**I Application**

The Mixproof valve is a completely hygienic double sealing valve. This system allows for the simultaneous processes in the two bodies of the valve by providing interface between the two fluids, preventing the possibility of product contamination. The leakage chamber and the leakage detector can be cleaned by "cavity spray". Manifolding is one of the applications of these valves in the food-processing industries, especially in the beverage and dairy industries.

**I Operating principle**

When the valve is open the fluid can pass from one body to the other. Once the valve is closed, the double seat creates an annular chamber that isolates the bodies sealing them with double seals. It allows a CIP operation providing an interface between the two fluids, preventing the possibility of product contamination. Due to the leakage detector any leak of a seat seal is detected by the appearance of liquid at the bottom of the valve.

The leakage chamber and the leakage detection system are usually cleaned by CIP without interruption of the main process. The area between the seats is cleaned by the introduction of the CIP fluid from an external source. Nozzles situated near the base of the lower poppet direct jets of CIP fluid onto the leakage chamber wall. The fluid is released down the drain tube. The valve is balanced providing protection against overpressure and hydraulic shock up to 30 bar.

**Cavity Spray**

CIP connection for cleaning of the chamber.

Leakage detection. Any leak of a seat seal is detected by the appearance of liquid. During the CIP process of the cavity area the product drains down the leakage detector.

**I Design and features**

Compact design.
Valves with normally closed pneumatic actuator.
Weld connections (mm or inches).
Forged spherical bodies.
Angular orientation 360ºC.
Balanced design.
Open lantern allows visual inspection of the sealing.
Easy disassembly by releasing the clamp.
Available from DN 40 - 1½" to DN 100 - 4".
Mixproof Cavity Spray

I Materials

- Parts in contact with the product: AISI 316L
- Other stainless steel parts: AISI 304
- Gasket: EPDM according to FDA 177.2600
- Internal surface finish: $Ra \leq 0.8 \mu m$

I Options

- Gaskets: NBR and FPM.
- Connections: DIN, SMS, Clamp, RJT, etc.
- Control box C-TOP.
- Surface finish: $Ra \leq 0.5 \mu m$.
- Mixed body sizes: combinations of bodies with different diameters.
- Heating jacket.
- DSO option designed for the CIP circuits.
- Routing valve, with three bodies.

I Technical specifications

- Max. operating pressure: 10 bar (for DN 4” - DN 100 valves - max. 5 bar)
- Min. operating pressure: Absolute vacuum
- Working temperature: -10 ºC to 120 ºC (140 ºC for short periods or sterilisation)
- Compressed air pressure: 5.5 bar - 7 bar
- Air supply connections: R1/8” (BSP)

I General dimensions

<table>
<thead>
<tr>
<th>Valve size O.D.</th>
<th>Body dimensions [mm]</th>
<th>Actuator dimensions [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1½”</td>
<td>63</td>
<td>85</td>
</tr>
<tr>
<td>2”</td>
<td>76</td>
<td>85</td>
</tr>
<tr>
<td>2½”</td>
<td>87.5</td>
<td>100</td>
</tr>
<tr>
<td>3”</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4”</td>
<td>124.5</td>
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<td>DN 40</td>
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</tr>
<tr>
<td>DN 100</td>
<td>127</td>
<td>119</td>
</tr>
</tbody>
</table>

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