# Trifold Needle Valve Manifold

The HOKE 3–Valve Trifold manifold is designed for direct mounting to differential pressure transmitters having 2.125 inches (54 mm) center-to-center process connections.

### Pipe by Flange

When direct coupling to orifice plate flanges is not desired, the pipe by flange Trifold Manifold allows for two ½" NPT process connections in addition to direct mounting of the transmitter.

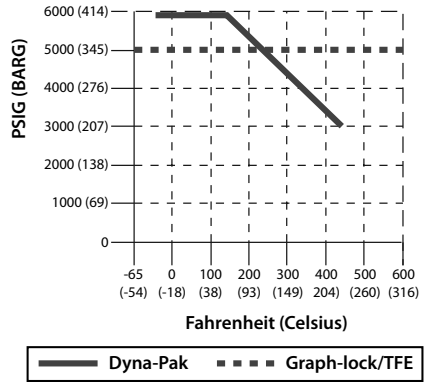
### Flange by Flange

When direct coupling to orifice plate flanges is required, the flange by flange Trifold Manifold mounts directly between the flange and the transmitter. If direct coupling to orifice plate flanges is not required, process futbol connectors may also be used.


## Technical Data

| | |
|---|---|
| **MAXIMUM OPERATINGPRESSURE** | *Dyna-Pak/Metal Stem Tip*<br>• 6000 psig (414 barg) -65° F to +150° F (-54°C to +66° C)<br>• 3000 psig (307 barg) at +450° F (+232° C)<br>*Graph-Lock/TFE Wafer Packing*<br>• 5000 psig (345 barg) -60° F to +600° F (-51°C to +316° C)<br>• 3000 psig (307 barg) at +450° F (+232° C) |
| **OPERATING TEMPERATURERANGE** | *Dyna-Pak/Metal Stem Tip*<br>• -65° F to +450° F (-54°C to +232° C)<br>*Graph-Lock/TFE Wafer Packing*<br>• -60° F to +600° F (-51°C to +316° C) |

## Pressure Temperature Curves




## Features & Benefits

- Purge ports are provided on the process side of block valves for applications requiring continuous purging.
- Bleed or vent ports on the instrument side of the block valves.
- Dyna-Pak TFE or high-temperature 600° F (316° C) Graph-lock/TFE wafer packing is standard.
- Bonnet locks prevent accidental disengagement of the bonnet.
- Non-rotating hardened metal stem tip.
- Integral backseats on all valve stems prevent accidental removal.
- Mounting bolts and TFE gaskets are standard.
- Packing below stem threads prevents process liquids from contaminating or washing away the thread lubricants.
- Special High Tolerance NPT Thread

instrument manifolds

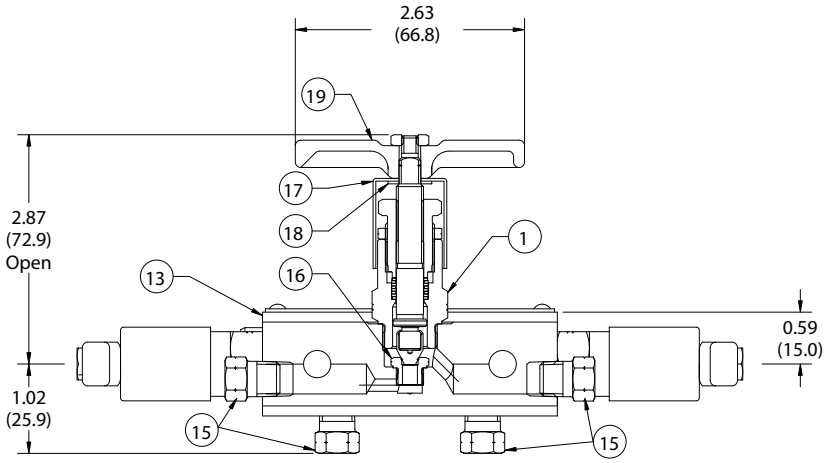
**HOKE Inc.**
PO Box 4866 • Spartanburg, SC 29305-4866
Phone (864) 574-7966 Fax (864) 587-5608
www.hoke.com • Sales-hoke@circor.com

# Trifold Needle Valve Manifold– Pipe by Flange

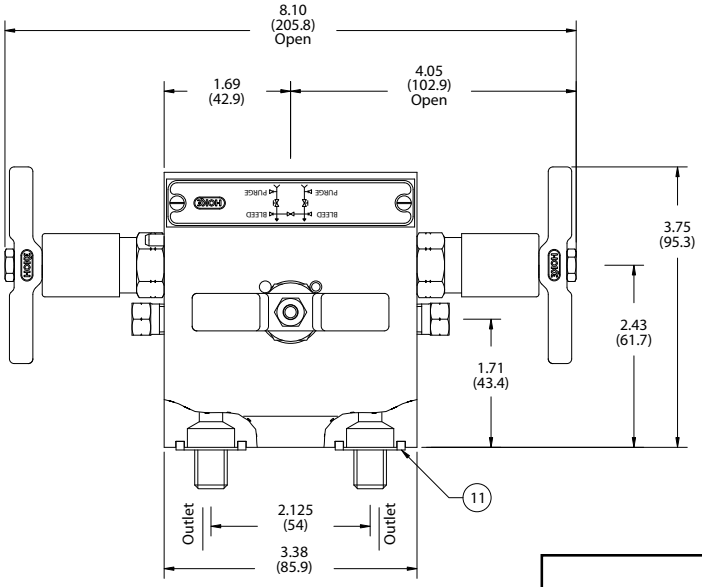
Special Application Manifolds

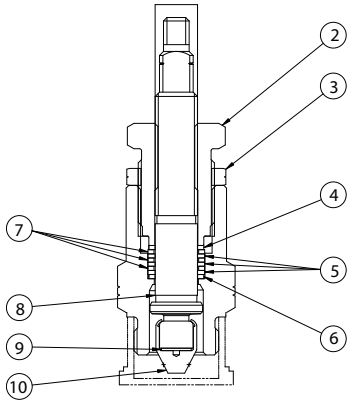
## Dimensions and Materials

Dimensions are in inches (millimeters) are for reference only and are subject to change



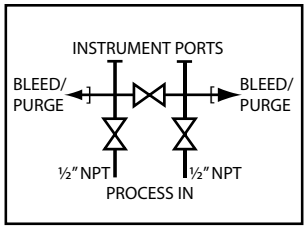

| | DESCRIPTION | MATERIAL |
|---|---|---|
| 1 | HOUSING | 316 stainless steel |
| 2 | PACKING NUT | 316 stainless steel |
| 3 | LOCK NUT | 316 stainless steel |
| 4 | WASHER | 316 stainless steel |
| 5 | WAFER | PTFE tape |
| 6 | WASHER | 316 stainless steel |
| 7 | SPACER | 316 stainless steel |
| 8 | STEM | 316 stainless steel |
| 9 | DISC | 17-7PH stainless steel |
| 10 | STEM POINT | 17-4PH stainless steel |
| 11 | WASHER | PTFE |
| 12 | SPRING PIN | 302 stainless steel |
| 13 | MANIFOLD BLOCK | 316 stainless steel |
| 14 | CAP SCREW | 18-8 stainless steel |
| 15 | PIPE PLUG | 316 stainless steel |
| 16 | SEAT INSERT | 316 stainless steel |
| 17 | CAP LUG | Polyethylene |
| 18 | WASHER | 304 stainless steel |
| 19 | HANDLE | 316 stainless steel |

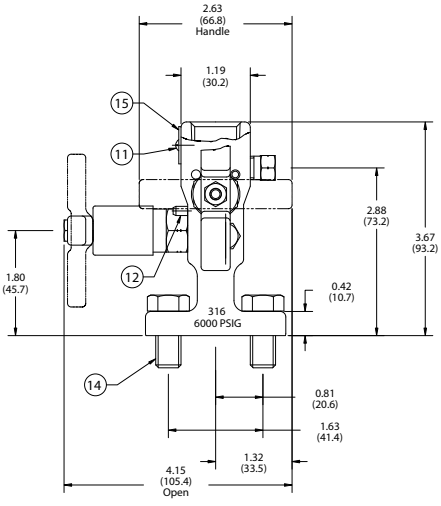



**FOR YOUR SAFETY**

IT IS SOLELY THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND USER TO SELECT PRODUCTS SUITABLE FOR THEIR SPECIFIC APPLICATION REQUIREMENTS AND TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF THESE PRODUCTS. MATERIAL COMPATIBILITY, PRODUCT RATINGS AND APPLICATION DETAILS SHOULD BE CONSIDERED IN THE SELECTION. IMPROPER SELECTION OR USE OF PRODUCTS DESCRIBED HEREIN CAN CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.




## How to Order Trifold Pipe by Flange

| CONNECTIONS | | MODEL NUMBER | STEM POINT | PACKING |
|---|---|---|---|---|
| PROCESS | INSTRUMENT | | | |
| 1/2" Female NPT | Flange | 8122F8Y | Non-rotating 17-4PH | Dyna-Pak |
| 1/2" Female NPT | Flange | 8128F8Y | Non-rotating 17-4PH | Graph-lock/ TFE wafers |

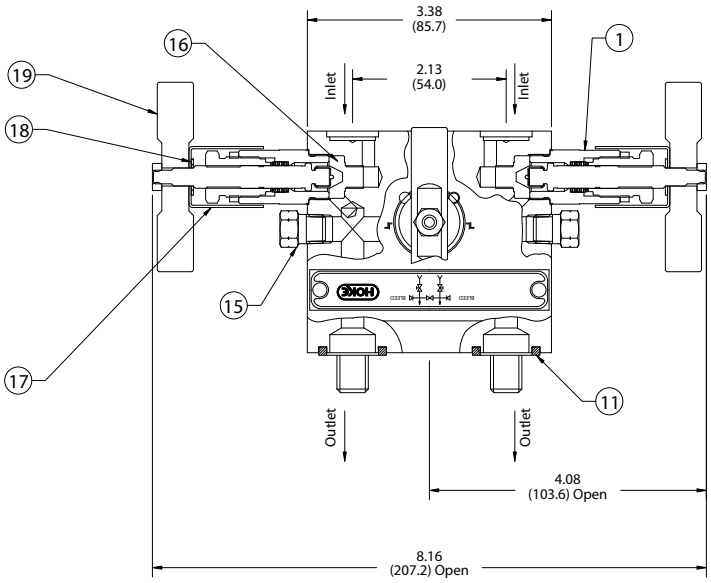
Mani-Mount mounting module see page 17 for details (available for 8122F8Y only)

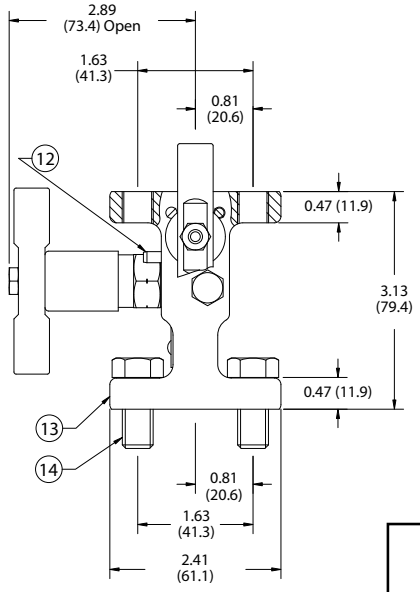
# Trifold Needle Valve Manifold– Flange by Flange

Special Application Manifolds

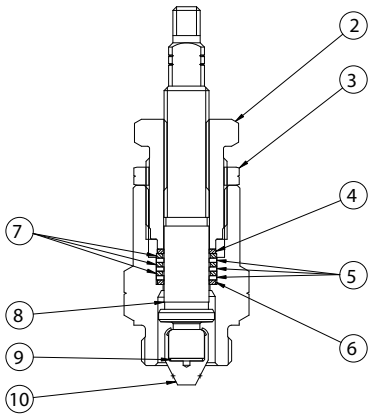
## Dimensions and Materials

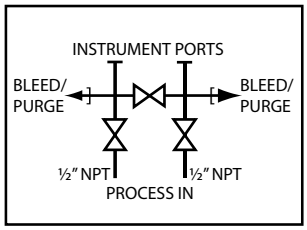
Dimensions are in inches (millimeters) are for reference only and are subject to change




| | DESCRIPTION | MATERIAL |
|---|---|---|
| 1 | HOUSING | 316 stainless steel |
| 2 | PACKING NUT | 316 stainless steel |
| 3 | LOCK NUT | 316 stainless steel |
| 4 | WASHER | 316 stainless steel |
| 5 | WAFER | PTFE tape |
| 6 | WASHER | 316 stainless steel |
| 7 | SPACER | 316 stainless steel |
| 8 | STEM | 316 stainless steel |
| 9 | DISC | 17-7PH stainless steel |
| 10 | STEM POINT | 17-4PH stainless steel |
| 11 | WASHER | PTFE |
| 12 | SPRING PIN | 302 stainless steel |
| 13 | MANIFOLD BLOCK | 316 stainless steel |
| 14 | CAP SCREW | 18-8 stainless steel |
| 15 | PIPE PLUG | 316 stainless steel |
| 16 | SEAT INSERT | 316 stainless steel |
| 17 | CAP LUG | Polyethylene |
| 18 | WASHER | 304 stainless steel |
| 19 | HANDLE | 316 stainless steel |

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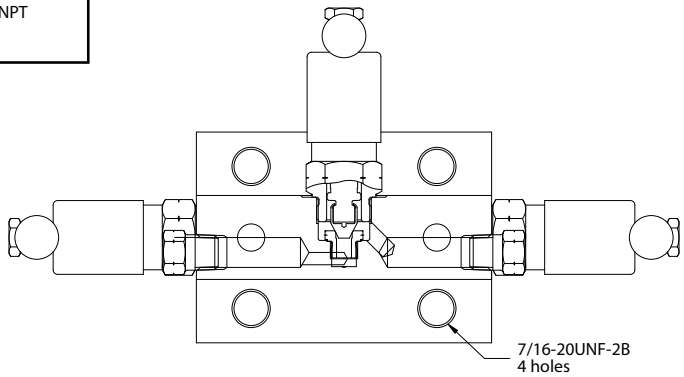



## How to Order Trifold Flange by Flange

| CONNECTIONS | | MODEL NUMBER | STEM POINT | PACKING |
|---|---|---|---|---|
| PROCESS | INSTRUMENT | | | |
| Flange | Flange | 8132YY | Non-rotating 17-4PH | Dyna-Pak |
| Flange | Flange | 8138YY | Non-rotating 17-4PH | Graph-lock/ TFE wafers |

# Rotofold Ball Valve Manifold

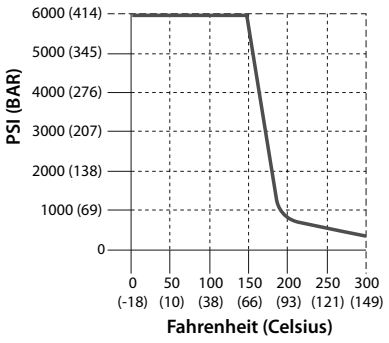
The HOKE Rotofold ball valve manifold has a unique design that utilizes quarter turn ball valves for blocking process impulse lines and performing equalizing functions. They also provide easy rod though of all passages when clean-out is necessary. PCTFE seats and PTFE stem packing are easily replaced if maintenance is required. The pipe by flange Rotofold design allows the manifold to be directly mounted to integral orifice transmitters by simply reversing the flanges and flange fittings. The pipe by pipe Rotofold design allows the manifold to be remotely mounted separately from the process.



## Technical Data

| | |
|---|---|
| **MAXIMUM OPERATINGPRESSURE** | 6000 psig (414 barg)<br>-65° F to +150° F (-54°C to +66° C)<br><br>400 psig @ +300° F (28 barg @ +149° C) |
| **OPERATING TEMPERATURERANGE** | 0° F to +300° F (-18°C to +149° C) |

## Pressure Temperature Curves




## Features & Benefits

- Flange can be reversed for direct mounting to an integral orifice type transmitter
- Connections on instrument side of block valves for bleeding and venting.
- Replaceable PCTFE seats on all valves provide longer service life.
- All media passages can be rodded for easy cleaning.
- ¼ turn handle provides visual indication of valve mode.
- Mounting bolts and TFE gaskets are standard with flange models.
- Cam handles provide error-proof sequencing of valves.
- Mani-Mount mounting kit available for NPT pipe style (see Mani-mount mounting system, page 17)
- Special High Tolerance NPT Thread

**Cam-Valve Interlocking Sequencing Handles**

*The correct sequencing of opening and closing manifold valves is critical to eliminating pressure transmitter damage due to over ranging. By attaching cams to the equalizing and block valve handles, the inter-locking design assures proper initial service and transmitter zeroing during calibration.*

*Cam kit 8200K5 can be field installed or factory assembled to the manifold at time of order. For factory assembled, add part number 8200K5 to the end of the manifold part number.*

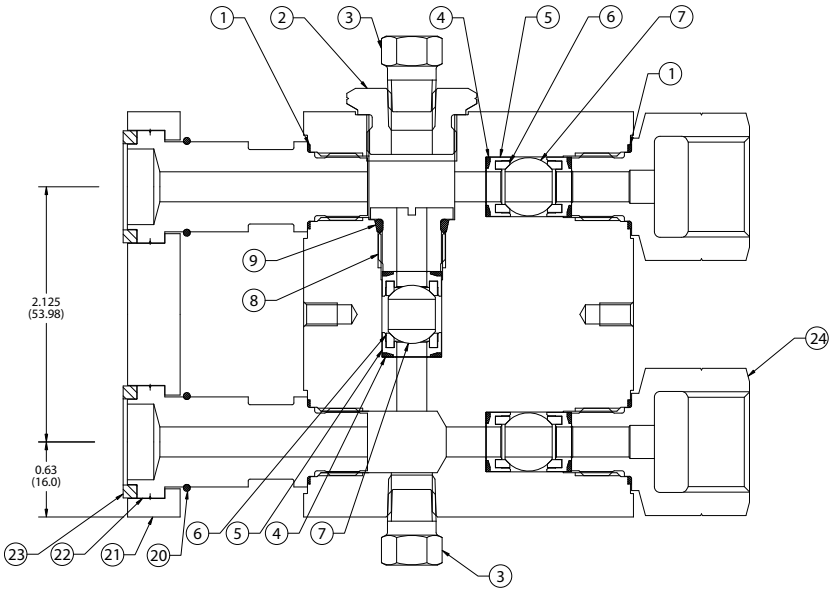
**HOKE, Inc.**
405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
Phone (864) 574-7966 Fax (864) 587-5608
www.HOKE.com • sales@HOKE.com

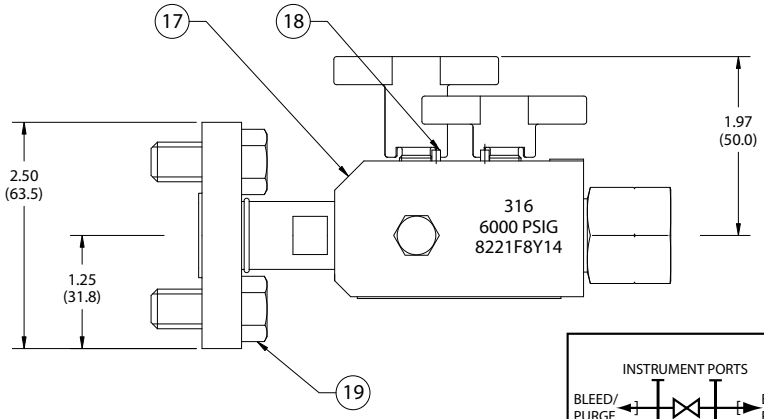
# Rotofold Ball Valve Manifold - Pipe by Flange

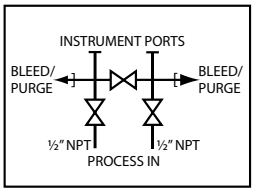
Special Application Manifolds

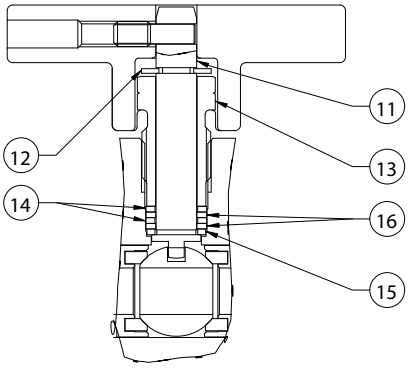
## Dimensions and Materials

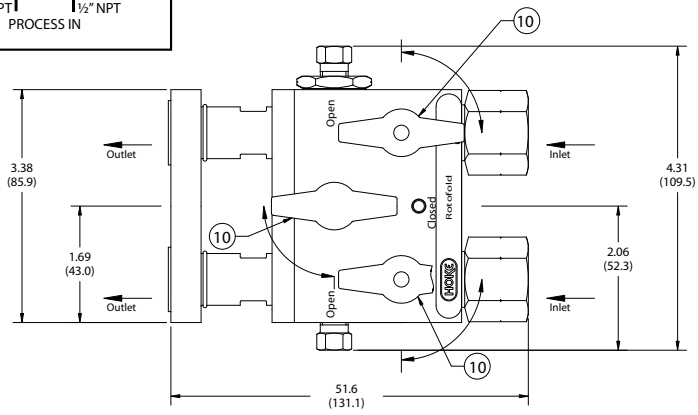
Dimensions are in inches (millimeters) are for reference only and are subject to change






| | DESCRIPTION | MATERIAL |
|---|---|---|
| 1 | PLUG WASHER | PTFE |
| 2 | VENT FITTING | 316 stainless steel |
| 3 | PIPE PLUG | 316 stainless steel |
| 4 | WASHER | Viton® |
| 5 | SEAT RETAINER | 316 stainless steel |
| 6 | SEAT | PCTFE |
| 7 | BALL | 316 stainless steel |
| 8 | INSERT | 316 stainless steel |
| 9 | O-RING | Fluorelastomer |
| 10 | HANDLE | Aluminum alloy 360 |
| 11 | STEM | 316 stainless steel |
| 12 | RETAINING RING | PH15-7MO |
| 13 | STEM RETAINER | 316 stainless steel |
| 14 | SHIM WASHER | 316 stainless steel |
| 15 | SHIM WASHER | 316 stainless steel |
| 16 | SHIM WASHER | PTFE |
| 17 | MANIFOLD BODY | 316 stainless steel |
| 18 | SPIRAL PIN | 302 stainless steel |
| 19 | CAP SCREW | Carbon Steel |
| 20 | RETAINING RING | 302 stainless steel |
| 21 | FLANGE | Carbon Steel |
| 22 | FLANGE CONNECTOR | 316 stainless steel |
| 23 | WASHER | PTFE |
| 24 | END FITTING | 316 stainless steel |

## How to Order Rotofold-Pipe by Flange

| CONNECTIONS | | | ORDERING NUMBER |
|---|---|---|---|
| BODY OUTLET STYLE | INLET PROCESS | OUTLET INSTRUMENTATION | |
| Flange | 1/2" Female NPT | Flange | 8221F8Y |

Cam-valve sequencing handles order No. 8200K5

Mani-Mount mounting module - see page 17 for details (available for 8221F8Y only)

**FOR YOUR SAFETY**

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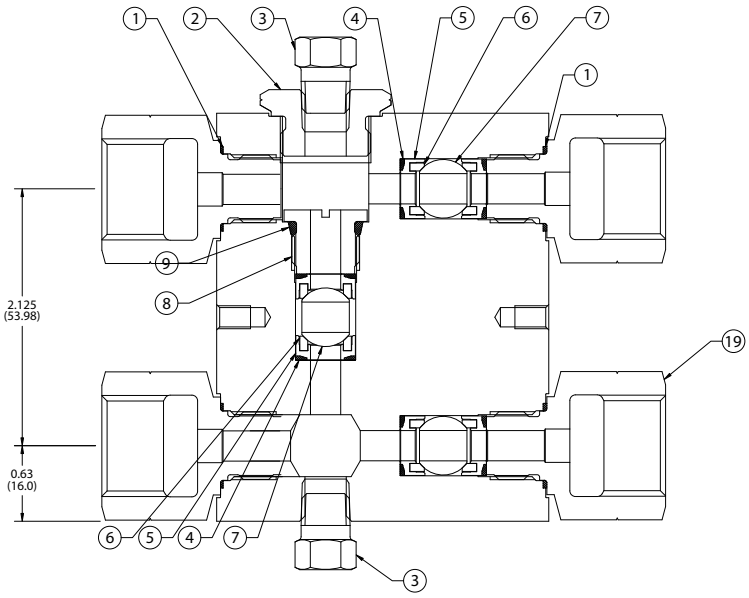
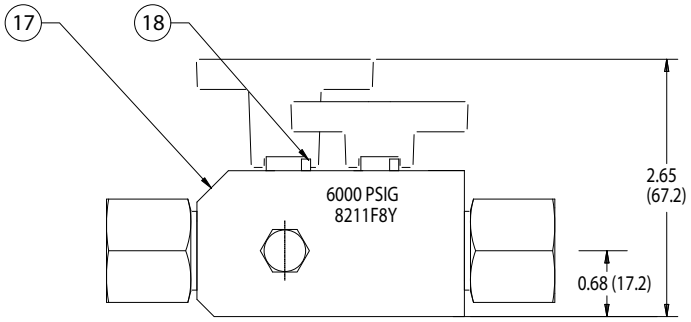
# Rotofold Ball Valve Manifold - Pipe by Pipe

Special Application Manifolds

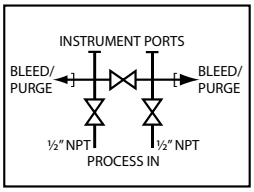
## Dimensions and Materials

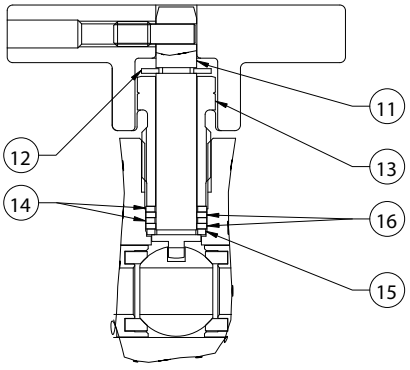
Dimensions are in inches (millimeters) are for reference only and are subject to change

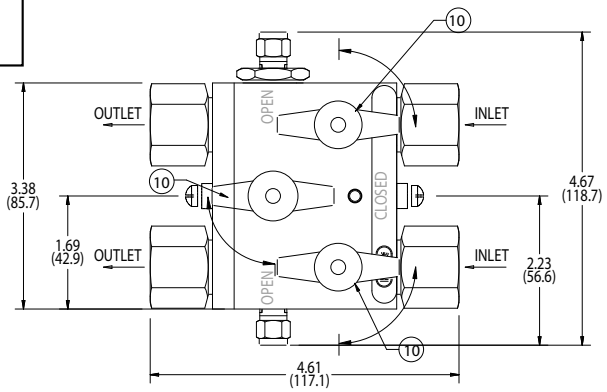



| | DESCRIPTION | MATERIAL |
|---|---|---|
| 1 | PLUG WASHER | PTFE |
| 2 | VENT FITTING | 316 stainless steel |
| 3 | PIPE PLUG | 316 stainless steel |
| 4 | WASHER | Viton® |
| 5 | SEAT RETAINER | 316 stainless steel |
| 6 | SEAT | PCTFE |
| 7 | BALL | 316 stainless steel |
| 8 | INSERT | 316 stainless steel |
| 9 | O-RING | Fluorelastomer |
| 10 | HANDLE | Aluminum alloy 360 |
| 11 | STEM | 316 stainless steel |
| 12 | RETAINING RING | PH15-7MO |
| 13 | STEM RETAINER | 316 stainless steel |
| 14 | SHIM WASHER | 316 stainless steel |
| 15 | SHIM WASHER | 316 stainless steel |
| 16 | SHIM WASHER | PTFE |
| 17 | MANIFOLD BODY | 316 stainless steel |
| 18 | SPIRAL PIN | 302 stainless steel |
| 19 | END FITTING | 316 stainless steel |




## How to Order Rotofold-Pipe by Pipe

| CONNECTIONS | | | ORDERING NUMBER |
|---|---|---|---|
| BODY OUTLET STYLE | INLET PROCESS | OUTLET INSTRUMENTATION | |
| NPT Pipe | 1/2" Female NPT | 1/2" Female NPT | 8211F8Y |

Cam-valve sequencing handles order No. 8200K5

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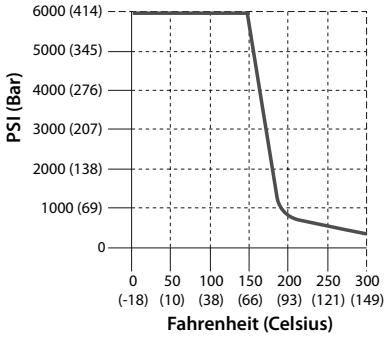
# Pentafold 5–Valve Manifold

The HOKE Pentafold 5-valve manifold is specifically designed for use with differential pressure transmitters when applied to gas flow measurement. This manifold design uses two PCTFE seated ball valves and three needle valves with non-rotating PCTFE stem tips as bypass or equalizing valves and vent valves. The two by-pass valves assure no leakage across the high and low side of the orifice meter for critical gas flow measurement. The pipe by pipe Pentafold design allows the manifold to be mounted away from the process but close to a differential pressure transmitter through the use of impulse piping.


## Technical Data

| | |
|---|---|
| **MAXIMUM OPERATINGPRESSURE** | 6000 psig (414 barg)<br>-20° F to +150° F (-29°C to +66° C)<br><br>400 psig @ +300° F (28 barg @ +149° C) |
| **OPERATING TEMPERATURERANGE** | 0° F to +300° F (-18°C to +149° C) |

## Pressure Temperature Curves




## Features & Benefits

- Static or vent ports provided on instrument side.
- Replaceable ball seats and stem tips extend service life, reducing cost.
- Threaded mounting hole provided on all models.
- Single manifold block has fewer potential leak paths than individually assembled valves.
- TFE standard packing in all valves.
- Special High Tolerance NPT Thread

instrument manifolds

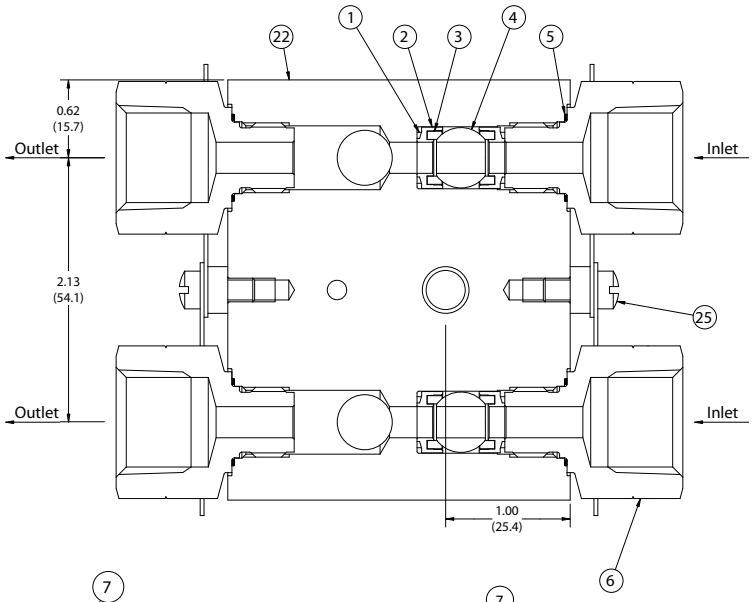
**HOKE Inc.**
PO Box 4866 • Spartanburg, SC 29305-4866
Phone (864) 574-7966 Fax (864) 587-5608
www.hoke.com • Sales-hoke@circor.com

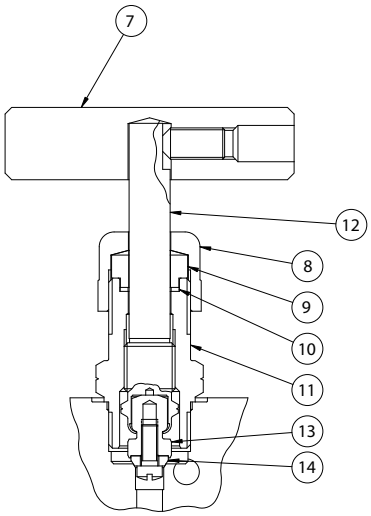
# Pentafold 5–Valve Manifold

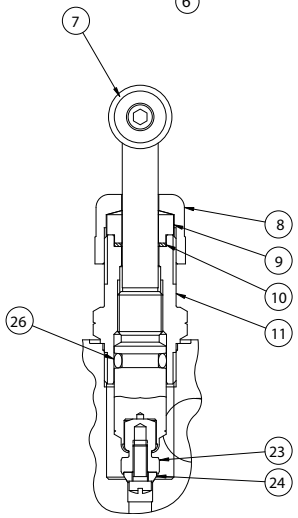
Special Application Manifolds

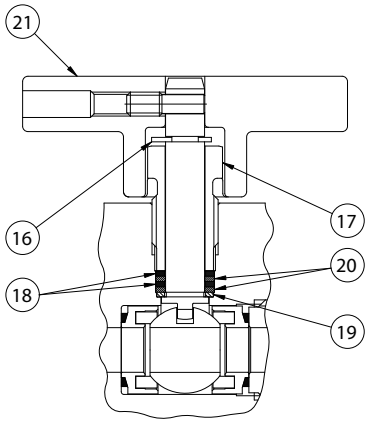
## Dimensions and Materials

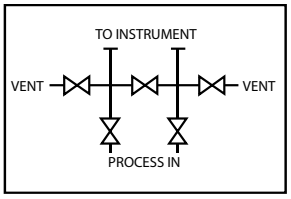
Dimensions are in inches (millimeters) are for reference only and are subject to change



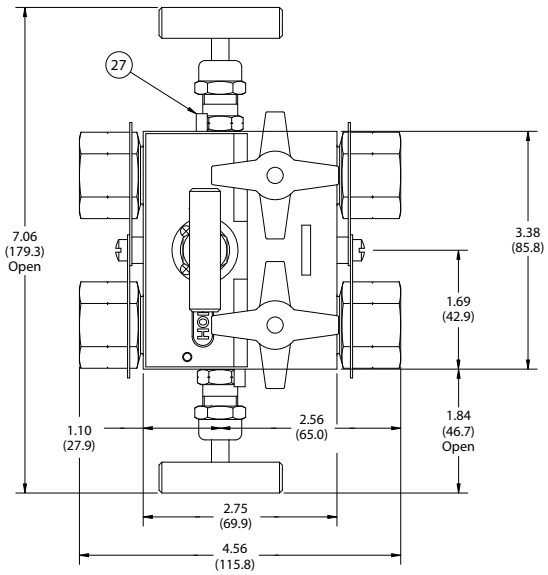




| | DESCRIPTION | MATERIAL |
|---|---|---|
| 1 | WASHER | Fluorelastomer |
| 2 | SEAT RETAINER | 316 stainless steel |
| 3 | SEAT | PCTFE |
| 4 | BALL | 316 stainless steel |
| 5 | PLUG WASHER | PTFE |
| 6 | END FITTING | 316 stainless steel |
| 7 | HANDLE | 316 stainless steel |
| 8 | PACKING NUT | 316 stainless steel |
| 9 | PACKING | PTFE |
| 10 | SPACER | 316 stainless steel |
| 11 | HOUSING | 316 stainless steel |
| 12 | SPINDLE | 316 stainless steel |
| 13 | SEAT RETAINER | 316 stainless steel |
| 14 | SEAT | PCTFE |
| 15 | STEM | 316 stainless steel |
| 16 | RETAINING RING | Stainless steel |
| 17 | STEM RETAINER | 316 stainless steel |
| 18 | SHIM WASHER | 316 stainless steel |
| 19 | SHIM WASHER | 316 stainless steel |
| 20 | SHIM WASHER | PTFE |
| 21 | HANDLE | Aluminum alloy 360 |
| 22 | BODY | 316 stainless steel |
| 23 | SEAT RETAINER | 316 stainless steel |
| 24 | SEAT | PCTFE |
| 25 | SCREW | 18-8 stainless steel |
| 26 | O-RING | Fluorelastomer |
| 27 | SPRING PIN | 302 stainless steel |




## How to Order Pentafold

| CONNECTIONS | | ORDERING NUMBER |
|---|---|---|
| INLET PROCESS | OUTLET INSTRUMENTATION | |
| 1/2" Female NPT | Flange | 8613F8Y |

**FOR YOUR SAFETY**

IT IS SOLELY THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND USER TO SELECT PRODUCTS SUITABLE FOR THEIR SPECIFIC APPLICATION REQUIREMENTS AND TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF THESE PRODUCTS. MATERIAL COMPATIBILITY, PRODUCT RATINGS AND APPLICATION DETAILS SHOULD BE CONSIDERED IN THE SELECTION. IMPROPER SELECTION OR USE OF PRODUCTS DESCRIBED HEREIN CAN CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.

# Manifold Accessories

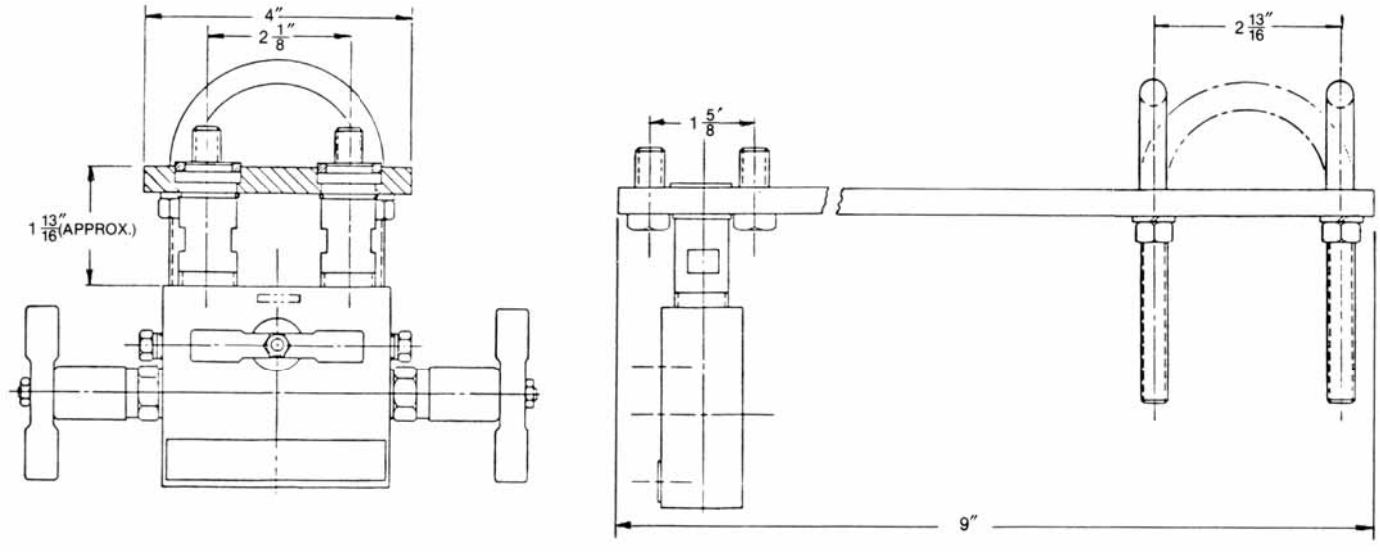
## Mani-Mount Manifold Mounting System*

This installation method provides for rigid mounting of a Trifold or Rotofold manifold to a 2 inch pipe stand instead of a differential pressure transmitter. Only the manifold is mounted during construction, which permits storage of the transmitter until needed. The Mani-Mount not only provides a simple universal mounting solution, but also converts the manifold to a single flange design for direct mounting to the transmitter. The Mani-Mount can be used with any standard transmitter having 2 1/8" center to center process connections. Typical installation hardware costs are reduced because transmitter mounting brackets are not necessary.

**Available for Special Application Trifold 8122F8Y and Rotofold 8221F8Y models only*

## Features & Benefits

- Allows for rigid mounting of the manifold, instead of the transmitter.
- Simple universal mounting system for vertical, horizontal or either side of 2 inch pipe stand.
- Only the manifold needs to be mounted during construction; the transmitter can be securely stored until final installation.
- Transmitter mounting bracket is not necessary, reducing costs.
- Provides easy access to the transmitter by loosening 4 flange bolts.
- Fast installation process, saving time and money on costly conventional installations.
- Converts the manifold to a single flange style for direct mounting to the transmitter cell.
- Special High Tolerance NPT Thread




## How to Order Kit*

| PART NUMBER |
|---|
| 8200K9 |

** manifold not included*