

Teclumos Oval Sight Glass Fitting

Application:

Teclumos oval sight glass fittings may be used to observe the interior of reactors, columns, silos, vessels, storage tanks, pipelines, or as liquid level indicators. They are delivered ready to be welded onto a vessel wall, complete with appropriate seals, glass plate and cover bolts. The D-end shape facilitates machining of the vessel wall before welding in the unit.

Operating conditions:

Nominal pressure: 2,5 / 6 / 10 / 25 bar

Vacuum

Note: The nominal pressure indicated refers to the design base of the sight glass. When welded into the vessel concerned, the base frame becomes part of the vessel wall. It is necessary; therefore, those appropriate strength calculations are made on all vessels concerned concerning the design pressure and size of the vessel and in accordance with the relevant design code. If found to be necessary, reinforcement of the vessel wall has to be carried out. Operating temperatures:

100 °C max. with sodium silicate glass to DIN 8903

243 °C max. with borosilicate glass to DIN 7081

Note: The above-indicated temperatures refer to the use of unprotected glass plates, with no protective mica sheets.

• Materials:

Component	Material options
Base frame	AISI 316 stainless steel or other
Gaskets	KLINGERSil C-4400; Neoprene; PTFE or alternative
Sight glass plate	Soda-lime glass: thermally prestressed to DIN 8903, max. operating temperature: 100°C Borosilicate glass: thermally prestressed to DIN 7081, max. operating temperature: 243°C
Cover frame	AISI 316 stainless steel or other
Bolts	AISI 316 stainless steel or other

• Installation:

Before fitting the glass plate, check to ensure that the base frame is free of any distortion, and the sealing surface is flat.

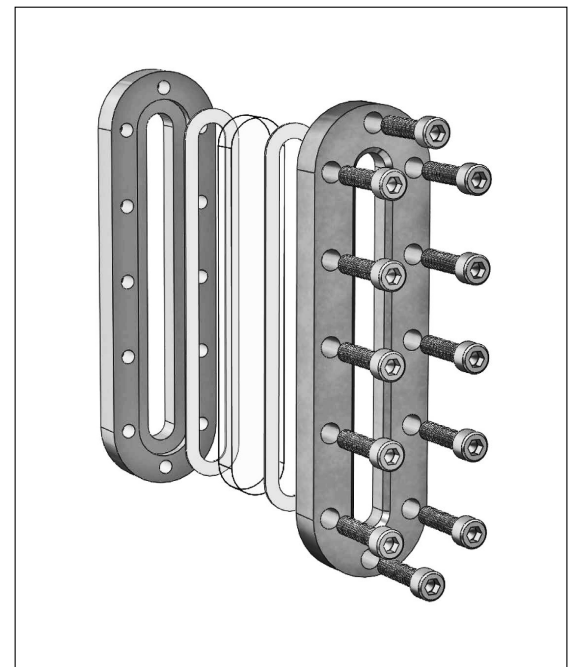
Any tension or unevenness can lead to leakage or may even cause the sight glass to break.

After the base frame has been welded into or onto the pipe or vessel wall, the gaskets, the sight glass plate, and the cover flange are positioned in the order illustrated and then fastened to the base frame with the bolts.

When securing the cover flange, the bolts should be tightened with a uniform torque, starting with the bolts in the middle and working crosswise towards the ends, i.e., in an alternating sequence.

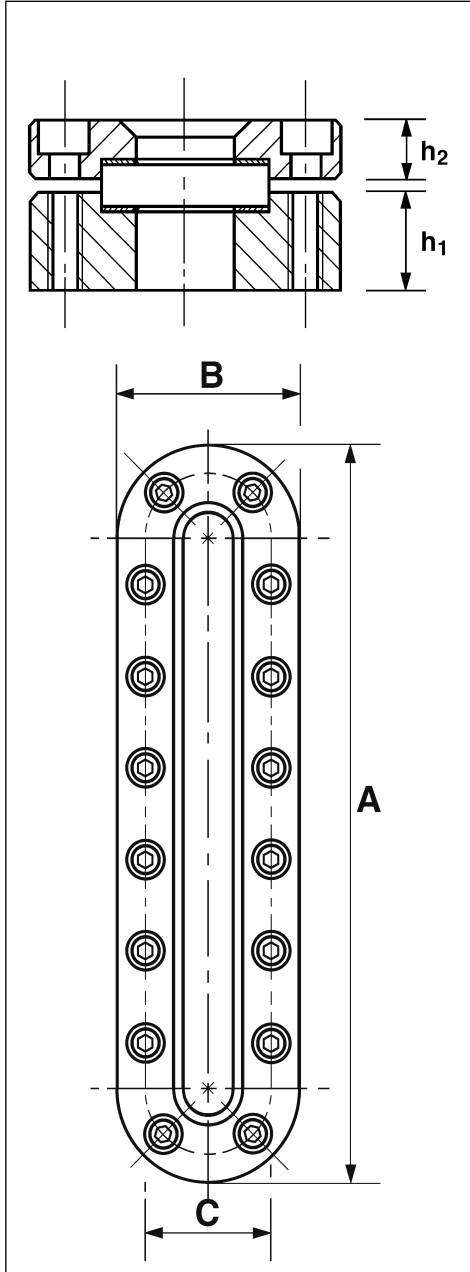


Design of Teclumos oval sight glass fitting



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• **Dimensions:**



Size	Nominal pressure	Assembly dimensions		Viewing Area		M10 bolts		Glass dimensions	Flange thickness		Weight kg
	PN	A	B	Length	Width	Pcs.	C		h 1	h 2	
a	2.5	266	116	200	50	8	94	70x10x220	25	15	6.2
b	2.5	341	116	275	50	10	94	70x10x295	25	15	7.5
c	2.5	416	116	350	50	12	94	70x10x370	25	15	9.7
d	2.5	491	116	425	50	14	94	70x10x445	25	15	10.9
e	2.5	566	116	500	50	16	94	70x10x520	25	15	12.2
f	2.5	641	116	575	50	18	94	70x10x595	25	15	14.1
g	2.5	791	116	725	50	22	94	70x10x745	25	15	17.9
a	6	261	96	195	30	10	74	50x10x215	25	15	5.5
b	6	316	96	250	30	12	74	50x10x270	25	15	6.9
c	6	371	96	305	30	14	74	50x10x325	25	15	7.9
d	6	426	96	360	30	16	74	50x10x380	25	15	8.8
e	6	481	96	415	30	18	74	50x10x435	25	15	9.9
f	6	536	96	470	30	20	74	50x10x490	25	15	11.9
g	6	646	96	580	30	24	74	50x10x600	25	15	13.6
a	10	260	80	198	18	12	58	35x10x215	25	15	4.9
b	10	305	80	243	18	14	58	35x10x260	25	15	5.7
c	10	350	80	288	18	16	58	35x10x305	25	15	6.4
d	10	395	80	333	18	18	58	35x10x350	25	15	7.4
e	10	440	80	378	18	20	58	35x10x395	25	15	7.9
f	10	485	80	423	18	22	58	35x10x440	25	15	9.4
g	10	575	80	513	18	26	58	35x10x530	25	15	12.9
a	25	186	80	121	15	10	58	34x17x140	25	20	3.9
b	25	211	80	146	15	10	58	34x17x165	25	20	4.4
c	25	236	80	171	15	12	58	34x17x190	25	20	4.9
d	25	296	80	231	15	14	58	34x17x250	25	20	5.9
e	25	326	80	261	15	16	58	34x17x280	25	20	6.7
f	25	366	80	301	15	18	58	34x17x320	25	20	7.4
g	25	386	80	321	15	18	58	34x17x340	25	20	7.9

Options:

- Fluted glass plate for liquid level indication.
- Special dimensions.
- Closed-back (base flange) version with drilled and tapped holes at the ends for pipe connections so that the unit may be used as an external gauge of a liquid level.
- High-temperature version on request.

All dimensions in mm.

Teclumos Co.

Saray Mah. Dr. Adnan Büyükdeniz
Cad. Ümraniye, İstanbul, Turkey
E-Mail: info@teclumos.com
Web: www.teclumos.com