The new generation of flange valves by IMI Buschjost – optimisation of DN 65, DN 80 and DN 100 nominal diameters

IMI Buschjost’s DN 65, DN 80 and DN 100 nominal diameter flange valves have been completely revised to be compliant with the current version of the Pressure Equipment Directive 2014/68/EU, with fundamental improvements and many benefits for users.

Labyrinth technology has revolutionised IMI Buschjost branded piston valves from IMI Precision Engineering. For over five years now, IMI Buschjost’s DN 15 to DN 50 nominal diameter flange valves have featured the technology that has been proven in numerous tests and found to be particularly durable. Labyrinth technology will now be introduced to the DN 65, DN 80 and DN 100 nominal diameters on revising these product lines.

The pistons have a wear-resistant graphite-covered labyrinth seal instead of a grooved seal. This consist of floating fitted and slotted PTFE guide rings which withstand temperatures up to 200 degrees Celsius. The labyrinth seal is impervious to pressure surges contrary to the flow direction, making its simple and compact construction, long life and high flow rate particularly impressive.

Force lifted valves with labyrinth pistons have a particular and decisive advantage: the piston’s friction and resistance to motion are reduced due to the special nature of the seal. The effective force is increased in this way, leading to a significant improvement in functional reliability even under difficult conditions.

Produkt-Highlights

- Long service life
- High functional reliability
- Low motion resistance
- Compact design
- Simplified maintenance thanks to easy to mount profile seals
- Smooth-moving piston
- Version with compact magnets and overexcitation
- Low-temperature version for extreme temperatures as low as -40 degrees Celsius
- Steam version for high temperatures up to +200 degrees Celsius
- Version with ATEX-magnet 9540 & IECEx
**DN 65, DN 80 and DN 100 flange valves now with innovative labyrinth technology**

The series will also be renamed with the development of the new generation of flange valves. The following overview shows the old and new names:

<table>
<thead>
<tr>
<th>Medium</th>
<th>Operating pressure</th>
<th>Port size (mm)</th>
<th>Old Series</th>
<th>New Series</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral gases and fluids</td>
<td>0 ... 16 bar</td>
<td>15 20 25 32 40</td>
<td>83580, 84100, 84120, 84320</td>
<td>86480</td>
<td>Ductile iron</td>
</tr>
<tr>
<td>Neutral gases and fluids</td>
<td>0 ... 25 bar</td>
<td>65 80 100</td>
<td>84200, 84220, 84340</td>
<td>86500</td>
<td>DN 15 - 50: Cast steel, Brass DN 65 - 100: Ductile iron</td>
</tr>
<tr>
<td>Slightly aggressive gases and liquid fluids</td>
<td>0 ... 25 bar 0 ... 40 bar</td>
<td>65 80 100</td>
<td>84140, 84240</td>
<td>86540</td>
<td>Stainless steel (1.4406)</td>
</tr>
</tbody>
</table>

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