# Stainless steel and Aluminium Portholes



Price List 2017/2018





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# Glazing options

# Standard range

for V2A-L portholes – side length 15,5 mm for aluminium-L portholes – side length 16 mm

Door leaf thickness	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

Pleas 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

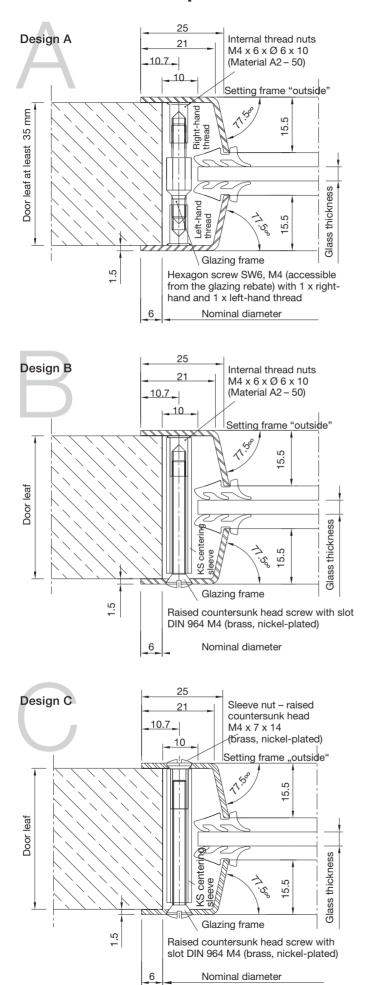
Possible side length: stainless steel aluminium 2,0 – 60 mm

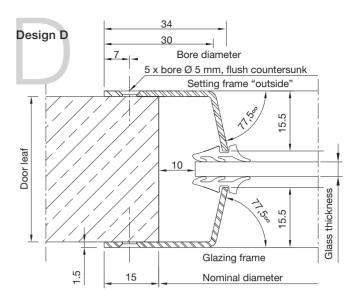
Possible seal thicknesses: 2 – 9 mm, seal made of EPDM, black

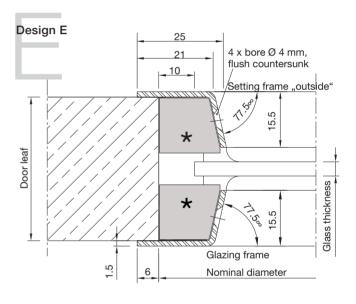
Prices for special sizes on request.

# 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





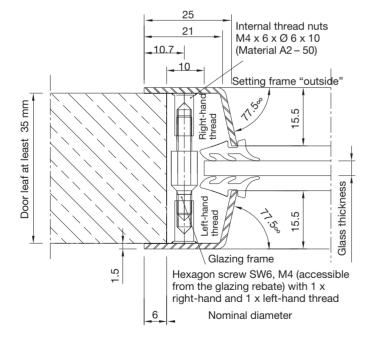


# Design A - invisible screw fitting

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	199,–	199,–	199,–	210,-	230,-	259,-
2 units	184,–	184,–	184,–	194,–	215,-	244,-
3 units	178,–	178,–	178,–	188,–	210,–	239,-
5 units	174,–	174,–	174,–	184,–	206,-	233,-
10 units	171,–	171–	171,–	181,–	202,-	231,-
20 units	170,-	170,–	170,–	179,–	201,–	230,-

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



# Design A Ordering details:

Door leaf thickness:	mm
Nominal diameter:	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

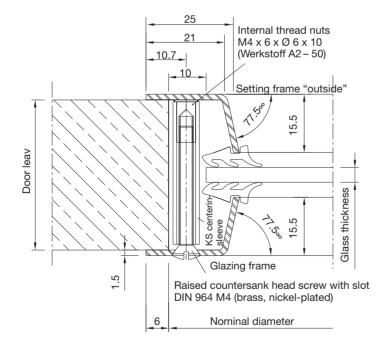
Construction-conditioned, the thickness of the door leaf must be at least 35 mm.

# 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	173,–	173,–	173,–	183,–	203,-	232,-
2 units	157,–	157,–	157,–	167,–	188,–	217,-
3 units	152,-	152,–	152,-	163,-	184,–	212,-
5 units	149,-	149,–	149,–	158,–	179,–	208,-
10 units	145,-	145,-	145,–	154,–	177,–	204,-
20 units	144,–	144,–	144,–	153,–	174,–	203,-

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



### Design B Orderin details:

Door leaf thickness: \_\_\_\_\_ mm

Nominal diameter: \_\_\_\_\_ mm

Glass thickness: \_\_\_\_\_ mm

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,

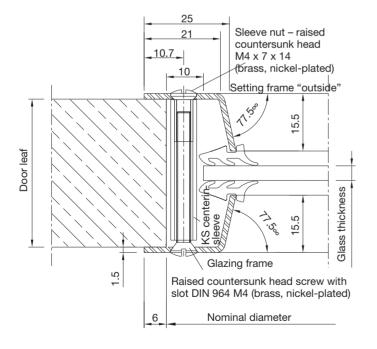
8 raised countersunk head screws, 8 x KS centering sleeve, glazing seal  $\,$ 

# 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	160,-	160,–	160,–	170,–	190,–	219,–
2 units	144,-	144,–	144,-	153,–	175,–	204,-
3 units	139,–	139,–	139,–	149,–	170,–	199,–
5 units	135,-	135,–	135,–	145,-	166,–	195,–
10 units	131,-	131,–	131,–	141,–	163,-	192,-
20 units	130,-	130,–	130,-	140,-	161,–	190,–

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



# Design C Ordering details:

Door leaf thickness:	_ mm
Nominal diameter:	_ mm
Glass thickness:	_ mm
Unite	

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,

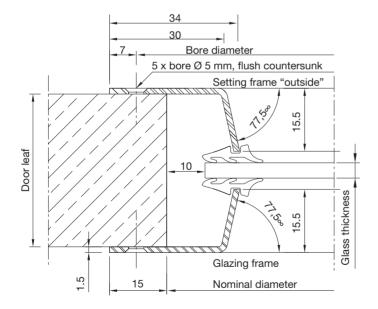
8 raised countersunk head screws, 8 sleeve nuts (raised countersunk head), 8 x KS centering sleeve, glazing seal

# 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	t				
Nominal diameter:	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm
1 unit	157,–	157,–	157,–	167,–	188,–	217,–
2 units	140,-	140,-	140,-	152,–	173,–	202,-
3 units	137,–	137,–	137,–	146,-	168,–	198,–
5 units	132,-	132,-	132,-	143,-	164,-	193,–
10 units	129,–	129,-	129,-	139,–	160,-	189,–
20 units	127,-	127,-	127,-	138,-	159,–	188,–

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



# Design D Ordering details:

Door leaf thickness: \_\_\_\_\_mm

Nominal diameter: \_\_\_\_\_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:

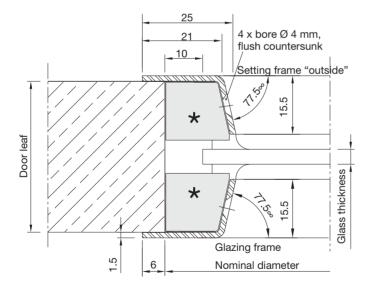
- 1 setting frame, 1 glazing frame,
- 10 countersunk head screws, glazing seal

# 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	159,–	159,–	159,–	167,–	188,–	217,–
2 units	144,-	144,–	144,-	151,–	179,–	202,-
3 units	139,-	139,–	139,–	146,-	167,–	197,–
5 units	135,-	135,–	135,-	143,-	164,-	193,–
10 units	131,–	131,–	131,–	139,–	160,-	189,–
20 units	130,–	130,-	130,–	138,–	158,–	188,–

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



# Design E Ordering Details:

Door leaf thickness: \_\_\_\_\_mm

Nominal diameter: \_\_\_\_\_mm

Glass thickness: \_\_\_\_\_mm

Linits:

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

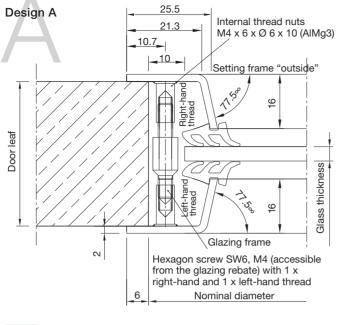
### 1 unit comprises:

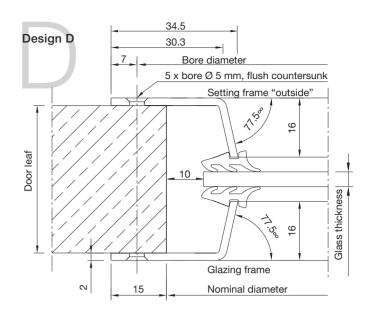
- 1 setting frame, 1 glazing frame, 8 countersunk head screws, (without glazing seal)
- \* rebate strips provided by customer

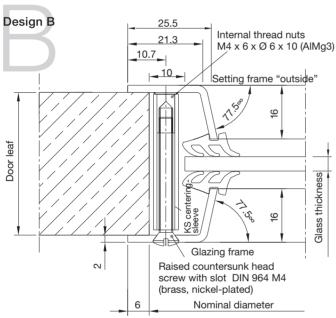


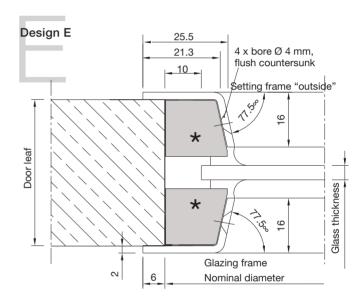


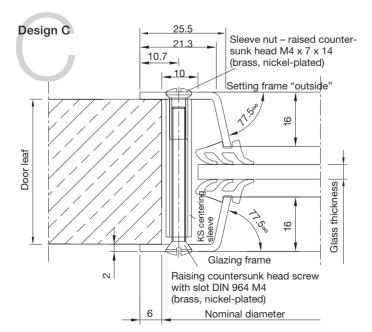












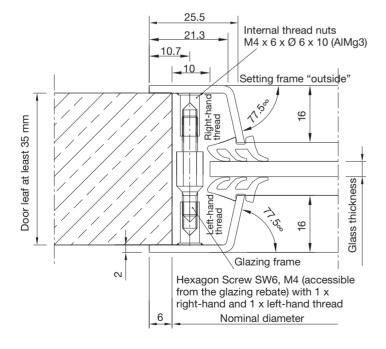
# Design A - invisible screw fitting

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	175,–	175,–	175,-	180,–	195,–	216,-
2 units	159,–	159,–	159,–	165,-	180,–	200,–
3 units	154,-	154,-	154,-	160,-	174,–	195,-
5 units	150,-	150,-	150,-	156,-	171,–	192,-
10 units	148,-	148,-	148,-	153,-	167,–	188,–
20 units	146,-	146,-	146,-	151,–	166,-	186,-

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

Price for powder-coating and anodising on request.



# Design A Ordering details:

Door leaf thickness:	mm
Nominal diameter:	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.

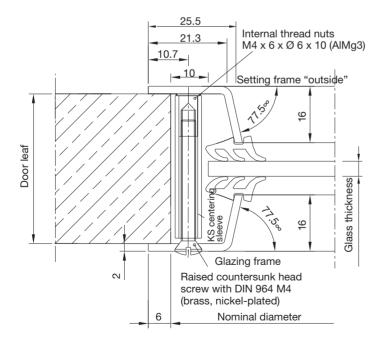
# Design B - screw fitting visible on one side

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	148,–	148,-	148,-	153,-	168,–	188,–
2 units	132,-	132,-	132,-	138,–	152,-	173,–
3 units	126,-	126,-	126,-	132,-	148,-	167,–
5 units	123,-	123,-	123,-	127,–	141,-	164,–
10 units	120,-	120,-	120,-	125,-	140,-	160,–
20 units	119,–	119,–	119,–	123,-	138,-	159,–

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

Price for powder-coating and anodising on request.



## Design B Ordering details:

Door leaf thickness:	mm
Nominal diameter:	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

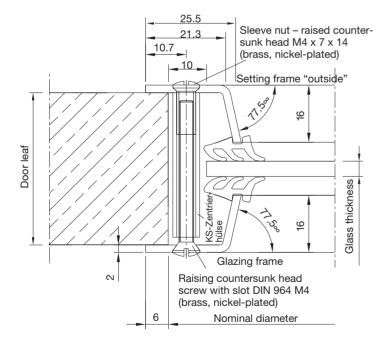
# Design C – screw fitting visible on both sides

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	136,-	136,-	136,-	141,-	156,–	177,–
2 units	121,-	121,-	121,-	126,-	140,-	161,-
3 units	116,–	116,-	116,–	121,-	136,–	156,–
5 units	111,-	111,-	111,-	117,–	131,–	152,-
10 units	109,-	109,-	109,-	113,-	127,-	149,–
20 units	107,-	107,-	107,-	112,-	126,-	148,-

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

Price for powder-coating and anodising on request.



# Design C Ordering details:

Door leaf thickness:	mm
Nominal diameter:	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

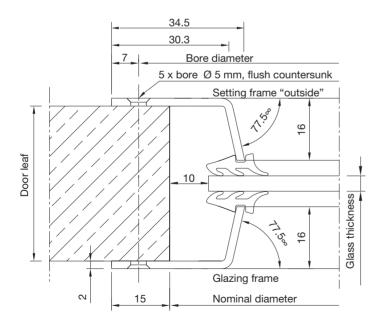
# Design D - flat-leaf screw fitting

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	135,–	135,-	135,–	139,–	153,-	183,–
2 units	119,–	119,–	119,–	124,-	138,–	167,–
3 units	113,-	113,-	113,–	119,–	134,–	161,–
5 units	109,–	109,-	109,–	114,–	129,–	157,–
10 units	106,-	106,-	106,-	111,-	126,-	154,–
20 units	105,-	105,-	105,-	110,–	124,-	153,–

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

Price for powder-coating and anodising on request.



# Design D Ordering details:

Door leaf thickness:m	m
Nominal diameter:m	nm
Glass thickness:m	nm
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

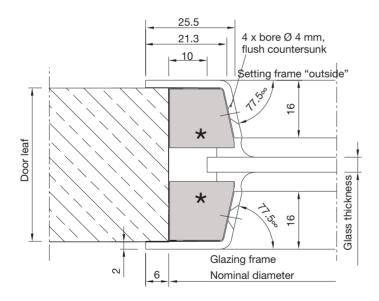
# Design E - folded screw fitting

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	131,–	131,-	131,–	137,–	151,–	171,–
2 units	116,–	116,–	116,–	121,-	136,–	154,–
3 units	111,-	111,-	111,-	116,–	130,-	150,–
5 units	107,–	107,-	107,–	111,-	125,-	146,–
10 units	103,-	103,-	103,-	109,-	123,-	143,–
20 units	102,-	102,-	102,-	107,-	122,-	141,–

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

Price for powder-coating and anodising on request.



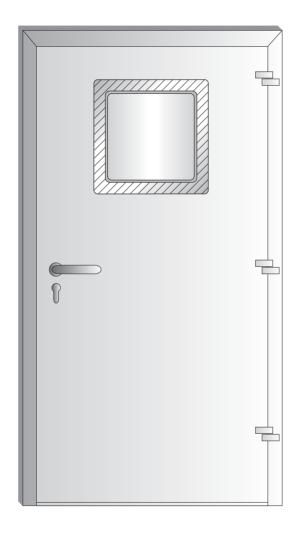
# Design E Ordering details:

Door leaf thickness:	mm
Nominal diameter:	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 **quadri-lateral 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:

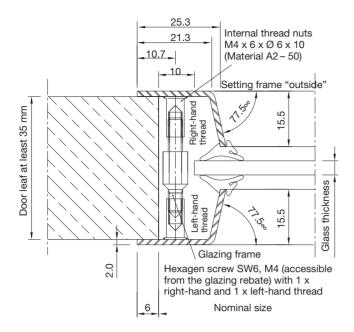
Possible seal thicknesses: 2 – 3 mm, seal made of EPDM, black

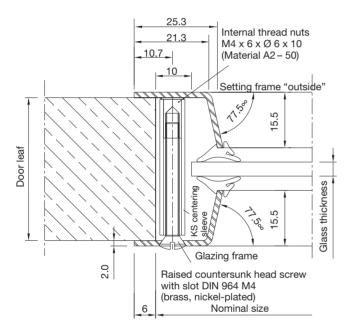
Door viewer:

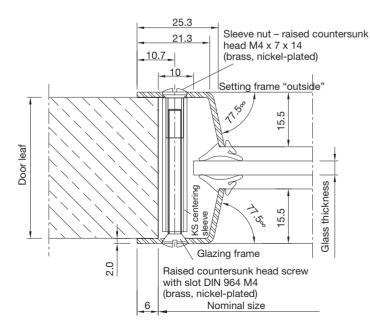
Possible seal thicknesses: 2 – 4 mm, seal rings made of EPDM, black

2 - 3 mm, seal made of EPDM, black

Prices for special sizes on request.







# 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
Inite	

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
I Inite:	

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

# Quadrilateral design

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

	Price €/Unit		
Design:	R 44,5 Round	R 5 Angular	
А	271,-	271,-	
В	246,-	246,-	
С	234,–	234,-	

### Notes:

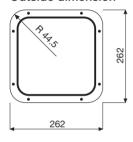
Construction-conditioned, the thickness of the door leaf must be at least 35 mm in the case of design "A".

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

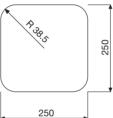
The side length cannot be more than 15.5mm!

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

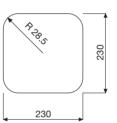
### **Outside dimension**

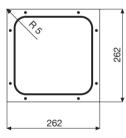


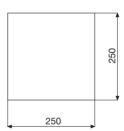


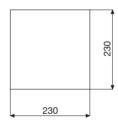


Glass size









# Triangular design

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

	Price €/unit	
Design:	R 44,5 Round	R 5 Angular
А	248,-	248,-
В	224,-	224,-
С	212,-	212,–

### Notes:

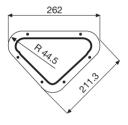
Construction-conditioned, the thickness of the door leaf must be at least 35 mm in the case of design "A".

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

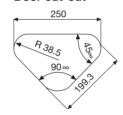
The side length cannot be more than 15.5mm!

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

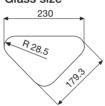
### **Outside dimension**

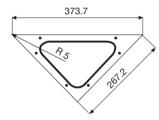


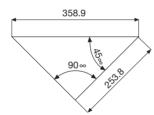
Door cut-out

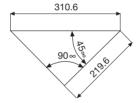


Glass size









### 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:		
А	67,–	
В	62,–	
С	62,-	

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

**Outside dimension** 

Door cut-out

Glass size



### 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).

# 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.

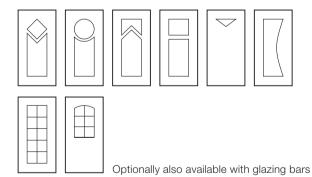
### Mounting types

The invisible screw fitting of the design **A** provides a smoth, 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:











# 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 centrically.
- 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 centrically 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

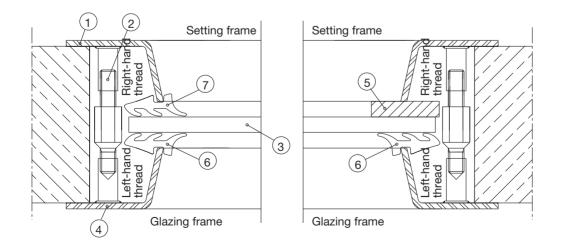
length = leaf thickness

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.





# 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 centrically 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

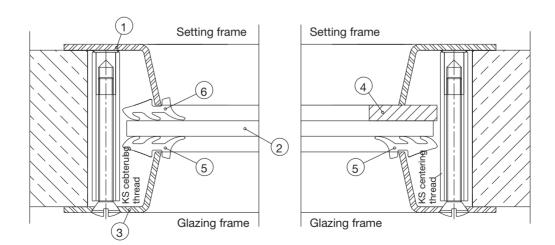
length = leaf thickness

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.





# 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 centrically 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

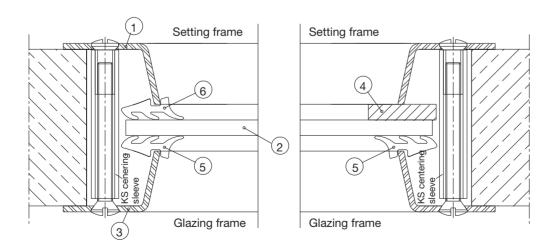
length = leaf thickness

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.



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

- 1.) Centrically screw one of the two rings to the door leaf on one side of the cut-out.
- 2.) Loosely clamp the glass pane centrically 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

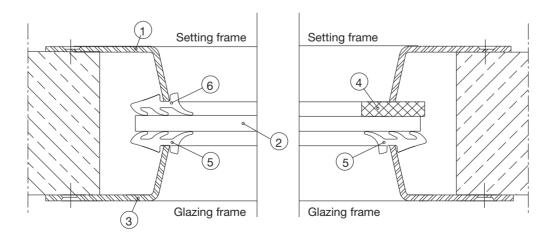
length = leaf thickness

height = approx. "half" clearance between glass and cut-out

- 3.) Centrically 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

### § 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.

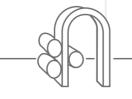
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