



Industrial Sectional Doors Depth 42 mm

Technical Manual

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Note:

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. No part may be reproduced without our prior permission. All rights reserved.

Product Descriptions

Door type	Door leaf / wicket door
Sectional door SPU F42, double-skinned steel sections, 625 and 750 mm high, Stucco-textured / Micrograin	
Door leaf	Door sections made of polyurethane-foamed, hot-galvanized sections. Door sections Stucco-textured on inside and outside with uniform horizontal ribbing, or Micrograin with fine horizontal embossing 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 installed in the central fields of the sectional door. Cannot be installed 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 anodised aluminium extrusions in the standard version or with thermal break, or alternatively 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 sections, 375 and 500 mm high, Stucco-textured / Micrograin	
Door leaf	Door sections made of polyurethane-foamed, hot-galvanized sections. Door sections Stucco-textured on inside and outside with uniform horizontal ribbing, or Micrograin with fine horizontal embossing 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 installed in the central fields of the sectional door. Cannot be installed 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 anodised aluminium extrusions in the standard version or with thermal break, or alternatively 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, aluminium extrusions, double-skinned bottom section	
Door leaf	Bottom section of hot-galvanized sections, infilled with polyurethane foam, 750 (standard version), or 1500 mm high, Stucco-textured inside and outside with uniform horizontal ribbing, or Micrograin with fine horizontal embossing outside and Stucco-textured inside. Surface protection with polyester-primer coating. Other door sections with glazing made of anodised aluminium extrusions in the standard version (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 optional.
Wicket door	Depending on the door type, made of anodised aluminium extrusions in the standard version or with thermal break, installed in the central fields of the door. Cannot be installed 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, aluminium extrusions	
Door leaf	Door sections made of anodised aluminium extrusions in the standard version (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 optional.
Wicket door	Depending on the door type, made of anodised aluminium extrusions in the standard version or with thermal break, installed in the central fields of the door. Cannot be installed 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 extrusions	
Door leaf	Door sections made of anodised aluminium extrusions in the standard version. 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, aluminium extrusions	
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, in a choice of brown or grey. Ventilation grilles are not possible in the bottom section.

Product Descriptions

Door type	Door leaf / wicket door
Parcel / parcel walk sectional door	
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.
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 are designed for track applications N, ND, NS, NK, NA, NH, GD, GS, L and LD 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, additional approved catch safety devices *)
- Power-driven doors with break-in-resistant anti-lift kit
- Finger trap protection outside and inside

* 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.

Note 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 6004 Blue green	RAL 6022 Olive drab	RAL 8019 Grey brown
RAL 5003 Sapphire blue	RAL 6005 Moss green	RAL 7016 Anthracite grey	RAL 8022 Black brown
RAL 5004 Black blue	RAL 6007 Bottle green	RAL 7021 Black grey	RAL 8028 Terra brown
RAL 5011 Steel blue	RAL 6008 Brown green	RAL 7043 Traffic grey	RAL 9004 Signal black
RAL 5013 Cobalt blue	RAL 6009 Fir green	RAL 8014 Sepia brown	RAL 9005 Jet black
RAL 5020 Ocean blue	RAL 6012 Black green	RAL 8016 Mahogany brown	RAL 9011 Graphite black
RAL 5022 Night blue	RAL 6015 Black olive	RAL 8017 Chocolate brown	RAL 9017 Traffic black

Color 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 insulation EN 717-1	Door without wicket door R = . . . dB
	Door with wicket door R = . . . dB
Thermal insulation EN 13241-1, appendix B EN 12428	Door without wicket door, U = W/(m ² ·K) ²⁾
	- Optional triple glazing, U = W/(m ² ·K) ²⁾
	- Optional climatic double panes (single-pane safety glass) U = W/(m ² ·K) ²⁾
	- Optional double panes (single-pane safety glass) U = W/(m ² ·K) ²⁾
	Door with wicket door, U = W/(m ² ·K) ²⁾
	- Section, U = W/(m ² ·K)
Design	Self-supporting
	Depth, mm
Door sizes	Max. width mm, LZ
	Max. height mm, RM ³⁾
Space requirements	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
	Note regarding surface coating, see page 5, from LZ, mm
Wicket door	
Side door	Matching the sectional 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	PVC hard / soft seal
Locking systems	Inside locking
	Outside / inside locking
Anti-lift kit	For doors of up to 5 m with shaft operator
Safety equipment	Finger trap protection
	Side trap guard
	Spring break safeguard for manual operation
	Safety catch for doors with shaft operator
Fitting types	Concrete
	Steel
	Brickwork
	Others on request

● = Standard

○ = Optional

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)

* With glazing VG, E2 and G2

** Top door section

4) Optionally with ThermoFrame

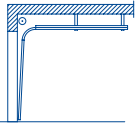
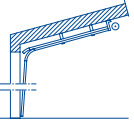
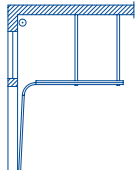
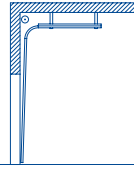
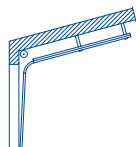
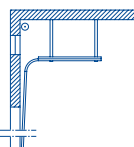
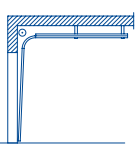
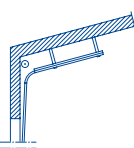
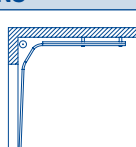
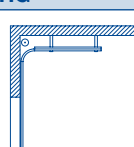
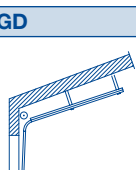
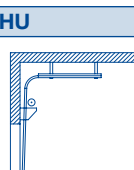
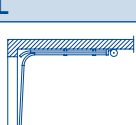
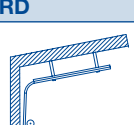
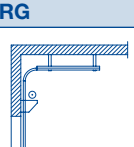
5) Door width up to 5500 mm

6) Class 3 = 0.7 kN/m² or 120 km/h7) Class 2 = 0.45 kN/m² or 96 km/h8) Class 2 = 12 m³/m²h9) Class 1 = 24 m³/m²h

Technical Data Overview

SPU F42	APU F42	APU F42 Thermo	ALR F42	ALR F42 Thermo	ALR F42 Vitraplan	ALR F42 Glazing
3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	3 ⁶⁾
3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	3 ⁶⁾	-	-
2 ⁷⁾	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 (3.4 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

<p>N</p>  <p>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</p>	<p>LD</p>  <p>Like track application L, with inclination Door height RM ≤ 5000 mm</p>
<p>NA</p>  <p>Like track application N, with high-mounted torsion spring shaft Door height RM ≤ 5000 mm</p>	<p>H</p>  <p>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</p>
<p>ND</p>  <p>As with track application N, with inclination</p>	<p>HA</p>  <p>Like track application H, with high-mounted torsion spring shaft Door height RM ≤ 3500 mm</p>
<p>NH</p>  <p>Like track application N, with minimum high-lift</p>	<p>HD</p>  <p>Like track application H, with inclination</p>
<p>NS</p>  <p>Like track application N, with double radius 2 × 45° Door height RM ≤ 5000 mm</p>	<p>HG</p>  <p>Like 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!</p>
<p>GD</p>  <p>Like track application NH, with inclination (maximum 27°) Door height RM ≤ 5000 mm</p>	<p>HU</p>  <p>Like track application H, with low-mounted torsion spring shaft Door height RM ≤ 5000 mm</p>
<p>L</p>  <p>Low headroom track application Door height RM ≤ 5000 mm</p>	<p>RD</p>  <p>Like track application HU, with inclination Door height RM ≤ 5000 mm</p>
<p>RG</p>  <p>Like 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!</p>	

Overview of Track Applications

<p>V</p>  <p>Vertical track application (Additional hand pulley required for manually operated doors!)</p>	<p>VA</p>  <p>Like track application V, with high-mounted torsion spring shaft (Additional hand pulley required for manually operated doors!)</p> <p>Door height RM ≤ 3500 mm</p>
<p>VU</p>  <p>Like track application V, with low-mounted torsion spring shaft (Additional hand pulley required for manually operated doors!)</p>	<p>WG</p>  <p>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!)</p> <p>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!</p>
<p>Note: An in-factory technical inspection is required for the following track applications!</p>	
<p>NK</p>  <p>Like track application NS, but the degree values of both radii are adapted to the situation on site</p> <p>Door height RM ≤ 5000 mm</p>	<p>GS</p>  <p>Like track application NH with 2 × 45° – double radius</p> <p>Door height RM ≤ 5000 mm</p>
<p>HS</p>  <p>Like track application H with double radius 2 × 45°</p>	<p>HK</p>  <p>Like track application HS, but the degree values of both radii are adapted to the situation on site</p>
<p>VS</p>  <p>Like 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!)</p>	<p>WS</p>  <p>Like 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!)</p> <p>Door height RM ≥ 2200 mm</p>
<p>RS</p>  <p>Like track application HU, with 2 × 45° – double radius</p> <p>Door height RM ≤ 5000 mm</p>	<p>RK</p>  <p>Like track application RS, but the degree values of both radii are adapted to the situation on site</p> <p>Door height RM ≤ 5000 mm</p>
<p>Note: The parcel / parcel walk sectional door is only available with these track applications. Technical factory inspection required!</p>	
<p>HP</p>  <p>High-lift track application With high and low-mounted torsion spring shaft</p> <p>Door width LZ ≤ 3000 mm Door height RM ≤ 4250 mm Only for Parcel / Parcel Walk sectional door</p>	<p>VP</p>  <p>Vertical track application With high and low-mounted torsion spring shaft</p> <p>Door width LZ ≤ 3000 mm Door height RM ≤ 4250 mm Only for Parcel / Parcel Walk sectional door</p>

Sectional Door SPU F42

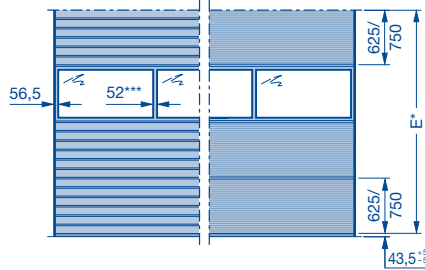
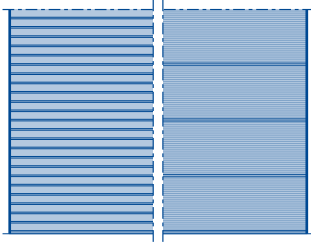
Double-skinned steel sections

625 and 750 mm high

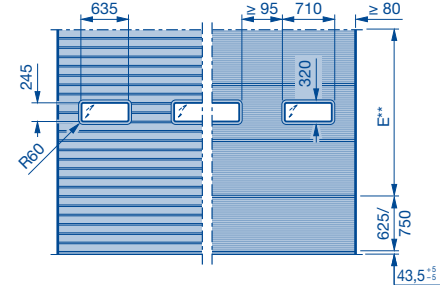
Stucco-textured / Micrograin

External views

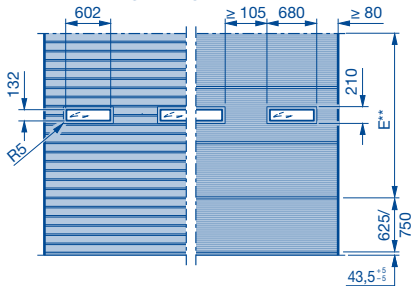
Glazing frames



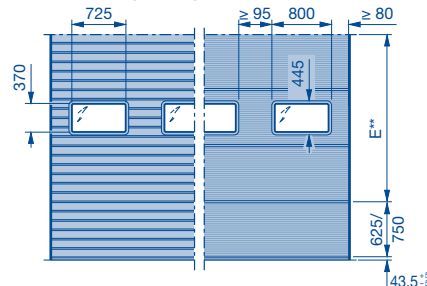
Compound glazing type A



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. Any door width in 10 mm increments possible. Intermediate heights using aluminium glazing frames or shortened top door section are possible.

RM						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	+	-										
	1	2	3	4	5	Number of infills / fields per aluminium frame												
	(see table 1)					Number of compound glazings per door section												
	Number of infills / fields x 2					Number of ventilation grilles, ventilation area												
						40 cm ² per grille												
	1500	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000
	SPB 52																	
	LZ																	

Note:

- 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 view to series 40, see page 39.

Table 1:

Number of compound glazings per door section

Type	Quantity	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

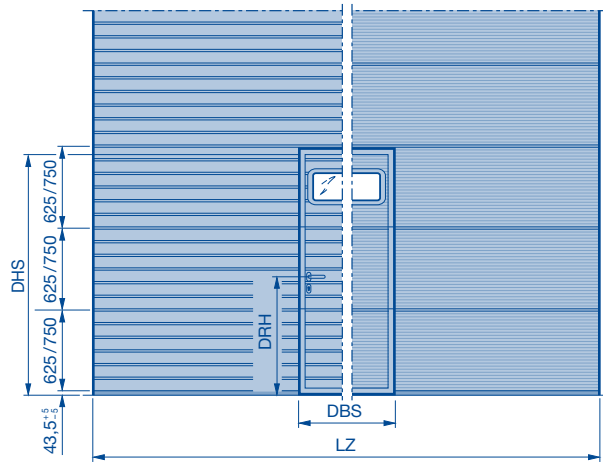
- On request
- Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.
- n₁ No. of door sections
- RM Grid height
- LZ Clear frame dimensions (from 1200)
- SPB Rail width
- TH Door section height
- **** Top door section 500 mm

Sectional Door SPU F42 with Wicket Door with Trip-Free Threshold

Double-skinned steel sections

625 and 750 mm high, Stucco-textured / Micrograin

External views



** Note 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 (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. Any door width in 10 mm increments possible. Intermediate heights using aluminium glazing frames or shortened door section above wicket door are possible.

RM	SH ₁				SH ₂	TH 625	n ₁	TH 750	DHS								
7500						7500	-	10	2205								
7375						7375	1	+	9	2205							
7250						7250	2	+	8	2205							
7125						7125	3	+	7	2205							
7000						7000	4	+	6	2205							
6875						6875	5	+	5	2205							
6750						6750	-	-	9	2205							
6625						6625	1	+	8	2205							
6500						6500	2	+	7	2205							
6375						6375	3	+	6	2205							
6250						6250	4	+	5	2205							
6125						6125	5	+	4	2205							
6000						6000	-	-	8	2205							
5875						5875	1	+	7	2205							
5750						5750	2	+	6	2205							
5625						5625	3	+	5	2205							
5500						5500	4	+	4	2205							
5375						5375	5	+	3	2205							
5250						5250	-	-	7	2205							
5125						5125	1	+	6	2205							
5000						5000	2	+	5	2205							
4875						4875	3	+	4	2205							
4750						4750	4	+	3	2205							
4625						4625	5	+	2	2080							
4500						4500	-	-	6	2205							
4375						4375	1	+	5	2205							
4250						4250	2	+	4	2205							
4125						4125	3	+	3	2205							
4000						4000	4	+	2	2080							
3875						3875	5	+	1	1955							
3750						3750	-	-	5	2205							
3625						3625	1	+	4	2205							
3500						3500	2	+	3	2205							
3375						3375	3	+	2	2080							
3250						3250	4	+	1	1955							
3125						3125	5	+	-	1830							
3000						3000	-	-	4	2205							
2875						2875	1	+	3	2205							
2750						2750	2	+	2	2080							
2625						2625	3	+	1	1955							
2500						2500	4	+	-	1830							
2375						2375	3	+	1***	1830							
2250						2250	-	-	3	2125							
2125						2125	1	+	2	2000							
2000						2000	2	+	1	1875							
1875						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 area 40 cm ² per grille							
	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000
	SPB 52																
	LZ																

Note:

- 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 doors see pages 36–38.
- Number of glazings, matching view to series 40, see page 39.

On request

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

n₁ No. of door sections

DHS Clear passage heights of wicket door to grid height

SH₁ Threshold height (rising from 5 to 10)

SH₂ 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)

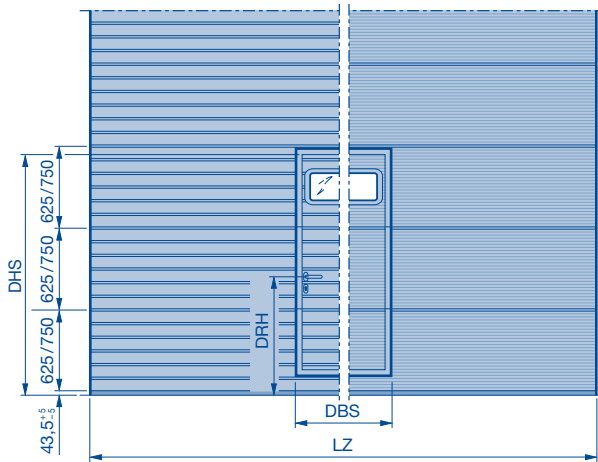
*** Top door section 500 mm

Sectional Door SPU F42 with Wicket Door and Threshold Rail

Double-skinned steel sections

625 and 750 mm high, Stucco-textured / Micrograin

External views



** Note 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 (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. Any door width in 10 mm increments possible. Intermediate heights using aluminium glazing frames or shortened door section above wicket door are possible.

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

RM		SH		n ₁		DHS	
2	3	3	4	2	3	2	3
(Number of infills / fields - 1) × 2				Number of ventilation grilles, ventilation area 40 cm ² per grille			
2000	2250	2500	2750	3000	3250	3500	3750
SPB 52							
LZ							

Note:

- 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 doors see pages 36–38.
- Number of glazings, matching view to series 40, see page 39.

- On request
- Versions with glazing frame A3, B3, M3, S3, U3, LB, P on request.
- Glazings on request
- n₁ No. of door sections
- DHS Clear passage heights of wicket door to grid height
- SH Threshold height (200)
- 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

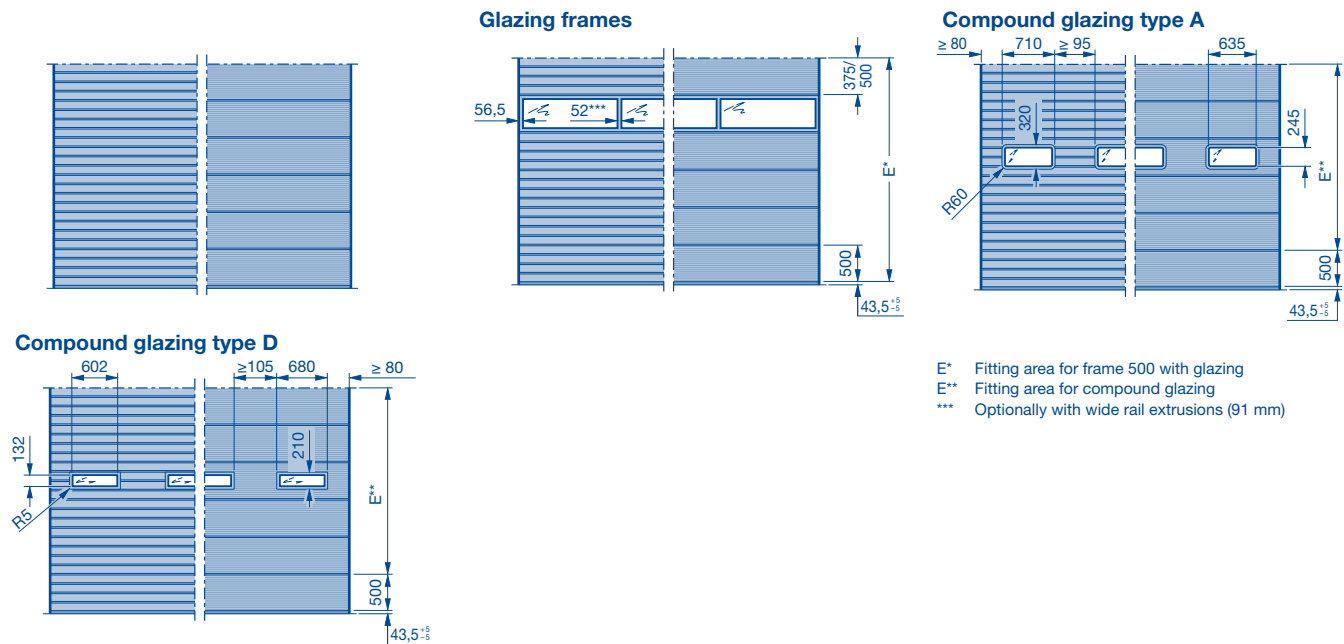
Sectional Door SPU F42

Double-Skinned Steel Sections

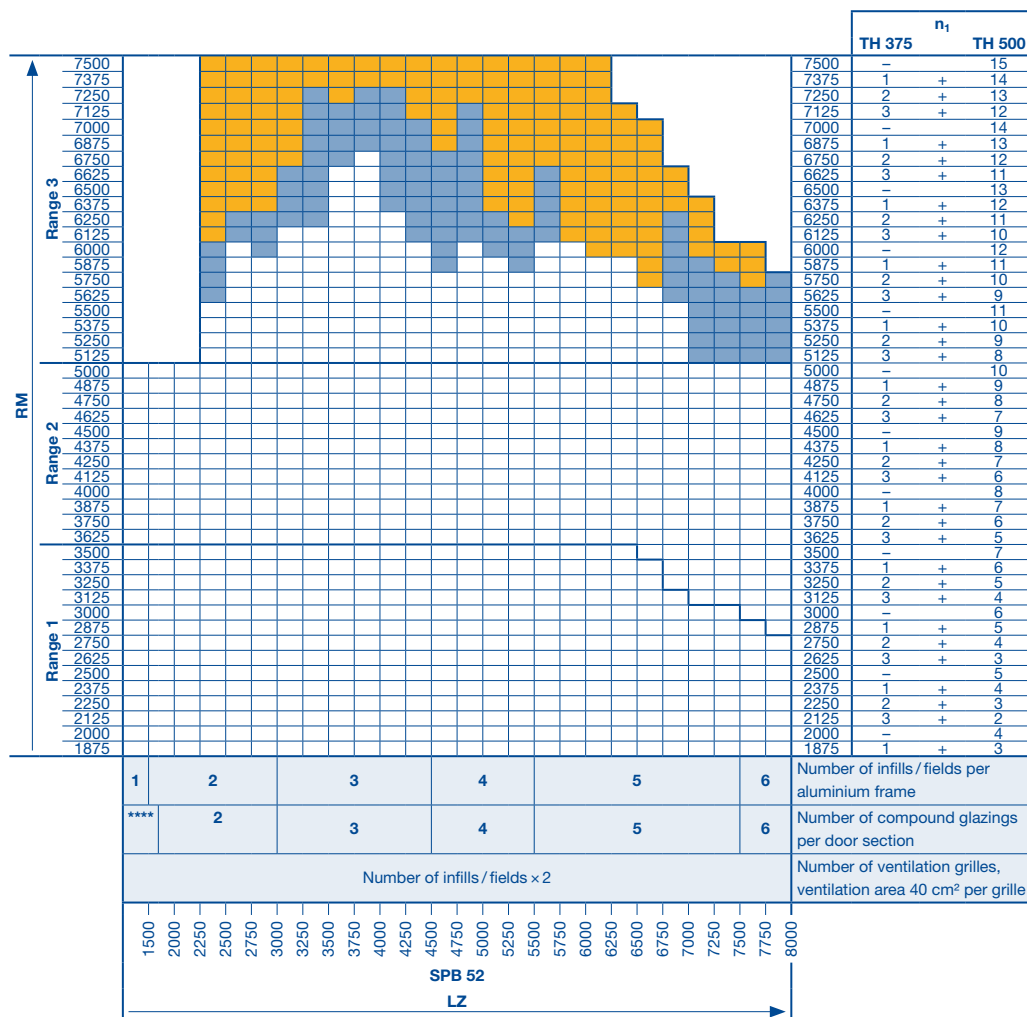
375 and 500 mm high

Stucco-textured / Micrograin

External views



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. Any door width in 10 mm increments possible. Intermediate heights using aluminium glazing frames or shortened top door section are possible.

Note:

- 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 view to series 40, see page 39.

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

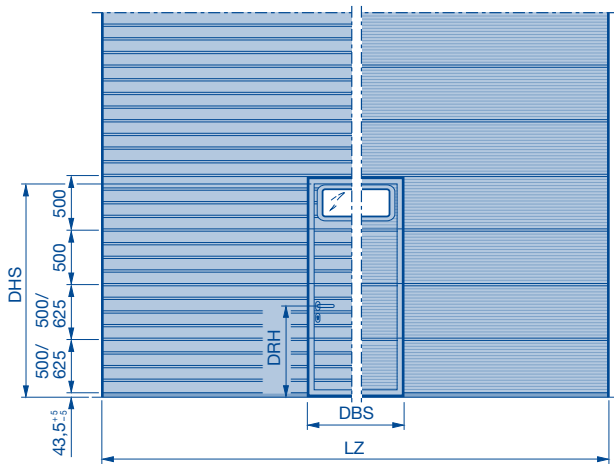
n₁ No. of door sections
 RM Grid height
 LZ Clear frame dimensions (from 1200)
 SPB Rail width
 TH Door section height
 **** See table 1 on page 10

Sectional Door SPU F42 with Wicket Door with Trip-Free Threshold

Double-skinned steel sections

375 and 500 mm high, Stucco-textured / Micrograin

External view



** Note 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 (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. Any door width in 10 mm increments possible. Intermediate heights using aluminium glazing frames or shortened door section above wicket door are possible.

RM	SH ₁				SH ₂				n ₁		DHS
	TH 375		TH 500		TH 375		TH 500				
7500										15	1955
7375										14	1955
7250										13	1955
7125										12	1955
7000										14	1955
6875										13	1955
6750										12	1955
6625										11	1955
6500										13	1955
6375										12	1955
6250										11	1955
6125										10	1955
6000										12	1955
5875										11	1955
5750										10	1955
5625										9	1955
5500										11	1955
5375										10	1955
5250										9	1955
5125										8	1955
5000										10	1955
4875										9	1955
4750										8	1955
4625										7	1955
4500										9	1955
4375										8	1955
4250										7	1955
4125										6	1955
4000										8	1955
3875										7	1955
3750										6	1955
3625										5	1955
3500										7	1955
3375										6	1955
3250										5	1955
3125										4	1955
3000										6	1955
2875										5	1955
2750										4	1955
2625										1***	2080
2500										4	1955
2375										4	1955
2250										2***	2125
2125										1***	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 area 40 cm ² 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																				

Note:

- For a view of the matching appearance with doors without wicket doors see pages 36–38.
- Number of glazings, matching view to series 40, see page 39.
- For versions with real glass infill in the wicket door, the threshold height **SH₂** 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

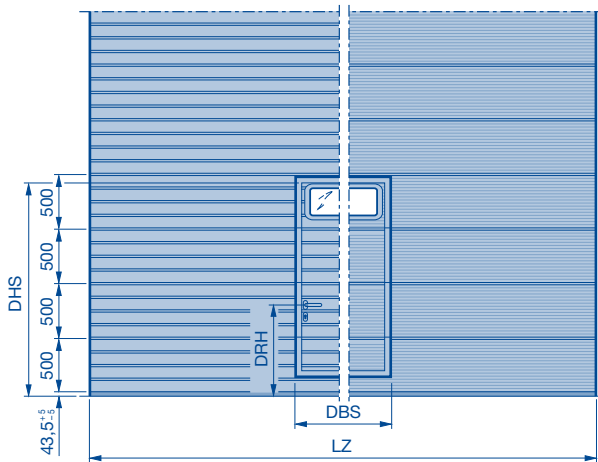
- n₁ No. of door sections
- DHS Clear passage heights of wicket door to grid height
- RM Grid height
- LZ Clear frame dimensions (from 1750)
- SH₁ Threshold height (rising from 5 to 10)
- SH₂ Threshold height (approx. 13)
- SPB Rail width
- TH Door section height
- DRH Lever height
- DBS Wicket door clear passage width
- *** TH = 625 mm

Sectional Door SPU F42 with Wicket Door and Threshold Rail

Double-skinned steel sections

375 and 500 mm high, Stucco-textured / Micrograin

External view



** Note 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 (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 SH₂)

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. Any door width in 10 mm increments possible. Intermediate heights using aluminium glazing frames or shortened door section above wicket door are possible.

RM	SH ₁				SH ₂				n ₁		DHS
	TH 375	TH 500			TH 375	TH 500			TH 375	TH 500	
7500											1955
7375											1955
7250											1955
7125											1955
7000											1955
6875											1955
6750											1955
6625											1955
6500											1955
6375											1955
6250											1955
6125											1955
6000											1955
5875											1955
5750											1955
5625											1955
5500											1955
5375											1955
5250											1955
5125											1955
5000											1955
4875											1955
4750											1955
4625											1955
4500											1955
4375											1955
4250											1955
4125											1955
4000											1955
3875											1955
3750											1955
3625											1955
3500											1955
3375											1955
3250											1955
3125											1955
3000											1955
2875											1955
2750											1955
2625											2080
2500											1955
2375											1955
2250											1830
2125											2080
2000											1955

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 area 40 cm ² 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																				

Note:

- Micrograin version only up to LZ ≤ 5500 mm.
- 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 doors see pages 36–38.
- Number of glazings, matching view to series 40, see page 39.
- For versions with real glass infill in the wicket door, the threshold height SH₂ 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
- n₁** No. of door sections
- DHS** Clear passage heights of wicket door to grid height
- RM** Grid height
- LZ** Clear frame dimensions (from 1750)
- SH₁** Threshold height (200)
- SH₂** 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-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

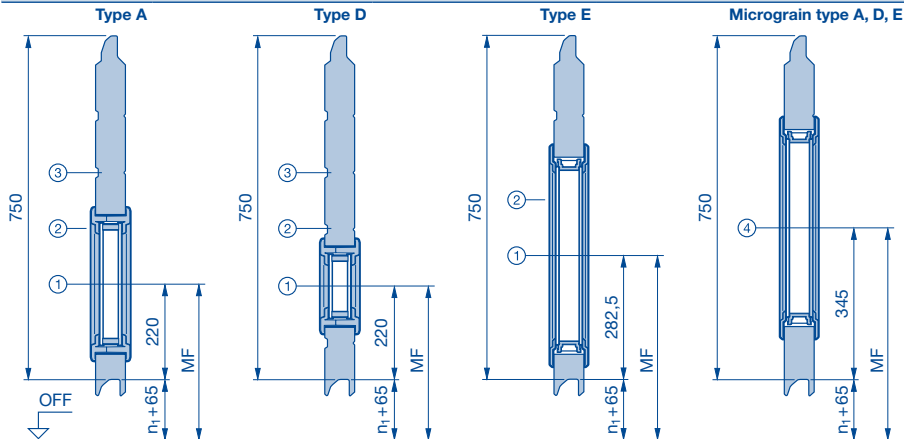
(Centre of window from FFL)

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



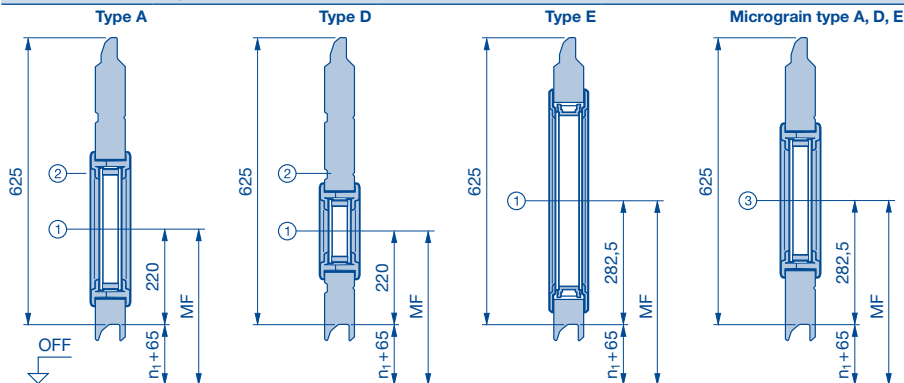
Glazing height type A and D

- 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



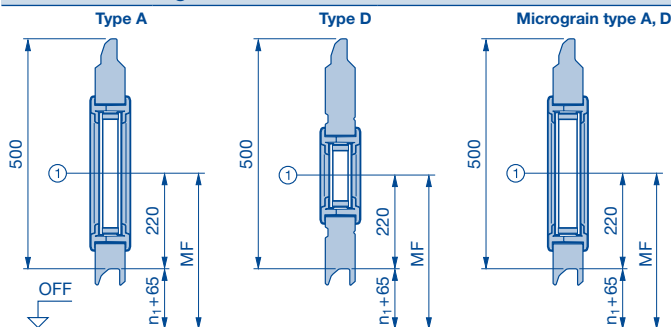
Glazing height type A and D

- 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



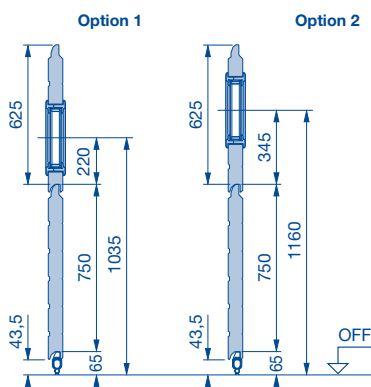
Glazing height type A and D

- 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.		

MF Centre of window from FFL

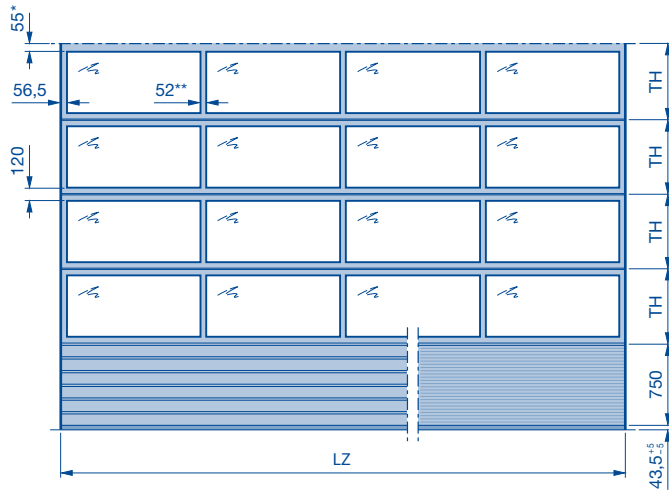
n₁ No. of door sections

Sectional Door APU F42

Aluminium extrusions

Double-skinned bottom section

External view



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

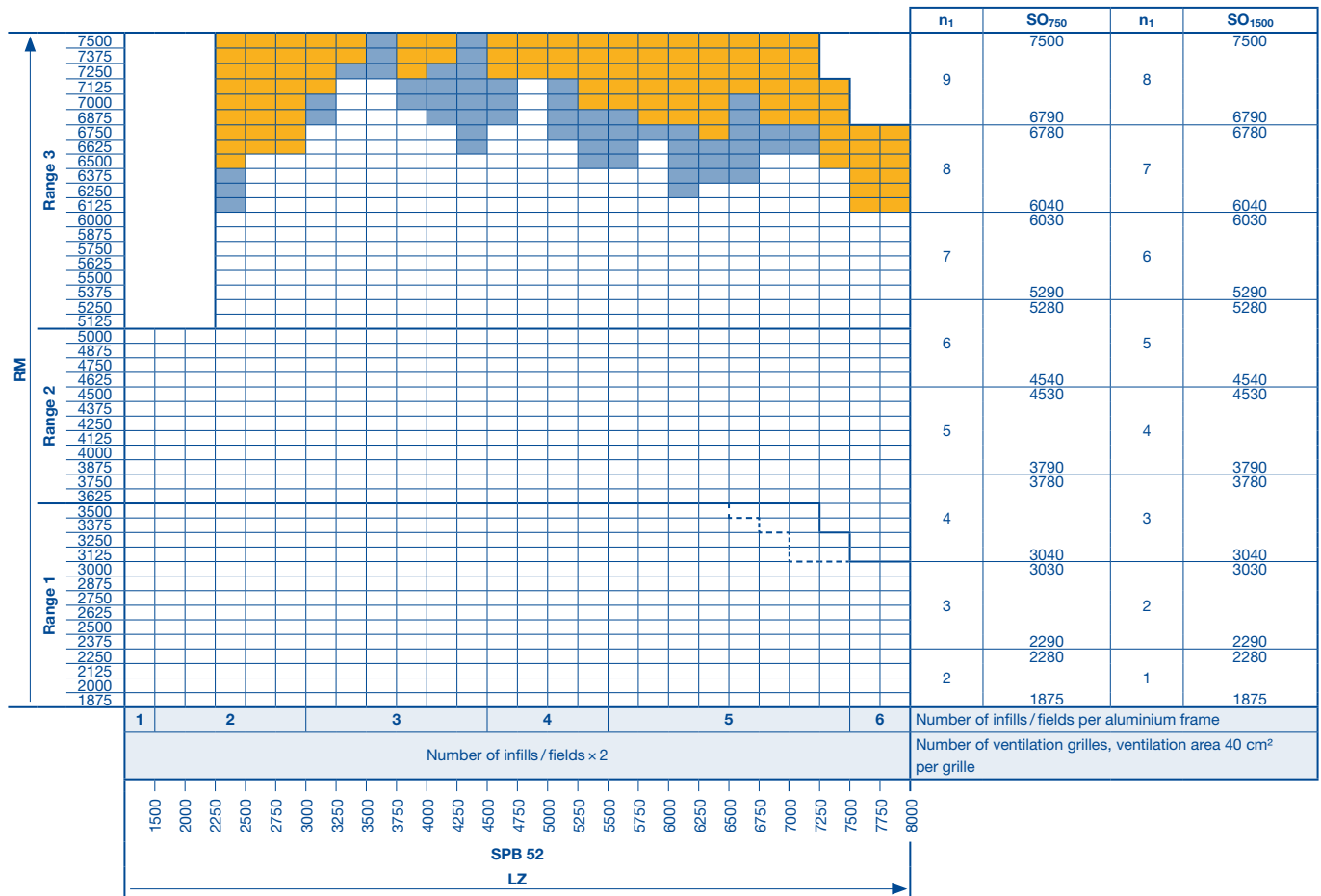
- * On request 115 mm, so as to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.
- ** Optionally with wide rail extrusions (91 mm)

Note:

- 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 view to 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. Any door width in 10 mm increments possible.



- 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

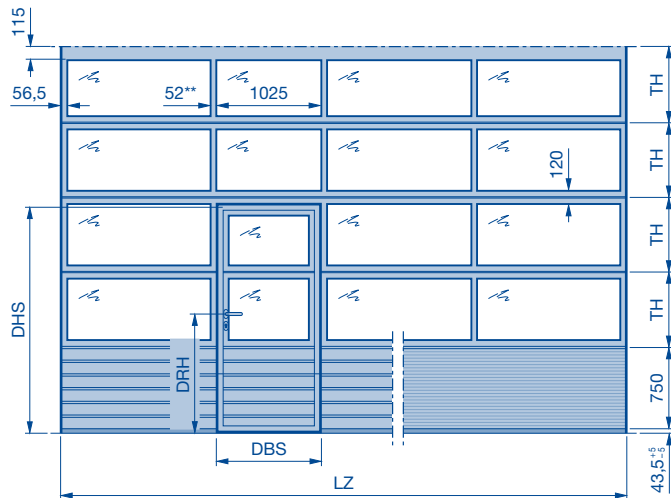
- Number of door section frames:**
- SO₇₅₀ Bottom section height 750 mm (standard)
- SO₁₅₀₀ Bottom section height 1500 mm
- RM Grid height
- LZ Clear frame dimensions (from 1200)
- SPB Rail width
- n₁ Number of aluminium frames

TH Door section height

Sectional Door APU F42 with Wicket Door with Trip-Free Threshold

Aluminium extrusions
Bottom section height 750

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)
= $Sn_1 \times TH + (\text{bottom section height} - 45^*)$

- Sn₁ 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.

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	Sn ₁	Height														
									RM	DHS												
7500				7500	7500	2197																
7375				7375	7375	2169																
7250			9	7250	7250	2142	2															
7125				7125	7125	2114																
7000				7000	7000	2086																
6875				6875	6875	2058																
6750				6750	6750	2196																
6625			8	6625	6625	2165	2															
6500				6500	6500	2134																
6375				6375	6375	2103																
6250				6250	6250	2071																
6125				6125	6125	2040																
6000				6000	6000	2195																
5875			7	5875	5875	2159	2															
5750				5750	5750	2124																
5625				5625	5625	2088																
5500				5500	5500	2052																
5375				5375	5375	2016																
5250				5250	5250	2193																
5125				5125	5125	2152																
5000			6	5000	5000	2110	2															
4875				4875	4875	2068																
4750				4750	4750	2027																
4625				4625	4625	1985																
4500				4500	4500	2191																
4375				4375	4375	2141																
4250			5	4250	4250	2091	2															
4125				4125	4125	2041																
4000				4000	4000	1991																
3875				3875	3875	1941																
3750				3750	3750	2188																
3625				3625	3625	2125																
3500			4	3500	3500	2063	2															
3375				3375	3375	2000																
3250				3250	3250	1936																
3125				3125	3125	1875																
3000				3000	3000	2182																
2875				2875	2875	2096																
2750			3	2750	2750	2015	2															
2625				2625	2625	1932																
2500				2500	2500	1848		2430														
2375				2375	2375	2250	3	2420														
2250				2250	2250	2125																
2125				2125	2125	2000																
2000			2	2000	2000	1875	2															
	3	4	5																			
	(Number of infills / fields - 1) × 2																					
	Number of ventilation grilles, ventilation area 40 cm ² 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																					

Note:

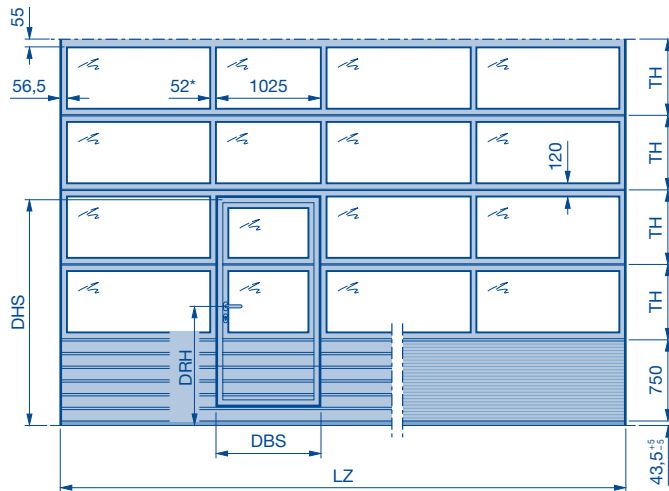
For versions with real glass infill in the wicket door, the threshold height SH₂ begins at LZ 4510 mm.

 On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (rising from 5 to 10)
 Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (approx. 13)
 Range change	LZ Clear frame dimensions (from 1750)	n₁ Number of aluminium frames
 Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	DRH Lever height	Sn₁ Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door APU F42 with Wicket Door and Threshold Rail

Aluminium extrusions
Bottom section height 750

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)
= $S_{n1} \times TH + (\text{bottom section height} - 45)$

- S_{n1} 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.

Note:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- Micrograin version only up to door width ≤ 5500 mm.
- For a view of the matching appearance with doors without wicket doors see pages 36–38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	S _{n1}	Height
Range 3	7500		9	7500	7500	2197	2	
	7375			7375	2169			
	7250			7250	2142			
	7125			7125	2114			
	7000			7000	2086			
	6875			6875	2058			
	6750			6750	2030			
	6625			6625	2002			
	6500			6500	1974			
	6375			6375	1946			
Range 2	6250		8	6250	2071	2		
	6125			6125	2043			
	6000			6000	2015			
	5875			5875	1987			
	5750			5750	1959			
	5625			5625	1931			
	5500			5500	1903			
	5375			5375	1875			
	5250			5250	1847			
	5125			5125	1819			
Range 1	5000		7	5000	2110	2		
	4875			4875	2082			
	4750			4750	2054			
	4625			4625	2026			
	4500			4500	1998			
	4375			4375	1970			
	4250			4250	1942			
	4125			4125	1914			
	4000			4000	1886			
	3875			3875	1858			
Range 1	3750		6	3750	2188	2		
	3625			3625	2160			
	3500			3500	2132			
	3375			3375	2104			
	3250			3250	2076			
	3125			3125	2048			
	3000			3000	2020			
	2875			2875	1992			
	2750			2750	1964			
	2625			2625	1936			
Range 1	2500		5	2500	2015	2		
	2375			2375	1987			
	2250			2250	1959			
	2125			2125	1931			
	2000			2000	1903			
	2290			2290	1848			
	2280			2280	1820			
	2250			2250	1792			
	2125			2125	1764			
	2000			2000	1736			
				2290	2295	3	2430	
				2280	2170	2	2420	
				2000	1920	2		
				Number of infills / fields per aluminium frame				
				Number of ventilation grilles, ventilation area 40 cm ² per grille				
				3	4	5		
				(Number of infills / fields - 1) × 2				
				2000	2250	2500	2750	
				3000	3250	3500	3750	
				4000	4250	4500	4750	
				5000	5250	5500	5750	
				6000	6250	6500	6750	
				7000				
				SPB 52		LZ		

Note:

For versions with real glass infill in the wicket door, the threshold height **SH₂** begins at LZ 4510 mm.

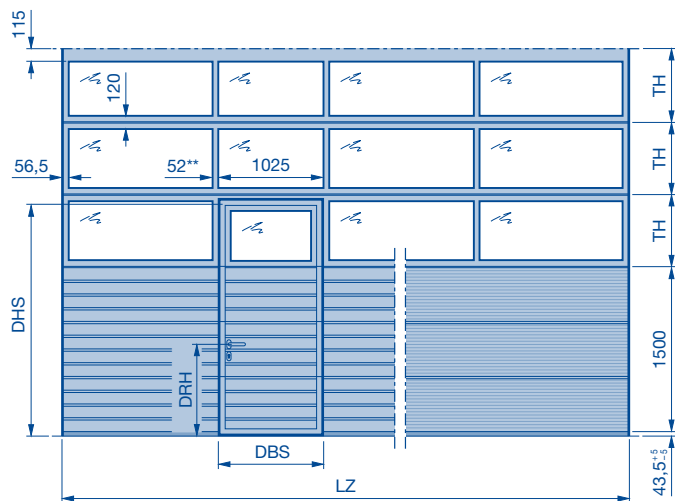
On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (200)
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (325)
Range change	DRH Lever height	n₁ Number of aluminium frames
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ Clear frame dimensions (from 1750)	S_{n1} Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door APU F42 with Wicket Door with Trip-Free Threshold

Aluminium extrusions

Bottom section height 1500

External view



Lever height (DRH):

$LZ \leq 6000 = 1085,5$

$LZ > 6000 = 835,5$

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)

$= Sn_1 \times TH + (\text{bottom section height} - 45^*)$

Sn₁ 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 (Ø1 mm)

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

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁					SH ₂					n ₁	Height	RM	DHS	Sn ₁	
	3	4	5	6	7	8	9	10	11	12						
7500												8	7500	7500	2201	1
7375												7375	7375	2185		
7250												7250	7250	2169		
7125												7125	7125	2154		
7000												7000	7000	2138		
6875												6875	6875	2123		
6750												6750	6750	2200		
6625												6625	6625	2182		
6500												6500	6500	2164		
6375												6375	6375	2146		
6250												6250	6250	2129		
6125												6125	6125	2111		
6000												6000	6000	2199		
5875												5875	5875	2178		
5750												5750	5750	2158		
5625												5625	5625	2137		
5500												5500	5500	2116		
5375												5375	5375	2095		
5250												5250	5250	2198		
5125												5125	5125	2173		
5000												5000	5000	2148		
4875												4875	4875	2123		
4750												4750	4750	2098		
4625												4625	4625	2073		
4500												4500	4500	2196		
4375												4375	4375	2165		
4250												4250	4250	2134		
4125												4125	4125	2103		
4000												4000	4000	2071		
3875												3875	3875	2040		
3750												3750	3750	2193		
3625												3625	3625	2152		
3500												3500	3500	2110		
3375												3375	3375	2068		
3250												3250	3250	2027		
3125												3125	3125	1985		
3000												3000	3000	2188		
2875												2875	2875	2125		
2750												2750	2750	2063		
2625												2625	2625	2000		
2500												2500	2500	1938		
2375												2375	2375	1875		
2250												2250	2250	2125		
2125												2125	2125	2000		
2000												2000	2000	1875		

Note:
For versions with real glass infill in the wicket door, the threshold height SH₂ begins at LZ 4510 mm.

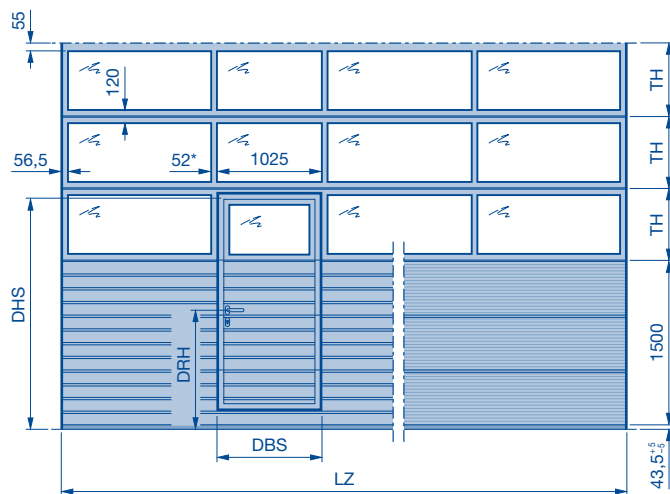
On request	DHS Clear passage heights of wicket door to grid height	n₁ Number of aluminium frames
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	Sn₁ Number of aluminium frames in the wicket door
Range change	LZ Clear frame dimensions (from 1750)	TH Door section height
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	RM Grid height	
	SPB Rail width	
	SH₁ Threshold height (rising from 5 to 10)	
	SH₂ Threshold height (approx. 13)	

Sectional Door APU F42 with Wicket Door and Threshold Rail

Aluminium extrusions

Bottom section height 1500

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)
= Sn₁ × TH + (bottom section height – 45)

Sn₁ 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.

Note:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- Micrograin version only up to door width ≤ 5500 mm.
- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	Sn ₁	
								3
7500				7500	7500	2201		
7375				7375	7375	2185		
7250				7250	7250	2169		
7125				7125	7125	2154		
7000				7000	7000	2138		
6875				6875	6875	2123		
6750				6750	6750	2200		
6625				6625	6625	2182		
6500				6500	6500	2164		
6375				6375	6375	2146		
6250				6250	6250	2129		
6125				6125	6125	2111		
6000				6000	6000	2199		
5875				5875	5875	2178		
5750				5750	5750	2158		
5625				5625	5625	2137		
5500				5500	5500	2116		
5375				5375	5375	2095		
5250				5250	5250	2198		
5125				5125	5125	2173		
5000				5000	5000	2148		
4875				4875	4875	2123		
4750				4750	4750	2098		
4625				4625	4625	2073		
4500				4500	4500	2196		
4375				4375	4375	2165		
4250				4250	4250	2134		
4125				4125	4125	2103		
4000				4000	4000	2071		
3875				3875	3875	2040		
3750				3750	3750	2193		
3625				3625	3625	2152		
3500				3500	3500	2110		
3375				3375	3375	2068		
3250				3250	3250	2027		
3125				3125	3125	1985		
3000				3000	3000	2188		
2875				2875	2875	2125		
2750				2750	2750	2063		
2625				2625	2625	2000		
2500				2500	2500	1938		
2375				2375	2375	1875		
2250				2250	2250	2170		
2125				2125	2125	2045		
2000				2000	2000	1920		
			3	4	5	Number of infills / fields per aluminium frame		
			(Number of infills / fields - 1) × 2			Number of ventilation grilles, ventilation area 40 cm ² per grille		
			2000	2250	2500	2750	3000	
			3250	3500	3750	4000	4250	
			4500	4750	5000	5250	5500	
			5750	6000	6250	6500	6750	
			SPB 52				LZ	
							7000	

Note:

For versions with real glass infill in the wicket door, the threshold height SH₂ begins at LZ 4510 mm.

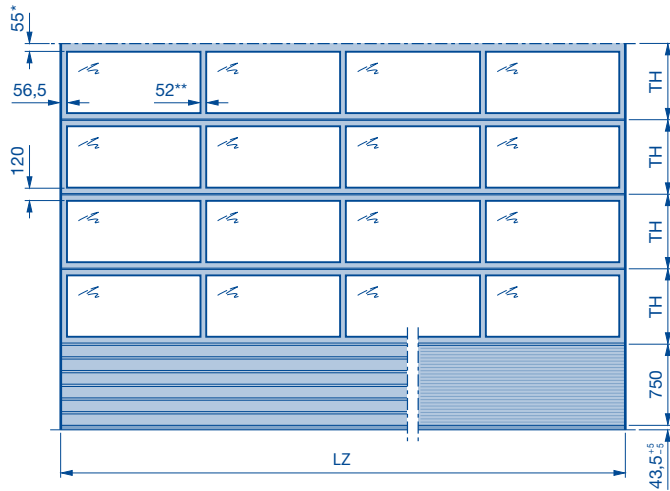
On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (200)
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (325)
Range change	DRH Lever height	n₁ Number of aluminium frames
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ Clear frame dimensions (from 1750)	Sn₁ Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door APU F42 Thermo

Aluminium extrusions

Double-skinned bottom section

External view



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

- * On request 115 mm, so as 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)

Note:

- 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 view to 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. Any door width in 10 mm increments possible.

RM	SPB 52	LZ	n ₁			
			SO ₇₅₀	SO ₁₅₀₀	n ₁	SO ₁₅₀₀
7500						
7375						
7250						
7125						
7000						
6875						
6750						
6625						
6500						
6375						
6250						
6125						
6000						
5875						
5750						
5625						
5500						
5375						
5250						
5125						
5000						
4875						
4750						
4625						
4500						
4375						
4250						
4125						
4000						
3875						
3750						
3625						
3500						
3375						
3250						
3125						
3000						
2875						
2750						
2625						
2500						
2375						
2250						
2125						
2000						
1875						
	1	2	3	4	5	
	Number of infills / fields per aluminium frame					
	Number of infills / fields × 2					
	Number of ventilation grilles, ventilation area 40 cm ² per grille					
	1500	2000	2250	2500	2750	3000
	3250	3500	3750	4000	4250	4500
	4750	5000	5250	5500	5750	6000
	6250	6500	6750	7000		

- 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

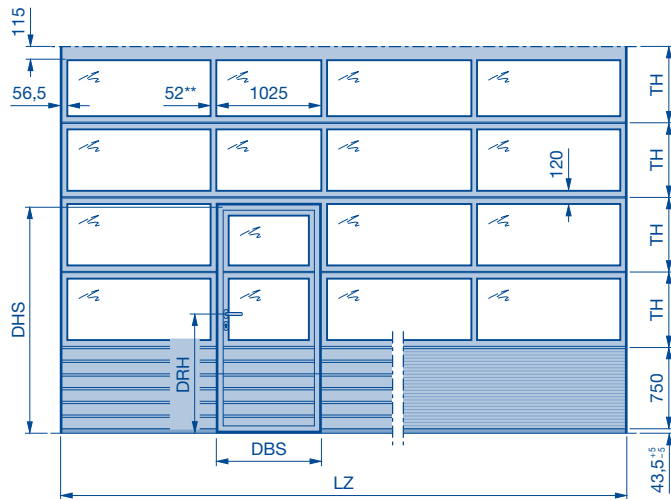
- Number of door section frames:**
- SO₇₅₀ Bottom section height 750 mm (standard)
- SO₁₅₀₀ Bottom section height 1500 mm
- RM Grid height
- LZ Clear frame dimensions (from 1200)
- SPB Rail width
- n₁ Number of aluminium frames

TH Door section height

Sectional Door APU F42 Thermo with Wicket Door with Trip-Free Threshold

Aluminium extrusions
Bottom section height 750

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)
= $Sn_1 \times TH + (\text{bottom section height} - 45^*)$

- 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.

Note:

- 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 doors see pages 36 - 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	Range 3	Range 2	Range 1	SH ₁		SH ₂		n ₁	Height	RM	DHS	Sn ₁	Height
				3	4	5	5						
7500									7500	7500	2197		
7375										7375	2169		
7250								9		7250	2142	2	
7125										7125	2114		
7000										7000	2086		
6875									6790	6875	2058		
6750									6780	6750	2196		
6625										6625	2165		
6500										6500	2134	2	
6375										6375	2103		
6250										6250	2071		
6125									6040	6125	2040		
6000									6030	6000	2195		
5875										5875	2159		
5750										5750	2124	2	
5625										5625	2088		
5500										5500	2052		
5375									5290	5375	2016		
5250									5280	5250	2193		
5125										5125	2152		
5000										5000	2110	2	
4875										4875	2069		
4750										4750	2027		
4625									4540	4625	1985		
4500									4530	4500	2191		
4375										4375	2141		
4250										4250	2091	2	
4125										4125	2041		
4000										4000	1991		
3875									3790	3875	1941		
3750									3780	3750	2188		
3625										3625	2125		
3500										3500	2063	2	
3375										3375	2000		
3250										3250	1938		
3125										3125	1875		
3000									3040	3000	2182		
2875									3030	2875	2096		
2750										2750	2015	2	
2625										2625	1932		
2500										2500	1848		2430
2375									2290	2375	2250	3	2420
2250									2280	2250	2125		
2125										2125	2000	2	
2000									2000	2000	1875		
				3		4		5		Number of infills / fields per aluminium frame			
				(Number of infills / fields - 1) x 2						Number of ventilation grilles, ventilation area 40 cm ² 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							

Note:

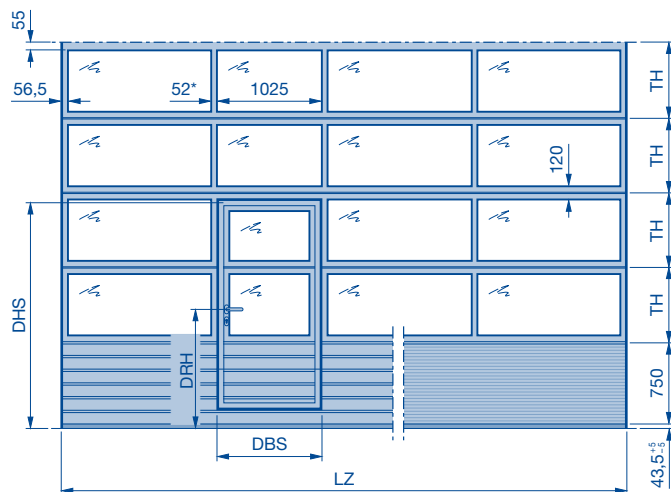
For versions with real glass infill in the wicket door, the threshold height **SH₂** begins at LZ 4510 mm.

 On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (rising from 5 to 10)
 Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (approx. 13)
 Range change	LZ Clear frame dimensions (from 1750)	n₁ Number of aluminium frames
 Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	DRH Lever height	Sn₁ Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door APU F42 Thermo with Wicket Door and Threshold Rail

Aluminium extrusions
Bottom section height 750

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)
= $S_{n1} \times TH + (\text{bottom section height} - 45)$

S_{n1} 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.

Note:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- Micrograin version only up to door width ≤ 5510 mm.
- For a view of the matching appearance with doors without wicket doors see pages 36–38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	S _{n1}	Height
Range 3	7500			9	7500	2197	2	
	7375				7375	2169		
	7250				7250	2142		
	7125				7125	2114		
	7000				7000	2086		
	6875				6875	2058		
	6750				6750	2030		
	6625				6625	2002		
	6500				6500	1974		
	6375				6375	1946		
Range 2	6250		8	6250	2103	2		
	6125				6125			2071
	6000				6000			2040
	5875				5875			2008
	5750				5750			1976
	5625				5625			1944
	5500				5500			1912
	5375				5375			1880
	5250				5250			1848
	5125				5125			1816
Range 1	5000		7	5000	2110	2		
	4875				4875			2068
	4750				4750			2027
	4625				4625			1985
	4500				4500			1941
	4375				4375			1899
	4250				4250			1857
	4125				4125			1815
	4000				4000			1773
	3875				3875			1731
Range 1	3750		6	3750	2188	2		
	3625				3625			2125
	3500				3500			2063
	3375				3375			2000
	3250				3250			1938
	3125				3125			1875
	3000				3000			1812
	2875				2875			1750
	2750				2750			1687
	2625				2625			1625
Range 1	2500		5	2500	2182	2		
	2375				2375			2096
	2250				2250			2015
	2125				2125			1932
	2000				2000			1848
	2290				2290			2295
	2280				2280			2170
	2125				2125			2045
	2000				2000			1920
	2290				2290			2295
2280			2280	2170				
2125			2125	2045				
2000			2000	1920				

Note:
For versions with real glass infill in the wicket door, the threshold height **SH₂** begins at LZ 4510 mm.

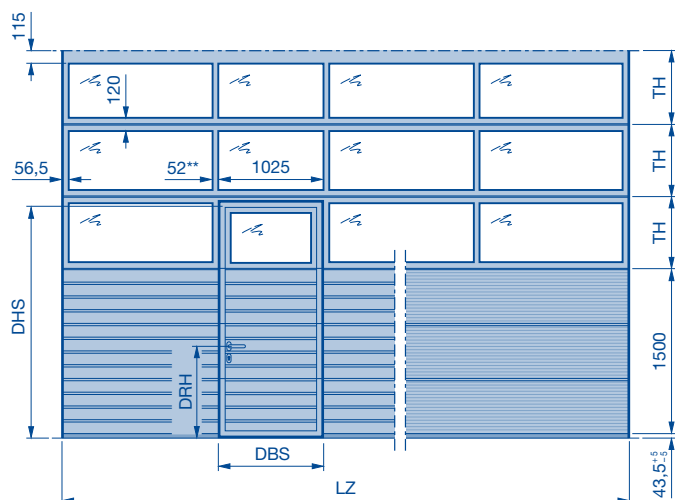
On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (200)
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (325)
Range change	DRH Lever height	n₁ Number of aluminium frames
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ Clear frame dimensions (from 1750)	S_{n1} Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door APU F42 Thermo with Wicket Door with Trip-Free Threshold

Aluminium extrusions

Bottom section height 1500

External view



Lever height (DRH):

$LZ \leq 6000 = 1085,5$

$LZ > 6000 = 835,5$

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)

$= Sn_1 \times TH + (\text{bottom section height} - 45^*)$

Sn₁ 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 (Ø1 mm)

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

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

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

Note:
For versions with real glass infill in the wicket door, the threshold height SH₂ begins at LZ 4510 mm.

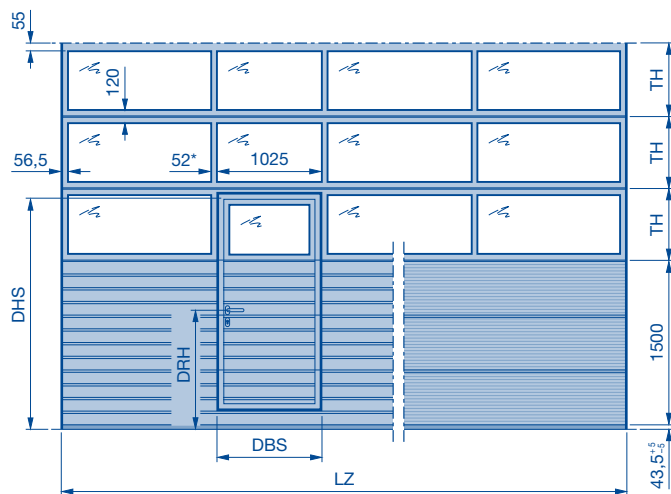
On request	DHS Clear passage heights of wicket door to grid height	n₁ Number of aluminium frames
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	Sn₁ Number of aluminium frames in the wicket door
Range change	LZ Clear frame dimensions (from 1750)	TH Door section height
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	RM Grid height	
	SPB Rail width	
	SH₁ Threshold height (rising from 5 to 10)	
	SH₂ Threshold height (approx. 13)	

Sectional Door APU F42 Thermo with Wicket Door and Threshold Rail

Aluminium extrusions

Bottom section height 1500

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS)
= $Sn_1 \times TH + (\text{bottom section height} - 45)$

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.

Note:

- When using a shaft operator (installation example 5), the door lock is always on the side opposite the operator.
- Micrograin version only up to door width ≤ 5500 mm.
- From LZ > 5500 mm, the bottom door section consists of a 375 / 500 mm section and 2 x 125 mm aluminium bottom profile.
- For a view of the matching appearance with doors without wicket doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	Sn ₁
7500			8	7500	7500	2201	1
7375					7375	2185	
7250					7250	2169	
7125					7125	2154	
7000					7000	2138	
6875					6875	2123	
6750					6750	2200	
6625					6625	2182	
6500					6500	2164	
6375					6375	2146	
6250					6250	2129	
6125					6125	2111	
6000					6000	2199	
5875					5875	2178	
5750					5750	2158	
5625					5625	2137	
5500					5500	2116	
5375					5375	2095	
5250					5250	2198	
5125					5125	2173	
5000					5000	2148	
4875					4875	2123	
4750					4750	2098	
4625					4625	2073	
4500					4500	2196	
4375					4375	2165	
4250					4250	2134	
4125					4125	2103	
4000					4000	2071	
3875					3875	2040	
3750					3750	2193	
3625					3625	2152	
3500					3500	2110	
3375					3375	2069	
3250					3250	2027	
3125					3125	1985	
3000					3000	2188	
2875					2875	2125	
2750					2750	2063	
2625					2625	2000	
2500					2500	1938	
2375					2375	1875	
2250					2250	2170	
2125					2125	2045	
2000					2000	1920	
			3		Number of infills / fields per aluminium frame		
			(Number of infills / fields - 1) x 2		Number of ventilation grilles, ventilation area 40 cm ² per grille		
			2000		SPB 52		
			2250		LZ		
			2500				
			2750				
			3000				
			3250				
			3500				
			3750				
			4000				
			4250				
			4500				
			4750				
			5000				
			5250				
			5500				
			5750				
			6000				
			6250				
			6500				
			6750				
			7000				

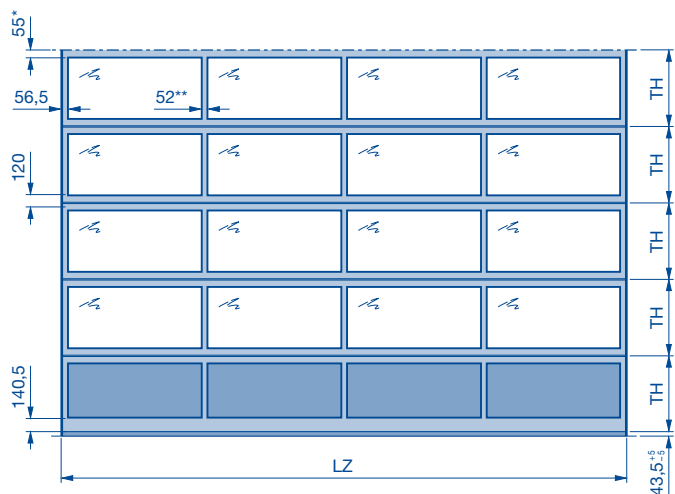
Note:
For versions with real glass infill in the wicket door, the threshold height SH₂ begins at LZ 4510 mm.

On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (200)
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (325)
Range change	DRH Lever height	n₁ Number of aluminium frames
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ Clear frame dimensions (from 1750)	Sn₁ Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door ALR F42

Door leaf made of standard aluminium extrusions

External view



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

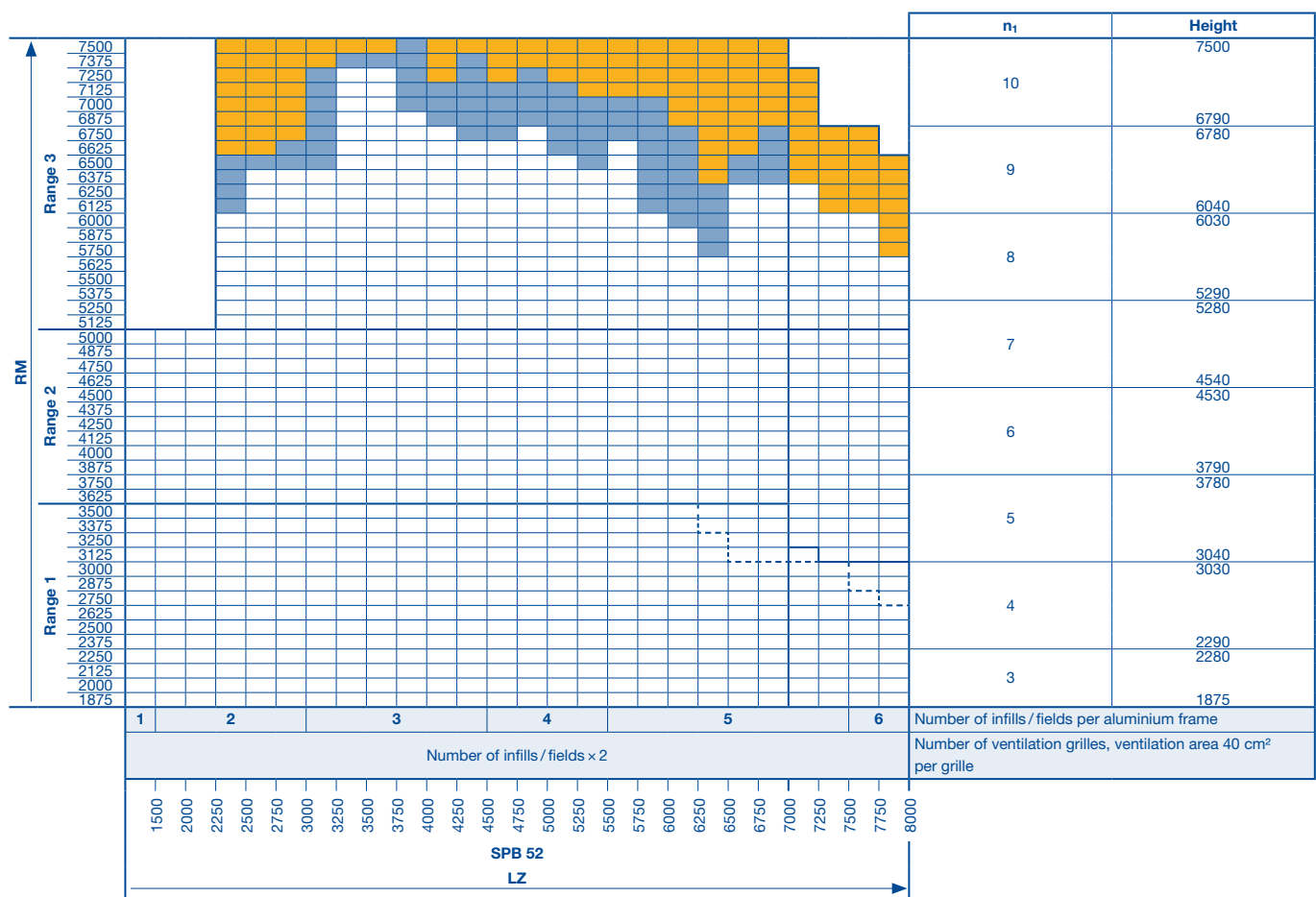
- * On request 115 mm, so as to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.
- ** Optionally with wide rail extrusions (91 mm)

Note:

- 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 view to 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. Any door width in 10 mm increments possible.

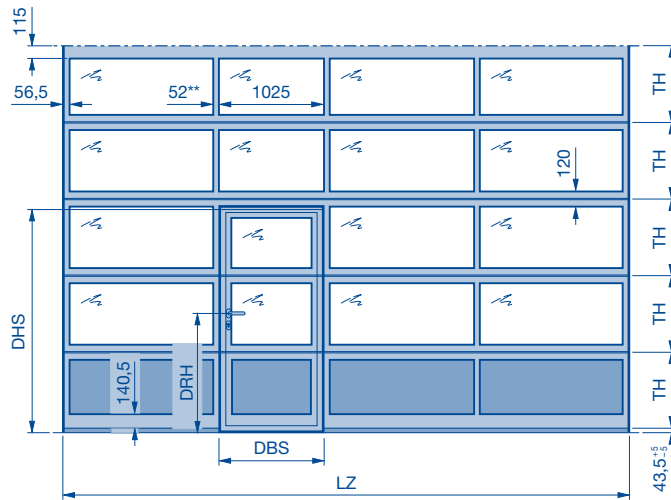


- On request
- Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request
- Range change
- Range change with glazing A3, B3, M3, S3, U3, LB, P, XU

- RM** Grid height
- LZ** Clear frame dimensions (from 1200)
- SPB** Rail width
- n₁** Number of aluminium frames
- TH** Door section height

Sectional Door ALR F42 with Wicket Door with Trip-Free Threshold

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS) = $S_{n1} \times TH - 45^*$

S_{n1} 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.

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	S _{n1}	Height
7500			10	7500	7500	2195	3	
7375				7375	7375	2157		
7250			9	7250	7250	2120	3	
7125				7125	7125	2082		
7000			8	7000	7000	2045	3	
6875				6875	6875	2007		
6750			7	6750	6750	2193	3	
6625				6625	6625	2152		
6500			6	6500	6500	2110	3	
6375				6375	6375	2068		
6250			5	6250	6250	2027	3	
6125				6125	6125	1985		
6000			4	6000	6000	2192	3	
5875				5875	5875	2145		
5750			3	5750	5750	2098	3	
5625				5625	5625	2051		
5500			2	5500	5500	2004	3	
5375				5375	5375	1958		
5250			1	5250	5250	2190	3	
5125				5125	5125	2136		
5000			10	5000	5000	2083	3	
4875				4875	4875	2029		
4750			9	4750	4750	1976	3	
4625				4625	4625	1922		
4500			8	4540	4540	2188	3	
4375				4530	4375	2125		
4250			7	4250	4250	2063	3	
4125				4125	4125	2000		
4000			6	4000	4000	1938	3	
3875				3790	3875	1875		
3750			5	3780	3750	2184	3	
3625				3625	3625	2109		
3500			4	3500	3500	2034	3	
3375				3375	3375	1959		
3250			3	3250	3250	1884	3	
3125				3125	3125	1809		
3000			2	3040	3000	2179	3	
2875				3030	2875	2085		
2750			1	2750	2750	1991	3	
2625				2625	2625	1898		
2500			10	2500	2500	1804	4	2500
2375				2375	2375	2250		
2250			9	2290	2250	2125	3	2490
2125				2280	2125	2000		
2000			2000	2000	1875			

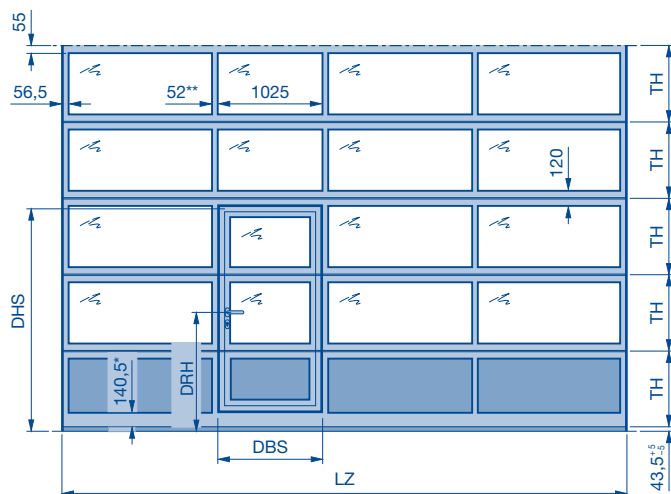
Note:

For versions with real glass infill in the wicket door, the threshold height **SH₂** begins at LZ 4510 mm.

	On request	DHS	Clear passage heights of wicket door to grid height	SH₁	Threshold height (rising from 5 to 10)
	Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS	Wicket door clear passage width	SH₂	Threshold height (approx. 13)
	Range change	DRH	Lever height	n₁	Number of aluminium frames
	Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ	Clear frame dimensions (from 1750)	S_{n1}	Number of aluminium frames in the wicket door
		RM	Grid height	TH	Door section height
		SPB	Rail width		

Sectional Door ALR F42 with Wicket Door and Threshold Rail

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS) = $Sn_1 \times TH - 45$

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.

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	Sn ₁	Height
Range 3	7500		10	7500	7500	2195	3	
	7375			7375	7375	2157		
	7250			7250	7250	2120		
	7125			7125	7125	2082		
	7000			7000	7000	2045		
	6875			6875	6875	2007		
	6750			6750	6750	1970		
	6625			6625	6625	1932		
	6500			6500	6500	1895		
	6375			6375	6375	1857		
Range 2	6250		9	6250	6250	2068	3	
	6125			6125	6125	2030		
	6000			6000	6000	1992		
	5875			5875	5875	1954		
	5750			5750	5750	1916		
	5625			5625	5625	1878		
	5500			5500	5500	1840		
	5375			5375	5375	1802		
	5250			5250	5250	1764		
	5125			5125	5125	1726		
Range 1	5000		8	5000	5000	2083	3	
	4875			4875	4875	2045		
	4750			4750	4750	2007		
	4625			4625	4625	1969		
	4500			4500	4500	1931		
	4375			4375	4375	1893		
	4250			4250	4250	1855		
	4125			4125	4125	1817		
	4000			4000	4000	1779		
	3875			3875	3875	1741		
Range 1	3750		7	3750	3750	2184	3	
	3625			3625	3625	2146		
	3500			3500	3500	2108		
	3375			3375	3375	2070		
	3250			3250	3250	2032		
	3125			3125	3125	1994		
	3000			3000	3000	1956		
	2875			2875	2875	1918		
	2750			2750	2750	1880		
	2625			2625	2625	1842		
Range 1	2500		6	2500	2500	2109	3	
	2375			2375	2375	2071		
	2250			2250	2250	2033		
	2125			2125	2125	1995		
	2000			2000	2000	1957		
	3780			3780	3780	2184		
	3790			3790	3790	2146		
	3780			3780	3780	2108		
	3780			3780	3780	2070		
	3780			3780	3780	2032		
Range 1	3780		5	3780	3780	2184	3	
	3625			3625	3625	2146		
	3500			3500	3500	2108		
	3375			3375	3375	2070		
	3250			3250	3250	2032		
	3125			3125	3125	1994		
	3000			3000	3000	1956		
	2875			2875	2875	1918		
	2750			2750	2750	1880		
	2625			2625	2625	1842		
Range 1	2500		4	2500	2500	2109	3	
	2375			2375	2375	2071		
	2250			2250	2250	2033		
	2125			2125	2125	1995		
	2000			2000	2000	1957		
	2290			2290	2290	2109		
	2280			2280	2280	2071		
	2280			2280	2280	2033		
	2280			2280	2280	1995		
	2280			2280	2280	1957		
Range 1	2280		3	2280	2280	2170	3	
	2125			2125	2125	2045		
	2000			2000	2000	1920		
	2290			2290	2290	2109		
	2280			2280	2280	2071		
	2280			2280	2280	2033		
	2280			2280	2280	1995		
	2280			2280	2280	1957		
	2280			2280	2280	1920		
	2280			2280	2280	1882		

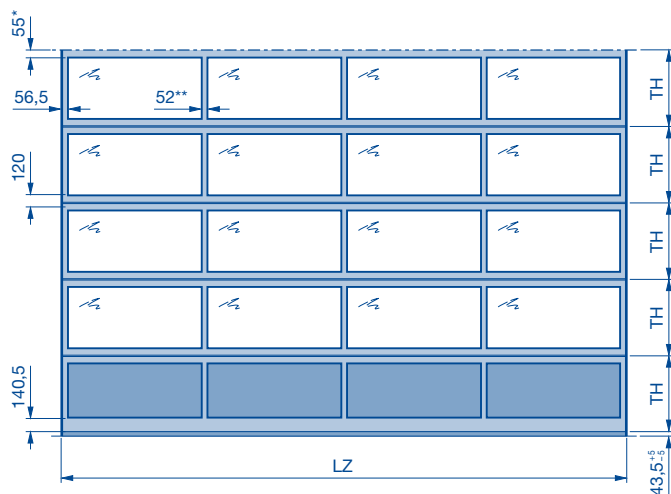
Note:
For versions with real glass infill in the wicket door, the threshold height **SH₂** begins at LZ 4510 mm.

On request	DHS Clear passage heights of wicket door to grid height	SH₁ Threshold height (181)
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (306)
Range change	DRH Lever height	n₁ Number of aluminium frames
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ Clear frame dimensions (from 1750)	Sn₁ Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional Door ALR F42 Thermo

Door leaf made of aluminium extrusions with thermal break

External view



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

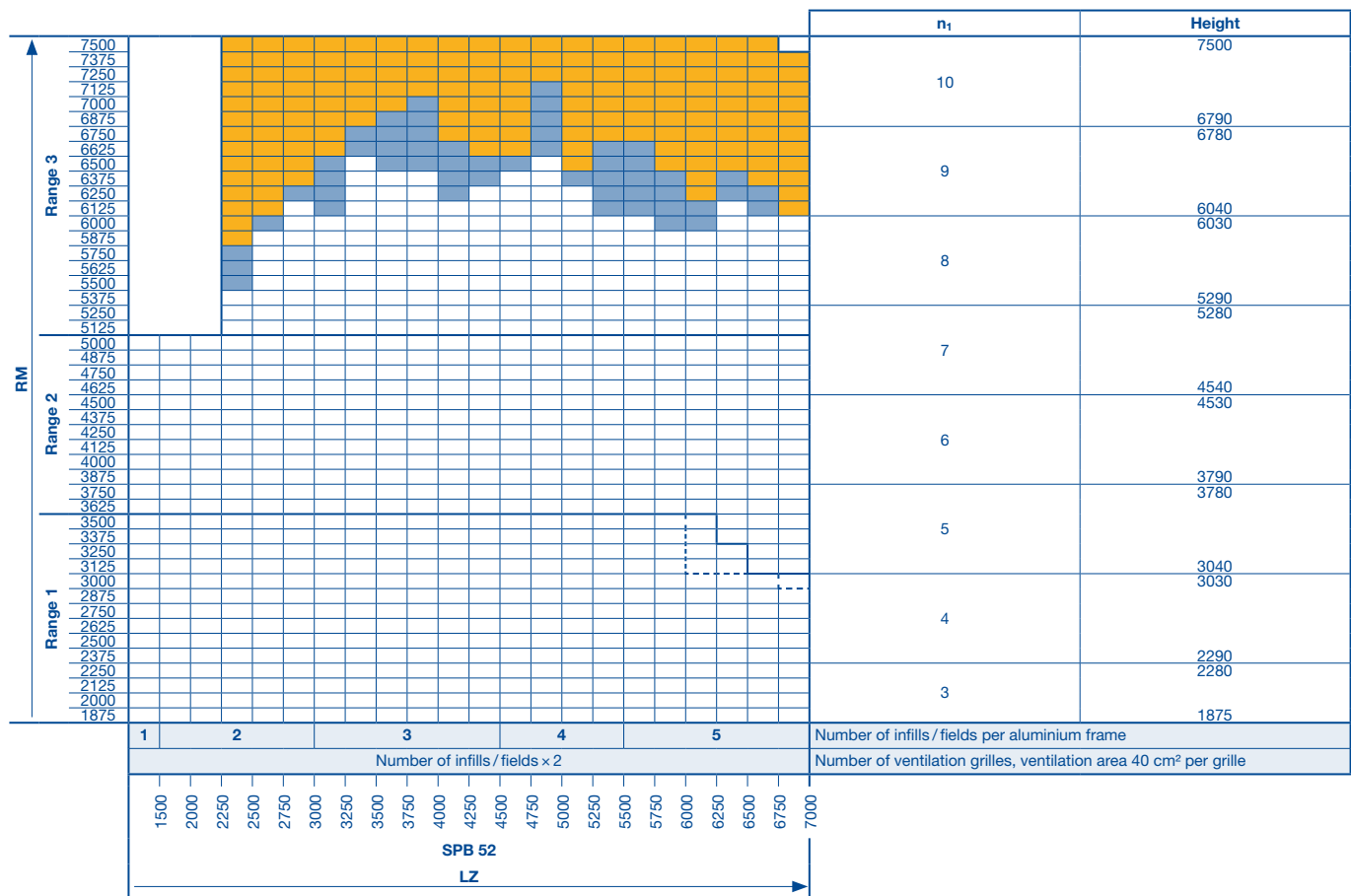
- * On request 115 mm, so as to match the appearance of a sectional door with wicket door with trip-free threshold with the same door height.
- ** Optionally with wide rail extrusions (91 mm)

Note:

- 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 view to series 40, see page 39.

Size range

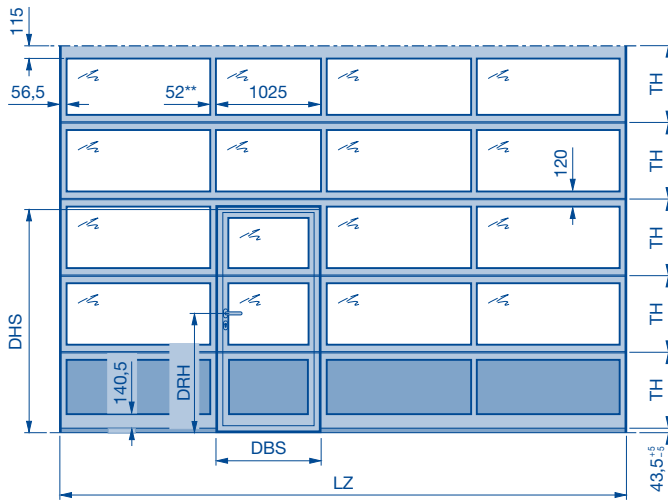
The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account. Any door width in 10 mm increments possible.



- 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
- n₁ Number of aluminium frames
- TH Door section height

Sectional Door ALR F42 Thermo with Wicket Door with Trip-Free Threshold

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS) = $S_{n1} \times TH - 45^*$

S_{n1} 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.

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	S _{n1}	Height
7500				7500	7500	2195		
7375				7375	7375	2157		
7250			10	7250	7250	2120	3	
7125				7125	7125	2082		
7000				7000	7000	2045		
6875				6875	6875	2007		
6750				6750	6750	1993		
6625			9	6625	6625	2152	3	
6500				6500	6500	2110		
6375				6375	6375	2068		
6250				6250	6250	2027		
6125				6040	6125	1985		
6000				6030	6000	2192		
5875				5875	5875	2145		
5750			8	5750	5750	2098	3	
5625				5625	5625	2051		
5500				5500	5500	2004		
5375				5375	5375	1958		
5250				5290	5250	2190		
5125				5280	5125	2136		
5000				5000	5000	2083	3	
4875			7	4875	4875	2029		
4750				4750	4750	1976		
4625				4540	4625	1922		
4500				4530	4500	2188		
4375				4375	4375	2125		
4250			6	4250	4250	2063	3	
4125				4125	4125	2000		
4000				4000	4000	1938		
3875				3790	3875	1875		
3750				3780	3750	2184		
3625				3625	3625	2109		
3500			5	3500	3500	2034	3	
3375				3375	3375	1959		
3250				3250	3250	1884		
3125				3040	3125	1809		
3000				3030	3000	2179		
2875				2875	2875	2085		
2750			4	2750	2750	1991	3	
2625				2625	2625	1898		
2500				2500	2500	1804		2500
2375				2290	2375	2250	4	2490
2250				2280	2250	2125		
2125			3	2125	2125	2000	3	
2000				2000	2000	1875		

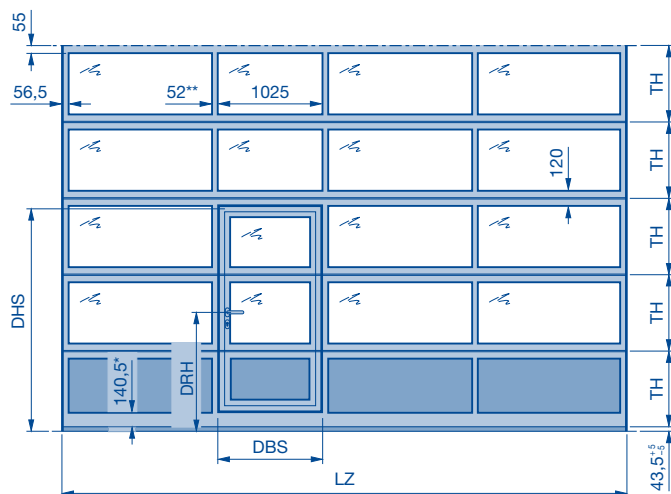
Note:

For versions with real glass infill in the wicket door, the threshold height SH₂ begins at LZ 4510 mm.

	On request	DHS	Clear passage heights of wicket door to grid height	SH₁	Threshold height (rising from 5 to 10)
	Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS	Wicket door clear passage width	SH₂	Threshold height (approx. 13)
	Range change	DRH	Lever height	n₁	Number of aluminium frames
	Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ	Clear frame dimensions (from 1750)	S_{n1}	Number of aluminium frames in the wicket door
		RM	Grid height	TH	Door section height
		SPB	Rail width		

Sectional Door ALR F42 Thermo with Wicket Door and Threshold Rail

External view



Lever height on request

Wicket door clear passage (DBS) = 940 mm*

Clear passage height of wicket door (DHS) = $Sn_1 \times TH - 45$

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.

Note:

- 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 doors see pages 36 – 38.
- Number of glazings, matching view to 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. Any door width in 10 mm increments possible.

RM	SH ₁	SH ₂	n ₁	Height	RM	DHS	Sn ₁	Height
Range 3	7500		10	7500	7500	2195	3	
	7375			7375	7375	2157		
	7250			7250	7250	2120		
	7125			7125	7125	2082		
	7000			7000	7000	2045		
	6875			6875	6875	2007		
	6750			6750	6750	1970		
	6625			6625	6625	1932		
	6500			6500	6500	1895		
	6375			6375	6375	1857		
Range 2	6250		9	6250	6250	2027	3	
	6125			6125	6125	1989		
	6000			6000	6000	1952		
	5875			5875	5875	1914		
	5750			5750	5750	1877		
	5625			5625	5625	1839		
	5500			5500	5500	1802		
	5375			5375	5375	1764		
	5250			5250	5250	1727		
	5125			5125	5125	1689		
Range 1	5000		8	5000	5000	2083	3	
	4875			4875	4875	2045		
	4750			4750	4750	2007		
	4625			4625	4625	1970		
	4500			4500	4500	1932		
	4375			4375	4375	1895		
	4250			4250	4250	1857		
	4125			4125	4125	1820		
	4000			4000	4000	1782		
	3875			3875	3875	1745		
Range 1	3750		7	3750	3750	2184	3	
	3625			3625	3625	2146		
	3500			3500	3500	2108		
	3375			3375	3375	2070		
	3250			3250	3250	2033		
	3125			3125	3125	1995		
	3000			3000	3000	1957		
	2875			2875	2875	1920		
	2750			2750	2750	1882		
	2625			2625	2625	1845		
Range 1	2500		6	2500	2500	2034	3	
	2375			2375	2375	1996		
	2250			2250	2250	1958		
	2125			2125	2125	1920		
	2000			2000	2000	1883		
	2290			2290	2290	1845		
	2280			2280	2280	1807		
	2250			2250	2250	1770		
	2125			2125	2125	1732		
	2000			2000	2000	1695		
Range 1	2000		5	2000	2000	2179	3	
	2290			2290	2290	2085		
	2280			2280	2280	2047		
	2250			2250	2250	2010		
	2125			2125	2125	1972		
	2000			2000	2000	1935		
	2290			2290	2290	1897		
	2280			2280	2280	1860		
	2250			2250	2250	1822		
	2125			2125	2125	1785		
Range 1	2000		4	2000	2000	2085	3	
	2290			2290	2290	2047		
	2280			2280	2280	2010		
	2250			2250	2250	1972		
	2125			2125	2125	1935		
	2000			2000	2000	1897		
	2290			2290	2290	1860		
	2280			2280	2280	1822		
	2250			2250	2250	1785		
	2125			2125	2125	1747		
Range 1	2000		3	2000	2000	2179	3	
	2290			2290	2290	2085		
	2280			2280	2280	2047		
	2250			2250	2250	2010		
	2125			2125	2125	1972		
	2000			2000	2000	1935		
	2290			2290	2290	1897		
	2280			2280	2280	1860		
	2250			2250	2250	1822		
	2125			2125	2125	1785		

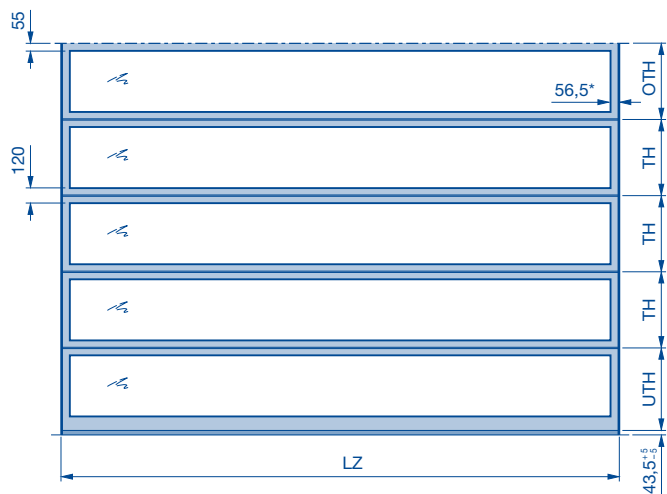
Note:
For versions with real glass infill in the wicket door, the threshold height **SH₂** begins at LZ 4510 mm.

On request	DHS Clear passage heights of wicket door to grid height 74	SH₁ Threshold height (181)
Versions with glazing A3, B3, M3, S3, U3, LB, P, XU on request	DBS Wicket door clear passage width	SH₂ Threshold height (306)
Range change	DRH Lever height	n₁ Number of aluminium frames
Range change with glazing A3, B3, M3, S3, U3, LB, P, XU	LZ Clear frame dimensions (from 1750)	Sn₁ Number of aluminium frames in the wicket door
	RM Grid height	TH Door section height
	SPB Rail width	

Sectional door ALR F42 Glazing

Door leaf made of standard aluminium extrusions

External view



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

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

$$OTH = TH \cdot 35$$

* 76 with optional wide rail extrusions (91 mm)

Note:

- 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. Any door width in 10 mm increments possible.

		RM										n ₁	Height		
Range 2	5000													6	4000
	4875														
	4750														
	4625														
	4500														
	4375														
	4250														
	4125														
	4000														
	3875														
	3750														
	3625														
	3500														
Range 1	3375													5	3625
	3250														
	3125														
	3000														
	2875														
	2750														
	2625														
	2500														
	2375														
	2250														
2125															
2000															
1875															
		1 → 3330					2					Number of infills/fields per aluminium frame			
		2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
		SPB 52**													
		LZ													
		** Optionally with wide rail extrusions (91 mm)													

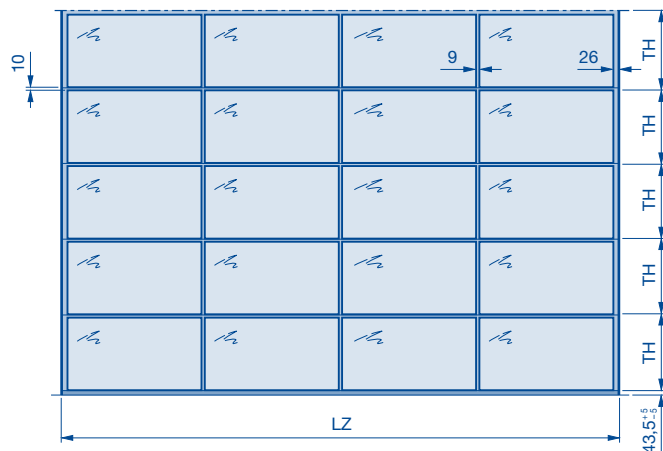
— Range change with VG glazing
 - - - Range change with E2 and G2 glazing
 RM Grid height
 LZ Clear frame dimensions (from 2000)

→ up to LZ
 SPB Rail width
 n₁ Number of aluminium frames
 UTH Bottom door section height
 TH Door section height
 OTH Upper door section height

Sectional Door ALR F42 Vitraplan

Door leaf made of standard aluminium extrusions

External view



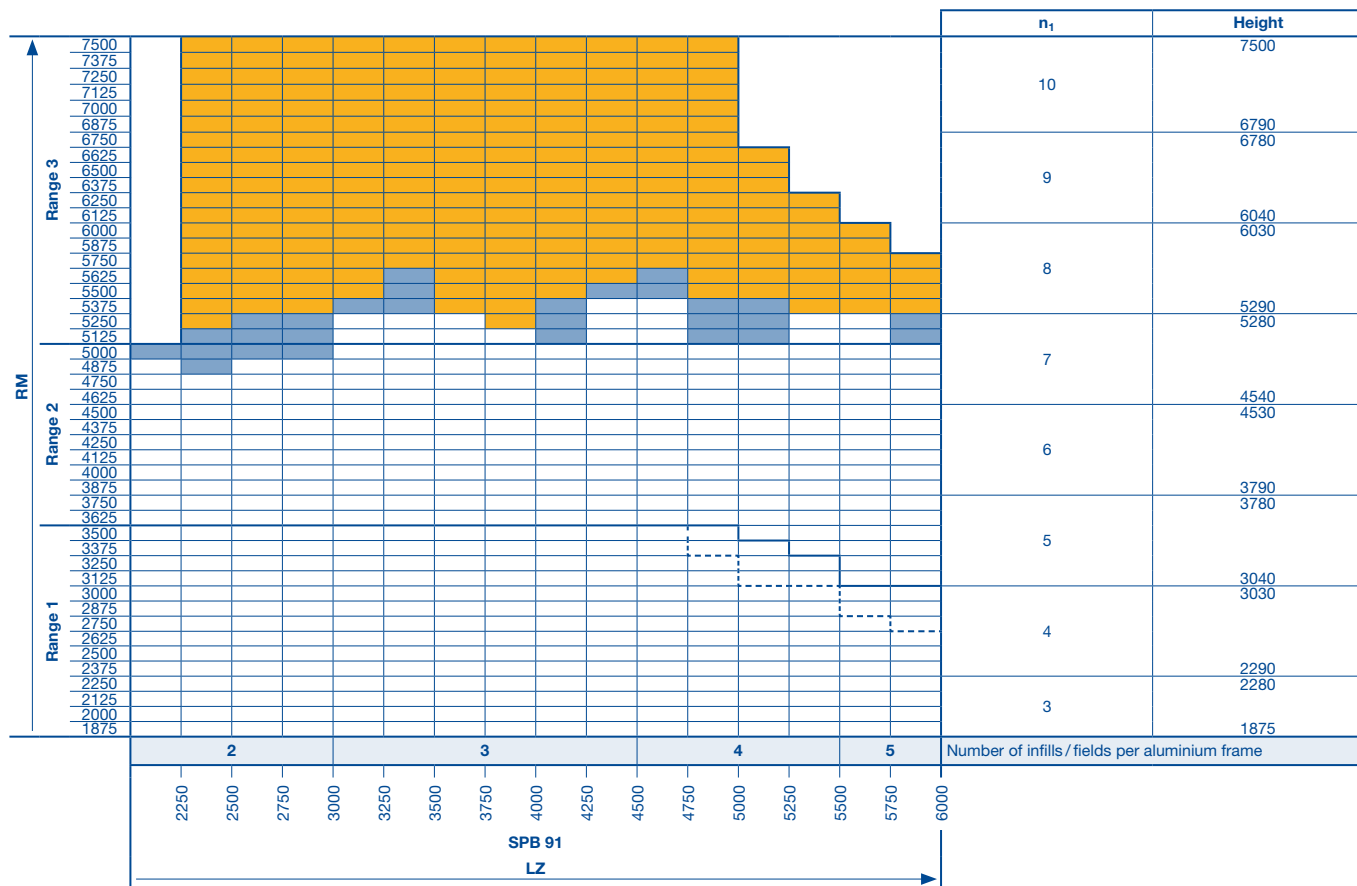
$$TH = \frac{\text{Door height} - 35}{\text{Number of door section frames}}$$

Note:

- 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. Any door width in 10 mm increments possible.



- On request
- Versions with glazing S3, U3 on request
- Range change
- Range change with glazing S3, U3

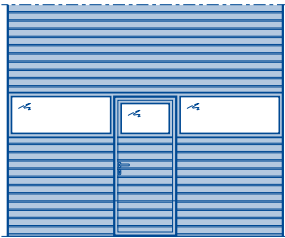
- RM** Grid height
- LZ** Clear frame dimensions (from 2000)
- SPB** Rail width
- n₁** Number of aluminium frames
- TH** Door section height

Glazing / Wicket Door Arrangements

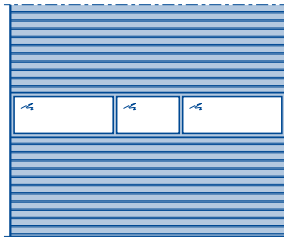
Sectional doors with 3 infills / fields

Glazing arrangements – external view

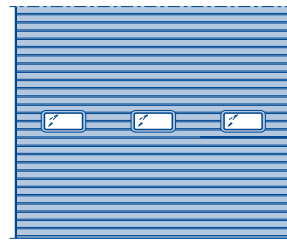
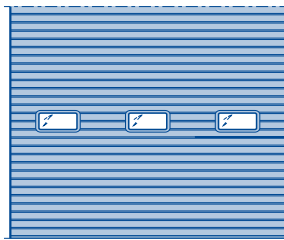
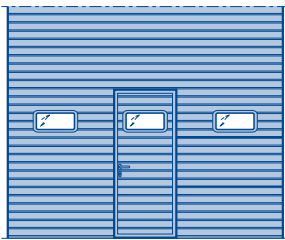
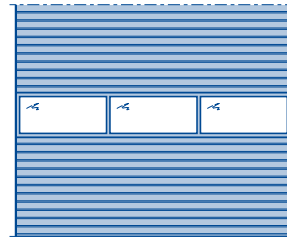
Sectional door SPU F42
with wicket door with trip-free threshold



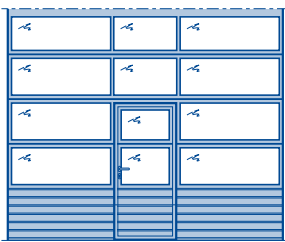
Sectional door SPU F42,
matching the wicket door versions



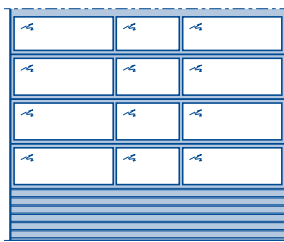
Sectional door SPU F42
with standard window division



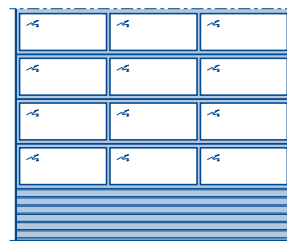
Sectional door APU F42
with wicket door with trip-free threshold



Sectional door APU F42,
matching the wicket door versions



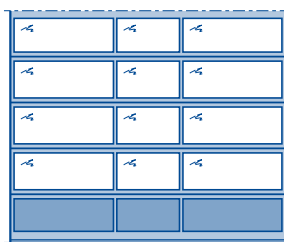
Sectional door APU F42
with standard window division



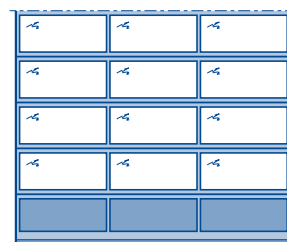
Sectional door ALR F42
with wicket door with trip-free threshold



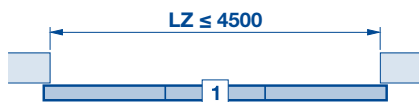
Sectional door ALR F42,
matching the wicket door versions



Sectional door ALR F42
with standard window division



Arrangement of the wicket door



Note:

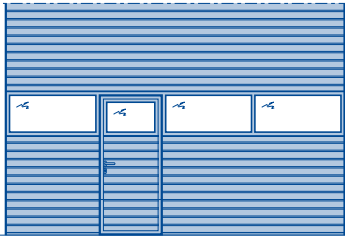
- Wicket door clear passage (DBS) = 940 mm.
- Wicket door only opening outwards.

Glazing / Wicket Door Arrangements

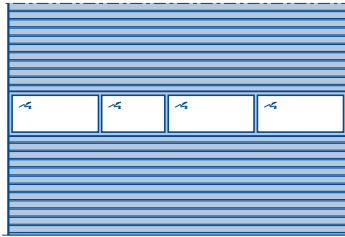
Sectional doors with 4 infills / fields

Glazing arrangements – external view

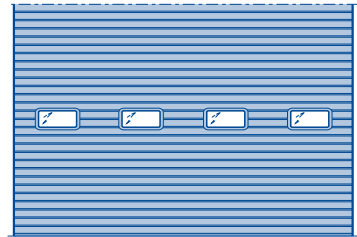
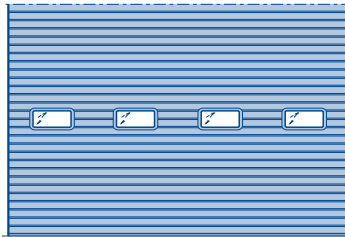
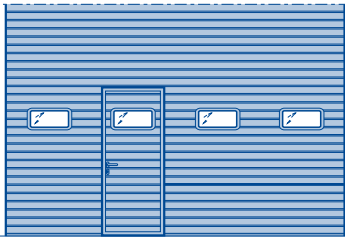
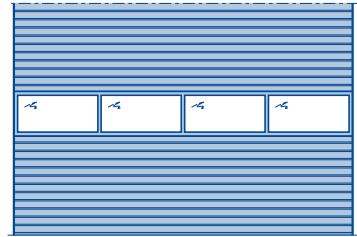
Sectional door SPU F42
with wicket door with trip-free threshold



Sectional door SPU F42,
matching the wicket door versions



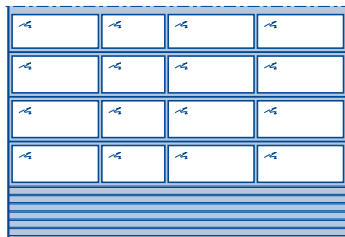
Sectional door SPU F42
with standard window division



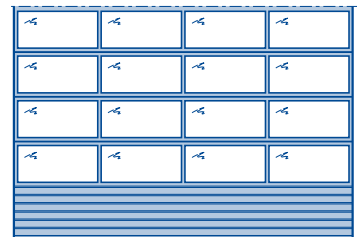
Sectional door APU F42
with wicket door with trip-free threshold



Sectional door APU F42,
matching the wicket door versions



Sectional door APU F42
with standard window division



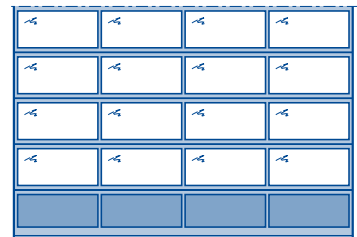
Sectional door ALR F42
with wicket door with trip-free threshold



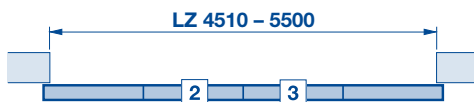
Sectional door ALR F42,
matching the wicket door versions



Sectional door ALR F42
with standard window division



Arrangement of the wicket door



Note:

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

Glazing / Wicket Door Arrangements

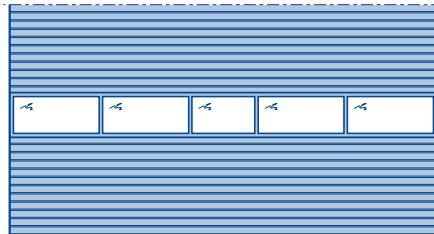
Sectional doors with 5 infills / fields

Glazing arrangements – external view

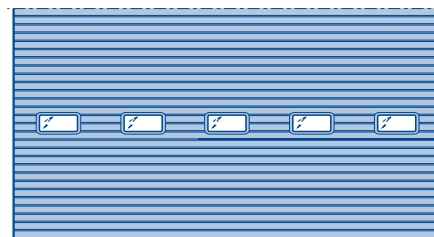
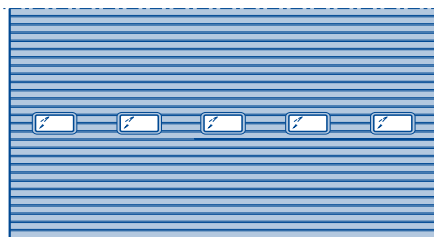
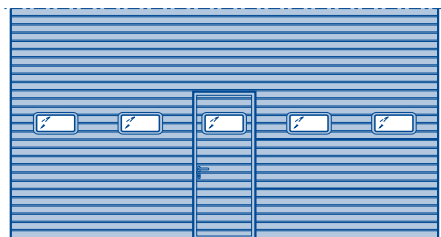
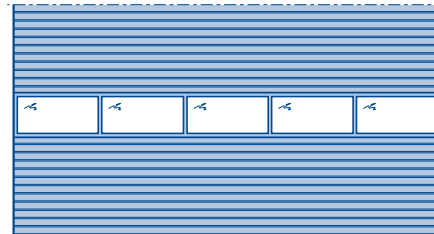
Sectional door SPU F42
with wicket door with trip-free threshold



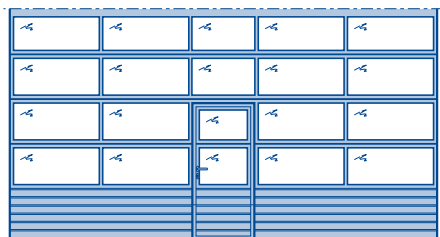
Sectional door SPU F42,
matching the wicket door versions



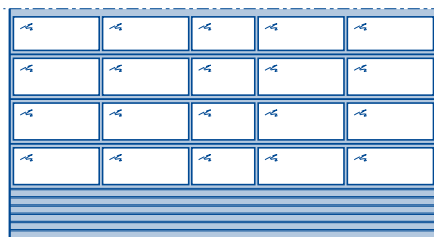
Sectional door SPU F42
with standard window division



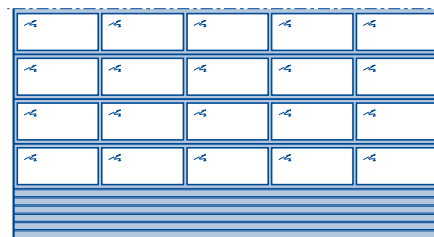
Sectional door APU F42
with wicket door with trip-free threshold



Sectional door APU F42,
matching the wicket door versions



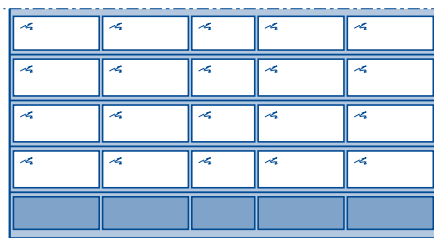
Sectional door APU F42
with standard window division



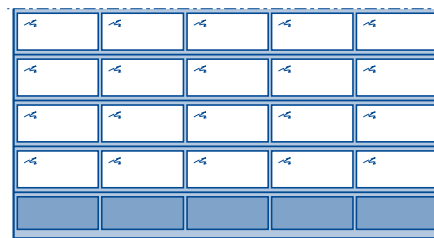
Sectional door ALR F42
with wicket door with trip-free threshold



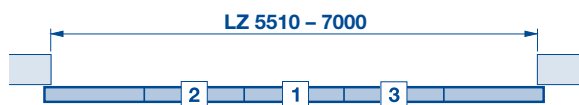
Sectional door ALR F42,
matching the wicket door versions



Sectional door ALR F42
with standard window division



Arrangement of the wicket door



Note:

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

Infills / Fields and Glazing Series 40

Number of infills / fields per aluminium frame

Sectional door without wicket door	
Aluminium frame type N	1 2 3 4 5 6 7 8
Aluminium frame type B	1 2 → 3330 3 4 → 6670 5
Sectional door with wicket door	
Aluminium frame type N	X 3 → 1750–3500 4 5 6 7 X

LZ

Number of compound glazings per door section

Sectional door without wicket door	
Standard type A	1 → 1680 2 3 4 5 6 7 8
Standard type D	1 → 1640 2 3 4 5 6 7 8
Standard type E	1 → 1860 2 → 2750 3 → 3650 4 → 4540 5 → 5510 6 X
Sectional door with wicket door	
Type A or type D	X 1 → 1750–2650 3 4 5 6 7 X
Type E	X 1 → 1840–2920 3 → 3880 4 → 4830 5 → 5780 6 X

LZ

LZ Clear frame dimensions
 → up to LZ

Side Door NT 60 / NT 80 Thermo

Possible handing options

Fitting in the opening

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

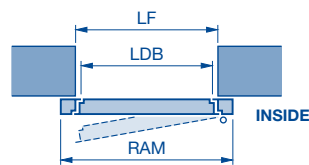


Fitting in the opening, opening inwards or outwards, RH or LH hinged



Fitting behind the opening

Only opening inwards, LH or RH hinged



Structural opening	Ordering size Overall frame dimensions RAM
875 × 2000	855 × 1990
875 × 2125	855 × 2115
1000 × 2000	980 × 1990
1000 × 2125	980 × 2115

Size range: width: RAM 770 to 1300, height: RAM 1865 to 2525 (state overall frame dimension)

Doors with multiple-point locking: RAM = ≥ 1920 mm

Clear passage dimensions:

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

Note:

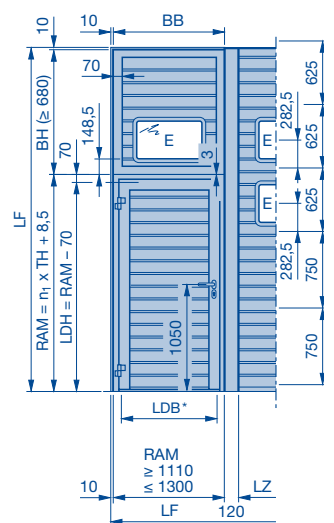
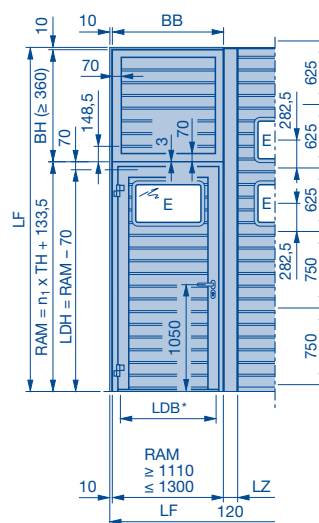
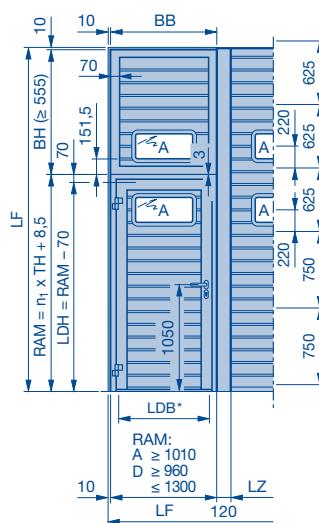
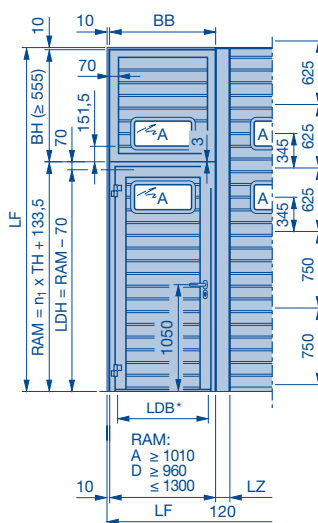
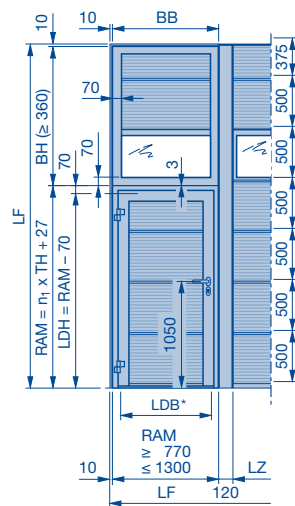
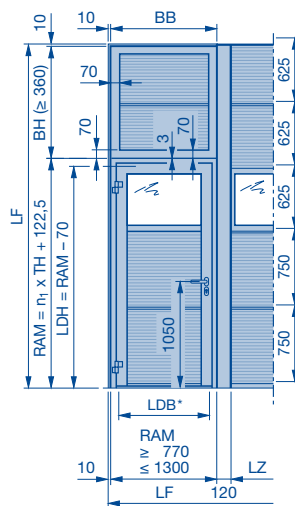
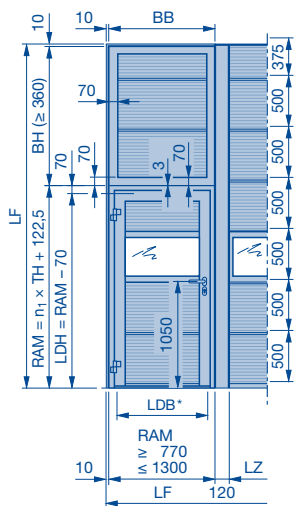
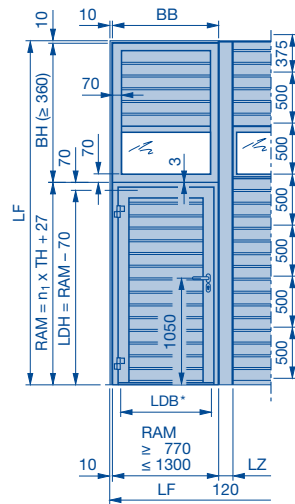
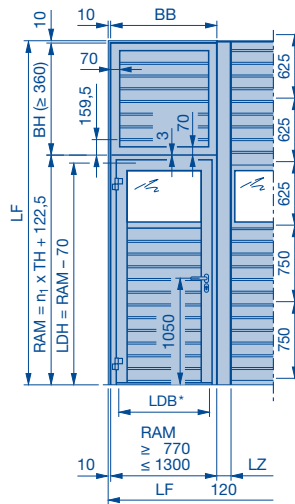
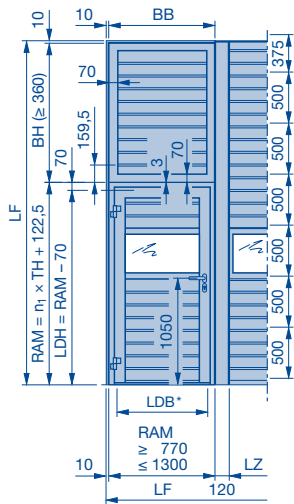
Side door version in ALR F42 Vitraplan with aluminium fascia profile opening inwards on request!

LF Structural opening
RAM Overall frame dimension
LDB Clear passage width
LDH Clear passage height

LZ Clear frame dimensions

Side Door NT 60

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



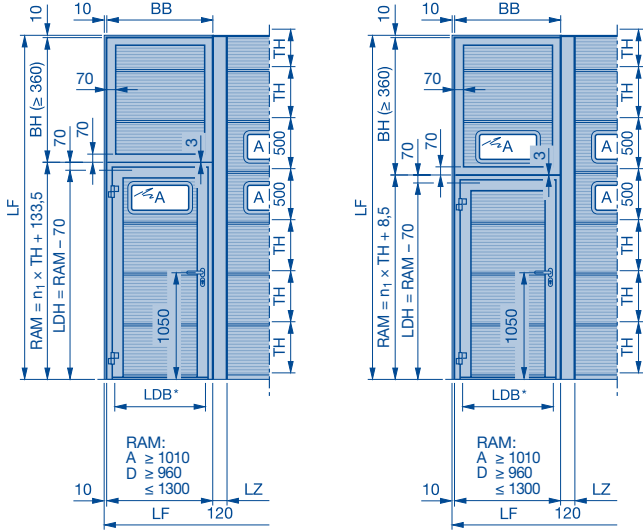
Note: Compound glazing not possible with RC 2 version.

* See page 40	BB Panel width	SO Bottom section height
LF Structural opening	LDB Clear passage width	LZ Clear frame dimensions
RAM Overall frame dimension	LDH Clear passage height	n₁ Number of door sections / aluminium frames
BH Panel height	TH Door section height	

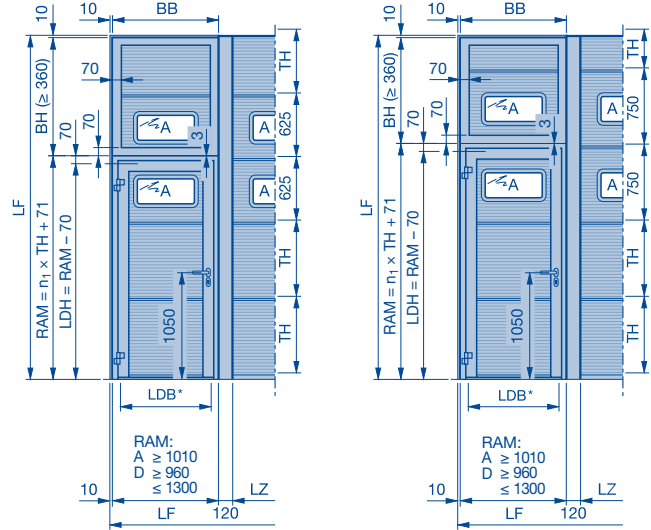
Side Door NT 60

With L-ribbed Micrograin infills

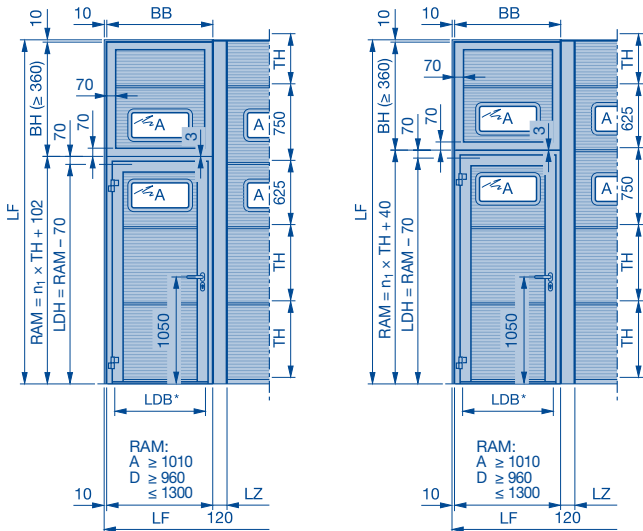
Compound glazing type A TH = 500



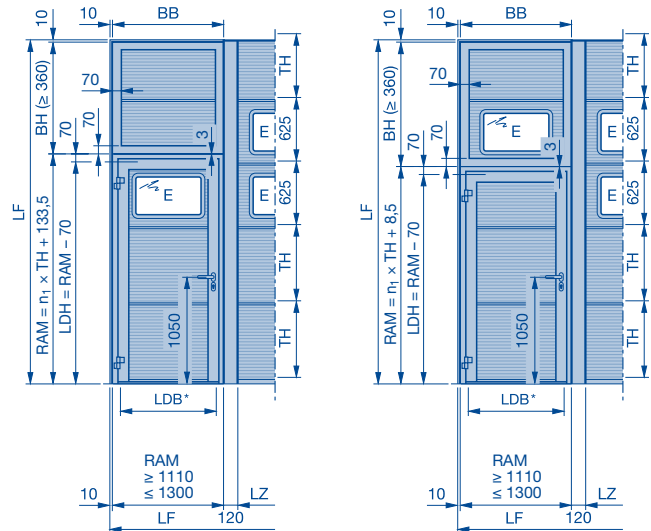
Compound glazing type A TH = 625 and 750



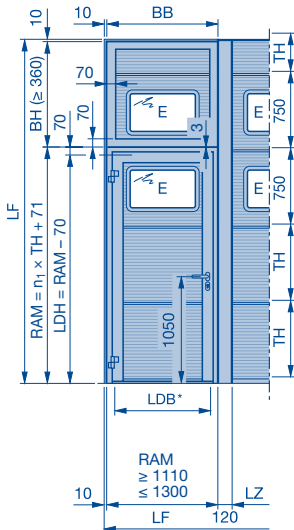
Compound glazing type A TH = 625 / 750 and 750 / 625



Compound glazing type E TH = 625



Compound glazing type E TH = 750



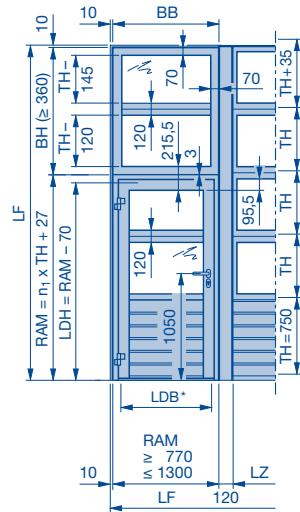
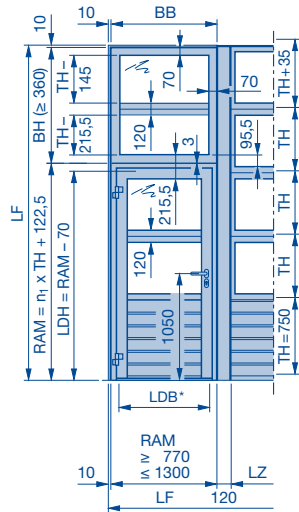
Note:
Compound glazing not possible with RC 2 version.

(Legend see page 41)

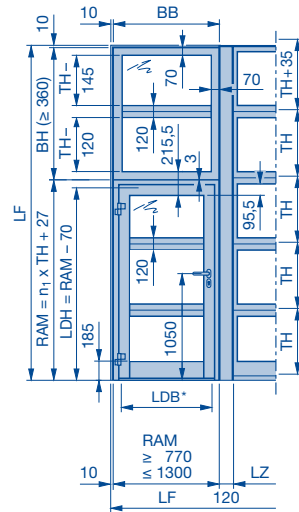
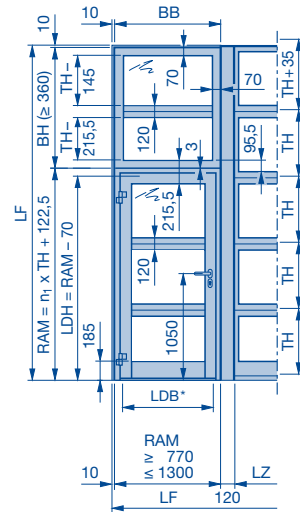
Side Door NT 60

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

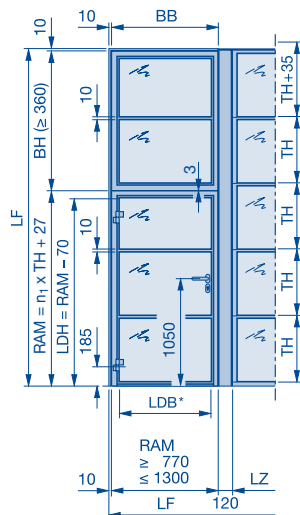
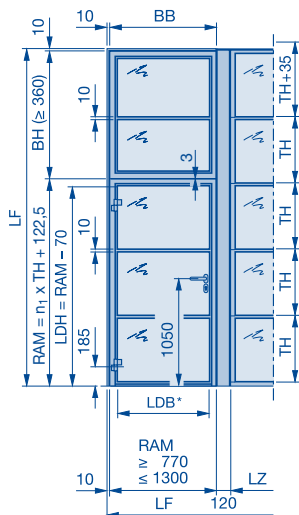
Side door NT 60 matching door type APU F42



Side door NT 60 matching door type ALR F42



Side door NT Vitraplan



* See page 40
LF Structural opening
RAM Overall frame dimension
BH Panel height

BB Panel width
LDB Clear passage width
LDH Clear passage height
TH Door section height

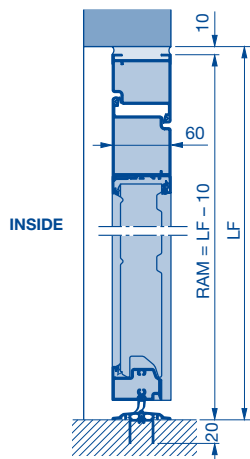
SO Bottom section height
LZ Clear frame dimensions
n₁ Number of door sections / aluminium frames

Side Door NT 60

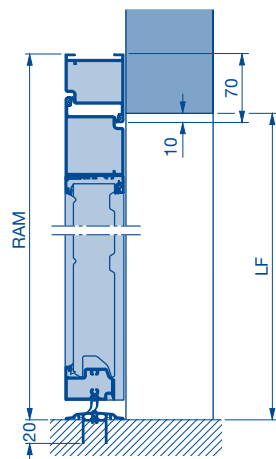
Possible fitting options

Possible fitting options

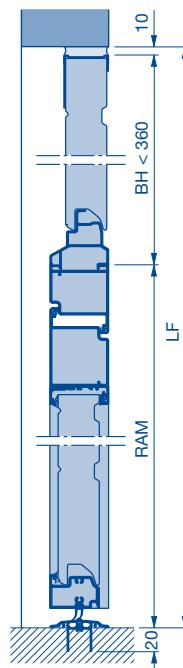
SPU In the opening
without window section,
without compound glazing



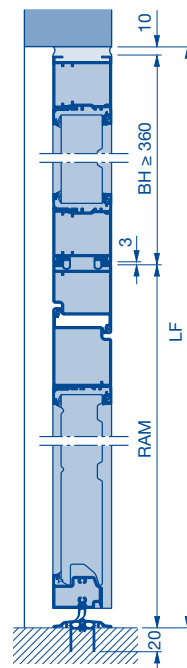
SPU behind the opening
without window section,
without compound glazing



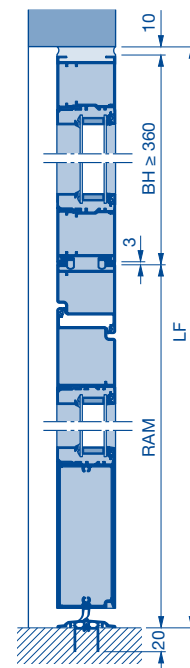
SPU with fascia panel in the opening



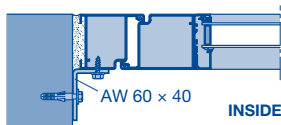
SPU, APU with fascia panel in the opening



ALR with fascia panel in the opening



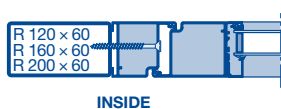
In the opening



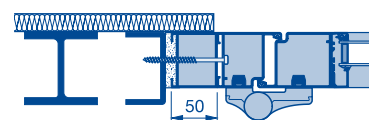
Plugs for metal frame



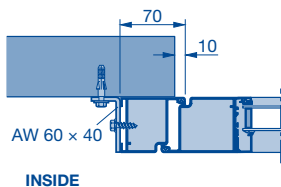
Tapping screw with countersunk head B 6.3 x 80



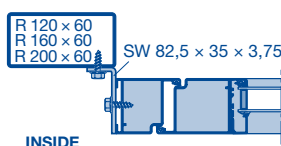
(bottom illustration with 50* mm extension profile for all-over insulation)
* Optionally also with 25 mm



Behind the opening



Side door NT 60 flush with sectional door



R Box section
AW Aluminium angle
SW Steel angle

BH Panel height
RAM Overall frame dimension
LDB Clear passage width

LF Structural opening

Side Door NT 60 RC 2

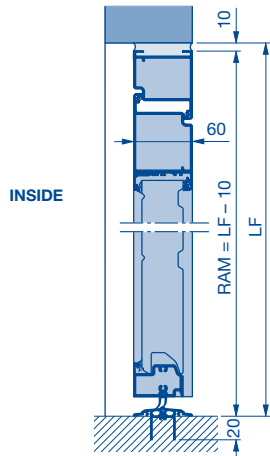
Possible fitting options

Possible fitting options

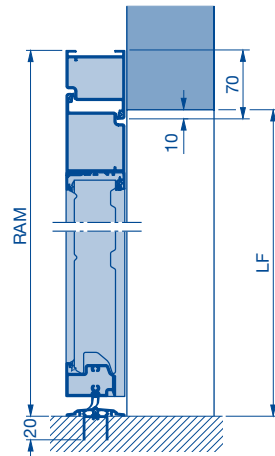
Note:

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

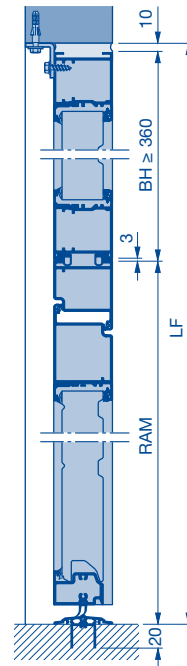
SPU In the opening
without window section,
without compound glazing



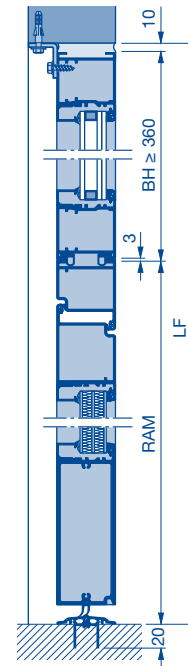
SPU behind the opening
without window section,
without compound glazing



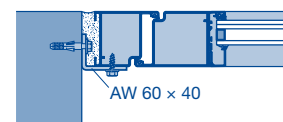
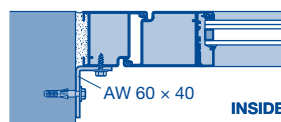
SPU, APU with fascia panel in the opening



ALR with fascia panel in the opening



In the opening



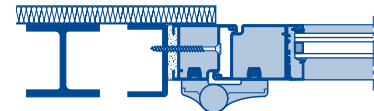
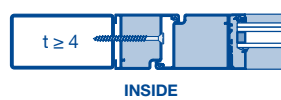
Plugs for metal frame



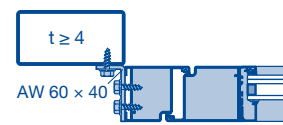
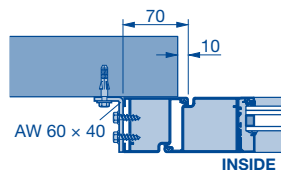
Tapping screw with countersunk head B 6.3 x 80

Note:

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



Behind the opening



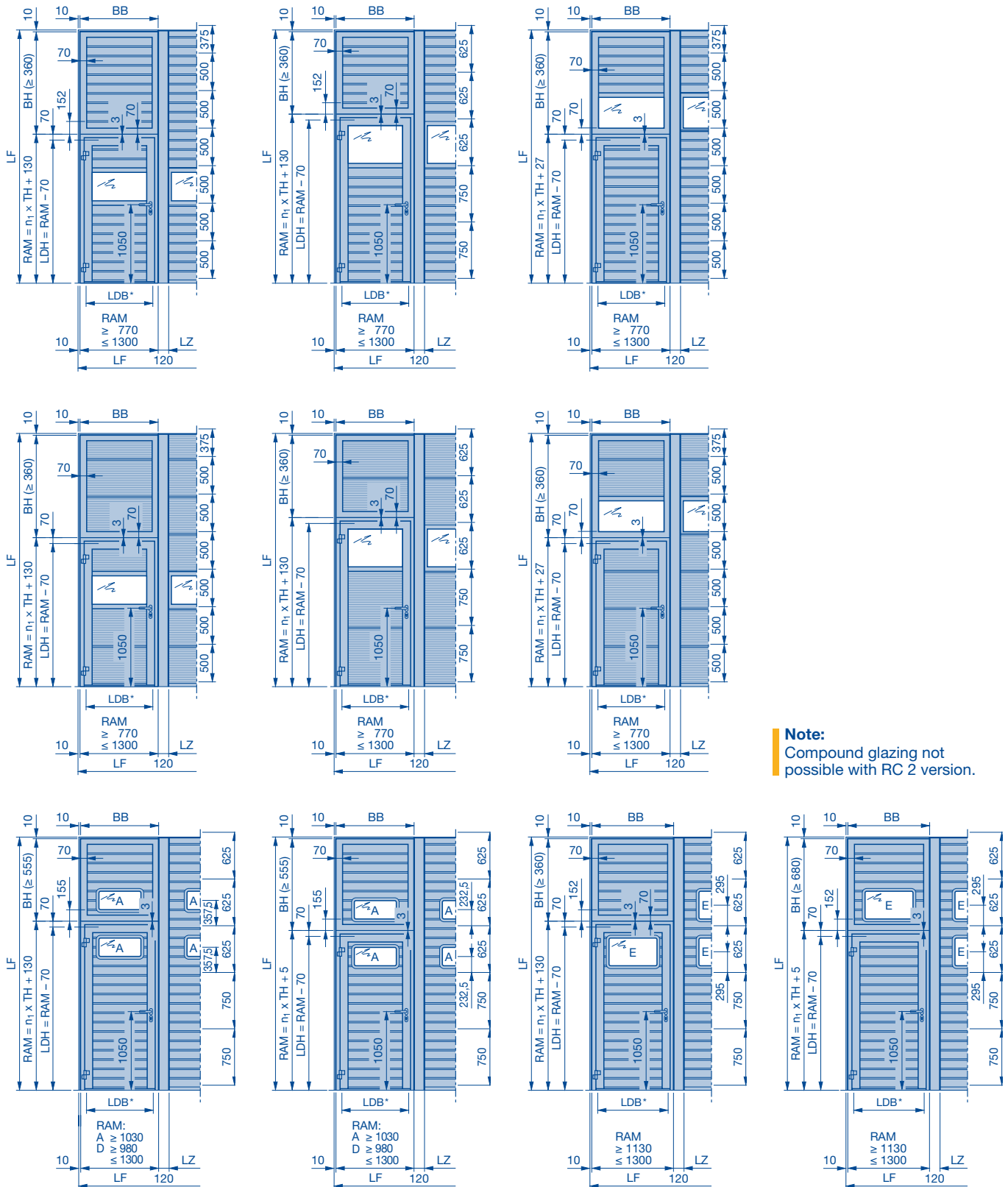
Side door NT 60 flush with sectional door

AW	Aluminium angle
T	Fastening thickness
BH	Panel height

RAM	Overall frame dimension
LDB	Clear passage width
LF	Structural opening

Side Door NT 80 Thermo

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



Note:
Compound glazing not possible with RC 2 version.

* See page 40
LF Structural opening
RAM Overall frame dimension
BH Panel height

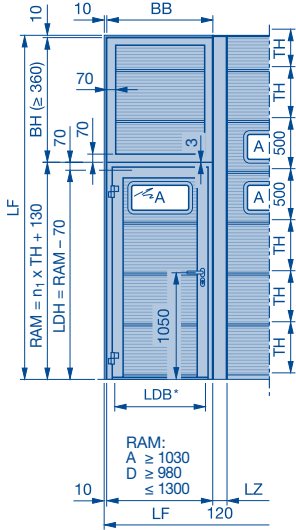
BB Panel width
LDB Clear passage width
LDH Clear passage height
TH Door section height

SO Bottom section height
LZ Clear frame dimensions
n₁ Number of door sections / aluminium frames

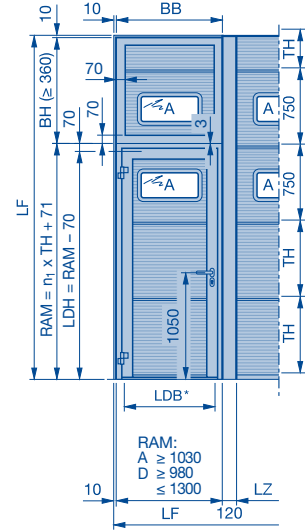
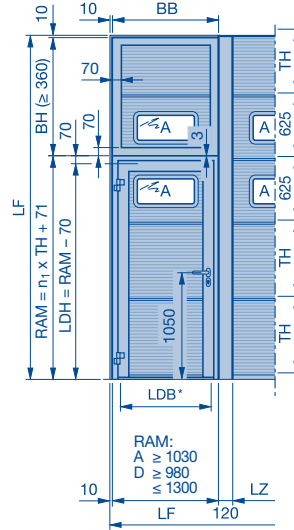
Side Door NT 80 Thermo

With L-ribbed Micrograin infills

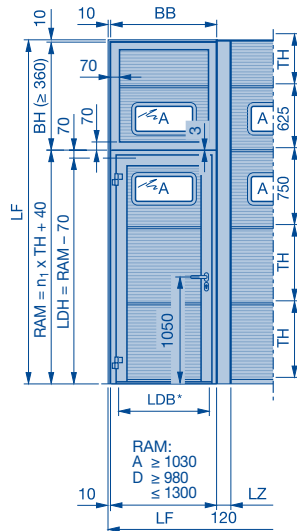
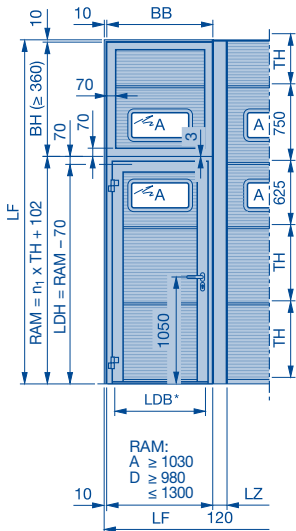
Compound glazing type A TH = 500



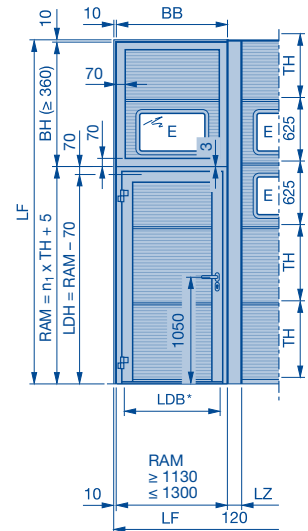
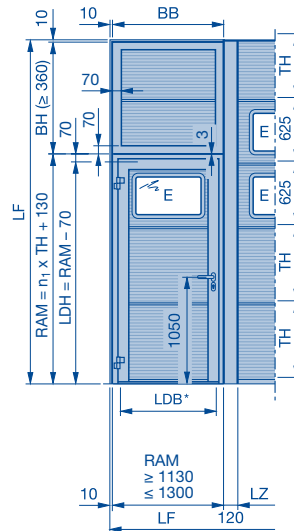
Compound glazing type A TH = 625 and 750



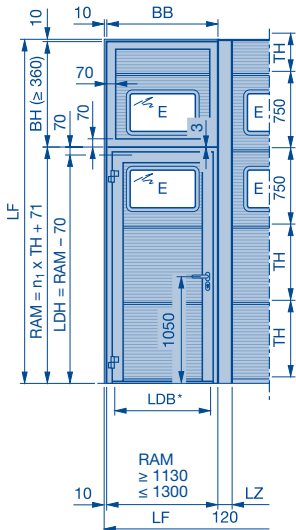
Compound glazing type A TH = 625 / 750 and 750 / 625



Compound glazing type E TH = 625



Compound glazing type E TH = 750



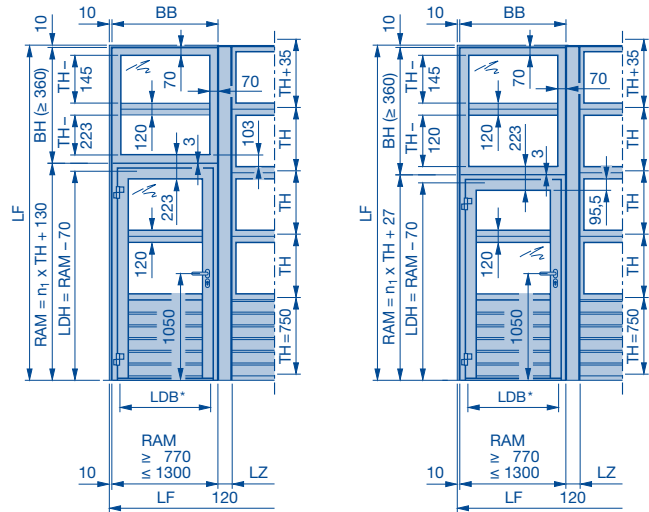
Note:
Compound glazing not possible with RC 2 version.

(Legend see page 46)

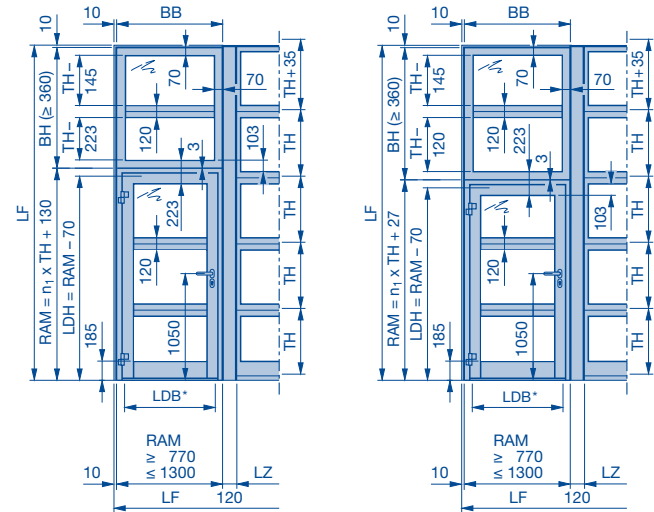
Side Door NT 80 Thermo

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
LF Structural opening
RAM Overall frame dimension
BH Panel height

BB Panel width
LDB Clear passage width
LDH Clear passage height
TH Door section height

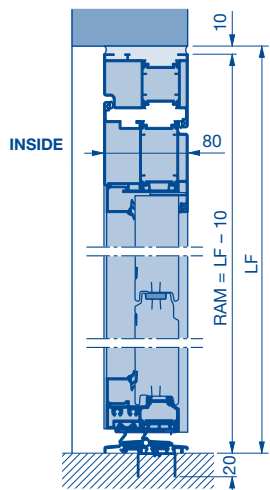
SO Bottom section height
LZ Clear frame dimensions
n₁ Number of door sections / aluminium frames

Side Door NT 80 Thermo

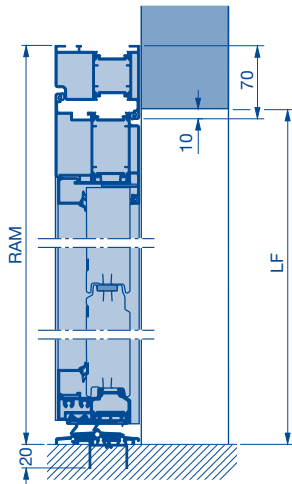
Possible fitting options

Possible fitting options

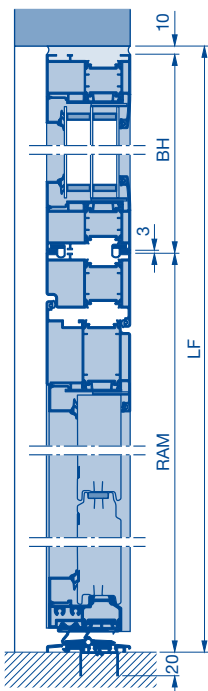
SPU In the opening
without window section,
without compound glazing



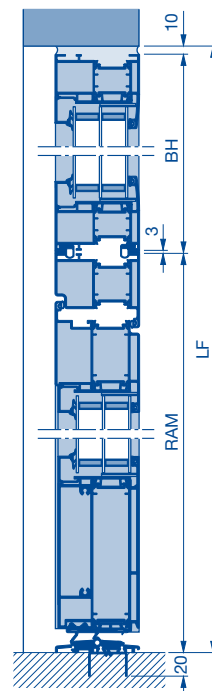
SPU behind the opening
without window section,
without compound glazing



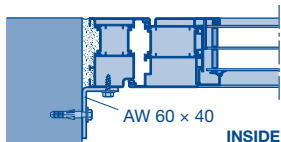
SPU, APU with fascia panel



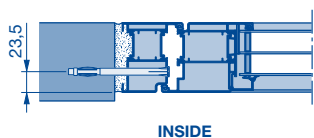
ALR with fascia panel



In the opening



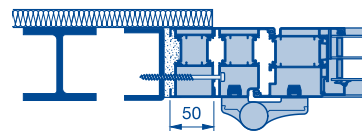
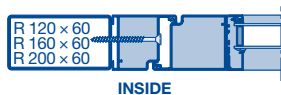
Plugs for metal frame



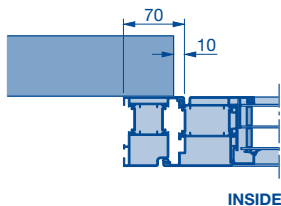
(bottom illustration with 50* mm extension profile for all-over insulation)

* Optionally also with 25 mm

Tapping screw with countersunk head
B 6.3 x 80



Behind the opening



Note:

Fitting with thermal break requires on-site preparations.

R Box section
AW Aluminium angle
SW Steel angle

BH Panel height
RAM Overall frame dimension
LDB Clear passage width

LF Structural opening

Side Door NT 80 Thermo RC 2

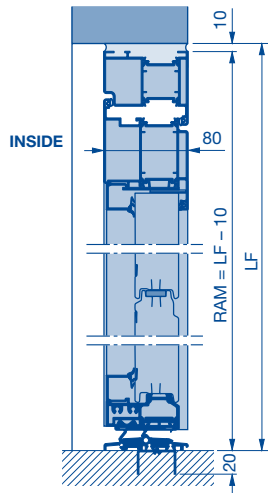
Possible fitting options

Possible fitting options

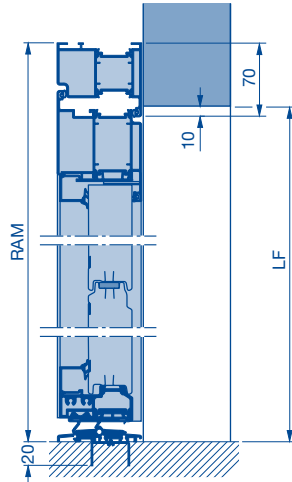
Note:

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

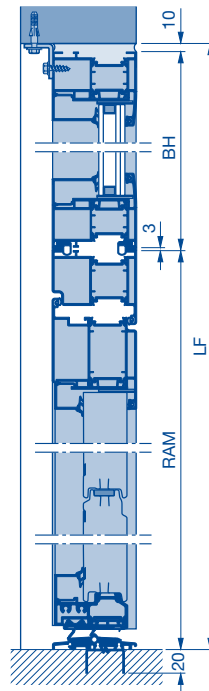
SPU In the opening
without window section,
without compound glazing



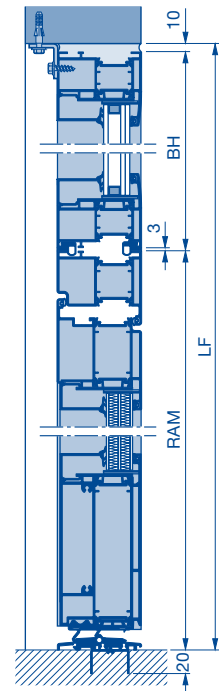
SPU behind the opening
without window section,
without compound glazing



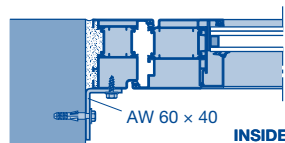
SPU, APU with fascia panel



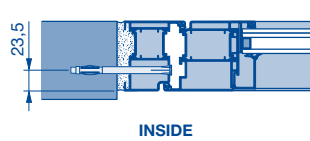
ALR with fascia panel



In the opening



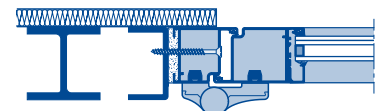
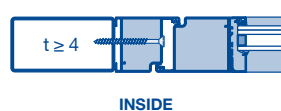
Plugs for metal frame



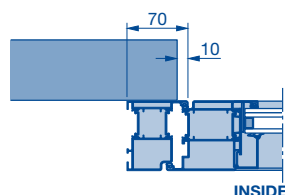
Tapping screw with countersunk head
B 6.3 x 80

Note:

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



Behind the opening



Note:

Fitting with thermal break requires on-site preparations.

R Box section
AW Aluminium angle
SW Steel angle

BH Panel height
RAM Overall frame dimension
LDB Clear passage width

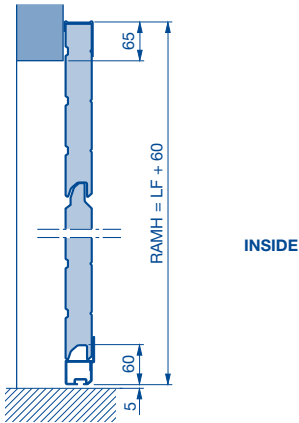
LF Structural opening

Fixed Elements

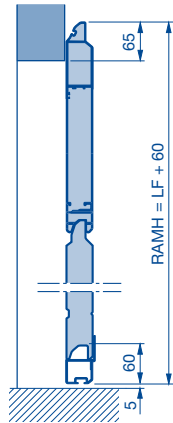
Possible fitting options and fitting examples

Possible fitting options

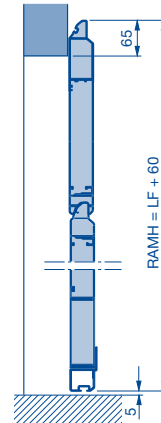
SPU F42 behind the opening
without window section,
without compound glazing



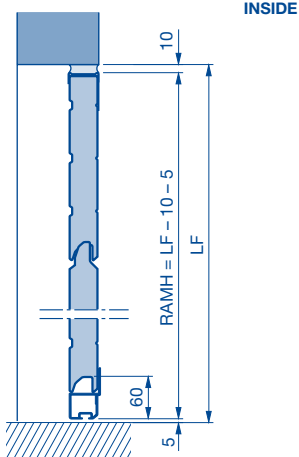
APU F42 behind the opening



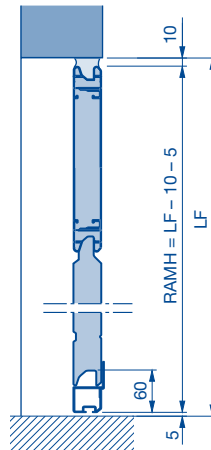
ALR F42, ALR F42 Thermo behind the opening



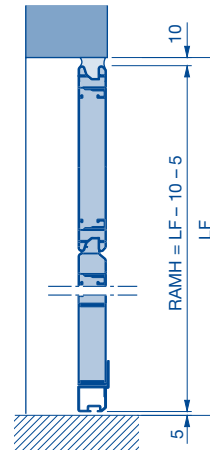
SPU F42 in the opening
without window section,
without compound glazing



APU F42 in the opening

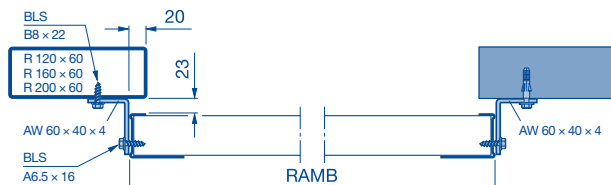
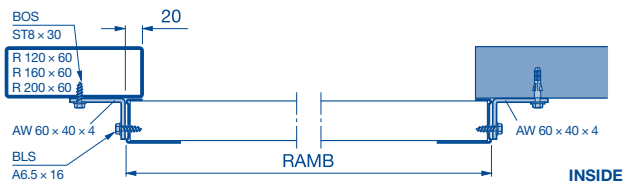


ALR F42, ALR F42 Thermo in the opening

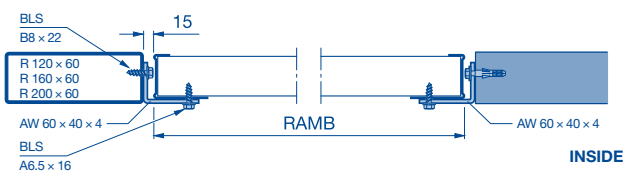


Fitting examples

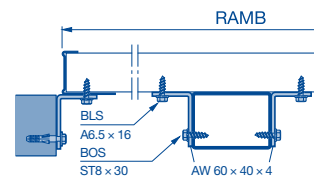
Behind the opening



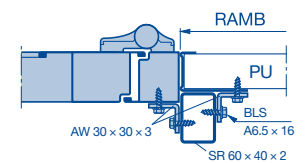
In the opening



In front of the opening



Side door



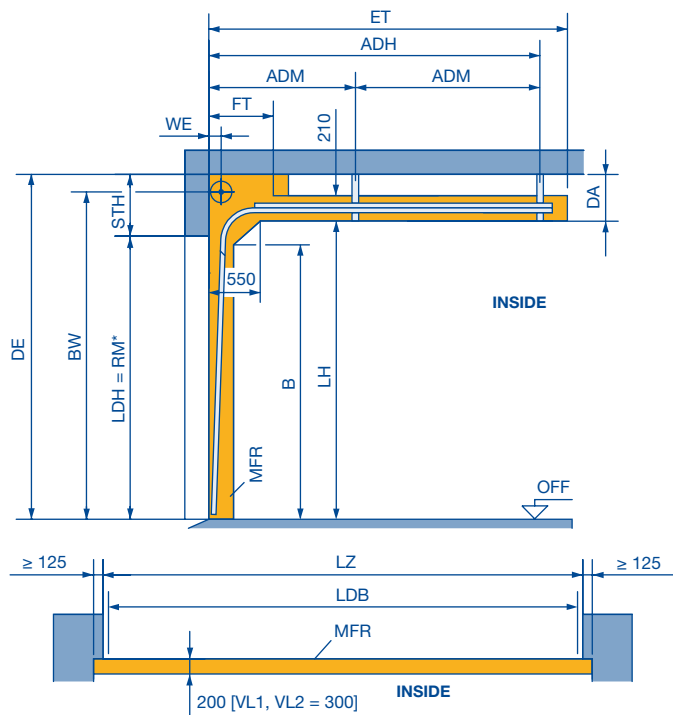
AW Aluminium angle
SR Support tube
AR Aluminium frame

PU PU section
LF Structural opening
RAMB Overall frame width

RAMH Overall frame dimension height
BOS Drilling screw
BLS Self-tapping screw

Track Application: N

Normal track application



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

Note:

- Observe the permissible size ranges of the door types on pages 10 – 14 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 near 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/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

Observe min. sideroom, see page 72.

	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	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	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 72)
- 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 77)
- 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 77)
- LH** Track height = RM + 110
- LZ** Clear frame dimensions
- DE** Ceiling height
- MFR** Space for fitting the door
- FT** Clearance for door operation

Min. headroom

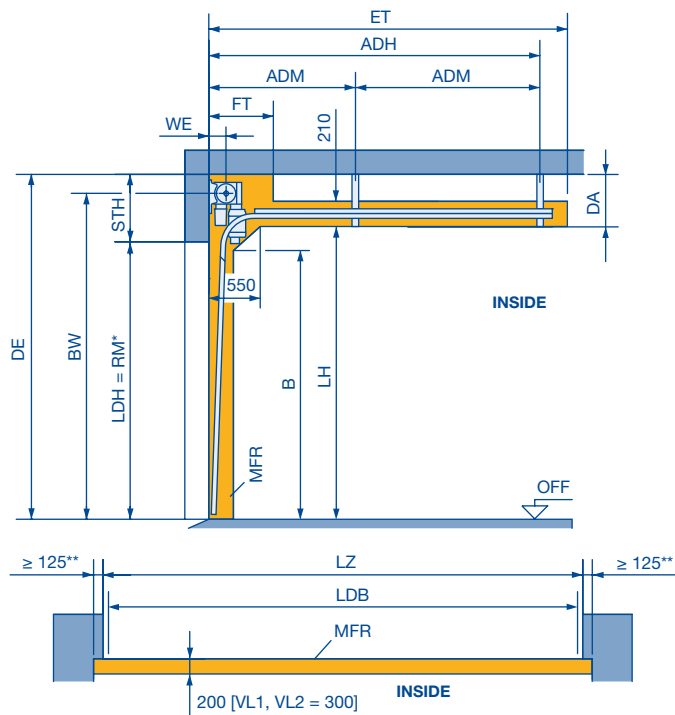
Track size	Headroom	Track size	Headroom	Track size	Headroom
N 1	390	L 1	200	RG 4	1760
N 2	440	L 2	200	RG 5	1760
N 3	550	LD 1	200	V 6	RM + 500
NA 1	400	LD 2	200	V 7	RM + 540
NA 2	450	H 4	880	V 9	RM + 635
ND 1	390	H 5	910	VA 6	RM + 510
ND 2	440	H 8	950	VU 6	RM + 350
ND 3	550	HA 4	890	VU 7	RM + 350
NH 1	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

Note:

- Permissible size range $LZ \leq 4500$ and $RM \leq 4500$.
- 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 near 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/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

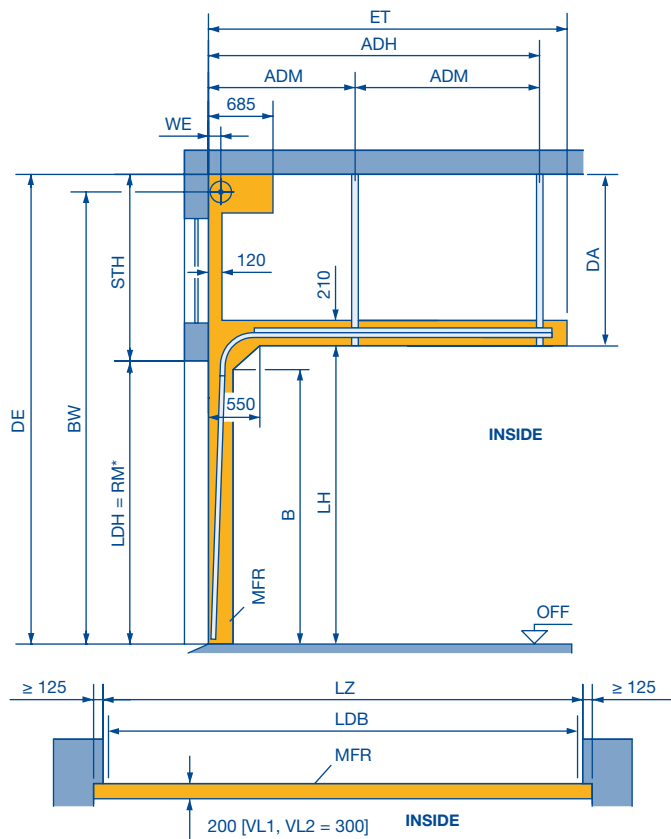
	STH	WE	DA	FT
N 2	510	160	330	820

*Clear passage height LDH Direct driver operators S17.24/S35.30	
LZ ≤ 4500	
Without wicket door	RM
Wicket door with threshold	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 dimensions
 - DE** Ceiling height
 - MFR** Space for fitting the door
 - FT** Clearance for door operation
- ** 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/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

Observe min. sideroom, see page 73.

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

ET = min. Distance back	
NA 1 + 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 dimensions

MFR Space for fitting the door

* Note:

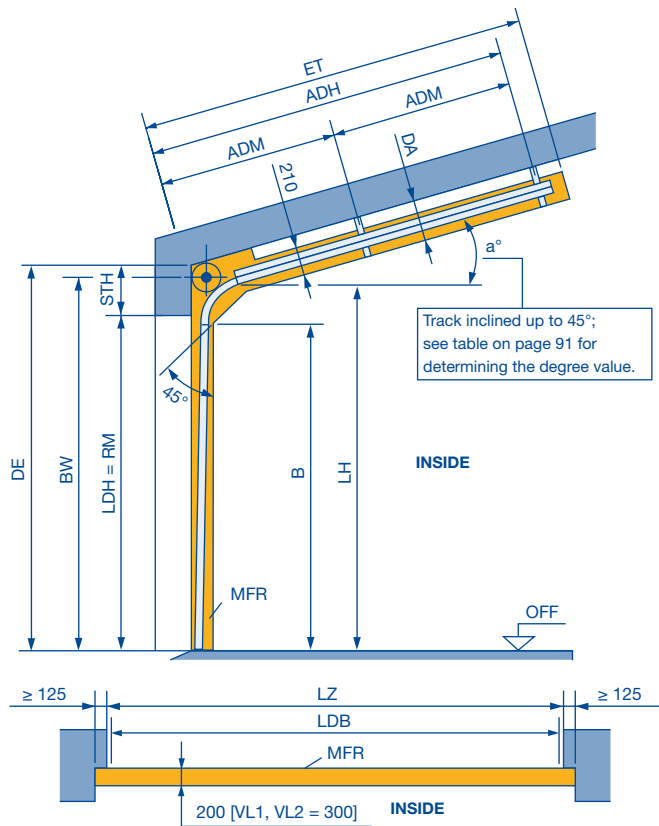
Clear passage height LDH, see track application N

Note:

- Observe the permissible size ranges of the door types on pages 10–14 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 near the spring buffer is reduced by 70 mm.

Track Application: ND

Normal track application
with inclination up to 45°



*** Note:**

Clear passage height LDH, see track application N

Note:

- 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 near the spring buffer is reduced by 70 mm.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

Observe min. sideroom, see page 73.

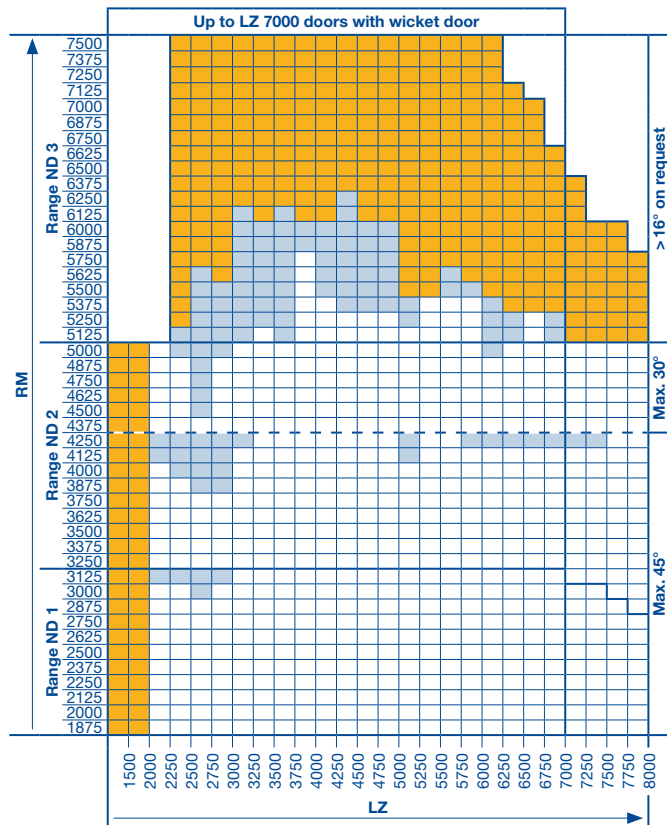
	STH ≤ 30°	STH > 30°
ND 1	390	490
ND 2	440	490
ND 3	550	-
With double spring shaft	760	-

ET = min. Distance back		
ND 1 + 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
ND 3	RM + 270 - a° × 6.5	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track
	RM + 700 - a° × 6.5	All versions
ND 3	RM + 270 - a° × 6.5	For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track
	RM + 700 - a° × 6.5	All versions

See the normal track application for all other fitting dimensions.

Note:

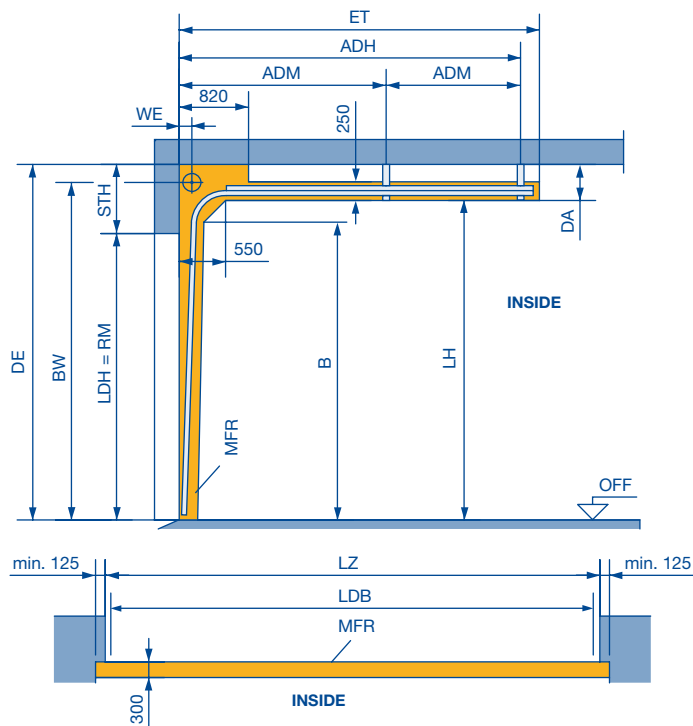
- Observe the permissible size ranges of the door types on pages 10 – 14 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- See page 97 for determining the roof slope.
- Door types APU F42, ALR F42, APU F42 Thermo and ALR F42 Thermo with glazing A3, B3, M3, S3, U3, LB, P, XU and wicket door on request.
- Roof slope on request for RM ≤ 4250 und > 30° or RM > 4250 and > 16°.



- | | | | |
|------------|--|------------|---|
| LDB | Clear passage width with ThermoFrame (see page 73) | RM | Grid height |
| LDH | Clear passage height | MFR | Space for fitting the door |
| LH | Track height | a° | Roof slope |
| B | Start of double radius, LH - 310 | | □ All door types available in any version. |
| 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 | | ■ Versions with glazing A3, B3, M3, S3, U3, LB, P, XU and/or wicket door. |
| ADH | Distance to rear ceiling anchor
ND 1 + ND 2 = RM + 195 - a° × 6.5
ND 3 = RM + 295 - a° × 6.5 | | ■ All door types and versions on request. |
| ADM | Distance to central ceiling anchor (see page 78) | | Dimensions in mm |
| 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 | | |

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

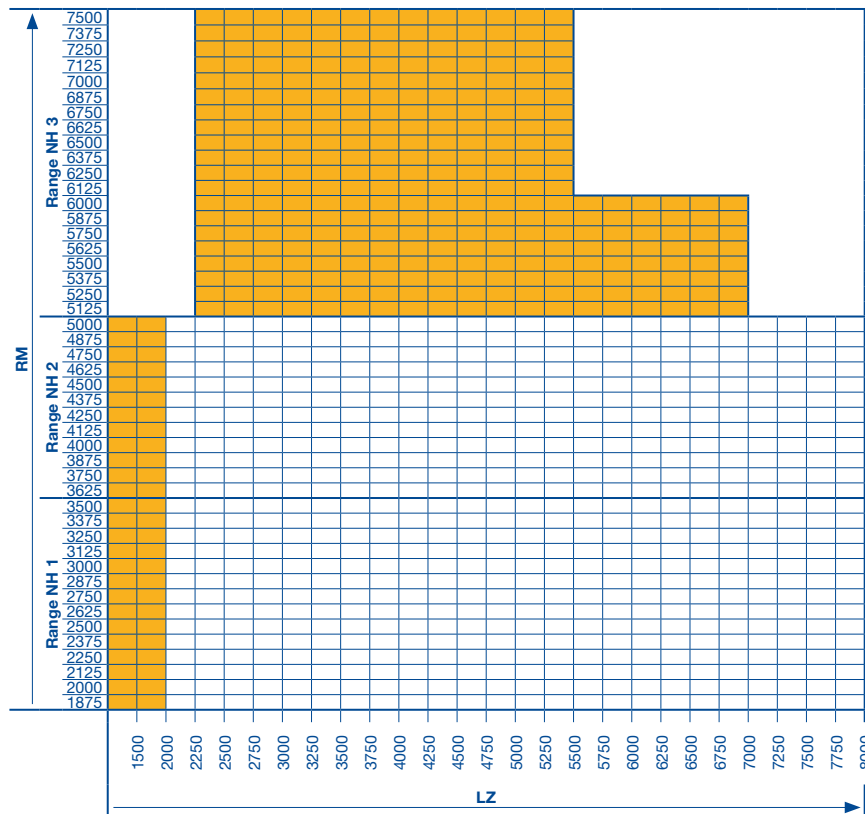
Observe min. sideroom, see page 73.

	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+2	2 x RM - LH + 1120 For manual operation with long spring buffer (standard)
	2 x RM - LH + 670 For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 x RM - LH + 880 For shaft operator with long spring buffer = (LH - RM) ≤ 1000
NH 3	2 x RM - LH + 430 For shaft operator with spring buffer below the track, with on-site adjustment of the track
	2 x RM - LH + 950 All versions
	2 x RM - LH + 430 For manual operation and shaft operator with spring buffer below the track, with on-site adjustment of the track

Note:

- 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 near the spring buffer is reduced by 70 mm.
- Observe the permissible size ranges of the door types on pages 10 – 14 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



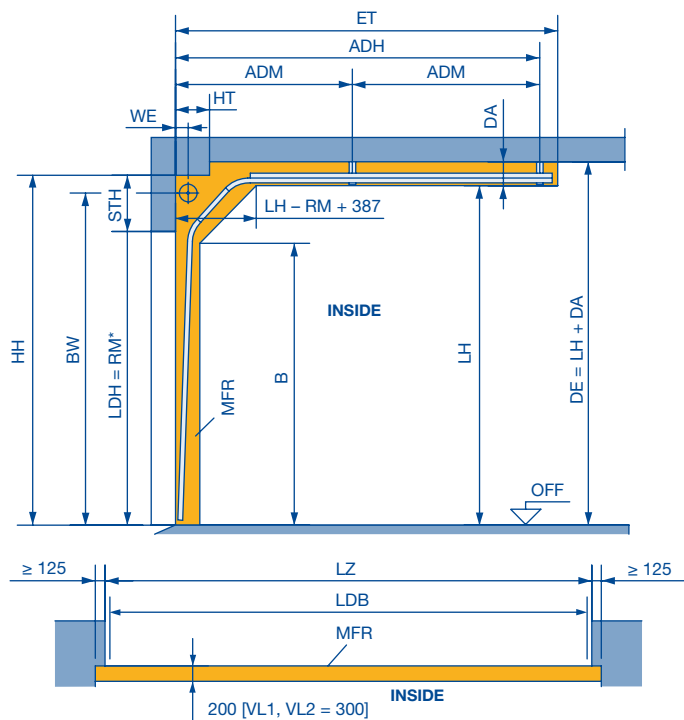
- LDB** Clear passage width with ThermoFrame (see page 73)
- LDH** Clear passage height
- RM** Grid height
- BW** Position of shaft support
NH 1 = LH + 200
NH 2 = LH + 225
NH 3 = LH + 305
- LH** Track height
Min. = RM + 330
max. = RM + 460
- ADH** Distance to rear ceiling anchor
NH 1 + NH 2 = 2 x RM - LH + 645 (long spring buffer)
NH 1 + NH 2 = 2 x RM - LH + 405 (long and short spring buffer + operator)
NH 3 = 2 x 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
- L** 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: NS

Normal track application
with double radius $2 \times 45^\circ$



Note:

- 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 near the spring buffer is reduced by 70 mm.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

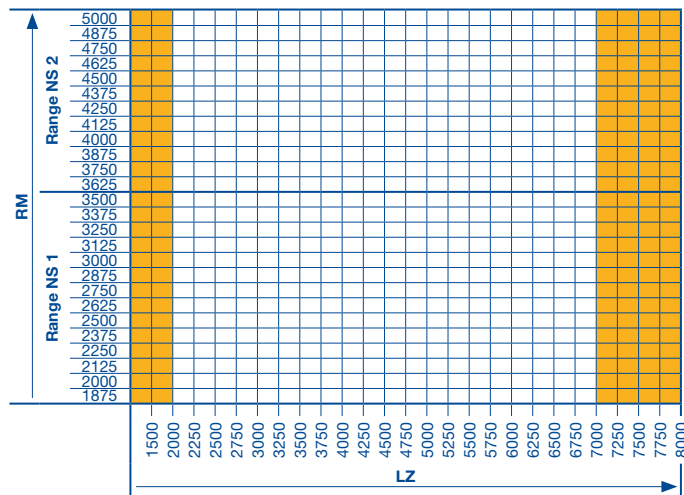
Observe min. sideroom, see page 73.

	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	

Note:

- Observe the permissible size ranges of the door types on pages 10 – 14 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

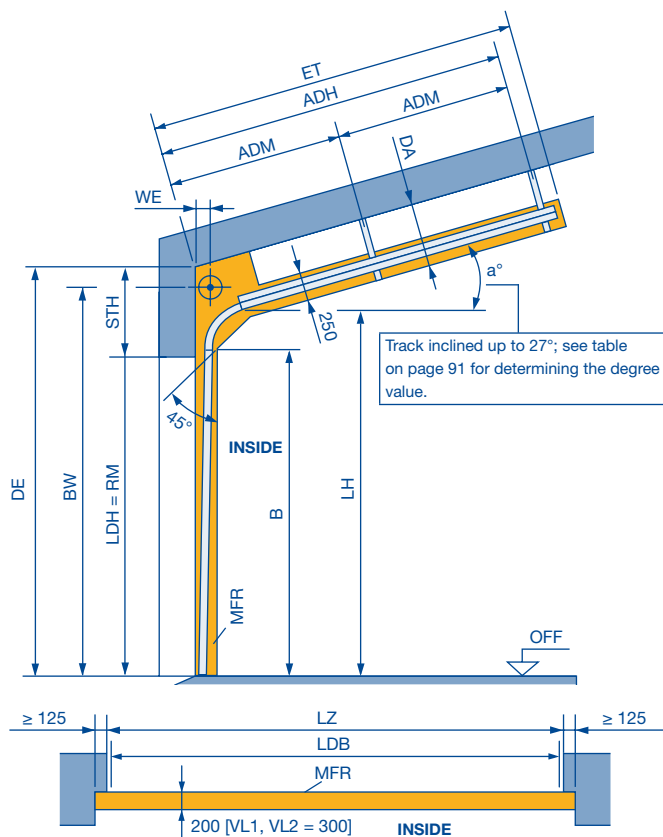


	*Clear passage height LDH	
	Without operator	Operator WA 400 **
LZ ≤ 5500***		
Without wicket door	RM	RM
Wicket door with threshold	RM – 100	RM – 50
Wicket door without threshold rail	RM – 150	RM – 85
LZ > 5500***		
Without wicket door	RM – 50	RM – 50
Wicket door with threshold	RM – 100	RM – 100
Wicket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

- ** Or with chain hoist / hand pulley
 - *** LZ > 4500 with real glass infill in the wicket door
 - STH** Min. headroom (see page 52)
 - ET** Min. distance back on request
 - ADH** Distance between rear ceiling anchor on request
 - ADM** Distance between 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
 - 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/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

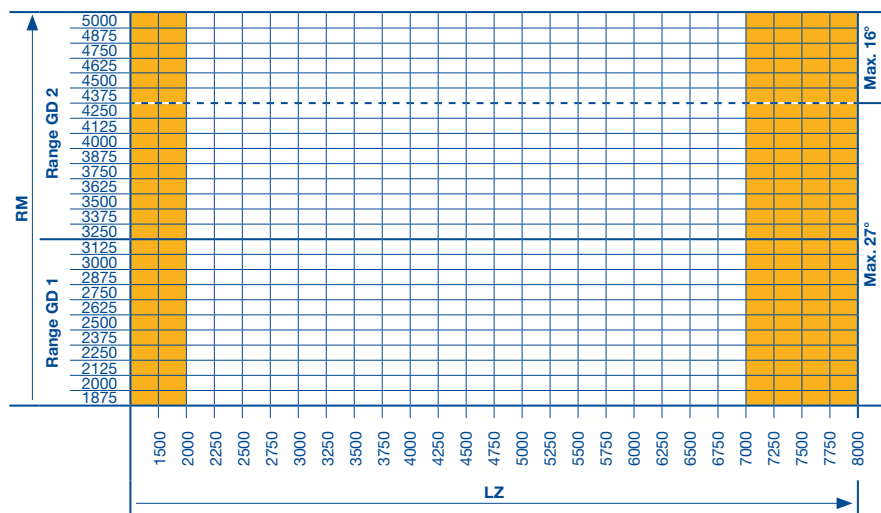
Observe min. sideroom, see page 73.

	WE
GD 1	140
GD 2	160

ET = min. Distance back		
GD 1+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

Note:

- 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 near the spring buffer is reduced by 70 mm.
- Observe the permissible size ranges of the door types on pages 10 - 14 and 18 - 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- See page 97 for determining the roof slope.



- 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
- 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

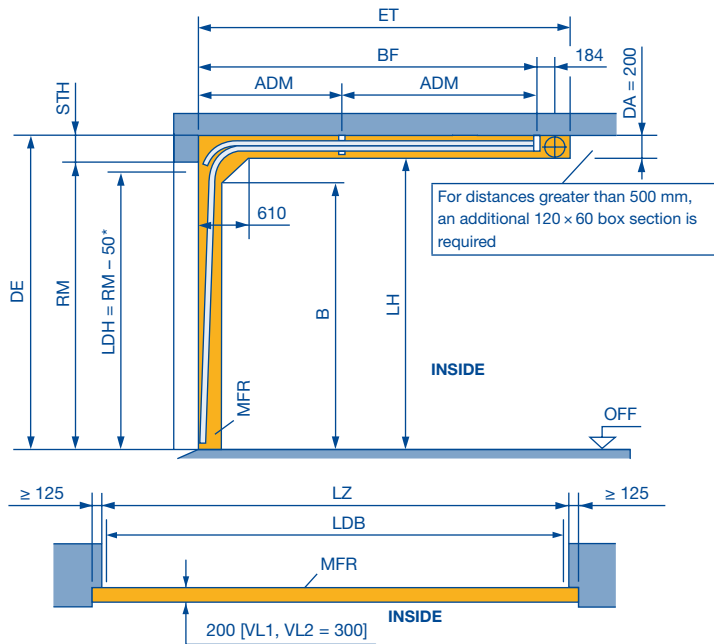
□ All door types available in any version.

■ 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

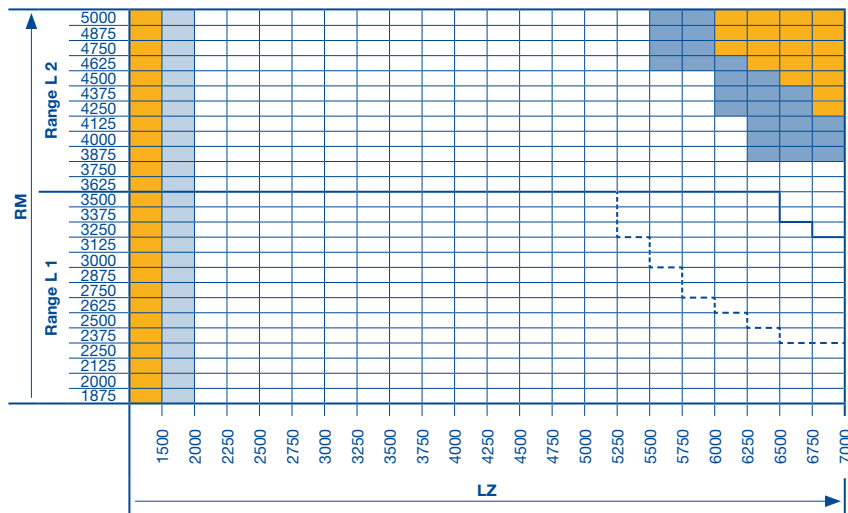
	* Clear passage height LDH		
	Without operator	Operator	
		WA 400 **	WA 300
LZ ≤ 5500***			
Without wicket door	RM - 50	RM - 50	RM - 80
Wicket door with threshold	RM - 100	RM - 100	RM - 130
Wicket door without threshold rail	RM - 165	RM - 135	RM - 165
LZ > 5500***			
Without wicket door	RM - 100	RM -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

Note:

- 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 - 14 and 18 - 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



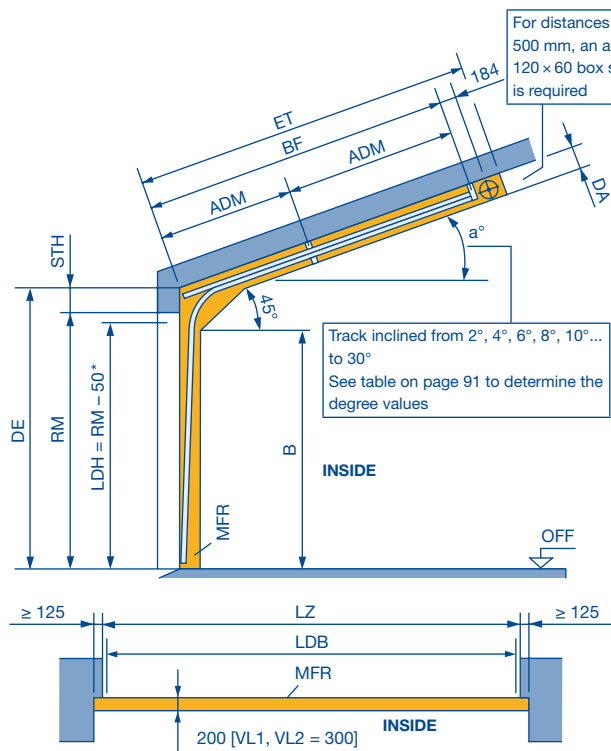
- LDB** Clear passage width with ThermoFrame (see page 73)
- LDH** Clear passage height
- RM** Grid height
- BF** Position of spring shaft = RM + 682
- ADM** Distance between central ceiling anchor
Up to RM 3500 = BF/2
From RM 3510 = BF/3
- ET** Min. distance back = RM + 990
- B** Start of double radius, 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/m ²
APU F42 / ALR F42	= 280 N/m ²
ALR F42 Glazing	= 560 N/m ²

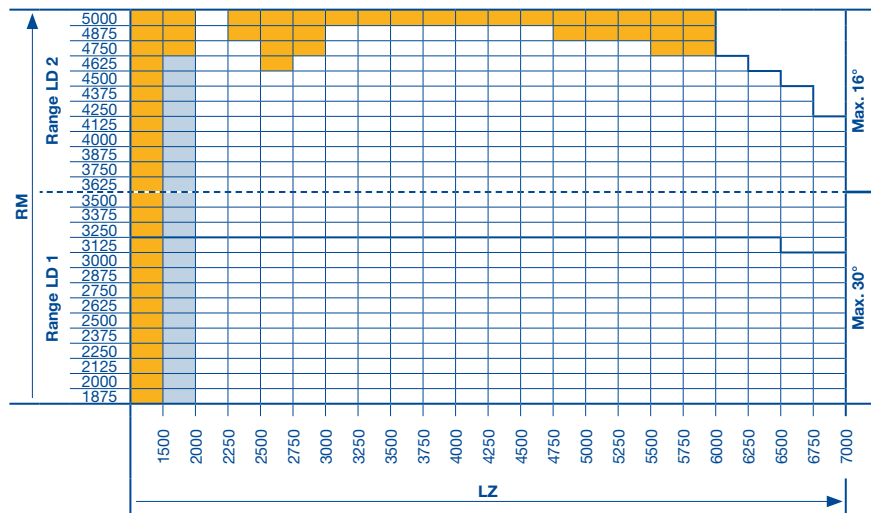
Observe min. sideroom, see page 73.

*** Notes:**

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

Note:

- 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 – 14 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- See page 97 for determining the roof slope.
- 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.



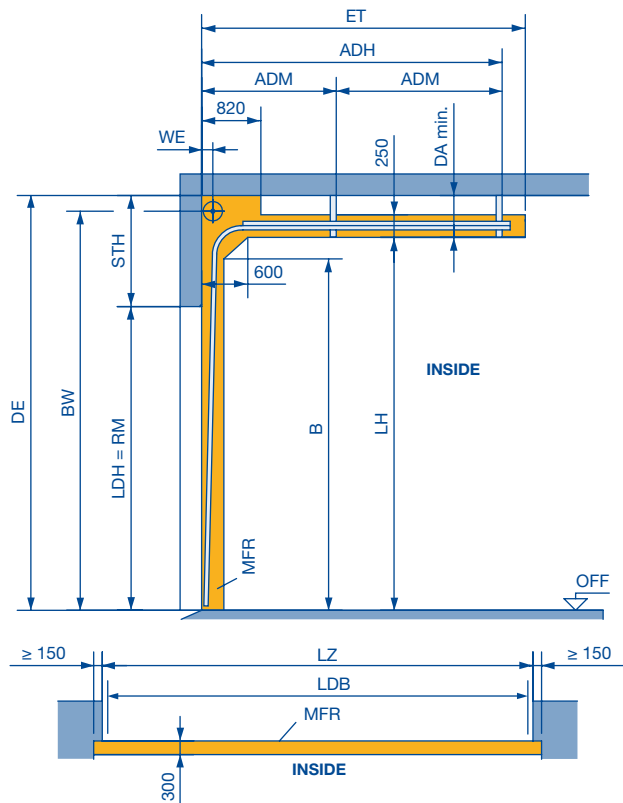
- LDB** Clear passage width with ThermoFrame (see page 73)
- LDH** Clear passage height
- RM** Grid height
- ET** Min. distance back
 2° – 4° = RM + 990
 6° – 16° = RM + 800
 18° – 30° = RM + 740
- STH** Min. headroom 200 (see page 52)
- B** Start of double radius, RM – 314
- BF** Position of spring shaft on request
- ADM** Distance between 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

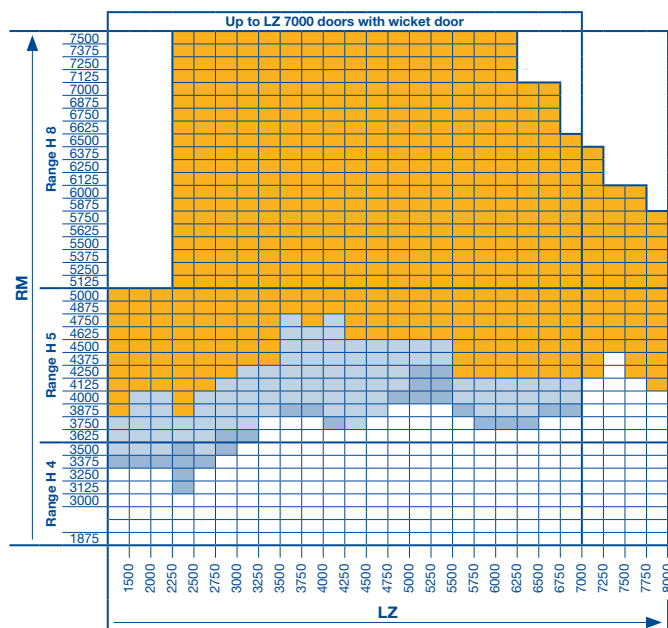
Track Application: H

High-lift track application



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

Observe min. sideroom, see page 73.



Please note:

Select required track height according to the door height in table 1.

Note:

- 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 near 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	7500	7960 10200
4875	5335	8175		7375	7835 10200
4750	5210	8050		7250	7710 10200
4625	5085	7925		7125	7585 10200
4500	4960	7800		7000	7460 10200
4375	4835	7675		6875	7335 10200
4250	4710	7550		6750	7210 10150
4125	4585	7425		6625	7085 10025
4000	4460	7185		6500	6960 9900
3875	4335	6935		6375	6835 9775
3750	4210	6685		6250	6710 9650
3625	4085	6435		6125	6585 9525
3500	3960	6185		6000	6460 9400
3375	3835	5935		5875	6335 9275
3250	3710	5685	5750	6210 9150	
3125	3585	5435	5625	6085 9025	
3000	3460	5185	5500	5960 8900	
2875	3335	4935	5375	5835 8775	
2750	3210	4685	5250	5710 8650	
2625	3085	4435	5125	5585 8525	
2500	2960	4185			
2375	2835	3935			
2250	2710	3685			
2125	2585	3435			
2000	2460	3185			

H 8, WE = 205
All door types and versions available on request.

Note:

- Observe the permissible size ranges of the door types on pages 10 – 14 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 + 5 = LH + 280, H 8 = LH + 305
- ADH** Distance to rear ceiling anchor
H 4 + H 5 = 2 x RM - LH + 645 (long spring buffer)
H 4 + H 5 = 2 x RM - LH + 405 (long and short spring buffer + operator)
H 8 = 2 x 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

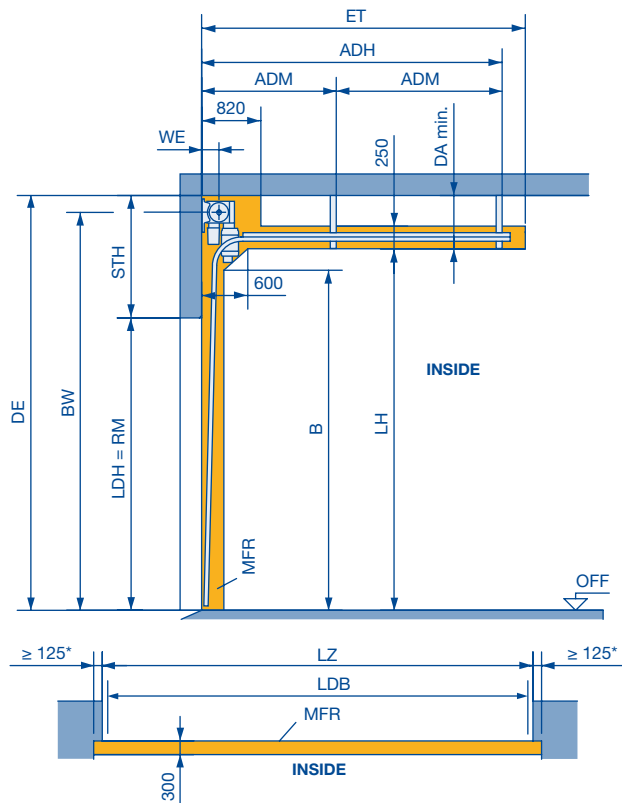
- All door types available in any version.
- All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and / or wicket door on request.
- Door types APU F42 and ALR F42 are available; APU F42 Thermo, ALR F42 Thermo and SPU F42 with thermo frames as well as versions with glazing 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		
H2	$2 \times RM - LH + 880$	For direct drive operator with long spring buffer ($LH - RM \leq 1000$)
	$2 \times RM - LH + 650$	For direct drive operator with short spring buffer ($LH - RM > 1000$)
	$2 \times RM - LH + 430$	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.

Note:

- Permissible size range $LZ \leq 4500$ and $RM \leq 4500$.
- 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 near 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
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

H 2, WE = 160

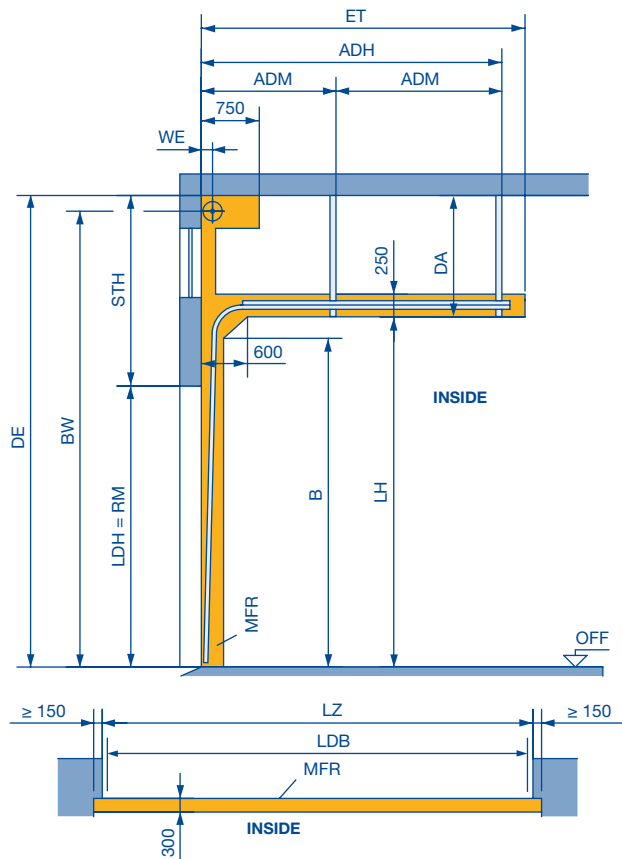
LDB	Clear passage width with ThermoFrame (see page 73)
LDH	Clear passage height
RM	Grid height
LH	Track height (see Table 1)
BW	Position of shaft support LH + 280
ADH	Distance to rear ceiling anchor $2 \times RM - LH + 405$ (long and short spring buffer + operator)
ADM	Distance to central ceiling anchor (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	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

* Note the sideroom, see page 90

Dimensions in mm

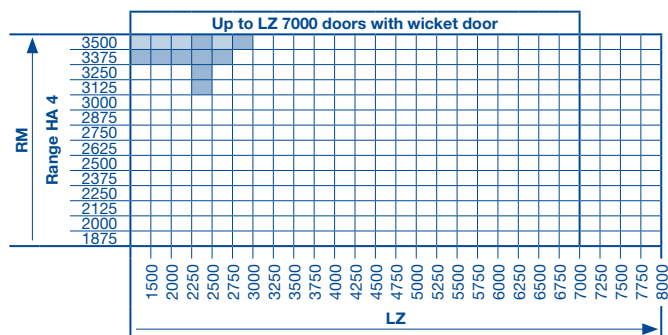
Track Application: HA

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



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

Note:

- 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 near the spring buffer is reduced by 70 mm.

Table 2: Track heights (LH)

Door height RM	Min. LH	Max. LH	HA 4, WE = 160
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	

Note:

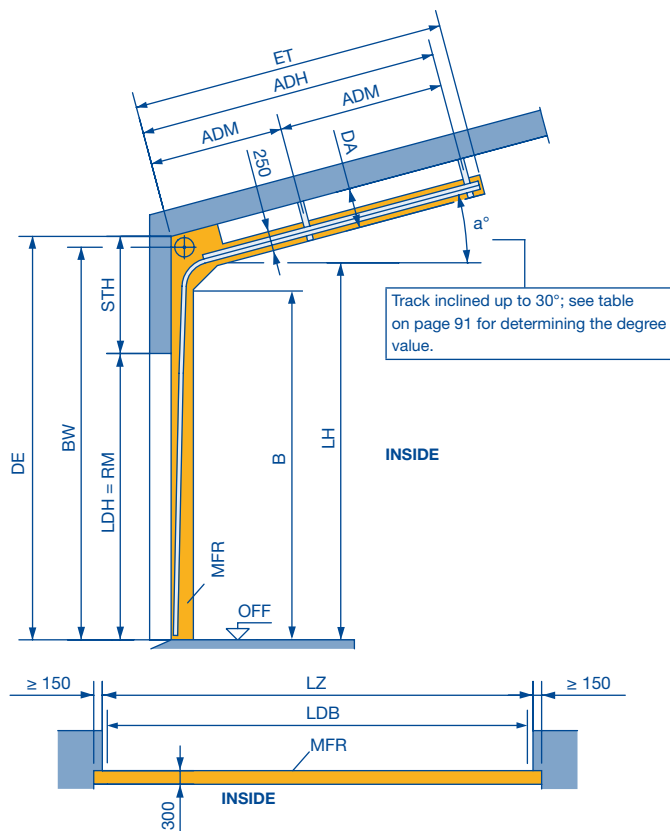
- Observe the permissible size ranges of the door types on pages 10 – 14 and 18 – 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

- 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 x RM - LH + 645 (long spring buffer)
HA 4 = 2 x 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

- White box: All door types available in any version.
 - Light grey box: All door types are available, versions with glazing A3, B3, M3, S3, U3, LB, P, XU and/or wicket door on request.
 - Dark grey box: 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:

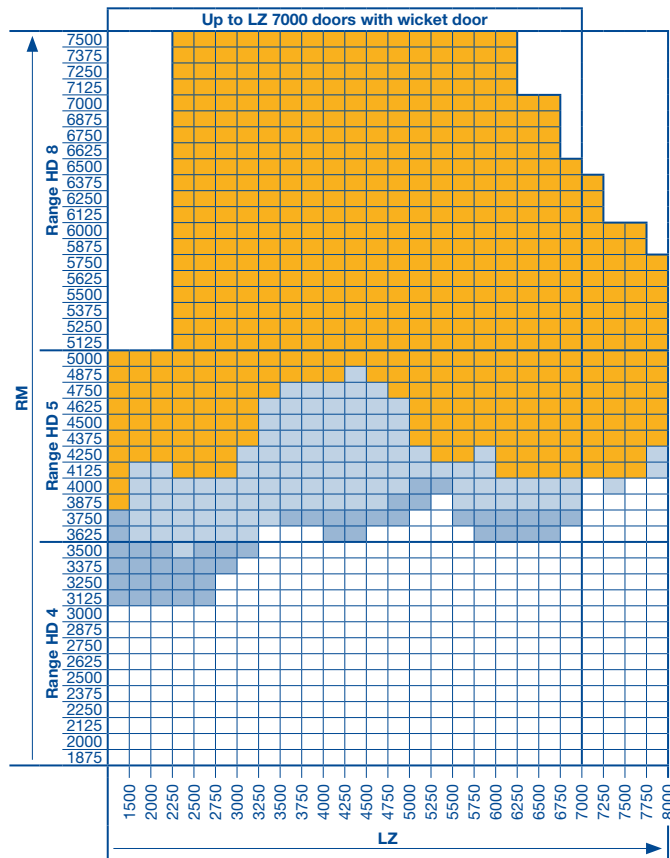
Select required track height according to the door height in Table 1 on page 61.

ET = min. Distance back		
HD 4+5	2 x RM - LH + 1120 - a° x 6.5	For manual operation with long spring buffer (standard)
	2 x RM - LH + 670 - a° x 6.5	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 x RM - LH + 880 - a° x 6.5	For shaft operator with long spring buffer (LH - RM) ≤ 1000 and a° ≤ 5°
	2 x RM - LH + 650 - a° x 6.5	For shaft operator with short spring buffer (LH - RM) > 1000 or a° > 5°
	2 x RM - LH + 430 - a° x 6.5	For shaft operator with spring buffer below the track, with on-site adjustment of the track
HD 8	2 x RM - LH + 950 - a° x 6.5	All versions
	2 x RM - LH + 430 - a° x 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 with inclination for all other fitting dimensions. Observe the min. sideroom, see page 73.

Note:

- 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 near the spring buffer is reduced by 70 mm.
- Observe the permissible size ranges of the door types on pages 10 - 14 and 18 - 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- See page 97 for determining the roof slope.
- Roof slope > 10° to 30° on request.



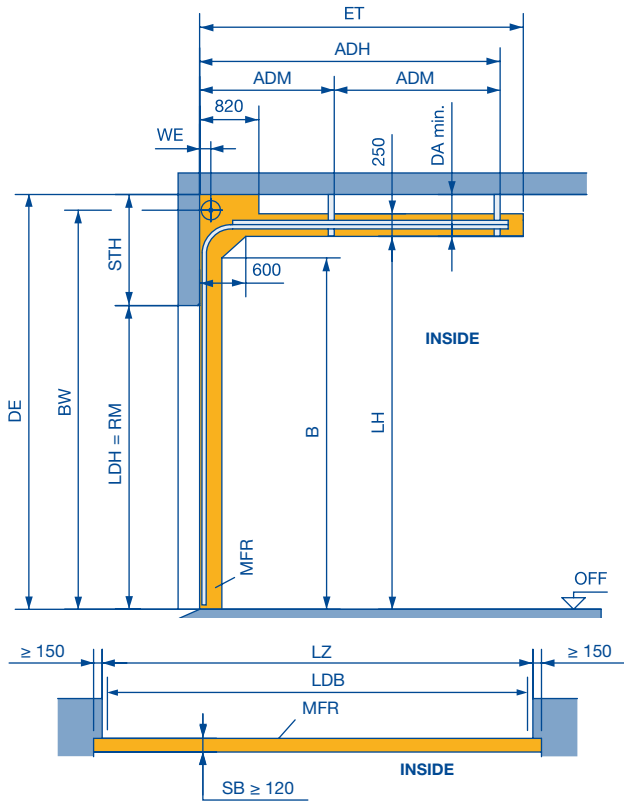
- DA** Distance to ceiling on request
- DAL** Anchor length DE - LH + 140 (see page 78)
- LH** Track height (see Table 1 on page 61)
- STH** Min. headroom (see page 52)
- B** Start of double radius, LH - 310
- BW** Position of shaft support
HD 4 + 5 = LH + 280, HD 8 = LH + 305
- ADH** Distance to rear ceiling anchor
HD 4 + HD 5 = 2 x RM - LH + 645 - a° x 6.5 (long spring buffer)
HD 4 + HD 5 = 2 x RM - LH + 405 - a° x 6.5 (long and short spring buffer + operator)
HD 8 = 2 x RM - LH + 485
- ADM** Distance between 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

Dimensions in mm

Track Application: HG

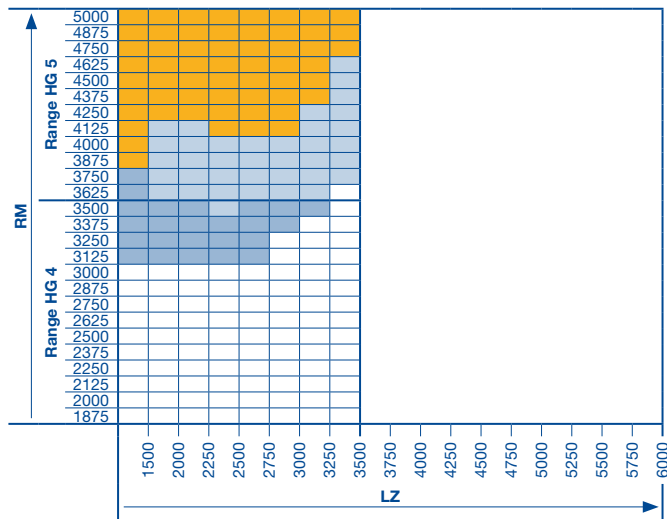
High-lift track application with steep track

(Application for loading ramp doors)



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

- Note:**
- 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 near the spring buffer is reduced by 70 mm.

Table 3: Track heights (LH)

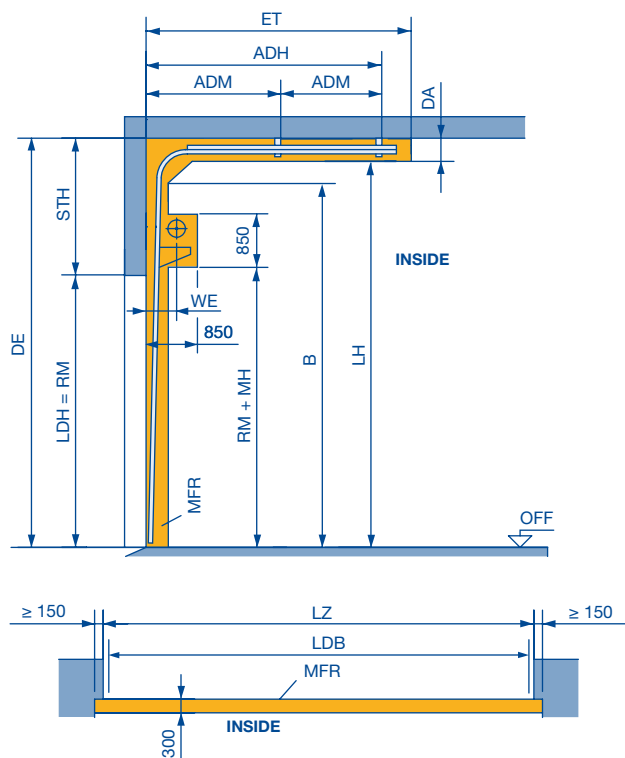
Door height	Min. LH	Max. LH	
RM			
5000	5460	7800	HG 5, WE = 180
4875	5335	7800	
4750	5210	7800	
4625	5085	7800	
4500	4960	7800	
4375	4835	7675	
4250	4710	7550	
4125	4585	7425	
4000	4460	7185	
3875	4335	6935	
3750	4210	6685	HG 4, WE = 160
3625	4085	6435	
3500	3960	6185	
3375	3835	5935	
3250	3710	5685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

- Note:**
- Observe the permissible size ranges of the door types on pages 10 – 14 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 3)
 - ADH** Distance between rear ceiling anchor =
HG 4 + HG 5 = 2 x RM - LH + 580 (long spring buffer)
HG 4 + HG 5 = 2 x 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
- 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

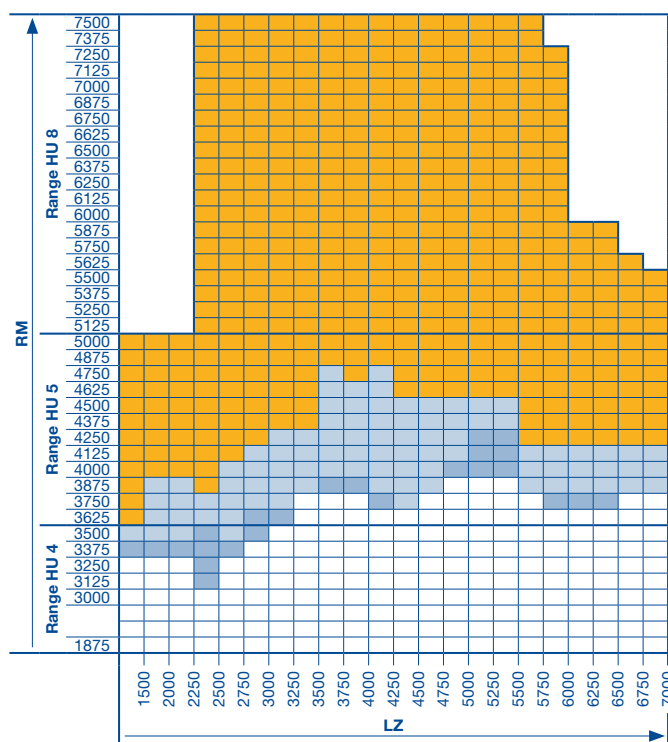
Track Application: HU

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



ET = min. Distance back		
HU 4+5	2 x RM - LH + 1120	For manual operation with long spring buffer (standard)
	2 x RM - LH + 670	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 x RM - LH + 650	For shaft operator with short spring buffer = (LH - RM ≥ 1510)
	2 x 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 4.

Note:

- 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 near the spring buffer is reduced by 70 mm.

Table 4: Track heights (LH)

Door height	RM	Min. LH	Max. LH
5000		6510	8300
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
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

HU 5, WE = 335

HU 4, WE = 315

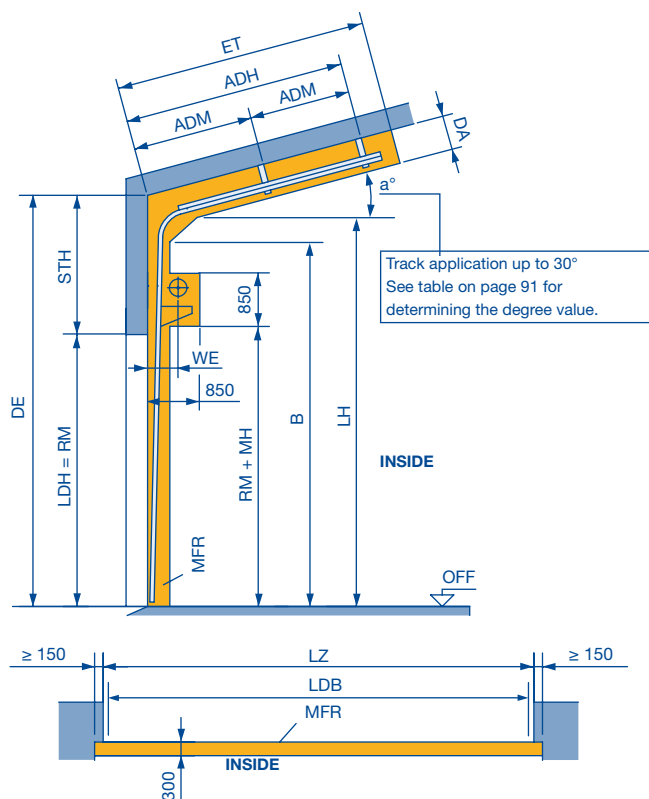
Note:

- Observe the permissible size ranges of the door types on pages 10 – 14 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 x RM - LH + 645 (long spring buffer)
HU 4 + HUG 5 = 2 x 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.

Note:

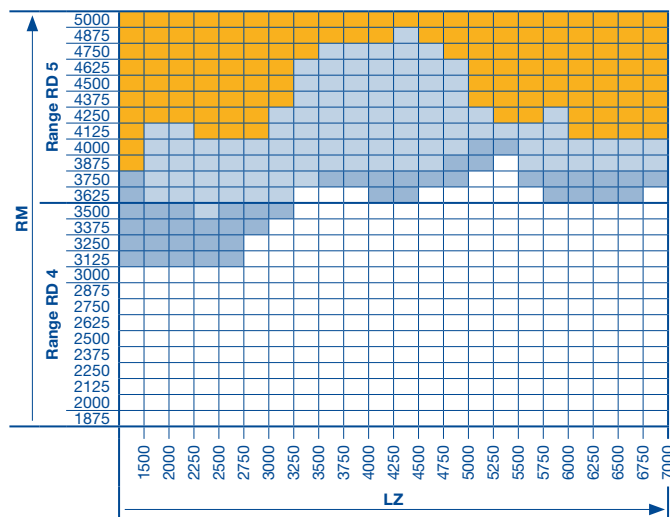
- The validity tables with the size range shown are based on the standard door type version (see product description). In case of deviations, the valid size ranges in the product configurator must be taken into account.
- The clearance required for fitting the door must be free of supply lines, heater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

ET = min. Distance back		
RD 4 + 5	2 x RM - LH + 1160 - a° x 6.5	For manual operation with long spring buffer (standard)
	2 x RM - LH + 670 - a° x 6.5	For manual operation with spring buffer below the track, with on-site adjustment of the track
	2 x RM - LH + 650 - a° x 6.5	For shaft operator with short spring buffer = (LH - RM) ≥ 1510
	2 x RM - LH + 430 - a° x 6.5	For shaft operator with spring buffer below the track, with on-site adjustment of the track

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

Note:

- Observe the permissible size ranges of the door types on pages 10 - 14 and 18 - 35 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request.
- See page 97 for determining the roof slope.
- Roof slope > 10° to 30° on request.

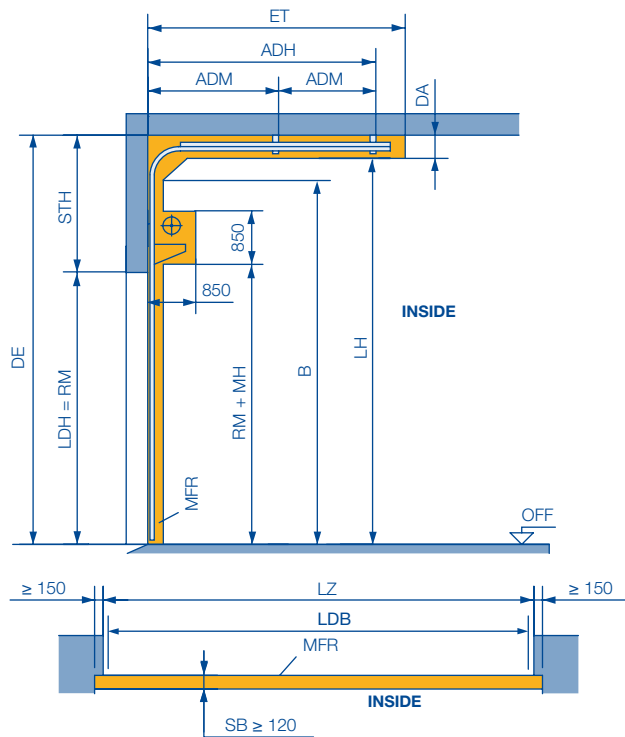


- DE** Ceiling height
 - DAL** Anchor length DE - L - 15 (see page 78)
 - LH** Track height (see Table 4 on page 66)
 - STH** Min. headroom (see page 52)
 - B** Start of double radius, LH - 310
 - ADH** Distance between rear ceiling anchor =
RD 4 + RD 5 = 2 x RM - LH + 645 - a° x 6.5 (long spring buffer)
RD 4 + RD 5 = 2 x RM - LH + 405 - a° x 6.5 (long and short spring buffer + operator)
 - ADM** Distance between central ceiling anchor (see page 78)
 - 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

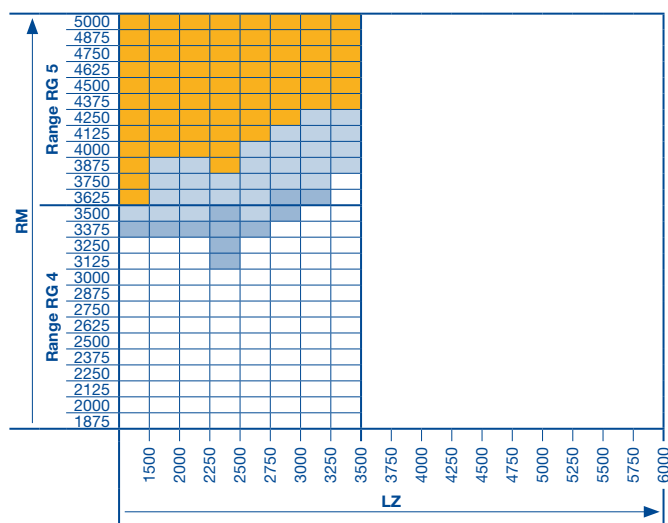
Track Application: RG

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



ET = min. Distance back		
RG 4 + 5	$2 \times RM - LH + 1120$	For manual operation with long spring buffer (standard)
	$2 \times RM - LH + 670$	For manual operation with spring buffer below the track, with on-site adjustment of the track
	$2 \times RM - LH + 650$	For shaft operator with short spring buffer = $(LH - RM \geq 1510)$
	$2 \times RM - LH + 430$	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 5.

Note:

- 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 near the spring buffer is reduced by 70 mm.

Table 5: Track heights (LH)

Door height	RM	Min. LH	Max. LH
RG 5, WE = 276	5000	6510	8300
	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
RG 4, WE = 246	3750	5260	6685
	3625	5135	6435
	3500	5010	6185
	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	

Note:

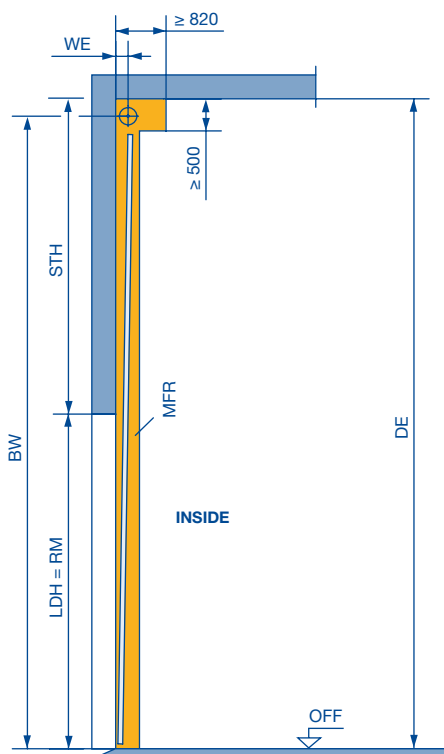
- Observe the permissible size ranges of the door types on pages 10 – 14 and 18 – 35 under all circumstances!

- 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 = $2 \times RM - LH + 580$ (long spring buffer)
RG 4 + RG 5 = $2 \times RM - LH + 340$ (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

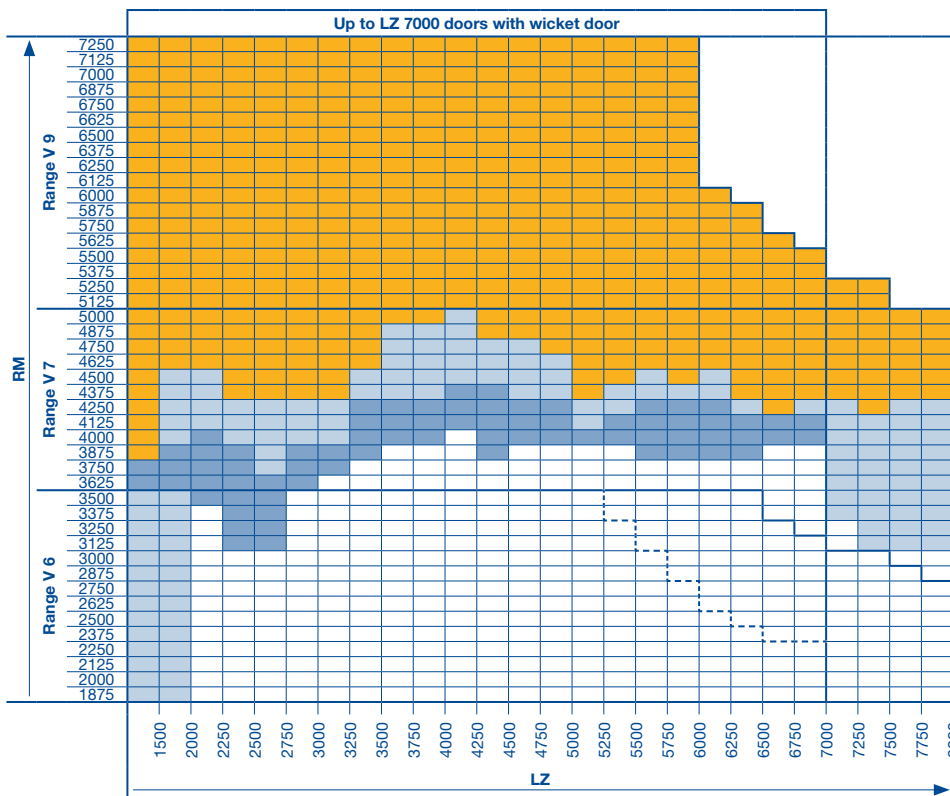
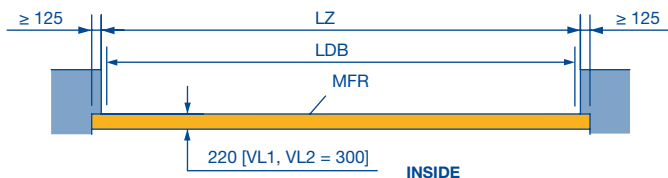


Note:

- 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 10–14 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
- STH** Min. headroom (see page 52)
- DE** Ceiling height
 $2 \times RM + 500$ (V 6)
 $2 \times RM + 540$ (V 7)
 $2 \times RM + 730$ (V 7 with double spring shaft)
 $2 \times RM + 635$ (V 9)
 $2 \times RM + 780$ (V 9 with double spring shaft)
- BW** Position of shaft support
 $2 \times RM + 360$ (V 6)
 $2 \times RM + 385$ (V 7)
 $2 \times RM + 435$ (V 9)
- LZ** Clear frame dimensions (from 1200)
- MFR** Space for fitting the door



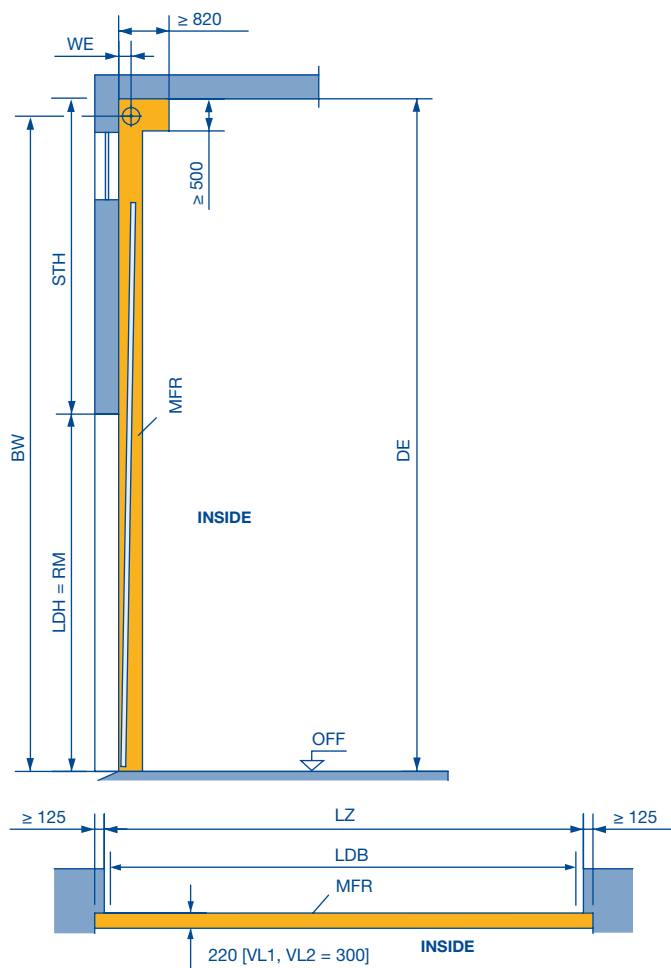
Note:

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

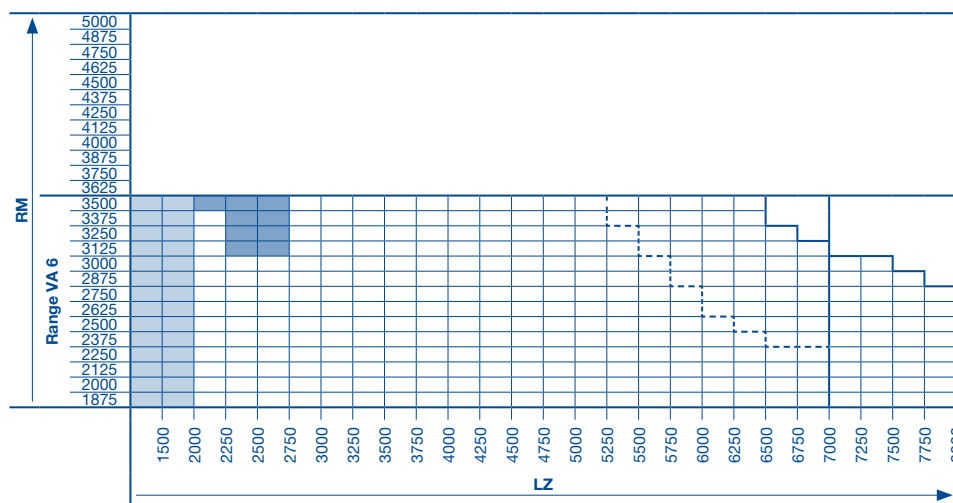


Note:

- 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 – 14 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.: $2 \times RM + 510$ (VA 6)
Max.: depends on order
- BW** Position of shaft support =
Min.: $2 \times RM + 370$ (VA 6)
Max.: $7895 = DE - 140$
- LZ** Clear frame dimensions (from 1200)
- MFR** Space for fitting the door



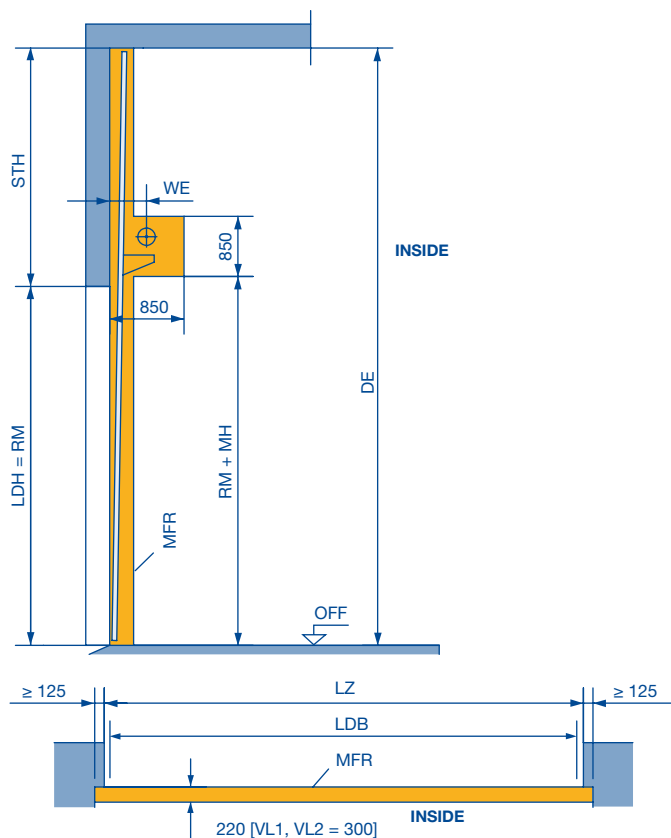
Note:

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

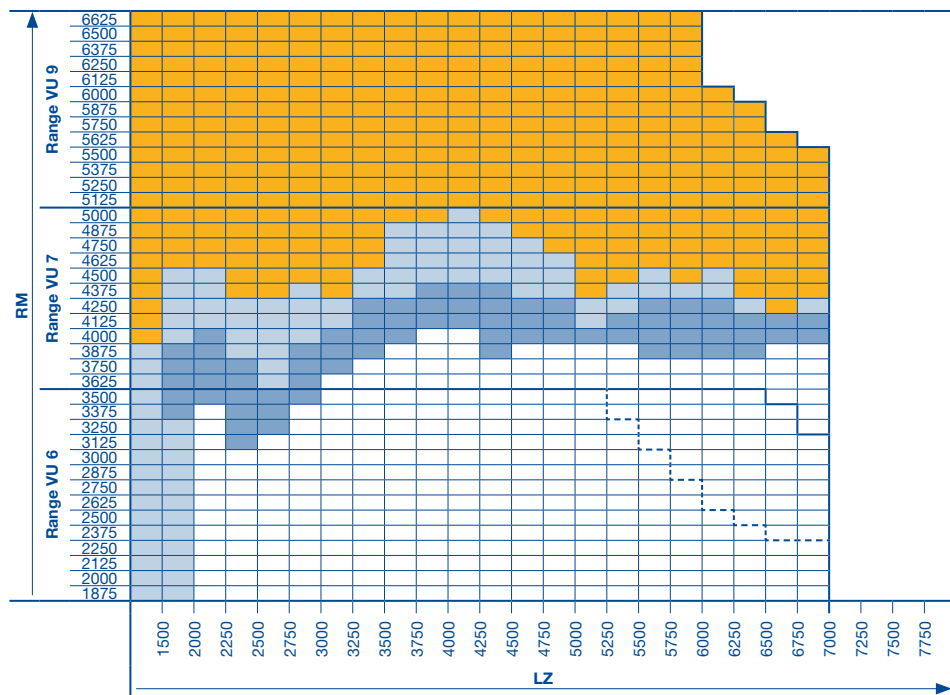


Note:

- 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 10–14 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



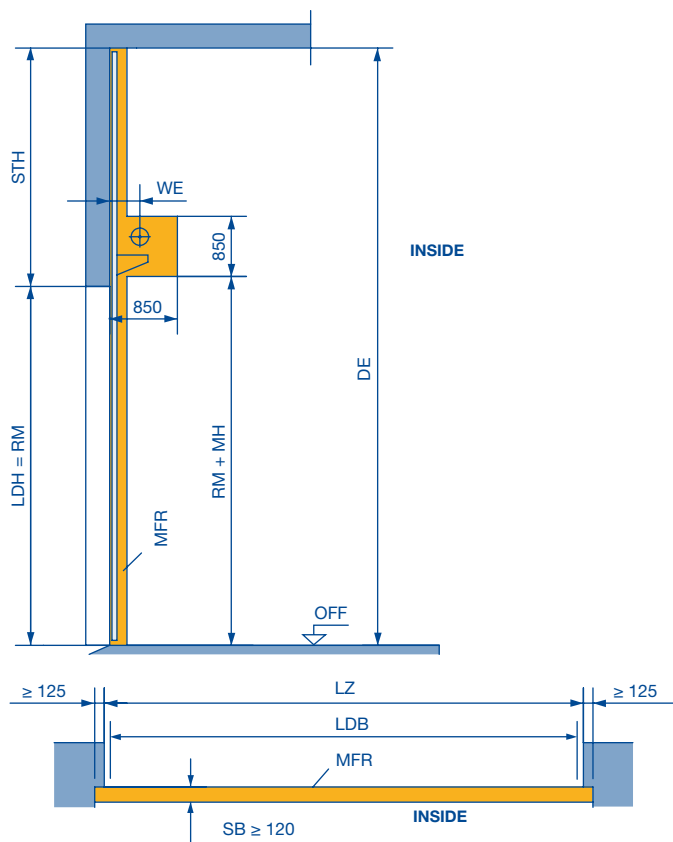
Note:

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)

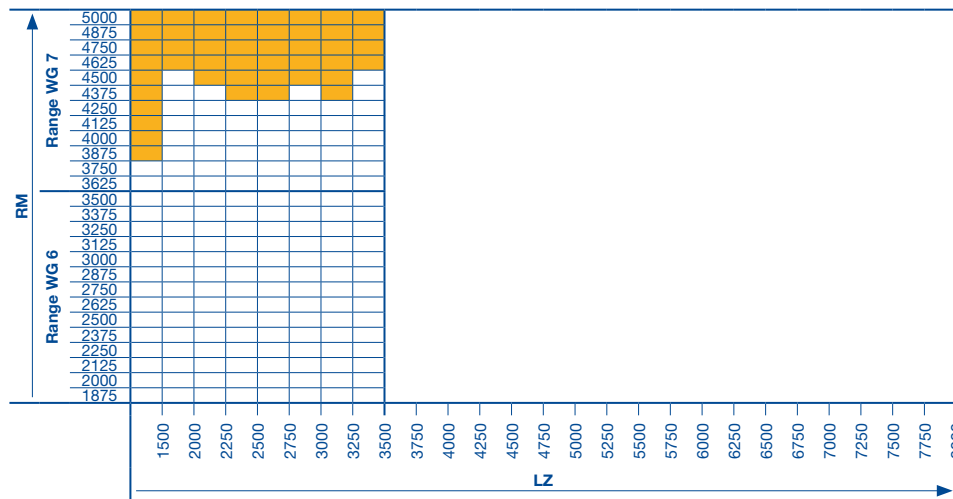


Note:

- 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 – 14 and 18 – 35 under all circumstances!

Observe min. sideroom, see page 73.

- DE** Ceiling height = $2 \times RM + 350$
- 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



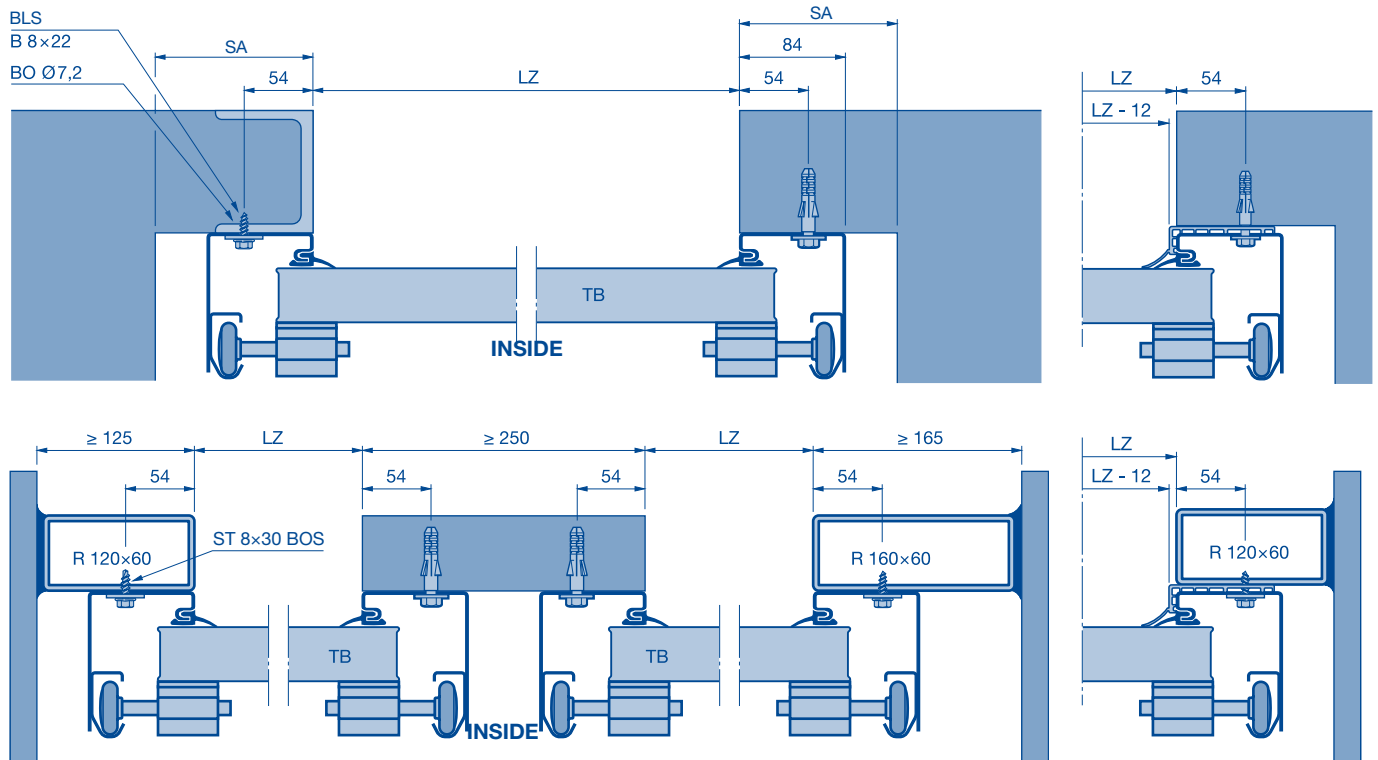
All door types available in any version.
 All door types and versions on request.
 Dimensions in mm

Sideroom

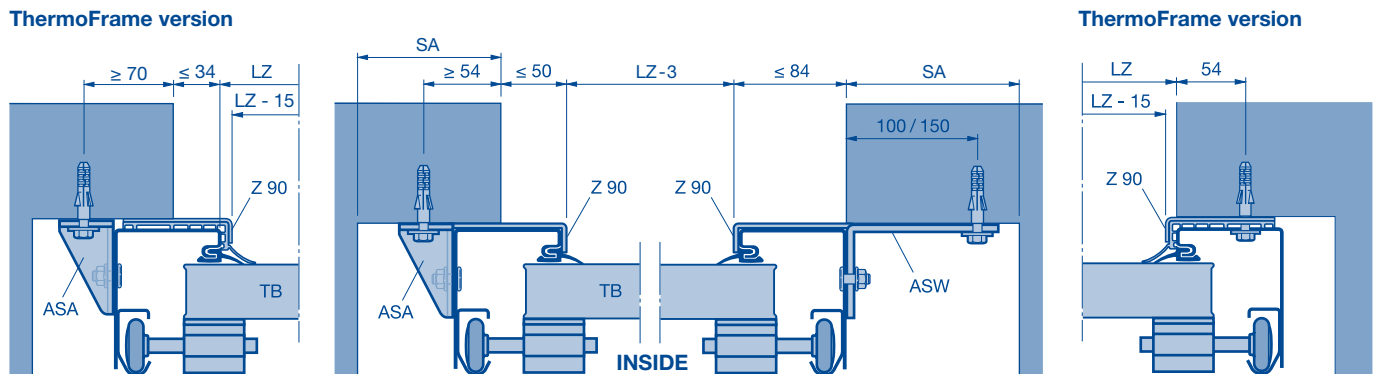
Required sideroom

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
H, HA, HD, HG, HU, RD, RG	150		H, HA, HD, HG, HU, RD, RG
L, LD	125	Chain Hoist	Page 76
		Shaft operators	Pages 79-86

Sideroom



Sideroom with frame covering



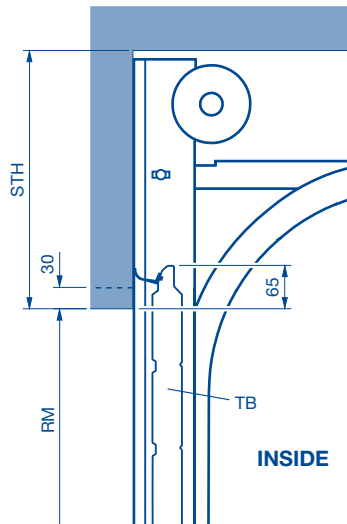
ASA Screw-on anchor 70 x 40
ASW Screw-on bracket 70 x 120 / 170
BO Hole

BOS Drilling screw
BLS Self-tapping screw
LZ Clear frame dimensions

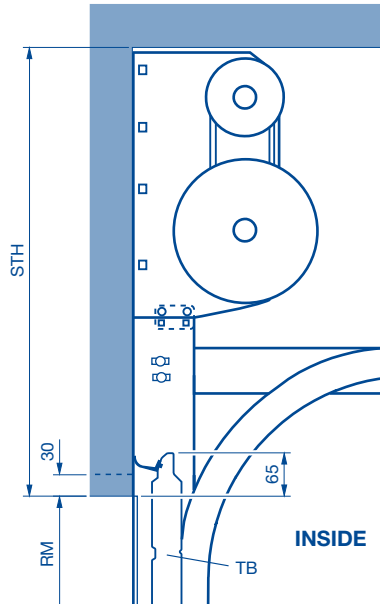
R Box section
SA Sideroom
TB Door leaf

Lintel Fitting

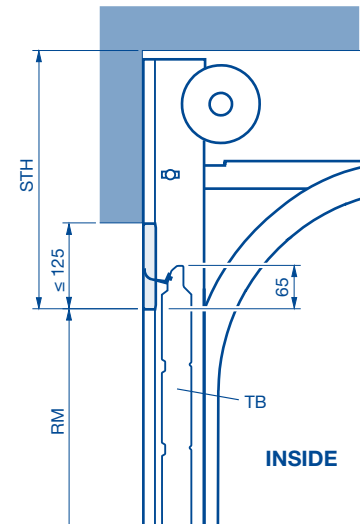
Normal lintel fitting
Lintel variation up to 30 mm high



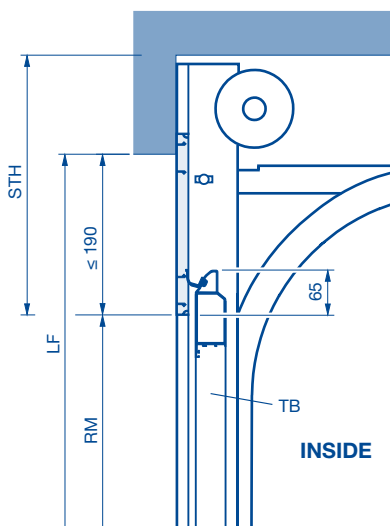
Normal lintel fitting
Double spring shaft



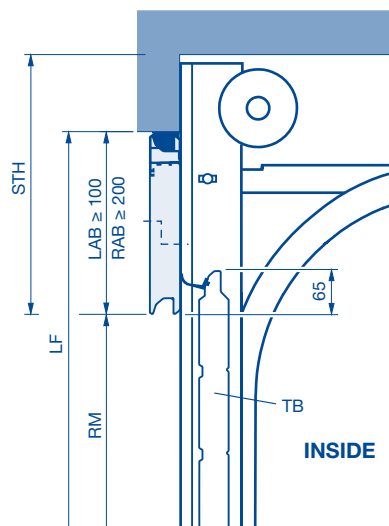
Single-skinned steel fascia for SPU F42
to make up for insufficient headroom
up to 125 mm
(only for track applications N and L)



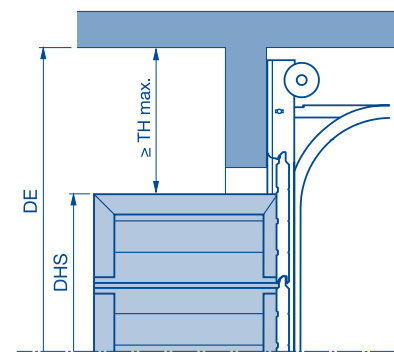
Smooth panel, anodised, for APU F42, ALR F42, ALR F42 Glazing, ALR F42 Vitraplan
to make up for insufficient headroom from 31 to 190 mm height and LZ ≤ 7000 mm
(only for track application N and L)



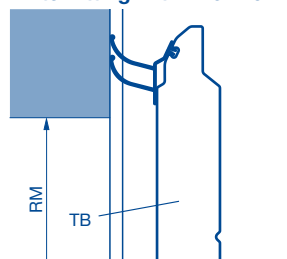
PU fascia panel to make up for insufficient headroom from 100 mm
Aluminium fascia profile to make up for insufficient headroom (see table)



Fitting clearance for multiple-point locking



Lintel fitting with ThermoFrame



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

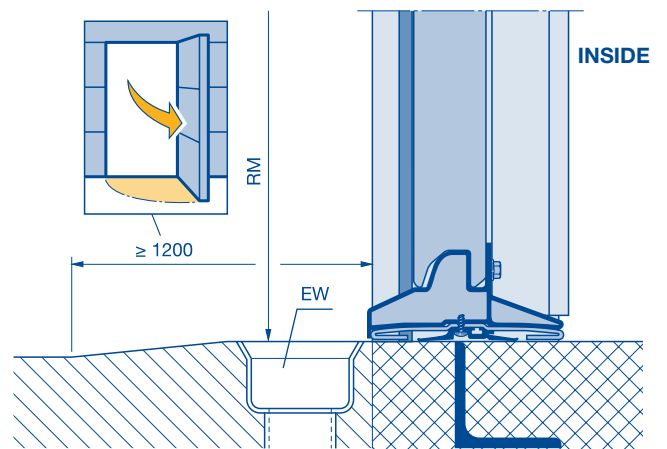
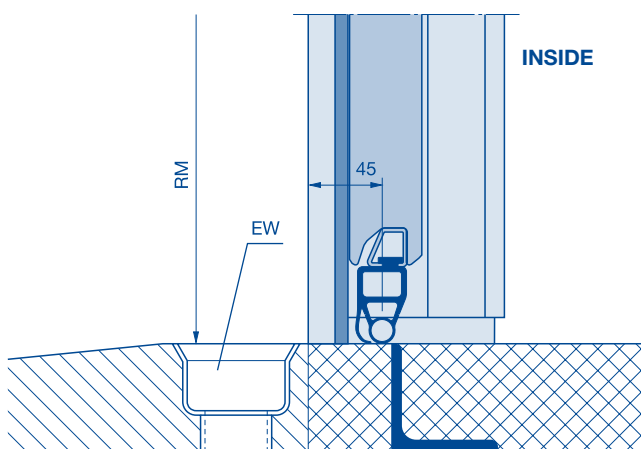
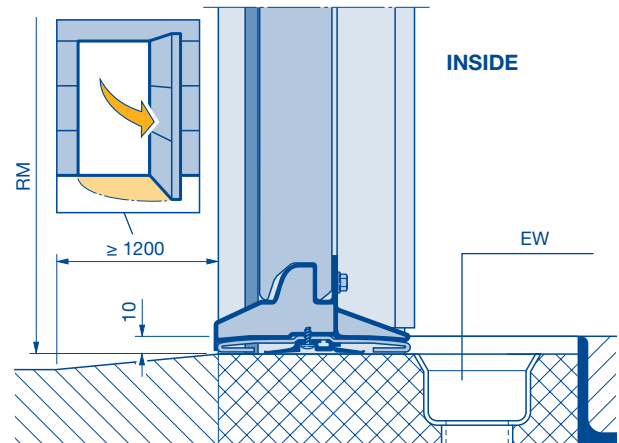
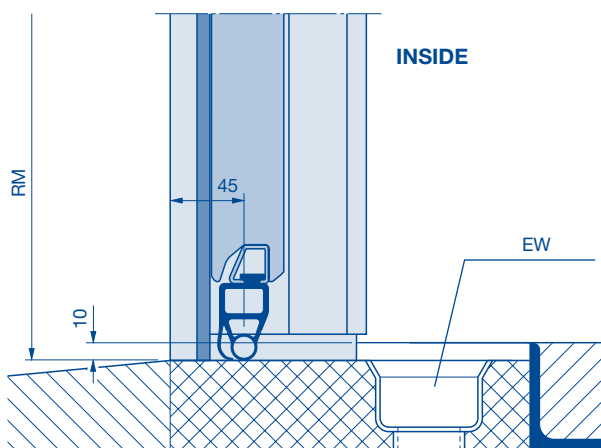
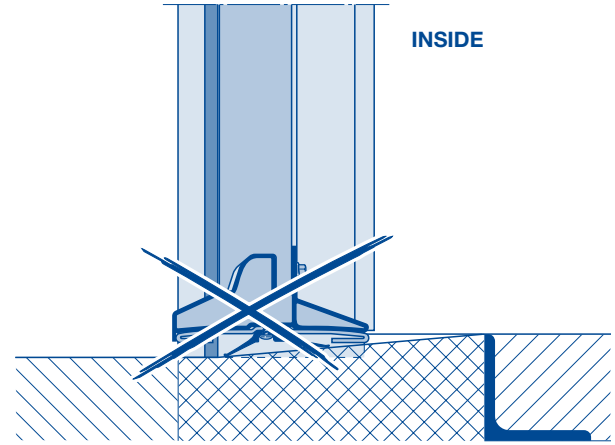
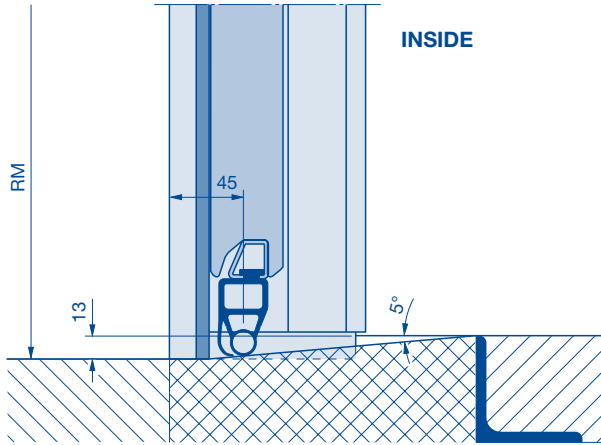
- Aluminium frame fascia panel with real glass infill VG, E2 and G2 on request.

- DE** Ceiling height
- DHS** Clear passage heights of wicket door to grid 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

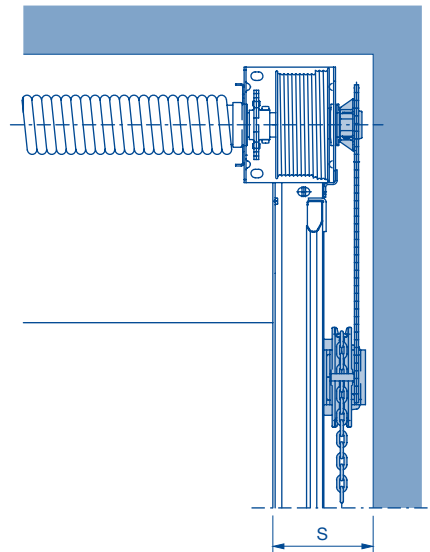
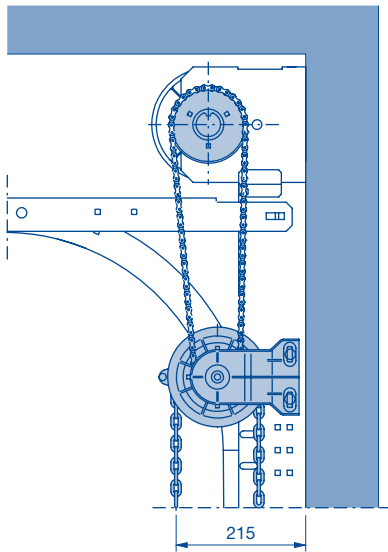
With wicket door with trip-free threshold



EW Drainage
RM Grid

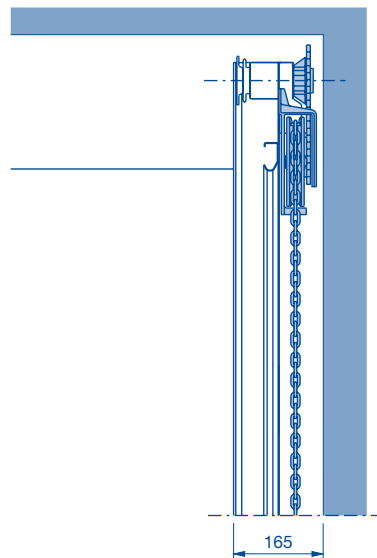
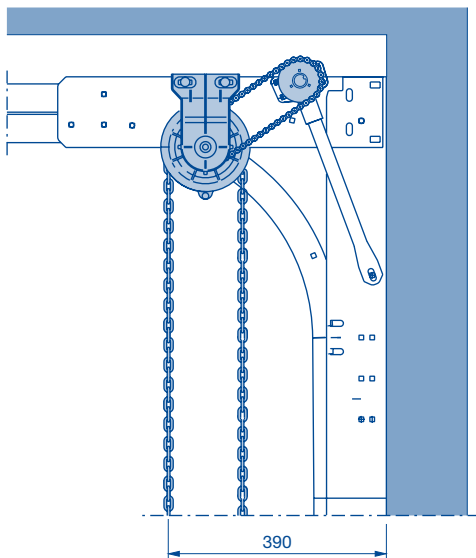
Chain Hoist

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 applications L and LD



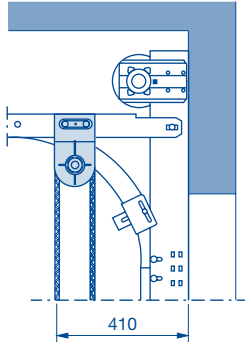
SA Sideroom

Hand Pulley

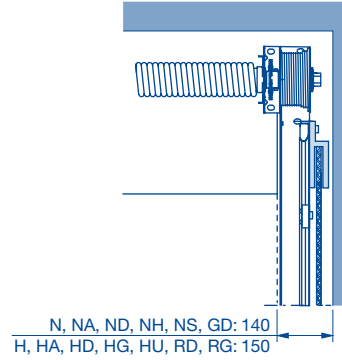
With rope or link steel chain

Track applications up to 20 m² door surface

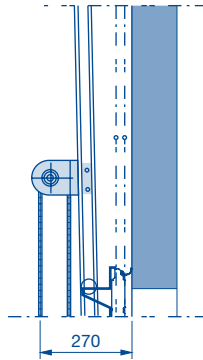
With rope or link steel chain



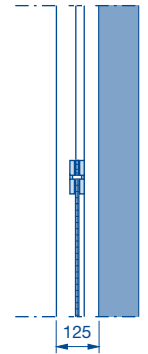
N, NA, ND, NH, NS, GD, H, HA, HD, HG, HU, RD, RG



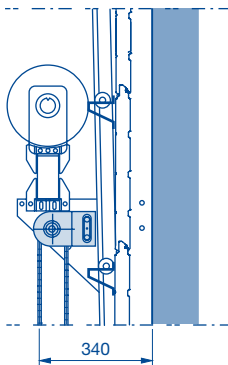
With rope or link steel chain



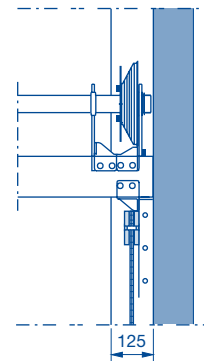
V, VA



With rope or link steel chain



VU, WG

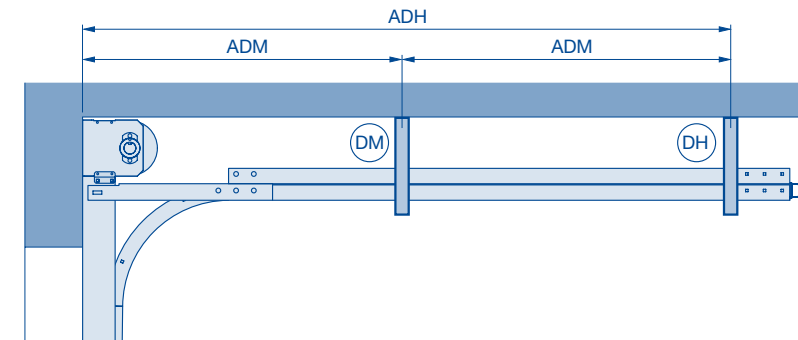


Ceiling Anchors

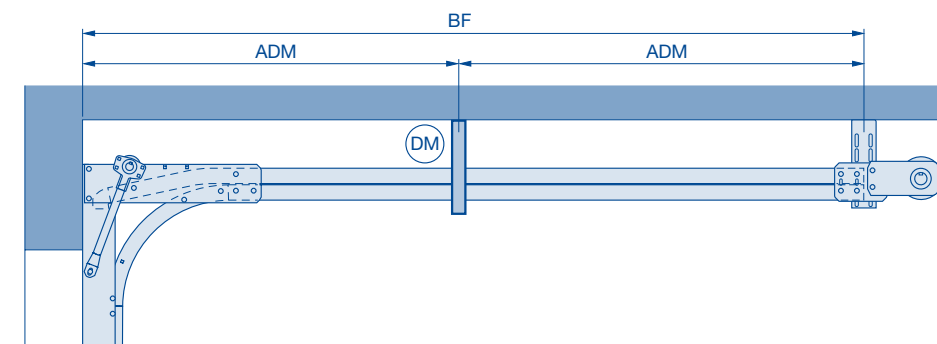
Track suspensions for all track applications except V, VA, VU and WG

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

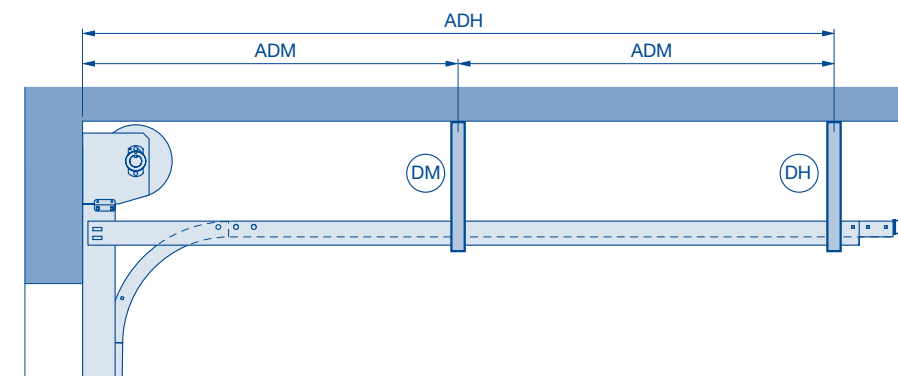
DH = Rear ceiling anchor (see pages 52 – 68), door weights for roof loads (see pages 52 – 60).



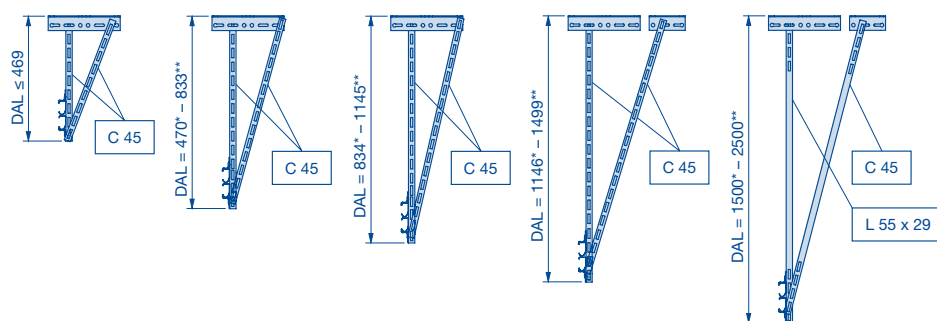
Double track (suspensions), door heights RM ≤ 5000				
LZ	ADH	DM	DH	ADM
≤ 7000	– 1555	–	1	–
	1560 – 3720	1	1	ADH/2
	3730 – 5195	2	1	ADH/3
> 7000	– 1295	–	1	–
	1300 – 2195	1	1	ADH/2
	2200 – 3445	2	1	ADH/3
	3450 – 5195	3	1	ADH/4



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			
ADH	DM	DH	ADM
≤ 6295	1	1	ADH/2
> 6295	2	1	ADH/3



Note:

- 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.

Max. distance of suspensions (ADM)	
LZ	Max. ADM***
≤ 3000	2300
3010 – 4000	2200
4010 – 5000	2100
5010 – 8000	1850

* Min.

** Max.

*** Except for doors with wicket door, real glass infill, Vitraplan, facade doors, ALR/APU 67 Thermo. Then the following applies: max. ADM = 1850 mm.

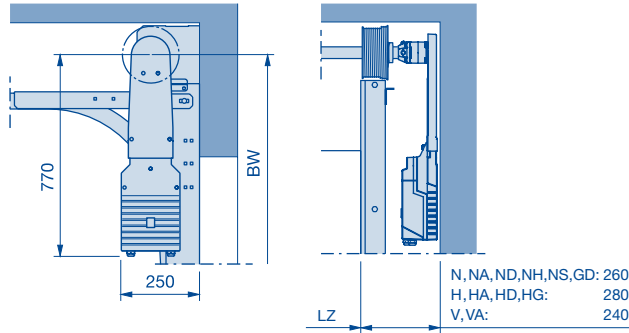
ADH	Distance to rear ceiling anchor	DH	Rear ceiling anchor
ADM	Distance to central ceiling anchor	DM	Centre ceiling anchor
BF	Position of spring shaft	LZ	Clear frame dimensions
DAL	Ceiling anchor length		

Shaft Operator WA 300

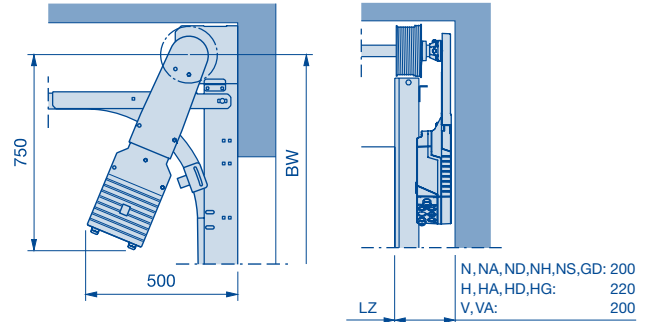
Shaft operator WA 300 for track applications N, NA, ND, NH, NS, GD, H, HA, HD, HG, V and VA

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

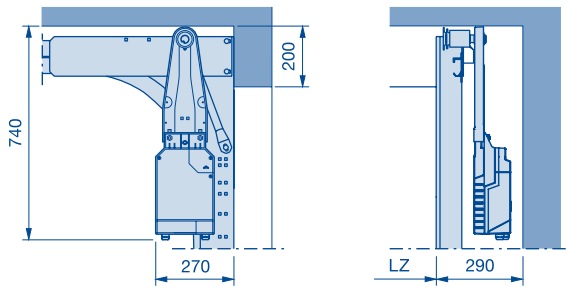


Shaft operator WA 300 for track applications L and LD

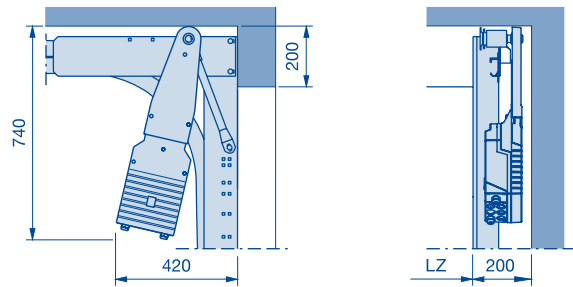
As shown in the figure, the operator can be fitted either left or right, viewed from the inside.

In fitting example 9: on the side opposite the door lock.

Fitting example ⑧ right



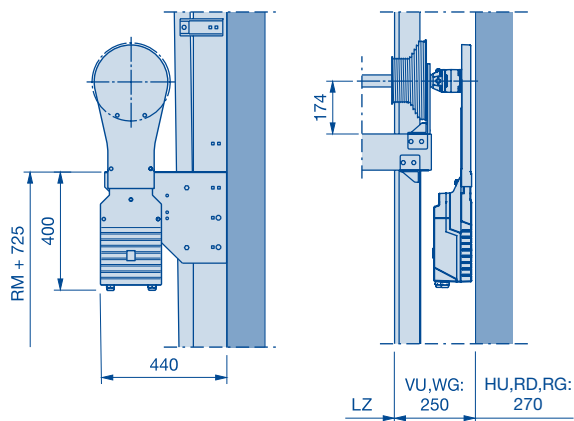
Fitting example ⑨ right



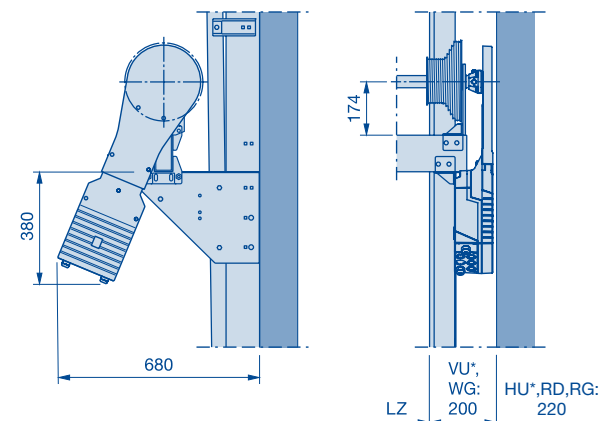
Shaft operator WA 300 for track applications HU, RD, RG, VU and WG

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



*** Note:**

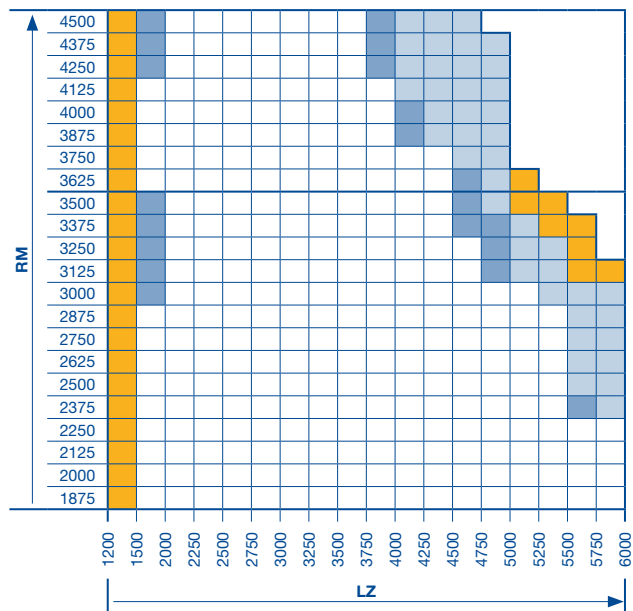
In the door range $LZ \leq 3000$ and $RM \leq 3500$ the track applications VU and HU are not possible

LZ Clear frame dimensions
BW Position of shaft support

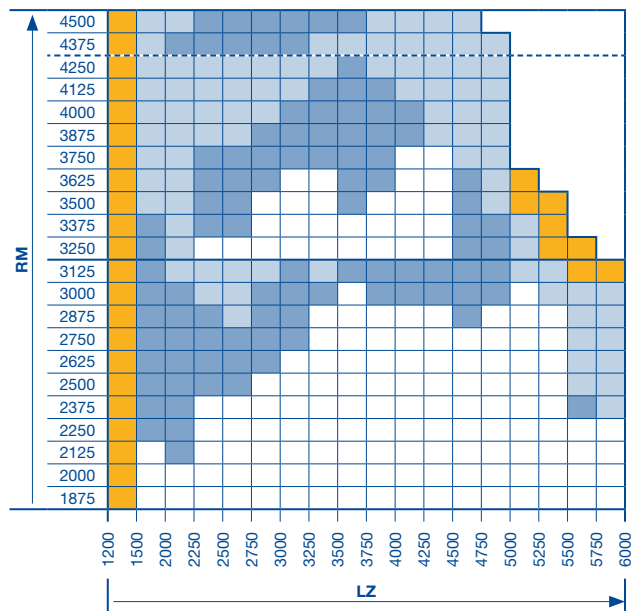
Shaft Operator WA 300

Size range WA 300

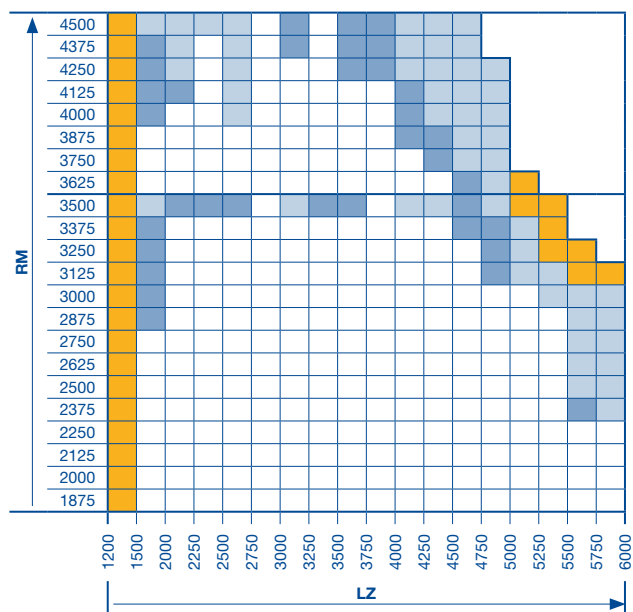
Track applications: N, NA and NH



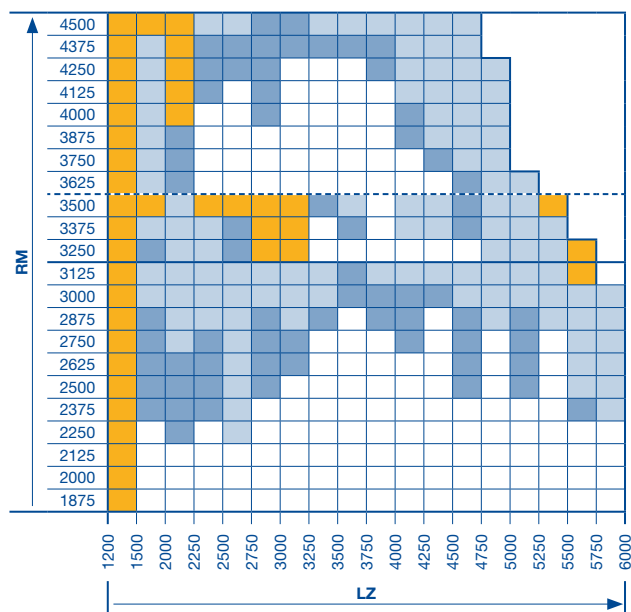
Track applications: ND and GD



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.

Note:
Track application NS on request!

LZ Clear frame dimensions
RM Grid height

Dimensions in mm

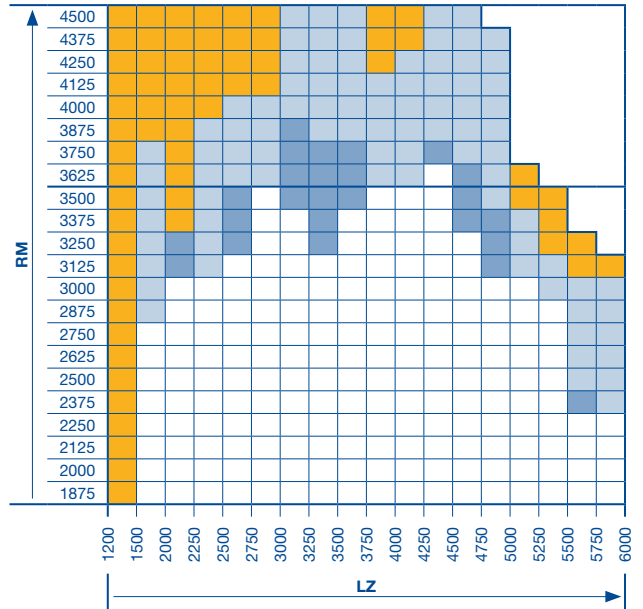
Shaft Operator WA 300

Size range WA 300

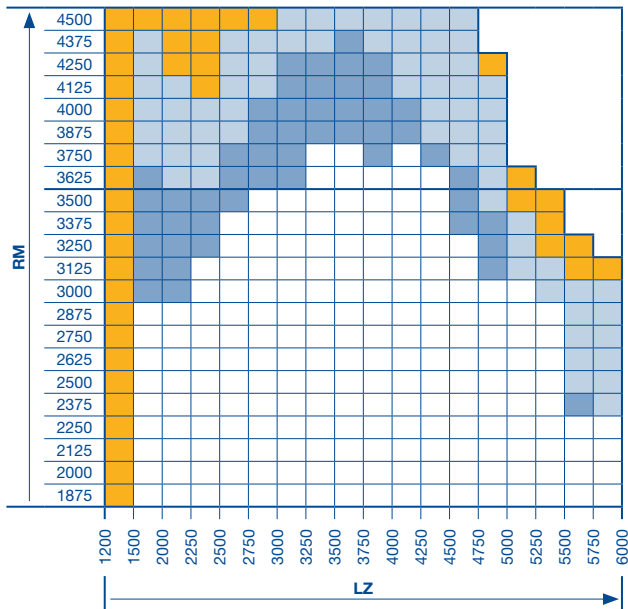
Track application: H, HA, HG, HU and RG



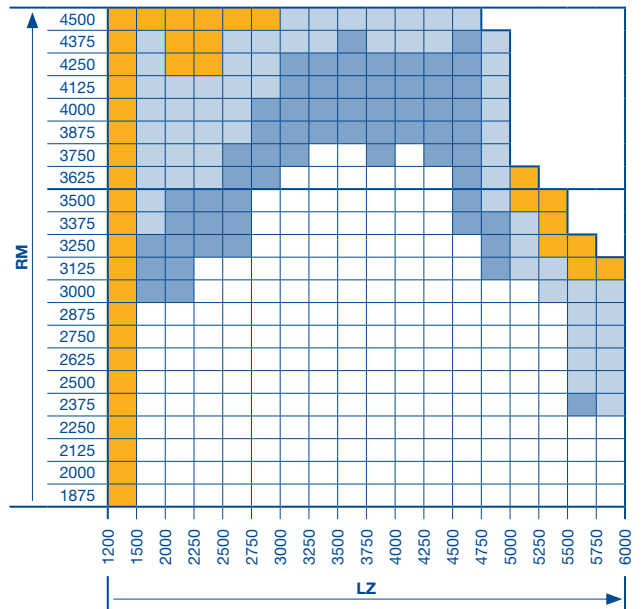
Track application: HD and RD



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 dimensions
RM Grid height

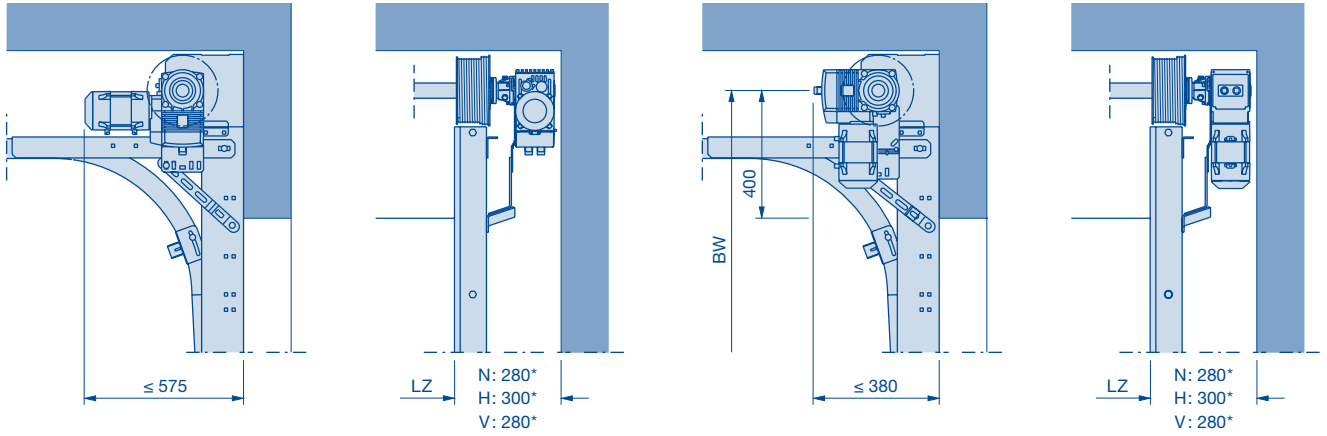
Dimensions in mm

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.

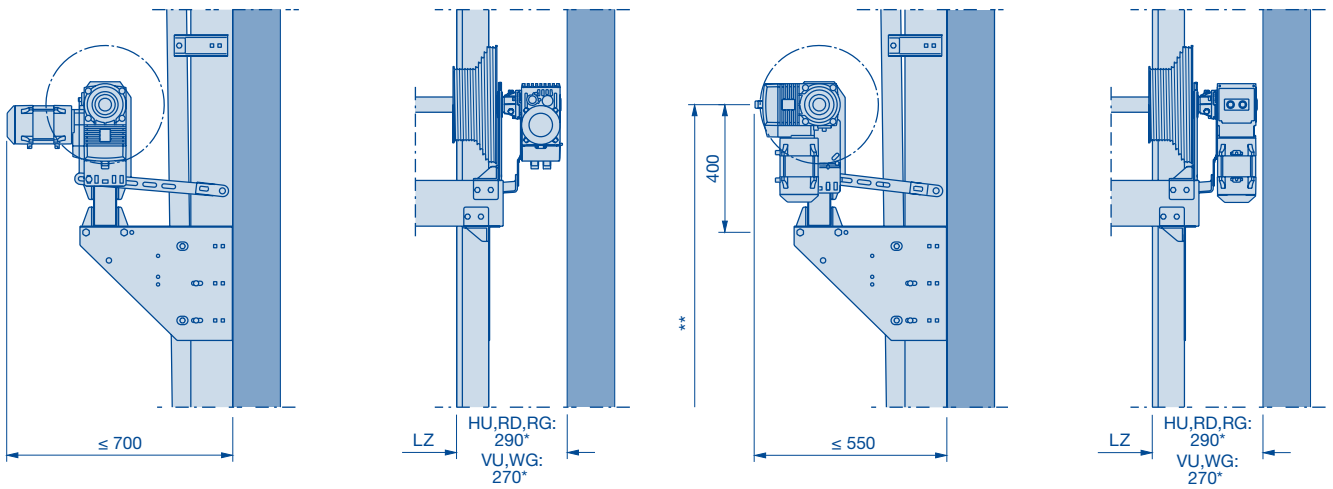


*** Note:**

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.



*** Note:**

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

** On request

LZ Clear frame dimensions
 BW Position of shaft support

Shaft Operator WA 400

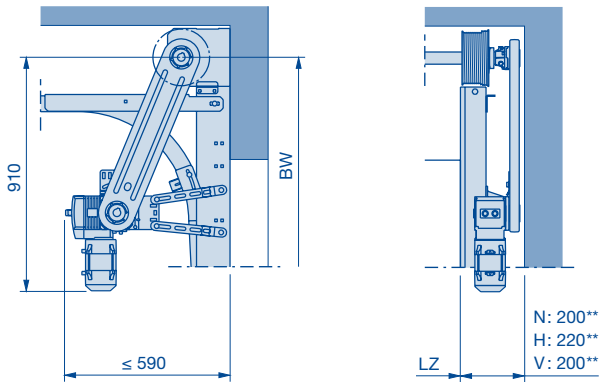
With chain box

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

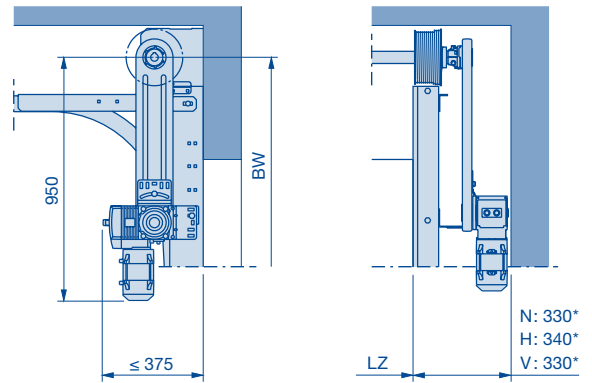
As shown in the figure, the operator can be fitted either left or right, viewed from the inside.

In fitting example 5: on the side opposite the door lock.

Fitting example ⑤ right



Fitting example ⑥ right

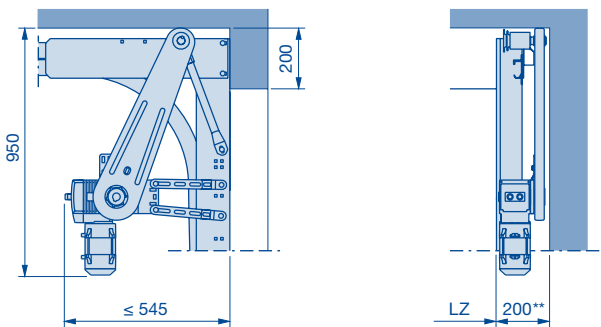


Shaft operator WA 400 for the track applications L and LD

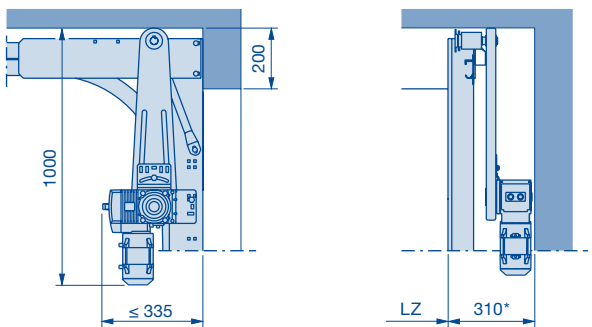
As shown in the figure, the operator can be fitted either left or right, viewed from the inside.

In fitting example 5: on the side opposite the door lock.

Fitting example ⑤ right



Fitting example ⑥ right

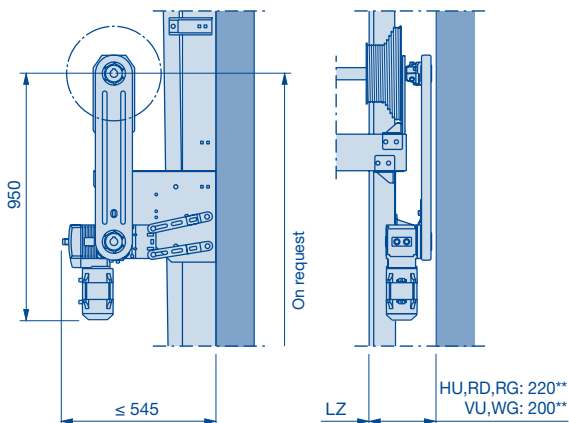


Shaft operator WA 400 for track applications HU, RD, RG, VU and WG

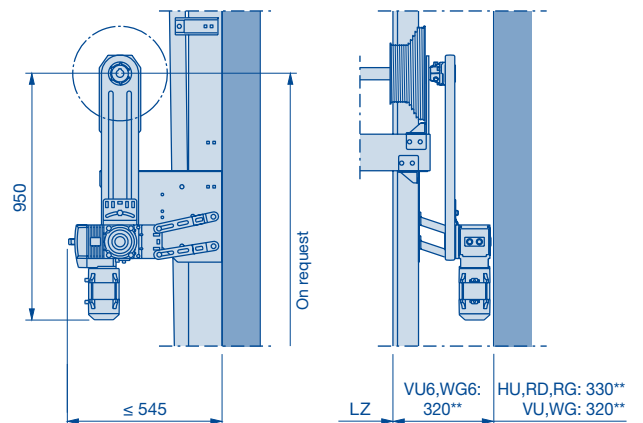
As shown in the figure, the operator can be fitted either left or right, viewed from the inside.

In fitting example 5: on the side opposite the door lock.

Fitting example ⑤ right



Fitting example ⑥ right



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

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

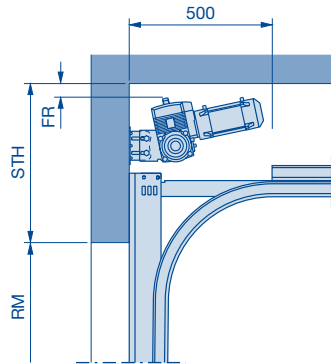
LZ Clear frame dimensions
BW Position of shaft support

Shaft Operator WA 400

For central mounting

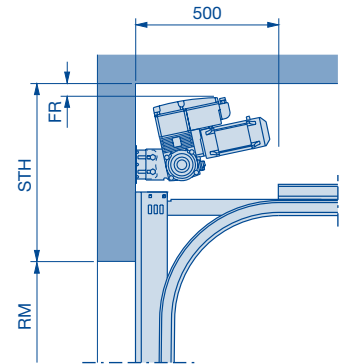
Shaft operator WA 400 for track applications N and ND

Control A / B 445, 460



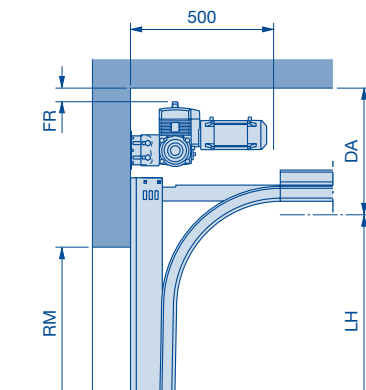
Track application	A/B 445, 460		B 460 FU	
	STH min.	FR min.	STH min.	FR min.
N 1	520	45	590	45
N 2	550	50	615	45
N 3 (RM > 7000)	-	-	675 (810)	45
ND 1	520	65	550	48
ND 2	550	75	570	48
ND 3 (RM > 7000)	-	-	675 (810)	48

Control B 460 FU



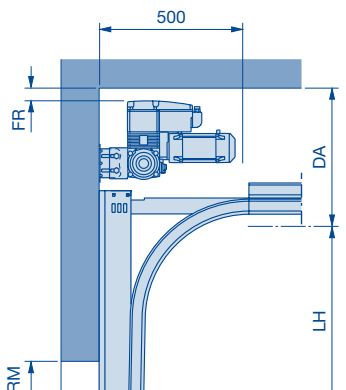
Shaft operator WA 400 for the track applications NH and GD

Control A / B 445, 460



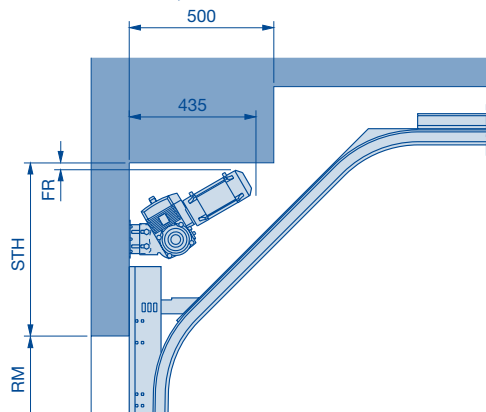
Track application	A/B 445, 460		B 460 FU	
	DA min.	FR min.	DA min.	FR min.
NH 1/GD 1	415	50	480	45
NH 2/GD 2	440	50	485	45
NH 3	-	-	565	45

Control B 460 FU

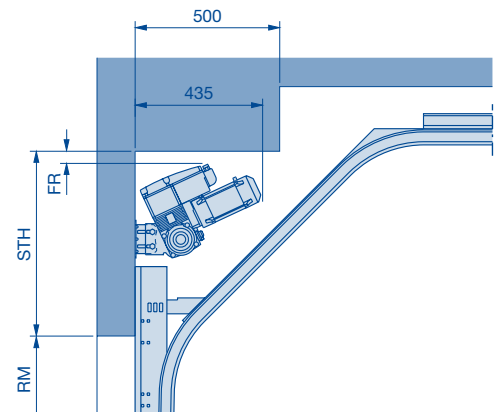


Shaft operator WA 400 for track application NS

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

Note:

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

STH Headroom
RM Grid height

DA Distance to ceiling
LH Track height

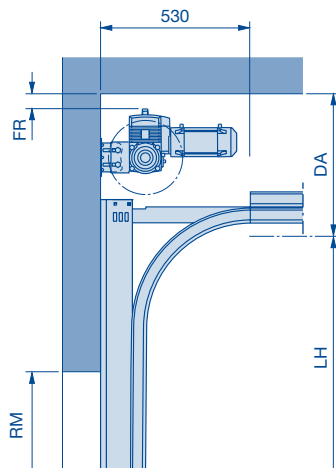
FR Clearance ceiling / shaft operator

Shaft Operator WA 400

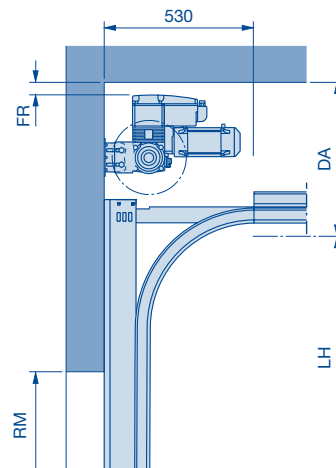
For central mounting

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

Control A / B 445, 460



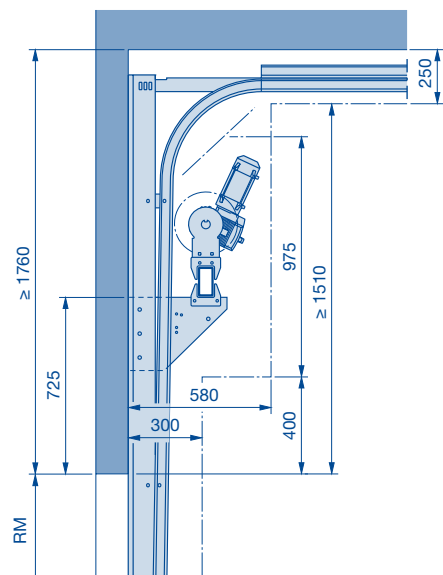
Control B 460 FU



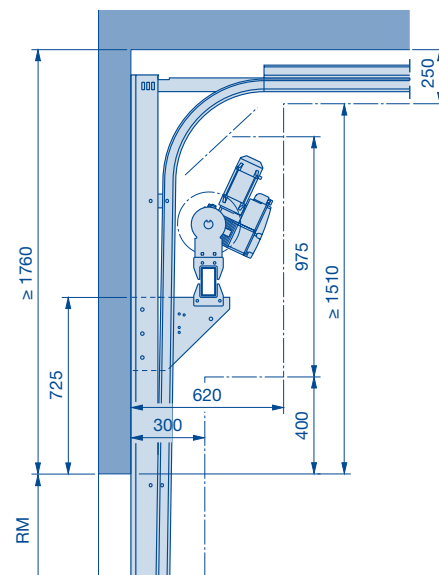
Track application	A / B 445, 460		B 460 FU	
	DA min.	FR min.	DA min.	FR min.
H 4, HG 4	500	55	540	45
H 5, HG 5	500	55	540	45
H 8	-	-	565	45
HD	On request			

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

Control A / B 445, 460



Control B 460 FU



Note:

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

RM Grid height
DA Distance to ceiling

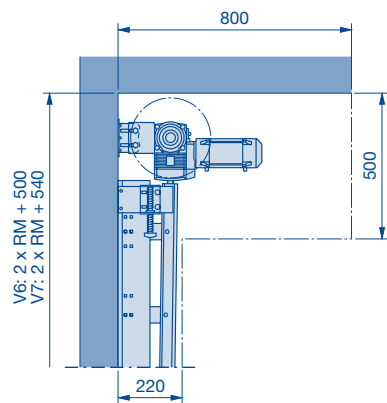
LH Track height
FR Clearance ceiling / shaft operator

Shaft Operator WA 400

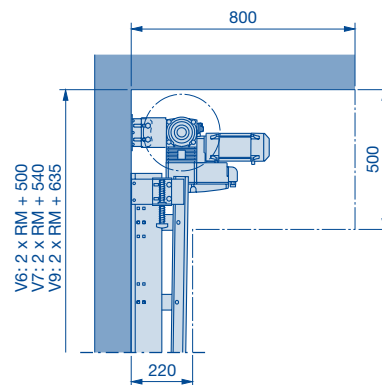
For central mounting

Shaft operator WA 400 for track application V

Control A / B 445, 460

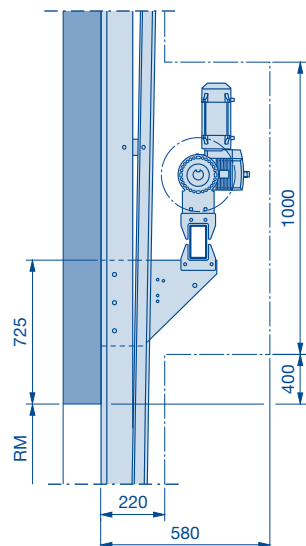


Control B 460 FU

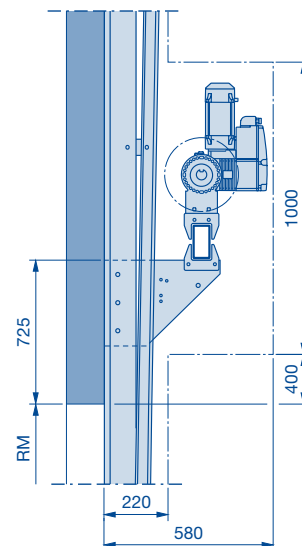


Shaft operator WA 400 for track applications VU and WG

Control A / B 445, 460



Control B 460 FU



Note:

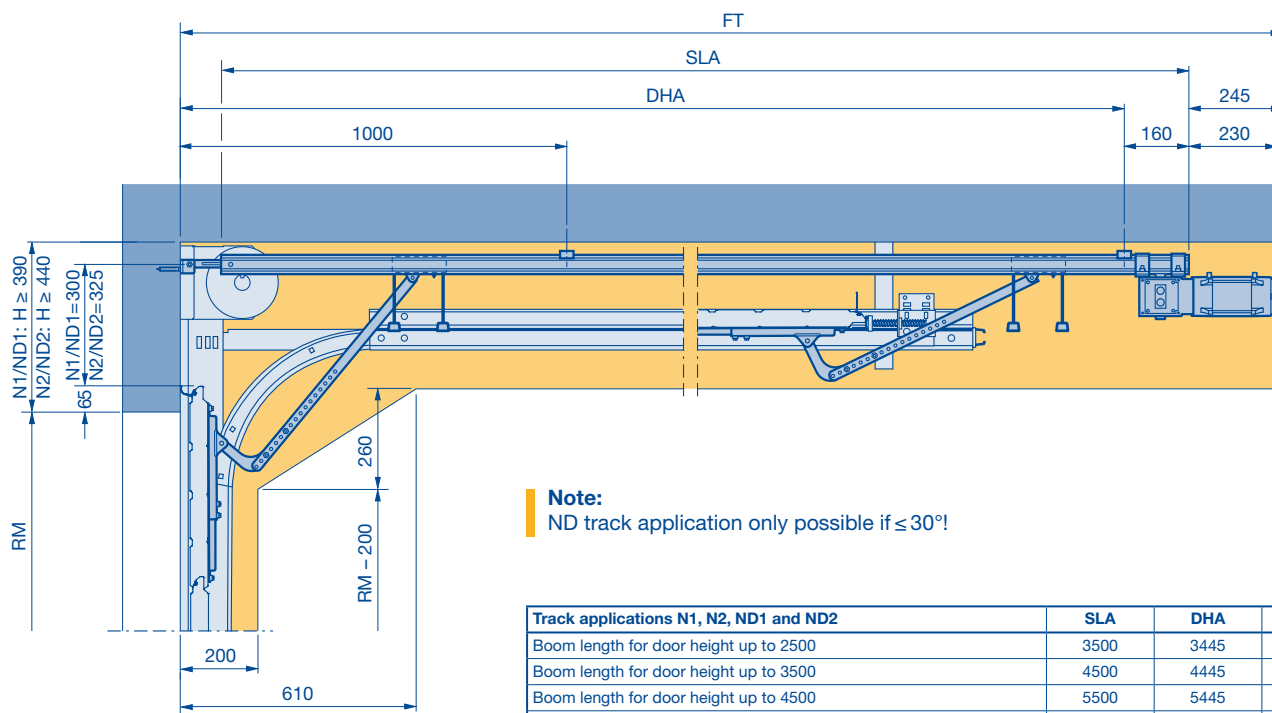
WA 400 as a centre motor in conjunction with double spring shaft on request!

RM Grid height
DA Distance to ceiling

LH Track height

Chain Drive Operator ITO 400

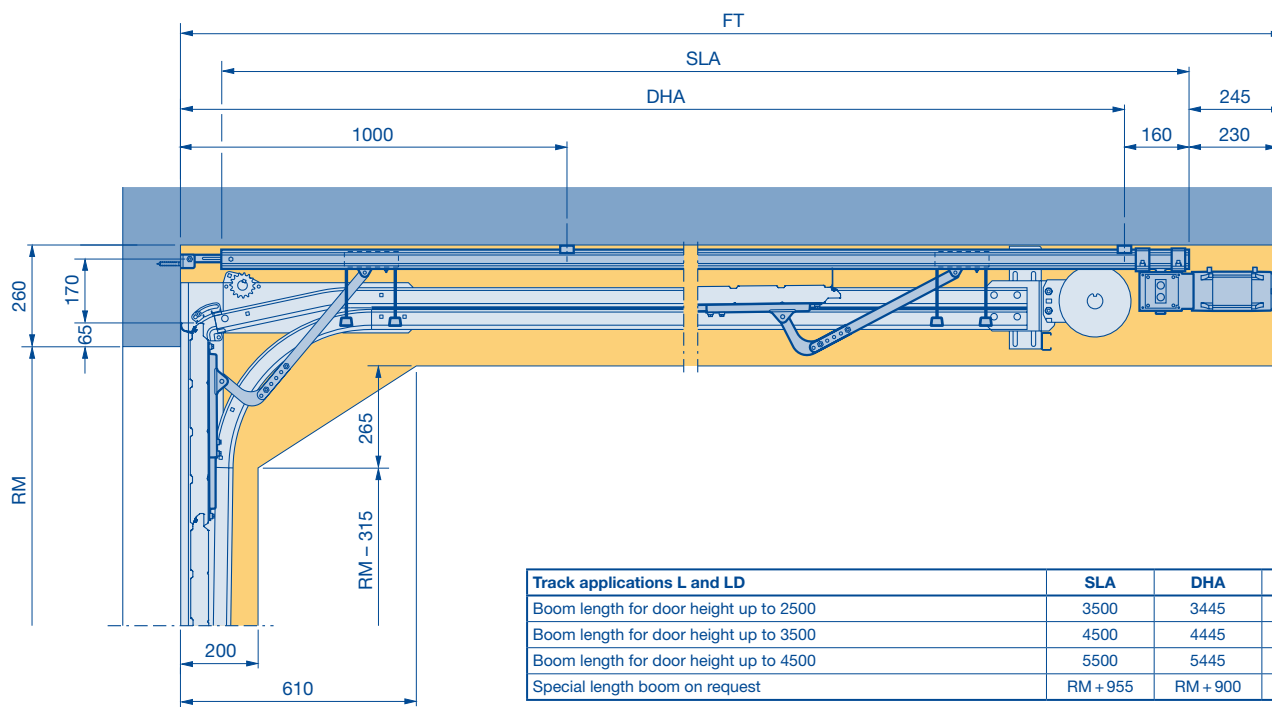
ITO 400 track applications N and ND (doors with wicket door on request)



Note:
ND track application only possible if $\leq 30^\circ$!

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 length boom for N1 and ND1 on request	RM + 722	RM + 667	RM + 1072
Special length boom for N2 and ND2 on request	RM + 829	RM + 774	RM + 1179

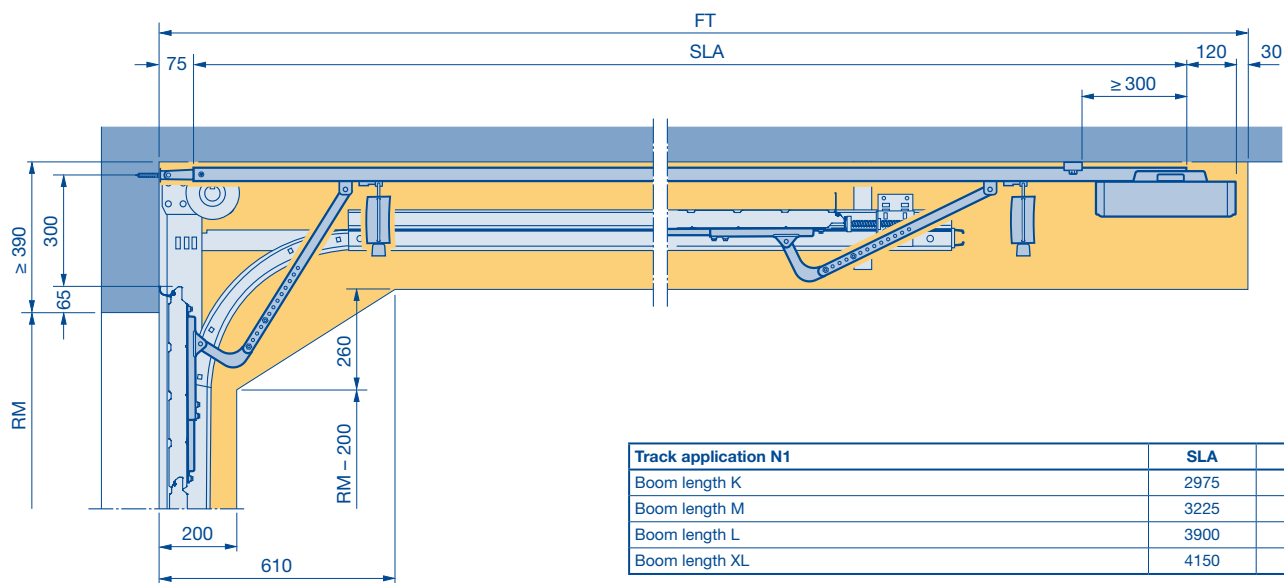
ITO 400 track applications L and LD (doors with wicket door on request)



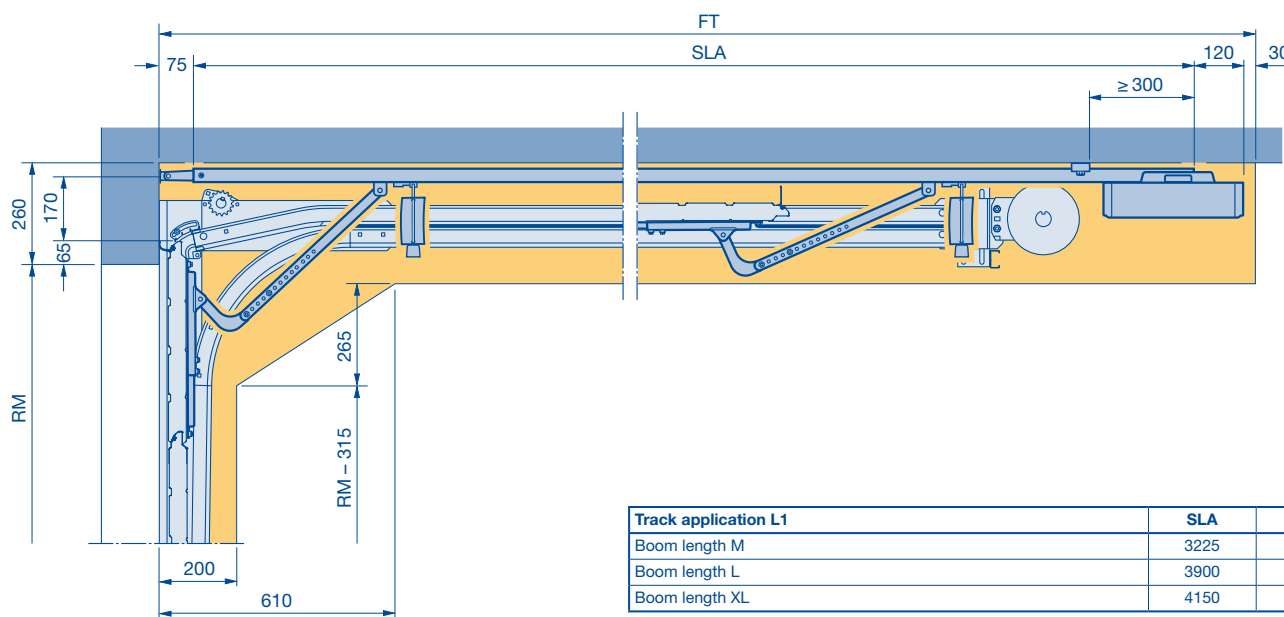
Track applications L and LD	SLA	DHA	FT
Boom length for door height up to 2500	3500	3445	3850
Boom length for door height up to 3500	4500	4445	4850
Boom length for door height up to 4500	5500	5445	5850
Special length boom on request	RM + 955	RM + 900	RM + 1305

Operator SupraMatic HT

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



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



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

*** Note:**

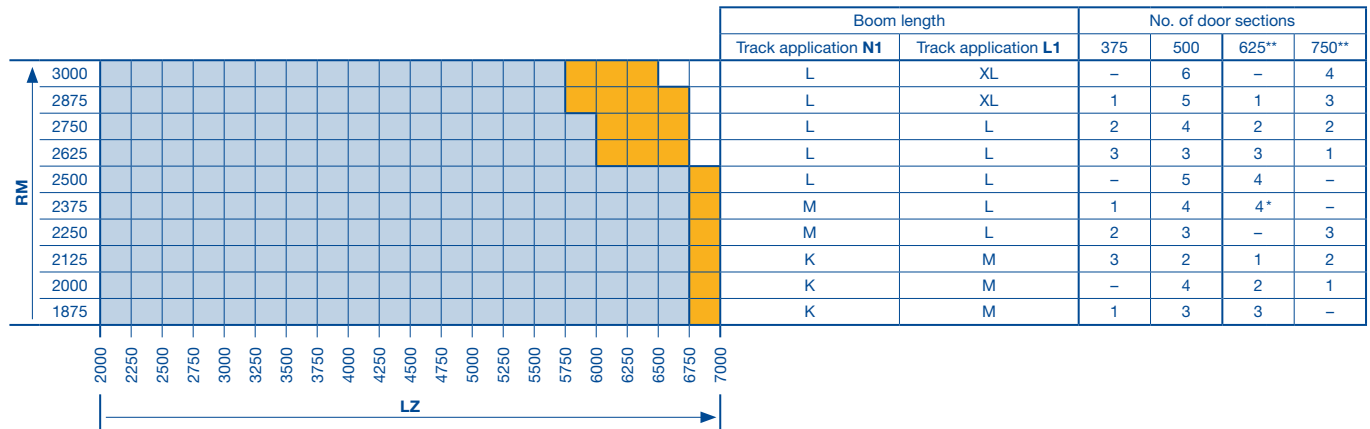
Operator not possible for doors with a depth of 67 mm!

RM Grid height
FT Clearance for door operator

SLA Operator boom length
DHA Operator rear ceiling anchor

Operator SupraMatic HT

SupraMatic HT size range



- SupraMatic HT not possible.
- SupraMatic HT possible.
- SupraMatic HT on request.

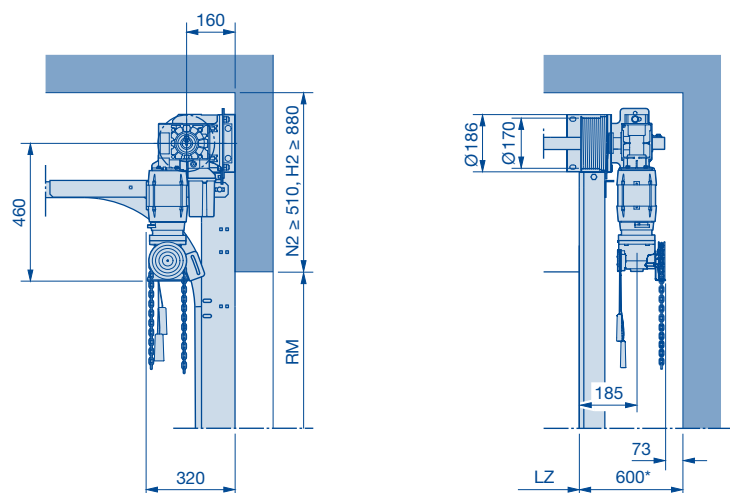
LZ Clear frame dimensions
RM Grid height
 * Top door section 500 mm
 ** Only without wicket door

Dimensions in mm

Direct Drive Operators S17.24 and S35.30

With Door Leaf Speed

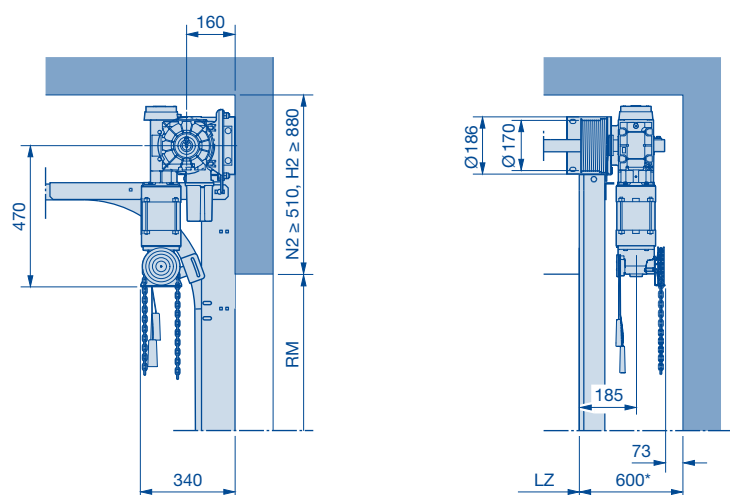
Direct drive operator S17.24



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 dimensions

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 door heights and track heights.)

Fitting	WA 300 S4		WA 400													
	Integrated/ external control 360		Control 445 and 460						Control B 460 FU							
	Max. speed in mm/s, open/close [5]	Max. speed in mm/s, open/close [6]	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		A control VL 1, VL 2; HLG		A control with optosensors		A control VL 1, VL 2; HLG				Optosensors		VL 1, VL 2 (HLG)	
			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	rpm [1]	Max. speed in mm/s, open/close				
N1, NA1, NH1	190	95	30	190	30	190	30	190	30	190	Yes	Yes	300/200	375/200	300/300	375/300 (375)
N2	210	105	24	210	30	265	24	210	30	265	Yes	Yes	300/200	450/200	300/300	450/300 (450)
N3	-	-	-	-	-	-	16	190	16	190	Yes	Yes	300/200	450/200	300/300	450/300 (450)
NA2, NH2	210	105	24	210	30	265	24	210	30	265	Yes	Yes	300/200	450/200	300/300	450/300 (450)
ND1, ≤30°	190	95	30	190	30	190	30	190	30	190	Yes	Yes	300/200	375/200	300/300	375/300 (375)
ND2, ≤30°	210	105	24	210	30	265	24	210	30	265	Yes	Yes	300/200	450/200	300/300	450/300 (450)
ND1, >30°	160/190	80/95	19	190	24	300	19	190	24	300	Yes	Yes	300/200	450/200	300/300	450/300 (450)
ND2, >30°	190	95	16	190	19	275	16	190	19	275	Yes	Yes	300/200	375/200	300/300	375/300 (375)
ND3	-	-	-	-	-	-	16	190	16	190	Yes	Yes	300/200	450/200	300/300	450/300 (450)
NH3	-	-	-	-	-	-	16	190	16	190	Yes	Yes	300/200	450/200	300/300	450/300 (450)
NS1	190	95	30	190	30	190	30	190	30	190	Yes	Yes	300/200	375/200	300/300	375/300 (375)
NS2	210	105	24	210	30	265	24	210	30	265	Yes	Yes	300/200	450/200	300/300	450/300 (450)
GD1	190	95	30	190	30	190	30	190	30	190	Yes	Yes	300/200	375/200	300/300	375/300 (375)
GD2	210	105	24	210	30	265	24	210	30	265	Yes	Yes	300/200	450/200	300/300	450/300 (450)
L1, L2	210	105	-	-	-	-	24	150	24	150	-	Yes	300/200	380/200	300/300	380/300 (380)
LD1, LD2	210	105	-	-	-	-	24	150	24	150	-	Yes	300/200	380/200	300/300	380/300 (380)
H4, HA4	160/190 [1;4]	80/95 [1;4]	24/19	190	30/24	290	24/19	190	30/24	290	Yes	Yes	300/200	450/200	300/300	450/300 (450)
H5	210	105	19/16	210	24/19	290	19/16	210	24/19	290	Yes	Yes	300/200	440/200	300/300	440/300 (440)
H8	-	-	-	-	-	-	16 [2]	250 [2]	16	250	Yes	Yes	300/200	450/200	300/300	450/300 (450)
HD4	160/190 [1;4]	80/95 [1;4]	24/19	190	30/24	290	24/19	190	30/24	290	Yes	Yes	300/200	450/200	300/300	450/300 (450)
HD5	210	105	19/16	210	24/19	290	19/16	210	24/19	290	Yes	Yes	300/200	440/200	300/300	440/300 (440)
HD8	-	-	-	-	-	-	16 [2]	250 [2]	16	250	Yes	Yes	300/200	450/200	300/300	450/300 (450)
HG4, HU4, RG4	160/190 [1;4]	80/95 [1;4]	24/19	190	30/24	290	24/19	190	30/24	290	Yes	Yes	300/200	450/200	300/300	450/300 (450)
HG5, HU5	210	105	19/16	210	24/19	290	19/16	210	24/19	290	Yes	Yes	300/200	440/200	300/300	440/300 (440)
RD4	160/190 [1;4]	80/95 [1;4]	24/19	190	30/24	290	24/19	190	30/24	290	Yes	Yes	300/200	450/200	300/300	450/300 (450)
RD5	210	105	19/16	210	24/19	290	19/16	210	24/19	290	Yes	Yes	300/200	440/200	300/300	440/300 (440)
RG4	160/190 [1;4]	80/95 [1;4]	24/19	190	30/24	290	24/19	190	30/24	290	Yes	Yes	300/200	450/200	300/300	450/300 (450)
RG5	210	105	19/16	210	24/19	290	19/16	210	24/19	290	Yes	Yes	300/200	440/200	300/300	440/300 (440)
V6, VA6, VU6	160/190 [1;4]	80/95 [1;4]	19	190	24	300	19	190	24	300	Yes	Yes	450/200 [3]		450/300 (450) [3]	
V7	190	95	16	190	19	275	16	190	19	275	Yes	Yes	440/200 [3]		440/300 (440) [3]	
V9	-	-	-	-	-	-	16 [2]	250 [2]	16	250	Yes	Yes	440/200 [3]		440/300 (440) [3]	
VU7	190	95	16	190	19	275	16	190	19	275	Yes	Yes	440/200 [3]		440/300 (440) [3]	
VU9	-	-	-	-	-	-	16 [2]	250 [2]	16	250	Yes	Yes	440/200 [3]		440/300 (440) [3]	
WG6	160/190 [1;4]	80/95 [1;4]	19	190	24	300	19	190	24	300	Yes	Yes	450/200 [3]		450/300 (450) [3]	
WG7	190	95	16	190	19	275	16	190	19	275	Yes	Yes	440/200 [3]		440/300 (440) [3]	

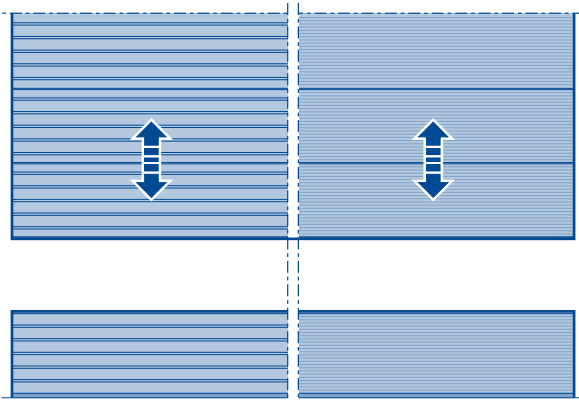
- [1] Speed corresponding to high-lift / door height (RM)
 [2] Only possible with A445 control with press-and-hold operation
 [3] Twin rollers not necessary with track applications V and VU!

- [4] Max. speed depending on the clear frame dimensions
 [5] With closing edge safety device (optosensors, VL 1 or VL 2)
 [6] From 2500 mm above FFL to FFL without closing edge safety device to comply with EN 13241-1

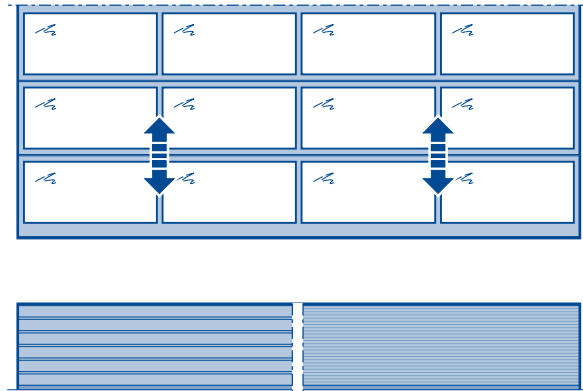
Note
 Double spring shaft only possible in conjunction with control B 460 FU!

Sectional Door Parcel / Parcel Walk

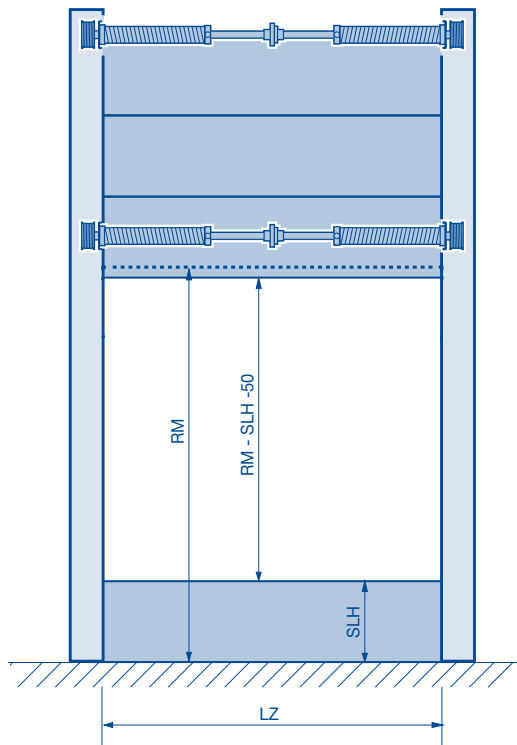
SPU F42



APU F42

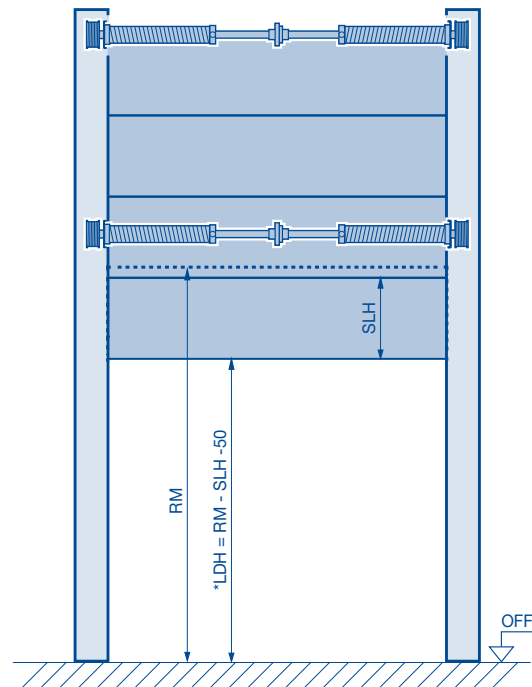


Functional principle



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

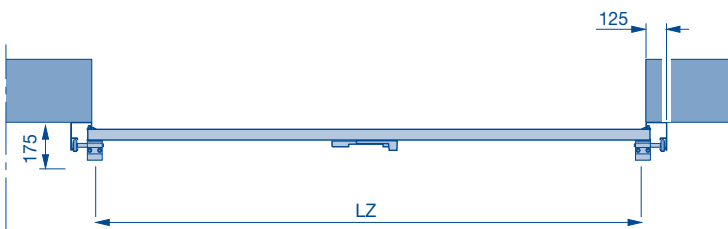
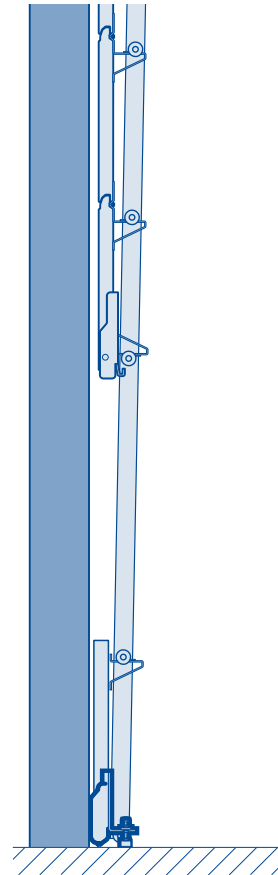
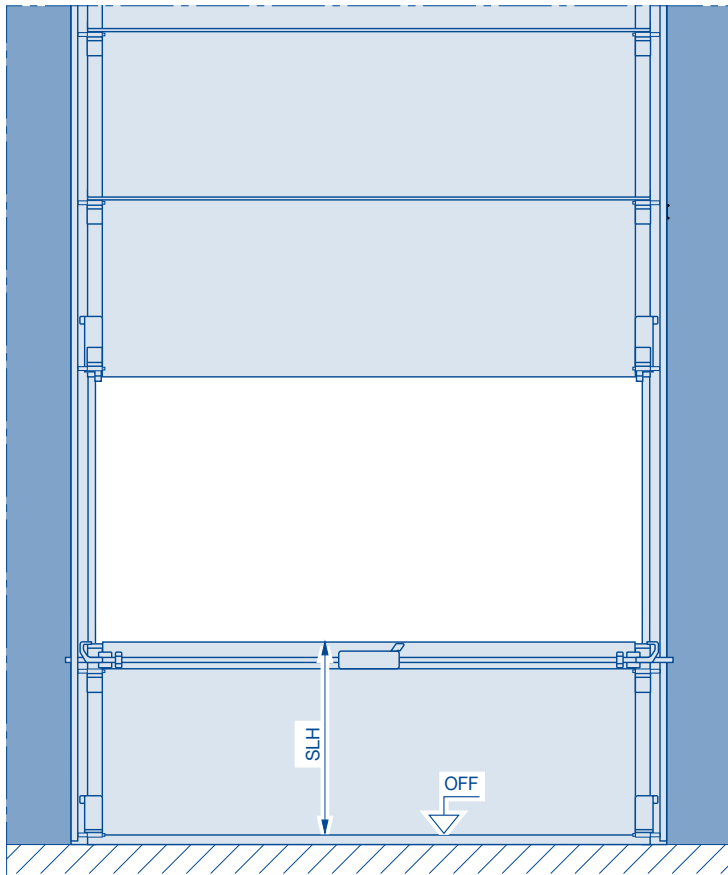


Vans are loaded at floor level. For this purpose, the door is opened completely including the bottom section. When the coupled door is opened, the bottom section with the catwalk remains in the top part of the door opening.

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

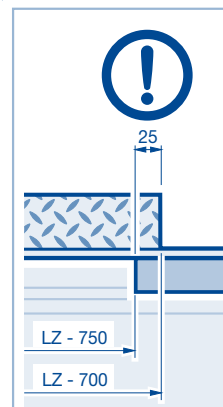
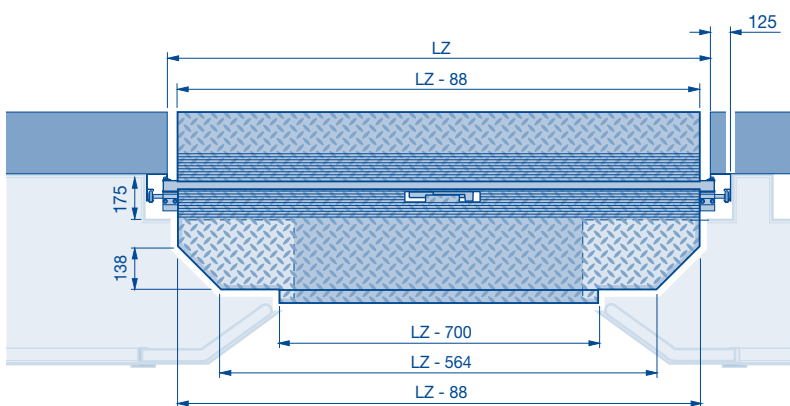
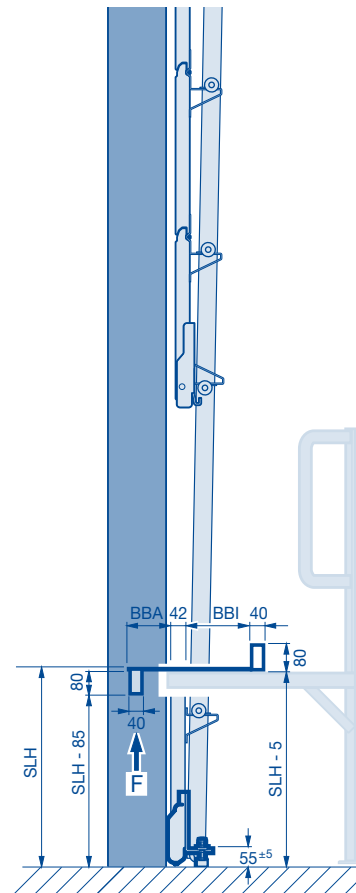
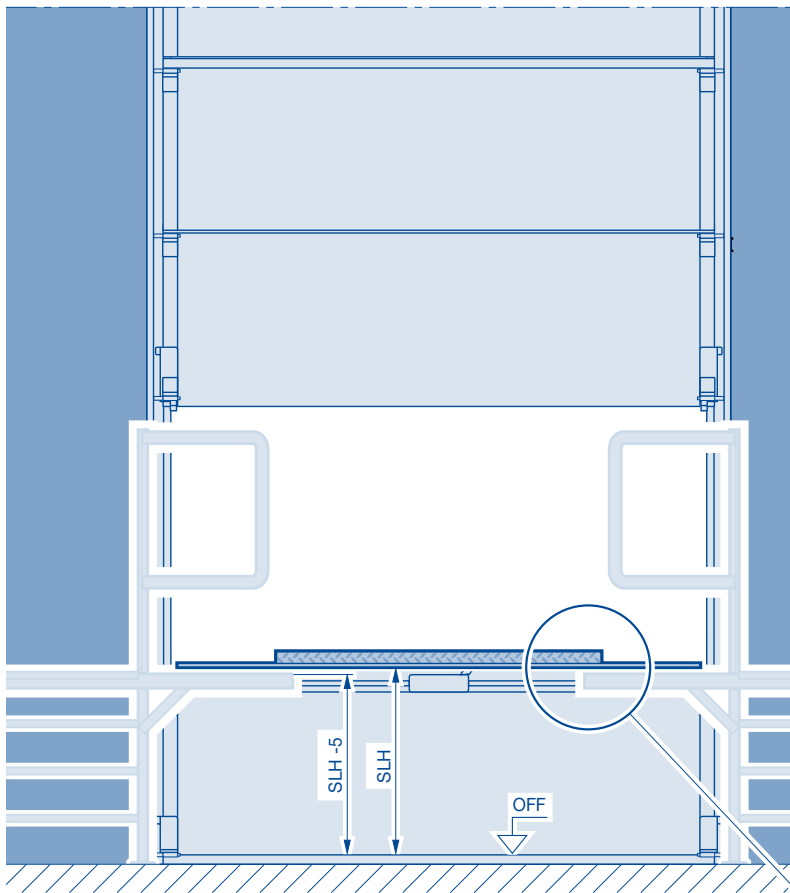
Dimensions in mm

Sectional Door Parcel



LZ Clear frame dimensions
SLH Bottom section height
Dimensions in mm

Sectional Door Parcel Walk



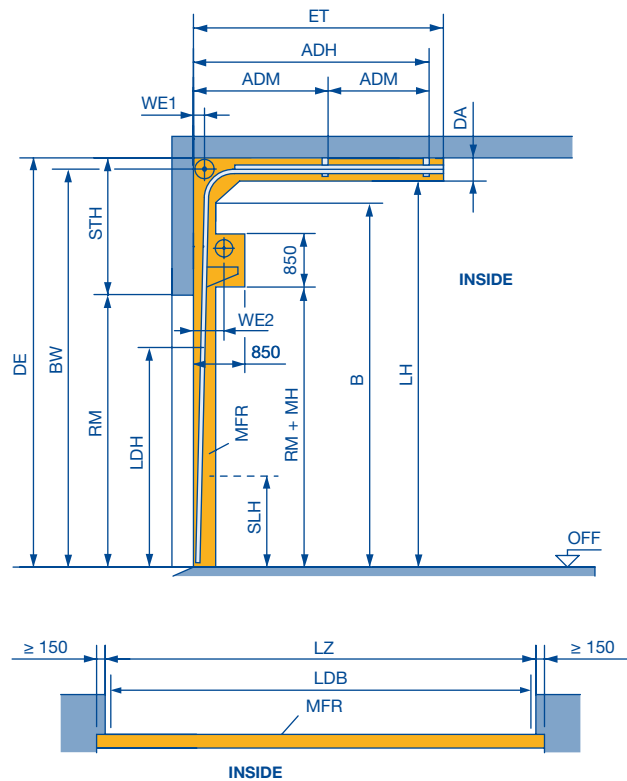
LZ Clear frame dimensions
SLH Bottom section height
BBA Exterior catwalk width min. 175–400
BBI Interior catwalk width min. 300–600

RM Grid height
F Force
 Dimensions in mm

Track Application: HP

High-lift track application

for Parcel / Parcel Walk sectional door 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!

Note:

- Only for door types SPU F42 and APU F42
- 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	Min. LH	Max. LH	
RM			
4250	5760	On request	HP 5 WE1 = 180 WE2 = 315
4125	5635		
4000	5510		
3875	5385		
3750	5260		
3625	5135	On request	HP 4 WE1 = 160 WE2 = 315
3500	5010		
3375	4885		
3250	4760		
3125	4635		

Note:

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

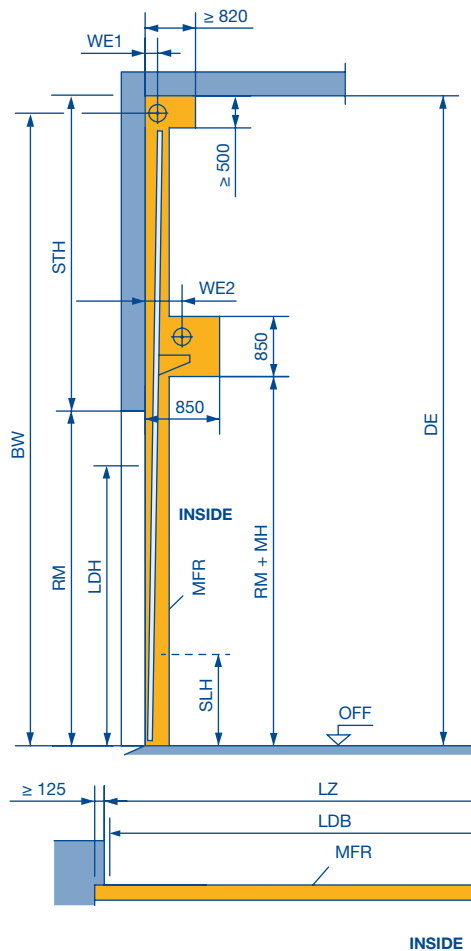
DE	Ceiling height
LDB	Clear passage width with ThermoFrame (see page 73)
LDH	Clear passage height $LDH = RM - SLH - 50$ For parcel, $LDH = RM$ is available on request
RM	Grid height
LH	Track height (see Table 6)
ADH	Distance to rear ceiling anchor on request
ADM	Distance to central ceiling anchor (see 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 Parcel / Parcel Walk sectional door with high and low-mounted torsion spring shaft



Please note:

1. A technical inspection is required!

Note:

- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Only for door types SPU F42 and APU F42
- 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.

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]	P	P	-	P	-	-	-
Multiple moulded pane, 16 mm, $U_g = 1.9 \text{ W/(m}^2\text{K)}$ [3]	S	S	S	S	S	-	-
PU infill, 26 mm with Stucco-textured aluminium sheet cover on both sides, $U_g = 1.0 \text{ W/(m}^2\text{K)}$	-	FU	FU	FU	FU	-	-
PU infill, 26 mm with anodised smooth aluminium sheet cover on both sides, $U_g = 1.0 \text{ W/(m}^2\text{K)}$	-	XU	XU	XU	XU	-	-
PU infill, 26 mm with anodised smooth aluminium sheet cover on both sides, $U_g = 1.2 \text{ W/(m}^2\text{K)}$ [6]	TU	TU	TU	TU	TU	-	-
Synthetic double pane, clear, 26 mm, $U_g = 2.6 \text{ W/(m}^2\text{K)}$	S2	S2	S2	S2	S2	S2	-
Synthetic double pane, crystal structure, 26 mm, $U_g = 2.6 \text{ W/(m}^2\text{K)}$	U2	U2	U2	U2	U2	U2	-
Synthetic double pane, grey tinted, 26 mm, $U_g = 2.6 \text{ W/(m}^2\text{K)}$	A2	A2	A2	A2	A2	-	-
Synthetic double pane, brown tinted, 26 mm, $U_g = 2.6 \text{ W/(m}^2\text{K)}$	B2	B2	B2	B2	B2	-	-
Synthetic double pane, white tinted (opal), 26 mm, $U_g = 2.6 \text{ W/(m}^2\text{K)}$	M2	M2	M2	M2	M2	-	-
Synthetic triple pane, clear, 26 mm, $U_g = 1.9 \text{ W/(m}^2\text{K)}$	S3	S3	S3	S3	S3	S3	-
Synthetic triple pane, crystal structure, 26 mm, $U_g = 1.9 \text{ W/(m}^2\text{K)}$	U3	U3	U3	U3	U3	U3	-
Synthetic triple pane, grey tinted, 26 mm, $U_g = 1.9 \text{ W/(m}^2\text{K)}$	A3	A3	A3	A3	A3	-	-
Synthetic triple pane, brown tinted, 26 mm, $U_g = 1.9 \text{ W/(m}^2\text{K)}$	B3	B3	B3	B3	B3	-	-
Synthetic triple pane, white tinted (opal), 26 mm, $U_g = 1.9 \text{ W/(m}^2\text{K)}$	M3	M3	M3	M3	M3	-	-
Polycarbonate double pane, clear, 26 mm, $U_g = 2.7 \text{ W/(m}^2\text{K)}$	C2	C2	C2	C2	C2	C2	-
Single pane of laminated safety glass, 6 mm [2] [3]	VG	VG	-	VG	-	-	VG
Double pane made of single-pane safety glass, 26 mm, $U_g = 2.6 \text{ W/(m}^2\text{K)}$ [2]	E2	E2	E2	E2	E2	-	E2
Double pane made of laminated safety glass P4A, 26 mm, $U_g = 1.3 \text{ W/(m}^2\text{K)}$ [6]	W2	W2	W2	W2	W2	-	-
Climatic double pane made of single-pane safety glass, 26 mm, $U_g = 1.1 \text{ W/(m}^2\text{K)}$ [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] **Note:** 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

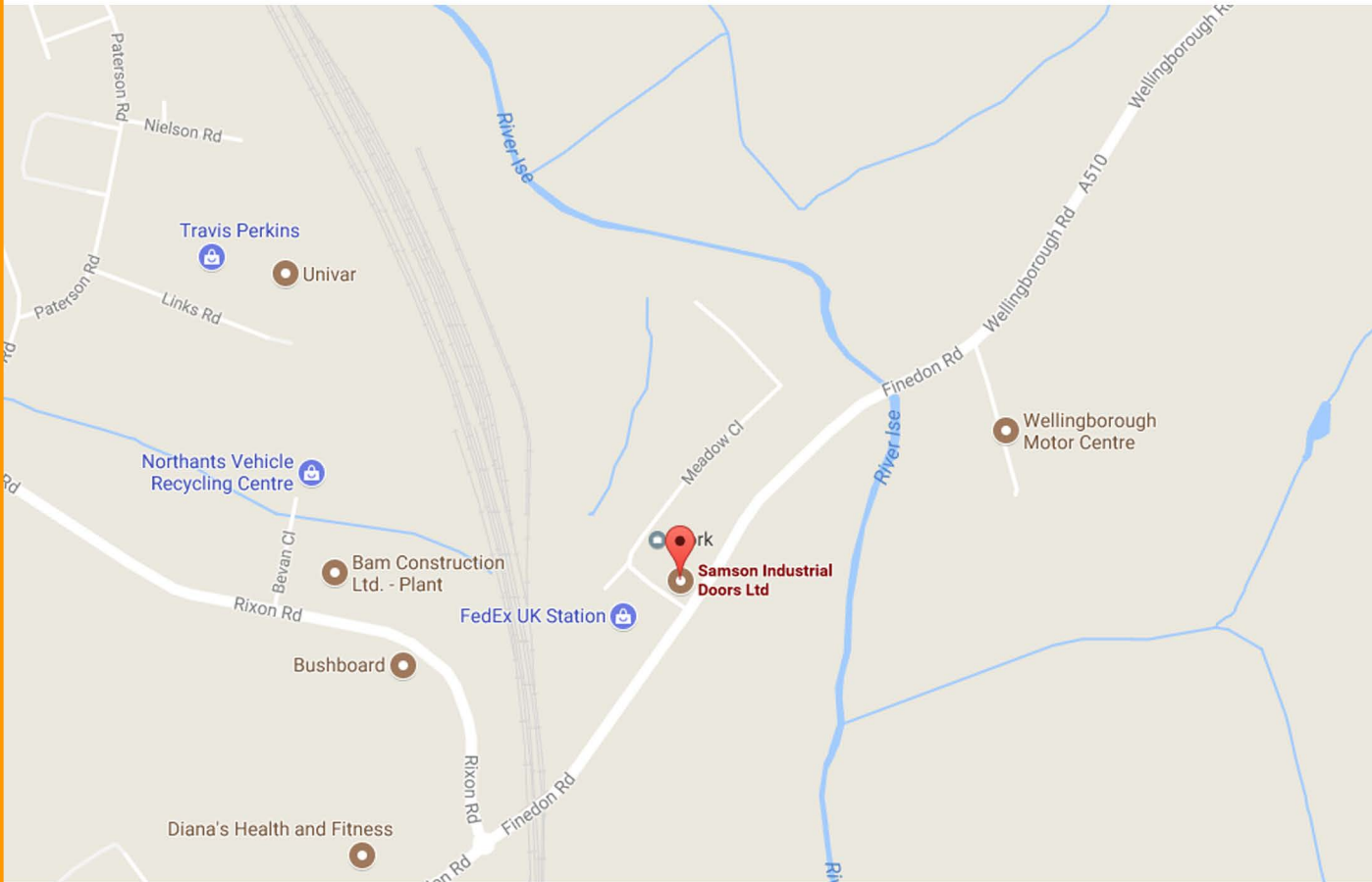
[4] No colour coating possible

[5] On request; infill weight and thickness must be specified (anodised glazing bead required)

[6] Only for NT 60 and NT80 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

Samson



**6-8 MEADOW CLOSE
ISE VALLEY INDUSTRIAL ESTATE
FINEDON ROAD
WELLINGBOROUGH
NN8 4BH**

**EMAIL: ENQUIRIES@SAMSONDOORS.CO.UK
TELEPHONE: (01933) 274276
MON - FRI - 8.30AM - 5.30PM**