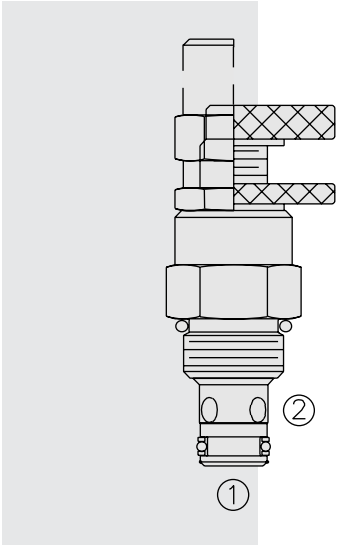


NV08-20 Needle Valve



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

Installation: No restrictions; See page 9.020.1

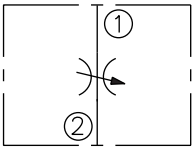
Cavity: VC08-2; See page 9.108.1

Cavity Tool: CT08-2XX; See page 8.600.1

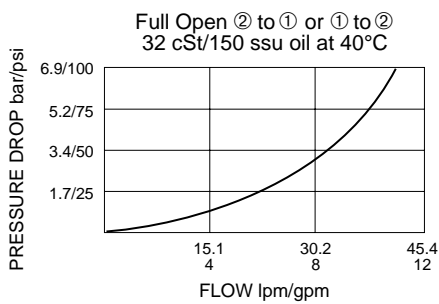
Seal Kit: SK08-2X-M; See page 8.650.1

SYMBOLS

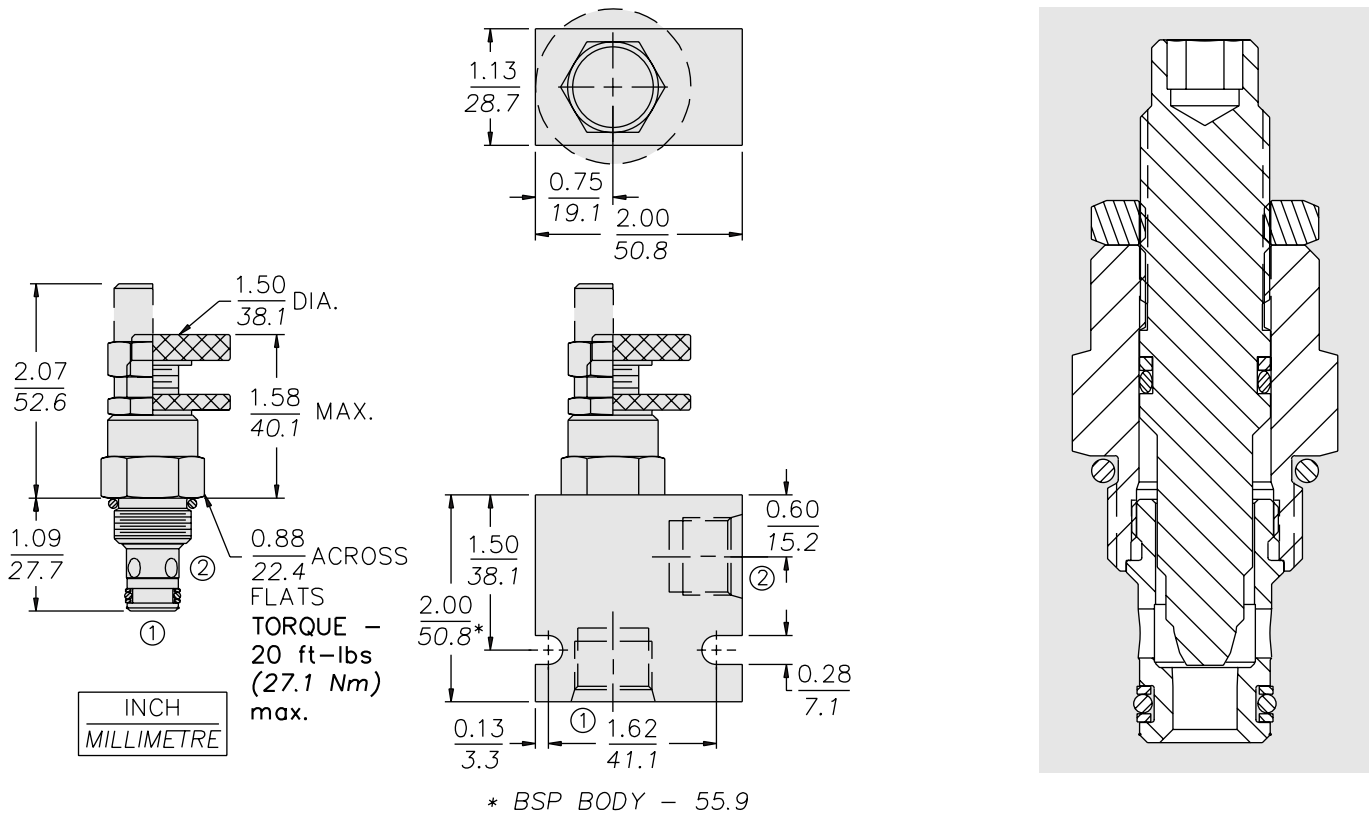
USASI/ISO:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.10 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 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.008.1

TO ORDER

| | | | |
|--------------------------------|----------|-----------|------------------------|
| NV08-20 | | - | - |
| Adjustment Option | | | Seals |
| 1/4 in. Hex Allen Head | A | | N Buna N (Std.) |
| 1-1/2 in. Dia. Alum. Knobs | B | | V Fluorocarbon |
| Option A with Cover Cap | C | | |
| Top Knob with Lock Nut | D | | |
| Top Knob Only | E | | |
| Lockwire Holes (with Option C) | L | | |
| | | | Porting |
| | | 0 | Cartridge Only |
| | | 4T | SAE 4 |
| | | 6T | SAE 6 |
| | | 2B | 1/4 in. BSP* |
| | | 3B | 3/8 in. BSP* |
| | | 4B | 1/2 in. BSP* |

*BSP Body;
 U.K. Mfr. Only