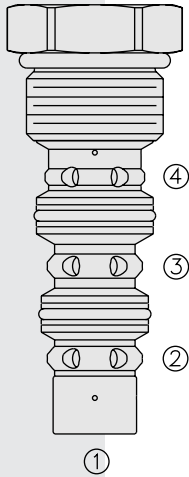


# DIRECTIONAL CONTROLS

## HS50-43 Low Side (Hot Oil) Shuttle,



### DESCRIPTION

A spring-centered, spool-type, closed-in-neutral, 2-position, 3-way hot oil shuttle valve, which may be used on hydrostatic transmissions to direct charge pump oil to a heat exchanger or to tank.

### OPERATION

With internal piloting at port ①, ② or ④, the **HS50-43** will direct oil from the port opposite of the piloted port to port ③, thus removing oil from the low-pressure side for cooling or filtration purposes. The valve has a spring-centered spool, and is closed in neutral position.

### FEATURES

- Hardened spool and cage for long life.
- Industry common cavity.

### RATINGS

**Operating Pressure:** 345 bar (5000 psi) when used in steel body

**Flow Rate:** See Performance Chart

**Bias Spring Value:** 4.1 bar (60 psi)

**Internal Leakage:** 541 ml/minute (33 cu. in./minute) max. at 345 bar (5000 psi)

**Temperature:** -40 to 120°C with standard 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

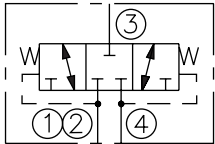
**Cavity:** VC10-4; See page 9.110.1

**Cavity Tool:** CT10-4XX; See page 8.600.1

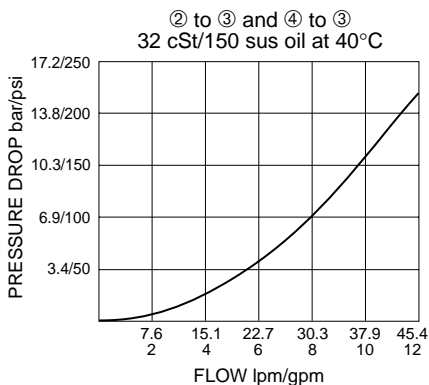
**Seal Kit:** SK10-4X-MMM, See page 8.650.1

### SYMBOLS

#### USASI/ISO:



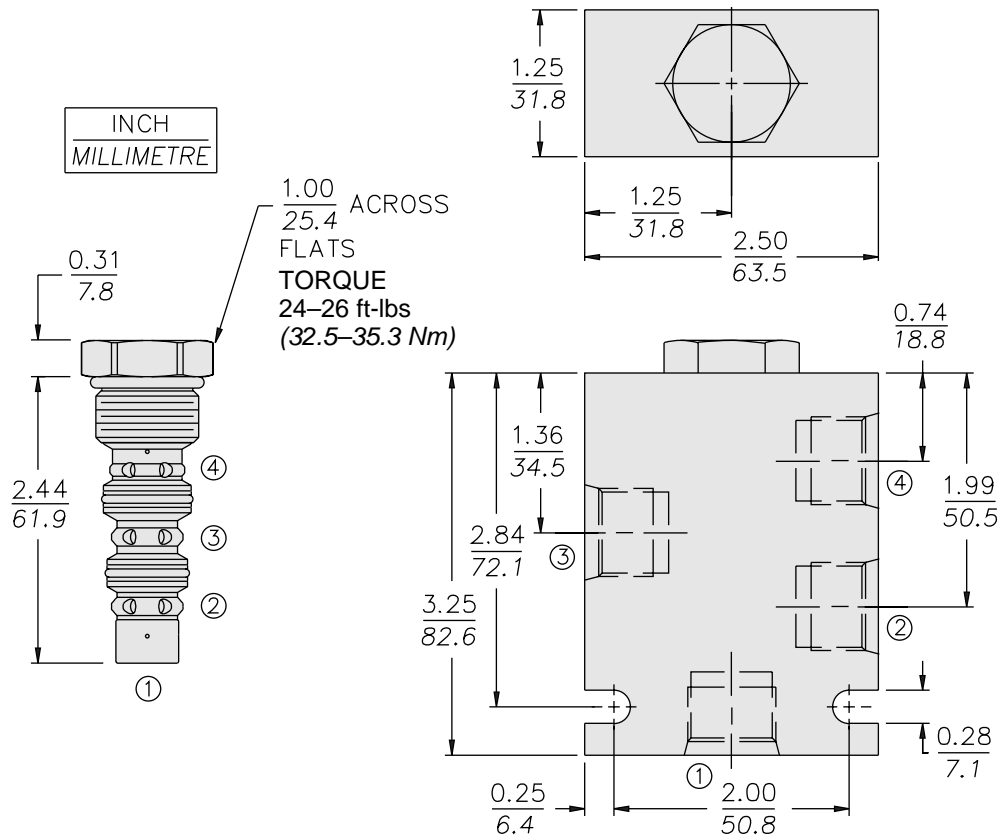
### PERFORMANCE (Cartridge Only)



# Spring Centered

# HS50-43

## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.12 kg. (0.27 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.  
Polyurethane seals and polyester  
elastomer back-ups standard.

**Ported Body:** Weight: 0.68 kg.  
(1.51 lbs.); Ductile Iron (code "D")  
standard, consult factory for weight,  
dimensions may differ. Rated to  
345 bar (5000 psi).  
See page 8.010.1.

## TO ORDER

<b>HS50-43 -</b>	<b>- P</b>
	<b>Seals</b>
	<b>P Polyurethane</b>
<b>Porting</b>	
Cartridge Only	<b>0</b>
SAE 6 (Ductile)	<b>6TD</b>
SAE 6 (Steel)	<b>6TS</b>