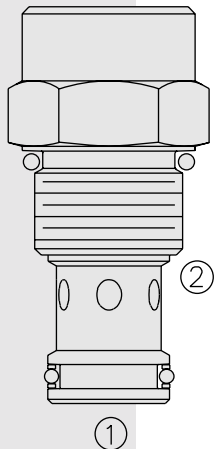


## FR12-20F Regulator, Pressure-Compensated



### DESCRIPTION

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

### OPERATION

The **FR12-20F** 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.
- Cost-effective cavity.

### RATINGS

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

**Flow Settings:** 4 lpm (1 gpm) min; 55 lpm (14.5 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 ssu)

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

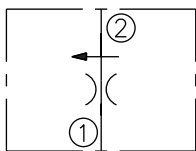
**Cavity:** VC12-2; See page 9.112.1

**Cavity Tool:** CT12-2XX; See page 8.600.1

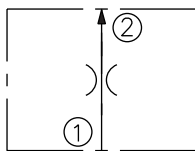
**Seal Kit:** SK12-2X-M; See page 8.650.1

### SYMBOLS

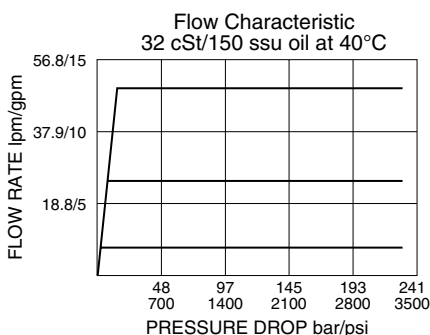
**USASI:**



**ISO:**

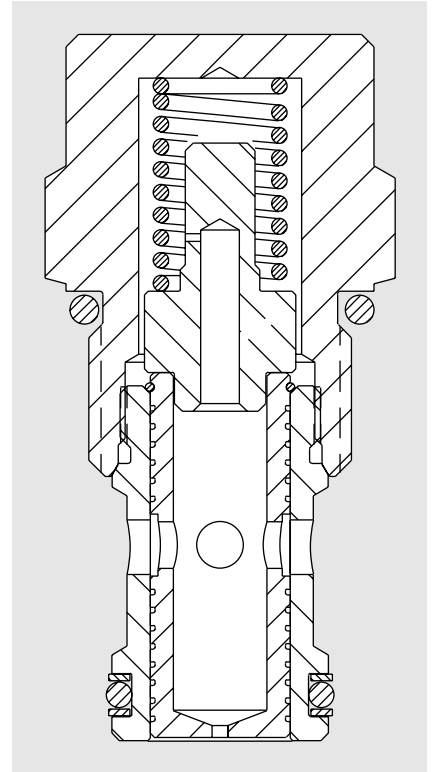
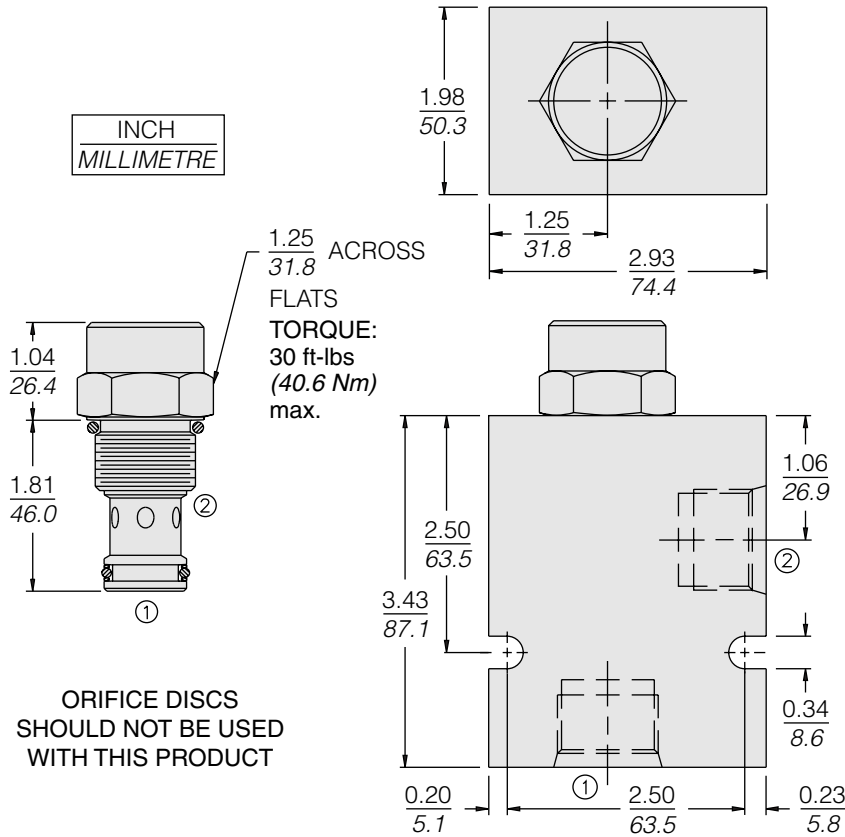


### PERFORMANCE



# FR12-20F

## DIMENSIONS

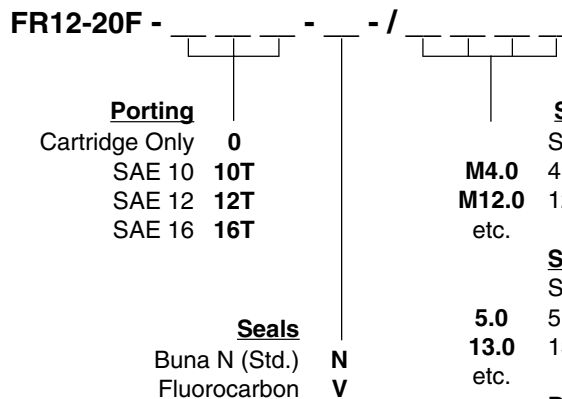


## MATERIALS

**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: 0.52 kg. (1.15 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.012.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

## TO ORDER



### 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.