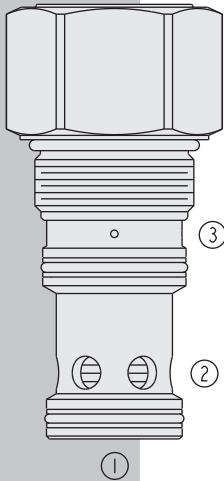


HEP42-S35 HyPerformance™ Piloted Spool-Type



DESCRIPTION

A high-pressure spool-type, screw-in, cartridge-style, hydraulic directional element, with multi-function potential when used with other directional, pressure, or flow control devices.

OPERATION

The **HEP42-S35** is a spring-biased blocking valve which will shift to allow full flow from 1 to 2 only when pressure at 1 exceeds the cumulative pressure of 3, plus the bias spring pressure value.

HEP42-S35 is a pilot-to-close directional valve.

With no pressure at 3, flow will be allowed from 1 to 2 once the bias spring force is overcome with pressure at 1.

FEATURES

- Multiple function/application potential.
- Low pressure drop.
- 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% cycle life: 420 bar (6090 psi)

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

Fatigue Rating: 2 million cycles at 420 bar

Burst Pressure: 1380 bar (20000 psi)

Flow: 379 lpm (100 gpm)

Internal Leakage: 164 ml/minute (10 cu. in./minute) max. at 350 bar (5075 psi)

Operating Temperature: -40 to 100°C (-40 to 212°F) with Buna N seals
 -26 to 204°C (-15 to 400°F) with Fluorocarbon seals
 -54 to 107°C (-65 to 225°F) with Urethane seals

Ambient Temperature: -40 to 90°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 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

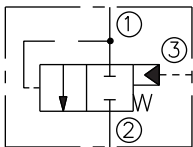
Cavity: HVC42-S3; See page 9.142.1

Cavity Tool: HCT42-S3XX; See page 8.600.1

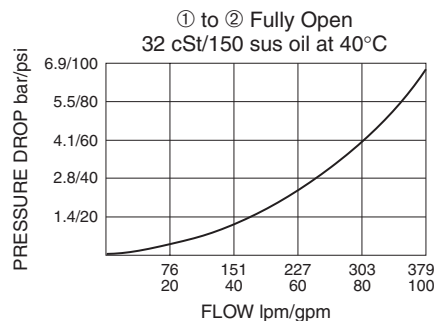
Seal Kit: SK42-S3X-X; See page 8.650.1

SYMBOLS

USASI/ISO:



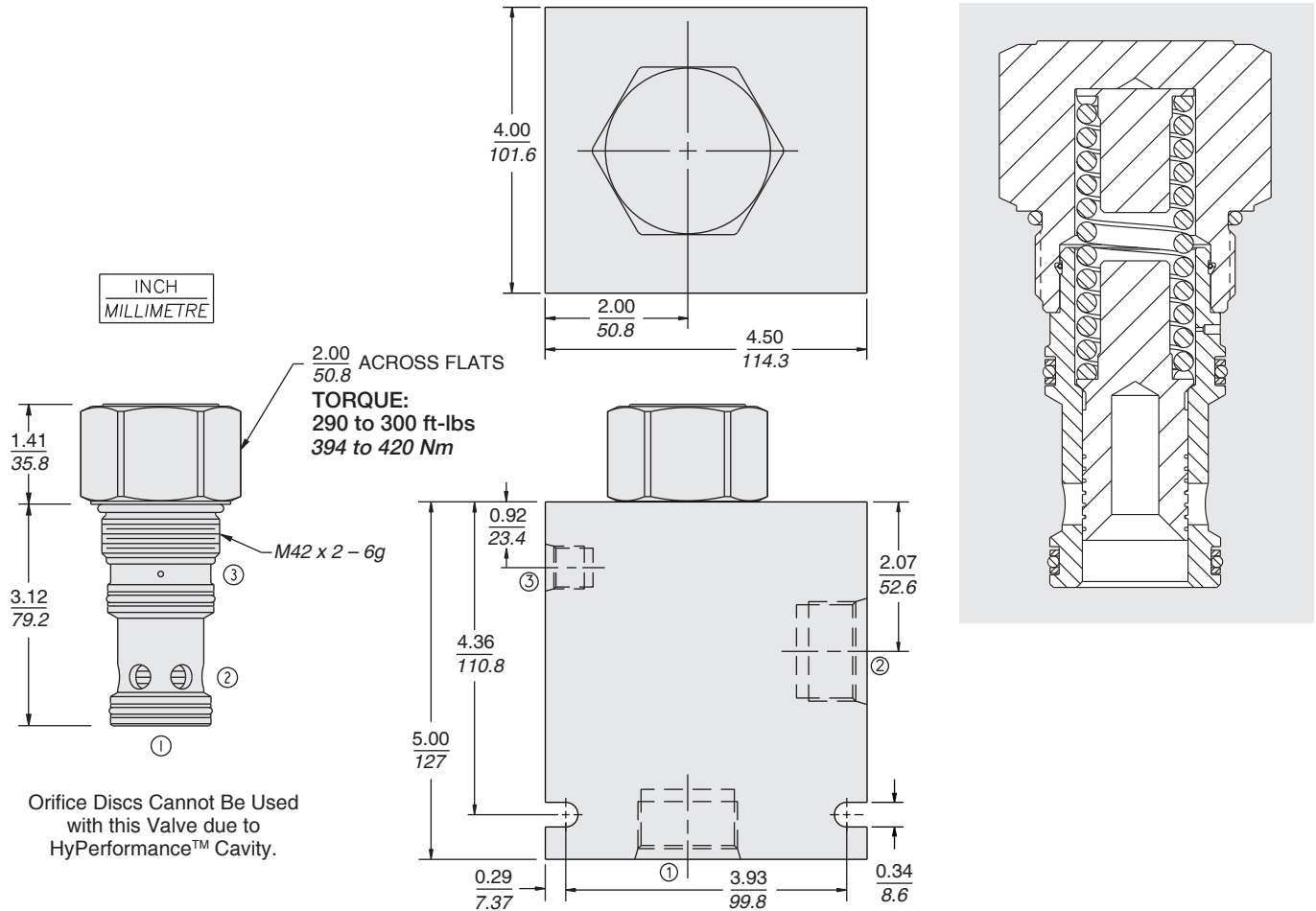
PERFORMANCE (Cartridge Only)



Logic Element

HEP42-S35

DIMENSIONS



MATERIALS

Cartridge: Weight: 1.04 kg. (2.30 lbs.)
Steel with hardened work surfaces.
Zinc-nickel plated exposed surfaces.
PPDI Urethane seals with no backup rings standard.

Ported Body: Weight: 9.03 kg. (19.9 lbs.); HyPerformance™
Ductile iron (code 'D') standard.
Rated to 345 bar (5000 psi).

TO ORDER

HEP42-S35 -

Porting

Cartridge Only 0
SAE 20 20TD
1-1/4 in. BSP* 10BD
*BSP Body; U.K. Mfr. Only

Bias Spring Value

20 1.4 bar (20 psi)
50 3.4 bar (50 psi)
80 5.5 bar (80 psi)
175 12.1 bar (175 psi)

Seals

N Buna N
V Fluorocarbon
U PPDI Urethane — Recommended for pressures above 241 bar (3500 psi)