

## On Top of your pressure Tank

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

5.8

#### 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.

## 5.8

**Selection table**

| Size<br>mm | A<br>mm | Number of<br>bolts | Max. allowable pressure PS (bar) at design<br>temperature Td (°C) |           |           |           |           | Max. test<br>pressure Ptest<br>bar | Cover thickness<br>(SL)*<br>mm | Cover radius<br>mm |
|------------|---------|--------------------|-------------------------------------------------------------------|-----------|-----------|-----------|-----------|------------------------------------|--------------------------------|--------------------|
|            |         |                    | 50<br>°C                                                          | 100<br>°C | 150<br>°C | 200<br>°C | 250<br>°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                |

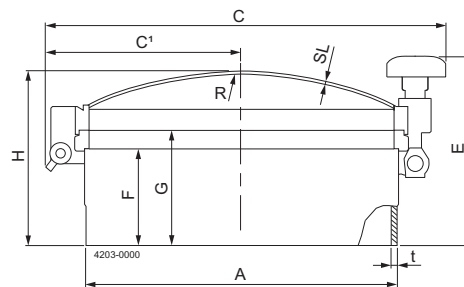


Fig. 2. Dimensions

**Dimensions (mm)**

| Size                   | 200<br>mm | 300<br>mm | 400<br>mm | 450<br>mm | 500<br>mm | 600<br>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

Pressure  
TUV approved, EPDM seal  
Product code: 5516

Material: 1.4404 (316L)  
Surface finish:  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

| Item No.   | PPL<br>EUR  | Size     |          | PS at design<br>temperature |        | Design temperature |      | Number of<br>bolts | EPDM |
|------------|-------------|----------|----------|-----------------------------|--------|--------------------|------|--------------------|------|
|            |             | /ID (mm) | /ID (in) | (bar)                       | (psi)  | (°C)               | (°F) |                    |      |
| 9613460201 | <b>2371</b> | 200      | 7.87     | 10.0                        | 145.04 | 250                | 482  | 4                  |      |
| 9613460301 | <b>2733</b> | 300      | 11.81    | 6.0                         | 87.02  | 250                | 482  | 4                  |      |
| 9613460302 | <b>2733</b> | 300      | 11.81    | 6.7                         | 97.18  | 100                | 212  | 4                  |      |
| 9613460303 | <b>2733</b> | 300      | 11.81    | 7.6                         | 110.23 | 50                 | 122  | 4                  |      |
| 9613460304 | <b>2928</b> | 300      | 11.81    | 6.4                         | 92.82  | 250                | 482  | 6                  |      |
| 9613460305 | <b>2928</b> | 300      | 11.81    | 6.9                         | 100.08 | 200                | 392  | 6                  |      |
| 9613460306 | <b>2928</b> | 300      | 11.81    | 7.5                         | 108.78 | 150                | 302  | 6                  |      |
| 9613460307 | <b>2928</b> | 300      | 11.81    | 8.4                         | 121.83 | 100                | 212  | 6                  |      |
| 9613460308 | <b>2928</b> | 300      | 11.81    | 9.4                         | 136.34 | 50                 | 122  | 6                  |      |
| 9613460401 | <b>3195</b> | 400      | 15.75    | 3.4                         | 49.31  | 250                | 482  | 4                  |      |
| 9613460402 | <b>3195</b> | 400      | 15.75    | 3.8                         | 55.11  | 100                | 212  | 4                  |      |
| 9613460403 | <b>3195</b> | 400      | 15.75    | 4.4                         | 63.82  | 50                 | 122  | 4                  |      |
| 9613460404 | <b>3537</b> | 400      | 15.75    | 5.2                         | 75.42  | 250                | 482  | 6                  |      |
| 9613460405 | <b>3537</b> | 400      | 15.75    | 6.6                         | 95.72  | 50                 | 122  | 6                  |      |
| 9613460406 | <b>3932</b> | 400      | 15.75    | 7.1                         | 102.98 | 200                | 392  | 8                  |      |
| 9613460407 | <b>3932</b> | 400      | 15.75    | 7.7                         | 111.68 | 100                | 212  | 8                  |      |
| 9613460408 | <b>3932</b> | 400      | 15.75    | 8.7                         | 126.18 | 50                 | 122  | 8                  |      |
| 9613460501 | <b>3785</b> | 450      | 17.72    | 4.1                         | 59.47  | 250                | 482  | 6                  |      |
| 9613460502 | <b>3785</b> | 450      | 17.72    | 5.2                         | 75.42  | 50                 | 122  | 6                  |      |
| 9613460503 | <b>4164</b> | 450      | 17.72    | 5.5                         | 79.77  | 250                | 482  | 8                  |      |
| 9613460504 | <b>4164</b> | 450      | 17.72    | 6.1                         | 88.47  | 100                | 212  | 8                  |      |
| 9613460505 | <b>4164</b> | 450      | 17.72    | 7.0                         | 101.53 | 50                 | 122  | 8                  |      |
| 9613460506 | <b>4542</b> | 450      | 17.72    | 6.8                         | 98.63  | 250                | 482  | 10                 |      |
| 9613460507 | <b>4542</b> | 450      | 17.72    | 7.1                         | 102.98 | 150                | 302  | 10                 |      |
| 9613460508 | <b>4542</b> | 450      | 17.72    | 7.7                         | 111.68 | 100                | 212  | 10                 |      |
| 9613460509 | <b>4542</b> | 450      | 17.72    | 8.7                         | 126.18 | 50                 | 122  | 10                 |      |
| 9613460601 | <b>4046</b> | 500      | 19.68    | 3.3                         | 47.86  | 250                | 482  | 6                  |      |
| 9613460602 | <b>3966</b> | 500      | 19.68    | 4.2                         | 60.92  | 50                 | 122  | 6                  |      |
| 9613460603 | <b>4313</b> | 500      | 19.68    | 4.5                         | 65.27  | 250                | 482  | 8                  |      |
| 9613460604 | <b>4313</b> | 500      | 19.68    | 5.0                         | 72.52  | 100                | 212  | 8                  |      |
| 9613460605 | <b>4313</b> | 500      | 19.68    | 5.7                         | 82.67  | 50                 | 122  | 8                  |      |
| 9613460606 | <b>4723</b> | 500      | 19.68    | 6.2                         | 89.92  | 250                | 482  | 10                 |      |
| 9613460607 | <b>4723</b> | 500      | 19.68    | 6.9                         | 100.08 | 100                | 212  | 10                 |      |
| 9613460608 | <b>4723</b> | 500      | 19.68    | 7.5                         | 108.78 | 50                 | 122  | 10                 |      |
| 9613460701 | <b>4723</b> | 600      | 23.62    | 2.3                         | 33.36  | 250                | 482  | 6                  |      |
| 9613460702 | <b>4723</b> | 600      | 23.62    | 3.0                         | 43.51  | 50                 | 122  | 6                  |      |
| 9613460703 | <b>5116</b> | 600      | 23.62    | 3.1                         | 44.96  | 250                | 482  | 8                  |      |
| 9613460704 | <b>5116</b> | 600      | 23.62    | 4.0                         | 58.02  | 50                 | 122  | 8                  |      |
| 9613460705 | <b>5643</b> | 600      | 23.62    | 4.0                         | 58.02  | 200                | 392  | 10                 |      |
| 9613460706 | <b>5643</b> | 600      | 23.62    | 5.0                         | 72.52  | 50                 | 122  | 10                 |      |
| 9613460707 | <b>6040</b> | 600      | 23.62    | 4.7                         | 68.17  | 250                | 482  | 12                 |      |
| 9613460708 | <b>6040</b> | 600      | 23.62    | 5.0                         | 72.52  | 150                | 302  | 12                 |      |
| 9613460709 | <b>6040</b> | 600      | 23.62    | 6.0                         | 87.02  | 50                 | 122  | 12                 |      |
| 9613460710 | <b>6400</b> | 600      | 23.62    | 5.4                         | 78.32  | 250                | 482  | 14                 |      |
| 9613460711 | <b>6400</b> | 600      | 23.62    | 6.1                         | 88.47  | 100                | 212  | 14                 |      |
| 9613460712 | <b>6400</b> | 600      | 23.62    | 7.0                         | 101.53 | 50                 | 122  | 14                 |      |

# Circular Cover Type HLSD-2

# Tank Covers

Pressure  
TÜV approved, Silicone seal  
Product code: 5516

Material: 1.4404 (316L)  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

5.8

| Item No.   | PPL<br>EUR  | Size     |          | PS at design<br>temperature |        | Design temperature |      | Number<br>of bolts | Silicone |
|------------|-------------|----------|----------|-----------------------------|--------|--------------------|------|--------------------|----------|
|            |             | /ID (mm) | /ID (in) | (bar)                       | (psi)  | (°C)               | (°F) |                    |          |
| 9613460202 | <b>2371</b> | 200      | 7.87     | 10.0                        | 145.04 | 250                | 482  | 4                  |          |
| 9613460309 | <b>2733</b> | 300      | 11.81    | 6.0                         | 87.02  | 250                | 482  | 4                  |          |
| 9613460310 | <b>2733</b> | 300      | 11.81    | 6.7                         | 97.18  | 100                | 212  | 4                  |          |
| 9613460311 | <b>2733</b> | 300      | 11.81    | 7.6                         | 110.23 | 50                 | 122  | 4                  |          |
| 9613460312 | <b>2928</b> | 300      | 11.81    | 6.4                         | 92.82  | 250                | 482  | 6                  |          |
| 9613460313 | <b>2928</b> | 300      | 11.81    | 6.9                         | 100.08 | 200                | 392  | 6                  |          |
| 9613460314 | <b>2928</b> | 300      | 11.81    | 7.5                         | 108.78 | 150                | 302  | 6                  |          |
| 9613460315 | <b>2928</b> | 300      | 11.81    | 8.4                         | 121.83 | 100                | 212  | 6                  |          |
| 9613460316 | <b>2928</b> | 300      | 11.81    | 9.4                         | 136.34 | 50                 | 122  | 6                  |          |
| 9613460409 | <b>3195</b> | 400      | 15.75    | 3.4                         | 49.31  | 250                | 482  | 4                  |          |
| 9613460410 | <b>3195</b> | 400      | 15.75    | 3.8                         | 55.11  | 100                | 212  | 4                  |          |
| 9613460411 | <b>3195</b> | 400      | 15.75    | 4.4                         | 63.82  | 50                 | 122  | 4                  |          |
| 9613460412 | <b>3537</b> | 400      | 15.75    | 5.2                         | 75.42  | 250                | 482  | 6                  |          |
| 9613460413 | <b>3537</b> | 400      | 15.75    | 6.6                         | 95.72  | 50                 | 122  | 6                  |          |
| 9613460414 | <b>3932</b> | 400      | 15.75    | 7.1                         | 102.98 | 200                | 392  | 8                  |          |
| 9613460415 | <b>3932</b> | 400      | 15.75    | 7.7                         | 111.68 | 100                | 212  | 8                  |          |
| 9613460416 | <b>3932</b> | 400      | 15.75    | 8.7                         | 126.18 | 50                 | 122  | 8                  |          |
| 9613460510 | <b>3785</b> | 450      | 17.72    | 4.1                         | 59.47  | 250                | 482  | 6                  |          |
| 9613460511 | <b>3785</b> | 450      | 17.72    | 5.2                         | 75.42  | 50                 | 122  | 6                  |          |
| 9613460512 | <b>4164</b> | 450      | 17.72    | 5.5                         | 79.77  | 250                | 482  | 8                  |          |
| 9613460513 | <b>4164</b> | 450      | 17.72    | 6.1                         | 88.47  | 100                | 212  | 8                  |          |
| 9613460514 | <b>4164</b> | 450      | 17.72    | 7.0                         | 101.53 | 50                 | 122  | 8                  |          |
| 9613460515 | <b>4542</b> | 450      | 17.72    | 6.8                         | 98.63  | 250                | 482  | 10                 |          |
| 9613460516 | <b>4542</b> | 450      | 17.72    | 7.1                         | 102.98 | 150                | 302  | 10                 |          |
| 9613460517 | <b>4542</b> | 450      | 17.72    | 7.7                         | 111.68 | 100                | 212  | 10                 |          |
| 9613460518 | <b>4542</b> | 450      | 17.72    | 8.7                         | 126.18 | 50                 | 122  | 10                 |          |
| 9613460609 | <b>3966</b> | 500      | 19.68    | 3.3                         | 47.86  | 250                | 482  | 6                  |          |
| 9613460610 | <b>3966</b> | 500      | 19.68    | 4.2                         | 60.92  | 50                 | 122  | 6                  |          |
| 9613460611 | <b>4313</b> | 500      | 19.68    | 4.5                         | 65.27  | 250                | 482  | 8                  |          |
| 9613460612 | <b>4313</b> | 500      | 19.68    | 5.0                         | 72.52  | 100                | 212  | 8                  |          |
| 9613460613 | <b>4313</b> | 500      | 19.68    | 5.7                         | 82.67  | 50                 | 122  | 8                  |          |
| 9613460614 | <b>4723</b> | 500      | 19.68    | 6.2                         | 89.92  | 250                | 482  | 10                 |          |
| 9613460615 | <b>4723</b> | 500      | 19.68    | 6.9                         | 100.08 | 100                | 212  | 10                 |          |
| 9613460616 | <b>4723</b> | 500      | 19.68    | 7.5                         | 108.78 | 50                 | 122  | 10                 |          |
| 9613460713 | <b>4723</b> | 600      | 23.62    | 2.3                         | 33.36  | 250                | 482  | 6                  |          |
| 9613460714 | <b>4723</b> | 600      | 23.62    | 3.0                         | 43.51  | 50                 | 122  | 6                  |          |
| 9613460715 | <b>5116</b> | 600      | 23.62    | 3.1                         | 44.96  | 250                | 482  | 8                  |          |
| 9613460716 | <b>5116</b> | 600      | 23.62    | 4.0                         | 58.02  | 50                 | 122  | 8                  |          |
| 9613460717 | <b>5643</b> | 600      | 23.62    | 4.0                         | 58.02  | 200                | 392  | 10                 |          |
| 9613460718 | <b>5643</b> | 600      | 23.62    | 5.0                         | 72.52  | 50                 | 122  | 10                 |          |
| 9613460719 | <b>6040</b> | 600      | 23.62    | 4.7                         | 68.17  | 250                | 482  | 12                 |          |
| 9613460720 | <b>6040</b> | 600      | 23.62    | 5.0                         | 72.52  | 150                | 302  | 12                 |          |
| 9613460721 | <b>6040</b> | 600      | 23.62    | 6.0                         | 87.02  | 50                 | 122  | 12                 |          |
| 9613460722 | <b>6400</b> | 600      | 23.62    | 5.4                         | 78.32  | 250                | 482  | 14                 |          |
| 9613460723 | <b>6400</b> | 600      | 23.62    | 6.1                         | 88.47  | 100                | 212  | 14                 |          |
| 9613460724 | <b>6400</b> | 600      | 23.62    | 7.0                         | 101.53 | 50                 | 122  | 14                 |          |

Pressure  
TUV approved, FPM seal  
Product code: 5516

Material: 1.4404 (316L)  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

| Item No.   | PPL<br>EUR | Size     |          | PS at design<br>temperature |        | Design temperature |      | Number of<br>bolts | FPM |  |
|------------|------------|----------|----------|-----------------------------|--------|--------------------|------|--------------------|-----|--|
|            |            | /ID (mm) | /ID (in) | (bar)                       | (psi)  | (°C)               | (°F) |                    |     |  |
| 9613460203 | 2426       | 200      | 7.87     | 10.0                        | 145.04 | 250                | 482  | 4                  |     |  |
| 9613460317 | 2802       | 300      | 11.81    | 6.0                         | 87.02  | 250                | 482  | 4                  |     |  |
| 9613460318 | 2802       | 300      | 11.81    | 6.7                         | 97.18  | 100                | 212  | 4                  |     |  |
| 9613460319 | 2802       | 300      | 11.81    | 7.6                         | 110.23 | 50                 | 122  | 4                  |     |  |
| 9613460320 | 2998       | 300      | 11.81    | 6.4                         | 92.82  | 250                | 482  | 6                  |     |  |
| 9613460321 | 2998       | 300      | 11.81    | 6.9                         | 100.08 | 200                | 392  | 6                  |     |  |
| 9613460322 | 2998       | 300      | 11.81    | 7.5                         | 108.78 | 150                | 302  | 6                  |     |  |
| 9613460323 | 2998       | 300      | 11.81    | 8.4                         | 121.83 | 100                | 212  | 6                  |     |  |
| 9613460324 | 2998       | 300      | 11.81    | 9.4                         | 136.34 | 50                 | 122  | 6                  |     |  |
| 9613460417 | 3287       | 400      | 15.75    | 3.4                         | 49.31  | 250                | 482  | 4                  |     |  |
| 9613460418 | 3287       | 400      | 15.75    | 3.8                         | 55.11  | 100                | 212  | 4                  |     |  |
| 9613460419 | 3287       | 400      | 15.75    | 4.4                         | 63.82  | 50                 | 122  | 4                  |     |  |
| 9613460420 | 3633       | 400      | 15.75    | 5.2                         | 75.42  | 250                | 482  | 6                  |     |  |
| 9613460421 | 3633       | 400      | 15.75    | 6.6                         | 95.72  | 50                 | 122  | 6                  |     |  |
| 9613460422 | 4041       | 400      | 15.75    | 7.1                         | 102.98 | 200                | 392  | 8                  |     |  |
| 9613460423 | 4041       | 400      | 15.75    | 7.7                         | 111.68 | 100                | 212  | 8                  |     |  |
| 9613460424 | 4041       | 400      | 15.75    | 8.7                         | 126.18 | 50                 | 122  | 8                  |     |  |
| 9613460519 | 3890       | 450      | 17.72    | 4.1                         | 59.47  | 250                | 482  | 6                  |     |  |
| 9613460520 | 3890       | 450      | 17.72    | 5.2                         | 75.42  | 50                 | 122  | 6                  |     |  |
| 9613460521 | 4274       | 450      | 17.72    | 5.5                         | 79.77  | 250                | 482  | 8                  |     |  |
| 9613460522 | 4274       | 450      | 17.72    | 6.1                         | 88.47  | 100                | 212  | 8                  |     |  |
| 9613460523 | 4274       | 450      | 17.72    | 7.0                         | 101.53 | 50                 | 122  | 8                  |     |  |
| 9613460524 | 4658       | 450      | 17.72    | 6.8                         | 98.63  | 250                | 482  | 10                 |     |  |
| 9613460525 | 4658       | 450      | 17.72    | 7.1                         | 102.98 | 150                | 302  | 10                 |     |  |
| 9613460526 | 4658       | 450      | 17.72    | 7.7                         | 111.68 | 100                | 212  | 10                 |     |  |
| 9613460527 | 4658       | 450      | 17.72    | 8.7                         | 126.18 | 50                 | 122  | 10                 |     |  |
| 9613460617 | 4080       | 500      | 19.68    | 3.3                         | 47.86  | 250                | 482  | 6                  |     |  |
| 9613460618 | 4080       | 500      | 19.68    | 4.2                         | 60.92  | 50                 | 122  | 6                  |     |  |
| 9613460619 | 4430       | 500      | 19.68    | 4.5                         | 65.27  | 250                | 482  | 8                  |     |  |
| 9613460620 | 4430       | 500      | 19.68    | 5.0                         | 72.52  | 100                | 212  | 8                  |     |  |
| 9613460621 | 4430       | 500      | 19.68    | 5.7                         | 82.67  | 50                 | 122  | 8                  |     |  |
| 9613460622 | 4849       | 500      | 19.68    | 6.2                         | 89.92  | 250                | 482  | 10                 |     |  |
| 9613460623 | 4849       | 500      | 19.68    | 6.9                         | 100.08 | 100                | 212  | 10                 |     |  |
| 9613460624 | 4849       | 500      | 19.68    | 7.5                         | 108.78 | 50                 | 122  | 10                 |     |  |
| 9613460725 | 4857       | 600      | 23.62    | 2.3                         | 33.36  | 250                | 482  | 6                  |     |  |
| 9613460726 | 4857       | 600      | 23.62    | 3.0                         | 43.51  | 50                 | 122  | 6                  |     |  |
| 9613460727 | 5257       | 600      | 23.62    | 3.1                         | 44.96  | 250                | 482  | 8                  |     |  |
| 9613460728 | 5257       | 600      | 23.62    | 4.0                         | 58.02  | 50                 | 122  | 8                  |     |  |
| 9613460729 | 5794       | 600      | 23.62    | 4.0                         | 58.02  | 200                | 392  | 10                 |     |  |
| 9613460730 | 5794       | 600      | 23.62    | 5.0                         | 72.52  | 50                 | 122  | 10                 |     |  |
| 9613460731 | 6200       | 600      | 23.62    | 4.7                         | 68.17  | 250                | 482  | 12                 |     |  |
| 9613460732 | 6200       | 600      | 23.62    | 5.0                         | 72.52  | 150                | 302  | 12                 |     |  |
| 9613460733 | 6200       | 600      | 23.62    | 6.0                         | 87.02  | 50                 | 122  | 12                 |     |  |
| 9613460734 | 6564       | 600      | 23.62    | 5.4                         | 78.32  | 250                | 482  | 14                 |     |  |
| 9613460735 | 6564       | 600      | 23.62    | 6.1                         | 88.47  | 100                | 212  | 14                 |     |  |
| 9613460736 | 6564       | 600      | 23.62    | 7.0                         | 101.53 | 50                 | 122  | 14                 |     |  |

# Circular Cover Type HLSD-2

# Tank Covers

Pressure  
TÜV approved, FEP covered Silicone seal  
Product code: 5516

Material: 1.4404 (316L)  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

5.8

| Item No.   | PPL<br>EUR  | Size /ID |       | PS at design<br>temperature |        | Design temperature |      | Number<br>of bolts | TÜV approved, FEP covered<br>FPM seal |
|------------|-------------|----------|-------|-----------------------------|--------|--------------------|------|--------------------|---------------------------------------|
|            |             | (mm)     | (in)  | (bar)                       | (PSI)  | (°C)               | (°F) |                    |                                       |
| 9613460204 | <b>2477</b> | 200      | 7.87  | 10.0                        | 145.04 | 250                | 482  | 4                  |                                       |
| 9613460325 | <b>2915</b> | 300      | 11.81 | 6.0                         | 87.02  | 250                | 482  | 4                  |                                       |
| 9613460326 | <b>2915</b> | 300      | 11.81 | 6.7                         | 97.18  | 100                | 212  | 4                  |                                       |
| 9613460327 | <b>2915</b> | 300      | 11.81 | 7.6                         | 110.23 | 50                 | 122  | 4                  |                                       |
| 9613460328 | <b>3096</b> | 300      | 11.81 | 6.4                         | 92.82  | 250                | 482  | 6                  |                                       |
| 9613460329 | <b>3096</b> | 300      | 11.81 | 6.9                         | 100.08 | 200                | 392  | 6                  |                                       |
| 9613460330 | <b>3096</b> | 300      | 11.81 | 7.5                         | 108.78 | 150                | 302  | 6                  |                                       |
| 9613460331 | <b>3096</b> | 300      | 11.81 | 8.4                         | 121.83 | 100                | 212  | 6                  |                                       |
| 9613460332 | <b>3096</b> | 300      | 11.81 | 9.4                         | 136.34 | 50                 | 122  | 6                  |                                       |
| 9613460425 | <b>3412</b> | 400      | 15.75 | 3.4                         | 49.31  | 250                | 482  | 4                  |                                       |
| 9613460426 | <b>3412</b> | 400      | 15.75 | 3.8                         | 55.11  | 100                | 212  | 4                  |                                       |
| 9613460427 | <b>3412</b> | 400      | 15.75 | 4.4                         | 63.82  | 50                 | 122  | 4                  |                                       |
| 9613460428 | <b>3750</b> | 400      | 15.75 | 5.2                         | 75.42  | 250                | 482  | 6                  |                                       |
| 9613460429 | <b>3750</b> | 400      | 15.75 | 6.6                         | 95.72  | 50                 | 122  | 6                  |                                       |
| 9613460430 | <b>4169</b> | 400      | 15.75 | 7.1                         | 102.98 | 200                | 392  | 8                  |                                       |
| 9613460431 | <b>4169</b> | 400      | 15.75 | 7.7                         | 111.68 | 100                | 212  | 8                  |                                       |
| 9613460432 | <b>4169</b> | 400      | 15.75 | 8.7                         | 126.18 | 50                 | 122  | 8                  |                                       |
| 9613460528 | <b>4017</b> | 450      | 17.72 | 4.1                         | 59.47  | 250                | 482  | 6                  |                                       |
| 9613460529 | <b>4017</b> | 450      | 17.72 | 5.2                         | 75.42  | 50                 | 122  | 6                  |                                       |
| 9613460530 | <b>4394</b> | 450      | 17.72 | 5.5                         | 79.77  | 250                | 482  | 8                  |                                       |
| 9613460531 | <b>4394</b> | 450      | 17.72 | 6.1                         | 88.47  | 100                | 212  | 8                  |                                       |
| 9613460532 | <b>4394</b> | 450      | 17.72 | 7.0                         | 101.53 | 50                 | 122  | 8                  |                                       |
| 9613460533 | <b>4769</b> | 450      | 17.72 | 6.8                         | 98.63  | 250                | 482  | 10                 |                                       |
| 9613460534 | <b>4769</b> | 450      | 17.72 | 7.1                         | 102.98 | 150                | 302  | 10                 |                                       |
| 9613460535 | <b>4769</b> | 450      | 17.72 | 7.7                         | 111.68 | 100                | 212  | 10                 |                                       |
| 9613460536 | <b>4769</b> | 450      | 17.72 | 8.7                         | 126.18 | 50                 | 122  | 10                 |                                       |
| 9613460625 | <b>4301</b> | 500      | 19.68 | 3.3                         | 47.86  | 250                | 482  | 6                  |                                       |
| 9613460626 | <b>4217</b> | 500      | 19.68 | 4.2                         | 60.92  | 50                 | 122  | 6                  |                                       |
| 9613460627 | <b>4556</b> | 500      | 19.68 | 4.5                         | 65.27  | 250                | 482  | 8                  |                                       |
| 9613460628 | <b>4556</b> | 500      | 19.68 | 5.0                         | 72.52  | 100                | 212  | 8                  |                                       |
| 9613460629 | <b>4556</b> | 500      | 19.68 | 5.7                         | 82.67  | 50                 | 122  | 8                  |                                       |
| 9613460630 | <b>4972</b> | 500      | 19.68 | 6.2                         | 89.92  | 250                | 482  | 10                 |                                       |
| 9613460631 | <b>4972</b> | 500      | 19.68 | 6.9                         | 100.08 | 100                | 212  | 10                 |                                       |
| 9613460632 | <b>4972</b> | 500      | 19.68 | 7.5                         | 108.78 | 50                 | 122  | 10                 |                                       |
| 9613460737 | <b>5027</b> | 600      | 23.62 | 2.3                         | 33.36  | 250                | 482  | 6                  |                                       |
| 9613460738 | <b>5027</b> | 600      | 23.62 | 3.0                         | 43.51  | 50                 | 122  | 6                  |                                       |
| 9613460739 | <b>5422</b> | 600      | 23.62 | 3.1                         | 44.96  | 250                | 482  | 8                  |                                       |
| 9613460740 | <b>5422</b> | 600      | 23.62 | 4.0                         | 58.02  | 50                 | 122  | 8                  |                                       |
| 9613460741 | <b>5960</b> | 600      | 23.62 | 4.0                         | 58.02  | 200                | 392  | 10                 |                                       |
| 9613460742 | <b>5959</b> | 600      | 23.62 | 5.0                         | 72.52  | 50                 | 122  | 10                 |                                       |
| 9613460743 | <b>6353</b> | 600      | 23.62 | 4.7                         | 68.17  | 250                | 482  | 12                 |                                       |
| 9613460744 | <b>6353</b> | 600      | 23.62 | 5.0                         | 72.52  | 150                | 302  | 12                 |                                       |
| 9613460745 | <b>6353</b> | 600      | 23.62 | 6.0                         | 87.02  | 50                 | 122  | 12                 |                                       |
| 9613460746 | <b>6706</b> | 600      | 23.62 | 5.4                         | 78.32  | 250                | 482  | 14                 |                                       |
| 9613460747 | <b>6706</b> | 600      | 23.62 | 6.1                         | 88.47  | 100                | 212  | 14                 |                                       |
| 9613460748 | <b>6706</b> | 600      | 23.62 | 7.0                         | 101.53 | 50                 | 122  | 14                 |                                       |

Pressure  
TUV approved, PFA covered Silicone seal  
Product code: 5516

Material: 1.4404 (316L)  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

| Item No.   | PPL<br>EUR  | Size/ID |       | PS at design<br>temperature |        | Design temperature |      | Number<br>of bolts | PFA covered Silicone |  |
|------------|-------------|---------|-------|-----------------------------|--------|--------------------|------|--------------------|----------------------|--|
|            |             | (mm)    | (in)  | (bar)                       | (PSI)  | (°C)               | (°F) |                    |                      |  |
| 9613460205 | <b>2569</b> | 200     | 7.87  | 10.0                        | 145.04 | 250                | 482  | 4                  |                      |  |
| 9613460333 | <b>3029</b> | 300     | 11.81 | 6.0                         | 87.02  | 250                | 482  | 4                  |                      |  |
| 9613460334 | <b>3029</b> | 300     | 11.81 | 6.7                         | 97.18  | 100                | 212  | 4                  |                      |  |
| 9613460335 | <b>3029</b> | 300     | 11.81 | 7.6                         | 110.23 | 50                 | 122  | 4                  |                      |  |
| 9613460336 | <b>3198</b> | 300     | 11.81 | 6.4                         | 92.82  | 250                | 482  | 6                  |                      |  |
| 9613460337 | <b>3198</b> | 300     | 11.81 | 6.9                         | 100.08 | 200                | 392  | 6                  |                      |  |
| 9613460338 | <b>3198</b> | 300     | 11.81 | 7.5                         | 108.78 | 150                | 302  | 6                  |                      |  |
| 9613460339 | <b>3198</b> | 300     | 11.81 | 8.4                         | 121.83 | 100                | 212  | 6                  |                      |  |
| 9613460340 | <b>3198</b> | 300     | 11.81 | 9.4                         | 136.34 | 50                 | 122  | 6                  |                      |  |
| 9613460433 | <b>3550</b> | 400     | 15.75 | 3.4                         | 49.31  | 250                | 482  | 4                  |                      |  |
| 9613460434 | <b>3550</b> | 400     | 15.75 | 3.8                         | 55.11  | 100                | 212  | 4                  |                      |  |
| 9613460435 | <b>3550</b> | 400     | 15.75 | 4.4                         | 63.82  | 50                 | 122  | 4                  |                      |  |
| 9613460436 | <b>3888</b> | 400     | 15.75 | 5.2                         | 75.42  | 250                | 482  | 6                  |                      |  |
| 9613460437 | <b>3888</b> | 400     | 15.75 | 6.6                         | 95.72  | 50                 | 122  | 6                  |                      |  |
| 9613460438 | <b>4321</b> | 400     | 15.75 | 7.1                         | 102.98 | 200                | 392  | 8                  |                      |  |
| 9613460439 | <b>4321</b> | 400     | 15.75 | 7.7                         | 111.68 | 100                | 212  | 8                  |                      |  |
| 9613460440 | <b>4321</b> | 400     | 15.75 | 8.7                         | 126.18 | 50                 | 122  | 8                  |                      |  |
| 9613460537 | <b>4159</b> | 450     | 17.72 | 4.1                         | 59.47  | 250                | 482  | 6                  |                      |  |
| 9613460538 | <b>4159</b> | 450     | 17.72 | 5.2                         | 75.42  | 50                 | 122  | 6                  |                      |  |
| 9613460539 | <b>4535</b> | 450     | 17.72 | 5.5                         | 79.77  | 250                | 482  | 8                  |                      |  |
| 9613460540 | <b>4535</b> | 450     | 17.72 | 6.1                         | 88.47  | 100                | 212  | 8                  |                      |  |
| 9613460541 | <b>4535</b> | 450     | 17.72 | 7.0                         | 101.53 | 50                 | 122  | 8                  |                      |  |
| 9613460542 | <b>4908</b> | 450     | 17.72 | 6.8                         | 98.63  | 250                | 482  | 10                 |                      |  |
| 9613460543 | <b>4908</b> | 450     | 17.72 | 7.1                         | 102.98 | 150                | 302  | 10                 |                      |  |
| 9613460544 | <b>4908</b> | 450     | 17.72 | 7.7                         | 111.68 | 100                | 212  | 10                 |                      |  |
| 9613460545 | <b>4908</b> | 450     | 17.72 | 8.7                         | 126.18 | 50                 | 122  | 10                 |                      |  |
| 9613460633 | <b>4382</b> | 500     | 19.68 | 3.3                         | 47.86  | 250                | 482  | 6                  |                      |  |
| 9613460634 | <b>4382</b> | 500     | 19.68 | 4.2                         | 60.92  | 50                 | 122  | 6                  |                      |  |
| 9613460635 | <b>4716</b> | 500     | 19.68 | 4.5                         | 65.27  | 250                | 482  | 8                  |                      |  |
| 9613460636 | <b>4716</b> | 500     | 19.68 | 5.0                         | 72.52  | 100                | 212  | 8                  |                      |  |
| 9613460637 | <b>4716</b> | 500     | 19.68 | 5.7                         | 82.67  | 50                 | 122  | 8                  |                      |  |
| 9613460638 | <b>5136</b> | 500     | 19.68 | 6.2                         | 89.92  | 250                | 482  | 10                 |                      |  |
| 9613460639 | <b>5136</b> | 500     | 19.68 | 6.9                         | 100.08 | 100                | 212  | 10                 |                      |  |
| 9613460640 | <b>5136</b> | 500     | 19.68 | 7.5                         | 108.78 | 50                 | 122  | 10                 |                      |  |
| 9613460749 | <b>5210</b> | 600     | 23.62 | 2.3                         | 33.36  | 250                | 482  | 6                  |                      |  |
| 9613460750 | <b>5210</b> | 600     | 23.62 | 3.0                         | 43.51  | 50                 | 122  | 6                  |                      |  |
| 9613460751 | <b>5607</b> | 600     | 23.62 | 3.1                         | 44.96  | 250                | 482  | 8                  |                      |  |
| 9613460752 | <b>5607</b> | 600     | 23.62 | 4.0                         | 58.02  | 50                 | 122  | 8                  |                      |  |
| 9613460753 | <b>6149</b> | 600     | 23.62 | 4.0                         | 58.02  | 200                | 392  | 10                 |                      |  |
| 9613460754 | <b>6149</b> | 600     | 23.62 | 5.0                         | 72.52  | 50                 | 122  | 10                 |                      |  |
| 9613460755 | <b>6541</b> | 600     | 23.62 | 4.7                         | 68.17  | 250                | 482  | 12                 |                      |  |
| 9613460756 | <b>6541</b> | 600     | 23.62 | 5.0                         | 72.52  | 150                | 302  | 12                 |                      |  |
| 9613460757 | <b>6541</b> | 600     | 23.62 | 6.0                         | 87.02  | 50                 | 122  | 12                 |                      |  |
| 9613460758 | <b>6890</b> | 600     | 23.62 | 5.4                         | 78.32  | 250                | 482  | 14                 |                      |  |
| 9613460759 | <b>6890</b> | 600     | 23.62 | 6.1                         | 88.47  | 100                | 212  | 14                 |                      |  |
| 9613460760 | <b>6890</b> | 600     | 23.62 | 7.0                         | 101.53 | 50                 | 122  | 14                 |                      |  |

Circular Cover Type HLSD-2

Tank Covers

Pressure  
TÜV approved, FEP covered FPM seal  
Product code: 5516

Material: 1.4404 (316L)  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

5.8

| Item No.   | PPL<br>EUR  | Size/ID |       | PS at design<br>temperature |        | Design temperature |      | Number<br>of bolts | FEP covered FPM |
|------------|-------------|---------|-------|-----------------------------|--------|--------------------|------|--------------------|-----------------|
|            |             | (mm)    | (in)  | (bar)                       | (PSI)  | (°C)               | (°F) |                    |                 |
| 9613460206 | <b>2516</b> | 200     | 7.87  | 10.0                        | 145.04 | 250                | 482  | 4                  |                 |
| 9613460341 | <b>3004</b> | 300     | 11.81 | 6.0                         | 87.02  | 250                | 482  | 4                  |                 |
| 9613460342 | <b>3004</b> | 300     | 11.81 | 6.7                         | 97.18  | 100                | 212  | 4                  |                 |
| 9613460343 | <b>3004</b> | 300     | 11.81 | 7.6                         | 110.23 | 50                 | 122  | 4                  |                 |
| 9613460344 | <b>3175</b> | 300     | 11.81 | 6.4                         | 92.82  | 250                | 482  | 6                  |                 |
| 9613460345 | <b>3175</b> | 300     | 11.81 | 6.9                         | 100.08 | 200                | 392  | 6                  |                 |
| 9613460346 | <b>3175</b> | 300     | 11.81 | 7.5                         | 108.78 | 150                | 302  | 6                  |                 |
| 9613460347 | <b>3175</b> | 300     | 11.81 | 8.4                         | 121.83 | 100                | 212  | 6                  |                 |
| 9613460348 | <b>3175</b> | 300     | 11.81 | 9.4                         | 136.34 | 50                 | 122  | 6                  |                 |
| 9613460441 | <b>3543</b> | 400     | 15.75 | 3.4                         | 49.31  | 250                | 482  | 4                  |                 |
| 9613460442 | <b>3543</b> | 400     | 15.75 | 3.8                         | 55.11  | 100                | 212  | 4                  |                 |
| 9613460443 | <b>3543</b> | 400     | 15.75 | 4.4                         | 63.82  | 50                 | 122  | 4                  |                 |
| 9613460444 | <b>3881</b> | 400     | 15.75 | 5.2                         | 75.42  | 250                | 482  | 6                  |                 |
| 9613460445 | <b>3881</b> | 400     | 15.75 | 6.6                         | 95.72  | 50                 | 122  | 6                  |                 |
| 9613460446 | <b>4312</b> | 400     | 15.75 | 7.1                         | 102.98 | 200                | 392  | 8                  |                 |
| 9613460447 | <b>4312</b> | 400     | 15.75 | 7.7                         | 111.68 | 100                | 212  | 8                  |                 |
| 9613460448 | <b>4312</b> | 400     | 15.75 | 8.7                         | 126.18 | 50                 | 122  | 8                  |                 |
| 9613460546 | <b>4148</b> | 450     | 17.72 | 4.1                         | 59.47  | 250                | 482  | 6                  |                 |
| 9613460547 | <b>4148</b> | 450     | 17.72 | 5.2                         | 75.42  | 50                 | 122  | 6                  |                 |
| 9613460548 | <b>4524</b> | 450     | 17.72 | 5.5                         | 79.77  | 250                | 482  | 8                  |                 |
| 9613460549 | <b>4524</b> | 450     | 17.72 | 6.1                         | 88.47  | 100                | 212  | 8                  |                 |
| 9613460550 | <b>4524</b> | 450     | 17.72 | 7.0                         | 101.53 | 50                 | 122  | 8                  |                 |
| 9613460551 | <b>4897</b> | 450     | 17.72 | 6.8                         | 98.63  | 250                | 482  | 10                 |                 |
| 9613460552 | <b>4897</b> | 450     | 17.72 | 7.1                         | 102.98 | 150                | 302  | 10                 |                 |
| 9613460553 | <b>4897</b> | 450     | 17.72 | 7.7                         | 111.68 | 100                | 212  | 10                 |                 |
| 9613460554 | <b>4897</b> | 450     | 17.72 | 8.7                         | 126.18 | 50                 | 122  | 10                 |                 |
| 9613460641 | <b>4350</b> | 500     | 19.68 | 3.3                         | 47.86  | 250                | 482  | 6                  |                 |
| 9613460642 | <b>4350</b> | 500     | 19.68 | 4.2                         | 60.92  | 50                 | 122  | 6                  |                 |
| 9613460643 | <b>4685</b> | 500     | 19.68 | 4.5                         | 65.27  | 250                | 482  | 8                  |                 |
| 9613460644 | <b>4685</b> | 500     | 19.68 | 5.0                         | 72.52  | 100                | 212  | 8                  |                 |
| 9613460645 | <b>4685</b> | 500     | 19.68 | 5.7                         | 82.67  | 50                 | 122  | 8                  |                 |
| 9613460646 | <b>5103</b> | 500     | 19.68 | 6.2                         | 89.92  | 250                | 482  | 10                 |                 |
| 9613460647 | <b>5103</b> | 500     | 19.68 | 6.9                         | 100.08 | 100                | 212  | 10                 |                 |
| 9613460648 | <b>5103</b> | 500     | 19.68 | 7.5                         | 108.78 | 50                 | 122  | 10                 |                 |
| 9613460761 | <b>5184</b> | 600     | 23.62 | 2.3                         | 33.36  | 250                | 482  | 6                  |                 |
| 9613460762 | <b>5184</b> | 600     | 23.62 | 3.0                         | 43.51  | 50                 | 122  | 6                  |                 |
| 9613460763 | <b>5580</b> | 600     | 23.62 | 3.1                         | 44.96  | 250                | 482  | 8                  |                 |
| 9613460764 | <b>5580</b> | 600     | 23.62 | 4.0                         | 58.02  | 50                 | 122  | 8                  |                 |
| 9613460765 | <b>6123</b> | 600     | 23.62 | 4.0                         | 58.02  | 200                | 392  | 10                 |                 |
| 9613460766 | <b>6123</b> | 600     | 23.62 | 5.0                         | 72.52  | 50                 | 122  | 10                 |                 |
| 9613460767 | <b>6515</b> | 600     | 23.62 | 4.7                         | 68.17  | 250                | 482  | 12                 |                 |
| 9613460768 | <b>6515</b> | 600     | 23.62 | 5.0                         | 72.52  | 150                | 302  | 12                 |                 |
| 9613460769 | <b>6515</b> | 600     | 23.62 | 6.0                         | 87.02  | 50                 | 122  | 12                 |                 |
| 9613460770 | <b>6864</b> | 600     | 23.62 | 5.4                         | 78.32  | 250                | 482  | 14                 |                 |
| 9613460771 | <b>6864</b> | 600     | 23.62 | 6.1                         | 88.47  | 100                | 212  | 14                 |                 |
| 9613460772 | <b>6864</b> | 600     | 23.62 | 7.0                         | 101.53 | 50                 | 122  | 14                 |                 |



Pressure  
TUV approved  
Product code: 5516

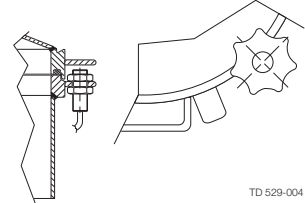
Material: 1.4404 (316L)  
Product wetted surfaces: Ra 0.8µm  
Other surfaces: Ra 1.6µm

Dimension

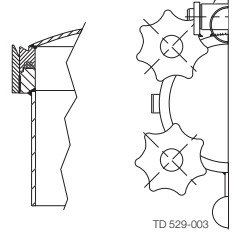
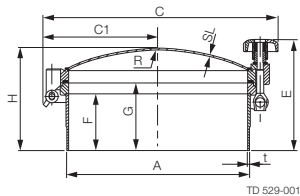
| Size           | 200                                     |       | 300  |       | 400  |       | 450  |       | 500  |       | 600  |       |
|----------------|-----------------------------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                | (mm)                                    | (in)  | (mm) | (in)  | (mm) | (in)  | (mm) | (in)  | (mm) | (in)  | (mm) | (in)  |
| A              | 208                                     | 8.19  | 308  | 12.13 | 408  | 16.06 | 458  | 18.03 | 508  | 20    | 608  | 23.94 |
| C <sub>1</sub> | 154                                     | 6.06  | 204  | 8.03  | 254  | 10.00 | 279  | 10.98 | 309  | 12.17 | 359  | 14.13 |
| C              | 320                                     | 12.6  | 420  | 16.54 | 520  | 20.47 | 570  | 22.44 | 625  | 24.61 | 725  | 28.54 |
| E              | 237                                     | 9.33  | 237  | 9.33  | 247  | 9.72  | 247  | 9.72  | 247  | 9.72  | 247  | 9.72  |
| F              | 125                                     | 4.92  | 125  | 4.92  | 125  | 4.92  | 125  | 4.92  | 125  | 4.92  | 125  | 4.92  |
| G              | 150                                     | 5.91  | 150  | 5.91  | 150  | 5.91  | 150  | 5.91  | 150  | 5.91  | 150  | 5.91  |
| H              | 185                                     | 7.28  | 198  | 7.8   | 226  | 8.9   | 240  | 9.45  | 251  | 9.88  | 285  | 11.22 |
| R              | 500                                     | 19.68 | 500  | 19.68 | 500  | 19.68 | 500  | 19.68 | 500  | 19.68 | 500  | 19.68 |
| SL             | See selection table PD-sheet for HLSD-2 |       |      |       |      |       |      |       |      |       |      |       |
| t              | 4                                       | 0.16  | 4    | 0.16  | 4    | 0.16  | 4    | 0.16  | 4    | 0.16  | 4    | 0.16  |

Pressure  
 HLSD-2 covers with options  
 Product code: 5516

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| PPL<br>EUR    | Type       | Size   | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                               |
|---------------|------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>HLSD-2</b> |            |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                               |
|               |            |        | When ordering covers with options, please specify:<br>Temperature: 50°C, 100°C, 150°C, 200°C, 250°C.<br>Pressure.<br>Seal material: Q (silicone), FPM, FEP covered silicone, PFA covered silicone, FEP covered FPM<br>Inside and outside surface finish: Ra 1.6µm, Ra 0.8µm, Ra 0.6µm, Ra 0.4µm<br><b>OPTIONS:</b><br>Spring to assist opening.<br>Securing of cover in open/closed position.<br>Bracket for indication unit.<br>Guide for lid for vertical installation.<br>Handle in stainless steel.<br>Frame height.<br>Sight glass DIN28120.<br>Union sight glass DIN11851.<br>Built-in safety grid. |                                                                                                               |
|               | <b>858</b> | HLSD-2 | 200-600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Spring to assist opening</b><br>Mounting of spring to assist opening.                                      |
|               | <b>303</b> | HLSD-2 | 200-600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Locking pin for securing cover</b><br>Mounting of locking pin for securing cover in open/closed position.  |
|               | <b>125</b> | HLSD-2 | 200-600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Bracket for indication unit</b><br>Mounting of bracket for indication unit (indication unit not included). |
|               |            |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |

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| Item No.                                       | PPL EUR                                | Type   | Size                                   | Options                                                                                                                                                              |                                                                                     |
|------------------------------------------------|----------------------------------------|--------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Guide for lid for vertical installation</b> |                                        |        |                                        |                                                                                                                                                                      |                                                                                     |
|                                                | 50                                     | HLSD-2 | 200-600                                | Mounting of guide for lid for vertical installation. Please define positioning of the hinge (right or left hand side).                                               |  |
| <b>Handle</b>                                  |                                        |        |                                        |                                                                                                                                                                      |                                                                                     |
|                                                | 9                                      | HLSD-2 | 200-600                                | Handle in stainless steel.                                                                                                                                           |                                                                                     |
| <b>Frame height*</b>                           |                                        |        |                                        |                                                                                                                                                                      |                                                                                     |
|                                                | 231<br>283<br>334<br>372<br>412<br>462 | HLSD-2 | 200<br>300<br>400<br>450<br>500<br>600 | Frame height G = 300 mm.<br>Frame height G = 300 mm.<br>Frame height G = 300 mm.<br>Frame height G = 300 mm.<br>Frame height G = 300 mm.<br>Frame height G = 300 mm. |  |

\*Other frame heights available on request.

| Surface finish options |                       |           |                        |             |            |              |       |
|------------------------|-----------------------|-----------|------------------------|-------------|------------|--------------|-------|
| Item No.               | PPL EUR               |           | PPL EUR                |             | Cover size | Frame height |       |
|                        | Inside surface finish |           | Outside surface finish |             |            | (mm)         | (in)  |
|                        | Ra 0.6 µm             | Ra 0.4 µm | Ra 0.8 µm*)            | Ra 0.6 µm*) |            |              |       |
|                        | (including welding)   |           |                        |             |            |              |       |
|                        | 21                    | 93        | 35                     | 56          | HLSD-2 200 | 150          | 5.91  |
|                        | 35                    | 145       | 71                     | 93          | HLSD-2 200 | 300          | 11.81 |
|                        | 35                    | 107       | 35                     | 56          | HLSD-2 300 | 150          | 5.91  |
|                        | 71                    | 161       | 71                     | 93          | HLSD-2 300 | 300          | 11.81 |
|                        | 35                    | 125       | 35                     | 71          | HLSD-2 400 | 150          | 5.91  |
|                        | 71                    | 179       | 71                     | 107         | HLSD-2 400 | 300          | 11.81 |
|                        | 35                    | 125       | 35                     | 71          | HLSD-2 450 | 150          | 5.91  |
|                        | 71                    | 179       | 71                     | 107         | HLSD-2 450 | 300          | 11.81 |
|                        | 71                    | 145       | 35                     | 71          | HLSD-2 500 | 150          | 5.91  |
|                        | 125                   | 213       | 71                     | 107         | HLSD-2 500 | 300          | 11.81 |
|                        | 71                    | 145       | 56                     | 93          | HLSD-2 600 | 150          | 5.91  |
|                        | 145                   | 232       | 107                    | 145         | HLSD-2 600 | 300          | 11.81 |

\*) Except Ra for outer fittings and weldings.

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| Item No. | PPL<br>EUR | bar | Size DN<br><br>(mm) | Dimension (mm) |                |    |     |     |                |                | Sight glass DIN 28120<br>(including welding-in in<br>manhole cover) |
|----------|------------|-----|---------------------|----------------|----------------|----|-----|-----|----------------|----------------|---------------------------------------------------------------------|
|          |            |     |                     | d <sub>1</sub> | d <sub>4</sub> | s  | D   | k   | h <sub>1</sub> | h <sub>2</sub> |                                                                     |
|          |            |     |                     |                |                |    |     |     |                |                |                                                                     |
|          | 1009       | 10  | 50                  | 80             | 102            | 15 | 165 | 125 | 16             | 30             |                                                                     |
|          | 1229       | 10  | 80                  | 100            | 127            | 15 | 200 | 160 | 20             | 30             |                                                                     |
|          | 1380       | 10  | 100                 | 125            | 152            | 20 | 220 | 180 | 22             | 30             |                                                                     |
|          | 1703       | 10  | 125                 | 150            | 177            | 20 | 250 | 210 | 25             | 30             |                                                                     |
|          | 2371       | 10  | 150                 | 175            | 202            | 25 | 285 | 240 | 30             | 36             |                                                                     |
|          | 3166       | 6   | 200                 | 225            | 252            | 30 | 340 | 295 | 35             | 36             |                                                                     |
|          | 3225       | 10  | 200                 | 225            | 252            | 30 | 340 | 295 | 35             | 36             |                                                                     |
|          |            |     |                     | A              | B              | C  | D   |     |                |                | Sight glass DIN11851<br>(including welding-in in<br>manhole cover)  |
|          | 356        |     | 25                  | 26             | 63             | 35 | 4.5 |     |                |                |                                                                     |
|          | 386        |     | 40                  | 38             | 78             | 40 | 5.0 |     |                |                |                                                                     |
|          | 424        |     | 50                  | 50             | 92             | 42 | 5.5 |     |                |                |                                                                     |
|          | 502        |     | 65                  | 66             | 112            | 49 | 6.5 |     |                |                |                                                                     |
|          | 627        |     | 80                  | 81             | 127            | 54 | 6.0 |     |                |                |                                                                     |
|          | 787        |     | 100                 | 100            | 148            | 65 | 7.0 |     |                |                |                                                                     |
|          | 1132       |     | 125                 | 125            | 178            | 55 | 6.0 |     |                |                |                                                                     |
|          | 2006       |     | 150                 | 150            | 210            | 60 | 6.5 |     |                |                |                                                                     |
|          |            |     |                     |                |                |    |     |     |                |                | Built-in safety grid for<br>HLSD-2 *                                |
|          | 424        |     | 200                 |                |                |    |     |     |                |                |                                                                     |
|          | 525        |     | 300                 |                |                |    |     |     |                |                |                                                                     |
|          | 614        |     | 400                 |                |                |    |     |     |                |                |                                                                     |
|          | 724        |     | 450                 |                |                |    |     |     |                |                |                                                                     |
|          | 805        |     | 500                 |                |                |    |     |     |                |                |                                                                     |
|          | 940        |     | 600                 |                |                |    |     |     |                |                |                                                                     |

\* Not available as option.  
 Can only be ordered built-in.