Tetra Pak® TPS Powder Valve
Reliable, high-speed dosing of dry ingredients for mixers

Highlights
- New design for robust execution
- Extremely fast powder handling from 0-20,000 kg/h
- Rapid release and return ensures one-way flow and eliminates back flush
- Integrated power “lift” (skater ramp) for reduced wear on the valve gasket, maintaining an effective seal when the valve is shut
- Valve disc and shaft of Duplex stainless steel, with more than double the wear resistance of conventional stainless steel
- Teflon PFA valve disc gasket with three times the lifetime of a standard gasket
- Easy to install and service, long service intervals and lower service costs
- Easily replaces all existing powder valve installations (Ø63.5 mm and Ø51 mm)

Application
Adding dry ingredients to a batch vacuum mixer is now faster, more efficient and more reliable with the Tetra Pak® TPS Powder Valve. Featuring a robust design, the rapid opening and closing action of the valve ensures a one-way flow of powder into the tank, with no risk of liquid entering the powder inlet and causing clogging.

Automatic controls ensure precise dosing at a rate of up to 20 tonnes an hour, depending on the ingredient.

In food industry trials, the new powder valve has proven highly resistant to wear, even when dosing challenging dry ingredients such as sugar. Each carefully engineered component is made of advanced resilient materials for a significantly longer lifetime. Plants can look forward to reduced maintenance and processing downtime as a result.
Working principle
A signal from the control panel initiates a jet of compressed air that opens the valve disc. The mixer vacuum then sucks the powder ingredient into the tank at high speed. When the required dose has been added, the air is released, allowing the valve disc to close. The valve disc gasket acts as an effective seal, preventing liquid flowing from the tank back into the powder inlet.

Technical data

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<thead>
<tr>
<th></th>
<th>Ø63,5</th>
<th>Ø51</th>
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<tbody>
<tr>
<td>Powder kg/min</td>
<td>100-300</td>
<td>40-160</td>
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<tr>
<td>Connection (mm)</td>
<td>Tri clamp Ø63,5</td>
<td>Tri clamp Ø51</td>
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<tr>
<td>Air pressure</td>
<td>6 Bar</td>
<td>6 Bar</td>
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<tr>
<td>Instrument air Nl/min.</td>
<td>15</td>
<td>15</td>
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<tr>
<td>L x W x H (mm)</td>
<td>465x121x135</td>
<td>450x95x135</td>
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Options
- ASI interface and Profibus signals
- 4-20 mA analog regulation