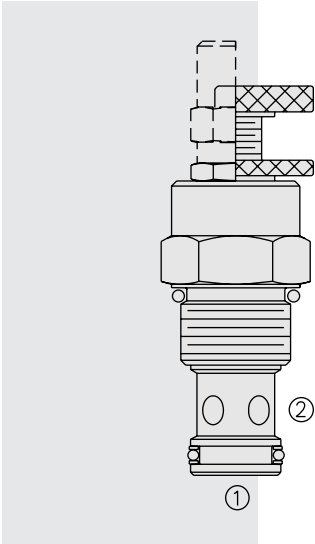


NV12-20 Needle Valve



DESCRIPTION

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

OPERATION

The **NV12-20** 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.
- Cost effective cavity.
- Aluminum knob option.
- Positive shut-off.
- Linear adjustment.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow: 113.6 lpm (30 gpm) nominal at 7 bar (100 psi) at full open 4.5 turns

Internal Leakage: 0.15 cc/minute (3 drops/minute) max. at shut-off

Adjustment Torque Required: 0.17 Nm (1.5 lb.-in.) at 7 bar (100 psi);
16.9 Nm (150 lb.-in.) 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

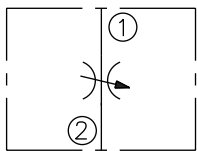
Cavity: VC12-2; See page 9.112.1

Cavity Tool: CT12-2XX; See page 8.600.1

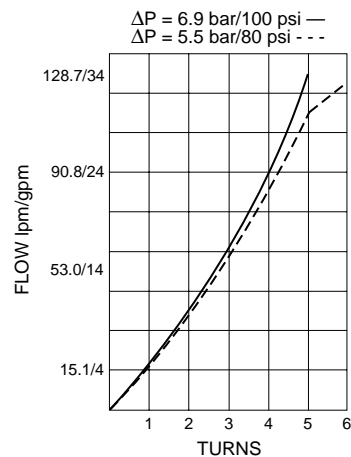
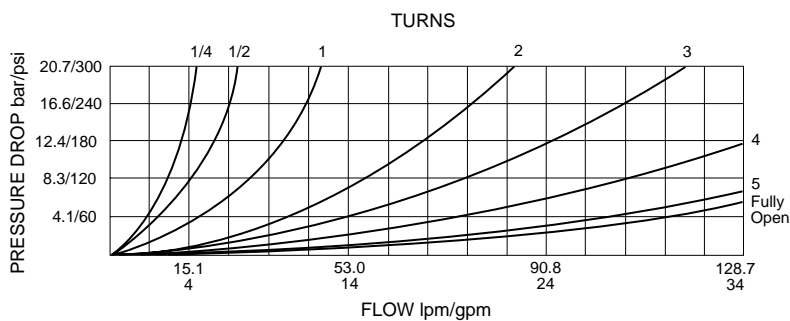
Seal Kit: SK12-2X-M; See page 8.650.1

SYMBOLS

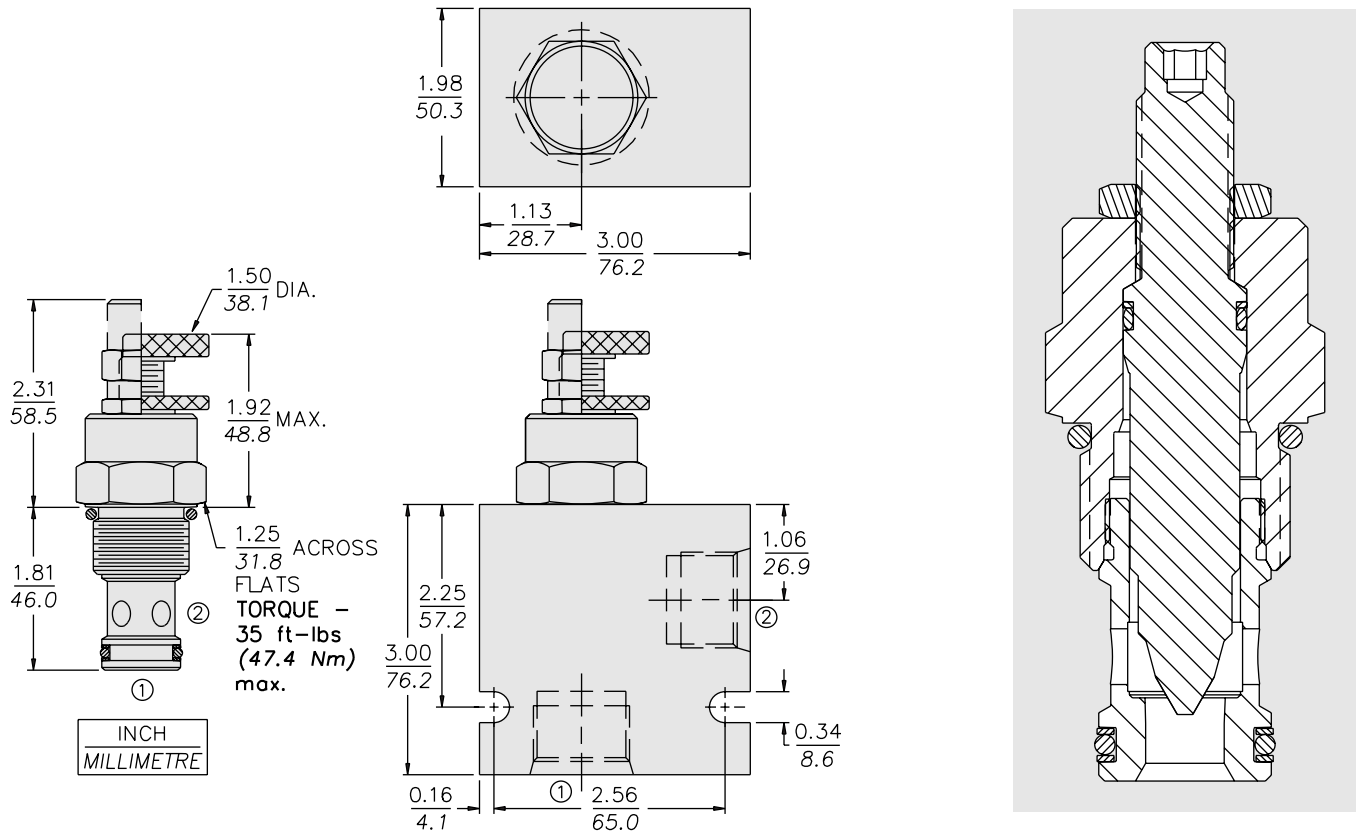
USASI/ISO:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.20 kg. (0.45 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:
0.57 kg. (1.25 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1

TO ORDER

NV12-20

- Adjustment Option**
- 1/4 in. Hex Allen Head **A**
 - 1-1/2 in. Dia. Alum. Knob **B**
 - Option A with Cover Cap **C**
 - Top Knob with Lock Nut **D**
 - Top Knob Only **E**

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

- Porting**
- 0** Cartridge Only
 - 10T** SAE 10
 - 12T** SAE 12
 - 16T** SAE 16
 - 4B** 1/2 in. BSP*
 - 6B** 3/4 in. BSP*
 - 8B** 1 in. BSP*

*BSP Body; U.K. Mfr. Only