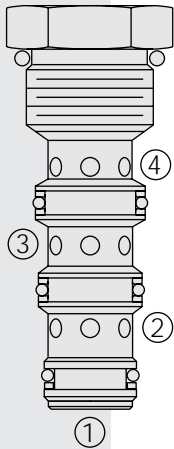


# FD12-40 Flow Divider/Combiner



## DESCRIPTION

A screw-in, cartridge-style, spool-type flow divider/combiner. Optional flow dividing/combining ratios are maintained regardless of system operating pressure conditions.

## OPERATION

In the dividing mode, the **FD12-40** will divert input flow from port ③ to ports ② and ④, based on the ratio specified, regardless of operating pressure.

The cartridge will combine input flows from ports ② and ④.

Should circuit operation result in a blockage of either ② or ④, the opposite port may also close under certain conditions. Should this potential exist, consult the factory.

## FEATURES

- Hardened parts for long life.
- Quiet, modulated response.

## RATINGS

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

**Flow:** 90.8 lpm (24 gpm) input max.

### Flow Options:

Input Flow: 60.6 lpm (16 gpm); Ratio: 50:50; Model Code: 44

Input Flow: 75.7 lpm (20 gpm); Ratio: 50:50; Model Code: 55

Input Flow: 90.8 lpm (24 gpm); Ratio: 50:50; Model Code: 66

**Standard Compensator Bias Spring:** 2.07 bar (30 psi)

**Flow Accuracy:** 10% from 30–100% of rated flow

**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.

Note: Standard 12 size 4-way bodies should not be used with this product.

See page 8.012.3 for special flow divider bodies.

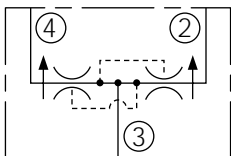
**Cavity:** VC12-4; See page 9.112.1 (Cavity Variation "A")

**Cavity Tool:** CT12-4XX; See page 8.600.1

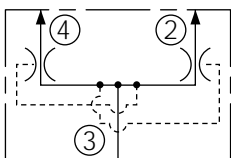
**Seal Kit:** SK12-4X-MMM; See page 8.650.1

## SYMBOLS

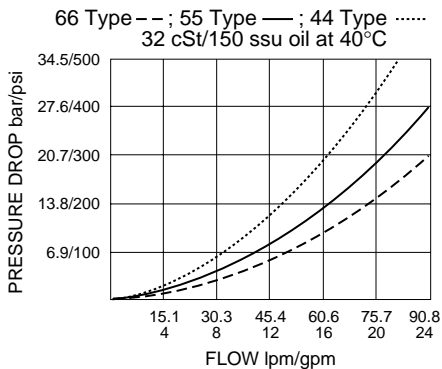
### USASI:



### ISO:



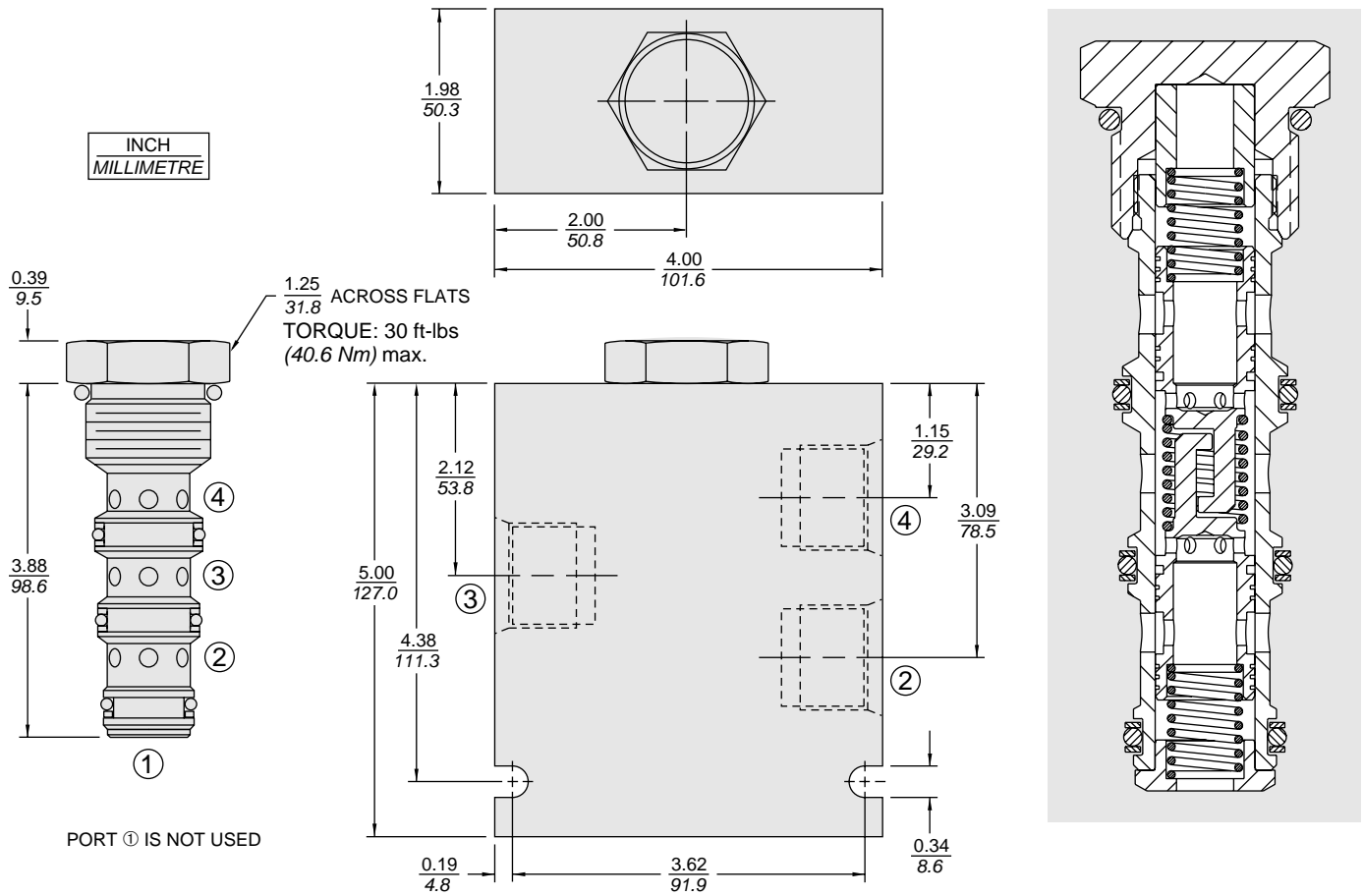
## PERFORMANCE (Cartridge Only)



**Note:** This model will be superseded by the new FDxx-45 models, which incorporate the features of the FDxx-40, FDxx-41 and FDxx-42 series valves in one product. OEM's are encouraged to consider the newer, more robust and versatile FDxx-45 models for new applications:

- FD50-45; see page 5.632.1
- FD52-45; see page 5.634.1
- FD56-45; see page 5.636.1

**DIMENSIONS**

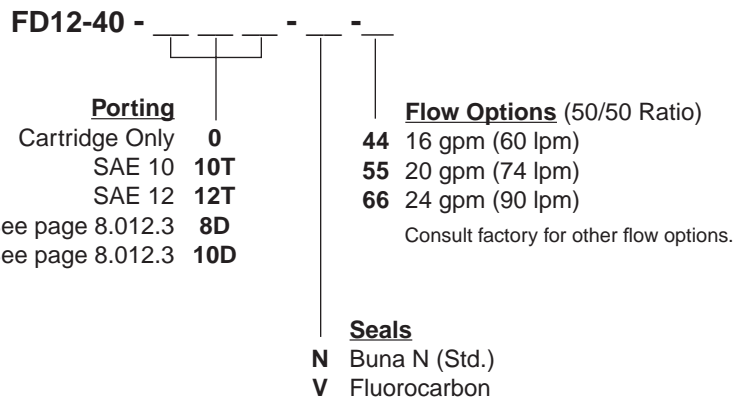


**MATERIALS**

**Cartridge:** Weight: 0.28 kg. (0.61 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.  
Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight:  
1.50 kg. (3.30 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1

**TO ORDER**



NOTE: Standard 12-size 4-way bodies should not be used for flow dividers. See special flow divider bodies, page 8.012.1