**SPECIFICATIONS:**

- Air Pilot Operated Hydraulic Spool Valve.
- Three Way, Directional Control or Selector Valve.
- Maximum System Pressure: 3,000 PSI.
- Maximum Pilot Pressure: 150 PSI.
- Fluid temperature: -40°F (-40°C) to 200°F (93.3°C).
- Install Cartridge Valve using No. 471 Spanner Tool.
- Valve should screw in freely to the Mount Seal.
- Use lubricant on external oil seals and mounting threads.

**OPTIONS**

- Pilot Port (Key X) is 1/8 NPT.
- Optional Pilot Porting includes 1/4 NPT, SAE4, and SAE6.
- Standard seals are Buna-N with Teflon back-up rings.
- Optional seals include Viton, Teflon and others.
- Keys 7 & 20 are vents to atmosphere.
- T-Option provides 10-32 Threaded ports at these locations.

**TOOLING**

- Cavity Form Tool: FT-8543
- Optional Pilot Porting includes 1/4 NPT, SAE4, and SAE6.
- Standard seals are Buna-N with Teflon back-up rings.

**PILOT RATIO NOTES:**

1. Determine the MAXIMUM possible system pressure.
   Multiply \( A \) \( \times \) SYSTEM
2. Determine MINIMUM possible pilot pressure.
   Multiply \( A \) \( \times \) PILOT
3. Divide SYSTEM by PILOT = PILOT TO SYSTEM RATIO
4. Round-up to standard available ratio.

<table>
<thead>
<tr>
<th>Pilot to System</th>
<th>&quot;A&quot;</th>
<th>Cartridge Valve</th>
<th>Functional Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio applies to</td>
<td>Diameter</td>
<td>Order Number</td>
<td>Suggested Connections</td>
</tr>
<tr>
<td>Port 1 only.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108:1</td>
<td>1-1/2 (38.1)</td>
<td>542371080</td>
<td>2-3</td>
</tr>
<tr>
<td>131:1</td>
<td>1-9/16 (41.28)</td>
<td>54371310</td>
<td>2-3</td>
</tr>
<tr>
<td>183:1</td>
<td>1-7/8 (47.63)</td>
<td>546371830</td>
<td>2-3</td>
</tr>
<tr>
<td>277:1</td>
<td>2-1/4 (57.15)</td>
<td>547372770</td>
<td>2-3</td>
</tr>
<tr>
<td>108:1</td>
<td>1-1/2 (38.1)</td>
<td>542371081</td>
<td>2-3</td>
</tr>
<tr>
<td>131:1</td>
<td>1-9/16 (41.28)</td>
<td>54371311</td>
<td>2-3</td>
</tr>
<tr>
<td>183:1</td>
<td>1-7/8 (47.63)</td>
<td>546371831</td>
<td>2-3</td>
</tr>
<tr>
<td>277:1</td>
<td>2-1/4 (57.15)</td>
<td>547372771</td>
<td>2-3</td>
</tr>
</tbody>
</table>

**PRESSURE DROP CHART**

<table>
<thead>
<tr>
<th>PSI</th>
<th>25</th>
<th>50</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

**3PS SERIES**

3 Way Spool Valve, Pilot Operated.
Directional Control or Selector Valve.

**Cavity & Housing**

- Cavity & Tooling C-8543 (10-3):
  See Spec. Sheet 1200634
- Line Mount Housings:
  See Spec. Sheet 1200673 & 1201903
- Panel Mount Housings & Spacers:
  See Spec. Sheets 1202983 and 1202990

Cavity, Tooling & Housing Info found at www.doering.com
Cavities, Housings & Manifolds.

Please call for assistance.

Doering Company also manufactures
multi function and multi station
Housings & Manifolds.