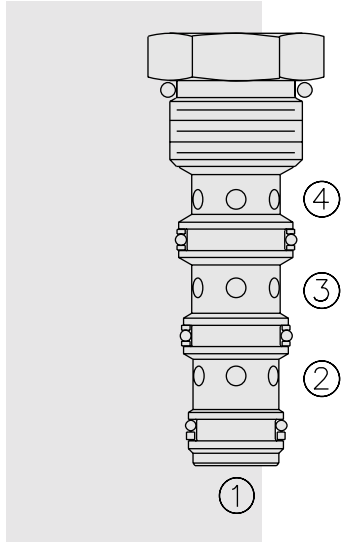


FD50-45 Flow Divider/Combiner . . . Heavy Duty,



DESCRIPTION

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

OPERATION

In the dividing mode, the **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.
- Floating cage — High installation torque
- Industry common cavity.

RATINGS

Operating Pressure: 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.

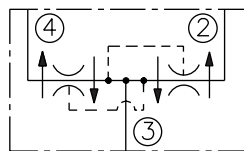
Cavity: VC10-4 (Variation “A”); See page 9.110.1

Cavity Tool: CT10-4X; See page 8.600.1

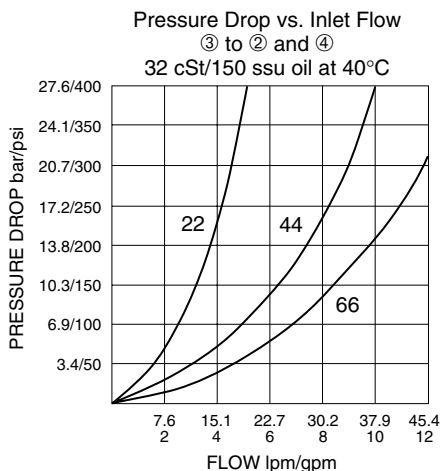
Seal Kit: SK10-4X-MMT; See page 8.650.1

SYMBOLS

USASI/ISO:



PERFORMANCE (Cartridge Only)



Note: This new FD50-45 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.

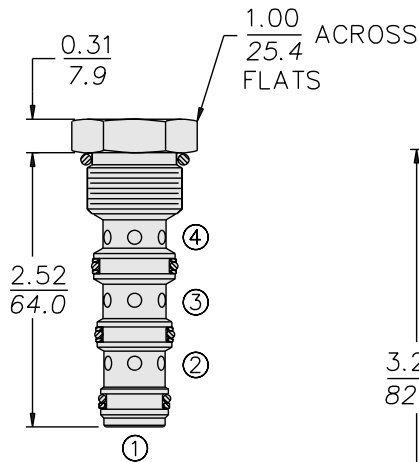
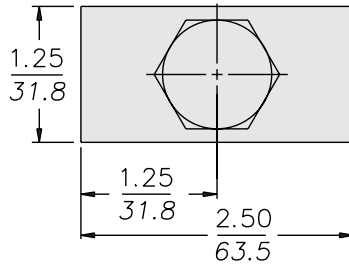
Multifunction

FD50-45

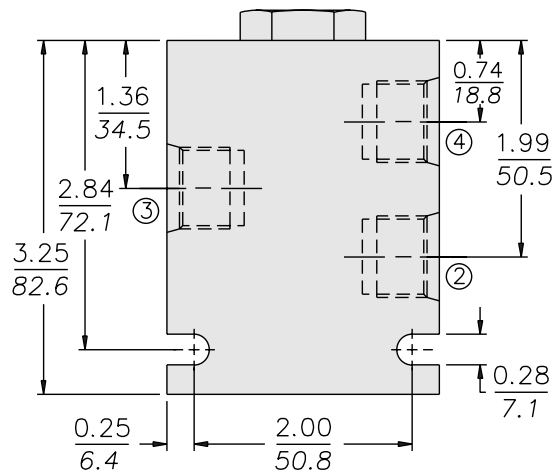
DIMENSIONS

INCH
MILLIMETRE

INSTALLATION TORQUE:
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

FD50-45 -

Special Ported Bodies

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

*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.