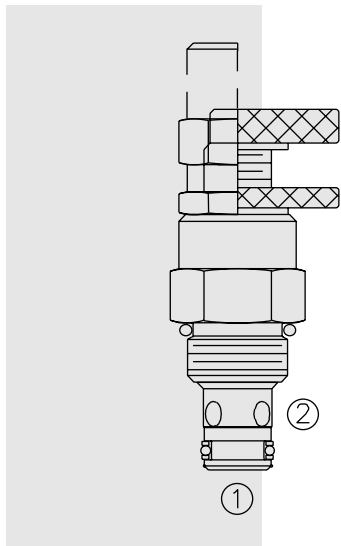


## NV08-20 Needle Valve



### DESCRIPTION

A screw-in, cartridge-style, variable orifice, hydraulic flow restrictor valve.

### OPERATION

The NV08-20 increases its orifice value from fully closed to fully open with counter-clockwise adjustment rotation.

### FEATURES

- Adjustments cannot be backed out of the valve.
- Desired settings may be locked down.
- Hardened parts for long life.
- Aluminum knob option.
- Positive shut-off.
- Linear adjustment.
- Compact size.

### RATINGS

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

**Flow:** 42 lpm (11 gpm) nominal at 7 bar (100 psi) differential at full open 3.5 turns

**Internal Leakage:** 0.25 cc/minute (5 drop/minute) max. at shut-off

**Adjustment Torque Required:** 0.56 Nm (5 inch-pounds) at 7 bar (100 psi);  
5.41 Nm (48 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 ssu)

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

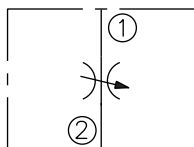
**Cavity:** VC08-2; See page 9.108.1

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

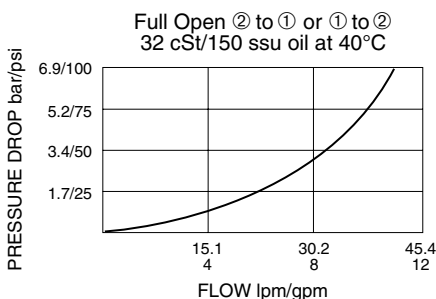
**Seal Kit:** SK08-2X-M; See page 8.650.1

### SYMBOLS

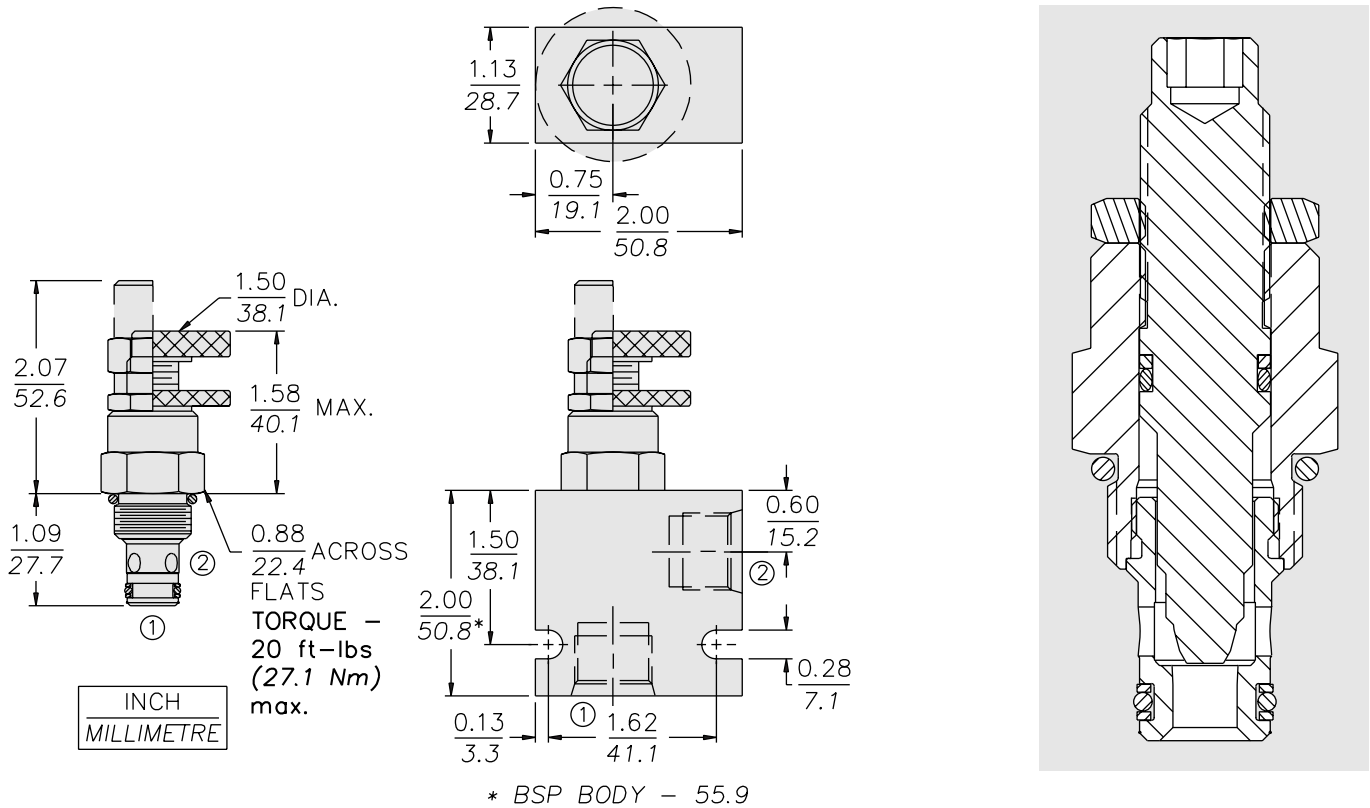
#### USASI/ISO:



### PERFORMANCE (Cartridge Only)



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.10 kg. (0.23 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard. Anodized aluminum knobs.

**Standard Ported Body:** Weight: 0.16 kg. (0.35 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.008.1. Ductile iron and steel bodies available; consult factory.

## TO ORDER

NV08-20 - - -

**Adjustment Option**

- 1/4 in. Hex Allen Head **A**
- 1-1/2 in. Dia. Alum. Knobs **B**
- Option A with Cover Cap **C**
- Top Knob with Lock Nut **D**
- Top Knob Only **E**
- Lockwire Holes (with Option C) **L**

**Seals**

- N** Buna N (Std.)
- V** Fluorocarbon

**Porting**

- 0** Cartridge Only
- 4T** SAE 4
- 6T** SAE 6
- 8T** SAE 8
- 2B** 1/4 in. BSP\*
- 3B** 3/8 in. BSP\*
- 4B** 1/2 in. BSP\*

\*BSP Body; U.K. Mfr. Only