

## Multiport, Hard Seat



Note: Shown with optional bleed plug.

## 200 SERIES

- Multiport design reduces the number of gauge and other instrument connections to permanent piping installations, decreasing possible leak paths
- Optional bleed plugs further allow pressure to be bled off without disturbing the permanent piping installation
- 100% helium leak tested to  $1 \times 10^{-4}$  ml/s for guaranteed performance and reliability
- 10,000 psi pressure rating @ 200 °F
- 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 or Grafoil® packing optional
- All stems are 316 stainless steel
- 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

Materials	Zinc-nickel plated steel, electropolished 316 stainless steel
Connections	1/2" NPT to 3/4" NPT Male-female
Pressure rating*	10,000 psi @ 200 °F
Orifice size	0.187"
Flow coefficient	$C_v$ 0.44
Stem seal & type	All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional
Options	Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips
Weight	Approximately 2.2 lb.

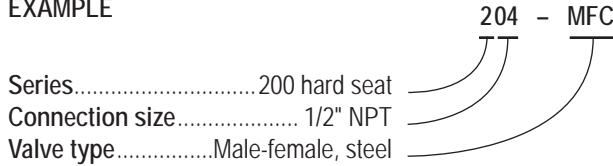
\* If a packing option is chosen, maximum pressure rating is 6,000 psi. Refer to the "Pressure vs. Temperature: Packing Style with Compatible Fluid" chart at the back of this catalog.

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	2 200 Series, hard seat		
CONNECTION SIZES	04 1/2" NPT	0604 3/4" NPT male - 1/2" NPT female	
VALVE TYPES	MFC Male-Female, Steel	MFS Male-Female, Stainless Steel	

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

**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: 204-MFC-P1)

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

ORDERING INFORMATION - ADDITIONAL OPTIONS			
PACKINGS†	P1 PTFE	P2 Grafoil®	
STEM TIPS	T1 Non-rotating (316 stainless)	T6 Ball (carbide)	T8 Ball (Monel)
	T5 Ball (440C stainless)	T7 Ball (ceramic)	T9 Regulating hard
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	HL1 1-13/16" Mini "T"	HL4 1-3/8" Phenolic	HL5 1-3/4" Phenolic

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† If a packing option is chosen, maximum pressure rating is 6,000 psi. Refer to the "Pressure vs. Temperature: Packing Style with Compatible Fluid" chart at the back of this catalog.

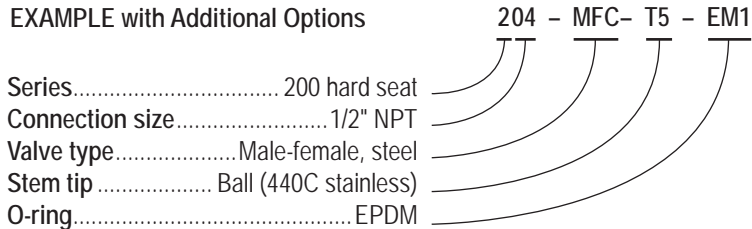
\* Other o-ring materials available on request.

**NOTE:** Plugs and bleed plugs are available and can be ordered separately, see page 65.

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

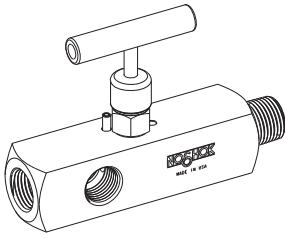
The handle material will always match the material of the valve, unless otherwise specified. For example, the "T" handle (HL2) on the 204-MFC will be steel. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.

**EXAMPLE with Additional Options**

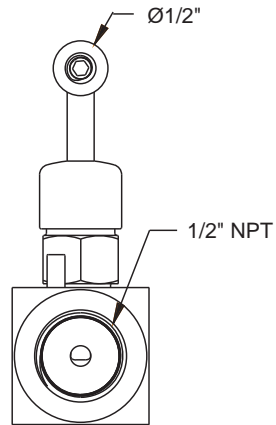


# Needle Valves Dimensions

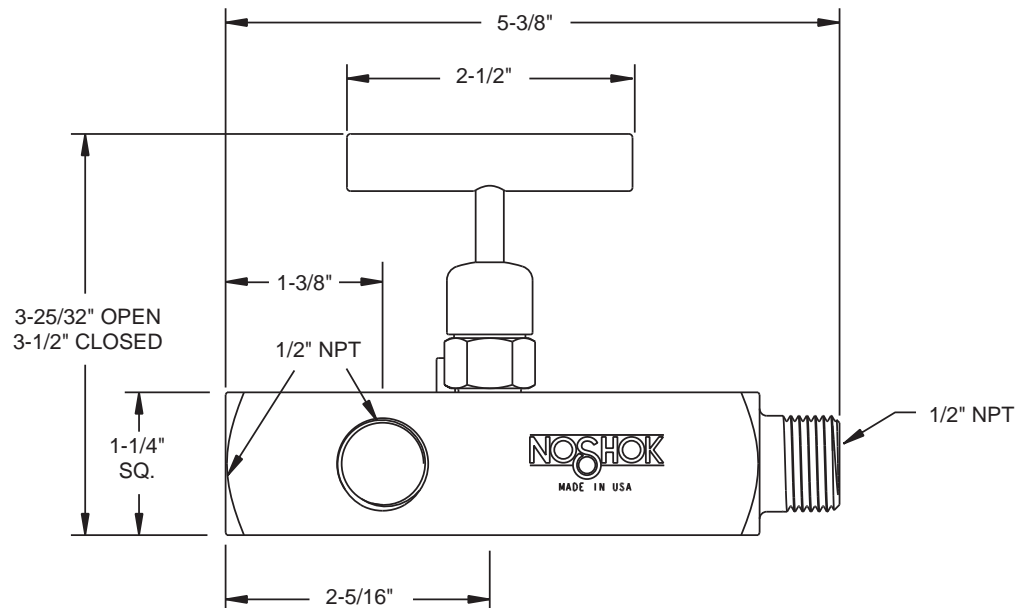
## Male-Female



Front View

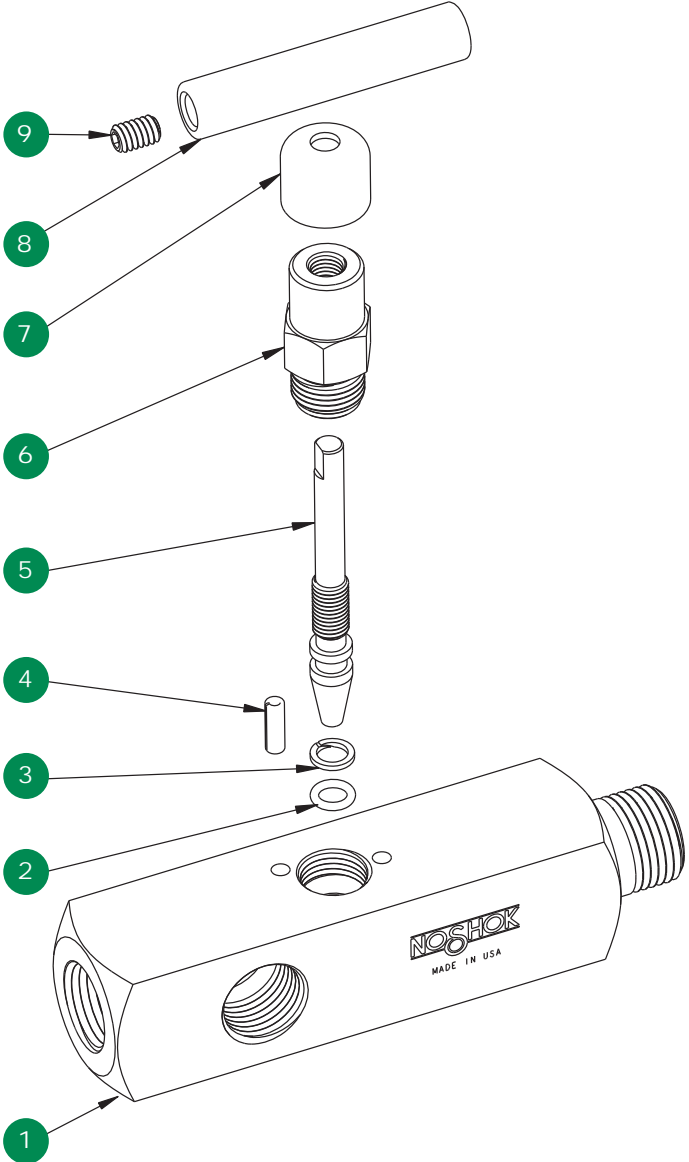


Side View

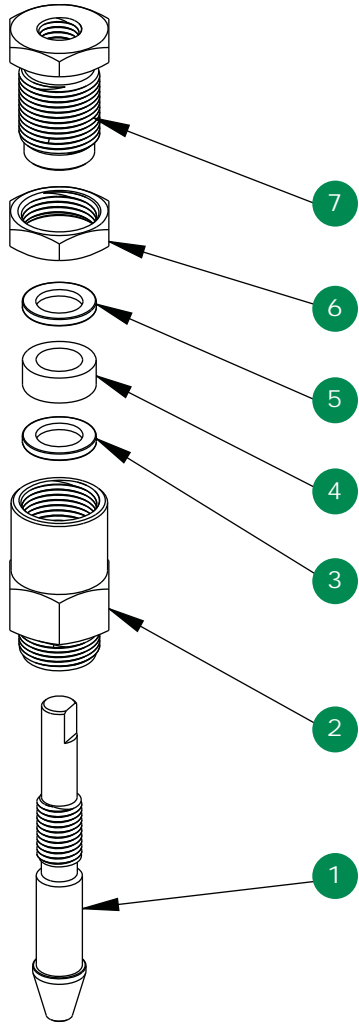


For panel mount, packing,  
& stem tip dimensions,  
see pgs. 64-67.

Multiport, Hard Seat      Option With Packing



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



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