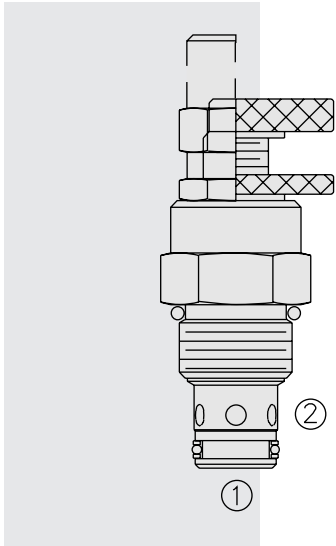


NV10-20 Needle Valve



DESCRIPTION

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

OPERATION

The NV10-20 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.
- Industry common cavity.
- Aluminum knob option.
- 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 Rating: 45 lpm (12 gpm) nominal at 7 bar (100 psi) at full open 3.5 turns

Internal Leakage: 0.05 ml/minute (1 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 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 (-65 to 225°F) with polyurethane and urethane 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

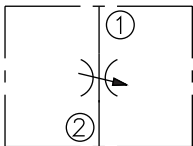
Installation: No restrictions; See page 9.020.1

Cavity: VC10-2; See page 9.110.1

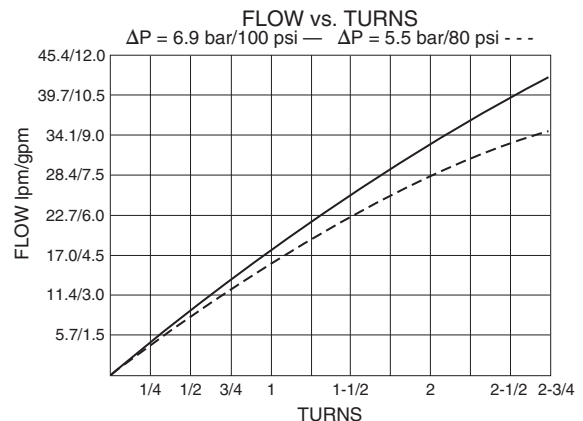
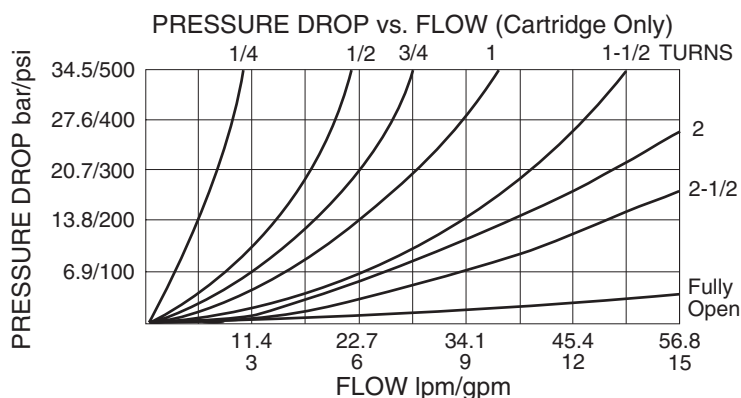
Cavity Tool: CT10-2XX; See page 8.600.1

Seal Kit: SK10-2X-M; See page 8.650.1

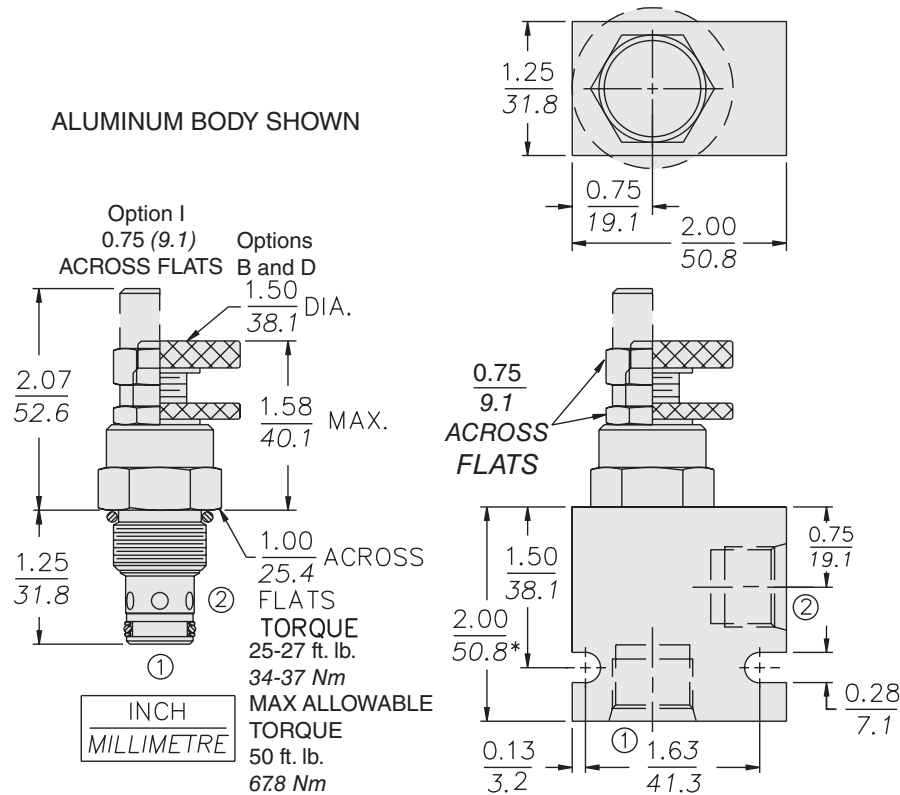
ISO SYMBOL



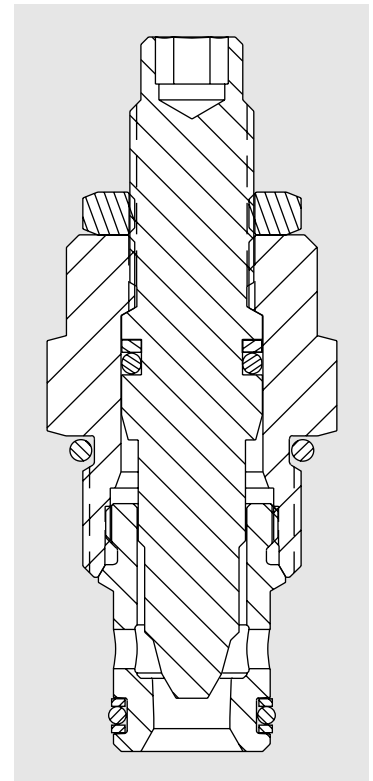
PERFORMANCE (Cartridge Only)



DIMENSIONS



* BSP BODY - 55.9



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.
Anodized aluminum knobs.

Standard Ported Body: Weight:
0.16 kg. (0.35 lbs.) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1

TO ORDER

NV10-20 - - -		
Adjustment Option	A	Seals
1/4 in. Hex Allen Head	B	N Buna N (Std.)
1-1/2 in. Dia. Alum. Knob	C	V Fluorocarbon
Option A with Cover Cap	D	P Polyurethane
Top Knob with Lock Nut	E	U Urethane
Top Knob Only	L	
Option C with Lockwire Holes		Porting
		0 Cartridge Only
		8T SAE 8
		8TD SAE 8 Ductile Iron Body
		4B 1/2 in. BSP*
		4BD 1/2 in. BSP Ductile Iron Body*
		*BSP Body;
		U.K. Mfr. Only