



*The Peak*  
Of Perfection

FLANGED FLOATING BALL VALVES

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## The Challenge

The JAG partnership is supported by over 100 years of flow control experience in the North American market. The shared vision that led to JAG's creation was a combination of three key elements: 1) Create an intelligently designed family of ball valves that addressed many concerns of today's users, 2) Offer as many features and innovations as possible, and 3) Delivery of world-class economics.



### ***JAG Floater Features:***

- ***Bolted 2-Piece Construction***
  - ***Cast Steel 150 & 300***
  - ***Forged Steel 600 - 1500***
    - ***Low Torques***
    - ***ISO Mounting Pads***
    - ***316 SS Trim/CS ENP***
- ***Additional Stem O-ring***
  - ***Stacked Packing***
  - ***Adjustable Packing***
    - ***Anti-static***
    - ***Locking Levers***
      - ***Fire Safe***
- ***All Valves Nace Compliant***
- ***Low Fugitive Emission***

### ***Design and Quality Specifications:***

- ***ASME B16.10***
- ***ASME B16.34***
- ***NACE MR-01-75 / ISO15156***
  - ***API 598***
  - ***API 607, 6th edition***
    - ***ISO 9001***
- ***Canadian Registration Numbers (CRN)***
  - ***CSA Z245.15 Latest Edition***
    - ***ISO 15848***

## The Result

The JAG line of ball valves represents a comprehensive product line, and we are exceedingly proud of the competitive position each of these products will be recognized for:

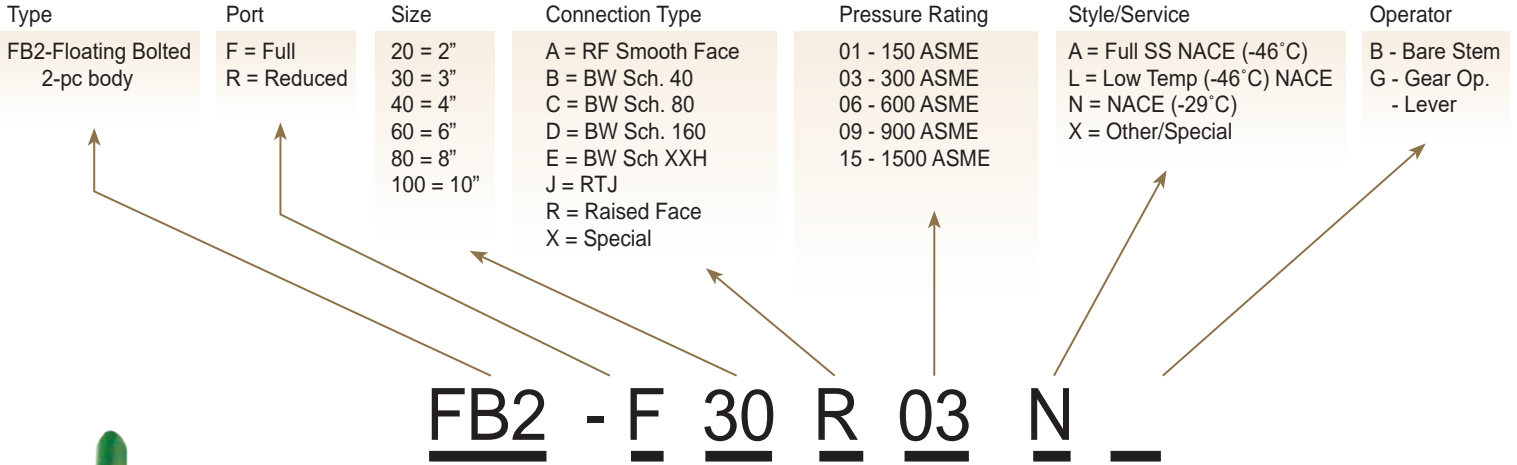
- JAG Class 900 models T2 and B3 (1/4" - 2")
- JAG Class 1500 model T3 (1/4" - 3")
- JAG Class 2500 model T3 (1/4" - 3")
- JAG Flanged Floaters, Class 150 - 1500 (1/4" - 10")
- JAG Trunnions, Class 150 - 2500 (2" - 36")

Supported by over 1,500,000 sq. ft. of modern, highly efficient manufacturing, JAG has the quality discipline and capacity to allow its Distributors to support any requirements or projects the end user may contemplate.

# ***JAG flocomponents***

**...there is always  
a better way.**

# PART NUMBER IDENTIFICATION FLOATING BALL VALVE



Therefore a **FB2-F30R03N** is a  
Floating Bolted 2 Piece Full Port, 3 inch, RF, 300 Class, Nace Trim, Lever Op.



## Available Sizes / Pressures

### Cast Steel

2" RP - 10" FP	ANSI 150
2" RP - 10" FP	ANSI 300

### Forged Steel

2" RP - 6" RP	ANSI 600
2" RP - 6" RP	ANSI 900
2" RP - 6" RP	ANSI 1500

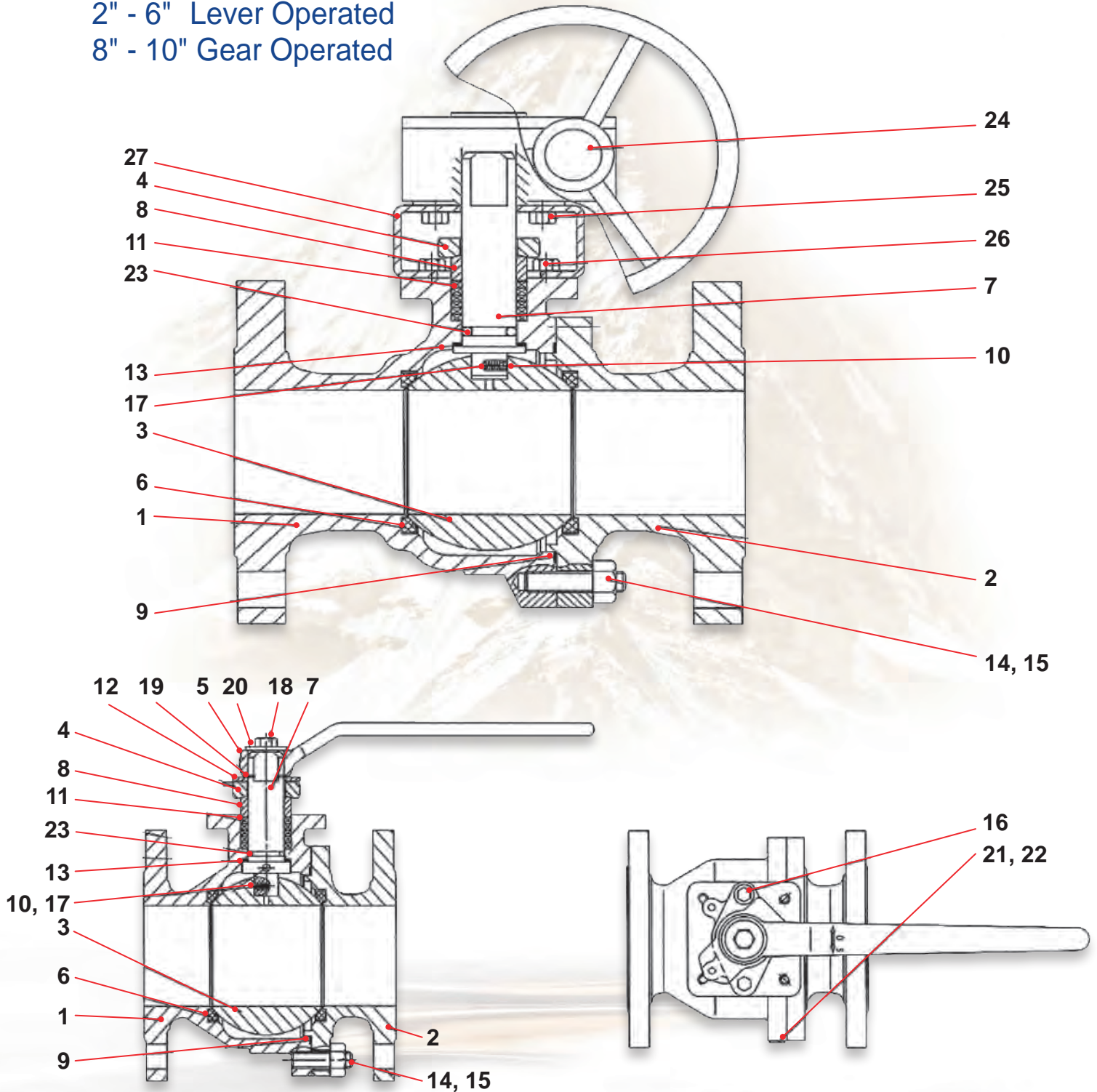




2-Piece cast steel, bolted body construction, blowout - proof stem, locking handle, fire safe, anti-static, stacked adjustable packing, stem O-ring, ISO mounting pad, locking lever. 8" FP and above complete with gear op

## FB2 - Cast Floating Ball Valve, Class 150 & 300

2" - 6" Lever Operated  
8" - 10" Gear Operated



# STANDARD MATERIALS LIST

## CAST FLOATING BALL VALVE

### ASME CLASS 150 & 300

NO.	PARTS	NACE Service (-29°C)	LOW TEMP(-46°C) NACE Service	Stainless Steel (-46°C) NACE Service
1	BODY	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M
2	ADAPTOR	ASTM A216-WCB	ASTM A352-LCC	ASTM A351-CF8M
*3	BALL	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
4	GLAND FLANGE	ASTM A216-WCB	ASTM A182 F316	ASTM A351-CF8M
5	HANDLE	Carbon Steel	Carbon Steel	Stainless Steel
6	SEAT	RPTFE (15% Glass)	RPTFE (15% Glass)	RPTFE (15% Glass)
*7	STEM	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
8	PACKING FOLLOWER	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
9	BODY GASKET	Graphite	Graphite	Graphite
10	ANTISTATIC BALL	Stainless Steel	Stainless Steel	Stainless Steel
11	PACKING	Graphite	Graphite	Graphite
12	STOP PLATE	Carbon Steel	Carbon Steel	Stainless Steel
13	THRUST WASHER	PTFE	PTFE	PTFE
14	BODY STUD	ASTM A193-B7M	ASTM A320-L7M	ASTM A193-B8
15	NUT	ASTM A194-2HM	ASTM A194-7M	ASTM A194-8
16	GLAND SCREW	ASTM A193-B7M	ASTM A320-L7M	ASTM A193-B8
17	ANTISTATIC SPRING	Stainless Steel	Stainless Steel	Stainless Steel
18	HANDLE NUT	Carbon Steel	Carbon Steel	Stainless Steel
19	RETAINER CLIP	Carbon Steel	Carbon Steel	Stainless Steel
20	WASHER	Carbon Steel	Carbon Steel	Stainless Steel
21	RIVET	Stainless Steel	Stainless Steel	Stainless Steel
22	NAME PLATE	Aluminum	Aluminum	Stainless Steel
23	STEM O-RING	VITON A(-29°C)	VITON GLT(-46°C)	VITON GLT(-46°C)
**24	GEAR BOX	ASTM A216 WCB	ASTM A352 LCC	ASTM A216 WCB
**25	GEAR OP BOLT	ASTM A153 B7M	ASTM A320 L7M	ASTM A193 B8
**26	BONNET BOLT	ASTM A193 B7M	ASTM A320 L7M	ASTM A193 B8
**27	YOKE	ASTM A216 WCB	ASTM A352 LCC	ASTM A351 CF8M

\*\* Only applies to Gear Operated Valves

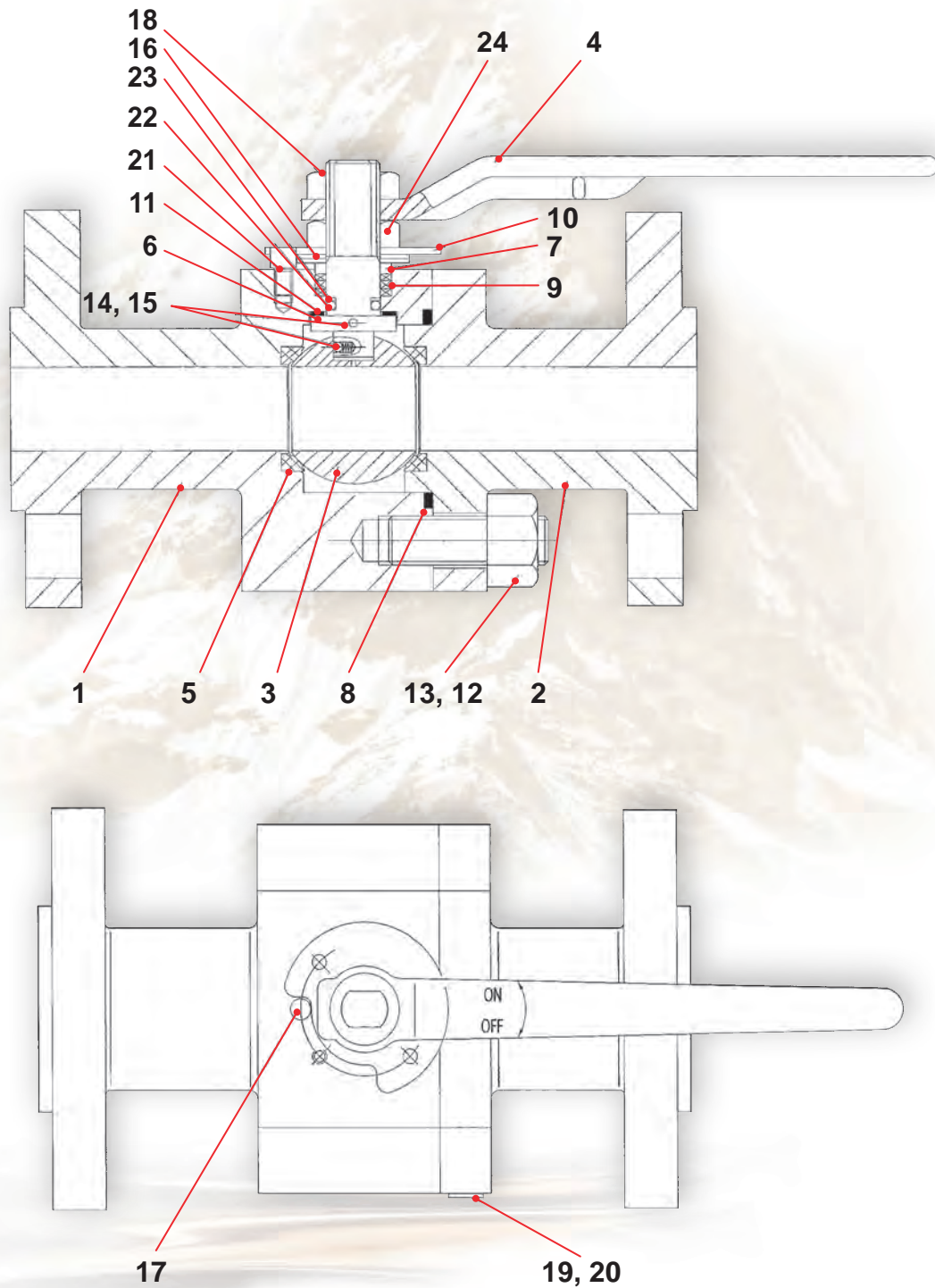
\* Note: 8" Bore and larger c/w ENC Trim

DUE TO CONTINUOUS DEVELOPMENT OF OUR PRODUCTS, WE RESERVE THE RIGHT TO MODIFY OUR PRODUCT DESIGN OR CONSTRUCTION WITHOUT PRIOR NOTICE.



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# FIG: FB2 - Forged Floating Ball Valve, Class 600 - 1500





# STANDARD MATERIALS LIST

## FORGED FLOATING BALL VALVE

### ASME CLASS 600 - 1500

NO.	PARTS	NACE Service (-29°C)	LOW TEMP(-46°C) NACE Service	Stainless Steel (-46°C) NACE Service
1	BODY	ASTM A105N	ASTM A350-LF2	ASTM A182-F316
2	ADAPTOR	ASTM A105N	ASTM A350-LF2	ASTM A182-F316
3	BALL	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
4	HANDLE	Carbon Steel	Carbon Steel	Carbon Steel
5	SEAT	1 1/2"-3" 600	RPTFE (15% Glass)	RPTFE (15% Glass)
		4" 600	Devlon V	Devlon V
		1 1/2"-3" 900/1500	Devlon V	Devlon V
6	STEM	ASTM A276-F316	ASTM A276-F316	ASTM A276-F316
7	PACKING GLAND	ASTM A276-F316	ASTM A276-F316	ASTM A276-F316
8	BODY GASKET	Graphite	Graphite	Graphite
9	PACKING	Graphite	Graphite	Graphite
10	STOP PLATE	Carbon Steel	Carbon Steel	Stainless Steel
11	THRUST WASHER	PTFE	PTFE	PTFE
12	BODY STUD	ASTM A193-B7M	ASTM A320-L7M	ASTM A193-B8
13	NUT	ASTM A194-2HM	ASTM A194-7M	ASTM A194-8
14	ANTISTATIC SPRING	ASTM A276-F304	ASTM A276-F304	ASTM A276-F316
15	STEEL BALL	Stainless Steel	Stainless Steel	Stainless Steel
16	DISHED SPRING	Carbon Steel	Carbon Steel	Stainless Steel
17	STOP SCREW	ASTM A193-B7M	ASTM A320-L7M	ASTM A193-B8
18	HANDLE NUT	Carbon Steel	Carbon Steel	Stainless Steel
19	RIVET	Stainless Steel	Stainless Steel	Stainless Steel
20	NAME PLATE	Aluminum	Aluminum	Stainless Steel
21	RETAINER	Carbon Steel	Carbon Steel	Stainless Steel
22	O-RING	VITON A(-29°C)	VITON GLT(-46°C)	VITON GLT(-46°C)
*23	BACK UP RING	Teflon	Teflon	Teflon

\* Only applies to Class 1500 Valves

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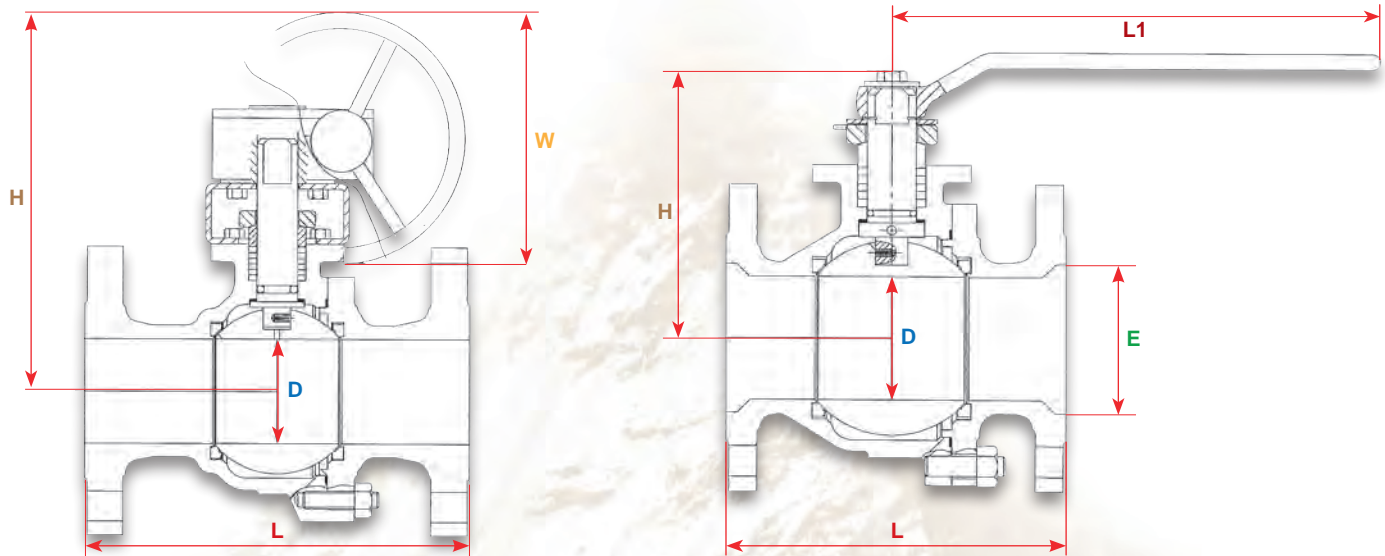


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# DIMENSIONS

## CAST FLOATING BALL VALVE ASME CLASS 150 & 300



150 FP	D		L (RF)		L (RTJ)		E		H		L1		W		Weight	
Bore	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2"	2	50	7	178	-	-	-	-	4.84	123	10.4	265	-	-	24	11
3"	3	76	8	203	-	-	-	-	6.69	170	11.8	300	-	-	50	23
4"	4	102	9	229	-	-	-	-	8.11	206	15.7	400	-	-	117	53
6"	6	152	15.5	394	-	-	-	-	20.91	531	19.7	500	-	-	240	108
8"	8	203	18	457	-	-	-	-	24.65	626	-	-	19.68	500	430	195
10"	10	254	21	533	-	-	-	-	26.3	668	-	-	19.68	500	668	312

150 RP	D		L (RF)		L (RTJ)		E		H		L1		W		Weight	
Bore	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2 x 1 1/2"	1.5	38	7	178	-	-	2	50	4.5	115	10.4	265	-	-	20	9
3" x 2"	2	50	8	203	-	-	3	76	4.84	123	11.8	300	-	-	35	16
4" x 3"	3	76	9	229	-	-	4	102	6.7	170	11.8	300	-	-	65	30
6" x 4"	4	102	15.5	394	-	-	6	152	8.2	208	15.7	400	-	-	112	51
8" x 6"	6	152	18	457	-	-	8	203	-	-	-	-	11.8	300	271	123
10" x 8"	8	203	21	533	-	-	10	254	-	-	-	-	19.68	500	480	218

300 FP	D		L (RF)		L (RTJ)		E		H		L1		W		Weight	
Bore	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2"	2	50	8.5	216	-	-	-	-	4.84	123	10.4	265	-	-	31	14
3"	3	76	11.12	283	-	-	-	-	6.69	170	11.8	300	-	-	68	21
4"	4	102	12	305	-	-	-	-	8.11	206	15.7	400	-	-	110	50
6"	6	152	15.9	403	-	-	-	-	20.91	531	19.7	500	-	-	256	116
8"	8	203	19.75	502	-	-	-	-	27.56	700	-	-	19.68	500	517	235
10"	10	254	22.4	568	-	-	-	-	36.3	922	-	-	19.68	500	1087	493

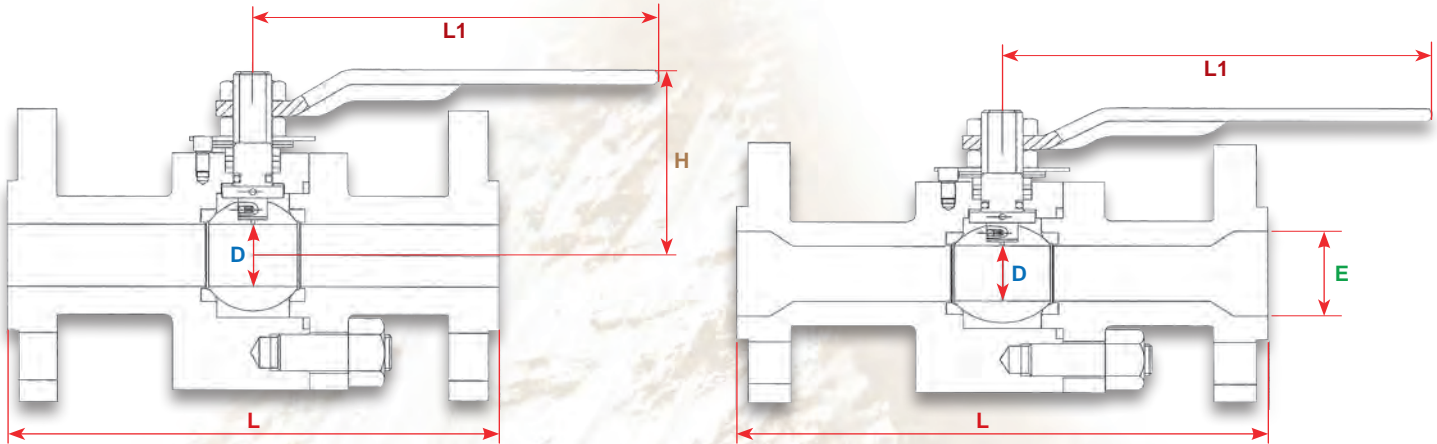
300 RP	D		L (RF)		L (RTJ)		E		H		L1		W		Weight	
Bore	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2 x 1 1/2"	1.5	38	8.5	216	-	-	2	50	4.21	107	10.4	265	-	-	24	11
3" x 2"	2	50	11.12	283	-	-	3	76	4.84	123	10.4	265	-	-	66	30
4" x 3"	3	76	12	305	-	-	4	102	6.69	170	11.8	300	-	-	86	39
6" x 4"	4	102	15.9	403	-	-	6	152	8.11	206	15.7	400	-	-	160	73
8" x 6"	6	152	19.75	502	-	-	8	203	20.91	531	15.7	400	-	-	327	148
10" x 8"	8	203	22.4	568	-	-	10	254	36.3	700	-	-	19.68	500	706	320





# DIMENSIONS

## FORGED FLOATING BALL VALVE ASME CLASS 600 - 1500



600 FP Bore	D		L (RF)		L (RTJ)		E		H		L1		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2"	2	50	11.5	292	-	-	-	-	5.8	148	15.7	400	64	29
3"	3	76	14	356	-	-	-	-	6.3	160	15.7	400	130	59
4"	4	102	17	432	-	-	-	-	12	303	40	995	300	135

600 RP Bore	D		L (RF)		L (RTJ)		E		H		L1		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2 x 1 1/2"	1.5	38	11.5	292	-	-	2	50	5.1	129	15.7	400	67	30
3" x 2"	2	50	14	356	-	-	3	76	5.8	148	15.7	400	93	42
4" x 3"	3	76	17	432	-	-	4	102	7.1	180	15.7	400	171	81
6" x 4"	4	102	22	559	-	-	6	152	12	303	40	995	441	200

900 FP Bore	D		L (RF)		L (RTJ)		E		H		L1		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2"	2	50	14.5	368	14.62	371	-	-	8.4	212	15.7	400	139	63
3"	3	76	15	381	15.12	384	-	-	9.8	250	31.5	800	198	90

900 RP Bore	D		L (RF)		L (RTJ)		E		H		L1		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
3" x 2"	2	50	15	381	15.12	384	3	76	6.3	160	19.68	500	175	80

1500 FP Bore	D		L (RF)		L (RTJ)		E		H		L1		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Lbs.	Kg.
2"	2	50	14.5	368	14.62	371	-	-	8.4	212	15.7	400	139	63





## FB<sup>2</sup> Break Torque At Full differential Pressure

Size (in)	Class 150		Class 300		Class 600		Class 900		Class 1500	
	Nm	In/Lb	Nm	In/Lb	Nm	In/Lb	Nm	In/Lb	Nm	In/Lb
1 1/2	40	354	60	531	90	797	140	1239	171	1513.4
2	50	443	70	619.5	130	1150.5	200	1770	420	3717
3	90	797	120	1062	200	1770				
4	180	1593	230	2035.5	370	3274.5				
6	670	5930	930	8230.5						
8	1100	9735	1930	17081						
10	2000	17700	4500	39825						

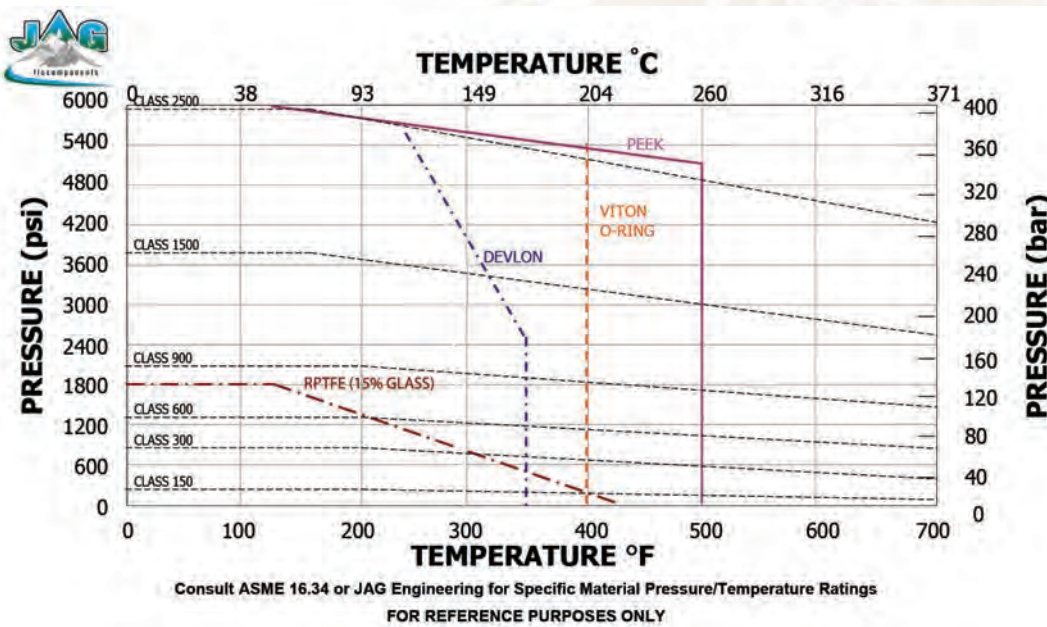
Notes: Size based on bore size  
 No safety factor included (Safety Factor amount to add will be based on application)  
 Recommended: Clean Liquid - x 1.3 Dry Gas - x 1.7 Cryo or Peek Seat - x 2.3  
 Run torque = 60% of Break Torque Reseat Torque = 80% of Break Torque

Above torques based on the following standard stock seat material:

Size (in)	Class 150	Class 300	Class 600	Class 900	Class 1500
	Seat Material	Seat Material	Seat Material	Seat Material	Seat Material
1 1/2	RPTFE	RPTFE	RPTFE	Devlon V	Devlon V
2	RPTFE	RPTFE	RPTFE	Devlon V	Devlon V
3	RPTFE	RPTFE	RPTFE		
4	RPTFE	RPTFE	Devlon V		
6	RPTFE	RPTFE			
8	RPTFE	RPTFE			
10	RPTFE	RPTFE			

Note: Non standard stocked seat material torques available upon request  
 RPTFE - Reinforced Teflon(15% Glass Filled)

## FB<sup>2</sup> Temperature / Pressure Chart



Above ratings are for soft seal components only. Please consult ASME 816.34 for Body and Closure Pressure/Temperature ratings

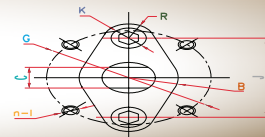
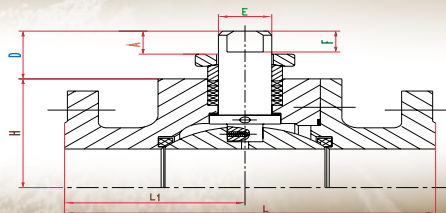
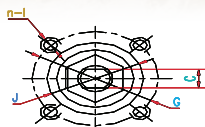
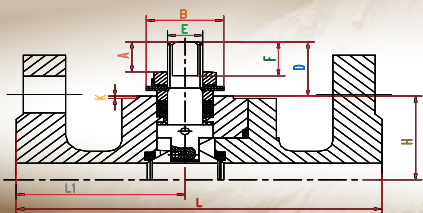


# FB2 TOP WORKS

## FORGED STEEL TOP WORKS

SIZE (in)	CLASS	A	B	C	D	E	F	FLANGE (ISO 5211)	G	n-I	J	K	H	L1	L
1-1/2" FP	CL 600	23.5	50	18	44	M24	40	F07	70	4-M8	0	0	64	106.5	241
2" RP	CL 600	23.5	50	18	44	M24	40	F07	70	4-M8	0	0	64	146	292
2" FP	CL 600	24	50	18	45	M24	39	F07	70	4-M8	0	0	82	145.5	292
3" RP	CL 600	24	50	18	45	M24	39	F07	70	4-M8	0	0	82	178	356
3" FP	CL 600	36	71	26	66	M36	60	F10	102	4-M10	0	0	101	178	356
4" RP	CL 600	36	71	26	66	M36	60	F10	102	4-M10	0	0	101	216	432
2" FP	CL 900	22	63	22	47.5	M30	40	F10	102	4-M10	0	0	97	179	371
3" RP	CL 900	22	63	22	47.5	M30	40	F10	102	4-M10	0	0	97	187.5	384
1-1/2" FP	CL 1500	17.5	50	18	37	M24	35	F07	70	4-M8	0	0	68	145.5	305
2" RP	CL 1500	17.5	50	18	37	M24	35	F07	70	4-M8	0	0	68	184	371
2" FP	CL 1500	22	63	22	47.5	M30	40	F10	102	4-M10	0	0	97	179	371

SIZE (in)	CLASS	A	B	C	D	E	F	FLANGE (ISO 5211)	G	n-I	J	K	H	L1	L	R
4" FP	CL 600	53.5	R36	27	89.5	∅40	55.5	F10	∅102	4-M10	90	∅19	138	216	432	R12
6" RP	CL 600	53.5	R36	27	89.5	∅40	55.5	F10	∅102	4-M10	90	∅19	138	279.5	559	R12
3" FP	CL 900	52	R30	24	73.5	∅35	49	F10	∅102	4-M10	80	∅19	111	174.5	381	R12

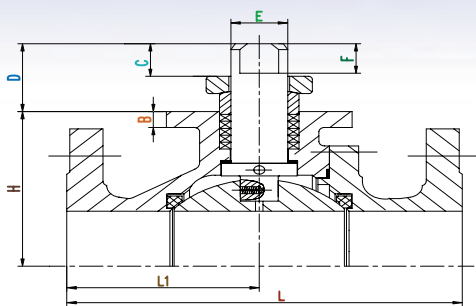


## CAST STEEL CLASS 300 CLASS 150

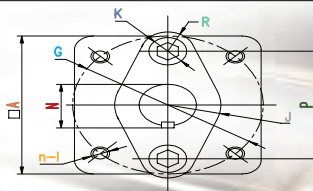
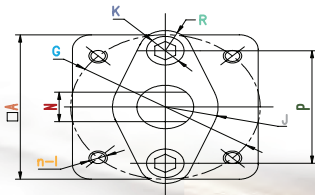
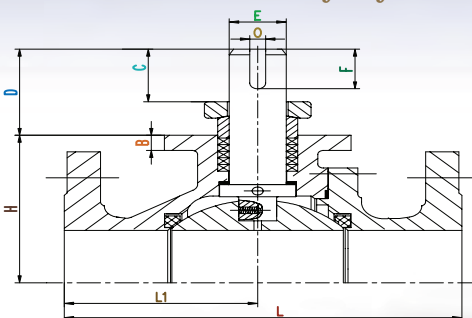
Bore SIZE (in)	A	B	C	D	E	F	FLANGE (ISO 5211)	G	n-I	N	J	K	R	P	H	L1	L	O
1-1/2	75	12	20.5	39	∅19	19	F07	∅70	4-M8	14	R20	∅14	R10	56	60	78	165	
2	76	12	21	39	∅19	19	F07	∅70	4-M8	14	R20	∅14	R10	56	76	77	178	
3	102	13	31	53	∅30	24	F10	∅102	4-M10	22	R30	∅19	R12	80	107	88.5	203	
4	102	13	30	58	∅35	27.5	F10	∅102	4-M10	24	R30	∅19	R12	80	136	105	229	
6	142	16	58	89	∅40	55	F14	∅140	4-M16	27	R40	∅23.5	R17.5	107	187	197	394	
6	142	16	115	146	∅40	48	F14	∅140	4-M16	43	R40	∅23.5	R17.5	107	187	197	394	12
8	142	16	61	96	∅50	56	F14	∅140	4-M16	30	R40	∅23.5	R17.5	107	226	228.5	457	
8	142	16	124	159	∅50	50	F14	∅140	4-M16	53.5	R40	∅23.5	R17.5	107	226	228.5	457	14
10	172	19	109	155	∅60	67	F16	∅165	4-M20	40	R45	∅28.5	R21.5	128	268	266.5	533	

Bore SIZE (in)	A	B	C	D	E	F	FLANGE (ISO 5211)	G	n-I	N	J	K	R	P	H	L1	L	O
1-1/2	70	10	20.5	39	∅19	19	F07	∅70	4-M8	14	R20	∅14	R10	56	60	83	191	
2	70	12	21	39	∅19	19	F07	∅70	4-M8	14	R20	∅14	R10	56	76	108	216	
3	102	13	27	54	∅30	25	F10	∅102	4-M10	22	R30	∅19	R12	80	107	141.5	282.5	
4	102	13	30	58	∅35	27.5	F10	∅102	4-M10	24	R30	∅19	R12	80	136	150	305	
6	142	16	54	95	∅50	56	F14	∅140	4-M16	30	R40	∅23.5	R17.5	107	187	201.5	403	
6	142	16	105	146	∅50	50	F14	∅140	4-M16	53.5	R40	∅23.5	R17.5	107	187	201.5	403	14
8	172	20	125	173	∅60	70	F16	∅165	4-M20	64	R45	∅28.5	R21.5	128	236	251	502	18
10	∅300	30	194	260	∅80	115	F25	∅254	8-M16	85	R60	∅38	R28	160	282	254	568	22

Double D Stem



Round with Keyway





*The Peak*  
Of Perfection



## Trunnion Ball Valves

### TB3 3-Piece Bolted Body (Self Relieving) & PTD 2&3-Piece Bolted Body (Double Piston)



Forged Steel/Full or Reduced Port

- 2" - 60" Class 150-600
- 2" - 36" Class 900
- 2" - 24" Class 1500
- 2" - 12" Class 2500
- RF, RTJ, BW Ends

*Fully Welded Ball Valves Available  
Bonnet Extensions for buried service*



### Pig Valve 3-Piece Bolted Body

Forged Steel/Full Port

- 2" - 12" Class 150-600
- RF, RTJ, BW Ends
- Launchers and Receivers

## Additional Valves



### Flanged 6D Swing Check

Cast Steel/Full Port

- 2" - 48" Class 150 to 2500
- RF, RTJ, BW Ends



### Threaded 6D Swing Check

Cast Steel/Full Port

- 1/4" - 2" Class 900
- NPT Ends



### MUD-Lite™

Forged Steel/Full Port

- 4 1/2" 3000 PSI
- EUE Ends



### Isolator Valve

Forged Steel/Reduced Port

- 2" Class 1500
- NPT & Flanged Ends



### Hammer Union T3 Valve

Forged Steel/Reduced Port

- 2" 5000 WOG
- Hammer Union End Connections

## Floating Ball Valves

### FB2 2-Piece Bolted Body

Full or Reduced Port

Cast Steel

- 2" - 10" Class 150
- 2" - 10" Class 300
- Forged Steel
- 2" - 6" RP Class 800
- 2" Class 1500
- 3" Class 900



### T3 3-Piece Threaded Body

Forged Steel/Full or Reduced Port

- 1/4" - 3" Class 1500-2500
- NPT, SW, BW, Flanged Ends
- Hidden Spring Return Handles Available*



### B3 3-Piece Bolted Body

Cast Steel/Full Port

- 1/4" - 2" Class 900
- NPT & SW Ends



### T2 2-Piece Threaded Body

Cast Steel/Full or Reduced Port

- 1/4" - 2" Class 900
- NPT Ends
- Fully Seal Welded Body Available for RP*



### C2 2-Piece Threaded Body

Cast Steel/Reduced Port

- 1/4" - 2" 2000 WOG
- NPT Ends
- Hidden/Exposed Spring Return Handle



### 413 1-Piece Hex Barstock Body

Forged Steel/Reduced Port

- 1/4" - 2" 2000 WOG
- NPT Ends



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