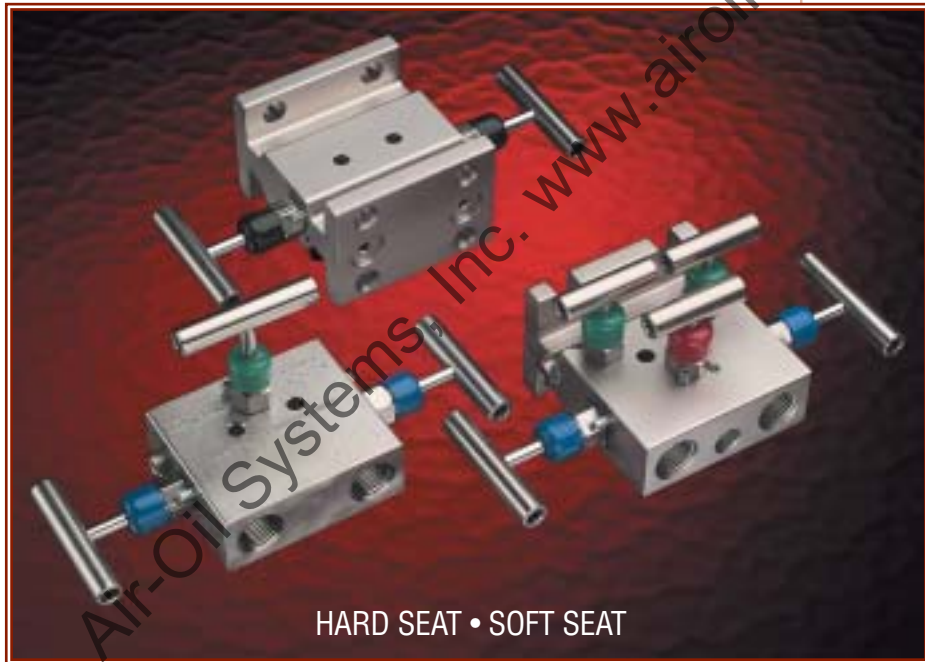


# MANIFOLD



HARD SEAT • SOFT SEAT

# VALVES

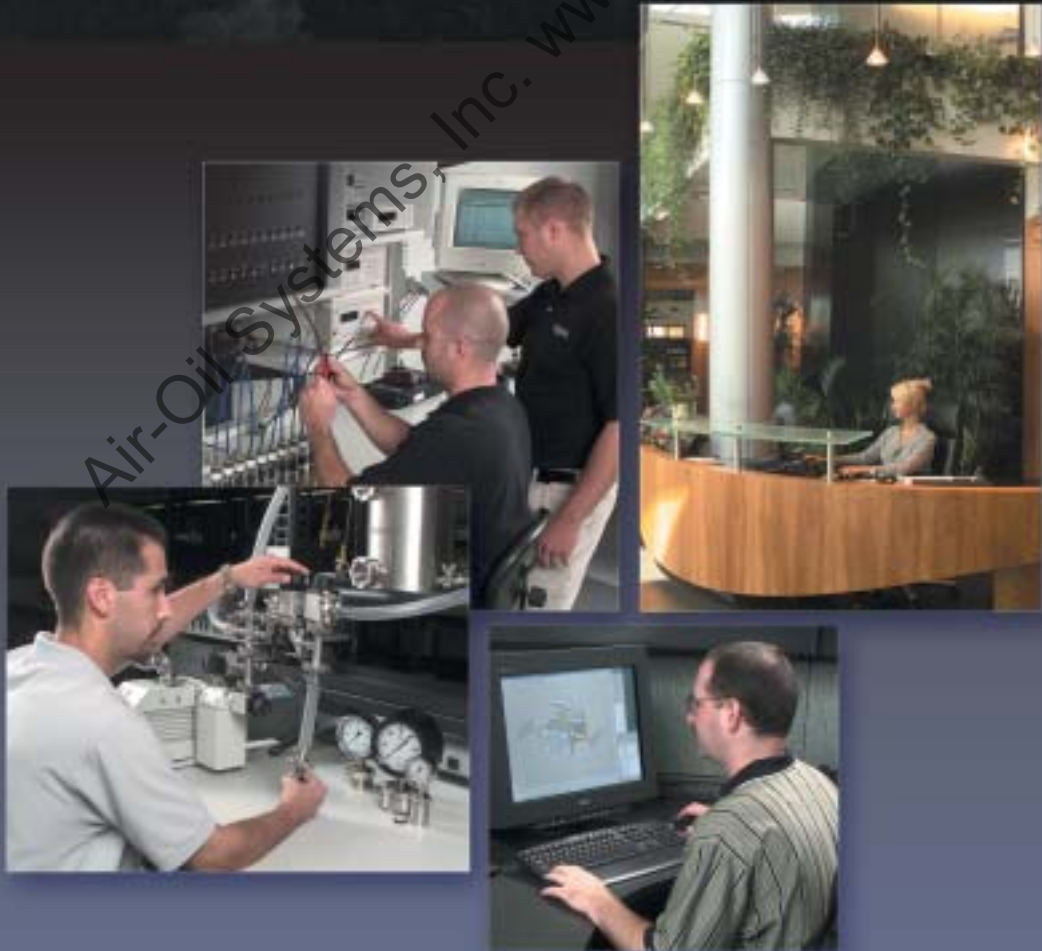
NOSHOK  
MADE IN USA

INSTRUMENT

*The  
Instrumentation  
Company*

**NOSHOK**  
INCORPORATED

# NOSHOK CORPORATE HEADQUARTERS



Air-Oil Systems, Inc. [www.airoil.com](http://www.airoil.com)

## INTRODUCTION

Established in 1967, NOSHOK was one of the first companies in America to offer liquid filled pressure gauges, a revolutionary concept at the time. More importantly, NOSHOK was the first company to stand behind its instrumentation products with extended warranties and we're still the leader today. The NOSHOK standard of quality and reliability continues to be the industry benchmark over 36 years later.

Today, NOSHOK pressure measurement instruments are sold through a worldwide distribution network. Our continued commitment to product excellence, total service and our sincere desire to be the best provides the NOSHOK with a distinct edge.

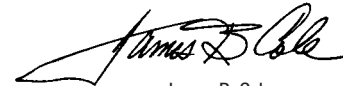
Over the years we have expanded our program to meet the ever changing needs of our customers with additional pressure gauge products, pressure and temperature transmitters, transducers & digital indicators, pressure snubbers, diaphragm seals, bimetal thermometers, needle valves and solenoid valves. And now we bring you the latest addition of our product offering, Manifold Valves.

The same high quality, superior performance and unsurpassed reliability that the industry has come to expect from other NOSHOK instrument products are now available in NOSHOK Manifold Valves. Available in a multitude of valve configurations, seat types, orifice sizes and materials, NOSHOK Manifold Valves are the right choice when the direct mounting of transmitters are needed for flow measurement, liquid level, differential pressure or natural gas applications.

Additionally, every NOSHOK Manifold Valve is helium leak tested and fully checked for proper operation to insure 100% "out of the box" reliability.

NOSHOK also has the capability to provide you with the application assistance necessary to put together that special requirement which is often so hard to find. If it's not in our catalog, call us, we are confident we can satisfy your needs.

At NOSHOK, we proudly back our commitment to excellence with our warranties. Thank You for choosing NOSHOK products.



James B. Cole  
Chief Executive Officer

## Manifold Valves

<b>2000SERIES</b>	2 Valve Hard Seat & Soft Seat	Page 4-5
<b>3000SERIES</b>	3 Valve Hard Seat & Soft Seat	Page 6-9
<b>5000SERIES</b>	5 Valve Hard Seat & Soft Seat	Page 10-13
<b>ACCESSORIES</b>	Mounting Kits & Diagrams	Page 14-15

### NOSHOK'S THREE YEAR WARRANTY

- to be free from defects in materials and workmanship
- to operate within catalogued performance specifications

The Manifold Valve must be operated within the catalogued environmental and application parameters. Determination of failure will be made at NOSHOK using its equipment and personnel or a certified test facility specializing in this type of evaluation.

### CAUTION

Operating conditions including but not limited to, system pressure, media compatibility and environmental conditions must be considered when selecting manifold valves and options. Improper selection and use of manifold valves could possibly cause failure and lead to possible property damage and/or personal injury.

### NOSHOK is a Member and Actively Supports:



In keeping with and for purposes of product and/or manufacturing process improvements, NOSHOK, INC. reserves the right to make design changes without prior notice.

# 2000 SERIES

# Manifold Valves



The NOSHOK 2000 Series Hard Seat and Soft Seat 2 Valve Manifolds are designed for use with differential pressure transmitters in liquid level applications. The NOSHOK 2000 Series 2 Valve Manifolds are also available in either a single flange or double flange connection for direct installation.

All manifold bodies are machined from cold drawn\* extrusions allowing NOSHOK to hold tighter tolerances and greater mechanical strength than any other manifold valve in the industry. Stem and bonnet threads are rolled for greater strength and ease of operation. The valve stems are equipped with both a Viton® o-ring and Teflon® back-up ring below the threads to protect from corrosion and galling. Each and every manifold valve is 100% Helium leak tested to  $1 \times 10^{-4}$  ml/s at 200 psi for a bubble tight seal.

\*Uniform shape, smooth clean surface finish, straightness

## 2000 SERIES MANIFOLD VALVE STANDARD FEATURES

- One piece bonnet with a metal to metal seal to the valve body below the bonnet threads
- Bonnet lock pin to prevent accidental loosening
- Vinyl bonnet and stem dust cap
- 0.187 inch orifice size
- Electroless Nickel plated finish on carbon steel manifold valves
- Electropolish finish on stainless steel manifold valves
- Electroless Nickel plated high tensile strength 4140 steel mounting bolts

## HARD SEAT MANIFOLD VALVE FEATURES

- Helium leak tested metal to metal hard seat design
- 10000 psi pressure rating @ 200 degrees Fahrenheit maximum
- Flow coefficient factor of 0.44

## SOFT SEAT MANIFOLD VALVE FEATURES

- Helium leak tested soft seat design with replaceable Delrin seat
- 6000 psi pressure rating @ 200 degrees Fahrenheit maximum
- Straight through porting for bi-directional flow and easy roddable cleaning
- Flow coefficient factor of 0.76

## Ordering Information

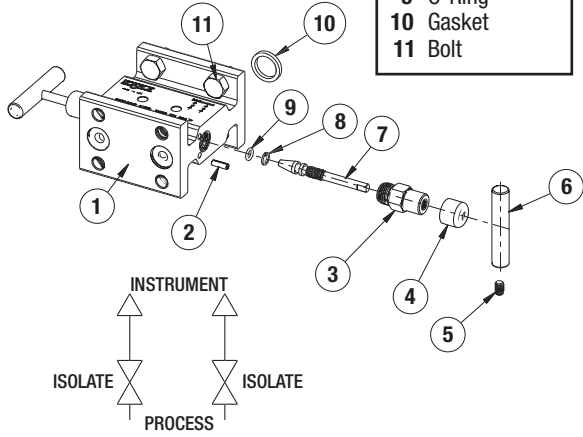
PART NUMBER	CONNECTION	MATERIAL
2020-MFC	Flange - 1/2" NPT	Steel
2020-MFS	Flange - 1/2" NPT	Stainless Steel
2020-MMC	Flange - Flange	Steel
2020-MMS	Flange - Flange	Stainless Steel

PART NUMBER	CONNECTION	MATERIAL
2120-MFC	Flange - 1/2" NPT	Steel
2120-MFS	Flange - 1/2" NPT	Stainless Steel
2120-MMC	Flange - Flange	Steel
2120-MMS	Flange - Flange	Stainless Steel

Viton® is a registered trademark of DuPont Dow Elastomers  
Teflon® is a registered trademark of DuPont Company

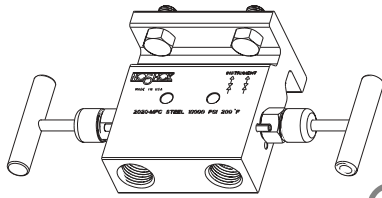
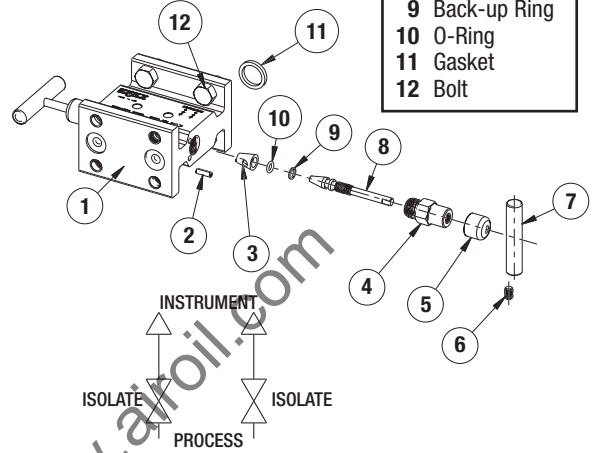
# 2000 series hard seat

- 1 Body
- 2 Spring Pin
- 3 Bonnet
- 4 Black Dust Cap
- 5 Set Screw
- 6 Handle
- 7 Stem
- 8 Back-up Ring
- 9 O-Ring
- 10 Gasket
- 11 Bolt

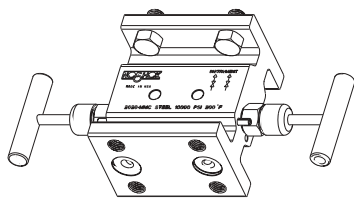
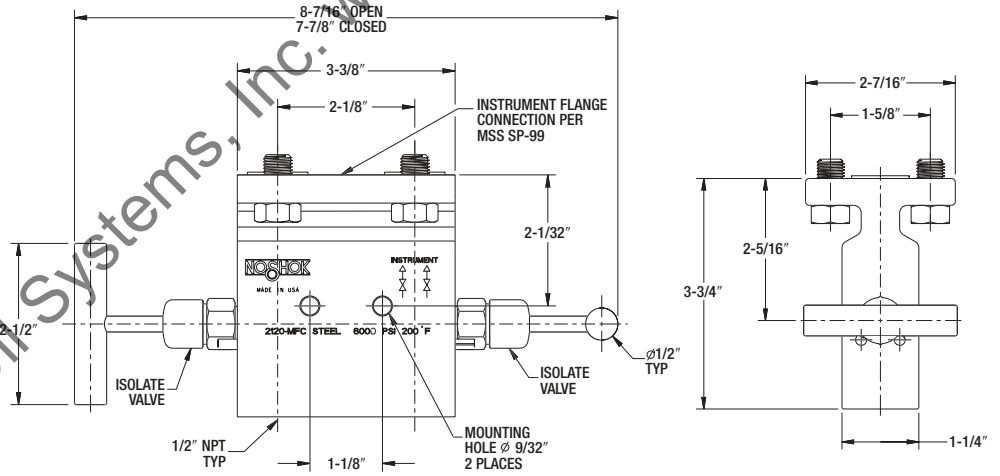


# 2100 series soft seat

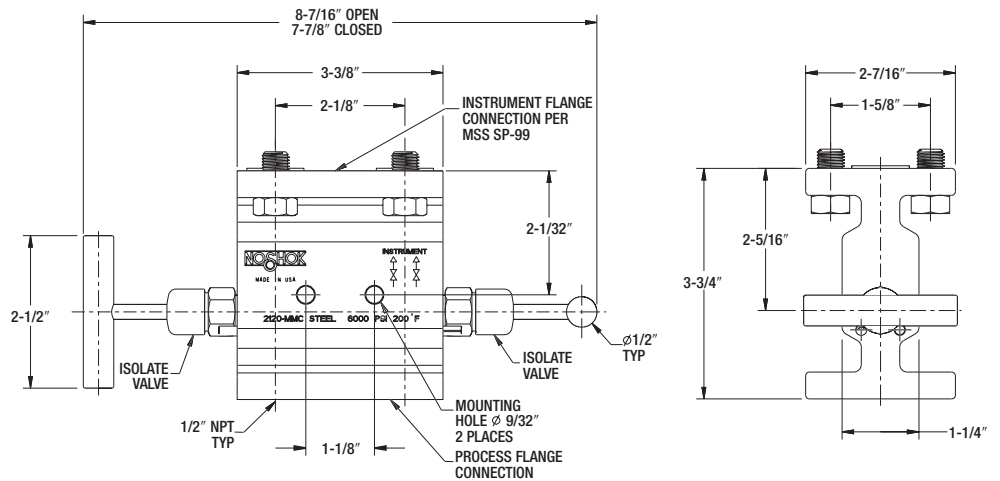
- 1 Body
- 2 Spring Pin
- 3 Soft Seat
- 4 Bonnet
- 5 Black Dust Cap
- 6 Set Screw
- 7 Handle
- 8 Stem
- 9 Back-up Ring
- 10 O-Ring
- 11 Gasket
- 12 Bolt



**FLANGE-FEMALE**



**FLANGE-FLANGE**



# 3000 SERIES

# Manifold Valves



The NOSHOK 3000 Series Hard Seat and Soft Seat 3 Valve Manifolds are designed for use with differential pressure transmitters incorporating two isolation valves and an equalizing valve in differential pressure applications. The NOSHOK 3000 Series 3 Valve Manifolds are also available in either a block, single flange or double flange connection for remote or direct installation.

All manifold bodies are machined from cold drawn\* extrusions allowing NOSHOK to hold tighter tolerances and greater mechanical strength than any other manifold valve in the industry. Stem and bonnet threads are rolled for greater strength and ease of operation. The valve stems are equipped with both a Viton o-ring and Teflon back-up ring below the threads to protect from corrosion and galling. Each and every manifold valve is 100% Helium leak tested to  $1 \times 10^{-4}$  ml/s at 200 psi for a bubble tight seal.

\*Uniform shape, smooth clean surface finish, straightness

## 3000 SERIES MANIFOLD VALVE STANDARD FEATURES

- One piece bonnet with a metal to metal seal to the valve body below the bonnet threads
- Bonnet lock pins to prevent accidental loosening
- Color coded Vinyl bonnet and stem dust caps
- 0.187 inch orifice size
- Electroless Nickel plated finish on carbon steel manifold valves
- Electropolish finish on stainless steel manifold valves
- Electroless Nickel plated high tensile strength 4140 steel mounting bolts
- Two static (test) ports

## HARD SEAT MANIFOLD VALVE FEATURES

- Helium leak tested metal to metal hard seat design
- 10000 psi pressure rating @ 200 degrees Fahrenheit maximum
- Flow coefficient factor of 0.44

## SOFT SEAT MANIFOLD VALVE FEATURES

- Helium leak tested soft seat design with replaceable Delrin seat
- 6000 psi pressure rating @ 200 degrees Fahrenheit maximum
- Straight through porting for bi-directional flow and easy roddable cleaning
- Flow coefficient factor of 0.76

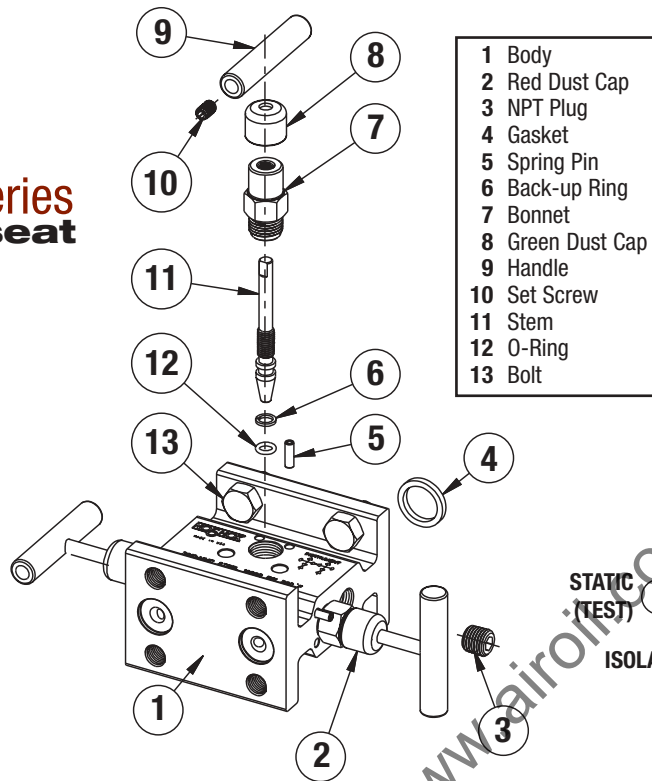
Viton® is a registered trademark of DuPont Dow Elastomers  
Teflon® is a registered trademark of DuPont Company

## Ordering Information

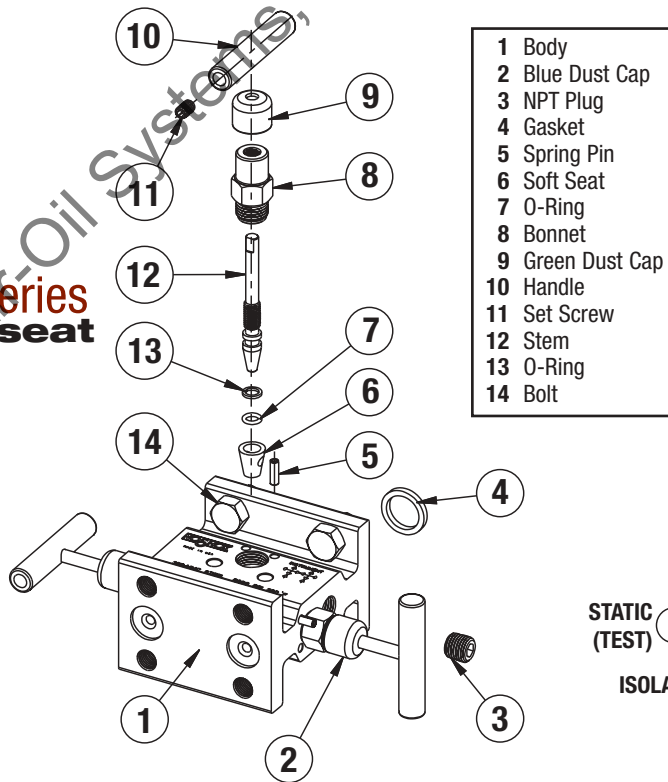
PART NUMBER	CONNECTION	MATERIAL
3010-FFC	1/2" NPT - 1/2" NPT	Steel
3010-FFS	1/2" NPT - 1/2" NPT	Stainless Steel
3010-MFC	Flange - 1/2" NPT	Steel
3010-MFS	Flange - 1/2" NPT	Stainless Steel
3010-MMC	Flange - Flange	Steel
3010-MMS	Flange - Flange	Stainless Steel

PART NUMBER	CONNECTION	MATERIAL
3110-FFC	1/2" NPT - 1/2" NPT	Steel
3110-FFS	1/2" NPT - 1/2" NPT	Stainless Steel
3110-MFC	Flange - 1/2" NPT	Steel
3110-MFS	Flange - 1/2" NPT	Stainless Steel
3110-MMC	Flange - Flange	Steel
3110-MMS	Flange - Flange	Stainless Steel

**3000 series**  
hard seat



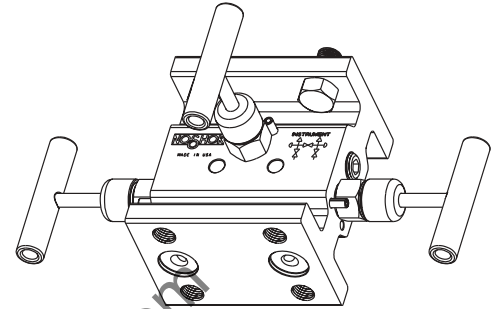
**3100 series**  
soft seat



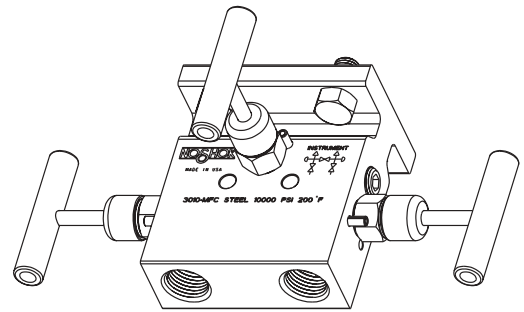
# 3000 SERIES Manifold Valves

Hard Seat  
and  
Soft Seat  
3 Valve  
Manifolds

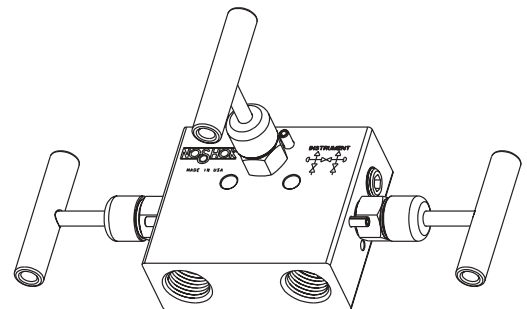
Air-Oil Systems, Inc. www.airoil.com



**FLANGE-FLANGE**

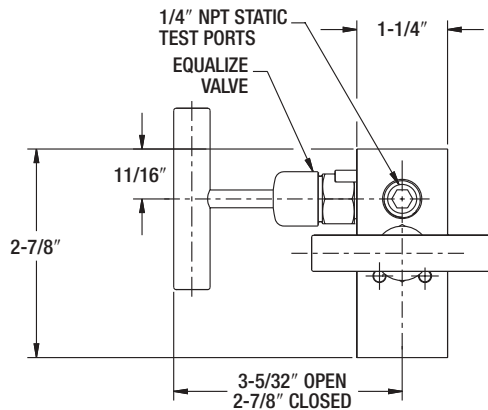
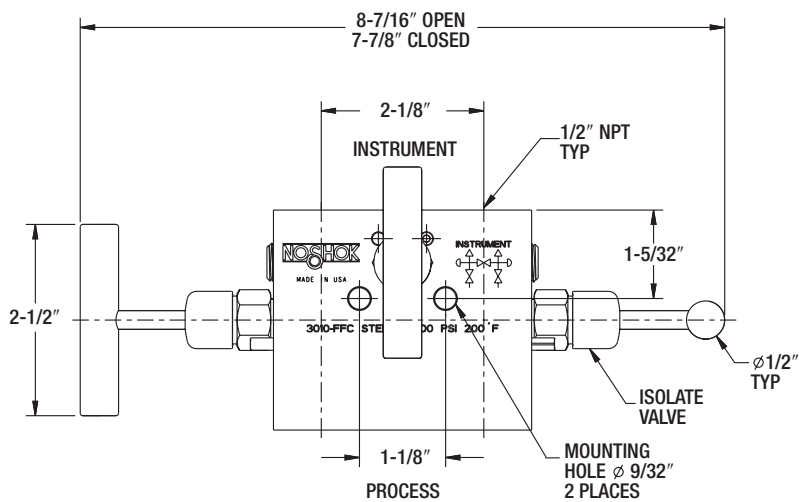
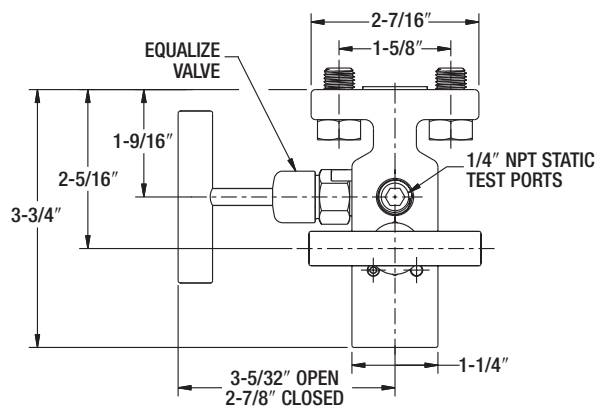
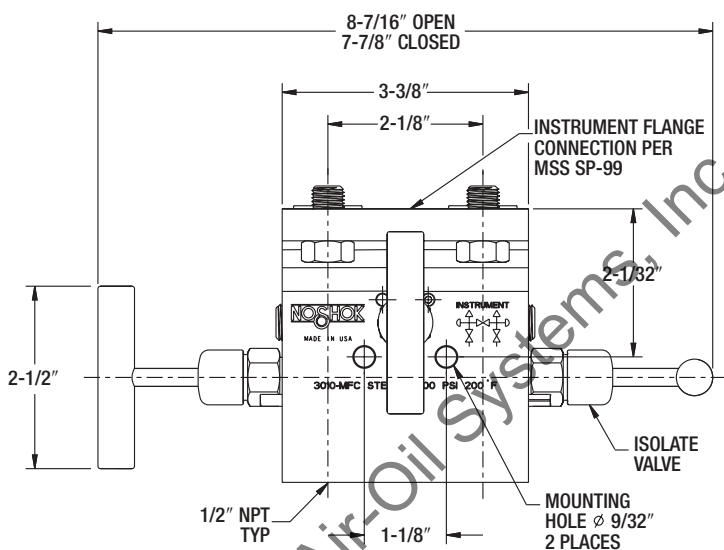
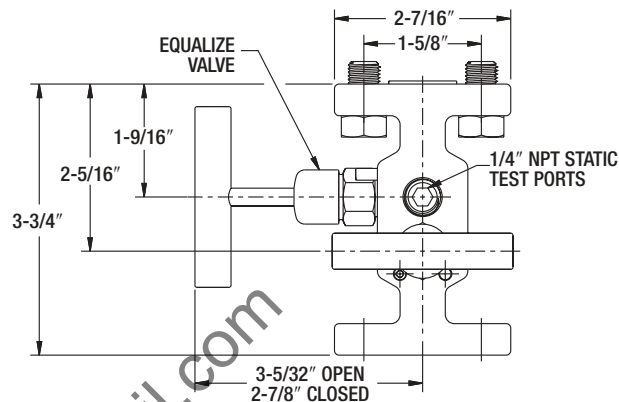
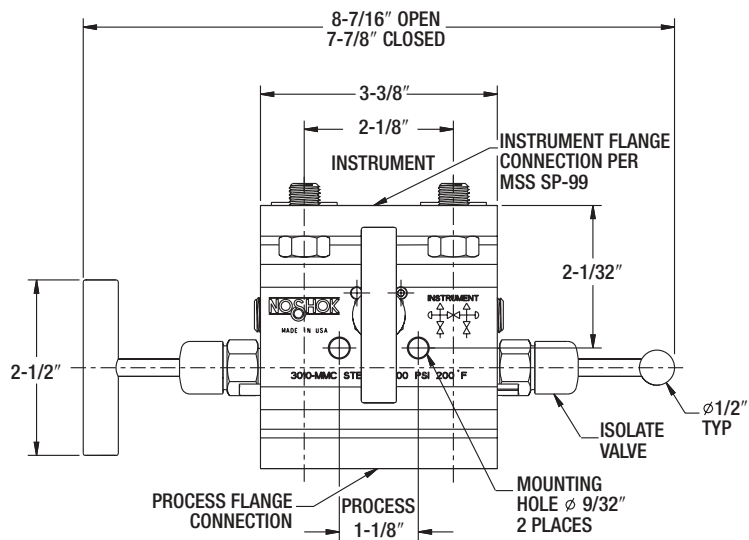


**FLANGE-FEMALE**



**FEMALE-FEMALE**





# 5000 SERIES

# Manifold Valves



The NOSHOK 5000 Series Hard Seat and Soft Seat 5 Valve Manifolds are designed for use with differential pressure transmitters incorporating two isolation valves, two equalizing valves and a vent valve in natural gas applications. The NOSHOK 5000 Series 5 Valve Manifolds are also available in either a block, single flange or double flange connection for remote or direct installation.

All manifold bodies are machined from cold drawn\* extrusions allowing NOSHOK to hold tighter tolerances and greater mechanical strength than any other manifold valve in the industry. Stem and bonnet threads are rolled for greater strength and ease of operation. The valve stems are equipped with both a Viton o-ring and Teflon back-up ring below the threads to protect from corrosion and galling. Each and every manifold valve is 100% Helium leak tested to  $1 \times 10^{-4}$  ml/s at 200 psi for a bubble tight seal.

\*Uniform shape, smooth clean surface finish, straightness

## 5000 SERIES MANIFOLD VALVE STANDARD FEATURES

- One piece bonnet with a metal to metal seal to the valve body below the bonnet threads
- Bonnet lock pins to prevent accidental loosening
- Color coded Vinyl bonnet and stem dust caps
- 0.187 inch orifice size
- Electroless Nickel plated finish on carbon steel manifold valves
- Electropolish finish on stainless steel manifold valves
- Electroless Nickel plated high tensile strength 4140 steel mounting bolts
- Two static (test) ports

## HARD SEAT MANIFOLD VALVE FEATURES

- Helium leak tested metal to metal hard seat design
- 10000 psi pressure rating @ 200 degrees Fahrenheit maximum
- Flow coefficient factor of 0.44

## SOFT SEAT MANIFOLD VALVE FEATURES

- Helium leak tested soft seat design with replaceable Delrin seat
- 6000 psi pressure rating @ 200 degrees Fahrenheit maximum
- Straight through porting for bi-directional flow and easy roddable cleaning
- Patent pending soft tip stem design on equalizing and vent valves
- Flow coefficient factor of 0.76

## Ordering Information

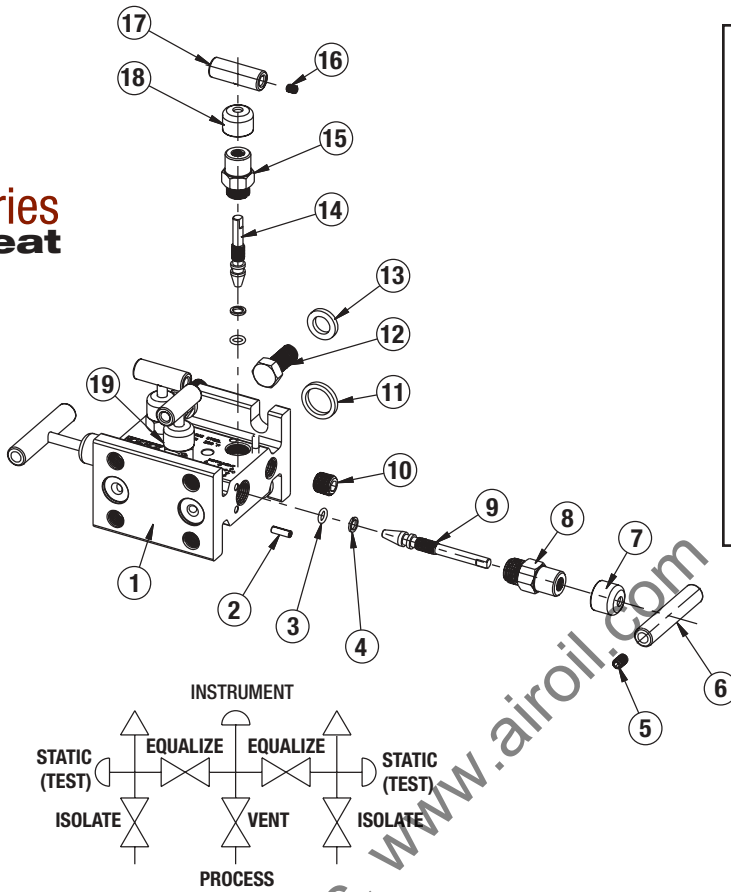
PART NUMBER	CONNECTION	MATERIAL
5030-FFC	1/2" NPT - 1/2" NPT	Steel
5030-FFS	1/2" NPT - 1/2" NPT	Stainless Steel
5030-MFC	Flange - 1/2" NPT	Steel
5030-MFS	Flange - 1/2" NPT	Stainless Steel
5030-MMC	Flange - Flange	Steel
5030-MMS	Flange - Flange	Stainless Steel

PART NUMBER	CONNECTION	MATERIAL
5130-FFC	1/2" NPT - 1/2" NPT	Steel
5130-FFS	1/2" NPT - 1/2" NPT	Stainless Steel
5130-MFC	Flange - 1/2" NPT	Steel
5130-MFS	Flange - 1/2" NPT	Stainless Steel
5130-MMC	Flange - Flange	Steel
5130-MMS	Flange - Flange	Stainless Steel

Viton® is a registered trademark of DuPont Dow Elastomers  
Teflon® is a registered trademark of DuPont Company

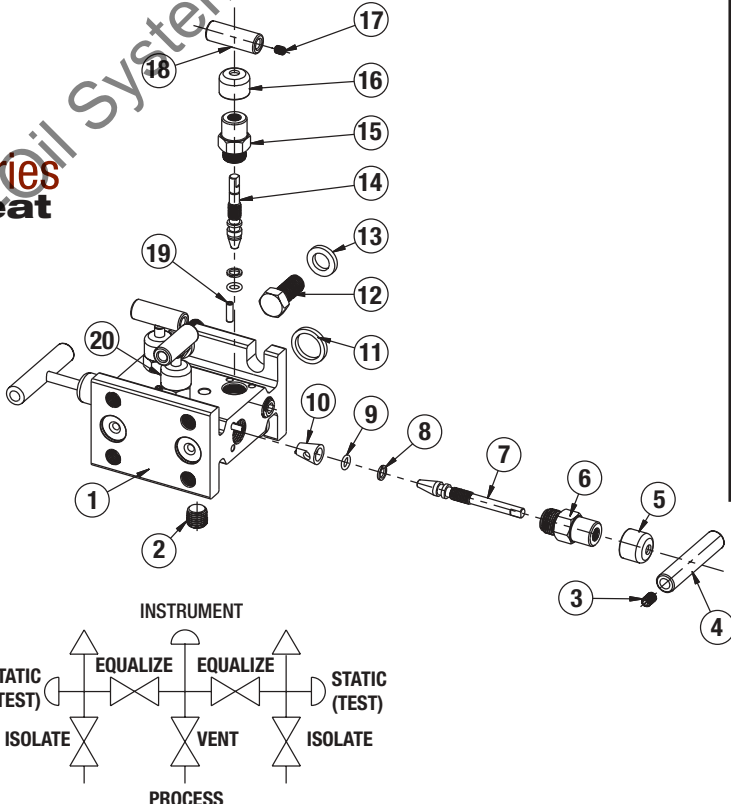
Manifold Valves

**5000 series**  
hard seat



- 1 Body
- 2 Spring Pin
- 3 O-Ring
- 4 Back-up Ring
- 5 Set Screw
- 6 Handle
- 7 Blue Dust Cap
- 8 Bonnet
- 9 Stem
- 10 NPT Plug
- 11 Gasket
- 12 Bolt
- 13 Washer
- 14 Mini Stem
- 15 Mini Bonnet
- 16 Set Screw
- 17 Mini Handle
- 18 Green Dust Cap
- 19 Red Dust Cap

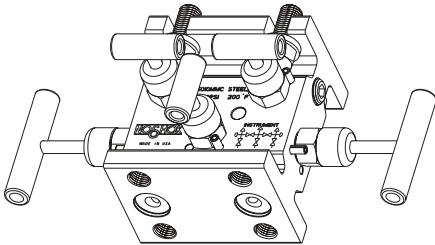
**5100 series**  
soft seat



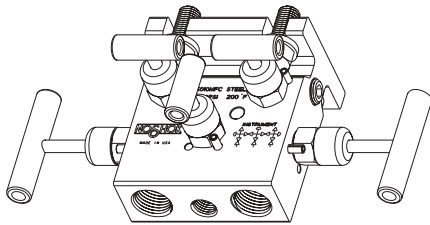
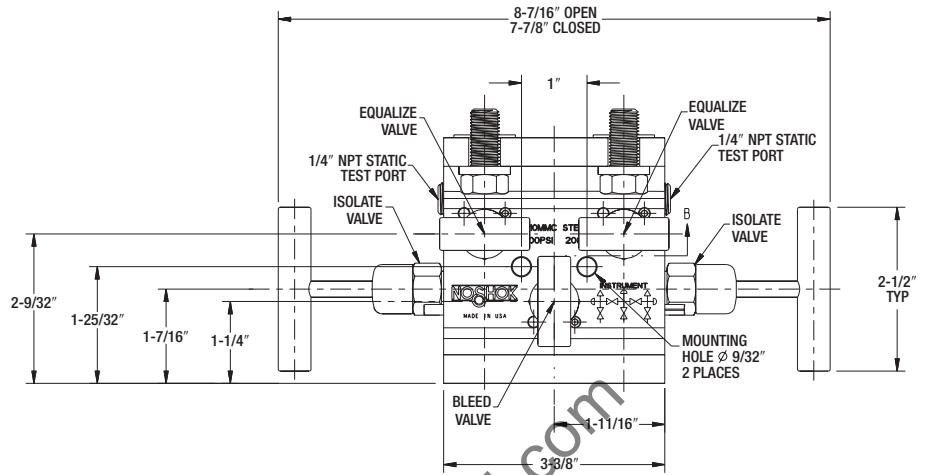
- 1 Body
- 2 NPT Plug
- 3 Set Screw
- 4 Handle
- 5 Green Dust Cap
- 6 Bonnet
- 7 Stem
- 8 Back-up Ring
- 9 O-Ring
- 10 Soft Seat
- 11 Gasket
- 12 Bolt
- 13 Washer
- 14 Mini Soft Tip Stem
- 15 Mini Bonnet
- 16 Blue Dust Cap
- 17 Set Screw
- 18 Mini Handle
- 19 Spring Pin
- 20 Red Dust Cap

# 5000SERIES

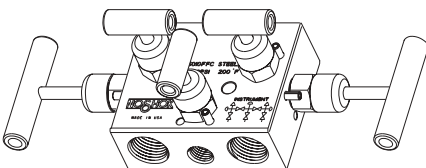
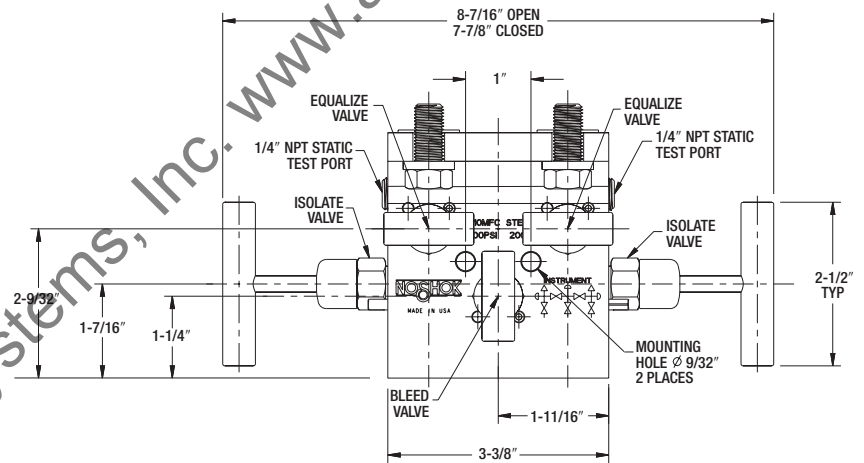
# Manifold Valves



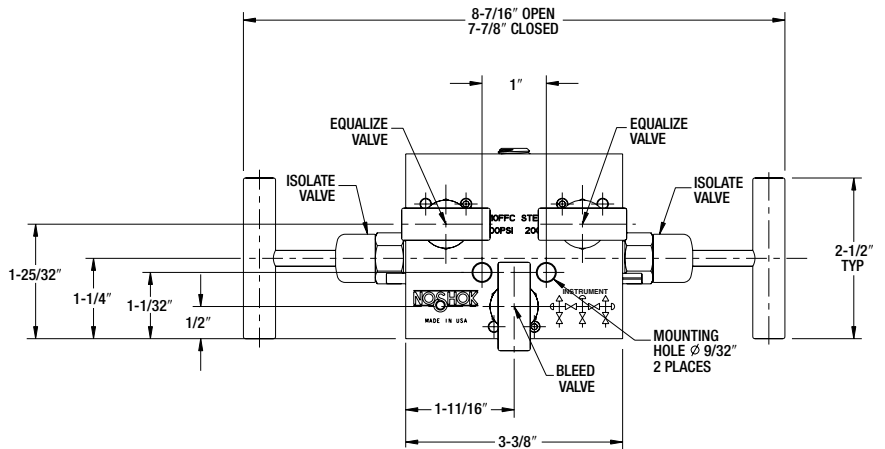
**FLANGE-FLANGE**

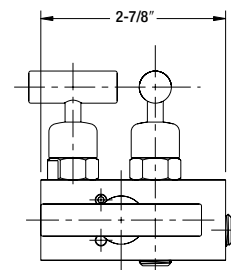
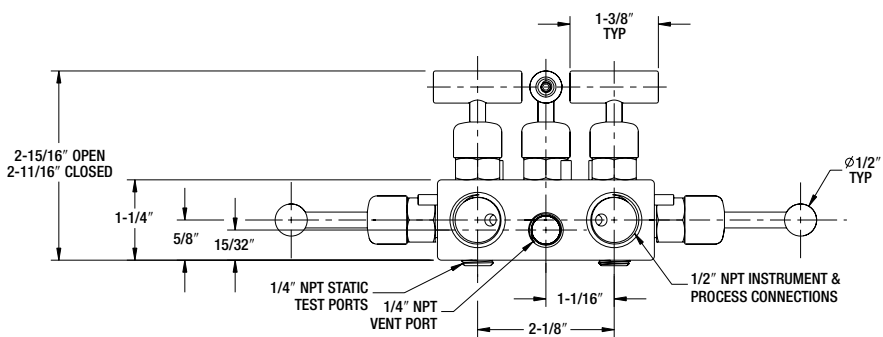
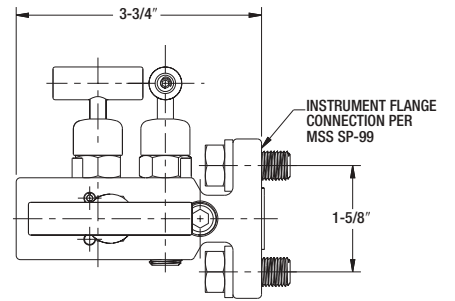
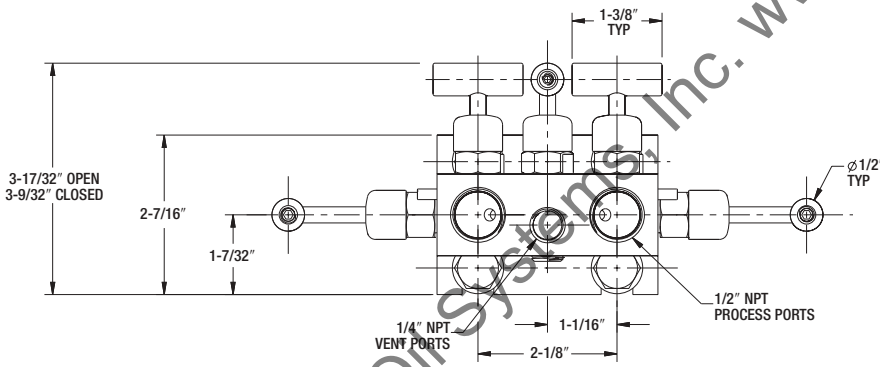
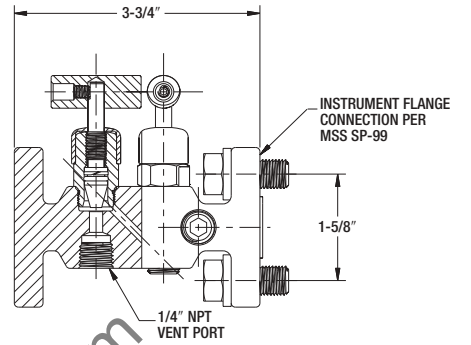
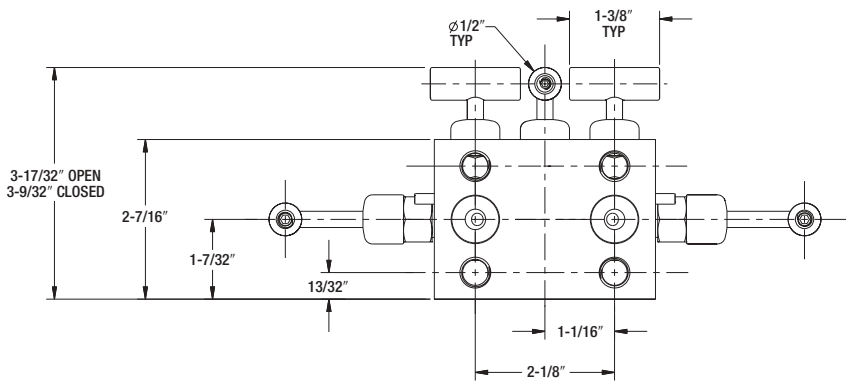


**FLANGE-FEMALE**



**FEMALE-FEMALE**





# Accessories

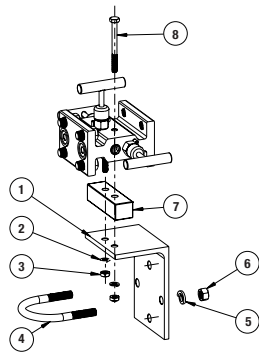
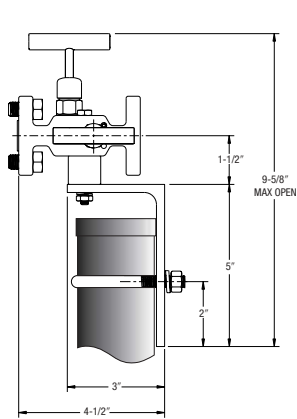


The NOSHOK Manifold Mounting Kit is designed for direct or remote mounting to a two inch pipe stand. This kit can be utilized with any NOSHOK 2, 3 or 5 valve manifold by mounting a steel or stainless steel bracket directly to the manifold body.

PART NUMBER	DESCRIPTION	MATERIAL
<b>2 &amp; 3 VALVE</b>		
MK1-CS	Flange-Flange Mounting Kit	Steel
MK1-SS2	Flange-Flange Mounting Kit	Stainless Steel
MK2-CS	NPT-NPT & NPT-Flange Mounting Kit	Steel
MK2-SS2	NPT-NPT & NPT-Flange Mounting Kit	Stainless Steel
<b>5 VALVE</b>		
MK3-CS	Flange-Flange Mounting Kit	Steel
MK3-SS2	Flange-Flange Mounting Kit	Stainless Steel
MK4-CS	NPT-NPT & NPT-Flange Mounting Kit	Steel
MK4-SS2	NPT-NPT & NPT-Flange Mounting Kit	Stainless Steel
RG1-TF1	Teflon® Manifold Gasket Ring	Teflon®

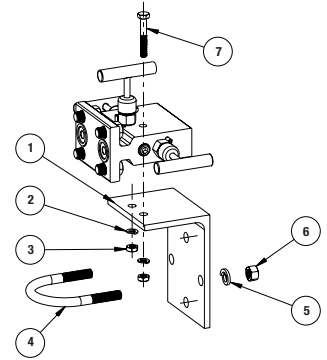
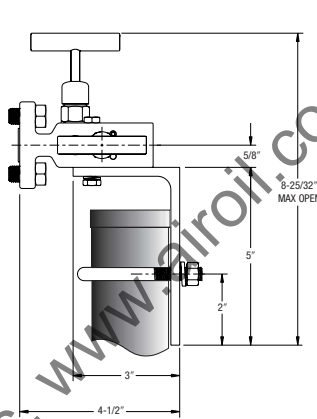
# Mounting Diagrams for 2000, 3000 & 5000 Series Manifold Valves

**2000 & 3000 Series Mounting Kit  
Flange-Flange**



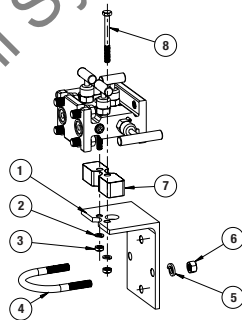
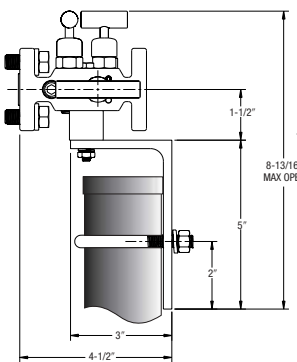
- |               |               |
|---------------|---------------|
| 1 Bracket     | 5 Lock Washer |
| 2 Lock Washer | 6 Nut         |
| 3 Nut         | 7 Spacer      |
| 4 U-Bolt      | 8 Bolt        |

**2000 & 3000 Series Mounting Kit  
Flange-NPT, NPT-NPT**



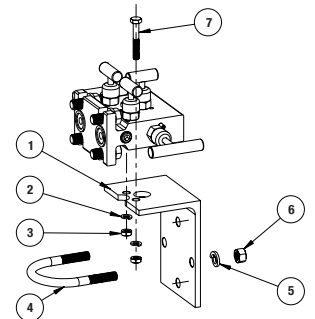
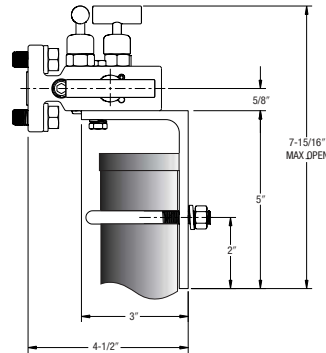
- |               |               |
|---------------|---------------|
| 1 Bracket     | 5 Lock Washer |
| 2 Lock Washer | 6 Nut         |
| 3 Nut         | 7 Bolt        |
| 4 U-Bolt      |               |

**5000 Series Mounting Kit  
Flange-Flange**



- |               |               |
|---------------|---------------|
| 1 Bracket     | 5 Lock Washer |
| 2 Lock Washer | 6 Nut         |
| 3 Nut         | 7 Spacer      |
| 4 U-Bolt      | 8 Bolt        |

**5000 Series Mounting Kit  
Flange-NPT, NPT-NPT**



- |               |               |
|---------------|---------------|
| 1 Bracket     | 5 Lock Washer |
| 2 Lock Washer | 6 Nut         |
| 3 Nut         | 7 Bolt        |
| 4 U-Bolt      |               |

Air-Oil Systems, Inc. [www.airoil.com](http://www.airoil.com)

*The  
Instrumentation  
Company*



**CORPORATE HEADQUARTERS**

1010 West Bagley Road • Berea, Ohio 44017  
440.243.0888 • 440.243.3472 Fax

E-mail: [noshok@noshok.com](mailto:noshok@noshok.com)

Web: [www.noshok.com](http://www.noshok.com)