

150 SERIES



- Compact size valve built for maximum durability and robust performance in the toughest applications
- 100% helium leak tested to 1×10^{-4} ml/s for guaranteed performance and reliability
- Soft tip valves feature a patented Delrin® non-rotating soft tip stem, and a back-up metal-to-metal seal (**U.S. Patent 6,820,857**)
- Maximum pressure of 6,000 psi
- Available in zinc-nickel plated steel, electropolished stainless steel, and brass
- FKM o-ring seal and PTFE back-up ring below the stem threads to protect from corrosion and galling; PTFE packing optional
- All stems are 316 stainless steel
- All stem threads are rolled for strength and ease of operation
- Patented body-to-bonnet, metal-to-metal seal is designed to significantly increase the pressure range of the valve (**U.S. Patent 7,758,014**)

SPECIFICATIONS

Materials	Zinc-nickel plated steel, electropolished 316 stainless steel, 360 brass
Connections	1/8" NPT, 1/4" NPT, 7/16"-20 UNF-2B, 9/16"-18 UNF-2B Male-male, Male-female, Female-female, in-line and angled configurations
Pressure ratings	6,000 psi @ 200 °F
Orifice size	0.172"
Flow coefficient	C _v 0.42
Stem seal & type	All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE packing optional
Options	Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips

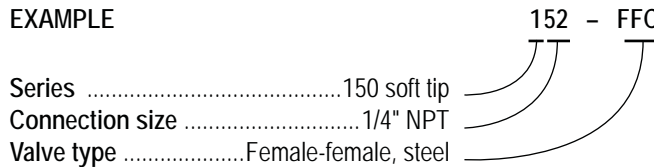
NOTE: All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

ORDERING INFORMATION					
SERIES	1 150 Series, soft tip				
CONNECTION SIZES	51 1/8" NPT	92 7/16"- 20 UNF-2B*	52 1/4" NPT	93 9/16"- 18 UNF-2B*	
VALVE TYPES	MMB Male-Male, Brass	MFC Male-Female, Steel	MFS Male-Female, Stainless Steel	EMFB Extended Male-Female, Brass	EMFS Extended Male-Female, Stainless Steel
	MFB Male-Female, Brass	EMFC Extended Male-Female, Steel	EMFS Extended Male-Female, Stainless Steel	FFB Female-Female, Brass	FFS Female-Female, Stainless Steel
	EFFB Extended Female-Female, Brass	FFC Female-Female, Steel	FFS Female-Female, Stainless Steel	EFFC Extended Female-Female, Brass	EFFS Extended Female-Female, Stainless Steel
	MMAB Male-Male Angle, Brass	MMAC Male-Male Angle, Steel	MMAS Male-Male Angle, Stainless Steel	MFAB Male-Female Angle, Brass	MFAS Male-Female Angle, Stainless Steel
	MFAC Male-Female Angle, Steel	MFAS Male-Female Angle, Stainless Steel	FFAB Female-Female Angle, Brass	FFAC Female-Female Angle, Steel	FFAS Female-Female Angle, Stainless Steel
	MMC Male-Male, Steel	MMS Male-Male, Stainless Steel			

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

* Available only on EFFB, EFFC and EFFS valve types.

EXAMPLE



To meet all of your specific application requirements, the following additional options are available for these needle valves. To order all or any of these options, simply add them to the part number as shown in the diagram below.

NOTE 1: The example shown includes ALL possible additional options. Please include ONLY the options required for your application when building your part number. (EXAMPLE: 152-MFC-HL3)

NOTE 2: When a packing option is selected, an o-ring option is NOT available.

ORDERING INFORMATION - Additional Options						
PACKINGS	P1	PTFE				
STEM TIPS	T3	PCTFE	T10	Regulating Delrin®	T12	Regulating PEEK
	T4	PEEK	T11	Regulating PCTFE		
O-RINGS*	EM1	EPDM	KZ1	FFKM (Kalrez® 3018 or equivalent)	NB1	NBR
PANEL MOUNTINGS	PM1	Panel mount (1 nut)	PM2	Panel mount (2 nuts)		
HANDLES	HL3	1" Round knurled				

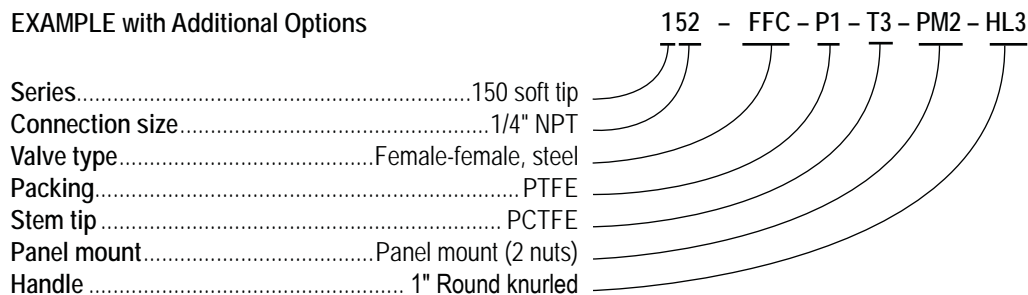
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

* Other o-ring materials available on request.

Please note that the standard o-ring in all the NOSHOK mini valves is FKM and the standard handles are brass round knurled handles (HL3), steel mini "T" handles (HL1), and 316SS mini "T" handles (HL1).

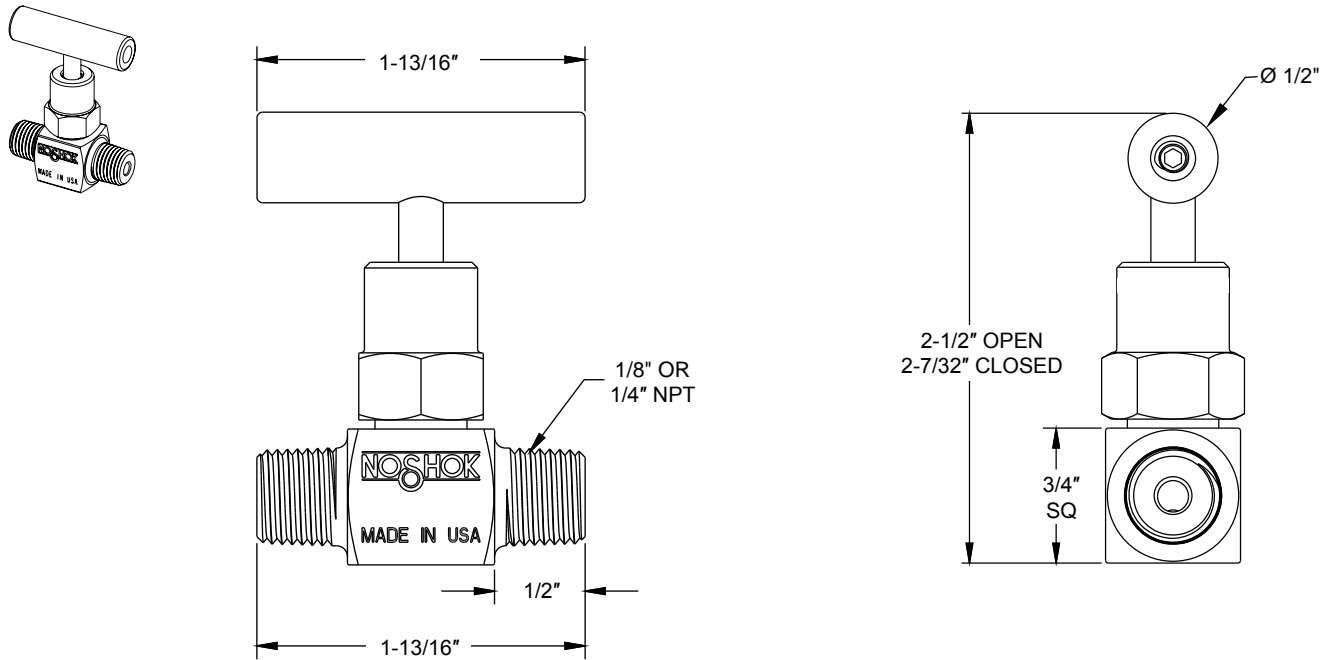
The handle material will always match the material of the valve, unless otherwise specified. For example, the round knurled (HL3) on a 152-FFB will be brass. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.

EXAMPLE with Additional Options

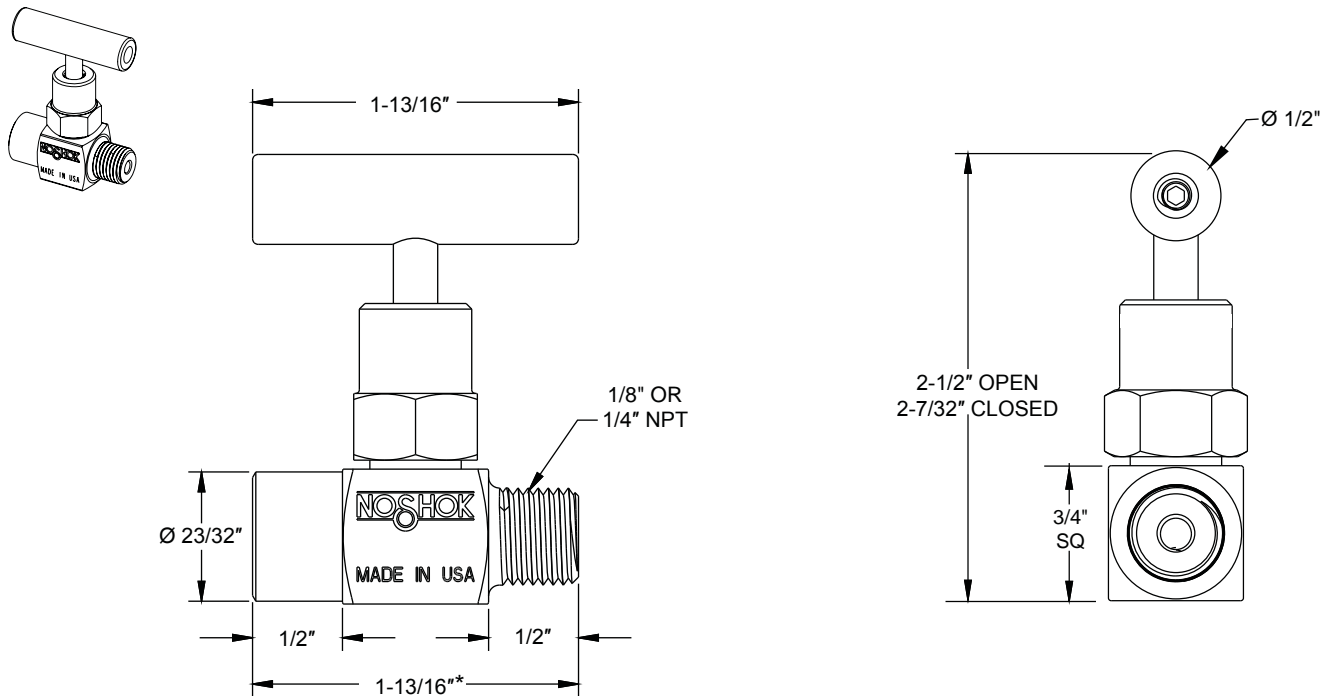


Dimensions

Male-Male

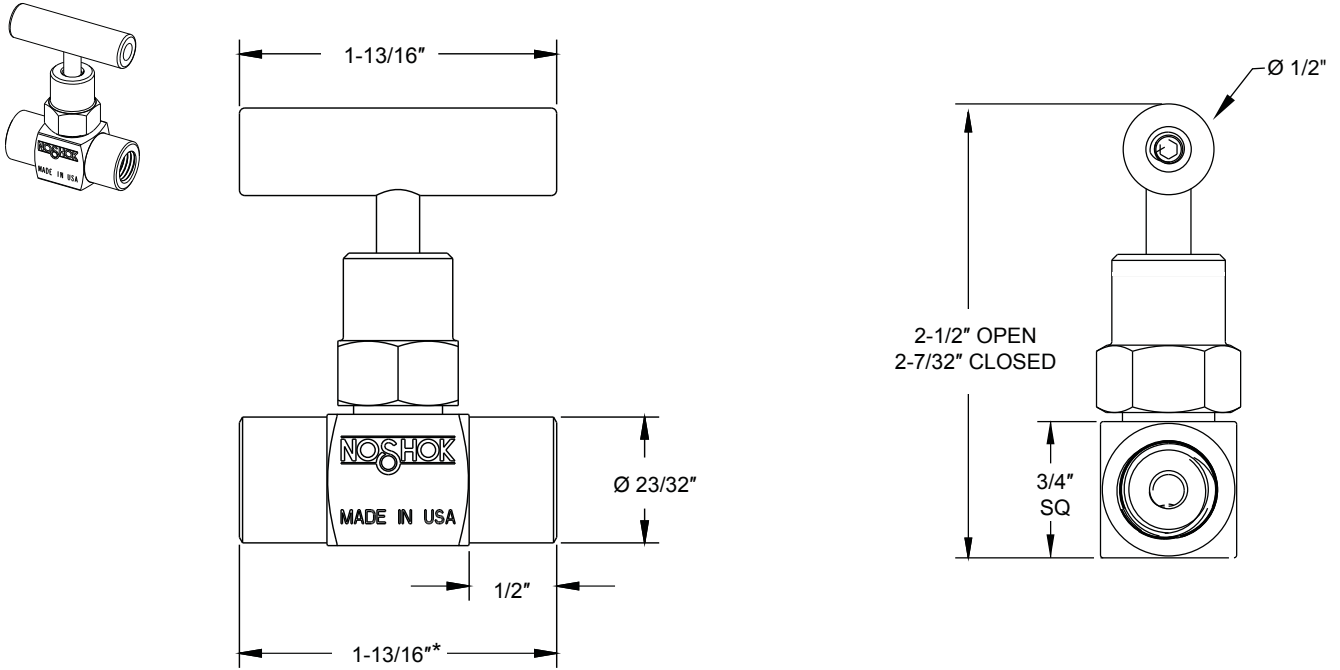


Male-Female



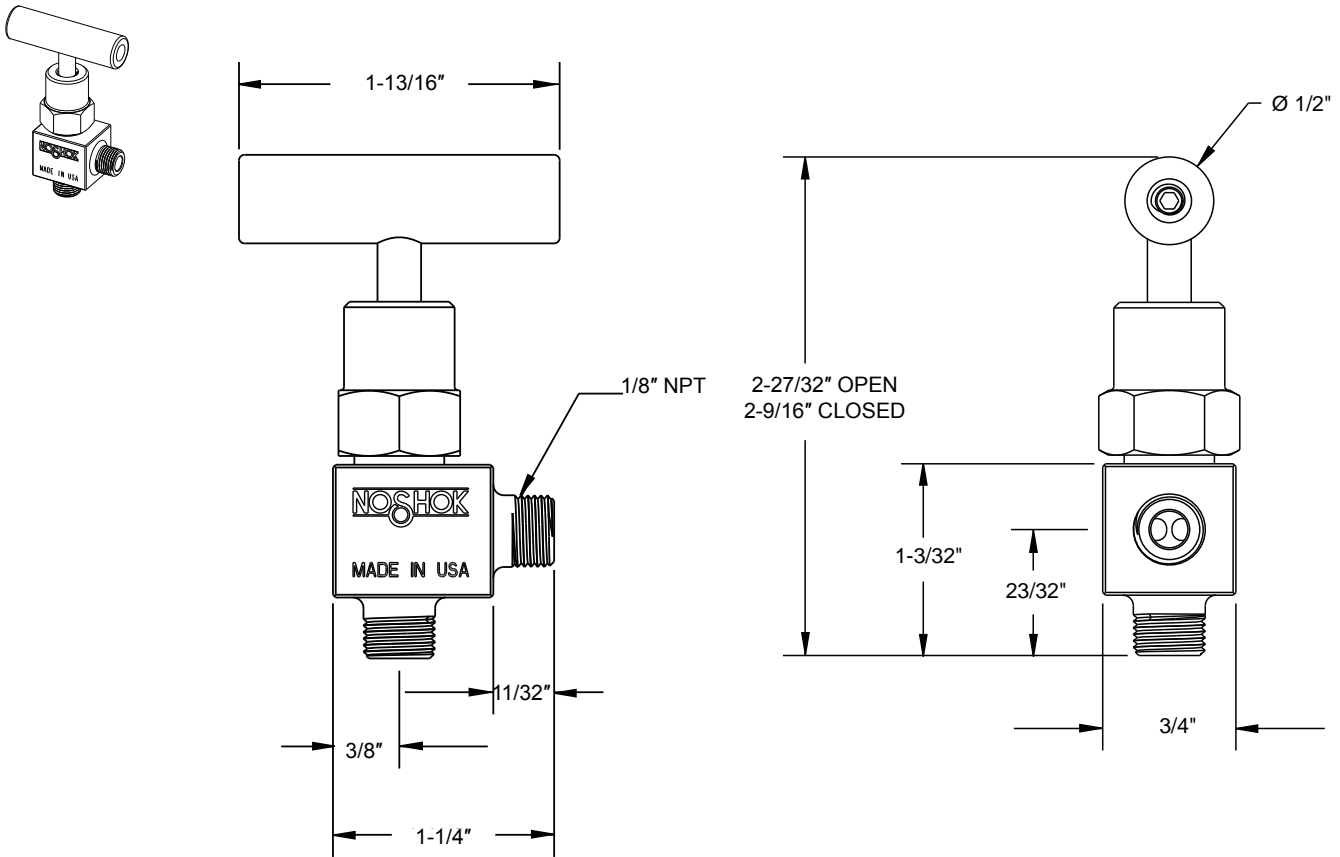
*Dimension on extended version is $2\text{-}1/4"$

Female-Female



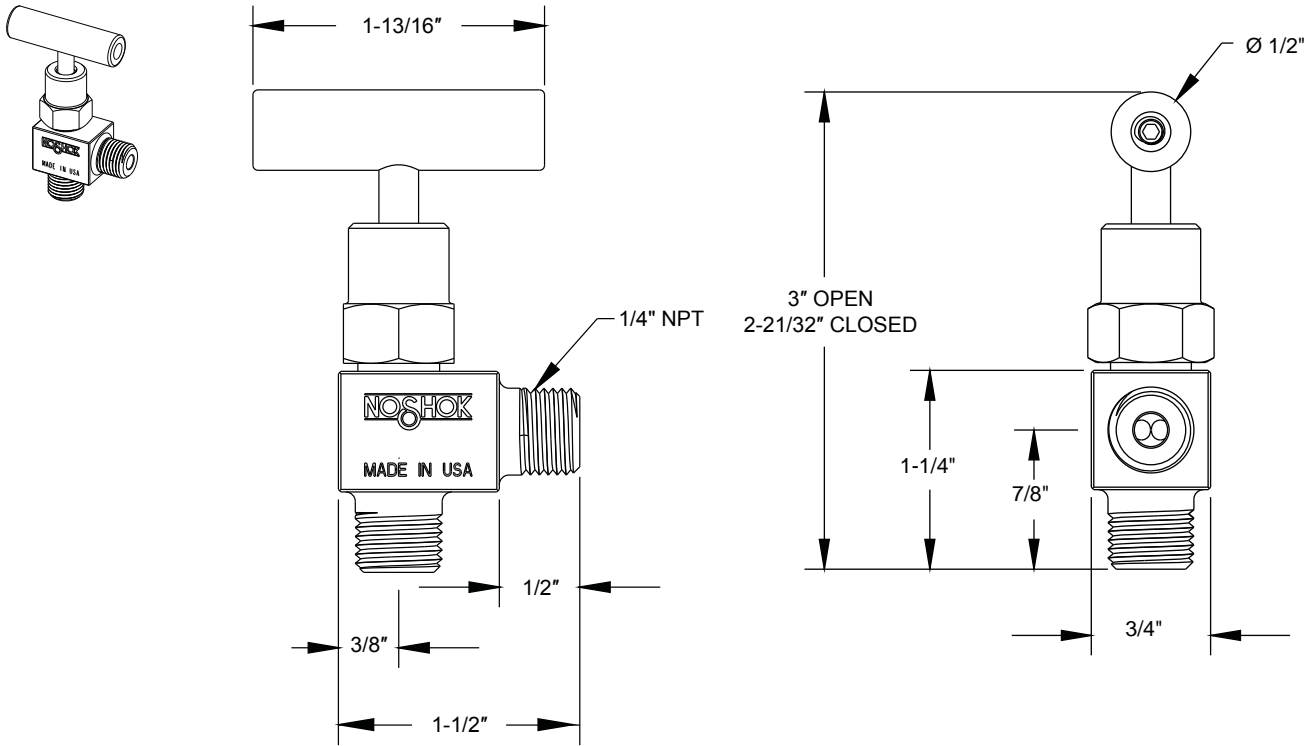
*Dimension on extended version is 2-1/4"

1/8" Male-Male Angle

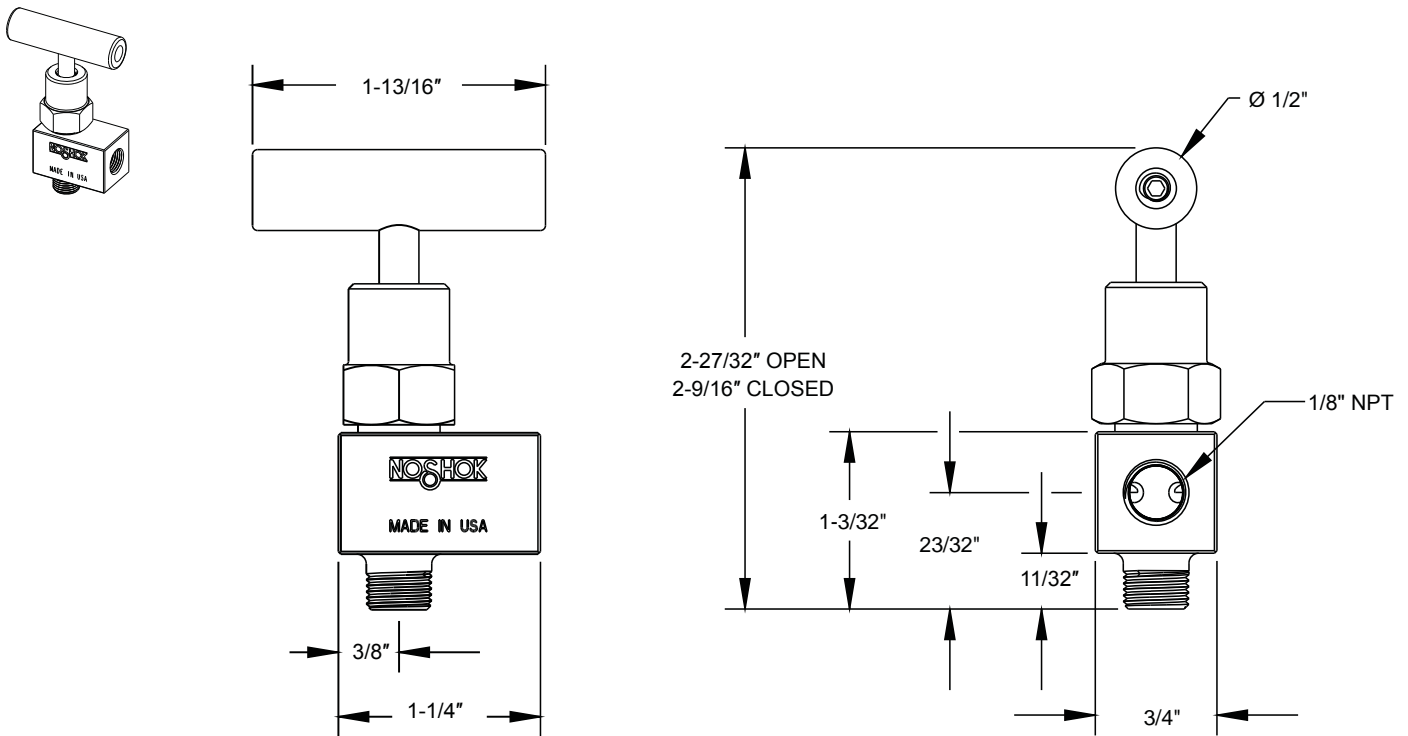


Dimensions

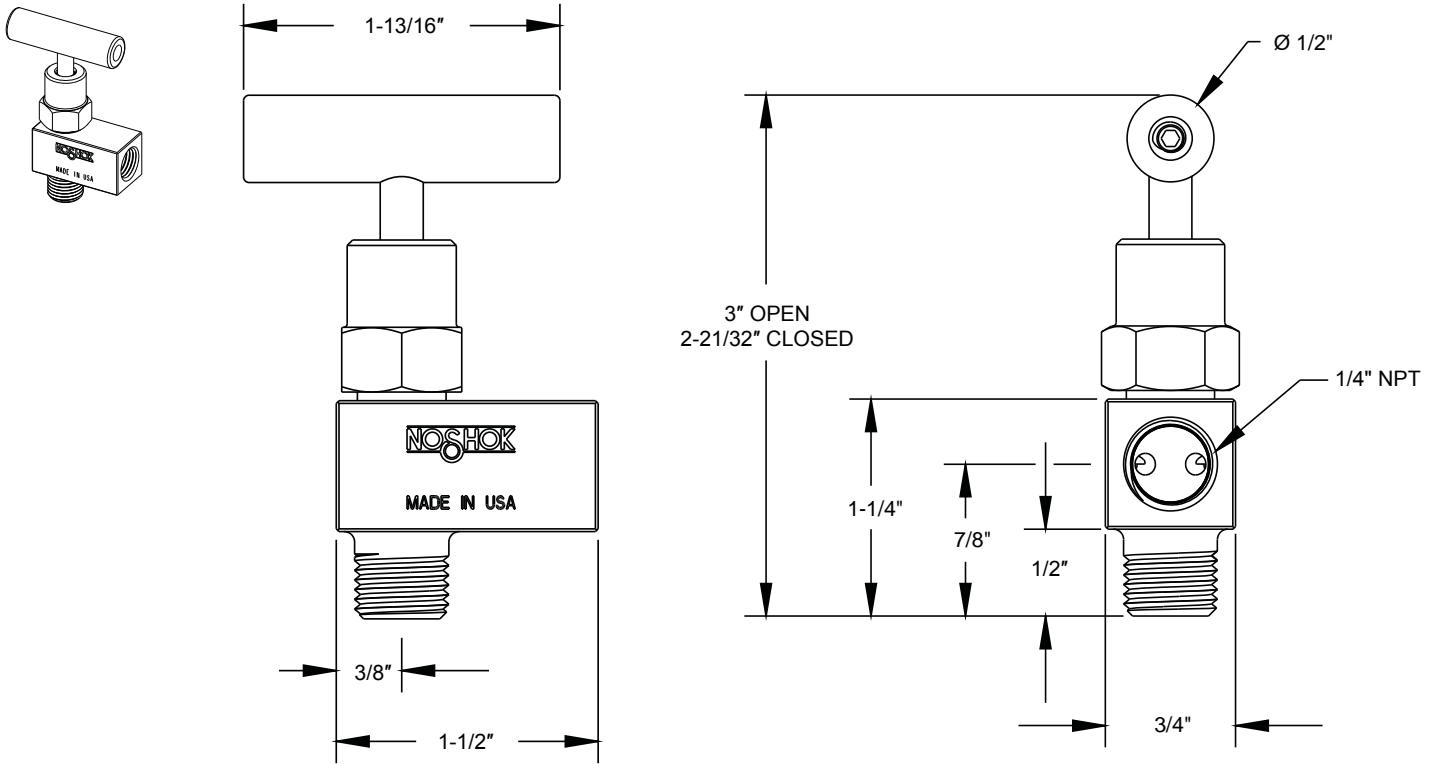
1/4" Male-Male Angle



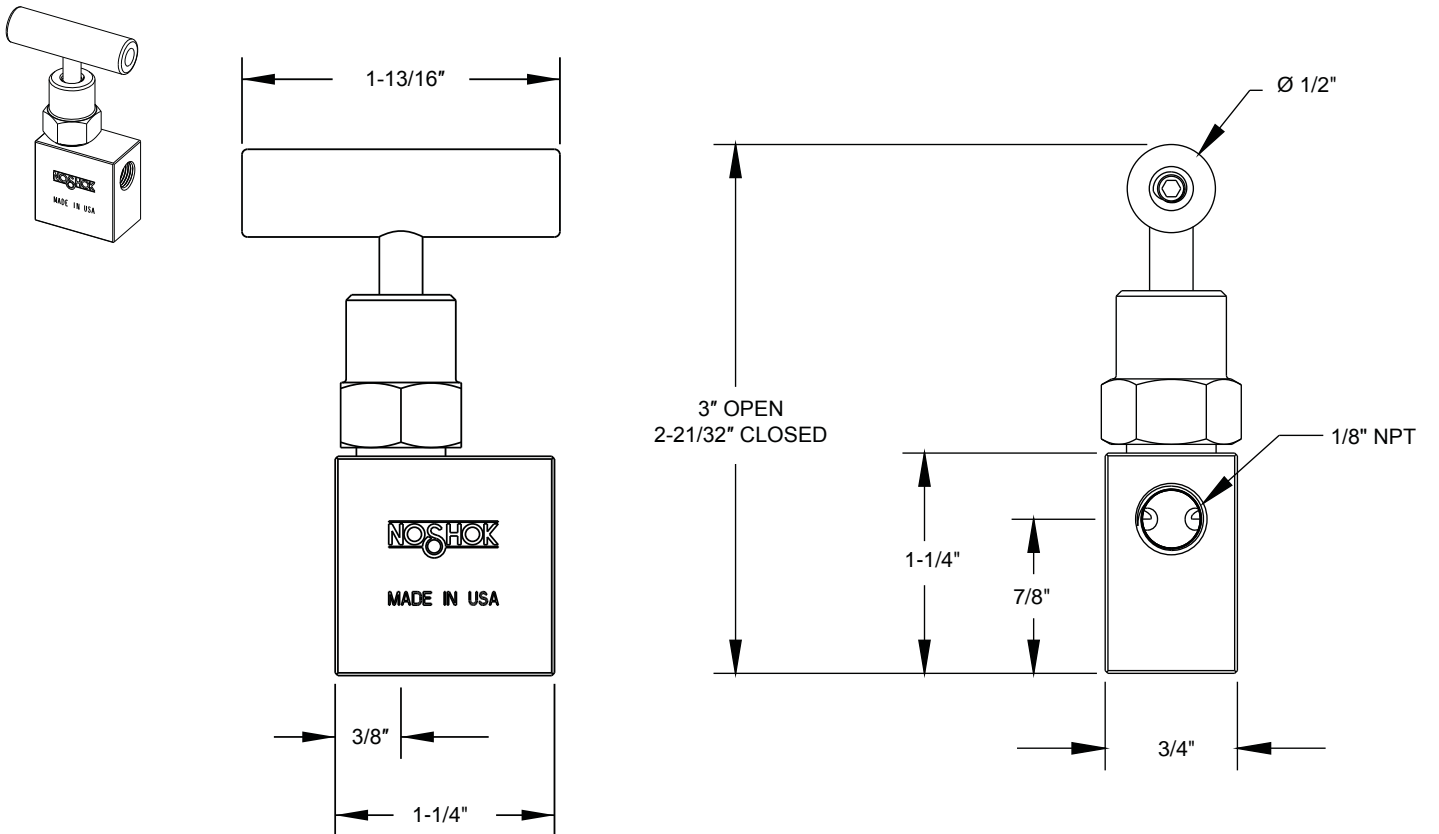
1/8" Male-Female Angle



1/4" Male-Female Angle

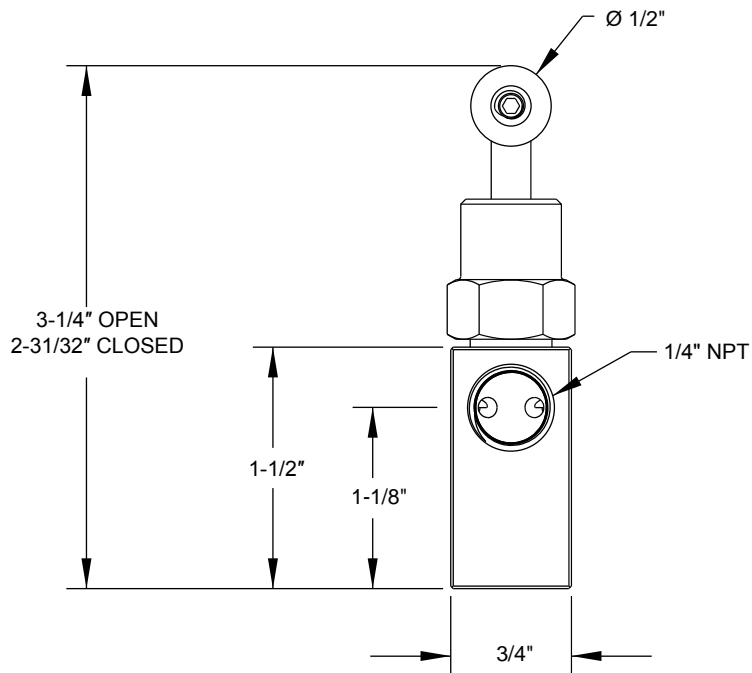
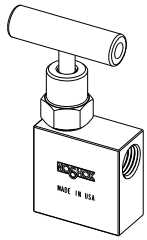


1/8" Female-Female Angle



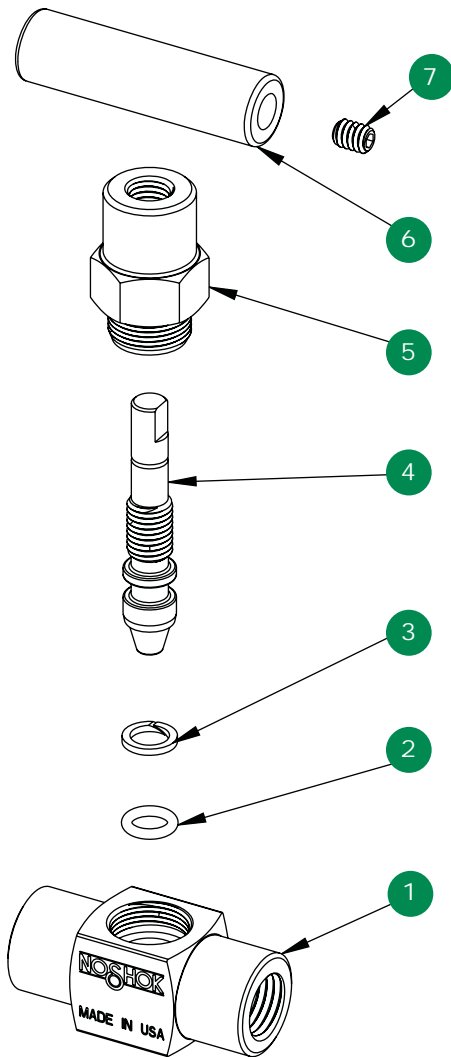
Dimensions

1/4" Female-Female Angle

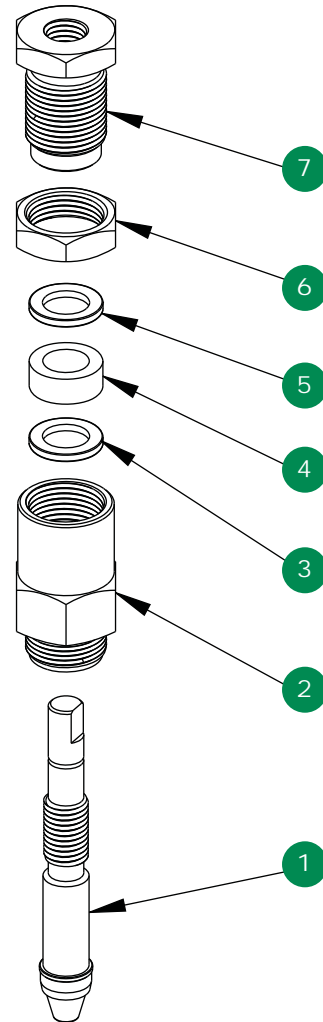


Mini, Soft Tip

Option With Packing



- 1 Mini valve body
- 2 FKM o-ring
- 3 PTFE back-up ring
- 4 Soft tip stem
- 5 Mini valve bonnet
- 6 Mini valve "T" handle
- 7 Set screw



- 1 Soft tip packing stem
- 2 Mini valve packing bonnet
- 3 Packing washer
- 4 Packing washer
- 5 Packing washer
- 6 Jam nut
- 7 Packing adjustment screw