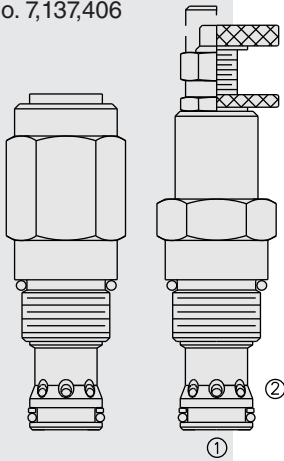


RV52-26 Relief, Pilot-Operated Spool, High Pressure

U.S. Patent
No. 7,137,406



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 RV52-26 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 RV52-26 cannot be used in cross-over relief applications.

FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustment options A, B and C: positive stops prevent springs from going solid.
- Hardened spool and cage for long life.
- Fast, smooth response to pressure surges.
- Cost effective cavity.

RATINGS

Operating Pressure: Port 1 - 345 bar (5000 psi); Port 2 - 103.4 bar (1500 psi)

Proof Pressure: 689 bar (10,000 psi)

Burst Pressure: 379 bar (20,000 psi)

Flow Rating: 189 lpm (50 gpm) at max pressure

Crack Pressure Defined: Pressure evident at 7.6 lpm (2.0 gpm)

Relief Pressure Range: 41.4 bar (600 psi) to 345 bar (5,000 psi)

Internal Leakage: 197 ml/minute (12 cu. in./minute) max. to 85% of nominal setting

Reseat Pressure: Nominal 90% of crack pressure

Standard Spring Range: 41 to 345 bar (600 to 5000 psi). Due to manufacturing tolerances, it may be possible to adjust the valve either lower or higher. **If the valve is adjusted beyond the recommended maximum pressure range for the F and H style adjuster options, the valve may not open to relieve system pressure.**

Operating Temperature: -54 to 107°C (-65 to 225°F) with standard polyurethane seals.

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

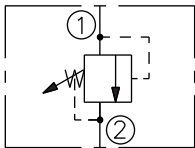
Installation: No restrictions; See page 9.020.1

Cavity: VC12-2; See page 9.112.1

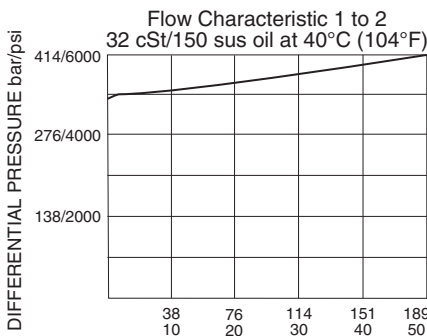
Cavity Tool: CT12-2XX; See page 8.600.1

Seal Kit: SK12-2P-B; See page 8.650.1

ISO SYMBOL:



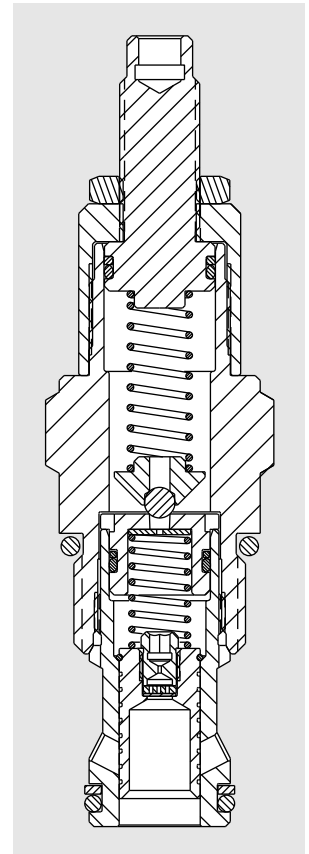
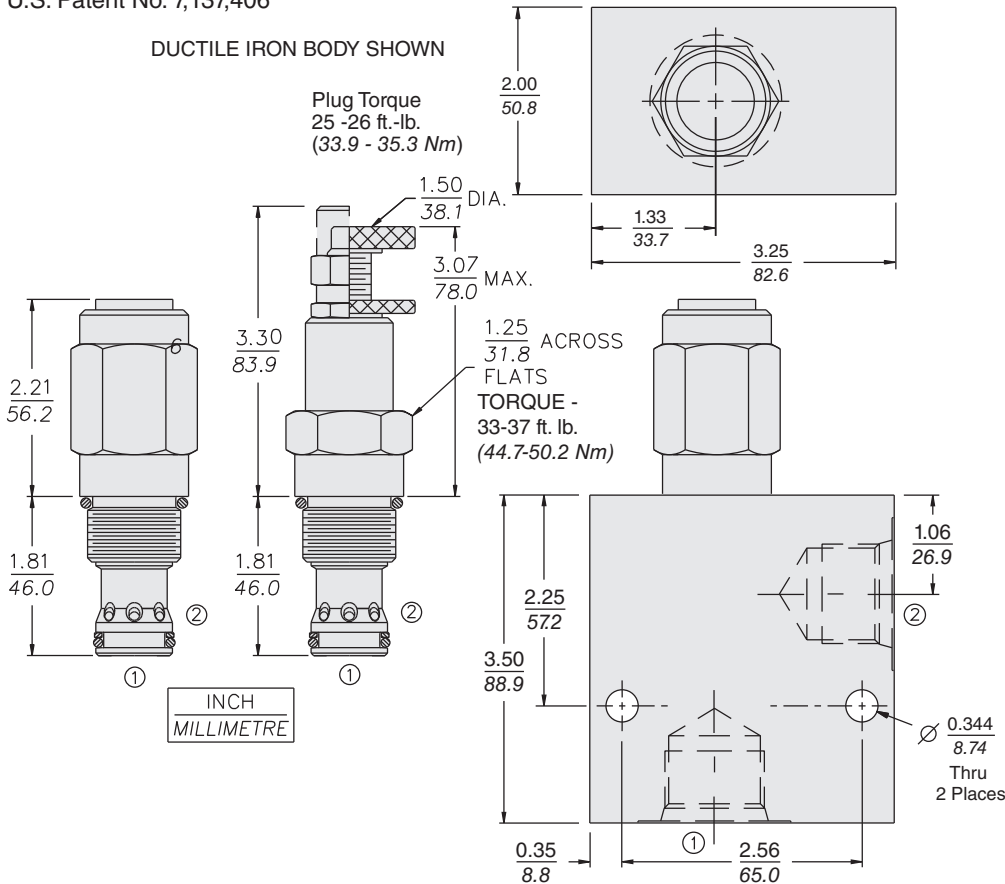
PERFORMANCE (Cartridge Only)



RV52-26

DIMENSIONS

U.S. Patent No. 7,137,406



MATERIALS

Cartridge: Weight: 0.35 to 0.40 kg (0.78 to 0.88 lb) depending on adjustment option. Steel with hardened work surfaces. Zinc-plated exposed surfaces. Polyurethane seals standard. Anodized aluminum knobs.

Ported Body: Weight: 1.81 kg (4.0 lbs.) Ductile iron (code "D") standard, consult factory for weight. Rated to 345 bar (5000 psi); Aluminum bodies also available. See page 8.012.1

TO ORDER

RV52-26 - P - 50 /

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 Adjustment ***H**
- Option C with Lockwire Holes **L**

* If the valve is adjusted beyond the recommended maximum pressure range for the F and H style adjuster options, the valve may not open to relieve system pressure.

- Porting**
- Cartridge Only **0**
 - SAE 12 **12TD**
 - SAE 12 **12T**
 - SAE 16 **16T**
 - 1" BSP* **8BD**
 - 3/4" BSP* **6B**

Seals

- P** Polyurethane

NOTE: Polyurethane seals required for operation at 345 bar (5000 psi). Consult the factory for additional seal options.

Setting in bar

(Blank)[†] for Adjustable, or Specify, for example:

M230 230 bar

Setting in psi

(Blank)[†] for Adjustable, or Specify, for example:

50 5000 psi

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

Spring Range

50 41 to 345 bar (600 to 5000 psi)

Due to manufacturing tolerances, it may be possible to adjust the valve either lower or higher than the nominal rating shown above.

*BSP Body; UK Mfr. Only