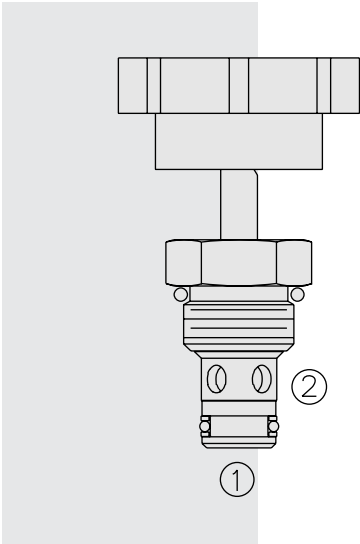


# NV08-21 Needle Valve with Positive Shut-Off



## 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 **NV08-21** 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:** See Performance Chart

**Internal Leakage:** 0.25 cc/minute (5 drops/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

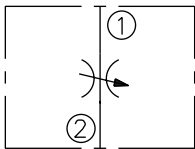
**Cavity:** VC08-2; See page 9.108.1

**Cavity Tool:** CT08-2XX; See page 8.600.1

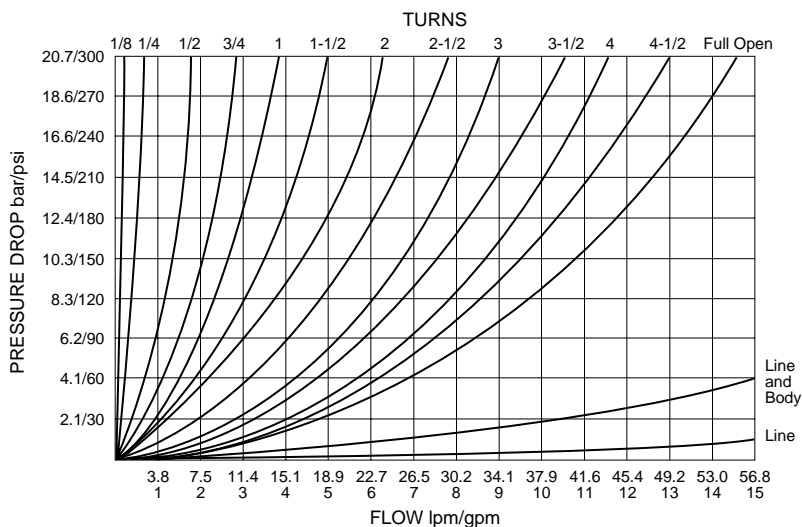
**Seal Kit:** SK08-2X-M; See page 8.650.1

## SYMBOLS

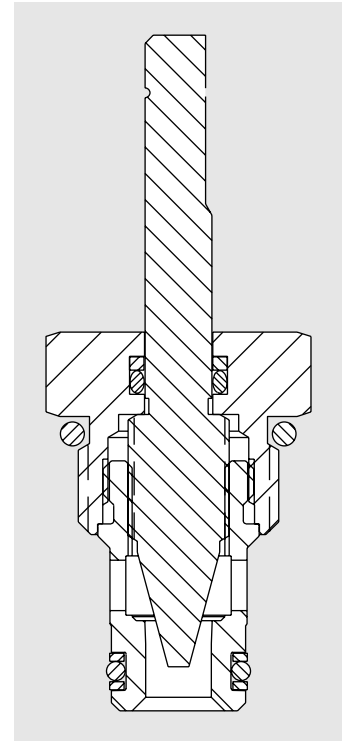
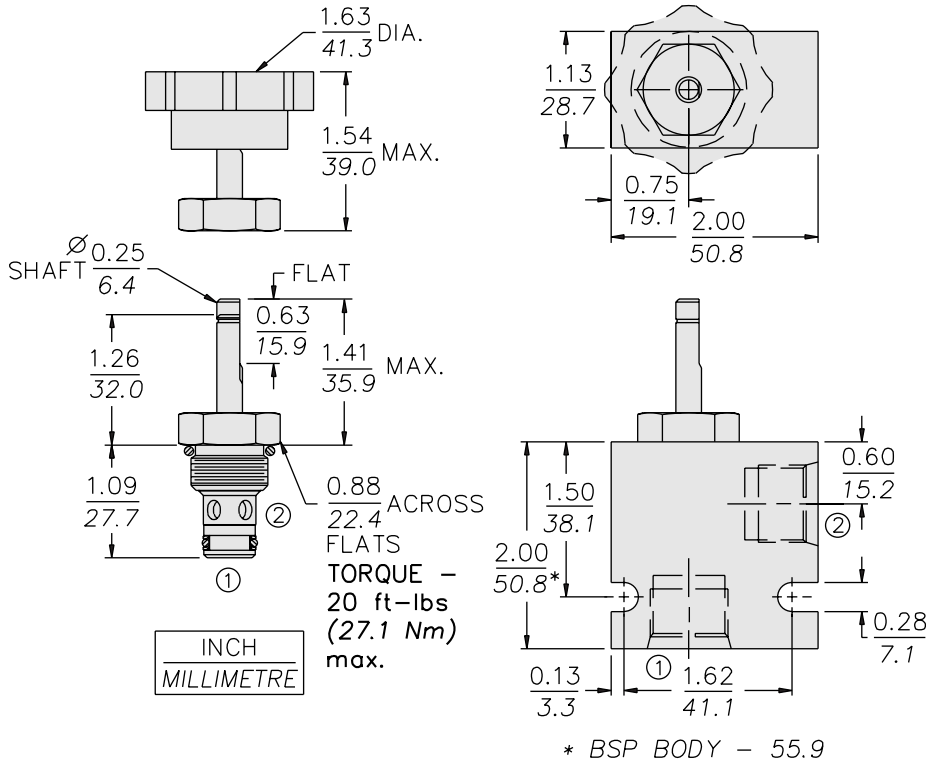
USASI/ISO:



## PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.14 kg. (0.30 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 8.008.1

**TO ORDER**

