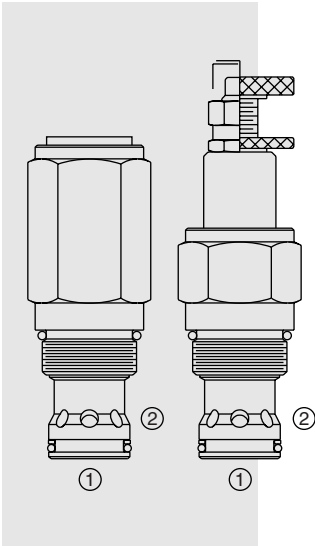


# RV16-26 Relief, Pilot-Operated Spool



**DESCRIPTION**

A screw-in, cartridge-style, pilot-operated (two-stage), spool-type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

**OPERATION**

The RV16-26 blocks flow from ① to ② until sufficient pressure is present at ① to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening ① to ②.

The cartridge offers smooth transition in response to load changes in demanding hydraulic circuits.

Note: The RV16-26 should not be used in cross-over relief applications.

**FEATURES**

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 240 bar (3500 psi).
- Fast, smooth response to pressure surges.

**RATINGS**

**Operating Pressure:** 240 bar (3500 psi)

**Flow:** See Performance Chart

**Internal Leakage:** 115 cc/minute (7 cu. in./minute) max. for pressure settings below 138 bar (2000 psi); 197 cc/minute (30 cu. in./minute) for pressure settings of 138 bar (2000 psi) or higher. Leakage measured at 85% of nominal setting.

**Crack Pressure Defined:** bar (psi) evident at 0.95 lpm (0.25 gpm) attained

**Reseat Pressure:** Nominal 90% of crack pressure

**Standard Spring Ranges:**

- 03: 9.66–20.70 bar (140–300 psi);
- 06: 15.87–41.41 bar (230–600 psi);
- 15: 36.63–103.52 bar (530–1500 psi);
- 35: 82.82–241.55 bar (1200– 3500 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

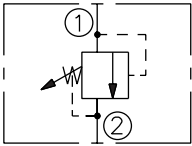
**Cavity:** VC16-2; See page 9.116.1

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

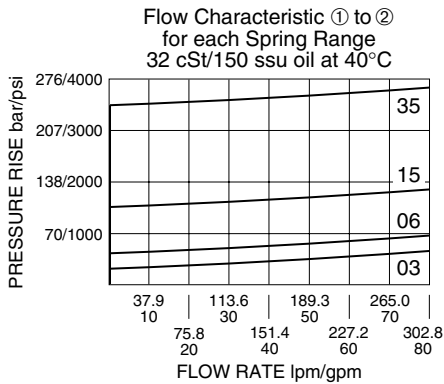
**Seal Kit:** SK16-2X-B; See page 8.650.1

**SYMBOLS**

**USASI/ISO:**

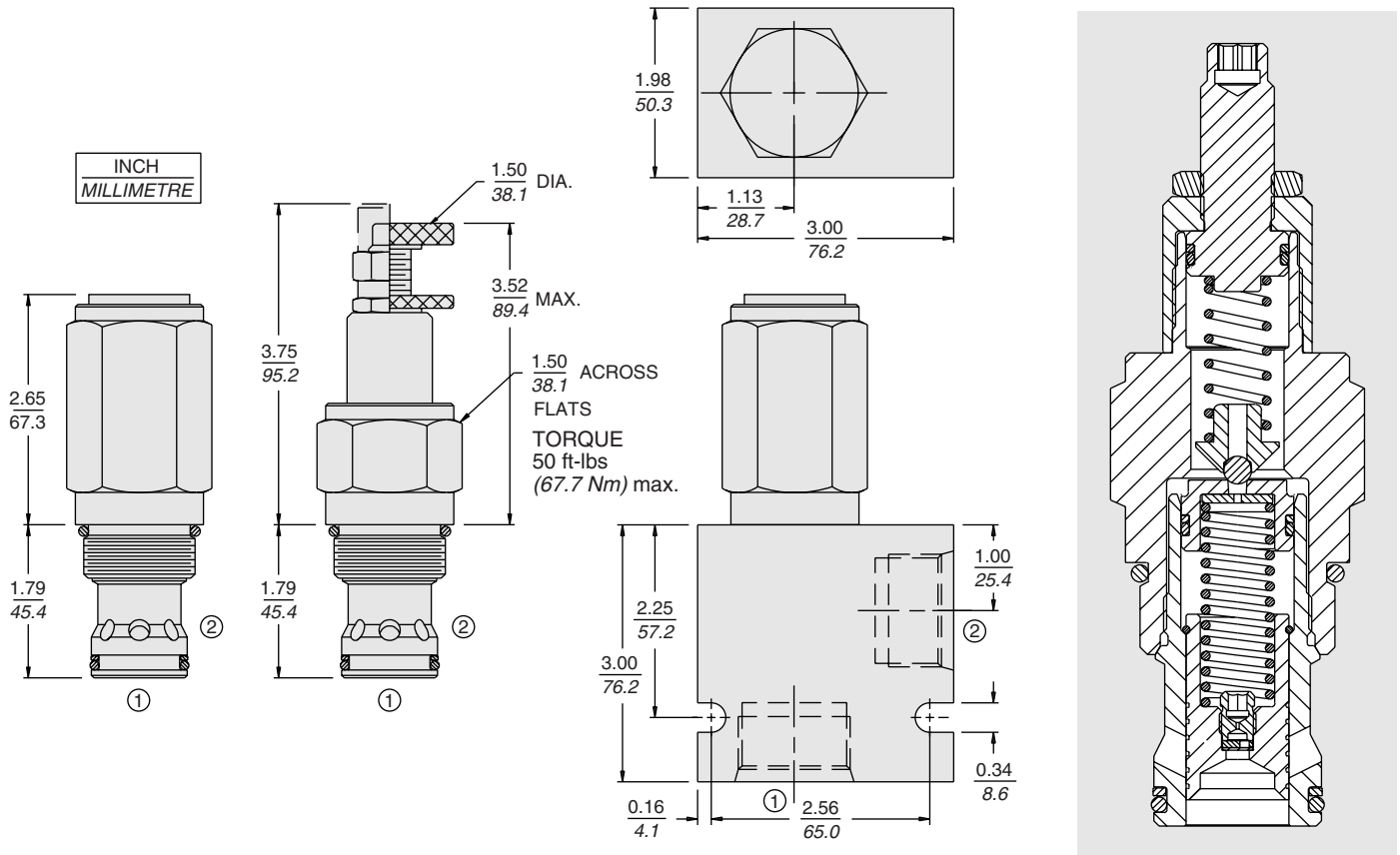


**PERFORMANCE (Cartridge Only)**



**RV16-26**

**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.73 kg. (1.60 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard. Anodized aluminum knobs.

**Standard Ported Body:** Weight: 0.57 kg. (1.25 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.016.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

**TO ORDER**

**RV16-26**

- 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**
- 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**  
**Pressure on P Only:**  
**N** Buna N (Std.)  
**V** Fluorocarbon

- Setting in bar†**  
 (Blank) for Adjustable, or Specify, for example:  
**M25** 25 bar  
**M100** 100 bar
- Setting in psi†**  
 (Blank) for Adjustable, or Specify, for example:  
**9.0** 900 psi  
**23.5** 2350 psi
- Spring Range**  
**03** 9.7 to 20.7 bar (140 to 300 psi)  
**06** 15.9 to 41.4 bar (230 to 600 psi)  
**15** 36.6 to 103.5 bar (530 to 1500 psi)  
**35** 82.8 to 241.6 bar (1200 to 3500 psi)

†Adjustable valves will be preset to approx. 50% of spring max. potential.