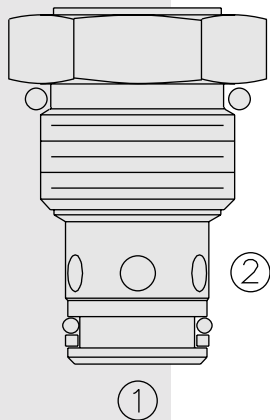


DIRECTIONAL VALVES

CV50-20 Check Valve, High Pressure



DESCRIPTION

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

OPERATION

The CV50-20 allows flow passage from ① to ②, while normally blocking oil flow in the opposite direction.

The cartridge has a fully guided check which is spring-biased closed until sufficient pressure is applied at ① to open to ②.

FEATURES

- Hardened seat for long life and low leakage.
- Optional bias springs for back-pressure application flexibility.
- Fully guided check assembly.
- Industry common cavity.

RATINGS

Operating Pressure: 345 bar (5000 psi)

Flow: See Performance Chart

Internal Leakage: 0.10 cc/minute (2 drops/minute) max. at 345 bar (5000 psi)

Crack Pressure Defined: Gauge psi evident at ① at 16.4 cc/minute (1 cu. in./minute) attained

Standard Bias Springs at Crack: 0.34 bar (5 psi); 1 bar (15 psi); 2.1 bar (30 psi); 4.8 bar (70 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 ssu)

Installation: No restrictions; See page 9.020.1

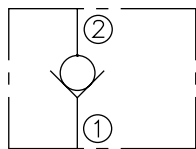
Cavity: VC10-2; See page 9.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

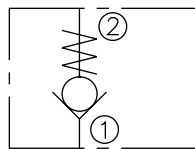
Seal Kit: SK10-2P-T; See page 8.650.1

SYMBOLS

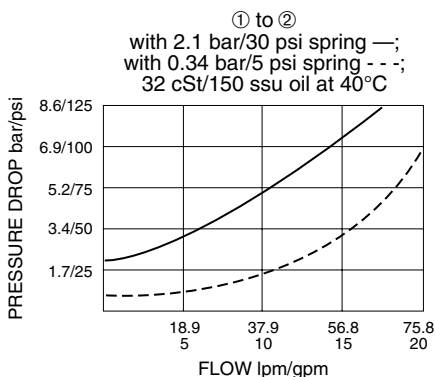
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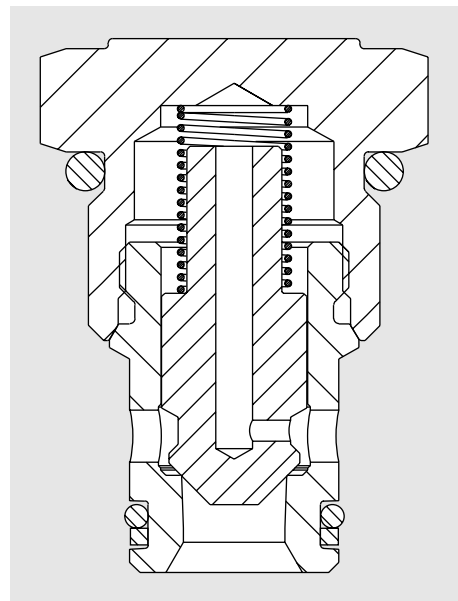
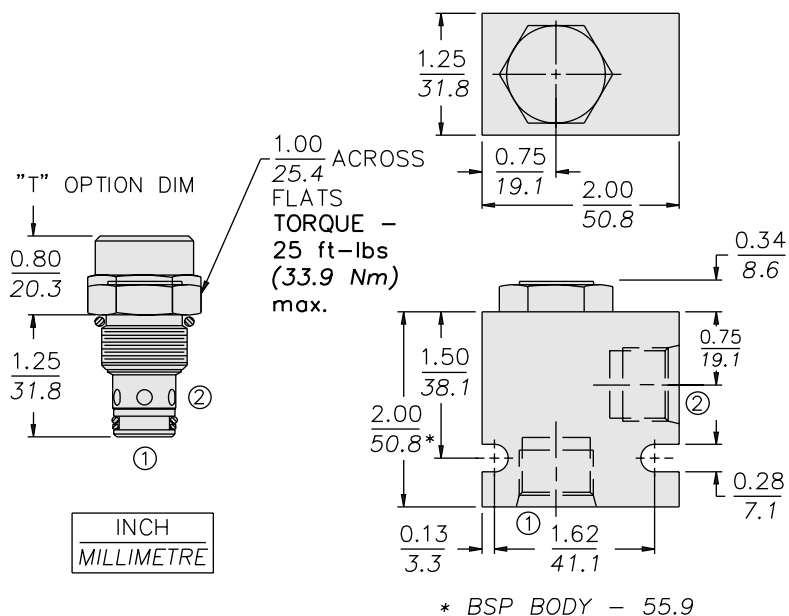


PERFORMANCE (Cartridge Only)



CV50-20

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.08 kg. (0.17 lbs.); Steel with hardened work surfaces; Zinc-plated exposed surfaces; Polyurethane O-rings and Fluorocarbon back-ups standard.

Ported Body: Weight: 0.43 kg. (0.95 lbs.); Steel, zinc-plated (code "S"); or **Ductile Iron (code "D") standard**, consult factory for weight, dimensions may differ; rated to 345 bar (5000 psi); See page 8.010.1.

TO ORDER

CV50-20 -

"T" Option* T
*Required for 300 psi Spring

Porting

Cartridge Only 0
 SAE 6 6TD
 SAE 6 6TS
 SAE 8 8TD
 SAE 8 8TS
 1/4 in. BSP* 2BD
 1/4 in. BSP* 2BS
 3/8 in. BSP* 3BD
 3/8 in. BSP* 3BS

Bias Spring

5 0.34 bar (5 psi)
 15 1 bar (15 psi)
 30 2.1 bar (30 psi)
 70 4.8 bar (70 psi)
 100 6.9 bar (100 psi)
 300 20.4 bar (300 psi)*
*Requires "T" Option

Seals

P Polyurethane (Std.)

*BSP Body; U.K. Mfr. Only