



The Safe Choice

Alfa Laval LKC-2/LKC-H Non-return Valve

Concept

Non-return valve LKC-2 is designed for use in stainless steel pipe installations to prevent reverse flow.

Working principle

LKC-2 opens when the pressure below the valve plug exceeds the pressure above the plug and the spring force.

The valve closes when pressure equalization has been achieved. A higher counter pressure will press the valve plug against the seat.

Standard Design

The valve body is in two parts, assembled by means of a clamp ring and hygienically sealed with a special seal ring. A guide disc and four legs guide the spring loaded valve plug with an O-ring seal.

The valve is available with welding ends for tubes according to ISO and DIN 11850.



TECHNICAL DATA

Temperature

Max. temperature: 140°C (EPDM)

Min. temperature: -10°C

Pressure

Max. product pressure: 1000 kPa (10 bar)

Mechanical

Required differential pressure for opening the valve when fitted in a vertical pipe, as shown in fig. 3, is approx. 6 kPa (0.06 bar)

Options

Product wetted seal rings of Nitrile (NBR) or Fluorinated rubber (FPM).

PHYSICAL DATA

Materials

Product wetted steel parts: 1.4301 (304) / 1.4404 (316L)

External surface finish Bright (Machined Ra 1.6)

Internal surface finish Bright (polished), Ra < 0.8 µm

Product wetted seals: EPDM rubber

Pressure drop/capacity diagram

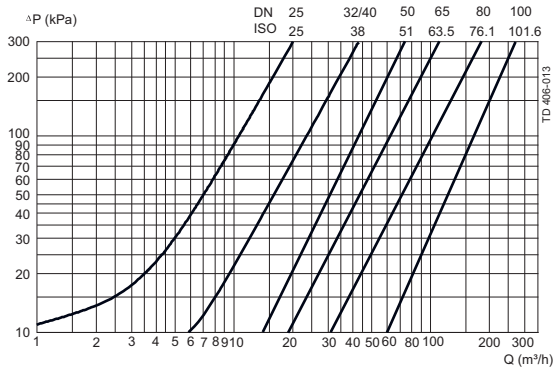


Fig. 1. **Note!**

For the diagram the following applies:

Medium: Water (20°C).

Measurement: In accordance with VDI 2173.

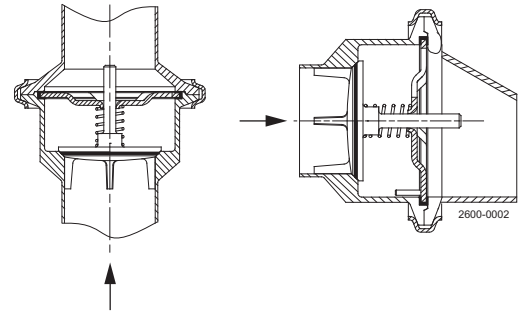
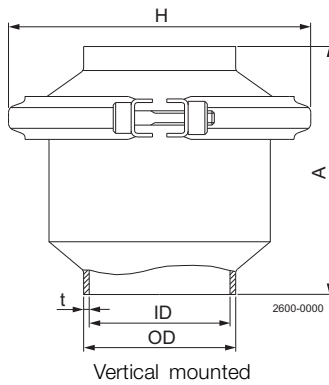


Fig. 2 = Flow direction.

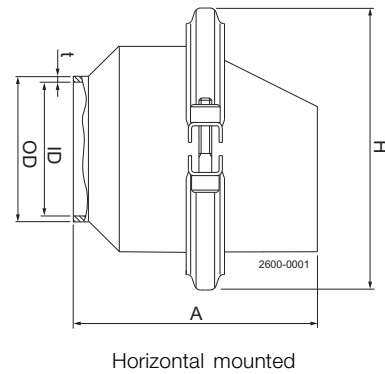
Shows the optimal built-in situation. Other positions possible are e.g. horizontal. The four guide legs of the valve cone ensure good alignment.

90° rotation.

Dimensions (mm)



Vertical mounted



Horizontal mounted

Table 1. Dimensions - Vertical mounted

| Size | ISO | | | | | | DIN | | | | | | |
|-------------|----------|----------|----------|------------|------------|-------------|----------|----------|----------|----------|----------|----------|-----------|
| | 25 mm | 38 mm | 51 mm | 63.5 mm | 76.1 mm | 101.6 mm | DN 25 | DN 32 | DN 40 | DN 50 | DN 65 | DN 80 | DN 100 |
| A | 62.5 | 75.0 | 87.5 | 95.0 | 115 | 155 | 62.5 | 75.0 | 75.0 | 87.5 | 95.0 | 115 | 155 |
| OD | 25.4 | 38.4 | 51.4 | 63.9 | 76.4 | 102 | 30.0 | 36.0 | 42.0 | 54.0 | 70.0 | 85.0 | 104 |
| ID | 22.5 | 35.5 | 48.5 | 60.5 | 72.0 | 97.6 | 26.0 | 32.0 | 38.0 | 50.0 | 66.0 | 81.0 | 100 |
| t | 1.45 | 1.45 | 1.45 | 1.7 | 2.2 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| H | 72.0 | 85.5 | 99 | 127 | 138 | 164 | 72.0 | 85.5 | 85.5 | 99 | 127 | 138 | 164 |
| Weight (kg) | 0.5 | 0.7 | 1.0 | 1.7 | 2.4 | 4.3 | 0.5 | 0.7 | 0.7 | 1.0 | 1.7 | 2.4 | 4.3 |

Table 2. Dimensions - Horizontal mounted

| Size | ISO | | | | |
|-------------|----------|----------|----------|------------|------------|
| | 25 mm | 38 mm | 51 mm | 63.5 mm | 76.1 mm |
| A | 95.5 | 86.4 | 104.1 | 119.4 | 139.7 |
| OD | 25.4 | 38.4 | 51.4 | 63.9 | 76.4 |
| ID | 22.5 | 35.5 | 48.5 | 60.5 | 72.0 |
| t | 1.45 | 1.45 | 1.45 | 1.7 | 2.2 |
| H | 72.0 | 85.5 | 99.0 | 127.0 | 138.0 |
| Weight (kg) | 0.5 | 0.7 | 1.0 | 1.7 | 2.4 |

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