



GLASSLINE

PLANNING MANUAL

POINT FIXINGS

GLASS CLAMP



ADVANTAGES OF OUR POINT FIXINGS

- General Building Inspectorate (AbZ) approval
- General Design Certification (ABG)
- General Building Inspection Test Certificate (AbP)
- Structural type calculations
- Point-mounted glazing
to DIN 18008-3
- Additional requirements for fall-proof glazing
to DIN 18008-4
- Point fixings with safety ball joints

AbZ

ABG

AbP



**DIN
18008-3**

**DIN
18008-4**





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SPID

GLASS ROOF CONSTRUCTIONS



EXTERIOR WALL CLADDINGS





ER GLAZING

GLASS CANOPIES

POINT FIXINGS



RAILING SYSTEMS



GLASS DIMENSIONS WITH TYPE STATIC CALCULATIONS



OVERHEAD GLAZING

Indoor and outdoor overhead glazing

Sizing table for

- | | |
|--------------------------|------------|
| ▪ 4 plate holder fixings | Page 9+12 |
| ▪ 6 plate holder fixings | Page 10+13 |
| ▪ 8 plate holder fixings | Page 11+14 |

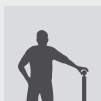


FALL-PROOF FLOOR-TO-CEILING GLAZING

Indoor and outdoor fall-proof vertical glazing in category A and C3

Sizing table for

- | | |
|---------------------------------------|---------|
| ▪ 4 plate holder fixings | Page 17 |
| ▪ 6 plate holder fixings (vertical) | Page 18 |
| ▪ 6 plate holder fixings (horizontal) | Page 19 |



FALL-PROOF BALUSTRADE GLAZING

Indoor and outdoor fall-proof vertical glazing in category C1

Sizing table for

- | | |
|-------------------------------------|---------|
| ▪ 4 plate holder fixings (rigid) | Page 21 |
| ▪ 4 plate holder fixings (flexible) | Page 22 |



NON-FALL-PROOF GLAZING

Indoor and outdoor non-fall-proof vertical glazing

Sizing table for

- | | |
|------------------------------|---------|
| ▪ 4 plate holder fixings | Page 24 |
| ▪ 6 plate holder fixings | Page 25 |
| ▪ 4 countersunk head fixings | Page 26 |
| ▪ 6 countersunk head fixings | Page 27 |



The point fixings are labelled with appropriate pictograms for quick orientation and determination of properties.

AbZ

AbZ
General Building
Inspectorate
Approval

ABG

ABG
General Design
Certification

AbP

AbP
General Building
Inspectorate Test
Certificate



Glass statics
Tested glass type
statics

**DIN
18008-3**

DIN 18008-3
Pointmounted
glazing

**DIN
18008-4**

DIN 18008-4
Additional require-
ments for fall-proof
glazing



Joint
Point fixing
with safetyball
joint



OVERHEAD GLAZING

Indoor and outdoor overhead glazing

- for overhead glazing (not accessible) with a roof pitch of 0–20°
- for large-scale glass roof constructions and canopies

AbZ

ABG



LGA
tested



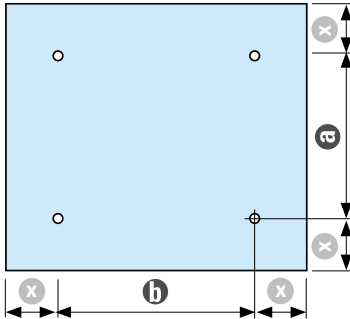
OVERHEAD GLAZING

Indoor and outdoor overhead glazing

GLASSLINE

POINT FIXINGS

4 plate holder fixings



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29



Glass dimensions with tested type static calculations

Edge spacings $80 \leq x \leq 150$ mm

	VSG-TVG ¹⁾ 2 x 6 mm		VSG-TVG ¹⁾ 2 x 8 mm		VSG-TVG ¹⁾ 2 x 10 mm		VSG-TVG ¹⁾ 2 x 12 mm	
max. distributed load kN/m ² from wind load and snow	max. b	max. a	max. b	max. a	max. b	max. a	max. b	max. a
1.00	1,150	950	1,400	950	1,750	1,350	1,750	1,350
1.25	1,150	950	1,400	950	1,750	1,350	1,750	1,350
1.50	1,150	950	1,400	950	1,750	1,350	1,750	1,350
1.75	1,130	950	1,400	950	1,500	1,350	1,750	1,350
2.00	1,020	950	1,300	950	1,500	1,350	1,750	1,350
2.50	-	-	1,250	950	1,350	1,350	1,750	1,350
3.00	-	-	1,150	950	1,250	1,350	1,600	1,350
3.50	-	-	1,070	950	1,200	1,240	1,490	1,350
4.00	-	-	950	950	1,100	1,210	1,340	1,340
4,50	-	-	900	900	1,050	1,140	1,280	1,280

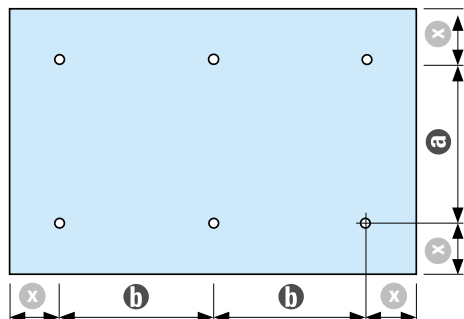
Edge spacings $150 \leq x \leq 300$ mm

	VSG-TVG ¹⁾ 2 x 6 mm		VSG-TVG ¹⁾ 2 x 8 mm		VSG-TVG ¹⁾ 2 x 10 mm		VSG-TVG ¹⁾ 2 x 12 mm	
max. distributed load kN/m ² from wind load and snow	max. b	max. a	max. b	max. a	max. b	max. a	max. b	max. a
1.00	1,130	950	1,400	950	1,750	1,350	1,750	1,350
1.25	910	910	1,400	950	1,750	1,350	1,750	1,350
1.50	800	800	1,400	950	1,660	1,350	1,750	1,350
1.75	700	700	1,230	950	1,310	1,310	1,750	1,350
2.00	600	600	1,070	950	1,310	1,310	1,750	1,350
2.50	-	-	870	870	1,170	1,170	1,510	1,350
3.00	-	-	740	740	1,050	1,050	1,310	1,310
3.50	-	-	640	640	950	950	1,210	1,210
4.00	-	-	530	530	870	870	1,120	1,120
4.50	-	-	-	-	790	790	1,040	1,040

¹⁾ PVB 1,52 mm min. **a** = 500 mm / min. **b** = 500 mm



6 plate holder fixings



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29



Glass dimensions with tested type static calculations

Edge spacings $80 \leq x \leq 150$ mm

	VSG-TVG ¹⁾ 2x8 mm		VSG-TVG ¹⁾ 2x10 mm		VSG-TVG ¹⁾ 2x12 mm	
max. distributed load kN/m ² from wind load and snow	max. b	max. a	max. b	max. a	max. b	max. a
1.00	1,100	900	1,130	1,350	1,350	1,350
1.25	1,000	900	1,040	1,350	1,240	1,350
1.50	910	900	980	1,350	1,150	1,350
1.75	850	900	910	1,350	1,090	1,350
2.00	810	900	850	1,350	930	1,350
2.50	720	900	790	1,350	930	1,350
3.00	670	900	680	1,350	870	1,350
3.50	620	900	680	1,350	810	1,350
4.00	-	-	500	1,320	750	1,350
4.50	-	-	500	1,250	700	1,350

Edge spacings $150 \leq x \leq 300$ mm

	VSG-TVG ¹⁾ 2x8 mm		VSG-TVG ¹⁾ 2x10 mm		VSG-TVG ¹⁾ 2x12 mm	
max. distributed load kN/m ² from wind load and snow	max. b	max. a	max. b	max. a	max. b	max. a
1.00	1,090	900	1,200	1,350	1,350	1,350
1.25	1,000	900	1,100	1,350	1,310	1,350
1.50	920	900	1,020	1,350	1,220	1,350
1.75	860	900	960	1,350	1,150	1,350
2.00	820	900	910	1,350	980	1,350
2.50	740	900	820	1,350	980	1,350
3.00	500	840	500	1,220	900	1,350
3.50	500	650	500	1,220	850	1,350
4.00	-	-	500	1,060	750	1,350
4.50	-	-	500	920	590	1,350



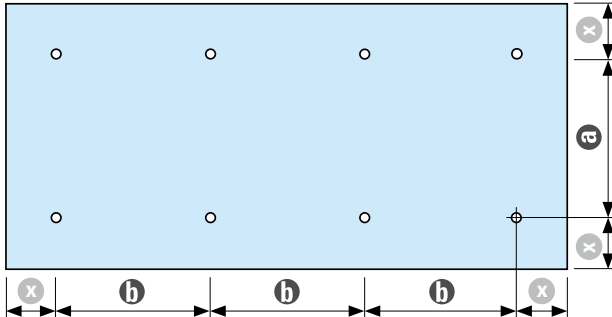
OVERHEAD GLAZING

Indoor and outdoor overhead glazing

GLASSLINE

POINT FIXINGS

8 plate holder fixings



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29



Glass dimensions with tested type static calculations

Edge spacings $80 \leq x \leq 150$ mm

max. distributed load kN/m ² from wind load and snow	VSG-TVG ¹⁾ 2x8 mm		VSG-TVG ¹⁾ 2x10 mm		VSG-TVG ¹⁾ 2x12 mm	
	max. b	max. a	max. b	max. a	max. b	max. a
1.00	1,200	900	1,210	1,350	1,350	1,350
1.25	1,090	900	1,110	1,350	1,320	1,350
1.50	1,000	900	1,020	1,350	1,220	1,350
1.75	910	900	960	1,350	1,150	1,350
2.00	870	900	900	1,350	990	1,350
2.50	780	900	810	1,350	990	1,350
3.00	710	900	700	1,350	900	1,350
3.50	650	900	700	1,350	820	1,350
4.00	-	-	500	1,310	750	1,350
4.50	-	-	500	1,250	700	1,350

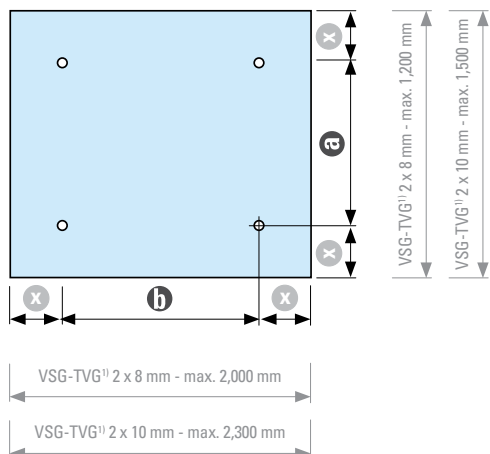
Edge spacings $150 \leq x \leq 300$ mm

max. distributed load kN/m ² from wind load and snow	VSG-TVG ¹⁾ 2x8 mm		VSG-TVG ¹⁾ 2x10 mm		VSG-TVG ¹⁾ 2x12 mm	
	max. b	max. a	max. b	max. a	max. b	max. a
1.00	1,160	900	1,270	1,350	1,350	1,350
1.25	1,040	900	1,150	1,350	1,350	1,350
1.50	960	900	1,050	1,050	1,250	1,350
1.75	890	900	990	1,350	1,150	1,350
2.00	830	900	930	1,350	1,010	1,350
2.50	740	900	830	1,350	1,010	1,350
3.00	500	840	500	1,220	900	1,350
3.50	500	660	500	1,220	850	1,350
4.00	-	-	500	1,060	750	1,350
4.50	-	-	500	920	590	1,350

¹⁾ PVB 1,52 mm min. **a** = 500 mm / min. **b** = 500 mm



4 plate holder fixings



TYPE	FIXINGS	P.
PH 68 A	Ø68 mm	32
PH 68 G	Ø68 mm	33



Glass dimensions with tested type static calculations

Edge spacings $80 \leq x \leq 300$ mm

VSG-TVG¹ 2x8 mm

max. distributed load kN/m² from wind load and snow	max. b	max. a
0.80	1,500	1,040
1.15	1,300	1,040
1.60	1,200	1,040
1.75	1,150	1,040
1.90	1,100	1,040
2.05	1,050	1,040
2.30	1,000	1,000

VSG-TVG¹ 2x10 mm

max. distributed load kN/m² from wind load and snow	max. b	max. a
1.30	1,700	1,340
1.60	1,500	1,340
2.30	1,300	1,300
2.80	1,200	1,200
3.00	1,150	1,150
3.25	1,100	1,100
3.50	1,050	1,050
3.75	1,000	1,000



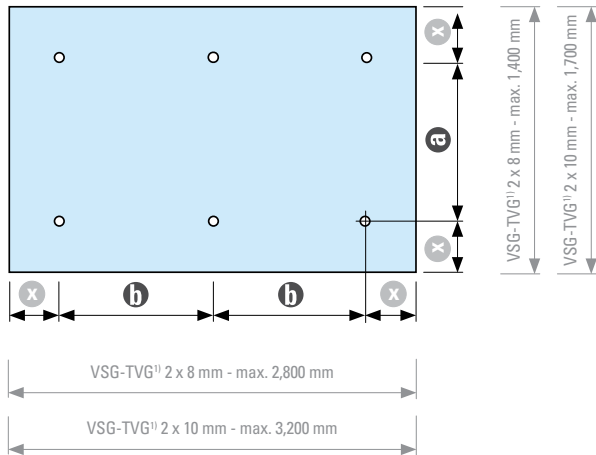
OVERHEAD GLAZING

Indoor and outdoor overhead glazing

GLASSLINE

POINT FIXINGS

6 plate holder fixings



TYPE	FIXINGS	P.
PH 68 A	Ø68 mm	32
PH 68 G	Ø68 mm	33



Glass dimensions with tested type static calculations

Edge spacings $80 \leq x \leq 300$ mm

VSG-TVG¹ 2x8 mm

max. distributed load kN/m² from wind load and snow	max. b	max. a
0.90	1,100	1,100
1.05	1,050	1,050
1.25	1,000	1,000

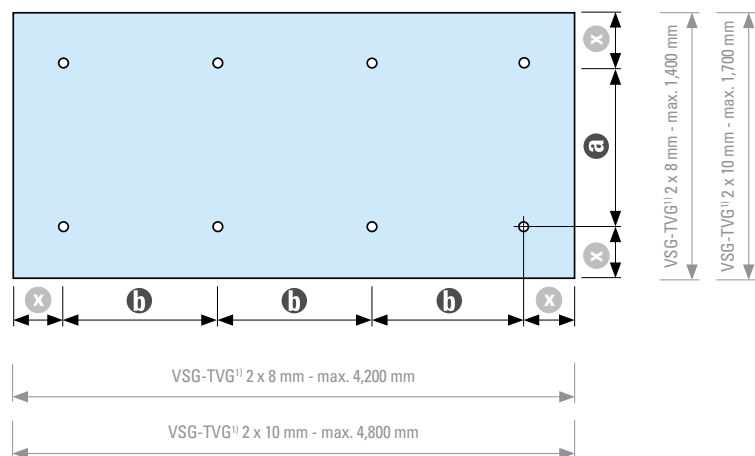
VSG-TVG¹ 2x10 mm

max. distributed load kN/m² from wind load and snow	max. b	max. a
0.85	1,300	1,300
1.15	1,200	1,200
1.30	1,150	1,150
1.50	1,100	1,100
1.75	1,050	1,050
2.05	1,000	1,000

¹) PVB 1,52 mm min. **a** = 300 mm / min. **b** = 300 mm



8 plate holder fixings



TYPE	FIXINGS	P.
PH 68 A	Ø68 mm	32
PH 68 G	Ø68 mm	33



Glass dimensions with tested type static calculations

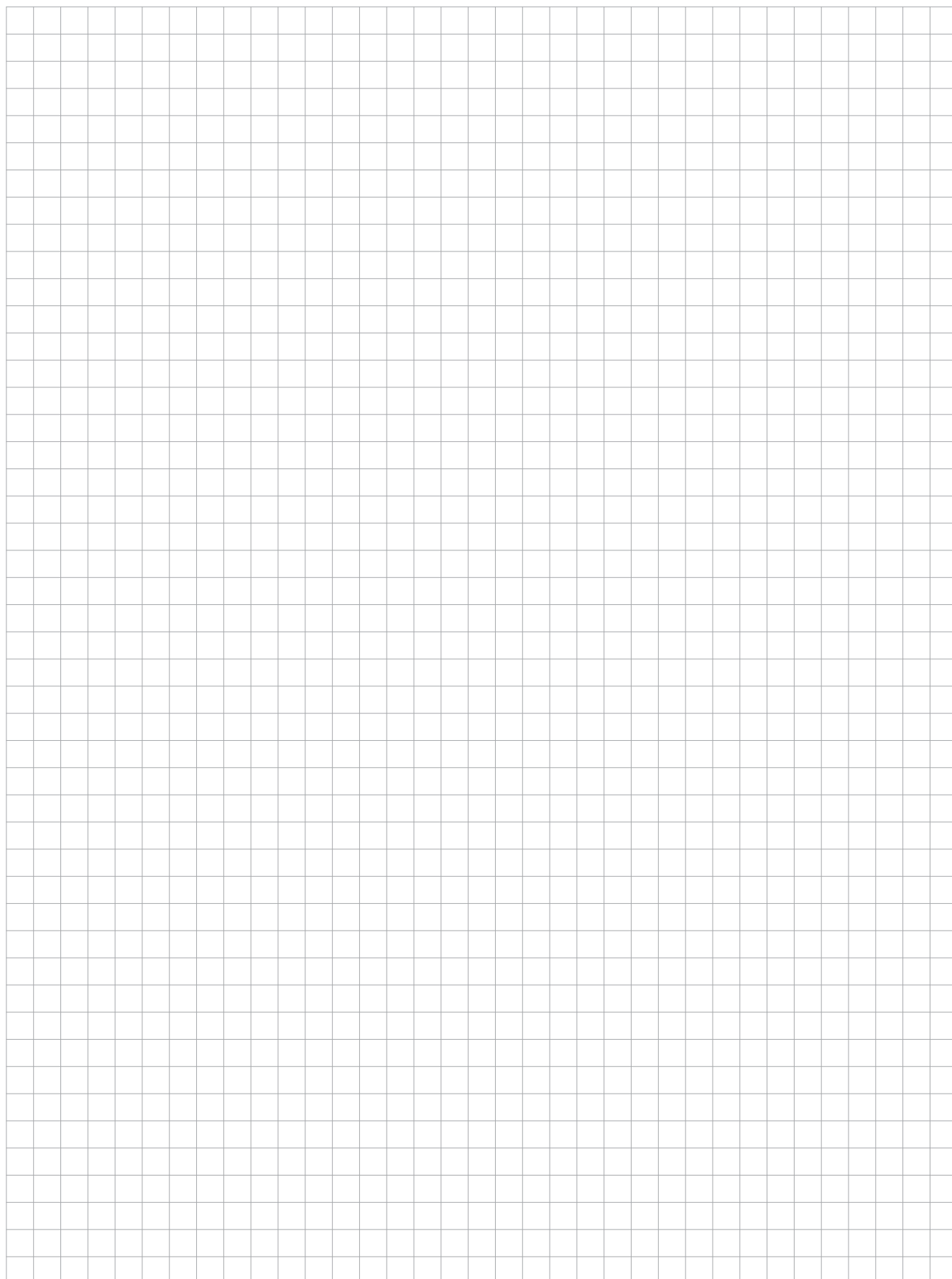
Edge spacings $80 \leq x \leq 300$ mm

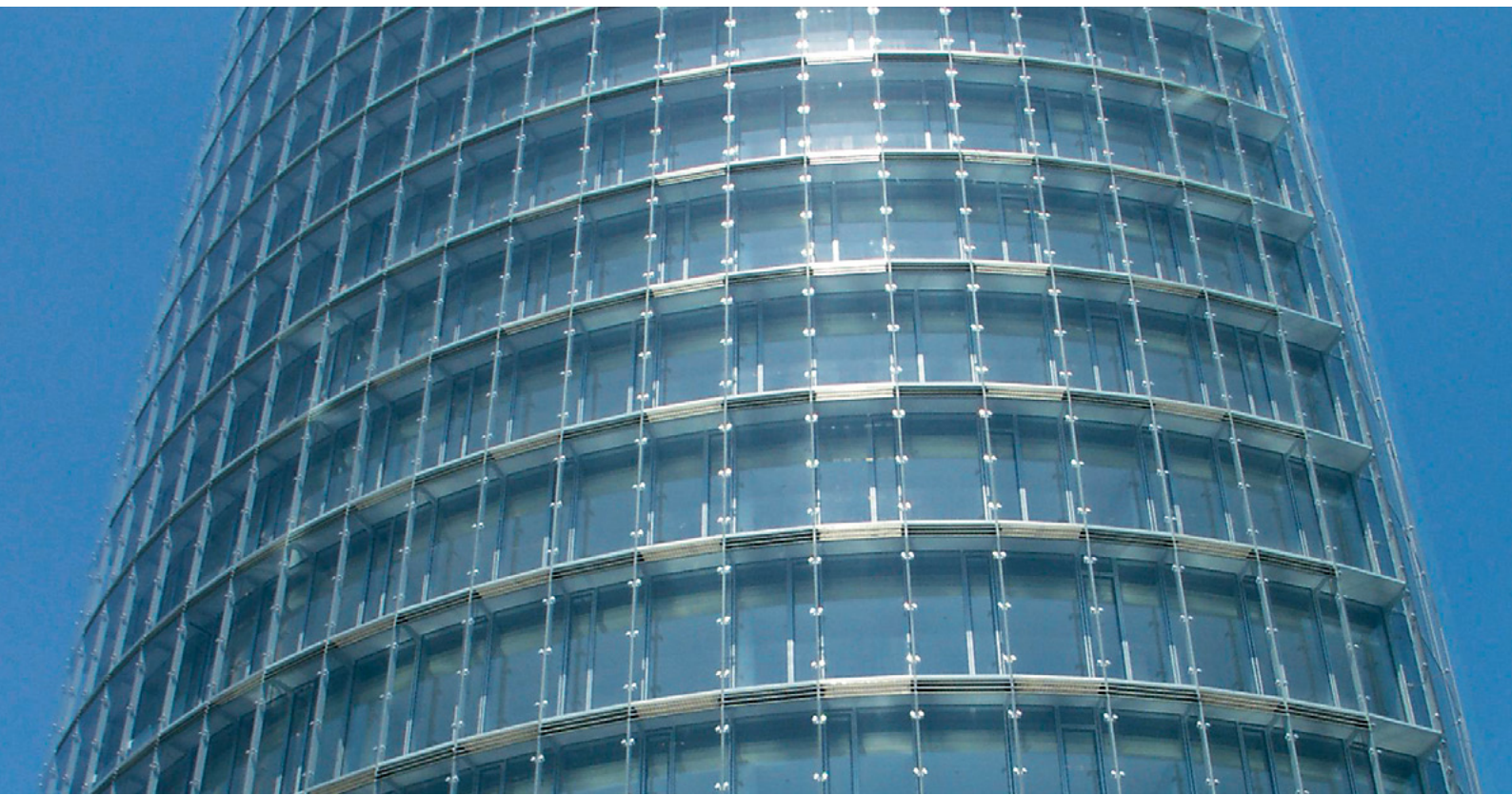
VSG-TVG¹ 2x8 mm

max. distributed load kN/m² from wind load and snow	max. b	max. a
0.90	1,100	1,100
1.05	1,050	1,050
1.25	1,000	1,000

VSG-TVG¹ 2x10 mm

max. distributed load kN/m² from wind load and snow	max. b	max. a
0.85	1,300	1,300
1.15	1,200	1,200
1.30	1,150	1,150
1.50	1,100	1,100
1.75	1,050	1,050
2.05	1,000	1,000





FALL-PROOF FLOOR-TO-CEILING GLAZING

Indoor and outdoor fall-proof vertical glazing in category A and C3

- for fall-proof vertical glazing in category A, which serves for the direct absorption of rail loads. For example, floor-to-ceiling glazing with no load-bearing dead bolt at the height of the rail and that is also not protected by a pre-set rail. (Glazing that is inclined up to a maximum of 10° from the vertical.)
- Cat. C3: Floor-to-ceiling glazing with pre-set load-bearing rail
- for fall-proof façade glazing, partition walls and room dividers





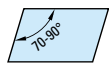
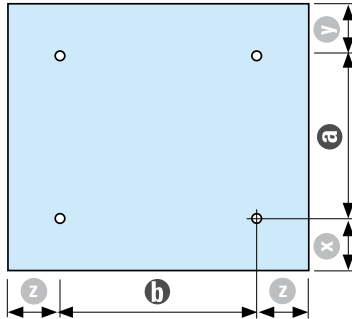
FALL-PROOF FLOOR-TO-CEILING GLAZING

Indoor and outdoor fall-proof vertical glazing in category A and C3

GLASSLINE

POINT FIXINGS

4 plate holder fixings



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29

Also for printed glass³⁾ and printed PVB film



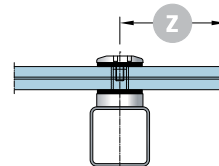
Glass dimensions with tested type static calculations

y 100 - 110 mm, when the horizontal rail load of 1.0 kN/m lies above the upper row of point fixings; otherwise measurement **x**

Variant A

Glass pane protruding from posts

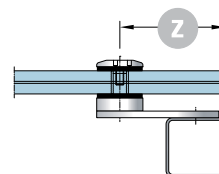
$100 \leq \mathbf{z} \leq 110 \text{ mm}$



Variant B

Glass pane ending at posts

$\mathbf{z} = \mathbf{x}$



$100 \leq \mathbf{x} \leq 270 \text{ mm}$

VSG-ESG¹⁾ 2x8 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
without	1,800	1,700
0.30	1,300	1,600
0.70	1,200	1,500
1.30	1,100	1,300
2.20	1,000	1,100
3.00	900	900

$100 \leq \mathbf{x} \leq 290 \text{ mm}$

VSG-ESG¹⁾ 2x10 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
without	2,400	2,300
0.30	1,700	2,200
0.70	1,600	2,000
1.30	1,500	1,700
2.20	1,400	1,400
4.70	1,100	1,100

$100 \leq \mathbf{x} \leq 310 \text{ mm}$

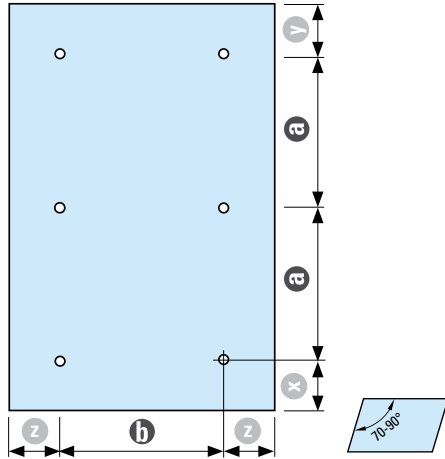
VSG-ESG¹⁾ 2x12 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
without	2,350	3,000
0.30	2,000	2,800
0.70	1,900	2,500
1.30	1,800	2,100
2.20	1,700	1,800
4.70	1,300	1,400

¹⁾ PVB 1.52 mm ²⁾ when $H \leq 1.0 \text{ kN/m}$ at any engagement height ³⁾ Printing on pane position 2 min. **a** = 500 mm / min. **b** = 500 mm



6 plate holder fixings (vertical)



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29

Also for printed glass³⁾ and printed PVB film



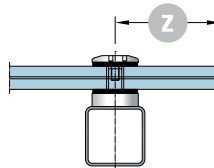
Glass dimensions with tested type static calculations

y 100 - 110 mm, when the horizontal rail load of 1.0 kN/m lies above the upper row of point fixings; otherwise measurement **x**

Variant A

Glass pane protruding from posts

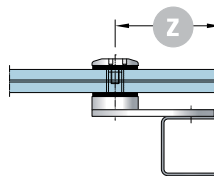
$100 \leq \mathbf{z} \leq 110 \text{ mm}$



Variant B

Glass pane ending at posts

$\mathbf{z} = \mathbf{x}$



$100 \leq \mathbf{x} \leq 270 \text{ mm}$

VSG-ESG¹⁾ 2x8 mm

$100 \leq \mathbf{x} \leq 290 \text{ mm}$

VSG-ESG¹⁾ 2x10 mm

$100 \leq \mathbf{x} \leq 310 \text{ mm}$

VSG-ESG¹⁾ 2x12 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a	max. b	max. a
without	1,800	1,400	2,400	1,900	2,350	2,450
0.30	1,300	1,800	1,800	2,300	2,350	2,450
0.70	1,200	1,600	1,400	2,100	2,000	2,200
1.00	1,000	1,500	1,200	1,900	1,700	1,900
1.20	900	1,400	1,000	1,700	1,500	1,700
1.50	800	1,300	900	1,600	1,400	1,600
1.90			800	1,500	1,300	1,500



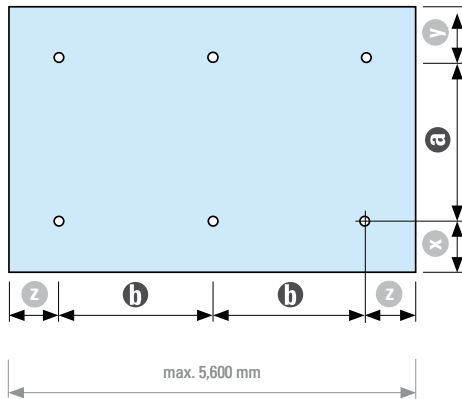
FALL-PROOF FLOOR-TO-CEILING GLAZING

Indoor and outdoor fall-proof vertical glazing in category A and C3

GLASSLINE

POINT FIXINGS

6 plate holder fixings (horizontal)



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29

Also for printed glass³⁾ and printed PVB film



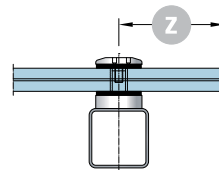
Glass dimensions with tested type static calculations

y 100 - 110 mm, when the horizontal rail load of 1.0 kN/m lies above the upper row of point fixings; otherwise measurement **x**

Variant A

Glass pane protruding from posts

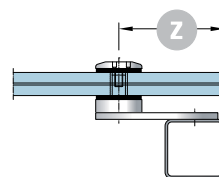
$100 \leq \mathbf{z} \leq 110 \text{ mm}$



Variant B

Glass pane ending at posts

$\mathbf{z} = \mathbf{x}$



$100 \leq \mathbf{x} \leq 270 \text{ mm}$

VSG-ESG¹⁾ 2x8 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
without	1,200	1,800
0.30	1,100	1,600
0.60	1,100	1,500
0.80	1,100	1,000

$100 \leq \mathbf{x} \leq 290 \text{ mm}$

VSG-ESG¹⁾ 2x10 mm

max. b	max. a
1,600	2,400
1,500	2,100
1,400	1,800
1,300	1,500
1,200	1,200
1,100	900

$100 \leq \mathbf{x} \leq 310 \text{ mm}$

VSG-ESG¹⁾ 2x12 mm

max. b	max. a
2,100	2,350
1,900	2,350
1,800	2,300
1,600	1,900
1,400	1,500
1,300	1,100
1,200	900

¹⁾ PVB 1.52 mm ²⁾ when $H \leq 1.0 \text{ kN/m}$ at any engagement height ³⁾ Printing on pane position 2 min. **a** = 500 mm / min. **b** = 1.000 mm



FALL-PROOF BALUSTRADE GLAZING

Indoor and outdoor fall-proof vertical glazing in category C1

- fall-proof vertical glazing in category C1 and C1, which does not serve for the bearing of rail loads (glazing that is inclined up to a maximum of 10° from the vertical)
- Cat. C1: Railing infills point-mounted on at least two opposite sides, such as: balcony railings, banisters and gallery railings





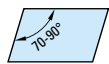
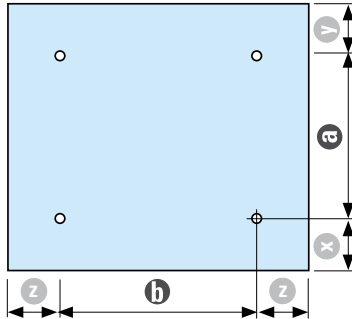
FALL-PROOF BALUSTRADE GLAZING

Indoor and outdoor fall-proof vertical glazing in category C1

GLASSLINE

POINT FIXINGS

4 plate holder fixings (rigid)



TYPE	FIXINGS	P.
PH 707	Ø68 mm	30
PH 705	Ø52 mm	30



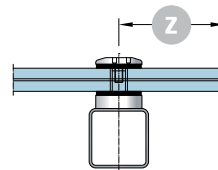
Glass dimensions with tested type static calculations

y 95 - 260 mm

Variant A

Glass pane protruding from posts

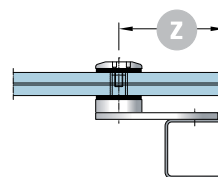
$95 \leq \mathbf{z} \leq 300 \text{ mm}$



Variant B

Glass pane ending at posts

$\mathbf{z} = \mathbf{x}$



$95 \leq \mathbf{x} \leq 300 \text{ mm}$

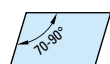
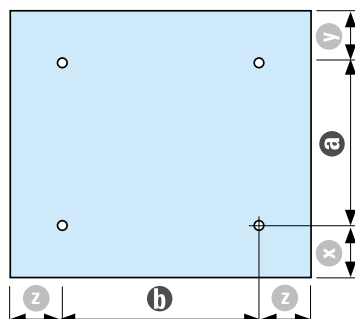
VSG-ESG¹⁾ 2x6 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
without	2,000	1,000
0.40	2,000	1,000
0.70	1,600	1,000
0.80	1,450	1,000
1.10	1,350	1,000
1.20	1,200	1,000
2.20	600	1,000

¹⁾ PVB 1.52 mm ³⁾ Printing on pane position 2 min. **a** = 300 mm / min. **b** = 300 mm



4 plate holder fixings (flexible)



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29

Also for printed glass³⁾ and printed PVB film



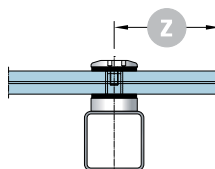
Glass dimensions with tested type static calculations

y 100 - 110 mm

Variant A

Glass pane protruding from posts

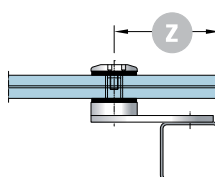
$100 \leq \mathbf{z} \leq 110 \text{ mm}$



Variant B

Glass pane ending at posts

$\mathbf{z} = \mathbf{x}$



$100 \leq \mathbf{x} \leq 270 \text{ mm}$

VSG-ESG¹⁾ 2x8 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
without	1,800	1,700
0.70	1,800	1,700
1.00	1,600	1,500
1.50	1,400	1,300
2.50	1,200	1,100
3.00	1,000	900



NON-FALL-PROOF GLAZING

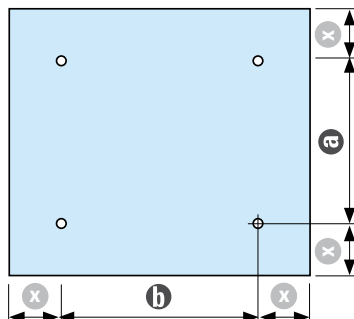
Indoor and outdoor non-fall-proof vertical glazing

- for ventilated exterior wall claddings as well as for space-enclosing vertical glazing (glazing that is inclined up to a maximum of 10° from the vertical)
- for non-fall-proof façade glazing, room dividers and interior wall claddings, etc.





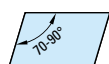
4 plate holder fixings



TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29
PH 794	Ø45 mm	29



Also for printed glass³⁾ and printed PVB film



Glass panes can also be rotated by 90°

Glass dimensions with tested type static calculations

Edge spacings $100 \leq x \leq 300$ mm

ESG²⁾ 8 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
0.25	1,950	1,950
0.55	1,450	1,550
0.80	1,350	1,300
1.10	1,150	1,250

ESG²⁾ 10 mm

max. b	max. a
2,400	2,450
1,850	1,850
1,650	1,650
1,450	1,450

ESG²⁾ 12 mm

max. b	max. a
2,400	2,850
2,250	2,200
1,850	2,050
1,750	1,750

VSG-ESG¹⁾ 2 x 6 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a
0.50	1,550	1,500
1.10	1,150	1,150
1.60	950	1,050
2.20	850	950

VSG-ESG¹⁾ 2 x 8 mm

max. b	max. a
1,950	1,950
1,450	1,550
1,350	1,300
1,150	1,250

VSG-ESG¹⁾ 2 x 10 mm

max. b	max. a
2,400	2,450
1,850	1,850
1,650	1,650
1,450	1,450

VSG-ESG¹⁾ 2 x 12 mm

max. b	max. a
2,400	2,850
2,250	2,200
1,850	2,050
1,750	1,750



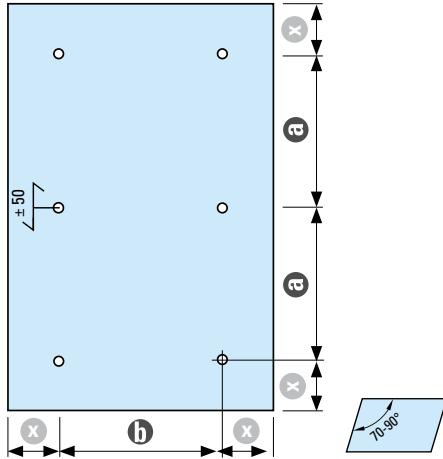
NON-FALL-PROOF GLAZING

Indoor and outdoor non-fall-proof vertical glazing

GLASSLINE

POINT FIXINGS

6 plate holder fixings



Glass panes can also be rotated by 90°

TYPE	FIXINGS	P.
PH 800	Ø80 mm	28
PH 791	Ø68 mm	28
PH 793	Ø52 mm	29
PH 794	Ø45 mm	29



Also for printed glass³⁾ and printed PVB film

Glass dimensions with tested type static calculations

Edge spacings $100 \leq x \leq 300$ mm

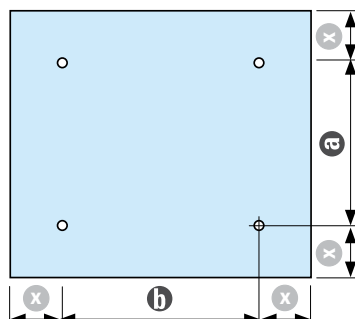
	ESG ²⁾ 8 mm		ESG ²⁾ 10 mm		ESG ²⁾ 12 mm		ESG ²⁾ 15 mm	
max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a	max. b	max. a	max. b	max. a
0.25	2,150	1,750	2,400	2,125	2,350	1,625	2,400	1,625
0.55	1,550	1,250	1,950	1,425	2,350	1,625	2,400	1,625
0.80	1,350	1,050	1,750	1,225	2,050	1,350	2,400	1,625
1.10	1,250	900	1,550	1,075	1,850	1,225	2,350	1,300

	VSG-ESG ¹⁾ 2 x 6 mm		VSG-ESG ¹⁾ 2 x 8 mm		VSG-ESG ¹⁾ 2 x 10 mm		VSG-ESG ¹⁾ 2 x 12 mm	
max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a	max. b	max. a	max. b	max. a
0,50	1,550	1,450	2,150	1,750	2,400	2,125	2,350	1,625
1,10	1,150	1,025	1,550	1,250	1,950	1,425	2,350	1,625
1,60	1,050	850	1,350	1,050	1,750	1,225	2,050	1,350
2,20	1,050	750	1,250	900	1,550	1,075	1,850	1,225

¹⁾ PVB 1.52 mm ²⁾ The use of ESG or ESG-H is to be tested ³⁾ Printing on pane position 2 min. **a** = 500 mm / min. **b** = 500 mm



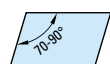
4 countersunk head fixings



TYPE	FIXINGS	P.
PH 799	Ø42/80 mm	34
PH 790	Ø42/68 mm	34
PH 792	Ø26/52 mm	35
PH 789	Ø26/45 mm	35



Also for printed glass³⁾ and printed PVB film



Glass panes can also be rotated by 90°

Glass dimensions with tested type static calculations

Edge spacings $100 \leq x \leq 300$ mm

ESG²⁾ 10 mm

ESG²⁾ 12 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a
0.25	2,400	2,450	2,400	2,850
0.55	1,850	1,850	2,250	2,200
0.80	1,650	1,650	1,850	2,050
1.10	1,450	1,450	1,750	1,750

VSG-ESG¹⁾ 2 x 6 mm

VSG-ESG¹⁾ 2 x 8 mm

VSG-ESG¹⁾ 2 x 10 mm

VSG-ESG¹⁾ 2 x 12 mm

max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a	max. b	max. a	max. b	max. a
0.50	1,550	1,500	1,950	1,950	2,400	2,450	2,400	2,850
1.10	1,150	1,150	1,450	1,550	1,850	1,850	2,250	2,200
1.60	950	1,050	1,350	1,300	1,650	1,650	1,850	2,050
2.20	850	950	1,150	1,250	1,450	1,450	1,750	1,750



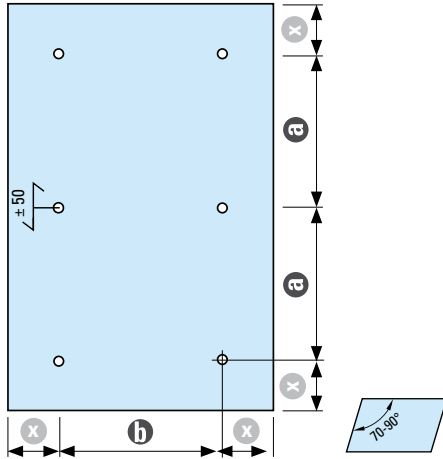
NON-FALL-PROOF GLAZING

Indoor and outdoor non-fall-proof vertical glazing

GLASSLINE

POINT FIXINGS

6 countersunk head fixings



Glass panes can also be rotated by 90°

TYPE	FIXINGS	P.
PH 799	Ø42/80 mm	34
PH 790	Ø42/68 mm	34
PH 792	Ø26/52 mm	35
PH 789	Ø26/45 mm	35



Also for printed glass³⁾ and printed PVB film

Glass dimensions with tested type static calculations

Edge spacings $100 \leq x \leq 300$ mm

	ESG ²⁾ 10 mm		ESG ²⁾ 12 mm		ESG ²⁾ 15mm	
max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a	max. b	max. a
0.25	2,400	1,875	2,350	1,450	2,400	1,475
0.55	1,950	1,275	2,350	1,450	2,400	1,475
0.80	1,750	1,100	2,050	1,200	2,400	1,475
1.10	1,550	950	1,850	1,100	2,350	1,150

	VSG-ESG ¹⁾ 2 x 6 mm		VSG-ESG ¹⁾ 2 x 8 mm		VSG-ESG ¹⁾ 2 x 10 mm		VSG-ESG ¹⁾ 2 x 12 mm	
max. wind load ²⁾ Wd/Ws kN/m ²	max. b	max. a	max. b	max. a	max. b	max. a	max. b	max. a
0.50	1,550	1,300	2,150	1,575	2,400	1,875	2,350	1,450
1.10	1,150	900	1,550	1,125	1,950	1,275	2,350	1,450
1.60	1,050	750	1,350	925	1,750	1,100	2,050	1,200
2.20	1,050	675	1,250	800	1,550	950	1,850	1,100

¹⁾ PVB 1.52 mm ²⁾ The use of ESG or ESG-H is to be tested ³⁾ Printing on pane position 2 min. **a** = 500 mm / min. **b** = 500 mm

GLASSLINE

POINT FIXINGS



POINT FIXINGS

For professional glass construction.

Plate holder fixings and countersunk head fixings from GLASSLINE are the first choice for sophisticated, frameless glass constructions in the case of façades, roofs and glass railings.

Benefit from the combination of high-quality stainless steel and precise workmanship, as well as many years of experience and innovative developments.

PLATE HOLDER FIXINGS AND COUNTERSUNK HEAD FIXINGS

from page 30



SLOT FIXINGS

from page 40



HANDRAIL FIXINGS

from page 44



The point fixings are labelled with appropriate pictograms for quick orientation and determination of properties.

AbZ

AbZ
General Building
Inspectorate
Approval

ABG

ABG
General Design
Certification

AbP

AbP
General Building
Inspectorate Test
Certificate



Glass statics
Tested glass type
statics

**DIN
18008-3**

DIN 18008-3
Pointmounted
glazing

**DIN
18008-4**

DIN 18008-4
Additional require-
ments for fall-proof
glazing



Joint
Point fixing
with safetyball
joint

PH 800

Plate holder fixing with joint

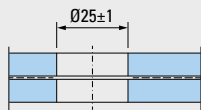
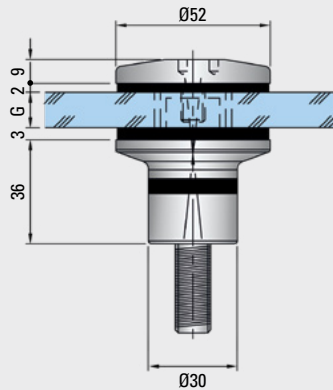
Design	flexible
Diameter	Ø80 mounted
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*
DIN 18008-3	compliant
DIN 18008-4	compliant



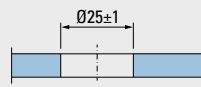
PH 793

Plate holder fixing with joint

Design	flexible
Diameter	Ø52 mounted
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*
DIN 18008-3	compliant
DIN 18008-4	compliant



VSG – Cylindrical borehole

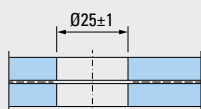
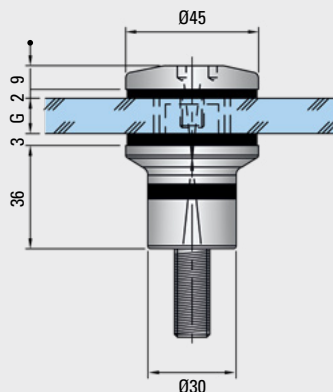


ESG – Cylindrical borehole

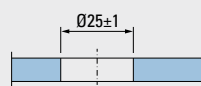
PH 794

Plate holder fixing with joint

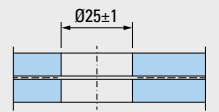
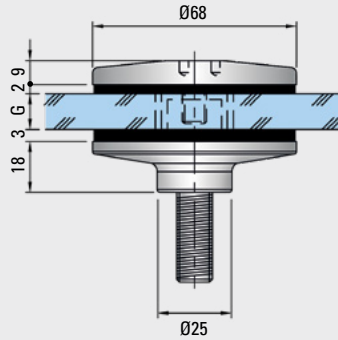
Design	flexible
Diameter	Ø45 mounted
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*



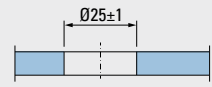
VSG – Cylindrical borehole



ESG – Cylindrical borehole



VSG – Cylindrical borehole

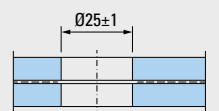
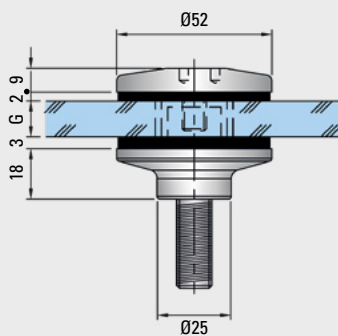


ESG – Cylindrical borehole

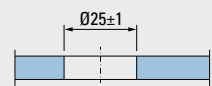
PH 707

Plate holder fixing

Design	rigid
Diameter	Ø68 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*
DIN 18008-3	compliant
DIN 18008-4	compliant



VSG – Cylindrical borehole



ESG – Cylindrical borehole

PH 705

Plate holder fixing

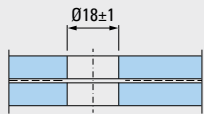
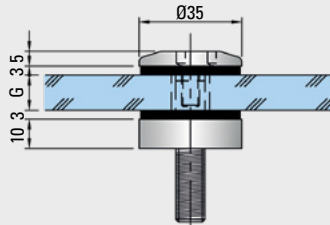
Design	rigid
Diameter	Ø52 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*
DIN 18008-3	compliant
DIN 18008-4	compliant



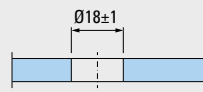
PH 602

Plate holder fixing

Design	rigid
Diameter	Ø35 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Thread	M10*
Thread length	25 mm*



VSG – Cylindrical borehole



ESG – Cylindrical borehole

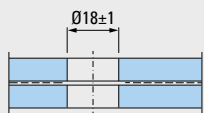
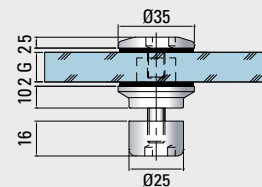
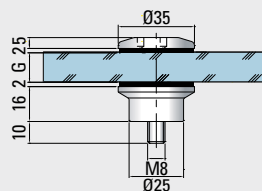
For on-site screw connection

- Cylinder head DIN6912-M6
(not included in the scope of delivery)

PH 607 E | PH 607 M

Plate holder fixing

Design	rigid
Diameter	Ø35 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404



VSG – Cylindrical borehole



ESG – Cylindrical borehole



For on-site screw connection

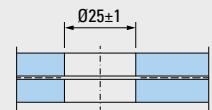
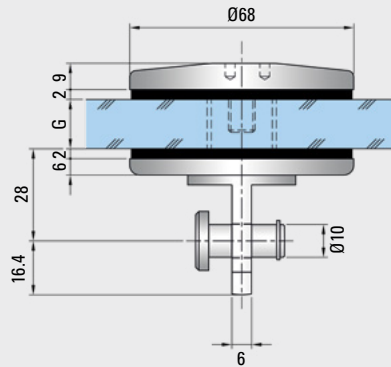
- Cylinder head DIN6912-M6
(not included in the scope of delivery)

PH 68 A

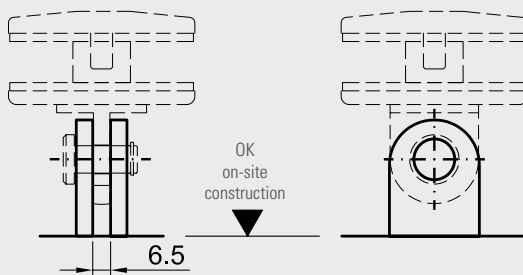
Plate holder fixing

Design	rigid
Diameter	Ø68 mounted
Glass thickness	16 and 20 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant

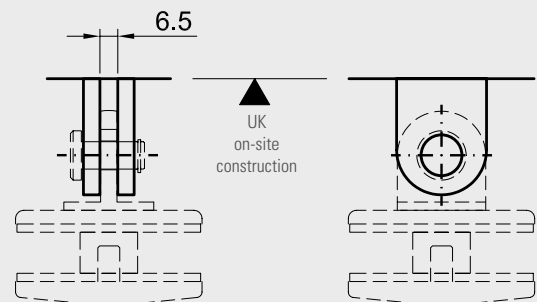
AbZ  DIN 18008-3



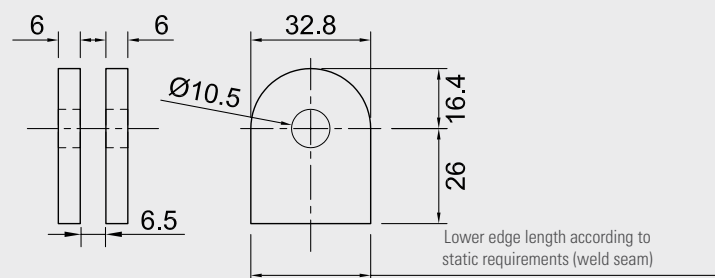
VSG – Cylindrical borehole



Mounted attachment



Suspended attachment

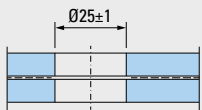
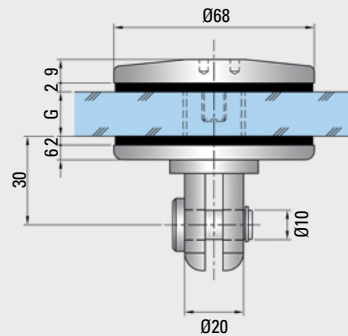


Two mounting brackets to be supplied on-site

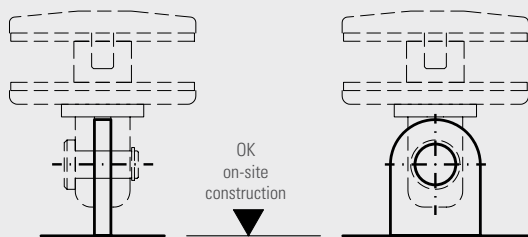
PH 68 G

Plate holder fixing

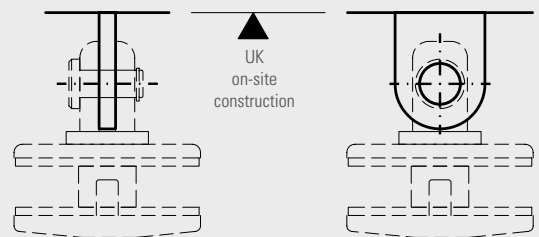
Design	rigid
Diameter	Ø68 mounted
Glass thickness	16 and 20 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant



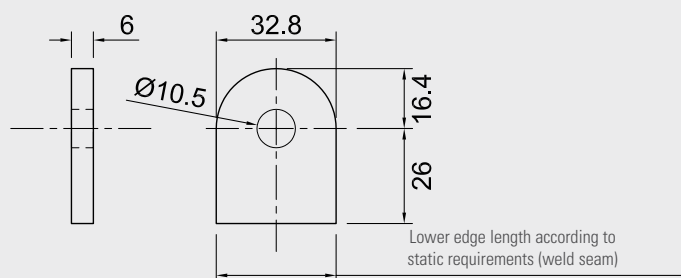
VSG – Cylindrical borehole



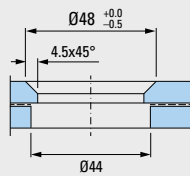
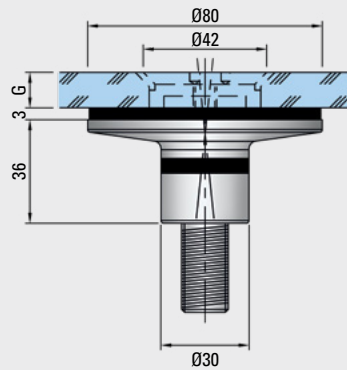
Mounted attachment



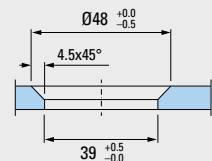
Suspended attachment



One mounting bracket to be supplied on-site



VSG – Countersunk borehole

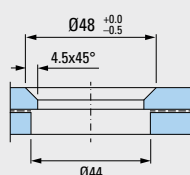
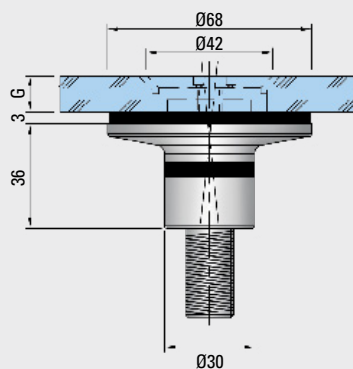
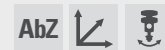


ESG – Countersunk borehole

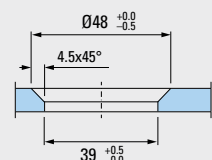
PH 799

Countersunk head fixing with joint

Design	flexible
Diameter	Ø42/80 embedded
Glass thickness	from 10 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*



VSG – Countersunk borehole



ESG – Countersunk borehole

PH 790

Countersunk head fixing with joint

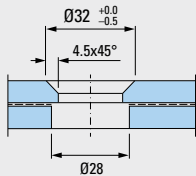
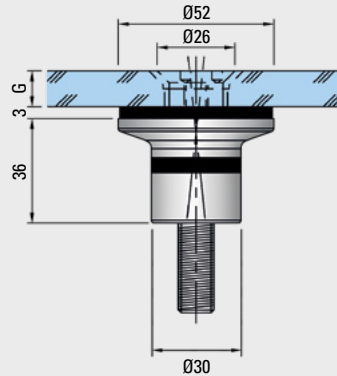
Design	flexible
Diameter	Ø42/68 embedded
Glass thickness	from 10 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*



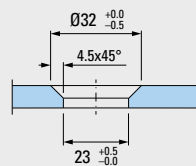
PH 792

Countersunk head fixing
with joint

Design	flexible
Diameter	Ø26/52 embedded
Glass thickness	from 10 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*



VSG – Countersunk borehole

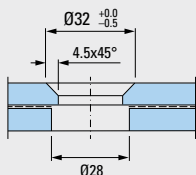
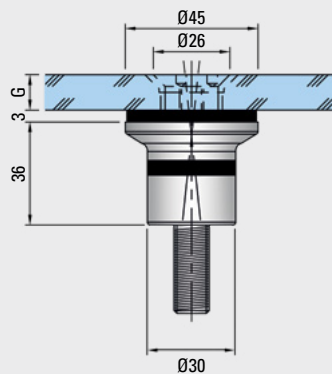


ESG – Countersunk borehole

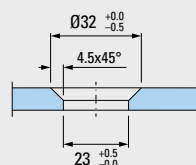
PH 789

Countersunk head fixing
with joint

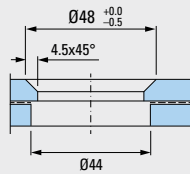
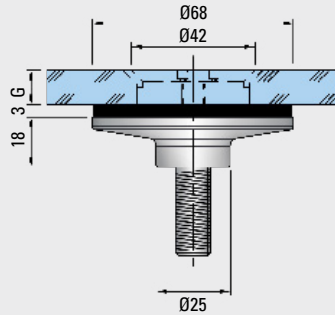
Design	flexible
Diameter	Ø26/45 embedded
Glass thickness	from 10 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*



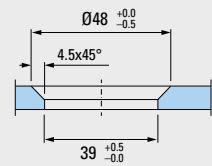
VSG – Countersunk borehole



ESG – Countersunk borehole



VSG – Countersunk borehole



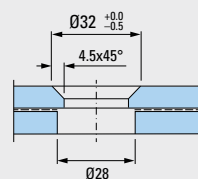
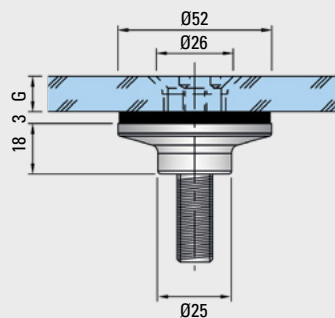
ESG – Countersunk borehole

PH 703

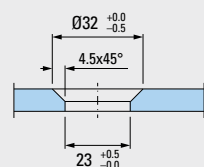
Countersunk head fixing

Design	rigid
Diameter	Ø42/68 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*

AbZ



VSG – Countersunk borehole



ESG – Countersunk borehole

PH 701

Countersunk head fixing

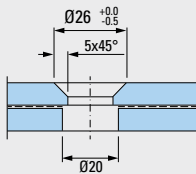
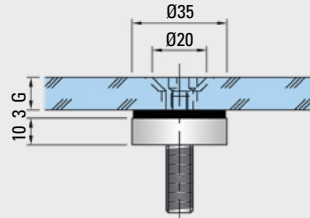
Design	rigid
Diameter	Ø26/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Thread	M12 or M16*
Thread length	35 mm or 50 mm*

AbZ

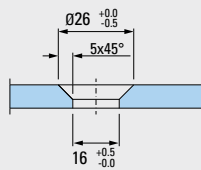
PH 613

Countersunk head fixing

Design	rigid
Diameter	Ø20/35 embedded
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Thread	M10*
Thread length	25 mm*



VSG – Countersunk borehole



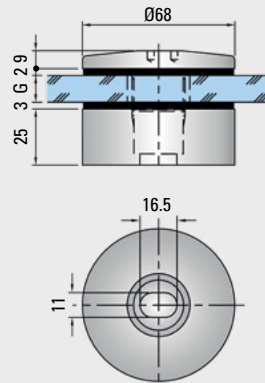
ESG – Countersunk borehole

POINT FIXINGS

PH 611

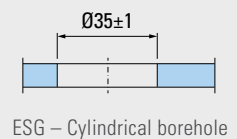
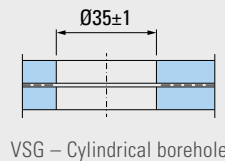
Plate holder fixing – slot

Design	rigid
Diameter	Ø68 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Tolerance compensation (M10)	± 3 mm
DIN 18008-3	compliant
DIN 18008-4	compliant



For on-site screw connection

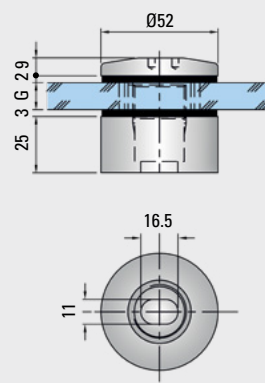
- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)



PH 610

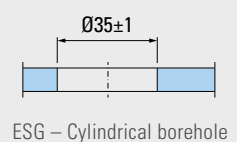
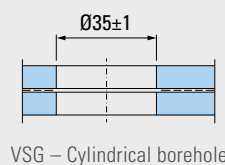
Plate holder fixing – slot

Design	rigid
Diameter	Ø52 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Tolerance compensation (M10)	± 3 mm
DIN 18008-3	compliant
DIN 18008-4	compliant



For on-site screw connection

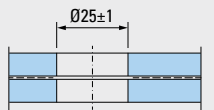
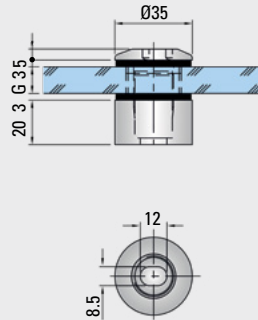
- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)



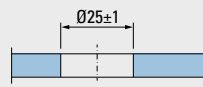
PH 609

Plate holder fixing – slot

Design	rigid
Diameter	Ø35 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Tolerance compensation (M8)	± 2 mm



VSG – Cylindrical borehole



ESG – Cylindrical borehole

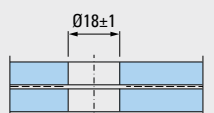
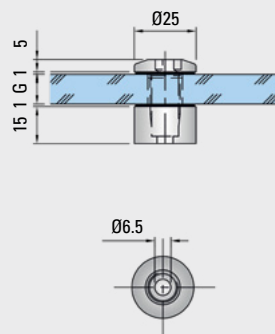
For on-site screw connection

- Cylinder head DIN6912-M8
(not included in the scope of delivery)

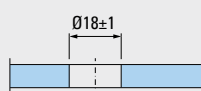
PH 608

Plate holder fixing

Design	rigid
Diameter	Ø25 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404



VSG – Cylindrical borehole



ESG – Cylindrical borehole

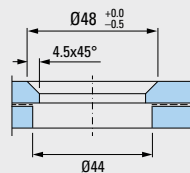
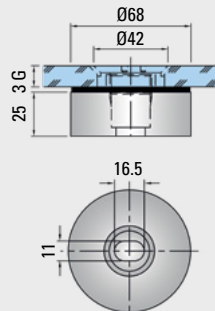
For on-site screw connection

- Cylinder head DIN6912-M6
(not included in the scope of delivery)

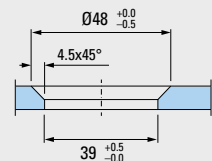
PH 622

Countersunk head fixing – slot

Design	rigid
Diameter	Ø42/68 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Tolerance compensation (M10)	± 3 mm



VSG – Countersunk borehole



ESG – Countersunk borehole

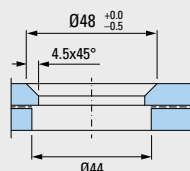
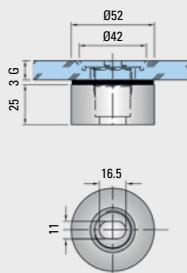
For on-site screw connection

- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)

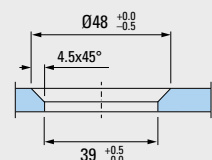
PH 621

Countersunk head fixing – slot

Design	rigid
Diameter	Ø42/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404
Tolerance compensation (M10)	± 3 mm



VSG – Countersunk borehole



ESG – Countersunk borehole

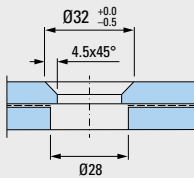
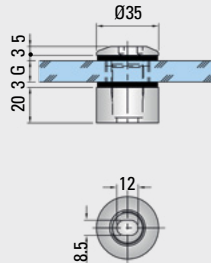
For on-site screw connection

- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)

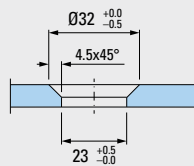
PH 620

Countersunk head fixing – slot

Design	rigid
Diameter	Ø26/35 embedded
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
Tolerance compensation (M10)	± 2 mm



VSG – Countersunk borehole



ESG – Countersunk borehole

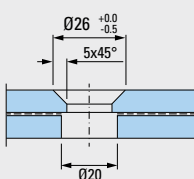
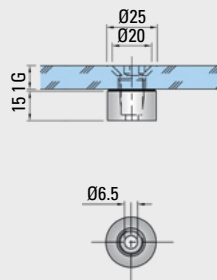
For on-site screw connection

- Cylinder head DIN6912-M8
(not included in the scope of delivery)

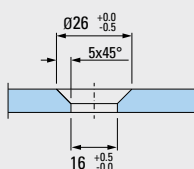
PH 619

Countersunk head fixing

Design	rigid
Diameter	Ø20/25 embedded
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404



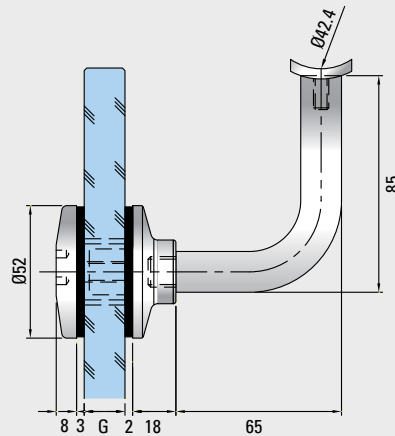
VSG – Countersunk borehole



ESG – Countersunk borehole

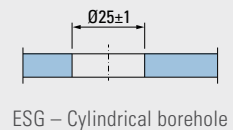
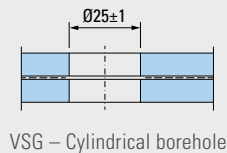
For on-site screw connection

- Cylinder head DIN6912-M6
(not included in the scope of delivery)



For on-site screw connection

- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)



PH 705-HL

Plate holder fixing – handrail

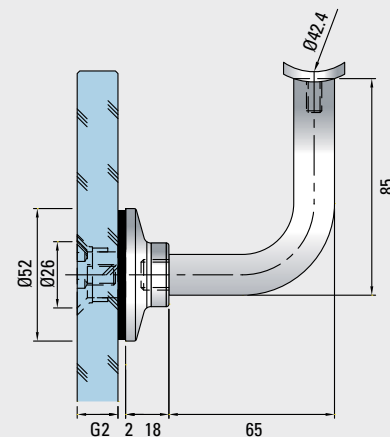
Design	rigid
Diameter	Ø52 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant

DIN 18008-3
DIN 18008-4

PH 701-HL

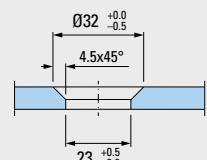
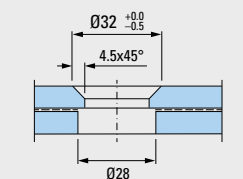
Countersunk head fixing – handrail

Design	rigid
Diameter	Ø26/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404



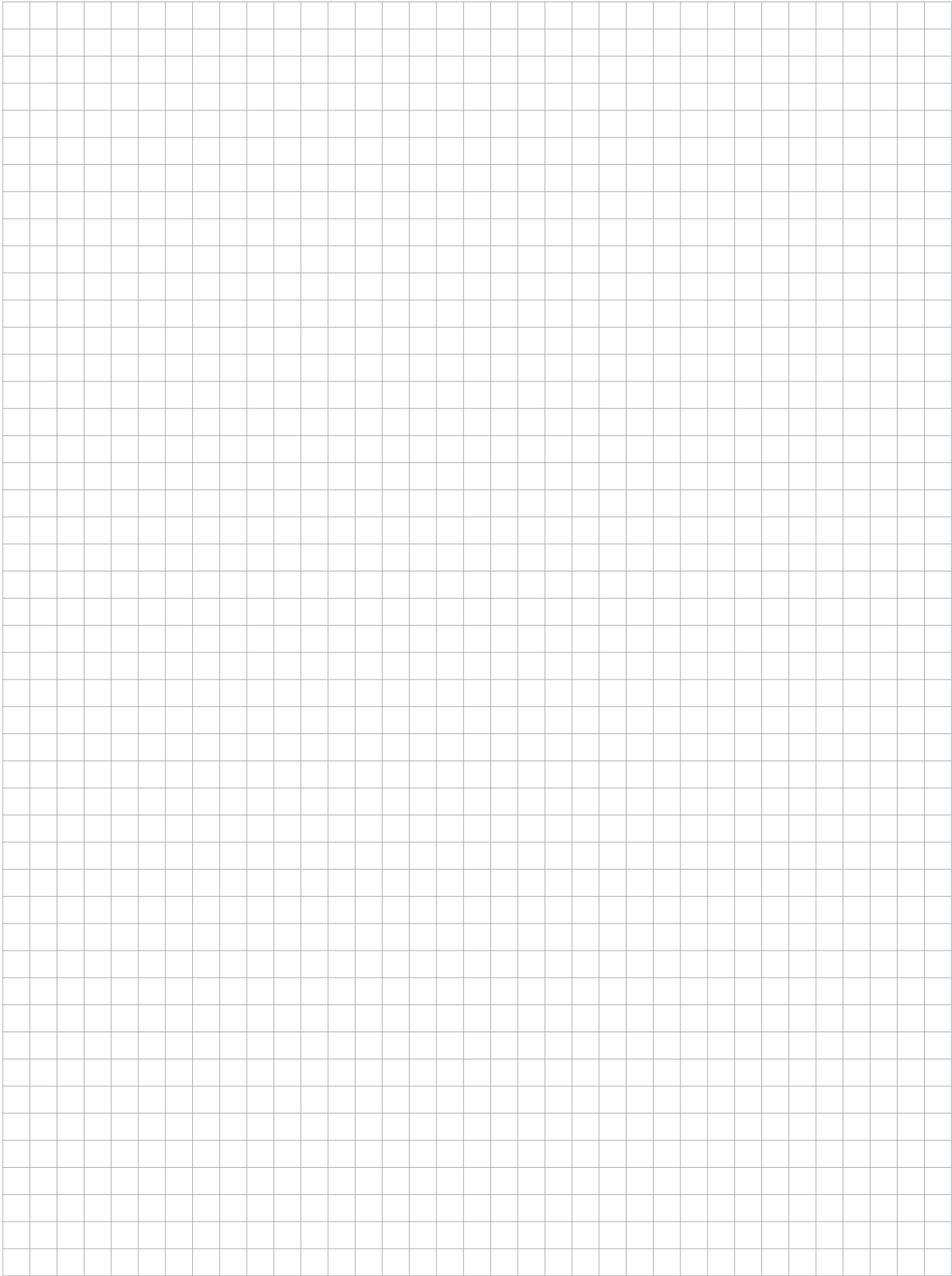
For on-site screw connection

- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)



VSG – Countersunk borehole

ESG – Countersunk borehole



GLASSLINE

GLASS CONNECTORS



GLASS CONNECTORS

For professional glass construction.

Glass connectors from GLASSLINE are design-oriented fittings for the safe and simple attachment of all-glass constructions.

All glass connectors are made of high-quality stainless steel.

Quality made in Germany.

DOUBLE POINT FIXINGS DPHG

from page 48



WALL CONNECTION FIXINGS PHW

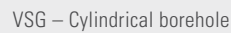
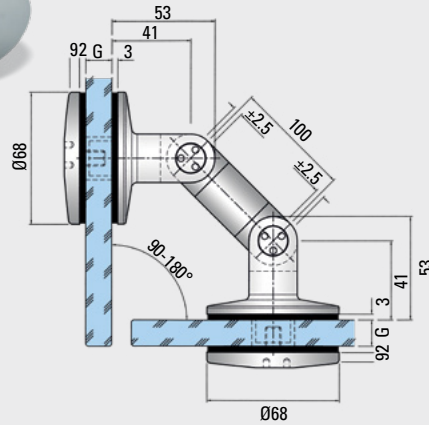
from page 49



DOUBLE POINT FIXINGS DPH AND DPHE

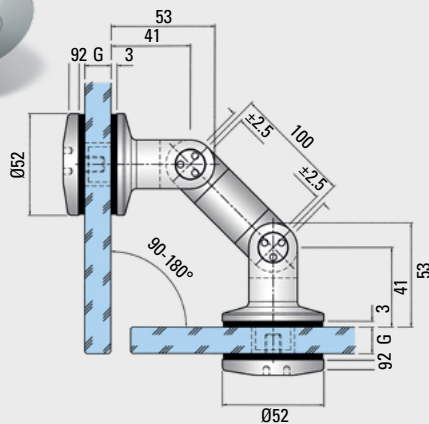
from page 51





Double point fixing

DIN 18008-3
DIN 18008-4



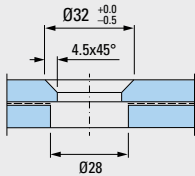
Double point fixing

DIN 18008-3
DIN 18008-4

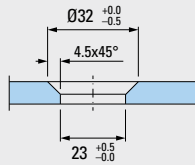
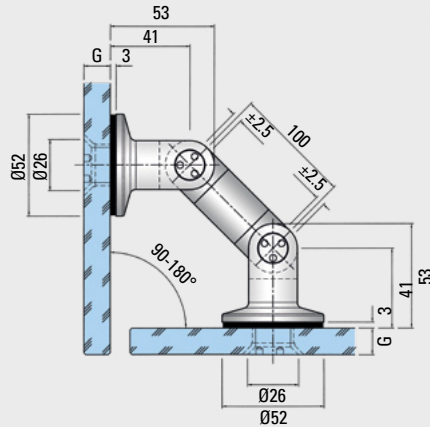
DPHG 2652

Double point fixing

Design	angled, 90-180°
Diameter	Ø26/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404



VSG – Countersunk borehole



ESG – Countersunk borehole

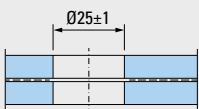


PHW 68

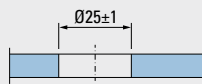
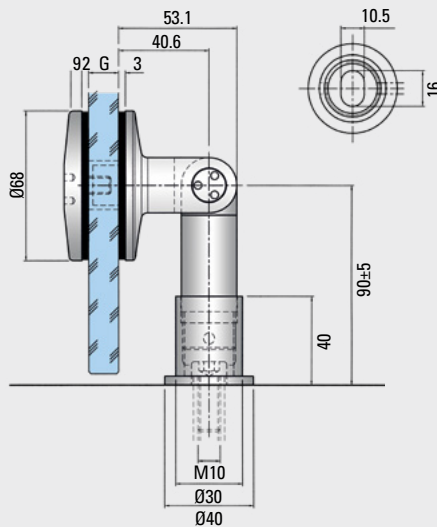
Wall connection fixing

Design	180° pivoting
Diameter	Ø68 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant

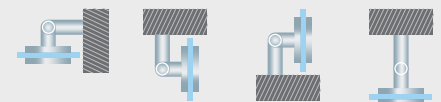
DIN 18008-3	DIN 18008-4
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VSG – Cylindrical borehole



ESG – Cylindrical borehole



For on-site screw connection

- Cylinder head DIN6912-M6
- Wood screw DIN571-Ø8

(not included in the scope of delivery)

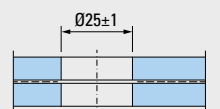
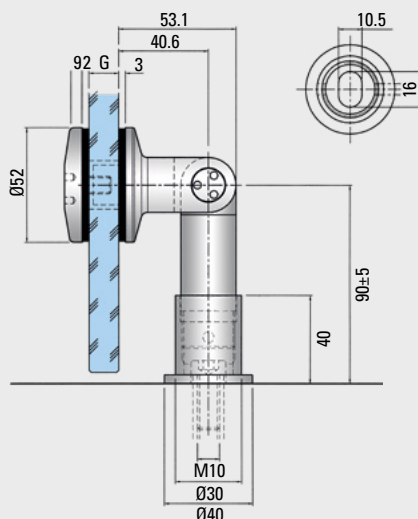
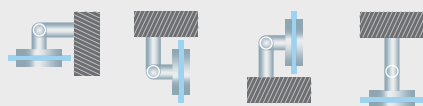


PHW 52

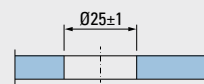
Wall connection fixing

Design	180° pivoting
Diameter	Ø52 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant

DIN 18008-3	DIN 18008-4
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VSG – Cylindrical borehole



ESG – Cylindrical borehole

For on-site screw connection

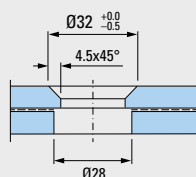
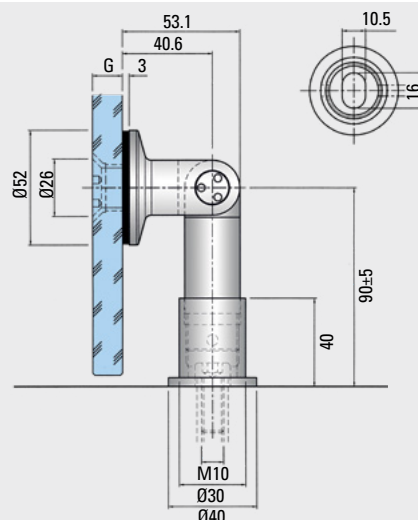
- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)



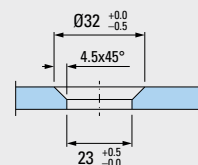
PHW 2652

Wall connection fixing

Design	180° pivoting
Diameter	Ø26/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404



VSG – Countersunk borehole



ESG – Countersunk borehole

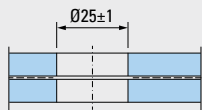
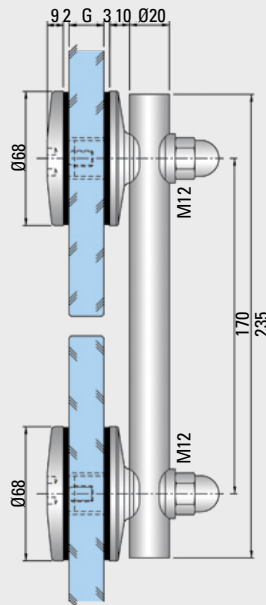
For on-site screw connection

- Cylinder head DIN6912-M10
- Wood screw DIN571-Ø8
(not included in the scope of delivery)

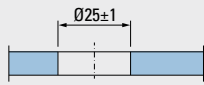
DPH 68

Double point fixing

Design	straight
Diameter	Ø68 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant



VSG – Cylindrical borehole

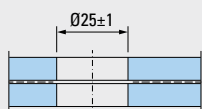
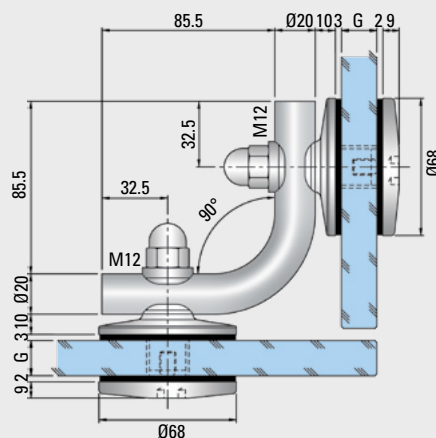


ESG – Cylindrical borehole

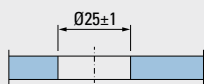
DPHE 68

Double point fixing

Design	angled, 90°*
Diameter	Ø68 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant

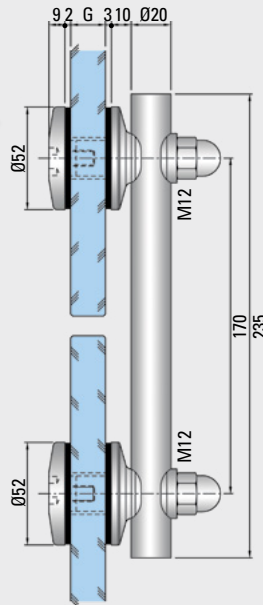


VSG – Cylindrical borehole



ESG – Cylindrical borehole

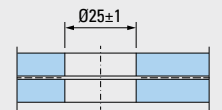
* Custom angle on request



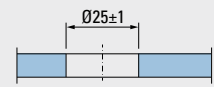
DPH 52

Double point fixing

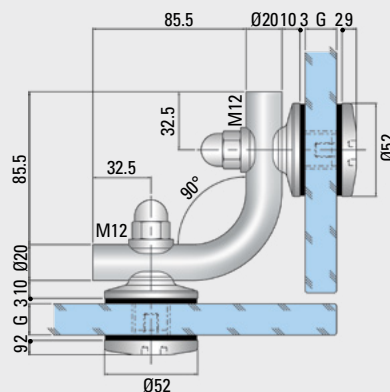
Design	straight
Diameter	Ø52 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant



VSG – Cylindrical borehole



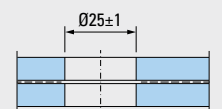
ESG – Cylindrical borehole



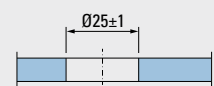
DPHE 52

Double point fixing

Design	angled, 90°*
Diameter	Ø52 mounted
Glass thickness	from 6 mm
Turned parts	Stainless steel 1.4404
DIN 18008-3	compliant
DIN 18008-4	compliant



VSG – Cylindrical borehole

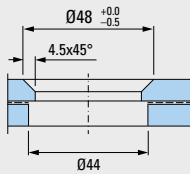


ESG – Cylindrical borehole

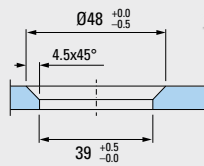
DPH 4268

Double point fixing

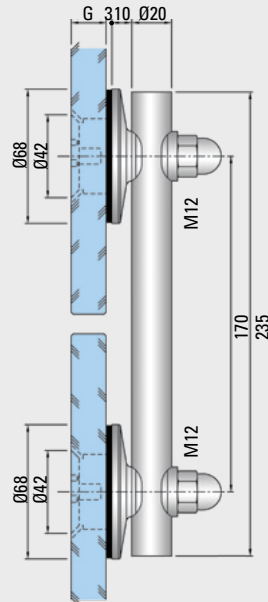
Design	straight
Diameter	Ø42/68 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404



VSG – Countersunk borehole



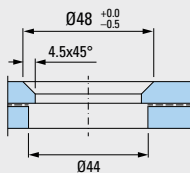
ESG – Countersunk borehole



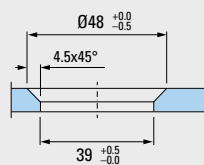
DPHE 4268

Double point fixing

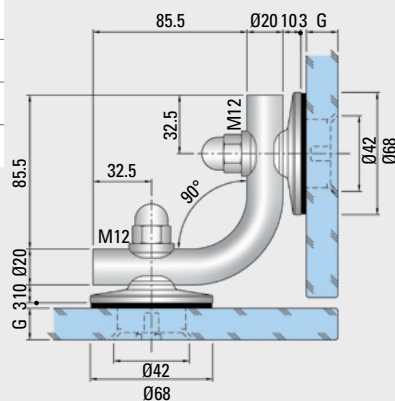
Design	angled, 90°*
Diameter	Ø42/68 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404

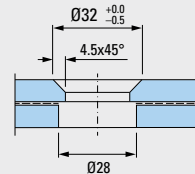
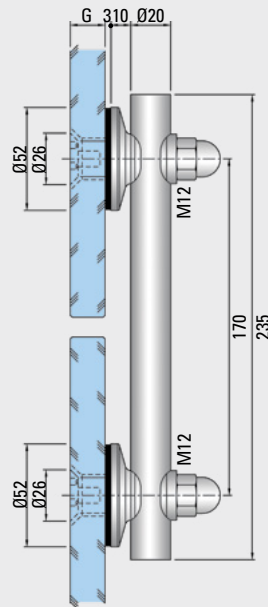
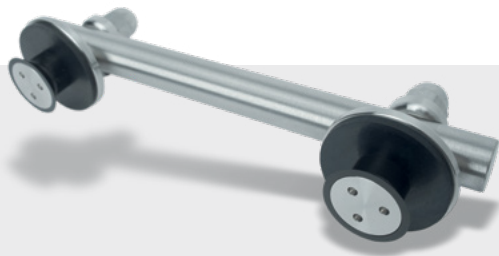


VSG – Countersunk borehole

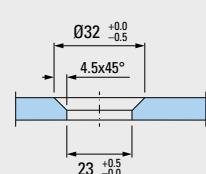


ESG – Countersunk borehole





VSG – Countersunk borehole

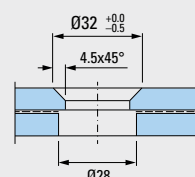
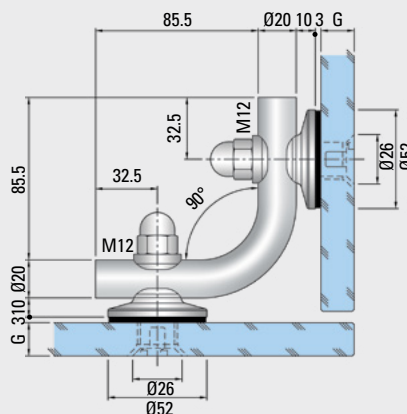


ESG – Countersunk borehole

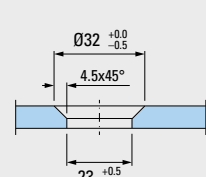
DPH 2652

Double point fixing

Design	straight
Diameter	Ø26/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404



VSG – Countersunk borehole



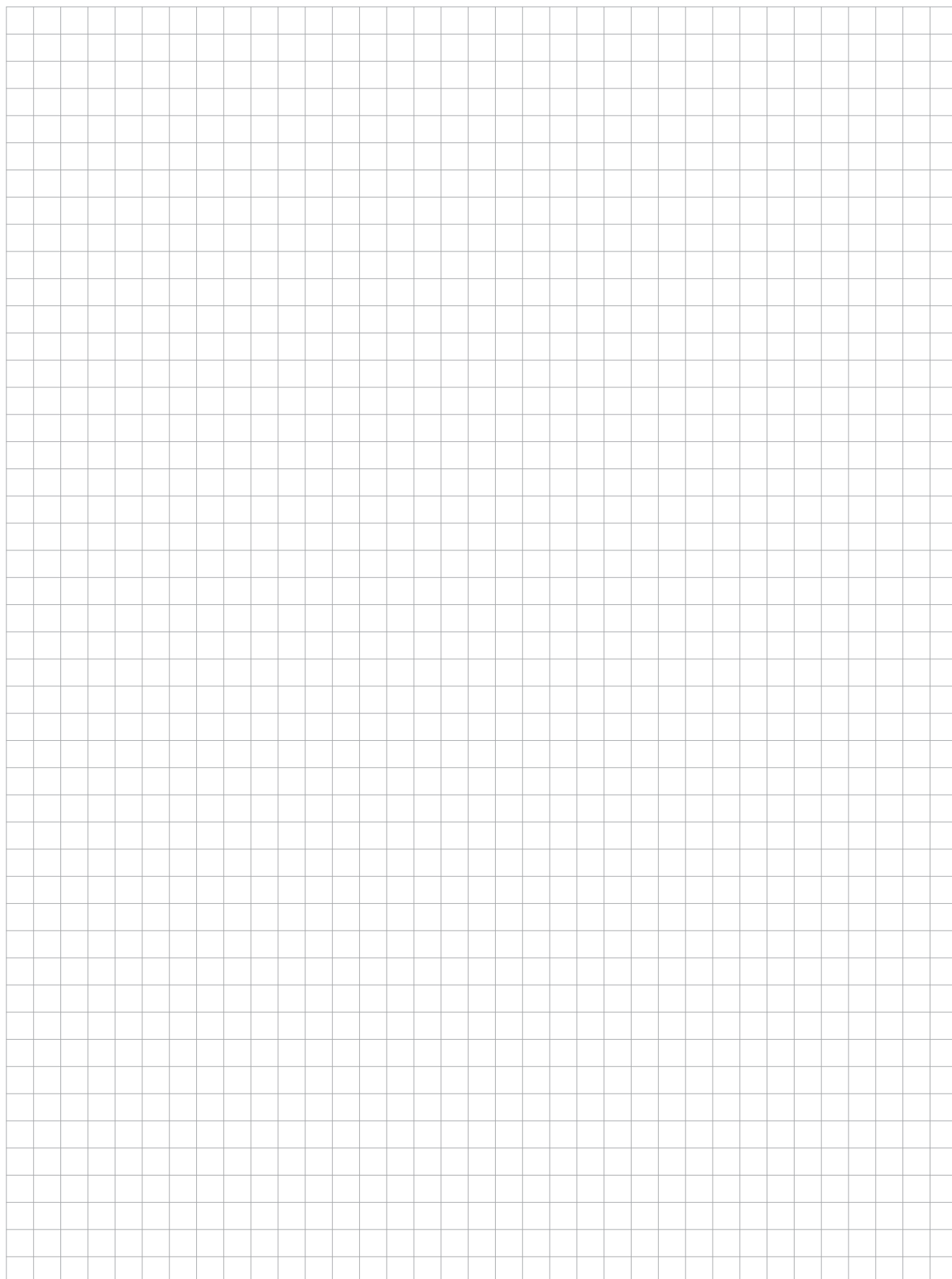
ESG – Countersunk borehole

DPHE 2652

Double point fixing

Design	angled, 90°*
Diameter	Ø26/52 embedded
Glass thickness	from 8 mm
Turned parts	Stainless steel 1.4404





GLASSLINE

SPIDERS



SPIDERS

Intricate and safe.

Spiders from GLASSLINE allow for the aesthetic connection of point fixings to a supporting structure.

When used in combination with GLASSLINE point fixings, they form unparalleled glass architecture with maximum safety and transparency.

ANGULAR SPIDER KS

from page 62



TURNED SPIDER DS

from page 66



BEARING VARIANTS AND RECOMMENDED ARRANGEMENT OF THE SPIDERS

from page 70

ANGULAR SPIDERS



KS1

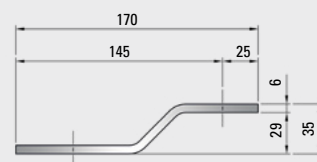
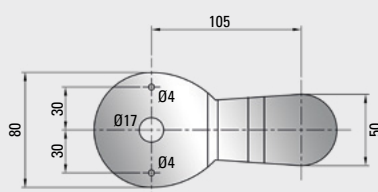
1-armed spider

Design	angled/glass bead blasted
Flashings	Stainless steel 1.4571

Mounting positions



Please specify when ordering
Specify type of bearing
(see page 70-71):



KS1-D

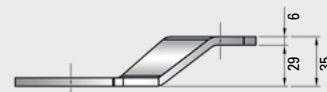
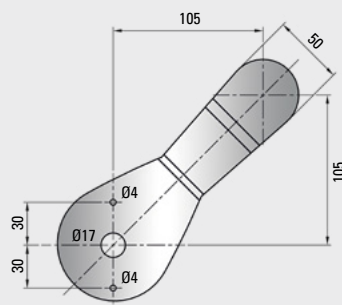
1-armed spider (diagonal)

Design	angled/glass bead blasted
Flashings	Stainless steel 1.4571

Mounting positions

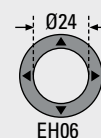
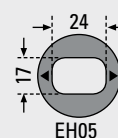
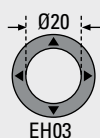
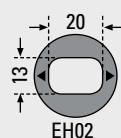


Please specify when ordering
Specify type of bearing
(see page 70-71):



Type of bearing

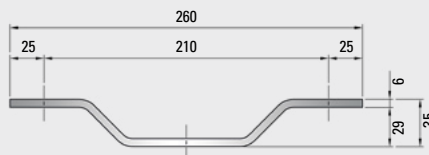
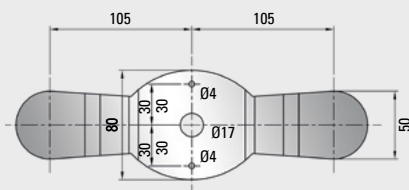
for M12 (Fixed bearing) (Vertical bearing) (Movable bearing) for M16 (Fixed bearing) (Vertical bearing) (Movable bearing)



KS2

2-armed spider

Design	angled/glass bead blasted
Flashings	Stainless steel 1.4571



Mounting positions



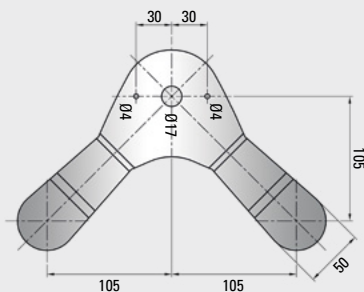
Please specify when ordering
Specify type of bearing
(see page 70-71):



KS2-90°

2-armed spider

Design	angled/glass bead blasted
Flashings	Stainless steel 1.4571



Mounting positions

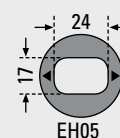
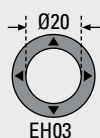
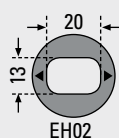


Please specify when ordering
Specify type of bearing
(see page 70-71):



Type of bearing

for M12 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing) for M16 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing)



ANGULAR SPIDERS

KS3

3-armed spider

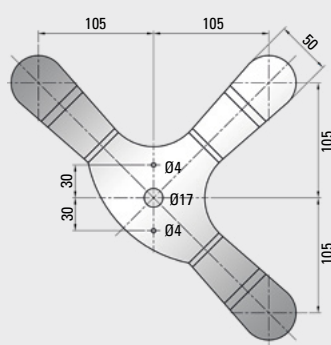
Design	angled/glass bead blasted
Flashings	Stainless steel 1.4571



Mounting positions



Please specify when ordering
Specify type of bearing
(see page 70-71):



KS4

4-armed spider

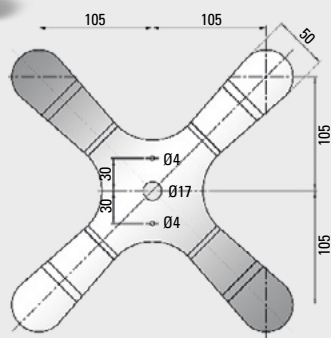
Design	angled/glass bead blasted
Flashings	Stainless steel 1.4571



Mounting positions

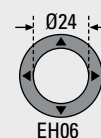
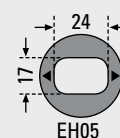
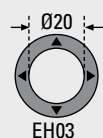
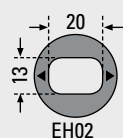
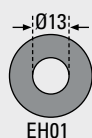


Please specify when ordering
Specify type of bearing
(see page 70-71):



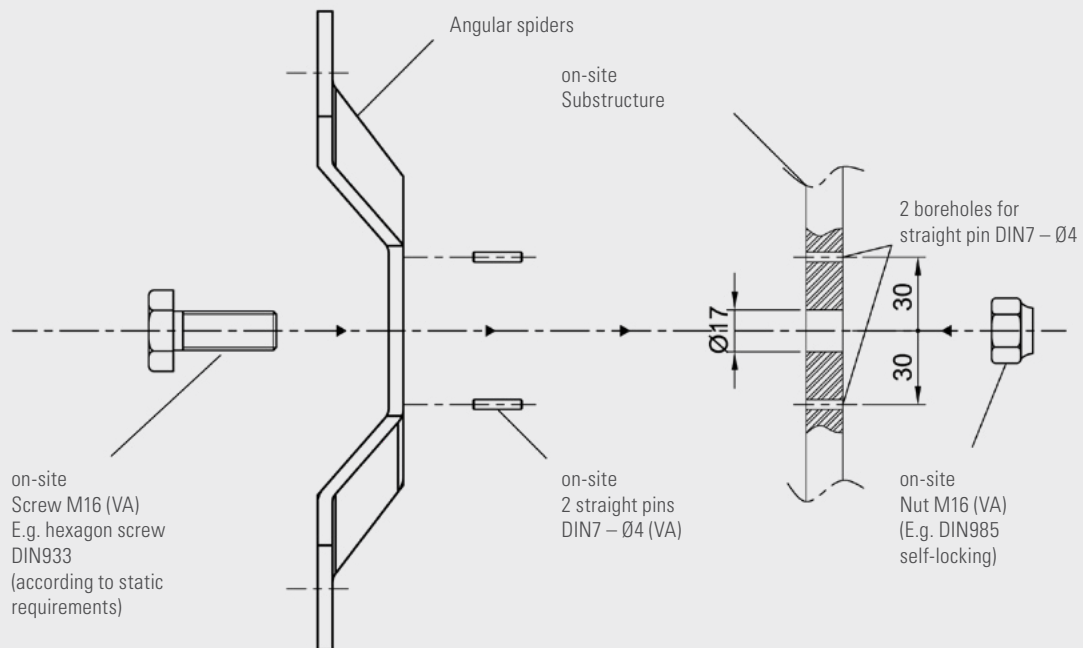
Type of bearing

for M12 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing) for M16 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing)

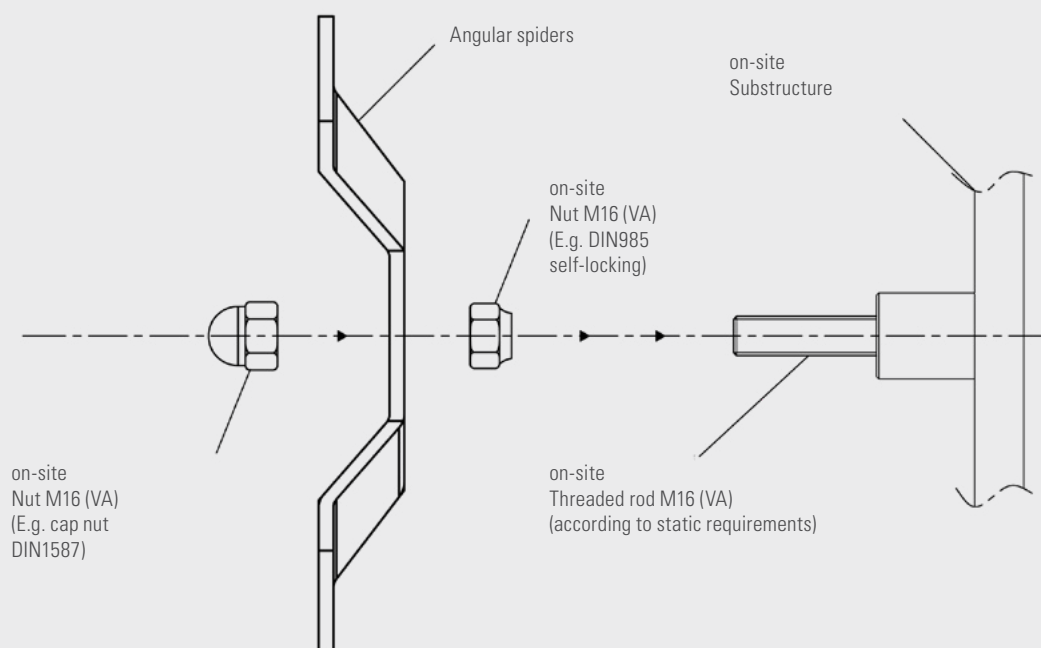


Mounting of angular spider/design examples

Mounting **without** spacing from the substructure



Mounting **with** spacing from the substructure



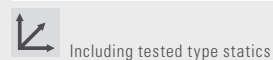
TURNED SPIDERS



DS1

1-armed spider

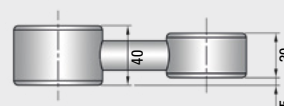
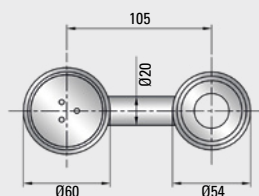
Design	turned
Turned parts	Stainless steel 1.4404



Mounting positions



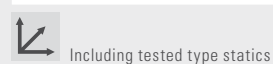
Please specify when ordering
Specify type of bearing
(see page 70-71):



DS1-D

1-armed spider (diagonal)

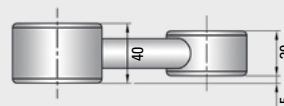
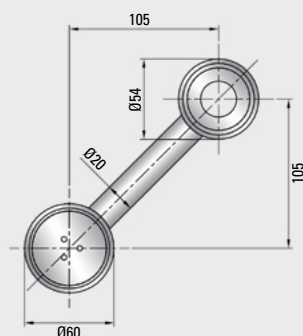
Design	turned
Turned parts	Stainless steel 1.4404



Mounting positions

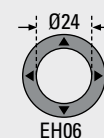
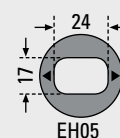
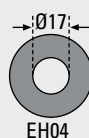
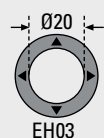
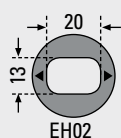
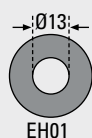


Please specify when ordering
Specify type of bearing
(see page 70-71):



Type of bearing

for M12 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing) for M16 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing)



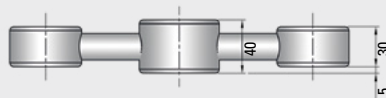
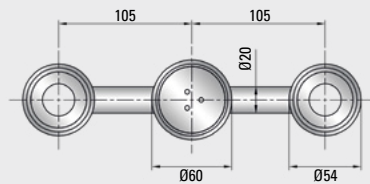
DS2

2-armed spider

Design	turned
Turned parts	Stainless steel 1.4404



Including tested type statics



Mounting positions



Please specify when ordering
Specify type of bearing
(see page 70-71):



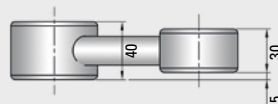
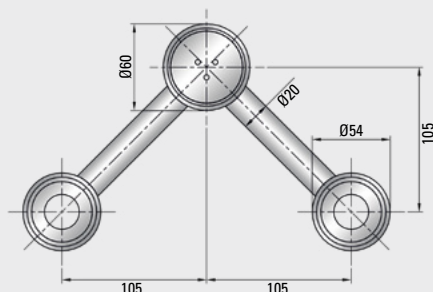
DS2-90°

2-armed spider

Design	turned
Turned parts	Stainless steel 1.4404



Including tested type statics



Mounting positions

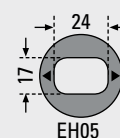
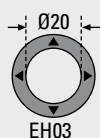
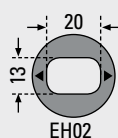
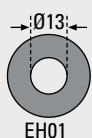


Please specify when ordering
Specify type of bearing
(see page 70-71):



Type of bearing

for M12 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing) for M16 **F** (Fixed bearing) **VL** (Vertical bearing) **L** (Movable bearing)



DS3

3-armed spider

Design	turned
Turned parts	Stainless steel 1.4404

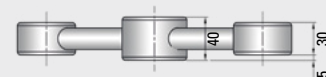
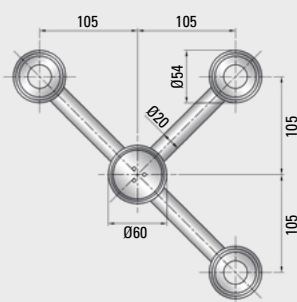
 Including tested type statics



Mounting positions



Please specify when ordering
Specify type of bearing
(see page 70-71):



DS4

4-armed spider

Design	turned
Turned parts	Stainless steel 1.4404

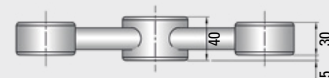
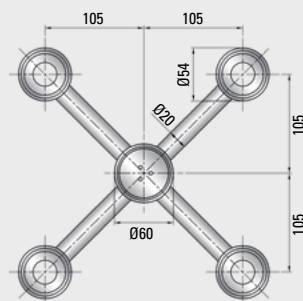
 Including tested type statics



Mounting positions

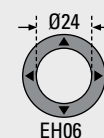
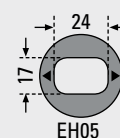
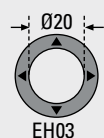
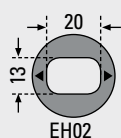
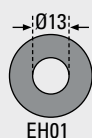


Please specify when ordering
Specify type of bearing
(see page 70-71):



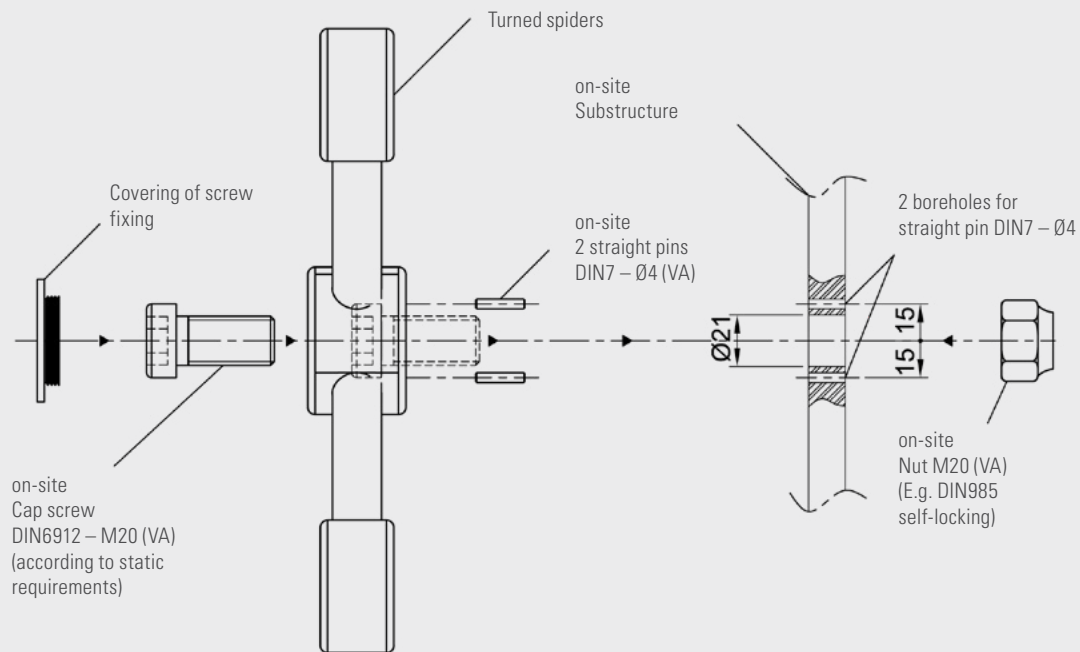
Type of bearing

for M12  (Fixed bearing)  (Vertical bearing)  (Movable bearing) for M16  (Fixed bearing)  (Vertical bearing)  (Movable bearing)

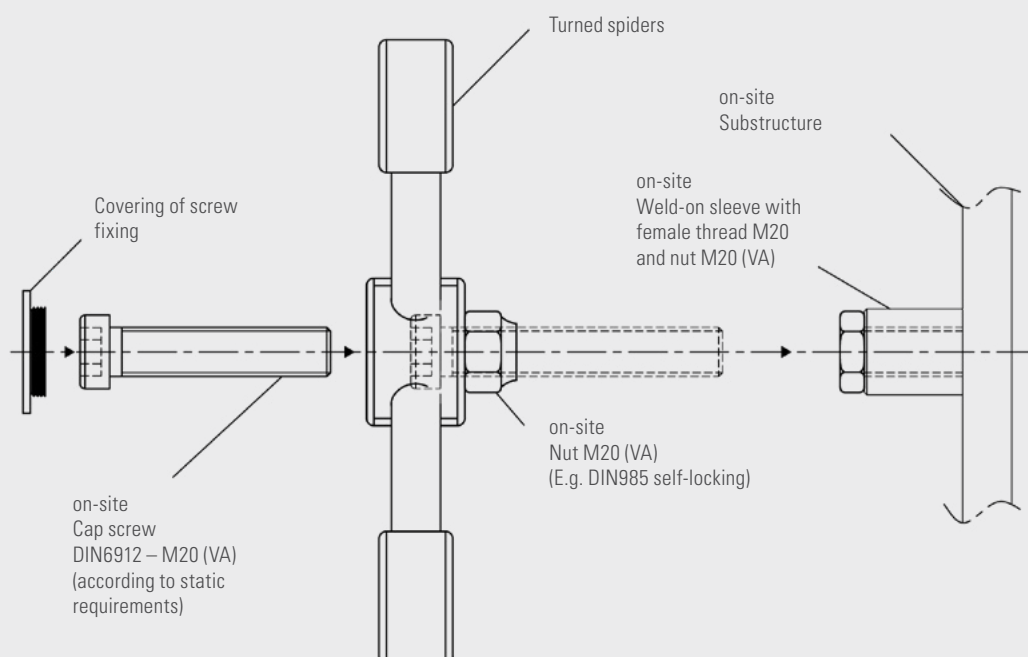


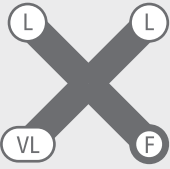
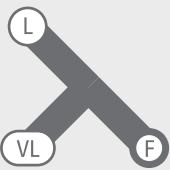
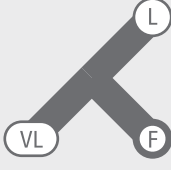
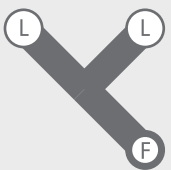
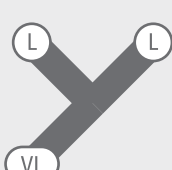
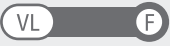
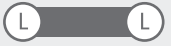
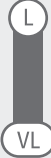
Mounting of turned spider/design examples

Mounting **without** spacing from the substructure



Mounting **with** spacing from the substructure

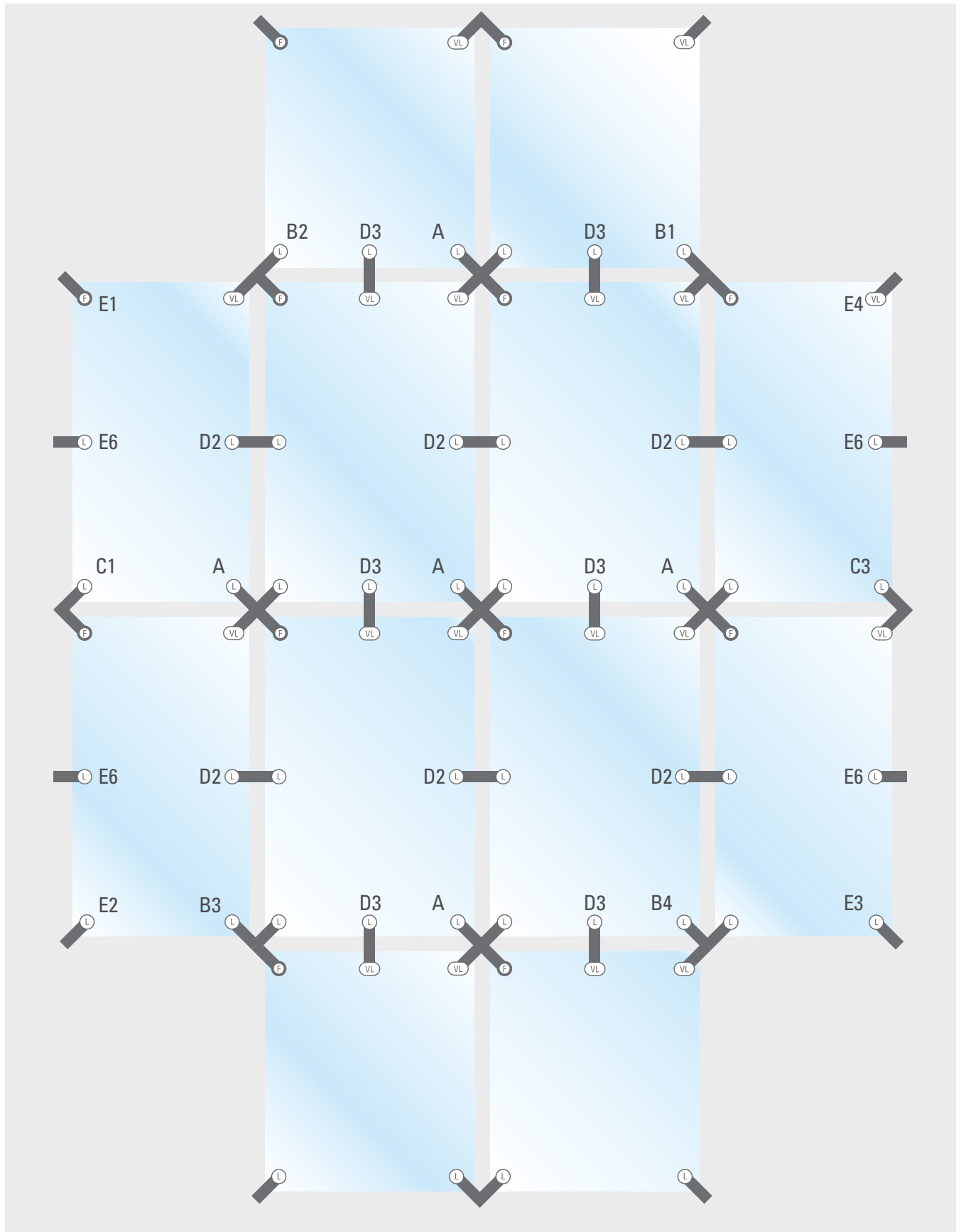


4-armed spider	A	  Fixed bearing No movement/expansion  Vertical bearing Movement/expansion in the X-axis  Movable bearing Movement/expansion in the X/Y-axis		
3-armed spider	B1			
	B2			
	B3			
	B4			
2-armed spider 90°	C1			
	C2			
	C3			
	C4			
2-armed spider	D1			
	D2			
	D3			
1-armed spider	E1			
	E2			
	E3			
	E4			
	E5			
	E6			
	E7			
	E8			
	E9			
	E10			

Recommended arrangement of the spiders in the case of point-fixed glazing

GLASSLINE

SPIDERS





1/4" 3-point socket wrench set 7 mm

For point fixings	PH602 · PH607 · PH609 · PH620 · PH621 · PH622 PH701 · PH703 · PH789 · PH790 · PH792 · PH799 PH701-HL
For glass connectors	DPH4268 · DPHE4268 · DPH2652 · DPHE2652 DPHG2652 · PHW2652

1/4" 3-point socket wrench set 5 mm

For point fixings	PH608 · PH610 · PH611 · PH613 · PH619 · PH705 PH707 · PH791 · PH793 · PH794 · PH800 · PH705-HL PH68A · PH68G
For glass connectors	DPHG68 · DPHG52 · DPH68 · DPHE68 · DPH52 DPHE52 · PHW68 · PHW52

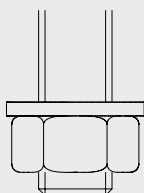


Screw lock, high-strength

10 ml
50 ml

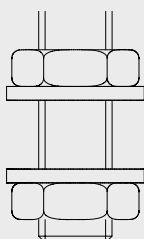
Torque wrench

Socket wrench insert 1/4"
4 - 20 Nm



Mounting kit for thread length < 50 mm

M10	Nut DIN934-M10 and U-shaped washer DIN125-A10.5
M12	Nut DIN934-M12 and U-shaped washer DIN125-A13
M16	Nut DIN934-M16 and U-shaped washer DIN125-A17
Material	V4A

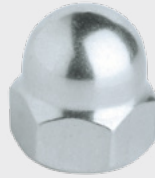


Mounting kit for thread length ≥ 50 mm

M12	2 nuts DIN439-M12 and 2 U-shaped washers DIN125-A13
M16	2 nuts DIN439-M16 and 2 U-shaped washers DIN125-A17
Material	V4A

Cap nut

Cap nut	DIN1587-M10 DIN1587-M12 DIN1587-M16
Material	V4A



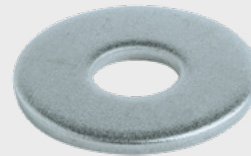
Self-locking hexagon nut

Nut	DIN985-M10 DIN985-M12 DIN985-M16
Material	V4A



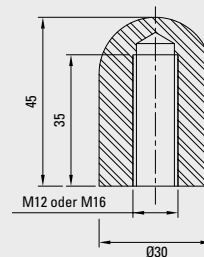
U-shaped washer, large

U-shaped washer	DIN9021-M10 (di=10,5; D=30) DIN9021-M12 (di=13; D=40) DIN9021-M16 (di=17; D=50)
Material	V4A



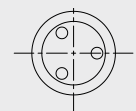
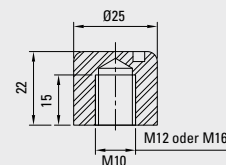
Weld-on sleeve Ø30 mm

Thread	M12 M16
Material	Stainless steel 1.4404



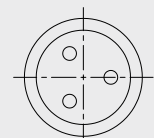
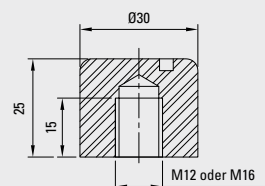
Cylinder washer Ø25 mm

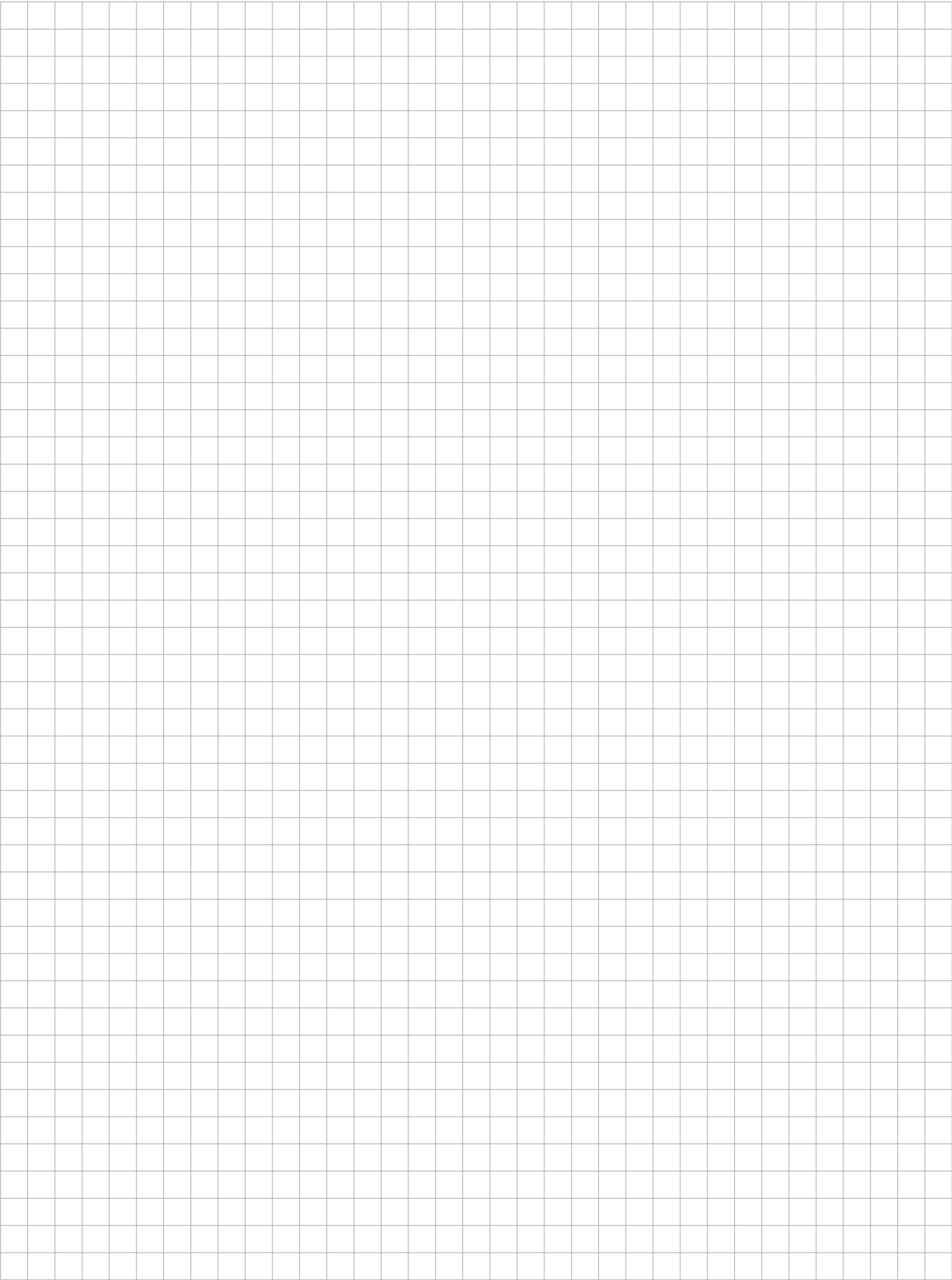
Thread	M10 M12 or M16
Point fixings	PH602 · PH613 · PH701 PH703 · PH705 · PH707
Material	Stainless steel 1.4404
Height	22 mm



Cylinder washer Ø30 mm

Thread	M12 or M16
Point fixings	PH789 · PH790 · PH791 · PH792 PH793 · PH794 · PH799 · PH800
Material	Stainless steel 1.4404
Height	25 mm





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Name

Company

Street/house number

Postcode/city

Telephone

Fax

Email

(Please fill out all fields)

Construction project

PLATE HOLDER FIXING

flexible

- ☐ PH 800 - Ø80 mm
- ☐ PH 791 - Ø68 mm
- ☐ PH 793 - Ø52 mm
- ☐ PH 794 - Ø45 mm



rigid

- ☐ PH 707 - Ø68 mm
- ☐ PH 705 - Ø52 mm
- ☐ PH 602 - Ø35 mm
- ☐ PH 608 - Ø25 mm
- ☐ PH 607 E - Ø35 mm
- ☐ PH 607 M - Ø35 mm



with slot

- ☐ PH 611 - Ø68 mm
- ☐ PH 610 - Ø52 mm
- ☐ PH 609 - Ø35 mm



for the handrail

- ☐ PH 705-HL - Ø52 mm



COUNTERSUNK HEAD FIXING

flexible

- ☐ PH 799 - Ø42/80 mm
- ☐ PH 790 - Ø42/68 mm
- ☐ PH 792 - Ø26/52 mm
- ☐ PH 789 - Ø26/45 mm



rigid

- ☐ PH 703 - Ø42/68 mm
- ☐ PH 701 - Ø26/52 mm
- ☐ PH 613 - Ø20/35 mm
- ☐ PH 619 - Ø20/25 mm



with slot

- ☐ PH 622 - Ø42/68 mm
- ☐ PH 621 - Ø42/52 mm
- ☐ PH 620 - Ø26/35 mm



for the handrail

- ☐ PH 701-HL - Ø26/52 mm



THREAD

☐ M10☐ M12☐ M16

ACCESSORIES

☐ Cylinder washer Ø25 mm

____ Piece(s)

☐ Cylinder washer Ø30 mm

____ Piece(s)



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GLASS ARCHITECTURE AND SECURE ATTACHMENT OF
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As a leading supplier, GLASSLINE develops, manufactures and sells high-quality system solutions in the areas of point fixing systems, all-glass railing systems, frameless canopy constructions and systems with thermal insulation for the secure attachment of add-on elements to building envelopes.

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- All screw connections are to be permanently secured against loosening, such as through gluing.
- The pressure-resistant insulating elements are to be protected against UV radiation and weather influences.
- Object-specific application as well as verifications of load application and transfer are to be checked or carried out on-site.

