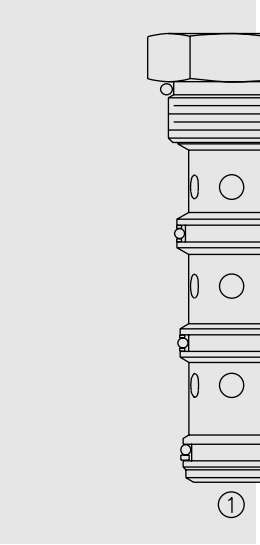
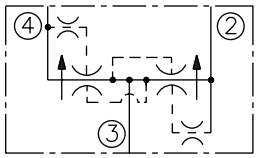
FD16-42 Flow Divider/Combiner, w/Anti-Stall Feature

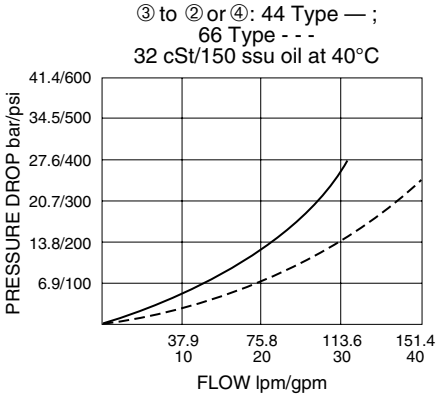


SYMBOLS

USASI/ISO:



PERFORMANCE (Cartridge Only)



DESCRIPTION

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

OPERATION

In the dividing mode, the **FD16-42** 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 both ② and ④.

The FD16-42 is designed to maintain a flow path to both combining ports ② and ④ when one port is "free-wheeling." This feature keeps hydraulic (parallel) motor drive circuits from stalling in the combining mode only.

FEATURES

- Hardened parts for long life.
- Quiet, modulated response.
- Industry common cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow: See Performance Chart

Flow Options:
Input Flow: 98.4 lpm (26 gpm); Ratio: 50:50; Model Code: 44
Input Flow: 151.4 lpm (40 gpm); Ratio: 50:50; Model Code: 66
Other ratio options available; consult factory.

Standard Compensator Bias Spring: 2.07 bar (30 psid)

Flow Accuracy: 10% from 33-100% 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 ssu)

Installation: No restrictions; See page 9.020.1. Note that standard 16 size 4-way bodies should not be used with this product. See page 8.016.1 for special flow divider bodies.

Cavity: VC16-4; See page 9.116.2

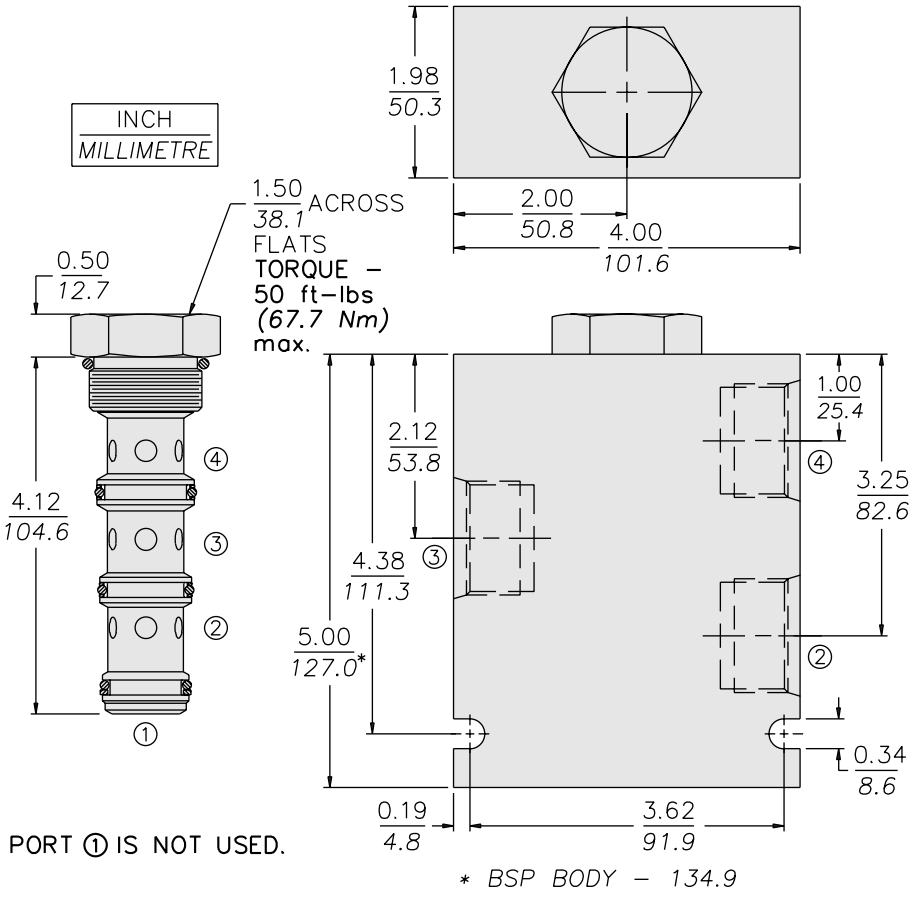
Cavity Tool: CT16-4XX; See page 8.600.1

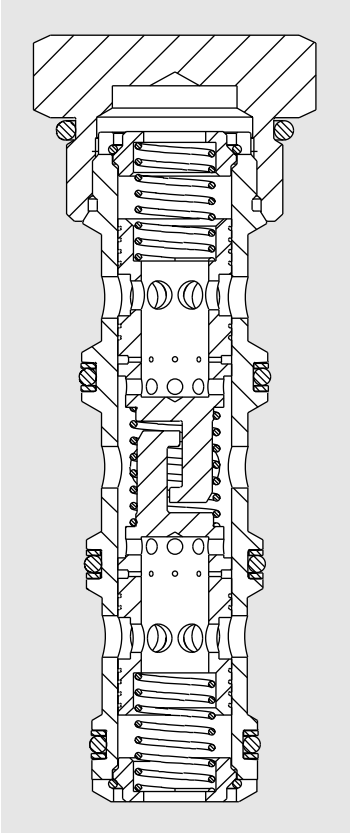
Seal Kit: SK16-4X-MMT; See page 8.650.1

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:

FD10-45; see page 5.632.1
FD12-45; see page 5.634.1
FD16-45; see page 5.636.1

DIMENSIONS





MATERIALS

Cartridge: Weight: 0.36 kg. (0.80 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Special Ported Body: Weight: 1.5 kg. (3.3 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.016.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

TO ORDER

FD16-42 - ___ ___ ___ - ___ - ___ ___

Special Ported Bodies

Cartridge Only	**0**
SAE 12 (All Ports)	**12T**
SAE 12 ② & ④; SAE 16 ③	**16D**
SAE 16 (All Ports)	**16T**
3/4 in. BSP* (All Ports)	**6B**
3/4 in. BSP* ② & ④; 1 in. BSP* ③	**7B**
1 in. BSP* (All Ports)	**8B**

*BSP Body; U.K. Mfr. Only

Seals

N Buna N (Std.)
V Fluorocarbon

Dividing/Combining Ratio

44 50:50 rated @ 98.4 lpm (26 gpm) input
66 50:50 rated @ 151.4 lpm (40 gpm) input

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

NOTE: Standard 16-size 4-way bodies should not be used for flow dividers. See special flow divider bodies, page 8.016.1.