



ITT

Pure-Flo®

Ordering Guide



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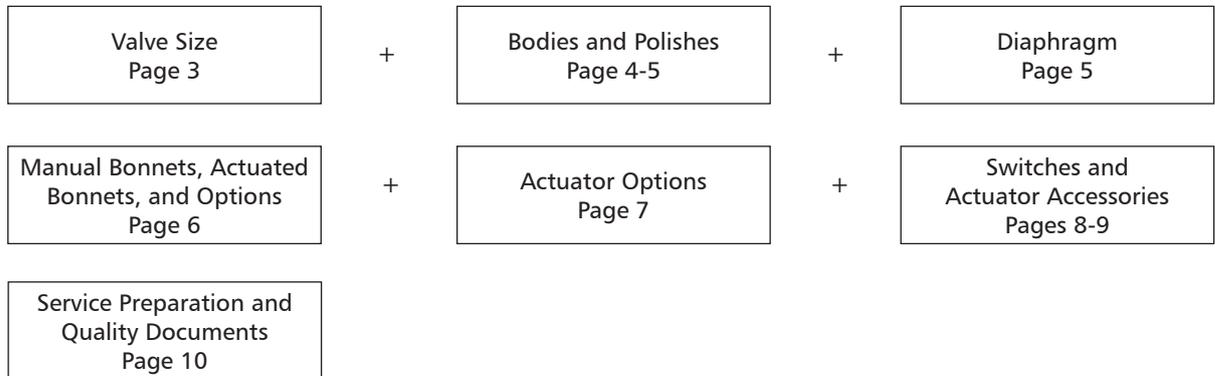
This brochure contains a comprehensive list of the figure number codes and description for each valve product option available at Pure-Flo. To assist in the ordering process, we have included instructions on how to construct a standard valve figure number in proper sequence. You can also find our e-Prism tool available at www.ittpureflo.com/eprism.html. This tool is a simple means of identifying valve product configuration and nomenclature. This tool will assist in selecting compatible features and proper designation structure.

The e-Prism tool allows ITT's channel partners to accurately create quotations tailored to themselves and their end users. The platform allows the user to select valve criteria through numerous methods, including figure number, process conditions or valve category. Once the valve is configured, the channel partner has the capability to receive a dimensional drawing, a data sheet, technical manuals, lead times and many other valuable items. All these features and 24 hour access is sure to make doing business with ITT and you even easier.

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Pure-Flo Valve Figure Numbers How to Construct a Standard Valve Figure Number



Constructing Figure Numbers

Below are examples for constructing a manual and actuated valve figure number. The actuated valve example will be used to build a figure number on pages 3-10.

Manual Valve Example

Figure Number: 1-F-419-6-0-0-TME-963

Detailed description:

1: 1 inch size (DN25)
 F: Forged 316L SS
 419: Triclamp Tube
 6: Interior Finish: Ra 25 Microinch Max
 0: Exterior Finish: No Mechanical Polish
 0: No Electropolish
 TME: Modified PTFE Diaphragm (FDA)/ Grade B1 B.C.
 963: Plastic PAS Rising Handwheel with Travel Stop

Actuated Valve Example

Figure Number: 1-F-428L-6-0-0-TM17-B209-VSPS48

Detailed description:

1: 1 inch size (DN25)
 F: Forged 316L SS
 428L: 16 Gauge Extended Tangent Buttweild
 6: Interior Finish: Ra 25 Microinch Max
 0: Exterior Finish: No Mechanical Polish
 0: No Electropolish
 TME: Modified PTFE Diaphragm (FDA)/ Grade B1 B.C.
 B209: Advantage 2.0 Actuator, Fail Close, 0.75" or 1" with a 90# Spring
 VSPS48: Value Switch Package, Silver Contacts 48V

Valve Size

| Code | Description |
|------|------------------|
| .25 | .25 Inch (DN6) |
| .38 | .38 Inch (DN10) |
| .50 | .50 Inch (DN15) |
| .75 | .75 Inch (DN20) |
| 1 | 1 Inch (DN25) |
| 1.25 | 1.25 Inch (DN32) |
| 1.5 | 1.5 Inch (DN40) |
| 2 | 2 Inch (DN50) |
| 2.5 | 2.5 Inch (DN65) |
| 3 | 3 Inch (DN80) |
| 4 | 4 Inch (DN100) |
| 6 | 6 Inch (DN150) |

Figure Number: 1

| | |
|-----------------------|---|
| Configuration Example | 1 |
| Valve Size | 1 |

Bodies and Polishes

Body Type

| Code | Description |
|-------|---|
| 2 | Industrial Valve Body - Cast CF3M Stainless Steel |
| 8 | Bio-Tek® Forged 316L Stn. Stl. |
| BP | Bio-Pure® Forged 316L Stn. Stl. |
| C | Cast CF3M Stainless Steel |
| F | Forged 316L Stainless Steel |
| N | Body Not Supplied |
| S | Swickle Body Cast CF3M Stn. Stl. |
| TBV | Tank Bottom Valve |
| TBVCR | Tank Bottom Valve 316L BN2 |
| W | Wrought 316L Stainless Steel |
| Spec | Special Material Body |

Body Ends

| Code | Description |
|-----------------|------------------------------|
| Clamp | |
| 409 | Swagelok TS Fitting |
| 410 | Tri-Clamp Sch. 5 Pipe |
| 411 | Min. Valine |
| 412 | S Clamp |
| 413 | Q Clamp |
| 414 | I Line-Male |
| 415 | I Line-Female |
| 416 | Swivel Nut |
| 417 | Male Thread |
| 418 | ISO 1.6mm Wall Tri-Clamp End |
| 419 | Tri-Clamp Tube |
| 419S | Tri-Clamp Tube 18 Gauge |
| 419S1 | Tri-Clamp Tube 20 Gauge |
| 420 | Superior |
| Buttweld | |
| 422 | Sch. 5 Pipe (ISO Body) |
| 423 | 18 Gauge |
| 424 | 20 Gauge |
| 425 | Sch. 5 Pipe (ANSI Body) |
| 426 | Sch. 10 Pipe |
| 427 | Sch. 40 Pipe |
| 428 | 16 Gauge |
| 428L | 16 Gauge Ext. Tangent BW |
| 429 | 14 Gauge |
| 429L | 14 Gauge Ext. Tangent BW |
| 430 | 12 Gauge BW |
| 433 | ANSI Flanged |
| 475 | 6X1 Mini Fitting BW |
| 476 | 8X1 Mini Fitting BW |
| 477 | 10X1 Mini Fitting BW |
| 478 | 12X1 Mini Fitting BW |

Body Ends (cont.)

| Code | Description |
|----------------|-----------------------------|
| 479 | 18X1 Mini Fitting BW |
| 480 | 14X1 Mini Fitting BW |
| 481 | DIN Series 1 |
| 482 | DIN Series 2 |
| 483 | DIN Series 3 |
| 484 | SMS |
| 485 | TBV, 45 Degree 14 GA BW |
| 486 | TBV, 45 Degree 16 GA BW |
| 487 | TBV, 45 Degree 18 GA BW |
| 488 | TBV, 45 Degree Tri-Clamp |
| 493 | ISO 2.9mm wall |
| 494 | ISO 1.2mm wall |
| 495 | ISO 1.0mm wall |
| 496 | ISO 1.6mm wall |
| 497 | ISO 2.0mm wall |
| 498 | ISO 2.3mm wall |
| 499 | ISO 2.6mm wall |
| Spec | Special End |
| Screwed | |
| 403 | NPT Screwed |
| FLANGED | |
| 433R | ANSI Flanged w/ Raised Face |

Second End Code

| Code | Description |
|-----------------|-------------------------------|
| Clamp | |
| X07 | By Male Thread w/ Gasket Seat |
| X09 | Swagelok TS Fitting |
| X10 | By Tri-Clamp Sch. 5 Pipe |
| X11 | By Min. Valine |
| X12 | By S Clamp |
| X13 | By Q Clamp |
| X14 | By I Line - Male |
| X15 | By I line - Female |
| X17 | By Male Thread |
| X19 | By Tri-Clamp Tube |
| X19S | By Tri-Clamp Tube 18 Gauge |
| X19S1 | By Tri-Clamp Tube 20 Gauge |
| X20 | By Superior |
| Buttweld | |
| X22 | By Sch. 5 Pipe (ISO Body) |
| X23 | By 18 Gauge |
| X24 | By 20 Gauge |
| X25 | By Sch. 5 Pipe (ANSI Body) |
| X26 | By Sch. 10 Pipe |
| X27 | By Sch. 40 Pipe |
| X28 | By 16 Gauge |
| X28L | By 16 Gauge Ext. Tangent BW |
| X29 | By 14 Gauge |

Second End Code (cont.)

| Code | Description |
|------|-----------------------------|
| X29L | By 14 Gauge Ext. Tangent BW |
| X30 | By 12 Gauge BW |
| X75 | By 6X1 Mini Fitting BW |
| X76 | By 8X1 Mini Fitting BW |
| X77 | By 10X1 Mini Fitting BW |
| X78 | By 12X1 Mini Fitting BW |
| X79 | By 18X1 Mini Fitting BW |
| X80 | By 14X1 Mini Fitting BW |
| X81 | By DIN Series 1 |
| X82 | By DIN Series 2 |
| X83 | By DIN Series 3 |
| X84 | By SMS |
| X85 | By ISO |
| X93 | By ISO 2.9mm Wall |
| X94 | By ISO 1.2mm Wall |
| X95 | By ISO 1.0mm Wall |
| X96 | By ISO 1.6mm Wall |
| X97 | By ISO 2.0mm Wall |
| X98 | By ISO 2.3mm Wall |
| X99 | By ISO 2.6mm Wall |
| Spec | Special End |

Tube Extension

| Code | Description |
|------|-----------------------------|
| TE1 | Valve End 1 |
| TE2 | Valve End 2 |
| TEA | Both Valve Ends & Purge End |
| TEB | Both Valve Ends |
| TEP | Purge End |
| TE1P | Valve End (P1) & Purge (P3) |
| TE2P | Valve End (P2) & Purge (P3) |

Mechanical Polish - Interior

| Code | Description |
|------|----------------------------------|
| 0 | As Cast |
| 2 | 35 μ in Ra (.8 μ m) max |
| 6 | 25 μ in Ra (.6 μ m) max |
| 7 | 15 μ in Ra (.38 μ m) max |
| 8 | 20 μ in Ra (.5 μ m) max |
| 9 | 11 μ in Ra (.28 μ m) max |
| 10 | 10 μ in Ra (.25 μ m) max |
| SFV1 | BPE SFV1 Ra 20 Max |
| SFV2 | BPE SFV1 Ra 25 Max |
| SFV3 | BPE SFV1 Ra 30 Max |
| SFV4 | BPE SFV1 Ra 15 Max, EP |
| SFV5 | BPE SFV1 Ra 20 Max, EP |
| SFV6 | BPE SFV1 Ra 25 Max, EP |

Figure Number: 1-F-428L-6-0-0-

| | | Configuration Example | F | 428L | | 6 | 0 | 0 |
|---------------------|------------------------------|-----------------------|---|------|--|---|---|---|
| Bodies and Polishes | Block Type | | F | | | | | |
| | Body Ends | | | 428L | | | | |
| | Second End Code | | | | | | | |
| | Tube Extension | | | | | | | |
| | Mechanical Polish - Interior | | | | | 6 | | |
| | Mechanical Polish - Exterior | | | | | | 0 | |
| | Electropolish | | | | | | | 0 |
| | Body Only | | | | | | | |

Bodies and Polishes (cont.)

Mechanical Polish - Exterior

| Code | Description |
|------|---|
| 0 | As Cast |
| 1 | Scotch Brite |
| 2 | 25 μ in Ra (.6 μ m) max, Welds Scotch Brite |
| 3 | 35 μ in Ra (.8 μ m) max, Welds Scotch Brite |
| 4 | 25 μ in Ra (.6 μ m) max, Welds Removed |
| 6 | 35 μ in Ra (.8 μ m) max, Welds Removed |
| 7 | Special Polish Requirement |
| 8 | No Ext Body Polish, Weld Beads Removed |

Electropolish

| Code | Description |
|------|-----------------------|
| 0 | No Electropolish |
| 2 | Exterior Only |
| 3 | Interior and Exterior |
| 4 | Interior Only |

Body Only

| Code | Description |
|------|--------------------|
| Y | Body Only Supplied |

Diaphragms

Diaphragms

| Code | Description |
|------|-----------------------------------|
| B | Black Butyl (FDA) |
| E1 | Pure-Life NGE EPDM compound (FDA) |
| EN | Elastomer Not Supplied |
| M | EPDM (non-FDA) |
| P | BUNA - N (FDA) |
| PN | PTFE Not Supplied |
| TME | PTFE (FDA)/Grade B1 BC |
| V | Viton |
| W1 | White Butyl (FDA) |

Figure Number: 1 -F-428L-6-0-0-TME-

| | |
|-----------------------|-----|
| Configuration Example | TME |
| Diaphragm | TME |

Manual Bonnets, Actuator Bonnets and Options

Manual Bonnets

| Code | Description |
|------------------------------|--|
| Bio-Tek | |
| 18 | Standard Bonnet, Non-Sealed |
| 18S | Standard Bonnet, Sealed |
| Bio-Pure | |
| BPM | Standard Bonnet, Non-Sealed |
| BPMC | Standard Bonnet, Sealed (COP) |
| Cast Iron | |
| 903 | Rising Stem with Travel Stop |
| 903S | Rising Stem with Travel Stop - Sealed |
| Stainless Steel (316) | |
| 913 | Rising Stem with Travel Stop |
| 913S | Rising Stem with Travel Stop - Sealed |
| 915 | CH WHL with Travel Stop |
| 915S | CH WHL with Travel Stop - Sealed |
| 970 | Rising Handwheel with Travel Stop |
| Plastic PAS* | |
| 963 | Rising Handwheel with Travel Stop (1/2" - 4") |
| 963S | Rising Handwheel with Travel Stop - Sealed (1/2" - 4") |
| *NA-2.5" Casting | |
| Actuated Bonnets | |
| Code | Description |
| Cast Iron | |
| 40 | Direct Load |
| Stainless Steel | |
| 31 | Actuated |
| 31S | Actuated - Sealed |
| Ductile Iron | |
| 34 | Actuated |
| 34S | Actuated - Sealed |
| 84 | Dualrange |
| 84S | Dualrange Sealed |
| Platic PAS* | |
| 36 | Actuated |
| 36S | Actuated - Sealed |
| *NA-2.5" Casting | |

Weep Holes

| Code | Description |
|------|---|
| W2 | Two Weep Holes in Bonnet |
| W4 | Four Weep Holes in Bonnet (3A Internals Only) |

Electropolish Topworks

| Code | Description |
|------|-----------------|
| 1 | Topworks |
| 1S | Advantage Spool |

Optional Coatings

| Code | Description |
|-------|-----------------------------|
| C1 | PVDF Coated Topworks |
| C4 | White Epoxy Coated Topworks |
| C7 | Nylon Coated Topworks |
| CSpec | Coating Specified |

Bonnet Seal Materials

| Code | Description |
|------|-------------|
| S1 | EPDM |
| S2 | Viton |

Optional Bonnet Internals

| Code | Description |
|------|----------------------------------|
| M3 | 3A Sanitary Internals |
| M5 | Stainless Steel Stem |
| M6 | Cast Iron Compressor |
| M8 | PVDF Coated Cast Iron Compressor |
| M9 | Stainless Steel Bushing |
| M10 | Stainless Steel Tube Nut |
| M17 | PPS Cap |
| M18 | Heat Shrink Tubing on Handwheel |

Optional Body/Bonnet Bolting

| Code | Description |
|-------|--|
| B8 | Stainless Steel ASTM A193 B8 |
| BLTS | MNT HDWR, Except STDS, Supplied w/o Body |
| BSpec | Special Bonnet Flange Bolting |
| MET | Metric Bonnet Flange Fasteners |

Yoke

| Code | Description |
|------|---------------|
| Y | Yoke Supplied |

Locking Device

| Code | Description |
|------|----------------|
| LD | Locking Device |

Extended Stem

| Code | Description |
|----------|--|
| EXTSTEM | Extended Stem |
| EXTSTEMR | Extended Stem from Valve CL to Top of Rim |
| EXTSTEMC | Extended Stem from Valve CL to Indicator Cap |
| LCAP | Stem Ext. from Center of Valve to Top of Cap |
| LRIM | Stem Ext from Center of Valve to Top of Rim |

Figure Number: 1-F-428L-6-0-0-TME-31-

| Configuration Example | | 31 | | | | | | | |
|------------------------------|--|----|--|--|--|--|--|--|--|
| Manual Bonnets & Accessories | Manual Bonnets | | | | | | | | |
| | Actuated Bonnets | | | | | | | | |
| | Weep Holes | | | | | | | | |
| | Electropolish Topworks | | | | | | | | |
| | Optional Coatings | | | | | | | | |
| | Bonnet Seal Materials | | | | | | | | |
| | Optional Bonnet Internals ¹ | | | | | | | | |
| | Optional Body/Bonnet Bolting | | | | | | | | |
| | Yoke | | | | | | | | |
| | Locking Device | | | | | | | | |
| Extended Stem | | | | | | | | | |

¹Multiple selections allowed

Actuator Options

Advantage Actuators

| Code | Description |
|----------------------|--------------------------------------|
| Fail Open | |
| A103 | Bio-Tek |
| A105 | 0.50" |
| A108 | 0.50", 0.75" or 1.0" |
| A116 | 1.5" or 2.0" |
| A133 | 3" or 4" |
| A147 | 3" or 4" |
| Fail Close | |
| A203 | Bio-Tek with 60# Spring |
| A204 | Bio-Tek with 90# Spring |
| A205 | 0.50" with 60# Spring |
| A206 | 0.50" with 90# Spring |
| A208 | 0.50", 0.75" or 1.0" with 60# Spring |
| A209 | 0.75" or 1.0" with 90# Spring |
| A216 | 1.5" or 2.0" with 60# Spring |
| A217 | 1.5" or 2.0" with 90# Spring |
| A233 | 3" or 4" with 60# Spring |
| A234 | 3" or 4" with 90# Spring |
| A247 | 3" or 4" with 60# Spring |
| A248 | 3" or 4" with 80# Spring |
| Double Acting | |
| A303 | Bio-Tek |
| A305 | 0.50" |
| A308 | 0.50", 0.75" or 1.0" |
| A316 | 1.5" or 2.0" |
| A333 | 3" or 4" |
| A347 | 3" or 4" |

Advantage 2.0 Actuators

| Code | Description |
|----------------------|--------------------------------------|
| Fail Open | |
| B103 | Bio-Tek |
| B105 | 0.50" |
| B108 | 0.50", 0.75" or 1.0" |
| B116 | 1.5" or 2.0" |
| Fail Close | |
| B203 | Bio-Tek with 60# Spring |
| B204 | Bio-Tek with 90# Spring |
| B205 | 0.50" with 60# Spring |
| B206 | 0.50" with 90# Spring |
| B208 | 0.50", 0.75" or 1.0" with 60# Spring |
| B209 | 0.75" or 1.0" with 90# Spring |
| B216 | 1.5" or 2.0" with 60# Spring |
| B217 | 1.5" or 2.0" with 90# Spring |
| Double Acting | |
| B303 | Bio-Tek |
| B305 | 0.50" |
| B308 | 0.50", 0.75" or 1.0" |
| B316 | 1.5" or 2.0" |

Advantage Excel (AXS) Actuators

| Code | Description |
|--------|--|
| AXS1 | Fail Open |
| AXS26 | Fail Close with 60# Spring |
| AXS29 | Fail Close with 90# Spring |
| AXS3 | Double Acting |
| AXS15 | Fail Open (Sealed Bonnet) |
| AXS26S | Fail Close with 60# Spring (Sealed Bonnet) |
| AXS29S | Fail Close with 90# Spring (Sealed Bonnet) |
| AXS3S | Double Acting (Sealed Bonnet) |

APA Advantage Piston Actuators

| Code | Description |
|--------|-------------------------|
| APBT6 | Bio-Tek with 60# spring |
| APBT9 | Bio-Tek with 90# spring |
| AP0506 | 0.50" with 60# spring |
| AP0509 | 0.50" with 90# spring |
| AP0756 | 0.75" with 60# spring |
| AP0759 | 0.75" with 90# spring |
| AP1006 | 1.0" with 60# spring |
| AP1009 | 1.0" with 90# spring |
| AP1506 | 1.5" with 60# spring |
| AP1509 | 1.5" with 90# spring |
| AP2006 | 2.0" with 60# spring |
| AP2009 | 2.0" with 90# spring |

Dia-Flo Actuators

| Code | Description |
|-------------------|------------------------|
| Fail Open | |
| 3112 | #12 |
| 3125 | #25 |
| 3126 | #25 for Vacuum Service |
| 3150 | #50 |
| 31101 | #101 |
| 31130 | #130 |
| 31250 | #250 |
| Fail Close | |
| Size #12 | |
| 3213 | 88 Spring |
| 3214 | 88 & 89 Springs |
| 3215 | 88 & Raymond Springs |
| 3216 | 89 Spring |
| Size #25 | |
| 3226 | 101 Spring |
| 3227 | 101 & 102A Springs |
| 3228 | 102A Spring |

Dia-Flo Actuators (cont.)

| Code | Description |
|--------------------------|----------------------------|
| Fail Close | |
| Size #50 | |
| 3251 | 101 Spring |
| 3252 | 101 & 102A Springs |
| 3253 | 97 Spring |
| 3254 | 96 Spring |
| 3255 | 96 & 97 Springs |
| 3256 | 102A Spring |
| Size #75 | |
| 3274 | 96 Spring |
| 3276 | 96 & 97 Springs |
| 3277 | 97 & 98 Springs |
| 3278 | 96 & 98 Springs |
| 3279 | 96, 97 & 98 Springs |
| Size #101 | |
| 32102 | 96 Spring |
| 32103 | 98 Spring |
| 32104 | 96 & 97 Springs |
| 32105 | 96 & 98 Springs |
| 32106 | 97 & 98 Springs |
| 32107 | 96, 97, & 98 Springs |
| 32108 | 130 Spring |
| 32109 | 97 Spring |
| Double Acting | |
| Size #130 | |
| 32131 | 97 Spring |
| 32132 | 96 Spring |
| 32133 | 98 Spring |
| 32134 | 96 & 97 Springs |
| 32135 | 96 & 98 Springs |
| 32136 | 97 & 98 Springs |
| 32137 | 96, 97, & 98 Springs |
| 32138 | 130 Spring |
| Size #250 | |
| 32251 | 129 & 130 Springs |
| 32252 | 129 Spring |
| 32253 | 130 Spring |
| 3312 | #12 Double Acting |
| 3325 | #25 Double Acting |
| 3350 | #50 Double Acting |
| 3375 | #75 Double Acting |
| 33101 | #101 Double Acting |
| 33130 | #130 Double Acting |
| 33250 | #250 Double Acting |
| Non ITT Actuation | |
| Code | Description |
| POF | Customer Supplied Actuator |
| POM | With Non-ITT Actuator |

Figure Number: 1-F-428L-6-0-0-TME-B209-

| Configuration Example | | B209 |
|-----------------------|------------------------------|------|
| Actuator Options | Actuator Options (select 1): | |
| | Advantage Actuator | |
| | Advantage 2.0 Actuator | B209 |
| | Advantage Excel Actuator | |
| | APA Actuator | |
| | Dia-Flo Actuator | |
| | Non ITT Actuation | |

Switches and Actuator Accessories

Switch Package SP-2

| Code | Description |
|--------|---|
| SP2S | Silver Contacts - Mechanical |
| SP2SEU | Silver De-Rate to 70VDC/48VAC Max for EU Service - Mechanical |
| SP2G | Gold Contacts - Mechanical |
| SP2GEU | Gold De-Rated to 70VDC/48VAC Max for EU Service - Mechanical |
| SP2Z | 2-Wire Proximity |
| SP2N | NAMUR Proximity |
| SP2P | 3-Wire PNP Proximity |
| SP2NP | 3 Wire NPN Proximity |
| SP2B | Effector IS-2002-AROA Proximity |

Switch Package SP-3

| Code | Description |
|-----------|--|
| SP3S48 | Silver Contacts 48V - Mechanical |
| SP3S48CL | Silver Contacts 48V w/ Clipped Resistor - Mechanical |
| SP3S110 | Silver Contacts 110V - Mechanical |
| SP3S110CL | Silver Contacts 110V w/ Clipped Resistor - Mechanical |
| SP3S240 | Silver Contacts 230V - Mechanical |
| SP3S240CL | Silver Contacts 230V w/ Clipped Resistor - Mechanical |
| SP3G30 | Gold Contacts 30V - Mechanical |
| SP3G30CL | Gold Contacts 30V w/ Clipped Resistor - Mechanical |
| SP3GSA | Gold Contacts 30V, Simple Apparatus - No LEDs - Mechanical |
| SP3Z | 2-Wire Proximity |
| SP3N | NAMUR Proximity |
| SP3P | 3-Wire PNP Proximity |
| SP3NP | 3 Wire NPN Proximity |

Value Switch Package

| Code | Description |
|--------|----------------------|
| VSPG30 | Gold Contacts 30V |
| VSPN | NAMUR Proximity |
| VSP3P | 3-Wire PNP Proximity |
| VSPS48 | Silver Contacts 48V |
| VSPZ | 2-Wire Proximity |

Actuator Accessories Position Indicator (Dia-Flo Only)

| Code | Description |
|------|--------------------|
| P1 | Position Indicator |

Limit Switches

| Code | Description |
|-------|------------------------------|
| LS1 | Microswitch BZE6 - 2RN |
| LS2 | Microswitch BAF1 - 2RN |
| LS3 | Microswitch DTE6 - 2RN |
| LS4 | Microswitch DTF2 - 2RN |
| LS5 | Microswitch EXQ |
| LS6 | Microswitch EXDQ |
| LS7 | Microswitch LSA1A |
| LS8 | Westlock 3479 Model 3 |
| LS9 | GO 74-13528-A1 |
| LS9C | GO 73-13528-A2 |
| LS11 | Westlock E3479 MOD3 |
| LS13 | Westlock 9880 |
| LS14 | Westlock E9880 |
| LS15 | Westlock 99920-AB |
| LS16 | Westlock 98810002BI |
| LS17 | Westlock 98810002EI |
| LS41 | Efeactor IN0117 |
| LS42 | Efeactor IN5331 |
| LS78 | StoneL PM3311SO2RS |
| LS79 | StoneL PM3311SO2RL |
| LS128 | Westlock 99P21A00000 |
| LS129 | Westlock 99P21AD550 |
| LS140 | Westlock 99P22G00000 Special |

Limit Switches, Yoke Mounted

| Code | Description |
|---------|-------------------------|
| LS1Y | Microswitch BZE6 - 2RN |
| LS2Y | Microswitch BAF1 - 2RN |
| LS3Y | Microswitch DTE6 - 2RN |
| LS4Y | Microswitch DTF2 - 2RN |
| LS5Y | Microswitch EXQ |
| LS6Y | Microswitch EXDQ |
| LS7Y | Microswitch LSA1A |
| LS8Y | Westlock 3479 Model 3 |
| LS9Y | GO 74-13528-A1 |
| LS10Y | Namco EA700-80100 |
| LS12Y | Namco EA170-34100/35100 |
| LSSpecY | Special |

Mechanical Accessories

| Code | Description |
|--------|---|
| AO | Adjustable Opening Stop |
| AOH | Adjustable Opening Stop w/ Handwheel |
| AHODUP | Special Adjustable Opening Stop w/ Handwheel for Dupont |
| ATS | Adjustable Travel Stop |
| HWC | Hand Wheel Closing Device |
| HWO | Hand Wheel Opening Device |
| JO | Jack Opening Device (#32250) |
| THC | Adjustable Travel Stop, Handwheel Closing Device |
| TO | Adjustable Travel Stop, Adjustable Opening Stop |
| TOHC | Adjustable Travel Stop, Adjustable Opening Device, Handwheel Closing Device |
| TOHO | Adjustable Travel Stop, Adjustable Opening Stop, Handwheel Opening Device |

Mechanical Accessories

| Code | Description |
|------|--|
| TOWO | Adjustable Travel Stop, Adjustable Opening Device, Wrench Opening Device |
| WO | Wrench Opening Device |
| XAO | Adjustable Opening Stop Sealed with Indicator |
| XAOL | Adjustable Opening Stop with Switch Mount |
| XOB | Adjustable Opening Stop - Bolt Assembly |

Manual Bonnet Switch

| Code | Description |
|--------|--------------------------------|
| MBSWVG | Mechanical Gold (Close only) |
| MBSWVS | Mechanical Silver (Close only) |

Actuator Hardware Options

| Code | Description |
|------|--|
| HW1 | SS Airmotor Bolts |
| HW2 | SS Accessory Brackets |
| HW3 | SS Tubing and Fittings |
| HW4 | Plastic Tubing /Brass Fittings |
| HW5 | PVC Coated Tubing /Brass Fittings |
| HW6 | PVC Coated Tubing /SS Fittings |
| HW9 | PTFE Tubing and Stainless Steel Fittings |
| HW10 | Breather Vent Filter Stainless Steel |
| HW11 | Breather Vent Filter BRS |
| HW12 | Nylon Actuator Vent Plug |

Solenoid Valve

| Code | Description |
|------|---------------------|
| SV1 | Asco 8320G184 |
| SV2 | Asco EF8320G184 |
| SV3 | Asco 8345G1 |
| SV4 | Asco EF8345G1 |
| SV7 | Asco 8302G202 |
| SV8 | Asco EF8320G202 |
| SV14 | Burkert Series 6012 |
| SV15 | Burkert Series 6014 |

Solenoid Voltage

| Code | Description |
|-------|-------------|
| V1 | 120V / 60HZ |
| V2 | 24VDC |
| V3 | 240V / 60HZ |
| VSpec | Special |

Adjustable Opening Stop

| Code | Description |
|------|---|
| XAO | Adjustable Opening Stop Sealed with Indicator |
| XAOL | Adjustable Opening Stop with Switch Mount |
| XOB | Adjustable Opening Stop - Bolt Assembly |

Service Preparation and Quality Documents

| Special Service Preparation | | Special Quality Documents | |
|-----------------------------|-----------------------------|---------------------------|---|
| Code | Description | Code | Description |
| BAG | Cleaned and Bagged | SQD2 | C of C (seat & shell pressures) |
| DS | Dual Scale (PSI/BAR) Gauges | SQD3 | C of C Profilometer Tape for each body |
| EU_SERVICE | European Union Service | SQD5 | C of C Body/Stud/Nut CMTR and C of C to ASME Section VIII |
| NPC | No Polishing Compound | SQD6 | C of C Tube CMTR, Tank Bottom Valve |
| OXY | Oxygen | SQD7 | C of C Weld Rod CMTR, Tank Bottom Valve |
| SIFREE | Silicone Free Preparation | | |
| SPEC | Customer Special | | |
| TOB | Tobacco | | |
| VAC | Vacuum | | |

Figure Number: 1-F-428L-6-0-0-TME-36-M7-A209-VSPS48-SQD3

| | | |
|-----------------------------|--|------|
| Configuration Example | | SQD3 |
| Special Service Preparation | | |
| Special Quality Documents | | SQD3 |

Obsolete Figure Codes

| Code | Description | Code | Description | Code | Description |
|--------------------------------|-------------------------------------|----------------------------------|---|------------------------------------|--|
| Body Type | | | | | |
| RTBV | Radial Tank Bottom Valve | 16 | Standard Bio-Tek® Bonnet | A | Soft Natural Rubber (FDA) |
| 8D | Bio-Tek Forged 1.4435 SS | 17 | Sealed Bio-Tek® Bonnet | 16 | EPDM Compound 16 (FDA) |
| FD | Forged 1.4435 SS | 902 | Cast Iron Indicating | B16 | Biotek EPDM Compound 16 |
| Body Ends (Buttweld) | | | | | |
| 423X | 18 GA BT, Max Cutback , STD Length | 902S | Cast Iron Indicating - Sealed | C | Hypalon |
| 423XL | 18 GA BT, Max Cutback , Non-STD LG. | 912 | Stainless Steel (316) Indicating | H | EPDM (FDA) |
| 428X | 16 GA Max Cut Standard Length | 912S | Stainless Steel (316) Indicating - Sealed | NB | NB |
| 428XL | 16 GA Max Cut Nonstandard Length | 932 | Bronze Indicating | R2 | PTFE (FDA) |
| 429X | 14 GA Max Cut Standard Length | 932S | Bronze Indicating - Sealed | TM | PTFE (FDA)/Grade 16 BC |
| 433 | ANSI Flanged | 933 | Bronze Indicating with Travel Stop (1/2" - 4") | TFM1700 | TFM1700 PTFE (FDA) |
| 489 | RTBV, 90 Degree 16 GA Butt Weld | 933S | Bronze Indicating with Travel Stop - Sealed (1/2" - 4") | WB | White Butyl (FDA) |
| 490 | RTBV, 90 Degree Tri-Clamp | 942 | Double Iron Indicating | 17 | EPDM Compound 17 (FDA) |
| Second End Code (Clamp) | | | | | |
| X23X | 18 GA BT, Max Cutback STD Length | 942S | Double Iron Indicating - Sealed | 17HP | EPDM Compound 17 (FDA) |
| X23XL | 18 GA BT, Max Cutback Non-STD LG | 943 | Double Iron Indicating with Travel Stop | B17 | Bio-Tek EPDM Compound 17 |
| X28X | 16 GA BT, Max Cutback STD Length | 943S | Double Iron Indicating with Travel Stop - Sealed | TM17 | PTFE (FDA)/Grade 17 BC |
| X28L | By 16 Gauge Extended Tangent BW | 950 | Rising Handwheel with Travel Stop | TM17E | PTFE (FDA)/Grade 17E BC |
| X28XL | 16 GA BT, Max Cutback Non-STD LG | 961 | Plastic PAS Non-Indicating with Travel Stop | Adv. Switch Pack SP-2.5 | |
| X29L | By 14 Gauge Extended Tangent BW | WFI Hot Lockout Bonnet | | | |
| XX29X | 14 GA BT, Max Cutback STD Length | LBA | 115VAC/60HZ | SP5B | Effector IS-2002-AROA Proximity |
| | | LBD | 24VDC | SP5G | Gold Contacts - Mechanical |
| | | LBD1 | 24VDC with Position feedback | SP5GEU | Gold De-Rated to 70VDC/48VAC Max for EU Service - Mechanical |
| | | LBM | 24VDC with Mech Switch Output | SP5N | NAMUR Proximity |
| | | LBP | 24VDC with Solid State Switch Output | SP5NP | 3 Wire NPN Proximity |
| | | Actuated Bonnets (Bronze) | | | |
| | | 33 | Actuated | SP5P | 3-Wire PNP Proximity |
| | | 33S | Actuated - Sealed | SP5S | Silver Contacts - Mechanical |
| | | Optional Bonnet Internals | | | |
| | | M2 | Sanitary Internals | SP5SEU | Silver De-Rated to 70VDC/48VAC Max for EU Service - Mechanical |
| | | M7 | Bronze Compressor | SP5Z | 2-Wire Proximity |
| | | M11 | 316 Stainless Steel Stem | Solenoid Valve | |
| | | M12 | PSU Cap | SV5 | Burkert 300-C-1/16 -F-R-1/8-VOL (Advantage) |
| | | M13 | Stainless Steel Compressor (Bio-Tek) | SV6 | Burkert 311-C-5/64 -F-BR-1/8-VOL (Advantage) |
| | | M14 | Clear Cap | Special Service Preparation | |
| | | | | CS | Controlled Sulfur Body (0.005-0.017%) |
| | | | | SQDB | CMTR (Body) |
| | | | | SQD1 | CMTR (body, tube, weld, weld rod) |
| | | | | SQDBIO | C of C Diaphragm USP XXVIII Class VI Biological Reactivity |

Sterile Access and GMP Fabrications

| Fabrication Type | | Purge Valve Orientation | | Valve Number for Fabrication | |
|------------------|---------------------------|-------------------------|--------------------|------------------------------|---------------|
| Code | Description | Code | Description | Code | Description |
| GMP | GMP | B | Back | M | Main Valve |
| HSA | Horizontal Sterile Access | F | Front | 2 | Second Valve |
| SA | Sterile Access | L | Left | 3 | Third Valve |
| SPEC | Special | LL | Left Special | 4 | Fourth Valve |
| | | LR | Left/Right Special | 5 | Fifth Valve |
| | | R | Right | 6 | Sixth Valve |
| | | RL | Right/Left Special | 7 | Seventh Valve |
| | | RR | Right Special | 8 | Eighth Valve |
| | | | | 9 | Ninth Valve |
| | | | | 10 | Tenth Valve |

| Purge Location | |
|----------------|--|
| Code | Description |
| P1 | Purge located closest to main valve end 1 |
| P2 | Purge located closest to main valve end 2 |
| PB | Purge located at both valve ends (P1 and P2) |

Note: See pages 4-10 for additional figure numbers.

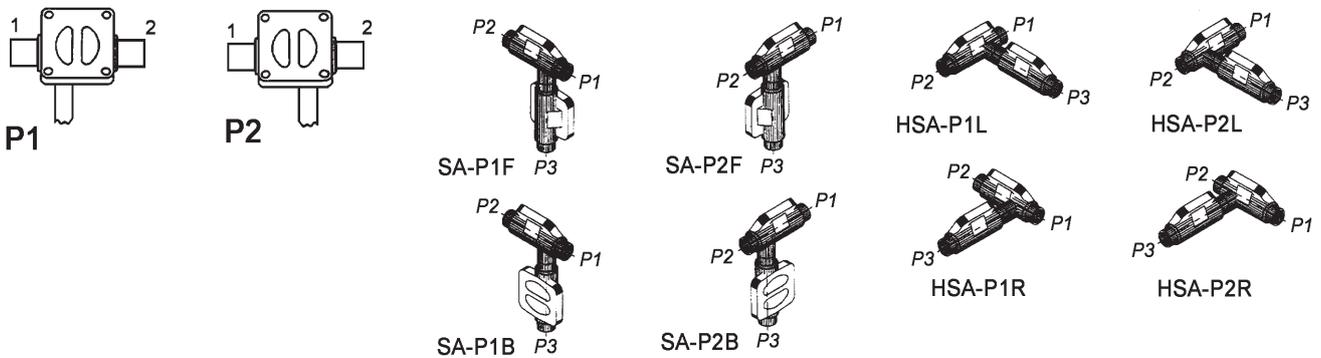
Sterile Access Example

Sterile Access single valve fabrication with a 1.5" forged stainless steel main valve and a 0.5" forged purge tube closest to the second end. The main valve has buttweld ends, 25 Ra polished interior, a 963 PAS manual bonnet and a modified PTFE diaphragm. The purge tube has a tri-clamp end.

Single Valve Fabrication Figure Number: SA-1.5-F-428L-.5-X19-P2-6-0-0-TME-963

| Configuration Example | | SA | 1.5 | F | 428L | .5 | X19 | P2 | 6-0-0 | TME | 963 | | | |
|--|--|----|-----|---|------|----|-----|----|-------|-----|-----|--|--|--|
| Single Valve Fabrication | Fabrication Type | SA | | | | | | | | | | | | |
| | Valve Size | | 1.5 | | | | | | | | | | | |
| | Body Type | | | F | | | | | | | | | | |
| | Body End Code | | | | 428L | | | | | | | | | |
| | Second End Code | | | | | | | | | | | | | |
| | Purge Tube Size | | | | | .5 | | | | | | | | |
| | Purge Tube End Code | | | | | | X19 | | | | | | | |
| | Purge Location | | | | | | | P2 | | | | | | |
| | Polish Selections (pg 5) | | | | | | | | 6-0-0 | | | | | |
| | Diaphragm Selection (pg 5) | | | | | | | | | TME | | | | |
| | Bonnets & Bonnet Options (pg 6) | | | | | | | | | | 963 | | | |
| | Actuator Options (pg 7) | | | | | | | | | | | | | |
| | Switches & Actuator Accessories (pg 8-9) | | | | | | | | | | | | | |
| Service Preparation & Quality Doc. (pg 10) | | | | | | | | | | | | | | |

Sterile Access Orientations



Sterile Access and GMP Fabrications (cont.)

GMP Example

GMP two valve fabrication with a 2" forged stainless steel main valve and a 0.5" forged purge valve closest to the second end and facing to the right. The main valve has Tri-Clamp ends, 25 Ra polished interior, a reverse acting advantage 2.0 actuator with a 60lb spring, an SP-2 switch pack with silver mechanical contacts and a modified PTFE diaphragm. The secondary valve has 16 gauge ends, 25-inch polished interior, a PAS hand-wheel operated bonnet with sanitary internals and a modified PTFE diaphragm.

Fabrication Figure Number: GMP-2-2-.5

| | | | | | |
|-------------|-----------------------|-----|---|---|----|
| Fabrication | Configuration Example | GMP | 2 | 2 | .5 |
| | Fabrication Type | | | | |
| | Two Valve Fabrication | | 2 | | |
| | Main Valve Size | | | 2 | |
| | Second Valve Size | | | | .5 |

Main Valve Figure Number: GMP-M-2-F-419-P2-R-6-0-0-TME-B216-SP2S

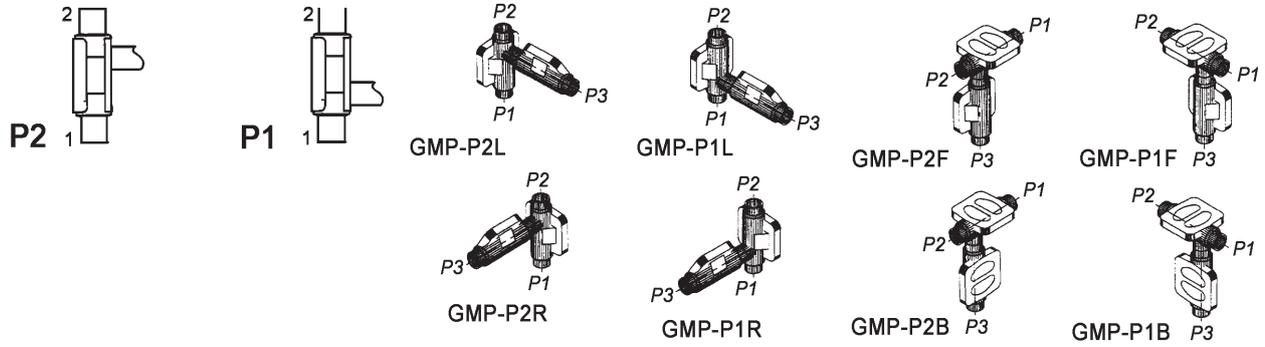
| | | | | | | | | | | | | |
|--|---------------------------------|-----|---|---|---|-----|----|---|-------|-----|------|------|
| Main Valve | Configuration Example | GMP | M | 2 | F | 419 | P2 | R | 6-0-0 | TME | B216 | SP2S |
| | Fabrication Type | | | | | | | | | | | |
| | Valve Number | | M | | | | | | | | | |
| | Valve Size | | | 2 | | | | | | | | |
| | Body Type | | | | F | | | | | | | |
| | Body End Code | | | | | 419 | | | | | | |
| | Second End Code | | | | | | | | | | | |
| | Purge Location | | | | | | P2 | | | | | |
| | Purge Valve Orientation | | | | | | | R | | | | |
| | Tube Extensions | | | | | | | | | | | |
| | Polish Selections (pg 5) | | | | | | | | 6-0-0 | | | |
| | Diaphragm Selection (pg 5) | | | | | | | | | TME | | |
| | Bonnets & Bonnet Options (pg 6) | | | | | | | | | | | |
| Actuator Options (pg 7) | | | | | | | | | | | B216 | |
| Switches & Actuator Accessories (pg 8-9) | | | | | | | | | | | | SP2S |
| Service Preparation & Quality Doc. (pg 10) | | | | | | | | | | | | |

Second Valve Figure Number: GMP-2-.5-F-428L-R-6-0-0-TM17-963

| | | | | | | | | | | |
|--|--|-----|---|----|---|------|---|-------|-----|-----|
| Second Valve | Configuration Example | GMP | 2 | .5 | F | 428L | R | 6-0-0 | TME | 963 |
| | Fabrication Type | | | | | | | | | |
| | Valve Number | | 2 | | | | | | | |
| | Valve Size | | | .5 | | | | | | |
| | Body Type | | | | F | | | | | |
| | Body End Code | | | | | 428L | | | | |
| | Purge Valve Orientation | | | | | | R | | | |
| | Tube Extensions | | | | | | | | | |
| | Polish Selections (pg 5) | | | | | | | 6-0-0 | | |
| | Diaphragm Selection (pg 5) | | | | | | | | TME | |
| | Bonnets & Bonnet Options (pg 6) | | | | | | | | | 933 |
| | Actuator Options (pg 7) | | | | | | | | | |
| | Switches & Actuator Accessories (pg 8-9) | | | | | | | | | |
| Service Preparation & Quality Doc. (pg 10) | | | | | | | | | | |

Sterile Access and GMP Fabrications (cont.)

GMP Orientations



Zero Static Fabrications

Fabrication Type

| Code | Description |
|----------|---|
| EZSBHV | Zero static E-Series U-Bend: Horizontal Tube - Vertical Valve |
| EZSBVV | Zero static E-Series U-Bend: Vertical Tube - Vertical Valve |
| ZDI | Zero static Dual Inline |
| ZDP | Zero static Downstream Purge |
| ZID | Zero static Inverted with Drain |
| ZSBBT | Zero static Block Body Tee |
| ZSBBT | Zero static Tee (Non-Faceted) |
| ZSBBT-BO | Zero static Block Body Tee with Back Outlet Option |
| ZSBBHV | Zero static Block Body U-Bend: Horizontal Tube - Vertical Valve |
| ZSBBVV | Zero static Block Body U-Bend: Vertical Tube - Vertical Valve |
| ZSBB5 | Zero static Back to Back Sample Valve |

Fabrication Type (cont.)

| Code | Description |
|------|---|
| ZSBV | Zero static Block Body with Vertical Run |
| ZSHH | Zero static Horizontal Tube - Horizontal Valve |
| ZSVH | Zero static Vertical Tube - Horizontal Valve |
| ZUD | Zero static with Upstream Sample and Downstream Purge |

Body Type

| Code | Description |
|------|-----------------------|
| SVBT | Sample Valve Bio-Tek |
| SVPF | Sample Valve Pure-Flo |

Sample Valve Outlet Side

| Code | Description |
|------|--|
| R | Ported on Right Side of Valve (Standard) |
| L | Ported on Left Side of Valve |

U Bend Tube Orientation (Optional)

| Code | Description |
|-------|--|
| HV | Horizontal U-Bend Tube with Vertical Valve Orientation |
| EHV | E-Series Horizontal U-Bend, Vertical Valve |
| VV | Vertical U-Bend Tube with Vertical Valve Orientation |
| EVV | E-Series Vertical U-Bend, Vertical Valve |
| USPEC | Special U-Bend Orientation |

Sample Valve Connection

| Code | Description |
|------|----------------|
| 419R | .75" Tri-Clamp |

Note: See pages 4-10 for additional figure numbers.

Zero Static - Forged Bodies Example

Zerostatic with 1" forged triclamp main valve and 1.5" buttweld tube. Interior finish: 20 Ra, interior and exterior electropolish. PTFE diaphragm with EPDM backing cushion. PAS handwheel operated bonnet. Purge valve oriented on right side.

Valve Figure Number: ZSHH-1-F-419-1.5-X28-R-8-0-3-TME-963

| | Configuration Example | ZSHH | 1 | F | 419 | 1.5 | X28 | | R | 8-0-3 | TME | 963 | |
|------------|---------------------------------|------|---|---|-----|-----|-----|--|---|-------|-------|-----|-----|
| Main Valve | Fabrication Type | | | | | | | | | | | | |
| | Valve Size | | 1 | | | | | | | | | | |
| | Body Type | | | F | | | | | | | | | |
| | Body End Code | | | | 419 | | | | | | | | |
| | Zerostatic Tube Size | | | | | 1.5 | | | | | | | |
| | Zerostatic Tube End Code | | | | | | X28 | | | | | | |
| | Zerostatic Tube Second End Code | | | | | | | | | | | | |
| | Purge Valve Orientation | | | | | | | | R | | | | |
| | Polish Selections (pg 5) | | | | | | | | | | 8-0-3 | | |
| | Diaphragm Selection (pg 5) | | | | | | | | | | | TME | |
| | Bonnets & Bonnet Options (pg 6) | | | | | | | | | | | | 963 |

Zero Static Back to Back Sample (ZSBBS)

Zero Static Block Body with a 2" wrought stainless steel main valve and a 4" tube, all three outlets are buttweld, Bio-Tek sample valve with .75" Tri-Clamp connection, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBBS-2-428-4-428-.5-SVBT-419R-R-W-6-1-0

| | | | | | | | | | | | | | |
|-------------------|---|-------|---|-----|---|--|-----|----|------|------|---|-------|-------|
| | Configuration Example | ZSBBS | 2 | 428 | 4 | | 428 | .5 | SVBT | 419R | R | W | 6-1-0 |
| Valve Body | Block Type | ZSBBS | | | | | | | | | | | |
| | Valve Size | | 2 | | | | | | | | | | |
| | Body End Connection (P3) | | | 428 | | | | | | | | | |
| | Zerostatic Tube Size | | | | 4 | | | | | | | | |
| | U-Bend Tube Orientation ¹ | | | | | | | | | | | | |
| | Zerostatic Tube End Connections (P1,P2) | | | | | | 428 | | | | | | |
| | Second Valve Size | | | | | | | .5 | | | | | |
| | Second Valve Type (.5" only) ² | | | | | | | | SVBT | | | | |
| | Second Valve End Connection (P4) ³ | | | | | | | | | 419 | | | |
| | Sample Outlet Side | | | | | | | | | | R | | |
| Body Material | | | | | | | | | | | W | | |
| Polish Selections | | | | | | | | | | | | 6-1-0 | |

¹ For a U-Bend Vertical Tube, enter VV. For Horizontal Tube, enter HV. See drawings below for vertical tube and horizontal tube examples.

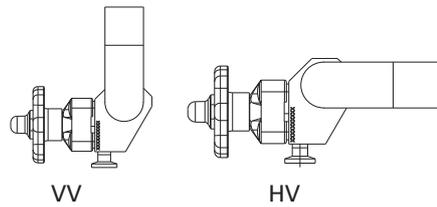
² For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT). PF is recommended for steam applications.

³ 419R refers to .75 x .5 reducing Tri-Clamp port connection required for drainability. .5" sample port is available upon request.

To add topworks, see page 38.

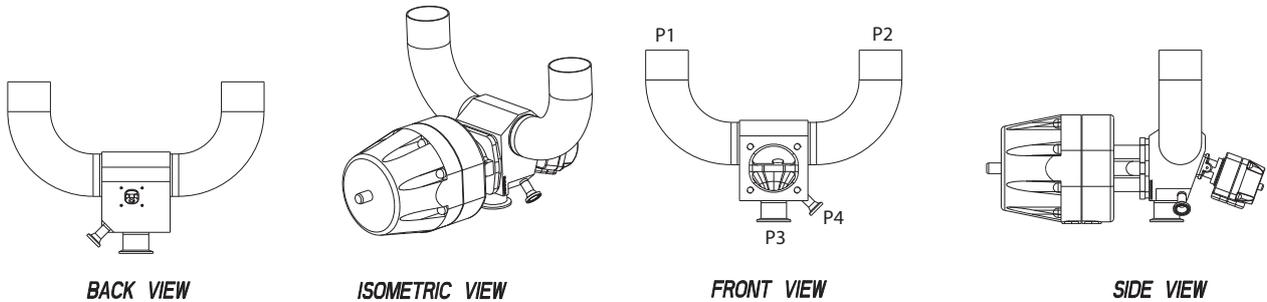
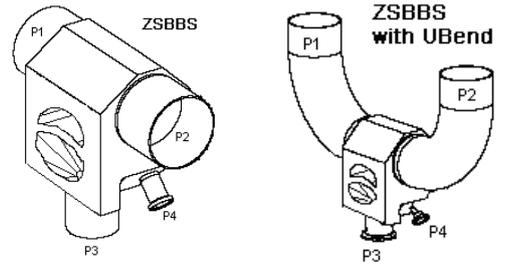
Main Multiport Valve Topworks Figure Number: .75-N-TME-963

| | | | | | |
|----------|-----------------------|-----|---|-----|-----|
| Topworks | Configuration Example | .75 | N | TME | 963 |
| | Valve Size | .75 | | | |
| | Body (Not Supplied) | | N | | |
| | Diaphragm (pg 5) | | | TME | |
| | Bonnet (pg 6) | | | | 963 |
| | Options (pg 7-9) | | | | |



Sample Multiport Valve Topworks Figure Number: .5-N-TME-18

| | | | | | |
|----------|-----------------------|----|---|-----|----|
| Topworks | Configuration Example | .5 | N | TME | 18 |
| | Valve Size | .5 | | | |
| | Body (Not Supplied) | | N | | |
| | Diaphragm (pg 5) | | | TME | |
| | Bonnet (pg 6) | | | | 18 |
| | Options (pg 7-9) | | | | |



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Zero Static Block Body Tee (ZSBBT)

ZSBBT with a 1" wrought stainless steel main valve with Tri-Clamp end connection and a 2" tube with buttweld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBBT-1-W-419-2-X28-6-1-0

| | | | | | | | | | |
|------------|---------------------------------------|-------|---|---|-----|---|-----|--|-------|
| | Configuration Example | ZSBBT | 1 | W | 419 | 2 | X28 | | 6-1-0 |
| Valve Body | Block Type | ZSBBT | | | | | | | |
| | Valve Size | | 1 | | | | | | |
| | Body Type | | | W | | | | | |
| | Body End Connection | | | | 419 | | | | |
| | Zerostatic Tube Size | | | | | 2 | | | |
| | Zerostatic Tube End Connections | | | | | | X28 | | |
| | Zerostatic Tube Second End Connection | | | | | | | | |
| | Polish Selections | | | | | | | | 6-1-0 |



To add topworks, see page 38.

Non-Faceted Zero Static Tee (ZSBT)

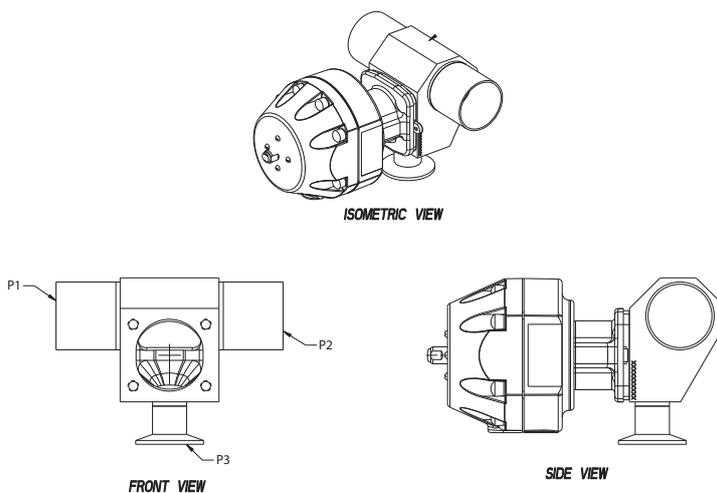
Non-Faceted ZSBT with a 1" wrought stainless steel main valve with Tri-Clamp end connection and a 2" tube with buttweld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBT-1-W-419-2-X28-6-1-0

| | | | | | | | | | |
|------------|---------------------------------------|------|---|---|-----|---|-----|--|-------|
| | Configuration Example | ZSBT | 1 | W | 419 | 2 | X28 | | 6-1-0 |
| Valve Body | Block Type | ZSBT | | | | | | | |
| | Valve Size | | 1 | | | | | | |
| | Body Type | | | W | | | | | |
| | Body End Connection | | | | 419 | | | | |
| | Zerostatic Tube Size | | | | | 2 | | | |
| | Zerostatic Tube End Connections | | | | | | X28 | | |
| | Zerostatic Tube Second End Connection | | | | | | | | |
| | Polish Selections | | | | | | | | 6-1-0 |



To add topworks, see page 38.



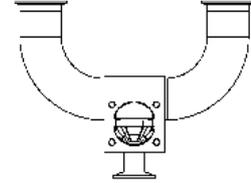
Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Zero Static Block Body U-bend (ZSBBVV)

.5" Zero Static Block, wrought stainless steel, 2" U-bend vertical tube, all three outlets have tri-clamp ends, 25 Ra interior finish, standard exterior finish (Scotch Brite), both interior and exterior electropolish.

Figure Number: ZSBBVV-.5-W-419-2-X19-6-1-3

| | | | | | | | | | |
|------------|---|--------|----|---|-----|---|-----|--|-------|
| | Configuration Example | ZSBBVV | .5 | W | 419 | 2 | X19 | | 6-1-3 |
| Valve Body | Block Type ¹ | ZSBBVV | | | | | | | |
| | Valve Size | | .5 | | | | | | |
| | Body Type ² | | | W | | | | | |
| | Connection (P1) | | | | 419 | | | | |
| | Zerostatic Tube Size | | | | | 2 | | | |
| | Zerostatic Tube End Connection (P1,P2 or P1) | | | | | | X19 | | |
| | Zerostatic Tube Second End Connection (P2) ³ | | | | | | | | |
| | Polish Selections | | | | | | | | 6-1-3 |



¹ ZSBBVV for vertical tube, vertical valve. ZSBBHV for horizontal tube, vertical valve. See drawings below for vertical tube and horizontal tube examples.

² For Bio-Tek BW is used.

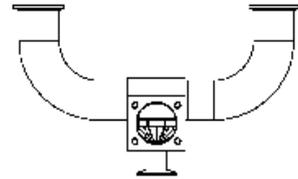
³ Second end connection can be provided if end connections are different. To add topworks, see page 38.

E-Series Zero Static Block Body U-Bend (EZSBBVV)

E-Series .5" Zero Static Block, wrought stainless steel, 2" U-bend vertical tube, all three outlets have tri-clamp ends, 25 Ra interior finish, standard exterior finish (Scotch Brite), both interior and exterior electropolish.

Figure Number: EZSBBVV-.5-W-419-2-X19-6-1-3

| | | | | | | | | | |
|------------|---|---------|----|---|-----|---|-----|--|-------|
| | Configuration Example | EZSBBVV | .5 | W | 419 | 2 | X19 | | 6-1-3 |
| Valve Body | Block Type ¹ | EZSBBVV | | | | | | | |
| | Valve Size | | .5 | | | | | | |
| | Body Type ² | | | W | | | | | |
| | Connection (P1) | | | | 419 | | | | |
| | Zerostatic Tube Size | | | | | 2 | | | |
| | Zerostatic Tube End Connection (P1,P2 or P1) | | | | | | X19 | | |
| | Zerostatic Tube Second End Connection (P2) ³ | | | | | | | | |
| | Polish Selections | | | | | | | | 6-1-3 |

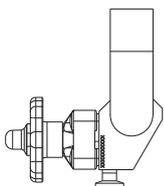


¹ EZSBBVV for vertical tube, vertical valve. EZSBBHV for horizontal tube, vertical valve. See drawings below for vertical tube and horizontal tube examples.

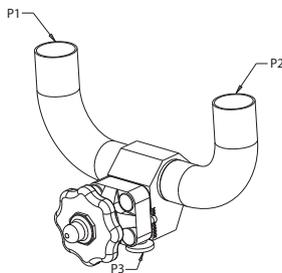
² For Bio-Tek BW is used.

³ Second end connection can be provided if end connections are different. To add topworks, see page 38.

ZSBBVV

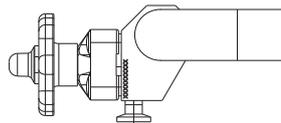


SIDE VIEW



ISOMETRIC VIEW

ZSBBHV



SIDE VIEW

Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

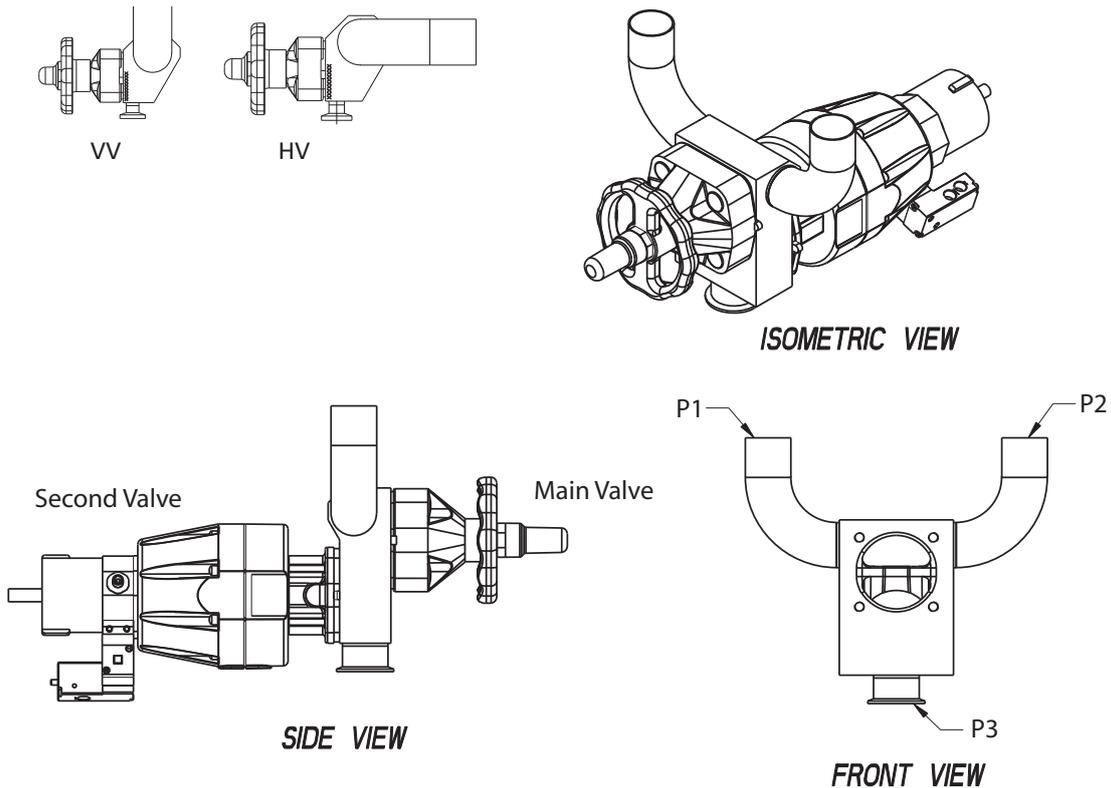
Zero Static Dual Inline

2" Zero Static Dual Inline, wrought stainless steel, U-bend vertical tube, 2" run, with 16 ga buttweld ends, Tri-clamp valve outlet end connection, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZDI-2-419-2-VV-428-2-W-6-1-0

| | | | | | | | | | | |
|------------|---|-----|---|-----|---|----|-----|---|---|-------|
| | Configuration Example | ZDI | 2 | 419 | 2 | VV | 428 | 2 | W | 6-1-0 |
| Valve Body | Block Type | ZDI | | | | | | | | |
| | Valve Size | | 2 | | | | | | | |
| | Body End Connection (P3) | | | 419 | | | | | | |
| | Zerostatic Tube Size | | | | 2 | | | | | |
| | U-Bend Orientation ¹ | | | | | VV | | | | |
| | Zerostatic Tube End Connections (P2,P2) | | | | | | 428 | | | |
| | Second Valve Size | | | | | | | 2 | | |
| | Body Material | | | | | | | | W | |
| | Polish Selections | | | | | | | | | 6-1-0 |

¹ For a U-Bend Vertical Tube, enter VV. For Horizontal Tube, enter HV. See drawings below for vertical tube and horizontal tube examples.
To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

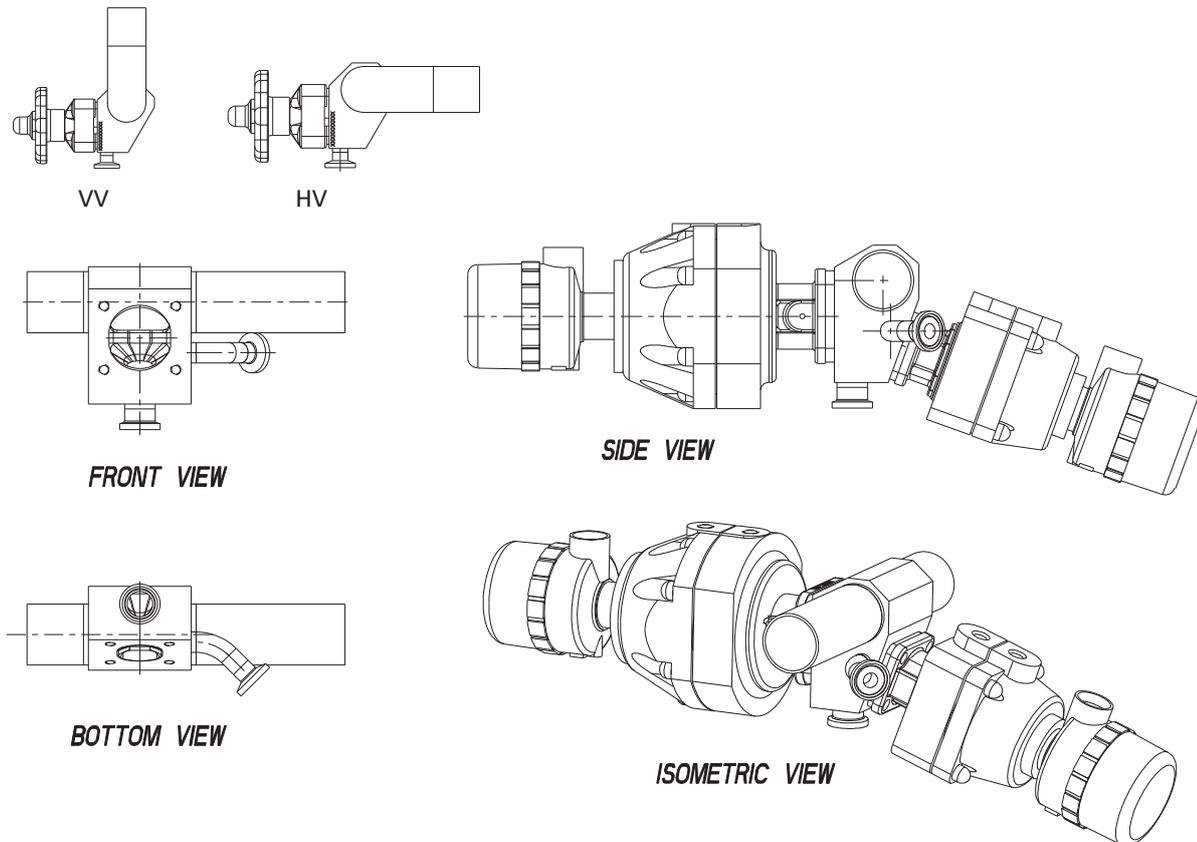
Zero Static Downstream Purge (ZDP)

Zero Static Block Body, wrought stainless steel, U-bend vertical tube, 1" main valve with Tri-Clamp end connection, 2" run with buttweld ends, .5" Pure-Flo purge with Tri-Clamp connection, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZDP-1-419-2-VV-428-.5-SVPF-419-R-W-6-1-0

| | | | | | | | | | | | | | |
|-------------------|---------------------------------|-----|---|-----|---|----|-----|----|------|-----|---|-------|-------|
| | Configuration Example | ZDP | 1 | 419 | 2 | VV | 428 | .5 | SVPF | 419 | R | W | 6-1-0 |
| Valve Body | Block Type | ZDP | | | | | | | | | | | |
| | Valve Size | | 1 | | | | | | | | | | |
| | Body End Connection | | | 419 | | | | | | | | | |
| | Zerostatic Tube Size | | | | 2 | | | | | | | | |
| | U-Bend Orientation ¹ | | | | | VV | | | | | | | |
| | Zerostatic Tube End Connection | | | | | | 428 | | | | | | |
| | Second Valve Size | | | | | | | .5 | | | | | |
| | Second Valve Type | | | | | | | | SVPF | | | | |
| | Second Valve End Connection | | | | | | | | | 419 | | | |
| | Second Valve Outlet Orientation | | | | | | | | | | R | | |
| | Body Material | | | | | | | | | | | W | |
| Polish Selections | | | | | | | | | | | | 6-1-0 | |

¹ For a U-Bend Vertical Tube, enter VV. For Horizontal Tube, enter HV. See drawings below for vertical tube and horizontal tube examples.
To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

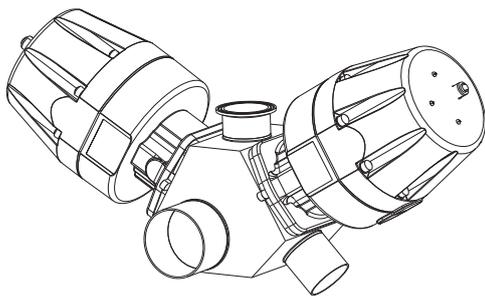
Zero Static Inverted with Drain (ZID)

1" Inverted Zero Static with Drain, 2" Zero Static tube size, wrought stainless steel body, Tri-Clamp ends, .5" Bio-Tek Second Valve with Tri-Clamp outlet connection on right side of valve, 25 Ra interior finish, standard exterior finish (Scotch Brite).

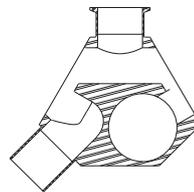
Figure Number: ZID-1-419-2-419-.5-SVBT-419-R-W-6-1-0

| | | | | | | | | | | | | | |
|------------|---|-----|---|--|-----|---|-----|----|------|-----|---|---|-------|
| | Configuration Example | ZID | 1 | | 419 | 2 | 419 | .5 | SVBT | 419 | R | W | 6-1-0 |
| Valve Body | Block Type | ZID | 1 | | 419 | 2 | 419 | .5 | SVBT | 419 | R | W | 6-1-0 |
| | Main Valve Size | | 1 | | | | | | | | | | |
| | Main Valve Type (.5" only) ¹ | | | | | | | | | | | | |
| | Main Valve End Connection | | | | 419 | | | | | | | | |
| | Zerostatic Tube Size | | | | | 2 | | | | | | | |
| | Zerostatic Tube End Connections | | | | | | 419 | | | | | | |
| | Second Valve Size | | | | | | | .5 | | | | | |
| | Second Valve Type (.5" only) ¹ | | | | | | | | SVBT | | | | |
| | Second Valve End Connection | | | | | | | | | 419 | | | |
| | Second Valve Outlet Orientation (opt.) | | | | | | | | | | R | | |
| | Body Material | | | | | | | | | | | W | |
| | Polish Selections | | | | | | | | | | | | 6-1-0 |

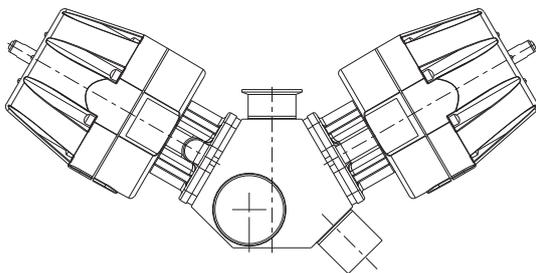
¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).
To add topworks, see page 38.



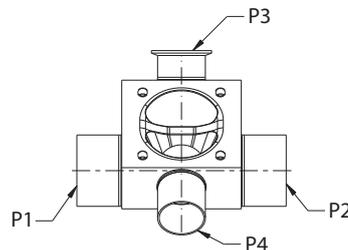
ISOMETRIC VIEW



SECTION A-A



FRONT VIEW



SIDE VIEW

Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Zero Static Block Body with Back Outlet Option (ZSBBT-BO)

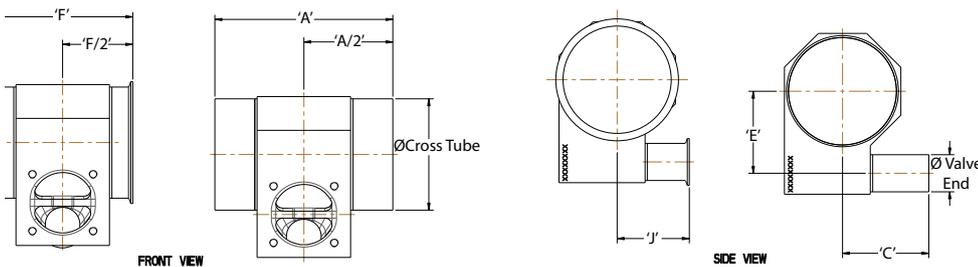
1" Zero Static Block with Back Outlet, wrought stainless steel, Tri-Clamp end connection, 2" cross tube (run) with butt weld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBBT-BO-2-W-419-4-X29-6-1-0

| | | | | | | | | | |
|------------|--------------------------------|-------|----|---|---|-----|---|-----|-------|
| Valve Body | Configuration Example | ZSBBT | BO | 2 | W | 419 | 4 | X29 | 6-1-0 |
| | Block Type | ZSBBT | | | | | | | |
| | Zero Static Option | | BO | | | | | | |
| | Valve Size | | | 2 | | | | | |
| | Material | | | | W | | | | |
| | Body End Connection | | | | | 419 | | | |
| | Zerostatic Tube Size | | | | | | 4 | | |
| | Zerostatic Tube End Connection | | | | | | | X29 | |
| | Polish Selections | | | | | | | | 6-1-0 |

To add topworks, see page 38.

| VALVE END | DIM'S | CROSS TUBE | | | | | | | |
|-------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 0.50 [12,7] | 0.75 [19,0] | 1.00 [25,4] | 1.50 [38,1] | 2.00 [50,8] | 2.50 [63,5] | 3.00 [76,2] | 4.00 [101,6] |
| 0.50 [DN15] | "A" | 5.25 [133,4] | 5.25 [133,4] | 5.25 [133,4] | 5.25 [133,4] | 5.75 [146,1] | 5.75 [146,1] | 5.75 [146,1] | 6.25 [158,8] |
| | "C" | 1.93 [48,9] | 2.00 [50,8] | 2.13 [54,0] | 2.38 [60,3] | 2.63 [66,7] | 2.88 [73,0] | 3.13 [79,4] | 3.63 [92,1] |
| | "E" | 0.74 [18,9] | 0.88 [22,5] | 1.02 [25,9] | 1.28 [32,6] | 1.54 [39,2] | 1.80 [45,8] | 2.06 [52,4] | 2.58 [65,4] |
| | "F" | 3.25 [82,6] | 3.25 [82,6] | 4.50 [114,3] | 4.50 [114,3] | 4.50 [114,3] | 4.50 [114,3] | 4.50 [114,3] | 4.50 [114,3] |
| | "J" | 1.47 [37,4] | 1.57 [40,0] | 1.62 [41,0] | 1.83 [46,5] | 1.92 [48,8] | 2.02 [51,2] | 2.11 [53,6] | 2.18 [55,4] |
| 0.75 [DN20] | "A" | 5.75 [146,0] | 5.75 [146,0] | 5.75 [146,0] | 6.25 [158,8] | 6.25 [158,8] | 6.25 [158,8] | 6.75 [171,4] | |
| | "C" | 2.00 [50,8] | 2.13 [54,0] | 2.38 [60,3] | 2.63 [66,7] | 2.88 [73,0] | 3.13 [79,4] | 3.63 [92,1] | |
| | "E" | 0.94 [23,9] | 1.13 [28,6] | 1.35 [34,3] | 1.61 [40,9] | 1.87 [47,5] | 2.13 [54,1] | 2.64 [67,0] | |
| | "F" | 3.75 [95,1] | 5.00 [127,0] | 5.00 [127,0] | 5.00 [127,0] | 5.00 [127,0] | 5.00 [127,0] | 5.00 [127,0] | |
| | "J" | 1.58 [40,1] | 1.68 [42,7] | 1.83 [46,4] | 1.98 [50,3] | 2.07 [52,7] | 2.17 [55,1] | 2.37 [60,2] | |
| 1.00 [DN25] | "A" | 6.14 [156,0] | 6.14 [156,0] | 6.64 [168,7] | 6.64 [168,7] | 6.64 [168,7] | 6.64 [168,7] | 7.14 [181,4] | |
| | "C" | 2.13 [54,0] | 2.38 [60,3] | 2.63 [66,7] | 2.88 [73,0] | 3.13 [79,4] | 3.61 [91,7] | | |
| | "E" | 1.28 [32,4] | 1.54 [39,2] | 1.81 [46,0] | 2.07 [52,6] | 2.33 [59,2] | 2.83 [71,9] | | |
| | "F" | 5.38 [136,7] | 5.38 [136,7] | 5.38 [136,7] | 5.38 [136,7] | 5.38 [136,7] | 5.38 [136,7] | | |
| | "J" | 1.67 [42,4] | 1.76 [44,6] | 1.91 [48,4] | 2.12 [53,9] | 2.22 [56,3] | 2.43 [61,6] | | |
| 1.50 [DN40] | "A" | 7.25 [184,2] | 7.75 [196,8] | 7.75 [196,8] | 7.75 [196,8] | 7.75 [196,8] | 8.25 [209,6] | | |
| | "C" | 2.38 [60,3] | 2.63 [66,7] | 2.88 [73,0] | 3.13 [79,4] | 3.63 [92,1] | | | |
| | "E" | 1.87 [47,4] | 2.13 [54,2] | 2.40 [61,0] | 2.66 [67,6] | 3.17 [80,4] | | | |
| | "F" | 6.50 [165,1] | 6.50 [165,1] | 6.50 [165,1] | 6.50 [165,1] | 6.50 [165,1] | | | |
| | "J" | 1.68 [42,8] | 1.83 [46,5] | 1.92 [48,7] | 2.14 [54,2] | 2.34 [59,4] | | | |
| 2.00 [DN50] | "A" | 8.75 [222,3] | 8.75 [222,3] | 8.75 [222,3] | 8.75 [222,3] | 9.25 [235,0] | | | |
| | "C" | 2.63 [66,7] | 2.88 [73,0] | 3.13 [79,4] | 3.63 [92,1] | | | | |
| | "E" | 2.38 [60,4] | 2.65 [67,2] | 2.91 [74,0] | 3.42 [86,8] | | | | |
| | "F" | 7.50 [190,5] | 7.50 [190,5] | 7.50 [190,5] | 7.50 [190,5] | | | | |
| | "J" | 1.96 [49,9] | 2.05 [52,0] | 2.14 [54,3] | 2.34 [59,4] | | | | |



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

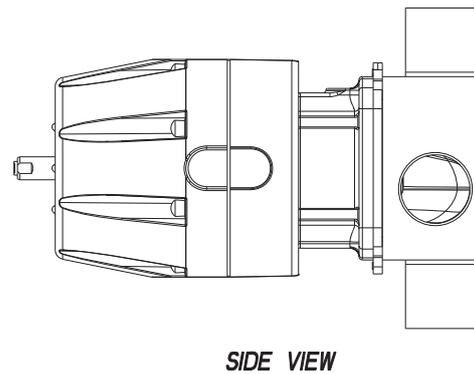
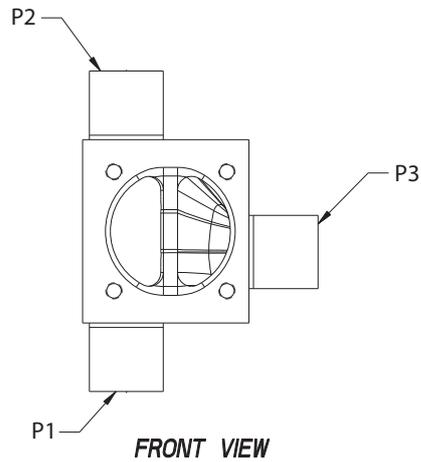
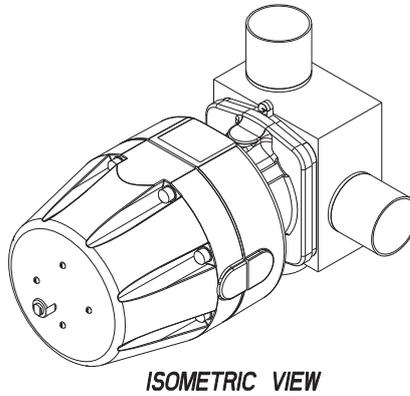
Zero Static Block Body with Vertical Run (ZSBV)

ZSBV with a 2" wrought stainless steel main valve with Tri-Clamp end connection and a 2" tube with buttweld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBV-R-2-428-2-X28-W-6-1-0

| | | | | | | | | | |
|------------|--------------------------------|------|---|---|-----|---|-----|---|-------|
| | Configuration Example | ZSBV | R | 2 | 428 | 2 | X28 | W | 6-1-0 |
| Valve Body | Block Type | ZSBV | | | | | | | |
| | Left or Right Option | | R | | | | | | |
| | Valve Size | | | 2 | | | | | |
| | Body End Connection | | | | 428 | | | | |
| | Zerostatic Tube Size | | | | | 2 | | | |
| | Zerostatic Tube End Connection | | | | | | X28 | | |
| | Body Material | | | | | | | W | |
| | Polish Selections | | | | | | | | 6-1-0 |

To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Zero Static with Upstream Sample and Downstream Purge (ZUD)

1" ZUD wrought stainless steel body with 0.5" Bio-Tek Upstream Sample (right side) and 0.5" Pure-Flo Downstream Purge. Tri-Clamp main valve end connection. 2" Zero Static tube size with 16 ga buttweld ends. (Sample valve with 0.75" reducing ferrule and purge valve with 0.5" Tri-Clamp end connection.) 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZUD-1-419-2-428-.5-SVBT-419R-R-.5-TVPF-419-W-6-1-0

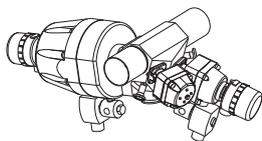
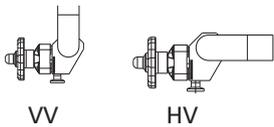
| | | | | | | | | | | | | | | | | |
|-------------------|---|-----|---|-----|---|--|-----|----|------|------|---|----|------|-----|---|-------|
| | Configuration Example | ZUD | 1 | 419 | 2 | | 428 | .5 | SVBT | 419R | R | .5 | TVPF | 419 | W | 6-1-0 |
| Valve Body | Block Type | ZUD | | | | | | | | | | | | | | |
| | Main Valve Size | | 1 | | | | | | | | | | | | | |
| | Main Valve End Connections (P3) | | | 419 | | | | | | | | | | | | |
| | Zerostatic Tube Size | | | | 2 | | | | | | | | | | | |
| | U-Bend Orientation ¹ | | | | | | | | | | | | | | | |
| | Zerostatic Tube End Connections (P1,P2) | | | | | | 428 | | | | | | | | | |
| | Second Valve Size | | | | | | | .5 | | | | | | | | |
| | Second Valve Type (.5" only) ² | | | | | | | | SVBT | | | | | | | |
| | Second Valve End Connection (P4) ³ | | | | | | | | | 419R | | | | | | |
| | Second Valve Outlet Orientation | | | | | | | | | | R | | | | | |
| | Third Valve Size | | | | | | | | | | | .5 | | | | |
| | Third Valve Type (.5" only) ² | | | | | | | | | | | | TVPF | | | |
| | Third Valve End Connection (P5) | | | | | | | | | | | | | 419 | | |
| | Body Material | | | | | | | | | | | | | | W | |
| Polish Selections | | | | | | | | | | | | | | | | 6-1-0 |

¹ For a U-Bend Vertical Tube, enter VV. For Horizontal Tube, enter HV. See drawings below for vertical tube and horizontal tube examples.

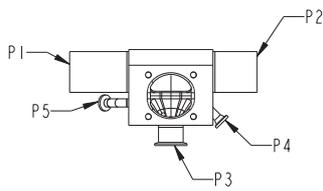
² For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT). PF is recommended for steam applications. .5" sample port is available upon request.

³ 419R refers to .75 x .5 reducing Tri-Clamp port connection required for drainability.

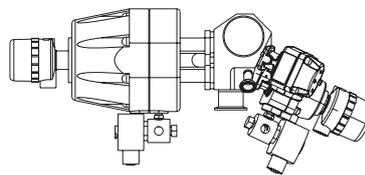
Note: All second and third valve options shown above are standard. To add topworks, see page 38.



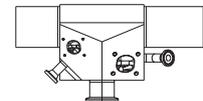
ISOMETRIC VIEW



FRONT VIEW



SIDE VIEW



BACK VIEW

Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Multiport Valves

| Type of Valve | |
|---------------|---|
| Code | Description |
| BBD | Block and Bleed |
| BYP | Pure-Flo Valve with Bypass Option |
| CHRO | Chromatography |
| CHN | Chromatography without Bypass |
| CRO | Cross over |
| CROD | Cross over with Drain Angle |
| DIDO | Double Inlet Double Outlet Diverter Valve |
| DV2W | Divert Valve 2-way |
| DV2WS | Sterile Tank Vent Filter Shunt |
| DV3W | Divert Valve 3-way |
| DV4W | Divert Valve 4-way |
| DV5W | Divert Valve 5-way |
| DV6W | Divert Valve 6-way |
| HDV3W | Horizontal Divert Valve 3-way |
| IDSA | Integral Dual Sterile Access |
| IHSA | Integral Horizontal Sterile Access |
| ISG | Integral Sterile Access GMP |
| SB1 | Integral Sterile Barrier |
| VSPEC | Special Valve Type |

| Type | |
|------|-------------|
| Code | Description |
| BT | Bio-Tek |
| PF | Pure-Flo |

| Outlet Option | |
|---------------|------------------------------|
| Code | Description |
| 1 | Outlet Configuration 1 |
| 2 | Outlet Configuration 2 |
| 3 | Outlet Configuration 3 |
| 4 | Outlet Configuration 4 |
| 5 | Outlet Configuration 5 |
| 6 | Outlet Configuration 6 |
| 7 | Outlet Configuration 7 |
| 8 | Outlet Configuration 8 |
| OSPEC | Special Outlet Configuration |

Note: Refer to the drawing that corresponds to the type chosen

| Material | |
|----------|------------------|
| Code | Description |
| W | Wrought 316L |
| WA | Wrought AL6XN |
| WC2 | Wrought C-22 |
| WC6 | Wrought C-276 |
| WT | Wrought Titanium |
| BSPEC | Special Material |

| Flow Through (Optional) | |
|-------------------------|---------------------|
| Code | Description |
| DVFT | Divert Flow-Through |

Note: See pages 4-10 for additional figure numbers.

Block and Bleed Valve

1.5" Block and Bleed, wrought stainless steel, Tri-Clamp ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

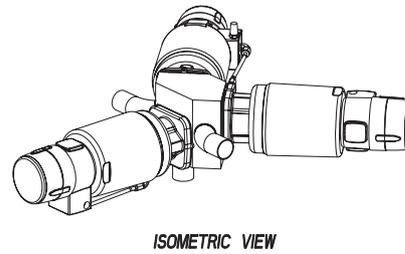
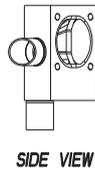
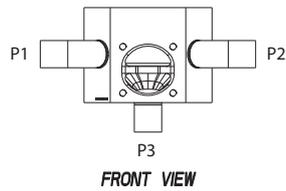
Figure Number: BBD-1.5-419-W-6-1-0

| | | | | | | |
|------------|--|-----|-----|-----|---|-------|
| Valve Body | Configuration Example | BBD | 1.5 | 419 | W | 6-1-0 |
| | Block Type | BBD | | | | |
| | Valve Size | | 1.5 | | | |
| | Type (.5" only) ¹ | | | | | |
| | Body End Connections (P1, P2, P3) ² | | | 419 | | |
| | Body Material | | | | W | |
| | Polish Selections | | | | | 6-1-0 |

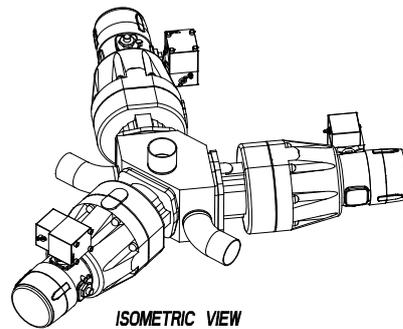
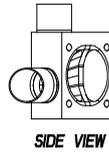
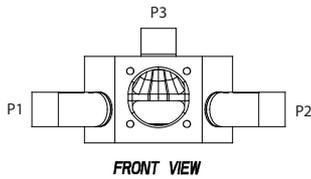
¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).

² Contact the factory for additional options for discrete end connection selections. To add topworks, see page 38.

BBD



BBV



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Bypass Valve

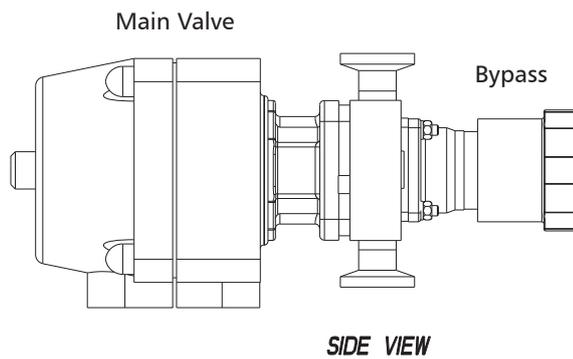
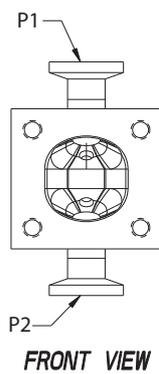
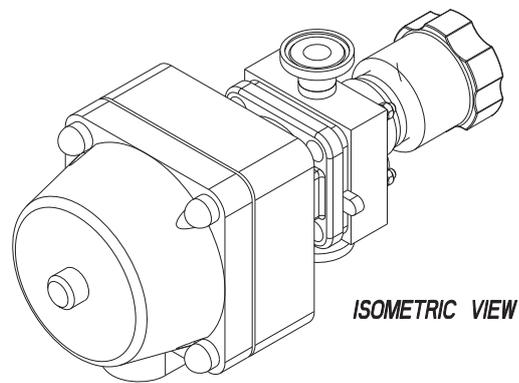
.5" wrought stainless steel valve with Bypass, Tri-Clamp ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: BYP-1-419-.25-W-6-1-0

| | | | | | | | |
|------------|--------------------------------|-----|----|-----|-----|---|-------|
| Valve Body | Configuration Example | BYP | .5 | 419 | .25 | W | 6-1-0 |
| | Block Type | BYP | | | | | |
| | Valve Size ¹ | | .5 | | | | |
| | Body End Connections (P1, P2) | | | 419 | | | |
| | Second Valve Size ² | | | | .25 | | |
| | Body Material | | | | | W | |
| | Polish Selections | | | | | | 6-1-0 |

¹ Available in .5" - 3" valve sizes. Note: Valve sizes 1.5" and larger are manufactured on a forged body.

² 1/4" standard bypass valve size (internal passage diameter .18"). Consult the factory for additional bypass valve sizes. To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Chromatography Valve (CHRO, CHN)

2" Chromatography Valve with Bypass, wrought stainless steel body, Tri-Clamp ends, standard mounting holes, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: CHRO-2-419-W-SM-6-1-0

| | | | | | | | |
|------------|--------------------------------|------|---|-----|---|----|-------|
| Main Valve | Configuration Example | CHRO | 2 | 419 | W | SM | 6-1-0 |
| | Block Type ¹ | CHRO | | | | | |
| | Valve Size | | 2 | | | | |
| | Type (.5" only) ² | | | | | | |
| | End Connections | | | 419 | | | |
| | Body Material | | | | W | | |
| | Standard Mounting ³ | | | | | SM | |
| | Polish Selections | | | | | | 6-1-0 |

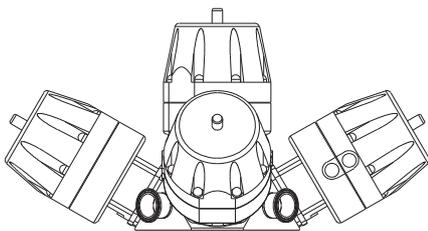
¹ Chromatography block includes bypass valve as a standard (CHRO). Use Block Type CHN for Chromatography block with no bypass valve.

² For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).

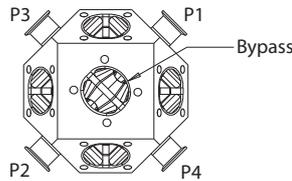
³ Standard mounting for Chromatography blocks consists of drilled and tapped holes on the bottom of the block. Contact factory for specific sizes and locations. Body can be mounted horizontally (as shown below) or vertically with port P1 at the top.

To add topworks, see page 38.

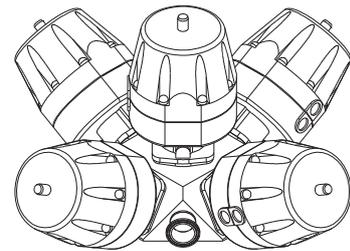
CHRO



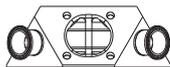
SIDE VIEW



TOP VIEW

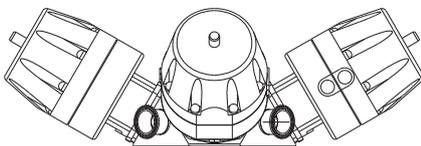


ISOMETRIC VIEW

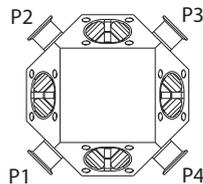


FRONT VIEW

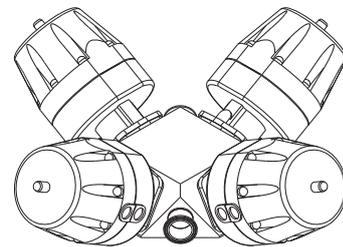
CHN



FRONT VIEW



TOP VIEW



ISOMETRIC VIEWS

Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Crossover Valve (CROD, CRO)

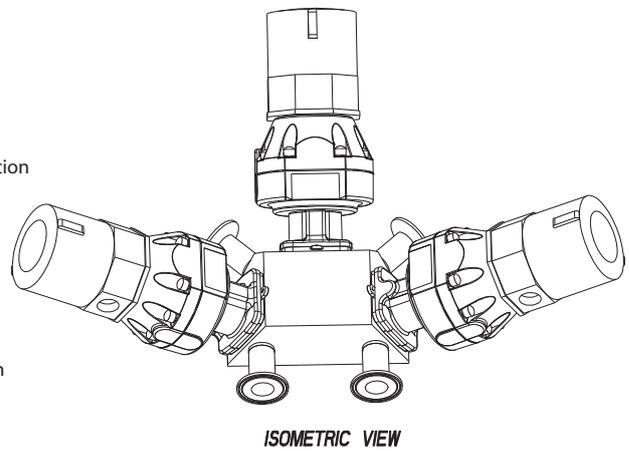
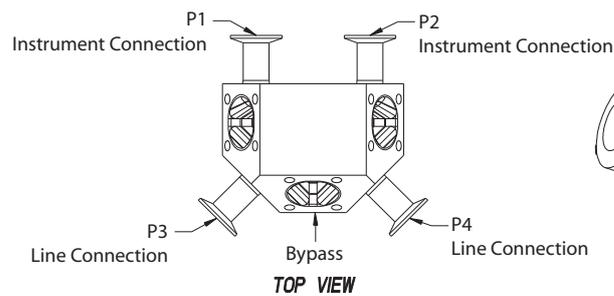
1" Crossover with Drain Angle, wrought stainless steel, Tri-Clamp end connections, 25 Ra interior finish, standard exterior finish (Scotch Brite)

Figure Number: CROD-1-419-W-6-1-0

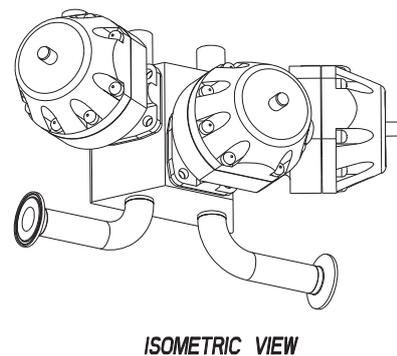
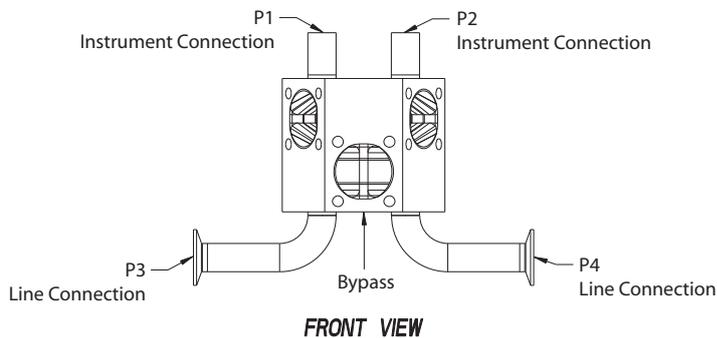
| | | | | | | |
|------------|------------------------------|------|---|-----|---|-------|
| Main Valve | Configuration Example | CROD | 1 | 419 | W | 6-1-0 |
| | Block Type | CROD | 1 | | | |
| | Valve Size | | 1 | | | |
| | Type (.5" only) ¹ | | | | | |
| | Body End Connections (P1-P4) | | | 419 | | |
| | Body Material | | | | W | |
| | Polish Selections | | | | | 6-1-0 |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).
To add topworks, see page 38.

CROD



CRO



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Multiport Divert Valve (DV2W, DV3W, DV4W, DV5W, DV6W)

2-Way

2-Way Divert Valve with a 1" wrought stainless steel body, inlet and outlets have Tri-Clamp ends, outlet is Option 4, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: DV2W-1-4-419-PP1-419-W-SM-6-1-0

| | | | | | | | | | | |
|-------------------|--|------|---|---|-----|-----|-----|---|-------|-------|
| Valve Body | Configuration Example | DV2W | 1 | 4 | 419 | PP1 | 419 | W | SM | 6-1-0 |
| | Block Type | DV2W | | | | | | | | |
| | Valve Size | 1 | | | | | | | | |
| | Type (.5" only) ¹ | | | | | | | | | |
| | Outlet Option ² | | | 4 | | | | | | |
| | Common Port Size ³ | | | | | | | | | |
| | End Connections ⁴ | | | | 419 | | | | | |
| | Common Port End Connection (P1) ⁵ | | | | | | | | | |
| | Porting ⁶ | | | | | PP1 | | | | |
| | Port Connection ⁷ | | | | | | 419 | | | |
| | Body Material | | | | | | | W | | |
| | Mounting Holes ⁸ | | | | | | | | SM | |
| Polish Selections | | | | | | | | | 6-1-0 | |

3-Way Through 6-Way

3-Way Divert Valve with a 1.5" wrought stainless steel body, inlet and outlets have Tri-Clamp ends, outlet is Option 4, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: DV3W-1-4-1.5-DVFT-419-X28-W-SM-6-1-0

| | | | | | | | | | | | |
|------------|--|------|---|---|-----|------|-----|-----|---|----|-------|
| Valve Body | Configuration Example | DV3W | 1 | 4 | 1.5 | DVFT | 419 | X28 | W | SM | 6-1-0 |
| | Block Type ⁹ | DV3W | | | | | | | | | |
| | Valve Size | 1 | | | | | | | | | |
| | Type (.5" only) ¹ | | | | | | | | | | |
| | Outlet Option ² | | | 4 | | | | | | | |
| | Common Port Size ³ | | | | 1.5 | | | | | | |
| | Divert Valve Flow Through ¹⁰ | | | | | DVFT | | | | | |
| | End Connections ⁴ | | | | | | 419 | | | | |
| | Common Port End Connection (P1) ⁵ | | | | | | | X28 | | | |
| | Body Material | | | | | | | | W | | |
| | Mounting Holes ⁸ | | | | | | | | | SM | |
| | Polish Selections | | | | | | | | | | 6-1-0 |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).

² See page 31 for outlet options.

³ Common Port Size - provides the option of a larger common port (P1) size than the valve size (to increase flow when more than one valve is open).

⁴ Contact the factory for discrete end connection selections.

⁵ Common Port End Connection - provides the option of a different end connection for the Common Port (P1).

⁶ Porting (for the 2-way divert only) - out the bottom of the valve, typically for drain ports. Consult the factory for additional details.

⁷ Port Connection - is required if Porting is selected. Designates the port end connection(s).

⁸ Contact factory for standard or custom mounting options.

⁹ Figure numbers for Block Type: 3-Way - DV3W, 4-Way - DV4W, 5-Way - DV5W, 6-Way - DV6W. Note: Combinations with more than six diverted ports are possible but are typically not recommended due to the internal deadleg.

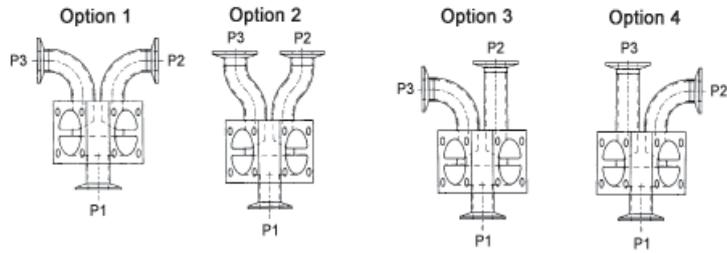
¹⁰ Divert Valve Flow Through (3 through 6-Way only) - provides an additional common port from the opposite side of the block.

To add topworks, see page 38.

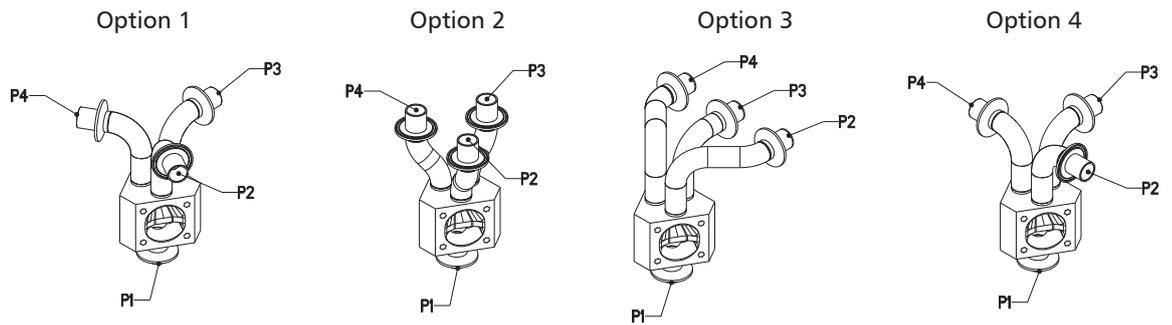
Contact the factory for additional options.

Outlet Options

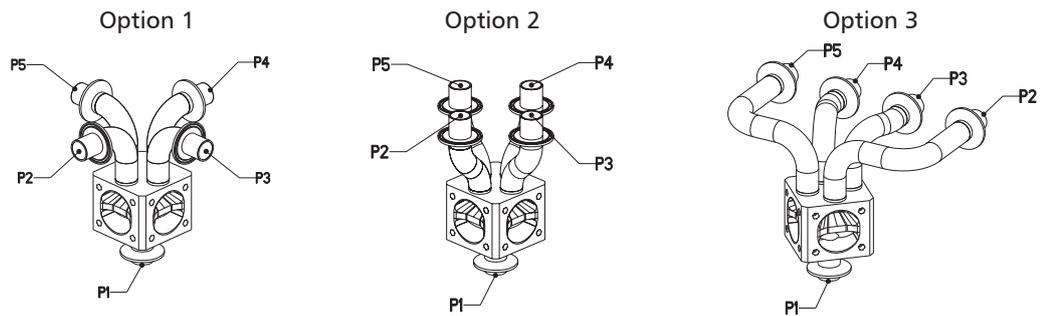
2-Way



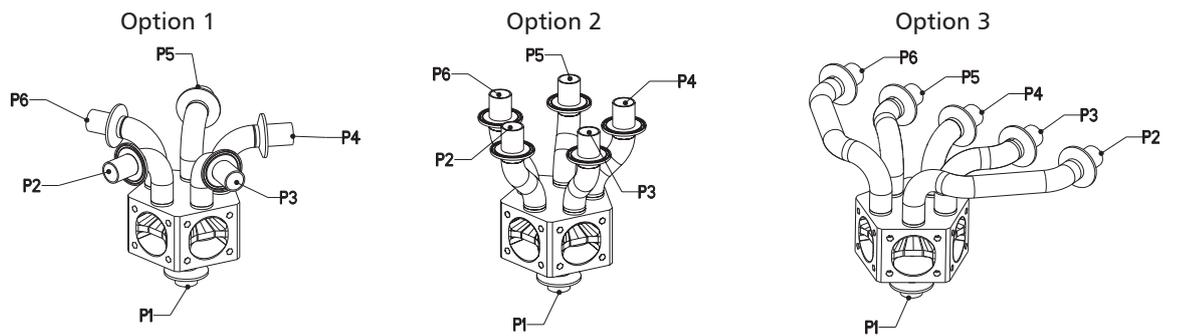
3-Way



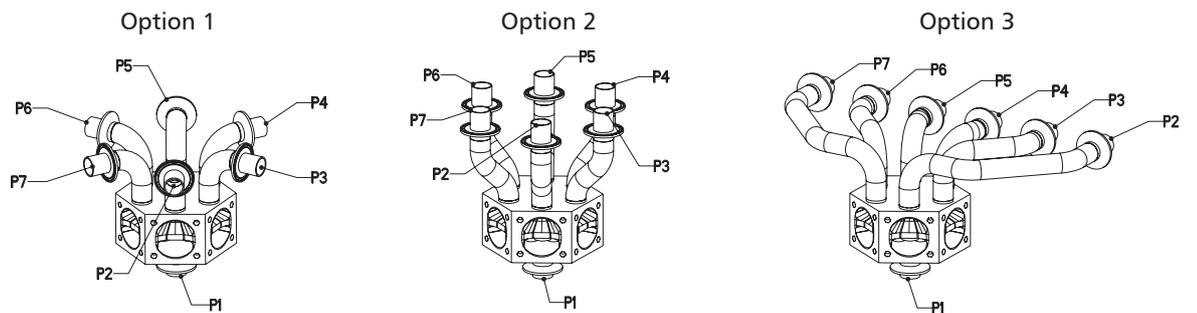
4-Way



5-Way



6-Way



Sterile Tank Vent Filter Shunt (DV2WS)

Sterile Tank Vent Filter Shunt with a 1.5" wrought stainless steel body, inlet and outlets have Tri-Clamp ends, outlet is Option 2, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: DV2WS-1.5-419-W-6-1-0

| | | | | | | | |
|------------|------------------------------------|-------|-----|--|-----|---|-------|
| Valve Body | Configuration Example | DV2WS | 1.5 | | 419 | W | 6-1-0 |
| | Block Type | DV2WS | | | | | |
| | Valve Size ¹ | | 1.5 | | | | |
| | Common Port Size (P1) ² | | | | | | |
| | End Connections | | | | 419 | | |
| | Body Material | | | | | W | |
| | Polish Selections | | | | | | 6-1-0 |

¹ Standard sizes: 1.5" and 2"

² Common Port Size option provides increased clamp size to connect directly to an available tank port.

Valve Size: 1.5" and 2"

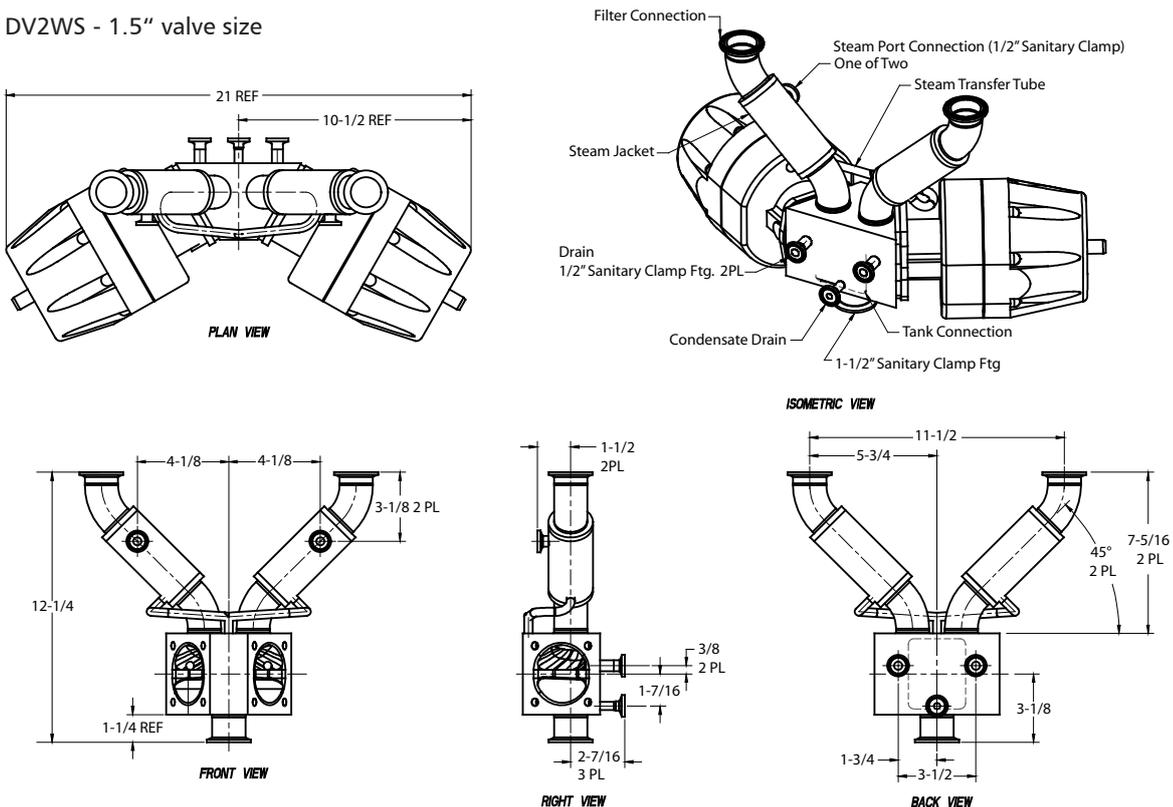
Optional Common Port Size for 1.5: 2", 2.5", 3", 4"

Optional Common Port Size for 2: 2.5", 3", 4"

Consult the factory for non-jacketed versions available for use with electric heaters.

To add topworks, see page 38.

DV2WS - 1.5" valve size



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Horizontal Divert Valve 3-Way (HDV3W)

2" Horizontal Divert Valve 3-Way, wrought stainless steel body, butt weld end, common port (P1) on the right (when facing the weir of the third valve), 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: HDV3W-2-428-R-W-6-1-0

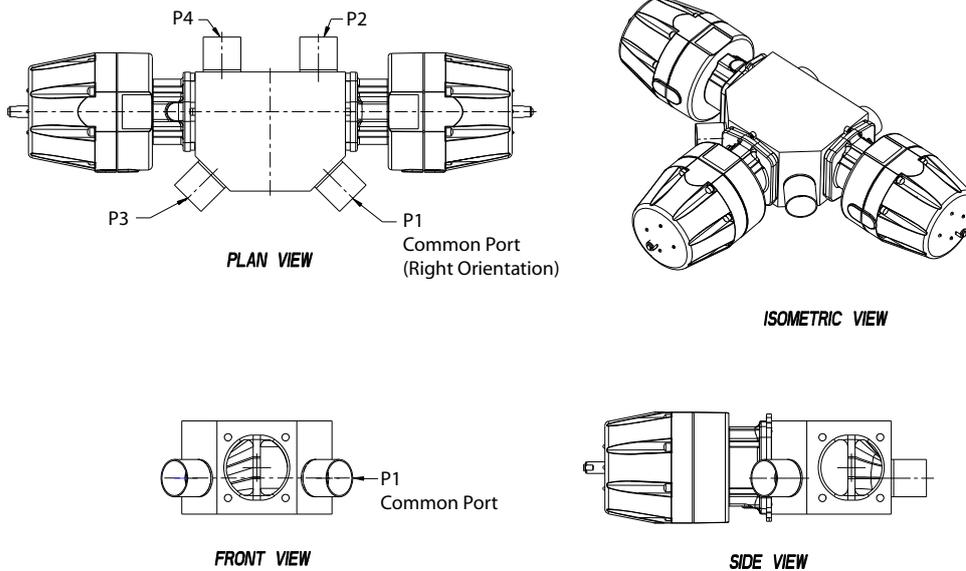
| | | | | | | | | |
|------------|---|-------|---|--|-----|---|----|-------|
| Main Valve | Configuration Example | HDV3W | 2 | | 419 | W | SM | 6-1-0 |
| | Block Type | HDV3W | | | | | | |
| | Valve Size | | 2 | | | | | |
| | Type (.5" only) ¹ | | | | | | | |
| | Valve End Connections (P1- P4) ² | | | | 419 | | | |
| | Valve Orientation ³ | | | | | W | | |
| | Body Material | | | | | | SM | |
| | Polish Selections | | | | | | | 6-1-0 |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).

² Contact the factory for discrete end connection options.

³ This determines which side (right or left) the Common Port (P1) is on when viewing the top (See plan view below).

To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

Integral Dual Sterile Access (IDSA)

3" Integral Dual Sterile Access, wrought stainless steel, Tri-Clamp ends, 2" Second valve (P1 side) is oriented down, 2" Third valve (P2 side) is oriented down, 25 Ra interior finish, standard exterior finish (Scotch Brite).

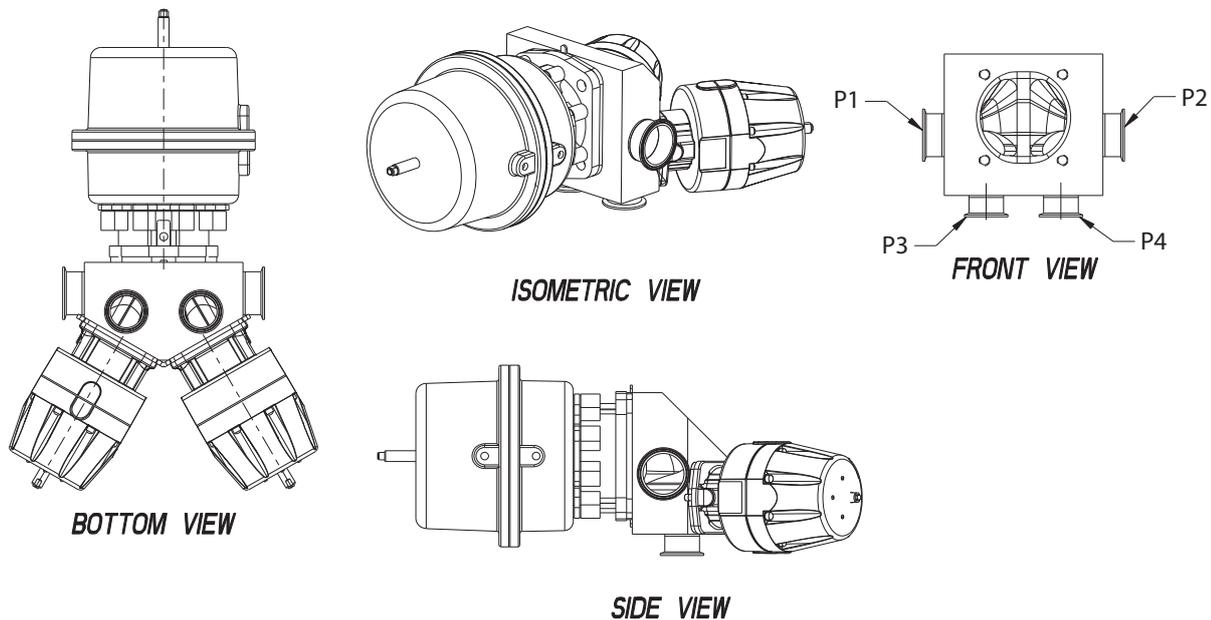
Figure Number: IDSA-3-419-2-2-W-6-1-0

| | | | | | | | | | | | | | | | |
|-------------------|---|------|---|-----|---|--|--|--|---|--|--|--|--|-------|-------|
| | Configuration Example | IDSA | 3 | 419 | 2 | | | | 2 | | | | | W | 6-1-0 |
| Valve Body | Block Type | IDSA | 3 | 419 | 2 | | | | 2 | | | | | W | 6-1-0 |
| | Main Valve Size | | 3 | | | | | | | | | | | | |
| | Main Valve End Connections (P1, P2) | | | 419 | | | | | | | | | | | |
| | Second Valve Size | | | | 2 | | | | | | | | | | |
| | Second Valve Type (.5" only) ¹ | | | | | | | | | | | | | | |
| | Second Valve End Connection (P3) ² | | | | | | | | | | | | | | |
| | Second Valve Orientation | | | | | | | | | | | | | | |
| | Third Valve Size | | | | | | | | 2 | | | | | | |
| | Third Valve Type (.5" only) ¹ | | | | | | | | | | | | | | |
| | Third Valve End Connection (P4) ² | | | | | | | | | | | | | | |
| | Third Valve Orientation | | | | | | | | | | | | | | |
| | Body Material | | | | | | | | | | | | | W | |
| Polish Selections | | | | | | | | | | | | | | 6-1-0 | |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT).

² Specify second (P3) and third (P4) end connections if they differ from those for the main valve (P1, P2).

To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

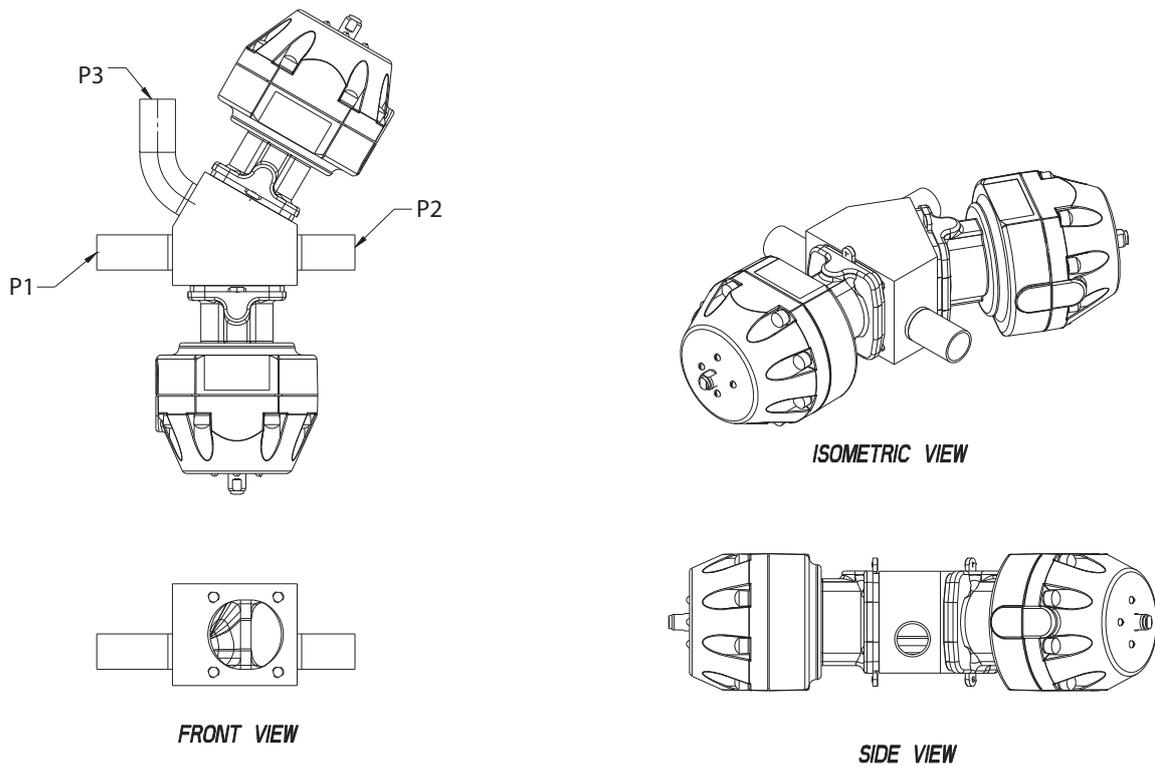
Integral Horizontal Sterile Access (IHSA)

Integral Horizontal Sterile Access valve with a 1" wrought stainless steel body, all outlets have buttweld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: IHSA-1-428-1-428-W-6-1-0

| | | | | | | | | | | |
|------------|---|------|---|--|-----|---|--|-----|---|-------|
| | Configuration Example | IHSA | 1 | | 428 | 1 | | 428 | W | 6-1-0 |
| Valve Body | Block Type | IHSA | | | | | | | | |
| | Valve Size | | 1 | | | | | | | |
| | Type (.5" only) ¹ | | | | | | | | | |
| | End Connections (P1, P2) | | | | 428 | | | | | |
| | Second Valve Size | | | | | 1 | | | | |
| | Second Valve Type (.5" only) ¹ | | | | | | | | | |
| | Second Valve End Connection (P3) | | | | | | | 428 | | |
| | Body Material | | | | | | | | W | |
| | Polish Selections | | | | | | | | | 6-1-0 |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT)
To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

How to Order an ISG

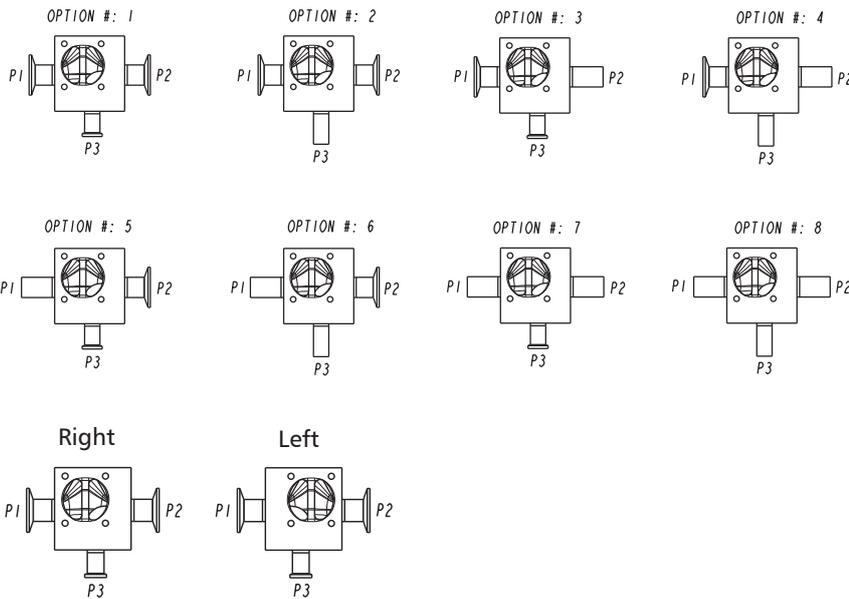
Integral Sterile Access and GMP valve with a 1.5" wrought stainless steel body, inlets and outlets on the main valve (P1 and P2) are sanitary clamp with a butt weld end, second valve is an end connection option 2, second valve is a .5" Pure-Flo, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ISG-1.5-2-.5-SVPF-R-W-6-1-0

| | | | | | | | | | | |
|------------|---|-----|-----|--|---|----|------|---|---|-------|
| | Configuration Example | ISG | 1.5 | | 2 | .5 | SVPF | R | W | 6-1-0 |
| Valve Body | Block Type | ISG | | | | | | | | |
| | Valve Size (Main) | | 1.5 | | | | | | | |
| | Type (.5" only) ¹ | | | | | | | | | |
| | Outlet Option | | | | 2 | | | | | |
| | Second Valve Size | | | | | .5 | | | | |
| | Second Valve Type (.5" only) ¹ | | | | | | SVPF | | | |
| | Valve Orientation ² | | | | | | | R | | |
| | Body Material | | | | | | | | W | |
| | Polish Selections | | | | | | | | | 6-1-0 |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT)
² Second valve ported on the left or right side of main valve weir.
 To add topworks, see page 38.

End Connection Options



How to Order a Sterile Barrier

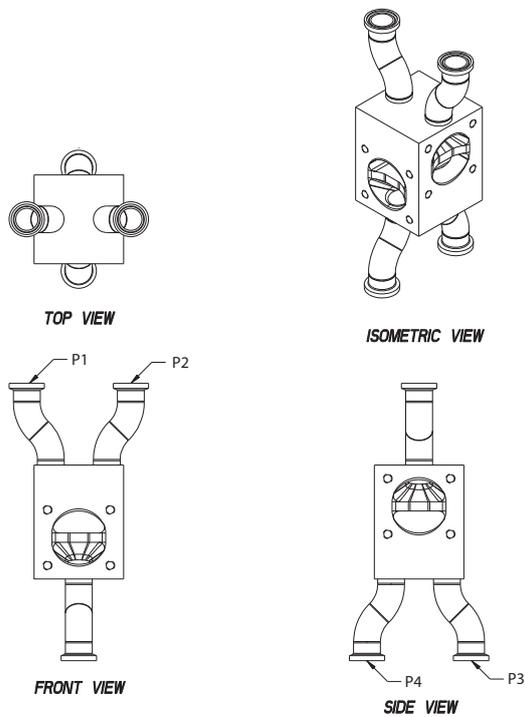
1" Integral Sterile Barrier, wrought stainless steel, Tri-Clamp end connections, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: SB1-1-419-W-6-1-0

| | | | | | | |
|------------|---|-----|---|-----|---|-------|
| Valve Body | Configuration Example | SB1 | 1 | 419 | W | 6-1-0 |
| | Block Type | SB1 | | | | |
| | Process Valve Size | | 1 | | | |
| | Type (.5" only) ¹ | | | | | |
| | Body End Connections (P1-P4) ² | | | 419 | | |
| | Body Material | | | | W | |
| | Polish Selections | | | | | 6-1-0 |

¹ For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT)

² Second valve ported on the left or right side of main valve weir.
To add topworks, see page 38.



Please contact the factory for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

How to Order Topworks for Block Body Valves

Manual Topworks

1.5" 963 manual bonnet (plastic PAS rising handwheel with travel stop) with no valve body, EPDM compound 17 (FDA) diaphragm, viton seal, PPS cap.

Figure Number: 1.5-N-TME-963-S2-M17

| | | | | | | | | | | | | | |
|------------------------------|--|-----|---|-----|-----|--|--|--|----|-----|--|--|--|
| | Configuration Example | 1.5 | N | TME | 963 | | | | S2 | M17 | | | |
| Manual Bonnets & Accessories | Valve Size | 1.5 | | | | | | | | | | | |
| | Body (Not Supplied) | | N | | | | | | | | | | |
| | Diaphragm | | | TME | | | | | | | | | |
| | Manual Bonnets | | | | 963 | | | | | | | | |
| | Weep Holes | | | | | | | | | | | | |
| | Electropolish Topworks | | | | | | | | | | | | |
| | Optional Coatings | | | | | | | | | | | | |
| | Bonnet Seal Materials | | | | | | | | S2 | | | | |
| | Optional Bonnet Internals ¹ | | | | | | | | | M17 | | | |
| | Optional Body/Bonnet Bolting | | | | | | | | | | | | |
| | Yoke | | | | | | | | | | | | |
| | Locking Device | | | | | | | | | | | | |
| | Extended Stem | | | | | | | | | | | | |

¹ Multiple selections allowed

Actuated Topworks

.5" Advantage 2.0 Actuator (reverse acting # 8 with 90# spring) with stainless steel bonnet and no valve body, EPDM compound 17 (FDA) diaphragm, bronze compressor.

Figure Number: .5-N-TME-31-M7-B209

| | | | | | | | | | | | | | | |
|--------------------------------|--|----|---|-----|----|--|--|--|----|--|--|--|------|------|
| | Configuration Example | .5 | N | TME | 31 | | | | M7 | | | | | B209 |
| Actuated Bonnets & Accessories | Valve Size | .5 | | | | | | | | | | | | |
| | Body (Not Supplied) | | N | | | | | | | | | | | |
| | Diaphragm | | | TME | | | | | | | | | | |
| | Actuated Bonnets | | | | 31 | | | | | | | | | |
| | Weep Holes | | | | | | | | | | | | | |
| | Electropolish Topworks | | | | | | | | | | | | | |
| | Optional Coatings | | | | | | | | | | | | | |
| | Bonnet Seal Materials | | | | | | | | M7 | | | | | |
| | Optional Bonnet Internals ¹ | | | | | | | | | | | | | |
| | Optional Body/Bonnet Bolting | | | | | | | | | | | | | |
| | Yoke | | | | | | | | | | | | | |
| | Locking Device | | | | | | | | | | | | | |
| | Extended Stem | | | | | | | | | | | | | |
| Actuator Options | | | | | | | | | | | | | B209 | |

¹ Multiple selections allowed

Example of a complete figure number for block body valve and topworks:

ISG-1.5-2-.5-SVPF-R-W-6-1-0

1.5-N-17-963-S2-M17

.5-N-17-31-M7-B209

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