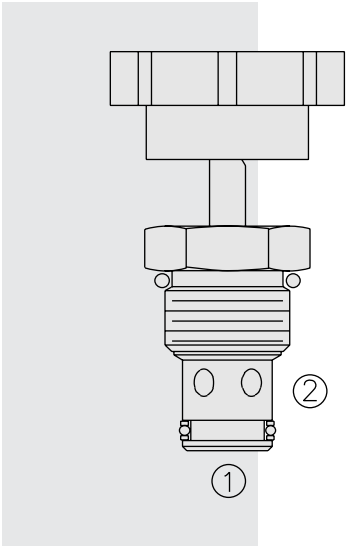


# NV10-21 Needle Valve with Positive Shut-Off



## DESCRIPTION

A screw-in, cartridge-style, variable orifice, hydraulic flow restrictor valve. It is intended for applications requiring fine adjustment over multiple turns.

## OPERATION

The **NV10-21** increases its orifice value from fully closed to fully open with adjustment rotation in the counterclockwise direction. Effective adjustment is linear to eight turns. Note: This is intended as a low-effort adjustment suitable for operation through linkage. It may be unsuitable in environments where vibration is present.

## FEATURES

- Adjustment cannot be backed out of the valve.
- Hardened parts for long life.
- Industry common cavity.
- Fine/low effort adjustment.
- Positive shut-off.
- Linear adjustment.

## RATINGS

**Operating Pressure:** 240 bar (3500 psi)

**Flow:** 57 lpm (15 gpm) nominal at 11 bar (160 psi) at full open 9 turns

**Internal Leakage:** 0.05 cc/minute (1 drop/minute) max. at shut-off

**Adjustment Torque Required:** 0.34 Nm (3 inch-pounds) at 7 bar (100 psi); 0.68 Nm (6 inch-pounds) at 207 bar (3000 psi)

**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 sus); See Temperature and Oil Viscosity, page 9.060.1

**Installation:** No restrictions; See page 9.020.1

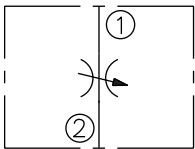
**Cavity:** VC10-2; See page 9.110.1

**Cavity Tool:** CT10-2XX; See page 8.600.1

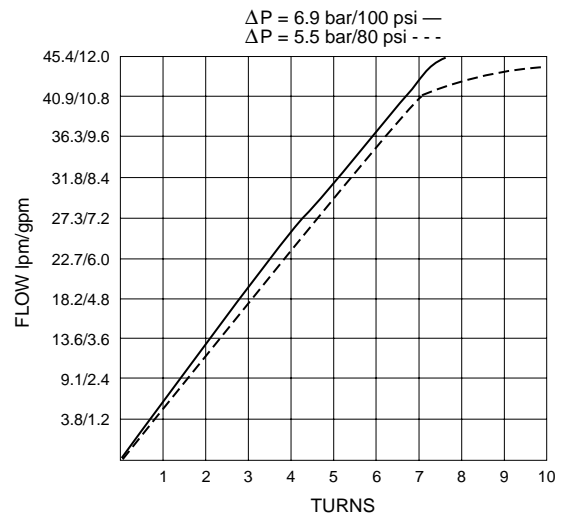
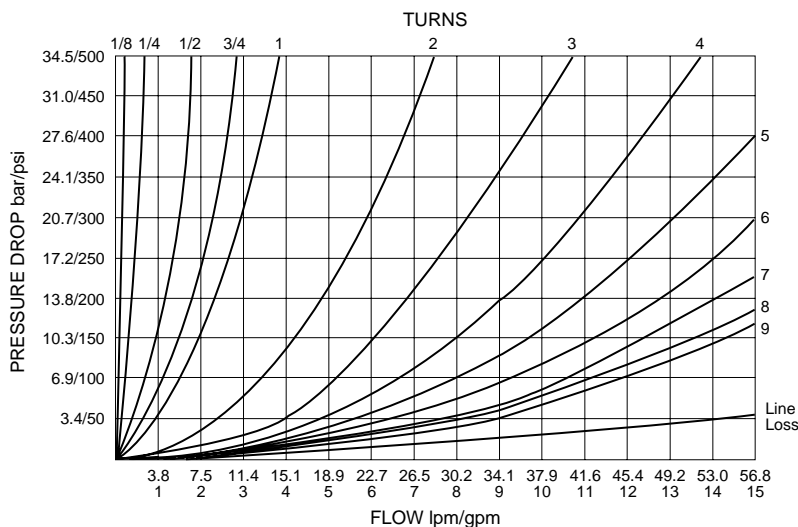
**Seal Kit:** SK10-2X-M; See page 8.650.1

## SYMBOLS

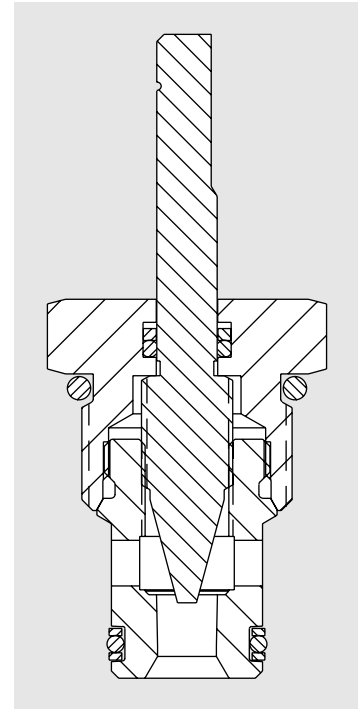
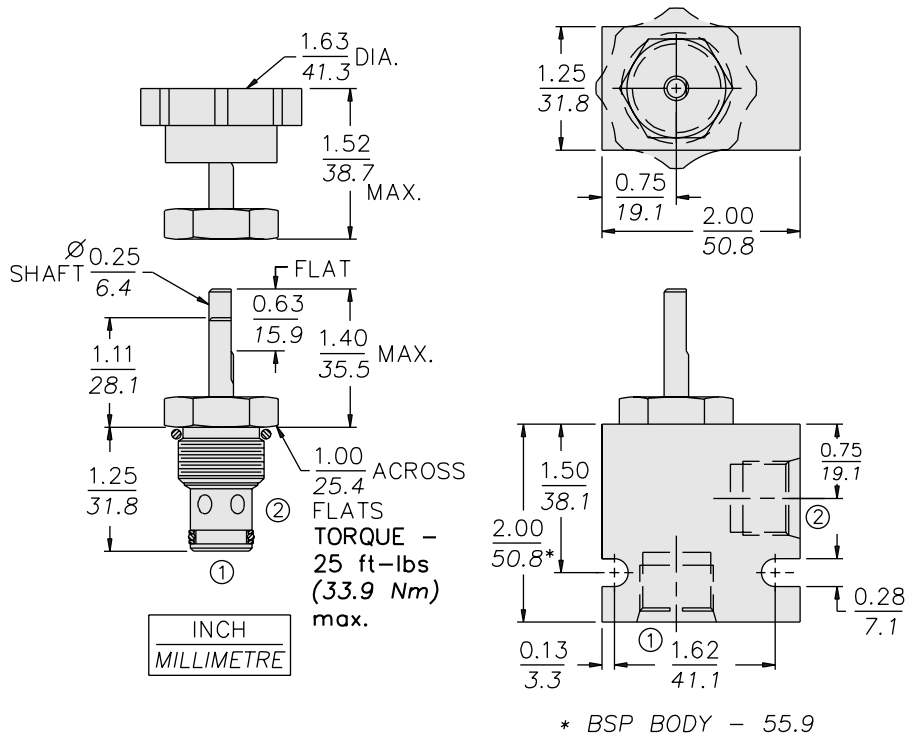
### USASI/ISO:



## PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.15 kg. (0.33 lbs.)  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces.  
 Buna N O-rings and polyester elastomer back-ups standard.  
 Plastic knob with metal insert.

**Standard Ported Body:** Weight: 0.16 kg. (0.35 lbs.)  
 Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi) Ductile iron bodies available; dimensions may differ. See page 8.010.1

**TO ORDER**

