

SÜDMO

OVERFLOW VALVES

PRODUCT INFORMATION



S370E-EAF Overflow Valves with adjustable spring tension

To achieve the desired relief pressure, the spring is preloaded by adjusting an easily accessible screw on top of the actuator. This setting sets the standard for the relief pressure.



S371E-EAD Overflow Valves with adjustable overlap tension

The air to open-spring to close valve is overlaid with air by a pressure reduction unit on the springside of the piston actuator. This pressure reduction unit reduces the control air to the desired overlap pressure. In consideration of the spring tension, overpressure protection can be adjusted. Beside that, the valve can be opened completely for cleaning processes with the second air connection.

CHALLENGE

High viscosity fluids and long pipe runs require high pressure pumps. Positive displacement (PD) pumps and others are used to achieve these elevated pressures. In the event of a process disturbance where the process line is dead headed – safety interlocks are required to ensure that excessive pressures do not exceed the system rating ensuring the safety of the system.

During CIP some of these high pressure pumps require disassembly and removal of the pump internals to ensure adequate flow rates are achieved in the process line. This manual operation has many negative effects: requires safe “lock out tag out” procedure, safe depressurization of process lines, frequent laborious disassembly of the pump can result in damage to the pump mechanism, Increased effluent discharge from opening the line, manual cleaning of internals in COP tanks is operator dependent, reassembly of pump internals into the pump can result in contamination to the clean line.

APPLICATION

In case the pressure in the filling line exceeds the pre-set relief pressure, the Pentair Südmö Overflow Valve opens and thus enables the recirculation of the fluid via the loop of the PD-pump. In addition the valve may be fully opened pneumatically during cleaning cycles.

SOLUTION

With the introduction of Pentair Südmö's over flow /pump bypass valve –personnel safety and full cleaning of the pump and process line is guaranteed. The adjustable spring tension allows the valve to be installed such that in the event of an over pressure, the valve will relieve allowing the pump to recirculate without excessive pressure being observed in the process line. During CIP this valve can be opened to bypass the pump – eliminating the need to disassemble the pump and external cleaning of the internals. Using our adjustable “Third” positioner actuator allows accurate metering of CIP fluid entering the pump to ensure adequate cleaning is achieved.

Pentair Südmö's Intellitop 2.0 can be incorporated to give accurate position detection – confirming when an over pressure has occurred and also ensuring the bypass path is open during CIP. Significant cost savings are quickly realized as no manual input is required. CIP turn around times are reduced as zero time is required to switch from production to CIP and then back to production.

CUSTOMER BENEFITS

- Pneumatic lifting for CIP cleaning always available
- Integrated in SVP Model 2000 kit-system
- Hygienic and aseptic variants selectable
- Flexible and subsequent exchangeable actuator concept (adjustable spring tension or adjustable overlap tension)
- Higher pressures with pressure overlapping variant practicable as well
- Easy adjustment and commissioning
- Easy maintenance without special tools

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PRODUCT LEAFLET

TECHNICAL DATA

MATERIALS

Product contact

1.4404 (AISI 316L)

Non-product contact

1.4301 (AISI 304) / 1.4307 (AISI 304 L)

Optional

Higher quality materials

Seals

Standard: EPDM
Metal bellow
PTFE bellow

Optional: Other materials

OPERATING TEMPERATURES

EPDM seals

130 °C (266 °F) continuous
150 °C (302 °F) short sterilization

PTFE seals

120 °C (248 °F) continuous
135 °C (275 °F) short sterilization

PRESSURES

Control air pressure

Standard 6 bar (87 psi) – 8 bar (116 psi)

FINISH

Product contact

Ra ≤ 0.8 µm

Non-product contact

Ra 1.6 µm

Optional

Improved mechanical polish / electropolish

CONNECTIONS

Tube dimensions

- DIN 11850 Series 2 (DIN 11866 Series A)
- ASTM A270 (ASME BPE-2009 / DIN 11866 Series C)
- DIN EN ISO 1127 (DIN 11866 Series B)

ATTENTION

Overflow valves must not be used as safety accessories according to paragraph 1 section 2.1.3 of the European pressure vessels directive 97/23/EG in the area of the European Union!

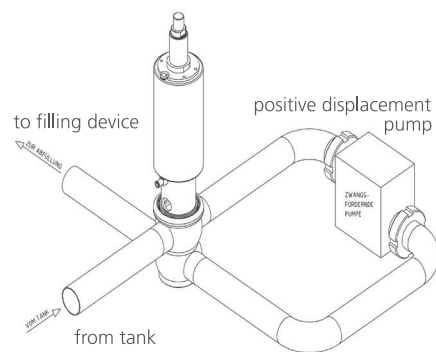
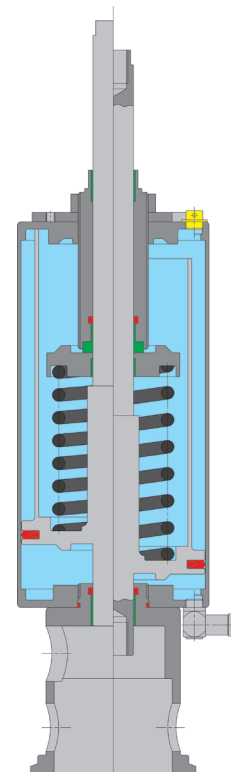


Fig. 1



SÜDMO COMPONENTS GMBH

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