Model VCV Series
Control Valves

- Pressures up to 20,000 psi (1,379 bar)
- Double pilot air actuated
- Multiple port sizes and types
- Metal-to-metal or soft seat
- Stainless steel construction

APPLICATION

The NuQuip® Model VCV Series Control Valve is well-suited for use in control applications that require high-pressures, as well as high flows. These valves are available in 10,000 and 20,000 psi versions (689 and 1,379 bar versions), all with internal paths optimized for maximum flow. The stainless steel construction provides resistance to corrosive media. The VCV with a metal-to-metal seat can be used with water, oil, or other liquids. The VCV with soft seat can also be used for leak-free sealing of inert gases.

VALVE CONFIGURATION

Operation: Double pilot air actuated
Flow Capacity: Optimized for each port size
Port Styles: NPT, MP, MS, OD
  - NPT = National Pipe Thread
  - MP = Medium-pressure
  - MS = Military Specification MS33649
  - OD = Outside Diameter Tube Compression
Seat Style: Metal-to-metal or soft seat
Mounting: Body has six 1/4” tapped holes

OPERATING CONDITIONS

Maximum Pressure: 20,000 psi (1,379 bar)
Temperature: 32° F to 120° F (0° C to 49° C)
Services: Water, oil, other liquids, or inert gases

DESCRIPTION

NuQuip® Model VCV Series Control Valves are pneumatically-operated liquid control valves, specially designed for high-pressures and high flow rates. They are two-position valves with right angle port orientation, see Figure 1. The integral air actuators provide rapid switching even at maximum operating pressure, using only 80 psi air (5.5 bar air). The Model VCV Control Valve is available with either metal-to-metal or soft seat configuration. Multiple port choices are available, and custom designs will be considered.

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# Control Valve Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum Working Pressure</th>
<th>Seat</th>
<th>Air Pressure</th>
<th>Pilot Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCV-100-x-x-x</td>
<td>10,000 psi (689 bar)</td>
<td>Metal-to-metal</td>
<td>80 to 130 psi (5.5 to 9.0 bar)</td>
<td>1/8&quot; NPT</td>
</tr>
<tr>
<td>VCV-10A-x-x-x</td>
<td>10,000 psi (689 bar)</td>
<td>Soft</td>
<td>80 to 130 psi (5.5 to 9.0 bar)</td>
<td>1/8&quot; NPT</td>
</tr>
<tr>
<td>VCV-200-x-x-x</td>
<td>20,000 psi (1,379 bar)</td>
<td>Metal-to-metal</td>
<td>80 to 130 psi (5.5 to 9.0 bar)</td>
<td>1/8&quot; NPT</td>
</tr>
<tr>
<td>VCV-20A-x-x-x</td>
<td>20,000 psi (1,379 bar)</td>
<td>Soft</td>
<td>80 to 130 psi (5.5 to 9.0 bar)</td>
<td>1/8&quot; NPT</td>
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</table>