



GATE, GLOBE & CHECK VALVES CAST & FORGED

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Distributors/Agents



Global Supply Line are sole agents Australia, NZ & PNG, large stock range, shipping worldwide. Stock lists at our website: www.globalsupplyline.com.au
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FANGZHENG VALVE GROUP CO., LTD

INDUSTRIAL PIPELINE CONTROL EXPERT

FANGZHENG VALVE GROUP



We (FZV) commit ourselves to manufacturing excellent valves and achieving our customer satisfaction based on the principles of quality assurance and continual improvement.

We specialize in supplying a wide range of API 6D, API 609, API 600, API 594, API 6A, and API 16C products and wellhead equipment.

FZV was formally established in 1992, and so far, FZV has been approved by well-known international and domestic End-users and EPC companies.

FZV has set up three factories based in Shanghai and Wenzhou city with total area 76000 m² and maximum production capacity up to 32000 tons.

To enhance engineering designs and manufacture high-end products, FZV has in-house laboratory equipped with various facilities and test equipment to check and verify the product quality. The following tests are conducted in-house:

- Chemical analysis
- Mechanical test, Hardness, and impact test
- Non-destructive examination
- Salt spray test
- Fugitive emission test (ISO 15848-1 & 2)
- Design validation testing (DVT) as per SHELL (MESC SPE 77/300)
- High temperature (Up to 550°C) and Cryogenic test (Up to -196°C)

FZV is certified by ISO 9001, ISO 14001, OHSAS 18001, API 6D, API 600, API 609, API 594, API 607, API 6A, API 6A-PR2, API Spec. Q1, ABS, CCS, DNV, ATEX, and CE/PED, etc.

FZV Main Products Range:

Product types: Ball Valve, Gate Valve, Globe Valve, Check Valve, Butterfly Valve, Slab Gate Valve, Pipe Fitting, Cryogenic Valve, API 6A Valve, Wellhead Equipment, Manifold & Christmas tree, etc.

Implemented Standards: ISO, API, BS, etc.

Casting material: WCB, LCB, WC6, WC9, C5, C12, CF3, CF3M, CF8, CF8M, C95500, 4A, 5A, Monel 400/500, Inconel 625/625, Titanium Alloy, etc.

Forging material: A105, LF2, F11, F12, F304, F321, F347, F316, 304L, 316L, C61900, F51, F53, F55, Inconel, Titanium Alloy, etc.

Nominal diameter: NPS 1/2"-68" (DN 15-DN 1,700)

Nominal pressure: API 600 & API 6D: CLASS 150-CLASS 2,500 (PN16-PN420) API 6A: 2,000PSI-15,000PSI

Temperature range: -196°C-550°C

Applications: Onshore oil and gas exploitation and transportation, offshore oil and gas platform and FPSO / FLNG / FSRU, natural gas purification and liquefaction unit, LNG receiving station and vaporization unit, refining, chemical industry and chemistry, coal to gas (oil) and coal chemical industry, air separation, power station, aerospace, military industry and new energy (solar power generation, hydrogen energy, etc.) etc.

The Business purpose of FZV: Providing Complete Control Solutions For Industrial Pipelines.

Our Advantages:

1. Strict quality management system to ensure excellent product quality;
2. Excellent production management system to ensure the shortest delivery;
3. Competitive price;
4. Responsive after-sales service.

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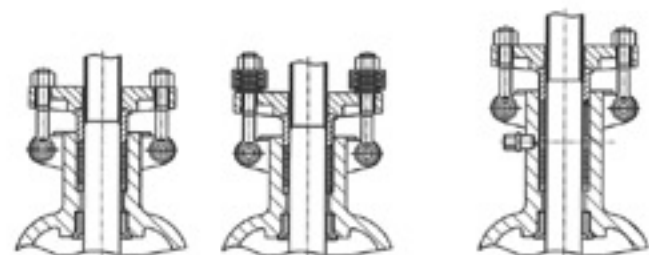
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PRODUCT FEATURES

GATE VALVE



Standard packing Live load packing Double packing with spacer ring

The valve body and bonnet is machined with tongue-and-groove feature which prevents effectively the gasket extrusion, and provides reliable sealing.

A gasket provides a tight sealing between body-bonnet joint, which maintains a radial support when the valve cavity is pressurized. Accurate control of compression is achieved through precise tolerance of the sealing ring groove and precise allowance of radial expansion.

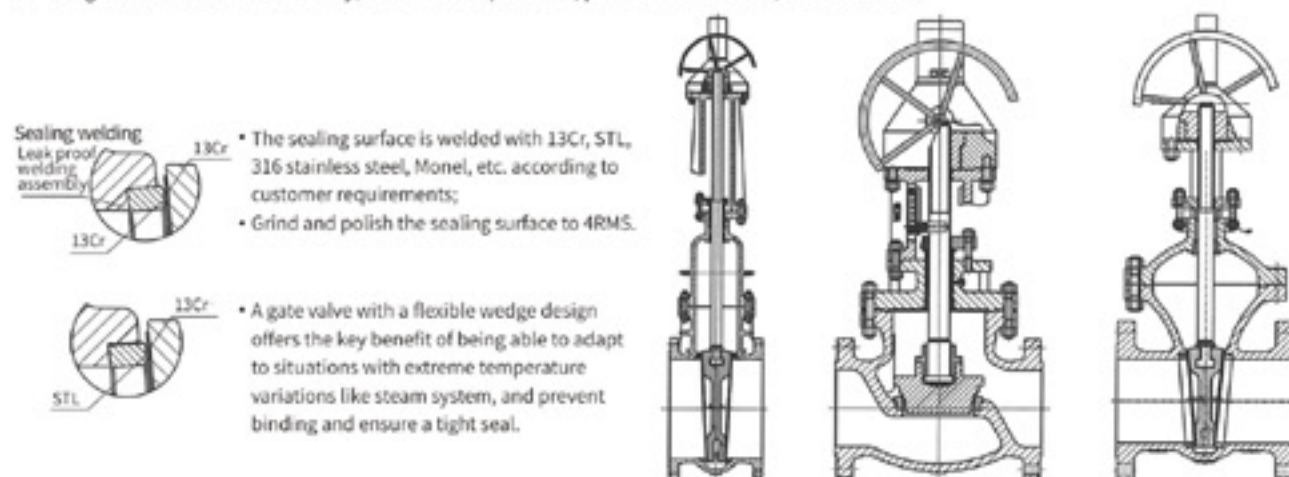


1. The packing tightness is able to meet the requirements of API 624, ISO 15848-1, and other related standards.
2. Control the appropriate clearance to prevent the packing extrusion.
3. Smoothness of the contact area between the valve stem and the packing is (Ra 0.8 μ m or higher) and smoothness of the packing box is (Ra 3.2 μ m or higher).
4. Maximum 6pcs. of packing rings can be placed in the packing chamber.

1. A gate valve with live loaded packing uses Belleville springs to maintain pressure on the packing, which helps to prevent leaks. This is an effective method for gate valves that are frequently cycled or operate at high pressure and temperature or remain unused for long periods of time.
2. Where it is imperative that fluid containment has to be assured, double packing with a spacer ring can be adapted to provide functions such as grease injection, and etc.

STRUCTURAL CHARACTERISTICS OF TANGED GASKET

Regardless of flange smoothness, bolt tightening, and gasket compression, the corrugated gaskets specified in API600 have been found unsuitable for low emission applications even testing under ideal environment in laboratory. After testing of several types with tanged gasket, it's found that using the tanged gasket is suitable for situations with uneven pre-tightening, low requirement for flange contact surface accuracy, extreme temperature/pressure variations, and vibration.



- The sealing surface is welded with 13Cr, STL, 316 stainless steel, Monel, etc. according to customer requirements;
- Grind and polish the sealing surface to 4RMS.
- A gate valve with a flexible wedge design offers the key benefit of being able to adapt to situations with extreme temperature variations like steam system, and prevent binding and ensure a tight seal.

BONNET SEALING MATERIAL

Gate valve	150 # Tanged gasket 300-1500 # stainless steel+spiral wound flexible graphite gasket or metal ring
Globe valve	Stainless steel+spiral wound flexible graphite gasket or metal ring
Check valve	Stainless steel+spiral wound flexible graphite gasket or metal ring

GLOBE VALVE

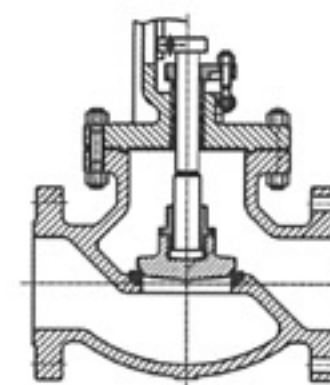
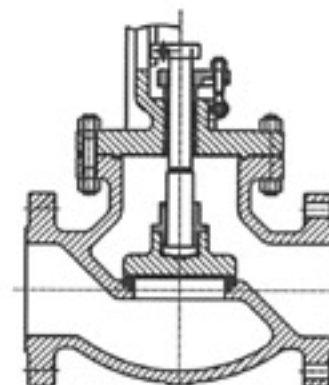
Flat disc

1. It is relatively easy to achieve machining and grinding accuracy;
2. Easy to control flatness tolerance;
3. The contact area with the valve seat is relatively large;
4. The valve disc can be guided by the matched valve seat surface;
5. Site maintenance is faster, and the flat seat surface can be ground and inspected, making it easier to achieve flatness.

Structural characteristics of globe valve

Different valve disc structures are suitable for different working conditions, such as parabolic, Cone-shaped, ball type, etc; Under the same size and pressure rating, the closing torque of a globe valve is greater than that of a gate valve.

An impact handwheel on a globe valve provides a significant advantage by delivering 3 to 10 times the closing force of a typical handwheel to fully seat the valve disc particularly useful in high-pressure applications.



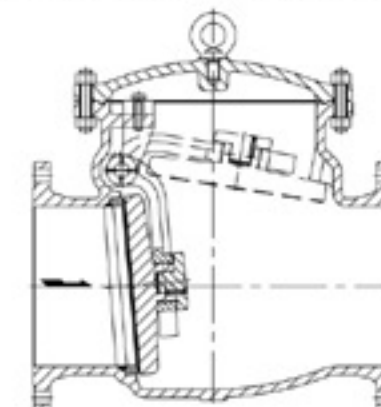
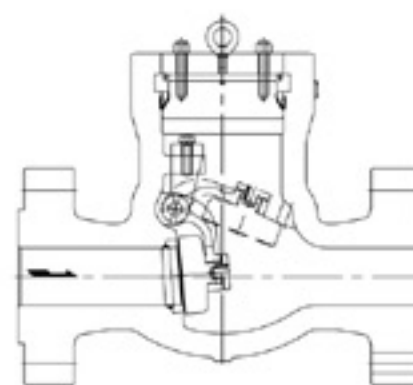
Cone-shaped disc

1. Tight contact sealing;
2. Even with the same valve stem, the sealing pressure can be increased by 1.5 to 5 times;
3. The angled design can help reduce turbulence and pressure drop within the valve body;
4. The closing torque is relatively low;
5. Recommended for use in high-pressure and high-temperature environments.

CHECK VALVE

1. Internal hinge pin structure:
 - (a) Avoid the possibility of leakage by the use of gaskets or metal rings
 - (b) Avoid the possibility of hinge pin's blow out

2. All components can be accessed from the top of the valve for easy maintenance;
3. Check valves is designed with a travel stop feature to limit disc swing in the open position;
4. The valve seat surface is precisely machined and polished.



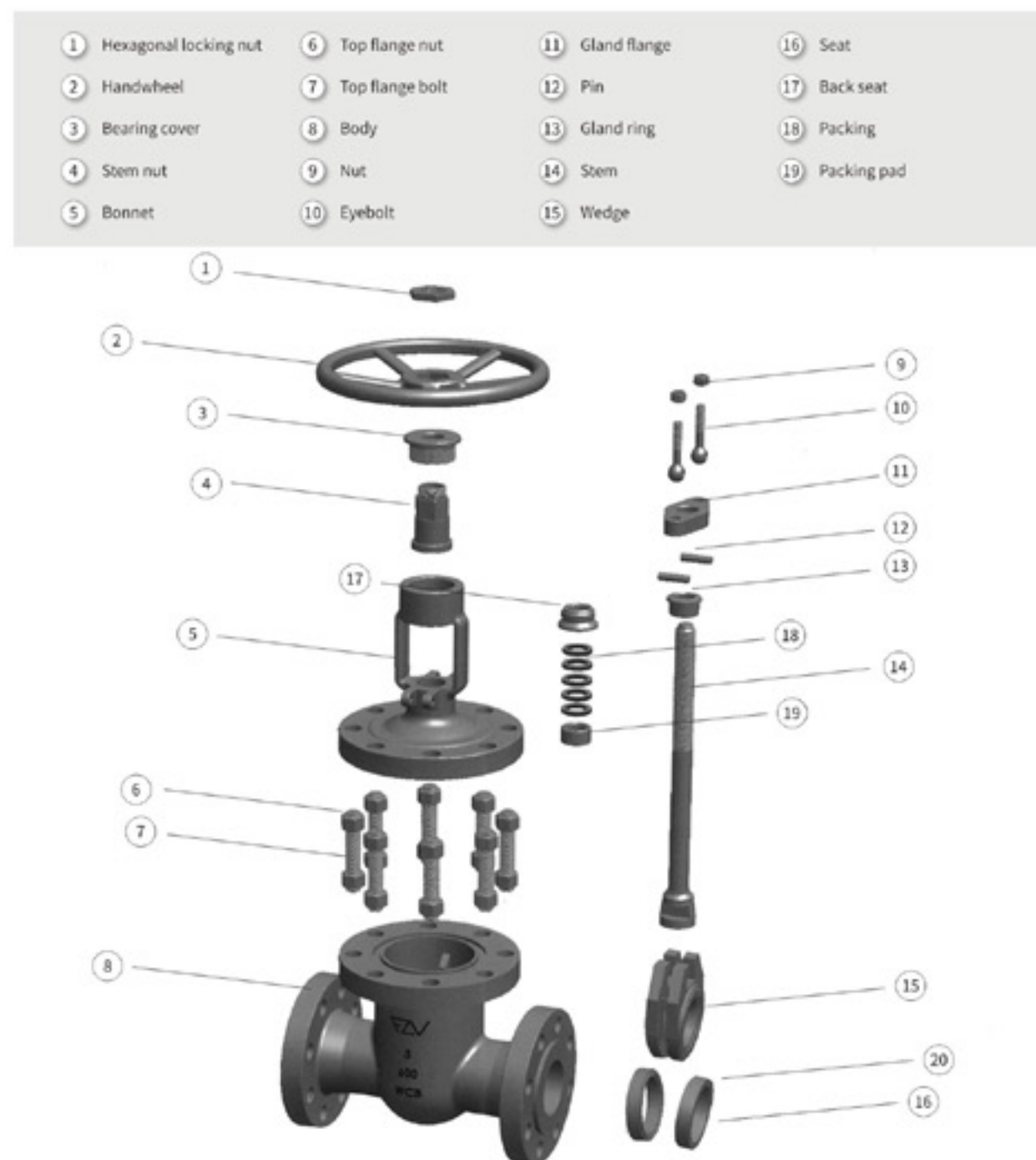
PRODUCT TYPE

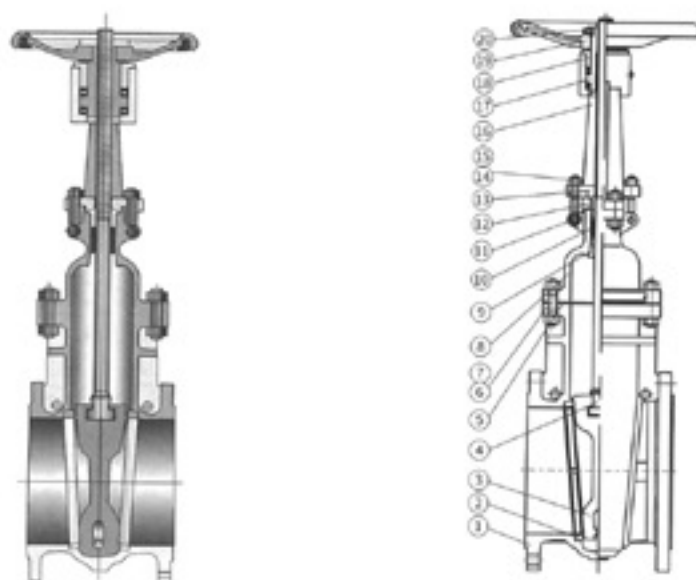
TYPE	DESIGN AND MANUFACTURING STANDARDS	END TYPE AND STANDARDS	TESTING AND ACCEPTANCE CRITERIA	SIZE AND CLASS	OPERATION	BODY MATERIAL	TRIM MATERIAL	SEAT MATERIAL	BOLTING MATERIAL
Forged Steel Gate Valve	ISO 15761/API 602 ASME B 16. 34 BS 5352	ASME B 1. 201 ASME B 16. 11 ASME B 16. 5 ASME B 16. 25	API 598	1/4"-2"CLASS 150- 800 1/4"-2"CLASS 900- 1500	Handwheel	A 105 A 182 F11 A 182 F22 A 182 F5 A 182 F304 A 182 F316 A 182 F304L A 182 F316L A 350 LF2	A 182 F6a A 182 F5 A 182 F304 A 182 F316 A 182 F316L A 182 F304L A 182 F316L		
Forged Steel Globe Valve	ISO 15761/ ASME B 16. 34 BS 5352			1/2"-2"CLASS 150-1500					
Forged Steel Check Valve	ISO 15761/ ASME B 16. 34 BS 5352			1/4"-2"CLASS 150-800 1/4"-2"CLASS 900-1500					
Cast Steel Gate valve	ASME B 16. 34 ISO 10434/API 600 GB/T 12235			2"-68"CLASS 150-300 2"-56"CLASS 600 2"-30"CLASS 900-1500 2"-24"CLASS 2500 DN 50-1000 PN 16-25 DN 50-600 PN 40-100					
Cast Steel Globe Valve	API 623 ASME B 16. 34 BS 1873 GB/T 12235			2"-16"CLASS 900-2500 2"-24"CLASS 150 2"-24"CLASS 300-600 2"-24"CLASS 900-1500 2"-14"CLASS 2500 DN 50-300 PN 16-25 DN 50-200 PN 40-100					
Cast Steel Check Valve	ASME B 16. 34 BS 1888 BS 1868 ISO 14313/API 6D GB/T12236			2"-12"CLASS 900-2500 2"-24"CLASS 150 2"-48"CLASS 150- 900 2"-24"CLASS 300- 600 2"-16"CLASS 900-1500 2"-30"CLASS 1500 2"-24"CLASS 2500 DN 50-500 PN 16-40 DN 50-400 PN 63-100					
Strainer	ASME B 16. 34			1/2"-8"CLASS 150-600					

CAST STEEL WEDGE GATE VALVE

DESIGN AND MANUFACTURING STANDARDS

- Design and Manufacturing according to
API 600, ASME B 16.34, ISO 10434, BS 1414, GB/T 12234
- Face to face according to
ASME B 16.10, GB/T 12221
- End Dimension as per
ASME B 16.5, HG/T 20592-HG/T 20615, ASME B 16.25, GB/T 9113,
API 600, ISO 10434
- Inspection and test as per
ISO 5208, API 598, BS 6755, GB/T 26480, GB/T 13927





COMPONENTS DESCRIPTION

1	2	3	4	5	6	7	8	9	10
Body	Seat	Gate valve	Stem	Gasket	Nut	Stud	Bonnet	Back seat	Packing
11	12	13	14	15	16	17	18	19	20
Pin	Gland ring	Gland flange	Eyebolt	Nut	Yoke	Stem nut	Bearing gland	Handwheel	Lock nut

AMERICAN STANDARD PRESSURE TEST (MPa) (Body WCB)

PRESSURE RATE (Class)	BACK SEAT PRESSURE TEST	SHELL TEST	HIGH PRESSURE SEAT TEST	LOW PRESSURE SEAT TEST
150	2.2	3.0	2.2	0.6
300	5.65	7.7	5.6	
600	11.2	15.3	11.2	
900	16.8	23	16.8	
1500	28.1	38.3	28.1	
2500	46.8	63.8	46.8	

CHINESE STANDARD PRESSURE TEST (MPa) (Body WCB)

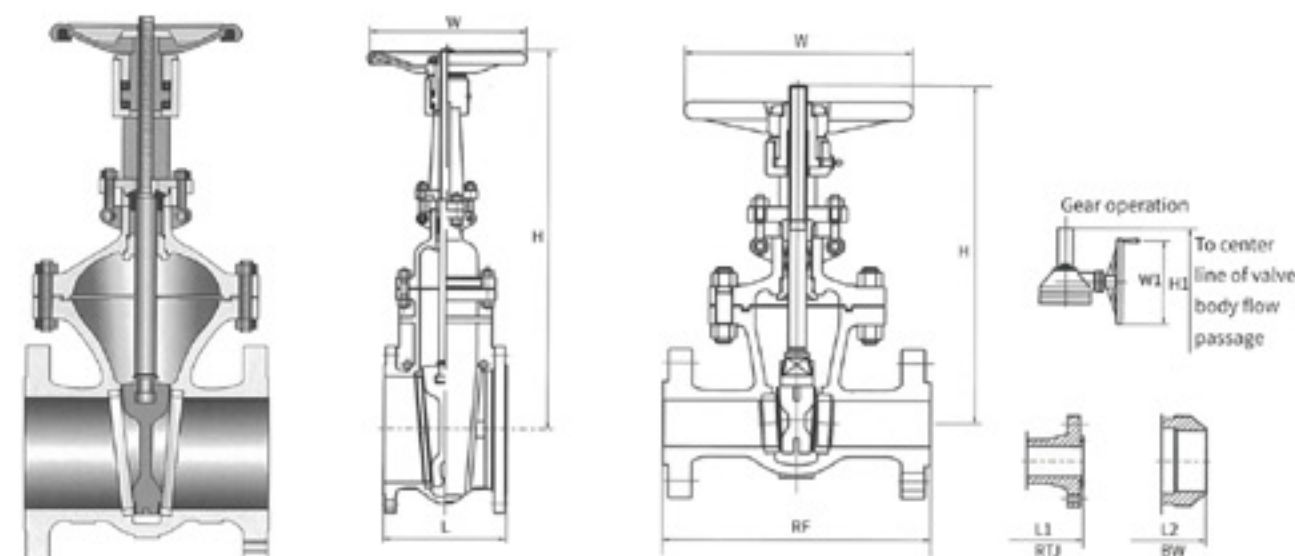
PRESSURE RATE (Class)	BACK SEAT PRESSURE TEST	SHELL TEST	HIGH PRESSURE SEAT TEST	LOW PRESSURE SEAT TEST
1.6	1.76	2.4	1.76	0.6
2.5	2.75	3.75	2.75	
4.0	4.4	6.0	4.4	
6.4	7.04	9.6	7.04	
10.0	11.0	15.0	11.0	

MAIN COMPONENTS MATERIALS

COMPONENTS DESCRIPTION	CAST STEEL		ALLOY STEEL			STAINLESS STEEL				
Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 WC5	A351 CF8	A351 CF8M	A351 CF3	A51 CF3M	CD3MN
Bonnet	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 WC5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Stem	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	F51
Stud	A193 B7	A320 L7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M	A193 B8M
Nut	A194 2H	A194 7	A194 7	A194 7	A194 7	A194 8	A194 8M	A194 8	A194 8M	A194 8M
Yoke	A216 WCB	A52 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Back seat	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	F51
Gland ring	A276 410	A276 304	A278 304	A276 304	A276 304	A276 304	A276 316	A276 304	A276 316	F51
Gland flange	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN

Note: 1. All parts of the valve are made of materials that comply with ASTM standards;

2. The above is the FZV standard configuration. If the customer has special requirements, FZV can select materials according to their working conditions.

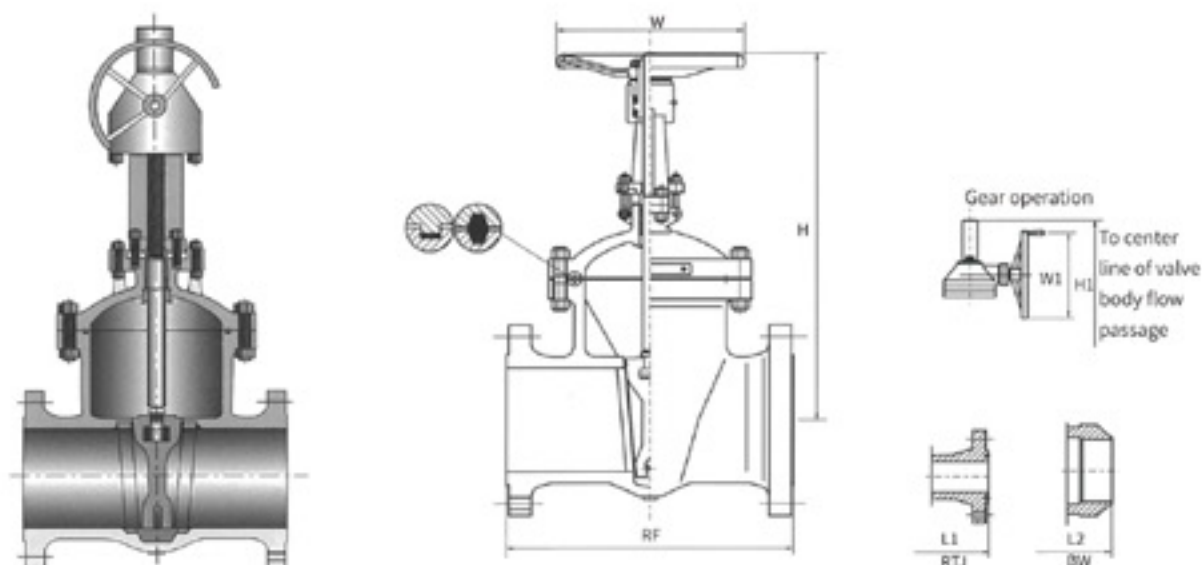


MAIN DIMENSION AND WEIGHT

Class 150 structural figure

Class 300 structural figure

CLASS 150										CLASS 300							
SIZE		L		HANDWHEEL		GEAR		TRQ	WT(RF)	L		HANDWHEEL		GEAR		TRQ	WT(RF)
NPS inch	DN mm	RF mm	BW mm	W mm	H mm	W1 mm	H1 mm	N.m	Kg	RF(BW) mm	W mm	H mm	W1 mm	H1 mm	N.m	Kg	
2	50	178	216	250	340			21	20	216	250	340			28	24	
2-1/2	65	190	241	250	400			27	30	241	250	390			36	36	
3	80	203	283	280	403			39	33	282	280	412	250	553	54	47	
4	100	229	305	300	447			64	49	305	300	450	310	611	89	69	
5	125	254	381	300	544			75	60	381	350	618	310	800	92	89	
6	150	267	403	350	600	310	827	87	75	403	400	618	310	831	135	123	
8	200	292	419	400	746	310	999	115	120	419	400	761	440	1033	241	196	
10	250	330	457	400	899	310	1223	178	205	457	500	937	440	1280	390	333	
12	300	356	502	500	1056	310	1455	261	290	502	600	1090	520	1490	624	440	
14	350	381	572	600	1187	310	1629	350	400	762	700	1265	520	1676	831	710	
16	400	406	610	600	1353	440	1804	393	511	838	700	1398	520	1875	948	950	
18	450	432	660	600	1511	440	2000	550	650	914	800	1541	600	2091	1279	1405	
20	500	457	711	680	1669	440	2246	725	789	991			600	2352	1588	1720	
22	550	483	762			440	2439	893	1050	1092			600	2622	2183	2260	
24	600	508	813			520	2613	1120	1200	1143			600	2753	2799	2770	
26	650	559	864			520	2949	1458	1570	1245			600	3055	3720	3090	
28	700	610	914			600	3097	1720	1800	1346			700	3181	4404	3500	
30	750	610	914			600	3302	2231	2560	1397			700	3309	5053	3800	
32	800	660	965			600	3443	2412	3060	1524			800	3646	6319	5570	
34	850	686	1016			600	3867	2643	3250	1626			800	3819	7321	5880	
36	900	711	1016			600	3930	2966	3500	1727			800	3948	8358	6750	
38	950	762	1016			600	4170	3668	3670	1778			800	4050	10231	7150	
40	1000	813	1016			700	4364	4261	4800	1829			800	4200	11780	8460	
42	1050	813	1016			700	4470	4885	5440	1880			800	4370	13679	9500	
44	1100	838	1067			700	4680	5904	6300	1930			800	4550	16199	10400	
46	1150	838	1067			700	4980	6716	6850	1930			800	4690	18263	11100	
48	1200	864	1168			700	5114	7612	7900	2032			1000	4840	21454	12400	
50	1250	914				700	5350	8876	8260	2083			1000	4970	24954	13000	
52	1300	965				700	5578	10090	8500	2134			1000	5160	28801	14000	
54	1350	991				800	5940	11610	9600	2185			1000	5210	33358	14700	
56	1400	1050				800	6242	13531	12400	2235			1000	5310	36758	17000	
58	1450	1143				800	6260	14410	14000	2260			1000	5460	40394	18500	
60	1500	1270				800	6290	15780	15500	2286			1000	5600	45352	19800	
62	1550	1270				800	6450	17348	16500								
64	1600	1270				800	6670	19481	18000								
66	1650	1300				1000	6900	22245	19600								
68	1700	1300				1000	7114	24132	20000								



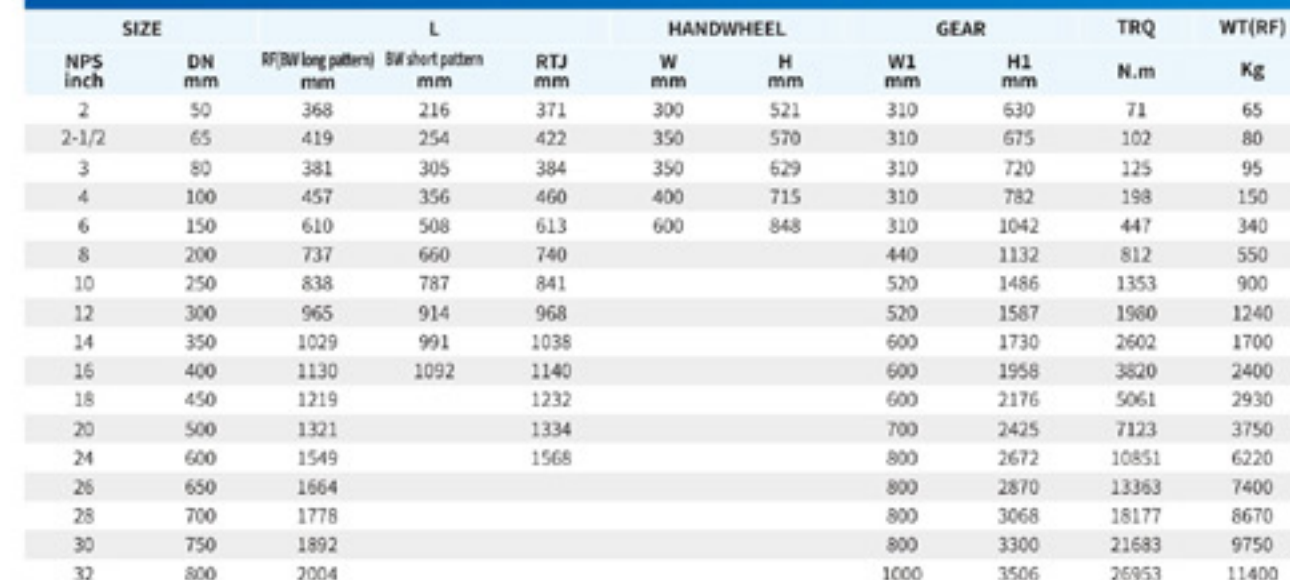
MAIN DIMENSION AND WEIGHT

CLASS 600										CLASS 900							
SIZE		L		HANDWHEEL		GEAR		TRQ		WT(RF)		L		HANDWHEEL		TRQ	
NPS inch	DN mm	RF(BW) mm	RTJ mm	W mm	H mm	W1 mm	H1 mm	N.m	Kg	RF(BW) mm	RTJ mm	W mm	H mm	W1 mm	H1 mm	N.m	Kg
2	50	292	295	250	375	250	474	39	39	368	371	300	490			71	72
2-1/2	65	330	333	250	414	250	545	57	52	419	422	350	547			102	101
3	80	356	359	300	494	250	591	74	88	381	384	350	547	310	665	125	130
4	100	432	435	350	580	310	697	123	114	457	460	400	650	310	792	198	197
5	125	508	511	400	648	310	892	182	170	559	562	450	695	310	900	295	290
6	150	559	562	500	714	310	937	314	285	610	613	600	830	310	996	447	375
8	200	660	664	600	878	440	1143	518	413	737	740	600	874	440	1126	812	635
10	250	787	791	600	1002	440	1359	935	650	838	841	650	1040	520	1468	1353	940
12	300	838	841	700	1140	520	1542	1215	800	965	968	700	1042	520	1674	1980	1250
14	350	889	892	700	1275	520	1638	1486	1140	1029	1038			600	1819	2602	1500
16	400	991	994			600	1966	2050	1700	1130	1140			600	2038	3820	2430
18	450	1092	1095			600	2092	2727	2100	1219	1232			600	2185	5061	2960
20	500	1194	1200			600	2291	3792	3062	1321	1334			700	2301	7123	3845
22	550	1295	1305			700	2508	4854	3750	1422	1441			700	2600	9120	5050
24	600	1397	1407			700	2767	5587	4480	1549	1568			800	2855	10851	6220
26	650	1448	1461			700	2918	7374	4960	1664				800	2960	13363	7400
28	700	1549	1562			800	3076	9606	5125	1778				800	3290	18177	7700
30	750	1651	1664			800	3356	11930	7300	1892				800	3460	22230	9900
32	800	1778	1794			800	3533	14473	7750	2004				1000	4205	26953	12000
34	850	1930	1946			800	3811	17513	9750	2083				1000	4390	32459	13200
36	900	2083	2099			800	4032	21332	11500	2232				1000	4465	38887	15000
38	950	2134				1000	4120	24835	12200								
40	1000	2184				1000	4225	27976	14500								
42	1050	2235				1000	4467	32888	16820								
44	1100	2286				1000	4580	37938	19150								
46	1150	2337				1000	4720	41960	21500								
48	1200	2388				1000	4860	48563	23000								
50	1250	2438				1000	5020	55499									
52	1300	2489				1000	5230	63344									
54	1350	2540				1000	5370	71892									
56	1400	2591				1000	5430	78188									

CLASS 1500									
SIZE		L		HANDWHEEL		GEAR		TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	RTJ mm	W mm	H mm	W1 mm	H1 mm	N.m	Kg
2	50	368	371	300	490	310	597	115	85
2-1/2	65	419	422	350	547	310	620	164	130
3	80	470	473	400	590	310	685	232	170
4	100	546	549	550	755	440	862	370	304
5	125	673	676	600	791	440	1020	589	510
6	150	705	711	680	903	520	1155	819	650
8	200	832	842			600	1336	1538	1100
10	250	991	1001			600	1513	2655	1600
12	300	1130	1146			600	1696	3652	2110
14	350	1257	1276			600	1851	5194	2700
16	400	1384	1406			700	1988	6955	3850
18	450	1537	1559			700	2198	9121	4860
20	500	1664	1686			800	2346	13201	6680
24	600	1943	1971			1000	2682	21551	8650
26	650	2083				1000	2860	27632	11500
28	700	2223				1000	3070	33962	13100
30	750	2362				1000	3190	40795	15500

CLASS 2500									
SIZE		L		HANDWHEEL		GEAR		TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	RTJ mm	W mm	H mm	W1 mm	H1 mm	N.m	Kg
2	50	451	454	350	565	310	679	175	130
2-1/2	65	508	514	350	610	310	770	295	200
3	80	578	584	400	707	310	862	333	245
4	100	673	683	550	755	440	988	518	460
5	125	794	807	600	785	440	1030	734	650
6	150	914	927	680	885	520	1170	1264	800
8	200	1022	1038			600	1285	2538	900
10	250	1270	1292			600	1568	4276	1500
12	300	1422	1444			700	1730	6998	2500
14	350	1549				700	1965	9343	2900
16	400	1676				800	2100	13464	4500
18	450	1829				800	2340	20409	7260
20	500	1956				1000	2530	23885	9550
24	600	2235				1000	2680	32261	12000

CLASS 900



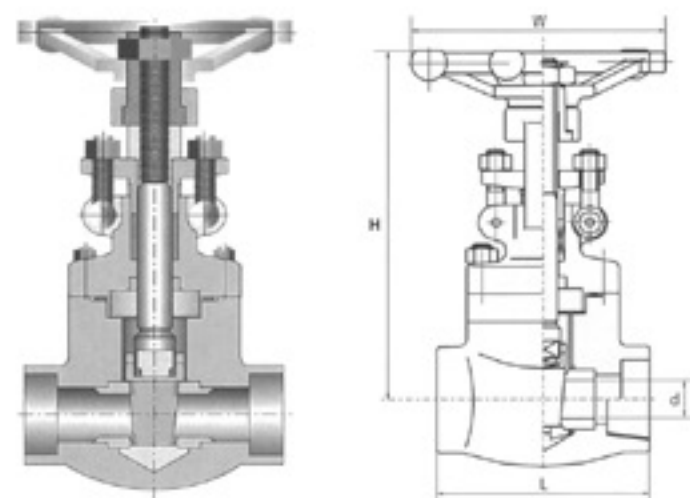
CLASS 1500

SIZE		L			HANDWHEEL		GEAR		TRQ	WT	
NPS inch	DN mm	RF (S long pattern) mm	RF (S short pattern) mm	RTJ mm	W mm	H mm	W1 mm	H1 mm	N.m	RF Kg	RF (S short pattern) Kg
2	50	368	216	371	350	580	310	660	115	65	52
2-1/2	65	419	254	422	350	633	310	760	164	100	78
3	80	470	305	473	400	674	310	819	232	145	105
4	100	546	406	549	450	747	440	925	370	220	160
6	150	705	559	711	680	850	520	1026	819	550	425
8	200	832	711	842			600	1290	1538	930	725
10	250	991	864	1001			600	1510	2655	1450	1070
12	300	1130	991	1146			600	1707	3652	2500	1820
14	350	1257	1067	1276			600	1848	5194	2890	1900
16	400	1384	1194	1406			700	1971	6955	3800	2900
18	450	1537	1346	1559			700	2168	9121	5950	4600
20	500	1664	1473	1686			800	2450	12887	7350	5700
24	600	1943	1676	1971			1000	2720	19537	10600	8250

CLASS 2500

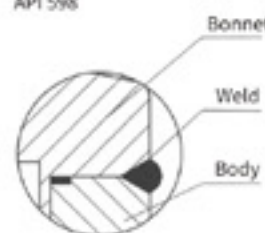
SIZE		L			HANDWHEEL		GEAR		TRQ	WT	
NPS inch	DN mm	RF (B long pattern) mm	BF (short pattern) mm	RTJ mm	W mm	H mm	W1 mm	H1 mm	N.m	RF Kg	BF short pattern Kg
2	50	451	279	454	350	567	310	660	175	90	65
2-1/2	65	508	330	514	350	615	310	765	295	145	112
3	80	578	368	584	400	655	310	838	333	170	128
4	100	673	457	683	550	742	440	965	518	345	225
6	150	914	610	927	680	870	520	1116	1264	810	500
8	200	1022	762	1038			600	1310	2538	1330	870
10	250	1270	914	1292			600	1518	4276	2335	1430
12	300	1422	1041	1444			700	1955	6998	3720	2458
14	350	1549	1118				700	1910	9343		2895
16	400	1676	1245				800	2050	13464		4000
18	450	1829	1397				800	2136	20409		4850
20	500	1856	1549				1000	2500	26894		6100
24	600	2235	1727				1000	2750	32261		8800

FORGED STEEL THREAD, SOCKET WELDED GATE VALVE



DESIGN AND MANUFACTURING STANDARDS

- Design and manufacturing according to API 602, BS 5352, ASME B16.34
- End dimension according to ASME B12.01, ASME B16.11
- Inspection and test according to API 598



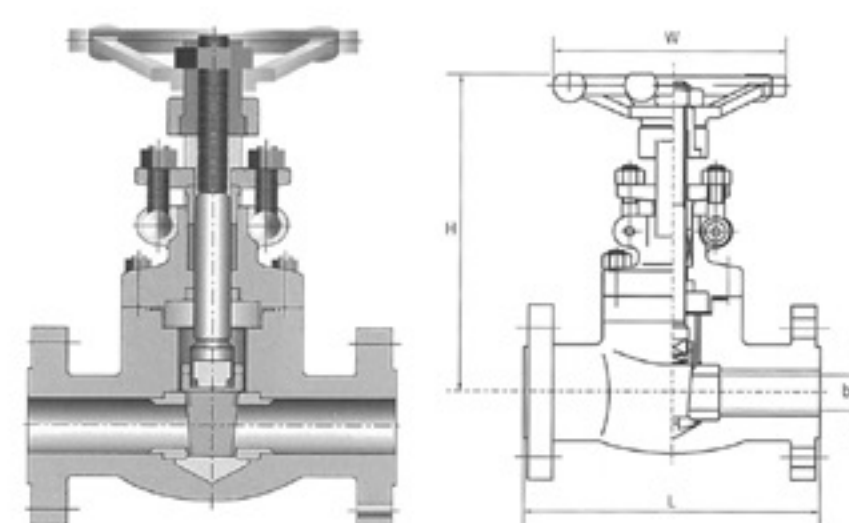
MAIN DIMENSION AND WEIGHT

CLASS 500~800								
SIZE		mm		L(mm)	W(mm)	H OPEN(MM)	WT(Kg)	
REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE				REDUCE BORE	FULL BORE
1/4	-	8	-	79	100	166	2.2	-
3/8	1/4	10	-	79	100	166	2.2	2.2
1/2	3/8	15	10	79	100	166	2.2	2.2
3/4	1/2	20	15	92	100	169	2.2	2.2
1	3/4	25	20	111	125	193	4.7	4.3
1-1/4	1	32	25	120	160	236	5.9	5.9
1-1/2	1-1/4	40	32	120	160	246	6.9	6.9
2	1-1/2	50	40	140	180	283	11.1	11.1
	2		50	178	200	330		15.2

CLASS 900~1500								
SIZE		CLASS RATE	L(mm)	W(mm)	H OPEN(mm)	WT(Kg)		
inch	mm					B.B	W.B	
1/4	8	900	79	100	166	2.2	-	
		1500	111	125	197	4.6	4.7	
3/8	10	900	79	100	166	2.2	-	
		1500	111	125	197	4.3	4.4	
1/2	15	900	92	100	169	2.2	-	
		1500	111	125	197	4.2	4.3	
3/4	20	900	111	125	193	4.3	-	
		1500	111	125	197	4.0	4.2	
1	25	900	120	160	230	5.9	-	
		1500	120	160	218	6.3	6.6	
1-1/4	32	900	120	160	246	6.9	-	
		1500	120	160	237	8.7	8.8	
1-1/2	40	900	140	180	283	11.1	-	
		1500	140	180	274	12.1	12.5	
2	50	900	178	200	330	15.2	-	
		1500	178	200	320	17.2	17.2	

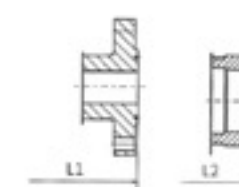
B.B-Bolted Bonnet W.B-Welded Bonnet

FORGED STEEL FLANGED, BUTT WELDED GATE VALVE



DESIGN AND MANUFACTURING STANDARDS

- Design and manufacturing according to API 602, BS 5352, ASME B16.34
- End dimension according to ASME B12.01, ASME B16.11
- Inspection and test according to API 598



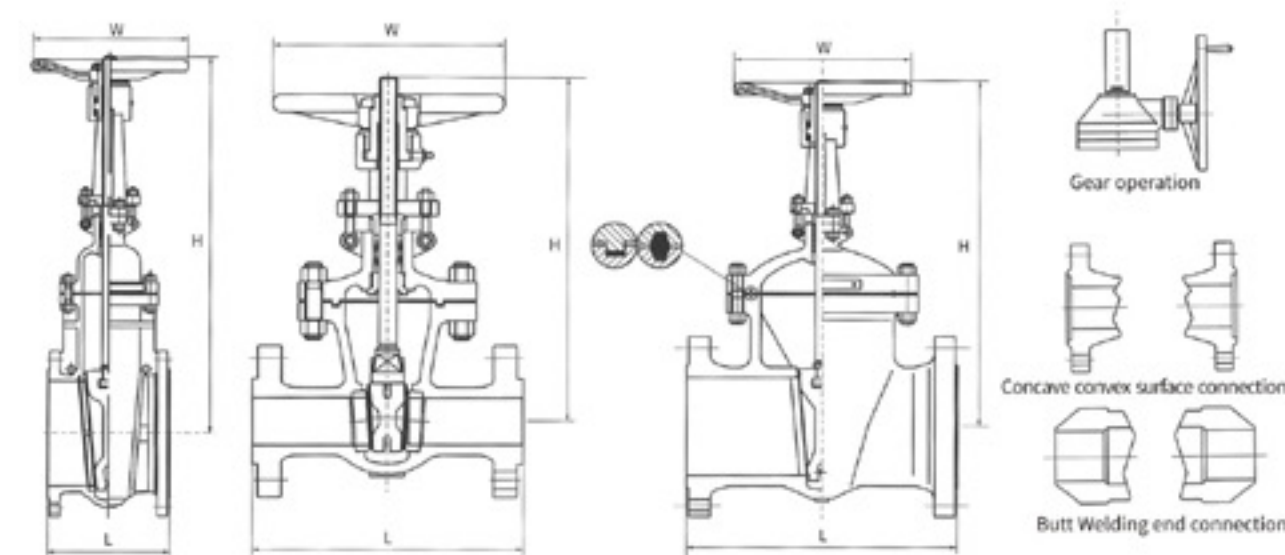
MAIN DIMENSION AND WEIGHT

CLASS 150~600											
SIZE		CLASS RATE	L(mm)	L1(mm)	L2(mm)	H OPEN(MM)		W(mm)		WT(Kg)	
inch	mm					REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE
1/2	15	150	108	119	108	166	169	100	100	4.5	5
		300	140	151	140					4.8	5.2
		600	165	163.5	165					5.9	5.9
3/4	20	150	117	130	117	169	193	100	125	5.2	6.1
		300	152	165	152					6.2	6.3
		600	190	190	190					7.4	7.5
1	25	150	127	140	127	193	230	125	160	8.2	8.4
		300	165	178	165					9.3	8.6
		600	216	216	216					10.4	10.2
1-1/4	32	150	140	153	138	230	246	160	160	11.5	14.3
		300	178	191	178					14	14.5
		600	229	229	229					16.2	16.7
1-1/2	40	153	165	178	165	246	283	160	182	12.5	15.4
		300	190	203	191					15.5	15.6
		600	241	214	241					17.5	17.4
2	50	150	178	191	178	283	330	180	200	20.3	22.7
		300	216	232	216					23.4	22.8
		600	292	295	292					28.3	28.7

CLASS 900~1500								
SIZE		L(mm)	L1(mm)	L2(mm)	H OPEN(MM)	W(mm)	WT(Kg)	
inch	mm						B.B	W.B
1/2	15	216	216	216	197	125	6.9	7.2
3/4	20	229	229	224	197	125	11.2	11.5
1	25	254	254	254	224	160	12.8	15.6
1-1/4	32	279	279	279	237	160	16.0	16.2
1-1/2	40	305	305	305	276	180	21.0	22.6
2	50	368	371	368	320	200	27.1	28.2

B.B-Bolted Bonnet W.B-Welded Bonnet

EN/UK STANDARD CAST STEEL GATE VALVE



MAIN DIMENSION AND WEIGHT

PN16						PN25					PN40					PN64				PN100			
SIZE	L	H	W	WT (PN16)	WT (PN25)	SIZE	L	H	W	WT	SIZE	L	H (PN64)	W (PN64)	H (PN100)	W (PN100)	WT (PN64)	WT (PN100)					
mm	mm	mm	mm	Kg	Kg	mm	mm	mm	mm	Kg	mm	mm	mm	mm	mm	mm	Kg	Kg					
50	250	358	240	24	25	50	250	370	280	25	50	250	470	280	490	360	37	50					
65	270	373	240	26	28	65	280	394	280	38	65	280	496	320	540	400	53	62					
80	280	435	280	40	40	80	310	455	300	48	80	310	558	320	572	400	67	80					
100	300	500	300	50	50	100	350	550	320	67	100	350	653	350	680	400	90	100					
125	325	614	320	66	75	125	400	636	400	101	125	400	738	400	744	560	140	160					
150	350	674	360	90	105	150	450	706	400	135	150	450	820	400	830	560	192	220					
200	400	818	400	140	170	200	550	859	460	213	200	550	980	460	1000	560	318	350					
250	450	969	460	200	216	250	650	1016	560	375	250	650	1050	560	1080	600	470	520					
300	500	1145	560	280	290	300	750	1200	640	500	300	750	1370	640	1208	640	670	730					
350	550	1280	640	411	445	350	850	1340	640	700	350	850	1450	720	1490	720	875	955					
400	600	1452	640	560	685	400	950	1495	720	1100	400	950	1620	800	-	-	1450	-					
450	650	1541	720	870	940	450	1050	1581	800	1610	500	1150	2000	950	-	-	1850	-					
500	700	1676	720	1000	1200	500	1150	1710	800	1880	600	1350	-	-	-	-	-	-					
600	800	1874	800	1200	1350	600	1350	2035	950	3100													
700	900	2083	800	1600	2000																		
800	1000	2400	920	2100	3000																		
900	1100	2950	920	3115	4100																		
1000	1200	3245	920	4200	5080																		

GLOBE VALVE

GLOBE VALVE SERIES

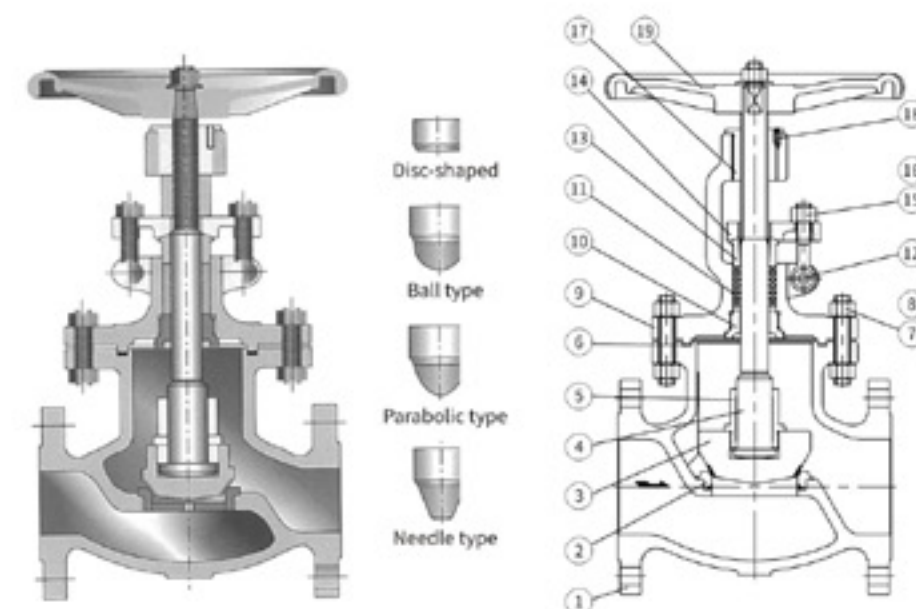


CAST STEEL GLOBE VALVE

DESIGN AND MANUFACTURING STANDARDS

- Design and manufacturing according to BS 1873, ASME B16.34, GB 12235, API 623
- Face to face as per ASME B16.10
- End dimension according to T 9113, GB/T 12224
- Inspection and test according to ISO 5208, API 598, BS 6755, GB/T 26480, GB/T 13927

- | | | | |
|-------------------------|-----------------|---------------|--------------------|
| 1 Hexagonal locking nut | 7 Packing | 13 Eyebolt | 19 Top flange nut |
| 2 Handwheel | 8 Packing pad | 14 Pin | 20 Top flange bolt |
| 3 Bearing gland | 9 Body | 15 Stem | |
| 4 Stem nut | 10 Nut | 16 Disc cover | |
| 5 Bonnet | 11 Gland flange | 17 Disc | |
| 6 Back seat | 12 Gland ring | 18 Stem | |



COMPONENTS DESCRIPTION

1	2	3	4	5	6	7	8	9	10
Body	Seat	Gate valve	Stem	Disc cover	Gasket	Nut	Stud	Bonnet	Back seat
11	12	13	14	15	16	17	18	19	
Packing	Pin	Gland ring	Gland flange	Eyebolt	Nut	Stem nut	Bearing cover	Handwheel	

AMERICAN STANDARD PRESSURE TEST (MPa) (Body WCB)

Pressure Rate (Class)	Back Seat Pressure Test	Shell Test	High Pressure Seat Test	Low Pressure Seat Test
150	2.2	3.0	2.2	
300	5.65	7.7	5.6	
600	11.2	15.3	11.2	0.6
900	16.8	23	16.8	
1500	28.1	38.3	28.1	

CHINESE STANDARD PRESSURE TEST (MPa) (Body WCB)

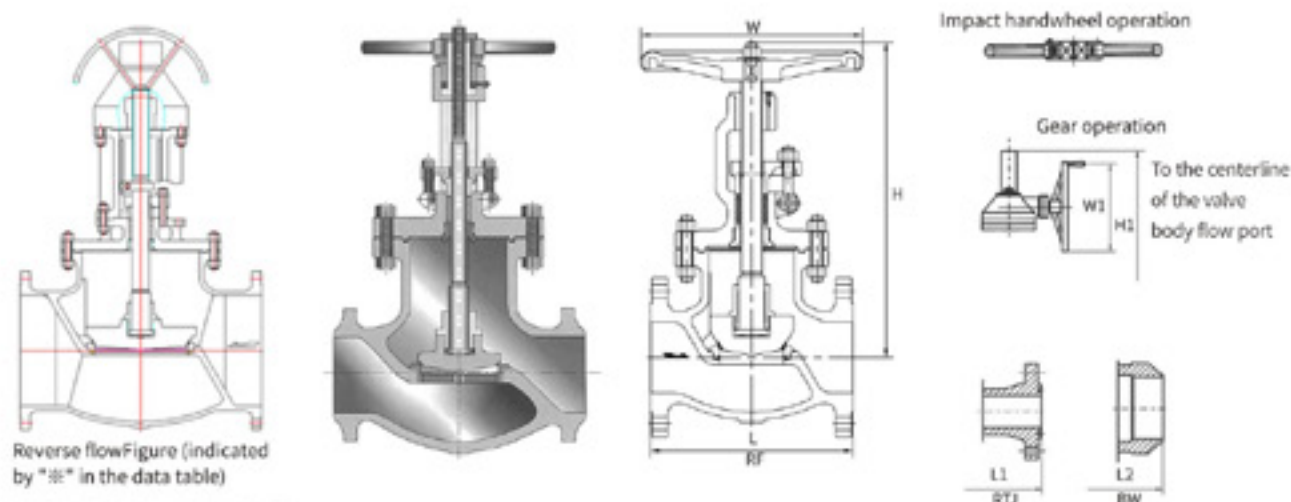
Pressure Rate (Class)	Back Seat Pressure Test	Shell Test	High Pressure Seat Test	Low Pressure Seat Test
1.6	1.76	2.4	1.76	
2.5	2.75	3.75	2.75	
4.0	4.4	6.0	4.4	0.6
6.4	7.04	9.6	7.04	
10.0	11.0	15.0	11.0	

MAIN COMPONENTS MATERIALS

COMPONENTS DESCRIPTION	CAST STEEL		ALLOY STEEL			STAINLESS STEEL				
Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Bonnet	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Stem	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	F51
Stud	A193 B7	A320 L7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M	A193 B8M
Nut	A194 2H	A194 7	A194 7	A194 7	A194 7	A194 8	A194 8M	A194 8	A194 8M	A194 8M
Back seat	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	F51
Gland ring	A276 410	A276 304	A278 304	A276 304	A276 304	A276 304	A276 316	A276 304	A276 316	F51
Gland flange	A216 WCB	A352 LCB	A217 WC9	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN

Note: 1. All parts of the valve are made of materials that comply with ASTM standards;

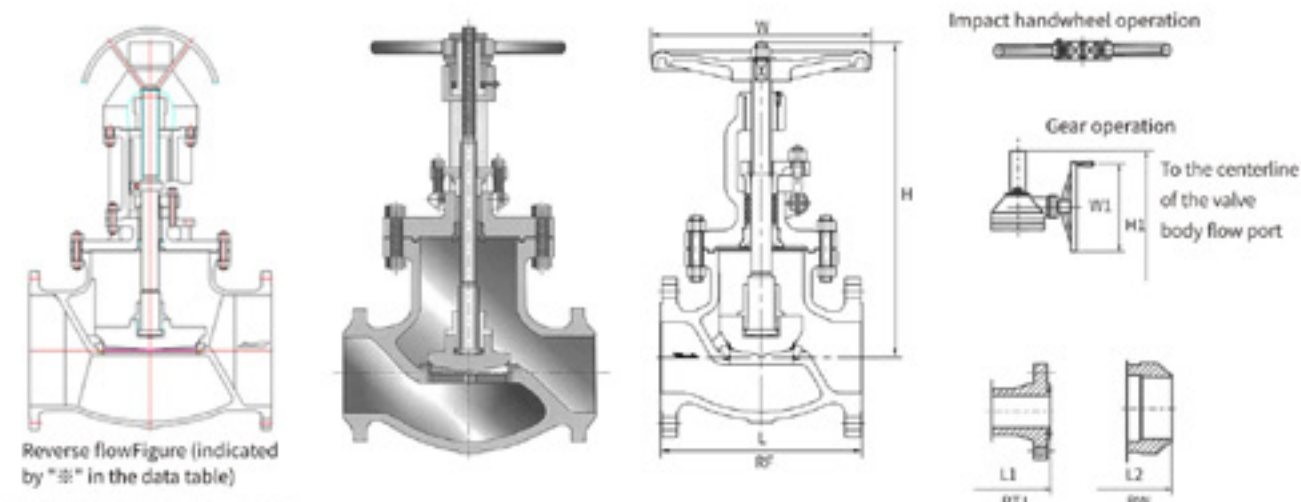
2. The above is the FZV standard configuration. If the customer has special requirements, FZV can select materials according to their working conditions.



MAIN DIMENSION AND WEIGHT

CLASS 150								CLASS 300							
SIZE		L	W	H	W1	H1	TRQ	WT(RF)	L	W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	mm	mm	mm	mm	N.m	Kg	RF(BW) mm	mm	mm	mm	mm	N.m	Kg
2	50	203	220	354			42	22	267	220	354			72	28
2-1/2	65	216	250	376			68	29	292	250	376			90	36
3	80	241	280	380			80	35	318	280	403	250	580	168	60
4	100	292	320	450			130	56	356	320	472	310	677	300	75
5	125	356	320	465			200	70	400	350	679	310	750	450	140
6	150	406	350	623	310	695	240	100	444	450	708	440	836	855	180
8	200	495	450	714	310	793	490	190	559	500	778	440	859	1540	287
10	250	622	560	777	440	987	922	285	622	560	935	520	982	2560	510
12	300	698	560	871	440	1047	1250	430	711	600	1058	600	1276	3510	740
14	350	787			520	1052	1865	655	838			600	1253	4610	1160
16	400	914			600	1562	2960	990	914			700	1613	6174	1490
18 Ⓢ	450	978			520	1365		1080	978			600	1592		1850
20 Ⓢ	500	1067			520	1363		1250	1016			600	1640		2235
24 Ⓢ	600	1295			520	1340		1765	1346			600	1695		2800

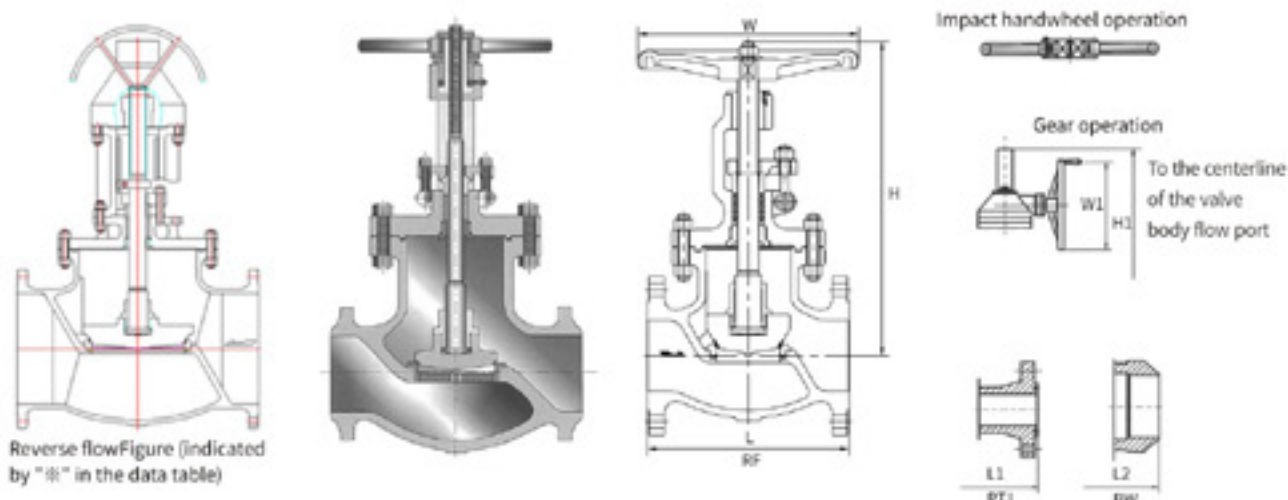
CLASS 600									
SIZE		L		W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	mm	mm	mm	N.m	Kg
2	50	292	295	280	418			220	38
2-1/2	65	330	333	320	499			360	45
3	80	356	359	350	567	310	671	440	80
4	100	432	435	450	682	440	770	602	175
5	125	508	511	450	710	440	820	1200	295
6	150	559	562	560	901	520	1027	1820	410
8	200	660	663	600	930	600	1086	3875	645
10	250	787	790			600	1370	5395	1160
12	300	838	841			700	1518	9170	1425
14	350	889	892			700	1490	13245	1990
16 ※	400	991	994			520	1292		2050
18 ※	450	1092	1095			600	1730		2150
20 ※	500	1194	1200			600	1755		3000
24 ※	600	1397	1407			700	1783		4000



MAIN DIMENSION AND WEIGHT

CLASS 900									
SIZE		L		W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	mm	mm	mm	N.m	Kg
2	50	368	371	350	533	310	622	285	98
2-1/2	65	419	422	400	638	310	710	360	113
3	80	381	384	350	675	440	791	530	135
4	100	457	460	500	777	440	817	1065	250
5	125	559	562	560	850	520	900	1530	380
6	150	610	613	600	936	520	987	2071	490
8	200	737	740	700	1060	600	1225	3440	980
10	250	838	841			700	1411	7632	1420
12 ※	300	965	968			600	1363		1635
14 ※	350	1029	1039			600	1550		2100
16 ※	400	1130	1140			700	1758		2450
18 ※	450	1219	1232			800	1916		3096
20 ※	500	1321	1334						
24 ※	600	1549	1568						

CLASS 1500									
SIZE		L		W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	mm	mm	mm	N.m	Kg
2	50	368	371	350	530	310	556	352	90
2-1/2	65	419	422	400	638	440	710	730	130
3	80	470	473	450	709	440	798	930	200
4	100	546	549	560	818	520	857	1820	350
6	150	705	711			600	1178	3870	560
8	200	832	842			700	1665	7838	1000
10 ※	250	991	1001			600	1406		1500
12 ※	300	1130	1146			600	1606		2500
14 ※	350	1257	1276			600	1700		
16 ※	400	1384	1406			700	1810		
18 ※	450	1537	1559			700	1950		
20 ※	500	1664	1686			700	2023		
24 ※	600	1943	1971			800	2120		



MAIN DIMENSION AND WEIGHT

CLASS 1500									
SIZE		L		W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	mm	mm	mm	N.m	Kg
2	50	451	454	450	765	440	802	502	225
2-1/2	65	508	514	500	785	440	850	810	295
3	80	578	584	560	871	520	912	960	380
4	100	673	683			520	1107	2100	600
6	150	914	927			600	1310	4300	1300
8 ※	200	1022	1038			520	1560		
10 ※	250	1270	1292			600	1650		
12 ※	300	1422	1444			700	1840		
14 ※	350	1780				1000	2620		

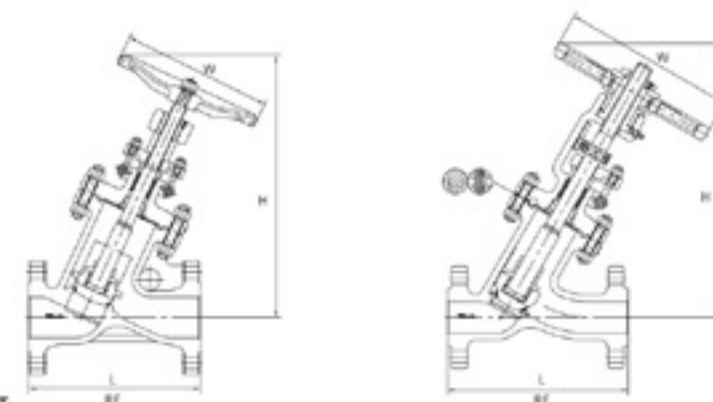
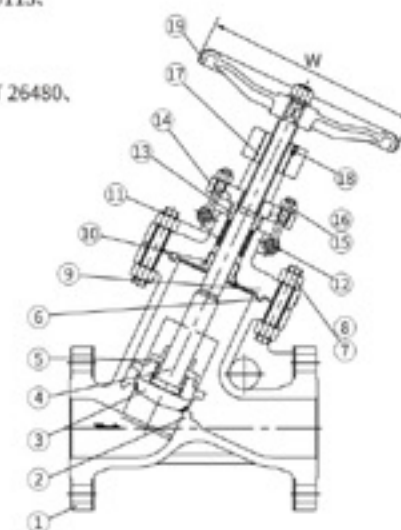
Y TYPE GLOBE VALVE

DESIGN AND MANUFACTURING STANDARDS

- Design and manufacturing according to BS 1873, ASME B16.34, GB 12235, API 623
- End dimension according to ASME B16.5, ASME B16.25, GB/T 9113, GB/T 12224
- Face to face as per ASME B16.10
- Inspection and test according to ISO 5208, API 598, BS 6755, GB/T 26480, GB/T 13927

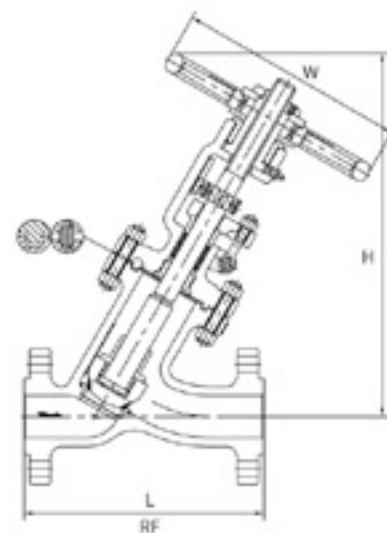
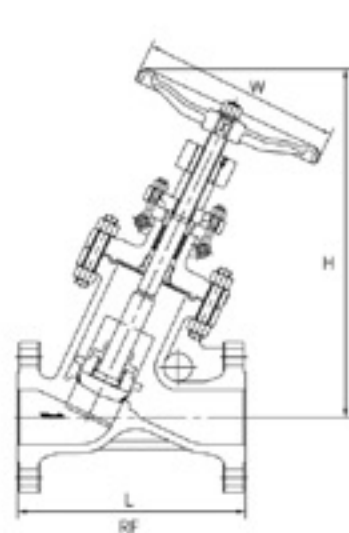
COMPONENTS DESCRIPTION

- | | | |
|--------------|-------------------|------------------|
| 1 Body | 8 Stud | 15 Eyebolt |
| 2 Seat | 9 Bonnet | 16 Nut |
| 3 Gate valve | 10 Back seat | 17 Stem nut |
| 4 Stem | 11 Packing | 18 Bearing gland |
| 5 Disc cover | 12 Pin | 19 Handwheel |
| 6 Gasket | 13 Packing ring | |
| 7 Nut | 14 Packing flange | |



MAIN DIMENSION AND WEIGHT

CLASS 150									CLASS 300						
SIZE		L	W	H	W1	H1	TRQ	WT(RF)	L	W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	mm	mm	mm	mm	N.m	Kg	RF(BW) mm	mm	mm	mm	mm	N.m	Kg
2	50	203	220	450			42	24	267	220	450			72	32
2-1/2	65	216	250	475			68	32	292	250	480			90	40
3	80	241	280	510			80	38	318	280	520			168	70
4	100	292	320	570			130	60	356	320	590			300	82
6	150	406	400	685	310	795	240	110	444	450	720	310	670	855	200
8	200	495	450	810	310	890	490	200	559	500	790	440	850	1540	300
10	250	622			440	955	922	300	622			440	880	2560	535
12	300	698			440	980	1250	450	711			520	990	3510	770
14	350	787			520	1150	1865	680	838			600	1300	4610	1200
16	400	914			600	1450	2960	1050	914			600	1253	6174	1520
18 ※	450	978							978			800	1615		
20 ※	500	1067							1016						
24 ※	600	1295							1346						



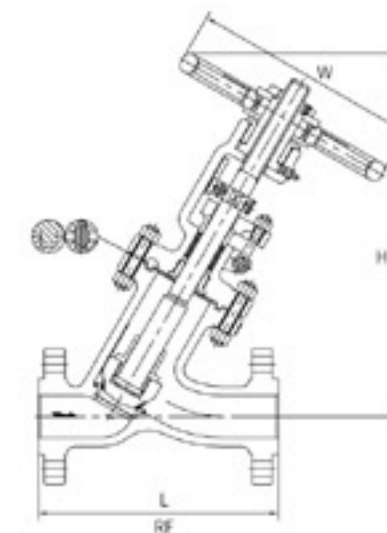
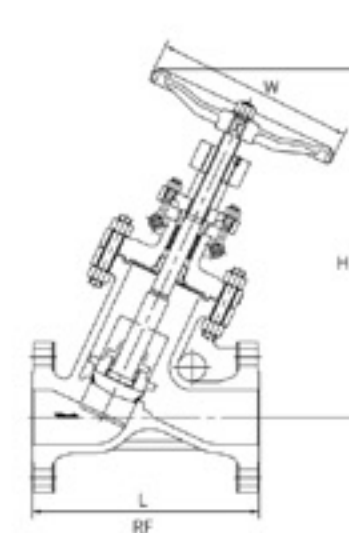
MAIN DIMENSION AND WEIGHT

CLASS 600

SIZE		L	W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	mm	mm	mm	mm	N.m	Kg
2	50	292	280	470			220	42
2-1/2	65	330	320	510			360	50
3	80	356	350	580	310	650	440	90
4	100	432	450	700	440	750	602	200
6	150	559	560	920	520	950	1820	450
8	200	660			600	1050	3875	650
10	250	787			600	1350	5395	1200
12	300	838			700	1500	9170	1450
14	350	889			700	1450	13245	2030
16※	400	991						
18※	450	1092						
20※	500	1194						
24※	600	1397						

CLASS 900

SIZE		L	W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	mm	mm	mm	mm	N.m	Kg
2	50	368	350	530	310	620	285	110
2-1/2	65	419	400	630	310	700	360	125
3	80	381	350	670	440	780	530	155
4	100	457	500	770	440	820	1065	280
6	150	610	600	940	520	1000	2071	530
8	200	737			600	1200	3440	1020
10	250	838			700	1400	7632	1460
12※	300	965						
14※	350	1029						
16※	400	1130						
18※	450	1219						
20※	500	1321						
24※	600	1549						



MAIN DIMENSION AND WEIGHT

CLASS 1500

SIZE		L	W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	mm	mm	mm	mm	N.m	Kg
2	50	368	371	530	310	620	352	110
2-1/2	65	419	422	650	440	720	730	150
3	80	470	473	700	440	800	930	230
4	100	546	549	820	520	850	1820	380
6	150	705	711		600	1150	3870	600
8	200	832	842		700	1650	7838	1100
10※	250	991	1001					
12※	300	1130	1146					
14※	350	1257	1276					
16※	400	1384	1406					
18※	450	1537	1559					
20※	500	1664	1686					
24※	600	1943	1971					

CLASS 2500

SIZE		L	W	H	W1	H1	TRQ	WT(RF)
NPS inch	DN mm	RF(BW) mm	mm	mm	mm	mm	N.m	Kg
2	50	451	454	700	440	800	502	250
2-1/2	65	508	514	750	440	850	810	310
3	80	578	584	870	520	920	960	400
4	100	673	683		520	1100	2100	650
6	150	914	927		600	1350	4300	1400
8※	200	1022	1038					
10※	250	1270	1292					
12※	300	1422	1444					

Reverse flow Figure (indicated by "※" in the data table)

PRESSURE SEAL GLOBE VALVE

TYPICAL PARTS MATERIAL LIST

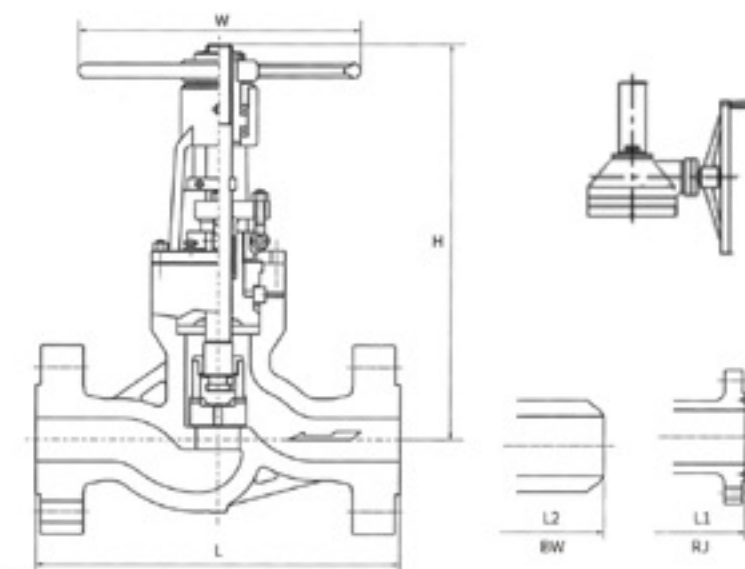
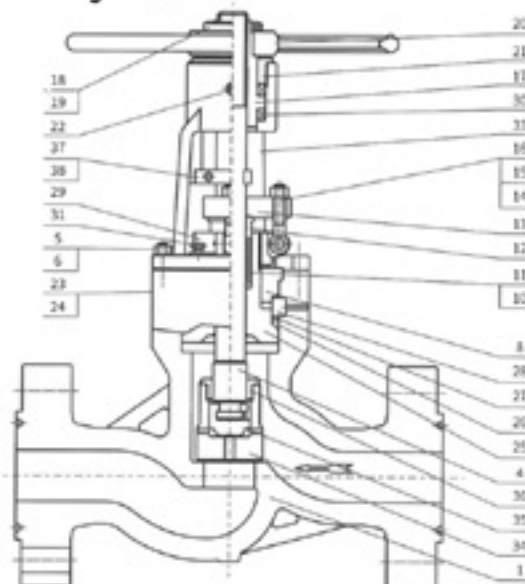
ITEM	WCB	WC6	WC9	CF8	CF3M	CE3MN
1	A216 WCB	WC6	WC9	CF8	CF3M	CE3MN
4	A182 F6a	A182 F6a	A182 F6a	A182 F304	F316L	F53
5	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8M	A194 B8M
6	A194 2H	A194 4	A194 4	A194 8	A194 8M	A193 8M
8	A105	F11	F22	A182 F304	A182 F316L	A182 F53
10	Flexible graphite					
11	A182 F6a	A182 F6a	A182 F6a	A182 F304	F316L	F53
12	A182 F6a	A182 F6a	A182 F6a	A182 F304	F316L	F53
13	A216 WCB	A216 6	A216 9	A182 CF8	A182 CF3M	A182 CE3MN
14	A193 B7	A193 B16	A193 B16	A193 B8	Flexible graphite	
15	A194 2H	A194 7	A194 7	A194 8	A194 8M	A194 8M
16	1035	1035	1035	304	304	304
17	A439 D2	A439 D2	A439 D2	A439 D2	A439 D2	A439 D2
18	1035	1035	1035	1035	1035	1035
19	SS	SS	SS	SS	SS	SS
20	A216 WCB	A216 WCB	A216 WCB	A216 WCB	A216 WCB	A216 WCB
21	1035	1035	1035	SS	SS	SS
22	Finished product					
23	304	304	304	304	304	304
24	304	304	304	304	304	304
25	A216 WCB	A216 WC6	A216 WC9	CF8	CF3M	CE3MN
26	304S flexible graphite					
27	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316L	A182 F53
28	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316L	A182 F53
29	A216 WCB	A216 WCB	A216 WCB	CF8	CF8	CF8
30	40Cr	40Cr	40Cr	40Cr	40Cr	40Cr
31	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8
33	A216 WCB	A216 WC6	A216 WC6	CF8	CF3M	CF3MN
34	A105	A182 F11	A182 F22	A182 F304	A182 F316L	A182 F53
35	A105	A182 F11	A182 F22	A182 F304	A182 F316L	A182 F53
36	1035	F11	F22	A182 F304	A182 F316L	A182 F53
37	1035	1035	1035	SS	SS	SS
38	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8M

Note: The spacer ring should be installed when required by the customer.

COMPONENTS DESCRIPTION

- | | |
|------------------|-----------------------|
| 1 Body | 22 Grease cup |
| 4 Stem | 23 Nameplate |
| 5 Bolt | 24 Rivet |
| 6 Nut | 25 Self sealed seat |
| 8 Bonnet | 26 Self sealed gasket |
| 10 Packing | 27 Self sealed ring |
| 11 Spacer | 28 Collet |
| 12 Gland ring | 29 Tighten yoke |
| 13 Gland flange | 30 Bearing |
| 14 Eyebolt | 31 Tighten Bolt |
| 15 Nut | 33 Yoke |
| 16 Pin | 34 Main disc |
| 17 Stem nut | 35 Secondary disc |
| 18 Lock nut | 36 Disc cover |
| 19 Limited screw | 37 Clamp block |
| 20 Handwheel | 38 Hexagon screws |
| 21 Bearing cover | |

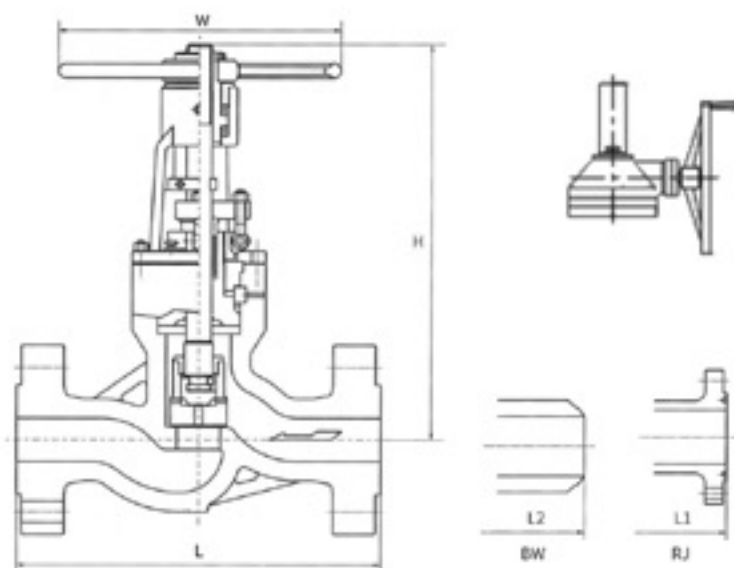
PJ 5 41 type



MAIN DIMENSION AND WEIGHT

CLASS 600									
SIZE	L	W	H	W1	H1	TRQ	WT(RF)		
NPS inch	DN mm	RF (IN LONG PATTERN) mm	DN SHORT PATTERN mm	RTJ mm	mm	mm	mm	N.m	Kg
2	50	292	178	295	280	495	310	592	220 45
2-1/2	65	330	216	333	320	600	310	660	360 55
3	80	356	254	359	350	650	310	780	440 80
4	100	432	305	435	450	750	440	850	602 100
6	150	559	457	562	450	800	440	910	1200 330
8	200	660	584	664	560	980	600	1094	1820 510
10	250	787	711	791	600	1100	600	1130	3875 1000
12	300	838	813	841			600	1450	5395 1280
14	350		889	892			700	1620	9170 1750
16	400		991	994			700	1480	13245 1900
18	450		1092	1095			520	1850	2080
20	500		1194	1200			600	1885	2750
24	600		1397	1407			600	1930	3800

CLASS 900									
SIZE	L	W	H	W1	H1	TRQ	WT(RF)		
NPS inch	DN mm	RF (IN LONG PATTERN) mm	DN SHORT PATTERN mm	RTJ mm	mm	mm	mm	N.m	Kg
2	50	368	216	371	350	590	310	650	285 90
2-1/2	65	419	254	422	400	660	310	765	360 110
3	80	381	305	384	350	697	440	817	530 150
4	100	457	356	460	500	768	440	935	1530 250
6	150	610	508	613	600	1025	520	1081	2071 510
8	200	737	660	740	700	1130	600	1513	3440 980
10	250	838	787	841			800	1673	7632 1230
12	300	965	914	968			600	1400	1650
14	350	1029	991	1038			600	1600	2400
16	400	1130	1092	1140			700	1820	2600
18	450		1219	1232			800	2000	3000
20	500		1321	1334					
24	600		1549	1568					



MAIN DIMENSION AND WEIGHT

CLASS1500											
SIZE		L			W	H	W1	H1	TRQ	RF	WT
NPS	DN	RF (LONG PATTERN)	RF (SHORT PATTERN)	RTJ	mm	mm	mm	mm	N.m	Kg	IN SHORT PATTERN
inch	mm	mm	mm	mm							Kg
2	50	368	216	371	350	594	310	650	352	90	65
2-1/2	65	419	254	422	400	676	440	860	730	123	100
3	80	470	305	473	450	778	440	949	930	200	170
4	100	546	406	549	560	880	520	1189	1820	365	330
6	150	705	559	711			600	1387	3870	550	425
8	200	832	711	842			700	1481	7838	1270	1140
10	250	991	864	1001			800	1573	12828	1513	1370
12	300	1130	991	1146			800	1831	24093	1950	1790
14	350	1257	1067	1276			1000	2039	26924	2520	2313
16	400	1384	1194	1406							
18	450		1537	1559							
20	500		1664	1686							
24	600		1943	1971							

CLASS 2500											
SIZE		L			W	H	W1	H1	TRQ	RF	WT
NPS	DN	RF (LONG PATTERN)	RF (SHORT PATTERN)	RTJ	mm	mm	mm	mm	N.m	Kg	IN SHORT PATTERN
inch	mm	mm	mm	mm							Kg
2	50	451	279	454	450	760	440	876	502	210	175
2-1/2	65	508	330	514	500	800	440	925	810	310	225
3	80	578	368	584	560	920	520	1040	960	413	267
4	100	673	457	683			520	1155	2100	531	390
6	150	914	610	927			700	1350	6711	713	500
8	200	1022	762	1038			800	1530	14860	1580	1330
10	250	1270	914	1292							
12	300	1422	1041	1444							

Reverse flowFigure (indicated by "RF" in the data table)

TYPICAL PARTS MATERIAL LIST

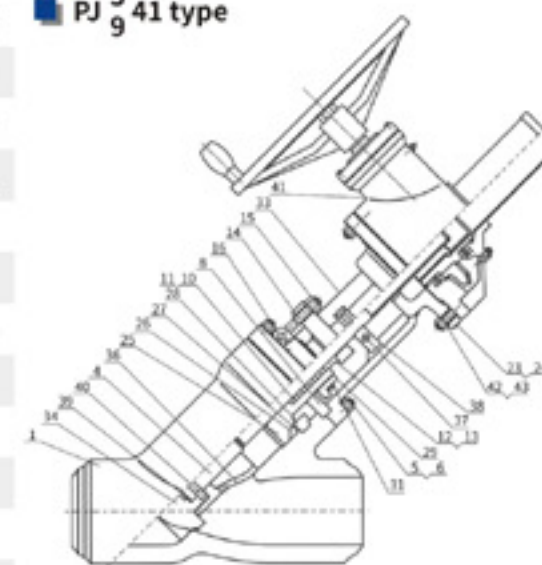
ITNM	WCB	C5	WC6	CF8	CF8M
1	A216 WCB	A217 C5	A217 WC6	A351 CF8	A351 CF8M
4	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316
5	A193 B7	A193 16	A193 16	A193 B8	A193 B8M
6	A194 2H	A194 7	A194 7	A194 8	A194 8M
8	A105	A182 F5	A182 F11	A182 F304	A182 F316
10	Graphite				
11	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316
12	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316
13	A216 WCB	C5	WC6	A351 CF8	A351 CF8M
14	A193 B7	A193 16	A193 16	A193 B8	A193 B8M
15	A194 2H	A194 7	A194 7	A194 8	A194 8M
16	1035	1035	1035	304	304
23	304	304	304	304	304
24	304	304	304	304	304
25	A105	A182 F5	A182 F11	A182 F304	A182 F316
26	304 wire+flexible graphite				
27	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316
28	A182 F6a	A182 F5	A182 F11	A182 F304	A182 F316
29	A216 WCB	A216 C5	A216 WC6	A351 CF8	A351 CF8M
31	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8M
33	A216 WCB	C5	A216 WC6	A351 CF8	A351 CF8M
34	A105	A182 F5	A182 F11	A182 F304	A182 F316
36	A105	F5	F11	F304	F316
37	1035	51035	1035	1035	1035
38	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8M
39	A105+STL	F5+STL	F11+STL	304+STL	316+STL
40	410	410	410	304	316
41	Finished product				
42	A193 B7	A193 B16	A193 B16	A193 B8	A193 B8M
43	A194 2H	A194 7	A194 7	A194 8	A194 8M

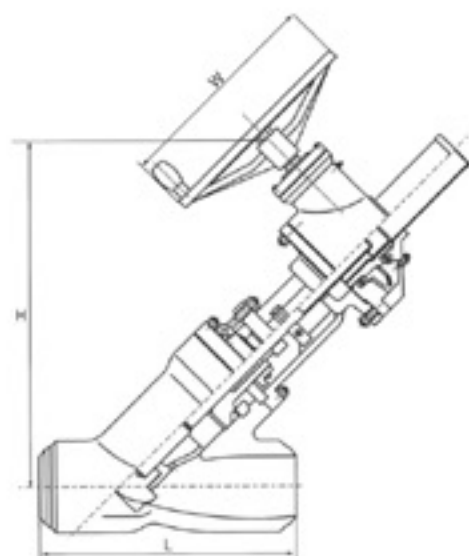
Note: The spacer ring should be installed when required by the customer.

COMPONENTS DESCRIPTION

- | | |
|---------------------|------------------------|
| 1 Body | 26 Self sealed gasket |
| 4 Stem | 27 Self sealed ring |
| 5 Bolt | 28 Collet ring |
| 6 Nut | 29 Tighten the support |
| 8 Bonnet | 31 Tighten the bolts |
| 10 Packing | 33 Yoke |
| 11 Spacer | 34 Disc |
| 12 Gland ring | 36 Disc cover |
| 13 Gland flange | 37 Cliprow |
| 14 Eyebolt | 38 Hexagon socket bolt |
| 15 Nut | 39 Packing block |
| 16 Pin | 40 Split ring |
| 23 Nameplate | 41 Bevel gear |
| 24 Rivet | 42 Stud |
| 25 Self sealed seat | 43 Nut |

PJ 5 41 type



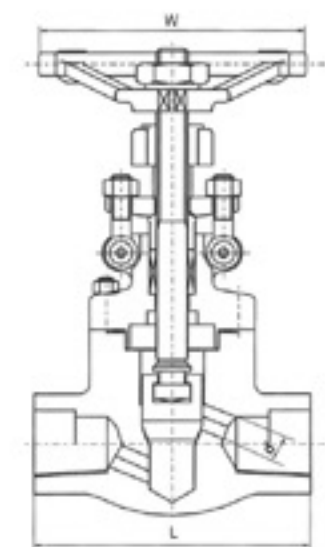
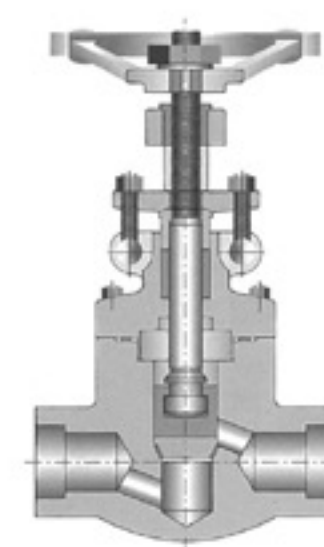


MAIN DIMENSION AND WEIGHT

CLASS 600						CLASS 900				
SIZE										
NPS inch	DN mm	(BW) mm	mm	mm	(BW) Kg	(BW) mm	mm	mm	mm	(BW) Kg
2	50	292	310	450	35	368	310	500		50
2-1/2	65	330	310	605	45	419	440	650		75
3	80	356	440	665	60	381	440	750		120
4	100	432	440	685	120	457	440	780		210
6	150	559	520	1080	330	610	520	910		415
8	200	660	600	1150	580	737	600	1160		850
10	250	787	700	1200	960	838	700	1280		1250
12	300	838	600	1180	1230	965	600	1190		1765
14	350	889	600	1360	1670	1029	700	1340		2250
16	400	991	700	1550	2200	1130	800	1630		2850
18	450	1092	700	1670	2750	1219	800	1780		3500
20	500	1194	800	1800	3650	1321	1000	1850		4210
24	600	1397	800	1880	4300	1549	1000	1980		5100

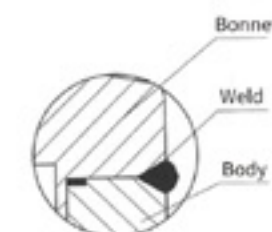
CLASS 1500						CLASS 2500				
SIZE										
NPS inch	DN mm	(BW) mm	mm	mm	(BW) Kg	(BW) mm	mm	mm	mm	(BW) Kg
2	50	368	310	500	50	451	440	750		90
2-1/2	65	419	440	650	75	508	440	780		120
3	80	470	440	750	130	578	520	820		155
4	100	546	530	933	325	673	520	1010		360
6	150	705	600	1122	550	914	600	1250		635
8	200	832	700	1257	995	1022	700	1292		1330
10	250	991	800	1240	1492	1270	800	1233		2272
12	300	1130	800	1400	2315	1422	800	1280		3080
14	350	1257								
16	400	1384								
18	450	1537								
20	500	1664								
24	600	1943								

FORGED STEEL THREAD, SOCKET WELDED GLOBE VALVE



DESIGN AND MANUFACTURING STANDARDS

- Design and Manufacturing according to API 602, ASME B16.34
- End Dimension as per ASME B120.1, ASME B16.11
- Inspection and test as per API 598



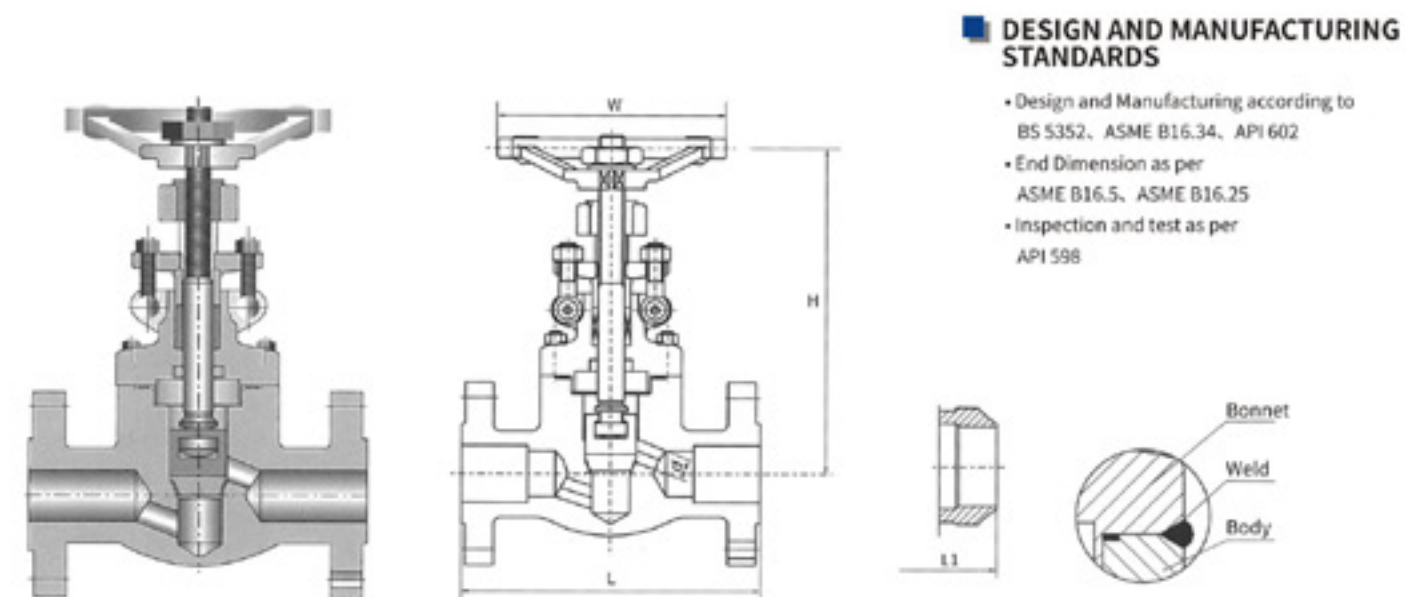
MAIN DIMENSION AND WEIGHT

CLASS 150~800									
SIZE				L(mm)	W(mm)	H OPEN(MM)	WEIGHT(KG)		
INCH	mm	REDUCE BORE	Full bore				REDUCE BORE	Full bore	
1/4	8			79	100	153	1.9		
3/8	10			79	100	153	1.9	2.1	
1/2	15			79	100	158	1.9	2.1	
3/4	20			92	100	192	2.1	2.3	
1	25			111	125	252	3.3	3.6	
1-1/4	32			120	160	252	7.5	7.8	
1-1/2	40			152	160	289	7.5	8.2	
2	50			172	180	330	11.4	12.0	
2	50			200	240	370		150	

CLASS 900~1500									
SIZE				L(mm)	W(mm)	H OPEN(MM)	WEIGHT(KG)		
INCH	mm	REDUCE BORE	Full bore				REDUCE BORE	Full bore	
1/4	8			111	100	207	2.0		
3/8	10			111	100	207	2.2	2.0	
1/2	15			111	100	207	2.4	2.2	
3/4	20			111	100	207	3.8	2.4	
1	25			130	125	240	4.2	3.8	
1-1/4	32			152	160	258	8.0	4.2	
1-1/2	40			172	160	290	13.2	8.0	
2	50			220	180	337	16.8	13.2	
2	50			235	200	354		16.8	

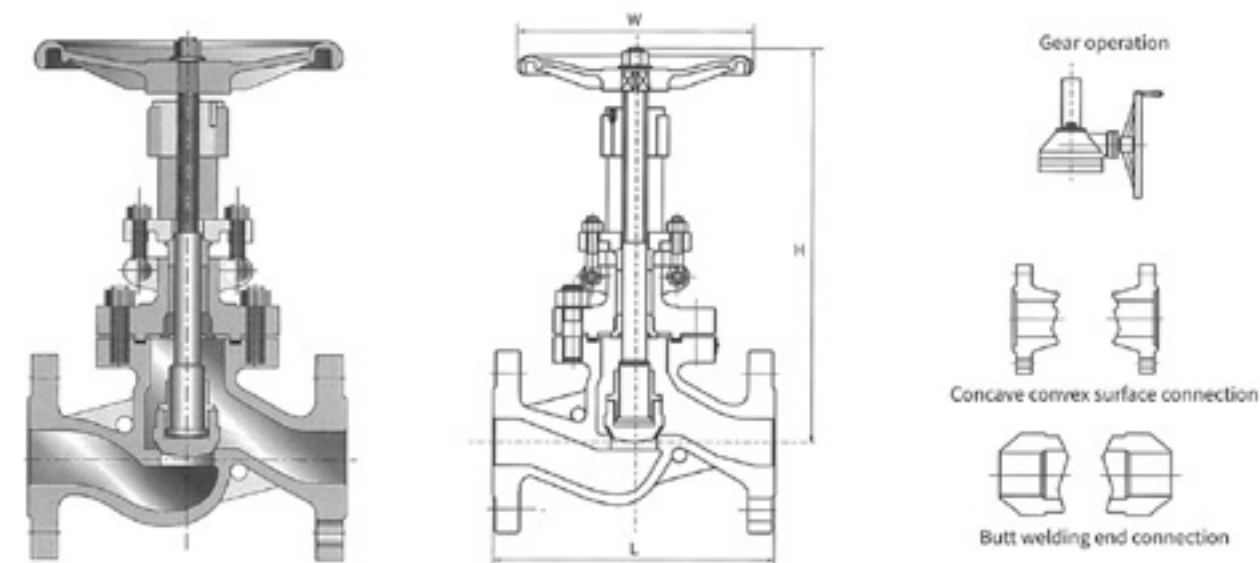
FORGED STEEL FLANGED, BUTT WELDED GLOBE VALVE

EN/UK STANDARD CAST STEEL GLOBE VALVE



MAIN DIMENSION AND WEIGHT

CLASS 150-600										
SIZE		CLASS RATE	L(mm)	L1(mm)	H OPEN(MM)		W(mm)		WT(Kg)	
inch	mm				REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE
1/2	15	150	108	108					4.5	6.9
		300	152	152	185	163	100	100	4.8	7.7
		600	165	165					5.6	7.8
3/4	20	150	117	117					6.9	9.8
		300	178	178	163	193	100	125	7.7	11.3
		600	190	190					7.8	12.5
1	25	150	127	127					9.8	13.5
		300	203	203	193	250	125	160	11.1	16.8
		600	216	216					12.5	17.5
1-1/4	32	150	140	140					13.5	19.5
		300	216	215	250	250	160	160	16.8	21.2
		600	229	229					17.0	23.5
1-1/2	40	150	165	165					19.5	28.5
		300	229	229	250	291	160	180	21.2	32.6
		600	241	241					23.5	38.5
2	50	150	203	203					28.0	30.3
		300	267	267	291	312	180	200	32.6	35.0
		600	292	292					38.8	42.2



MAIN DIMENSION AND WEIGHT

PN16 PN25						PN40					PN64 PN100							
SIZE	L	H	W	WT (PN16)	WT (PN25)	SIZE	L	H	W	WT	SIZE	L	H	W	WT (PN64)	WT (PN100)	WT (PN64)	WT (PN100)
mm	mm	mm	mm	Kg	Kg	mm	mm	mm	mm	Kg	mm	mm	mm	mm	mm	mm	mm	mm
50	230	350	240	18	20	50	230	373	240	23	50	300	410	280	425	320	35	38
65	290	370	280	24	26	65	290	408	280	33	65	340	450	320	465	320	52	58
80	310	400	280	30	36	80	310	436	280	43	80	380	485	360	485	400	63	69
100	350	415	320	40	50	100	350	480	320	59	100	430	537	400	548	400	84	93
125	400	460	360	62	88	125	400	588	360	91	125	500	631	400	645	450	150	165
150	480	510	400	106	118	150	480	611	400	122	150	550	646	450	650	450	210	225
200	600	710	400	130	170	200	600	720	400	195	200	650	813	500	820	500	313	370
250	730	786	450	261	290													
300	850	925	500	380	420													

CHECK VALVE



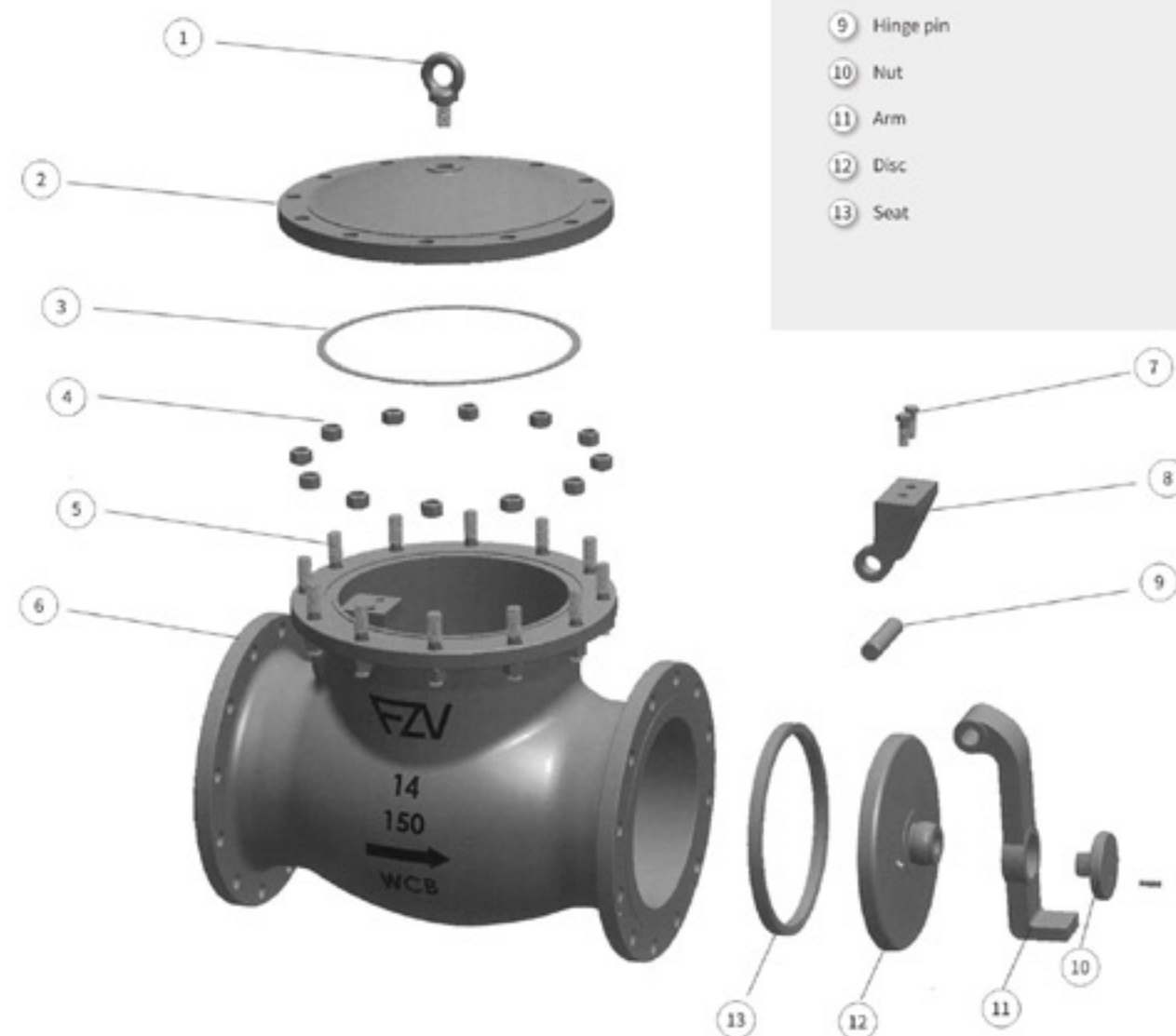
CHECK VALVE SERIES

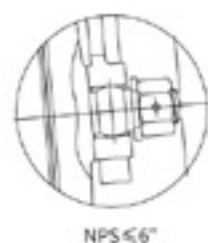
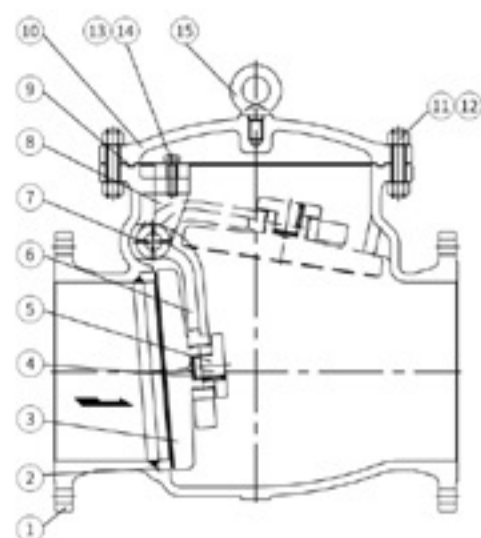


CAST STEEL SWING CHECK VALVE

DESIGN AND MANUFACTURING STANDARDS

- Design and Manufacturing according to
API 6D BS 1858, ASME B 16.34, GB 12236, GB 12224
- Face to face according to
ASME B16.10, API 6D, GB 12221
- End Dimension as per
ASME B16.5, ASME B16.25, ASME B16.47, GB/T 9113
- Inspection and test as per
ISO 5208, API 598, BS 6755, GB/T 26480, GB/T 13927, API 6D





COMPONENTS DESCRIPTION

1	2	3	4	5	6	7	8	9	10
Body	Seat	Disc	Screw	Disc cover	Arm	Hinge pin	Fork part	Gasket	Cover
11	12	13	14	15					
Nut	Stud	Bolt	Spring gasket	Lifting ring screw					

AMERICAN STANDARD PRESSURE TEST (MPa) (Body WCB)

PRESSURE RATE (Class)	SHELL TEST	HIGH PRESSURE SEAT TEST	LOW PRESSURE SEAT TEST
150	3.0	2.2	
300	7.7	5.6	
600	15.3	11.2	0.6
900	23	16.8	
1500	38.3	28.1	
2500	63.8	46.8	

CHINESE STANDARD PRESSURE TEST (MPa) (Body WCB)

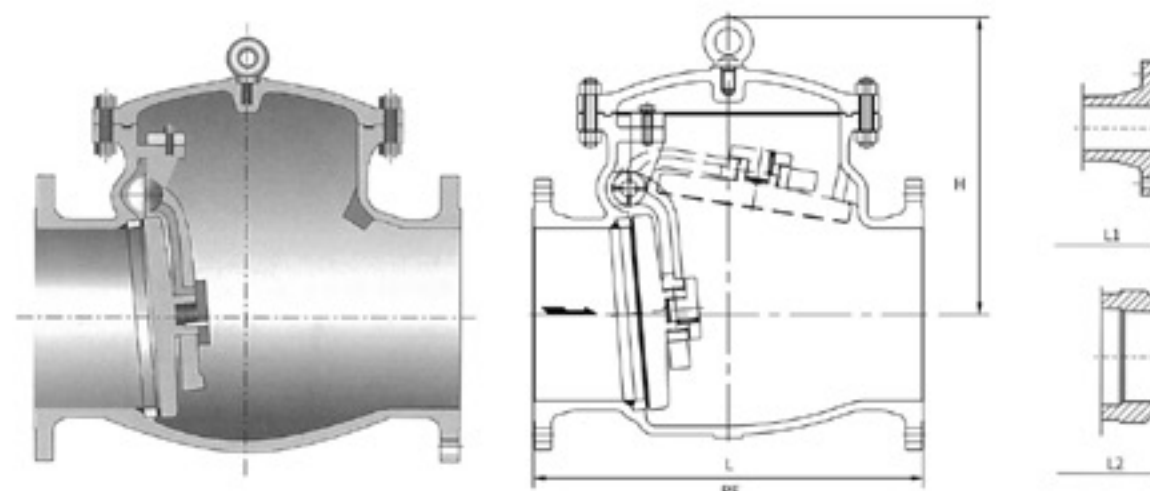
PRESSURE RATE (Class)	SHELL TEST	HIGH PRESSURE SEAT TEST	LOW PRESSURE SEAT TEST
1.6	2.4	1.76	
2.5	3.75	2.75	
4.0	6.0	4.4	0.6
6.4	9.6	7.04	
10.0	15.0	11.0	

MAIN COMPONENTS MATERIALS

COMPONENTS DESCRIPTION	CAST STEEL		ALLOY STEEL			STAINLESS STEEL				
Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Cover	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Disc	A105	LF2	F11	F22	F5	A182 F304	F316	F304L	F316L	F51
Hinge pin	A270 410	A276 410	A276 410	A270 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	F51
Fork part	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	CD3MN
Stud	A193 B7	A320 L7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B8	A193 B8M	A193 B8M
Nut	A194 2H	A194 7	A194 7	A194 7	A194 7	A194 8	A194 8M	A194 8	A194 8M	A194 8M

Note: 1. All parts of the valve are made of materials that comply with ASTM standards;

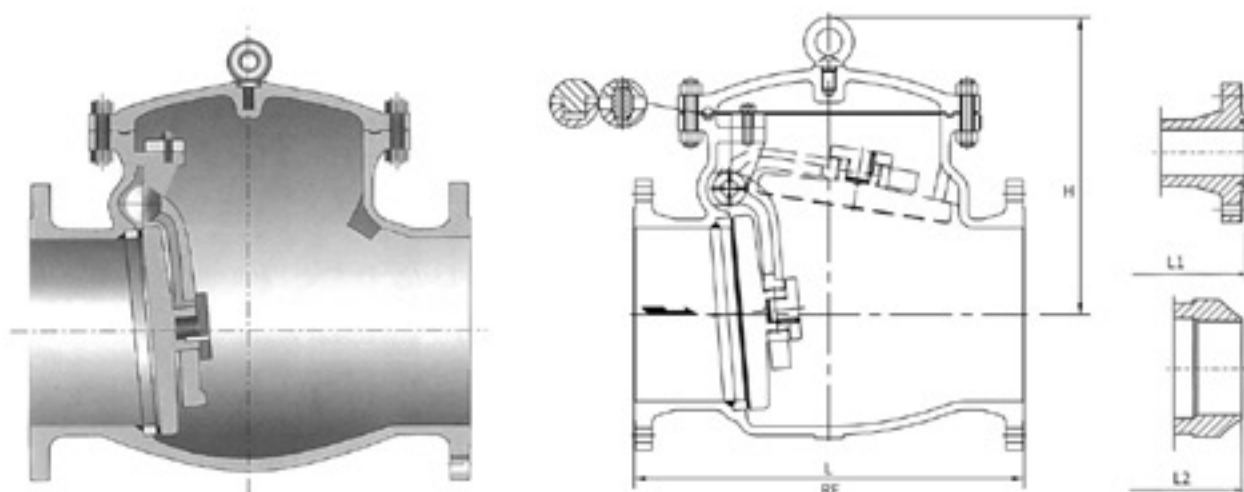
2. The above is the FZV standard configuration. If the customer has special requirements, FZV can select materials according to their working conditions.



MAIN DIMENSION AND WEIGHT

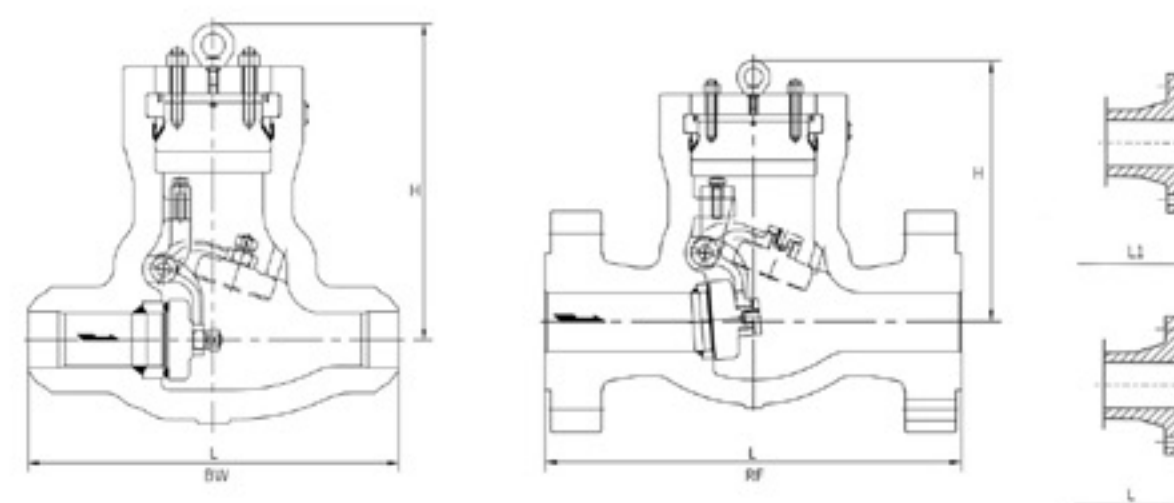
CLASS 150					CLASS 300			CLASS 600		
SIZE	L	H	WT		L	H	WT	L	H	WT
NPS inch	DN mm	RF(BW) mm	mm	(RF) Kg	RF(BW) mm	mm	(RF) Kg	RF(BW) mm	mm	(RF) Kg
2	50	203	189	16	267	201	21	292	295	207
2-1/2	65	216	198	20	292	215	37	330	333	227
3	80	241	226	25	318	249	46	356	359	251
4	100	292	275	40	356	297	71	432	435	320
5	125	330	280	67	400	305	100	508	511	310
6	150	356	312	93	445	321	130	559	562	339
8	200	495	417	134	533	429	202	660	664	468
10	250	622	459	199	622	477	296	787	791	524
12	300	699	532	305	711	553	458	838	841	589
14	350	787	550	370	838	570	583	889	892	622
16	400	864	667	542	864	696	754	991	994	746
18	450	978	684	750	978	695	935	1092	1095	786
20	500	978	750	900	1016	742	1155	1194	1200	874
24	600	1295	871	1200	1346	922	1408	1397	1407	874
26	650	1295	910	1276	1346	930	2375	1448	1461	1110
28	700	1448	1047	1855	1499	1026	2800	1600	1613	1244
30	750	1524	1095	2190	1594	1130	3680	1651	1664	1300
32	800	1727	1150	2430	1727	1180	3880	1778	1794	1365
36	900	1956	1182	3130	2083	1235	5030	2083	2099	1599
40	1000	1981	1360	4200	2250	1385	6300	2286		1695
42	1050	2032	1410	5100	2312	1460	7100	2438		1700
48	1200	2083	1640	6700	2413	1810	9300	2540		2150

PRESSURE SEAL SWING CHECK VALVE



MAIN DIMENSION AND WEIGHT

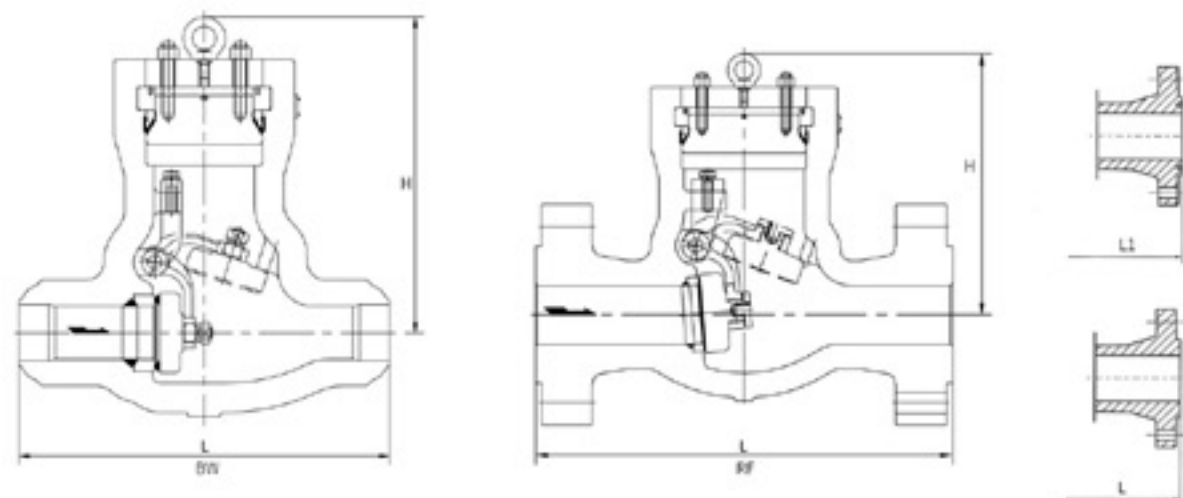
CLASS 900						CLASS 1500				CLASS 2500			
SIZE		L		H	WT	L		H	WT	L		H	WT
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	(RF) Kg	RF(BW) mm	RTJ mm	mm	(RF) Kg	RF(BW) mm	RTJ mm	mm	(RF) Kg
2	50	368	371	233	58	368	371	229	66	451	454	250	98
2-1/2	65	419	422	245	76	419	422	255	84	508	514	275	175
3	80	381	384	269	100	470	473	297	123	578	584	370	195
4	100	457	460	337	140	546	549	357	196	673	683	465	380
6	150	610	613	424	294	705	711	490	481	914	927	540	800
8	200	737	740	542	700	832	841	565	824	1022	1038	770	2000
10	250	838	841	559	744	991	1000	680	1252	1270	1292	850	3700
12	300	965	968	685	870	1130	1146	840	1440	1422	1445	950	4400
14	350	1029	1038	780	1254	1257	1276	935	1745	1575		1150	7450
16	400	1130	1140	825	1800	1384	1407	1025	2500	1727		1280	9100
18	450	1219	1232	911	2900	1537	1559	1150	5400	1877		1420	11100
20	500	1321	1334	935	3800	1664	1686	1280	6650	2029		1530	12300
24	600	1549	1568	1134	5500	1943	1972	1525	9800	2334		1650	13800
26	650	1651	1673	1220	6600	2083		1800	11500				
28	700	1753	1775	1365	7600	2223		2050	13500				
30	750	1854	1876	1560	8900	2362		2300	15500				
32	800	1956		1650	12100								
36	900	2156		1850	15280								
40	1000	2286		1995	17650								
42	1050	2438		2100	19960								
48	1200	2540		2380	29500								



MAIN DIMENSION AND WEIGHT

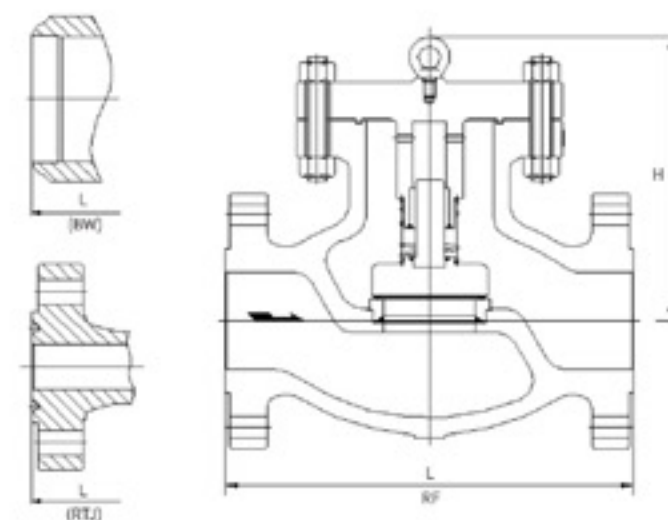
CLASS 600						CLASS 900			
SIZE		L		H	WT	L		H	WT
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	(RF) Kg	RF(BW) mm	RTJ mm	mm	(RF) Kg
2	50	292	295	207	27	368	371	233	58
2-1/2	65	330	333	227	32	419	422	245	76
3	80	356	359	251	49	381	384	269	100
4	100	432	435	320	86	457	460	337	140
6	150	559	562	339	185	610	613	424	294
8	200	660	664	468	365	737	740	542	700
10	250	787	791	524	557	838	841	559	744
12	300	838	841	589	670	965	968	685	870
14	350	889	892	622	944	1029	1038	780	1254
16	400	991	994	746	1300	1130	1140	825	1800
18	450	1092	1095	786	1760	1219	1232	911	2900
20	500	1194	1200	874	2200	1321	1334	935	3800
24	600	1397	1407	874	3350	1549	1568	1134	5500
26	650	1448	1461	1110	3740	1651	1673	1220	6600
28	700	1600	1613	1244	4630	1753	1775	1365	7600
30	750	1651	1664	1300	5560	1854	1876	1560	8900
32	800	1778	1794	1365	6750	1956		1650	12100
36	900	2083	2099	1599	8200	2156		1850	15280
40	1000	2286		1695	9000	2286		1995	17650
42	1050	2438		1700	10000	2438		2100	19960
48	1200	2540		2150	11200	2540		2380	29500

PISTON CHECK VALVE



MAIN DIMENSION AND WEIGHT

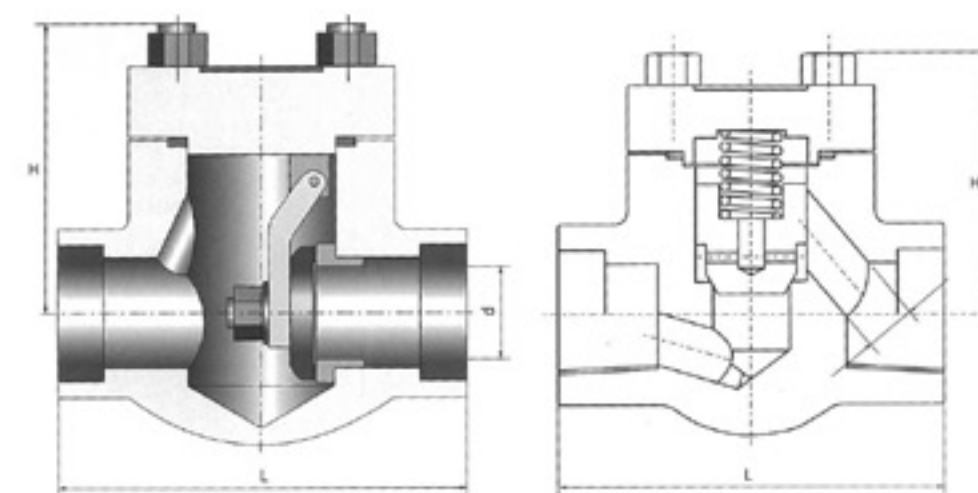
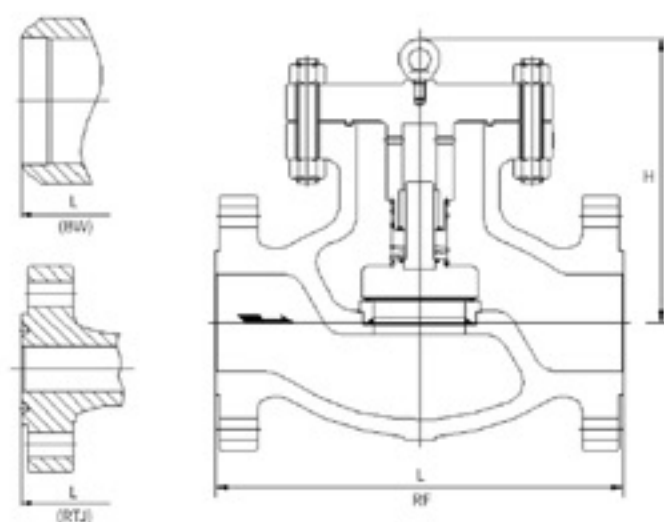
CLASS 1500						CLASS 2500			
SIZE	L		H	WT		L	H	WT	
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	(RF) Kg	RF(BW) mm	RTJ mm	mm	(RF) Kg
2	50	368	371	229	66	451	454	250	98
2-1/2	65	419	422	255	84	508	514	275	175
3	80	470	473	297	123	578	584	370	195
4	100	546	549	357	196	673	683	465	380
6	150	705	711	490	481	914	927	540	800
8	200	832	841	565	824	1022	1038	770	2000
10	250	991	1000	680	1252	1270	1292	850	3700
12	300	1130	1146	840	1440	1422	1445	950	4400
14	350	1257	1276	935	1745	1575		1150	7450
16	400	1384	1407	1025	2500	1727		1280	9100
18	450	1537	1559	1150	5400	1877		1420	11100
20	500	1664	1686	1280	6650	2029		1530	12300
24	600	1943	1972	1525	9800	2334		1650	13800
26	650	2083		1800	11500				
28	700	2223		2050	13500				
30	750	2362		2300	15500				



MAIN DIMENSION AND WEIGHT

CLASS 150						CLASS 300				CLASS 600			
SIZE	L		H	W		L	H	W		L	H	W	
NPS inch	DN mm	RF(BW) mm	RTJ mm	mm	(RF) Kg	RF(BW) mm	RTJ mm	mm	(RF) Kg	RF(BW) mm	RTJ mm	mm	(RF) Kg
2	50	203	216	189	12	267	183	182	17	292	295	193	22
2-1/2	65	216	229	198	15	292	198	215	30	330	333	217	26
3	80	241	254	203	18	318	208	249	37	356	359	231	39
4	100	292	305	236	30	356	372	265	57	432	435	288	69
5	125	330	343	252	50	400	416	280	80	508	511	330	132
6	150	356	369	265	70	445	460	298	104	559	562	388	148
8	200	495	508	312	101	533	549	334	162	660	664	458	292
10	250	622	635	350	149	622	638	433	237	787	791	511	446
12	300	699	711	385	229	711	727	478	366	838	841	532	536
14	350	787	800	450	278	838	854	547	466	889	892	575	755
16	400	864	877	515	407	864	880	610	603	991	994	625	1040
18	450	978	991	560	563	978	994	656	748	1092	1095	680	1408
20	500	978	991	582	675	1016	1035	691	924	1194	1200	740	1760
24	600	1295	1308	610	900	1346	1368	800	1126	1397	1407	780	2680
26	650	1295		910	957	1346		930	1900	1448	1461	1110	2992
28	700	1448		1047	1391	1499		1026	2240	1600	1613	1244	3704
30	750	1524		1095	1643	1594		1130	2944	1651	1664	1300	4448
32	800	1727		1150	1823	1727		1180	3104	1778	1794	1365	5400
36	900	1956		1182	2348	2083		1235	4024	2083	2099	1599	6560
40	1000	2159		1360	3150	2438		1385	5040	2286		1695	7200
42	1050	2261		1410	3825	2617		1460	5680	2438		1700	8000
48	1200	2566		1640	5025	3151		1810	7440	2540		2150	8960

FORGED STEEL THREAD, SOCKET WELDED CHECK VALVE



DESIGN AND MANUFACTURING STANDARDS

- Design and Manufacturing according to API 602
- End Dimension as per ASME B16.5, ASME B16.25
- Inspection and test as per API 598

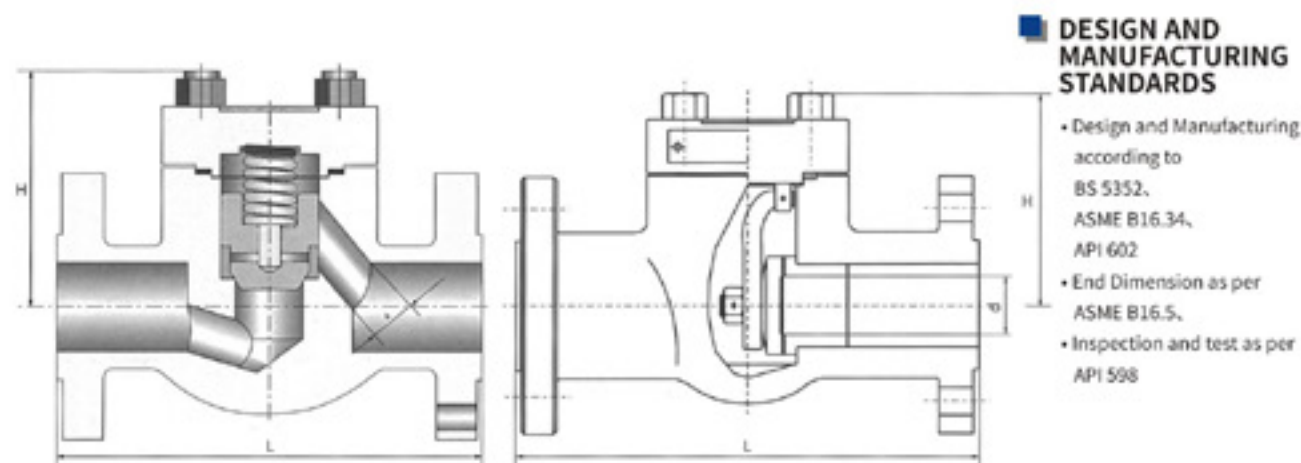
MAIN DIMENSION AND WEIGHT

CLASS 900						CLASS 1500				CLASS 2500			
SIZE		L		H	W (RF)	L		H	W (RF)	L		H	W (RF)
NPS inch	DN mm	RF/BW mm	RTJ mm	mm	Kg	RF/BW mm	RTJ mm	mm	Kg	RF/BW mm	RTJ mm	mm	Kg
2	50	368	371	225	46	368	371	225	53	451	454	337	78
2-1/2	65	419	422	245	61	419	422	245	67	508	514	350	140
3	80	381	384	269	80	470	473	269	98	578	584	370	156
4	100	457	460	337	112	546	549	357	157	673	683	426	304
6	150	610	613	425	235	705	711	490	385	914	927	520	640
8	200	737	740	459	560	832	841	540	659	1022	1038	615	1600
10	250	838	841	540	595	991	1000	640	1002	1270	1292	730	2960
12	300	965	968	595	696	1130	1146	780	1152	1422	1445	840	3520
14	350	1029	1038	640	1003	1257	1276	835	1396	1575		905	5960
16	400	1130	1140	685	1440	1384	1407	890	2000	1727		950	7280
18	450	1219	1232	744	2320	1537	1559	960	4320	1877		1055	8880
20	500	1321	1334	820	3040	1664	1686	1090	5320	2029		1160	9840

CLASS 150~800									
SIZE				L(mm)		H(mm)		WEIGHT (Kg)	
inch	mm	REDUCE BORE	FULL BORE	LIFTING TYPE	SWING TYPE	LIFTING TYPE	SWING TYPE	LIFTING TYPE	SWING TYPE
1/4	8			79	79	61	61	1.1	1.0
3/8	10			79	79	61	61	1.2	1.1
1/2	15			79	79	61	61	1.3	1.2
3/4	20			92	92	61	61	1.4	1.3
1	25			111	111	78	78	2.3	1.9
1-1/4	32			120	120	84	84	3.9	3.4
1-1/2	40			152	120	103	101	5.6	4.5
2	50			172	140	118	120	8.9	7.3
2	50			200	170	132	133	12.5	10.0

CLASS 900~1500									
SIZE				L(mm)		H(mm)		WEIGHT (Kg)	
inch	mm	REDUCE BORE	FULL BORE	LIFTING TYPE	SWING TYPE	LIFTING TYPE	SWING TYPE	LIFTING TYPE	SWING TYPE
1/4	8			111	111	79	79	3.0	3.0
3/8	10			111	111	79	79	3.1	3.1
1/2	15			111	111	79	79	3.2	3.2
3/4	20			111	111	79	79	3.4	3.6
1	25			130	120	97	97	4.8	4.3
1-1/4	32			152	140	104	105	6.9	6.1
1-1/2	40			172	140	120	120	10.7	8.8
2	50			220	162	139	140	14.6	12.6
2	50								

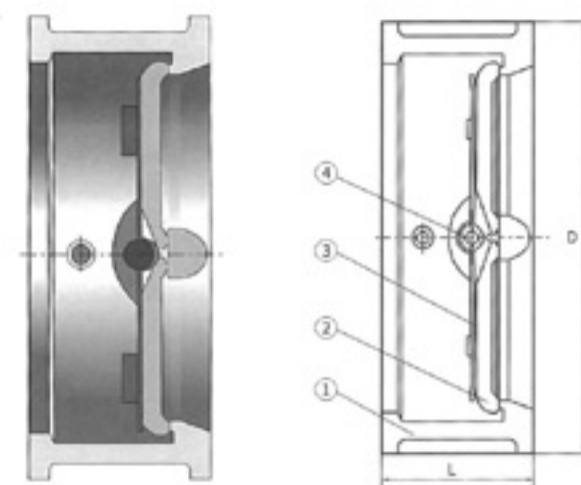
FORGED STEEL FLANGED CHECK VALVE



MAIN DIMENSION AND WEIGHT

CLASS 150~600											
SIZE		CLASS RATE	L(mm)	H(mm)				WEIGHT (Kg)			
inch	mm			LIFTING TYPE		SWING TYPE		LIFTING TYPE		SWING TYPE	
				REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE	REDUCE BORE	FULL BORE
1/2	15	150	108					2.6	3.4	2.5	3.3
		300	152	61	61	61	61	2.7	3.7	2.6	3.6
		600	165					3.0	4.0	2.9	4.3
3/4	20	150	117					3.4	4.4	3.3	4.8
		300	178	61	78	61	78	3.7	4.7	3.6	5.1
		600	190					4.0	5.8	4.3	6.2
1	25	150	127					4.4	8.2	4.8	7.0
		300	203	78	84	78	84	4.7	8.8	5.1	7.4
		600	216					5.8	9.5	6.2	7.7
1-1/4	32	150	140					8.2	8.9	7.0	7.5
		300	216	84	103	84	101	8.8	9.6	7.4	7.9
		600	229					9.5	10.1	7.7	9.3
1-1/2	40	150	165					8.9	12.0	7.5	11.3
		300	229	108	118	101	120	9.6	13.7	7.9	11.7
		600	241					10.1	15.6	9.3	13.2
2	50	150	203					12.6	14.3	11.3	13.6
		300	267	118	132	120	133	13.7	17.8	11.7	16.8
		600	292					15.6	24.6	13.2	20.5

DUAL PLATE WAFER CHECK VALVE

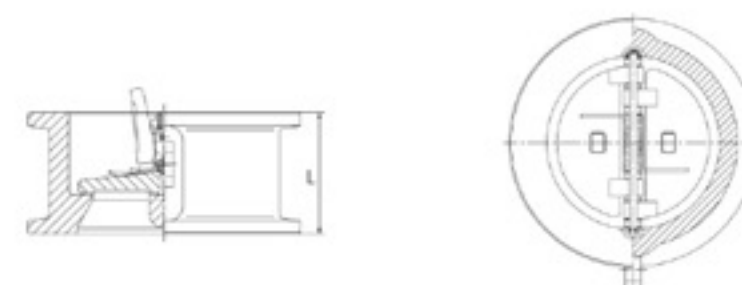


DESIGN AND MANUFACTURING STANDARDS

- Design and Manufacturing according to ASME B16.34, API 594, API 6D
- End Dimension as per ASME B16.5, ASME B16.47
- Face to face according to API 594, API 6D
- Inspection and test as per API 598

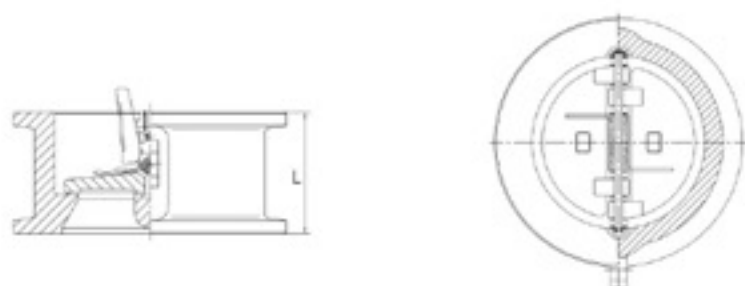
COMPONENTS DESCRIPTION	MATERIAL
1 Body	WCB, CF8, CF8M, FC3, CF3M
2 Disc	WCB, CF8, CF8M, FC3, CF3M
3 Spring	INCONEL, 17-7PH
4 Hinge pin	F6a, 304, 316, 304L, 316L, 17-7PH

Dual plate wafer check valve(API 594)



MAIN DIMENSION AND WEIGHT

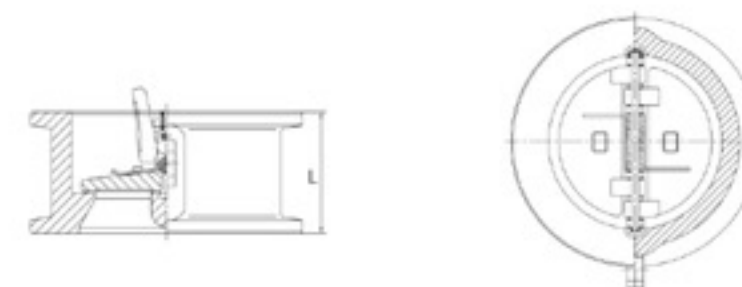
CLASS 150(PN 20)							CLASS 150(PN 20) ASME B16.47 A						
SIZE		L		O		WT	SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	Kg
2	50	2.38	60	4.05	103	2	26	650	8.74	222	30.31	770	375
2-1/2	65	2.62	67	4.8	122	3	28	700	12	305	32.56	827	395
3	80	2.88	73	5.31	135	4	30	750	12	305	34.56	878	435
4	100	2.88	73	6.81	173	6	32	800	12	305	36.81	935	570
5	125	3.38	86	7.67	195	8	36	900	14.48	368	41.14	1045	650
6	150	3.88	98	8.66	220	12	40	1000	17	432	45.59	1158	900
8	200	5	127	10.9	277	24	42	1050	17	432	47.75	1213	1000
10	250	5.75	146	13.26	337	40	44	1100	17.1	432	50.15	1274	1200
12	300	7.12	181	16.02	407	55	48	1200	20.63	524	54.33	1380	1500
14	350	7.25	184	17.63	448	82	54	1350	23.26	591	60.82	1545	2350
16	400	7.5	191	20.15	512	120	56	1400	23.26	591	63.07	1602	2900
18	450	8	203	21.53	547	140	60	1500	25.98	660	67.32	1710	3200
20	500	8.62	219	23.77	604	165							
24	600	8.75	222	28.15	715	340							



MAIN DIMENSION AND WEIGHT

CLASS 150 (PN 20) ASME B16.47 B						
SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg
26	650	8.74	222	28.43	722	350
28	700	12	305	30.43	773	370
30	750	12	305	32.44	824	430
32	800	12	305	34.57	878	550
36	900	14.48	368	38.7	983	650
40	1000	17	432	42.91	1090	880
42	1050	17	432	44.96	1142	950
44	1100	17	432	46.97	1193	1150
48	1200	20.63	524	51.26	1302	1400
54	1350	23.26	591	57.48	1460	2250
56	1400	23.26	591	59.53	1512	2850
60	1500	25.98	660	64.09	1628	3150
66	1650	30.98	787	74.06	1881	5400
72	1800	33.5	851	80.55	2046	6200
78	1950	36.49	927	86.77	2204	8200
84	2100	40.98	1041	93.27	2369	10500

CLASS 300(PN 20)							CLASS 300(PN 20) ASME B16.47 A						
SIZE		L		O		WT	SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	Kg
2	50	2.38	60	4.33	110	3	26	650	14.02	356	32.72	831	575
2-1/2	65	2.62	67	5.04	128	4	28	700	14.49	368	35.24	895	610
3	80	2.88	73	5.79	147	6	30	750	14.49	368	37.36	949	690
4	100	2.88	73	7.05	179	8	32	800	14.49	368	39.49	1003	1000
5	125	3.38	86	8.43	214	15	36	900	19.02	483	43.82	1113	1075
6	150	3.88	98	9.8	249	20	40	1000	21.5	546	43.7	1110	1400
8	200	5	127	12	305	32	42	1050	22.36	568	45.71	1161	1500
10	250	5.75	146	14.13	359	52	48	1200	24.76	629	51.97	1320	2300
12	300	7.12	181	16.54	420	80	54	1350	28.27	718	58.62	1489	3100
14	350	8.75	222	19	483	120	60	1500	32.99	838	64.65	1642	4350
16	400	9.12	232	21.14	537	195							
18	450	10.38	264	23.39	594	210							
20	500	11.5	292	25.67	652	270							
24	600	12.5	318	30.39	772	420							



MAIN DIMENSION AND WEIGHT

CLASS 300 (PN 50) ASME B16.47 B						
SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg
26	650	14.02	356	30.2	767	560
28	700	14.49	368	32.32	821	590
30	750	14.49	368	34.72	882	660
32	800	14.49	368	36.85	936	975
36	900	19.02	483	41.1	1044	1025
40	1000	21.5	546	45.12	1146	1450
42	1050	22.36	568	47.09	1196	1550
48	1200	24.76	629	53.74	1365	2250
54	1350	28.27	718	60.08	1526	3100
60	1500	32.99	838	67.09	1704	4300

CLASS 600(PN 110)							CLASS 600(PN 110) ASME B16.47 A						
SIZE		L		O		WT	SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	Kg
2	50	2.38	60	4.33	110	4	26	650	18	457	34	863	980
2-1/2	65	2.62	67	5.04	128	5	28	700	19	483	35.83	910	1250
3	80	2.88	73	5.79	147	8	30	750	19.88	505	38	967	1450
4	100	3.12	79	7.52	191	12	32	800	21	533	40.16	1020	1700
5	125	4.13	105	9.41	239	20	36	900	25	635	44.33	1126	2250
6	150	5.38	136	10.39	264	25	40	1000	26	660	45.39	1153	2650
8	200	6.5	165	12.52	318	55	42	1050	27.64	702	47.83	1215	3150
10	250	8.38	213	15.67	398	95	48	1200	31	787	54.57	1386	3900
12	300	9	229	17.91	455	140							
14	350	10.75	273	19.29	490	225							
16	400	12	305	22.13	562	360							
18	450	14.25	362	24	610	400							
20	500	14.5	368	26.77	680	520							
24	600	17.25	438	31	786	850							

CLASS 600 (PN 110) ASME B16.47 B						
SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg
26	650	18	457	30	761	950
28	700	19	483	32.1	815	1220
30	750	19.88	505	34.45	875	1400
32	800	21	533	36.54	928	1650
36	900	25	635	41.14	1045	2130

CLASS 900 (PN 150)

SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg
2	50	2.75	70	5.51	140	8
2-1/2	65	3.25	83	6.38	162	10
3	80	3.25	83	6.5	165	15
4	100	4	102	8	204	20
5	125	4.33	110	9.65	245	30
6	150	6.25	159	11.26	286	40
8	200	8.12	206	14	356	85
10	250	9.5	241	17	432	145
12	300	11.5	292	19.5	495	220
14	350	14	356	20.39	518	350
16	400	15.12	384	22.5	572	470
18	450	17.75	451	25	635	610
20	500	17.75	451	27.36	695	820
24	600	19.5	495	32.87	835	1100

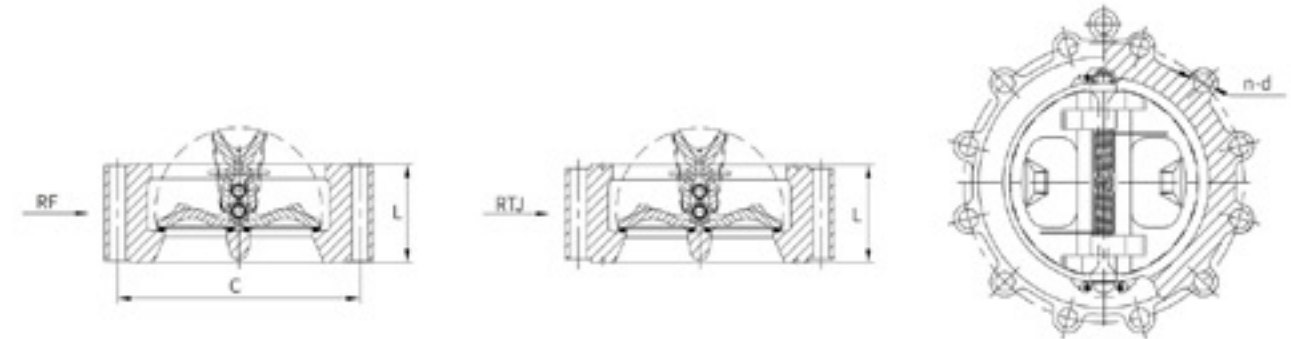
CLASS 900(PN 150) ASME B16.47 A

SIZE		L		O		WT	SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	Kg
26	650	21	533	34.61	879	1200	26	650	21	533	32.87	835	1175
28	700	22.5	572	37.13	943	1450	28	700	22.5	572	35.35	898	1400
30	750	25	635	39.61	1006	1600	30	750	25	635	37.6	955	1550
32	800	26	660	42.13	1070	2100	32	800	26	660	39.84	1012	2030
36	900	28.27	718	47	1195	2600	36	900	28.27	718	44.1	1120	2600
40	1000	30	762	49	1246	2950							
42	1050	31	787	51	1296	3300							
48	1200	33.5	851	58.39	1483	4450							

CLASS 1500(PN 260)

SIZE		L		O		WT	SIZE		L		O		WT
NPS inch	DN mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	Kg
2	50	2.75	70	5.51	140	8	2	50	2.75	70	5.63	143	10
2-1/2	65	3.25	83	6.38	162	10	2-1/2	65	3.25	83	6.54	166	20
3	80	3.25	83	6.77	172	20	3	80	3.38	86	7.64	194	25
4	100	4	102	8.15	207	25	4	100	4.12	105	9.13	232	40
5	125	4.33	110	9.92	252	50	5	125	4.33	110	10.91	277	60
6	150	6.25	159	11	280	70	6	150	6.25	159	12.4	315	90
8	200	8.12	206	13.78	350	130	8	200	8.12	206	15.16	385	150
10	250	9.75	248	17	433	200	10	250	10	254	18.66	474	250
12	300	12	305	20.39	518	385	12	300	12	305	21.54	547	450
14	350	14	356	22.68	576	550							
16	400	15.12	384	25.16	639	635							
18	450	18.44	468	27.6	701	800							
20	500	21	533	29.65	753	1280							
24	600	22	559	35.31	897	2700							

DUAL PLATE LUG TYPE CHECK VALVE(API 594)

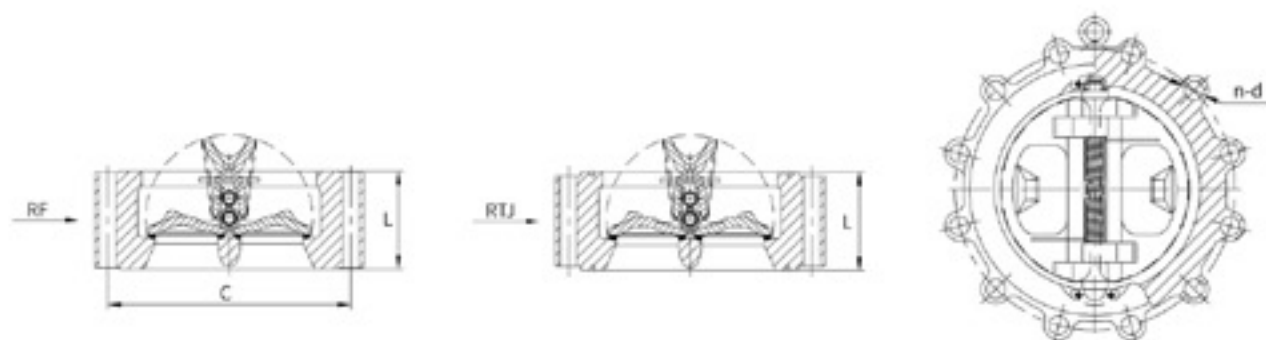


MAIN DIMENSION AND WEIGHT

CLASS 150(PN 20)										CLASS 150(PN 20) ASME B16.47 B											
SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (I)		WT	SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (I)		WT
NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg
2	50	2.38	60	4.75	120.6	4	3/4	19	4	28	700	12	305	31.31	795.3	40	7/8	22.5	910		
2-1/2	65	2.62	67	5.5	139.7	4	3/4	19	5.5	30	750	12	305	33.31	846.1	44	7/8	22.5	1020		
3	80	2.88	73	6	152.4	4	3/4	19	7	32	800	12	305	35.44	900.2	48	7/8	22.5	1350		
4	100	2.88	73	7.5	190.5	8	3/4	19	10	36	900	14.5	368	39.75	1009.6	44	1	25.5	1550		
5	125	3.38	86	8.5	185.7	8	7/8	22.5	15	42	1050	17	432	46.12	1171.4	48	1 1/8	28.5	2300		
6	150	3.88	98	9.5	215.9	8	7/8	22.5	20	48	1200	20.63	524	52.56	1335	44	1 1/4	32	3400		
8	200	5	127	11.75	269.7	8	7/8	22.5	35												
10	250	5.75	146	14.25	323.8	12	1	25.5	60												
12	300	7.12	181	17	381	12	1	25.5	120												
14	350	7.25	184	18.75	412.8	12	1 1/8	28.5	130												
16	400	7.5	191	21.25	469.9	16	1 1/8	28.5	180												
18	450	8	203	22.75	533.4	16	1 1/4	32	205												
20	500	8.62	219	25	584.2	20	1 1/4	32	275												
24	600	8.75	222	29.5	692.2	20	1 3/8	35	315												

CLASS 300(PN 50)

CLASS 300(PN 50)										CLASS 300(PN 50) ASME B16.47 B											
SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (I)		WT	SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (I)		WT
NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg
2	50	2.38	60	5	127	8	3/4	19	6	30	750	14.5	368	36.25	920.8	36	1 1/4	38	1400		
2-1/2	65	2.62	67	5.88	149.4	8	7/8	22.5	7	36	900	19	483	42.88	1089.2	32	1 3/4	44.5	1850		
3	80	2.88	73	6.62	168.1	8	7/8	22.5	10	42	1050	22.36	568	49	1244.6	36	1 7/8	48	3850		
4	100	2.88	73	7.88	200.2	8	7/8	22.5	15	48	1200	24.76	629	55.75	1416	40	2	51	4350		
5	125	3.38	86	9.25	235	8	7/8	22.5	30												
6	150	3.88	98	10.62	269.7	12	7/8	22.5	33												
8	200	5	127	13	330.2	12	1	25.5	55												
10	250	5.75	146	15.25	387.4	16	1 1/8	28.5	83												
12	300	7.12	181	17.75	450.8	16	1 1/4	32	95												
14	350	8.75	222	20.25	514.4	20	1 1/4	32	250												
16	400	9.12	232	22.5	571.5	20	1 3/8	35	350												
18	450	10.38	264	24.75	628.6	24	1 3/8	35	390												
20	500	11.5	292	27	685.8	24	1 3/8	35	550												
24	600	12.5	318	32	812.8	24	1 5/8	41	850												

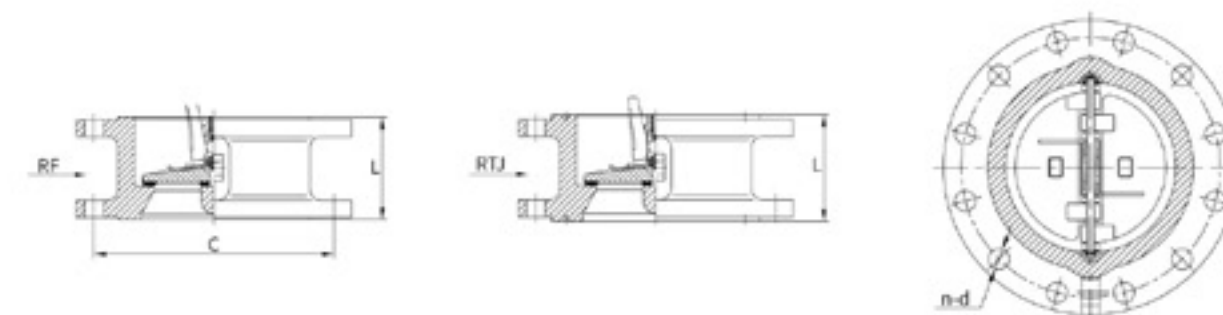


MAIN DIMENSION AND WEIGHT

CLASS 600(PN 110)										CLASS 900(PN 150)									
SIZE		L		C		THREADED HOLES QTY	THREADED HOLES SIZE (D)		WT	SIZE		L		C		THREADED HOLES QTY	THREADED HOLES SIZE (D)		WT
NPS inch	DN mm	in	mm	in	mm	(N)	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	(N)	in	mm	Kg
2	50	2.38	60	5	127	8	3/4	19	7	2	50	2.75	70	6.5	165.1	8	1	25.5	13
2-1/2	65	2.62	67	5.88	149.4	8	7/8	22.5	9	2-1/2	65	3.25	83	7.5	190.5	8	1 1/8	28.5	18
3	80	2.88	73	6.62	168.1	8	7/8	22.5	12	3	80	3.25	83	7.5	190.5	8	1	25.5	20
4	100	3.12	79	8.5	215.9	8	1	25.5	20	4	100	4	102	9.25	235	8	1 1/4	32	35
5	125	4.13	105	10.5	266.7	8	1 1/8	28.5	40	5	125	4.33	110	11	279.4	8	1 3/8	35	65
6	150	5.38	136	11.5	292.1	12	1 1/8	28.5	58	6	150	6.25	159	12.5	317.5	12	1 1/4	32	90
8	200	6.5	165	13.75	349.2	12	1 1/4	32	95	8	200	8.12	206	15.5	393.7	12	1 1/2	38	175
10	250	8.38	213	17	431.8	16	1 3/8	35	165	10	250	9.5	241	18.5	469.9	16	1 1/2	38	260
12	300	9	229	19.25	489.0	20	1 3/8	35	215	12	300	11.5	292	21	533.4	20	1 1/2	38	450
14	350	10.75	273	20.75	527	20	1 1/2	38	345	14	350	14	356	22	558.8	20	1 5/8	41	615
16	400	12	305	23.75	603.2	20	1 5/8	41	450	16	400	15.12	384	24.25	616	20	1 3/4	44.5	715
18	450	14.25	362	25.75	654	20	1 3/4	44.5	560	18	450	17.75	451	27	685.8	20	2	51	1150
20	500	14.5	368	28.5	723.9	24	1 3/4	44.5	650	20	500	17.75	451	29.5	749.3	20	2 1/8	54	1575
24	600	17.25	438	33	838.2	24	2	51	1000	24	600	19.5	495	35.5	901.7	20	2 5/8	66.5	1850

CLASS 1500(PN 260)										CLASS 2500(PN 420)									
SIZE		L		C		THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)		WT	SIZE		L		C		THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)		WT
NPS inch	DN mm	in	mm	in	mm		in	mm	Kg	NPS inch	DN mm	in	mm	in	mm		in	mm	Kg
2	50	2.75	70	6.5	165.1	8	1	25.5	15	2	50	2.75	70	6.75	171.4	8	1 1/8	28.5	20
2-1/2	65	3.25	83	7.5	190.5	8	1 1/8	28.5	20	2-1/2	65	3.25	83	7.75	196.8	8	1 1/4	32	30
3	80	3.25	83	8	203.2	8	1 1/4	32	25	3	80	3.38	86	9	228.6	8	1 3/8	35	40
4	100	4	102	9.5	241.3	8	1 3/8	35	45	4	100	4.12	105	10.75	273	8	1 5/8	41	70
5	125	4.33	110	11.5	292.1	8	1 5/8	41	75	5	125	4.33	110	12.75	323.8	8	1 7/8	48	135
6	150	6.25	159	12.5	317.5	12	1 1/2	38	100	6	150	6.25	159	14.5	368.3	8	2 1/8	54	185
8	200	8.12	206	15.5	393.7	12	1 3/4	45	240	8	200	8.12	206	17.25	438.2	12	2 1/8	54	380
10	250	9.75	248	19	482.6	12	2	51	300	10	250	10	254	21.25	539.8	12	2 5/8	66.5	490
12	300	12	305	22.5	571.5	16	2 1/8	54	540	12	300	12	305	24.38	619.3	12	2 7/8	73	750
14	350	14	356	25	635	16	2 3/8	61	935										
16	400	15.12	384	27.75	704.8	16	2 5/8	66.5	980										
18	450	18.44	468	30.5	774.7	16	2 7/8	73	1350										
20	500	21	533	32.75	831.8	16	3 1/8	80	1850										
24	600	22	559	39	990.6	16	3 5/8	92	2200										

DUAL PLATE DOUBLE FLANGE CHECK VALVE (API 594)

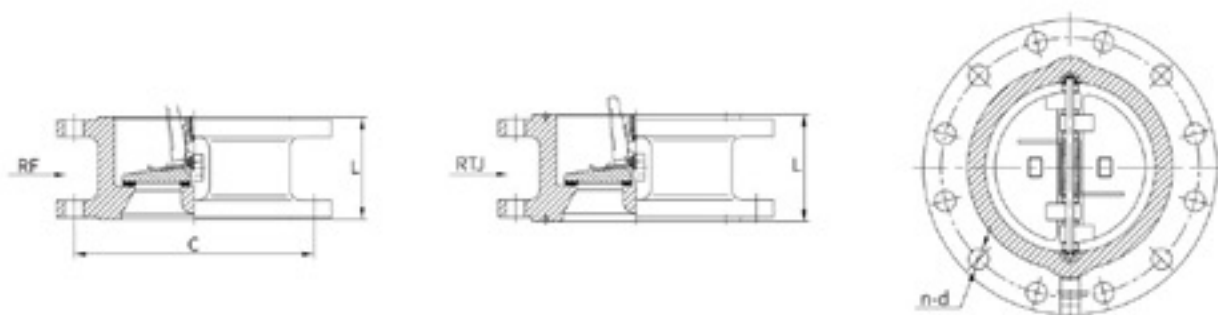


MAIN DIMENSION AND WEIGHT

CLASS 150(PN 20)										CLASS 150(PN 20) ASME B16.47 B											
SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (D)		WT	SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (D)		WT
NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg
2	50	4.5	114	4.75	120.6	4	3/4	19	5	28	700	12	305	31.31	795.3	40	7/8	22.5	930		
3	80	4.75	121	6	152.4	4	3/4	19	11	30	750	12	305	33.31	846.1	44	7/8	22.5	1050		
4	100	4.75	121	7.5	190.5	8	3/4	19	20	32	800	12	305	35.44	900.2	48	7/8	22.5	1400		
6	150	5.12	130	9.5	215.9	8	7/8	22.5	30	36	900	14.5	368	39.75	1009.6	44	1	25.5	1600		
8	200	5	127	11.75	269.7	8	7/8	22.5	41	42	1050	17	432	46.12	1171.4	48	1 1/8	28.5	2380		
10	250	5.75	146	14.25	323.8	12	1	25.5	60	48	1200	20.63	524	52.56	1335	44	1 1/4	32	3500		
12	300	7.12	181	17	381	12	1	25.5	95												
14	350	7.25	184	18.75	412.8	12	1 1/8	28.5	130												
16	400	7.5	191	21.25	469.9	16	1 1/8	28.5	185												
18	450	8	203	22.75	533.4	16	1 1/4	32	210												
20	500	8.62	219	25	584.2	20	1 1/4	32	283												
24	600	8.75	222	29.5	692.2	20	1 3/8	35	325												

CLASS 300(PN 50)										CLASS 300(PN 50) ASME B16.47 B											
SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (D)		WT	SIZE		L		C		THREADED HOLES QTY (N)		THREADED HOLES SIZE (D)		WT
NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg	NPS inch	DN mm	in	mm	in	mm	in	mm	in	mm	Kg
2	50	4.5	114	5	127	8	3/4	19	8.5	30	750	14.5	368	36.25	920.8	36	1 1/2	38	1480		
3	80	4.75	121	6.62	168.1	8	7/8	22.5	15	36	900	19	483	42.88	1089.2	32	1 3/4	44.5	1880		
4	100	4.75	121	7.88	200.2	8	7/8	22.5	24	42	1050	22.36	568	49	1244.6	36	1 7/8	48	3900		
6	150	5.12	130	10.62	269.7	12	7/8	22.5	42	48	1200	24.76	629	55.75	1416	40	2	51	4480		
8	200	6	152	13	330.2	12	1	25.5	65												
10	250	7	178	15.25	387.4	16	1 1/8	28.5	100												
12	300	7.12	181	17.75	450.8	16	1 1/4	32	135												
14	350	8.75	222	20.25	514.4	20	1 1/4	32	265												
16	400	9.12	232	22.5	571.5	20	1 3/8	35	375												
18	450	10.38	264	24.75	628.6	24	1 3/8	35	415												
20	500	11.5	292	27	685.8	24	1 3/8	35	575												
24	600	12.5	318	32	812.8	24	1 5/8	41	885												

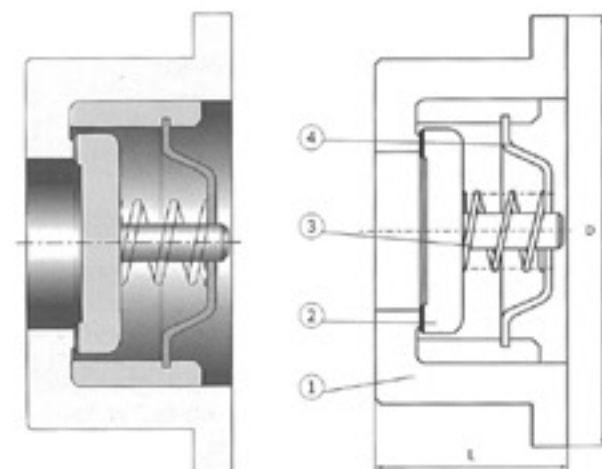
WAFER LIFT TYPE CHECK VALVE



MAIN DIMENSION AND WEIGHT

CLASS 600(PN 110)										CLASS 900(PN 150)									
SIZE	L	C	THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)	WT	SIZE	L	C	THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)	WT	SIZE	L	C	THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)	WT	SIZE	L
NPS inch	DN mm	in	mm	in	mm	NPS inch	DN mm	in	mm	in	mm	NPS inch	DN mm	in	mm	in	mm	NPS inch	DN mm
2	50	4.75	121	5	127	8	3/4	19	11	2	50	6.5	165	6.5	165.1	8	1	25.5	16
3	80	5.63	143	6.62	168.1	8	7/8	22.5	19	3	80	6.5	165	7.5	190.5	8	1	25.5	26
4	100	6.5	165	8.5	215.9	8	1	25.5	35	4	100	7.75	197	9.25	235	8	1 1/4	32	48
6	150	7.63	194	11.5	292.1	12	1 1/8	28.5	65	6	150	8.63	219	12.5	317.5	12	1 1/4	32	95
8	200	8.63	219	13.75	349.2	12	1 1/4	32	120	8	200	10	254	15.5	393.7	12	1 1/2	38	190
10	250	9.63	244	17	431.8	16	1 3/8	35	195	10	250	10.5	267	18.5	469.9	16	1 1/2	38	265
12	300	9	229	19.25	489	20	1 3/8	35	235	12	300	11.5	292	21	533.4	20	1 1/2	38	465
14	350	10.75	273	20.75	527	20	1 1/2	38	375	14	350	14	356	22	558.8	20	1 5/8	41	640
16	400	12	305	23.75	603.2	20	1 5/8	41	500	16	400	15.12	384	24.25	616	20	1 3/4	44.5	740
18	450	14.25	362	25.75	654	20	1 3/4	44.5	610	18	450	17.75	451	27	685.8	20	2	51	1200
20	500	14.5	368	28.5	723.9	24	1 3/4	44.5	680	20	500	17.75	451	29.5	749.3	20	2 1/8	54	1625
24	600	17.25	438	33	838.2	24	2	51	1150	24	600	19.5	495	35.5	901.7	20	2 5/8	66.5	1925

CLASS 1500(PN 260)										CLASS 2500(PN 420)									
SIZE	L	C	THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)	WT	SIZE	L	C	THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)	WT	SIZE	L	C	THREADED HOLES QTY (N)	THREADED HOLES SIZE (D)	WT	SIZE	L
NPS inch	DN mm	in	mm	in	mm	NPS inch	DN mm	in	mm	in	mm	NPS inch	DN mm	in	mm	in	mm	NPS inch	DN mm
2	50	2.75	70	6.5	165.1	8	1	25.5	22	2	50	8.87	225	6.75	171.4	8	1 1/8	28.5	32
3	80	3.25	83	8	203.2	8	1 1/4	32	35	3	80	11	280	9	228.6	8	1 3/8	35	45
4	100	4	102	9.5	241.3	8	1 3/8	35	60	4	100	13	330	10.75	273	8	1 5/8	41	80
6	150	6.25	159	12.5	317.5	12	1 1/2	38	110	6	150	17.87	454	14.5	368.3	8	2 1/8	54	200
8	200	8.12	206	15.5	393.7	12	1 3/4	45	255	8	200	19.25	489	17.25	438.2	12	2 1/8	54	400
10	250	9.75	248	19	482.6	12	2	51	320	10	250	24.5	622	21.25	539.8	12	2 5/8	66.5	510
12	300	12	305	22.5	571.5	16	2 1/8	54	560	12	300	27	686	24.38	619.3	12	2 7/8	73	800
14	350	14	356	25	635	16	2 3/8	61	950										
16	400	15.12	384	27.75	704.8	16	2 5/8	66.5	1050										
18	450	18.44	468	30.5	774.7	16	2 7/8	73	1420										
20	500	21	533	32.75	831.8	16	3 1/8	80	1950										
24	600	22	559	39	990.6	16	3 5/8	92	2300										



DESIGN AND MANUFACTURING STANDARDS

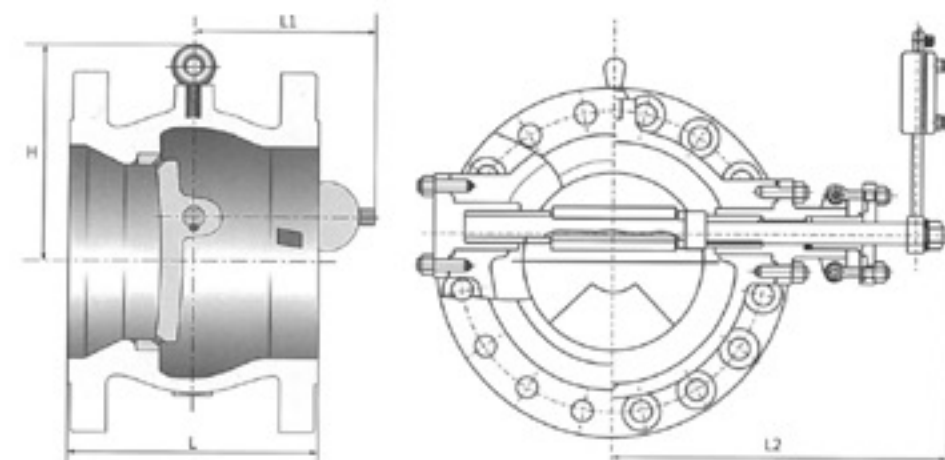
- Design and Manufacturing according to ASME B16.34, API 594, API 6D
- End Dimension as per ASME B16.5, ASME B16.47
- Face to face according to API 594, API 6D
- Inspection and test as per API 598

COMPONENTS DESCRIPTION	MATERIAL
1 Body	WCB, CF8, CF8M, FC3, CF3M
2 Disc	WCB, CF8, CF8M, FC3, CF3M
3 Spring	INCONEL, 17-7PH
4 Spring support seat	F6a, 304, 316, 304L, 316L, 17-7PH

MAIN DIMENSION AND WEIGHT

CLASS 150-900												
SIZE	Class 150			Class 300			Class 600			Class 900		
	L	W	WT	L	W	WT	L	W	WT	L	W	WT
inch	mm	mm	Kg	mm	mm	Kg	mm	mm	Kg	mm	mm	Kg
1/2	25	46	0.28	25	52	0.3	25	52	0.4	25	62	0.6
3/4	31.5	56	0.42	31.5	65	0.46	31.5	65	0.8	31.5	69	0.9
1	35.5	65	0.56	35.5	72	0.6	35.5	72	1.0	35.5	77	1.2
1-1/4	40	74	0.75	40	81	0.8	40	81	1.3	40	87	1.5
1-1/2	45	84	1.3	45	94	1.5	45	94	1.8	42	97	2.0
2	56	103	2.1	56	110	2.4	56	110	2.8	56	140	5.5
2-1/2	63	122	2.8	63	128	3.0	63	128	4	63	162	7.5
3	71	135	3.6	71	147	4.0	71	147	6	71	165	8
4	80	173	4.8	80	179	5.5	80	191	11	80	204	14
5	110	195	12	110	214	13	110	239	25	110	245	27
6	125	220	17	125	249	22	125	264	32	125	286	41
8	160	277	29	160	305	36	160	318	52	160	356	76

BUTTERFLY TYPE CHECK VALVE (TILT)



DESIGN AND MANUFACTURING STANDARDS

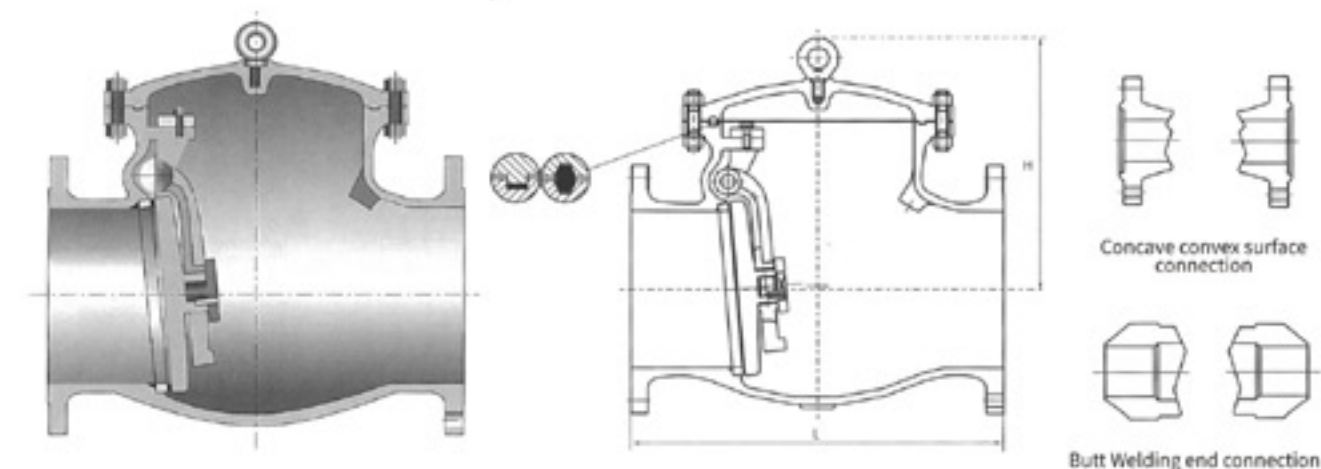
- Design and Manufacturing according to BS 1868, ASME B16.34
- End Dimension as per ASME B16.5
- Face to face according to FZV Standard
- Inspection and test as per API 598

MAIN DIMENSION AND WEIGHT

CLASS 150~600													
SIZE		Class 150				Class 300				Class 600			
		L	L1	L2	H	L	L1	L2	H	L	L1	L2	H
inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2	50	114		60	90	114		68	110	152		80	111
2-1/2	65	127		80	105	127		86	120	170		96	128
3	80	140		101	121	140		100	130	190		115	134
4	100	165		136	147	165		120	147	229		136	147
6	125	280	320	330	170	280	370	350	175	280	410	393	189
8	200	305	360	360	210	305	400	385	220	318	445	450	234
10	250	330	410	410	245	330	440	450	257	330	500	498	275
12	300	356	460	460	280	356	500	500	305	356	565	550	317
14	350	381	520	520	320	381	560	550	340	381	630	610	360
16	400	406	600	585	365	406	635	610	385	406	700	686	400
18	450	432	685	660	420	432	700	690	430	432	785	780	450
20	500	457	780	735	470	457	800	775	475	457	870	870	490
24	600	508	880	790	510	508	810	880	525	508	990	970	540

CLASS 900~1500										
SIZE		Class 900				Class 1500				
		L	L1	L2	H	L	L1	L2	H	
inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2	50	203		100	138	203		148	152	
2-1/2	65	224		120	158	224		171	180	
3	80	241		145	174	241		208	205	
4	100	260		175	190	279		238	235	
6	125	323	430	430	220	343		460	260	
8	200	450	460	490	260	470	460	530	300	
10	250	500	520	548	300	521	500	588	340	
12	300	545	600	585	335	585	570	625	385	
14	350	608	690	675	386	648	660	705	440	
16	400	670	780	730	448	711	765	770	490	
18	450	725	895	800	496	775	980	840	545	
20	500	776	985	900	554	826	1115	920	595	
24	600	877	1045	1115	596	927	1246	1145	650	

EN/UK STANDARD CAST STEEL SWING CHECK VALVE



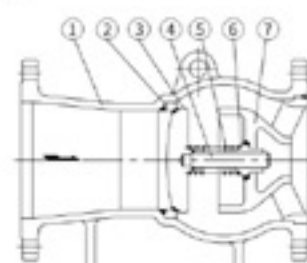
MAIN DIMENSION AND WEIGHT

PN16 PN25					PN40				PN64 PN100					
SIZE	L	H	WT (PN16)	WT (PN25)	SIZE	L	H	WT	SIZE	L	H (PN64)	H (PN100)	WT (PN64)	WT (PN100)
mm	mm	mm	Kg	Kg	mm	mm	mm	Kg	mm	mm	mm	mm	Kg	Kg
50	230	165	22	22	50	230	180	27	50	300	190	190	32	43
65	290	180	26	30	65	290	195	33	65	340	207	213	45	48
80	310	190	33	35	80	310	205	37	80	380	220	240	48	72
100	350	208	39	52	100	350	220	56	100	430	260	270	72	108
125	400	230	57	73	125	400	248	85	125	500	318	316	108	130
150	480	270	80	103	150	480	270	110	150	550	297	365	155	217
200	600	95	135		200	533	350	140	200	650	357	420	218	341
250	730	348	175	196	250	622	410	210	250	775	405	480	341	472
300	850	390	260	285	300	711	430	392	300	900	465	510	472	620
350	980	430	360	388	350	838	518	400	350	1025	514	550	627	880
400	1100	468	496	520	400	864	560	560	400	1150	568	600	882	1105
500	1250	525	588	641	500	1016	618	650						

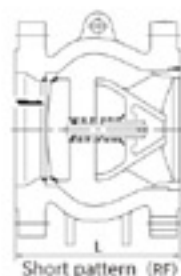
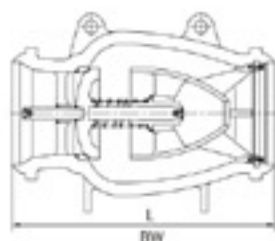
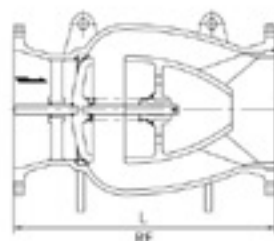
AXIAL FLOW CHECK VALVE

DESIGN AND MANUFACTURING STANDARDS

- Design and Manufacturing according to ASME B 16.34, GB 12236, GB 12224
- Face to face according to ASME B16.10, API 6D, GB 12221
- End Dimension as per ASME B16.5, ASME B16.25, ASME B16.47, GB/T 9113
- Testing and Acceptance criteria ISO 5208, API 598, BS 6755, GB/T 26480, GB/T 13927, API 6D



- 1 Body
- 2 Seat
- 3 Disc
- 4 Stem
- 5 Spring
- 6 Guide seat
- 7 Guide bushing



MAIN DIMENSION AND WEIGHT

CLASS 150						CLASS 300						CLASS 600					
SIZE		L		WT		L		WT		L		WT		L		WT	
NPS	DN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN
inch	mm	RF/BW	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2	50	203	216	120	9	267	254	120	10.5	292	295	120	17				
2-1/2	65	216	229	120	12	292	308	150	16	330	333	150	23				
3	80	241	254	120	15	318	333	150	22	356	359	150	29				
4	100	292	305	140	26	356	371	170	39	432	435	170	70				
6	150	356	368	210	43	445	460	210	75	559	562	210	145				
8	200	495	508	280	90	533	549	280	145	660	664	280	205				
10	250	622	635	350	155	622	638	350	235	787	791	350	320				
12	300	699	711	350	285	711	727	350	330	838	841	375	520				
14	350	787	800	405	410	838	854	405	465	889	892	440	635				
16	400	864	876	455	485	864	879	455	570	991	994	500	960				
18	450	978	991	520	605	978	994	520	820	1092	1095	565	1240				
20	500	978	991	570	675	1016	1035	570	1050	1194	1200	625	1550				
22	550	1067	1080	570	1100	1118	1140	570	1350	1295	1305	685	1710				
24	600	1295	1308	685	1235	1346	1368	685	1700	1397	1407	745	2350				
26	650	1295		745	1410	1346	1372	745	1950	1448	1461	810	2850				
28	700	1448		800	1660	1499	1524	800	2275	1600	1613	870	3300				
30	750	1524		855	1920	1594	1619	855	2500	1651	1664	930	3600				
32	800	1727		910	2530	1651		910	2940	1778		990	3920				
36	900	1956		1030	3200	2083	2111	1030	4150	2083	2099	1120	5400				
38	950	1969		1135	3520	2166		1135	4530	2185		1175					
40	1000	1981		1135	3940	2250		1135	4920	2286		1240					
42	1050	2032		1195	4200	2312		1195	5350	2438		1300					
44	1100	2058			4950	2388			6200	2489		1485					
48	1200	2083		1365	5500	2413		1365	7700	2540		1485					

CLASS 900						CLASS 1500						CLASS 2500					
SIZE		L		WT		L		WT		L		WT		L		WT	
NPS	DN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN	LONG PATTERN	SHORT PATTERN
inch	mm	RF/BW	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2	50	368	371	170	25	368	371	170	31	451	454	210	42				
2-1/2	65	419	422	190	45	419	422	190	65	508	514	240	185				
3	80	381	384	190	85	470	473	220	115	578	584	270	250				
4	100	457	460	210	105	546	549	240	135	673	683	310	480				
6	150	610	613	230	190	705	711	310	310	914	927	430	1050				
8	200	737	740	280	405	832	841	350	580	1022	1038	460	1650				
10	250	838	841	350	510	991	1000	400	1100	1270	1292	580	2850				
12	300	965	968	430	765	1130	1146	450	1600	1422	1445	580	4100				
14	350	1029	1038	400	1050	1257	1276	490	2200								
16	400	1130	1140	470	1450	1384	1407	530	2600								
18	450	1219	1232	530	1785	1537	1559	580	3600								
20	500	1321	1334	595	2800	1664	1686	655	4600								
24	600	1549	1568	665	4000	1943	1972	750	7000								

Government & International Certifications

International certifications and awards verify the achievements of FZV and the dedication of our staff towards achieving our future goals.

- 2005 Certified API 6A
- 2006 Certified API 600
- 2000 Certified API 6D
- 2003 Certified ISO 14001
- 2003 Certified DHSAS 18001
- 2000 Certified ISO 9001
- 2002 Certified CE/PED (B+C1)
- 2009 Certified CE/PED (H)
- 2002 Certified CE/PED (ATEX)
- 2006 Certified PDO
- 2007 Certified ARAMCO
- 2006 Certified NIGC, NIOEC
- 2005 Certified TS
- 2006 Certified BS 6755
- 2006 Certified API 6FA
- 2004 Certified API 607

