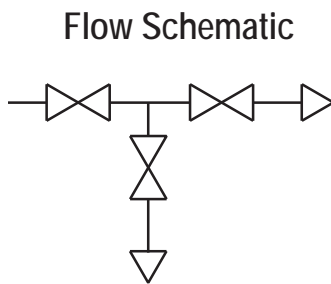


# Double Block & Bleed, Hard Seat

## 3070 SERIES



- Combines isolating and venting in a single valve, eliminating the need for tubing and fittings
- Block valve isolates the downstream process fluids, and the bleed valve exhausts upstream fluids enabling instruments to be removed without disturbing the permanent piping installation on the bottom
- The 1/4" NPT vent plug is located 90° to the left and may be removed and replaced with exhaust piping to direct the fluids to a safe location
- 100% helium leak tested to  $1 \times 10^{-4}$  ml/s for guaranteed performance and reliability
- 10,000 psi hard seat 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*
Connection	1/2" & 1/4" NPT Male-female & Female-female configurations available, right venting optional
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
Length	4" standard and 5-3/8" extended length available
Options	Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips
Weight	Approximately 3.2 lb.

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

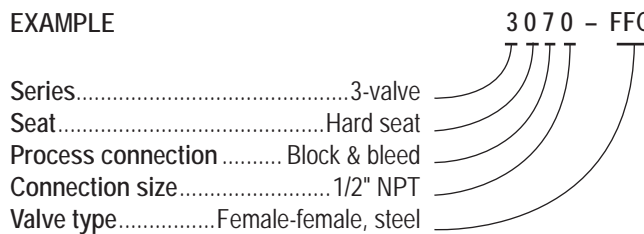
\*\* If a packing option is chosen, maximum pressure rating is 6,000 psi. Refer to the "Pressure vs. Temperature: Packing Style with Compatible Fluid" chart at the back of this catalog.

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.

SERIES	3 3-valve		
SEAT	0 Hard seat		
PROCESS CONNECTION	7 Block & bleed		
CONNECTION SIZES	0 1/2" NPT	2 1/4" NPT	
VALVE TYPES	MFC Male-Female, Steel	FMC Female-Male, Steel	FFCR Female-Female, Steel, Right Vent
	MFCR Male-Female, Steel, Right Vent	EFMC Extended Female-Male, Steel	EFFC Extended Female-Female, Steel
	EMFC Extended Male-Female, Steel	FMS Female-Male, Stainless Steel	FFS Female-Female, Stainless Steel
	MFS Male-Female, Stainless Steel	EFMS Extended Female-Male, Stainless Steel	FFSR Female-Female, Stainless Steel, Right Vent
	MFSR Male-Female, Stainless Steel, Right Vent	FFC Female-Female, Steel	EFFS Extended Female-Female, Stainless Steel
	EMFS Extended 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: 3070-FFC-HL5)

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

PACKINGS <sup>†</sup>	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
HANDLES	HL1 1-13/16" Mini "T"	HL3 1" Round knurled	HL5 1-3/4" Phenolic
	HL2 2-1/2" "T"	HL4 1-3/8" Phenolic	

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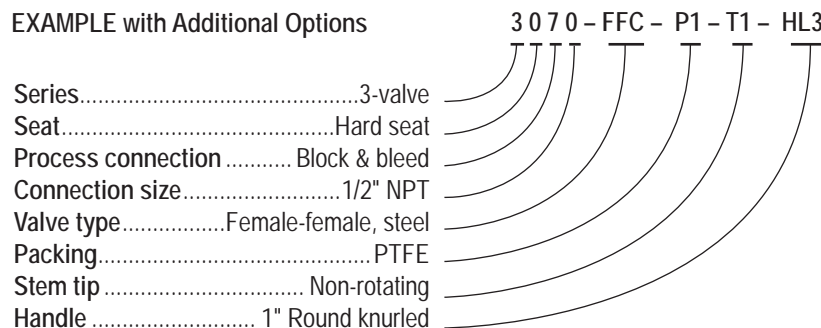
<sup>†</sup> If a packing option is chosen, maximum pressure rating is 6,000 psi. Refer to the "Pressure vs. Temperature: Packing Style with Compatible Fluid" chart at the back of this catalog.

\* Other o-ring materials available on request.

Please note that the standard o-ring in all the NOSHOK valves is FKM and the standard handles are block "T" handles (HL2) and bleed 1-3/8" mini "T" handle (HL7).

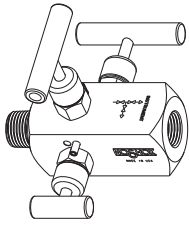
The handle material will always match the material of the valve, unless otherwise specified. For example, the "T" handle (HL2) on the 3070-FFC will be steel. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.

### EXAMPLE with Additional Options

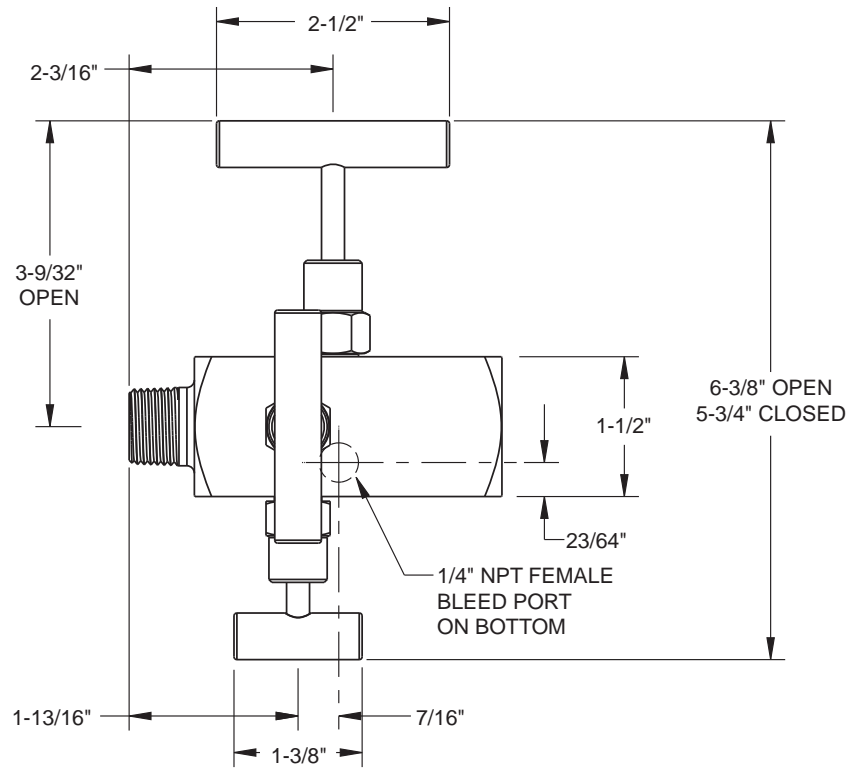


# Dimensions

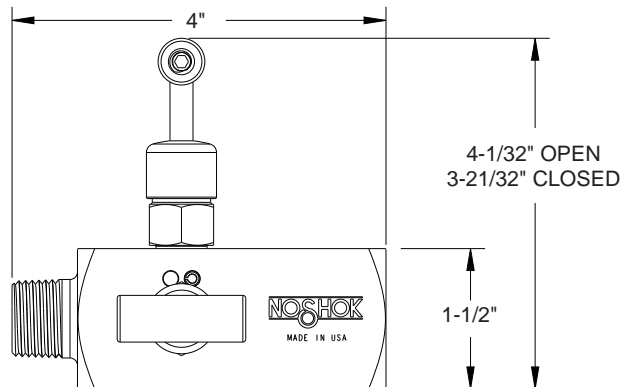
## Male-Female



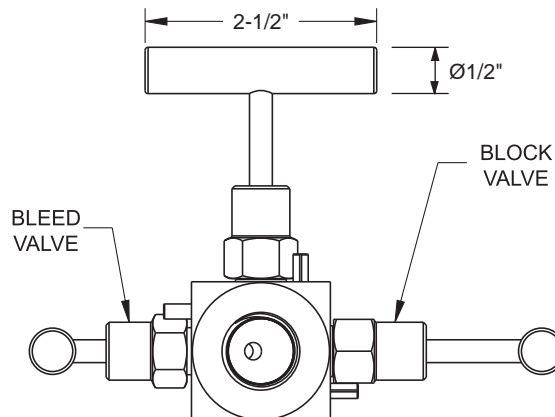
Top View



Front View

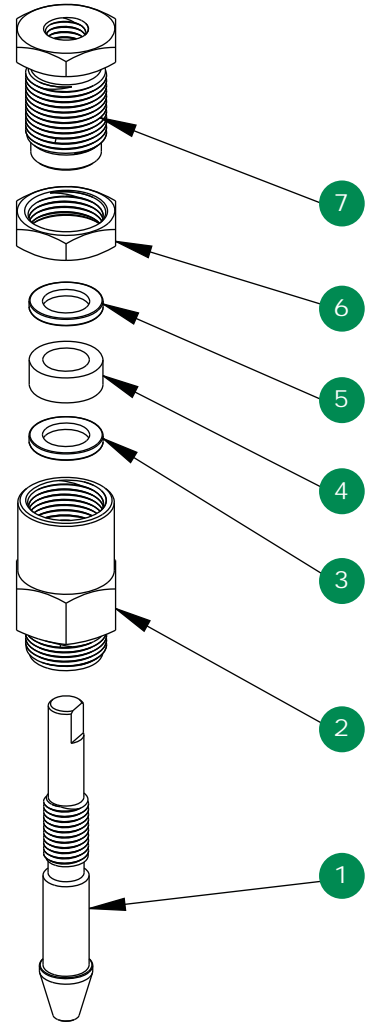
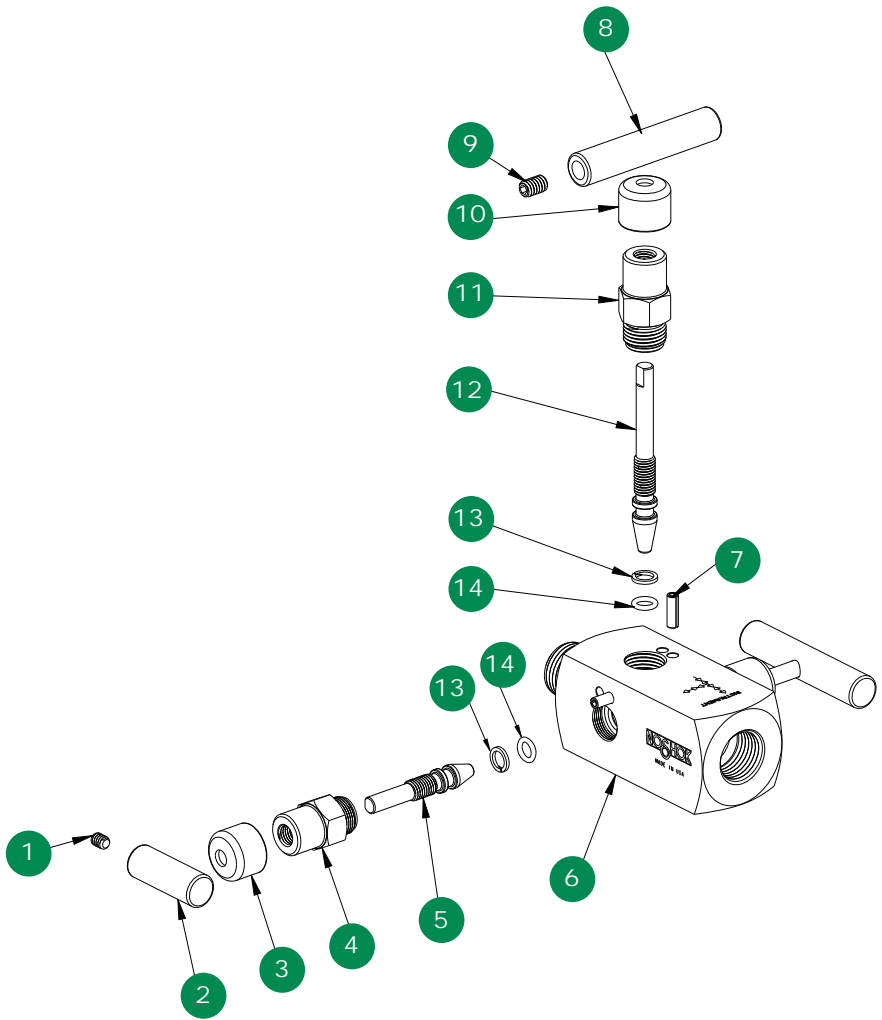


Side View



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

**Double Block & Bleed, Hard Seat** **Option With Packing**



- 1 Set screw
- 2 Mini valve "T" handle
- 3 Red dust cap
- 4 Mini valve bonnet
- 5 Mini valve stem
- 6 Valve body
- 7 Slotted spring pin
- 8 Valve "T" handle
- 9 Set screw
- 10 Blue dust cap
- 11 Valve bonnet
- 12 Valve stem
- 13 PTFE back-up ring
- 14 FKM o-ring

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