

SERIES 75/76

One-Piece Flanged Floating Ball Valve

Sizes 1" - 4" / DN 25 - DN 100

ASME Class 150, 300 Reduced Port



delvalflow.com

1-833-DELVAL1



STANDARD FEATURES IN ALL SERIES 75 -76 BALL VALVES

Quality & Performance Where It Counts

DelVal Flow Controls provides a wide range of quality products with the reliability you can count on. Our designs are based on industry requirements and our customers' feedback. All Series 75/76 ball valves are manufactured in ISO 9001 certified facilities with a robust quality management system and in conformance to ASME B16.34 and API 608 specifications.

Design Features

1. Valve Body

One-piece body, flanged end valves are designed to meet or exceed today's abrasive and corrosive applications.

2. ISO Top Flange

Top Plate drilled to ISO 5211 bolt circle dimensions.

3. Solid, One-Piece Ball

Floating design, precision machined ball with superior finish and sphericity ensures extended seat life and low operating torques. Ball includes pressure equalization hole to prevent trapped pressure in body cavity in open position.

4. Stem

Stem in stainless steel, heavy-duty construction with double "D" configuration is back-seated and positively retained. It cannot be removed with the valve in service and no portion of stem will be ejected by internal pressure.

5. Seat

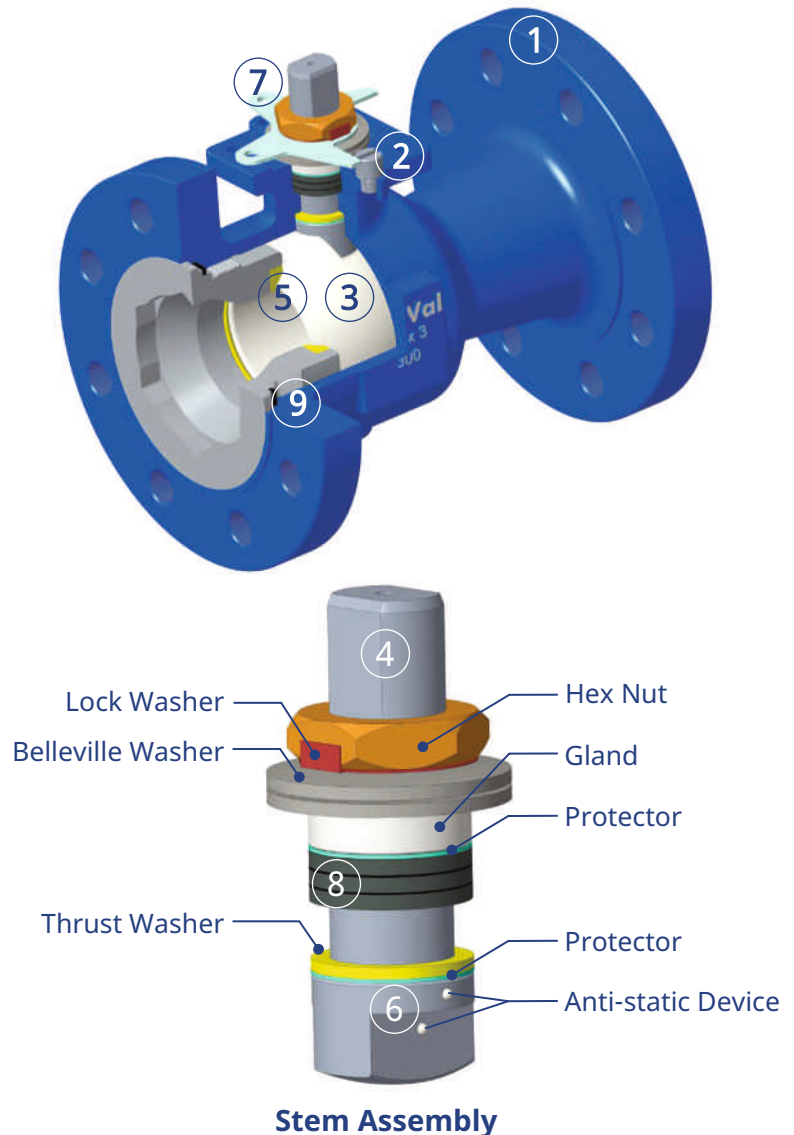
Seat is contoured to ensure that all stresses due to the line pressure are counterbalanced and that the extrusion of the seat into the body cavity due to sealing forces is eliminated. Seats provide bubble-tight sealing at high and low pressures.

6. Anti-static Device

Antistatic device with spring loaded ball keeps electrical continuity between ball to stem and stem to body.

7. Pad Lock Plate

Standard pad lock plate ensures tamper-proof valve operation.



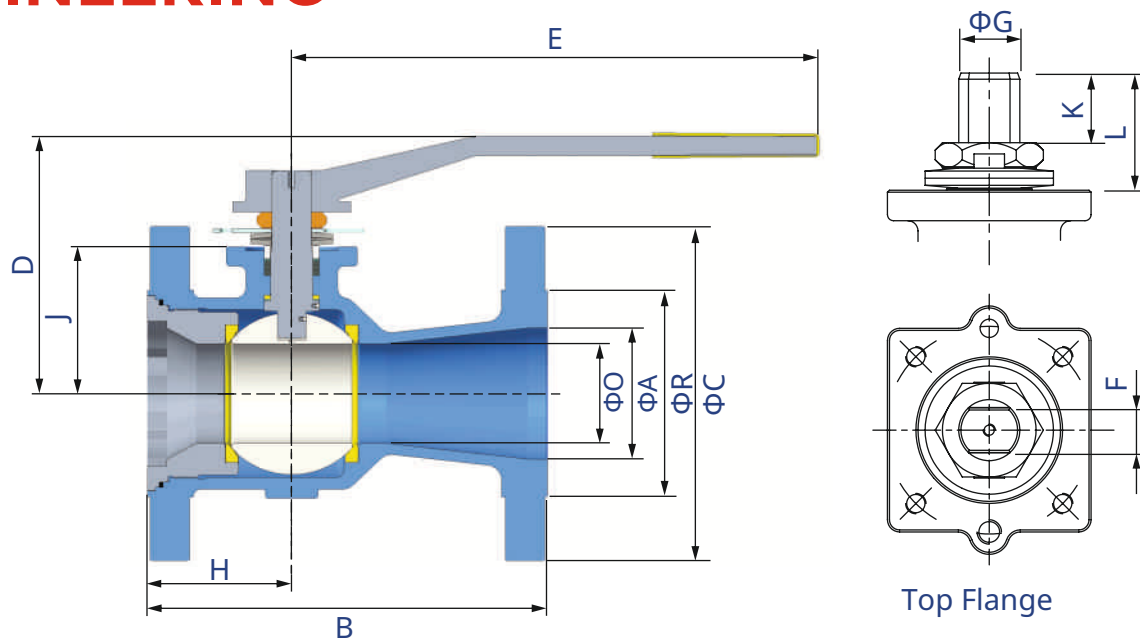
8. Stem Sealing

Stem packing in graphite is live loaded with the gland assembly to ensure positive and trouble free sealing. Adjustment of packing gland is accessible without disassembly of valve or operator parts.

9. Body Seal

Body joint sealing is by a graphite gasket to withstand high temperatures and is contained in a precision-machined groove for extended sealing life.

ENGINEERING



Dimensions (mm)

SIZES	CLASS	B	ØA x ØO*	H	J	Top Flange Details			ØG	F	L	K	Key Size	ØR	ØC	Flange drilling			D	E	Weight Kg.
						BC	Hole dia	Nos								ØP	Hole dia	Nos			
DN25	150	127	25 x 20	57	40	42	M5	4	14	10	22.5	12.2	-	51	110	79.4	16	4	105	225	3
DN50		178	51 x 38	72	65	50	M6	4	18	13	31	16.7	-	92.1	150	120.7	19	4	134	225	7.5
DN80		203	76 x 62	95	95	70	M8	4	22	16	43	25.4	-	127	190	152.4	19	4	173	360	16.5
DN100		229	100 x 76	110	112	102	M10	4	30	22	57.5	34.2	-	157.2	230	190.5	19	8	196	400	29.5
DN25	300	165	25 x 20	57	40	42	M5	4	14	10	22.5	12.2	-	51	125	88.9	19	4	105	225	5
DN50		216	51 x 38	72	65	50	M6	4	18	13	31	16.7	-	92.1	165	127	19	8	134	225	10.5
DN80		282	76 x 62	95	95	70	M8	4	22	16	43	25.4	-	127	210	168.3	22.2	8	173	360	23
DN100		305	100 x 76	110	112	102	M10	4	30	22	57.5	34.2	-	157.2	255	200	22.2	8	196	400	39

Dimensions (Inch)

SIZES	CLASS	B	ØA x ØO*	H	J	Top Flange Details			ØG	F	L	K	Key Size	ØR	ØC	Flange drilling			D	E	Weight lbs.
						BC	Hole dia	Nos								ØP	Hole dia	Nos			
1"	150	5	1 x 0.75	2.24	1.57	1.65	M5	4	0.55	0.39	0.89	0.48	-	2	4.25	3.12	0.63	4	4.13	8.86	6.6
2"		7	2 x 1.5	2.83	2.56	1.97	M6	4	0.71	0.51	1.22	0.66	-	3.62	6	4.75	0.75	4	5.28	8.86	16.5
3"		8	3 x 2.5	3.74	3.74	2.76	M8	4	0.87	0.63	1.69	1.00	-	5	7.5	6	0.75	4	6.81	14.17	36.3
4"		9	4 x 3	4.33	4.4	4.01	M10	4	1.18	0.87	2.26	1.35	-	6.19	9	7.50	0.75	8	7.72	15.75	65
1"	300	6.5	1 x 0.75	2.24	1.57	1.65	M5	4	0.55	0.39	0.89	0.48	-	2	4.88	3.50	0.75	4	4.13	8.86	11
2"		8.5	2 x 1.5	2.83	2.56	1.97	M6	4	0.71	0.51	1.22	0.66	-	3.62	6.5	5.00	0.75	8	5.28	8.86	23
3"		11.12	3 x 2.5	3.74	3.74	2.76	M8	4	0.87	0.63	1.69	1.00	-	5	8.25	6.62	0.87	8	6.81	14.17	50.6
4"		12	4 x 3	4.33	4.4	4.01	M10	4	1.18	0.87	2.26	1.35	-	6.19	10	7.88	0.87	8	7.72	15.75	86

*Dimensions are for single reduced port.

DelVal reserves the rights to change the contents without notice.

Standards and Specifications

DelVal Series 75/76 Ball Valves are designed and manufactured to meet the requirements of the following industry standards:

Design: API 608, ASME B16.34

Face to Face: ASME B16.10

Testing: API 598

Flange Standard: ASME B16.5

Pressure Temperature*: ASME B16.34

Fire Safe Certified: API 607

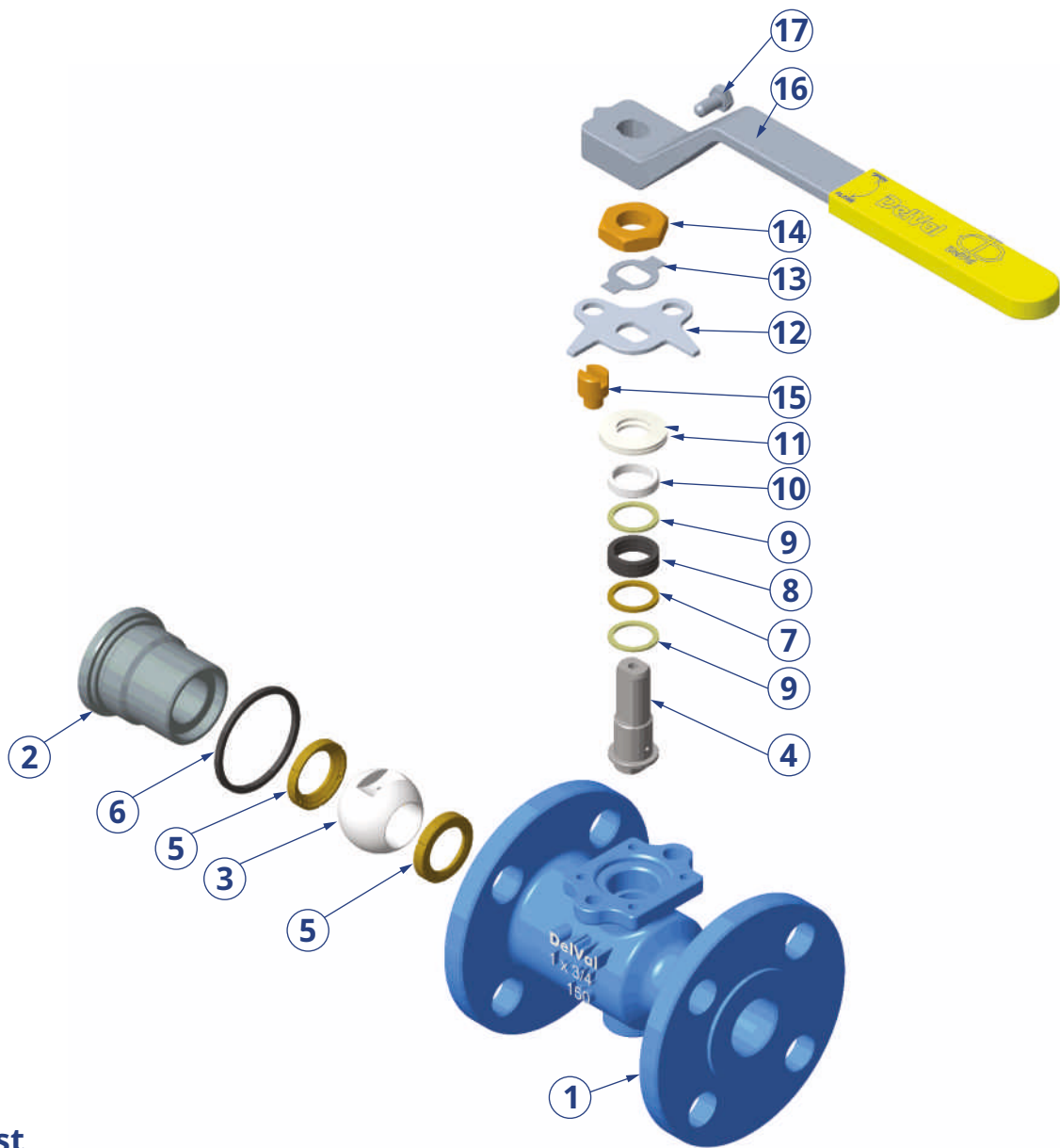
Body Style: One-Piece

Rating: ASME Class 150, 300

Temp Range: -46°C to 200°C
-50°F to 390°F

*Pressure-temperature rating shall be the lesser of the shell rating or the seat rating.

STANDARD MATERIALS OF CONSTRUCTION



Part List

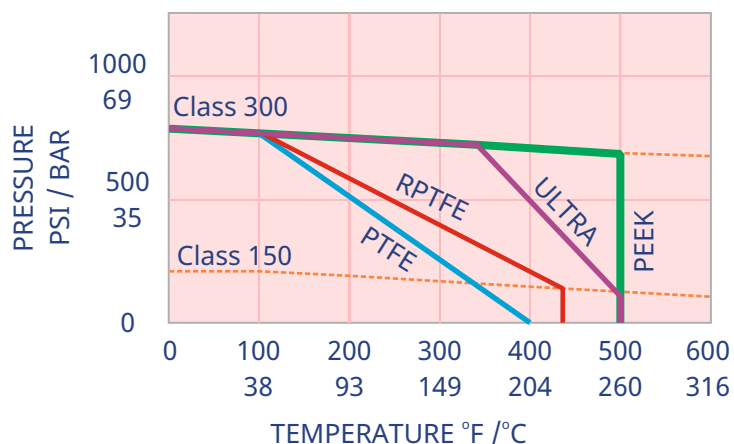
Item	Description	Standard Material*
1	BODY	A216 WCB, WCC/ A352 LCB, LCC/A351 CF8M
2	INSERT	A216 WCB, WCC/ A352 LCB, LCC/A351 CF8M
3	BALL	A182 F316
4	STEM	A479 SS316
5	SEAT	PTFE/RPTFE/ULTRA/PEEK
6	BODY GASKET	GRAPHITE
7	THRUST BEARING	ULTRA
8	GLAND PACKING	GRAPHITE
9	PROTECTOR	PEEK

Item	Description	Standard Material*
10	GLAND	A479 SS316
11	BELLEVILLE WASHER	17-7 PH SS
12	STOP PLATE	CARBON STEEL
13	LOCKING CLIP	STAINLESS STEEL
14	HEX LOCK NUT	A194 8M
15	STOPPER PIN	STAINLESS STEEL
16	LEVER	DUCTILE IRON
17	HEX HEAD BOLT	A193 B8M

*Other materials may be available upon request.

ENGINEERING SPECIFICATIONS

Pressure-Temperature Rating



Temperature Limits

Material		Lower limit		Upper limit	
		°F	°C	°F	°C
Body	WCB	-20	-29	797	425
	LCB	-50	-46	653	345
	CF8	-320	-196	1000	538
	CF8M	-320	-196	1000	538
Seat	PTFE	-40	-40	392	200
	RPTFE	-58	-50	428	220
	PEEK	-58	-50	500	260
	ULTRA	-58	-50	500	260

Note: These ratings are a guide for general service. Please consult DelVal for specific recommendations.

ULTRA Seal

ULTRA is an engineered fluorocarbon polymer that is rated for 260°C/500°F. Excellent for handling aggressive fluids at high pressures, ULTRA is recommended for extended service in hostile environments involving chemical, thermal, and mechanical stress. ULTRA has excellent thermal stability and is ideal for steam, hot gases, and a variety of process chemicals where service can also be subject to pressure cycling.

Torque*

SIZE	Maximum Torque (BTO)			
	CLASS			
	150		300	
	NM	LBF-IN	NM	LBF-IN
1"	6	53	8	71
2"	20	177	32	283
3"	40	354	60	531
4"	65	575	100	885

*Torques are based on clean, wet service. If other conditions exist, a service factor should be applied. Consult DelVal for specific service factor.

Flow Coefficient "CV" (USGPM)

SIZE	CLASS	
	150	300
1"	36	35
2"	157	155
3"	432	430
4"	585	675

Operator Information

All valves can be supplied with locking handle or mounted with gear operators for manual operation. All valves can be mounted with actuators such as DelVal Series 21 rack & pinion pneumatic actuators (see respective actuator brochures for further details) and other automation accessories such as positioners, solenoid valves, limit switches and manual overrides for complete assembly.



100% TESTING 100% SERIALIZATION

CERTIFICATES



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