

## Standard, Soft Seat

## 500 SERIES



- 100% helium leak tested to  $1 \times 10^{-4}$  ml/s for performance and reliability
- Replaceable Acetal seat and straight through porting for bidirectional, high capacity flow and easy roddable cleaning
- Blow-out proof stem provides a secondary stem seal in the full open position
- FKM o-ring seal and PTFE back-up ring below the stem threads to protect from corrosion and galling; PTFE packing optional (certain NPT sizes only)
- All stem threads are rolled for strength and ease of operation
- One-piece bonnet with a metal-to-metal seal to the valve body below the bonnet threads
- Slotted spring pin to prevent accidental loosening
- Vinyl dust cap for bonnet and stem (non-packing)

## SPECIFICATIONS

<b>Materials</b>	Zinc-Nickel plated Steel, electropolished 316 Stainless Steel*
<b>Connections</b>	1/4", 3/8", 1/2", 3/4", 1", 1-1/4" & 1-1/2" NPT Male-female & Female-female configurations
<b>Pressure rating</b>	6,000 psi @ 200 °F
<b>Orifice sizes</b>	1/4" - 1/2" NPT: 0.187" 3/4" - 1-1/2" NPT: 0.438"
<b>Flow coefficient</b>	1/4" - 1/2" NPT: $C_v$ 0.76 3/4" - 1-1/2" NPT: $C_v$ 4.0
<b>Stem seal &amp; type</b>	All 316 Stainless Steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE packing optional for 1/4", 3/8" & 1/2" NPT only
<b>Options</b>	Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips
<b>Weight</b>	Approximately 1.3 lb. up to 1/2" Approximately 4.5 lb. Large Hex, Female-Female Approximately 6 lb. Large Hex, Male-Female

\* All 316SS products meet the requirements of NACE MR0175/ISO 15156-3.



**WARNING:** This product can expose you to chemicals including Lead and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**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.

<b>SERIES</b>	5 500 Series, soft seat			
<b>CONNECTION SIZES</b>	02 1/4" NPT	04 1/2" NPT	08 1" NPT	12 1-1/2" NPT
	03 3/8" NPT	06 3/4" NPT	10 1-1/4" NPT	0402 1/2" NPT male - 1/4" NPT female
<b>VALVE TYPES</b>	MFC Male-Female, Steel	MFS Male-Female, Stainless Steel		
	FFC Female-Female, Steel	FFS Female-Female, Stainless Steel		

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

#### EXAMPLE

**504 - FFC**

Series.....500 soft seat  
 Connection size .....1/2" NPT  
 Valve type..... Female-female, Steel

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: 504-FFC-HL5)

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

ORDERING INFORMATION - ADDITIONAL OPTIONS				
SOFT SEATS	PK1	PEEK	KF1	PCTFE
PACKING†	P1	PTFE		
STEM TIP	T1	Non-rotating (316 Stainless)		
O-RINGS*	EM1	EPDM	KZ1	FFKM (Perfluoroelastomer) NB1 NBR
PANEL MOUNTINGS	PM1	Panel mount (1 nut)	PM2	Panel mount (2 nuts)
HANDLES	HL4	1-3/8" Phenolic	HL5	1-3/4" Phenolic HL9 2-3/8" Phenolic**

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

† For 1/4", 3/8" and 1/2" NPT only.

\* Other o-ring materials available on request.

\*\* For 3/4" NPT to 1-1/2" NPT only.

Please note that the standard o-ring in all the NOSHOK valves is FKM and the standard handles are "T" handles (HL2).

The handle material will always match the material of the valve, unless otherwise specified. For example, the "T" handle (HL2) on the 504-FFC will be Steel. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.

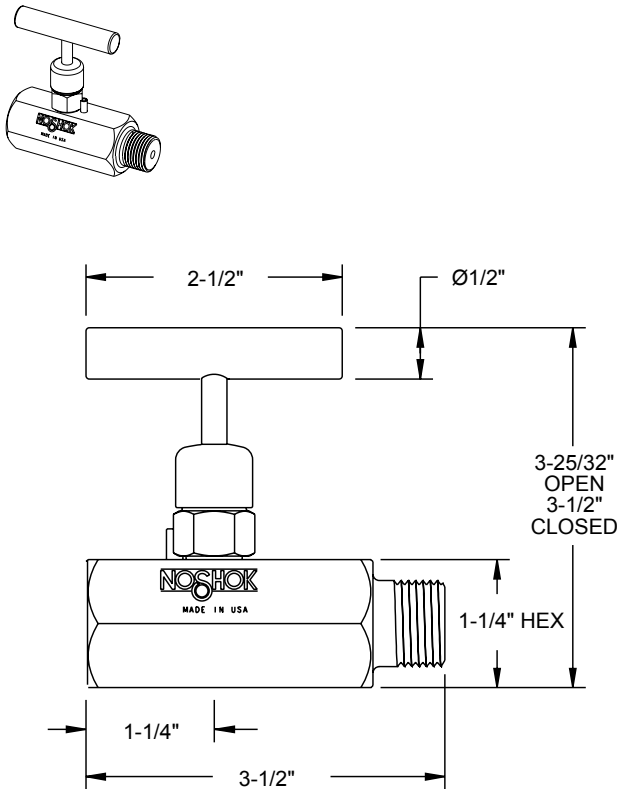
#### EXAMPLE with Additional Options

**504 - FFC - PK1 - T1 - KZ1 - PM2 - HL5**

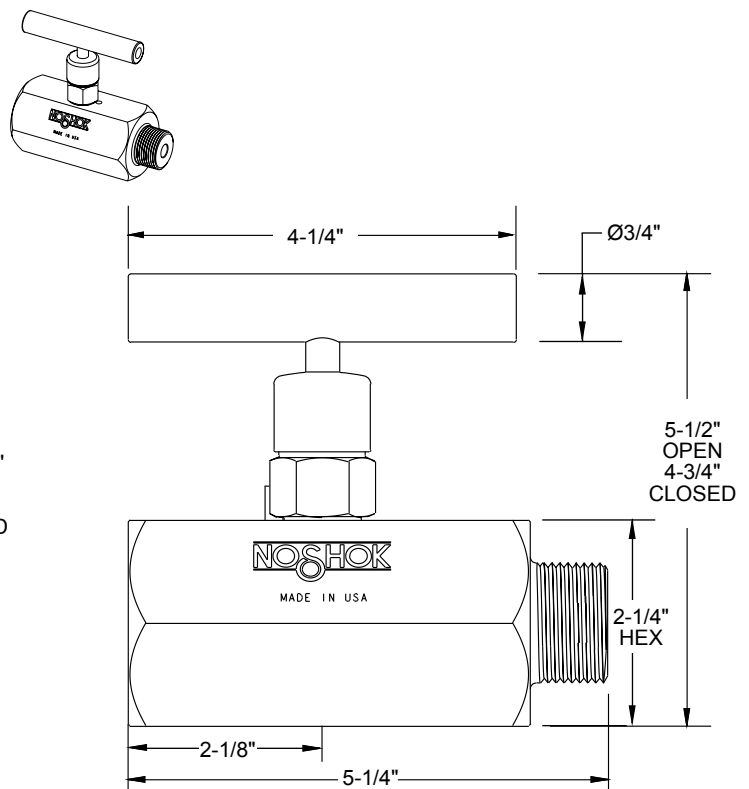
Series.....500 soft seat  
 Connection size .....1/2" NPT  
 Valve type..... Female-female, Steel  
 Soft seat .....PEEK  
 Stem tip ..... Non-rotating  
 O-ring.....FFKM (Perfluoroelastomer)  
 Panel mount.....Panel mount (2 nuts)  
 Handle ..... 1-3/4" Phenolic

# Dimensions

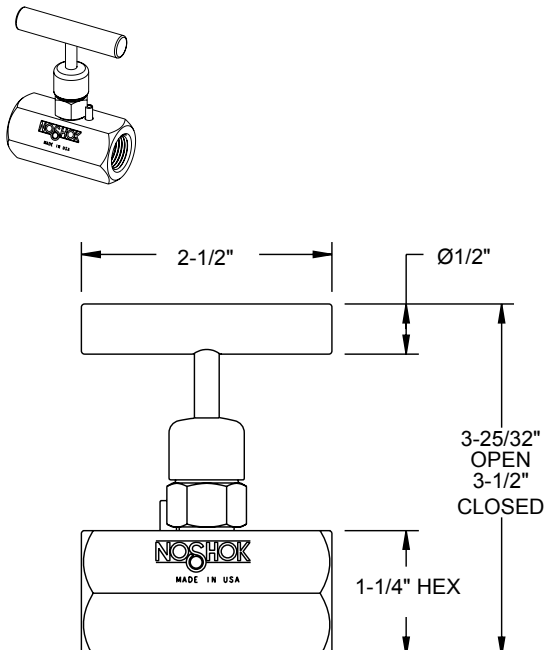
1/4" - 1/2" Male-Female



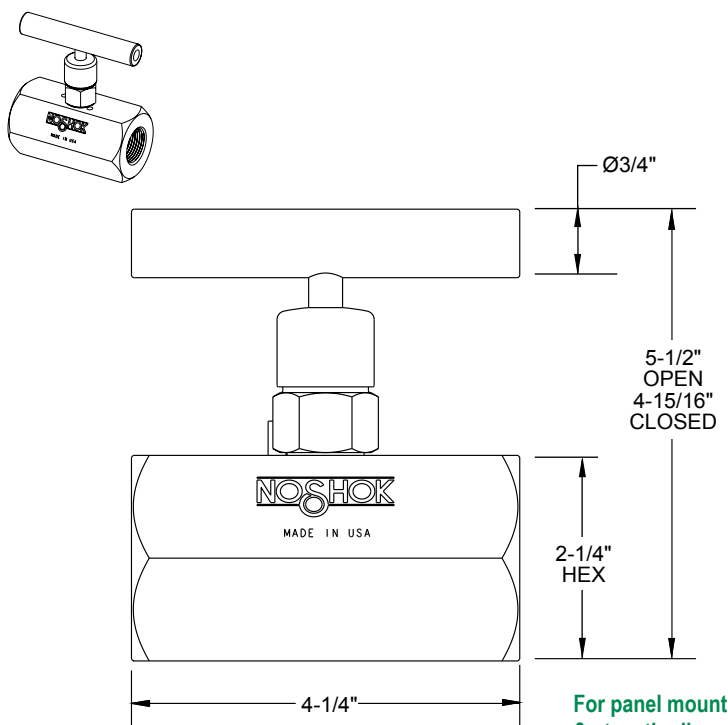
3/4" - 1-1/2" Male-Female



1/4" - 1/2" Female-Female

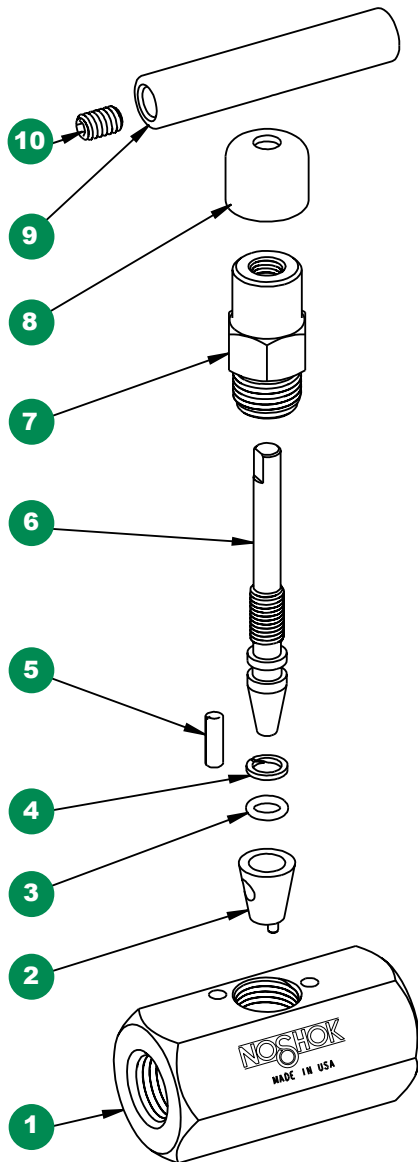


3/4" - 1-1/2" Female-Female



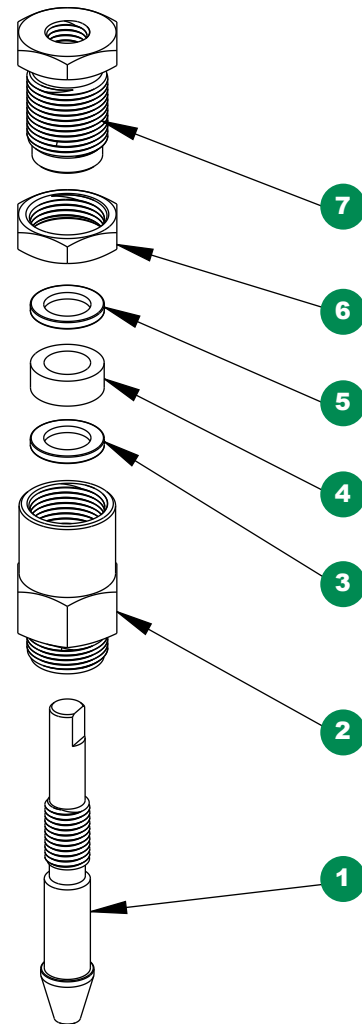
For panel mount, packing,  
& stem tip dimensions,  
see pgs. 64-67.

Standard, Soft Seat



- 1 Valve body
- 2 Acetal seat
- 3 FKM o-ring
- 4 PTFE back-up ring
- 5 Slotted spring pin
- 6 Valve stem
- 7 Valve bonnet
- 8 Dust cap
- 9 Valve "T" handle
- 10 Set screw

Option With Packing



- 1 Valve packing stem
- 2 Valve packing bonnet
- 3 Packing washer
- 4 Packing
- 5 Packing washer
- 6 Jam nut
- 7 Packing adjustment screw