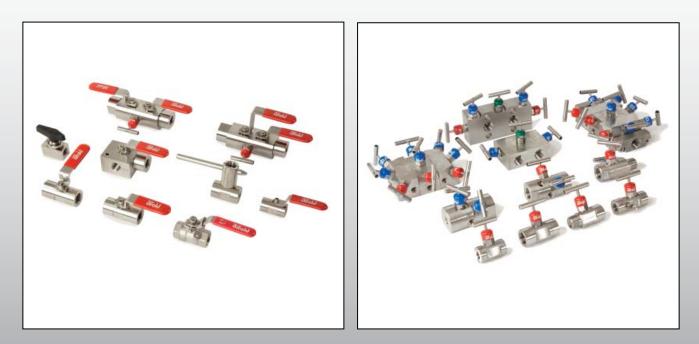


Instrumentation Ball & Needle Valves (Up to and including 10,000 psi / 690 bar)



Superior Performance Throughout the Full Operational Range

- State of the Art Design to Reduce Potential Leak Paths
- Stem Seal Design Prevents Galling and Contamination
- Low Operating Torque
- Non-Rotating, Anti-Galling Tip as Standard

- Worldwide Instrumentation Approvals
 2
- Unique Compact Design to Save Space and Weight
- Viton / RTFE Stem Sealing -Maintenance Free
- Available from 1,000 psi / 70 bar to 10,000 psi / 690 bar

Innovative and Reliable Valve Solutions



Contents

Bifold® Page

| Instrumentation Needle Valve Range - Features & Benefits | 3 |
|---|----|
| Instrumentation Ball Valve Range - Features & Benefits | 4 |
| Innovative Range - Product Portfolio | 5 |
| Innovative Range - Product Portfolio | 6 |
| Instrumentation Ball Valve Range - Preferred Range | 7 |
| Instrumentation Ball & Needle Valve Range - Preferred Range | 8 |
| Instrumentation Needle Valve Range - Preferred Range | 9 |
| Instrumentation Needle Valve Range - Preferred Range | 10 |
| Instrumentation Ball & Needle Valve Range - Technical Attributes | П |
| BV01 - Single Isolation Ball Valve, Low Pressure Range - BV01 | 12 |
| BV02 - 3 Way Ball Valve, Low Pressure Range - BV02 | 13 |
| BV01 - Single Isolation Ball Valve Range - BV01 | 14 |
| BV01 - Single Isolation Ball Valve Range - BV01 Selection Chart | 15 |
| BV01 - Single Isolation Ball Valve - Panel Mount Range - BV01 | 16 |
| BV01 - Single Isolation Ball Valve - Panel Mount Range - BV01 Selection Chart | 17 |
| BV01 - Single Isolation Ball Valve Range - BV01 | 18 |
| BV01 - Single Isolation Ball Valve Range - BV01 Selection Chart | 19 |
| BV02 - 3 Way Ball Valve Range - BV02 | 20 |
| BV02 - 3 Way Ball Valve Range - BV02 Selection Chart | 21 |
| BV05 - Double Block & Bleed, Ball & Needle Valve Manifold - BV05 | 22 |
| BV05 - Double Block & Bleed, Ball & Needle Valve Manifold - BV05 Selection Chart | 23 |
| BV05 - Double Block & Bleed, Ball & Needle Valve Manifold Range - BV05 | 24 |
| BV05 - Double Block & Bleed, Ball & Needle Valve Manifold Range - BV05 Selection Chart | 25 |
| NV01 - Single Isolation Needle Valve Range - NV01 | 26 |
| NV01 - Single Isolation Needle Valve Range - NV01 Selection Chart | |
| NV03 - Block & Bleed Needle Valve Manifold Range - Captive Vent Plug - NV03 | 28 |
| NV03 - Block & Bleed Needle Valve Manifold Range - Captive Vent Plug - NV03 Selection Chart | 29 |
| NV22 - Block & Bleed Needle Valve Compact Manifold Range - NV22 | 30 |
| NV22 - Block & Bleed Needle Valve Compact Manifold Range - NV22 Selection Chart | |
| NV04 - Block & Bleed Needle Valve Manifold Range - NV04 | 32 |
| NV04 - Block & Bleed Needle Valve Manifold Range - NV04 Selection Chart | 33 |
| NV05 - Double Block & Bleed Needle Valve Manifold Range - NV05 | |
| NV05 - Double Block & Bleed Needle Valve Manifold Range - NV05 Selection Chart | |
| NV06(1) - Double Block & Bleed Single Station Needle Valve Manifold Range - NV06(1) | |
| NV06(1) - Double Block & Bleed Single Station Needle Valve Manifold Range - NV06(1) Selection Chart | 37 |
| NV06(2) - Double Block & Bleed Two Station Needle Valve Manifold Range - NV06(2) | |
| NV06(2) - Double Block & Bleed Two Station Needle Valve Manifold Range - NV06(2) Selection Chart | |
| NV06(3) - Double Block & Bleed Three Station Needle Valve Manifold Range - NV06(3) | |
| NV06(3) - Double Block & Bleed Three Station Needle Valve Manifold Range - NV06(3) Selection Chart | |
| Extended Ball Valve Product Range | 42 |

easonably accurate and up-to-date. Howe are continually developed and updated

Quality Assumme All Biold products are manufactured to a most stringent QA programme to ensure that every product will gene optimus performance and realibility. We are third party certified to BS EN ISO 9001/2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request; to BS EN ISO24 31 where available We reserve the right to make changes to the specifications and design etc., without prior notice.



bifold.co.uk

2

Features & Benefits



Bifold has manufactured ball and needle valve products for more than 20 years.

The product range has been designed to overcome the problems of traditional assemblies on primary isolation and venting duties.

Our needle valve range incorporates a dynamic sealing system along with a compact design. These valves can be direct mounted to the back plate of a panel and offer a lower torque to operate.

Our ball valve range is manufactured and is supplied complete with an anti blow out stem and lower torque to operate.

Instrumentation Needle Valves







Accuracy of information We take care to ensure that product information in this atalogue is reasonably accurate and up-to-date. However our products are continually developed and updated to co ensure accurate and up-to-date information please effer to the product catalogue issue list on our web site o constact a member of our sales team.

bifold.co.uk

BFD01/10 June '17

When selecting a product, the applicable operating syster design must be considered to ensure safe use. The produ function, material compatibility, adequate ratings, correct installation, operation and maintenance are the

esponsibilities of the system designer and user

Dynamic Sealing

• Eliminates the loss of sealing integrity often experienced over the life time of traditional packing glands, reducing the risk of fugitive emissions.

Compact Patented Design

 Sleek light weight body with smaller envelope enabling closer mounting, ease of installation and a significant reduction in overall panel size and weight.

Direct Mount to Back Plate

 All needles and vents off the back plate enabling lower cost panel construction. No panel cut-outs or spacers required for vents and needle heads.

Non-Wetted Parts

 Needle head threads are clean from process fluid corrosion or contamination using a metal to metal bonnet seal and pre-thread stem seals.

Lower Torque to Operate

- No need to mount on a back plate to counteract torque.
- There are design differences between the fire safe and non-fire safe products.

Quality Assurance Al Biold products are manufactured to a most stringent QA programme to ensure that every product will give optime performance and reliability. We are then d party certified to BS EA TOOP 5001 LODges of original mill exertificates, providing routin transchipting are available on request, to 65 EN 10004.3, where available. We reserve the right to make changes to the specifications and design ext, without prior notice.



Features & Benefits

Instrumentation Ball Valves



Single Piece Body

• Reduces potential leak paths to the outside environment.

Anti-Blow Out Stem

• The internally loaded and retained stem eliminates risk of injury to operators caused by potential stem blow outs.

Pressure Energised Stem Seal

 Combined with an anti-blow out stem, the internally loaded pressure energised stem seals, ensure sealing integrity is maintained regardless of outside influences / interferences such as removal of the handle.

Lower and Consistent Torque to Operate

• The unique design principles eliminate the effect of manufacturing variance, ensuring operating torques are both low and consistent throughout the batch.

Pressure Tested

Pressure tested in accordance with AP1 598 & BS EN 12266-1.
 Proof tested to 1.5 times maximum working pressure.

Why Use Bifold?

- Innovatively progressed and optimised designs throughout our product range.
- Here at Bifold, we are constantly carrying out vigorous research and development on all of our products, ensuring that our valves represent the best of what we do.
- Our state of the art production facilities based in the UK, allow our superior and innovative designs of products to be manufactured on site, assembled to the finished product and tested to rigorous quality standards.
- There are design differences between the fire safe and non-fire safe products.

Accuracy of information We take care to ensure that product information in the catalogue is reasonably accurate and up-to-date. How our products are continually developed and updated so to ensure accurate and up-to-date information pler refer to the product catalogue issue list on our web s contact a member of our sales team.

Then selecting a product, the applicable operating system sign must be considered to ensure safe use. The product netion, material compatibility, adequate ratings, correct stallation, operation and maintenance are the stallation operations and maintenance are the stallation operations and the statement of the statement of

ation please Quality Assurance ur web site or All Biold products are mar QA programme to ensure performance and reliability rating system BS EN ISO 9001-2008. Fun E. The products conformity and copies of 0 ng, correct tool traceability are availab



Bifold®

Product Portfolio

Instrumentation Needle Valves

The needle valve range is available as a one piece body construction with pressures ranging from 6,000 psi / 414 bar up to 10,000 psi / 690 bar and sizes ¹/4" NPT to 1" NPT. Within the needle valve range, we also offer a medium pressure design ranging from 10,000 psi / 690 bar up to 20,000 psi / 1380 bar (see our medium pressure instrumentation valves, fittings & relief valves catalogue).





Instrumentation Ball Valves

The Bifold range of ball valves utilise a state of the art design to reduce potential leak paths with a standard pressure ranging from 1,000 psi / 70 bar up to 10,000 psi / 690 bar and sizes '/4" NPT to 2" NPT. Within the ball valve range, we also offer a medium pressure design ranging from 10,000 psi / 690 bar up to 20,000 psi / 1380 bar (see our medium pressure instrumentation valves, fittings & relief valves catalogue).

Instrumentation Manifolds

Suitable for shutting off the impulse lines and for mounting pressure and directional pressure instruments. These manifolds are for direct mounting onto pressure transmitters furnished with mounting interface in accordance with DIN 61518. The manifolds are supplied as standard with ½" NPT female threaded inlet and vent connections.





catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales team.

When selecting a product, the applicable operating system design must be considered to ensure safe use. The products function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user. Quality Assurance All Biold products are manufactured to a most stringent QA programme to ensure that every product will give optime performance and reliability. Was ere third party certified to BS EN ISO 9001.2008. Functional test certificate, letter of conformity and coolies of original mill certificate, providing total traceability are vanished on request; to BS EN 10204.31, where available. We rearry the regist to make change



Product Portfolio

State of the Art Machining Centres

Bifold is enhanced by an in house lean and integrated manufacturing policy alongside a unique business model, effectively reducing lead times and providing peace of mind to contractors, installers and end users for over a century. Our state of the art production facilities based in the UK, allow our superior and innovative designs of products to be manufactured on site, assembled to the finished product and tested to rigorous quality standards.

All Bifold valves have product traceability via a unique serial number stamped on all valve bodies, linking them with their testing and component certificates, materials of construction together with full Manufacturers Record Book (MRB).

Bifold ISO9001 Product Certification and Specialist Testing Options Include

- Non destructive testing including Liquid Penetrant Inspection (LPI), Magnetic Particle Inspection (MPI), Positive Material Identification (PMI) and Ferrite testing.
- Hydrostatic & Pneumatic testing.
- Nitrogen gas testing.
- Nitrogen / Helium leak detection.
- Low temperature testing.
- Fugitive emission testing.
- Hydrogen Induced Cracking (HIC) testing and other specialist material tests.





Installation Picture of our Standard Range of Ball & Needle Valves



Installation Picture of our Standard Range of Ball & Needle Valves





6 bifold.co.uk

BFD01/10 June '17

so to ensure accurate and up-to-date information plea refer to the product catalogue issue list on our web si contact a member of our sales team. When selecting a product, the applicable operating sys design must be considered to accurate from the second

en selecting a product, the applicable operating system ign must be considered to ensure safe use. The prodution, material compatibility, adequate ratings, correct allation, operation and maintenance are the sombibility of the average designer and user QA programme to ensure that every product will gv performance and reliability. We are third party certifi BS EN ISO 9001:2008. Functional test certificate, por total traceability are available on request, to BS EN II where available. We reserve the right to make both the service of design etc., without prior no



© Bifold 2017



| | INSTRUMEN | TATION | BALL VALVES (Up to and | including 10,000 psi / 690 bar) |
|--|-----------------------------|----------------|------------------------|---|
| Product | Schematic Representation | Page Number | Product Code | Product Description |
| | | | BV0104F025TT1KLK-N | ¹ /4" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| | | | BV0108F029.2TTIKLK-N | ¹ /2" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| - | -1001- | 12 | BV0112F0212.5TT1KLK-N | ³ /4" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| BV01 Single Isolation Ball Valve, Low Pressure | | | BV0116F0215TTIKLK | I" NPT, Single Isolation Valve, Ball Configuration, I,000 psi / 70 bar, Lockable Handle. |
| | | | BV0132F0232TT1KLK | 2" NPT, Single Isolation Valve, Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| | | | BV02SL04F0211TT1KLK | ¹ /4" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| | | | BV02SL08F0212.5TTIKLK | 1/2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| 25 | | 13 | BV02SL12F0215TT1KLK | ³ ⁄4" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| BV02 3 Way Ball Valve, Low Pressure | | | BV02SL16F0220TTIKLK | I" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| | | | BV02SL32F0238TTIKLK | 2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 1,000 psi / 70 bar, Lockable Handle. |
| | | | BV0104F025ERV6K | ¹ /4" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar. |
| and the second s | | | BV0104F025ERV10K | ¹ /4" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar. |
| BV01 Single Isolation Ball Valve | | 14/15 | BV0106F025ERV6K | ³ ⁄8" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar. |
| | | | BV0106F025ERV10K | ³ ⁄8" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar. |

bifold.co.uk

one product catalogue issue inst on our web site or a member of our sales team. selecting a product, the applicable operating system must be considered to ensure safe use. The products n, material compatibility, adequate ratings, correct

ably accurate and up-to-date. ontinually developed and upd

tem designer

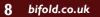
We tak

Quality Assurance All Biold products are manufactured to a most stringent QA programme to ensure that every product will give optiperformance and reliability. We are third party certified to BS EN ISO 9001-2008. Functional test certificate, letter of conformity and copies of original mill certificates, povoling total strateshility are available on request, to BS EN 1020. In the surefilterions and devision ex-without prior parties



Bifold®

| INST | RUMENTATIC | N BALI | L & NEEDLE VALVES (Up t | o and including 10,000 psi / 690 bar) |
|--|-----------------------------|----------------|-------------------------|--|
| Product | Schematic Representation | Page Number | Product Code | Product Description |
| | | | BV0104F025EV6KPM | ¹ /4" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar, Panel Mount. |
| | | | BV0104F025EV10KPM | ¹ /4" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar, Panel Mount. |
| | | 16/17 | BV0106F025EV6KPM | ³/₈" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar, Panel Mount. |
| BVOI Single Isolation Ball Valve, Panel Mount | | | BV0106F025EV10KPM | ⅔" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar, Panel Mount. |
| | | | BV0108F0210ERV6K | ¹ /2" NPT, Single Isolation Valve, Ball Configuration, 6,000 psi / 414 bar. |
| Sar | \sim | 18/19 | | Available in a three piece configuration. |
| BV01 | | 10/17 | BV0108F0210ERV10K | ¹ /2" NPT, Single Isolation Valve, Ball Configuration, 10,000 psi / 690 bar. |
| Single Isolation Ball Valve | | | | Available in a three piece configuration. |
| THE REAL | | | BV02SL08F0210ERV6K | 1/2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 6,000 psi / 414 bar. |
| BV02 3 Way Ball Valve | 4 | 20 / 21 | BV02SL08F0210ERV10K | 1/2" NPT, 3 Way Valve, Side Entry, L-Ported Ball Configuration, 10,000 psi / 690 bar. |
| 20 | | | BV0504F02F025ERV6K | 1/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/s" NPT Vent Port. |
| | X | 22 / 23 | BV0504F02F025ERV10K | 1/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, 1/8" NPT Vent Port. |
| BV05 | -022-022- | 22723 | BV0506F02F025ERV6K | 3/8" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/8" NPT Vent Port. |
| Double Block & Bleed, Ball & Needle Valve Manifold | | | BV0506F02F025ERV10K | ¾" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, ⅛" NPT Vent Port. |
| A o | | | BV0504F0210ERV6K | '/4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, '/4" NPT Vent Port. |
| A state | X | 24/25 | BV0504F0210ERV10K | ¹ /4" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, ¹ /4" NPT Vent Port. |
| BV05 | -1001-1001- | 24 / 25 | BV0508F04F02I0ERV6K | 1/2" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port. |
| Double Block & Bleed, Ball & Needle Valve Manifold | | | BV0508F04F0210ERV10K | 1/2" NPT, DBB Manifold, Ball - Needle - Ball Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port. |



Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howeve our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site of contact a member of our sale stem.

When selecting a product, the applicable operating syst design must be considered to ensure safe use. The profunction, material compatibility, adequate ratings, correcinstallation, operation and maintenance are the Quality Assurance All programmers meand-cound to a more stringent All programmers ensure that every product will give optimuperformance and reliability. We are shird party certified to BS PN IGO 90012008. Functional test certificate, letter of conformaly and copies of original mill certificate, providing total traceability are available on request, to BS EN (1024 31) where available. We reserve the right to make tranges to the specifications and design ecc., without prior notice.





| I | NSTRUMENT | | NEEDLE VALVES (Up to an | d including 10,000 psi / 690 bar) |
|---|-----------------------------|----------------|-------------------------|---|
| Product | Schematic Representation | Page Number | Product Code | Product Description |
| | | | NV0104F02M5V6K | 1/4" NPT, Single Isolation Valve, Needle Configuration, 6,000 psi / 414 bar. |
| | | | NV0104F02M5V10K | 1/4" NPT, Single Isolation Valve Needle Configuration, 10,000 psi / 690 bar. |
| • | | 26 / 27 | NV0108F02M5V6K | 1/2" NPT, Single Isolation Valve, Needle Configuration, 6,000 psi / 414 bar. |
| NV01 Single Isolation Needle Valve | | | NV0108F02M5V10K | 1/2" NPT, Single Isolation Valve, Needle Configuration, 10,000 psi / 690 bar. |
| | | | NV0304F02M5V6K | ¹ /4" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 6,000 psi / 414 bar. |
| Per- | ¥ | | NV0304F02M5V10K | 1/4" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 10,000 psi / 690 bar. |
| NV03 | | 28 / 29 | NV0308F02M5V6K | 1/2" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, 6,000 psi / 414 bar. |
| Block & Bleed Needle Valve Manifold Captive Vent Plug | | | NV0308F02M5V10K | ¹ /2" NPT, Block & Bleed Manifold, Needle - Captive Vent Plug Configuration, I 0,000 psi / 690 bar. |
| | | | NV2204F02M3V6K | 1/4" NPT, Compact Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, 1/4" NPT Vent Port. |
| | ¥ | 20/21 | NV2204F02M3V10K | ¹ /4" NPT, Compact Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, ¹ /4" NPT Vent Port. |
| NV22 | | 30/31 | NV2208F04F02M3V6K | ¹ /2" NPT, Compact Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, ¹ /4" NPT Vent Port. |
| Block & Bleed Needle Valve Compact Manifold | | | NV2208F04F02M3V10K | ¹ /2" NPT, Compact Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, ¹ /4" NPT Vent Port. |
| | | | NV0404F02M5V6K | ¹ /4" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, ¹ /4" NPT Vent Port. |
| 1.15 | + | | NV0404F02M5V10K | ¹ /4" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar; ¹ /4" NPT Vent Port. |
| 6 P | | 32 / 33 | NV0408F04F02M5V6K | ¹ /2" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 6,000 psi / 414 bar, ¹ /4" NPT Vent Port. |
| NV04 Block & Bleed | | | NV0408F04F02M5V10K | ¹ /2" NPT, Block & Bleed Manifold, Needle - Needle Configuration, 10,000 psi / 690 bar, ¹ /4" NPT Vent Port. |
| Needle Valve Manifold | | | THIS PRODUCT DE | SIGN IS UNIQUE TO BIFOLD AND PATENTED |
| | | | NV0504F02M5V6K | ¹ /4" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar, ¹ /4" NPT Vent Port. |
| | _ | | NV0504F02M5V10K | ¹ /4" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar, ¹ /4" NPT Vent Port. |
| • | | 34 / 35 | NV0508F04F02M5V6K | ¹ /2" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar, ¹ /4" NPT Vent Port. |
| NV05 Double Block & Bleed | | | NV0508F04F02M5V10K | ¹ /2" NPT, DBB Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar, 1/4" NPT Vent Port. |
| Needle Valve Manifold | | | THIS PRODUCT DE | SIGN IS UNIQUE TO BIFOLD AND PATENTED |

bifold.co.uk

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howe our products are continually developed and updated so to ensure accurate and up-to-date information pleas refer to the product catalogue issue list on our web site contact a member of our sales team.

When selecting a product, the applicable operating system design must be considered to ensure safe use. The products function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user. Quality Assurance Al Biold products are manufactured to a most stringent QA programme to ensure that every product will give optim performance and reliability. We are thind party certified to BS EN ISO 9001-2000. Functional test certificate, letter of conformity and coopies of original mill certificates, providing under a suitable. We reserve the right to make ENN roll 1.1 where a suitable. We reserve the right to make to got



BFD01/10 June '17

Bifold®

| I | NSTRUMENT | | NEEDLE VALVES (Up to an | d including 10,000 psi / 690 bar) |
|---|---|----------------|-------------------------|--|
| Product | Schematic Representation | Page Number | Product Code | Product Description |
| 1 | ↓ | | NV06104F02M3V6K | ¹ /4" NPT, DBB Single Station Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar. |
| NV06 I Double Block & Bleed Single Station Needle Valve Manifold | | 36 /37 | NV06104F02M3V10K | ¹ /4" NPT, DBB Single Station Manifold, Needle - Needle - Needle Configuration, I 0,000 psi / 690 bar: |
| | | | THIS PRODUCT DE | SIGN IS UNIQUE TO BIFOLD AND PATENTED |
| | <u></u> – – – – – – – – – – – – – – – – – – – | | NV06204F02M3V6K | ¹ /4" NPT, DBB Two Station Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar. |
| NV06 2 Double Block & Bleed Two Station Needle Valve Manifold | | 38 /39 | NV06204F02M3V10K | ¹ /4" NPT, DBB Two Station Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar. |
| | | | THIS PRODUCT DE | SIGN IS UNIQUE TO BIFOLD AND PATENTED |
| | | | NV06304F02M3V6K | ¹ /4" NPT, DBB Three Station Manifold, Needle - Needle - Needle Configuration, 6,000 psi / 414 bar. |
| NV06 3 Double Block & Bleed Three Station Needle Valve Manifold | | 40 /41 | NV06304F02M3V10K | ¹ /4" NPT, DBB Three Station Manifold, Needle - Needle - Needle Configuration, 10,000 psi / 690 bar. |
| | | | THIS PRODUCT DE | SIGN IS UNIQUE TO BIFOLD AND PATENTED |

10 bifold.co.uk

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site e contact a member of our sales team.

aduct, the applicable operating system dered to ensure safe use. The products compatibility, adequate ratings, correct to and maintenance are the system of the system of

Quality Assurance Al Biolog modex are manufactured to a most stringent OA programme to strane that every product will give optimate the strange of the strange of the strange of the SE SI INO 2012086. Fix our strange of the strange of conformity and copies of original mill certificates, providing tool arcscability are available on request, to B SE NI 0204 31, where available. We reserve the right to make changes to the specifications and design exc., without prior notice.



Technical Attributes



Materials

Stainless Steel, UNS S31600 / S31603, is used throughout for metallic parts as the standard option. Other options are: Carbon Steel (LF2) with F316 trim; Duplex (UNS S31803) throughout and Super Duplex (UNS S32760) throughout. All material options are in compliance with NACE MR0175 (ISO 15156)

Pressure Ratings

Maximum pressure ratings of 1,000 psi / 69 bar, 6,000 psi / 414 bar and 10,000 psi / 690 bar depending on seat material selection. The selection chart for each product shows the maximum available. Pressure rating at elevated temperatures is limited, in-line with the graphs shown below. Pressure rating is also limited by connection type, in-line with the table shown below.

Temperature

Using the correctly selected seal material, all valves have a minimum temperature rating of -20° C (-4° F) and a maximum of $+200^{\circ}$ C (392° F). Pressure ratings at temperature are limited in-line with the graphs shown below. Additional seal materials (not listed) are available to extend this capability to a minimum of -60° C (-76° F) and a maximum of $+300^{\circ}$ C ($+572^{\circ}$ F). Pressure ratings will be limited at these extremes; consult with Bifold for further details.

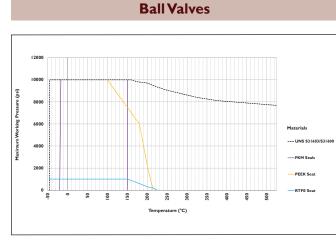
Operating Media

With suitably selected seal materials, all valves can be used with a wide variety of fluids and are also suitable for gas service where the '-NT' option is selected.

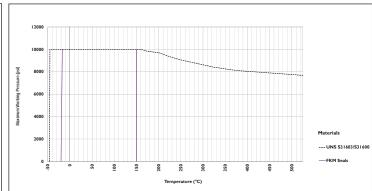
Connection Pressure Rating (psi)

| | | | Connect | tion Type | | |
|----------------------|-------------------|-----------------|---|------------------------------------|----------------------|----------------------|
| Nominal Pipe Size | Female NPT (F) | Male NPT (M) | Male NPT Inlet / Female NPT Outlet (MF) | Female Medium Pressure (FMP) | Female BSPP (FK6) | Female SAE (FSAE) |
| 04 (¼") | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| 06 (3/8") | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| 08 (½") | 10,000 | 10,000 | 10,000 | X | 10,000 | 10,000 |
| 09 (%16'') | X | X | X | 10,000 | X | X |
| 12 (¾'') | 6,000 | 6,000 | 6,000 | 10,000 | 6,000 | 6,000 |
| 16 (1") | 6,000 | 6,000 | 6,000 | 10,000 | 6,000 | 5,000 |

Standard Temperature vs. Pressure Charts



Needle Valves



Quality Assurance All Biold products are manufactured to a most stringent QA programme to ensure that every product will give op performance and relability. We are third party certified to BS EN ISO 9001-2008. Functional test certificate, letter conformity and copies of original mill certificates, providin total traceability are available on request, to BS EN 1034 where available. We reserve the right to make changes



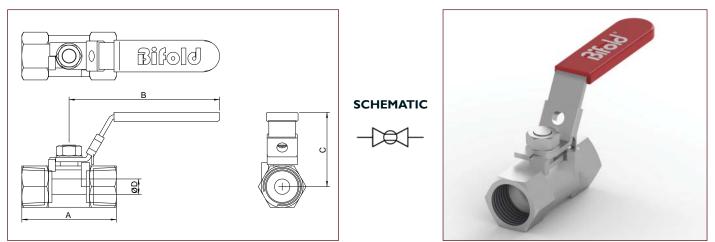
© Bifold 2017

bifold.co.uk

BFD01/10 June '17

Bifold

Typical GA Drawing



| | | BV01 | - SELECTION | TABLE | | | | |
|-----------------------|-----------------|--------------------|-------------------|-------------|----------------------|-------------|---------------|----------------|
| Product Code | Size | Rated | Cv (US Gallon) | 'A' (mm) | ' B ' (mm) | 'C' (mm) | Ø 'D' (mm) | Weight (Kg) |
| BV0104F025TT1KLK-N | 1⁄4" NPT | 1,000 psi / 70 bar | 2.5 | 40.0 | 71.0 | 35.0 | 5.0 | 0.07 |
| BV0108F029.2TT1KLK-N | 1⁄2" NPT | 1,000 psi / 70 bar | 4.8 | 57.0 | 95.0 | 44.0 | 9.2 | 0.16 |
| BV0112F0212.5TT1KLK-N | 34 " NPT | 1,000 psi / 70 bar | 9.5 | 59.0 | 95.0 | 48.0 | 12.5 | 0.25 |
| BV0116F0215TT1KLK | I" NPT | 1,000 psi / 70 bar | 14.0 | 71.0 | 103.0 | 50.0 | 15.0 | 0.43 |
| BV0132F0232TT1KLK | 2" NPT | 1,000 psi / 70 bar | 58.0 | 100.0 | 127.0 | 74.5 | 32.0 | 1.50 |

Product Description

A 1,000 psi / 70 bar rated single isolation ball valve, designed to give bubble tight shut off through 90° operation across the full operating temperature range. Totally enclosed soft seats offer both positive sealing and low operating torques.

Features & Benefits

- Single piece body design reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- Lockable handle as standard.
- Compact design to save space and weight.
- Bubble tight shut-off.

• PTFE seating to the ball.

Technical Data

Material grade - ASTM A351 CF8M stainless steel body (standard). Operating temperature range -20°C to +200°C.

2 bifold.co.uk

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site o

> e applicable operating system BS EN ISO o ensure safe use. The products conformity ty, adequate ratings, correct total tracea intenance are the where avail

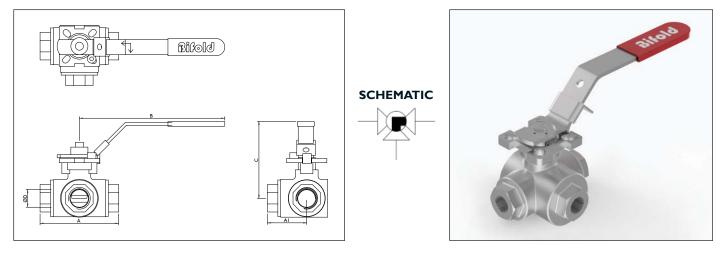
All bolic products are imation, time to a minor string Q programme to ensure that every product will give performance and reliability. We are third party certific BS EN ISS 0001/2008. Ensuring the confidence, lett conformity and copies of original mill certificate, per total arcschellity are available on request, to BS EN IC where available. We reserve the right to make change to the specifications and design etc. without prior no



BFD01/10 June '17



Typical GA Drawing



| | | BV | 02 - SELECTION | N TABLE | | | | | |
|-----------------------|----------|--------------------|-------------------|-------------|--------------|----------------------|-------------|--------------|----------------|
| Product Code | Size | Rated | Cv (US Gallon) | 'A' (mm) | 'A1' (mm) | ' B ' (mm) | 'C' (mm) | Ø'D' (mm) | Weight (Kg) |
| BV02SL04F0211TT1KLK | '∕₄" NPT | 1,000 psi / 70 bar | 7.0 | 72.0 | 36.0 | 140.0 | 75.0 | 11.0 | 0.66 |
| BV02SL08F0212.5TT1KLK | ½" NPT | 1,000 psi / 70 bar | 7.0 | 72.0 | 36.0 | 140.0 | 75.0 | 12.5 | 0.64 |
| BV02SL12F0215TT1KLK | 3⁄4" NPT | 1,000 psi / 70 bar | 11.0 | 83.0 | 41.5 | 151.0 | 88.0 | 15.0 | 0.85 |
| BV02SL16F0220TT1KLK | I" NPT | 1,000 psi / 70 bar | 15.0 | 99.0 | 49.5 | 166.0 | 93.0 | 20.0 | I.46 |
| BV02SL32F0238TT1KLK | 2" NPT | 1,000 psi / 70 bar | 70.0 | 149.0 | 74.5 | 263.0 | 154.0 | 38.0 | 5.24 |

Product Description

A 1,000 psi / 70 bar rated 3 way ball valve, designed to provide a bubble tight shut off through 90° operation across the full operating temperature range. The four seat design prevents leakage across the cavity and provides accurate alignment to the ball.

Features & Benefits

- Live Loaded Stem Design provides automatic adjustment required due to wear and pressure temperature fluctuations.
- Anti-blow out stem internally loaded.
- Precision machined stainless steel ball.

- PTFE seating to the ball.
- Lockable handle as standard.
- ISO 5211 Mounting Pad for direct actuator mounting.
- Available in 'T' Ported configuration.

Technical Data

Material grade - ASTM A351 CF8M stainless steel body (standard). Operating temperature range -20°C to +200°C.

bifold.co.uk

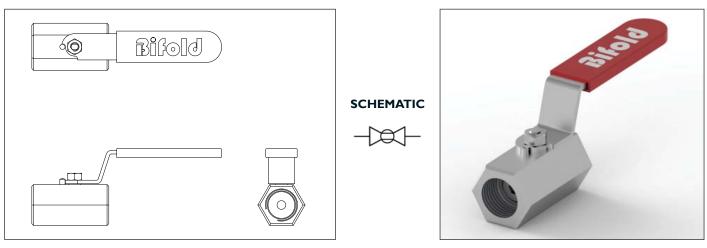
Accuracy of information We take are to ensure that product information in this catalogue is reasonably accurate and up-to-date. However our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site o contact a member of our sales team.

When selecting a product, the applicable operating system design must be considered to ensure safe use. The products function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user. Quality Assurance Al Biold products are manufactured to a most stringent AQA programme to ensure that every product will give optimu performance and reliability. We are third party certified to BS EN IGO 9001-2008. Functional test certificate, letter of conforming und copies of original mill certificate, providing and an ensure of the ensurement of the providing where available. We reserve the right to make changes to the specifications and design ecg. without prior notice.



Typical GA Drawing

Bifold



| | BV | 01 - SELECTION TAB | LE | |
|------------------|-----------------|----------------------|-------------------|---------------------------------------|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) |
| BV0104F025ERV6K | 1/4" Female NPT | 6,000 psi / 414 bar | 1.9 | 86.0 |
| BV0104F025ERV10K | ¹∕₄" Female NPT | 10,000 psi / 690 bar | 1.9 | 86.0 |
| BV0106F025ERV6K | ³⁄8" Female NPT | 6,000 psi / 414 bar | 1.9 | 86.0 |
| BV0106F025ERV10K | 3/8" Female NPT | 10,000 psi / 690 bar | 1.9 | 86.0 |

Product Description

A single isolate ball valve with pressures rated up to 10,000 psi / 690 bar. The single isolating ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. Totally enclosed soft seats offer both positive sealing and low operating torques.

Features & Benefits

- Single piece body design reducing leak paths.
- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel ball.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- O-Ring Stem & body seals.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 15 for alternative materials.

Accuracy of information We take care to ensure that product information catalogue is reasonably accurate and up-to-date, our products are continually developed and upda so to ensure accurate and up-to-date information refer to the product catalogue issue list on our v caretor to anymbax of our value name

When selecting a product, the applicable operating sy design must be considered to ensure safe use. The pr function, material compatibility, adequate ratings, corn installation, operation and maintenance are the All Biold products are manufactured to a most string QA programme to ensure that every product will giv performance and reliability. We are third party certifi BS EN ISO 9001-2008. Functional test certificate, let conformity and copies of original mill certificates, per total areachibility are available on request, to BS EN II where available. We reserve the right to make change to the specifications and design etc., without prior no



BV01 Selection Chart - Ordering Example

| 06F | | 2/1 | F | | T . | | | | | | | | | | | | nal Pipe Siz |
|-----|----------|-----|----------|--------|-------|-------------|----------|-------------|--------|-----------|-----------------------|-----------|----------|----------|----|----------|--------------|
| | | | Fema | | | | | | | | | | | | | Conne | ection Type |
| | 02 | | | | | | | inless Ste | el (St | andard) | | | | | | | |
| | 26 38 | | | | | | Duple> | (| | | | | | | | Materi | al |
| | 38 | | | 2 / Ca | | | Supor | Duplex | | | | | | | | | |
| | 37 | _ | | | | | Juper | Duplex | | | | | | | | C | |
| | | 5 | | | andar | | | | | . / 70 | M · | <u> </u> | | | | Series | |
| | | | | | | ass ⊦ EK | illed PT | | | | r Maximu bar Maxin | | | | e) | Seat M | laterial |
| | | | | | ۲S | R | TFE / N | - | | | | | | <u> </u> | , | | |
| | | | | | RV | | TFE / V | | | | | | | | | Seal Ar | rangemen |
| | | | | 1 | RV9 | F | TFE / V | /91A | | | | | | | | | nd Body |
| | | | | 1 | RE9 | P | TFE / E | 5985 | | | | | | | | | |
| | | | | | | IK | ١, | 000 psi / 1 | 70 ba | r Maximı | um Cold V | Vorking F | Pressure | | | | |
| | | | | | | 6K | 6, | 000 psi / 4 | 414 b | ar Maxin | num Cold | Working | Pressur | 9 | | Pressu | re Rating |
| | | | | | L | IOK | | | | | mum Col | d Workin | g Pressu | re | | | |
| | | | | | | | | ETTER | | Standard | | | nuice) | | | F.A.T. C | Options |
| | | | | | 1 | | -NT | | | INITrogen | F.A.T. (Fo | Gas Sei | rvice) | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Other options may be available upon request. For more information, please contact Bifold sales department.

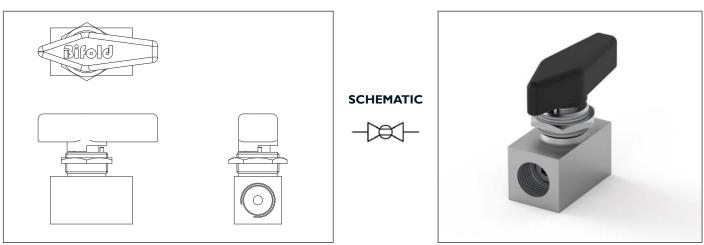
bifold.co.uk

All Biold products are manufactured to a most stringent
 All Biold products are manufactured to a most stringent
 QA programme to ensure that every product will give oppin
 performance and relability. Was art bid party carefiled to
 BS EN 105 0901.2008. Functional was: certificate. letter of
 tool arcashibility are mailed on requerts, to BS EN 102043
 where available. We reserve the right to make changes
 to the specifications and designet ex-without prior mostor.



Typical GA Drawing

Bifold



| | BV | 01 - SELECTION TAB | LE | |
|-------------------|-----------------|----------------------|-------------------|---------------------------------------|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (I/min water) |
| BV0104F025EV6KPM | 1/4" Female NPT | 6,000 psi / 414 bar | 1.9 | 86.0 |
| BV0104F025EV10KPM | 1/4" Female NPT | 10,000 psi / 690 bar | 1.9 | 86.0 |
| BV0106F025EV6KPM | 3⁄8" Female NPT | 6,000 psi / 414 bar | 1.9 | 86.0 |
| BV0106F025EV10KPM | ³⁄8" Female NPT | 10,000 psi / 690 bar | 1.9 | 86.0 |

Product Description

A single isolate ball valve with pressures rated up to 10,000 psi / 690 bar. The single isolating ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. Totally enclosed soft seats offer both positive sealing and low operating torques.

Features & Benefits

- Single piece construction reducing leak paths.
- Bi-directional.
- Precision machined stainless steel ball.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- O-Ring stem and body seals.

- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 17 for alternative materials.

We take care to ensure that product inform: catalogue is reasonably accurate and up-to-d our products are continually developed and s to tensure accurate and up-to-date inform refer to the product catalogue issue list on c

contact a member of our sales team. When selecting a product, the applicable operating sys design must be considered to ensure safe use. The profunction, material compatibility, adequate ratings, correAll Biold products are manufactured to a most string QA programme to ensure that every product will giv performance and reliability. We are third party certifi BS EN ISS 0001:2008. Functional test certificate, let conformity and copies of original mill certificates, per total areacheality are available on request, to BS EN II where available. We reserve the right to make change to the specifications and design etc., without prior no





BV01 Selection Chart - Ordering Example

| | | | | | | | | | Model Code |
|-----|----------|----------|----------|--------|--------------------|------------------|----------------------------------|-----------------|-------------------|
| 04F | | | emale | | | | | | Nominal Pipe Size |
| 06F | | 3∕8" F | emale | | (62 (6 | | | | Connection Type |
| | 02 26 | | | | / 53160 31803 D | 3 Stainless Stee | (Standard) | | |
| | 38 | | | Carbor | | uplex | | | Material |
| | 39 | | | | | uper Duplex | | | |
| | | 5 | | Standa | | - F F - | | | Series |
| | | <u> </u> | Т | | | ed PTFE (1,0 | 0 psi / 70 bar Maximum Cold Wo | rking Prossura) | - Series |
| | | | Ē | | EEK | | 00 psi / 690 bar Maximum Cold V0 | | Seat Material |
| | | | <u> </u> | RS | | FE / Nitrile | | | |
| | | | | RV | | FE / Viton | | | Seal Arrangement |
| | | | | RV9 | | FE/V9IA | | | Stem and Body |
| | | | | RE9 | | FE / E985 | | | , |
| | | | | | IK | 1,000 psi / 7 |) bar Maximum Cold Working Pre | essure | |
| | | | | | 6K | | 4 bar Maximum Cold Working Pi | | Pressure Rating |
| | | | | | IOK | - | 590 bar Maximum Cold Working I | Pressure | |
| | | | | | F | | 1ount (Standard) | | Mounting Option |
| | | | | | | NO LET | | . | F.A.T. Options |
| | | | | | | -NT | Nitrogen F.A.T. (For Gas | Service) | • |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Other options may be available upon request. For more information, please contact Bifold Sales Department.

bifold.co.uk

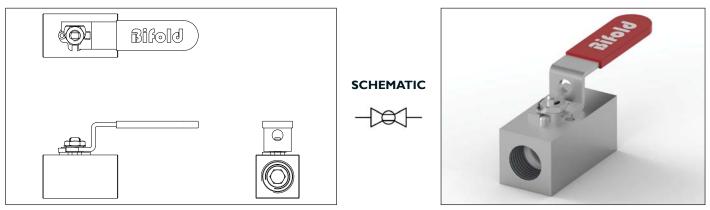
Accuracy of Information We take care to around that product information in this catalogue is reasonably accurate and up-to-date. However, our products are commanily developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales taxen. When selecting a product, the applicable operating system

When selecting a product, the applicable operating system design must be considered to ensure safe use. The product function, material compatibility, adequate ratings, correct installation, operation and maintenance are the responsibilities of the system designer and user. Quality Assurance All Biold products are manufactured to a most stringent QA programme to ensure that every product will give optimus performance and reliability. Was entitled to BS EN ISO 9001:2006. Functional test certificate, letter of conformity and cospies of original mill certificates, perioding total miceability are svaliable on request, to BS EN 10204-31. In the swafficiations and detain etc., withmar prior guide



Typical GA Drawing

Bifold



| | BV01 - SELECTION TABLE | | | | | | | | | |
|-------------------|------------------------|----------------------|-------------------|---------------------------------------|--|--|--|--|--|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | | | | | | |
| BV0108F0210ERV6K | 1/2" NPT | 6,000 psi / 414 bar | 9.6 | 438.0 | | | | | | |
| BV0108F0210ERV10K | 1⁄2" NPT | 10,000 psi / 690 bar | 9.6 | 438.0 | | | | | | |

Product Description

A single isolate ball valve with pressures rated up to 10,000 psi / 690 bar. The single isolating ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. Totally enclosed soft seats offer both positive sealing and low operating torques.

Features & Benefits

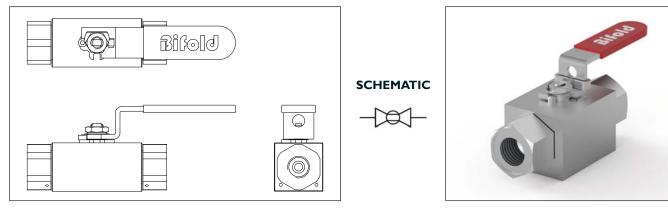
- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel ball.
- Lever type handle as standard.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- RTFE stem seals and O-Ring body seals.

- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.
- Seal integrity maintained if handle is removed.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 19 for alternative materials.

Three Piece Configuration



Valves with connection types other than Female NPT will be supplied in the above three piece configuration.

8 bifold.co.uk

Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howe our products are continually developed and updated so to ensure accurate and up-to-date information pleas refer to the product catalogue issue list on our web site contents a membra of our sets team.

ontact a member of our sales team. Vhen selecting a product, the applicable operating syster esign must be considered to ensure safe use. The produ inction, material compatibility, adequate ratings, correct weaking the second secon All Biold products are manufactured to a most str QA programme to ensure that every product will performance and reliability. We are third party cen BS EN 150 5001:2008. Functional ests centificate, it conformity and copies of original mill centificates, to total traceability are available on request, to BS EN where available. We reserve the right to make that to the specifications and design esc., without prior



Bifold®

BV01

BV01 Selection Chart - Ordering Example

| | Single Iso | lation B | Ball Valve | 5 | | | | | | Model Code |
|----------------------------------|---|-----------|----------------|------------------------------|--|---|--|--------------------------------|--|-----------------------------------|
| 04 06 08 09 12 16 | 1/4" 3/8" 1/2" 9/16" 3/4" " | | | | | | | | | Nominal Pipe Size |
| | F FMP FK6 FSAE | Femal | e BSPP | | ssure (Se | eries 10 | Option Only) | <u>}</u> | Three Piece Configuration | Connection Type |
| | 0 2 3 3 | 6 8 | F51/U LF2/0 | UNS S3 Carbon | 31803 Di | uplex | ss Steel (Stan blex | dard) | | Material |
| | | 10 20 | Fo | tandard or Non Vorking | | es: ¾" to e) | I" Excluding | FMP (6 | ,000 psi / 414 bar Maximum Cold | Series |
| | | | T E | | ass Filled EK | I PTFE | (1,000 psi /) (10,000 psi / | 70 bar N 690 ba | 1aximum Cold Working Pressure) r Maximum Cold Working Pressure) | Seat Material |
| | | | | H RS RV RV9 RE9 | RTFI RTF | E E / Nitri E / Viton E / V91 <i>A</i> E / E985 | A Contraction | | | Seal Arrangement Stem and Body |
| | | | | | IK 6K IOK The pre to the c | 6,000 10,00 ssure m | psi / 414 bar 0 psi / 690 ba ay be limited | Maximu r Maxim by the o | n Cold Working Pressure Im Cold Working Pressure num Cold Working Pressure connection type, please refer able on page 11 | Pressure Rating |
| | | | | | N L P | | Lo | ndard H ckable H nter Pa | | Handle Options |
| | | | | | | NO PM | LETTER | Pipe I Panel | 1ount (Standard) Mount (Standard for 20mm Bore Siz | es) Mounting Options |
| | | | | | | | NO LET -NT | ΓER | Standard F.A.T. Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | | | | | | | | | |
| 0104 | F 02 | <u>10</u> | <u> </u> | | IOK LI | | -NT | act Dife! | d Sales Department. | Ordering Example |

se contact Bifold Sales Department. lable upon request. For m options may Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a methed of our sales ream.

the considered to ensure safe use. Iterial compatibility, adequate rating operation and maintenance are the ties of the system designer and user

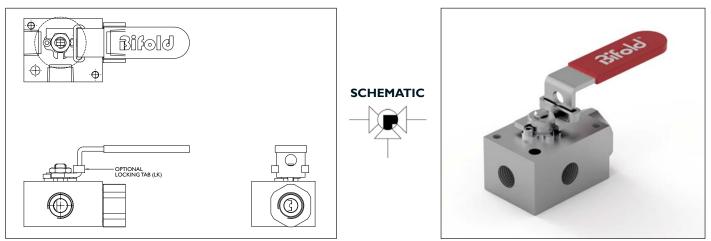
bifold.co.uk

Quality Assurance All Bifold products are QA programme to ens performance and reliab BS EN ISO 9001:2008. conformity and copier me to ensure that every product w. e and reliability. We are third party of 2001:2008. Functional test certification und copies of order



Typical GA Drawing

Bifold



| | BV02 - SELECTION TABLE | | | | | | | | |
|---------------------|------------------------|----------------------|-------------------|---------------------------------------|--|--|--|--|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | | | | | |
| BV02SL08F0210ERV6K | 1/2" NPT | 6,000 psi / 414 bar | 4.3 | 196.0 | | | | | |
| BV02SL08F0210ERV10K | 1/2" NPT | 10,000 psi / 690 bar | 4.3 | 196.0 | | | | | |

Product Description

A 3 way ball valve with pressures rated up to 10,000 psi / 690 bar. The 3 way ball valve is designed to give bubble tight shut off through 90° operation across the full operating temperature range of the valve. The standard 'L' port configuration diverts one pressure supply between two outlets. Totally enclosed soft seats offer both positive sealing and low operating torques.

Features & Benefits

- Anti-blow out stem internally loaded.
- Precision machined stainless steel ball.
- Lever type handle as standard.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- RTFE stem seals and O-Ring body seals.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.
- Seal integrity maintained if handle is removed.
- Available in 'T' ported configuration.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 21 for alternative materials.

20 bifold.co.uk

BFD01/10 June '17



Bifold®

BV02

BV02 Selection Chart - Ordering Example

| 02 3 Way Ball Valve | | Model Code |
|---|---|-----------------------------------|
| S Side Entry B Bottom E | | Configuration |
| | ted Ball | Flow Pattern |
| 04 1/4" 06 3/9" 08 1/2" 09 9/6 12 3/4" 16 1" | | Nominal Pipe Size |
| F FMP FK6 FSAE | Female NPT Female Medium Pressure (Series 10 Option Only) Female BSPP Female SAE | Connection Type |
| 02 26 38 39 | UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex | Material |
| | 10 Standard 20 For Nominal Sizes: ¾" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure) | Series |
| | | Seat Material |
| | | Seal Arrangement Stem and Body |
| | IK1,000 psi / 70 bar Maximum Cold Working Pressure6K6,000 psi / 414 bar Maximum Cold Working Pressure10K10,000 psi / 690 bar Maximum Cold Working PressureThe pressure may be limited by the connection type, please referto the connection pressure ratings table on page 11 | Pressure Rating |
| | NO LETTER Standard Handle LK Lockable Handle PH Pointer Paddle Handle | Handle Options |
| | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | |
|)2 S L 04 F 02 | 10 E H 10K LK -NT | Ordering Example |

Other options may be available upon request. For more information, please contact Bifold Sales Department. Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales team.

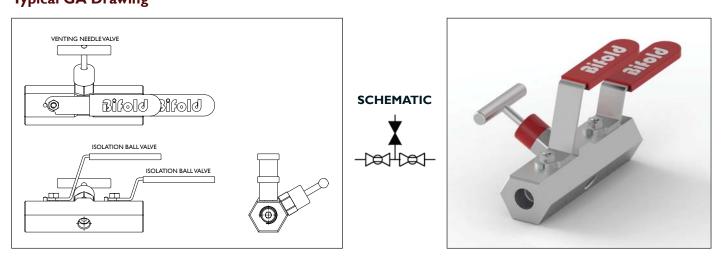
bifold.co.uk

Quality Assurance All Biolid products are manufactured to a most stringent QA programme consure that every product will give optimation performance and reliability. We are third party certificate to conformity and copies of original mill certificates, terror do conformity and copies of original mill certificates, perioding road transability are available on request to BS IN 10040. It where saulable. We reserve the right to make changes



Typical GA Drawing

Bifold



| | BV05 - SELECTION TABLE | | | | | | | | | |
|---------------------|------------------------|----------------------|-------------------|---------------------------------------|--|--|--|--|--|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | | | | | | |
| BV0504F02F025ERV6K | 1/4" NPT | 6,000 psi / 414 bar | 1.3 | 58.0 | | | | | | |
| BV0504F02F025ERV10K | '⁄4" NPT | 10,000 psi / 690 bar | 1.3 | 58.0 | | | | | | |
| BV0506F02F025ERV6K | 3%" NPT | 6,000 psi / 414 bar | 1.3 | 58.0 | | | | | | |
| BV0506F02F025ERV10K | 3∕8" NPT | 10,000 psi / 690 bar | 1.3 | 58.0 | | | | | | |

Product Description

A double block & bleed ball - needle - ball valve manifold with pressures rated up to 10,000 psi / 690 bar. Manufactured from barstock, the two inline balls are the primary and secondary isolating valves with a needle type valve for the vent facility. The ball valve is designed to give bubble tight shut off through a 90° operation across the full operating temperature range of the valve.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel balls.
- Lever type handles as standard.
- Compact design to save space and weight.
 Full material traceability and individual serial number stamped on the valve.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.

Technical Data

- RTFE stem seals and O-Ring body seals.
- Stem seal design prevents galling and contamination.
- Panel mount as standard.
- Thread milled connections for improved sealing.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 23 for alternative materials.

Accuracy of information We take care to ensure that product information in catalogue is reasonably accurate and up-to-date. Hi our products are continually developed and updates to to ensure accurate and up-to-date information p refer to the product catalogue issue list on our web

refer to the product catalogue issue iss on our web site contact a member of our sales team. When selecting a product, the applicable operating syste design must be considered to ensure safe use. The prod

QA programme to ensure that every products performance and reliability. We are third party c BS EN ISO 9001/2008. Functional test certifican to conformity and copies of original mill certificate total traceability are available on request, to BS where available. We reserve the right to make c to the specifications and design etc., without prin



BV05 Selection Chart - Ordering Example

| 04F | | | Model Code |
|-----|--|---|-----------------------------------|
| | 1/4" Female NPT | | Nominal Pipe Size |
| 06F | 3/8" Female NPT | | Connection Type |
| | 02F ¹ / ₈ " Female NPT (Standard) | | Vent Connection |
| | 02 UNS \$31600 / \$31603 Stainless Steel 26 F51 / UNS \$31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS \$32760 Super Duplex | (Standard) | Material |
| | 5 Standard | | Series |
| | T Glass Filled PTFE (1,000 ps | si / 70 bar Maximum Cold Working Pressure) psi / 690 bar Maximum Cold Working Pressure) | Seat Material |
| | RSRTFE / NitrileRVRTFE / VitonRV9RTFE / V91ARE9RTFE / E985 | | Seal Arrangement Stem and Body |
| | 6K 6,000 psi / 414 10K 10,000 psi / 69 | par Maximum Cold Working Pressure bar Maximum Cold Working Pressure 0 bar Maximum Cold Working Pressure | Pressure Rating |
| | NO LETTER AV | Standard Vent Anti-Tamper Vent | Vent Operator Options |
| | NO LETTE PV | Plugged Vent | Vent Outlet Optio |
| | NO L -NT | LETTER Standard F.A.T. Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | | |
| | | | |

Other options may be available upon request. For more information, please contact Bifold Sales Department.

bifold.co.uk

HIDEE Interferences of the second secon

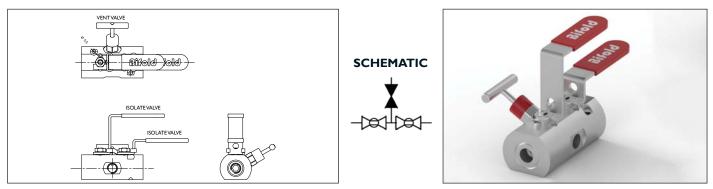
Quality Assurance Al Biolog products are manufactured to a most stringent QA programme to ensure that every product will give optimus products and the product of the product of the procession of the product of the product of the procession of the product of the product of the procession of the product of the product of the product of the other products and design etc. which are include a the specifications and design etc. which are provide to the specifications and design etc. which are protoned and the product of the product of the product of the product of the specifications and design etc. which are pronotice.



Bifold®

Typical GA Drawing

Bifold®



| | BV05 - SELECTION TABLE | | | | | | | | | |
|----------------------|------------------------|----------------------|-------------------|---------------------------------------|--|--|--|--|--|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (I/min water) | | | | | | |
| BV0504F0210ERV6K | 1/4" NPT | 6,000 psi / 414 bar | 7.6 | 345.0 | | | | | | |
| BV0504F0210ERV10K | 1⁄4" NPT | 10,000 psi / 690 bar | 7.6 | 345.0 | | | | | | |
| BV0508F04F0210ERV6K | 1⁄2" NPT | 6,000 psi / 414 bar | 7.6 | 345.0 | | | | | | |
| BV0508F04F0210ERV10K | ½" NPT | 10,000 psi / 690 bar | 7.6 | 345.0 | | | | | | |

Product Description

A double block & bleed ball-needle-ball valve manifold with pressures rated up to 10,000 psi / 690 bar. Manufactured from barstock, the two inline balls provide unrestricted flow with a roddable facility, and are the primary and secondary isolating valves with a needle type valve for the vent facility. The ball valve is designed to give bubble tight shut off through a 90° operation across the full operating temperature range of the valve.

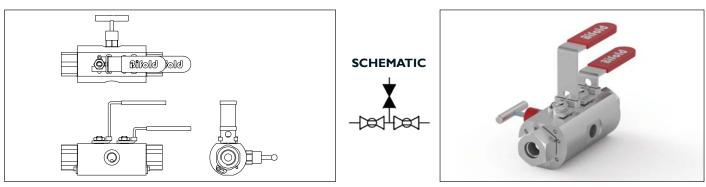
Features & Benefits

- Anti-blow out stem internally loaded.
- Bi-directional.
- Precision machined stainless steel balls.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Lever type handle as standard.
- RTFE stem seals and O-Ring body seals.
- Stem seal design prevents galling and contamination.
- Panel mount as standard.
- Thread milled connections for improved sealing.
- Bubble tight shut-off.
- Low operating torque.
- Pressure energised stem sealing.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 25 for alternative materials.

Three Piece Configuration



Valves with connection types other than Female NPT will be supplied in the above three piece configuration.

24 bifold.co.uk

We take care to ensure that product information in thi catalogue is reasonably accurate and up-to-date. Howe our products are continually developed and updated so to ensure accurate and up-to-date information pleas refer to the product catalogue issue list on our web site

When selecting a product, the applicable operating sys design must be considered to ensure safe use. The pro function, material compatibility, adequate ratings, corre installation, operation and maintenance are the responsibilities of the cystem designer and user All labola products are manufactured to a most stringent QA programme to ensure that every product will give op performance and reliability. We are third party certified to BS EN ISO 90012008. Functional test certificate, letter o conformity and copies of original mill certificate, provide total sraceability are available on requests, to BS EN 10204 where available. We reserve the right to make change to the specifications and deign ecc., without prior notice.



BV05 Selection Chart - Ordering Example

| BV05 | | | eed, Ball & Needle Valve Manifold | Model Code |
|--------|--------------------------------------|--|---|-----------------------------------|
| | 5 3/8" B 1/2" 9 9/16 2 3/4" | | | Nominal Pipe Size |
| | F FMP FK6 FSAE | Female N Female M Female B Female S | Addium Pressure (Series 10 Option Only) Three Piece Configuration | Connection Type |
| | N0 04 | O LETTER F | R 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 1/4" Female NPT | Vent Connection |
| | | 26 F 38 L | UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex | Material |
| | | 10 20 | Standard For Nominal Sizes: ¾" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure) | Series |
| | | | TGlass Filled PTFE(1,000 psi / 70 bar Maximum Cold Working Pressure)EPEEK(10,000 psi / 690 bar Maximum Cold Working Pressure) | Seat Material |
| | | | RS RTFE / Nitrile RV RTFE / Viton RV9 RTFE / V91A RE9 RTFE / E985 | Seal Arrangement Stem and Body |
| | | | IK1,000 psi / 70 bar Maximum Cold Working Pressure6K6,000 psi / 414 bar Maximum Cold Working Pressure10K10,000 psi / 690 bar Maximum Cold Working PressureThe pressure may be limited by the connection type, please referto the connection pressure ratings table on page 11 | Pressure Rating |
| | | | NO LETTER Standard Handle LK Lockable Handle PH Pointer Paddle Handle | Handle Options |
| | | | NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| | | | NO LETTERNo Plug Vent (Standard)PVPlugged Vent | Vent Outlet Options |
| | | | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | E.A.T. Options |
| | | | | |
| BV0504 | F | 02 I0 E | E RV IOK LK AV PV -NT | Ordering Example |

Other options may be available upon request. For more information, please contact Bifold Sales Department. Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a methem of our sales team.

bifold.co.uk

lecting a product, the applicable operati ust be considered to ensure safe use. Th material compatibility, adequate ratings, >n, operation and maintenance are the bilities of the system designer and user.

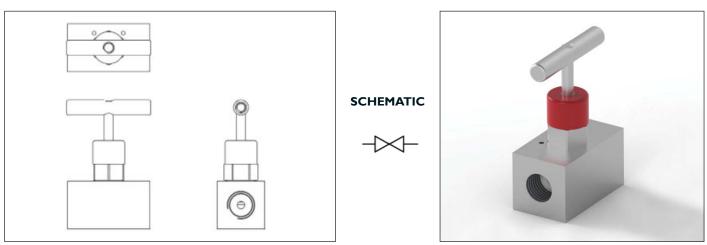
Quality Assurance All Bildig products are manufactured to a most stringent OA programme to ensure that every product will give optimation performance and reliability. We are third party certificates IS NI ISO 9001: SOB, Functional text certificate, letter of conformity and copies of original mill certificates, providing total transability are available on request, to BS NI 10240. Where available. We reserve the right to make changes



Bifold®

Typical GA Drawing

Bifold®



| | NV01 - SELECTION TABLE | | | | | | | | | |
|-----------------|------------------------|----------------------|-------------------|---------------------------------------|--|--|--|--|--|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (I/min water) | | | | | | |
| NV0104F02M5V6K | 1/4" NPT | 6,000 psi / 414 bar | 0.48 | 22.0 | | | | | | |
| NV0104F02M5V10K | '∕₄" NPT | 10,000 psi / 690 bar | 0.48 | 22.0 | | | | | | |
| NV0108F02M5V6K | 1⁄2" NPT | 6,000 psi / 414 bar | 0.48 | 22.0 | | | | | | |
| NV0108F02M5V10K | ½" NPT | 10,000 psi / 690 bar | 0.48 | 22.0 | | | | | | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, single isolation needle valve. The metal to metal non-rotating tip and metal to metal body to bonnet interface offer leak tight sealing across the full operating temperature range of the valve.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.

- Back seating needle.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 27 for alternative materials.

26 bifold.co.uk

BFD01/10 June 17

Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howeve our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site

A performance and reliability. A programme to ensure the performance and reliability. SEN ISO 90012008. Funct use. The products conformity and copies of ori atings, correct total traceability are available the the where available. We reserve

All Biold products are manufactured to a most stringent. QA programme to ensure that every product will give optin performance and reliability. We are third party cartified to 85 km ISO 90012008. Functional text cartificates, providing total tracebility are available on request, to 85 km IO204 3 where available. We reserve the right to make changes to the specifications and design ext, without prior notice.





NV01 Selection Chart - Ordering Example

| V0I | Single | Isola | tion | | edle | e Va | lve | | | | | | | | Model Code |
|----------------------------------|------------------------------|--|---------------------|----------------------------|-------------|--------------------|----------------|------------------------------------|------------------------------|--------------|---------------------------------|----------------|---|---------|-------------------|
| 04 06 08 09 12 16 | | 1/4 3/8" 1/2" 9/16" 3/4"]" | | | | | | | | | | | | | Nominal Pipe Size |
| | F MF FMF FK6 FSA | • | Male Male Fem | e N e N nale nale | PT li | nlet diun P | | | | | Outlet s 3 and 5 Opti | on C | Dnly) | | Connection Type |
| | | 02 26 38 39 | | F: Li | 51/ F2/ | UN Car | IS S3 rbon | 1803 Stee | 8 Du el | ıple> | inless Steel (St < Duplex | tanda | rd) | | Material |
| | | | M M | | | | tal B tal T | | anda | ard fø | or Series 8 Opti | ion, N | lon-Standard Materials and Nitrogen F.A.T. | Valves) | Tip Style |
| | | | | | 3 5 8 | | St Fc | | rd omin | nal S | izes: ¾" to 1" I Pressure) | Exclu | ıding FMP (6,000 psi / 414 bar Maximur | n | Series |
| | | | | | | S V V9 E9 | 9 | Vi V | litril iton 91A 985 | 1 | | | | | Seal Arrangement |
| | | | | | | | I | K 0K he pronne | ress | 10,0 sure | 000 psi / 690 b | ar M d by 1 | ximum Cold Working Pressure aximum Cold Working Pressure the connection type, please refer to the e on page 11 | 9 | Pressure Rating |
| | | | | | | | | N | - | ET | | | Handle Handle | | Handle Options |
| | | | | | | | | | | NO PM | LETTER | | Mount (Standard) Mount (Standard for Series 8 Option | 1) | Mounting Options |
| | | | | | | | | | | | NO LETTER | | Standard F.A.T. Nitrogen F.A.T. (For Gas Service) | , | F.A.T. Options |
| | | | | | | | | | | | | | | | |
| /01 04 | F | 02 | M | | 5 | S | 61 | < LK | (P | 1- M | NT | | | | Ordering Example |

Other options may be available upon request. For more information, please contact Bifold Sales Department.

bifold.co.uk

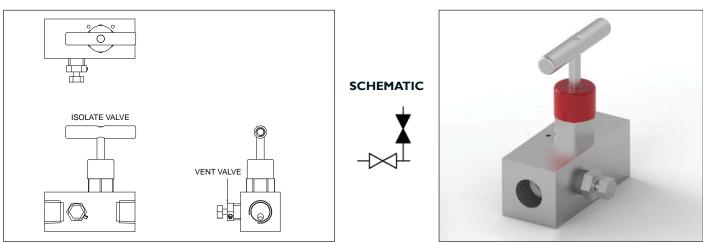
Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a methem of our sales team. lecting a product, the applicable operati ust be considered to ensure safe use. T material compatibility, adequate ratings, m, operation and maintenance are the pilities of the system designer and user.

Quality Assurance At Biolid products are manufactured to a most stringent OA programme to ensure that every product will give optim performance and reliability. We are third party certificate IS NI ISO 9001:0006. Functional test certificate, letter of conformity and copies of original mill certificates, providing total transability are available on regenese to BS NI 10240. Where available. We reserve the right to make charges



Typical GA Drawing

Bifold



| | NV03 - SELECTION TABLE | | | | | | | | | |
|-----------------|------------------------|----------------------|-------------------|---------------------------------------|--|--|--|--|--|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | | | | | | |
| NV0304F02M5V6K | 1/4" NPT | 6,000 psi / 414 bar | 0.48 | 22.0 | | | | | | |
| NV0304F02M5V10K | '⁄4" NPT | 10,000 psi / 690 bar | 0.48 | 22.0 | | | | | | |
| NV0308F02M5V6K | ½" NPT | 6,000 psi / 414 bar | 0.48 | 22.0 | | | | | | |
| NV0308F02M5V10K | ½" NPT | 10,000 psi / 690 bar | 0.48 | 22.0 | | | | | | |

Product Description

A single isolation valve block and captive vent plug bleed gauge / instrument manifold, with pressures rated up to 10,000 psi / 690 bar. The valve is suitable for either panel or pipe mounting. The manifold design permits isolation and controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Non-removable stem on the captive vent plug.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.

- Back seating needle.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Bubble tight shut-off.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 29 for alternative materials.

Accuracy of information We take care to ensure that product informati catalogue is reasonably accurate and up-to-date our products are continually developed and up so to ensure accurate and up-to-date informati refer to the product catalogue issue list on our

When selecting a product, the applicable operating syst design must be considered to ensure safe use. The profunction, material compatibility, adequate ratings, correc As enois products are manufactures to a most string QA programme to ensure that every product will give performance and reliability. We are third party certifit BS EN 150 5001 :2008. Tunctional test certificate, letto conformity and copies of original mill certificates, prototal traceability are available on request, to SS EN 10 where available. We reserve the right to make change to the specifications and design etc., without prior no



NV03 Selection Chart - Ordering Example

| | | eed Needle Valve Manifold - Captive Vent Plug | Model Code |
|----------------|----------------------|---|-------------------|
| 04 06 08 | 1/4" 3/8" 1/2" | | Nominal Pipe Size |
| | F M MF | Female NPT Male NPT Male NPT Inlet / Female NPT Outlet | Connection Type |
| | 02 26 38 39 | UNS S31600 / S31603 Stainless Steel (Standard) F51 / UNS S31803 Duplex LF2 / Carbon Steel F55 / UNS S32760 Super Duplex | Material |
| | | M Metal Ball MT Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| | | 5 Standard | Series |
| | | S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| | | 6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11 | Pressure Rating |
| | | NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| | | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | | |
| 03 04 | F 02 | M 5 S 6K LK-NT | Ordering Example |

Other options may be available upon request. For more information, please contact Bifold Sales Department.

bifold.co.uk

Accuracy of Information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our who are or context a number of our sales taxen. When steeling a product, the applicable operating system design must be condicated to ensure as tue. The products

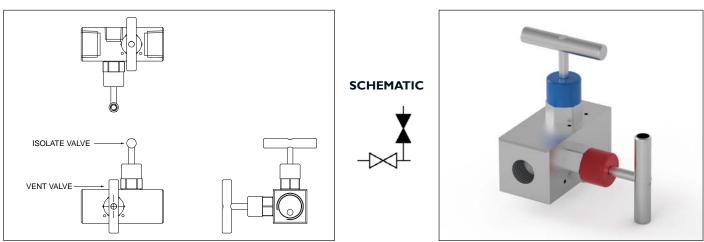
design must be considered to ensure safe use. function, material compatibility, adequate ratings installation, operation and maintenance are the responsibilities of the system designer and user. Quanty Assubance Quanty Assubance DA programme to emanufactured to a most stringent DA programme to emain the verse product will give optimum DB programme to emain the verse product will give optimum DB DD DD DD DDD DDD Franciscoal at earth care, here of conformity and capits of original mill certificate, providing out arransability are anishible or request, to BS EN 10024 3.1 where available. We reserve the right to make changes to the assoficitation and design acts, whole an official



Bifold®

Typical GA Drawing

Bifold®



| | NV22 - SELECTION TABLE | | | | |
|--------------------|------------------------|----------------------|-------------------|---------------------------------------|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | |
| NV2204F02M3V6K | '/4" NPT | 6,000 psi / 414 bar | 0.17 | 7.6 | |
| NV2204F02M3V10K | '∕₄" NPT | 10,000 psi / 690 bar | 0.17 | 7.6 | |
| NV2208F04F02M3V6K | ½" NPT | 6,000 psi / 414 bar | 0.17 | 7.6 | |
| NV2208F04F02M3V10K | ½" NPT | 10,000 psi / 690 bar | 0.17 | 7.6 | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, two valve compact block & bleed gauge / instrument manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Back seating needle.
- Full material traceability and individual serial number stamped on the valve.

- Compact design to save space and weight.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 31 for alternative materials.

30 bifold.co.uk

so to ensure accurate and up-to-date information refer to the product catalogue issue list on our w contact a member of our sales team. When selecting a product, the applicable operatin design must be considered to ensure acfever. The

When selecting a product, the applicable operating syste esign must be considered to ensure safe use. The prod unction, material compatibility, adequate ratings, correct stallation, operation and maintenance are the esonoibilities of the system designer and user Quality Assurance Al Biolo products are manufactured to a most stringent OR programme to ensure that every product will give optimiper strings compatible fixed that the party credited to provide the product of the product of the product conformity and copies of original mill certificates, providing total transability are available on requests to BS EN 10204.3, where available. We reserve the right to make changes to the specifications and design ex-without prior notice.





NV22 Selection Chart - Ordering Example

| | ck & Bleed Needle Valve Compact Manifold | Model Code |
|-------------|---|--------------------------|
| 04 06 | 1/4" 3/8" | Nominal Pipe Size |
| 08 | *8 /2" | Nominal Fipe Size |
| F M M | Female NPT Male NPT Male NPT Inlet / Female NPT Outlet | Connection Type |
| F | Female NPT Inlet / Male NPT Outlet NO LETTER !/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 04F !/4" Female NPT | Vent Connection |
| | 02 UNS S31600 / S31603 Stainless Steel (Standard) | |
| | 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex | Material |
| | M Metal Ball MT Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| | 3 Standard | Series |
| | S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| | 6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11 | Pressure Rating |
| | NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| | NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| | NO LETTER No Plug Vent (Standard) PV Plugged Vent | Vent Outlet Optic |
| | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | |
| 204 F | 04F 02 M 5 S 6K LK AV PV -NT | Ordering Example |

bifold.co.uk

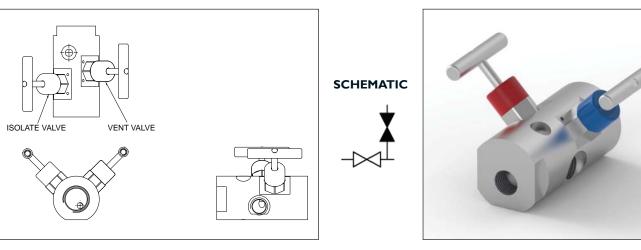
Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a methem of our sales team. ecting a product, the applicable operati ist be considered to ensure safe use. T material compatibility, adequate ratings, n, operation and maintenance are the illities of the system designer and user.

Quality Assurance At Biolid products are manufactured to a most stringent OA programme to ensure that every product will give optim performance and reliability. We are third party certificate IS NI ISO 9001:0006. Functional test certificate, letter of conformity and copies of original mill certificates, providing total transability are available on regenese to BS NI 10240. Where available. We reserve the right to make charges



Typical GA Drawing

Bifold®



| | NV04 - SELECTION TABLE | | | | |
|--------------------|------------------------|----------------------|-------------------|---------------------------------------|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | |
| NV0404F02M5V6K | 1/4" NPT | 6,000 psi / 414 bar | 0.39 | 18.0 | |
| NV0404F02M5V10K | 1⁄4" NPT | 10,000 psi / 690 bar | 0.39 | 18.0 | |
| NV0408F04F02M5V6K | ½" NPT | 6,000 psi / 414 bar | 0.39 | 18.0 | |
| NV0408F04F02M5V10K | ½" NPT | 10,000 psi / 690 bar | 0.39 | 18.0 | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, two valve block & bleed gauge / instrument manifold. The angled bonnets allow for either panel or pipe mounting. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- European patent granted EP2242943.
- Stem seal design prevents galling and contamination.

- Full material traceability and individual serial number stamped on the valve.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 33 for alternative materials.

Accuracy of information We take care to ensure that product information in catalogue is reasonably accurate and up-to-date. H our products are continually developed and update so to ensure accurate and up-to-date information p refer to the product catalogue issue list on our well

reter to the product catalogue issue iss on our web site contact a member of our sales team. When selecting a product, the applicable operating syste design must be considered to ensure safe use. The prod function material compatibility adequate ratings correct All Biold products are manufactured to a most string QA programme to ensure that every product will giv performance and reliability. We are third party certifi-BS EN ISO 9001/2008. Intriconal tests certificate, let conformity and copies of original mill certificate, por total traceability are available on request, to BS EN I where available. We reserve the right to make chang to the specifications and design etc., without prior in



BFD01/10 June '17

Bifold®

NV04 Selection Chart - Ordering Example

| /04 Block & Bleed Needle Valve Manifold | Model Code |
|---|--------------------------|
| 04 1/4" 06 3/8" 08 1/2" 09 9/6" 12 3/4" 16 1" | Nominal Pipe Size |
| F Female NPT FMP Female Medium Pressure (Series 3 and 5 Option Only) FK6 Female BSPP FSAE Female SAE | Connection Type |
| NO LETTER1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F)04F1/4" Female NPT | Vent Connection |
| 02 UNS S31600 / S31603 Stainless Steel (Standard) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex | Material |
| M Metal Ball MT Metal Tip (Standard for Series 8 Option, Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| 3 04FMP Only 5 Standard 8 For Nominal Sizes: ¾" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure) | Series |
| S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| 6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11 | Pressure Rating |
| NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| NO LETTER No Plug Vent (Standard) PV Plugged Vent | Vent Outlet Optio |
| NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | |
| 04 04 F 02 M 5 S 6K LK AV PV -NT | Ordering Example |

bifold.co.uk

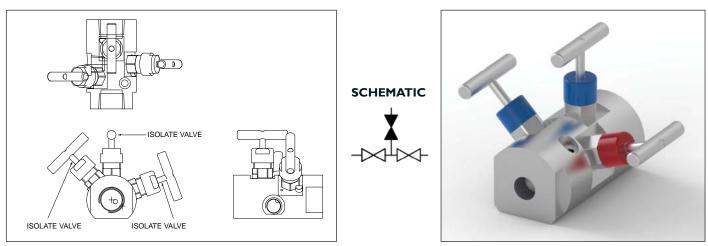
Accuracy of information
We take are to ensure that product information in this
catalogue is resoundly succurat and up-to-date. However,
our products are continuitly developed and updated
to or surver accurate and up-to-date. Information please
refer to the product catalogue issue list on our web are or
Mrhen statecing a product, the applicable operating system
developed and updated
the system designer and user.

When statecing and maintenance are the
responsibilities of the system designer and user.



Typical GA Drawing

Bifold®



| | NV05 - SELECTION TABLE | | | | |
|--------------------|------------------------|----------------------|-------------------|---------------------------------------|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (I/min water) | |
| NV0504F02M5V6K | '/4" NPT | 6,000 psi / 414 bar | 0.34 | 16.0 | |
| NV0504F02M5V10K | '⁄4" NPT | 10,000 psi / 690 bar | 0.34 | 16.0 | |
| NV0508F04F02M5V6K | ½" NPT | 6,000 psi / 414 bar | 0.34 | 16.0 | |
| NV0508F04F02M5V10K | ½" NPT | 10,000 psi / 690 bar | 0.34 | 16.0 | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, double block & bleed manifold. The angled bonnets allow for either panel or pipe mounting. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact.

Features & Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.

- European patent granted EP2242943.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 35 for alternative materials.

We take care to ensure th catalogue is reasonably acc our products are continual so to ensure accurate and refer to the product catalo

refer to the product catalogue issue list on our web site contact a member of our sales team. When selecting a product, the applicable operating syst design must be considered to ensure safe use. The profunction myterial comparishing valenues catings correct

Approximate to ensure that every product will be offormance and reliability. We are third party cer BS END 50001-2008. Functional test certificatu conformity and copies for doriginal million too al traceability are available on request, to BS EN where available. We reserve the right to make char to on be specifications and design ecc. whole products to the specifications and design ecc.



Bifold®

NV05

NV05 Selection Chart - Ordering Example

| V05 Double Block & Bleed Needle Valve Manifold | Model Code |
|---|--------------------------|
| 04 1/4" 06 3/8" 08 1/2" 09 9/16" 12 3/4" 16 1" | Nominal Pipe Size |
| FFemale NPTFMPFemale Medium Pressure (Series 3 and 5 Option Only)FK6Female BSPPFSAEFemale SAE | Connection Type |
| NO LETTER 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 04F 1/4" Female NPT | Vent Connection |
| 02 UNS S31600 / S31603 Stainless Steel (Standard) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex | Material |
| M Metal Ball MT Metal Tip (Standard for Series 8 Option, Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| 3 04FMP Only 5 Standard 8 For Nominal Sizes: ³/₄" to 1" Excluding FMP (6,000 psi / 414 bar Maximum Cold Working Pressure) | Series |
| S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| 6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure The pressure may be limited by the connection type, please refer to the connection pressure ratings table on page 11 | Pressure Rating |
| NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| NO LETTER No Plug Vent (Standard) PV Plugged Vent | Vent Outlet Option |
| NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | |
| /05 04 F 02 M 5 S 6K LK AV PV -NT er options may be available upon request. For more information, please contact Bifold Sales Department. | Ordering Example |

Other options may be available upon request. For more information, please contact Bifold Sales Department. Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a methem of our sales team.

bifold.co.uk

lecting a product, the applicable operati ust be considered to ensure safe use. TI material compatibility, adequate ratings, on, operation and maintenance are the bilities of the system designer and user.

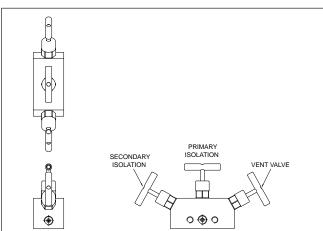
Quality Assurance All Bildig products are manufactured to a most stringent QA programme to ensure that every product will give optimal performance and reliability. We are third party certifiet to BS NIS 05 900:1008. Functional start certificates, tetror of conformity and copies of original mill certificates, providing total transability are available on request, to BS NI 10040. It where available. We reserve the right to make changes

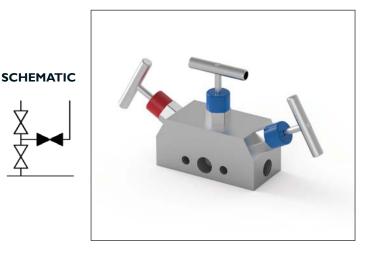


NV06 |

Typical GA Drawing

Bifold®





| | NV06 I - SELECTION TABLE | | | | |
|------------------|--------------------------|----------------------|-------------------|---------------------------------------|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | |
| NV06104F02M3V6K | 1/4" NPT | 6,000 psi / 414 bar | 0.12 | 5.4 | |
| NV06104F02M3V10K | '⁄4" NPT | 10,000 psi / 690 bar | 0.12 | 5.4 | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, single station double block & bleed gauge / instrument compact panel mounted manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact. This unique design allows direct inline connection to pipe systems, through 1/4" NPT connections, thus eliminating the requirement for additional 'T' and elbow fittings.

Features and Benefits

- Single piece construction reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.

- European patent granted EP2225485.
- Unrestricted through the bore.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 37 for alternative materials.

36 bifold.co.uk

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. Howew our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site

> lecting a product, the applicable operating system ust be considered to ensure safe use. The products material compatibility, adequate ratings, correct in, operation and maintenance are the silities of the system desimer and user.

Quality Assurance III Biolo products are manufactured to a most stringent JA programme to ensure that every product will give optime reformance and realibility. We are which garty certified to SE PN ISO 9001-2008. Functional test certificate, letter of the string and the string string and the string string out instantibility are strikible on request to BS EN IOD4 3.1 where available. We reserve the right to make changes on the specification and design ecc. which are prior notice.



NV06 I



NV06 | Selection Chart - Ordering Example

| | Double Block & Bleed Single Station Needle Valve Manifold | Model Code |
|----------|---|----------------------------|
| 04 06 | 1/4" 3⁄8" | Nominal Pipe Size |
| | F Female NPT | Connection Type |
| | NO LETTER 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 04F 1/4" Female NPT | Vent & Gauge Connection |
| | 02 UNS S31600 / S31603 Stainless Steel (Standard) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex | Material |
| | M Metal Ball MT Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| | 3 Standard | Series |
| | S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| | 6K 6,000 psi / 414 bar Maximum Cold Working Pressure 10K 10,000 psi / 690 bar Maximum Cold Working Pressure | Pressure Rating |
| | NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| | NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| | NO LETTER No Plug Vent (Standard) PV Plugged Vent | Vent Outlet Optio |
| | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | |
| 06 104 | F 04F 02 M 3 S 6K LK AV PV -NT | Ordering Example |

Other options may be available upon request. For more information, please contact Bifold Sales Department. Accuracy of information We take care to exuse that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales team.

bifold.co.uk

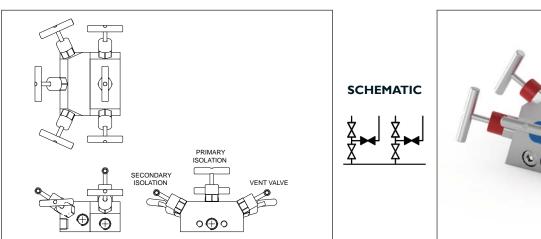
cung a product, the applicable opera it be considered to ensure safe use. ' laterial compatibility, adequate rating , operation and maintenance are the ities of the system designer and user

Quality Assurance All Bifold products are QA programme to en ure that every product will bility. We are third party cer Functional test certificate, perfo BS Ef to BS EN 10204 3



Typical GA Drawing

Bifold®



| | NV06 2 - SELECTION TABLE | | | | |
|------------------|--------------------------|----------------------|-------------------|---------------------------------------|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (l/min water) | |
| NV06204F02M3V6K | 1/4" NPT | 6,000 psi / 414 bar | 0.12 | 5.4 | |
| NV06204F02M3V10K | 1⁄4" NPT | 10,000 psi / 690 bar | 0.12 | 5.4 | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, two station double block & bleed gauge / instrument compact panel mounted manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact. This unique design allows direct inline connection to pipe systems, through 1/4" NPT connections, thus eliminating the requirement for additional 'T' and elbow fittings.

Features & Benefits

- Each station is a single piece construction, reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial
- number stamped on the valve.

• Unrestricted through the bore.

- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread
- contamination.
 European patent granted EP2225485.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 39 for alternative materials.

Accuracy of information We take care to ensure that product informal catalogue is reasonably accurate and up-to-da our products are continually developed and up so to ensure accurate and up-to-date informa refer to the product catalogue issue list on ou

When selecting a product, the applicable operating sy design must be considered to ensure safe use. The pr function, material compatibility adequate ratings, corr installation, operation and maintenance are the All Biold products are manufactured to a most stringe QA programme to ensure that every products will give performance and reliability. We are third party certifies BS EN ISO 9001:2008. Functional test certificate, lette conformity and copies of original mill certificate protool tracebility are available on request, to BS EN 107 where available. We reserve the right to make charge to the specifications and design esc, without prior proto





NV06 2 Selection Chart - Ordering Example

| | d Two Station Needle Valve Manifold | Model Code |
|--|---|----------------------------|
| 04 ¹ /4" 06 ³ /8" | | Nominal Pipe Size |
| F Female NPT | - | Connection Type |
| NO LETTER 04F | ¹ / ₄ " Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) ¹ / ₄ " Female NPT | Vent & Gauge Connection |
| 26 F51 38 LF2 | IS S31600 / S31603 Stainless Steel (Standard) / UNS S31803 Duplex 2 / Carbon Steel 5 / UNS S32760 Super Duplex | Material |
| | Metal Ball Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| 3 | Standard | Series |
| | S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| | 6K6,000 psi / 414 bar Maximum Cold Working Pressure10K10,000 psi / 690 bar Maximum Cold Working Pressure | Pressure Rating |
| | NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| | NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| | NO LETTERNo Plug Vent (Standard)PVPlugged Vent | Vent Outlet Optio |
| | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | |
| | | |

Other options may be available upon request. For more information, please contact Bifold Sales Department. Accuracy of informat We take care to ensure

bifold.co.uk

BFD01/10 June '17

to the contract of the product and product in dors alogue is reasonably accurate and up-to-date. Information please to ensure accurate and up-to-date information please er to the product catalogue issue list on our web site or ntact a member of our sales team. rial compatibility, adeque

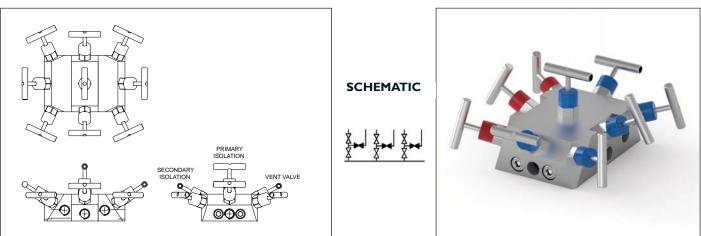
tem designer

. We are t rd party



Typical GA Drawing

Bifold



| | NV06 3 - SELECTION TABLE | | | | |
|------------------|--------------------------|----------------------|-------------------|---------------------------------------|--|
| Product Code | Size | Rated | Cv (US Gallon) | Flow Rate @ 10bar DP (I/min water) | |
| NV06304F02M3V6K | 1⁄4" NPT | 6,000 psi / 414 bar | 0.12 | 5.4 | |
| NV06304F02M3V10K | 1/4" NPT | 10,000 psi / 690 bar | 0.12 | 5.4 | |

Product Description

A 6,000 psi / 414 bar or 10,000 psi / 690 bar rated, three station double block & bleed gauge / instrument compact panel mounted manifold. The manifold design permits controlled venting of the instrument for calibration and or removal from the circuit, whilst leaving the process intact. This unique design allows direct inline connection to pipe systems, through 1/4" NPT connections, thus eliminating the requirement for additional 'T' and elbow fittings.

Features & Benefits

- Each station is a single piece construction, reducing leak paths.
- Anti-blow out stem.
- Non-rotating, anti-galling tip as standard.
- Viton / RTFE stem sealing maintenance free.
- Metal to metal seating.
- Back seating needle.
- Unique patented product, compact design to save space and weight.
- Full material traceability and individual serial number stamped on the valve.

- European patent granted EP2225485.
- Unrestricted through the bore.
- Stem seal design prevents galling and contamination.
- Thread milled connections for improved sealing.
- In compliance with NACE MR-01-75 / ISO 15156 as standard.
- Pressure energised stem sealing.
- Metal to metal body joint to prevent thread contamination.
- Panel mount as standard.

Technical Data

Material grades - UNS S31600 / S31603 stainless steel (standard). See selection table on page 41 for alternative materials.

Accuracy of information We take care to ensure that product information i catalogue is reasonably accurate and up-to-date. Hour products are continually developed and update so to ensure accurate and up-to-date information refer to the product catalogue issue list on our we

When selecting a product, the applicable operating syste design must be considered to ensure safe use. The proc function, material compatibility, adequate ratings, correcinstruction, concercion and maintenance are the All Biold products are manufactured to a most stringem QA programme to ensure that every product will give o performance and reliability. We are third party certified BS EN ISO 0012006. Functional test certificate, letter conformity and copies of original mill certificate, broad total artacelability are available on request to BS EN 1020 where available. We reserve the right to make changes to the specifications and design etc., without prior notice



BFD01/10 June '17



NV06 3 Selection Chart - Ordering Example

| | Double Block & Bleed Three Station Needle Valve Manifold | Model Code |
|----------|---|----------------------------|
| 04 06 | 1/4" 3/8" | Nominal Pipe Size |
| | F Female NPT | Connection Type |
| | NO LETTER 1/4" Female NPT (NO LETTER if Nominal Pipe Size / Connection Type option is 04F) 04F 1/4" Female NPT | Vent & Gauge Connection |
| | 02 UNS S31600 / S31603 Stainless Steel (Standard) 26 F51 / UNS S31803 Duplex 38 LF2 / Carbon Steel 39 F55 / UNS S32760 Super Duplex | Material |
| | M Metal Ball MT Metal Tip (Standard for Non-Standard Materials and Nitrogen F.A.T. Valves) | Tip Style |
| | 3 Standard | Series |
| | S Nitrile V Viton V9 V91A E9 E985 | Seal Arrangement |
| | 6K6,000 psi / 414 bar Maximum Cold Working Pressure10K10,000 psi / 690 bar Maximum Cold Working Pressure | Pressure Rating |
| | NO LETTER Standard Handle LK Lockable Handle | Handle Options |
| | NO LETTER Standard Vent AV Anti-Tamper Vent | Vent Operator Options |
| | NO LETTER No Plug Vent (Standard) PV Plugged Vent | Vent Outlet Optic |
| | NO LETTER Standard F.A.T. -NT Nitrogen F.A.T. (For Gas Service) | F.A.T. Options |
| | | |
| /06 304 | F 04F 02 M 3 S 6K LK AV PV -NT | Ordering Example |

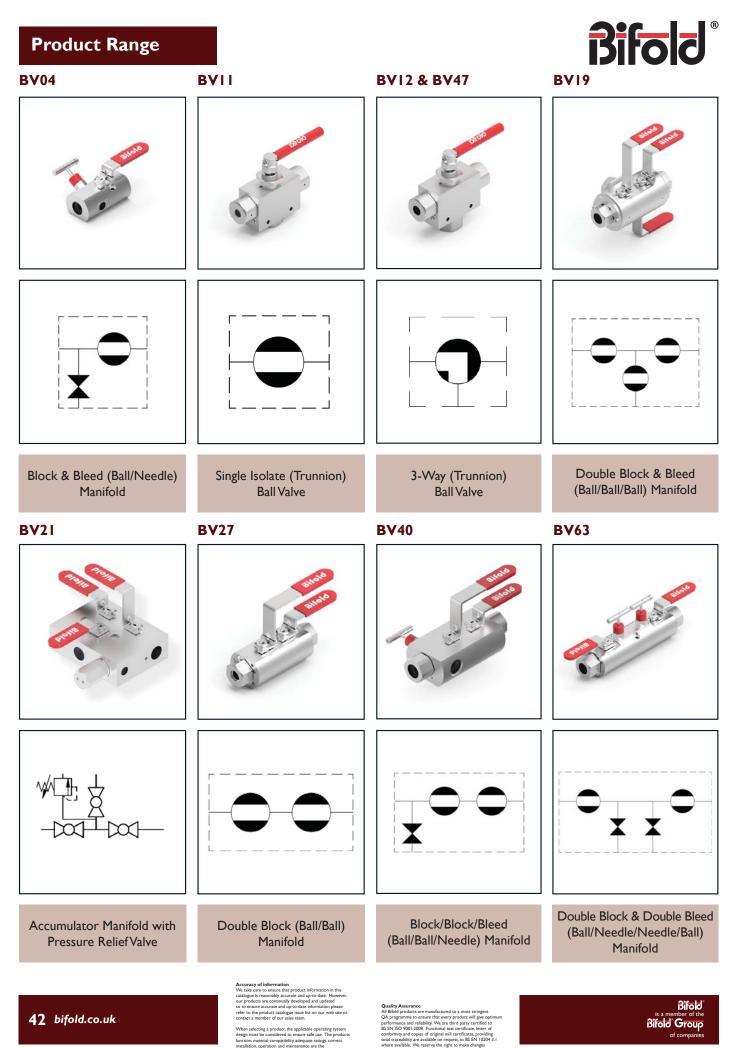
Other options may be available upon request. For more information, please contact Bifold Sales Department. Accuracy of information We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date. However, oncast an embed of our sales team.

bifold.co.uk

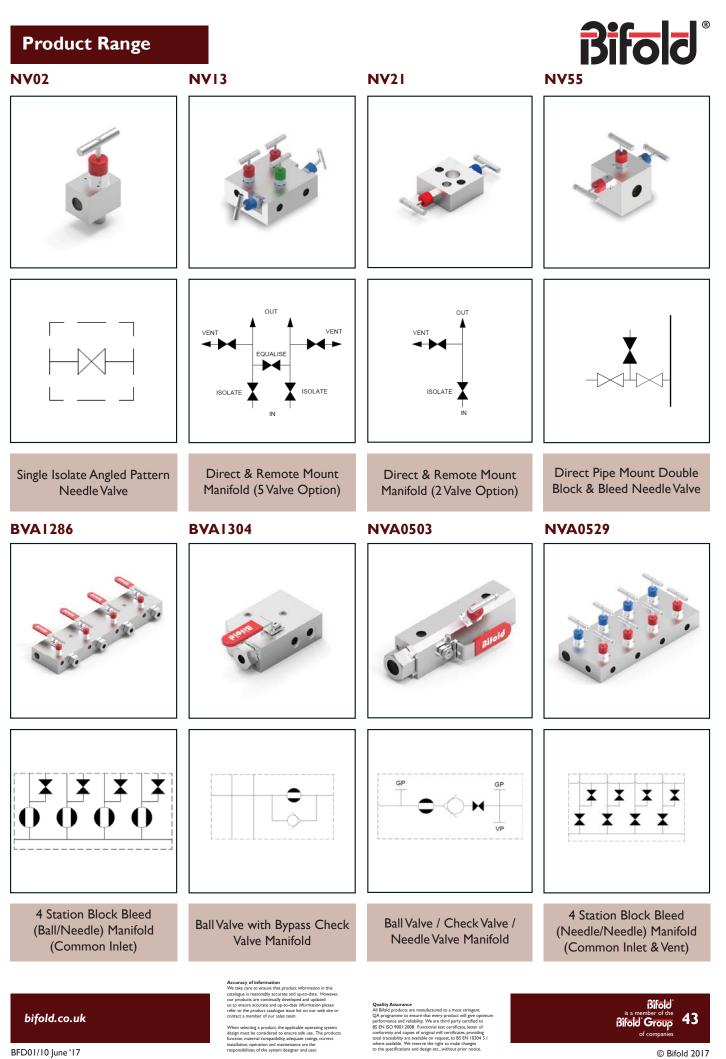
considered to ensure safe use. t be considered to ensure safe use. terrial compatibility, adequate rating operation and maintenance are the ties of the system designer and user

Quality Assurance All Bifold products are OA programme to en that every product will when third party of





BFD01/10 June '17



Instrument, Process, Directional Control Valves, Pumps and Actuator Electronic Control and Positioning

Bifold Group

Pneumatic and Instrumentation Valves Hydraulic Valves Subsea Valves Hydraulic Pumps, Intensifiers and Valves Actuator Electronic Control and Positioning

Bifold Bifold FluidPower Bifold Subsea Bifold Marshalsea Bifold Orange

Accuracy of Information

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products are continually developed and updated so to ensure accurate and up-to-date information please refer to the product catalogue issue list on our web site or contact a member of our sales team.

Quality Assurance

All Bifold products are manufactured to a most stringent QA programme. Every care is taken at all stages of manufacture to ensure that every product will give optimum performance and reliability. We are third party certified to BS EN ISO 9001:2008. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request to BS EN 10204 3.1 where available. We reserve the right to make changes to the specifications and design etc., without prior notice.

When selecting a product, the applicable operating system design must be considered to ensure safe use. The products function, material compatibility, adequate ratings, correct installation, operation, and maintenance are the responsibilities of the system designer and user.

Bifold, Bifold Fluidpower, Bifold Subsea, Marshalsea Hydraulics and Bifold Orange are all members of the Bifold Group.

Registered No. 1787729 in England Registered Office: Rotork House, Brassmill Lane, Bath, BA1 3JQ. Bifold Fluidpower Ltd Bifold Group Broadgate, Oldham Broadway Business Park, Chadderton, Greater Manchester, OL9 9XA. UK

Tel: +44 (0) 161 345 4777 Email: marketing@bifold.co.uk Web: bifold.co.uk Bitold Orange Unit 7, Cosford Business Park Central Park, Lutterworth Leicestershire LE17 4QU, UK.

Tel: +44 (0) 161 345 4777 Email: marketing@bifold.co.uk Web: bifold.co.uk Marshalsea Hydraulics Limited Marshalsea House, Venture Way Priorswood Industrial Estate Taunton, Somerset, TA2 8DE. UK. Tel: +44 (0) 1823 331081 Fax: +44 (0) 1823 323382 Email: info@marshalsea.co.uk Web: bifold.co.uk

USA Office

Please see the Bifold website, contact us page for the full address. Tel:+1 (713) 304 4012 Fax:+1 (713) 783 0067 Email: marketing@bifold.co.uk Web: bifold.co.uk

Singapore Office

Please see the Bifold website, contact us page for the full address.

Mobile: +65 98245580 Email: marketing@bifold.co.uk Web: bifold.co.uk

Innovative and Reliable Valve Solutions

