

Up and over doors



General

The up and over garage door is intended for use in private buildings and utility rooms. It includes the frame, the leaf and horizontal ceiling rails. The opening framework and the leaf frame are made of closed galvanized steel shapes without thermal break. The opening frame components are joined with bolts. The leaf profiles are joined with special brackets. The doors without internal insulation show the leaf structure, while the doors with internal insulation have the leaf filled with a PVC panel. The door in standard version features a lock with cylinder (three keys included) and an assembly kit. The door are available as manually-operated and automatic with MOTO, METRO, BFT drive.

Door leaf

Novum - the leaf skin is made of T-10 galvanized trapezoid steel sheet with vertical filling and a polyester paint coating. The door has a profile to connect the horizontal rails. The Novum door cannot have a wicket door and thermal insulation.

Progress - the leaf skin is made of T-10 galvanized trapezoid steel sheet with vertical filling and a polyester paint coating. The door has a profile to connect the horizontal rails. The door can be with thermal insulation and/or a wicket door.

Komfort - (available in standard and special dimensions) the leaf skin is made of T10 galvanized trapezoid steel sheet with vertical filling and a polyester paint coating. The Komfort doors have a profile to connect the horizontal rails (see p. 76, fig. 36, 37, 42, 43) and side slides (see p. 74, fig. 25 - Side slides). The door can be with thermal insulation, a wicket door, glazings and/or an air grille. The Komfort door is also available with a custom infill (see page 75).

Select - (available in standard and special dimensions) the leaf skin is made of T-10 galvanized trapezoid steel sheet with vertical or slanted filling and a polyester paint coating. The doors have a profile to connect the horizontal rails (see p. 76, fig. 37, 43) and side slides (see p. 73, fig. 25 - Side slides). The door can be with thermal insulation, a wicket door (available for certain patterns), glazings and/or an air grille.

City - the leaf skin is made of T-10 galvanized trapezoid steel sheet with vertical filling and a polyester paint coating. The door features ventilation openings with the dimensions of 50 x 20 [mm] (w x h). The cables of self-locking latches are protected with metal sheet (except for pattern 30). Perforated surface of City doors, see p. 77 tab. 17. The door has a profile to connect the horizontal rails. The door cannot have thermal insulation and/or a wicket door.

Infill designs

Distances between the ribs depend on the dimensions and are as follows:

- low rib infill type 75-90mm
- high rib infill type 135-170mm

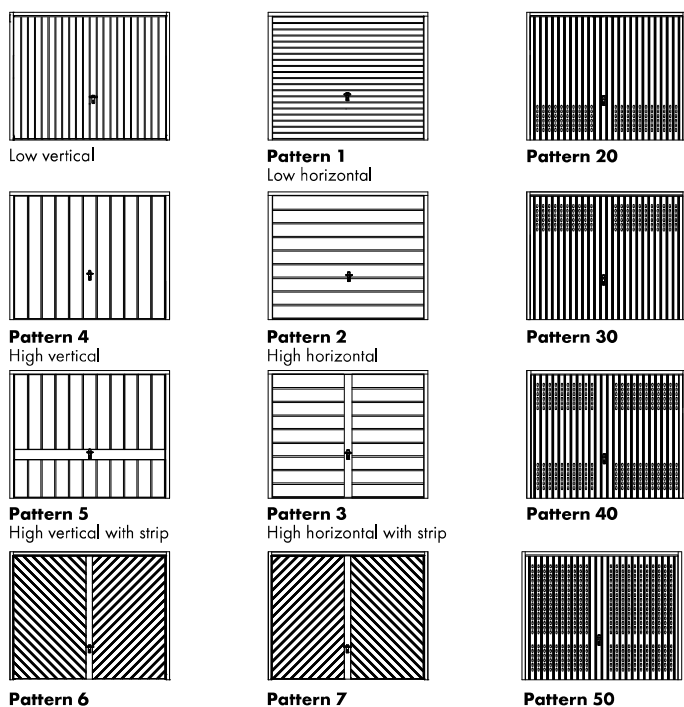


Fig. 1. Connect door infill designs.

Connect Door

The leaf skin is made of 0.5 [mm] thick galvanized steel with polyester coating. The leaf consists of panels of the same width with horizontal (H model) or vertical (V model) infill design. As a standard, Connect doors are equipped with frame in the door colour, side slides, a profile to connect horizontal rails, and steel self-locking latches.

Connect door infill designs

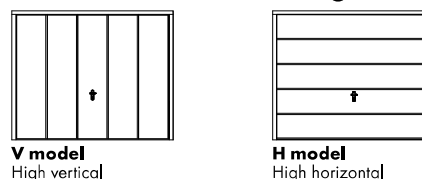


Fig. 2. Connect door infill designs.

Connect H – horizontal ribs

Panel heights depend on the door height.

No.	H [mm]	Panel height in [mm]
1.	1990	357
2.	2090	377
3.	2150	389
4.	2195	398
5.	2230	405

Tab. 1. Panel size for doors of standard dimensions.

No.	H [mm]	No. of panels	Panel height in [mm]
1.	1900-2700	5	340-500

Tab. 2. Panel size for doors of special dimensions.

Horizontal motifs

The motifs in the form of strips are available for the Connect H garage doors, and are fixed in the ribs between all garage door's panels. The motifs are available in wood-effect colours: golden oak and nut brown, stainless steel, and any RAL colour (except for colours with metallic, pearl and reflective effect).

Connect V – vertical ribs

Panel width is always the same for garage doors without a wicket door. No. of panels depends on the width:

- 5 panels for $S \leq 3100$,
- 7 panels for $S > 3100$.

Lp.	S [mm]	Panel width [mm]
1.	2380	429
2.	2480	449
3.	2580	469
4.	2605	474
5.	2730	499
6.	2980	549

Tab. 3. Panel size for doors of standard dimensions (garage door without a wicket door).

Lp.	S [mm]	No. of panels	Panel dimension range [mm]
1.	1900-3100	5	333-573
2.	3101-4000	7	402-503

Tab. 4. Panel size for doors of special dimensions (garage door without a wicket door).

Thermal insulation

The doors can be insulated with EPS boards with the following thickness ranges: Komfort, Select, Connect - 20 to 40 [mm] (depending on the door design); Progress - 20 [mm]. The inside of thermal insulation is finished with a white PVC panel.

Note! Thermal insulation installed on doors by the customer voids the warranty.

Standard colours:

Novum	Progress, Komfort Select, Connect	City
RAL 7016 anthracite grey	RAL 6005 moss green	RAL 6005 moss green
RAL 8014 sepia brown	RAL 7016 anthracite grey	RAL 7016 anthracite grey
RAL 8017 chocolate brown	RAL 7035 light grey	RAL 7035 light grey
RAL 9016 traffic white	RAL 8014 sepia brown	RAL 8014 sepia brown
	RAL 8017 chocolate brown	RAL 8017 chocolate brown
	RAL 9006 white aluminium	RAL 9006 white aluminium
	RAL 9016 traffic white	RAL 9016 traffic white
	golden oak	
	nut brown	

Tab. 5. Up and over door skin colours.

Filling in RAL colour – smooth glossy texture. See NOTE on p. 1 item 2.

The door leaf exterior can be painted in any RAL palette colour (except for pearl, reflective and metallic finish) and the ANTHRACITE colour. The door leaf is additionally coated with protective film (the film prevents soiling).

Note! Remove the protective film immediately after installation. The same door colours specified in various orders (delivery lots) may vary slightly in shade. The interior colour is the colour of the primer (grey or cream). When ordering the doors in „RAL, other“ colours, the interior colours may have different hues.

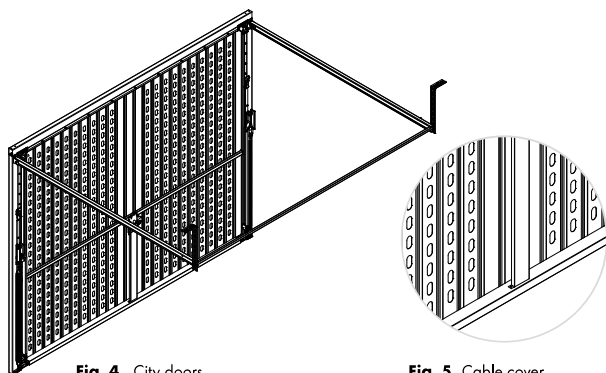
Door lock/handle

The door lock features a single-sided standard cylinder which can be accessed from the outside (three keys included); the lock is operated with a bolt on the inside. The lock is double-side bolted by self-locking latches. Three point door leaf bolting is available as an option. The outer side of the door leaf features the handle with a plate (PVC-1), both made of black plastic; the inner handle is made of black plastic. The lock and its bolting system is adapted for coupling with the drive. It is possible to order Connect door without a handle, however this will not decrease the price.

Door type	NOVUM, PROGRESS	PROGRESS, KOMFORT, SELECT	CITY	Connect
Bolting type	NOVUM, PROGRESS KOMFORT, SELECT	PROGRESS, KOMFORT, SELECT (with wicket door)	CITY	Connect
Two point	plastic latches	standard	—	—
	steel latches	option	standard	standard

Tab. 6. Bolting of up and over doors.

Because of the perforations in the City doors, a special acrylic sheet cover is used to conceal the cable of the latching device.



Balancing of the door leaf weight

The up and over doors feature a spring system which assists lifting and lowering of the leaf. The springs are covered by protective sleeves which prevent catching of fingers (available on Progress, Komfort and Select). The springs in Novum and City doors do not feature this protection.

Wicket door

- The wicket door in garage doors with the height of up to 2400 [mm] run along the entire garage door height.
- The wicket door in garage doors with the height of over 2400 [mm] have the clear height of 1940 [mm].
- Opening clear width is 860 [mm].
- Fig. 4 and 5 present the wicket door swing directions and the layout of hinges.
- All wickets open to the outside.
- The wicket door features a double-sided handle with a plate in black, complete with a lock with the standard cylinder (three keys included).

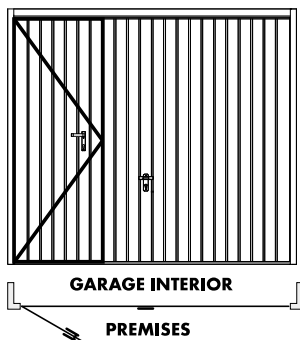


Fig. 6. Wicket door, left-hand version, external view.

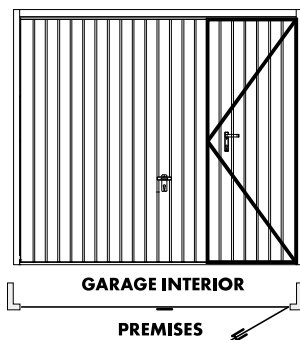


Fig. 7. Wicket door, right-hand version, external view.

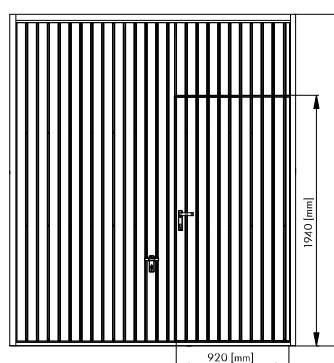


Fig. 8. Wicket in doors with over 2400 [mm] of height, the wicket opening clear height is 1940 [mm].

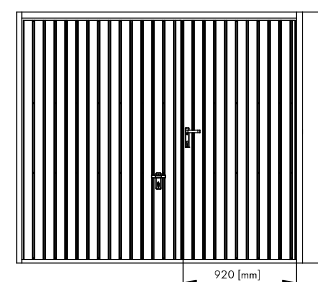


Fig. 9. Wicket in doors with the maximum height of 2400 [mm], always along the entire leaf height.

Wicket door in Connect garage door

Wicket door can be installed in V model of Connect door of the height up to 2400 [mm]. In garage doors with a wicket door 2 panels of a wicket door have the same width (2 x 435 [mm]).

- 5 panels are used for $S \leq 2800$ [mm] (in this case panels of wicket door and panels of garage door differ from 20 to 100 [mm] for standard dimensions, and from 5 to 180 [mm] for special dimensions),
- 7 panels are used for $S > 2800$ [mm] (in this case panels of wicket door and panels of garage door differ up to 80 [mm] for standard dimensions, and from 5 to 130 [mm] for special dimensions).

Service wickets are available for the Connect H doors with the maximum height of 2400 [mm] (full door height wicket) and the width range of $2300 \leq S_o \leq 3100$ [mm].

Air grille

K-1 - air grille: 426 x 89 [mm] (inside frame dimension). The grille is available in brown, white or black (see table 3). Effective ventilation surface area: approx. 0.02 [m²].

K-3 - air grille: 308 x 103 [mm] (inside frame dimension). The grille is available in white or black. The air grille features double insect screen and adjustable air flow. The doors without thermal insulation feature the insect screen adjustment on the external side, the doors with thermal insulation have the adjustment on the internal side. Effective ventilation surface area: approx. 0.015 [m²].

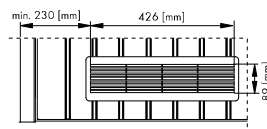


Fig. 10. K-1 air grille.

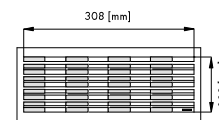


Fig. 11. K-3 air grille.

Note! Air grilles cannot be installed in Connect doors.

Door colour	K-1 grille colour ⁽¹⁾	K-3 grille colour ⁽¹⁾
Standard colours or other RAL colours	RAL 8014, RAL 8017, RAL 9005, RAL 9016	RAL 9005, RAL 9016

Tab. 7. Grille colours in up and over doors.

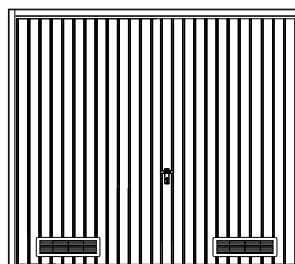


Fig. 3. Up and over door with K-1 air grille.

⁽¹⁾ - Specified by the customer; if the grille and/or glazing colour is unspecified, the standard colour used is RAL 9005.

Glazings

The door can have type A-1 glazings. When ordering, define the value R [mm] acc. to table 9 or table 10. A/H horizontal or A/V vertical glazing arrangement can be used. The outer frame is available in various colours, see table 8. The glazing can also be installed over the wicket door, which requires selection of the number of glazings, see table 9. If a glazing is at an impress, it will be moved by ± 30 [mm]. Dewing on the glazings is normal and it is not covered by the warranty.

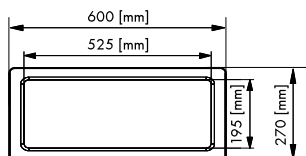


Fig. 12. Glazing type A-1, inside frame dimensions: 525 x 195 [mm].

Note! Glazing cannot be installed in Connect doors.

Door colour	Glazing colour, type A-1 ⁽¹⁾
Standard colours or other RAL colours	RAL 7016, RAL 8003, RAL 8011, RAL 8014, RAL 8017, RAL 9005, RAL 9016

Tab. 8. Glazing colours.

glazing arrangement	Garage door without wicket door 1100 [mm] ≤ R ≤ H - H _{glazing} - 150 [mm]	
	A/H	A/V
door width		
1500 ÷ 1700 [mm]	1	3
1710 ÷ 2500 [mm]	2	4
2510 ÷ 3400 [mm]	3	6
3410 ÷ 4000 [mm]	4	8

Tab. 9. Maximum number of glazings, type A-1 – door without wicket door.

glazing arrangement	Garage door with wicket door 1100 [mm] ≤ R ≤ H - H _{glazing} - 250 [mm]	
	A/H	A/V
door width		
1500 ÷ 1900 [mm]	1	3
1910 ÷ 2500 [mm]	2	4
2510 ÷ 3400 [mm]	3	6
3410 ÷ 4000 [mm]	4	8

Tab. 10. Maximum number of glazings, type A-1 – door with wicket door.

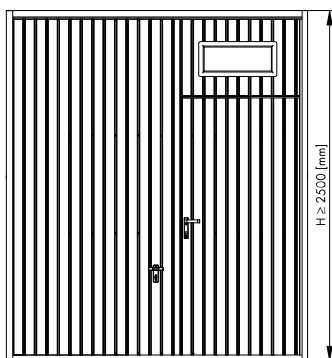


Fig. 13. A/H horizontal glazing over the wicket.

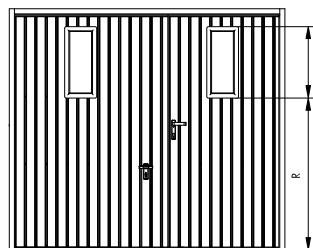


Fig. 14. A/V vertical glazing in the door with a wicket.

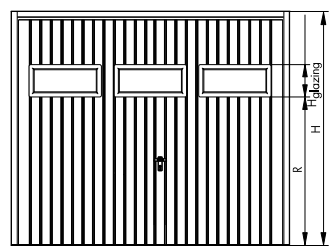


Fig. 15. A/H horizontal glazing in the door without a wicket.

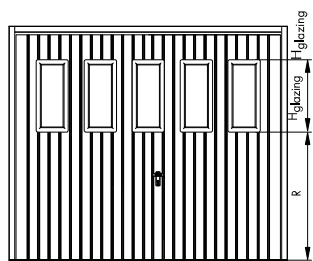


Fig. 16. A/V vertical glazing in the door without a wicket.

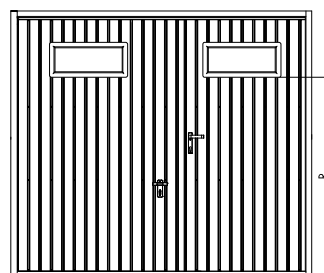


Fig. 17. A/H horizontal glazing in the door with a wicket door.

Three point door leaf bolting

The door can be equipped with bolting to the door threshold; the solution is available as a manual bolt, a Gerda lock or a self-locking latch. The manual bolt allows to manually open and close the door from indoors (it is not coupled with the lock bolting system). The Gerda lock allows to manually open and close the door from outdoors and indoors (it is not coupled with the lock bolting system). The self-locking latch is coupled with the lock bolting system (steel latch or plastic latch).

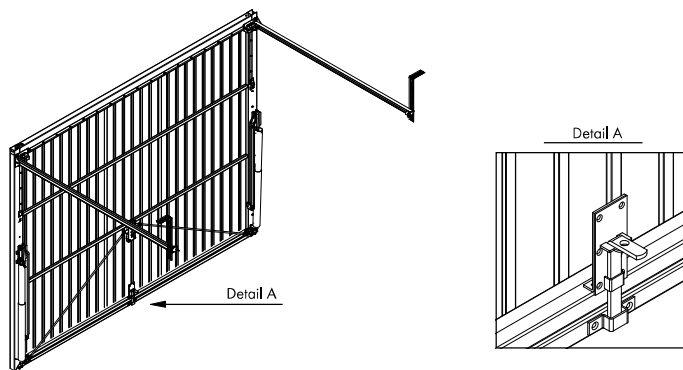


Fig. 18. Up and over door bolted to the threshold with a manual bolt.

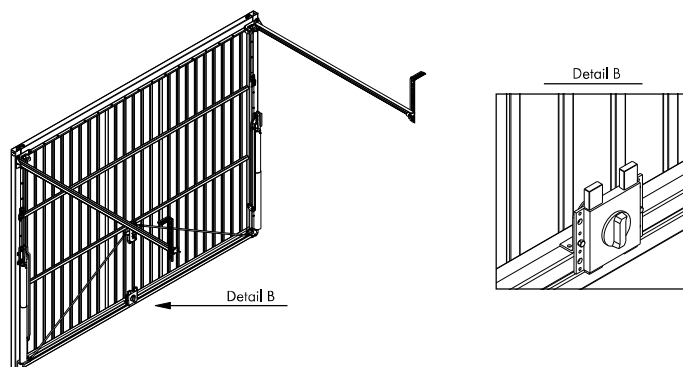


Fig. 19. Up and over door bolted to the threshold with a Gerda lock.

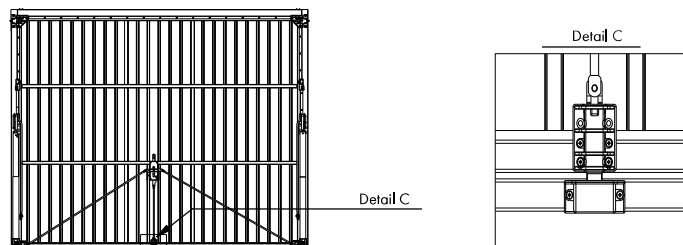


Fig. 20. Up and over door bolted to the threshold with a self-locking latch.

Steel self-locking latch

The up and over doors can be equipped with steel self-locking latches which replace the plastic ones (depending on the door type, see p. 72 table 6).

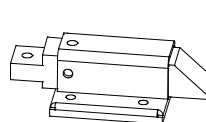


Fig. 21. Steel self-locking latch (art no. 90054).

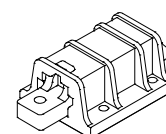


Fig. 22. Plastic self-locking latch (nr kat. 11779).

⁽¹⁾ - Specified by the customer; if the grille and/or glazing colour is unspecified, the standard colour used is RAL 9005.

Additional lock in the wicket door

The wicket door may be equipped with an additional mortise lock with a cylinder and a set of three keys or a Gerda lock with four keys.

Anti-burglary lock cylinder

The standard cylinder in the door and/or wicket can be replaced with class C anti-burglary lock cylinder. The cylinder is completed with 4 keys.

Wicket door padlock

The wicket door can be equipped with special lugs for padlocks.

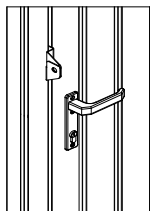


Fig. 23. Wicket with lugs for padlock, external view.

Brush seal

It is installed in the bottom part of the door leaf to provide partial protection from outdoor contaminants. Available for doors with $S \leq 3200$ [mm] and $H \leq 2700$ [mm] without wicket doors and for doors with $S \leq 3100$ [mm] and $H \leq 2700$ [mm] with wicket doors. The door does not have a threshold. The brush height is approx. 25 [mm]. The brush seal is unavailable if the three point door leaf bolting is selected.

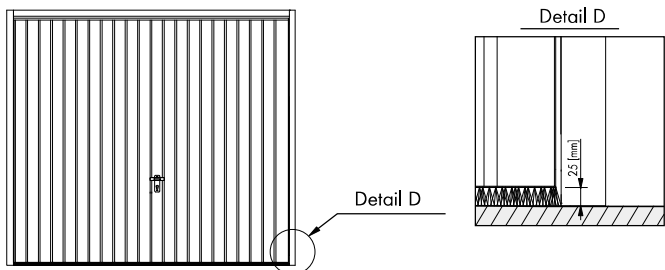


Fig. 24. Up and over door with brush seal, external view.

Side slides

The side slides stabilise the leaf operation and improve the use comfort. They are installed on the vertical leaf profile. The slides are approx. 3 [mm]. The Connect, Komfort and Select doors with vertical ribs possess the slides as standard. Available as an option for Progress doors.

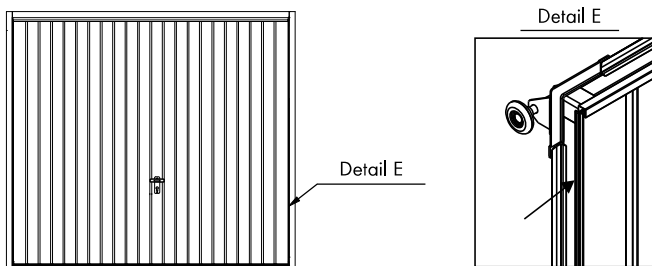


Fig. 25. Up and over door with side slides, external view.

Frames in door colour

The door frame (as seen from the outside) is faced with a metal sheet in the colour of the door skin, see fig. 26. The Select garage doors (models 6 and 7) and the Connect garage doors have the frames in the colour of the door leaf.

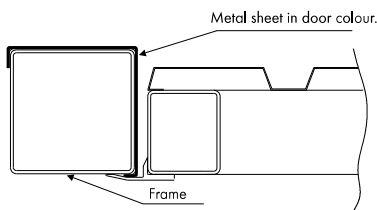


Fig. 26. Frames in door colour.

Other external RAL colours

The external door skin can be painted in colours (other than standard) from the RAL palette (except for pearl, reflective and metallic finish).

NOTE: When painted on one side only, the internal side of the element may show traces of spraying as well.

Contact the Sales Department for available finishes.

automatic garage doors. It is installed on the inner side of the door at the wicket top cover.

One-key system

The doors with a wicket door are available with the one-key system. The lock in the wicket and the door main lock are equipped with identical standard cylinders. This does not apply to the doors with the following extra options:

- Anti-burglary lock cylinder;
- Additional lock in the wicket door;
- Three point door leaf bolting (with a Gerda lock).

Door closer with guide rail

The closer may be used in wicket doors in manually-operated and automatic garage doors. It is installed on the inner side of the door at the wicket top cover.

Chain door closer

The closer may be used in wicket doors of manually-operated garage doors. It is installed between the wicket leaf and the door frame.

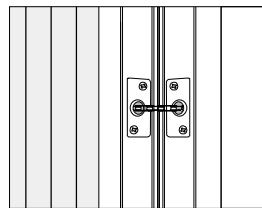


Fig. 27. Chain door closer for the wicket door.

Alignment of ribs levels and/or glazings

The glazing and/or impress can be aligned in garage doors of different dimensions installed next to each other. For the alignment in a series of garage doors with at least one garage door with a wicket door, irrespective of garage door dimensions, always use the option „Alignment of impress levels and/or glazings“.

Additional suspension bracket

If the headroom in the room where the door is installed exceeds 470 [mm], additional suspension brackets are required. In rooms with the headroom of over [900] [mm], a special reinforcing framework is required. Brackets are available in sets of 4 units.

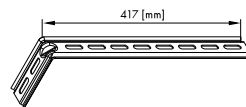


Fig. 28. L-type bracket (nr. kat. 50649).

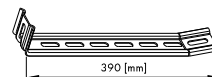


Fig. 29. C-type bracket (nr. kat. 50993).



Fig. 30. H-type bracket (nr. kat. 50691).

Additional lintel beam

The additional lintel beam is an element of the door frame, it comes with a fascia panel in the colour of the lining as standard.

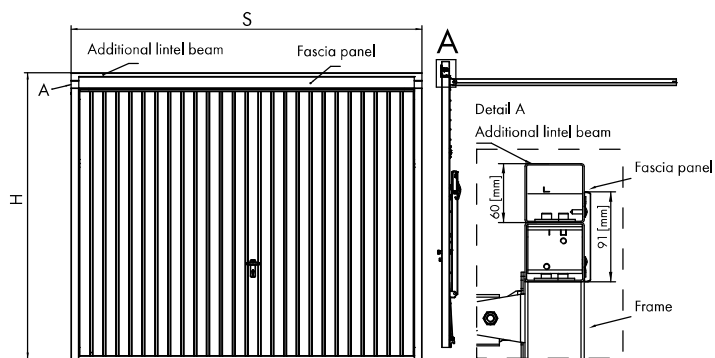


Fig. 31. Additional lintel beam.

Garage doors for a custom infill

Garage door for a custom infill – the structure is based on the Komfort door, available in two options: for a vertical and horizontal infill. The structure is reinforced with special angle bars with perforation, which enables easy installation of the infill to the door leaf.

Maximum infill weight: 10 kg/m²

Maximum infill thickness: 26 mm

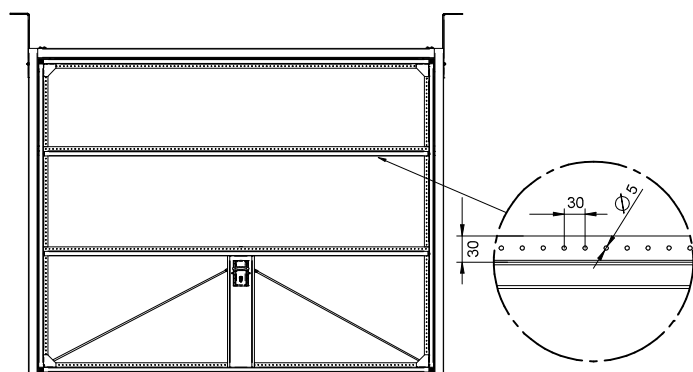


Fig. 32. Garage door Komfort for a custom infill - vertical

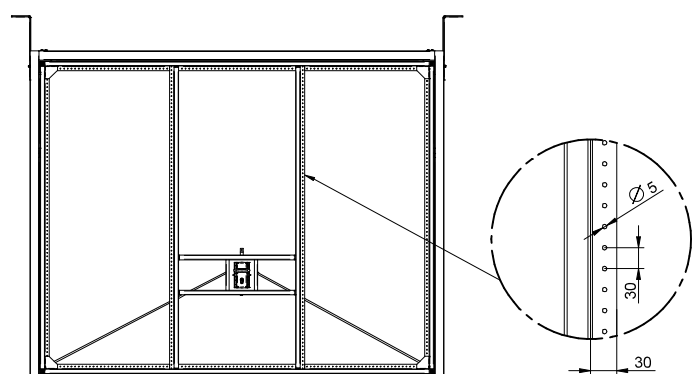


Fig. 33. Garage door Komfort for a custom infill - horizontal

Renovation frame

Renovation frame is a flexible in terms of assembly and visually appealing solution. This option allows for fitting the frame of a particular dimension to the openings of various width and height (see table 11). Renovation frame is available in colours to match the garage door colour as a standard (for golden oak and nut brown the frame colours are RAL 8003 and RAL 8011 correspondingly). This solution is available only for standard dimensions (except for S = 2980 [mm]) of Komfort, Select and Connect garage doors without a wicket door provided that the garage door is installed in the opening.

Installation in the opening

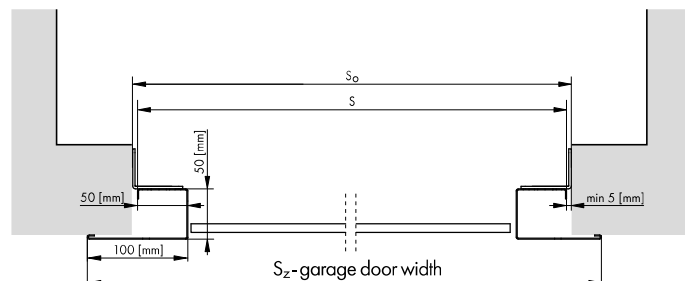


Fig. 34. Installation in the opening (horizontal section) of door with renovation frame.

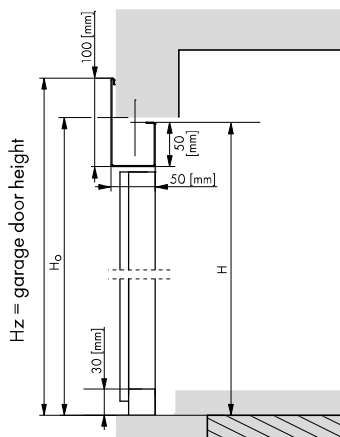


Fig. 35. Installation in the opening (vertical section) of door with renovation frame.

Dimension range of assembly opening related to renovation frame

Frame dimensions ⁽¹⁾ , S x H [mm]	Dimensions of garage door with renovation frame		Minimum and maximum width of the opening to install the door		Minimum and maximum height of the opening to install the door		Clear width and height	
	S _z	H _z	S _{o min}	S _{o max}	H _{o min}	H _{o max}	S _i	H _i
2380 x 1990	2480	2040	2390	2615	1995	2015	2170	1805
2380 x 2090	2480	2140	2390	2615	2095	2115	2170	1905
2380 x 2150	2480	2200	2390	2615	2155	2175	2170	1965
2380 x 2230	2480	2280	2390	2615	2235	2255	2170	2045
2480 x 1990	2580	2040	2490	2530	1995	2015	2270	1805
2480 x 2090	2580	2140	2490	2530	2095	2115	2270	1905
2480 x 2150	2580	2200	2490	2530	2155	2175	2270	1965
2480 x 2195	2580	2245	2490	2530	2200	2220	2270	2010
2480 x 2230	2580	2280	2490	2530	2235	2255	2270	2045
2580 x 1990	2680	2040	2590	2630	1995	2015	2370	1805
2580 x 2090	2680	2140	2590	2630	2095	2115	2370	1905
2580 x 2150	2680	2200	2590	2630	2155	2175	2370	1965
2580 x 2230	2680	2280	2590	2630	2235	2255	2370	2045
2605 x 2195	2705	2245	2615	2655	2200	2220	2395	2010
2730 x 2090	2830	2140	2740	2780	2095	2115	2520	1905
2730 x 2150	2830	2200	2740	2780	2155	2175	2520	1965
2730 x 2230	2830	2280	2740	2780	2235	2255	2520	2045
2980 x 2090	—	—	—	—	—	—	—	—
2980 x 2230	—	—	—	—	—	—	—	—

Tab. 11. Dimension range of assembly opening related to renovation frame.

Kit for installation of up-and-over doors if the headroom is 0 mm

The kit is factory-installed and allow for assembly of automatic door even when the headroom of garage opening is 0 [mm].

Connect doors are equipped with this solution as standard, while in Komfort and Select doors it is available as an option.

The kit is available for doors in the following standard and special dimensions:

- S ≤ 2800 [mm] and H ≤ 2300 [mm] without wicket door,
- S ≤ 2700 [mm] and H ≤ 2220 [mm] without wicket door.

⁽¹⁾ - Ordering dimensions.

Installation in the opening

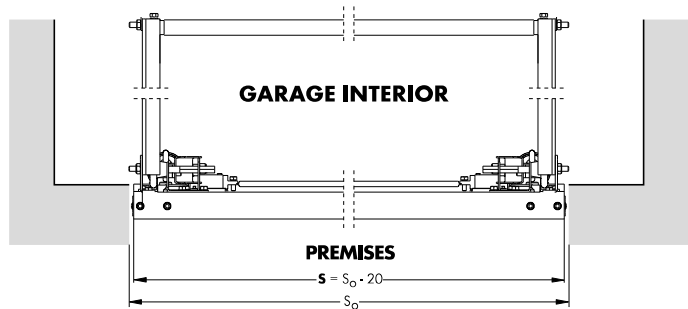


Fig. 36. Installation in the opening (horizontal section) of Novum, Progress, Komfort, Select, City and Connect doors.

Komfort and Select doors with a wicket door, (door dimensions range $S \leq 2700$ i $H \leq 2220$) and doors without a wicket door (dimensions range $S \leq 2800$ i $H \leq 2300$) - feature a profile to connect the horizontal rails.

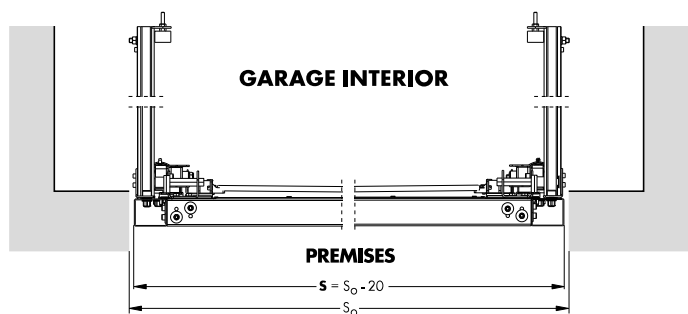


Fig. 37. Installation in the opening (horizontal section) of Komfort, Select, Connect

Doors with wicket, door dimension range $S > 2700$ or $H > 2220$ and doors without wicket, door dimensions range $S > 2800$ or $H > 2300$ - the doors do not have a profile to connect the horizontal rails.

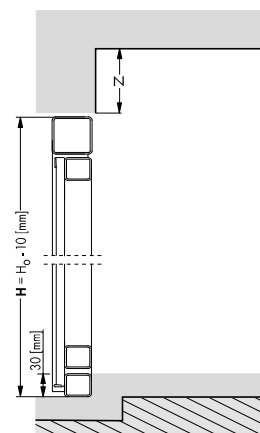


Fig. 38. Installation in the opening - vertical section (Komfort, Select, Connect).

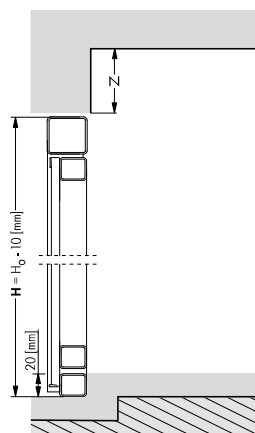


Fig. 39. Installation in the opening - vertical section (Novum, Progress, City).

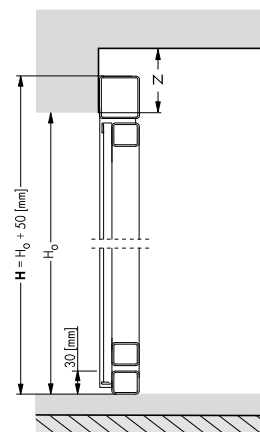


Fig. 40. Installation behind the opening - vertical section (Komfort, Select, Connect).

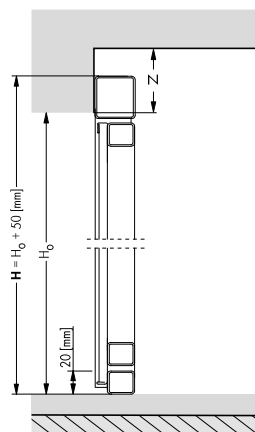


Fig. 41. Installation behind the opening - vertical section (Novum, Progress, City).

Installation behind the opening

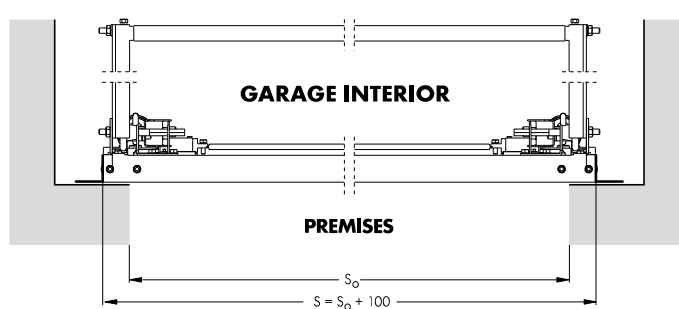


Fig. 42. Installation behind the opening (horizontal section) of Novum, Progress, Komfort, Select, City, Connect doors.

Komfort and Select doors with a wicket door (door dimensions range $S \leq 2700$ and $H \leq 2220$) and doors without a wicket door (door dimensions range $S \leq 2800$ and $H \leq 2300$) - feature a profile to connect the horizontal rails.

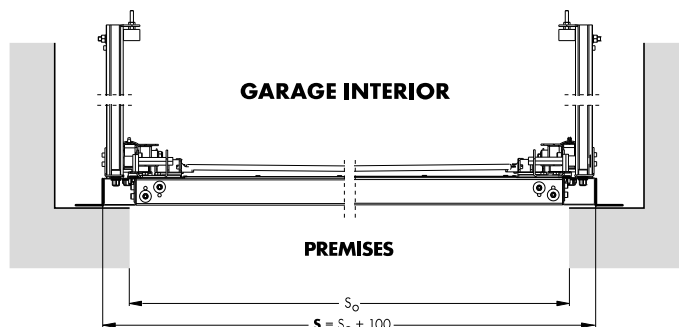


Fig. 43. Installation behind the opening (horizontal section) of Komfort, Select, Connect

Doors with wicket, door dimensions range $S > 2700$ or $H > 2220$ and doors without wicket, door dimensions range $S > 2800$ or $H > 2300$ - the doors do not have a profile to connect the horizontal rails.

Assembly dimensions

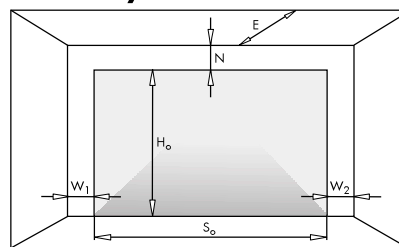


Fig. 44. The assembly dimensions and their designation required for correct selection and assembly of up and over garage doors.

- S_o - opening width,
- S_j - clear width with the door installed,
- S** - door width, ordering dimension,
- H_o - opening width,
- H_j - clear height with the door installed,
- H** - door height, ordering dimension,
- N - required headroom,
- W_1 - required side room,
- W_2 - required side room,
- E - garage depth with free space under the ceiling,
- L_s - drive rail length.

		Door height H [mm]	Installation in the opening	Installation behind the opening
E_{min}	Manual	1990	1810 [mm]	
		2090	2000 [mm]	
		2150		
		2195		
		2230		
	Komfort Select Connect	1600 + 1880	1600 [mm]	1800 [mm]
	1890 + 2220	1800 [mm]	2100 [mm]	
	2230 + 2700	2100 [mm]		
With drive	MOTO	$L_s + 250$ [mm] ($L_s = 3000$ [mm])		
	METRO	$L_s + 410$ [mm]		
	BFT	$L_s + 200$ [mm]		

Tab. 12. Length of horizontal rails.

General installation parameters

		Installation in the opening	Installation behind the opening
N_{min}	Manual	40 [mm]	100 [mm]
	With drive	60 [mm]	120 [mm]
W₁ and W₂		0 [mm]	100 [mm]

Tab. 13. Installation parameters of up and over doors.

General installation parameters of Connect doors

		Installation in the opening	Installation behind the opening
N_{min}	Manual	0 [mm]	60 [mm]
	With drive	0 [mm]	60 [mm]
W₁ and W₂		0 [mm]	100 [mm]

Tab. 14. Installation parameters of Connect up-and-over doors.

Dimensions outside the ranges:

- $S \leq 2800$ [mm] and $H \leq 2300$ [mm] for garage doors without a wicket door,
- $S \leq 2700$ [mm] and $H \leq 2220$ [mm] for garage doors with a wicket door.

Headroom required for installation in the opening is 60 [mm] and behind the opening is 120 [mm].

Standard dimensions

Frame dimensions ⁽¹⁾ S x H [mm]	Opening dimensions S _o x H _o [mm]		Clear opening dimensions S _j x H _j [mm]
	Installation in the opening	Installation behind the opening	
2380 x 1990	2400 x 2000	2280 x 1940	2150 x 1790
2380 x 2090	2400 x 2100	2280 x 2040	2150 x 1890
2380 x 2150	2400 x 2160	2280 x 2100	2150 x 1950
2380 x 2230	2400 x 2240	2280 x 2180	2150 x 2030
2480 x 1990	2500 x 2000	2380 x 1940	2250 x 1790
2480 x 2090	2500 x 2100	2380 x 2040	2250 x 1890
2480 x 2150	2500 x 2160	2380 x 2100	2250 x 1950
2480 x 2195	2500 x 2205	2380 x 2145	2250 x 2000
2480 x 2230	2500 x 2240	2380 x 2180	2250 x 2030
2580 x 1990	2600 x 2000	2480 x 1940	2350 x 1790
2580 x 2090	2600 x 2100	2480 x 2040	2350 x 1890
2580 x 2150	2600 x 2160	2480 x 2100	2350 x 1950
2580 x 2230	2600 x 2240	2480 x 2180	2350 x 2030
2605 x 2195	2625 x 2205	2505 x 2145	2375 x 2000
2730 x 2090	2750 x 2100	2630 x 2040	2500 x 1890
2730 x 2150	2750 x 2160	2630 x 2100	2500 x 1950
2730 x 2230	2750 x 2240	2630 x 2180	2500 x 2030
2980 x 2090	3000 x 2100	2880 x 2040	2750 x 1890
2980 x 2230	3000 x 2240	2880 x 2180	2750 x 2030

Tab. 15. Door selection - standard dimensions.

Special dimensions

Frame dimensions ⁽¹⁾ S x H [mm]	Opening dimensions S _o x H _o [mm]		Clear opening dimensions S _j x H _j [mm]
	Installation in the opening	Installation behind the opening	
S	S _o - 20 [mm]	S _o + 100 [mm]	S - 230 [mm]
H	H _o 10 [mm]	H _o + 50 [mm]	H - 200 [mm]

Tab. 16. Door selection - special dimensions.

Perforated area of CITY doors in [m²]

Frame dimensions ⁽¹⁾	Pattern 20, Pattern 30	Pattern 40	Pattern 50
2380 x 1990	0,11	0,22	0,34
2380 x 2090			0,45
2380 x 2150			0,45
2380 x 2230			0,45
2480 x 1990	0,12	0,24	0,35
2480 x 2090			0,47
2480 x 2150			0,47
2480 x 2195			0,47
2480 x 2230	0,12	0,25	0,47
2580 x 1990			0,37
2580 x 2090			0,50
2580 x 2150			0,50
2580 x 2230	0,12	0,25	0,50
2605 x 2195			0,50
2730 x 2090			0,52
2730 x 2150			0,52
2730 x 2230	0,13	0,26	0,52
2980 x 2090			0,57
2980 x 2230			0,57
2980 x 2230			0,57

Tab. 17. Perforated area of CITY doors.

⁽¹⁾ - Ordering dimensions.