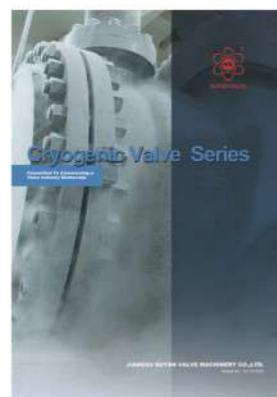
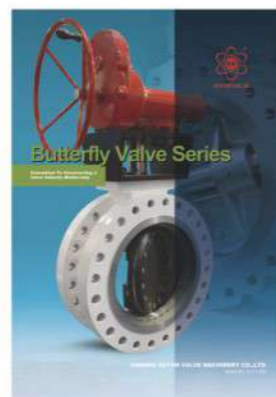


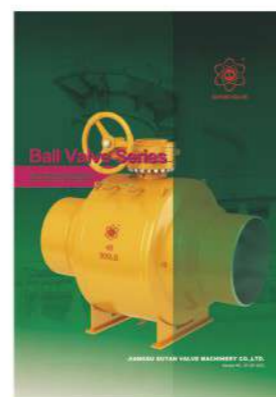
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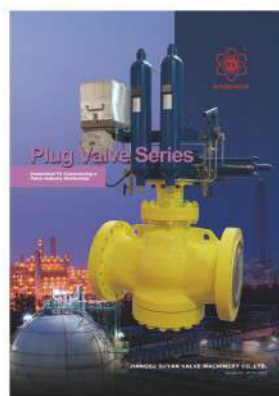
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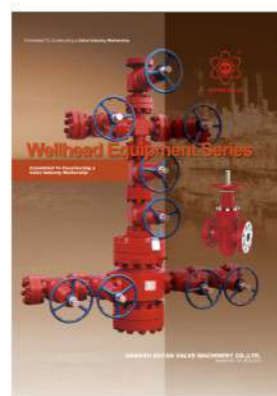
Sample NO: SY-BV-2022



Sample NO: SY-CF-2022



Sample NO: SY-PV-2022



Sample NO: SY-JKZZ-2016

JIANGSU SUYAN VALVE MACHINERY CO.,LTD.

ADD: No. 28, Century Avenue, North District, Binhai County Industrial Park,
Yancheng City, Jiangsu Province
TEL: 0515-84194555 FAX: 0515-84199808 E-mail: hai977@126.com

www.suyangroup.com

SUYAN VALVE



SUYAN VALVE

Ball Valve Series

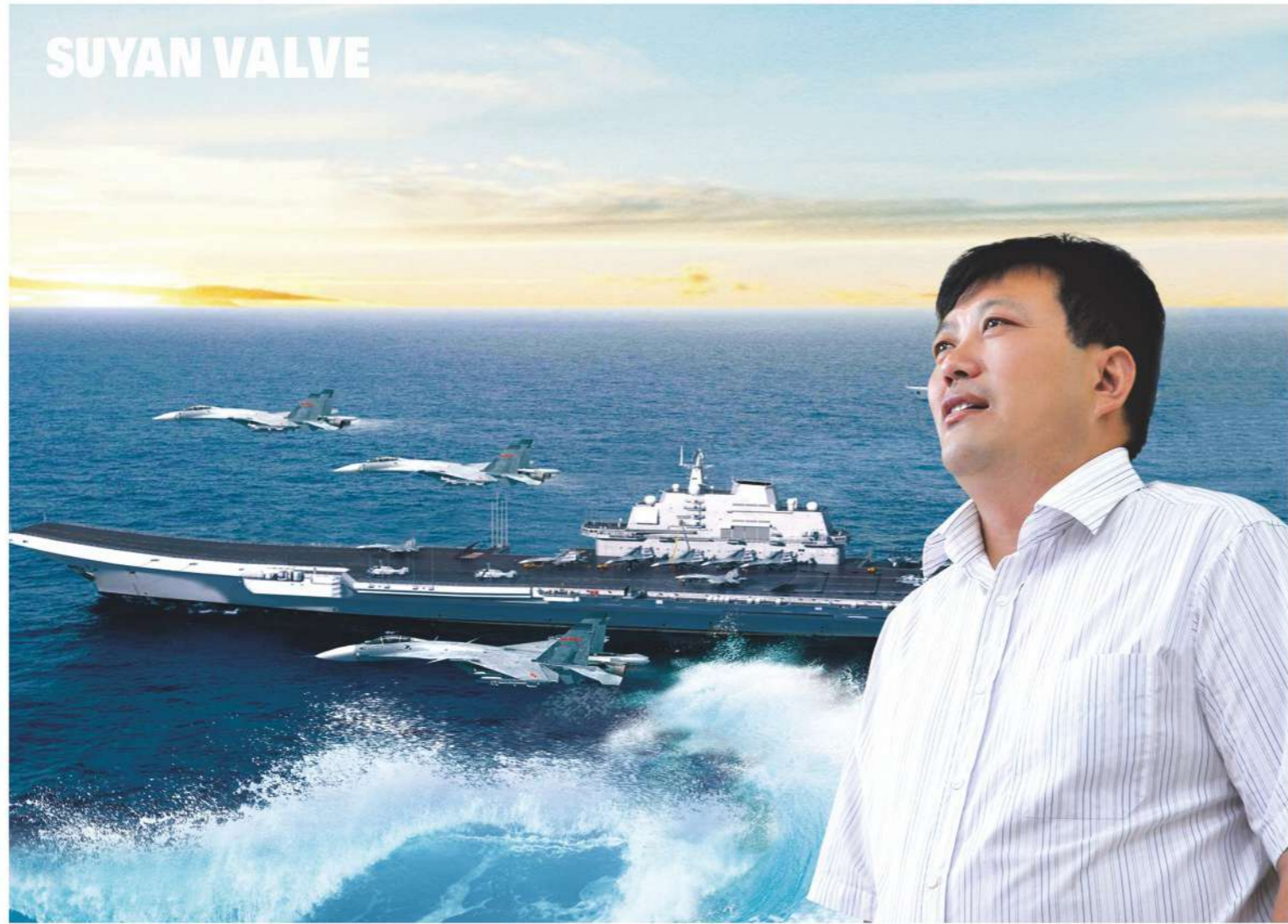
*Committed To Constructing a
Valve Industry Mothership*



BALL VALVE

JIANGSU SUYAN VALVE MACHINERY CO.,LTD.

Sample NO.: SY-QF-2022



Chairman: Mr. ZhengHai Han
 Delegates in Jiangsu Peoples Congress
 Party representative in Jiangsu Province
 Jiangsu Model Worker
 Vice-Chairman of China General Machinery Industry Association
 Executive Vice president of Jiangsu Valve Industry Association
 President of Yancheng Petroleum Machinery Industry Association
 Committee Member of National Valve Standardization Technical Committee

Comprehensive Fluid Control Solutions



DIRECTORY

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COMPANY PROFILE



SUYAN VALVE



The Registered Capital is 310 million RMB,
Total assets of 5 billion RMB,
Covering an area of 80 hectares,
The building area is 320,000 square meters,
Existing staff of 1300 people.



National high-tech enterprise, National special special new "little giant" enterprise
National Postdoctoral Research Station,
National intellectual property advantage enterprise
Provincial Enterprise Technology Center,
Provincial Engineering Research Center
Provincial Graduate Workstation
Jiangsu boutique enterprise
Qualified Supplier of CNNC

More than 1,000 sets of sophisticated manufacturing equipment
520 sets of testing equipment
Set up a national laboratory

Developed more than 300 new products
65 national invention patents
310 utility model patents
Participated in the drafting and revision of 43 standards

since 1991



The sales market covers China End Users PetroChina, Sinopec, CNOOC and global customers. Provide fast after-sales service, distributed all over the country and around the world.



Tel:400-633-5118

QUALITY ASSURANCE



Detection test project is complete

SUYAN sequent imported production line such as most advanced digital control workstation, touchable induction three-coordinate digital instrument (made in USA), portable spectrum analyzer, ultra-low temperature detecting system, vacuum & micro-leakage detecting system and NDT instrument including ultrasonic detector etc. the advanced equipment and professional QC inspector jointly guarantee the high quality of product.



CAST&FORGED WORKSHOP



As one of the pressure-bearing equipment for fluid control pipelines, the quality of valve body is the most important for the life and personnel environmental safety, especially in the conditions of high temperature and pressure. Therefore, valves are always critical. The customer needs to pre-quality the first certified material before approving the valve manufacturer as a cooperative supplier.



Casting production line

Coated sand production line



Tel:400-633-5118

DATA MANAGEMENT



Automatic
Production
Line



The advanced hard facilities ensure
SUYAN to be at best position during
market competition.

MES
Management
System



送审稿

Tel:400-633-5118



SUYAN is fitted with precise numerical control machine tools and processing center, advanced equipments testing instruments, superior technology, consummate quality control system, professional elite and outstanding scientific research team. We fully use wtechnology, new workmanship and new materials to ensure the dependability of products.

MACHINING CENTER



PRODUCTION EQUIPMENT



Fully CNC Automation

Fully CNC, automatic production process to bring high precision, high quality stable and reliable products High-tech equipment, professional team, to ensure excellent product quality



送审稿

Tel: 400-633-5118



Committed to providing customers with quality products and services

SUYAN refinement of the accuracy of the pursuit of production. Constantly improve the lean production mode, including every parts, are strictly according to standard meticulously, ensure that the products of high quality.



送审稿

Tel:400-633-5118

BALL VALVE



From the blank casting to the final product, it has advanced inspection means and testing equipment for quality control. All products are subject to accurate material analysis and dimensional inspection according to relevant standards, strict process inspection is carried out throughout the production process, each valve is manufactured according to customer requirements or international standards, and final inspection is conducted before shipment. We will strive to achieve high quality valves.



Adhere to excellence,
create excellent quality




送审稿

Tel:400-633-5118

VALUED CUSTOMERS






























 RESOURCES GAS	 TIANLI GAS	 PETROBRAS	 SINIPEC ENGINEERING
 WISON	 ENERGAS	 SHAANGU	 WISON
 XINHUA CHEMICAL	 FURUI SE	 CNMIC	 HGMRI
 TCC	 DATANG ENERGY	 CTCI	 سأبك سابك
 BAYER	 LIAHERD	 CNWG	 ZJ UNIVERSITY

We Have Provided Matching Service For Many National And Foreign Stress Projects



Quality engineering long-lasting quality

Under many years brand operating and aborative exercising, the strength and credit of company are increasing steadily, at present Su Yan has been China petrifaction group material equipment company; China petrol & natural gas group company; China Aluminum Group company and the pointing member unit of China Sea Petroleum, metallurgy and steel-making, electricity system. SuYan brand series valves are sold to such over 10 countries and areas, welcomed by vast customers.

 SINOPEC	 CNPC	 SNPTC	 CNOOC	 SINOCHEN	 CHEMCHINA	
 CSSC	 CGDC	 CRECG	 CHALCO	 CHINA XD	 SHENHUA GROUP	 CHINAGAS
 CMCC	 SINOPHARM	 BAOSTEEL	 BAOGANG GROUP	 ANGANG STEEL	 SHOUGANG STEEL	 BEIJING GAS
 BEIJING GAS	 XINAO GAS	 TOWNGAS	 GUANGZHOU GAS	 SHANGHAI GAS	 XINJIANG GAS	 SHENYANG GAS



FLOATING BALL VALVE

How to Order



SUYAN VALVE

Example:

1	FA	8	S	/	A105N	1N662
---	----	---	---	---	-------	-------

1
FA
8
S
/
A105N
1N662

VALVE SIZE

VALVE TYPE

Symbol	Valve Type	Symbol	Valve Type	Symbol	Valve Type
FA	1pcs Cast Steel Floating Ball Valve	FE	2pcs Forged Steel Floating Ball Valve	FW	Full Welding Forged Steel Floating Ball Valve
FC	2pcs Cast Steel Floating Ball Valve	FF	3pcs Forged Steel Floating Ball Valve		

VALVE CLASS

Class	150	300	600	800	900	1500	2500
Symbol	1	3	6	8	9	15	25

END CONNECTION

End Connection	Socket Welding End	NPT Screwed End	Butt Welding End	Screwed x Socket	Raised Flange	RTJ Flange	Flat Face Flanged End	Taper Screwed End (55°)
Symbol	S	N	B	SN	R	J	F	NB

OPERATOR

Symbol	Description	Symbol	Description	Symbol	Description	Symbol	Description
/	Lever	M	Electric actuator	BS	Bare shaft	L	Gas over oil actuator
G	Gear operator	P	Pneumatic actuator	H	Hydraulic actuator		

BODY MATERIALS

Body Materials	A105N	LF2	F316	F304	F316L	F304L	ALLOY20	F51
ASTM Ref.	A105N	A350 LF2	A182 F316	A182 F304	A182 F316L	A182 F304L	ALLOY20	A182 F51
Body Materials	WCB	LCB	CF8M	CF8	CF3M	CF3	CN7M	4A
ASTM Ref.	A216 WCB	A352 LCB	A351 CF8M	A351 CF8	A351 CF3M	A351 CF3	A351 CN7M	A890 4A

TRIM MATERIALS

Seat Insert		"O" Ring		Stem		Ball		Packing	
Symbol	Material	Symbol	Material	Symbol	Material	Symbol	Material	Symbol	Material
1	PTFE	1	NBR	1	A105N+ENP	1	A105N+ENP	1	PTFE
2	RPTFE (15% Glass)	2	VITON A	2	LF2+ENP	2	LF2+ENP	2	Graphite
3	RPTFE (25% Carbon)	3	VITON AED	3	F6a	3	F6a		
4	NYLON PA12	4	VITON B	4	17-4PH	4	17-4PH		
5	NYLON 1010	5	HNBR	5	F304	5	F304		
6	DEVLON 5	6	EPDM	6	F304L	6	F304L		
7	DELTRIN	7	PTFE Coated VITON	7	F316	7	F316		
8	PEEK	8	VITON GLT	8	F316L	8	F316L		
9	VITON	N	/	9	F51	9	F51		

Note: Other materials are available upon request.

FLOATING BALL VALVE

Design Features



SUYAN VALVE

Blow-out Proof Stem

Stem is designed with collar, which will prevent stem from being blow out, when medium passes through the valve or the valve is disassembled to repair. (Fig.1)

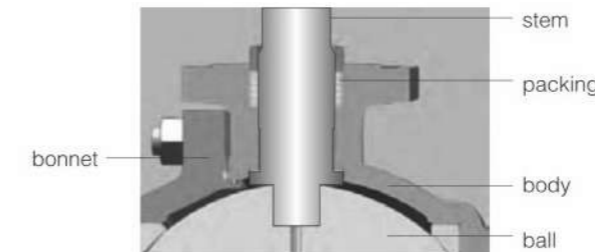


Fig.1

Anti-static Device

When open and close the valve, the friction between the ball and the non-metal seat will generate static charges. To avoid static spark, an antistatic device is designed on the valve to derive the accumulated static from the ball. (Fig.2)

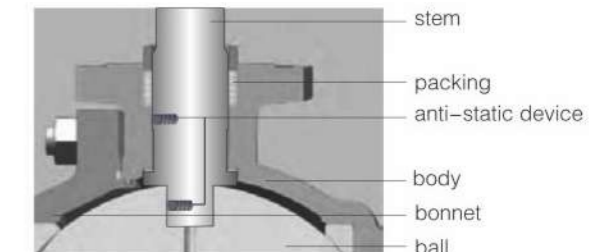
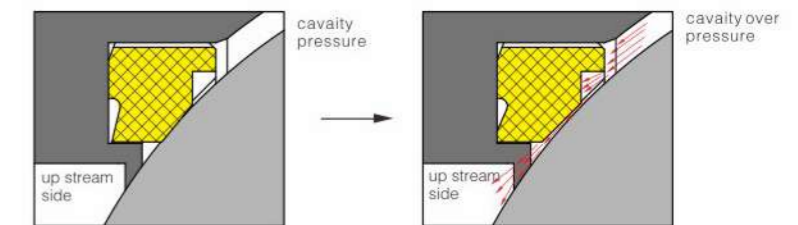


Fig.2

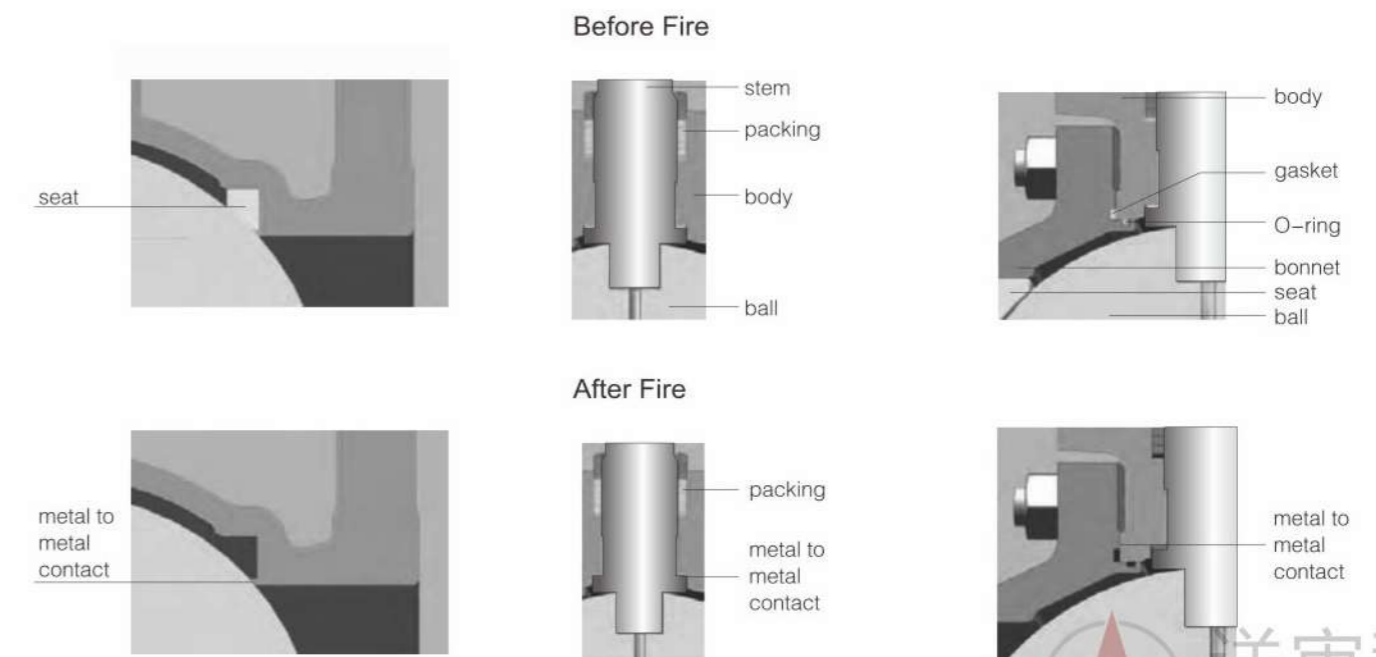
Over Pressure Self Relieving Seat Design

Under close position, when the cavity pressure increased abnormally, the cavity medium will elastic squeeze-out through the up stream side seat ring. And it will prevent cavity pressure over exceeding.

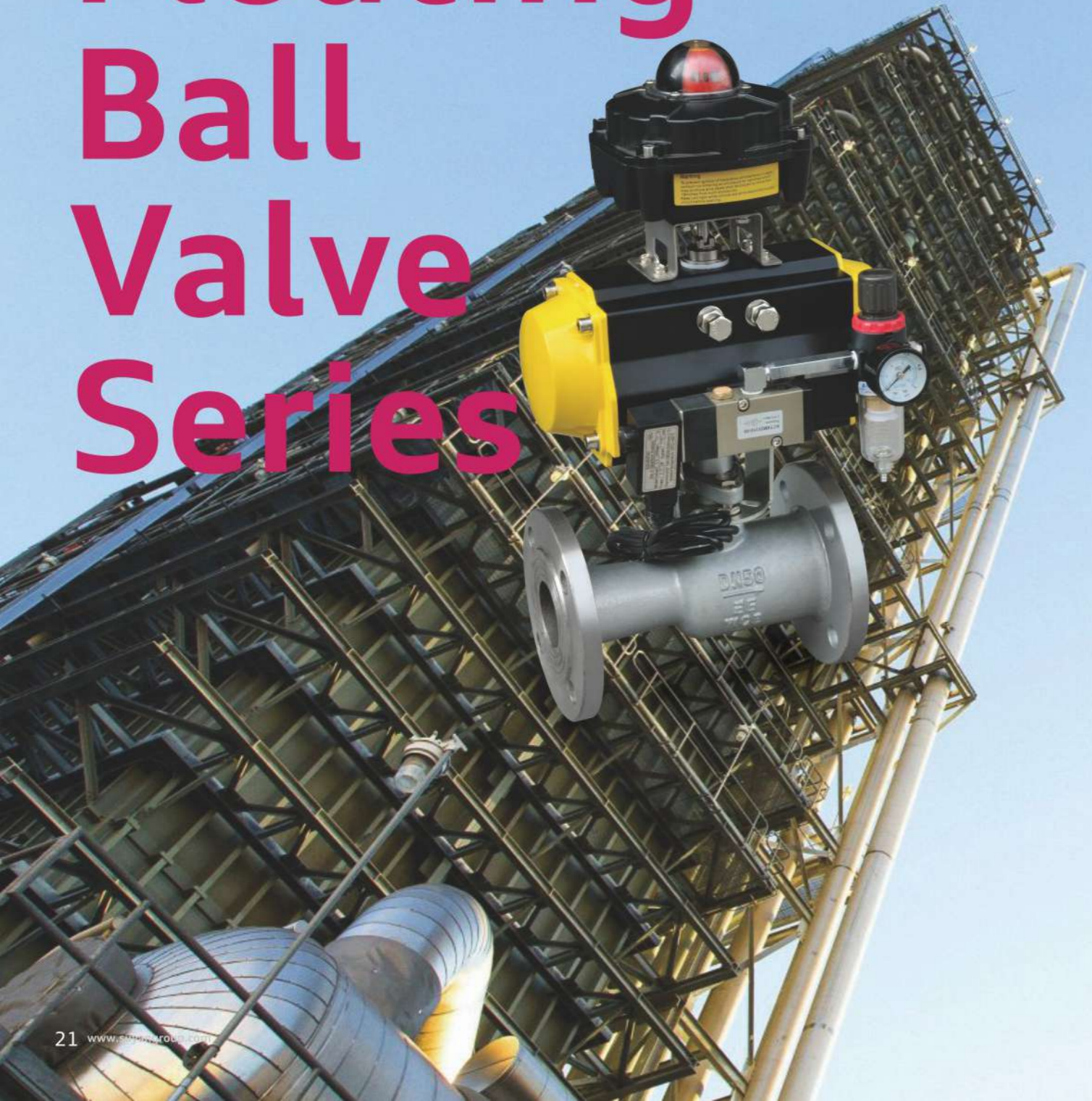


Fire Safe Design

The seat, stem and body joint of ball valve are with fire safe design. When non-metal materials such as O-rings, soft seats etc. And decomposed or deteriorated by fire, ball valve changes to metal to metal auxiliary seal structure, which will prevent/control effectively internal leakage or external leakage.



Cast steel Floating Ball Valve Series



SUYAN CAST STEEL FLOATING BALL VALVE HAS TWO TYPE DESIGNS.

including:

FA Series -1PC
150lb: 1/2" -10"

FC Series -2PCS
150lb: 1/2" -10"
300lb: 1/2" -10"

 送审稿

FA Series 1PCS

Design Features

- Designed all to API 6D etc.
- Secure Line Flow Locking Device Blow-out Proof Stem
- Fire Sate Design
- Anti-Static Design
- Low Emission Design
- Over Pressure Self Relieving Seat Design
- ISO5211 Mount Pad
- Flanges(RF/RTJ) according to ASME B16.5

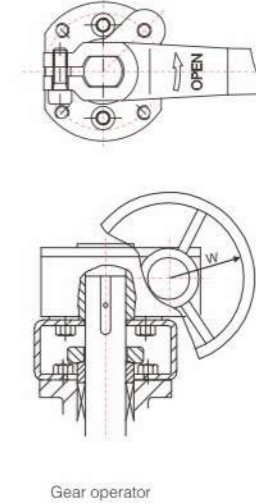
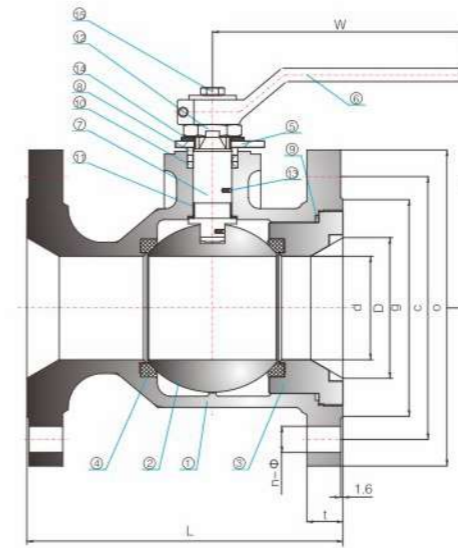


NO.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
2	Ball	ASTM A105+ENP	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
3	Bonnet	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
4	Seat Ring	PTFE	PTFE	PTFE	PTFE
5	Gland Flange	ASTM A216 WCB	ASTM A351 CF8	ASTM A352-LCB	ASTM A216 WCB
6	Lever	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
7	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
8	Gland	ASTM A276 420	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
9	Gasket	SPW.304SS+Graphite	SPW.316SS+Graphite	SPW.316SS+Graphite	SPW.304SS+Graphite
10	Packing Set	Graphite	Graphite	Graphite	Graphite
11	Thrust Washer	PTFE	PTFE	PTFE	PTFE
12	Retaining Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 7M	ASTM A194 2HM
13	Anti-Static Device	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
14	Stop Plate	Carbon Steel	Stainless Steel	Carbon Steel	Carbon Steel
15	Bolt	Carbon Steel	Stainless Steel	Stainless Steel	Stainless Steel

FLOATING BALL VALVE

FA Series-1PC

150LB 300LB RF Ends



150LB Dimension and Weight

Size		d		g		c		o		t		n-Φ		H		L		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	0.37	9.5	1.38	35	2.37	60.3	3.50	89	0.38	9.6	0.16-0.63	4-16	3.58	91	4.25	108	6.30	160	3.53	2
3/4"	20	0.59	15	1.69	43	2.76	70	3.88	98.5	0.41	10.5	0.16-0.63	4-16	3.86	98	4.61	117	6.30	160	4.63	2
1"	25	0.79	20	2.00	50.8	3.13	79.4	4.25	108	0.44	11.2	0.16-0.63	4-16	3.98	101	5.00	127	6.30	160	5.95	3
1 1/2"	40	1.26	32	2.87	73	3.87	98.4	5.00	127	0.56	14.3	0.16-0.63	4-16	4.61	117	6.50	165	8.27	210	11.24	5
2"	50	1.57	40	3.62	92	4.75	120.7	5.98	152	0.63	15.9	0.16-0.75	4-19	5.28	134	7.01	178	9.84	250	17.42	8
3"	80	2.28	58	5.00	127	6.00	152.4	7.48	190	0.75	19.1	0.16-0.75	4-19	5.87	149	7.99	203	13.78	350	31.53	14
4"	100	3.15	80	6.18	157	7.50	190.5	9.02	229	0.94	24	0.31-0.75	8-19	7.44	189	9.02	229	17.72	450	57.10	26
6"	150	4.37	111	8.50	216	9.50	241.3	10.98	279	1.00	25.4	0.31-0.87	8-22	8.94	227	10.51	267	15.75	*400	96.56	44
8"	200	5.67	144	10.63	270	11.75	298.5	13.58	345	1.13	28.6	0.31-0.87	8-22	10.39	264	11.50	292	19.69	*500	169.76	77
10"	250	10	254	12.75	323.9	14.25	362	16.19	406.4	1.19	30.2	0.47-1	12-25	15.55	395	12.99	330	19.69	*500	440.93	200

300LB Dimension and Weight

Size		d		g		c		o		t		n-Φ		H		L		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	0.37	9.5	1.38	35	2.63	66.7	3.74	95	0.56	14.3	0.16-0.63	4-16	3.58	91	5.51	140	6.30	160	3.53	2
3/4"	20	0.59	15	1.69	43	3.25	82.6	4.63	117.5	0.63	15.9	0.16-0.75	4-19	3.86	98	5.98	152	6.30	160	4.63	2
1"	25	0.79	20	2.00	50.8	3.50	88.9	4.88	124	0.69	17.5	0.16-0.75	4-19	3.98	101	6.50	165	6.30	160	9.04	4
1 1/2"	40	1.26	32	2.87	73	4.50	114.3	6.12	155.5	0.81	20.7	0.16-0.87	4-22	4.61	117	7.48	190	8.27	210	18.08	8
2"	50	1.57	40	3.62	92	5.00	127	6.50	165	0.88	22.3	0.31-0.75	8-19	5.28	134	8.50	216	9.84	250	24.25	11
3"	80	2.28	58	5.00	127	6.63	168.3	8.27	210	1.13	28.6	0.31-0.87	8-22	5.87	149	11.14	283	13.78	350	47.40	22
4"	100	3.15	80	6.18	157	7.87	200	10.00	254	1.25	31.8	0.31-0.87	8-22	7.44	189	12.01	305	17.72	450	63.93	29
6"	150	4.37	111	8.50	216	10.63	270	12.52	318	1.44	36.6	0.47-0.87	12-22	8.94	227	15.87	403	15.75	*400	154.32	70
8"	200	5.67	144	10.63	270	13.00	330.2	15.00	381	1.63	41.3	0.47-1	12-25	10.39	264	16.50	419	19.69	*500	243.61	111
10"	250	10	254	12.75	323.9	15.25	387.4	17.50	444.5	1.88	47.8	0.63-1.13	16-28.6	15.55	395	17.99	457	23.62	*600	617.30	280

* Gear operator





FC Series 2PCS



Design Features

- Designed all to API 6D, API 608 etc.
- Secure Line Flow Locking Device
- Blow-out Proof Stem
- Fire Safe Design
- Anti-Static Design
- Low Emission Design
- Over Pressure Self Relieving Seat Design
- ISO5211 Mount Pad
- Flanges(RF/RTJ) according to ASME B16.5

NO.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	ASTM A216-WCB	ASTM A351-CF8M	ASTM A352-LCB	ASTM A216-WCB
2	Ball	ASTM A105+ENP	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
3	Bonnet	ASTM A216-WCB	ASTM A351-CF8M	ASTM A352-LCB	ASTM A216-WCB
4	Seat Ring	PTFE	PTFE	PTFE	PTFE
5	Gland Flange	ASTM A216-WCB	ASTM A351-CF8	ASTM A352-LCB	ASTM A216-WCB
6	Lever	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
7	Stem	ASTM A182-F6a	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
8	Gland	ASTM A276-420	ASTM A182-F316	ASTM A182-F316	ASTM A182-F316
9	Gasket	SPW.304SS+Graphite	SPW.316SS+Graphite	SPW.316SS+Graphite	SPW.304SS+Graphite
10	Packing Set	Graphite	Graphite	Graphite	Graphite
11	Bearing	PTFE	PTFE	PTFE	PTFE
12	Stud	ASTM A193-B7	ASTM A193-B8	ASTM A320-L7M	ASTM A193-B7M
13	Nut	ASTM A194-2H	ASTM A193-8	ASTM A194-7M	ASTM A194-2HM
14	Bolt	ASTM A193-B7	ASTM A193-B8	ASTM A320-L7M	ASTM A193-B7M
15	Anti-Static Device	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
16	Stop Plate	Carbon Steel	Stainless Steel	Carbon Steel	Carbon Steel
17	Retainer	Carbon Steel	Stainless Steel	Stainless Steel	Stainless Steel

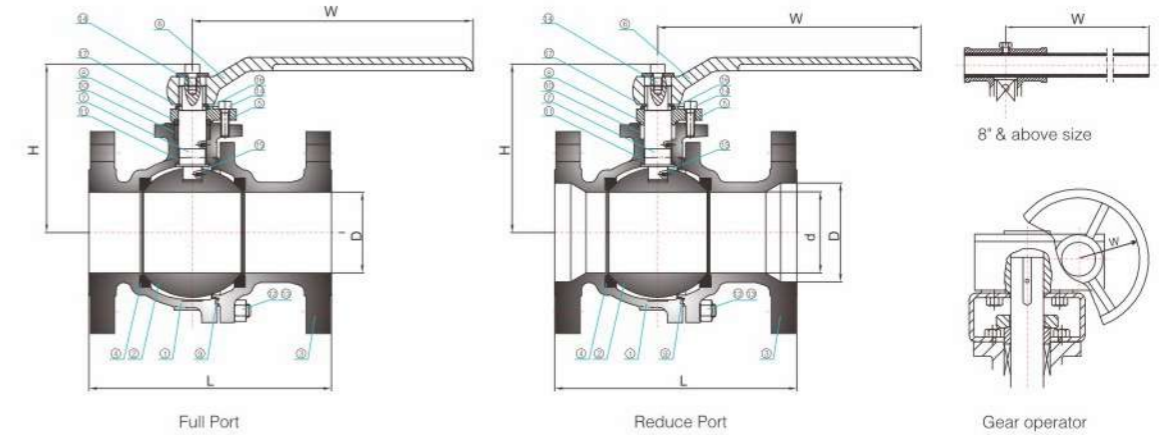
FLOATING BALL VALVE

FC Series-2PCS



SUYAN VALVE

150LB 300LB RF Ends



150LB Dimension and Weight

Full Port

Size		d		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	/	/	0.50	13	4.25	108	3.27	80	5.91	150	5.60	2.5
3/4"	20	/	/	0.75	19	4.61	117	3.67	90	5.91	150	6.70	3
1"	25	/	/	1.00	25	5.00	127	4.29	105	7.09	180	10.00	4.5
1-1/2"	40	/	/	1.50	38	6.50	165	5.71	140	11.02	280	15.60	7
2"	50	/	/	2.00	51	7.01	178	6.12	150	11.02	280	21.10	9.5
2-1/2"	65	/	/	2.50	64	7.48	190	6.20	152	15.75	400	33.30	15
3"	80	/	/	3.00	76	7.99	203	7.55	185	15.75	400	42.20	19
4"	100	/	/	4.00	102	9.02	229	10.82	265	25.59	650	66.70	30
5"	125	/	/	5.00	127	14.02	356	11.22	275	41.34	1050	123.90	58
6"	150	/	/	6.00	152	15.50	394	14.49	355	15.75	*400	166.70	90
8"	200	/	/	7.99	203	17.99	457	18.61	456	19.69	*500	288.70	160
10"	250	/	/	10.00	254	20.98	533	20.82	510	23.62	*600	533.30	280

Reduced Port

Size		d		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2*1-1/2"	50*40	1.5	38	2.00	51	7.01	178	6.12	150	11.20	280	18.90	8.5
3*2"	80*50	2	51	3.00	76	7.99	203	7.55	185	11.20	280	37.80	17
4*3"	100*80	3	76	4.00	102	9.02	229	10.82	265	15.75	400	57.80	26
6*4"	150*100	4	102	6.00	152	15.51	394	14.49	355	25.59	650	144.40	65
8*6"	200*150	6	152	8.00	203	17.99	457	18.61	456	41.34	1050	257.70	116
10*8"	250*200	8	203	10.00	254	20.98	533	20.82	510	15.75	*400	484.40	218

300LB Dimension and Weight

Full Port

Size		d		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	/	/	0.50	13	5.51	140	3.11	79	5.91	150	7.78	3.5
3/4"	20	/	/	0.75	19	5.98	152	3.78	96	7.35	180	8.89	4
1"	25	/	/	1.00	25	6.50	165	3.78	96	9.39	230	12.22	5.5
1-1/2"	40	/	/	1.50	38	7.48	190	4.72	120	12.24	300	14.95	11
2"	50	/	/	2.00	51	8.50	216	5.79	147	12.24	300	28.89	13
2-1/2"	65	/	/	2.50	64	9.49	241	6.22	158	15.75	400	46.67	21
3"	80	/	/	3.00	76	11.14	283	6.69	170	15.75	400	66.67	30
4"	100	/	/	4.00	102	12.01	305	8.27	210	25.59	650	100.00	45
5"	125	/	/	5.00	127	15.00	381	9.92	252	41.34	1050	144.43	75
6"	150	/	/	6.00	152	15.87	403	9.92	272	41.34	1050	211.09	105
8"	200	/	/	8.00	203	19.76	502	13.46	342	19.69	*500	333.33	200
10"	250	/	/	10.00	254	22.36	568	17.32	440	19.69	*500	716.49	325

Reduced Port

Size		d		D		L		H		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2*1-1/2"	50*40	1.5	38	2.00	51	8.50	216	4.72	120	11.20	280	26.66	12
3*2"	80*50	2.5	64	3.00	76	11.14	283	5.79	147	15.75	400	53.33	24
4*3"	100*80	3	76	4.00	102	12.01	305	6.69	170	25.59	650	91.10	41
6*4"	150*100	4	102	6.00	152	15.87	403	8.27	210	41.34	1050	188.87	85
8*6"	200*150	6	152	8.00	203	19.76	502	10.71	272	15.75	*400	302.19	136
10*8"	250*200	8	203	10.00	254	22.36	568	13.46	342	19.69	*500	551.06	290

* Gear operator





SUYAN VALVE

SUYAN GROUP

Forged steel Floating Ball Valve Series



Designed all to API6D, ISO17292, BS5351, ASME B16.34 etc.
Fire safe design certification by: API6FA, API 607.
Can meet NACE MR 01-75 MR 01-03 specification requirements.
The applied temperature range: soft seated -46°C-200°C
metal seated up to 450°C

FE Series-2PCS

FF Series-3PCS

- 150Lb:1/2"-12"
- 300Lb:1/2"-12"
- 600Lb:1/2"-6"
- 900Lb:1/2"-4"
- 1500Lb:1/2"-3"
- 2500Lb: 1/2" -1"

- 800Lb:1/2"-2"
- 900Lb:1/2"-2"
- 1500Lb:1/2"-2"
- 2500Lb:1/2"-2"



送审稿

Tel:400-633-5118

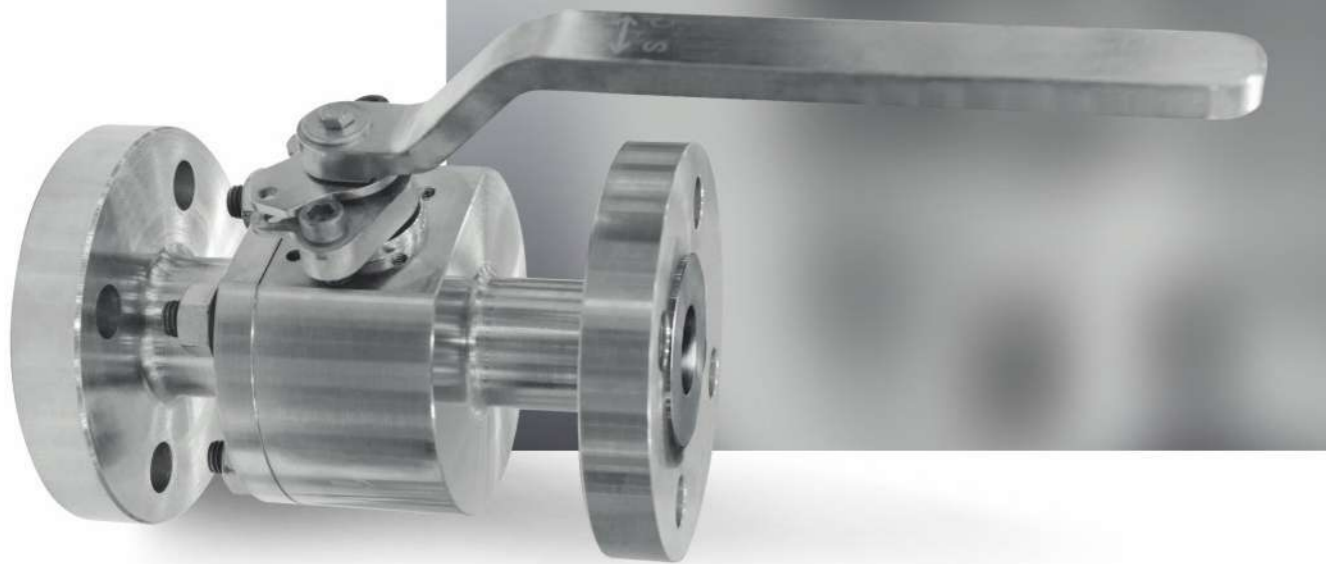
FE Series 2PCS

Design Features

- Full port or reduced port
- Fire safe tested design
- Anti-static design
- Anti blow out stem

Over Pressure Self Relieving Seat Design
ISO5211 Mount Pad

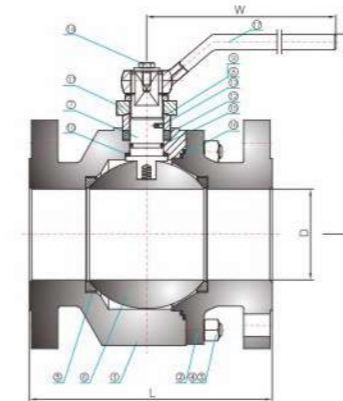
Flanges(RF/RTJ) according to ASME B16.5
BW ends to ASME B16.25



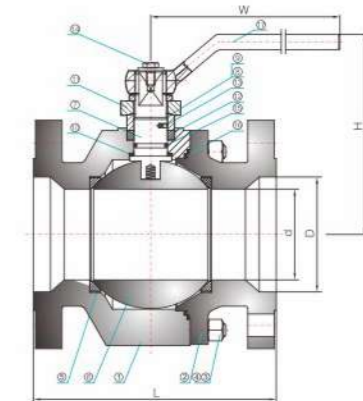
FLOATING BALL VALVE

FE Series-2PCS

150LB



Full Port



Reduced Port

Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182F316(L)	A182 F6a	F316
7	Stem	F316	A182F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182F316(L)	A182 F6a	A276 410
14	Screwed	CS	SS	CS	CS
15	*O* Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	D		L		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2'	0.50	13	4.25	108	3.15	80	5.91	150	5.52	3
3/4'	0.75	19	4.61	117	3.54	90	7.09	180	9.49	4
1'	1.00	25	5.00	127	4.13	105	9.06	230	15.23	7
1 1/2'	1.50	38	6.50	165	5.51	140	11.81	300	28.02	13
2'	2.01	51	7.01	178	5.91	150	11.81	300	35.30	16
3'	2.99	76	7.99	203	6.30	160	15.75	400	50.31	23
4'	4.02	102	9.02	229	6.93	176	25.59	650	79.44	36
6'	5.98	152	10.51	267	9.25	235	15.75	*400	238.31	108
8'	7.99	203	11.50	292	12.40	315	19.69	*500	423.65	192
10'	10.00	254	12.99	330	17.95	456	23.62	*600	741.39	336

Reduced Port

Size	d		D		L		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4"1/2'	0.50	13	0.75	19	4.61	117	3.15	80	5.91	150	9.01	4
1"3/4'	0.75	19	1.00	25	5.00	127	3.54	90	7.09	180	14.46	7
1 1/2"1'	1.00	25	1.50	38	6.50	165	4.13	105	9.06	230	26.62	12
2"1 1/2'	1.50	38	2.01	51	7.01	178	5.51	140	11.81	300	33.54	15
3"2'	2.01	51	2.99	76	7.99	203	5.91	150	11.81	300	47.79	22
4"3'	2.99	76	4.02	102	9.02	229	6.30	160	15.75	400	75.46	34
6"4'	4.02	102	5.98	152	10.51	267	6.93	176	25.59	650	226.39	103
8"6'	5.98	152	7.99	203	11.50	292	9.25	235	15.75	*400	402.47	182
10"8'	7.99	203	10.00	254	12.99	330	12.40	315	19.69	*500	704.32	319
12"10'	10.00	254	11.93	303	14.02	356	17.95	456	23.62	*600	763.46	346

* Gear operator

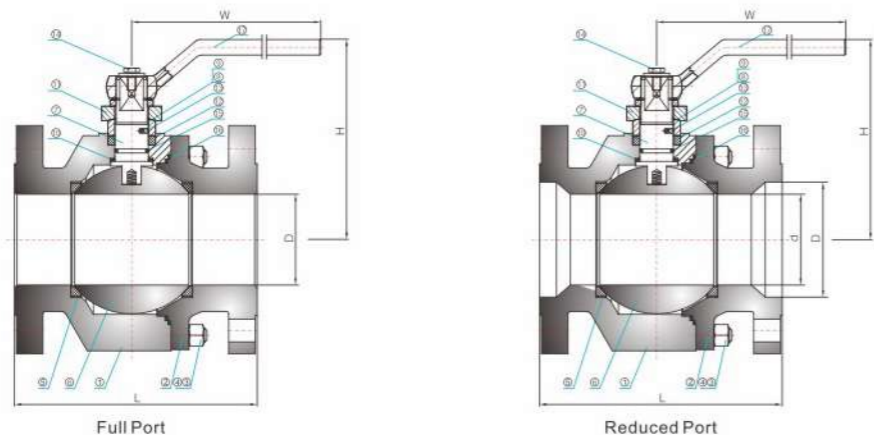
FLOATING BALL VALVE

FESeries-2PCS



SUYAN VALVE

300LB



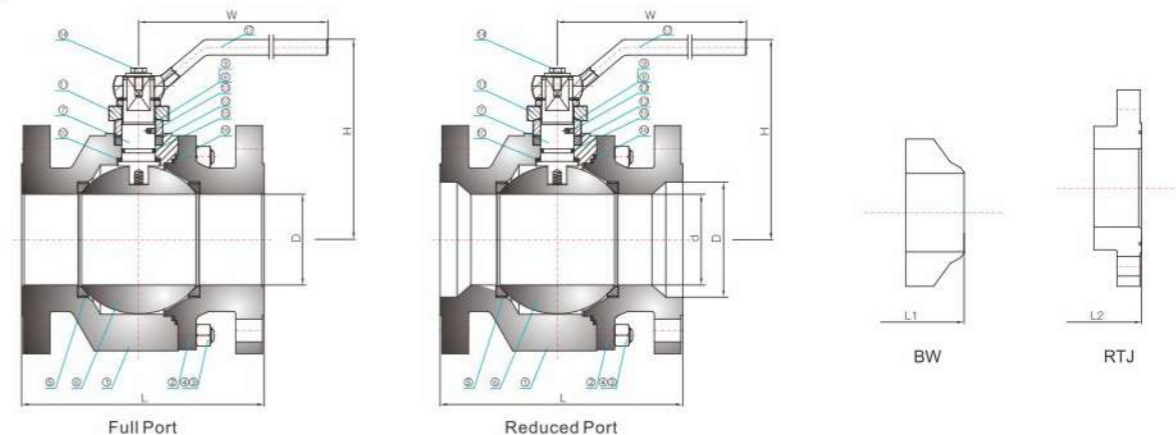
FLOATING BALL VALVE

FE Series-2PCS



SUYAN VALVE

600LB



Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182 F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182 F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182 F316(L)	A182 F6a	F316
7	Stem	F316	A182 F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182 F316(L)	A182 F6a	A276 410
14	Screwed	CS	SS	CS	CS
15	"O" Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	D		L		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	0.50	13	5.51	140	3.15	80	5.91	150	5.52	3
3/4"	0.75	19	5.98	152	3.54	90	7.09	180	9.49	4
1"	1.00	25	6.50	165	4.13	105	9.06	230	15.23	7
1 1/2"	1.50	38	7.48	190	5.51	140	11.81	300	28.02	13
2"	2.01	51	8.50	216	5.91	150	11.81	300	35.30	16
3"	2.99	76	11.10	282	6.69	170	15.75	400	79.44	36
4"	4.02	102	12.01	305	8.27	210	25.59	650	119.15	54
6"	5.98	152	15.87	403	10.71	272	15.75	*400	278.02	126
8"	7.99	203	16.50	419	13.46	342	19.69	*500	529.57	240
10"	10.00	254	22.36	568	17.32	440	23.62	*600	772.29	350

Reduced Port

Size	d		D		L		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4" x 1/2"	0.50	13	0.75	19	5.51	140	3.15	80	5.91	150	9.01	4
1" x 3/4"	0.75	19	1.00	25	5.98	152	3.54	90	7.09	180	14.46	7
1 1/2" x 1"	1.00	25	1.50	38	6.50	165	4.13	105	9.06	230	26.62	12
2" x 1 1/2"	1.50	38	2.01	51	7.48	190	5.51	140	11.81	300	33.54	15
3" x 2"	2.01	51	2.99	76	8.50	216	5.91	150	11.81	300	75.46	34
4" x 3"	2.99	76	4.02	102	11.10	282	6.69	170	15.75	400	113.20	51
6" x 4"	4.02	102	5.98	152	12.01	305	8.27	210	25.59	650	264.12	120
8" x 6"	5.98	152	7.99	203	15.87	403	10.71	272	15.75	*400	503.09	228
10" x 8"	7.99	203	10.00	254	16.50	419	13.46	342	19.69	*500	733.67	333
12" x 10"	10.00	254	11.93	303	25.51	648	17.32	440	19.69	*500	964.25	437

* Gear operator

Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182 F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182 F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182 F316(L)	A182 F6a	F316
7	Stem	F316	A182 F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182 F316(L)	A182 F6a	A276 410
14	Screwed	CS	SS	CS	CS
15	"O" Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	0.50	13	6.50	165	6.42	163	3.15	80	5.91	150	5.52	3
3/4"	0.75	19	7.48	190	7.48	190	3.54	90	7.09	180	9.49	4
1"	1.00	25	8.50	216	8.50	216	4.13	105	9.06	230	15.23	7
1 1/2"	1.50	38	9.49	241	9.49	241	5.51	140	11.81	300	28.02	13
2"	2.01	51	11.50	292	11.61	295	5.91	150	11.81	300	35.30	16
3"	2.99	76	14.02	356	14.13	359	8.27	210	27.56	700	112.53	51
4"	4.02	102	17.01	432	17.13	435	9.33	237	41.34	1050	220.65	100

Reduced Port

Size	d		D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4" x 1/2"	0.50	13	0.75	19	7.48	190	7.48	190	3.15	80	5.91	150	9.01	4
1" x 3/4"	0.75	19	1.00	25	8.50	216	8.50	216	3.54	90	7.09	180	14.46	7
1 1/2" x 1"	1.00	25	1.50	38	9.49	241	9.49	241	4.13	105	9.06	230	26.62	12
2" x 1 1/2"	1.50	38	2.01	51	11.50	292	11.61	295	5.51	140	11.81	300	33.54	15
3" x 2"	2.01	51	2.99	76	14.02	356	14.13	359	5.91	150	11.81	300	106.91	48
4" x 3"	2.99	76	4.02	102	17.01	432	17.13	435	8.27	210	27.56	700	154.46	70
6" x 4"	4.02	102	5.91	150	22.01	559	22.13	562	9.33	237	41.34	1050	264.78	120



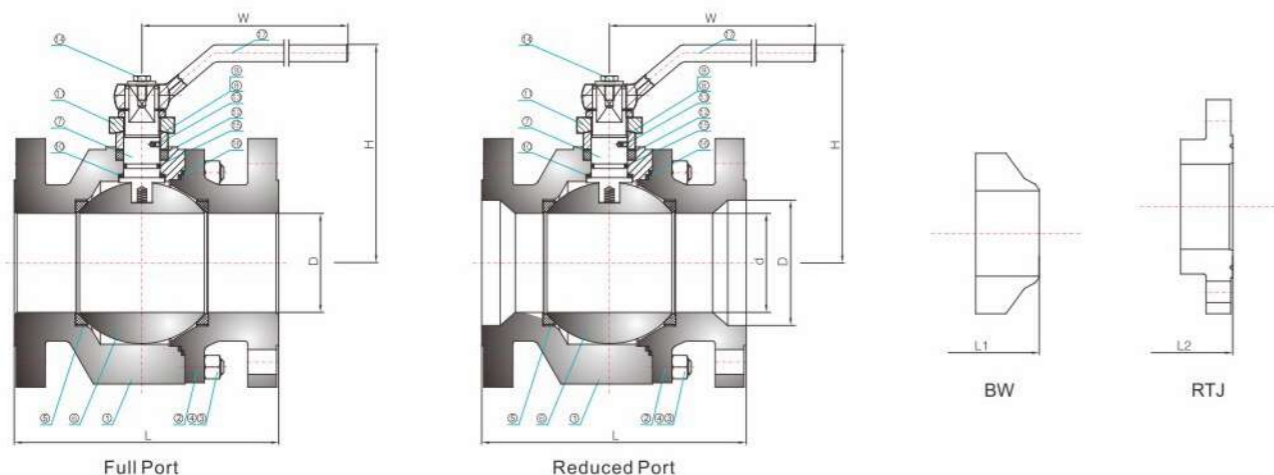
FLOATING BALL VALVE

FE Series-2PCS



SUYAN VALVE

900LB



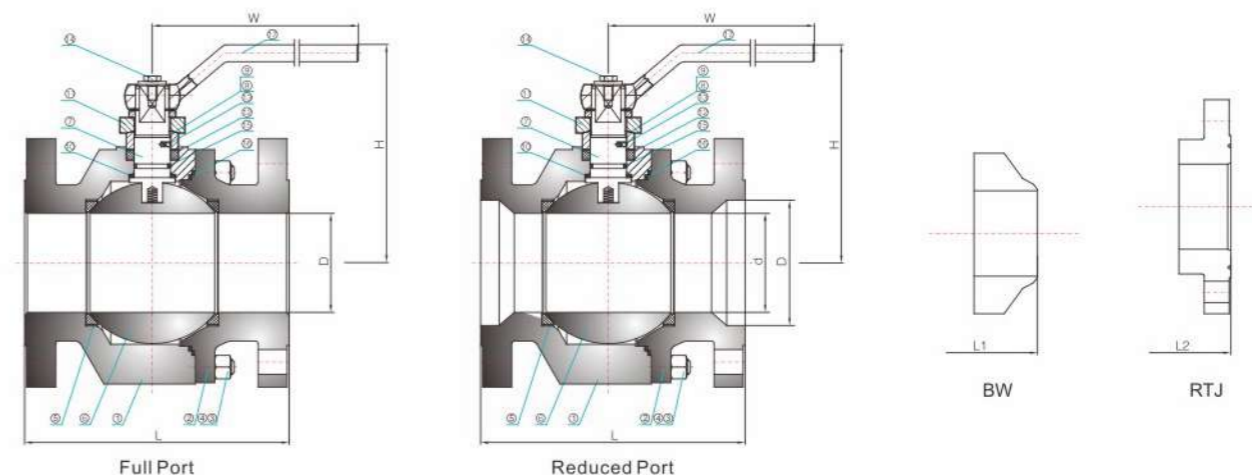
FLOATING BALL VALVE

FE Series-2PCS



SUYAN VALVE

1500LB



Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182 F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182 F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182 F316(L)	A182 F6a	F316
7	Stem	F316	A182 F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182 F316(L)	A182 F6a	A276 410
14	Screwed	CS	SS	CS	CS
15	*O* Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	0.50	13	8.50	216	8.50	216	2.95	75	5.91	150	6.40	3
3/4"	0.75	19	9.02	229	9.02	229	3.54	90	7.09	180	11.03	5
1"	1.00	25	10.00	254	10.00	254	3.94	100	9.06	230	18.09	8
1 1/2"	1.50	38	12.01	305	12.01	305	5.31	135	11.81	300	33.32	15
2"	2.01	51	14.49	368	14.61	371	5.71	145	11.81	300	42.14	19
3"	2.99	76	15.00	381	15.12	384	9.80	249	31.50	800	141.22	64

Reduced Port

Size	d		D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4**1/2"	0.50	13	0.75	19	9.02	229	9.02	229	2.95	75	5.91	150	10.48	5
1**3/4"	0.75	19	1.00	25	10.00	254	10.00	254	3.54	90	7.09	180	17.19	8
1 1/2**1"	1.00	25	1.50	38	12.01	305	12.01	305	3.94	100	9.06	230	31.65	14
2**1 1/2"	1.50	38	2.01	51	14.49	368	14.61	371	5.31	135	11.81	300	40.04	18
3**2"	2.01	51	2.99	76	15.00	381	15.12	384	5.71	145	11.81	300	134.16	61
4**3"	2.99	76	4.02	102	17.99	457	18.11	460	9.80	249	31.50	800	194.17	88

Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182 F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182 F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182 F316(L)	A182 F6a	F316
7	Stem	F316	A182 F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182 F316(L)	A182 F6a	A276 410
14	Screwed	CS	SS	CS	CS
15	*O* Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	0.50	13	8.50	216	8.50	216	2.95	75	5.91	150	15.00	7
3/4"	0.75	19	9.02	229	9.02	229	3.54	90	7.09	180	24.27	11
1"	1.00	25	10.00	254	10.00	254	3.94	100	9.06	230	35.30	16
1 1/2"	1.50	38	12.01	305	12.01	305	5.31	135	11.81	300	71.93	33
2"	2.01	51	14.49	368	14.61	371	5.71	145	14.57	370	141.22	64

Reduced Port

Size	d		D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4**1/2"	0.50	13	0.75	19	9.02	229	9.02	229	2.95	75	5.91	150	22.07	10
1**3/4"	0.75	19	1.00	25	10.00	254	10.00	254	3.54	90	7.09	180	33.10	15
1 1/2**1"	1.00	25	1.50	38	12.01	305	12.01	305	3.94	100	9.06	230	61.78	28
2**1 1/2"	1.50	38	2.01	51	14.49	368	14.61	371	5.31	135	11.81	300	90.47	41
3**2"	2.01	51	2.99	76	18.50	470	18.62	473	5.71	145	14.57	370	187.56	85



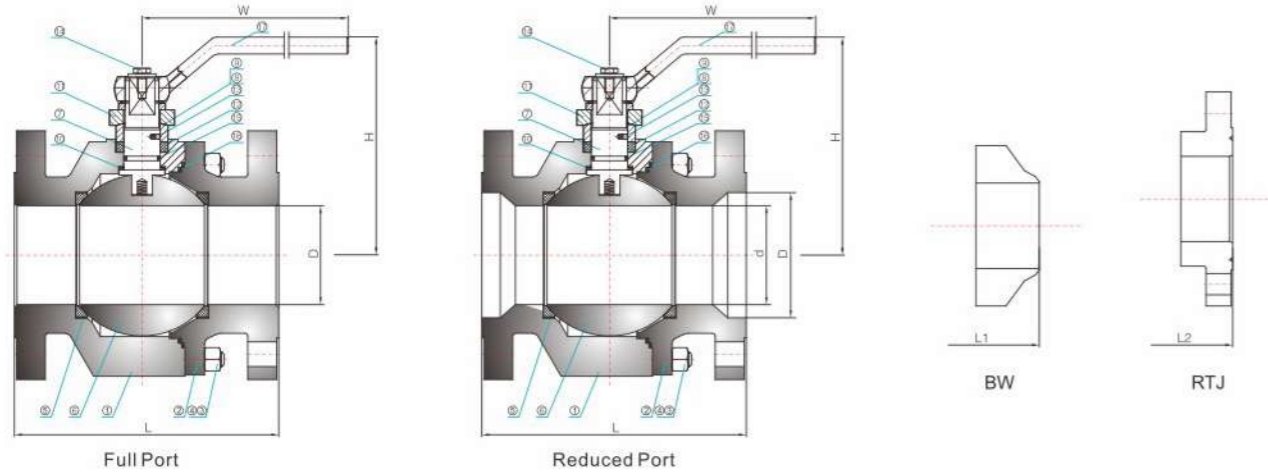
FLOATING BALL VALVE

FESeries-2PCS



SUYAN VALVE

2500LB



Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182F316(L)	A350LF2	A105N
2	Bonnet	A105N	A182F316(L)	A350LF2	A105N
3	Bolt	A193B7	A193B8	A320L7	A193B7M
4	Nut	A1942H	A1948	A1947	A1942HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182F316(L)	A182F6a	F316
7	Stem	F316	A182F316(L)	A182F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276410	A182F316(L)	A276410	A276410
14	Screwed	CS	SS	CS	CS
15	*O* Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	0.50	13	10.39	264	10.39	264	6.02	153	8.50	216	18.76	9
3/4"	0.75	19	10.75	273	10.75	273	6.65	169	10.43	265	29.79	14
1"	1.00	25.4	12.13	308	12.13	308	7.20	183	16.93	430	44.13	20

Reduced Port

Size	d		D		L-L1(RF-BW)		L2(RTJ)		H		W		Weights	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/4"×1/2"	0.50	13	0.75	19	10.75	273	10.75	273	6.02	153	8.50	216	28.30	13
1"×3/4"	0.75	19	1.00	25	12.13	308	12.13	308	6.65	169	10.43	265	41.92	19



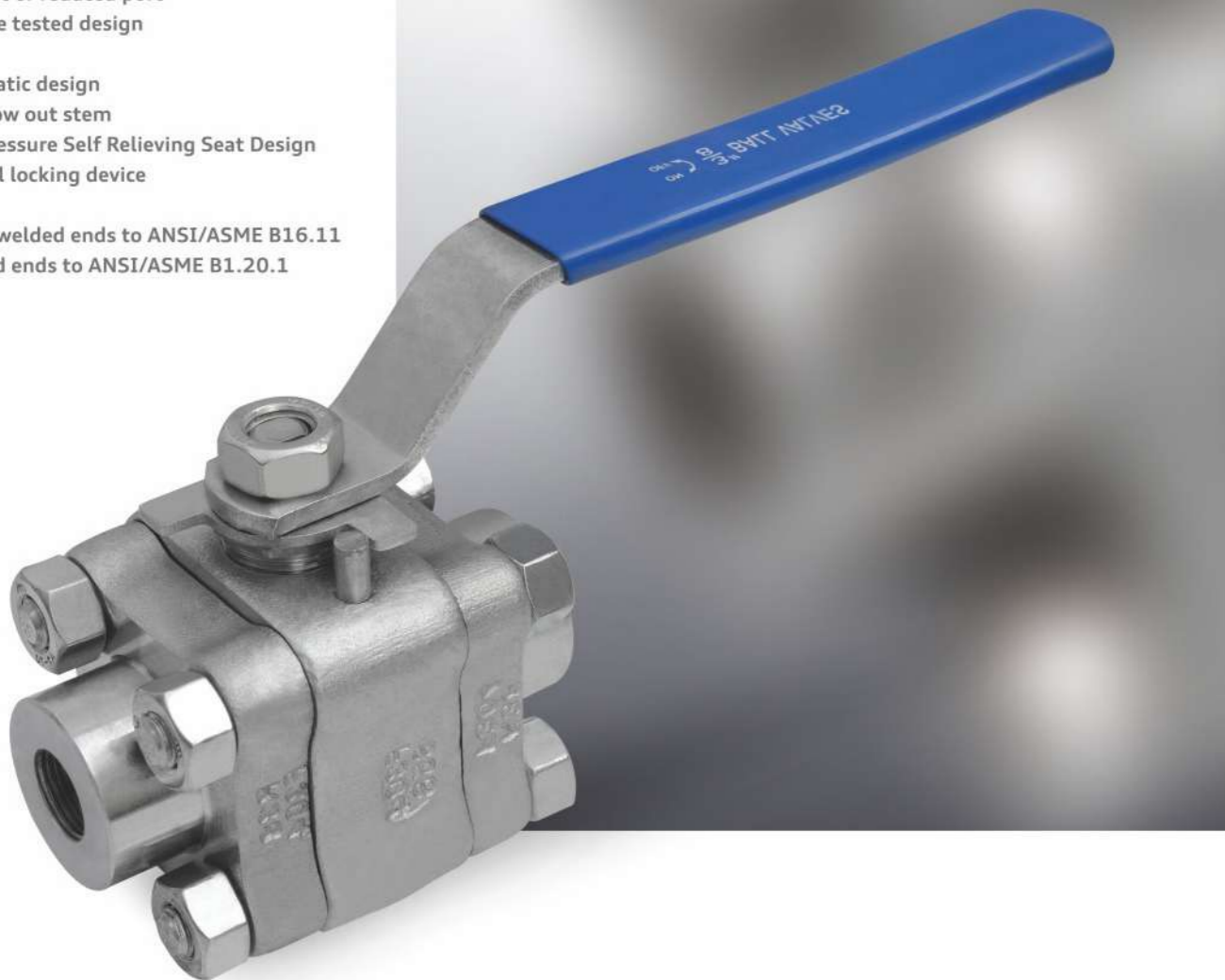
FF Series 3PCS

Design Features

Designed all to API 6D etc.
Full port or reduced port
Fire safe tested design

Anti-static design
Anti blow out stem
Over Pressure Self Relieving Seat Design
Integral locking device

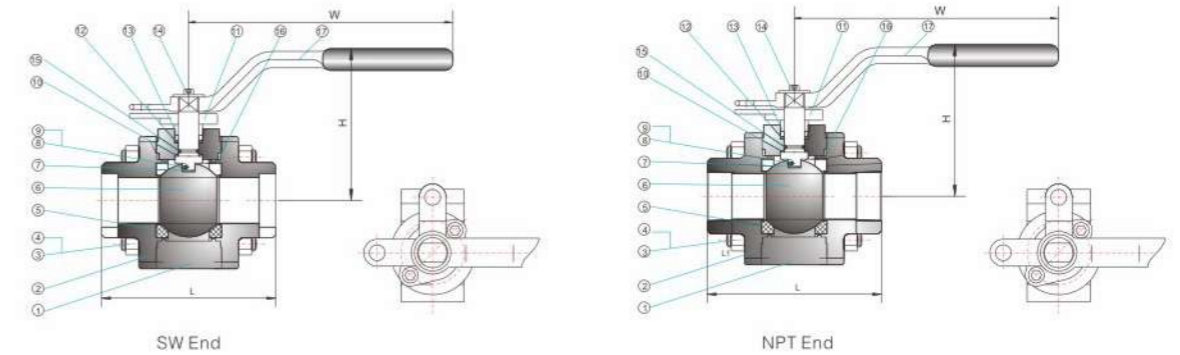
Socket welded ends to ANSI/ASME B16.11
Screwed ends to ANSI/ASME B1.20.1



FLOATING BALL VALVE

FF Series-3PCS

800LB SW/NPT Ends



Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182 F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182 F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182 F316(L)	A182 F6a	F316
7	Stem	F316	A182 F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182 F316(L)	A276 410	A276 410
14	Screwed	CS	SS	CS	CS
15	"O" Ring	VITON	VITON	VITON	VITON
16	Gasket	SPW.SS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Size	L		H		W		Weights	
	in	mm	in	mm	in	mm	lb	kg
1/4"	3.94	100	3.15	80	5.91	150	4.41	2
1/2"	3.94	100	3.15	80	5.91	150	5.52	3
3/4"	4.45	113	3.54	90	7.09	180	9.49	4
1"	5.04	128	4.13	105	9.06	230	15.23	7
1 1/4"	5.31	135	4.33	110	9.06	230	19.86	9
1 1/2"	6.14	156	5.51	140	11.81	300	28.02	13
2"	6.77	172	5.91	150	11.81	300	35.30	16

Full Port

Size	L		H		W		Weights	
	in	mm	in	mm	in	mm	lb	kg
1/2**1/4"	3.94	100	3.15	80	5.91	150	5.24	2
3/4**1/2"	4.45	113	3.15	80	5.91	150	9.01	4
1**3/4"	5.04	128	3.54	90	7.09	180	14.46	7
1 1/2**1"	6.14	156	4.13	105	9.06	230	26.62	12
2**1 1/2"	6.77	172	5.51	140	11.81	300	33.54	15

Reduced Port



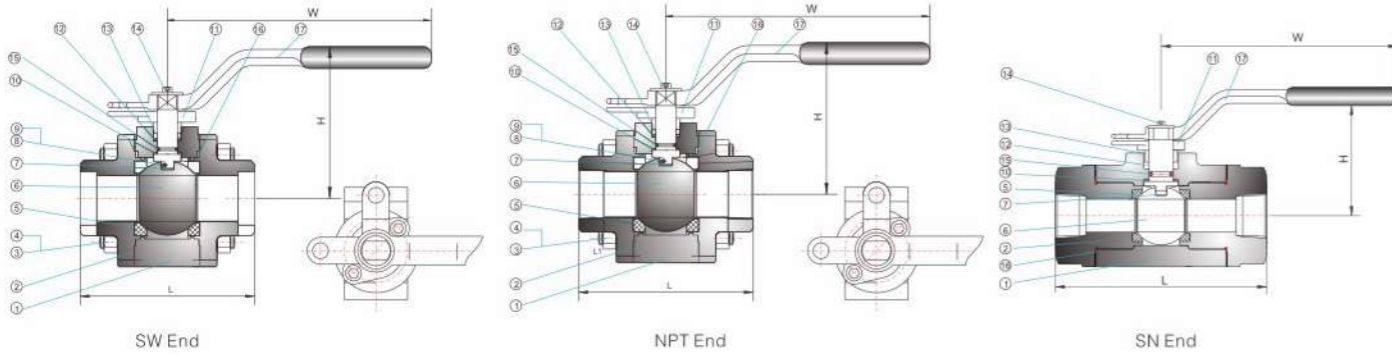
Tel:400-633-5118

FLOATING BALL VALVE

FF Series-3PCS



900LB 1500LB 2500LB SW/NPT Ends



Material Specifications

No.	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	A105N	A182 F316(L)	A350 LF2	A105N
2	Bonnet	A105N	A182 F316(L)	A350 LF2	A105N
3	Bolt	A193 B7	A193 B8	A320 L7	A193 B7M
4	Nut	A194 2H	A194 8	A194 7	A194 2HM
5	Seat	RPTFE	RPTFE	RPTFE	RPTFE
6	Ball	F316	A182 F316(L)	A182 F6a	F316
7	Stem	F316	A182 F316(L)	A182 F6a	F316
8	Spring	SS304	SS304	SS304	SS304
9	Steel Ball	SS304	SS304	SS304	SS304
10	Thrust Collar	PTFE	PTFE	PTFE	PTFE
11	Holding Plate	WCB	SS316	WCB	WCB
12	Packing	Graphite	Graphite	Graphite	Graphite
13	Gland	A276 410	A182 F316(L)	A276 410	A276 410
14	Screwed	CS	SS	CS	CS
15	"O" Ring	VITON	VITON	VITON	VITON
16	Gasket	SPWSS304+Graphite	SPW.SS316+Graphite	SPW.SS304+Graphite	SPW.SS304+Graphite
17	Handle	WCB	WCB	WCB	WCB

Note: Other materials are available upon request.

Dimension and Weight

Full Port

Size	L		H		W		Weights	
	in	mm	in	mm	in	mm	lb	kg
1/4"	3.94	100	3.15	80	5.91	150	4.41	2
1/2"	3.94	100	3.15	80	5.91	150	5.52	3
3/4"	4.45	113	3.54	90	7.09	180	9.49	4
1"	5.04	128	4.13	105	9.06	230	15.23	7
1 1/4"	5.31	135	4.33	110	9.06	230	19.86	9
1 1/2"	6.14	156	5.51	140	11.81	300	28.02	13
2"	6.77	172	5.91	150	11.81	300	35.30	16

Reduced Port

Size	L		H		W		Weights	
	in	mm	in	mm	in	mm	lb	kg
1/2**1/4"	3.94	100	3.15	80	5.91	150	5.24	2
3/4**1/2"	4.45	113	3.15	80	5.91	150	9.01	4
1**3/4"	5.04	128	3.54	90	7.09	180	14.46	7
1 1/2**1"	6.14	156	4.13	105	9.06	230	26.62	12
2**1 1/2"	6.77	172	5.51	140	11.81	300	33.54	15

ENGINEERING DATA



SUYAN VALVE

Soft Seal Materials

Seat

Properties	PTFE	NYLON	PEEK	PCTFE	DEVLON V	
Temperature Range ° F	-328 ~ 428	-58 ~ 248	-148 ~ 500	-328 ~ 302	-148 ~ 302	
Temperature Range ° C	-200 ~ 220	-50 ~ 120	-100 ~ 260	-200 ~ 150	-100 ~ 150	
Pressure rating	150 ~ 600	150 ~ 1500	150 ~ 2500	150 ~ 1500	150 ~ 1500	
Mechanical Property	Hardness(D)	58	72	88	85	78
	Tensile Strength(Mpa)	14 ~ 34	55.2	134	35.9	79.9
	Tensile Elongation(break,)	350	250	2.2	150	5.4
Physical Property	Specific Gravity(g/cm3)	2.17	1.02	1.44	2.12	1.14
	Water Absorption 24hrs(%)	0.00	1	0.06	0.00	0.1
	Water Absorption saturation	<0.01	1.6	0.2	<0.01	3
Service Application	Chemical&low temperature	High pressure & Hydrocarbon	High pressure & temperature	Cryogenic	High pressure & Hydrocarbon	

O-Ring

Type	NBR	HNBR	VITON	FFKM	EPDM
Temperature Range ° F	-22 ~ 230	-40 ~ 302	-4 ~ 392	-4 ~ 620	-58 ~ 302
Temperature Range ° C	-30 ~ 110	-40 ~ 150	-20 ~ 200	-20 ~ 327	-50 ~ 150
Specific Gravity(g/cm3)	1.31	1.34	1.85	2	0.87
Hardness(D)	75	75	75	75	75

Flow Coefficient (Cv value) Specification Pressure Temperature Chart

Flow Coefficient(Cv value)

Size (inch)	150LB	300LB	600LB	900LB	1500LB
1/2	25	25	20	16	16
3/4	56	56	48	34	34
1	95	95	64	55	55
1-1/2	308	308	308	165	165
2	500	430	370	320	320
3	1360	1100	1020	920	
4	2500	2000	1850		
6	5300	5250			
8	10750	10100			
10	17500	16820			

*Other elastomer materials are available upon request.

Notes

1. All the sizes are in full port.
2. Pressure Ratings are according to B 16.34.

Method of Calculating Flow

The Flow Coefficient Cv of a valve is the flow rate of water (gallons/minute) through a fully opened valve, with a pressure drop of 1 psi across the valve. To find the flow of liquid through the valve from the Cv, use the following formulas:

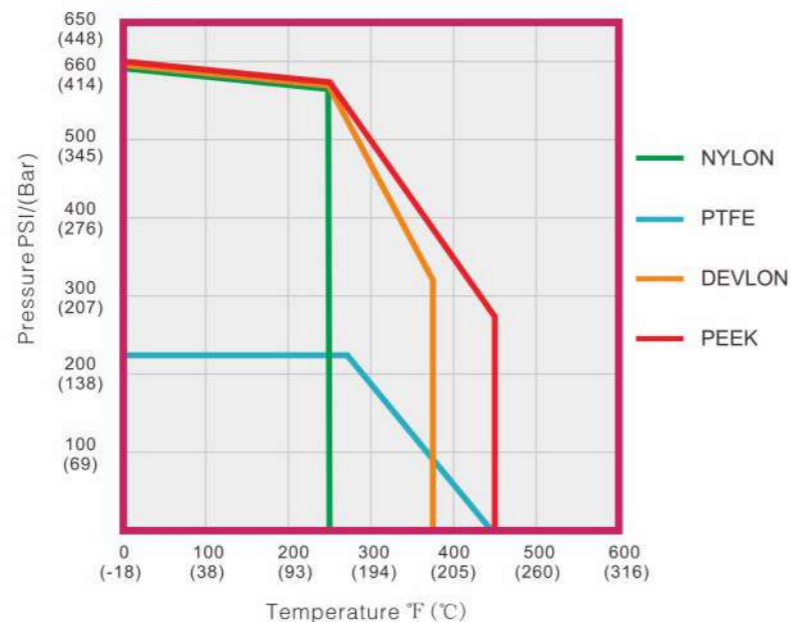
Liquid Flow:

$Q_L = C_v(P/G)^{1/2}$
 Q_L = Flow rate of liquid (gal./min)
 P = Differential pressure across the valve
 G = Specific gravity of liquid (for water, $G=1$)

Gas Flow:

$Q_g = 61C_v(P_2P/g)^{1/2}$
 (For non-critical flow, $P/P_2 < 1.0$)
 Q_g = Flow rate of gas (CFH at STP)
 P_2 = Outlet pressure (psia)
 G = specific gravity of gas (for air, $g=1.0$)

Pressure Temperature Chart



Operating Torque

Size in	150LB		300LB		400LB		600LB	
	N.M	Ft/Lbs	N.M	Ft/Lbs	N.M	Ft/Lbs	N.M	Ft/Lbs
1/4	5	3.69	6	4.43	8	5.90	12	8.86
3/8	5	3.69	6	4.43	8	5.90	12	8.86
1/2	6	4.43	9	6.64	11	8.12	16	11.81
3/4	10	7.38	12	8.86	14	10.33	20	14.76
1	40	11.07	40	14.76	29	21.40	60	31.00
1-1/4	32	23.62	48	35.42	45	33.21	60	44.28
1-1/2	50	29.52	50	44.28	62	45.76	70	66.42
2	80	36.90	80	51.66	90	66.42	140	95.94
2-1/2	90	59.04	90	66.42	104	76.75	200	110.70
3	120	66.42	120	88.56	138	101.84	320	147.60
4	180	132.84	170	169.74	255	188.19	400	273.06
5	340	250.92	420	309.96				
6	550	619.92	650	686.34				
8	1100	811.80	1850	1424.34				
10	1850	1476.00	4500	3321.00				

Size in	800LB		900LB		1500LB		2500LB	
	N.M	Ft/Lbs	N.M	Ft/Lbs	N.M	Ft/Lbs	N.M	Ft/Lbs
1/4	15	11.07	15	11.07	22	16.24	32	23.62
3/8	15	11.07	15	11.07	22	16.24	32	23.62
1/2	19	14.02	20	14.76	32	23.62	56	41.33
3/4	33	24.35	35	25.83	45	33.21	100	73.80
1	65	47.97	70	51.66	120	88.56	190	140.22
1-1/4	90	66.42	100	73.80	170	125.46	310	228.78
1-1/2	130	95.94	140	103.32	189	139.48	360	265.68
2	187	138.01	200	147.60	420	309.96		
2-1/2	280	206.64	320	236.16				
3	403	297.41	431	318.08				

- Note: 1. Above torque value are calculated based on room temperature, if other size torque required, please contact with YDF Valves.
 2. When sizing the actuator, please consider safety fact 1.2~1.5;
 3. For more details, the valve torque will be changed under different working temperature, and the torque will be changed for different seat materials. please contact with YDF Valves.



TRUNNION MOUNTED BALL VALVE

How to Order



SUYAN VALVE

Example:

12	TF	9	R	G	A105N / 43111
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12

VALVE SIZE(inch)

Example, for full port design 3 inch means NPS 3 inch, and for reduced port design 3*2 means end connection NPS 3 inch and reduced port 2 inch.

TF

VALVE TYPE

Symbol	Valve type	Symbol	Valve type	Symbol	Valve type
TC	Trunnion mounted type, 2PCS Split body, cast steel	TD	Trunnion mounted type, 3PCS Split body, cast steel	TT	Trunnion mounted type, top entry, cast steel
TF	Trunnion mounted type, Split body, forged steel	TM	Trunnion mounted type, 3PCS Split body, metal seated	TFW	Trunnion mounted full welded ball valve

9

VALVE CLASS

Class	150	300	600	900	1500	2500
Symol	1	3	6	9	15	25

R

END CONNECTIONS

End	Raised face flanged	RTJ flanged	Flat face flanged	Butt-weld	Grayloc End
Symbol	R	J	F	B	G

G

OPERATOR

Symbol	Description	Symbol	Description	Symbol	Description	Symbol	Description
7	Lever	M	Electric actuator	BS	Bare shaft	L	Gas over oil actuator
G	Gear Operator	P	Pneumatic actuator	H	Hydraulic actuator		

A105N

BODY MATERIALS

Body Materials	A105N	LF2	F316	F304	F316L	F304L	ALLOY20	F51
ASTM Ref.	A105N	A350 LF2	A182 F316	A182 F304	A182 F316L	A182 F304L	ALLOY20	A182 F51
Body Materials	WCB	LCB	CF8M	CF8	CF3M	CF3	CN7M	4A
ASTM Ref.	A216 WCB	A352 LCB	A351 CF8M	A351 CF8	A351 CF3M	A351 CF3	A351 CN7M	A995 4A

43111

TRIM MATERIALS

Seat Insert		O Ring		Stem		Ball		Seat Ring	
Symbol	Material	Symbol	Material	Symbol	Material	Symbol	Material	Symbol	Material
1	PTFE	1	NBR	1	A105N/ENP	1	A105N/ENP	1	A105N/ENP
2	PTFE (25% 玻璃纤维)	2	VITON	2	LF2/ENP	2	LF2/ENP	2	LF2/ENP
3	PTFE (25% 碳纤维)	3	VITON AED	3	LF2/HARD CR	3	LF2/HARD CR	3	LF2/HARD CR
4	NYLON 12	4	VITON-B	4	410	4	410	4	410
5	MOLON	5	HSN(H-NBR)	5	410/ENP	5	410/ENP	5	410/ENP
6	DEVLON 5	6	ELAST-O-LION 101	6	410/N	6	410/HARD CR	6	410/HARD CR
7	DELTRIN	7	PTFE Coated VITON	7	410/HARD CR	7	410/N	7	17-4PH
8	PEEK	8	VITON GLT+AED	8	17-4PH	8	410/STL	8	17-4PH/ENP
9	VITON	9	LIPSEAL	9	17-4PH/ENP	9	410/TCC	9	4130/ENP
a	HNBR	a	FKM	a	F53	a	F53	a	F53

Note: Other materials are available upon customer request.

TRUNNION MOUNTED BALL VALVE

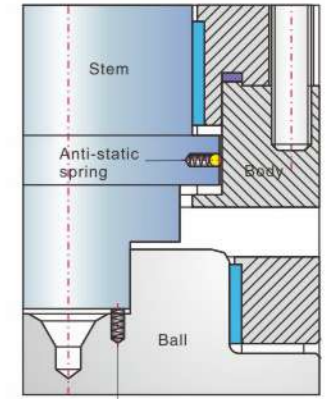
Design Features



SUYAN VALVE

BLOW-OUT PROOF STEM DESIGN

The stem is designed separated from ball, and designed as T slot shape at the bottom side, and gland flange will prevent the stem blow out in case of any abnormal cavity pressure increase.



Anti-static spring

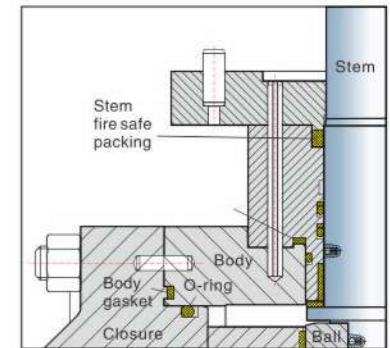
ANTI-STATIC DEVICE

The electrical conductance continuity connect the ball, stem and body, it can avoid the any fire or explosion caused by the static that might be produced and accumulated by friction between the ball and seat ring during valve open or close.

FIRE SAFE DESIGN

External leakage prevention

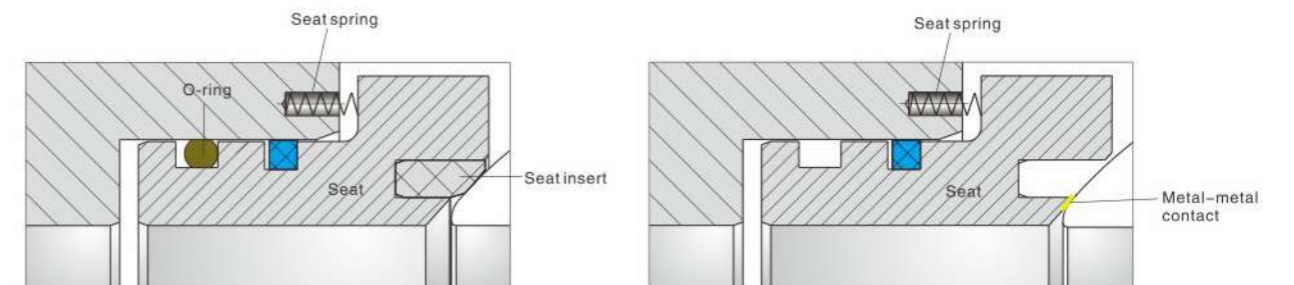
In normal condition, leakage through the valve stem area is prevented by two O-ring seals and a gland packing. Leakage through the valve body and bonnet connection is also blocked by an O-ring seal and a body gasket. In the event of a fire, O-rings will be melted or decomposed under higher temperature in the fire, then the fire safe body gasket, stem packing will prevent external leakage.



Internal leakage prevention

In the event of a fire, all non-metal materials, like O-rings, soft seats and back rings, will be melted or decomposed under high temperature in the fire, the edge of metal seat energized by the seat spring will contact with the ball to block the pipeline medium and minimize internal leakage. Also the fire safe graphite packing is compressed into the seat ring groove to prevent process media leakage through the gap between the valve body and seat.

Fire safe certificate: API 607, API 6FA

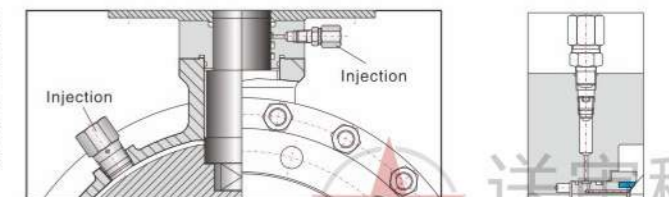


Before Fire

After Fire

EMERGENCY SEALANT INJECTION DEVICE

For 6 inch and large size trunnion mounted ball valves will be equipped with emergency sealant injection device on both stem and seat area, when the seat ring and stem soft seals are damaged or decomposed in the accident, leakage can be prevented by injection the sealant into the valve through injection valve. The injection valve is internally equipped with a check valve to stop the medium or sealant leaking out.



送审稿

Tel:400-633-5118

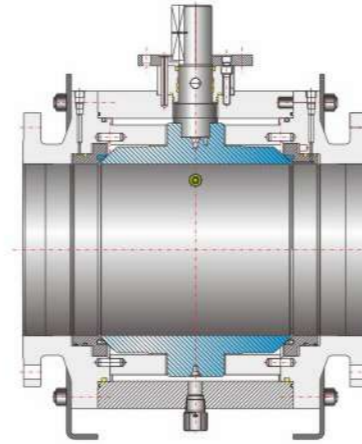
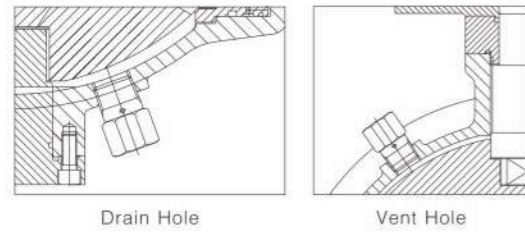
TRUNNION MOUNTED BALL VALVE

Design Features



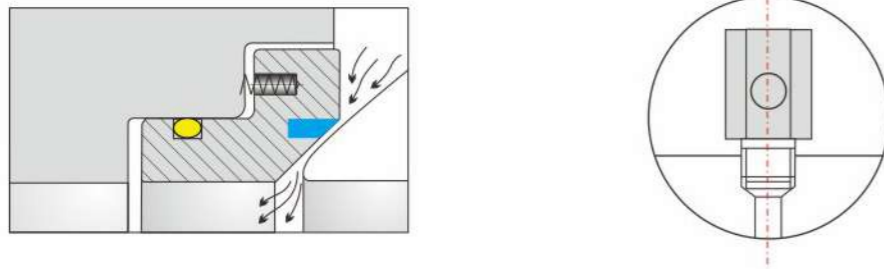
DOUBLE BLOCK & BLEED (DBB)

SuYan trunnion mounted ball valve seat ring can cut the medium service from upper stream to achieve double block function. When the ball is fully open or closed position, even the valve is under medium pressure from both side, the body cavity and the pressure is blocked, and the remaining medium service in the cavity can bleed out through the drain hole or vent hole.



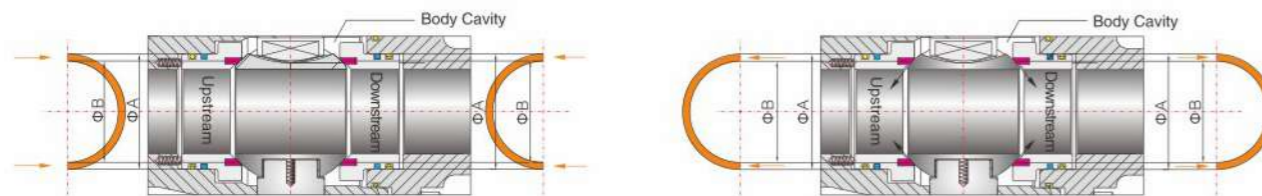
CAVITY PRESSURE RELIEF

When the pressure in cavity is increasing abnormally, the single piston effective seat can release the overloaded pressure automatically, while for the double piston effective seat designed ball valves, the overloaded pressure will be released through the automatic pressure relief device installed on the valve body.



SELF-RELIEVING SEATS(SINGLE PISTON EFFECT)

The pressure from the upstream and downstream will push the seats to the ball in function. Under fully open or closed position, when the internal force created by the body cavity pressure is greater than the energized spring force plus the force created by the pressure from upstream or downstream side, the seats are pushed away from the ball. Then the overloaded pressure in the body cavity is released automatically.



When the medium in the upstream or downstream of the valve, since $\Phi A > \Phi B$, the pressure differential makes the medium push the seats to the ball, to achieve a reliable seal.

When the pressure in the cavity is too high, because $\Phi A > \Phi B$, the pressure differential makes the cavity medium will push the seats away from the ball, and automatically relieve the overload pressure in the cavity.

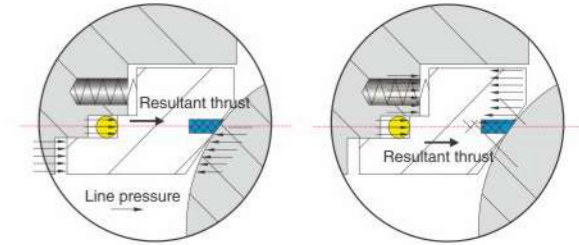
TRUNNION MOUNTED BALL VALVE

Design Features



DOUBLE PISTON EFFECT

Double piston effective seat also known as bi-directional sealing seat, the feature is regardless of the differential medium pressure from upstream or downstream of the ball valve, the valve each seat or the valve cavity can independently withstand rated pressure, and keep both two seats at sealed status, to ensure no leakage continuously. Double piston effective seat does not have the function of automatic pressure relief function, so it requires to install automatic pressure relief device on the body. When the cavity pressure is increasing abnormally, the overloaded pressure can be released through the automatic pressure relief device to ensure the safety operation. The ball valve with double piston effective seat have bi-directional sealing function.

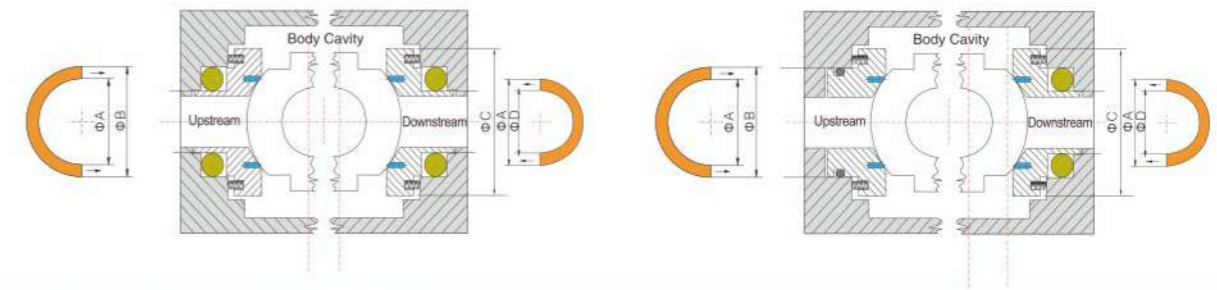


DOUBLE PISTON EFFECT SEATS(DIB-1)

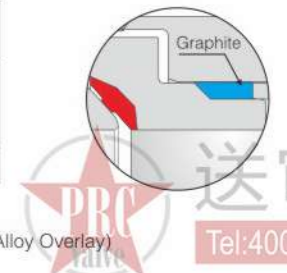
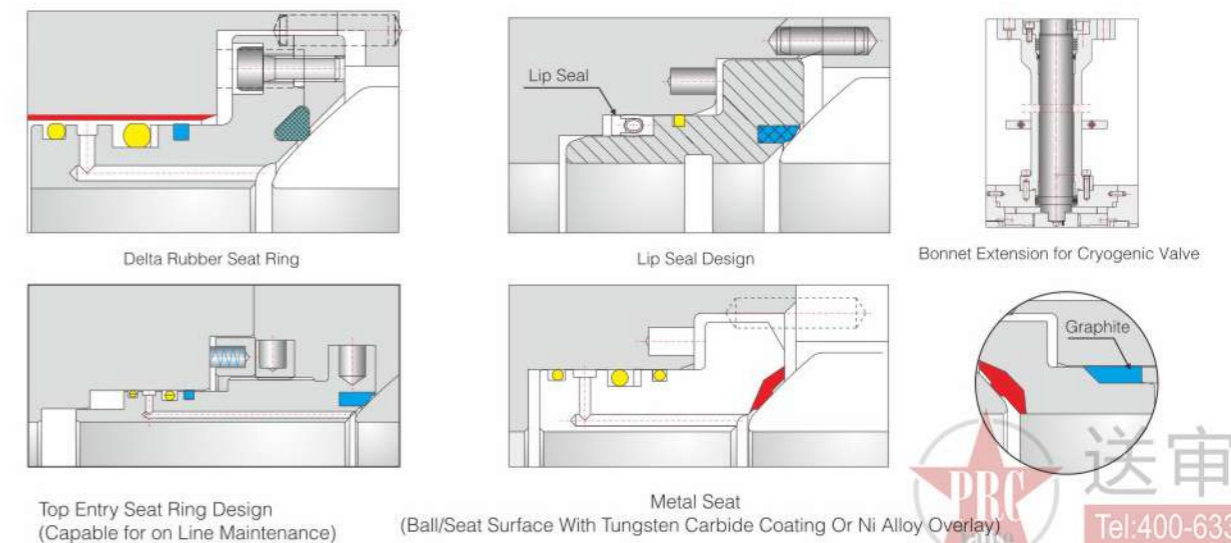
DIB-1 valve design both seats are double piston effective seats(DPE seat). Each seat can independently withstand the medium pressure from upstream or downstream. The seat of DIB-1 Ball Valve does not have the automatic pressure relief function. So the DIB-1 ball valve requires to install automatic pressure relief device on the body, when the cavity pressure is higher than 1.25 to 1.33 times valve NPS, overloaded pressure can be released through the automatic pressure relief device to ensure the safety operation.

ONE SELF-RELIEVING SEAT AND ONE DOUBLE PISTON EFFECT SEAT(DIB-2)

DIB-2 Valve design, one seat is double piston effective seat, the other seat has self-relieving function. The self-relieving function seat only can withstand the medium pressure from the upstream to realize sealing function. Double piston effective seat can withstand the medium pressure from both direction. When the cavity pressure is increasing abnormally, the double piston effective seat will be pushed toward to ball by the medium pressure. The self-relieving function seat will be pushed away from the ball to realize the pressure self-relief function.

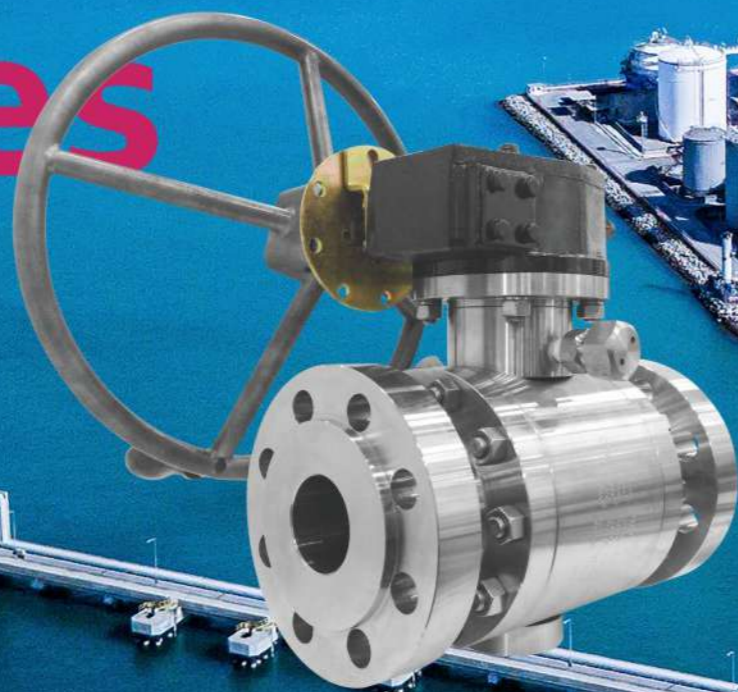


SPECIAL STRUCTURE DESIGN



送审稿
Tel:400-633-5118

Cast steel Trunnion Mounted Ball valve Series



SUYAN Cast steel trunnion mounted ball valves are designed, manufactured and tested in accordance with API 6D, ASEM B16.34, and certified to API 607 sixth edition, API 6FA 3rd edition fires safe tested design.

SUYAN cast steel trunnion mounted ball valves has two optional structure design * two piece side entry and "three piece side entry", and the size range is from 2 inch up to 48 inch, pressure rating is from 150LB up to 600LB.

2 PCS

Design Features

Blow-out Proof Stem
 Fire Safe Tested Design
 Anti-Static Design
 ISO5211 Mount Pad
 Double Block and Bleed
 Cavity Pressure Relief
 Low Emission Design
 Low Torque Performance
 Secure Line Flow Locking Device

**TRUNNION MOUNTED BALL VALVE**

2PCS

Material List

No	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
2	Closure	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
3	Ball	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
4	Stem	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
5	Seat Ring	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
6	Seat Insert	PTFE	PTFE	PTFE	PTFE
7	O-Ring	VITON A	VITON A	VITON A	VITON A
8	Fire Safe Seal	Graphite	Graphite	Graphite	Graphite
9	Grounding Spring	SS316	SS316	SS316	SS316
10	Lower Trunnion/ Trunnion Support	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
11	Gland Cap	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
12	Gasket	SS+Graphite	SS+Graphite	SS+Graphite	SS+Graphite
13	Bearing	SS+PTFE	SS+PTFE	SS+PTFE	SS+PTFE
14	Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
15	Fire Safe Gasket	Graphite	Graphite	Graphite	Graphite
16	Screw	ASTM A193 B7	ASTM A193 B8	ASTM A320 L7	ASTM A193 B7M
17	Top Flange	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
18	Key	Carbon Steel	Stainless Steel	Stainless Steel	Carbon Steel
19	Injection	SS 304	SS 316	SS 304	SS 304
20	Drain Valve	SS304	SS316	SS 304	SS 304
21	Vent Valve	SS304	SS316	SS 304	SS 304
22	Operator	Handle or Gear box	Handle or Gear box	Handle or Gear box	Handle or Gear box
23	Pin	Carbon Steel	Stainless Steel	Stainless Steel	Carbon Steel

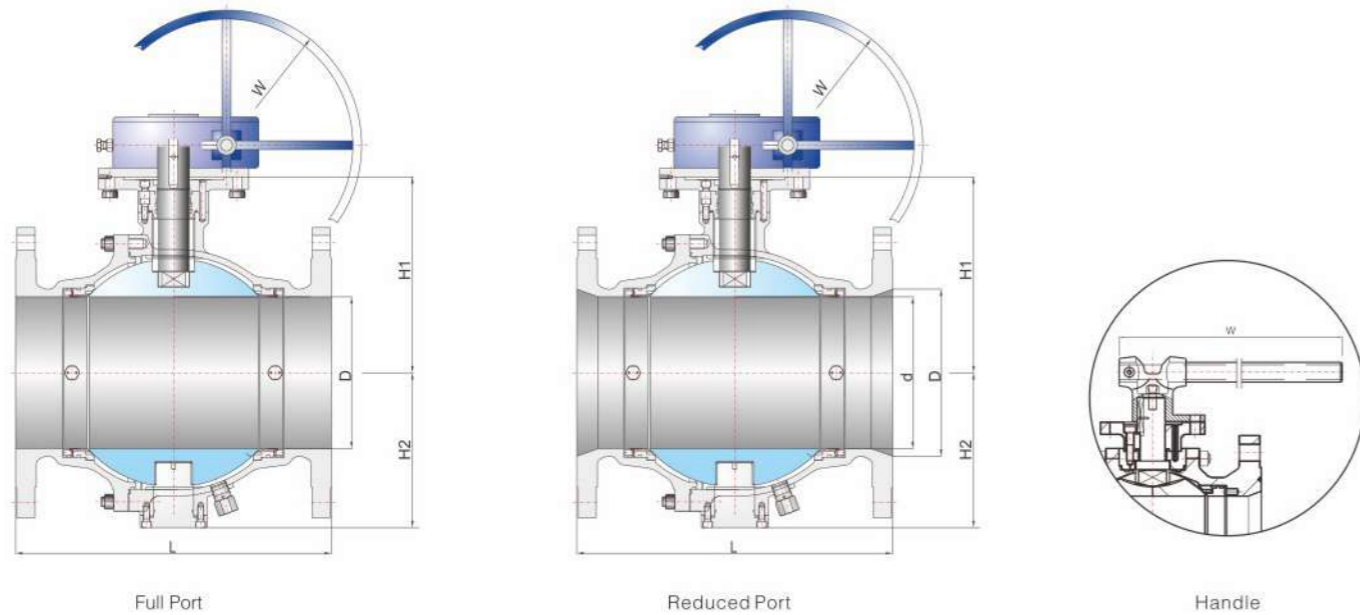
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

2PCS

150LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	7.01	178	7.87	200	4.33	110	10.43	265	39.7	18
3	80	2.99	76	7.99	203	11.81	300	4.96	126	11.22	285	70.6	32
4	100	4.02	102	9.02	229	12.40	315	6.50	165	11.22	285	110.2	50
6	150	5.98	152	15.51	394	13.19	335	6.50	165	11.81	*300	295.3	134
8	200	7.99	203	17.99	457	15.94	405	7.87	200	11.81	*300	524.6	238
10	250	10.00	254	21.02	534	16.81	427	8.66	220	11.81	*300	736.1	334
12	300	12.01	305	24.02	610	18.31	465	10.31	262	19.69	*500	1223.2	555
14	350	13.27	337	27.01	686	19.92	506	11.54	293	23.62	*600	1450.2	658
16	400	15.24	387	30.00	762	24.49	622	13.43	341	23.62	*600	1899.8	862

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	2.01	51	2.99	76	7.99	203	7.87	200	4.33	110	10.43	265	58.4	27
4*3	100*80	2.99	76	4.02	102	9.02	229	11.81	300	4.96	126	11.22	285	88.2	40
6*4	150*100	4.02	102	5.98	152	15.51	394	12.40	315	6.50	165	11.22	285	176.3	80
8*6	200*150	5.98	152	7.99	203	17.99	457	13.19	335	6.69	170	11.81	*300	390.2	177
10*8	250*200	7.99	203	10.00	254	21.02	534	15.94	405	7.87	200	11.81	*300	652.4	296
12*10	300*250	10.00	254	12.01	305	24.02	610	16.81	427	8.66	220	11.81	*300	972.0	441
14*10	350*250	12.01	305	13.27	337	27.01	686	16.81	427	8.66	220	11.81	*300	1437.0	652
16*12	400*300	13.27	337	15.24	387	30.00	762	18.31	465	10.31	262	19.69	*500	1664.02	755
18*14	450*350	15.24	387	17.24	438	34.02	864	19.92	506	11.54	293	23.62	*600	2201.8	999

* Gear box

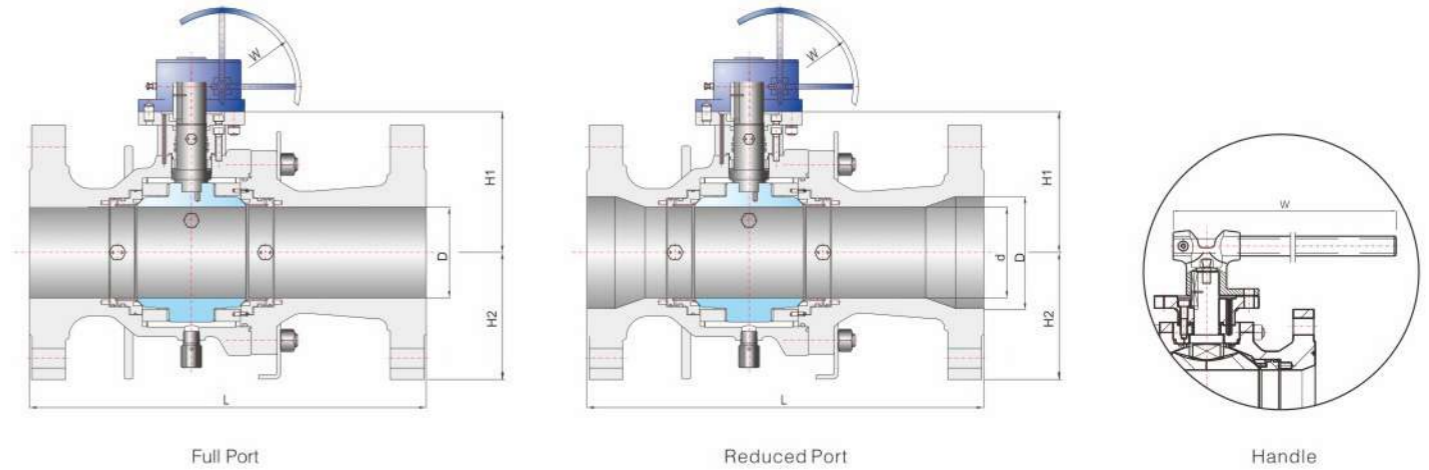
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

2PCS

300LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	8.50	216	8.11	206	4.45	113	10.43	265	44.08	20
3	80	2.99	76	11.14	283	12.40	315	5.08	129	15.75	400	101.4	46
4	100	4.02	102	12.01	305	12.99	330	6.65	169	29.53	750	152.1	69
6	150	5.98	152	15.87	403	13.58	345	5.83	148	11.81	*300	358.2	162.5
8	200	7.99	203	19.76	502	16.34	415	7.28	185	11.81	*300	606.1	275
10	250	10.00	254	22.36	568	16.81	427	8.90	226	15.75	*400	771.4	350
12	300	12.01	305	25.51	648	18.31	465	10.59	269	19.69	*500	1258.5	571
14	350	13.27	337	30.00	762	20.43	519	11.81	300	23.62	*600	1485.5	674
16	400	15.24	387	32.99	838	25.12	638	13.78	350	23.62	*600	2144.5	973

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	2.01	51	2.99	76	11.14	283	8.11	206	4.45	113	10.43	265	79.4	36
4*3	100*80	2.99	76	4.02	102	12.01	305	12.40	315	5.08	129	15.75	400	125.6	57
6*4	150*100	4.02	102	5.98	152	15.87	403	12.99	330	6.65	169	29.53	750	271.1	123
8*6	200*150	5.98	152	7.99	203	19.76	502	13.58	345	5.83	148	11.81	*300	483.8	219.5
10*8	250*200	7.99	203	10.00	254	22.36	568	16.34	415	7.28	185	11.81	*300	727.3	330
12*10	300*250	10.00	254	12.01	305	25.51	648	16.81	427	8.90	226	19.69	*500	1137.3	516
14*10	350*250	12.01	305	13.27	337	30.00	762	16.81	427	8.90	226	19.69	*500	1575.9	715
16*12	400*300	13.27	337	15.24	387	32.99	838	18.31	465	10.59	269	23.62	*600	1891.0	858
18*14	450*350	15.24	387	17.24	438	35.98	914	20.43	519	11.81	300	23.62	*600	2658.0	1206

* Gear box



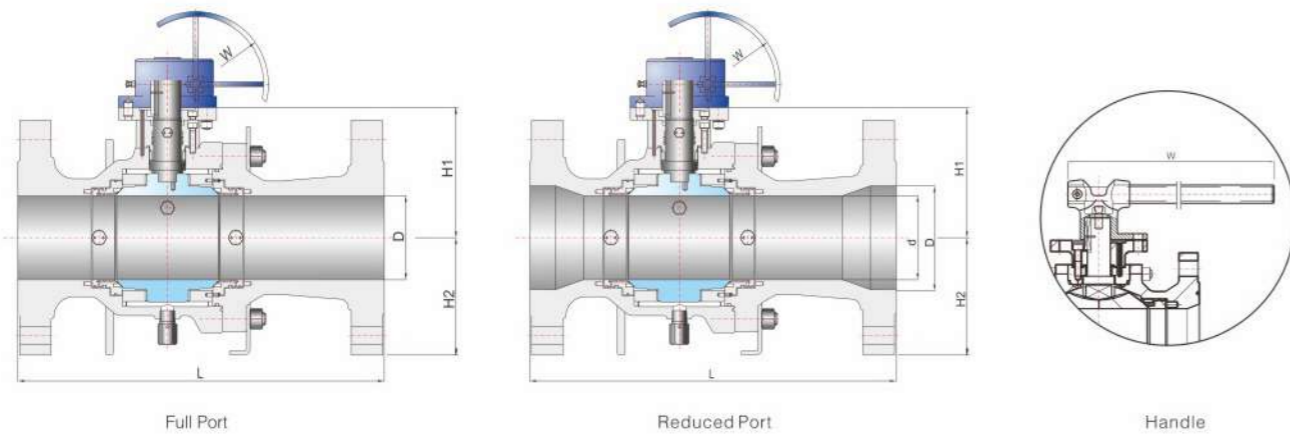
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

2PCS

600LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	7.01	178	7.87	200	4.33	110	10.43	265	59.5	27
3	80	2.99	76	7.99	203	11.81	300	4.96	126	11.22	285	119.0	54
4	100	4.02	102	9.02	229	12.40	315	6.50	165	11.22	285	198.4	90
6	150	5.98	152	15.51	394	13.19	335	6.50	165	11.81	*300	656.8	298
8	200	7.99	203	17.99	457	15.94	405	7.87	200	11.81	*300	886.0	402
10	250	10.00	254	21.02	534	16.81	427	8.66	220	11.81	*300	1289.3	585
12	300	12.01	305	24.02	610	18.31	465	10.31	262	19.69	*500	1858.0	843
14	350	13.27	337	27.01	686	19.92	506	11.54	293	23.62	*600	2448.6	1111
16	400	15.24	387	30.00	762	24.49	622	13.43	341	23.62	*600	3306	1500

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	2.01	51	2.99	76	14.20	356	8.11	206	4.45	113	15.75	400	86.0	39
4*3	100*80	2.99	76	4.02	102	17.01	432	12.40	315	4.45	113	15.75	400	158.7	72
6*4	150*100	4.02	102	5.98	152	22.01	559	12.99	330	5.08	129	29.53	750	299.7	136
8*6	200*150	5.98	152	7.99	203	25.98	660	13.58	345	6.65	169	39.37	1000	599.5	272
10*8	250*200	7.99	203	10.00	254	30.98	787	16.34	415	5.83	148	11.81	*300	1018.2	462
12*10	300*250	10.00	254	12.01	305	32.99	838	16.81	427	7.28	185	11.81	*300	1417.2	643
14*10	350*250	12.01	305	13.27	337	35.00	889	16.81	427	7.28	185	11.81	*300	2403.0	1090
16*12	400*300	13.27	337	15.24	387	39.02	991	18.31	465	8.90	226	19.69	*500	2849.8	1293
18*14	450*350	15.24	387	17.24	438	42.99	1092	20.43	519	10.59	269	23.62	*600	4135.8	1876

* Gear box



SUYAN VALVE

3 PCS

Design Features

- Blow-out Proof Stem
- Fire Safe Tested Design
- Anti-Static Design
- ISO5211 Mount Pad
- Double Block and Bleed
- Cavity Pressure Relief
- Low Emission Design
- Low Torque Performance
- Secure Line Flow Locking Device



送审稿

Tel:400-633-5118

TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

Material List

No	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
2	Closure	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
3	Ball	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
4	Stem	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
5	Seat Ring	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
6	Seat Insert	PTFE	PTFE	PTFE	PTFE
7	O-ring	VITON A	VITON A	VITON A	VITON A
8	Fire Safe Seal	Graphite	Graphite	Graphite	Graphite
9	Grounding Spring	SS316	SS316	SS316	SS316
10	Lower Trunnion/ Trunnion Support	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
11	Gland Cap	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
12	Gasket	SS+Graphite	SS+Graphite	SS+Graphite	SS+Graphite
13	Bearing	SS+PTFE	SS+PTFE	SS+PTFE	SS+PTFE
14	Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
15	Fire Safe Gasket	Graphite	Graphite	Graphite	Graphite
16	Screw	ASTM A193 B7	ASTM A193 B8	ASTM A320 L7	ASTM A193 B7M
17	Top Flange	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
18	Key	Carbon Steel	Stainless Steel	Stainless Steel	Carbon Steel
19	Injection	SS304	SS316	SS304	SS304
20	Drain Valve	SS304	SS316	SS304	SS304
21	Vent Valve	SS304	SS316	SS304	SS304
22	Operator	Handle or Gear box	Handle or Gear box	Handle or Gear box	Handle or Gear box
23	Pin	Carbon Steel	Stainless Steel	Stainless Steel	Carbon Steel

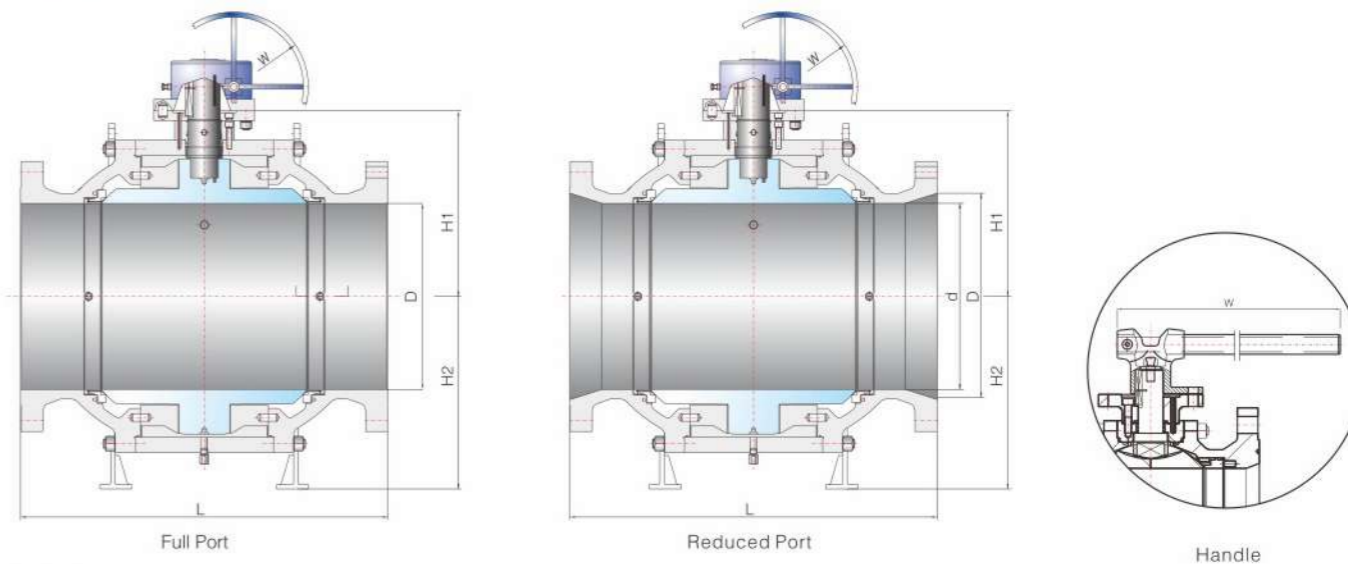
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

150LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
16	400	15.24	387	30.00	762	24.49	622	13.43	341	23.62	*600	2466.3	1119
18	450	17.24	438	34.02	864	26.22	666	16.22	412	23.62	*600	3233.3	1467
20	500	19.25	489	35.98	914	28.74	730	17.13	435	23.62	*600	3984.8	1808
22	550	21.26	540	39.02	991	32.80	833	18.90	480	23.62	*600	5031.7	2283
24	600	23.27	591	42.01	1067	35.24	895	20.39	518	31.50	*800	7160.8	3249
26	650	25.00	635	45.00	1143	35.43	900	21.06	535	31.50	*800	7722.8	3504
28	700	27.01	686	49.02	1245	36.81	935	21.34	542	31.50	*800	9503.6	4312
30	750	29.02	737	50.98	1295	39.76	1010	23.82	605	31.50	*800	11502.7	5219
32	800	30.75	781	54.02	1372	41.73	1060	25.59	650	31.50	*800	13019.0	5907
34	850	32.76	832	57.99	1473	42.40	1077	25.59	650	31.50	*800	15029.1	6819
36	900	34.49	876	60.00	1524	43.90	1115	27.56	700	31.50	*800	18068.4	8198
40	1000	38.50	978	67.99	1727	55.12	1400	34.06	865	31.50	*800	23745.9	10774
42	1050	40.24	1022	78.23	1987	62.91	1598	35.43	900	31.50	*800	27016.6	12258
48	1200	45.98	1168	83.46	2120	67.80	1722	41.02	1042	31.50	*800	41477.1	18819
60	1524	57.40	1458	98.03	2490	55.91	1420	57.48	1460	31.50	*800	114938.7	52150

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
18*14	450*350	13.27	337	17.24	438	34.02	864	19.92	506	11.54	293	23.62	*600	2846.1	1291
20*16	500*400	15.24	387	19.25	489	35.98	914	24.49	622	13.43	341	23.62	*600	3048.9	1383
22*18	550*450	17.24	438	21.26	540	39.02	991	26.22	666	15.43	392	23.62	*600	3366.4	1527
24*20	600*500	19.25	489	23.27	591	42.01	1067	28.74	730	17.13	435	23.62	*600	4548.1	2063
26*22	650*550	21.26	540	25.00	635	45.00	1143	32.80	833	18.90	480	23.62	*800	5165.3	2343
28*24	700*600	23.27	591	27.01	686	49.02	1245	35.24	895	20.39	518	31.50	*800	5952.4	2700
30*24	750*600	23.27	591	29.02	737	50.98	1295	35.24	895	20.39	518	31.50	*800	7226.7	3278
32*26	800*650	25.00	635	30.75	781	54.02	1372	35.43	900	21.06	535	31.50	*800	8829.4	4005
34*28	850*700	27.01	686	32.76	832	57.99	1473	36.81	935	21.34	542	31.50	*800	9799.4	4445
36*30	900*750	29.02	737	34.49	876	60.00	1524	39.76	1010	23.82	605	31.50	*800	12182.6	5526
40*34	1000*850	32.76	832	38.50	978	67.99	1727	42.40	1077	25.59	650	31.50	*800	18077.6	8200
42*36	1050*900	34.49	876	40.24	1022	78.23	1987	43.90	1115	27.56	700	31.50	*800	23966.1	10871
48*40	1200*1000	38.50	978	45.98	1168	83.46	2120	55.12	1400	34.06	865	31.50	*800	29806.0	13520
54*60	1350*1500	51.65	1312	57.40	1458	98.03	2490	50.80	1290	53.95	1370	31.50	*800	76472.0	34760

* Gear box



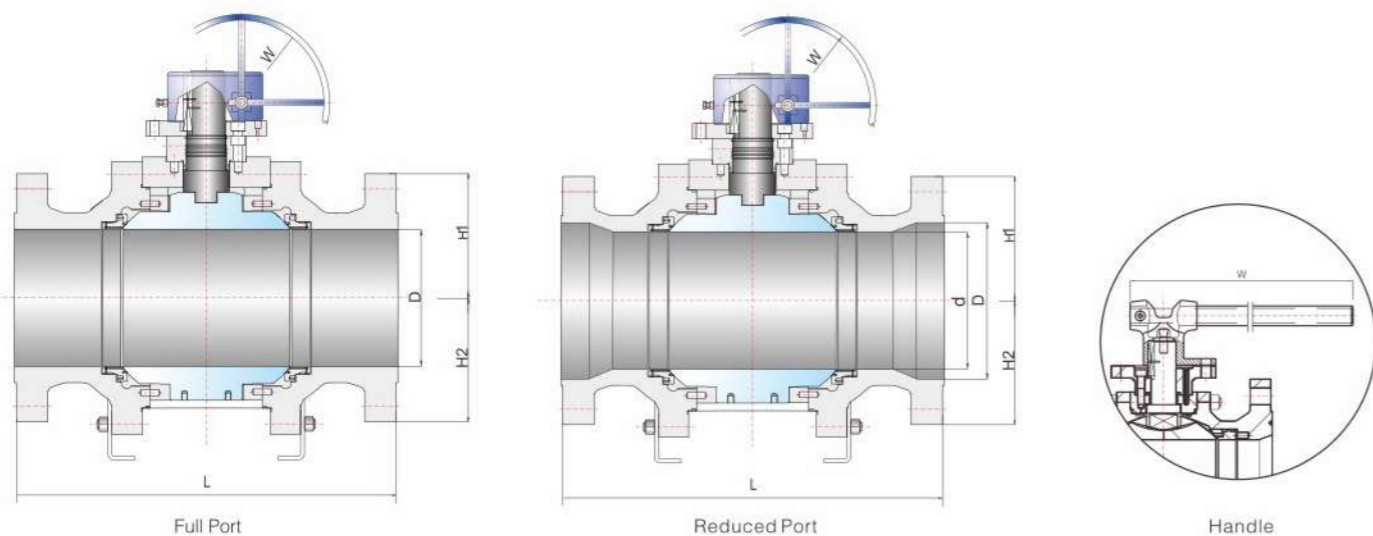
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

300LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
16	400	15.24	387	32.99	838	25.12	638	13.78	350	23.62	*600	2824.1	1281
18	450	17.24	438	35.98	914	26.89	683	15.83	402	23.62	*600	3864.7	1753
20	500	19.25	489	39.02	991	29.45	748	17.56	446	23.62	*600	4724.5	2143
22	550	21.26	540	42.99	1092	33.62	854	19.37	492	23.62	*600	5934.8	2692
24	600	23.27	591	45.00	1143	36.10	917	20.91	531	31.5	*800	7370.0	3343
28	700	27.01	686	52.99	1346	37.72	958	21.89	556	31.5	*800	11333.8	5141
30	750	29.02	737	55.00	1397	40.75	1035	24.41	620	31.5	*800	13445.9	6099
32	800	30.75	781	60.00	1524	42.80	1087	26.22	666	31.5	*800	15304.3	6942
34	850	32.76	832	64.02	1626	43.46	1104	26.22	666	31.5	*800	17423.0	7903
36	900	34.49	876	67.99	1727	45.00	1143	28.27	718	31.5	*800	19056.6	8644
40	1000	38.50	978	75.98	1930	56.50	1435	34.92	887	31.5	*800	25253.7	11455
42	1050	40.24	1022	80.00	2032	64.49	1638	36.34	923	31.5	*800	29651.9	13450
48	1200	45.98	1168	85.43	2170	69.49	1765	42.05	1068	31.5	*800	43981.8	19950
60	1524	57.40	1458	108.07	2745	57.80	1468	59.06	1500	31.5	*800	121528.7	55125

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
16*14	400*350	13.27	337	15.24	387	32.99	838	20.43	519	11.81	300	23.62	*600	2160.5	980
18*16	450*400	15.24	387	17.24	438	35.98	914	25.12	638	13.78	350	23.62	*600	2810.9	1275
20*18	500*450	17.24	438	19.25	489	39.02	991	26.89	683	15.83	402	23.62	*600	3428.2	1555
22*18	550*450	17.24	438	21.26	540	42.99	1092	26.89	683	15.83	402	23.62	*600	4914.1	2229
24*20	600*500	19.25	489	23.27	591	45.00	1143	29.45	748	17.56	446	23.62	*600	4539.3	2059
28*24	700*600	23.27	589	27.01	686	52.99	1346	33.62	854	19.37	492	23.62	*600	7054.7	3200
30*24	750*600	23.27	589	29.02	737	55.00	1397	36.10	917	20.91	531	31.5	*800	8981.5	4074
34*28	850*700	27.01	686	32.76	832	64.02	1626	37.72	958	21.89	556	31.5	*800	10681.2	4845
36*30	900*750	29.02	737	34.49	876	67.99	1727	40.75	1035	24.41	620	31.5	*800	13723.6	6225
40*34	1000*850	32.76	832	38.50	978	75.98	1930	43.46	1104	26.22	666	31.5	*800	18077.6	8200
42*36	1050*900	34.49	876	40.24	1022	80.00	2032	45.00	1143	28.27	718	31.5	*800	20282.2	9200
48*40	1200*1000	38.50	978	45.98	1168	85.43	2170	56.50	1435	34.92	887	31.5	*800	33068.8	15000
54*60	1350*1500	51.65	1312	57.40	1458	108.07	2745	52.56	1335	55.52	1410	31.5	*800	80674.0	36670

* Gear box

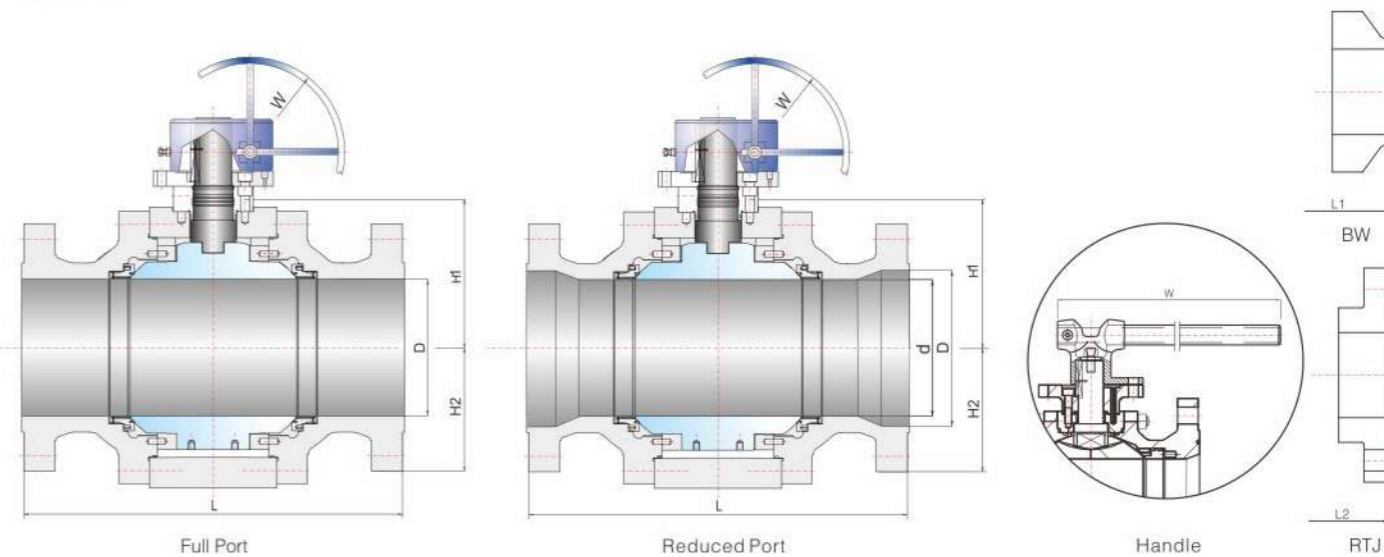
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

600LB



Full Port

Size		D		L-L1(RF-BW)		L2 (RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
16	400	15.24	387	39.02	991	39.02	991	25.12	638	13.78	350	23.62	*600	3758.8	1705
18	450	17.24	438	42.99	1092	42.99	1095	26.89	683	15.83	402	23.62	*600	5216.1	2366
20	500	19.25	489	47.01	1194	47.01	1194	29.45	748	17.56	446	23.62	*600	6501.4	2949
22	550	21.26	540	50.98	1295	50.98	1295	33.62	854	19.37	492	31.5	*800	7469.2	3388
24	600	23.27	591	55.00	1397	55.00	1397	36.10	917	20.91	531	31.5	*800	9314.4	4225
28	700	27.01	686	60.98	1549	60.98	1549	37.72	958	21.89	556	31.5	*800	14303.4	6488
30	750	29.02	737	65.00	1651	65.00	1651	40.75	1035	24.41	620	31.5	*800	15963.5	7241
32	800	30.75	781	70.00	1778	70.00	1778	42.80	1087	26.22	666	31.5	*800	20617.4	9352
34	850	32.76	832	75.98	1930	75.98	1930	43.46	1104	26.22	666	31.5	*800	22337.0	10132
36	900	34.49	876	82.01	2083	82.01	2083	45.00	1143	28.27	718	31.5	*800	24887.7	11289
40	1000	38.50	978	85.00	2159	85.00	2159	56.50	1435	34.92	887	31.5	*800	34352.1	15582
42	1050	40.24	1022	85.63	2175	85.63	2175	64.49	1638	36.34	923	31.5	*800	38346.8	17394
48	1200	45.98	1168	95.87	2435	95.87	2435	69.49	1765	42.05	1068	31.5	*800	56552.4	25652
60	1524	57.40	1458	116.14	2950	116.14	2950	59.84	1520	69.49	1765	31.5	*800	156262.1	70880

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
16*14	400*350	13.27	337	15.24	387	39.02	991	20.43	519	11.81	300	23.62	*600	3031.3	1375
18*16	450*400	15.24	387	17.24	438	42.99	1092	25.12	638	13.78	350	23.62	*600	4118.2	1868
20*18	500*450	17.24	438	19.25	489	47.01	1194	26.89	683	15.83	402	23.62	*600	5321.1	2415
22*18	550*450	17.24	438	21.26	540	50.98	1295	26.89	683	15.83	402	23.62	*600	5564.4	2524
24*20	600*500	19.25	489	23.27	591	55.00	1397	29.45	748	17.56	446	23.62	*600	6931.3	3144
28*24	700*600	23.27	591	27.01	686	60.98	1549	33.62	854	19.37	492	31.50	*800	9369.5	4250
30*24	750*600	23.27	591	29.02	737	65.00	1651	36.10	917	20.91	531	31.50	*800	10670.3	4840
34*28	850*700	27.01	686	32.76	832	75.98	1930	37.72	958	21.89	556	31.50	*800	15873.0	7200
36*30	900*750	29.02	737	34.49	876	82.01	2083	40.75	1035	24.41	620	31.50	*800	19499.7	8845
40*34	1000*850	32.76	832	38.50	978	85.00	2159	43.46	1104	26.22	666	31.50	*800	22089.9	10020
42*36	1050*900	34.49	876	40.24	1022	85.63	2175	45.00	1143	28.27	718	31.50	*800	24470.9	11100
48*40	1200*1000	38.50	978	45.98	1168	95.87	2435	56.50	1435	34.92	887	31.50	*800	37918.9	17200
54*60	1350*1500	51.65	1312	57.40	1458	116.14	2950	56.10	1425	57.68	1465	31.50	*800	92400	42000

* Gear box



Forged steel Trunnion Mounted Ball valve Series



SuYan Forged steel trunnion mounted ball valves are designed, manufactured and tested in accordance with API 6D, ASME B16.34, and certified to API 607 sixth edition, API 6FA 3rd edition fires safe tested design. It is designed to 3pcs split body side entry and 2pcs split body side entry(2~4 inch), and the valve size range is from 2 inch up to 60 inch, pressure rating is from 150LB up to 2500LB.

MATERIAL LIST

3PCS



SUYAN VALVE

No	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	ASTMA105N	ASTMA182F316	ASTMA350LF2	ASTMA105N
2	Closure	ASTMA105N	ASTMA182F316	ASTMA350LF2	ASTMA105N
3	Ball	ASTMA105N+ENP	ASTMA182-F316	ASTMA350-LF2+ENP	ASTMA105N+ENP
4	Stem	ASTMA105N+ENP	ASTMA182-F316	ASTMA350-LF2+ENP	ASTMA105N+ENP
5	Seat Ring	ASTMA105N+ENP	ASTMA182-F316	ASTMA350-LF2+ENP	ASTMA105N+ENP
6	Seat Insert	PTFE	PTFE	PTFE	PTFE
7	O-ring	VITONA	VITONA	VITONA	VITONA
8	Fire Safe Seal	Graphite	Graphite	Graphite	Graphite
9	Grounding Spring	SS316	SS316	SS316	SS316
10	Lower Trunnion/ Trunnion Support	ASTMA105N+ENP	ASTMA182-F316	ASTMA350-LF2+ENP	ASTMA105N+ENP
11	Gland Cap	ASTMA105N	ASTMA182-F316	ASTMA350-LF2	ASTMA105N
12	Gasket	SS+Graphite	SS+Graphite	SS+Graphite	SS+Graphite
13	Bearing	SS+PTFE	SS+PTFE	SS+PTFE	SS+PTFE
14	Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
15	Fire Safe Gasket	Graphite	Graphite	Graphite	Graphite
16	Screw	ASTMA193B7	ASTMA193B8	ASTMA320L7	ASTMA193B7M
17	Top Flange	ASTMA105N	ASTMA182F316	ASTMA350 LF2	ASTMA105N
18	Key	Carbon Steel	Stainless Steel	Stainless Steel	Carbon Steel
19	Injection	SS304	SS316	SS304	SS304
20	Drain Valve	SS304	SS316	SS304	SS304
21	Vent Valve	SS304	SS316	SS304	SS304
22	Operator	Handle or Gear box	Handle or Gear box	Handle or Gear box	Handle or Gear box
23	Pin	Carbon Steel	Stainless Steel	Stainless Steel	Carbon Steel

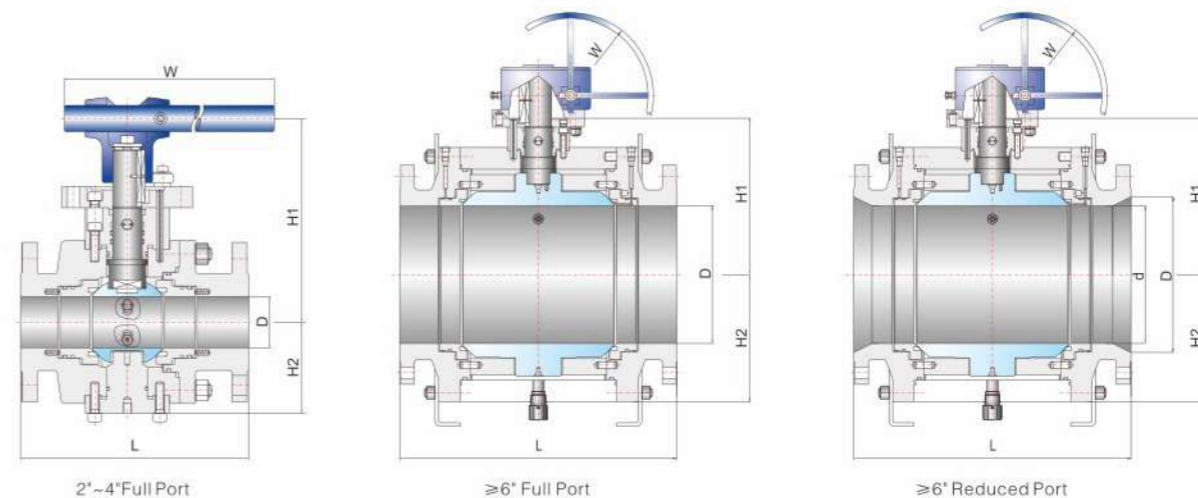
TRUNNION MOUNTED BALL VALVE

3PCS



SUYAN VALVE

150LB



150LB

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	7.01	178	7.87	200	4.33	110	10.43	265	46.3	21
3	80	2.99	76	7.99	203	11.81	300	4.96	126	11.22	285	70.6	32
4	100	4.02	102	9.02	229	12.40	315	6.50	165	11.22	285	110.2	50
6	150	5.98	152	15.51	394	13.19	335	6.50	165	11.81	*300	361.6	164
8	200	7.99	203	17.99	457	15.94	405	7.87	200	11.81	*300	628.3	285
10	250	10.00	254	21.02	534	16.81	427	8.66	220	11.81	*300	925.9	420
12	300	12.01	305	24.02	610	18.31	465	10.31	262	19.69	*500	1466.1	665
14	350	13.27	337	27.01	686	19.92	506	11.54	293	23.62	*600	1810.0	821
16	400	15.16	387	30.00	762	24.49	622	13.43	341	23.62	*600	2466.9	1119
18	450	16.97	438	34.02	864	26.22	666	16.22	412	23.62	*600	3234.1	1467
20	500	19.17	489	35.98	914	28.74	730	17.13	435	23.62	*600	3985.9	1808
22	550	21.18	540	39.02	991	32.80	833	18.90	480	23.62	*600	5141.1	2332
24	600	23.19	591	42.01	1067	35.24	895	20.39	518	31.50	*800	7162.7	3249
26	650	24.92	635	45.00	1143	35.43	900	21.06	535	31.50	*800	7724.9	3504
28	700	26.93	686	49.02	1245	36.81	935	21.34	542	31.50	*800	9506.2	4312
30	750	28.94	737	50.98	1295	39.76	1010	23.82	605	31.50	*800	11505.8	5219
32	800	30.67	781	54.02	1372	41.73	1060	25.59	650	31.50	*800	13022.6	5907
34	850	32.68	832	57.99	1473	42.40	1077	25.59	650	31.50	*800	15033.2	6819
36	900	34.41	876	60.00	1524	43.90	1115	27.56	700	31.50	*800	18073.3	8198
40	1000	36.42	978	67.99	1727	55.12	1400	34.06	865	31.50	*800	23752.4	10774
42	1050	40.16	1022	78.23	1987	62.91	1598	35.43	900	31.50	*800	27024.0	12258
48	1200	45.91	1168	83.46	2120	67.80	1722	41.02	1042	31.50	*800	41488.4	18819

Full Port

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3\"/>															

* Gear box

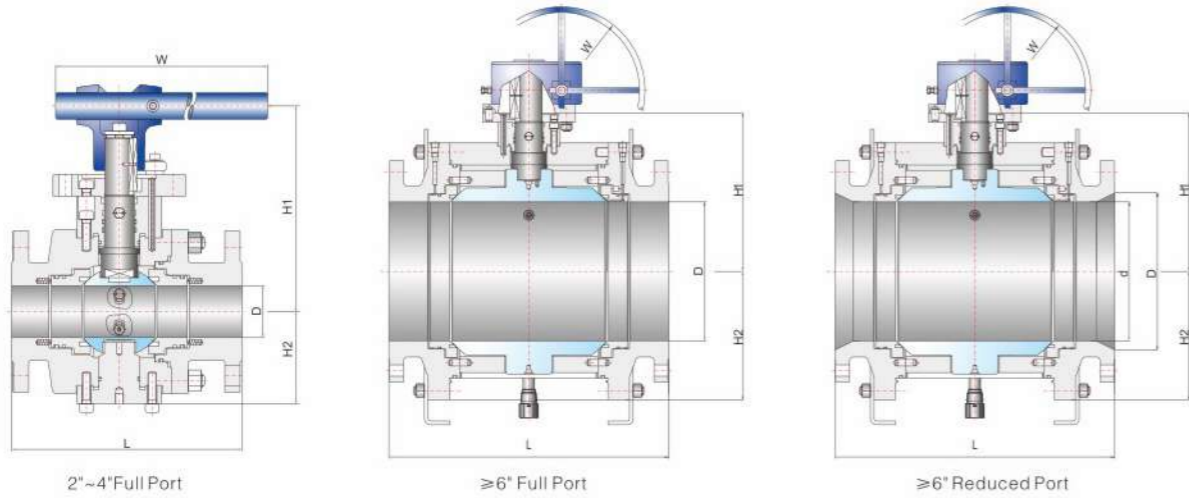
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

300LB



300LB

Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	8.50	216	8.11	206	4.45	113	10.43	265	55.1	25
3	80	2.99	76	11.14	283	12.40	315	5.08	129	15.75	400	108.0	49
4	100	4.02	102	12.01	305	12.99	330	6.65	169	29.53	750	158.7	72
6	150	5.98	152	15.87	403	13.58	345	5.83	148	11.81	*300	423.3	192
8	200	7.99	203	19.76	502	16.34	415	7.28	185	11.81	*300	716.5	325
10	250	10.00	254	22.36	568	16.81	427	8.90	226	15.75	*400	1131.0	513
12	300	12.01	305	25.51	648	18.31	465	10.59	269	19.69	*500	1629.2	739
14	350	13.27	337	30.00	762	20.43	519	11.81	300	23.62	*600	2096.6	951
16	400	15.24	387	32.99	838	25.12	638	13.78	350	23.62	*600	2824.1	1281
18	450	17.24	438	35.98	914	26.89	683	15.83	402	23.62	*600	3864.7	1753
20	500	19.25	489	39.02	991	29.45	748	17.56	446	23.62	*600	4724.5	2143
22	550	21.26	540	42.99	1092	33.62	854	19.37	492	23.62	*600	5937.0	2693
24	600	23.27	591	45.00	1143	36.10	917	20.91	531	31.5	*800	7370.0	3343
28	700	27.01	686	52.99	1346	37.72	958	21.89	556	31.5	*800	11333.8	5141
30	750	29.02	737	55.00	1397	40.75	1035	24.41	620	31.5	*800	13445.9	6099
32	800	30.75	781	60.00	1524	42.80	1087	26.22	666	31.5	*800	15304.3	6942
34	850	32.76	832	64.02	1626	43.46	1104	26.22	666	31.5	*800	17423.0	7903
36	900	34.49	876	67.99	1727	45.00	1143	28.27	718	31.5	*800	19056.6	8644
40	1000	38.50	978	75.98	1930	56.50	1435	34.92	887	31.5	*800	25253.7	11455
42	1050	40.24	1022	80.00	2032	64.49	1638	36.34	923	31.5	*800	29651.9	13450
48	1200	45.98	1168	85.43	2170	69.49	1765	42.05	1068	31.5	*800	43981.8	19950

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3\"/>															

* Gear box

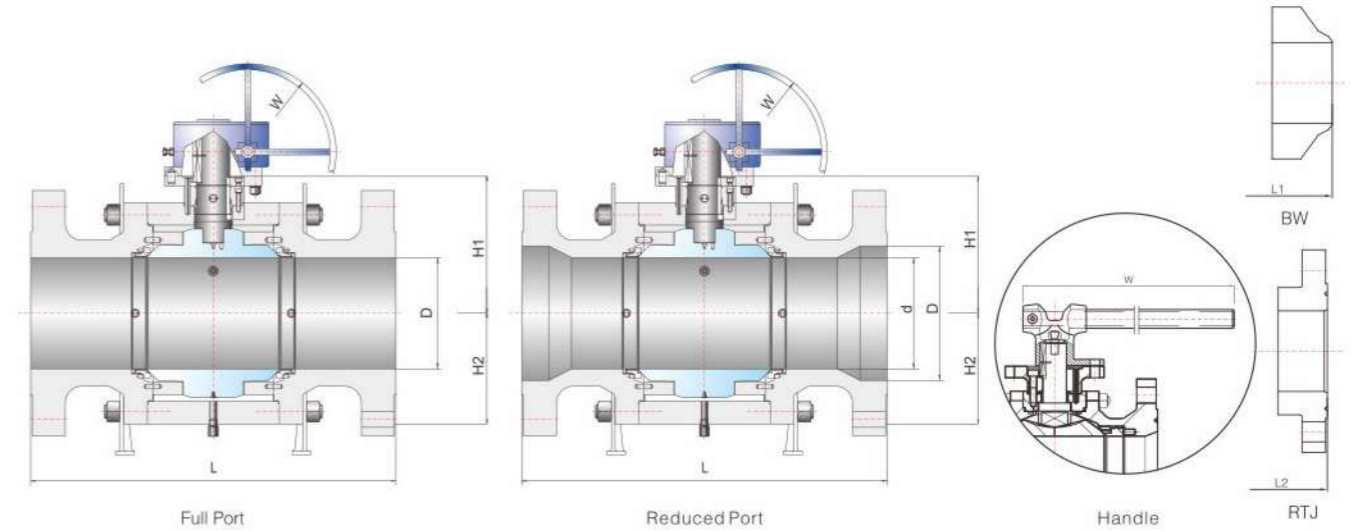
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

600LB



600LB

Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	11.50	292	8.11	206	4.45	113	15.75	400	70.5	32
3	80	2.99	76	14.02	356	12.40	315	5.08	129	29.53	750	147.7	67
4	100	4.02	102	17.01	432	12.99	330	6.65	169	39.37	1000	240.3	109
6	150	5.98	152	22.01	559	13.58	345	5.83	148	11.81	*300	573.2	260
8	200	7.99	203	25.98	660	16.34	415	7.28	185	11.81	*300	983.3	446
10	250	10.00	254	30.98	787	16.81	427	8.90	226	19.69	*500	1444.0	655
12	300	12.01	305	32.99	838	18.31	465	10.59	269	23.62	*600	2090.0	948
14	350	13.27	337	35.00	889	20.43	519	11.81	300	23.62	*600	2687.4	1219
16	400	15.24	387	39.02	991	25.12	638	13.78	350	23.62	*600	3758.8	1705
18	450	17.24	438	42.99	1092	26.89	683	15.83	402	23.62	*600	5216.1	2366
20	500	19.25	489	47.01	1194	29.45	748	17.56	446	23.62	*600	6501.4	2949
22	550	21.26	540	50.98	1295	33.62	854	19.37	492	31.50	*800	7462.9	3388
24	600	23.27	591	55.00	1397	36.10	917	20.91	531	31.50	*800	9314.4	4225
28	700	27.01	686	60.98	1549	37.72	958	21.89	556	31.50	*800	14303.4	6488
30	750	29.02	737	65.00	1651	40.75	1035	24.41	620	31.50	*800	15963.5	7241
32	800	30.75	781	70.00	1778	42.80	1087	26.22	666	31.50	*800	20617.4	9352
34	850	32.76	832	75.98	1930	43.46	1104	26.22	666	31.50	*800	22337.0	10132
36	900	34.49	876	82.01	2083	45.00	1143	28.27	718	31.50	*800	24887.7	11289
40	1000	38.50	978	85.00	2159	56.50	1435	34.92	887	31.50	*800	34352.1	15582
42	1050	40.24	1022	85.63	2175	64.49	1638	36.34	923	31.50	*800	38346.8	17394
48	1200	45.98	1168	95.87	2435	69.49	1765	42.05	1068	31.50	*800	56548.0	25650

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3\"/>															

* Gear box

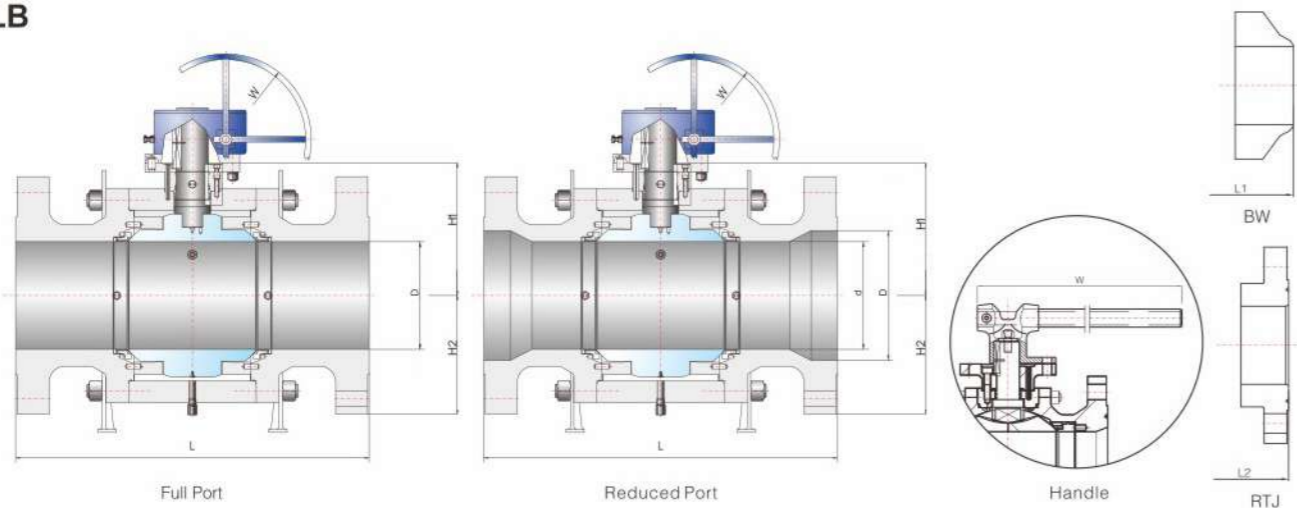
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

900LB



900LB

Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	14.49	368	4.69	119	4.69	119	25.95	460	132.3	60
3	80	2.99	76	15.00	381	5.24	133	5.24	133	39.37	1000	189.6	86
4	100	4.02	102	17.99	457	6.93	176	6.93	176	59.06	1500	326.3	148
6	150	5.98	152	24.02	610	6.02	153	6.02	153	11.81	*300	925.9	420
8	200	7.99	203	29.02	737	7.60	193	7.60	193	15.75	*400	1258.8	571
10	250	10.00	254	32.99	838	9.25	235	9.25	235	19.69	*500	1959.9	889
12	300	12.01	305	37.99	965	11.02	280	11.02	280	23.62	*600	2698.4	1224
14	350	12.76	324	40.51	1029	12.28	312	12.28	312	23.62	*600	3697.1	1677
16	400	14.76	375	44.49	1130	14.37	365	14.37	365	23.62	*600	4614.2	2093
18	450	16.73	425	47.99	1219	16.30	414	16.30	414	23.62	*600	6492.5	2945
20	500	18.62	473	52.01	1321	18.07	459	18.07	459	23.62	*600	8282.7	3757
22	550	20.63	524	55.98	1422	19.96	507	19.96	507	31.50	*800	10068.4	4567
24	600	22.52	572	60.98	1549	21.54	547	21.54	547	31.50	*800	14554.8	6602
28	700	26.26	667	69.02	1753	22.56	573	22.56	573	31.50	*800	22908.0	10391
30	750	28.11	714	74.02	1880	25.12	638	25.12	638	31.50	*800	26704.3	12113
32	800	30.00	762	80.00	2032	27.01	686	27.01	686	31.50	*800	29347.6	13312
34	850	31.89	810	85.00	2159	27.09	688	27.09	688	31.50	*800	42346.0	19208
36	900	33.74	857	90.00	2286	29.09	739	29.09	739	31.50	*800	48876.0	22170

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	2.01	51	2.99	76	15.00	381	4.69	119	4.69	119	18.11	460	147.7	67
4*3	100*80	2.99	76	4.02	102	17.99	457	5.24	133	5.24	133	39.37	1000	231.5	105
6*4	150*100	4.02	102	5.98	152	24.02	610	6.93	176	6.93	176	59.06	1500	449.7	204
8*6	200*150	5.98	152	7.99	203	29.02	737	6.02	153	6.02	153	11.81	*300	828.9	376
10*8	250*200	7.99	203	10.00	254	32.99	838	7.60	193	7.60	193	15.75	*400	1261.0	572
12*10	300*250	10.00	254	12.01	305	37.99	965	9.25	235	9.25	235	19.69	*500	2017.2	915
14*12	350*300	12.01	305	12.76	324	40.51	1029	11.02	280	11.02	280	23.62	*600	2656.5	1205
16*14	400*350	12.76	324	14.76	375	44.49	1130	12.28	312	12.28	312	23.62	*600	3362.0	1525
18*16	450*400	14.76	375	16.73	425	47.99	1219	14.37	365	14.37	365	23.62	*600	4554.7	2066
20*18	500*450	16.73	425	18.62	473	52.01	1321	16.30	414	16.30	414	23.62	*600	6137.6	2784
22*18	550*450	16.73	425	20.63	524	55.98	1422	16.30	414	16.30	414	23.62	*600	7248.7	3288
24*20	600*500	18.62	473	22.52	572	60.98	1549	18.07	459	18.07	459	23.62	*600	8573.7	3889
28*24	700*600	22.52	572	26.26	667	69.02	1753	21.54	547	21.54	547	31.50	*800	16710.8	7580
30*24	750*600	22.52	572	28.11	714	74.02	1880	21.54	547	21.54	547	31.50	*800	17594.8	7981
34*28	850*700	26.26	667	31.89	810	85.00	2159	22.56	573	22.56	573	31.50	*800	24695.8	11202
36*30	900*750	28.11	714	33.74	857	90.00	2286	25.12	638	25.12	638	31.50	*800	34508.4	15653

* Gear box

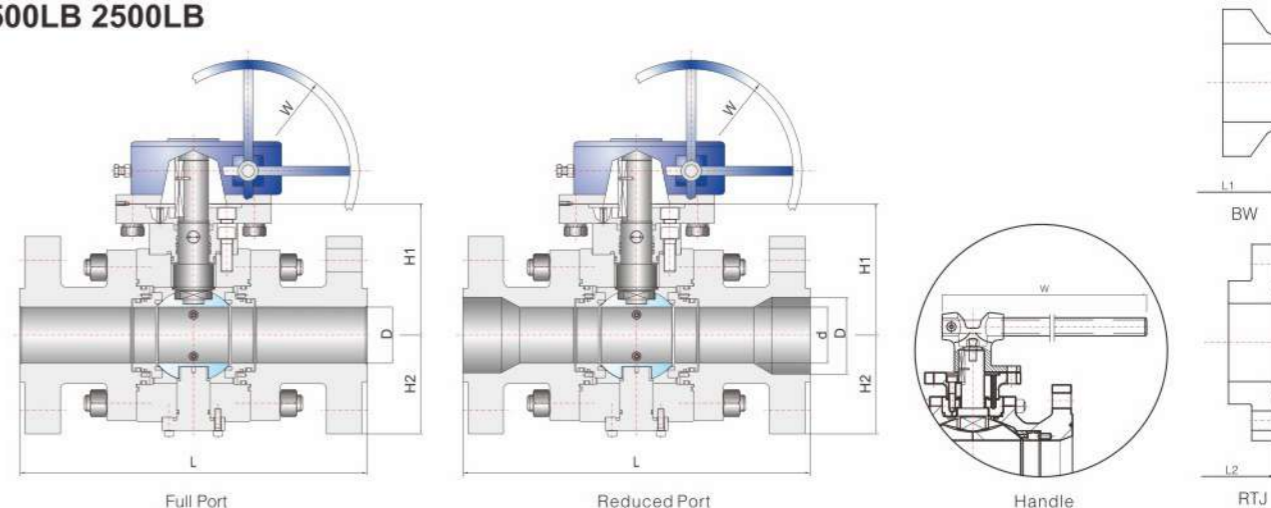
TRUNNION MOUNTED BALL VALVE



SUYAN VALVE

3PCS

1500LB 2500LB



1500LB

Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.93	49	14.49	368	5.31	135	5.31	135	25.59	650	57.3	26
3	75	2.91	74	18.50	470	5.71	145	5.71	145	39.37	1000	189.6	86
4	100	4.02	102	21.50	546	6.54	166	6.54	166	11.81	*300	454.1	206
6	150	5.75	146	27.76	705	7.56	192	7.56	192	15.75	*400	1214.7	551
8	200	7.64	194	32.76	832	9.37	238	9.37	238	19.69	*500	1776.9	806
10	250	9.41	239	39.02	991	10.79	274	10.79	274	23.62	*600	3223.1	1462
12	300	11.38	289	44.49	1130	12.52	318	12.52	318	23.62	*600	4682.6	2124
14	350	12.52	318	49.49	1257	19.02	483	19.02	483	23.62	*600	5943.6	2696
16	400	14.25	362	54.49	1384	21.02	534	21.02	534	23.62	*600	7846.2	3557
18	450	16.02	407	60.51	1537	23.86	606	23.86	606	23.62	*600	10383.7	4710
20	500	17.99	457	65.51	1664	27.01	686	27.01	686	31.50	*800	13615.6	6176
22	550	19.69	500	71.50	1816	28.78	731	28.78	731	31.50	*800	14087.4	6390
24	600	21.50	546	76.50	1943	30.51	775	30.51	775	31.50	*800	17577.3	7973

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	75*50	1.93	49	2.91	74	18.5	470	5.31	135	5.31	135	25.59	650	152.1	69
4*3	100*75	2.91	74	4.02	102	21.5	546	5.71	145	5.71	145	39.37	1000	361.5	164
6*4	150*100	4.02	102	5.75	146	27.76	705	6.54	166	6.54	166	11.81	1500	676.8	307
8*6	200*150	5.75	146	7.64	194	32.76	832	7.56	192	7.56	192	15.75	*300	1150.8	522
10*8	250*200	7.64	194	9.49	241	39.02	991	9.37	238	9.37	238	19.69	*400	1746.0	792
12*10	300*250	9.49	241	11.38	289	44.49	1130	10.79	274	10.79	274	23.62	*500	2482.4	1126
14*12	350*300	11.38	289	12.52	318	49.49	1257	12.52	318	12.52	318	23.62	*600	4755.3	2157
16*14	400*350	12.52	318	14.25	362	54.49	1384	19.02	483	19.02	483	23.62	*600	4728.9	2145
18*16	450*400	14.25	362	15.98	406	60.51	1537	21.02	534	21.02	534	23.62	*600	5817.9	2639
20*18	500*450	16.02	407	17.76	451	65.51	1664	23.86	606	23.86	606	23.62	*600	8234.2	3735
22*18	550*450	16.02	407	19.49	495	71.50	1816	23.86	606	11.93	303	23.62	*600	7936.5	3600
24*20	600*500	17.99	457	20.98	533	80.43	2043	27.01	686	27.01	686	31.50	*800	12896.8	5850

2500LB

Full Port

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.73	44	17.76	451	17.87	454	9.41	239	5.63	143	15.75	*400	231.5	105
3	80	2.52	64	22.76	578	22.99	584	10.43	265	7.52	191	19.69	*500	482.8	219
4	100	3.50	89	26.50	673	26.89	683	11.10	282	7.83	199	19.69	*500	888.3	403
6	150	5.24	133	35.98	914	36.5	927	20.59	523	11.77	299	23.62	*600	1810.0	821
8	200	7.13	181	40.24	1022	40.87	1038	24.21	615	14.88	378	27.56	*700	3633.2	1648
10	250	8.86	225	50.00	1270	50.87	1292	23.03	585	17.13	435	29.92	*760	5652.6	2564
12	300	10.51	267	55.98	1422	56.85	1444	27.72	704	21.26	540	29.92	*760	8315.8	3772

Reduced Port

Size		d		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	1.73	44	2.52	64	22.76	578	22.99	584	9.41	239	5.63	143	15.75	*400	339.48	154
4*3	100*80	2.52	64	3.50	89	26.50	673	26.89	683	10.43	265	7.52	191	19.69	*500	653.51	296
6*4	150*100	3.5	89	5.24	133	35.98	914	36.5</									

Top entry Ball valve Series



SUYAN top entry ball valves are designed, manufactured and tested in accordance with API 6D and ASME B16.34, and certified to API 607 sixth edition and API 6FA third edition fire safe tested design. The valve size range is from 2 inch to 36 inch, pressure rating is from 150LB to 2500LB. Top entry ball valves are capable for on line maintenance, there may replace or repair the ball, seat or soft seals after strip the cover, so SUYAN top entry ball valves have been widely used for oil & gas pipeline.



Top Entry

Design Features

- Fully Welded Body Structure
- Blow-out Proof Stem
- Fire Safe Tested Design
- Anti-Static Design
- ISO5211 Mount Pad
- Double Block and Bleed
- Cavity Pressure Relief
- Low Emission Design
- Low Torque Performance
- Secure Line Flow Locking Device
- VITON AED Delta Ring Seat Seal
- Buried Design, Extended Stem(Optional)



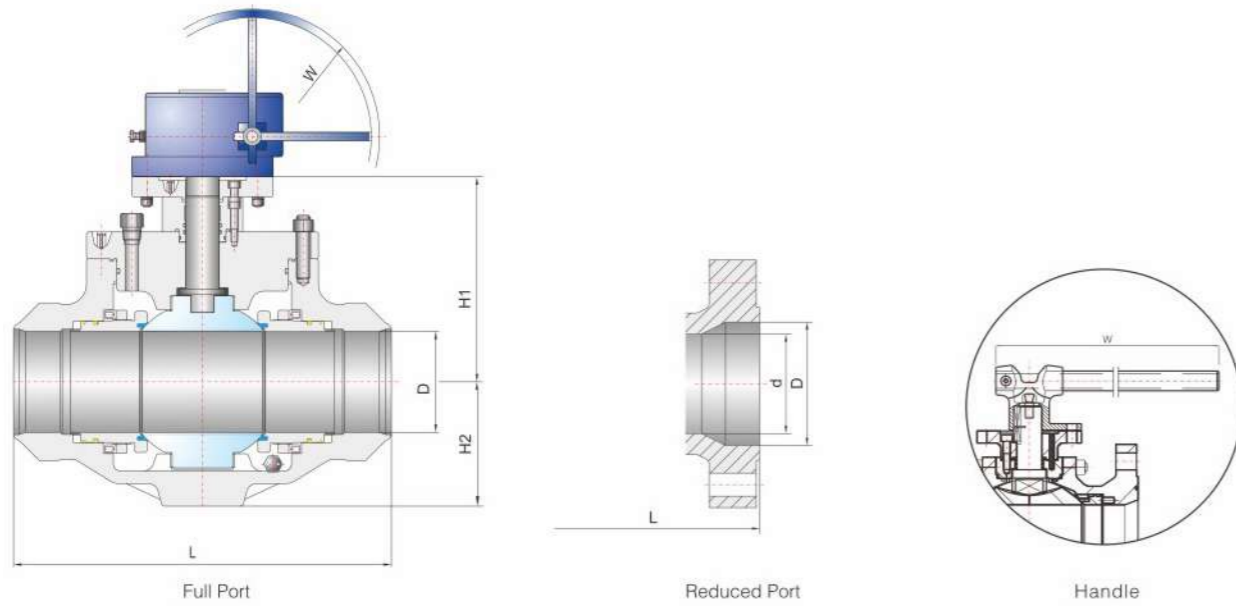
MATERIAL LIST

No	Part	Standard	Stainless Stee	Low Temperature	Sour Service
1	Body	ASTM A216 WCB	ASTM A351 CF8M	ASTM A352 LCB	ASTM A216 WCB
2	Closure	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
3	Ball	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
4	Seat Ring	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
5	Seat Insert	RPTFE	RPTFE	RPTFE	RPTFE
6	Spring Seat	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
7	Adjusting Pad	ASTM A276 410	ASTM A276 316	ASTM A276 304	ASTM A276 410-NC
8	Stem	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
9	Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
10	Fire Safe Seal	Graphite	Graphite	Graphite	Graphite
11	O-Ring	VITON A	VITON A	VITON A	VITON A
12	Back Up Ring	RPTFE	RPTFE	RPTFE	RPTFE
13	Gland Cap	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
14	Top Flange	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
15	Grounding Spring	SS316	SS316	SS316	SS316
16	Steel Ball	SS316	SS316	SS316	SS316
17	Gasket	SS+Graphite	SS+Graphite	SS+Graphite	SS+Graphite
18	Bolt	ASTM A193 B7	ASTM A193 B8	ASTM A320 L7	ASTM A193 B7M
19	Nut	ASTM A194 2H	ASTM A194 8	ASTM A194 4	ASTM A194 2HM
20	Injection	SS304	SS316	SS304	SS304
21	Drain valve	SS304	SS316	SS304	SS304
22	Vent valve	SS304	SS316	SS304	SS304
23	Key	Carbon Steel	Stainless steel	Stainless steel	Carbon Steel
24	Bearing	SS+PTFE	SS+PTFE	SS+PTFE	SS+PTFE
25	Nameplate	SS304	SS304	Ss304	Ss304

TOP ENTRY BALL VALVE



150LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	11.50	292	7.87	200	4.33	110	10.43	265	46.3	21
3	80	2.99	76	14.02	356	11.81	300	4.96	126	11.22	285	70.6	32
4	100	4.02	102	17.01	432	12.40	315	6.50	165	11.22	285	110.2	50
6	150	5.98	152	22.01	559	13.19	335	6.50	165	11.81	*300	361.6	164
8	200	7.99	203	25.98	660	15.94	405	7.87	200	11.81	*300	760.6	345
10	250	10.00	254	30.98	787	16.81	427	8.66	220	11.81	*300	970.0	440
12	300	12.01	305	32.99	838	18.31	465	10.31	262	19.69	*500	1272.1	577
14	350	13.27	337	35.00	889	19.92	506	11.54	293	23.62	*600	1893.7	859
16	400	15.24	387	39.02	991	24.49	622	13.43	341	23.62	*600	2522.1	1144
18	450	17.24	438	42.99	1092	26.22	666	16.22	412	23.62	*600	3174.6	1440
20	500	19.25	489	47.01	1194	28.74	730	17.13	435	23.62	*600	4285.7	1944
22	550	21.26	540	50.98	1295	32.80	833	18.90	480	23.62	*600	5185.2	2352
24	600	23.27	591	55.00	1397	35.24	895	20.39	518	31.50	*800	6179.5	2803
26	650	25.00	635	57.01	1448	35.43	900	21.06	535	31.50	*800	7054.7	3200
28	700	27.01	686	60.98	1549	36.81	935	21.34	542	31.50	*800	8924.2	4048
30	750	29.02	737	65.00	1651	39.76	1010	23.82	605	31.50	*800	13668.4	6200
32	800	30.75	781	70.00	1778	41.73	1060	25.59	650	31.50	*800	12103.2	5490
34	850	32.76	832	75.98	1930	42.40	1077	25.59	650	31.50	*800	14779.5	6704
36	900	34.49	876	82.01	2083	42.40	1115	27.56	700	31.50	*800	21164.0	9600

Reduced Port

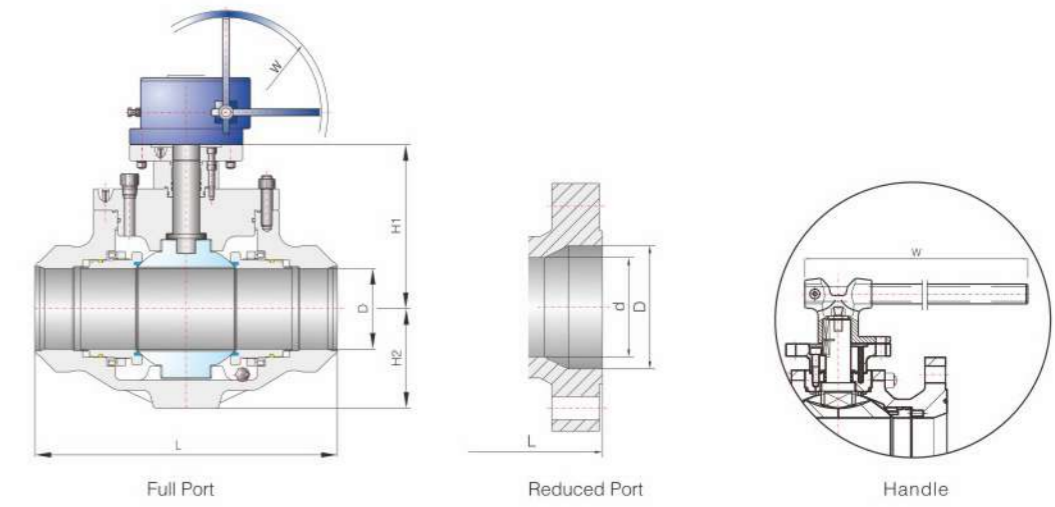
Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	2.01	51	2.99	76	14.02	356	7.87	200	4.33	110	10.43	265	58.4	27
4*3	100*80	2.99	76	4.02	102	17.01	432	11.81	300	4.96	126	11.22	285	88.2	40
6*4	150*100	4.02	102	5.98	152	22.01	559	12.40	315	6.50	165	11.22	285	149.9	68
8*6	200*150	5.98	152	7.99	203	25.98	660	13.19	335	6.50	165	11.81	*300	390.2	177
10*8	250*200	7.99	203	10.00	254	30.98	787	15.94	405	7.87	200	11.81	*300	676.8	307
12*10	300*250	10.00	254	12.01	305	32.99	838	16.81	427	8.66	220	11.81	*300	1122.1	509
14*10	350*250	10.00	254	13.27	337	35.00	889	16.81	427	8.66	220	11.81	*300	1591.7	722
16*12	400*300	12.01	305	15.24	387	39.02	991	18.31	465	10.31	262	19.69	*500	2138.5	970
18*14	450*350	13.27	337	17.24	438	42.99	1092	19.92	506	11.54	293	23.62	*600	2846.1	1291
20*16	500*400	15.24	387	19.25	489	47.01	1194	24.49	622	13.43	341	23.62	*600	3681.7	1670
22*18	550*450	17.24	438	21.26	540	50.98	1295	26.22	666	16.22	412	23.62	*600	4241.6	1924
24*20	600*500	19.25	489	23.27	591	55.00	1397	28.74	730	17.13	435	23.62	*600	4883.2	2215
26*22	650*550	21.26	540	25.00	635	57.01	1448	32.80	833	18.90	480	23.62	*600	5165.3	2343
28*24	700*600	23.27	591	27.01	686	60.98	1549	35.24	895	20.39	518	31.50	*800	5952.4	2700
30*24	750*600	23.27	591	29.02	737	65.00	1651	35.24	895	20.39	518	31.50	*800	6433.0	2918
32*26	800*650	25.00	635	30.75	781	70.00	1778	35.43	900	21.06	535	31.50	*800	8829.4	4005
34*28	850*700	27.01	686	32.76	832	75.98	1930	36.81	935	21.34	542	31.50	*800	9799.4	4445
36*30	900*750	29.02	737	34.49	876	82.01	2083	39.76	1010	23.82	605	31.50	*800	11011.9	4995

* Gear box

TOP ENTRY BALL VALVE



300LB



Full Port

Size		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	11.50	292	8.11	206	4.45	113	10.43	265	55.1	25
3	80	2.99	76	14.02	356	12.40	315	5.08	129	15.75	400	101.4	46
4	100	4.02	102	17.01	432	12.99	330	6.65	169	29.53	750	169.8	77
6	150	5.98	152	22.01	559	13.58	345	5.83	148	11.81	*300	377.0	171
8	200	7.99	203	25.98	660	16.34	415	7.28	185	11.81	*300	709.9	322
10	250	10.00	254	30.98	787	16.81	427	8.90	226	15.75	*400	1190.5	540
12	300	12.01	305	32.99	838	18.31	465	10.59	269	19.69	*500	1682.1	763
14	350	13.27	337	35.00	889	20.43	519	11.81	300	23.62	*600	2149.5	975
16	400	15.24	387	39.02	991	25.12	638	13.78	350	23.62	*600	3086.4	1400
18	450	17.24	438	42.99	1092	26.89	683	15.83	402	23.62	*600	3780.9	1715
20	500	19.25	489	47.01	1194	29.45	748	17.56	446	23.62	*600	5465.2	2479
22	550	21.26	540	50.98	1295	33.62	854	19.37	492	23.62	*600	4894.2	2220
24	600	23.27	591	55.00	1397	36.10	917	20.91	531	31.5	*800	6371.3	2890
28	700	27.01	686	60.98	1549	37.72	958	21.89	556	31.5	*800	10086.0	4575
30	750	29.02	737	65.00	1651	40.75	1035	24.41	620	31.5	*800	12323.6	5590
32	800	30.75	781	70.00	1778	42.80	1087	26.22	666	31.5	*800	13756.6	6240
34	850	32.76	832	75.98	1930	43.46	1104	26.22	666	31.5	*800	16247.8	7370
36	900	34.49	876	82.01	2083	45.00	1143	28.27	718	31.5	*800	18595.7	8435

Reduced Port

Size		d		D		L		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*50	2.01	51	2.99	76	14.02	356	8.11	206	4.45	113	10.43	265	79.4	36
4*3	100*80	2.99	76	4.02	102	17.01	432	12.40	315	5.08	129	15.75	400	121.3	55
6*4	150*100	4.02	102	5.98	152	22.01	559	12.99	330	6.65	169	29.53	750	246.9	112
8*6	200*150	5.98	152	7.99	203	25.98	660	13.58	345	5.83	148	11.81	*300	489.4	222
10*8	250*200	7.99	203	10.00	254	30.98	787	16.34	415	7.28	185	11.81	*300	839.4	381
12*10	300*250	10.00	254	12.01	305	32.99	838	16.81	427	8.90	226	15.75	*400	1278.7	580
14*10	350*250	10.00	254	13.27	337	35.00	889	16.81	427	8.90	226	15.75	*400	2028.2	920
16*12	400*300	12.01	305	15.24	387	39.02	991	18.31	465	10.59	269	19.69	*500	2314.8	1050
18*14	450*350	13.27	337	17.24	438	42.99	1092	20.43	519	11.81	300	23.62	*600	3373.0	1530
20*16	500*400	15.24	387	19.25	489	47.01	1194	25.12	638	13.78	350	23.62	*600	4034.4	1830
22*18	550*450	17.24	438	21.26	540	50.98	1295	26.89	683	15.83	402	23.62	*600	4431.2	2010
24*20	600*500	19.25	489	23.27	591	55.00	1397	29.45	748	17.56	446	23.62	*600	4894.2	2220
26*22	650*550	21.26	540	25.00	635	57.01	1448	33.62	854	19.37	492	23.62	*600	7054.7	3200
28*24	700*600	23.27	591	27.01	686	60.98	1549	36.10	917	20.91	531	31.5	*800	8708.1	3950
30*24	750*600	23.27	591	29.02	737	65.00	1651	36.10	917	20.91	531	31.5	*800	10681.2	4845
34*28	850*700	27.01	686	32.76	832	75.98	1930	37.72	958	21.89	556	31.5	*800	13448.0	61000
36*30	900*750	29.02	737	34.49	876	82.01	2083	40.75	1035	24.41	620	31.5	*800	16247.8	7370

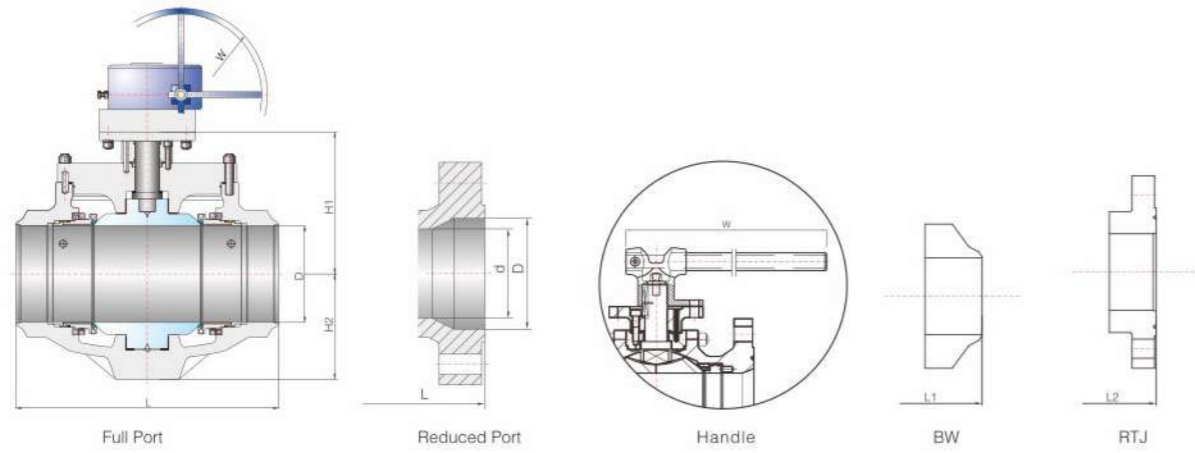
* Gear box



TOP ENTRY BALL VALVE



600LB 900LB



600LB Full PORT

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	11.50	292	11.61	295	7.68	195	4.33	110	15.75	400	83.78	38
3	80	2.99	76	14.02	356	14.13	359	9.45	240	4.33	110	29.53	750	176.37	80
4	100	4.02	102	17.01	432	17.13	435	11.02	280	6.89	175	39.37	1000	330.70	150
6	150	5.98	152	22.01	559	22.13	562	12.01	305	7.68	195	11.81	*300	652.57	296
8	200	7.99	203	25.98	660	26.10	663	15.75	400	11.02	280	11.81	*300	965.63	438
10	250	10.00	254	30.98	787	31.14	791	17.13	435	11.22	285	19.69	*500	1324.99	601
12	300	12.01	305	32.99	838	33.11	841	17.32	440	12.60	320	23.62	*600	1377.90	625
14	350	13.27	337	35.00	889	35.12	892	19.88	505	13.39	340	23.62	*600	2711.70	1230
16	400	15.24	387	39.02	991	39.13	994	23.23	590	16.14	410	23.62	*600	3384.11	1535
18	450	17.24	438	42.99	1092	43.11	1095	27.56	700	17.52	445	23.62	*600	4706.89	2135
20	500	19.25	489	47.01	1194	47.24	1200	30.51	775	20.08	510	23.62	*600	5820.23	2640
24	600	23.27	591	55.00	1397	55.39	1407	33.07	840	25.20	640	23.62	*600	8730.35	3960

REDUCED PORT

Size		d		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2*1-1/2	50*40	1.50	38	2.01	51	11.50	292	11.61	295	8.23	209	2.76	70	15.75	400	88.19	40
3*2	80*50	2.01	51	2.99	76	14.02	356	14.13	359	7.68	195	4.33	110	15.75	400	119.05	54
4*3	100*80	2.99	76	4.02	102	17.01	432	17.13	435	9.45	240	4.33	110	29.53	750	218.26	99
6*4	150*100	4.02	102	5.98	152	22.01	559	22.13	562	11.02	280	6.89	175	39.37	1000	467.38	212
8*6	200*150	5.98	152	7.99	203	25.98	660	26.10	663	12.01	305	7.68	195	11.81	*300	670.21	304
10*8	250*200	7.99	203	10.00	254	30.98	787	31.14	791	15.75	400	11.02	280	11.81	*300	1124.36	510
12*10	300*250	10.00	254	12.01	305	32.99	838	33.11	841	17.13	435	11.22	285	19.69	*500	1988.58	902
14*12	350*300	12.01	305	13.27	337	35.00	889	35.12	892	17.32	440	12.60	320	23.62	*600	2403.05	1090
16*14	400*350	13.27	337	15.24	387	39.02	991	39.13	994	19.88	505	13.39	340	23.62	*600	2888.07	1310
18*16	450*400	15.24	387	17.24	438	42.99	1092	43.11	1095	23.23	590	16.14	410	23.62	*600	3615.60	1640
20*18	500*450	17.24	438	19.25	489	47.01	1194	47.24	1200	27.56	700	17.52	445	23.62	*600	5357.26	2430
24*20	600*500	19.25	489	23.27	591	55.00	1397	55.39	1407	30.51	775	20.08	510	23.62	*600	7583.94	3440

900LB Full PORT

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	14.49	368	14.61	371	7.87	200	4.72	120	29.53	750	114.64	52
3	80	2.99	76	15.00	381	15.12	384	9.45	240	5.12	130	39.37	1000	191.80	87
4	100	4.02	102	17.99	457	18.11	460	11.02	280	6.89	175	59.06	1500	352.74	160
6	150	5.98	152	24.02	610	24.13	613	13.78	350	8.66	220	11.81	*300	848.78	385
8	200	7.99	203	29.02	737	29.13	740	15.35	390	10.24	260	15.75	*400	1234.60	560
10	250	10.00	254	32.99	838	33.11	841	18.90	480	12.20	310	23.62	*600	1807.80	820
12	300	12.01	305	37.99	965	38.11	968	21.18	538	16.14	410	23.62	*600	2480.21	1125

REDUCED PORT

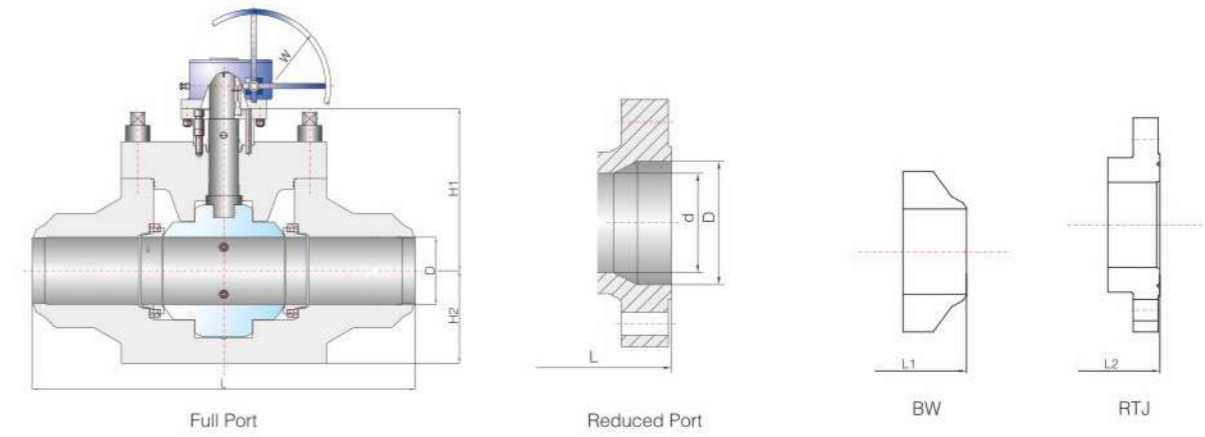
Size		d		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2*1-1/2	50*40	1.50	38	2.01	51	14.49	368	14.61	371	8.46	215	3.15	80	15.75	400	97.00	44
3*1-1/2	80*40	2.01	51	2.99	76	15.00	381	15.12	384	7.87	200	4.72	120	29.53	750	123.46	56
4*3	100*80	2.99	76	4.02	102	17.99	457	18.11	460	9.45	240	4.33	110	39.37	1000	207.24	94
6*4	150*100	4.02	102	5.98	152	24.02	610	24.13	613	11.02	280	6.89	175	59.06	1500	498.25	226
8*6	200*150	5.98	152	7.99	203	29.02	737	29.13	740	13.78	350	13.78	350	11.81	*300	1058.22	480
10*8	250*200	7.99	203	10.00	254	32.99	838	33.11	841	15.35	390	15.35	390	15.75	*400	1433.01	650
12*10	300*250	10.00	254	12.01	305	37.99	965	38.11	968	18.90	480	18.90	480	23.62	*600	1913.62	868

* Gear box

TOP ENTRY BALL VALVE



1500LB 2500LB



1500LB FULL PORT

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	14.49	368	14.61	371	8.07	205	4.72	120	29.53	750	132.28	60
3	80	2.99	76	18.5	470	18.62	473	8.27	210	4.92	125	39.37	1000	253.53	115
4	100	4.02	102	21.5	546	21.61	549	9.65	245	6.30	160	39.37	1000	427.70	194
6	150	5.75	146	27.76	705	27.99	711	13.19	335	10.04	255	15.75	*400	1278.69	580
8	200	7.64	194	32.76	832	33.15	842	16.81	427	13.39	340	19.69	*500	1657.88	752
10	250	9.49	241	39.02	991	39.41	1001	19.76	502	15.00	381	23.62	*600	2634.54	1195
12	300	11.38	289	44.49	1130	45.12	1146	20.98	533	17.24	438	23.62	*600	4784.06	2170

REDUCED PORT

Size		d		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*40	2.01	51	2.99	76	18.5	470	18.62	473	8.07	205	4.72	120	29.53	750	180.78	82
4*3	100*80	2.99	76	4.02	102	21.5	546	21.61	549	8.27	210	4.92	125	39.37	1000	330.70	150
6*4	150*100	4.02	102	5.75	146	27.76	705	27.99	711	9.65	245	6.30	160	11.81	*300	650.37	295
8*6	200*150	5.75	146	7.64	194	32.76	832	33.11	841	13.19	335	10.04	255	15.75	*400	1521.20	690
10*8	250*200	7.64	194	9.49	241	39.02	991	39.41	1001	16.81	427	13.39	340	19.69	*500	2050.31	930

2500LB FULL PORT

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.77	45	17.76	451	17.87	454	9.84	250	5.51	140	15.75	*400	54.45	120
3	80	2.52	64	22.76	578	22.99	584	11.81	300	5.91	150	19.69	*500	81.67	180
4	100	3.50	89	26.5	673	26.89	683	13.78	350	7.09	180	23.62	*600	190.56	420
6	150	5.24	133	35.98	914	36.5	927	27.56	700	18.31	465	23.62	*600	555.81	1225
8	200	7.13	181	40.24	1022	40.87	1038	30.71	780	20.87	530	23.62	*600	934.66	2060
10	250	8.90	226	50	1270	50.87	1292	40.75	1035	29.33	745	23.62	*600	1842.11	4060
12	300	10.47	266	55.98	1422	56.85	1444	44.29	1125	32.48	825	23.62	*600	4092.56	9020

REDUCED PORT

Size		d		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3*2	80*40	1.77	45	2.52	64	22.76	578	22.99	584	9.84	250	5.51	140	11.81	*300	63.52	140
4*3	100*80	2.52	64	3.50	89	26.50	673	26.89	683	11.81	300	5.91	150	15.75	*400	99.82	220
6*4	150*100	3.50	89	5.24	133	35.98	914	36.5	92								

Full Welded Ball valve Series



SUYAN Fully welded ball valve combines the strength of forged components with a compact structure design, are complied to per API 6D, ASME B16.34 standard, engineered for heavy duty, limited maintenance performance and made of forged steel to assure uniform fine grain structure and toughness, and the size range is from 2 inch upto 60 inch, pressure rating is from 150LB upto 2500LB. This valve is commonly selected for gas transmission, gas pipeline, gas plants etc a number of applications.



送审稿

TEL: 400-533-5118

FULL WELDED

Design Features

- Fully Welded Body Structure
- Blow-out Proof Stem
- Fire Safe Tested Design
- Anti-Static Design
- ISO5211 Mount Pad
- Double Block and Bleed
- Cavity Pressure Relief
- Low Emission Design
- Low Torque Performance
- Secure Line Flow Locking Device
- VITON AED Delta Ring Seat Seal
- Buried Design, Extended Stem(Optional)



MATERIAL LIST

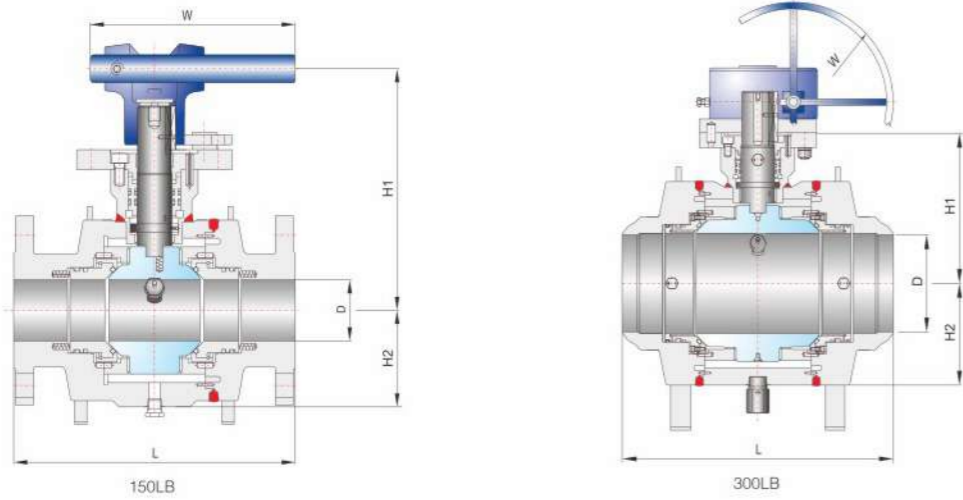
No	Part	Standard	Stainless Steel	Low Temperature	Sour Service
1	Body	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
2	Closure	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
3	Ball	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
4	Seat Ring	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
5	Sealing Ring(O Ring)	Viton AED	Viton AED	Viton AED	Viton AED
6	Support Ring	RPTFE	RPTFE	RPTFE	RPTFE
7	Back Up Ring	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
8	Stem	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
9	Spring	Inconel X-750	Inconel X-750	Inconel X-750	Inconel X-750
10	Fire Safe Seal	Graphite	Graphite	Graphite	Graphite
11	O-Ring	VITON A	VITON A	VITON A	VITON A
12	Back Up Ring	RPTFE	RPTFE	RPTFE	RPTFE
13	Gland Cap	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
14	Top Flange	ASTM A105N	ASTM A182 F316	ASTM A350 LF2	ASTM A105N
15	Trunnion Support	ASTM A105N+ENP	ASTM A182 F316	ASTM A350 LF2+ENP	ASTM A105N+ENP
16	Grounding Spring	SS316	SS316	SS316	SS316
17	Steel Ball	SS316	SS316	SS316	SS316
18	Gasket	SS+Graphite	SS+Graphite	SS+Graphite	SS+Graphite
19	Injection	SS304	SS316	SS304	SS304
20	Drain valve	SS304	SS316	SS304	SS304
21	Vent valve	SS304	SS316	SS304	SS304
22	Pin	Carbon Steel	Stainless steel	Stainless steel	Carbon Steel
23	Key	Carbon Steel	Stainless steel	Stainless steel	Carbon Steel
24	Bearing	SS+PTFE	SS+PTFE	SS+PTFE	SS+PTFE
25	Nameplate	SS304	SS304	SS304	SS304

FULL WELDED BALL VALVE



SUYAN VALVE

150LB 300LB



150LB

Size		D		L				H1		H2		W		Weight	
in	mm	in	mm	RF		BW		in	mm	in	mm	in	mm	lb	kg
2	50	1.93	51	7.01	178	8.50	216	7.87	200	4.33	110	10.43	265	55.1	25
3	80	2.91	74	7.99	203	11.14	283	11.81	300	4.96	126	11.22	285	105.8	48
4	100	4.02	102	9.02	229	12.01	305	12.40	315	6.50	165	11.22	285	169.8	77
6	150	5.98	152	15.51	394	17.99	457	13.19	335	6.50	165	11.81	*300	429.9	195
8	200	7.99	203	17.99	457	20.51	521	15.94	405	7.87	200	11.81	*300	610.7	277
10	250	10.00	254	20.98	533	22.01	559	16.81	427	8.66	220	11.81	*300	864.2	392
12	300	12.01	305	24.02	610	25.00	635	18.31	465	10.31	262	19.69	*500	1283.1	582
14	350	13.27	337	27.01	686	30.00	762	19.92	506	11.54	293	19.69	*500	1662.3	754
16	400	15.24	387	30.00	762	32.99	838	24.49	622	13.43	341	23.62	*600	2204.6	1000
18	450	17.24	438	34.02	864	35.98	914	26.22	666	16.22	412	23.62	*600	3020.3	1370
20	500	19.25	489	35.98	914	39.02	991	28.74	730	17.13	435	23.62	*600	3988.1	1809
22	550	21.26	540	40.00	1016	40.00	1016	32.80	833	18.90	480	23.62	*600	5105.9	2316
24	600	23.27	591	42.01	1067	45.00	1143	35.24	895	20.39	518	31.50	*800	6285.3	2851
26	650	25.00	635	45.00	1143	49.02	1245	35.43	900	21.06	535	31.50	*800	7517.7	3410
28	700	27.01	686	49.02	1245	52.99	1346	36.81	935	21.34	542	31.50	*800	9285.8	4212
30	750	29.02	737	50.98	1295	55.00	1397	39.76	1010	23.82	605	31.50	*800	10824.6	4910
32	800	30.75	781	54.02	1372	60.00	1524	41.73	1060	25.59	650	31.50	*800	13745.7	6235
34	850	32.76	832	57.99	1473	64.02	1626	42.40	1077	25.59	650	31.50	*800	14665.0	6652
36	900	34.49	876	60.00	1524	67.99	1727	43.90	1115	27.56	700	31.50	*800	17365.6	7877
40	1000	38.50	978	69.02	1753	77.01	1956	55.12	1400	34.06	865	31.50	*800	24136.0	10948
42	1050	40.24	1022	73.03	1855	82.01	2083	62.91	1598	35.43	900	31.50	*800	27237.8	12355
48	1200	45.98	1168	84.02	2134	84.02	2134	67.80	1722	41.02	1042	31.50	*800	37764.8	17130
54	1350	51.73	1314	97.99	2489	97.99	2489	70.71	1769	45.87	1165	31.50	*800	71869.5	32600
56	1400	53.62	1362	101.30	2573	101.30	2573	71.65	1820	50.39	1280	31.50	*800	68893.8	31250
60	1500	57.52	1461					73.43	1865	58.90	1496	31.50	*800	76603.9	34750

300LB

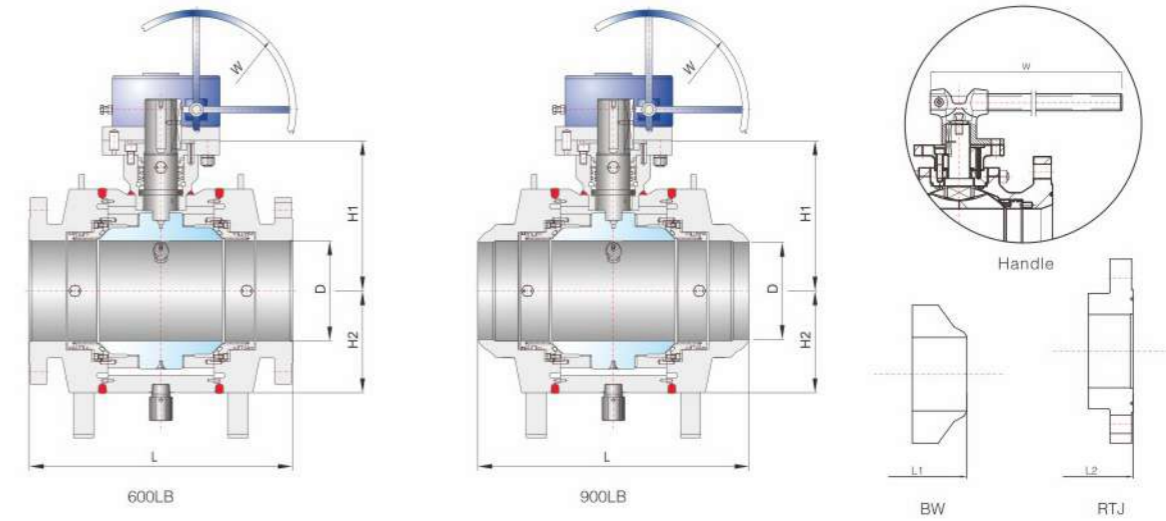
Size		D		L				H1		H2		W		Weight	
in	mm	in	mm	RF		BW		in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	8.50	216	8.50	216	8.11	206	4.45	113	10.43	265	61.7	28
3	80	2.99	76	11.14	283	11.14	283	12.40	315	5.08	129	15.75	400	119.0	54
4	100	4.02	102	12.01	305	12.01	305	12.99	330	6.65	169	29.53	750	191.8	87
6	150	5.98	152	15.87	403	17.99	457	13.58	345	5.83	148	11.81	*300	465.2	211
8	200	7.99	203	19.76	502	20.51	521	16.34	415	7.28	185	11.81	*300	657.0	298
10	250	10.00	254	22.36	568	22.01	559	16.81	427	8.90	226	15.75	*400	937.0	425
12	300	12.01	305	25.51	648	25.00	635	18.31	465	10.59	269	19.69	*500	1369.1	621
14	350	13.27	337	30.00	762	30.00	762	20.43	519	11.81	300	19.69	*600	1741.6	790
16	400	15.24	387	32.99	838	32.99	838	25.12	638	13.78	350	23.62	*600	2568.4	1165
18	450	17.24	438	35.98	914	35.98	914	26.89	683	15.83	402	23.62	*600	3410.5	1547
20	500	19.25	489	39.02	991	39.02	991	29.45	748	17.56	446	23.62	*600	4205.9	1935
22	550	21.26	540	42.99	1092	42.99	1092	33.62	854	19.37	492	23.62	*600	5081.6	2305
24	600	23.27	591	45.00	1143	45.00	1143	36.10	917	20.91	531	31.50	*800	6536.6	2965
28	700	27.01	686	52.99	1346	52.99	1346	37.72	958	21.89	556	31.50	*800	10090.5	4577
30	750	29.02	737	55.00	1397	55.00	1397	40.75	1035	24.41	620	31.50	*800	11902.6	5399
32	800	30.75	781	60.00	1524	60.00	1524	42.80	1087	26.22	666	31.50	*800	14825.9	6725
34	850	32.76	832	64.02	1626	64.02	1626	43.46	1104	26.22	666	31.50	*800	15718.8	7130
36	900	34.49	876	67.99	1727	67.99	1727	45.00	1143	28.27	718	31.50	*800	17850.6	8097
40	1000	38.50	978	77.01	1956	77.01	1956	56.50	1435	34.92	887	31.50	*800	24910.0	11295
42	1050	40.24	1022	82.01	2083	82.01	2083	64.49	1638	36.34	923	31.50	*800	28935.4	13125
48	1200	45.98	1168	85.43	2170	85.43	2170	69.49	1765	42.05	1068	31.50	*800	41567.7	18855
54	1350	51.73	1314					70.71	1796	45.87	1165	31.50	*800	71869.5	32600
56	1400	53.62	1362	100.12	2543	100.12	2543	71.65	1820	50.39	1280	31.50	*800	70315.7	31895
60	1500	57.52	1461	103.43	2627	103.43	2627	73.43	1865	58.90	1496	31.50	*800	78296.4	35515

FULL WELDED BALL VALVE



SUYAN VALVE

600LB 900LB



600LB

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	11.50	292	11.61	295.00	8.11	206	4.45	113	18.11	460	79.4	36
3	80	2.99	76	14.02	356	14.13	359.00	12.40	315	5.08	129	29.53	750	156.5	71
4	100	4.02	102	17.01	432	17.13	435.00	12.99	330	6.65	169	39.37	1000	295.4	134
6	150	5.98	152	22.01	559	22.13	562.00	13.58	345	5.83	148	11.81	*300	593.0	269
8	200	7.99	203	25.98	660	26.14	664.00	16.34	415	7.28	185	11.81	*300	804.7	365
10	250	10.00	254	30.98	787	31.14	791.00	16.81	427	8.90	226	19.69	*500	1203.7	546
12	300	12.01	305	32.99	838	33.11	841.00	18.31	465	10.59	269	23.62	*600	1336.0	606
14	350	13.27	337	35.00	889	35.12	892.00	20.43	519	11.81	300	23.62	*600	2317.0	1051
16	400	15.24	387	39.02	991	39.13	994.00	25.12	638	13.78	350	23.62	*600	3119.5	1415
18	460	17.24	438	42.99	1092	43.11	1095.00	26.89	683	15.83	402	23.62	*600	4248.3	1927
20	500	19.25	489	47.01	1194	47.24	1200.00	29.45	748	17.56	446	23.62	*600	5357.2	2430
22	550	21.26	540	50.98	1295	51.38	1305.00	33.62	854	19.37	492	31.50	*800	6999.6	3175
24	600	23.27	591	55.00	1397	55.39	1407.00	36.10	917	20.91	531	31.50	*800	8545.0	3876
28	700	27.01	686	60.98	1549	61.50	1562.00	37.72	958	21.89	556	31.50	*800	12837.4	5823
30	750	29.02	737	65.00	1651	65.51	1664.00	40.75	1035	24.41	620	31.50	*800	14512.9	6583
32	800	30.75	781	70.00	1778	70.63	1794.00	42.80	1087	26.22	666	31.50	*800	17043.8	7731
34	850	32.76	832	75.98	1930	76.61	1946.00	43.46	1104	26.22	666	31.50	*800	19363.0	8783
36	900	34.49	876	82.01	2083	82.64	2099.00	45.00	1143	28.27	718	31.50	*800	22839.7	10360
40	1000	38.50	978	85.43	2159	85.43	2170.00	56.50	1435	34.92	887	31.50	*800	31514.8	14295
42	1050	40.24	1022	85.63	2175	85.63	2175.00	64.49	1638	36.34	923	31.50	*800	24265.4	11170
48	1200	45.98	1168	95.87	2435	95.87	2435.00	69.49	1765	42.05	1068	31.50	*800	51753.4	23475
54	1350	51.73	1314					70.71	1796	45.87	1165	31.50	*800	71871.1	32600
56	1400	53.62	1362	106.69	2710	106.69	2710.00	71.65	1820	50.39	1280	31.50	*800	76653.9	34770
60	1500	57.52	1461	110.00	2794	110.00	2794.00	73.43	1865	58.90	1496	31.50	*800	86067.6	39040

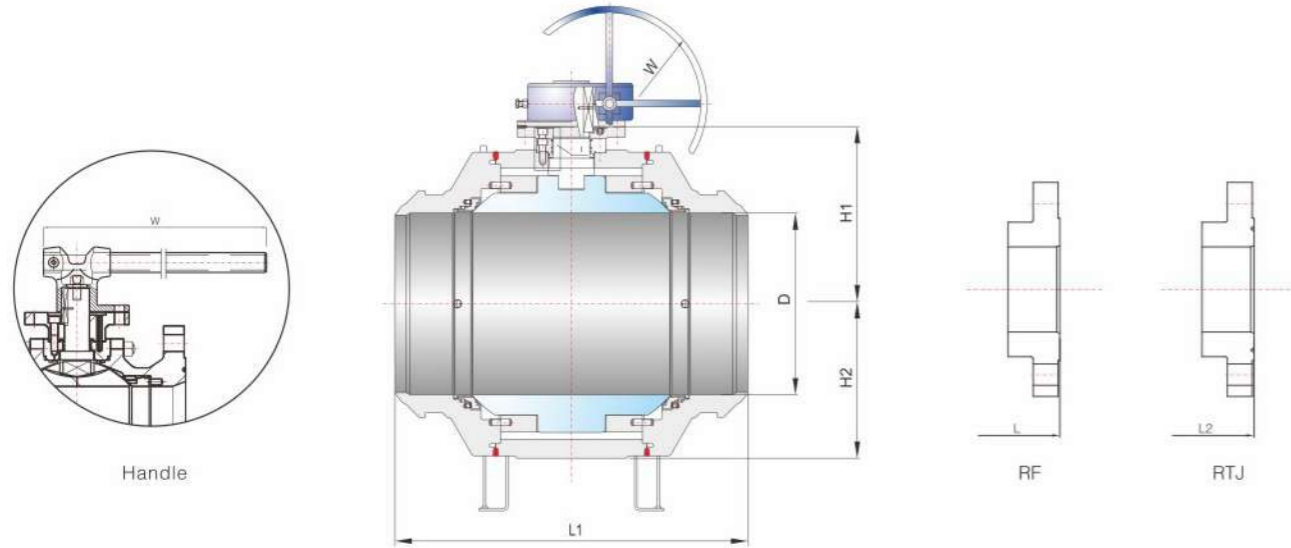
900LB

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FULL WELDED BALL VALVE



1500LB 2500LB



1500LB

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	2.01	51	14.49	368	14.61	371	8.70	221	5.12	130	29.53	750	127.9	58
3	80	2.99	76	18.50	470	18.62	473	11.69	297	5.98	152	39.37	1000	246.9	112
4	100	4.02	102	21.50	546	21.61	549	13.58	345	6.54	166	11.81	*300	423.3	192
6	150	5.75	146	27.76	705	27.99	711	14.37	365	7.56	192	15.75	*400	1091.3	495
8	200	7.64	194	32.76	832	33.15	842	16.65	423	9.37	238	19.69	*500	1313.9	596
10	250	9.49	241	39.02	991	39.41	1001	22.05	560	10.79	274	23.62	*600	1922.4	872
12	300	11.38	289	44.49	1130	45.12	1146	23.94	608	12.52	318	23.62	*600	3284.9	1490
14	350	12.52	318	49.49	1257	50.24	1276	26.06	662	19.02	483	23.62	*600	3851.4	1747
16	400	14.25	362	54.49	1384	55.35	1406	31.34	796	21.02	534	23.62	*600	5092.6	2310
18	450	16.02	407	60.51	1537	61.38	1559	33.43	849	23.86	606	23.62	*600	6851.9	3108
20	500	17.99	457	65.51	1664	66.38	1686	37.95	964	27.01	686	31.50	*800	8483.3	3848
22	550	19.49	495	71.50	1816	/	/	40.35	1025	28.78	731	31.50	*800	11056.1	5015
24	600	21.02	534	80.43	2043	81.54	1972	41.93	1065	30.51	775	31.50	*800	13933.1	6320

2500LB

Size		D		L-L1(RF-BW)		L2(RTJ)		H1		H2		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2	50	1.73	44	17.76	451	17.87	454	9.06	230	4.76	121	15.75	*400	229.3	104
3	80	2.52	64	22.76	578	22.99	584	11.18	284	5.75	146	19.69	*500	460.3	209
4	100	3.50	89	26.50	673	26.89	683	11.93	303	6.46	164	19.69	*500	822.3	373
6	150	5.24	133	35.98	914	36.50	927	15.51	394	8.66	220	23.62	*600	1684.3	764
8	200	7.13	181	40.24	1022	40.87	1038	19.21	488	12.28	312	27.56	*700	3661.8	1661
10	250	8.86	225	50.00	1270	50.87	1292	23.62	600	16.73	425	27.56	*700	5650.4	2563
12	300	10.51	267	55.98	1422	56.89	1445	34.33	872	24.76	629	29.92	*760	8152.6	3698

ENGINEERING DATA



Flow Coefficient(CV Value) Specification Pressure Temperature Chart

SIZE(inch)	150LB	300LB	600LB	900LB	1500LB	2500LB
1/2	25	25	25	25	25	25
3/4	53	53	53	53	53	53
1	92	92	92	92	92	92
1-1/2	213	213	213	213	213	213
2	500	430	370	320	320	260
3	1360	1100	1020	920	820	567
4	2500	2000	1850	1760	1600	1117
6	5300	5250	4400	4300	4150	2532
8	10750	10100	8450	8475	8010	4728
10	17500	16820	14250	14160	13220	7338
12	26750	25950	22550	21200	18800	10363
14	31850	30900	28500	26700	24180	12582
16	44000	42600	38150	36600	33150	16363
18	58000	55870	51150	4900	45703	20641
20	75500	72500	68500	64600	60750	25906
22	91770	86850	80150			
24	113400	109340	98860			

*Other elastomer materials are available upon request.

Notes

- All the sizes are in full port.
- Pressure Ratings are according to B 16.34.

Method of Calculating Flow

The Flow Coefficient Cv of a valve is the flow rate of water (gallons/minute) through a fully opened valve, with a pressure drop of 1 psi across the valve. To find the flow of liquid through the valve from the Cv, use the following formulas:

Liquid Flow:

$$Q_L = C_v(P/G)^{1/2}$$

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

P = Differential pressure across the valve

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

Gas Flow:

$$Q_g = 61C_v(P_2P/g)^{1/2}$$

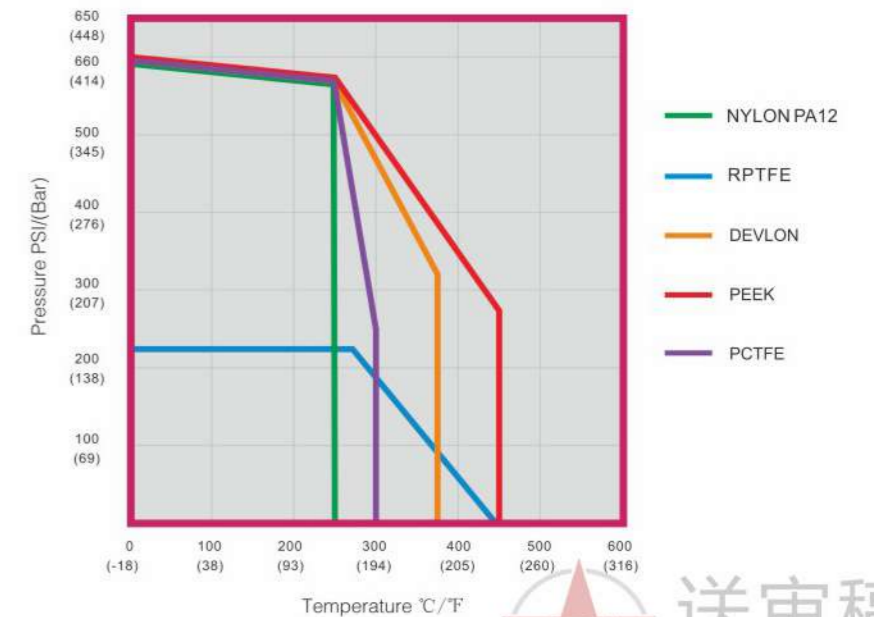
(For non-critical flow, P/P < 1.0)

Q_L = Flow rate of gas (CFH at STP)

P₂ = Outlet pressure (psia)

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

Pressure Temperature Chart



送审稿
Tel: 400-633-5118



Operating Torque Standard

Size in	150LB(2.0MPa)			300LB(5.0MPa)			600LB(10.0MPa)		
	N.m	Flange No.	Stem Diamete	N.m	Flange No.	Stem Diamete	N.m	Flange No.	Stem Diamete
1 1/2"	50	F10	22		F10	22	90	F10	22
2"	80	F10	27	130	F10	27	150	F10	27
3"	110	F12	36	160	F12	36	250	F12	36
4"	160	F12	36	240	F12	36	480	F14	40
5"	300	F14	48	450	F14	48	800	F14	48
8"	800	F14	48	1200	F14	48	2000	F16	58
10"	1000	F16	58	1700	F16	58	3000	F25	75
12"	1800	F16	58	2700	F16	58	3800	F25	75
14"	2500	F25	75	3700	F25	75	5800	F30	98
16"	3500	F25	75	4500	F25	75	9500	F30	98
18"	4500	F30	98	5350	F30	98	14000	F30	105
20"	5500	F30	98	8500	F30	98	18000	F30	115
22"	7150	F30	98	10500	F30	98	20000	F30	115
24"	9500	F30	98	15500	F30	115	25000	F35	130
26"	10800	F30	115	18500	F30	115	30000	F35	130
28"	12800	F30	120	27300	F30	120	35000	F35	130
30"	16500	F30	120	30500	F30	120	41500	F40	160
32"	20500	F30	120	36000	F30	120	48000	F40	160
34"	24000	F30	120	42000	F30	120	53000	F40	160
36"	36000	F30	120	51000	F40	160	58000	F40	160
40"							67000	F48	180

Size in	900LB(16.0MPa)			1500LB(25.0MPa)			2500LB(42.0MPa)		
	N.m	Flange No.	Stem Diamete	N.m	Flange No.	Stem Diamete	N.m	Flange No.	Stem Diamete
2"	200	F10	27	220	F10	27	400	F12	36
3"	450	F12	36	550	F12	36	1000	F14	40
4"	850	F14	40	1000	F14	40	1900	F16	48
5"	1500	F16	48	2500	F16	48	4800	F16	58
8"	3500	F16	58	5000	F16	58	5500	F25	75
10"	5200	F25	75	8000	F25	75	9200	F25	85
12"	7000	F25	75	12000	F25	85	20000	F30	98
14"	11000	F30	98	18000	F30	105			
16"	15500	F30	105	22000	F30	115			
18"	22500	F30	115	31500	F35	130			
20"	27000	F30	115	40000	F35	130			
22"	31000	F35	130	48000	F40	150			
24"	38000	F35	130	65000	F40	155			

- Note:
- Above Torque value are calculated based on room temperature, if other size torque required, please contact with YDF Valves.
 - When sizing the actuator, please consider safety fact 1.2~1.5.
 - For more details, the valve torque will be changed under different working temperature, and the torque will be changed for different seat materials. please contact with YDF Valves.

Standard

API 6D	Specification for pipeline valve	BSI-BS 4504	Circular flange for pipe valve and fittings
API 6FA	Fire test for valve	BSI-BS 5146	inspection and test of valve
API 598	Valve inspection and testing	BSI-BS EN 558	industrial valves
API 608	Metal ball valve flanged threaded and welding end	MSS-SP-6	Standard finishes for contact face of pipe flanges
ASME B16.5	Pipe flanged and flanged fittings	MSS-SP-55	Quality standard for steel casting for valves flange and fitting and other piping components
ASME B16.25	Butt Welding Ends	NACE-MR0175	sulfide stress cracking resistant material for Oilfield Equipment
ASME B16.10	Face to face and end to end dimension of valve	ISO-14313	Petroleum and natural gas industries-pipeline transportation systems-pipe valves
ASME B16.34	valve-flanged threaded and welding end	ISO-5208	Industrial valves-pressure testing of valve
ASME Section VIII,Div.1	Rules for construction of pressure vessels	ISO-5211	Industrial valves-part turn actuator attachmen
ASME Section VIII,Div.2	Alternativ rules for construction of pressure vessels	ISO-7172	Flanged steel ball valve
ASME Section V	Nondestructive examination	ISO-15848	industrial valves low emission measurement

