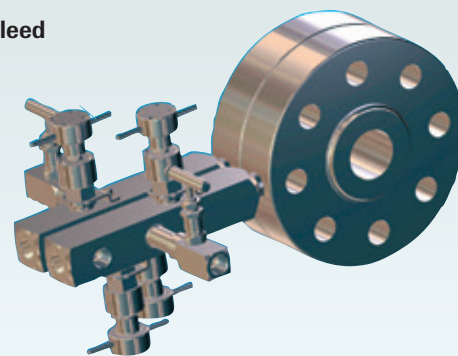


Traditional "Piped Up" Configuration

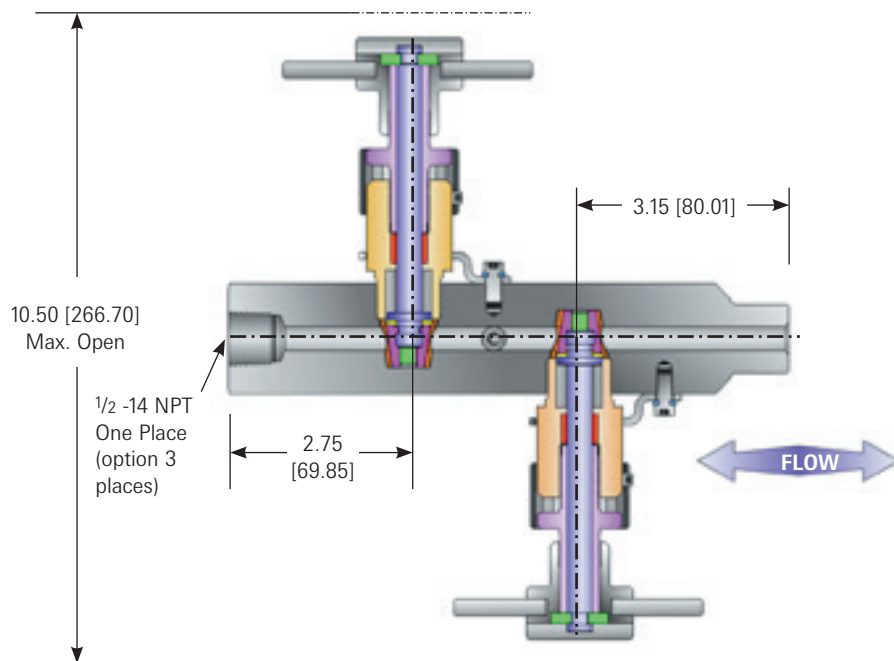


H70DB Double Block and Bleed

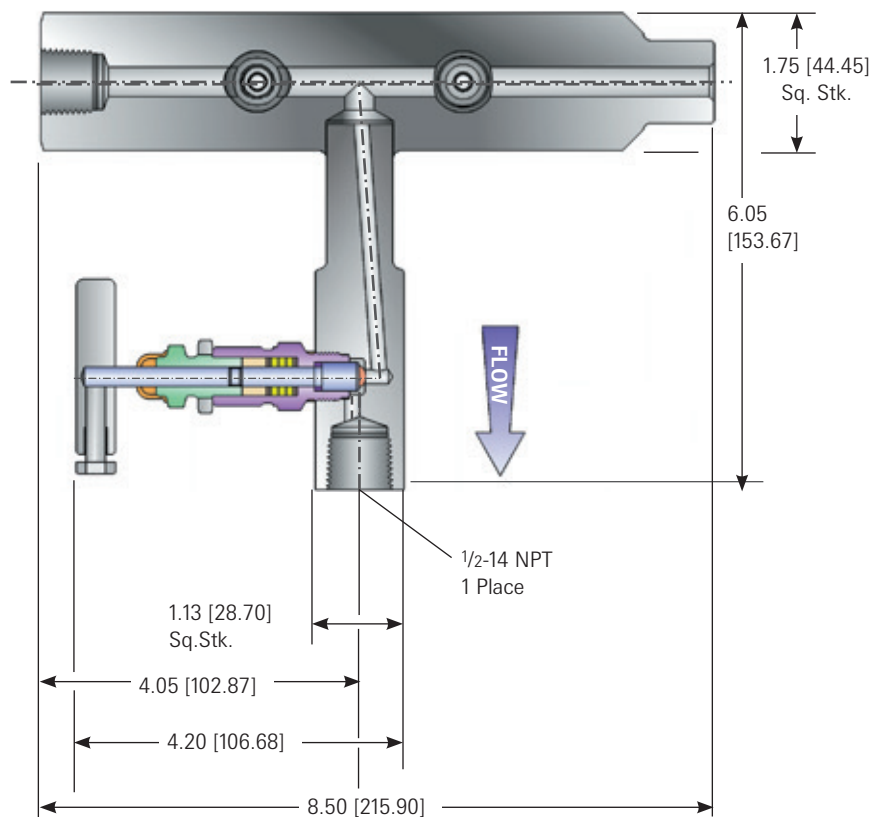


Potential leakpoints demonstrated in
Red Hue.

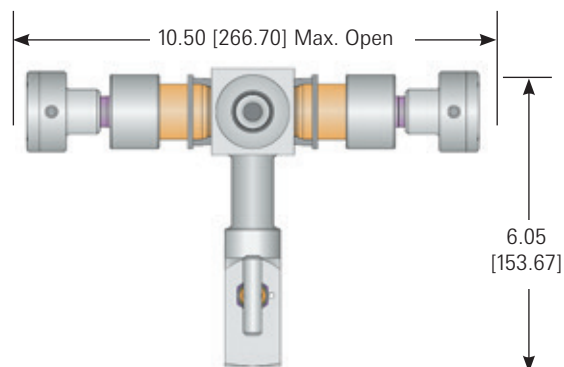
Block Valve



Bleed Valve



Block and Bleed



Instrument Primary (Root) Valves

Double Block and Bleed - Specifications

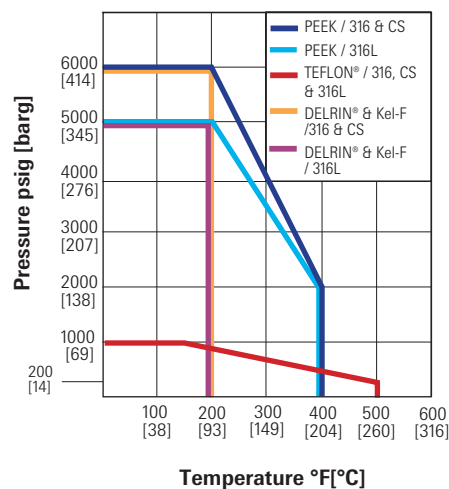
Standard Materials – Metal and Soft Seats

Valve'	Body	Stem	Bonnet
CS	A105 CS	303 SS	A105 CS
316 SS	A479-316 SS	A479-316 SS	A479-316 SS
316L SS	A479-316L SS	A479-316L SS	A479-316L SS
Monel®	Monel® 400	Monel® R405	Monel® R405
Hastelloy®	Hastelloy® C276	Hastelloy® C276	Hastelloy® C276

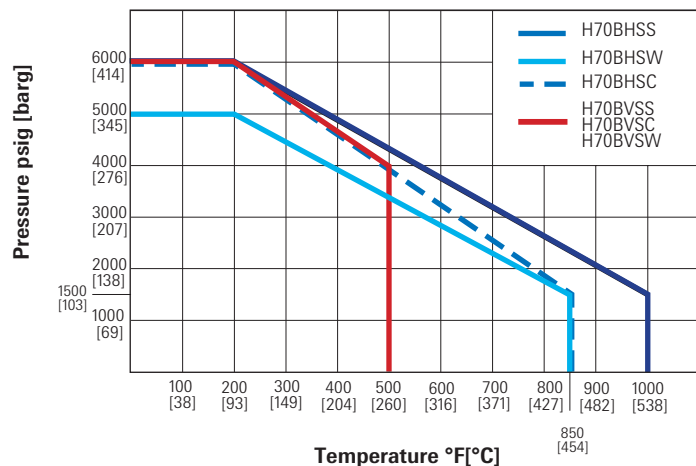
Notes

1. Approximate valve weight: Standard 8.0 lb [3.6 kg].
2. CS zinc plated to prevent corrosion.
3. All 316L SS valves meet the requirements of NACE MR-01-75, latest revision.

Pressure vs. Temperature – H70DB Soft Seat



Pressure vs. Temperature – H70DB Hard Seat



Pressure and Temperature Ratings

Hard seat/Teflon® seal	6000 psig @ 200°F
	[414 barg @ 93°C]
	4000 psig @ 500°F Max.
	[276 barg @ 204°C]
Hard seat/Grafoil® seal	6000 psig @ 200°F
	[414 barg @ 93°C]
CS	1500 psig @ 850°F
	[103 barg @ 454°C]
SS	1500 psig @ 1000°F
	[103 barg @ 538°C]
Soft seat/Either seal	6000 psig @ 200°F
	[414 barg @ 93°C]

Pressure and Temperature Ratings – B31.1 Metal Seat GRAFOIL® Packing

Body Material	Pressure and Temperature Ratings	
SS, A479-316	6000 psig @ 100°F	[414 barg @ 38°C]
	2915 psig @ 1000°F	[201 barg @ 538°C]
CS, A105	6170 psig @ 100°F	[426 barg @ 38°C]
	3430 psig @ 800°F	[237 barg @ 426°C]

Notes

1. All B31.1 products are ASME Class 2500.

Instrument Primary (Root) Valves

Double Block and Bleed - Specifications

6000 psig [414 barg], API Firesafe 607 Rated

Ordering Information

H70DB V S S 46C

Orifice Size

- H70 – 3/8-inch [9.5 mm] bore
- H70A – 5/8-inch [16 mm] bore

Packing

- H – GRAFOIL® Bonnet
- V – Teflon® Bonnet

Seat

- | | |
|----------------------------------|------------------------------|
| S – SS, A479-316/A479L - 316 SSL | K – PCTFE |
| M – Monel® | (Polychlorotrifluoroethylene |
| D – Delrin® | exact equivalent of Kel-F®) |
| E – PEEK | V – Teflon® |

Body Materials

- | | |
|----------------------------------|---------------------|
| S – SS, A479-316/A479L - 316 SSL | J – Hastelloy® |
| C – CS, A105 | W – A479L - 316SS L |
| M – Monel® | |

Connections (Inlet/Outlet)

- | | |
|---------------------|-----------------|
| -4 – 1/2-inch FNPT | x 1/2-inch FNPT |
| -4C – 1/2-inch FSWP | x 1/2-inch FSWP |
| -6 – 3/4-inch FNPT | x 3/4-inch FNPT |
| -6C – 3/4-inch FSWP | x 3/4-inch FSWP |
| 44 – 1/2-inch MNPT | x 1/2-inch FNPT |
| 46 – 3/4-inch MNPT | x 1/2-inch FNPT |
| 48 – 1-inch MNPT | x 1/2-inch FNPT |
| 66 – 3/4-inch MNPT | x 3/4-inch FNPT |
| 68 – 1-inch MNPT | x 3/4-inch FNPT |
| 44C – 1/2-inch MSW | x 1/2-inch FNPT |
| 46C – 3/4-inch MSW | x 1/2-inch FNPT |
| 48C – 1-inch MSW | x 1/2-inch FNPT |
| 66C – 3/4-inch MSW | x 3/4-inch FNPT |
| 68C – 1-inch MSW | x 3/4-inch FNPT |

- C – Male plain end (CS is black oxide coated)
- L – Long body extension (4-inch insulation)
- LL – Extra long body extension (6-inch insulation)

Note

Bleed valve connection is standard 1/2-inch FNPT

Options

- | | |
|--|--|
| OC – Cleaned for oxygen service | SP – Special Requirements - please specify |
| CC – Cleaned for chlorine service | 2MP – Add 2 @ FNPT multi-ports |
| GUS – Removable gusset (support bracket) option | BVC – Bleed valve 1/2-inch female socket weld outlet |
| NBV – Omit installation of bleed valve | XP – For B31.1 Applications (GRAFOIL® bonnet packing, metal seat, bonnet lock and HYDRO to MSS-SP61) |
| NBVP – Omit installation of bleed valve, add 1 @ 1/2-inch FNPT connection between block valves | |

Notes

1. All 316SS/316SS L dual rated valves in the Root (Primary) Valve Series are rated to NACE MR0175 and do not require the standard Anderson Greenwood Instrumentation Products "SG" option denotation for this requirement.
2. Use H71DB for 5/8 -bore option.