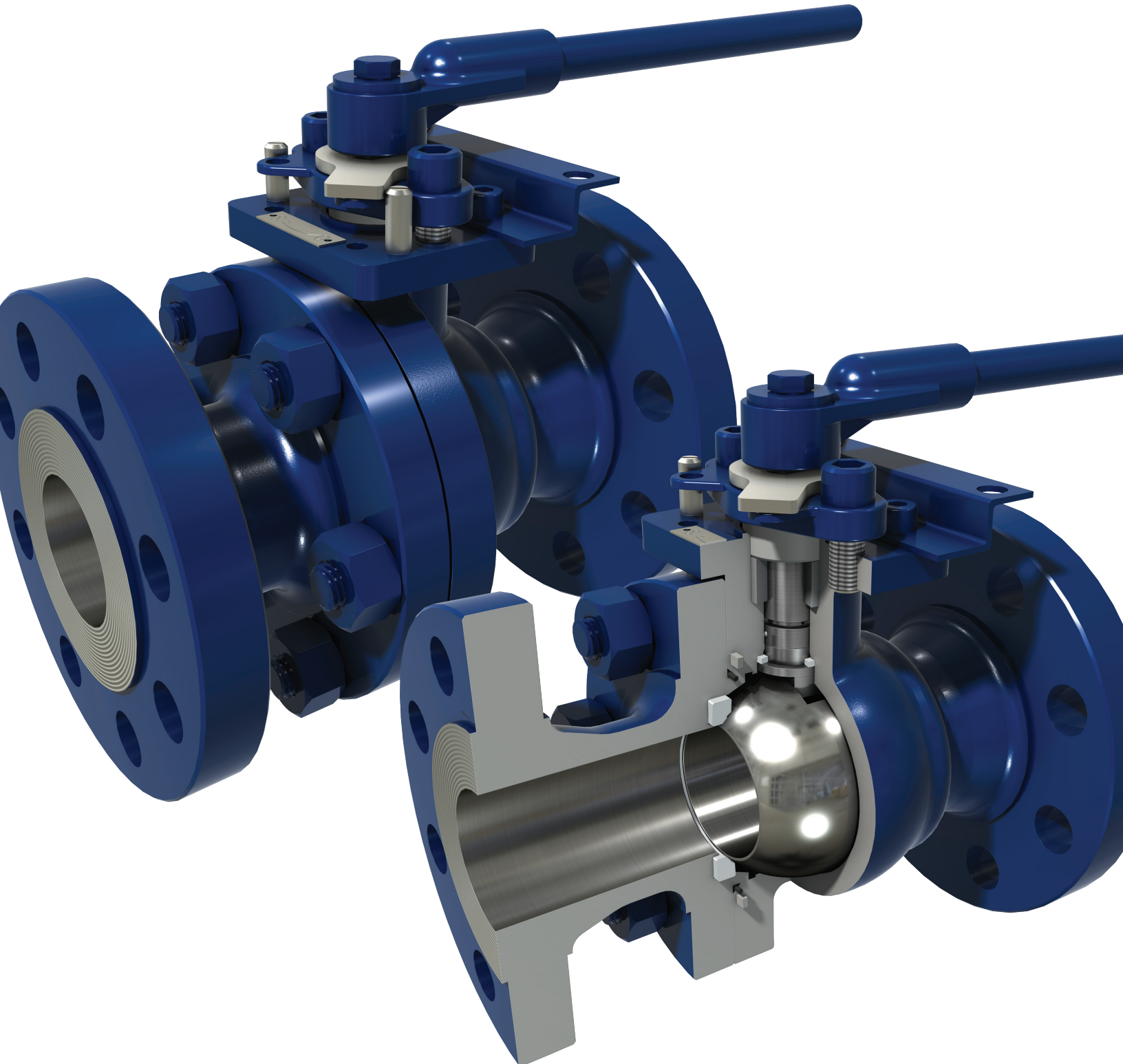




*Bolted Two Piece*  
**FLOATING BALL VALVE**





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## MERIDIAN™ FLOATING BALL VALVES

### MANUFACTURING RANGE\*

(Available in full and regular port)

Size	ASME 150	ASME 300	ASME 600	ASME 900	ASME 1500
1/2"	■	■	■		■
3/4"	■	■	■		■
1"	■	■	■		■
1 1/2"	■	■	■		■
2"	●	●	●	●	●
3"	●	●	●	▲	
4"	●	●	●		
6"	●	●			
8"	●	●			
10"	●				

- FP & RP
- FP only
- ▲ RP only

\*Other sizes available upon request.

.....

# 48/24 *Standard* WARRANTY

Meridian™ products feature an industry leading warranty of 48 months from date of shipment or 24 months from the date of start-up (whichever is sooner) for all Meridian™ brand API 6D check valves, flanged or buttweld trunnion ball valves, and floating ball valves.

.....

## SIL *Rated*

Meridian™ 3 piece forged trunnion ball valves and 2 piece cast floating ball valves are certified for use in SIL 3 applications.

.....



# MERIDIAN™ KEY FEATURES & BENEFITS

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## GENERAL FEATURES

- 2 piece bolted body design for ease of field service and maintenance
  - Cast steel 150, 300 & 600
  - Forged steel 600, 900 & 1500
- Fire safe design
- Standard valves meet NACE
- Extreme low torque for actuation savings
- ISO 5211 mounting flanges
- High life cycle
- Independent dual body seals
- Locking device to API 608
- All o-rings are AED (anti-explosive decompression) design
- Gear operators and lifting lugs on 6" bore and larger
- Standard document package BS/EN 10204-3.1
- Low emission capable due to O-ring design
- Exceeds ASME B16.34 minimum wall thickness
- **All Meridian™ 3 piece forged trunnion ball valves and 2 piece cast floating ball valves are certified for use in Safety Integrity Level (SIL 3) applications.**

## STEM DESIGN FEATURES

- Blowout proof stem
- Double antistatic stem
- Adjustable packing
- Triple independent low emission stem seals ensure stem seal integrity
- 2-bolt gland flange

## SEAT DESIGN FEATURES

- Unique wide flexible seat rings
- Absolute seal in low and high pressure
- RPTFE (15-20% carbon fibre) in 150 & 300 ASME; Devlon V in 600-1500 ASME
- Self-relieving seats for automatic internal cavity relief

## OPTIONAL FEATURES

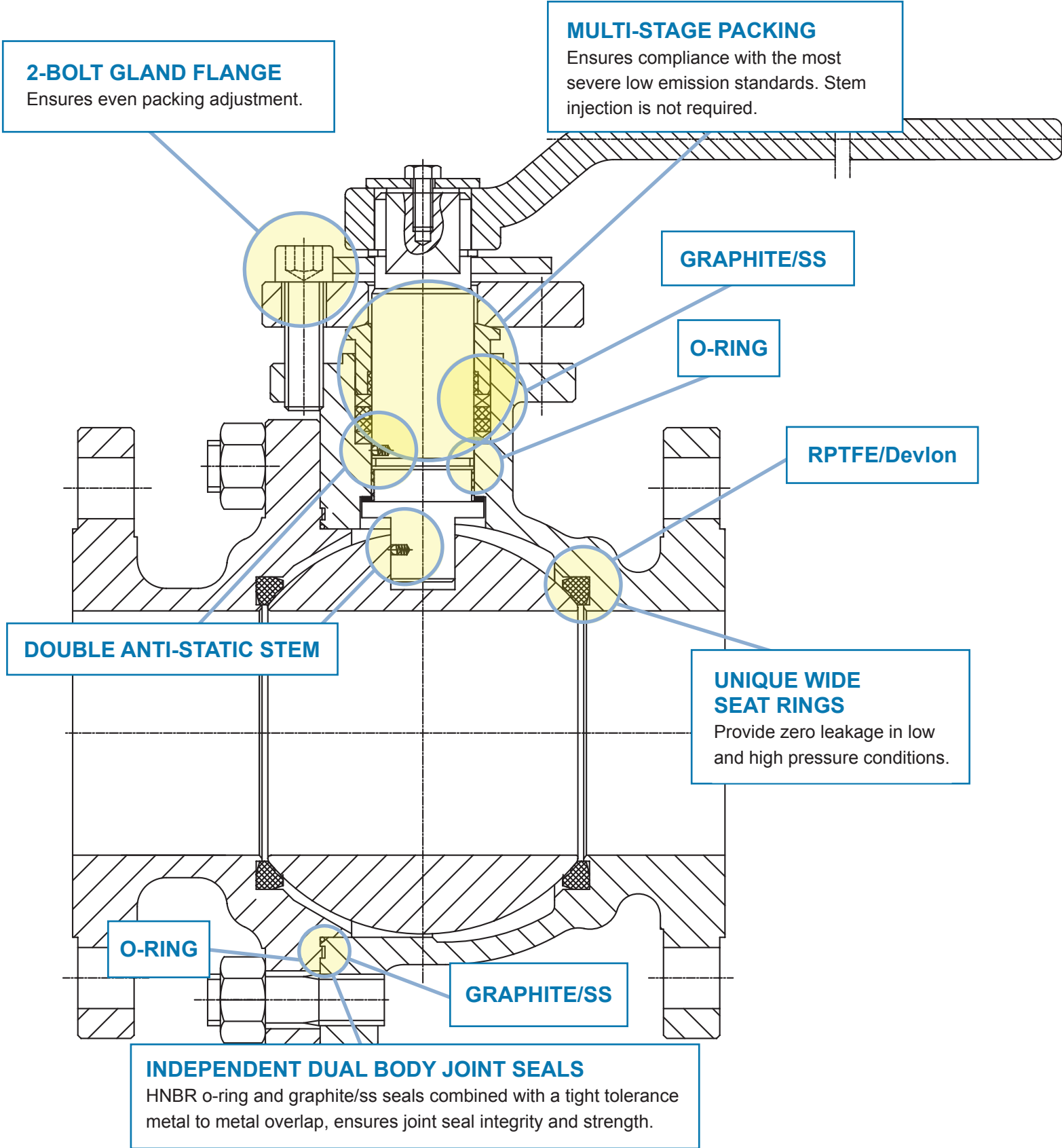
- Body may be coated for corrosion protection

## CERTIFICATION & TESTING

Design Standard:	API 608 API 6D CSA Z245.15 CSA B51 ISO 17292
Face to Face:	ASME B16.10
Flange:	ASME B16.5
Marking:	MSS SP-25
Inspection:	API 598
Pressure & Temp.:	ASME B16.34
Quality:	MSS SP-55
Fire Safe Design:	ISO 10497, API 607
Sour:	NACE MR 0175 ISO 15156
Pressure Testing:	API 6D and low pressure air seat test
Safety Integrity Level:	SIL 3

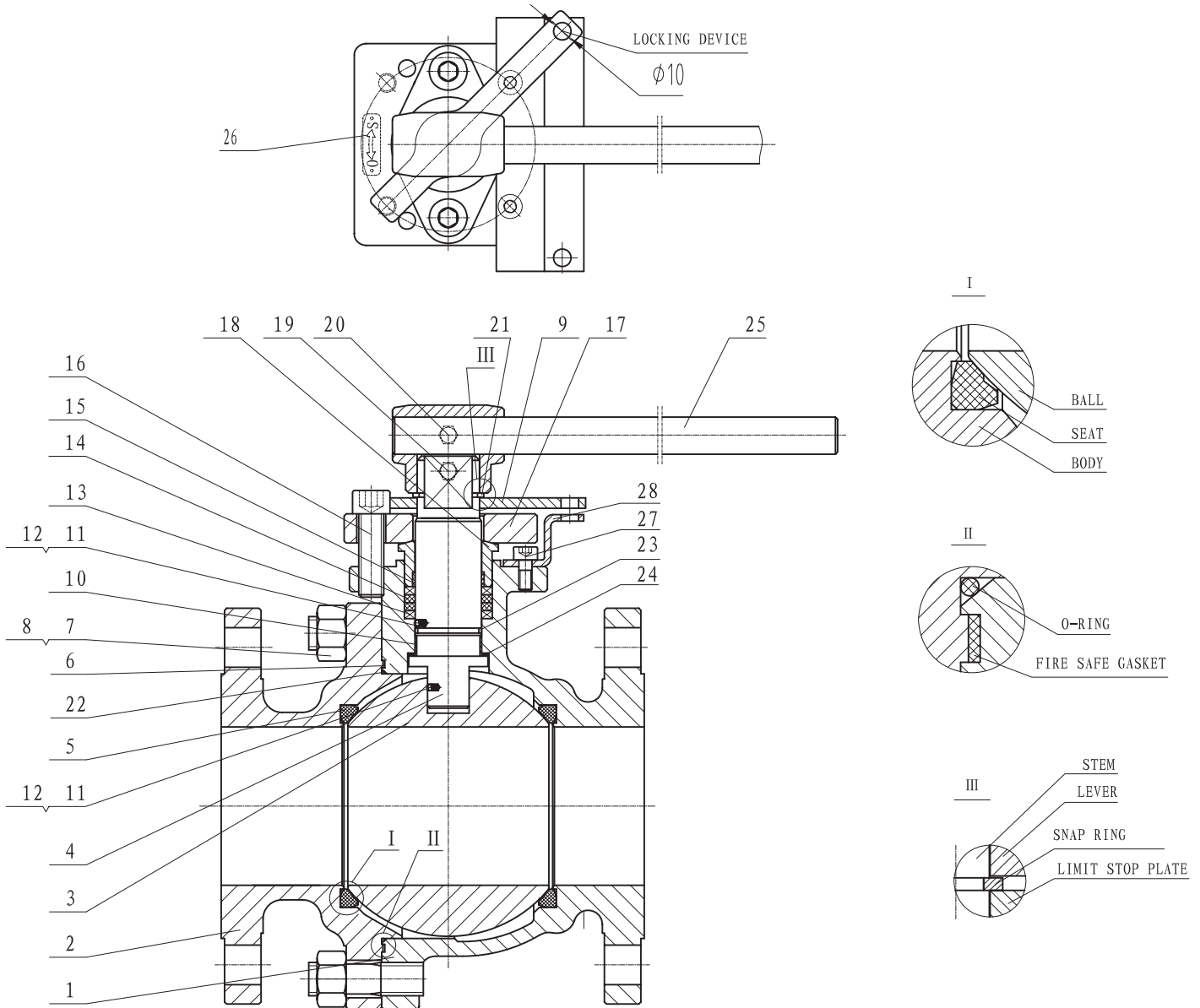
# STATE OF THE ART API 6D FLOATING BALL VALVE

FOR THE WIDEST RANGE OF SERVICE APPLICATIONS



# MERIDIAN™ CROSS SECTIONAL DRAWING

## Floating Ball Valve, Full & Reduced Port, Lever Operated

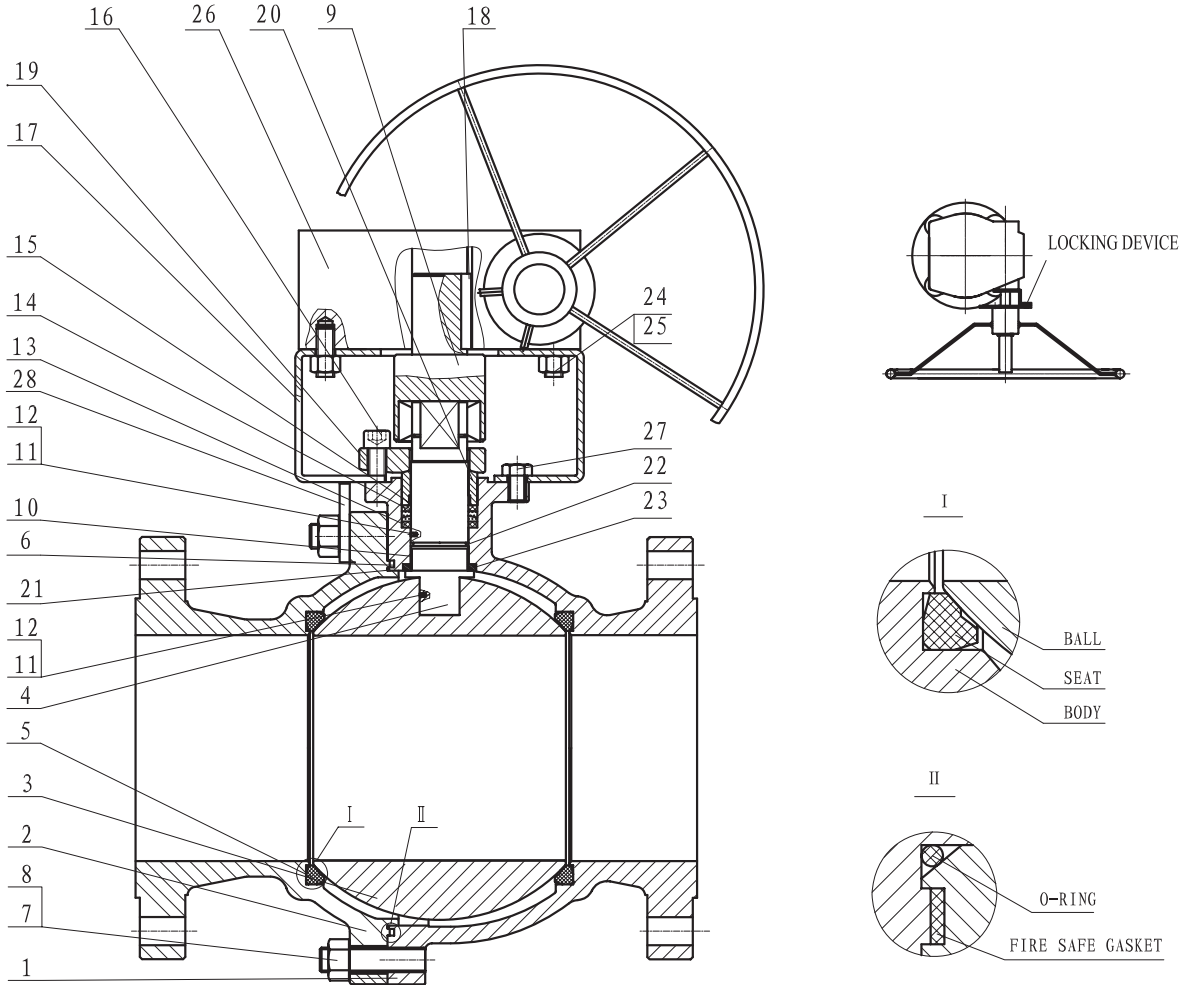


ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS
1	BODY	11	ANTISTATIC BALL	20	HEX HEAD BOLT
2	END CAP	12	ANTISTATIC SPRING	21	SNAP RING
3	BALL	13	FIRE SAFE PACKING	22	BODY SEAL O-RING
4	STEM	14	FIRE SAFE PACKING	23	STEM SEAL O-RING
5	SEAT	15	BEARING	24	THRUST WASHER
6	FIRE SAFE GASKET	16	ALLEN HEAD BOLT	25	LEVER
7	NUT	17	PACKING GLAND FLANGE	26	INDICATING PLATE
8	STUD	18	PACKING GLAND RING	27	ALLEN HEAD BOLT
9	LIMIT STOP PLATE	19	HEX HEAD BOLT	28	LOCKING PLATE
10	BEARING				

**NOTE:** Drawings are representative, please contact Meridian for specific and current PDF drawings.

# MERIDIAN™ CROSS SECTIONAL DRAWING

## Floating Ball Valve, Full & Reduced Port, Gear Operated



ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS	ITEM	DESCRIPTIONS
1	BODY	11	ANTISTATIC BALL	20	PACKING GLAND RING
2	END CAP	12	ANTISTATIC SPRING	21	BODY SEAL O-RING
3	BALL	13	FIRE SAFE PACKING	22	STEM SEAL O-RING
4	STEM	14	FIRE SAFE PACKING	23	THRUST WASHER
5	SEAT	15	BEARING	24	NUT
6	FIRE SAFE GASKET	16	ALLEN HEAD BOLT	25	STUD
7	NUT	17	MOUNTING BRACKET	26	GEAR OPERATOR
8	STUD	18	KEY	27	HEX HEAD BOLT
9	GEAR OPERATOR DRIVE COUPLING	19	PACKING GLAND FLANGE	28	LIFTING LUGS
10	BEARING				

**NOTE:** Drawings are representative, please contact Meridian for specific and current PDF drawings.

# MERIDIAN™ SIZES & DIMENSIONS

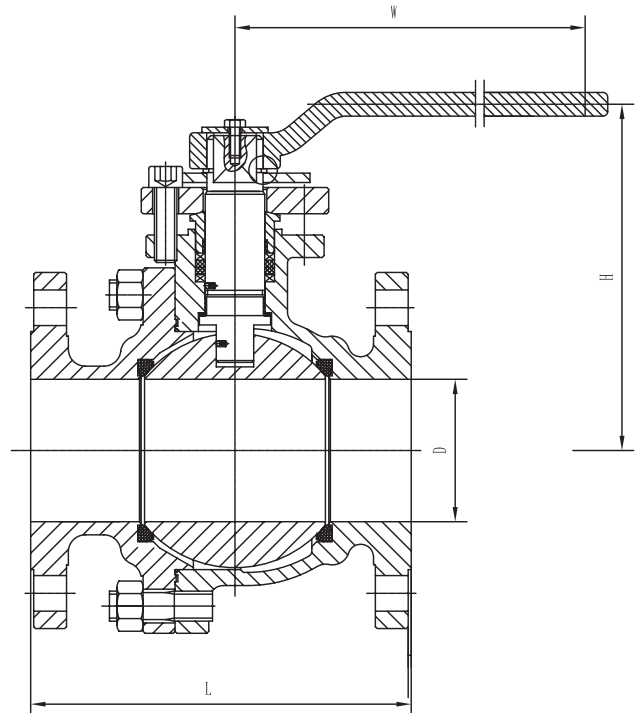
## 2-piece Floating Ball Valve Lever Operated

### ASME CLASS 150

SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
1/2	15	108	82	150	2.5
	0.59	4.25	3.23	5.91	5.51
3/4	19	117	90	150	3.2
	0.75	4.61	3.54	5.91	7.05
1	25	127	100	150	5.6
	0.98	5.00	3.94	5.91	12.35
1 1/2	38	165	110	300	7.2
	1.50	6.50	4.33	11.81	15.87
2 x 1 1/2	38	178	110	300	9.7
	1.50	7.01	4.33	11.81	21.38
2	50	178	135	300	9.8
	1.97	7.01	5.31	11.81	21.61
3 x 2	50	203	135	300	18
	1.97	7.99	5.31	11.81	39.68
3	75	203	176	400	20
	2.95	7.99	6.93	15.75	44.09
4 x 3	75	229	176	400	35
	2.95	9.02	6.93	15.75	77.16
4	100	229	196	460	35.2
	3.94	9.02	7.72	18.11	77.60
6 x 4	100.1	394	196	460	60
	3.94	15.51	7.72	18.11	132.28

### ASME CLASS 300

SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
1/2	15	140	83	150	2.60
	0.59	5.51	3.27	5.91	5.73
3/4	19	152	90	150	3.80
	0.75	5.98	3.54	5.91	8.38
1	25	165	100	150	6
	0.98	6.50	3.94	5.91	13.23
1 1/2	38	190	110	300	10.50
	1.50	7.48	4.33	11.81	23.15
2 x 1 1/2	38	216	110	300	15
	1.50	8.50	4.33	11.81	33.07
2	50	216	135	400	16
	1.97	8.50	5.31	15.75	35.27
3 x 2	50	282	135	400	31.2
	1.97	11.10	5.31	15.75	68.78
3	75	282	176	550	36
	2.95	11.10	6.93	21.65	79.37
4 x 3	75	305	176	550	57
	2.95	12.01	6.93	21.65	125.66
4	100.1	305	196	600	60
	3.94	12.01	7.72	23.62	132.28
6 x 4	100.1	403	196	600	83
	3.94	15.87	7.72	23.62	182.98



**NOTE:** Drawings are representative, please contact Meridian for specific and current PDF drawings.



# MERIDIAN™ SIZES & DIMENSIONS

## 2-piece Floating Ball Valve Lever Operated

### ASME CLASS 600

SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
1/2	15	165	84	150	2.80
	0.59	6.50	3.31	5.91	6.17
3/4	19	190	90	150	5.30
	0.75	7.48	3.54	5.91	11.68
1	25	216	93	150	7
	0.98	8.50	3.66	5.91	15.43
1 1/2	38	241	134	400	13.60
	1.50	9.49	5.28	15.75	29.98
2 x 1 1/2	38	292	134	400	18.2
	1.50	11.50	5.28	15.75	40.12
2	50	292	135	550	22
	1.97	11.50	5.31	21.65	48.50
3 x 2	50	356	135	550	35
	1.97	14.02	5.31	21.65	77.16
3	75	356	183	700	40
	2.95	14.02	7.20	27.56	88.18
4 x 3	75	432	183	700	55
	2.95	17.01	7.20	27.56	121.25
4	100.1	432	254	850	80
	3.94	17.01	10.00	33.46	176.37
6 x 4	100.1	559	254	850	106
	3.94	22.01	10.00	33.46	233.69

### ASME CLASS 1500

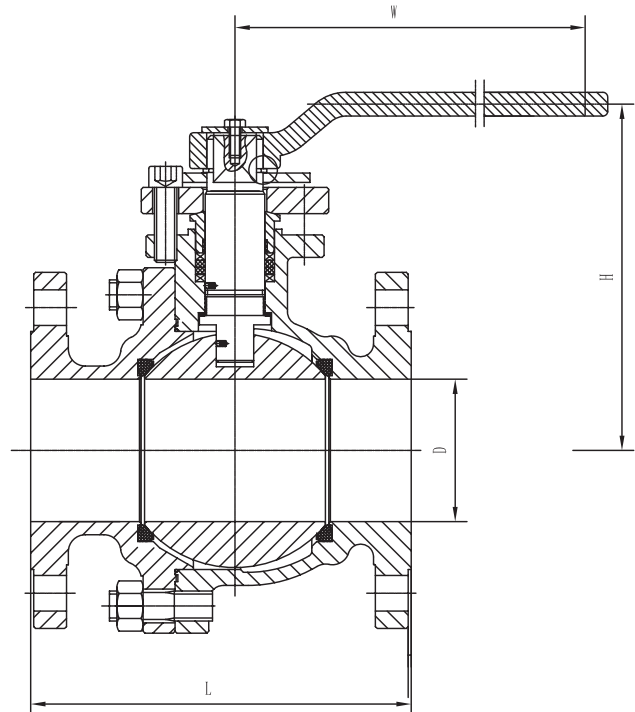
SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
1/2	13	216	132.5	330	10
	0.51	8.50	5.22	12.99	22.05
3/4	19	229	136.5	330	14
	0.75	9.02	5.37	12.99	30.86
1	25	254	140	500	17
	0.98	10.00	5.51	19.69	37.48
1 1/2	38	305	170	600	28
	1.50	12.01	6.69	23.62	61.73
2 x 1 1/2	38	368	170	600	41
	1.50	14.49	6.69	23.62	90.39
2	49	368	187	700	40
	1.93	14.49	7.36	27.56	88.18

### ASME CLASS 900

SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
2 x 1 1/2	38	368	*	*	32
	1.50	14.49			70.55
2	49	368	*	*	40
	1.93	14.49			88.18
3 x 2	49	381	*	*	66
	1.93	15.00			145.50

**NOTE:** Drawings are representative, please contact Meridian for specific and current PDF drawings.

\* Confirmation at time of order or upon request.



# MERIDIAN™ SIZES & DIMENSIONS

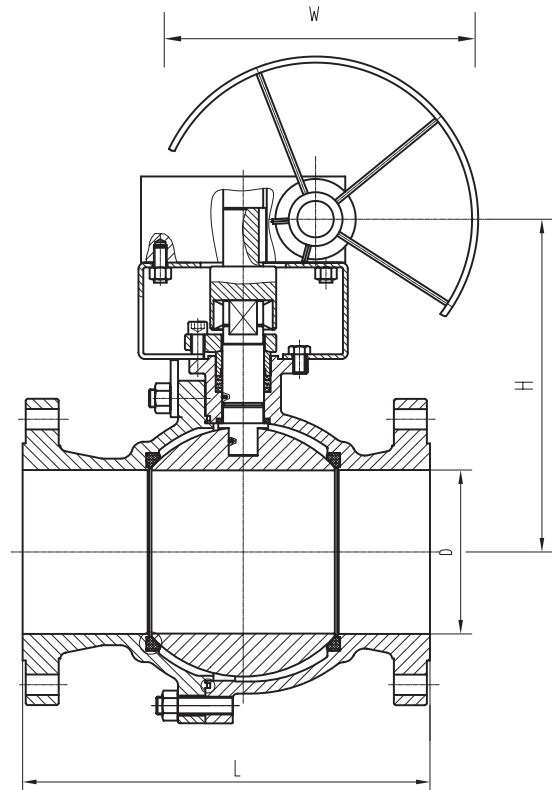
## 2-piece Floating Ball Valve Gear Operated

### ASME CLASS 150

SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
6	151	394	352	460	96
	5.94	15.51	13.86	18.11	211.64
8 x 6	151	457	352	460	120
	5.94	17.99	13.86	18.11	264.55
8	202	457	414	600	165
	7.95	17.99	16.30	23.62	363.76
10 x 8	202	533	414	600	145
	7.95	20.98	16.30	23.62	319.67
10	252	533	465	600	250
	9.92	20.98	18.31	23.62	551.15

### ASME CLASS 300

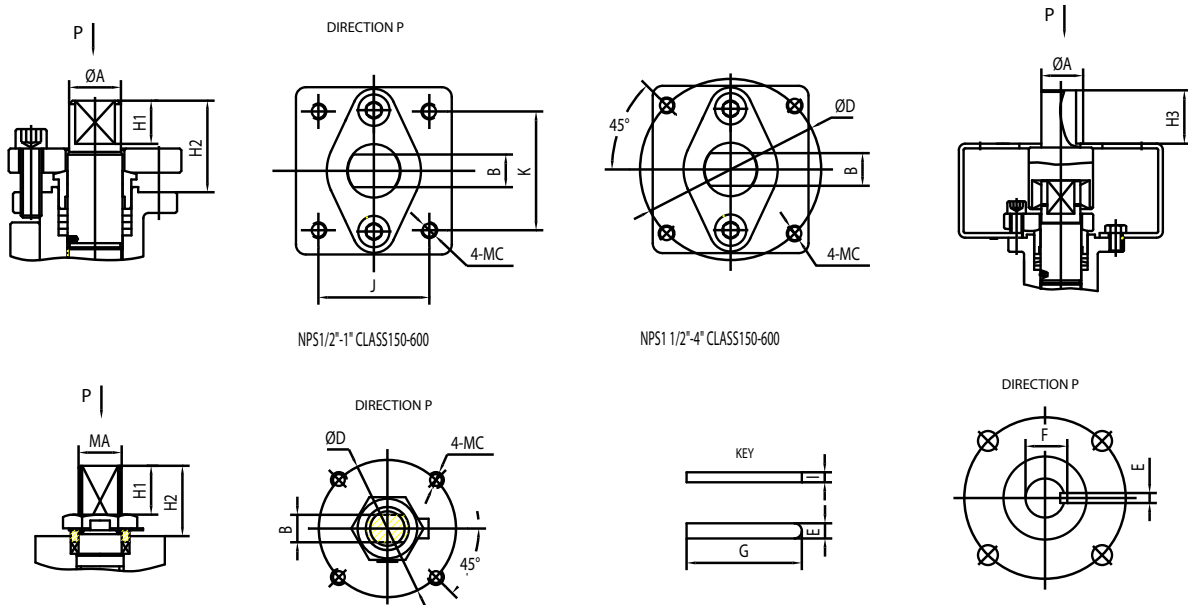
SIZE	D	L	H	W	Weight
in	mm	mm	mm	mm	kg
	in	in	in	in	lb
6	151	403	356	465	118
	5.94	15.87	14.02	18.31	260.14
8 x 6	151	502	356	465	191
	5.94	19.76	14.02	18.31	421.08
8	202	502	414	600	236
	7.95	19.76	16.30	23.62	520.29



**NOTE:** Drawings are representative, please contact Meridian for specific and current PDF drawings.

# MERIDIAN™ TOP WORKS DIMENSIONS

## 1/2" to 10" 2-piece Floating Ball Valve



### ASME CLASS 150

NPS	A	B	C	D	E	F	G	H1	H2	H3	I	J	K	ISO
in	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
	in	in	in	in	in	in	in	in	in	in	in	in	in	
1/2"	12	8	4-M6					7.5	18			31	31	
	0.47	0.31						0.30	0.71			1.22	1.22	
3/4"	12	8	4-M6					8.5	20.5			25	47	
	0.47	0.31						0.33	0.81			0.98	1.85	
1"	12	8	4-M6					9	22.5			29	53	
	0.47	0.31						0.35	0.89			1.14	2.09	
1 1/2"	20	14	4-M8	70				20	40					F07
	0.79	0.55		2.76				0.79	1.57					
2X1 1/2"	20	14	4-M8	70				20	40					F07
	0.79	0.55		2.76				0.79	1.57					
2"	20	14	4-M8	70				22	40					F07
	0.79	0.55		2.76				0.87	1.57					
3X2"	20	14	4-M8	70				22	40					F07
	0.79	0.55		2.76				0.87	1.57					
3"	30	20	4-M10	102				24	53					F10
	1.18	0.79		4.02				0.94	2.09					
4X3"	30	20	4-M10	102				24	53					F10
	1.18	0.79		4.02				0.94	2.09					
4"	30	20	4-M10	102				24	53					F10
	1.18	0.79		4.02				0.94	2.09					
6X4"	30	20	4-M10	102				24	53					F10
	1.18	0.79		4.02				0.94	2.09					
6"	40				12.00	43	55				58	8		F12
	1.57				0.47	1.69	2.17				2.28	0.31		
8X6"	40				12	43	55				58	8		F12
	1.57				0.47	1.69	2.17				2.28	0.31		
8"	50				14	53.5	70				71.5	9		F14
	1.97				0.55	2.11	2.76				2.81	0.35		
10X8"	50				14	53.5	70				71.5	9		F14
	1.97				0.55	2.11	2.76				2.81	0.35		
10"	50				14	53.5	70				66	9		F14
	1.97				0.55	2.11	2.76				2.60	0.35		

## MERIDIAN™ TOP WORKS DIMENSIONS

### ASME CLASS 300

NPS	A	B	C	D	E	F	G	H1	H2	H3	I	J	K	ISO
in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	
1/2"	12 0.47	8 0.31	4-M6					8.5 0.33	20.5 0.81			25 0.98	47 1.85	
3/4"	12 0.47	8 0.31	4-M6					8.5 0.33	20.5 0.81			25 0.98	47 1.85	
1"	12 0.47	8 0.31	4-M6					9 0.35	22.5 0.89			29 1.14	53 2.09	
1 1/2"	20 0.79	14 0.55	4-M8	70 2.76				20 0.79	40 1.57					F07
2X1 1/2"	20 0.79	14 0.55	4-M8	70 2.76				20 0.79	40 1.57					F07
2"	20 0.79	14 0.55	4-M8	70 2.76				21 0.83	39 1.54					F07
3X2"	20 0.79	14 0.55	4-M8	70 2.76				21 0.83	39 1.54					F07
3"	30 1.18	20 0.79	4-M10	102 4.02				24 0.94	53 2.09					F10
4X3"	30 1.18	20 0.79	4-M10	102 4.02				24 0.94	53 2.09					F10
4"	30 1.18	20 0.79	4-M10	102 4.02				24 0.94	53 2.09					F10
6X4"	30 1.18	20 0.79	4-M10	102 4.02				24 0.94	53 2.09					F10
6"	40 1.57				12 0.47	43 1.69	55 2.17			58 2.28	8 0.31			F12
8X6"	40 1.57				12 0.47	43 1.69	55 2.17			58 2.28	8 0.31			F12
8"	50 1.97				14 0.55	53.5 2.11	70 2.76			71.5 2.81	9 0.35			F14

### ASME CLASS 600

NPS	A	B	C	D	E	F	G	H1	H2	H3	I	J	K	ISO
in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	
1/2"	12 0.47	8 0.31	4-M6					8.5 0.33	19.5 0.77			25 0.98	47 1.85	
3/4"	12 0.47	8 0.31	4-M6					8.5 0.33	19.5 0.77			25 0.98	47 1.85	
1"	12 0.47	8 0.31	4-M6					8.5 0.33	22.5 0.89			29 1.14	53 2.09	
1 1/2"	20 0.79	14 0.55	4-M8	70 2.76				20.5 0.81	39 1.54					F07
2X1 1/2"	20 0.79	14 0.55	4-M8	70 2.76				20.5 0.81	39 1.54					F07
2"	20 0.79	14 0.55	4-M8	70 2.76				22 0.87	39.5 1.56					F07
3X2"	20 0.79	14 0.55	4-M8	70 2.76				22 0.87	39.5 1.56					F07
3"	30 1.18	20 0.79	4-M10	102 4.02				25 0.98	51.5 2.03					F10
4X3"	30 1.18	20 0.79	4-M10	102 4.02				25 0.98	51.5 2.03					F10
4"	40 1.57	30 1.18	4-M12	125 4.92				37.5 1.48	75 2.95					F12
6X4"	40 1.57	30 1.18	4-M12	125 4.92				37.5 1.48	75 2.95					F12

## MERIDIAN™ TOP WORKS DIMENSIONS

### ASME CLASS 1500

NPS	A	B	C	D	E	F	G	H1	H2	H3	I	J	K	ISO
in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	mm in	
1/2"	M18	12 0.47	4-M6	50 1.97				18.5 0.73	29.5 1.16					F05
3/4"	M18	12 0.47	4-M6	50 1.97				21 0.83	31 1.22					F05
1"	M22	14 0.55	4-M6	50 1.97				25 0.98	36.5 1.44					F05
1 1/2"	M27	18 0.71	4-M8	70 2.76				28 1.10	40 1.57					F07
2X1 1/2"	M27	18 0.71	4-M8	70 2.76				28 1.10	40 1.57					F07
2"	M33	25 0.98	4-M10	102 4.02				36 1.42	49 1.93					F10

**NOTE:** Drawings are representative, please contact Meridian for specific and current PDF drawings.

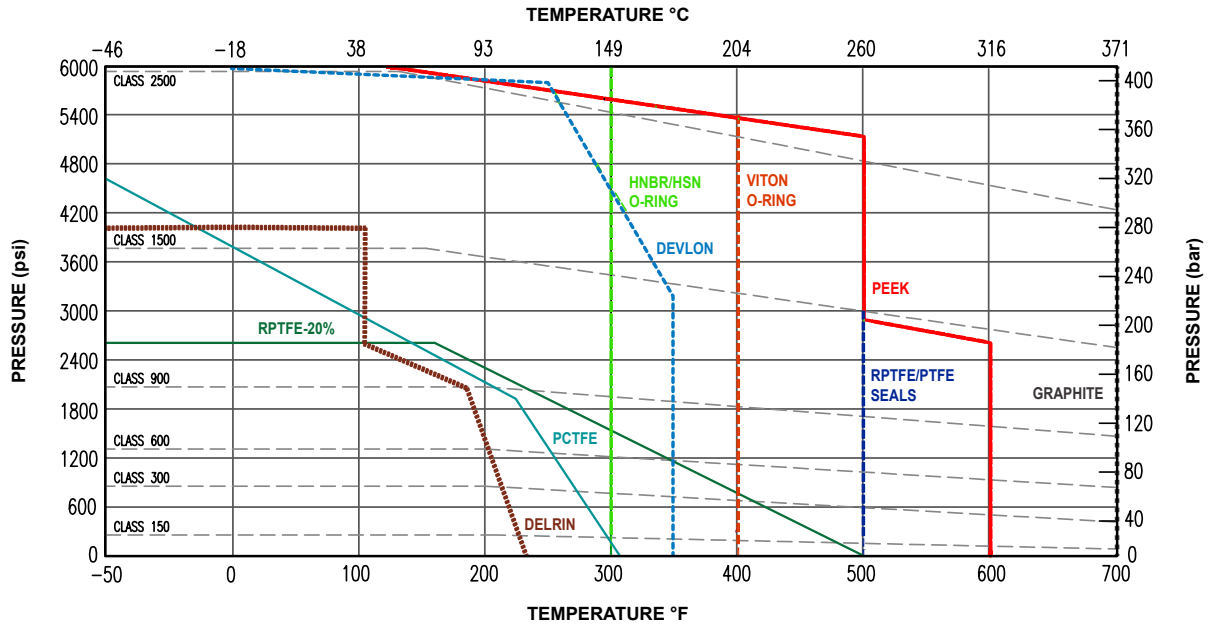
## TORQUE DATA

Size (In)	Open (break) torque (inch pounds) at Max. P				
	150 #	300 #	600 #	900 #	1500 #
1/2"	96	143	215		538
3/4"	143	179	263		717
1"	179	239	358		1673
1 1/2"	454	717	1075	1673	2151
2"	597	1195	1792	3106	4970
3"	1195	1792	4182		
4"	2151	4421	6691		
6"	7169	11350			
8"	12545	23895			
10"	23895				

**Notes:**

1. Torque values are in inch pounds. To convert to Newton meters divide inch pounds by 8.85.  
Torque includes safety factor.
3. For clean wet applications in low temperature service below -20 Deg C (-4 Deg F) add 10% safety.
4. Add additional safety if service conditions dictate.
5. For reduced port valves select torque based on valve port size.  
For example: 4" x 3" x 300# ASME valve – use torque for 3" x 300# ASME valve.
6. Class 150/300 have RPTFE seats. Class 600-1500 have Devlon seats.

# MERIDIAN™ REFERENCE PRESSURE/TEMPERATURE CHART



Please consult ASME B16.34 for specific body material pressure / temperature ratings. The above chart is for reference only, please consult Meridian for specific / additional seat and seal technical information if required.

## CV CHART VALUES: FULL PORT VALVES

Size (In)	CV Values				
	150 #	300 #	600 #	900 #	1500 #
1/2"	46	46	46		41
3/4"	97	97	97		88
1"	168	168	168		152
1 1/2"	389	389	389		350
2"	647	647	647	599	582
3"	2086	2086	2086		
4"	2694	2694	2694		
6"	6062	6062			
8"	10885	10885			
10"	17109				

## CV CHART VALUES: REDUCED PORT VALVES

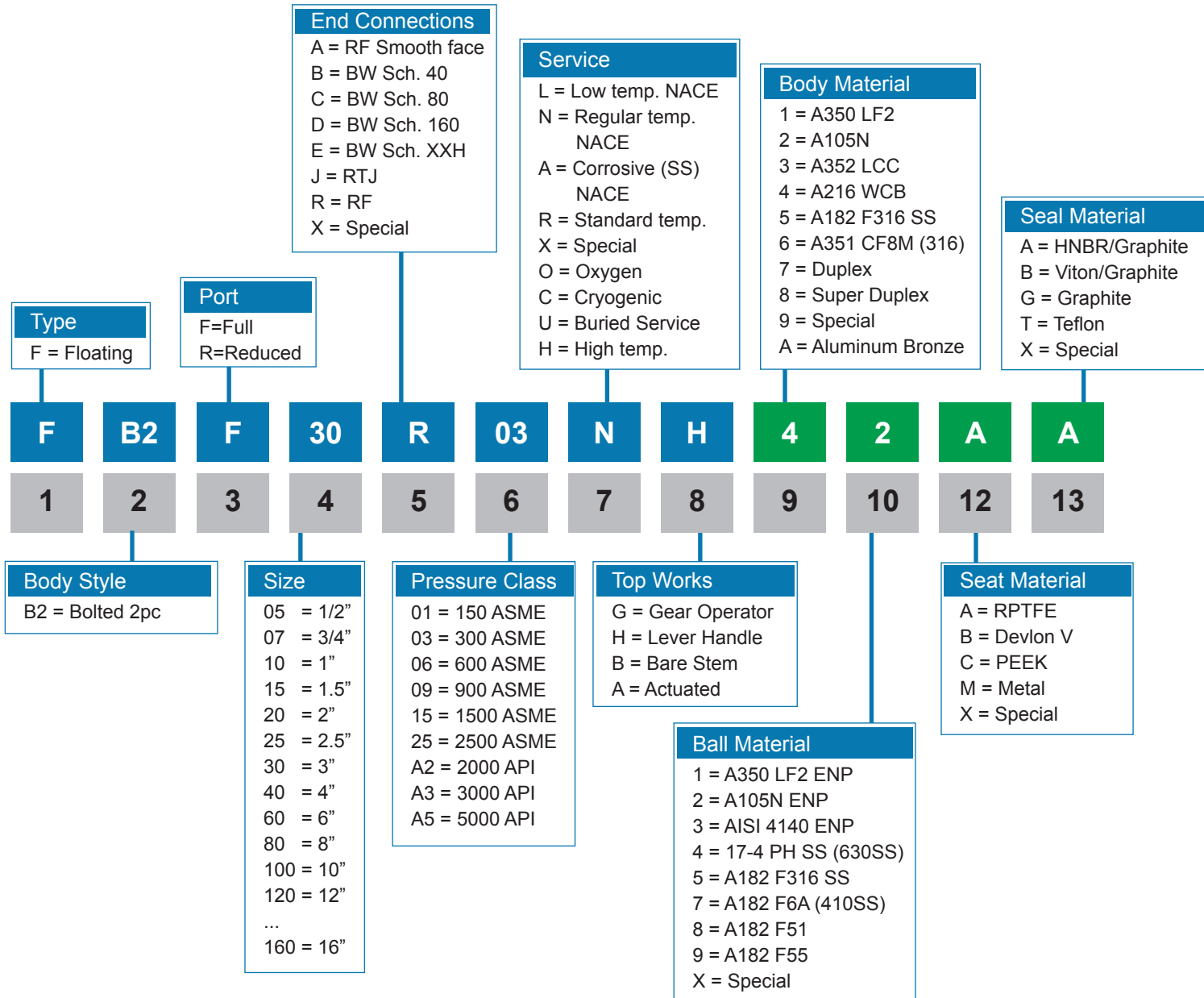
Size (In)	CV Values				
	150 #	300 #	600 #	900 #	1500 #
2 x 1 1/2	306	306	306	306	306
3 x 2	377	377	377	377	
4 x 3	1043	1043	1043		
6 x 4	1587	1587	1587		
8 x 6	4364	4364			
10 x 8	7495				

Note:

1. Flow coefficient Cv is the volume (in US gallons) of water at 60°F that will flow per minute through a valve with a pressure drop of 1 psi across the valve.

# HOW TO ORDER

## ORDERING FIGURE NUMBER CHART



Example valve figure number: **FB2F30R03NH42AA**

This code represents a Meridian™ floating ball valve, with a bolted 2 piece body, full port bore, 3", raised face end connection, 300 ASME, regular temperature NACE body, lever handle, A216 WCB body, A105N ENP ball, RPTFE seat and HNBR/Graphite seal.



To learn more about Meridian™ please visit our website at:  
[www.meridianvalve.ca](http://www.meridianvalve.ca)

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