



## Sedelon Valve Co., Ltd

Address: Baoyi Industry Zone, Oubei, Wenzhou, Zhejiang, China

Tel: +86-577-67926789 +86-577-67927781

Fax: +86-577-67927789

E-mail: sales@sedelon.com

www.sedelon.com

# Ball Valve



- > Floating Type Ball Valve
- > Trunnion Mounted Ball Valve
- > Top Entry Ball Valve
- > Full Welded Ball Valve



# Company Profile

SEDELON is an American-based, dynamic valve manufacturer and major supplier in the global valve market for the most diverse types of applications in oil and gas, petrochemical, marine and thermal power industries. SEDELON is a team of competent and experienced professionals, fuelled by whom, the company emerged as one of the most cost-effective global manufacturer.

SEDELON's high-quality products, market know-how and state-of-the-art production facilities accredit us as a reliable and professional partner and agent to the needs of clients. As a specialist in the design and manufacture of industrial valves, we present a full range of valve types from 1/2" to 48" and pressure rating from 150LB to 2500LB. SEDELON products are also suitable for ultrahigh and ultralow temperature conditions and function well even in severe environment. Our broad product line can meet demanding requirements and is synonymous with high quality, innovation and reliability.



# Quality Assurance

SEDELON is certified by API 600, API 6D, API 607, API 6FA, API 624, CE, ISO 9001, ISO 45001, ISO 14001, ISO 15848-1, etc. All activities are performed under the highest international standards to ensure the quality, safety and reliability of products' excellent service.

The company operates in conformity with the QMS (Quality Management System) in which every step is set aims to achieve the overall goal of meeting and satisfying customers' requirements.

Adhere to the standard of QMS, ITP (Inspection and Test Plan) is a checklist to assure products quality at every critical point. ITP is conducted by the quality manager and operated by qualified inspectors.

**API**

API 6D-2077  
API 600-0399

**Q1**

API Q1-4885

**API-ISO**

ISO 9001-5148



ISO 9001  
ISO 14001  
ISO 45001



CE-2435



API 624  
API 6FA  
API 607  
ISO 15848-1



SEDELON managers at all levels and all employees observe the QMS. The management periodically review and continuously improve the effectiveness of the QMS. Vendor evaluation and calibration of various aspects is conducted regularly. Necessary and suitable resources is provided for the implementation and improvement of the QMS.



The significance of quality of both products and service is taken into account by SEDELON at all times. The satisfaction of esteemed customers is achieved through high quality products and comprehensive service as well as the commitment to meet their requirements. Applicable and achievable objectives and targets are set for all processes and activities relevant to quality and customer satisfaction.

# Product Warranty



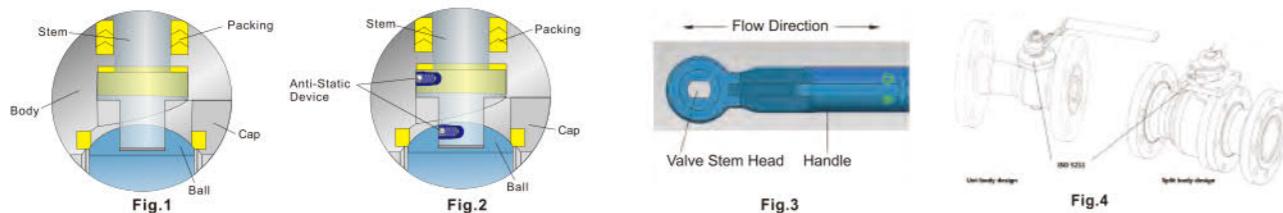
Within eighteen months of completion inspection or within twelve months of the start of usage, whichever is shortest, SEDELON valve will repair or replace products or the faulty components of products free of charge in the event of failure under normal usage attributable to inadequate design or manufacturing on the part of SEDELON valve. However, repairs or replacements will be charged in any of the following cases. Also note that if a separate agreement is in effect, that agreement shall take precedence.

- (1) When the product has been used in an incorrect manner which deviates from the catalog or instruction manual;
- (2) When the product failure is due to careless handling such as jamming with foreign substances or the sticking of excessive water stain;
- (3) When the product has been disassembled, repaired or altered by a third party other than SEDELON;
- (4) When the product has been subject to cases beyond the control of valve including natural disaster such as wind or flood damage, earthquakes and electrical storm, fire, pollution (special environments), salt damage, war or acts of terror;
- (5) When a failure is due to any other factor deemed to be the responsibility of SEDELON valve.



## FLOATING TYPE BALL VALVE

### Design feature



#### Blow-out Proof Stem

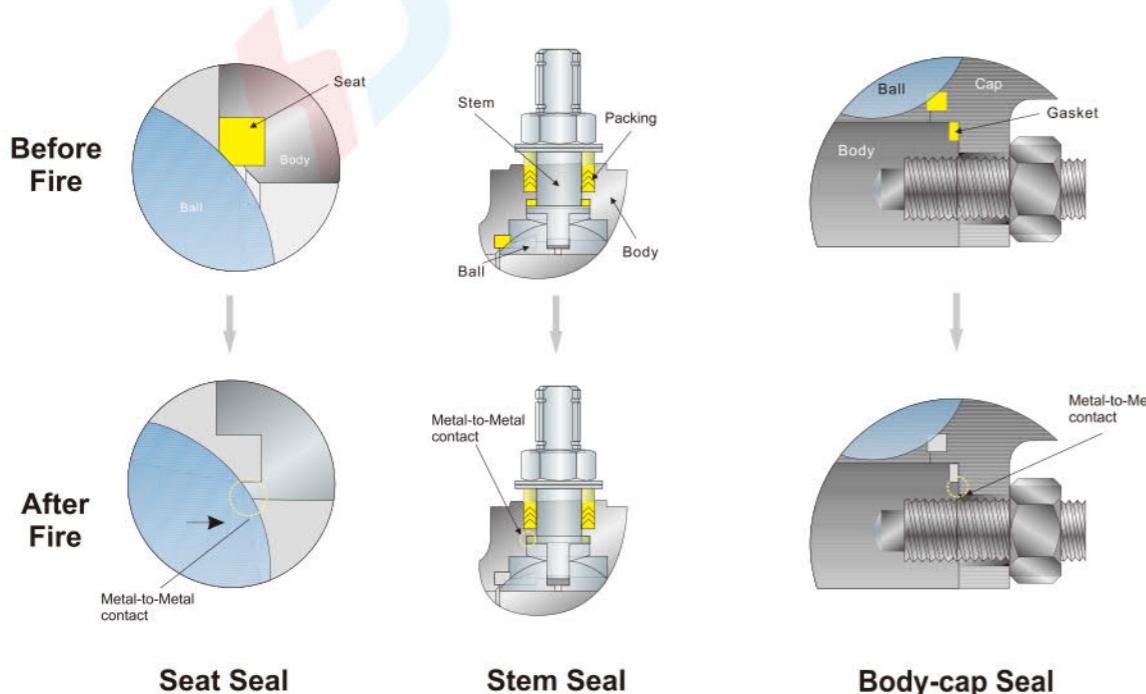
The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention at any pressure and acts as backseat. (Fig.1)

#### Anti-static Device

A spring-loaded plunger fitted on stem keeps constant contact between ball, stem and body to create an electric path to transfer charges, avoiding acceleration of static electricity as a result of friction during valve on-off. such build-up is utterly hazardous to some services. (Fig.2)

#### Position Indicator

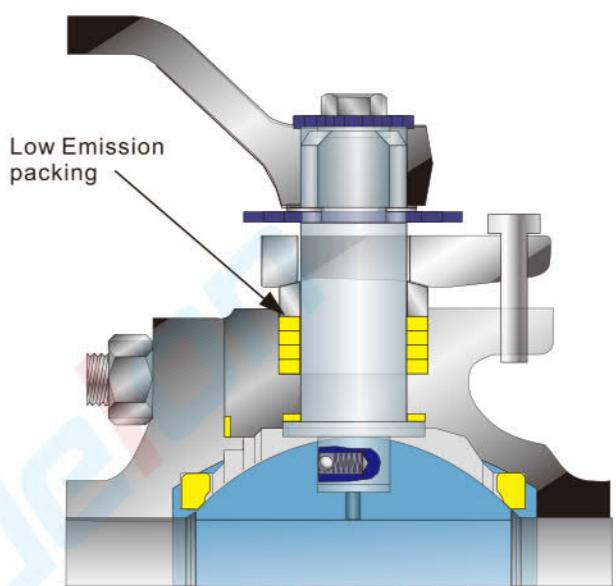
Double D stem head design provides mounting of the lever always in parallel to the flow passage. Misalignment of the lever is thus prevented. (Fig.3)



## FLOATING TYPE BALL VALVE

### Low emission control

Modern industry sectors are challenged by valve fugitive emission to control service fluids released from the valve and curd environmental degradation. Therefore, emission control features FLOWORK floating ball valves of B, BA, BB and BC Series. Low emission packing is assembled, whose max. leaking rate of design and test stands at 100 PPM (Test is performed according to ISO15848)



#### Roughness control over stem and packing

Stem surface roughness is strictly restricted between Ra0.4 and Ra0.8, which ensures entry of graphite packing powder into tiny stem scratches to function as a lubricator, minimizing leakages around stem. Max. roughness of stuffing box is RA3.2, which is a proper value to hold packing ring in place and result in better sealing performance.



#### Low Emission Packing

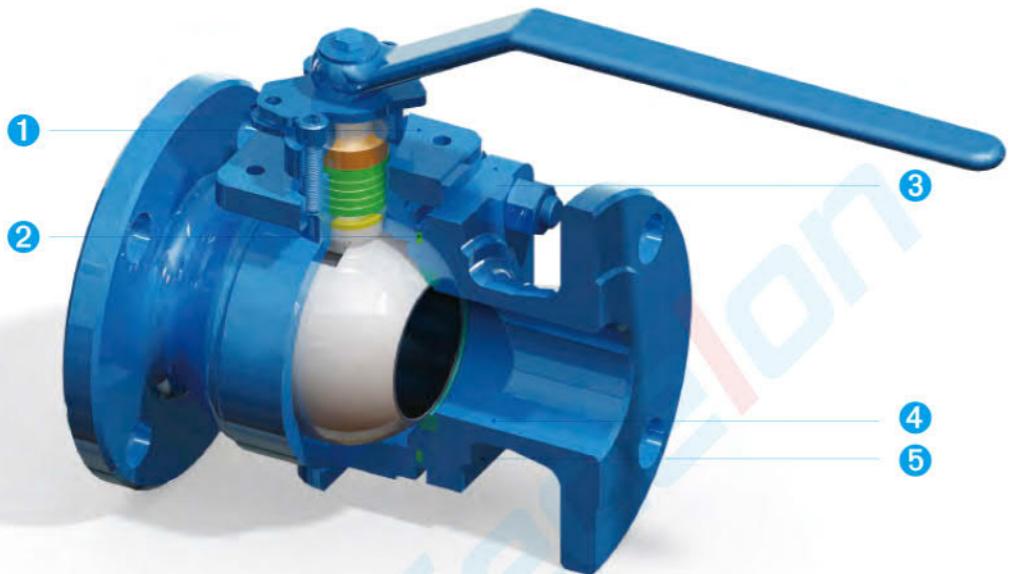
The packing is combination of parallel and vertical layer which is made of die-formed graphite ring processed by flexible graphite, characterizing heat resistance, less stress relaxation and low creep. The special structure means low friction on rotary stem, providing stabilized seal capability for the valve for a long time under frequent functioning.

For low-temperature and cryogenic service, the standard V shape PTFE packing rings are installed for low emission control.

## CAST STEEL FLOATING BALL VALVE

Two-piece split body cast steel side entry design floating type ball valve

### Design feature



This is an illustration of a typical full port, split body, floating type ball valve to exhibit the basic design concept. The actual design of a valve may be slightly different from this illustration depending on its size and pressure class.

- ① Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to media flow, indicating valve open and closed positions.
- ② Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- ③ ISO5211 connection dimension: actuator installation is simplified by using connection dimension recognized in international standards.
- ④ Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.
- ⑤ Emission-free Gasket: Low-emission graphite is employed in gasket to eliminate leakage.

## APPLICATIONS

- Refinery
- Petrochemical
- Power
- Chemical
- Pharmaceutical

## CAST STEEL FLOATING BALL VALVE

Two-piece split body cast steel side entry design floating type ball valve

### Material list

No.	Part	Standard	Stainless Steel	Sour Service	Low Temperature Service
1	Left /Right body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
2	Seat ring	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek
3	Ball	ASTM A105+ENP	ASTM A182 F316	ASTM A182 F316	ASTM A350 LF2+ENP
4	Gasket	316SS+Graphite/PTFE	316SS+Graphite/ PTFE	316SS+Graphite/ PTFE	316SS+Graphite/ PTFE
5	Nut	ASTM A194 2H	ASTM A194-8M	ASTM A194-2HM	ASTM A194-7
6	Stud bolt	ASTM A193 B7	ASTM A193-BBM	ASTM A193-B7M	ASTM A320-L7
7	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
8	Anti-static ball	SS316	SS316	SS316	SS316
9	Anti-static spring	SS316	SS316	SS316	SS316
10	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F316	ASTM A182 F6a
11	Thrust washer	PTFE	PTFE	PTFE	PTFE
12	Packing	Graphite/ PTFE	Graphite/ PTFE	Graphite/ PTFE	Graphite/ PTFE
13	Packing gland	ASTM A216 WCB	ASTM A351 CF8M	ASTM A216 WCB	ASTM A352 LCB
14	Spacer	CS	SS	SS	SS
15	Circlip for shaft	65MM	65MM	65MM	65MM
16	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
17	Lever	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB

## CAST STEEL FLOATING BALL VALVE

Two-piece split body cast steel side entry design floating type ball valve

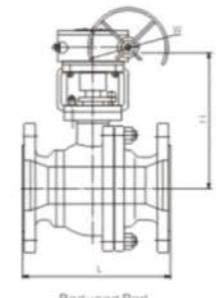
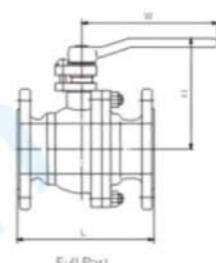
### Dimension

	Size (in)	1/2	3/4	1	1-1/2	2	2-1/2	3	4	5	6	8	10	12
Full Port	D (mm)	13	19	25	38	49	62	74	100	127	150	201	252	303
	L (mm)	108	117	127	165	178	190	203	229	356	394	457	533	610
	H (mm)	59	63	76	97	107	142	152	178	252	272	342	345	479
	W (mm)	130	130	160	230	230	400	400	700	1100	300*	300*	400*	600*
	Weight (Kg)	1.78	2.00	3.51	7.23	11.05	14.0	22.0	53.0	58.0	108.0	195.0	312.0	345.0

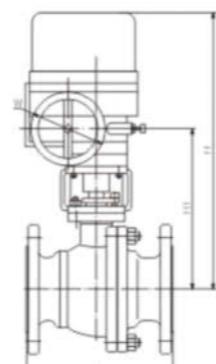
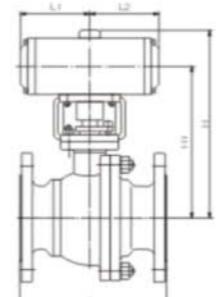
### Class 150

#### Dimension and Weight

\*\* T-Bar Operator  
\* Gear Operator



	Size (in)	3/4" 1/2" 3/4	1" 3/4" 1	1-1/2" 1-1/2"	2" 1-1/2" 2	2-1/2" 2" 2-1/2	3" 2" 3	4" 3" 4	6" 4" 6	8" 6" 8	10" 8" 10	12" 10" 12
Reduced Port	d (mm)	13	19	25	38	49	49	74	100	150	201	253
	D (mm)	19	25	38	49	62	74	100	150	201	253	303
	L (mm)	117	127	165	178	190	203	229	394	457	533	610
	H (mm)	82	85	100	115	120	153	162	191	290	340	442
	W (mm)	130	130	160	230	230	400	400	460	300*	300*	400*
	Weight (Kg)	3.0	4.5	7.0	9.0	15.0	16.0	29.5	48.0	123.0	218.0	230.0



## CAST STEEL FLOATING BALL VALVE

Two-piece split body cast steel side entry design floating type ball valve

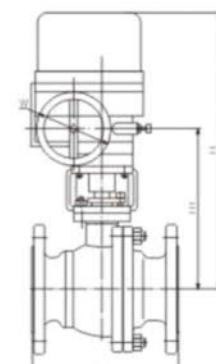
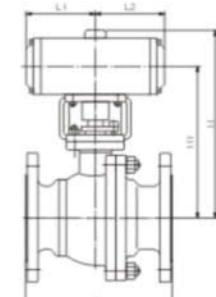
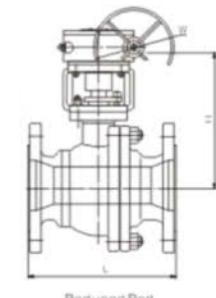
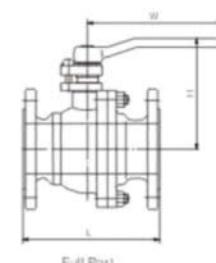
### Dimension

	Size (in)	1/2	3/4	1	1-1/2	2	2-1/2	3	4	5	6	8	10
Full Port	D (mm)	13	19	25	38	49	62	74	100	127	150	201	252
	L (mm)	140	152	165	190	216	241	283	305	381	403	502	568
	H (mm)	59	63	76	97	107	142	152	178	252	272	342	345
	W (mm)	130	130	160	230	230	400	400	700	1100	300*	400*	400*
	Weight (Kg)	2.29	3.6	5.1	10.0	14.0	23.0	30.6	50.5	93.0	116.0	234.5	493.0

### Class 300

#### Dimension and Weight

\*\* T-Bar Operator  
\* Gear Operator



	Size (in)	3/4" 1/2" 3/4	1" 3/4" 1	1-1/2" 1-1/2"	2" 1-1/2" 2	2-1/2" 2" 2-1/2	3" 2" 3	4" 3" 4	6" 4" 6	8" 6" 8	10" 8" 10	
Reduced Port	d (mm)	13	19	25	38	49	62	74	100	150	201	252
	D (mm)	19	25	38	49	62	74	100	150	201	253	303
	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*	300*	320.0
	Weight (Kg)	3.5	5.5	10.0	11.0	23.5	30.0	39.0	72.5	148.0		

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

\*Gear Operator

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Material list

No.	Part	Standard	Stainless Steel	Sour Service	Low Temperature Service
1	Left /Right body	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
2	Nut	ASTM A 194-2H	ASTM A194-8M	ASTM A194 2HM	ASTM A194-7
3	Gasket	316+Graphite/ PTFE	316+Graphite/ PTFE	316+Graphite/ PTFE	316+Graphite / PTFE
4	O-ring	Viton	Viton	Viton	Viton
5	Ball	ASTM A193 B7	ASTM A193 B8M	ASTM A193-B7M	ASTM A320 L7
6	Stem	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
7	Gasket	PTFE	PTFE	PTFE	PTFE
8	Stem Packing	Graphite/ PTFE	Graphite / PTFE	Graphite / PTFE	Graphite / PTFE
9	Gland	ASTM A105	ASTM A182-F316	ASTM A105	ASTM A350 LF2
10	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
11	Circlip for shaft	ASTM 1566	ASTM 1566	ASTM 1566	ASTM 1566
12	Spacer	CS	SS	SS	SS
13	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
14	Lever	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB
15	Small spring	SS 316	SS 316	SS 316	SS 316
16	Small ball	SS 316	SS 316	SS 316	SS 316
17	Body	ASTM A105	ASTM A182-F316	ASTM A105	ASTM A350-LF2
18	Seat ring	RPTFE / Nylon / Peek			
19	Ball	ASTM A105+ENP	ASTM A182-F316	ASTM A182-F316	ASTM 350 LF2+ENP

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Dimension

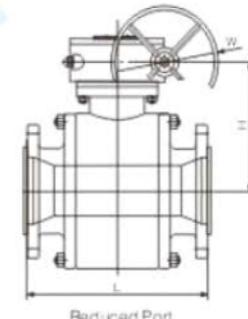
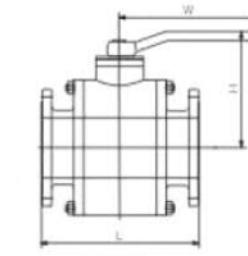
#### Class 600

Dimension and Weight

Full Port	Size (in)	1/2	3/4	1	1-1/2	2	3	4
	D (mm)	13	19	25	38	49	74	100
L (mm)	165	190	216	241	292	356	432	
H (mm)	66	88	90	120	135	180	224	
W (mm)	160	170	170	280	300	450	500	
Weight (Kg)	3.5	5.8	6.5	13.2	29.0	60.0	135.5	

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" 1-1/2" 2"	3" 2" 3"	4" 3" 4"
	d (mm)	7	13	19	25	38	49	74
D (mm)	13	19	25	38	49	74	100	
L (mm)	165	190	216	241	292	356	432	
H (mm)	43	66	88	90	120	135	180	
W (mm)	130	160	170	170	280	300	450	
Weight (Kg)	2.9	5.0	5.3	10.6	25.0	42.0	81.5	



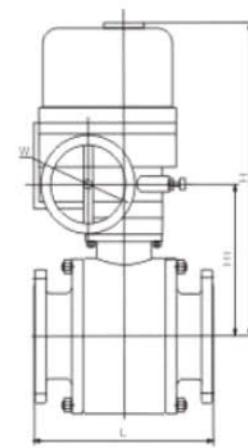
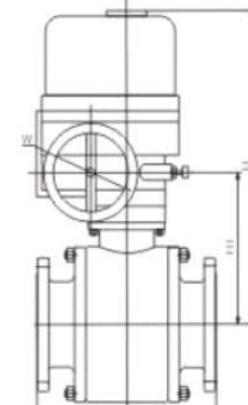
#### Class 900

Dimension and Weight

Full Port	Size (in)	1/2	3/4	1	1-1/2	2	3
	D (mm)	13	19	25	38	49	74
L (mm)	216	229	254	305	368	381	
H (mm)	83	11	123	143	177	200	
W (mm)	170	170	130	300	350	450	
Weight (Kg)	8.5	11.0	16.0	33.0	45.0	87.0	

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" 1-1/2" 2"	3" 2" 1/2" 3"
	d (mm)	7	13	19	25	38	49
D (mm)	13	19	25	38	49	74	
L (mm)	216	229	254	305	368	381	
H (mm)	70	83	112	123	143	177	
W (mm)	140	170	170	230	300	300	
Weight (Kg)	7.5	10.0	15.0	28.0	40.0	69.0	



SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Dimension

#### Class 1500

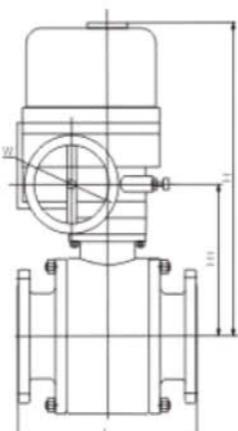
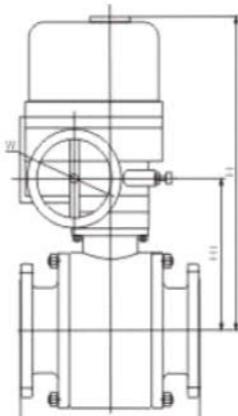
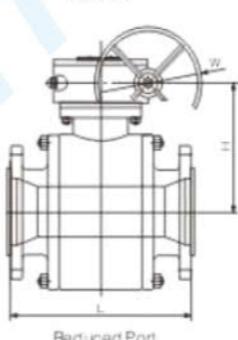
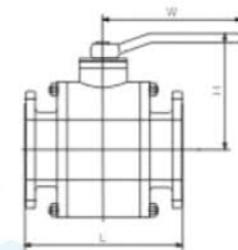
Dimension and Weight

	Size (in)	1/2	3/4	1	1-1/2	2	3
Full Port	D (mm)	13	19	25	38	49	74
	L (mm)	216	229	254	305	368	470
	H (mm)	83	112	123	143	177	200
	W (mm)	230	230	300	400	450	700
	Weight (Kg)	6.8	11.0	16.0	32.6	64.0	90.0
	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" 1-1/2" 2	3" 2" 3
Reduced Port	d (mm)	7	13	19	25	38	49
	D (mm)	13	19	25	38	49	74
	L (mm)	216	229	254	305	368	470
	H (mm)	70	83	112	123	143	177
	W (mm)	170	230	230	300	400	450
	Weight (Kg)	7.5	10.0	15.0	28.0	41.0	82.0

#### Class 2500

Dimension and Weight

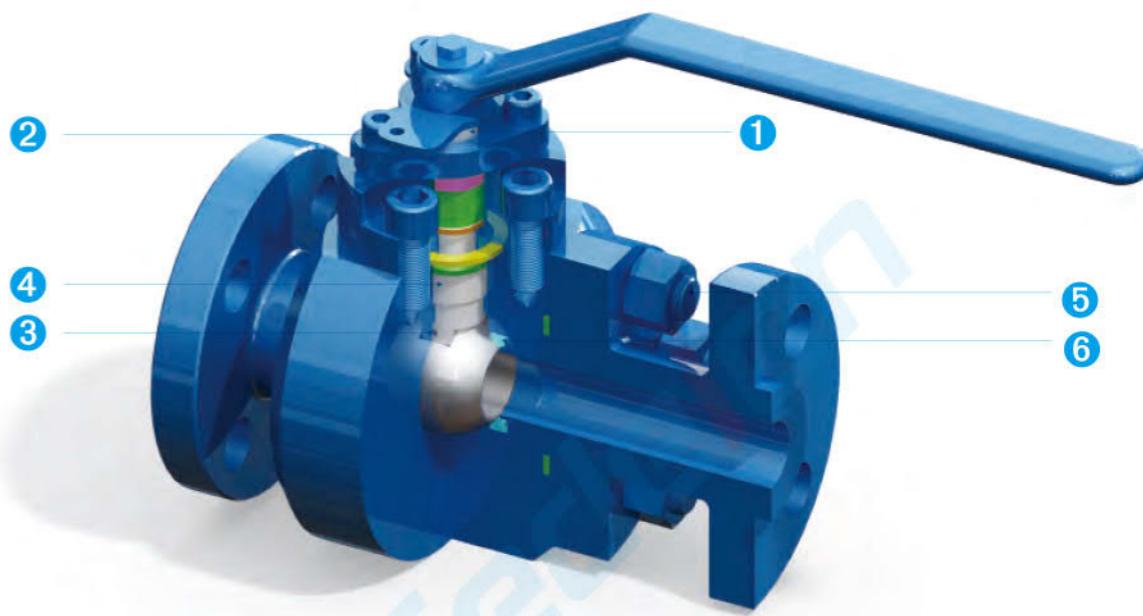
	Size (in)	1/2	3/4	1	1-1/2	2	3
Full Port	D (mm)	13	19	25	38	42	62
	L (mm)	264	273	308	368	451	578
	H (mm)	88	117	128	148	183	205
	W (mm)	230	230	300	400	450	700
	Weight (Kg)	9.0	15.0	17.5	34.0	55.0	110.0
	Size (in)	1/2" 1/4" 1/2	3/4" 1/2" 3/4	1" 3/4" 1	1-1/2" 1" 1-1/2"	2" 1" 1-1/2" 2	3" 2" 3
Reduced Port	d (mm)	7	13	19	25	38	42
	D (mm)	13	19	25	38	42	62
	L (mm)	264	273	308	368	451	578
	H (mm)	75	88	117	128	148	183
	W (mm)	170	230	230	300	400	450
	Weight (Kg)	8.0	14.0	16.0	32.0	52.0	102.0



## FORGED STEEL FLOATING BALL VALVE

Two-piece split body forged steel side entry design floating type ball valve

### Design feature



This is an illustration of a typical full port, split body, floating type ball valve to exhibit the basic design concept. The actual design of a valve may be slightly different from this illustration depending on its size and pressure class.

- ① Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
- ② Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
- ③ Anti-static Device: Spring-loaded plunger assures the electrical continuity between the ball, stem and body, to avoid static buildup.
- ④ Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- ⑤ Bolted body-cap configuration: Properly torqued nut is used to maintain seal performance.
- ⑥ Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.

## APPLICATIONS

- Refinery • Petrochemical • Power
- Chemical • Pharmaceutical • Paper

## FORGED STEEL FLOATING BALL VALVE

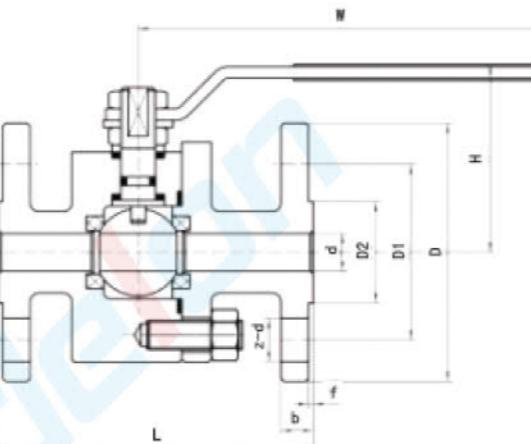
Two-piece split body forged steel side entry design floating type ball valve

### Material list

## Class 150~300

### APPLICATION SPECIFICATION

1. Design and manufacture standards: BS5351; API 608; ASME B16.34
2. Ends Dimension Standard:
  - 1) Flange Ends: ASME B16.5
  - 2) Inspection and Test: API 598
  - 3) Material Standard: ASTM



No.	Part name	Material			
		A105	F304	F316	F316L
1	Body				
2	Ball	SS 304		SS 316	SS 316L
3	Stem	SS 304		SS 316	SS 316L
4	Seat	PTFE, RPTFE			
5	Gasket	O-RING, PTFE, GRAPHITE			
6	Stuffing	PTFE, GRAPHITE			
7	Gasket	PTFE			
8	Locating piece	A283D, STAINLESS STEEL			
9	Lever	A283D, STAINLESS STEEL			
10	Stem nut	STAINLESS STEEL A276-T304			
11	Stop pin	STAINLESS STEEL A276-T304			
12	Nut	A 194-2H	A194 8	A194 8M	
13	Stud bolt	A 193-B7	A193 B8	A194 B8M	

## FORGED STEEL FLOATING BALL VALVE

Two-piece split body forged steel side entry design floating type ball valve

### Material list

### Dimension and weight

CLASS	SIZE	L	d	D	D1	D2	b	f	z-d	H	W	WEIGHT (kg)
150 LB	1/2"	108	13	89	60.5	35	12	1.6	4-15	56	130	2.8
	3/4"	117	19	98	70	43	12	1.6	4-15	70	160	4.3
	1"	127	25	108	79.5	51	12	1.6	4-15	80	220	5.7
	1 1/4"	140	32	117	89	64	13	1.6	4-15	90	250	6.7
	1 1/2"	165	38	127	98.5	73	15	1.6	4-15	100	250	9.8
	2"	178	51	152	120.5	92	16	1.6	4-19	110	290	14.7
300 LB	1/2"	140	13	95	66.5	35	15	1.6	4-15	56	130	3.3
	3/4"	152	19	117	82.5	43	16	1.6	4-19	70	160	5.6
	1"	165	25	124	89	51	18	1.6	4-19	80	220	6.7
	1 1/4"	178	32	133	98.5	64	19	1.6	4-19	90	250	9.5
	1 1/2"	190	38	156	114.5	73	21	1.6	4-22	100	250	13.4
	2"	216	51	165	127	92	23	1.6	8-19	110	290	20

## DIN FLANGE-FLOATING BALL VALVES

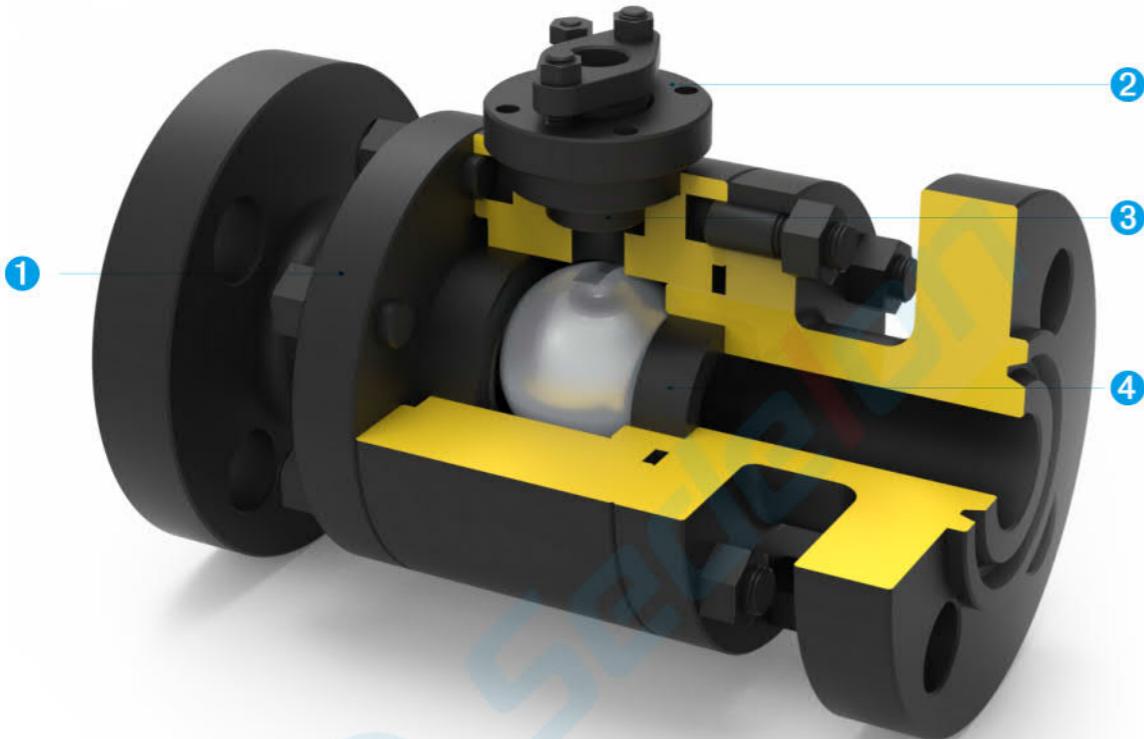
### Dimension and weight

PN	SIZE	L	d	D	D1	D2	b	f	z-d	H	W	WEIGHT (kg)
1.6-4.0 (Mpa)	15	115	95	13	65	45	16	2	4-14	56	130	2.8
	20	120	105	19	75	58	18	2	4-14	70	160	4.3
	25	125	115	25	85	68	18	2	4-14	80	220	5.7
	32	130	140	32	100	78	18	2	4-18	90	250	6.7
	40	140	150	38	110	88	18	3	4-18	100	250	9.8
	50	150	165	51	125	102	20	3	4-18	110	290	14.7

## FORGED STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Design feature



- ① Anti-static Device: Spring-loaded plunger assures the electrical continuity between the ball, stem and body, to avoid static buildup.
- ② ISO5211 connection dimension: actuator installation is simplified by using connection dimension recognized in international standards.
- ③ Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- ④ O-ring Seal Design: Protects threads from crevice corrosion.

## APPLICATIONS

- Refinery
- Power
- Chemical
- Petrochemical

## FORGED STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Dimension

#### Class 600~900

No.	Part name	Material			
1	Body	A105	F304	F316	F316L
2	Ball	SS 304		SS 316	SS 316L
3	Stem	SS 304		SS 316	SS 316L
4	Seat		PTFE, RPTFE		
5	Gasket		O-RING, PTFE, GRAPHITE		
6	Stuffing		PTFE, GRAPHITE		
7	Gasket		PTFE		
8	Locating piece		A283D, STAINLESS STEEL		
9	Lever		A283D, STAINLESS STEEL		
10	Stem nut		STAINLESS STEEL A276-T304		
11	Stop pin		STAINLESS STEEL A276-T304		
12	Nut	A194-2H	A194-8	A194-8M	
13	Stud bolt	A193-B7	A193-B8		A193-B8M

#### Dimension and weight

CLASS	SIZE	L	d	D	D1	D2	b	f	z-d	H	W	WEIGHT (kg)
600 LB	1/2"	165	13	95	66.5	35	15	6.4	4-15	56	130	4.1
	3/4"	191	19	117	82.5	43	16	6.4	4-15	70	160	6.1
	1"	216	25	124	89	51	18	6.4	4-15	80	220	8
	1 1/4"	229	32	133	98.5	64	21	6.4	4-15	90	250	1.2
	1 1/2"	241	38	156	114.5	73	23	6.4	4-15	100	250	17.6
	2"	292	51	165	127	92	26	6.4	4-19	110	290	25
900 LB	1/2"	216	13	121	66.5	35	23	6.4	4-15	56	130	8.4
	3/4"	229	19	130	82.5	43	26	6.4	4-19	70	160	10.6
	1"	254	25	149	89	51	29	6.4	4-19	80	220	14.2
	1 1/4"	280	32	159	98.5	64	29	6.4	4-19	90	250	18
	1 1/2"	305	38	178	114.5	73	32	6.4	4-22	100	250	27
	2"	368	51	216	127	92	39	6.4	8-19	110	290	40

## FORGED STEEL FLOATING BALL VALVE

Two-piece split body forged steel side entry design floating type ball valve

### Materials and Dimension

#### Class 800~1500

##### APPLICATION SPECIFICATION

1. Design and manufacture standards: BS5351; API 608; ASME B16.34

2. Ends Dimension Standard:

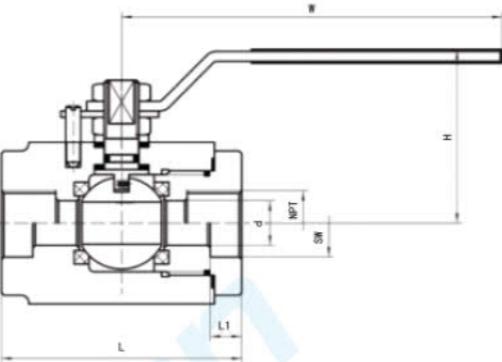
1) Socket Welded Ends: ASME B16.11

2) Threaded Ends: ASME B1.20.1

3) Butt Welded Ends: ASME B16.25

4) Inspection and Test: API 598

5) Material Standard: ASTM



##### VALVE BODY TEMPERATURE AND PRESSURE LEVEL

Class 800, Max 1920 psig@100°F

Class 1500, Max 3600 psig@100°F

No.	Part name	Carbon steel		Stainless Steel	
1	Body	A105	F304	F316	F316L
2	Ball	SS 304		SS 316	SS 316L
3	Stem	SS 304		SS 316	SS 316L
4	Seat	PTFE, RPTFE			
5	Gasket	O-RING, PTFE, GRAPHITE			
6	Stuffing	PTFE, GRAPHITE			
7	Gasket	PTFE			
8	Locating piece	A283D, STAINLESS STEEL			
9	Lever	A283D, STAINLESS STEEL			
10	Stem nut	STAINLESS STEEL A276-T304			
11	Stop pin	STAINLESS STEEL A276-T304			

##### Dimension and weight

RB	FB	L	d	NPT		SW		L1		H	W	WEIGHT (kg)
				RB	FB	RB	FB	RB	FB			
3/8x1/4"	1/4"	68	9.5	3/8"	1/4"	17.6	14.2	9.6	9.6	53	130	1.1
1/2x3/8"	3/8"	68	9.5	1/2"	3/8"	21.8	17.6	9.6	9.6	53	130	1.1
3/4x1/2"	1/2"	73	13	3/4"	1/2"	27.1	21.8	12.7	9.6	56	130	1.3
1x3/4"	3/4"	97	17	1"	3/4"	33.8	27.1	12.7	12.7	70	160	1.9
1 1/4x1"	1"	105	23	1 1/4"	1"	42.6	33.8	12.7	12.7	80	220	3.3
1 1/2x1 1/4"	1 1/4"	118	30	1 1/2"	1 1/4"	48.7	42.6	12.7	12.7	90	250	4.1
2x1 1/2"	1 1/2"	133	38	2"	1 1/2"	61.2	48.7	15.9	12.7	100	250	5.6
2 1/2x2"	2"	148	48	2 1/2"	2"	74.1	61.2	15.9	15.9	110	290	12.2

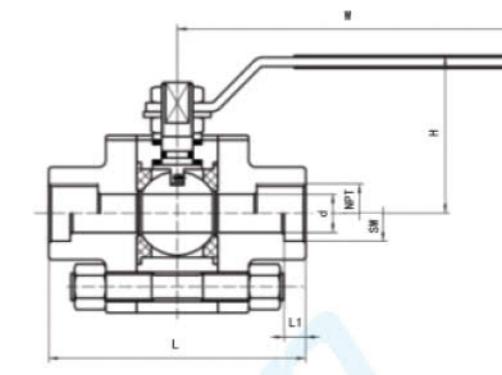
SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FORGED STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Dimension

#### Class 800~1500



No.	Part name	Material			
		A105	F304	F316	F316L
1	Body				
2	Ball	SS 304		SS 316	SS 316L
3	Stem	SS 304		SS 316	SS 316L
4	Seat	PTFE, RPTFE			
5	Gasket	O-RING, PTFE, GRAPHITE			
6	Stuffing	PTFE, GRAPHITE			
7	Gasket	PTFE			
8	Locating piece	A283D, STAINLESS STEEL			
9	Lever	A283D, STAINLESS STEEL			
10	Stem nut	STAINLESS STEEL A276-T304			
11	Stop pin	STAINLESS STEEL A276-T304			
12	Nut	A194-2H	A194-8		A194-8M
13	Stud bolt	A193-B7	A193-B8		A193-B8M

##### Dimension and weight

RB	FB	L	d	NPT		SW		L1		H	W	WEIGHT (kg)
				RB	FB	RB	FB	RB	FB			
3/8x1/4"	1/4"	92	9.5	3/8"	1/4"	17.6	14.2	9.6	9.6	53	130	1.5
1/2x3/8"	3/8"	92	9.5	1/2"	3/8"	21.8	17.6	9.6	9.6	53	130	1.5
3/4x1/2"	1/2"	92	13	3/4"	1/2"	27.1	21.8	12.7	9.6	56	130	1.5
1x3/4"	3/4"	111	17	1"	3/4"	33.8	27.1	12.7	12.7	70	160	2.4
1 1/4x1"	1"	127	23	1 1/4"	1"	42.6	33.8	12.7	12.7	80	220	3.9
1 1/2x1 1/4"	1 1/4"	140	30	1 1/2"	1 1/4"	48.7	42.6	12.7	12.7	90	250	6.1
2x1 1/2"	1 1/2"	152	38	2"	1 1/2"	61.2	48.7	15.9	12.7	100	250	8.5
2 1/2x2"	2"	178	48	2 1/2"	2"	74.1	61.2	15.9	15.9	110	290	10

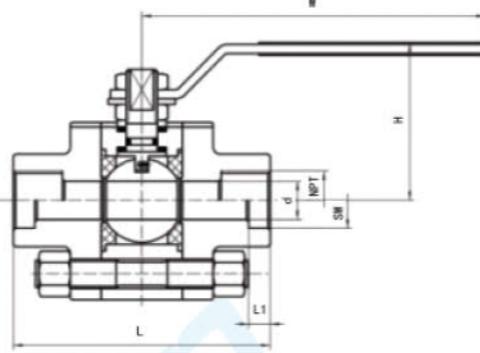
SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FORGED STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Materials and Dimension

#### Class 2500



No.	Part name	Material			
1	Body	A105	F304	F316	F316L
2	Ball	SS 304		SS 316	SS 316L
3	Stem	SS 304		SS 316	SS 316L
4	Seat	PTFE, RPTFE			
5	Gasket	O-RING, PTFE, GRAPHITE			
6	Stuffing	PTFE, GRAPHITE			
7	Gasket	PTFE			
8	Locating piece	A283D, STAINLESS STEEL			
9	Lever	A283D, STAINLESS STEEL			
10	Stem nut	STAINLESS STEEL A276-T304			
11	Stop pin	STAINLESS STEEL A276-T304			
12	Nut	A194-2H	A194-8	A194-8M	
13	Stud bolt	A193-B7	A193-B8	A193-B8M	

#### Dimension and weight

RB	FB	L	d	NPT		SW		L1		H	W	WEIGHT (kg)
				RB	FB	RB	FB	RB	FB			
3/8x1/4"	1/4"	111	9.5	3/8"	1/4"	17.6	14.2	9.6	9.6	53	160	2.4
1/2x3/8"	3/8"	111	9.5	1/2"	3/8"	21.8	17.6	9.6	9.6	53	160	2.4
3/4x1/2"	1/2"	111	13	3/4"	1/2"	27.1	21.8	12.7	9.6	56	160	2.4
1x3/4"	3/4"	127	17	1"	3/4"	33.8	27.1	12.7	12.7	70	220	3.8
11/4x1"	1"	140	23	11/4"	1"	42.6	33.8	12.7	12.7	80	250	6
11/2x11/4"	11/4"	152	30	11/2"	11/4"	48.7	42.6	12.7	12.7	90	250	10.7
2x11/2"	11/2"	178	38	2"	11/2"	61.2	48.7	15.9	12.7	100	290	12.1
21/2x2"	2"	203	48	21/2"	2"	74.1	61.2	15.9	15.9	110	380	18.3

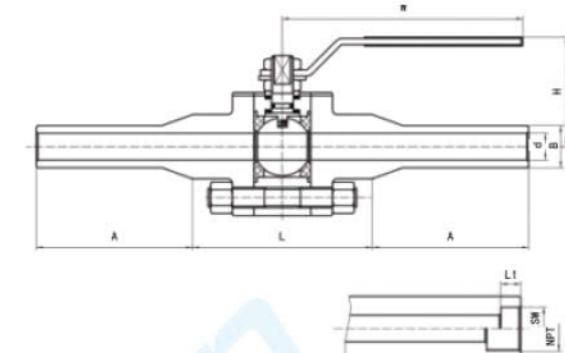
SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FORGED STEEL FLOATING BALL VALVE

Three-piece split body forged steel side entry design floating type ball valve

### Dimension

#### Class 800~1500



No.	Part name	Material			
1	Body	A105	F304	F316	F316L
2	Ball	SS 304		SS 316	SS 316L
3	Stem	SS 304		SS 316	SS 316L
4	Seat	PTFE, RPTFE			
5	Gasket	O-RING, PTFE, GRAPHITE			
6	Stuffing	PTFE, GRAPHITE			
7	Gasket	PTFE			
8	Locating piece	A283D, STAINLESS STEEL			
9	Lever	A283D, STAINLESS STEEL			
10	Stem nut	STAINLESS STEEL A276-T304			
11	Stop pin	STAINLESS STEEL A276-T304			
12	Nut	A194-2H	A194-8	A194-8M	
13	Stud bolt	A193-B7	A193-B8	A193-B8M	

#### Dimension and weight

RB	FB	L	d	B		NPT		SW		L1		H	W	WEIGHT (kg)
				RB	FB	RB	FB	RB	FB	RB	FB			
3/8x1/4"	1/4"	92	9.5	17.2	13.8	3/8"	1/4"	17.6	14.2	9.6	9.6	53	130	3.5
1/2x3/8"	3/8"	92	9.5	21.3	17.2	1/2"	3/8"	21.8	17.6	9.6	9.6	53	130	3.5
3/4x1/2"	1/2"	92	13	26.9	21.3	3/4"	1/2"	27.1	21.8	12.7	9.6	56	130	3.5
1x3/4"	3/4"	111	17	33.7	26.9	1"	3/4"	33.8	27.1	12.7	12.7	70	160	4.8
11/4x1"	1"	127	23	42.4	33.7	11/4"	1"	42.6	33.8	12.7	12.7	80	220	7.5
11/2x11/4"	11/4"	140	30	48.3	42.4	11/2"	11/4"	48.7	42.6	12.7	12.7	90	250	13.5
2x11/2"	11/2"	152	38	60.3	48.3	2"	11/2"	61.2	48.7	15.9	12.7	100	250	15.8
21/2x2"	2"	178	48	76.1	60.3	21/2"	2"	74.1	61.2	15.9	15.9	110	290	19.2

(PE) A=50~100mm

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

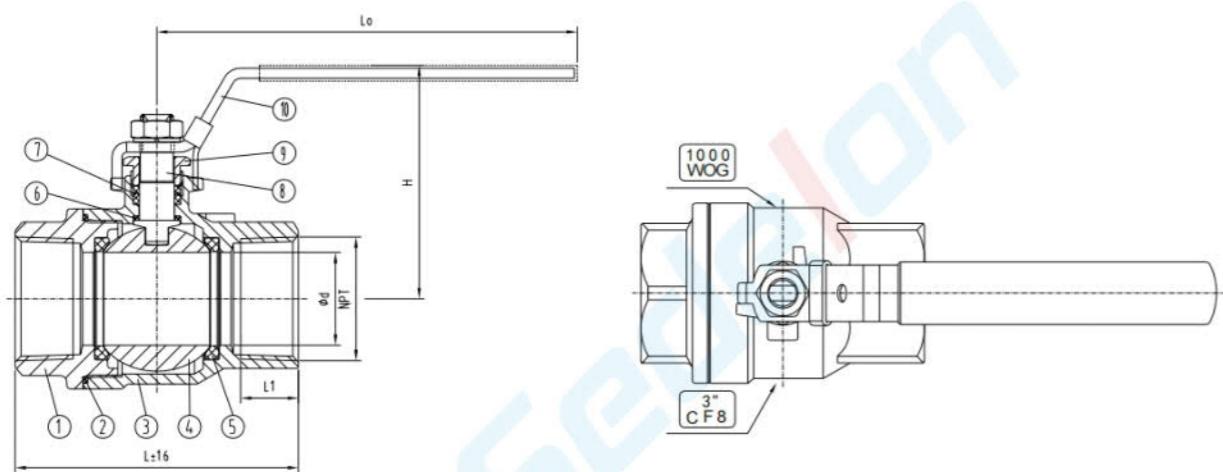
## CAST STEEL FLOATING BALL VALVE

Two-piece split body cast steel side entry design floating type ball valve

### Dimension

#### Ball valve 1000WOG

Connection: NPT、BSP、BSPT、BSPP



No.	Part name	Material
1	Bonnet	CF8
2	Gasket	PTFE
3	Body	CF8
4	Ball	F304
5	Seat	PTFE
6	Reduced wear gasket	PTFE
7	Packing	PTFE
8	Stem	304
9	Gland	304
10	Lever	304

NPS	L	L1	d	NPT	L0	H
DN8	55	12	12	1/4	95	50
DN10	55	12	12	3/8	95	50
DN15	63	13.5	15	1/2	105	50
DN20	73	15	19.5	3/4	120	60
DN25	84	17	25	1	140	65
DN32	98	20	32	11/4	155	85
DN40	105	21	38	11/2	165	96
DN50	120	23	49	2	185	110
DN65	152	28	64	21/2	220	130
DN80	170	30	76	3	275	150
DN100	204	33	100	4"	315	157

## FLOATING TYPE BALL VALVE

### Operating Torque

Size	Class 150		Class 300		Class 400		Class 600	
	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs
1/2	5	3.69	6	4.43	11	8.12	16	11.81
3/4	8	5.90	10	7.38	14	10.33	20	14.76
1	15	11.07	17	12.55	29	21.40	42	31.00
1-1/4	30	22.14	45	33.21	50	36.90	72	53.14
1-1/2	35	25.83	45	33.21	62	45.76	90	66.42
2	40	29.52	55	40.59	90	66.42	130	95.94
2-1/2	70	51.67	90	66.42	104	76.75	150	110.70
3	90	66.42	120	88.56	138	101.84	200	147.60
4	180	132.84	230	169.74	265	188.19	370	273.06
6	480	354.27	930	686.34	-	-	-	-
8	900	664.26	1930	1424.34	-	-	-	-
10	1800	1328.51	4000	2952.25	-	-	-	-

Size	Class 800		Class 900		Class 1500		Class 2500	
	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs
1/2	19	14.02	25	18.45	32	23.62	56	41.33
3/4	33	24.35	40	29.52	60	44.28	95	70.12
1	65	47.97	80	59.05	140	103.33	175	129.16
1-1/4	100	73.81	115	84.88	155	114.40	-	-
1-1/2	130	95.94	140	103.32	171	126.21	-	-
2	187	138.01	336	247.99	420	309.96	-	-
3	-	-	431	318.08	-	-	-	-

#### Note:

- Torque is calculated based on ambient temperature, with RPTFE seat for Class 150 ~ Class 800, NYLON for Class 900 ~ 1500, PEEK for Class 2500, NYLON (4" in size) for Class 600.
- The torque shown in this table is the reference for actuator selection. A safety factor of 1.3 ~ 1.5 is recommended for identifying actuator sizing.
- For cryogenic service, torque shall be increased about 2 ~ 2.5 times.
- Torque may vary with fluids and trim materials. Contact FLOWORK Ball Valve Engineering Department for specific requirements.

## FLOATING TYPE BALL VALVE

### CV Specification

#### CV-Full bore ball valves

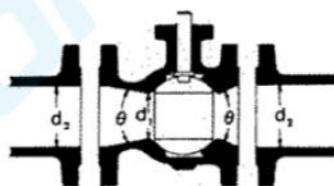
BORE size (inches)	ANSI Class					
	150	300	600	900	1500	2500
0.5	17	15	14	12	12	11
0.75	43	38	34	31	31	28
1	86	76	66	64	61	56
1.25	156	139	122	111	111	99
1.5	227	211	187	167	167	148
2	423	384	330	294	294	181
3	1139	965	860	832	749	434
4	2416	2093	1759	1710	1564	995
6	5241	5183	4400	4212	3918	3107
8	10471	9991	8713	8245	6921	5240
10	17709	17154	14573	14123	11376	8451
12	26241	25460	22389	20864	16835	12295

Cv=1.156Kv

$$Kv = \frac{0.04d^2}{\sqrt{K}}$$

d: dimension of bore -mm  
K: resistance coefficient

#### BALL VALVES



#### CV-Reduced bore ball valves

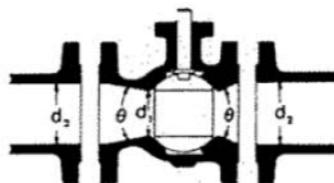
BORE size (inches) API6D (E24-2014)	ANSI Class					
	150	300	600	900	1500	2500
3-4*1/2	14	14	14	14	14	14
1*3/4	35	35	35	35	35	35
1-1/2*1	50	50	50	50	50	50
2*1-1/2	133	133	133	133	133	238
3*2	150	155	155	155	194	147
4*3	403	526	458	458	526	345
6*4	708	661	708	708	814	551
8*6	1715	1913	1913	1913	2433	2106
10*8	3657	3657	4608	4008	3730	3234
12*10	6645	7145	7145	7145	6455	8181

Cv=1.156Kv

$$Kv = \frac{0.04d^2}{\sqrt{K}}$$

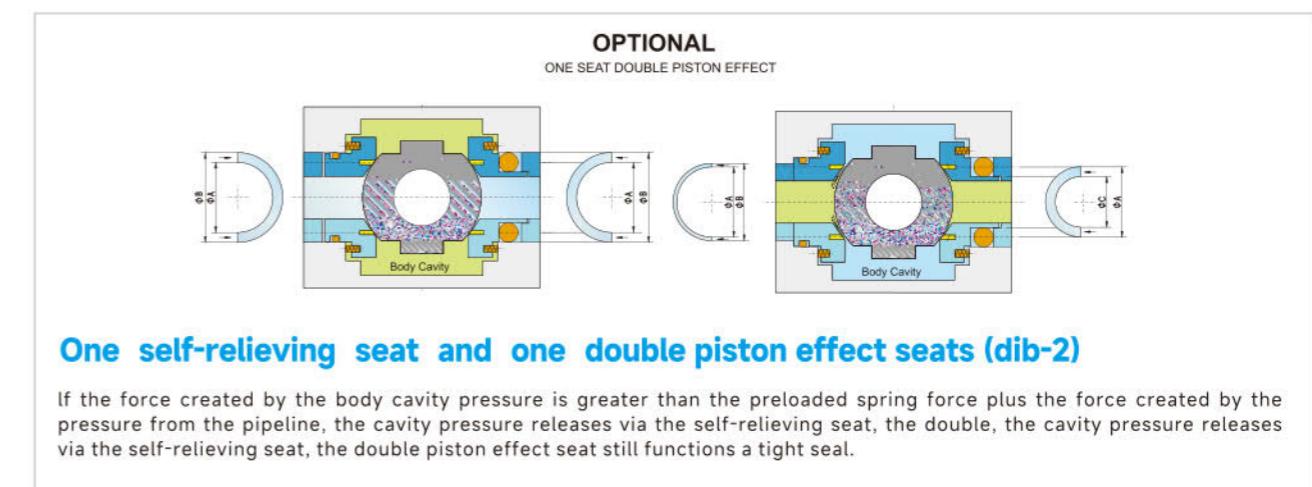
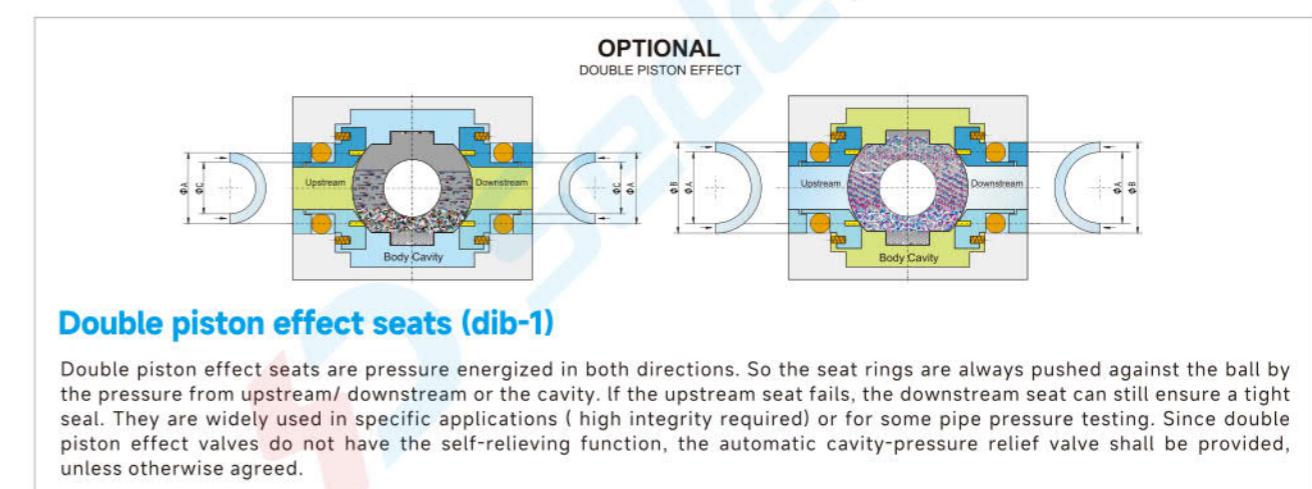
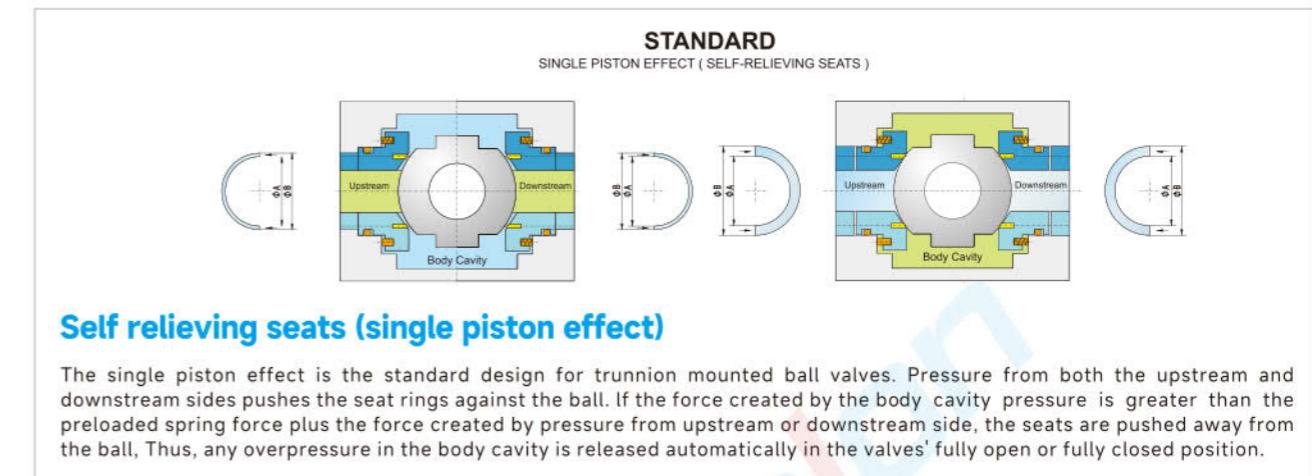
d: dimension of bore -mm  
K: resistance coefficient

#### BALL VALVES



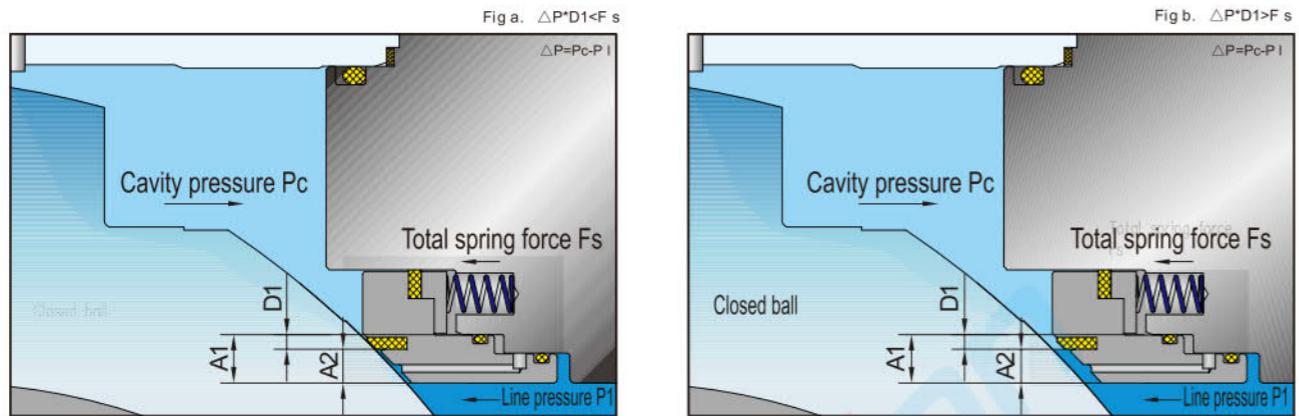
## FLOATING TYPE BALL VALVE

### Design feature



## TRUNNION MOUNTED BALL VALVE

### Design feature



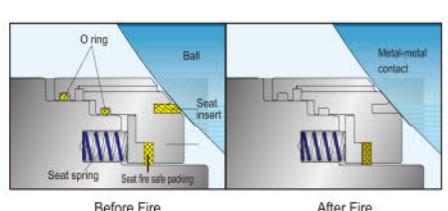
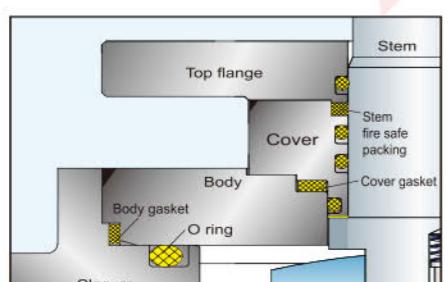
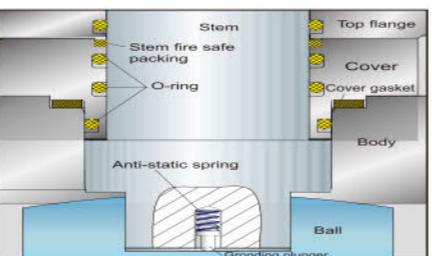
#### Cavity pressure relief

When the force created by cavity pressure ( $P_c$ ) is lower than the force created by line pressure ( $P_l$ ), i.e.  $\Delta P \cdot D_1 < F_s$ , then contact between the ball and seat ring is assured to provide a tight seal.

When cavity pressure is higher than seat spring force plus line pressure, i.e.  $\Delta P \cdot D_1 > F_s$ , the self relieving action allows the valve seat to move slightly away from the ball surface. Therefore, any overpressure inside the body cavity is discharged into the pipeline to restore the balance between the body cavity and the pipeline (either upstream or downstream side).

#### Anti blow-out stem

The stem is made separately from the ball. The lower end of the stem is designed with an integral shoulder to be blow-out proof.



#### Super fire safe design External leakage prevention

Leakage from the valve stem area is prevented by two O-ring seals and a cover gasket. Leakage through the valve body connection is also blocked by an O-ring seal and a body gasket. After a fire deteriorated the O-rings, cover and body gasket, the fire safe stem packing prevents external leakage.

#### Internal leakage prevention

After the soft sealing materials are decomposed or deteriorated by fire, the edge of the metal seat preloaded by the seat spring comes into contact with the ball to shut off the process media and minimize internal leakage through the valve bore. Also the fire safe graphite packing is compressed by the seat spring to prevent process media leakage between the valve body and the seat.

## TRUNNION MOUNTED BALL VALVE

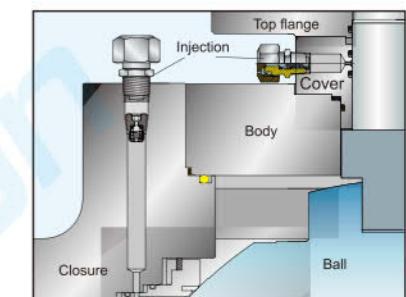
### Design feature

#### Double block and bleed

In the closed position, each seat shuts off the process media independently on each side, or simultaneously on both sides of the ball, the cavity can be vented / bleed via vent or drain plugs on the valve body.

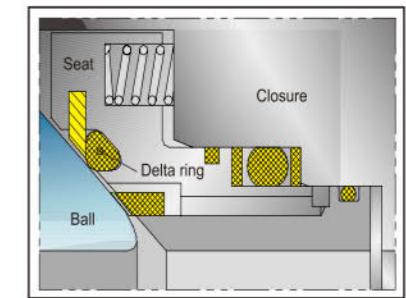
#### Emergency sealant injection system

For 6 inch and larger FLOWORK Trunnion mounted ball valves, sealant injection fittings will be installed on both the stem and seats. When the sealing materials (soft seat or the stem o-ring) are damaged, the seat and stem leakage can be prevented by the sealant injected into these fittings. The fitting shall include a check valve secondary means of sealing. For 4 inch and below, it could be added upon requirement.



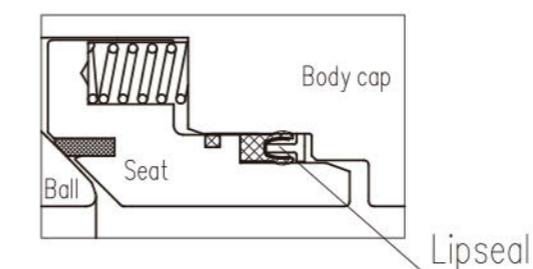
#### DELTA RING seat design (optional)

The material of delta ring is elastomer, which has better elasticity, can "absorb" the deviation in the ball, to obtain zero leakage easily, especially for large-sized ball or austenitic ball or full-welded ball valve. This is an optional design, not standard.



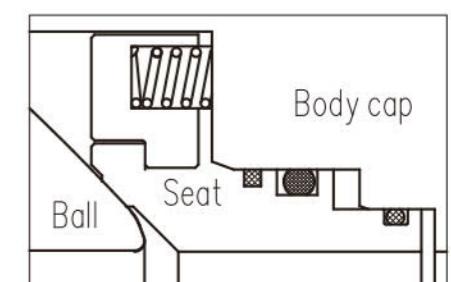
#### Lipseal design (optional)

Lipseal is the spring-energized seal including Elgiloy or Inconel spring and PTFE jacket. It's effective in a wide range of applications, such as high resistance to corrosive chemical media, high sour gas, low temperature or cryogenic service.



#### Metal-to-metal seat design (optional)

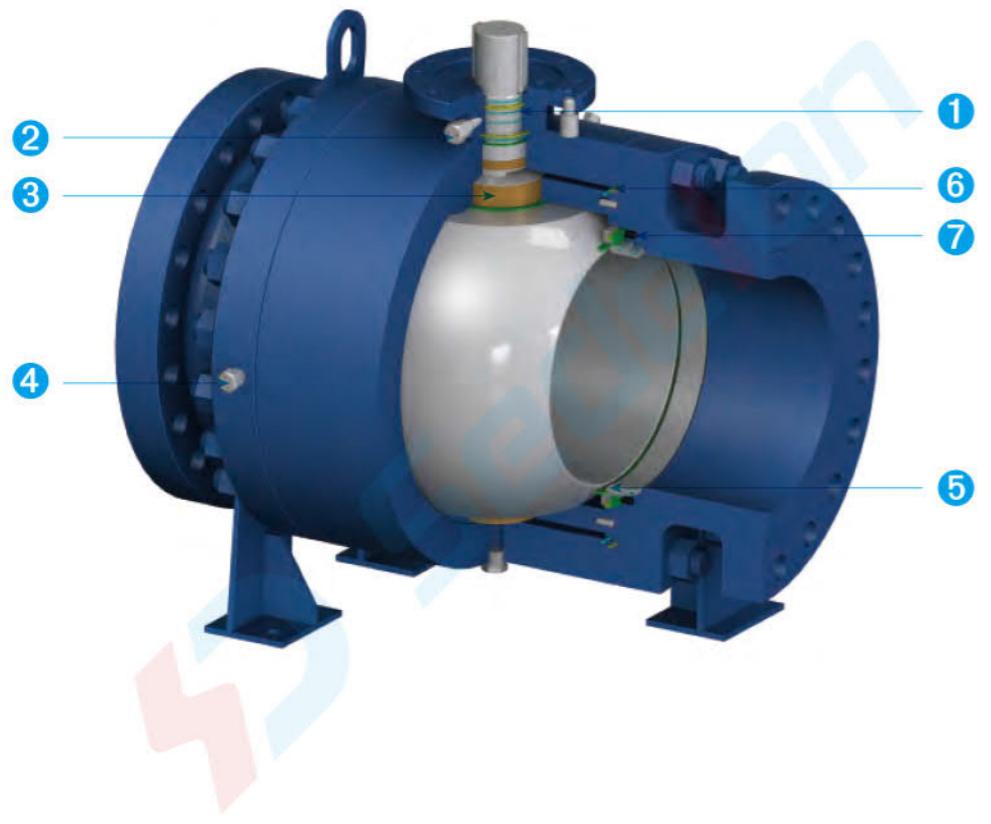
When the valve is applied in the high abrasive or high temperature service, metal-to-metal seat shall be chosen.



## FORGED STEEL TRUNNION MOUNTED BALL VALVE

Split body forged steel side entry design trunnion mounted Ball Valve

### Design feature



- ① Two O-ring Seals: Prevent leakage from stem area.
- ② Emergency Sealant Injection Fitting: Allows external interventions to prevent stem leakage.
- ③ Blow-out Proof Stem : Safety feaure that functions to assure stem sealing at all pressures.
- ④ Emergency Sealant Injection Fitting: Allows external intervention to prevent seat leakage.
- ⑤ Back-up Metal to Metal Sealing: When primary soft-seat material is deteriorated by fire, the metal to metal seat provides shutoff.
- ⑥ O-ring & Gasket Combination: Prevents leakage from body connection area.
- ⑦ Floating Spring-loaded Seats: Assure sealing even at low pressures.

## FORGED STEEL TRUNNION MOUNTED BALL VALVE

Split body forged steel side entry design trunnion mounted Ball Valve

### Material list

No.	Part name	Stainard	Stainless Steel	Sour service	Low Temperature Service
1	Bonnet	ASTM A105	ASTM A182-F316	ASTM A105	ASTM A350-LF2
2	Nut	ASTM A194-2H	ASTM A194-8M	ASTM A194-2HM	ASTM A194-4
3	Injection fitting	CS	SS	SS	SS
4	Spring	17-7PH	17-7PH	17-7PH	17-7PH
5	Gasket	316SS+Graphite	316SS+Graphite	316SS+Graphite/ PTFE	316SS+Graphite
6	O-ring	Viton	Viton	Viton	Viton
7	Fire safe ring	Flexible graphite rope	Flaxible graphite rope	Flexible graphite rope	Flexible graphite rope
8	O-ring	Viton	Viton	Viton	Viton
9	Seal	ASTM A105+ENP	ASTM A182 F316	ASTM A182 F316	ASTM A350 LF2+ENP
10	Seat ring	RPTFE / Nylon/ Peek	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek
11	Bearing	316+PTFE	316+PTFE	316+PTFE	316+PTFE
12	Ball	ASTM A105+ENP	ASTM A182-F316	ASTM A182 F316	ASTM A350 LF2+ENP
13	Bolt	ASTM A193 B7	ASTM A193 B8M	ASTM A 193 B7M	ASTM A320 L7
14	Body	ASTM A105	ASTM A182-F316	ASTM A105	ASTM A350 LF2
15	Stem	ASTM A182 F6a	ASTMA182-F316	ASTM A182 F316	ASTM A182 F6a
16	Bearing	316+PTFE	316+PTFE	316+PTFE	316+PTFE
17	O-ring	Viton	Viton	Viton	Viton
18	Bleed	CS	SS	SS	SS
19	Gasket	316SS+Graphite	316SS +Graphite/ PTFE	316SS+Graphite/ PTFE	PTFE
20	Trunnion	ASTM A105	ASTM A182 F316	ASTM A182 F316	ASTM A350 LF2
21	O-ring	Viton	Viton	Viton	Viton
22	Block	CS	SS	SS	SS
23	Gasket	316SS+Graphite	316SS +Graphite/ PTFE	316SS +Graphite/ PTFE	PTFE
24	O-ring	Viton	Viton	Viton	Viton
25	Bearing	316+PTFE	316+PTFE	316+PTFE	316+PTFE
26	Stuffing box	ASTM A105	ASTM A182 F316	ASTM A182 F316	ASTM A350 LF2
27	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
28	O-ring	Viton	Viton	Viton	Viton
29	Stem Packing	Graphite	Graphite/PTFE	Graphite/ PTFE	Graphite
30	Yoke	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
31	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
32	Gear	Components	Components	Components	Components

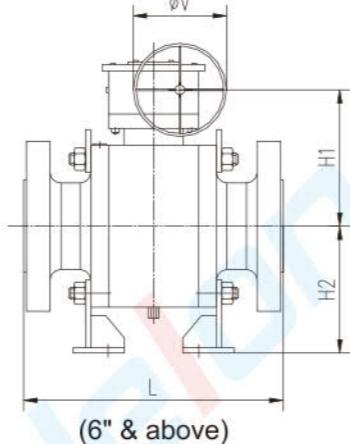
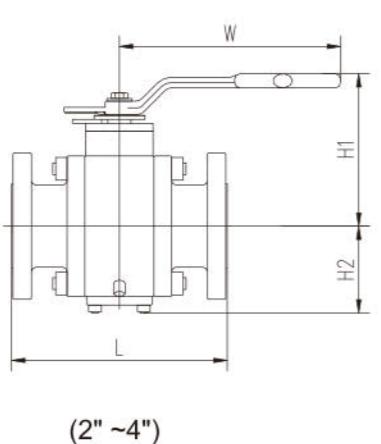
## FORGED STEEL TRUNNION MOUNTED BALL VALVE

Split body forged steel side entry design trunnion mounted Ball Valve

### Dimension

#### Class 150

Dimension and weight



Full Port						Weight (Kg)
Size (in)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
2	49	178	200	110	265	21.11
3	74	203	300	126	285	32.09
4	100	229	315	165	285	50
6	150	394	335	165	*300	164
8	201	457	405	200	*300	345
10	252	533	427	220	*300	440
12	303	610	465	262	*500	577
14	334	686	506	293	*600	859
16	385	762	622	341	*600	1144
18	436	864	666	404	*600	1440
20	487	914	730	435	*600	1944
22	538	1016	833	480	*600	2352
24	589	1067	895	518	*800	2803
26	633	1143	900	535	*800	3200
28	684	1245	935	542	*800	4045
30	735	1295	1010	605	*800	6200
32	779	1372	1060	650	*800	5490
34	830	1473	1077	650	*800	6704
36	874	1524	1115	700	*800	9600
40	976	1727	1400	865	*800	10271
42	1020	1885	1598	900	*800	12110
48	1166	2134	1722	1042	*800	18360

Reduced Port							Weight (Kg)
Size (in)	d (mm)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
3*2*3	49	74	203	200	110	265	26.45
4*3*4	74	100	229	300	126	285	40
6*4*6	100	150	394	315	165	285	68
8*6*8	150	201	457	335	170	*300	177
10*8*10	201	252	533	405	200	*300	307
12*10*12	252	302	610	427	220	*300	509
14*12*14	303	334	686	465	262	*500	722
16*14*16	334	385	762	506	293	*600	920
18*16*18	385	436	864	622	341	*600	1241
20*18*20	436	487	914	666	392	*600	1670
22*18*22	487	538	1016	666	392	*600	2343
24*20*24	538	589	1067	730	435	*600	2060
26*22*26	589	633	1143	833	480	*600	2215
28*24*28	633	684	1245	895	518	*800	2700
30*24*30	684	735	1295	895	518	*800	2918
32*26*32	735	779	1372	900	535	*800	4005
34*28*34	779	830	1473	935	542	*800	4445
36*30*36	830	874	1524	1010	605	*800	4995
40*34*40	874	976	1727	1077	650	*800	8200
42*36*42	976	1020	1885	1115	700	*800	10871
48*40*48	1020	1166	2134	1400	865	*800	13520
-	-	-	-	-	-	-	-

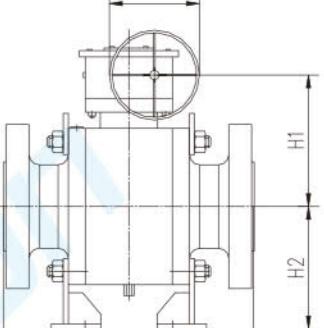
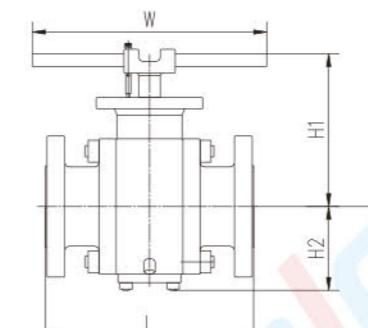
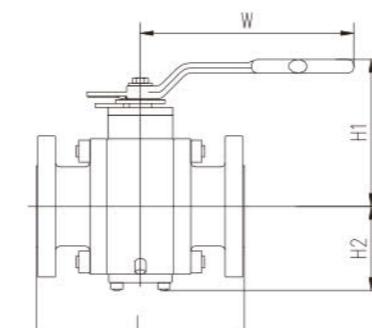
## FORGED STEEL TRUNNION MOUNTED BALL VALVE

Split body forged steel side entry design trunnion mounted Ball Valve

### Dimension

#### Class 300

Dimension and weight



Full Port						Weight (Kg)
Size (in)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
2	49	216	206	113	265	25
3	74	283	315	129	400	45.68
4	100	305	330	169	750	77
6	150	403	345	148	*300	211
8	201	502	415	185	*300	322
10	252	568	427	226	*400	517
12	303	648	465	269	*500	758
14	334	762	519	300	*600	975
16	385	838	638	350	*600	1350
18	436	914	683	402	*600	1715
20	487	991	748	446	*600	2090
22	538	1092	854	492	*600	2220
24	589	1143	917	531	*800	2890
28	684	1346	958	556	*800	4575
30	735	1397	1035	620	*800	5590
32	779	1524	1087	666	*800	6240
34	830	1626	1104	666	*800	7370
36	874	1727	1143	718	*800	8435
40	976	1930	1435	887	*800	11200
42	1020	2032	1638	923	*800	13050
48	1166	2692	1765	1068	*800	19000

Reduced Port							Weight (Kg)
Size (in)	d (mm)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
3*2*3	49	74	283	206	113	265	36
4*3*4	74	100	305	315	129	400	55
6*4*6	100	150	403	330	169	750	112
8*6*8	150	201	502	345	148	*300	222
10*8*10	201	252	568	415	185	*300	381
12*10*12	252	303	648	427	226	*500	619
14*12*14	303	334	762	519	300	*600	920
16*14*16	334	385	838	519	300	*600	1050
18*16*18	385	436	9				

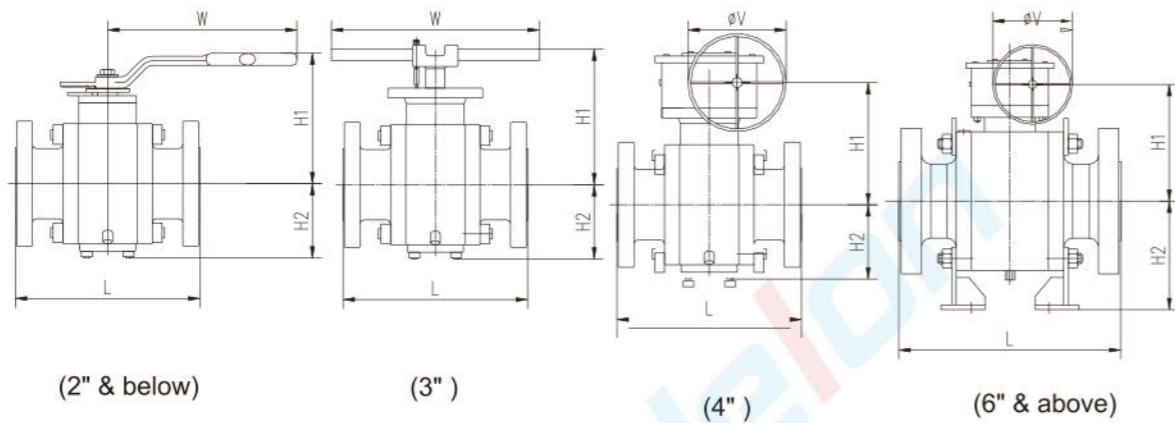
# FORGED STEEL TRUNNION MOUNTED BALL VALVE

## **Split body forged steel side entry design trunnion mounted Ball Valve**

# Dimension

# Class 600

## Dimension and weight



Full Port						Weight (Kg)
Size (in)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
2	49	292	206	113	400	33
3	74	356	315	129	750	63.5
4	100	432	330	169	1000	117
6	150	559	345	148	*300	285
8	201	660	415	185	*300	452
10	252	787	427	226	*400	736
12	303	838	465	269	*500	1000
14	334	889	519	300	*600	1329
16	385	991	638	350	*600	1730
18	436	1092	683	402	*600	2285
20	487	1194	748	446	*600	2814
22	538	1295	854	492	*600	3370
24	589	1397	917	531	*800	4920
28	633	1549	958	556	*800	6060
30	684	1651	1035	620	*800	6690
32	735	1778	1087	666	*800	7825
34	779	1930	1104	666	*800	8460
36	830	2083	1143	718	*800	10650
40	874	2337	1435	887	*800	14700
42	976	2438	1638	923	*800	16410
48	1020	2845	1765	1068	*800	24200

\*Gear Operator

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

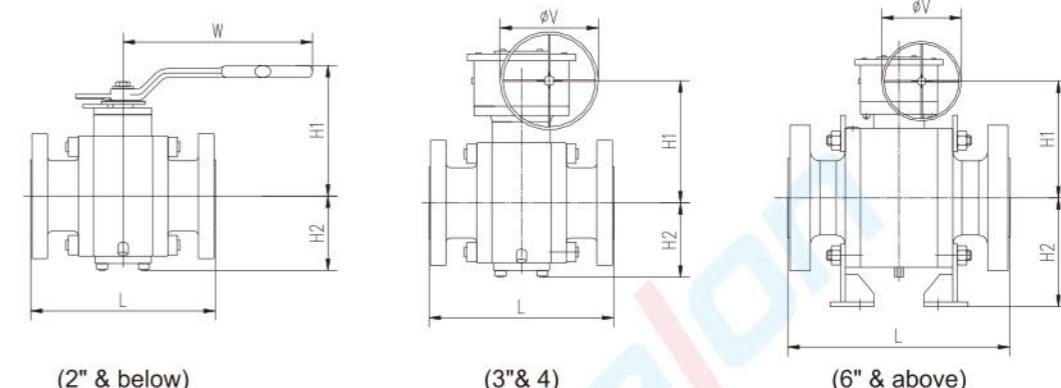
## **FORGED STEEL TRUNNION MOUNTED BALL VALVE**

## **Split body forged steel side entry design trunnion mounted Ball Valve**

# Dimension

# Class 900

## Dimension and weight



Reduced Port							Weight (Kg)
Size (in)	d (mm)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
3*2*3	49	74	356	206	113	400	46.5
4*3*4	74	100	432	315	129	750	86
6*4*6	100	150	559	330	169	1000	176
8*6*8	150	201	660	345	148	*300	304
10*8*10	201	252	787	415	185	*300	536
12*10*12	252	302	838	427	226	*500	834
14*12*14	303	334	889	465	269	*600	1090
16*14*16	334	385	991	519	300	*600	1310
18*16*18	385	436	1092	638	350	*600	1876
20*18*20	436	486	1194	683	402	*600	2270
22*18*22	436	538	1295	683	402	*600	2430
24*20*24	487	589	1397	748	446	*600	3440
28*24*28	589	684	1549	917	531	*800	4250
30*24*30	589	735	1651	917	531	*800	4730
34*28*34	684	830	1930	958	556	*800	7200
36*30*36	735	874	2083	1035	620	*800	8600
40*34*40	830	976	2337	1104	666	*800	10020
42*36*42	874	1020	2438	1143	718	*800	11100
48*40*48	976	1166	2845	1435	887	*800	17200

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

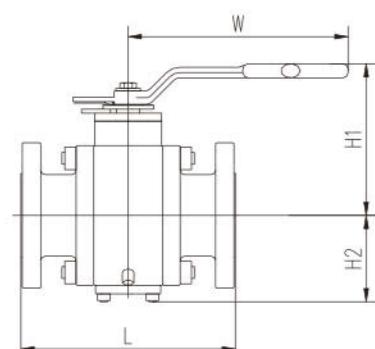
## FORGED STEEL TRUNNION MOUNTED BALL VALVE

Split body forged steel side entry design trunnion mounted Ball Valve

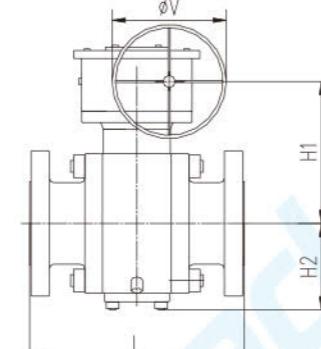
### Dimension

#### Class 1500

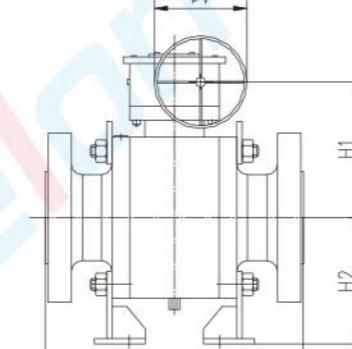
Dimension and weight



(2" & below)



(3" & 4")



(6" & above)

Full Port						Weight (Kg)
Size (in)	D (mm)	L (mm)	H1 (mm)	H2 (mm)	W (mm)	
2	49	368	221	130	750	65
3	74	470	297	152	1500	145
4	100	546	345	166	*300	259
6	144	705	365	192	*400	475
8	192	832	423	238	*500	821
10	239	991	560	274	*600	1826
12	287	1130	608	318	*600	2170
14	315	1257	662	483	*600	2250
16	360	1384	796	534	*600	2760
18	406	1537	849	606	*600	3646
20	454	1664	964	686	*800	4497
22	500	1816	1025	731	*800	5731
24	546	2043	1065	775	*800	7151

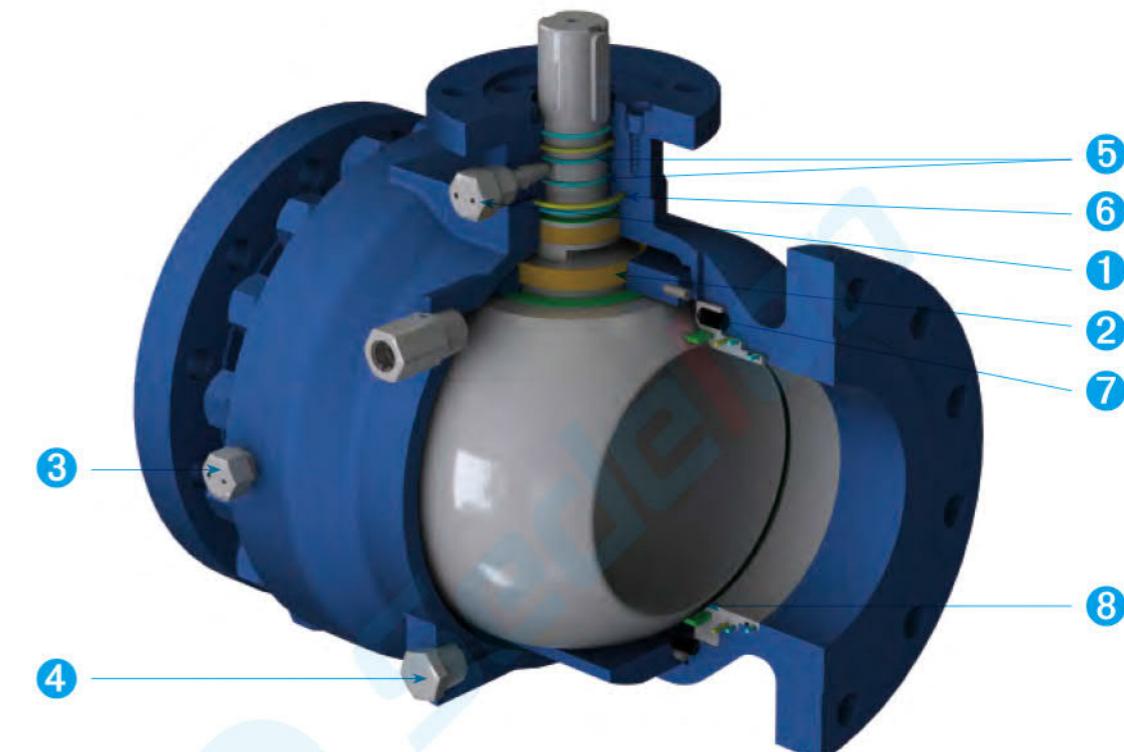
\*Gear Operator

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL TRUNNION MOUNTED BALL VALVE

Split body cast steel side entry design trunnion mounted Ball Valve

### Design feature



- ① Emergency Sealant Injection Fitting: Prevents leakage from the stem.
- ② Blow-out Proof Stem: Stem functions as the backseat to assure stem sealing at all pressures.
- ③ Emergency Sealant Injection Fitting: Prevents leakage from the seat.
- ④ Drain plug : Relieves the body cavity.
- ⑤ Double Sealing O-rings: Prevents leakage from stem area.
- ⑥ O-ring & Gasket Combination: Prevents leakage from body connection area.
- ⑦ Floating Spring: Loaded seats assure sealing, even at low pressures.
- ⑧ Back up Metal to Metal Sealing: when primary soft-seat material is deteriorated by fire, the metal to metal seat provides shutoff.

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL TRUNNION MOUNTED BALL VALVE

Split body cast steel side entry design trunnion mounted Ball Valve

### Material list

No.	Part name	Standard	Stainless Steel	Sour service	Low Temperature Service
1	Bonnet	ASTM A216-WCB	ASTM A351-CF8M	ASTM A216-WCB	ASTM A352-LCB
2	Injection fitting	CS	SS	SS	SS
3	Gasket	316SS+Graphite	316SS+Graphite/ PTFE	316SS+Graphite/ PTFE	316SS+Graphite
4	O-ring	Viton	Viton	Viton	Viton
5	Fire safe ring	Graphite	Graphite	Graphite rope	Graphite rope
6	O-ring	Viton	Viton	Viton	Viton
7	Spring	17-7PH	17-7PH	17-7PH	17-7PH
8	Seat	ASTM A105+ENP	ASTM A182 F316	ASTM A182 F316+ENP	ASTM A350-LF2+ENP
9	Seat ring	PRTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek	RPTFE/ Nylon/ Peek
10	Bearing	316+PTFE	316+PTFE	316+PTFE	316+PTFE
11	Bearing	ASTM A105+ENP	316+PTFE	316+PTFE	316+PTFE
12	Ball	ASTM A105+ENP	ASTM A182 F316	ASTM A105+ENP	ASTM A350 LF2+ENP
13	Nut	ASTM A194-2H	ASTM A194-8M	ASTM A194-2HM	ASTM A194-4
14	Bolt	ASTM A193 B7	ASTM A193-B8M	ASTM A93-B7M	ASTM A320-L7
15	Screw	ASTM A193-B7	ASTM A193-B8M	ASTM A193-B7M	ASTM A320-L7
16	Trunnion	ASTM A105	ASTM A182 F316	ASTM A182 F316	ASTM A350 LF2
17	O-ring	Viton	Viton	Viton	Viton
18	Gasket	316SS+Graphite	316SS+Graphite/ PTFE	316SS+Graphite/ PTFE	316SS+Graphite
19	Bleed	CS	SS	SS	SS
20	Body	ASTM A216-WCB	ASTM A351-CF8M	ASTM A216-WCB	ASTM A352-LCB
21	Block	CS	SS	SS	SS
22	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F316	ASTM A182-F6a
23	Bearing	316+PTFE	316+PTFE	316+PTFE	316+PTFE
24	O-ring	Viton	Viton	Viton	Viton
25	Stuffing box	ASTM A105	ASTM A182 F316	ASTM A182 F316	ASTM A350 LF2
26	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
27	O-ring	Viton	Viton	Viton	Viton
28	Stem Packing	Graphite	Graphite/PTFE	Graphite/ PTFE	Graphite
29	Yoke	ASTM A105	ASTM A182 F316	ASTM A105	ASTM A350 LF2
30	Screw	ASTM A193 B7	ASTM A193 B8M	ASTM A193 B7M	ASTM A320 L7
31	Gear	Components	Components	Components	Components

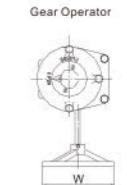
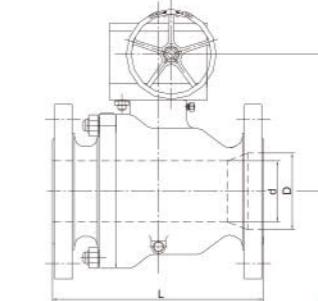
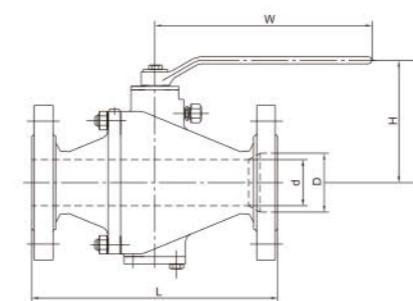
①-Please contact factory for materials supplied.

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL TRUNNION MOUNTED BALL VALVE

Split body cast steel side entry design trunnion mounted Ball Valve

### Dimension



### Class 150 Dimension and weight

Full Port	Size (in)	2	3	4	6	8	10	12	14	16	18	20	22	24
	D(mm)	49	74	100	150	201	252	303	334	385	435	487	538	589
L(mm)	178	203	229	394	457	533	610	686	762	864	914	1016	1067	
H(mm)	165	193	231	329	393	401	441	481	598	643	708	798	863	
W(mm)	230	400	460	1000	*500	*500	*500	*500	*500	*500	*500	*500	*500	
Weight(Kg)	17	33	50	93	166	273	475	570	778	935	1190	1340	1579	

Reduced Port	Size (in)	3*2*3	4*3*4	6*4*6	8*6*8	10*8*10	12*10*12	14*12*14	16*14*16	18*16*18	20*18*20	22*20*22	24*22*24	
	d(mm)	49	74	100	150	201	252	303	334	385	435	487	538	589
L(mm)	203	229	394	457	533	610	686	762	864	914	1016	1067		
H(mm)	165	193	231	329	393	393	441	481	598	643	708	798	863	
W(mm)	230	400	400	460	1000	*500	*500	*500	*500	*500	*500	*500	*500	
Weight(Kg)	30	47	90	161	268	467	560	766	902	1130	1300	1520		

### Class 300 Dimension and weight

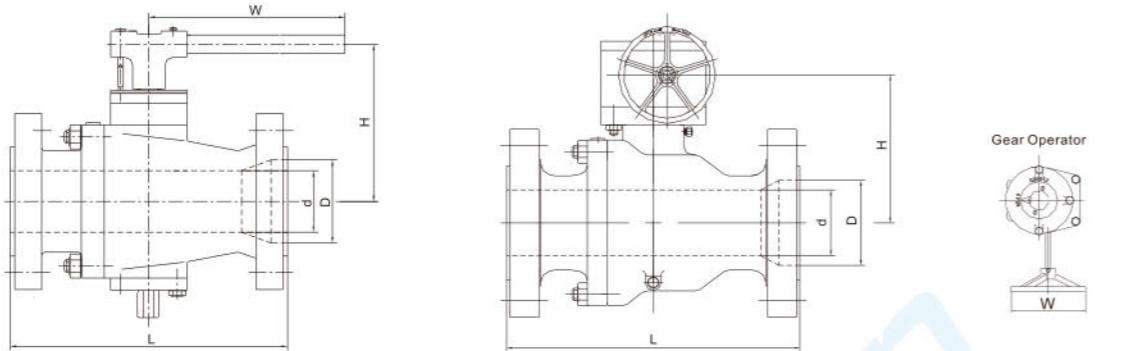
Full Port	Size (in)	2	3	4	6	8	10	12	14	16	18	20	22	24
	D(mm)	49	74	100	150	201	252	303	334	385	435	487	538	589
L(mm)	216	283	305	403	502	568	648	762	838	914	991	1092	1143	
H(mm)	165	193	231	329	393	401	441	481	598	643	708	798	863	
W(mm)	230	400	460	1000	*500	*500	*500	*500	*500	*500	*500	*500	*500	
Weight(Kg)	18	40	63	150	240	240	407	602	1000	1160	1320	1540	1874	

Reduced Port	Size (in)	3*2*3	4*3*4	6*4*6	8*6*8	10*8*10	12*10*12	14*12*14	16*14*16	18*16*18	20*18*20	22*20*22	24*20*24
	d(mm)	49	74	100	150	2							

## CAST STEEL TRUNNION MOUNTED BALL VALVE

Split body cast steel side entry design trunnion mounted Ball Valve

### Dimension



### Class 600 Dimension and weight

Full Port	Size (in)	2	3	4	6	8	10	12	14	16	18	20	24
	D(mm)	49	74	100	150	201	22	303	334	385	435	487	589
	L(mm)	292	356	432	559	660	787	838	889	991	1092	1194	1397
	H(mm)	176	247	276	363	363	426	548	598	648	740	810	920
	W(mm)	400	750	1000	1500	*500	*500	*500	*500	*500	*500	*500	*500
Weight(Kg)		27	50	80	251.8	350	600	820	1130	1550	2100	2800	3626
Reduced Port	Size (in)	3*2*3	4*3*4	6*4*6	8*6*8	10*8*10	12*10*12	14*12*14	1+14*16	18*16*18	20*18*20	24*20*24	
	d(mm)	49	74	100	150	201	252	303	334	385	435	487	
	D(mm)	74	100	150	201	252	303	334	385	435	481	589	
	L(mm)	356	432	559	660	787	838	889	991	1092	1194	1397	
	H(mm)	176	247	276	263	263	426	548	598	648	740	810	
	W(mm)	400	750	1000	1500	*500	*500	*500	*500	*500	*500	*500	
Weight(Kg)		41	70	122	255	440	6620	1080	1440	1960	2400	3240	

### Class 900 Dimension and weight

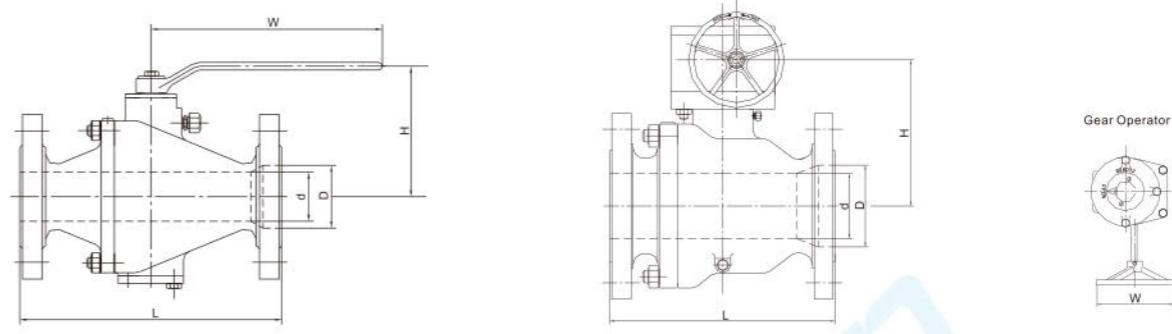
Full Port	Size (in)	2	3	4	6	8	10	12	14	16	18	20	24
	D(mm)	49	74	100	150	201	252	303	322	373	423	471	570
	L(mm)	368	381	457	610	737	838	965	1029	1130	1219	1321	1549
	H(mm)	192	279	315	323	381	518	565	665	730	795	825	973
	W(mm)	460	1000	1500	*500	*500	*500	*500	*500	*500	*610	*610	
Weight(Kg)		53	97	138	288	448	748	1018	1398	1828	2328	2928	4178
Reduced Port	Size (in)	3*2*3	4*3*4	6*4*6	8*6*8	10*8*10	12*10*12	14*12*14	16*14*16	18*16*18	20*18*20	24*20*24	
	d(mm)	49	74	100	150	201	252	303	322	373	423	471	
	D(mm)	74	100	150	201	252	303	322	373	423	471	570	
	L(mm)	381	457	610	737	838	965	1029	1130	1219	1321	1549	
	H(mm)	192	279	315	323	381	518	568	665	730	795	825	
	W(mm)	460	1000	1500	*500	*500	*500	*500	*500	*500	*610		
Weight(Kg)		83	103	201	348	598	788	1100	1420	1928	2428	3578	

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## CAST STEEL TRUNNION MOUNTED BALL VALVE

Split body cast steel side entry design trunnion mounted Ball Valve

### Dimension



### Class 1500 Dimension and weight

Full Port	Size (in)	2	3	4	6	8	10	12	14	16	18	20
	D(mm)	49	74	100	144	192	238	587	315	360	406	454
	L(mm)	368	470	546	705	832	991	1130	1257	1384	1537	1664
	H(mm)	252	300	272	341	493	565	700	747	795	877	985
	W(mm)	750	1500	*500	*500	*500	*500	*500	*500	*610	*610	*610
Weight(Kg)		86	136	221	388	580	948	1338	1748	2228	2850	4860

Reduced Port	Size (in)	3*2*3	4*3*4	6*4*6	8*6*8	10*8*10	12*10*12	14*12*14	16*14*16	18*16*18	20*18*20	
	d(mm)	49	74	100	144	192	238	287	318	360	406	406
	D(mm)	74	100	144	192	238	287	318	360	406	454	
	L(mm)	470	546	705	832	991	1130	1257	1384	1537	1664	
	H(mm)	252	300	272	341	493	565	700	747	795	877	
	W(mm)	750	1500	*500	*500	*500	*500	*500	*500	*610	*610	
Weight(Kg)		98	138	288	448	748	1020	1400	1820	2328	4150	

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## TRUNNION MOUNTED BALL VALVE

### Operating torque and CV specification

#### Operating Torque

Size	Class 150(NYLON)		Class 300(NYLON)		Class 400(NYLON)		Class 600(NYLON)		Class 900(NYLON)		Class 1500(NYLON)		Class 2500(PEEK)	
	N.m	Ft/Lbs	N.m	Ft/Lbs	N.m	Ft/Lbs								
1-1/2	40	29.52	50	36.90	58	42.81	80	42.81	130	95.95	240	177.14	290	214.04
2	50	36.90	70	51.66	75	55.35	120	55.35	180	132.85	250	184.52	380	280.46
3	60	44.28	100	73.81	150	110.71	240	110.71	400	295.23	530	391.17	780	575.69
4	100	73.81	210	154.99	330	243.56	500	243.56	670	494.50	900	664.26	1300	959.48
6	420	309.99	600	442.84	650	479.74	900	479.74	1820	1343.27	2040	1505.65	4850	3579.60
8	700	516.64	1100	811.87	1300	959.48	1500	959.48	2560	1889.44	4790	3535.32	4900	5092.63
10	1100	811.87	1800	1328.51	2000	1476.13	2750	1476.13	4510	3328.66	8230	6074.57	13600	10037.65
12	1600	1180.90	2500	1845.16	3153	2327.11	3600	2327.11	6824	5036.54	10340	7631.57	23100	17049.25
14	1950	1439.22	3200	2361.80	3800	2804.64	4700	2804.64	8250	6089.02	12120	8945.32	-	-
16	2500	1845.16	3500	2583.22	4000	2952.25	5470	2952.25	9940	7336.34	14920	11011.89	-	-
18	3400	2509.41	5510	4066.73	7000	5166.44	9000	5166.44	14630	10797.86	27230	20097.44	-	-
20	4600	3395.09	7500	5535.47	9000	6642.56	11000	6642.56	20000	14761.25	32830	24230.59	-	-
22	5200	3837.93	9000	6642.56	11000	8118.69	14630	8118.69	25400	18746.79	39420	29094.43	-	-
24	6774	4999.64	11150	8229.40	13450	9926.94	17950	9926.94	29900	22068.07	46320	34187.06	-	-
26	8000	5904.50	13360	9860.52	14700	10849.52	21640	10819.52	34950	25795.29	55430	40910.81	-	-
28	8600	6347.34	14200	10480.49	18200	13432.74	24340	13432.74	38780	28622.07	70650	52144.12	-	-
30	9233	6814.53	16660	12296.12	20230	14931.01	32510	14931.01	46610	34401.10	75000	55354.69	-	-
32	11810	8716.53	19500	14392.22	28240	20842.89	37600	20842.89	58230	42977.38	-	-	-	-
34	13330	9838.37	21380	15779.78	31140	22983.27	41800	22983.27	63750	47051.49	-	-	-	-
36	14214	10490.82	29375	21680.59	35520	26215.98	47570	26215.98	72600	53583.34	-	-	-	-

**NOTE:** 1.Torque is calculated based on normal temperature.  
2.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.  
3.Torque may be changed depending on fluids and trim materials.

### Flow coefficient (CV value) specification

Size	Class 150	Class 300	Class 600	Class 900	Class 1500	Class 2500
1/2	17	15	14	12	12	11
3/4	43	38	34	31	31	28
1	86	76	66	61	61	56
1-1/2	227	211	187	167	167	148
2	423	384	330	294	294	181
3	1139	965	360	832	749	434
4	2416	2093	1759	1710	1564	995
6	5241	2183	4400	4212	3918	3107
8	10471	5183	8713	8245	6921	5240
10	17709	9991	14573	14123	11376	8451
12	26241	17154	22389	20864	16835	12295
14	32857	25460	28863	24483	20967	-
16	44474	31176	38998	33741	27901	-
18	57002	42409	50703	44491	35761	-
20	73076	70180	63936	55915	45445	-
22	88907	85757	78750	-	-	-
24	113639	109796	99314	-	-	-

#### NOTES:

- 1.All sizes belong to full port.
  - 2.Pressure ratings are per API 6D.
  - 3.Method of Calculating Flow.
- The Flow coefficient Cv value is the flow rate of water (gallons/minute) through a fully open valve with a pressure drop of 1 psi to find the flow of liquid the valve with Cv, using the following formulas.

#### LIQUID FLOW:

$$QL = Cv(P/G)^{1/2}$$

QL=Flow rate of liquid (gal. /min.)

P=differential pressure across the valve

G=specific gravity of liquid (for water,G=1)

#### GAS FLOW:

$$Qg = 61Cv(P2/P1)^{1/2}$$

(For non-critical flow, P/P<1.0)

QL=Flow rate of gas (CFH at STP)

P2=outlet pressure (psia)

g=specific gravity of gas (for air, g=1.0)

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## TRUNNION MOUNTED BALL VALVE

Split body cast steel side entry design trunnion mounted Ball Valve

### Soft seat material

#### Seat Insert

Properties	PTFE	NYLON	PEEK	PCTFE	DEVLO V
Temperature Range °F	-328 ~ 428	-58 ~ 248	-148 ~ 500	-328 ~ 302	-148 ~ 302
Temperature Range °C	-100 ~ 200	-50 ~ 120	-100 ~ 260	-200 ~ 150	-100 ~ 150
Pressure Rating	150 ~ 600	150 ~ 1500	150 ~ 2500	150 ~ 600	150 ~ 1500
Mechanical Property	Hardness (D)	58	72	88	78
	Tensile Strength(MPa)	14 ~ 34	55.2	134	35.9
	Tensile elongation(Break,%)	350	250	2.2	150
Physical Property	Specific Gravity (g/cm³)	2.17	1.02	1.44	2.12
	Water Absorption 24hrs(%)	0.00	1	0.06	0.00
	Water Absorption saturation	<0.01	1.60	2	<0.01
Service Application	Chemical & low temperature	High Pressure & Hydrocarbon	High Pressure & temperature	Cryogenic	High Pressure & Hydrocarbon

#### Seal ring

Type	HNBR	VITON	FFKM

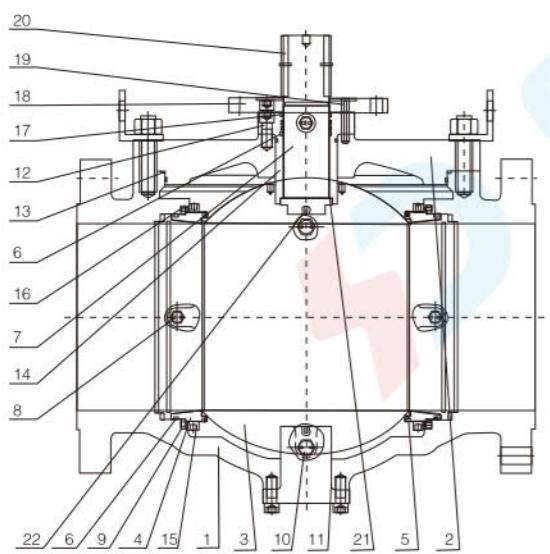
## TOP ENTRY BALL VALVE

### Design feature



#### Materials of parts

Body	WCB/LCB/CF8M/CF8/CF3M/CF3/WC6/WC9/CD3MN
Lid	WCB/LCB/CF8M/CF8/CF3M/CF3/WC6/WC9/CD3MN
Ball	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Seat	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Stem	F6a/F304/F316/F304L/F316L/F51
Seat ring	PTFE/NYLON/PEEK/TEFLON
O-ring	VITON/NBR
Bolt	B7M/B8M/L7M/B16
Support cover	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Spring	17-4PH/17-7PH/Inconel
Bearing	304+PTFE/316+PTFE
Gasket	SS316+graphite/PTFE



No	Part Name	No	Part Name
1	Body	12	Screw
2	Lid	13	Body gasket
3	Ball	14	Support cover
4	Seat	15	Seat retainer ring
5	Sealing ring	16	Spring support cover
6	O-ring	17	Packing
7	Stem	18	Connected disk
8	Seat grease injection valve	19	Elastic cylindrical pin
9	Spring	20	Flat key
10	Blow-down valve	21	Stem gasket
11	Ball lubricating bearing	22	Antistatic spring

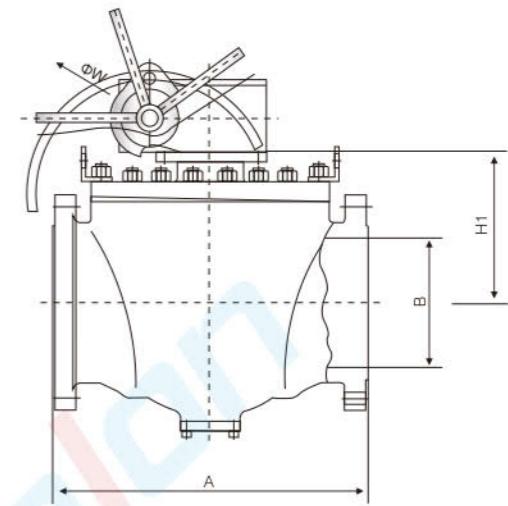
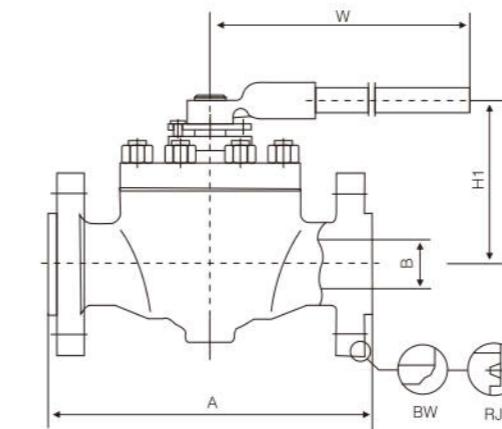
Materials could be chosen according to customers' requirement & working condition.

### Features and application:

Seat connected to the retainer ring. There is a spring on the support cover, which installed on the valve body, and the retainer ring can compress spring. The fabrication holes are on the outer margin of the seat and the retainer ring. This new type product adopts total body design, the compensation can be automatically, the possibility of leakage is small, safety in use, vibrate resistance, and double seal. The ball is installed from the top part, so can finish the maintenance without removing the pipe, it is very convenient.

## TOP ENTRY BALL VALVE

### Dimension



#### Class 150 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	292	51	207	300	30	50	★14	350	889	334	455	600	760	2426
3	80	356	76	223	400	57	65	★16	400	991	385	460	600	1100	3016
4	100	432	100	280	450	100	151	★18	450	1092	436	503	600	1512	4574
★6	150	559	150	275	460	215	320	★20	500	1194	487	560	700	1930	6016
★8	200	660	201	321	460	407	1020	★24	600	1397	589	610	700	3200	9750
★10	250	787	252	355	600	560	1085	★28	700	1549	684	730	700	4600	14540
★12	300	838	303	470	600	710	1562	★30	750	1651	735	800	760	5630	18005

#### Class 300 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	DN	A	B	H1	W	WT	T	
		mm	mm	mm	mm	kg	N.m		mm	mm	mm	mm	kg	N.m	
2	50	292	51	211	300	36	86	★14	350	889	334	460	600	766	3800
3	80	356	76	226	500	63	110	★16	400	991	385	480	600	1106	5376
4	100	432	100	286	550	106	270	★18	450	1092	436	508	600	1519	8000
★6	150	559	150	282	460	221	500	★20	500	1194	487	565	600	2010	10610
★8	200	660	201	325	460	412	1620	★24	600	1397	589	617	760	3208	17280
★10	250	787	252	360	600	566	1824	★28	700	1549	684	678	760	4607	25102
★12	300	838	303	420	600	715	2632	★30	750	1651	735	738	760	5638	31664

Note: ★Gearworm drives

## TOP ENTRY BALL VALVE

### Dimension

#### Class 600 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	292	51	215	500	41	148	★14	350	889	334	465	700	770	7255
3	80	356	76	232	600	67	200	★16	400	991	385	470	700	1112	9174
4	100	432	100	294	600	110	460	★18	450	1092	436	512	760	1523	13520
★6	150	559	150	287	600	226	908	★20	500	1194	487	570	760	1940	18034
★8	200	660	201	324	600	417	2560	★24	600	1397	589	622	760	3213	29512
★10	250	787	252	365	600	570	3048	★28	700	1549	684	742	760	4612	42264
★12	300	838	303	480	700	720	4300	★30	750	1651	735	817	850	5640	58864

#### Class 900 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	DN	A	B	H1	W	WT	T	
		mm	mm	mm	mm	kg	N.m		mm	mm	mm	mm	kg	N.m	
2	50	368	49	212	650	52	208	★12	300	965	303	507	700	1300	6000
3	80	381	74	227	700	110	280	★14	350	1029	322	520	700	1695	10220
4	100	457	100	277	800	200	650	★16	400	1130	373	538	760	2560	12968
★6	150	610	150	283	600	430	1298	★18	450	1219	423	580	760	3400	19054
★8	200	737	201	334	600	800	3596	★20	500	1321	471	625	760	4400	25452
★10	250	838	252	380	600	1000	4306	★24	600	1549	589	690	850	7200	38655

#### Class 1500 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	368	49	212	600	56	330	★10	250	991	239	398	700	1438	6720
3	80	470	74	236	930	153	440	★12	300	1130	287	520	700	2017	14520
4	100	546	100	295	460	278	1034	★14	350	1257	315	560	760	2612	32600
★6	150	705	144	303	600	600	2084	★16	400	1384	360	570	760	3890	49650
★8	200	832	192	354	600	1100	5496	★18	450	1477	405	592	760	5100	66350

Note: ★Gearworm drives

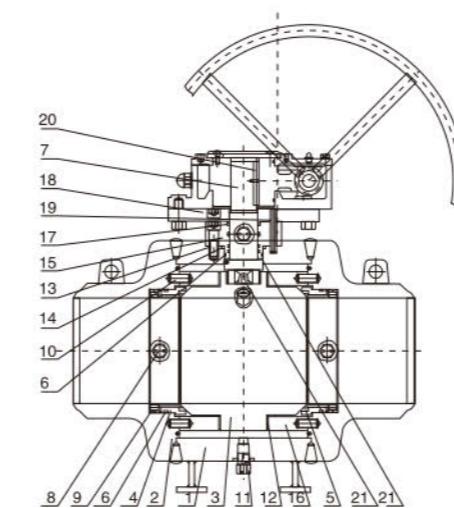
### Applicable standards:

- Design & manufacture: API 6D/ISO 14313、ASME B16.34
- Connection dimension: ASME B16.5、DN EN 1092
- Fire resistance design : API 607/ISO 10497
- Inspection & test : API 6D、ISO 5208、API 598
- Material : ISO 15156

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

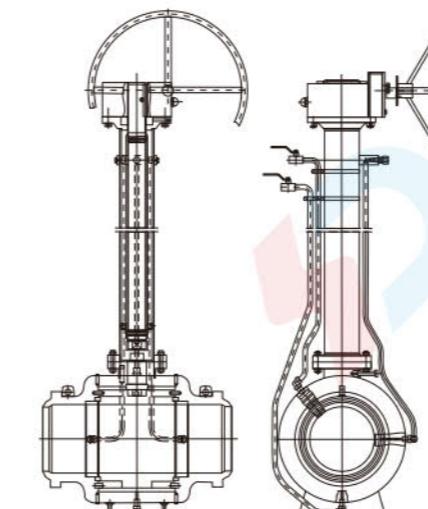
## FULL WELDED BALL VALVE

### Design feature



#### Materials of parts

No	Part Name	No	Part Name
1	Body	12	Ball lubricating bearing
2	Left-right body	13	Screw
3	Ball	14	Bonnet gasket
4	Seat	15	Support cover
5	Sealing ring	16	Die holder
6	O-ring	17	Packing
7	Stem	18	Terminal pad
8	Seat grease injection valve	19	Spring pin
9	Spring	20	Flat key
10	straight pin	21	Stem gasket
11	Blow-down valve	22	Static-free spring



#### Materials of parts

Body	A105/LF2/F304/F316/F304L/F316L/F11/F22/F51
Ball	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Seat	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Stem	F6a/F304/F316/F304L/F316L/F51
Sealing ring	PTFE/NYLON/PEEK/TEFLON
O-ring	VITON/NBR
Screw	B7M/B8M/L7M/B16M
Support cover	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Die holder	A105+ENP/LF2+ENP/F304/F316/F304L/F316L/F51
Spring	17-4PH/17-7PH/Inconel
Bearing	304+PTFE/316+PTFE
Gasket	Flexible graphite+304/PTFE

Materials could be chosen according to customers' requirement & working condition.

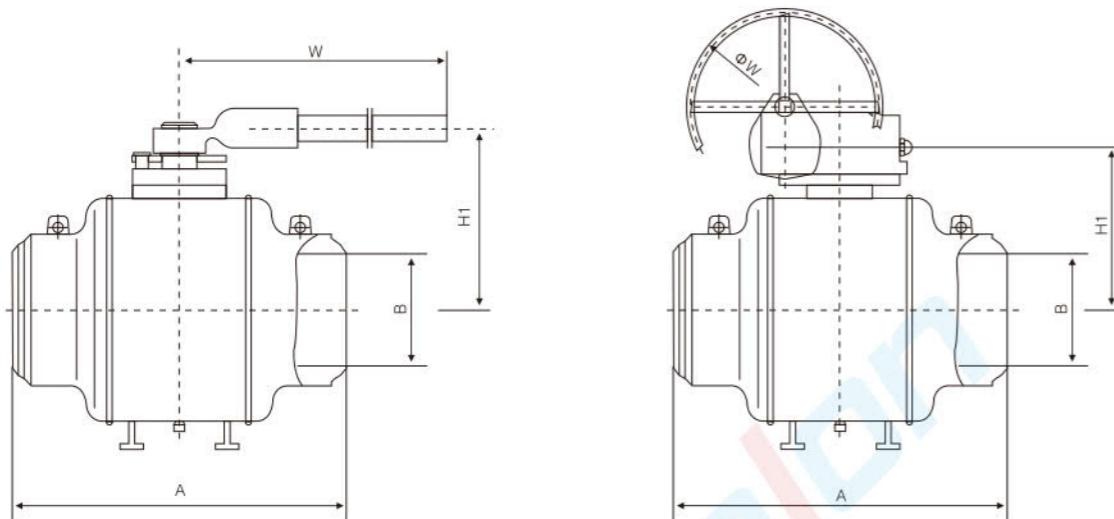
### Applicable standards:

- Design & manufacture conform with: API 6D/ ISO 14313、ASME B16.34
- Connection dimension conforms with: ASME B16.25、DIN EN 12627
- Fire resistance design conforms with: API 607/ISO 10497
- Inspection & test conforms with: API 6D、ISO 5208、API 598
- Material conforms with: ISO 15156

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FULL WELDED BALL VALVE

### Dimension



### Class 150 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	216	51	146	300	12	50	★14	350	762	334	410	600	860	2426
3	80	283	76	170	400	28	65	★16	400	838	385	460	600	980	3016
4	100	305	100	204	450	42	151	★18	450	914	436	520	600	1210	4574
★6	150	457	150	260	460	125	320	★20	500	991	487	560	700	1760	6016
★8	200	521	201	300	460	220	1020	★24	600	1143	589	600	700	2010	9750
★10	250	559	252	340	600	340	1085	★28	700	1346	684	730	700	3200	14540
★12	300	635	303	385	600	520	1562	★30	750	1397	735	840	760	4120	18005

### Class 300 Dimension and weight

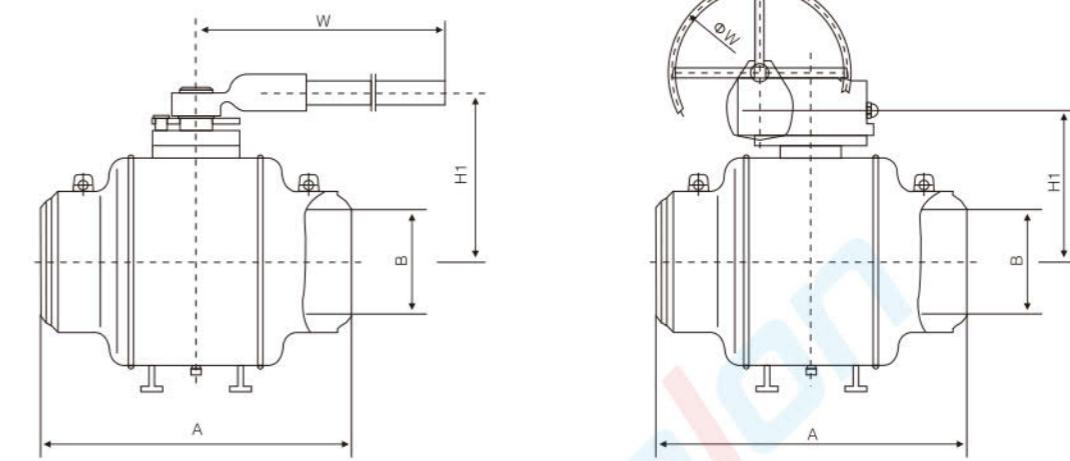
NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	216	51	170	300	16	86	★14	350	762	334	420	600	980	3800
3	80	283	76	185	500	35	110	★16	400	838	385	470	600	1210	5376
4	100	305	100	210	550	60	270	★18	450	914	436	530	600	1520	8000
★6	150	457	150	260	460	150	500	★20	500	991	487	590	600	2010	10610
★8	200	521	201	310	460	250	1620	★24	600	1143	589	600	760	2520	17280
★10	250	559	252	345	600	350	1824	★28	700	1346	684	750	760	3600	25012
★12	300	635	303	390	600	580	2632	★30	750	1397	735	850	760	4620	31664

Note: ★ Gearworm drives

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FULL WELDED BALL VALVE

### Dimension



### Class 600 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	292	51	185	500	27	148	★14	350	889	334	450	700	1228	7255
3	80	356	76	190	600	48	200	★16	400	991	385	500	700	1705	9174
4	100	432	100	220	600	95	460	★18	450	1092	436	560	760	2380	13520
★6	150	559	150	270	600	210	908	★20	500	1194	487	620	760	2875	18034
★8	200	660	201	320	600	405	2560	★24	600	1397	589	750	760	4830	29512
★10	250	787	252	350	600	655	3048	★28	700	1549	684	880	760	5900	42264
★12	300	838	303	400	700	915	4300	★30	750	1651	735	960	850	7200	58864

### Class 900 Dimension and weight

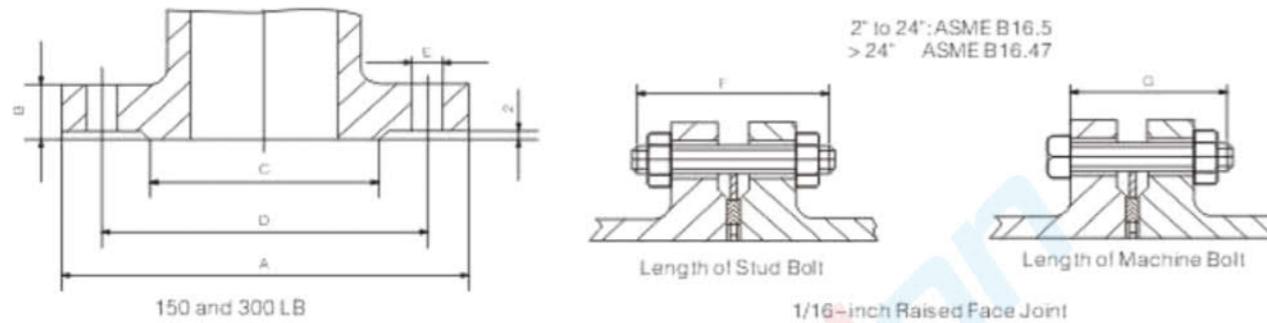
NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T
		mm	mm	mm	mm	kg	N.m			mm	mm	mm	mm	kg	N.m
2	50	368	49	180	650	40	208	★12	300	965	303	450	700	1270	6000
3	80	381	74	208	700	70	280	★14	350	1029	322	550	700	1515	10220
4	100	457	100	222	800	110	650	★16	400	1130	373	650	760	2420	12968
★6	150	610	150	270	600	255	1298	★18	450	1219	423	750	760	2740	19054
★8	200	737	201	325	600	525	3596	★20	500	1321	471	830	760	3325	25452
★10	250	838	252	360	600	810	4306	★24	600	1549	589	950	850	4800	38655

### Class 1500 Dimension and weight

NPS inch	DN	A	B	H1	W	WT	T	NPS inch	DN	A	B	H1	W	WT	T

## FLANGE SIZE

### Dimension



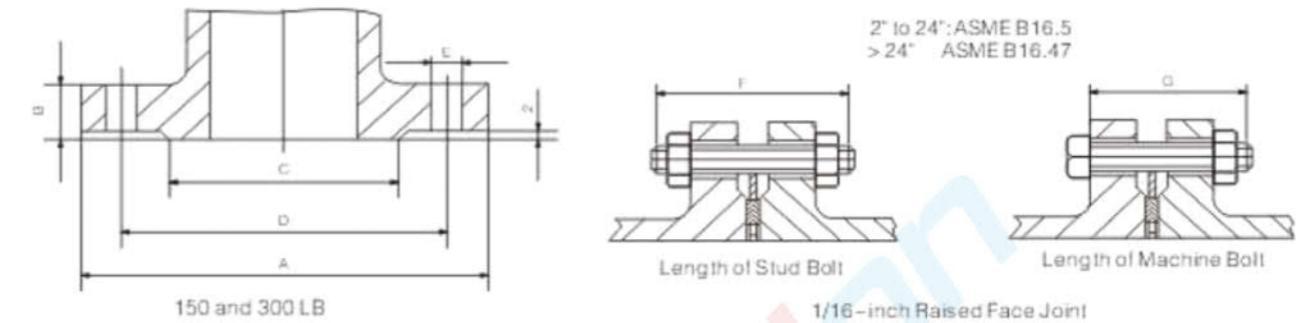
## Class 150.RF

Nominal Size	A		B		C		D		E		Bolt		F		G		
	in	mm	in	mm	in	mm	in	mm	in	mm	No.	Diam	in	mm	in	mm	
2	50	6.0	150	0.64	16.3	3.62	92.1	4.75	120.7	0.75	19	4	5/8	3.25	85	2.75	70
2½	65	7.0	180	0.70	17.9	4.12	104.8	5.50	139.7	0.75	19	4	5/8	3.50	90	3.00	75
3	80	7.5	190	0.76	19.5	5.00	127.0	6.00	152.4	0.75	19	4	5/8	3.50	90	3.00	75
4	100	9.0	230	0.95	24.3	6.19	157.2	7.50	190.5	0.75	19	8	5/8	3.50	90	3.00	75
5	125	10.0	255	0.96	274.3	7.31	185.7	8.50	215.9	0.88	19	8	3/4	3.75	95	3.25	85
6	150	11.0	280	1.00	25.9	8.50	215.9	9.50	241.3	0.88	22	8	3/4	4.00	100	3.25	85
8	200	13.5	345	1.14	29	10.62	2699	1175	298.5	0.88	22	8	3/4	4.25	110	3.50	90
10	250	16.0	405	1.2	30.6	12.75	323.8	14.25	362.0	1.00	22	12	7/8	4.50	115	4.00	100
12	300	19.0	485	1.26	32.2	15.00	381.0	17.00	431.8	1.00	26	12	7/8	4.75	120	4.00	100
14	350	21.0	535	1.39	35.4	16.25	412.8	18.75	476.3	1.12	26	12	1	5.25	135	4.50	115
16	400	23.5	595	1.45	37	18.50	469.9	21.25	539.8	1.12	29	16	1	5.25	135	4.50	115
18	450	25.0	635.0	1.57	40.1	21.00	533.4	22.75	577.9	1.25	29	16	1 1/8	5.75	145	5.00	125
20	500	27.5	700	1.7	43.3	23.00	584.2	25.00	653.0	1.25	32	20	1 1/8	6.25	160	5.50	140
24	600	32.0	815	1.58	48.1	27.25	692.2	29.50	749.3	1.38	32	20	1 1/4	6.75	170	6.00	150
26	650	34.25	870.0	2.7	68.7	29.50	749	31.75	806.4	1.38	35	24	1 1/4	8.50	215	7.50	190
28	700	36.50	925	2.83	71.9	31.50	800	34.00	863.6	1.38	35	28	1 1/4	8.75	220	7.75	195
30	750	38.75	955	2.95	75.1	33.75	857	36.00	914.4	1.38	35	28	1 1/4	9.00	230	8.25	210
32	800	41.75	1060	3.2	81.4	36.00	914	38.50	977.9	1.62	35	28	1 1/2	10.00	255	8.75	220
34	850	43.75	1110	3.26	83	38.00	965	40.50	1028.7	1.62	41	32	1 1/2	10.25	260	9.00	230
36	900	46.0	1170	3.57	90.9	40.25	1022	42.75	1085.8	1.62	41	32	1 1/2	10.75	275	10.00	240
40	1000	50.75	1290	3.83	90.9	44.25	1124	47.25	1200.2	1.62	41	36	1 1/2	10.75	275	9.50	240
42	1050	53.00	1345	4.02	97.3	47.00	114	49.50	1257.3	1.62	41	36	1 1/2	11.25	285	10.00	255
44	1100	55.25	1405	4.26	102.1	49.00	1245	51.75	1314.4	1.62	41	40	1 1/2	11.50	290	10.25	260
48	1200	59.50	1510		155.4	53.50	1359	56.00	1422.4	1.62	41	44	1 1/2	12.25	310	11.00	280

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FLANGE SIZE

### Dimension

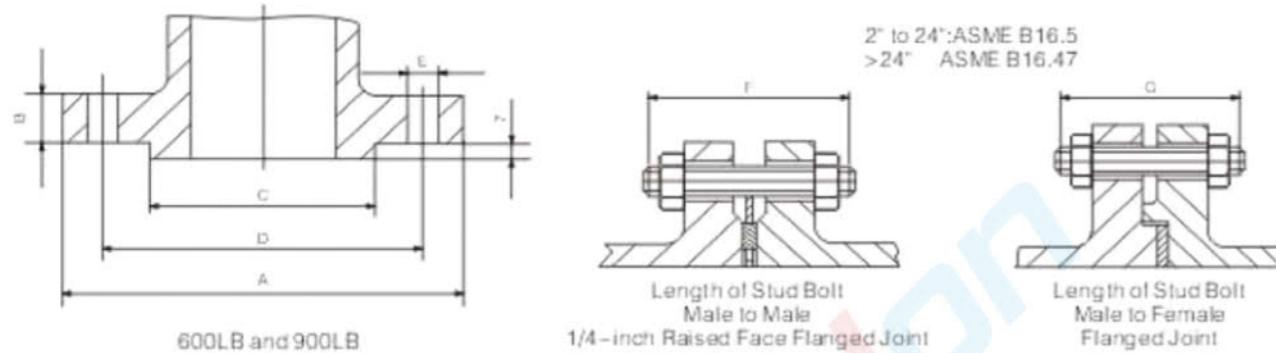


## Class 300.RF

Nominal Size	A		B		C		D		E		Bolt		F		G		
	in	mm	in	mm	in	mm	in	mm	in	mm	No.	Diam	in	mm	in	mm	
2	50	6.50	165	0.89	227	3.62	92.1	5.00	127.0	0.75	19	8	5/8	3.50	90	3.00	75
2½	65	7.50	190	1.00	25.9	4.12	104.8	5.88	149.2	0.88	22	8	3/4	4.00	100	3.25	85
3	80	8.25	210	1.14	29	5.00	127.0	6.62	168.3	0.88	22	8	3/4	4.25	110	3.50	90
4	100	10.00	255	1.28	32.2	6.19	157.2	7.88	200	0.88	22	8	3/4	4.50	115	3.75	95
5	125	11.00	280	1.39	35.4	7.31	185.7	9.25	235.0	0.88	22	8	3/4	4.75	120	4.25	110
6	150	12.50	320	1.45	37	8.50	215.9	10.62	269.9	0.88	22	12	3/4	4.75	120	4.25	110
8	200	15.00	380	1.64	41.7	10.62	269.9	13.00	230.2	1.00	25	12	7/8	5.50	140	4.75	120
10	250	17.50	445	1.89	48.1	12.75	323.8	15.25	387.4	1.12	29	16	1	6.25	160	5.50	140
12	300	20.50	520	2.01	51.3	15.00	381.0	17.75	450.8	1.25	32	16	1 1/8	6.75	170	5.75	145
14	350	23.00	585	2.14	54.4	16.25	412.8	20.25	514.4	1.25	32	20	1 1/8	7.00	180	6.25	160
16	400																

## FLANGE SIZE

### Dimension



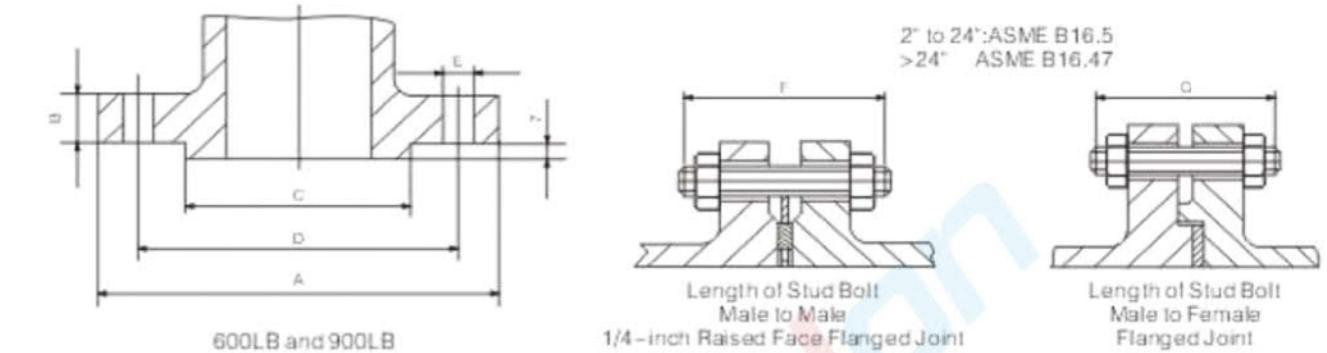
## Class 600.RF

Nominal Size		A		B		C		D		E		Bolt		F		G	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	No.	Diam	in	mm	in	mm
2	50	6.5	165	1	25.4	3.62	92.1	5	127	0.75	19	8	5/8"	4.25	110	4	100
2 1/2"	65	7.5	190	1.12	28.6	4.12	104.8	5.88	149.2	0.88	22	8	3/4"	4.75	120	4 1/4	115
3	80	8.25	210	1.25	31.8	5	127	6.62	168.3	0.88	22	8	3/4"	5	125	4 1/2	120
4	100	10.75	275	1.5	38.1	6.19	157.2	8.5	215.9	1	26	8	7/8"	5.75	145	5 1/2	140
6	125	13	330	1.75	44.5	7.31	185.7	10.5	266.7	1.12	29	8	1	6.5	165	6 1/4	160
8	150	14	355	1.88	47.7	8.5	215.9	11.5	292.1	1.12	29	12	1	6.75	170	6 1/2	165
10	200	16.5	420	2.19	55.6	10.62	269.9	13.75	349.2	1.25	32	12	11/8"	7.5	190	11/4	185
12	250	20	510	2.5	63.5	12.75	323.8	17	431.8	1.38	36	16	11/4"	8.5	215	8 1/4	210
14	300	22	560	2.62	60.7	15	381	19.25	489	1.38	36	20	11/4"	8.75	220	8 1/2	215
16	350	23.75	605	2.75	69.9	16.25	412.8	20.75	527	1.5	38	20	13/8"	9.25	235	9	230
18	400	27	685	3	76.2	18.5	469.9	23.75	603.2	1.62	41	20	11/2"	10	255	9 3/4	250
20	450	29.25	745	3.25	82.6	21	533.4	25.75	654	1.75	45	20	15/8"	10.75	275	10 1/2	265
22	500	32	815	3.5	85.9	23	584.2	28.5	723	1.75	45	24	15/8"	11.25	285	11	280
24	600	37	940	4	101.6	27.25	692.2	23	838.2	2	51	24	17/8"	13	330	12 3/4	325
28	650	40	1015	4.25	108	29.5	749	360	914.4	2	51	28	1-5/8"	13.5	345	13.25	335
30	700	42.25	1075	4.38	111.2	31.5	800	380	965.2	2.12	54	28	1-5/8"	14	355	14.5	350
32	800	47	1195	4.52	117.5	36	914	42.5	1079.5	2.38	60.5	28	1-7/8"	15	380	14.5	370
34	850	49	1245	4.75	120.7	38	965	44.5	1130.2	2.38	66.5	28	1-7/8"	15.25	390	15	380
36	900	51.75	1315	4.88	124	40.25	1022	47	1193.8	2.62	66.5	28	2	16	405	15.75	400
40	1000	52	1320	6.25	158.8	43.75	1111	47.75	1212.8	2.38	66.5	32	1-5/8"	18.75	475	18.5	470
42	1050	55.25	1405	6.62	168.3	46	1168	50.5	1282.7	2.62	66.5	28	1-5/8"	19.25	490	19	485
44	1100	57.25	1455	6.81	173.1	48.25	1226	52.5	1333.5	2.62	66.5	32	1-3/4"	19.75	500	19.5	490
48	1200	62.75	1595	7.44	189	52.5	1334	57.5	1460.5	2.86	73.2	32	1-7/8"	21.5	545	21.25	540

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.

## FLANGE SIZE

### Dimension



## Class 900.RF

Nominal Size		A		B		C		D		E		Bolt		F		G	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	No.	Diam	in	mm	in	mm
2	50	8.5	215	1.5	38.1	3.62	91.9	6.5	165.1	1	20	8	7/8"	5.75	145	5 1/2	140
2 1/2"	65	9.52	245	1.62	41.3	4.12	104.6	7.5	190.5	1.12	29	8	1	6.25	160	6	150
3	80	9.5	240	1.5	38.1	5	127	7.5	190.5	1	29	8	7/8"	5.75	145	5 1/2	140
4	100	11.5	290	1.75	44.5	6.19	157.2	9.25	235	1.25	32	8	11/8"	6.75	170	6 1/2	165
5	125	13.75	350	2	50.8	7.31	185.7	11	279.4	1.38	35	8	11/4"	7.5	190	7 1/4	185
6	150	15	380	2.19	55.6	8.5	215.9	12.5	317.5	1.25	32	12	11/8"	7.5	190	7 1/4	185
8	200	18.5	470	2.5	63.5	10.62	268.7	15.5	393.7	1.5	38	12	1-3/8"	8.75	220	8 1/2	215
10	250	21.5	545	2.75	69.9	12.75	323.9	18.5	469.9	1.5	38	16	1-3/8"	9.25	235	9	230
12	300	24	610	3.12	79.4	15	381	21	533.4	1.5	38	20	1-3/8"	10	255	9 3/4	280
14	350	25.25	640	3.39	85.8	16.25	412.8	22	558.8	1.62	41	20	1-1/2"	10.75	275	10 1/2	265
16	400	27.25	705	3.5	88.9	18.5	469.9	24.25	616	1.75	45	20	15/8"	11.25	285		

## FLANGE SIZE

### Dimension

#### Class 1500.RF

Nominal Size		A		B		C		D		E		Bolt		F		G	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	No.	Diam	in	mm	in	mm
2	50	8.5	215	1.5	38.1	3.62	92.1	6.5	165.1	1	26	8	7/8"	5.75	145	5 1/2	140
2 1/2"	65	9.62	245	1.62	41.3	4.12	104.8	7.5	190.5	1.12	29	8	1	6.25	160	6	150
3	80	10.5	265	1.88	47.7	5	127	8	203.2	1.25	32	8	11/8"	7	180	6 3/4	170
4	100	12.25	310	2.12	54	6.19	157.2	9.5	241.3	1.38	35	8	11/4"	7.75	195	7 1/2	190
5	125	14.75	375	2.88	73.1	7.31	185.7	11.5	292.1	1.62	41	8	11/2"	9.75	250	9 1/2	240
6	150	15.5	395	3.25	82.8	8.5	215.9	12.5	317.5	1.5	38	12	13/8"	10.25	260	10	255
8	200	19	485	3.62	92.1	10.82	269.9	15.5	393.7	1.75	45	12	15/8"	11.5	290	11 1/4	285
10	250	23	585	4.25	108	12.75	323.8	19	482.6	2	51	12	17/8"	13.25	335	13	330
12	300	26.5	675	4.88	124	15	381	22.5	571.5	2.12	54	16	2	14.75	375	14 1/2	370
14	350	29.5	750	5.25	133.4	16.25	412.5	25	635	2.38	60.5	16	21/4"	16	405	15 3/4	400
16	400	32.5	825	5.75	145.1	18.5	469.9	27.75	704.8	2.62	66.5	16	21/2"	17.5	445	17 1/4	440
18	450	35	915	6.38	162.1	21	533.4	30.5	774.7	2.88	73	16	23/4"	19.5	495	19 1/4	490
20	500	38.75	985	7	177.8	23	584.2	32.75	831.8	3.12	79	16	3	21.25	540	21	535
24	600	46	1170	8	203.2	27.25	692.2	39	990.6	3.62	91.9	16	31/2"	24.25	615	24	610

#### Class 2500.RF

Nominal Size		A		B		C		D		E		Bolt		F		G	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	No.	Diam	in	mm	in	mm
2	50	9.25	235	2	50.9	3.62	92.1	6.75	171.4	1.12	29	8	7/8"	7	180	6 3/4	170
2 1/2"	65	10.5	265	2.25	57.2	4.12	104.8	7.75	196.8	1.25	32	8	1	7.75	101.5	7 1/2	190
3	80	12.0	305	2.62	66.7	5	127	9	228.6	1.38	35	8	11/4"	8.75	220	8 1/2	215
4	100	14	355	3	76.2	6.19	157.2	10.75	273	1.62	41	8	11/2"	10	255	9 3/4	250
5	125	16.5	420	3.62	92.1	7.31	185.7	12.75	323.8	1.88	48	8	13/4"	11.75	300	11 1/2	290
6	150	19	485	4.25	108	8.5	215.9	14.5	368.3	2.12	54	8	2	13.5	345	13 1/2	335
8	200	21.75	550	5	127	10.62	269.9	17.25	438.2	2.12	54	12	2	15	380	14 3/4	375
10	250	26.5	675	6.5	165.1	12.75	323.5	21.25	539.8	2.62	66.5	12	21/2"	19.25	490	19	485
12	300	30	760	7.25	184.2	15	381	24.38	619.1	2.88	73	12	23/4"	21.25	540	21	535

SEDELON reserves the right to change design, materials or specifications without notice and free of obligation to furnish or install such changes on products previously sold.