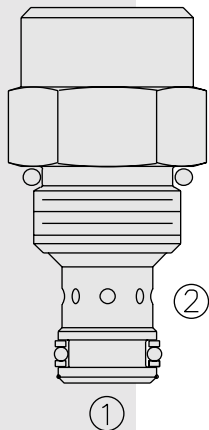


FR08-20F Regulator, Pressure-Compensated



DESCRIPTION

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

OPERATION

The **FR08-20F** 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.
- Compact size.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow Settings: 0.4 lpm (0.1 gpm) min., 7.5 lpm (2.0 gpm) max.

Standard Compensator Bias Spring: 5.5 bar (80 psid) differential

Flow Maintenance Setting Range: 0.4 to 1.8 lpm (0.10 to 0.49 gpm) to accuracy of $\pm 15\%$; 1.9 to 7.5 lpm (0.5 to 2.0 gpm) to accuracy of $\pm 10\%$

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

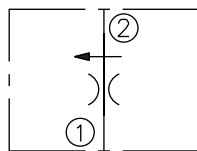
Cavity: VC08-2; See page 9.108.1

Cavity Tool: CT08-2XX; See page 8.600.1

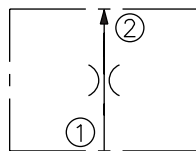
Seal Kit: SK08-2X-M; See page 8.650.1

SYMBOLS

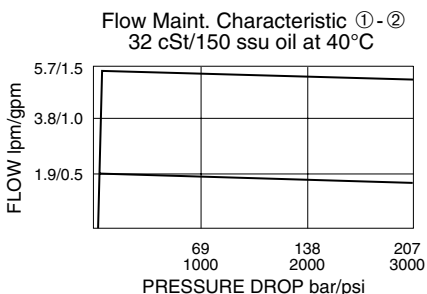
USASI:



ISO:

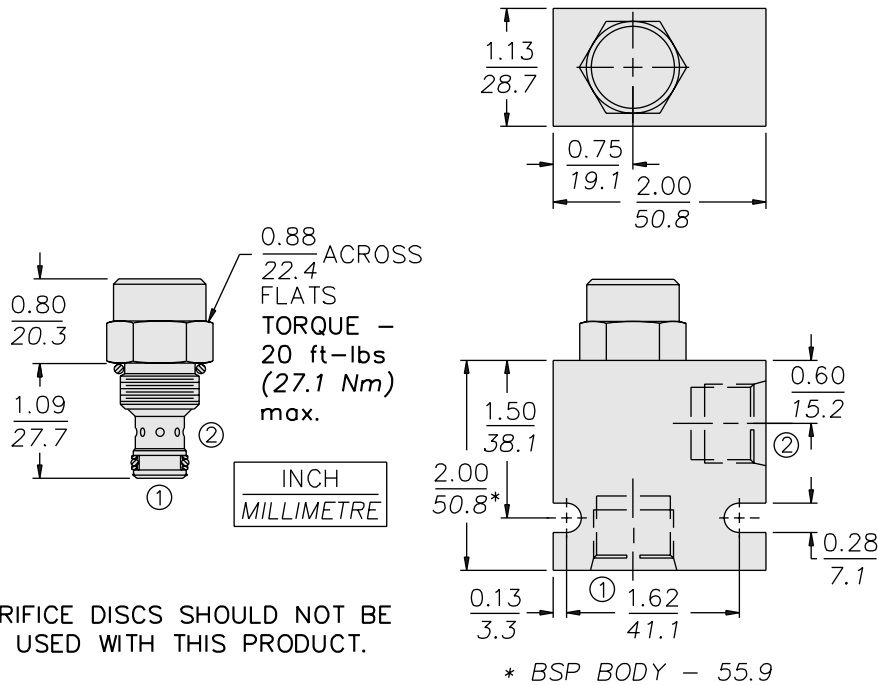


PERFORMANCE (Cartridge Only)

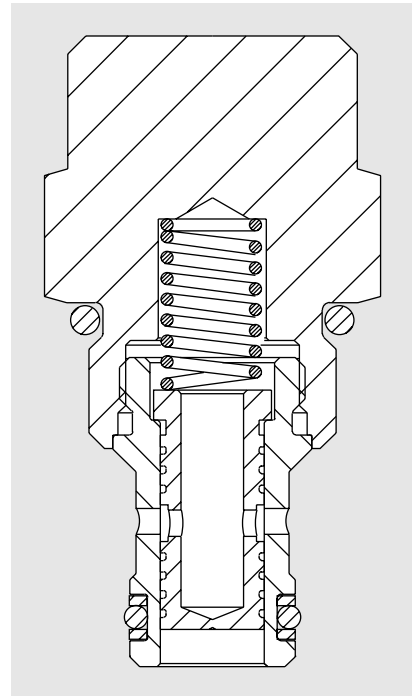


FR08-20F

DIMENSIONS



ORIFICE DISCS SHOULD NOT BE USED WITH THIS PRODUCT.



MATERIALS

Cartridge: Weight: 0.07 kg. (0.15 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and fluorocarbon 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 8.008.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

TO ORDER

FR08-20F - - /

Porting
 Cartridge Only **0**
 SAE 4 **4T**
 SAE 6 **6T**
 SAE 8 **8T**
 1/4 in. BSP* **2B**
 3/8 in. BSP* **3B**
 *BSP Body;
 U.K. Mfr. Only

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

Setting in lpm
 Range: 0.4 to 7.5 lpm
 Specify, for example:
M1.8 1.8 lpm
M5.0 5.0 lpm
 etc.

Setting in gpm
 Range: 0.1 to 2.0 gpm
 Specify, for example:
1.3 1.3 gpm
2.0 2.0 gpm
 etc.

Drill Size Method
 In thousandths of an inch.
 Specify, for example:
D030 0.030 in. control orifice hole
 etc.

Note: Compensator spring values may be varied for OEM application to provide changed differential pressure/output flow relationships. Consult factory.

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