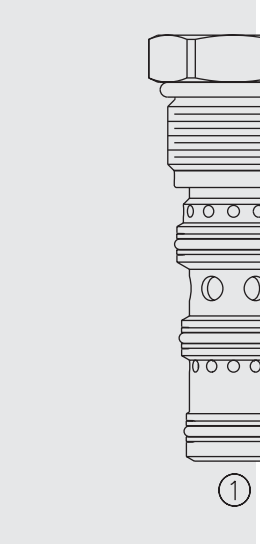
FD50-44 Flow Divider/Combiner . . . Heavy Duty,



DESCRIPTION

High performance, high pressure, multifunction, screw-in, cartridge-style, spool-type flow divider/combiner.

OPERATION

In the dividing mode, the **FD50-44** will divert input flow from port ③ to ports ② and ④, based on the ratio specified. This valve provides a highly accurate, pressure compensated division of inlet flow or combination of return flow regardless of system operating pressure. When the flow direction is reversed, the valve will combine flows from ports ② and ④ to port ③.

FEATURES

- Hardened parts for long life.
- Quiet, modulated response.
- Wide operating flow range.
- Accurate division or combination of flow.
- Industry common cavity.

RATINGS

Operating Pressure: 345 bar (5000 psi)

Pressure Drop: 24 bar (350 psi) at maximum inlet flow

Flow Range Options:
Model Code **11:** 50:50 rated @ 2.5–9.5 lpm (0.7–2.5 gpm) input
Model Code **22:** 50:50 rated @ 4–19 lpm (1.0–5.0 gpm) input
Model Code **44:** 50:50 rated @ 7.5–38 lpm (2.0–10.0 gpm) input

Flow Accuracy: 5% of inlet flow at maximum flow rate;
10% of inlet flow at minimum flow rate

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 10 size 4-way bodies should not be used with this product. See page 8.010.1 for special flow divider bodies.

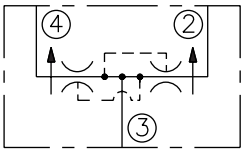
Cavity: VC10-4 (Variation "A"); See page 9.110.1

Cavity Tool: CT10-4X; See page 8.600.1

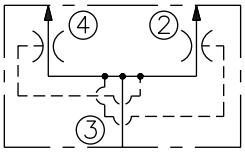
Seal Kit: SK10-4X-MMM; See page 8.650.1

SYMBOLS

USASI:

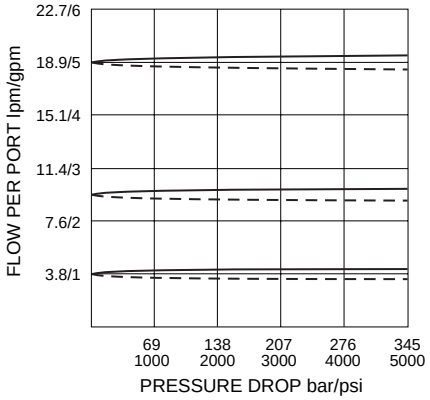


ISO:

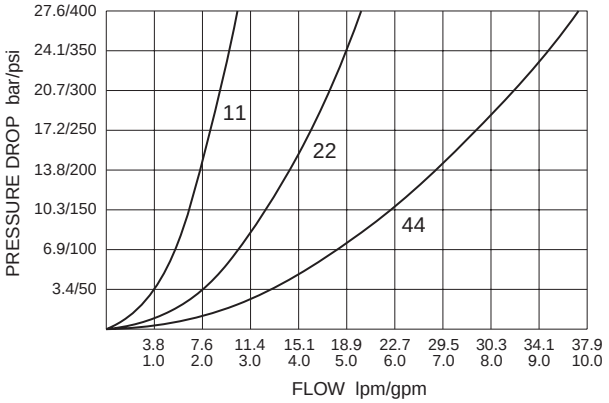


PERFORMANCE (Cartridge Only)

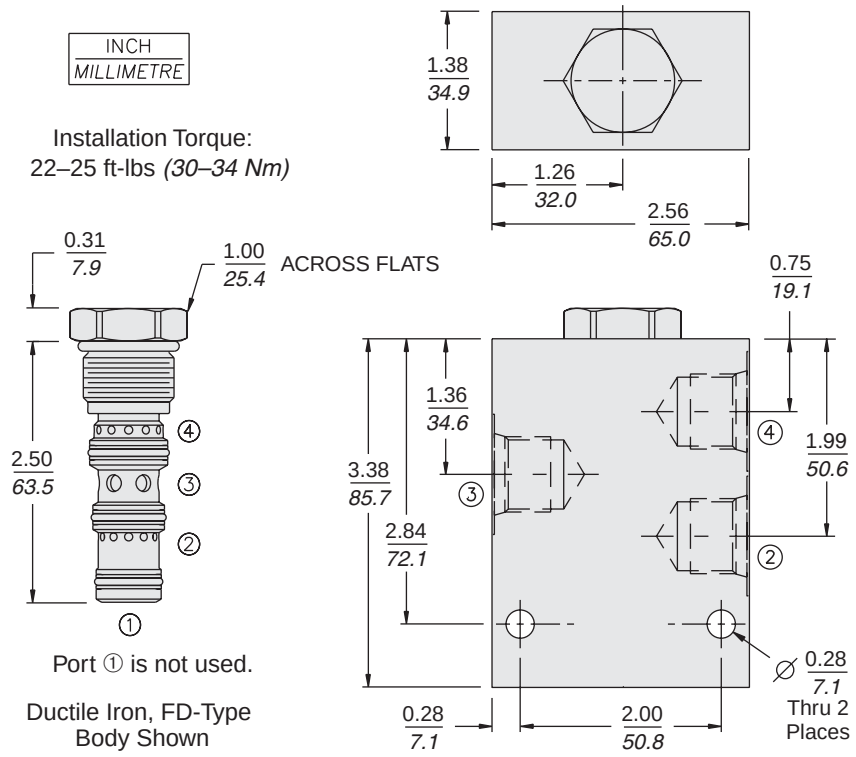
Pressure Drop vs. Inlet Flow
④ to ②, Model Code 44, Dividing Mode
—— FL4; - - - FL2
32 cSt/150 ssu oil at 40°C



Inlet Flow vs Pressure Drop
Dividing Mode; Inlet at ③
32 cSt/150 ssu oil at 40°C



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.11 kg. (0.25 lbs.) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Special Ported Body: Ductile iron, required for operation over 207 bar (3000 psi). Aluminum bodies are available for lower pressure operation. See page 8.010.1

TO ORDER

FD50-44 - ___ ___ ___ - ___ - ___ ___

Special FD-Type Ductile Iron Ported Bodies

Cartridge Only	**0**
SAE 6 (all ports)	**6TD**
SAE 8 (all ports)	**8TD**
SAE 8 port ③; SAE 6 ports ② & ④	**8DD**
1/4 in. BSP* (all ports)	**2BD**
3/8 in. BSP* (all ports)	**3BD**

*BSP Body; U.K. Mfr. Only

NOTE: Standard 10-size 4-way bodies should not be used for flow dividers. See Special, FD-type, flow divider bodies, page 8.010.1.

Seals

N Buna N (Std.)
V Fluorocarbon
P Polyurethane (required for operation over 241 bar/3500 psi)

Dividing/Combining Ratio

11 50:50 rated @ 2.5–9.5 lpm (0.7–2.5 gpm) input
22 50:50 rated @ 4–19 lpm (1.0–5.0 gpm) input
44 50:50 rated @ 7.5–38 lpm (2.0–10.0 gpm) input