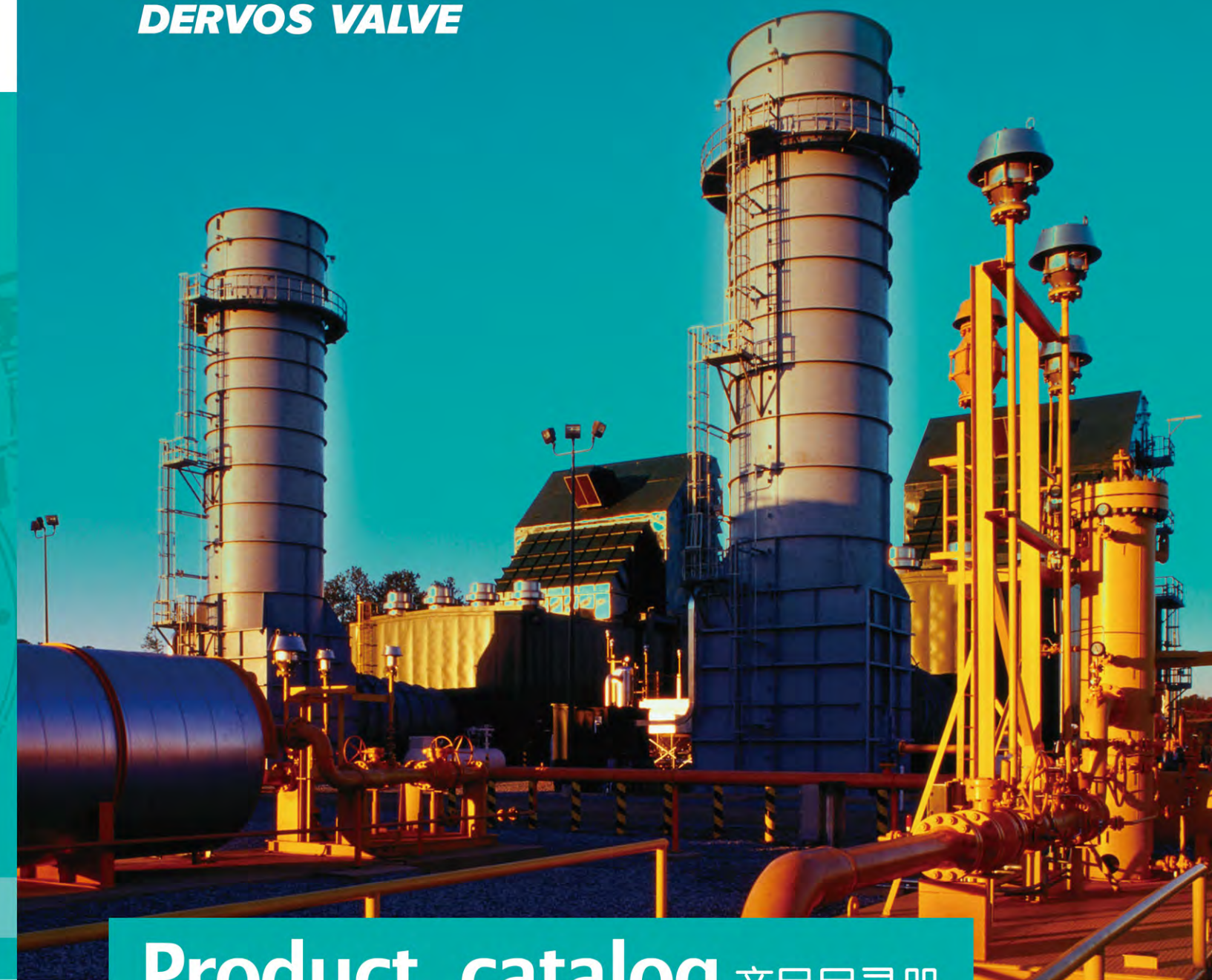




*On the way of development,
Dervos is dedicated ‘to keep up with advanced
technology in valve industry’.*

*With mature management system and market-oriented business concept,
the company is making continuous efforts in technology
innovation and providing considerate service to our customers.*

*In near future,
Dervos will stick to the goal of ‘keeping step with the whole
industry line’ and make improvement to
meet all kinds of requirement from our clients.*



Product catalog 产品目录册

Xiamen Dervos Valves Industry Co.,Ltd.
厦门德沃斯进出口有限公司



Xiamen Dervos Valves Industry Co., Ltd.

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Brief Introduction

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

ABOUT OUR COMPANY

DERVOS VALVES INDUSTRY CO., LTD was built up in 2007. The professional sales and service team started the business in valves from then on and has expanded the markets to Europe, South America, and Asia.

Our company's commitment is to find the most suitable and economical products plan for the customers. We adopt modern management methods to make sure of efficiency in production and selling system.

ABOUT OUR PRODUCTS

INDUSTRIAL VALVES are our major products, which include gate valves, globe valves, check valves, butterfly valves, ball valves and plug valves. The size range starts from 1/2", and extends to 60" while pressure ratings from ANSI/ASME Class 125 to 4500LBS, and UNI PN6 to PN400.

The highest quality and variety of materials (carbon steel, low temperature carbon steel, alloy steel, stainless steel, cast iron) can satisfy all the requirements of the chemical, petrochemical and power plants, oil and gas, off-Shore & on-Shore, refining, ship building, water treatment and energy generation.

PIPES PRODUCTS include seamless carbon steel, stainless steel pipes. Materials include API 5L GR.B, A53 GR.B, A106 GR.B, WP 304/304L, WP 316/316L etc..

FITTINGS PRODUCTS include elbow, tee, cross, reducer and flanges etc.

ABOUT OUR SALES TEAM

We are a dynamic group of young people. Each member is trained in the factory to get professional knowledge about products, production and service before coming back to sales office in Xiamen.

In order to keep step with the whole industry line, our people are working hard to master the new technology for fluid control solutions and make more efforts to guarantee our customers products with good stable quality.

For each order, our QC team and Shipping Dept. are strictly guarding the quality and delivery time. The core of our enterprise culture is to be fully responsible of our commitment.

Dervos thanks to her clients for such a long-term trust. In future, we will invest more in technology creation and make continuous progress to keep up with the whole industry.



Product Series

On the way of development, Dervos is dedicated 'to keep up with advanced technology in valve industry'. With mature management system and market-oriented business concept, the company is making continuous efforts in technology innovation and providing considerate service to our customers.

Petrochemical Industry

DERVOS provides high quality valves for petrochemical industry: mainly stainless steel Gate, Globe and Check valves.



Oil and Gas Industry

DERVOS provides high quality valves for Oil and Gas Industry: Gate, Globe, Check and plug valves in accordance with API, ASME, ASTM, DIN, EN standards.



Pipeline Industry

DERVOS also provides valves for long distance pipeline industry, mainly Check Valves, Through Conduit Gate valves and Ball valves.



Power Generation Industry

DERVOS supplies valves that satisfy the quality requirements for power generation industry. Products include high temperature and pressure Gate, Globe, Check and Safety valves for power station, as well as low pressure Butterfly, Gate valves for draining etc.



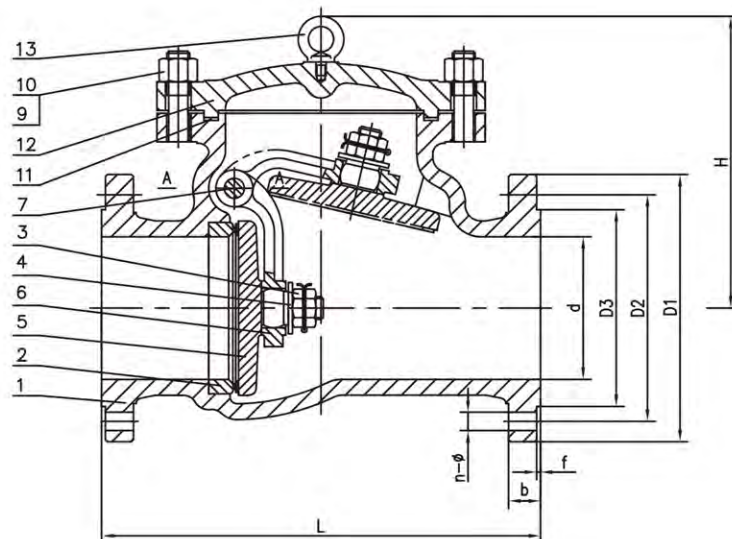
Contents

API 6D EXTERNAL PIN CHECK VALVE	03
API 6D EXTERNAL PIN CHECK VALVE	04
Pressure Seal Gate Valve Class 900–2500	05
Pressure Seal Gate Valve Class 900–2500	06
Pressure Seal Globe Valve Class 900–2500	07
Pressure Seal Globe Valve Class 900–2500	08
Gate Valve	09
Gate Valve	10
Gate Valve	11
Gate Valve	12
Parallel Slab Gate Valve Class 150–600	13
Globe Valve	14
Globe Valve	15
Globe Valve	16
Globe Valve	17
ANSI More Arrangement Bellows Globe Valve	18
Class 150–600 Two–Piece Floating Ball Valve	19
Class 150–600 Two–piece Floating Ball Valve	20
Class 150–1500 Two–piece Trunnion Mounted Ball Valve	21
Class 150–1500 Three–piece Trunnion Mounted Ball Valve	22
Trunnion Mounted Ball Valve	23
Top Entry Trunnion Mounted Ball Valve	24
Check Valve	25
Check Valve	26
Check Valve	27
Check Valve	28
Class 150/300 Lift Check Valve	29
Class 600 Lift Check Valve	30
Class 125–300 Butterfly Valve	31
Class 125–300 Butterfly Valve	32
Self–Lubricated Plug Valve Class 150–600	33
Self–Lubricated Plug Valve Class 150–600	34
Class 150–300 Pressure Balanced Plug Valve	35
Class 150–300 Lubricated(Metal Seal) Plug Valve	36
API Y–Type Strainer	37
End Flange Dimensions	38
End Flange Dimensions	39
Ring Joint Facings And Rings	40
Butt–Welding ENDS(ANSI B16.25)	41
Butt–Welding ENDS(ANSI B16.25)	42
Butt–Welding ENDS(ANSI B16.25)	43
Our Production	44
Our Qualification	45–46
Our Inspection	47–48

PRIMARY PRODUCT

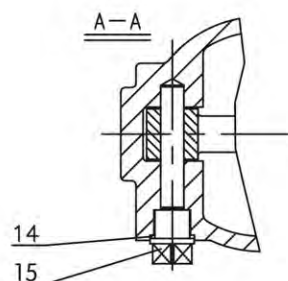
API 6D EXTERNAL PIN CHECK VALVE

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



SATNDARDS COMPLIANCE:

Basic Design: API 6D
Face to Face Dimension: ANSI B16.10
End to End Dimension: ANSI B16.10
Flanged Ends: 2" ~ 24" to ANSI B16.5
> 24" to MSS SP-44
to ANSI B16.34 on request
B. W. Ends to ANSI B16.25
Manufacturing to NACE MR-01-75 on request



Standard Material Specifications

No	Part Name	Carbon steel to ASTM		Alloy steel to ASTM			Stainless Steel to ASTM			
		WCB	LCB	WC6	WC9	C5	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Seat Ring	A105	A350 LF2	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
3	Disc Nut	A182 F304					A182 F304	A182 F316	A182 F304L	A182 F316L
4	Disc Washer	A182 F304					A182 F304	A182 F316	A182 F304L	A182 F316L
5	Disc	A216 WCB	A352LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
6	Hinge	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351CF8M	A351CF8M	A351CF3	A351CF3M
7	Hinge Pin	A182 F304					A182 F304	A182 F316	A182 F304L	A182 F316L
8	Yoke	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
9	Bonnet nut	A194 2H	A194 4	A194 7			A194 8			
10	Bonnet bolt	A193 B7	A30 L7	A193 B16			A193 B8			
11	Gasket	SS Spiral Wound/graphite or SS Spiral Wound/PTFE								
12	Cover	A216 WCB	A352 LCB	A217 WC6	A217 Wc9	A217C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
13	Hook Screw	Steel								
14	Gasket	GB T2								
15	Drain Plug	Carbon Steel								

Other materials (Alloy 20, AISI 321, AISI 347, Monel, Hastelloy, etc) are available on request.

PRIMARY PRODUCT

API 6D EXTERNAL PIN CHECK VALVE

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

CLASS150											
CLASS	NPS	d	D1	D2	D3	b	f	L	n-φ	H	Weight(KG)
150Lb	2	49	152	120.5	92	16	1.6	203	4-φ19	130	15
	2½	62	178	139.5	105	18		216	4-φ19	145	20
	3	74	190	152.5	127	19		241	4-φ19	160	24
	4	100	229	190.5	157	24		292	8-φ19	188	38
	6	150	279	241.5	216	26		356	8-φ22	280	65
	8	201	343	298.5	270	29		495	8-φ22	350	126
	10	252	406	362	324	31		622	12-φ25	410	190
	12	303	483	432	381	32		698	12-φ25	465	290
	14	334	533	476	413	35		787	12-φ29	510	420
	16	385	597	540	470	37		864	16-φ29	575	540
	18	436	635	578	533	40		978	16-φ32	620	700
	20	487	699	635	584	43		978	20-φ32	680	810

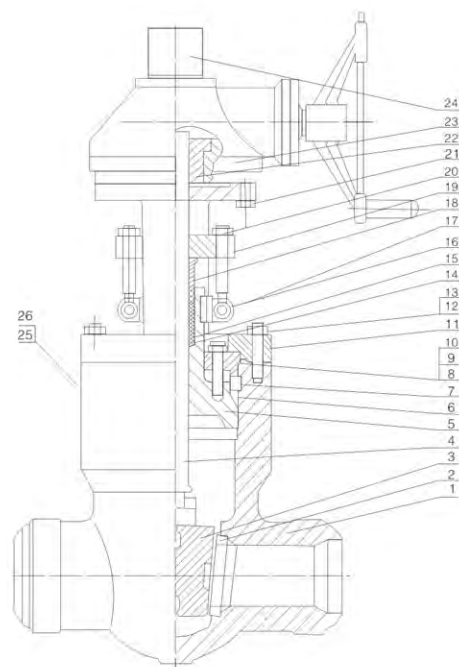
CLASS300											
CLASS	NPS	d	D1	D2	D3	b	f	L	n-φ	H	Weight(KG)
300Lb	2	49	165	127	92	23	1.6	267	8-φ19	140	19
	2½	62	190	149	105	26		292	8-φ22	150	30
	3	74	210	168.5	127	29		318	8-φ22	185	38
	4	100	254	200	157	32		356	8-φ22	210	61
	6	150	318	270	216	37		444	12-φ22	310	114
	8	201	381	330	270	42		533	12-φ25	385	190
	10	252	445	387.5	324	48		622	16-φ29	432	305
	12	303	521	451	381	51		711	16-φ32	520	454
	14	334	584	514.5	413	54		838	20-φ32	545	660

CLASS600											
CLASS	NPS	d	D1	D2	D3	b	f	L	n-φ	H	Weight(KG)
600Lb	2	49	165	127	92	26	6.4	292	8-φ19	151	24
	2½	62	190	149	100	29		330	8-φ22	165	39
	3	74	210	168	127	32		356	8-φ22	195	45
	4	100	273	216	157	38		432	8-φ25	270	91
	6	150	356	292	216	48		559	12-φ29	365	190
	8	201	419	349	270	56		660	12-φ32	420	343
	10	252	508	432	324	64		787	16-φ35	505	618
	12	303	559	489	381	67		838	30-φ35	602	780

PRIMARY PRODUCT

Pressure Seal Gate Valve Class 900-2500

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer,



Size Range: 1-22"

Seating Code	Body Seal Surface Part No.2	Wedge Seal Surface Part No.3	Stern Part No.4	Backseat Surface Stuffing Box Part No.5
1	F6	F6	F6	F6
2	F304	F304	F304	F304
5	Stellite	Stellite	F6	F6
8	Stellite	F6	F6	F6
9	Monel	Monel	Monel	Monel
10	F316	F316	F316	F316
13	Alloy 20	Alloy 20	Alloy 20	Alloy 20

Standard Material Specifications

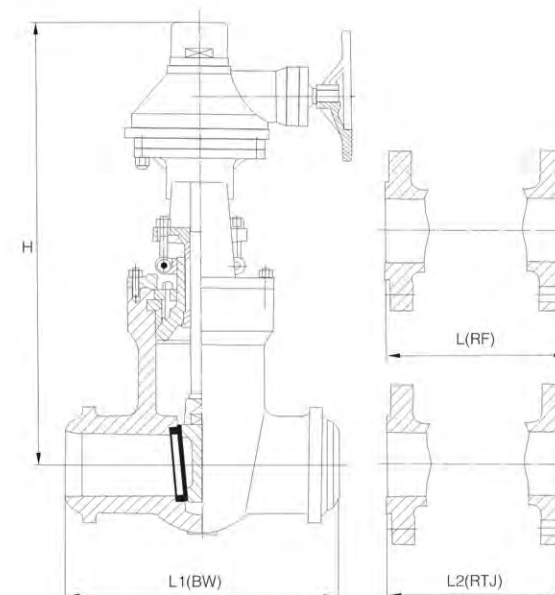
Part Name	WCB	WC6	WC9	C5	CF8	CF8M
1 Body	A216 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M
2 Seat	A182 F6a	A182 F22	A182 F22	A182 F5	A182 F304	A182 F316
3 Disc	A216 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M
4 Stem	A182 F6a	SAEHN3			A182 F304	A182 F316
5 Stuffing Box	A216 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M
6 Seal Ring	AISI 316L	Flexible Graphite+316				
7 Split Ring	Steel	F6	F6	F6	F304	F316
8 Back Ring	Steel	Steel	Steel	Steel	S.S	S.S
9 Bolt	A193 B7	A193 B7	A193 B7	A193 B7	A193 B8	A193 B8
10 Nut	A194 2H	A194 2H	A194 2H	A194 2H	A194 Gr.8	A194 Gr.8
11 Yoke	A216 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M
12 Bolt	A193 B7	A193 B7	A193 B7	A193 B7	A193 B8	A193 B8
13 Nut	A194 2H	A194 2H	A194 2H	A194 2H	A194 Gr.8	A194 Gr.8
14 Packing Plate	AISI410	AISI 410	AISI 410	AISI 410	AISI 304	AISI 316
15 Packing	Flexible Graphite(Braided and Ring) or PTFE					
16 Split Pin	Steel	Steel	Steel	Steel	Steel	Steel
17 Eyebolt	A193 B7	A193 B7	A193 B7	A193 B7	A193 B8	A193 B8
18 Gland	A182 F6	A182 F6	A182 F6	A182 F6	A182 F304	A182 F316
19 Gland Flange	A105	A105	A105	A105	A182 F304	A182 F316
20 Nut	A194 2H	A194 2H	A194 2H	A194 2H	A194 Gr.8	A194 Gr.8
21 Stud	A193 B7	A193 B7	A193 B7	A193 B7	A193 B7	A193 B7
22 Stem Nut	Ni-resist A439-D2					
23 Gear Box	Purchased					
24 Protector	Steel					
25 Nameplate	AISI 304					
26 Rivet	AISI 304					

Other materials are available on request.

PRIMARY PRODUCT

Pressure Seal Gate Valve Class 900-2500

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer,



OS & Y, Rising Stem, Flexible Solid Wedge.
Welded-in or Threaded Seat Ring

STANDARDS COMPLIANCE:

Basic Design: ANSI B 16.34

Face to Face Dimension: ANSI B16.10

End to End Dimension: ANSI B16.10

End Flanges ANSI B16.5

B. W. Ends ANSI B 16.25

Test Pressure to API 598

Class	Test Pressure		
	Shell Test (Hydro.)	Seat Test (Hydro)	Seat Test (Air)
900	3350psig	2442psig	80psig
1500	5626psig	4078psig	80psig
2500	9275psig	6787psig	80psig

Dimensions(mm) and Weights(kg)

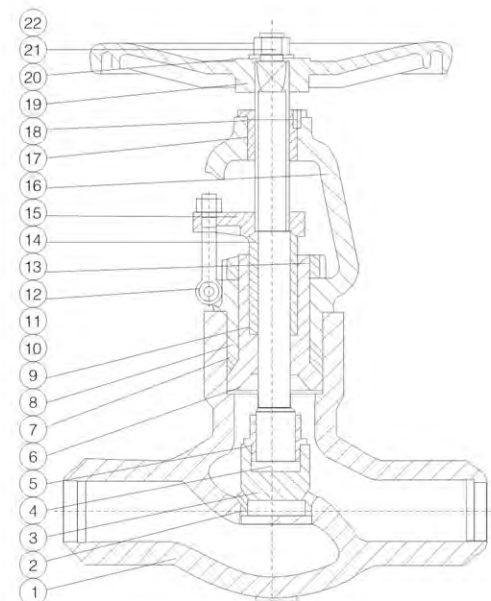
NPS DN	Class	2	2-1/2	3	4	5	8	10	12	14	16	18	20	22
		50	65	80	100	150	200	250	300	350	400	450	500	600
L(RF)	900LB	368	419	381	457	610	737	838	965	1029	1130			
	1500LB	368	419	470	546	705	832	991	1130	1257	1384			
	2500LB	451	508	578	673	917	1022	1270						
L1(BW)	900LB	216	254	305	355	508	660	787	914	991	1092			
	1500LB	216	254	305	406	559	711	864	991	1067	1194	1346	1473	1600
	2500LB	279	330	368	457	610	762	914	1041	1118	1245	1397		
L2(RTJ)	900LB	371	422	384	460	613	740	841	968	1038	1140			
	1500LB	371	422	473	549	711	841	1000	1146	1276	1407			
	2500LB	454	514	584	683	927	1038	1292						
H(Open)	900LB	554	637	680	796	1084	1372	1494	1550	1960	2210			
	1500LB	554	637	767	875	1094	1372	1655	1834	2150	2260	2460	2721	2940
	2500LB	610	654	753	850	1254	1374	1685	1894	2226	2382	2585		
W	900LB	300	350	350	400	560	460*	610*	610*	610*	760*			
	1500LB	300	450	450	560	305*	460*	610*	610*	760*	760*			
	2500LB	500	500	600	600	460*	460*	610*						
Weight	RF	900LB	50	84	92	154	341	622	950	1295	1720	2380		
		1500LB	60	91	128	182	394	795	1370	2120	2800	3870		
		2500LB	121	175	195	229	720	1295	2250					
	BW	900LB	39	64	82	120	266	524	760	1090	1450	2018		
		1500LB	46	71	85	130	292	587	974	1615	2010	2815	3315	4150
		2500LB	88	135	144	158	500	892	1550	1978	2580	3780	5988	

*Manual gear operator is recommended.

PRIMARY PRODUCT

Pressure Seal Globe Valve Class 900-2500

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



Size Range: 1-20"
Trim Material To API 600

Seating Code	Body Seat Surface Part No.2	Wedge Seat Surface Part No.3	Stem Part No.4	Backseat Surface Stuffing Box Part No.5
1	F6	F6	F6	F6
2	F304	F304	F304	F304
5	Stellite	Stellite	F6	F6
8	Stellite	F6	F6	F6
9	Monel	Monel	Monel	Monel
10	F316	F316	F316	F316
13	Alloy 20	Alloy 20	Alloy 20	Alloy 20

Standard Material Specifications

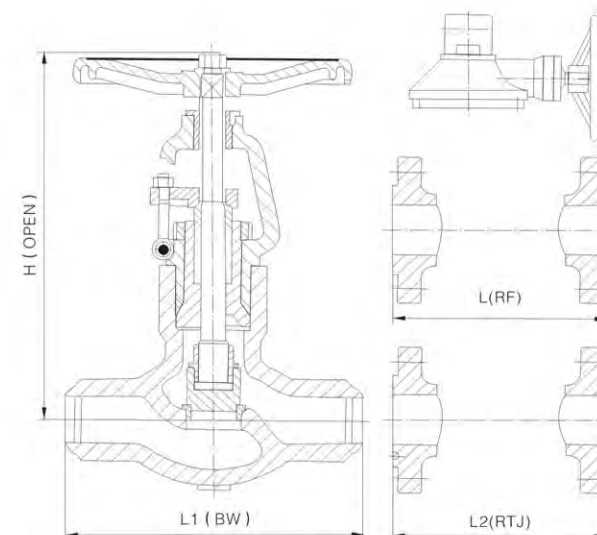
No	Part Name	Carbon steel to ASTM	Alloy steel to ASTM			Stainless Steel to ASTM			
		WCB	WC6	WC9	C5	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF8M
2	Seat Ring	A105	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
3	Disc	A105	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
4	Stem	A182 F6	A182 F304			A182 F304	A182 F316	A182 F304L	A182 F316L
5	Disc Nut	A182 F6	A182 F304			A182 F304	A182 F316	A182 F304L	A182 F316L
6	Cap	SS Spiral Wound/graphite or SS Spiral Wound/PTFE							
7	Body Seal	Flexible Graphite+316							
8	Adjustment Gasket	F6	F6			F316			
9	Stem Packing								
10	Gland Nut	A194 2H				A194 8			
11	Gland Eybolt	A194 B7				A193 B8			
12	Pin	Carbon steel or Stainless Steel							
13	Cap Nut	Carbon steel or Stainless Steel							
14	Gland	A182 F6				A182 F304	A182 F316	A182 F304L	A182 F316L
15	Gland Flange	A216 WCB				A351 CF8			
16	Yoke	A216 WCB				A351 CF8			
17	Stem Nut	A439 D2 or B148-952A							
18	Screw	Carbon steel							
19	Handwheel	Ductile Iron or carbon steel							
20	Name Plate	Stainless steel or Aluminum							
21	Washer	Carbon steel							
22	Nut	Carbon steel or Stainless steel							

Other materials are available on request.

PRIMARY PRODUCT

Pressure Seal Globe Valve Class 900-2500

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



OS & Y, Rising Stem, Plug Type Disc
Threaded Seat Ring

STANDARDS COMPLIANCE:
Basic Design: ANSI B 16.34
Face to Face Dimension: ANSI B16.10
End to End Dimension: ANSI B16.10
Flanged Ends to ANSI B16.5
B. W. Ends to ANSI B16.25

Test Pressure to API 598

Class	Test Pressure		
	Shell Test (Hydro.)	Seat Test (Hydro.)	Seat Test (Air)
900	3350psig	2442psig	80psig
1500	5626psig	4078psig	80psig
2500	9275psig	6787psig	80psig

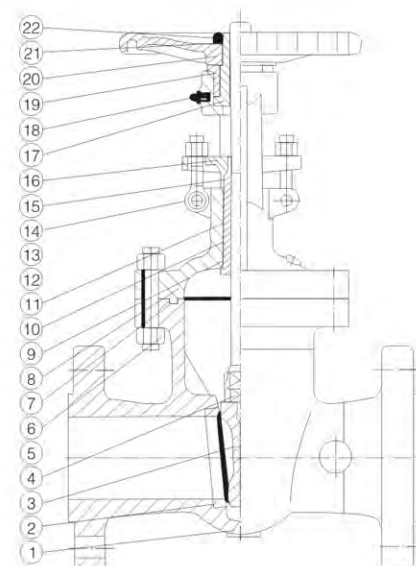
Dimensions(mm) and Weights(kg)

NPS DN	Class	2	2-1/2	3	4	6	8
		50	65	80	100	150	200
L(RF) L1(BW)	900LB	368	419	381	457	610	737
	1500LB	368	419	470	546	705	832
	2500LB	451	508	578	673	914	1022
L2(RTJ)	900LB	371	422	384	460	613	740
	1500LB	371	422	473	549	711	841
	2500LB	454	514	584	683	927	1038
H(Open)	900LB	550	605	678	798	930	1260
	1500LB	550	605	866	956	1260	1263
	2500LB	560	720	755	1230	1791	2086
W	900LB	350	350	400	450	458	610*
	1500LB	400	400	450	560	610*	610*
	2500LB	400	450	560	310*	610*	760*
Weight	RF	900LB	78	108	102	142	400
		1500LB	85	110	135	230	660
		2500LB	140	168	247	620	1500
	BW	900LB	66	91	87	128	355
		1500LB	77	101	122	209	595
		2500LB	100	118	180	438	1148

Manual gear operator is recommended.

Gate Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



OS & Y, Rising Stem, Flexible Solid Wedge
Bolted Bonnet, Threaded or Welded Seat Ring
Non-Rising Gate Valve

STANDARDS COMPLIANCE:

Basic Design: API600, BS1414

Face to Face Dimension: ANSI B16.10

End to End Dimension: ANSI B16.10

End Flange Dimension: 2"-24" to ANSI B16.5, 26"-60" to MSS
SP-44, to ANSI B16.47-A on request

B. W. Ends to ANSI B16.25

Manufacturing to NACE MR-01-75 on request

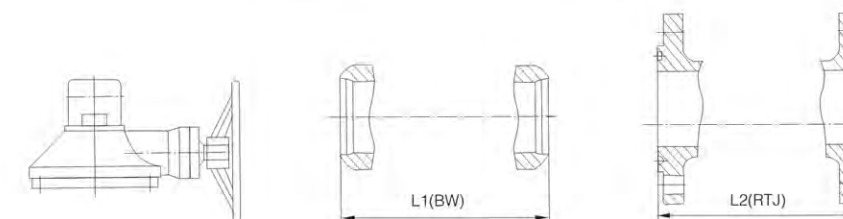
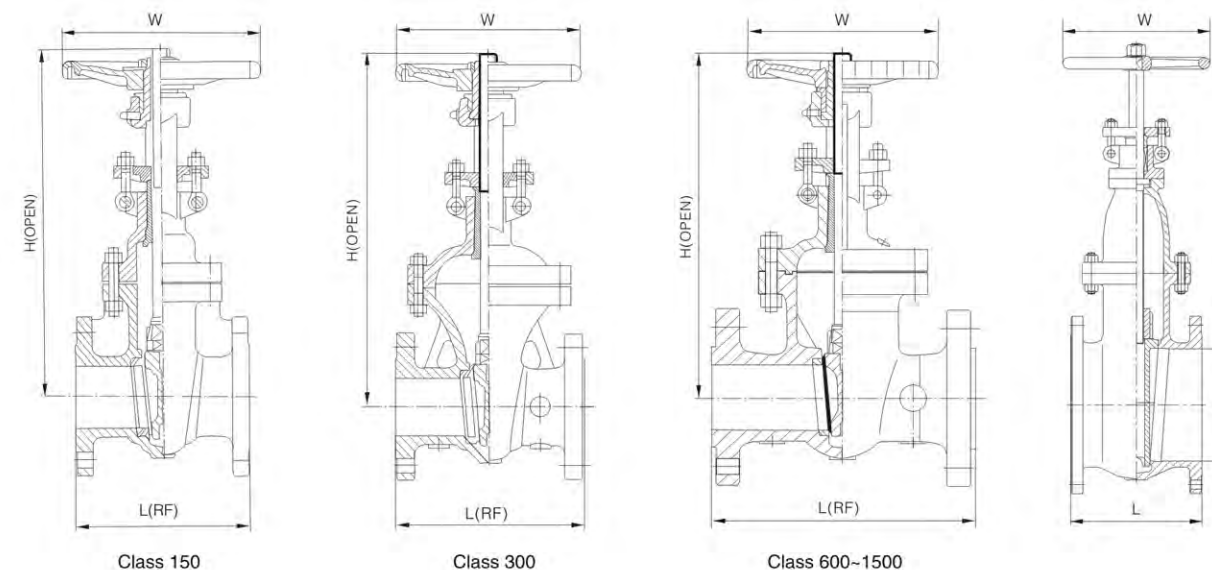
Standard Material Specifications

No	Part Name	Carbon steel to ASTM		Alloy steel to ASTM			Stain Steel to ASTM			
		WCB	LCB	WC6	WC9	C5	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Seat Ring	A105	A350 LF2	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
3	Wedge	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
4	Stem	A182 F6	A182 F6	A182 F304			A182 F304	A182 F316	A182 F304L	A182 F316L
5	Bonnet nut	A194 2H	A194 4	A194 7			A194 8			
6	Bonnet bolt	A193 B7	A320 L7	A193 B16			A193 B8			
7	Gasket	SS Spiral Wound/graphite or SS Spiral Wound/PTFE								
8	Bonnet	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
9	Backseat bushing	A182 F6	A182 F6	A182 F304			A182 F304	A182 F316	A182 F304L	A182 F316L
10	Stem packing	Graphite or PTFE								
11	Lantern	A182 F6	A182 F6	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L
12	Gland Nut	A194 2H					A194 8			
13	Gland Eyebolt	A194 B7					A193 B8			
14	PIN	Carbon steel or Stainless Steel								
15	Gland	A182 F6					A182 F304	A182 F316	A182 F304L	A182 F316L
16	Gland Flange	A216 WCB					A351 CF8			
17	Stem Nut	A439 D2 or B148–952A								
18	Nipple	Carbon steel or Stainless Steel								
19	Retaining Nut	Carbon steel								
20	Hand Wheel	Ductile Iron or carbon steel								
21	Name Plate	Stainless steel or Aluminum								
22	H. W. Lock NUT	Carbon steel								

Other materials (Alloy 20, AISI321, AISI347, Monel, Hastelloy, etc) are available on request
Class 150 gate valve is not provided with Lantern

Gate Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



Test Pressure to API598

Class	Body Material	Shell Test (Hydrostatic)	Seat Test (Hydrostatic)	Seat Test (Air)
150	WCB	450psi	315psi	80psi
	WC6	450psi	319psi	
	CF8M	425psi	303psi	
300	WCB	1125psi	814psi	80psi
	WC6	1125psi	825psi	
	CF8M	1100psi	792psi	
600	WCB	2225psi	1628psi	80psi
	WC6	2250psi	1650psi	
	CF8M	2175psi	1548psi	
900	WCB	3350psi	2442psi	80psi
	WC6	3375psi	2475psi	
	CF8M	3250psi	2376psi	
1500	WCB	5575psi	4078psi	80psi
	WC6	5625psi	4125psi	
	CF8M	5400psi	3960psi	

Gate Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

Class 150																							
NPS	in.	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	30	32	36	40	42	48	60
DN	mm	50	60	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	1050	1200	1500
L	in	7	7-1/2	8	9	10	10-1/2	11-1/2	13	14	15	16	17	18	20	24	24	26	28	-	-	-	-
(RF)	mm	178	190	203	229	254	267	292	330	356	381	406	432	457	508	610	610	660	711	813	813	1067	-
L1	in	8-1/2	9-1/2	11-1/8	12	15	15-7/8	16-1/2	18	19-3/4	22-1/2	24	26	28	32	36	36	38	40	-	-	-	-
(BW)	mm	216	241	283	305	381	403	419	457	502	572	610	660	711	813	914	914	965	1016	1067	1143	1371	-
L2	in	7-1/2	8	8-1/2	9-1/2	10-1/2	11	12	13-1/2	14-1/2	15-1/2	16-1/2	17-1/2	18-1/2	20-1/2	24-1/2	24-1/2	26-1/2	28-1/2	-	-	-	-
(RTJ)	mm	191	203	216	241	267	279	305	343	368	394	419	445	470	521	622	622	673	724	-	-	-	-
H	in	16-1/8	18-9/16	20-15/16	24-1/8	27-15/16	31-3/4	39	46-11/16	55-5/16	63-9/16	71-5/16	78-3/16	87	106-1/4	119-5/16	130-9/16	137-1/4	150-9/16	-	-	-	-
(OPEN)	mm	409	472	532	612	710	806	990	1186	1405	1615	1811	1986	2210	2698	3030	3317	3487	3825	-	-	-	-
W	in	7-7/8	7-7/8	9-7/8	9-7/8	11-13/16	11-13/16	13-3/4	17-11/16	19-11/16	18-1/8	18-1/8	18-1/8	24	24	24	24	24	30	-	-	-	-
	mm	200	200	250	250	300	300	350	450	500	160*	460*	460*	610*	610*	610*	610*	610*	760*	-	-	-	-
WT	RF	20	30	36	53	71	85	136	220	323	387	553	660	810	1250	1931	2380	2490	3600	4520	4950	6300	-
(kg)	BW	17	26	29	46	66	77	116	202	294	350	506	575	720	1130	1765	2028	2280	3080	-	-	-	-

*Manual gear operator is recommended

Class 300																						
NPS	in	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24	30	32	36	40	42	48	
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	750	800	900	1000	1050	1200	
L-L1	in	8-1/2	9-1/2	11-1/8	12	15	15-7/8	16-1/2	18	19-3/4	30	33	36	39	45	55	-	-	-	-	-	-
(RF-BW)	mm	216	241	283	305	381	403	419	457	502	762	838	914	991	1143	1397	1524	1727	1955	2032	2286	
L2	in	9-1/8	10-1/8	11-3/4	12-5/8	15-5/8	16-1/2	17-1/8	18-5/8	20-3/8	30-5/8	33-5/8	36-5/8	39-3/4	45-7/8	56	-	-	-	-	-	-
(RTJ)	mm	232	257	298	321	397	419	435	473	518	778	854	930	1010	1165	1422	1553	1756	-	-	-	-
H	in	15-3/4	18-3/4	21-3/8	25-5/8	30-5/16	34-5/8	40-13/16	50-3/16	56-5/8	65	72-7/16	79-15/16	88-3/16	114-3/16	139-3/8	-	-	-	-	-	-
(OPEN)	mm	400	477	543	650	770	880	1037	1275	1438	1650	1840	2030	2240	2900	3540	-	-	-	-	-	-
W	in	7-7/8	9-7/8	9-7/8	11-13/16	11-13/16	13-3/4	17-11/16	19-11/16	22-1/16	18/1/8	18-1/8	24	24	24	30	-	-	-	-	-	-
	mm	200	250	250	300	300	350	450	500	560	460*	460*	610*	610*	610*	760*	-	-	-	-	-	-
WT	RF	30	39	55	83	92	137	240	333	536	699	1010	1205	1720	2800	3786	4380	6000	7970	9510	12600	
(kg)	BW	26	34	47	68	77	118	195	271	432	595	848	1025	1460	2294	3220	3800	5300	-	-	-	-

*Manual gear operator is recommended

Class 600														
NPS	in	2	2-1/2	3	4	6	8	10	12	14	16	18	20	24
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
L-L1	in	11-1/2	13	14	17	22	26	31	33	35	39	43	47	55
(RF-BW)	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397
L2	in	11-5/8	13-1/8	14-1/8	17-1/8	22-1/8	26-1/8	31-1/8	33-1/8	35-1/8	39-1/8	43-1/8	47-1/4	55-3/8
(RTJ)	mm	295	333	359	435	562	664	791	841	892	994	1095	1200	1407
H	in	18-5/8	21-3/4	23-3/8	28-1/16	38-3/16	44-3/16	52-3/8	59-13/16	68-1/8	72-1/4	90-1/8	98-13/16	119
(OPEN)	mm	474	553	593	713	970	1122	1330	1519	1730	1835	2290	2510	3022
W	in	9-7/8	9-7/8	11-13/16	13-3/4	19-11/16	22-1/16	28-3/8	24	24	24	24	30	30
	mm	250	250	300	350	500	560	720	610*	610*	610*	610*	760*	760*
WT	RF	41	58	88	131	253	413	623	784	1288	1820	2150	2540	4080
(kg)	BW	35	50	68	104	208	328	496	637	1120	1448	1828	2201	3360

*Manual gear operator is recommended

Gate Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

Class 900											
NPS	in	2	2-1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
L-L1	in	14-1/2	16-1/2	15	18	24	29	33	38	40-1/2	44-1/2
(RF-BW)	mm	368	419	381	457	610	737	838	965	1029	1130
L2	in	14-5/8	16-5/8	15-1/8	18-1/8	24-1/8	29-1/8	33-1/8	38-1/8	40-7/8	44-7/8
(RTJ)	mm	371	422	384	460	613	740	841	968	1038	1140
H	in	21-9/16	27-9/16	25-1/2	28-11/16	41	49-5/8	62-5/8	70-11/16	79-3/4	85-7/16
(OPEN)	mm	547	700	648	729	1041	1260	1590	1795	2025	2170
W	in	11-13/16	14	15-3/4	17-11/16	22-1/16	18-1/8	24	24	30	30
	mm	300	355	400	450	560	460*	610*	610*	760*	760*
WT	RF	90	110	123	148	420	650	1160	1700	2300	2750
(KG)	BW	82	93	108	122	359	566	980	1450	2000	2390

*Manual gear operator is recommended

Class 1500											
NPS	in	2	2-1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
L-L1	in	14-1/2	16-1/2	18-1/2	21-1/2	27-3/4	32-3/4	39	44-1/2	49-1/2	54-1/2
(RF-BW)	mm	368	419	470	546	705	832	991	1130	1257	1384
L2	in	14-5/8	16-5/8	18-5/8	21-5/8	28	33-1/8	39-3/8	45-1/8	50-1/4	55-3/8
(RTJ)	mm	371	422	473	549	711	841	1000	1146	1276	1407
H	in	22-5/8	27-9/16	31-3/4	34-15/16	42-1/2	53-15/16	59-13/16	65	76-9/16	88-9/16
(OPEN)	mm	574	700	806	887	1079	1370	1520	1651	1945	2250
W	in	13-3/4	15-3/4	17-3/4	22-1/16	12	24	30	30	30	30
	mm	350	400	450	560	305*	610*	760*	760*	760*	760*
WT	RF	117	175	240	337	680	1228	2278	3260	4100	5960
(KG)	BW	93	144	185	285	584	978	1990	2850	3320	4890

*Manual gear operator is recommended

Parallel Slab Gate Valve Class 150-600

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

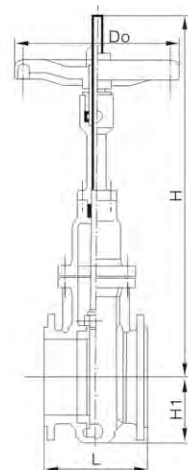
Valves designed to API 6D
Valves tested to API and API598
Face-to-Face to API and ANSI B16.10
RF flanged ends to ANSI B16.5

Standard Material Specifications

Part Name	Material
Body & Bonnet	A216 WCB, CF8, CF8M, CF3, CF3M
Wedge	Alloy Steel(face harden treated), Stainless steel(with Co overlay)
Stem	Alloy Steel(face erosion-resistant treated)
Seat	Alloy Steel(race Harden Treated, Beset F plastic), Steel(with Co overlay, Beset F plastic)
Packing	PTFE
O-Ring	NBR, FEP
Sealing Grease	

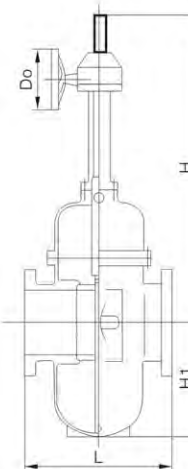
Parallel Plate Gate Valve Without Diversion Hole Dimensions

Class	Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
150	L	178	203	229	267	292	330	356	381	406	432	457
	H	415	530	692	895	1080	1360	1495	1700	1950	2250	2465
	H1	80	98	110	150	170	210	240	265	295	325	335
	Do	250	300	350	350	350	400	500	600	-	-	-
300	L	216	283	305	403	419	457	502	762	838	914	991
	H	415	530	692	895	1080	1360	1495	1700	1950	2250	2465
	H1	80	98	125	180	200	235	280	330	370	400	440
	Do	250	300	350	350	350	400	500	600	-	-	-
600	L	292	356	432	559	660	787	838	889	991	-	-
	H	415	530	692	895	1080	1360	1495	1700	1950	-	-
	H1	80	98	125	180	200	235	280	330	370	-	-
	Do	250	300	350	400	500	600	-	-	-	-	-



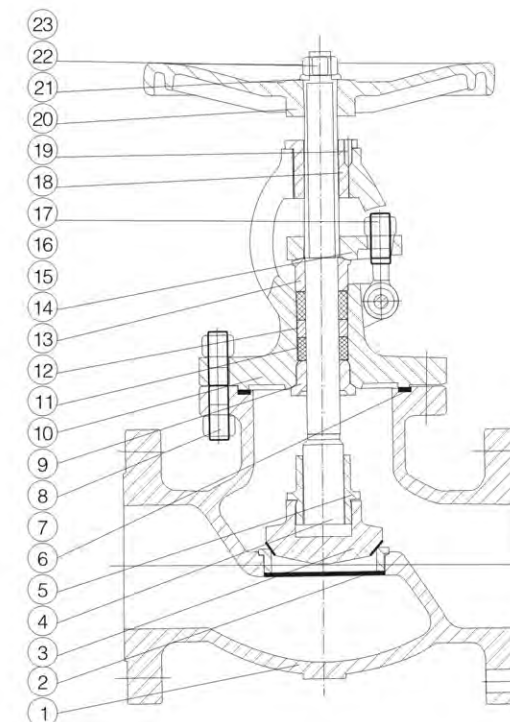
Parallel Plate Gate Valve Without Diversion Hole Dimensions

Class	Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
150	L	178	203	229	267	292	330	356	381	406	432	457
	H	415	530	692	895	1080	1360	1495	1700	1950	2250	2465
	H1	410	195	240	330	410	510	600	685	800	870	955
	Do	250	300	350	350	350	400	500	600	-	-	-
300	L	216	283	305	403	419	457	502	762	838	914	991
	H	415	530	692	895	1080	1360	1495	1700	1950	2250	2465
	H1	140	195	240	330	410	510	600	685	800	870	995
	Do	250	300	350	350	350	400	500	600	-	-	-
600	L	292	356	432	559	660	787	838	889	991	-	-
	H	415	530	692	895	1080	1360	1495	1700	1950	-	-
	H1	410	195	240	330	410	510	600	685	800	-	-
	Do	250	300	350	400	500	600	-	-	-	-	-



Globe Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



OS & Y, Rising Stem, Plug Type Disc Bolted
Bonnet, Threaded Seat Ring

STANDARDS COMPLIANCE:

Basic Design: BS1873
Face to Face Dimension: ANSI B16.10
End to End Dimension: ANSI B16.10
Flanged Ends to ANSI B16.5
B. W. Ends to ANSI B16.25
Manufacturing to NACE MR-01-75 on request

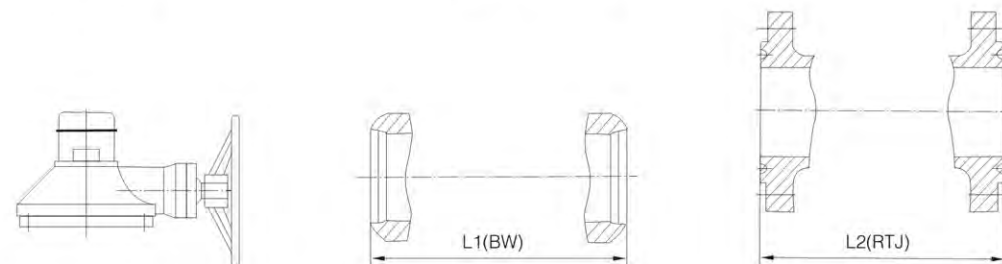
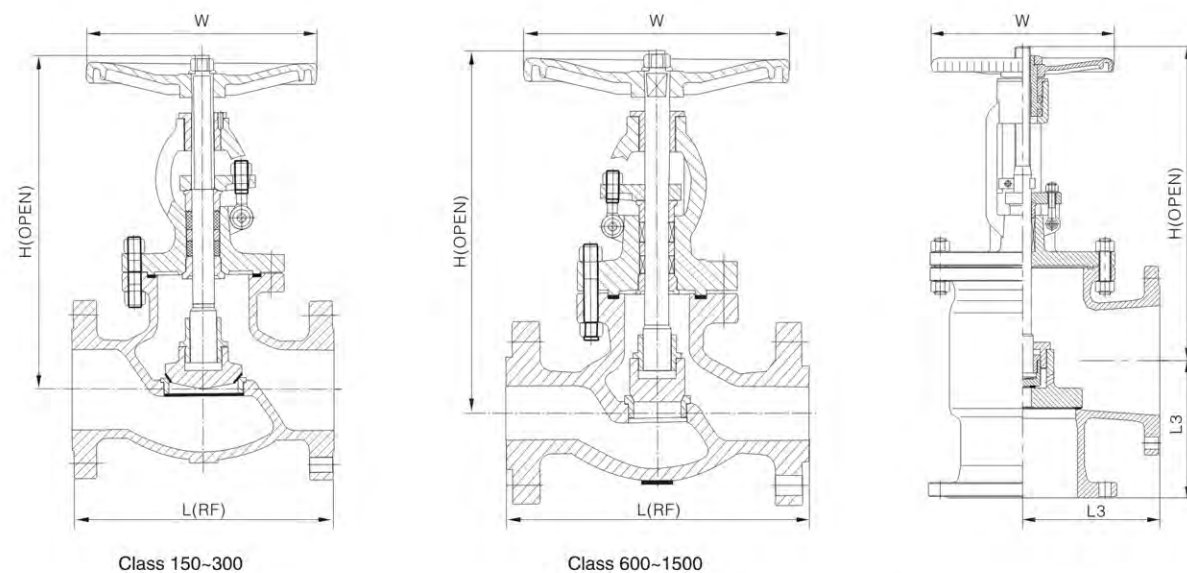
Standard Material Specifications

No	Part Name	Carbon steel to ASTM		Alloy steel to ASTM			Stainless Steel to ASTM			
		WCB	LCB	WC6	WC9	C5	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Seat Ring	A105	A350 LF2	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
3	Disc	A105	A250 LF2	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
4	Stem	A182 F6	A182 F6	A182 F304			A182 F304	A182 F316	A182 F304L	A182 F316L
5	Disc nut	A182 F6	A182 F6	A182 F304			A182 F304	A182 F316	A182 F304L	A182 F316L
6	Gasket	SS Spiral Wound/graphite or SS Spiral Wound/PTFE								
7	Bonnet nut	A194 2H	A194 4		A194 7		A194 8			
8	Bonnet bolt	A193 B7	A320 L7		A193 B16		A193 B8			
9	Backseat bushing	A182 B6	A182 F6		A182 F304		A182 F304	A182 F316	A182 F304L	A182 F316L
10	Bonnet	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351CF8M	A351CF3	A351 CF3M
11	Lantern	A182 F6	A182 F6	A182 F304			A182 F304	A182 F304L	A182 F304	A182 F316L
12	Stem Packing	Graphite or PTFE								
13	Gland	A182 F6					A182 F304	A182 F316	A182 F316	A182 F316L
14	Gland Flange	A216 WCB					A351 CF8			
15	Gland Nut	A194 2H					A194 8			
16	Gland Eyebolt	A194 B7					A193 B8			
17	Pin	Carbon steel or Stainless Steel								
18	Stem Nut	A439 D2 or B148–952A								
19	Screw	Carbon steel								
20	Hand Wheel	Ductile Iron or carbon steel								
21	Name Plate	Stainless steel or Aluminum								
22	Washer	Carbon steel								
23	Nut	Carbon steel or Stainless Steel								

Other materials(Alloy 20, Alsi321, Alsi347, Monel, Hastelloy, etc.)are available on request.

Globe Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



Test Pressure to API598

Class	Body Material	Shell Test (Hydrostatic)	Seat Test (Hydrostatic)	Seat Test (Air)
150	WCB	450psi	315psi	80psi
	WC6	450psi	319psi	
	CF8M	425psi	303psi	
300	WCB	1125psi	814psi	80psi
	WC6	1125psi	825psi	
	CF8M	1100psi	792psi	
600	WCB	2225psi	1628psi	80psi
	WC6	2250psi	1650psi	
	CF8M	2175psi	1548psi	
900	WCB	3350psi	2442psi	80psi
	WC6	3375psi	2475psi	
	CF8M	3250psi	2376psi	
1500	WCB	5575psi	4078psi	80psi
	WC6	5625psi	4125psi	
	CF8M	5400psi	3960psi	

Globe Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

Class 150										
NPS	in	2	2-1/2	3	4	5	6	8	10	12
DN	mm	50	65	80	100	125	150	200	250	300
L-L1	in	8	8-1/2	9-1/2	11-1/2	14	16	19-1/2	24-1/2	27-1/2
(RF-BW)	mm	203	216	241	292	356	406	495	622	698
L2	in	8-1/2	9*	10	12	14-1/2	16-1/2	20	25	28
(RTJ)	mm	216	229	254	305	368	419	508	635	711
L3	mm	102	108	121	146	178	203	248	311	349
H	in	14-11/16	15-3/8	16-9/16	20-1/4	21-3/16	22-5/15	24-5/8	28	39
(OPEN)	mm	373	390	421	515	538	567	626	712	990
W	in	7-7/8	9-7/8	9-7/8	11-13/16	11-13/16	13-3/4	15-3/4	17-3/4	24
	mm	200	250	250	300	300	350	400	450	610
WT	RF	22	29	42	64	77	105	154	288	507
(KG)	BW	19	25	34	49	65	82	131	249	430

Class 300										
NPS	in	2	2-1/2	3	4	5	6	8	10	12
DN	mm	50	65	80	100	125	150	200	250	300
L-L1	in	10-1/2	11-1/2	12-1/2	14	15-3/4	17-1/2	22	24-1/2	28
(RF-BW)	mm	267	292	318	356	400	444	559	622	711
L2	in	11-1/8	12-1/8	13-1/8	14-5/8	16-3/8	18-1/8	22-5/8	25-1/8	28-5/8
(RTJ)	mm	283	308	333	371	416	460	575	638	727
L3	mm	133	146	159	178	200	222	279	311	356
H	in	15-11/16	17-1/8	18-3/16	22-1/16	24-3/8	27-5/16	38-5/8	44-1/2	41-5/16
(OPEN)	mm	398	436	462	560	620	694	982	1130	1049
W	in	7-7/8	9-7/8	9-7/8	13-3/4	15-3/4	17-3/4	22-1/16	34	18-1/8
	mm	200	250	250	350	400	450	560	864	460*
WT	RF	31	43	57	86	130	168	280	385	724
(KG)	BW	26	28	44	68	110	138	228	329	618

Class 600										
NPS	in	2	2-1/2	3	4	6	8	10	12	
DN	mm	50	65	80	100	150	200	250	300	
L-L1	in	11-1/2	13	14	17	22	26	31	33	
(RF-BW)	mm	292	330	356	432	559	660	787	838	
L2	in	11-5/8	13-1/8	14-1/8	17-1/8	22-1/8	26-1/8	31-1/8	33-1/8	
(RTJ)	mm	295	333	359	435	562	664	791	840	
H	in	16-3/4	19-3/4	20-1/2	24-3/8	34-7/8	36-11/16	41	50-3/8	
(OPEN)	mm	425	502	521	620	886	932	1040	1280	
W	in	9-7/8	11-13/16	13-3/4	17-3/4	28-3/8	18-1/8	24	30	
	mm	250	300	350	450	720	460*	610*	760*	
WT	RF	39	58	73	120	327	482	700	900	
(KG)	BW	33	48	61	95	261	385	588	795	

*Manual gear operator is recommended

Globe Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

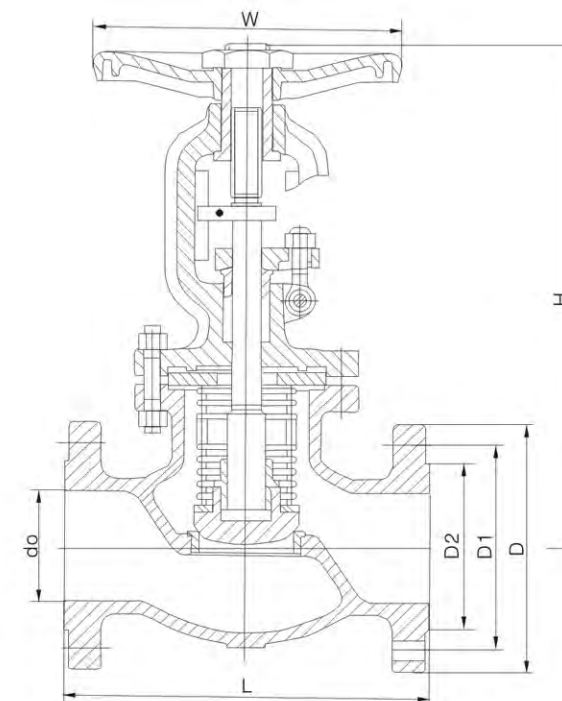
Class 900							
NPS	in	2	2-1/2	3	4	6	8
DN	mm	50	65	80	100	150	200
L-L1	in	14-1/2	16-1/2	15	18	24	29
(RF-BW)	mm	368	419	381	457	610	737
L2	in	14-5/8	16-5/8	15-1/8	18-1/8	24-1/8	29-1/8
(RTJ)	mm	371	422	384	460	613	740
H	in	9-7/16	10-1/4	10-1/4	12-5/8	15	20-7/8
(OPEN)	mm	240	260	260	320	382	530
W	in	13-3/4	15-3/4	17-3/4	22-1/16	18-1/8	24
	mm	350	400	450	560	460*	610*
WT	RF	100	118	131	218	452	710
(kg)	BW	75	94	105	185	340	630

Class 1500							
NPS	in	2	2-1/2	3	4	6	8
DN	mm	50	65	80	100	150	200
L-L1	in	14-1/2	16-1/2	18-1/2	21-1/2	27-3/4	32-3/4
(RF-BW)	mm	368	419	470	546	705	832
L2	in	14-5/8	16-5/8	18-5/8	21-5/8	28	33-1/8
(RTJ)	mm	371	422	473	549	711	841
H	in	23-5/16	26	27-1/4	35-11/16	40	45-1/16
(OPEN)	mm	592	660	692	907	1015	1145
W	in	13-3/4	15-3/4	17-3/4	18-1/8	24	24
	mm	350	400	450	460*	610*	610*
WT	RF	112	141	228	336	650	762
(KG)	BW	84	115	183	277	515	630

*Manual gear operator is recommended

ANSI More Arrangement Bellows Globe Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

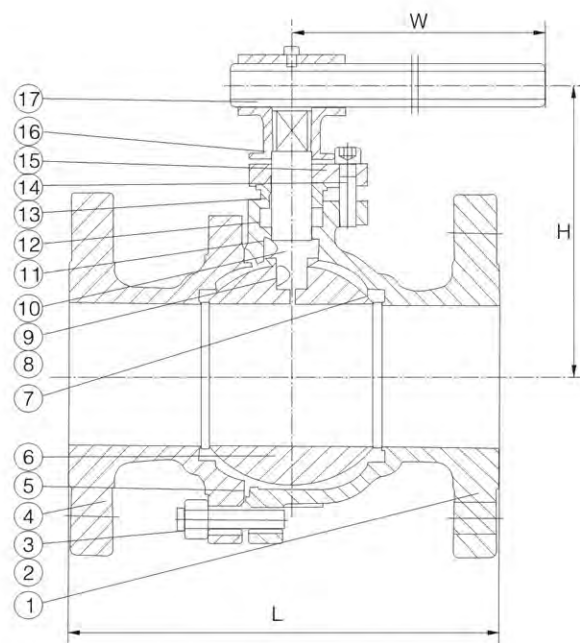


Main External and Connecting Dimensions

Nominal Pressure (Mpa)	NPS Nominal Diameter (in)	Dimension (mm)						
		do	D	D1	D2	L	H	W
150LB	2	51	152	120.5	92	203	360	180
	2 1/2	64	178	139.5	105	216	390	180
	3	76	190	152.5	127	241	410	280
	4	102	229	190.5	157	292	460	300
	5	127	254	216	186	356	480	320
	6	152	279	241.5	216	406	500	320
	8	203	343	198.5	270	495	560	400
	10	254	406	362	324	622	620	500
	12	305	483	432	381	698	690	600
	14	337	533	476	413	787	770	650
300LB	2	51	165	127	92	267	370	180
	2 1/2	84	190	149	105	292	400	280
	3	76	210	168.5	127	318	420	280
	4	102	254	200	157	356	470	280
	5	127	279	235	186	400	490	320
	6	152	318	270	216	444	510	320
	8	203	381	330	270	559	570	400
	10	254	445	387.5	324	622	630	500
	12	305	521	451	381	711	700	600
	14	337	584	514.5	413	838	780	650

Class150-600 Two-Piece Floating Ball Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



STANDARDS

Design and manufacture: API6D API608 or BS 5351

Face to Face Dimensions: ANSI B16.10

End Flange Dimensions: ANSI B16.5

Test: API 6D or API 598

Type of Connection

RF and RTJ Flange Ends to ANSI B16.5 standard.

BW Flange Ends to ANSI B16.25 standard.

Type of Operation

Lever

Connection dimensions of Worm Gear actuator, Electric actuator, Pneumatic actuator to ISO 5211 standard.

Anti-static electricity constructions "AS" and Fire-safe constructions "FD"

Standard Material Specifications

No	Part Name	Carbon steel to ASTM			Stainless Steel to ASTM		
		WCB	LCB	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Bonnet nut	A194 2H	A194 4	A194 8			
3	Bonnet bolt	A193 B7	A320 L7	A193 B8			
4	Cap	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
5	Gasket	SS Spiral Wound/graphite or SS Spiral Wound/PTFE					
6	Ball	A105/Ep.Cr or F6	A182 F6	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
7	Seat Ring	RPTFE or POM					
8	Small spring	Stainless Steel					
9	Small ball	A182 F304 A182 F316L					
10	Stem	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
11	Stem Seat	PTFE					
12	Stem Packing	PTFE or Graphite					
13	Gland	A182 F6		A182 F304	A182 F316	A182 F304L	A182 F316L
14	Gland Bolt	A193 B7		A193 B8			
15	Gland Flange	A216 WCB		A351 CF8			
16	Positioning Plate	Steel					
17	Wrench	A216 WCB					

The material is according to ASTM standard.

Class150-600 Two-Piece Floating Ball Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

CLASS 150												
DN	mm	15	20	25	40	50	65	80	100	150	200	250
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10
L(RF)	mm	108	117	127	165	178	191	203	229	394	457	533
	in	4.25	4.6	5	6.5	7	7.5	8	9	15.5	18	21
L1(BW)	mm	140	152	165	190	216	241	283	305	457	521	559
	in	5.5	6	6.5	7.48	8.5	9.5	11.13	12	18	20.5	22
L2(RTJ)	mm	119	129.7	139.7	178	191	203	216	241	406	470	546
	in	4.69	5.11	5.5	6.9	7.5	8	8.5	9.5	16	18.5	21.5
H	mm	66	74	87	105	132	152	182	215	250	285	495
	in	2.6	2.9	3.48	4.2	5.28	6.08	7.28	8.6	10	11.4	19.5
Do(W)	mm	130	130	160	230	400	400	600	850	1100	1500	*350
	in	5.1	5.1	6.3	9	15.74	15.74	23.62	33.46	43.3	59	13.8
RF(Kg)		2.3	3	4.5	7	15	20	25	40	97	160	240
BW(Kg)		2.0	2.5	3.8	5.8	12	17	21	36	92.8	154	227

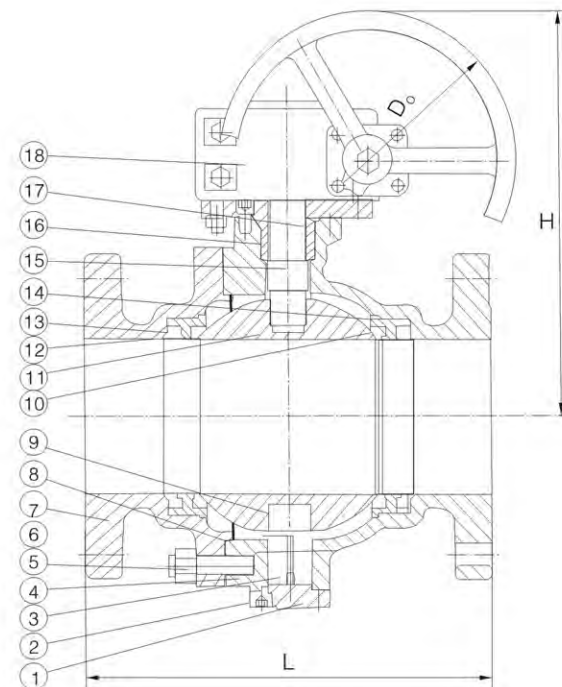
CLASS 300											
DN	mm	15	20	25	40	50	65	80	100	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8
L(RF)	mm	140	152	165	190	216	241	283	305	403	502
	in	5.5	5.98	6.5	7.48	8.5	8.5	11.13	12	15.88	19.75
L1(BW)	mm	140	152	165	190	216	241	283	305	457	521
	in	5.5	5.98	6.5	7.48	8.5	9.5	11.13	12	18	20.5
L2(RTJ)	mm	151	164.7	177.7	202.7	232	257	298	321	419	518
	in	5.95	6.48	7	8	9.13	10.13	11.75	12.63	16.5	20.38
H	mm	66	74	87	105	115	158	166	183	285	294
	in	2.6	2.9	3.48	4.2	4.6	6.32	6.64	7.32	11.4	11.76
Do(W)	mm	130	130	160	230	400	400	600	850	1100	1500
	in	5.1	5.1	6.3	9	15.74	15.74	23.62	33.46	43.3	59
RF(Kg)		2.5	3.5	5.5	10.5	20	25	31	52	118	200
BW(Kg)		2.1	3	4.8	8.7	17	22	28	48	105	185

CLASS 600								
DN	mm	15	20	25	40	50	65	80
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3
L(RF)	mm	165	190	216	241	292	330	356
	in	6.5	7.48	8.5	9.5	11.5	13	14
L1(BW)	mm	165	190	216	241	292	330	356
	in	6.5	7.48	8.5	9.5	11.5	13	14
L2(RTJ)	mm	163.4	190	216	241	295	333	359
	in	6.43	7.48	8.5	9.5	11.63	13.13	14.13
H	mm	59	63	75	107	153	165	195
	in	2.3	2.5	2.95	4.2	6.02	6.5	7.68
Do(W)	mm	130	160	160	230	600	850	1250
	in	5.1	6.3	6.3	9	23.62	33.46	49.25
RF(Kg)		7.5	10.5	14.5	18.5	38	56	66
BW(Kg)		6	8.7	11	14.7	31	49	58

* Worm Gear of Electric actuator operated.

Class150-1500 Two-PieceTrunnion Mounted Ball Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



STANDARDS

Design and manufacture: API6D, API608, ANSI B16.34
or BS 5351

Face to face dimensions: ANSI B16.10

Pressure-Temp Ratings: ANSI B16.34

Test: API 6D or API 598

End flange dimensions

NPS 2-24: ANSI B16.5

NPS 26: ANSI B16.47 or MSS SP-44

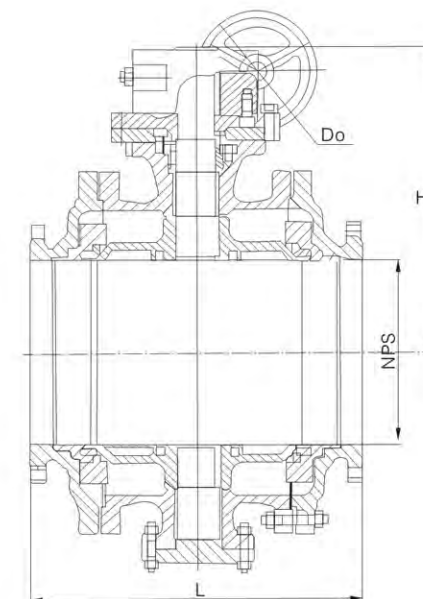
Standard Material Specifications

No	Part Name	Carbon steel to ASTM			Stainless Steel to ASTM		
		WCB	LCB	CF8	CF8M	CF3	CF3M
1	Underplate	WCB	LCB	CF8	CF8M	CF3	CF3M
2	Underplate Bolt	A193 B7	A320 L7	A193 B8			
3	Trunnion	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
4	Body	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
5	Bonnet Nut	A194 2H	A194 4	A194 8			
6	Bonnet Bolt	A193 B7	A320 L7	A193 B8			
7	Cap	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
8	Gasket	SS Spiral Wound/graphite or SS Spiral Wound/PTFE					
9	Shaft Sleeve	SS/graphite					
10	Seat Ring	RPTFE or POM					
11	Ball	A105/Ep.Cr or F6	A182 F6	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
12	Seat	A105/Ep.Cr or F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
13	Spring	17-17PH(inconel for NACE) Ni-cr Alloy					
14	O-Ring	Viton					
15	Stem	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
16	Sealing Cover	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
17	O-Ring	Viton					
18	Gear Actuator						

The material is according to ASTM standard.

Class150-1500 Three-PieceTrunnion Mounted Ball Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer



Type of connection

R F and RTJ flange ends to ANSI B16.5 or ANSI B16.47
and MSS SP-44 standard.

BW flange ends to ANSI B16.25 standard.

Type of operation

Lever

Connection dimensions of Worm Gear actuator.

Electric actuator, Pneumatic actuator to ISO 5211 standard.

Anti-static Electricity constructions"AS"and

Fire-safe constructions"FD".

Dimensions and Weights

CLASS 150															
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28
L(RF)	mm	178	191	203	229	394	457	533	610	686	762	864	914	1067	1245
	in	7	7.5	8	9	15.5	18	21	24	27	30	34	36	42	49
L1(BW)	mm	216	241	283	305	457	521	559	635	762	838	914	991	1143	1346
	in	8.5	9.5	11.13	12	18	20.5	22	25	30	33	36	39	45.5	53
L2(RTJ)	mm	191	203	216	241	406	470	546	622	699	775	876	927	1080	
	in	7.5	8	8.5	9.5	16	18.5	21.5	24.5	27.5	30.5	34.5	36.5	42.5	
H	mm	153	165	195	213	272	342	495	580	625	720	790	840	1050	1150
	in	6.05	6.5	7.68	8.39	10.7	13.5	19.5	22.85	24.6	28.35	31	33.1	41.34	45.3
Do(W)	mm	400	400	600	850	1100	1500	*350	*350	*600	*600	*800	*800	*800	*800
	in	15.74	15.74	23.62	33.46	43.3	59	13.8	13.8	23.6	23.6	31.5	31.5	31.5	31.5
RF(Kg)		15	19	38	65	97	160	240	390	510	750	895	1190	2100	3000
BW(Kg)		13	17	35	55	92.8	154	227	365	478	711	868	1138	2015	2900

CLASS 300															
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	700
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	28
L(RF)	mm	216	241	283	305	403	502	568	648	762	838	914	991	1143	1346
	in	8.5	9.5	11.13	12	15.88	19.75	22.38	25.5	30	33	36	39	45	53
L1(BW)	mm	216	241	283	305	457	521	559	635	762	838	914	991	1143	1346
	in	8.5	9.5	11.13	12	18	20.5	22	25	30	33	36	39	45	53
L2(RTJ)	mm	232	257	298	321	419	518	584	664	778	854	930	1010	1165	1372
	in	9.13	10.13	11.75	12.63	16.5	20.38	23	26.13	30.63	33.63	36.63	39.75	45.89	54
H	mm	153	165	195	213	272	342	495	580	625	720	790	840	1050	1150
	in	6.02	6.5	7.68	8.39	10.7	13.5	19.5	22.85	24.6	28.35	31	33.1	41.34	45.3
Do(W)	mm	400	400	600	850	1100	1500	*350	*350	*600	*600	*800	*800	*800	*800
	in	15.74	15.74	23.62	33.46	43.3	59	13.8	13.8	23.6	23.6	31.5	31.5	31.5	31.5
RF(Kg)		18	27	47	80	118	200	365	530	740	1030	1320	1540	2600	3900
BW(Kg)		14	22	38	65	105	185	342	503	713	1000	1285	1498	2540	3825

* Worm Gear or Electric actuator operated.

Trunnion Mounted Ball Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

CLASS 600													
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20
L(RF)	mm	292	330	356	432	559	660	787	838	889	991	1092	1194
	in	11.5	13	14	17	22	26	31	33	35	39	43	47
L1(BW)	mm	292	330	358	432	559	660	787	838	889	991	1092	1194
	in	11.5	13	14	17	22	26	31	33	35	39	43	47
L2(RTJ)	mm	295	333	359	435	562	664	791	841	892	994	1095	1200
	in	11.63	13.13	14.13	17.13	22.13	26.13	31.13	33.13	35	39.5	43.1	47.3
H	mm	153	165	195	213	272	342	495	580	630	725	800	850
	in	6.02	6.5	7.68	8.39	10.7	13.5	19.5	22.85	24.8	28.5	31.5	33.5
Do(W)	mm	600	850	1250	1300	1500	*350	*350	*600	*600	*800	*800	*800
	in	23.62	33.46	49.25	51.22	59	13.8	13.8	23.6	23.6	31.5	31.5	31.5
RF(Kg)		38	56	66	122	217	350	660	820	830	1160	1420	1650
BW(Kg)		31	51	58	117	200	327	605	790	800	1030	1305	1505

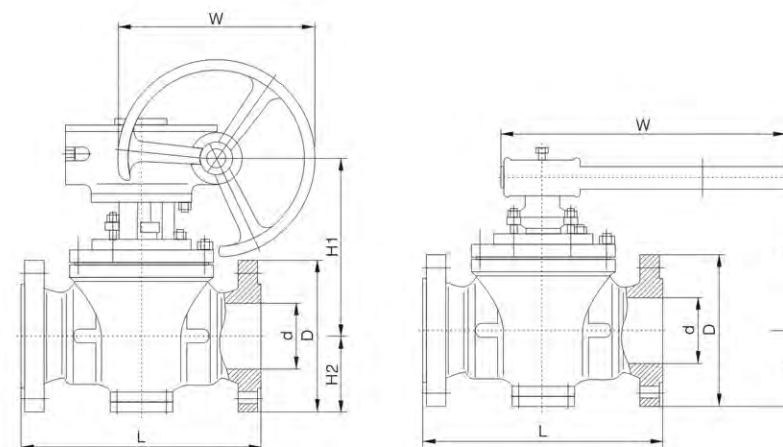
CLASS 800													
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20
L(RF)	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321
	in	14.5	16.5	15	18	24	29	33	38	40.5	44.5	48	52
L1(BW)	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321
	in	14.5	16.5	15	18	24	29	33	38	40.5	44.5	48	52
L2(RTJ)	mm	371	422	384	460	613	740	841	968	1032	1133	1222	1327
	in	14.63	16.63	15.13	18.13	24.13	29.13	33.13	38.13	40.6	44.6	48.1	52.3
H	mm	162	195	205	239	290	355	510	595	650	750	835	900
	in	6.36	7.7	80.5	9.41	11.4	14	20	23.4	25.6	29.5	32.9	35.4
Do(W)	mm	600	850	1250	1300	1500	*350	*350	*600	*600	*800	*800	*800
	in	23.62	33.46	49.25	51.22	59	13.8	13.8	23.6	23.6	31.5	31.5	31.5
RF(Kg)		48	60	78	138	315	480	710	890	910	1200	1480	1760
BW(Kg)		44.5	52.5	75.2	131	297	440	690	827	870	1100	1210	1620

CLASS 1500											
DN	mm	50	65	80	100	150	200	250	300	350	400
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16
L(RF)	mm	368	419	470	546	705	832	991	1130	1257	1384
	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5
L1(BW)	mm	368	419	470	546	705	832	991	1130	1257	1384
	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5
L2(RTJ)	mm	371	422	473	549	711	842	1000.5	1146	1276	1406
	in	14.63	16.63	18.63	21.63	28	33.13	39.38	45.13	50.2	55.4
H	mm	197	220	254	290	355	510	595	655	680	780
	in	7.74	8.7	10	11.44	14	20	23.5	25.8	26.8	30.7
Do(W)	mm	600	*350	*350	*600	*600	*800	*800	*800	*800	*800
	in	23.6	13.8	13.8	23.6	23.6	31.5	31.5	31.5	31.5	31.5
RF(Kg)		55	80	97	162	290	390	745	935	1000	1305
BW(Kg)		51	71	92.8	157.5	227	335	697	885	915	1200

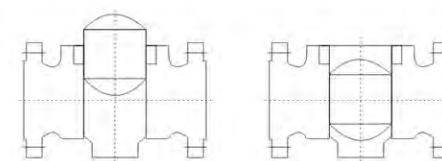
*Worm Gear or Electric actuator operated.

Top Entry Trunnion Mounted Ball Valve

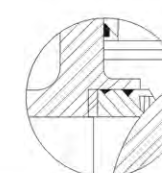
Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



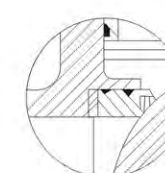
Design manufacture according to API6D、ASME B16.34
Inspection and test to API 598
Flang to ASME B16.5、DIN2543-2550、JB/T79.4
Material to NACE MRO175
Fire safe as per API 607、API 6FA



The ball is fitted into the valve body from the top, thus for repair work.



Seat inter-rolled can be to prevent the seat inserts being washed out.



F.S. Design of seat-assistant. Body chamber greased urgency when firing.

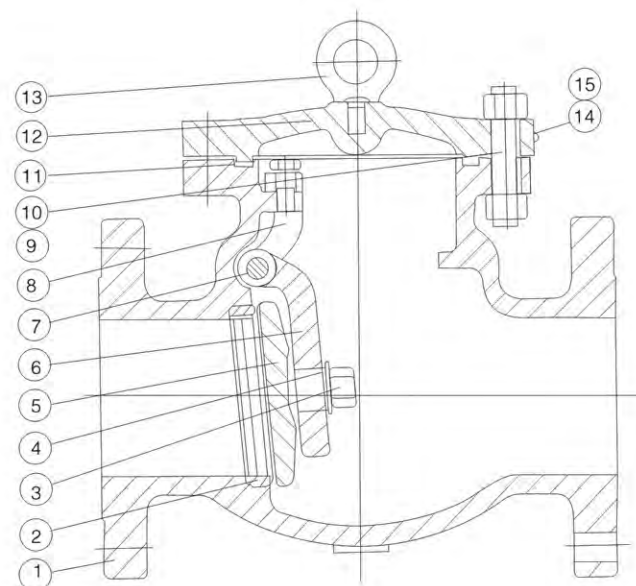
Dimensions and mm and inches(Weights)

CLASS 150						
Size	G	L	H1	H2	W	Weight
in	in	in	in	in	in	kg
2	51	292	170	76	285	46
3	76	356	21	95	285	83
4	102	432	250	115	400	156
6	152	559	265	140	*400	256
8	203	660	355	172	*400	453
10	254	787	385	203	*600	622
12	305	838	400	242	*600	747
14	337	889	450	267	*600	959
16	387	991	510	299	*600	1220
18	438	1092	565	318	*600	1640
20	489	1194	620	349	*600	2118
24	591	1397	680	407	*700	2950

CLASS 300						
Size	G	L	H1	H2	W	Weight
in	in	in	in	in	in	kg
2	51	292	170	83	285	49
3	76	356	21	105	285	87
4	102	432	250	127	400	164
6	152	559	265	159	*400	272
8	203	660	355	191	*500	479
10	254	787	385	227	*600	657
12	305	838	400	261	*600	783
14	337	889	450	292	*600	1007
16	387	991	510	324	*600	1281
18	438	1092	565	356	*700	1722
20	489	1194	620	388	*700	2118
24	591	1397	680	457	*700	3100

Check Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



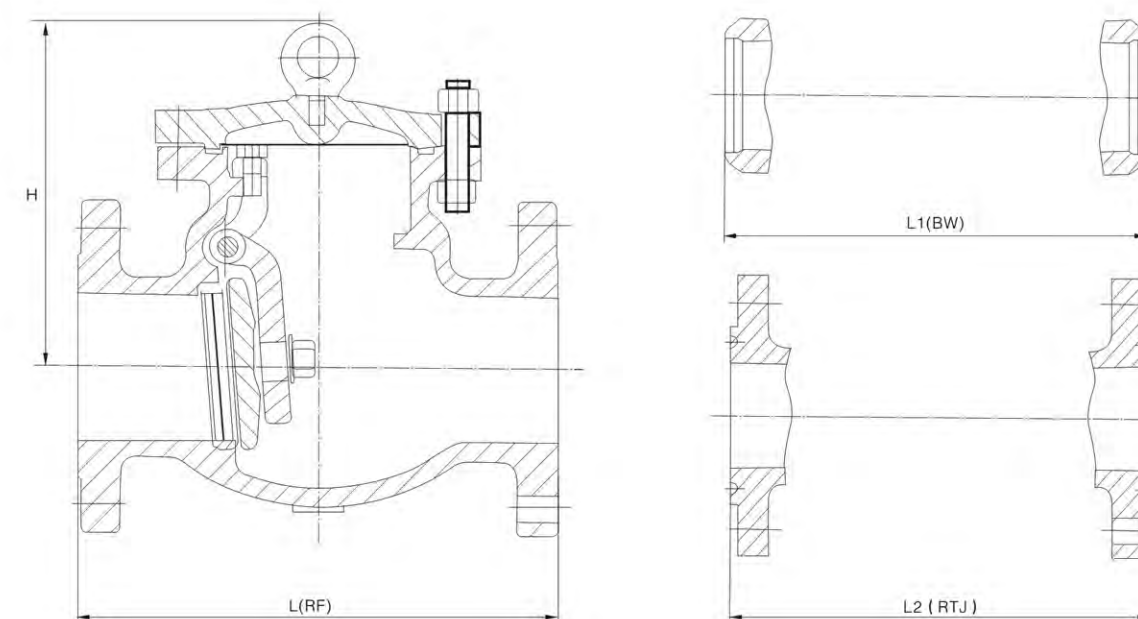
Bolted, Cover, Swing Type Disc,
Threaded or
Welded Seat Ring

SATNDARDS COMPLIANCE:

Basic Design: BS 1868
Face to Face Dimension: ANSI B16.10
End to End Dimension: ANSI B16.10
Flanged Ends: 2" ~ 24" to ANSI B16.5
> 24" to MSS SP-44
to ANSI B16.34 on request
B. W. Ends to ANSI B16.25
Manufacturing to NACE MR-01-75 on request

Check Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



Standard Material Specifications

No	Part Name	Carbon steel to ASTM		Alloy steel to ASTM			Stainless Steel to ASTM			
		WCB	LCB	WC6	WC9	C5	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Seat Ring	A105	A350 LF2	A182 F11	A182 F22	A182 F5	A182 F304	A182 F316	A182 F304L	A182 F316L
3	Disc Nut	A182 F304					A182 F304	A182 F316	A182 F304L	A182 F316L
4	Disc Washer	A182 F304					A182 F304	A182 F316	A182 F304L	A182 F316L
5	Disc	A216 WCB	A352LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
6	Hinge	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351CF8M	A351CF8M	A351CF3	A351CF3M
7	Hinge Pin	A182 F304					A182 F304	A182 F316	A182 F304L	A182 F316L
8	Yoke	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
9	Bonnet nut	A194 2H	A194 4	A194 7			A194 8			
10	Bonnet bolt	A193 B7	A30 L7	A193 B16			A193 B8			
11	Gasket	SS Spiral Wound/graphite or SS Spiral Wound/PTFE								
12	Cover	A216 WCB	A352 LCB	A217 WC6	A217 Wc9	A217C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
13	Hook Screw	Steel								
14	Nameplate	Stainless steel or Aluminum								
15	Rivet	Stainless steel or Aluminum								

Other materials (Alloy 20, AISI 321, AISI 347, Monel, Hastelloy, etc) are available on request.

Test Pressure to API598

Class	Body Material	Shell Test (Hydrostatic)	Seat Test (Hydrostatic)	Seat Test (Air)
150	WCB	450psi	315psi	80psi
	WC6	450psi	319psi	
	CF8M	425psi	303psi	
300	WCB	1125psi	814psi	80psi
	WC6	1125psi	825psi	
	CF8M	1100psi	792psi	
600	WCB	2225psi	1628psi	80psi
	WC6	2250psi	1650psi	
	CF8M	2175psi	1548psi	
900	WCB	3350psi	2442psi	80psi
	WC6	3375psi	2475psi	
	CF8M	3250psi	2376psi	
1500	WCB	5575psi	4078psi	80psi
	WC6	5625psi	4125psi	
	CF8M	5400psi	3960psi	

Check Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

Class 150																
NPS	in	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24	30
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	750
L-L1 (RF-BW)	in	8	8-1/2	9-1/2	11-1/2	13	14	19-1/2	24-1/2	27-1/2	31	34	38-1/2	38-1/2	51	60
	mm	203	216	241	292	330	356	495	622	698	787	864	978	978	1295	1524
L2 (RTJ)	in	8-1/2	9	10	12	13-1/2	14-1/2	20	25	28	31-1/2	34-1/2	39	39	51-1/2	60-1/2
	mm	216	229	254	305	343	368	508	635	711	800	876	991	991	1308	1537
H (OPEN)	in	5-7/8	6-5/8	7-1/16	8-1/4	9-1/16	10-13/16	13-3/8	14	16-1/8	18-11/1	21-3/4	23-5/8	26	29-1/8	38-5/8
	mm	150	168	180	210	230	275	340	355	410	475	552	600	660	740	980
WT (kg)	RF	17	21	29	42	69	74	108	177	282	372	570	665	900	1359	3344
	BW	13	17	24	36	57	62	96	158	238	324	483	548	782	1150	2940

Class 300																
NPS	in	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24	30
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	750
L-L1 (RF-BW)	in	10-1/2	11-1/2	12-1/2	14	15-3/4	17-1/2	21	24-1/2	28	33	34	38-1/2	40	53	62-3/4
	mm	267	292	318	356	400	444	533	622	711	838	864	978	1016	1346	1594
L2 (RTJ)	in	11-1/8	12-1/8	13-1/8	14-5/8	16-3/8	18-1/8	21-5/8	25-1/8	28-5/8	33-5/8	34-5/8	39-1/8	40-3/4	53-7/8	63-3/4
	mm	283	308	333	371	416	460	549	638	727	854	879	994	1036	1368	1619
H	in	7-1/16	7-1/4	8-1/4	10-5/8	13-9/16	14-3/16	14-9/16	15-1/8	17-5/16	20-7/16	21-13/16	23-1/4	24-3/16	27-15/16	34-1/16
	mm	180	185	210	270	345	360	370	385	440	520	554	590	614	614	866
WT (kg)	RF	21	32	43	61	84	131	213	384	449	680	840	1025	1320	1960	3270
	BW	16	24	35	44	61	105	167	272	375	560	710	828	1070	1586	2830

Class 600														
NPS	in	2	2-1/2	3	4	6	8	10	12	14	16	18	20	24
DN	mm	50	85	80	100	150	200	250	300	350	400	450	500	600
L-L1 (RF-BW)	in	11-1/2	13	14	17	22	26	31	33	35	39	43	47	55
	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397
L2 (RTJ)	in	11-5/8	13-1/8	14-1/8	17-1/8	22-1/8	26-1/8	31-1/8	33-1/8	35-1/8	39-1/8	43-1/8	47-1/4	55-3/8
	mm	295	333	359	435	562	664	791	841	892	994	1095	1200	1407
H	in	7-3/4	8-1/8	9-1/8	11-1/16	14-1/4	17-3/16	19-5/16	20-3/4	22-1/2	26	28-3/8	29-3/8	37-13/16
	mm	197	207	231	281	362	437	490	528	572	660	720	746	960
WT (kg)	RF	36	49	68	111	230	416	673	875	944	1220	1620	2120	3100
	BW	28	40	57	83	191	361	543	770	820	1015	1350	1750	2520

*Manual gear operator is recommended

Check Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve,
Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

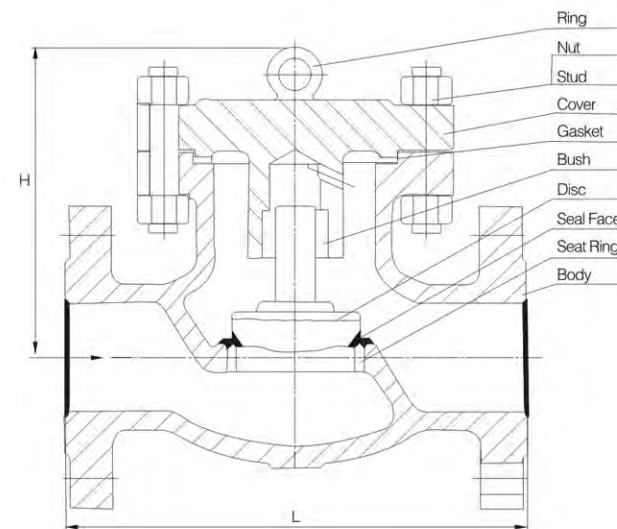
Dimensions and Weights

Class 900											
NPS	in	2	2-1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
L-L1 (RF-BW)	in	14-1/2	16-1/2	15	18	24	29	33	38	40-1/2	44-1/2
	mm	368	419	381	457	610	737	838	965	1029	1130
L2 (RTJ)	in	14-5/8	16-5/8	15-1/8	18-1/8	24-1/8	29-1/8	33-1/8	38-1/8	40-7/8	44-7/8
	mm	371	422	384	460	613	740	841	968	1038	1140
H	in	9-7/16	10-1/4	10-1/4	12-5/8	15	20-7/8	22-1/16	23-1/4	24-13/16	27-9/16
	mm	240	260	260	320	382	530	560	590	630	700
WT (kg)	RF	69	93	91	145	259	565	900	1200	1500	2130
	BW	52	74	70	112	218	448	733	975	1240	1760

Class 1500									
NPS	in	2	2-1/2	3	4	6	8	10	12
DN	mm	50	85	80	100	150	200	250	300
L-L1 (RF-BW)	in	14-1/2	16-1/2	18-1/2	21-1/2	27-3/4	32-3/4	39	44-1/2
	mm	368	419	470	546	705	832	991	1130
L2 (RTJ)	in	14-5/8	16-5/8	18-5/8	21-5/8	28	33-1/8	39-3/8	45-1/8
	mm	371	422	473	549	700	841	1000	1146
H	in	12-1/4	12-1/4	13	14	15-3/4	20-7/8	22-1/16	25-5/8
	mm	310	310	330	355	400	530	560	650
WT (kg)	RF	69	93	140	232	490	990	1490	1970
	BW	49	74	111	185	375	803	1250	1625

Class 150/300 Lift Check Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



STRUCTURE TYPE

Bolted Cover, Lift Type Disc, Threaded Seat Ring.

STANDARDS:

Basic design: ASME B16.34 and BS 1868

Face to Face Dimensions: ASME B16.10

End Flange Dimensions: ASME/ANSI B16.5a

Shell Wall Thickness: ASME B16.34

Test: API 598

Pressure-Temperature Rating: ASME B16.34

Standard Material Specifications

Part Name	WCB series	304 series	316 series	Cr-Mo(V) series	low temperature series	resist sulphur series	Monel inside series
Body Cover	A216-WCB	A351-CF8 -CF3	A351-CF8 -CF3M	A217-WC6 WC9 -C5	A352-LCB -LCC	A351-CF8M	A216 WCB
Disc	A105 A182-F6a	A182-F304 -F304L	A182-F316 -F316L	A182-F11 F22 F6a	A182-F6a	A182-F316	Monel k400
Seat Ring	A105 A182-F6a	A182-F304 -304L	A182-F316 -316L	A182-F6a F22	A182-F6a	A182-F316	Monel k400
Seal Face	13% Cr 13%Cr STL/13%Cr stainless steel valve local body/STL STL/STL						Monel k400
Gasket	304 or 316 stainless steel twisted flexible graphite						Monel+Twisted flexible graphite
Stud	A193-B7	A193-B8	A193-B8	A193 B16	A320-L7	A193-B7	A193-B7
Nut	A194-2H	A194-8	A194-8	A194-7	A194-4	A197-2H	A194-2H
Ring	A105	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A105

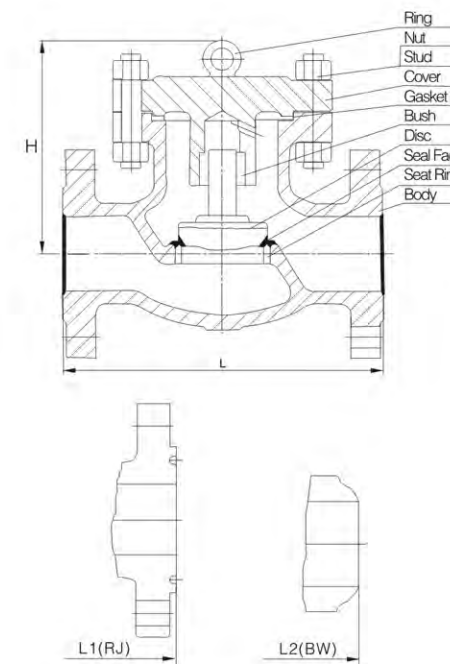
NOTE: Other materials can be selected according to the customer's requirement.

Dimensions and Weights

NPS DN		1/2 mm	2 50	2-1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300
L (RF)	Class 150	in mm	8 203	8-1/2 216	9-1/2 241	11-1/2 292	14 356	16 406	19-1/2 495	24-1/2 622	27-1/2 698
	Class 300	in mm	10-1/2 267	11-1/2 292	12-1/2 318	14-3/8 356	15-3/4 400	17-1/2 445	22 559	24-1/2 622	28 711
H	Class 150	in mm	7-1/16 179	7-5/8 194	8-7/16 214	9-3/8 238	10-1/4 260	11-7/16 291	13-1/2 343	15-5/16 389	17-14 438
	Class 300	in mm	7-13/16 198	8-5/8 219	9-5/8 244	10-13/16 275	113/4 298	12-7/8 327	15 381	17 432	19-1/2 495
WT	Class 150		17	25	29	48	68	85	138	210	350
	Class 300		28	33	42	67	98	135	203	296	448

Class 600 Lift Check Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



STRUCTURE TYPE

Bolted Cover, Lift Type Disc, Threaded Seat Ring

STANDARDS:

Basic design: ASME B16.34 and BS 1868

Face to Face Dimensions: ASME B16.10

End Flange Dimensions: ASME/ANSI B 16.5a

Shell Wall Thickness: ASME B16.34

Test: API 598

Pressure-Temperature Rating: ASME B16.34

Standard Material Specifications

Part Name	WCB series	304 series	316 series	Cr-Mo(V) series	low temperature series	resist sulphur series	Monel inside series
Body Cover	A216-WCB	A351-CF8 -CF3	A351-CF8M -CF3M	A217-WC6 -WC9 -C5	A352-LCB -LCC	A351-CF8M	A216-WCb
Disc	A105 A182-F6a	A182-F304	A182-F316 -F316L	A182-F11 F22 F6a	A182-F6a	A182-F316	Monel K400
Seat Ring	A182-F6a	-F304L A182-F304	A182-F316 -F316L	A182-F6a F22	A182-F6a	A182-F316	Monel K400
Seal Face	13% Cr 13%Cr STL/13%Cr stainless steel valve local body/STL STL/STL						Monel K400
Gasket	304 or 316 stainless steel twisted flexible graphite						Monel+Twisted Flexible graphite
Stud	A193-B7	A193-B8	A193-B8	A193 B16	A320-L7	A193-B7	A193-B7
Nut	A194-2H	A194-8		A197-7	A194-4	A197-2H	A194-2H
Ring	A105	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A105

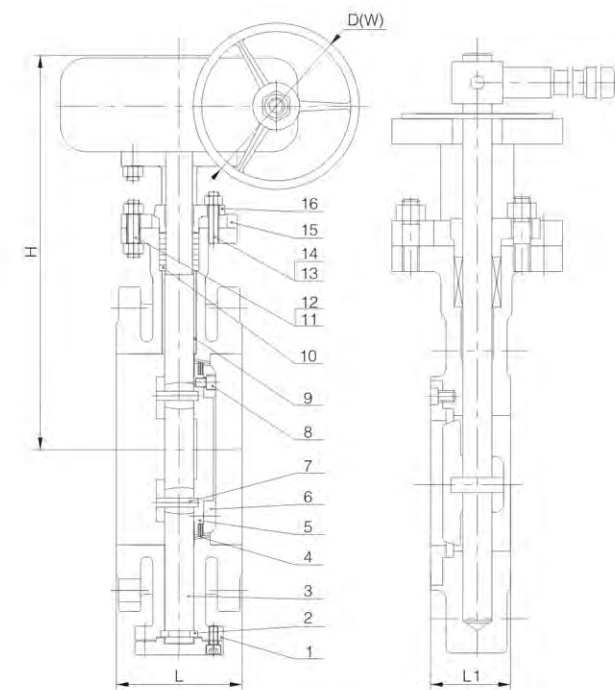
NOTE: Other materials can be selected according to the customer's requirement.

Dimensions and Weights

NPS DN	in mm	2 50	2-1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300
L (RF)	in	11-1/2	13	14	17	20	22	26	31	33
	mm	292	330	356	432	508	559	660	787	838
L1 (RJ)	in	11-5/8	13-1/8	14-1/8	17-1/8	20-1/8	22-1/8	26-1/8	31-1/8	33-1/8
	mm	295	333	359	435	511	562	664	791	841
L2 (BW)	in	11-1/2	13	14	17	20	22	26	31	33
	mm	292	330	356	432	508	559	660	787	838
H	in	8-7/16	9-1/4	10-5/16	11-13/16	13	14-1/2	16-9/16	19	20-7/8
	mm	214	235	262	300	330	368	421	483	530
WT Kg	in	32	45	58	102	147	195	308	455	630
	mm	27	38	47	79	104	148	211	305	470

Class 125-300 Butterfly Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



STANDARDS

Flange Butterfly Valves: MSS SP-67

Wafer Butterfly Valves: MSS SP-68 OR API 609

Face to face dimensions: ANSI B16.10 MSS SP-67 and MSS SP-68 or 609

Test: API598

End flange dimensions

NPS 1 1/2-24: ANSI B16.5

NPS 30-72: MSS SP-44 or ANSI B16.47

Type of construction

Flange Butterfly Valves(Hard face and soft face)

Wafer Butterfly Valves(Hard face and soft face)

Type of connection

R F and RTJ flange ends to ANSI B16.5 or API 605

and MSS SP-44 standard.

Type of operation

Lever

Worm Gear actuator, Electric actuator, Pneumatic actuator.

Actuator dimensions to ISO 5211 standard.

Material List

No	Part Name	Carbon Steel		Alloy Steel			Stainless Steel			
		WCB	LCB	WC6	WC9	C5	CF8	CF8M	CF3	CF3M
1	Body	A216 WCB	A352 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Below Axle Bush	PTFE or Stainless Steel And Graphite Spiral Wound								
3	Stem	A182 F6	A182 F6	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L
4	Seat Ring	F6	F6	STL	STL6	STL6	F304	F316	F304L	F316L
5	Butterfly Plate	A216 WCB	A352 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
6	Lock Ring	A105	A182 F6	A182 F22	A182 F22	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L
7	Pin	Carbon Steel or Alloy Steel								
8	Screw	Carbon Steel or Alloy Steel								
9	Top Axle Bush	PTFE or Stainless Steel And Graphite Spiral Wound								
10	Packing	Graphite + 304								
11	Bolt	A193 B7	A193 B7	A193 B7	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8
12	Nut	A194 2H	A194 2H	A194 2H	A194 2H	A194 2H	A194 Gr.8	A194 Gr.8	A194 Gr.8	A194 Gr.8
13	Bolt	A193 B7	A193 B7	A193 B7	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8
14	Nut	A194 2H	A194 2H	A194 2H	A194 2H	A194 2H	A194 Gr.8	A194 Gr.8	A194 Gr.8	A194 Gr.8
15	Yoke	A216 WCB	A352 WCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
16	Gland	A182 F6	A182 F6	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L

The material is according to ASTM standard

Class 125-300 Butterfly Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

CLASS 125													
DN	mm	400	450	500	600	750	900	1050	1200	1350	1500	1650	1800
NPS	in	16	18	20	24	30	36	42	48	54	60	66	72
L	mm	203.2	230.2	203.2	203.2	304.8	304.8	304.8	381.0	381.0	381.0	457.2	457.2
	in	8	8	8	8	12	12	12	15	15	15	18	18
L1	mm	79.3	101.6	127	154	165.1	200.2	251	276.4				
	in	3.12	4	5	6.06	6.5	7.88	9.88	10.88				
H	mm	481	521	568	698	903	1031	1122	1180	1425	1545	1624	1750
	in	19	20.5	22.4	27.5	35.6	40.6	44.2	46.5	56.1	60.8	64	69
Do(W)	mm	300	400	450	500	*350	*350	*350	*350	*350	*350	*350	*350
	in	11.8	15.8	17.7	19.7	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Weight (Kg)	RF	230	274	375	595	1030	1985	2100	3420	3670	3880	4100	4250
	BW	200	248	334	510	880	1580	1680	2736				

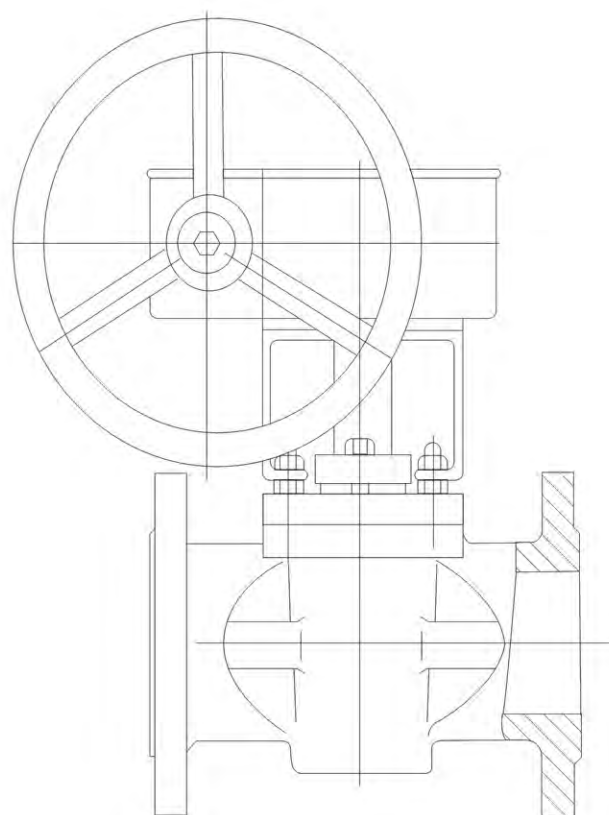
CLASS 150													
DN	mm	40	50	65	80	100	125	150	200	250	300	350	400
NPS	in	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16
L	mm				127	127	127	127	152	203.2	203.2	203.2	203.2
	in				5	5	5	5	6	8	8	8	8
L1	mm	38.1	46	50.8	48	54	63.5	57	63.5	71.5	81.0	92.0	101.5
	in	1.5	1.81	2	1.88	2.13	2.5	2.25	2.50	2.81	3.19	3.62	4.00
H	mm	185	190	220	229	239	252	284	307	337	392	435	481
	in	7.28	7.48	8.7	9	9.4	9.9	11.2	12	13.3	15.4	17.1	19
Do(W)	mm	160	160	160	160	160	160	160	200	200	250	250	300
	in	6.3	6.3	6.3	6.3	6.3	6.3	6.3	7.9	7.9	9.8	9.8	11.8
Weight (Kg)	RF				12.5	13.5	17	38	72	105	148	182	230
	BW	8	9	10	10	11	14.5	34.2	66	98	134	168	200

CLASS 150													
DN	mm	450	500	600	750	900	1050	1200	1350	1500	1650	1800	
NPS	in	18	20	24	30	36	42	48	54	60	66	72	
L	mm	203.2	203.2	203.2	304.8	304.8	304.8	381.0	381.0	381.0	457.2	457.2	
	in	8	8	8	12	12	12	15	15	15	18	18	
L1	mm	114.5	127	154	165.1	200.2	251	276.4					
	in	4.50	5.00	6.06	6.50	7.88	9.88	10.88					
H	mm	521	568	698	903	1031	1122	1180	1425	1545	1624	1750	
	in	20.5	22.4	27.5	35.6	40.6	44.2	46.5	56	60.8	64	69	
Do(W)	mm	400	450	500	*350	*350	*350	*350	*350	*350	*350	*350	
	in	15.8	17.7	19.7	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	
Weight (Kg)	RF	274	375	595	1030	1985	2100	3420	3875	3980	4210	4335	
	BW	248	334	510	880	1580	1680	2736					

CLASS 300													
DN	mm	40	50	65	80	100	125	150	200	250	300	350	400
NPS	in	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16
L	mm				127	127	127	127	152.4	203.2	203.2	203.2	203.2
	in				5	5	5	5	6	8	8	8	8
L1	mm	38.1	46	50.8	48	54	57.2	59	73	82.5	92	117.5	133.5
	in	1.5	1.81	2.0	1.88	2.12	2.25	2.31	2.88	3.25	3.62	4.62	5.25
H	mm	185	190	220	229	248	258	301	318	365	415	458	510
	in	7.28	7.48	8.7	9	9.8	10.2	11.9	12.5	14.4	16.3	18	20
Do(W)	mm	160	160	160	160	160	160	200	200	250	300	400	450
	in	6.3	6.3	6.3	6.3	6.3	6.3	7.9	7.9	9.8	11.8	15.8	17.7
Weight (Kg)	RF				12.5	15.7	19.8	42	97	167	182	268	287
	BW	9	10.5	11.5	12.5	13.2	17.6	39.8	88	143	157	222	253

Self-Lubricated Plug Valve Class 150-600

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



STANDARDS

Design and manufacture: API 6D ANSI B16.34

Face to face dimensions: ANSI B16.10

End flange dimensions: ANSI B16.5

Test: API 6D or API 598

Type of connection

R F and RTJ flange ends to ANSI B16.5 standard.

BW flange ends to ANSI B16.25 standard

Type of operation

Lever

Connection dimensions of worm Gear actuator,

Electric actuator,

Pneumatic actuator to ISO 5211 standard

Anti-static Electricity constructions "AS" and

Fire-safe constructions "FD"

Material List

No	Part Name	Carbon Steel		Stainless Steel			
		WCB	LCB	CF8	CF8M	CF3	CF3M
1	Body	A216WCB	A352LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Bonnet	A216WCB	A352LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
3	Plug	A105/Ep.Cr	A182 F304	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
4	Stern	A182 F6	A182 F6	A182 F304	A182 F316	A182 F304L	A182 F316L
5	Seat Ring	PTFE					
6	Gasket	PTFE or Stainless Steel and Graphite					
7	Stem seat	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
8	Small spring	17-17PH(Inconel for NACE)Ni-Cr Alloy					
9	Small ball	A182 F304 A182 F316					
10	Gland	A 182 F6	A 182 F6	A 182 F304	A 182 F316	A 182 F304L	A 182 F316L
11	Gland flange	A216WCB	A352LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
12	Stem packing	PTFE or Graphite					
13	Bonnet Bolt	A193 B7 A320L7 A320 B8 A193B8M					
14	Bonnet Nut	A194 2H A194 4 A194 8					

The material is according to ASTM standard

Self-Lubricated Plug Valve Class 150-600

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions and Weights

CLASS 150													
DN	mm	15	20	25	40	50	65	80	100	150	200	250	300
NPS	in	1/2	3/4	1	1	2	2 1/2	3	4	6	8	10	12
L(RF)	mm	108	117	127	165	178	191	203	229	394	457	533	610
	in	4.25	4.6	5	6.5	7	7.5	8	9	15.5	18	21	24
L1(BW)	mm	140	152	165	190	216	241	283	305	457	521	559	635
	in	5.5	6	6.5	7.48	8.5	9.5	11.13	12	18	20.5	22	25
L2(RTJ)	mm	119	129.7	139.7	178	191	203	216	241	406	470	546	622
	in	4.69	5.11	5.5	6.9	7.5	8	8.5	9.5	16	18.5	21.5	24.5
H	mm	59	63	75	92	153	165	195	213	272	342	495	580
	in	2.3	2.5	2.95	3.74	6.02	6.5	7.68	8.39	10.7	13.5	19.5	22.85
Do(W)	mm	130	130	160	230	400	400	600	850	1100	1500	*350	*350
	in	5.1	5.1	6.3	9	15.74	15.74	23.62	33.46	43.3	59	13.8	13.8
RF(Kg)		2.3	3	4.5	7	15	20	25	40	97	160	240	390
BW(Kg)		2.0	2.5	3.8	5.8	12	17	21	36	92.8	154	227	365

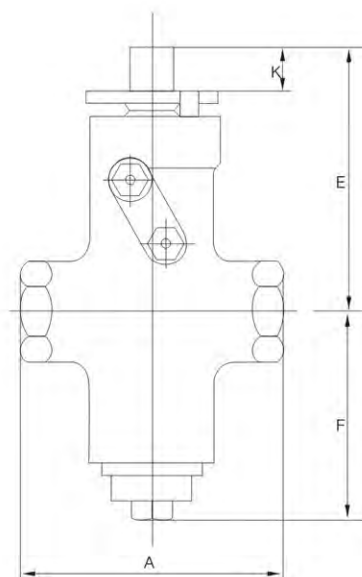
CLASS 300											
DN	mm	15	20	25	40	50	65	80	100	150	200
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8
L(RF)	mm	140	152	165	190	216	241	283	305	403	502
	in	5.5	5.98	6.5	7.48	8.5	9.5	11.13	12	15.88	19.75
L1(BW)	mm	140	152	165	190	216	241	283	305	457	521
	in	5.5	5.98	6.5	7.48	8.5	9.5	11.13	12	18	20.5
L2(RTJ)	mm	151	164.7	177.7	202.7	232	257	298	321	419	518
	in	5.95	6.48	7	8	9.13	10.13	11.75	12.63	16.5	20.39
H	mm	59	63	75	107	153	165	195	213	272	342
	in	2.3	2.5	2.95	4.2	6.02	6.5	7.68	8.39	10.7	13.5
Do(W)	mm	130	130	160	230	400	400	600	850	1100	1500
	in	5.1	5.1	6.3	9	15.74	15.74	23.62	33.46	43.3	59
RF(Kg)		2.5	3.5	5.5	10.5	20	25	31	52	118	200
BW(Kg)		2.1	3	4.8	8.7	17	22	28	48	105	185

CLASS 600								
DN	mm	15	20	25	40	50	65	80
NPS	in	1/2	3/4	1	1 1/2	2	2 1/2	3
L(RF)	mm	165	190	216	241	292	330	356
	in	6.5	7.48	8.5	9.5	11.5	13	14
L1(BW)	mm	165	190	216	241	292	330	356
	in	6.5	7.48	8.5	9.5	11.5	13	14
L2(RTJ)	mm	163.4	190	216	241	295	333	359
	in	6.43	7.48	8.5	9.5	11.63	13.13	14.13
H	mm	59	63	75	107	153	165	195
	in	2.3	2.5	2.95	4.2	6.02	6.5	7.68
Do(W)	mm	130	160	160	230	600	850	1250
	in	5.1	6.3	6.3	9	23.62	33.46	49.25
RF(Kg)		7.5	10.5	14.5	18.5	38	56	66
BW(Kg)		6	8.7	11	14.7	31	49	58

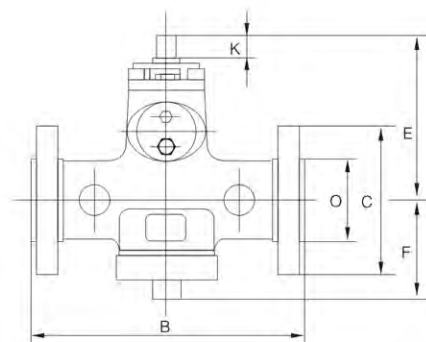
*Worm Gear or Electric Actuator Operated.

Class 150-300 Pressure Balanced Plug Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



Valve designed to API 6D AND API 599
Valve tested to API 6D and API 598
Face to face to API 6D and ANSI B16.10
Flanged ends to ANSI B 16.5
Screwed ends to ANSI B1.20.1

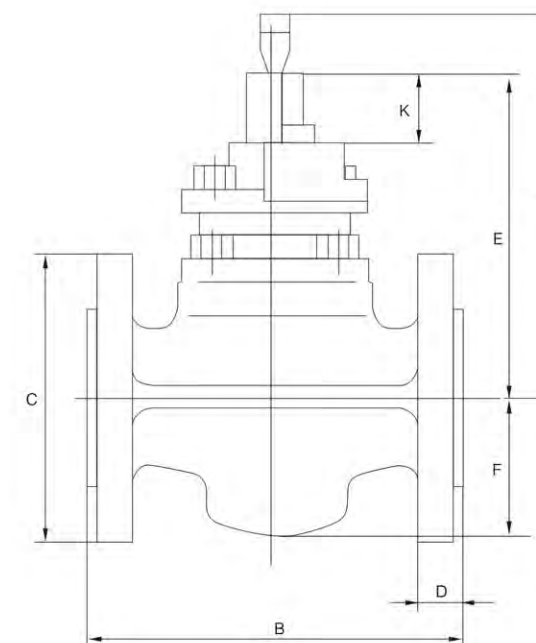


Dimensions and Weights

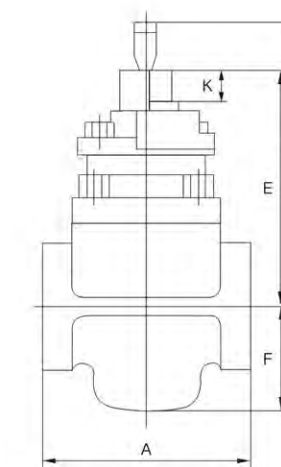
Class	Size	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
150	A	89	133	133	229	229								
	B					178	191	203	229	267	292		330	256
	C					152	178	191	229	279	343	406	483	
	D					19	22.4	23.8	23.8	25.4	29	31	32	
	E	104	127	127	174	174		219	235	220	370	550	480	
	F	76	97	97	126	126		161	179	209	264	311	359	
	O	34.9	42.9	42.9	73	92	105	127	157	216	270	324	381	
	Weight(SW)	2.5	6.8	6.8	22	24.5								
300	B				191	216	241	283	305	403	419	457	502	
	C				156	165	191	210	254	318	381	445	521	
	D				20.6	22.2	25.4	28.3	31.8	36.5	41.3	47.6	50.8	
	E				169	178		219	235	362				
	F				106	118		143	165	187	248	300	392	
	O				73.0	92.1	105	127	157	216	270	324	381	
	Weight(RF)				16	21		38	60	101	192	281	508	
600	A	89	133	133	229	229								
	B	165	190	190	241	292		356	432	559	660	787	838	
	C	95.3	117	117	156	195		210	273	356	419	508	559	
	D	20.6	22.3	22.3	28.6	31.8		38.2	44.5	54.0	62.0	70.0	73	
	E	104	127	127	176	176		217	232					
	F	76	97	97	116	116		143	165	548	298	313	375	
	O	34.9	42.9	42.9	73	92	105	127	157	216	270	324	381	
	Weight(SW)	2.5	6.8	6.8	22	24.5		41	51	168	284	412	488	
	Weight(RF)	5.3	9.0	9.0	49	54		46	85	254	406	584	620	

Class 150-300 Lubricated(Metal Seal) Plug Valve

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.



Valve designed to API 6D AND API 599
Valve tested to API 6D and API 598
Face to face to API 6D and ANSI B16.10
Flanged ends to ANSI B 16.5
Screwed ends to ANSI B1.20.1

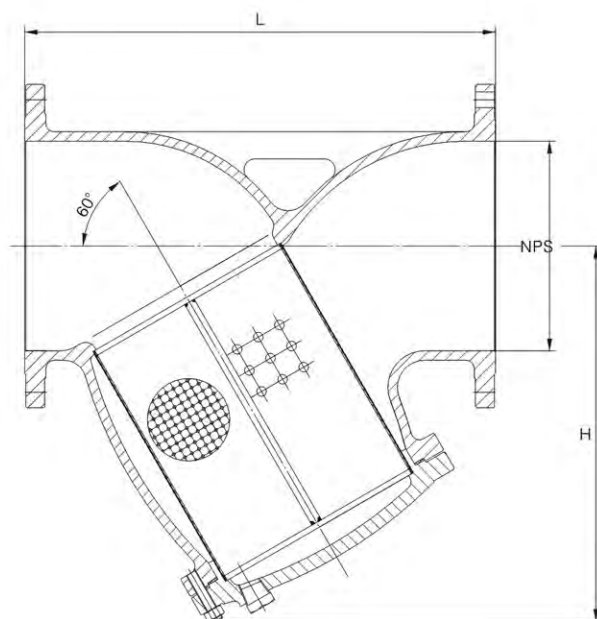


Dimensions and Weights

Class	Size	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
150	A	95	95	111	133	165	191	203						
	B	130	130	140	165	178	191	203	229	267	292	330	356	
	C	89	98.4	108	127	152	178	191	229	279	348	406	483	
	D	9.53	12.7	14.3	17.5	19	22.4	23.9	23.9	25.4	29	31	32	
	E	100	100	114	152	152	176	208	230	293	327	364		
	F	48	48	49	70	71	87	102	114	160	179	219	289	
	C	34.9	42.9	50.8	73	92	105	127	157	216	270	324	381	
	P	157	157	171	210	225	265	297	324	414	449	483		
300	Weight(SW)	3.2	3.2	5.0	8.1	13	23	27						
	Weight(RF)	3.6	3.6	6.3	10	19	25	32	36	86	118	181		
	A	95	95	111	133	165	191	203						
	B	140	140	159	191	216	241	283	305	403	419	457	502	
	C	95.3	117	124	156	165	191	210	254	318	381	445	521	
	D	14.3	15.9	17.5	20.6	22.2	25.4	28.6	31.8	36.5	41.3	47.6	50.8	
	E	100	100	114	144	176	207	229	245	283				
	F	37	37	49	65	81	102	114	140	159	194	194	260	
	O	34.9	42.9	50.8	73.0	92.1	105	127	157	216	270	324	381	
	P	157	157	171	210	265	297	325	343	403	506	510	546	
	Weight(SW)	3.2	3.2	4.5	8.2	13	23	27						
	Weight(RF)	3.6	3.6	6.3	14	18	27	38	75	111	213	240	346	

API Y-Type Strainer

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer,



Dimensions and Weights

Class	NPS	2"	≥ 1/2"	3"	4"	6"	8"	10"	12"	14"	16"
150Lb	L	203	216	241	292	406	495	622	698	787	914
	H	205	230	255	300	390	490	550	640	720	800
300Lb	L	267		318	356	444	559	622	711	838	914
	H	235		285	320	420	510	600	690	770	850
600Lb	L	292		356	432	559	660	787	838	889	991
	H	255		305	340	440	530	650	740	790	880

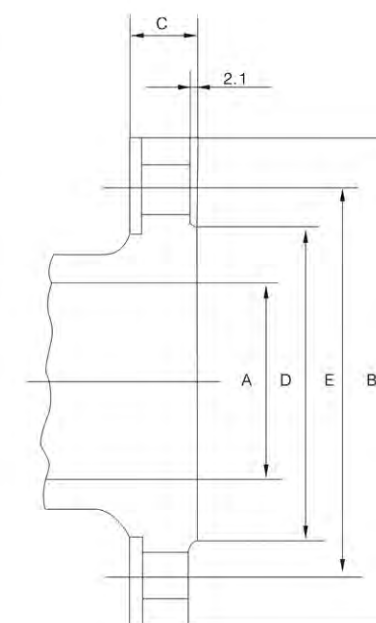
End Flange Dimensions

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer,

Dimensions

Nominal size	Bore A	Outside Dia B	Thickness of Flange C	Raised face Dia D	Dia of bolt circle E	Number of bolt holes	Dia of bolt
Class 150 RF							
1-1/2"	38.1	127	17.5	73	98.4	4	1/2"
2"	50.8	152.4	19.1	92.1	120.7	4	5/8"
2-1/2"	63.5	177.8	22.2	104.8	139.7	4	5/8"
3"	76.2	190.5	23.8	127	152.4	4	5/8"
4"	101.6	228.6	23.8	157.2	190.5	8	5/8"
5"	127	254	23.8	185.7	215.9	8	3/4"
6"	152.4	279.4	25.4	215.9	241.6	8	3/4"
8"	203.2	342.9	28.6	269.9	298.5	8	3/4"
10"	254	406.4	30.2	323.9	362	12	7/8"
12"	304.8	482.6	31.8	381	431.8	12	7/8"
14"	336.6	533.4	34.9	412.8	476.3	12	1"
16"	387.4	596.9	36.5	469.9	539.8	16	1"
18"	438.2	635	39.7	533.4	577.9	16	1-1/8"
20"	489	698.5	42.9	584.2	635	20	1-1/8"
24"	590.6	812.8	47.7	692.2	749.3	20	1-1/4"
26"	635	869.9	68.3	749.3	806.4	24	1-3/8"
28"	685.8	927.1	71.1	800.1	863.6	28	1-3/8"
30"	736.6	984.2	74.7	857.2	914.4	28	1-3/8"
32"	781.1	1060.4	80.8	914.4	977.9	28	1-5/8"
34"	831.9	1111.2	82.5	965.2	1028.7	32	1-5/8"
36"	876.3	1168.4	90.4	1022.3	1085.8	32	1-5/8"
38"	927.1	1238.2	87.4	1073.1	1149.3	32	1-5/8"
40"	977.9	1289	90.4	1123.9	1200.1	36	1-5/8"
42"	1022.4	1346.2	96.8	1193.8	1257.3	36	1-5/8"
Class 300 RF							
1-1/2"	38.1	155.6	20.6	73	114.3	4	3/4"
2"	50.8	165.1	22.2	92.1	127	8	5/8"
2-1/2"	63.5	190.5	25.4	104.8	149.2	8	3/4"
3"	76.2	209.5	28.6	127	168.3	8	3/4"
4"	101.6	254	31.8	157.2	200	8	3/4"
5"	127	279.4	34.9	185.7	235	8	3/4"
6"	152.4	317.5	36.5	215.9	269.9	12	3/4"
8"	203.2	381	41.3	269.9	330.2	12	7/8"
10"	254	444.5	47.6	323.9	387.4	16	1"
12"	304.8	520.7	50.8	381	450.9	16	1-1/8"
14"	336.6	584.2	54	412.8	514.4	20	1-1/8"
16"	387.4	647.7	57.2	469.9	571.5	20	1-1/4"
18"	431.8	711.2	60.3	533.4	628.7	24	1-1/4"
20"	482.5	774.7	63.5	584.2	685.8	24	1-1/4"
22"	533.4	838.2	66.5	641.4	743	24	1-1/2"
24"	534.2	914.4	69.9	692.2	812.8	24	1-1/2"
26"	635	971.5	79.2	749.2	876.3	28	1-3/4"
28"	685.8	1035	85.5	800.1	939.8	28	1-3/4"
30"	736.6	1092.2	91.9	857.2	996.9	28	1-7/8"
32"	781.1	1149.3	98.5	914.4	1054.1	28	2"
34"	831.9	1206.5	101.6	965.2	1104.9	28	2"
36"	876.3	1270	104.6	1022.3	1168.4	32	2-1/8"
38"	927.1	1168.4	107.9	1028.7	1092.2	32	1-5/8"
40"	977.9	1238.2	114.3	1085.8	1155.7	32	1-3/4"
Class 600 RF							
1-1/2"	38.1	155.6	22.2	730	114.3	4	3/4"
2"	50.8	165.1	25.4	92.1	127.0	8	5/8"
2-1/2"	63.5	190.5	28.6	104.8	149.2	8	3/4"
3"	76.2	209.6	31.8	127.0	168.3	8	3/4"

Integral Steel Flanges for Valves
1-1/2"-24":ANSI B16.5 1981
BS 1560 1958
> 24"MSS SP-44 1991



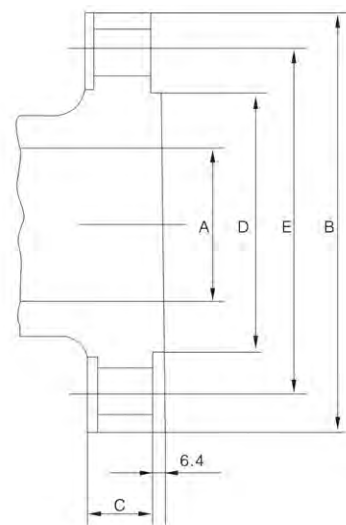
Class 150/300RF

End Flange Dimensions

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

Dimensions

Nominal size	Bore A	Outside Dia B	Thickness of Flange C	Raised face Dia D	Dia of bolt circle E	Number of bolt holes	Dia of bolt
Class 150 RF							
4"	101.6	273.1	38.1	157.2	215.9	8	7/8"
5"	127.0	330.2	44.5	185.7	266.7	8	1"
6"	152.4	355.6	47.6	215.9	292.1	12	1"
8"	200.0	419.1	55.6	269.9	349.3	12	1-1/8"
10"	247.7	508.0	63.5	323.9	431.8	16	1-1/4"
12"	298.5	558.8	66.7	371.0	489.0	20	1-1/4"
14"	327.0	603.3	69.9	412.8	527.1	20	1-3/8"
16"	374.7	685.8	76.2	469.9	603.3	20	1-1/2"
18"	719.1	743.1	82.6	533.5	654.1	20	1-5/8"
20"	463.6	812.8	88.9	584.	723.9	24	1-5/8"
24"	558.8	939.8	101.6	692.2	838.2	24	1-7/8"
26"	635.0	1016.0	107.9	749.3	914.4	28	2"
28"	685.8	1073.1	111.2	800.1	965.2	28	2-1/8"
30"	736.6	1130.3	114.3	857.3	1022.3	28	2-1/8"
32"	784.4	1193.8	117.3	914.4	1079.5	28	2-3/8"
34"	831.9	1244.6	120.6	965.2	1130.3	28	2-3/8"
36"	876.3	1314.4	123.9	1022.4	1193.8	28	2-5/8"
Class 600 RF							
1-1/2"	341.8	177.8	31.8	73.0	123.8	4	1"
2"	47.5	215.9	38.1	92.1	165.1	8	7/8"
2-1/2"	57.2	244.5	41.2	104.8	190.5	8	1"
3"	72.9	241.3	38.1	127.0	190.5	8	7/8"
4"	98.3	292.1	44.5	157.2	235.5	8	1-1/8"
5"	120.7	349.3	50.8	185.7	279.4	8	1-1/4"
6"	146.1	381.0	55.6	215.9	317.5	12	1-1/8"
8"	190.5	469.9	63.5	269.9	393.7	12	1-3/8"
10"	138.0	546.1	69.9	323.9	469.9	16	1-3/8"
12"	282.4	609.6	79.4	381.0	533.4	20	1-3/4"
14"	311.2	641.4	85.7	412.8	558.8	20	1-1/2"
16"	355.6	704.9	88.9	469.9	616.0	20	1-5/8"
18"	400.1	787.4	101.6	533.4	685.8	20	1-7/8"
20"	444.5	857.3	108.0	584.2	749.3	20	2"
24"	533.4	1041.4	139.7	692.2	901.7	20	2-1/2"
Class 1500 RF							
1-1/2"	34.8	177.8	31.8	73.0	123.8	4	1"
2"	47.5	215.9	38.1	92.1	165.1	8	7/8"
2-1/2"	57.2	244.5	41.2	104.8	190.5	8	1"
3"	69.9	266.7	47.8	127.0	203.2	8	1-1/8"
4"	92.0	311.2	54.0	157.2	241.3	8	1-1/4"
5"	111.0	374.7	73.2	185.5	292.1	8	1-1/2"
6"	136.5	393.7	82.6	215.9	317.5	12	1-3/8"
8"	177.8	482.6	92.1	269.9	393.7	12	1-5/8"
10"	223.0	584.2	108.0	323.9	482.2	12	1-7/8"
12"	263.5	673.1	124.0	371.0	571.5	16	2"
14"	288.9	749.3	133.4	412.8	635.0	16	2-1/4"
16"	330.2	825.5	146.1	469.9	704.9	16	2-1/2"
18"	371.5	914.4	162.1	533.4	774.7	16	2-3/4"
20"	415.9	984.3	177.8	584.2	831.9	16	3"
24"	498.5	1168.4	203.2	692.2	990.6	16	3-1/2"
Class 2500 RF							
1-1/2"	28.6	203.2	44.5	73.0	146.1	4	1-1/8"
2"	37.1	235.0	50.8	92.1	171.5	8	1"
2-1/2"	47.6	266.7	57.2	104.8	196.9	8	1-1/8"
3"	57.2	304.8	66.5	127.0	228.6	8	1-1/4"
4"	73.0	355.6	76.2	157.2	273.1	8	1-1/2"
5"	92.1	419.1	92.0	185.5	323.9	8	1-3/4"
6"	111.1	482.6	108.0	215.9	368.3	8	2"
8"	146.1	552.5	127.0	269.9	438.2	12	2"
10"	184.2	673.1	165.1	323.9	539.8	12	2-1/2"
12"	219.1	762.0	184.2	381.0	619.3	12	2-3/4"



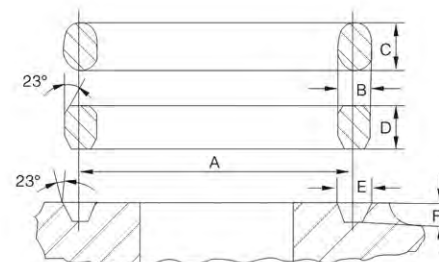
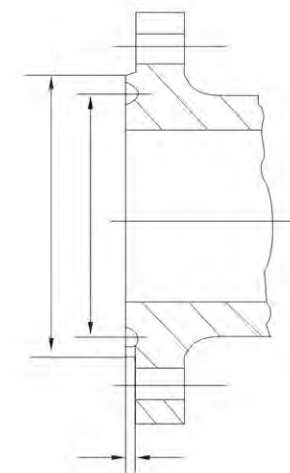
Class 600/900/2500RF

Ring Joint Facings And Rings

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve, Power Station Valve, Oilfield Dedicated Valve Y-Strainer.

American National Standard-Dimensions, in Inches

Class	Size	Ring No.	A	B	C	D	E	F	H
Class 300 400 600	1-1/2	R20	2.688	0.312	0.562	0.500	0.344	0.250	3.56
	2	R23	3.250	0.438	0.688	0.625	0.469	0.312	4.25
	2-1/2	R26	4.000	0.438	0.688	0.625	0.469	0.312	5.00
	3	R31	4.875	0.438	0.688	0.625	0.469	0.312	5.75
	3-1/2	R34	5.188	0.438	0.688	0.625	0.469	0.312	6.25
	4	R37	5.875	0.438	0.688	0.625	0.469	0.312	6.88
	5	R41	7.125	0.438	0.688	0.625	0.469	0.312	8.25
	6	R45	8.312	0.438	0.688	0.625	0.469	0.312	9.5
	8	R49	10.625	0.438	0.688	0.625	0.469	0.312	11.88
	10	R53	12.750	0.438	0.688	0.625	0.469	0.312	14.00
	12	R57	15.000	0.438	0.688	0.625	0.469	0.312	16.25
	14	R61	16.500	0.438	0.688	0.625	0.469	0.312	18.00
	16	R65	18.500	0.438	0.688	0.625	0.469	0.312	20.00
	18	R69	21.000	0.438	0.688	0.625	0.469	0.312	22.62
	20	R73	23.000	0.500	0.750	0.688	0.531	0.375	25.00
	24	R77	27.250	0.625	0.875	0.812	0.656	0.438	29.50
Class 900	1-1/2	R20	2.688	0.312	0.562	0.500	0.344	0.250	3.62
	2	R24	3.750	0.438	0.688	0.625	0.469	0.312	4.88
	2-1/2	R27	4.250	0.438	0.688	0.625	0.469	0.312	5.39
	3	R31	4.875	0.438	0.688	0.625	0.469	0.312	6.12
	4	R37	5.875	0.438	0.688	0.625	0.469	0.312	7.12
	5	R41	7.125	0.438	0.688	0.625	0.469	0.312	8.50
	6	R45	8.312	0.438	0.688	0.625	0.469	0.312	9.50
	8	R49	10.625	0.438	0.688	0.625	0.469	0.312	12.12
	10	R53	12.750	0.438	0.688	0.625	0.469	0.312	14.25
	12	R57	15.000	0.438	0.688	0.625	0.469	0.312	16.50
	14	R62	16.500	0.625	0.875	0.812	0.656	0.438	18.38
	16	R66	18.500	0.625	0.875	0.812	0.656	0.438	20.62
	18	R70	12.000	0.750	1.000	0.938	0.781	0.500	23.38
	20	R74	23.000	0.750	1.000	0.938	0.781	0.500	25.50
	24	R78	27.250	1.000	1.312	1.250	1.062	0.625	30.38
Class 1500	1-1/2	R20	2.688	0.312	0.562	0.500	0.344	0.250	3.62
	2	R24	3.750	0.438	0.688	0.625	0.469	0.312	4.88
	2-1/2	R27	4.250	0.438	0.688	0.625	0.469	0.312	5.38
	3	R35	5.375	0.438	0.688	0.625	0.469	0.312	6.62
	4	R39	6.375	0.438	0.688	0.625	0.469	0.312	7.62
	5	R44	7.625	0.438	0.688	0.625	0.469	0.312	9.00
	6	R46	8.312	0.500	0.750	0.688	0.531	0.375	9.75
	8	R50	10.625	0.625	0.875	0.812	0.656	0.438	12.50
	10	R54	12.750	0.625	0.875	0.812	0.656	0.438	14.62
	12	R58	15.000	0.875	1.125	1.062	0.906	0.562	17.25
	14	R63	16.500	1.000	1.312	1.250	1.062	0.625	19.25
	16	R67	18.500	1.125	1.438	1.375	1.188	0.688	21.50
	18	R71	21.000	1.125	1.438	1.375	1.188	0.688	24.12
	20	R75	23.000	1.250	1.562	1.500	1.312	0.688	26.50
	24	R79	27.250	1.375	1.750	1.625	1.438	0.812	31.25



Class 300/400/600/900/1500
Oval rings fit grooves having either a flat or round bottom;
Octagonal rings only fit grooves having a flat bottom.

Butt-Welding Ends (ANSI B16.25)

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve ,
Power Station Valve , Oilfield Dedicated Valve Y-Strainer.

Nominal Pipe Size	Schedule Number or Wall	Outside Diameter A		Nominal Inside Diameter B		Machined Inside Diameter C		Nominal Wall Thickness	
		inch	mm	inch	mm	inch	mm	inch	mm
2-1/2	40	2.88	73.0	2.469	62.6	2.479	62.97	0.203	5.2
	80			2.323	59.0	2.351	59.72	0.276	7.0
	160			2.125	54.0	2.178	55.32	0.375	9.5
	XXS			1.771	45.0	1.868	47.45	0.552	14.0
3	40	3.50	88.9	3.068	77.9	3.081	78.26	0.216	5.5
	80			2.900	73.7	2.934	74.52	0.300	7.6
	160			2.624	66.7	2.692	68.38	0.438	11.1
	XXS			2.300	58.5	2.409	61.19	0.600	15.2
3-1/2	40	4.00	101.6	3.548	90.2	3.564	90.53	0.226	5.7
	80			3.364	85.4	3.402	86.41	0.318	8.1
4	40	4.50	114.3	4.026	102.3	4.044	102.72	0.237	6.0
	80			3.826	97.1	3.869	98.27	0.337	8.6
	120			3.624	92.1	3.692	93.78	0.438	11.1
	160			3.438	87.3	3.530	89.66	0.531	13.5
	XXS			3.152	80.1	3.279	83.29	0.674	17.1
5	40	5.56	141.3	5.047	128.1	5.070	128.78	0.258	6.6
	80			4.813	122.3	4.866	123.60	0.375	9.5
	120			4.563	115.9	4.647	118.03	0.500	12.7
	160			4.313	109.5	4.428	112.47	0.625	15.9
	XXS			4.063	103.3	4.209	106.91	0.750	19.0
6	40	6.62	168.3	6.065	154.1	6.094	154.79	0.280	7.1
	80			5.761	146.3	5.828	148.03	0.432	11.0
	120			5.501	139.7	5.600	142.24	0.562	14.3
	160			5.187	131.7	5.326	135.28	0.719	18.3
	XXS			4.897	124.5	5.072	128.83	0.864	21.9
8	40	8.62	219.1	7.981	202.7	8.020	203.71	0.322	8.2
	60			7.813	198.5	7.873	199.97	0.406	10.3
	80			7.625	193.7	7.709	195.81	0.500	12.7
	100			7.437	188.9	7.544	197.62	0.894	15.1
	120			7.187	182.5	7.326	186.08	0.719	18.3
	140			7.001	177.9	7.163	181.94	0.812	20.6
	XXS			6.875	174.7	7.053	179.15	0.875	22.2
	160			6.813	173.1	6.998	177.75	0.906	23.0
10	40	10.75	273	10.020	254.4	10.070	255.78	0.365	9.3
	60			9.750	247.6	9.834	249.78	0.500	12.7
	80			9.562	242.8	9.670	245.62	0.594	15.1
	100			9.312	236.4	9.451	240.06	0.719	18.3
	120			9.062	230.2	9.232	234.49	0.844	21.4
	140			8.750	222.2	8.959	227.56	1.000	25.4
	160			8.500	215.8	8.740	222.00	1.125	28.6
12	STD	12.75	323.8	12.000	304.8	12.053	306.15	0.375	9.5
	40			11.938	303.2	11.999	304.77	0.406	10.3
	XS			11.750	298.4	11.834	300.58	0.500	12.7
	60			11.626	295.2	11.725	297.82	0.562	14.3
	80			11.374	288.8	11.505	292.23	0.688	17.5
	100			11.062	281.0	11.232	285.29	0.844	21.4
	120			10.75	273.0	10.959	278.36	1.00	25.4
	140			10.500	266.6	10.740	272.80	1.125	28.6
	160			10.126	257.2	10.413	264.49	1.312	33.3

Butt-Welding Ends (ANSI B16.25)

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve ,
Power Station Valve , Oilfield Dedicated Valve Y-Strainer.

Nominal Pipe Size	Schedule Number or Wall	Outside Diameter A		Nominal Inside Diameter B		Machined Inside Diameter C		Nominal Wall Thickness	
		inch	mm	inch	mm	inch	mm	inch	mm
14	STD	14.00	355.6	13.250	336.6	13.303	337.90	0.375	9.5
	40			13.124	333.4	13.192	335.08	0.438	11.1
	XS			13.000	330.2	13.084	332.33	0.500	12.7
	60			12.812	325.4	12.920	328.17	0.594	15.1
	80			12.500	317.6	12.646	321.21	0.750	19.0
	100			12.124	308.0	12.318	321.88	0.938	23.8
	120			11.812	300.0	12.044	305.92	1.094	27.8
	140			11.500	292.0	11.771	298.98	1.250	31.8
	160			11.188	284.2	11.498	292.05	1.406	35.7
16	STD	16.00	406.4	15.250	387.4	15.303	388.70	0.375	9.5
	40			15.000	381.0	15.084	383.13	0.500	12.7
	60			14.688	373.0	14.811	376.20	0.656	16.7
	80			14.312	363.6	14.482	367.84	0.844	21.4
	100			13.938	354.0	14.155	359.54	1.031	26.2
	120			13.562	344.4	13.826	351.18	1.219	31.0
	140			13.124	333.4	12.442	341.43	1.438	36.5
	160			12.812	325.4	13.170	334.52	1.594	40.5
18	STD	18.00	457.2	17.250	438.2	17.303	439.50	0.375	9.5
	XS			17.000	431.8	17.084	433.93	0.500	12.7
	40			16.876	428.6	16.975	431.17	0.562	14.3
	60			15.500	419.2	16.646	422.81	0.750	19.0
	80			16.124	409.6	16.318	414.48	0.938	23.8
	100			15.688	398.4	15.936	404.77	1.156	29.4
	120			15.250	387.4	15.553	395.05	1.375	34.9
	140			14.876	377.8	15.225	386.72	1.562	39.7
	160			14.438	366.8	14.842	376.99	1.781	45.2
20	STD	20.00	508.0	19.250	489.0	19.303	490.30	0.500	9.5
	XS			19.000	482.6	19.084	484.73	0.594	12.7
	40			18.812	477.8	18.920	480.57	0.812	15.1
	60			18.376	466.8	18.538	470.87	1.031	20.6
	80			17.938	455.6	18.155	461.14	1.281	26.2
	100			17.438	443.0	17.717	450.01	1.500	32.5
	120			17.000	431.8	17.334	440.28	1.750	38.1
	140			16.500	419.2	16.896	429.16	1.969	44.4
	160			16.062	408.0	16.513	419.43	0.375	50.0
22	STD	22.00	558.8	21.250	539.8	21.303	541.10	0.500	9.5
	XS			21.000	533.4	21.084	535.53	0.875	12.7
	60			20.250	514.4	20.428	518.87	1.125	22.2
	80			19.750	501.6	19.990	507.75	1.375	28.6
	100			19.250	488.8	19.553	496.65	1.625	35.0
	120			18.750	476.2	19.115	485.52	1.875	41.3
	140			18.250	463.6	18.678	474.42	2.125	47.6
	160			17.750	450.8	18.240	463.30	0.375	54.0
24	STD	24.00	609.6	23.250	590.6	23.303	591.90	0.500	9.5
	XS			23.000	584.2	23.084	586.33	0.562	12.7
	30			22.876	571.0	22.975	583.57	0.688	14.3
	40			22.624	574.6	22.755	577.98	0.969	17.5
	60			22.062	560.4	22.263	565.48	1.219	24.6
	80			21.562	547.6	21.826	554.38	1.531	31.0
	100			20.938	531.8	21.280	540.51	1.812	38.9
	120			20.376	517.6	20.788	528.02	2.062	46.0
	140			19.876	504.8	20.350	516.89	2.344	52.4
	160			19.312	490.6	19.857	504.37		59.5

Butt-Welding Ends (ANSI B16.25)

Gate Valve, Globe Valve, Plug Valve, Check Valve, Butterfly Valve ,
Power Station Valve , Oilfield Dedicated Valve Y-Strainer.

CLASS	SIZE		Dimensions(mm)						Weight(kg)	
	mm	in.	L(RF)	L(RTJ)	L(BW)	H	H1	W	R F	BW
150LBS	50	2	178	191	216	400	—	200	19	16
	65	2-1/2	190	203	241	435	—	220	25	21
	80	3	203	216	283	500	—	250	35	31
	100	4	229	241	305	590	—	280	48	43
	125	5	254	267	381	725	—	300	63	58
	150	6	267	279	403	775	—	300	80	75
	200	8	292	305	419	965	1000	350	125	113
	250	10	330	343	457	1185	1225	400	185	173
	300	12	356	368	502	1380	1425	450	280	223
	350	14	381	394	572	1550	1590	500	386	316
	400	16	406	418	610	1740	1780	550	495	395
	450	18	432	445	660	1960	2000	600	590	520
	500	20	457	470	711	2175	2215	700	750	630
	600	24	508	521	813	2565	2605	750	995	905
	650	26	559	—	864	—	2800	—	1500	1380
	700	28	610	—	914	—	3050	—	1910	1800
	750	30	610	622	914	—	3130	—	2350	2070
	800	32	711	—	965	—	3280	—	2500	2250
	900	36	711	724	1016	—	3720	—	3450	3200
	1000	40	813	—	1067	—	4200	—	4520	—
	1050	42	813	—	1143	—	4400	—	4950	—
	1200	48	1067	—	1371	—	5000	—	6300	—
	1500	60								

CLASS	SIZE		Dimensions(mm)						Weight(kg)	
	mm	in.	L(RF)	L(RTJ)	L(BW)	H	H1	W	R F	BW
300LBS	50	2	216	232	216	425	—	200	25	22
	65	2-1/2	241	257	241	445	—	220	32	28
	80	3	283	298	283	535	—	250	47	41
	100	4	305	321	305	620	—	280	72	64
	125	5	381	397	381	750	—	300	105	95
	150	6	403	419	403	800	—	350	128	115
	200	8	419	435	419	1005	1040	400	212	200
	250	10	457	473	457	1235	1275	450	330	280
	300	12	502	518	502	1440	1480	500	430	370
	350	14	762	778	762	1620	1660	550	700	630
	400	16	838	854	838	1805	1845	600	930	860
	450	18	914	930	914	2080	2030	700	1135	935
	500	20	991	1010	991	2200	2260	750	1350	1050
	600	24	1143	1165	1143	2580	2640	900	2140	1650
	650	26	1245	1270	1245	—	2850	—	2950	2450
	700	28	1346	1372	1346	—	3100	—	3350	2850
	750	30	1397	1422	1397	—	3200	—	3600	3100
	800	32	1524	1553	1524	—	3350	—	4380	3800
	900	36	1727	1756	1727	—	3800	—	6000	5300
	1000	40	1955	—	1955	—	4300	—	7970	—
	1050	42	2032	—	2032	—	4500	—	9510	—
	1200	48	2286	—	2286	—	5150	—	12600	—

Our Production

Dervos owns the workshop for cast steel/stainless steel/duplex steel gate, globe, check and ball valves.

We purchase high-quality castings and have professional engineer and skilled workers to take charge of the whole process from machining, drilling, pickling, polishing to assembling. After pressure testing, the products will get through out-looking rechecking/defect repairing before painting/coating. When all this process is done, the products need to be inspected strictly by our inspectors before package and delivery.

Our most stable support is come from our skilled workers. Because of their diligence and hard-working, our workshop can fulfill the production on time and keep the quality good always.



Our Qualification

Appendix 1

Certificate No. Q150401216-01

Reference Report No. F402104002

Technical Data Form

Name, Address of the applicant:
TAVAI S.A.
Pisomay 87 1876, Don Bosco, Buenos Aires, Argentina

Name, Address of manufacturer:
DERVOS (WENZHOU) VALVE MANUFACTURING CO., LTD
Zhoushan Road, Heer Village, Dongou Street, Yongjia County/Wenzhou, Zhejiang, P.R. China

1. Type of Test Valve:
Ball Valve

2. Description of Test Valve:
Ball Valve

3. Details of Valve:

Part Name	Material
Body	ASTM A216 WCB
Gate	ASTM A216 WCB
Sealing material for the connection of the body	304+Graphite
Ball-sealing material	A105+ENP
Stem	ASTM A216 WCB
Sealing material for the stem	Graphite
Sealing material for the seat	RP3FE
Body Bolt	ASTM A194 D4
Nut	ASTM A194 D4
Design Drawing No.	2" Q471-150L-00

Shanghai, 22 April, 2016
(Place, Date)

TUV NORD Shanghai Branch
NO. 1, Shenzhen Center Plaza, Unit 1017
Jiang Chang Road, Zhu He Road,
Shanghai, China

Tel: +86-21-60855552
Fax: +86-21-60855550

CERTIFICATE
(Certificate of conformity with technical requirements in:)
API SPEC 607 6th Edition, September 2010

Certificate No.: Q150401216-01
Ref. Test Report No.: F402104002

Name, Address of the applicant:
TAVAI S.A.
Pisomay 87 1876, Don Bosco, Buenos Aires, Argentina

Name, Address of manufacturer:
DERVOS (WENZHOU) VALVE MANUFACTURING CO., LTD
Zhoushan Road, Heer Village, Dongou Street, Yongjia County/Wenzhou, Zhejiang, P.R. China

We hereby certify that the five test on below valves have been conducted at the laboratory designated by manufacturer and witnessed by TUV inspector according to requirements of API SPEC 607 6th Edition, September 2010. The testing results of valves meet the requirements of API SPEC 607.

1. Description of Test Valve:

Type: Description of valve (a): Q471-CL150 NP54
Description of valve (b): Ball Valve
Nominal Size(s): 2"
Pressure rating (ANSI Class): 150
Valve Body Material: ASTM A216 WCB

2. Qualified Range of Valve:

Type: Q471-CL150 NP54
Description of valve: Ball Valve
Qualified Pressure Rating (Class): 150/300
according to API 607, Para. 6
Qualified Size (NPS): 2"
according to API 607, Para. 9
Remark: The technical data of test valve see back of this certificate appendix 1.

This certificate is issued according to API SPEC 607 6th Edition, September 2010. Based upon the result of testing report on above mentioned test valve. Instead of testing each nominal size and nominal pressure rating of a given valve design, all valves of the same basic design as the test valve may be deemed to have been tested, subject to the following limitations according to API SPEC 607 6th Edition, September 2010, Para. 7.1.

Shanghai, 22 April, 2016
(Place, Date)

TUV NORD Shanghai Branch
NO. 1, Shenzhen Center Plaza, Unit 1017
Jiang Chang Road, Zhu He Road,
Shanghai, China

Tel: +86-21-60855552
Fax: +86-21-60855550

Appendix 1

Certificate No. Q150401216-02

Reference Report No. F402104002

Technical Data Form

Name, Address of the applicant:
TAVAI S.A.
Pisomay 87 1876, Don Bosco, Buenos Aires, Argentina

Name, Address of manufacturer:
DERVOS (WENZHOU) VALVE MANUFACTURING CO., LTD
Zhoushan Road, Heer Village, Dongou Street, Yongjia County/Wenzhou, Zhejiang, P.R. China

1. Type of Test Valve:
Ball Valve

2. Description of Test Valve:
Ball Valve

3. Details of Valve:

Part Name	Material
Body	ASTM A216 WCB
Gate	ASTM A216 WCB
Sealing material for the connection of the body	304+Graphite
Ball-sealing material	A105+ENP
Stem	ASTM A216 WCB
Sealing material for the stem	Graphite
Sealing material for the seat	RP3FE
Body Bolt	ASTM A194 D4
Nut	ASTM A194 D4
Design Drawing No.	2" Q471-150L-00

Shanghai, 22 April, 2016
(Place, Date)

TUV NORD Shanghai Branch
NO. 1, Shenzhen Center Plaza, Unit 1017
Jiang Chang Road, Zhu He Road,
Shanghai, China

Tel: +86-21-60855552
Fax: +86-21-60855550

CERTIFICATE
(Certificate of conformity with technical requirements in:)
API SPEC 607 6th Edition, September 2010

Certificate No.: Q150401216-02
Ref. Test Report No.: F402104002

Name, Address of the applicant:
TAVAI S.A.
Pisomay 87 1876, Don Bosco, Buenos Aires, Argentina

Name, Address of manufacturer:
DERVOS (WENZHOU) VALVE MANUFACTURING CO., LTD
Zhoushan Road, Heer Village, Dongou Street, Yongjia County/Wenzhou, Zhejiang, P.R. China

We hereby certify that the five test on below valves have been conducted at the laboratory designated by manufacturer and witnessed by TUV inspector according to requirements of API SPEC 607 6th Edition, September 2010. The testing results of valves meet the requirements of API SPEC 607.

1. Description of Test Valve:

Type: Description of valve (a): Q471-CL300 NP52
Description of valve (b): Ball Valve
Nominal Size(s): 2"
Pressure rating (ANSI Class): 150
Valve Body Material: ASTM A216 WCB

2. Qualified Range of Valve:

Type: Q471-CL300 NP52
Description of valve: Ball Valve
Qualified Pressure Rating (Class): 150/300
according to API 607, Para. 6
Qualified Size (NPS): 2"
according to API 607, Para. 9
Remark: The technical data of test valve see back of this certificate appendix 1.

This certificate is issued according to API SPEC 607 6th Edition, September 2010. Based upon the result of testing report on above mentioned test valve. Instead of testing each nominal size and nominal pressure rating of a given valve design, all valves of the same basic design as the test valve may be deemed to have been tested, subject to the following limitations according to API SPEC 607 6th Edition, September 2010, Para. 7.1.

Shanghai, 22 April, 2016
(Place, Date)

TUV NORD Shanghai Branch
NO. 1, Shenzhen Center Plaza, Unit 1017
Jiang Chang Road, Zhu He Road,
Shanghai, China

Tel: +86-21-60855552
Fax: +86-21-60855550

EC Certificate of Conformity

In accordance with the requirements of the Pressure Equipment Directive 2014/68/EU and the Pressure Equipment Regulations 1999, UK Statutory Instrument 1999 No. 2001 as amended by S.I. 2002 No. 1267 and S.I. 2015 No. 399

This is to certify that the Quality Management System of:

DERVOS (Wenzhou) Valve Manufacturing Co., Ltd.
No.8, Zhoushan Road, Heer Village, Dongou Street,
Yongjia County, Wenzhou, Zhejiang
People's Republic of China

has been assessed against the requirements of Annex III, Module H of the Pressure Equipment Directive 2014/68/EU, and Schedule 4, Module H of the Pressure Equipment Regulations 1999 and conforms to the requirements for the products shown below:

Design and Manufacture of Gate Valves, Ball Valves, Check Valves and Globe Valves
(see attached schedule)

Approval is subject to the continued maintenance of the quality system in accordance with the requirements of the above Directive and Regulations.

Authorisation is hereby given to use the LRV Notified Body Identification Number in accordance with the requirements of the specified Directive and Regulations in relation to the products as identified above.

Certificate No: 0038/PED/SHA/6037751/A
Original Approval: 30 July 2016
Current Certificate: 30 July 2016
Certificate Expiry: 29 July 2019
LRV Notified Body Number 0038

Amanda Wu
Amanda Wu on behalf of Lloyd's Register Verification

Lloyd's Register Verification Limited (reg. no. 452624) is a limited company registered in England and Wales. Registered office: 11 Fenchurch Street, London, EC3M 8BS, UK. A subsidiary of Lloyd's Register Group Limited.

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© Lloyd's Register Group Limited, 2016

CERTIFICATE OF APPROVAL

This is to certify that the Management System of:

DERVOS (Wenzhou) Valve Manufacturing Co., Ltd.
No. 8, Zhoushan Road, Heer Village, Dongou Street,
Yongjia County, Wenzhou City, Zhejiang Province
People's Republic of China
Unified Social Credit Code: 9133032409238612R

has been approved by Lloyd's Register Quality Assurance to the following Management System Standards:

ISO 9001:2008
GB/T 19001-2008

The Management System is applicable to:

Design and manufacture of gate valve, check valve, ball valve and globe valve sold abroad.

Approval Certificate No: QAC6037751

Original Approval: 10 July 2016

Current Certificate: 10 July 2016

Certificate Expiry: 14 September 2018

Amanda Wu
Issued by: Lloyd's Register Quality Assurance (Shanghai) Co., Ltd.
for and on behalf of Lloyd's Register Quality Assurance Limited

Our Inspection

For each order, our inspection team not only take part in the final inspection, they also guard each procedure to avoid defect and assure of the delivery time.

The details of each inspection and some points during procedure will be presented on Dervos' inspection report after final inspection.

Our inspection is acted according to international standard, All pressure tests are in conformity with API598, API6D and DIN3230 standards. Additionally, we also adopts some special tests in accordance with API6D. For example, low pressure air test, DBB test and DPE test. We takes the test under full operating pressure, this is the only test to find the possible leakage at the connection place of valve body and valve cover, valve stem, accessories, lubricating grease injection device etc.



DERVOS
德沃阀门

Item 1: Gate valve, RF connection, 2", 300LB, A216 WCB, Trim 1F

SN	HT	L	D	G1	G2	#	B	F	W	W
4240005	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240006	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240007	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240008	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240009	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240010	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240011	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240012	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240013	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240014	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240015	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240016	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240017	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240018	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240019	Left	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350
4240020	Right	216.1	104.7	127.4	52.7	50.4	23.8	1.9	9.10	350

Note: For the project of the 10 only products, the dimensional check is acceptable, the data in the list for reference only.

DERVOS YOUR BEST PARTNER OF VALVES, FLANGES AND PIPE FITTINGS

Page 3 of 7

DERVOS
德沃阀门

Item 2: Gate valve, RF connection, 3", 300LB, A216 WCB, Trim 10F

SN	HT	L	D	G1	G2	#	B	F	W	W
4240021	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240022	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240023	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240024	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240025	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240026	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240027	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240028	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240029	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240030	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240031	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240032	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240033	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240034	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240035	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240036	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240037	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240038	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240039	Left	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400
4240040	Right	284.1	127.4	152.4	63.5	61.2	25.4	2.2	9.22	400

Note: For the project of the 10 only products, the dimensional check is acceptable, the data in the list for reference only.

DERVOS YOUR BEST PARTNER OF VALVES, FLANGES AND PIPE FITTINGS

Page 4 of 7

DERVOS
德沃阀门

Item 3: Gate valve, RF connection, 6", 300LB, A216 WCB, Trim 10F

SN	HT	L	D	G1	G2	#	B	F	W	W
4240041	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240042	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240043	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240044	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240045	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240046	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240047	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240048	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240049	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240050	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240051	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240052	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240053	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240054	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240055	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240056	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240057	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240058	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240059	Left	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650
4240060	Right	406.3	177.8	215.9	89.1	86.1	31.8	2.5	10.32	650

Note: For the project of the 10 only products, the dimensional check is acceptable, the data in the list for reference only.

DERVOS YOUR BEST PARTNER OF VALVES, FLANGES AND PIPE FITTINGS

Page 5 of 7

INSPECTION REPORT

Client: TAVEL S.A.

Client order No: 2184246-1

Factory: DERS VALVE

Inspector: Jide Liu

Report date: 23rd January 2013

XIAMEN DERS VALVES INDUSTRY CO., LTD

DERVOS YOUR BEST PARTNER OF VALVES, FLANGES AND PIPE FITTINGS
Page 1 of 7

DERVOS
德沃阀门

1. Product Description and amount of inspection

Item	Product Description	Quantity (PCS)
1	Gate valve, RF connection, 2", 300LB, A216 WCB, Trim 1F	100
2	Gate valve, RF connection, 3", 300LB, A216 WCB, Trim 10F	50
3	Gate valve, RF connection, 6", 300LB, A216 WCB, Trim 10F	90
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Inspection place & Date or Period:
Wuxing Industrial Area Outlet Town, Wenzhou City,
Zhejiang Province, China,
Feb. 01, 2013

Stage of inspection:
☐ Before manufacturing
☐ During manufacturing
☒ Final
☐ Packing

Kind of inspection:
☐ Pre-inspection meeting
☒ Witnessing tests
☒ Material inspection
☐ Document review
☐ Expediting & vendor assessment
☒ Packing
(for details see continuation sheet)

Stamping:
☒ No
☐ Yes

Results of inspection:
☒ Satisfactory
☐ Unsatisfactory
Non Conformities Reports (NCR):
NCR's issued during reported period:
N/A

List of outstanding NCR's:
N/A

Main Conclusions & Remarks:
(for details see continuation sheet)

Refer to the inspection details as hereinafter.

2. Inspection activities

2.1. Dimensional check

Dimensional inspection before, inspector first check all measuring caliper, found that they are qualified effective.

Per client's request, inspector performed dimension check. Details see below. Hereinafter, inspector

DERVOS YOUR BEST PARTNER OF VALVES, FLANGES AND PIPE FITTINGS
Page 2 of 7

DERVOS
德沃阀门

S.N.	Test Results												Actual Heat No				
	Start test				Start test time				Close test				T	T error	W	W error	W error
	Start	End	Time	Time	Start	End	Time	Time	Start	End	Time	Time					
4240002	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240014	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240015	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240016	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240004	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240008	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240017	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240005	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240006	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-
4240009	7.8	-	-	10	5.6	15	5.6	5.6	15	OK	-	-	-	0.0025	0.0025	0.0025	-