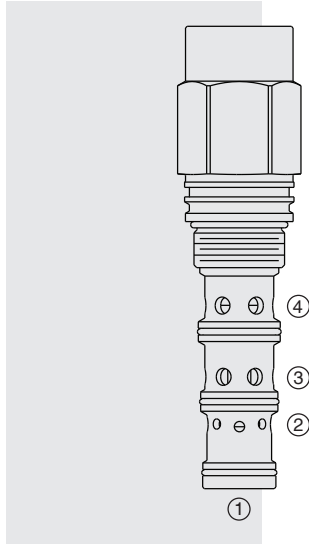


HPE42-M45 HyPerformance™ Proportional, Piloted



DESCRIPTION

A high pressure, proportional, piloted, screw-in, cartridge-style, spool-type, hydraulic directional valve.

OPERATION

In neutral (unpiloted), the HPE42-M45 allows flow from 2 to 3 bidirectionally. On remote pilot signal at 1, the spool shifts proportionally to the applied pilot pressure to gradually close the flow path until the spool is fully shifted, blocking flow. The spring chamber is vented to port 4. Pressure at 4 will directly (1:1) affect the pilot pressure required and must be added to the bias spring valve.

FEATURES

- Hardened spool and cage for long life.
- Optional sealed pilot.
- Cost-effective cavity.
- All HyPerformance™ products are tested to the rigorous standards of the NFPA specification T2.6.1.
- All HyPerformance™ valves are tested at a verification level of 90% and an assurance of 99%.

RATINGS

Operating Pressure: 350 bar (5075 psi); 10% duty cycle 420 bar (6090 psi)

Note: All HyPerformance™ products are tested for 900K cycles at 350 bar and 100K cycles at 420 bar.

Proof Pressure: 690 bar (10,000 psi)

Burst Pressure: 1380 bar (20,000 psi)

Flow Rating: 170 lpm (45 gpm)

Internal Leakage: 490 ml/minute (30 cu. in./minute) max. at 350 bar (5075 psi)

Pilot Pressure Required To Full Spool Shift: 27 bar (400 psi) minimum

Operating Fluid Temperature: -54 to 107°C (-65 to 225°F) with PPDI urethane seals; Storage Temperature: -40 to 70°C (-40 to 160°F)

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

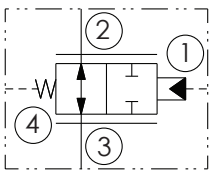
Installation: No restrictions; See page 9.020.1

Cavity: HVC42-M4; See page 9.142.1

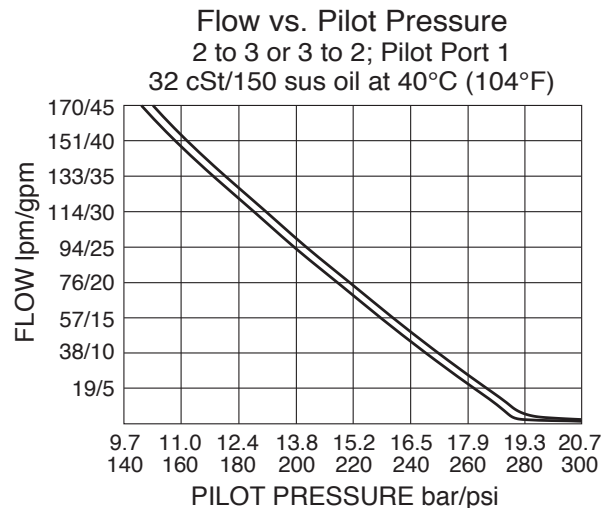
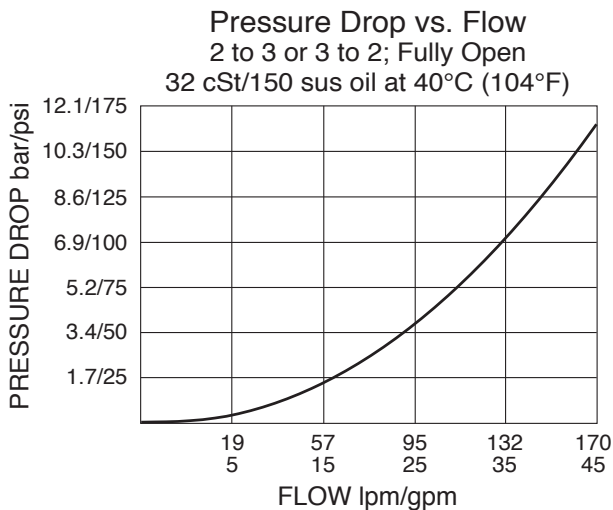
Cavity Tool: HCT42-M4xx; See page 8.600.1

Seal Kit: SK42-M4U-000; See page 8.650.1

ISO SYMBOL



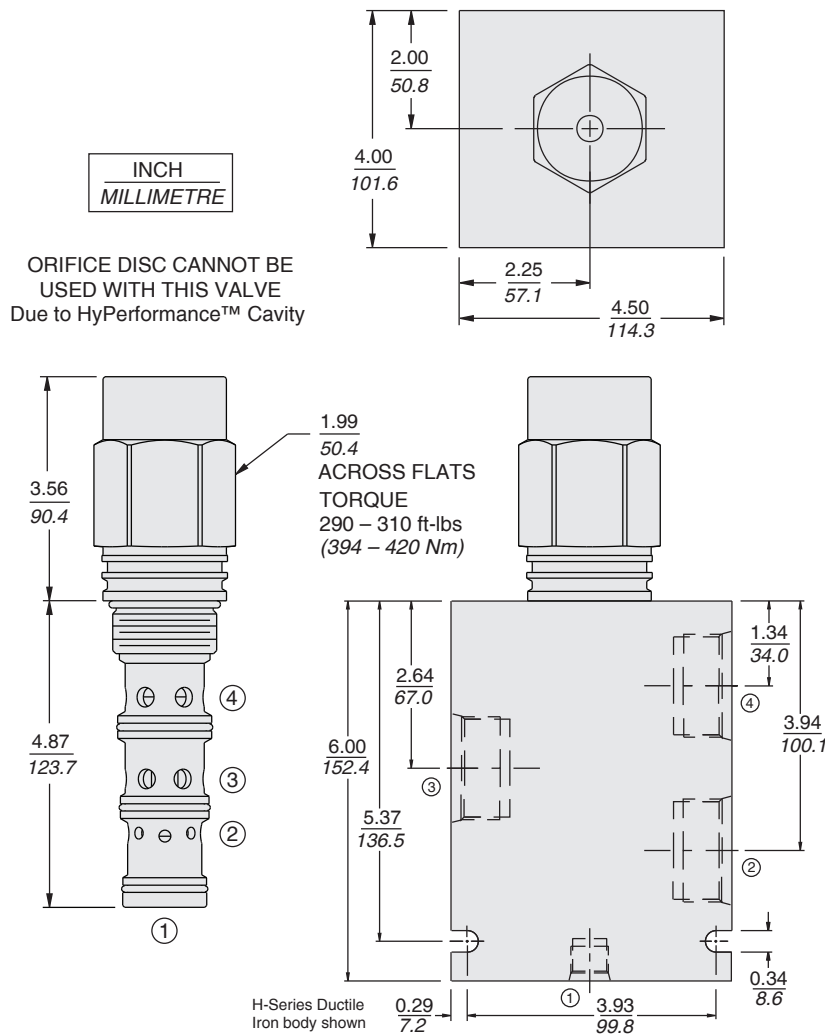
PERFORMANCE (Cartridge Only)



2-Way Spool

HPE42-M45

DIMENSIONS



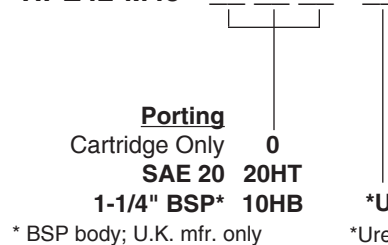
MATERIALS

Cartridge: Weight: 2.0 kg. (4.5 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
PPDI urethane O-rings without
backup rings standard.

Standard Ported Body:
Weight: 10.68 kg (23.56 lbs) H-series
ductile iron standard. Rated to
354 bar (5000 psi). See page 8.042.1

TO ORDER

HPE42-M45 -



*Urethane seals recommended for
operating pressures above 241 bar
(3500 psi).

NOTE: Consult factory for
additional seal options.