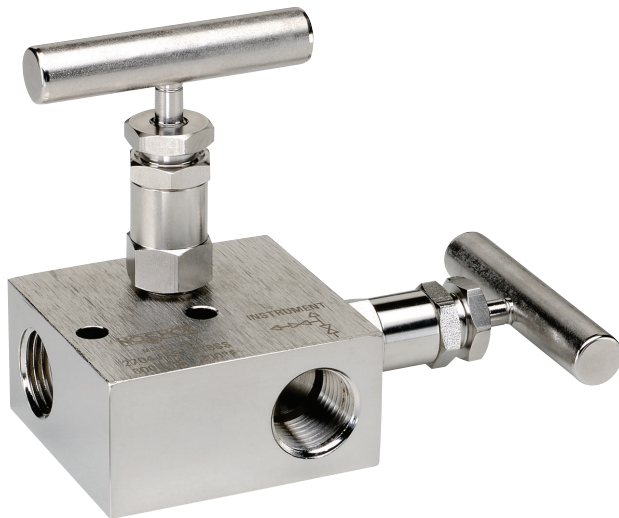


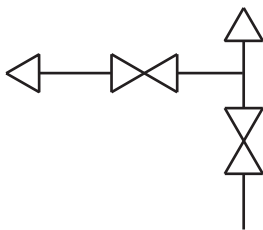
Block & Bleed, Hard & Soft Tip (0.156" Orifice)

2603/2703 SERIES 2604/2704 SERIES



Note: Packing option shown.
HL2 handles shown,
HL1 is standard.

Flow Schematic



- 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 static pressure transmitters, switches or gauges to be removed without disturbing the permanent piping installation
- Block valve is located on the right and the bleed valve is located on top in a 90° orientation, venting is to the left
- 100% helium leak tested to 1×10^{-4} ml/s for 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**)
- 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 Graphite packing optional
- 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
- Color coded vinyl dust caps for bonnets and stems (non-packing)
- 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*
Connections	2603/2703 Series: 3/8" NPT 2604/2704 Series: 1/2" NPT, right venting optional
Pressure ratings**	Hard seat: 10,000 psi @ 200 °F Soft tip: 6,000 psi @ 200 °F
Orifice size	0.156"
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 Graphite packing optional
Options	Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips
Weight	Approximately 2.2 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.

For NOSHOK Valves with Steel valve types:



WARNING: This product can expose you to chemicals including Lead, which is 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

For NOSHOK Valves with Stainless Steel valve types:

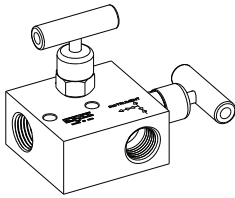


WARNING: This product can expose you to chemicals including Chromium (VI) and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

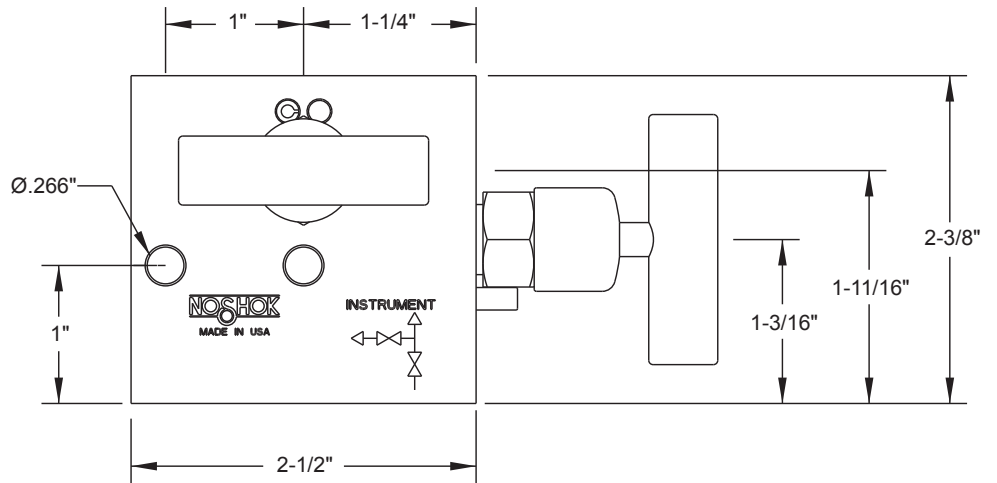
NOTE: All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

Dimensions

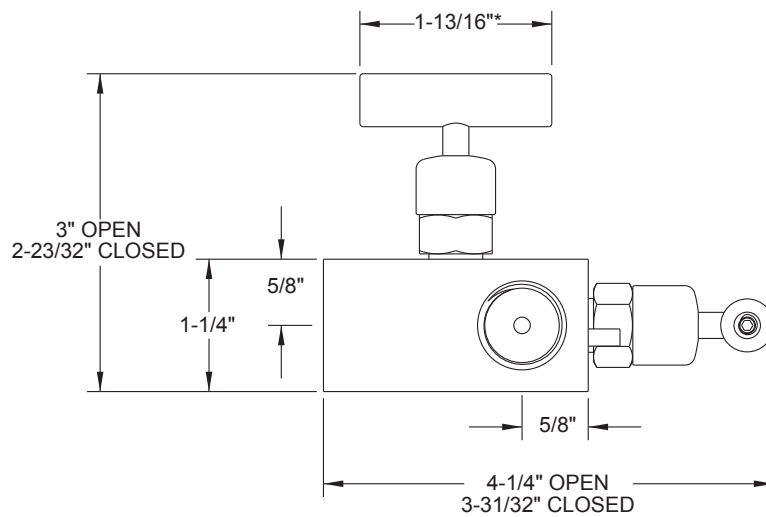
Female-Female



Top View

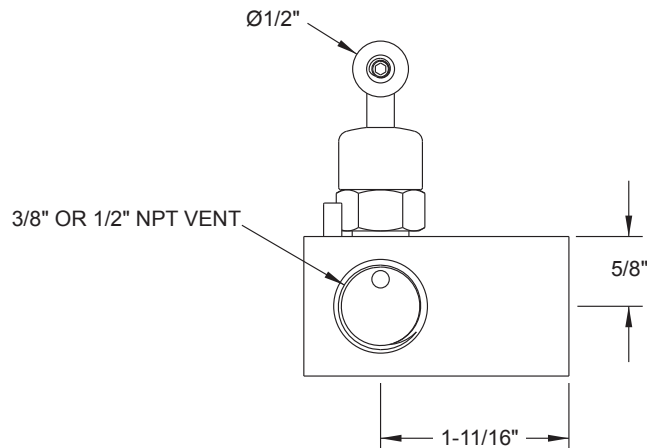


Front View



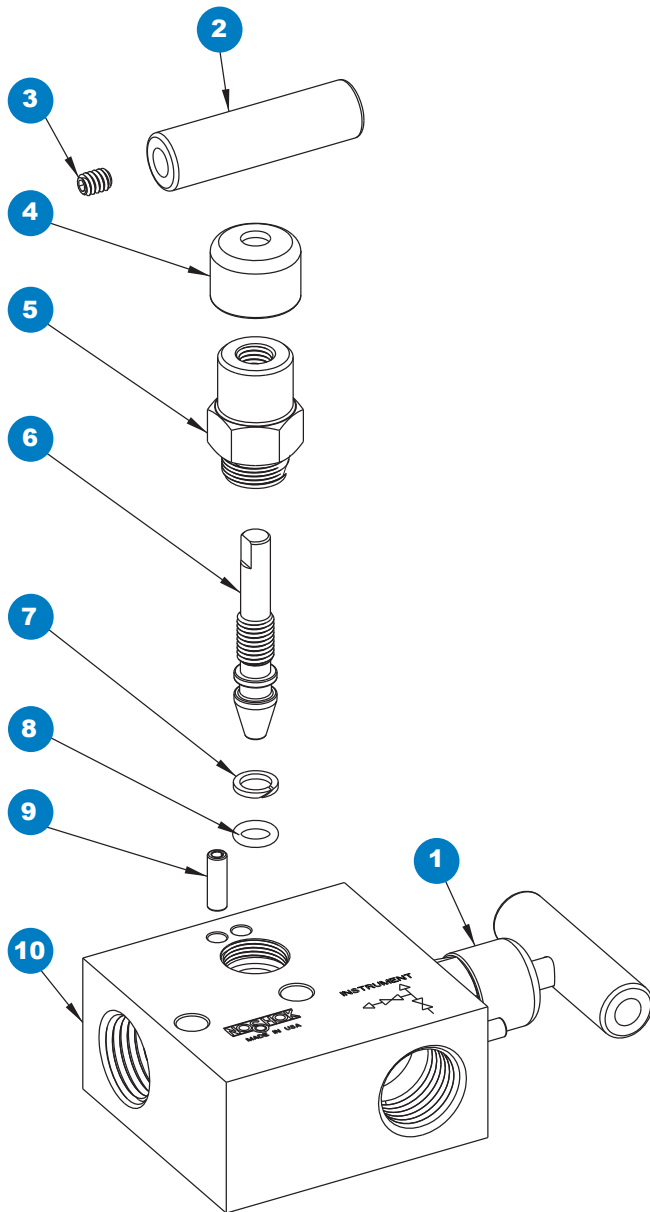
* 1-3/8" for soft tip versions

Side View



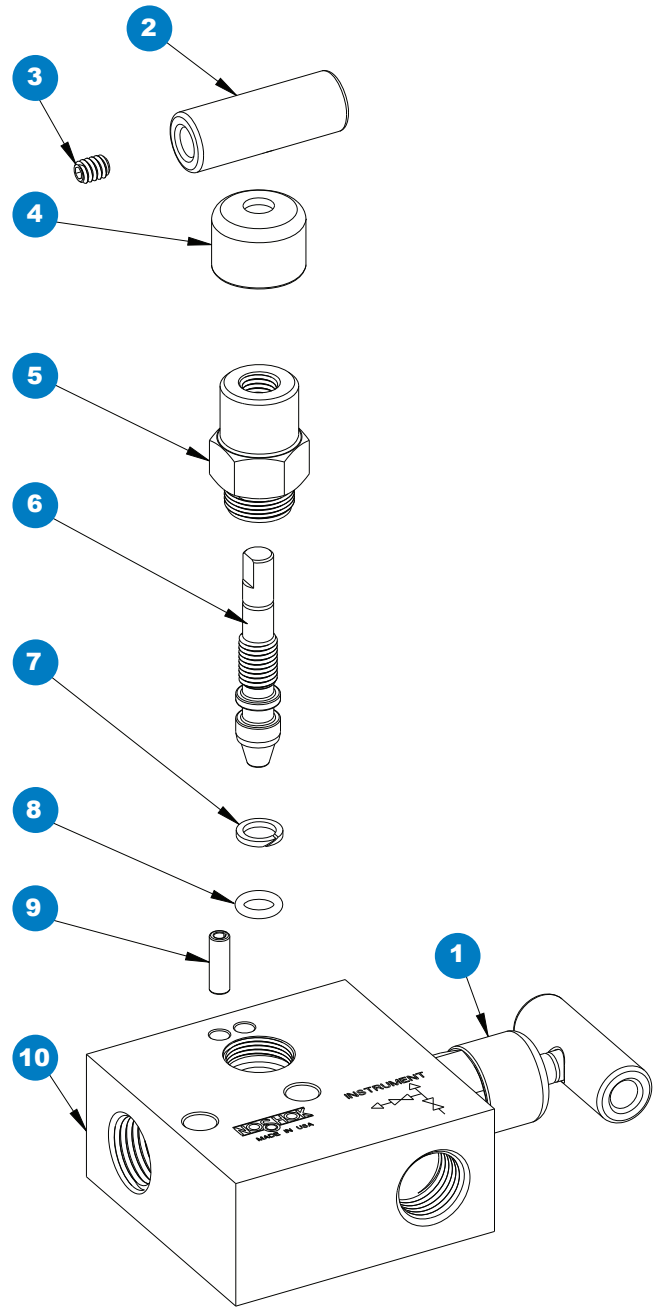
For panel mount or packing dimensions, see pg. 66.

Hard Seat



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

Soft Tip



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