

TESCOM™ Anderson Greenwood Instrumentation Flushing and Bleed Rings

Series
BR

Full range of conventional wafer, sandwich, and next generation one piece flushing and bleed rings for instrument installations, where flushing and bleed functions are required.

General Application

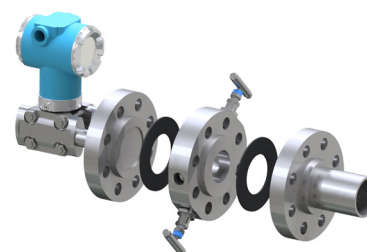
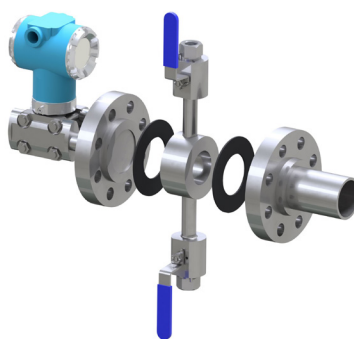
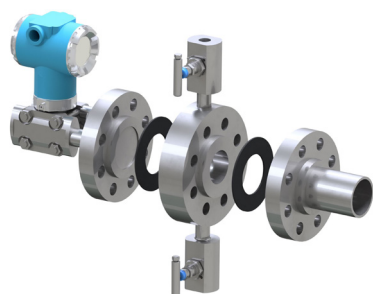
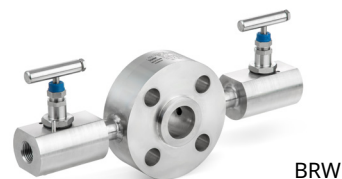
Suitable for flushing and bleed applications, where fully integrated compact rings and valving is utilized to reduce leak-points, assist in assembly and Non-Destructive Examination (NDE) requirements to provide a single model solution that simplifies specifications, purchasing and installation in the field.

Technical Data

Materials	: CS, 316 SS, Duplex, other exotic materials
Seats	: Metal, Soft
Inlet/Outlet Connections	: ANSI flanged 1/2" to 6"
Bleed/Flush Valve Connections	: FNPT or FSW
Pressure (max)	: 6000 psig (414 barg)
Temperature (min/max)	: -313°F to 1000°F (-192°C to 538°C)

Features

- One-piece forged body combines a compact design with strength and reduced potential leak paths compared to conventional BRM design.
- Flanged connections available in a choice of sizes and ratings to suit each application from #150 to #2500.
- Ball Valve options available on the BRW & BRS Series with a 3/8" (10mm) bore.
- BRM, BRS, and BRW designs available in single or dual valve combinations as standard. Please consult for custom configurations or exotic material requirements.
- Heavy duty needle valve ensures bubble-tight shut-off for isolation or vent services.
- Fugitive Emission compliance option to ISO 15848-1 & ISO 15848-2.
- Various custom variations and NDE Testing available to meet specific project requirements.
- Firesafe design to meet API 607/ISO 10497.



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Product Overview

BRW (Wafer) , BRS (Sandwich), and BRM (Integral) Design

The BR series features Heavy Duty globe style needle valves with 0.2" (5 mm) bore independently operable for isolation service with an intermediate 'HD' globe style needle valve for Flushing and Bleed service. Single & dual valving options are available as standard. Please consult for other configurations or special project requirements.

- Standard pressure testing to BS EN 12266-1
- Standard material traceability to EN 10204 3.1 (body only)
- Material thickness to ANSI B16.34

Valve Body - Material Codes

Description	C	L	S	D
Valve body	A105N	A350 LF2	A182 F316	A182 F51

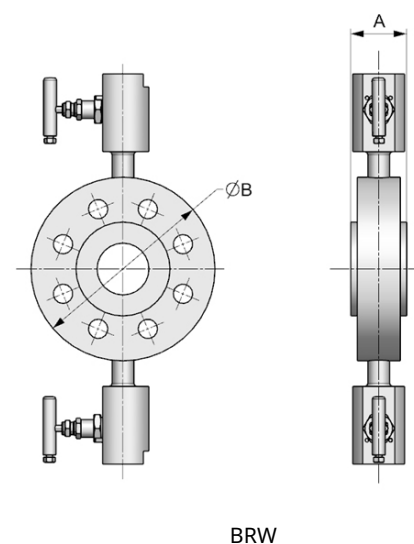
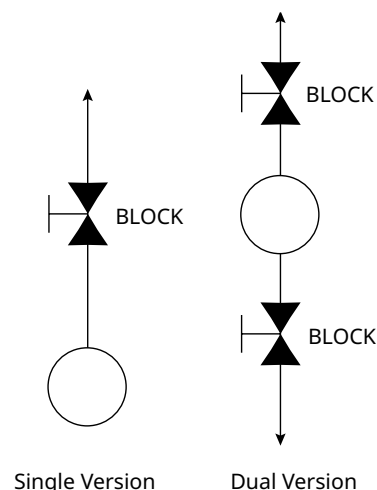
NOTE

Carbon Steel valve body is zinc TCP plated.

Dimensions & Weights

BRW Series

Size in	Rating lb	Dimensions, inches (mm)				Approx Weight Single Version		Approx Weight Dual Version	
		A		B		lb	Kg	lb	Kg
1/2	150	1.77	(45.0)	3.50	(88.9)	6.8	3.1	9.9	4.5
1/2	300	1.77	(45.0)	3.75	(95.3)	7.5	3.4	10.6	4.8
1/2	600	2.15	(54.6)	3.75	(95.3)	7.7	3.5	10.8	4.9
1/2	900	2.15	(54.6)	4.75	(120.7)	10.3	4.7	13.4	6.1
1/2	1500	2.15	(54.6)	4.75	(120.7)	10.3	4.7	13.4	6.1
1/2	2500	2.15	(54.6)	5.25	(133.4)	12.1	5.5	15.2	6.9
3/4	150	1.77	(45.0)	3.88	(98.6)	7.9	3.6	11.0	5.0
3/4	300	1.77	(45.0)	4.62	(117.3)	10.1	4.6	13.2	6.0
3/4	600	2.15	(54.6)	4.62	(117.3)	10.3	4.7	13.4	6.1
3/4	900	2.15	(54.6)	5.12	(130.0)	11.7	5.3	14.7	6.7
3/4	1500	2.15	(54.6)	5.12	(130.0)	11.7	5.3	14.7	6.7
3/4	2500	2.15	(54.6)	5.50	(139.7)	13.2	6.0	16.3	7.4
1	150	1.77	(45.0)	4.25	(108.0)	8.8	4.0	11.9	5.4
1	300	1.77	(45.0)	4.88	(124.0)	10.8	4.9	13.9	6.3
1	600	2.15	(54.6)	4.88	(124.0)	11.0	5.0	14.1	6.4
1	900	2.15	(54.6)	5.88	(149.4)	14.3	6.5	17.4	7.9
1	1500	2.15	(54.6)	5.88	(149.4)	14.3	6.5	17.4	7.9
1	2500	2.15	(54.6)	6.25	(158.8)	15.8	7.2	18.9	8.6
1 1/2	150	1.77	(45.0)	5.00	(127.0)	11.0	5.0	14.1	6.4
1 1/2	300	1.77	(45.0)	6.12	(155.4)	15.6	7.1	18.7	8.5
1 1/2	600	2.15	(54.6)	6.12	(155.4)	16.1	7.3	19.1	8.7
1 1/2	900	2.15	(54.6)	7.00	(177.8)	19.1	8.7	22.2	10.1
1 1/2	1500	2.15	(54.6)	7.00	(177.8)	19.1	8.7	22.2	10.1
1 1/2	2500	2.15	(54.6)	8.00	(203.2)	24.9	11.3	27.9	12.7
2	150	1.77	(45.0)	6.00	(152.4)	14.1	6.4	17.2	7.8
2	300	1.77	(45.0)	6.50	(165.1)	15.4	7.0	18.5	8.4
2	600	2.15	(54.6)	6.50	(165.1)	16.3	7.4	19.4	8.8
2	900	2.15	(54.6)	8.50	(215.9)	27.1	12.3	30.1	13.7
2	1500	2.15	(54.6)	8.50	(215.9)	27.1	12.3	30.1	13.7
2	2500	2.15	(54.6)	9.25	(235.0)	30.4	13.8	33.4	15.2
3	150	1.77	(45.0)	7.50	(190.5)	19.8	9.0	22.9	10.4
3	300	1.77	(45.0)	8.25	(209.6)	21.3	9.7	24.4	11.1
3	600	2.15	(54.6)	8.25	(209.6)	22.2	10.1	25.3	11.5
3	900	2.15	(54.6)	9.50	(241.3)	29.9	13.6	33.0	15.0
3	1500	2.15	(54.6)	10.50	(266.7)	35.2	16.0	38.3	17.4
4	150	1.77	(45.0)	9.00	(228.6)	27.3	12.4	30.4	13.8
4	300	1.77	(45.0)	10.00	(254.0)	33.0	15.0	36.1	16.4
4	600	2.15	(54.6)	10.75	(273.1)	38.7	17.6	41.8	19.0



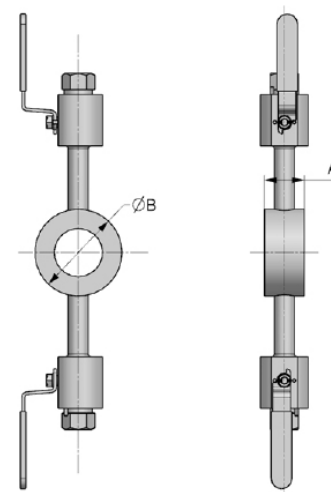
TESCOM™ Anderson Greenwood Instrumentation

Flushing and Bleed Rings

Series
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BRS Series

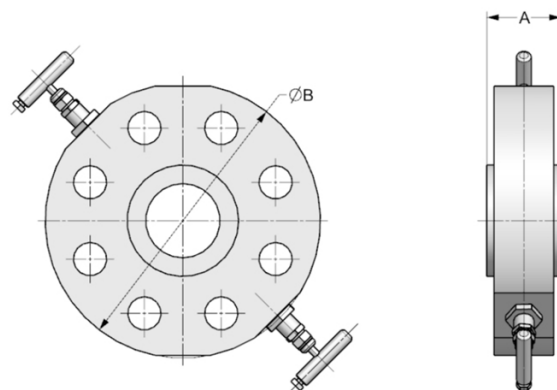
Size in	Rating lb	Dimensions, inches (mm)				Approx Weight Single Version		Approx Weight Dual Version	
		A		B		lb	Kg	lb	Kg
2	150	1.65	(41.9)	4.00	(101.6)	7.5	3.4	10.8	4.9
2	300	1.65	(41.9)	4.25	(108.0)	8.4	3.8	11.7	5.3
2	600	1.65	(41.9)	4.25	(108.0)	8.4	3.8	11.7	5.3
2	900	1.65	(41.9)	5.50	(139.7)	13.0	5.9	16.3	7.4
2	1500	1.65	(41.9)	5.50	(139.7)	13.0	5.9	16.3	7.4
2	2500	1.65	(41.9)	5.63	(142.9)	13.4	6.1	16.7	7.6
3	150	1.65	(41.9)	5.25	(133.4)	9.9	4.5	13.2	6.0
3	300	1.65	(41.9)	5.75	(146.1)	11.9	5.4	15.2	6.9
3	600	1.65	(41.9)	5.75	(146.1)	11.9	5.4	15.2	6.9
3	900	1.65	(41.9)	6.50	(165.1)	15.8	7.2	19.1	8.7
3	1500	1.65	(41.9)	6.75	(171.5)	16.9	7.7	20.2	9.2
3	2500	1.65	(41.9)	7.63	(193.8)	19.8	9.0	23.1	10.5
4	150	1.65	(41.9)	6.75	(171.5)	13.0	5.9	16.3	7.4
4	300	1.65	(41.9)	7.00	(177.8)	13.4	6.1	16.7	7.6
4	600	1.65	(41.9)	7.50	(190.5)	16.1	7.3	19.4	8.8
4	900	1.65	(41.9)	8.00	(203.2)	21.6	9.8	24.9	11.3
4	1500	1.65	(41.9)	8.13	(206.4)	22.2	10.1	25.5	11.6
4	2500	1.65	(41.9)	9.13	(231.8)	28.6	13.0	31.9	14.5
6	150	1.65	(41.9)	8.63	(219.1)	17.2	7.8	20.5	9.3
6	300	1.65	(41.9)	9.75	(247.7)	21.6	9.8	24.9	11.3
6	600	1.65	(41.9)	10.38	(263.7)	26.2	11.9	29.5	13.4
6	1500	1.65	(41.9)	11.00	(279.4)	36.1	16.4	39.4	17.9



BRS

BRM Series

Size in	Rating lb	Dimensions, inches (mm)				Approx Weight	
		A		B		lb	Kg
1/2	150	1.46	(37.1)	3.50	(88.9)	3.3	1.5
1/2	300	1.46	(37.1)	3.75	(95.3)	3.9	1.8
1/2	600	1.84	(46.7)	3.75	(95.3)	4.0	1.8
1/2	900	1.84	(46.7)	4.75	(120.7)	6.4	2.9
1/2	1500	1.84	(46.7)	4.75	(120.7)	6.4	2.9
1/2	2500	1.84	(46.7)	5.25	(133.4)	7.9	3.6
3/4	150	1.46	(37.1)	3.88	(98.6)	4.2	1.9
3/4	300	1.46	(37.1)	4.62	(117.3)	6.2	2.8
3/4	600	1.84	(46.7)	4.62	(117.3)	6.4	2.9
3/4	900	1.84	(46.7)	5.12	(130.0)	7.5	3.4
3/4	1500	1.84	(46.7)	5.12	(130.0)	7.5	3.4
3/4	2500	1.84	(46.7)	5.50	(139.7)	8.9	4.0
1	150	1.46	(37.1)	4.25	(108.0)	5.0	2.3
1	300	1.46	(37.1)	4.88	(124.0)	6.7	3.1
1	600	1.84	(46.7)	4.88	(124.0)	6.9	3.2
1	900	1.84	(46.7)	5.88	(149.4)	9.8	4.5
1	1500	1.84	(46.7)	5.88	(149.4)	9.8	4.5
1	2500	1.84	(46.7)	6.25	(158.8)	11.2	5.1
1 1/2	150	1.46	(37.1)	5.00	(127.0)	6.9	3.2
1 1/2	300	1.46	(37.1)	6.12	(155.4)	11.0	5.0
1 1/2	600	1.84	(46.7)	6.12	(155.4)	11.4	5.2
1 1/2	900	1.84	(46.7)	7.00	(177.8)	14.1	6.4
1 1/2	1500	1.84	(46.7)	7.00	(177.8)	14.1	6.4
1 1/2	2500	1.84	(46.7)	8.00	(203.2)	19.1	8.7
2	150	1.46	(37.1)	6.00	(152.4)	9.6	4.4
2	300	1.46	(37.1)	6.50	(165.1)	10.8	4.9
2	600	1.84	(46.7)	6.50	(165.1)	11.6	5.3
2	900	1.84	(46.7)	8.50	(215.9)	19.6	8.9
2	1500	1.84	(46.7)	8.50	(215.9)	19.6	8.9
2	2500	1.84	(46.7)	9.25	(235.0)	22.7	10.3
3	150	1.46	(37.1)	7.50	(190.5)	16.1	7.3
3	300	1.46	(37.1)	8.25	(209.6)	17.2	7.8
3	600	1.84	(46.7)	8.25	(209.6)	18.5	8.4
3	900	1.84	(46.7)	9.50	(241.3)	24.4	11.1
3	1500	1.84	(46.7)	10.50	(266.7)	29.3	13.3
4	150	1.46	(37.1)	9.00	(228.6)	21.2	9.6
4	300	1.46	(37.1)	10.00	(254.0)	26.2	11.9
4	600	1.84	(46.7)	10.75	(273.1)	31.2	14.2



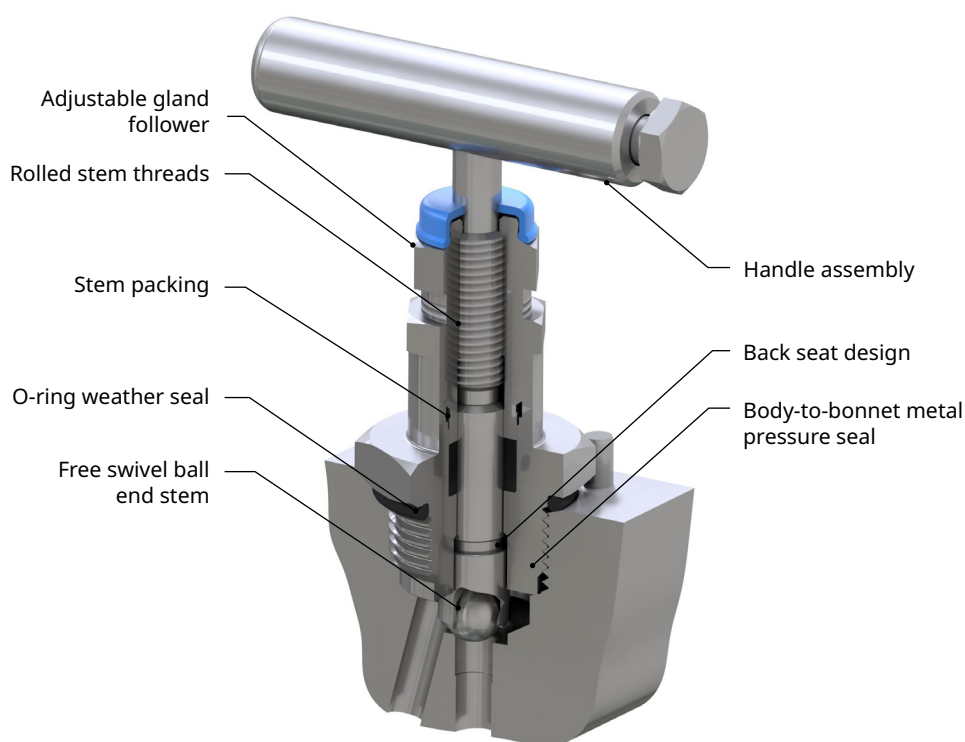
BRM

Heavy Duty Needle-Type Globe Valve

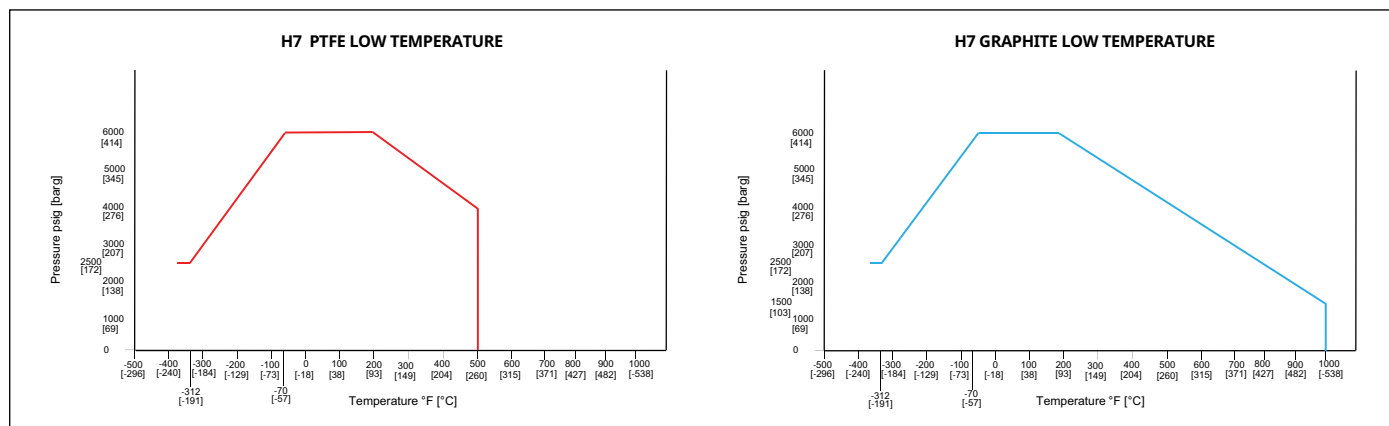
The HD needle-type globe valve has a rotating stem with a free-swivel ball-end seat for repetitive bubble-tight shutoff and rolled threads for low operating torque, located above the spindle packing and isolated from the process.

The stem seal is either graphite rings and a backseat design provides secondary stem sealing and prevents stem blowout. A body-to-bonnet metal pressure seal below the threads prevents corrosion and ensures the bonnet threads are in loaded compression for additional strength and an O-ring weather seal protects bonnet retention threads from harsh environments. An adjustable gland follower allows easy access to adjust the packing gland and the valve features a lockable T-bar handle with locking bolt to secure it firmly on the stem.

- **Pressure rating:** : up to 6000 psig (414 barg)
- **Temperature rating** : -313°F to 1000°F (-192°C to 538°C)



Pressure and Temperature Ratings 'HD' Needle Type Globe Valve



NOTES

- Standard minimum temperature range -72°F (-57°C).
- Valve Cv 0.52 maximum.
- Pressure and Temperature charts are based on 316 SS valve assemblies.

'HD' Needle Type Globe Valve Components - Bonnet Codes Standard Bonnet Combinations

Item	Description	S	D
1	Gland follower	316 SS	316 SS
2	Stem	316 SS	Duplex 31803
3	Locknut	316 SS	316 SS
4	Stem packing	Graphite	Graphite
5	O-ring weather seal	B una-N Nitrile	B una-N Nitrile
6	Ball (stem tip)	316 SS	Elgilloy
7	Bonnet	316 SS	Duplex 31803
8	Handle assembly	316 SS	316 SS

Body	Bonnet
C	S
L	S
S	S
D	D

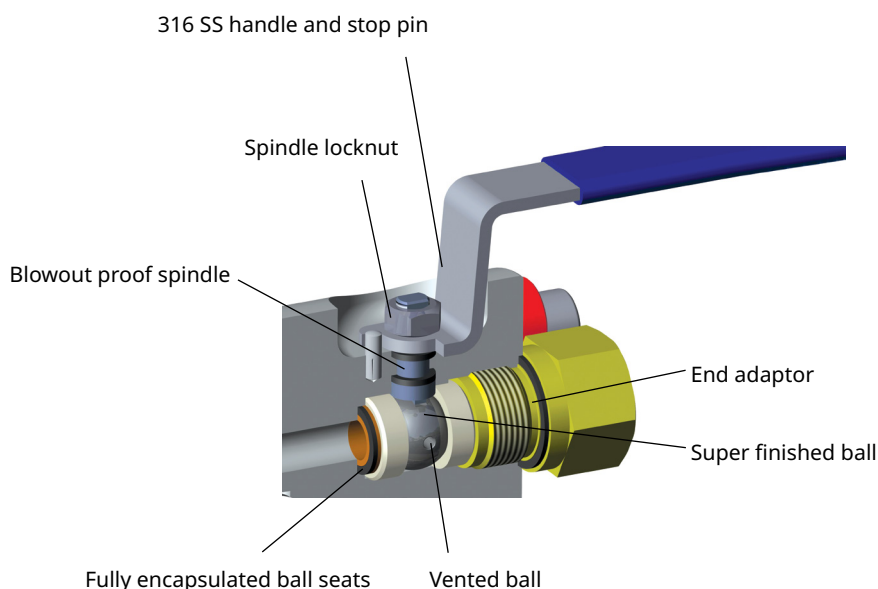
NOTES

- SG (Sour Gas) meets the requirements of NACE MR0175/ISO 15156 2003 (for chloride conditions ≤ 50 mg/l [ppm]) and NACE MR0103.
- SG3 (Sour Gas) meets the requirements of NACE MR0175/ISO 15156 (for chloride conditions > 50 mg/l [ppm]).

Quarter Turn Ball Valves

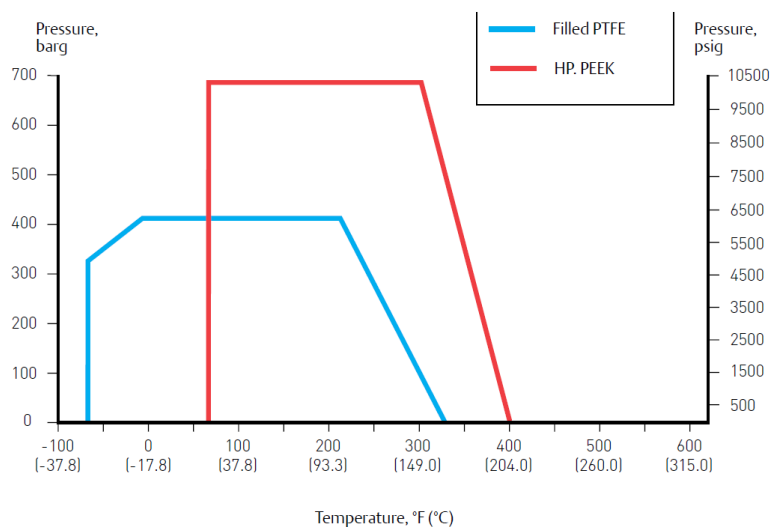
Unidirectional quarter-turn ball valves are standard, having a straight through, roddable 3/8" (10 mm) bore. Their super-finished ball provides low operating torque and long life and is vented to provide upstream cavity relief. They offer a choice of PTFE or PEEK filled ball seats which are fully supported to minimize seal extrusion. This allows high working pressures with end adaptor threads to be fully isolated from the process by primary and secondary static seals. Each valve features a blowout-proof one piece stem with a vibration-resistant locking nut and a strong, corrosion-resistant stainless steel handle and stop pin as standard. As an option, bi-directional ball valves are available, allowing for pressure containment in either direction.

- **Pressure rating:** : up to 6000 psig (414 barg)
- **Temperature rating** : -70.6°F to 400°F (-57°C to 204°C)



Pressure and Temperature Ratings

Ball Valve



Ball Valve Components - Trim Codes

Item	Description	S	D
1	Handle/stop pin	316 SS	316 SS
2	Stem seal (2 off)	Graphite	Graphite
3	Ball seat	PTFE, or PEEK	PTFE, or PEEK
4	Housing static seal	Graphite	Graphite
5	Seat housing	316 SS	Duplex 31803
6	Ball	316 SS	Duplex 31803
7	Primary static seal	Graphite	Graphite
8	Secondary static seal	Graphite	Graphite
9	Locknut	316 SS	316 SS
10	Spindle	316 SS	Duplex 31803

Standard Trim Combinations

Body	Ball Valve
C	S
L	S
S	S
D	D

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Selection Guide

Series Style	Valve Type	Needle Valve Packing	Body Material	Wetted Trim Material ⁽⁶⁾
BRM1 Integral Single ⁽⁹⁾	N HD Needle (3/16" bore)	V PTFE	C A105N CS	S 316 SS
BRM2 Integral Dual ⁽⁹⁾	F Ball (3/8" bore)	H Graphite	L A350 LF2 CS	D Duplex S31803
BRW1 Wafer Single	G Gate Valve*	Ball Valve Seat(s) ⁽⁵⁾	S A182 F316 SS	
BRW2 Wafer Dual			D A182 F51 SS	
BRS1 Sandwich Single				
BRS2 Sandwich Dual		V RPTFE		
		E Peek		

Inlet/Outlet Connection			Bleed/Flushing Outlet(s)		Options - (list in alphabetical order)
Size ⁽¹⁾	Flange	Rating ⁽³⁾	Size	Vent Type ⁽⁴⁾	
04 1/2"	1 RF	A 150#	4 1/2"NPT Female	B Socket Weld (XXS)	AT Anti-Tamper Bonnet ⁽⁹⁾
06 3/4"	2 RTJ	J 300#	6 3/4"NPT Female	L Extended neck(s), 4" insulation ⁽⁸⁾	BVL Ball Valve Lock
08 1"	9 FF	K 600#	8 1"NPT Female		FE Fugitive Emission Compliant ⁽¹¹⁾
12 1-1/2"		T 900#			HD Hydro-Test as per MSS-SP-61
16 2"		L 1500#			HL Handle Lock ⁽⁹⁾
24 3"		M 2500#			LT Low Temp Option (-313F/-192C) ⁽⁹⁾⁽¹²⁾
32 4"					PI2 PMI Testing (pressure boundary)
48 6" ⁽⁷⁾					PV Plugged Bleed/Flushing Ports
					BF1 Gate Valve Option (3/4" outlet only)
					SG NACE ⁽¹⁰⁾

Sample Selection

HD Type	Final Model Sample: BRM2NHLS161T4-FE-SG
BV Type	Final Model Sample: BRW1FESS081T4-HD-PV

NOTES:

- Please refer to sizing charts for series availability.
- Please consult factory for custom configurations, non-listed materials and additional options.
- As per ANSI B16.5
- All Bleed/Flush port outlets are FNPT as standard, add "Outlet Option" code for other options.
- Graphite stem packing
- Non wetted trim standard is 316 SS
- Only available for BRS
- Only available for BRW & BRS
- Only valve type N - HD Needle (3/16"Bore)
- See NACE clarification statement
- ISO 15848-1&2, valve type F - Ball (3/8" bore) or N- HD Needle (3/16" bore)
- Only body material S - A182 F316SS and wetted trim material S - 316 SS
- Consult tables for pressure temperature ranges