High Pressure Valve

Series 4140

Features
- Original Shear-Seat® technology
- All stainless steel construction
- SAE porting standard
- NPT porting available
- Pressures to 15,000 psi
- Low pressure drop
- Low handle load

Applications
- Offshore drilling equipment
- Refineries and chemical processing plants
- Gas compression systems
- Marine umbilical reels

General Specifications*

<table>
<thead>
<tr>
<th>Working Pressure:</th>
<th>10,000 psi (700 bar) standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15,000 psi option with appropriate port size and port type</td>
</tr>
<tr>
<td>Flow Capacity, Cv:</td>
<td>See table</td>
</tr>
<tr>
<td>Back Pressure:</td>
<td>Must not exceed 250 psi (17.2 bar) at return port for satisfactory operation</td>
</tr>
<tr>
<td>Pressure Drop:</td>
<td>14 psi (0.96 bar) at 20 ft/s</td>
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<tr>
<td>Proof Pressure:</td>
<td>1-1/2 times working pressure except at return port</td>
</tr>
<tr>
<td>Burst Pressure:</td>
<td>2-1/2 times working pressure except at return port (3,000 psi [206 bar]) maximum</td>
</tr>
</tbody>
</table>

* See product configurator for additional options and Supplemental Guide for more detailed information.

Media Temperature Range:
-40° to +250°F (-40° to +121°C)

Rotor: 400 series stainless steel
Pressure Seals: Stainless steel
Shaft: Stainless steel
All External Components: 300 series stainless steel
Standard O-ring: Buna N
Back-up Rings: Teflon®

Flow Capacity (Approx.)

<table>
<thead>
<tr>
<th>Service: Oil and Lubricated Water</th>
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<tbody>
<tr>
<td>Port Size</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>1/4&quot; or SAE-4</td>
</tr>
<tr>
<td>3/8&quot; or SAE-6</td>
</tr>
<tr>
<td>1/2&quot; or SAE-8</td>
</tr>
</tbody>
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Technical Drawings

![Technical drawing of a high pressure valve](image)

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<tr>
<th>Port Size</th>
<th>A Dia.</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E Dia.</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
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<tbody>
<tr>
<td>1/4&quot; or SAE-4</td>
<td>3.50 (89)</td>
<td>7.00 (178)</td>
<td>7.69 (195)</td>
<td>3.25 (83)</td>
<td>0.28 (7)</td>
<td>4.22 (107)</td>
<td>4.00 (102)</td>
<td>0.63 (16)</td>
<td>5.81 (148)</td>
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Product Configurator

**Example:** 414 1 R 9 W C 3 -MS

**Options**
- **-MC** Spring centering
- **-O** 15,000 psi
- **-NF** Non-Interflow (Consult factory)

**Port Type**
- blank NPT porting
- -MS SAE J1926 porting
- -MP Medium pressure porting (1/2" is actually 9/16")

**Position**
- 3 Three position

**Style**
- R Regular (side) porting

**Operating Pressure**
- 9 10,000 psi

**Flow Pattern**
- C Closed center
- O Open center (tandem center)
- Q Closed center manipulator (float center) (Not available in 15,000 psi)

**Service**
- W Lubricated water or hydraulic oil