



# FLOATING BALL VALVES





# WWW.VALTORC.COM AJBENTAL@VALTORC.COM 1 (866) VALTORC

#### **Quality and Performance Where It Counts**

The VALTORC brand means quality and reliability you can count on. Our design has been developed based on our customers' demanding service conditions. All VALTORC ball valves are manufactured in ISO 9001 certified facilities and tested in conformance with the requirements of ANSI B 16.34 and API 6D specifications.

VALTORC products are stocked and marketed worldwide by a network of authorizing distributors to service the petroleum producing refinery and industrial marketplace.

Our complete API 6D product offering includes flanged, butt-weld ring type joint (RTJ), and threaded ball valves along with trunnion mounted ball valves. Sizes range from 1/4" To 24" and are available in various pressure classes. Contact VALTORC or one of our field representatives today to discuss how VALTORC can provide solutions from your upstream wellhead and downstream production needs.

#### Standard Features

Two piece, bolted body flanged end valves are designed to meet or exceed today's abrasive and corrosive applications. All Series 330 Ball Valves incorporate the following standard features:

- Stem is back-seated and positively retained: cannot be removed with the valve in service
- Stem lube fitting and weather seal
- 316 SS ball for extended life and ease of operation.
- Fire tested and certified to API 6FA and BS 6755 latest addition
- RTFE seats standard in class 150 & 300, Delrin seats standard in class 600, 900 and 1500
- Standard locking handle
- Conforms to NACE MR-01-75 standard with 316 stainless steel trim.
- Available in both standard bore and full bore; Double stem flat design indicates ball position
- Ball includes pressure equalization hole to prevent trapped pressure in body cavity in open position

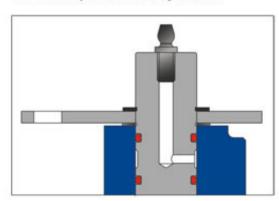
#### **Bolted Body Design**

330 Series Valve is a rugged two piece bolted design. Our premier ball valve is available in sizes 1"-FP-6"RP and pressures up to 3705 psi. Body materials are available in carbon steel, low temp carbon steel (LCC), and CF8M Stainless Steel.



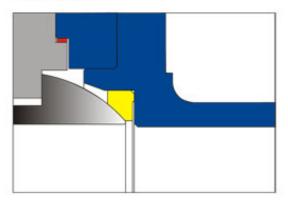
#### Stem Lube Fitting & Weather Seal

External stem lube fitting and internal lube channel allow for effective lubrication of the stem journal. Weather seal prevents external attack by corrosion and foreign abrasives.

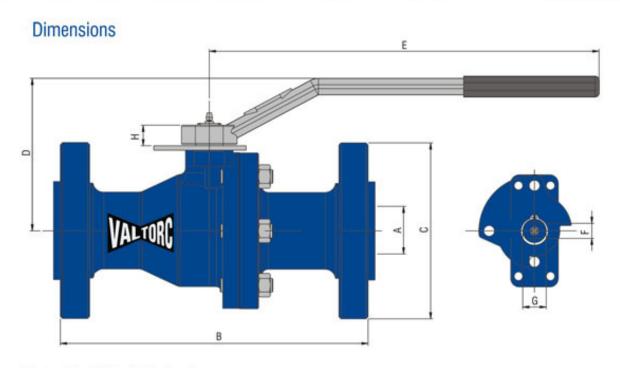


#### Standard Delrin and Reinforced Teflon Seats

Seats provide bubble-tight sealing at high and low pressures.In the event of seat damage (e.g. fire). The design incorporates metal-to-metal sealing. Optional seat materials include Nylon, PTFE, PEEK and Devlon.







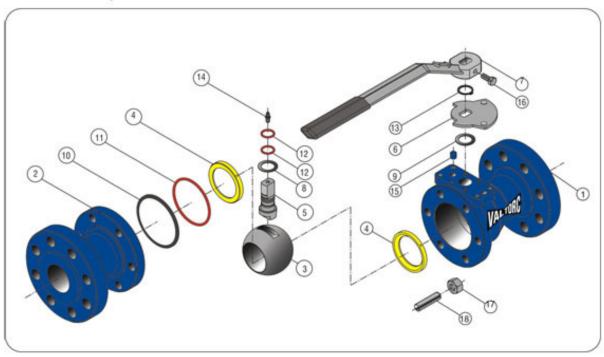
## Dimensional Data (In Inches)

Dimension	1" FP	1-1/2" FP	2" RP	2" FP	2-1/2" RP	3" RP	3" FP	4" RP	4" FP	6" RP
A PORT	1	1.5	1.5	2	2	2	3	3	4	4
B 150 RF	5	6.5	7	7	7.5	8	8	9	9	10.5
B 300 RF	6.5	7.5	8.5	8.5	9.5	11.125	11.125	12	12	15.875
B 600 RF	8.5	9.5	11.5	11.5	13	14	14	17	17	22
B 600 RTJ	8.5	9.5	11.625	11.625	13.125	14.125	14.125	17.125	17.125	22.125
B 900 RF	10	12	14.5	14.5		15				
B 900 RTJ	10	12	14.625	14.625		15.12				
B 1500 RF	10	12	14.5	14.5						
B 1500 RTJ	10	12	14.625	14.625						
C 150	4.25	5	6	6	7	7.5	7.5	9	9	11
C 300	4.875	6.125	6.5	6.5	7.5	8.25	8.25	10	10	12.5
C 600	4.875	6.125	6.5	6.5	7.5	8.25	8.25	10.75	10.75	14
C 900	5.875	7	8.5	8.5		9.5				
C 1500	5.875	7	8.5	8.5						
D	3.74	4.94	4.94	5.31	5.31	5.31	6.75	6.75	*8.4	*8.4
E	6	8	8	8	8	8	15	15	*18	*18
F	0.374	0.56	0.56	0.56	0.56	0.56	0.622	0.622	*0.745	*0.745
G	0.822	0.873	0.873	0.873	0.873	0.873	1.24	1.24	*1.365	*1.365
Н	0.64	0.77	0.77	0.77	0.77	0.77	0.99	0.99	*1.13	*1.13
					Weight in lb.					
150	14	18	24	27	30	35	55	68	84	108
300	20	25	29	35	40	50	86	120	139	190
600	27	31	36	42	55	62	96	139	163	258
900	44	73	78	89	175	170	17.	-	97	170
1500	55	100	111	122	-	-	-	-	-	-

<sup>\*</sup>Dimensions are for Class 150 lever operated valves only. Class 300, 600, 900 and 1500 require gear operators or actuators.



# Materials List / Standards



#### Materials List

NDEX	QTY. DESCRIPTION		MATERIALS (Standard)		
1	1	Body	ASTM A216 WCB, Carbon Steel		
2	1	Adapter	ASTM A216 WCB, Carbon Steel		
3	1	Ball	316 Stainless Steel (NACE)		
4	2	Seat	Delrin RTFE		
5	.1	Stem	316 Stainless Steel (NACE)		
6	1	Stop Plate	Plated Steel		
7	1.	Handle	Ductile Iron		
8	1	Thrust Bearing	Teflon		
9	1	Stem Bearing	Nylon		
10	1	Body Seal(Gasket)	Graphite		
11	1	Body Seal (0-Ring)	Buna-N / Viton (NACE)		
12	2	Stem Seal	Buna-N / Viton (NACE)		
13	1	Retaining Ring	Spring Steel		
14	1	Lube Fitting	Steel		
15	1	Stop Pin	Steel		
16	1	Handle Bolt	ASTM A193 Gr.B7M (NACE) Carbon Steel		
17	*	Hex Nut	ASTM A 194-Gr. 2HM (NACE) Carbon Steel		
18	*	Studs	ASTM A193 Gr.B7M (NACE) Carbon Steel		

#### Quality Codes & Standards

API 6D	Pipeline Valves			
ANSI B 16.34	Valves, Flanges & Buttweld (When specified)			
ANSI B 16.10 / API 6D	Face-To-Face of Ferrous Valves			
ANSI B 16.5	Pipe Flanges			
MSS-SP-6	Standard Finishes for Pipe Flanged Faces			
MSS-SP-25	Standard Marking Systems for Valves			
MSS-SP-55	Quality Standard for Steel Castings			
MSS-SP-72	Flanged Ball valves for General Services			
API Q1 / ISO 9001	Quality program Specification			
MR-01-75	NACE Specification			
API 6FA / BS 6755	Fire Sale Certification			



## **Engineering Specifications**

#### Torque Values In/Lbs

BORE SIZE					
DUNE SIZE	285	740	1480	2220	3405
1-	280	345	585	770	1180
11/2"	530	710	880	1150	2000
2"	590	945	1180	1670	2700
3"	1300	2155	2685		
4"	2140	3550	4423		

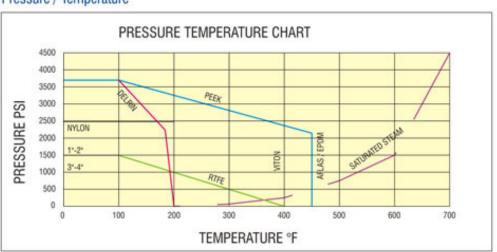
Torques are based on clean wet service. If other conditions exist, a service factor should be applied.

#### Flanged Valve CV Values

SIZE	CLASS							
SIZE	150	300	600	900	1500			
1- FP	89	79	68	70	70			
2" RP	137	128	117	119	119			
2" FP	490	422	368	365	365			
2 1/2" RP	255	238	204					
3" RP	238	216	203	175				
3" FP	1380	1055	1000					
4" RP	635	610	580					
4" FP	2560	2100	1850					
6" RP	925	905	895					

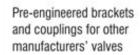
Flow in US gallons of water per minute with a 1 psi pressure dropacross the valve. Use this valve in the flow formulas.

#### Pressure / Temperature



These pressure and temperature ratings are the maximum shutoff for each seat combination for continuous service at temperature. For maximum body ratings consult the factory.

### **Options**







#### Automation and Specialization

Valtorc Controls offers customized Valve Automation Systems. The systems are integrated and tested as per customer specification by assembling high quality accessories with Valtorc Valves and Pneumatic or Electric Acuators. The "direct mount" feature of all Valtorc Valves, Actuators, Manual Gears and Manual Overrides eliminates the need for any brackets and couplings, thus saving costs. It also provides "off the shelf engineered components" and enhances performance by reducing hysteresis. When mounting Valtorc actuators to other valves, pre engineered brackets and couplings provide a custom close mount system.

#### Three Coat Offshore Protective Coating System.

The basic three - coat offshore protective coating process is a zinc base coat applied to a valve that has been sand blasted to specifications, a tie coat is then applied. The valve is then finished and protected with a light gray polyurethane topcoat. This offshore protective coating system is applied at the factory using newly machined castings. 100% of the valve surface including the area under the handle and under the tag is coated leaving no area for corrosion to start.