



Design according to or similar to DIN 28120

USE:

Round sight glasses are used to observe and illuminate the inside of closed vessels (boilers, tanks, silos, etc.). Type 320 sight glasses to **DIN 28120** are round flanged sockets for welding in or on, each completed with a sight glass plate inserted between the gaskets and screwed tight.

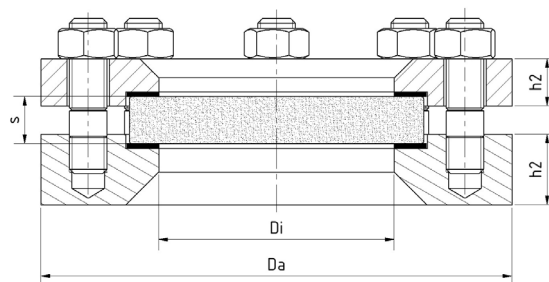
INSTALLATION INSTRUCTIONS:

After welding in the base flange, check whether the gasket surface has warped. If necessary, this must be reworked! Also observe the specified torques for the screw connection! The operating pressure does not apply to the base flange, this must be tested together with the pressure device according to AD leaflet B9!

OPERATING CONDITIONS

Temperature: (depending on glass and gasket)	≤ 150°C	Soda-lime glass (DIN 8902 or similar)
	≤ 280°C	Borosilicate glass (DIN 7080 or similar)
	≤ 400°C	Borosilicate glass untempered
	> 400°C	on request
Pressure:	≤ 10/16 bar (g)	

DRAWING:



MATERIALS

Base flange:	1.4541; 1.4571; 1.4404; 1.4539; 1.4435; 1.4301/7
Glass:	Borosilicate glass (DIN 7080 or similar), Soda lime glass (DIN 8902 or similar), Borosilicate glass untempered
Gasket:¹	PTFE; FKM; NBR; C4400; Silicone; EPDM; Graphite
Screws:	A4-70
Special materials on request	

DN	25	40	50	80	100	125	150	200	250 ²	300 ²
Da [mm]	115	150	165	200	220	250	285	340	395	445
Di [mm]	48	65	80	100	125	150	175	225	280	325
h1 [mm]	16	16	16	20	22	25	30	35	40	45
h2 [mm]	25	30	30	30	30	30	36	36	40	45
Glas-Ø [mm]	63	80	100	125	150	175	200	250	300	355
s (PN10) [mm]	10	10	12	15	20	20	25	30	45	60
s (PN16) [mm]	10	12	15	20	25	25	30	-	-	-
Wt. (PN10) [kg]	-	-	-	9,6	11,1	14,3	21,9	30,7	44,7	62,5
Wt. (PN16) [kg]	2,8	5,4	6,0	9,7	11,3	14,6	22,4	-	-	-

2) Similar to DIN 28120

1) See „INFO Gaskets“

PRODUCT CODE:

Example to explain the code composition

11 - 320 - 100 - 2 - 1 - 4 - 000

GROUP	TYPE	NOMINAL SIZE	BASE FLANGE ¹	GLASS	GASKET	VARIANT
11	320	DN 25	1) 1.4541	1) Borosilicate glass according to DIN 7080	1) PTFE	000) Standard
		DN 40	2) 1.4571	or similar	2) FKM	G00) Borosilicate glass ² + mica disc
		DN 50	3) 1.4404	2) Soda-lime glass according to DIN 8902	3) NBR	S00) Spraying device
		DN 80	6) 1.4301/7	or similar	4) C4400	V00) Vacuum
		DN 100	8) Special	3) Quartz glass	5) Silicone	D00) Double glazed
		DN 125		4) Borosilicate glass ² + PTFE wiper SGW	6) EPDM	
		DN 150		5) Borosilicate glass ² + Silicone wiper SGW	7) Graphite	
		DN 200		6) Soda-lime glass ³ + PTFE wiper SGW	8) Special	
		DN 250 ⁴		7) Soda-lime glass ³ + Silicone wiper SGW		
		DN 300 ⁴		8) Borosilicate glass untempered		

1) Cover flange according to offer/ order confirmation

2) Similar to DIN 7080

3) Similar to DIN 8902

4) Similar to DIN 28120



Unless otherwise stated, the highlighted factory standard is supplied.

EXAMPLE:

11-320-100-2-1-4-000 equivalent to:

ACI Type 320

DN 100

PN 16

Base flange made of 1.4571

Cover flange made of 1.4571

Borosilicate glass DIN 7080

Gasket C4400

Standard version

- additional equipment optional

CONSTRUCTION:

Nuts

Stud bolts

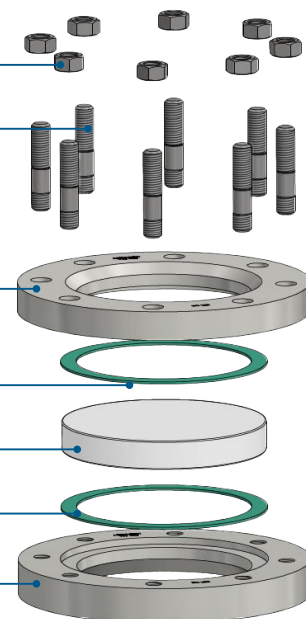
Cover flange

Gasket (on the atmosphere side)

Sight glass

Gasket (on the media side)

Base flange



For aggressive media or steam, mica discs should be used to protect the glass.

QUICK OVERVIEW:



PN 10/16
≤ 10/16 bar(g)



heat-resistant up to
400 °C



for liquid
media



for gaseous
media



Nominal size
DN 25 - 300



Customized products
possible



> 50 gasket
materials



Additional equipment
available

OPERATING CONDITIONS:

Operating conditions depend on the
choice of glass and gaskets:

		SIGHT GLASS				GASKETS						
		Soda lime glass (DIN 8902 or similar)	Borosilicate glass (DIN 7080 or similar)	Borosilicate glass untempered	Quartz glass	PTFE max. 200 °C	FKM max. 200 °C	NBR max. 80 °C	C4400 max. 175 °C	Silicone max. 180 °C	EPDM max. 130 °C	Graphite > 400 °C
TEMPERATURE	up to 80 °C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 130 °C	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
	up to 150 °C	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓
	up to 175 °C	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓
	up to 200 °C	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓
	up to 280 °C	✗	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓
	up to 400 °C	✗	✗	✓	✓	✗	✗	✗	✗	✗	✗	✓
	> 400 °C	on request				on request						
PRESSURE	up to 10/16 bar (g)	✓	✓	✓	✓ ¹	✓	✓	✓	✓	✓	✓	✓

✓ suitable ✗ unsuitable

1) Limited, use must be checked by the system operator for compliance with regulations

OPTIONAL EQUIPMENT:



Wiper SGW

- > with PTFE, Silicone, EPDM or FKM wiper blade



Wiper SW2 with flexible shaft

- > with PTFE, Silicone, EPDM or FKM wiper blade



LED light

- > for Ex and non-Ex areas



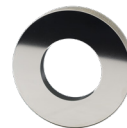
Mica discs

- > up to 320°C with borosilicate glass DIN 7080¹



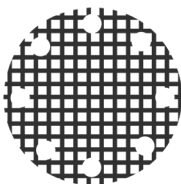
FEP protective screen/ coating

- > for high pH values

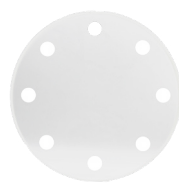


Metal fused safety sight glass

- > for chemical use



Grid impact protection window²



PLEXIGLAS® impact protection

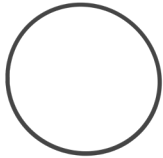


Spraying device SV1

- > made of high-quality stainless steel grade 1.4571

1) Starting from nominal size DN 250 up to 300°C
2) Punching on customer request

OPTIONAL EQUIPMENT:



O-Ring gasket

> suitable for vacuum¹



Double glazing

> Type 320D



Double glazing with heating cartridge

> Type 320H

¹) Depending on environmental variables