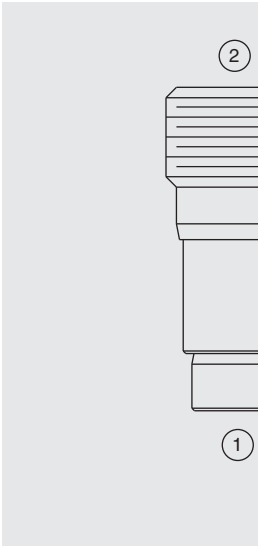


# CV06-B20 Check Valve



**DESCRIPTION**

A screw-in, cartridge-style, hydraulic check valve for blocking or load-holding.

**OPERATION**

The CV06-B20 allows flow from ① to ②, while normally blocking flow in the opposite direction. The cartridge is spring-biased closed until sufficient pressure is applied at ① to open to ②.

**FEATURES**

- Hardened seat for long life and low leakage.
- Fully guided check assembly.
- Small size.
- Fast closing and seating.

**RATINGS**

**Operating Pressure:** 345 bar (5000 psi)

**Proof Pressure:** 690 bar (10,000 psi)

**Burst Pressure:** greater than 828 bar (12,000 psi)

**Flow:** up to 7.6 lpm (2 gpm)

**Internal Leakage:** 0.10 cc/minute (2 drops/minute) max. at 34.5 bar (500 psi) and 345 bar (5000 psi) from port 1, port 2, inlet

**Operating Temperature:** -54°C to 107°C (-65°F to 225°F)

**Filtration:** Recommend 25µ nominal or better; See page 9.010.1

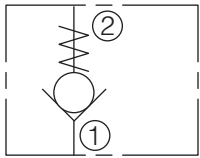
**Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

**Installation:** No restrictions

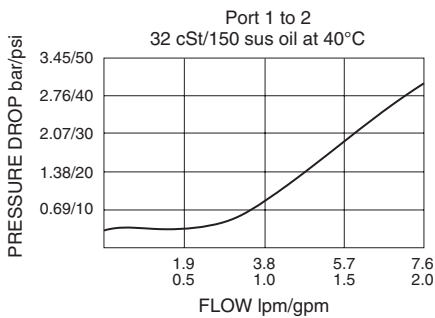
**Cavity:** VC06-B2; See page 9.106.1

**Cavity Tool:** CT06-B2xx; See page 8.600.1

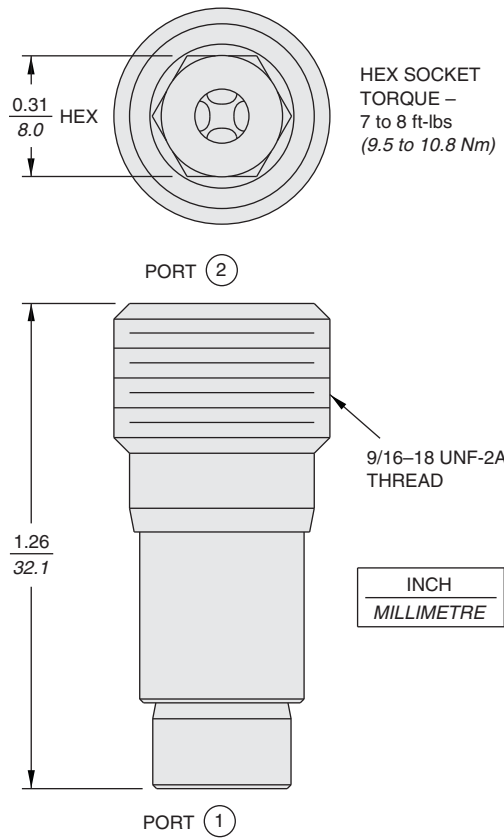
**SYMBOL**



**PERFORMANCE (Cartridge Only)**



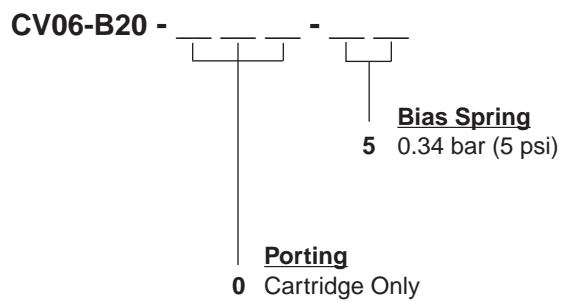
**DIMENSIONS**



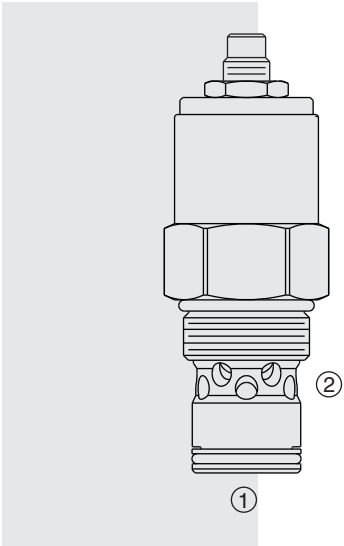
**MATERIALS**

**Cartridge:** Weight: 0.023 kg. (0.05 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.

**TO ORDER**



# RVCV56-20 Relief Valve w/Reverse Flow Check



## DESCRIPTION

A screw-in, cartridge-style, direct-acting, poppet-type hydraulic relief valve with a built-in reverse-flow check intended for use as a pressure limiting and regulating device in demanding, high-pressure hydraulic circuits which require fast response, low hysteresis, low leakage, low pressure override, and reverse free-flow features.

## OPERATION

The **RVCV56-20** blocks flow from ① to ② until sufficient pressure is present at ① to displace the poppet off its seat. Relief flow discharges to port ②. Reverse flow occurs from ② to ① when differential pressure between ② and ① exceeds the check spring value.

## FEATURES

- Maximum pressure 420.6 bar (6100 psi) at port ①.
- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Fast, smooth response to pressure surges.

## RATINGS

**Pressure Rating:** 420.6 bar (6100 psi) at port ①; 68.9 bar (1000 psi) at port ②

**Proof Pressure:** 482.6 bar (7000 psi)

**Burst Pressure:** 965.3 bar (14,000 psi)

**Flow Rating:** Port ① to ②: 113.6 lpm (30 gpm); Port ② to ①: 174.1 lpm (46 gpm)

**Overshoot:** Less than 20% of setting

**Adjustable Pressure Range, Port ① to ②:** 137.9 bar (2000 psi) minimum; 420.6 bar (6100 psi) maximum

**Crack Pressure Defined:** 0.95 lpm (0.25 gpm)

**Maximum Reseat Pressure, Port ① to ②:** 85% of crack pressure

**Leakage at Port ②:** 10 drops/minute (0.53 ml/minute) at 103.4 bar (1500 psi) max.

**Maximum Crack Pressure, Port ② to ①:** 1.17 bar (17 psi)

**Temperature:** with Buna N seals: -40°C to 100°C (-40°F to 212°F);

with Fluorocarbon seals: -26°C to 204°C (-15°F to 400°F);

with Polyurethane seals: -54°C to 107°C (-65°F to 225°F)

**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

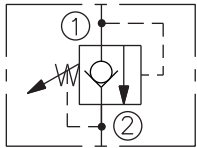
**Installation:** No restrictions; See page 9.020.1

**Cavity:** VC16-2; See page 9.116.1

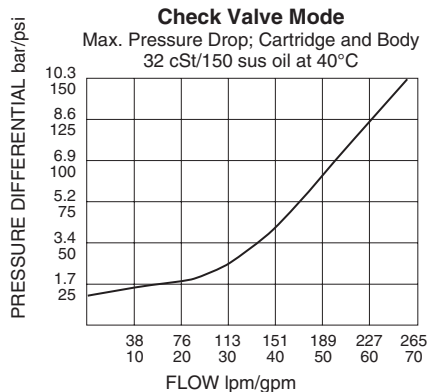
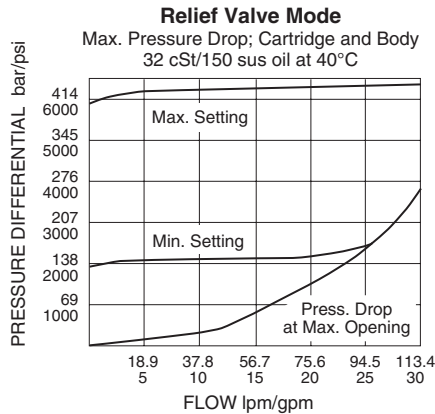
**Cavity Tool:** CT16-2XX; See page 8.600.1

**Seal Kit:** SK16-2x-B; See page 8.650.1

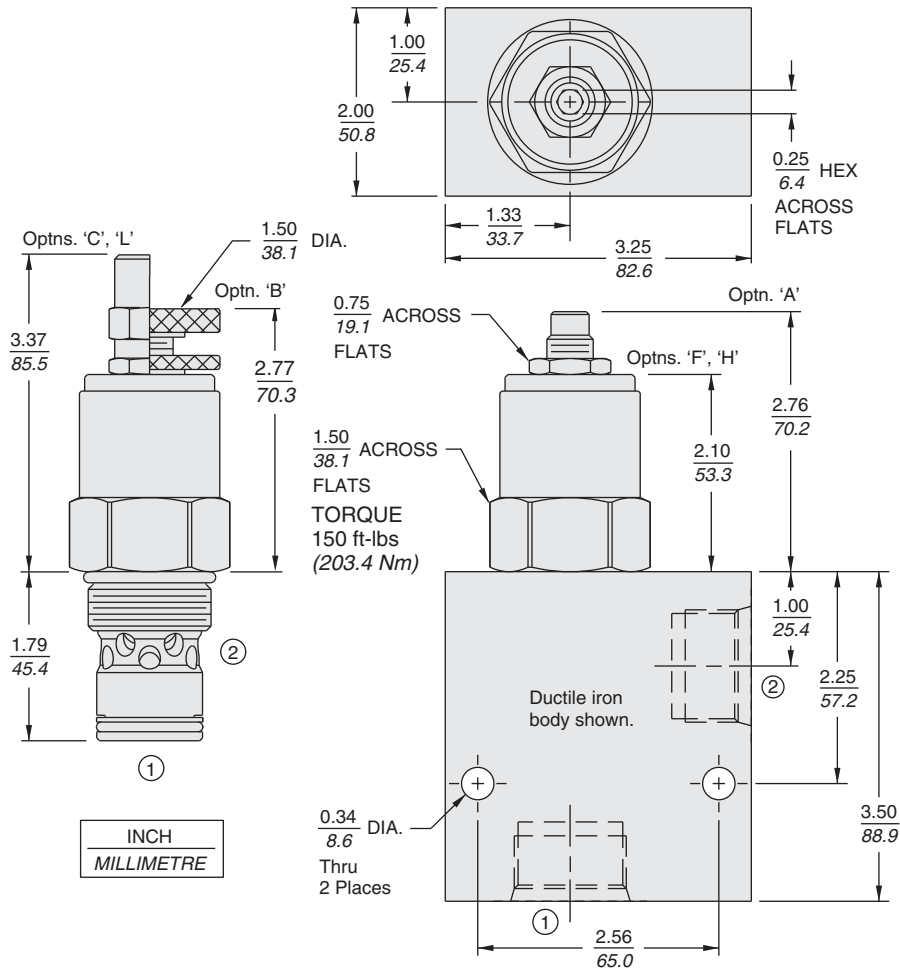
## SYMBOL



## PERFORMANCE



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.62 kg. (1.36 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.  
O-rings and polyester elastomer  
back-up standard.

**Ported Body:** Aluminum: 0.57 kg.  
(1.25 lbs.); Anodized high-strength  
6061 T6 Aluminum alloy, rated to  
207 bar (3000 psi). Ductile iron body  
required for operation over 207 bar  
(3000 psi). See page 8.016.1

**TO ORDER**

**RVCV56-20**

- Adjustment Option**  
1/4 in. Hex Allen Head **A**  
1-1/2 in. Dia. Alum. Knob **B**  
Option A w/ Cover Cap **C**  
Factory Preset Non-Adj. **F**  
Factory Preset  
Hidden Adj. **H**  
Option C w/  
Lockwire Holes **L**

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

\*BSP Body; UK Mfr. Only

- Seals**  
**N** Buna N  
**V** Fluorocarbon  
**P** Polyurethane

**Setting in bar**  
Specify, for example:  
**M210** 210 bar  
**Setting in psi**  
Specify, for example:  
**30.0** 3000 psi

**Pressure Range**  
**30** 137.9 to 206.8 bar  
(2000 to 3000 psi)  
**45** 213.7 to 310.3 bar  
(3100 to 4500 psi)  
**60** 317.2 to 420.6 bar  
(4600 to 6100 psi)