



Industrial Folding Doors and Fire Station Folding Doors

Technical Manual: Issue 01.06.2011



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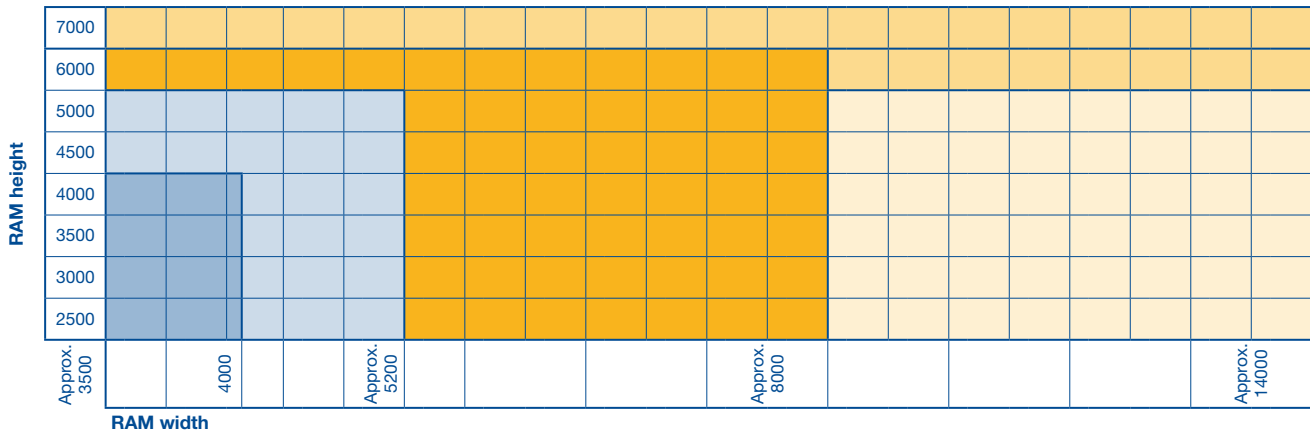
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Door Selection Guide

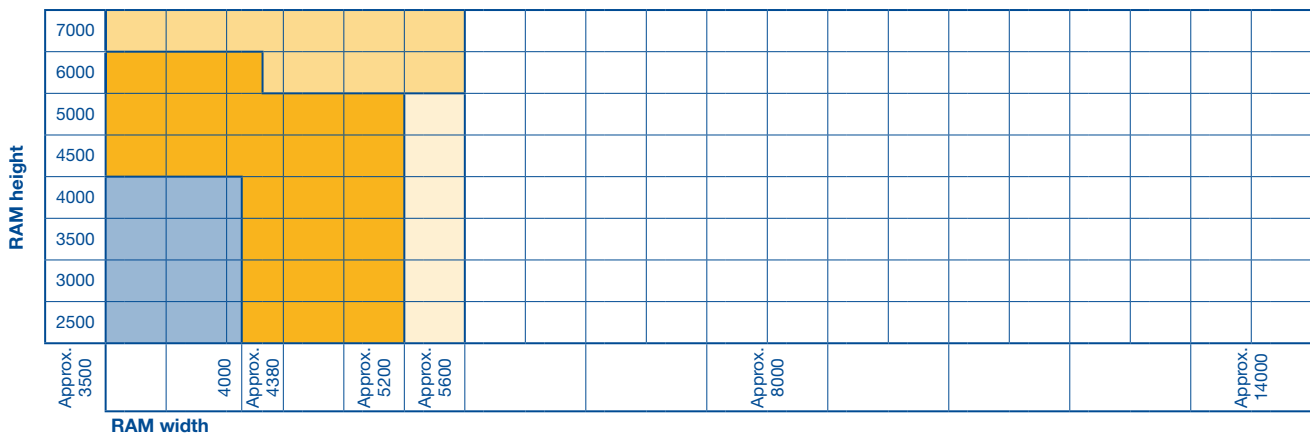
Door type Depth approx. 60 mm	Version	Sheet thickness/ surface	Example leaf infill	Finger trap protection [KS]	Aluminium die-cast hinges, painted black	Thermal insulation value U 4000 x 4000	Acoustic value R'u,w,B 4000 x 4000
FSN	Standard steel profile	Steel profile 1.5	Sheet steel 1.5 mm Glazing types between 3–36 mm (*)	KS	Adjustable Fitted on front side	Fully glazed Climatic glass 26 mm thick approx. 2.6 W/m²K	Approx. 24–28 dB/(A)
FAW	Aluminium profile With thermal breaks	Aluminium profile 2–2.5	Insulated glass 26–36 mm PU panel 26 mm	KS	Adjustable Fitted on front side	Fully glazed Climatic glass 26 mm thick approx. 2.1 W/m²K	Approx. 28 dB/(A)
FPU double-skinned	Polyurethane sandwich panel	Stucco-textured or smooth 1.0	Polyurethane (*)	KS	Surface-mounted	Without glazing Without wicket door approx. 1.7 W/m²K	Approx. 22 dB/(A)
FMI double-skinned	Mineral wool sandwich panel	Smooth 1.5 (1.75)	Mineral wool (*)	KS	Surface-mounted	Without glazing Without wicket door approx. 1.8 W/m²K	Approx. 24 dB/(A)

* Glazing types, see price list
Fire station folding door with folding arrangement 2:2 (see pages 41–42)

Size range for manually operated doors



Size range for power-driven doors

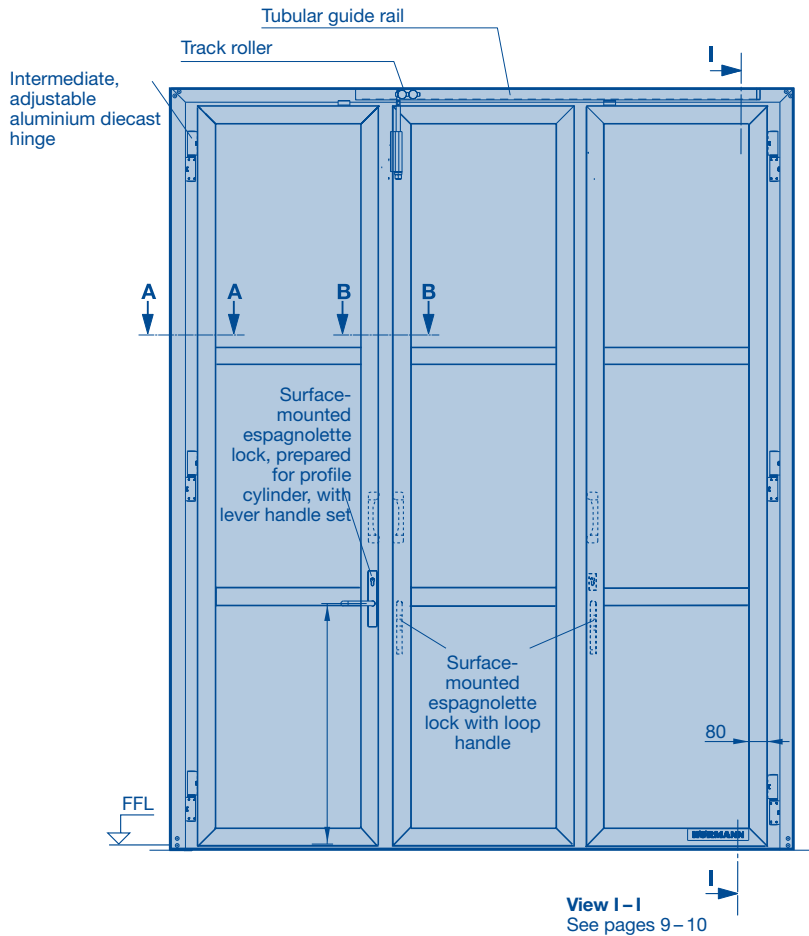


Fully glazed	Fire station	FPU	FMI	FSN	FAW
Max. RAM 4000 x 4000	Max. RAM 5200 x 5000	Max. leaf width 1400	Max. leaf width 1400	Max. leaf width 1400	Max. leaf width 1300

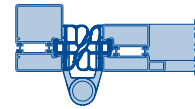
Steel Folding Door FSN (Standard Profile) with Finger Trap Protection

Aluminium Folding Door FAW (with Thermal Breaks) with Finger Trap Protection

Folding door, 3-leaf version



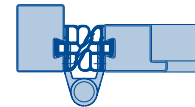
FAW: View A-A
2x trap protection, see page 23



FAW: View B-B
2x trap protection



FSN: View A-A
2x trap protection



FSN: View B-B
2x trap protection

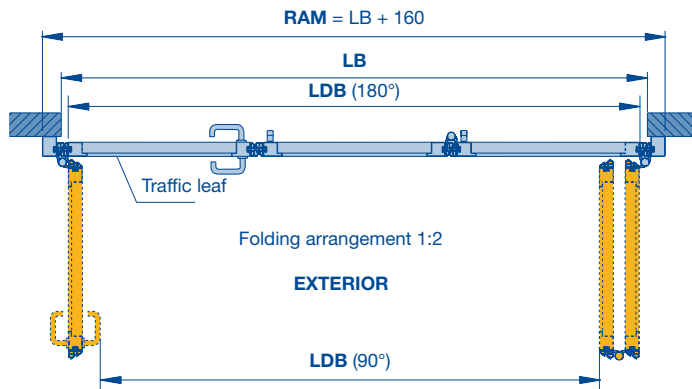


Rubber finger trap protection profiles on the vertical leaf edges ensure accident-free operation and also reduce noise.

Note:

For floor details, see pages 7-8-9-10

Fitting to the wall



Fixing of the open door leaves via a drop bolt. Wall hold-open device on request.

Notes:

- Plaster and screed work after door fitting.
- For folding arrangements and clear passage dimensions, see pages 29-30.
- With/without ventilation slots

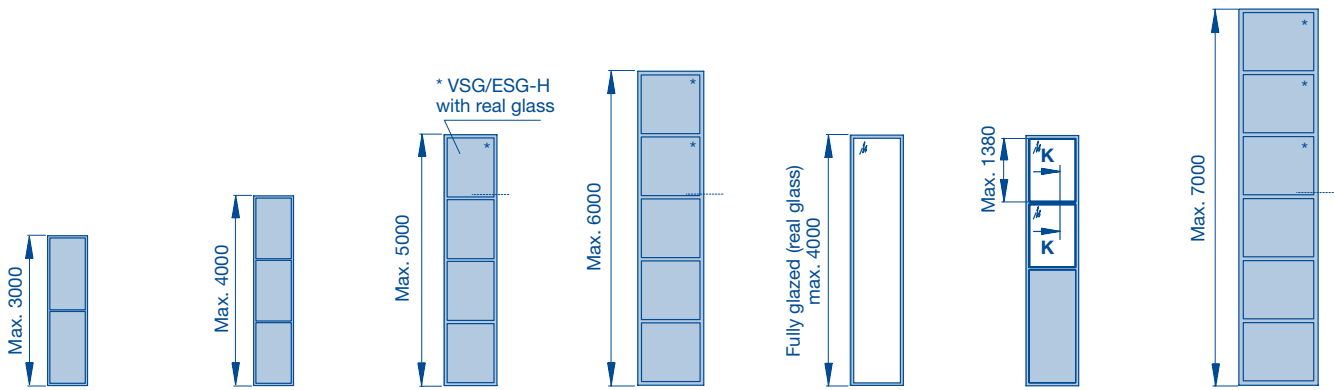
- RAM** = Overall frame dimension
- LB** = Clear width
- LDB** = Clear passage width
- FFL** = Finished floor level

FSN/FAW Design Examples

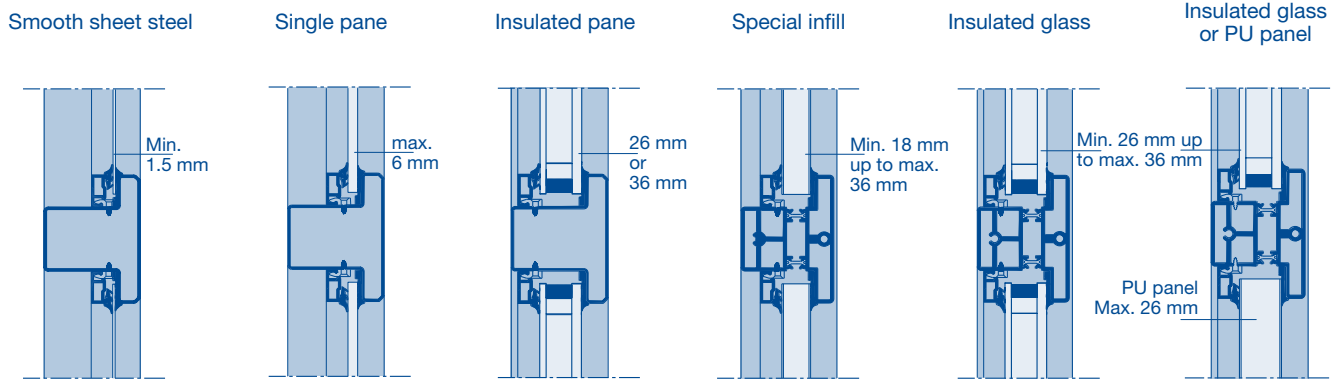
Note:

With real glass, laminated or single-pane safety glass must be used for a fitting height over 4 metres.

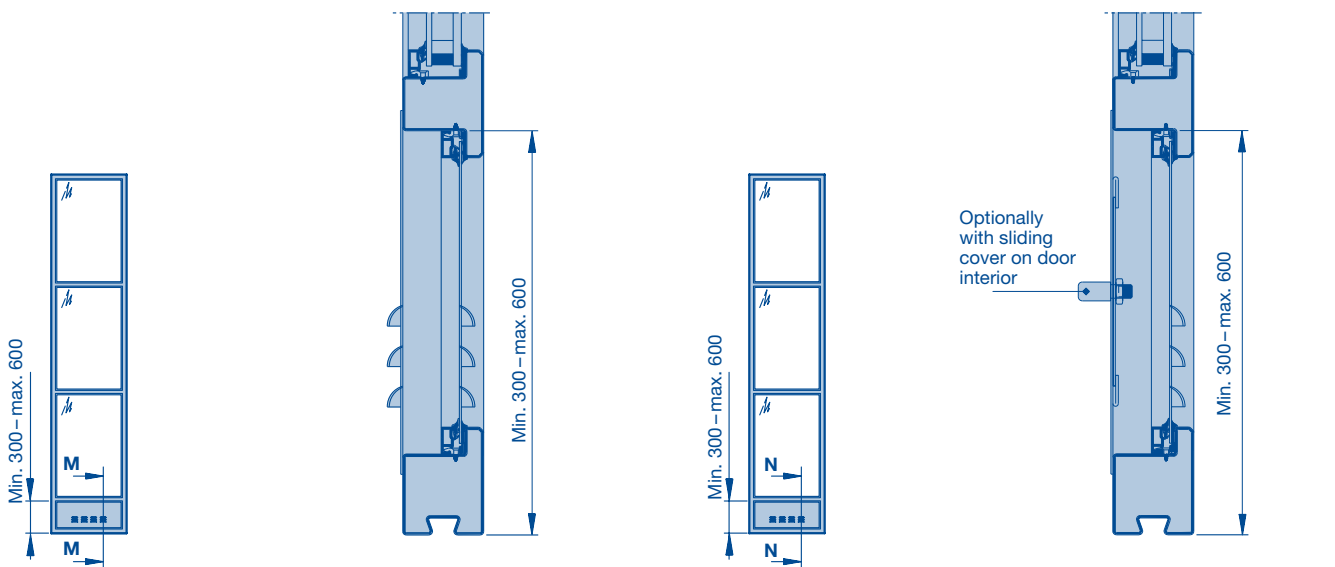
FSN/FAW (max. RAM of the door) | FSN



FSN: View K-K | FAW: View K-K

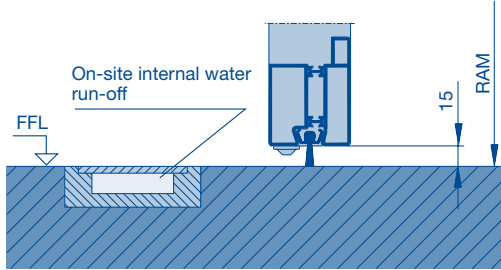


Base area View M-M | View M-M Ventilation slots | Base area View N-N | View N-N Lockable ventilation slots

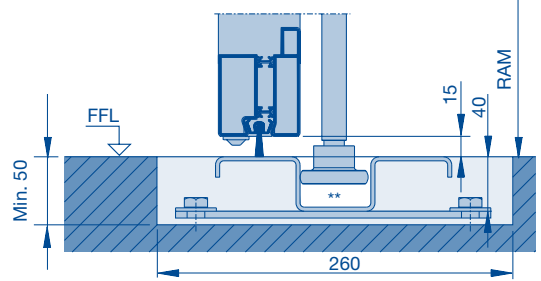


FSN/FAW – Floor Details External Fitting

Without threshold

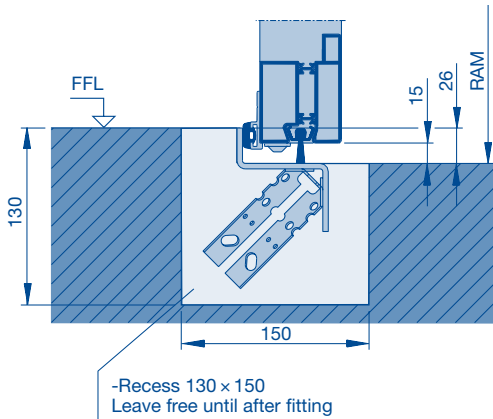


Without threshold but with track roller (only with 90°)

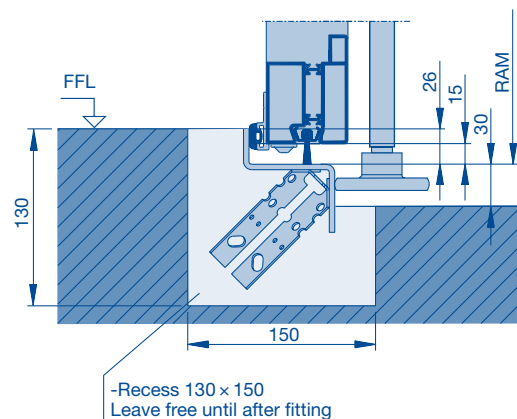


** Drill drainage holes on-site

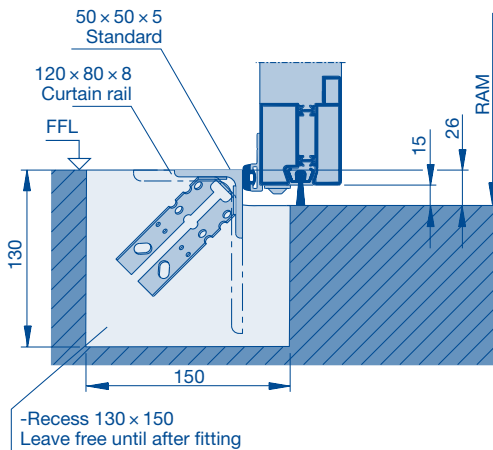
Threshold with Z profile



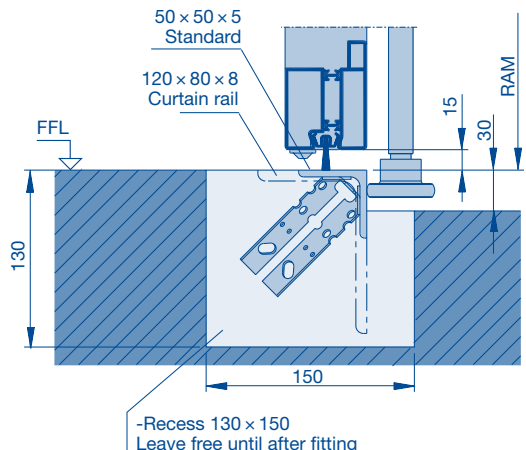
Threshold with Z profile and track roller



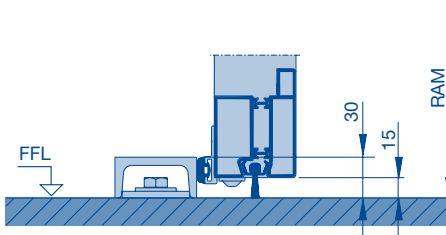
Threshold with angle



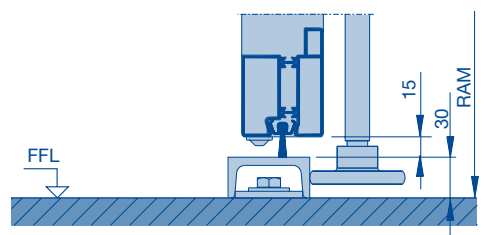
Threshold with angle and track roller



Threshold with UNP 60 x 30



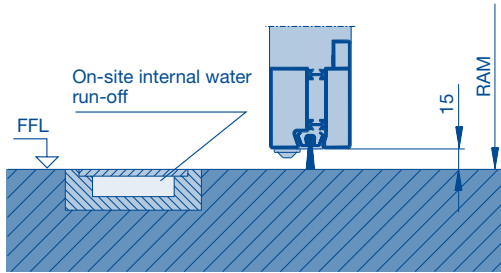
Threshold with UNP 60 x 30 and track roller



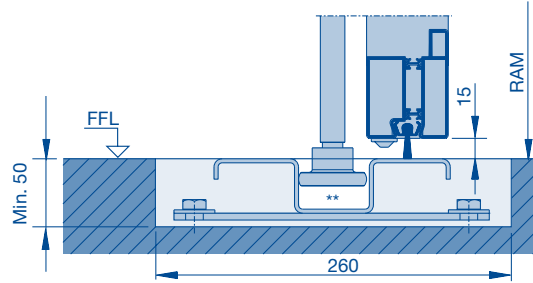
RAM = Overall frame dimension
FFL = Finished floor level

FSN/FAW – Floor Details Internal Fitting

Without threshold

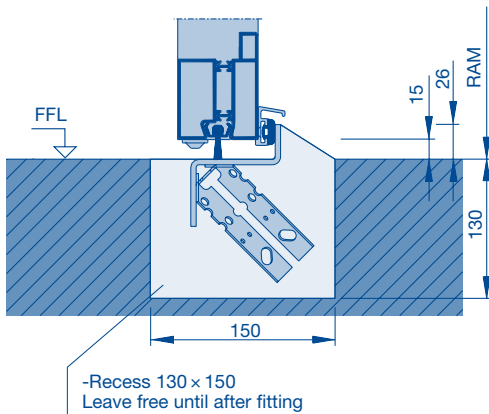


Without threshold but with track roller (only with 90°)

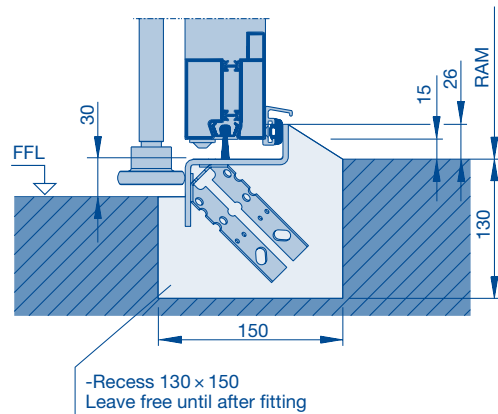


** Drill drainage holes on-site

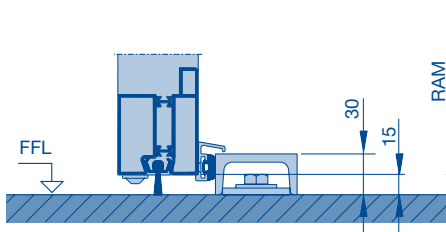
Threshold with Z profile



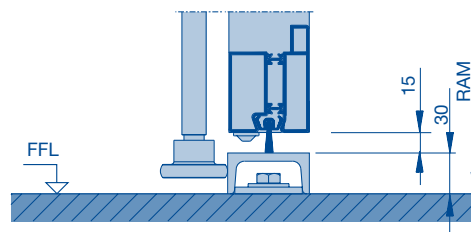
Threshold with Z profile and track roller



Threshold with UNP 60 x 30



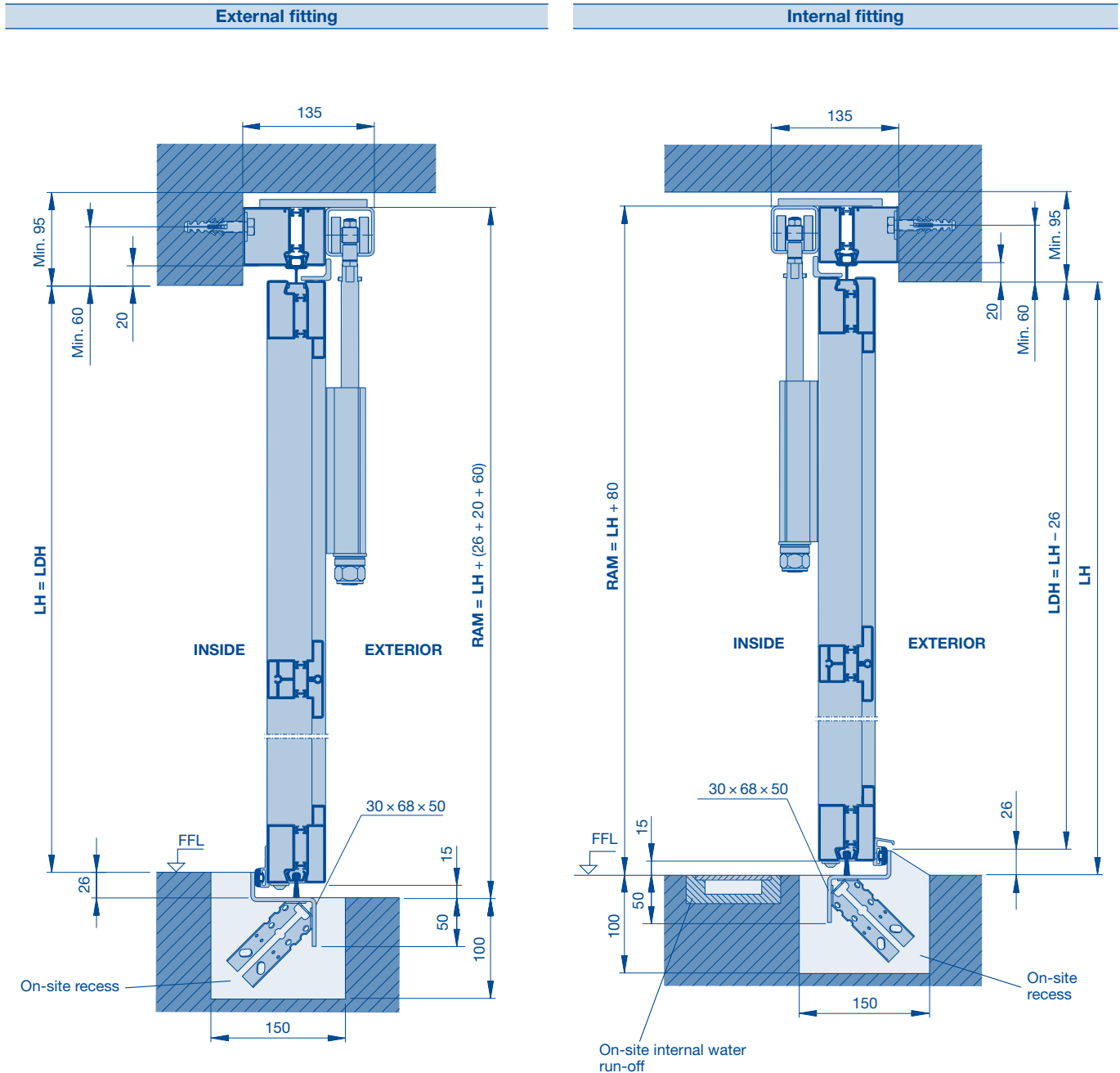
Threshold with UNP 60 x 30 and track roller



RAM = Overall frame dimension
FFL = Finished floor level

Head Details for FSN/FAW Fitting to the Wall, 90° Opening View I-I (See Page 5)

Sideroom overview, see pages 23–25
90° headroom overview, see pages 33–34
180° headroom overview, see pages 35–36

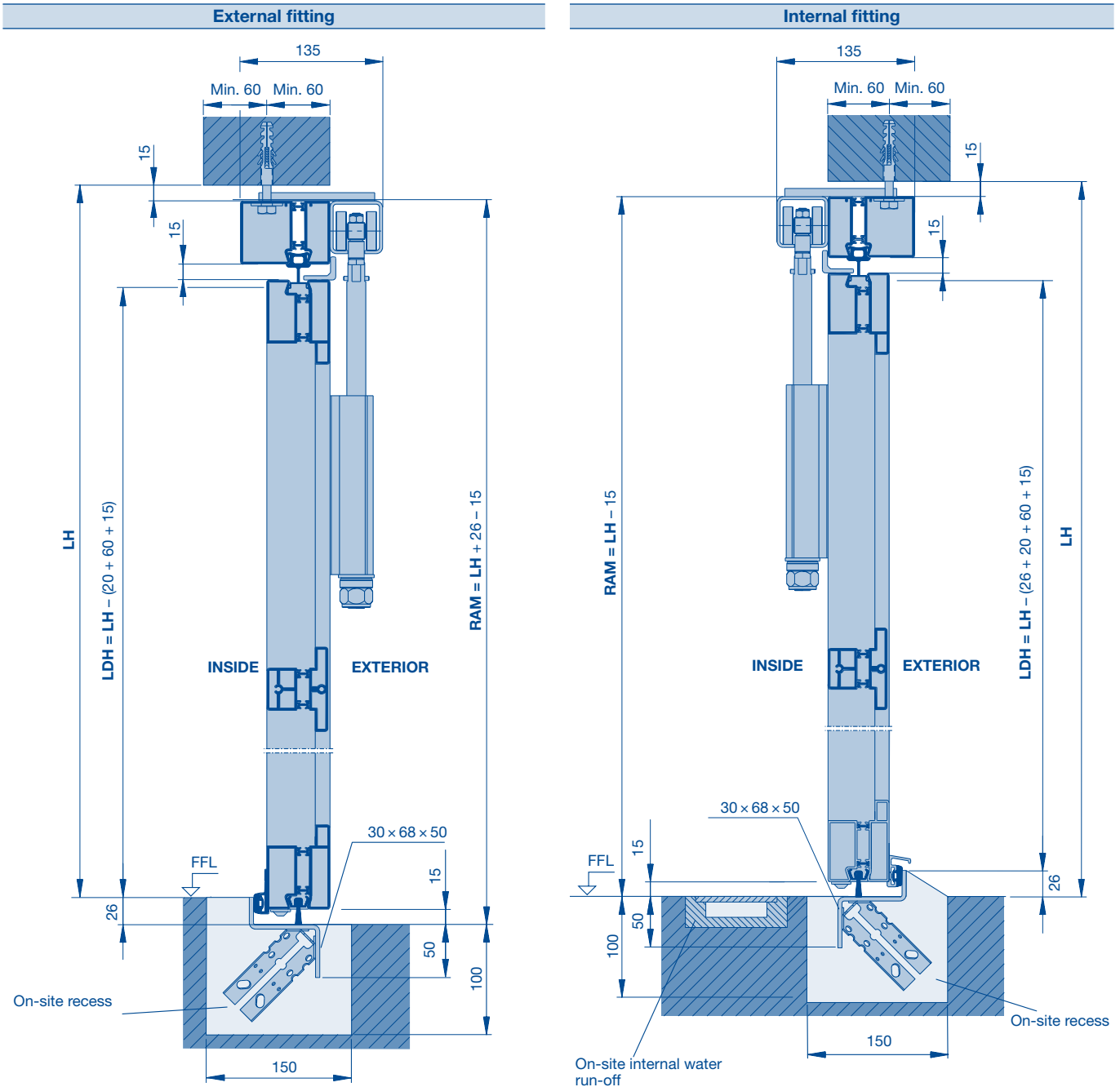


- Doors on the weather side should preferably be fitted externally!
- Threshold required as a guide.
- For doors with external fitting and opening outwards: Up to 3 leaves possible on one side without threshold. From a 4th leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From 5 leaves always with bottom track rollers.
- For doors with internal fitting and opening inwards: From a 3rd leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From a 4th leaf on one side always with threshold and additional track rollers or with track rollers and a U-rail in the floor if a threshold is not wanted.
- On-site internal water run-off required.

RAM = Overall frame dimension
LH = Clear height
LDH = Clear passage height
FFL = Finished floor level

Head Details for FSN/FAW Fitting in the Opening, 90° Opening View I-I (See Page 5)

Sideroom overview, see pages 23–25
90° headroom overview, see pages 33–34
180° headroom overview, see pages 35–36



- Doors on the weather side should preferably be fitted externally!
- Threshold required as a guide.
- For doors with external fitting and opening outwards: Up to 3 leaves possible on one side without threshold. From a 4th leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From 5 leaves always with bottom track rollers.
- For doors with internal fitting and opening inwards: From a 3rd leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From a 4th leaf on one side always with threshold and additional track rollers or with track rollers and a U-rail in the floor if a threshold is not wanted.
- On-site internal water run-off required.

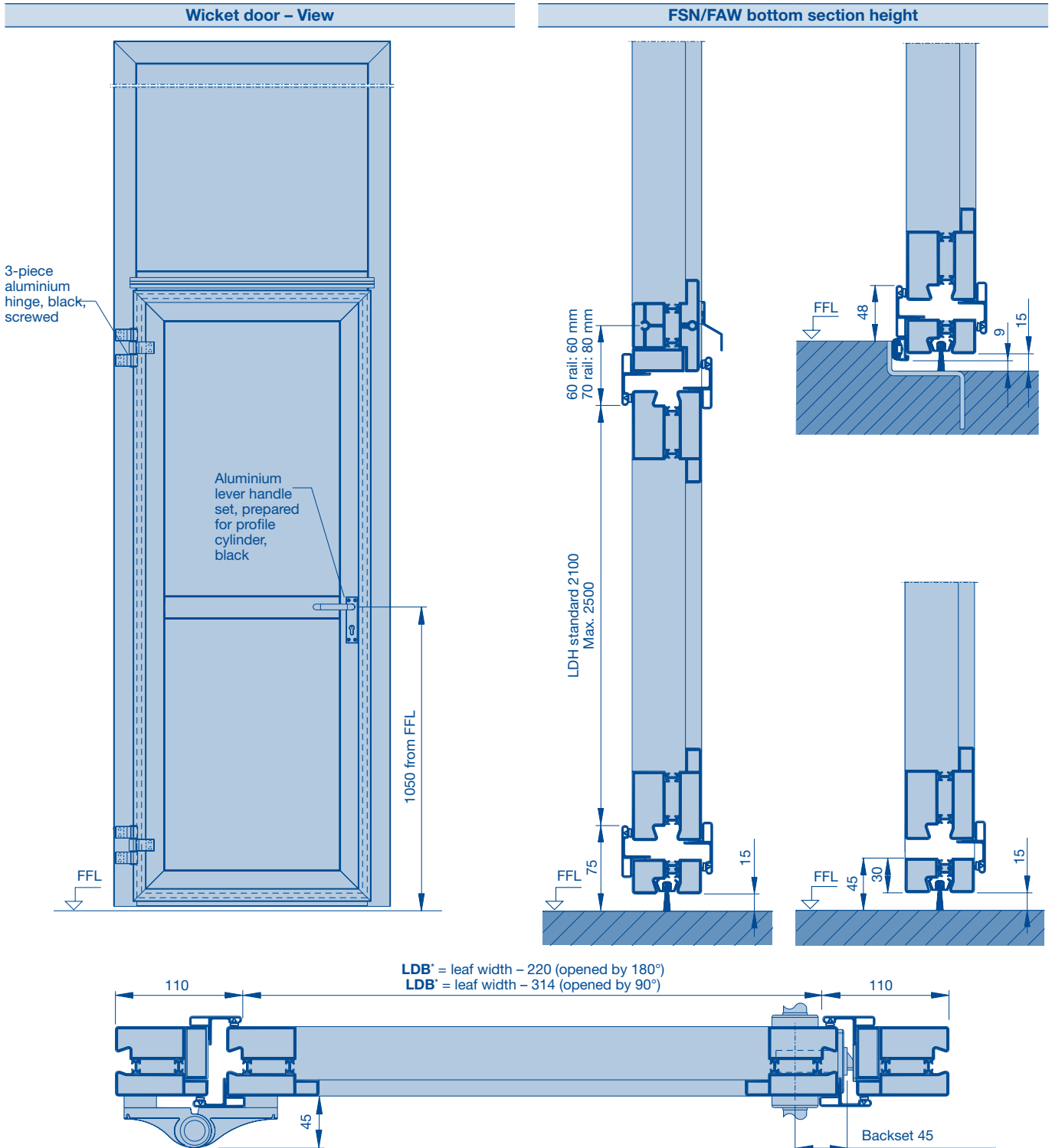
RAM = Overall frame dimension
LH = Clear height
LDH = Clear passage height
FFL = Finished floor level

Wicket Door FSN/FAW

- A wicket door must be provided for **folding doors without a traffic leaf** (locking leaf), i.e. those with folding arrangements 2:2, 2:4, 4:4, etc. and without a second entrance.
- An outward-opening escape door may also be a regulatory requirement.

Note:

Obtain official approval for the bottom section height and passage dimension!



Note:

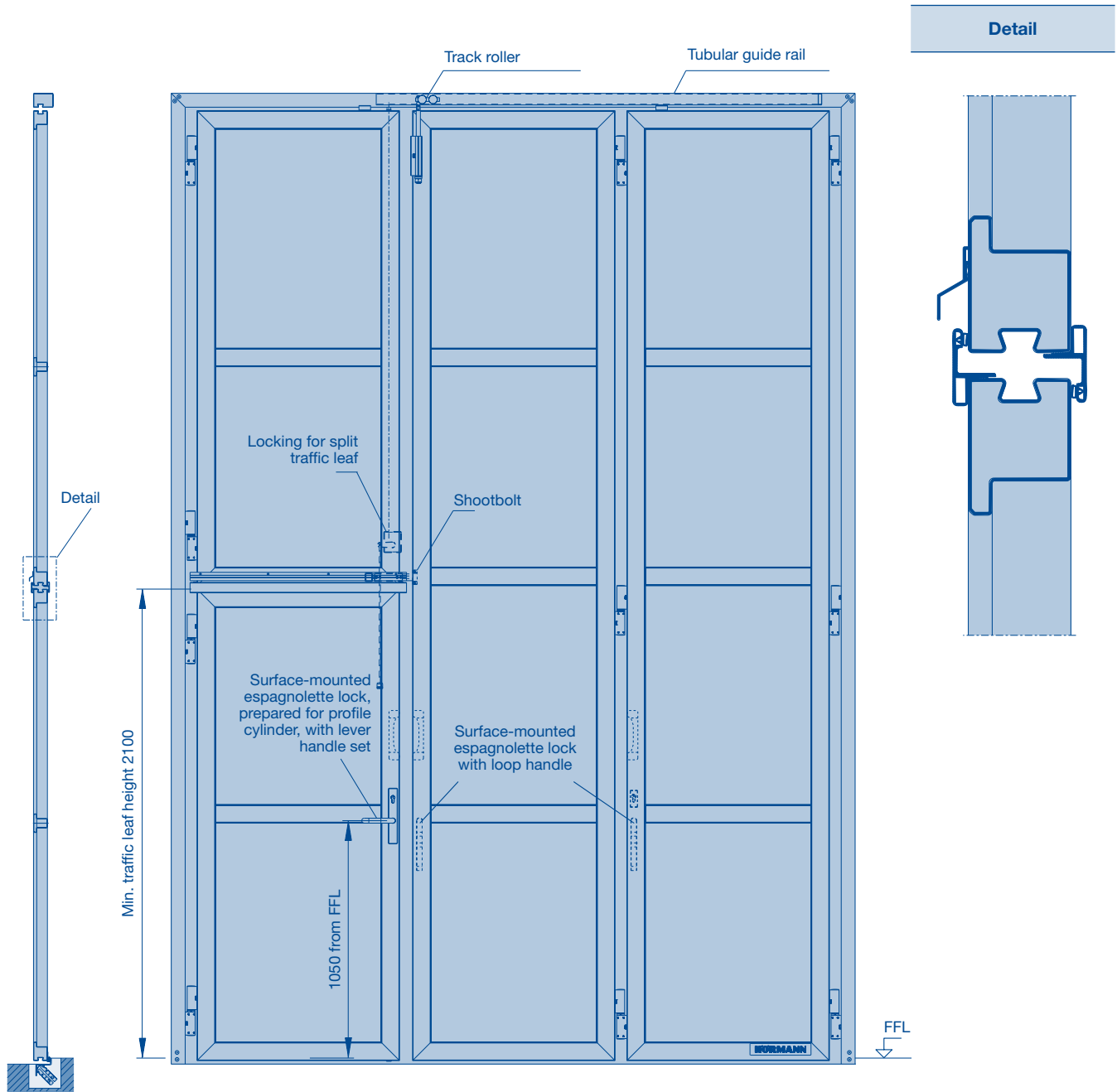
The wicket door is adjusted to match the appearance of the overall folding door.

- LDB** = Clear passage width
- LDH** = Clear passage height
- FFL** = Finished floor level

Divided Traffic Leaf FSN/FAW

- Divided traffic leaves (lock leaves) do not have an obstructive threshold rail as with wicket doors.
- They are recommended for door heights above 3500 mm and in windy areas (with manual operation).
- They also reduce loss of heat.
- Divided traffic leaves enable a larger passage width and barely impair the overall appearance of the door. Divided traffic leaves enable a larger passage width and barely impair the overall appearance of the door.

Folding door, 3-leaf version, divided traffic leaf



Note:
For floor details, see page 7-8

FFL = Finished floor level

Steel Folding Door FPU/FMI, Double-Skinned

FPU with PUR Insulation

FMI with Mineral Wool Insulation

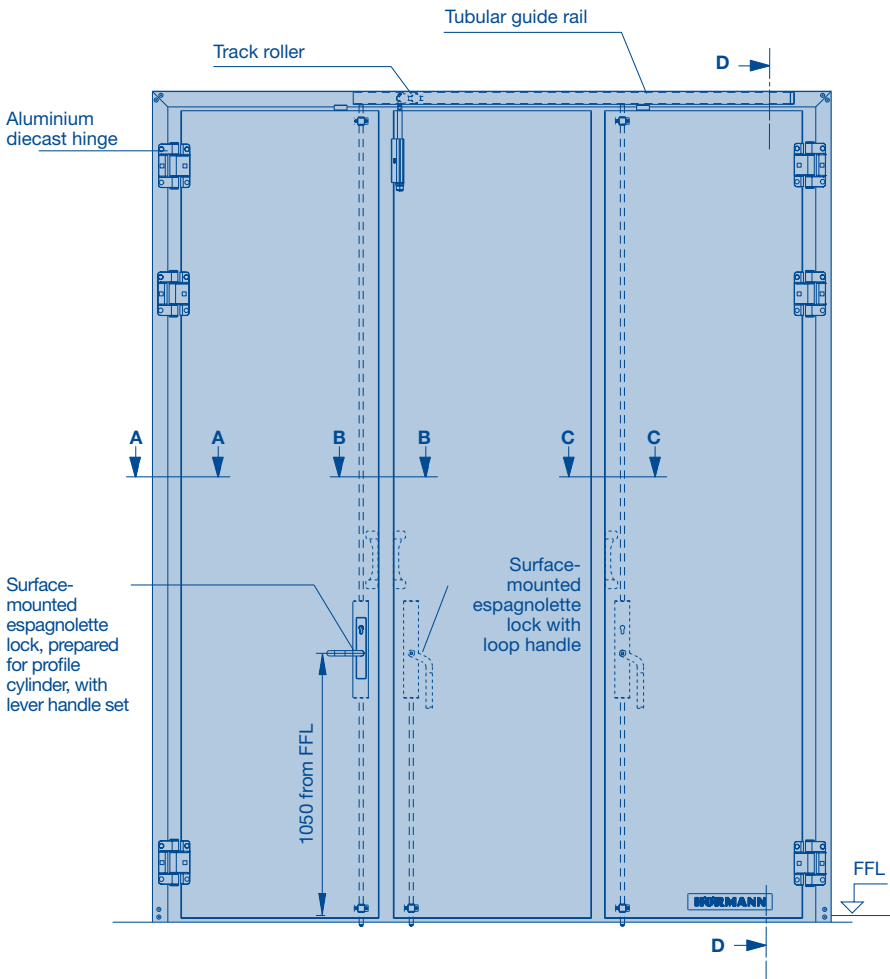
FPU: Door leaf with PUR insulation approx. 60 mm thick (textured on both sides or smooth sheet steel)

FMI: Door leaf with mineral wool insulation approx. 60 mm thick (1.50 mm thick smooth sheet steel on both sides)

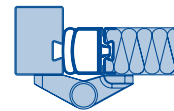
Door leaf, guide rail and frame hot galvanized and wet primer-coated.

Finger trap protection consisting of a hollow rubber profile between the individual door leaves and side frame.
Top lip seal, bottom brush seal.

Folding door, 3-leaf version



View A - A
1x trap protection, see page 26



View B - B
2x trap protection



View C - C
1x trap protection

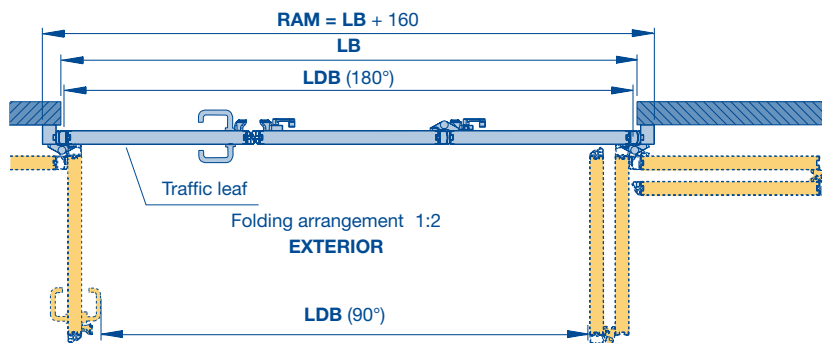


View D - D
See pages 15 - 16

Rubber finger trap protection profiles on the vertical leaf edges ensure accident-free operation and also reduce noise.

Note:
For floor details, see pages 15 - 16

Fitting to the wall



Fixing of the open door leaves via a drop bolt. Wall hold-open device on request.

Notes:

- Plaster and screed work after door fitting
- For folding arrangements and clear passage dimensions, see pages 29 - 30.
- Without ventilation slots
- With ventilation slots either with/without sliding cover

- RAM** = Overall frame dimension
- LB** = Clear width
- LDB** = Clear passage width
- FFL** = Finished floor level

Ventilation Slots FPU/FMI

Free ventilation cross section: 3 ventilation slots form one group = 12 cm², several groups can be arranged next to or above each other. Interior sliding cover possible.

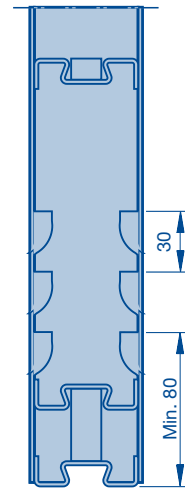
1 ventilation slot group 12 cm²



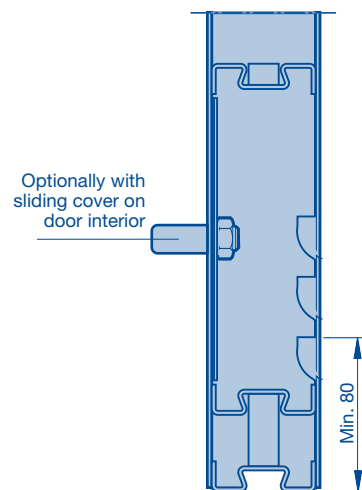
28 ventilation slots (example) 112 cm²



Ventilation slots
On both sides

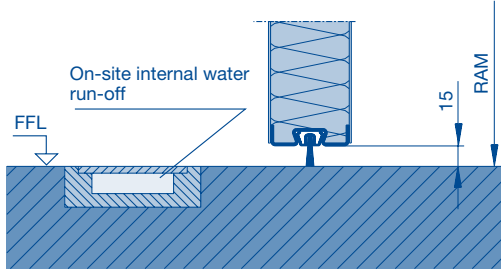


Exterior ventilation slots
Interior sliding cover

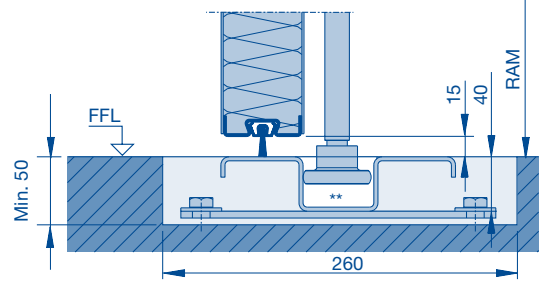


FPU/FMI – Floor Details External Fitting

Without threshold

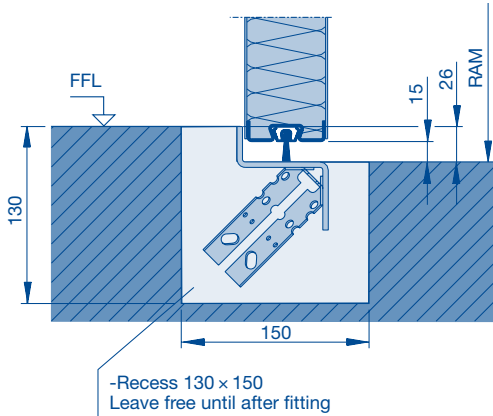


Without threshold but with track roller (only with 90°)

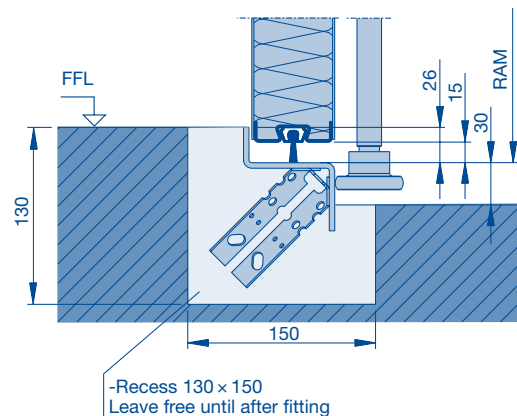


** Drill drainage holes on-site

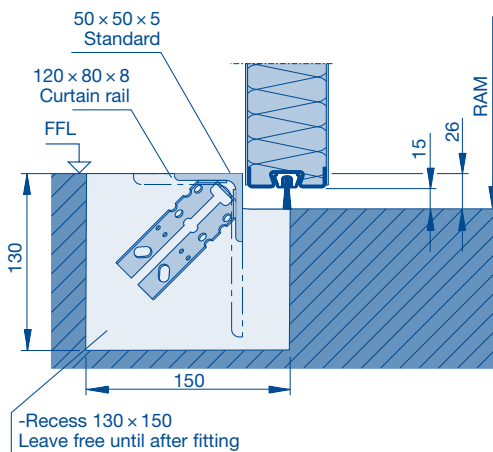
Threshold with Z profile



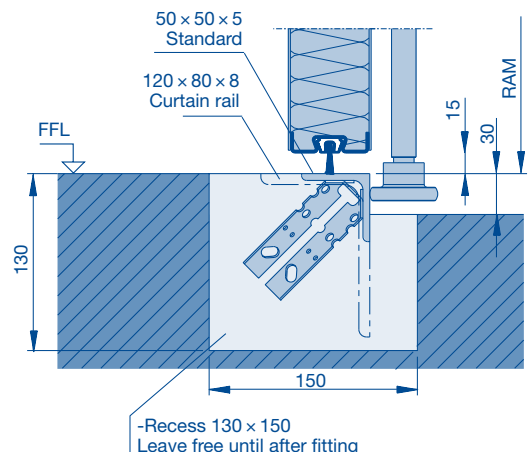
Threshold with Z profile and track roller



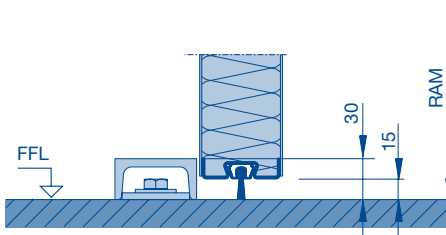
Threshold with angle



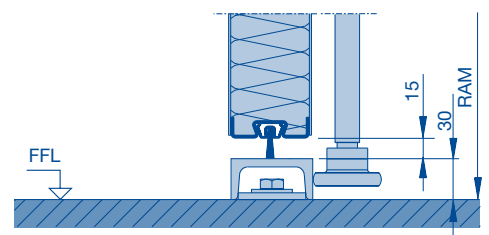
Threshold with angle and track roller



Threshold with UNP 60 x 30



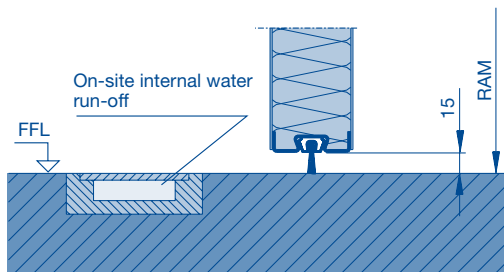
Threshold with UNP 60 x 30 and track roller



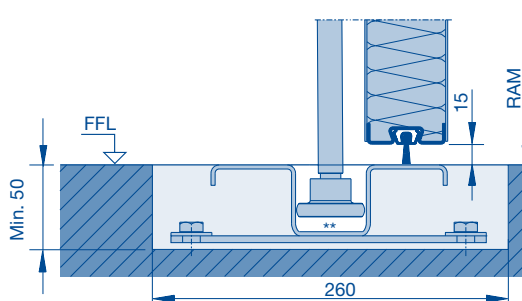
RAM = Overall frame dimension
FFL = Finished floor level

FPU/FMI – Floor Details Internal Fitting

Without threshold

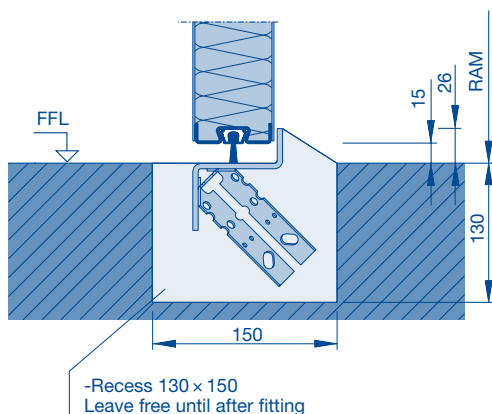


Without threshold but with track roller (only with 90°)

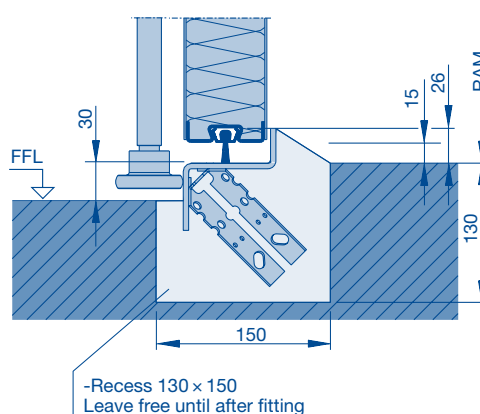


** Drill drainage holes on-site

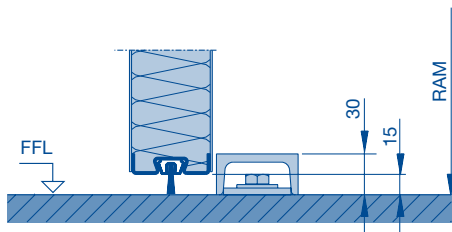
Threshold with Z profile



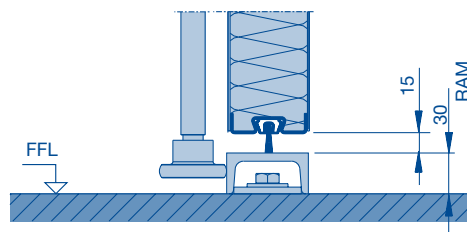
Threshold with Z profile and track roller



Threshold with UNP 60 x 30



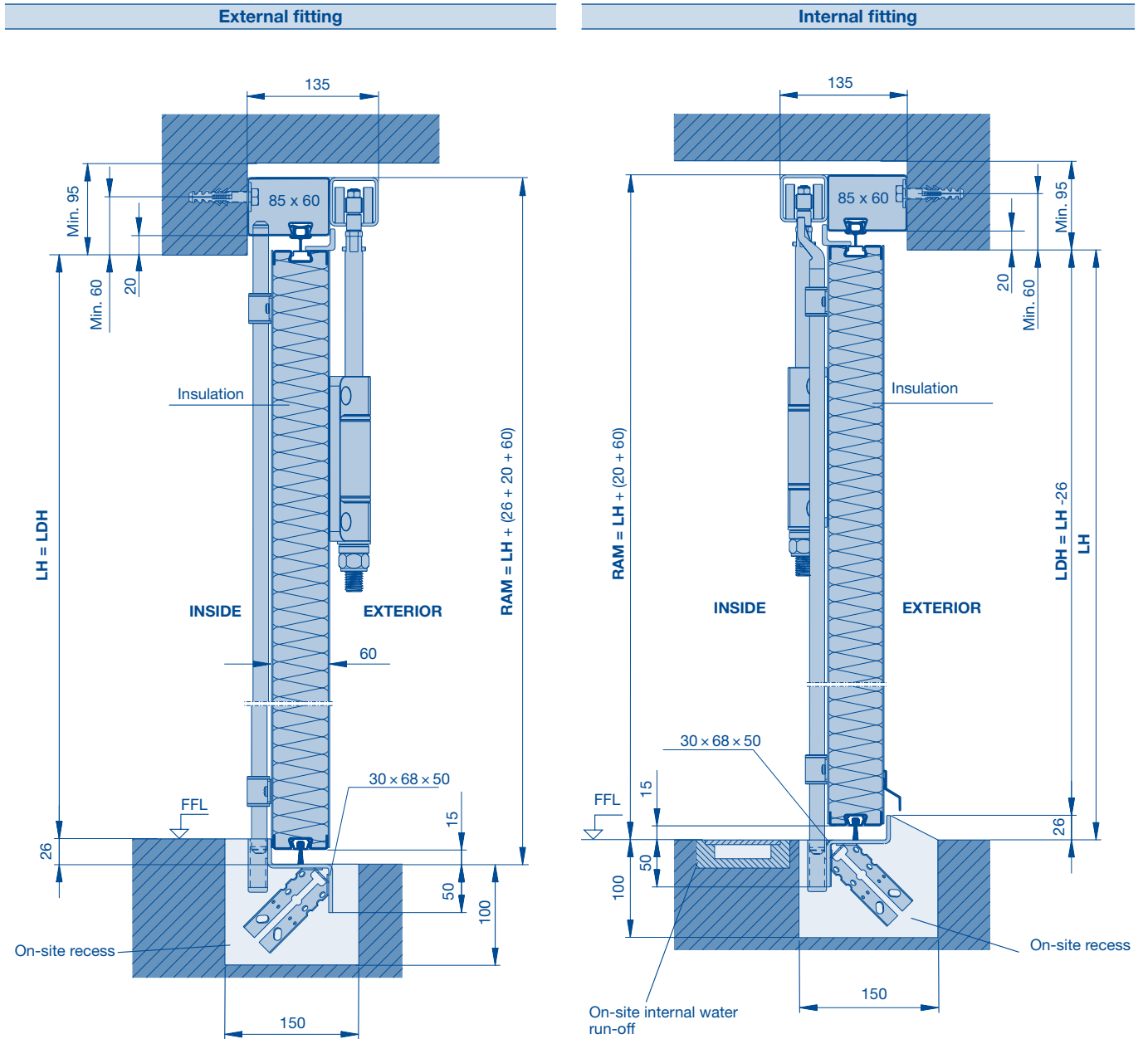
Threshold with UNP 60 x 30 and track roller



RAM = Overall frame dimension
FFL = Finished floor level

Head Details for FPU/FMI Fitting to the Wall, 90° Opening View D – D (See Page 12)

Sideroom overview, see pages 26–28
90° headroom overview, see page 34
180° headroom overview, see pages 35–36



With insulation Without insulation

- Doors on the weather side should preferably be fitted externally!
- Threshold required as a guide.
- For doors with external fitting and opening outwards: Up to 3 leaves possible on one side without threshold. From a 4th leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From 5 leaves always with bottom track rollers.
- For doors with internal fitting and opening inwards: From a 3rd leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From a 4th leaf on one side always with threshold and additional track rollers or with track rollers and a U-rail in the floor if a threshold is not wanted.
- On-site internal water run-off required.

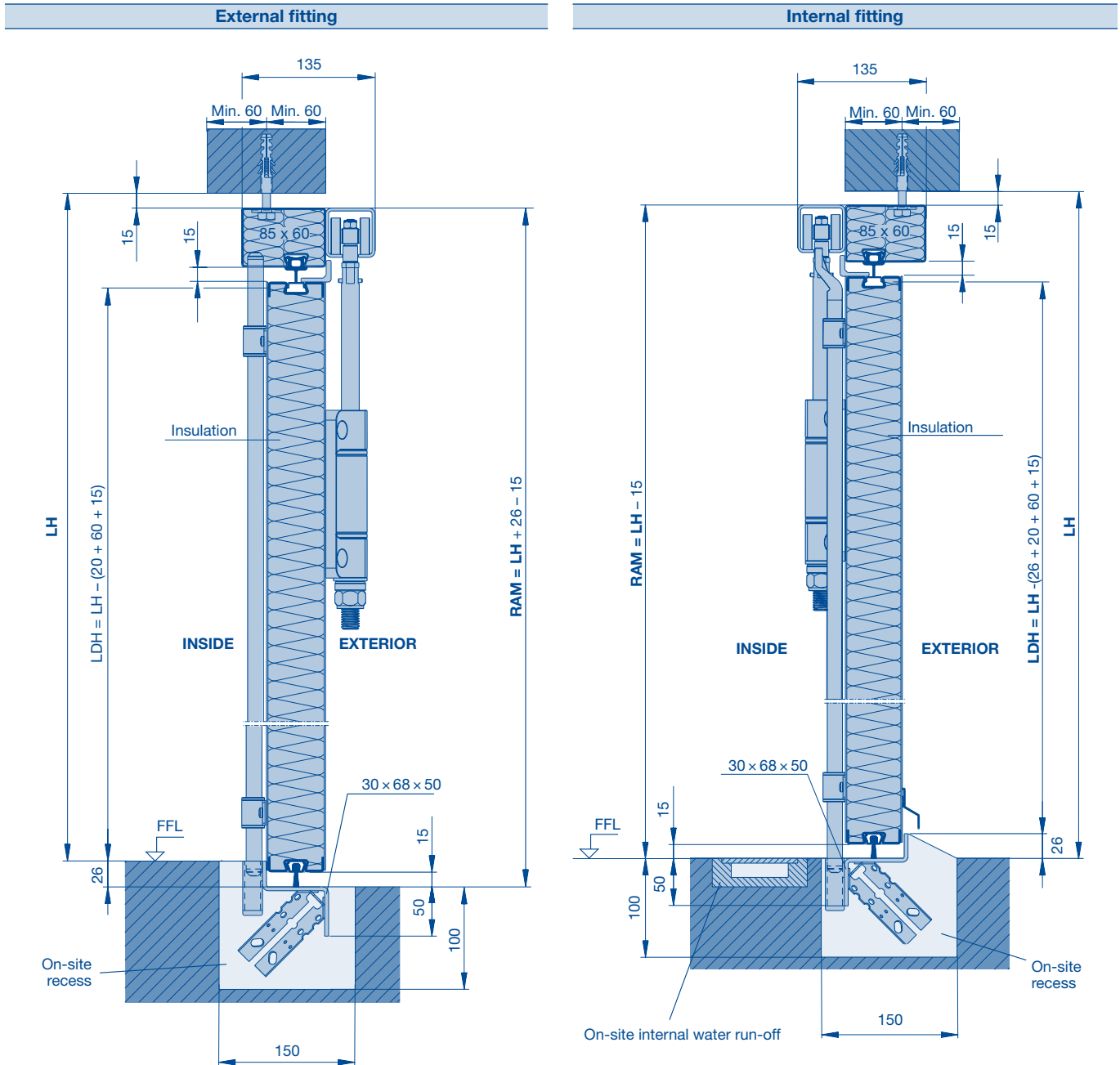
RAM = Overall frame dimension
LH = Clear height
LDH = Clear passage height
FFL = Finished floor level

Head Details for FPU/FMI

Fitting in the Opening, 90° Opening

View D – D (See Page 12)

Sideroom overview, see pages 26–28
 90° headroom overview, see page 34
 180° headroom overview, see pages 35–36



With insulation Without insulation

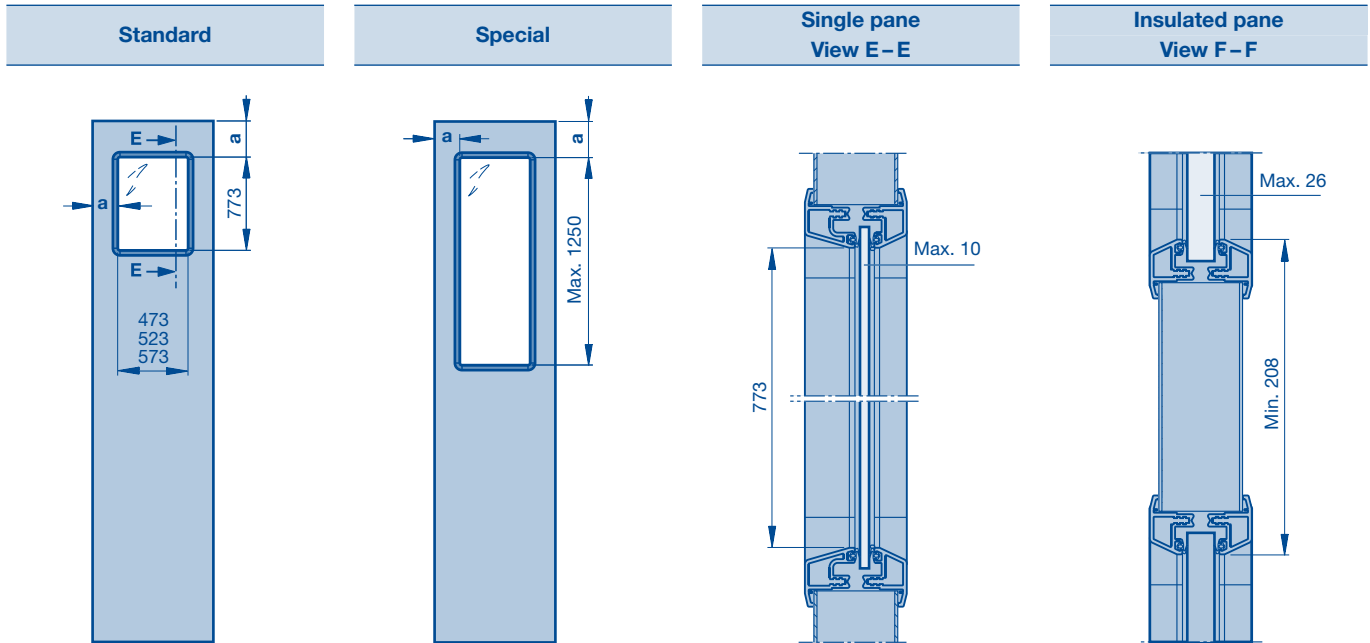
- Doors on the weather side should preferably be fitted externally!
- Threshold required as a guide.
- For doors with external fitting and opening outwards: Up to 3 leaves possible on one side without threshold. From a 4th leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From 5 leaves always with bottom track rollers.
- For doors with internal fitting and opening inwards: From a 3rd leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From a 4th leaf on one side always with threshold and additional track rollers or with track rollers and a U-rail in the floor if a threshold is not wanted.
- On-site internal water run-off required.

RAM = Overall frame dimension
LH = Clear height
LDH = Clear passage height
FFL = Finished floor level

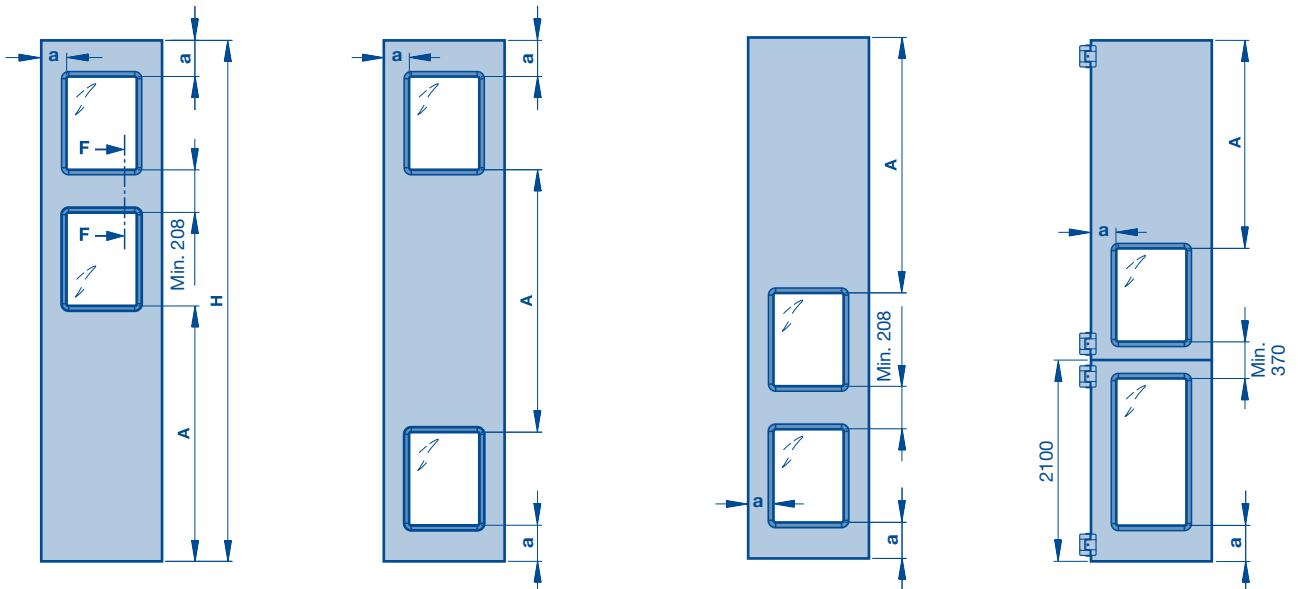
Glazings FPU

Round glazing frame, arrangement of glazing across part of the surface

- Plastic as standard, metal on request.
- Preferably in the standard sizes (clear view 473, 523, 573 mm wide, each 773 mm high, Duratec synthetic double pane 26 mm) including clear Duratec acrylic double pane or double-moulded pane 20 mm.
- Customers may provide other single panes from 3 to 6 mm thick or insulated panes up to 26 mm thick.
- Special sizes available up to max. 1250 mm high.



Arrangement of glazing across part of the surface



Divided traffic leaf

Leaf section A =

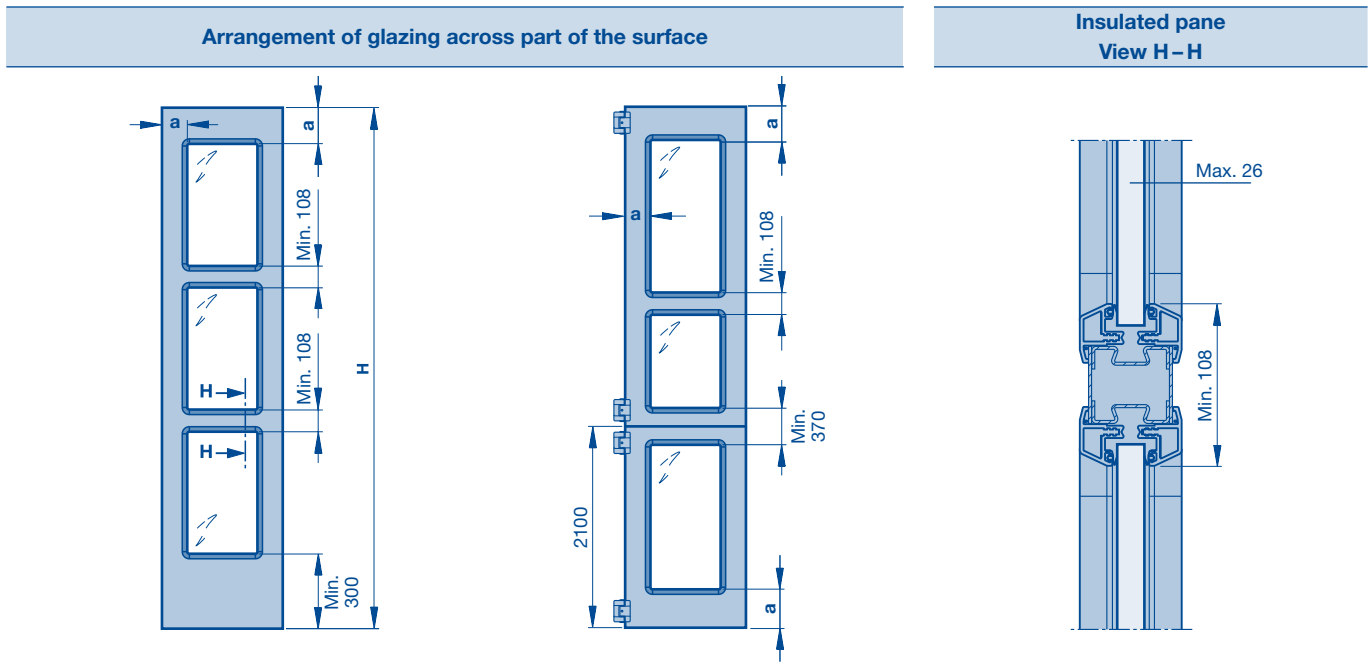
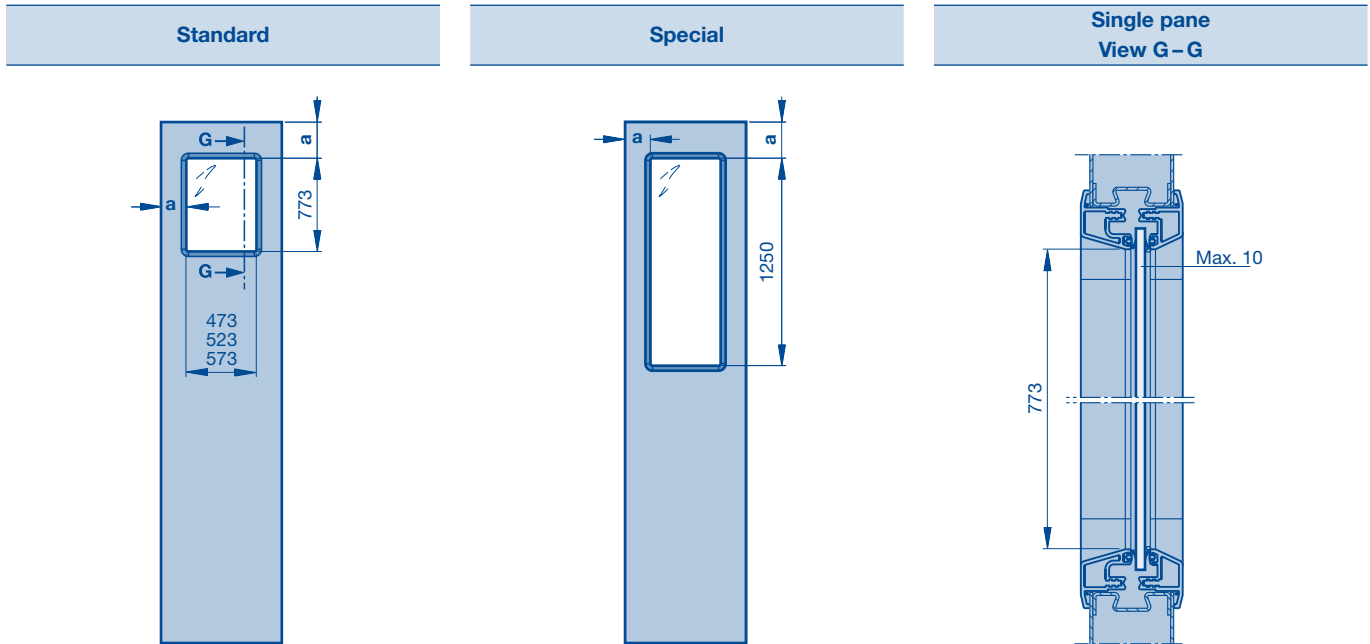
- Min. 1300 to H = 3000
- Min. 1400 to H = 3500
- Min. 1500 to H = 4000
- Min. 1600 to H = 4500
- Min. 1700 to H = 5000
- a = min. surrounding area 180

Black glazing frame as a clamping profile with clear Duratec synthetic single pane 3 mm or Duratec polycarbonate pane 6 mm or Duratec synthetic double pane 26 mm.

Glazings FMI

Rounded glazing frame, arrangement of glazing across the entire surface

- Plastic as standard, metal on request.
- Preferably in the standard sizes (clear view 473, 523, 573 mm wide, each 773 mm high, Duratec synthetic double pane 26 mm) including clear Duratec acrylic double pane or double-moulded pane 20 mm.
- Customers may provide other single panes from 3 to 6 mm thick or insulated panes up to 26 mm thick.
- Special sizes available up to max. 1250 mm high.



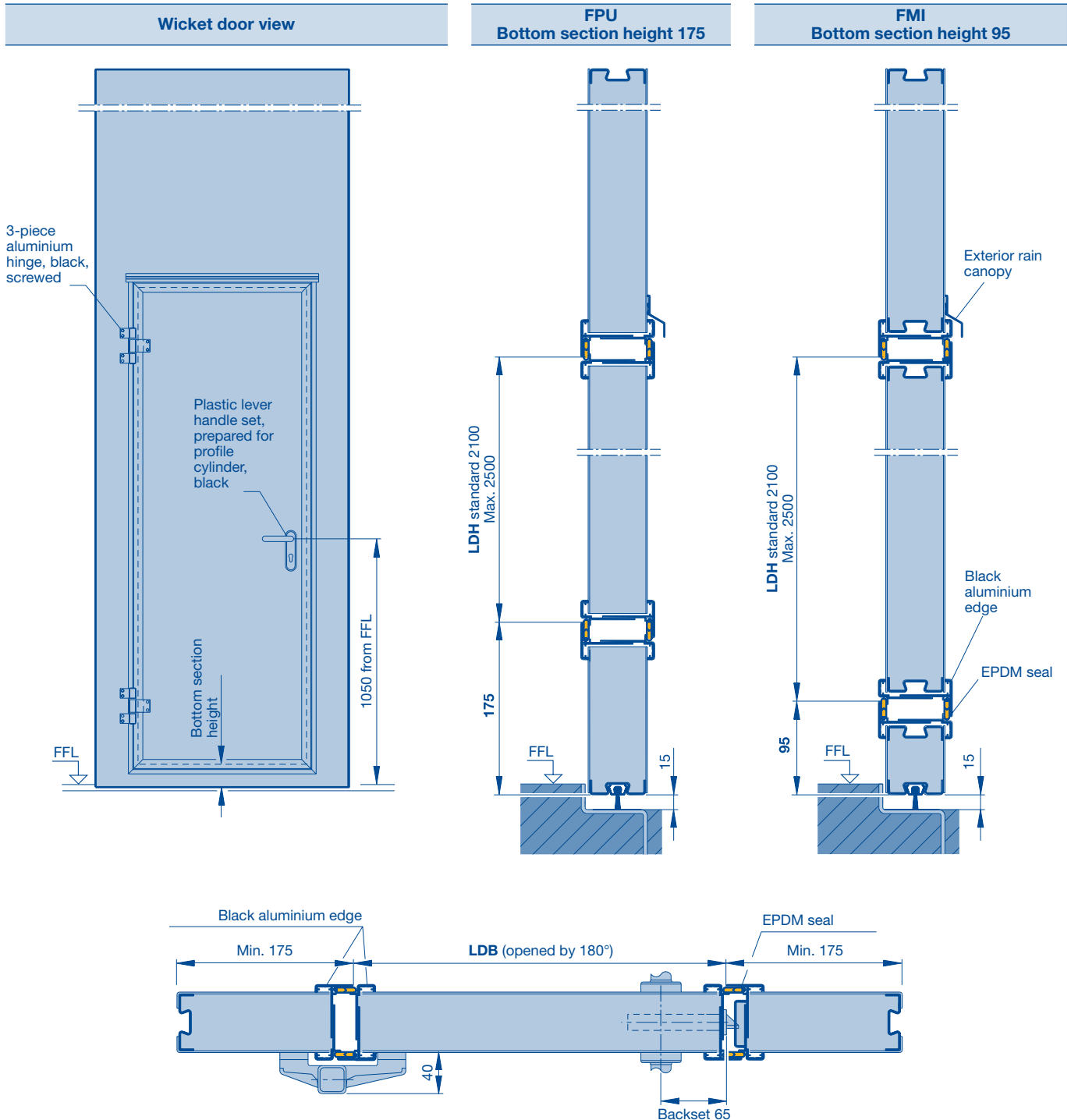
Divided traffic leaf

Black glazing frame as a clamping profile with clear Duratec synthetic single pane 3 mm or Duratec polycarbonate pane 6 mm or Duratec synthetic double pane 26 mm.

- a = min. surrounding area 180

Wicket Door FPU/FMI

- A wicket door with threshold must be provided for **folding doors without a traffic leaf** (locking leaf), i.e. those with folding arrangements 2:2, 2:4, 4:4 etc. and without a second entrance (on request also without a threshold for type FMI with folding arrangements 1:2, 2:1, 2:2).
- An outward-opening escape door may also be a regulatory requirement.
- With **PUR doors** a wicket door can only be included from a door height of 3500 mm, and should usually be fitted in the door leaf without glazing cut-out.



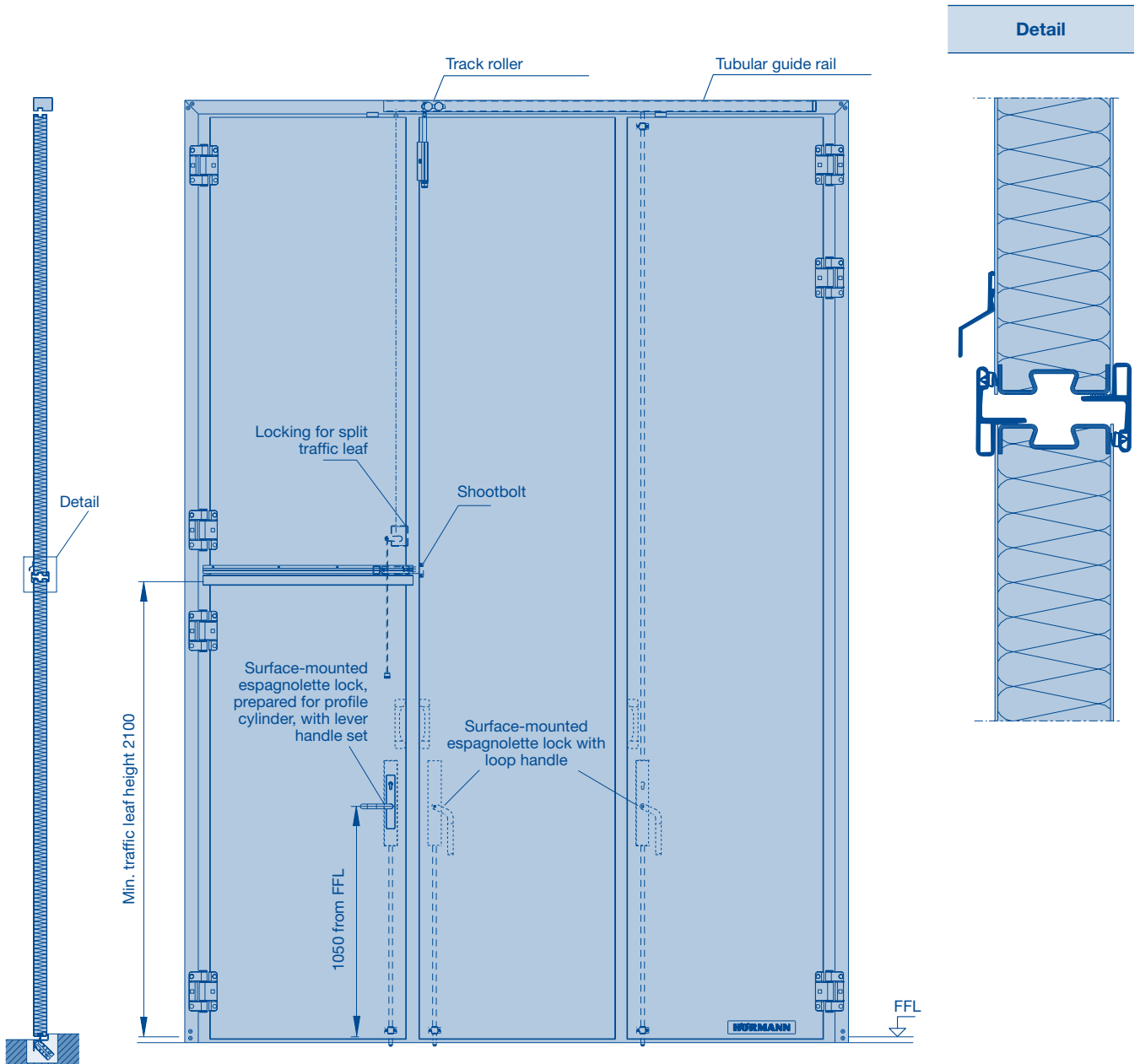
Note:
The wicket door is adjusted to match the appearance of the overall folding door.

LDB = Clear passage width
LDH = Clear passage height
FFL = Finished floor level

Divided Traffic Leaf FPU/FMI

- **Divided traffic leaves** (lock leaves) do not have an obstructive threshold rail as with wicket doors.
- They are recommended for door heights above 3500 mm and in windy areas (with manual operation).
- They also reduce loss of heat.
- **Divided traffic leaves** enable a larger passage width and barely impair the overall appearance of the door.

Folding door, 3-leaf version, divided traffic leaf



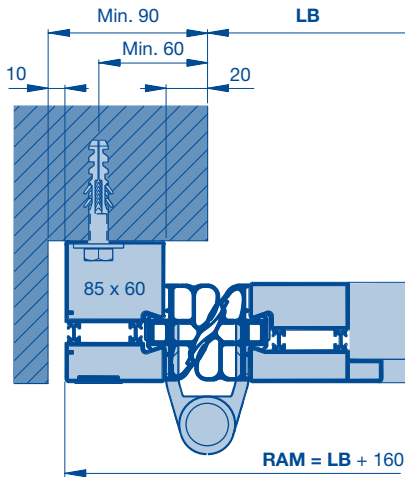
Note:
For floor details, see pages 15-16

FFL = Finished floor level

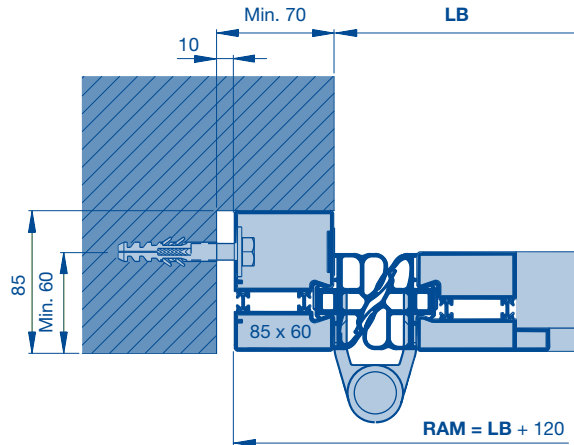
Sideroom FSN/FAW

View A – A (See Page 5)

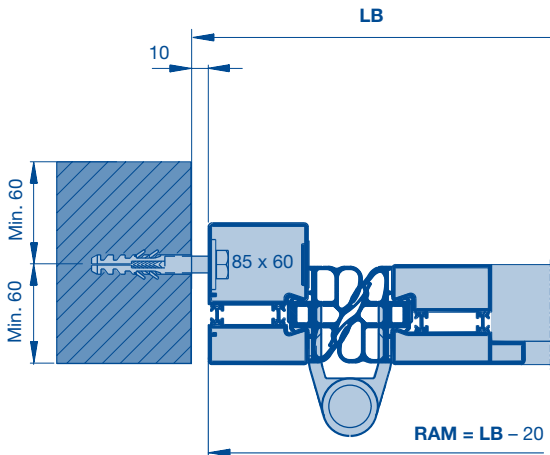
Fitting to the wall
Standard/normal fixing



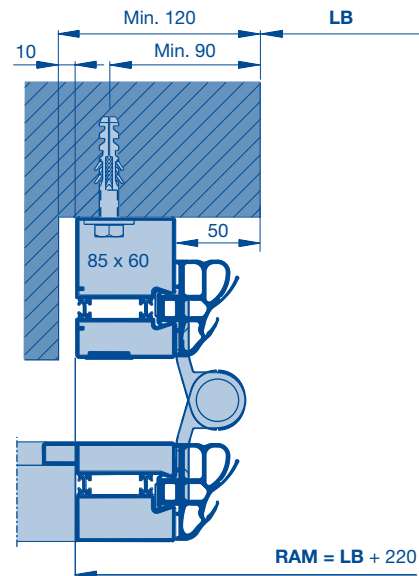
Fitting to the wall
Side fixing



Fitting in the opening
Side fixing

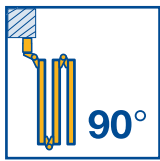


Fitting to the wall
Free passage width with 180° opening angle



Head details overview, see page 9 – 10

RAM = Overall frame dimension
LB = Clear width

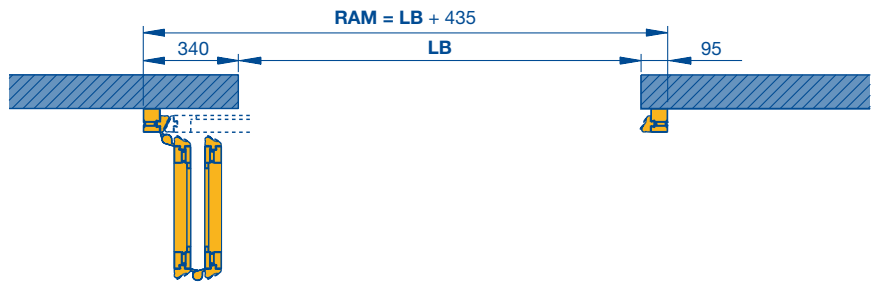


Sideroom FSN/FAW

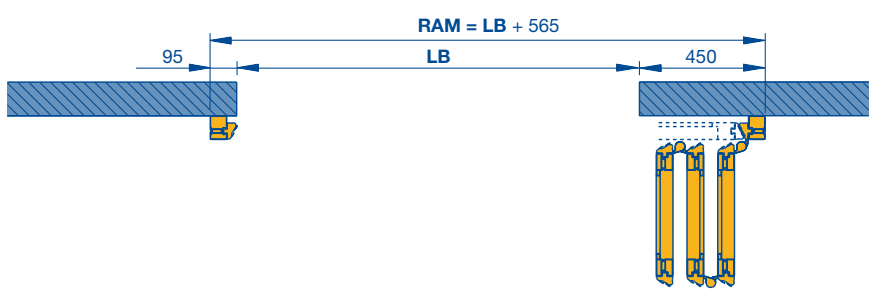
Fitting to the Wall

No passage loss

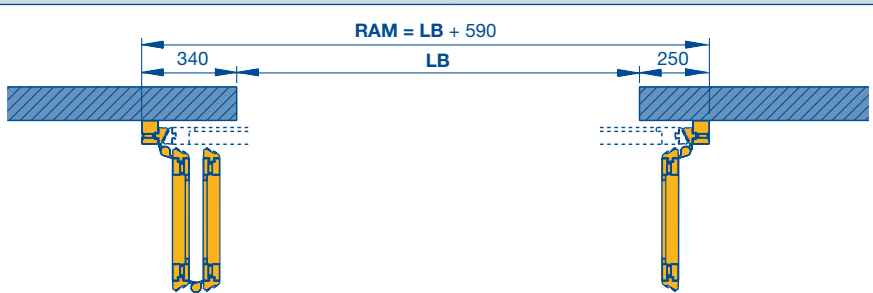
Folding arrangement 2:0



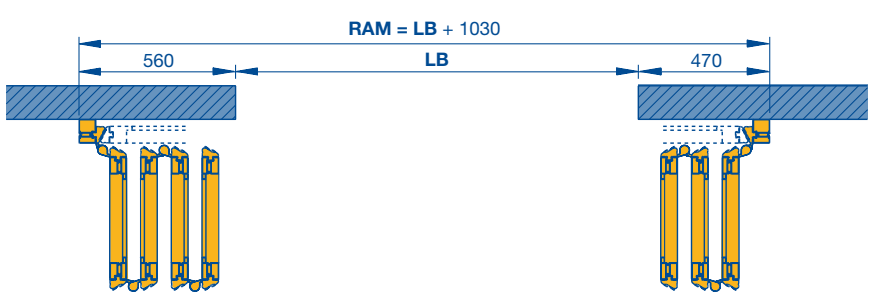
Folding arrangement 0:3



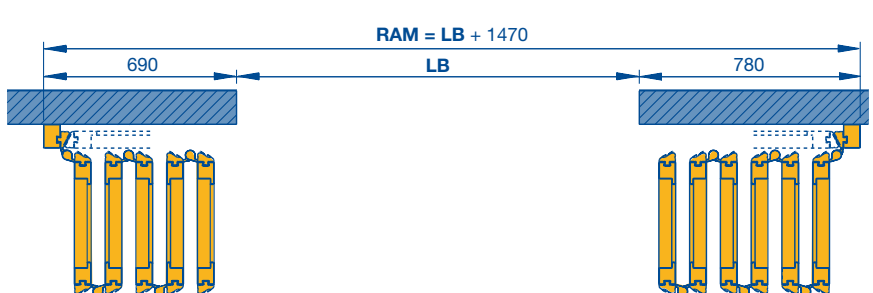
Folding arrangement 2:1



Folding arrangement 4:3

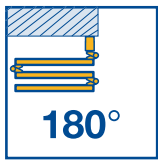


Folding arrangement 5:6 (not possible with FAW)



Head details overview, see pages 9 – 10
 Folding arrangement overview, see pages 29 – 30

RAM = Overall frame dimension
 LB = Clear width

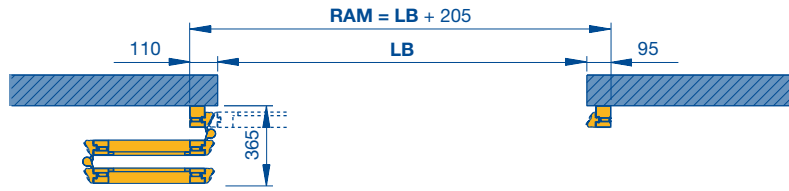


Sideroom FSN/FAW

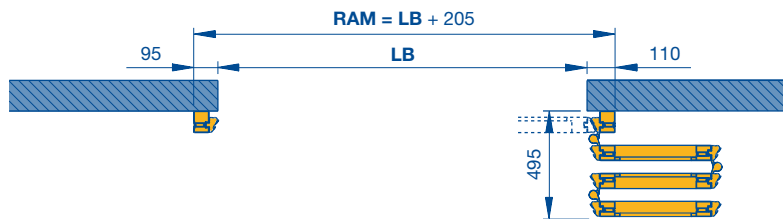
Fitting to the Wall

No passage loss

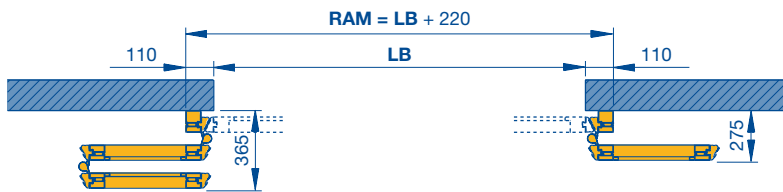
Folding arrangement 2:0



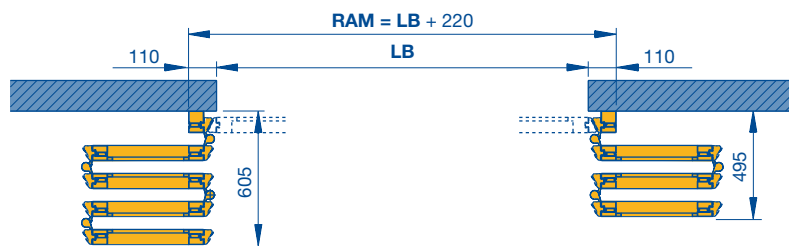
Folding arrangement 0:3



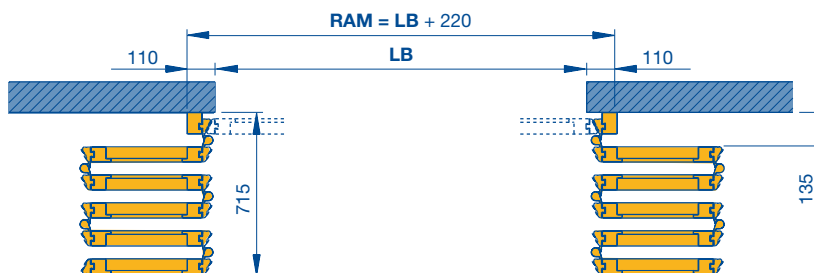
Folding arrangement 2:1



Folding arrangement 4:3



Folding arrangement 5:5 (not possible with FAW)



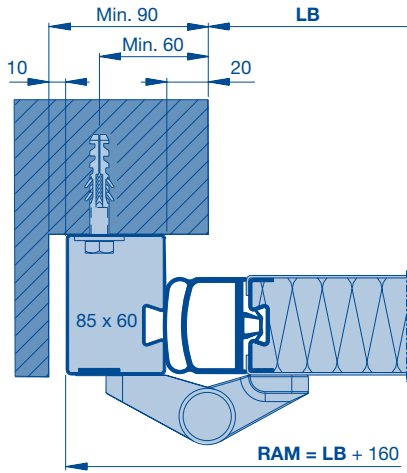
Head details overview, see pages 9 – 10
 Folding arrangement overview, see pages 29 – 30

RAM = Overall frame dimension
 LB = Clear width

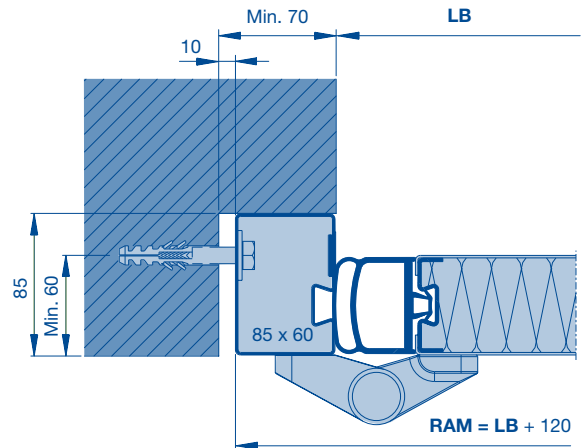
Sideroom FPU/FMI

View A – A (See Page 13)

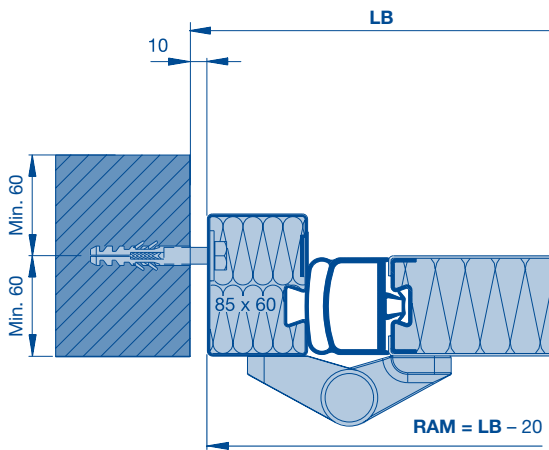
Fitting to the wall
Standard/normal fixing



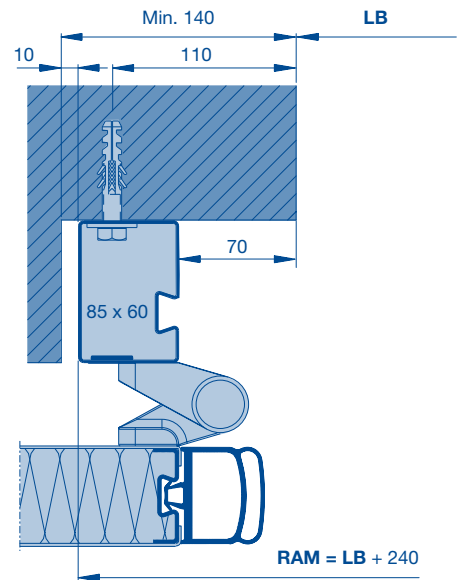
Fitting to the wall
Side fixing



Fitting in the opening
Side fixing



Fitting to the wall
Free passage width with 180° opening angle



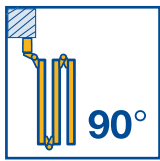
With insulation



Without insulation

For head details overview, see pages 17 – 18

RAM = Overall frame dimension
LB = Clear width

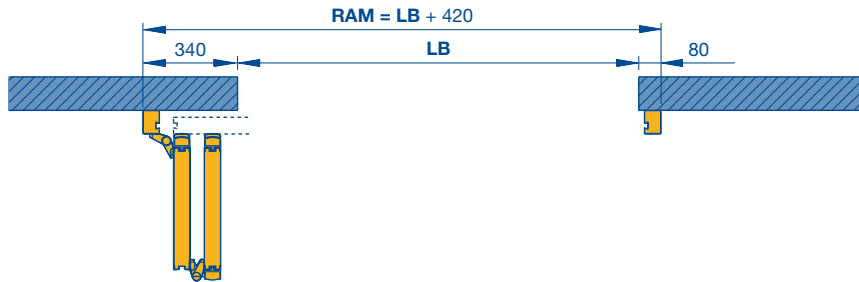


Sideroom FPU/FMI

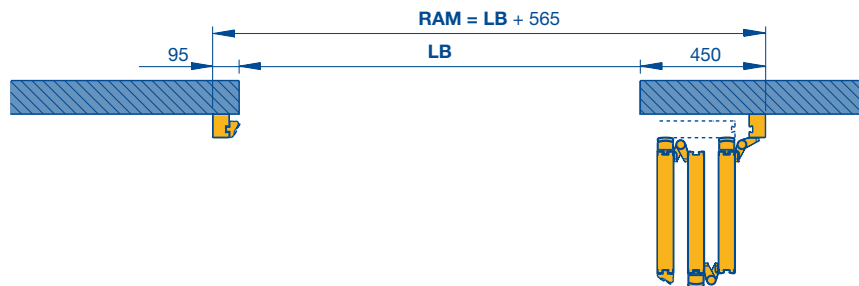
Fitting to the Wall

No passage loss

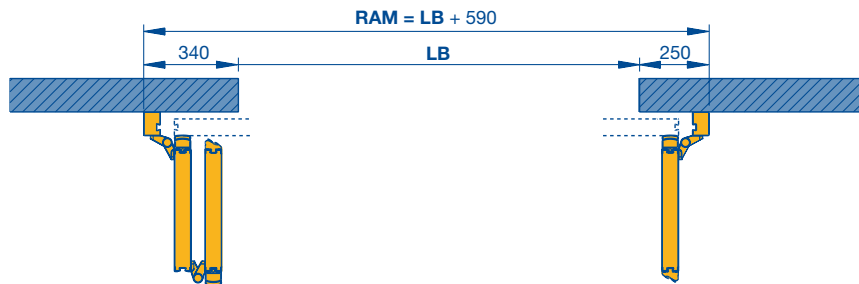
Folding arrangement 2:0



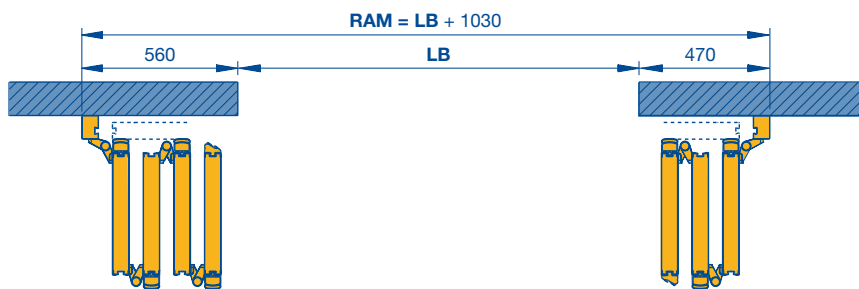
Folding arrangement 0:3



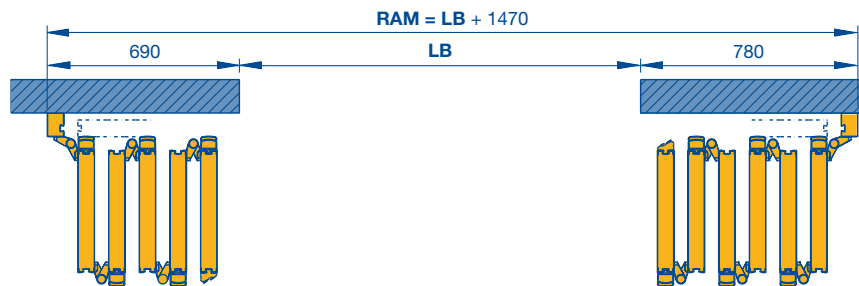
Folding arrangement 2:1



Folding arrangement 4:3

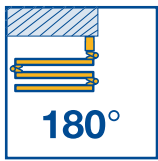


Folding arrangement 5:6



Head details overview, see pages 17 – 18
 Folding arrangement overview, see pages 29 – 30

RAM = Overall frame dimension
 LB = Clear width

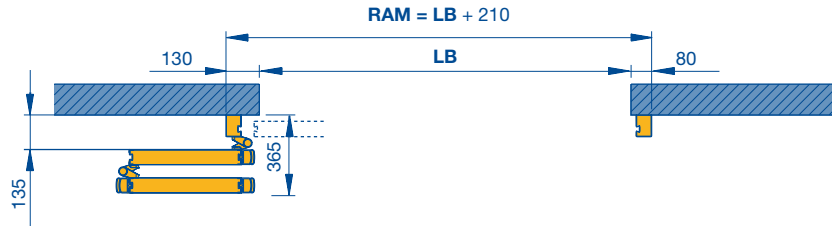


Sideroom FPU/FMI

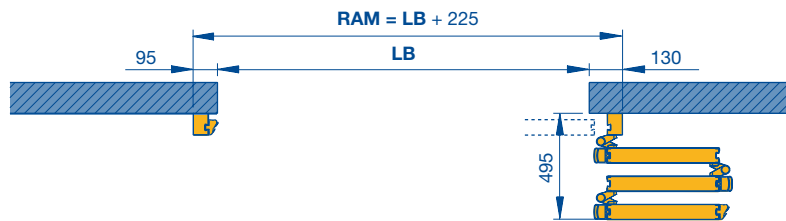
Fitting to the Wall

No passage loss

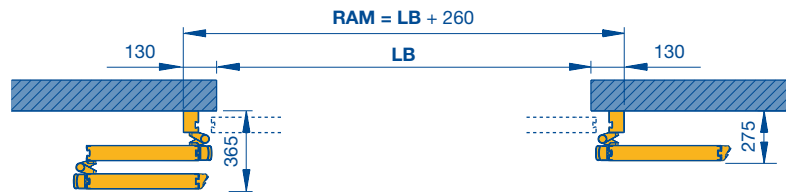
Folding arrangement 2:0



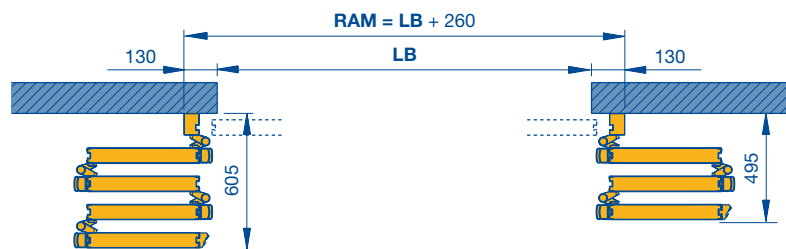
Folding arrangement 0:3



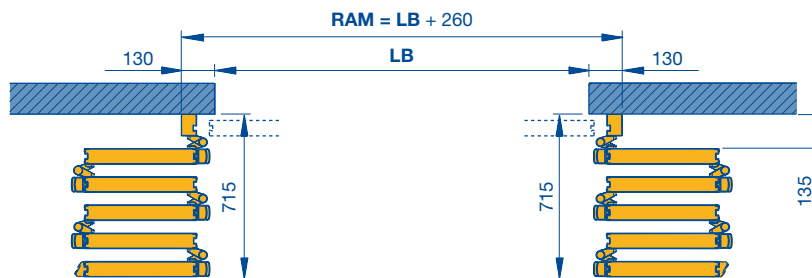
Folding arrangement 2:1



Folding arrangement 4:3



Folding arrangement 5:5



Head details overview, see pages 17 – 18
 Folding arrangement overview, see pages 29 – 30

RAM = Overall frame dimension
 LB = Clear width

Folding Arrangement/Passage Width For 3 to 5-Leaf Doors FSN/FAW/FPU/FMI

Folding arrangements are read from the opening side (fitting side) from left to right. 3 and 4-leaf doors with folding arrangements 3:0, 0:3, 1:3, 3:1, 4:0 and 0:4 without threshold and with internal fitting with guide piece in the floor.



- ① Folding doors without a traffic leaf: A wicket door is required if there is no second entrance.
 - ② Not possible with FAW.
 - ③ For doors with external fitting and opening outwards: Up to 3 leaves possible on one side without threshold. From a 4th leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted.
- For doors with internal fitting and opening inwards:** From a 3rd leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From a 4th leaf on one side always with threshold and additional track rollers or with track rollers and a U-rail in the floor if a threshold is not wanted.

RAM - 590	RAM - 220	RAM - 260	1:2	
RAM - 590	RAM - 220	RAM - 260	2:1	
RAM - 565	RAM - 205	RAM - 225	3:0 ③	
RAM - 565	RAM - 205	RAM - 225	0:3 ③	
RAM - 720	RAM - 220	RAM - 260	1:3 ③	
RAM - 720	RAM - 220	RAM - 260	3:1 ③	
RAM - 680	RAM - 220	RAM - 260	2:2 ①	
RAM - 655	RAM - 205	RAM - 210	0:4 ① ③	
RAM - 655	RAM - 205	RAM - 210	4:0 ① ③	
RAM - 810	RAM - 220	RAM - 260	2:3 ③	
RAM - 810	RAM - 220	RAM - 260	3:2 ③	
RAM - 810	RAM - 220	RAM - 260	4:1 ③	
RAM - 785	RAM - 205	RAM - 225	0:5 ③	

Folding Arrangement/Passage Width For 6 to 12-Leaf Doors FSN/FAW/FPU/FMI

Folding arrangements are read from the opening side (fitting side) from left to right.



- ① Folding doors without a traffic leaf: A wicket door is required if there is no second entrance.
- ② Not possible with FAW.
- ③ **For doors with external fitting and opening outwards:** Up to 3 leaves possible on one side without threshold. From a 4th leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted.
- For doors with internal fitting and opening inwards:** From a 3rd leaf on one side always with threshold (pos. with additional track rollers) or with bottom track rollers and a U-rail in the floor if a threshold is not wanted. From a 4th leaf on one side always with threshold and additional track rollers or with track rollers and a U-rail in the floor if a threshold is not wanted.

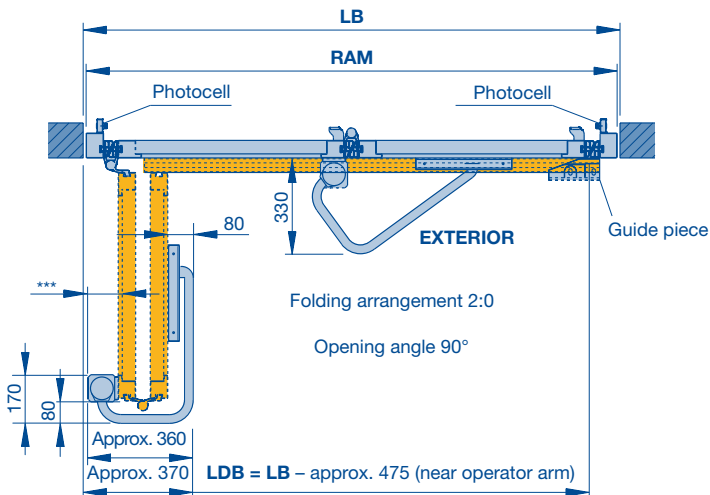
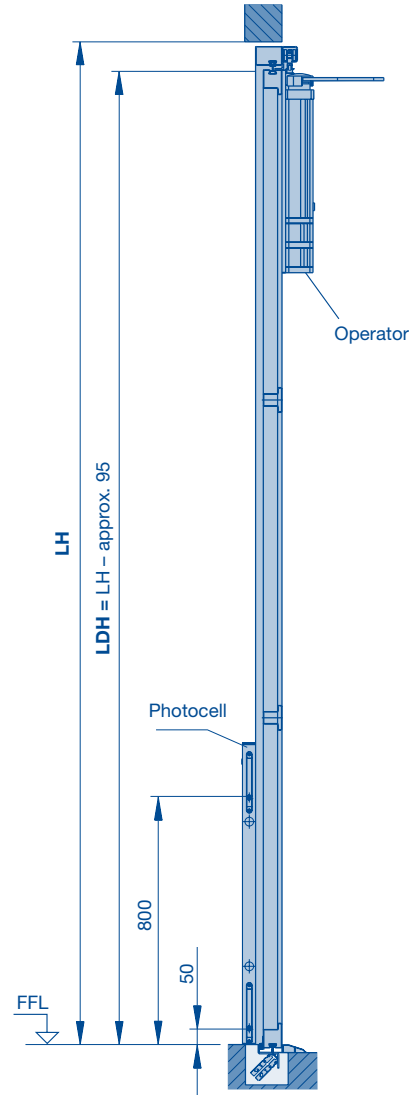
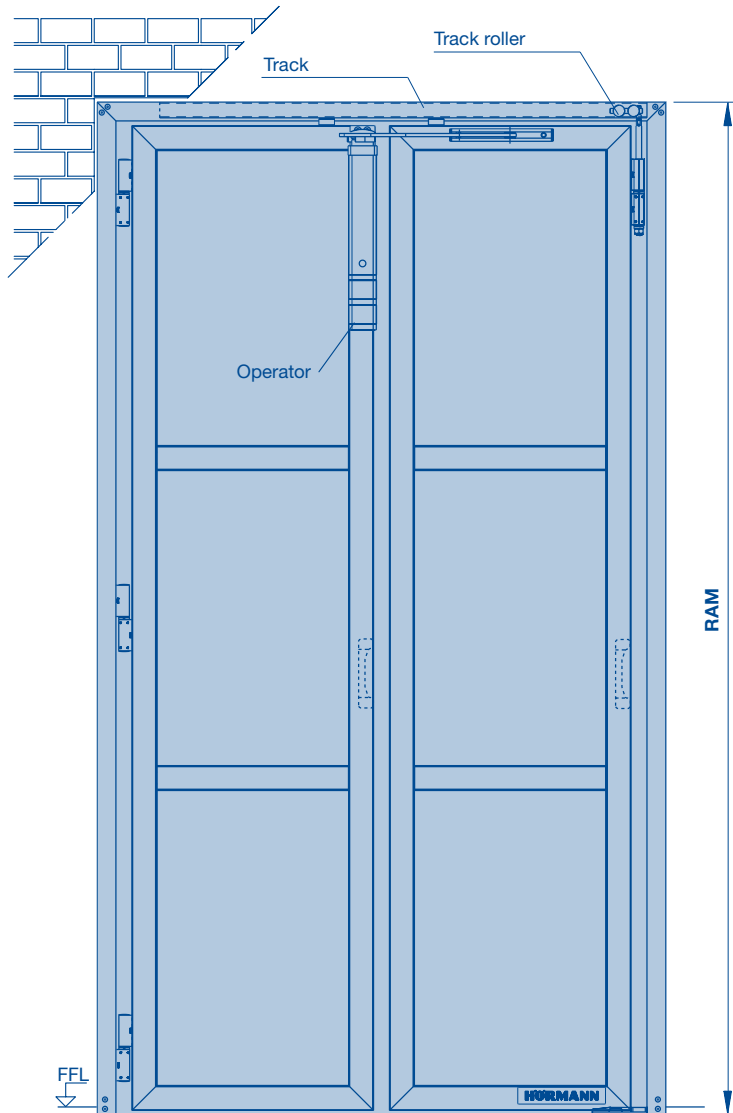
RAM - 940	RAM - 220	RAM - 260	3:3 ③
RAM - 940	RAM - 220	RAM - 260	3:3 ③
RAM - 900	RAM - 220	RAM - 260	2:4 ① ③
RAM - 1030	RAM - 220	RAM - 260	3:4 ③
RAM - 1030	RAM - 220	RAM - 260	4:3 ③
RAM - 1120	RAM - 220	RAM - 260	4:4 ① ③
RAM - 1250	RAM - 220	RAM - 260	4:5 ② ③
RAM - 1250	RAM - 220	RAM - 260	5:4 ② ③
RAM - 1380	RAM - 220	RAM - 260	5:5 ② ③
RAM - 1380	RAM - 220	RAM - 260	5:5 ② ③
RAM - 1470	-	-	6:5 ② ③
RAM - 1470	-	-	5:6 ② ③
RAM - 1560	-	-	6:6 ① ② ③

FSN/FAW/FPU/FMI

Operator Type AFT B900

Folding Arrangement 0:2 or 2:0

Folding door with operator



*** Approx. 110 with external fitting
Approx. 140 with internal fitting

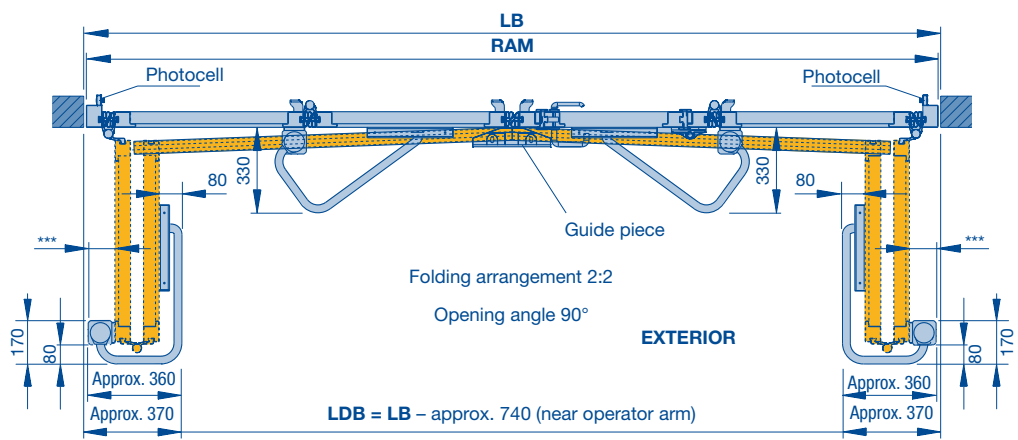
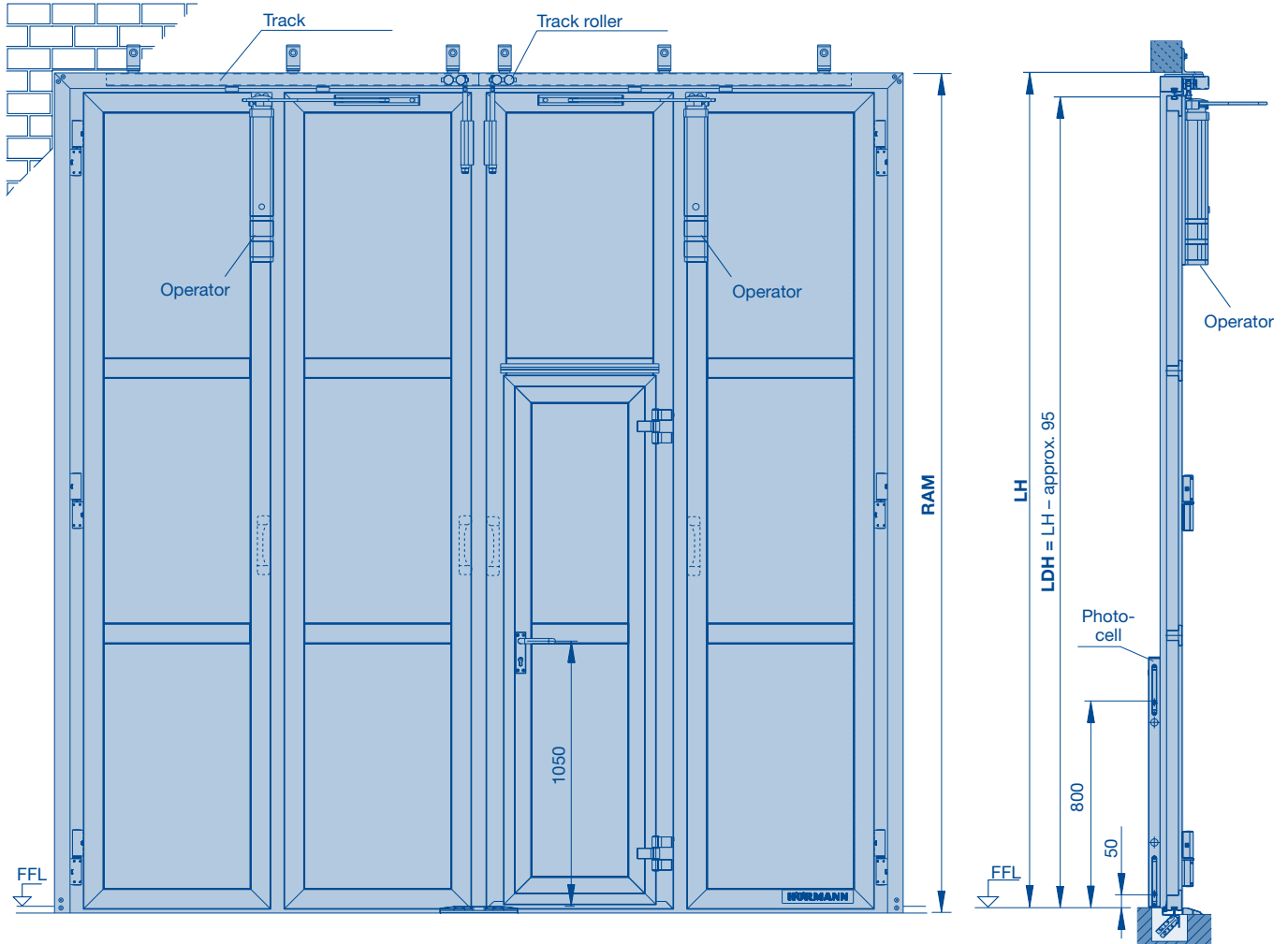
- RAM** = Overall frame dimension
- LH** = Clear height
- LB** = Clear width
- LDB** = Clear passage width
- LDH** = Clear passage height
- FFL** = Finished floor level

FSN/FAW/FPU/FMI

Operator Type AFT B900

Folding Arrangement 2:2

Folding door with operator

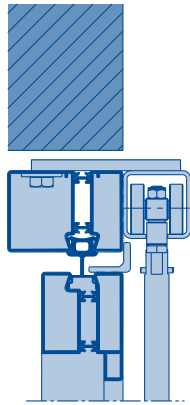


*** Approx. 110 with external fitting
Approx. 140 with internal fitting

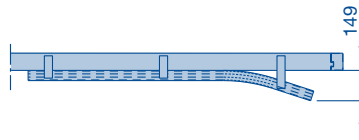
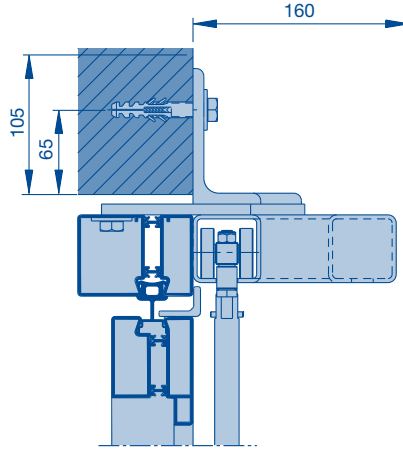
- RAM** = Overall frame dimension
- LH** = Clear height
- LB** = Clear width
- LDB** = Clear passage width
- LDH** = Clear passage height
- FFL** = Finished floor level

Track/Headroom Fixing FAW

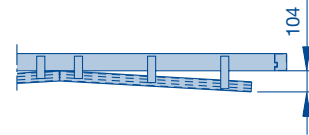
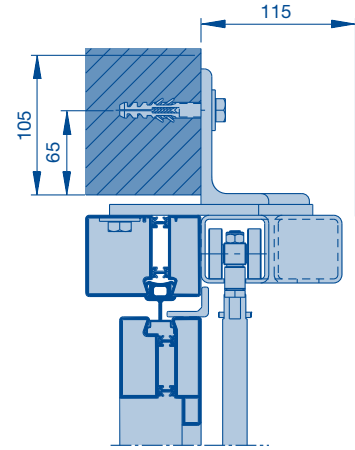
90°; fitted in the opening



90°; fitted in the opening



90°; fitted in the opening with operator

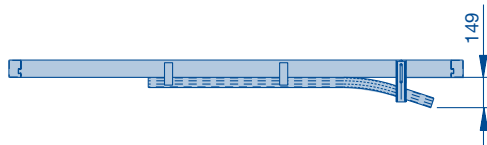
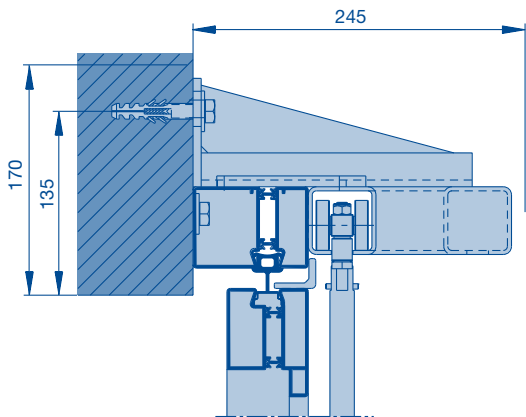


Applies to the following folding arrangements:
0:2 / 2:0 / 0:3 / 3:0 / 0:4 / 1:3 / 3:1 / 4:0 0:5 /
1:4 / 4:1 / 5:0 / 0:6 / 1:5 / 3:3 / 5:1 / 6:0 / 0:7 /
1:6 / 3:4 / 4:3 / 6:1 / 7:0

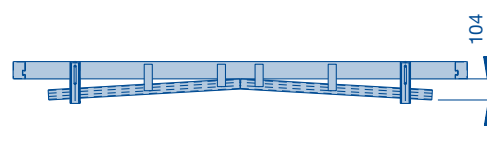
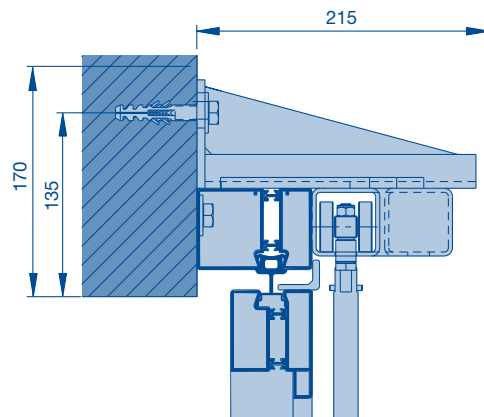
Applies to the following folding arrangements:
1:2 / 2:1 / 2:2 / 2:3 / 3:2 / 2:4 / 4:2 / 2:5 / 5:2

Applies to the following folding arrangements:
2:2

90°; fitted to the wall



90°; fitted to the wall with operator

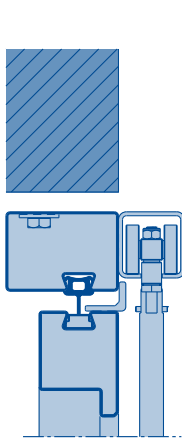


Applies to the following folding arrangements:
1:2 / 2:1 / 2:2 / 2:3 / 3:2 / 2:4 / 4:2 / 2:5 / 5:2

Applies to the following folding arrangements:
2:2

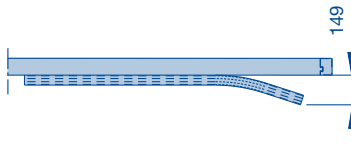
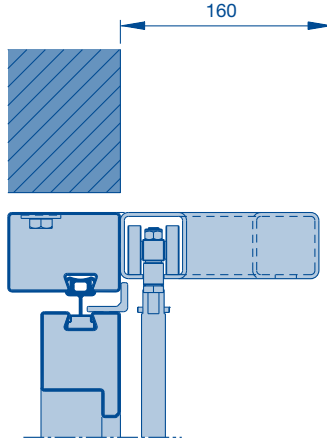
Track/Headroom Fixing FSN/FPU/FMI

90°; fitted in the opening



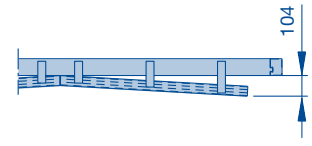
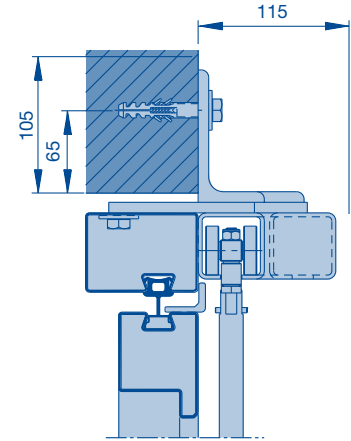
Applies to the following folding arrangements:
 0:2 / 2:0 / 0:3 / 3:0 / 0:4 / 1:3 / 3:1 / 4:0 0:5 /
 1:4 / 4:1 / 5:0 / 0:6 / 1:5 / 3:3 / 5:1 / 6:0 / 0:7 /
 1:6 / 3:4 / 4:3 / 6:1 / 7:0

90°; fitted in the opening



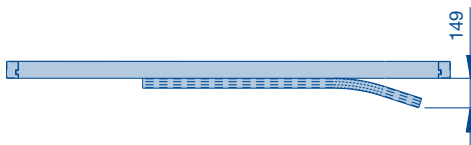
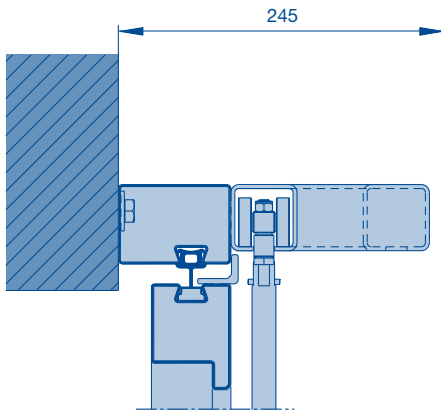
Applies to the following folding arrangements:
 1:2 / 2:1 / 2:2 / 2:3 / 3:2 / 2:4 / 4:2 / 2:5 / 5:2

90°; fitted in the opening with operator



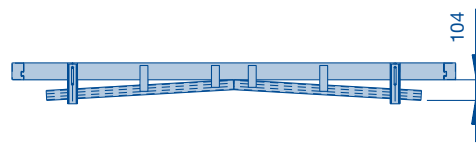
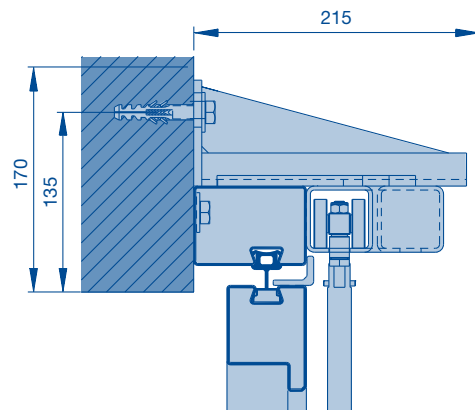
Applies to the following folding arrangements:
 2:2

90°; fitted to the wall



Applies to the following folding arrangements:
 1:2 / 2:1 / 2:2 / 2:3 / 3:2 / 2:4 / 4:2 / 2:5 / 5:2

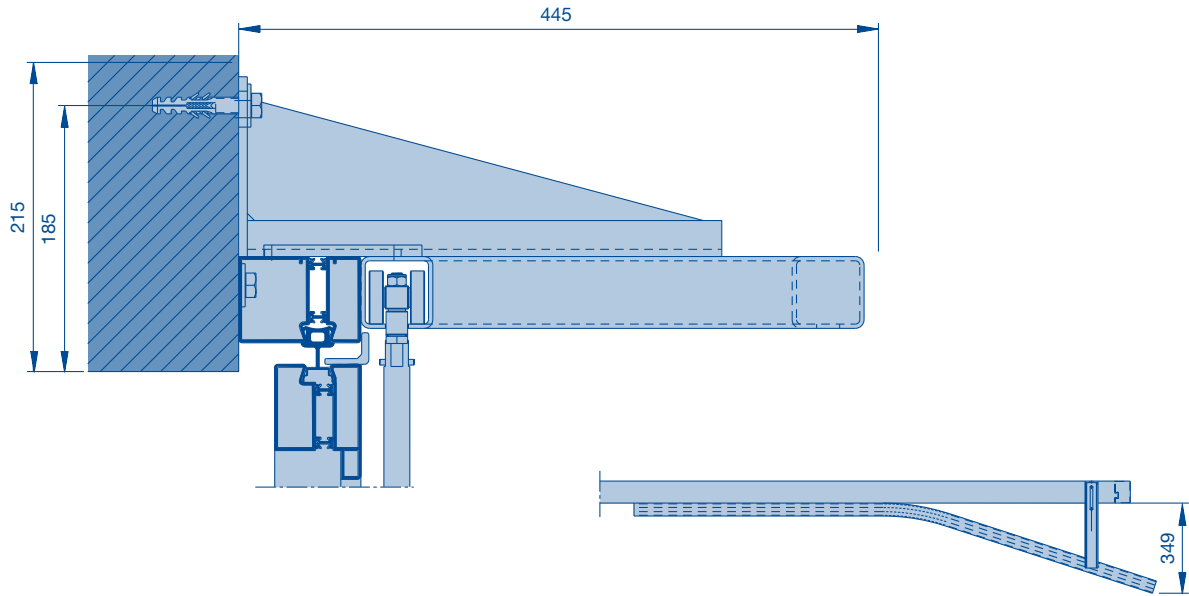
90°; fitted to the wall with operator



Applies to the following folding arrangements:
 2:2

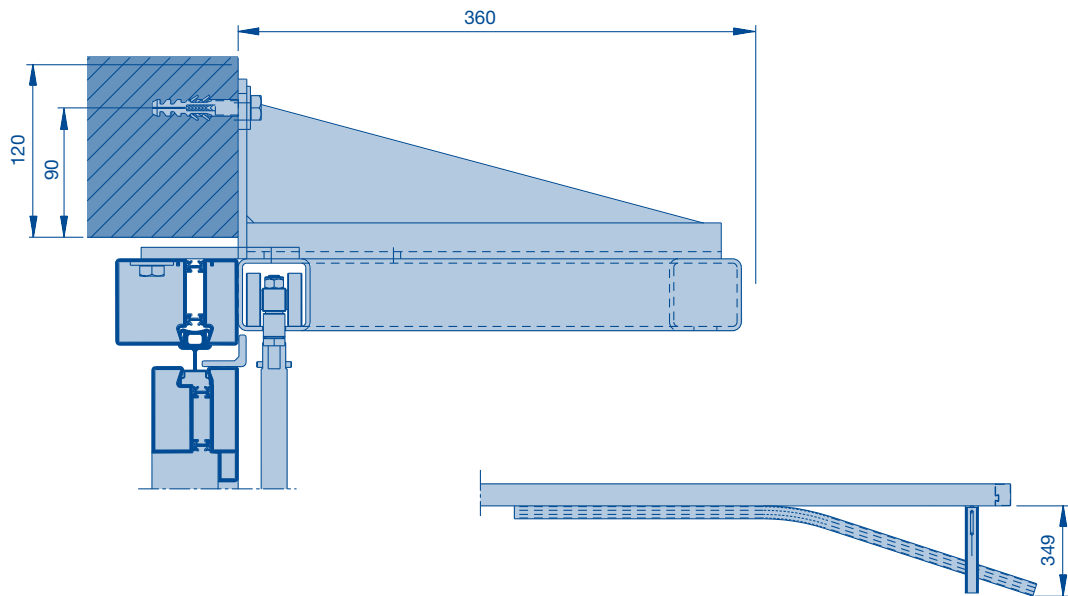
Track/Headroom Fixing FSN/FAW/FPU/FMI

180°; fitted to the wall up to max. 3 leaves on one side



Applies to the following folding arrangements:
0:2 / 2:0 / 0:3 / 1:2 / 2:1 / 3:0 / 1:3 / 2:2 / 3:1

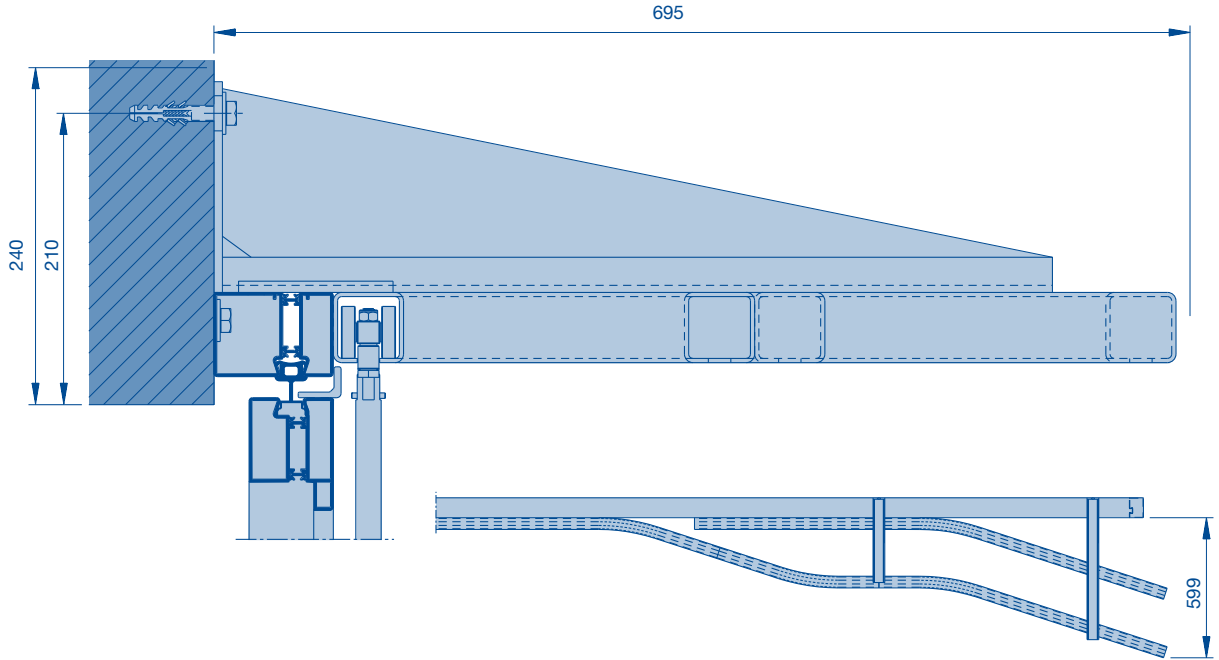
180°; fitted in the opening up to max. 3 leaves on one side



Applies to the following folding arrangements:
0:2 / 2:0 / 0:3 / 1:2 / 2:1 / 3:0 / 1:3 / 2:2 / 3:1

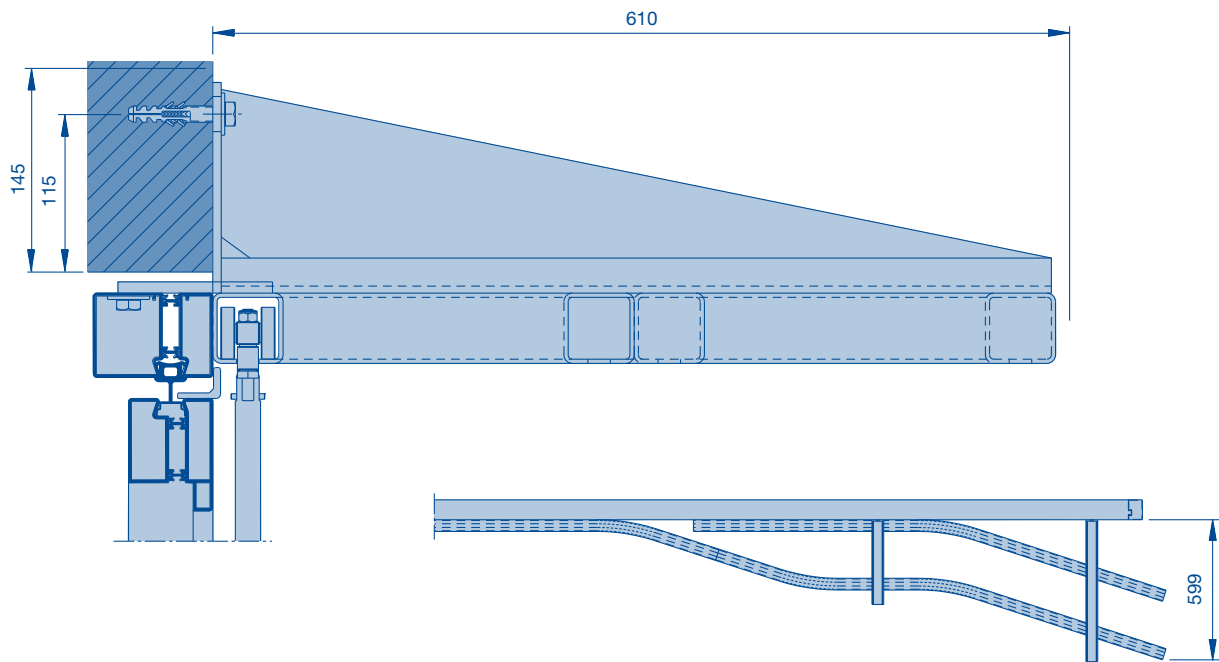
Track/Headroom Fixing FSN/FAW/FPU/FMI

180°; fitted to the wall with 4 or 5 leaves on one side

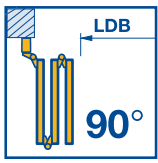


Applies to the following folding arrangements:
0:4 / 4:0 / 0:5 / 1:4 / 4:1 / 5:0
0:6 / 1:5 / 2:4 / 4:2 / 5:1 / 6:0
0:7 / 1:6 / 2:5 / 3:4 / 4:3 / 5:2 / 6:1 / 7:0

180°; fitted in the opening with 4 or 5 leaves on one side



Applies to the following folding arrangements:
0:4 / 4:0 / 0:5 / 1:4 / 4:1 / 5:0
0:6 / 1:5 / 2:4 / 4:2 / 5:1 / 6:0
0:7 / 1:6 / 2:5 / 3:4 / 4:3 / 5:2 / 6:1 / 7:0

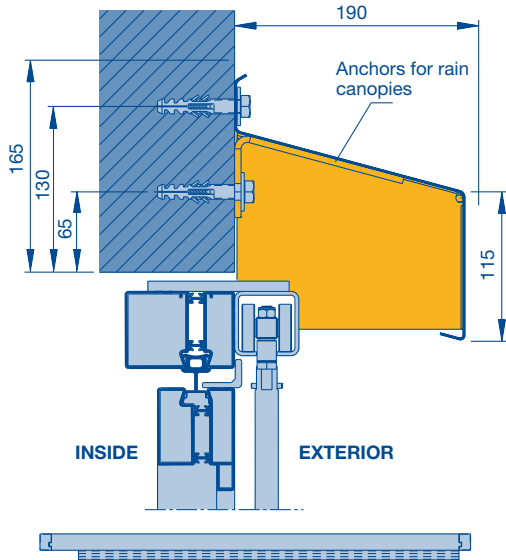


Rain Canopies/Headroom

FSN/FAW/FPU/FMI

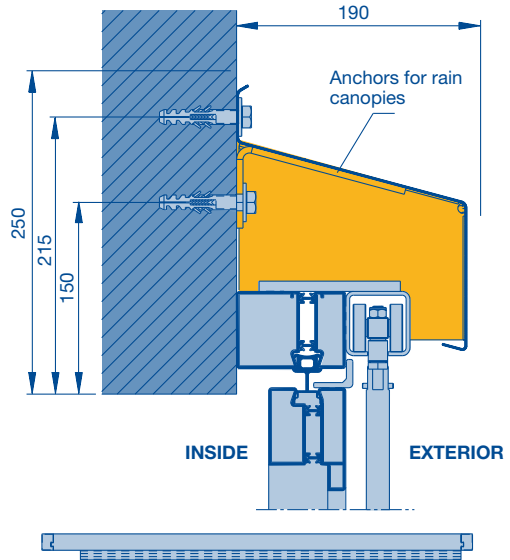
Canopy 1

90°; fitted in the opening



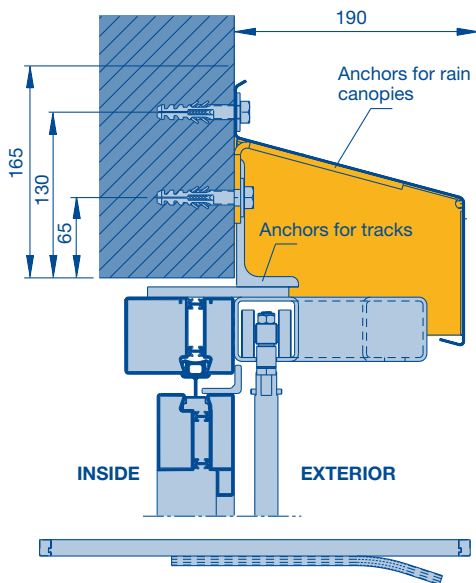
Applies to the following folding arrangements:
 0:2 / 2:0 / 0:3 / 3:0 / 0:4 / 1:3 / 3:1 / 4:0
 0:5 / 1:4 / 4:1 / 5:0 / 0:6 / 1:5 / 3:3 / 5:1 / 6:0
 0:7 / 1:6 / 3:4 / 6:1 / 7:0

90°; fitted to the wall



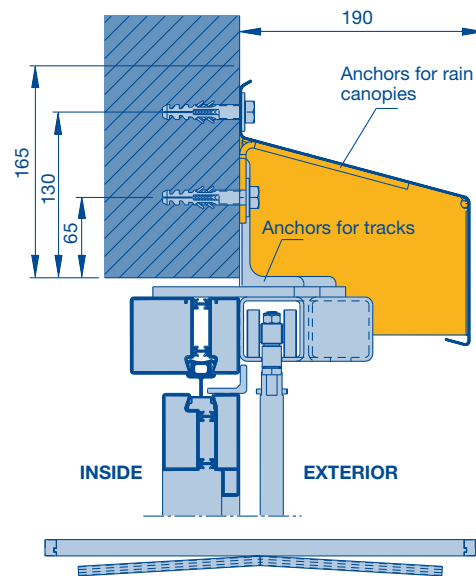
Applies to the following folding arrangements:
 0:2 / 2:0 / 0:3 / 3:0 / 0:4 / 1:3 / 3:1 / 4:0
 0:5 / 1:4 / 4:1 / 5:0 / 0:6 / 1:5 / 3:3 / 5:1 / 6:0
 0:7 / 1:6 / 3:4 / 6:1 / 7:0

90°; fitted in the opening

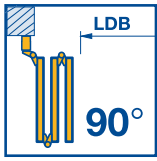


Applies to the following folding arrangements:
 1:2 / 2:1 / 2:2 / 2:3 / 3:2 / 2:4 / 4:2 / 2:5 / 5:2

90°; fitted in the opening with operator



Applies to the following folding arrangements:
 2:2

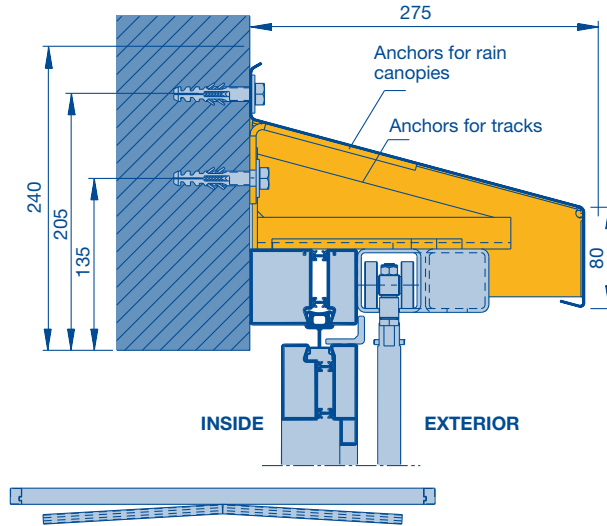


Rain Canopies/Headroom

FSN/FAW/FPU/FMI

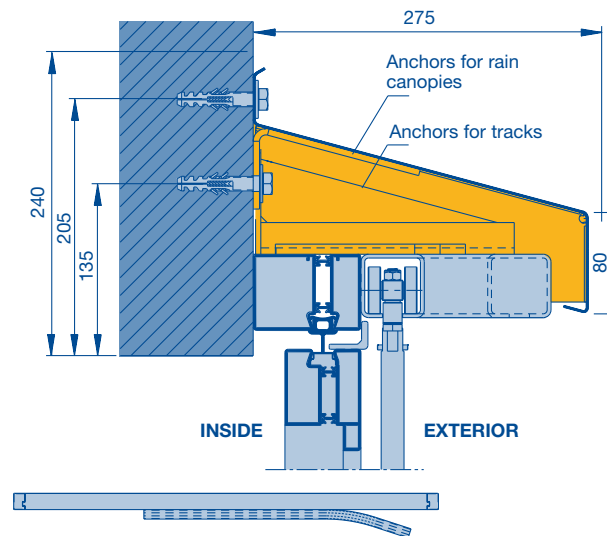
Canopy 2

90°; fitted to the wall with operator

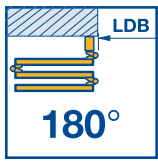


Applies to the following folding arrangements:
2:2

90°; fitted to the wall



Applies to the following folding arrangements:
1:2 / 2:1 / 2:2 / 2:3 / 3:2 / 2:4 / 4:2 / 2:5 / 5:2

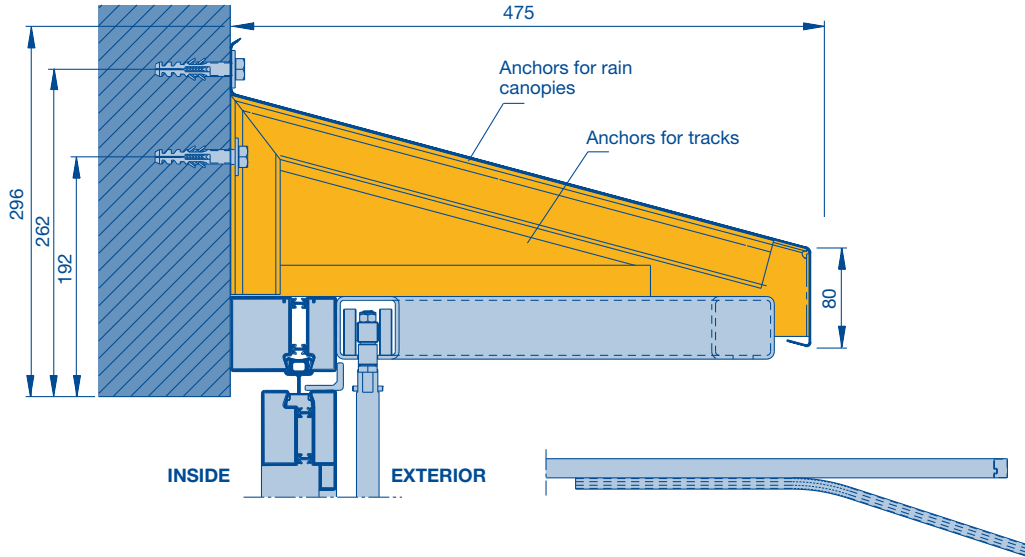


Rain Canopies/Headroom

FSN/FAW/FPU/FMI

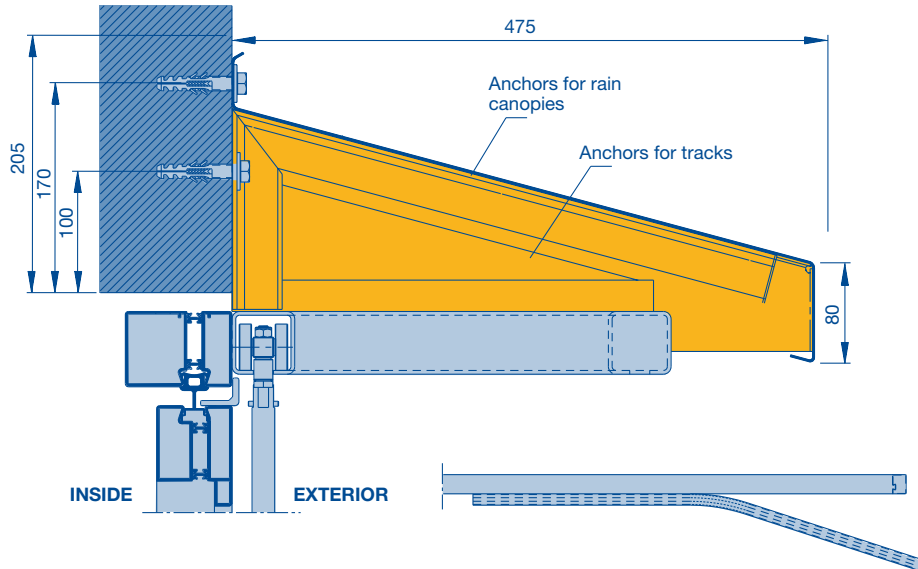
Canopy 3

180°; fitted to the wall up to max. 3 leaves on one side

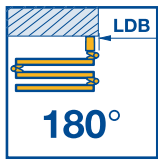


Applies to the following folding arrangements:
0:2 / 2:0 / 0:3 / 1:2 / 2:1 / 3:0 / 1:3 / 2:2 / 3:1

180°; fitted in the opening up to max. 3 leaves on one side



Applies to the following folding arrangements:
0:2 / 2:0 / 0:3 / 1:2 / 2:1 / 3:0 / 1:3 / 2:2 / 3:1

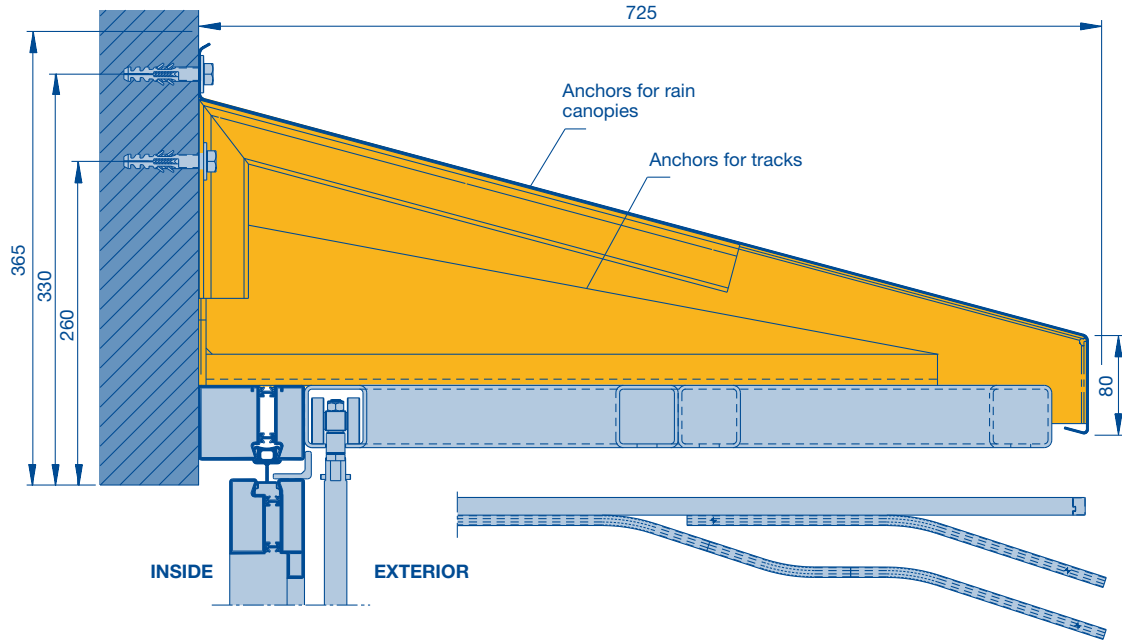


Rain Canopies/Headroom

FSN/FAW/FPU/FMI

Canopy 4

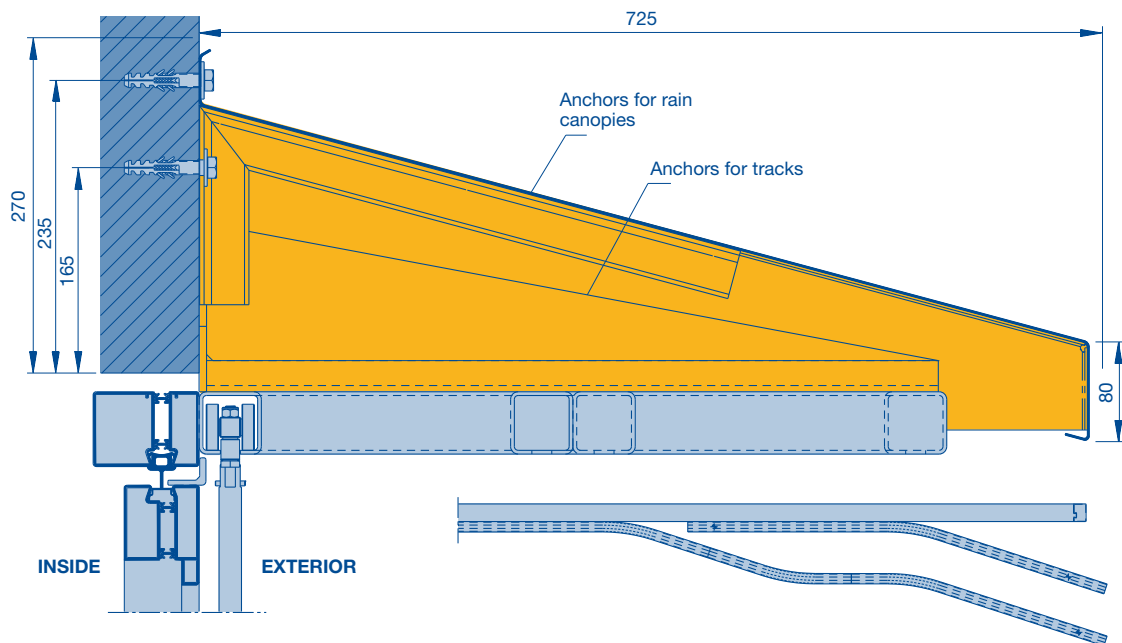
180°; fitted to the wall with 4 or 5 leaves on one side



Applies to the following folding arrangements:

- 0:4 / 4:0 / 0:5 / 1:4 / 4:1 / 5:0
- 0:6 / 1:5 / 2:4 / 4:2 / 5:1 / 6:0
- 0:7 / 1:6 / 2:5 / 3:4 / 4:3 / 5:2 / 6:1 / 7:0

180°; fitted in the opening with 4 or 5 leaves on one side



Applies to the following folding arrangements:

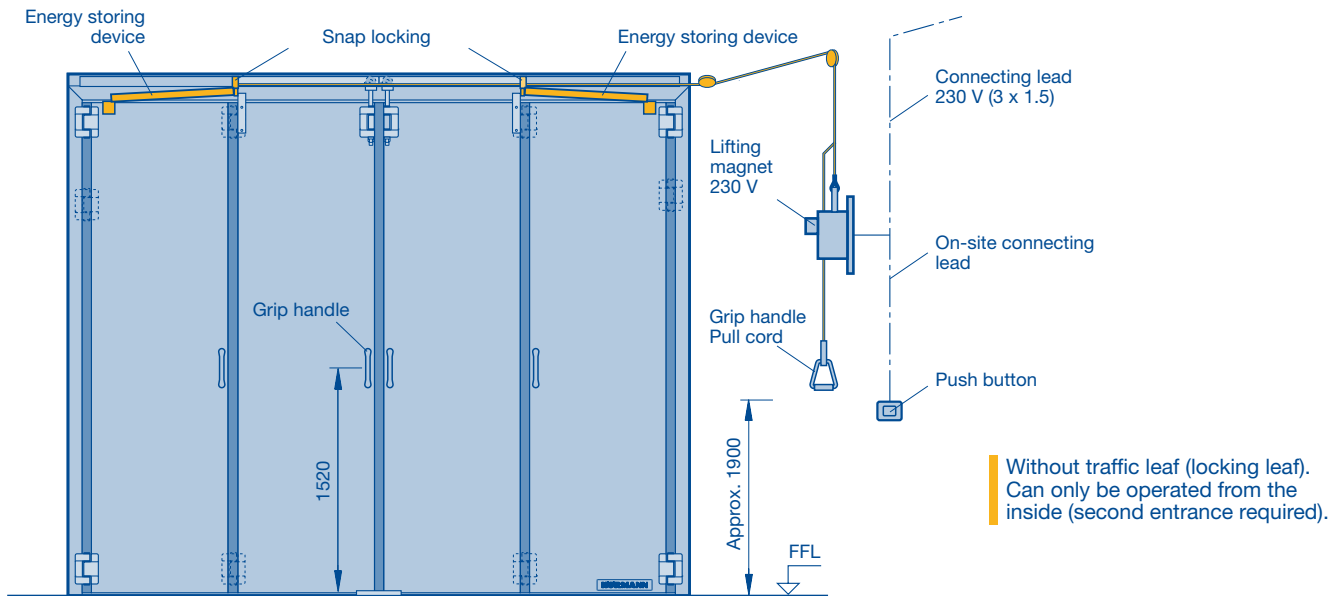
- 0:4 / 4:0 / 0:5 / 1:4 / 4:1 / 5:0
- 0:6 / 1:5 / 2:4 / 4:2 / 5:1 / 6:0
- 0:7 / 1:6 / 2:5 / 3:4 / 4:3 / 5:2 / 6:1 / 7:0

Fire Station Folding Doors FSN/FAW/FPU/FMI

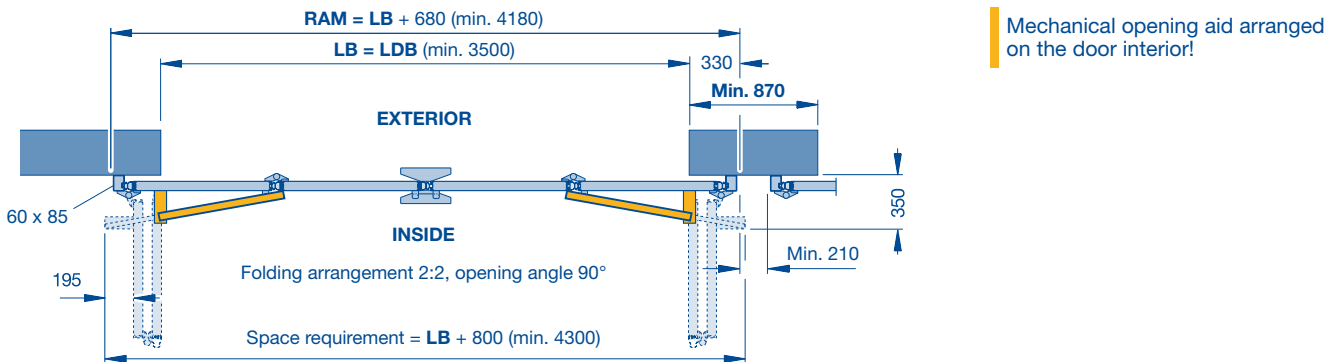
Fast Opening via a Mechanical Opening Aid

Fast opening via pre-tensioned opening aids with sound absorber. Folding arrangement 2:2. Opening angle 90°. Release via pull cord. Supplemented with lifting magnet. Connecting lead provided by the customer on site. The **quick release** can be operated on the left or right (right arrangement shown). The release with pull cord can be supplemented by a lifting magnet and is triggered via a push button. Group switching possible.

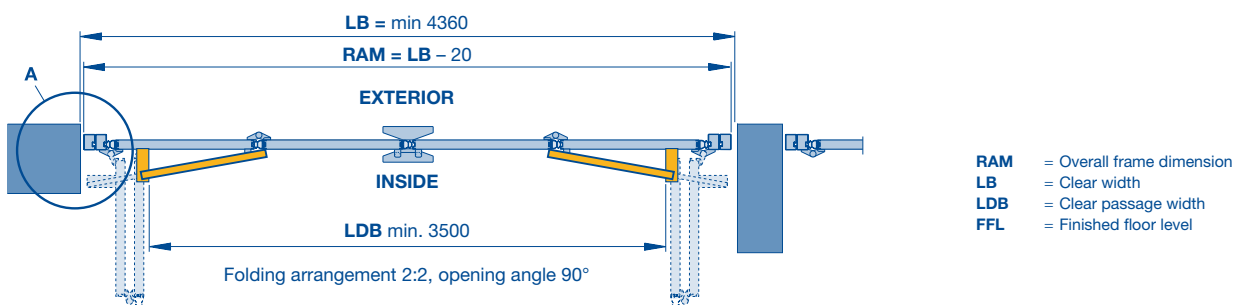
Folding arrangement 2:2



Fitting to the wall



Fitting in the opening



DIN 14092 part 2 stipulates doors opening inwards and requires a minimum passage dimension of 3500 mm width and 3500 mm or 4000 mm height. Due to the leaf packs when the door is open, larger opening dimensions may be required, depending on the door, see also folding arrangement 2:2 on page 29. In exceptional cases involving renovations, doors opening outwards which do not comply with DIN are also available.

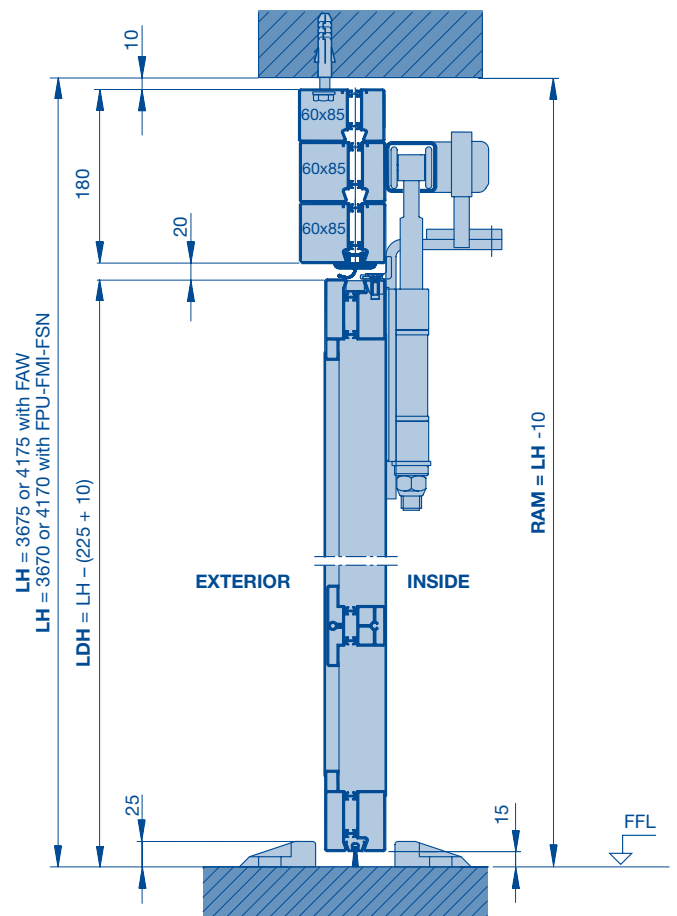
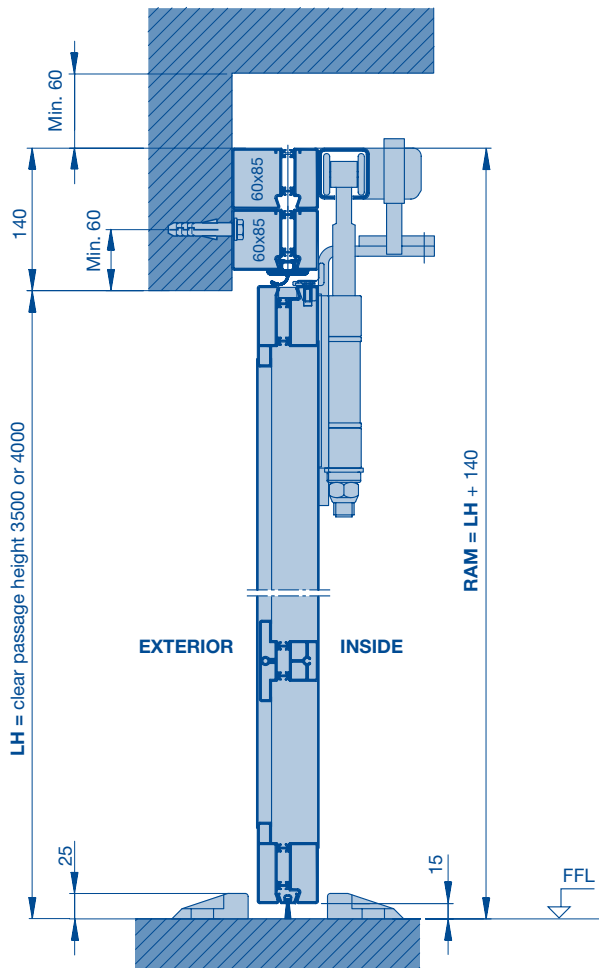
Fire Station Folding Doors FSN/FAW/FPU/FMI

Fast Opening via a Mechanical Opening Aid

Fast opening via pre-tensioned opening aids with sound absorber. Folding arrangement 2:2. Opening angle 90°. Release via pull cord. Supplemented with lifting magnet. Connecting lead provided by the customer on site. The **quick release** can be operated on the left or right (right arrangement shown). The release with pull cord can be supplemented by a lifting magnet and is triggered via a push button. Group switching possible.

Fitting to the wall

Fitting in the opening



Detail A
See page 35



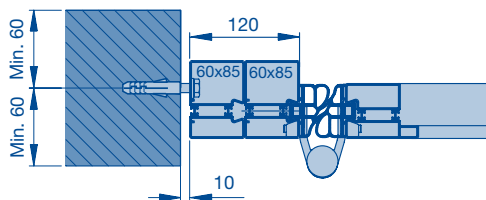
FAW



FSN with insulation



FSN without insulation



- RAM** = Overall frame dimension
- LH** = Clear height
- LDH** = Clear passage height
- FFL** = Finished floor level

DIN 14092 part 2 stipulates doors opening inwards and requires a minimum passage dimension of 3500 mm width and 3500 mm or 4000 mm height. Due to the leaf packs when the door is open, larger opening dimensions may be required, depending on the door, see also folding arrangement 2:2 on page 29. In exceptional cases involving renovations, doors opening outwards which do not comply with DIN are also available.

Notes

