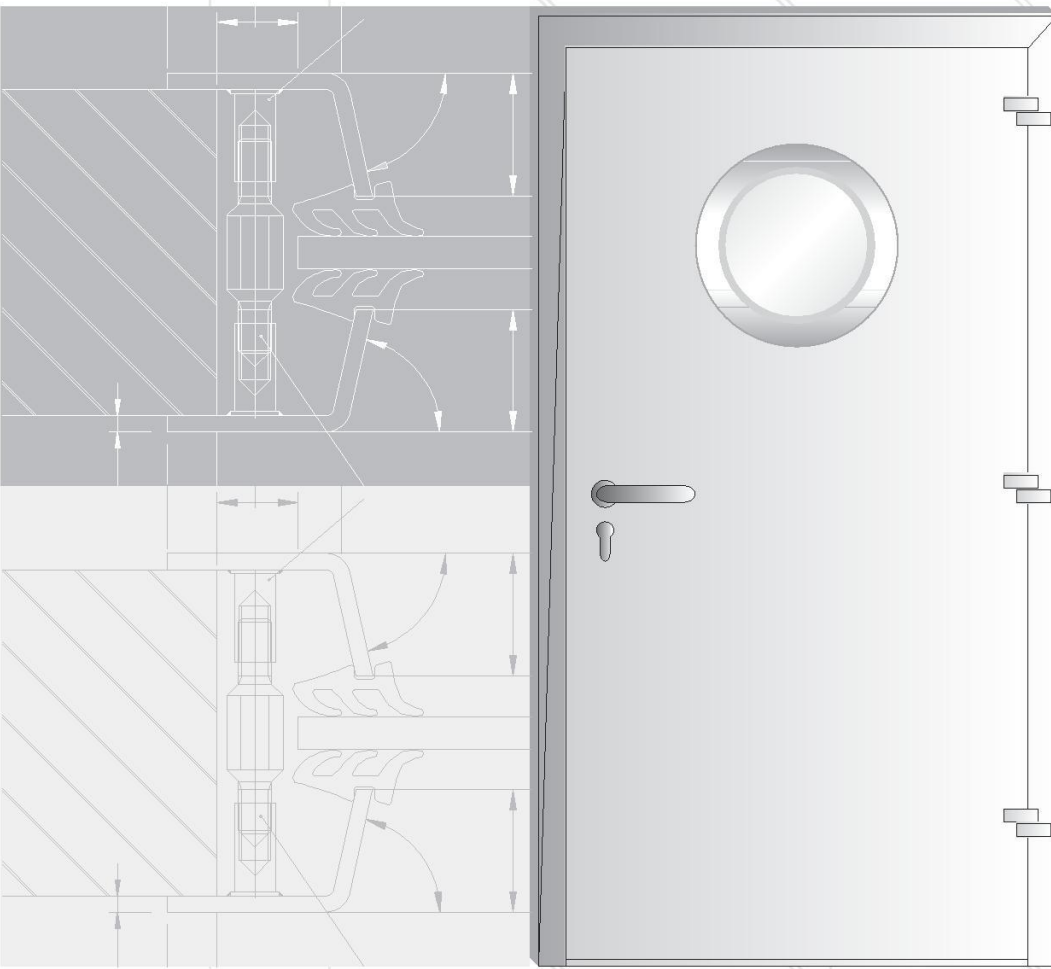


Stainless steel and Aluminium Portholes



Price List
Valid from 01.10.2021

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Stainless steel portholes – L



Glazing options

Standard range

for V2A-L portholes – side length 15,5 mm

for aluminium-L portholes – side length 16 mm

Examples of common door leaf thicknesses	Glass thickness	Seal
38 mm	4 – 6 mm	3 – 2 mm
40 mm	4 – 8 mm	4 – 2 mm
42 mm	4 – 10 mm	5 – 2 mm
44 mm	4 – 12 mm	6 – 2 mm
48 mm	4 – 16 mm	8 – 2 mm
50 mm	6 – 18 mm	9 – 2 mm
68 mm	24 mm	8 mm

Special sizes

**Please note that only the outside diameter and the side length can be changed.
The nominal diameter and the position of the “bend” cannot be changed.**

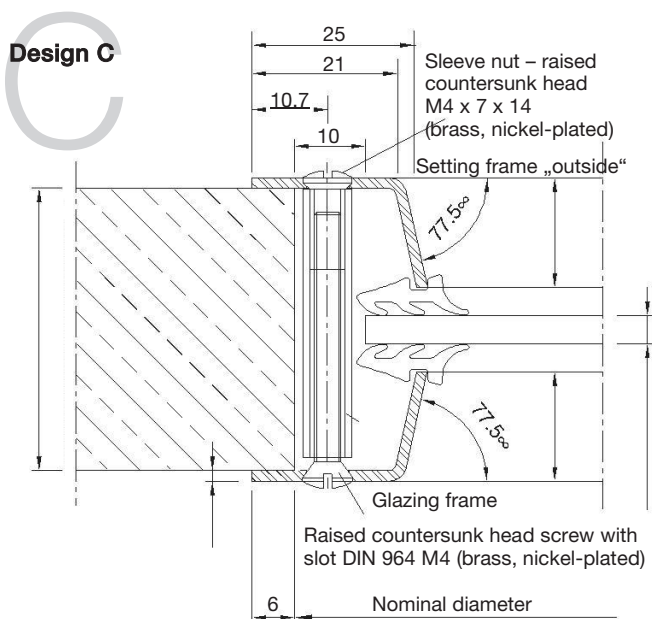
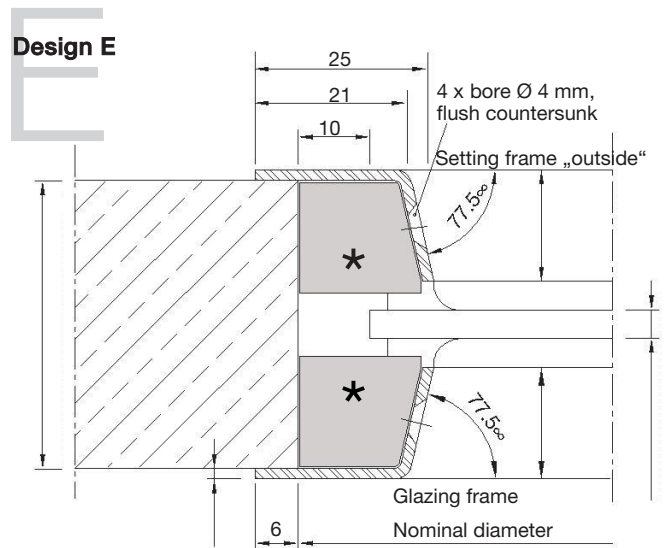
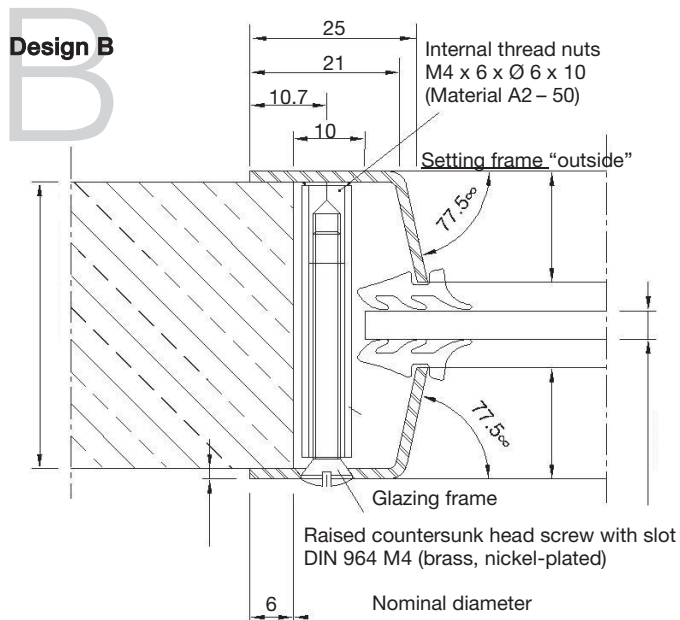
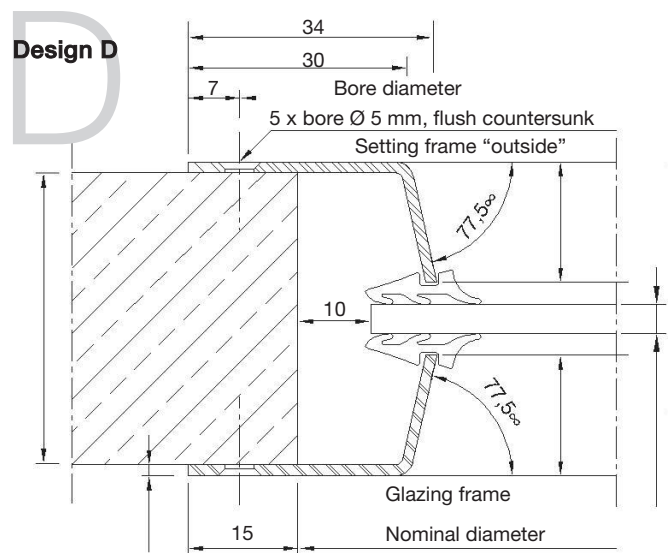
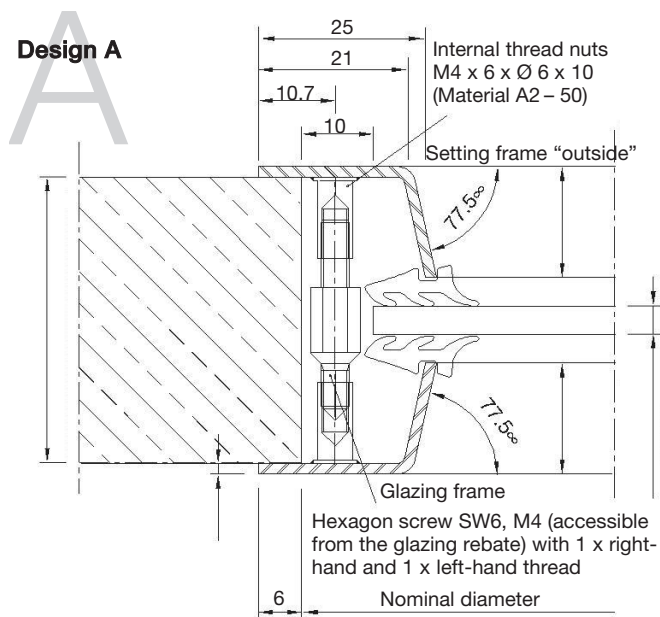
Possible maximum face width = 50 mm
Possible side length: stainless steel 1,5 – 58 mm
aluminium 2,0 – 58 mm
Possible seal thicknesses: 2 – 9 mm, seal made of EPDM, black

Prices for special sizes on request.

Glass diameter

Cut-out in the door leaf	Distance between cut-out and glass	Glass diameter
200 mm	10 mm	180 mm
250 mm	10 mm	230 mm
300 mm	10 mm	280 mm
350 mm	10 mm	330 mm
400 mm	10 mm	380 mm
500 mm	10 mm	480 mm

Stainless steel portholes – L



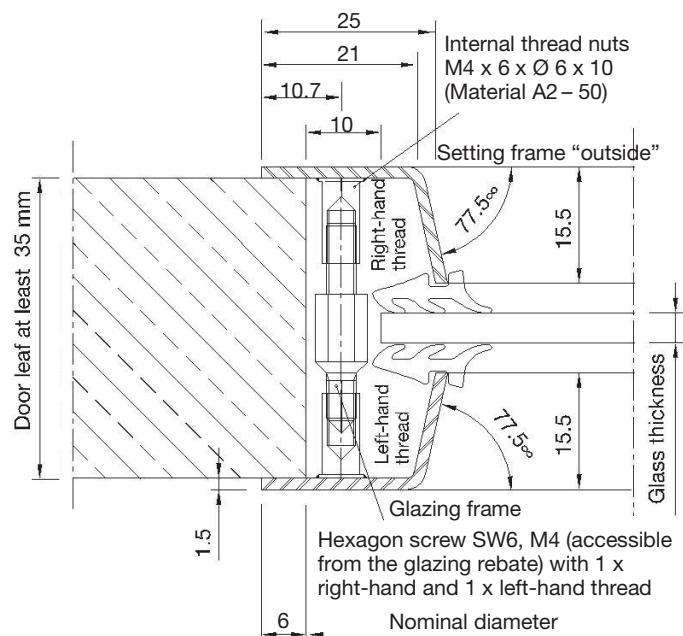
Stainless steel portholes – L

Design A – invisible screw fitting

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	211,–	211,–	211,–	223,–	244,–	275,–
2 units	195,–	195,–	195,–	206,–	228,–	259,–
3 units	189,–	189,–	189,–	199,–	223,–	253,–
5 units	184,–	184,–	184,–	195,–	218,–	247,–
10 units	181,–	181,–	181,–	192,–	214,–	245,–
20 units	180,–	180,–	180,–	190,–	213,–	244,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.



Design A

Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
4 hexagon screws with wrench, glazing seal

Construction-conditioned, the thickness of the door leaf must be at least 35 mm.

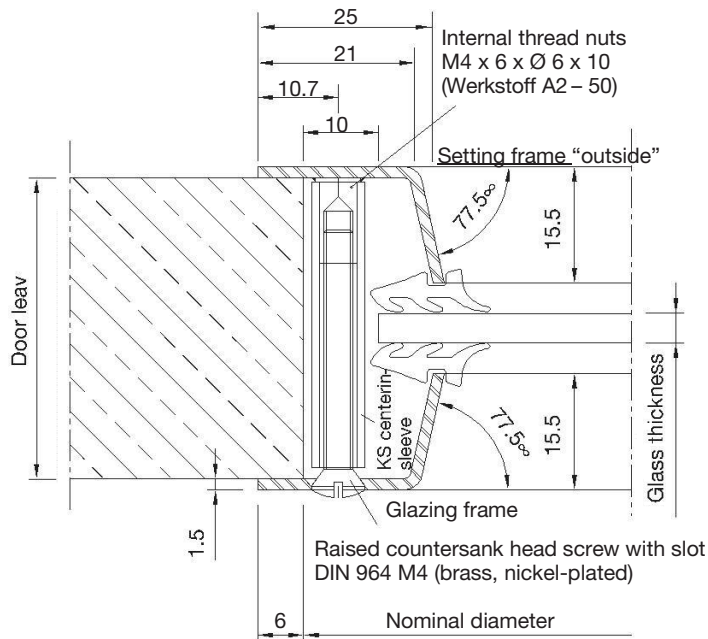
Stainless steel portholes – L

Design B – screw fitting visible on one side

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	183,–	183,–	183,–	194,–	215,–	246,–
2 units	166,–	166,–	166,–	177,–	199,–	230,–
3 units	161,–	161,–	161,–	173,–	195,–	225,–
5 units	158,–	158,–	158,–	168,–	190,–	221,–
10 units	154,–	154,–	154,–	163,–	188,–	216,–
20 units	153,–	153,–	153,–	162,–	185,–	215,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.



Design B

Order details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
8 raised countersunk head screws, 8 x KS centering
sleeve, glazing seal

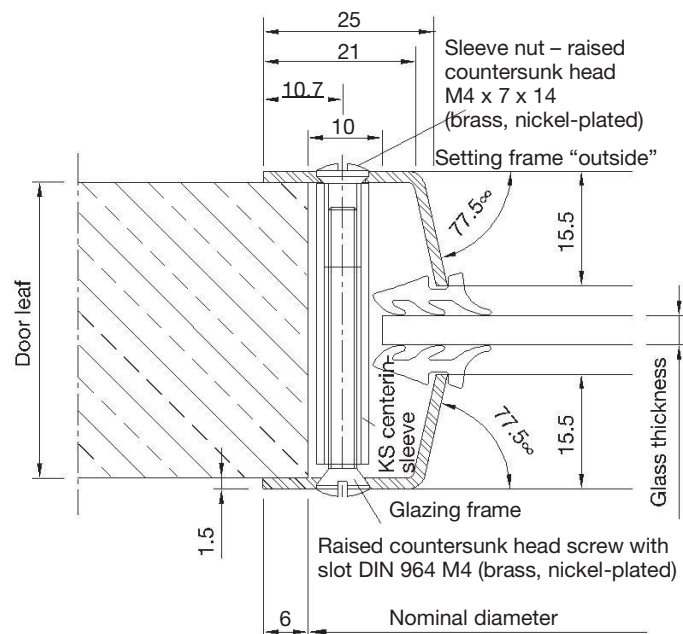
Stainless steel portholes – L

Design C – screw fitting visible on both sides

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	170,–	170,–	170,–	180,–	201,–	232,–
2 units	153,–	153,–	153,–	162,–	186,–	216,–
3 units	147,–	147,–	147,–	158,–	180,–	211,–
5 units	143,–	143,–	143,–	154,–	176,–	207,–
10 units	139,–	139,–	139,–	150,–	173,–	204,–
20 units	138,–	138,–	138,–	148,–	171,–	201,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.



Design C

Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
8 raised countersunk head screws, 8 sleeve nuts (raised countersunk head), 8 x KS centering sleeve, glazing seal

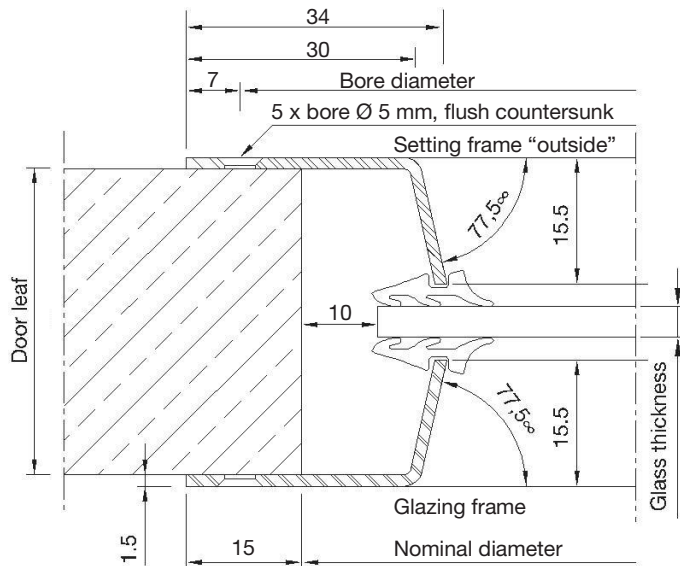
Stainless steel portholes – L

Design D – flat-leaf screw fitting

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	166,–	166,–	166,–	177,–	199,–	230,–
2 units	148,–	148,–	148,–	161,–	183,–	214,–
3 units	145,–	145,–	145,–	155,–	178,–	210,–
5 units	140,–	140,–	140,–	152,–	174,–	205,–
10 units	137,–	137,–	137,–	147,–	170,–	200,–
20 units	135,–	135,–	135,–	146,–	169,–	199,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.



Design D

Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
10 countersunk head screws, glazing seal

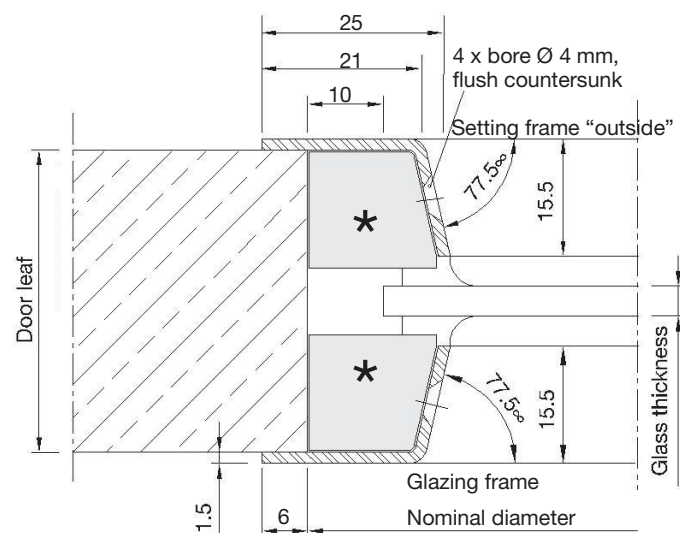
Stainless steel portholes – L

Design E – folded screw fitting

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	169,–	169,–	169,–	177,–	199,–	230,–
2 units	153,–	153,–	153,–	160,–	190,–	214,–
3 units	147,–	147,–	147,–	155,–	177,–	209,–
5 units	143,–	143,–	143,–	152,–	174,–	205,–
10 units	139,–	139,–	139,–	147,–	170,–	200,–
20 units	138,–	138,–	138,–	146,–	168,–	199,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.



Design E Ordering Details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
8 countersunk head screws, (without glazing seal)

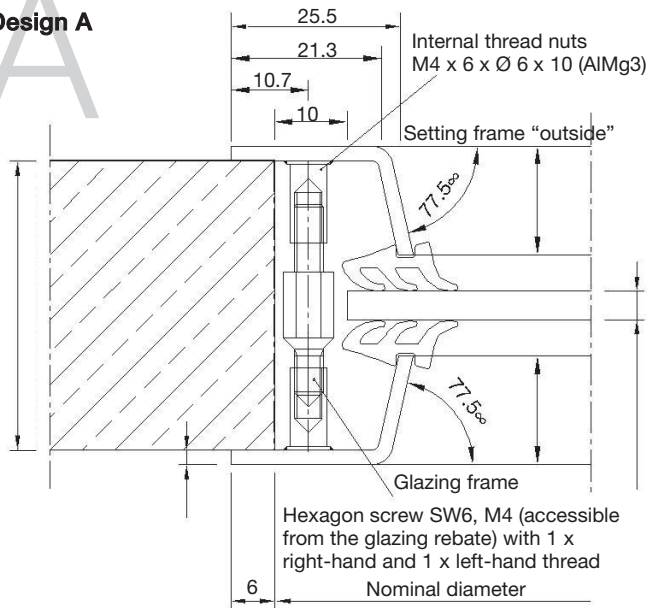
* rebate strips provided by customer

Aluminium portholes – L

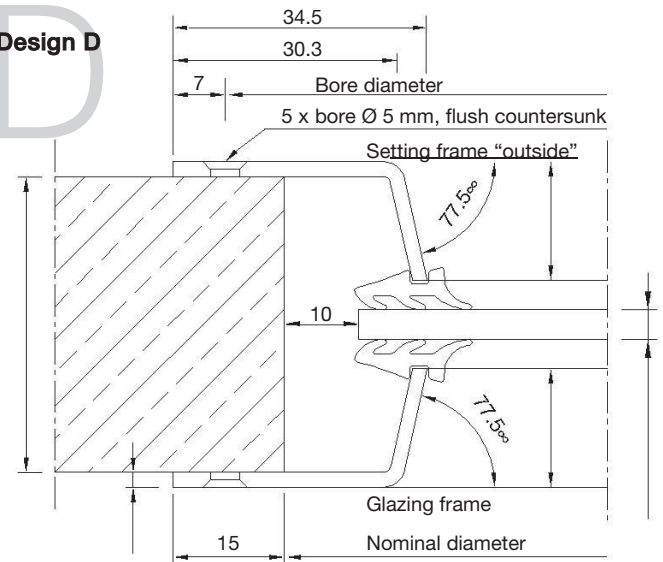


Aluminium portholes – L

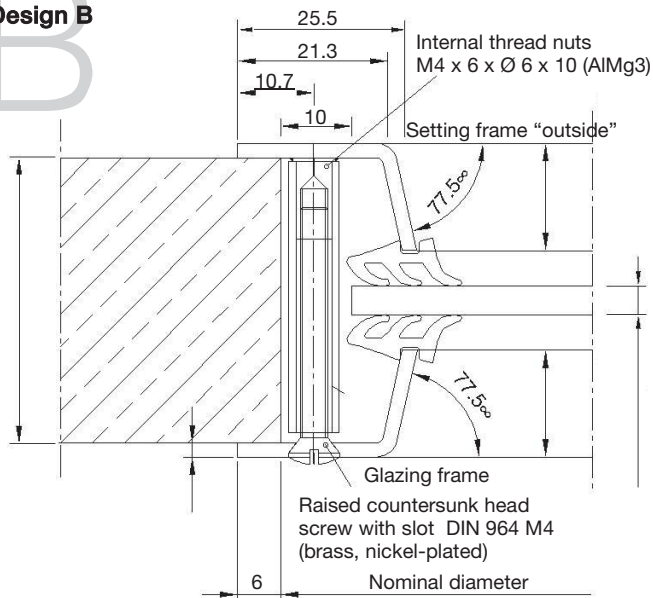
Design A



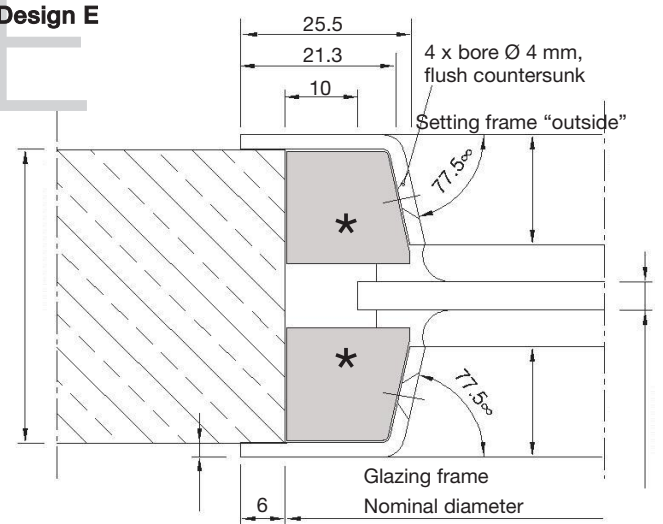
Design D



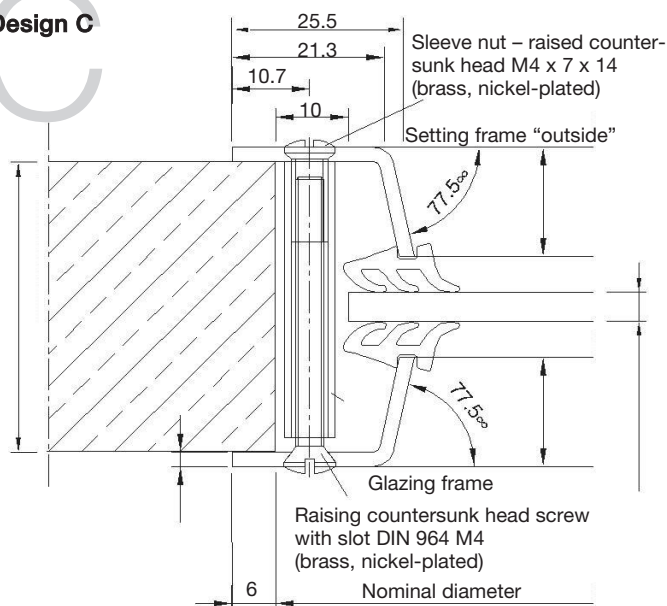
Design B



Design E



Design C



Aluminium portholes – L

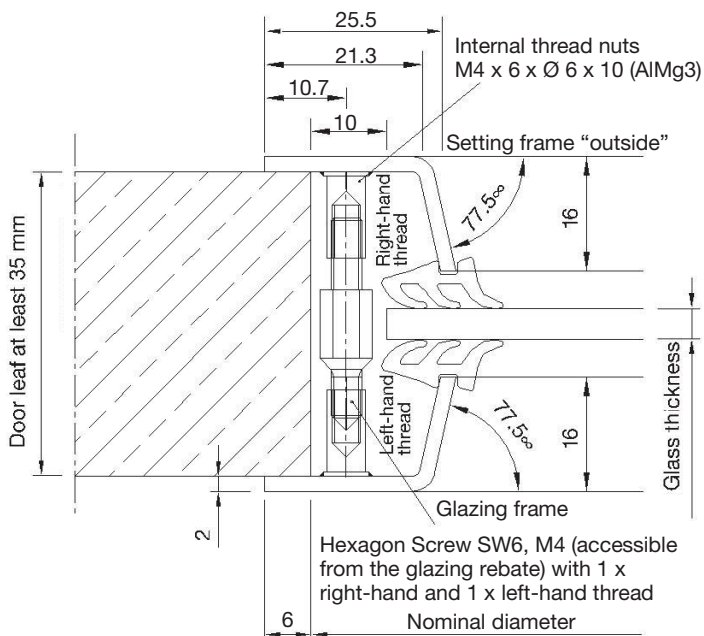
Design A – invisible screw fitting

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320) for powder-coating.

Aluminium, raw	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	186,–	186,–	186,–	191,–	207,–	229,–
2 units	169,–	169,–	169,–	175,–	191,–	212,–
3 units	164,–	164,–	164,–	170,–	185,–	207,–
5 units	159,–	159,–	159,–	165,–	181,–	204,–
10 units	157,–	157,–	157,–	162,–	177,–	199,–
20 units	155,–	155,–	155,–	160,–	176,–	197,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.

Price for powder-coating and anodising on request.



Design A Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface:

- ☐ Aluminium, raw, brushed
- ☐ E6/Colour number _____
- ☐ Powder-coated according to RAL _____

1 unit comprises:

- 1 setting frame, 1 glazing frame,
4 hexagon screws with wrench, glazing seal

Construction-conditioned, the thickness of the door leaf must be at least 35 mm.

Aluminium portholes – L

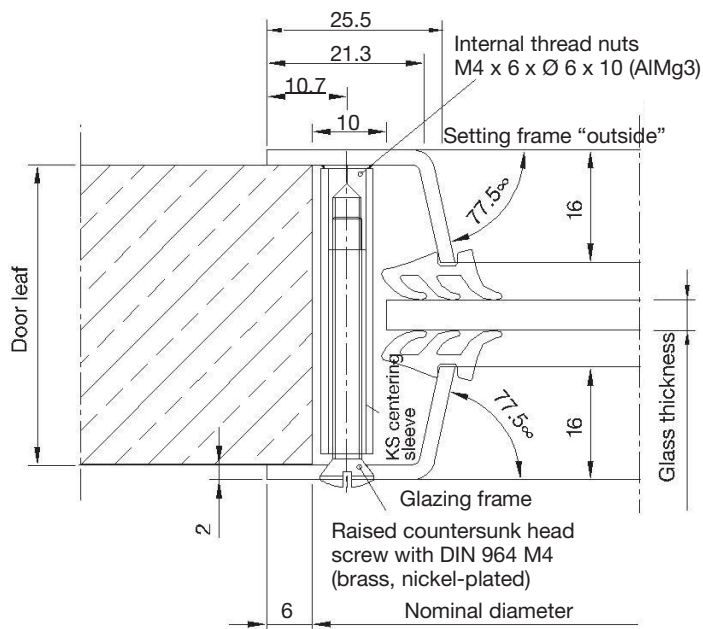
Design B – screw fitting visible on one side

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320) for powder-coating.

Aluminium, raw	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	157,–	157,–	157,–	162,–	178,–	199,–
2 units	140,–	140,–	140,–	146,–	161,–	183,–
3 units	134,–	134,–	134,–	140,–	157,–	177,–
5 units	130,–	130,–	130,–	135,–	150,–	174,–
10 units	127,–	127,–	127,–	133,–	148,–	170,–
20 units	126,–	126,–	126,–	130,–	146,–	169,–

Prices without glass, plus VAT in euro. Delivery ex works, packed

Price for powder-coating and anodising on request.



Design B

Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface:

☐ Aluminium, raw, brushed

☐ E6/Colour number _____

☐ Powder-coated according to RAL _____

1 unit comprises:

1 setting frame, 1 glazing frame, 8 raised countersunk head screws, 8 KS centering sleeves, glazing seal

Aluminium portholes – L

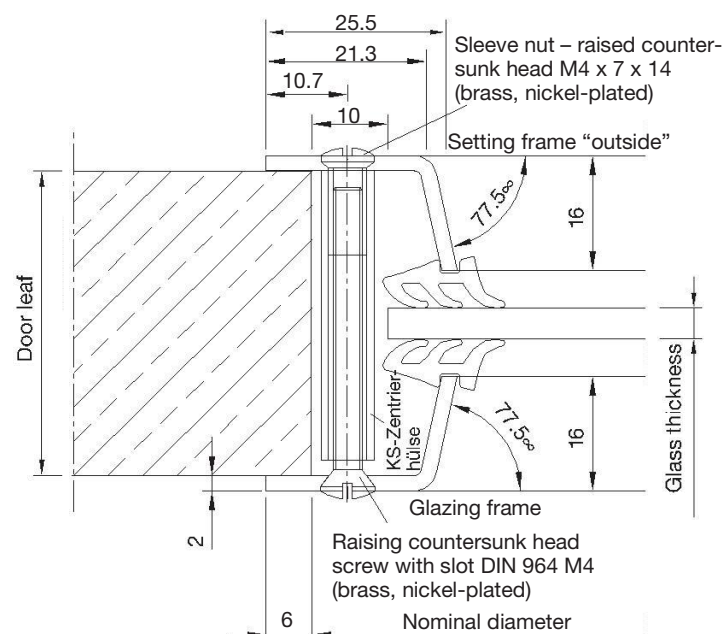
Design C – screw fitting visible on both sides

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320) for powder-coating.

Aluminium, raw	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	144,–	144,–	144,–	150,–	165,–	188,–
2 units	128,–	128,–	128,–	134,–	148,–	171,–
3 units	123,–	123,–	123,–	128,–	144,–	165,–
5 units	118,–	118,–	118,–	124,–	139,–	161,–
10 units	116,–	116,–	116,–	120,–	135,–	158,–
20 units	114,–	114,–	114,–	119,–	134,–	157,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.

Price for powder-coating and anodising on request.



Design C

Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface:

- ☐ Aluminium, raw, brushed
- ☐ E6/Colour number _____
- ☐ Powder-coated according to RAL _____

1 unit comprises:

1 setting frame, 1 glazing frame, 8 raised countersunk head screws, 8 sleeve nuts (raised countersunk head), 8 KS centering sleeves, glazing seal

Aluminium portholes – L

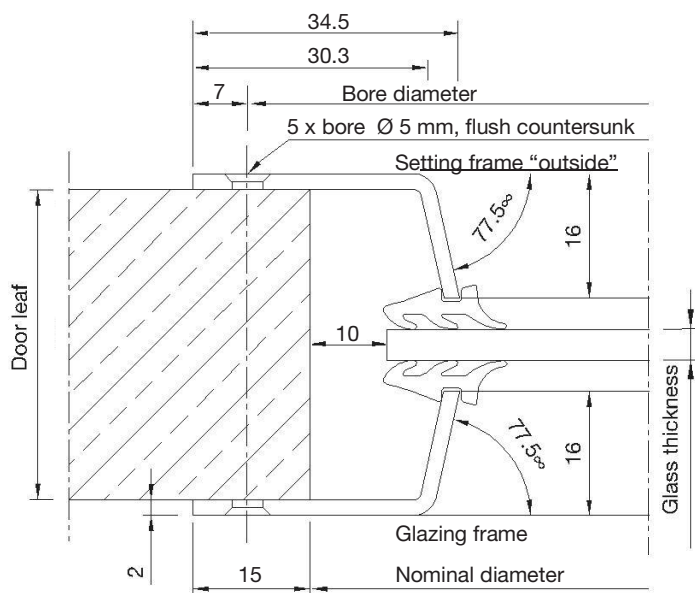
Design D – flat-leaf screw fitting

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320) for powder-coating.

Aluminium raw	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	143,–	143,–	143,–	147,–	162,–	194,–
2 units	126,–	126,–	126,–	132,–	146,–	177,–
3 units	120,–	120,–	120,–	126,–	142,–	171,–
5 units	116,–	116,–	116,–	121,–	137,–	167,–
10 units	112,–	112,–	112,–	118,–	134,–	163,–
20 units	111,–	111,–	111,–	117,–	132,–	162,–

Prices without glass, plus VAT in euro. Delivery ex works, packed.

Price for powder-coating and anodising on request.



Design D

Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface:

☐ Aluminium, raw, brushed

☐ E6/Colour number _____

☐ Powder-coated according to RAL _____

1 unit comprises:

1 setting frame, 1 glazing frame,

10 countersunk head screws, glazing seal

Aluminium portholes – L

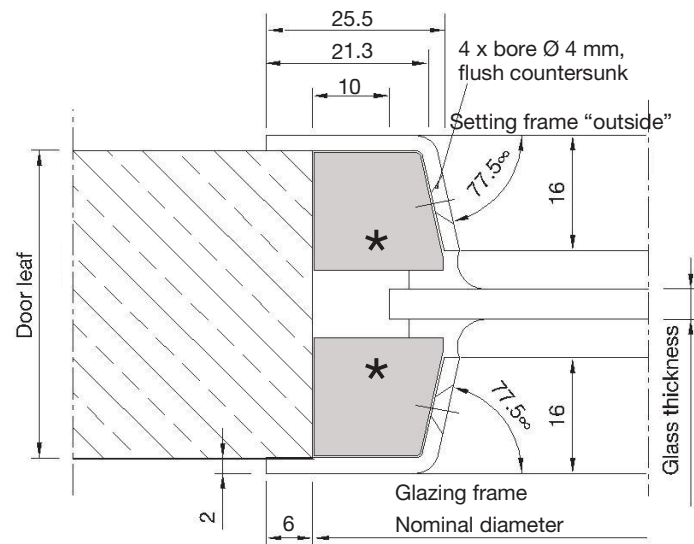
Design E – folded screw fitting

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320) for powder-coating.

Aluminium, raw	Price €/unit					
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	139,—	139,—	139,—	145,—	160,—	181,—
2 units	123,—	123,—	123,—	128,—	144,—	163,—
3 units	118,—	118,—	118,—	123,—	138,—	159,—
5 units	114,—	114,—	114,—	118,—	133,—	155,—
10 units	109,—	109,—	109,—	116,—	130,—	152,—
20 units	108,—	108,—	108,—	114,—	129,—	150,—

Prices without glass, plus VAT in euro. Delivery ex works, packed.

Price for powder-coating and anodising on request.



Design E Ordering details:

Nominal diameter: _____ mm

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface:

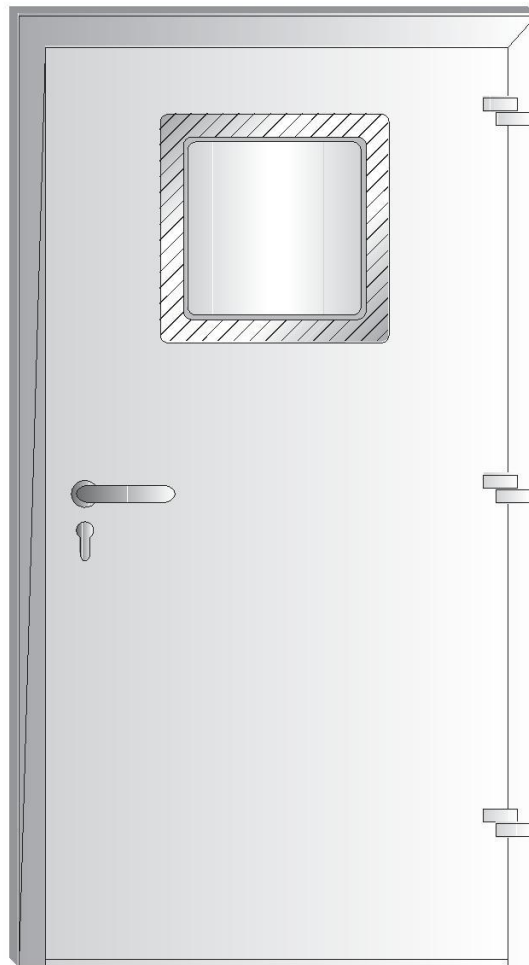
- ☐ Aluminium, raw, brushed
- ☐ E6/Colour numbers _____
- ☐ Powder-coated according to RAL _____

1 unit comprises:

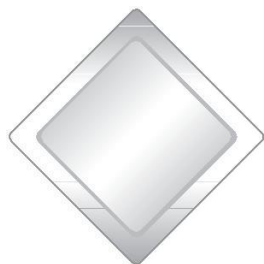
1 setting frame, 1 glazing frame,
8 countersunk head screws (without glazing seal)

* rebate strips provided by customer

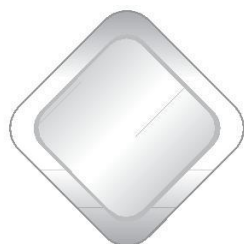
Stainless steel – L glazing frames for door windows



Stainless steel glazing frames in various forms



Stainless steel, quadrilateral form, corner radius 5 mm



Quadrilateral form, rounded, outside radius 44.5 mm



Stainless steel, triangular form, rounded, outside radius 5 mm



Stainless steel, triangular form, rounded, outside radius 44.5 mm



“Door viewer”, Ø 89 mm

We have enlarged our standard range!

We have been successfully offering stainless steel and aluminium (raw, anodised and powder-coated) **portholes** for several years. They are mounted above all in interior doors, but also – in the thermally separated version* – in exterior doors.

We gladly took the increased demand for cost-effective **square-cut** glazing frames as a motivation to enlarge our standard range. Thus, we are producing glazing frames both in **triangular** and **quadrilateral forms**. You can choose either **rounded** mitre corners (radius 5 mm) or round corners (radius on the frame 44.5 mm). The size and the shape of the viewing window cannot be changed.

The glazing frames are produced exclusively in stainless steel with the familiar A, B and C mounting types.

The round designs have been completed by a kind of **“door viewer”** with a diameter of 89 mm (cut-out in the door leaf: 77 mm, glass viewing window: 37 mm).

Of course, we will continue to produce **glazing frames in special sizes and forms**. These can be produced with round corners as well as mitre-cut corners.

We will be pleased to personally inform you in more detail. Just call us!

Please note:

For technical reasons, the side lengths for the forms mentioned above cannot be more than 15.5 mm.

The clearance for the seal must be 2 - 3 mm.

* Optionally available.

Glazing options

Standard range

for V2A-L glazing frames – side length 15.5 mm

Door leaf thickness	Glass thickness	Seal
38 mm	4 – 6 mm	3 – 2 mm
40 mm	6 – 8 mm	3 – 2 mm
42 mm	8 – 10 mm	3 – 2 mm
44 mm	10 – 12 mm	3 – 2 mm
48 mm	14 – 16 mm	3 – 2 mm
50 mm	16 – 18 mm	3 – 2 mm
68 mm	34 – 36 mm	3 – 2 mm

Special sizes

Possible mounting depth: 2.0 – 15.5 mm

Quadrilateral form:

Possible seal thicknesses: 2 – 3 mm, seal made of EPDM, black

Triangular form:

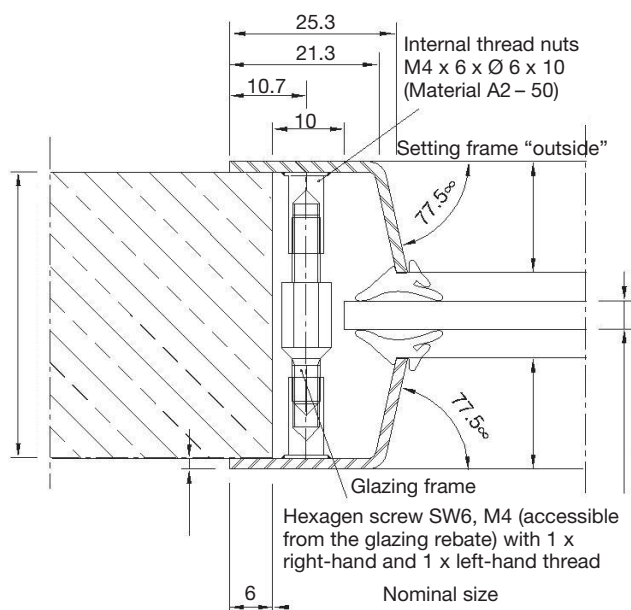
Possible seal thicknesses: 2 – 3 mm, seal made of EPDM, black

Door viewer:

Possible seal thicknesses: 2 – 4 mm, seal rings made of EPDM, black
2 – 3 mm, seal made of EPDM, black

Prices for special sizes on request.

Stainless steel – L glazing frames



Design A

Ordering details:

Door leaf thickness: _____ mm

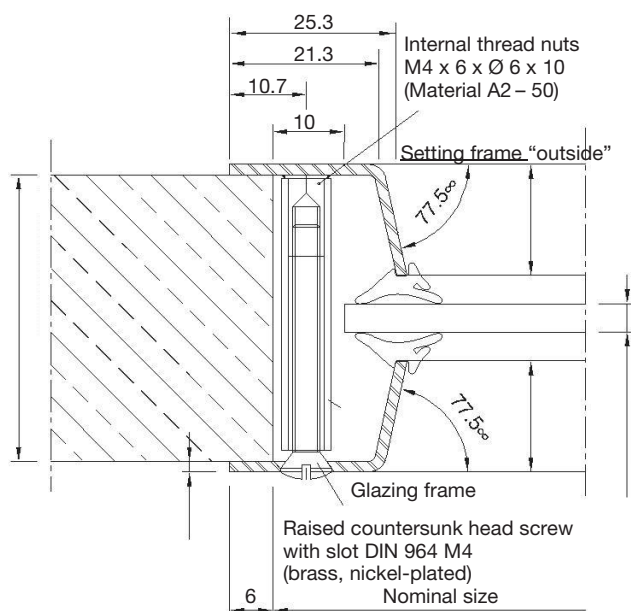
Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
2 – 8 hexagon screws with wrench, glazing seal



Design B

Ordering details:

Door leaf thickness: _____ mm

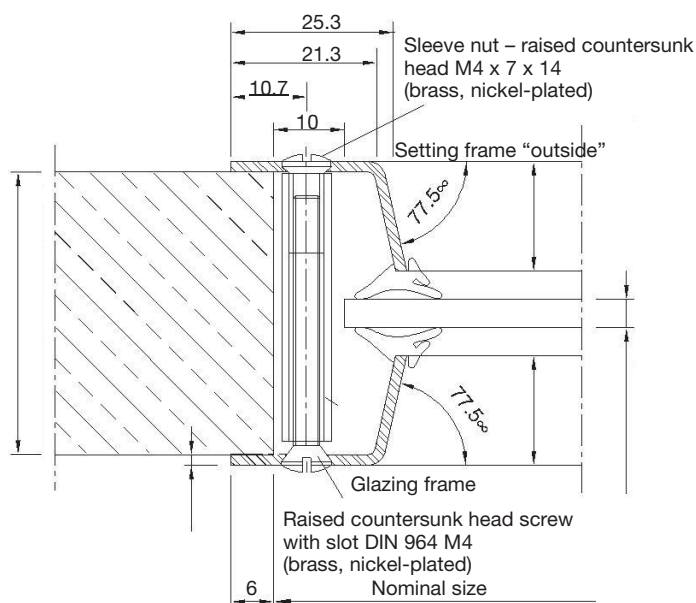
Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame,
4 – 8 raised countersunk head screws,
4 – 8 x KS centering sleeve, glazing seal



Design C

Ordering details:

Door leaf thickness: _____ mm

Glass thickness: _____ mm

Units: _____

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

1 unit comprises:

1 setting frame, 1 glazing frame, 4 – 8 raised countersunk head screws, 4 – 8 sleeve nuts (raised countersunk head), 4 – 8 x KS centering sleeve, glazing seal

Stainless steel – L glazing frames

Quadrilateral design

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

Design:	Price €/Unit	
	R 44,5 Round	R 5 Angular
A	298,—	298,—
B	271,—	271,—
C	257,—	257,—

Notes:

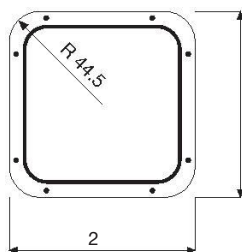
Construction-conditioned, the thickness of the door leaf must be at least 35 mm in the case of design "A".

The clearance for the seal must always be 2 – 3 mm.

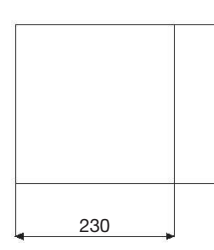
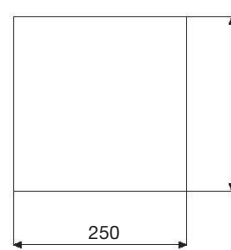
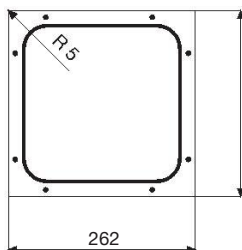
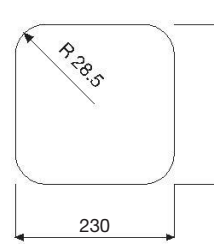
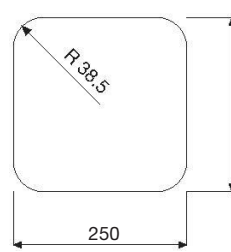
The side length **cannot** be more than 15.5mm!

Prices per unit, without glass, plus VAT in euro. Delivery ex works, packed.

Outside dimension



Door cut-out



Stainless steel – L glazing frames

Triangular design

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

Design:	Price €/unit	
	R 44,5 Round	R 5 Angular
A	273,—	273,—
B	246,—	246,—
C	233,—	233,—

Notes:

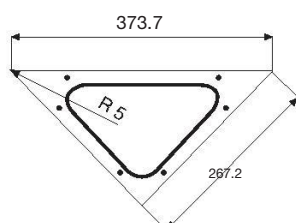
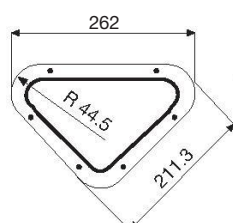
Construction-conditioned, the thickness of the door leaf must be at least 35 mm in the case of design "A".

The clearance for the seal must always be 2 – 3 mm.

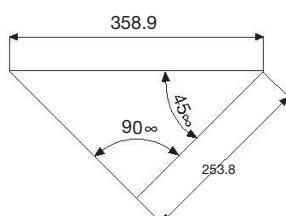
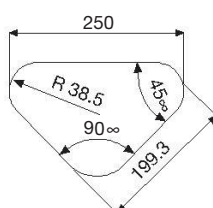
The side length **cannot** be more than 15.5mm!

Prices per unit, without glass, plus VAT in euro. Delivery ex works, packed.

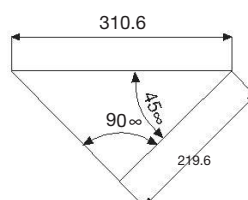
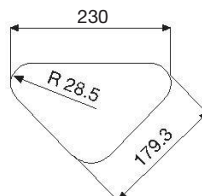
Outside dimension



Door cut-out



Glass size



Stainless steel – L glazing frames

Door viewer

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

	Price €/unit
Design:	
A	74,—
B	68,—
C	68,—

Prices per unit, without glass, plus VAT in euro.
Delivery ex works, packed.

Notes:

Construction-conditioned, the thickness of the door leaf must be at least 35 mm in the case of design "A".

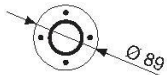
The clearance for the seal must always be 2 – 4 mm.

The side length **cannot** be more than 15.5 mm!

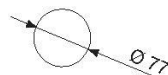
In the case of design "A", the glazing is carried out with a seal ring made of EPDM (black) and a seal or silicone.

In the case of the designs "B" and "C", the glazing is carried out with two seal rings made of EPDM (black).

Outside dimension



Door cut-out

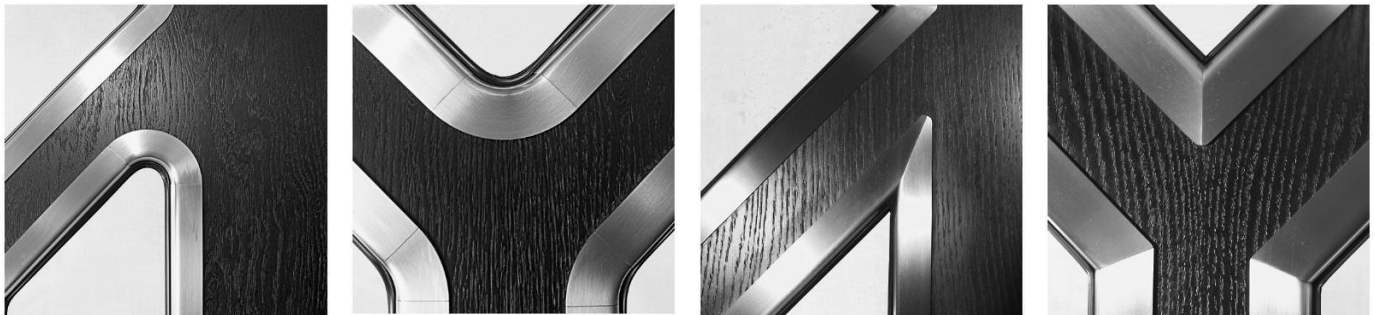


Glass size



Stainless steel glazing frames

Special sizes and forms



Stainless steel glazing frames for interior doors

- Three mounting types: A – B – C.
Identical with the portholes.
- Diverse frame forms – from triangular to polygonal.
- Standard and special sizes.

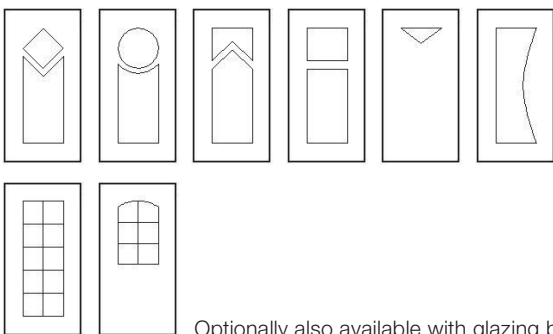
Mounting types

The invisible screw fitting of the design **A** provides a smooth, easy-care surface of the round frames on both sides.

In the case of the designs **B** and **C**, the flush inset screws remain visible as a design element on one side or on both sides.

Surface: finely brushed with serrated grinder (carded web/linen, fine grain 150) and finished with abrasive web (grain size 320).

Designs variants:



Optionally also available with glazing bars

Mounting instructions



Mounting instructions

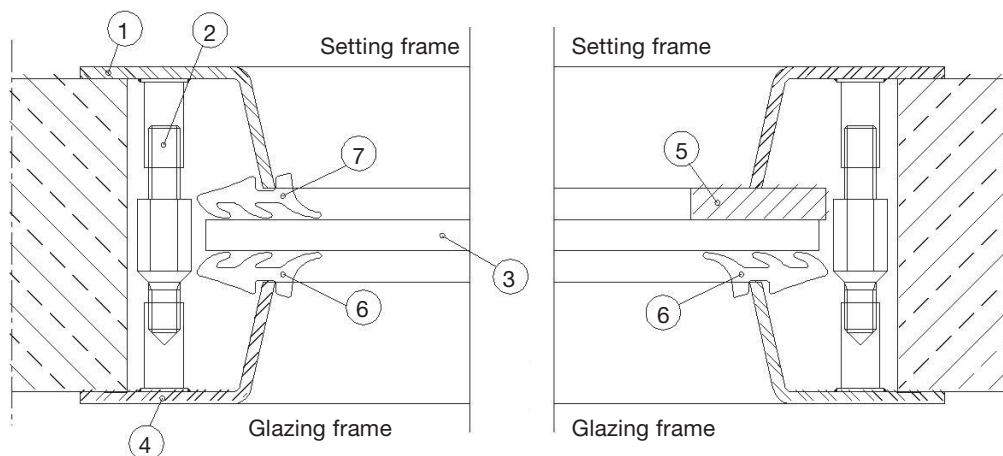
A

for porthole door windows with „invisible“ screw fitting made for aluminium or stainless steel – L – profiles

- 1.) Insert the setting frame (with right-hand thread) in the cut-out and wedge it centrally.
- 2.) Screw 4 stay bolts with the side of the right-hand thread (pointed side = left-hand thread) in the setting frame with max. 1 thread turn. Screw in all the 4 stay bolts to exactly the same height by using the depth gauge, e.g. a caliper gauge.
- 3.) Loosely clamp the glass pane centrally by means of 3 – 4 small blocks of wood. Secure the blocks against slipping out of place with silicone.
Dimensions of the spacer blocks: width = 10 – 15 mm
length = leaf thickness
height = approx. "half" clearance between glass and cut-out
- 4.) Slip the glazing frame onto the stay bolts. Evenly screw the two frames together by using the supplied angled 6 mm wrench; begin with the stay bolt whose tip gets in touch in the left-hand thread of the setting frame first.
- 5.) Insert spacers between glazing frame and glass pane (half distance) as clearance for the glazing seal between glass pane and setting frame. (Small wooden spacer blocks, red 2 mm – green 3 mm – yellow 4 mm or blue 5 mm, are perfectly suitable!)
- 6.) Place the supplied glazing seal between glass pane and glazing frame.
- 7.) Place the glazing seal between glass pane and setting frame and at the same time remove the inserted spacers again (see description under point 5!).

Note:

**Please tighten the screws only until both metal rings sit close (max. 1.5 Nm).
In case of overtightening, the welded-on internal thread nuts may break or cause tightening marks on the visible surfaces.**



Mounting instructions

B

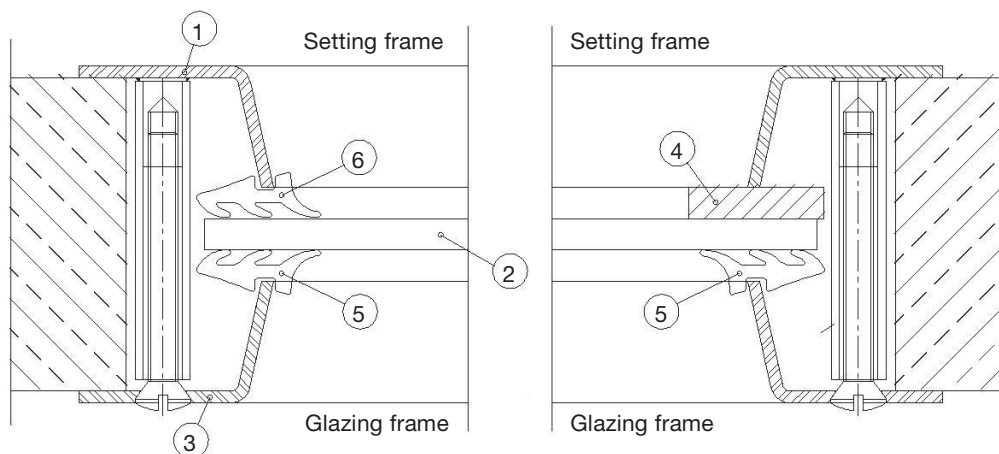
for porthole door windows with screw fitting „visible on one side“
made of **aluminium** or **stainless steel** – L – profiles

- 1.) Fix the setting frame (with mounted KS sleeves) on one side of the cut-out by means of adhesive tape.
- 2.) Loosely clamp the glass pane centrally by means of 3 – 4 small blocks of wood. Secure the blocks against slipping out of place with silicone.
Dimensions of the spacer blocks: width = 10 – 15 mm
length = leaf thickness
height = approx. “half” clearance between glass and cut-out
- 3.) Insert the second ring (glazing frame) in the KS sleeves by means of the supplied raised countersunk head screws and screw it to the setting frame (we recommend to use a screw-holding screwdriver).
- 4.) Insert spacers between glazing frame and glass pane (half distance) as clearance for the glazing seal between glass pane and setting frame. (Small wooden spacer blocks, red 2 mm – green 3 mm – yellow 4 mm or blue 5 mm, are perfectly suitable!)
- 5.) Place the supplied glazing seal between glass pane and glazing frame.
- 6.) Place the glazing seal between glass pane and setting frame and at the same time remove the inserted spacers again (see description under point 4!).

Note:

Please tighten the screws only until both metal rings sit close (max. 1.5 Nm).

In case of overtightening, the welded-on internal thread nuts may break or cause tightening marks on the visible surfaces.



Mounting instructions

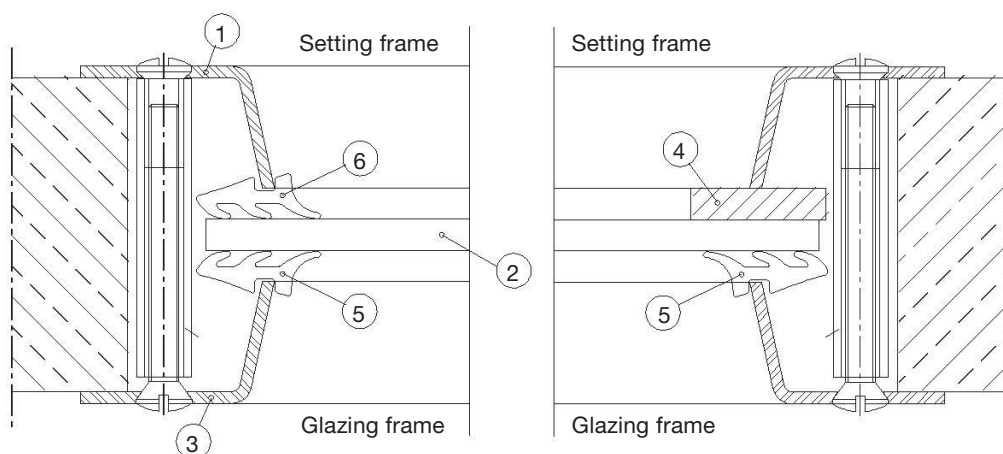
C

for porthole door windows with screw fitting „visible on both sides“ made of aluminium or stainless steel – L – profiles

- 1.) Fix one of the two rings (setting frame with sleeve nuts and mounted KS sleeves) on one side of the cut-out by means of adhesive tape.
- 2.) Loosely clamp the glass pane centrally by means of 3 – 4 small blocks of wood. Secure the blocks against slipping out of place with silicone.
Dimensions of the spacer blocks: width = 10 – 15 mm
length = leaf thickness
height = approx. “half” clearance between glass and cut-out
- 3.) Insert the second ring (glazing frame) in the KS sleeves by means of the supplied raised countersunk head screws and screw it to the setting frame (we recommend to use a screw-holding screwdriver).
- 4.) Insert spacers between glazing frame and glass pane (half distance) as clearance for the glazing seal between glass pane and setting frame. (Small wooden spacer blocks, red 2 mm – green 3 mm – yellow 4 mm or blue 5 mm, are perfectly suitable!)
- 5.) Place the supplied glazing seal between glass pane and glazing frame.
- 6.) Place the glazing seal between glass pane and setting frame and at the same time remove the inserted spacers again (see description under point 4!).

Note:

**Please tighten the screws only until both metal rings sit close (max. 1.5 Nm).
In case of overtightening, tightening marks may occur on the visible surfaces.**

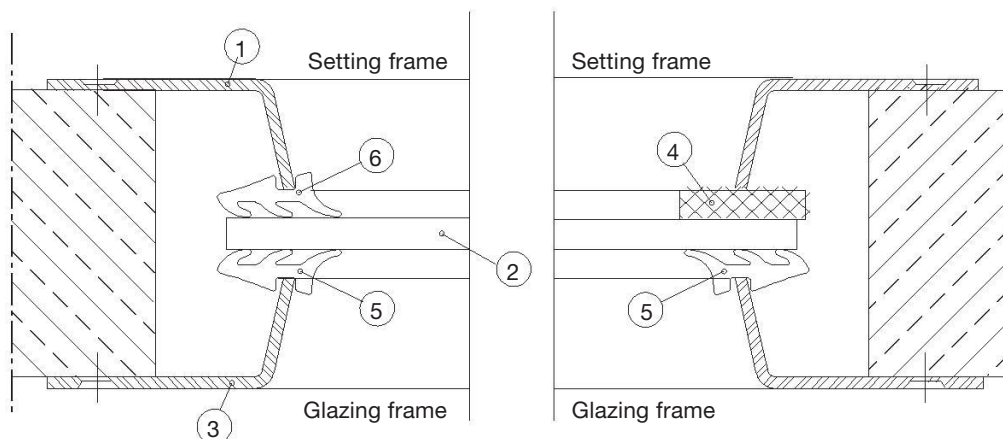


Mounting instructions

D

for porthole door windows with „flat-leaf screw fitting“ made of aluminium or stainless steel – L – profiles

- 1.) Centrally screw one of the two rings to the door leaf on one side of the cut-out.
- 2.) Loosely clamp the glass pane centrally on the opposite side by means of 3 – 4 small blocks of wood. Secure the blocks against slipping out of place with silicone.
Dimensions of the spacer blocks: width = 10 – 15 mm
length = leaf thickness
height = approx. "half" clearance between glass and cut-out
- 3.) Centrally screw the second ring (glazing frame) to the door leaf.
- 4.) Determine the half distance between glazing frame and glass pane as clearance for the glazing seal. After that, insert spacers on one side to ensure this half distance between glass pane and setting frame.
(Small wooden spacer blocks, red 2 mm – green 3 mm – yellow 4 mm or blue 5 mm, are perfectly suitable!)
- 5.) Place the supplied glazing seal between glass pane and glazing frame on the opposite side.
- 6.) Place the glazing seal between glass pane and setting frame and at the same time remove the inserted spacers again (see description under point 4!).



General Terms and Conditions

for goods and services provided by Fa. Gesco metall GmbH, Bellstraße 3a, D-92421 Schwandorf

§ 1 Validity of Conditions

Deliveries, services, tenders and orders provided by GESCO shall take place exclusively on the basis of the following terms and conditions. Counter-confirmations by the business partner referring to their own terms of business or purchase conditions are hereby rejected.

§ 2 Conclusion of Contract

Acceptances and all orders require written and faxed confirmation in order to be legally valid. The same applies to any supplements, modifications or subsidiary arrangements. Drawings, diagrams, dimensions, weights and other performance data are only binding if this has been explicitly agreed in writing.

§ 3 Tenders and Prices

The price shall be set in the currency stated by us. If not otherwise agreed, the prices are ex-works, plus the respective statutory value-added tax.

§ 4 Delivery Time

The delivery time shall begin with the date on which the order was placed, but not before clarification and approval by the customer with regard to all particulars and drawings required for the design. The delivery time shall be deemed to be met if the delivery item has left the factory by this date or readiness for delivery has been notified. Delivery dates and deadlines require the written form. We are not responsible for delays in the delivery or service due to force majeure, including strikes, lock-outs, official arrangements and failure by upstream suppliers, even in the case of legally binding deadlines and dates. If the obstruction lasts more than 3 months, the customer shall be entitled, after an appropriate grace period, to withdraw from the contract for the part that has not yet been fulfilled. In this case, compensation claims against us cannot be asserted. We are entitled to make partial deliveries and perform partial services at any time.

§ 5 Guarantees

Complaints shall only be considered upon immediate written notification, no later than 8 days after receipt of the goods, unless the fault could not be recognised even after careful examination. GESCO guarantees that the products it supplies have no manufacturing defects.

In case of a justified notice of defects, we shall be entitled to repair this product or deliver another.

If any operating instructions we provide are not followed, if changes are made to the products, the products are installed in other products, connected with these products, parts are replaced or consumables used that do not comply with the original specifications, any guarantee shall be void unless the customer disproves this assumption. Guarantee claims against us are only valid from the direct customer and cannot be transferred.

§ 6 Passage of Risk and Dispatch

The risk of damage to goods, even if carriage-paid delivery is agreed,

shall pass to the customer as soon as the delivery leaves the factory. If the delivery or dispatch is delayed due to the customer, the risk of damage shall pass to the customer from the time at which the product was ready for dispatch.

We must be notified in writing immediately after receipt of any deviations from the delivery note or invoice.

§ 7 Retention of Title

All goods supplied by us remain our property until all the claims we are entitled to resulting from our business dealings at the time of delivery or thereafter have been satisfied. If our goods are mixed with or connected to other items, we become co-owners of the share which equals the value of our goods, even if the other goods are to be seen as the main product. Any possible machining or processing of our goods will be conducted by our customer without this resulting in any obligations on our part. If our goods are processed to the extent that our title to them is lost, we shall gain title to that share in the products which have come into existence which equals the value of our goods. Our customer hereby assigns to us that share of his claims resulting from the further sale of goods which completely or partly belong to us which equals the value of our goods as a part of the total sales price. The pledging or assignment as security of our goods by the customer is prohibited. The enforcement of title retention including any demand for the return of goods shall not be considered as withdrawal from the contract.

§ 8 Cancellation

In case of unauthorised withdrawal from the contract by the customer, we are entitled to demand compensation due to non-fulfilment in the amount of 5% plus value-added tax at the current rate of the agreed order total, if higher costs cannot be proved.

§ 9 Liability, Exclusion of Compensation Claims

We shall only be liable in accordance with these General Terms and Conditions. Any additional claims or claims not included therein, in particular compensation claims and claims due to subsequent damage, irrespective of the legal basis, are excluded.

§ 10 Final Provisions

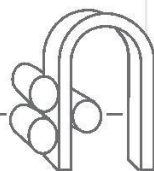
The possible invalidity of one or more provisions of these General Terms and Conditions shall not result in the invalidity of the other provisions.

Schwandorf is hereby agreed as the court of jurisdiction and place of fulfilment for delivery and payment and for all disputes arising from the contractual relationship – as far as this is legally permissible.

The law of the Federal Republic of Germany shall apply exclusively.

At the time of the publication of this price list, all previous price lists lose their validity.

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GESCO
metall GmbH
Schottenhamml-Biegetechnik