

Needle Valves Series N and NS

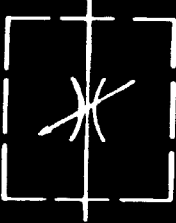
Colorflow® Needle Valves Series N and NS

These valves provide excellent speed control and shutoff for hydraulic and pneumatic applications where a reverse-flow check valve is not required. They also take minimum space for installation, conserving space.

The two-step needle valve allows fine tuning at low flow with the first three turns of the adjusting knob, with full-open flow plus conventional precision throttling with the final three turns of the knob.

Exclusive "Colorflow" color bands permit fast, accurate setting and time-saving return to a previous setting.

Available in brass and steel. Brass types are suitable for both air and oil.



Left: Series NS for subplate mounting

Right: Series N for inline mounting

Maximum working pressures:

Steel: Inline 200-800 Sizes: 5000 PSI
Inline 1020-2400 Sizes: 3000 PSI
Subplate All Sizes: 3000 PSI

Brass: 2000 PSI (140) Bar), except
500 PSI (34 Bar) for N1600 Brass

Needles: Standard Needle on all models. Fine needle optional on Models N400, 600, 620, 820.

Quick Reference Data Chart

Valve Model	Flow, max. GPM (L/M)	Effective Orifice Area Control Flow (Sq. In.)	Effective Control Flow Cv	Port Size, Inches
N200 •	3 (11)	.0102	.0230	1/8 NPTF
N400 •	5 (19)	.0194	.443	1/4 NPTF
NS400 •				1/4
N620 •				9/16-18 UNF (SAE 6)
N600 •	8 (30)	.0344	.787	3/8 NPTF
NS600 •				3/8
N820 •				3/4-16 UNF (SAE 8)
N800 •	15 (57)	.0427	.976	1/2 NPTF
NS800 •				1/2
N1020 •				7/8-14 UNF (SAE 10)
N1200 •	25 (95)	.1080	2.470	3/4 NPTF
NS1200 •				3/4
N1220 •				1-1/16-12 UNF (SAE 12)
N1420 •	30 (114)	.1500	3.420	1-3/16-12 UN (SAE 14)
N1600 •	40 (151)	.2300	5.250	1 NPTF
NS1600 •				1
N1620 •	40 (151)	.3070	7.000	1-5/16-12 UN (SAE 16)
N2000 •	70 (264)	.2300	5.250	1-1/4 NPTF
N2020 •	70 (264)	.3710	8.470	1-5/8-12 UN (SAE 20)
N2400 •	100 (379)	.2300	5.250	1-1/2-11-1/2 NPTF

*Coast Guard Acceptance-Steel.

Manatrol Division
Elyria, OH 44035

Parker Fluidpower

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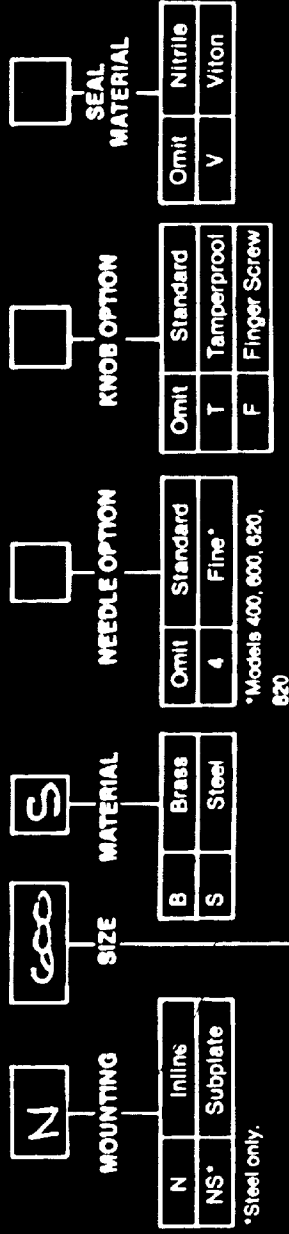
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Needle Valves Series N and NS

Ordering Information

Needle Valves Series N and NS

Example: "N600BY" means Inline needle valve, 3/8", brass, Viton seal, Standard needle.



200† - 1/8"	820† - SAE 8	1600 - 1"
400 - 1/4"	1020† - SAE 10	1620† (SAE 16)
600 - 3/8"	1200 - 3/4"	2000† - 1-1/4"
820† - SAE 6	1220† - SAE 12	2020† (SAE 20)
800 - 1/2"	1420† - SAE 14	2400† - 1-1/2"

†Not Available in Subplate Mounting
Note: Brass valves available only in N200, 400, 600, 800, 1200 and 1600 sizes.

Accessories

Subplates

Valve	Subplate	Ports	Location
NS400	001229-2	1/4" NPTF	Bottom
NS600	004170-2	3/8" NPTF	Bottom
NS800	007111-2	1/2" NPTF	Bottom
NS1200	010655-2	3/4" NPTF	Bottom
NS1600	025075-2	1" NPTF	Bottom

Bolt Kits

Valve	Bolt Kit	Bolt Specification*	Bolt Torque
NS400	BK01	1/4-20 x 1-1/4"	9 Ft.-Lbs.
NS600	BK02	1/4-20 x 1-1/2"	9 Ft.-Lbs.
NS800	BK02	1/4-20 x 1-1/2"	9 Ft.-Lbs.
NS1200	BK05	5/16-18 x 1-3/4"	19 Ft.-Lbs.
NS1600	BK06	5/16-18 x 2-1/4"	19 Ft.-Lbs.

*Use SAE Grade 8 or Better.

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