



## **STANDARDS**

- Fire safe design
- API 607
- API 6FA
- BS6755
- JB/T 6899
- API 6D
- NACE Certified

# **9600 Series Floating Ball Valve**

## **FEATURES & BENEFITS**

- Bigger sealing pressure ration between the ring surface and the ball when medium pressure gets lower, where the contacting area is smaller.
- When the medium pressure gets higher, the contacting area between sing ring and ball become bigger as the sealing ring transforms elastically to undertake the bigger force pushed by the medium without any damage
- J-Flow's specially designed structure of auxiliary metal to metal seal is provided to effectively prevent both internal and external leakage of the valve

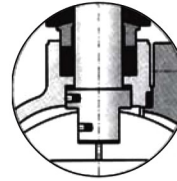
## **APPLICATIONS & INDUSTRIES**

- Oil and gas production
- Diesel fuel
- Natural gas applications
- Steam service
- Chemical application

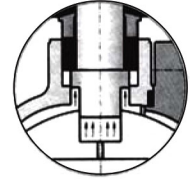
## FEATURES

### Reliable Stem Seal

The blow-out proof design has been adopted for the stem to ensure that even if the pressure in the body cavity is risen accidentally and the packing flange becomes invalid, the stem may not be blown out by medium. The stem features the design with a backseat, being assembled from underneath. The sealing force against the backseat gets higher as the medium pressure becomes higher. So the reliable seal of the stem can be assured under variable medium pressure.



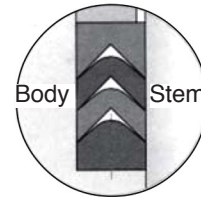
Stem assembled from underneath may not be blown out by medium



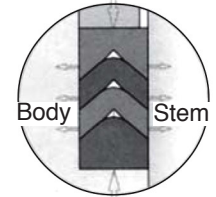
Stem assembled downward may be blown out

### Packing

V-type packing structure has been employed to effectively transform the pushing force of the gland flange and the medium pressure into the sealing force against the stem.



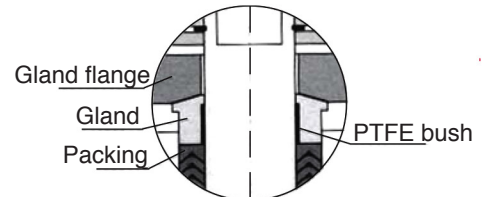
Packing before pressed



Packing after pressed

### Packing Flange & Gland

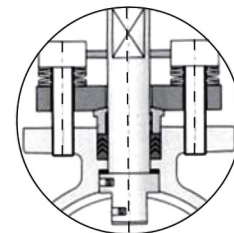
The traditional packing flange design has been improved to be of two piece structure, i.e. being as a gland flange end gland, the latter contacts the gland flange with spherical surface. Thus, the gland remains vertical always, and is lined internally with a PTFE bush to prevent the galling against and friction between the stem, which can also reduce the operation torque of the valve.



Stem galling prevented in application

### Bevelled Washer

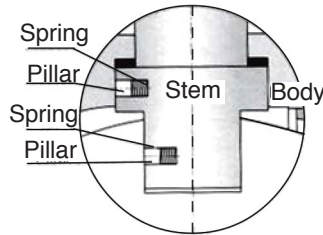
Based on customer's requirement, a packing tightening design may be employed to obtain more reliable stem packing seal, which is loaded by bevelling spring.



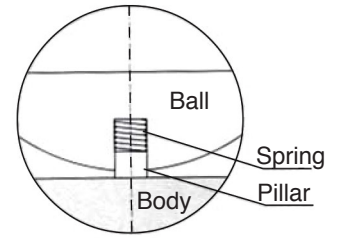
## FEATURES

### Anti-Static Feature

The traditional packing flange design has been improved to be of two piece structure, i.e. being as a packing flange plate and a follower, the latter contacts the flange plate and a follower, the latter contacts the flange plate with spherical surface. Thus the follower remains vertical always, and is lined internally with a PTFE bush to prevent the galling against and friction between the stem, which can also reduce the operation torque of the valve.



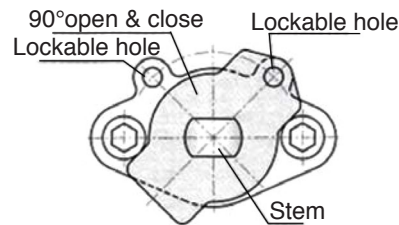
Anti-static design for ball valves  
≥ 1-1/4"



Anti-static design for ball valves  
≤ 1"

### Anti-Static Feature

To prevent the ball valve from wrong operation, the key lock with 90° of open and close positioning pad has been provided, which can be lockable as required. At the stem head, where the lever fixes, a flat is so designed that the valve opens with the lever in parallel to piping, and with the lever right-angled to the piping, the valve is closed. So, it is ensured that the valve indicator of open and close can never be mistaken.



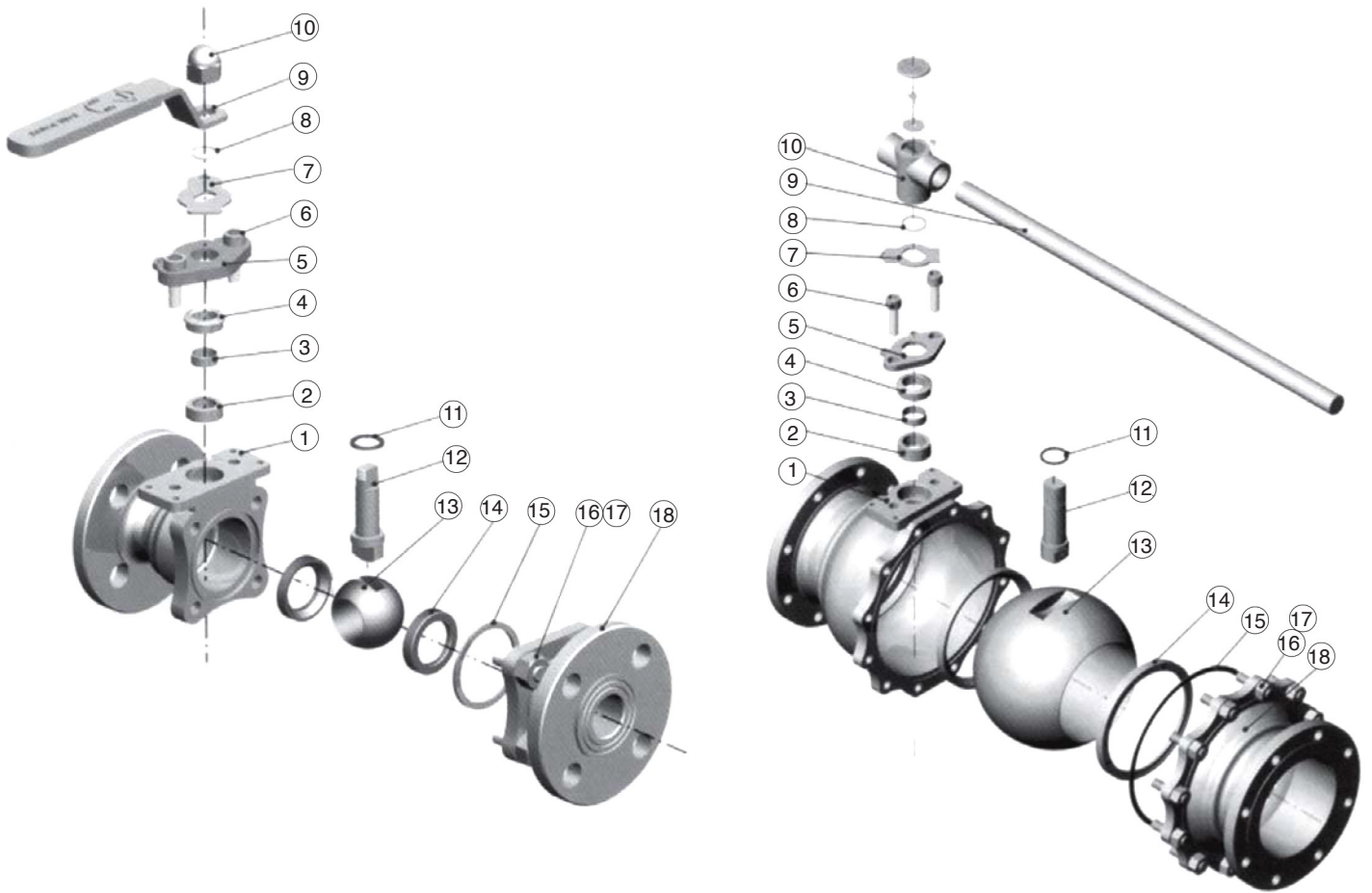
### Anti-Static Feature

J Flow has provided for floating ball valve with a mounting pad, through which it is easy to fix the actuators, such as worm gear, pneumatic and electric actuators



# 9600 Series Floating Ball Valve

## PARTS IDENTIFICATION

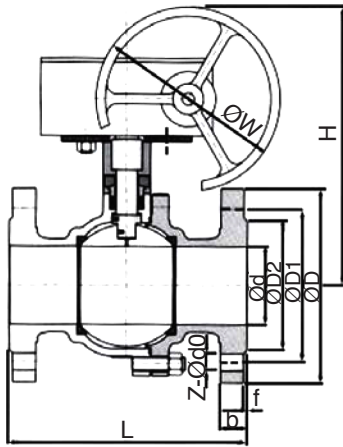


No	Parts Name	Materials				
		WCB/13Cr	WCB/304	WCB/316	CF8	CF8M
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Packing	PTFE	PTFE	PTFE	PTFE	PTFE
3	Stem Bearing	PTFE	PTFE	PTFE	PTFE	PTFE
4	Gland	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
5	Gland Flange	ASTM A246 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
6	Gland Bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
7	Stop Collar	Carbon Steel	Carbon Steel	Carbon Steel	Stainless Steel	Stainless Steel
8	Circlip	Carbon Steel	Carbon Steel	Carbon Steel	Stainless Steel	Stainless Steel
9	Lever	Carbon Steel	Carbon Steel	Carbon Steel	Stainless Steel	Stainless Steel
10	Nut or Wrench Head	Carbon Steel	Carbon Steel	Carbon Steel	Stainless Steel	Stainless Steel
11	Thrust Washer	PTFE	PTFE	PTFE	PTFE	PTFE
12	Stem	ASTM A182 F6a	ASTM A182 F304		ASTM A182 F304	ASTM A182 F316
13	Ball	ASTM A182 F6a	ASTM A182 F304		ASTM A182 F304	ASTM A182 F316
14	Seat	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE
15	Gasket	PTFE	PTFE	PTFE	PTFE	PTFE
16	Body Nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 B8	ASTM A194 B8
17	Body Bolting	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8
18	Closure	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M

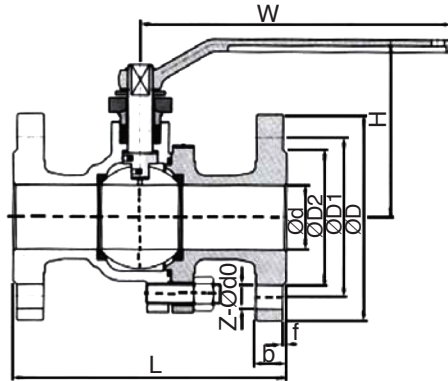
Note: The chart above only lists some common composition of steel ball valve parts. We may provide different parts material composition according to the customer's request or the actual valve working condition. See Model Numbering for available materials.

# 9600 Series Floating Ball Valve

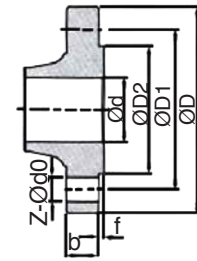
## DIMENSIONS



Gear Box



Handwheel

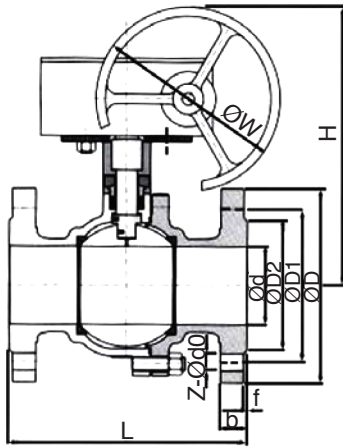


Class 600 ~ Class 1500 flange

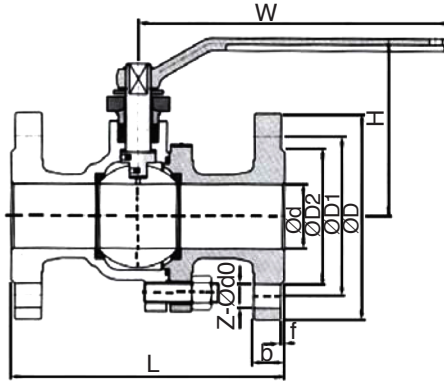
Pressure	Size	Dimensions											Weight			
		L		d	D	D1	D2	b	f	Z-Ød0	W		H		Hand wheel	Gear Box
		RF	RTJ								Hand wheel	Gear Box	Hand wheel	Gear Box		
Class 150	1/2"	4.3	4.7	0.6	3.5	2.4	1.4	0.5	0.06	0.2-0.6	5.5	--	3.3	--	6.6	--
	3/4"	4.6	5.1	0.7	3.9	2.8	1.7	0.5	0.06	0.2-0.6	5.5	--	3.5	--	8.8	--
	1"	5.0	5.5	0.9	4.3	3.1	2.0	0.5	0.06	0.2-0.6	5.9	--	3.9	--	11.0	--
	1-1/4"	5.5	6.0	1.3	4.6	3.5	2.5	0.5	0.06	0.2-0.6	7.1	--	4.1	--	15.4	--
	1-1/2"	6.5	7.0	1.5	5.0	3.9	2.9	0.6	0.06	0.2-0.6	7.9	--	5.0	--	17.6	--
	2"	7.0	7.5	2.0	6.0	4.7	3.6	0.6	0.06	0.2-0.7	9.8	--	5.5	--	26.5	--
	2-1/2"	7.5	8.0	2.5	7.0	5.5	4.1	0.7	0.06	0.2-0.7	11.8	--	6.5	--	39.7	--
	3"	8.0	8.5	3.0	7.5	6.0	5.0	0.8	0.06	0.2-0.7	13.8	--	7.0	--	52.9	--
	4"	9.0	9.5	4.0	9.0	7.5	6.2	0.9	0.06	0.3-0.7	19.7	12.0	9.1	15.0	83.8	117
	5"	14.0	14.5	5.0	10.0	8.5	7.3	0.9	0.06	0.3-0.9	31.4	12.0	11.0	15.9	132	174
	6"	15.5	16.0	6.0	11.0	9.5	8.5	1.0	0.06	0.3-0.9	31.4	12.0	12.2	18.1	181	225
Class 300	8"	18.0	18.0	8.0	13.5	11.8	10.6	1.1	0.06	0.3-0.7	39.4	12.0	13.8	21.7	320	408
	10"	21.0	21.5	10.0	16.0	14.3	12.8	1.2	0.06	0.5-1.0	--	15.8	--	27.8	--	617
	1/2"	5.5	6.0	0.6	3.7	2.6	1.4	0.6	0.06	0.2-0.6	5.5	--	3.3	--	6.6	--
	3/4"	6.0	6.5	0.7	4.6	3.2	1.7	0.7	0.06	0.2-0.7	5.5	--	3.5	--	11.0	--
	1"	6.5	7.0	0.9	4.9	3.5	2.0	0.7	0.06	0.2-0.7	5.9	--	3.9	--	13.2	--
	1-1/4"	7.0	7.5	1.3	5.2	3.9	2.5	0.8	0.06	0.2-0.7	7.1	--	4.1	--	17.6	--
	1-1/2"	7.5	8.0	1.5	6.1	4.5	2.9	0.8	0.06	0.2-0.9	7.9	--	5.0	--	24.3	--
	2"	8.5	9.1	2.0	6.5	5.0	3.6	0.9	0.06	0.3-0.7	9.8	--	5.6	--	35.3	--
	2-1/2"	9.5	10.1	2.5	7.5	5.9	4.1	1.0	0.06	0.3-0.9	11.8	--	6.5	--	53	--
	3"	11.1	11.8	3.0	8.3	6.6	5.0	1.1	0.06	0.3-0.9	13.8	--	7.0	13.0	75	115
	4"	12.0	12.6	4.0	10.0	7.9	6.2	1.3	0.06	0.3-0.9	19.7	12.0	9.1	15.0	124	168
5"	15.0	15.6	5.0	11.0	9.3	7.3	1.4	0.06	0.3-0.9	31.4	12.0	11.0	16.5	190	273	
6"	15.9	16.5	6.0	12.5	10.6	8.5	1.5	0.06	0.5-0.9	31.4	12.0	12.2	18.9	276	359	
8"	19.8	20.4	8.0	15.0	13.0	10.6	1.6	0.06	0.5-1.0	39.4	12.0	13.8	22.0	489	589	

# 9600 Series Floating Ball Valve

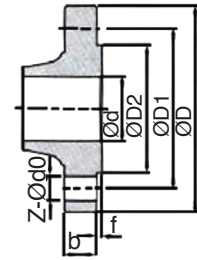
## DIMENSIONS



Gear Box



Handwheel



Class 600 ~ Class 1500 flange

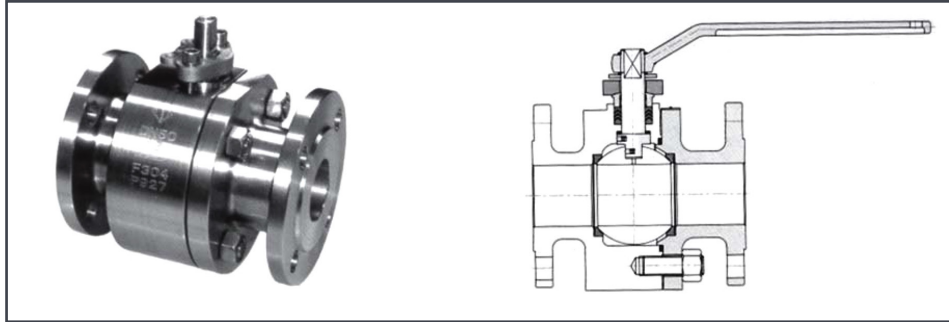
Pressure	Size	Dimensions											Weight			
		L		d	D	D1	D2	b	f	Z-Ød0	W		H		Hand wheel	Gear Box
		RF	RTJ								Hand wheel	Gear Box	Hand wheel	Gear Box		
Class 600	1/2"	6.5	6.5	0.6	3.7	2.6	1.4	0.06	0.25	0.2-0.6	5.5	--	3.1	--	11.0	--
	3/4"	7.5	7.5	0.7	4.6	3.2	1.7	0.7	0.25	0.2-0.7	5.5	--	3.3	--	15.4	--
	1"	8.5	8.5	0.9	4.9	3.5	2.0	0.7	0.25	0.2-0.7	7.9	--	4.5	--	19.8	--
	1-1/4"	9.0	9.0	1.3	5.2	3.9	2.5	0.8	0.25	0.2-0.7	7.9	--	4.7	--	28.7	--
	1-1/2"	9.5	9.5	1.5	6.1	4.5	2.9	0.9	0.25	0.2-0.9	9.8	--	4.9	--	37.5	--
	2"	11.5	11.6	2.0	6.5	5.0	3.6	1.0	0.25	0.3-0.7	11.8	--	6.1	--	55	--
	2-1/2"	13.0	13.1	2.5	7.5	5.9	4.1	1.1	0.25	0.3-0.9	13.8	--	6.8	--	93	--
	3"	14.0	14.1	3.0	8.3	6.6	5.0	1.3	0.25	0.3-0.9	19.7	12.0	8.7	14.6	124	168
4"	17.0	17.1	4.0	10.7	8.5	6.2	1.5	0.25	0.3-1.0	25.6	12.0	9.8	15.7	187	271	
Class 900	1/2"	8.5	8.5	0.6	4.8	3.2	1.4	0.9	0.25	0.2-0.9	5.9	--	3.9	--	20	--
	3/4"	9.0	9.0	0.8	5.1	3.5	1.7	1.0	0.25	0.2-0.9	5.9	--	4.1	--	29	--
	1"	10.0	10.0	0.9	5.9	4.0	2.0	1.1	0.25	0.2-1.0	7.9	--	4.3	--	35	--
	1-1/4"	11.0	11.0	1.3	6.3	4.4	2.5	1.1	0.25	0.2-1.0	9.8	--	4.7	--	53	--
	1-1/2"	12.0	12.0	1.5	7.0	4.9	2.9	1.3	0.25	0.2-1.1	9.8	--	4.9	--	68	--
	2"	14.5	14.6	2.0	8.5	6.5	3.6	1.5	0.25	0.3-1.0	13.8	--	6.3	--	99	--
Class 1500	1/2"	8.5	8.5	0.6	4.8	3.2	1.4	0.9	0.25	0.2-0.9	7.2	--	3.9	--	22	--
	3/4"	9.0	9.0	0.8	5.1	3.5	1.7	1.0	0.25	0.2-0.9	7.9	--	4.1	--	31	--
	1"	10.0	10.0	0.9	5.9	4.0	2.0	1.1	0.25	0.2-1.0	9.8	--	4.3	--	38	--
	1-1/4"	11.0	11.0	1.3	6.3	4.4	2.5	1.1	0.25	0.2-1.0	11.8	--	4.7	--	55	--
	1-1/2"	12.0	12.0	1.5	7.0	4.9	2.9	1.3	0.25	0.2-1.1	13.18	--	5.1	--	73	--
	2"	14.5	14.6	2.0	8.5	6.5	3.6	1.5	0.25	0.3-1.0	19.7	--	6.3	--	106	--



## 9600 Series Floating Ball Valve

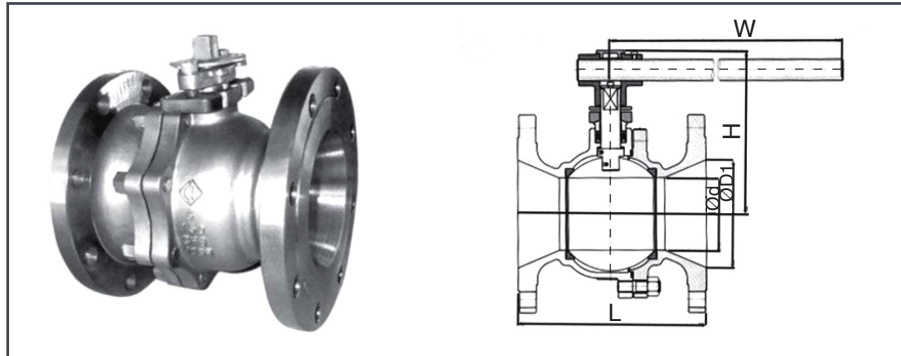
### **DIMENSIONS - FORGED STEEL**

The floating ball valve is generally a cast steel valve body; however, as required by the customer, forged steel valve body is also available, of which the main sizes such as flange connections and face-to-face dimensions are the same as that of the cast steel ball valve



### **REDUCED BORE**

In addition to the full bore floating ball valve, the floating ball valve with reduced bore is also available to satisfy different requirements of the customer, which can not only lower the cost and the pricing, but also meet customers' special requirements.



Size	Class 150					Class 300					Class 600						
	L		d	d1	H	W	L1		d	d1	H	W	L	d	d1	H	W
	Long	Short					Long	Short									
1/2"	4.3		0.4	0.6	3.1	5.5	5.5		0.4	0.6	3.1	5.5	6.5	0.4	0.6	3.0	5.5
3/4"	4.6		0.6	0.7	3.3	5.5	6.0		0.6	0.7	3.3	5.5	7.5	0.6	0.7	3.1	5.5
1"	5.0		0.8	1.0	3.5	5.5	6.5		0.8	1.0	3.5	5.5	8.5	0.8	1.0	3.3	5.5
1-1/4"	5.5		1.0	1.3	3.9	5.9	7.0		1.0	1.3	3.9	5.9	9.0	1.0	1.3	4.5	5.9
1-1/2"	6.5		1.3	1.5	4.1	7.1	7.5		1.3	1.5	4.1	7.1	9.5	1.3	1.5	4.7	7.9
2"	7.0		1.5	2.0	5.0	7.9	8.5		1.5	2.0	5.0	7.9	11.5	1.5	2.0	4.9	9.8
2-1/2"	7.5		2.0	2.5	5.5	9.8	9.5		2.0	2.5	5.5	9.8	13.0	2.0	2.5	6.1	11.8
3"	8.0		2.5	3.0	6.5	11.8	11.1		2.5	3.0	6.5	11.8	14.0	2.5	3.0	6.8	13.8
4"	9.0		3.0	4.0	7.0	13.8	12.0		3.0	4.0	7.0	13.8	17.0	3.0	4.0	8.7	19.7
5"	14.0		4.0	5.0	9.0	19.7	15.0		4.0	5.0	9.0	19.7	20.0	4.0	5.0	9.8	25.6
6"	15.5	10.5	5.0	6.0	11.0	31.5	15.9		5.0	6.0	11.0	31.5	--	--	--	--	--
8"	18.0	11.5	6.0	8.0	12.2	31.5	19.8	16.5	6.0	8.0	12.2	31.5	--	--	--	--	--
10"	21.0	13.0	8.0	10.0	13.8	39.4	22.4	18.0	8.0	10.0	13.8	39.4	--	--	--	--	--

## 9600 Series Floating Ball Valve

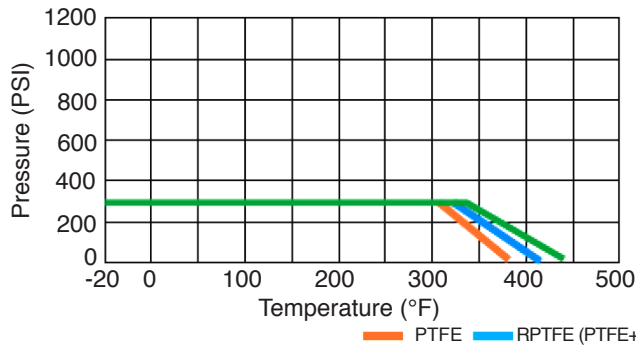
### FLOATING BALL VALVE TORQUE VALUE INCH POUNDS

Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
<b>Cv</b>	25	60	115	185	270	500	805	1160	2120	3415	5075	9340
<b>ANSI Class</b>												
<b>150</b>	124	159	212	319	460	620	797	1062	2478	3806	6195	9735
<b>300</b>	150	186	266	407	531	761	991	1593	3717	5133	8142	14160
<b>600</b>	212	310	602	841	1150	1681	3186	4071	6815	C/F	C/F	C/F

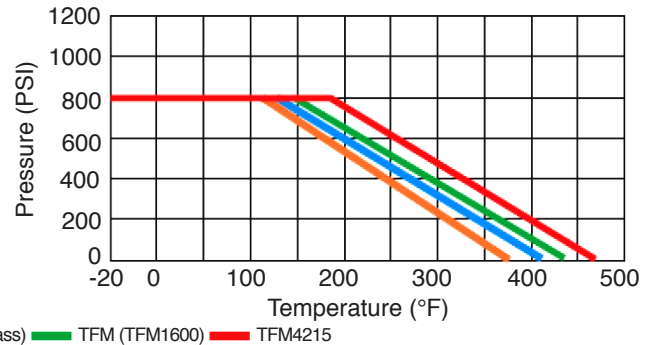
For ANSI 900 and ANSI 1500, please contact J Flow Controls. Torques are based on TFE seats

### PRESSURE TEMPERATURE CHART

#### ANSI 150



#### ANSI 300



### HOW TO ORDER

Series	Material	Port	Packing	Seat	End Connections
<b>96</b>	<b>23</b> Carbon Steel	<b>F</b> Full	<b>G</b> Grafoil	<b>T</b> Teflon	<b>BW</b> Butt Weld
	<b>33</b> Stainless Steel	<b>R</b> Reduced	<b>T</b> Teflon	<b>P</b> Peek	<b>F1</b> ANSI 150
	<b>03</b> LCB Steel		<b>TM</b> Carbon Teflon	<b>R</b> Reinforced Teflon	<b>F3</b> ANSI 300
				<b>N</b> Nylon	<b>F6</b> ANSI 600
				<b>TM</b> Carbon Teflon	<b>F9</b> ANSI 900
					<b>F15</b> ANSI 1500
					<b>F25</b> ANSI 2500

Size: 1/2" - 8"

**J Flow Controls®**  
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