



FORGED BALL VALVES

We Make...

PLUG VALVE

CASTING BALL VALVE

CASTING GATE, GLOBE, CHECK VALVE

DUAL CHECK VALVE

DOUBLE BLOCK & BLEED VALVE

SAFETY VALVE



Your Best Partner of All Valves

KCL FORGED BALL VALVE'S TECHNICAL FEATURES

1. DESIGN

Floating Ball Valves are manufactured in the main types ;

One piece End Entry Type.

Two piece Screwed and Bolted Construction.

Three piece Bolted Construction.

Valves can be supplied Full or Reduced Bore and manufactured in forged construction.

Bolted and Screwed Body connections give convenience of service and maintenance on site. Valves can be supplied with either Raised Face, Ring Type Joint, Socket weld or Screwed End connections. Pressure rating is from ANSI 150 thru ANSI 2500. Higher pressures can be supplied on request. Valves are supplied with Lever.

2. MATERIAL SELECTION

Valves are manufactured in a range of materials such as Carbon steel, Low Temp Carbon steel, Stainless steel, Duplex, Super Duplex, Monel, Titanium, Inconel and other Special Alloys.

3. BODY/CONNECTOR SEAL

Graphite ring, O-ring or PTFE seals guarantee perfect sealing between Body and Connector.

The Graphite ring continues to provide a seal in case of fire. O-ring can be supplied suitable for AED applications.

4. SEAT

Valve's seat design gives perfect seal with various materials in both high and low pressure applications.

5. STEM

Stems are manufactured separately from the Ball and incorporate O-ring, Graphite ring, RTFE ring and Anti-Static devices.

6. MAINTENANCE

6.1 O-RING SEAT-RING Renewal Method

2-PIECES Body Ball valve

- a. Break end connector loose with wrench.
- b. Disassemble the body and the connector
- c. Disassemble o-ring, seat-ring, ball and seat ring in order.
- d. Place new o-ring and seat ring and then reassemble.
- e. Assemble the body and the connector.
- f. Tighten end connector into body.
- g. Test according to regulated pressure.



3-PIECES Body Ball valve

- a. Remove three pairs of bolts with the exception of one pair which remain in position but loosened. Turn and separate body from connector.
- b. Remove the body seals, seat-rings.

KCL FORGED BALL VALVE'S TECHNICAL FEATURES

- c. Clean the contact area of body and connector and place new seals and seat-rings.
- d. Turn the body the other way and tighten connector bolts to reassemble at this point.
- e. Test according to regulated pressure.

6.2 GLAND PACKING Renewal Method

- a. Disassemble Stem Nut, Name Plate, Lever, Stop Pin, and Disc Spring, Gland in order and then remove Gland Packing
- b. Clean the parts and install new Gland Packing.
- c. Reassemble the parts
- d. Turn the Lever and check the operating condition.
- e. Test according to regulated pressure.

7. TEST

Valves are tested in accordance with BS 6755 Pt 1, API 6D, API 598 and ASME B16.34.

Valves should be inspected by regulated pressure whether there is any leakage or not, after valves are fabricated.

8. ACCESSORIES

Include locking device, pipe pups, extended bonnet and actuators. Suitable materials, components seats and o-ring can be supplied for valves with explosive decompression or Cryogenic applications.



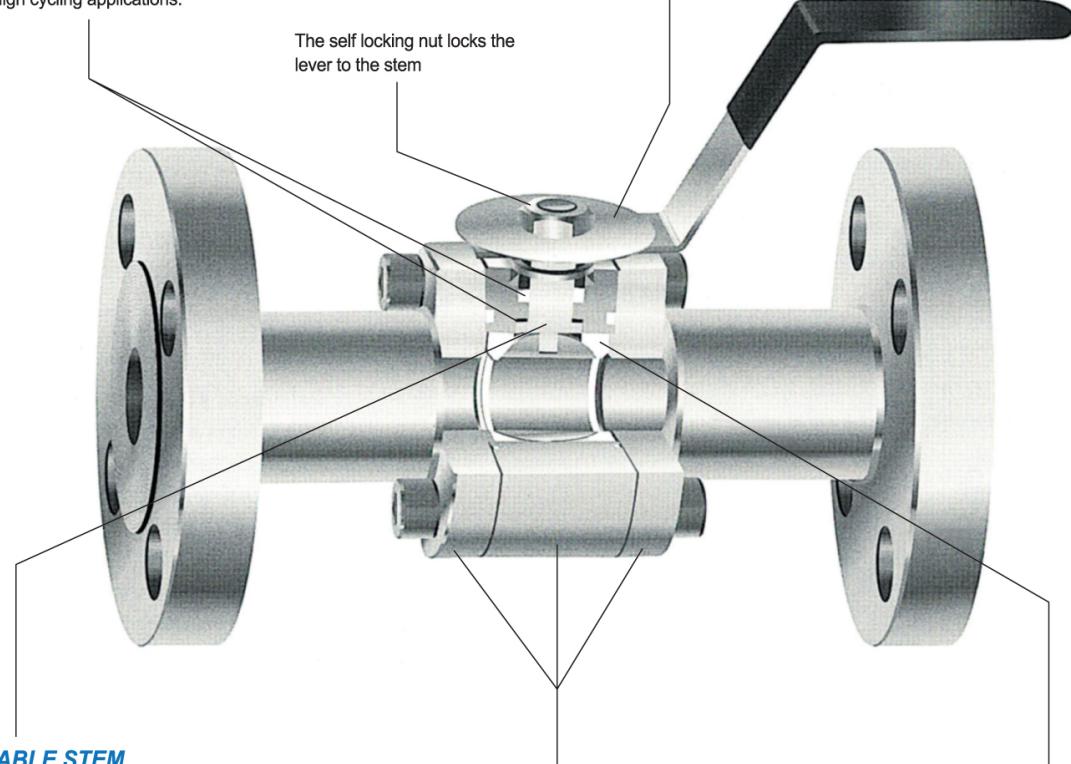
CONSTRUCTION AND FEATURES

DOUBLE STEM SEALS

A though RTFE thrust washer provides primary Stem sealing and insures smooth, low torque operation even at high Pressures and in high cycling applications.

The nameplate fixed to the stem on top of the lever by means of a locking nut, gives all of the information to promptly and easily identify the valve.

The lever is plastic lined and is free to turn 90 degrees apart from completely open to completely closed position.



ADJUSTABLE STEM

PACKING single gland nut adjustment of compression stem packing easily compensates for wear during operation and provides reliable secondary back-up seal.

THREE PIECE CONSTRUCTION

Allows fast, economical installation and enables center section of valve to be swung out of line for quick inspection or maintenance.

The fire safe characteristic of our valves has been proved with many tests on prototype and finally certified according to BS6755 and API 607.



CONSTRUCTION AND FEATURES

CONSTRUCTION TO BS5351

Our KCL ball valves have been designed fully in accordance with the requirements of BS5351

FULL AND REDUCED BORE

The valves are manufactured in sizes ranging from 3/8"(10mm) through 2"(50mm) and pressure rating at ANSI 150 and 2500 LB for both the full bore and reduced bore version. The ends are threaded NPT or socket weld.

FLOATING BALL

The floating ball is pressed against the seat by the pressure of the medium in the line. The greater is the pressure, the tighter is the contact. Pressures and temperatures allowable by each type on the graph pressure temperature limits.

BUBBLE TIGHT SEALING MECHANISM

Floating ball design supports the ball with two rigid RTFE seats placed in the valve body, one on the upstream pressure pushes the ball, which compresses the down stream side seat to completely shut off fluid flow.

ANTI BLOWOUT STEM

A design ensures the valve stem cannot be blown out of the body in case of the gland being removed while the valve is under pressure.



FIRE SAFETY

API 607 is internationally recognized as the official standards for defining fire safe testing procedures and evaluation. The fire safe characteristic of our valves has been proved with many test on prototypes and finally certified according to API 607.

BALL VENT

The optional upstream relief hole in the zone of ball and body cavity will relieve excess pressure upstream and preserve the integrity of valve with preventing possible seat damage.

ANTI-STATIC DEVICE

If the fluid handled by the valve is flammable, the valve must be provided with an anti-static device which achieves electrical continuity between the ball stem and the valve body.

TESTING TO BS6755 AND API 598

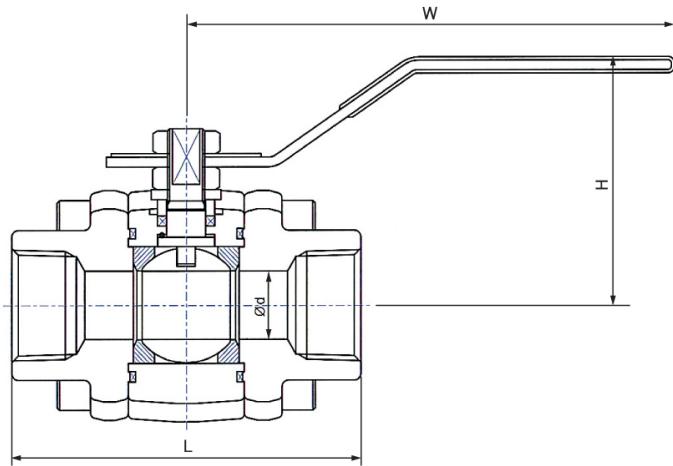
The hydrotests for seat sealing and body sealing are carried out respectively at 110% and 150% of the rated cold working pressure.

Low pressure seat test is carried out at 80 psi with dry air. The hydrotest seat pressure shall not exceed the seat rating.



800# FLOATING BALL VALVE

Screwed Ends, Full & Reduce Bore.



KCL STANDARD COMPONENT MATERIAL

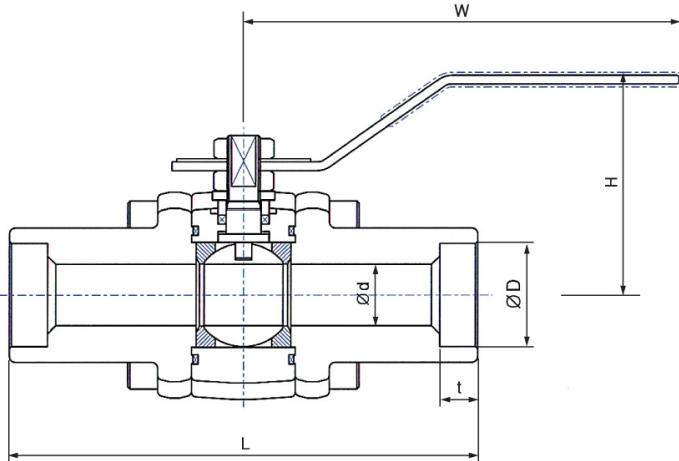
NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL		
		A105	F304	F316	F316L	
1	BODY	A105	A182-F304	A182-F316	A182-F316L	
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L	
3	BALL		Stainless Steel A276-T316		A182-F316L	
4	STEM		Stainless Steel A276-T316		A276-T316L	
5	SEAT-RING		RTFE-Teflon / 15% Glass Fiber Filled RTFE-Teflon / 25% Carbon Fiber Filled			
6	GASKET		O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING		PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL		RTFE-25% Carbon Fiber Filled			
9	DISC SPRING		Carbon Steel A283D, Stainless Steel			
10	GLAND		Stainless Steel A276-T316			
11	LEVER	A283D		Stainless Steel		
12	STEM NUT			Stainless Steel A276-T304		
13	NAME PLATE	ALUMINUM		Stainless Steel		
14	CONNECTOR BOLT	A193-B7		A193-B8		

DIMENSION TABLE

REDUCE BORE	FULL BORE	L	d	H	W	WEIGHT(kg)	Cv Factors		(UNIT - mm)
							R/B	F/B	
1/4"		78	11	52	120	0.9	8		
3/8"	1/4"	78	11	52	120	0.9	8		8
1/2"	3/8"	78	11	52	120	0.9	8		8
3/4"	1/2"	85	14	55	120	1.2	13		32
1"	3/4"	105	20.5	73	160	2.0	32		54
1 1/4"	1"	117	25	89	182	4.3	46		105
1 1/2"	1 1/4"	130	32	93	182	5.0	83		190
2"	1 1/2"	142	38	99	182	7.8	120		275
	2"	160	50	130	280	11.6			460

800# FLOATING BALL VALVE

Socket Welded Ends, Full & Reduce Bore.



* Especially, With extended SW end piece, Soft seat is safe from welding heat.

KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL			
		A105	F304	F316	F316L		
1	BODY	A105	A182-F304	A182-F316	A182-F316L		
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L		
3	BALL	Stainless Steel A276-T316		A182-F316L			
4	STEM	Stainless Steel A276-T316		A276-T316L			
5	SEAT-RING	RTFE-Teflon / 15% Glass Fiber Filled RTFE-Teflon / 25% Carbon Fiber Filled					
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE					
7	PACKING	PTFE(TEFLON), GRAPHITE					
8	THRUST SEAL	RTFE-25% Carbon Fiber Filled					
9	DISC SPRING	Carbon Steel A283D, Stainless Steel					
10	GLAND	Stainless Steel A276-T316					
11	LEVER	A283D	Stainless Steel				
12	STEM NUT	Stainless Steel A276-T304					
13	NAME PLATE	ALUMINUM	Stainless Steel				
14	CONNECTOR BOLT	A193-B7	A193-B8				

DIMENSION TABLE

REDUCE BORE	FULL BORE	L	d	D		T		H	W	WEIGHT(kg)	Cv Factors	
				R/B	F/B	R/B	F/B				R/B	F/B
1/4"		146	11	14.3		9.7		52	116	1.3	8	
3/8"	1/4"	146	11	17.6	14.3	9.7	9.7	52	116	1.3	8	8
1/2"	3/8"	146	11	21.8	17.6	9.7	9.7	52	116	1.3	8	8
3/4"	1/2"	151	14	27.2	21.8	12.7	9.7	55	116	1.7	13	32
1"	3/4"	157	20.5	33.9	27.2	12.7	12.7	73	147	2.5	32	54
1 1/4"	1"	170	25	42.6	33.9	12.7	12.7	89	179	5.1	46	105
1 1/2"	1 1/4"	181	32	48.8	42.6	12.7	12.7	93	179	6.2	83	190
2"	1 1/2"	190	38	61.3	48.8	15.8	12.7	99	179	8.7	120	275
	2"	205	50		61.3			15.8	130	280	12.2	
												460

SPECIFICATION

Valve Body Pressure Rating

Class 800, Max 1920 psig @ 100°F

Temperature Rating

-20°F to 450°F, Max 450°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast..

Seats

Reinforced PTFE seats.
Other seats are available, consult KCL Valve.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available, consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation
optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Socket-welding and thread ANSI B 16.11
BS 5251, NACE MR-01-75, and API 607 (BS6755)
optionally available.

* Monel, Titanium, Hastelloy C and other special materials
are available to customer spec.

* Fire safe or Anti-static are optional.

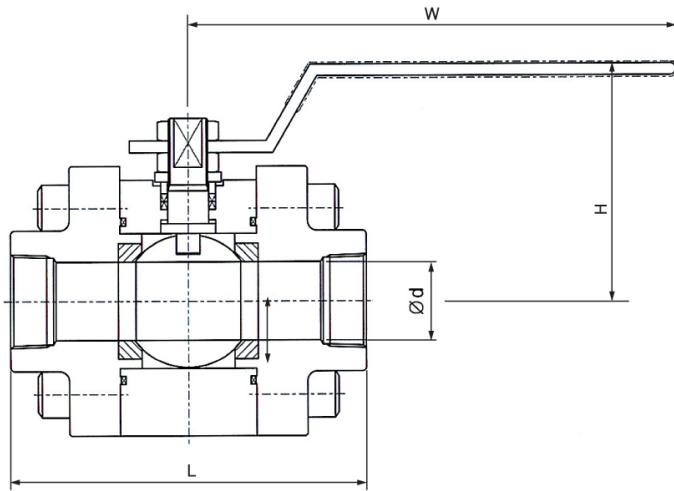
TEST PRESSURE (psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
1920	2900	2112	80

* Body & seat rating given in above conform to API 598

1500# FLOATING BALL VALVE

Screwed Ends, Full & Reduce Bore.



KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL			
		A105	F304	F316	F316L		
1	BODY	A105	A182-F304	A182-F316	A182-F316L		
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L		
3	BALL		Stainless Steel A276-T316		A182-F316L		
4	STEM		Stainless Steel A276-T316		A276-T316L		
5	SEAT-RING	NYLON					
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE					
7	PACKING	PTFE(TEFLON), GRAPHITE					
8	THRUST SEAL	PTFE-25% Carbon Fiber Filled					
9	DISC SPRING	Carbon Steel A283D, Stainless Steel					
10	GLAND	Stainless Steel A276-T316					
11	LEVER	A283D	Stainless Steel				
12	STEM NUT	Stainless Steel A276-T304					
13	NAME PLATE	ALUMINUM	Stainless Steel				
14	CONNECTOR BOLT	A193-B7	A193-B8				
15	STOP PIN	Stainless Steel A276-T304					

DIMENSION TABLE

REDUCE BORE	FULL BORE	L	d	H	W	WEIGHT(kg)	Cv Factors	
							R/B	F/B
1/4"		90	11	69	160	2.8	8	
3/8"	1/4"	90	11	69	160	2.8	8	8
1/2"	3/8"	90	11	69	160	2.8	8	8
3/4"	1/2"	100	14	72	160	3.4	13	32
1"	3/4"	120	20	85	182	5.0	32	54
1 1/4"	1"	130	25	89	182	10	46	105
1 1/2"	1 1/4"	145	32	94	182	12	83	190
2"	1 1/2"	160	38	103	182	15	120	275
	2"	170	50	134	280	19		460

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 1500, Max 3600 psig @ 100 °F

Temperature Rating

-40 °F to 176 °F, Max 176 °F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

NYLON seats.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation
optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Pipe thread, General purpose ANSI B 1.20.1
BS 5251, NACE MR-01-75, and API 607 (BS6755)
optionally available.

* Monel, Titanium, Hastelloy C and other special materials
are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

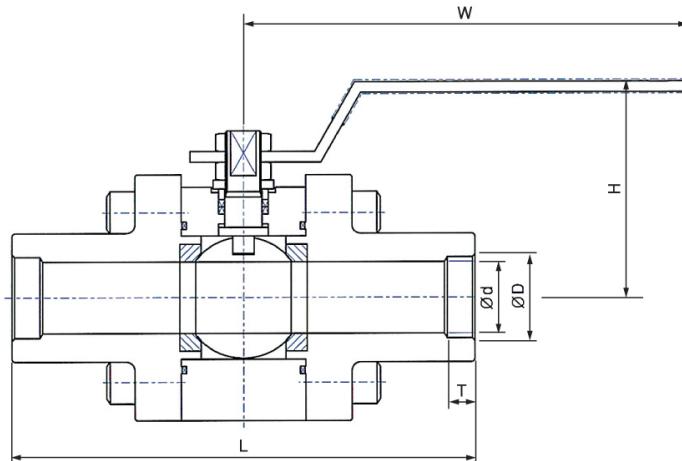
(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
3600	5400	3960	80

* Body & seat rating given in above conform to API 598

1500# FLOATING BALL VALVE

Socket Welded Ends, Full & Reduce Bore.



* Especially, With extended SW end piece, Soft seat is safe from welding heat.

KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL		Stainless Steel A276-T316		A182-F316L
4	STEM		Stainless Steel A276-T316		A276-T316L
5	SEAT-RING	NYLON			
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING	PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL	PTFE-25% Carbon Fiber Filled			
9	DISC SPRING	Carbon Steel A283D, Stainless Steel			
10	GLAND	Stainless Steel A276-T316			
11	LEVER	A283D	Stainless Steel		
12	STEM NUT		Stainless Steel A276-T304		
13	NAME PLATE	ALUMINUM		Stainless Steel	
14	CONNECTOR BOLT	A193-B7		A193-B8	
15	STOP PIN		Stainless Steel A276-T304		

DIMENSION TABLE

REDUCE BORE	FULL BORE	L	d	D		T		H	W	WEIGHT(kg)	Cv Factors	
				R/B	F/B	R/B	F/B				R/B	F/B
1/4"		176	11	14.3		9.7		69	160	3.2	8	
3/8"	1/4"	176	11	17.6	14.3	9.7	9.7	69	160	3.2	8	8
1/2"	3/8"	176	11	21.8	17.6	9.7	9.7	69	160	3.2	8	8
3/4"	1/2"	181	14	27.2	21.8	12.7	9.7	72	160	3.9	13	32
1"	3/4"	190	20	33.9	27.2	12.7	12.7	85	182	7.1	32	54
1 1/4"	1"	200	25	42.6	33.9	12.7	12.7	89	182	13.5	46	105
1 1/2"	1 1/4"	211	32	48.8	42.6	12.7	12.7	94	182	15	83	190
2"	1 1/2"	220	38	61.3	48.8	15.8	12.7	103	182	19	120	275
	2"	235	50		61.3			15.8	134	280	23.5	460

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 1500, Max 3600 psig @ 100°F

Temperature Rating

-40°F to 176°F, Max 176°F @ 100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

NYLON seats.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Socket-welding and thread ANSI B 16.11
BS 5251, NACE MR-01-75, and API 607 (BS6755) optionally available.

* Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

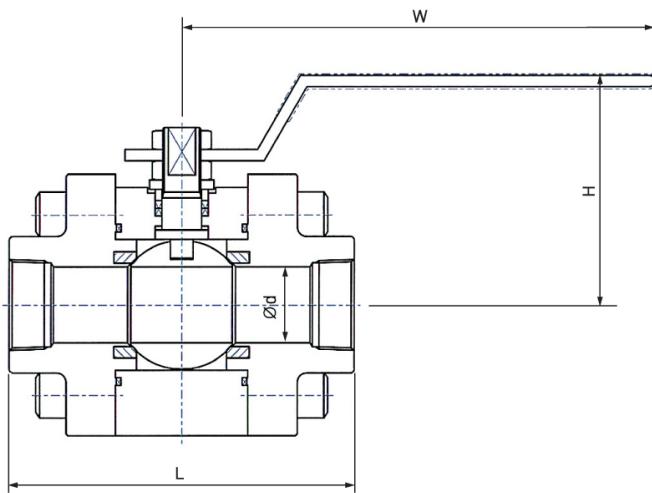
(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
3600	5400	3960	80

* Body & seat rating given in above conform to API 598

2500# FLOATING BALL VALVE

Screwed Ends, Full & Reduce Bore.



KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL			Stainless Steel A276-T316	A182-F316L
4	STEM			Stainless Steel A276-T316	A276-T316L
5	SEAT-RING	PEEK			
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING	PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL	RTFE-25% Carbon Fiber Filled			
9	DISC SPRING	Carbon Steel A283D, Stainless Steel			
10	GLAND	Stainless Steel A276-T316			
11	LEVER	A283D		Stainless Steel	
12	STEM NUT	Stainless Steel A276-T304			
13	NAME PLATE	ALUMINUM		Stainless Steel	
14	CONNECTOR BOLT	A193-B7		A193-B8	
15	STOP PIN	Stainless Steel A276-T304			

DIMENSION TABLE

REDUCE BORE	FULL BORE	L	d	H	W	WEIGHT(kg)	Cv Factors	
							R/B	F/B
1/4"		105	9	82	182	5	8	
3/8"	1/4"	105	9	82	182	5	8	8
1/2"	3/8"	105	9	82	182	5	8	8
3/4"	1/2"	115	12	82	182	6.6	13	32
1"	3/4"	134	18	88	250	10	32	54
1 1/4"	1"	142	22	88	250	13	46	105
1 1/2"	1 1/4"	158	28	110	280	16	83	190
2"	1 1/2"	172	34	110	280	21	120	275
	2"	190	46	135	330	28		460

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 2500, Max 6000 psig @ 100 °F

Temperature Rating

-20 °F to 482 °F, Max 482 °F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.

Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

PEEK seats.

Body Seal and Stem Packing

PTFE as standard.

Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.

A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34

BS 5351

API 6D

Pipe thread, General purpose ANSI B 1.20.1

BS 5251, NACE MR-01-75, and API 607 (BS6755) optionally available.

※ Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

※ Fire safe or Anti-static are optional.

TEST PRESSURE

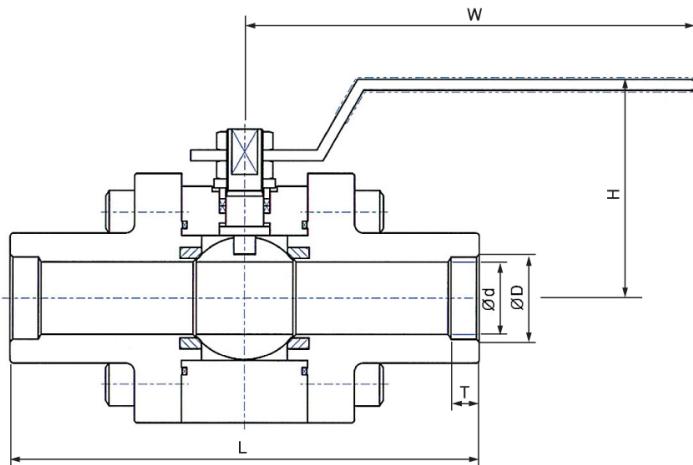
(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
6000	9000	6600	80

※ Body & seat rating given in above conform to API 598

2500# FLOATING BALL VALVE

Socket Welded Ends, Full & Reduce Bore.



* Especially, With extended SW end piece, Soft seat is safe from welding heat.

KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL			
		A105	F304	F316	F316L		
1	BODY	A105	A182-F304	A182-F316	A182-F316L		
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L		
3	BALL	Stainless Steel A276-T316		A182-F316L			
4	STEM	Stainless Steel A276-T316		A276-T316L			
5	SEAT-RING	PEEK					
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE					
7	PACKING	PTFE(TEFLON), GRAPHITE					
8	THRUST SEAL	PTFE-25% Carbon Fiber Filled					
9	DISC SPRING	Carbon Steel A283D, Stainless Steel					
10	GLAND	Stainless Steel A276-T316					
11	LEVER	A283D	Stainless Steel				
12	STEM NUT	Stainless Steel A276-T304					
13	NAME PLATE	ALUMINUM	Stainless Steel				
14	CONNECTOR BOLT	A193-B7	A193-B8				
15	STOP PIN	Stainless Steel A276-T304					

DIMENSION TABLE

REDUCE BORE	FULL BORE	L	d	D		T		H	W	WEIGHT(kg)	Cv Factors	
				R/B	F/B	R/B	F/B				R/B	F/B
1/4"		180	9	14.3		9.7		82	182	6	8	
3/8"	1/4"	180	9	17.6	14.3	9.7	9.7	82	182	6	8	8
1/2"	3/8"	180	9	21.8	17.6	9.7	9.7	82	182	6	8	8
3/4"	1/2"	185	12	27.2	21.8	12.7	9.7	82	182	7.5	13	32
1"	3/4"	195	18	33.9	27.2	12.7	12.7	88	250	11	32	54
1 1/4"	1"	210	22	42.6	33.9	12.7	12.7	88	250	15	46	105
1 1/2"	1 1/4"	220	28	48.8	42.6	12.7	12.7	110	280	18	83	190
2"	1 1/2"	232	34	61.3	48.8	15.8	12.7	110	280	23	120	275
	2"	255	41		61.3			15.8	135	330	30	460

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 2500, Max 6000 psig @ 100°F

Temperature Rating

-20°F to 482°F, Max 482°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

PEEK seats.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation
optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Socket-welding and thread ANSI B 16.11
BS 5251, NACE MR-01-75, and API 607 (BS6755)
optionally available.

* Monel, Titanium, Hastelloy C and other special materials
are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

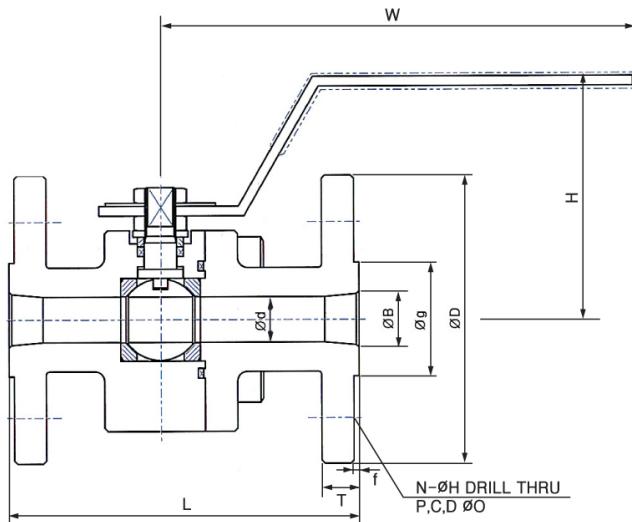
(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
6000	9000	6600	80

* Body & seat rating given in above conform to API 598

150# FLOATING BALL VALVE

Integral RF Flanged Ends, Full & Reduce Bore.



KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL				
4	STEM				
5	SEAT-RING				
6	GASKET				
7	PACKING				
8	THRUST SEAL				
9	DISC SPRING				
10	GLAND				
11	LEVER	A283D			
12	STEM NUT				
13	NAME PLATE	ALUMINUM			
14	CONNECTOR BOLT	A193-B7			
15	STOP PIN				

DIMENSION TABLE

SIZE	DIMENSION(UINT - mm)										Approx Weight(kg)
	L	d	D	g	T	f	B	N- Ø H	O	H	
1/2" x 3/8"	108	11	88.9	35	11.5	1.6	15.7	4-16	60.5	79	168
1/2" x 1/2"	108	14	88.9	35	11.5	1.6	15.7	4-16	60.5	84	168
3/4" x 1/2"	117	14	98.6	43	13	1.6	20.8	4-16	70	84	168
3/4" x 3/4"	117	20.5	98.6	43	13	1.6	20.8	4-16	70	97	180
1" x 3/4"	127	20.5	108	51	14.5	1.6	26.7	4-16	79.2	97	180
1" x 1"	127	25	108	51	14.5	1.6	26.7	4-16	79.2	110	198
1 1/4" x 1"	140	25	117.4	63.5	16	1.6	35	4-16	88.9	110	198
1 1/4" x 1 1/4"	140	32	117.4	63.5	16	1.6	35	4-16	88.9	122	198
1 1/2" x 1 1/4"	165	32	127	73	18	1.6	40.9	4-16	98.6	122	198
1 1/2" x 1 1/2"	165	38	127	73	18	1.6	40.9	4-16	98.6	127	198
2" x 1 1/2"	178	38	152.4	92	19.5	1.6	52.6	4-19	120.6	127	198
2" x 2"	178	50	152.4	92	19.5	1.6	52.6	4-19	120.6	131	280
											14.7

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 150, Max 275 psig @ 100°F

Temperature Rating

-20°F to 450°F, Max 450°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Two-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

Reinforced PTFE seats.
Other seats are available, consult KCL Valve.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Face to face dimension-ANSI B 16.10
Flange dimension-ANSI B 16.5

* BS 5251, NACE MR-01-75, and API 607(BS6755) optionally available.

* Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

(psi)

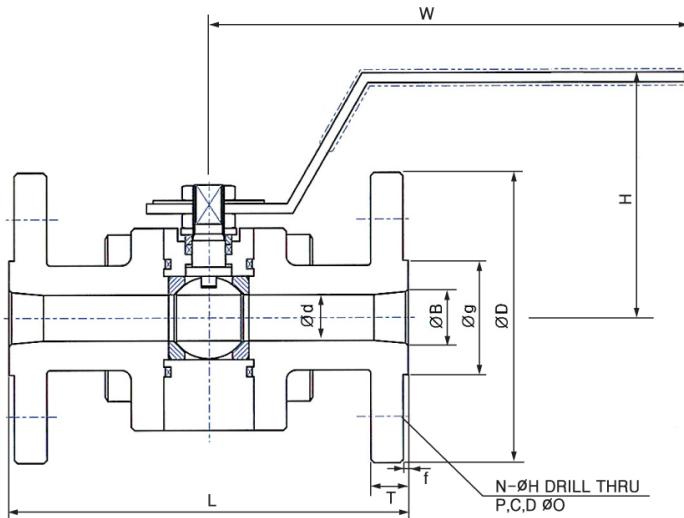
Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
275	425	303	80

* Body & seat rating given in above conform to API 598

(UNIT - mm)

300# FLOATING BALL VALVE

Integral RF Flanged Ends, Full & Reduce Bore.



SPECIFICATION

Valve Body Pressure Rating

ANSI Class 300, Max 720 psig @ 100°F

Temperature Rating

-20°F to 450°F, Max 450°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

Reinforced PTFE seats.
Other seats are available, consult KCL Valve.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Face to face dimension-ANSI B 16.10
Flange dimension-ANSI B 16.5

* BS 5251, NACE MR-01-75, and API 607(BS6755) optionally available.

* Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
720	1100	792	80

* Body & seat rating given in above conform to API 598

KCL STANDARD COMPONENT MATERIAL

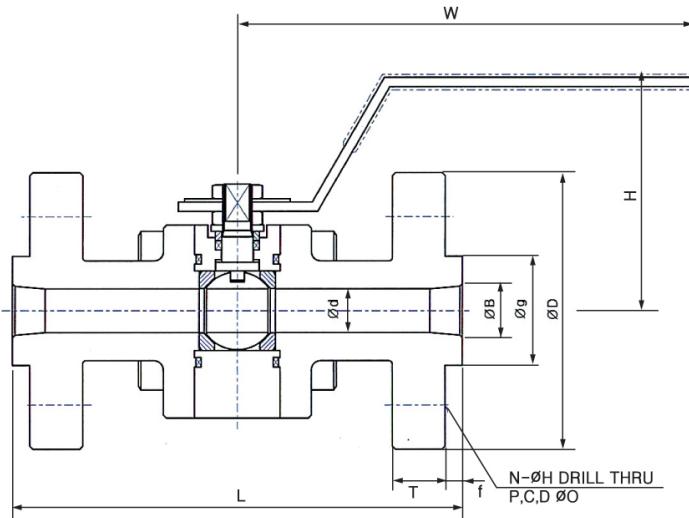
NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL	Stainless Steel A276-T316		A182-F316L	
4	STEM	Stainless Steel A276-T316		A276-T316L	
5	SEAT-RING	RTFE-Teflon / 15% Glass Fiber Filled RTFE-Teflon / 25% Carbon Fiber Filled			
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING	PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL	RTFE-25% Carbon Fiber Filled			
9	DISC SPRING	Carbon Steel A283D, Stainless Steel			
10	GLAND	Stainless Steel A276-T316			
11	LEVER	A283D	Stainless Steel		
12	STEM NUT		Stainless Steel A276-T304		
13	NAME PLATE	ALUMINUM		Stainless Steel	
14	CONNECTOR BOLT	A193-B7		A193-B8	
15	STOP PIN		Stainless Steel A276-T304		

DIMENSION TABLE

SIZE	DIMENSION(UINT - mm)										(UNIT - mm)	
	L	d	D	g	T	f	B	N-ØH	O	H	W	
1/2" x 3/8"	140	11	95.3	35	14.2	1.6	15.7	4-16	66.5	79	168	2.4
1/2" x 1/2"	140	14	95.3	35	14.2	1.6	15.7	4-16	66.5	84	168	2.9
3/4" x 1/2"	152	14	117.4	43	15.7	1.6	20.8	4-19	82.6	84	168	4.2
3/4" x 3/4"	152	20.5	117.4	43	15.7	1.6	20.8	4-19	82.6	97	180	5.0
1" x 3/4"	165	20.5	124	51	17.5	1.6	26.7	4-19	88.9	97	180	5.4
1" x 1"	165	25	124	51	17.5	1.6	26.7	4-19	88.9	110	198	6.5
1 1/4" x 1"	178	25	133.4	63.5	19.1	1.6	35	4-19	98.6	110	198	6.7
1 1/4" x 1 1/4"	178	32	133.4	63.5	19.1	1.6	35	4-19	98.6	122	198	8.0
1 1/2" x 1 1/4"	190	32	155.5	73	20.6	1.6	40.9	4-22	114.3	122	198	11.2
1 1/2" x 1 1/2"	190	38	155.5	73	20.6	1.6	40.9	4-22	114.3	127	198	13.4
2" x 1 1/2"	216	38	165	92	22.4	1.6	52.6	8-19	127	127	198	13.8
2" x 2"	216	50	165	92	22.4	1.6	52.6	8-19	127	131	280	16.6

600# FLOATING BALL VALVE

Integral RF Flanged Ends, Full & Reduce Bore.



KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL				A182-F316L
4	STEM				A276-T316
5	SEAT-RING			RTFE-Teflon / 15% Glass Fiber Filled RTFE-Teflon / 25% Carbon Fiber Filled	
6	GASKET		O-RING, PTFE(TEFLON), GRAPHITE		
7	PACKING		PTFE(TEFLON), GRAPHITE		
8	THRUST SEAL		RTFE-25% Carbon Fiber Filled		
9	DISC SPRING		Carbon Steel A283D, Stainless Steel		
10	GLAND			Stainless Steel A276-T316	
11	LEVER	A283D		Stainless Steel	
12	STEM NUT			Stainless Steel A276-T304	
13	NAME PLATE	ALUMINUM		Stainless Steel	
14	CONNECTOR BOLT	A193-B7		A193-B8	
15	STOP PIN			Stainless Steel A276-T304	

DIMENSION TABLE

SIZE	DIMENSION(UINT - mm)										Approx Weight(kg)
	L	d	D	g	T	f	B	N-ØH	O	H	
1/2" X 3/8"	165	11	95.3	35	14.2	6.4	15.7	4-16	66.5	79	168
1/2" X 1/2"	165	14	95.3	35	14.2	6.4	15.7	4-16	66.5	84	168
3/4" X 1/2"	190	14	117.4	43	15.7	6.4	20.8	4-19	82.6	84	168
3/4" X 3/4"	190	20.5	117.4	43	15.7	6.4	20.8	4-19	82.6	97	180
1" X 3/4"	216	20.5	124	51	17.5	6.4	26.7	4-19	88.9	97	180
1" X 1"	216	25	124	51	17.5	6.4	26.7	4-19	88.9	119	198
1 1/4" X 1 "	229	25	133.4	63.5	20.6	6.4	35	4-19	98.6	119	198
1 1/4" X 1 1/4"	229	32	133.4	63.5	20.6	6.4	35	4-19	98.6	123	198
1 1/2" X 1 1/4"	241	32	155.5	73	22.4	6.4	40.9	4-22	114.3	123	198
1 1/2" X 1 1/2"	241	38	155.5	73	22.4	6.4	40.9	4-22	114.3	128	198
2" X 1 1/2"	292	38	165	92	25.4	6.4	52.6	8-19	127	128	198
2" X 2"	292	50	165	92	25.4	6.4	52.6	8-19	127	131	280

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 600, Max 1440 psig @ 100°F

Temperature Rating

-20°F to 450°F, Max 450°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

Reinforced PTFE seats.
Other seats are available, consult KCL Valve.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Face to face dimension-ANSI B 16.10
Flange dimension-ANSI B 16.5

* BS 5251, NACE MR-01-75, and API 607(BS6755) optionally available.

* Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

(psi)

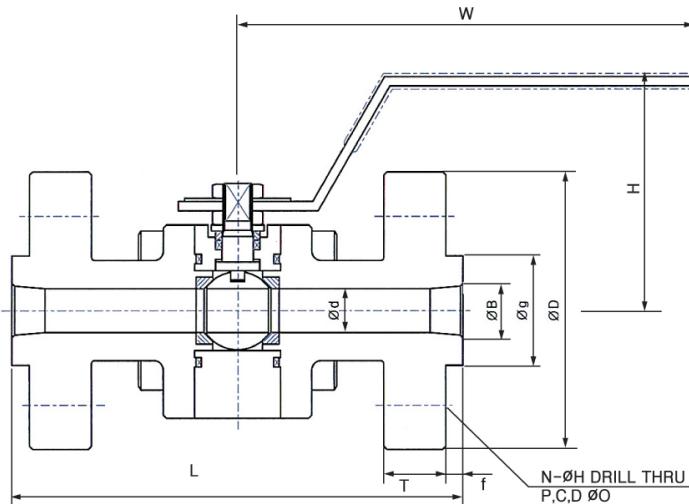
Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
1440	2175	1800	80

* Body & seat rating given in above conform to API 598

(UNIT - mm)

900# FLOATING BALL VALVE

Integral RF Flanged Ends, Full & Reduce Bore.



SPECIFICATION

Valve Body Pressure Rating

ANSI Class 900, Max 2160 psig @ 100 °F

Temperature Rating

-20°F to 450°F, Max 450°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

NYLON seats.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Face of face dimension-ANSI B 16.10
Flange dimension-ANSI B 16.5

* BS 5251, NACE MR-01-75, and API 607(BS6755) optionally available.

* Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
2160	3250	2400	80

* Body & seat rating given in above conform to API 598

KCL STANDARD COMPONENT MATERIAL

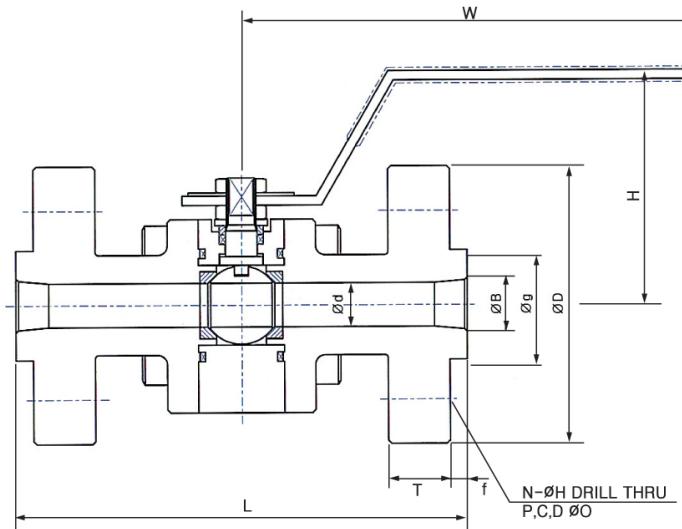
NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL		Stainless Steel A276-T316		A182-F316L
4	STEM		Stainless Steel A276-T316		A276-T316L
5	SEAT-RING	NYLON			
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING	PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL	PTFE-25% Carbon Fiber Filled			
9	DISC SPRING	Carbon Steel A283D, Stainless Steel			
10	GLAND	Stainless Steel A276-T316			
11	LEVER	A283D	Stainless Steel		
12	STEM NUT	Stainless Steel A276-T304			
13	NAME PLATE	ALUMINUM	Stainless Steel		
14	CONNECTOR BOLT	A193-B7	A193-B8		
15	STOP PIN	Stainless Steel A276-T304			

DIMENSION TABLE

SIZE	DIMENSION(UINT - mm)										(UNIT - mm)	
	L	d	D	g	T	f	B	N-ØH	O	H	W	
1/2" x 3/8"	216	11	120.7	35	22.4	6.4	15.7	4-22	82.6	92	180	6.5
1/2" x 1/2"	216	14	120.7	35	22.4	6.4	15.7	4-22	82.6	92	180	8.4
3/4" x 1/2"	229	14	130	43	25.4	6.4	20.8	4-22	88.9	92	180	8.6
3/4" x 3/4"	229	20.5	130	43	25.4	6.4	20.8	4-22	88.9	114	198	10.6
1" x 3/4"	254	20.5	149.4	51	28.5	6.4	26.7	4-25	101.6	114	198	11.4
1" x 1"	254	25	149.4	51	28.5	6.4	26.7	4-25	101.6	119	198	14.2
1 1/4" x 1"	279	25	158.8	63.5	28.5	6.4	35	4-25	111.3	119	198	14.6
1 1/4" x 1 1/4"	279	32	158.8	63.5	28.5	6.4	35	4-25	111.3	123	198	18
1 1/2" x 1 1/4"	305	32	177.8	73	31.8	6.4	40.9	4-28	114.3	123	198	21.6
1 1/2" x 1 1/2"	305	38	177.8	73	31.8	6.4	40.9	4-28	114.3	129	198	27
2" x 1 1/2"	368	38	216	92	38	6.4	52.6	8-25	165	129	198	36
2" x 2"	368	50	216	92	38	6.4	52.6	8-25	165	134	280	40

1500# FLOATING BALL VALVE

Integral RF Flanged Ends, Full & Reduce Bore.



KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL	STAINLESS STEEL		
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL		Stainless Steel A276-T316		A182-F316L
4	STEM		Stainless Steel A276-T316		A276-T316L
5	SEAT-RING	NYLON			
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING	PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL	RTFE-25% Carbon Fiber Filled			
9	DISC SPRING	Carbon Steel A283D, Stainless Steel			
10	GLAND	Stainless Steel A276-T316			
11	LEVER	A283D	Stainless Steel		
12	STEM NUT	Stainless Steel A276-T304			
13	NAME PLATE	ALUMINUM	Stainless Steel		
14	CONNECTOR BOLT	A193-B7	A193-B8		
15	STOP PIN	Stainless Steel A276-T304			

DIMENSION TABLE

SIZE	DIMENSION(UINT - mm)										Approx Weight(kg)
	L	d	D	g	T	f	B	N- ØH	O	H	
1/2" x 3/8"	216	11	120.7	35	22.4	6.4	15.7	4-22	82.6	92	180
1/2" x 1/2"	216	14	120.7	35	22.4	6.4	15.7	4-22	82.6	92	180
3/4" x 1/2"	229	14	130	43	25.4	6.4	20.8	4-22	88.9	92	180
3/4" x 3/4"	229	20.5	130	43	25.4	6.4	20.8	4-22	88.9	114	198
1" x 3/4"	254	20.5	149.4	51	28.5	6.4	26.7	4-25	101.6	114	198
1" x 1"	254	25	149.4	51	28.5	6.4	26.7	4-25	101.6	119	198
1 1/4" x 1 "	279	25	158.8	63.5	28.5	6.4	35	4-25	111.3	119	198
1 1/4" x 1 1/4"	279	32	158.8	63.5	28.5	6.4	35	4-25	111.3	123	198
1 1/2" x 1 1/4"	305	32	177.8	73	31.8	6.4	40.9	4-28	114.3	123	198
1 1/2" x 1 1/2"	305	38	177.8	73	31.8	6.4	40.9	4-28	114.3	129	198
2" x 1 1/2"	368	38	216	92	38	6.4	52.6	8-25	165	129	198
2" x 2"	368	50	216	92	38	6.4	52.6	8-25	165	134	280

SPECIFICATION

Valve Body Pressure Rating

ANSI Class 1500, Max 3600 psig @ 100°F

Temperature Rating

-20°F to 176°F, Max 176°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

NYLON seats.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation
optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Face ot face dimension-ANSI B 16.10
Flange dimension-ANSI B 16.5

* BS 5251, NACE MR-01-75, and API 607(BS6755)
optionally available.

* Monel, Titanium, Hastelloy C and other special materials
are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

(psi)

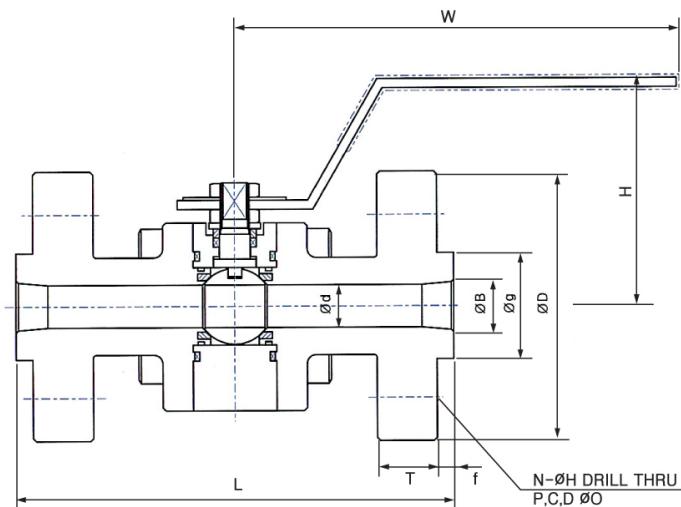
Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
3600	5400	4000	80

* Body & seat rating given in above conform to API 598

(UNIT - mm)

2500# FLOATING BALL VALVE

Integral RF Flanged Ends, Full & Reduce Bore.



SPECIFICATION

Valve Body Pressure Rating

ANSI Class 2500, Max 6000 psig @ 100°F

Temperature Rating

-20°F to 482°F, Max 482°F @100 psig
Dependent upon seal & seat choice.

Body and End Piece

Three-piece construction.
Available in stainless or carbon steel.

Body Bolts & Nuts

ASTM A193 Gr B7(B8) or ASTM A194 Gr 2H(8)
Other Bolts are available according to body material.

Ball and Stem

316 stainless steel, balls are solid of forged or cast.

Seats

PEEK seats.

Body Seal and Stem Packing

PTFE as standard.
Other packings are available consult KCL Valve.

Operation

Valves are supplied with handle operator.
A locking device or pneumatic and electric automation optionally available.

Seat / Seal Leakage

Conform to API 598 or ANSI B 16.34 or BS6755
All valves are tested to bubble-tight standards.

Design Specification

ANSI B 16.34
BS 5351
API 6D
Face of face dimension-ANSI B 16.10
Flange dimension-ANSI B 16.5

* BS 5251, NACE MR-01-75, and API 607(BS6755) optionally available.

* Monel, Titanium, Hastelloy C and other special materials are available to customer spec.

* Fire safe or Anti-static are optional.

TEST PRESSURE

(psi)

Max. Working pressure	Shell (Hydro)	Seats	
		Hydro	Pneu
6000	9000	6600	80

* Body & seat rating given in above conform to API 598

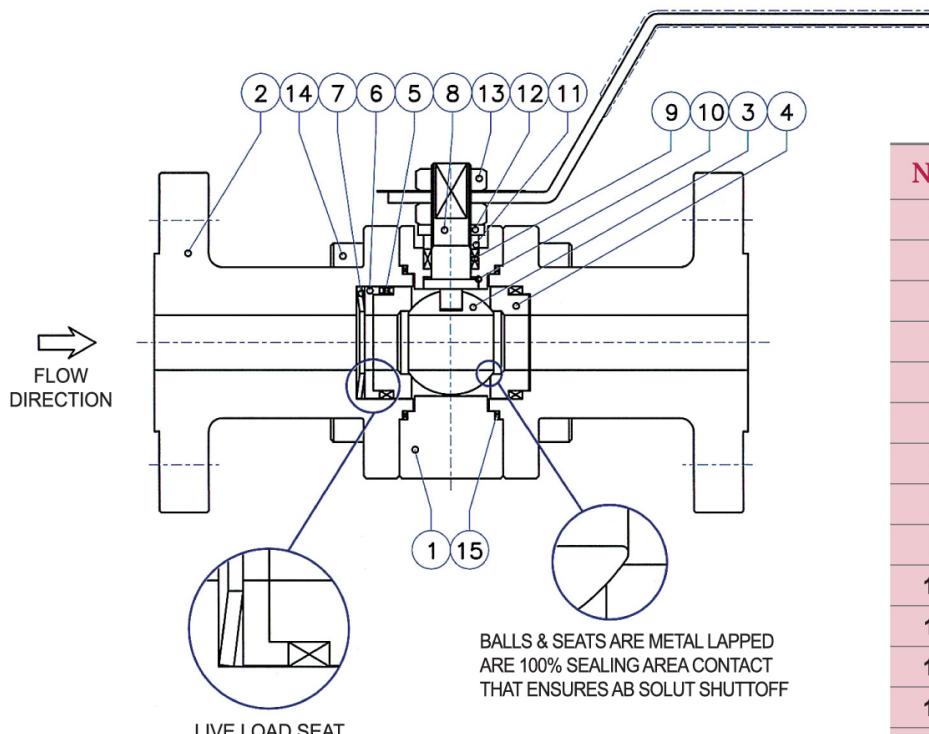
KCL STANDARD COMPONENT MATERIAL

NO	DESCRIPTION	CARBON STEEL		STAINLESS STEEL	
		A105	F304	F316	F316L
1	BODY	A105	A182-F304	A182-F316	A182-F316L
2	CONNECTOR	A105	A182-F304	A182-F316	A182-F316L
3	BALL		Stainless Steel A276-T316		A182-F316L
4	STEM		Stainless Steel A276-T316		A276-T316L
5	SEAT-RING	PEEK			
6	GASKET	O-RING, PTFE(TEFLON), GRAPHITE			
7	PACKING	PTFE(TEFLON), GRAPHITE			
8	THRUST SEAL	PTFE-25% Carbon Fiber Filled			
9	DISC SPRING	Carbon Steel A283D, Stainless Steel			
10	GLAND	Stainless Steel A276-T316			
11	LEVER	A283D	Stainless Steel		
12	STEM NUT	Stainless Steel A276-T304			
13	NAME PLATE	ALUMINUM	Stainless Steel		
14	CONNECTOR BOLT	A193-B7	A193-B8		
15	STOP PIN	Stainless Steel A276-T304			

DIMENSION TABLE

SIZE	DIMENSION(UINT - mm)										Approx Weight(kg)	
	L	d	D	g	T	f	B	N-ØH	O	H	W	
1/2" x 3/8"	264	9	133.4	35	30.2	6.4	12	4-22	88.9	92	198	11
1/2" x 1/2"	264	12	133.4	35	30.2	6.4	12	4-22	88.9	95	198	12.5
3/4" x 1/2"	273	12	139.7	43	31.8	6.4	18	4-22	95.3	95	198	14.5
3/4" x 3/4"	273	18	139.7	43	31.8	6.4	18	4-22	95.3	110	280	16
1 " x 3/4 "	308	18	158.8	51	35.1	6.4	22	4-25	108	110	280	23.4
1 " x 1 "	308	22	158.8	51	35.1	6.4	22	4-25	108	125	280	26
1 1/4 "x 1 "	349	22	184.2	63.5	38.1	6.4	28	4-28	130	125	350	32.1
1 1/4 "x 1 1/4 "	349	28	184.2	63.5	38.1	6.4	28	4-28	130	140	350	33.5
1 1/2 "x 1 1/4 "	384	28	203.2	73	44.5	6.4	32	4-32	146	140	350	42.7
1 1/2 "x 1 1/2 "	384	32	203.2	73	44.5	6.4	32	4-32	146	150	350	45.8
2 " x 1 1/2 "	451	32	235	92	50.8	6.4	41	8-28	171.5	150	350	63.2
2 " x 2 "	451	41	235	92	50.8	6.4	41	8-28	171.5	160	400	67

METAL SEATED BALL VALVE



No.	PART
1	BODY
2	CONNECTOR
3	BALL
4	SEAT
5	SEAT SEAL
6	SEAT RETAINER
7	SEAT LOAD SPRING
8	STEM
9	PACKING
10	THRUST WASHER
11	GLAND
12	DISC SPRING
13	NUT
14	BOLT
15	BODY GASKET

APPLICATIONS

- Liquid, gas and steam
- Chemical and petrochemical plants
- Oil and Gas production
- Power plants

PRESSURE RATINGS

- ANSI Class 150, 300, 600

SIZE RANGE

- 1/2" - 2"

TEMPERATURE RANGE

- -50°C ~ 400°C.
- Consult with KCL Valve for higher temperature applications.

AVAILABLE END CONNECTIONS

- Socket weld, Thread end, Flange End.
- Per customer specification

MATERIALS

- Body, Connector : Carbon & Stainless steel
- Ball : 316 + hard chrome plating.
- Seats : 316 + solid stellite 6
- Packing, Seat seals : Graphite

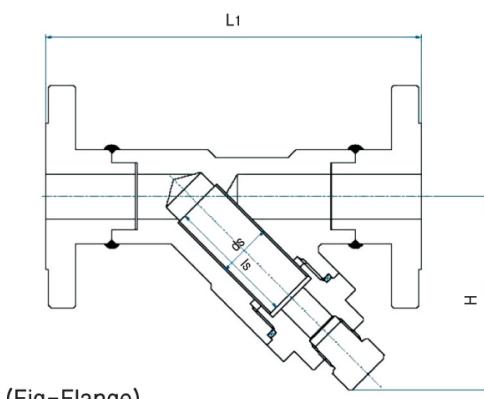
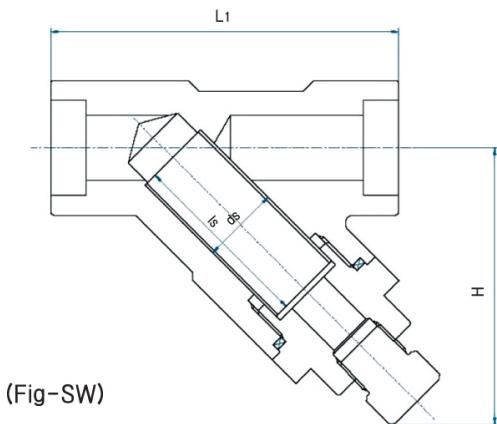
VALVE TIGHTNESS

- API 598. ANSI/FCI 70-2 Class V

OPERATOR

- Manual, pneumatic or electric actuator

Y-TYPE STRAINER



POROUS PLATE

The Effective Filtering Area Ratio :

$$\frac{S}{A} \times \frac{(r_1 \times r_2)}{10000}$$

S : Surface area of screen

A : Section area of pipe

r₁ : Percentage of open area of wire cloth

r₂ : Percentage of open area of perforation plate

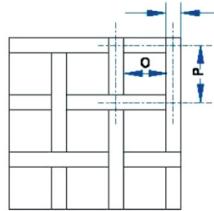
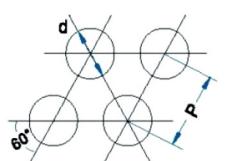
Porous Ratio Perforated Plate :

$$F=0.91 \times \left(\frac{d}{p} \right)^2$$

F : Porous ratio

d : Pore diameter

p : Pitch 60°



Porous Ratio of Screen :

$$N = \left(p - \frac{p-w}{p} \right)^2 = \left(\frac{5}{p} \right)^2$$

$$p = \frac{25.4}{m}$$

m : Mesh

p : Pitch

w : Wire diameter

o : Opening

N : Porous ratio

Dimension Table (SW, Thread)

CLASS	SIZE	15A	20A	25A	32A	40A	50A
*Y8F (800#)	L ₁	100	115	124	150	150	200
	H	100	100	125	140	140	170
	ds	24	24	28	36	36	53
	ls	55	55	55	70	70	100

Dimension Table (Flange)

CLASS	SIZE	15A	20A	25A	32A	40A	50A
*Y1F (150#)	L ₁	180	180	200	220	220	250
	H	100	100	113	138	138	165
	ds	24	24	28	36	36	53
	ls	55	55	55	70	70	100
*Y3F (300#) *Y2K (20K)	L ₁	180	180	200	240	240	275
	H	100	100	113	140	140	170
	ds	24	24	28	36	36	53
	ls	55	55	55	70	70	100
*Y6F (600#) *Y3K/Y4K (30K/40K)	L ₁	200	200	240	280	320	320
	H	100	100	125	140	140	170
	ds	24	24	28	36	36	53
	ls	55	55	55	70	70	100
*Y9F (900#) *Y6K (63K)	L ₁	220	220	260	320	350	350
	H	100	100	125	140	140	170
	ds	24	24	28	36	36	53
	ls	55	55	55	70	70	100
*Y15F (1500#)	L ₁	220	220	260	320	350	350
	H	100	100	125	140	140	170
	ds	24	24	28	36	36	53
	ls	55	55	55	70	70	100

Standard Component Materials

Part	Material
Body	Carbon & Stainless Steel
Cap	Carbon & Stainless Steel
Flange	Carbon & Stainless Steel
Holder	Stainless Steel
Screen	Stainless Steel
Gasket	Teflon
Plug	Carbon & Stainless Steel

※ Drain : 15A~20A=3/8", 25A=1/2", 32A~50A=3/4"

Screen Specification Table

Mesh	Pitch(mm)	Wire dia.(mm)	PRP(%)	SWG
20	1.27	0.315	56.5	30
30	0.847	0.25	49.6	33
40	0.635	0.193	48.4	36
50	0.508	0.193	38.4	36
60	0.423	0.152	41.0	38
80	0.318	0.12	38.7	40
100	0.254	0.1	36.7	42
120	0.211	0.08	38.5	44

KCL VALVE PRODUCTS

CASTING BALL VALVE

GATE VALVE

CHECK VALVE

SAFETY VALVE

FORGED BALL VALVE

GLOBE VALVE

DOUBLE BLOCK & BLEED VALVE

PLUG VALVE



API-6D



ISO9001 by Lloyd

تاكريير
TAKREER
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REGISTRATION NO.910004



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