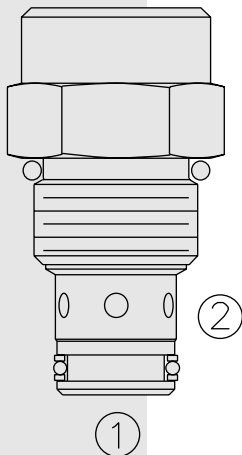


FR10-20F Regulator, Pressure-Compensated



DESCRIPTION

A screw-in, cartridge-style, fixed orifice, pressure compensated, hydraulic flow regulating valve (restrictive type).

OPERATION

The **FR10-20F** maintains a constant flow rate out of ② regardless of load pressure changes in the circuit downstream of ②.

The fixed control orifice is factory preset to customer flow specification. The valve begins to respond to load changes when the flow through the valve creates a pressure differential across the control orifice greater than 5.5 bar (80 psid), with accurate flow maintenance from 7.6 to 240 bar (110 to 3500 psid). Reverse flow (② to ①) returns through the control orifice and is non-compensated.

FEATURES

- Hardened parts for long life.
- Quiet, modulated response.
- Industry common cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow Settings: 0.4 lpm (0.1 gpm) min., 22.7 lpm (6.0 gpm) max.

Flow Maintenance: 0.37 to 1.85 lpm (0.1 to 0.49 gpm) settings $\pm 20\%$

1.89 to 5.63 lpm (0.5 to 1.49 gpm) settings $\pm 15\%$

5.68 to 22.71 lpm (1.5 to 6.00 gpm) settings $\pm 10\%$

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

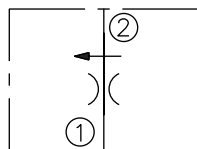
Cavity: VC10-2; See page 9.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

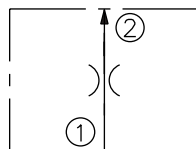
Seal Kit: SK10-2X-M; See page 8.650.1

SYMBOLS

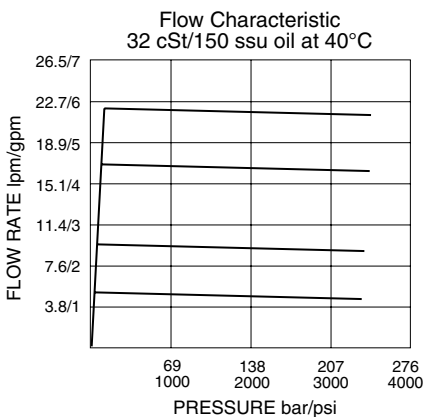
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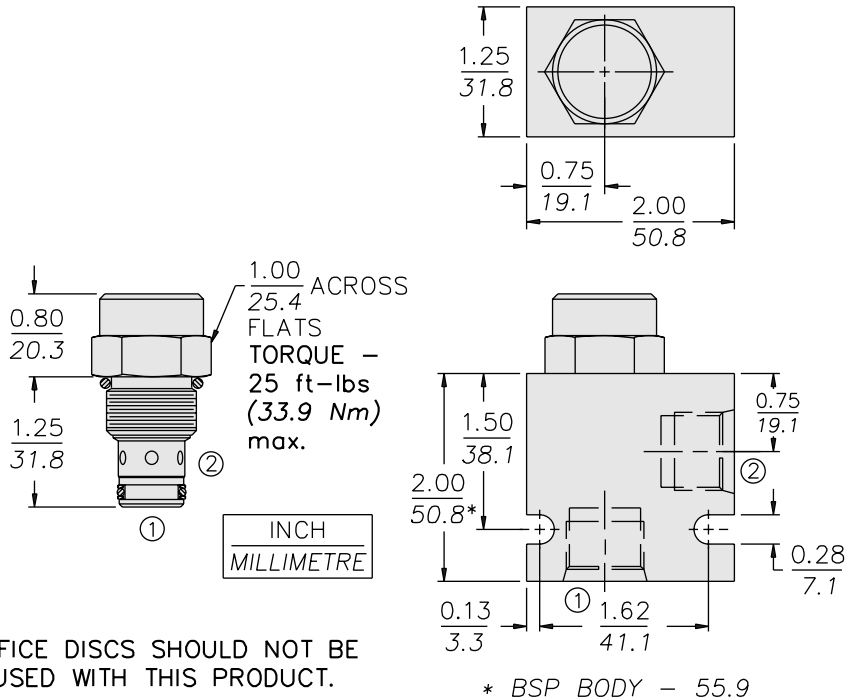
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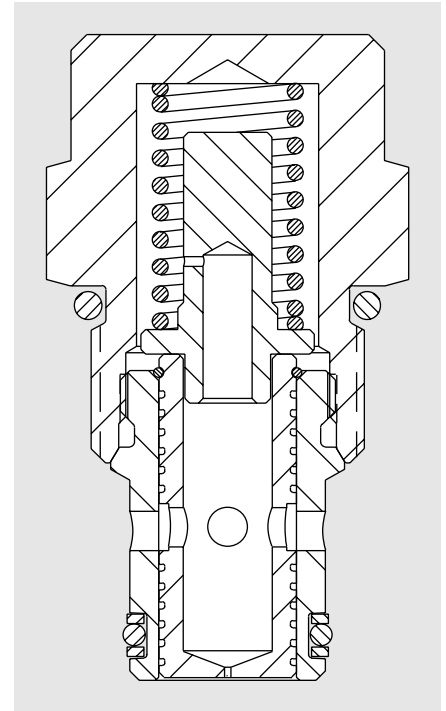
PERFORMANCE (Cartridge Only)



DIMENSIONS



ORIFICE DISCS SHOULD NOT BE USED WITH THIS PRODUCT.



MATERIALS

Cartridge: Weight: 0.08 kg. (0.18 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight: 0.16 kg. (0.35 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

TO ORDER

FR10-20F -

Porting
 Cartridge Only **0**
 SAE 6 **6T**
 SAE 8 **8T**
 1/4 in. BSP* **2B**
 3/8 in. BSP* **3B**
 1/2 in. BSP* **4B**

*BSP Body;
 U.K. Mfr. Only

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

Setting in lpm

Specify, for example:

M1.8 1.8 lpm
M5.0 5.0 lpm
 etc.

Setting in gpm

Specify, for example:

1.3 1.3 gpm
5.0 5.0 gpm
 etc.

Drill Size Method

In thousandths of an inch.

Specify, for example:

D030 0.030 in. control orifice hole
 etc.

Note: Minimum drill diameter is 0.020 in.
 For smaller orifice sizes consult factory.