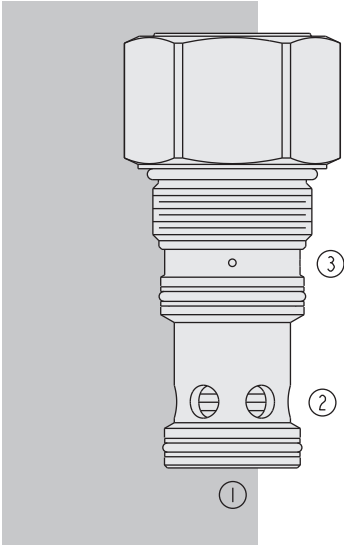


# HEP42-S35 HyPerformance™ Piloted Spool-Type



## 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

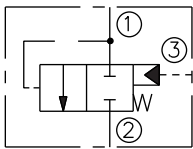
**Cavity:** HVC42-S3; See page 9.142.1

**Cavity Tool:** HCT42-S3XX; See page 8.600.1

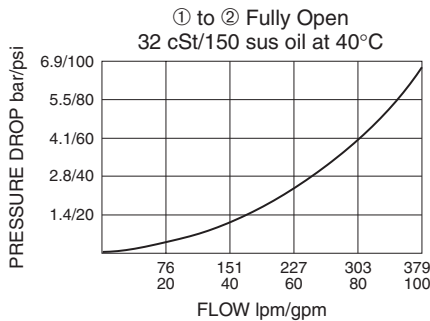
**Seal Kit:** SK42-S3X-X; See page 8.650.1

## SYMBOLS

### USAS/ISO:



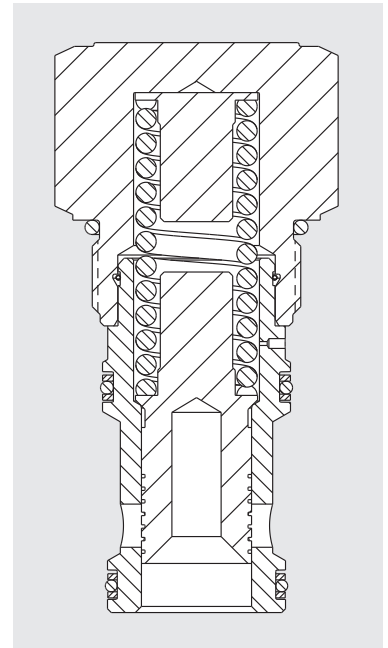
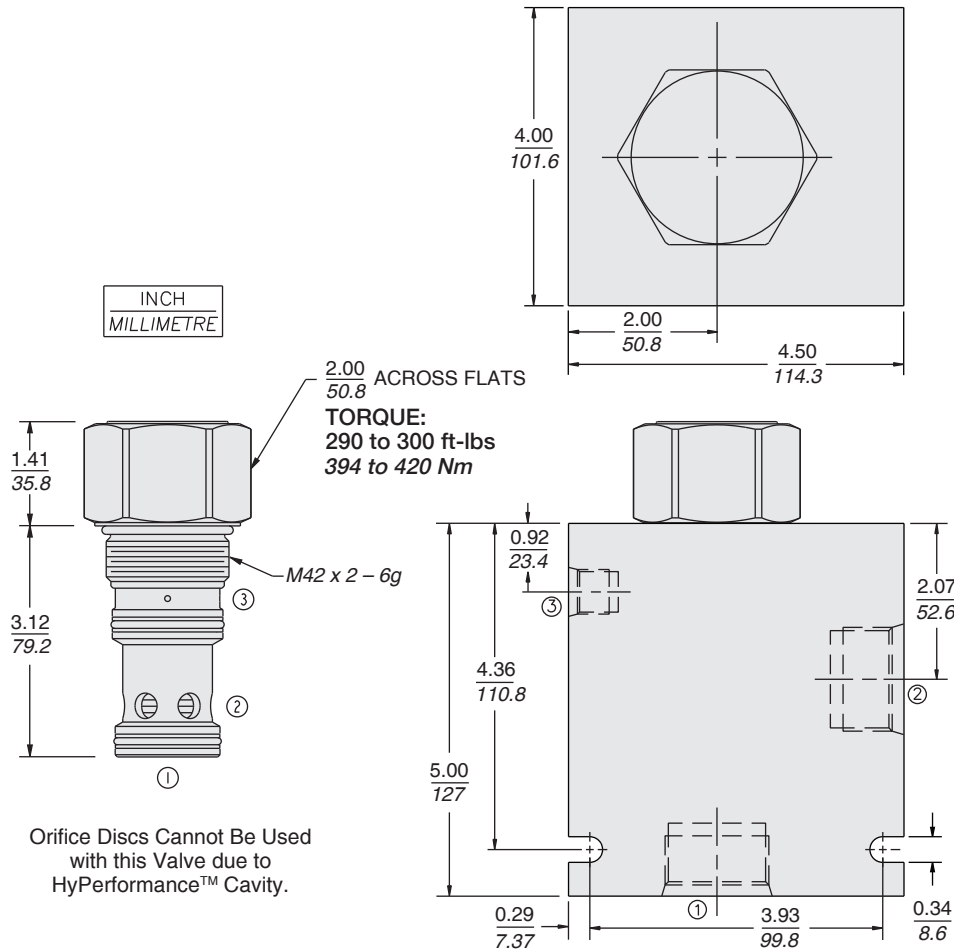
## PERFORMANCE (Cartridge Only)



# Logic Element

# HEP42-S35

## DIMENSIONS



Orifice Discs Cannot Be Used with this Valve due to HyPerformance™ Cavity.

## 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)