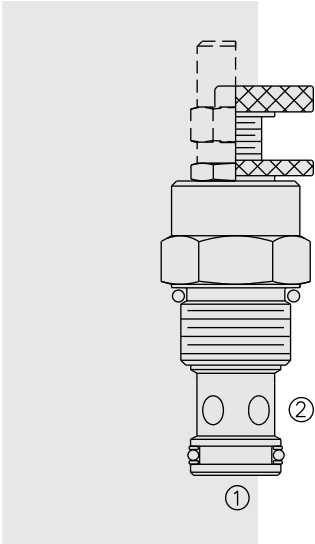


NV12-20 Needle Valve



DESCRIPTION

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

OPERATION

The NV12-20 increases the size of its orifice 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.
- Cost-effective cavity.
- Variety of adjustment options available.
- Positive shut-off.
- Linear adjustment.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 345 bar (5000 psi)

Burst Pressure: 896 bar (13000 psi)

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

Internal Leakage: 0.15 ml/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 100°C (-40 to 212°F) with Buna N seals;
-26 to 204°C (-15 to 400°F) with Fluorocarbon seals;
-54 to 107°C (-40 to 149°F) with Polyurethane seals;
-40 to 149°C (-40 to 300°F) with HNBR seals.

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

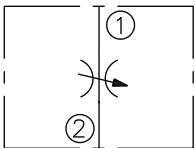
Installation: No restrictions; See page 9.020.1

Cavity: VC12-2; See page 9.112.1

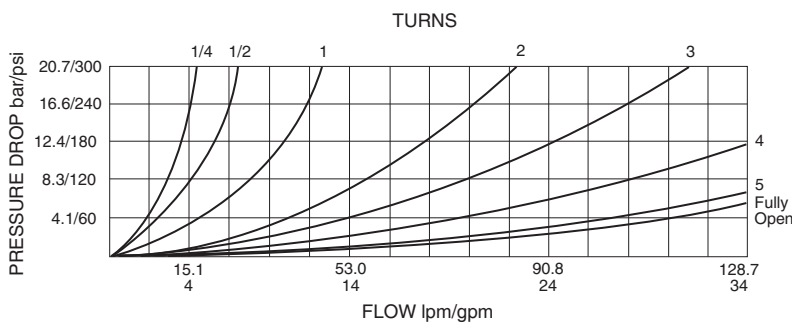
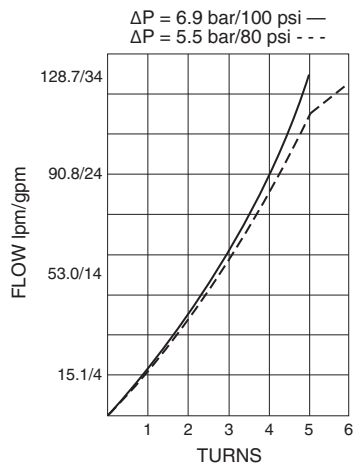
Cavity Tool: CT12-2XX; See page 8.600.1

Seal Kit: SK12-2X-M-115; See page 8.650.1

ISO SYMBOL

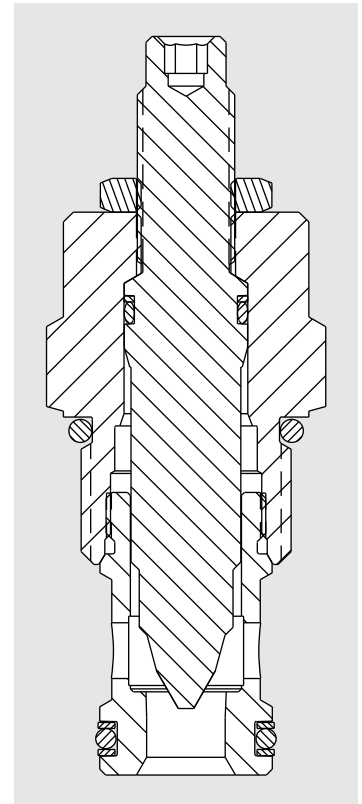
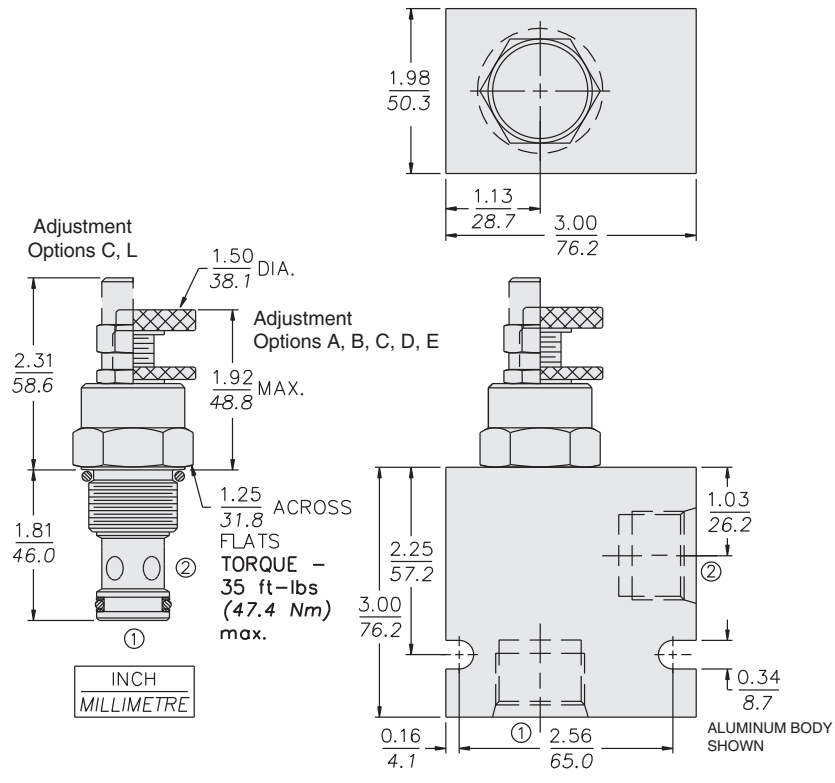


PERFORMANCE (Cartridge Only)



NV12-20

DIMENSIONS



MATERIALS

Cartridge: Weight (with Adjustment Option A: 0.32 kg (0.70 lb) 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 lb) Anodized high-strength 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**
 Option C with Lockwire Holes **L**

- Seals**
N Buna N (Std.)
G HNBR
V Fluorocarbon
P Polyurethane

- 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