Industrial sectional doors Depth 42 mm

Technical manual

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HÖRMANN

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Notice:
The size and validity tables in this document can only represent the status upon document creation.
Therefore deviations from the product configurator may occur.
All dimensions in mm.
Subject to design changes.

Detailed door leaf constructions and track applications as well as fitting examples are provided in this manual.

Product descriptions

Door type	Door leaf / wicket door
Sectional door SPU F42, double-skinned steel sectional door, Stucco-textured / Micrograin, door sections 625 and 750 mm high	
Door leaf	Door sections made of PU-foamed, hot-galvanized sections. Door sections Stucco-textured on inside and outside with uniform horizontal ribbing, or Micrograin with fine horizontal embossing on outside and Stucco-textured inside, 625 and 750 mm high, depth 42 mm. All door sections with finger trap protection. Surface protection with polyester-primer coating. Ventilation grilles optional.
Wicket door	Only to be fitted in the central fields of the sectional door. **Cannot be fitted in the outer fields – note the arrangement!** Only opening outwards, LH or RH hinged. Ventilation grilles are not possible in wicket doors. In doors with wicket door with trip-free threshold, the clear frame dimensions (ordering size, LZ) must not exceed the clear opening width + 10 mm. **Attention (for threshold rail): For grid heights 2000, 2125 and 2250, the clear opening height must not be lower than the door height.**
Glazing	Glazing frames made of standard anodised aluminium extrusions or with thermal break, or optionally sections with compound glazing are possible within the fitting area shown below. Fewer compound glazings or different arrangements are possible subject to the minimum distances. Glazing frames are possible from FFL and compound glazing from 625 / 750 mm above FFL.
Sectional door SPU F42, double-skinned steel sectional door, Stucco-textured / Micrograin, door sections 375 and 500 mm high	
Door leaf	Door sections made of PU-foamed, hot-galvanized sections. Door sections Stucco-textured on inside and outside with uniform horizontal ribbing, or Micrograin with fine horizontal embossing on outside and Stucco-textured inside, 375 and 500 mm high, depth 42 mm. All door sections with finger trap protection. Surface protection with polyester-primer coating. Ventilation grilles optional.
Wicket door	Only to be fitted in the central fields of the sectional door. **Cannot be fitted in the outer fields – note the arrangement!** Only opening outwards, LH or RH hinged. Ventilation grilles are not possible in wicket doors. In doors with wicket door with trip-free threshold, the clear frame dimensions (ordering size, LZ) must not exceed the clear opening width + 10 mm. **Attention (for threshold rail): For grid heights 2000 and 2125, the clear opening height must not be lower than the door height.**
Glazing	Glazing frames made of standard anodised aluminium extrusions or with thermal break, or optionally sections with compound glazing are possible within the fitting area shown below. Fewer compound glazings or different arrangements are possible subject to the minimum distances. Glazing frames are possible from FFL and compound glazing from 500 mm above FFL.
Sectional door APU F42 / APU F42 Thermo, glazed aluminium sectional door with steel bottom section / glazed aluminium sectional door with thermal break with steel bottom section	
Door leaf	Bottom section made of hot-galvanized, PU-foamed sections, 750 (standard version), or 1500 mm high, Stucco-textured inside and outside with uniform horizontal ribbing, or Micrograin with fine horizontal embossing on outside and Stucco-textured inside. Surface protection with polyester-primer coating. Other door sections with glazing made of standard anodised aluminium extrusions (APU F42) or with thermal break (APU F42 Thermo). Depth 42 mm. All door sections with finger trap protection. Infill: clear synthetic double panes, 26 mm (S2). Ventilation grilles in the bottom section possible.
Wicket door	Depending on the door type, made of standard anodised aluminium extrusions or with thermal break, fitted in the central fields of the door. **Cannot be fitted in the outer fields – note the arrangement!** Only opening outwards, LH or RH hinged. Ventilation grilles are not possible in wicket doors. In doors with wicket door with trip-free threshold, the clear frame dimensions (ordering size, LZ) must not exceed the clear opening width + 10 mm. **Attention (for threshold rail): If the wicket door has the same number of sections as the sectional door, the clear opening height must not be lower than the door height (RM).**
Sectional door ALR F42 / ALR F42 Thermo, glazed aluminium sectional door / glazed aluminium sectional door with thermal break	
Door leaf	Door sections made of standard anodised aluminium extrusions (ALR F42) or with thermal break (ALR F42 Thermo). Depth 42 mm. All door sections with finger trap protection. Bottom door section made of PU infill with 26 mm Stucco-textured aluminium sheet cover on both sides (FU), other door sections with 26 mm clear synthetic double panes (S2). Ventilation grilles in the bottom section possible.
Wicket door	Depending on the door type, made of standard anodised aluminium extrusions or with thermal break, fitted in the central fields of the door. **Cannot be fitted in the outer fields – note the arrangement!** Only opening outwards, LH or RH hinged. Ventilation grilles are not possible in wicket doors. In doors with wicket door with trip-free threshold, the clear frame dimensions (ordering size, LZ) must not exceed the clear opening width + 10 mm. **Attention (for threshold rail): If the wicket door has the same number of sections as the sectional door, the clear opening height must not be lower than the door height (RM).**
Sectional door ALR F42 Glazing, aluminium sectional door with large glazing, real glass	
Door leaf	Door sections made of standard anodised aluminium extrusions. Depth 42 mm. All door sections with finger trap protection. All door section infills in 6 mm laminated safety glass (VG). Uniform infill heights.
Sectional door ALR F42 Vitraplan, exclusive glazed aluminium sectional door	
Door leaf	Door sections made of standard polyester primer-coated aluminium extrusions. Depth 42 mm. All door sections with finger trap protection and synthetic double panes, 26 mm (S2), clear, and 4 mm transparent synthetic glazings fitted in front, optionally in brown or grey. Ventilation grilles are not possible in the bottom section.
Sectional door Parcel / Parcel Walk	
Door leaf	The divisible industrial door for special package loading requirements. The optimal solution for the joint use of the same loading bay by both lorries and vans.

Product descriptions

Door type	Door leaf / wicket door

Door versions	SPU F42 Parcel, APU F42 Parcel (without catwalk) SPU F42 Parcel Walk, APU F42 Parcel Walk (with catwalk) Releasing an espagnolette lock can decouple one or more door sections.
Catwalk	Grooved aluminium sheet

Frame / track application

Enclosed, moulded angle frame with press-fitted external seal, made of hot-galvanized steel with screwed safety tracks.

Door lock

Manually operated	Inside locking using a shootbolt, self-locking rotary latch (on request for track applications that have a low-mounted torsion spring shaft) or self-locking floor locking.
Power-driven	Inside locking using a shootbolt

Counterbalance

Torsion springs, with carrying cables on the side (with a low headroom track application, a combination of carrying chain and carrying cable).
The torsion springs for track applications N, ND, NS, NK, NA, NH, GD, GS, L and LD are designed for at least 25000 closing cycles and for all other track applications for at least 50000 closing cycles. For version with direct drive operator via the operator, shaft and carrying cables on the side.

Safety-related equipment according to DIN EN 12604

- Manually operated doors using a torsion spring with approved catch safety device *)
- Manually operated doors that have more than one torsion spring with approved spring safety device *) over a door height of 5000 mm, with additional approved catch safety devices *) on both sides
- Power-driven doors with break-in-resistant anti-lift kit
- Inner and outer finger trap protection

* European patent

Seals

Floor seal made of 3-chamber EPDM profile with flexible adjustment lip, side seal, lintel seal and intermediate seal between the sections.

Notice regarding surface coating

For the listed colour shades, the sectional doors SPU F42, APU F42 Thermo and ALR F42 Thermo with door width from 4510 to 5000 mm in combination with the track applications NH, GD, GS, H, HD, HS, HK, HA, HU, RD, RS, RK, RG, V, VA, VS, VU, WS and WG are fitted with door leaf reinforcement to reduce any possible section deflection caused by sun exposure and require technical inspection.

RAL 3007 Black red
RAL 5003 Sapphire blue
RAL 5004 Black blue
RAL 5011 Steel blue
RAL 5013 Cobalt blue
RAL 5020 Ocean blue
RAL 5022 Night blue

RAL 6004 Blue green
RAL 6005 Moss green
RAL 6007 Bottle green
RAL 6008 Brown green
RAL 6009 Fir green
RAL 6012 Black green
RAL 6015 Black olive

RAL 6022 Olive drab
RAL 7016 Anthracite grey
RAL 7021 Black grey
RAL 7043 Traffic grey
RAL 8014 Sepia brown
RAL 8016 Mahogany brown
RAL 8017 Chocolate brown

RAL 8019 Grey brown
RAL 8022 Black brown
RAL 8028 Terra brown
RAL 9004 Signal black
RAL 9005 Jet black
RAL 9011 Graphite black
RAL 9017 Traffic black

Colour CH 703

Technical data overview

Construction and quality features

Resistance to wind load EN 12424	Door without wicket door, class
	Door with wicket door, LZ ≤ 4000, class
	Door with wicket door, LZ > 4000, class
Water tightness EN 12425	Door without wicket door, class
Air permeability EN 12426	Door without wicket door, class
	Door with wicket door, class
Acoustic value EN 717-1	Door without wicket door R_w = . . . dB
	Door with wicket door R_w = . . . dB
Thermal insulation value EN 13241-1, appendix B EN 12428	Door without wicket door, U = W/(m²·K) 2)
	- Optional triple glazing, U = W/(m²·K) 2)
	- Optional climatic double panes (single-pane safety glass) U = W/(m²·K) 2)
	- Optional double panes (single-pane safety glass) U = W/(m²·K) 2)
	Door with wicket door, U = W/(m²·K) 2)
	- Optional triple glazing, U = W/(m²·K) 2)
	- Section, U = W/(m²·K)
Construction	Self-supporting
	Depth, mm
Door sizes	Max. width mm, LZ
	Max. height mm, RM 3)
Space requirement	From page 52
Material, door leaf	Steel, double-skinned, 42 mm
	Aluminium, standard profile
	Aluminium, profile with thermal break
Surface, door leaf	Galvanized steel, coated RAL 9002
	Galvanized steel, coated RAL 9006
	Galvanized steel, coated RAL to choose
	Anodised aluminium E6 / C0 (previously E6 / EV 1)
	Aluminium coated in RAL to choose
Door leaf reinforcement	From LZ, mm
	Notice regarding surface coating, see page 5, from LZ, mm
Wicket door	
Side door	Matching the door
Glazings	Type A section window
	Type D section window
	Type E section windows
	Aluminium glazing frame
Seals	All-round on 4 sides
	Intermediate seal between the door sections
ThermoFrame	UPVC hard / soft seal
Locking systems	Internal latches
	Outside / inside locking
Anti-lift kit	For doors of up to 5 m with shaft operator
Safety equipment	Finger trap protection
	Side trap guards
	Spring break safeguard for manual operation
	Safety catch for doors with shaft operator
Fitting types	Concrete
	Steel
	Brickwork
	Others on request

● = Standard
○ = Optional

* With glazing VG, E2 and G2
** Top door section

1) With optional double pane (single-pane safety glass)
2) For a door surface of 5000 × 5000 mm
3) Door height above 7000 mm on request (not with door type ALR F42 Glazing)
4) Optionally with Thermoframe
5) Door width up to 5500 mm
6) Class 3 = 0.7 kN/m² or 120 km/h
7) Class 2 = 0.45 kN/m² or 96 km/h
8) Class 2 = 12 m³/m²h
9) Class 1 = 24 m³/m²h
10) Lower class rating may apply for doors with compound glazing

Technical data overview

SPU F42	APU F42	APU F42 Thermo	ALR F42	ALR F42 Thermo	ALR F42 Vitraplan	ALR F42 Glazing
3 [6) 10)]	3 [6)]	3 [6)]	3 [6)]	3 [6)]	3 [6)]	3 [6)]
3 [6) 10)]	3 [6)]	3 [6)]	3 [6)]	3 [6)]	–	–
2 [7) 10)]	2 [7)]	2 [7)]	2 [7)]	2 [7)]	–	–
3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)
2 [8)]	2 [8)]	2 [8)]	2 [8)]	2 [8)]	2 [8)]	2 [8)]
1 [9)]	1 [9)]	1 [9)]	1 [9)]	1 [9)]	–	–
25	23	23	23 (30 [1)])	23 (30 [1)])	23	30 [1)]
24	22	22	22	22	–	–
1.0 (0.94 [4)])	3.4 (3.3 [4)])	2.9 (2.8 [4)])	3.6 (3.6 [4)])	3.0 (3.0 [4)])	3.2 (3.2 [4)])	6.1 (6.1 [4)])
–	3.0 (2.9 [4)])	2.5 (2.4 [4)])	3.2 (3.1 [4)])	2.6 (2.5 [4)])	3.0 (2.9 [4)])	–
–	2.5 (2.4 [4)])	2.0 (1.9 [4)])	2.7 (2.6 [4)])	2.1 (2.0 [4)])	–	2.7 (2.6 [4)])
–	3.4 (3.3 [4)])	2.9 (2.8 [4)])	3.6 (3.6 [4)])	3.0 (3.0 [4)])	–	3.8 (3.8 [4)])
1.2 (1.2 [4)])	3.6 (3.6 [4)])	3.1 (3.1 [4)])	3.8 (3.8 [4)])	3.2 (3.2 [4)])	–	–
–	3.2 (3.1 [4)])	2.7 (2.6 [4)])	3.4 (3.4 [4)])	2.8 (2.8 [4)])	–	–
0,5	–	–	–	–	–	–
●	●	●	●	●	●	●
42	42	42	42	42	42	42
8000	8000	7000	8000	7000	6000	5500
7500	7500	7500	7500	7500	7500	4000
●	●	●	–	–	–	–
–	●	–	●	–	●	●
–	–	●	–	●	–	–
●	○	○	–	–	–	–
○	●	●	–	–	–	–
○	○	○	–	–	–	–
○	●	●	●	●	●	●
○	○	○	○	○	○	○
4010* / 5010	4010** / 5010	4010** / 5010	4010** / 5010	4010** / 5010	●	3340
4510	–	4510	–	4510	●	3340
○	○	○	○	○	–	–
○	○	○	○	○	○	–
○	–	–	–	–	–	–
○	–	–	–	–	–	–
○	–	–	–	–	–	–
○	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
○	○	○	○	○	○	○
●	●	●	●	●	●	●
○	○	○	○	○	–	–
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●	●	●	●	●	●	●
●	●	●	●	●	●	●
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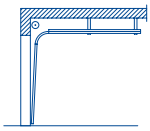
●	●	●	●	●	●	●

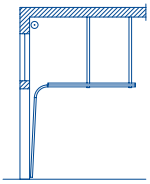
Overview of track applications

N



Normal track application
or version
Normal track application for direct drive operators S17.24 and S35.30
Door width LZ ≤ 4500 mm
Door height RM ≤ 4500 mm

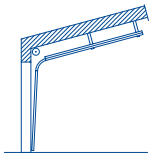
NA



As with track application N, with high-mounted torsion spring shaft

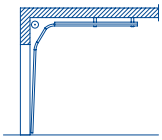
Door height RM ≤ 5000 mm

ND



As with track application N, with inclination

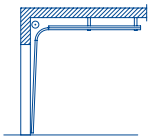
NS



As with track application N, with double radius 2 × 45°

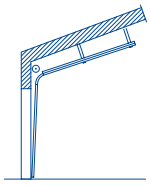
Door height RM ≤ 5000 mm

NH



As with track application N, with minimum high-lift

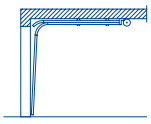
GD



As with track application NH, with inclination (maximum 27°)

Door height RM ≤ 5000 mm

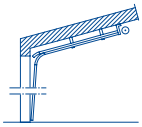
S



Low headroom track application

Door height RM ≤ 5000 mm

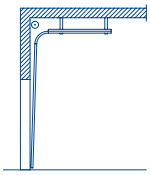
LD



As with track application L, with inclination

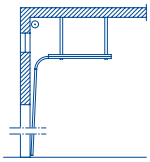
Door height RM ≤ 5000 mm

H



High-lift track application
or version
High-lift track application for direct drive operators S17.24 and S35.30
Door width LZ ≤ 4500 mm
Door height RM ≤ 4500 mm

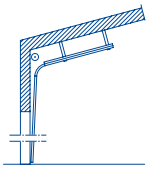
HA



As with track application H, with high-mounted torsion spring shaft

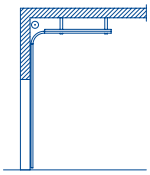
Door height RM ≤ 3500 mm

HD



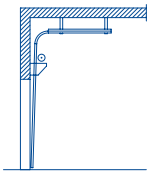
As with track application H, with inclination

HG



As with track application H, with steep track and minimum slot width of 120 mm (for loading ramp doors)
Door width LZ ≤ 3500 mm
Door height RM ≤ 5000 mm
Not possible for door types ALR F42 Glazing and doors with wicket door and with real glass infill!

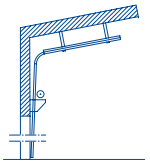
HU



As with track application H, with low-mounted torsion spring shaft

Door height RM ≤ 5000 mm

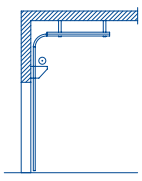
RD



As with track application HU, with inclination

Door height RM ≤ 5000 mm

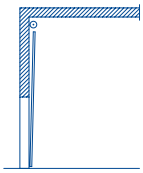
RG



As with track application HU, with steep track and minimum slot width of 120 mm (for loading ramp doors)
Door width LZ ≤ 3500 mm
Door height RM ≤ 5000 mm
Not possible for door types ALR F42 Glazing and doors with wicket door and with real glass infill!

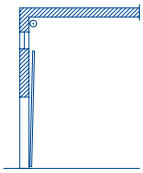
Overview of track applications

V



Vertical track application
(Additional hand pulley required for manually operated doors!)

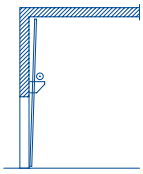
VA



As with track application V, with high-mounted torsion spring shaft
(Additional hand pulley required for manually operated doors!)

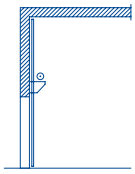
Door height RM ≤ 3500 mm

VU



As with track application V, with low-mounted torsion spring shaft
(Additional hand pulley required for manually operated doors!)

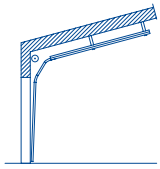
WG



As with track application VU, with steep track and minimum slot width of 120 mm (for loading ramp doors) (additional chain hoist required with manually operated doors!)
Door width LZ ≤ 3500 mm
Door height RM ≤ 5000 mm
Not possible for door types ALR F42 Glazing and doors with wicket door and with real glass infill!

Notice:
An in-factory technical inspection is required for the following track applications!

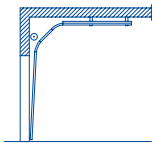
NK



As with track application NS, but the degree values of both radii are adapted to the situation on site

Door height RM ≤ 5000 mm

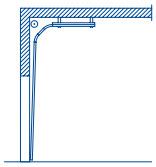
GS



As with track application NH with 2 × 45° – double radius

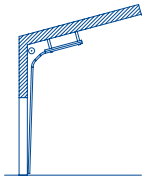
Door height RM ≤ 5000 mm

HS



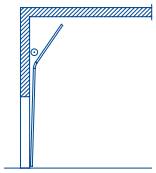
As with track application H with double radius 2 × 45°

HK



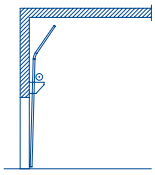
As with track application HS, but the degree values of both radii are adapted to the situation on site

VS



As with track application V, but in the top sections the tracks are diverted using radii where the ceiling is too low
(Additional hand pulley required for manually operated doors!)

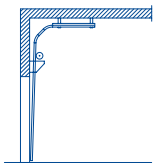
WS



As with track application VU, but in the top sections the tracks are diverted using radii where the ceiling is too low
(Additional hand pulley required for manually operated doors!)

Door height RM ≥ 2200 mm

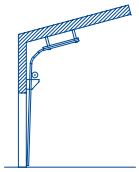
RS



As with track application HU, with 2 × 45° – double radius

Door height RM ≤ 5000 mm

RK

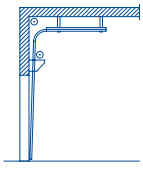


As with track application RS, but the degree values of both radii are adapted to the situation on site

Door height RM ≤ 5000 mm

Notice:
The sectional door Parcel / Parcel Walk is only available with these track applications. Technical factory inspection required!

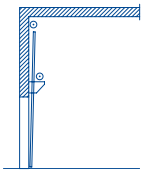
HP



High-lift track application
With high- and low-mounted torsion spring shaft

Door width LZ ≤ 3000 mm
Door height RM ≤ 4250 mm
Only for sectional door Parcel / Parcel Walk

VP



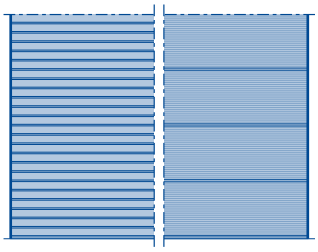
Vertical track application
With high- and low-mounted torsion spring shaft

Door width LZ ≤ 3000 mm
Door height RM ≤ 4250 mm
Only for sectional door Parcel / Parcel Walk

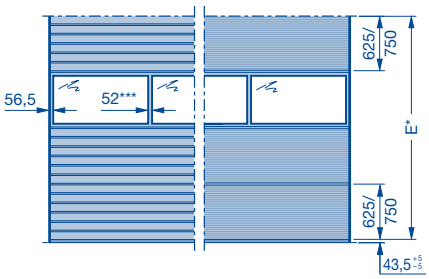
Sectional door SPU F42

Double-skinned steel sectional door
Stucco-textured / Micrograin
Door sections 625 and 750 mm high

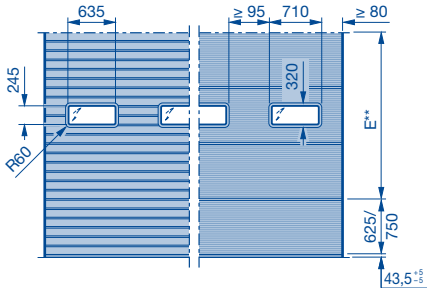
External views



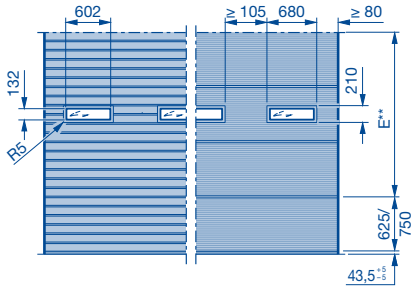
Glazing frame



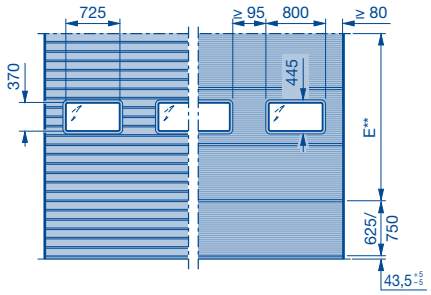
Compound glazing type A



Compound glazing type D



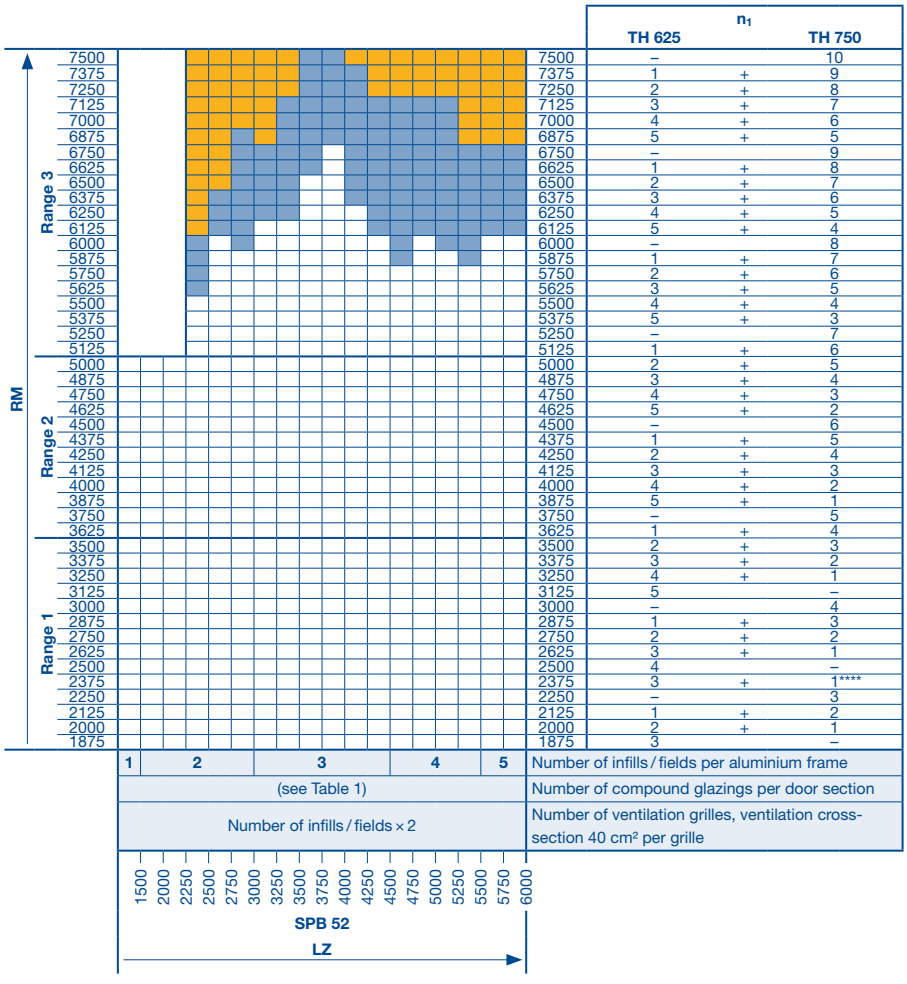
Compound glazing type E



E* Fitting area for frames with glazing
E** Fitting area for compound glazing
*** Optionally with wide rail extrusions (91 mm)

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments. Intermediate heights using aluminium glazing frames or a shortened top door section are possible!



n_1	TH 625		TH 750
7500	–		10
7375	1	+	9
7250	2	+	8
7125	3	+	7
7000	4	+	6
6875	5	+	5
6750	–		9
6625	1	+	8
6500	2	+	7
6375	3	+	6
6250	4	+	5
6125	5	+	4
6000	–		8
5875	1	+	7
5750	2	+	6
5625	3	+	5
5500	4	+	4
5375	5	+	3
5250	–		7
5125	1	+	6
5000	2	+	5
4875	3	+	4
4750	4	+	3
4625	5	+	2
4500	–		6
4375	1	+	5
4250	2	+	4
4125	3	+	3
4000	4	+	2
3875	5	+	1
3750	–		5
3625	1	+	4
3500	2	+	3
3375	3	+	2
3250	4	+	1
3125	5		–
3000	–		4
2875	1	+	3
2750	2	+	2
2625	3	+	1
2500	4		–
2375	3	+	1****
2250	–		3
2125	1	+	2
2000	2	+	1
1875	3		–

Number of infills / fields per aluminium frame
Number of compound glazings per door section
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notices:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors with wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Table 1:
Number of compound glazings per door section

Type	Unit(s)	Door width
A, D	1	A: 1200 – 1670 mm D: 1200 – 1630 mm
	2	A: 1680 – 3000 mm D: 1640 – 3000 mm
	3	3010 – 4500 mm
	4	4510 – 5500 mm
	5	5510 – 6000 mm
E	1	1200 – 1850 mm
	2	1860 – 3000 mm
	3	3010 – 4500 mm
	4	4510 – 5500 mm
	5	5510 – 6000 mm

On request

Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.

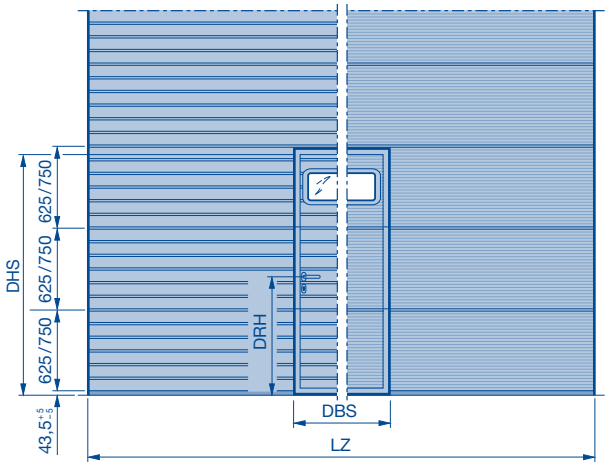
n_1 No. of door sections
RM Grid height
LZ Clear frame dimensions **(from 1200)**
SPB Rail width
TH Door section height
******** Top door section 500 mm

Sectional door SPU F42
with wicket door with trip-free threshold

Double-skinned steel sectional door

Stucco-textured / Micrograin, door sections 625 and 750 mm high,

External views



**** Notice on fitting compound glazings:**
For door widths from 1750 – 3000 mm, a compound glazing can **only** be fitted into the wicket door. No compound glazing can be fitted to the left or right of the wicket door. Compound glazing type E may not be used in the wicket door area.

Wicket door clear passage width (DBS) = 940 mm*
* For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Lever heights (DRH)
Bottom door section 625 = 960.5
Bottom door section 750 = 1085.5

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments. Intermediate heights using aluminium glazing frames or a shortened door section above the wicket door are possible.

RM	Range	SH_1	SH_2	RM	n_1 TH 625		n_1 TH 750	DHS
7500	3			7500	–		10	2205
7375	3			7375	1	+	9	2205
7250	3			7250	2	+	8	2205
7125	3			7125	3	+	7	2205
7000	3			7000	4	+	6	2205
6875	3			6875	5	+	5	2205
6750	3			6750	–		9	2205
6625	3			6625	1	+	8	2205
6500	3			6500	2	+	7	2205
6375	3			6375	3	+	6	2205
6250	3			6250	4	+	5	2205
6125	3			6125	5	+	4	2205
6000	3			6000	–		8	2205
5875	3			5875	1	+	7	2205
5750	3			5750	2	+	6	2205
5625	3			5625	3	+	5	2205
5500	3			5500	4	+	4	2205
5375	3			5375	5	+	3	2205
5250	3			5250	–		7	2205
5125	3			5125	1	+	6	2205
5000	2			5000	2	+	5	2205
4875	2			4875	3	+	4	2205
4750	2			4750	4	+	3	2205
4625	2			4625	5	+	2	2080
4500	2			4500	–		6	2205
4375	2			4375	1	+	5	2205
4250	2			4250	2	+	4	2205
4125	2			4125	3	+	3	2205
4000	2			4000	4	+	2	2080
3875	2			3875	5	+	1	1955
3750	2			3750	–		5	2205
3625	2			3625	1	+	4	2205
3500	2			3500	2	+	3	2205
3375	2			3375	3	+	2	2080
3250	2			3250	4	+	1	1955
3125	2			3125	5		–	1830
3000	1			3000	–		4	2205
2875	1			2875	1	+	3	2205
2750	1			2750	2	+	2	2080
2625	1			2625	3	+	1	1955
2500	1			2500	4		–	1830
2375	1			2375	3	+	1***	1830
2250	1			2250	–		3	2125
2125	1			2125	1	+	2	2000
2000	1			2000	2	+	1	1875
1875	1			1875				

SH_1			SH_2	
3		4	5	Number of infills / fields per aluminium frame
2	3	4	5	Number of compound glazings per door section**
(Number of infills / fields –1) × 2				Number of ventilation grilles, ventilation cross-section 40 cm² per grille

2000 2250 2500 2750 3000 3250 3500 3750 4000 4250 4500 4750 5000 5250 5500 5750 6000

SPB 52
LZ

Notices:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

On request

Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.

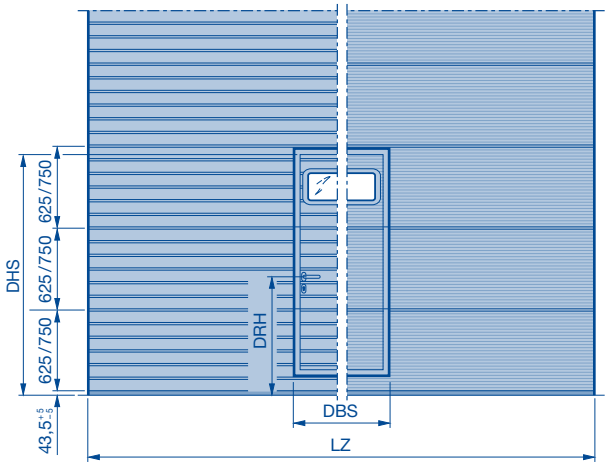
n_1	No. of door sections
DHS	Clear passage heights of wicket door to grid height
SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
SPB	Rail width
TH	Door section height
RM	Grid height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
***	Top door section 500 mm

Sectional door SPU F42 with wicket door and threshold rail

Double-skinned steel sectional door

Stucco-textured / Micrograin, door sections 625 and 750 mm high

External views



**** Notice on fitting compound glazings:**
For door widths from 1750 – 3000 mm, a compound glazing can **only** be fitted into the wicket door. No compound glazing can be fitted to the left or right of the wicket door. Compound glazing type E may not be used in the wicket door area.

Wicket door clear passage width (DBS) = 940 mm*
* For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Lever heights (DRH)
Bottom door section 625 = 960.5
Bottom door section 750 = 1085.5

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments. Intermediate heights using aluminium glazing frames or a shortened door section above the wicket door are possible.

RM	Range	SH_1	SH_2	n_1 TH 625		n_1 TH 750	DHS
7500	3		7500	–		10	2205
7375	3		7375	1	+	9	2205
7250	3		7250	2	+	8	2205
7125	3		7125	3	+	7	2205
7000	3		7000	4	+	6	2205
6875	3		6875	5	+	5	2205
6750	3		6750	–		9	2205
6625	3		6625	1	+	8	2205
6500	3		6500	2	+	7	2205
6375	3		6375	3	+	6	2205
6250	3		6250	4	+	5	2205
6125	3		6125	5	+	4	2205
6000	3		6000	–		8	2205
5875	3		5875	1	+	7	2205
5750	3		5750	2	+	6	2205
5625	3		5625	3	+	5	2205
5500	3		5500	4	+	4	2205
5375	3		5375	5	+	3	2205
5250	3		5250	–		7	2205
5125	3		5125	1	+	6	2205
5000	2		5000	2	+	5	2205
4875	2		4875	3	+	4	2205
4750	2		4750	4	+	3	2205
4625	2		4625	5	+	2	2080
4500	2		4500	–		6	2205
4375	2		4375	1	+	5	2205
4250	2		4250	2	+	4	2205
4125	2		4125	3	+	3	2205
4000	2		4000	4	+	2	2080
3875	2		3875	5	+	1	1955
3750	2		3750	–		5	2205
3625	2		3625	1	+	4	2205
3500	1		3500	2	+	3	2205
3375	1		3375	3	+	2	2080
3250	1		3250	4	+	1	1955
3125	1		3125	5		–	1830
3000	1		3000	–		4	2205
2875	1		2875	1	+	3	2205
2750	1		2750	2	+	2	2080
2625	1		2625	3	+	1	1955
2500	1		2500	4		–	1830
2375	1		2375	3	+	1***	1830
2250	1		2250	–		3	2205
2125	1		2125	1	+	2	2080
2000	1		2000	2	+	1	1955
1875	1		1875				

3		4	5	Number of infills / fields per aluminium frame
2	3	4	5	Number of compound glazings per door section**
(Number of infills / fields –1) × 2				Number of ventilation grilles, ventilation cross-section 40 cm² per grille

2000 2250 2500 2750 3000 3250 3500 3750 4000 4250 4500 4750 5000 5250 5500 5750 6000

SPB 52

LZ

Notices:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.
- For versions with real glass infill in the wicket door, the threshold height SH_2 begins at LZ 4510 mm.

On request

Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.

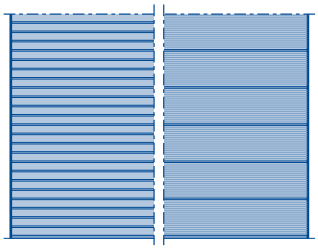
Glazings on request

n_1	No. of door sections
DHS	Clear passage heights of wicket door to grid height
SH_1	Threshold height **(200)**
SH_2	Threshold height (325), bottom door section with 250 mm aluminium bottom section
SPB	Rail width
TH	Door section height
RM	Grid height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
***	Top door section 500 mm

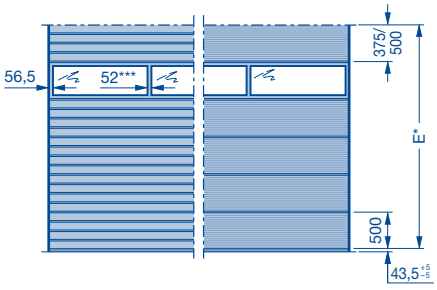
Sectional door SPU F42

Double-skinned steel sectional door
Stucco-textured / Micrograin
Door sections 375 and 500 mm high

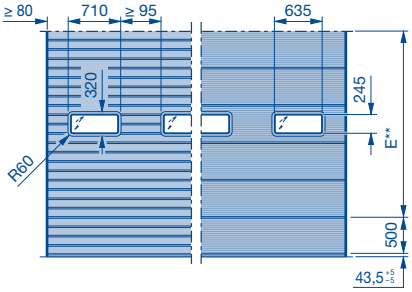
External views



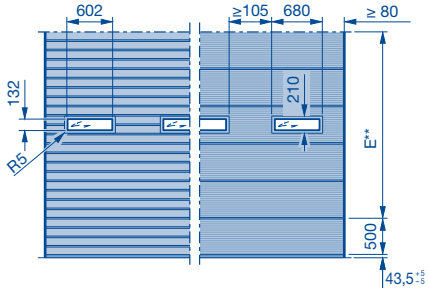
Glazing frame



Compound glazing type A

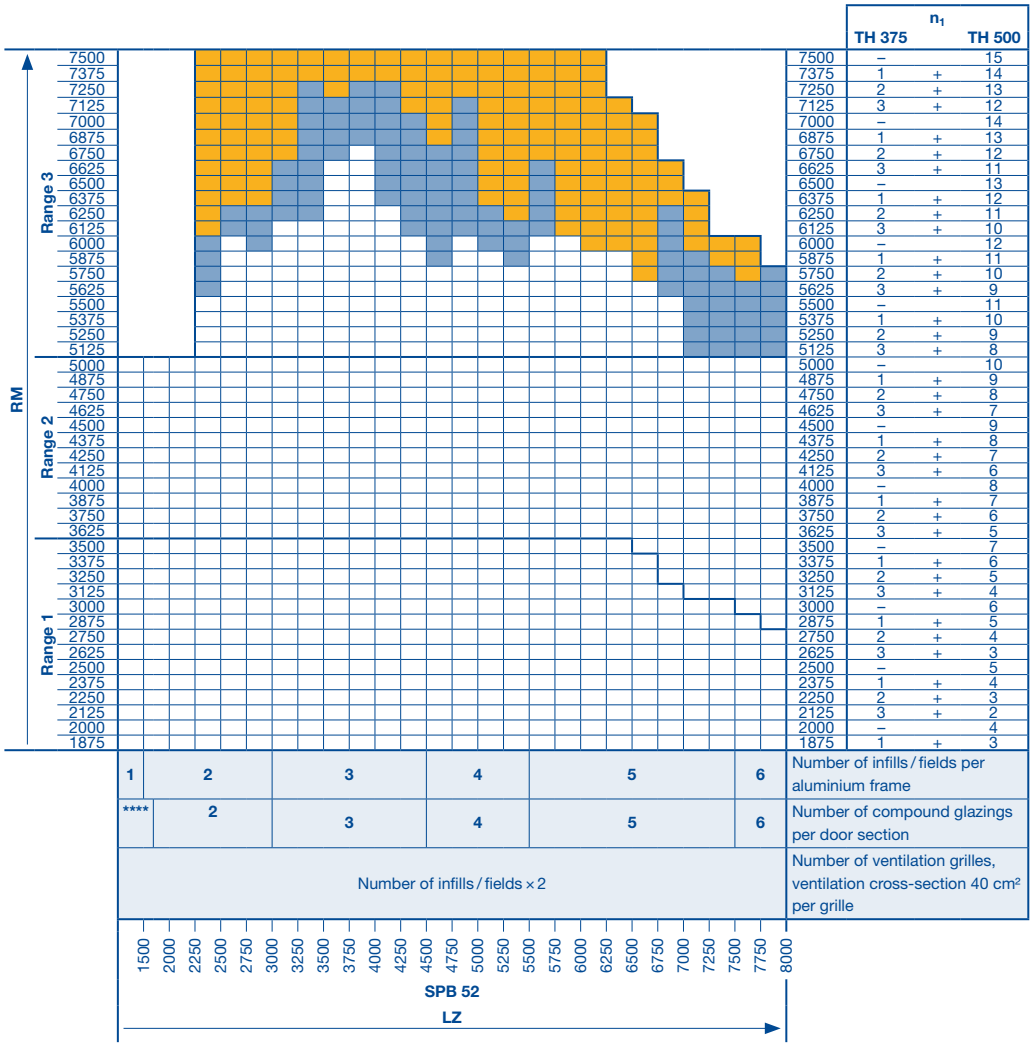


Compound glazing type D



E* Fitting area for frame 500 with glazing
E** Fitting area for compound glazing
*** Optionally with wide rail extrusions (91 mm)

Size range



The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments. Intermediate heights using aluminium glazing frames or a shortened top door section are possible!

Notices:

- Thermo glazing frames only up to a width of 7000 mm.
- For a view of the matching appearance with doors with wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

On request

Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.
Range change

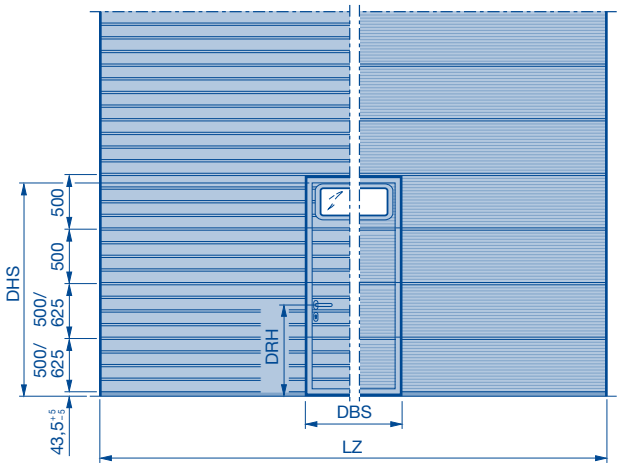
n_1 No. of door sections
RM Grid height
LZ Clear frame dimensions **(from 1200)**
SPB Rail width
TH Door section height
******** See Table 1 on page 10

Sectional door SPU F42
with wicket door with trip-free threshold

Double-skinned steel sectional door

Stucco-textured / Micrograin, door sections 375 and 500 mm high

External view



**** Notice on fitting compound glazings:**
For door widths from 1750 – 3000 mm, a compound glazing can **only** be fitted into the wicket door. No compound glazing can be fitted to the left or right of the wicket door.

Wicket door clear passage width (DBS) = 940 mm*
* For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Lever heights (DRH)
Bottom door section 500 = 835.5
Bottom door section 625 = 960.5

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments. Intermediate heights using aluminium glazing frames or a shortened door section above the wicket door are possible.

RM	SH_1	SH_2	n_1 TH 375	n_1 TH 500	DHS
Range 3	7500	7500	–	15	1955
	7375	7375	1 +	14	1955
	7250	7250	2 +	13	1955
	7125	7125	3 +	12	1955
	7000	7000	–	14	1955
	6875	6875	1 +	13	1955
	6750	6750	2 +	12	1955
	6625	6625	3 +	11	1955
	6500	6500	–	13	1955
	6375	6375	1 +	12	1955
	6250	6250	2 +	11	1955
	6125	6125	3 +	10	1955
	6000	6000	–	12	1955
	5875	5875	1 +	11	1955
	5750	5750	2 +	10	1955
	5625	5625	3 +	9	1955
	5500	5500	–	11	1955
	5375	5375	1 +	10	1955
	5250	5250	2 +	9	1955
	5125	5125	3 +	8	1955
Range 2	5000	5000	–	10	1955
	4875	4875	1 +	9	1955
	4750	4750	2 +	8	1955
	4625	4625	3 +	7	1955
	4500	4500	–	9	1955
	4375	4375	1 +	8	1955
	4250	4250	2 +	7	1955
	4125	4125	3 +	6	1955
	4000	4000	–	8	1955
	3875	3875	1 +	7	1955
	3750	3750	2 +	6	1955
	3625	3625	3 +	5	1955
Range 1	3500	3500	–	7	1955
	3375	3375	1 +	6	1955
	3250	3250	2 +	5	1955
	3125	3125	3 +	4	1955
	3000	3000	–	6	1955
	2875	2875	1 +	5	1955
	2750	2750	2 +	4	1955
	2625	2625	1*** +	4	2080
	2500	2500	–	5	1955
	2375	2375	1 +	4	1955
	2250	2250	2*** +	2	2125
	2125	2125	1*** +	3	2000
	2000	2000	–	4	1875

3		4	5	Number of infills / fields per aluminium frame
2	3	4	5	Number of compound glazings per door section**
(Number of infills / fields –1) × 2				Number of ventilation grilles, ventilation cross-section 40 cm² per grille

2000 2250 2500 2750 3000 3250 3500 3750 4000 4250 4500 4750 5000 5250 5500 5750 6000 6250 6500 6750 7000

SPB 52

LZ

Notices:

- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.
- For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request

Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.

Range change

Glazings on request

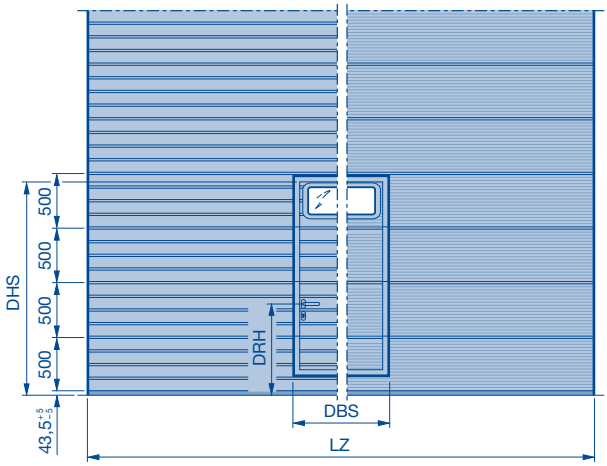
n_1	No. of door sections
DHS	Clear passage heights of wicket door to grid height
RM	Grid height
LZ	Clear frame dimensions **(from 1750)**
SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
SPB	Rail width
TH	Door section height
DRH	Lever height
DBS	Wicket door clear passage width
***	TH = 625 mm

Sectional door SPU F42 with wicket door and threshold rail

Double-skinned steel sectional door

Stucco-textured / Micrograin, door sections 375 and 500 mm high

External view



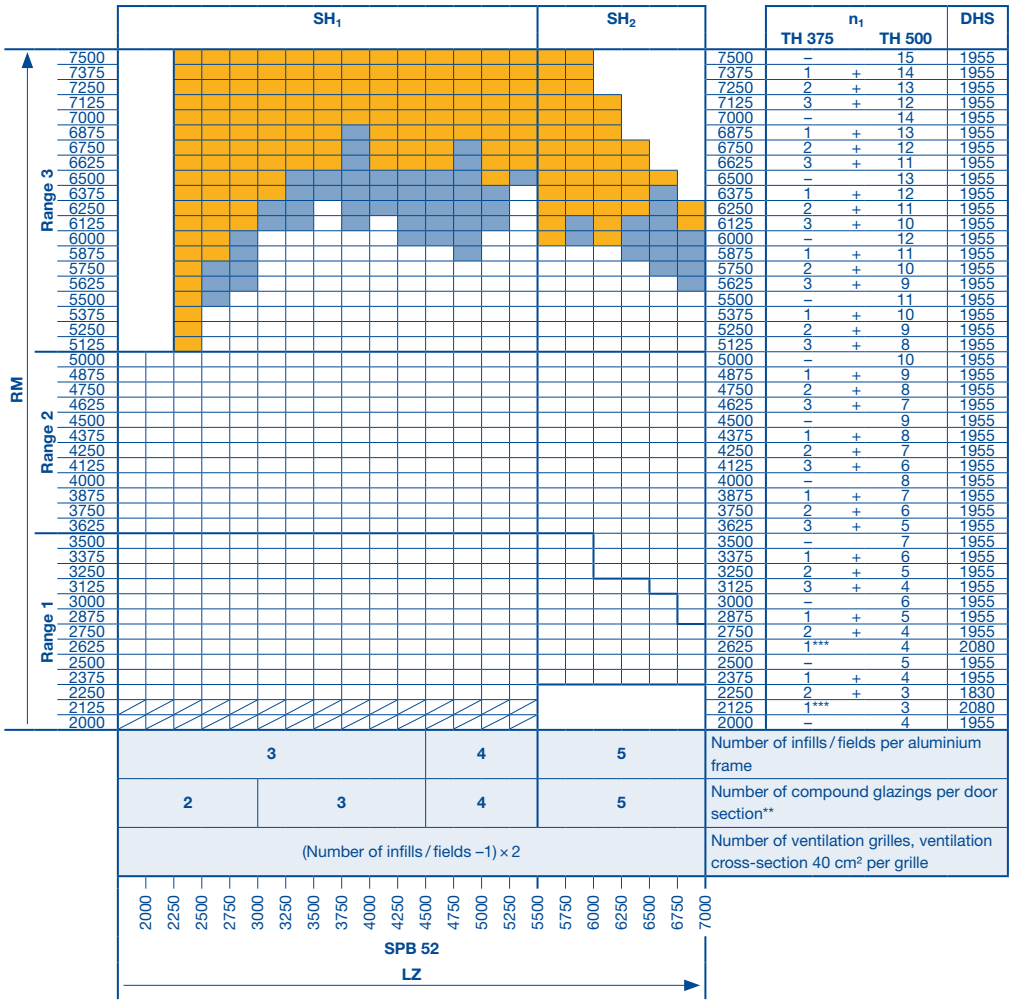
**** Notice on fitting compound glazings:**
For door widths from 1750 – 3000 mm, a compound glazing can **only** be fitted into the wicket door. No compound glazing can be fitted to the left or right of the wicket door.

Wicket door clear passage width (DBS) = 940 mm*
* For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Lever heights (DRH)
Bottom door section 500 = 835.5
Bottom door section 625 = 960.5 (only for SH_2)

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments. Intermediate heights using aluminium glazing frames or a shortened door section above the wicket door are possible.



	n_1 TH 375		n_1 TH 500	DHS
7500	–		15	1955
7375	1	+	14	1955
7250	2	+	13	1955
7125	3	+	12	1955
7000	–		14	1955
6875	1	+	13	1955
6750	2	+	12	1955
6625	3	+	11	1955
6500	–		13	1955
6375	1	+	12	1955
6250	2	+	11	1955
6125	3	+	10	1955
6000	–		12	1955
5875	1	+	11	1955
5750	2	+	10	1955
5625	3	+	9	1955
5500	–		11	1955
5375	1	+	10	1955
5250	2	+	9	1955
5125	3	+	8	1955
5000	–		10	1955
4875	1	+	9	1955
4750	2	+	8	1955
4625	3	+	7	1955
4500	–		9	1955
4375	1	+	8	1955
4250	2	+	7	1955
4125	3	+	6	1955
4000	–		8	1955
3875	1	+	7	1955
3750	2	+	6	1955
3625	3	+	5	1955
3500	–		7	1955
3375	1	+	6	1955
3250	2	+	5	1955
3125	3	+	4	1955
3000	–		6	1955
2875	1	+	5	1955
2750	2	+	4	1955
2625	1***		4	2080
2500	–		5	1955
2375	1	+	4	1955
2250	2	+	3	1830
2125	1***		3	2080
2000	–		4	1955

Notices:

- From LZ > 5500 mm bottom door section with deviating heights TH = 625 / 750 mm (made of 375 / 500 mm sections and 2 × 125 mm aluminium bottom profile).
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.
- For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request

Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.

Range change

Glazings on request

n_1	No. of door sections
DHS	Clear passage heights of wicket door to grid height
RM	Grid height
LZ	Clear frame dimensions **(from 1750)**
SH_1	Threshold height **(200)**
SH_2	Threshold height **(325)**, bottom door section with 250 mm aluminium bottom section, **glazing from 625 mm**
SPB	Rail width
TH	Door section height
DRH	Lever height
DBS	Wicket door clear passage width
***	TH = 625 mm

Glazing heights for matching external appearance SPU F42 Stucco- / Micrograin-textured

(Centre of window from FFL)

Door section heights 500, 625 and 750 mm

Glazing heights for matching external appearance of compound windows type A and D.

RM	Glazing heights (centre of window from FFL)											
	1160	1285	1535	1660	1785	1910	2035	2160	2285	2410	2535	2660
7500		X			X							
7375	X	X		X	X							X
7250	X	X	X	X	X		X		X		X	X
7125	X	X	X	X	X	X	X	X	X	X	X	X
7000		X			X				X			
6875	X	X		X	X			X	X			X
6750	X	X			X		X				X	X
6625	X	X		X	X	X	X			X	X	X
6500		X			X				X			
6375	X	X		X	X			X	X			X
6250	X	X	X	X	X		X	X	X		X	X
6125	X	X	X	X	X	X	X	X	X	X	X	X
6000		X			X							
5875	X	X		X	X							X
5750	X	X	X	X	X		X		X		X	X
5625	X	X	X	X	X	X	X	X	X	X	X	X
5500		X			X				X			
5375	X	X		X	X			X	X			X
5250	X	X			X		X				X	X
5125	X	X		X	X	X	X			X	X	X
5000		X			X				X			
4875	X	X		X	X			X	X			X
4750	X	X	X	X	X		X	X	X		X	X
4625	X	X	X	X	X	X		X	X	X	X	
4500		X			X							
4375	X	X		X	X							X
4250	X	X	X	X	X	X	X		X	X	X	X
4125	X	X	X	X	X	X	X	X	X	X	X	X
4000		X			X				X			
3875	X			X	X			X	X			
3750	X	X			X		X				X	X
3625	X	X		X	X	X	X			X	X	X
3500		X			X				X			
3375	X	X		X	X				X			
3250	X		X	X	X			X	X			
3125			X	X				X				
3000		X			X							
2875	X	X		X	X							X
2750	X	X	X	X	X						X	
2625	X		X	X						X		
2500									X			
2375				X				X				
2250	X	X					X					
2125	X					X						
2000					X							
1875				X								

RM Grid height

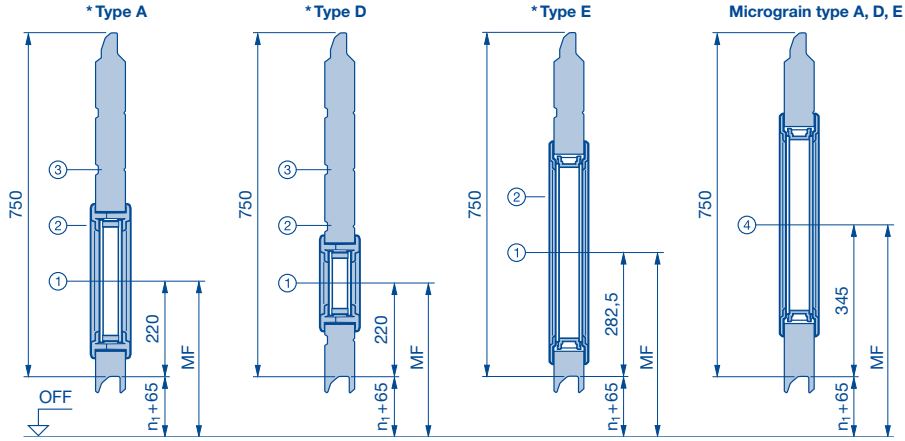
Calculating the glazing heights

(Centre of window from FFL)

Door section heights 500, 625 and 750 mm

Calculating the glazing heights for compound windows type A, type D and type E.
See door type for number of door sections and glazing areas. The illustrations correspond to a section depth of 42 mm.

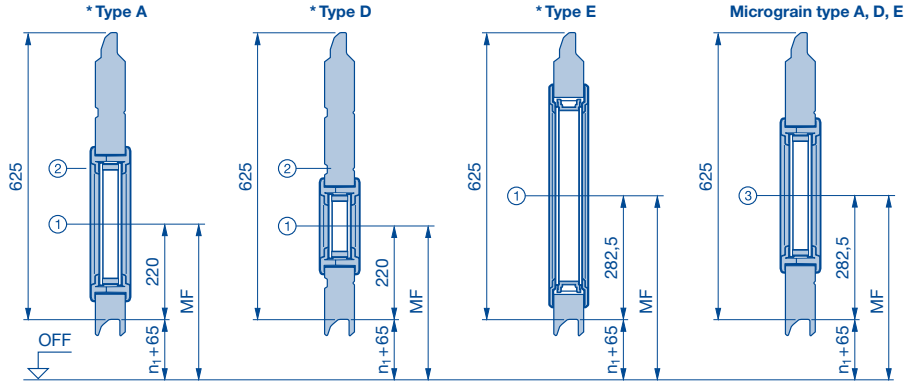
Door section height 750 mm



Glazing height type A and D
① = n_1 + 65 + 220
② = n_1 + 65 + 220 + 125
③ = n_1 + 65 + 220 + 250
④ = n_1 + 65 + 345

Glazing height type E
① = n_1 + 65 + 282.5
② = n_1 + 65 + 282.5 + 125
④ = n_1 + 65 + 345

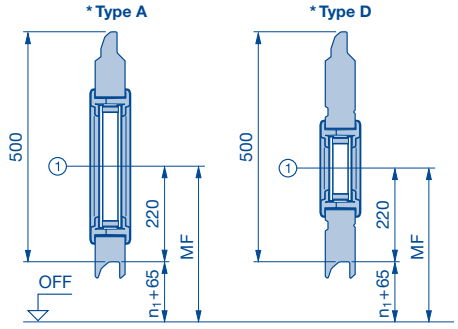
Door section height 625 mm



Glazing height type A and D
① = n_1 + 65 + 220
② = n_1 + 65 + 220 + 125
③ = n_1 + 65 + 282.5

Glazing height type E
① = n_1 + 65 + 282.5
③ = n_1 + 65 + 282.5

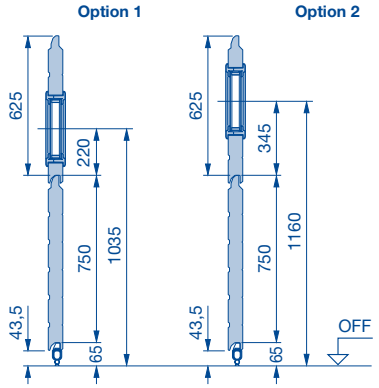
Door section height 500 mm



Glazing height type A and D
① = n_1 + 65 + 220

Glazing height type E
Not possible!

Calculation example



Given:

- Door type SPU F42; grid height (RM) = 3250 mm; glazing type A; position see below number of door sections (see table of door types)
- Door section 625 mm = 4 units
- Door section 750 mm = 1 unit

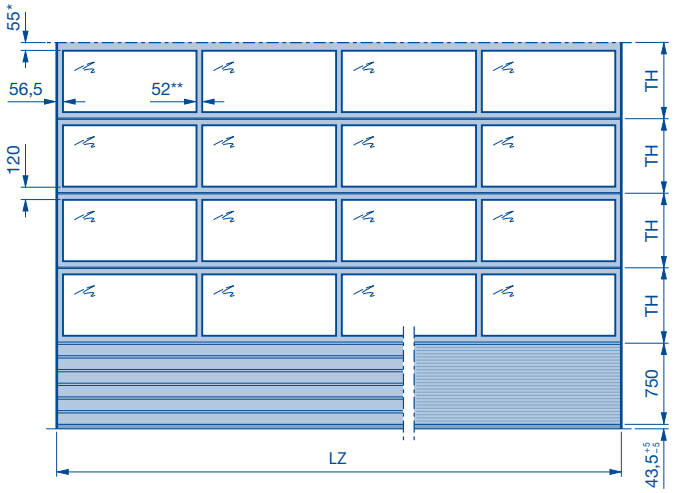
Option	Door section / position	Glazing height
1	In 2nd door section 625 mm at position 1	750 + 65 + 220 = 1035 mm from FFL
2	In 2nd door section 625 mm at position 2	750 + 65 + 220 + 125 = 1160 mm from FFL
3	In 3rd door section 625 mm at position 1	750 + 625 + 65 + 220 = 1660 mm from FFL
4	In 3rd door section 625 mm at position 2	750 + 625 + 65 + 220 + 125 = 1785 mm from FFL
etc.		

* Stucco / Micrograin
MF Centre of window from FFL
n_1 No. of door sections

Sectional door APU F42

Glazed aluminium sectional door with steel bottom section

External view



$$TH = \frac{\text{Door height} - \text{bottom section height} - 35}{\text{Number of door section frames}}$$

* On request 115 mm in order to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.

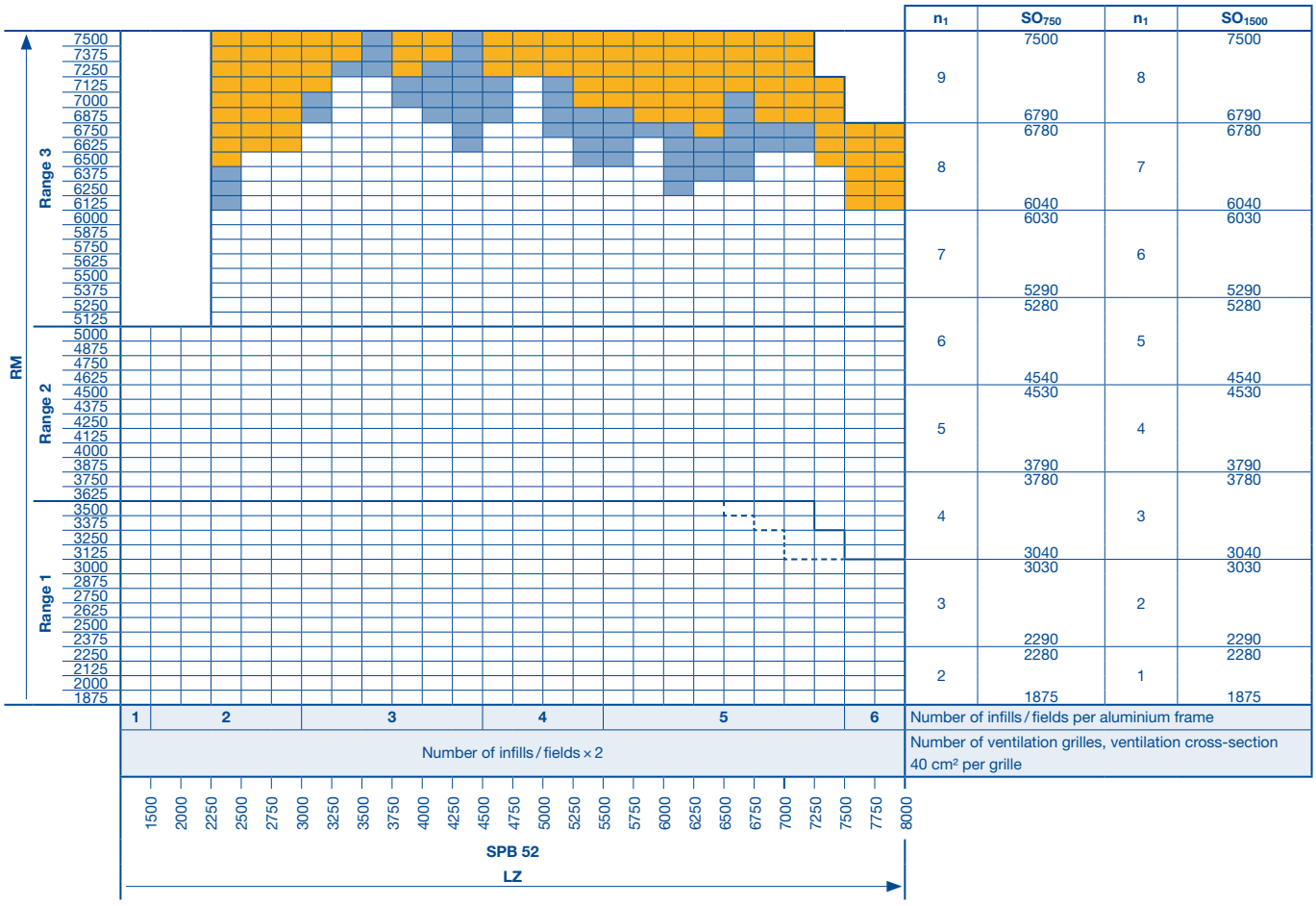
** Optionally with wide rail extrusions (91 mm)

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors with wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	SO_{750}	n_1	SO_{1500}
9	7500 – 6790	8	7500 – 6790
8	6780 – 6040	7	6780 – 6040
7	6030 – 5290	6	6030 – 5290
6	5280 – 4540	5	5280 – 4540
5	4530 – 3790	4	4530 – 3790
4	3780 – 3040	3	3780 – 3040
3	3030 – 2290	2	3030 – 2290
2	2280 – 1875	1	2280 – 1875

Number of infills / fields per aluminium frame

Number of ventilation grilles, ventilation cross-section 40 cm² per grille

On request

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request

Range change

Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

Number of door section frames:

SO_{750} Bottom section height 750 mm (standard)
SO_{1500} Bottom section height 1500 mm
RM Grid height
LZ Clear frame dimensions **(from 1200)**
SPB Rail width
n_1 Number of aluminium frames

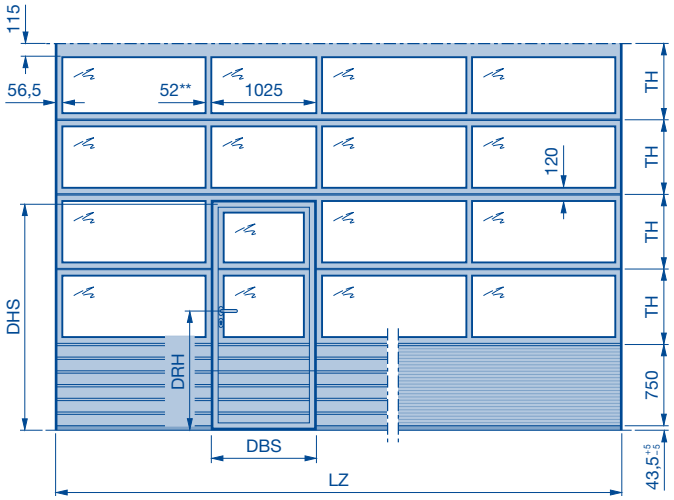
TH Door section height

Sectional door APU F42
with wicket door with trip-free threshold

Glazed aluminium sectional door with steel bottom section

Bottom section height 750

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm***

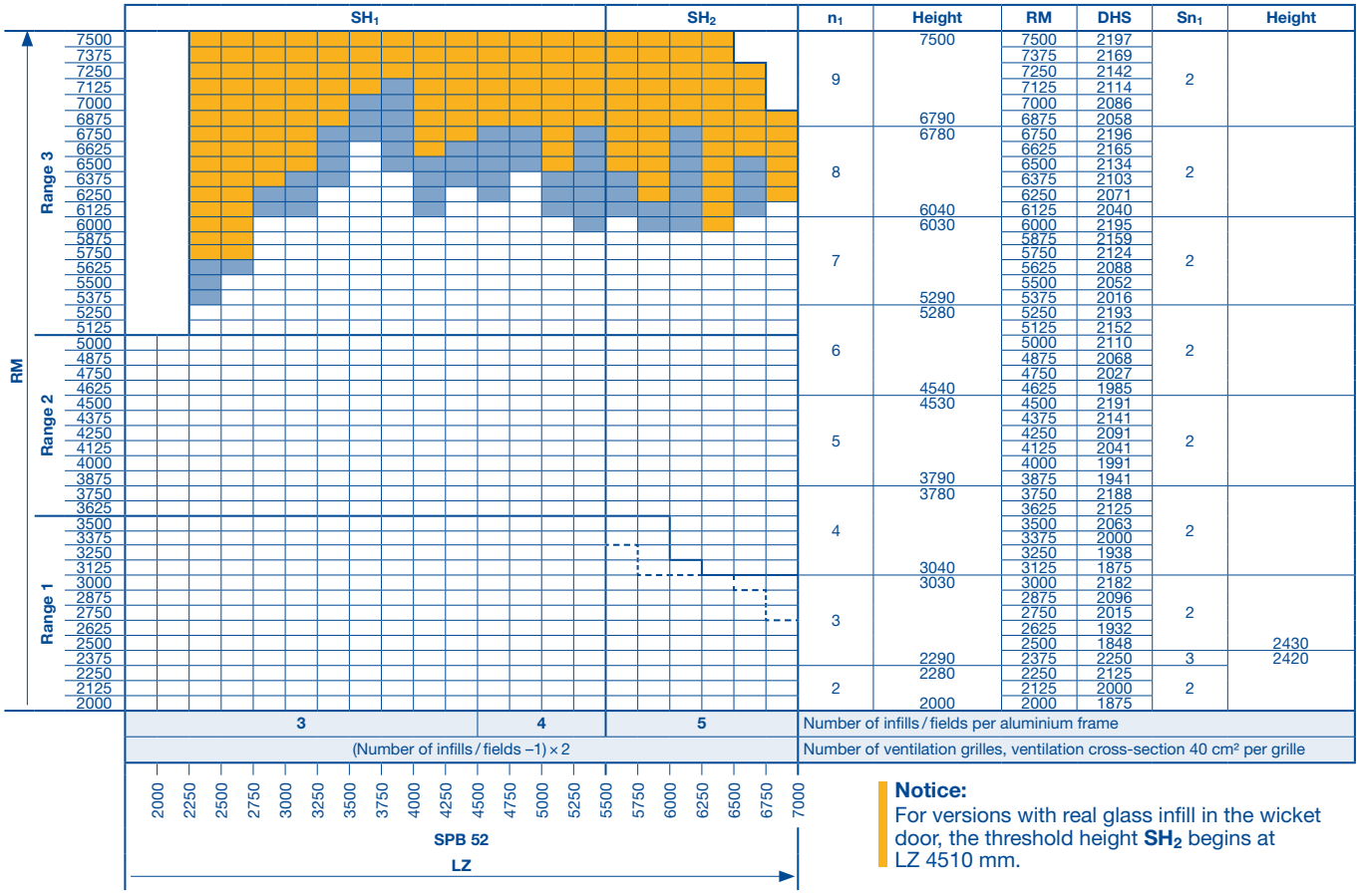
Wicket door clear passage height (DHS)
= Sn_1 × TH + (bottom section height – 45*)

Sn_1 Number of frames in the wicket door
* Attention: If there is no frame above the wicket door, then – 90 instead of – 45.
** Optionally with wide rail extrusions (91 mm)
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
9	7500	7500	2197	2	
		7375	2169		
		7250	2142		
		7125	2114		
		7000	2086		
	6790	6875	2058		
8	6780	6750	2196	2	
		6625	2165		
		6500	2134		
		6375	2103		
		6250	2071		
	6040	6125	2040		
7	6030	6000	2195	2	
		5875	2159		
		5750	2124		
		5625	2088		
		5500	2052		
	5290	5375	2016		
6	5280	5250	2193	2	
		5125	2152		
		5000	2110		
		4875	2068		
		4750	2027		
	4540	4625	1985		
5	4530	4500	2191	2	
		4375	2141		
		4250	2091		
		4125	2041		
		4000	1991		
	3790	3875	1941		
4	3780	3750	2188	2	
		3625	2125		
		3500	2063		
		3375	2000		
		3250	1938		
	3040	3125	1875		
3	3030	3000	2182	2	
		2875	2096		
		2750	2015		
		2625	1932		
		2500	1848		2430
	2290	2375	2250	3	2420
2	2280	2250	2125	2	
		2125	2000		
	2000	2000	1875		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
LZ	Clear frame dimensions **(from 1750)**
DRH	Lever height
RM	Grid height
SPB	Rail width

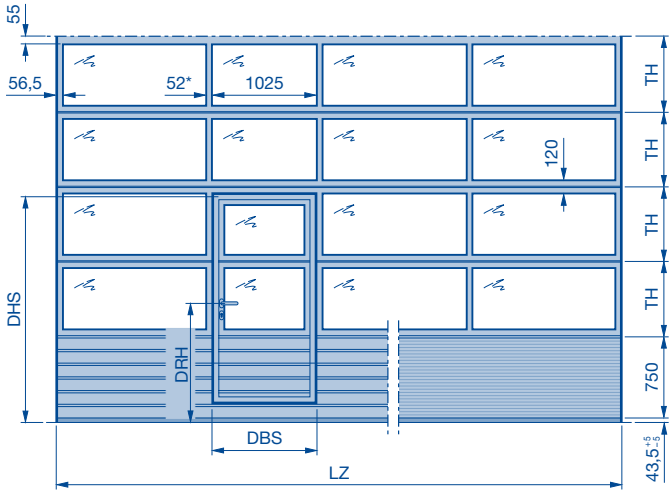
SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42 with wicket door and threshold rail

Glazed aluminium sectional door with steel bottom section

Bottom section height 750

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm*

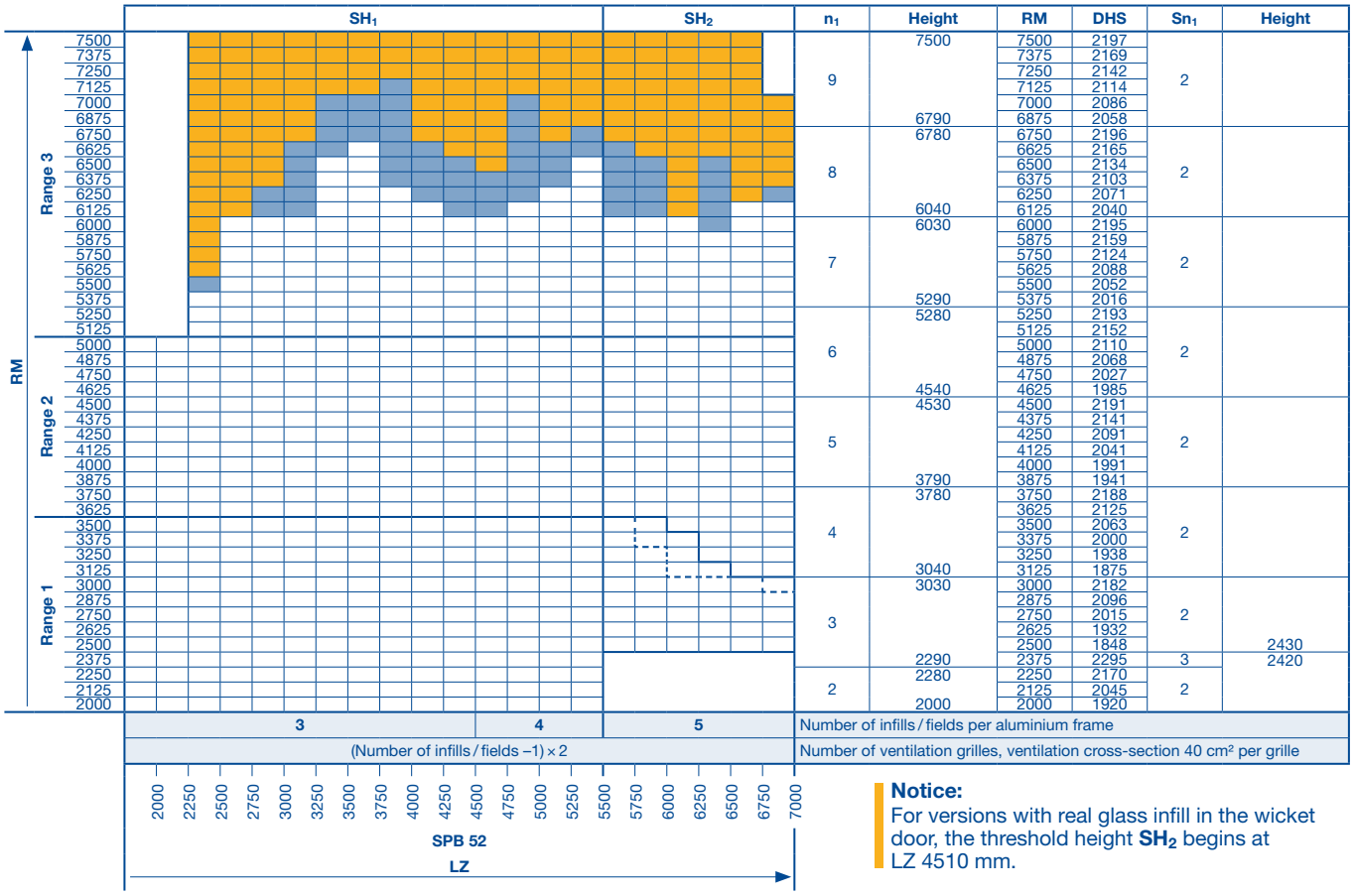
Wicket door clear passage height (DHS)
= Sn_1 × **TH** + (bottom section height – 45)

Sn_1 Number of frames in the wicket door
* Optionally with wide rail extrusions (91 mm)
** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
9	7500	7500	2197	2	
		7375	2169		
		7250	2142		
		7125	2114		
		7000	2086		
	6790	6875	2058		
8	6780	6750	2196	2	
		6625	2165		
		6500	2134		
		6375	2103		
		6250	2071		
	6040	6125	2040		
7	6030	6000	2195	2	
		5875	2159		
		5750	2124		
		5625	2088		
		5500	2052		
	5290	5375	2016		
6	5280	5250	2193	2	
		5125	2152		
		5000	2110		
		4875	2068		
		4750	2027		
	4540	4625	1985		
5	4530	4500	2191	2	
		4375	2141		
		4250	2091		
		4125	2041		
		4000	1991		
	3790	3875	1941		
4	3780	3750	2188	2	
		3625	2125		
		3500	2063		
		3375	2000		
		3250	1938		
	3040	3125	1875		
3	3030	3000	2182	2	
		2875	2096		
		2750	2015		
		2625	1932		
		2500	1848		2430
	2290	2375	2295	3	2420
2	2280	2250	2170	2	
		2125	2045		
	2000	2000	1920		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request

Range change

Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

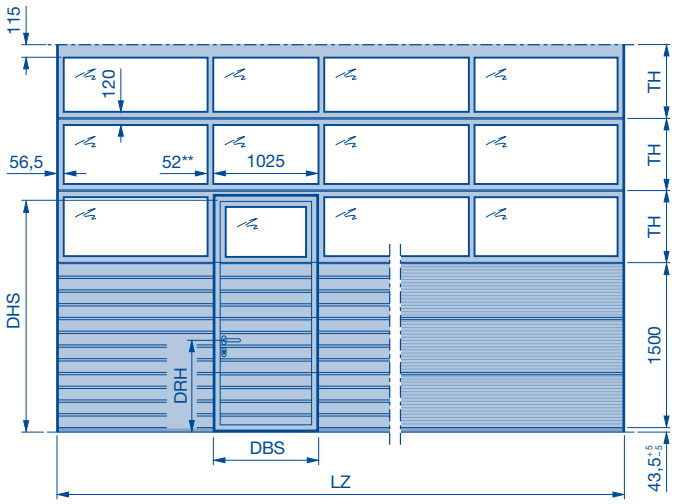
SH_1	Threshold height **(200)**
SH_2	Threshold height **(325)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42
with wicket door with trip-free threshold

Glazed aluminium sectional door with steel bottom section

Bottom section height 1500

External view



Lever height (DRH):

LZ ≤ 6000 = 1085,5

LZ > 6000 = 835,5

Wicket door clear passage width (DBS) = 940 mm***

Wicket door clear passage height (DHS)
= Sn_1 × TH + (bottom section height – 45*)

Sn_1 Number of frames in the wicket door

* Attention: If there is no frame above the wicket door, then – 90 instead of – 45.

** Optionally with wide rail extrusions (91 mm)

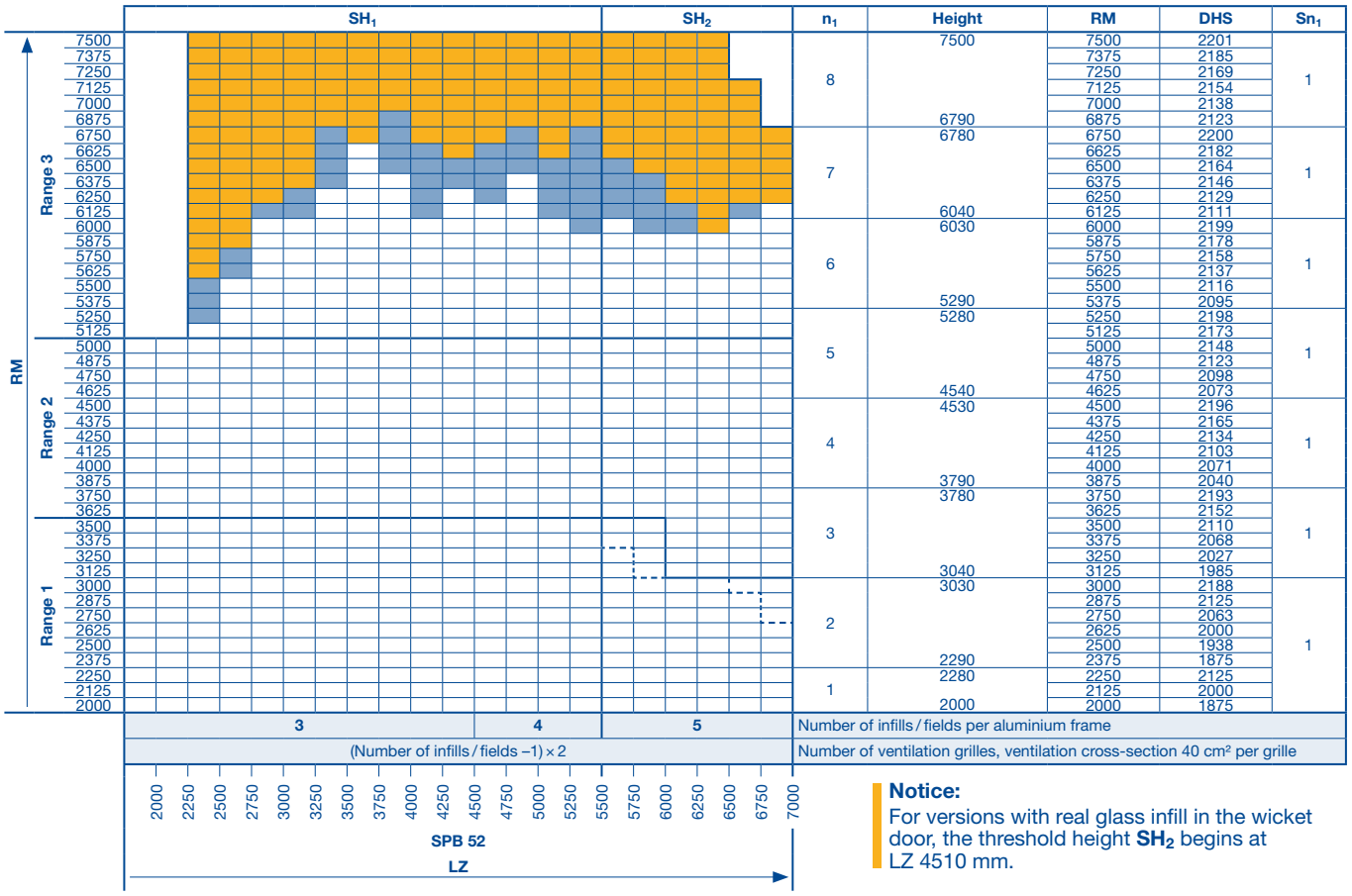
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1
8	7500	7500	2201	1
		7375	2185	
		7250	2169	
		7125	2154	
		7000	2138	
	6790	6875	2123	
7	6780	6750	2200	1
		6625	2182	
		6500	2164	
		6375	2146	
		6250	2129	
	6040	6125	2111	
6	6030	6000	2199	1
		5875	2178	
		5750	2158	
		5625	2137	
		5500	2116	
	5290	5375	2095	
5	5280	5250	2198	1
		5125	2173	
		5000	2148	
		4875	2123	
		4750	2098	
	4540	4625	2073	
4	4530	4500	2196	1
		4375	2165	
		4250	2134	
		4125	2103	
		4000	2071	
	3790	3875	2040	
3	3780	3750	2193	1
		3625	2152	
		3500	2110	
		3375	2068	
		3250	2027	
	3040	3125	1985	
2	3030	3000	2188	1
		2875	2125	
		2750	2063	
		2625	2000	
		2500	1938	
	2290	2375	1875	
1	2280	2250	2125	
	2000	2125	2000	
		2000	1875	

Number of infills / fields per aluminium frame

Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:

For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request

Range change

Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

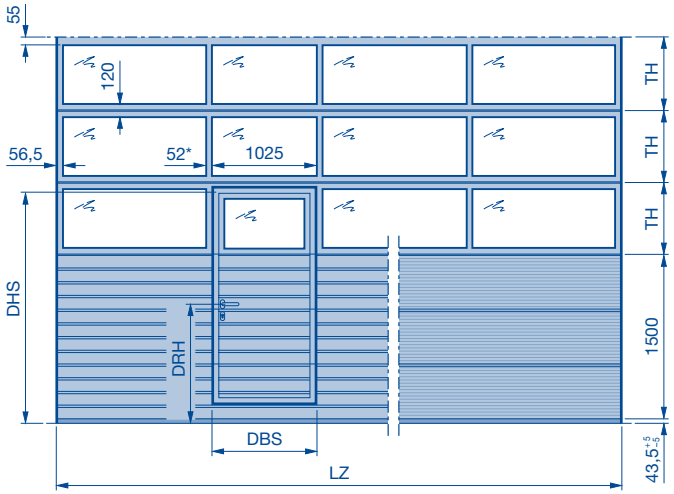
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width
SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42
with wicket door and threshold rail

Glazed aluminium sectional door with steel bottom section

Bottom section height 1500

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm*

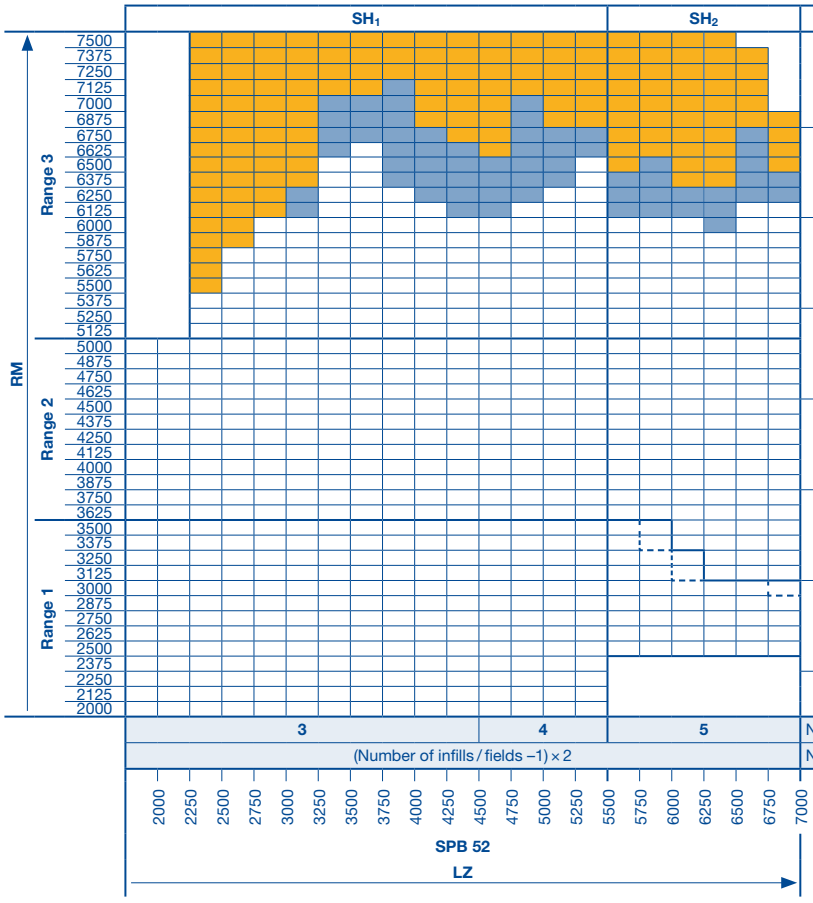
Wicket door clear passage height (DHS)
= Sn_1 × **TH** + (bottom section height – 45)

Sn_1 Number of frames in the wicket door
* Optionally with wide rail extrusions (91 mm)
** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- From LZ > 5500 mm, the bottom door section consists of a 375 / 500 mm section and 2 × 125 mm aluminium bottom profile.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1
8	7500	7500	2201	1
		7375	2185	
		7250	2169	
		7125	2154	
		7000	2138	
	6790	6875	2123	
7	6780	6750	2200	1
		6625	2182	
		6500	2164	
		6375	2146	
		6250	2129	
	6040	6125	2111	
6	6030	6000	2199	1
		5875	2178	
		5750	2158	
		5625	2137	
		5500	2116	
	5290	5375	2095	
5	5280	5250	2198	1
		5125	2173	
		5000	2148	
		4875	2123	
		4750	2098	
	4540	4625	2073	
4	4530	4500	2196	1
		4375	2165	
		4250	2134	
		4125	2103	
		4000	2071	
	3790	3875	2040	
3	3780	3750	2193	1
		3625	2152	
		3500	2110	
		3375	2068	
		3250	2027	
	3040	3125	1985	
2	3030	3000	2188	1
		2875	2125	
		2750	2063	
		2625	2000	
		2500	1938	
	2290	2375	1875	
1	2280	2250	2170	
		2125	2045	
	2000	2000	1920	

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

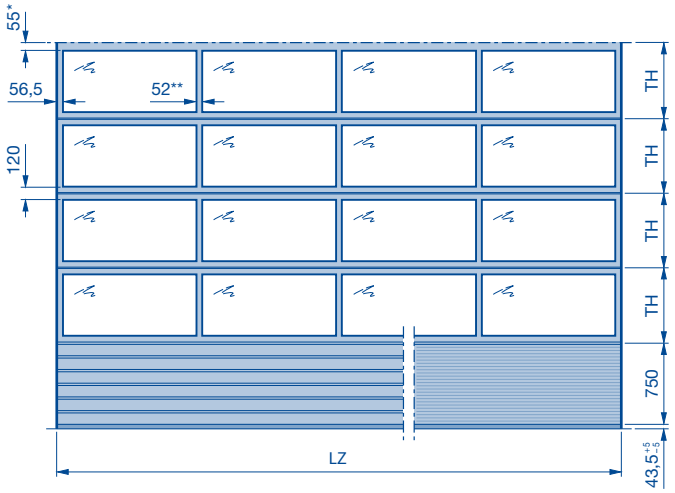
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

SH_1	Threshold height **(200)**
SH_2	Threshold height **(325)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42 Thermo

Glazed aluminium sectional door with thermal break, with steel bottom section

External view



$$TH = \frac{\text{Door height} - \text{bottom section height} - 35}{\text{Number of door section frames}}$$

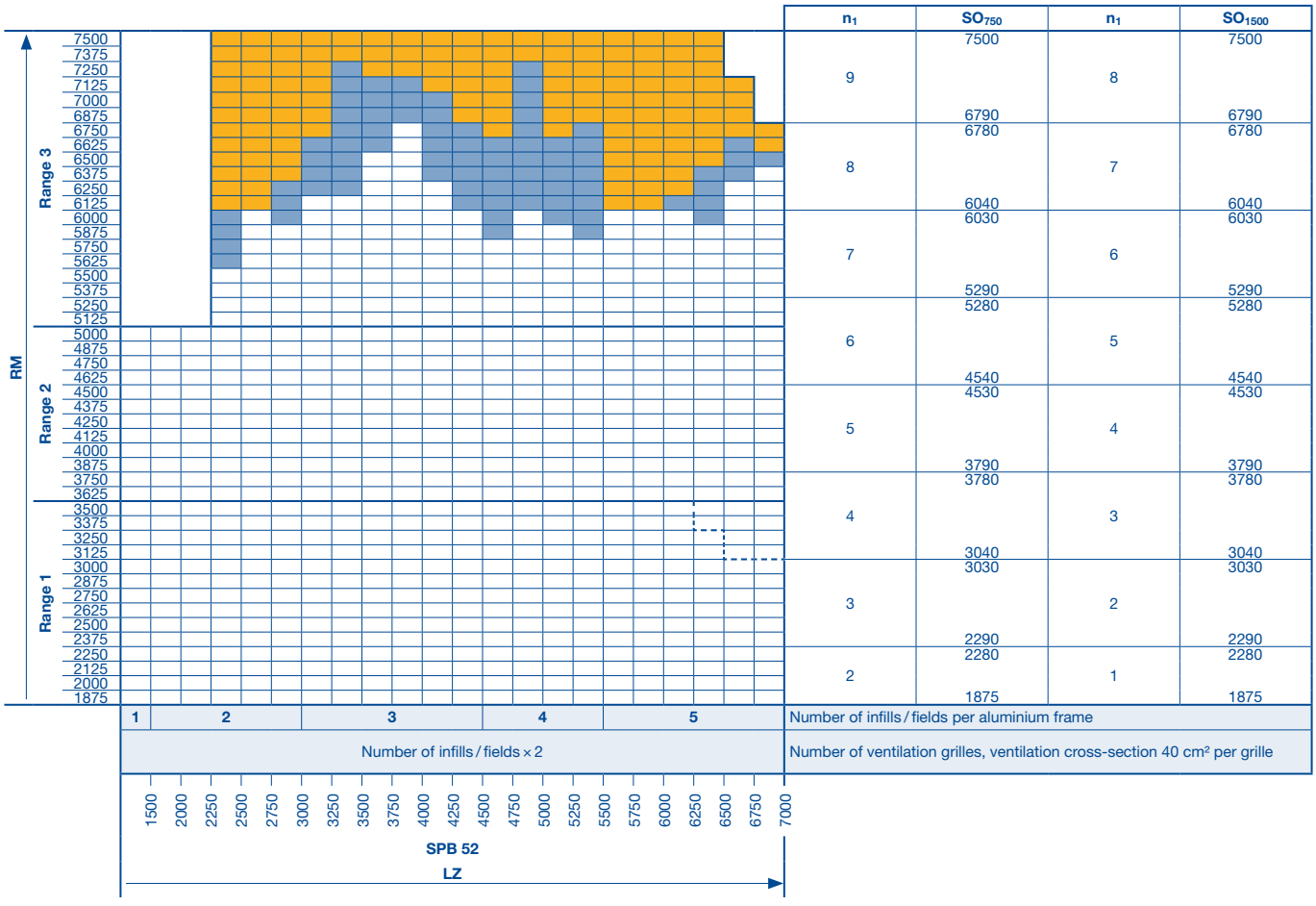
* On request 115 mm in order to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.
** Optionally with wide rail extrusions (91 mm)

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors with wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	SO_{750}	n_1	SO_{1500}
9	7500 – 6790	8	7500 – 6790
8	6780 – 6040	7	6780 – 6040
7	6030 – 5290	6	6030 – 5290
6	5280 – 4540	5	5280 – 4540
5	4530 – 3790	4	4530 – 3790
4	3780 – 3040	3	3780 – 3040
3	3030 – 2290	2	3030 – 2290
2	2280 – 1875	1	2280 – 1875
1 2 3 4 5	Number of infills / fields per aluminium frame		
Number of infills / fields × 2	Number of ventilation grilles, ventilation cross-section 40 cm² per grille		

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

Number of door section frames:

SO_{750}	Bottom section height 750 mm (standard)
SO_{1500}	Bottom section height 1500 mm
RM	Grid height
LZ	Clear frame dimensions **(from 1200)**
SPB	Rail width
n_1	Number of aluminium frames

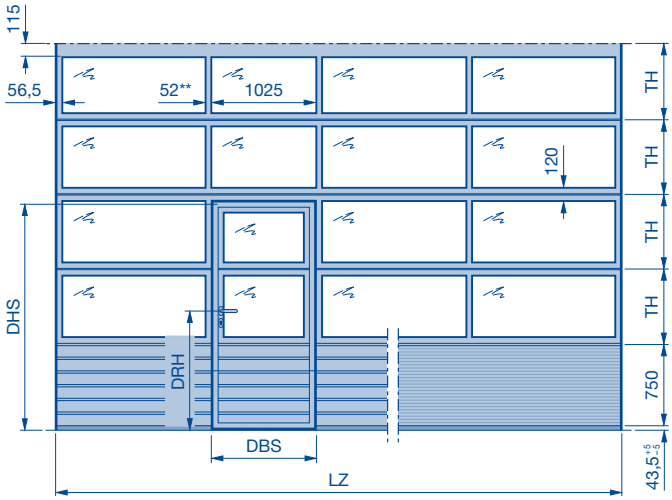
TH	Door section height

Sectional door APU F42 Thermo with wicket door with trip-free threshold

Glazed aluminium sectional door with thermal break, with steel bottom section

Bottom section height 750

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm***

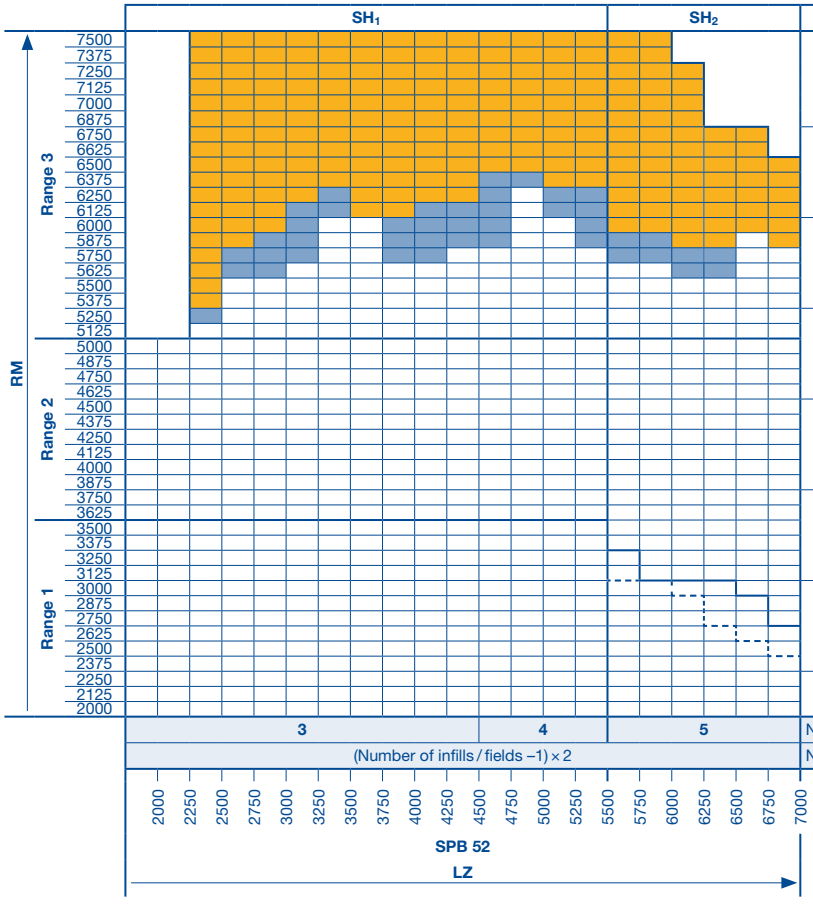
Wicket door clear passage height (DHS)
= $S_n1 \times TH + (\text{bottom section height} - 45^*)$

Sn_1 Number of frames in the wicket door
* Attention: If there is no frame above the wicket door, then – 90 instead of – 45.
** Optionally with wide rail extrusions (91 mm)
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
9	7500	7500	2197	2	
		7375	2169		
		7250	2142		
		7125	2114		
		7000	2086		
	6790	6875	2058		
8	6780	6750	2196	2	
		6625	2165		
		6500	2134		
		6375	2103		
		6250	2071		
	6040	6125	2040		
7	6030	6000	2195	2	
		5875	2159		
		5750	2124		
		5625	2088		
		5500	2052		
	5290	5375	2016		
6	5280	5250	2193	2	
		5125	2152		
		5000	2110		
		4875	2068		
		4750	2027		
	4540	4625	1985		
5	4530	4500	2191	2	
		4375	2141		
		4250	2091		
		4125	2041		
		4000	1991		
	3790	3875	1941		
4	3780	3750	2188	2	
		3625	2125		
		3500	2063		
		3375	2000		
		3250	1938		
	3040	3125	1875		
3	3030	3000	2182	2	
		2875	2096		
		2750	2015		
		2625	1932		
		2500	1848		2430
	2290	2375	2250	3	2420
2	2280	2250	2125	2	
		2125	2000		
	2000	2000	1875		

Number of infills / fields per aluminium frame

Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request

Range change

Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
LZ	Clear frame dimensions **(from 1750)**
DRH	Lever height
RM	Grid height
SPB	Rail width

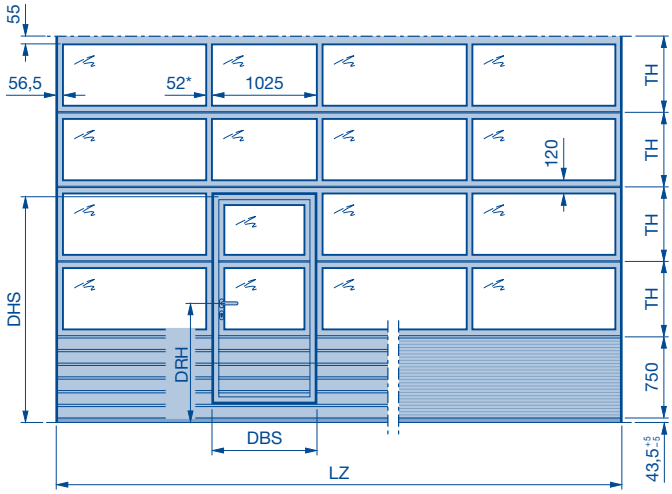
SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42 Thermo with wicket door and threshold rail

Glazed aluminium sectional door with thermal break, with steel bottom section

Bottom section height 750

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm*

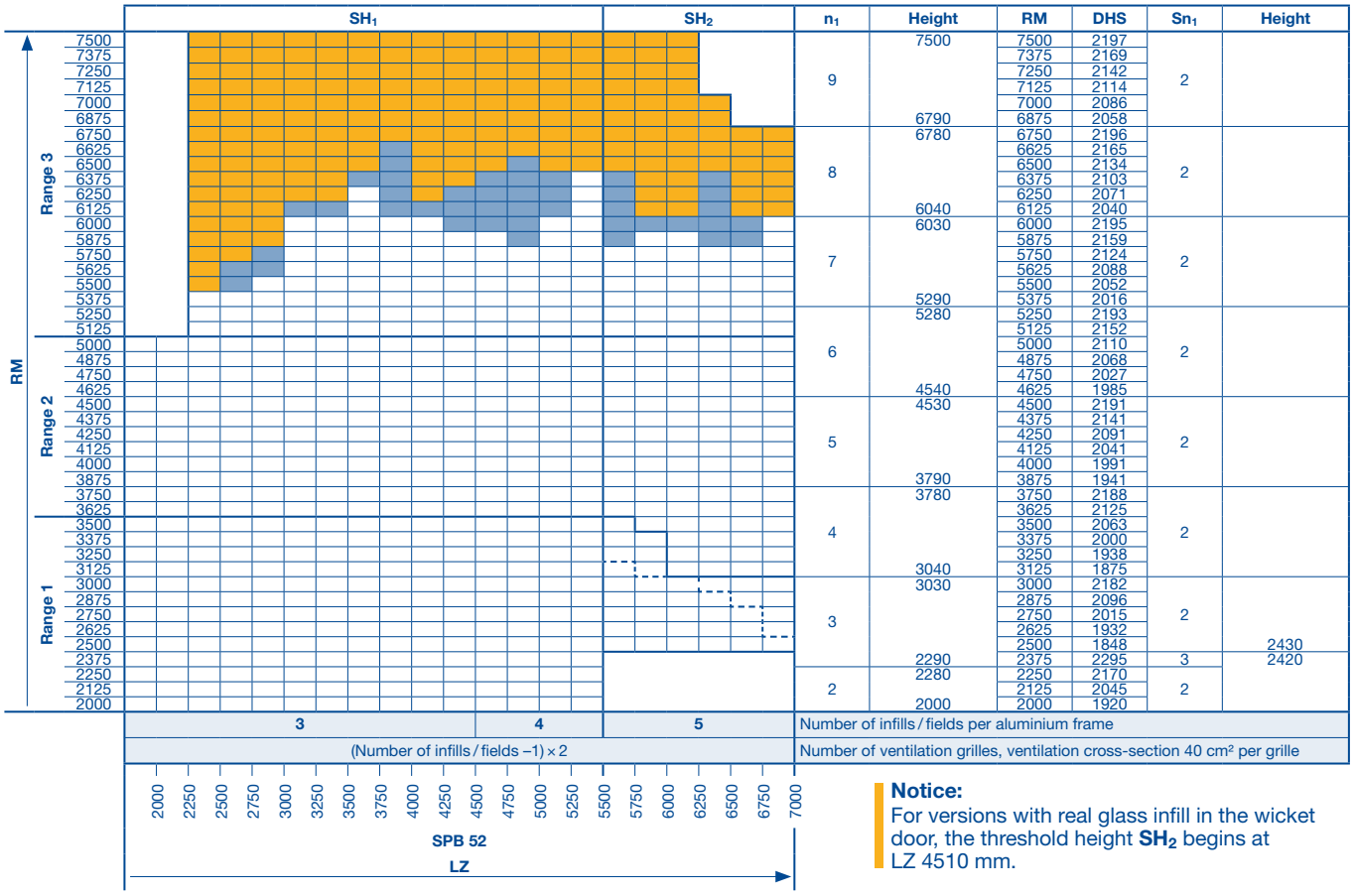
Wicket door clear passage height (DHS)
= Sn_1 × TH + (bottom section height – 45)

Sn_1 Number of frames in the wicket door
* Optionally with wide rail extrusions (91 mm)
** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
9	7500	7500	2197	2	
		7375	2169		
		7250	2142		
		7125	2114		
		7000	2086		
	6790	6875	2058		
8	6780	6750	2196	2	
		6625	2165		
		6500	2134		
		6375	2103		
		6250	2071		
	6040	6125	2040		
7	6030	6000	2195	2	
		5875	2159		
		5750	2124		
		5625	2088		
		5500	2052		
	5290	5375	2016		
6	5280	5250	2193	2	
		5125	2152		
		5000	2110		
		4875	2068		
		4750	2027		
	4540	4625	1985		
5	4530	4500	2191	2	
		4375	2141		
		4250	2091		
		4125	2041		
		4000	1991		
	3790	3875	1941		
4	3780	3750	2188	2	
		3625	2125		
		3500	2063		
		3375	2000		
		3250	1938		
	3040	3125	1875		
3	3030	3000	2182	2	
		2875	2096		
		2750	2015		
		2625	1932		
		2500	1848		2430
	2290	2375	2295	3	2420
2	2280	2250	2170	2	
	2000	2125	2045		
		2000	1920		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

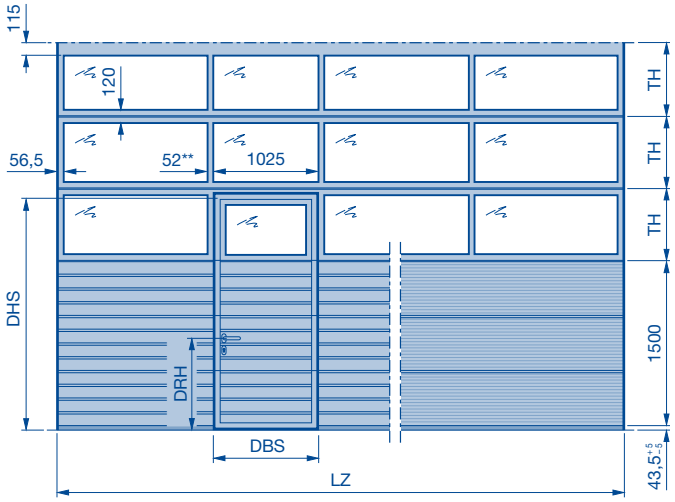
SH_1	Threshold height **(200)**
SH_2	Threshold height **(325)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42 Thermo with wicket door with trip-free threshold

Glazed aluminium sectional door with thermal break, with steel bottom section

Bottom section height 1500

External view



Lever height (DRH):

LZ ≤ 6000 = 1085,5

LZ > 6000 = 835,5

Wicket door clear passage width (DBS) = 940 mm***

Wicket door clear passage height (DHS)
= S_n1 × TH + (bottom section height – 45*)

Sn_1 Number of frames in the wicket door

* Attention: If there is no frame above the wicket door, then – 90 instead of – 45.

** Optionally with wide rail extrusions (91 mm)

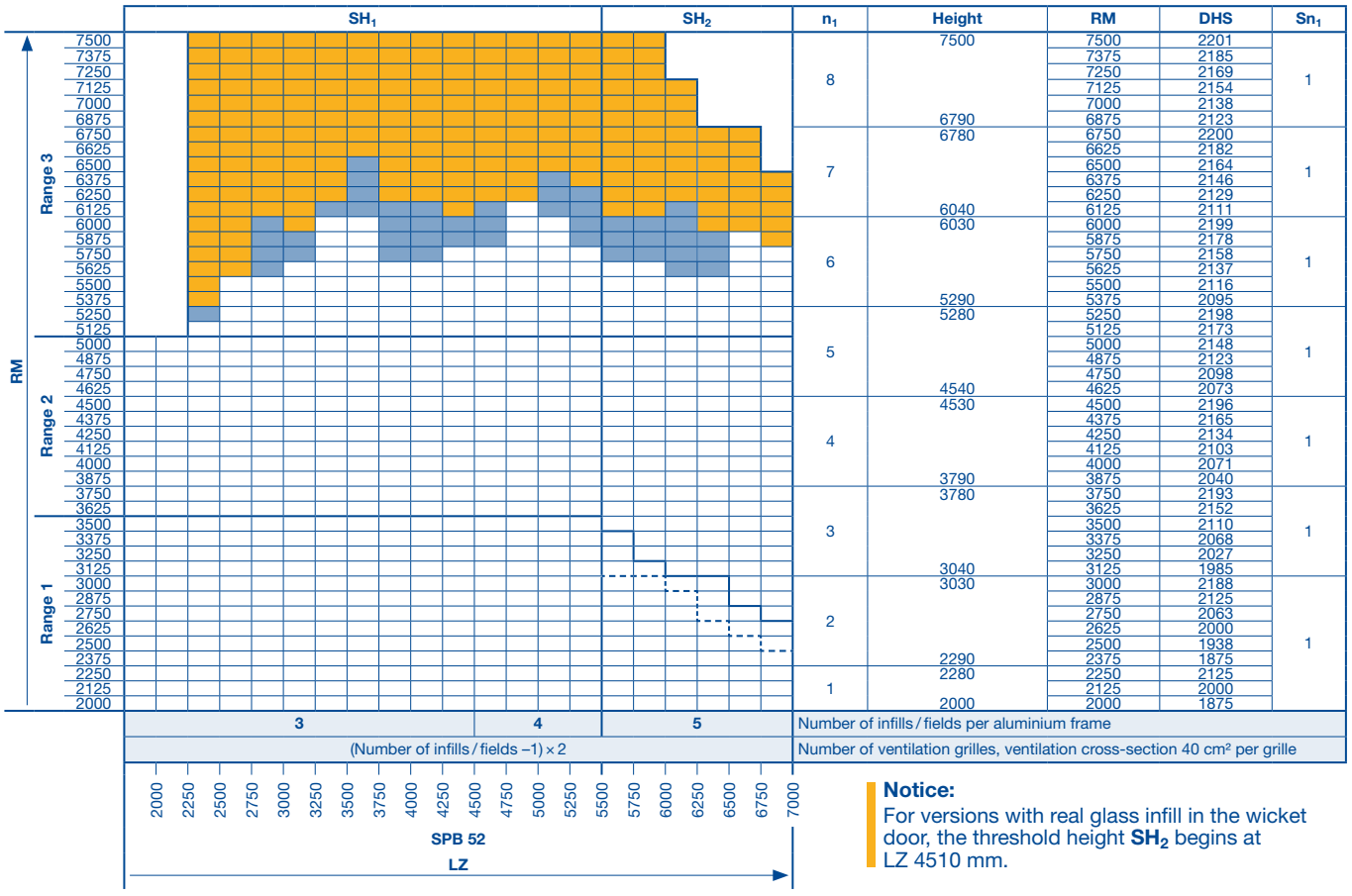
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1
8	7500	7500	2201	1
		7375	2185	
		7250	2169	
		7125	2154	
		7000	2138	
	6790	6875	2123	
7	6780	6750	2200	1
		6625	2182	
		6500	2164	
		6375	2146	
		6250	2129	
	6040	6125	2111	
6	6030	6000	2199	1
		5875	2178	
		5750	2158	
		5625	2137	
		5500	2116	
	5290	5375	2095	
5	5280	5250	2198	1
		5125	2173	
		5000	2148	
		4875	2123	
		4750	2098	
	4540	4625	2073	
4	4530	4500	2196	1
		4375	2165	
		4250	2134	
		4125	2103	
		4000	2071	
	3790	3875	2040	
3	3780	3750	2193	1
		3625	2152	
		3500	2110	
		3375	2068	
		3250	2027	
	3040	3125	1985	
2	3030	3000	2188	1
		2875	2125	
		2750	2063	
		2625	2000	
		2500	1938	
	2290	2375	1875	
1	2280	2250	2125	
		2125	2000	
	2000	2000	1875	

Number of infills / fields per aluminium frame

Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request

Range change

Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

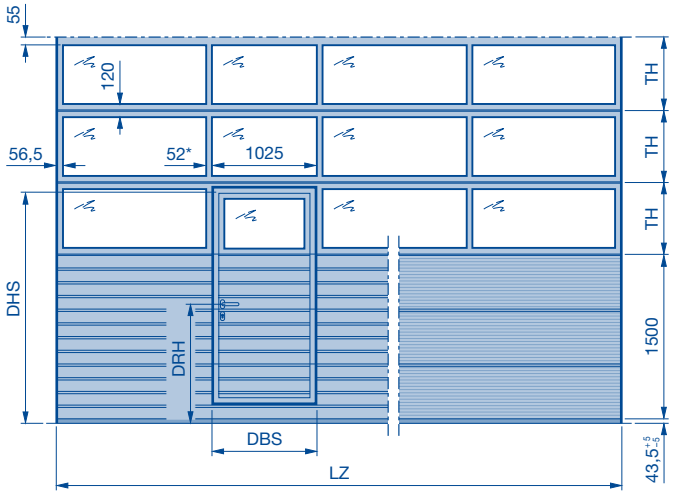
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width
SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door APU F42 Thermo with wicket door and threshold rail

Glazed aluminium sectional door with thermal break, with steel bottom section

Bottom section height 1500

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm*

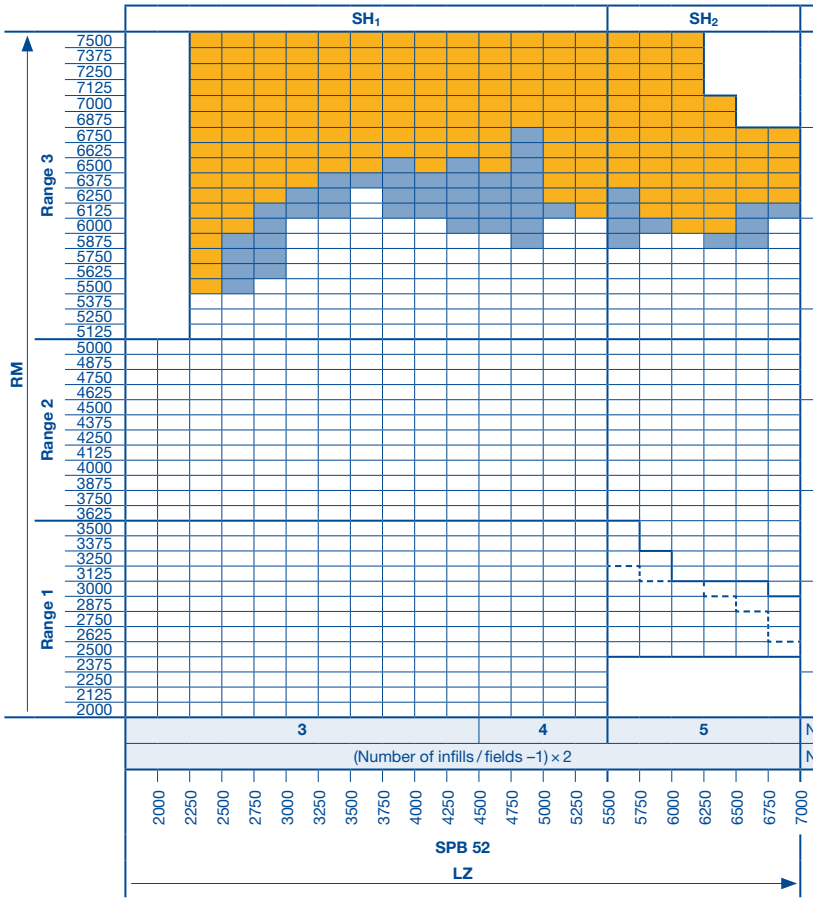
Wicket door clear passage height (DHS)
= Sn_1 × TH + (bottom section height – 45)

Sn_1 Number of frames in the wicket door
* Optionally with wide rail extrusions (91 mm)
** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- From LZ > 5500 mm, the bottom door section consists of a 375 / 500 mm section and 2 × 125 mm aluminium bottom profile.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1
8	7500	7500	2201	1
		7375	2185	
		7250	2169	
		7125	2154	
		7000	2138	
	6790	6875	2123	
7	6780	6750	2200	1
		6625	2182	
		6500	2164	
		6375	2146	
		6250	2129	
	6040	6125	2111	
6	6030	6000	2199	1
		5875	2178	
		5750	2158	
		5625	2137	
		5500	2116	
	5290	5375	2095	
5	5280	5250	2198	1
		5125	2173	
		5000	2148	
		4875	2123	
		4750	2098	
	4540	4625	2073	
4	4530	4500	2196	1
		4375	2165	
		4250	2134	
		4125	2103	
		4000	2071	
	3790	3875	2040	
3	3780	3750	2193	1
		3625	2152	
		3500	2110	
		3375	2068	
		3250	2027	
	3040	3125	1985	
2	3030	3000	2188	1
		2875	2125	
		2750	2063	
		2625	2000	
		2500	1938	
	2290	2375	1875	
1	2280	2250	2170	
		2125	2045	
	2000	2000	1920	

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

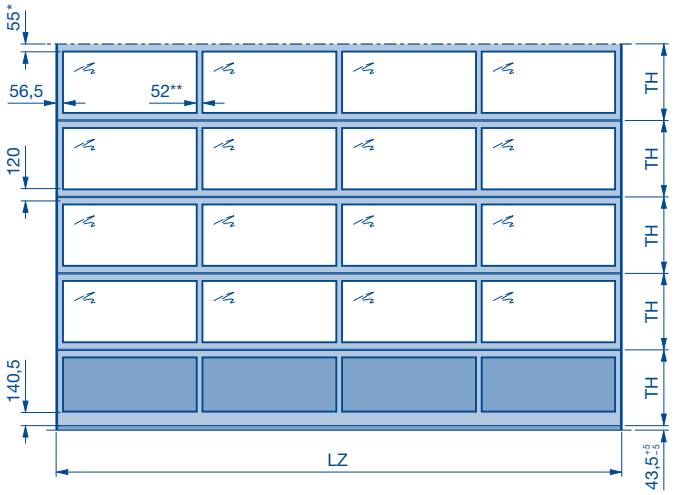
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

SH_1	Threshold height **(200)**
SH_2	Threshold height **(325)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door ALR F42

Glazed aluminium sectional door

External view



$$TH = \frac{\text{Door height} - 35}{\text{Number of door section frames}}$$

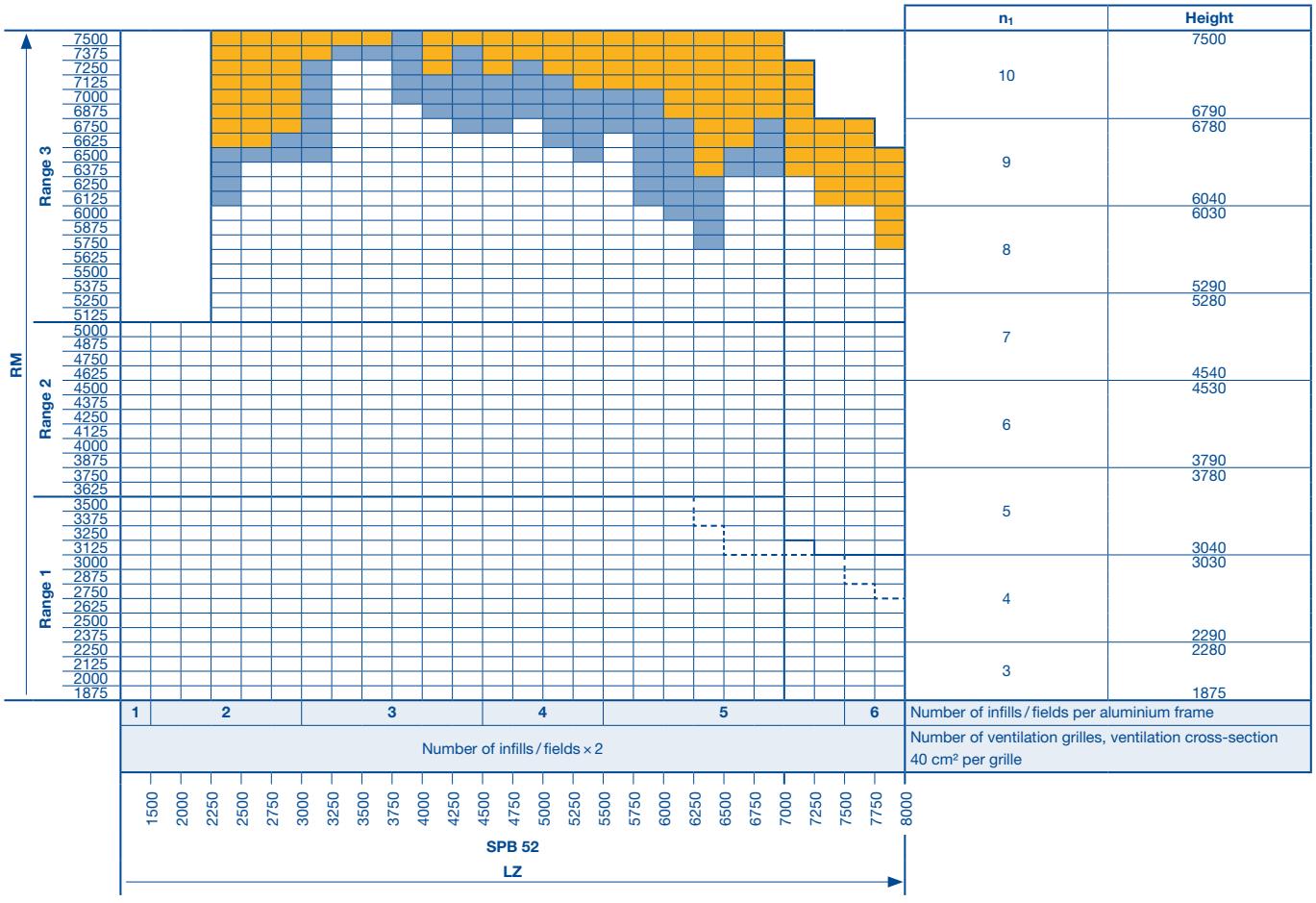
* On request 115 mm in order to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.
** Optionally with wide rail extrusions (91 mm)

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For door widths from 5510 mm, diagonal struts are fitted into the bottom door section (not visible with closed infills).
- For a view of the matching appearance with doors with wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



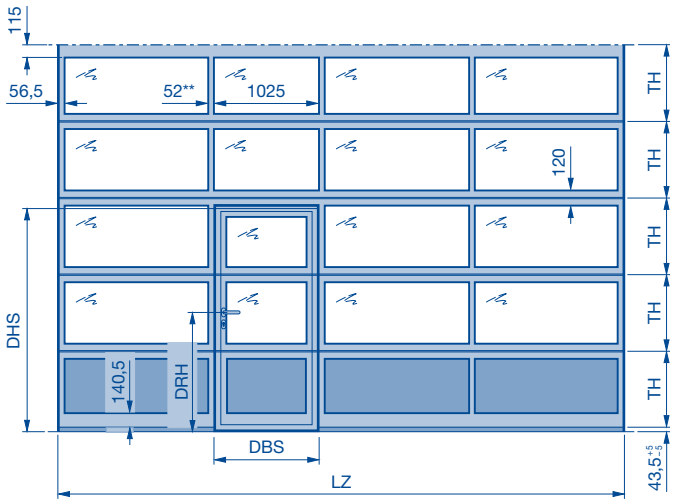
On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

RM Grid height
LZ Clear frame dimensions **(from 1200)**
SPB Rail width
n_1 Number of aluminium frames
TH Door section height

Sectional door ALR F42
with wicket door with trip-free threshold

Glazed aluminium sectional door

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm***

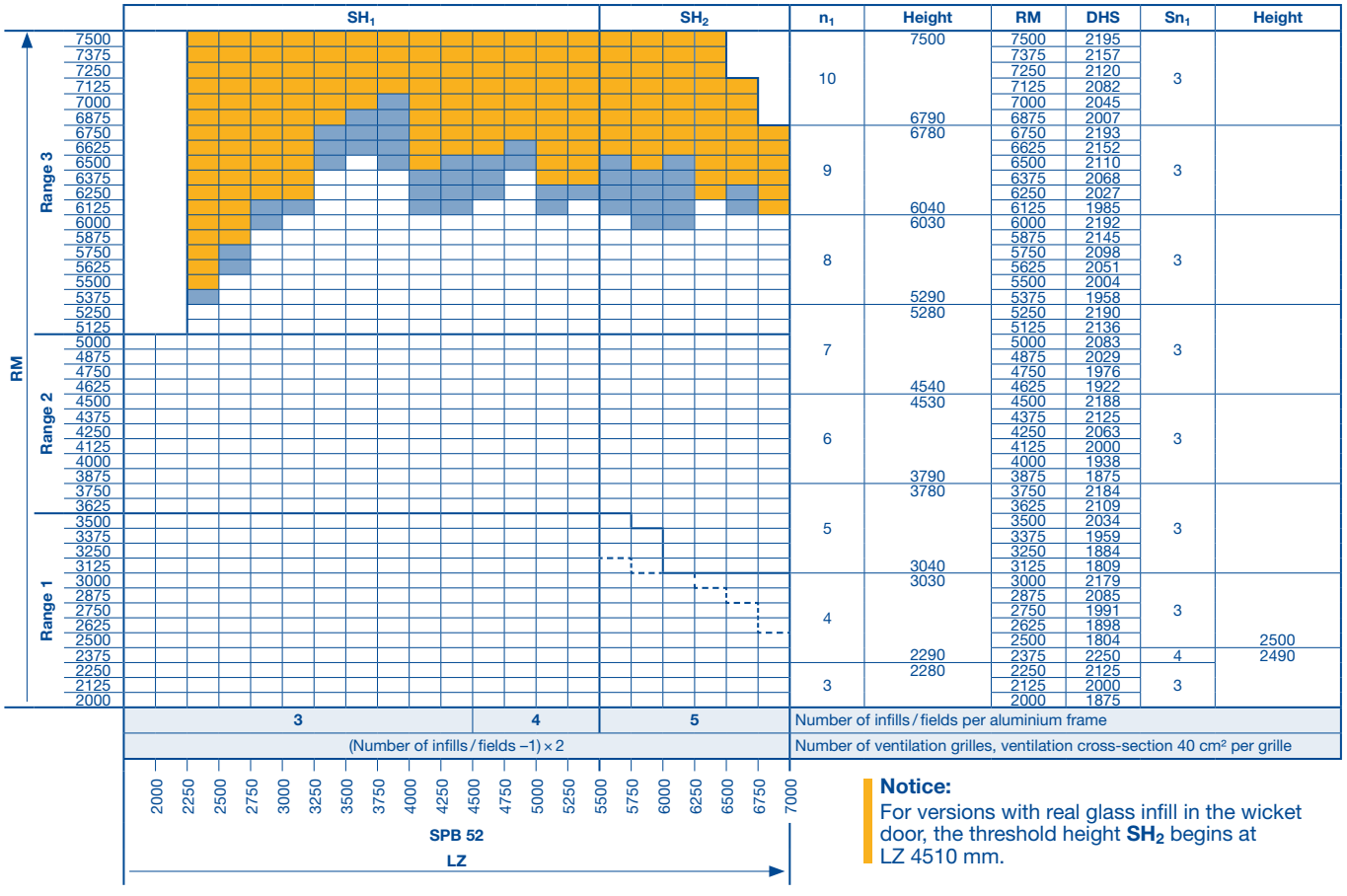
Wicket door clear passage height (DHS)
$= S_n1 \times TH - 45$*

Sn_1 Number of frames in the wicket door
* Attention: If there is no frame above the wicket door, then – 90 instead of – 45.
** Optionally with wide rail extrusions (91 mm)
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For door widths from 5510 mm (from 4510 mm with real glass infill in the wicket door), diagonal struts are fitted into the bottom door section – not visible with closed infills.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
10	7500	7500	2195	3	
		7375	2157		
		7250	2120		
		7125	2082		
		7000	2045		
	6790	6875	2007		
9	6780	6750	2193	3	
		6625	2152		
		6500	2110		
		6375	2068		
		6250	2027		
	6040	6125	1985		
8	6030	6000	2192	3	
		5875	2145		
		5750	2098		
		5625	2051		
		5500	2004		
	5290	5375	1958		
7	5280	5250	2190	3	
		5125	2136		
		5000	2083		
		4875	2029		
		4750	1976		
	4540	4625	1922		
6	4530	4500	2188	3	
		4375	2125		
		4250	2063		
		4125	2000		
		4000	1938		
	3790	3875	1875		
5	3780	3750	2184	3	
		3625	2109		
		3500	2034		
		3375	1959		
		3250	1884		
	3040	3125	1809		
4	3030	3000	2179	3	
		2875	2085		
		2750	1991		
		2625	1898		
		2500	1804		2500
	2290	2375	2250	4	2490
3	2280	2250	2125	3	
		2125	2000		
		2000	1875		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

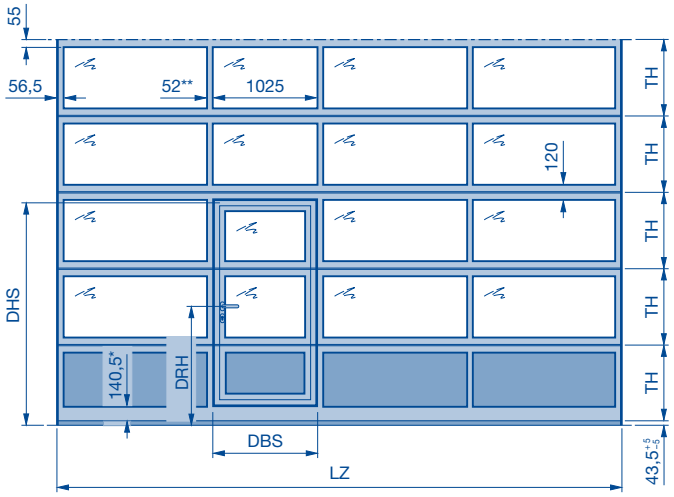
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door ALR F42 with wicket door and threshold rail

Glazed aluminium sectional door

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm***

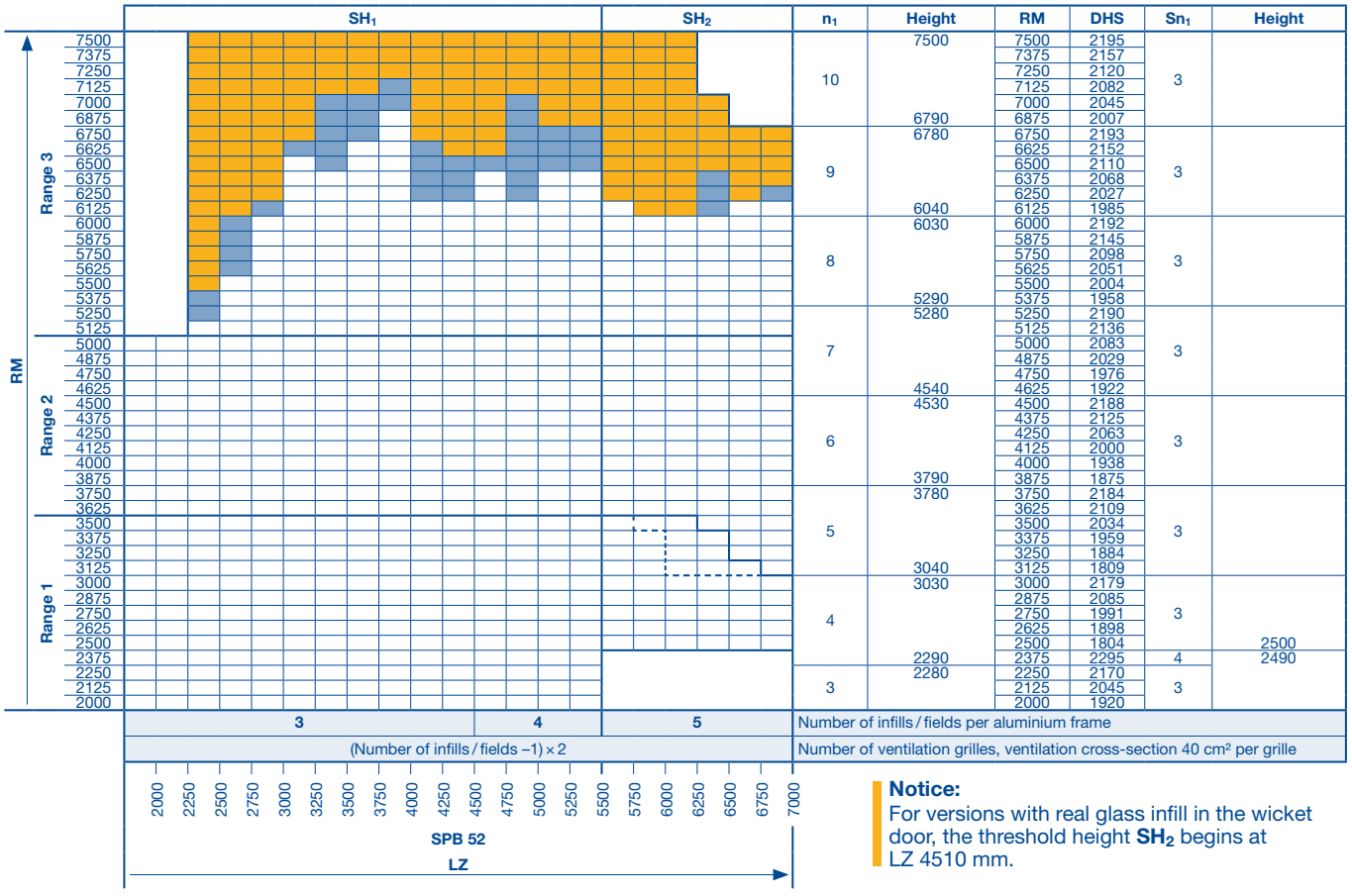
Wicket door clear passage height (DHS)
$= S_n1 \times TH - 45$

Sn_1 Number of frames in the wicket door
* 265.5 with SH_2
** Optionally with wide rail extrusions (91 mm)
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
10	7500	7500	2195	3	
		7375	2157		
		7250	2120		
		7125	2082		
		7000	2045		
	6790	6875	2007		
9	6780	6750	2193	3	
		6625	2152		
		6500	2110		
		6375	2068		
		6250	2027		
	6040	6125	1985		
8	6030	6000	2192	3	
		5875	2145		
		5750	2098		
		5625	2051		
		5500	2004		
	5290	5375	1958		
7	5280	5250	2190	3	
		5125	2136		
		5000	2083		
		4875	2029		
		4750	1976		
	4540	4625	1922		
6	4530	4500	2188	3	
		4375	2125		
		4250	2063		
		4125	2000		
		4000	1938		
	3790	3875	1875		
5	3780	3750	2184	3	
		3625	2109		
		3500	2034		
		3375	1959		
		3250	1884		
	3040	3125	1809		
4	3030	3000	2179	3	
		2875	2085		
		2750	1991		
		2625	1898		
		2500	1804		2500
	2290	2375	2295	4	2490
3	2280	2250	2170		
		2125	2045	3	
		2000	1920		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

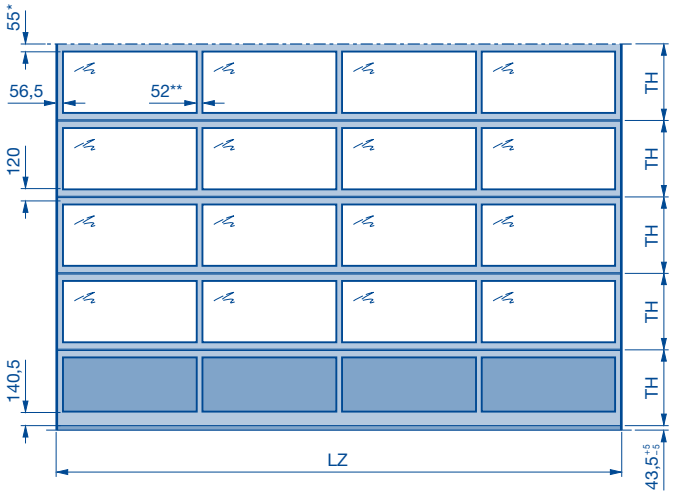
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

SH_1	Threshold height **(181)**
SH_2	Threshold height **(306)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door ALR F42 Thermo

Glazed aluminium sectional door with thermal break

External view



$$TH = \frac{\text{Door height} - 35}{\text{Number of door section frames}}$$

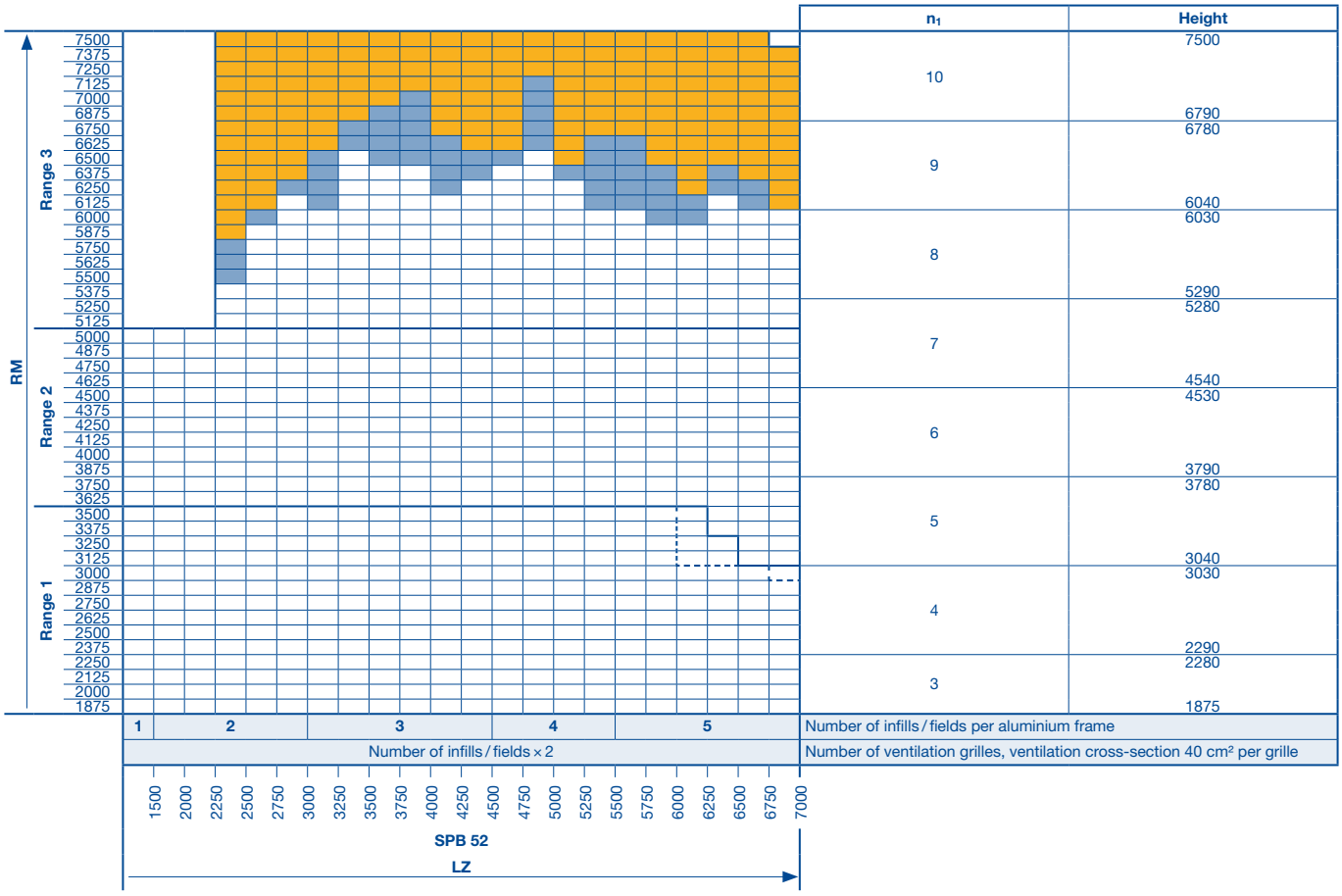
* On request 115 mm in order to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.
** Optionally with wide rail extrusions (91 mm)

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For door widths from 5510 mm, diagonal struts are fitted into the bottom door section (not visible with closed infills).
- For a view of the matching appearance with doors with wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height
10	7500 – 6790
9	6780 – 6040
8	6030 – 5290
7	5280 – 4540
6	4530 – 3790
5	3780 – 3040
4	3030 – 2290
3	2280 – 1875

Number of infills / fields per aluminium frame

Number of ventilation grilles, ventilation cross-section 40 cm² per grille

On request

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request

Range change

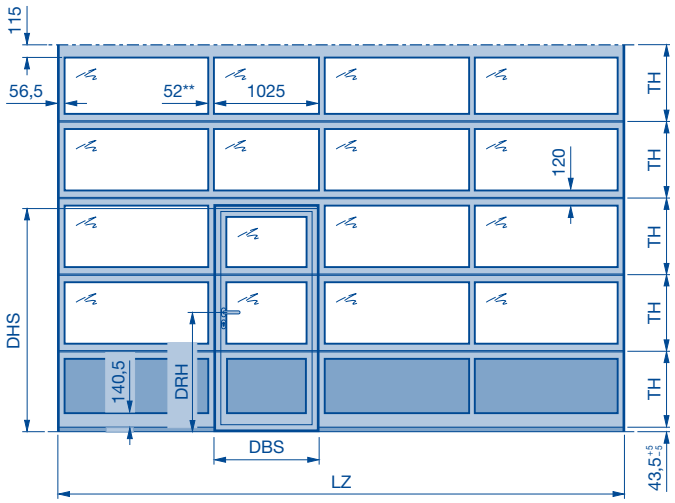
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

RM Grid height
LZ Clear frame dimensions **(from 1200)**
SPB Rail width
n_1 Number of aluminium frames
TH Door section height

Sectional door ALR F42 Thermo with wicket door with trip-free threshold

Glazed aluminium sectional door with thermal break

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm***

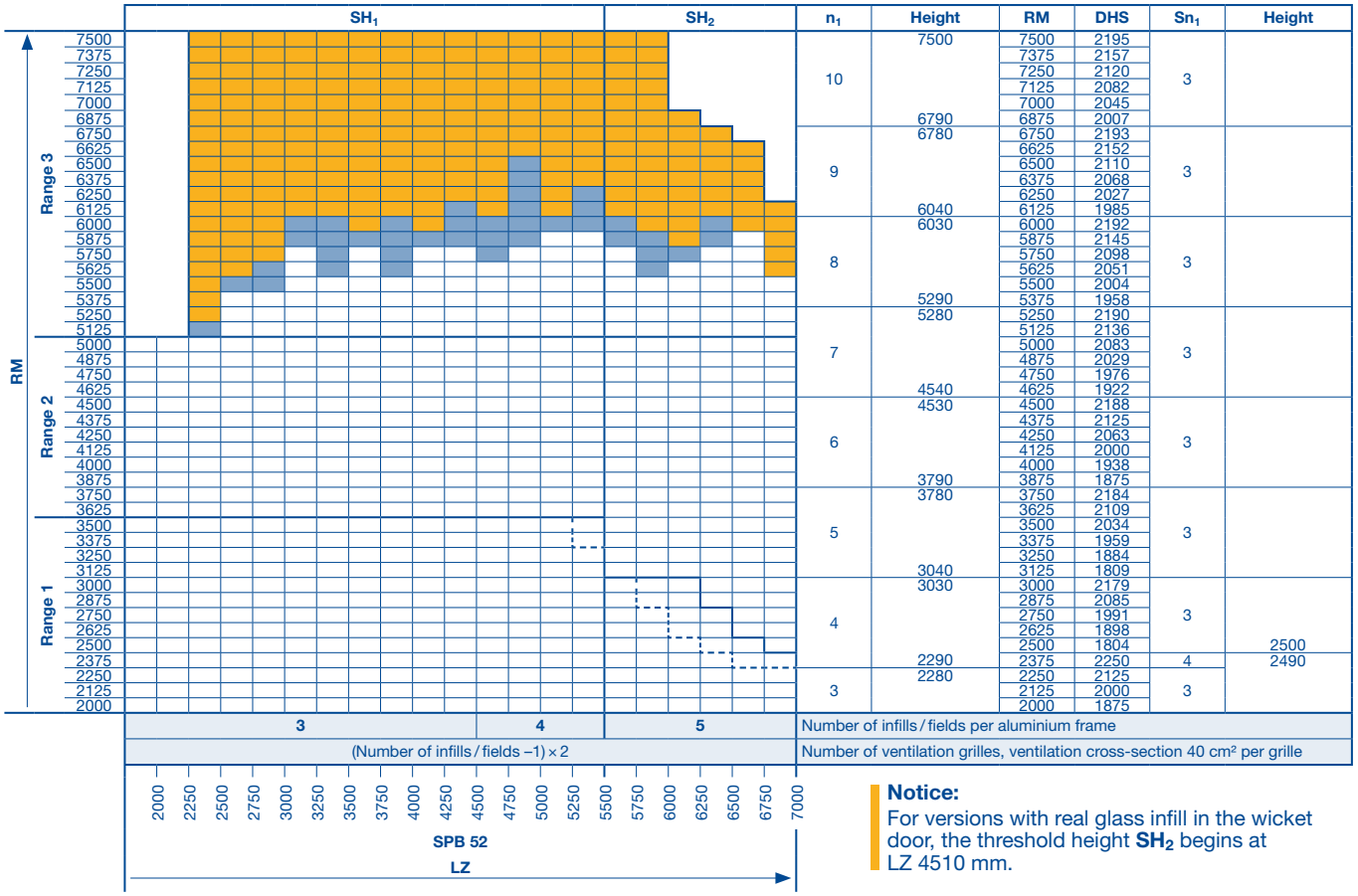
Wicket door clear passage height (DHS)
$= S_n1 \times TH - 45$*

Sn_1 Number of frames in the wicket door
* Attention: If there is no frame above the wicket door, then – 90 instead of – 45.
** Optionally with wide rail extrusions (91 mm)
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For door widths from 5510 mm (from 4510 mm with real glass infill in the wicket door), diagonal struts are fitted into the bottom door section – not visible with closed infills.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
10	7500	7500	2195	3	
		7375	2157		
		7250	2120		
		7125	2082		
		7000	2045		
	6790	6875	2007		
9	6780	6750	2193	3	
		6625	2152		
		6500	2110		
		6375	2068		
		6250	2027		
	6040	6125	1985		
8	6030	6000	2192	3	
		5875	2145		
		5750	2098		
		5625	2051		
		5500	2004		
	5290	5375	1958		
7	5280	5250	2190	3	
		5125	2136		
		5000	2083		
		4875	2029		
		4750	1976		
	4540	4625	1922		
6	4530	4500	2188	3	
		4375	2125		
		4250	2063		
		4125	2000		
		4000	1938		
	3790	3875	1875		
5	3780	3750	2184	3	
		3625	2109		
		3500	2034		
		3375	1959		
		3250	1884		
	3040	3125	1809		
4	3030	3000	2179	3	
		2875	2085		
		2750	1991		
		2625	1898		
		2500	1804		2500
	2290	2375	2250	4	2490
3	2280	2250	2125	3	
		2125	2000		
		2000	1875		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

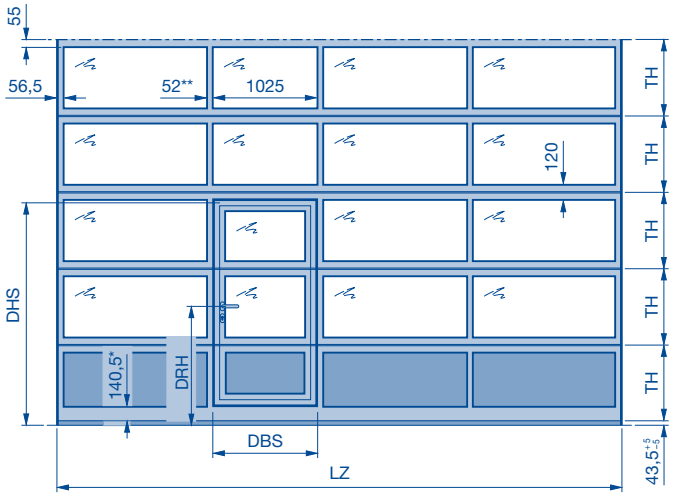
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

SH_1	Threshold height **(rising from 5 to 10)**
SH_2	Threshold height **(approx. 13)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door ALR F42 Thermo with wicket door and threshold rail

Glazed aluminium sectional door with thermal break

External view



Lever height on request

Wicket door clear passage width (DBS) = 940 mm***

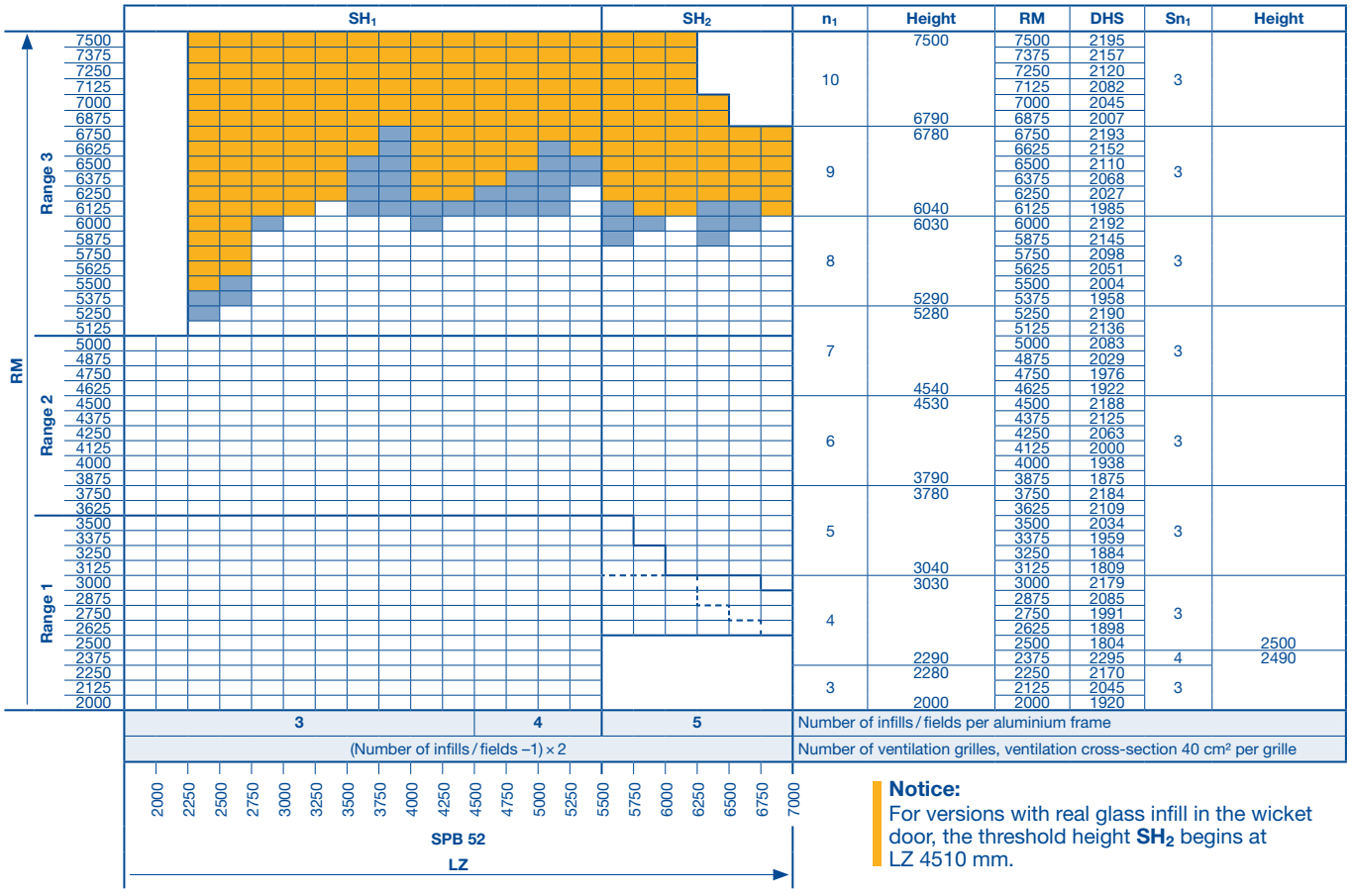
Wicket door clear passage height (DHS)
$= S_n1 \times TH - 45$

Sn_1 Number of frames in the wicket door
* 265.5 with SH_2
** Optionally with wide rail extrusions (91 mm)
*** For a door width of 1750 – 1840 mm, the clear passage width is 833 mm.

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For a view of the matching appearance with doors without wicket door see pages 36 – 38.
- Number of glazings, matching series 40, see page 39.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



n_1	Height	RM	DHS	Sn_1	Height
10	7500	7500	2195	3	
		7375	2157		
		7250	2120		
		7125	2082		
		7000	2045		
	6790	6875	2007		
9	6780	6750	2193	3	
		6625	2152		
		6500	2110		
		6375	2068		
		6250	2027		
	6040	6125	1985		
8	6030	6000	2192	3	
		5875	2145		
		5750	2098		
		5625	2051		
		5500	2004		
	5290	5375	1958		
7	5280	5250	2190	3	
		5125	2136		
		5000	2083		
		4875	2029		
		4750	1976		
	4540	4625	1922		
6	4530	4500	2188	3	
		4375	2125		
		4250	2063		
		4125	2000		
		4000	1938		
	3790	3875	1875		
5	3780	3750	2184	3	
		3625	2109		
		3500	2034		
		3375	1959		
		3250	1884		
	3040	3125	1809		
4	3030	3000	2179	3	
		2875	2085		
		2750	1991		
		2625	1898		
		2500	1804		2500
	2290	2375	2295	4	2490
3	2280	2250	2170	3	
		2125	2045		
	2000	2000	1920		

Number of infills / fields per aluminium frame
Number of ventilation grilles, ventilation cross-section 40 cm² per grille

Notice:
For versions with real glass infill in the wicket door, the threshold height **SH_2** begins at LZ 4510 mm.

On request
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
Range change
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

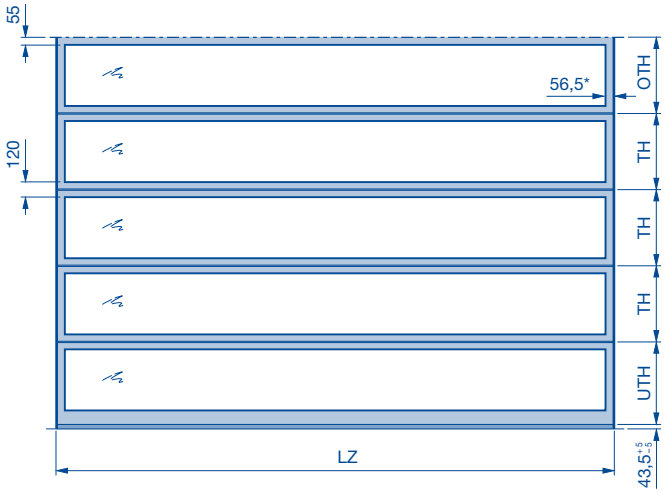
DHS	Wicket door clear passage height
DBS	Wicket door clear passage width
DRH	Lever height
LZ	Clear frame dimensions **(from 1750)**
RM	Grid height
SPB	Rail width

SH_1	Threshold height **(181)**
SH_2	Threshold height **(306)**
n_1	Number of aluminium frames
Sn_1	Number of aluminium frames in the wicket door
TH	Door section height

Sectional door ALR F42 glazing

Aluminium sectional door with large glazing, real glass

External view



$$TH = \frac{\text{Door height} - 119}{\text{Number of door section frames}}$$

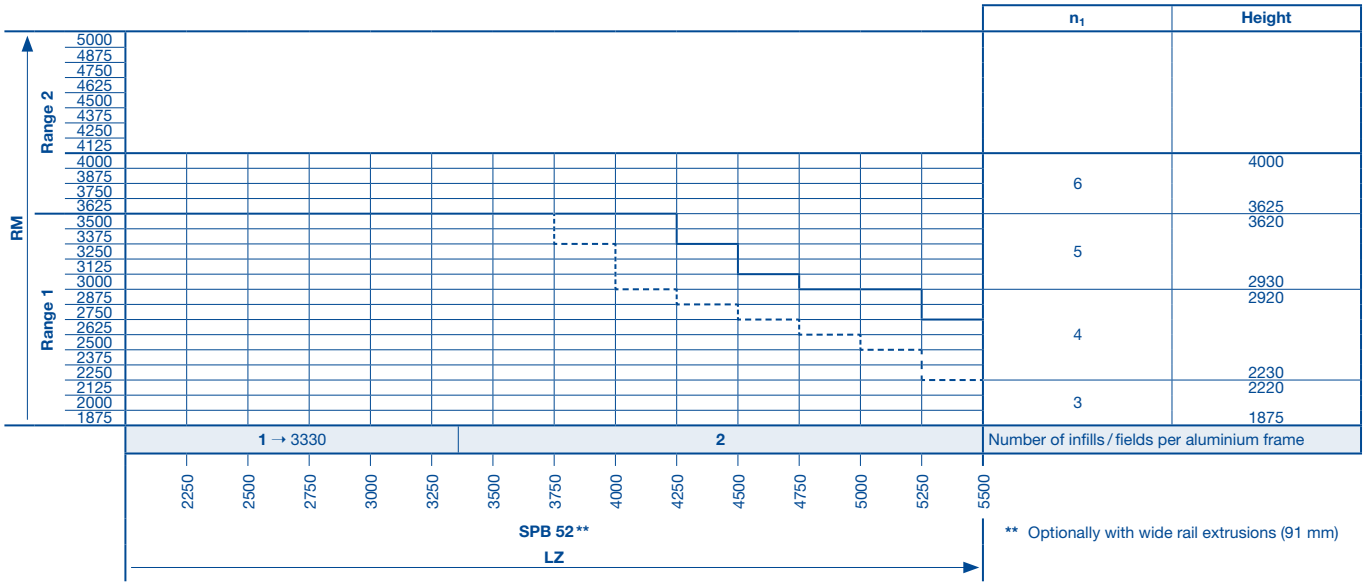
$UTH = TH + 84 \leq 785$
$OTH = TH\ 35$

* 76 with optional wide rail extrusions (91 mm)

Notice:
- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



Range change with VG glazing

Range change with E2 and G2 glazing

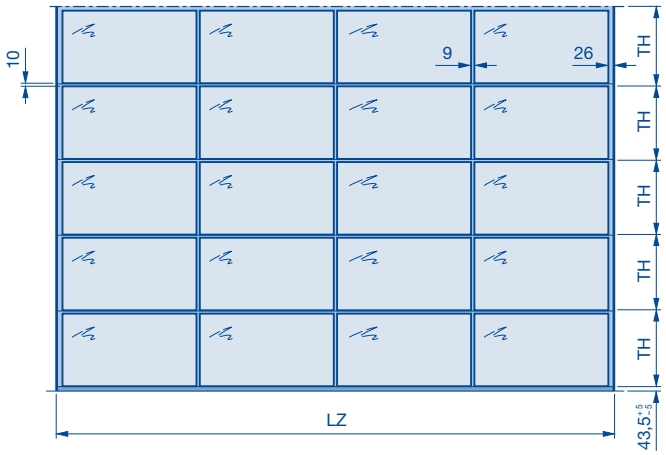
RM Grid height
LZ Clear frame dimensions **(from 2000)**

→ up to LZ
SPB Rail width
n_1 Number of aluminium frames
UTH Bottom door section height
TH Door section height
OTH Upper door section height

Sectional door ALR F42 Vitraplan

Exclusive glazed aluminium sectional door

External view



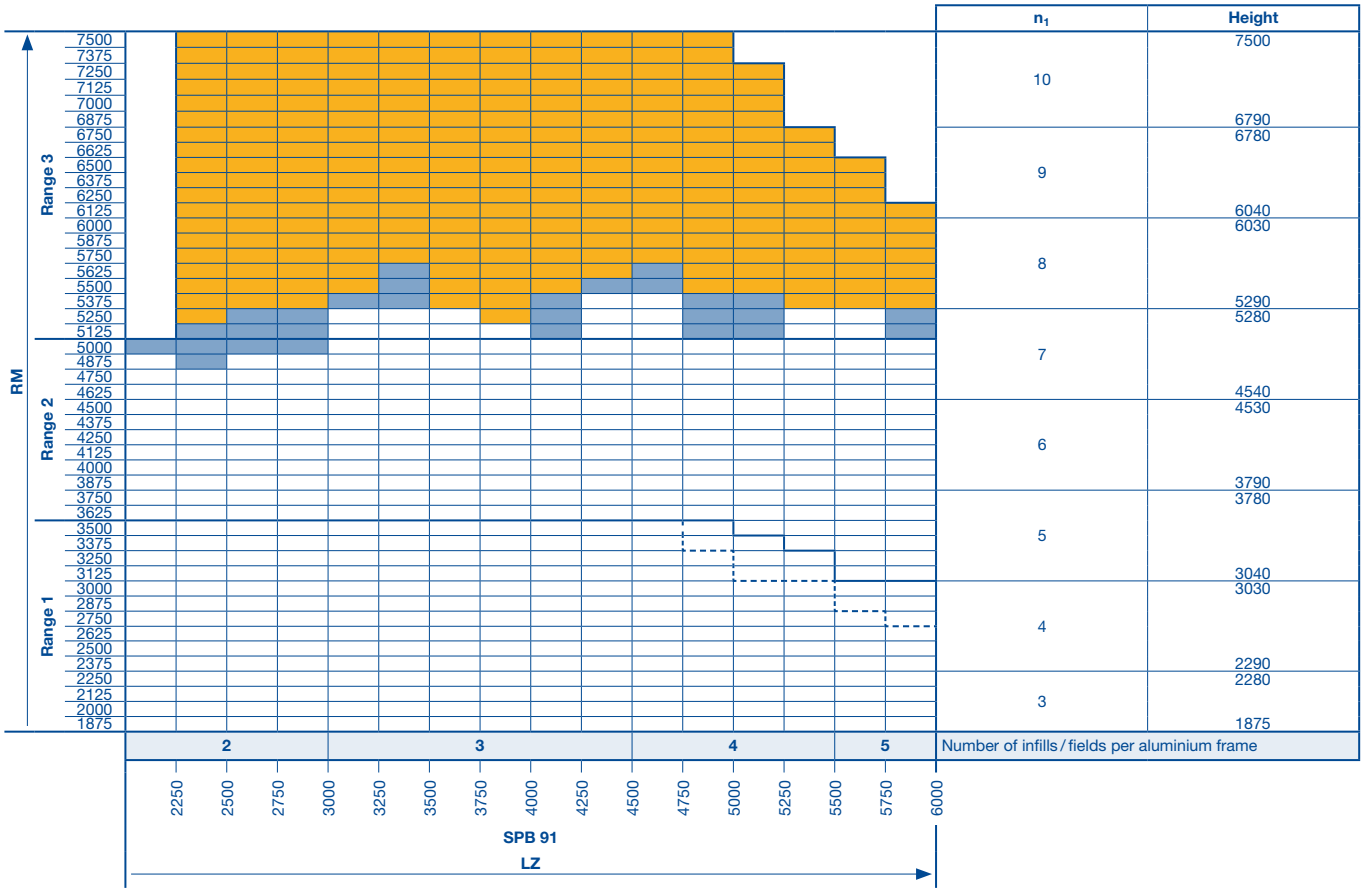
$$TH = \frac{\text{Door height} - 35}{\text{Number of door section frames}}$$

Notice:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- For door widths from 5510 mm, diagonal struts are fitted into the bottom door section.

Size range

The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Possible for any door width in 10 mm increments.



On request

Versions with glazing S3, U3 on request

Range change

Range change with glazing S3, U3

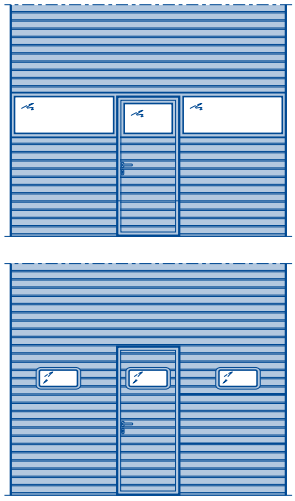
RM	Grid height
LZ	Clear frame dimensions **(from 2000)**
SPB	Rail width
n_1	Number of aluminium frames
TH	Door section height

Glazing / wicket door arrangements

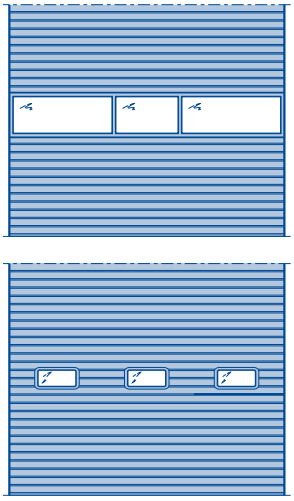
Sectional doors with 3 infills / fields

Glazing arrangements – external view

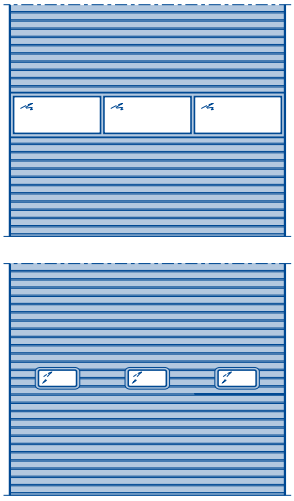
Sectional door SPU F42
with wicket door with trip-free threshold



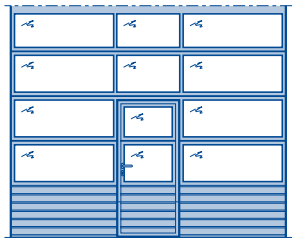
Sectional door SPU F42,
matching the wicket door versions



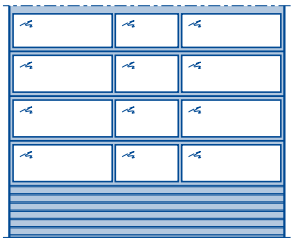
Sectional door SPU F42
with standard window division



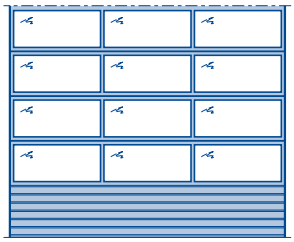
Sectional door APU F42
with wicket door with trip-free threshold



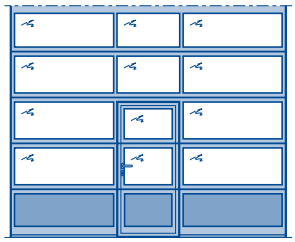
Sectional door APU F42,
matching the wicket door versions



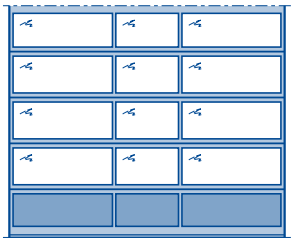
Sectional door APU F42
with standard window division



Sectional door ALR F42
with wicket door with trip-free threshold

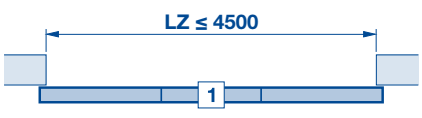


Sectional door ALR F42,
matching the wicket door versions



Sectional door ALR F42
with standard window division

Arrangement of the wicket door



Notices:

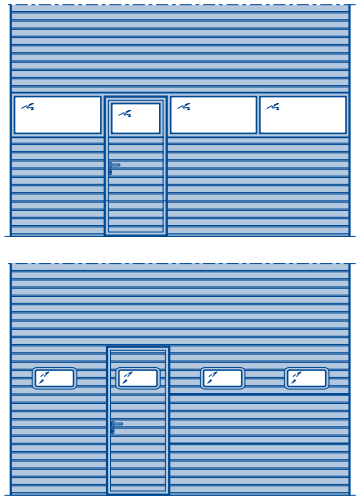
- Wicket door clear passage width (DBS) = 940 mm.
- Wicket door only opening outwards.

Glazing / wicket door arrangements

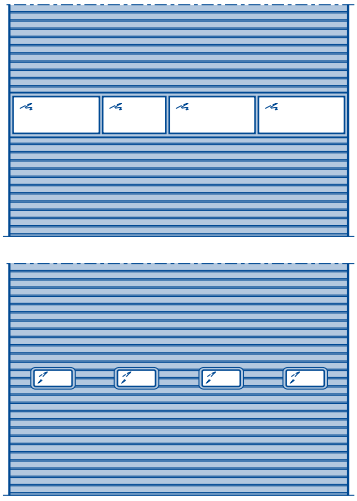
Sectional doors with 4 infills / fields

Glazing arrangements – external view

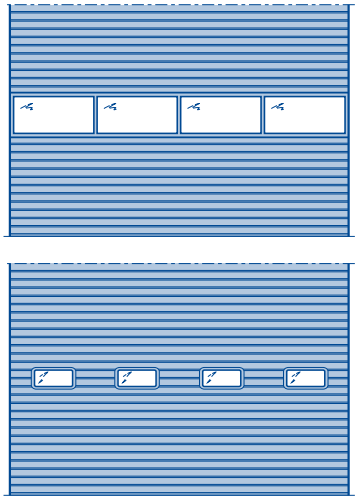
Sectional door SPU F42
with wicket door with trip-free threshold



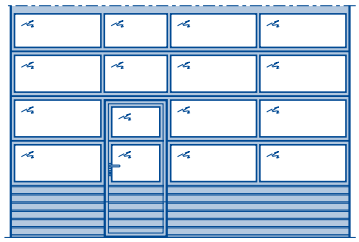
Sectional door SPU F42,
matching the wicket door versions



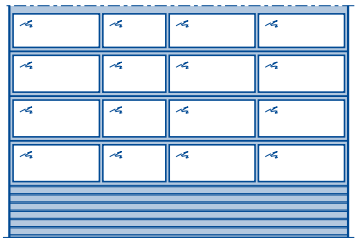
Sectional door SPU F42
with standard window division



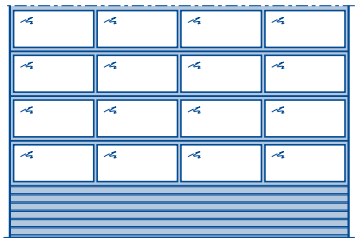
Sectional door APU F42
with wicket door with trip-free threshold



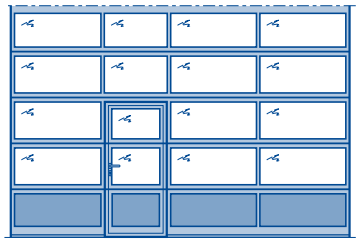
Sectional door APU F42,
matching the wicket door versions



Sectional door APU F42
with standard window division

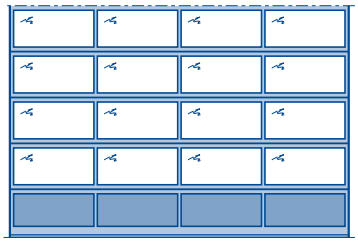


Sectional door ALR F42
with wicket door with trip-free threshold

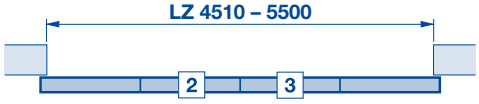


Sectional door ALR F42,
matching the wicket door versions

Sectional door ALR F42
with standard window division



Arrangement of the wicket door



Notices:

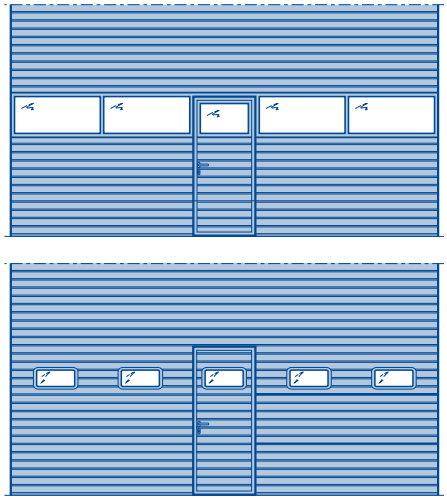
- Wicket door clear passage width (DBS) = 940 mm.
- Wicket door only opening outwards.

Glazing / wicket door arrangements

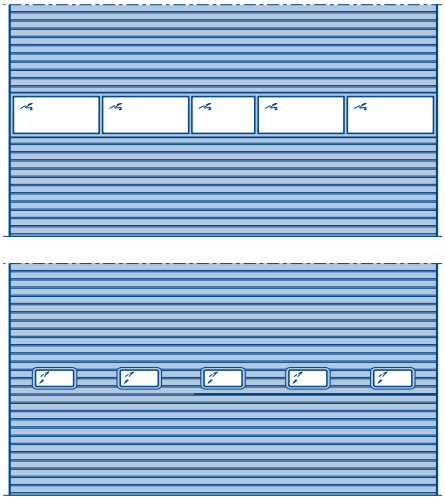
Sectional doors with 5 infills / fields

Glazing arrangements – external view

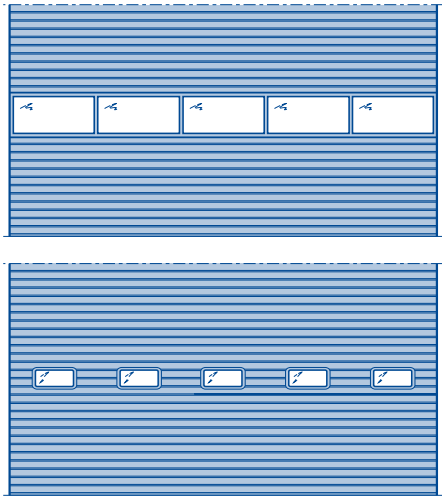
Sectional door SPU F42
with wicket door with trip-free threshold



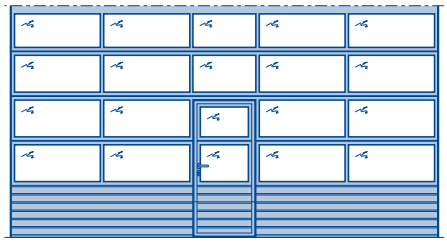
Sectional door SPU F42,
matching the wicket door versions



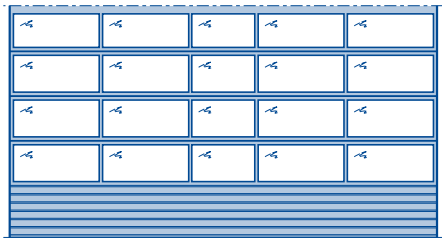
Sectional door SPU F42
with standard window division



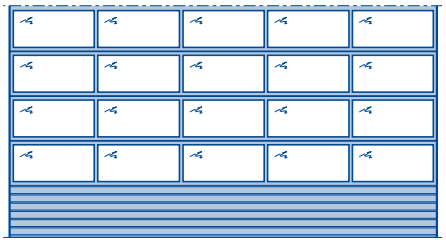
Sectional door APU F42
with wicket door with trip-free threshold



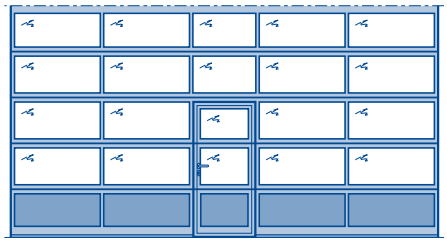
Sectional door APU F42,
matching the wicket door versions



Sectional door APU F42
with standard window division

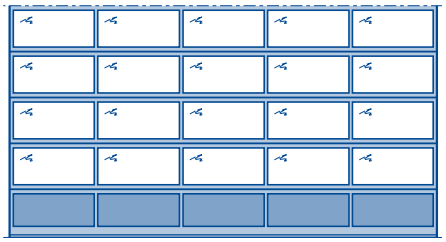


Sectional door ALR F42
with wicket door with trip-free threshold

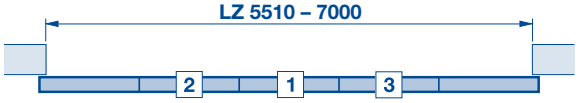


Sectional door ALR F42,
matching the wicket door versions

Sectional door ALR F42
with standard window division



Arrangement of the wicket door

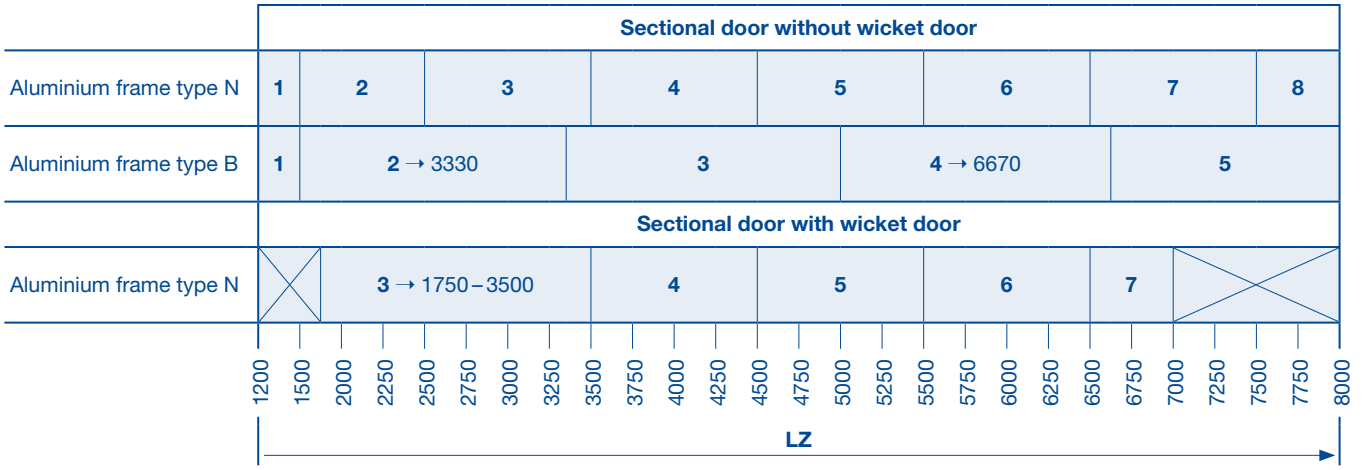


Notices:

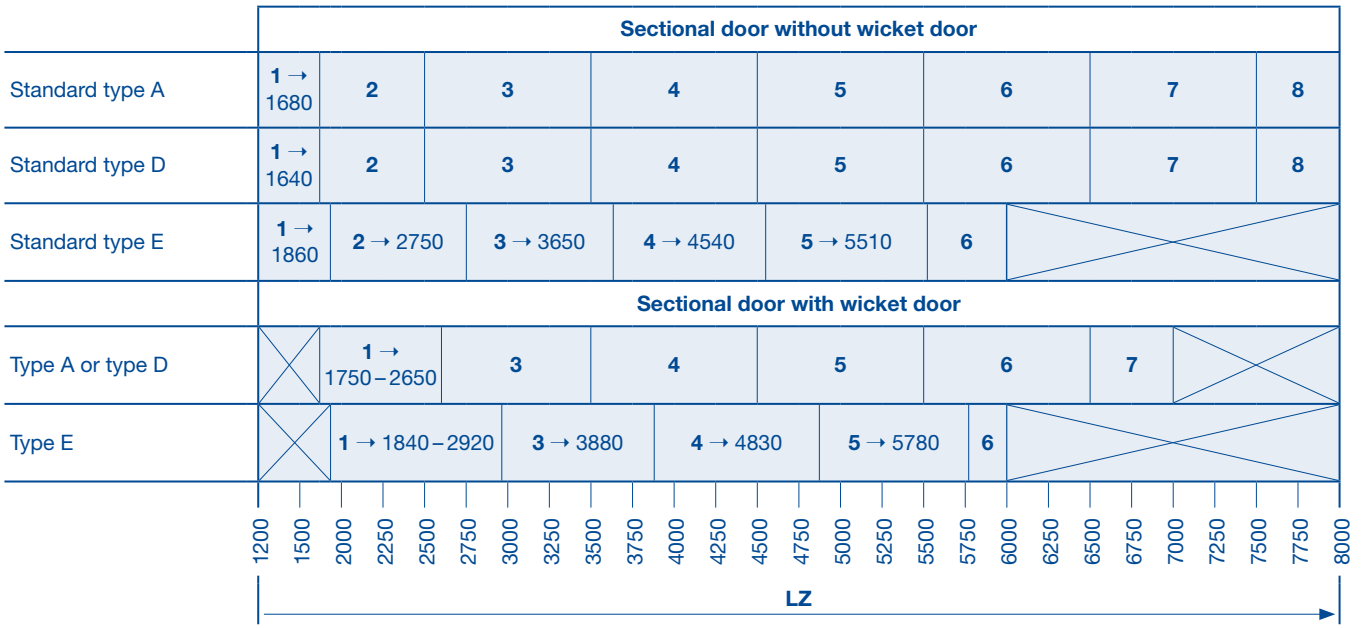
- Wicket door clear passage width (DBS) = 940 mm.
- Wicket door only opening outwards.

Infills / fields and glazing
Series 40

Number of infills / fields per aluminium frame



Number of compound glazings per door section



LZ Clear frame dimension
→ up to LZ

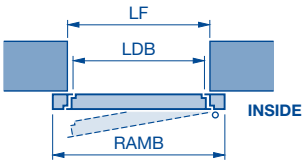
Side door NT 60 / NT 80 Thermo

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

Fitting behind the opening
Only opening inwards, RH or LH hinged



Structural opening	Ordering size Overall frame dimensions RAMB × RAMH
875 × 2000	855 × 1990
875 × 2125	855 × 2115
1000 × 2000	980 × 1990
1000 × 2125	980 × 2115
Size range: width: RAMB 770 to 1300, height: RAMH 1865 to 2525 **(indicate overall frame dimension)**	
Doors with multiple-point locking: RAMH = ≥ 1920 mm	

Clear passage dimensions:

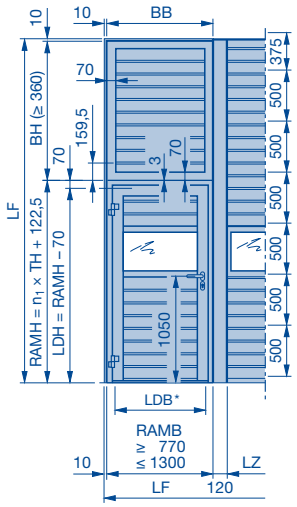
	Opening angle	Width	Height
NT 60	136°	RAMB – 149	RAMH – 70
	90°	RAMB – 194	
NT 80 Thermo	136°	RAMB – 164	RAMH – 70
	90°	RAMB – 215	

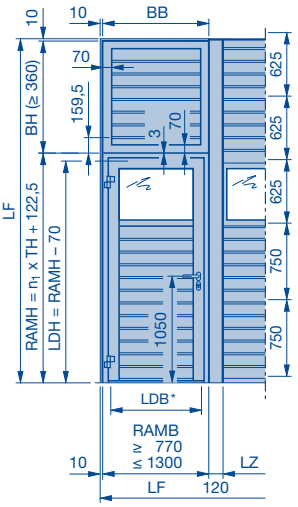
Notice:
Side door version in ALR F42 Vitraplan with aluminium fascia profile opening inwards on request!

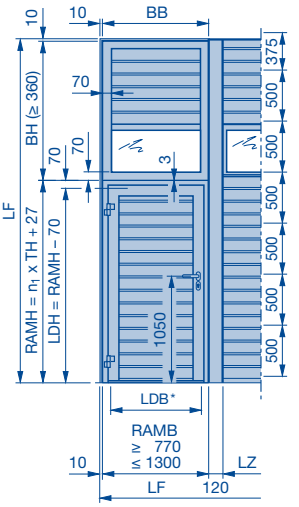
LF Structural opening
RAMB Overall frame width
RAMH Overall frame height
LDB Clear passage width
LDH Clear passage height
LZ Clear frame dimension

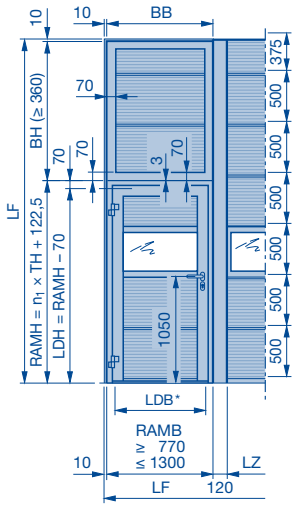
Side door NT 60

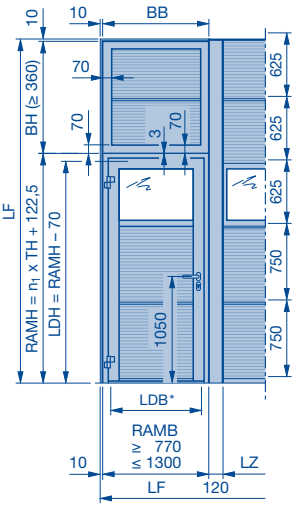
With S-ribbed Stucco-textured / L-ribbed Micrograin infills

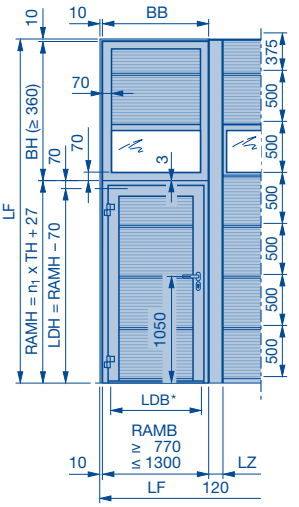




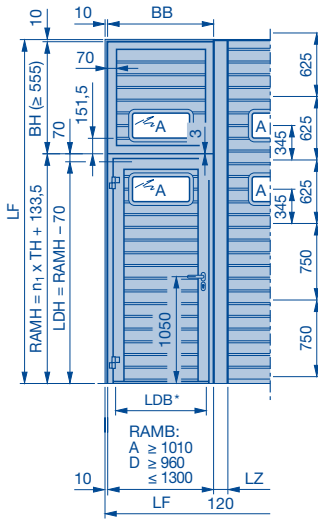


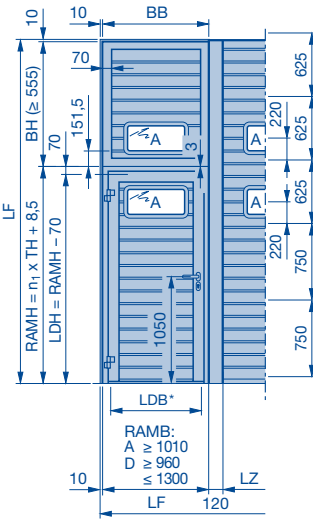


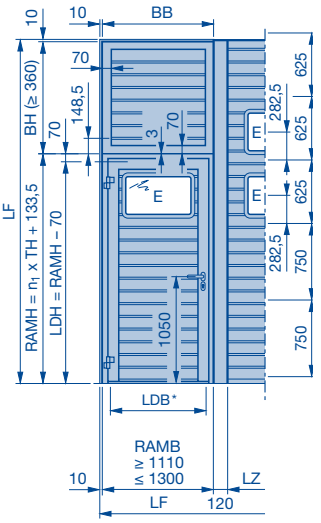


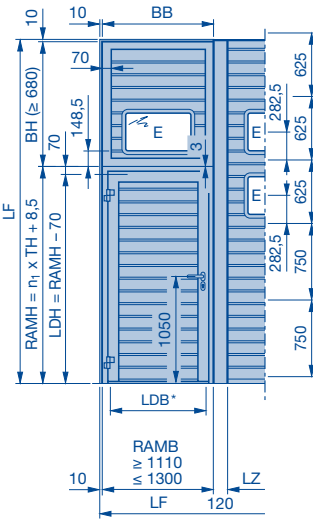


Notice:
Compound glazing not possible with RC 2 version.







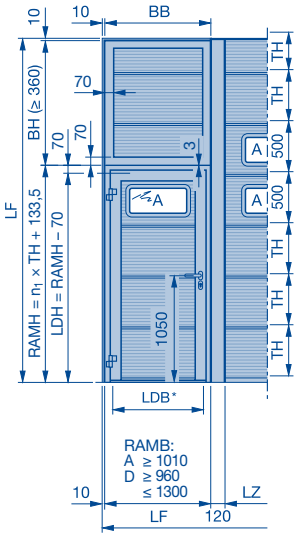


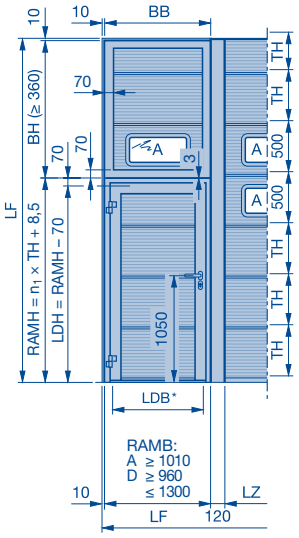
*	See page 40	**BH**	Panel height	**TH**	Door section height
LF	Structural opening	**BB**	Panel width	**SO**	Bottom section height
RAMB	Overall frame width	**LDB**	Clear passage width	**LZ**	Clear frame dimension
RAMH	Overall frame height	**LDH**	Clear passage height	**n_1**	Number of door sections / aluminium frames

Side door NT 60

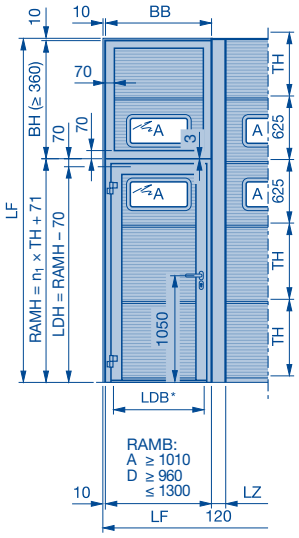
With L-ribbed Micrograin infills

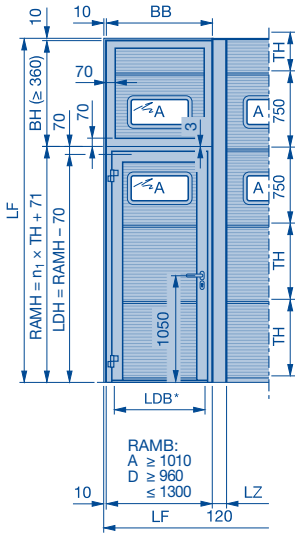
Compound glazing type A TH = 500



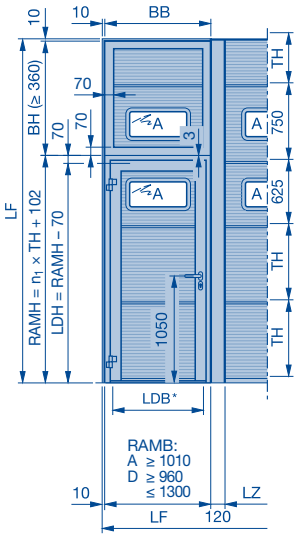


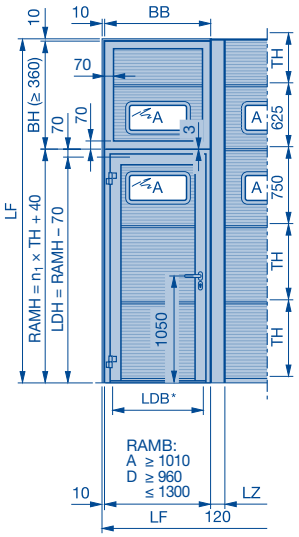
Compound glazing type A TH = 625 and 750



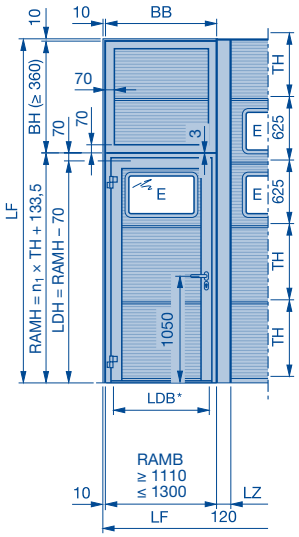


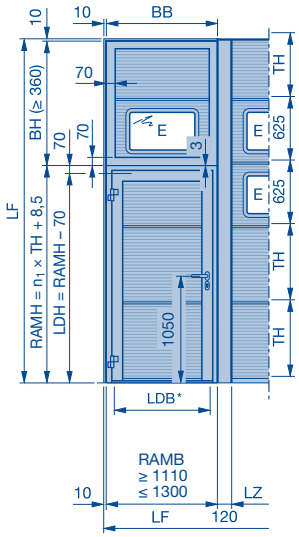
Compound glazing type A TH = 625 / 750 and 750 / 625



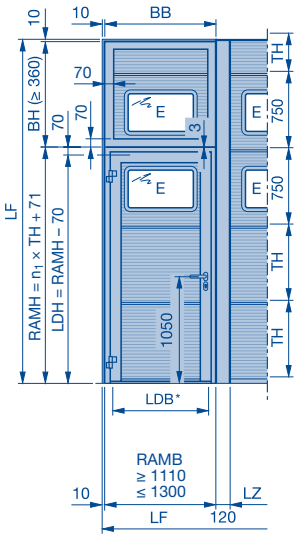


Compound glazing type E TH = 625





Compound glazing type E TH = 750



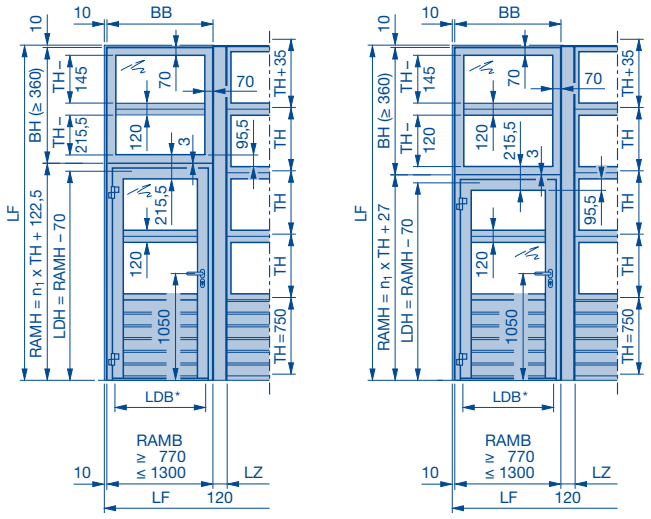
Notice:
Compound glazing not possible with RC 2 version.

(Legend see page 41)

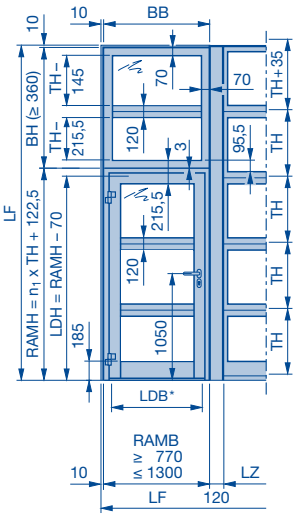
Side door NT 60

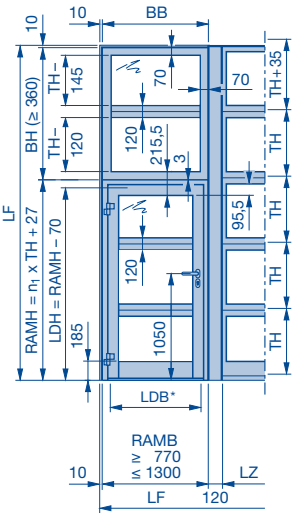
With S-ribbed Stucco-textured / L-ribbed Micrograin infills

Side door NT 60 matching door type APU F42

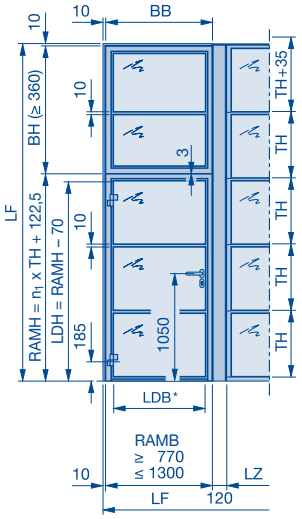


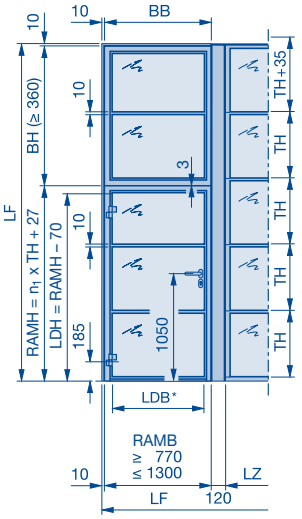
Side door NT 60 matching door type ALR F42





Side door NT Vitraplan





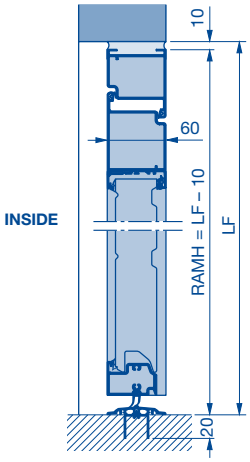
*	See page 40	**BH**	Panel height	**TH**	Door section height
LF	Structural opening	**BB**	Panel width	**SO**	Bottom section height
RAMB	Overall frame width	**LDB**	Clear passage width	**LZ**	Clear frame dimension
RAMH	Overall frame height	**LDH**	Clear passage height	**n_1**	Number of door sections / aluminium frames

Side door NT 60

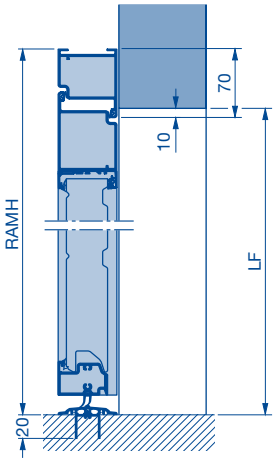
Possible fitting options

Possible fitting options

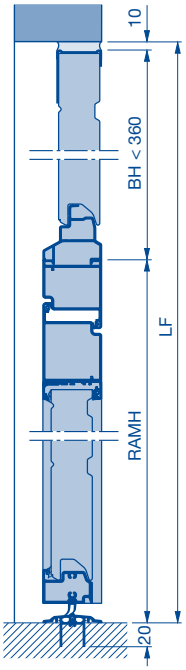
SPU in the opening
Without window section, without compound glazing



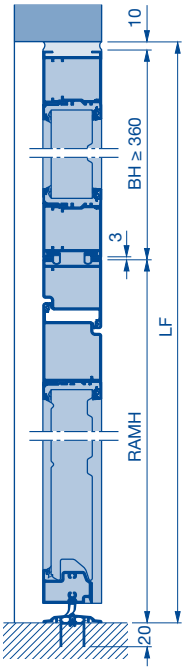
SPU behind the opening
Without window section, without compound glazing



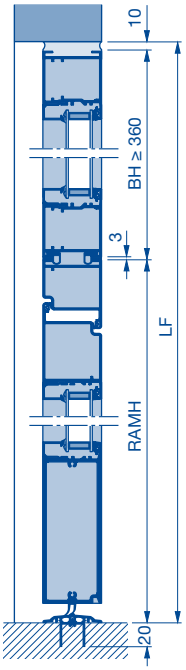
SPU with fascia panel in the opening



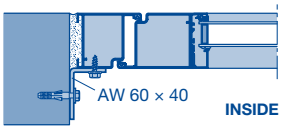
SPU, APU with fascia panel in the opening



ALR with fascia panel in the opening



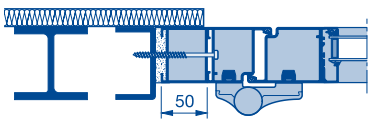
In the opening



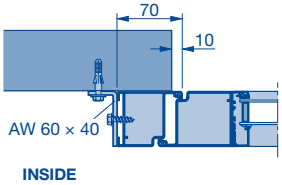
Plugs for metal frame

(Bottom illustration with 50* mm extension profile for all-over insulation)
* Optionally also with 25 mm

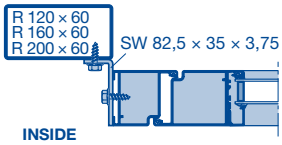
Tapping screw with countersunk head
B 6.3 × 80



Behind the opening



Side door NT 60 flush with sectional door



R	Box section	**BH**	Panel height	**LF**	Structural opening
AW	Aluminium angle	**RAMH**	Overall frame height		
SW	Steel angle	**LDB**	Clear passage width		

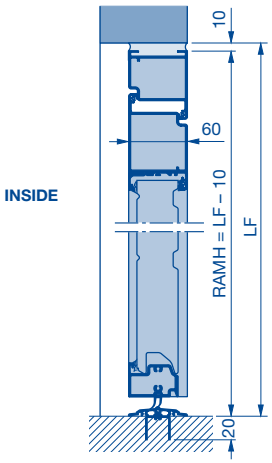
Side door NT 60 RC 2

Possible fitting options

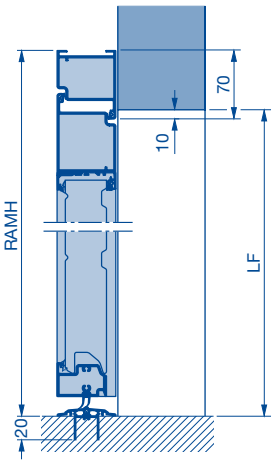
Possible fitting options

Notice:
The side door and panel must be fitted in accordance with DIN EN 1627.

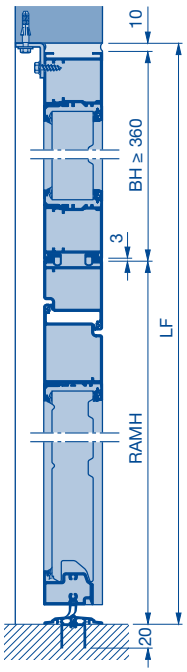
SPU in the opening
Without window section, without compound glazing



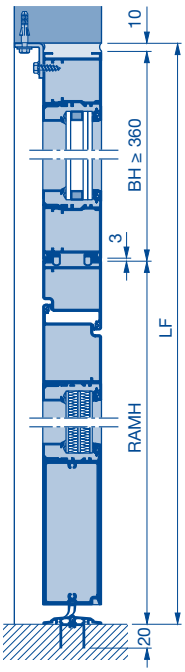
SPU behind the opening
Without window section, without compound glazing



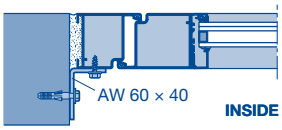
SPU, APU with fascia panel in the opening

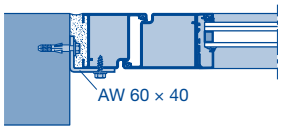


ALR with fascia panel in the opening



In the opening

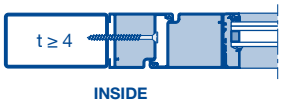


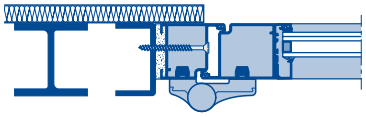


Plugs for metal frame

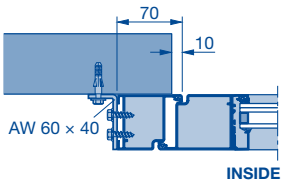
Tapping screw with countersunk head
B 6.3 × 80

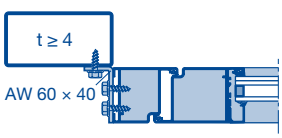
Notice:
Only use metal frame dowel and tapping screw with countersunk head when fitting the side door.





Behind the opening



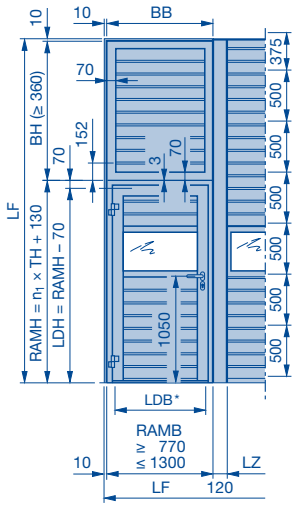


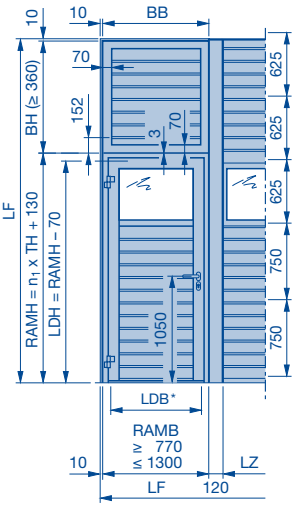
Side door NT 60 flush with sectional door

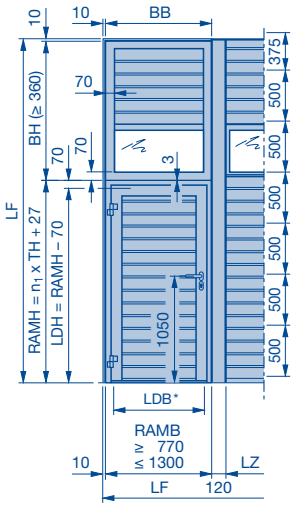
AW	Aluminium angle	**RAMH**	Overall frame height
T	Fastening thickness	**LDB**	Clear passage width
BH	Panel height	**LF**	Structural opening

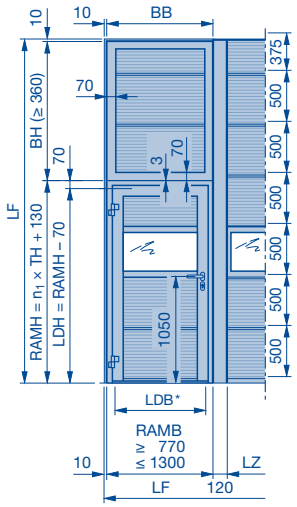
Side door NT 80 Thermo

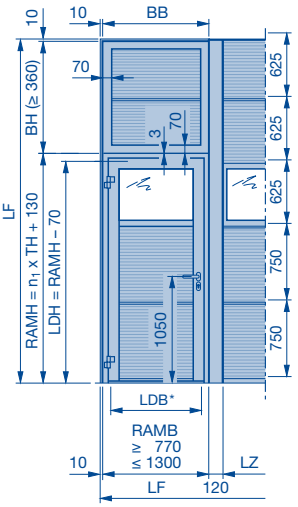
With S-ribbed Stucco-textured / L-ribbed Micrograin infills

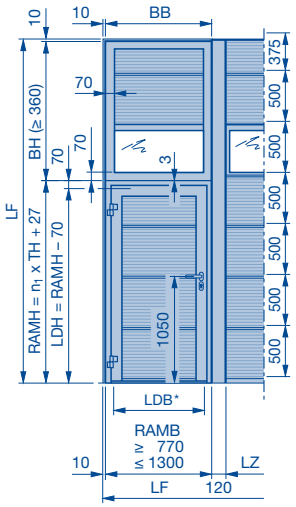




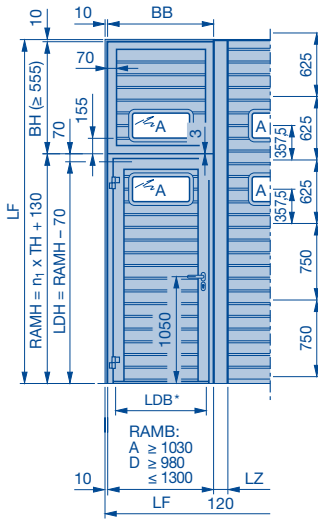


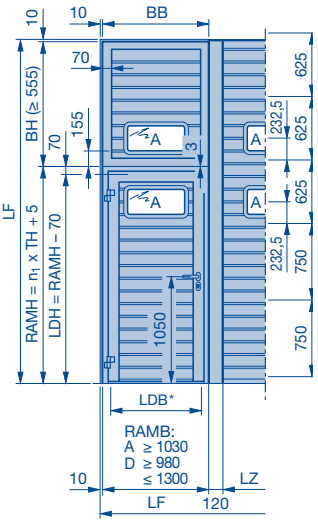


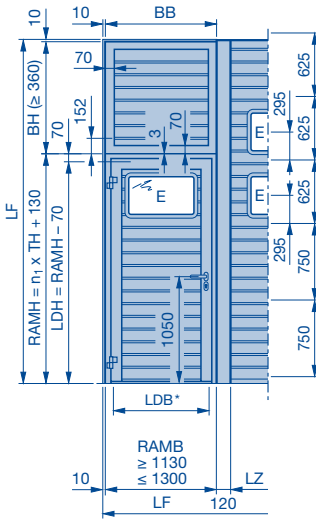


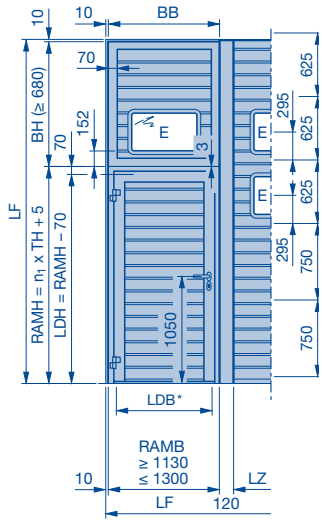


Notice:
Compound glazing not possible with RC 2 version.







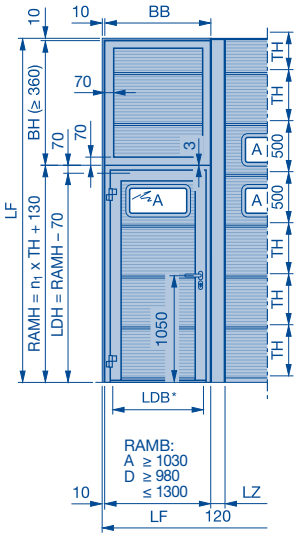


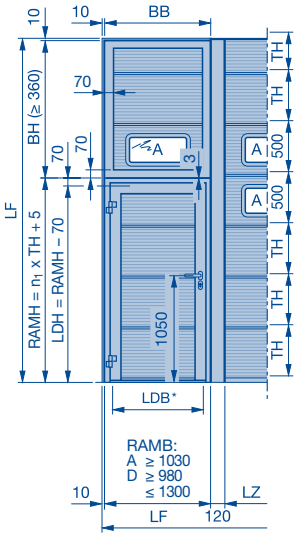
*	See page 40	**BH**	Panel height	**TH**	Door section height
LF	Structural opening	**BB**	Panel width	**SO**	Bottom section height
RAMB	Overall frame width	**LDB**	Clear passage width	**LZ**	Clear frame dimension
RAMH	Overall frame height	**LDH**	Clear passage height	n_1	Number of door sections / aluminium frames

Side door NT 80 Thermo

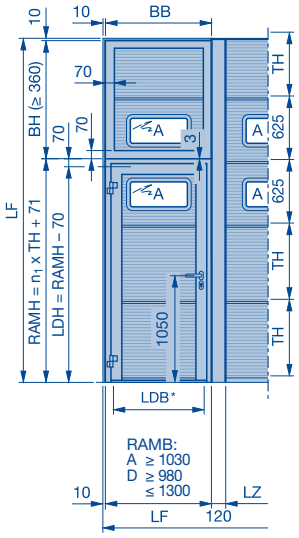
With L-ribbed Micrograin infills

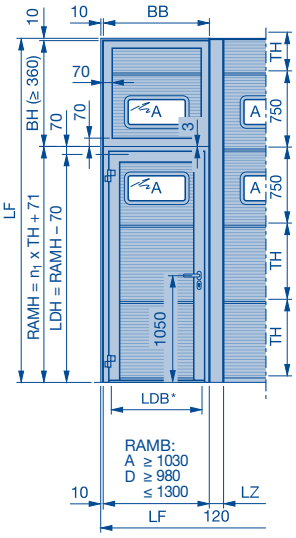
Compound glazing type A TH = 500



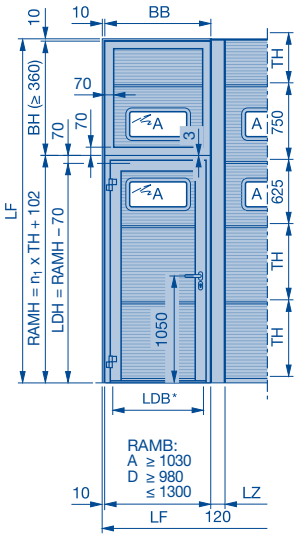


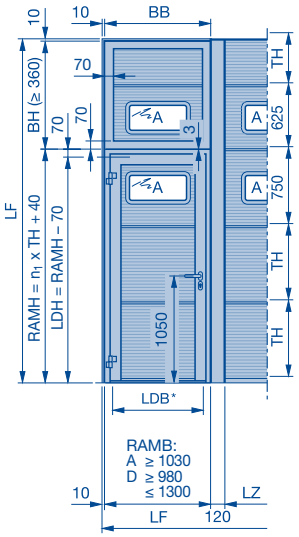
Compound glazing type A TH = 625 and 750



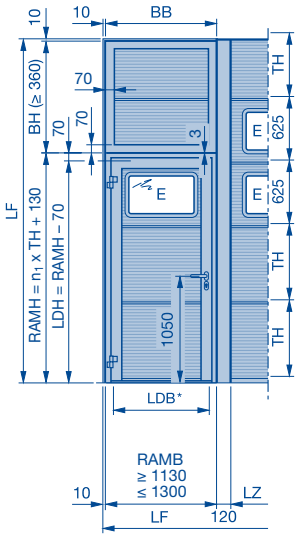


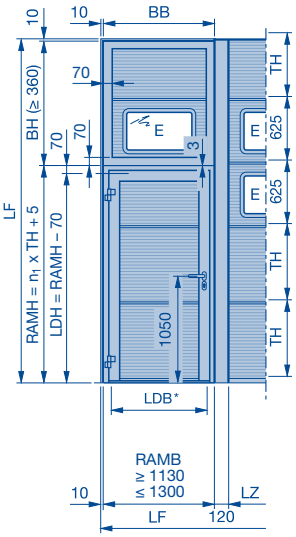
Compound glazing type A TH = 625 / 750 and 750 / 625



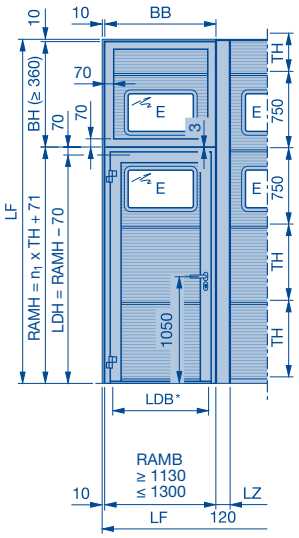


Compound glazing type E TH = 625





Compound glazing type E TH = 750



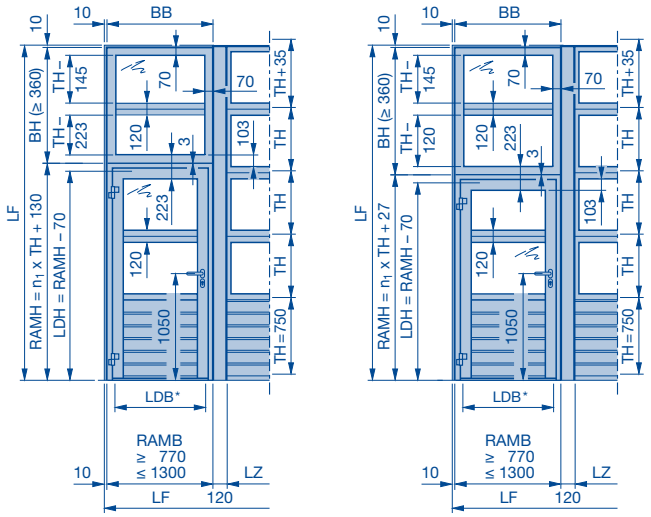
Notice:
Compound glazing not possible with RC 2 version.

(Legend see page 46)

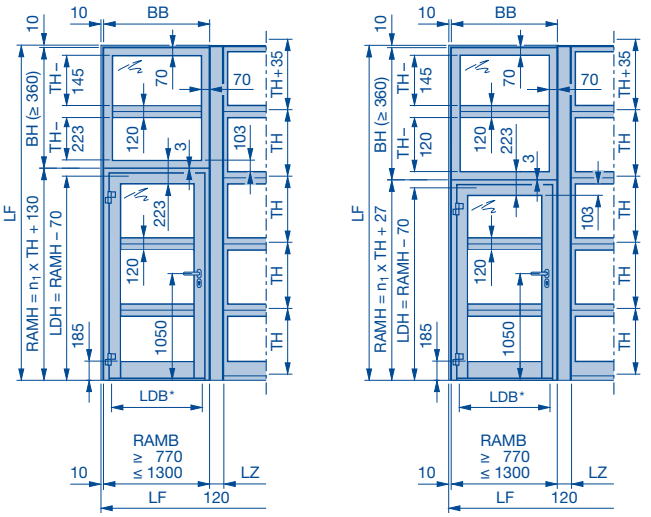
Side door NT 80 Thermo

With S-ribbed Stucco-textured / L-ribbed Micrograin infills

Side door NT 80 Thermo matching door type APU F42 Thermo



Side door NT 80 Thermo matching door type ALR F42 Thermo



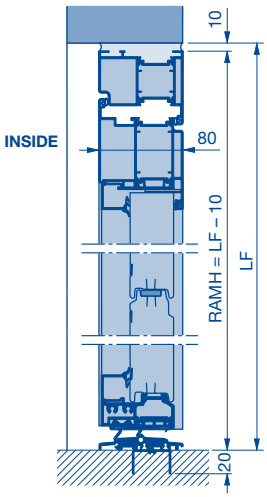
*	See page 40	**BH**	Panel height	**TH**	Door section height
LF	Structural opening	**BB**	Panel width	**SO**	Bottom section height
RAMB	Overall frame width	**LDB**	Clear passage width	**LZ**	Clear frame dimension
RAMH	Overall frame height	**LDH**	Clear passage height	**n_1**	Number of door sections / aluminium frames

Side door NT 80 Thermo

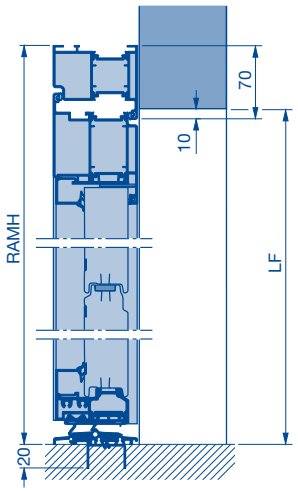
Possible fitting options

Possible fitting options

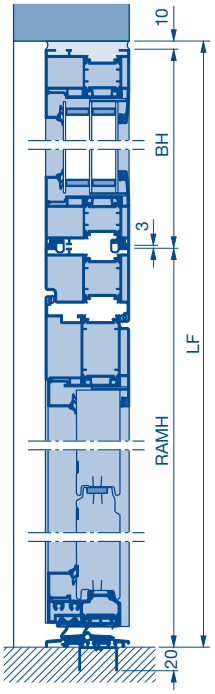
SPU in the opening
Without window section,
without compound glazing



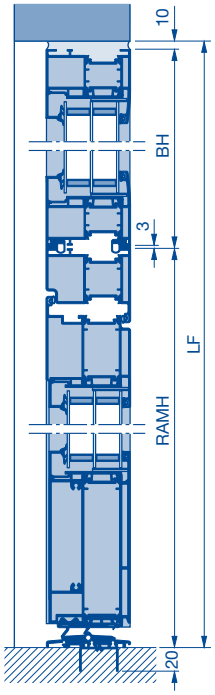
SPU behind the opening
Without window section,
without compound glazing



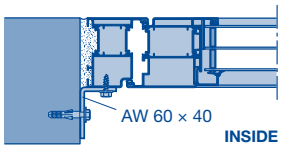
SPU, APU with fascia panel



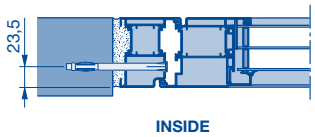
ALR with fascia panel



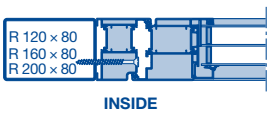
In the opening



Plugs for metal frame

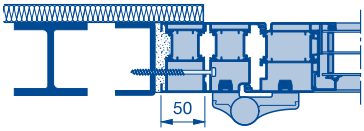


Tapping screw with countersunk head
B 6.3 × 80

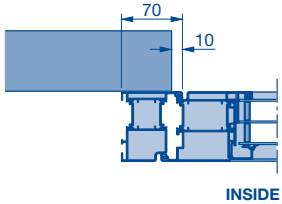


(Bottom illustration with 50* mm extension profile for all-over insulation)

* Optionally also with 25 mm



Behind the opening



Notice:
Fitting with thermal break requires on-site preparations.

R	Box section	**BH**	Panel height	**LF**	Structural opening
AW	Aluminium angle	**RAMH**	Overall frame height		
SW	Steel angle	**LDB**	Clear passage width		

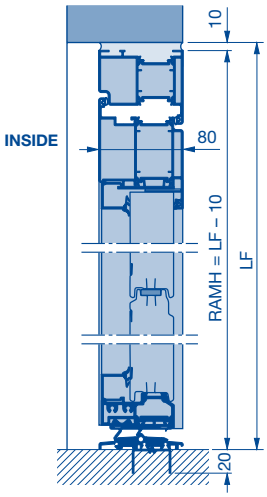
Side door NT 80 Thermo RC 2

Possible fitting options

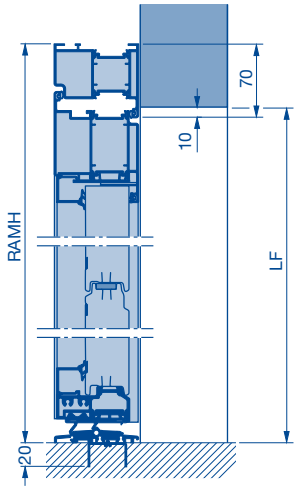
Possible fitting options

Notice:
The side door and panel must be fitted in accordance with DIN EN 1627.

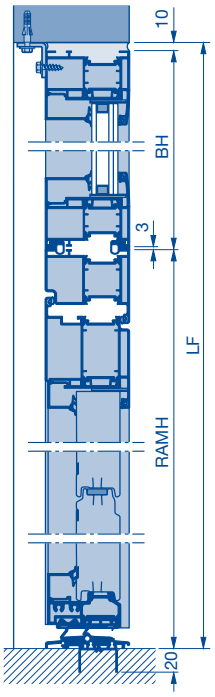
SPU in the opening
Without window section, without compound glazing



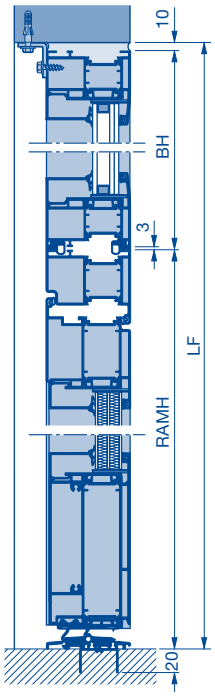
SPU behind the opening
Without window section, without compound glazing



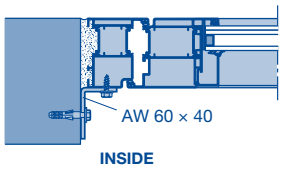
SPU, APU with fascia panel

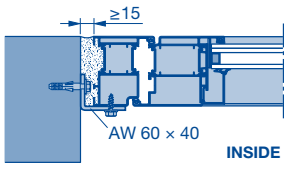


ALR with fascia panel

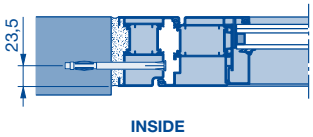


In the opening

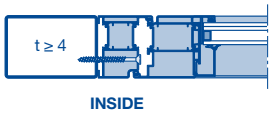


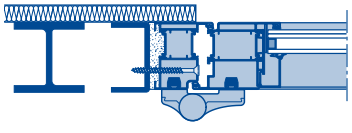


Plugs for metal frame



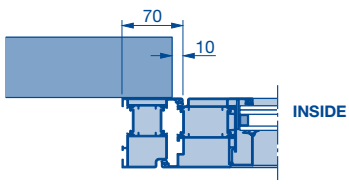
Tapping screw with countersunk head
B 6.3 × 80





Notice:
Only use metal frame dowel and tapping screw with countersunk head when fitting the side door.

Behind the opening



Notice:
Fitting with thermal break requires on-site preparations.

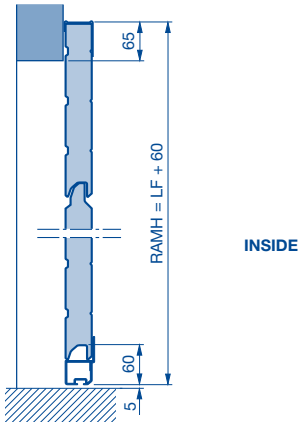
R	Box section	**BH**	Panel height	**LF**	Structural opening
AW	Aluminium angle	**RAMH**	Overall frame height		
SW	Steel angle	**LDB**	Clear passage width		

Fixed elements

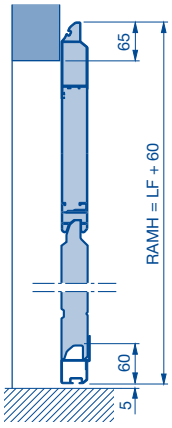
Possible fitting options and fitting examples

Possible fitting options

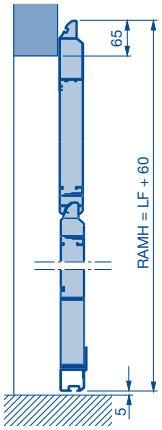
SPU F42 behind the opening
Without window section,
without compound glazing



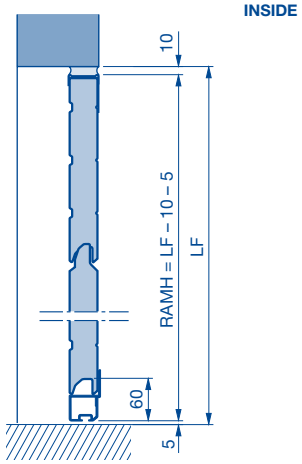
APU F42 behind the opening



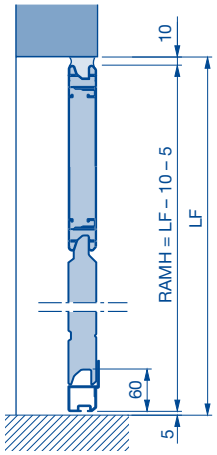
ALR F42, ALR F42 Thermo behind the opening



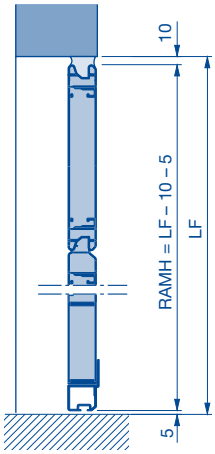
SPU F42 in the opening
Without window section,
without compound glazing



APU F42 in the opening

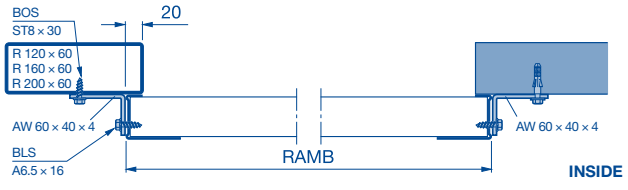


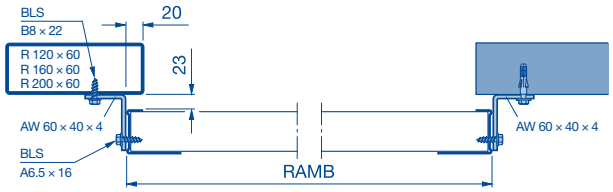
ALR F42, ALR F42 Thermo in the opening



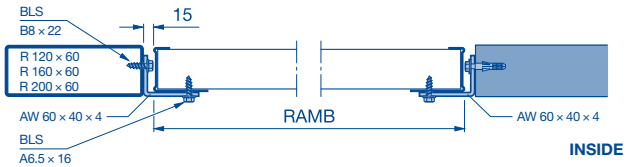
Fitting examples

Behind the opening

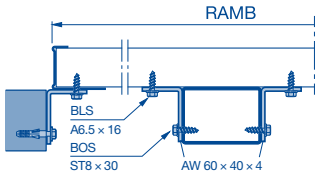




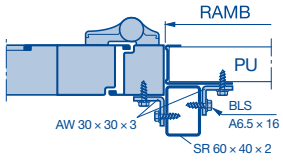
In the opening



In front of the opening



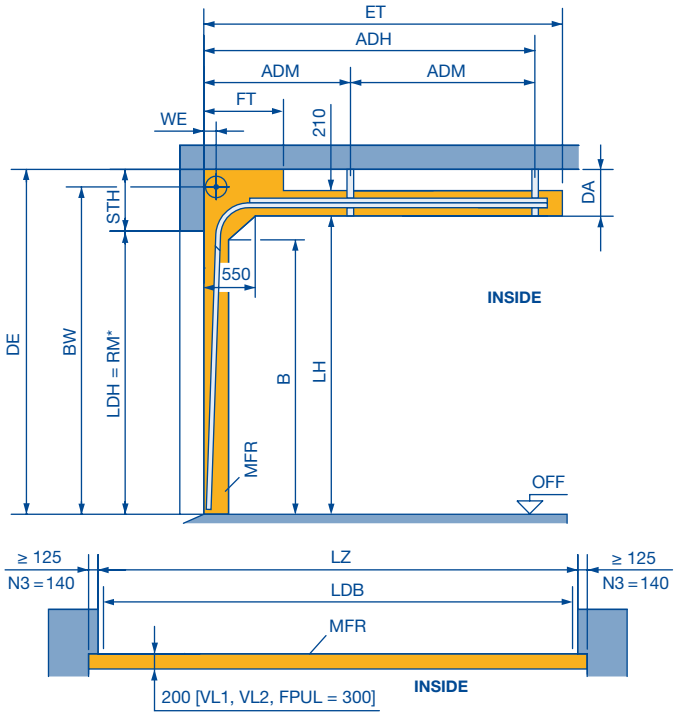
Side door



AW	Aluminium angle	**PU**	PU section	**RAMH**	Overall frame height
SR	Support tube	**LF**	Structural opening	**BOS**	Drilling screw
AR	Aluminium frames	**RAMB**	Overall frame width	**BLS**	Self-tapping screw

Track application: N

Normal track application



ET = min. Distance back		
N 1 / N 2	RM + 440	For manual operation
	RM + 650	With shaft operator
	RM + 220	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track
N 3	RM + 700	For manual operation and shaft operator
	RM + 220	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

Notices:

- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.
- For version with wicket door, manually operated: chain hoist recommended!

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

Observe min. sideroom, see page 73.

	STH	WE	DA	FT
N 1	390	140	280	820
N 2	440	160	330	820
N 3	550	180	440	1750
With double spring shaft	760	180	650	1750
RM > 7000	810	180	700	2750

	*Clear passage height LDH	
	Without operator	Operator WA 300 / WA 400 **
LZ ≤ 5500* **		
Without wicket door	RM	RM
Wicket door with threshold rail	RM – 100	RM – 50
Wicket door without threshold rail	RM – 150	RM – 85
LZ > 5500* **		
Without wicket door	RM – 50	RM – 50
Wicket door with threshold rail	RM – 100	RM – 100
Wicket door without threshold rail	RM – 175	RM – 110

** Or with chain hoist / hand pulley
*** LZ > 4500 with real glass infill in the wicket door
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
BW Position of shaft support
N 1 = RM + 310
N 2 = RM + 335
N 3 = RM + 415
ET Min. distance back
ADH Distance to rear ceiling anchor
N 1 / N 2 = RM + 195
N 3 = RM + 295
ADM Distance to central ceiling anchor (see page 78)

WE Shaft centre from lintel (see table)
STH Min. headroom (see table)
B Start of double radius RM – 200
DA Distance to ceiling
DAL Anchor length = DE – RM – 125 (see page 78)
LH Track height = RM + 110
LZ Clear frame dimension
DE Ceiling height
MFR Space for fitting the door
FT Clearance for door operation
FPUL Spring buffers below the track

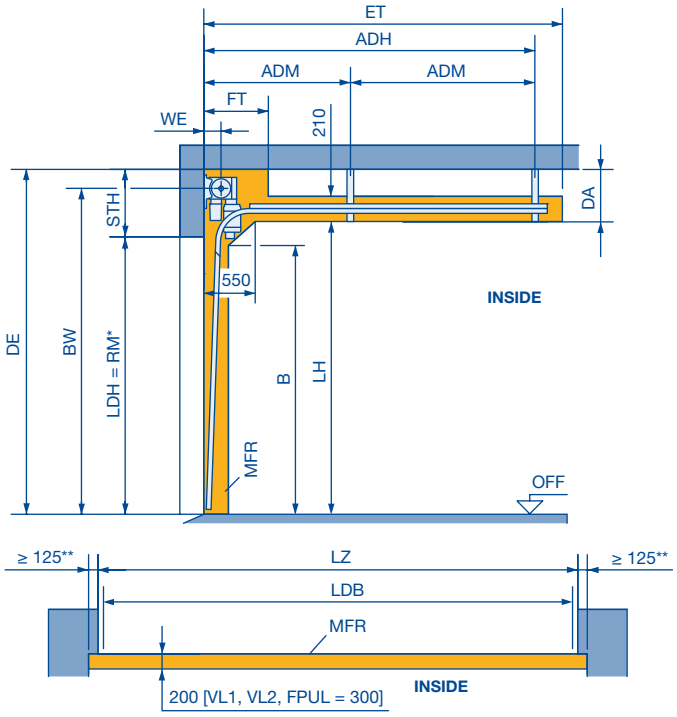
Min. headroom

Track size	Lintel height	Track size	Lintel height	Track size	Lintel height
N 1	390	L 1	200	RG 4	1760
N 2	440	L 2	200	RG 5	1760
N 3	550	LD 1	200	V 6	RM + 500
NA 1	400	LD 2	200	V 7	RM + 540
NA 2	450	H 4	880	V 9	RM + 635
ND 1	390	H 5	910	VA 6	RM + 510
ND 2	440	H 8	950	VU 6	RM + 350
ND 3	550	HA 4	890	VU 7	RM + 350
NH 1	610 – 740	HD 4	880	VU 9	RM + 350
NH 2	660 – 790	HD 5	910	WG 6	RM + 350
NH 3	770 – 900	HD 8	950	WG 7	RM + 350
NS 1	390	HU 4	1760	HP 4	1930
NS 2	440	HU 5	1760	HP 5	1960
GD 1	610 – 740	RD 4	1760		
GD 2	660 – 790	RD 5	1760		

Dimensions in mm

Track application: N for S17.24 and S35.30

Normal track application for direct drive operators S17.24 and S35.30



ET = min. Distance back		
N 2	RM + 650	With direct drive operator
	RM + 220	Direct drive operator with spring buffer below the track, with on-site adjustment of the track

Notices:

- Permissible size range LZ ≤ 4500 and RM ≤ 4500.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.
- All door versions on request.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

	STH	WE	DA	FT
N 2	510	160	400	820

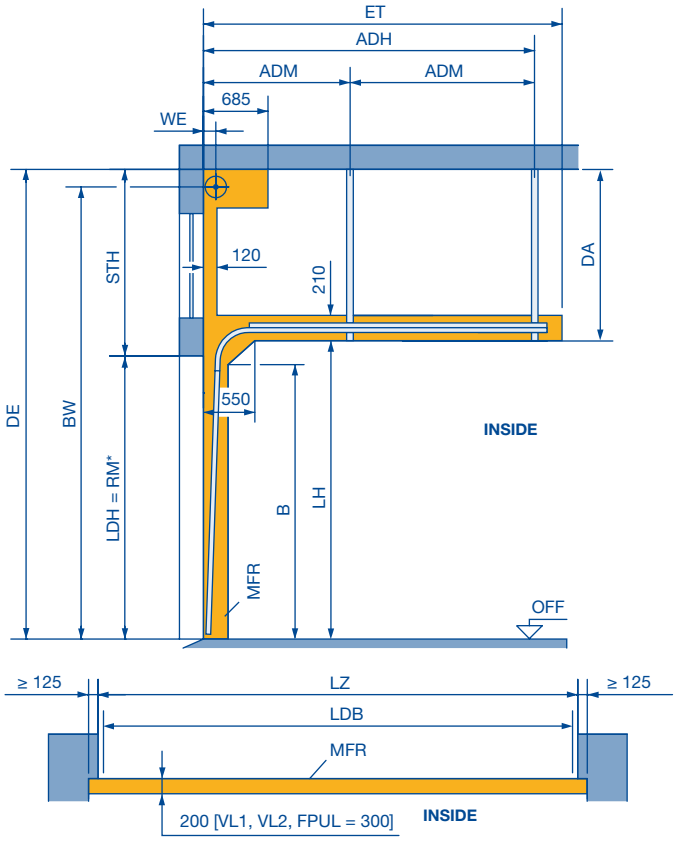
	*Clear passage height LDH Direct driver operators S17.24 / S35.30
LZ ≤ 4500	
Without wicket door	RM
Wicket door with threshold rail	RM – 50
Wicket door without threshold rail	RM – 85

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
BW Position of shaft support N 2 = RM + 335
ET Min. distance back
ADH Distance to rear ceiling anchor N 2 = RM + 195
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see table)
STH Min. headroom (see table)
B Start of double radius RM – 200
DA Distance to ceiling
DAL Anchor length = DE – RM – 125 (see page 78)
LH Track height = RM + 110
LZ Clear frame dimension
DE Ceiling height
MFR Space for fitting the door
FT Clearance for door operation
FPUL Spring buffers below the track

** Note the sideroom, see page 90

Track application: NA

Normal track application with high-mounted torsion spring shaft



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

Observe min. sideroom, see page 73.

	STH min.	WE	Min. DA
NA 1	400	140	290
NA 2	450	160	340

ET = min. Distance back		
NA 1 / NA 2	RM + 440	For manual operation
	RM + 650	With shaft operator
	RM + 220	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
STH Max. headroom (depends on order)
B Start of double radius RM – 200
DA Max. distance to ceiling (depends on order)
RM Grid height
DE Ceiling height (depends on order)
BW Position of shaft support
NA 1: $BW_{min.}$ = RM + 320
NA 2: $BW_{min.}$ = RM + 345
NA 1: $BW_{max.}$ (7820) = DE – 80
NA 2: $BW_{max.}$ (7995) = DE – 105
ET Min. distance back
ADH Distance to rear ceiling anchor
NA 1 / NA 2 = RM + 195
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel
DAL Anchor length = DE – RM – 125 (see page 78)
LZ Clear frame dimension
MFR Space for fitting the door
FPUL Spring buffers below the track

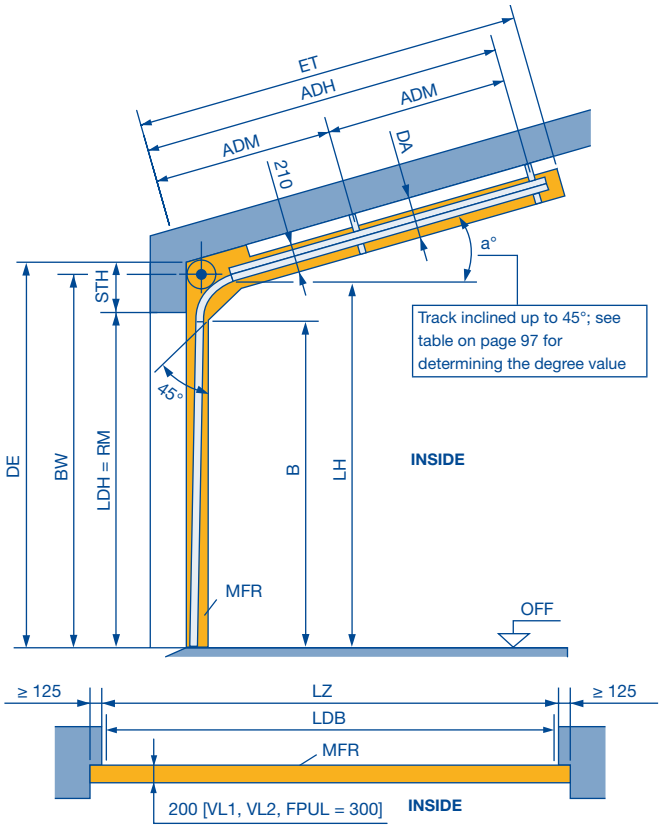
*** Notice:**
Clear passage height LDH, see track application N

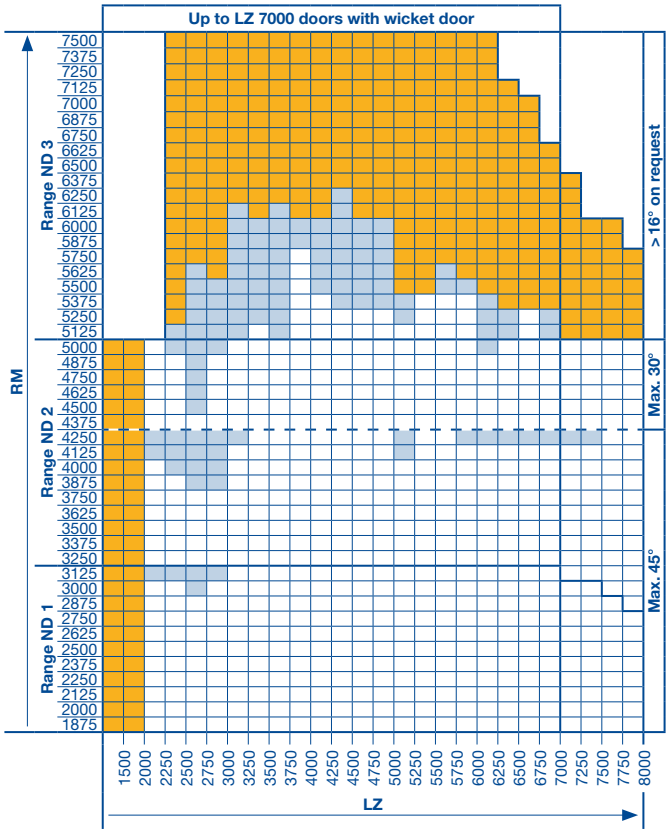
Notices:

- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.

Track application: ND

Normal track application with inclination up to max. 45°





*** Notice:**
Clear passage height LDH, see track application N

Notice:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m²
APU F42 / ALR F42	= 280 N/m²
ALR F42 Glazing	= 560 N/m²

Observe min. sideroom, see page 73.

	STH ≤ 30°	STH > 30°
ND 1	390	490
ND 2	440	490
ND 3	550	–
With double spring shaft	760	–

	ET = min. Distance back	
ND 1 / ND 2	RM + 450 – a° × 6.5	a° > 5° and with / without operator, with short spring buffer
	RM + 700 – a° × 6.5	a ≤ 5° and with operator, with long spring buffer
	RM + 450 – a° × 6.5	a ≤ 5° and manual operation with short spring buffer
	RM + 270 – a° × 6.5	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track
ND 3	RM + 700 – a° × 6.5	All versions
	RM + 270 – a° × 6.5	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

See the normal track application for all other fitting dimensions.

Notice:

- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- To determine the roof slope see page 97.
- Door types APU F42, ALR F42, APU F42 Thermo and ALR F42 Thermo with glazing A3, B3, M3, S3, U3, LB, P, XU and wicket door on request.
- Roof slope on request for RM ≤ 4250 and > 30° or RM > 4250 and > 16°.

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
LH Track height
B Start of double radius, RM – 200
BW Position of shaft support
ND 1 ≤ 30° = RM + 310
ND 2 ≤ 30° = RM + 335
ND 1 / ND 2 > 30° = RM + 385
ND 3 ≤ 16° = RM + 415
ADH Distance to rear ceiling anchor
ND 1 / ND 2 = RM + 195 – a° × 6.5
ND 3 = RM + 295 – a° × 6.5
ADM Distance to central ceiling anchor (see page 78)
STH Min. headroom (see page 52)
DA Distance to ceiling on request
DAL Anchor length = DE – RM + 25 (see page 78)
LZ Clear frame dimensions **(from 1200)**
DE Ceiling height
ET Min. distance back

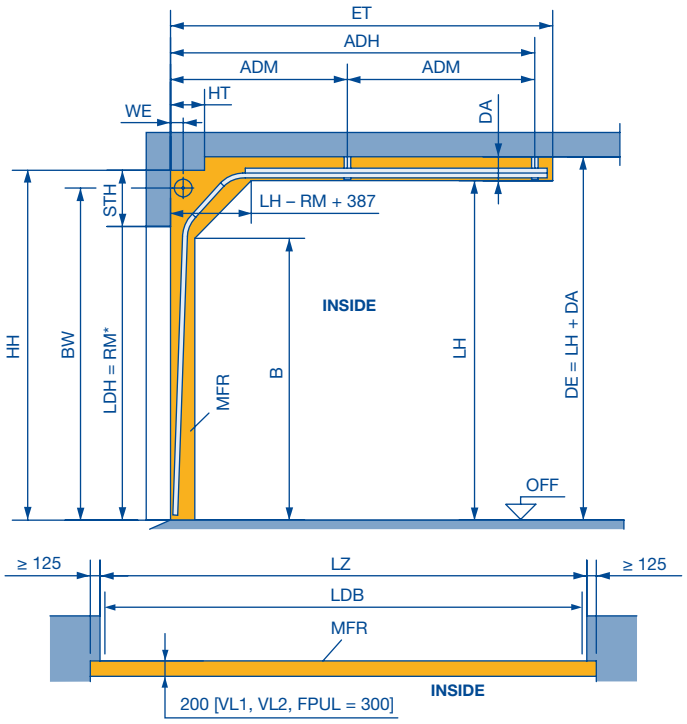
RM Grid height
MFR Space for fitting the door
FPUL Spring buffers below the track
a° Roof slope

All door types available in any version.
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door.
All door types and versions on request.

Dimensions in mm

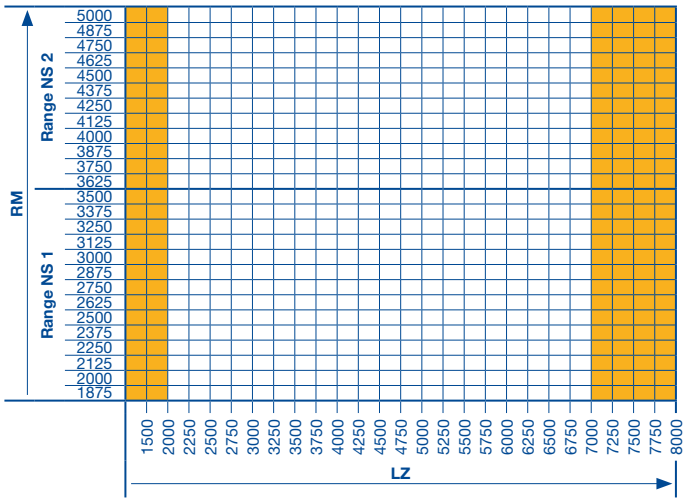
Track application: NS

Normal track application with double radius 2 × 45°



Notice:

- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



	*Clear passage height LDH	
	Without operator	Operator WA 400 **
LZ ≤ 5500* **		
Without wicket door	RM	RM
Wicket door with threshold rail	RM – 100	RM – 50
Wicket door without threshold rail	RM – 150	RM – 85
LZ > 5500* **		
Without wicket door	RM – 50	RM – 50
Wicket door with threshold rail	RM – 100	RM – 100
Wicket door without threshold rail	RM – 175	RM – 110

Notice:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m²
APU F42 / ALR F42	= 280 N/m²
ALR F42 Glazing	= 560 N/m²

Observe min. sideroom, see page 73.

	STH	HT	WE	BW
NS 1	≥ 390	330	140	RM + 310
NS 2	≥ 440	380	160	RM + 335

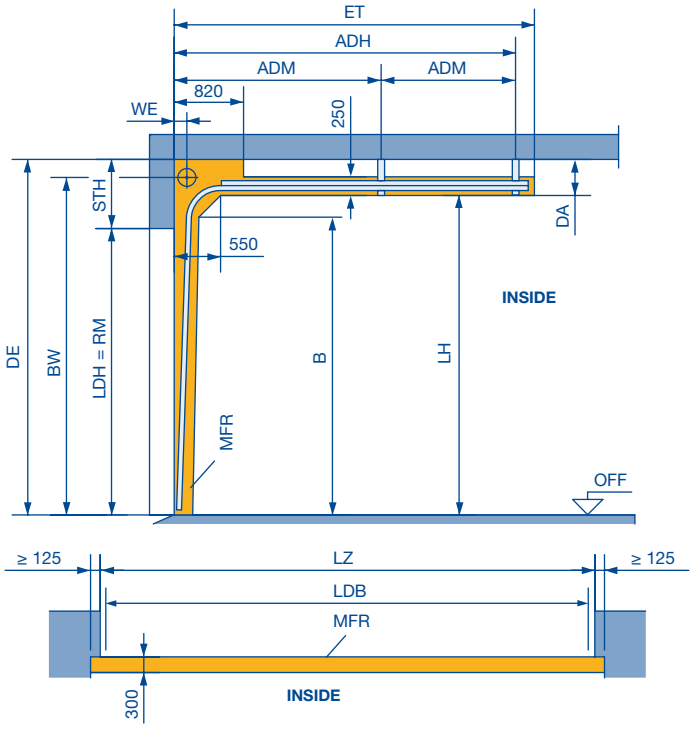
Door height	Track height		
RM	Min. LH	Max. LH	
5000	5190	5810	NS 2
4875	5065	5685	
4750	4940	5560	
4625	4815	5435	
4500	4690	5310	
4375	4565	5175	
4250	4440	5030	
4125	4315	4885	
4000	4190	4730	
3875	4065	4585	
3750	3940	4440	
3625	3815	4295	
3500	3690	4150	NS 1
3375	3565	4005	
3250	3440	3860	
3125	3315	3715	
3000	3190	3570	
2875	3065	3425	
2750	2940	3280	
2625	2815	3135	
2500	2690	2990	
2375	2565	2845	
2250	2440	2700	
2125	2315	2555	
2000	2190	2410	
1875	2065	2265	

** Or with chain hoist / hand pulley
*** LZ > 4500 with real glass infill in the wicket door
STH Min. headroom (see page 52)
ET Min. distance back on request
ADH Distance to rear ceiling anchor on request
ADM Distance to central ceiling anchor on request
DA Min. distance to ceiling 250
B Start of double radius, RM – 200
HT Obstruction depth
DAL Anchor length = DE – LH – 15 (see page 78)
BW Position of shaft support
WE Shaft centre from lintel
HH Obstruction height
DE Ceiling height
LH Track height
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
LZ Clear frame dimensions **(from 1200)**
RM Grid height
MFR Space for fitting the door
FPUL Spring buffers below the track

All door types available in any version.
All door types and versions on request.
Dimensions in mm

Track application: NH

Normal track application with minimum high-lift



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

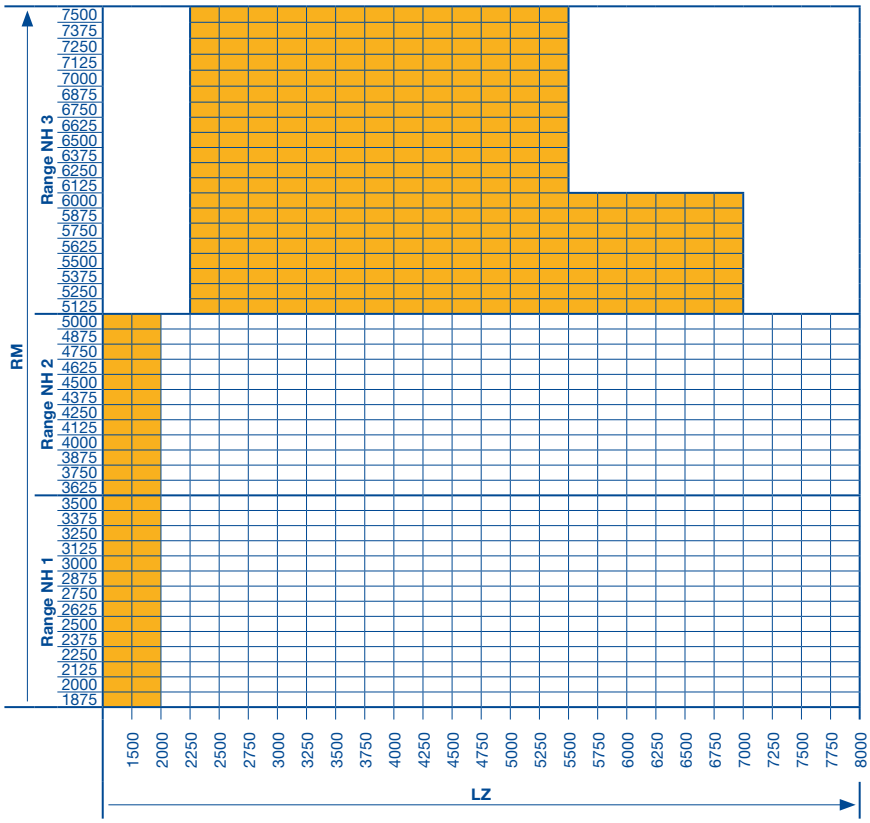
Observe min. sideroom, see page 73.

	WE	DA
NH 1	140	280
NH 2	160	330
NH 3	180	440
With double spring shaft	180	650

	ET = min. Distance back	
NH 1 / NH 2	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
	2 × RM – LH + 670	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 × RM – LH + 880	For shaft operator with long spring buffer = (LH – RM) ≤ 1000
	2 × RM – LH + 430	For shaft operator with spring buffer below the track, with on-site adjustment of the track
NH 3	2 × RM – LH + 950	All versions
	2 × RM – LH + 430	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
BW Position of shaft support
NH 1 = LH + 200
NH 2 = LH + 225
NH 3 = LH + 305
LH Track height
Min. = RM + 330
max. = RM + 460
ADH Distance to rear ceiling anchor
NH 1 / NH 2 = 2 × RM – LH + 645 (long spring buffer)
NH 1 / NH 2 = 2 × RM – LH + 405 (long and short spring buffer + operator)
NH 3 = 2 × RM – LH + 485
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
DA Distance to ceiling
DE Ceiling height
S Anchor length = DE – LH + 15 (see page 78)
LZ Clear frame dimensions **(from 1200)**
ET Min. distance back
MFR Space for fitting the door

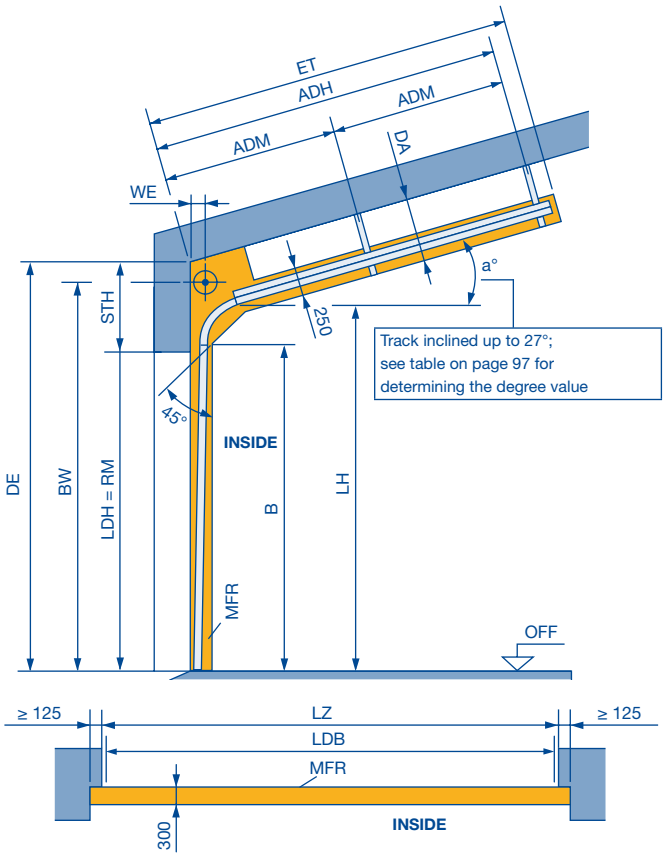
All door types available in any version.

All door types and versions on request.

Dimensions in mm

Track application: GD

Normal track application with inclination up to max. 27° and minimum high-lift



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

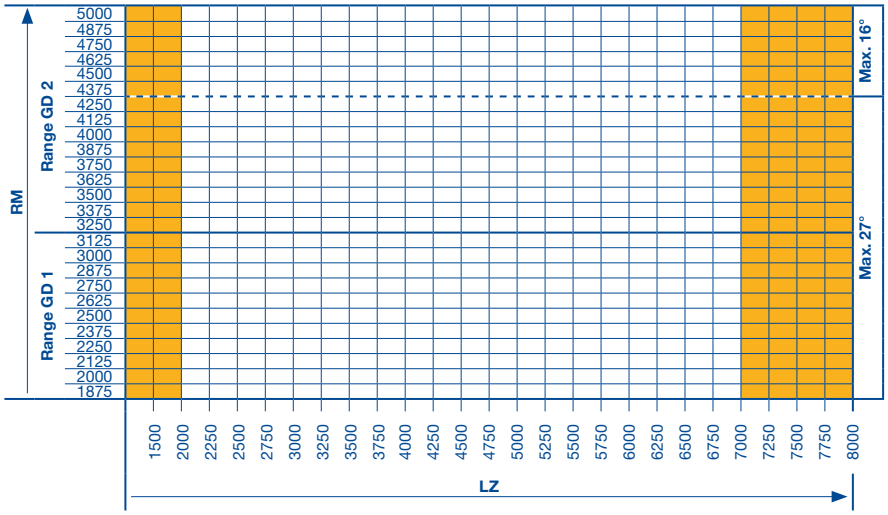
Observe min. sideroom, see page 73.

	WE
GD 1	140
GD 2	160

ET = min. Distance back		
GD 1 / GD 2	2 × RM – LH + 1120 – a° × 6.5	For manual operation with long spring buffer
	2 × RM – LH + 650 – a° × 6.5	a° > 5° and with operator, with short spring buffer
	2 × RM – LH + 880 – a° × 6.5	a ≤ 5° and with operator, with long spring buffer
	2 × RM – LH + 270 – a° × 6.5	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- To determine the roof slope see page 97.



ADH Distance to rear ceiling anchor
GD 1 / GD 2 = 2 × RM – LH + 645 – a° × 6.5 (long spring buffer)
GD 1 / GD 2 = 2 × RM – LH + 405 – a° × 6.5 (long and short spring buffer + operator)
ADM Distance between central ceiling anchor = see page 78
B Start of double radius, LH - 310
LH Track height
min. = RM + 330, max. = RM + 460
WE Shaft centre from lintel
BW Position of shaft support
GD1 = LH + 200
GD2 = LH + 225
STH Min. headroom (see page 52)
DA Distance to ceiling on request
DE Ceiling height
DAL Anchor length on request (see page 78)
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
LZ Clear frame dimensions **(from 1200)**
ET Min. distance back
RM Grid height
MFR Space for fitting the door
a° Roof slope

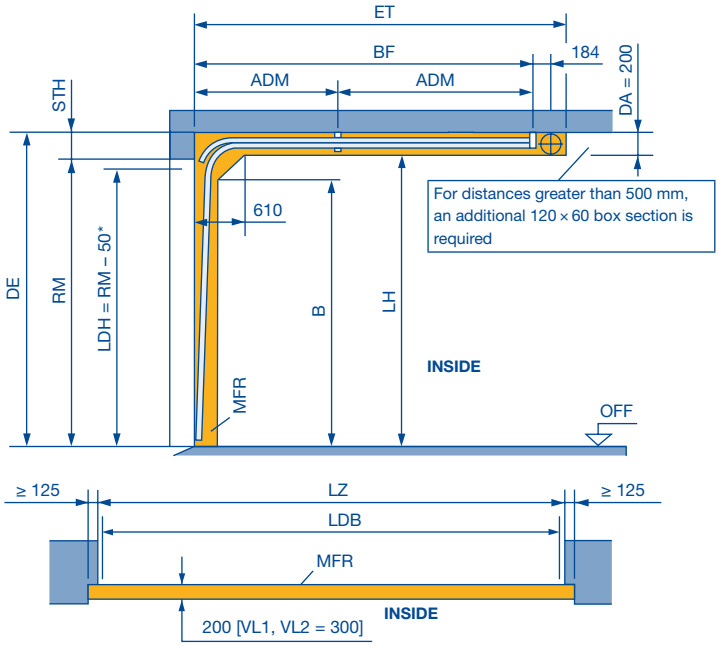
All door types available in any version.

All door types and versions on request.

Dimensions in mm

Track application: L

Low headroom track application



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

Observe min. sideroom, see page 73.

Door operation:

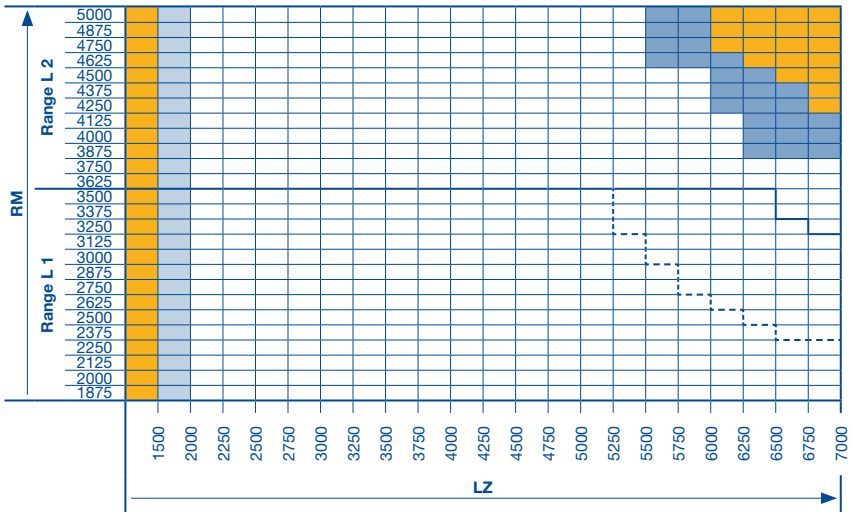
- Manually operated: with rope or chain hoist (recommended for manual operation!)
- Power-driven: WA 400 with chain box, ITO 400 or SupraMatic HT

	* Clear passage height LDH		
	Without operator	Operator	
		WA 400 **	WA 300
LZ ≤ 5500* **			
Without wicket door	RM – 50	RM – 50	RM – 80
Wicket door with threshold rail	RM – 100	RM – 100	RM – 130
Wicket door without threshold rail	RM – 165	RM – 135	RM – 165
LZ > 5500* **			
Without wicket door	RM – 100	RM – 100	RM – 130
Wicket door with threshold rail	RM – 100	RM – 100	RM – 130
Wicket door without threshold rail	RM – 195	RM – 165	RM – 195

** Or with chain hoist / hand pulley
*** LZ > 4500 with real glass infill in the wicket door

Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
BF Position of spring shaft = RM + 682
ADM Distance between central ceiling anchor
Up to RM 3500 = BF/2
From RM 3510 = BF/3
ET Min. distance back = RM + 990
B Start of double radius, RM - 314
LH Track height = RM
STH Min. headroom 200 (see page 52)
DA Distance to ceiling
DE Ceiling height
DAL Anchor length = DE – RM – 15 (see page 78)
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door

All door types available in any version.

All door types and versions on request.

Door types APU F42, ALR F42, APU F42 Thermo, ALR F42 Thermo as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and wicket door on request.

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door.

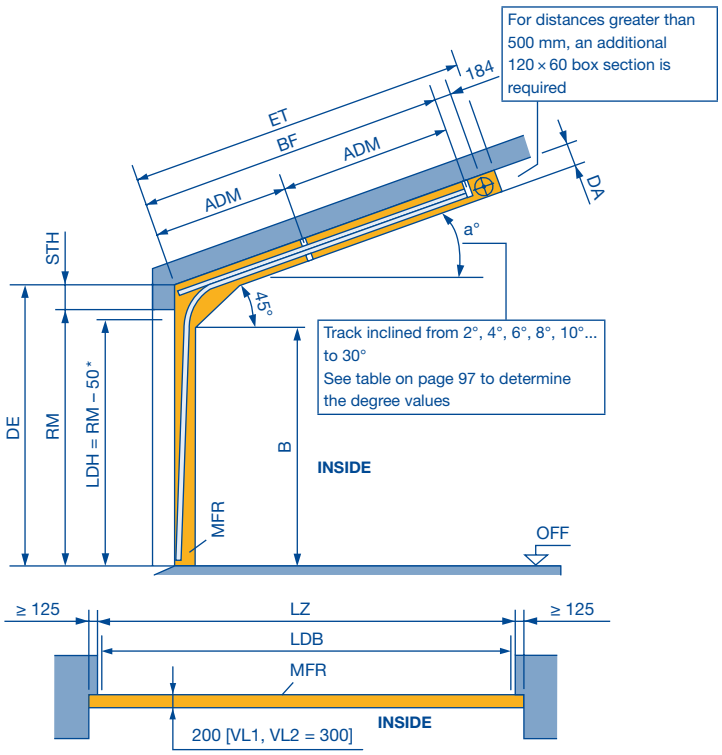
Track limit

Track limit for door types APU F42 Thermo, ALR F42 Thermo as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and wicket door

Dimensions in mm

Track application: LD

Low headroom track application with inclination up to 30° max.



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m²
APU F42 / ALR F42	= 280 N/m²
ALR F42 Glazing	= 560 N/m²

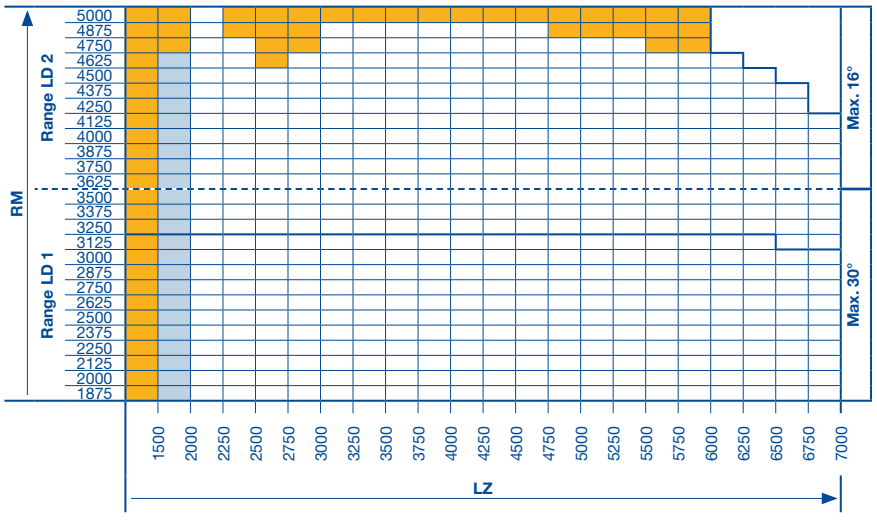
Observe min. sideroom, see page 73.

*** Notices:**

- Clear passage height LDH, see track application L
- For door operation, see track application L

Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- To determine the roof slope see page 97.
- Door types APU F42, ALR F42, APU F42 Thermo, ALR F42 Thermo with glazing A3, B3, M3,S3, U3, LB, P, XU and wicket door on request.



LDB	Clear passage width with ThermoFrame (see page 73)
LDH	Clear passage height
RM	Grid height
ET	Min. distance back 2° – 4° = RM + 990 6° – 16° = RM + 800 18° – 30° = RM + 740
STH	Min. headroom 200 (see page 52)
B	Start of double radius on request
BF	Position of spring shaft on request
ADM	Distance to central ceiling anchor on request
DA	Distance to ceiling on request
DE	Ceiling height
DAL	Anchor length on request (see page 78)
LZ	Clear frame dimensions **(from 1200)**
MFR	Space for fitting the door
a°	Roof slope

All door types available in any version.

All door types and versions on request.

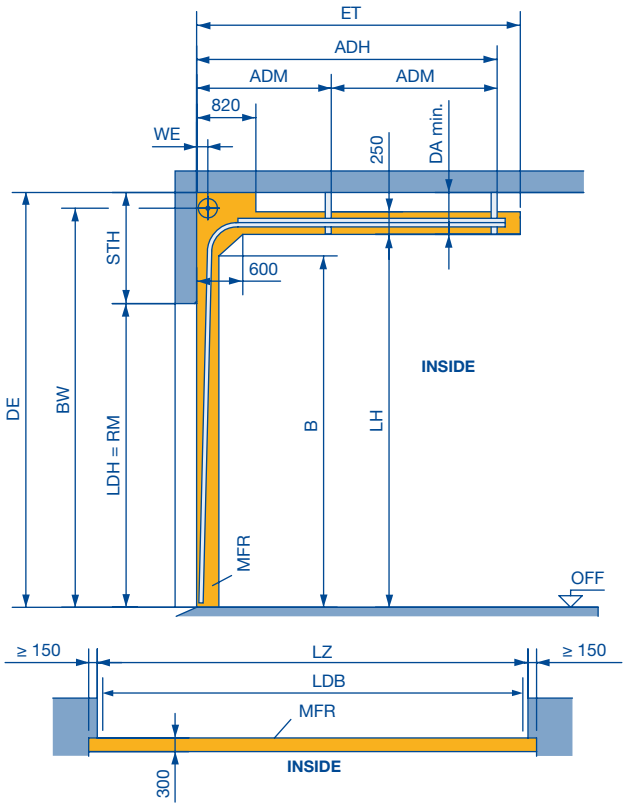
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door.

Track limit

Dimensions in mm

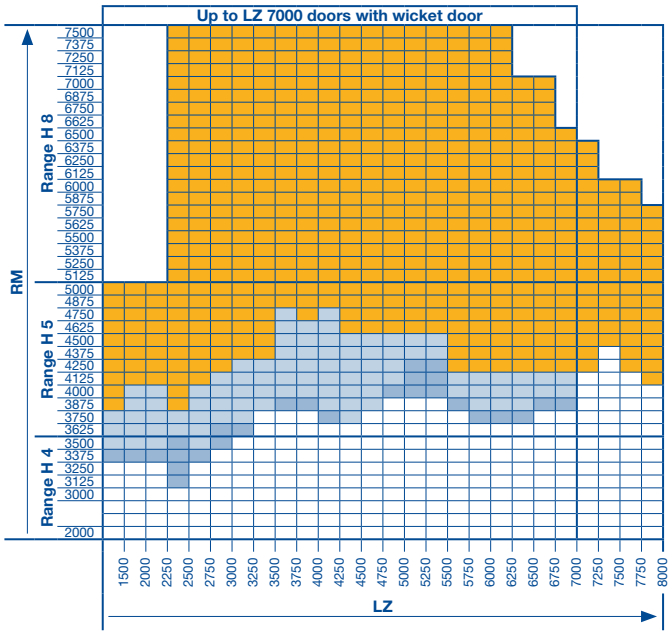
Track application: H

High-lift track application



	ET = min. Distance back	
H 4 / H 5	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
	2 × RM – LH + 670	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 × RM – LH + 880	For shaft operator with long spring buffer (LH – RM) ≤ 1000
	2 × RM – LH + 650	For shaft operator with short spring buffer (LH – RM) > 1000
	2 × RM – LH + 430	For shaft operator with spring buffer below the track, with on-site adjustment of the track
H 8	2 × RM – LH + 950	All versions
	2 × RM – LH + 430	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

Observe min. sideroom, see page 73.



Please note:
Select required track height according to the door height in Table 1.

Notice:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.

Table 1: Track heights (LH)

Door height RM	Min. LH	Max. LH		Door height RM	Min. LH	Max. LH	
5000	5460	8300	H 5, WE = 180				
4875	5335	8175					
4750	5210	8050					
4625	5085	7925					
4500	4960	7800					
4375	4835	7675		7500	8565	10200	H 8, WE = 205 All door types and versions available on request.
4250	4710	7550		7375	8440	10200	
4125	4585	7425		7250	8315	10200	
4000	4460	7185		7125	8190	10200	
3875	4335	6935		7000	8065	10200	
3750	4210	6685		6875	7940	10200	
3625	4085	6435		6750	7815	10150	
3500	3960	6185	H 4, WE = 160	6625	7690	10025	
3375	3835	5935		6500	7565	9900	
3250	3710	5685		6375	6835	9775	
3125	3585	5435		6250	6710	9650	
3000	3460	5185		6125	6585	9525	
2875	3335	4935		6000	6460	9400	
2750	3210	4685		5875	6335	9275	
2625	3085	4435		5750	6210	9150	
2500	2960	4185		5625	6085	9025	
2375	2835	3935		5500	5960	8900	
2250	2710	3685		5375	5835	8775	
2125	2585	3435		5250	5710	8650	
2000	2460	3185		5125	5585	8525	

Notices:

- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

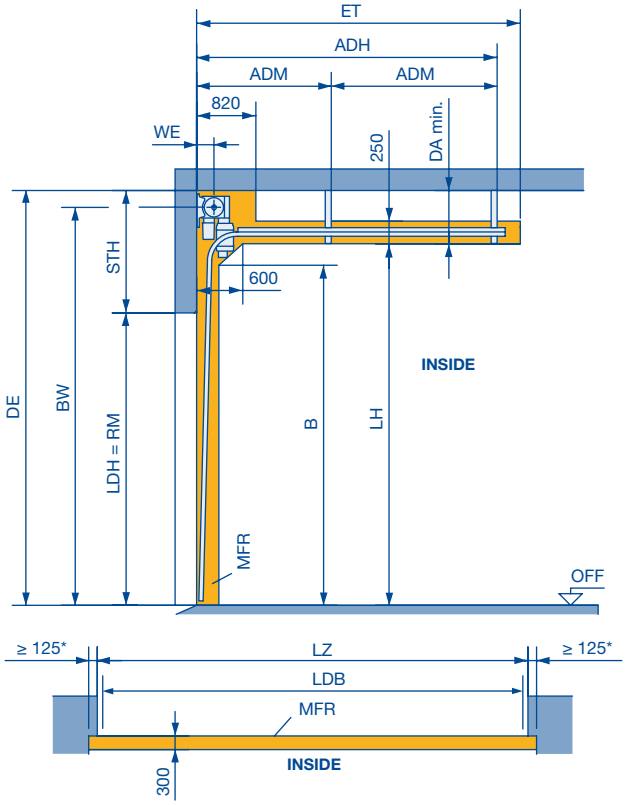
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LH Track height (see Table 1)
BW Position of shaft support
H 4 / H 5 = LH + 280, H 8 = LH + 305
ADH Distance to rear ceiling anchor
H 4 / H 5 = 2 × RM – LH + 645 (long spring buffer)
H 4 / H 5 = 2 × RM – LH + 405 (long and short spring buffer + operator)
H 8 = 2 × RM – LH + 485
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see Table 1)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
Min. DA H 4 = 420
H 5 = 450, 625 with double spring shaft
H 8 = 490, 650 with double spring shaft
DAL Anchor length DE – LH – 15 (see page 78)
DE Ceiling height
LZ Clear frame dimensions **(from 1200)**
ET Distance back
MFR Space for fitting the door

All door types available in any version.
All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.
Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.
All door types and versions on request.

Dimensions in mm

Track application: H for S17.24 and S35.30

High-lift track application for direct drive operators S17.24 and S35.30



	ET = min. Distance back	
H 2	2 × RM – LH + 880	For direct drive operator with long spring buffer (LH – RM) ≤ 1000
	2 × RM – LH + 650	For direct drive operator with short spring buffer (LH – RM) > 1000
	2 × RM – LH + 430	For direct drive operator with spring buffer below the track, with on-site adjustment of the track

Please note:
Select required track height according to the door height in Table 1.

Notice:

- Permissible size range LZ ≤ 4500 and RM ≤ 4500.
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.
- All door versions on request.

Table 1: Track heights (LH)

Door height RM	Min. LH	Max. LH	
4500	4960	7800	H 2, WE = 160
4375	4835	7675	
4250	4710	7550	
4125	4585	7425	
4000	4460	7185	
3875	4335	6935	
3750	4210	6685	
3625	4085	6435	
3500	3960	6185	
3375	3835	5935	
3250	3710	5685	
3125	3585	5435	
3000	3460	5185	
2875	3335	4935	
2750	3210	4685	
2625	3085	4435	
2500	2960	4185	
2375	2835	3935	
2250	2710	3685	
2125	2585	3435	
2000	2460	3185	

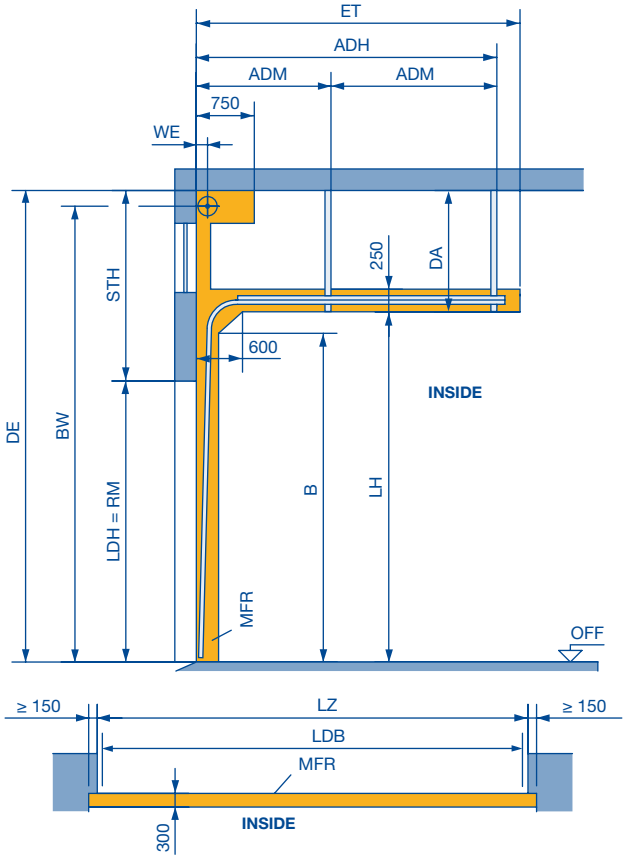
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LH Track height (see Table 1)
BW Position of shaft support
LH + 230
ADH Distance to rear ceiling anchor
2 × RM – LH + 405 (long and short spring buffer +operator)
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see Table 1)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
Min. DA 400
DAL Anchor length DE – LH – 15 (see page 78)
DE Ceiling height
LZ Clear frame dimensions **(from 1200)**
ET Distance back
MFR Space for fitting the door

* Note the sideroom, see page 90

Dimensions in mm

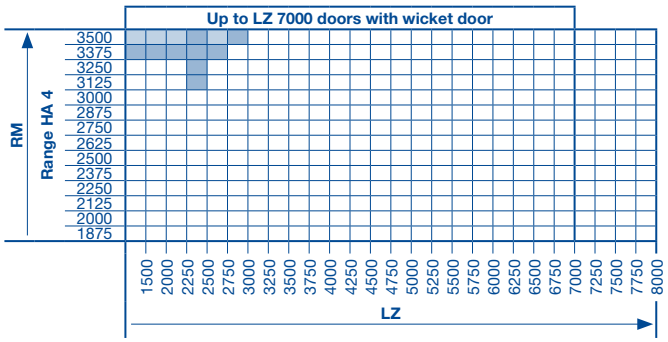
Track application: HA

High-lift track application with high-mounted torsion spring shaft



ET = min. Distance back		
HA 4	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
	2 × RM – LH + 670	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 × RM – LH + 880	For shaft operator with long spring buffer (LH – RM) ≤ 1000
	2 × RM – LH + 650	For shaft operator with short spring buffer (LH – RM) > 1000
	2 × RM – LH + 430	For shaft operator with spring buffer below the track, with on-site adjustment of the track

Observe the min. sideroom, see page 73.



Please note:
Select required track height according to the door height in Table 2.

Notice:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.

Table 2: Track heights (LH)

Door height RM	Min. LH	Max. LH	
3500	3960	6185	HA 4, WE = 160
3375	3835	5935	
3250	3710	5685	
3125	3585	5435	
3000	3460	5185	
2875	3335	4935	
2750	3210	4685	
2625	3085	4435	
2500	2960	4185	
2375	2835	3935	
2250	2710	3685	
2125	2585	3435	
2000	2460	3185	

Notices:

- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LH Track height (see Table 2)
BW Position of shaft support
Min. = HA 4 = LH + 290
Max. (8120) = HA 4 = DE – 140
ADH Distance to rear ceiling anchor
HA 4 = 2 × RM – LH + 645 (long spring buffer)
HA 4 = 2 × RM – LH + 405 (long and short spring buffer + operator)
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see Table 2)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
DA Distance to ceiling = HA 4 = min. 420
DAL Anchor length DE – LH – 15 (see page 78)
DE Ceiling height
LZ Clear frame dimensions **(from 1200)**
ET Distance back
MFR Space for fitting the door

All door types available in any version.

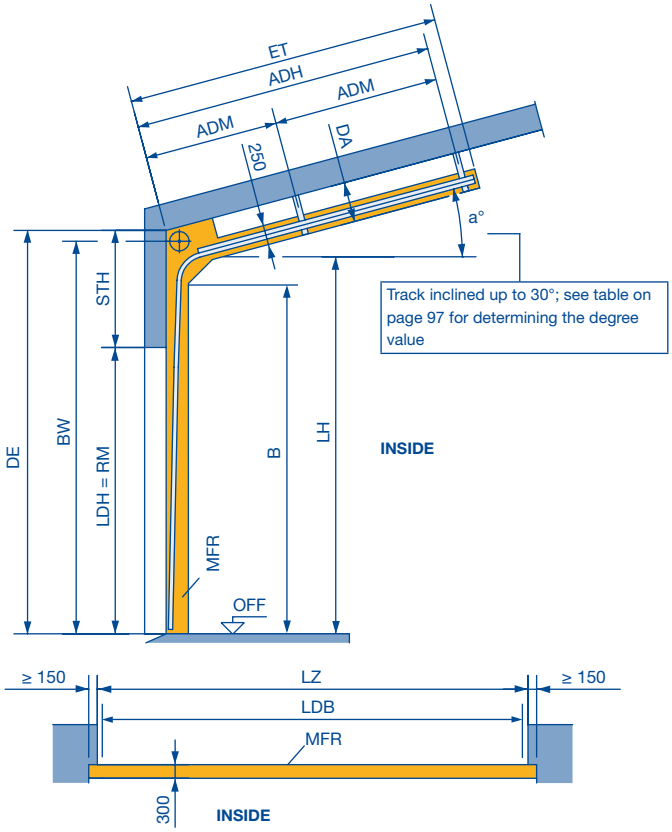
All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

Dimensions in mm

Track application: HD

High-lift track application with inclination



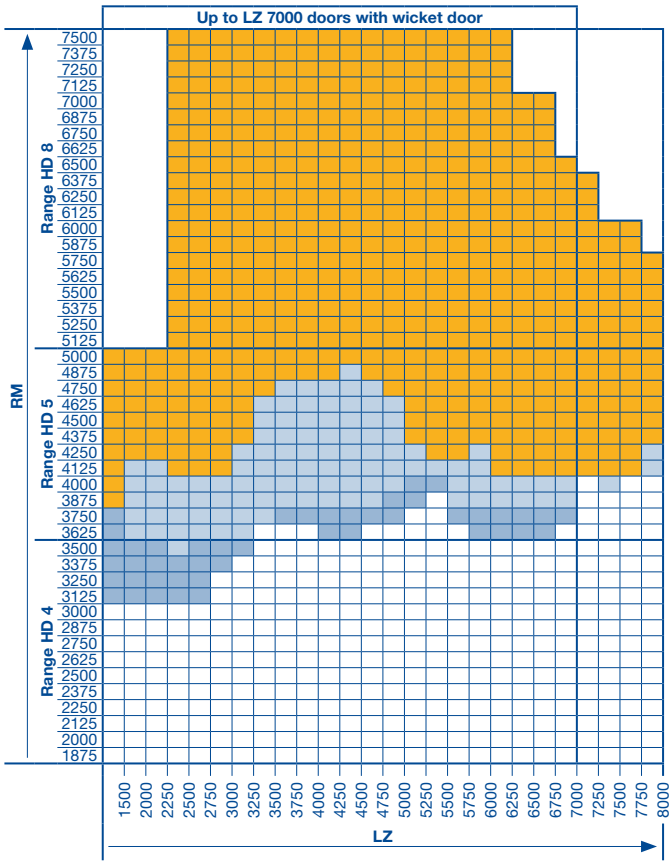
Please note:
Select required track height according to the door height in Table 1 on page 61.

	ET = min. Distance back	
HD 4 / HD 5	2 × RM – LH + 1120 – a° × 6.5	For manual operation with long spring buffer (standard)
	2 × RM – LH + 670 – a° × 6.5	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 × RM – LH + 880 – a° × 6.5	For shaft operator with long spring buffer (LH – RM) ≤ 1000 and a° ≤ 5°
	2 × RM – LH + 650 – a° × 6.5	For shaft operator with short spring buffer (LH – RM) > 1000 or a° > 5°
	2 × RM – LH + 430 – a° × 6.5	For shaft operator with spring buffer below the track, with on-site adjustment of the track
HD 8	2 × RM – LH + 950 – a° × 6.5	All versions
	2 × RM – LH + 430 – a° × 6.5	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

See the high-lift track application for all other fitting dimensions.
Observe the min. sideroom, see page 73.

Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- To determine the roof slope see page 97.
- Roof slope > 10° to 30° on request.



DA	Distance to ceiling on request
DAL	Anchor length DE – LH + 140 (see page 78)
LH	Track height (see Table 1 on page 61)
STH	Min. headroom (see page 52)
B	Start of double radius, LH – 310
BW	Position of shaft support HD 4 / HD 5 = LH + 280, HD 8 = LH + 305
ADH	Distance to rear ceiling anchor HD 4 / HD 5 = 2 × RM – LH + 645 – a° × 6.5 (long spring buffer) HD 4 / HD 5 = 2 × RM – LH + 405 – a° × 6.5 (long and short spring buffer + operator) HD 8 = 2 × RM – LH + 485
ADM	Distance to central ceiling anchor on request
WE	Shaft centre from lintel (see Table 1 on page 61)
DE	Ceiling height
LDB	Clear passage width with ThermoFrame (see page 73)
LDH	Clear passage height
LZ	Clear frame dimensions **(from 1200)**
ET	Distance back
RM	Grid height
MFR	Space for fitting the door
a°	Roof slope

All door types available in any version.

All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

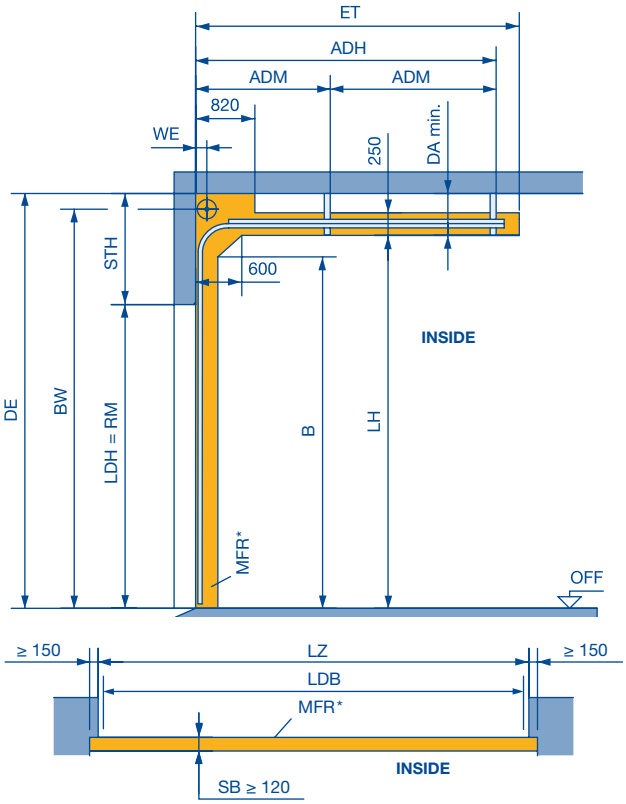
Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

All door types and versions on request.

Dimensions in mm

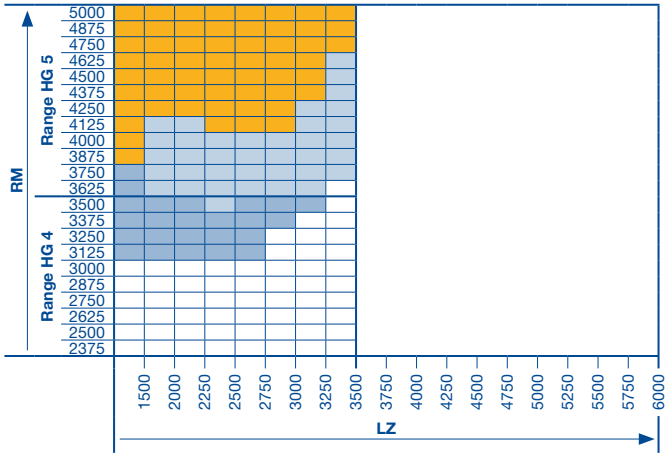
Track application: HG

High-lift track application with steep track (Application for loading ramp doors)



	ET = min. Distance back	
HG 4 / HG 5	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
	2 × RM – LH + 670	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 × RM – LH + 880	For shaft operator with long spring buffer (LH – RM) ≤ 1000
	2 × RM – LH + 650	For shaft operator with short spring buffer (LH – RM) > 1000
	2 × RM – LH + 430	For shaft operator with spring buffer below the track, with on-site adjustment of the track

Other versions on request.
Observe min. sideroom, see page 73.



Please note:
Select required track height according to the door height in Table 3.

Notices:
- **Door type ALR F42 Glazing, ALR F42 Vitraplan, doors with real glass infill and wicket doors are not possible!**
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- If using the spring buffer below the track, the clear height under the track in the area of the spring buffer is reduced by 70 mm.

Table 3: Track heights (LH)

Door height RM	Min. LH	Max. LH	
5000	5460	7800	HG 5, WE = 180
4875	5335	7800	
4750	5210	7800	
4625	5085	7800	
4500	4960	7800	
4375	4835	7675	
4250	4710	7550	
4125	4585	7425	
4000	4460	7185	
3875	4335	6935	
3750	4210	6685	
3625	4085	6435	
3500	3960	6185	HG 4, WE = 160
3375	3835	5935	
3250	3710	5685	
3125	3585	5435	
3000	3460	5185	
2875	3335	4935	
2750	3210	4685	
2625	3085	4435	
2500	2960	4185	
2375	2835	3935	

Notices:
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!

* 240 with FPUL
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LH Track height (see Table 3)
ADH Distance between rear ceiling anchor =
HG 4 / HG 5 = 2 × RM – LH + 580 (long spring buffer)
HG 4 / HG 5 = 2 × RM – LH + 340 (long and short spring buffer + operator)
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see Table 3)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
Min. DA HG 4 = 420
HG 5 = 450, 625 with double spring shaft
SB Slot width
DAL Anchor length DE – LH – 15 (see page 78)
ET Distance back
DE Ceiling height
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door
FPUL Spring buffers below the track

All door types available in any version.

All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request.

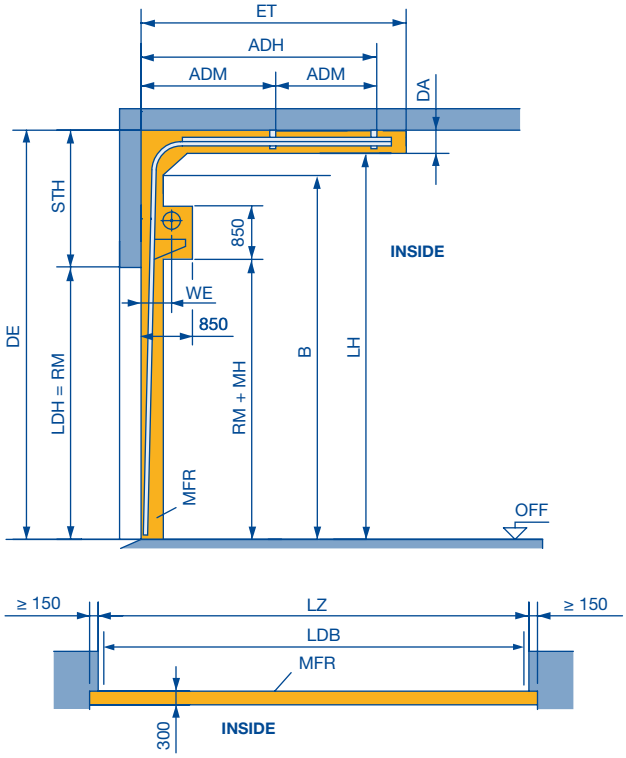
Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request.

All door types and versions on request.

Dimensions in mm

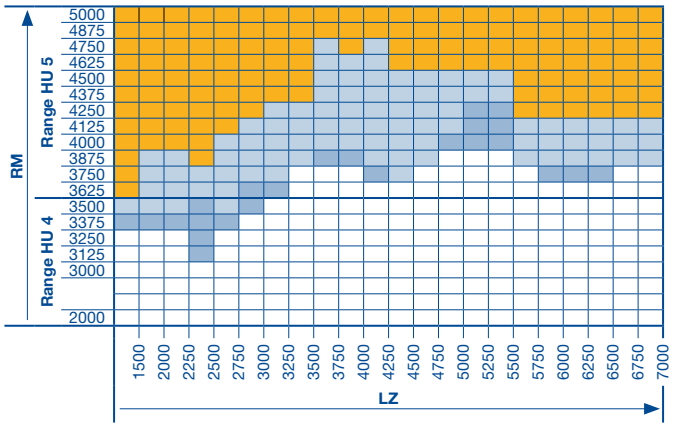
Track application: HU

High-lift track application with low-mounted torsion spring shaft



ET = min. Distance back		
HU 4 / HU 5	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
	2 × RM – LH + 650	For shaft operator with short spring buffer = (LH – RM ≥ 1510)

Other versions on request.
Observe min. sideroom, see page 73.



Please note:
Select required track height according to the door height in Table 4.

Notice:
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.

Table 4: Track heights (LH)

Door height RM	Min. LH	Max. LH	
5000	6510	8300	HU 5, WE = 335
4875	6385	8175	
4750	6260	8050	
4625	6135	7925	
4500	6010	7800	
4375	5885	7675	
4250	5760	7550	
4125	5635	7425	
4000	5510	7185	
3875	5385	6935	
3750	5260	6685	
3625	5135	6435	
3500	5010	6185	HU 4, WE = 315
3375	4885	5935	
3250	4760	5685	
3125	4635	5435	
3000	4510	5185	
2875	4385	4935	
2750	4260	4685	
2625	4135	4435	
2500	4010	4185	
2375	3885	3935	

Notices:
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

DE Ceiling height
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LH Track height (see Table 4)
ADH Distance to rear ceiling anchor
HU 4 / HU 5 = 2 × RM – LH + 645 (long spring buffer)
HU 4 / HU 5 = 2 × RM – LH + 405 (long and short spring buffer + operator)
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see Table 4)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
DA Min. distance to ceiling 250
DAL Anchor length DE – LH – 15 (see page 78)
LZ Clear frame dimensions **(from 1200)**
ET Distance back
MFR Space for fitting the door
MH Fitting height 400

All door types available in any version.

All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

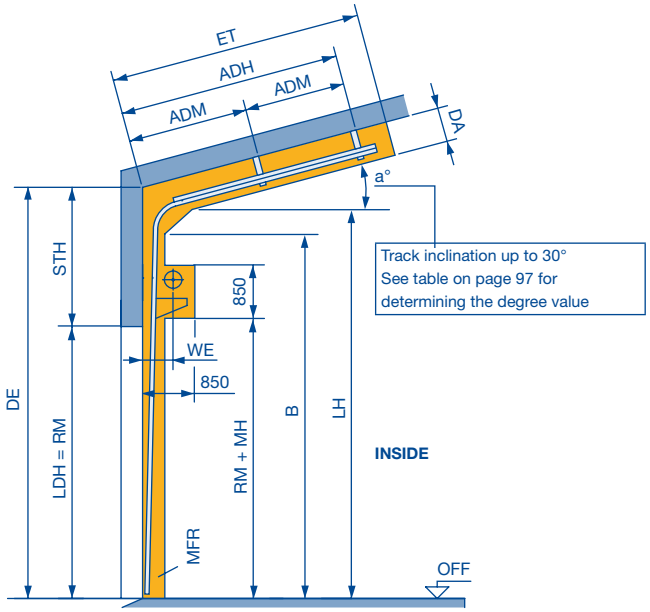
Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

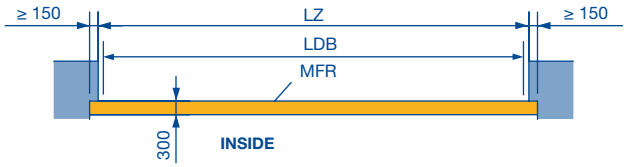
All door types and versions on request.

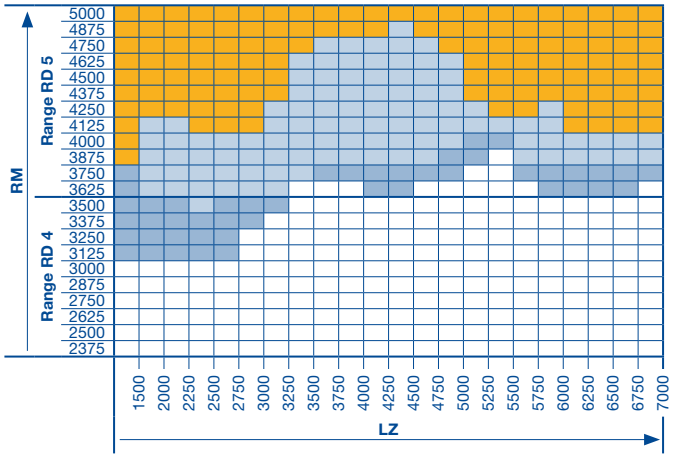
Dimensions in mm

Track application: RD

High-lift track application with low-mounted torsion spring shaft and inclination







Please note:
Select required track height according to the door height in Table 4 on page 66.

Notice:
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.

	ET = min. Distance back	
RD 4 / RD 5	2 × RM – LH + 1160 – a° × 6.5	For manual operation with long spring buffer (standard)
	2 × RM – LH + 690 – a° × 6.5	For shaft operator with short spring buffer = (LH – RM) ≥ 1510

See the high-lift track application for all other fitting dimensions.
Observe min. sideroom, see page 73.

Notices:
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- To determine the roof slope see page 97.
- Roof slope > 10° to 30° on request.

DE Ceiling height
DAL Anchor length DE – L – 15 (see page 78)
LH Track height (see Table 4 on page 66)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
ADH Distance between rear ceiling anchor =
RD 4 / RD 5 = 2 × RM – LH + 645 – a° × 6.5 (long spring buffer)
RD 4 / RD 5 = 2 × RM – LH + 405 – a° × 6.5 (long and short spring buffer + operator)
ADM Distance between central ceiling anchor (see page78)
WE Shaft centre from lintel (see Table 4 on page 66)
DA Distance to ceiling on request
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
LZ Clear frame dimensions **(from 1200)**
RM Grid height
MFR Space for fitting the door
a° Roof slope
MH Fitting height 400

All door types available in any version.

All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

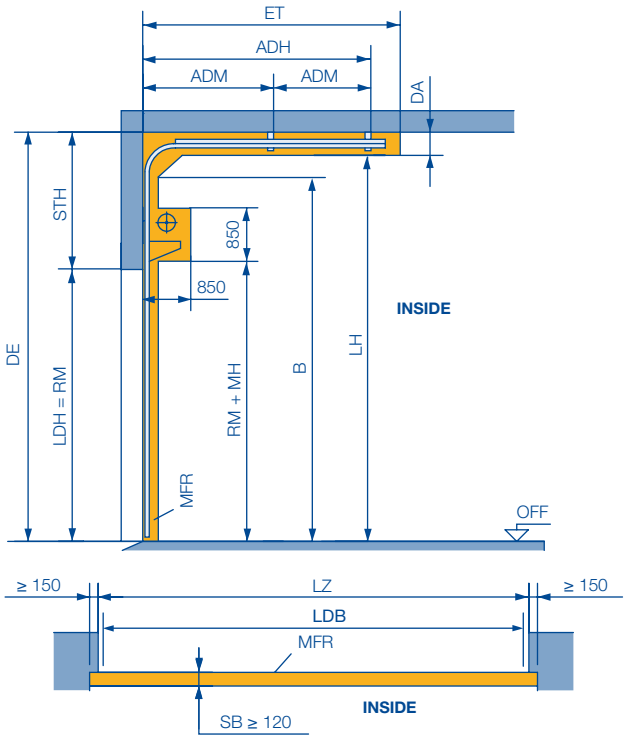
Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

All door types and versions on request.

Dimensions in mm

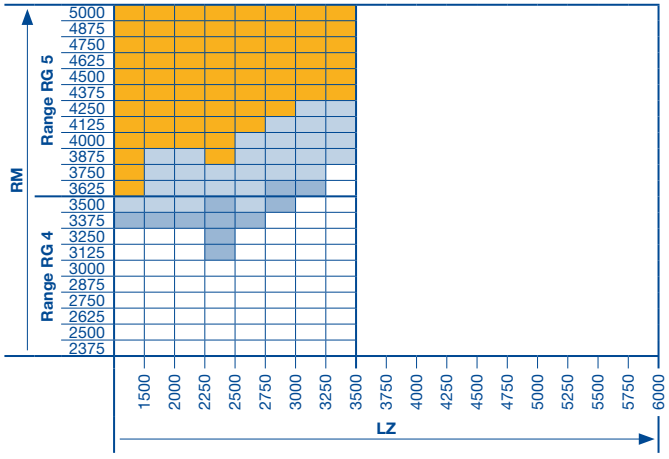
Track application: RG

High-lift track application with low-mounted torsion spring shaft and steep track (Application for loading ramp doors)



ET = min. Distance back		
RG 4 / RG 5	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
RG 4 / RG 5	2 × RM – LH + 650	For shaft operator with short spring buffer = (LH – RM ≥ 1510)

Other versions on request.
Observe min. sideroom, see page 73.



Please note:
Select required track height according to the door height in Table 5.

Notices:
- **Door type ALR F42 Glazing, ALR F42 Vitraplan, doors with real glass infill and wicket doors are not possible!**
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.

Table 5: Track heights (LH)

Door height RM	Min. LH	Max. LH	
5000	6510	8300	RG 5, WE = 276
4875	6385	8175	
4750	6260	8050	
4625	6135	7925	
4500	6010	7800	
4375	5885	7675	
4250	5760	7550	
4125	5635	7425	
4000	5510	7185	
3875	5385	6935	
3750	5260	6685	
3625	5135	6435	
3500	5010	6185	RG 4, WE = 246
3375	4885	5935	
3250	4760	5685	
3125	4635	5435	
3000	4510	5185	
2875	4385	4935	
2750	4260	4685	
2625	4135	4435	
2500	4010	4185	
2375	3885	3935	

Notices:
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LH Track height (see Table 5)
ADH Distance between rear ceiling anchor =
RG 4 / RG 5 = 2 × RM – LH + 580 (long spring buffer)
RG 4 / RG 5 = 2 × RM – LH + 340 (long and short spring buffer + WA 400)
ADM Distance to central ceiling anchor (see page 78)
WE Shaft centre from lintel (see Table 5)
STH Min. headroom (see page 52)
B Start of double radius, LH – 310
DA Min. distance to ceiling 250
SB Slot width
DAL Anchor length DE – LH – 15 (see page 78)
ET Distance back
DE Ceiling height
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door
MH Fitting height 400

All door types available in any version.

All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request.

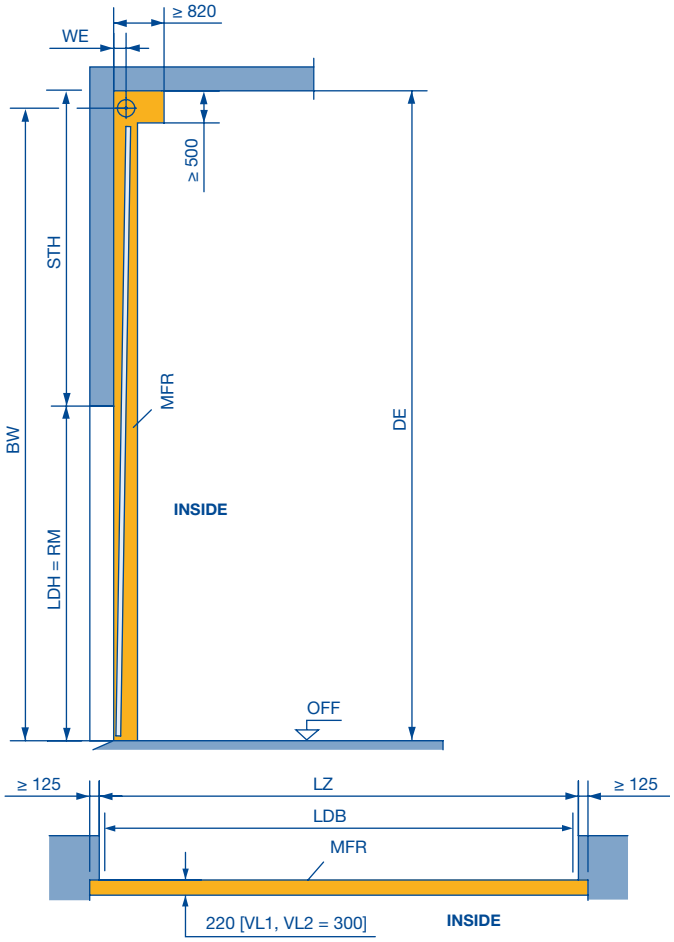
Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request.

All door types and versions on request.

Dimensions in mm

Track application: V

Vertical track application

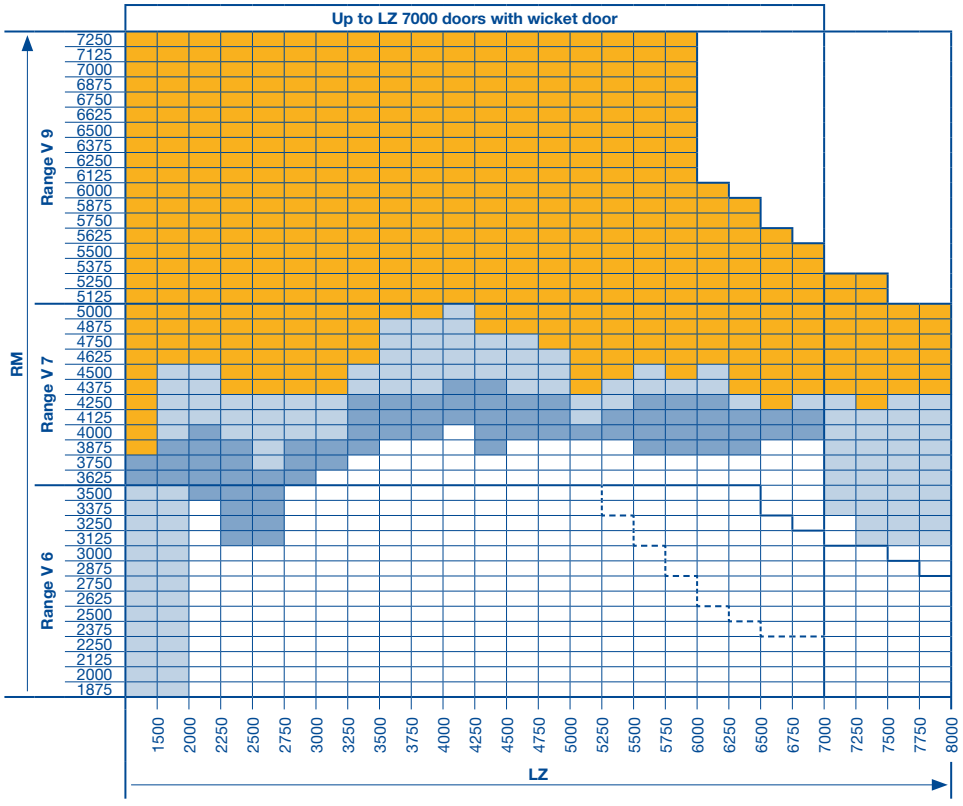


Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!

Observe min. sideroom, see page 73.

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
WE Shaft centre from lintel
V 6 = 160, V 7 = 180, V 9 = 205
STH Min. headroom (see page 52)
DE Ceiling height
2 × RM + 500 (V 6)
2 × RM + 540 (V 7)
2 × RM + 730 (V 7 with double spring shaft)
2 × RM + 635 (V 9)
2 × RM + 780 (V 9 with double spring shaft)
BW Position of shaft support
2 × RM + 360 (V 6)
2 × RM + 385 (V 7)
2 × RM + 435 (V 9)
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door



Notice:
ALR F42 Vitraplan and
ALR F42 Glazing on request

All door types available in any version.

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door as well as versions LZ > 7000 with glazing A3, B3, M3, S3, U3, LB, P on request.

Doors with wicket door as well as versions with thermo frames and glazing A3, B3, M3, S3, U3, LB, P and XU.

All door types and versions on request.

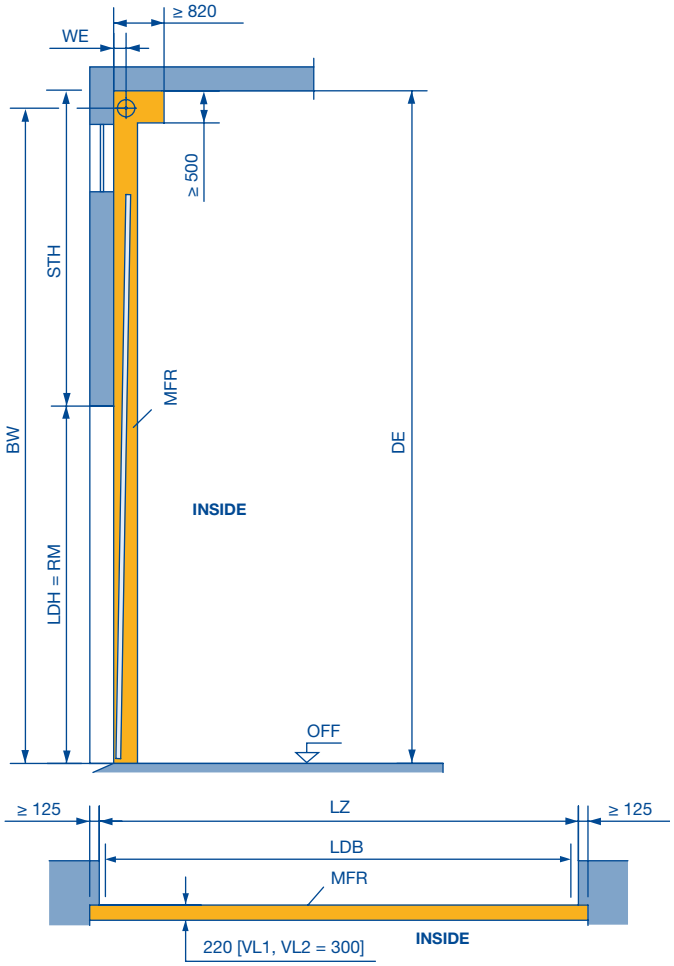
Track limit

Track limit with thermo frames and glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door.

Dimensions in mm

Track application: VA

Vertical track application with high-mounted torsion spring shaft

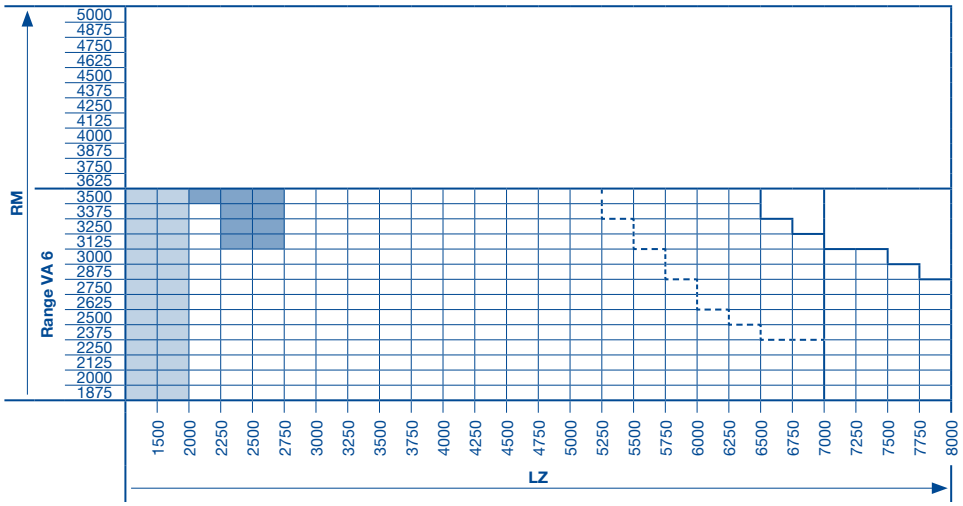


Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!

Observe min. sideroom, see page 73.

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
WE Shaft centre from lintel
VA 6 = 160
STH Min. headroom (see page 52)
DE Ceiling height
Min.: 2 × RM + 510 (VA 6)
Max.: depending on order
BW Position of shaft support =
Min.: 2 × RM + 370 (VA 6)
Max.: 7895 = DE – 140
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door



Notice:
ALR F42 Vitraplan and
ALR F42 Glazing on request

All door types available in any version.

Versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

Versions with thermo frames and glazing A3, B3, M3, S3, U3, LB, P, XU and wicket door.

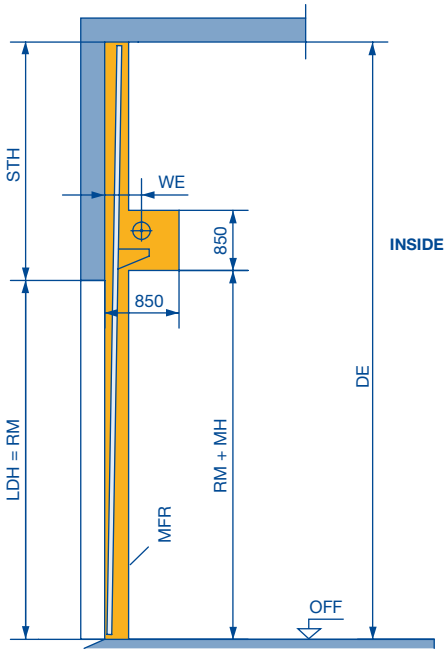
Track limit

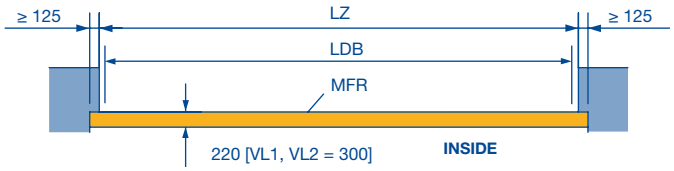
Track limit with thermo frames and glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door

Dimensions in mm

Track application: VU

Vertical track application with low-mounted torsion spring shaft



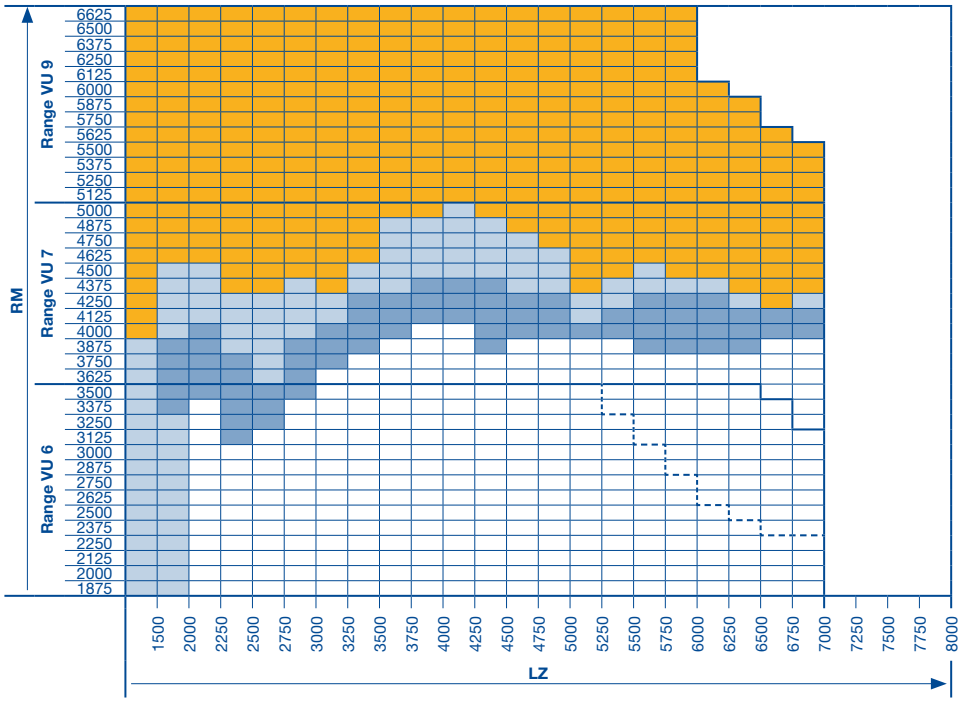


Notices:

- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!

Observe min. sideroom, see page 73.

DE Ceiling height = 2 × RM + 350
WE Shaft centre from lintel
VU 6 = 315
VU 7 = 335
VU 9 = 375
STH Min. headroom (see page 52)
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door
MH Fitting height 400



Notice:
ALR F42 Vitraplan and
ALR F42 Glazing on request

All door types available in any version.

All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.

All door types and versions on request.

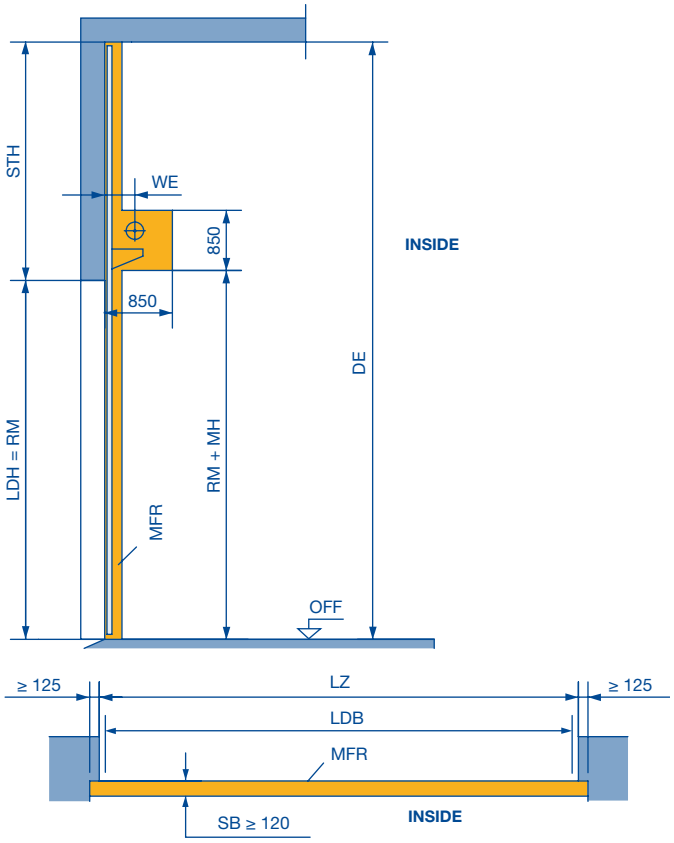
Track limit

Track limit with thermo frames and glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door

Dimensions in mm

Track application: WG

Vertical track application with low-mounted torsion spring shaft and steep track (Application for loading ramp doors)

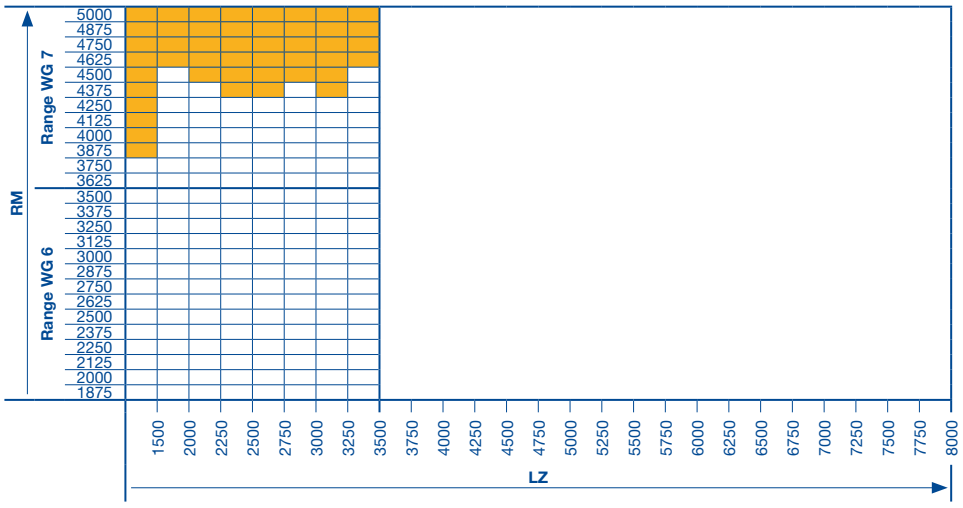


Notices:

- **Door type ALR F42 Glazing, ALR F42 Vitraplan, doors with real glass infill and wicket doors are not possible!**
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 15 and 18 – 35 under all circumstances!

Observe min. sideroom, see page 73.

DE Ceiling height = 2 × RM + 350
WE Shaft centre from lintel
WG 6 = 246
WG 7 = 276
STH Min. headroom (see page 52)
SB Slot width
LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
RM Grid height
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door
MH Fitting height 400



All door types available in any version.

All door types and versions on request.

Dimensions in mm

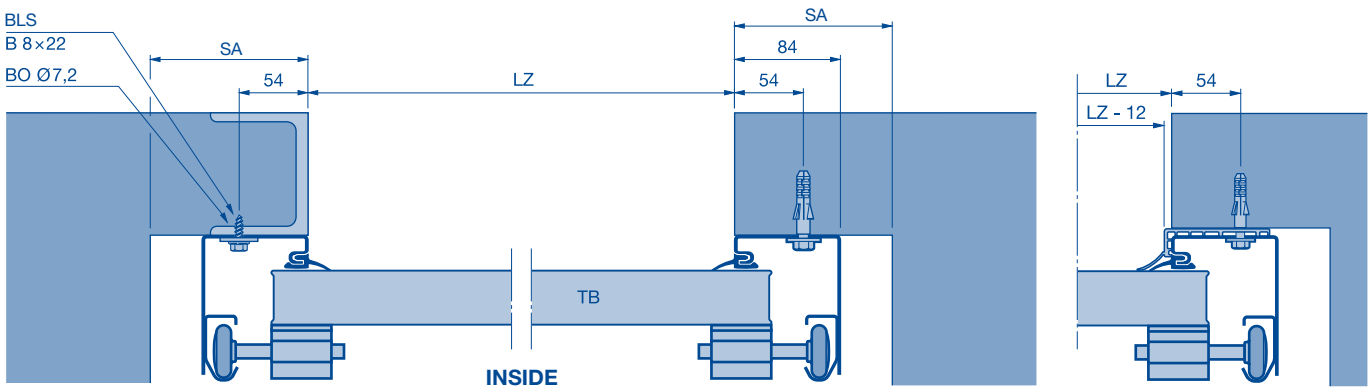
Sideroom

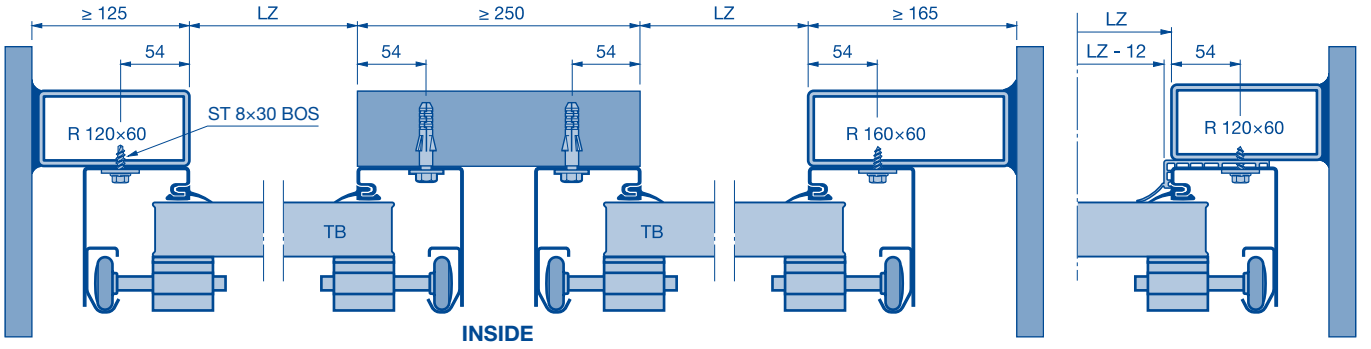
Required sideroom

Track application / designation	SA	Track application / designation		SA
N, NA, ND, NH, NS, GD, V, VA, VU, WG	125	Hand pulley	N, NA, ND, NH, NS, GD	140
H, HA, HD, HG, HU, RD, RG	150		H, HA, HD, HG, HU, RD, RG	150
L, LD	125		V, VA, VU, WG	125
		Chain hoist		Page 76
		Shaft operators		Page 79 – 86

Sideroom

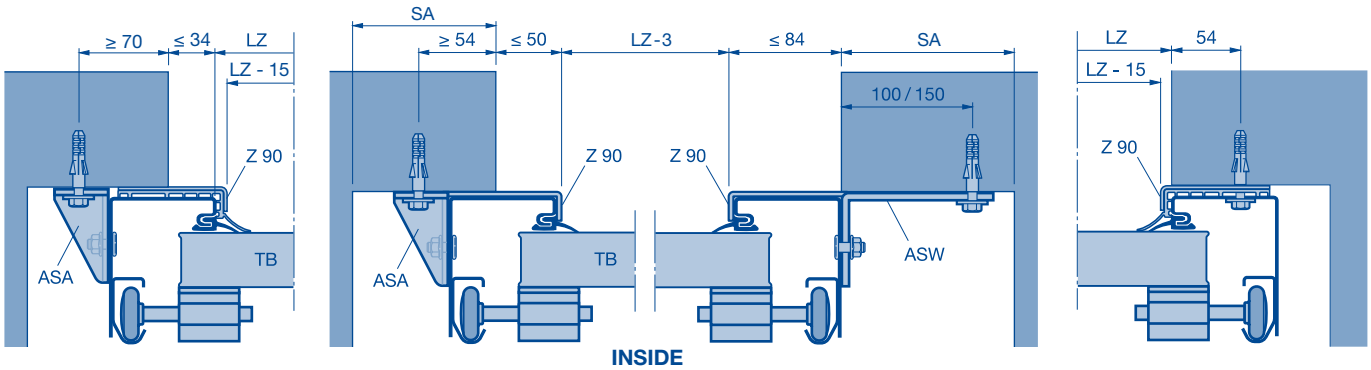
ThermoFrame version





Sideroom with frame covering

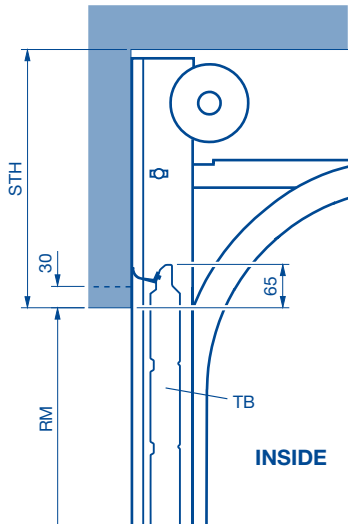
ThermoFrame version



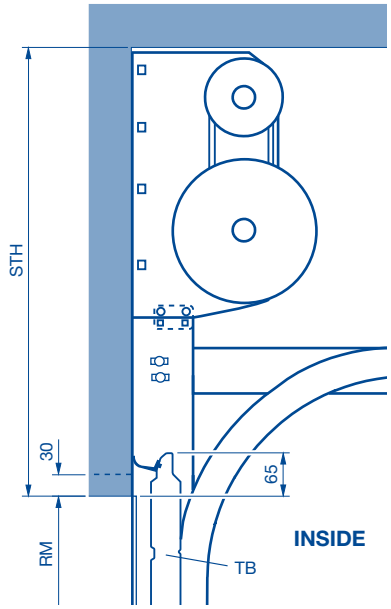
ASA	Screw-on anchor 70 × 40	**BOS**	Drilling screw	**R**	Box section
ASW	Screw-on bracket 70 × 120 / 170	**BLS**	Self-tapping screw	**SA**	Sideroom
BO	Hole	**LZ**	Clear frame dimension	**TB**	Door leaf

Lintel fittings

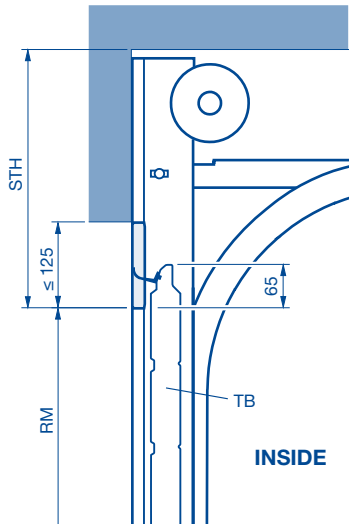
Normal lintel fitting
Lintel variation up to 30 mm high



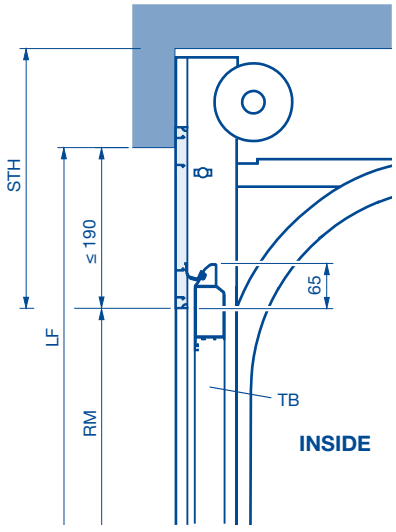
Normal lintel fitting
Double spring shaft



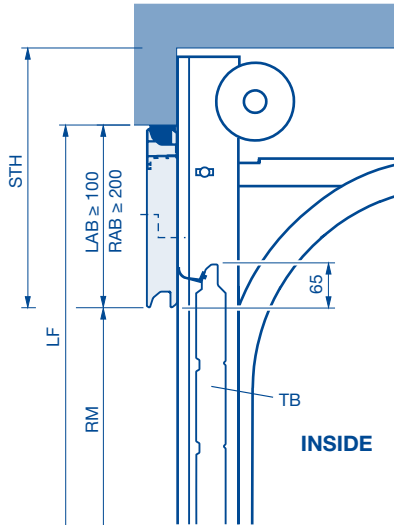
Single-skinned steel fascia for SPU F42 to make up for insufficient headroom up to 125 mm
(only for track applications N and L)



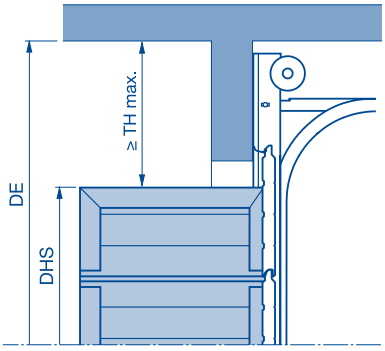
Smooth panel, anodised, for APU F42, ALR F42, ALR F42 Glazing, ALR F42 Vitraplan to make up for insufficient headroom from 31 to 190 mm height and LZ ≤ 7000 mm (only for track application N and L)



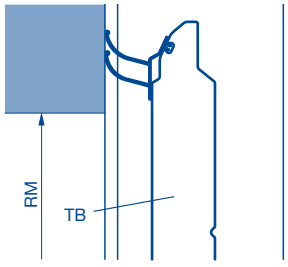
PU fascia panel to make up for insufficient headroom from 100 mm
Aluminium fascia profile to make up for insufficient headroom (see table)



Fitting clearance for multiple-point locking



Lintel fitting with ThermoFrame



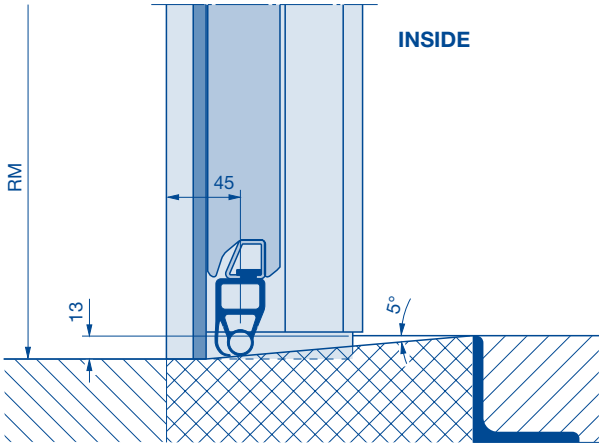
Aluminium fascia profiles	
Height	**Infill type**
≥ 200	FU, LB, S, SE, XU, FK, KR
≥ 245	S2, S3, U2, U3, C2, A2, A3, B2, B3, M2, M3

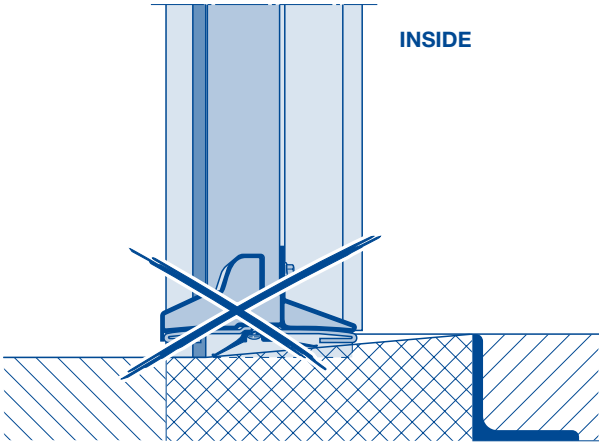
- Aluminium frame fascia panel with real glass infill VG, E2 and G2 on request.

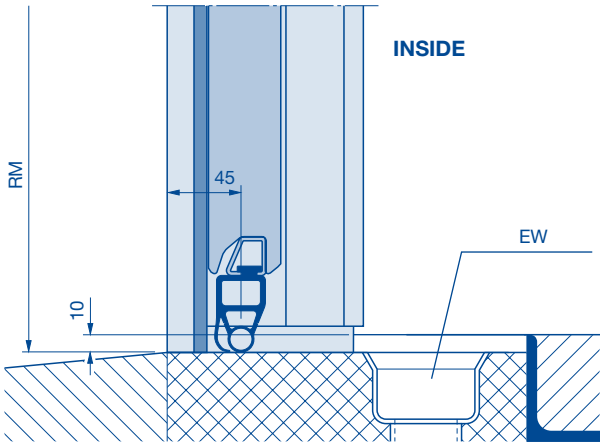
DE	Ceiling height
DHS	Wicket door clear passage height
STH	Min. headroom (see page 52)
RM	Grid
TB	Door leaf
LF	Structural opening
LAB	Fascia panel
RAB	Frame fascia panel

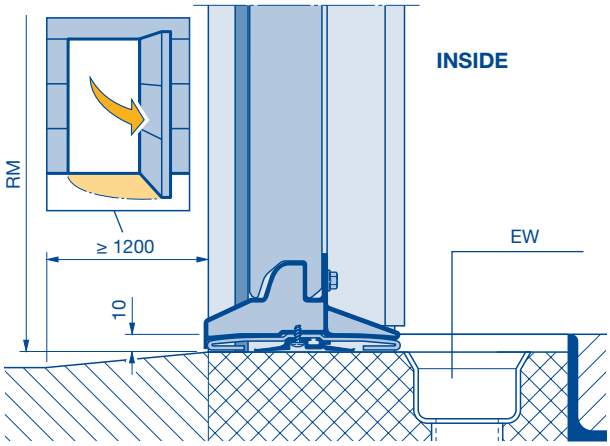
Bottom edge

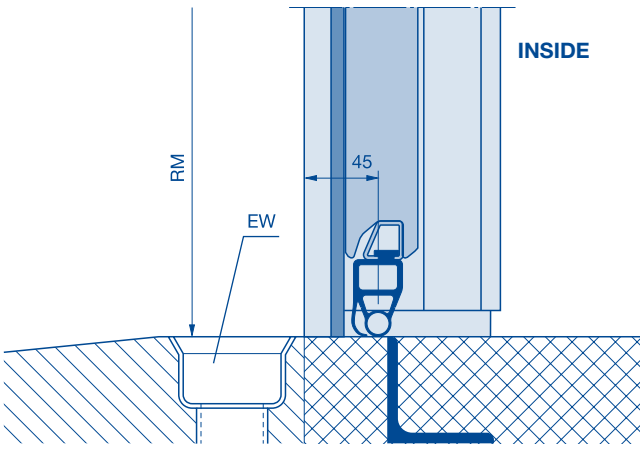
Without wicket door / with wicket door and threshold rail	With wicket door with trip-free threshold

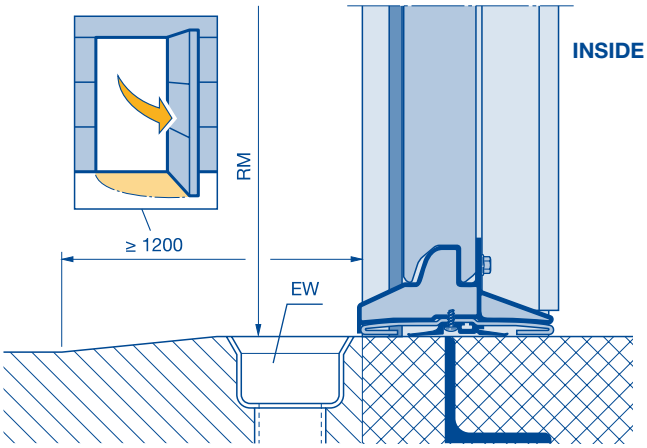








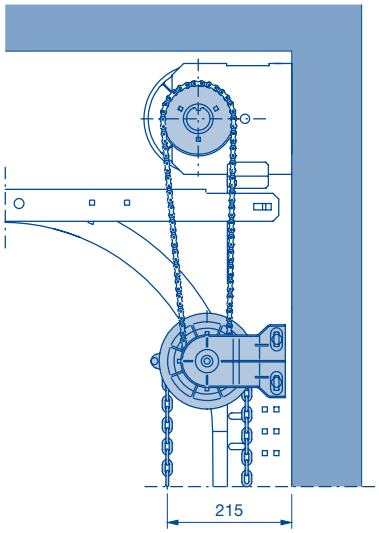


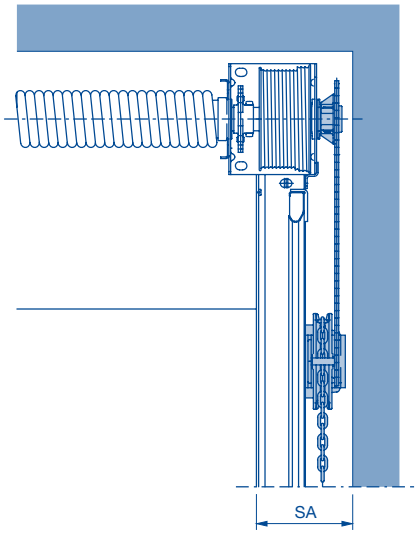


EW Drainage
RM Grid

Chain hoist

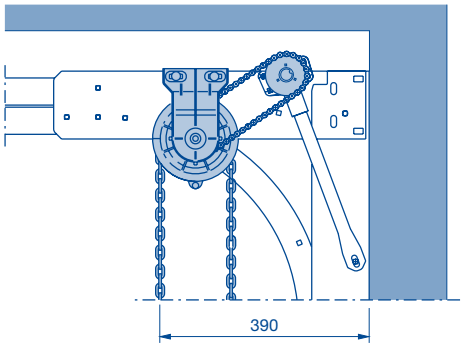
Track applications N, NA, ND, NH, NS, GD, H, HA, HD, HG, HU, RD, RG, VU, WG

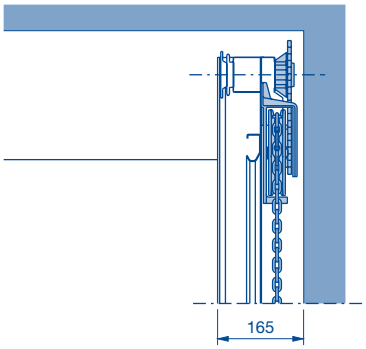




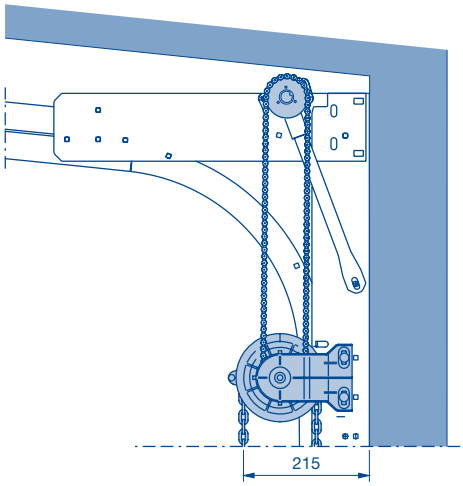
Track application	N	NA	ND	NH	NS	GD	H	HA	HD	HG	HU	RD	RG	V	VU	WG
SA	165	165	165	165	165	165	185	185	185	185	185	185	185	165	165	165

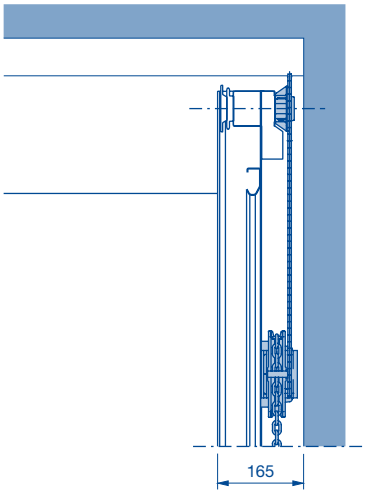
Track application L





Track application LD





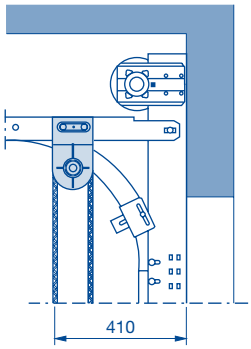
SA Sideroom

Hand pulley

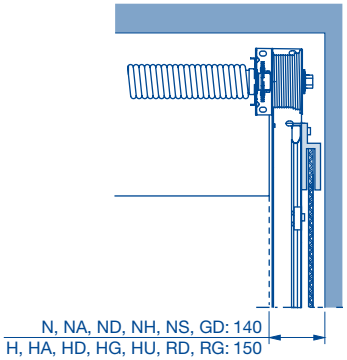
With rope or link steel chain

Track applications up to 20 m² door surface

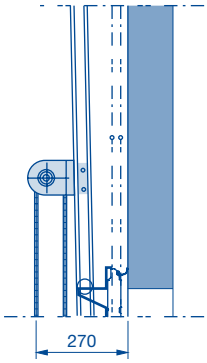
With rope or link steel chain



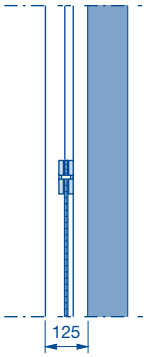
N, NA, ND, NH, NS, GD, H, HA, HD, HG, HU, RD, RG



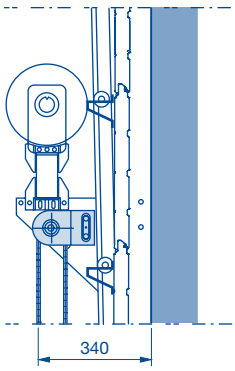
With rope or link steel chain



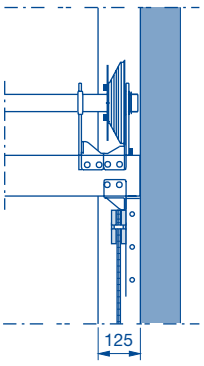
V, VA



With rope or link steel chain



VU, WG

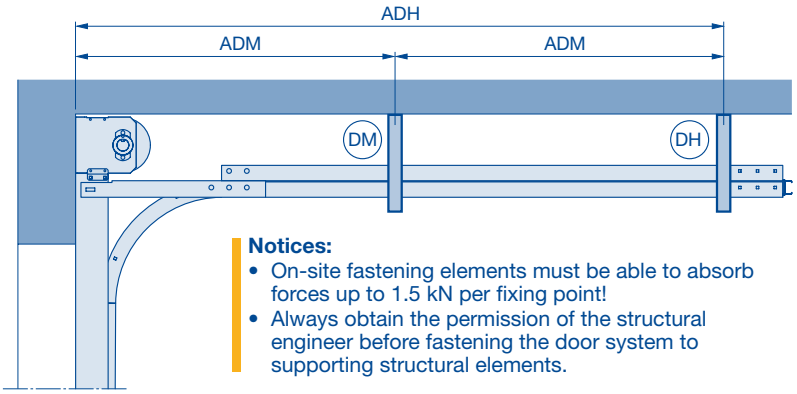


Ceiling anchors

Track suspensions for all track applications except V, VA, VU and WG

DH = Rear ceiling anchor (see pages 52 – 68), door weights for roof loads (see pages 52 – 60).

Double track (suspensions), door heights RM ≤ 5000

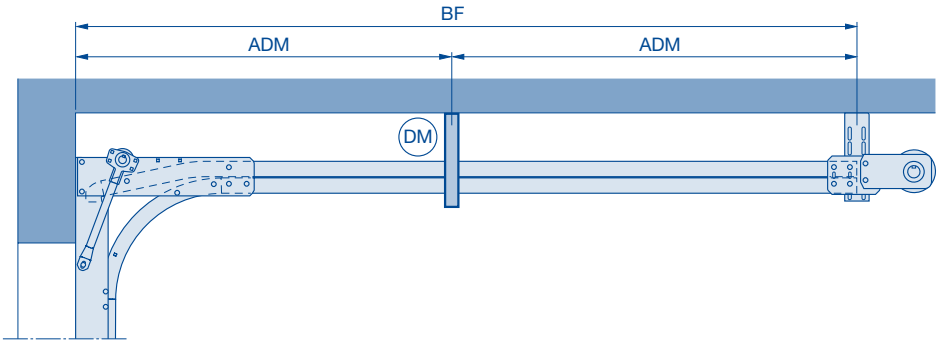


Notices:
- On-site fastening elements must be able to absorb forces up to 1.5 kN per fixing point!
- Always obtain the permission of the structural engineer before fastening the door system to supporting structural elements.

Double track (suspensions), door heights RM ≤ 5000				
LZ	**ADH**	**DM**	**DH**	**ADM**
≤ 7000	– 1555	–	1	–
	1560 – 3720	1	1	ADH/2
	3730 – 5195	2	1	ADH/3
> 7000	– 1295	–	1	–
	1300 – 2195	1	1	ADH/2
	2200 – 3445	2	1	ADH/3
	3450 – 5195	3	1	ADH/4

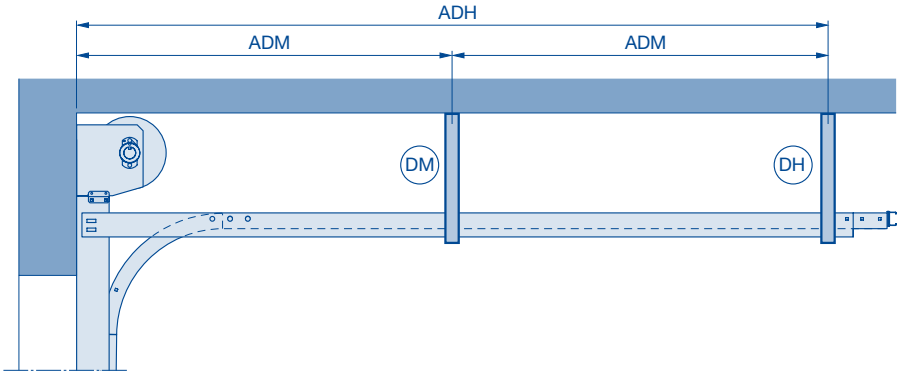
Max. distance of suspensions (ADM) (Door height RM ≤ 5000)	
LZ	**Max. ADM *****
≤ 3000	2300
3010 – 4000	2200
4010 – 5000	2100
5010 – 7000	1875
7010 – 8000	1310

Double track (suspensions) for track application L



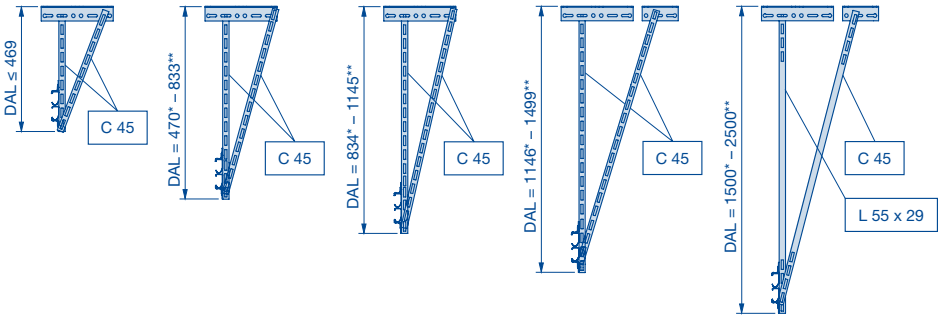
Double track (suspensions) for track application L		
BF	**DM**	**ADM**
≤ 4182	1	BF/2
> 4182	2	BF/3

C-rail (suspensions) all track sizes, door height RM > 5000



C-rail (suspensions) all track sizes, door height RM > 5000			
ADH	**DM**	**DH**	**ADM**
≤ 6295	1	1	ADH/2
> 6295	2	1	ADH/3

Track suspensions as ceiling anchors in five lengths, standard length 469 mm



* Min.
** Max.
*** Except for doors with wicket door, real glass infill, Vitraplan and facade doors. For LZ ≤ 7000 mm max. ADM = 1875 mm and for LZ > 7000 mm max. ADM = 1310 mm applies.

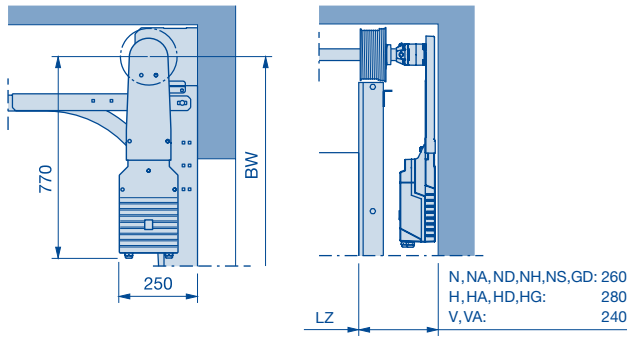
ADH	Distance to rear ceiling anchor	**DAL**	Ceiling anchor length	**LZ**	Clear frame dimension
ADM	Distance to central ceiling anchor	**DH**	Rear ceiling anchor		
BF	Position of spring shaft	**DM**	Centre ceiling anchor		

Shaft operator WA 300

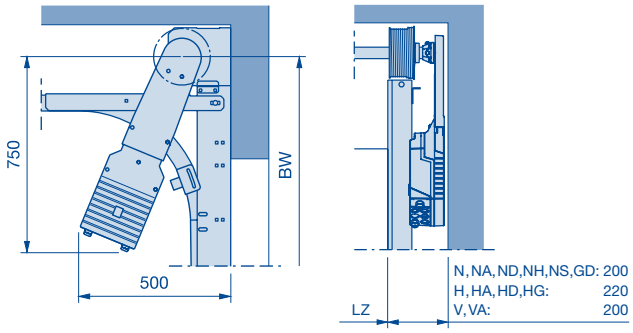
Shaft operator WA 300 for track applications N, NA, ND, NH, NS, GD, H, HA, HD, HG, V and VA

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.

Fitting example ⑧ right



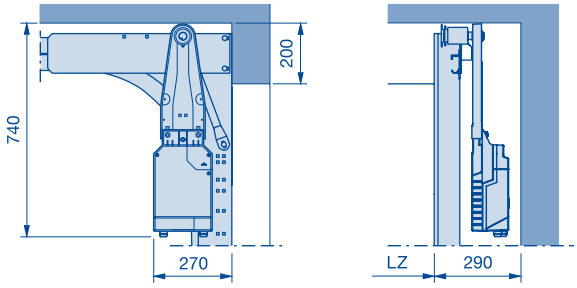
Fitting example ⑨ right



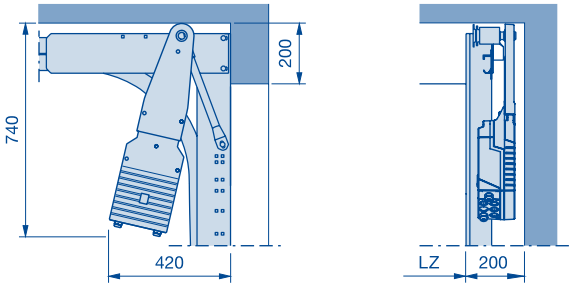
Shaft operator WA 300 for track applications L and LD

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.
In fitting example 9: on the side opposite the door lock.

Fitting example ⑧ right



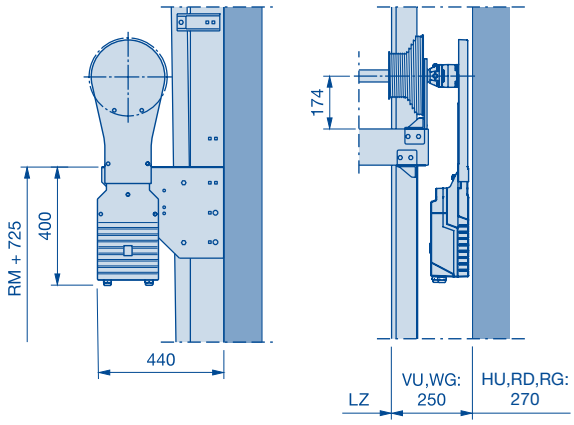
Fitting example ⑨ right



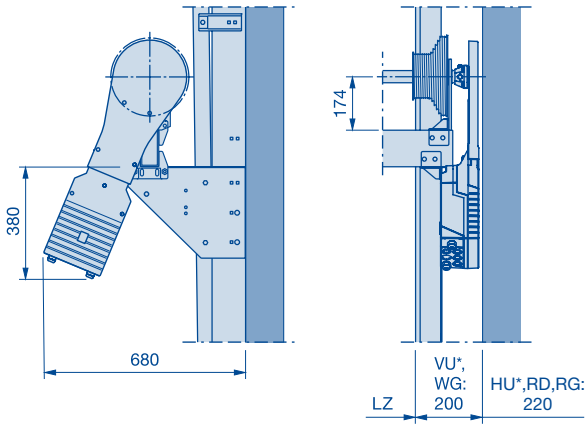
Shaft operator WA 300 for track applications HU, RD, RG, VU and WG

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.

Fitting example ⑧ right



Fitting example ⑨ right



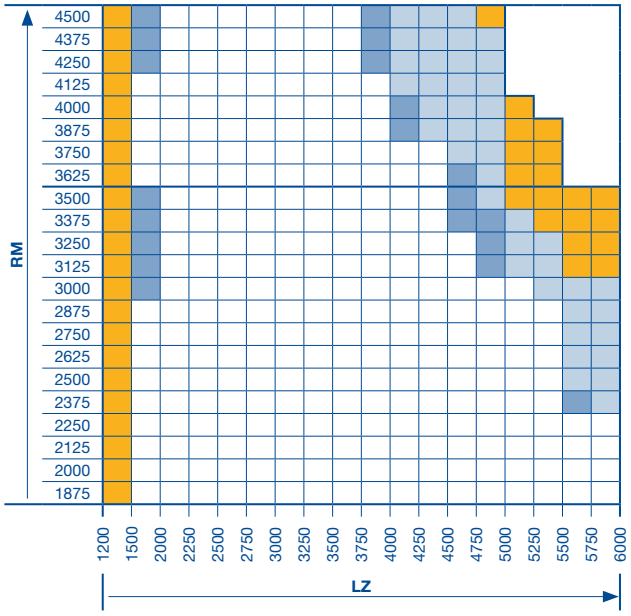
*** Notice:**
In the door range LZ ≤ 3000 and RM ≤ 3500 the track applications VU and HU are not possible

LZ Clear frame dimension
BW Position of shaft support

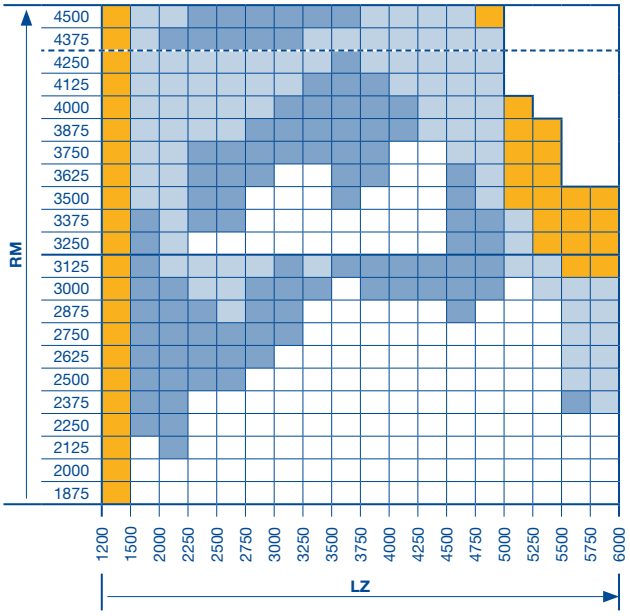
Shaft operator WA 300

Size range WA 300 (ALR F42 Vitraplan on request)

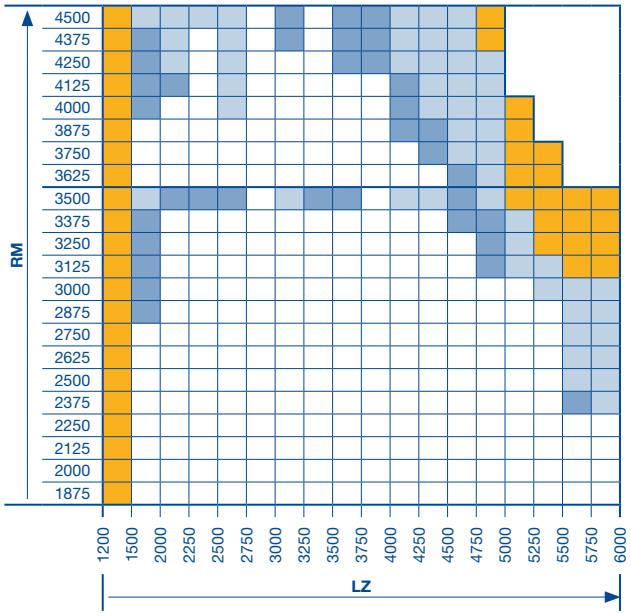
Track applications: N, NA and NH



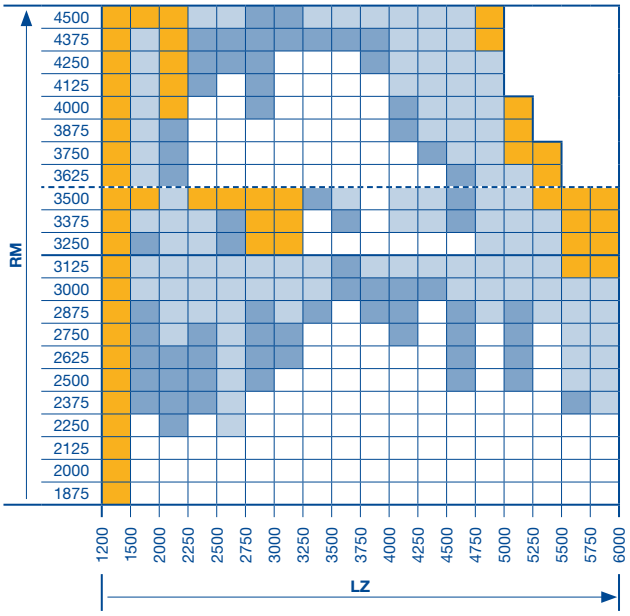
Track applications: ND and GD



Track application: L



Track application: LD



All door types available in any version.

All door types with thermo frames, glazing A3, B3, M3, S3, U3, LB, P, XU or wicket door on request.

All door types with thermo frames with glazing A3, B3, M3, S3, U3, LB, P, XU and/or wicket door on request.

All door types and versions on request.

Notice:
Track application NS on request!

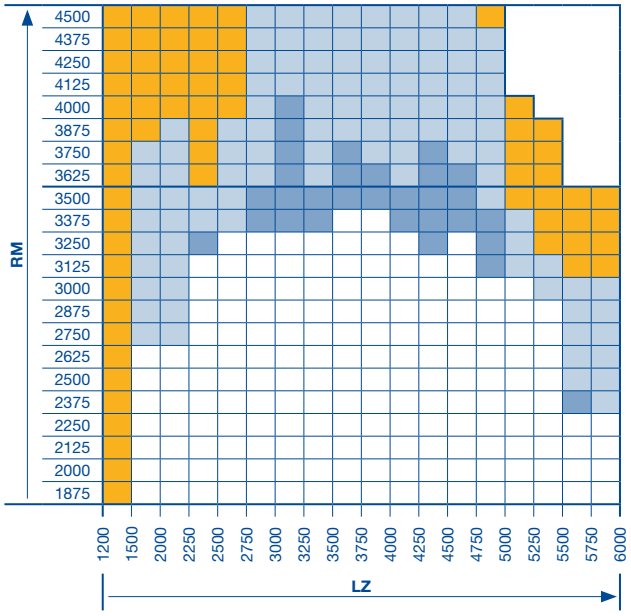
LZ Clear frame dimension
RM Grid height

Dimensions in mm

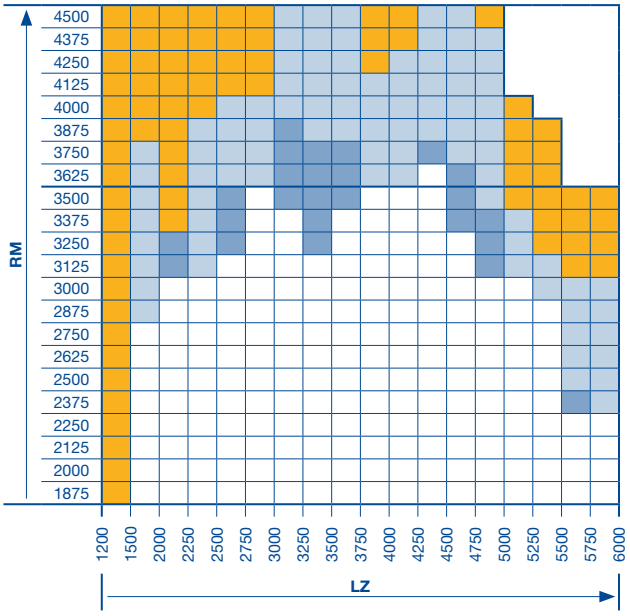
Shaft operator WA 300

Size range WA 300 (ALR F42 Vitraplan on request)

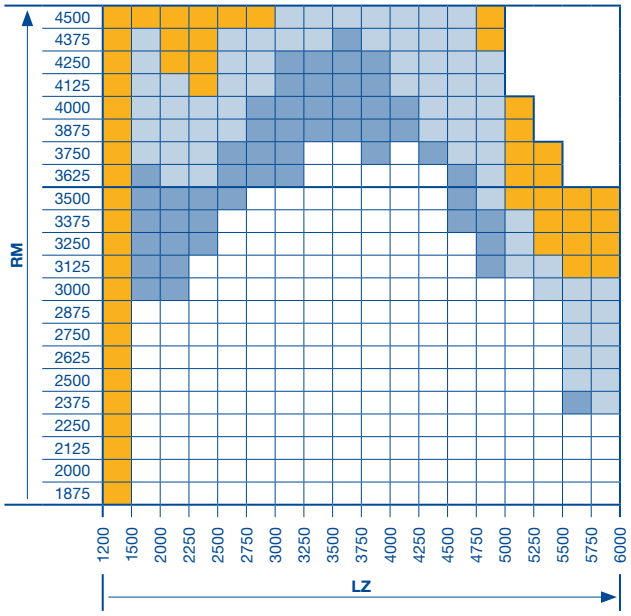
Track application: H, HA, HG, HU and RG



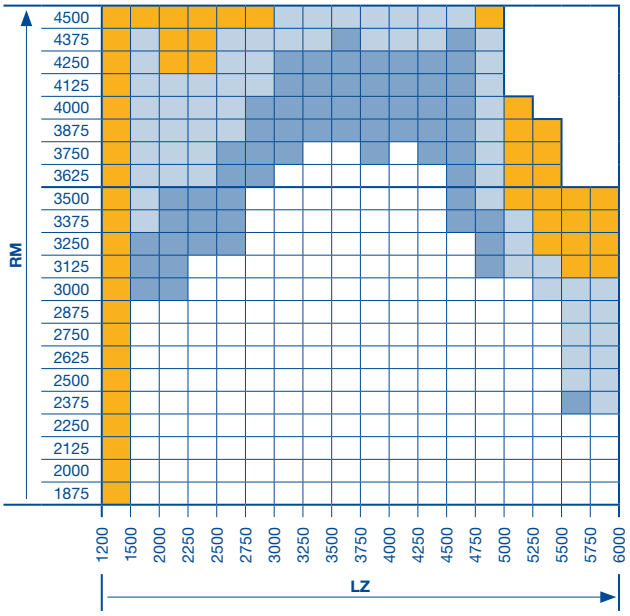
Track application: HD and RD



Track application: V and VA



Track application: VU and WG



All door types available in any version.

All door types with thermo frames, glazing A3, B3, M3, S3, U3, LB, P, XU or wicket door on request.

All door types with thermo frames with glazing A3, B3, M3, S3, U3, LB, P, XU and/or wicket door on request.

All door types and versions on request.

LZ Clear frame dimension
RM Grid height

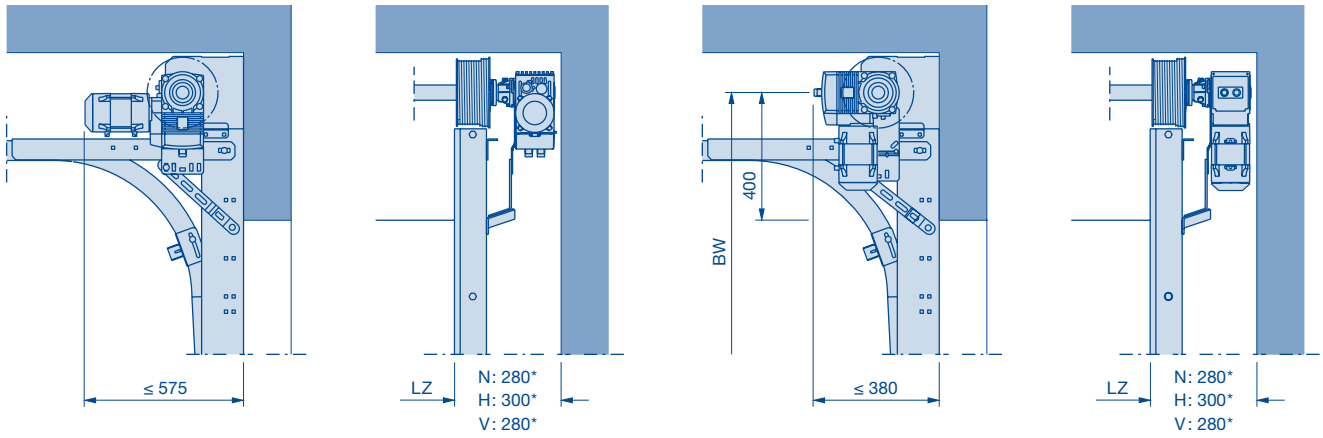
Dimensions in mm

Shaft operator WA 400

As a frame-mounted operator

Shaft operator WA 400 for all track applications, except for L, LD, HU, RD, RG, VU and WG

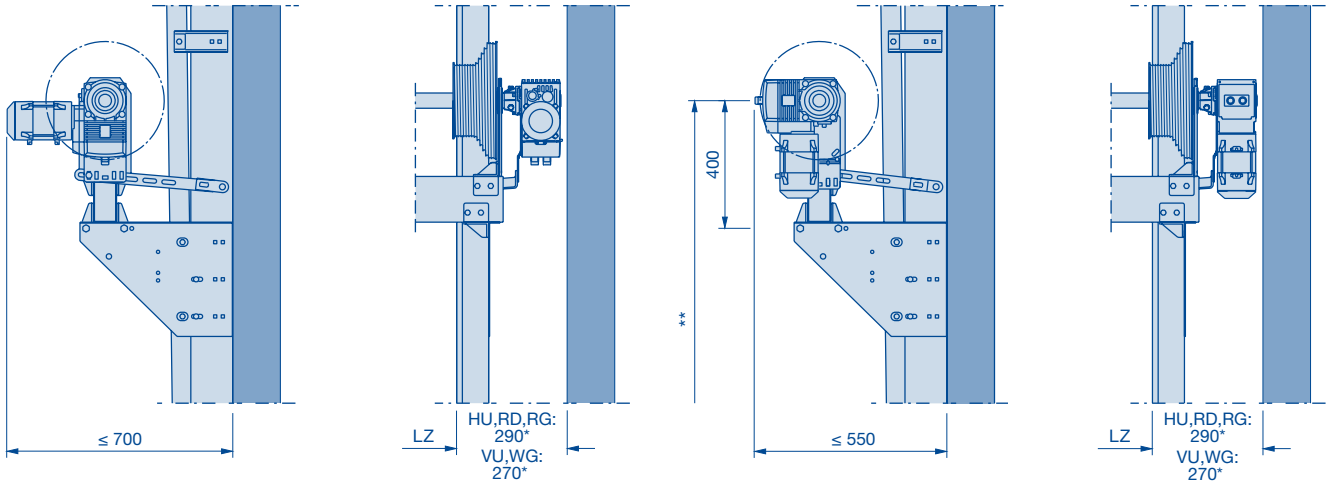
As shown in the figure, the operator can be fitted either left or right, viewed from the inside.



*** Notice:**
Dimension + 75 mm if using a non-jointed emergency crank handle

Shaft operator WA 400 for track applications HU, RD, RG, VU and WG

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.



*** Notice:**
Dimension + 75 mm if using a non-jointed emergency crank handle

** On request

LZ Clear frame dimension
BW Position of shaft support

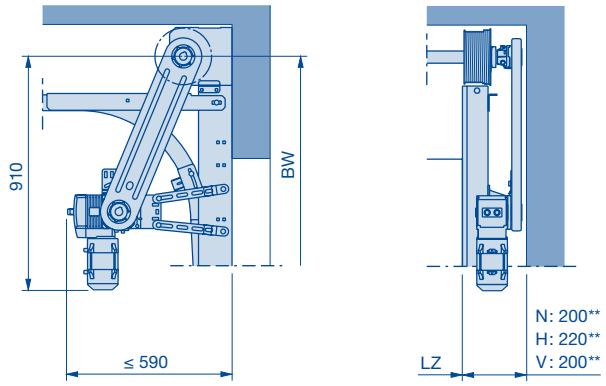
Shaft operator WA 400

With chain box

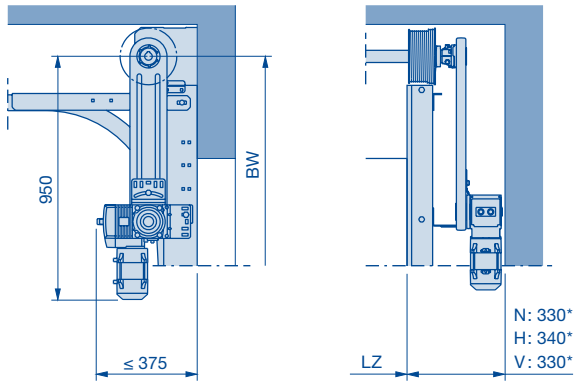
Shaft operator WA 400 for all track applications, except for L, LD, HU, RD, RG, VU and WG

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.
In fitting example 5: on the side opposite the door lock.

Fitting example ⑤ right



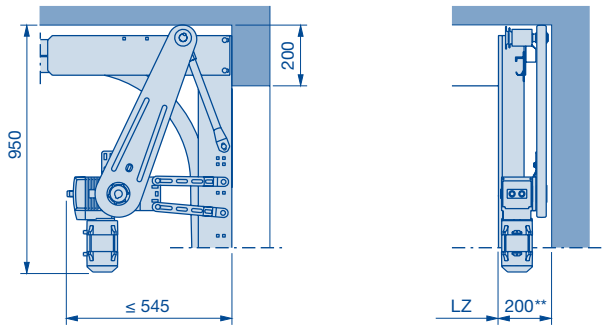
Fitting example ⑥ right



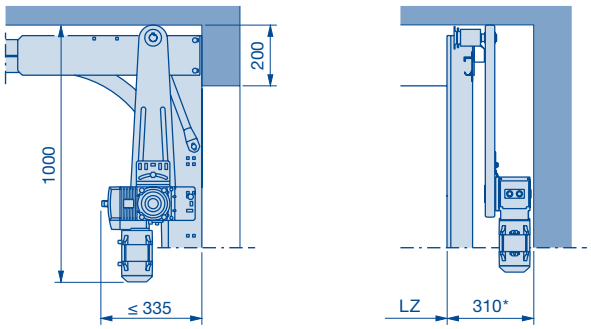
Shaft operator WA 400 for the track applications L and LD

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.
In fitting example 5: on the side opposite the door lock.

Fitting example ⑤ right



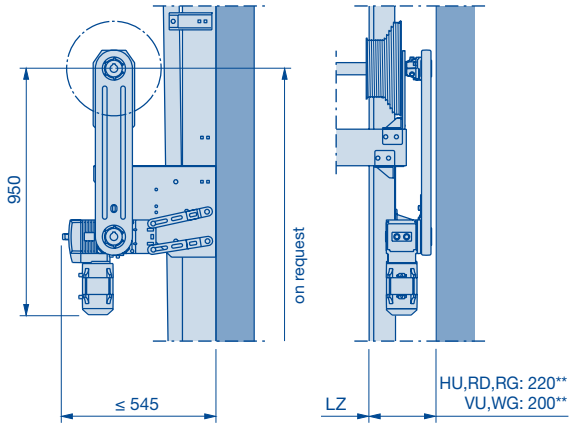
Fitting example ⑥ right



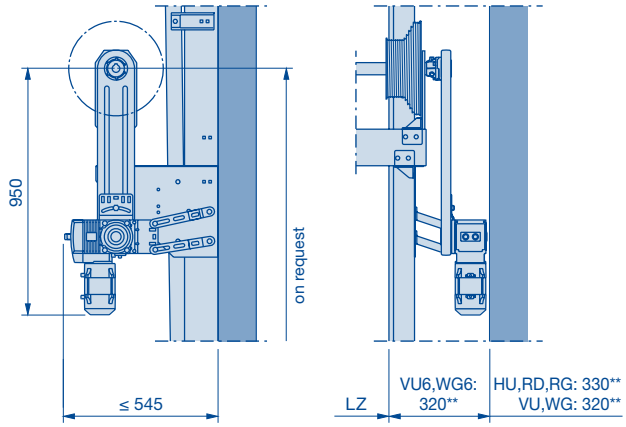
Shaft operator WA 400 for track applications HU, RD, RG, VU and WG

As shown in the figure, the operator can be fitted either left or right, viewed from the inside.
In fitting example 5: on the side opposite the door lock.

Fitting example ⑤ right



Fitting example ⑥ right



*** Notice:**
Dimension + 75 mm if using a non-jointed emergency crank handle

**** Notice:**
Dimension + 40 mm if using a non-jointed emergency crank handle

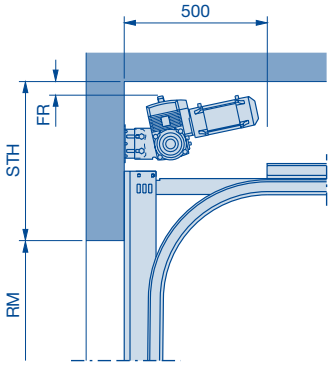
LZ Clear frame dimension
BW Position of shaft support

Shaft operator WA 400

For central mounting

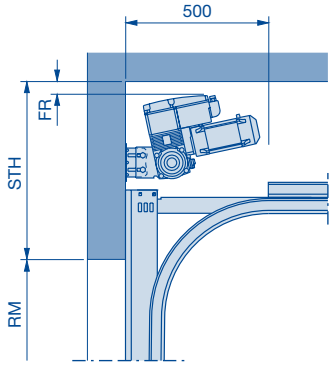
Shaft operator WA 400 for track applications N and ND

Control A / B 445, 460



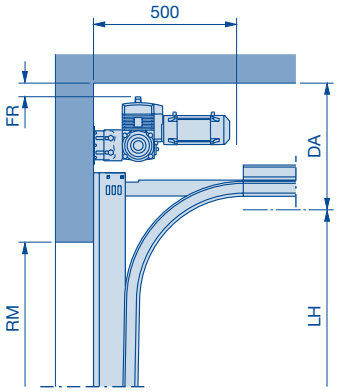
Track application	A / B 445, 460		B 460 FU	
	STH min.	FR min.	STH min.	FR min.
N 1	520	45	590	45
N 2	550	50	615	45
N 3 (RM > 7000)	–	–	675 (810)	45
ND 1	520	65	550	48
ND 2	550	75	570	48
ND 3 (RM > 7000)	–	–	675 (810)	48

Control B 460 FU



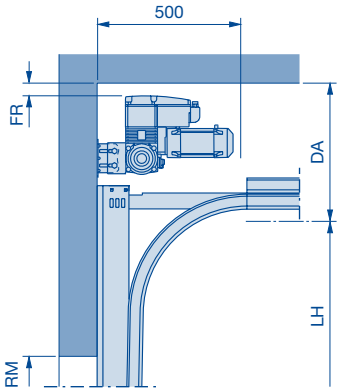
Shaft operator WA 400 for the track applications NH and GD

Control A / B 445, 460



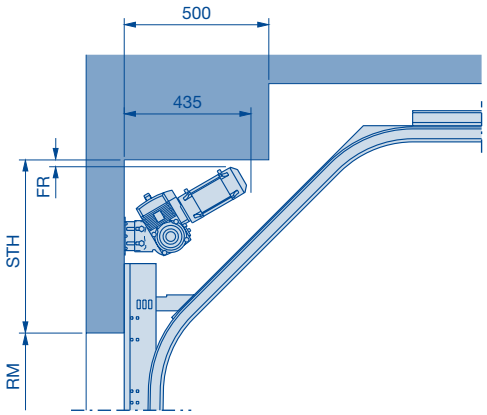
Track application	A / B 445, 460		B 460 FU	
	Min. DA	FR min.	Min. DA	FR min.
NH 1 / GD 1	415	50	480	45
NH 2 / GD 2	440	50	485	45
NH 3	–	–	565	45

Control B 460 FU

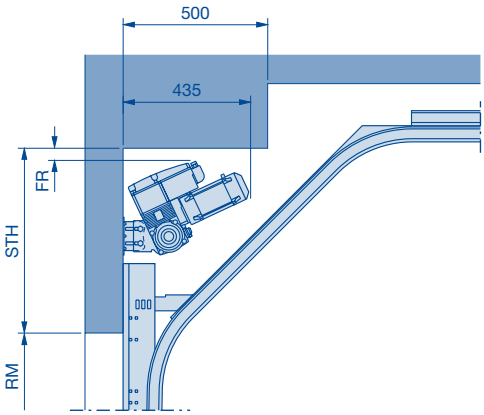


Shaft operator WA 400 for track application NS

Control A / B 445, 460



Control B 460 FU



Track application	A / B 445, 460		B 460 FU	
	STH min.	FR min.	STH min.	FR min.
NS 1	570	20	615	45
NS 2	600	25	640	45

Notice:
WA 400 as a centre motor in conjunction with double spring shaft on request!

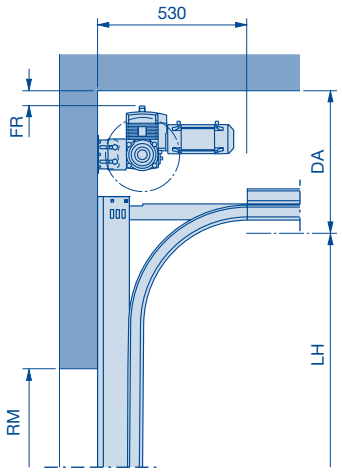
STH Lintel height
RM Grid height
DA Distance to ceiling
LH Track height
FR Clearance ceiling / shaft operator

Shaft operator WA 400

For central mounting

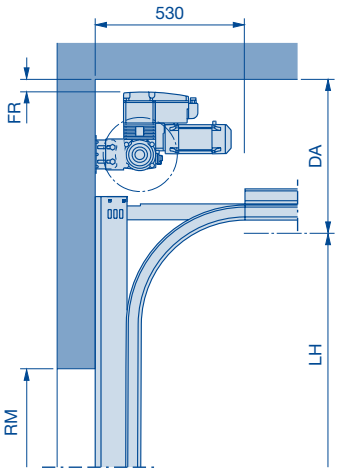
Shaft operator WA 400 for track applications H, HG and HD

Control A / B 445, 460



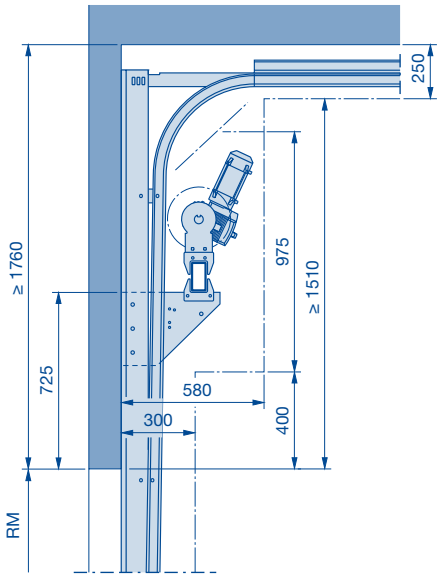
Track application	A / B 445, 460		B 460 FU	
	Min. DA	FR min.	Min. DA	FR min.
H 4, HG 4	500	55	540	45
H 5, HG 5	500	55	540	45
H 8	–	–	565	45
HD	on request			

Control B 460 FU

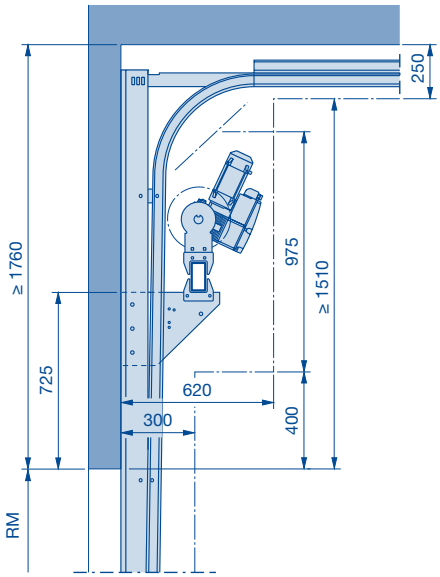


Shaft operator WA 400 for the track applications HU, RD and RG

Control A / B 445, 460



Control B 460 FU



Notice:
WA 400 as a centre motor in conjunction with double spring shaft on request!

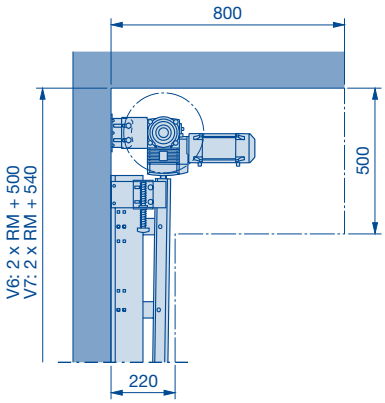
RM Grid height
DA Distance to ceiling
LH Track height
FR Clearance ceiling / shaft operator

Shaft operator WA 400

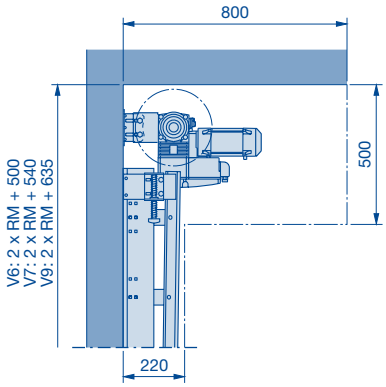
For central mounting

Shaft operator WA 400 for track application V

Control A / B 445, 460

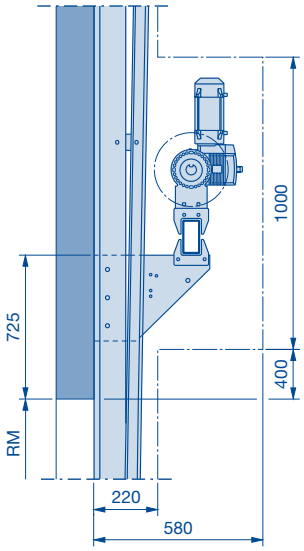


Control B 460 FU

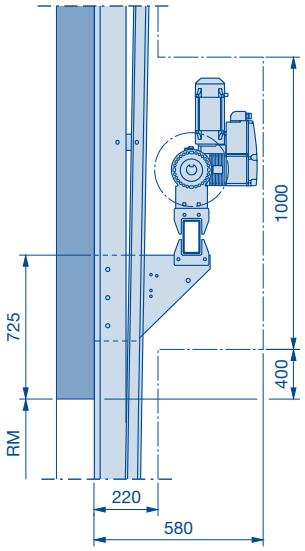


Shaft operator WA 400 for track applications VU and WG

Control A / B 445, 460



Control B 460 FU

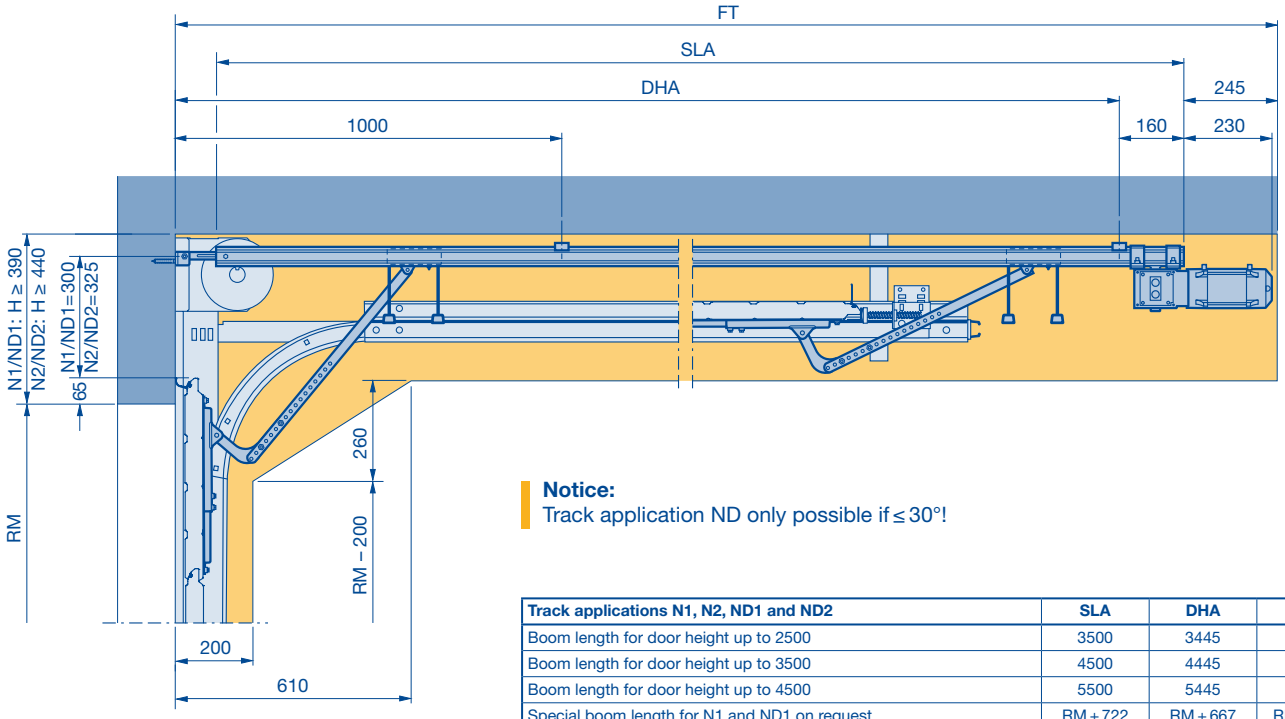


Notice:
WA 400 as a centre motor in conjunction with double spring shaft on request!

RM Grid height
DA Distance to ceiling
LH Track height

Chain drive operator ITO 400

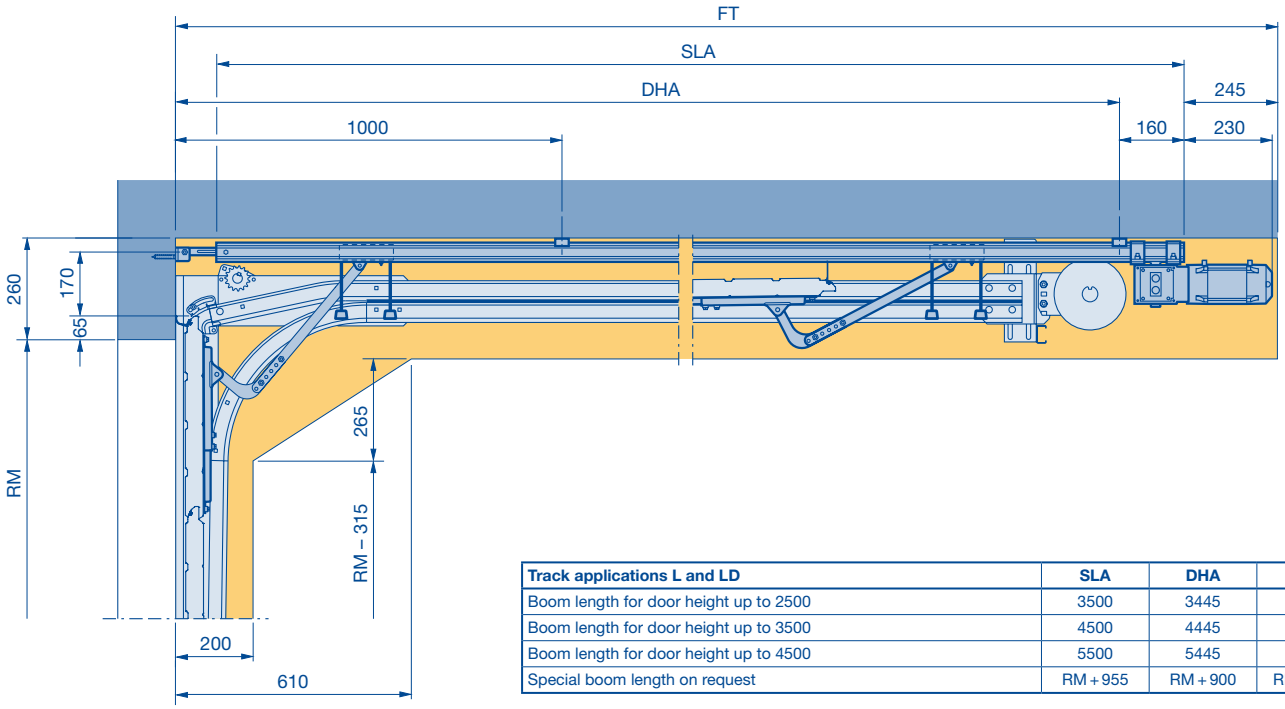
ITO 400 track applications N and ND (doors with wicket door on request)



Notice:
Track application ND only possible if ≤ 30°!

Track applications N1, N2, ND1 and ND2	SLA	DHA	FT
Boom length for door height up to 2500	3500	3445	3850
Boom length for door height up to 3500	4500	4445	4850
Boom length for door height up to 4500	5500	5445	5850
Special boom length for N1 and ND1 on request	RM + 722	RM + 667	RM + 1072
Special boom length for N2 and ND2 on request	RM + 829	RM + 774	RM + 1179

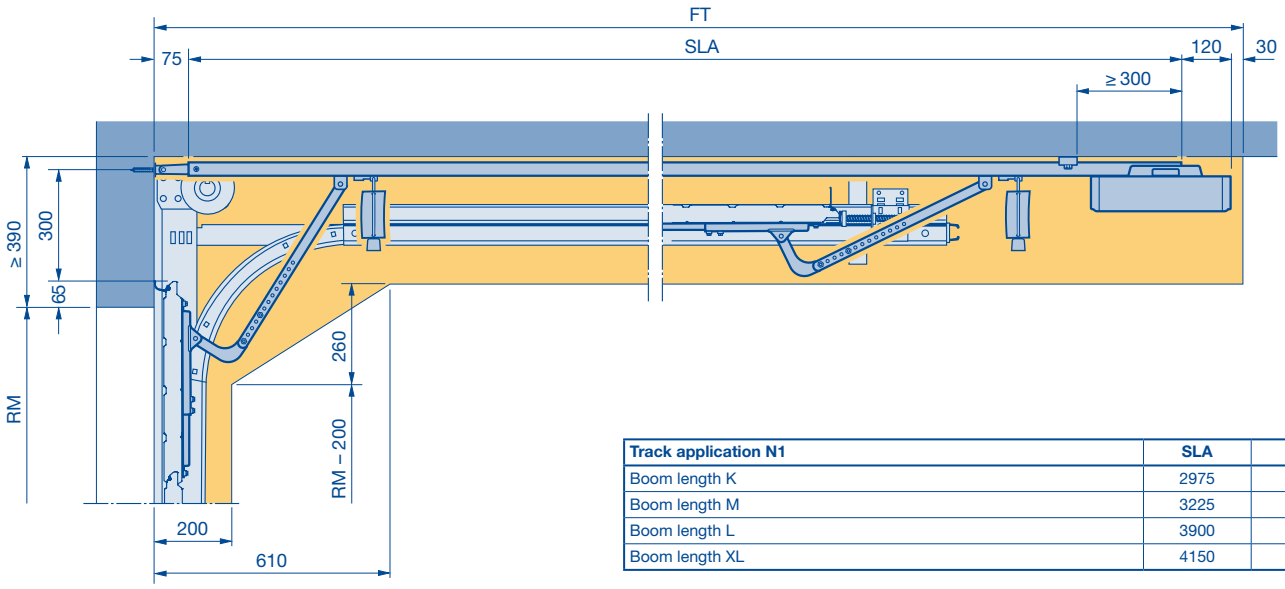
ITO 400 track applications L and LD (doors with wicket door on request)



Track applications L and LD	SLA	DHA	FT
Boom length for door height up to 2500	3500	3445	3850
Boom length for door height up to 3500	4500	4445	4850
Boom length for door height up to 4500	5500	5445	5850
Special boom length on request	RM + 955	RM + 900	RM + 1305

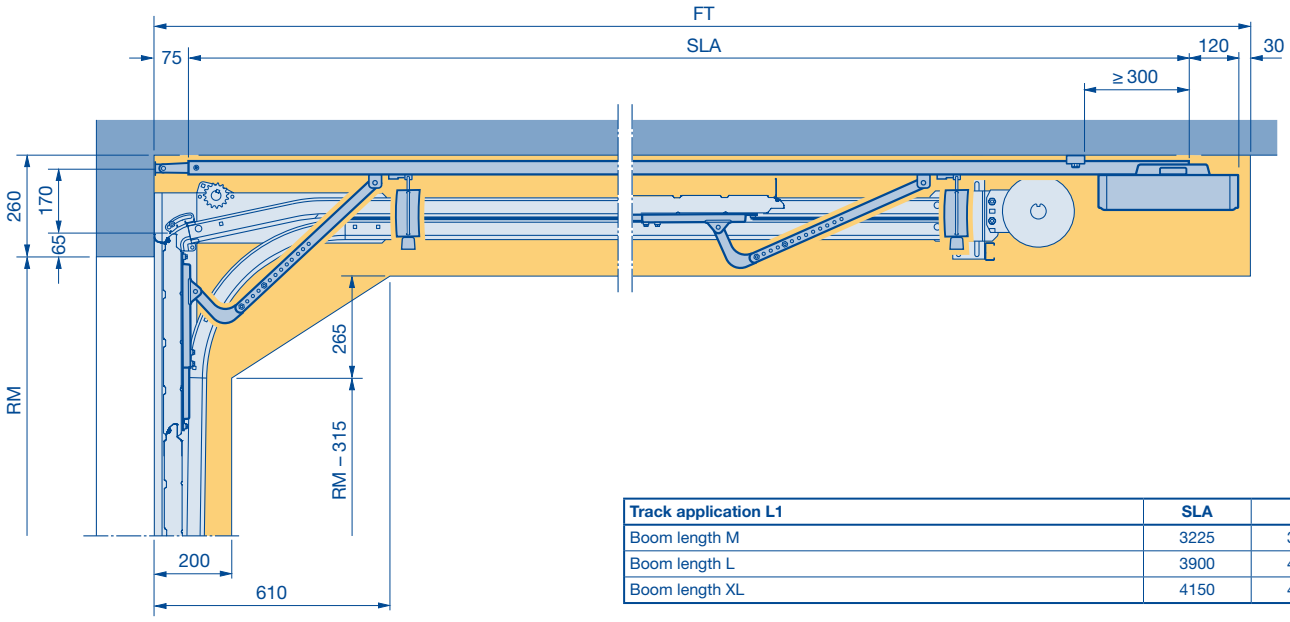
Operator SupraMatic HT

SupraMatic HT track application N
(doors with wicket door, ALR F42 Glazing, ALR F42 Vitraplan and doors with real glass infill on request)*



Track application N1	SLA	FT
Boom length K	2975	3200
Boom length M	3225	3450
Boom length L	3900	4125
Boom length XL	4150	4375

SupraMatic HT track application L
(doors with wicket door, ALR F42 Glazing, ALR F42 Vitraplan and doors with real glass infill on request)*



Track application L1	SLA	FT
Boom length M	3225	3450
Boom length L	3900	4125
Boom length XL	4150	4375

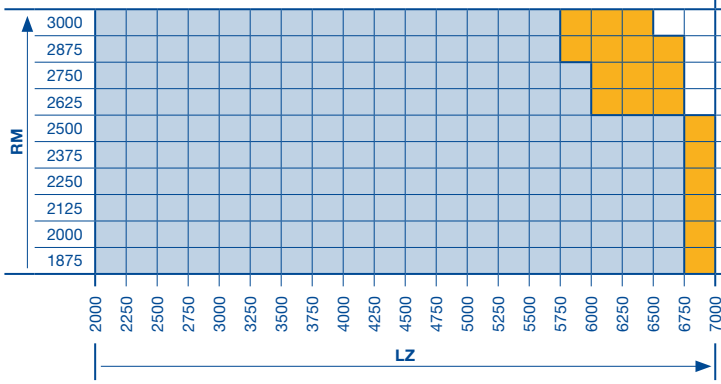
(See the next page for the size range for SupraMatic HT)

*** Notice:**
Operator not possible for doors with a depth of 67 mm!

RM Grid height
FT Clearance for door operator
SLA Operator boom length
DHA Operator rear ceiling anchor

Operator SupraMatic HT

SupraMatic HT size range



	Boom length		No. of door sections			
	Track application **N1**	Track application **L1**	375	500	625**	750**
3000	S	XL	–	6	–	4
2875	S	XL	1	5	1	3
2750	S	S	2	4	2	2
2625	S	S	3	3	3	1
2500	S	S	–	5	4	–
2375	M	S	1	4	4*	–
2250	M	S	2	3	–	3
2125	K	M	3	2	1	2
2000	K	M	–	4	2	1
1875	K	M	1	3	3	–

SupraMatic HT not possible.

SupraMatic HT possible.

SupraMatic HT on request.

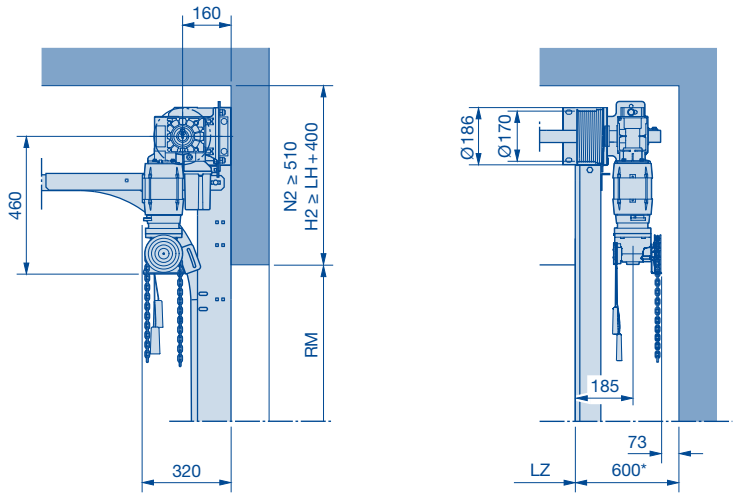
LZ Clear frame dimension
RM Grid height
* Top door section 500 mm
** Only without wicket door

Dimensions in mm

Direct drive operators S17.24 and S35.30

With door leaf speed

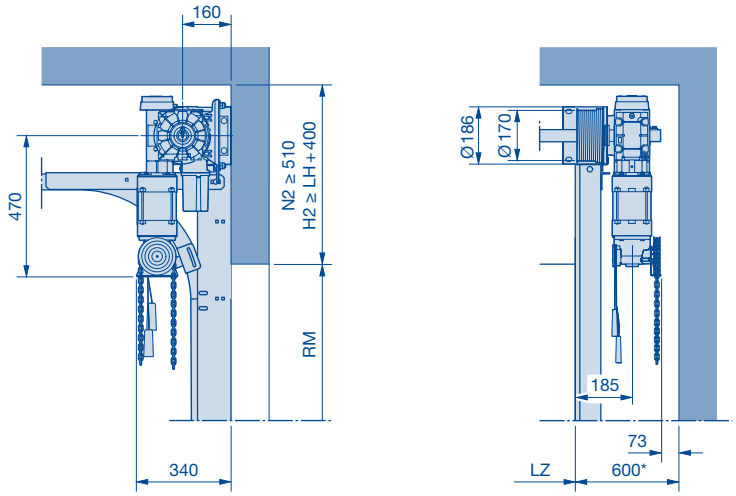
Direct drive operator S17.24



Door leaf speeds – Control 445 R and 460 R

Direct drive operator	Cable drum diameter in mm	Max. speed in mm/s – Open / Close
S17.24	170	210

Direct drive operator S35.30



Door leaf speeds – Control 445 R and 460 R

Direct drive operator	Cable drum diameter in mm	Max. speed in mm/s – Open / Close
S35.30	170	265

LZ Clear frame dimension
RM Grid height
* 355 mm for complete assembly with operator shaft

Door leaf speeds

Door leaf speeds WA 300 / WA 400

(ATTENTION! The stated speeds can **only be achieved under optimum conditions** regarding door size and track size. More detailed information on request, as it is dependent on fitting, door and track heights.)

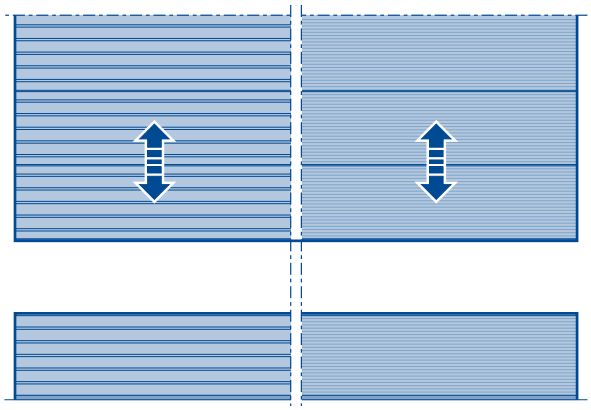
Fitting	WA 300 S4		WA 400													
	Integrated / external control 360		Control 445 and 460								Control B 460 FU					
	Control with optosensors VL 1, VL 2, HLG	Control with power limit	Frame-mounted operator				Chain box operator				Frame-mounted operator [1]	Chain box operator [1]	Without twin roller	With twin roller	Without twin roller	With twin roller
			A control with optosensors / B control with optosensors or VL 1 / 2; HLG		A control VL 1, VL 2; HLG		A control with optosensors / B control with optosensors or VL 1 / 2; HLG		A control VL 1, VL 2; HLG				Optosensors		VL 1, VL 2 (HLG)	
	Max. speed in mm/s, Open / Close	Max. speed in mm/s, Open / Close [5]	rpm [1]	Max. speed in mm/s, Open / Close	rpm [1]	Max. speed in mm/s, Open / Close	rpm [1]	Max. speed in mm/s, Open / Close	rpm [1]	Max. speed in mm/s, Open / Close			Max. speed in mm/s, Open / Close	Max. speed in mm/s, Open / Close	Max. speed in mm/s, Open / Close	Max. speed in mm/s, Open / Close
N1, NA1, NH1, NS1, GD1, ND1 ≤ 30°	190	95	30	190	30	190	30	190	30	190	Yes	Yes	300 / 200	375 / 200	300 / 300	375 / 300 (375)
N2, NA2, NH2, NS2, GD2, ND2 ≤ 30°	210	105	24	210		265	24	210		265				450 / 200		450 / 300 (450)
N3, NH3, ND3	–	–	–	–	–	–	16	190	16	190						
ND1 > 30°	160 / 190	80 / 95	19	190	24	300	19		24	300						
ND2 > 30°	190	95	16	190	19	275	16		19	275				375 / 200		375 / 300 (375)
L1, L2, LD1, LD2	210	105	–	–	–	–	24	150	24	150	–	Yes		380 / 200		380 / 300 (380)
H4, HA4, HG4, HU4, HD4, RD4, RG4	160 / 190 [1;4]	80 / 95 [1;4]	24 / 19	190	30 / 24	290	24 / 19	190	30 / 24	290	Yes	Yes		450 / 200		450 / 300 (450)
H5, HG5, HU5, HD5, RD5, RG5	210	105	19 / 16	210	24 / 19		19 / 16	210	24 / 19					440 / 200		440 / 300 (440)
H8, HD8	–	–	–	–	–	–	16 [2]	250 [2]	16	250				450 / 200		450 / 300 (450)
V6, VA6, VU6, WG6	160 / 190 [1;4]	80 / 95 [1;4]	19	190	24	300	19	190	24	300			450 / 200 [3]		450 / 300 (450) [3]	
V7, VU7, WG7	190	95	16		19	275	16		19	275			440 / 200 [3]		440 / 300 (440) [3]	
V9, VU9	–	–	–	–	–	–	16 [2]	250 [2]	16	250						

[1] Speed corresponding to high-lift / door height (RM)
[2] Only possible with press-and-hold operation
[3] Twin rollers not necessary with track applications V and VU!
[4] Max. speed depending on the clear frame dimensions
[5] From 2500 mm above FFL to FFL without closing edge safety device to comply with EN 13241-1

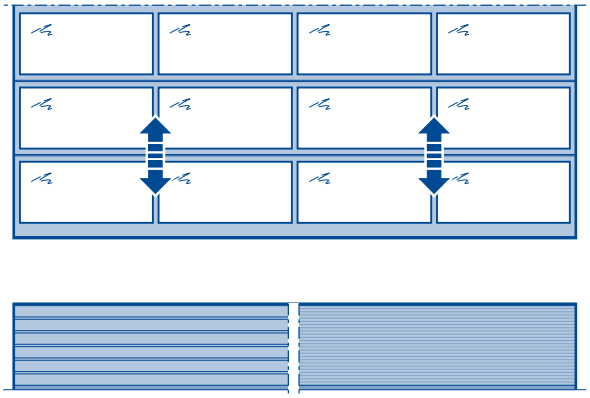
Notice
Double spring shaft only possible in conjunction with control B 460 FU!

Sectional door
Parcel / Parcel Walk

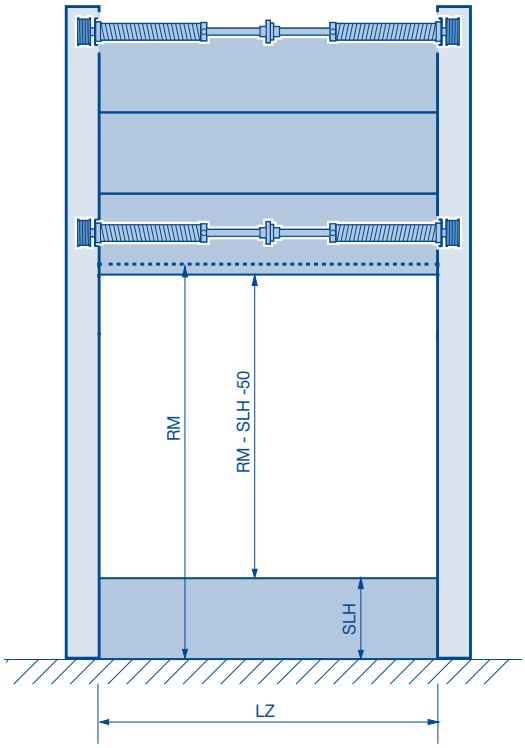
SPU F42



APU F42

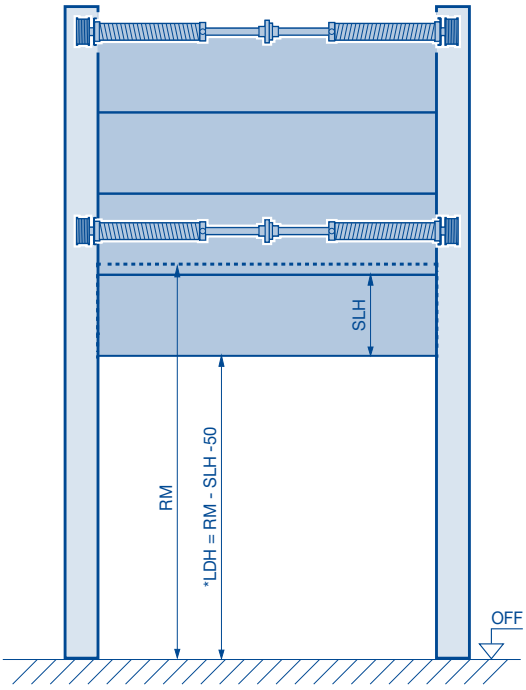


Functional principle



For loading lorries and swap trailers, the bottom section with the catwalk remains on the ground when the door is open.

*LDH = RM possible on request for Parcel

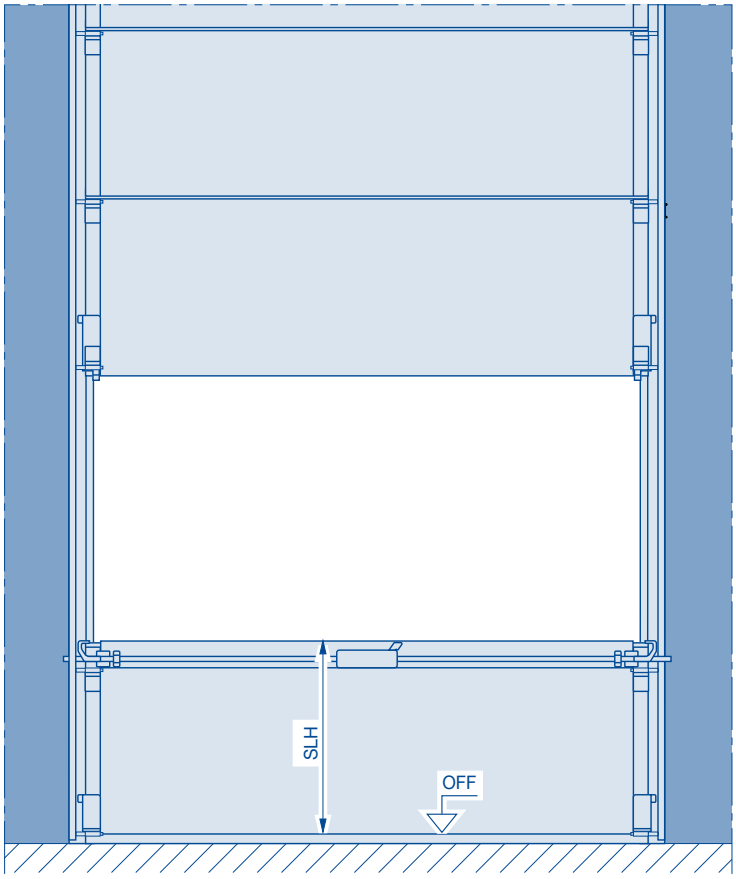


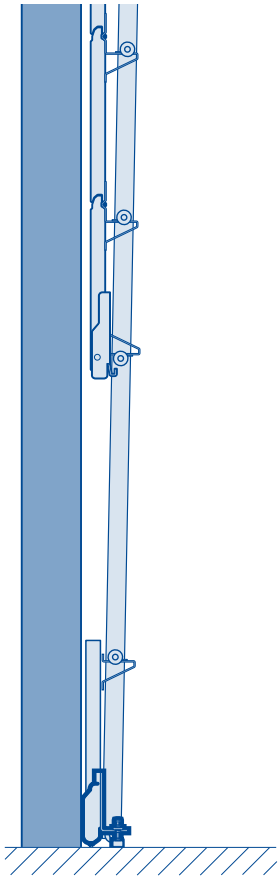
Vans are loaded at floor level. For this purpose, the door is opened completely including the bottom section. When the coupled door is open, the bottom section with the catwalk remains in the top part of the door opening.

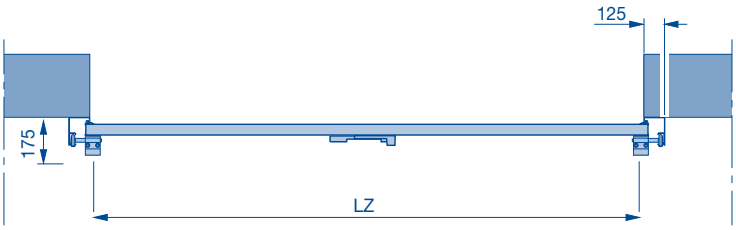
LZ Clear frame dimension
RM Grid height
SLH Bottom section height
LDH Clear passage height

Dimensions in mm

Sectional door
Parcel

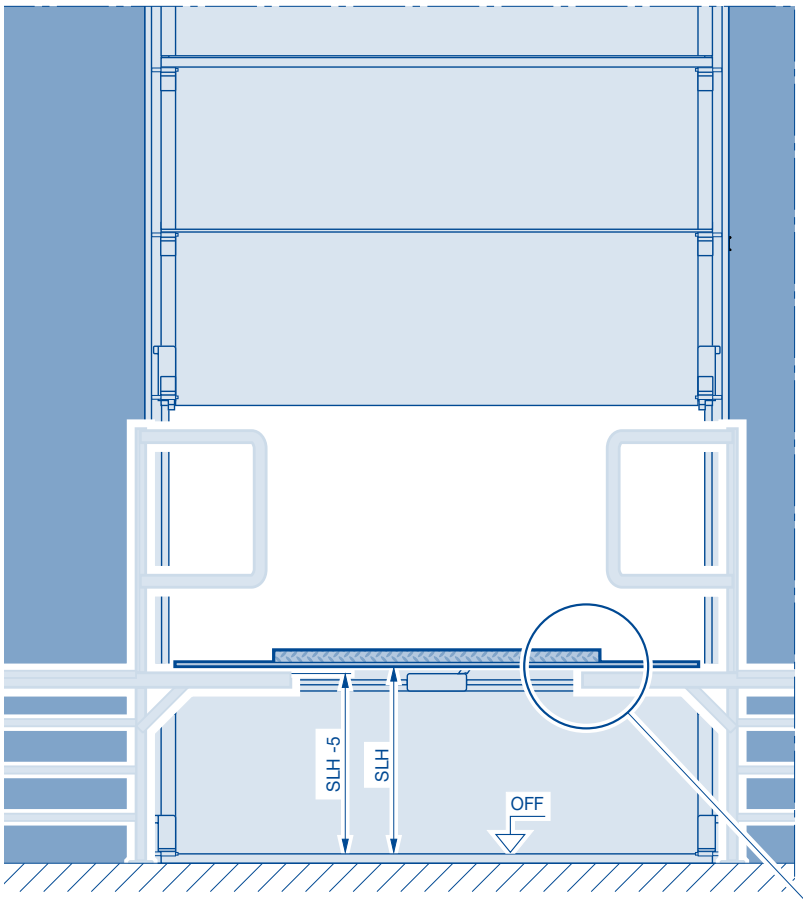


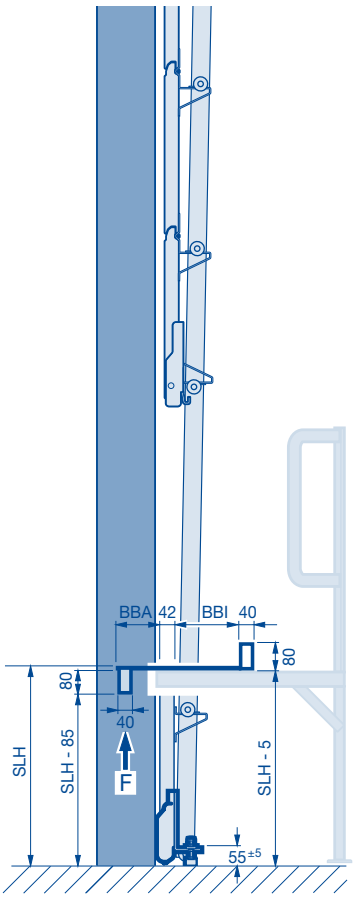


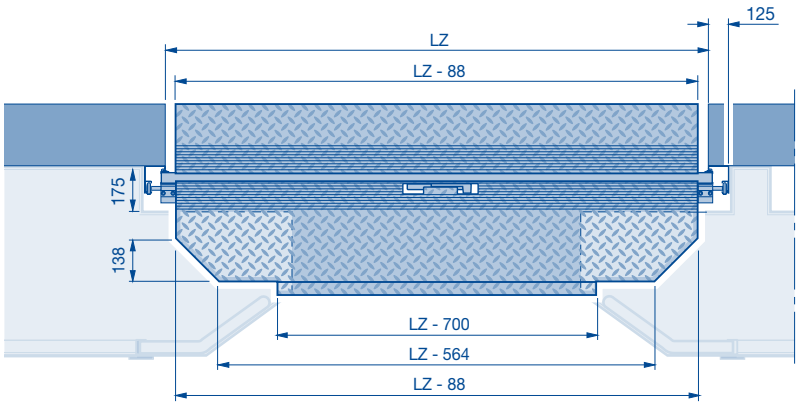


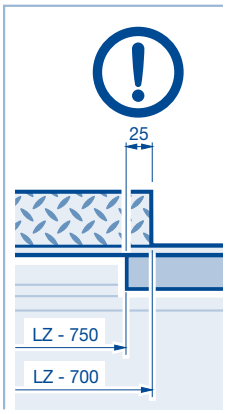
LZ Clear frame dimension
SLH Bottom section height
Dimensions in mm

Sectional door
Parcel Walk







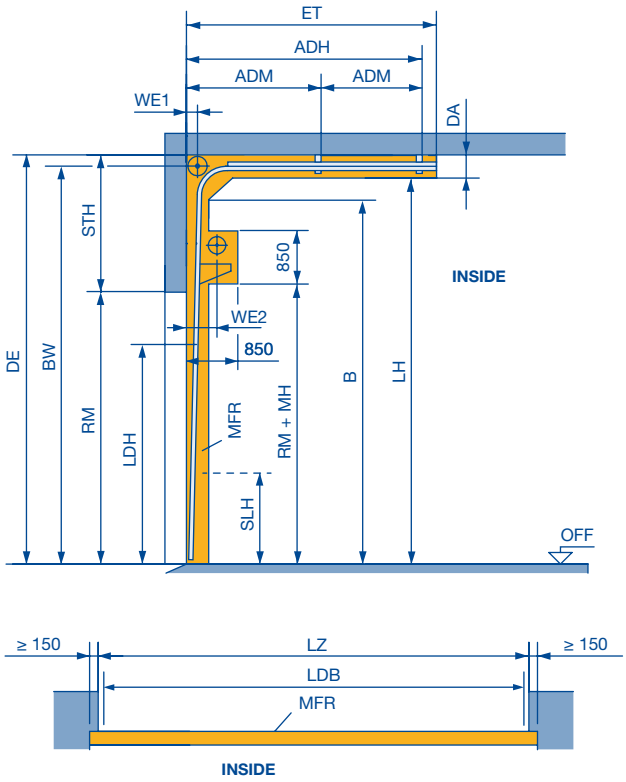


LZ Clear frame dimension
SLH Bottom section height
BBA Exterior catwalk width min. 175 – 400
BBI Interior catwalk width min. 300 – 600

RM Grid height
F Force
Dimensions in mm

Track application: HP

High-lift track application for sectional door Parcel / Parcel Walk with high- and low-mounted torsion spring shaft



Please note:

1. Select required track height according to the door height in Table 11.
2. A technical inspection is required!

Notices:

- Only for door types SPU F42 and APU F42
- Operators WA 300 and WA 400 are only possible in press-and-hold operation.
- A frame below the door division is not possible
- Application range from LZ 1500 – 3000 mm and RM from 3125 – 4250 mm.
- Doors with wicket door are not possible.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.

Table 11: Track heights (LH)

Door height RM	Min. LH	Max. LH	
4250	5760	on request	HP 5 WE1 = 180 WE2 = 315
4125	5635		
4000	5510		
3875	5385		
3750	5260		
3625	5135		
3500	5010	on request	HP 4 WE1 = 160 WE2 = 315
3375	4885		
3250	4760		
3125	4635		

Notices:

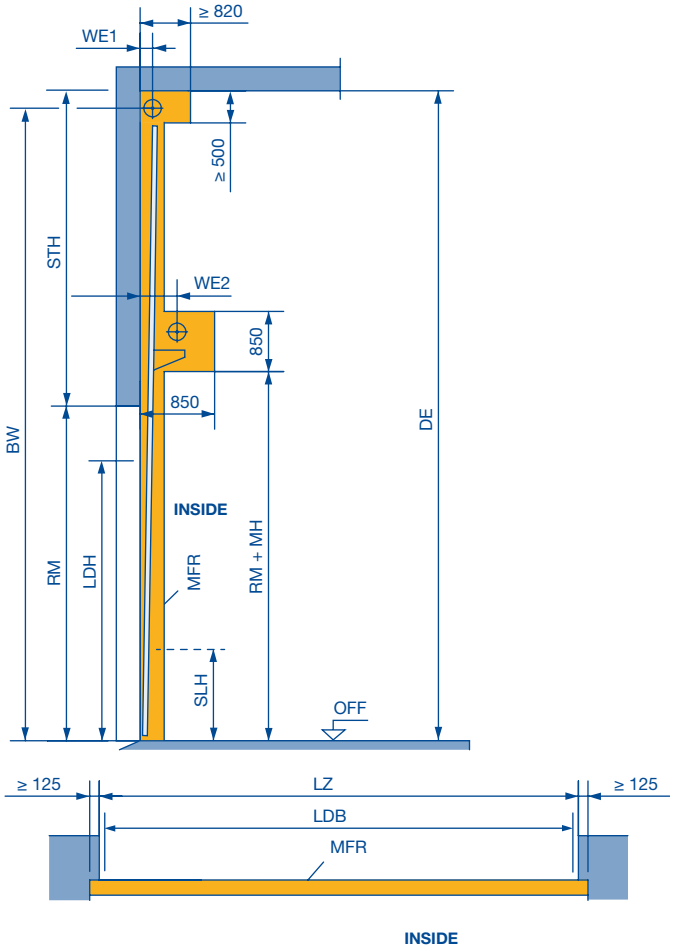
- Follow the instructions for the approved size ranges for door types SPU F42 and APU F42 from Table 11!

DE	Ceiling height
LDB	Clear passage width with ThermoFrame (see page 73)
LDH	Clear passage height LDH = RM – SLH – 50 For Parcel, LDH = RM is available on request
RM	Grid height
LH	Track height (see Table 6)
ADH	Distance to rear ceiling anchor on request
ADM	Distance to central ceiling anchor (see page 78)
WE	Shaft centre from lintel (see Table 6)
STH	Min. headroom (see page 52)
B	Start of double radius, LH – 310
DA	Distance to ceiling, min. (HP 4 = 420 / HP 5 = 450)
DAL	Anchor length DE – LH – 15 (see page 78)
LZ	Clear frame dimensions **(from 1200)**
ET	Distance back on request
MFR	Space for fitting the door on request
SLH	Bottom section height 500 – 1450
BW	Position of shaft support (HP 4 + 5 = LH + 280)
MH	Fitting height 400

Dimensions in mm

Track application: VP

Vertical track application for sectional door Parcel / Parcel Walk with high- and low-mounted torsion spring shaft



Please note:

1. A technical inspection is required!

Notices:

- Only for door types SPU F42 and APU F42
- Operators WA 300 and WA 400 are only possible in press-and-hold operation.
- A frame below the door division is not possible
- Application range from LZ 1500 – 3000 mm and RM from 3125 – 4250 mm.
- Doors with wicket door are not possible.
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.

Observe min. sideroom, see page 73.

LDB Clear passage width with ThermoFrame (see page 73)
LDH Clear passage height
LDH = RM – SLH – 50
For Parcel, LDH = RM is possible
RM Grid height
WE1 Shaft centre from lintel
VP 6 = 160, VP 7 = 180
WE2 Shaft centre from lintel
VP 6 and VP 7 = 315
DE Ceiling height, on request
BW Position of shaft support, on request
LZ Clear frame dimensions **(from 1200)**
MFR Space for fitting the door, on request
SLH Bottom section height 500 – 1450
STH Headroom, on request
MH Fitting height 400

Dimensions in mm

Infill overview
Determination of the roof slope

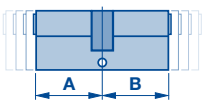
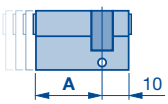
Infill overview	SPU F42	APU F42	APU F42 Thermo	ALR F42	ALR F42 Thermo	ALR F42 Vitraplan	ALR F42 Glazing
Infill type	**Abbreviation**						
Clear synthetic pane, 3 mm [1] [3]	FK	FK	–	FK	–	–	–
Crystal structure synthetic pane, 3 mm [1] [3]	KR	KR	–	KR	–	–	–
Clear polycarbonate pane, 6 mm [3]	PP	P	–	PP	–	–	–
Multiple moulded pane, 16 mm, $U_g = 1.9$ W/(m²·K) [3]	S	S	S	S	S	–	–
PU infill, 26 mm with Stucco-textured aluminium sheet cover on both sides, $U_g = 1.0$ W/(m²·K)	–	FC	FC	FC	FC	–	–
PU infill, 26 mm with anodised smooth aluminium sheet cover on both sides, $U_g = 1.0$ W/(m²·K)	–	XU	XU	XU	XU	–	–
PU infill, 26 mm with anodised smooth aluminium sheet cover on both sides, $U_g = 1.2$ W/(m²·K) [6]	TU	TU	TU	TU	TU	–	–
Synthetic double pane, clear, 26 mm, $U_g = 2.6$ W/(m²·K)	S2	S2	S2	S2	S2	S2	–
Synthetic double pane, crystal structure, 26 mm, $U_g = 2.6$ W/(m²·K)	U2	U2	U2	U2	U2	U2	–
Synthetic double pane, grey tinted, 26 mm, $U_g = 2.6$ W/(m²·K)	A2	A2	A2	A2	A2	–	–
Synthetic double pane, brown tinted, 26 mm, $U_g = 2.6$ W/(m²·K)	B2	B2	B2	B2	B2	–	–
Synthetic double pane, white tinted (opal), 26 mm, $U_g = 2.6$ W/(m²·K)	M2	M2	M2	M2	M2	–	–
Synthetic triple pane, clear, 26 mm, $U_g = 1.9$ W/(m²·K)	S3	S3	S3	S3	S3	S3	–
Synthetic triple pane, crystal structure, 26 mm, $U_g = 1.9$ W/(m²·K)	U3	U3	U3	U3	U3	U3	–
Synthetic triple pane, grey tinted, 26 mm, $U_g = 1.9$ W/(m²·K)	A3	A3	A3	A3	A3	–	–
Synthetic triple pane, brown tinted, 26 mm, $U_g = 1.9$ W/(m²·K)	B3	B3	B3	B3	B3	–	–
Synthetic triple pane, white tinted (opal), 26 mm, $U_g = 1.9$ W/(m²·K)	M3	M3	M3	M3	M3	–	–
Polycarbonate double pane, clear, 26 mm, $U_g = 2.7$ W/(m²·K)	C2	C2	C2	C2	C2	C2	–
Single pane made of laminated safety glass, 6 mm [2] [3]	VG	VG	–	VG	–	–	VG
Double pane made of single-pane safety glass, 26 mm, $U_g = 2.6$ W/(m²·K) [2]	E2	E2	E2	E2	E2	–	E2
Double pane made of laminated safety glass P4A, 26 mm, $U_g = 1.3$ W/(m²·K) [6]	W2	W2	W2	W2	W2	–	–
Climatic double pane made of single-pane safety glass, 26 mm, $U_g = 1.1$ W/(m²·K) [2]	G2	G2	G2	G2	G2	–	G2
Stainless steel expanded mesh, 5 mm [1] [3] [4]	SE	SE	–	SE	–	–	–
Perforated stainless steel sheet, 1.5 mm, perforation 8 mm [1] [3] [4]	LB	LB	–	LB	–	–	–
Prepared for on-site infill [5]	BS	BS	BS	BS	BS	–	–

[1] **Notice:** max. field width 1230 mm; if required, add an additional field
[2] Only for door width up to 6000 mm; on request
[3] Not possible for aluminium frames in Thermo version
[4] No colour coating possible
[5] On request; infill weight and thickness must be specified (anodised glazing bead required)
[6] Only for NT 60 and N T80 Thermo with RC 2 version

Determination of the roof slope in degrees (a°)

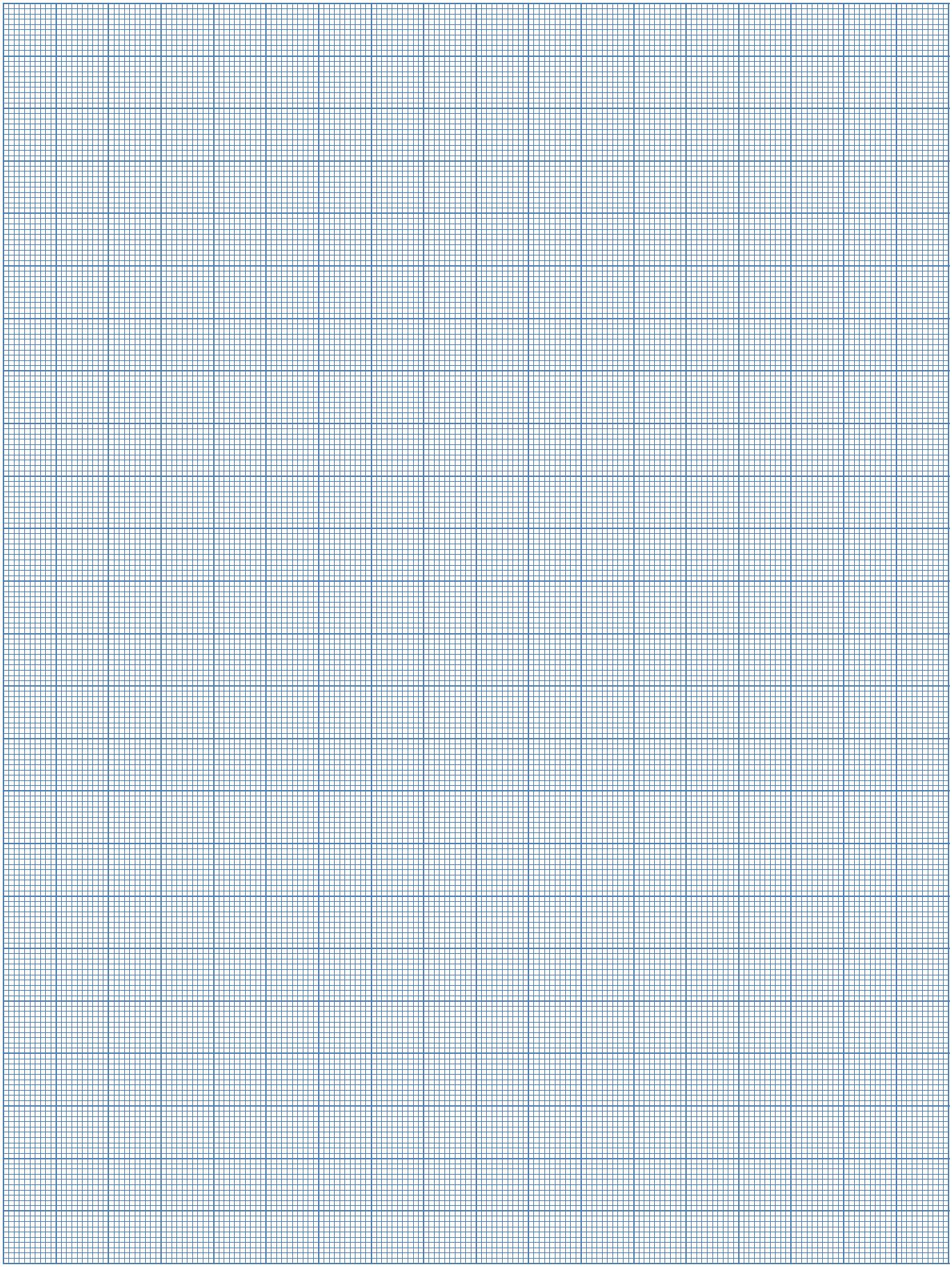
a°	%	X (mm)	a°	%	X (mm)	a°	%	X (mm)
1	1,75	17,5	16	28,67	286,7	31	60,09	600,9
2	3,49	34,9	17	30,57	305,7	32	62,49	624,9
3	5,24	52,4	18	32,49	324,9	33	64,95	649,5
4	6,99	69,9	19	34,43	344,3	34	67,46	674,6
5	8,75	87,5	20	36,40	364,0	35	70,03	700,3
6	10,51	105,1	21	38,39	383,9	36	72,66	726,6
7	12,28	122,8	22	40,40	404,0	37	75,36	753,6
8	14,05	140,5	23	42,45	424,5	38	78,13	781,3
9	15,84	158,4	24	44,52	445,2	39	80,98	809,8
10	17,63	176,3	25	46,63	466,3	40	83,91	839,1
11	19,44	194,4	26	48,77	487,7	41	86,93	869,3
12	21,26	212,6	27	50,95	509,5	42	90,05	900,5
13	23,09	230,9	28	53,17	531,7	43	93,26	932,6
14	24,93	249,3	29	55,43	554,3	44	96,57	965,7
15	26,79	267,9	30	57,74	577,4	45	100	1000

overview
Profile cylinder

Product type	 Double cylinder PC length (L): Interior (A) + exterior (B)	 Half cylinder PC length (L): Closing side (A) + blind side	Aluminium frames Infill	Door lock Standard	Door lock Recessed	Wicket door	Optional extra Bolt lock	Operator accessories Key switches
SPU F42 APU F42 APU F42 Thermo	L = 35 + 30	–	–	–	–	●	●	–
	–	L = 30 + 10	–	–	●	●	–	●
	–	L = 35 + 10	–	–	–	–	●	–
	–	L = 70 + 10	–	●	–	–	–	–
ALR F42 ALR F42 Thermo	L = 35 + 30	–	–	–	–	●	●	–
	–	L = 30 + 10	–	–	–	●	–	●
	–	L = 35 + 10	–	–	–	–	●	–
	–	L = 55 + 10	FU and XU	●	–	–	–	–
NT 60	L = 40 + 40	L = 40 + 10	–	–	–	–	–	–
NT 80	L = 35 + 70	L = 35 + 10	–	–	–	–	–	–
NT 60 RC 2	L = 35 + 40*	–	–	–	–	–	–	–
NT 80 RC 2	L = 35 + 60*	–	–	–	–	–	–	–

* Profile cylinder in acc. with DIN 1303 (point 7 = class 5, point 8 = class 1)

Notices



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