

DOUBLE-ACTION DOORS

Double-action doors for every application made of polyethylene, HPL compact boards, timber and stainless steel







4

Good reasons to opt for Grothaus double-action doors.



12

Application areas.



18

Versions. Equipment. Technology.

Brand quality made in Germany



We are a family business that enjoys sophisticated technology and good design. We have been involved in the development and production of double-action doors since 1996. The team brings a lot of creativity and experience to the table and is always coming up with new solutions. To ensure quality, we manufacture all the key components of the double-action doors and hinges ourselves, thus achieving a high level of vertical integration. Each double-action door is individually manufactured to customer specifications.











WE THINK AND ACT GREEN. As a family business

we are aware of our responsibility for future generations and offer all products as CO2-neutral options at the customer's request. This gives customers the opportunity to offset the costs of remaining emissions with their purchase decision and thus make an active contribution. With its sustainability strategy, Grothaus is pursuing the goal of reducing and avoiding emissions. We cover 100% of our electricity requirements at our production site with green electricity from renewable sources. We also reduce our consumption through many other measures. We offset the remaining emissions by promoting certified climate protection projects in cooperation with ClimatePartner.





Durable and hygienic

The door leaves of Grothaus double-action doors consist of 15 mm thick moulded polyethylene (PE 500) and are extremely durable and robust. When combined with impact-resistant stainless steel hinges, you get a product that is hard-wearing with a long service life. Even when subjected to extremely high stress, for example when used for forklift truck passageways, PE double-action doors are capable of taking the strain. Grothaus double-action doors also meet stringent hygiene standards. They are resistant to cold temperatures and water and are therefore ideal for use in food production environments.





10-year warranty



Impact-resistant



Single-leaf



Double-leaf



Food-safe



Pedestrian passage



Forklift-resistant



Cold-resistant down to -30°C

POLYETHYLENE (PE 500). This material is the ideal choice whenever durability and hygiene are paramount. PE 500 has good mechanical properties and is impact and break-resistant and therefore extremely robust. PE 500 does not absorb moisture and is resistant to acids and alkalis. Grothaus double-action doors are suitable for various climatic conditions in a temperature range from –30°C to +60°C.

These properties make polyethylene the ideal choice for use in the food industry, in catering, in supermarkets and canteen kitchens.



This is one good reason why we provide a 10-year warranty for the door leaf. A short film on breaking resistance.





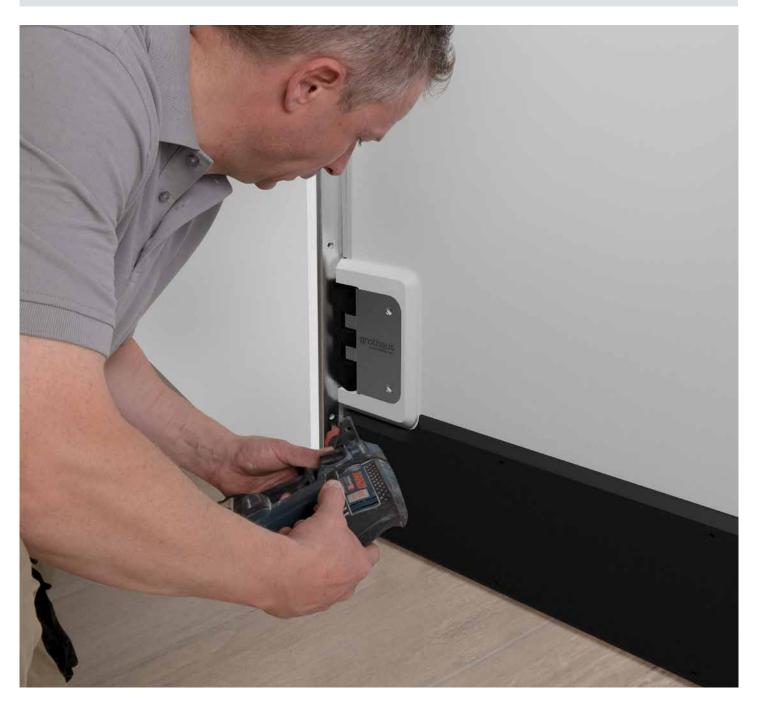
PE BUMPER. The optional bumper made of polyethylene (PE 500) protects the door leaf from wear and tear, allowing you to benefit from your double-action door for longer.

→ For more information, see from page 28.

Easy to fit and maintenance-free

As all Grothaus double-action doors are supplied completely pre-assembled with frames and hinges, the fitting process is quick and easy and allows you to save on fitting costs. In addition, there are no follow-up costs, as double-action doors do not require any maintenance and are operated without power. With their versatile frame systems, Grothaus double-action doors are suitable for virtually any internal fitting situation.

→ For more information on frame systems, see page 10.





Impact-resistant



Single-leaf



Double-leaf



Food-safe



Pedestrian passage



Forklift-resistant

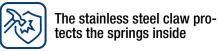


Cold-resistant down to -30°C

STAINLESS STEEL HINGE. The standard stainless steel hinges on the doors are designed in such a way that the springs are secured by a stainless steel claw inside the hinge and are thereby protected from external influences. Regreasing is not necessary.

→ For more information, see from page 26.





EASY MOUNTING.



Watch the short film on mounting with mounting plates



Watch the short film on mounting with flat profile



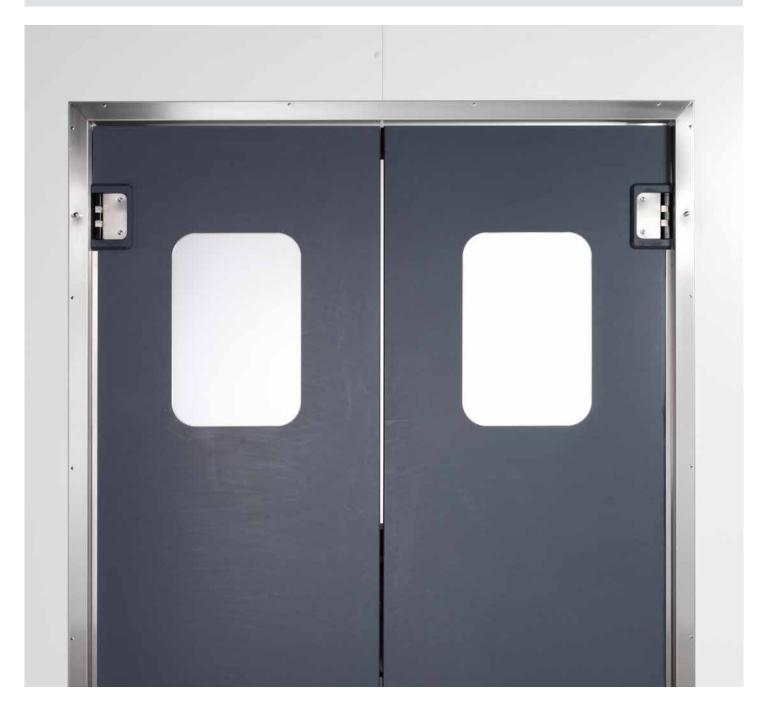
Watch the short film on mounting with U-frame

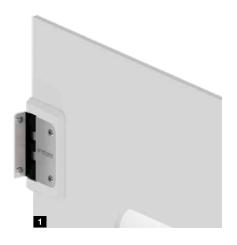


Watch the short film on mounting with front-wall installation

Frame systems for all your requirements

The Grothaus frame system guarantees a stable wall connection for optimal and long-lasting door functionality, providing the door leaf with the ideal framework: lasting quality, reliable stability and a high level of resistance. All components are made of stainless steel and can be used even under different temperature conditions. Individual frame solutions in genuine Grothaus quality are also available for your wall type. The high degree of prefabrication – all frames are pre-assembled with the hinge and the door leaf – simplifies and speeds up the fitting process on site.





MOUNTING PLATES. You can fit the double-action doors easily and flexibly with our stainless steel mounting plates 1. The mounting plate can be quickly fixed in the wall reveal with just a few screw fittings. This type of fitting is the most cost-effective variant.

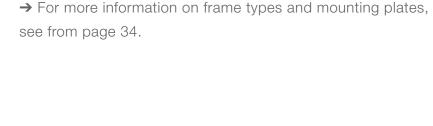


FLAT PROFILE. The stainless steel flat profile 2 provides stability while taking up very little space, and can be fitted quickly and easily in the wall reveal. This frame solution is highly convenient and is fitted at full opening height.

U-FRAME. The stainless steel U-frame 3 is a stable solution for every type of wall. The mortise and tenon joints at the ends of the frame components make the fitting process both simple and secure.



FRONT-WALL INSTALLATION. The stainless steel front-wall installation 4 is suitable for door openings of almost any installation type, as it is mounted **in front of** the wall and the maximum clear passage width is maintained.







Food production

The food industry, for instance the meat processing industry, bakeries, food logistics operations and cold storage facilities, requires high standards of hygiene. Grothaus PE double-action doors not only meet these standards, but also excel on account of their extremely high durability and high-quality appearance.

PE double-action doors can also be combined perfectly with fire sliding doors and insulating sliding doors – for example, in deep-freeze areas to reduce cold losses. In cases involving extremely high levels of stress, such as forklift traffic, a height-variable PE bumper is available as an option.

To customise the colour of your double-action door, you can choose from 13 standard colours and 7 preferred colours. We can also supply your door in the RAL colour of your choice on request.

- → For more information on the GP200, see page 20.
- → For more information on the PE bumper, see page 28.
- → For more information on standard colours and preferred colours, see page 30.











TOP LEFT. Double-leaf PE double-action door GP200 with flat profile and PE bumper TOP RIGHT. PE double-action doors GP200 with U-frame, single-leaf and double-leaf with tubular rail passage BOTTOM. Combination of fire sliding door and GP200



TOP. Optimum combination of PE double-action door GP200 for pedestrian passage and flexible high-speed door BOTTOM LEFT. Stainless steel double-action door GP400 with U-frame

 $\ensuremath{\mathsf{BOTTOM}}$ RIGHT. PE double-action door GP200 with front-wall installation





Supermarkets and logistics facilities

The Grothaus double-action door is the ideal choice when bulky, heavy equipment needs to pass through the doors quickly, as is often the case in warehouses or supermarkets, for example. Fit these doors with durable, long-lasting stainless steel hinges and you'll be ready for the future.

To customise the colour of your double-action door, you can choose from 13 standard colours and 7 preferred colours. We can also supply your door in the RAL colour of your choice on request.

- → For more information on the GP200 and the GP400, see from page 20.
- → For more information on standard colours and preferred colours, see page 30.





Catering

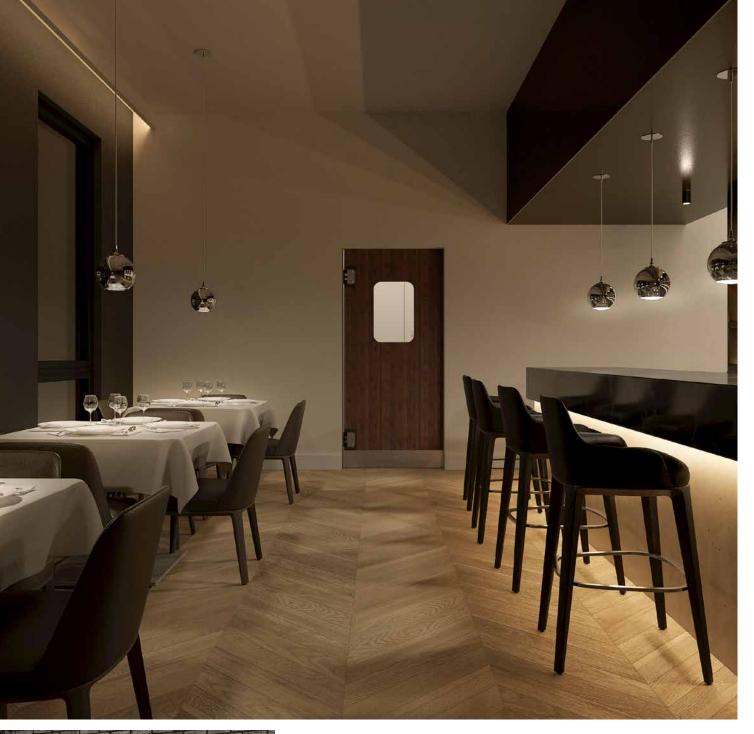
Double-action doors are particularly suited to situations where there is no 'free hand', such as when carrying food and drinks in restaurants and canteen kitchens: they open smoothly and easily. Grothaus offers double-action doors in stainless steel for more sophisticated architectural requirements. The gleaming surface and high-quality material composite ensure a long-lasting, aesthetically pleasing design.

NEW. The HPL or timber double-action doors are a real eye-catcher for catering and shopfitting applications.











LEFT. PE double-action door GP200 with profile frame TOP. **NEW.** HPL double-action door GP500 with flat profile and optional stainless steel bumper BOTTOM. NEW. Timber double-action door GP810 with profile frame

→ For more information on the GP200, GP500 and the GP810, see from page 20.

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Versions. Equipment. Technology.

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PE double-action doors

GP200 with 180° opening angle

Door type	GP200	GP200
	Single-leaf	Double-leaf
Material	Impact-resistant, moulded polyethylene (PE 500)	Impact-resistant, moulded polyethylene (PE 500)
Door leaf		
Door thickness (mm)	15	15
Width (mm)	400 – 1600	800 – 3200
Height (mm)	18001 – 4600	1800¹ – 4600
Glazing		
Rectangular	•	•
Round	•	•
Semicircular	0	0
Acrylic glass (mm)	15	15
Glazing frame		
V2A / AISI 304 stainless steel	0	0
V4A / AISI 316 stainless steel	0	0
Hinge		
V2A / AISI 304 stainless steel	•	•
V4A / AISI 316 stainless steel	0	0
Finger protection		
PVC finger protection	0	0
PVC finger protection, cold-resistant	0	0
Temperature range	-30°C to +60°C	-30°C to +60°C





Single-leaf version Opening angle $2 \times 90^{\circ}$ Width in mm: 400 - 1600Height in mm: 1800 - 4600



Double-leaf version Opening angle $2 \times 90^{\circ}$ Width in mm: 800 - 3200Height in mm: 1800 - 4600



10-year warranty



Impact-resistant



Single-leaf



Double-leaf



Food-safe



Pedestrian passage



Forklift-resistant



Cold-resistant down to -30°C



Individually made to measure

We also offer made to measure doors and solutions for special sizes.

PE double-action doors

GP360 with 360° opening angle

Door type	GP360	GP360
	Single-leaf	Double-leaf
Material	Impact-resistant, moulded polyethylene (PE 500)	Impact-resistant, moulded polyethylene (PE 500)
Door leaf		
Door thickness (mm)	15	15
Width (mm)	550 – 1600	1100 – 3200
Height (mm)	18001 – 4600	18001 – 4600
Glazing		
Rectangular	•	•
Round	•	•
Semicircular	0	0
Acrylic glass (mm)	15	15
Glazing frame		
V2A / AISI 304 stainless steel	0	0
V4A / AISI 316 stainless steel	0	0
Hinge		
V2A / AISI 304 stainless steel	•	•
V4A / AISI 316 stainless steel	0	0
Finger protection		
PVC finger protection	0	0
PVC finger protection, cold-resistant	0	0
Temperature range	-30°C to +60°C	-30°C to +60°C





10-year warranty



Impact-resistant



Single-leaf



Double-leaf



Food-safe



Pedestrian passage



Forklift-resistant



Cold-resistant down to -30°C



Individually made to measure

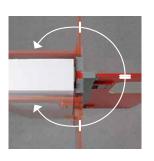
We also offer made to measure doors and solutions for special sizes.



Single-leaf version Opening angle $2 \times 180^\circ$ Width in mm: 550 - 1600Height in mm: 1800 - 4600



Double-leaf version Opening angle 2 × 180° Width in mm: 1100 – 3200 Height in mm: 1800 – 4600



Integrated open device in the following opening angles:

360° opening angle

The GP360 can be opened all the way on both sides in order to keep access routes clear, for example for industrial trucks. What's more, the GP360 can be locked in a total of 5 positions.

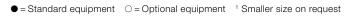
- 0°
- 90° to the left
- 180° to the left
- \bullet 90° to the right
- 180° to the right

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NEW. HPL double-action doors

GP500 with 180° opening angle

Door type	NEW. GP500	NEW. GP500
	Single-leaf	Double-leaf
Material	Scratch-resistant HPL compact board	Scratch-resistant HPL compact board
Door leaf		
Door thickness (mm)	15	15
Width (mm)	600 – 1250	1200 – 2500
Height (mm)	18001 – 2800	18001 - 2800
Glazing		
Rectangular	•	•
Round	•	•
Acrylic glass (mm)	15	15
Hinge		
V2A / AISI 304 stainless steel	•	•
V4A / AISI 316 stainless steel	0	0
Finger protection		
PVC finger protection	0	0
PVC finger protection, cold-resistant	0	0
Temperature range	-30°C to +60°C	-30°C to +60°C





Impact-resistant



Single-leaf



Double-leaf



Food-safe



Pedestrian passage



Cold-resistant down to -30°C



Scratch-resistant



Individual print



Individually made to measure

We also offer made to measure doors and solutions for special sizes.



Single-leaf version Opening angle $2 \times 90^{\circ}$ Width in mm: 600 - 1250Height in mm: 1800 - 2800



Double-leaf version Opening angle 2 × 90° Width in mm: 1200 – 2500 Height in mm: 1800 – 2800

NEW. Timber double-action doors

GP810 with 180° opening angle

Door type	NEW. GP810	NEW. GP810	
Version	Single-leaf	Double-leaf	
Material	Solid chipboard	Solid chipboard	
Door leaf			
Door thickness (mm)	40	40	
Width (mm)	700 – 1250	1400 – 2500	
Height (mm)	18001 – 2500	1800¹ – 2500	
Glazing			
Round	•	•	
Laminated safety glass (mm)	4	4	
Glazing frame			
V2A / AISI 304 stainless steel	•	•	
Hinge			
V2A / AISI 304 stainless steel	•	•	

● = Standard equipment ○ = Optional equipment ¹ Smaller size on request



Single-leaf



Double-leaf



Pedestrian passage



Individually made to measure

We also offer made to measure doors and solutions for special sizes.



Single-leaf version Opening angle $2 \times 90^{\circ}$ Width in mm: 700 – 1250 Height in mm: 1800 - 2500



Double-leaf version Opening angle 2 × 90° Width in mm: 1400 - 2500 Height in mm: 1800 - 2500

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Stainless steel double-action doors

GP400 with 180° opening angle

Door type	GP400	GP400	Cinale leef
Version	Single-leaf	Double-leaf	_ Single-leaf
Material			
Foam core inside	•	•	Double-leaf
V2A / AISI 304 stainless steel outside	•	•	
V4A / AISI 316 stainless steel outside	0	0	
Door leaf			Food-safe
Door thickness (mm)	40	40	
Width (mm)	550 – 1450	1100 – 2900	
Height (mm)	1800¹ – 2800	1800¹ - 2800	
Windows			Pedestrian passage
Rectangular	0	0	
Round	•	•	
Laminated safety glass (mm)	8	8	Cold-resistant down to -30°C
Window frame			down to -30°C
V2A / AISI 304 stainless steel	•	•	
V4A / AISI 316 stainless steel	0	0	Individually made to measure
Hinge			We also offer made
V2A / AISI 304 stainless steel	•	•	to measure doors
V4A / AISI 316 stainless steel	0	0	and solutions
Finger protection			for special sizes.
EPDM black sealing profile	•	•	_
Temperature range	-30°C to +60°C	-30°C to +60°C	_
• Ctandard aguinment O Ontional agu	uinment 1 Cmeller size on requi		_

ullet = Standard equipment \bigcirc = Optional equipment $^{-1}$ Smaller size on request

For an elegant appearance, for example in the high-class catering sector, Grothaus offers the stainless steel double-action door. It consists of a 0.8 mm thick stainless steel sheet with a CFC-free PU hard foam core and is available in two stainless steel versions (brushed or circular-brushed finish).



Single-leaf version Opening angle $2 \times 90^{\circ}$ Width in mm: 550 - 1450Height in mm: 1800 - 2800



Double-leaf version Opening angle 2 × 90° Width in mm: 1100 – 2900 Height in mm: 1800 – 2800

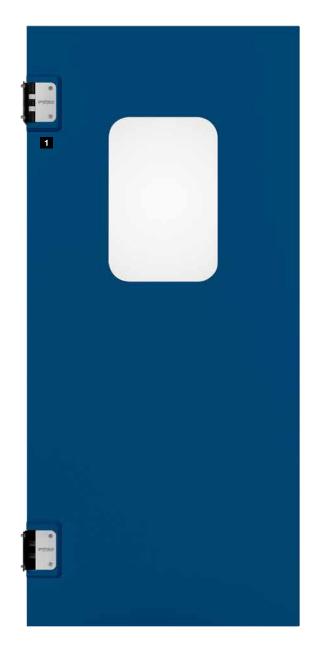


Window with 8 mm laminated safety glass frame, 400 mm round



Optional: stainless steel surface, circular-brushed finish





Stable stainless steel hinges

Grothaus double-action doors are equipped as standard with hinges in V2A/AISI 304 stainless steel . The hinge is maintenance-free and particularly robust. The narrow hinge design enables the widest possible clear passage width. The springs are protected by a stainless steel claw inside the hinge . The stainless steel hinge is available with or without a 90° open device. With the open device, the door leaf remains open when fully opened and swings back again with a gentle tap.

The spring tension is variably adjustable

Depending on your needs, the swing action of the double-action door can be made slower (by tightening the nuts) or faster (by loosening the nuts) 3.



Cycles



Impact-resistant



Spring protection











Door leaf with rounded edge

To prevent injuries caused by sharp edges, Grothaus PE double-action doors are supplied with a rounded edge as standard 4.

An additional PVC finger protection is also available as an option, see optional equipment

→ For more information on the PVC finger protection, see page 29.

Flush-fitting glazing

Grothaus PE double-action doors are supplied with flush-fitting acrylic glazing 5 as standard.

→ For more information on glazing, see page 32.

Optional equipment

Quality down to the last detail for all double-action doors

PE bumper

To provide additional protection for the double-action door, a 15 mm thick PE bumper is available as an option 1. The PE bumper is available in 4 heights (200 mm, 300 mm, 600 mm¹ and 900 mm¹) and is screwed on both sides. The fitting height is variable. The PE bumper is available in different colours to match the double-action doors.

Spring bumper

As an alternative to the PE bumper, the spring bumper consisting of 5 mm thick polyethylene can be used, especially when there is stress caused by forklift truck or pallet truck traffic 2. Thanks to its spring effect, the spring bumper effectively absorbs shocks to protect the double-action door. It is available in 4 heights (300 mm, 600 mm, 900 mm and 1200 mm). The spring bumper comes in black as standard; other colours are available on request.

Stainless steel bumper

Do you consider a high-quality appearance important when it comes to PE double-action doors, or material uniformity for stainless steel double-action doors? Then the 1.5 mm thick stainless steel bumper 3 is the ideal choice for you.

Fine adjustment

Minor irregularities on the wall can be compensated by adjusting the four grub screws on each hinge 4. With this function, the door leaves can also be aligned precisely in parallel.









^{1 10} mm thick











PVC finger protection

The optional 4 mm thick PVC provides additional finger protection. It is available both for the **hinge side** at door height with an internal aluminium profile 5 and for the opening side, either at door height or from 900 mm 6. The protection is overlapping in the case of double-leaf doors.

Depending on your preference, you can order the finger protection either in a transparent design or in black.

Grothaus also offers the finger protection in a transparent design that is suitable for deepfreeze applications.

Door leaf seal

Black or transparent PVC seal for the top and red rubber for the bottom of the door leaf minimize the gaps (not shown).

Stainless steel lock / bolt lock

For additional security, you can order the optional stainless steel lock with profile cylinder 7, which can be locked on both sides and is fitted at the top of the door leaf. For the single-leaf double-action door,

it is also possible to fit the lock on the side. Another option is the bolt lock with stainless steel bolts.

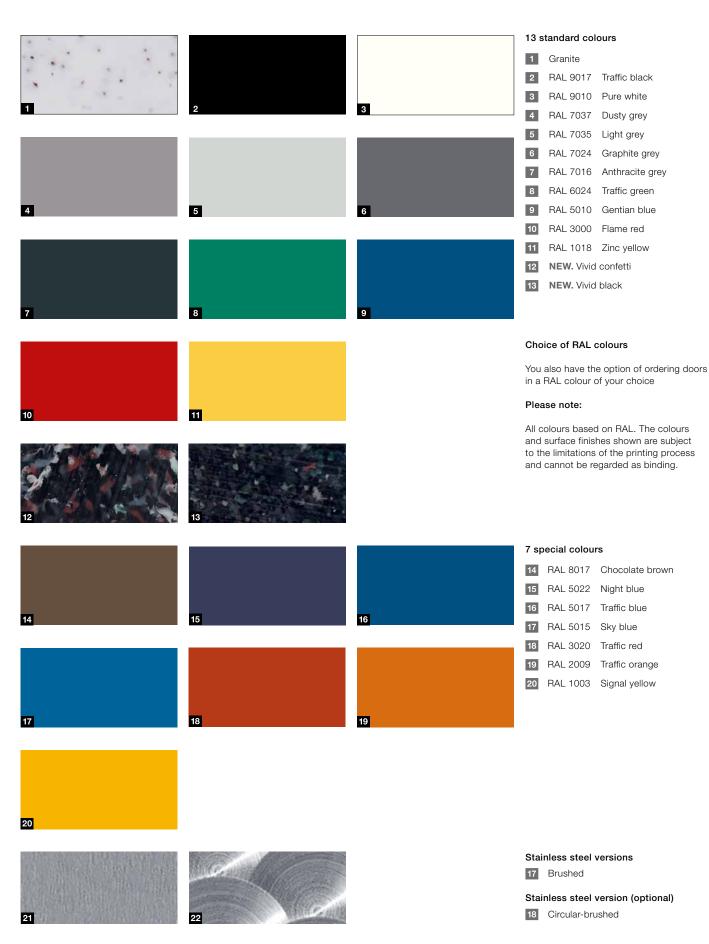
Stainless steel handle

We offer a stainless steel handle with a plastic mount as an option. 8

Tubular rail passage

For tubular rail systems, for instance in the food industry, Grothaus offers a tubular rail passage made of 15 mm polyethylene including a rubber seal for a stable and tight wall connection. 9

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GP200, GP360 and GP500 glazing

Glazing variants for PE double-action doors and HPL double-action doors



Glazing

The glazing is made of 15 mm thick **acrylic glass**, which is embedded in the door leaf by flush-fitting.

You can choose between **frameless** glazing and optional glazing with a **stainless steel frame**.

Glazing sizes and shapes

2 sizes and shapes are available without frames as standard:

- 400 mm round 1
- 400 × 600 mm rectangular 2

The following sizes and shapes are available as options:

- 450 mm, 500 mm and 600 mm round (not for GP500)
- 600 × 600 mm square 3
- 400 × 800 mm rectangular (not for GP500)
- 600 x 800 mm (only in combination with optional stainless steel frame) (not for GP500)
- 320 × 750 mm semicircular (not for GP500)
- 400 × 950 mm semicircular 4 (not for GP500)

For door leaf widths smaller than 700 mm, the glazing is narrower than specified above and needs to be customised.

The window centre is 1550 mm high as standard; customised adjustments can be made.

Stainless steel glazing frame (optional)

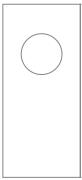
The following sizes and shapes are available as options:

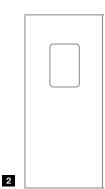
- 400 mm, 450 mm, 500 mm and 600 mm round
- 400 × 600 mm rectangular and 400 × 800 mm rectangular
- 600 × 600 mm square and 600 × 800 mm rectangular

Other formats are available on request.

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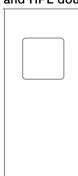
Standard glazing variants
PE double-action doors
and HPL double-action doors

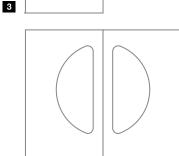




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Optional glazing variants
PE double-action doors
and HPL double-action doors





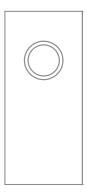
Not for GP500



GP400 and GP810 glazing

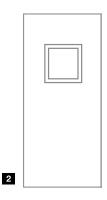
Glazing variants for stainless steel double-action doors and timber double-action doors

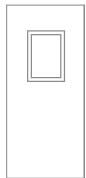
Standard glazing variants
Stainless steel double-action doors
and timber double-action doors



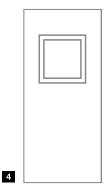
1

Optional glazing variants
Stainless steel double-action doors





3





Stainless steel double-action door GP400 glazing

Stainless steel double-action doors impress with their 8 mm thick **laminated safety glass**.

Stainless steel doors are always supplied with a glazing frame made of V2A/AISI 304 stainless steel (V4A/AISI 316 as an option).

Glazing sizes and shapes

2 sizes are available as standard:

• 300 mm and 400 mm round 1

2 sizes and 2 shapes are available as options:

- 400 × 400 mm square 2
- 400 × 600 mm rectangular 3
- 600 × 600 mm square 4

For a door leaf width smaller than 700 mm, the glazing is narrower than specified above and needs to be customised.

The window centre is 1550 mm high as standard; customised adjustments can be made.

Timber double-action door GP810 glazing

Timber double-action doors have 4 mm thick **lami**nated safety glass.

Glazing sizes and shapes

• 400 mm round 1

Stainless steel frame types and mounting profiles

The large range for custom fitting situations

The Grothaus frame system guarantees a stable wall connection for optimal and long-lasting door functionality.

Advantages at a glance

- All frames are made of stainless steel
- Durable even under varying temperature and climatic conditions
- Hygienic due to use of stainless steel
- Efficient fitting process on site thanks to a design with a high degree of prefabrication

Stainless steel mounting plate 1

The 4 mm thick stainless steel mounting plate* is available in two sizes for riveting or screwing into brickwork, reinforced drywall or steel beams.

- 80 × 142 mm (riveting)
- 95 × 142 mm (screw fitting)

Stainless steel flat profile 2

The flat profile* is produced at door height and is conveniently already pre-drilled. It can be riveted or screwed into brickwork, reinforced drywall or steel beams.

- 80 × 5 mm (riveting)
- 90 × 11 mm (screw fitting or riveting)

Fixings for the frames according to wall type

	Mounting plate	Flat profile
Brickwork / concrete	•	•
Existing frame	•	•
Drywall, reinforced	•	•
Drywall, not reinforced	-	-
Insulated panels	_	-

■ = possible -= not possible





Stainless steel U-frame 3

Our U-frame* is a stable solution for fixing double-action doors to insulated panels or gypsum plasterboard walls. The frame is produced with a sheet thickness of 1.5 mm; the edges are folded.

The clamping thickness is custommade to suit the conditions on site.

The profile frame is equipped with mortise and tenon and mitre joints. Thanks to the mortise and tenon joints of the frame parts, the fitting process is simple and the frame is permanently stable.

Front-wall installation 4

The stainless steel front-wall installation* is suitable for door openings of almost any installation type, as it is mounted in front of the wall and the maximum clear passage width is maintained.

The frame consists of a 100×50 mm rectangular tube; the corners are mitred and welded.

Frame depth of the stainless steel profile frames according to wall type

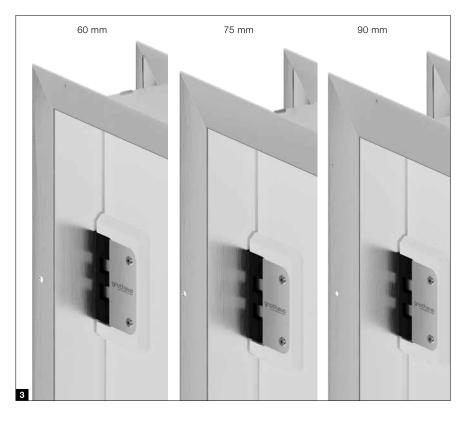
- Insulated panels 60 mm
- Drywall75 mm
- Brickwork 90 mm

Fixings for the frames according to wall type

	U-frame	Front-wall installation
Brickwork / concrete	•	•
Existing frame	•	•
Drywall, reinforced	•	•
Drywall, not reinforced	•	•
Insulated panels	•	•

 \bullet = possible - = not possible

* Customised frame types on request







Contact details

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