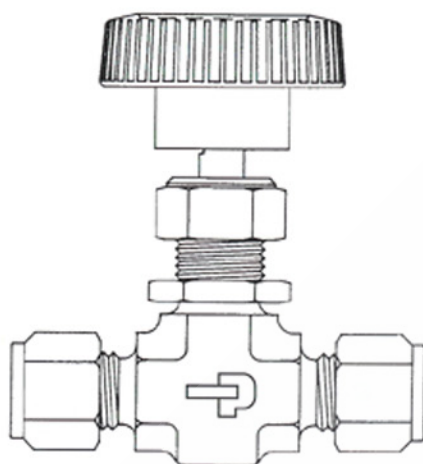


General Purpose Needle Valve



Features

- Tapered bore packing allows for reduced torque and longer packing life*
- Choice of three stems
 - R-Stem – All metal, blunt end, on/off service
 - N-Stem – All metal, tapered needle, regulating service
 - K-Stem – Kel-F®[®], soft seat, on/off service
- Valve Series: V2, V4, V6, V8, V12
- Inline and angle patterns standard
- Available with CPI, A-lok, male and female NPT end connections in sizes 1/8" thru 1/2"
- Panel mountable
- Color coded handles – optional T-bar handle† available
- 316 stainless steel, steel, Monel and Brass construction are standard

Specifications

- Pressure Rating:
 - 316 SS: 5000 psig CWP
 - Steel: 5000 psig
 - Brass: 3000 psig
 - Monel: 5000 psig
- Temperature Rating:
 - R and N stem: -65°F to 400°F
 - K stem: -65°F to 350°F
 - Buna-N Packing: -30°F to 250°F
 - EPR Packing: -70°F to 275°F
 - Teflon® Packing: -65°F to 400°F
 - Viton® Packing: -15°F to 400°F
- Orifice: .078 to .312
- Cv Factor: .08 to 1.66

*Size 2 needle valve does not incorporate the tapered packing design

†An Aluminum T-bar handle is standard with metal stem tips in the V8-V12 series designs

How to Order

The correct part number is easily arrived at by following the number dot sequence. The six product characteristics needed are coded as shown below.

Examples: 4M4A - V4L R - B
 ① ② ③ ④ ⑤ ⑥

Describes V4L Series valve, brass, blunt stem, 1/4" male NPT inlet port, 1/4" A-lok (1/4" tube) outlet port, and a Teflon® packing.

Examples: 6Z - V4A N - SS
 ① ② ③ ④ ⑤ ⑥

Describes V4A Series valve, stainless steel, needle stem, 3/8" CPI (3/8" tube) inlet and outlet ports, and a Teflon® packing.

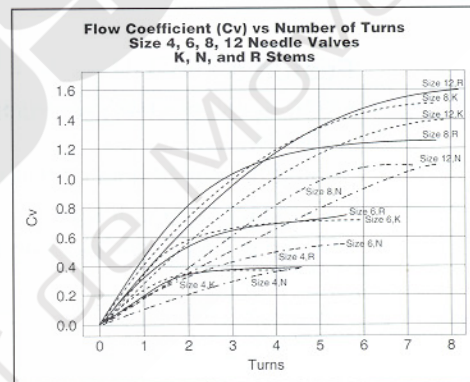
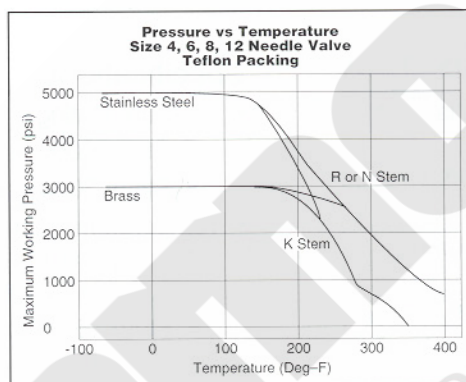
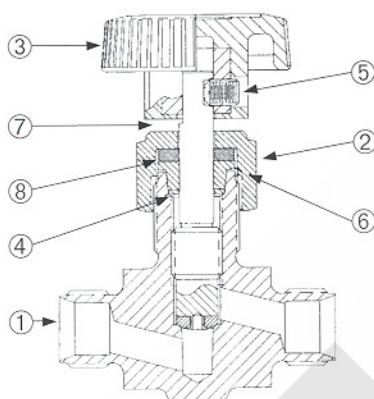
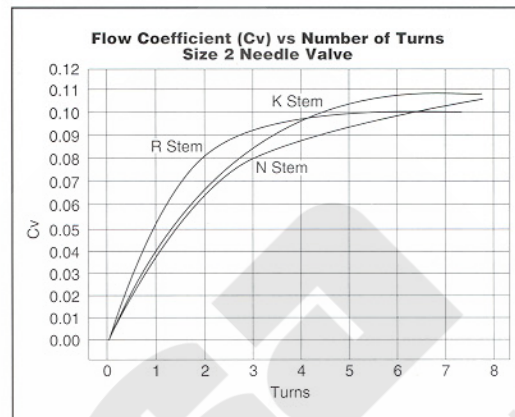
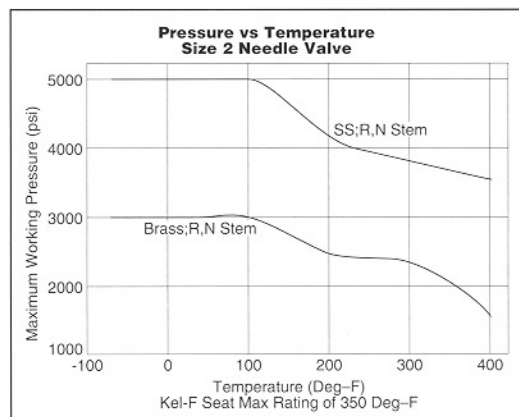
Size	① Inlet Port Machining	② Outlet Port Machining	③ Valve Series	④ Stem Type 4	⑤ Packing	⑥ Body Material
2	A-A-lok (tube) double ferrule		V2L, V2A	R-Blunt (30°)	Blank-Teflon®	SS-316 Stainless
4	M-Male pipe (NPT)		V4L, V4A	N-Needle (2-1/2°)	BN-Buna-N	Steel
6	F-Female pipe (NPT)		V6L, V6A	K-Kel-F®	EPR-Ethylene	B-Brass
8	Z-CPI (Tube) single ferrule		V8L, V8A		Propylene	S-Steel
			V12L, V12A		V-Viton®	M-Monel

Note: Port sizes are in sixteenths of an inch-O.D. for tube and nominal I.D. for pipe. If both ports are same size and machining, only inlet port is called out. Panel mounting nuts must be ordered separately.

Note: Size 2 needle valve available only in 316 SS and brass.

Note: Standard nylon handle is black. For colored nylon handles, add the following designations to the end of the part number: R-red; B-blue; G-green; Y-yellow; W-white. Example: 4M-V4LK-SS-R.

Needle Valve



Materials of Construction

Item #	Part Description	316 SS	Brass	Steel	Monel
1	*Body forged (Barstock - V2)	ASME-SA-182, Type F316 (ASTM-A-470, Type 316)	ASTM-B-124 Copper Alloy #377 (ASTM-B-453)	ASTM-A-108 Grade 12L14	ASME SB-564
2	Packing Nut	ASME-SA-479, Type 316	ASTM-B-16 Copper Alloy #360	ASTM-A-108, Grade 12L14	ASTM-B-164
3	Handle	Nylon 6/6 with SS insert	Nylon 6/6 with SS insert	Nylon 6/6 with SS insert	Nylon 6/6 with SS insert
4	Lower Packing Washer	ASME-SA-479, Type 316	ASME-SA-479, Type 316	ASME-SA-479, Type 316	ASTM-B-164
5	Set Screw	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
6	Packing	Teflon® (PTFE), Viton, EPR, Buna-N	Teflon® (PTFE), Viton, EPR, Buna-N	Teflon® (PTFE), Viton, EPR, Buna-N	Teflon® (PTFE), Viton, EPR, Buna-N
7	Stem	ASME-SA-276, Type 316	ASME-SA-276, Type 316	ASME-SA-276, Type 316	ASTM-B-164
7A	Soft Seat (K-Stem)	Kel-F® (CTFE)	Kel-F® (CTFE)	Kel-F® (CTFE)	Kel-F® (CTFE)
8**	Upper Packing Washer	Commercial Brass	Commercial Brass	Commercial Brass	Commercial Brass
9	Panel Nut	ASTM-B-16 nickel plated	ASTM-B-16 nickel plated	ASTM-B-16 nickel plated	ASTM-B-16 nickel plated

*Body for V2 series needle valve is barstock - all other sizes are forgings

**Upper Packing Washer is Stainless Steel in the V2 Series design