



Rolling Shutters and Rolling Grilles SB, TGT and DD

Technical manual
Issue 01.03.2019

HÖRMANN

Abbreviations Used

ABP	= Lockable bottom profile
BB	= Panel width
BH	= Panel height
BMB	= Door width ordering size
BMH	= Door height ordering size
DHV	= Loss of passage height
DIF	= Difference dimension
ET	= Fitting depth
ET_{AW}	= Fitting depth with horizontal operator
ET_{PV}	= Fitting depth for door with curtain cover
ET_{SSG}	= Fitting depth for SSG
ET_{VDD}	= Fitting depth for door with curtain cover VDD-V/VDD-H
EZS	= Lintel trap guard
F_{horiz}	= Horizontal force at the fixing point
F_{vert}	= Vertical force at the fixing point
FS	= Sideroom for side guide
KU	= Support bracket dimension bottom
L	= Sideroom on bearing side
L_{AR}	= Sideroom on bearing side with additional posts
LDB	= Clear passage width
LDH	= Clear passage height
LF	= Structural opening
L_{PV}	= Bearing side sideroom with curtain cover
LZ	= Clear frame dimension
LWB	= Structural opening width
M_{AR}	= Sideroom on motor side for additional posts
M_{PV}	= Motor side sideroom with curtain cover
MS	= Sideroom on motor side for direct drive operators
MS_{AR}	= Sideroom on motor side for direct drive operators with additional posts
OFF	= Finished floor level
PS	= Side space requirement
PV	= Curtain cover
RAM	= Overall frame dimension
RAMB	= Overall frame dimension width
RAMH	= Overall frame dimension height
S	= Required headroom
S_B	= Height of fascia panel
S_{SSG}	= Required headroom for doors with SSG
SD	= Lintel seal
SKS	= Closing edge safety device
S_{PV}	= Required headroom for doors with curtain cover
S_{SBP}	= Required headroom for doors with chamfered bottom profile
UB	= Bottom edge actuation
UB_{VDD}	= Bottom edge actuation with VDD-V/VDD-H
VDD	= Operator cover DD
WLK	= Wind load class acc. to EN 12424

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Note:

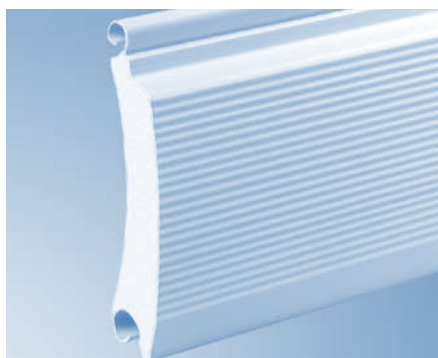
All dimensions in this document provide the minimum details in [mm] and are standard values (if necessary, please take the accurate values from the product configurator).

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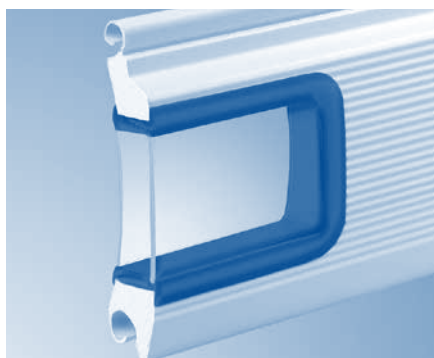
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Profile Overview

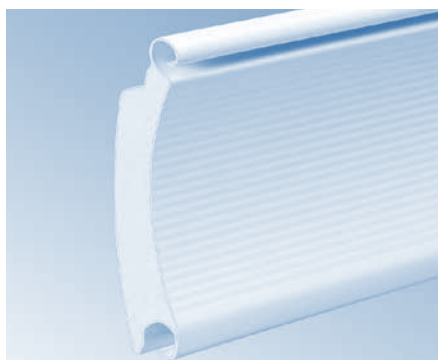
Decotherm S



Decotherm



Decotherm with rectangular window

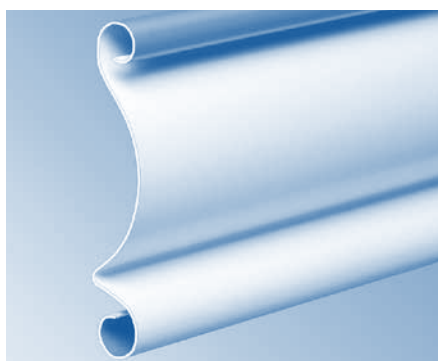


Decotherm external rolling shutters

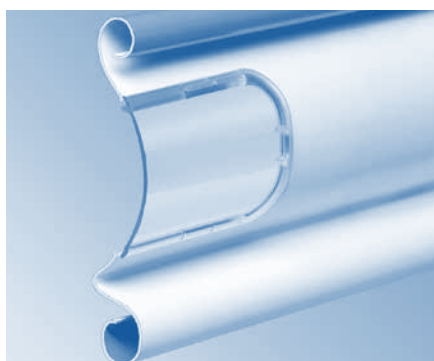
Profile data

- Material 0.35 mm steel
- Profile height 109 mm
- Assembly dimensions for panels and infills:
 - 1st profile 109 mm
 - Each further profile 96 mm
- Profile weight/m² Approx. 10.3 kg
- Thermal insulation $U_p = 3.9 \text{ W/(m}^2 \cdot \text{K)}$
- Fire behaviour Class E
DIN EN 13501-1)

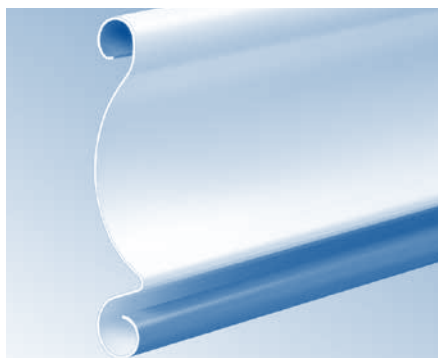
HR 120



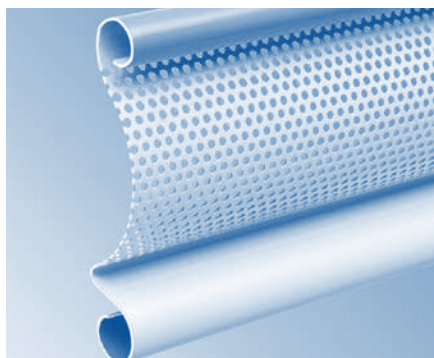
HR 120



HR 120 with window



HR 120, external rolling shutters



HR 120 aero

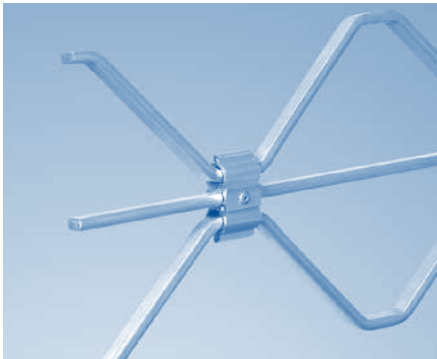
Profile data

- Material:
 - HR 120 A 1.0 mm aluminium
 - HR 120 aero 1.0 mm aluminium
- Profile height 119 mm
- Assembly dimensions for panels and infills:
 - 1st profile 119 mm
 - Each further profile 102.7 mm
- Profile weight/m²:
 - HR 120 A Approx. 6 kg
 - HR 120 aero Approx. 5.5 kg
- Thermal insulation -

Note for HR 120 aero:

- Free ventilation cross section approx. 30 % of the door surface
- Available as external rolling shutter only in a bright-rolled version

Rolling grilles



HG-L



HG-V, HG-S

Curtain data HG-L

- Material Aluminium
- Profile height 80 mm
- Assembly dimensions for panels and infills:
 - 1st profile 80 mm
 - Each further profile 97.5 mm
- Profile weight/m² Approx. 6.5 kg
- Free ventilation cross section of the door surface 77 %

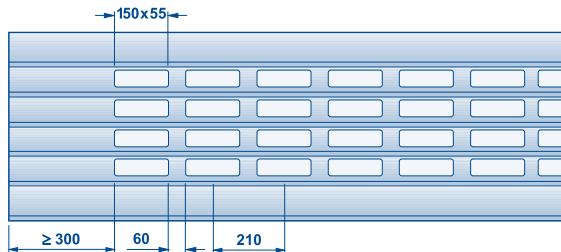
Curtain data HG-V, HG-S

- Material:
 - HG-V Aluminium/ stainless steel
 - HG-S Galvanized steel
- Profile height 60 mm
- Assembly dimensions for panels and infills:
 - 1st profile 60 mm
 - Each further profile 68.5 mm
- Curtain weight/m² Material thickness Door width
 - HG-V Approx. 7 kg 16 × 4 ≤ 3500 mm
 - Approx. 8 kg 20 × 4 > 3500 mm
 - HG-S Approx. 14 kg 16 × 4 ≤ 4000 mm
 - Approx. 15 kg 18 × 4 ≤ 6000 mm
 - Approx. 16 kg 20 × 4 > 6000 mm
- Free ventilation cross section approx. 85 % of the door surface

Arrangement of the Windows and Ventilation Grilles

Decotherm S

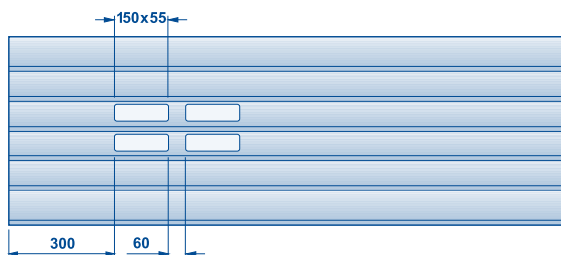
Standard window version



Note:

- Window profiles reduce the resistance to wind load
- Maximum 4 window profiles for rolling shutters SB and TGT with door width ≤ 2000 mm
- Maximum 8 window profiles for rolling shutters SB and TGT with door width > 2000 mm
- Maximum 20 window profiles for rolling shutters DD
- Minimum door width 1245 mm
- Edge spacing with accessory package S6 ≥ 500 mm

Window logistics version

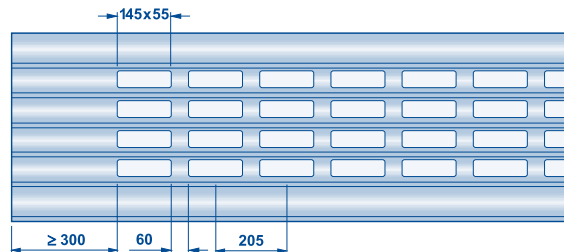


Note:

- 2 profiles with 2 window elements on the left and right
- Minimum door width 1245 mm

HR 120 A

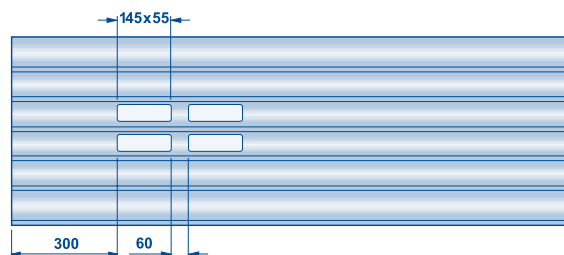
Standard window version



Note:

- Window profiles reduce the resistance to wind load
- Maximum 4 window profiles for rolling shutters SB with door width ≤ 2000 mm
- Maximum 8 window profiles
- Minimum door width 1750 mm

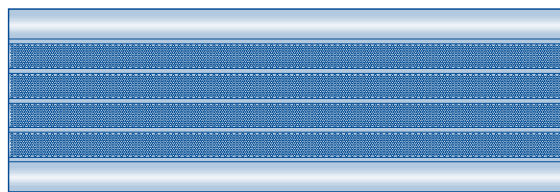
Window logistics version



Note:

- 2 profiles with 2 window elements on the left and right
- Minimum door width 1750 mm

Ventilation laths HR 120 aero

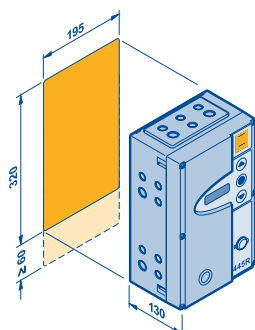


Notes:

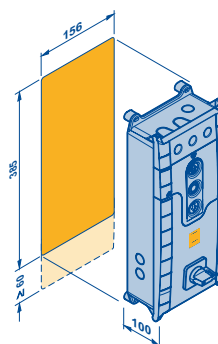
- Maximum 8 ventilation laths per door
- Only available in bright-rolled, RAL 9002 or RAL 9006
- Not for rolling shutters SB

Fitting Space for Controls / Operator Data

Fitting space for controls



300, 360, 445R, B 455 R, 460 R



B971R S6

Operator data

Operator designation		Direct drive operators								
		DD17	DD25	DD25 WS	DD30	DD30	DD30	DD40	DD50	DD 65
Output torque	Nm	170	250	250	300	300	300	400	500	650
Safety catch torque	Nm	510	510	635	635	635	635	760	1100	1100
Test no.		14-003612-PR02	14-003612-PR02	14-003612-PR03	14-003612-PR03	14-003612-PR03	14-003612-PR03	14-003612-PR03	14-003612-PR03	14-003612-PR03
Revolutions at the barrel	rpm	15	15	15	15	15 ¹⁾	15	15	15	15 ¹⁾
Motor power	kW	0,40	0,55	0,75	0,85	0,85	0,85	0,85	0,75	1,10
Operating voltage	V	3 × 400	3 × 400	1 × 230	3 × 230	3 × 400	3 × 500	3 × 400	3 × 400	3 × 400
Frequency	Hz	50	50	50	50	50	50	50	50	50
Motor rated current	A	5,24	2,3	8,0	4,4	2,55	2,25	2,55	2,95	4,2
Temperature range	°C	-20 / +40	-20 / +40	-20 / +40	-20 / +40	-20 / +40	-20 / +40	-20 / +40	-20 / +40	-20 / +40
Continuous sound pressure level	dB(A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70
Protection category	IP	65	65	65	65	65	65	65	65	65
Door cycles (Open + Close)	h ⁻¹	10	10	10	10	10	10	10	10	10
	d ⁻¹	150	150	150	150	150	150	150	150	150

Operator designation		Direct drive operators						WA		
		DD100	DD160	DD180	DD17.60	DD25.60	DD40.40	250 R S4	300 R S4	300 AR S4
Output torque	Nm	1000	1600	1800	170	250	400	11	11	11
Safety catch torque	Nm	2800	3125	3125	420	990	760	--	--	--
Test no.		14-003305-PR01	14-003305-PR01	14-003305-PR01	14-003612-PR02	14-003612-PR03	14-003612-PR03	--	--	--
Revolutions at the barrel	rpm	10	5	5	8 – 60	10 – 60	9 – 40	12	15	15
Motor power	kW	1,30	1,30	1,30	0,85	1,5	1,5	0,25	0,25	0,25
Operating voltage	V	3 × 400	3 × 400	3 × 400	1N-230 ²⁾	1N-230 ²⁾	1N-230 ²⁾	1 × 230	1 × 230	1 × 230
Frequency	Hz	50	50	50				50/60	50/60	50/60
Motor rated current	A	6,5	6,5	6,5	6,6	7,3	7,3	6,0	6,0	6,0
Temperature range	°C	-10 / +40	-10 / +40	-10 / +40	+5 / +40	+5 / +40	+5 / +40	-20 / +60	-20 / +60	-20 / +60
Continuous sound pressure level	dB(A)	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70	< 70
Protection category	IP	65	65	65	65	65	65	65	65	20 ⁴⁾
Door cycles (Open + Close)	h ⁻¹	10	10	10	30	20	15	5	10 ³⁾	10 ³⁾
	d ⁻¹	150	150	150	300	300	300	75	150 ³⁾	150 ³⁾

1) 10 min⁻¹ in combination with gel strip DD

2) Neutral conductor (N) required

3) Maximum number of door cycles for rolling shutters/rolling grilles TGT: 20 per hour or 300 per day

4) In combination with PVSB: IP 44

Side Door NT 60 R

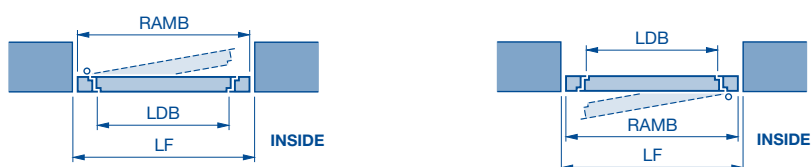
Possible handing options

Fitting in the opening

Fitting next to the door, opening inwards or outwards, RH or LH hinged



Fitting in the opening, opening inwards or outwards, RH or LH hinged



Overall frame dimensions

	Ordering width	Ordering height	Size range width	Size range height
Side door	$RAMB = LF - 20$	$RAMH = LF - 10$	770 – 1300	1865 – 2525
Aluminium fascia profile	$RAMB = LF - 20$	$RAMH = LF - 10$	770 – 1300	360 – 5800

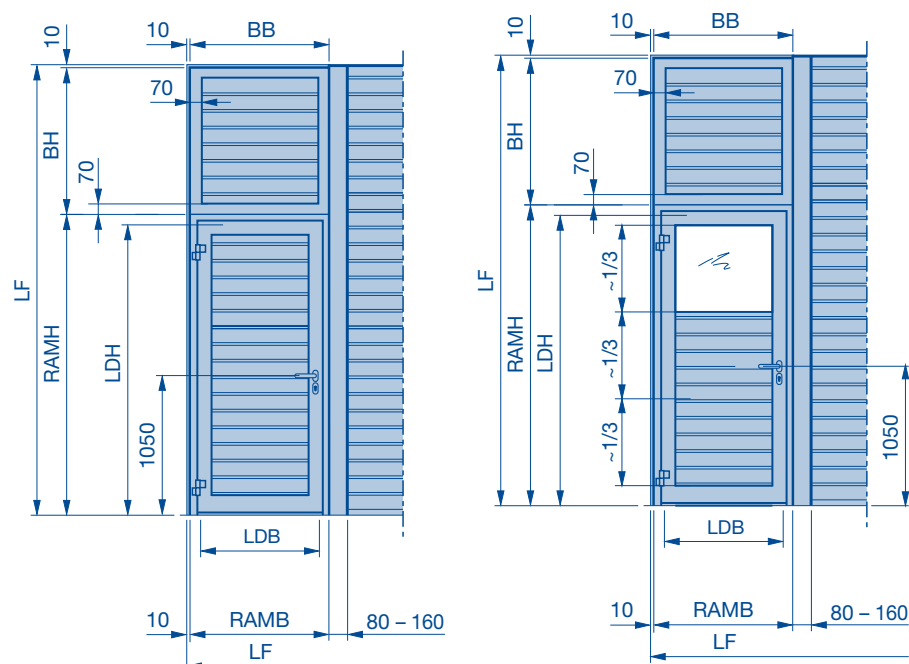
Note:

- Doors with multiple-point locking: ordering height $RAMH \geq 1940$ mm
- Aluminium fascia panels above 5800 mm height are delivered in two parts.

Clear passage dimensions

Opening angle	Width (LDB)	Height (LDH)
136°	$RAMB - 149$	$RAMH - 70$
90°	$RAMB - 194$	$RAMH - 70$

Fitting dimensions



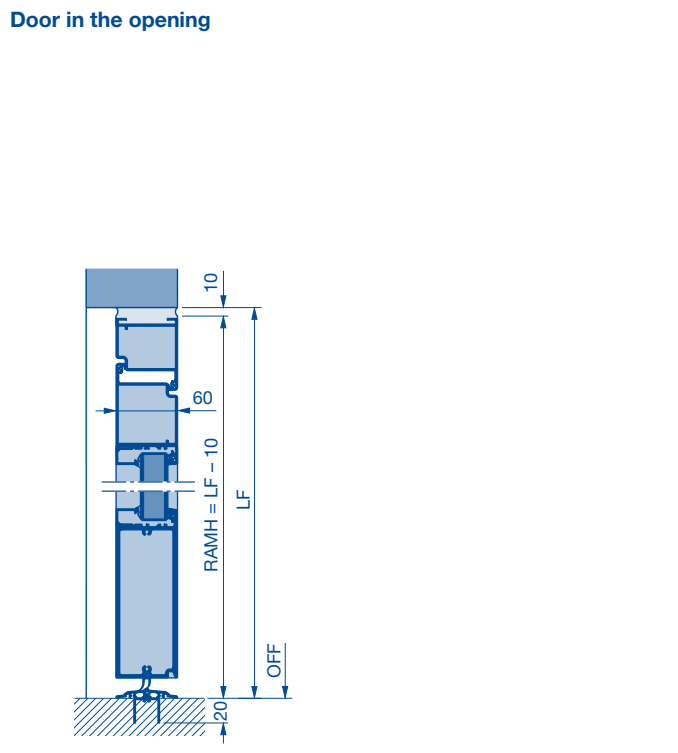
Note:

- Locking cylinders 40 / 40 mm
- Window section with clear synthetic double pane
- Protection to exclude the possibility of reaching through for rolling grille infills with solid clear polycarbonate pane

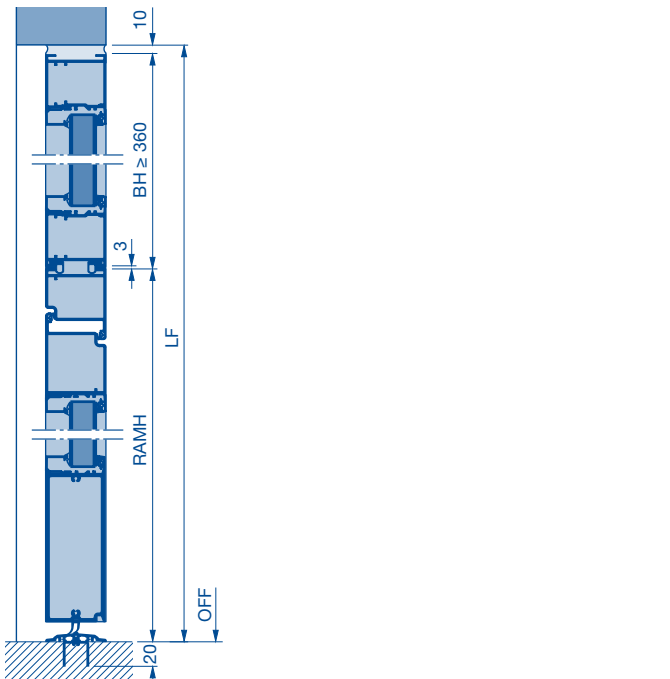
BB = Panel width
BH = Panel height
LDB = Clear passage width
LDH = Clear passage height
LF = Structural opening
OFF = Finished floor level
RAMB = Overall frame dimension width
RAMH = Overall frame dimension height

Possible fitting options

Door in the opening



Door with aluminium fascia panel in the opening



Fitting types

Support bracket



Plugs for metal frame for brickwork

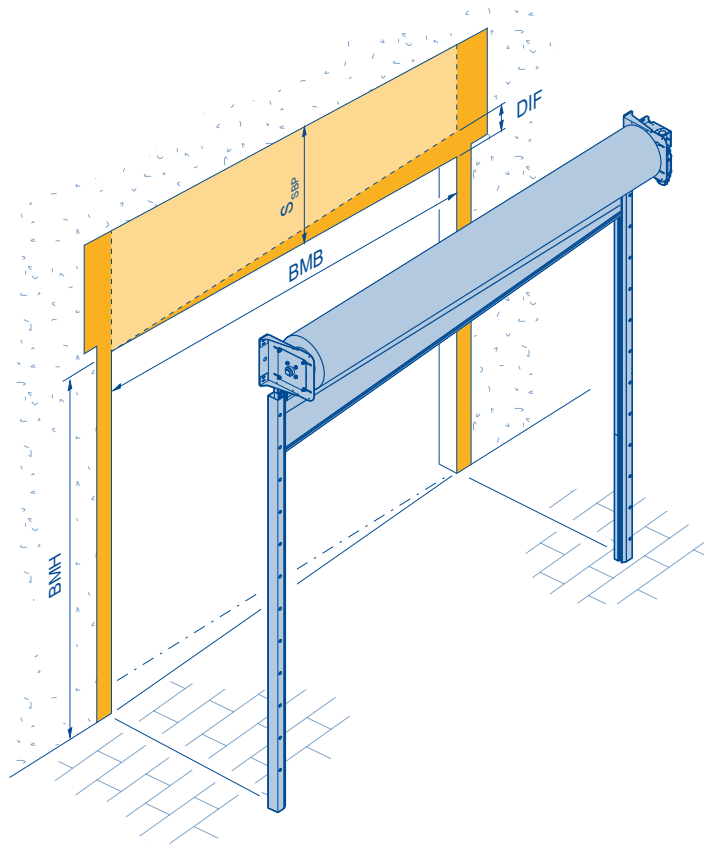


Tapping screw with countersunk head
B 6.3 x 80 for steel subframes



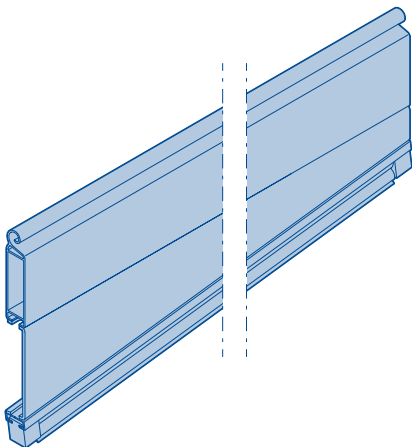
Chamfered Bottom Profile

Fitting example rolling shutter DD



BMB = Door width ordering size
BMH = Door height ordering size
DIF = Difference dimension
S = Required headroom
S_{SBP} = Required headroom for doors with chamfered bottom profile

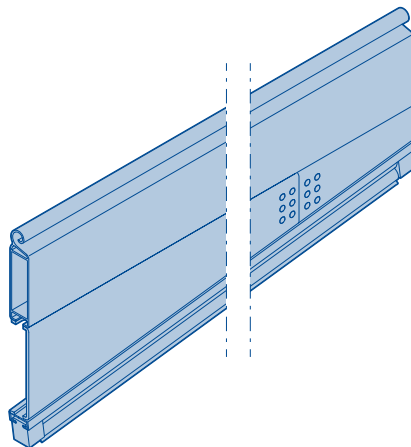
Single-skinned



Notes:

- Door width ≤ 5800 mm
- Door width min. 3000 mm for rolling grille SB/TGT
- Max. difference dimension 525 mm
- **S_{SBP}** = **S** + difference dimension + 50 (observe passage height loss for SB rolling shutter/rolling grille and TGT rolling shutter/rolling grille)
- For SB rolling shutters/rolling grilles and TGT rolling shutters/rolling grilles only with Decotherm S and HG-L curtain
- Can be combined with lockable bottom profile ABP1 and ABP2
- Not in conjunction with accessory package S6

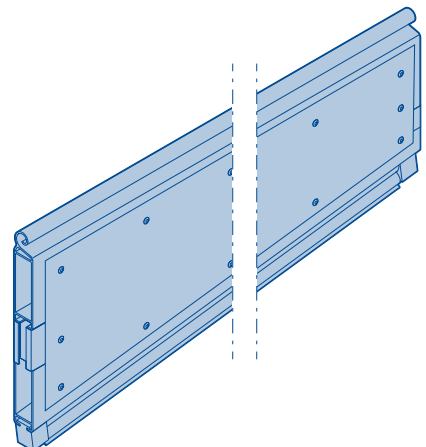
Single-skinned – with joint seam



Notes:

- Door width > 5800 mm
- Max. difference dimension 525 mm
- **S_{SBP}** = **S** + difference dimension + 50
- Can be combined with lockable bottom profile ABP1 and ABP2
- Cannot be combined with
 - Accessory package S6
 - Rolling grille SB/TGT

Double-skinned

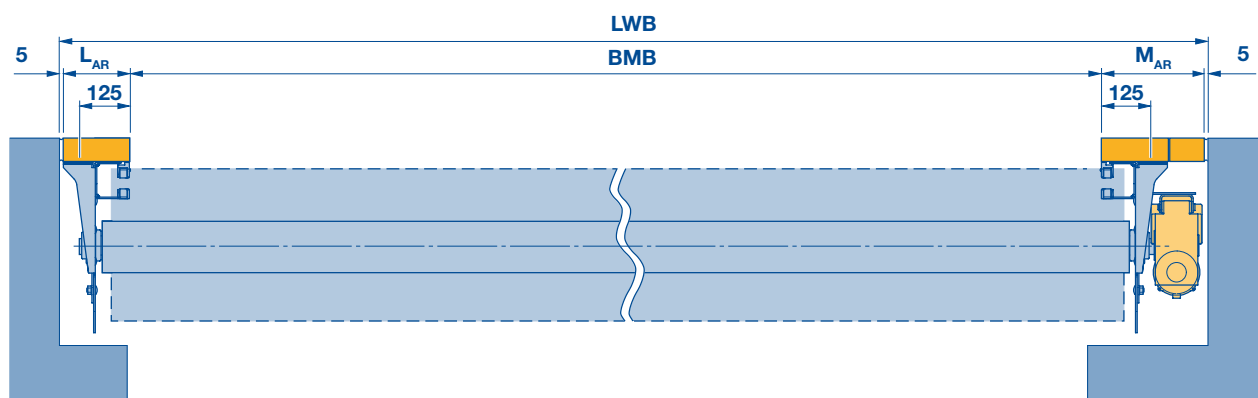


Notes:

- Max. difference dimension 1000 mm
- **S_{SBP}** = **S** + difference dimension
- Cannot be combined with
 - Lockable bottom profile ABP1 and ABP2
 - Accessory package S6
 - Rolling shutters/rolling grilles SB
 - Rolling shutters/rolling grilles TGT

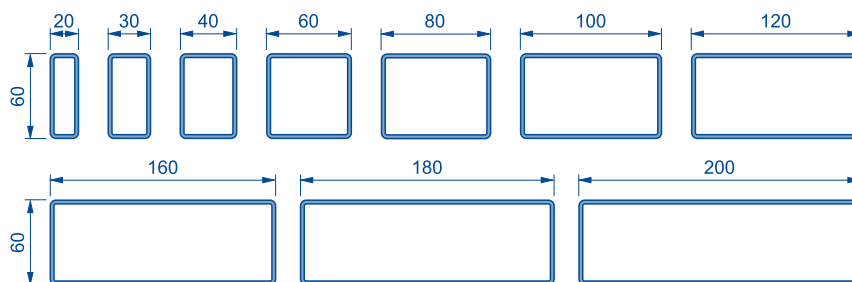
Fitting in the Opening with Additional Posts

Fitting example rolling shutter DD



BMB = Door width ordering size
LAR = Sideroom on bearing side with additional posts
LWB = Structural opening width
MAR = Sideroom on motor side for additional posts

Additional posts available



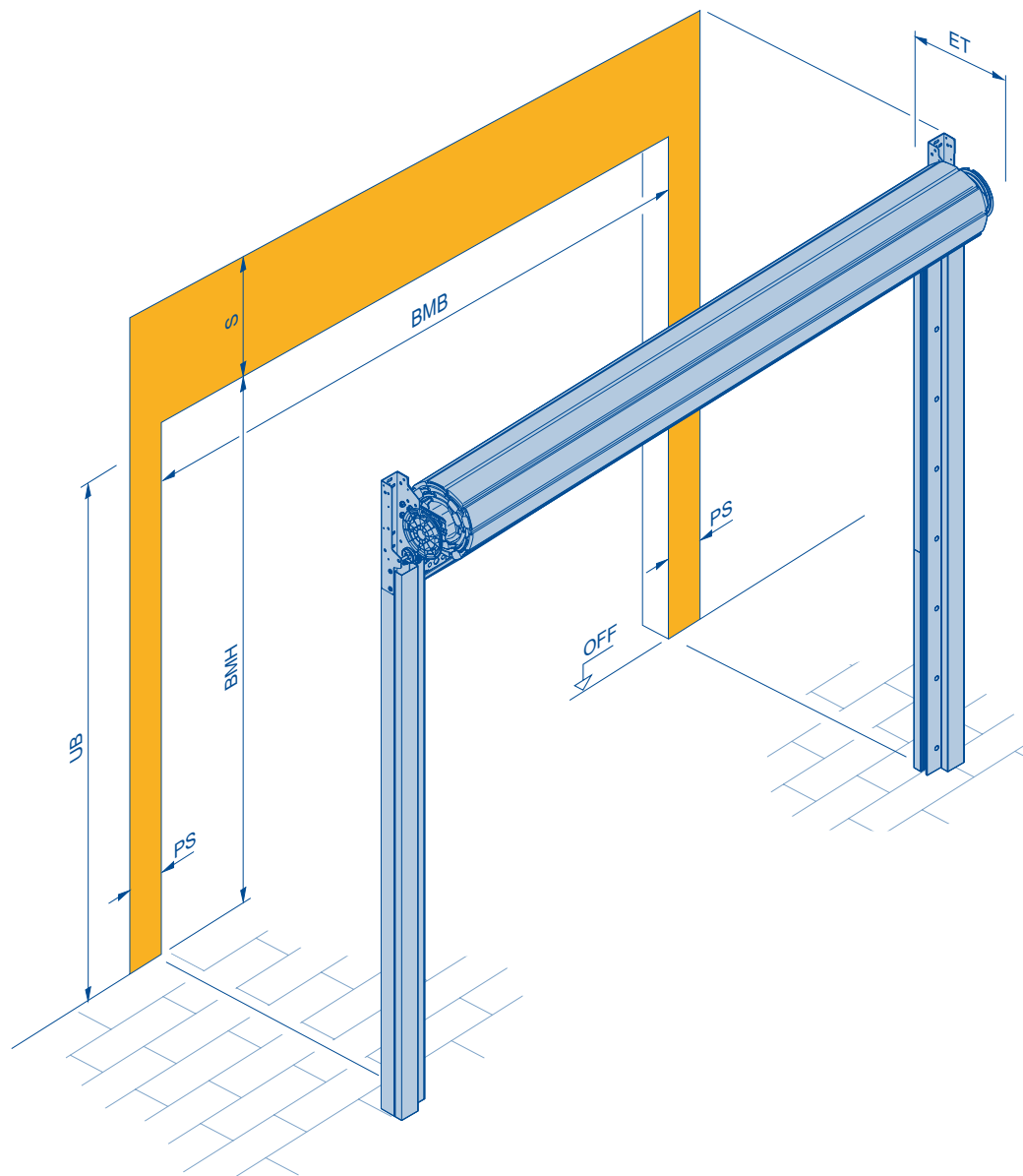
Notes:

- The width of the siderooms created with additional posts must be derived from the dimensions of the available additional posts.
- Additional posts are designed acc. to DIN EN 1991-1-4:2010-12 in the door configuration. Weld-on plates to reinforce the support bracket position may be required.
- No all additional posts can be configured depending on the forces on the door system.

Rolling Shutters SB / Rolling Grilles SB

Space requirement

Fitting example with grip handle actuation type



Actuation type	PS	UB
Grip handle	165	Door height + 75 mm
Chain Hoist	165	Door height - 75 mm
WA 250 R S4	165	Door height - 440 mm
WA 300 R S4	165	Door height - 440 mm
WA 300 AR S4	165 ¹⁾	Door height + 75 mm

1) with operator WA 300 AR S4 on operator side in the lintel area 265 mm, opposite side and guide rails unchanged 165 mm

BMB = Door width ordering size
BMH = Door height ordering size
ET = Fitting depth
OFF = Finished floor level
PS = Side space requirement
S = Required headroom
UB = Bottom edge actuation

Notes:

- The actuation type does not affect the following values:
 - Side space requirement **PS** ¹⁾
 - Required headroom **S**
 - Available door sizes
- For doors with a height of more than 3500 mm, we recommend the actuation type chain hoist or electrical operator.
- Maximum number of window laths
 - 4 laths: door width ≤ 2000 mm
 - 8 laths: door width > 2000 mm
- The minimum door width for window profiles is
 - 1245 mm for Decotherm S
 - 1750 mm for HR 120 A

Rolling Shutters SB / Rolling Grilles SB

Table of standard values / maximum wind loads

Table of standard values

Door height

4500	532	437	527*	432*	470	355
4250	529	434	527*	432*	467	352
4000	524	429	518	423	467	341
3750	519	424	518	423	460	341
3500	489	394	493	398	460	341
3250	484	389	485	390	460	335
3000	482	387	485	390	460	327
2750	475	380	477	382	460	324
2500	473	378	477	382	460	324
2250	465	370	468	373	460	317
Decotherm S		HR 120 A HR 120 aero		HG-L		

¹²³ = S (required headroom)

¹²³ = ET (minimum fitting depth)

* = Only HR 120 A

Notes:

- The required headroom **S** and the fitting depth **ET** do not depend on the door width or actuation type.
- The required headroom **S** is at least
 - 475 mm for doors with WA 300 AR S4
 - 490 mm for doors with trap guard PVSB, see page 17.
- The required headroom **S** is decreased by 75 mm for external rolling shutters with lockable bottom profile ABP1/2 or SKS, see page 17.
- For some equipment combinations there is a loss of passage height, see page 17.
- The fitting depth **ET** is at least
 - 356 mm for doors with hand chain
 - 370 mm for doors with WA 250 R S4 or WA 300 R S4
 - 460 mm for doors with PVSB, see page 17
- Door widths
 - Max. 6000 mm: HG-L
 - Max. 5000 mm: Decotherm S, HR 120 A
 - Max. 4000 mm: HR 120 aero
 - Min. 1750 mm: HR 120 A, HR 120 aero
 - Min. 1000 mm: Decotherm S, HG-L
- Door heights:
 - Max. 4500 mm: Decotherm S, HR 120 A, HG-L
 - Max. 4000 mm: HR 120 aero
 - Min. 2000 mm: all curtains
- All curtains as standard with wind lock or extraction retainers

Maximum wind loads and door widths

	Maximum possible door widths			
	Wind load class 4 (1.0 kN/m² or 146 km/h)	Wind load class 3 (0.7 kN/m² or 120 km/h)	Wind load class 2 (0.45 kN/m² or 96 km/h)	Wind load class 1 (0.3 kN/m² or 80 km/h)
Decotherm S	5000	–	–	–
HR 120 A	3500	4000	5000	–
HR 120 aero	2750	3250	4000	–

Note:

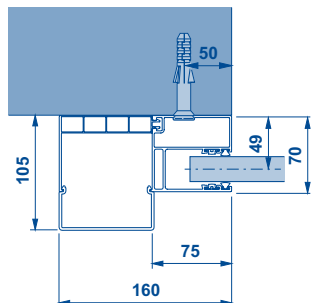
- Maximum wind load only for standard rolling shutters without window profiles
- Wind load classes acc. to EN 12424

Rolling Shutters SB / Rolling Grilles SB

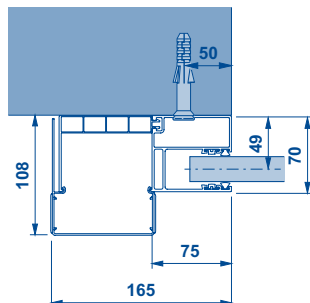
Side guide FS 160

Standard fitting

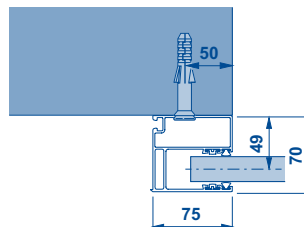
with spring chamber and AFK



with spring chamber and AFA



without spring chamber

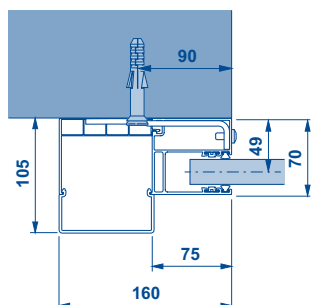


Notes:

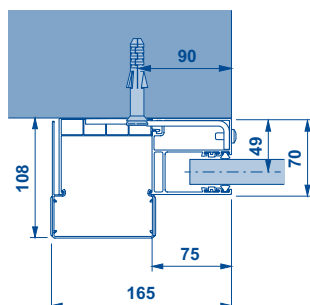
- Aluminium side guide with plastic spring chamber
- Spring chamber depending on curtain type and door size
 - only on the right side guide or the operator side
 - on the right and left side guide
- AFK (plastic spring chamber cover made)
- AFA (aluminium spring chamber cover) is optional

Angle fitting

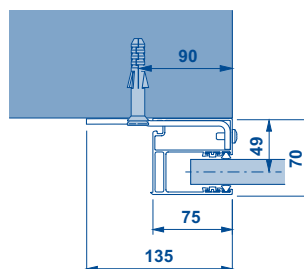
with spring chamber and AFK



with spring chamber and AFA



without spring chamber

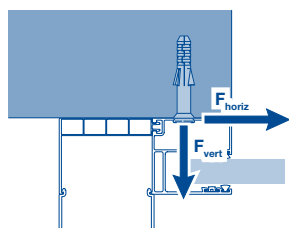


Notes:

- Optional
- No fitting by welding
- Not on brickwork
- Not on timber

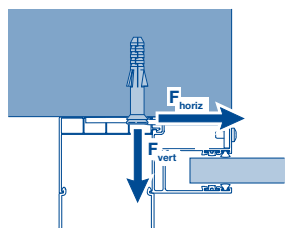
Maximum load at the fixing point

Standard fitting



	Door width	
	≤ 5000 mm	> 5000 mm
F_{horiz} [kN/m]	3,75	10,5
F_{vert} [kN/m]	2,5	3,5

Angle fitting



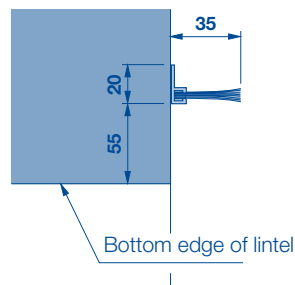
	Door width
	≤ 6000 mm
F_{horiz} [kN/m]	1,0
F_{vert} [kN/m]	3,0

Rolling Shutters SB / Rolling Grilles SB

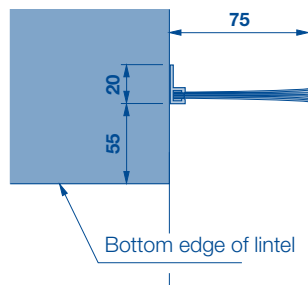
Lintel seals / support brackets / maximum loads at the fixing point / minimum requirements for the building structure / fascia panel SB / TGT

Lintel seals

SD2



SD3

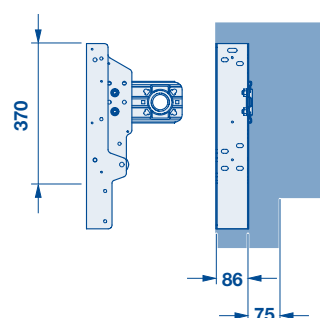
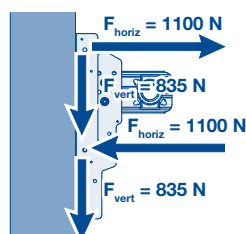


Notes:

- Subject to a surcharge for SB rolling shutters
- SD2 for door widths ≤ 2500 mm
- SD3 for door widths > 2500 mm

Support bracket / maximum load at the fixing point

Minimum requirements for the building structure



F_{horiz} = Horizontal force at the fixing point
 F_{vert} = Vertical force at the fixing point

Concrete

Strength class C 20 / 25

Thickness 140 mm

Standard EN 206-1

Steel

Strength class S235-JRG2

Thickness 5 mm

Standard EN 10027-1

Brickwork

Strength class 12 / mortar group II

Thickness 240 mm

Standard DIN 1053-1

Timber

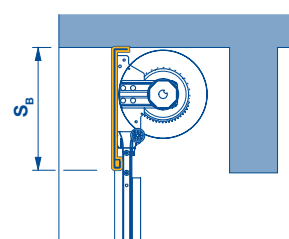
Coniferous wood: C24 / quality category II

Thickness 120×120 mm

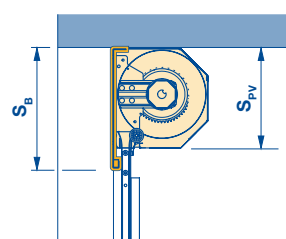
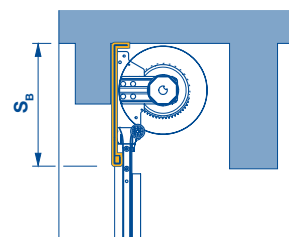
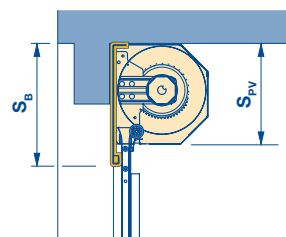
Standard DIN 1052 (EC5)

Fascia panel SB / TGT

without PV



with PV



Notes:

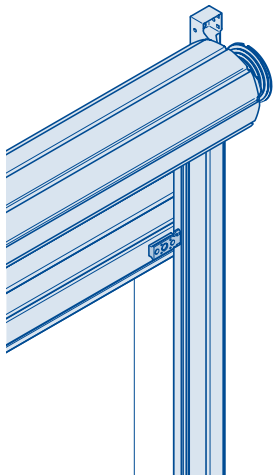
- The height of the fascia panel S_B exclusively depends on the size of the door system and is not determined by the lintel on the building structure. (Please take the accurate values from the product configurator)
- Rolling shutters / rolling grilles SB: $S_B = S_{PV} + 75$ mm
- Rolling shutters / rolling grilles TGT: $S_B = S_{PV}$
- Fitting always on the end wall

Rolling Shutters SB / Rolling Grilles SB

Actuation types

Actuation types

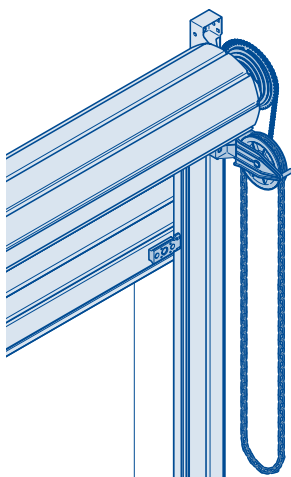
Grip handle



Note:

- No surcharge
- One handle each on the left and right of the interior bottom profile
- One handle on the left in the exterior bottom profile

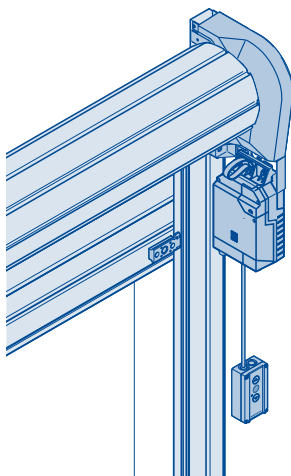
Chain Hoist



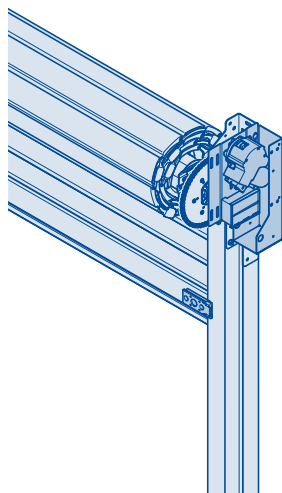
Note:

- Subject to surcharge
- No influence on
 - **PS**
 - **S**
 - Available door sizes
- Recommended for door systems with heights over 3500 mm

WA 250 R S4 / WA 300 R S4



WA 300 AR S4



Note:

- Subject to surcharge
- No influence on
 - **PS** ¹⁾
 - **S**
 - Available door sizes
- Recommended for door systems with heights over 3500 mm
- A trap guard PVSB must be used with door systems with impulse operation and a door height ordering size below 2500 mm.

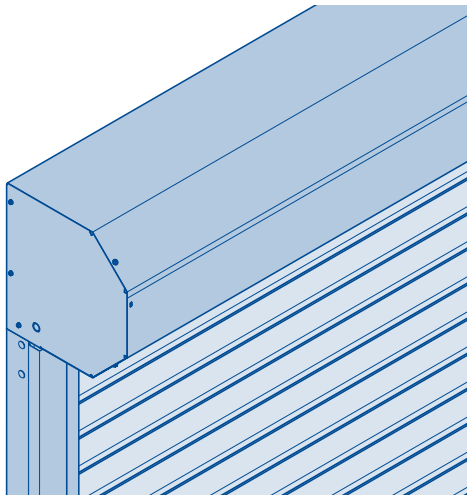
1) with operator WA 300 AR S4 on operator side in the lintel area 265 mm, opposite side and guide rails unchanged 165 mm

Rolling Shutters SB / Rolling Grilles SB

Trap guard PVSB / loss of passage height

Trap guard PVSB

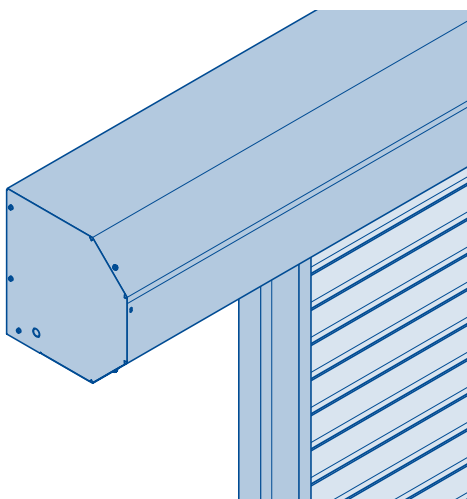
Without extension



Notes:

- Subject to surcharge
- The trap guard PVSB with small sheet cover is used for:
 - Rolling shutters SB with door heights ≤ 3000 mm
 - Rolling grille SB
- The trap guard PVSB with large sheet cover is used for:
 - Rolling shutters SB with door heights > 3000 mm
- The trap guard PVSB has no effect on **PS**.
- The required headroom **S** is at least:
 - 490 mm for PVSB with small sheet cover
 - 545 mm for PVSB with large sheet cover
- The fitting depth **ET** is at least:
 - 460 mm for PVSB with small sheet cover
 - 530 mm for PVSB with large sheet cover
- The combination of the trap guard PVSB with the lockable bottom profile ABP1/2 lowers the passage height.
- Chamfering of the steel cover always towards the bottom
- Can be combined with fascia panel SB (see page 15)

With extension

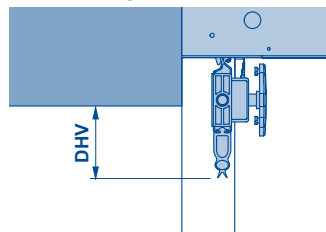


Notes:

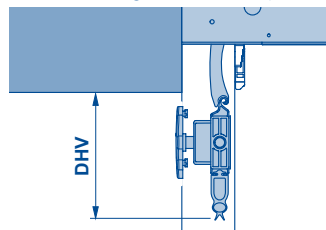
- Subject to surcharge
- Total width of PVSB including max. 6000 mm extension
- Extension only possible on the bearing side in combination with actuation type:
 - Chain Hoist
 - WA 250 R S4
 - WA 300 R S4
- Extension possible on both sides in combination with actuation type:
 - Grip handle
 - WA 300 AR S4

Loss of passage height

Internal rolling shutter example



External rolling shutter example

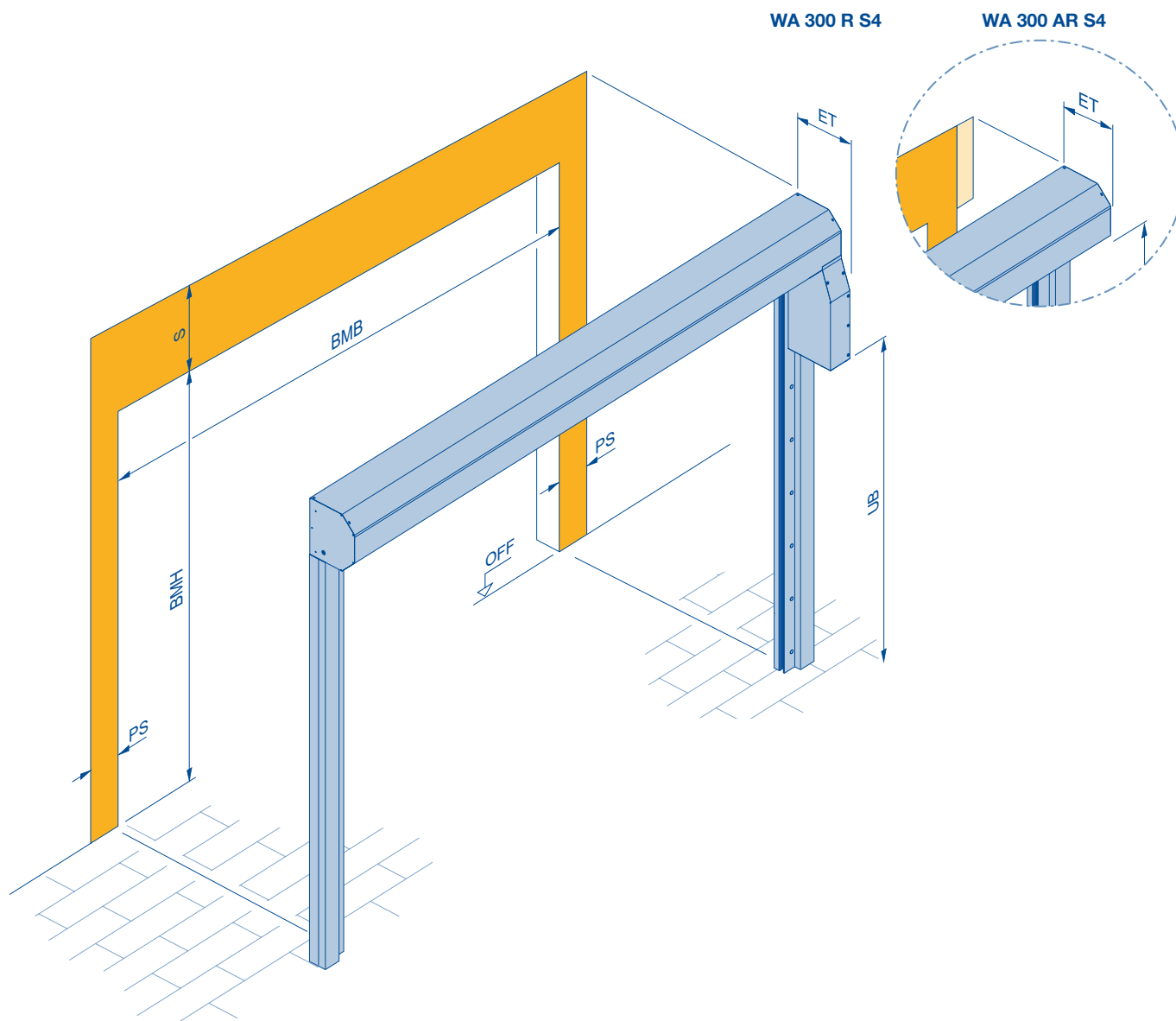


Version	Equipment	Loss of passage height (DHV)	Change of the required headroom
Internal rolling shutter	PVSB + shootbolt:	50	0
	PVSB + ABP1/2	50	0
	PVSB + SKS	50	0
	Chamfered bottom profile	50 + difference dimension	0
	Chamfered bottom profile + PVSB + shootbolt / ABP / SKS	100 + difference dimension	0
External rolling shutter	ABP1/2	125	-75
	SKS	75	-75
	Chamfered bottom profile	50 + difference dimension	0
	Chamfered bottom profile + ABP1/2	175 + difference dimension	0
	Chamfered bottom profile + SKS	125 + difference dimension	0

Rolling Shutters TGT / Rolling Grilles TGT

Space requirement

Fitting example with trap guard PVTGT



Operator	PS	UB
WA 300 R S4	165	Door height – 440 mm
WA 300 AR S4	165/265 ¹⁾	Door height + 75 mm

1) with operator WA 300 AR S4 on operator side in the lintel area 265 mm, opposite side and guide rails unchanged 165 mm

BMB = Door width ordering size
BMH = Door height ordering size
ET = Fitting depth
OFF = Finished floor level
PS = Side space requirement
S = Required headroom
UB = Bottom edge actuation

Notes:

- The actuation type does not affect the following values:
 - Side space requirement **PS**
 - Required headroom **S**
 - Available door sizes
- Door widths
 - Max. 6000 mm: HG-L
 - Max. 5000 mm: Decotherm S
 - Min. 1000 mm: all curtains
- Door heights for all curtains:
 - Max. 2400 mm
 - Min. 2000 mm
- Maximum number of window laths:
 - 4 laths: door width ≤ 2000 mm
 - 8 laths: door width > 2000 mm
- The minimum door width for window profiles is 1245 mm.

Rolling Shutters TGT / Rolling Grilles TGT

Table of standard values / side guide FS 160 / lintel seal / support bracket / maximum load at the fixing point / loss of passage height

Table of standard values

Door height

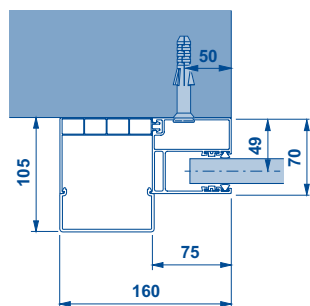
2400	365	370	395	378	335	370	385	370
2250	360	370	390	370	330	370	385	370
2000	355	370	385	370	325	370	385	370
Decotherm S				HG-L				
WA 300 R S4		WA 300 AR S4		WA 300 R S4		WA 300 AR S4		

123 = S (required headroom)
123 = ET (minimum fitting depth)

Notes:

- Required headroom **S** and fitting depth **ET** are independent of the door width.
- For doors with trap guard PVTGT, the required headroom **S** is increased to
 - 380 mm for Decotherm S with WA 300 R S4
 - 415 mm for Decotherm S with WA 300 AR S4
 - 350 mm for HG-L WA 300 R S4
 - 380 mm for HG-L with protection against martens and WA 300 R S4
 - 415 mm for HG-L with WA 300 AR S4
- Required headroom **S** increases for doors HG-L with protection against martens to the values of Decotherm S.
- The fitting depth **ET** for all doors with PVTGT trap guards is
 - 440 mm with WA 300 R S4
 - 460 mm with WA 300 AR S4
- All curtains as standard with wind lock or extraction retainers
- Chamfering of the steel cover with PVTGT always towards the bottom
- For fascia panel TGT details see page 15

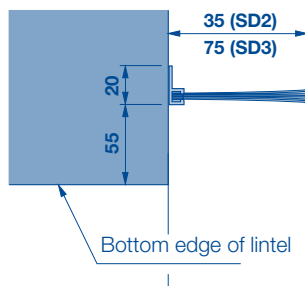
Side guide FS 160



Note:

- Aluminium side guide with plastic spring chamber
- For details and equipment variations see page 14
- Spring chamber depending on curtain type and door size
 - only on the right side guide or the operator side
 - on the right and left side guide
- For dimensions see page 14

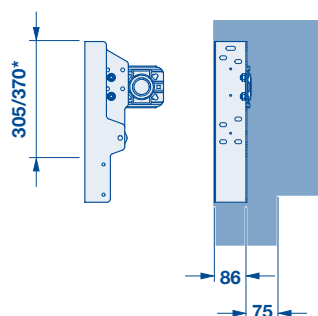
Lintel seal SD2/ SD3



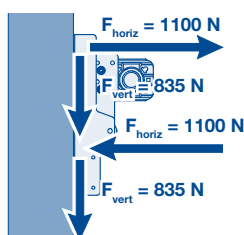
Note:

- Subject to a surcharge for TGT rolling shutters
- SD2 for door widths ≤ 2500 mm
- SD3 for door widths > 2500 mm

Support bracket / maximum load at the fixing point



F_{horiz} = Horizontal force at the fixing point
 F_{vert} = Vertical force at the fixing point
* = 370 mm for WA 300 AR S4



Minimum requirements for the building structure

Concrete

Strength class C 20 / 25
Thickness 140 mm
Standard EN 206-1

Steel

Strength class S235-JRG2
Thickness 5 mm
Standard EN 10027-1

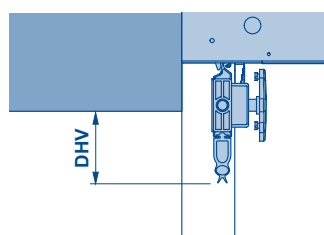
Brickwork

Strength class 12 / mortar group II
Thickness 240 mm
Standard DIN 1053-1

Timber

Coniferous wood: C24 / quality category II
Thickness 120 × 120 mm
Standard DIN 1052 (EC5)

Loss of passage height

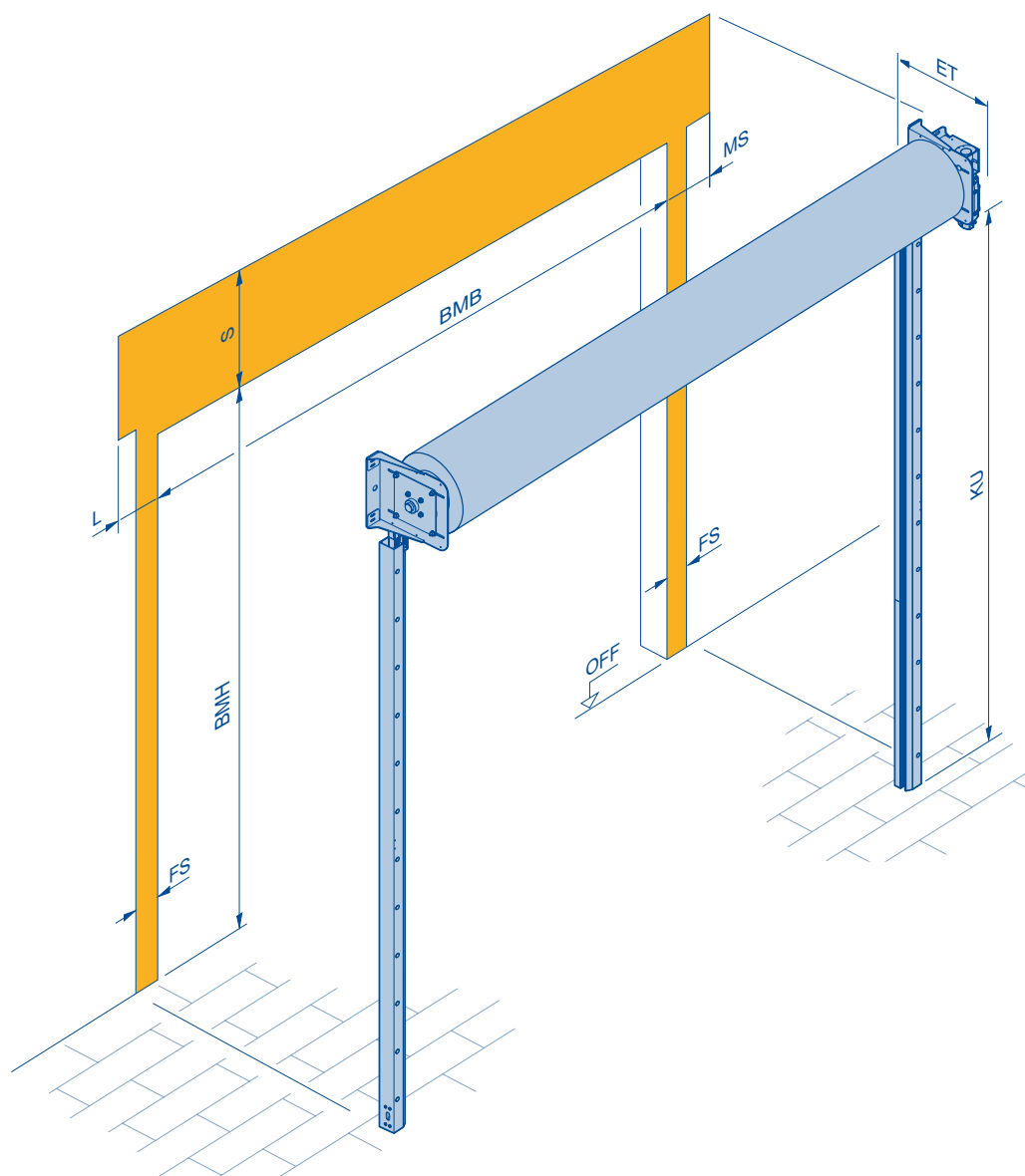


Version	Equipment	Loss of passage height (DHV)	Change of the required headroom
Internal rolling shutter/ external rolling shutter	ABP	125	0
	Chamfered bottom profile	50 + difference dimension	0
	Chamfered bottom profile + ABP	175 + difference dimension	0

Rolling Shutters DD / Rolling Grilles DD

Space requirements

Fitting example with suspended operator



L	MS	FS	KU	L	MS	FS	KU
for doors with support bracket 40				for doors with support bracket 60			
160	260	80 ¹⁾	5)	180	280	80 ¹⁾	5)
240 ²⁾	420 ²⁾			260 ²⁾	440 ²⁾		
160 ³⁾	290 ³⁾	103 ³⁾	5)	180 ³⁾	290 ³⁾	103 ³⁾	5)
240 ⁴⁾	450 ⁴⁾			260 ⁴⁾	450 ⁴⁾		

- 1) Standard fitting without a bracket
- 2) Space requirement for dismantling from the side
- 3) Space requirement in conjunction with accessory package S6
- 4) Space requirement for dismantling from the side in conjunction with accessory package S6
- 5) Dimension depends on door size.

BMB = Door width ordering size
BMH = Door height ordering size
ET = Fitting depth See tables from page 32
FS = Sideroom for side guide
KU = Support bracket dimension bottom

Notes:

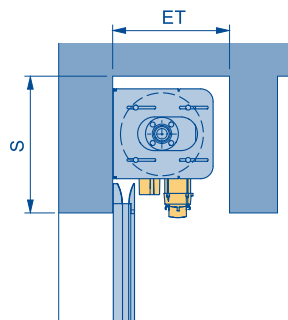
- The fitting example shows the arrangement of the operator from the right as seen from the inside. An arrangement on the left is also available on request.
- For external rolling shutters, the operator side is determined from the outside.

L = Sideroom on bearing side
MS = Sideroom on motor side for direct drive operators
OFF = Finished floor level
S = Required headroom See tables from page 32

Rolling Shutters DD / Rolling Grilles DD

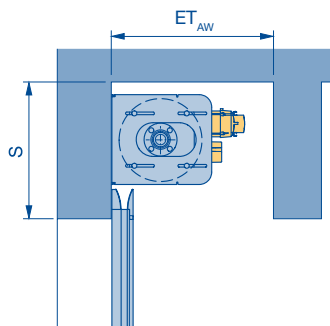
Space requirement behind the lintel

Operator vertical to the bottom



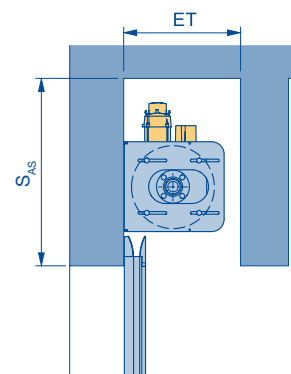
- S** = See tables of standard values from page 32
ET = See tables of standard values from page 32
MS = See page 20

Horizontal operator



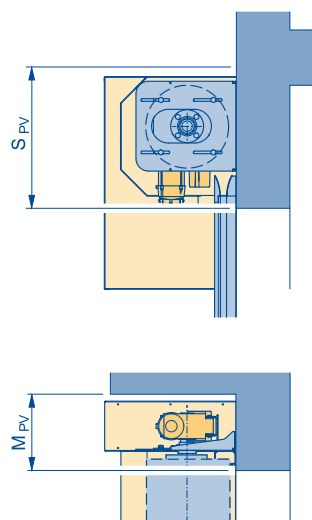
- S** = See tables of standard values from page 32
ET_{AW} = max. 950
MS = See page 20

Operator vertical to the top



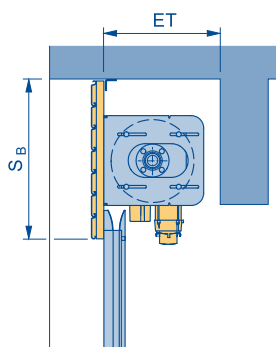
- S_{AS}** = max. 1070
ET = See tables of standard values from page 32
MS = See page 20

Rolling shutter DD with PVDD and VDD



- S_{PV}** = **S** + 75
M_{PV} = 290 / 310⁽³⁾

Rolling shutter DD with fascia panel



- S_B** = Observe the fitting dimensions of the profiles (see page 4)

Note:

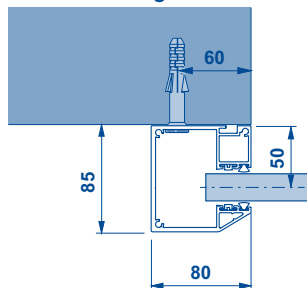
- Please request **ET** for doors with special operators via the product configurator.

Rolling Shutters DD / Rolling Grilles DD

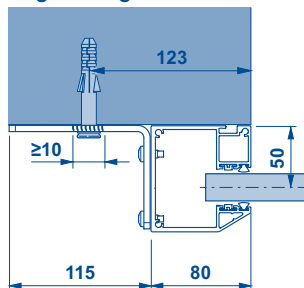
Side guide FS 80

Fitting without support profile

Standard fitting



Angle fitting

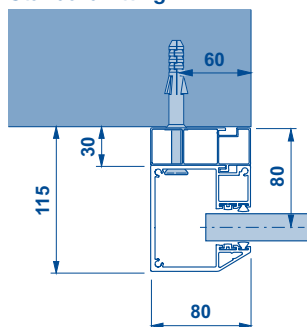


Note:

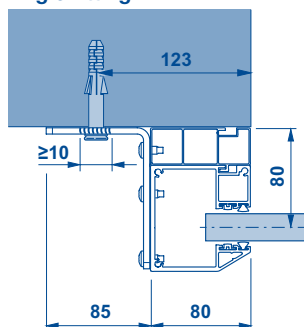
- For the number of support profiles see tables from 32
- Angle fitting
 - Optional
 - Fitting by welding possible
 - Not on brickwork
 - Not in conjunction with accessory package S6

Fitting with support profile

Standard fitting



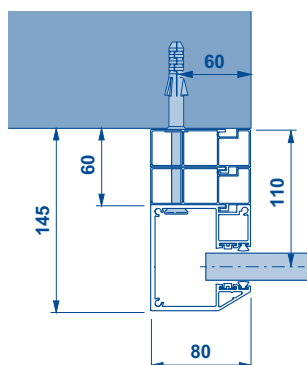
Angle fitting



Note:

- For the number of support profiles see tables from 32
- Angle fitting
 - Optional
 - Fitting by welding possible
 - Not on brickwork
 - Not in conjunction with accessory package S6

Fitting with two support profiles

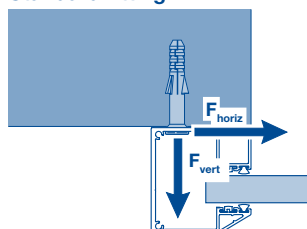


Note:

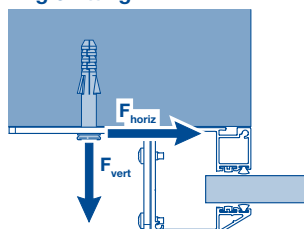
- For the number of support profiles see tables from 32
- Angle fitting not possible

Maximum load at the fixing point

Standard fitting



Angle fitting



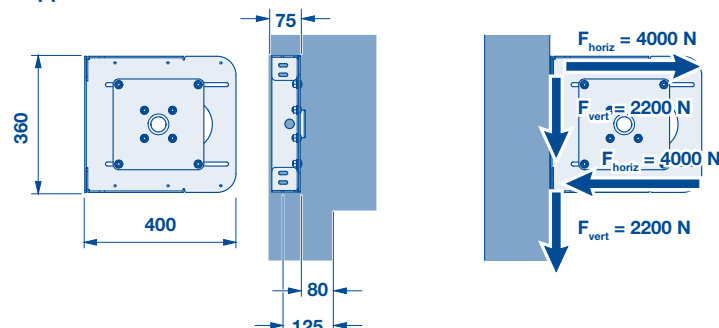
	Door width	
	≤ 5000 mm	> 5000 mm
F_{horiz} [kN/m]	3,75	10,5
F_{vert} [kN/m]	2,5	3,5

Rolling Shutters DD / Rolling Grilles DD

Support brackets / maximum loads at the fixing point / minimum requirements for the building structure

Support brackets

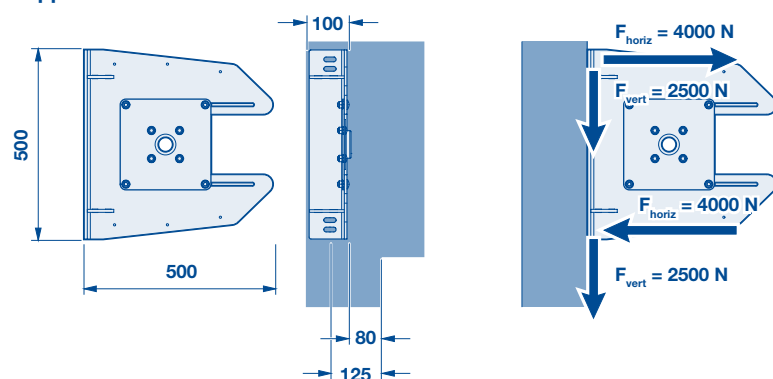
Support bracket 40



Note:

- Use depends on
 - Operator size
 - Barrel diameter

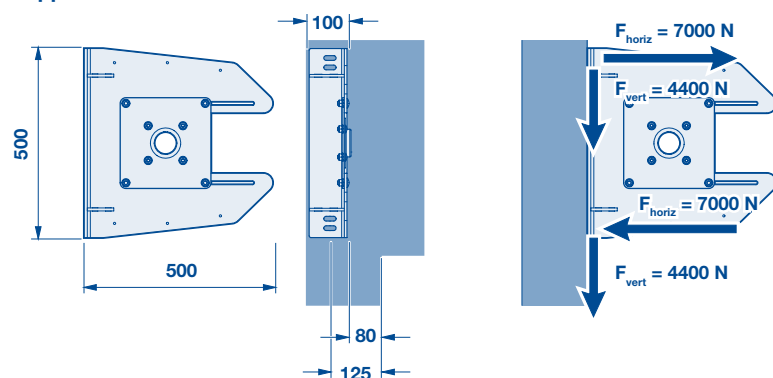
Support bracket 40-2



Note:

- Use depends on
 - Operator size
 - Barrel diameter

Support bracket 60



Note:

- Use depends on
 - Operator size
 - Barrel diameter

Minimum requirements for the building structure

Concrete

Strength class C 20 / 25
 Thickness 140 mm
 Standard EN 206-1

Steel

Strength class S235-JRG2
 Thickness 5 mm
 Standard EN 10027-1

Brickwork

Strength class 12 / mortar group II
 Thickness 240 mm
 Standard DIN 1053-1

Timber

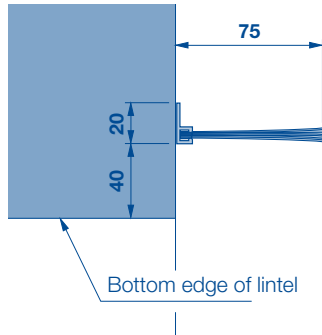
Coniferous wood: C24 / quality category II
 Thickness 120 × 120 mm
 Standard DIN 1052 (EC5)

Rolling Shutters DD / Rolling Grilles DD

Lintel seals / weld-on plates for support brackets / break-in-resistant locks

Lintel seals

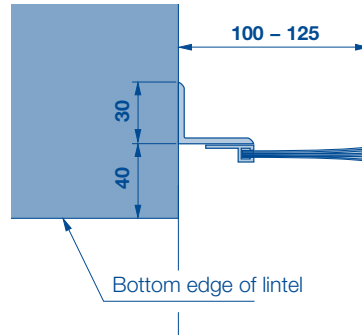
SD3



Note:

- For rolling shutters without support profile

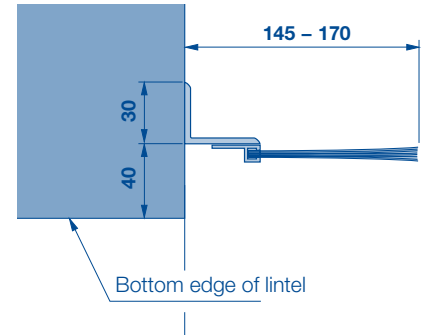
SD4-1



Note:

- For rolling shutters with 1 or 2 support profiles, depending on door width and barrel diameter
- Cover width adjustable

SD4-2

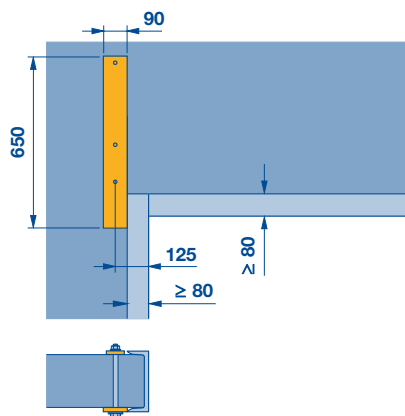


Note:

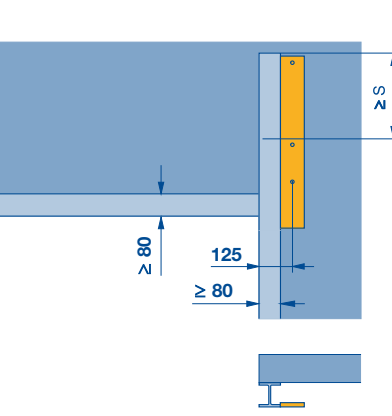
- For rolling shutters with 1 or 2 support profiles, depending on door width and barrel diameter
- Cover width adjustable

Weld-on plates for support brackets

Lightweight construction weld-on plates



Steel construction weld-on plates

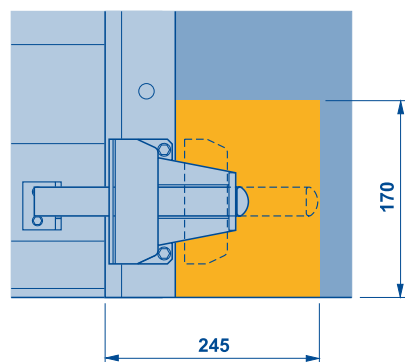


Note:

- For fixing by using a supporting lightweight construction, a subframe made of steel is required
- Weld-on plates are subject to surcharge
- For fitting by welding for side guides see page 22

Break-in-resistant locks

Shootbolt



Note:

- Break-in-resistant locks subject to surcharge
- Lockable bottom profiles do not have any influence on the fitting space at the sides
- Lockable bottom profile not in conjunction with accessory package S6
- Shootbolts not for rolling grilles and exterior rolling shutters
- Position of the shootbolt either to the left, right or on both sides

Rolling Shutters DD / Rolling Grilles DD

Maximum wind loads

Maximum wind loads and door widths

	Maximum possible door widths			
	Wind load class 4 (1.0 kN/m ² or 146 km/h)	Wind load class 3 (0.7 kN/m ² or 120 km/h)	Wind load class 2 (0.45 kN/m ² or 96 km/h)	Wind load class 1 (0.3 kN/m ² or 80 km/h)
Decotherm S	≤ 6500	≤ 8500	≤ 12000	–
HR 120 A	≤ 4250	≤ 5500	≤ 7500	≤ 10250
HR 120 aero	≤ 3250	≤ 4250	≤ 5500	≤ 7500

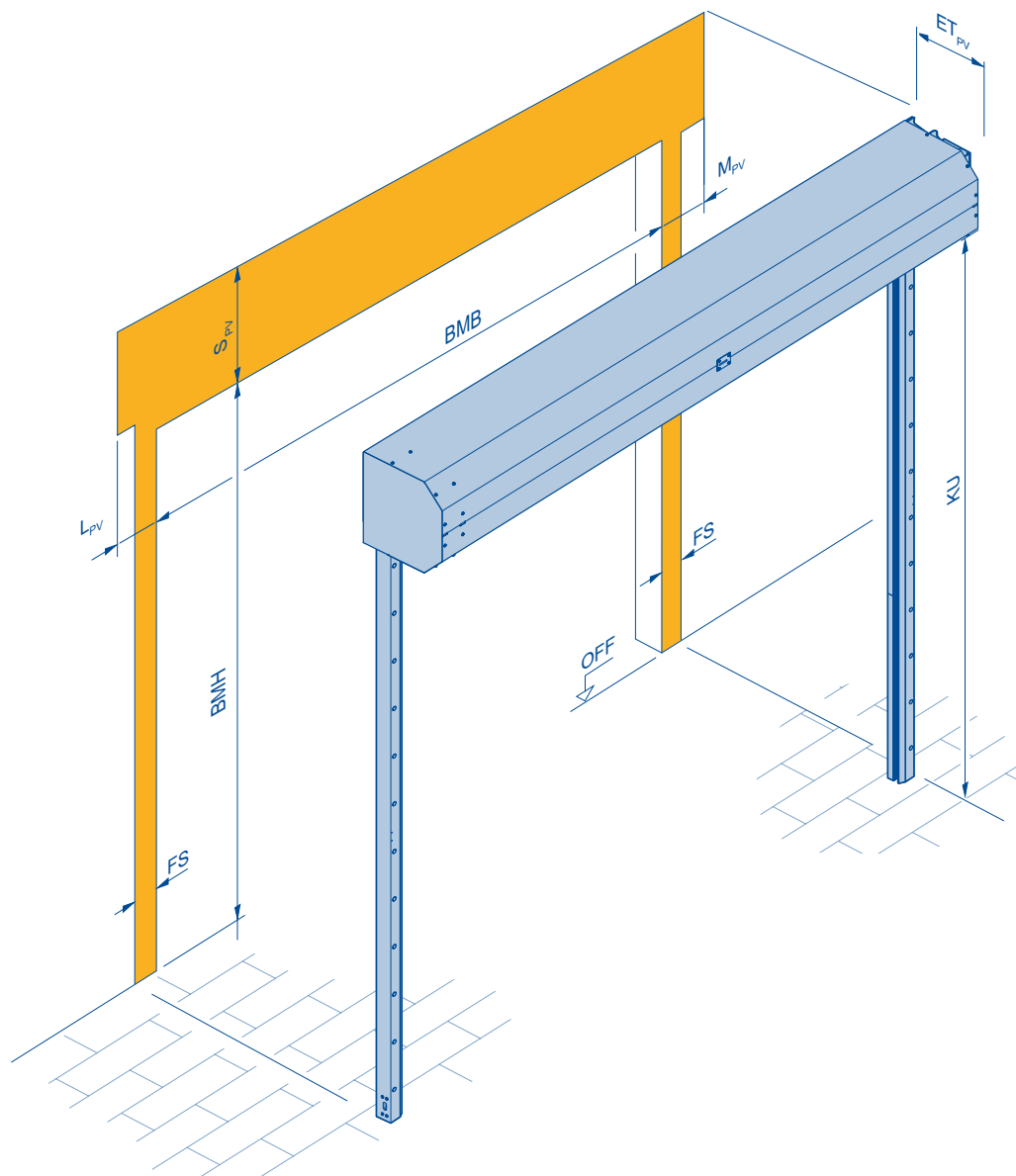
Note:

- Wind load classes 3 and 4 optional
- Maximum wind load only for standard rolling shutters without window profiles and ventilation laths or accessory package S6
- Wind load classes acc. to EN 12424

Rolling Shutters DD / Rolling Grilles DD

Trap guard / curtain cover PVDD without VDD

Fitting example with suspended operator



Application range:

Door systems with impulse control and door ordering height less than 2500 mm.

BMB	= Door width ordering size
BMH	= Door height ordering size
ET_{PV}	= Fitting depth for door with curtain cover
FS	= Sideroom for side guide
KU	= Support bracket dimension bottom
L_{PV}	= Bearing side sideroom with curtain cover
M_{PV}	= Motor side sideroom with curtain cover
OFF	= Finished floor level
S	= Required headroom See tables from page 32
S_{PV}	= Required headroom for doors with curtain cover

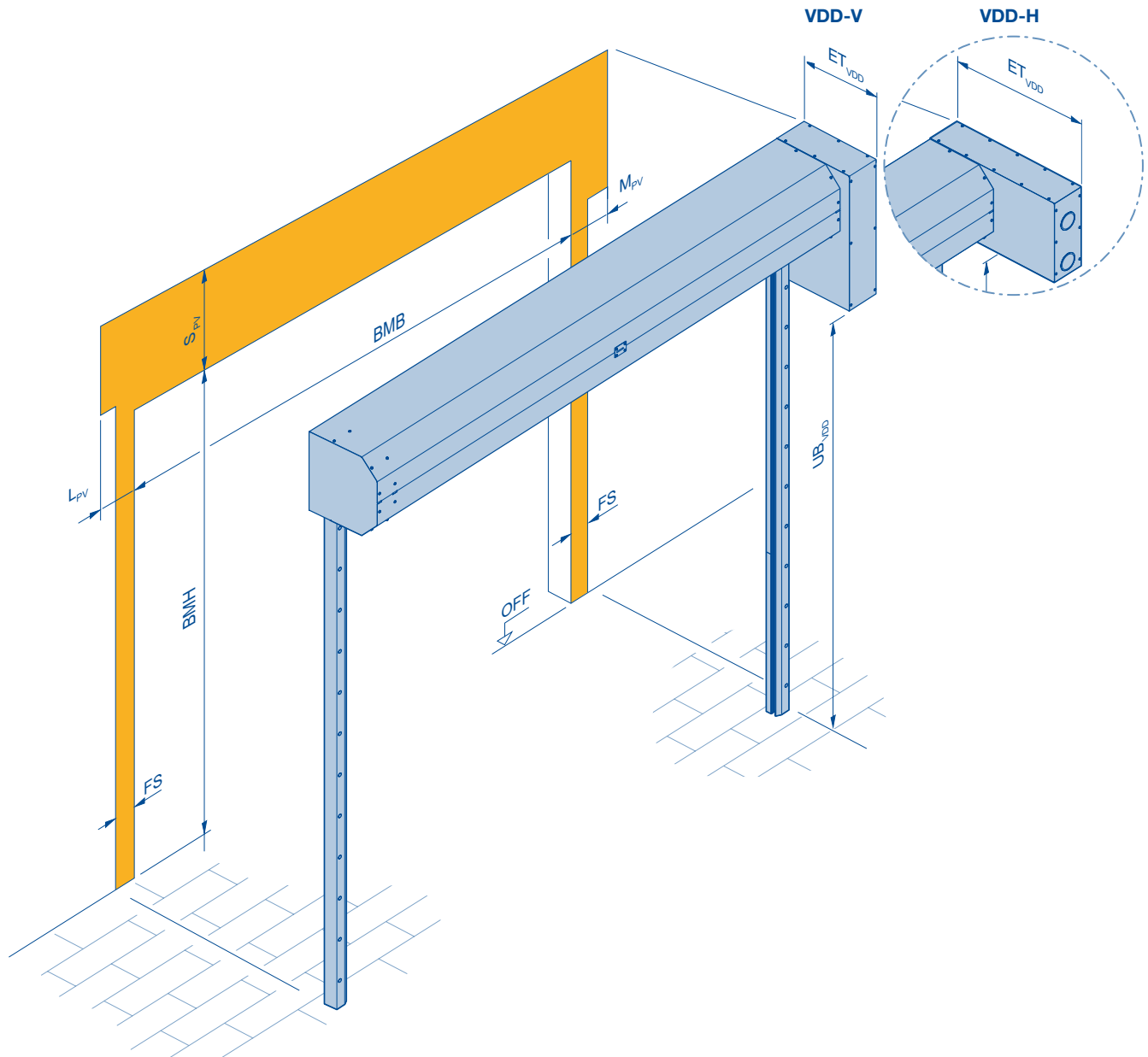
Notes:

- PVDD without VDD-V/VDD-H has no impacts on the sideroom
M_{PV} = MS on the operator side (see page 20)
- **L_{PV} = 195**
- **S_{PV} = S + 75** (see tables from page 32)
- **ET_{PV} = max. 705**
- PVDD without VDD-V/VDD-H complies with the legal requirements of a trap guard
- Sheet always chamfered towards the bottom
- No reduction of the clear passage height

Rolling Shutters DD / Rolling Grilles DD

Trap guard / curtain cover PVDD with VDD-H / VDD-V

Fitting example with operator on the right side



Application range:

Door systems requiring weather or contamination protection.

M_{PV}	L_{PV}	UB_{VDD}
290	195	Door height – 400
310 ¹⁾	195 ¹⁾	Door height – 400 ¹⁾

1) Space requirement in conjunction with accessory package S6

BMB = Door width ordering size

BMH = Door height ordering size

ET_{VDD} = Fitting depth for door with curtain cover VDD-V / VDD-H

FS = Sideroom for side guide

L_{PV} = Bearing side sideroom with curtain cover

M_{PV} = Motor side sideroom with curtain cover

OFF = Finished floor level

S = Required headroom See tables from page 32

S_{PV} = Required headroom for doors with curtain cover

UB_{VDD} = Bottom edge actuation with VDD-V / VDD-H

Notes:

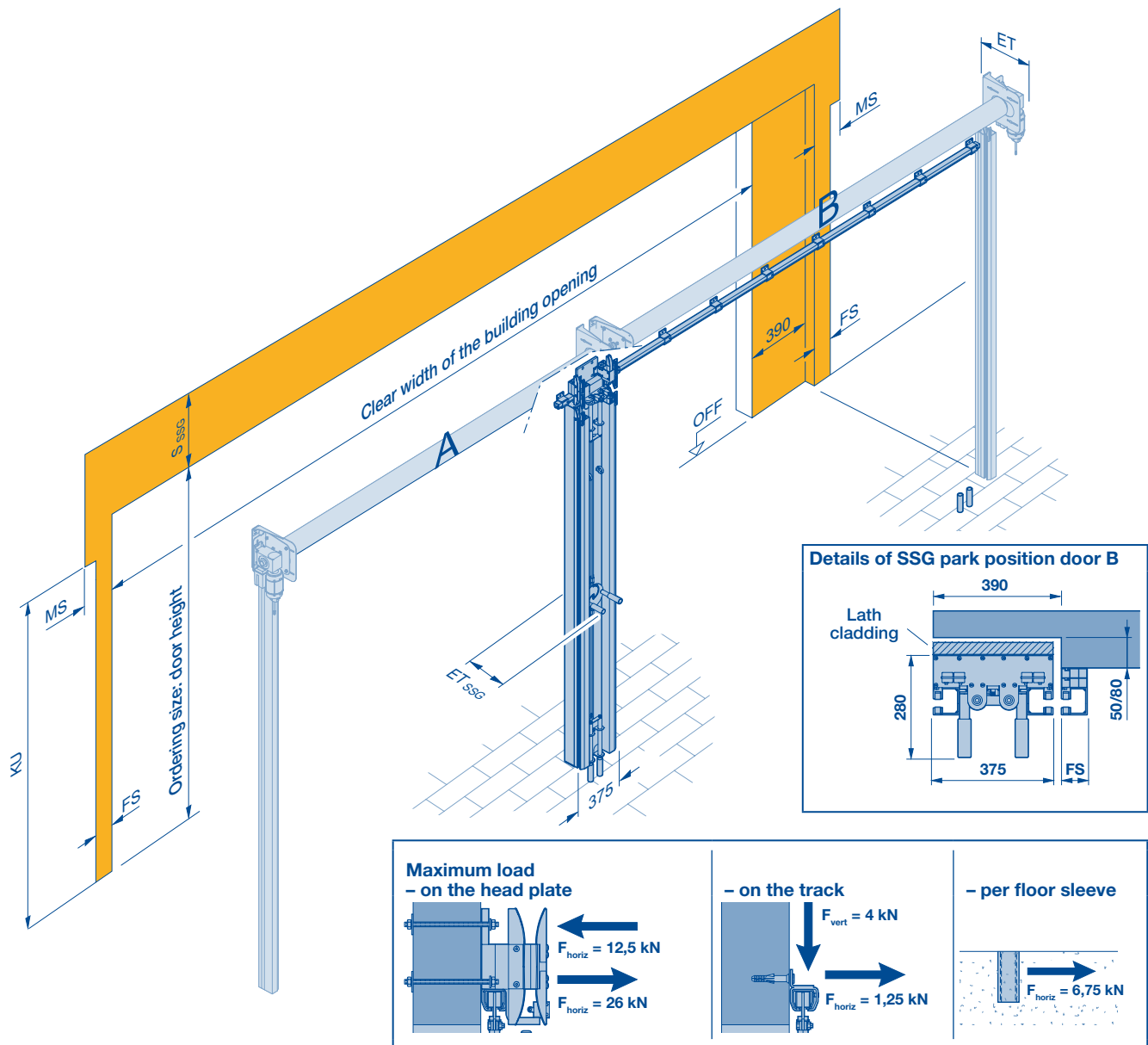
- $S_{PV} = S + 75$ (see tables from page 32)
- $ET_{PV} = \text{max. } 705$
- **VDD-V**
 - Operator position always vertical to the bottom
 - $ET_{VDD} = \text{max. } 705$
- **VDD-H**
 - Operator position always horizontal
 - $ET_{VDD} = \text{max. } 1630$
- PVDD with VDD-V / VDD-H complies with the legal requirements of a trap guard
- PVDD sheet always chamfered towards the bottom
- No reduction of the clear passage height
- For external rolling shutters:
 - Fitting of the controller and SKS housing on the rear side of the end wall
 - For changes to the profile views, see page 4

Rolling Shutters DD / Rolling Grilles DD

SSG DD

Park position behind the opening

Fitting example with 2 doors and park position to the right



Max. clear width of the building opening	Profile types Curtain types
35970 mm	Decotherm S, HR 120 A, HR 120 aero ¹⁾ , HG-V ²⁾ , HG-S ²⁾
27000 mm	HG-L
Max. clear height of the building opening	
9000 mm	Decotherm S
8000 mm	HR 120 A, HR 120 aero, HG-V, HG-S
5000 mm	HG-L

1) Only permissible for internal doors

2) Only permissible for doors with press-and-hold control

Notes:

- Available for coupling two or three doors
- Same profile version for all doors
- The park position can be selected either to the right or left behind the building opening
- Not available:
 - as an external rolling shutter
 - in conjunction with chamfered bottom profile or fascia panels
 - in conjunction with accessory package S6
- Doors less than 2500 mm and rolling grille only with press-and-hold control
- $S_{SSG} = S + \text{max. } 350 \text{ mm}$, $ET_{SSG} = 280 \text{ mm}$
- The siderooms (**FS**, **MS**) increase by 390 mm each for door B (for dimensions, see page 20).
- The maximum wind load of the door combination depends on the door widths and the height of the building opening.
- Product ID in the configurator: SSGDD

KU = Support bracket dimension bottom
MS = Sideroom on motor side for direct drive operators
S = Required headroom See tables from page 32
S_{SSG} = Required headroom for doors with SSG
OFF = Finished floor level

ET = Fitting depth See tables from page 32

ET_{SSG} = Fitting depth for SSG

F_{vert} = Vertical force at the fixing point

F_{horiz} = Horizontal force at the fixing point

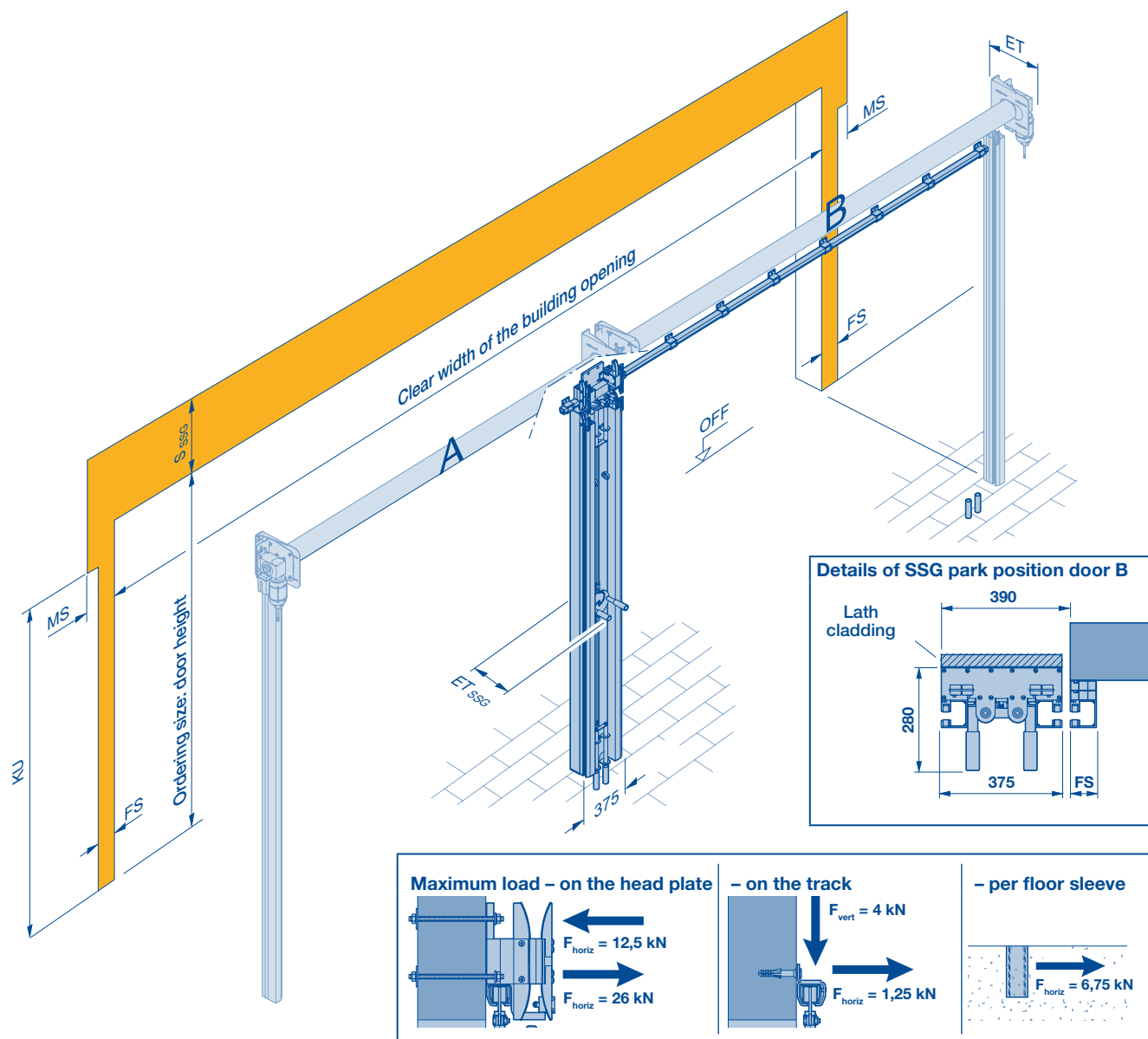
FS = Sideroom for side guide

Rolling Shutters DD / Rolling Grilles DD

SSG DD

Park position in the opening

Fitting example with 2 doors and park position to the right



Max. clear width of the building opening	Profile types Curtain types
36740 mm	Decotherm S, HR 120 A, HR 120 aero ¹⁾ , HG-V ²⁾ , HG-S ²⁾
27790 mm	HG-L
Max. clear height of the building opening	
9000 mm	Decotherm S
8000 mm	HR 120 A, HR 120 aero, HG-V, HG-S
5000 mm	HG-L

1) Only permissible for internal doors

2) Only permissible for doors with press-and-hold control

Notes:

- Available for coupling two or three doors
- Same profile version for all doors
- The park position can be selected either to the right or left in the building opening
- Not available:
 - as an external rolling shutter
 - in conjunction with chamfered bottom profile or fascia panels
 - in conjunction with accessory package S6
- Doors less than 2500 mm and rolling grille only with press-and-hold control
- $S_{SSG} = S + \text{max. } 350 \text{ mm}$, $ET_{SSG} = 280 \text{ mm}$
- The siderooms (**FS**, **MS**) increase by 390 mm each for door B (for dimensions, see page 20)
- The maximum wind load of the door combination depends on the door widths and the height of the building opening.
- Product ID in the configurator: SSGDD

ET = Fitting depth See tables from page 32

ET_{SSG} = Fitting depth for SSG

F_{vert} = Vertical force at the fixing point

F_{horiz} = Horizontal force at the fixing point

FS = Sideroom for side guide

KU = Support bracket dimension bottom

MS = Sideroom on motor side for direct drive operators

S = Required headroom See tables from page 32

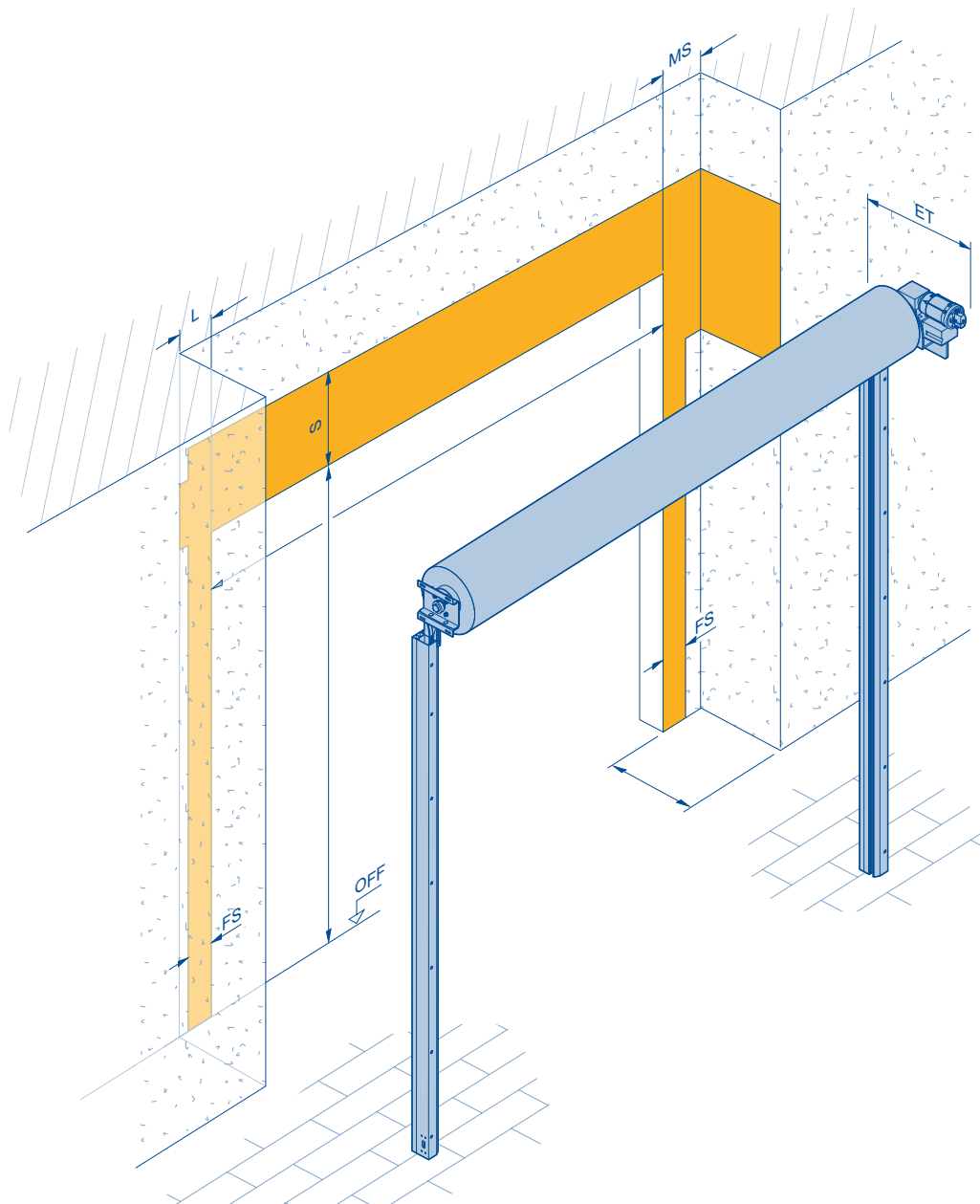
S_{SSG} = Required headroom for doors with SSG

OFF = Finished floor level

Rolling Shutters DD / Rolling Grilles DD

Wall brackets WK40 / WK60 / WK40A

Fitting example with wall bracket on the bearing and operator side



Support bracket	L	MS	FS	KU
WK40	120	260	80 ¹⁾	3)
	120 ²⁾	290 ²⁾	103 ²⁾	
WK60	120	280	80 ¹⁾	
WK40A	120	260	80 ¹⁾	

1) Standard fitting without a bracket

2) Space requirement in conjunction with accessory package S6

3) Dimension depends on door size.

BMB = Door width ordering size

BMH = Door height ordering size

ET = Fitting depth See tables from page 32

FS = Sideroom for side guide

KU = Support bracket dimension bottom

Notes:

- A barrel extension is required for siderooms above 120 mm on the bearing side.
- A barrel extension is required for siderooms above 260 mm on the operator side.

L = Sideroom on bearing side

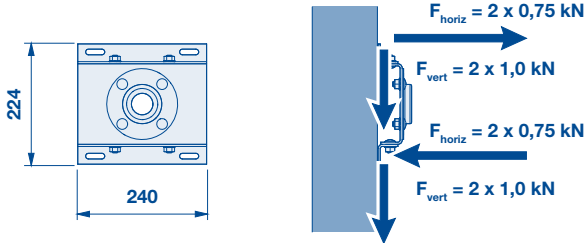
MS = Sideroom on motor side for direct drive operators

OFF = Finished floor level

S = Required headroom See tables from page 32

Wall brackets bearing side

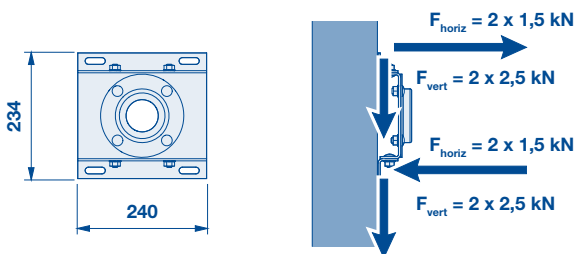
Support bracket WK40



Note:

- For doors with operators:
 - DD17
 - DD25
 - DD30
 - DD40
 - DD50
 - DD65

Support bracket WK60

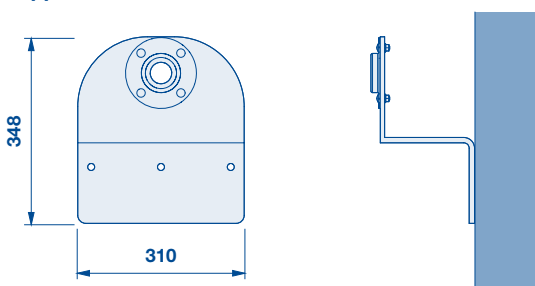


Note:

- For doors with operators:
 - DD100
 - DD160
 - DD180

Wall bracket operator side

Support bracket WK40A



Note:

- For doors with operators:
 - DD17
 - DD25
 - DD30
 - DD40
 - DD50
 - DD65
- Only horizontal operator fitting possible
- Not in conjunction with accessory package S6
- The forces on fixing points depend on the door size and door equipment; if necessary, please request the precise values via the product configurator.

[illegible]

Operator

DD180
DD160
DD100
DD65
DD50
DD40
DD30
DD25
DD17

h_{123} = S (required headroom)

123 = **ET** (fitting depth)

Note:

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1000 mm

[illegible][illegible]



Rolling Shutter DD

Table of standard values

Decotherm S and accessory package S6

Door height

9000																					
8750																					
8500	824	630																			
8250	819	625																			
8000	819	625																			
7750	819	625																			
7500	819	625	819	625																	
7250	770	596	770	596	770	596	770	596													
7000	770	596	770	596	770	596	770	596													
6750	770	596	770	596	770	596	770	596	770	596	770	596									
6500	770	596	770	596	770	596	770	596	770	596	770	596									
6250	770	596	770	596	770	596	770	596	770	596	770	596	770	596							
6000	743	589	743	589	743	589	743	589	743	589	743	589									
5750	729	575	729	575	729	575	729	575	729	575	729	575									
5500	729	575	729	575	729	575	729	575	729	575	729	575	729	575							
5250	729	575	729	575	729	575	729	575	729	575	729	575	729	575							
5000	699	565	699	565	699	565	699	565	699	565	699	565	699	565	699	565					
4750	657	461	657	543	657	543	657	543	657	543	657	543	657	543	657	543					
4500	657	461	657	461	657	543	657	543	657	543	657	543	657	543	657	543	657	543			
4250	657	461	657	461	657	543	657	543	657	543	657	543	657	543	657	543	657	543	657	543	
4000	657	461	657	461	657	461	657	543	657	543	657	543	657	543	657	543	657	543	657	543	
3750	622	446	622	446	622	446	622	446	622	528	622	528	622	528	622	528	622	528	622	528	
3500	619	443	619	443	619	443	619	443	619	525	619	525	619	525	619	525	619	525	619	525	
3250	619	443	619	443	619	443	619	443	619	525	619	525	619	525	619	525	619	525	619	525	
3000	619	443	619	443	619	443	619	443	619	525	619	525	619	525	619	525	619	525	619	525	
2750	619	443	619	443	619	443	619	443	619	443	619	525	619	525	619	525	619	525	619	525	
2500																					
2250																					
	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000	6250	6500	6750	7000	7250

Door width

Operator

DD40.40
DD25.60
DD17.60

123 = S (required headroom)

123 = ET (fitting depth)

Notes:

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1000 mm
- Minimum door height 2750 mm

[illegible][illegible]

1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	

[illegible]

Operator

DD180
DD160
DD100
DD65
DD50
DD40
DD30
DD25
DD17

$123 = S$ (required headroom)

123 = **ET** (fitting depth)

Note:

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1750 mm

Support profiles

[illegible]



Table of standard values

HR 120 aero

Door height					
8000	7750	7500	7250	7000	6750
6500	6250	6000	5750	5500	5250
5000	4750	4500	4250	4000	3750
3500	3250	3000	2750	2500	2250
2000	1750	1500	1250	1000	750
500	250	0	-250	-500	-750

Operator

DD180
DD160
DD100
DD65
DD50
DD40
DD30
DD25
DD17

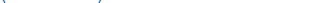
$123 = S$ (required headroom)

123 = **ET** (fitting depth)

Note:

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1750 mm

Support profiles

Door no longer fulfils wind load class 2 (EN 12424) 

[illegible]



Table of standard values

HG-L

[illegible]

Door width

DD180
DD160
DD100
DD65
DD50
DD40
DD30
DD25
DD17

123 = **ET** (fitting depth)

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1000 mm

Support profiles

[illegible]

[illegible]

Operator

DD180
DD160
DD100
DD65
DD50
DD40
DD30
DD25
DD17

$123 = S$ (required headroom)

123 = **ET** (fitting depth)

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1000 mm

Support profiles										
717	608	717	608	717	608	717	608	717	608	0
714	602	714	602	714	602	714	602	714	602	0
711	597	711	597	711	597	711	597	711	597	0
708	590	708	590	708	590	708	590	708	590	0
685	584	685	584	685	584	685	584	685	584	0
681	577	681	577	681	577	681	577	681	577	0
679	572	679	572	679	572	679	572	679	572	0
675	565	675	565	675	565	675	565	675	565	0
672	559	672	559	672	559	672	559	672	559	0
669	553	669	553	669	553	669	553	669	553	0
666	546	666	546	666	546	666	546	666	546	0
645	541	645	541	645	541	645	541	645	541	0
645	537	645	537	645	537	645	537	645	537	0
645	533	645	533	645	533	645	533	645	533	0
645	530	645	530	645	530	645	530	645	530	0
645	515	645	515	645	526	645	526	645	526	0
625	515	625	515	625	515	625	515	625	522	0
625	515	625	515	625	515	625	515	625	515	0
625	515	625	515	625	515	625	515	625	515	0
625	515	625	515	625	515	625	515	625	515	0
625	515	625	515	625	515	625	515	625	515	0
605	515	605	515	605	515	605	515	605	515	0
605	515	605	515	605	515	605	515	605	515	0

[illegible]

[illegible]

- All standard values only apply to standard version doors with suspended operators.
- Minimum door width 1000 mm

Support profiles

																				0
																				0
																				0
	708	590																		0
	685	584	685	584																0
	681	577	681	577																0
	679	572	679	572	679	572														0
	675	565	675	565	675	565	675	565												0
	672	559	672	559	672	559	672	559	672	559										0
	669	553	669	553	669	553	669	553	669	553	669	553								0
	666	546	666	546	666	546	666	546	666	546	666	546	666	546						0
	625	515	625	515	625	515	645	541	645	541	645	541	645	541	645	541				0
	625	515	625	515	625	515	645	537	645	537	645	537	645	537	645	537	645	537		0
	625	515	625	515	625	515	645	533	645	533	645	533	645	533	645	533	645	533	645	533
	625	515	625	515	625	515	645	530	645	530	645	530	645	530	645	530	645	530	645	530
	605	515	605	515	605	515	645	526	645	526	645	526	645	526	645	526	645	526	645	526
	605	515	605	515	605	515	625	522	625	522	625	522	625	522	625	522	625	522	625	522
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	605	515	605	515	605	515	625	515	625	515	625	515	625	515	625	515	625	515	625	515
	515	415	585	515	585	515	585	515	585	515	585	515	585	515	585	515	585	515	585	515
	495	415	515	585	515	585	515	585	515	585	515	585	515	585	515	585	515	585	515	585
	495	415	515	585	515	585	515	585	515	585	515	585	515	585	515	585	515	585	515	585
7500																				0
7750																				0
8000																				0
8250																				0
8500																				0
8750																				0
9000																				0
9250																				0
9500																				0
9750																				0
10000																				0
10250																				0
10500																				0
10750																				0
11000																				0
11250																				0
11500																				0
11750																				0
12000																				0





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