AL-AXL rotary valves

The AL and AXL rotary valves with enlarged inlet have been designed by DMN-WESTINGHOUSE for many applications in the metering and pneumatic conveying of products in powder and granular form. Due to the modular design of this extensive and flexible range of valves many different configurations are available, using standard components.

The AXL valves with enlarged inlet are specifically designed for applications where inlet size is more important than capacity or for handling products with poor flowability.

The AL and AXL valve range includes USDA Dairy Accepted models and versions conforming to the EC 1935/2004 directive for sanitary use in the food and pharmaceutical industry. These stainless steel valves are easy detachable in a few minutes and meet the highest hygienic standards.

The AL valves are also available with an optional body having one round and one square flange and a larger diameter inlet: the AML version. The AML valves can also be used as a transition piece from round to square or vice versa.

Both AL and AXL standard and Dairy valves are optionally available in MZC execution with supporting bars for easy removal of the end cover and rotor without damaging the housing. The MZC valves are easy detachable in a few minutes.

The AL valves are available in 10 consecutive sizes from 100-500, covering a capacity range of the rotor from 0.8-230 litre per revolution at 100% filling. In the 400-500 sizes the valves can also be supplied with square in- and outlet (type OS). The AXL valves are available in 4 sizes from 200-350, capacity range of the rotor from 5.5-34 litre per revolution at 100% filling. The AXL size corresponds with the dimension of the inlet flange.

<table>
<thead>
<tr>
<th>Size Type AL</th>
<th>100</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>350</th>
<th>400</th>
<th>450</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ltr/rev*</td>
<td>0.8</td>
<td>2.5</td>
<td>5.5</td>
<td>10.5</td>
<td>19</td>
<td>34</td>
<td>58</td>
<td>91</td>
<td>135</td>
<td>230</td>
</tr>
</tbody>
</table>

* at 100% filling

Product information

The AL valves are supplied in 316 stainless steel and cast iron. The AXL valves are available in 316 stainless steel. Variations such as nickel and chrome plating and Tungsten coating are equally available on both models.

The standard rotor has 9 fixed blades. Various rotor configurations are optionally available, such as adjustable blades, reduced capacity, scalloped fixed vaned, end disc etc. Due to the state of the art manufacturing facility high accuracy and tight rotor clearances can easily be attained. The end covers have outboard bearing, lubricated and sealed for life. Eight different types of shaft sealing are available.

The standard models are suitable for products up to a temperature of 150 °C and a maximum pressure difference of 2 bar (size AL350). Special configurations are available to accommodate temperatures between -200 °C and +900 °C. Certified configurations are available that are pressure shock resistant and flame proof up to 10 bar g pressure for St2 products.

All models offer optimum venting through the large vent holes, standard pre-drilled and plugged on cast iron based options, optional on stainless steel and aluminium versions.

DMN-WESTINGHOUSE fits SEW drives as their standard, other drives can be fitted on request. Whilst having a preference for direct drives, chain, air and hydraulic drives can also be supplied.

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