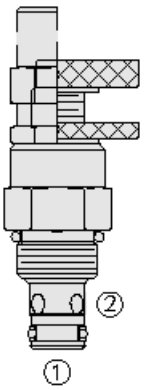
## Overview




**Description**

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

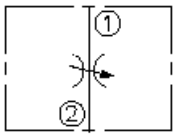
**Operation**

The NV08-20 valve increases its orifice size 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.

### Symbol




## Ratings

**Pressure Ratings**

| | | |
|---|---|---|
| Pressure rating | 241 bar (3500 psi) | |
| Proof pressure | 345 bar (5000 psi) | |
| Burst pressure | 896 bar (13000 psi) | |

**Flow Ratings**

| | | |
|---|---|---|
| Flow rating | See pressure drop vs. Flow chart | |
| Maximum internal leakage | 0.32 ml/min (5 drops/min) | **- Note:** At shut-off |

**Temperature Ratings**

| | | |
|---|---|---|
| Operating fluid temperature | -40 to 120 °C (-40 to 250 °F) | **- Note:** With buna N seals |
| | -26 to 204 °C (-15 to 400 °F) | **- Note:** With fluorocarbon seals |
| | -54 to 107 °C (-65 to 225 °F) | **- Note:** With polyurethane seals |
| Storage temperature | -40 to 70 °C (-40 to 160 °F) | |
| Ambient temperature | -40 to 70 °C (-40 to 160 °F) | |

**Other Ratings**

| | |
|---|---|
| Corrosion protection | 960 hr salt spray per ASTM b117 (model number gnv08-20xx) |

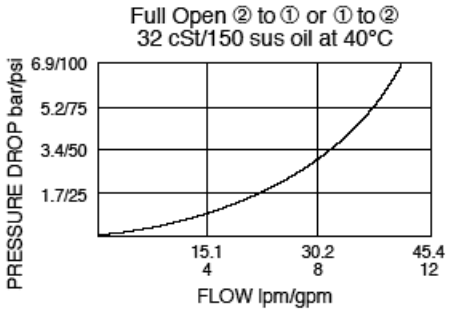
## Operating Parameters

| | |
|---|---|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per iso4406 |

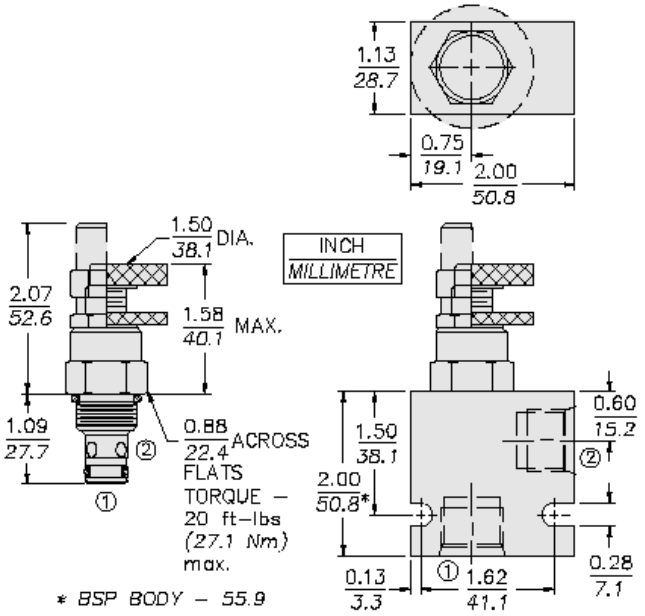
## Properties

| | | |
|---|---|---|
| Adjustment torque | 0.6 N-m (5 in-lb) | **- Note:** At 7 bar (100 psi) |
| | 5.4 N-m (48 in-lb) | **- Note:** At 207 bar (3000 psi) |
| Unit weight | 0.12 kg (0.26 lb) | **- Note:** Option A |
| Internal wetted surface area | 60.4 cm² (9.36 in²) | |

## Performance




## Dimensions




## Materials

**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.

## Installation Specifications

| | |
|---|---|
| Cavity | VC08-2 |
| Cartridge installation torque | 27 N-m (20 ft-lb) |
| Maximum allowable torque | 47.5 N-m (35 ft-lb) |
| Orientation restriction | None |

## Accessories

| | | |
|---|---|---|
| Seal kit | SK08-2X-M | **- Note:** X = seal option |
| Housings | | |

## Order Code

| POSITION | CODE | DESCRIPTION |
|---|---|---|
| | | NV08-20FG-H-J |
| F | | Adjustment Option |
| F | A | 1/4" Hex Allen Head |
| F | B | 1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob |
| F | C | 1/4" Hex Allen Head with Cover Cap |
| F | D | 1-1/2" Diameter Aluminum Knob with Lock Nut |
| F | E | 1-1/2" Diameter Aluminum Knob Only |
| F | L | 1/4" Hex Allen Head with Cover Cap and Lockwire Holes |
| G | | Screen |
| G | BLANK | NONE |
| G | S | 100 Mesh Screen |
| H | | Line Body |
| H | 0 | No Body |
| H | 4T | Aluminum SAE 4 |
| H | 6T | Aluminum SAE 6 |
| H | 8T | Aluminum SAE 8 |
| H | 6TD | Ductile Iron SAE 6 |
| H | 8TD | Ductile Iron SAE 8 |
| H | 2B | Aluminum BSPP 1/4" (2) |
| H | 3B | Aluminum BSPP 3/8" (3) |
| H | 3BD | Ductile Iron BSPP 3/8" (3) |
| J | | Seal |
| J | N | Buna-N |
| J | V | Fluorocarbon |
| J | P | Polyurethane |
| J | U | PPDI Urethane |

