



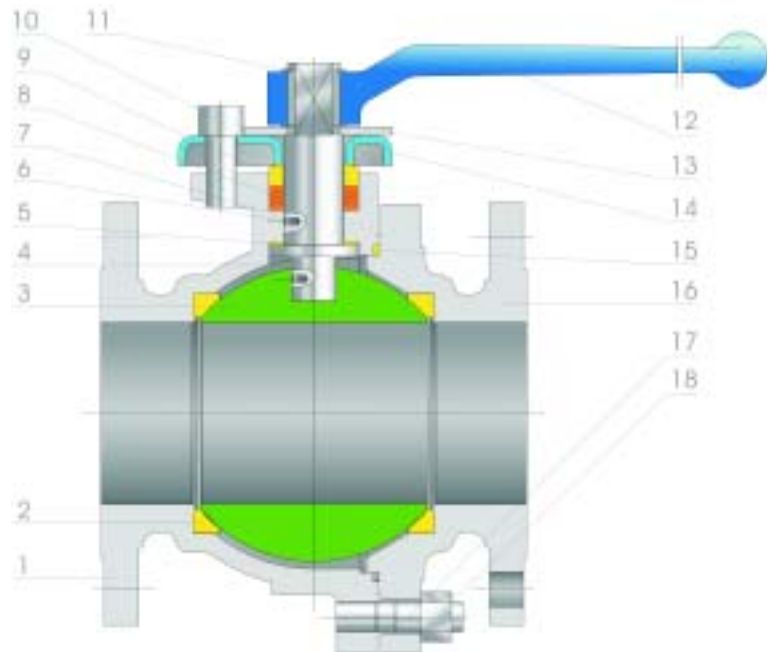
## Series EQ Floating Ball Valves

### Features

- Split-body construction.
- Blowout-proof stem.
- Fully enclosed spiral wound graphite  
Filled stainless body gasket available.
- Locking devices available.
- Live-loading available.

### Standards

- Basic design: API 608
- Flanged ends: ASME B16.5
- Face to face: ASME B16.10
- Inspection and test: API 598



### Series EQ material specifications

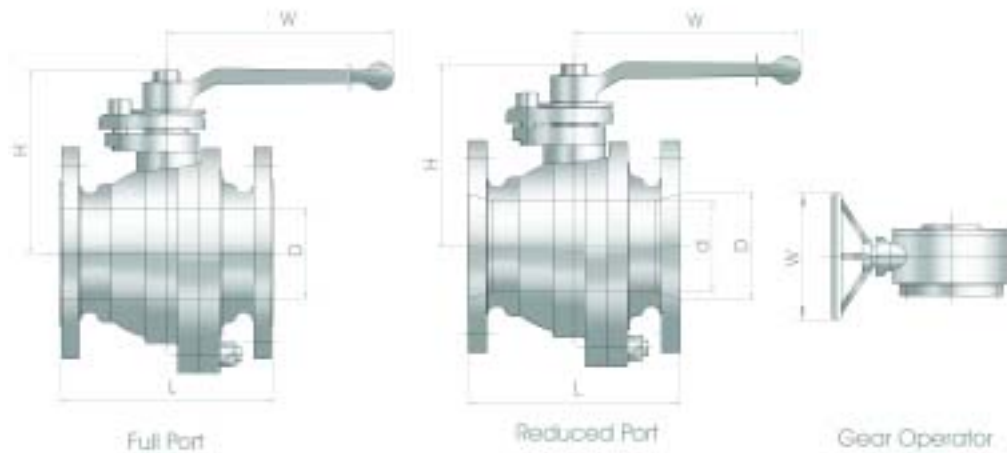
No.	Parts	Standard	Stainless Steel	Sour Service	Low Temperature Service
1	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
2	Seat Ring	R-PTFE	R-PTFE	R-PTFE	R-PTFE
3	Ball	ASTM A105/ENP	ASTM A182 F316	ASTM A105/ENP	ASTM A182 F316
4	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F6a	ASTM A182 F316
5	Thrust Washer	PTFE	PTFE	PTFE	PTFE
6	Plug	S.S.	S.S.	S.S.	S.S.
7	Spring	S.S.	S.S.	S.S.	S.S.
8	Packing	PTFE	PTFE	PTFE	PTFE
9	Gland	ASTM A276 420	ASTM A276 316	ASTM A276 420	ASTM A276 316
10	Stud	ASTM A193 B7	ASTM A 193 B8	ASTM A193 B7M	ASTM A320 L7M
11	Retaining ring	C.S.	S.S.	C.S.	S.S.
12	Lever	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
13	Stop plate	C.S.	S.S.	C.S.	S.S.
14	Gland flang	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
15	Gasket	PTFE	PTFE	PTFE	PTFE
16	Closure	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
17	Bolt	ASTM A193 B7	ASTM A 193 B8	ASTM A193 B7M	ASTM A320 L7M
18	Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 7M



## Series EQ Floating Ball Valves

**Class 150/300**

*Two-Piece, Split Body, Cast Steel, Side Entry Design*



### Dimensions(150lb)

	Size (in.)	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12
	Full Port	D (mm)	13	19	25	38	51	64	76	102	152	203	254
L (mm)		108	117	127	165	178	191	203	229	394	457	533	610
H (mm)		61	66	76	95	110	142	156	181	270	345	350	482
W (mm)		130	130	160	230	230	400	400	700	300*	300*	400*	600*
Weight (Kg)		2.4	3.3	4.8	8	9.5	15	19.8	32	94	165	199	376
Reduced Port	Size (in.)	3/4*1/2*3/4	1*3/4*1	1 1/2*1*1 1/2	2*1 1/2*2	2 1/2*2*2 1/2	3*2 1/2*3	4*3*4	6*4*6	10*8*10	12*10*12		
	D (mm)	19	25	38	51	64	64	102	152	254	305		
	L (mm)	117	127	165	178	190	76	229	394	530	610		
	H (mm)	82	85	100	115	120	203	162	191	340	442		
	W (mm)	130	130	160	230	230	153	400	460	300*	400*		
	d (mm)	13	19	25	38	51	400	76	102	203	254		
	Weight (Kg)	2.6	4.5	6	9.5	14.6	19	32.5	58	160	229		

### Dimensions(300lb)

	Size (in.)	1/2	3/4	1	1-1/2	2	2-1/2	3	4	6	8	10
	Full Port	D (mm)	13	19	25	38	51	64	76	102	152	203
L (mm)		140	152	165	190	216	241	283	305	403	502	568
H (mm)		62	68	80	100	110	148	162	188	283	360	422
W (mm)		150	150	180	250	250	400	400	700	300*	400*	400*
Weight (Kg)		3	3.5	6.2	11	16	25	40	57.5	128	252	402
Reduced Port	Size (in.)	3/4*1/2*3/4	1*3/4*1	1-1/2*1*1-1/2	2*1 1/2*2	2 1/2*2*2 1/2	3*2-1/2*3	4*3*4	6*4*6	8*6*8	10*8*10	
	D (mm)	19	25	38	51	64	76	102	152	203	254	
	L (mm)	152	165	190	216	241	283	305	403	502	568	
	H (mm)	82	85	100	115	120	153	162	191	290	340	
	W (mm)	130	130	160	230	230	400	400	460	300*	400*	
	d (mm)	13	19	25	38	51	64	76	102	152	203	
	Weight (Kg)	3.5	5.5	10	14.5	23.5	29	55	80	117	199	

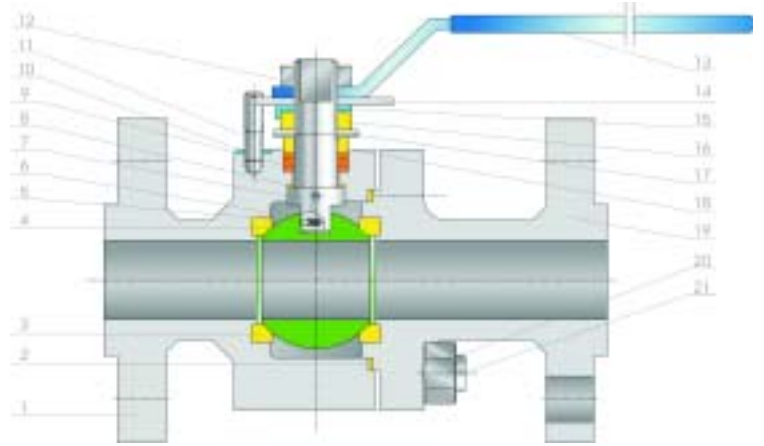
\*:Gear operation



## Series EQ Floating Ball Valves

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- Basic design: API 608
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### Series EQ material specifications

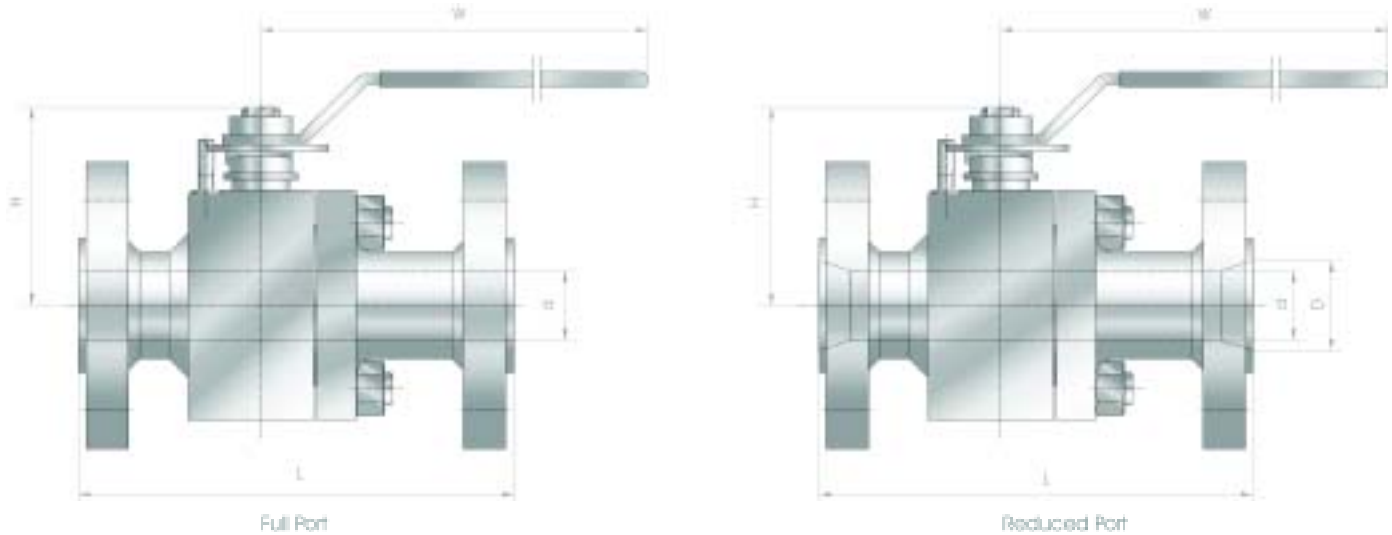
No.	Parts	Standard	Stainless Steel	Sour Service	Low Temperature Service
1	Body	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
2	Gasket	PTFE	PTFE	PTFE	PTFE
3	Seat Ring	PTFE	PTFE	PTFE	PTFE
4	Ball	ASTM A105/ENP	ASTM A182 F316	ASTM A105/ENP	ASTM A182 F316
5	Plug	S.S.	S.S.	S.S.	S.S.
6	Spring	S.S.	S.S.	S.S.	S.S.
7	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F6a	ASTM A182 F316
8	Thrust Washer	PTFE	PTFE	PTFE	PTFE
9	Packing	PTFE	PTFE	PTFE	PTFE
10	Locking Plate	C.S.	S.S.	C.S.	S.S.
11	Pin	C.S.	S.S.	C.S.	S.S.
12	Nut	C.S.	S.S.	C.S.	S.S.
13	Lever	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
14	Stop plate	C.S.	S.S.	C.S.	S.S.
15	Washer	C.S.	S.S.	C.S.	S.S.
16	Nut	C.S.	S.S.	C.S.	S.S.
17	Spring Washer	Alloy Steel	Alloy Steel	Alloy Steel	Alloy Steel
18	Gland	ASTM A276 420	ASTM A276 316	ASTM A276 420	ASTM A276 316
19	Closure	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
20	Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 2HM	ASTM A194 7M
21	Stud	ASTM A193 B7	ASTM A193 B8	ASTM A193 B7M	ASTM A320 L7M



## Series EQ Floating Ball Valves

**Class 600/900**

*Two-Piece, Split Body, Forged Steel, Side Entry Design*



### Dimensions(600lb)

Full port	Size (in.)	1/2	3/4	1	1-1/2	2	3
	D (mm)	13	19	25	38	51	76
	L (mm)	165	190	216	241	292	356
	H (mm)	98	103	122	135	151	177
	W (mm)	140	140	170	260	300	450
	Weight (kg)	3	4.8	6.5	12	15	28
Reduced port	Size (in.)	1/2*1/4*1/2	3/4*1/2*3/4	1*3/4*1	1-1/2*1*1-1/2	2*1-1/2*2	3*2*3
	d (mm)	7	13	19	25	38	51
	D (mm)	13	19	25	38	51	76
	L (mm)	165	190	216	241	292	356
	H (mm)	68	98	103	122	135	151
	W (mm)	140	140	140	170	260	300
	Weight (kg)	2.8	3.2	5.5	7.1	12.8	16.8

### Dimensions(900lb)

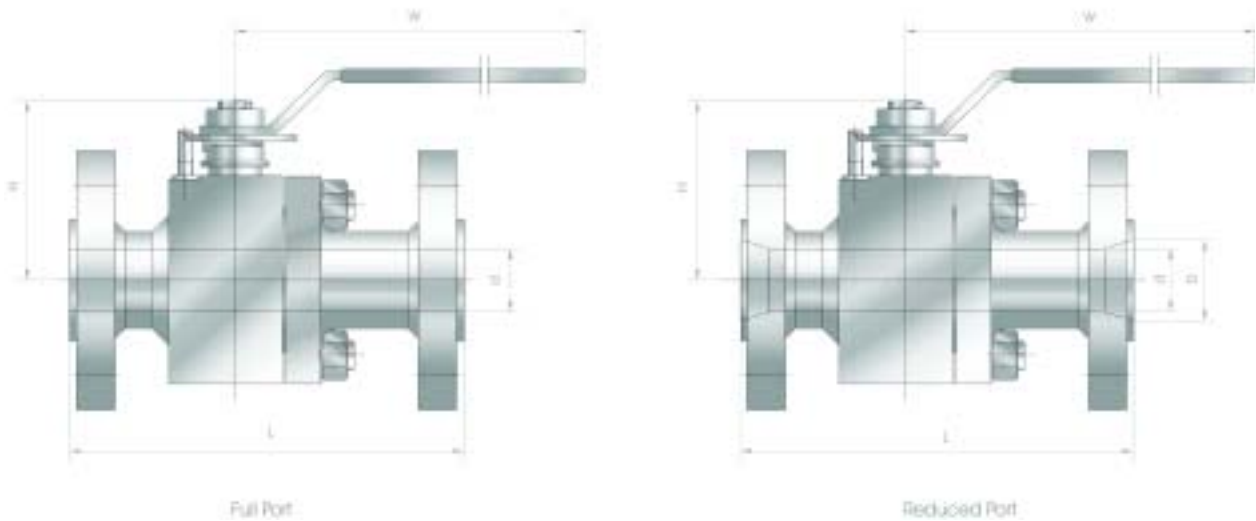
Full port	Size (in.)	1/2	3/4	1	1-1/2	2	3
	D (mm)	13	19	25	38	51	76
	L (mm)	216	229	254	305	368	381
	H (mm)	122	115	123	157	178	208
	W (mm)	160	230	230	400	400	500
	Weight (kg)	4.2	9.6	13.8	21.8	39	58
Reduced port	Size (in.)	1/2*1/4*1/2	3/4*1/2*3/4	1*3/4*1	1-1/2*1*1-1/2	2*1-1/2*2	3*2*3
	d (mm)	7	13	19	25	38	51
	D (mm)	13	19	25	38	51	76
	L (mm)	216	229	254	305	368	381
	H (mm)	120	122	115	123	157	178
	W (mm)	160	160	230	230	400	400
	Weight (kg)	5.6	6.8	12	16.5	24	56



## Series EQ Floating Ball Valves

**Class 1500**

*Two-Piece, Split Body, Forged Steel, Side Entry Design*



### Dimensions (1500lb)

Full port	Size (in.)	1/2	3/4	1	1-1/2	2	3
	D (mm)	13	19	25	38	51	76
	L (mm)	216	229	254	305	368	470
	H (mm)	122	115	123	157	178	205
	W (mm)	230	300	300	400	450	600
	Weight (kg)	7.2	11	15	28	41	80
Reduced port	Size (in.)	1/2*1/4*1/2	3/4*1/2*3/4	1*3/4*1	1 1/2*1*1 1/2	2*1 1/2*2	3*2*3
	d (mm)	7	13	19	25	38	51
	D (mm)	12	19	25	38	51	76
	L (mm)	216	229	254	305	368	470
	H (mm)	120	122	115	123	157	178
	W (mm)	170	230	230	300	400	450
Weight (kg)	7	9	14	17	34	75	

### KCM Floating Ball Valve Design Operating Torque

Size (In.)	Design Operating Torque(N.m)				
	150lb	300lb	600lb	900lb	1500lb
1/2	6	9	16	20	32
3/4	7	12	20	35	45
1	15	20	42	70	115
1-1/2	40	60	90	140	171
2	50	70	130	200	296
2-1/2	80	90	150	320	440
3	90	120	200	431	590
4	130	230	370		
6	560	930			
8	980	2197			
10	2000	4500			
12	3500				

#### Notes:

- Torque is calculated based on normal temperature, with RPTFE seat for 150lb~300lb and NYLON seat for 600lb ~1500lb
- For cryogenic service, torque shall be increased about 2~2.5 times
- Torque shown in this table is to be used as a guide for actuator selection. A safety factor of 1.3~1.5 is recommended for actuator sizing.
- Torque may be changed according to different medium and trim material.