**CV16-20 Check Valve**

**DESCRIPTION**
A screw-in, cartridge-style, hydraulic check valve for use as a blocking or load-holding device.

**OPERATION**
The CV16-20 allows flow from ➀ to ➁, while blocking oil flow in the opposite direction. The cartridge has a fully guided poppet which is spring-biased to closed until sufficient pressure is applied at ➀ to open to ➁.

**FEATURES**
- Hardened seat for long life and low leakage.
- Optional bias springs for back-pressure application flexibility.
- Industry common cavity.

**RATINGS**
- **Operating Pressure:** 240 bar (3500 psi)
- **Proof Pressure:** 350 bar (5075 psi)
- **Flow:** See Performance Chart
- **Internal Leakage:** 0.25 cc/minute (5 drops/minute) max. at 240 bar (3500 psi)
- **Crack Pressure Defined:** Gauge pressure evident at ➀ at 0.95 lpm (0.25 gpm) attained
- **Standard Bias Springs at Crack:** 0.35 bar (5 psi); 1.7 bar (25 psi); 4.1 bar (60 psi)
- **Temperature:** -40 to 120°C
- **Filtration:** See page 9.010.1
- **Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1
- **Installation:** No restrictions; See page 9.020.1
- **Cavity:** VC16-2; See page 9.116.1
- **Cavity Tool:** CT16-2XX; See page 8.600.1
- **Seal Kit:** SK16-2X-T; See page 8.650.1

**SYMBOLS**

**USASI:**

**ISO:**

**PERFORMANCE (Cartridge Only)**

<table>
<thead>
<tr>
<th>FLOW lpm/gpm</th>
<th>PRESSURE DROP bar/psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.9</td>
<td>1.4/20</td>
</tr>
<tr>
<td>75.8</td>
<td>2.8/40</td>
</tr>
<tr>
<td>113.6</td>
<td>4.1/60</td>
</tr>
<tr>
<td>151.4</td>
<td>5.5/80</td>
</tr>
</tbody>
</table>

① to ②: 0.34 bar/5 psi spring — ; 1.72 bar/25 psi spring - - - ; 32 cSt/150 ssu oil at 40°C
**DIMENSIONS**

**Cartridge:**
- Weight: 0.29 kg. (0.63 lbs.)
- Steel with hardened work surfaces.
- Zinc-plated exposed surfaces.
- Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:**
- Weight: 0.57 kg. (1.25 lbs.)
- Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi).
- Ductile iron bodies available; dimensions may differ. See page 8.016.1

**MATERIALS**

**TO ORDER**

**CV16-20**

- **“T” Option**
- T

*Required for 100 or 150 psi spring.

**Porting**
- Cartridge Only 0
- SAE 12 12T
- SAE 16 16T
- 3/4 in. BSP* 6B
- 1 in. BSP* 8B

*BSP Body; U.K. Mfr. Only

**Bias Spring (Crack)**
- 5 0.35 bar (5 psi)
- 25 1.7 bar (25 psi)
- 60 4.1 bar (60 psi)
- 100 6.9 bar (100 psi)*
- 150 10.3 bar (150 psi)*

*Requires “T” Option

**Seals**
- N Buna N (Std.)
- V Fluorocarbon