



# FLOATING BALL VALVES

## UNIBODY & 2 PIECE CAST BODY

Class 150, 300 & 600

#### **PRODUCT OVERVIEW**



FluoroSeal® Class 150, 2-piece Floating Ball Valve with Enclosed Gear Operator



FluoroSeal® Class 150, Unibody Floating Ball Valve with Wrench Operator

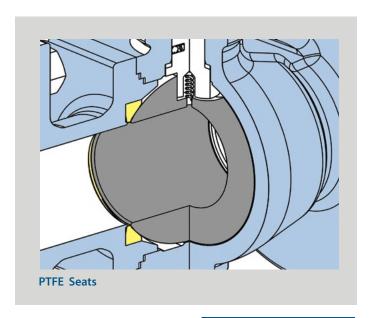
For over 30 years, FluoroSeal Specialty Valves has been manufacturing and customizing a wide range of valves and accessories for many industries including Oil & Gas, Petrochemical, Chemical, Mining, Pulp and Paper, Power Generation, Pharmaceutical, and Marine. FluoroSeal's one and two piece floating ball valves are designed and tested according to API, ANSI, and ASME standards to meet the most stringent industry requirements. These valves provide reliable and long lasting service life in a broad range of difficult and demanding applications.

FluoroSeal one and two piece cast floating ball valves are available in both standard and full port designs. Because of FluoroSeal's metallurgical expertise and inhouse foundry capabilities, exotic alloys valves can be supplied with greatly reduced lead times compared to the competition.

#### **DESIGN FEATURES**

#### • IN-LINE SEALING

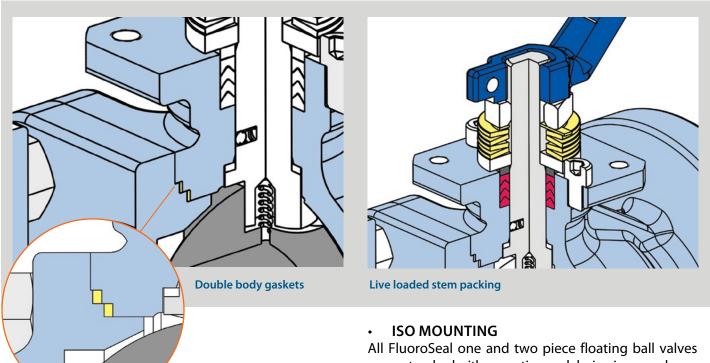
Tight in-line sealing, even under low differential pressure situations is achieved via the pre-loaded resilient PTFE seats. In applications where a pressure drop exists, the force of the differential pressure pushes the floating ball downstream to compress the seat to create a tight, pressure assisted seal. Optional seat materials include RPTFE, Hi-Temp, PEEK, and others. FluoroSeal resilient seats are self-relieving as standard.





#### ATMOSPHERIC SEALING

FluoroSeal's standard stem seal utilizes a precision machined packing chamber with standard PTFE or optional flexible graphite packing which is loaded by a gland to achieve extremely low emissions. Optional live loading of the stem packing is available to meet the most stringent emissions requirements. Both one and two piece body designs incorporate dual body joint seals to prevent emissions.



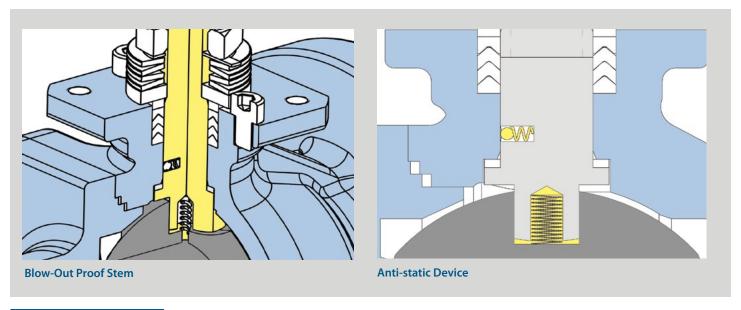
#### BLOW-OUT PROOF STEM

FluoroSeal's internally installed stem utilizes a machined shoulder to retain the stem in the valve under all pressure conditions.

All FluoroSeal one and two piece floating ball valves come standard with mounting pad design in accordance with ISO 5211.

#### ANTI-STATIC DEVICE

Electrical continuity between the ball/stem and the stem/body is achieved through the use of spring loaded pins.





#### **OPTIONS**

#### FIRESAFE DESIGN

FluoroSeal's one and two piece fire safe floating ball valves have been qualified to the requirements of API 607. In the event that the valve is subjected to an elevated temperature condition and the resilient seats and seals are damaged, back-up metal seating provides an in-line seal while graphite stem seals and graphite body joint seals provide atmospheric sealing.

#### STEM JOURNAL LUBRICATION

Ensures smooth operation over long periods of time, even in low cycle frequency applications.

#### LOCKING DEVICE

Locking devices are available to lock the FluoroSeal floating ball valves in either the fully open or closed positions. Locking devices are available for both wrench and gear operators.

#### VENTED BALL

Vented balls can be supplied for applications where excess pressure build up in the ball/body cavity is a concern when in the closed position. Process media is vented upstream preventing potential damage to valve internals.

#### **DESIGN AND TESTING STANDARDS**

API 6D, API SPEC Q1

Valve Design

**ANSI B16.10** 

Face-to-Face and End-to-End Dimensions of Valves

ANSI B16.34 / API 608 / BS 5351

Valves, Flanged and Butt Weld End

API 607 / ISO 10497 / BS 6755

Specification for Fire Test for Valves

MSS SP-6

Standard Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings

ANSI B16.5 / ISO 5211

1/2" - 12" Pipe Flanges and Flanged Fittings

MSS SP-61

Pressure Testing of Valves

ASTM / ANSI / EN

Materials

ISO 15848-1

**Fugitive Emissions** 

**API 598** 

Valve Inspection and Testing

MSS SP-25

Standard Marking System for Valves, Fittings, and Unions

MSS SP-55

Quality Standard for Steel Castings for Valves

#### **QUALITY ASSURANCE**

FluoroSeal Valves are designed with the best features presently available on the market. They are inspected throughout the manufacturing process to assure high quality and consistency in every unit.

ISO 9001: 2015



Design and Manufacture of Industrial Valves

ANSI/API 6FA



Fire Test Certificate











At FluoroSeal, we are inspired and committed to developing innovative flow control solutions for every industry we serve.



For over 38 years, FluoroSeal has been manufacturing and customizing a wide range of valves, parts, and accessories for various industries such as Oil & Gas, Chemical, Petrochemical, Power, Pharmaceutical, and Mining. Our client-oriented culture allows us to understand complex industry needs and meet the highest quality standards - that is why our manufacturing processes are ISO 9001:2015, and PED 2014/68/EU certified.

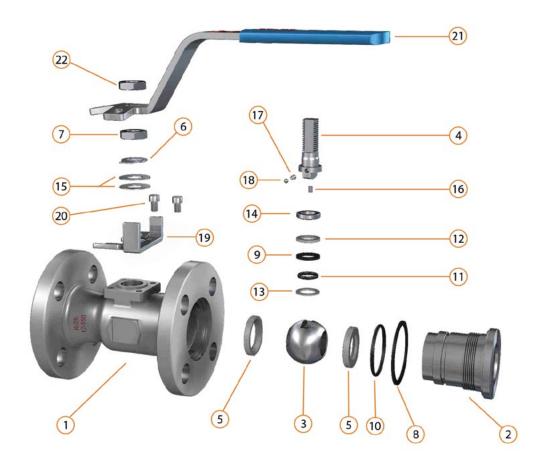
Our wholly owned foundries and manufacturing plants enhance our capability to offer an extensive range of high quality valves at competitive prices in a wide range of exotic alloys on demand. With its large network of warehouses, distributors, and representatives, FluoroSeal is capable of delivering valve products, technical support, and complementary services worldwide and is able to support its customers with quick deliveries in case of emergencies and unscheduled shutdowns.

Our product offering is continuously evolving thanks to our team of highly skilled designers, engineers, and metallurgists who ensure the application of the latest technologies in CAD software, production methods, machinery, quality control procedures, and product testing to all of our products.



## UNIBODY CAST STEEL FLOATING BALL VALVE, SOFT SEATED

Class 150 & 300: 1/2" to 1 1/2"



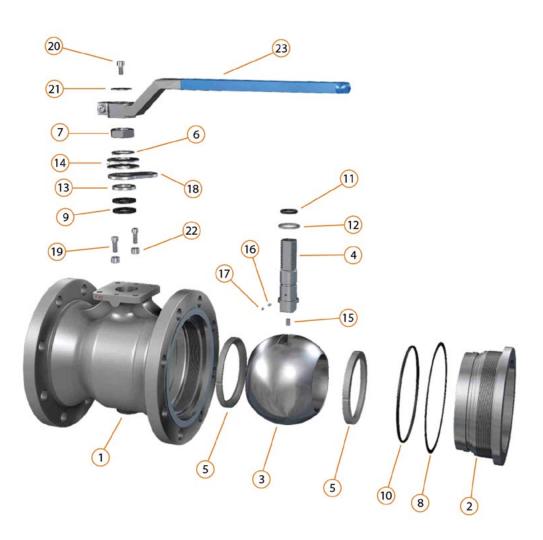
No.	Description/Part
1	Body
2	End Cap
3	Ball
4	Stem
5	Seat
6	Locking Plate
7	Nut Lock
8	Body Gasket
9	Stem Packing
10	O-ring
11	O-ring
12	Stem Packing
13	Thrust Washer
14	Gland
15	Belleville Spring
16	Antistatic Spring
17	Antistatic Spring

No.	Description/Part
18	Antistatic Ball
19	Position Plate
20	Packing Gland Screw
21	Wrench
22	Lever Nut



## **UNIBODY CAST STEEL FLOATING BALL VALVE, SOFT SEATED**

Class 150: 3" to 8" / Class 300: 3" to 6"

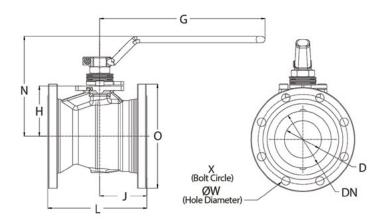


No.	Description/Part
1	Body
2	End Cap
3	Ball
4	Stem
5	Seat
6	Washer
7	Nut Lock
8	Body Gasket
9	Stem Packing
10	O-ring
11	O-ring
12	Thrust Washer
13	Gland
14	Belleville Spring
15	Antistatic Spring
16	Antistatic Spring
17	Antistatic Ball

No.	Description/Part
18	Locking Plate
19	Screw
20	Screw
21	Washer
22	Sleeve
23	Wrench

## **DIMENSIONS & WEIGHTS - BG1 WITH WRENCH**

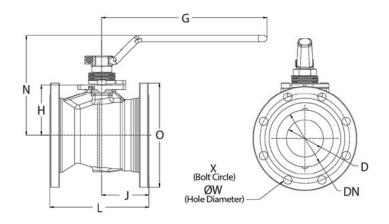




## UNIBODY FLOATING BALL VALVE SOFT SEATED - REDUCED BORE ANSI CLASS 150

SIZE 1/2" to 8" Wrench Operated

											Д	NSI C	LASS	150										
	Size	ı	)	D	N	(	)		L		J	١	V	Χ		V	Н		N		G		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
1/2′	15	0.4	11	0.6	15.0	3.5	90	4.3	108	2.1	53.0	0.6	16.0	2.4	60.3	4	0.7	18.7	3.7	93.6	6.3	160	3.3	1.5
3/4'	20	0.6	14	0.8	20.8	3.9	100	4.6	117	2.3	59.6	0.6	16.0	2.8	69.9	4	1.1	27.7	4.1	103.5	6.3	160	5.5	2.5
1"	25	0.7	19	1.0	25.4	4.3	110	5.0	127	2.4	61.1	0.6	16.0	3.1	79.4	4	1.3	32.5	4.3	108.5	7.1	180	6.6	3.0
1 1/2	40	1.2	30	1.5	38.0	4.9	125	6.5	165	3.0	76.3	0.6	16.0	3.9	98.4	4	1.9	49.5	4.9	125.0	9.4	240	14.3	6.5
2"	50	1.5	38	2.0	51.0	5.9	150	7.0	178	3.1	80.0	0.7	19.0	4.8	120.7	4	2.2	55.0	5.2	131.0	9.4	240	19.8	9.0
3"	80	2.4	62	3.0	76.0	7.5	190	8.0	203	3.5	88.6	0.7	19.0	6.0	152.4	4	3.8	95.5	6.7	169.5	11.8	300	40.8	18.5
4"	100	3.0	76	4.0	101.5	9.1	230	9.0	229	4.1	104.6	0.7	19.0	7.5	190.5	8	4.6	117.0	8.1	207.0	15.7	400	67.2	30.5
6"	150	3.9	100	6.0	152.5	11.0	280	10.5	267	5.0	127.0	0.9	22.2	9.5	241.3	8	5.3	135.0	8.7	222.0	15.7	400	101.4	46.0
8′	200	5.7	144	8.0	202.5	13.6	345	11.5	292	5.7	146.0	0.9	22.2	11.8	298.5	8	7.4	187.5	11.2	283.5	19.7	500	195.1	88.5



## UNIBODY FLOATING BALL VALVE SOFT SEATED - REDUCED BORE ANSI CLASS 300

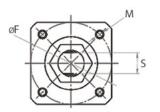
SIZE 1/2" to 6" Wrench Operated

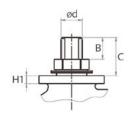
												ANSI (	CLASS	300										
9	ize	[	)	DN		0			L	J		W		X		V	Н		N		G		Wei	ght
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
1/2"	15	0.4	11	0.6	15.0	3.7	95	5.5	139.7	2.1	53.0	0.6	16.0	2.6	66.7	4	0.7	18.7	3.7	93.6	6.3	160	4.4	2.0
3/4"	20	0.6	14	0.8	20.8	4.5	115	6.0	152.4	2.3	59.6	0.7	19.0	3.3	82.6	4	1.1	27.7	4.0	100.5	6.3	160	7.7	3.5
1"	25	0.7	19	1.0	25.4	4.9	125	6.5	165.0	2.4	61.1	0.7	19.0	3.5	88.9	4	1.3	32.5	4.3	108.5	7.1	180	9.9	4.5
1 ½	40	1.2	30	1.5	38.0	6.1	155	7.5	190.5	3.0	76.3	0.9	22.2	4.5	114.3	4	1.9	49.5	4.9	125.0	9.4	240	19.8	9.0
2"	50	1.5	38	2.0	51.0	6.5	165	8.5	216.0	3.1	80.0	0.7	19.0	5.0	127.0	8	2.3	55.0	5.2	131.0	9.4	240	25.4	11.5
3"	80	2.4	62	3.0	76.0	8.3	210	11.1	282.5	3.5	88.6	0.9	22.2	6.6	168.3	8	3.8	95.5	6.7	169.5	11.8	300	56.2	25.5
4"	100	3.0	76	4.0	101.5	10.0	255	12.0	304.8	4.1	104.6	0.9	22.2	7.9	200.0	8	4.6	117.0	8.1	207.0	15.7	400	95.9	43.5
6"	150	3.9	100	6.0	152.5	12.6	320	15.9	403.0	5.0	127.0	0.9	22.2	10.6	270.0	12	5.3	135.0	8.7	222.0	15.7	400	169.8	77.0





## **TOP WORKS - DIMENSIONS BG1 VALVES**





## UNIBODY FLOATING BALL VALVE **SOFT SEATED - REDUCED BORE CLASS 150 & 300**

SIZE 1/2" to 2" Wrench Operated

	ANSI CLASS 150 & 300														
Si	ize	Ø	F	øM	9	5	Н	1	ød	E	3	(	-		
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm		
1/2"	15	1.4	36	M5	0.3	7	0.2	6	M10	0.3	8	0.7	18.0		
3/4"	20	1.4	36	M5	0.3	7	0.2	6	M10	0.4	10	0.9	22.7		
1"	25	1.4	36	M5	0.4	9	0.2	6	M12	0.5	12	1.0	25.5		
1 ½"	40	2.0	50	M6	0.6	14	0.3	7	M18	0.7	19	1.4	35.5		
2"	50	2.0	50	M6	0.6	14	0.3	7	M18	0.6	15	1.3	34.0		

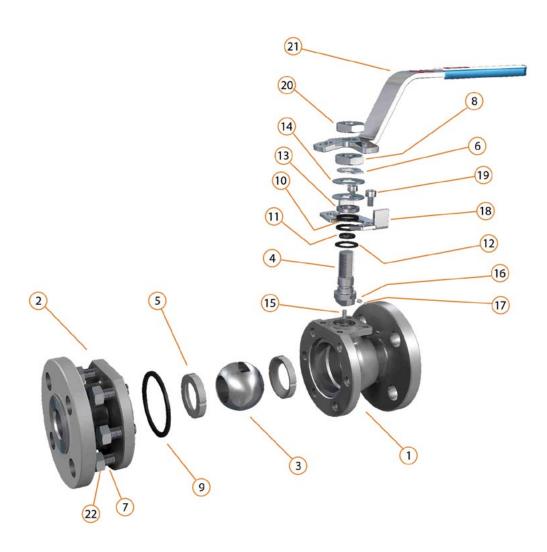
#### **NOTES:**

- 1. The information on this catalog is provided for general informational purposes only.
- 2. Customization for specific applications is available upon request.
- 3. For all technical parameters of the product please contact your local FluoroSeal sales office or authorized representative.
- 4. We reserve the right to make changes without prior notice.



## 2-PIECE BODY CAST STEEL FLOATING BALL VALVE, SOFT SEATED

Class 150 & 300 1/2" to 1 1/2"



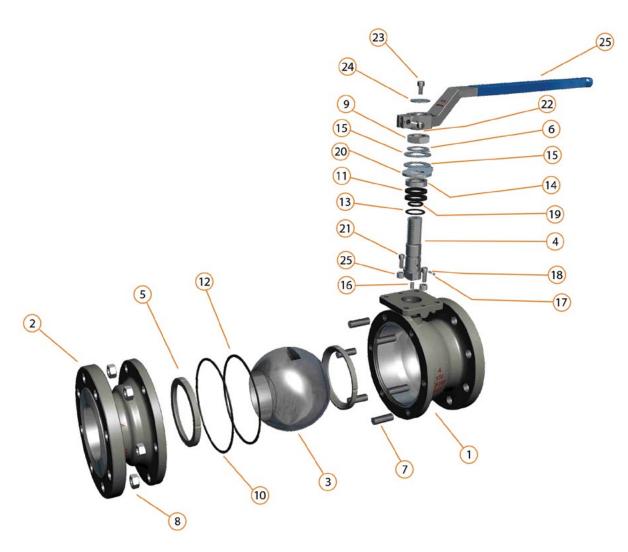
No.	Description/Part
1	Body
2	End Cap
3	Ball
4	Stem
5	Seat
6	Locking Plate
7	Screw
8	Packing Nut
9	Body Gasket
10	O-ring
11	Stem Packing
12	Thrust Washer
13	Gland
14	Belleville Spring
15	Antistatic Spring
16	Antistatic Spring
17	Antistatic Ball

No.	Description/Part
18	Position Plate
19	Travel Stop Screw
20	Wrench Nut
21	Wrench
22	Body Nut



## 2-PIECE BODY CAST STEEL FLOATING BALL VALVE, SOFT SEATED

Full Bore - Class 150 & 300: 2" to 6" / Class 600 2" to 4" / Reduced Bore - Class 150 & 300: 2" to 8" / Class 600: 2" to 4"

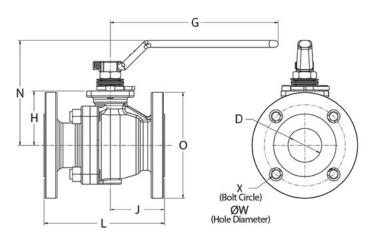


No.	Description/Part
1	Body
2	End Cap
3	Ball
4	Stem
5	Seat
6	Washer
7	Bolt
8	Nut
9	Packing Nut
10	Body Gasket
11	Stem Packing
12	Washer
13	Thrust Washer
14	Gland
15	Belleville Spring
16	Antistatic Spring
17	Antistatic Spring

No.	Description/Part
18	Antistatic Ball
19	O-ring
20	Locking Plate
21	Travel Stop Screw
22	Screw
23	Screw
24	Washer
25	Wrench

## **DIMENSIONS & WEIGHTS - BG2 WITH WRENCH**



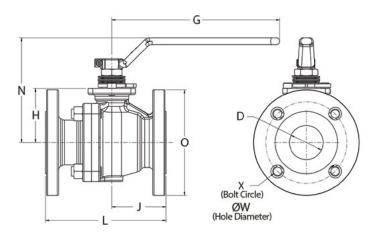


## 2-PIECE FLOATING BALL VALVE SOFT SEATED - FULL BORE ANSI CLASS 150 & 300

SIZE 1/2" to 6" Wrench Operated

										ANS	SI CLAS	SS 150										
Si	ze	[	)	0		L		J		W		X		V	I	4	N		G		Wei	ight
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
1/2"	15	0.6	14	3.5	90	4.3	108	1.9	47.0	0.6	16	2.4	60.3	4	1.4	36.0	4.3	109.0	6.3	160	4.0	1.8
3/4"	20	0.7	19	3.9	100	4.6	117	2.1	53.0	0.6	16	2.8	69.9	4	1.6	41.5	4.5	115.0	7.1	180	4.4	2.0
1"	25	1.0	25	4.3	110	5.0	127	2.2	55.5	0.6	16	3.1	79.4	4	1.7	43.0	4.7	120.0	7.1	180	7.9	3.6
1 ½"	40	1.5	38	4.9	125	6.5	165	3.0	75.0	0.6	16	3.9	98.4	4	2.3	57.5	5.1	130.0	9.4	240	15.9	7.2
2"	50	2.0	50	6.0	150	7.0	178	3.1	80.0	0.7	19	4.8	120.7	4	3.5	89.0	5.7	146.0	9.4	240	24.5	11.1
3″	80	3.0	76	7.5	190	8.0	203	3.7	95.0	0.7	19	6.0	152.4	4	4.6	117.0	7.9	200.0	15.7	400	48.5	22.0
4"	100	3.9	100	9.0	230	9.0	229	4.1	104.0	0.7	19	7.5	190.5	8	5.3	135.0	8.9	225.0	15.7	400	110.2	50.0
6"	150	5.9	151	11.0	280	15.5	394	6.9	175.0	0.9	22.2	9.5	241.3	8	7.7	195.0	11.5	291.0	23.6	600	238.1	108.0

										ANS	SI CLAS	SS 300										
Si	ze	[	)	(	)	l	-		J	١	٧		(	V	I	4	1	١	(	3	Wei	ight
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
1/2"	15	0.6	14	3.7	95	5.5	140	2.0	52	0.6	16.0	2.6	66.7	4	1.4	36.0	4.3	109	6.3	160	5.1	2.3
3/4"	20	0.7	19	4.5	115	6.0	152	2.1	53	0.7	19.0	3.2	82.5	4	1.6	41.5	4.5	115	7.1	180	7.9	3.6
1″	25	1.0	25	4.9	125	6.5	165	2.4	60	0.7	19.0	3.5	88.9	4	1.7	43.0	4.7	120	7.1	180	11.2	5.1
1 ½"	40	1.5	38	6.1	155	7.5	190	3.0	75	0.9	22.2	4.5	114.3	4	2.3	57.5	5.1	130	9.4	240	22.0	10.0
2"	50	2.0	50	6.5	165	8.5	216	3.1	80	0.7	19.0	5.0	127.0	8	3.5	89.0	5.7	146	9.4	240	30.9	14.0
3″	80	3.0	76	8.3	210	11.1	283	3.7	95	0.9	22.2	6.6	168.3	8	4.6	117.0	7.9	200	15.7	400	67.5	30.6
4"	100	3.9	100	10.0	255	12.0	305	4.1	104	0.9	22.2	7.9	200.0	8	5.3	135.0	8.9	225	15.7	400	116.8	53.0
6"	150	5.9	151	12.6	320	15.9	403	6.9	175	0.9	22.2	10.6	269.9	12	7.7	195.0	11.5	291	31.5	800	255.7	116.0

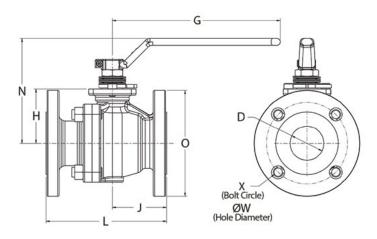


## 2-PIECE FLOATING BALL VALVE SOFT SEATED - FULL BORE ANSI CLASS 600

SIZE 2" to 4" Wrench Operated

										AN:	SI CLAS	SS 600	)									
9	ize	[	)		)	l	_		J	١	N		X	V	ŀ	Н	ı	N	(	j .	Wei	ight
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
2"	50	2.0	50	6.0	150	11.5	292	4.5	113.5	0.7	19.0	5.0	127.0	8	3.0	77	5.9	151	13.4	340	47.8	21.7
3″	80	3.0	76	8.3	210	14.0	356	6.0	153.0	0.9	22.2	6.6	168.3	8	4.2	106	8.0	204	14.4	367	108.5	49.2
4"	100	3.9	100	10.8	275	17.0	432	7.0	178.0	1.0	25.4	8.5	215.9	8	5.9	150	8.0	204	24.0	610	213.6	96.9



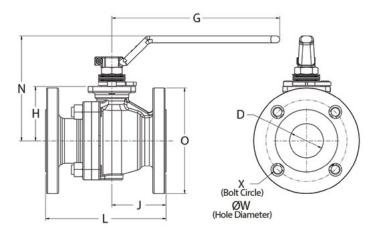


## 2-PIECE FLOATING BALL VALVE SOFT SEATED- REDUCED BORE ANSI CLASS 150 & 300

SIZE 2" to 8" Wrench Operated

											Д	NSI C	LASS	150										
Si	ize	[	)	D	N	(	)	l	-		J	١	V		X	V	I	1	1	٧	(	3	Wei	ight
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
2"	50	1.5	38	2.0	50	5.9	150	7.0	178	3.1	80	0.7	19.0	4.8	120.7	4	2.2	55.0	4.4	112.5	9.4	240	19.8	9.0
3″	80	2.0	50	3.0	76	7.5	190	8.0	203	3.5	90	0.7	19.0	6.0	152.4	4	3.1	80.0	5.7	146.0	9.4	240	35.3	16.0
4"	100	3.0	76	3.9	100	9.1	230	9.0	229	3.9	100	0.7	19.0	7.5	190.5	8	4.5	115.0	7.9	200.0	15.7	400	65.0	29.5
6"	150	3.9	100	5.9	151	11.0	280	15.5	394	5.9	150	0.9	22.2	9.5	241.3	8	5.3	135.0	8.7	221.0	15.7	400	105.8	48.0
8"	200	5.9	151	8.0	202	13.6	345	18.0	457	7.9	200	0.9	22.2	11.8	298.5	8	7.7	195.0	11.3	286.0	23.6	600	271.2	123.0

												ANSI (	CLASS	300										
S	ize	[	)	D	N	(	)	ı	L		J	١	N		X	V		Н	ı	N	(	3	Wei	ght
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
2"	50	1.5	38	2.0	50	6.5	165	8.5	216	3.7	95	0.7	19.0	5.0	127.0	8	2.2	55.5	4.4	112.5	9.4	240	24.3	11.0
3"	80	2.0	50	3.0	76	8.3	210	11.1	283	4.3	110	0.9	22.2	6.6	168.3	8	3.1	80.0	5.7	146.0	9.4	240	66.1	30.0
4"	100	3.0	76	3.9	100	10.0	255	12.0	305	4.9	125	0.9	22.2	7.9	200.0	8	4.5	115.0	7.9	200.0	15.7	400	86.0	39.0
6"	150	3.9	100	5.9	151	12.6	320	15.9	403	6.3	160	0.9	22.2	10.6	269.9	12	5.3	135.0	8.7	221.0	15.7	400	159.8	72.5
8″	200	5.6	151	8.0	202	15.0	380	19.8	502	8.9	225	1.0	25.4	13.0	330.2	12	7.7	195.0	11.3	286.0	31.5	800	326.3	148.0



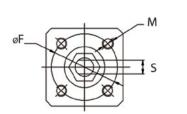
## 2-PIECE FLOATING BALL VALVE SOFT SEATED - REDUCED BORE ANSI CLASS 600

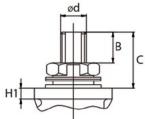
SIZE 2" to 4" Wrench Operated

											1	ANSI (	CLASS	600										
S	Size D DN O L J W X V H N G Weight																							
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
2"	50	1.5	38	2.0	50	6.5	165	11.5	292	4.6	117.5	0.7	19.0	5.0	127.0	8	2.6	67	5.6	141	13.4	340	42.3	19.2
3″	80	2.0	50	3.0	76	8.3	210	14.0	356	6.2	158.5	0.9	22.2	6.6	168.3	8	3.0	77	5.9	151	13.4	340	69.0	31.3
4"	100	3.0	76	3.9	100	10.8	275	17.0	432	8.0	203.0	1.0	25.4	8.5	215.9	8	4.2	106	8.0	204	14.4	367	167.6	76.0

## **TOP WORKS - DIMENSIONS BG2 WITH WRENCH**







## 2-PIECE FLOATING BALL VALVE SOFT SEATED - FULL BORE CLASS 150, 300 & 600

SIZE 1/2" to 6" Wrench Operated

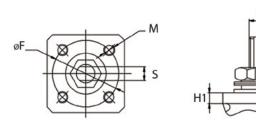
						ANSI C	LASS 150						
Si	ize	ø	F	М		5	Н	11	ød	I	3	(	Ī.
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm
1/2"	15	1.4	36	M5	0.3	7	0.2	5.0	M10	0.3	8.5	0.7	18.5
3/4"	20	1.4	36	M5	0.4	9	0.2	5.0	M12	0.5	11.5	1.0	25.0
1"	25	1.7	42	M5	0.4	11	0.2	6.0	M14	0.7	17.0	1.1	27.5
1 ½"	40	2.0	50	M6	0.6	14	0.3	7.5	M18	0.9	23.0	1.3	33.0
2"	50	2.8	70	M8	0.5	13	0.4	10.0	M18	0.6	14.0	1.4	36.0
3″	80	4.0	102	M10	0.8	20	0.5	12.0	M27	0.9	23.0	2.1	52.5
4"	100	4.0	102	M10	0.8	20	0.5	12.0	M27	0.9	23.0	2.1	52.5
6"	150	4.9	125	M12	0.9	24	0.6	16.0	M36	1.0	26.5	2.5	62.5

						ANSI C	LASS 300						
S	ize	Ø	F	М		S	F	11	ød	E	3	(	5
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm
1/2"	15	1.4	36	M5	0.3	7	0.2	5.0	M10	0.3	8.5	0.7	18.5
3/4"	20	1.4	36	M5	0.3	8	0.2	5.0	M12	0.5	11.5	1.0	25.0
1"	25	1.7	42	M5	0.4	11	0.2	6.0	M14	0.7	17.0	1.1	27.5
1 ½"	40	2.0	50	M6	0.6	14	0.3	7.5	M18	0.9	23.0	1.3	33.0
2"	50	2.8	70	M8	0.5	13	0.4	10.0	M18	0.6	14.0	1.4	36.0
3"	80	4.0	102	M10	0.8	20	0.5	12.0	M27	0.9	23.0	2.1	52.5
4"	100	4.0	102	M10	0.8	20	0.5	12.0	M30	0.9	23.0	2.2	55.0
6"	150	4.9	125	M12	1.1	28	0.6	16.0	M40	1.1	28.0	2.5	64.0

						ANSI C	LASS 600						
S	ize	e	F	М	!	5	Н	11	ød		3	(	<b>-</b>
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm
2"	50	2.8	70	M8	0.5	12	0.3	8.5	M22	0.5	12.0	1.5	37
3″	80	4.0	102	M10	0.8	20	0.5	12.0	M30	1.0	24.5	2.5	63
4"	100	4.0	102	M10	1.1	28	0.5	11.5	M40	0.8	21.5	2.5	64



## **TOP WORKS - DIMENSIONS BG2 WITH WRENCH**



## 2-PIECE FLOATING BALL VALVE SOFT SEATED (CAST STEEL BODY) REDUCED BORE - CLASS 150, 300 & 600

SIZE 2" to 8" Wrench Operated

						ANSI C	LASS 150						
Si	ize	Ø	F	М	9	5	H	11	ød		3	(	]
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm
2"	50	2.0	50	M6	0.5	13	0.3	8.0	M18	0.5	13.5	1.3	33.0
3″	80	2.8	70	M8	0.5	13	0.4	9.0	M18	0.7	17.0	1.5	37.0
4"	100	4.0	102	M10	0.8	20	0.5	12.0	M27	1.0	25.0	2.0	52.0
6"	150	4.0	102	M10	0.8	20	0.5	12.0	M27	1.0	26.0	2.1	53.0
8"	200	4.9	125	M12	0.9	24	0.6	16.0	M36	1.4	35.0	2.4	62.0

						ANSI C	LASS 300						
Si	ize	Ø	F	М	:	S	H	11	ød	E	3	(	-
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm
2"	50	2.0	50	M6	0.5	13	0.3	8.0	M18	0.5	13.5	1.3	33.0
3″	80	2.8	70	M8	0.5	13	0.4	9.0	M18	0.7	17.0	1.5	37.0
4"	100	4.0	102	M10	0.8	20	0.5	12.0	M27	1.0	25.0	2.0	52.0
6"	150	4.0	102	M10	0.8	20	0.5	12.0	M30	1.0	25.5	2.2	55.0
8"	200	4.9	125	M12	1.1	28	0.6	16.0	M40	1.0	26.0	2.4	62.0

						ANSI C	LASS 600						
Si	ize	Ø	F	M		S	H	l1	ød		3	(	5
in	mm	in	mm		in	mm	in	mm		in	mm	in	mm
2"	50	2.8	70	M8	0.5	12	0.3	8.4	M22	0.4	11.0	1.4	35.0
3″	80	2.8	70	M8	0.5	12	0.4	10.0	M22	0.5	12.0	1.5	37.0
4"	100	4.0	102	M10	0.8	20	0.6	15.0	M30	1.0	24.5	2.4	61.5

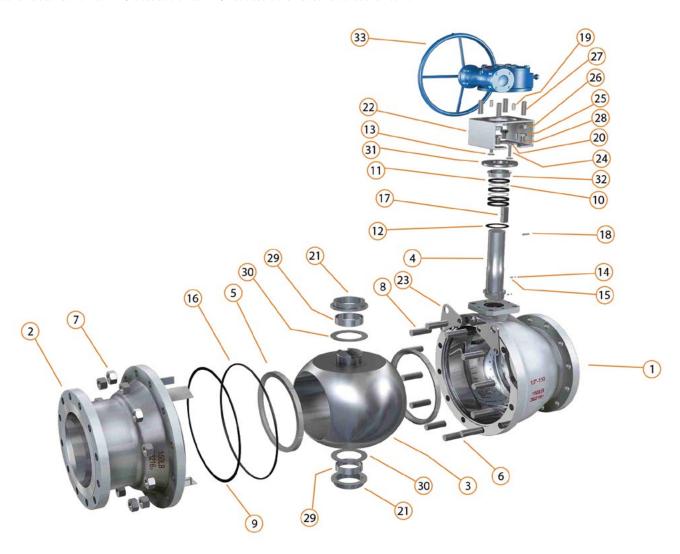
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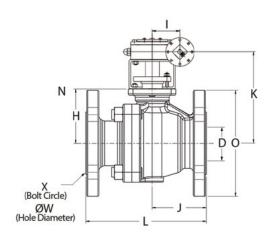
## 2-PIECE BODY CAST STEEL FLOATING BALL VALVE, SOFT SEATED

Full Bore - Class 150: 6" to 12" / Class 300 6" to 12" / Reduced Bore - Class 150 & 300: 8" to 10"



No.	Description/Part	No.	Description/Part
1	Body	18	Key
2	End Cap	19	Pin
3	Ball	20	Pin
4	Stem	21	Pin
5	Seat	22	Trunnion
6	Bolt	23	Yoke
7	Nut	24	Lifting eye
8	Bolt	25	Bolt
9	Body Gasket	26	Nut
10	Stem Packing	27	Bolt
11	Stem Packing	28	Nut
12	Thrust Washer	29	Screw
13	Belleville Spring	30	Bearing
14	Antistatic Spring	31	Washer
15	Antistatic Spring	32	Retainer Plate
16	Antistatic Ball	33	Packing Gland
17	O-ring	34	Gear
		34	Gear



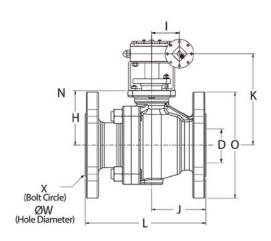


## 2-PIECE FLOATING BALL VALVE SOFT SEATED - FULL BORE CLASS 150 & 300

SIZE 6" to 12" Enclosed Gear Operated

										ANS	SI CLAS	SS 150										
Si	ze		)	(	)	L	-		J	١	٧	)	<	V	ŀ	-		<		I	We	ight
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
6"	150	5.9	151	11.0	280	15.5	394	6.9	175.0	0.9	22.2	9.5	241.3	8	7.7	195.0	12.5	318.0	3.1	78	291.0	132.0
8″	200	8.0	202	13.6	345	18.0	457	7.9	200.0	0.9	22.9	11.8	298.5	8	9.3	237.0	15.3	389.5	4.7	120	429.9	195.0
10"	250	10.0	254	15.9	405	21.0	533	8.9	226.0	1.0	25.4	14.3	362.0	12	11.1	282.0	17.2	437.0	4.7	120	687.8	312.0
12"	300	12.0	305	19.1	485	24.0	610	12.0	304.0	1.0	25.4	17.0	431.8	12	11.7	296.0	19.4	493.0	4.9	125	762.8	346.0

										ANS	SI CLAS	SS 300										
Si	ize	[	)		)	l	_		J	V	٧		Κ	V	ı	+	ı	K		I	Wei	ight
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
6"	150	5.9	151	12.6	320	15.9	403	6.9	175	0.9	22.2	10.6	269.9	12	7.7	195.0	12.5	318	3.1	78	319.7	145.0
8″	200	8.0	202	15.0	380	19.8	502	7.9	200	1.0	25.4	13.0	330.2	12	9.3	237.0	14.9	379	5.0	126	517.0	234.5
10"	250	10.0	254	17.5	445	22.4	568	10.3	261	1.1	28.6	15.3	387.4	16	11.1	282.0	17.4	441	5.0	126	1,086.9	493.0
12"	300	12.0	305	19.1	485	24.0	610	12.0	304	1.0	25.4	17.0	431.8	12	11.7	296.0	19.4	493	4.9	125	762.8	346.0



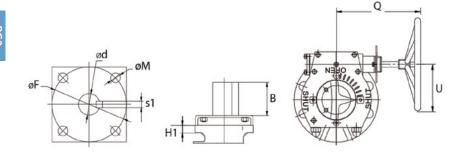
## 2-PIECE FLOATING BALL VALVE SOFT SEATED - REDUCED BORE CLASS 150 & 300

SIZE 8" to 10" Enclosed Gear Operated

											ANSI	CLAS	S 150											
S	ize	[	)	D	N		)	L	_		J	V	٧		X	V	H	1	ı	<		I	Wei	ght
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
8″	200	5.9	151	8.0	202	13.6	345	18.0	457	7.9	200	0.9	22.2	11.8	298.5	8	7.7	195	12.5	318.0	3.1	78	321.9	146
10"	250	8.0	202	10.0	254	15.9	405	21.0	533	8.9	226	1.0	25.4	14.3	362.0	12	9.3	237	15.3	389.5	4.7	120	480.6	218

											ANSI	CLAS	S 300											
Si	ize	[	)	D	N	(	)	L	-		l	V	٧		X	V	ŀ	1	H	<		l	Wei	ght
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Holes	in	mm	in	mm	in	mm	lb	kg
8"	200	5.9	151	8.0	202	15.0	380	19.8	502	7.9	200	1.0	25.4	13.0	330.2	12	7.7	195	12.5	318	3.1	78	379.2	172
10"	250	8.0	202	10.0	254	17.5	445	22.4	568	10.3	261	1.1	28.6	15.3	387.4	16	9.3	237	14.9	379	5.0	126	705.5	320



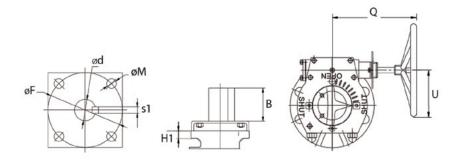


## 2-PIECE FLOATING BALL VALVE SOFT SEATED - FULL BORE CLASS 150 & 300

SIZE 6" to 12" Enclosed Gear Operated

						AN:	SI CLASS	5 150								
Si	ze	ø	F	ø	d	øM	S	1	Н	<b>I</b> 1		В	(	Q	ι	U
in	mm	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
6"	150	4.9	125	1.3	34	M12	0.4	10	0.6	16.0	2.0	50.0	8.8	223.5	11.8	300
8"	200	5.5	140	1.8	45	M16	0.5	12	0.6	16.0	2.5	64.0	10.5	267.0	15.7	400
10"	250	5.5	140	2.2	55	M16	0.7	18	0.9	22.0	2.5	63.0	12.4	316.0	23.6	600
12"	300	10.0	254	3.1	78	M16	0.9	22	1.0	25.0	3.8	97.5	20.2	513.0	23.6	600

						AN	SI CLAS:	S 300								
Si	ze	ø	F	ø	ıd	øM	9	1	Н	11		В	(	Q	ι	J
in	mm	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
6"	150	4.9	125	1.5	38	M12	0.4	10	0.6	16.0	2.0	50.0	8.8	223.5	11.8	300
8"	200	5.5	140	1.8	45	M16	0.5	12	0.6	16.0	2.5	64.0	15.9	404.0	27.6	700
10"	250	5.5	140	2.2	55	M16	0.7	18	0.9	22.0	2.5	63.0	15.8	402.0	23.6	600
12"	300	10.0	254	3.1	78	M16	0.9	22	1.0	25.0	3.8	97.5	20.2	513.0	23.6	600



## 2-PIECE FLOATING BALL VALVE SOFT SEATED - REDUCED BORE CLASS 150 & 300

SIZE 8" to 10" Enclosed Gear Operated

						ANS	SI CLASS	5 150								
S	Size øF ød				d	øM	S	1	Н	11		В	(	Q	l	J
in	mm	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
8"	200	4.9	125	1.3	34	M12	0.4	10	0.6	16	2.0	50	8.8	223.5	11.8	300
10"	250	5.5	140	1.8	45	M16	0.5	12	0.6	16	2.5	64	10.5	267.0	15.7	400

						AN:	SI CLAS	S 300								
Si	Size øF ød			d	øM	S	51	H	11		В	(	Q	l	J	
in	mm	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
8″	200	4.9	125	1.5	38	M12	0.4	10	0.6	16	2.0	50	8.8	223.5	11.8	300
10"	250	5.5	140	1.8	45	M16	0.5	12	0.6	16	2.5	64	15.9	404.0	27.6	700

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Pressure (bar)

29008

Pressure (bar)



#### PRESSURE-TEMPERATURE CHART

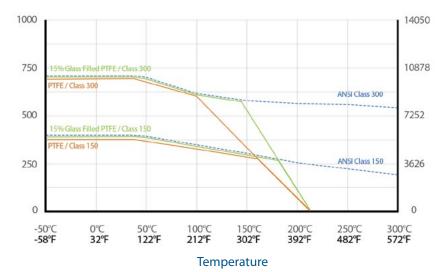
Pressure (psi)

Pressure (psi)

2000



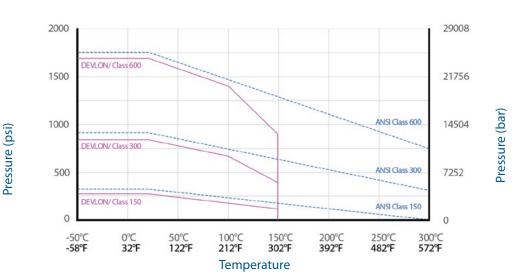
PTFE & RPTFE SEATED



**PEEK SEATED** 

1500 21756 PEEK/ Class 600 ANSI Class 600 14504 1000 ANSI Class 300 PEEK/ Class 300 500 7252 ANSI Class 150 PEEK/ Class 150 0 Aflas EPDM -50°C -58°F 0°C **32°F** 100°C **212°F** 150°C **302°F** 50°C 200°C 250°C 300°C 122°F 482°F 392°F 572°F **Temperature** 

DEVLON SEATED





#### **VALVE OPERATING TORQUES - FULL PORT**

#### PTFE SEATS Class 150 Class 600 Size Class 300 in DN in-lbs in-lbs in-lbs Nm 1/2" 15 12 1.35 3/4" 20 12 1.35 16 1.80 1" 25 15 1.69 20 2.25 1 1/2" 3.38 40 4.51 50 5.64 72 8.13 138 3" 80 91 10.28 180 20.33 293 33.10 4" 345 77.95 100 230 25.98 38.97 690 6" 47.45 735 150 420 83.04 8" 200 1,100 124.28 3,050 344.60 10" 250 2,600 293.76 3,650 412.39 12" 300 4,000 451.93

### **VALVE OPERATING TORQUES - REDUCED PORT**

				PTFE S	SEATS		
Si	ze	Class	150	Class	300	Class	600
in	DN	in-lbs	Nm	in-lbs	Nm	in-lbs	Nm
1/2"	15	3	0.33	7	0.79	-	-
3/4"	20	8	0.90	12	1.35	-	-
1″	25	12	1.35	16	1.80	-	-
1 ½"	40	15	1.69	20	2.25	-	-
2″	50	30	3.38	40	4.51	112	12.65
3″	80	50	5.64	72	8.13	138	15.59
4"	100	91	10.28	180	20.33	293	33.10
6"	150	230	25.98	345	38.97	-	-
8″	200	420	47.45	735	83.04	-	-
10"	250	1,100	124.28	3,050	344.60	-	-

#### **FLOW COEFFICIENT - REDUCED PORT**

						UNIBODY					
Si	ze	Ball Bore	Cv max				Cv for Vario	us Openings			
in	DN	D	90°	80°	70°	60°	50°	40°	30°	20°	10°
1/2"	15	11	7.8	5.1	3.3	2.2	1.4	0.8	0.5	0.2	0.05
3/4"	20	14	14.9	9.7	6.3	4.1	2.6	1.6	0.9	0.4	0.1
1"	25	19	28.3	18.5	12.1	7.8	4.9	3.0	1.7	0.8	0.2
1 ½"	40	30	73.2	47.8	31.2	20.1	12.6	7.7	4.3	2.1	0.6
2"	50	38	119.9	78.3	51.1	32.9	20.7	12.5	7.1	3.4	0.9
3"	80	62	332.7	217.2	141.9	91.4	57.5	34.8	19.6	9.4	2.6
4"	100	76	507.1	331.1	216.3	139.3	87.7	53.1	29.9	14.4	3.9
6"	150	100	895.3	584.6	381.8	245.9	154.8	93.7	52.8	25.4	7.0
8"	200	144	1,908.4	1,246.0	813.8	524.1	330.0	199.8	112.5	54.0	14.8

						2-PIECE BODY					
	Size	Ball Bore	Cv max				Cv for Vario	us Openings			
in	DN	D	90°	80°	70°	60°	50°	40°	30°	20°	10°
3/4"	20	14	14.9	9.7	6.3	4.1	2.6	1.6	0.9	0.4	0.1
1"	25	19	28.3	18.5	12.1	7.8	4.9	3.0	1.7	0.8	0.2
1 ½"	40	30	73.2	47.8	31.2	20.1	12.6	7.7	4.3	2.1	0.6
2"	50	38	119.9	78.3	51.1	32.9	20.7	12.5	7.1	3.4	0.9
3″	80	62	332.7	217.2	141.9	91.4	57.5	34.8	19.6	9.4	2.6
4"	100	76	507.1	331.1	216.3	139.3	87.7	53.1	29.9	14.4	3.9
6"	150	100	895.3	584.6	381.8	245.9	154.8	93.7	52.8	25.4	7.0
8″	200	144	1,908.4	1,246.0	813.8	524.1	330.0	199.8	112.5	54.0	14.8
10"	250	187	3,276.9	2,139.5	1,397.4	900.0	566.6	343.0	193.2	92.8	25.5

### **FLOW COEFFICIENT - FULL PORT**

					2	2-PIECE BODY					
Si	ze	Ball Bore	Cv max				Cv for Vario	us Openings			
in	DN	D	90°	80°	70°	60°	50°	40°	30°	20°	10°
1/2"	15	14	16.0	8.7	4.5	2.1	0.8	0.2	0.0	0.0	0.0
3/4"	20	19	32.5	20.2	11.9	6.6	3.4	1.5	0.4	0.0	0.0
1″	25	24	55.8	33.6	15.4	10.2	4.9	1.9	0.3	0.1	0.1
1 ½"	40	38	160.4	103.8	63.8	37.3	20.4	9.9	3.7	0.5	0.1
2"	50	50	300.8	193.4	118.2	68.6	37.1	17.7	6.4	0.7	0.3
3"	80	76	782.6	516.8	325.0	194.6	109.6	56.0	23.3	5.0	0.7
4"	100	100	1,465.3	987.7	634.7	389.4	226.0	120.6	54.8	16.1	1.3
6"	150	151	3,720.3	2,531.8	1,643.6	1,019.5	599.6	326.2	153.5	50.1	3.3
8"	200	202	7,223.5	4,959.5	3,249.6	2,036.2	1,540.6	670.8	325.2	115.2	10.5
10"	250	254	12,172.7	8,409.0	5,545.6	3,499.3	2,100.7	1,175.7	581.5	216.5	26.2
12"	300	305	18,462.4	12,849.6	8,540.9	5,435.3	3,295.5	1,869.5	946.0	371.9	59.5



## **STANDARD CONFIGURATIONS TABLE**

#### **BG1 - FLOATING BALL VALVES**

ltem	Description	Stainless Steel	WCB
1	Body	ASTM A351 CF8M	ASTM A216 WCB
2	End Cap	ASTM A182 F316	ASTM A105
3	Ball	ASTM A182 F316	ASTM A182 F316
4	Stem	ASTM A182 F316	ASTM A182 F316
5	Seat	TFM1700 / 1600	TFM1700 / 1600
6	Locking Plate	ASTM A515 70	ASTM A515 70
7	Nut Lock	ASTM A240 304	ASTM A240 304
8	Body Gasket	PTFE	PTFE
9	Stem Packing	Chevron	Chevron
10	O-ring	Viton	Viton
11	O-ring	Viton	Viton
12	Stem Packing	Chevron	Chevron
13	Thrust Washer	Filled PTFE	Filled PTFE
14	Gland	ASTM A276 316	ASTM A276 316
15	Belleville Spring	ASTM A240 304	ASTM A240 304
16	Antistatic Spring	ASTM A313 316	ASTM A313 316
17	Antistatic Spring	ASTM A313 316	ASTM A313 316
18	Antistatic Ball	ASTM A276 304	ASTM A276 304
19	Position Plate *	ASTM A515 70	ASTM A515 70
20	Packing Gland Screw	ASTM A193 B7	ASTM A193 B7
21	Wrench	ASTM A29 1035	ASTM A29 1035
22	Lever Nut	304 Stainless Steel	304 Stainless Steel

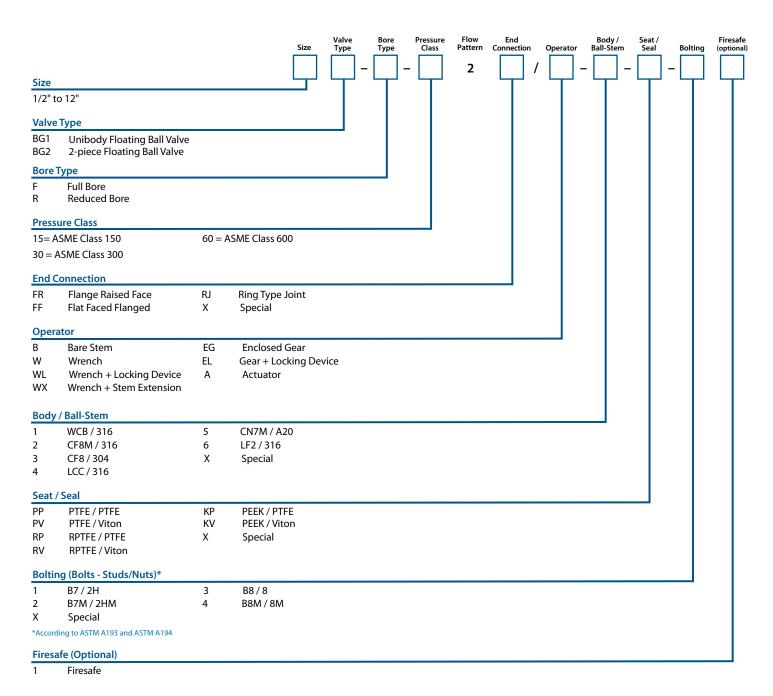
## **BG2 - FLOATING BALL VALVES**

ltem	Description	Stainless Steel	WCB
1	Body	ASTM A351 CF8M	ASTM A216 WCB
2	End Cap	ASTM A351 CF8M	ASTM A216 WCB
3	Ball	ASTM A182 F316	ASTM A182 F316
4	Stem	ASTM A182 F316	ASTM A182 F316
5	Seat	TFM1700 / 1600	TFM1700 / 1600
6	Locking Plate	ASTM A515 70	ASTM A515 70
7	Screw	ASTM A193 B8	ASTM A193 B7
8	Packing Nut	ASTM A194 8	ASTM A1948
9	Body Gasket	PTFE	PTFE
10	O-ring	Viton	Viton
11	Stem Packing	PTFE	PTFE
12	Thrust Washer	PTFE	PTFE
13	Gland	ASTM A276 316	ASTM A276 316
14	Belleville Spring	ASTM A240 304	ASTM A240 304
15	Antistatic Spring	ASTM A313 316	ASTM A313 316
16	Antistatic Spring	ASTM A313 316	ASTM A313 316
17	Antistatic Ball	ASTM A276 304	ASTM A276 304
18	Position Plate *	ASTM A515 70	ASTM A515 70
19	Travel Stop Screw	304 Stainless Steel	304 Stainless Steel
20	Wrench Nut	304 Stainless Steel	304 Stainless Steel
21	Wrench	ASTM A29 1035	ASTM A29 1035
22	Body Nut	ASTM A1948	ASTM A194 2H

<sup>\*</sup> Item only available for valve sizes ½" to 1 ½"

## **ORDERING INSTRUCTIONS**





#### **MODEL SELECTION EXAMPLE**

Example: 4"BG2-F-152FR/W-1-PV-10

Description: FluoroSeal 4" 2-piece Floating Ball Valve, Full Bore, Class 150, Two-way Flow Pattern, Flanged Raised Face, Wrench Operated, Body in ASTM A216 Gr. WCB, Ball-Stem in 316 Stainless Steel, PTFE Seat, Viton Seal, ASTM A193 B7 bolts, ASTM A194 2H studs and nuts, and No Firesafe.

#### **NOTES:**

1. For all technical parameters of the product please refer to this catalog, additional information can be obtained from your local FluoroSeal sales office or authorized representative.

 ${\bf 2.}\, Customization\, for\, specific\, applications\, is\, available\, upon\, request.$ 





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proceeding relating to these terms and conditions may be instituted in any competent court sitting in the district of Montréal, Québec, Canada.

#### **RETURNS**

FluoroSeal Inc. cannot accept return of any product(s) unless its written permission has been first obtained, in which case same will be credited subject to the following: (a) all material returned must, on its arrival at FluoroSeal Inc.'s plant, be found to be in first-class condition; if not, cost of putting in saleable condition will be deducted from credit memoranda; (b) a handling charge deduction will be made from all credit memoranda issued for material returned; (c) transportation charges, if not prepaid, will be deducted from credit memoranda.

#### **SHIPMENTS**

All products sent out will be carefully examined, counted and packed. The cost of any special packing or special handling caused by Buyer's requirements or requests shall be added to the amount of the order. No claim for shortages will be allowed unless made in writing within ten (10) days of receipt of a shipment. Claims for products damaged or lost in transit should be made to the carrier, as FluoroSeal Inc.'s responsibility ceases, and title passes, on delivery to the carrier.

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Orders covering special or non-standard products are not subject to cancellation except on such terms as FluoroSeal Inc. may specify on application.

#### **PRICES AND DESIGNS**

Prices and designs are subject to change without notice. All prices are F.O.B. Point of Shipment, unless otherwise stated.

#### TAXES

The amount of any sales, excise or other taxes, if any, applicable to the products, shall be added to the purchase price and shall be paid by Buyer unless Buyer provides FluoroSeal Inc. with an exemption certificate acceptable to the taxing authorities.

#### **NUCLEAR PLANTS**

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