



## Alfa Laval Access Tank Cover - Circular Cover Type HLSD-2

On top of your pressure tank

### Application

Outward opening manhole cover type HLSD-2 is used on top of pressurized tanks and containers where closeable means of access to the interior of the vessel is required. HLSD-2 is approved and can be used on pressure vessels according to PED 2014/68/EU.

### Working principle

HLSD-2 is secured in the closed position by swingbolts, which, together with the seal in the cover, ensure complete tightness. The cover is attached to the frame by a rigid hinge, giving exact location of the cover in the closed position and designed to stop the cover at an angle of 20-30° beyond the vertical position when opening.



### TECHNICAL DATA

#### Sizes

200 mm, 300 mm, 400 mm, 450 mm, 500 mm and 600 mm.

#### Pressure

Max. allowable pressure: . . . . . According to selection table

Min. allowable negative pressure: . . . Full vacuum

Max. test pressure Ptest: . . . . . According to selection table

#### Certificates

- 3.1 Certificate (EN10204)
- EC unit verification module G according to PED 2014/68/EU
- FDA declaration §177.2600 for seal material
- ASME BPE Certificate (option)

#### Standard design

The HLSD-2 pressure cover is designed according to Merkblätter AD 2000 newest edition and designed for installation in pressure vessels until hazard category IV. The cover is not pressure tested and must be tested as a part of the pressure vessel.

- HLSD-2 is designed for fluid group 1 and 2.

### PHYSICAL DATA

#### Materials

Product wetted steel parts: . . . . . 1.4404 (AISI 316L)

Other steel parts: . . . . . 1.4301 (AISI 304)

Seal: . . . . . EPDM, FPM, Silicone, FEP covered silicone, FEP covered FPM, PFA covered silicone

**Standard surface finish:** . . . . . Semi bright.

Outside . . . . . Ra 1.6µm

Inside . . . . . Ra 0.8µm

#### Temperature

Temperature range: . . . . . -10°C to + 250°C

### Options

- A. Spring to assist opening.
- B. Arrangement for securing cover in open and closed position.
- C. Bracket for indication unit.
- D. Handle in stainless steel.
- E. Guide for cover for vertical installation. Please define positioning of the hinge (right or left hand side).
- F. Sight glass DIN 28120.
- G. Sight glass DIN11851.
- H. Safety grid.
- I. Special surface finish.
- J. Frame height G = 300 mm.
- K. Seal of Q (silicone), FPM, FEP covered silicone, PFA covered silicone, FEP covered FPM.
- L. Conical frame, different frame thickness and frame height available on request.

### Selection table

Size mm	A mm	Number of bolts	Max. allowable pressure PS (bar) at design temperature Td (°C)					Max. test pressure Ptest bar	Cover thickness (SL)* mm	Cover radius mm
			50	100	150	200	250			
			°C	°C	°C	°C	°C			
200	208	4	14.7	13.0	11.8	10.8	10.0	21.1	8	500
300	308	4	7.6	6.7	6.4	6.1	6.0	13.5	5	500
		6	9.4	8.4	7.5	6.9	6.4	13.5	6	500
400	408	4	4.4	3.8	3.7	3.5	3.4	10.1	4	500
		6	6.6	5.8	5.5	5.3	5.2	14.3	5	500
		8	8.7	7.7	7.4	7.1	6.8	14.3	6	500
450	458	6	5.2	4.6	4.4	4.2	4.1	12.0	4	500
		8	7.0	6.1	5.9	5.7	5.5	12.5	5	500
		10	8.7	7.7	7.1	7.0	6.8	14.5	6	500
500	508	6	4.2	3.7	3.6	3.4	3.3	9.8	4	500
		8	5.7	5.0	4.8	4.6	4.5	10.7	4	500
		10	7.5	6.9	6.6	6.3	6.2	12.0	5	500
600	608	6	3.0	2.6	2.5	2.4	2.3	6.9	4	500
		8	4.0	3.5	3.3	3.2	3.1	7.7	4	500
		10	5.0	4.4	4.2	4.0	3.9	7.7	4	500
		12	6.0	5.3	5.0	4.9	4.7	8.8	5	500
		14	7.0	6.1	5.9	5.7	5.4	10.0	5	500

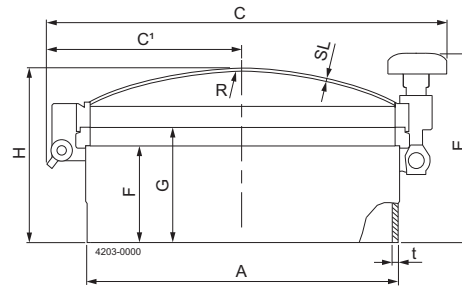


Fig. 2. Dimensions

### Dimensions (mm)

Size	200 mm	300 mm	400 mm	450 mm	500 mm	600 mm
A	208	308	408	458	508	608
C <sub>1</sub>	154	204	254	279	309	359
C	320	420	520	570	625	725
E	237	237	247	247	247	247
F	125	125	125	125	125	125
G	150	150	150	150	150	150
H	185	198	226	240	251	285
R	500	500	500	500	500	500
SL see selection table						
t*	4	4	4	4	4	4

\* Dimension only for guidance, measured before grinding and polishing

**O-ring gaskets (HLS-2)**

**Silicone**

Colour: .....transparent

Temperature: .....-50°C to +200°C FDA / USP Class VI

**EPDM**

Colour: .....black

Temperature: .....-50°C to +150°C FDA / USP Class VI

**Viton (FPM)**

Colour: .....green

Temperature: .....-20°C to +200°C FDA

**FEP covered Silicone**

Colour: .....shell: transparent, core: red

Temperature: .....-60°C to +200°C FDA / USP Class VI

**FEP covered Viton (FPM)**

Colour: .....shell: transparent, core: black

Temperature: .....-20°C to +200°C FDA / USP Class VI

**PFA covered Silicone**

Colour: .....shell: transparent, core: red

Temperature: .....-60°C to +230°C FDA / USP Class VI

Alfa Laval reserves the right to change specifications without prior notification.

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