

DK-LOK

Fittings & Valves

Block & Bleed Valves Monoflange

No. DBB/MONO-1
July 2015



Primary Isolation Valve Applications

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Integral Block & Bleed Valve

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Monoflange

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Primary Isolation Valve Application

Market

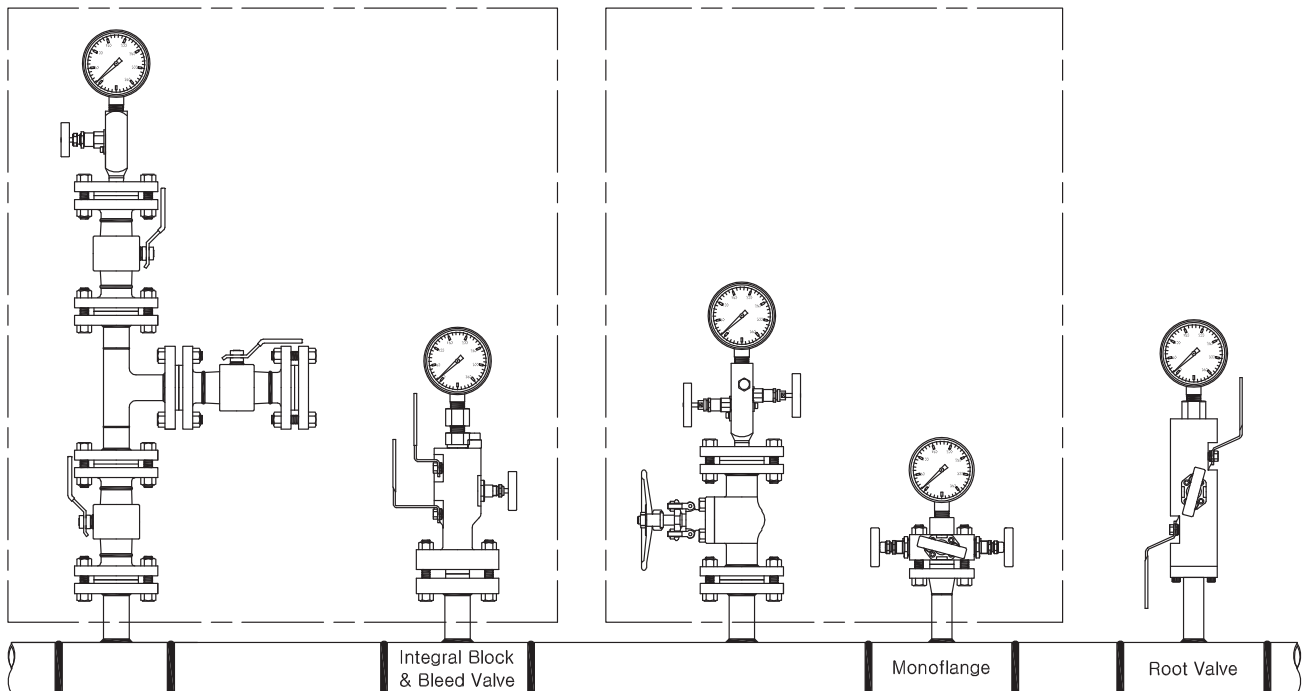
- Offshore oil and gas production
- Offshore terminals
- Chemical, petro-chemical, refining
- Control panel manufactures
- Process/power industry contractors
- Compressor manufactures
- LNG carrier

Application

- Double block and bleed instrument isolation
- Gauge isolation
- Instrument drain
- Chemical injection connection
- Sample connection
- Chemical instrument isolation
- Piping/instrument interface
- Direct mounting of instruments
- Remote mounting of instruments

Installation Advantages

- More compact design
- Reduced weight
- Reduced height
- Reduced leakage point
- Reduced effect of system vibration
- Supporting bracket are not required
- Reduced bending moment acting on the vessel branch fitting weld
- Reduced installation cost
- Reduced gasket and bolting



Integral Block & Blees Valve

- Ball and Globe Type Needle Valves
- Flanged and Threaded Connections
- Integrally Forged Body

Monoflange

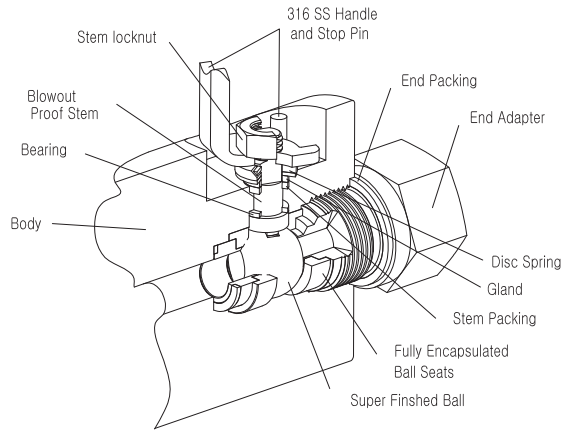
- Globe Type Needle Valves
- Flanged and Threaded Connections
- Slimline Integrally Forged Body

Root Valve

- Ball and Globe Type Needle Valves
- Weld or Threaded Connections
- Direct Connection to the Vessel

Technical Specification

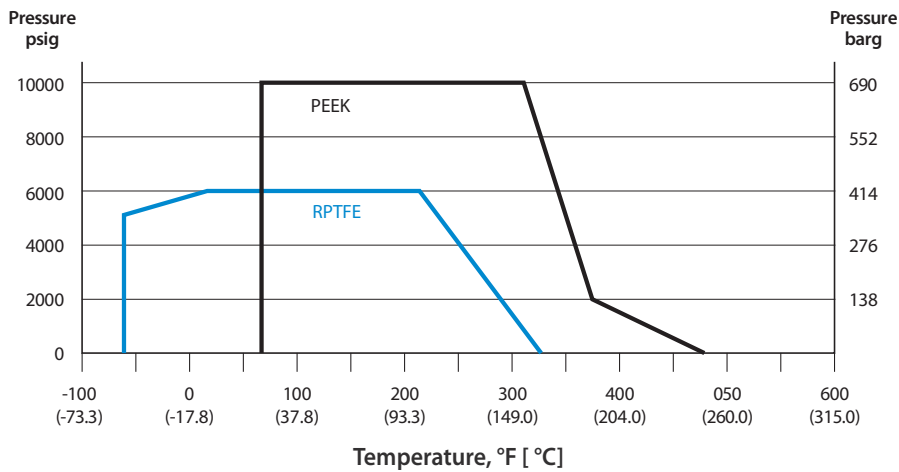
Ball Valve



Features

- Quarter turn actuation.
- Blowout proof stem design.
- Micro-finished ball for long service life.
- Anti static design as standard.
- Live-loaded stem packing ensures positive sealing across the pressure and temperature range.
- Live-loaded seats maintain system seal through changes in pressure and temperature.
- Bore size available : 3/8" (9.5mm), 1/2" (14mm), 3/4" (19mm), 1" (25mm), 1 1/2" (38mm), 2" (50mm).
- Lockable with nylon sleeve lever handle is standard.
- Pressure rating up to 10000 psig (690 barg).
- Temperature rating - 71 to 482 °F (-57 to 250 °C).

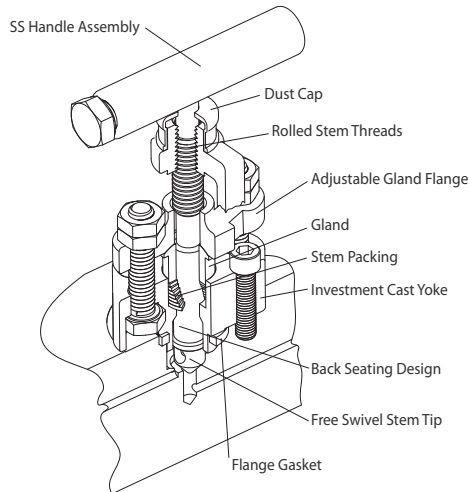
Pressure - Temperature Ratings



Material of Construction

| No | Description | Ball Valve Components | | | |
|----|-------------------|-------------------------------------|------|------------|-------------|
| | | Material Grade / ASTM Specification | | | |
| 1 | Body | A182 F316 | A105 | A182 F51 | Inconel 625 |
| 2 | End Adapter | A479-316 | A105 | UNS S31803 | Inconel 625 |
| 3 | Stem | A479 TYPE316 | | UNS S31803 | UNS N06625 |
| 4 | Ball | A479 TYPE316 | | UNS S31803 | UNS N06625 |
| 5 | Handle & Stop Pin | SS316 | | | |
| 6 | Stem Locknut | SS316 | | | |
| 7 | Bearing | PEEK | | | |
| 8 | Seat | RTFE or PEEK | | | |
| 9 | End Packing | GRAPHITE | | | |
| 10 | Gland | SS316 | | | |
| 11 | Stem Packing | GRAPHITE | | | |
| 12 | Dis Spring | INCONEL X750 | | | |

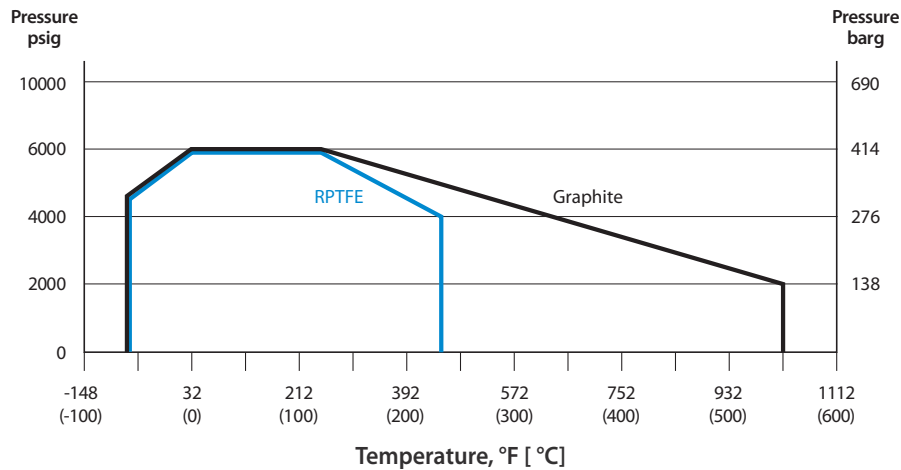
Outside Screw and Yoke(OS&Y) Needle Valve



Features

- Investment cast yoke is precision cased for perfect stem alignment.
- Standard non-rotating free swivel stem tip.
- Roll threaded and hard chrome plated stem for long valve life.
- Stem packing below thread design prevents media contamination and thread lubricant washout.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Adjustable gland flange allows packing adjustment.
- 0.2 in. (5mm) bore.
- Pressure rating up to 6000 psig (414 barg).
- Temperature rating - 71 to 1022 °F (-57 to 550 °C).

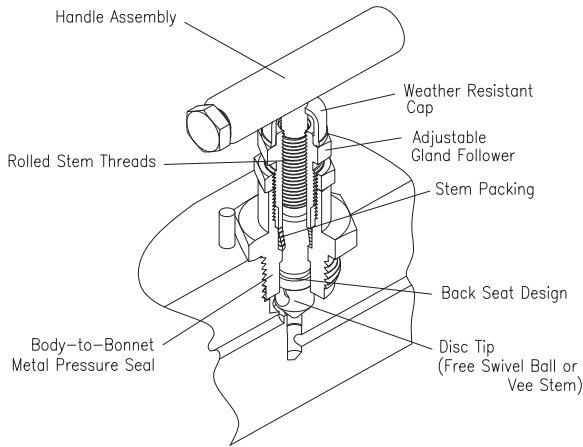
Pressure - Temperature Ratings



Material of Construction

| Yoke Needle Valve Component | | | | |
|-----------------------------|-----------------|-------------------------------------|------|--------------------------|
| No | Description | Material Grade / ASTM Specification | | |
| 1 | Body | A182 F316 | A105 | A182 F51 Inconel 625 |
| 2 | Stem | A479 TYPE316 | | UNS S31803 UNS N06625 |
| 3 | Gland Flange | A479 TYPE316 | | UNS S31803 UNS N06625 |
| 4 | Yoke | A351 CF8M | | UNS S31803 UNS N06625 |
| 5 | Stem Tip | SS630 | | UNS S31803 UNS N06625 |
| 6 | Handle Assembly | SS316 | | |
| 7 | Dust Cap | PLASTIC | | |
| 8 | Gland | SS316 | | |
| 9 | Stem Packing | GRAPHITE | | |
| 10 | Flange Gasket | GRAPHITE | | |

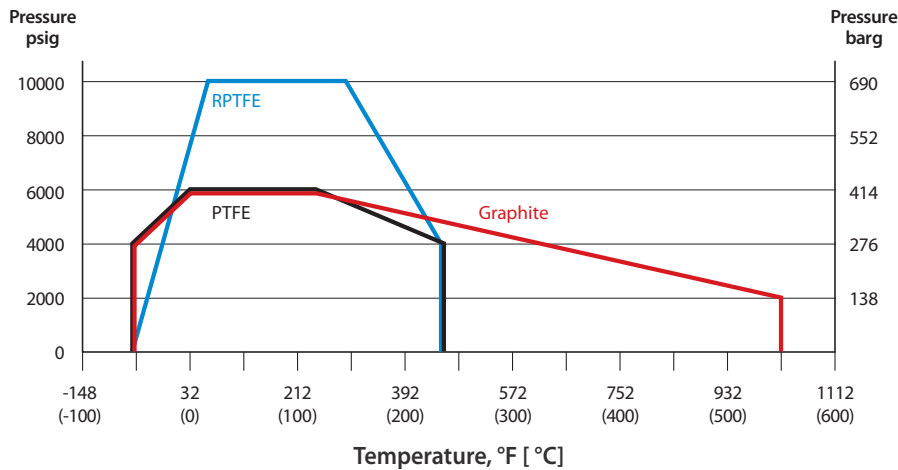
Globe Type Needle Valve



Features

- Bar-handled vent is standard.
- External packing adjustment.
- Back seating design provides secondary stem sealing and prevents stem blowout.
- Standard non-rotating free swivel stem tip.
- Roll threaded and hard chrome plated stem for long valve life.
- Stem packing below thread design prevents media contamination and thread lubricant washout.
- Stellite seat is an option for Globe Needle Valve. To order the option, suffix "HS" to the ordering number. i.e., V1F-SNHS, V1F-SCHS, V1F-SDHS, V1FF-DCHS, V1FF-DDHS and V1FF-DEHS.
- Globe needle valve with anti-tamper bonnet (designator - T) is available with a removable T-bar key to prevent unauthorized operation and release of fluid through the vent port to atmosphere. The T-bar key is supplied separately or alternatively the key can be chained (designator - TC) to the valve.
- 0.2 in. (5mm) bore.
- Pressure rating up to 10,000 psig (690 barg).
- Temperature rating -71 to 1,022 °F (57 to 550 °C).

Pressure - Temperature Ratings



Material of Construction

| Material of Construction | | | | |
|--------------------------|-----------------|-------------------------------------|------|--------------------------|
| No | Description | Material Grade / ASTM Specification | | |
| 1 | Body | A182 F316 | A105 | A182 F51 Inconel 625 |
| 2 | Stem | A479 TYPE316 | | UNS S31803 UNS N06625 |
| 3 | Bonnet | A479 TYPE316 | | UNS S31803 UNS N06625 |
| 4 | Handle Assembly | A479 TYPE316 | | |
| 5 | Dust Cap | PLASTIC | | |
| 6 | Packing Bolt | A479-316 | | |
| 7 | Stem Packing | GRAPHITE | | |
| 8 | O-ring | NBR or FKM | | |
| 9 | Stem Tip | GRAPHITE | | |

Integral Block & Bleed Valve



Integral Block & Bleed Valve

Are integrally one-piece double block and bleed assemblies, for primary isolation of pressure take-offs, where the valve is directly mounted to the vessel or process pipe. Instruments may be directly mounted to the valve outlet or alternatively remotely with gauge lines/impulse pipe work.

Features

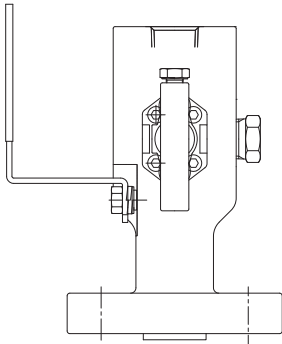
- Reduced potential leak paths with primary & secondary isolation in one valve.
- Compact ball/OS&Y/needle valve assembly in one DBB.
- Flange construction as per the requirements of ASME B16.5.
- NPT threaded connection to ANSI/ASME B1.20.1.
- Pressure ratings as per ASME B16.34 Class 150 thru 2500.
- Wetted components of Sour gas service valve are selected as per the requirements of NACE MR0175 /ISO 15156.
- Fire tested as per BS 6755 part 2/API 607.
- Anti-Static Device is set between the stem and ball.
- All DK-Lok Double Block & Bleed valves are equipped with two body gasket. The first body gasket is in soft material and second in graphite(if not otherwise required), this combination assures the best seal characteristic in whatever corrosive service as well as giving a fire safe design.
- The Solid ball used by DK-Lok provides straight through flow and real full-port performance characteristics. Hollow ball or cored cavity ball are not used for DK-Lok products.
- Locking device is supplied as standard in order to prevent unauthorized opening & closing. Locking device can lock the valve in either the open or closed position and cannot be breached by removing the lever.
- Every valve is subject to a pressure test in accordance with the standard API 598 or BS 6755 part1. The rated pressure for the applicable pressure class is in accordance with ASME B 16.34 & EN 12516-1/2.
- Each valve is identified on proper name plate and on valve body as required by MSS SP 25, ASME B16.34 Name plate carries all information on rating, size, valve body and trim material. On body, marking includes material designations and heat code and of course the trade mark.

Ordering Information

1. Body Construction

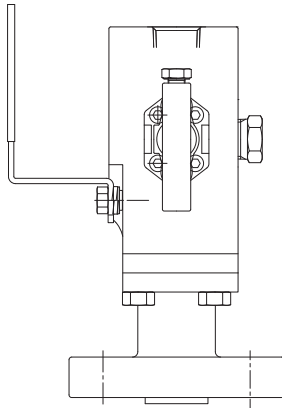
One Piece Forged Design

Designator : V1



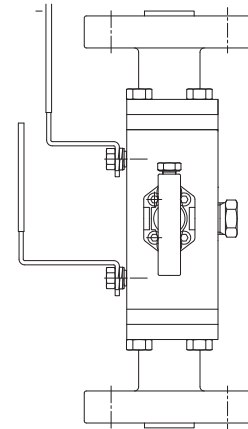
Two Piece Bolted Design

Designator : V2



Three Piece Bolted Design

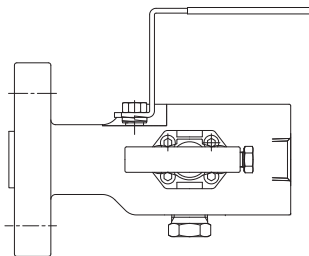
Designator : V3



2. Process and Outlet Connection

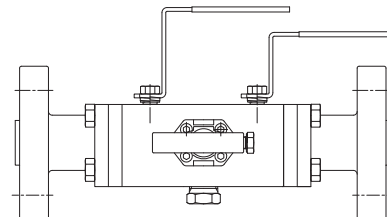
Flange to 1/2" NPTF

Designator - F



Flange to Flange

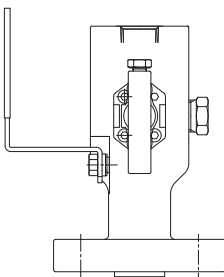
Designator - FF



3. Single and Double Block and Bleed Valve

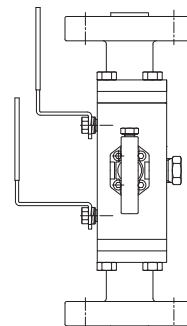
Single Block and Bleed

Designator - S



Double Block and Bleed

Designator - D



4. Configuration

Single Block and Bleed Valve

| Designator | Block | Vent |
|------------|--------------|--------------|
| B | Ball | Ball |
| Y | OS&Y | OS&Y |
| N | Globe Needle | Globe Needle |
| A | Ball | OS&Y |
| C | Ball | Globe Needle |
| D | OS&Y | Globe Needle |

Double Block and Bleed Valve

| Designator | Block | Block | Vent |
|------------|-------|--------------|--------------|
| B | Ball | Ball | Ball |
| Y | OS&Y | OS&Y | OS&Y |
| A | Ball | Ball | OS&Y |
| C | Ball | Ball | Globe Needle |
| D | OS&Y | Globe Needle | Globe Needle |
| E | OS&Y | OS&Y | Globe Needle |

5. Process Connections

| Flange Size | | Flange Class | | Bore Size | | Finish Standard | |
|-------------|---------------|--------------|--------|------------|--------|-----------------|---------------------|
| Designator | Size | Designator | Rating | Designator | Size | Designator | Finish |
| 8 | 1/2" (DN15) | A | 150 | Null | Full | 1 | Raised Faced Smooth |
| 12 | 3/4" (DN20) | B | 300 | 1 | Reduce | 2 | Raised Faced Smooth |
| 16 | 1" (DN25) | C | 600 | 2 | 9.5mm | 3 | Raised Faced Stock |
| 24 | 1 1/2" (DN40) | D | 900 | 3 | 14mm | 4 | Ring Type Joint |
| 32 | 2" (DN50) | E | 1500 | 4 | 19mm | | |
| | | F | 2500 | | | | |

How to order

| Designators | Selected Flange Size | Selected Flange Class | Selected Bore Size | Selected Finish Standard | Intermediate Ordering Number |
|-------------|----------------------|-----------------------|--------------------|----------------------------|------------------------------|
| 8A11 | 1/2" (DN15) | 150 | 9.5mm | Raised Faced Smooth Finish | V1FN-SN-8A1 |
| 16C12 | 1" (DN25) | 600 | 14mm | Raised Faced Smooth Finish | V1FN-SN-16C1 |
| 24D4 | 2" (DN50) | 900 | Full Bore | Raised Faced Serrated | V3FF-DC-24D4 |

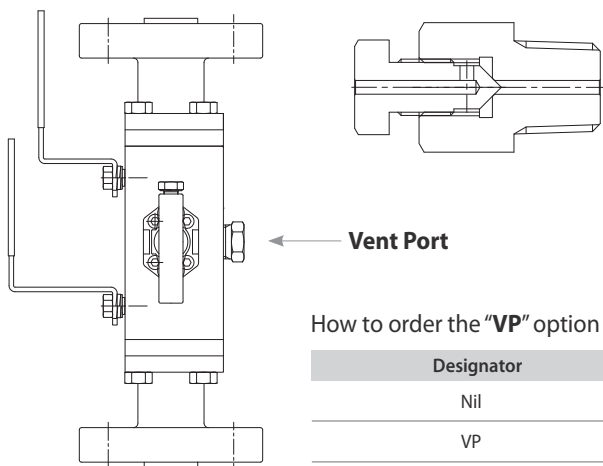
6. Seat and Packing

| Ball Valve Seat Material | | DS&Y Packing | | Needle Valve Packing | |
|--------------------------|-----------------|--------------|----------|----------------------|-----------------|
| Designator | Seat | Designator | Packing | Designator | Packing |
| Nil | Reinforced PTFE | Nil | Graphite | Nil | Graphite |
| PK | PEEK | PE | PTFE | RP | Reinforced PTFE |

How to order

| Designator | Ball Valve Seat Material | OS&Y Packing | Needle Valve Packing | Intermediate Ordering Number |
|------------|--------------------------|------------------|----------------------|------------------------------|
| Nil | Reinforced PTFE | Standard Grcking | Standard Graphite | V1F-SNT-84A1- |
| PKPE | PK : PEEK | PE : PTFE | Standard Graphite | V1F-SCTC-16C1-PKPE |
| PKPERP | PK : PEEK | PE : PTFE | RP : Reinforced PTFE | V1F-SDT-24D2-PKPERP |

7. Vent (Bleed) Port



"VP" option

- Vent port 1/2" NPTF with Hex Plug is standard.
- Vent port with "Vent Plug" is an option with "VP" designator.

How to order the "VP" option

| Designator | On Vent Port | Intermediate Ordering |
|------------|--------------|-----------------------|
| Nil | Hex Plug | V1F-SC-16C1 |
| VP | Vent Plug | V1F-SC-16C1-VP |

8. Option, Trim and Body Material

| Option | Trim Material | Body Material |
|---|--|---|
| SG : NACE MR0175 FS : Fire Tested Design to BS6755 Part 2 | Nil : Standard SS316 D : Duplex M : Monel UNS N04400 | S : ASTM A182 F316 / F316L C : ASTM A105 D : ASTM A182 F51 M : ASTM B564 UNS N04400 S : ASTM A350 LF2 |

FS : Optional fire tested design valve is supplied with the following seat & packing materials.

- Ball Seat: Standard Reinforced PTFE
- OS&Y Packing: Standard Graphite Packing
- Needle Valve Packing: Optional Graphite Packing

Completion of DBB ordering numbers

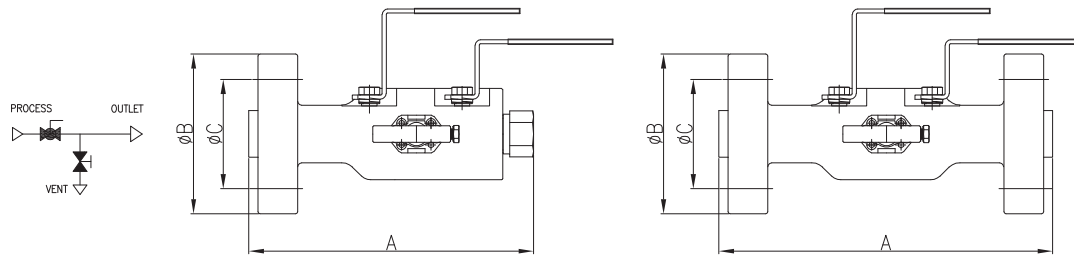
| Complete Ordering Number | Option | Trim Material | Body Material |
|--------------------------|-------------|---------------|---------------|
| V1FN-SN-8A1-S | No option | No option | S316 |
| V3F-DC-16D4-PKPE-SG-MS | Nace | Monel | S316 |
| V1F-SDT-24DS-FS-S | Fire Safely | No option | S316 |

Product range / Weights and Dimensions

V1FF Series

9.5mm Bore

One Piece Forged Flange to 1/2" NPTF Single Block Bleed Valve with Ball and OS&Y(or Needle) on Block and Vent.
 3/8"(9.5mm) and 1/2"(14mm), 3/4"(19mm) Bore Size



| Size(inch) | Class | Dimension(mm) | | | | | Weight(kg) | |
|------------|----------|---------------|--------|---------------|-------|-------|------------|------------|
| | | A(RF) | A(RTJ) | A(Flange/NPT) | B | C | Flange | Flange/NPT |
| 1/2" | 150 | 188 | - | 168 | 88.9 | 60.5 | 4.3 | 3.6 |
| | 300 | 188 | 193 | 168 | 95.2 | 66.5 | 5 | 3.9 |
| | 600 | 188 | 196 | 168 | 95.2 | 66.5 | 5.2 | 4 |
| | 900/1500 | 206 | 213 | 176 | 120.6 | 82.5 | 7.9 | 5 |
| | 2500 | 206 | 213 | 176 | 133.4 | 88.5 | 10.8 | 6 |
| 3/4" | 150 | 188 | - | 168 | 98.6 | 69.9 | 4.9 | 3.9 |
| | 300 | 188 | 196 | 168 | 117.3 | 82.5 | 6.3 | 4 |
| | 600 | 188 | 196 | 168 | 117.3 | 82.5 | 6.5 | 4.2 |
| | 900/1500 | 206 | 213 | 176 | 130 | 88.9 | 9.5 | 5.6 |
| | 2500 | 206 | 213 | 176 | 139.7 | 95.3 | 11 | 7.1 |
| 1" | 150 | 188 | 193 | 173 | 108 | 79.2 | 5 | 3.9 |
| | 300 | 190 | 195 | 173 | 124 | 88.9 | 6.3 | 4.3 |
| | 600 | 190 | 198 | 173 | 124 | 88.9 | 6.5 | 4.5 |
| | 900/1500 | 240 | 240 | 195 | 149.3 | 101.6 | 11.5 | 6.8 |
| | 2500 | 255 | 255 | 203 | 158.8 | 108 | 14.3 | 8.1 |
| 1 1/2" | 150 | 198 | 203 | 178 | 127 | 98.6 | 7 | 4.6 |
| | 300 | 218 | 218 | 185 | 155.4 | 114.3 | 10.1 | 6 |
| | 600 | 235 | 235 | 204 | 155.4 | 114.3 | 11 | 6.5 |
| | 900/1500 | 280 | 280 | 215 | 177.8 | 123.9 | 16.5 | 9.4 |
| | 2500 | 316 | 316 | 220 | 203.2 | 146.1 | 25.8 | 14 |
| 2" | 150 | 203 | 213 | 183 | 152.4 | 120.7 | 9.4 | 5.5 |
| | 300 | 223 | 228 | 190 | 165.1 | 127 | 12.8 | 6.8 |
| | 600 | 243 | 253 | 202 | 165.1 | 127 | 13.4 | 8.1 |
| | 900/1500 | 288 | 288 | 215 | 215.9 | 165.1 | 25.4 | 14 |
| | 2500 | 313 | 313 | 220 | 235 | 171.5 | 36.6 | 22 |

V1FF Series

14mm Bore

One Piece Forged Flange to 1/2" NPTF Single Block Bleed Valve with Ball and OS&Y(or Needle) on Block and Vent.
 3/8"(9.5mm) and 1/2"(14mm), 3/4"(19mm) Bore Size

| Size(inch) | Class | Dimension(mm) | | | | | Weight(kg) | |
|------------|----------|---------------|--------|---------------|-------|-------|------------|------------|
| | | A(RF) | A(RTJ) | A(Flange/NPT) | B | C | Flange | Flange/NPT |
| 1" | 150 | 231 | 231 | 197 | 108 | 79.2 | 7.7 | 3.9 |
| | 300 | 241 | 241 | 197 | 124 | 88.9 | 8.8 | 4.3 |
| | 600 | 241 | 241 | 203 | 124 | 88.9 | 8.8 | 4.5 |
| | 900/1500 | 261 | 261 | 203 | 149.3 | 101.6 | 12.7 | 6.8 |
| | 2500 | 273 | 273 | 203 | 158.8 | 108 | 16.5 | 8.1 |
| 1 1/2" | 150 | 241 | 241 | 207 | 127 | 98.6 | 9.1 | 4.9 |
| | 300 | 251 | 251 | 207 | 155.4 | 114.3 | 12.3 | 6.4 |
| | 600 | 251 | 251 | 215 | 155.4 | 114.3 | 12.3 | 6.9 |
| | 900/1500 | 291 | 291 | 215 | 177.8 | 123.9 | 17.7 | 9.8 |
| | 2500 | 316 | 316 | 220 | 203.2 | 146.1 | 27 | 14 |
| 2" | 150 | 241 | 213 | 210 | 152.4 | 120.7 | 10.9 | 5.9 |
| | 300 | 261 | 241 | 210 | 165.1 | 127 | 14.1 | 7.5 |
| | 600 | 261 | 261 | 220 | 165.1 | 127 | 14.1 | 8.4 |
| | 900/1500 | 306 | 306 | 220 | 215.9 | 165.1 | 26.6 | 14 |
| | 2500 | 346 | 346 | 230 | 235 | 171.5 | 37.8 | 22.1 |

V1FF Series

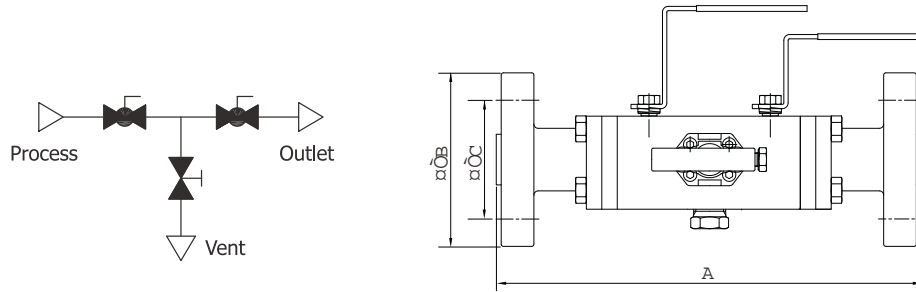
19mm Bore

| Size(inch) | Class | Dimension(mm) | | | | Weight(kg) |
|------------|----------|---------------|--------|-------|-------|------------|
| | | A(RF) | A(RTJ) | B | C | |
| 1 1/2" | 150 | 253 | 253 | 127 | 98.6 | 9.8 |
| | 300 | 263 | 263 | 155.4 | 114.3 | 13.0 |
| | 600 | 263 | 263 | 155.4 | 114.3 | 13.0 |
| | 900/1500 | 303 | 303 | 177.8 | 123.9 | 18.4 |
| | 2500 | 328 | 328 | 203.2 | 146.1 | 27.7 |
| 2" | 150 | 253 | 253 | 152.4 | 127 | 11.7 |
| | 300 | 273 | 273 | 165.1 | 127 | 14.9 |
| | 600 | 273 | 273 | 165.1 | 127 | 14.9 |
| | 900/1500 | 318 | 318 | 215.9 | 165.1 | 27.4 |
| | 2500 | 358 | 358 | 235 | 171.5 | 38.6 |

V3FF Series

Full Bore

Three Piece Bolted Design Flange to Flange Double Block and Bleed Valve with Ball and OS&Y (or Needle) on Block and Vent.

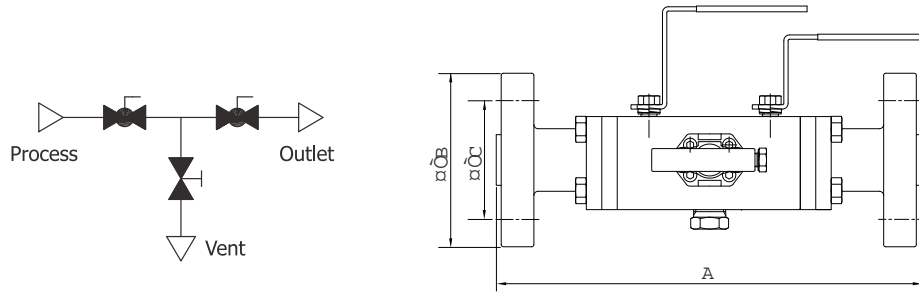


| Size(inch) | Bore(mm) | Class | Dimension(mm) | | | | Weight(kg) |
|------------|----------|----------|---------------|--------|-------|-------|------------|
| | | | A(RF) | A(RTJ) | B | C | |
| 1/2" | 14 | 150 | 235 | 248 | 88.9 | 60.5 | 8.5 |
| | | 300 | 241 | 254 | 95.2 | 66.5 | 9.5 |
| | | 600 | 254 | 254 | 95.2 | 66.5 | 10.0 |
| | | 900/1500 | 287 | 287 | 120.6 | 82.5 | 13.0 |
| | | 2500 | 303 | 303 | 133.4 | 88.5 | 16.0 |
| 3/4" | 19 | 150 | 264 | 277 | 98.6 | 69.9 | 9.5 |
| | | 300 | 277 | 290 | 117.3 | 82.5 | 10.5 |
| | | 600 | 290 | 290 | 117.3 | 82.5 | 11.0 |
| | | 900/1500 | 320 | 320 | 130 | 88.9 | 16.0 |
| | | 2500 | 333 | 333 | 139.7 | 95.3 | 19.0 |
| 1" | 25 | 150 | 272 | 285 | 108 | 79.2 | 15.0 |
| | | 300 | 279 | 292 | 124 | 88.9 | 16.7 |
| | | 600 | 292 | 292 | 124 | 88.9 | 17.5 |
| | | 900/1500 | 364 | 364 | 149.3 | 101.6 | 21.2 |
| | | 2500 | 377 | 377 | 158.8 | 108 | 24.2 |
| 1 1/2" | 38 | 150 | 361 | 374 | 127 | 98.6 | 24.7 |
| | | 300 | 367 | 384 | 155.4 | 114.3 | 27.1 |
| | | 600 | 384 | 384 | 155.4 | 114.3 | 27.9 |
| | | 900/1500 | 402 | 402 | 177.8 | 123.9 | 35.1 |
| | | 2500 | 463 | 466 | 203.2 | 146.1 | 45.5 |
| 2" | 50 | 150 | 390 | 403 | 152.4 | 120.7 | 48.2 |
| | | 300 | 398 | 411 | 165.1 | 127 | 50.3 |
| | | 600 | 416 | 419 | 165.1 | 127 | 51.1 |
| | | 900/1500 | 481 | 484 | 215.9 | 165.1 | 66.8 |
| | 42 | 2500 | 652 | 655 | 235 | 171.5 | 150.0 |

V3FF Series

Reduce Bore

Three Piece Bolted Design Flange to Flange Double Block and Bleed Valve with Ball and OS&Y (or Needle) on Block and Vent.



| Size(inch) | Bore(mm) | Class | Dimension(mm) | | | | Weight(kg) |
|------------|----------|----------|---------------|--------|-------|-------|------------|
| | | | A(RF) | A(RTJ) | B | C | |
| 3/4" | 14 | 150 | 249 | 262 | 98.6 | 69.9 | 10.0 |
| | | 300 | 262 | 275 | 117.3 | 82.5 | 11.5 |
| | | 600 | 275 | 275 | 117.3 | 82.5 | 13.0 |
| | | 900/1500 | 305 | 305 | 130 | 88.9 | 16.0 |
| | | 2500 | 318 | 321 | 139.7 | 95.3 | 19.0 |
| 1" | 19 | 150 | 267 | 280 | 108 | 79.2 | 11.5 |
| | | 300 | 281 | 294 | 124 | 88.9 | 13.0 |
| | | 600 | 294 | 294 | 124 | 88.9 | 14.5 |
| | | 900/1500 | 336 | 336 | 149.3 | 101.6 | 19.0 |
| | | 2500 | 350 | 353 | 158.8 | 108 | 22.0 |
| 1 1/2" | 25 | 150 | 279 | 292 | 127 | 98.6 | 16.4 |
| | | 300 | 285 | 298 | 155.4 | 114.3 | 20.2 |
| | | 600 | 301 | 301 | 155.4 | 114.3 | 21.0 |
| | | 900/1500 | 370 | 370 | 177.8 | 123.9 | 26.2 |
| | | 2500 | 396 | 399 | 203.2 | 146.1 | 36.6 |
| 2" | 38 | 150 | 364 | 377 | 152.4 | 120.7 | 25.7 |
| | | 300 | 372 | 383 | 165.1 | 127 | 29.8 |
| | | 600 | 390 | 393 | 165.1 | 127 | 31.2 |
| | | 900/1500 | 415 | 418 | 215.9 | 165.1 | 43.8 |
| | | 2500 | 475 | 478 | 235 | 171.5 | 57.5 |
| 3" | 50 | 150 | 400 | 413 | 190.5 | 152.4 | 52.7 |
| | | 300 | 410 | 423 | 209.5 | 168.1 | 56.7 |
| | | 600 | 428 | 431 | 209.5 | 168.1 | 58.7 |
| | | 900 | 441 | 444 | 241.3 | 190.5 | 68.9 |
| | | 1500 | 500 | 503 | 266.7 | 203.2 | 84.7 |
| | 42 | 2500 | 694 | 700 | 304.8 | 228.6 | 210.0 |

Caution

Valves that have not been actuated for a period of time may have a higher initial actuation torque. Packing adjustment may be required during the valve in service.

Monoflange

- ASME B16.5 flanged inlet connections 1/2" to 2" sizes.
- Standard 1/2" NPT female outlet.
- Bleed port 1/2" NPT female with Hex Plug is standard.
- OS&Y with graphite packing is standard, optional PTFE.
- Needle valve with PTFE packing is standard, optional Graphite.
- Optional fire safe design to BS6755 part 2.
- Optional NACE certification.



Ordering Information

VMS Series (Single Block)

Flange to 1/2" NPTF
Isolate : OS&Y or Needle

| Designators | Isolate | Intermediate Ordering # |
|-------------|--------------|-------------------------|
| Y | OS&Y | VMS-Y |
| N | Globe Needle | VMS-N |

VMB Series (Single Block & Bleed)

Flange to 1/2" NPTF
Isolate : OS&Y or Needle
Bleed : OS&Y or Needle

| Designators | Isolate | Bleed | Intermediate Ordering # |
|-------------|--------------|--------------|-------------------------|
| Y | OS&Y | OS&Y | VMB-Y |
| N | Globe Needle | Globe Needle | VMB-N |
| D | OS&Y | Globe Needle | VMB-D |

VMD Series (Double Block & Bleed)

Flange to 1/2" NPTF
Primary Isolate : OS&Y or Needle
Secondary Isolate : OS&Y or Needle
Bleed : OS&Y or Needle

| Designators | Primary Isolate | Secondary Isolate | Bleed | Intermediate Ordering # |
|-------------|-----------------|-------------------|--------------|-------------------------|
| Y | OS&Y | OS&Y | OS&Y | VMD-Y |
| N | Globe Needle | Globe Needle | Globe Needle | VMD-N |
| D | OS&Y | OS&Y | Globe Needle | VMD-D |

Process Connections

| Flange Size | | Flange Class | | Finish Standard | |
|-------------|---------------|--------------|--------------|-----------------|-----------------------|
| Designator | Size | Designator | Class Rating | Designator | Finish |
| 8 | 1/2" (DN15) | A | 150 | 1 | Raised Faced Smooth |
| 12 | 3/4" (DN20) | B | 300 | 2 | Raised Faced Serrated |
| 16 | 1" (DN25) | C | 600 | 3 | Raised Faced Stock |
| 24 | 1 1/2" (DN40) | D | 900/1500 | | |
| 32 | 2" (DN50) | E | 2500 | | |
| 48 | 3" (DN80) | 48 | 3" (DN80) | | |

Packing Material

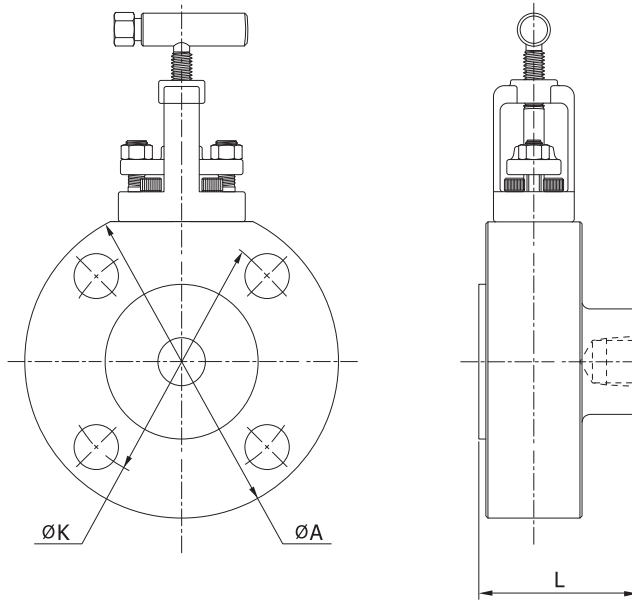
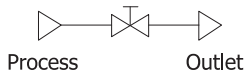
| OS&Y Packing | Needle Valve Packing |
|--|---|
| Nil : Standard Graphite PE : PTFE | Nil : Standard PTFE GF : Graphite RP : Reinforced PTFE |

Option, Trim and Body Material

| Option | Trim Material | Body Material |
|---|--|--|
| SG : NACE MR0175 FS : Fire tested design | S : SS316 C : Carbon Steel D : Duplex M : Monel | S : SS316 C : Carbon Steel D : Duplex M : Monel |

Product Range / Weights and Dimensions

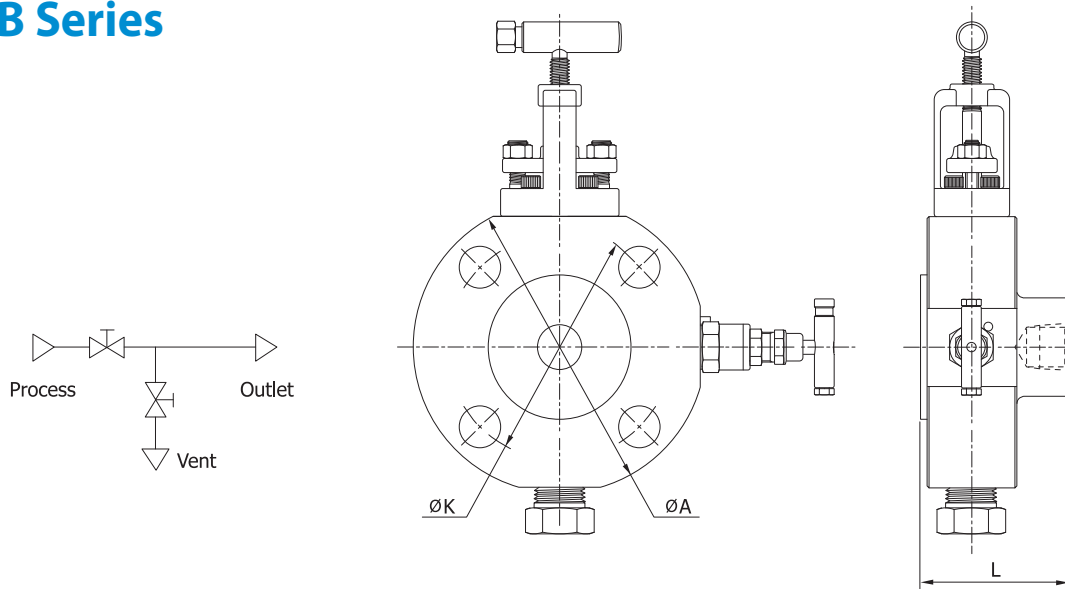
Single Block

VMS Series


| Size (inch) | Class | Dimensions(mm) | | | | Weight (kg) |
|-------------|----------|----------------|--------|-----|-------|-------------|
| | | L(RF) | L(RTJ) | A | K | |
| 1/2 | 150 | 64 | - | 99 | 60.3 | 2.0 |
| | 300 | 64 | 68 | 99 | 66.7 | 2.0 |
| | 600 | 68 | 68 | 99 | 66.7 | 2.0 |
| | 900/1500 | 68 | 68 | 133 | 82.5 | 3.4 |
| | 2500 | 68 | 68 | 133 | 88.9 | 3.4 |
| 3/4 | 150 | 64 | - | 99 | 69.8 | 2.0 |
| | 300 | 64 | 68 | 133 | 82.5 | 3.4 |
| | 600 | 68 | 68 | 133 | 82.5 | 3.4 |
| | 900/1500 | 68 | 68 | 133 | 88.9 | 3.4 |
| | 2500 | 73 | 73 | 159 | 95.2 | 5.5 |
| 1 | 150 | 64 | 68 | 133 | 79.4 | 2.4 |
| | 300 | 64 | 68 | 133 | 88.9 | 3.4 |
| | 600 | 68 | 68 | 133 | 88.9 | 3.4 |
| | 900/1500 | 73 | 73 | 159 | 101.6 | 5.5 |
| | 2500 | 73 | 73 | 159 | 108.0 | 5.5 |
| 1 1/2 | 150 | 64 | 68 | 127 | 98.4 | 3.2 |
| | 300 | 69 | 69 | 159 | 114.3 | 5.5 |
| | 600 | 73 | 73 | 159 | 114.3 | 5.5 |
| | 900/1500 | 73 | 73 | 178 | 128.8 | 7.8 |
| | 2500 | 82 | 84 | 235 | 146.1 | 11.4 |
| 2 | 150 | 69 | 73 | 159 | 120.6 | 5.5 |
| | 300 | 69 | 75 | 178 | 127.0 | 7.8 |
| | 600 | 73 | 75 | 178 | 127.0 | 7.8 |
| | 900/1500 | 82 | 84 | 235 | 165.1 | 11.4 |

Single Block & Bleed

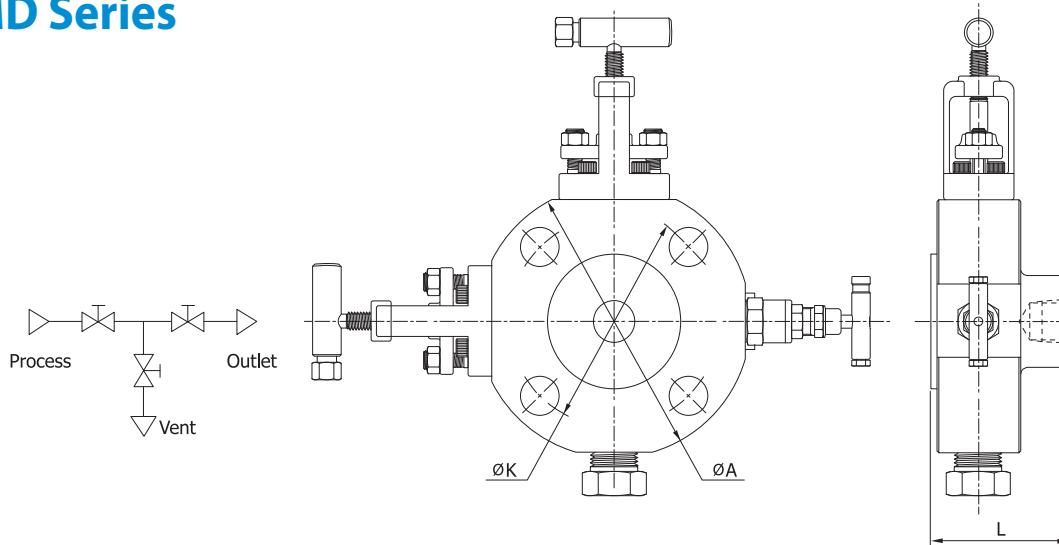
VMB Series



| Size (inch) | Class | Dimensions(mm) | | | | Weight (kg) |
|-------------|----------|----------------|--------|-----|-------|-------------|
| | | L(RF) | L(RTJ) | A | K | |
| 1/2 | 150 | 64 | - | 99 | 60.3 | 2.0 |
| | 300 | 64 | 68 | 99 | 66.7 | 2.0 |
| | 600 | 68 | 68 | 99 | 66.7 | 2.0 |
| | 900/1500 | 68 | 68 | 133 | 82.5 | 3.4 |
| | 2500 | 68 | 68 | 133 | 88.9 | 3.4 |
| 3/4 | 150 | 64 | - | 99 | 69.8 | 2.0 |
| | 300 | 64 | 68 | 133 | 82.5 | 3.4 |
| | 600 | 68 | 68 | 133 | 82.5 | 3.4 |
| | 900/1500 | 68 | 68 | 133 | 88.9 | 3.4 |
| | 2500 | 73 | 73 | 159 | 95.2 | 5.5 |
| 1 | 150 | 64 | 68 | 133 | 79.4 | 2.4 |
| | 300 | 64 | 68 | 133 | 88.9 | 3.4 |
| | 600 | 68 | 68 | 133 | 88.9 | 3.4 |
| | 900/1500 | 73 | 73 | 159 | 101.6 | 5.5 |
| | 2500 | 73 | 73 | 159 | 108.0 | 5.5 |
| 1 1/2 | 150 | 64 | 68 | 127 | 98.4 | 3.2 |
| | 300 | 69 | 69 | 159 | 114.3 | 5.5 |
| | 600 | 73 | 73 | 159 | 114.3 | 5.5 |
| | 900/1500 | 73 | 73 | 178 | 128.8 | 7.8 |
| | 2500 | 82 | 84 | 235 | 146.1 | 11.4 |
| 2 | 150 | 69 | 73 | 159 | 120.6 | 5.5 |
| | 300 | 69 | 75 | 178 | 127.0 | 7.8 |
| | 600 | 73 | 75 | 178 | 127.0 | 7.8 |
| | 900/1500 | 82 | 84 | 235 | 165.1 | 11.4 |

Double Block & Bleed

VMD Series



| Size (inch) | Class | Dimensions(mm) | | | | Weight (kg) |
|-------------|----------|----------------|--------|-----|-------|-------------|
| | | L(RF) | L(RTJ) | A | K | |
| 1/2 | 150 | 64 | - | 99 | 60.3 | 2.0 |
| | 300 | 64 | 68 | 99 | 66.7 | 2.0 |
| | 600 | 68 | 68 | 99 | 66.7 | 2.0 |
| | 900/1500 | 68 | 68 | 133 | 82.5 | 3.4 |
| | 2500 | 68 | 68 | 133 | 88.9 | 3.4 |
| 3/4 | 150 | 64 | - | 99 | 69.8 | 2.0 |
| | 300 | 64 | 68 | 133 | 82.5 | 3.4 |
| | 600 | 68 | 68 | 133 | 82.5 | 3.4 |
| | 900/1500 | 68 | 68 | 133 | 88.9 | 3.4 |
| | 2500 | 73 | 73 | 159 | 95.2 | 5.5 |
| 1 | 150 | 64 | 68 | 133 | 79.4 | 2.4 |
| | 300 | 64 | 68 | 133 | 88.9 | 3.4 |
| | 600 | 68 | 68 | 133 | 88.9 | 3.4 |
| | 900/1500 | 73 | 73 | 159 | 101.6 | 5.5 |
| | 2500 | 73 | 73 | 159 | 108.0 | 5.5 |
| 1 1/2 | 150 | 64 | 68 | 127 | 98.4 | 3.2 |
| | 300 | 69 | 69 | 159 | 114.3 | 5.5 |
| | 600 | 73 | 73 | 159 | 114.3 | 5.5 |
| | 900/1500 | 73 | 73 | 178 | 128.8 | 7.8 |
| | 2500 | 82 | 84 | 235 | 146.1 | 11.4 |
| 2 | 150 | 69 | 73 | 159 | 120.6 | 5.5 |
| | 300 | 69 | 75 | 178 | 127.0 | 7.8 |
| | 600 | 73 | 75 | 178 | 127.0 | 7.8 |
| | 900/1500 | 82 | 84 | 235 | 165.1 | 11.4 |

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IDK-LOK[®]

Fittings & Valves



Safe Valve Selection

The selection of a valve for any application or system design must be considered to ensure safe performance. Valve function, valve rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. DK-Lok accepts no liability for any improper selection, installation, operation or maintenance.

