



We Cover Tanks



Alfa Laval launches NEW 3A compliant manways

At Alfa Laval, we cover tanks. Literally. Designed to securely fit the broad range of vessels you build. Our tank access covers provide easy access to the interior of the tank with an improved hygienic 3A compliant design.

Choose from more than 50 different types of oval, circular and rectangular covers that meet your various tank building requirements. Alfa Laval has tank access covers for standard or pressure vessels, for above or below the liquid level, with or without sight glass, and in a wide selection of sizes, finishes, sealing materials and swing openings.

Did you know Alfa Laval covers more than tanks? We provide a comprehensive fluid handling portfolio of tank cleaning equipment, pump, valves, fittings and heat exchangers for virtually all sanitary industries and applications.

LKD and LKDC 3A Manways

Installed at the top of each tank, circular LKDC manways are used on tanks or vessels where interior access is required above the liquid level. 3A compliant and constructed with 304 and 316 stainless steel, the LKDC cover is supplied with a replaceable, self-sealing double lip seal to better contain fluids during over-the-road tanker travel or CIP cleaning cycles.

Oval 3A compliant LKD manways are used on tanks or vessels where access to the vessel interior is required below the liquid level. Installed on the side of tanks, the LKD manways are not affected by positive or negative tank pressure. In fact, they're designed to handle temperatures up to 212 F° and pressure rated up to 36psi.



Why Alfa Laval should cover ALL your manway needs:

- **Save your tank building labor costs:** Instead of spending valuable work hours on manway design, construction and QC work, leave the job to Alfa Laval.
- **The perfect fit:** Regardless of oval, circular or rectangular designs, our manways fit perfectly into your tank building plans.
- **Make your tanks 3A compliant:** Selecting our LKD and LKDC manways can help upgrade your tanks to be 3A compliant - opening further sanitary tank business opportunities.
- **We're a proven global supplier:** Alfa Laval covers manways across the world with over 70,000 quality units distributed annually.



Manway selection guide

Tank cover type LKD, oval shape



Tank cover type LKDC and LKDS, circular shape



Tank cover type C, O and R – circular, oval and rectangular shape



Tank cover type HLSD-2, circular shape



| Product Overview | Placement | Pressure | Working pressure (bar) | Steel material | Seal material | Built in splash guard | Seal | Working temperature | Application examples | Available certificates/ declarations | Internal surface finish (frame) | Internal surface finish (cover) |
|------------------|--|----------|------------------------|----------------|---------------|-----------------------|--|---------------------|----------------------|--------------------------------------|---------------------------------|---------------------------------|
| | Above liquid level – on top of the tank | None | | 1.4301 (304) | | | Seal fixed on the cover | | | | | |
| | Below liquid level – on side of the tank | Static | | 1.4404 (316L) | | | Seal fixed on the frame | | | | | |
| | | Over | | | | | Glued | | | | | |
| | | | | | | | Non glued | | | | | |
| | | | | | | | -20°C (-4°F) (all seal materials) | | | | | |
| | | | | | | | 100 °C (212 °F) (NBR) | | | | | |
| | | | | | | | 110 °C (230 °F) (EPDM) | | | | | |
| | | | | | | | 150 °C (302 °F) (Silicone) | | | | | |
| | | | | | | | 200 °C (392 °F) (FPM) | | | | | |
| | | | | | | | 250 °C (482 °F) (FPM) | | | | | |
| | | | | | | | Beer | | | | | |
| | | | | | | | Biodiesel | | | | | |
| | | | | | | | Champagne | | | | | |
| | | | | | | | Chemical storage (detergents) | | | | | |
| | | | | | | | Conservatories (tomatoes) | | | | | |
| | | | | | | | Cosmetics | | | | | |
| | | | | | | | Dairy | | | | | |
| | | | | | | | Food | | | | | |
| | | | | | | | Hand manwaydoor (washing and bottling mach.) | | | | | |
| | | | | | | | Juices | | | | | |
| | | | | | | | Mineral water | | | | | |
| | | | | | | | Non hygienic application | | | | | |
| | | | | | | | Perfumes | | | | | |
| | | | | | | | Pharma (aseptic conservation with pressure) | | | | | |
| | | | | | | | Pharma storage | | | | | |
| | | | | | | | Storage in general | | | | | |
| | | | | | | | Transportation (road tankers, mobile tanks) | | | | | |
| | | | | | | | Wine | | | | | |
| | | | | | | | Wine fermentation | | | | | |
| | | | | | | | 3.1. Material certificate according to EN10204 | | | | | |
| | | | | | | | FDA conformity declaration | | | | | |
| | | | | | | | 3A | | | | | |
| | | | | | | | PED 97/23/EC | | | | | |
| | | | | | | | Ra > 2.0 (0.079") | | | | | |
| | | | | | | | Ra < 0.8 (0.031") | | | | | |
| | | | | | | | Ra < 0.6 (0.024") | | | | | |
| | | | | | | | Ra < 0.4 (0.016") | | | | | |
| | | | | | | | Ra < 0.8 | | | | | |
| | | | | | | | Ra < 0.6 | | | | | |
| | | | | | | | Ra < 0.4 | | | | | |

Type

| Circular covers | | | | | | | | | | | | |
|---|---|---|---|---|-------------|---|---|---|---|---|---|---|
| LKDC-202, -306, -404, -454, -516, -620 | • | • | | | no pressure | • | • | • | • | • | • | • |
| LKDS-454 | • | • | | | no pressure | • | • | | | | | • |
| C-454A ¹ , C-520A ¹ , C-620A ¹ | • | • | | | no pressure | • | • | • | • | • | • | |
| C-202SB ³ | • | | • | | 0.5 | • | • | • | • | • | • | |
| C-454 | • | • | | | no pressure | • | • | • | • | • | • | |
| C-520 | • | • | | | no pressure | • | • | • | • | • | • | |
| C-404BSB ² , C-454SB ³ | • | • | | | no pressure | • | • | • | • | • | • | |
| C-520SB ³ , C-620SB ³ | • | • | | | no pressure | • | • | • | • | • | • | |
| C-202A | • | | • | | 0.5 | • | • | • | • | • | • | |
| C-404ASB ⁴ | • | • | | | no pressure | • | • | • | • | • | • | |
| C-202 | • | | • | | 0.4 | • | • | • | • | • | • | |
| C-306, C-404, C-404SB ³ , C-518SB ³ | • | • | | | no pressure | • | • | • | • | • | • | |
| C-518MH ⁵ | • | • | | | no pressure | • | • | • | • | • | • | |
| C-418 | | • | • | | -0.8 to 0.6 | • | • | • | • | • | • | |
| C-404CC ⁶ | • | | • | | 1.2 | • | • | • | • | • | • | |
| C-404H6 ⁷ | • | | • | | -0.8 to 1.2 | • | • | • | • | • | • | |
| C-404AH4 ⁸ | • | | • | | 0.2 | • | • | • | • | • | • | |
| Oval covers | | | | | | | | | | | | |
| O-440 x 540IO | | • | • | | -0.8 to 3.2 | • | • | • | • | • | • | • |
| LKD 535 x 435 | | • | • | | -0.5 to 4.8 | • | • | • | • | • | • | • |
| O-445 x 550IO | | • | • | | 3.0 | • | • | • | • | • | • | |
| LKD 546 x 447 | | • | • | | -0.5 to 3.0 | • | • | • | • | • | • | • |
| O-395 x 495IO | | • | • | | -0.8 to 3.2 | • | • | • | • | • | • | |
| O-320 x 440IO | | • | • | | 1.3 | • | • | • | • | • | • | • |
| LKD 440 x 320 | | • | • | | -0.5 to 1.3 | • | • | • | • | • | • | • |
| O-440 x 320IO | | • | • | | 1.3 | • | • | • | • | • | • | • |
| Rectangular covers | | | | | | | | | | | | |
| R-332 x 440 | | • | • | | 0.5 | • | • | • | • | • | • | • |
| R-440 x 332 | | • | • | | 0.5 | • | • | • | • | • | • | • |
| R-432 x 555 | | • | • | | -0.8 to 0.9 | • | • | • | • | • | • | • |
| R-555 x 432 | | • | • | | -0.8 to 1 | • | • | • | • | • | • | • |
| R-184 x 234 | | • | • | | -0.8 to 0.7 | • | • | • | • | • | • | • |
| Pressure covers (round) | | | | | | | | | | | | |
| HLSD-2 | • | • | | • | -1 to 10 | • | • | • | • | • | • | • |

Authorized to carry the 3A symbol

- 1) Double closing arm on the lid
2) Space for 2 air vents + side swing and back-side opening
3) Side swing and back-side opening

- 4) Space for 1 air vent + side swing and back-side opening
5) Handle placed in the middle
6) Clamp closing system

- 7) 4 handles
8) Double closing arm on the lid + 6 handles