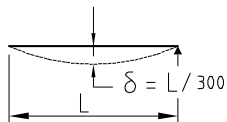
Basic data for dimensioning SFB 3074 glass partitions

Rough calculation of cross-bar profiles on 2 supports

	74012	74032 + 74032	74042 + 74042	74170 + 74170	74013	74014
Cross bar spacing, dimension c mm		Split section	Split section	Split section		
	L_{max} in mm					
400	4300	3100	3900	3600	4100	5000
600	3700	2700	3400	3100	3600	4600
800	3400	2400	3100	2800	3200	4200
1000	3100	2300	2800	2600	3000	3900
1200	3000	2200	2700	2500	2800	3700
1400	2800	2100	2600	2400	2700	3500
1600	2700	2000	2500	2300	2600	3400
1800	2600	2000	2500	2300	2600	3300
2000	2600	2000	2400	2300	2500	3200
2200	2600	2000	2400	2200	2500	3100
2400	2600	2000	2400	2200	2500	3100
2600	2600	2000	2400	2200	2500	3100
2800	2600	2000	2400	2200	2300	3000
3000	2600	2000	2400	2200	2300	3000

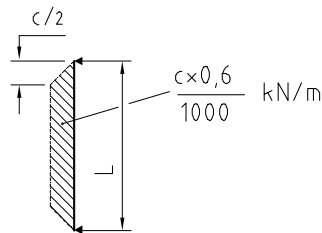
DESIGN BASIS

- Two supports
- Windload $0,6 \text{ kN/m}^2$
- Load width c mm
- Load area as per figure
- Deflection $L/300$



NOTE!

Maximum allowed deflection over one glass is 8 mm



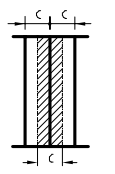
$k =$ Conversion factor for windload $q_v \text{ kN/m}^2$
 $Lq = k \times L_{max}$

Windload	k
0,4	1,16
0,5	1,08
0,6	1,00
0,7	0,95
0,8	0,90
0,9	0,86
1,0	0,83

Basic data for dimensioning

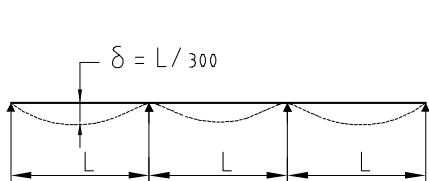
SFB 3074 glass partitions

Rough calculation of cross-bar profiles on 3 supports

	74201	74202	74203
Cross bar spacing, dimension c mm	L _{max} in mm		
400	3700	3900	4800
600	3200	3400	4200
800	2900	3100	3800
1000	2700	2800	3500
1200	2500	2600	3200
1400	2300	2500	3100
1600	2200	2300	2900
1800	2100	2200	2800
2000	2100	2200	2700
2200	2000	2100	2600
2400	1900	2000	2500
2600	1800	1900	2300
2800	1800	1900	2300
3000	1700	1800	2200

DESIGN BASIS:

- Min 3 supports
- Windload 0.6 kN/m²
- Load width c in mm
- Load area as per figure
- Deflection L/300



$$\frac{c \times 0,6}{1000} \text{ kN/m}$$

k = Conversion factor for windload q_v kN/m²

$$Lq_v = k \times L_{max}$$

Windload	k
0,4	1,16
0,5	1,08
0,6	1,00
0,7	0,95
0,8	0,90
0,9	0,86
1,0	0,83

NOTE!

Maximum allowed deflection over one glass is 8 mm