



Large particles - Gentle Handling

Unique Mixproof Large Particle Valve

Concept

This Unique Mixproof LP valve is based on the well proven and exceptionally flexible design of the Unique Mixproof valves. The valves are designed for gentle handling of the product containing large particulates up to 45 mm or products with high viscosity.

Working principle

Unique Mixproof LP is remote-controlled by means of compressed air. The valve is a normally closed (NC) valve. It is as standard supplied seat lift, which enables handling of two different products at the same time, or safe handling of one product while seat-lift cleaning operations are being conducted in the other portion of the valve – all without any risk of cross-contamination. The valve is as standard also equipped with balanced lower plug to protect against the effects of high pressure and water hammer.



Technical Data

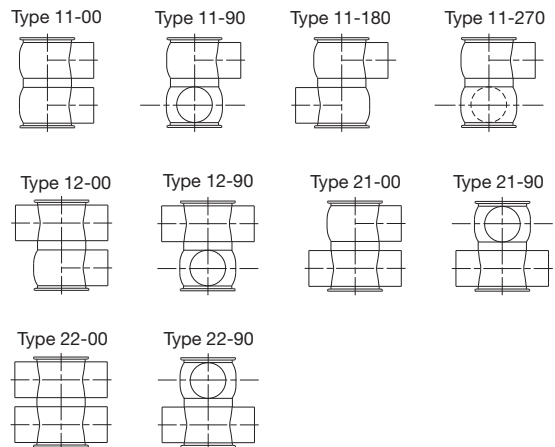
Max. product pressure: .1000 kPa (10 bar)
 Min. product pressure: .Full vacuum.
 Temperature range: . . . -5 °C to +125 °C (Depending on elastomer type)
 Air pressure:Max. 8 bar

Materials

Product wetted steel parts: 1.4404 (316L)
 Other steel parts: 1.4301 (304)
 External surface finish . Semi-bright (blasted)
 Internal surface finish . . Bright (polished), Ra < 1.6 µm
 Product wetted parts: . EPDM

Other seals:
 CIP seals: EPDM
 Actuator seals: NBR
 Guide strips PTFE

Valve body combinations



Availability

This LP edition of the Unique Mixproof valve is a high-end valve with regards to process security as well as from a sanitary point of view. The Unique Mixproof LP valve is available in 4" and 6" sizes.

Options

- Male parts or clamp liners in accordance with required standard.
- Control and Indication: IndiTop, ThinkTop or ThinkTop Basic.
- Side indication for detection of upper seat lift
- Product wetted seals in HNBR, NBR or FPM

Air and CIP consumption

Size	OD 4"	OD 6"
Kv-value		
Upper Seat-lift [m ³ /h]	0.09	0.20
Lower Seat-lift [m ³ /h]	0.08	0.17
Air consumption		
Upper Seat-lift * [n litre]	8.6	8.6
Lower Seat-lift * [n litre]	3.0	3.0
Main Movement * [n litre]	49.1	49.1

Note

* [n litre] = volume at atmospheric pressure

Recommended min. pressure for SpiralClean: 2 bar.

Formula to estimate CIP flow during seat lift:

(for liquids with comparable viscosity and density to water):

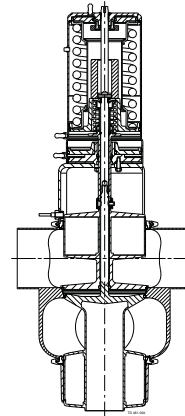
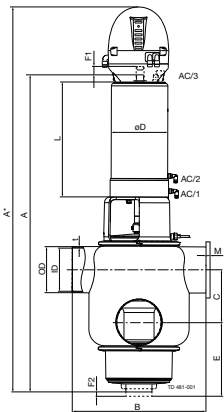
$$Q = K_v \cdot \sqrt{\Delta p}$$

$$Q = \text{CIP - flow (m}^3\text{/h)}$$

K_v = K_v value from the above table.

$$\Delta p = \text{CIP pressure (bar)}$$

Dimensions



Size	4"	6"
A	1038	1002
A*	1193	1182
B	350	440
**C	124	173
OD	101.6	152
ID	98	147
t	2	2.77
E	166	211
F1	75	75
F2	5	5
øD	186	186
L	534	379
M/Tri-clamp	21	38.55
Weight [kg]	64.9	96.2

NOTE!

**The measure C can always be calculated by the formula

$$C = \frac{1}{2}ID_{\text{upper}} + \frac{1}{2}ID_{\text{lower}} + 1''.$$

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ESE02124EN 1201

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