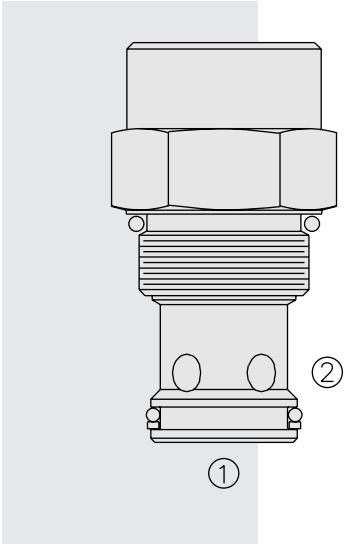


# FR16-20F Regulator, Pressure-Compensated



## DESCRIPTION

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

## OPERATION

The **FR16-20F** 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 (300 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.
- Cost-effective cavity.

## RATINGS

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

**Flow Settings:** 4 lpm (1 gpm) min; 113 lpm (30 gpm) max.

**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 sus); See Temperature and Oil Viscosity, page 9.060.1

**Installation:** No restrictions; See page 9.020.1

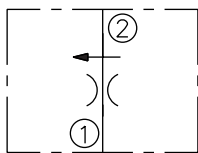
**Cavity:** VC16-2; See page 9.116.1

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

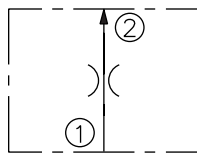
**Seal Kit:** SK16-2X; See page 8.650.1

## SYMBOLS

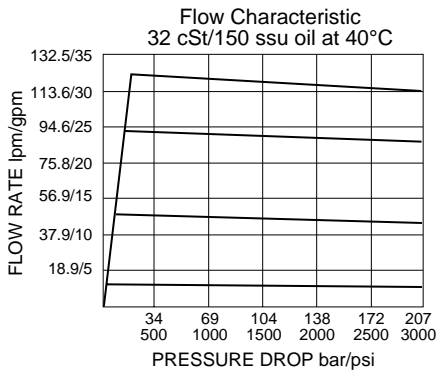
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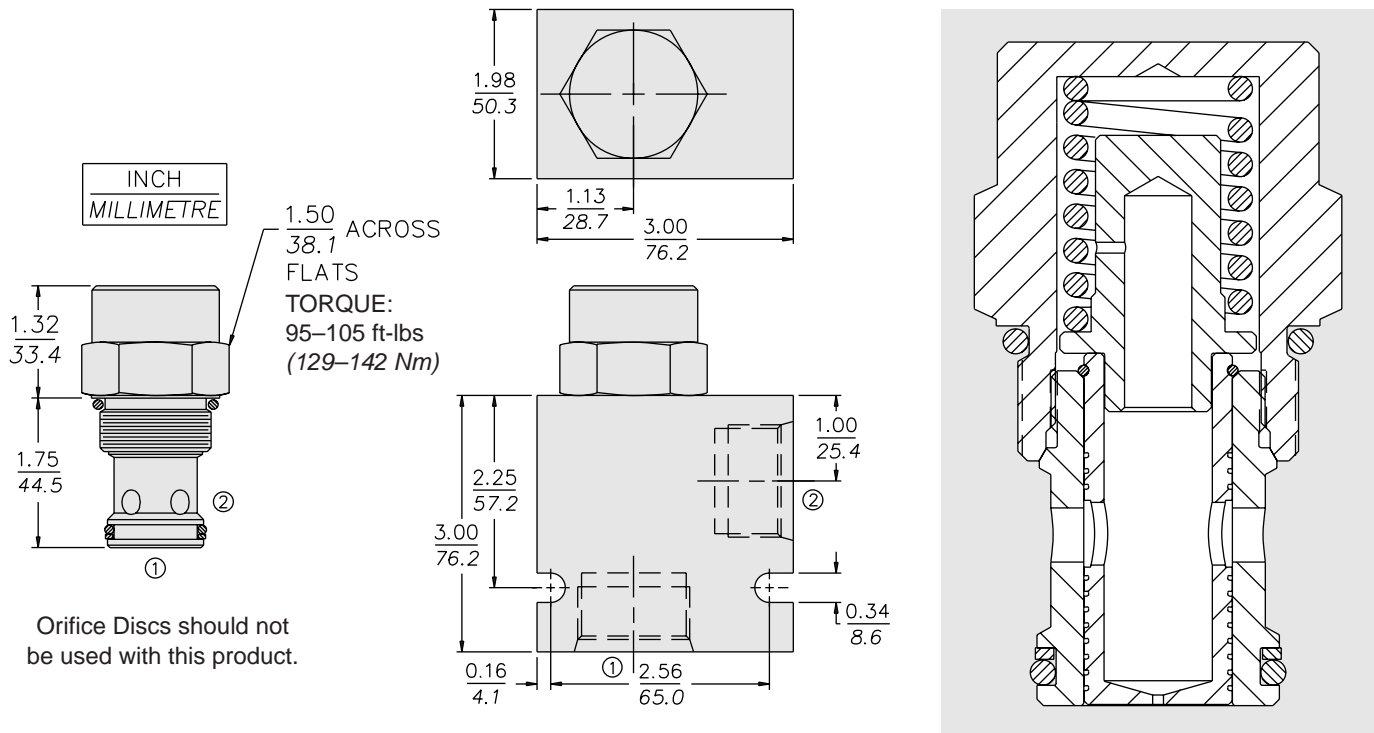
ISO:



## PERFORMANCE



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.32 kg. (0.70 lbs.)  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces.  
 Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight:  
 0.57 kg. (1.25 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.016.1

**TO ORDER**

FR16-20F - - - /

**Porting**  
 Cartridge Only **0**  
 SAE 10 **10TD**  
 SAE 12 **12T**  
 SAE 16 **16T**  
 3/4 in. BSP\* **6B**  
 1 in. BSP\* **8B**

\*BSP Body; U.K. Mfr. Only

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

**Setting in lpm**  
 Specify, for example:  
**M4.0** 4.0 lpm  
**M12.0** 12.0 lpm  
 etc.

**Setting in gpm**  
 Specify, for example:  
**5.0** 5.0 gpm  
**13.0** 13.0 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.