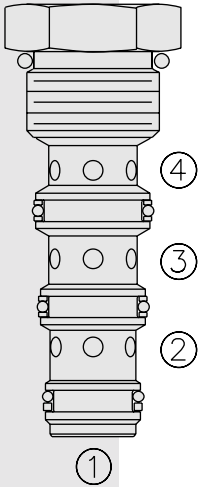


FD10-45 / FD50-45 Flow Divider/Combiner . . .



DESCRIPTION

A heavy duty, multifunction, screw-in, cartridge-style, spool-type flow divider/combiner.

OPERATION

In the dividing mode, the **FD10-45 / FD50-45** 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.
- Quiet, modulated response.
- Wide operating flow range.
- Synchronizing in dividing and combining modes.
- Industry common cavity.

RATINGS

Operating Pressure: FD10-45: 240 bar (3500 psi); FD50-45: 345 bar (5000 psi)

Flow Options:

- Input Flow: 15.1 lpm (4 gpm); Ratio: 50:50; Model Code: 22
- Input Flow: 22.7 lpm (6 gpm); Ratio: 50:50; Model Code: 33
- Input Flow: 34.1 lpm (9 gpm); Ratio: 50:50; Model Code: 44
- Input Flow: 45.4 lpm (12 gpm); Ratio: 50:50; Model Code: 66

Flow Accuracy: 10% from 25–100% of maximum 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 ssu)

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.

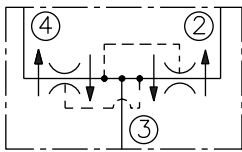
Cavity: VC10-4 (Variation “A”); See page 9.110.1

Cavity Tool: CT10-4X; See page 8.600.1

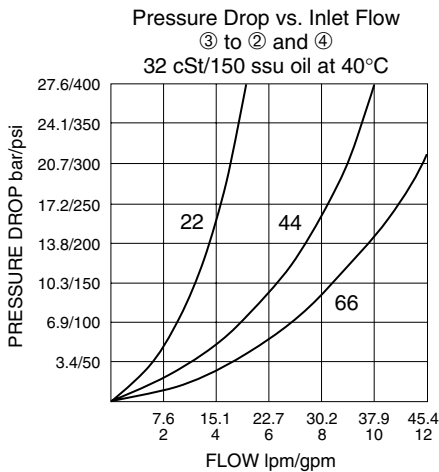
Seal Kit: SK10-4X-MMT; See page 8.650.1

SYMBOLS

USAS/ISO:



PERFORMANCE (Cartridge Only)



Note: This new FDxx-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.

Heavy Duty, Multifunction

FD10-45 / FD50-45

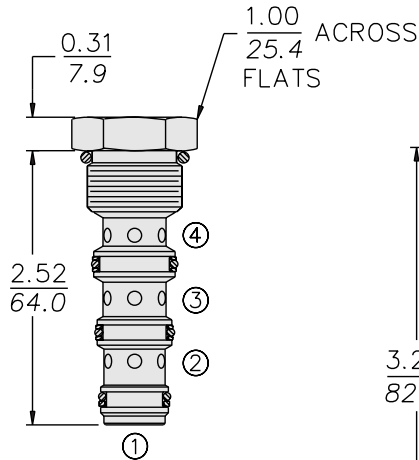
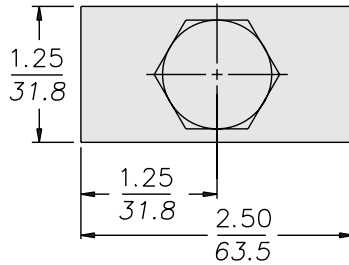
DIMENSIONS

INCH
MILLIMETRE

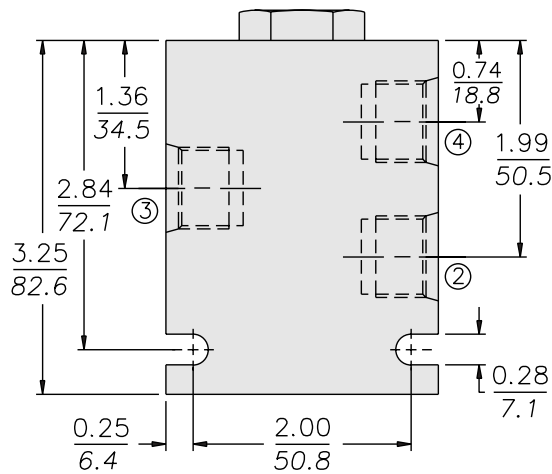
INSTALLATION TORQUE:

FD10: 22–25 ft-lbs (30–34 Nm)

FD50: 48–52 ft-lbs (65–71 Nm)



PORT ① IS NOT USED.



MATERIALS

Cartridge: Weight: 0.10 kg. (0.23 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Special Ported Body: Weight: 0.34 kg. (0.75 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); See page 8.010.1.

Note: Ductile iron or steel body required for operation over 240 bar (3500 psi); body dimensions may differ; consult factory.

TO ORDER

FD -45 -

Max. Pressure

Up to 3500 psi **10**
Up to 5000 psi **50**

Special Ported Bodies

Cartridge Only **0**
SAE 6 (All Ports) **6T**
SAE 8 ③; **8D**
SAE 6 ② & ④
1/4 in. BSP* (All Ports) **2B**
3/8 in. BSP* (All Ports) **3B**
1/2 in. BSP* ③; **5B**
3/8 in. BSP* ② & ④

*BSP Body; U.K. Mfr. Only

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

Dividing/Combining Ratio

22 50:50 rated @ 15.1 lpm (4 gpm) input
33 50:50 rated @ 22.7 lpm (6 gpm) input
44 50:50 rated @ 34.1 lpm (9 gpm) input
66 50:50 rated @ 45.4 lpm (12 gpm) input

NOTE: Additional ratios and/or input flow sizings available for OEM applications. Consult factory.

Seals

N Buna N (Std.)
V Fluorocarbon
P Polyurethane*

* Required for operation over 240 bar (3500 psi); FD50 option.