

Circular Sightglass Fittings Model DIN 28120 (Weld-Type)

Application:

Weld-on sightglass fittings for the observation of the internals of pressure vessels, silos, mixers, separators, pipelines, etc.

General:

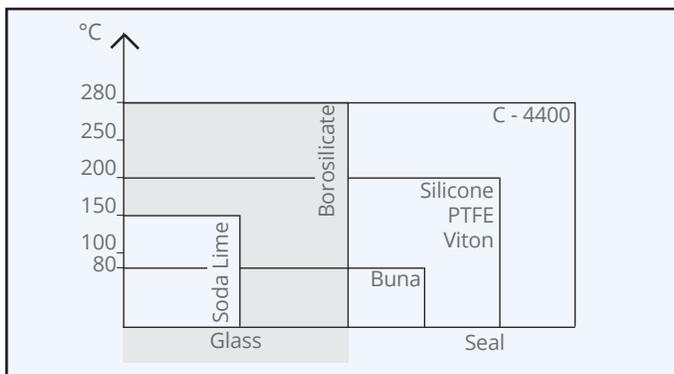
Sight glass fittings DIN 28120 are circular flanged sets suitable for welding into or onto vessel walls, complete with relevant matching seals and sight glass disc set between the weld pad and cover flange.

They correspond in construction and assembly to the dimensions and constructional guidelines of DIN spec No. 28120 covering sizes DN 50 to DN 200.

Based upon these standard thicknesses, distortion free location of the sightglass is assured providing that the welding pad has been correctly welded into or onto the vessel wall.

Operating Conditions

Standard fittings are available for pressure up to 235 psi (depending on size, higher pressure rating on request). For temperature ratings (depending on material selection) see the following diagram.



Combinations:

These sightglass units can be combined with Lumiglas luminaires for use in hazardous areas as well as under all normal working conditions (See Lumiglas Luminaire data sheets). The cover flanges can be drilled and tapped for luminaires.

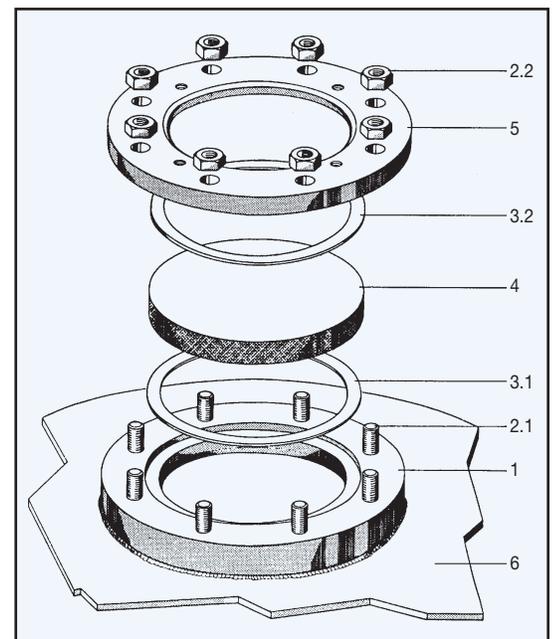
Parts and available materials:

Item	Part name	Material options
1	Weld Pad (Welding Flange)	316L SS (ASME Code Grade) 304L SS (ASME Code Grade) Steel (ASME Code Grade) 316 Ti SS (Commercial Grade) Steel - RST 37.2 (Commercial Grade)
2.1, 2.2	Studs/Nuts	Steel - 5.6 or 304 SS - A2
3.1, 3.2	Gaskets	PTFE (Solid Teflon), Klinger C®-4400 Non-Asbestos, Silicone, Graphite or Gylon®.
4	Sight Glass Disc	Tempered Borosilicate (280°C max) Soda Lime Glass (150°C max) Quartz Metaglas®
5	Cover Flange	Steel - RST 37.2 or 321 SS
6	Vessel Wall	

Optional materials are available upon request. Please contact the factory.



Complete assembly of sight glass unit DIN 28120



Exploded view of sight glass assembly DIN 28120

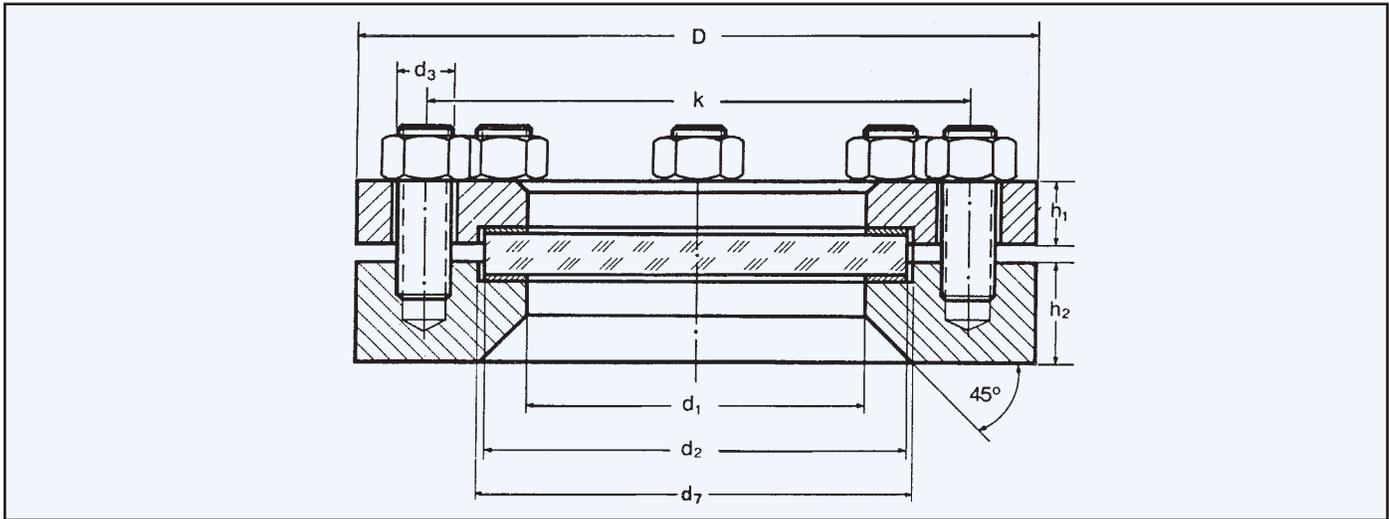
Certifications / Testing:

Chemical and Physical Test Reports will be supplied for the Weld Pad only at No Charge for ASME Code Materials.

Assembly

After welding base flange 1 onto or into vessel wall, seals 3.1 & 3.2, glass disc 4 and cover flange 5 are placed together in the order shown. Then the nuts 2.2 are progressively tightened, always working on diametrically opposed pairs of nuts at a time. Tightening torque values are given in table on overleaf.

Dimensions for Circular Sightglasses to DIN 28120 PN 10/16 or similar to DIN 28120 PN 6.



Size		DN50	DN80	DN100	DN125	DN150	DN200
Nominal bore	DN	50	80	100	125	150	200
Pressure rating (psig)	PN	150 235	150 235	90 150 235	90 150 235	90 150 235	90 150
Viewing diameter	d1*	80 (3.15")	100 (3.94")	125 (4.92")	150 (5.91")	175 (6.89")	225 (8.86")
Sightglass disc	d2	100	125	150	175	200	250
	s	15 15	15 20	20 20 25	20 20 25	20 25 30	25 30
Weld Pad and	D*	165 (6.5")	200 (7.87")	220 (8.66")	250 (9.84")	285 (11.22")	340 (13.39")
	k	125	160	180	210	240	295
	Cover Flange	h1	16 16	20 20	18 22 22	18 25 25	18 30 30
Weld Pad	h2	30 (1.18")	30 (1.18")	30 (1.18")	30 (1.18")	36 (1.42")	36 (1.42")
Bolts or studs and nuts	No.	4	8	8	8	8	8
	Size	M16	M16	M16	M16	M20	M20
	d3	18	18	18	18	22	22
Seals	d1	80	100	125	150	175	225
	d7	102	127	152	177	202	252
Tightening torque for bolts or nuts, lubricant factor/ μ 0.1	Nm	28 32	20 23	26 26 30	32 32 34	47 47 54	63 63
	FT/LBS	21 24	15 17	19 19 22	24 24 25	35 35 40	47 47

Ordering Information:

Please specify the selected items as follows:

Fittings: Nominal bore (DN) and nominal pressure (PSIG)

Material: welding pad, bolts, cover flange, glass disc, seals

All dimensions in mm unless stated otherwise.

* Use mm dimensions for accuracy

Subject to change without prior notice

ISO 9001 QA CERTIFICATE

GERMAN MANUFACTURER:

F.H. PAPPENMEIER AWARDED QA APPROVAL CERTIFICATE

