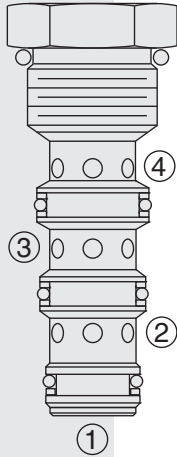


FD52-45 Flow Divider/Combiner . . . Heavy Duty,



Note: This new FD52-45 flow divider incorporates the features of the older FDxx-40, FDxx-41 and FDxx-42 flow dividers in one product. It is designed to supersede the older models. OEM's are encouraged to consider this newer, more robust and versatile model for new applications.

DESCRIPTION

A heavy duty, multifunction, screw-in, cartridge-style, spool-type flow divider/combiner valve. It provides pressure-compensated proportional division of inlet flow or combination of two return flows, regardless of system operating pressure conditions. The valve provides synchronizing flow in dividing and combining modes.

OPERATION

In the dividing mode, the **FD52-45** will divert input flow from port 3 to ports 2 and 4, based on the ratio specified, regardless of operating pressure. When the flow direction is reversed, the valve will combine flows from 2 and 4 to port 3. Synchronizing flow is provided in both the dividing and combining modes at "bottomed" conditions in cylinder applications and at "stalled" conditions in motor applications.

FEATURES

- Hardened parts for long life.
- Wide operating flow range.
- Synchronizing in dividing and combining modes.
- Floating cage — high installation torque.
- Quiet, modulated response.
- Industry common cavity.

RATINGS

Operating Pressure: 345 bar (5000 psi)

Flow Options (Ratio 50:50)

- Input Flow: 15-60 lpm (4-16 gpm); Model Code: 44
- Input Flow: 23-90 lpm (6-24 gpm); Model Code: 66
- Input Flow: 50-106 lpm (8-28 gpm); Model Code: 88

Flow Accuracy:

10% of inlet flow for Models 44 and 66; 15% of inlet flow for Model 88.

Temperature: -40 to 100°C (-40 to 212°F) for Buna N seals; -26 to 204C (-15 to 400F) for fluorocarbon seals; -54 to 107°C (-65 to 225°F) for polyurethane seals.

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

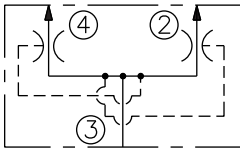
Note: Standard 12 size 4-way bodies can be used with this product with Port 1 plugged. See page 8.012.1 for special flow divider bodies.

Cavity: VC12-4; See page 9.112.1

Cavity Tool: CT12-4X; See page 8.600.1

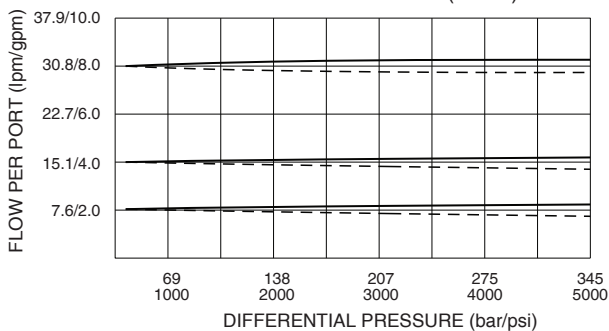
Seal Kit: SK12-4X-MMM; See page 8.650.1

ISO SYMBOL



PERFORMANCE (Cartridge Only)

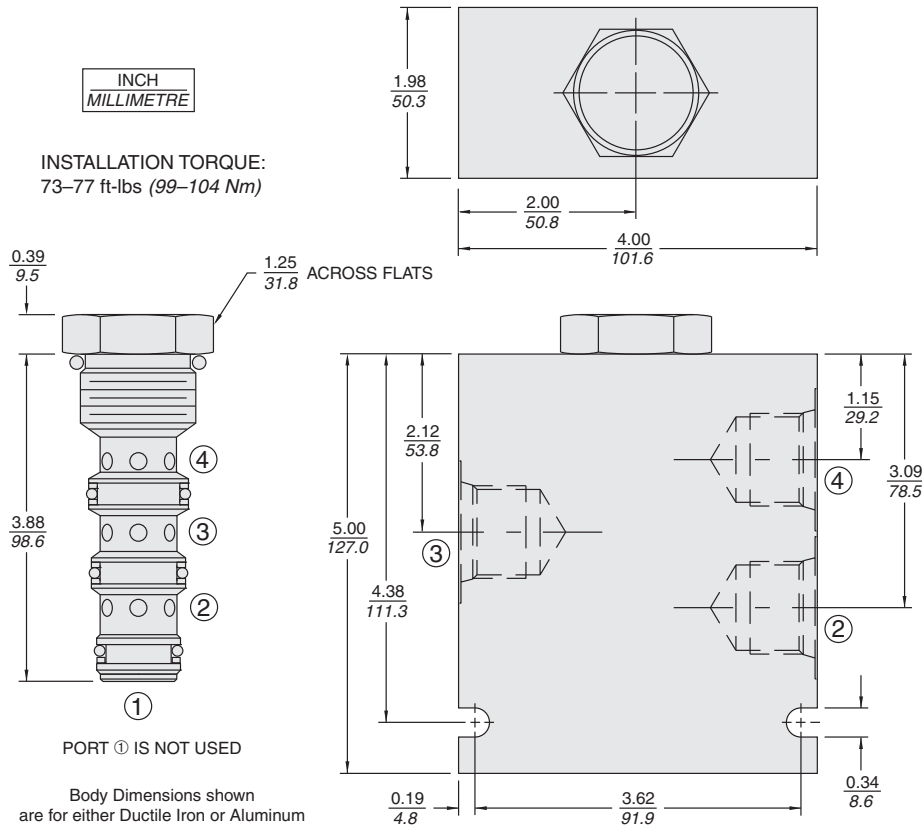
Flow vs. Differential Pressure (P4-P2)
(FD52-45 Model 44 Dividing Mode) — FL4 - - - - FL2
32 cSt/150 sus oil at 40°C (104°F)



Multifunction

FD52-45

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.24 kg. (0.53 lbs.) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Ported Body: Ductile iron body required for operation over 207 bar (3000 psi). Aluminum bodies are available for lower pressure operation. FD-type bodies recommended but a standard 4-way body may also be used with Port 1 plugged. See page 8.012.1.

TO ORDER

FD52-45 -

Ported Bodies

Cartridge Only 0
SAE 8 8TD
SAE 10 10TD
SAE 12 12TD
1/2 in. BSP* 4BD
3/4 in. BSP* 6BD

*BSP Body; U.K. Mfr. Only

Flow Options (50/50 Ratio)

44 15-60 lpm (4-16 gpm)
66 23-90 lpm (6-24 gpm)
88 30-106 lpm (8-28 gpm)

Seals

N Buna N (Std.)
V Fluorocarbon
P Polyurethane (Required for operation over 240 bar/3500 psi)