



On Top of your pressure Tank

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

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 97/23/EC.

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 97/23/EC
- 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 |

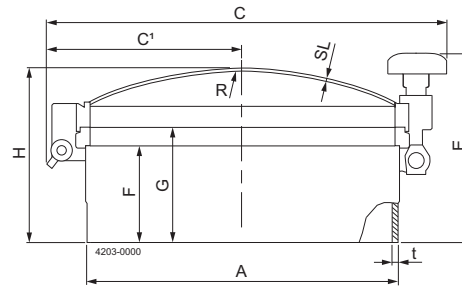


Fig. 2. Dimensions

Dimensions (mm)

| Size | 200 mm | 300 mm | 400 mm | 450 mm | 500 mm | 600 mm |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| A | 208 | 308 | 408 | 458 | 508 | 608 |
| C ₁ | 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

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