



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

Tank covers

Introduction

The Alfa Laval Access Tank Cover – Circular Cover Type HLSD-2 is an outward-opening manway cover that provides a secure fit for openings on top of pressurized tanks and containers. It is approved for use on pressure vessels according to PED 2014/68/EU.

The HLSD-2 offers a quick, easy and convenient means of entry and egress to tank interiors. It also provides a closable means of access to the interior of the vessel, situated above or below the liquid level.

Application

The Access Tank Cover – Circular Cover Type HLSD-2 is designed for use in hygienic applications across the dairy, food, beverage, biotechnology, pharmaceutical and many other industries.

Benefits

- Versatility to cover all tank needs
- Hygienic design
- Easy to handle

Standard design

The Access Tank Cover – Circular Cover Type HLSD-2 consists of stainless steel lid, frame, hinge, swing bolt and seals. It is designed for installation in pressure vessels according to AD 2000-Merkblätt. The cover is not pressure tested and must be tested as a part of the pressure vessel. The HLSD-2 meets the PED 2014/68/EU, Fluid Group 1 and 2 and hazard category IV.

Working principle

The Alfa Laval Access Tank Cover – Circular Cover Type HLSD-2 lid is secured in the closed position by swing bolts. Together with the seal in the cover, the swing bolts ensure complete tightness. Attached to the frame by a rigid hinge, the cover secures the exact location of the cover in the closed position and is designed to stop the cover at an angle of 20-30° beyond the vertical position when opening.

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)



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 P _{test} :	According to selection table

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:	
Outside	Semi bright 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 T _d (°C)					Max. test pressure P _{test} bar	Cover thickness (SL)* mm	Cover radius mm
			50 °C	100 °C	150 °C	200 °C	250 °C			
200	208	4	14.7	13.0	11.8	10.8	10.0	21.1	8	500
			7.6	6.7	6.4	6.1	6.0	13.5	5	500
300	308	6	9.4	8.4	7.5	6.9	6.4	13.5	6	500
			4.4	3.8	3.7	3.5	3.4	10.1	4	500
		400	408	6	6.6	5.8	5.5	5.3	5.2	14.3
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

Dimensions (mm)

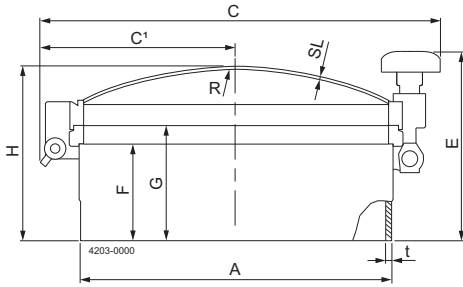


Fig. 2. Dimensions

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

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.

How to contact Alfa Laval

Contact details for all countries
are continually updated on our website.
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