

## 150 SERIES



- Compact size valve built for maximum durability and robust performance in the toughest applications
- 100% helium leak tested to  $1 \times 10^{-4}$  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 rating	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
Weight	Approximately 0.5 lb.

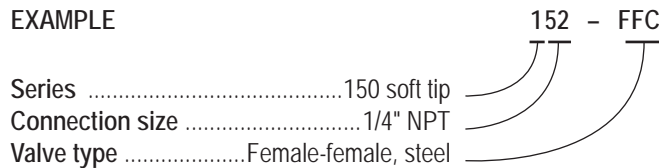
NOTE: All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

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
	MFB	Male-Female, Brass	EMFC	Extended Male-Female, Steel
	FFB	Female-Female, Brass	FFC	Female-Female, Steel
	EFFB	Extended Female-Female, Brass	EFFC	Extended Female-Female, Steel
	MMAB	Male-Male Angle, Brass	MMAC	Male-Male Angle, Steel
	MFAB	Male-Female Angle, Brass	MFAC	Male-Female Angle, Steel
	FFAB	Female-Female Angle, Brass	FFAC	Female-Female Angle, Steel
	MMC	Male-Male, Steel	MMS	Male-Male, Stainless Steel
			MFS	Male-Female, Stainless Steel
		EMFS	Extended Male-Female, Stainless Steel	
		FFS	Female-Female, Stainless Steel	
		EFFS	Extended Female-Female, Stainless Steel	
		MMAS	Male-Male Angle, Stainless Steel	
		MFAS	Male-Female Angle, Stainless Steel	
		FFAS	Female-Female Angle, 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				
PACKING	P1	PTFE		
STEM TIPS	T3	PCTFE	T10	Regulating Delrin®
	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)
HANDLE	HL3	1" Round knurled		

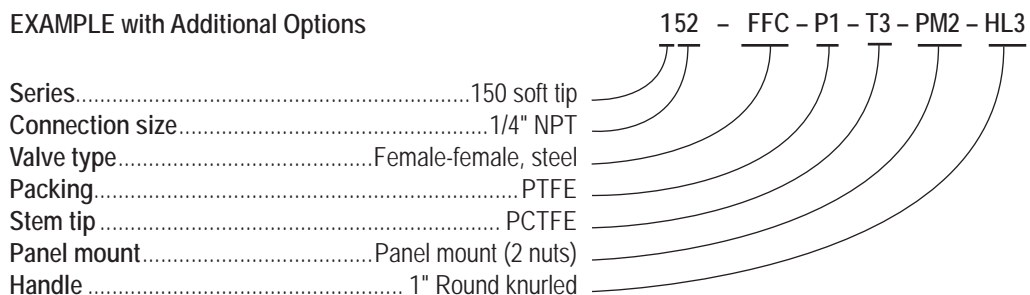
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

\* 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 1-3/8" mini "T" handles (HL7), and 316SS 1-3/8" mini "T" handles (HL7).

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.

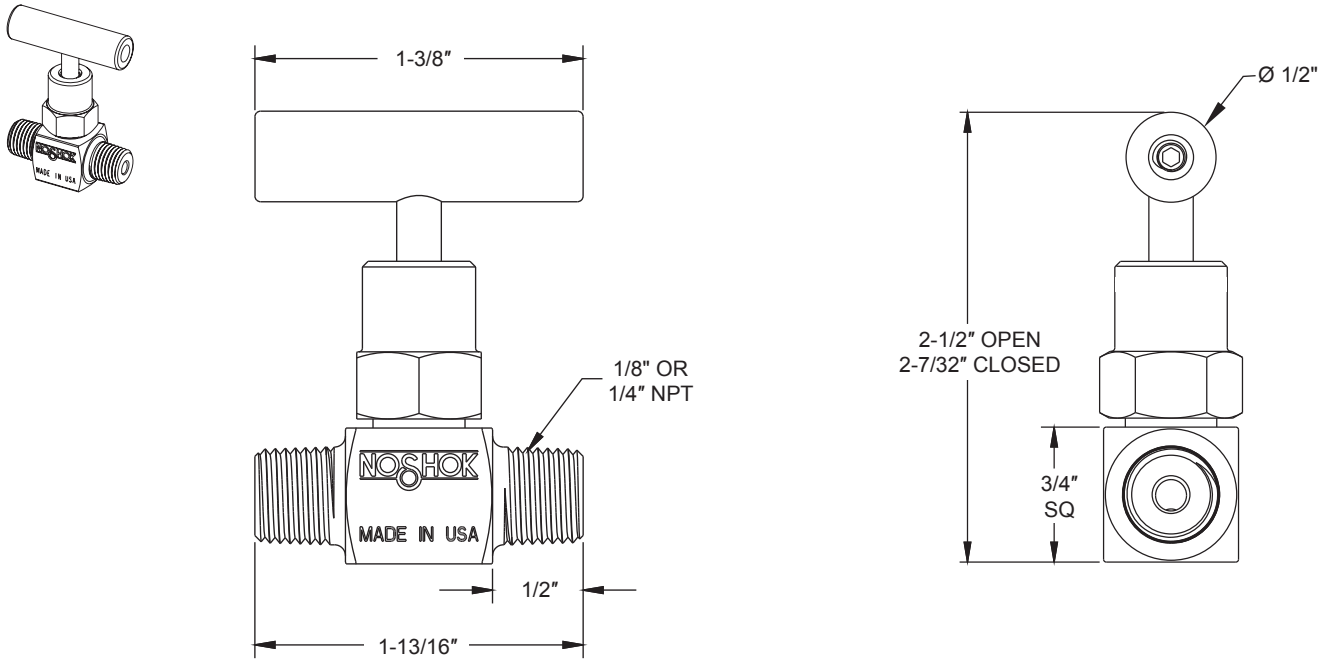
**EXAMPLE with Additional Options**



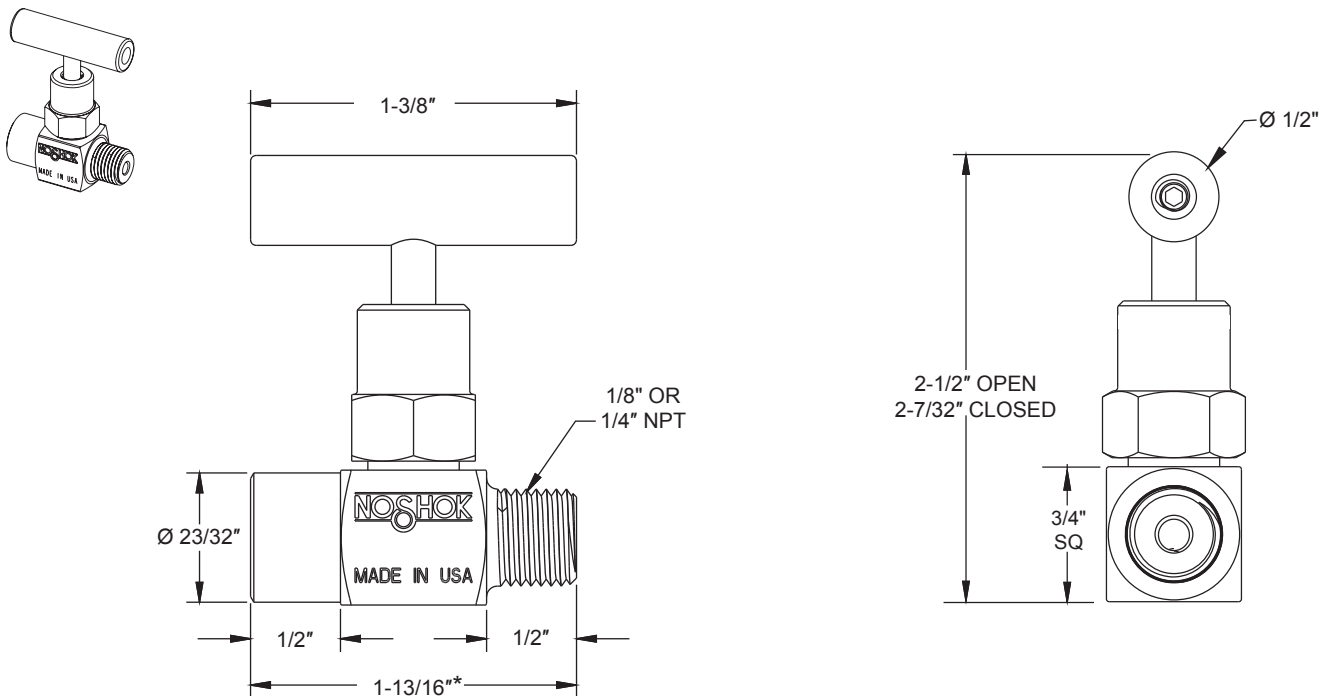
# Needle Valves

## Dimensions

### Male-Male

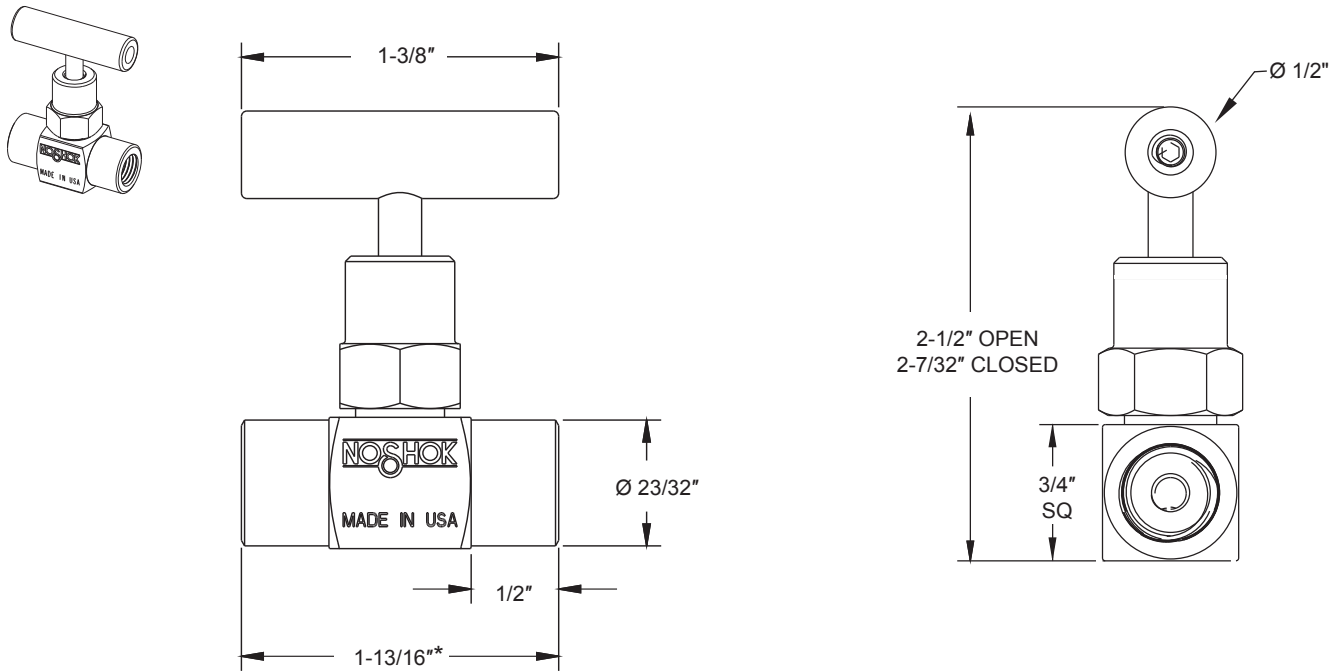


### Male-Female



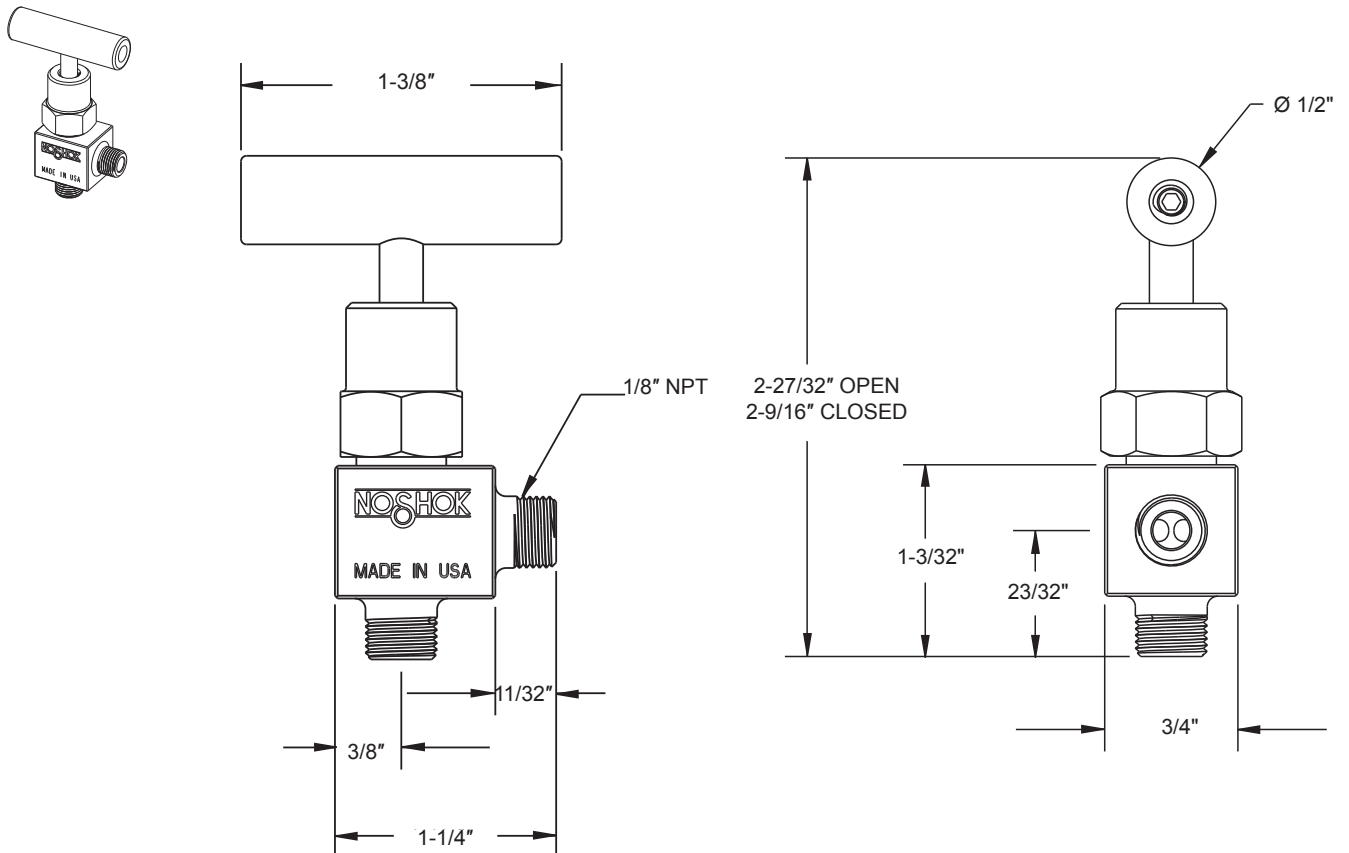
\*Dimension on extended version is 2-1/4"

## Female-Female



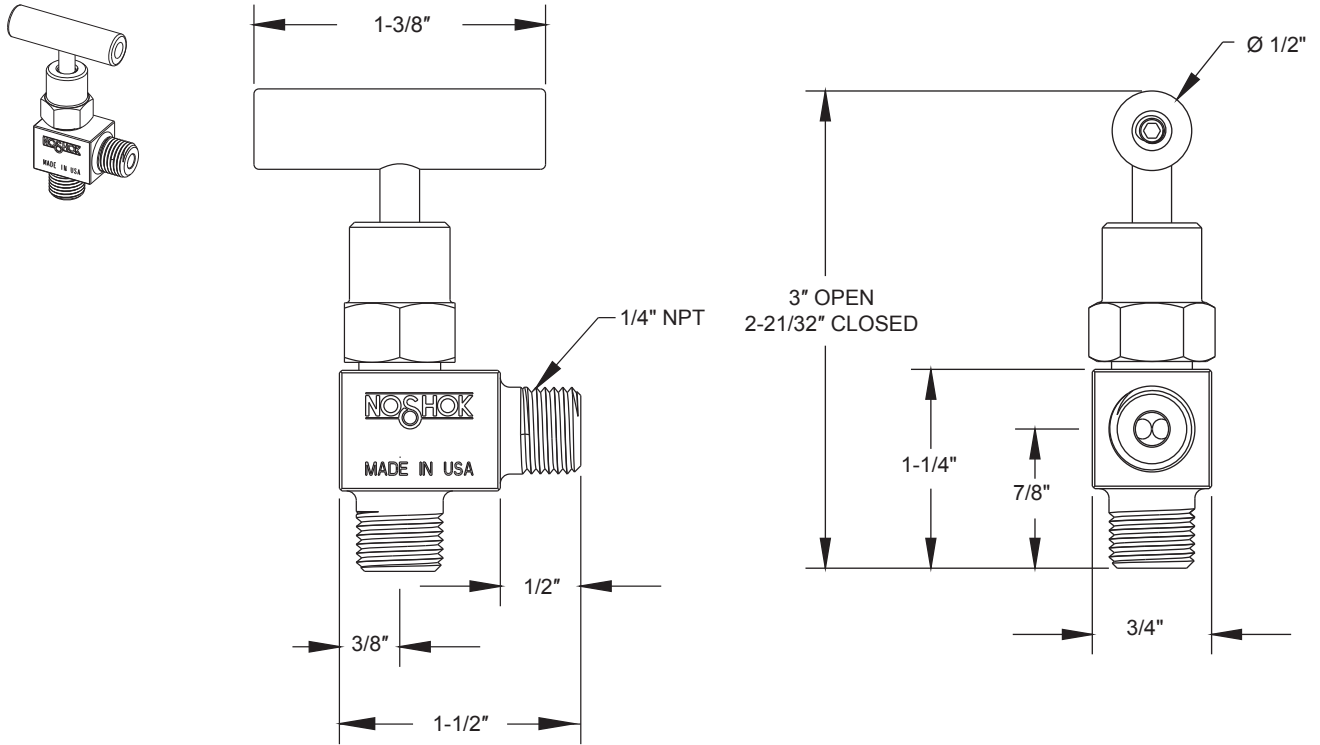
\*Dimension on extended version is 2-1/4"

## 1/8" Male-Male Angle

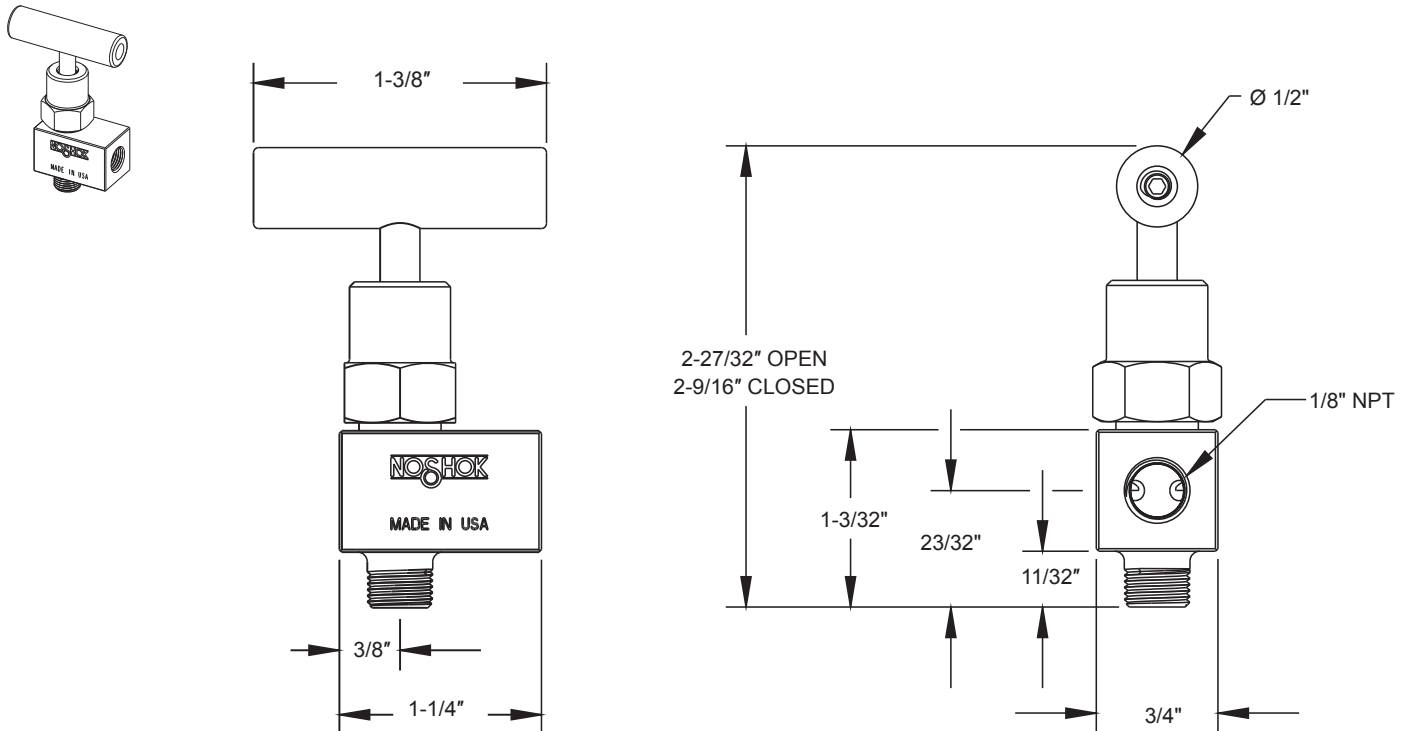


# Dimensions

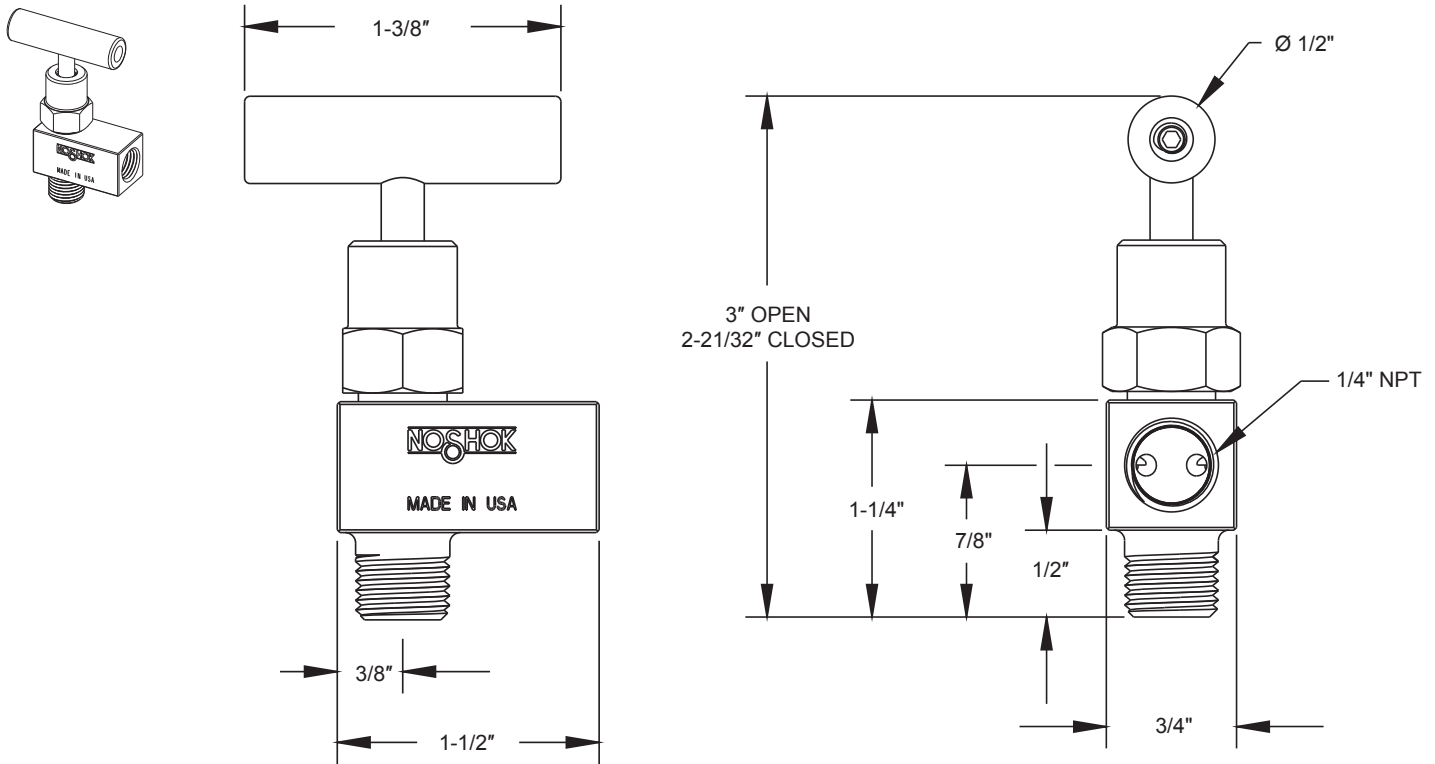
## 1/4" Male-Male Angle



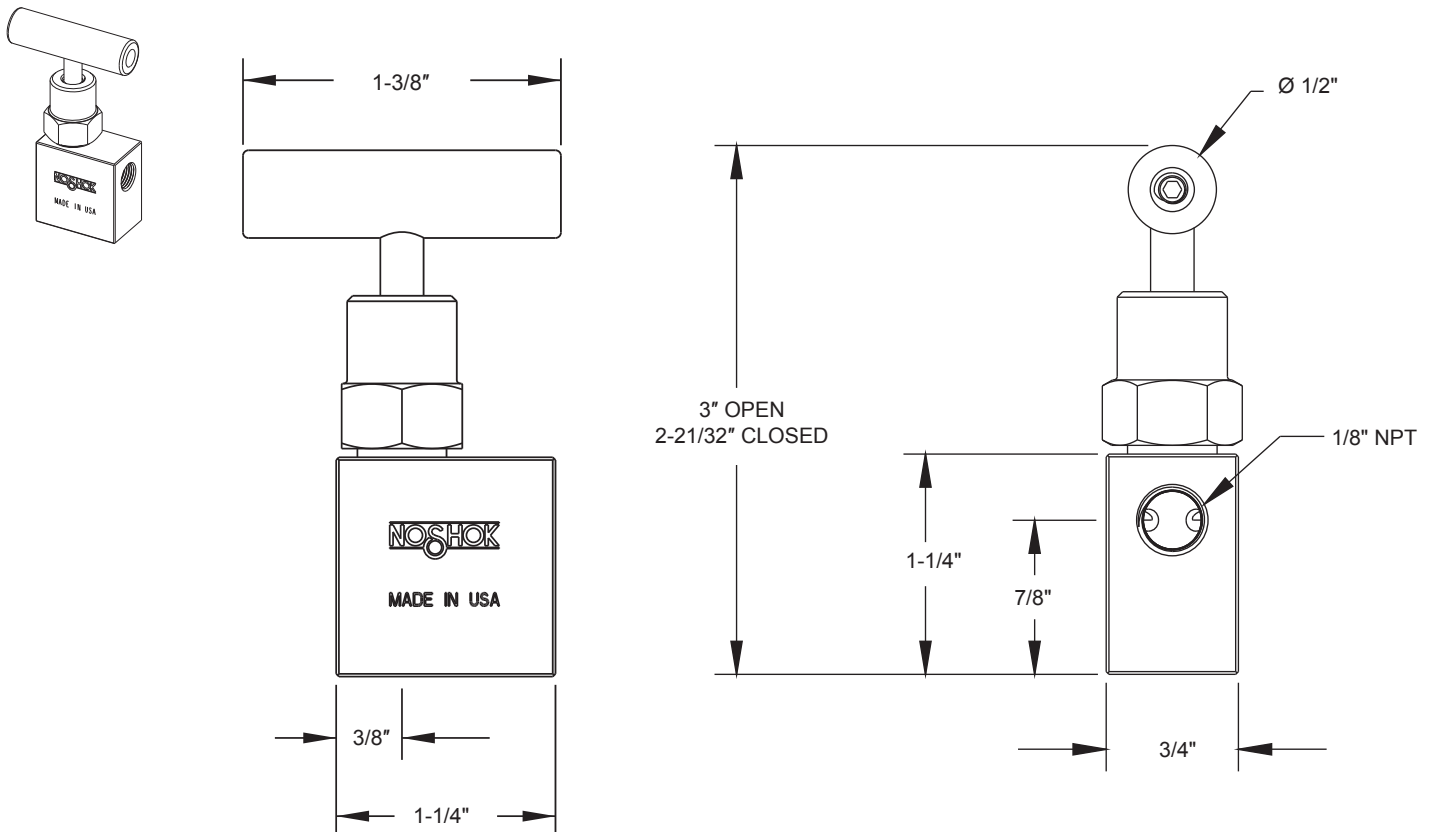
## 1/8" Male-Female Angle



1/4" Male-Female Angle

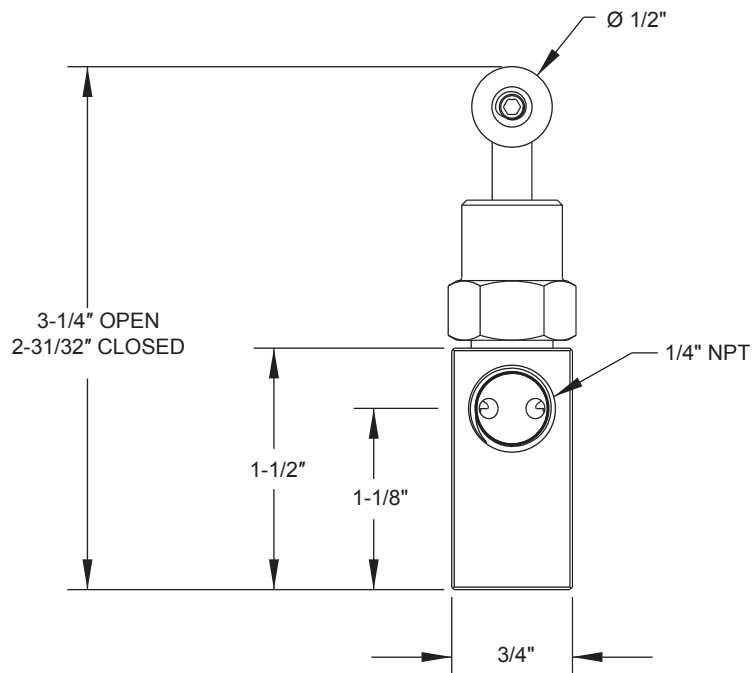
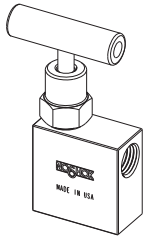


1/8" Female-Female Angle



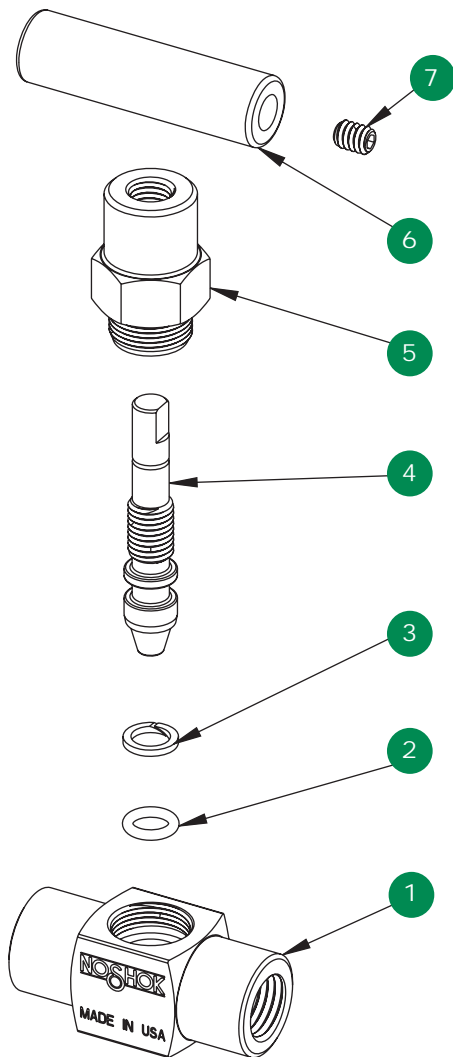
# Dimensions

## 1/4" Female-Female Angle

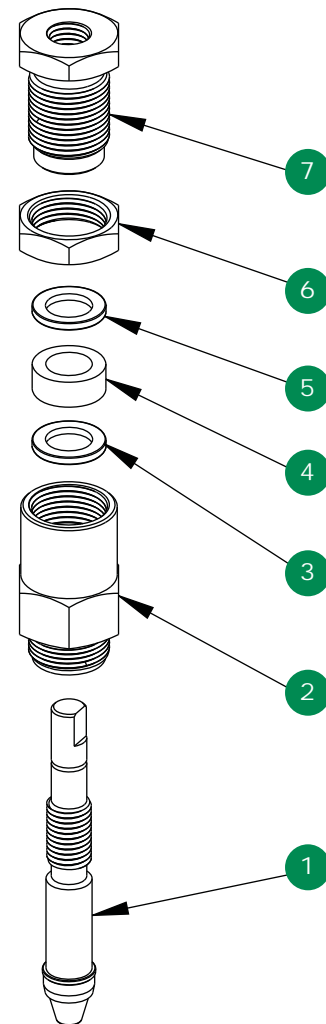


## Mini, Soft Tip

## 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
- 5 Packing washer
- 6 Jam nut
- 7 Packing adjustment screw