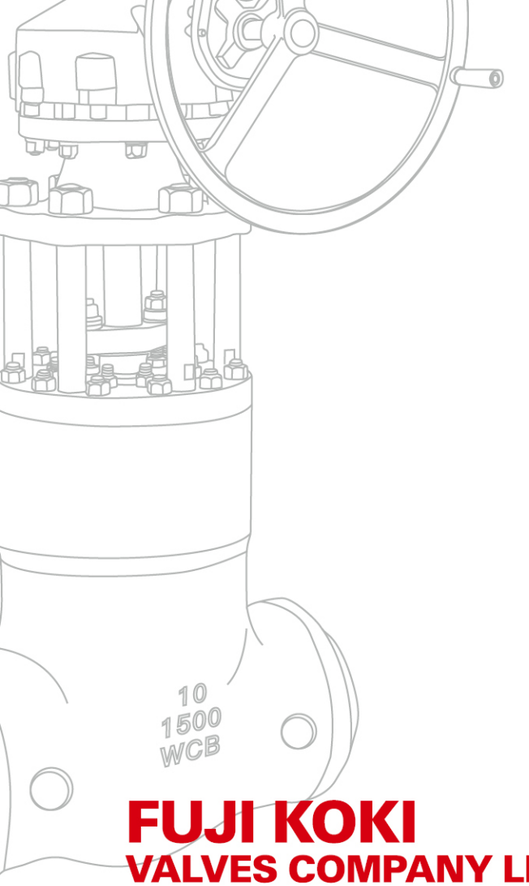


FUJI KOKI
VALVES COMPANY LIMITED

Address: No.2 Naka Big, 3F, 3-4, Konfunecho-Nihonbashi
City: Chuo-ku
State: Tokyo
Postcode: 103-0024
Country: Japan
Website: www.fkv.jp

FUJI KOKI VALVE

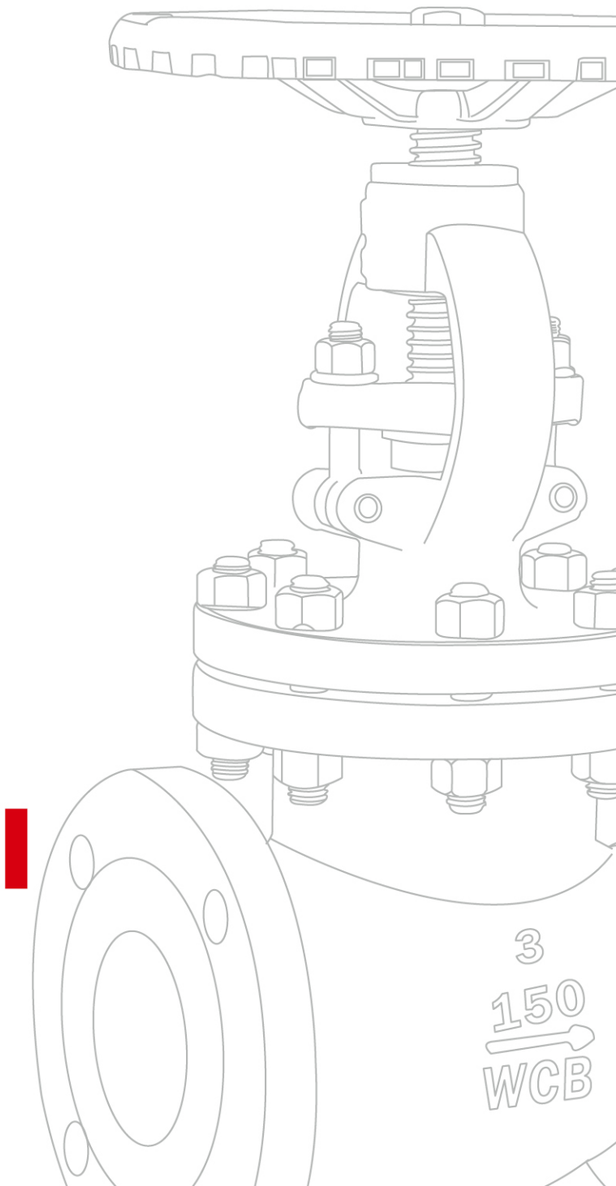
www.fkv.jp

FKV®

GENERAL VALVE SERIES

- GA GATE VALVE SERIES
- GL GLOBE VALVE SERIES
- CH CHECK VALVE SERIES
- CV CRYOGENIC VALVE SERIES

FUJI KOKI VALVES COMPANY LIMITED



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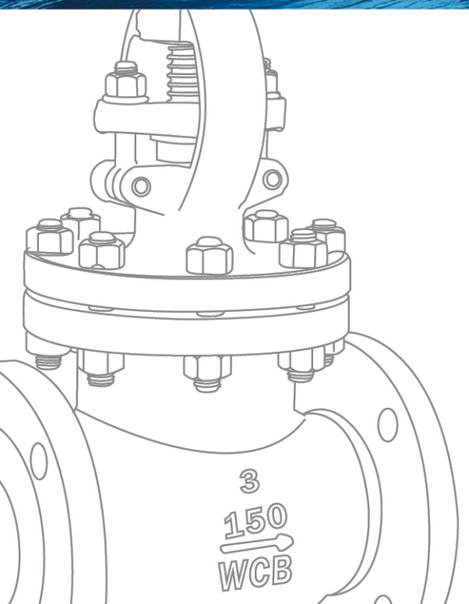

FUJI KOKI VALVE

GATE VALVE
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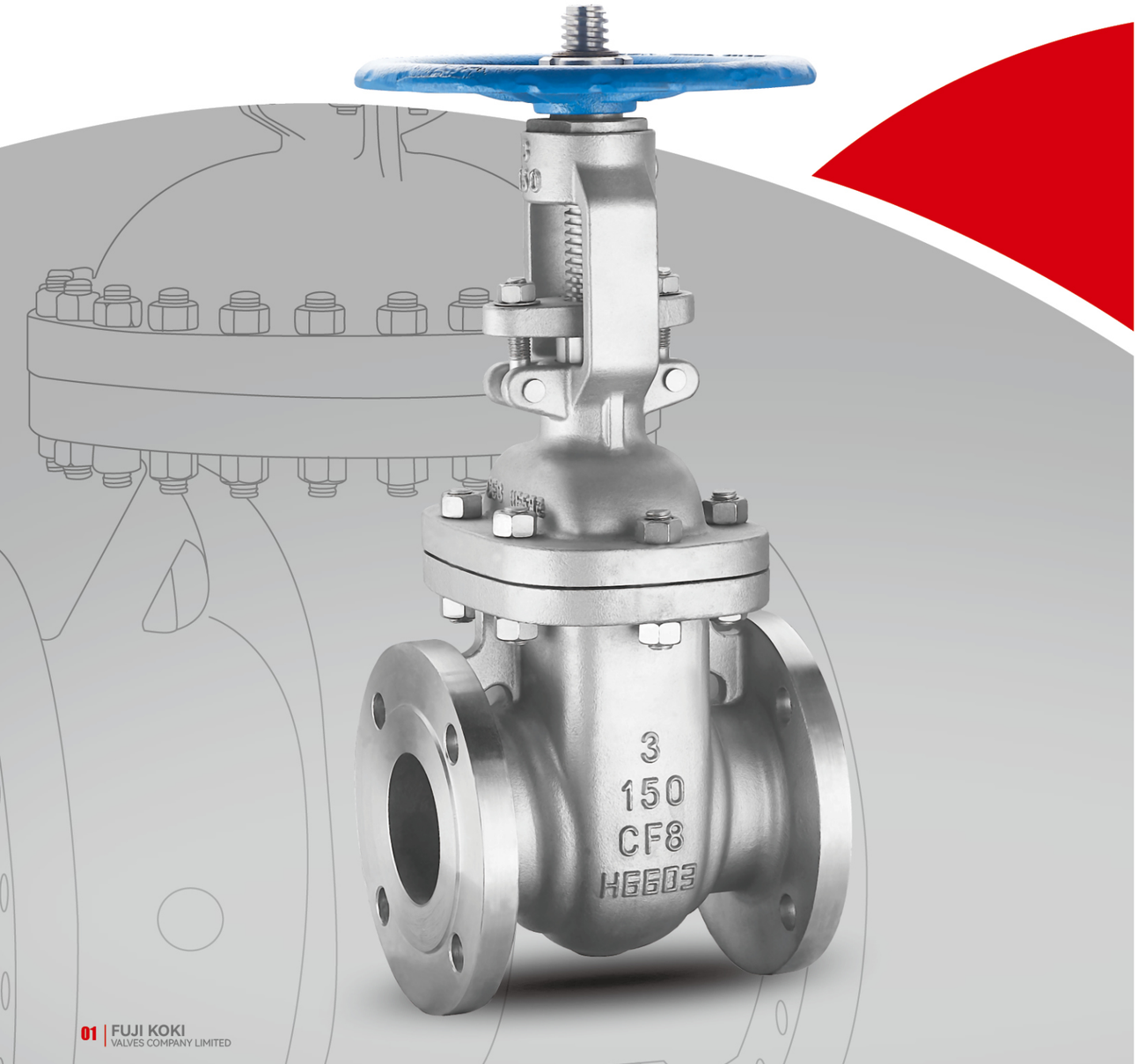

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Cast Steel Gate Valve Structure Feature

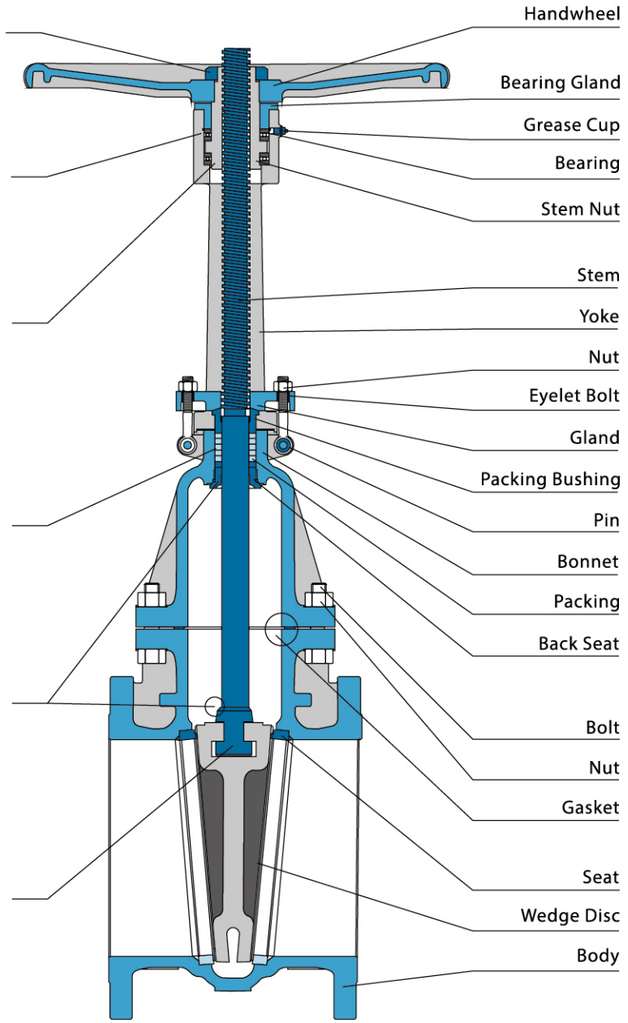
The design of thrust bearing makes the valve open operation more portable and flexible.

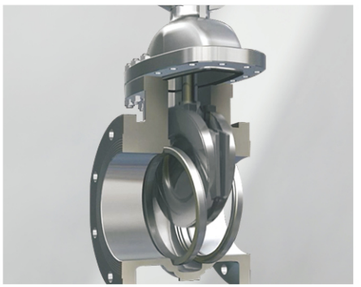
Top–mounted stem nut can prevent the stem and disc from falling off when the valve is at open position or remove the hand wheel.

Packing uses the flexible graphite have dependable sealing performance. We also can provide the packing spacer and greasing structure if customer have this requirement.

The valve upper seal design can ensure the reliable performance of packing and sealing. (Replacement of packing under pressure is not recommended)

Lift type stem, with stem and disc connected by T–slot,and stem T head integrally forged,that will ensure the sufficient strength of joint.





Material List for Cast Steel Gate Valve With Rising Stem(OS&Y)

No.	Part Name	Carbon Steel	Stainless Steel	Duplex Stainless Steel	Low Temperature Steel
1	Body	ASTM A216 GR WCB	ASTM A351 GR CF8	ASTM A890 4A	ASTM A352 GR LCB
2	Wedge Disc	ASTM A216 GR WCB	ASTM A351 GR CF8	ASTM A890 4A	ASTM A352 GR LCB
3	Seat	STL	/	ASTM A182 F51	ASTM A182 GR F304
4	Gasket	Flexible Graphite+316			
5	Hexagon Nut	ASTM A194 GR 2H	ASTM A194 GR B8M	UNS S32760	ASTM A194 GR B8
6	Bolt	ASTM A193 GR B7	ASTM A193 GR 8M	UNS S32760	ASTM A193 GR 8
7	Back Seat	ASTM A182 GR F6a	ASTM A182 GR F316	UNS S31803	ASTM A182 GR F304
8	Packing	Flexible Graphite			
9	Bonnet	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 4A	ASTM A352 GR LCB
10	Pin	ASTM A194 GR 2H	ASTM A276 TYPE 316	UNS S31803	ASTM A276 TYPE 304
11	Packing Bushing	ASTM A182 GR F6a	ASTM A182 GR F316	UNS S31803	ASTM A182 GR F304
12	Gland	ASTM A216 GR WCB	ASTM A351 GR CF8M	UNS S31803	ASTM A352 GR LCB
13	Eyelet Bolt	ASTM A193 GR B7	ASTM A193 GR B8M	ASTM A193 GR B7	ASTM A194 GR B8
14	Nut	ASTM A194 GR 2H	ASTM A194 GR 8M	ASTM A194 GR 2H	ASTM A194 GR 8
15	Yoke	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 4A	ASTM A352 GR LCB
16	Stem	ASTM A276 TYPE 410	ASTM A276 TYPE 316	UNS S31803	ASTM A276 TYPE 304
17	Stem Nut	ASTM B148 UNS C95800	ASTM B148 UNS C95800	ASTM B148 UNS C95800	ASTM B148 UNS C95800
18	Bearing	/			
19	Grease Cup	Copper Alloy			
20	Stem Nut Retainer	ASTM A108 GR 1020	ASTM A182 GR F304	ASTM A108 GR 1020	ASTM A182 GR F304
21	Handwheel	ASTM A197	ASTM A197	ASTM A197	ASTM A197
22	Handwheel Nut	ASTM A108 GR 1020	ASTM A182 GR F304	ASTM A108 GR 1020	ASTM A182 GR F304

Remark: Select different material for different working temperature and medium.

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GATE VALVE SERIES
Cast Steel Gate Valve
FKV®

Torque Table

The torque values listed in the following table have not been measured in practice but only serve as reference for selecting the actuator.

The medium characteristics, internal parts and valve opening frequency remain to be taken into account as extra factors.

N.m

Specification (in)	Pressure(Class)								
	Bolted Bonnet					Pressure Sealed Bonnet			
	150	300	600	900	1500	600	900	1500	2500
1½	12	15	20	24	32	/	/	/	/
2	13	16	23	39	54	/	/	/	/
2½	13	18	/	56	76	/	/	/	/
3	15	21	50	64	108	29	40	69	110
4	27	42	68	118	167	50	71	111	194
6	36	86	183	243	426	129	174	307	381
8	63	128	270	427	801	232	319	537	727
10	84	215	479	783	1268	379	530	948	1398
12	131	289	650	1163	2078	550	740	1409	1980
14	151	423	988	1331	2392	/	1008	1823	2593
16	235	537	1243	/	/	/	1400	2516	3952
18	285	649	1512	/	/	/	1696	3767	5735
20	341	1009	2185	/	/	/	2302	5283	7804
24	602	1451	3053	/	/	/	4224	8228	11798
26	/	/	/	/	/	/	/	/	/
28	/	/	/	/	/	/	/	/	/
30	1079	3140	5452	/	/	/	/	/	/
32	/	/	/	/	/	/	/	/	/
36	1497	4293	7675	/	/	/	/	/	/

Flow Coefficient Table

The flow coefficient of valve is an index for measure of the valve flow capacity. The larger its flow coefficient value is, the smaller pressure loss it have when the fluid flow through it. The following is the flow coefficient table for API wedge gate valve. CV stands for the US gallons of +60 (16℃) water per minute flowing through the valve with a pressure drop of 1 lb/inch^2.

Cv value

Specification (in)	Pressure(Class)								
	Bolted Bonnet					Pressure Sealed Bonnet			
	150	300	600	900	1500	600	900	1500	2500
3	710	710	710	650	600	710	450	415	275
4	1300	1300	1300	1200	1070	1300	850	730	460
6	3100	2110	3110	2850	2500	3110	1925	1675	1100
8	5720	5720	5500	5025	4370	5500	3575	2925	1970
10	8940	8940	8485	7850	6850	8485	5250	4550	3130
12	13350	13350	12850	11500	9980	12850	7550	6570	4535
14	16275	16275	15370	13900	12000	15370	9150	7890	5500
16	21560	21560	20170	18150	15675	20170	11950	10325	7210
18	28720	27890	26200	23910	20640	26200	15575	13425	9415
20	35760	34840	32100	39550	25880	32100	27675	16820	11450
24	52165	51050	46750	42570	37175	46750	/	24150	16575
26	63500	62011	56300	/	/	56300	/	/	/
28	74800	73046	65900	/	/	65900	/	/	/
30	86235	84765	75520	/	/	75520	/	/	/
32	103000	100580	85180	/	/	85180	/	/	/
36	129500	125825	114250	/	/	114250	/	/	/
40	175860	171740	156127	/	/	/	/	/	/
42	223300	217000	197272	/	/	/	/	/	/
48	335500	326000	296300	/	/	/	/	/	/

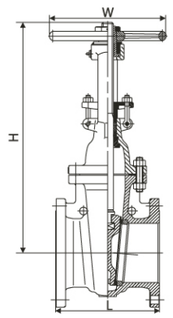
Cast Steel Gate Valve Product Line

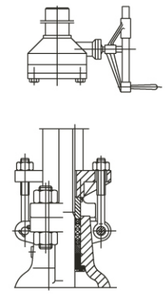
Specification		Pressure(Class)															
		Bolted Bonnet									Pressure Seal Bonnet						
DN	NPS	Hand Operated					Gear Operated				Hand Operated				Gear Operated		
		150	300	600	900	1500	300	600	900	1500	600	900	1500	2500	600	900	1500	2500
40	1½	*	*	*	*	*												
50	2	*	*	*	*	*												
65	2½	*	*	*	*	*												
80	3	*	*	*	*	*					*	*	*	*				
100	4	*	*	*	*	*					*	*	*	*				
125	5	*	*	*	*	*					*	*	*	*				
150	6	*	*	*	*	*					*	*	*	*				
200	8	*	*	*	*	*					*	*	*					*
250	10	*	*	*	*	*					*	*	*					*
300	12	*	*	*	*					*	*	*					*	*
350	14	*	*	*	*					*	*	*					*	*
400	16	*	*	*					*	*	*					*	*	*
450	18	*	*	*					*	*	*					*	*	*
500	20	*	*	*					*	*	*					*	*	*
600	24	*	*					*	*	*					*	*	*	*
650	26	*	*					*							*	*	*	*
700	28	*	*					*							*	*	*	*
750	30	*	*					*							*	*	*	*
800	32	*	*					*							*	*	*	*
900	36	*	*					*							*	*	*	*
1000	40	*					*	*										
1050	42	*					*	*										
1200	48	*					*	*										

Remark: Any needs not showed in the chart, please contact our sales department.

Technical Specification

Design Standard		API600, API 603					
Pressure and Temperature Rating		ASME B16.34					
Face-Face		ASME B16.10					
Flange Ends		ASME B16.5, ASME B16.47					
Butt Welded End		ASME B16.25					
Inspection & Test		API 598					
Test Pressure (MPa)	Norminal Pressure(Class)	150	300	600	900	1500	2500
	Shell Test	2.93	7.55	15.0	22.5	37.5	63.0
	High Pressure Seal Test	2.07	5.52	11.03	16.5	27.5	46.0
	Low Pressure Seal Test	0.6					

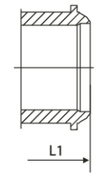




For 14" and above valve yoke

Gear box configuration

Optional	Standard
8"–24"	26" And above sizes

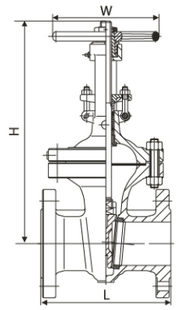


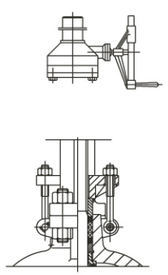
Butt welded end

Main Dimensions & Weight

Class 150

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L(RF)	in	7	7.5	8	9	10	10.5	11.5	13	14	15	16	17	18	20	22	24	24	26	28	30	31	34
	mm	178	191	203	229	254	267	292	330	356	381	406	432	457	508	559	610	610	660	711	762	787	864
L1(BW)	in	8.5	9.5	11.12	12	15	15.88	16.5	18	19.75	22.5	24	26	28	32	34	36	36	38	40	42	43	46
	mm	216	241	283	305	381	403	419	457	502	572	610	660	711	813	864	914	914	965	1016	1067	1092	1168
H	in	8	8	10	12	12	12	14	16	18	20	22	24	27	30	24	24	24	24	24	24	32	32
	mm	200	200	250	300	300	300	350	400	450	500	550	600	680	760	610	610	610	610	610	610	610	610
H	in	15.2	17.1	18.9	23	26.8	30.1	37.6	45.2	53.2	59.4	67	74.5	83.4	98.4	110	117	124	129	146	157	190	233
	mm	386.5	434.5	480.5	584.5	681	765	956	1149	1350.5	1508	1703	1892	2119	2500	2806	2960	3148	3281	3721	3980	4820	5920
WT(RF)	Kg	19	26	35	49	64	81	127	204	291	400	486	610	788	1144	1570	1900	2540	2958	3380	4815	5300	7110
WT(BW)	Kg	15	18	26	41	58	69	108	156	248	365	482	587	752	1178	1521	1838	2261	2490	3310	4840	5275	7050

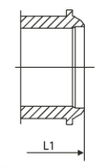




For 12" and above valve yoke

Gear box configuration

Optional	Standard
8"–16"	18" And above sizes



Butt welded end

Main Dimensions & Weight

Class 300

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	8.5	9.5	11.12	12	15	15.88	16.5	18	19.75	30	33	36	39	45	49	53	55	60	68	76	78	88
	mm	216	241	283	305	381	403	419	457	502	762	838	914	991	1143	1245	1346	1397	1524	1727	1930	1981	2235
W	in	8	8	10	10	12	14	16	18	20	22	24	24	24	24	24	24	24	32	40	40	40	40
	mm	200	201	250	250	300	350	400	450	500	550	600	610	610	610	610	610	610	810	1000	1000	1000	1000
H	in	16.1	7.8	509	24.1	26.4	31.7	39.4	47.6	55.7	62.3	67.9	77.1	86.4	102.3	117.6	122.8	126.2	145.4	161.6	179	186.6	211.5
	mm	410	453	52	612	670	805	1000	1209	1416	1582	1725	1959	2194	2598	2986	3120	3205	3692	4104	4547	4739	5373
WT(RF)	Kg	26	35	52	75	102	147	235	350	472	683	950	1145	1634	2660	3090	3312	3597	4850	6850	8460	9500	12400
WT(BW)	Kg	17	26	20	74	102	113	164	344	485	565	805	1058	1412	2304	2540	2725	3057	4122	4990	6160	6800	9000

GATE VALVE SERIES

Cast Steel Gate Valve

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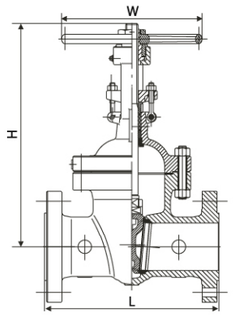
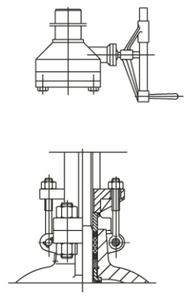
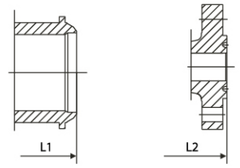




For 10" and above valve yoke

Gear box configuration

Optional	Standard
8"–12"	14" And above sizes

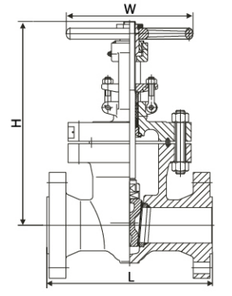


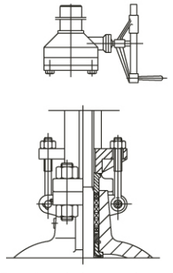
Butt welded end RTJ End

Main Dimensions & Weight

Class 600

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	11.5	13	14	17	20	22	26	31	33	35	39	43	47	55	57	61	65	70	82	90	96	100
	mm	292	330	356	432	508	559	660	787	838	889	991	1092	1194	1397	1448	1549	1651	1778	2082	2286	2438	2540
L2(RTJ)	in	11.62	13.12	14.12	17.12	20.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	57.5	61.5	65.5	70.6	82.6	-	-	-
	mm	295	333	359	435	511	562	663	790	841	892	994	1095	1200	1407	1461	1562	1664	1794	2098	-	-	-
W	in	8	10	10	12	16	18	20	24	27	24	24	24	24	24	32	40	40	40	40	42	42	42
	mm	200	250	250	300	400	450	500	600	680	610	610	610	610	610	810	1000	1000	1000	1000	1200	1200	1200
H	in	16.5	18.7	20.4	25.4	30.3	33	40.3	48.4	57.1	62	70.7	76.02	86.9	102	124	133	140	150	168	184	194	231
	mm	418	476	518	646	770	839	1024	1229	1450	1574	1797	1931	2207	2582	3150	3362	3549	3811	4260	4670	4921	5876
WT(RF)	Kg	39	52	68	120	170	273	402	610	905	1245	1530	2030	2735	3620	5220	6050	6945	8312	10000	14300	16460	22900
WT(BW)	Kg	28	42	55	84	125	204	337	548	905	974	1345	1730	2415	3017	4295	4980	5710	6834	8220	11755	13530	18824

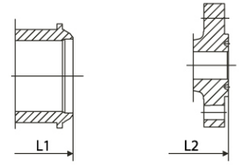




For 6" and above valve yoke

Gear box configuration

Optional	Standard
4"–6"	8" And above sizes



Butt welded end RTJ End

Main Dimensions & Weight

Class 900

NPS	in	2"	2½"	3"	4"	5"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"
DN	mm	50	65	80	100	125	200	250	300	350	400	450	500	600	650	700	750	800	900
L-L1 (RF-BW)	in	14.5	16.5	15	18	24	29	33	38	40.5	44.5	48	52	61	65	70	74	78	87
	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1664	1778	1892	2004	2232
L2(RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.50	52.48	61.73	-	-	-	-	-
	mm	371	422	384	460	613	740	841	968	1038	1140	1232	1333	1568	-	-	-	-	-
W	in	10	10	12	14	20	24	24	24	24	24	32	40	40	40	40	47	47	47
	mm	250	250	300	350	500	600	610	610	610	610	810	1000	1000	1000	1000	1200	1200	1200
H	in	19.6	21.5	22.6	26.7	35.4	43.4	53	59.8	74.9	80.7	87	95	108.4	111.5	111.5	118	121.4	128
	mm	498	547	573	678	900	1103	1345	1520	1902	2051	2212	2417	2750	2833	2916	3000	3083	3250
WT(RF)	Kg	74	92	101	172	335	640	1100	1360	2250	2850	3870	4860	6100	7300	7600	9800	11950	15000
WT(BW)	Kg	54	65	70	110	258	498	810	1228	2009	2563	3300	4050	6120	5500	6900	9000	11000	13500

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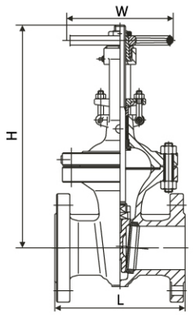
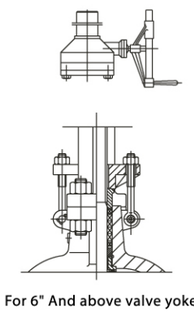
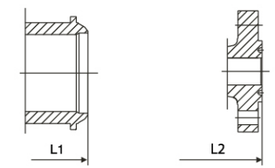




For 6" And above valve yoke

Gear box configuration

Optional	Standard
4"–6"	8" And above sizes

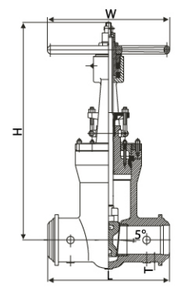


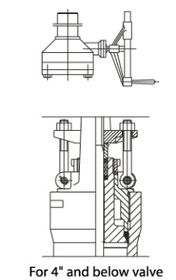
Butt welded end RTJ End

Main Dimensions & Weight

Class 1500

NPS	in	2"	2½"	3"	4"	5"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"
DN	mm	50	65	80	100	125	200	250	300	350	400	450	500	600	650	700	750
L-L1 (RF-BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5	60.5	65.5	76.5	82	87.5	93
	mm	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	1943	2083	2222.5	2362
L2(RTJ)	in	14.62	16.62	18.62	21.62	28.00	33.13	39.38	45.12	50.25	55.38	61.4	66.4	77.6	-	-	-
	mm	371	422	473	549	711	842	1000	1146	1276	1407	1559	1686	1972	-	-	-
W	in	10	12	14	20	24	18	18	24	24	24	40	40	40	47	47	47
	mm	250	300	350	500	600	458	458	610	610	610	1000	1000	1000	1200	1200	1200
H	in	19.2	22.5	23.7	27.6	38.7	45.1	54	64.3	70.8	77.3	111	121	140.5	151	158	172
	mm	487	572	603	700	984	1146	1371	1633	1798	1963	2812	3078	3570	3836	4012	4368
WT(RF)	Kg	74	131	165	248	510	1040	1910	2685	4100	6200	8100	11130	13300	16500	18700	20900
WT(BW)	Kg	54	105	129	197	358	761	1640	2755	3200	5300	7100	10100	12900	15700	17500	19300

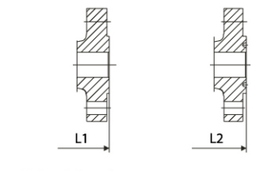




For 4" and below valve

Gear box configuration

Optional	Standard
4"–6"	14" And above sizes



Raised–face flange RTJ End

Main Dimensions & Weight

Class 2500

NPS	in	2"	2½"	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(BW)	in	11	13	14.5	18	24	30	36	41	44	49	55	61	68
	mm	279	330	368	457	610	762	914	1041	1118	1245	1397	1549	1727
L1(RF)	in	17.75	20	22.75	26.5	36	40.25	50	56	-	-	-	-	-
	mm	451	508	578	673	914	1022	1270	1422	-	-	-	-	-
L2(RTJ)	in	17.88	20.25	23	26.88	36.5	40.88	50.88	56.88	-	-	-	-	-
	mm	454	514	584	683	927	1038	1292	1445	-	-	-	-	-
W	in	14	18	18	20	24	24	24	24	24	24	24	31.5	31.5	39.38
	mm	350	150	450	500	610	610	610	610	610	610	800	800	1000
H	in	23	30	30	34	44	55	69	74	94.13	97.25	116.13	128.75	153.63
	mm	594	753	756	870	1129	1389	1748	1873	2291	2470	2950	3270	3902
WT(RF)	kg	89	142	173	346	851	1386	2493	3091	-	-	-	-	-
WT(BW)	kg	53	95	100	200	488	850	1680	2330	3400	4200	5000	6170	8880

Application Specification

Design and Manufacture: ANSI B16.34;API 602;API 600;

Connecting Ends :

1)Socked Welded Dimension: ANSI B16.11

2)Screw Ends Dimension: ANSI B1.20.1;BS21;ISO7/1;

Testing and Inspection: API598;

Structure Features: B.B;OS&Y Or W.B;OS&Y Material in accordance with AISI/ASTM;

Main Material:A105,F5,F11,F22,304,304L ,316,316L,LF2,etc.

Part Material List

No.	Parts	Material		
		Standard Material	High Temperature Material	Stainless Steel Material
1	Body	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
2	Bonnet	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
3	Wedge Disc	ASTM A105/ER410 OVERLAY	ASTM A182-F6a	ASTM A182-F304/F316/STL. OVERLAY
4	Stem Nut	ASTM A276-420	ASTM A276-420	ASTM A276-420
5	Bushing Flange	ASTM A105	ASTM A216-WCB	ASTM A351-CF8
6	Handwheel	Nodular Cast Iron/ Ductile Iron (DI)	Nodular Cast Iron/ Ductile Iron (DI)	Nodular Cast Iron/ Ductile Iron (DI)
7	Seat	ASTM A105/STL.OVERLAY	ASTM A276-410/STL.OVERLAY	ASTM A182-F304/F316
8	Stem	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F304/F316
9	Bushing	ASTM A276-420	ASTM A276-420	ASTM A276-304/316
10	Gasket	304 Spiral Wound Gasket	304 Spiral Wound Gasket	304/316 Spiral Wound Gasket
11	Middle Packing	Graphite	Graphite	Graphite
12	End Packing	Carbon Fiber(CF)	Carbon Fiber(CF)	Carbon Fiber(CF)
13	Handwheel Nut	Carbon Steel	Carbon Steel	ASTM A276-304
14	Gasket	ASTM A240-304	ASTM A276-304	ASTM A276-304
15	Bolt	ASTM A240-304	ASTM A193-B16	ASTM A193-B8
16	Eyelet Bolt	ASTM A240-304	ASTM A193-B8	ASTM A193-B8
17	Nut	ASTM A240-304	ASTM A194-8	ASTM A194-8
18	Pin	ASTM A240-304	ASTM A276-304	ASTM A276-304
19	Nameplate	ASTM A240-304	ASTM A240-304	ASTM A240-304

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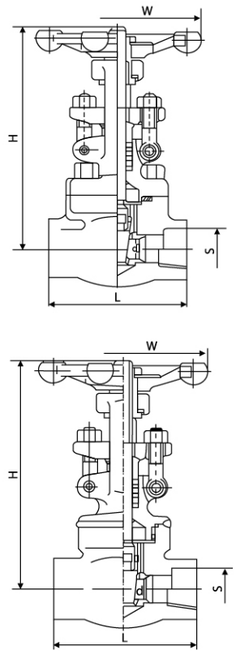
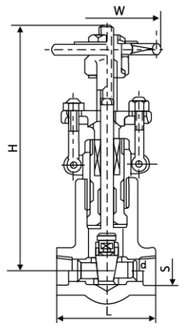
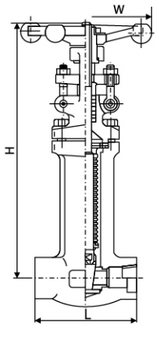






Main Dimensions & Weight

- Forged steel gate valve — Class150-800

Specification (DN)		S	L		W		H (Height)		Weight (kg)	
in	mm	ANSI	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B
1/4	8	14.2	79	79	100	100	166	166	2.2	2.2
3/8	10	17.6	79	79	100	100	166	166	2.2	2.4
1/2	15	21.8	79	92	100	100	166	169	2.2	2.5
3/4	20	27.1	92	111	100	125	169	193	2.2	4.5
1	25	33.8	111	120	125	160	193	236	4.7	5.9
1¼	32	42.6	120	120	160	160	236	246	5.9	7.2
1½	40	48.7	120	140	160	180	246	283	6.9	10.7
2	50	61.1	140	178	180	200	283	330	11.1	15.2

- Forged steel gate valve — Class900-1500

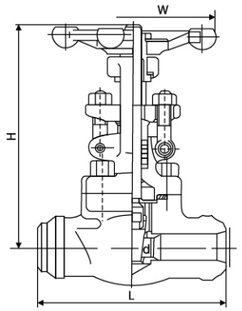
Specification(DN)		S	L	W	H(Height)	Weight (kg)
in	mm	ANSI				
1/4	8	14.2	79	100	166	2.19
3/8	10	17.6	79	100	166	2.17
1/2	15	21.8	92	100	169	2.2
3/4	20	27.1	111	125	193	4.3
1	25	33.8	120	160	230	5.9
1¼	32	42.6	120	160	246	6.9
1½	40	48.7	140	180	283	11.1
2	50	61.1	178	200	330	15.2

- Forged steel self-sealing gate valve — Class 900/1500/2500

Specification(DN)		S	L		W	H(Height)	Weight (kg)	
in	mm	ANSI	900/1500 Class	2500Class			900/1500 Class	2500Class
1/2	15	21.8	140	186	125	321	11.5	12.3
3/4	20	27.1	140	186	125	321	10.8	11.6
1	25	33.8	140	186	160	321	10.5	10.8
1¼	32	42.6	178	232	160	380	19.6	26.0
1½	40	48.7	178	232	180	414	21.0	28.4
2	50	61.1	216	279	200	502	55.4	60.0

- Forged steel bellows gate valve — Class 150-800

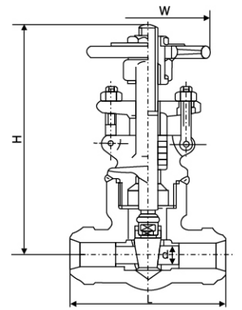
Specification(DN)		S	L	W	H(Height)		Weight (kg)	
in	mm	ANSI			B.B	W.B	B.B	W.B
1/2	15	21.8	79	100	236	249	2.9	3.0
3/4	20	27.1	92	100	258	277	3.2	3.3
1	25	33.8	111	125	308	332	5.9	5.2
1¼	32	42.6	120	160	350	370	8.7	7.2
1½	40	48.7	120	160	406	433	10.2	8.9
2	50	61.1	140	180	472	514	16	13.5



Main Dimensions & Weight

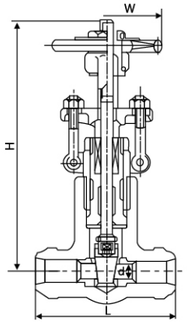
- Forged steel butt welded gate valve — Class150-600

Specification(DN)		L			W	H(Height)	Weight (kg)		
in	mm	150Class	300Class	600Class			150Class	300Class	600Class
1/4	8	102	-	-	100	151	2.8	-	-
3/8	10	102	-	-	100	151	2.8	-	-
1/2	15	108	140	165	100	151	2.8	3.5	4.5
3/4	20	117	152	191	100	158	3.3	4.4	5.1
1	25	127	165	216	120	190	5.4	6.8	8.2
1¼	32	138	178	229	160	219	7.1	8.1	10.5
1½	40	165	191	241	160	246	8.2	9.2	12.4
2	50	178	216	292	180	283	12.5	15.4	20.1



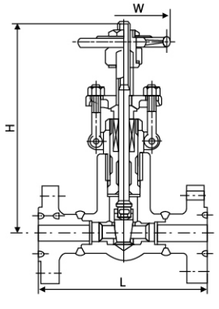
- Forged steel butt welded gate valve — Class900-1500

Specification(DN)		L	W	H(Height)	Weight (kg)
in	mm				
1/4; 3/8	8;10	216	125	197	11.3
1/2	15	216	125	197	11.3
3/4	20	224	125	197	12.5
1	25	254	160	224	15.6
1¼	32	279	160	237	17.8
1½	40	305	180	276	20.9
2	50	368	180	311	45.5



- Forged steel butt welded gate valve — Class 900/1500/2500

Specification(DN)		L		W	H(Height)	Weight(kg)	
in	mm	900/1500 Class	2500Class			900/1500 Class	2500Class
1/2	15	216	264	180	322	11.5	13.0
3/4	20	219	273	180	322	11.2	12.7
1	25	254	308	180	322	10.8	12.5
1¼	32	279	349	203	378	18.0	21.8
1½	40	305	384	203	414	22.0	29.3
2	50	368	451	302	495	44.0	55.4



- Forged steel self-sealing flange gate valve — Class 2500

Specification(DN)		L	H(Height)	W	Weight (kg)
in	mm				
1/2	15	263.5	321	180	16.7
3/4	20	273.1	321	180	17
1	25	308	321	180	21.3
1¼	32	349	373	203	24.5
1½	40	384.2	406.4	203	30.8
2	50	451	495.3	302	40.5

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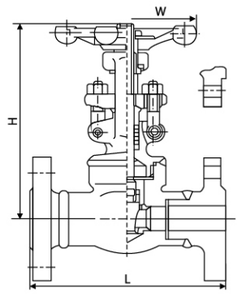

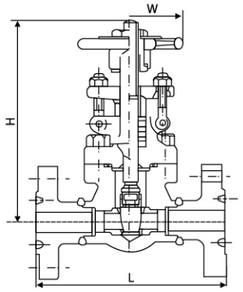

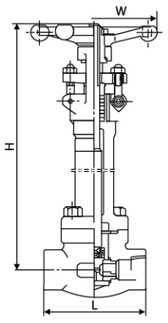

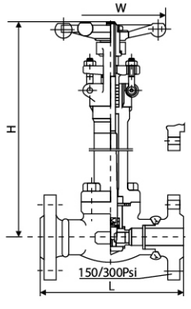

Main Dimensions & Weight

- Forged steel flange gate valve — Class 150/300/600

Specification(DN)		Pressure Rating(Class)	L	H(Height)		W		Weight (kg)	
in	mm			B.B	W.B	B.B	W.B	B.B	W.B
1/2	15	150	108	166	169	100	100	4.5	5
		300	140					4.8	5.2
		600	165					5.9	5.9
3/4	20	150	117	169	193	100	125	5.2	6.1
		300	152					6.2	6.3
		600	190					7.4	7.5
1	25	150	127	193	230	125	160	8.2	8.4
		300	165					9.3	8.6
		600	216					10.4	10.2
1¼	32	150	140	230	246	160	160	11.5	14.3
		300	178					14	14.5
		600	229					16.2	16.7
1½	40	150	165	246	283	160	180	12.5	15.4
		300	190					15.5	15.6
		600	241					17.5	17.4
2	50	150	178	283	330	180	200	20.3	22.7
		300	216					23.4	22.8
		600	292					28.3	28.7

- Forged steel flange gate valve — Class 900-1500

Specification(DN)		L	H(Height)	W	Weight (kg)	
in	mm				B.B	W.B
1/2	15	216	197	125	6.9	7.2
3/4	20	229	197	125	11.2	11.5
1	25	254	224	160	12.8	15.6
1¼	32	279	237	160	16.0	16.2
1½	40	305	276	180	21.0	22.6
2	50	368	320	200	27.1	28.2

- Forged steel cryogenic gate valve — Class 150-800

Specification(DN)		S	L	W	H(Height)	Weight (kg)
in	mm	ANSI				
1/2	15	21.8	92	125	333	7.1
3/4	20	27.1	111	125	360	9.4
1	25	33.8	120	160	407	13.5
1¼	32	42.6	120	160	475	15.0
1½	40	48.7	140	180	475	17.8
2	50	61.1	178	200	551	28.0

- Forged steel cryogenic flange gate valve — Class 150/300/600

Specification(DN)		Pressure Rating(Class)	L	H	W	Weight (kg)
in	mm					
1/2	15	150	140	333	125	6.0
		300	140			7.0
		600	165			8.0
3/4	20	150	152	360	125	8.7
		300	152			9.4
		600	190.5			11.1
1	25	150	165	407	160	11.0
		300	165			12.5
		600	216			13.4
1½	40	150	190.5	475	180	18.5
		300	190.5			20.1
		600	241			22.6
2	50	150	216	551	200	21.6
		300	216			24.0
		600	292			26.8

GLOBE VALVE
SERIES

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Design Characteristics of Cast Steel Globe Valve With Rising Stem(OS&Y)

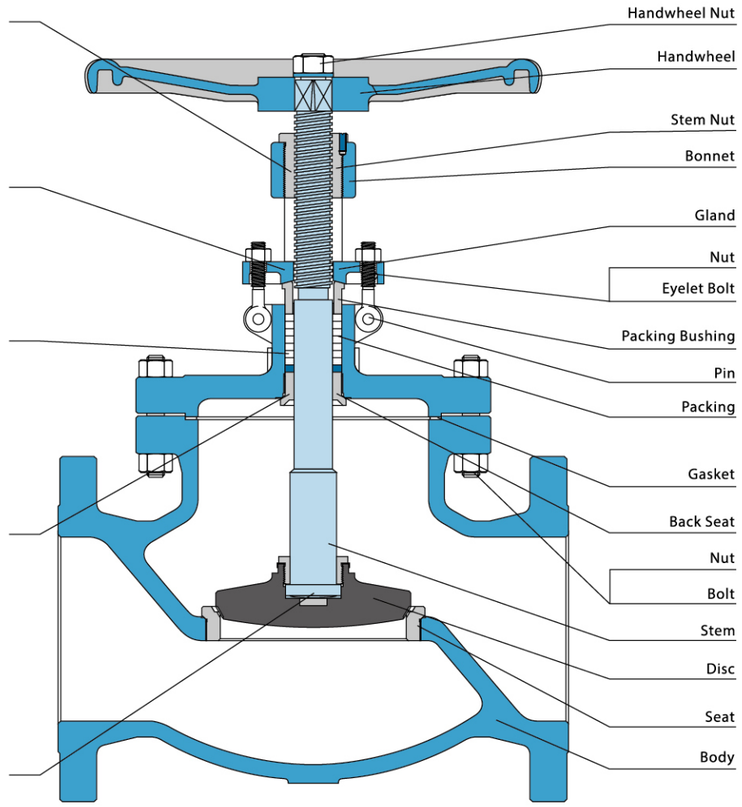
Stem nut uses aluminum bronze material. Large size valve is provided with thrust bearing to make it opened easily and flexibly.

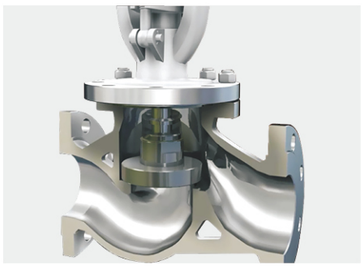
Two–piece design of packing gland avoid stem clogging caused by squishing.

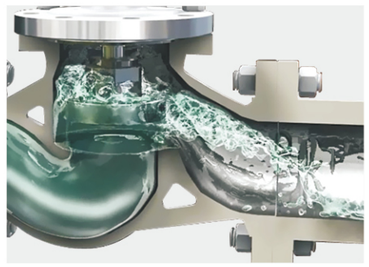
Packing uses flexible graphite for dependable sealing performance. If requested by users, packing spacer ring and greasing mechanism can be available.

Upper seal design to ensure dependable packing and sealing when valve is fully opened.(Replacement of packing under pressure is not recommended).

Lift stem, with a piece of hard stainless steel inlaid between stem head and disc to avoid deformation caused by extrusion, and corrosion leading to inflexibility of disc action.







Material List for Cast Steel Globe Valve With Rising Stem(OS&Y)

No.	Part Name	Carbon Steel Series	Stainless Steel Series	Duplex Steel Series	Low Temperature Series
1	Body	A216 GR WCB	A351 GR CF8M	A890 4A	A352 GR LCB
2	Seat	STL	/	/	A182 GR F304
3	Disc	A105+STL	A351 GR CF8M	UNS S31803	A352 GR LCB
4	Stem	A276 TYPE 410	A276 TYPE 316	UNS S31803	A276 TYPE 304
5	Bolt	A193 GR B7	A193 GR 8M	UNS S32760	A193 GR 8
6	Nut	A194 GR 2H	A194 GR B8M	UNS S32760	A194 GR B8
7	Back Seat	A182 GR F6a	A182 GR 316	UNS S31803	A182 GR F304
8	Gasket	Flexible Graphite +SS 316			
9	Packing	Flexible Graphite			
10	Pin	A194 GR 2H	A276 TYPE 304	UNS S31803	A276 TYPE 304
11	Packing Bushing	A182 GR F6a	A182 GR F304	UNS S31803	A182 GR F304
12	Eyelet Bolt	A193 GR B7	A193 GR B8	UNS S32760	A194 GR B8
13	Nut	A194 GR 2H	A193 GR 8	UNS S32760	A194 GR 8
14	Gland	A216 GR WCB	A351 GR CF8	UNS S31803	A352 GR LCB
15	Bonnet	A216 GR WCB	A351 GR CF8	UNS S31803	A352 GR LCB
16	Stem Nut	B148 UNS C95800	B148 UNS C95800	B148 UNS C95800	B148 UNS C95600
17	Handwheel	A197	A197	A197	A197
18	Handwheel Nut	A108 GR 1020	A182 GR F304	A108 GR 1020	A182 GR F304

Remark: Select different material for different working temperature and medium.

Cast Steel Globe Valve Product Line

Specification		Bolted Bonnet										Pressure Sealed Bonnet					
		Hand Operated					Gear Operated					Hand Operated			Gear Operated		
DN	NPS	150	300	600	900	1500	150	300	600	900	1500	600	900	1500	600	900	1500
40	1½	*	*	*													
50	2	*	*	*													
65	2½	*	*	*													
80	3	*	*	*	*	*						*	*	*			
100	4	*	*	*	*	*						*	*	*			
150	6	*	*	*	*	*						*	*	*			
200	8	*	*	*	*						*	*	*				*
250	10	*	*						*	*	*	*				*	*
300	12	*	*						*						*		
350	14	*	*														
400	16	*						*									
450	18	*						*									
500	20	*						*									
600	24	*						*									

Remark: Any needs not showed in the chart, please contact our sales department.

Torque Table

The torque values listed in the following table have not been measured in practice but only serve as reference for selecting the actuator. The medium characteristics, internal parts and valve opening frequency remain to be taken into account as extra factors.

N.m

Specification (in)	Pressure(Class)							
	Bolted Bonnet					Pressure Sealed Bonnet		
	150	300	600	900	1500	600	900	1500
1½	16	24	30	/	/	/	/	/
2	19	30	66	/	/	/	/	/
2½	29	51	103	/	/	/	/	/
3	45	84	175			175		
4	67	145	332			332		
6	129	319	819			819		
8	245	617	1208			1208		
10	385	1126	2266	5154	8445	2266	5145	8445
12	601	1988	4140	/	/	/	/	/
14	649	/	/	/	/	/	/	/

Flow Coefficient Table

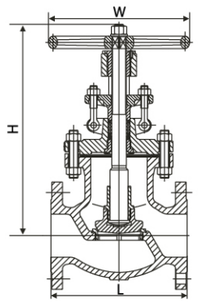
The flow coefficient of a valve is an index for measuring its flow capacity.The larger its flow coefficient value is,the smallepressure loss it will have when the fluid flows through it.

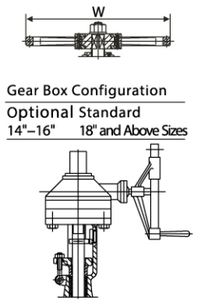
The following is the flow coefficient table for GB wedge gate valve (Cv stands for the US gallonage of +60°F(+16℃)water per minute flowing through the valve with a pressure drop of 1lb./inch^2 (0.006894757MPa).

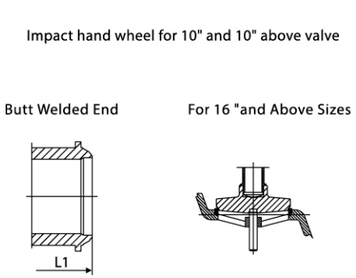
Cv value

Specification (in)	Pressure(Class)							
	Bolted Bonnet					Pressure Sealed Bonnet		
	150	300	600	900	1500	600	900	1500
3	100	100	100	90	95	100	105	95
4	185	185	185	170	170	185	195	170
6	440	440	440	400	395	440	455	395
8	810	810	780	710	695	780	800	695
10	1260	1260	1200	1100	1085	1200	1250	1085
12	1890	1890	1350	/	/	1810	/	/
14	2441	2440	/	/	/	/	/	/
16	3234	3234	/	/	/	/	/	/
18	4308	4183	/	/	/	/	/	/
20	5364	5226	/	/	/	/	/	/
24	7825	7626	/	/	/	/	/	/

Design Standard		BS1873 ASME B16.34					
Pressure and Temperature Rating		ASME B16.34					
Face-Face		ASME B16.10					
Flange Ends		ASME B16.5					
Butt Weld Ends		ASME B16.25					
Inspection & Test		API 598					
Test Pressure(MPa)	Norminal Pressure	CL150	CL300	CL400	CL600	CL900	CL1500
	Shell Test	2.93	7.55	10.0	15.0	22.5	37.5
	High Pressure Seal Test	2.07	5.52	7.31	11.03	16.5	27.5
	Low Pressure Seal Test	0.6					



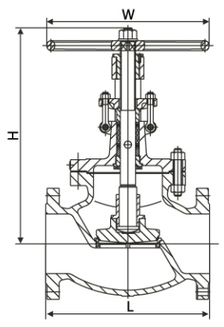


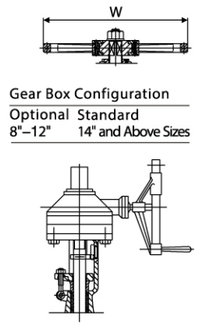


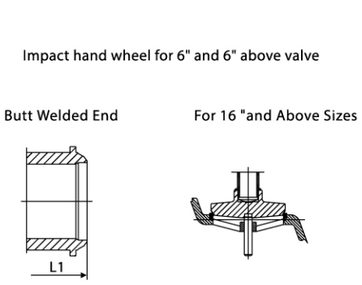
Main Dimensions & Weight

Class 150

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L-L1 (RF-BW)	in	8	8.5	9.5	11.5	14	16	19.5	24.5	27.5	31	36	38.5	38.5	51
	mm	203	216	241	292	356	406	495	622	699	787	914	978	978	1295
W	in	8	10	10	12	14	14	16	20	20	22	26	24	24	31.9
	mm	200	250	250	300	14	350	400	500	500	560	650	610	610	810
H	in	13.3	14.7	15.6	18.7	196	20.6	23.1	29.1	33.9	37.4	39.2	44.9	49.7	60
	mm	338	373	396	476	497	524	588	738	862	950	994	1140	1262	1524
WT(RF)	in	21	29	35	58	78	104	162	289	485	550	724	1400	2600	3700
WT(BW)	mm	17	20	30	47	71	86	138	219	362	491	650	1250	2300	3250



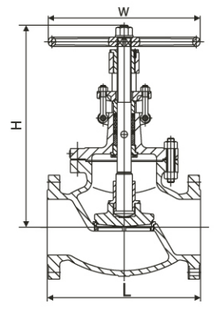


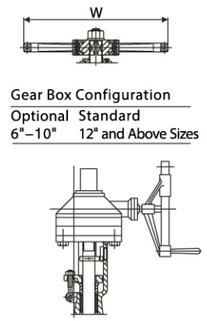


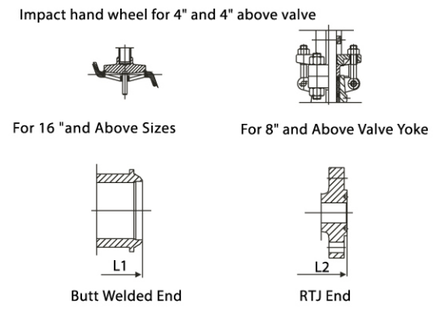
Main Dimensions & Weight

Class 300

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500
L-L1 (RF-BW)	in	10.5	11.5	80	14	15.75	17.5	22	24.5	28	33	34	38.5	40
	mm	267	292	80	356	400	445	559	622	711	838	864	978	1016
W	in	8	10	80	14	104	20	22	24	26	24	24	38.5	40
	mm	200	250	80	14	104	500	560	600	650	610	610	610	810
H	in	200	15.3	16.6	19.5	104	26.6	35.9	37.4	40.6	44.5	51.6	57.5	64.3
	mm	353.5	388.5	420.5	495.5	576.5	674.5	911.5	949	1032	1130	1310	1460	1632
WT(RF)	in	26	38	51	76	125	173	297	500	724	1125	1650	2700	3650
WT(BW)	mm	21	29	38	76	104	137	237	432	632	975	1450	2400	3200



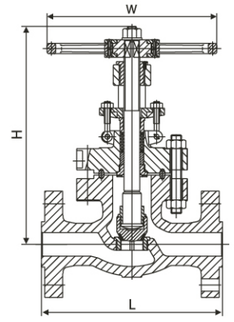


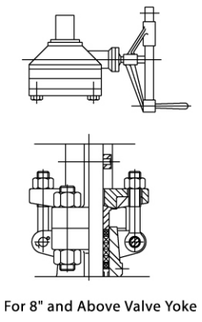


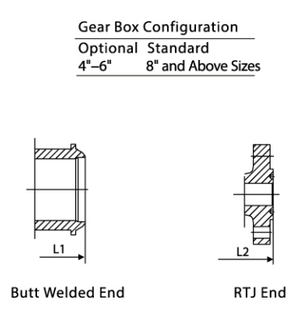
Main Dimensions & Weight

Class 600

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"
DN	mm	50	65	80	100	125	150	200	250	300	35	400	450
L-L1 (RF-BW)	in	11.5	13	14	17	20	22	26	31	33	35	39	43
	mm	11.5	330	356	432	508	559	660	787	838	889	991	1092
L2(RTJ)	in	11.5	13.12	14.12	17.12	20.12	22.12	26.12	31.12	33.12	35.12	39.12	43.1
	mm	11.5	333	359	435	511	562	663	790	841	892	994	1095
W	in	10	10	14	18	20	22	24	28	24	24	30	32
	mm	250	250	350	450	500	560	600	700	610	610	762	810
H	in	15.6	17.6	19.5	23.6	27.6	31.1	39.9	46.5	55	57.1	63.4	70.9
	mm	396.5	446	495.5	599	700	791	1014	1180	1397	1450	1610	1801
WT(RF)	Kg	37	50	62	150	187	294	1014	1006	1350	1620	2160	3300
WT(BW)	Kg	30	30	58	132	142	227	460	729	1060	1330	1750	2800



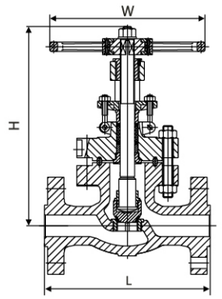


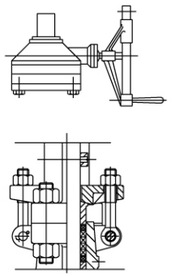


Main Dimensions & Weight

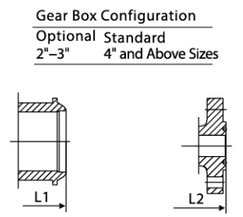
Class 900

NPS	in	2"	2½"	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	14.5	16.5	15	18	24	29	33	38	40.5	44.5
	mm	368	419	381	457	610	737	838	965	1029	1130
L2(RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.1	38.1	40.9	44.9
	mm	371	422	384	460	613	740	841	968	1038	1140
W	in	14	14	18	20	24	24	610	31.9	31.9	31.9
	mm	350	350	450	500	610	610	610	810	810	810
H	in	23.2	26	27.5	31.3	43.6	46.6	58.2	69.1	76.1	87
	mm	590	660	699	795	1108	1184	1479	1755	1934	2210
WT(RF)	Kg	95	138	110	197	435	720	1070	1920	2670	3520
WT(BW)	Kg	75	85	112	158	360	597	890	1690	2390	3170





For 6" and Above Valve Yoke



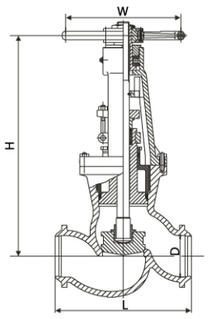
Butt Welded End

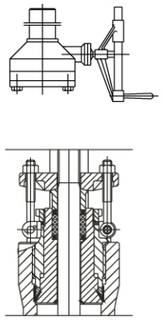
RTJ End

Main Dimensions & Weight

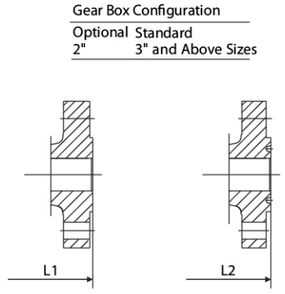
Class 1500

NPS	in	2"	2½"	3"	4"	6"	8"	10"	12"
DN	mm	50	65	80	100	150	200	250	300
L-L1 (RF-BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5
	mm	368	419	470	546	705	832	991	1130
L2(RTJ)	in	14.62	16.62	18.62	21.62	28.00	33.13	39.4	45.1
	mm	371	422	473	549	711	842	1000	1146
W	in	14	14	20	22	24	24	31.9	31.9
	mm	350	350	500	560	610	610	810	810
H	in	21.7	22.5	22.9	31.3	610	77.2	810	114.3
	mm	550	572	582	795	1278	1960	2450	2904
WT(RF)	Kg	85	138	215	350	560	990	1530	2570
WT(BW)	Kg	75	112	129	299	462	830	1330	2270





For 4" and Above Sizes



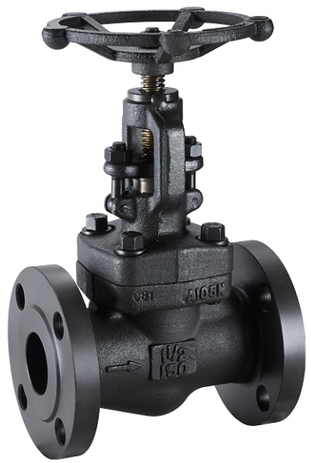
Raised–face Flange

RTJ End

Main Dimensions & Weight

Class 2500

NPS	in	2"	2½"	3"	4"	6"	8"	10"	12"
DN	mm	50	65	80	100	150	200	250	300
L-L1 (RF-BW)	in	17.75	20	22.75	26.5	36	40.25	50	56
	mm	451	508	578	673	914	1022	1270	1422
L2(RTJ)	in	17.88	20.25	23	26.88	36.5	40.88	50.88	56.88
	mm	454	541	584	683	927	1038	1292	1445
W	in	16	20	22	24	24	24	39.38	39.38
	mm	400	500	560	610	610	610	1000	1000
H	in	24.3	30.7	31.5	51.2	53.9	85	100	106
	mm	616	781	800	1300	1370	2160	2540	2692
WT(RF)	Kg	105	163	221	525	1313	2520	3300	4200
WT(BW)	Kg	74	116	147	368	973	2100	2500	3300



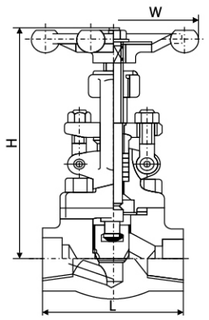
Application Specification

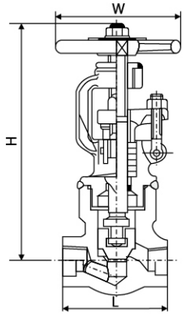
Design and Manufacture: ANSI B16. 34;API 602;API 600;
Connecting Ends:
1) Socked Welded Dimension: ANSI B16. 11
2)Screw Ends Dimension:ANSI B1. 20. 1;BS21;ISO7/ 1;

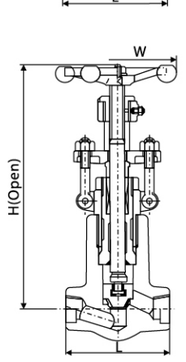
Testing and Inspection: API 598;
Structure Features: B. B; OS& Y Or W. B;
OS& Y Material in Accordance with AISI/ ASTM
Main Materials: A105;F5;F11;F22;304;304L;316;316L; LF 2, etc.

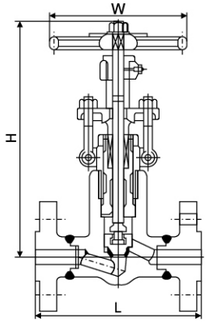
Part Material List

No.	Parts	Material		
		Standard Material	High Temperature Material	Stainless Steel Material
1	Body	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
2	Bonnet	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
3	Wedge Disc	ASTM A105/ER410 OVERLAY	ASTM A182-F6a	ASTM A182-F304/F316/STL.OVERLAY
4	Stem Nut	ASTM A276-420	ASTM A276-420	ASTM A276-420
5	Bushing Flange	ASTM A105	ASTM A216-WCB	ASTM A351-CF8
6	Handwheel	Nodular Cast Iron/ Ductile Iron (DI)	Nodular Cast Iron/ Ductile Iron (DI)	Nodular Cast Iron/ Ductile Iron (DI)
7	Seat	ASTM A105/STL.OVERLAY	ASTM A276-410/STL.OVERLAY	ASTM A182-F304/F316
8	Stem	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F304/F316
9	Bushing	ASTM A276-420	ASTM A276-420	ASTM A276-304/316
10	Gasket	304 Spiral Wound Gasket	304 Spiral Wound Gasket	304/316 Spiral Wound Gasket
11	Middle Packing	Graphite	Graphite	Graphite
12	End Packing	Carbon Fiber(CF)	Carbon Fiber(CF)	Carbon Fiber(CF)
13	Handwheel Nut	Carbon Steel	Carbon Steel	ASTM A276-304
14	Gasket	ASTM A276-304	ASTM A276-304	ASTM A276-304
15	Bolt	ASTM A193-B7	ASTM A193-B16	ASTM A193-B8
16	Eyelet Bolt	ASTM A193-B8	ASTM A193-B8	ASTM A193-B8
17	Nut	ASTM A194-8	ASTM A194-8	ASTM A194-8
18	Pin	ASTM A276-304	ASTM A276-304	ASTM A276-304
19	Nameplate	ASTM A240-304	ASTM A240-304	ASTM A240-304









Main Dimensions & Weight

- Forged steel globe valve — Class150-800

Specification (DN)		S	L		W		H (Height)		Weight (kg)	
in	mm	ANSI	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B
1/4	8	14.2	79	79	100	100	153	153	1.9	2.1
3/8	10	17.6	79	79	100	100	153	158	1.9	2.4
1/2	15	21.8	79	92	100	100	158	192	1.9	2.5
3/4	20	27.1	92	111	100	125	192	252	2.1	4.5
1	25	33.8	111	120	125	160	252	252	3.3	6
1¼	32	42.6	120	152	160	160	252	289	7.5	8
1½	40	48.7	152	172	160	180	289	330	7.5	12.5
2	50	61.1	172	200	180	240	330	370	11.4	15.0

- Forged steel globe valve — Class900-1500

Specification (DN)		S	L		W		H (Height)		Weight (kg)	
in	mm	ANSI	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B
1/4	8	14.2	111	111	100	100	207	207	2.4	2.4
3/8	10	17.6	111	111	100	100	207	207	2.2	2.2
1/2	15	21.8	111	111	100	100	207	207	2.0	2.0
3/4	20	27.1	111	120	100	125	207	240	1.8	3.8
1	25	33.8	120	152	125	160	240	258	3.6	4.2
1¼	32	42.6	152	172	160	160	258	290	3.9	8.0
1½	40	48.7	172	220	160	180	290	337	7.5	13.2
2	50	61.1	220	235	180	200	337	354	12.8	16.8

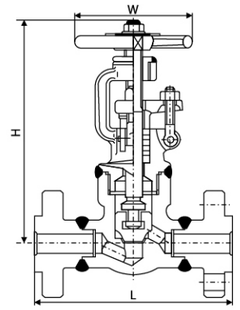
- Forged steel self-sealing globe valve — Class 900/1500/2500

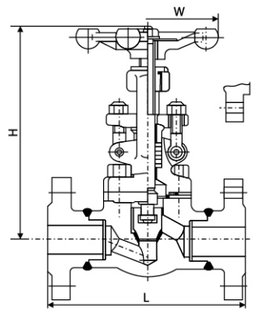
Specification(DN)		S	L		W	H(Height)	Weight (kg)	
in	mm	ANSI	900/1500 Class	2500Class			900/1500 Class	2500Class
1/2	15	21.8	140	186	125	333	11.2	12.3
3/4	20	27.1	140	186	125	333	10.5	11.6
1	25	33.8	140	186	160	333	10.1	10.8
1¼	32	42.6	178	232	160	408	21.0	28.0
1½	40	48.7	178	232	180	408	19.6	26.4
2	50	61.1	216	279	200	524	40.4	43.8

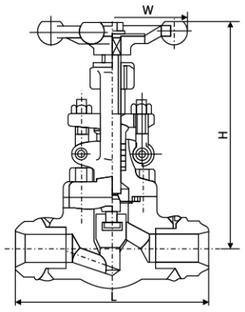
- Forged steel self-sealing flange globe valve — Class 900/1500/2500

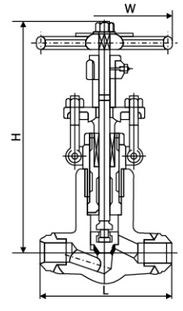
Specification(DN)		Pressure Rating(Class)	L	H	W	Weight (kg)
in	mm					
1/2	15	900	216	318	125	15.5
		1500				
		2500	264	335		18
3/4	20	900	229	318	125	16.9
		1500				
		2500	273	335		20.5
1	25	900	254	318	160	18.9
		1500				
		2500	308	335		23
1½	40	900	305	408	180	34.3
		1500				
		2500	384	420		45
2	50	900	368	524	200	52.8
		1500				
		2500	451			81.5

GL SERIES www.fkv.jp
GLOBE VALVE SERIES
Forged Steel Globe Valve









Main Dimensions & Weight

- Forged steel flange globe valve — Class 900-1500

Specification(DN)		L	H(Height)	W	Weight (kg)	
in	mm				B.B	W.B
1/2	15	216	207	100	7.4	8.0
3/4	20	229	207	100	12.5	13.2
1	25	254	240	125	16.0	17.4
1¼	32	279	258	160	17.2	19.0
1½	40	305	290	160	23.0	24.5
2	50	368	337	180	29.8	31.0

- Forged steel flange globe valve — Class 150/300/600

Specification(DN)		Pressure Rating(Class)	L	H(Height)		W		Weight (kg)	
in	mm			B.B	W.B	B.B	W.B		
1/2	15	150	108	158	163	100	100	4.5	6.9
		300	152					48	7.7
		600	165					5.6	7.8
3/4	20	150	117	163	193	100	125	6.9	9.8
		300	178					7.7	11.3
		600	190					7.8	12.5
1	25	150	127	193	250	125	160	9.8	13.5
		300	203					11	16.8
		600	216					12.5	17.5
1¼	32	150	140	250	250	160	160	13.5	19.5
		300	216					16.8	21.2
		600	229					17	23.5
1½	40	150	165	250	291	160	180	19.5	28.5
		300	229					21.2	32.6
		600	241					23.5	38.5
2	50	150	203	291	312	180	200	28	30.3
		300	267					32.6	35
		600	292					38.8	42.2

- Forged steel butt welded globe valve — Class 150/300/600

Specification(DN)		L			W	H(Height)	Weight (kg)		
in	mm	150	300	600			150	300	600
1/2	15	108	152	165	100	158	2.3	2.8	3.4
3/4	20	117	178	190	100	192	3.6	4.0	4.7
1	25	127	203	216	125	252	7.8	8.5	9.2
1¼	32	140	216	229	160	252	8.2	9.2	10.5
1½	40	165	229	241	160	289	12.0	12.6	13.3
2	50	203	267	292	180	330	15.0	16.8	18.9

- Forged steel butt welded globe valve — Class 900/1500/2500

Specification(DN)		L			W	H(Height)		Weight(kg)		
in	mm	Pressure(Class)				Pressure(Class)		Pressure(Class)		
		900	1500	2500		900/1500	2500	900	1500	2500
1/2	15	216	216	264	180	318	333	12.5	12.5	13.3
3/4	20	229	229	273	180	318	333	11.8	11.8	12.5
1	25	254	254	308	180	318	333	11.5	11.5	11.8
1¼	32	-	-	-	-	-	-	-	-	-
1½	40	305	305	384	203	408	420	21.7	21.7	28.7
2	50	368	368	451	300	524	524	43.5	43.5	47.2

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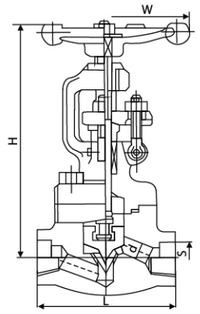
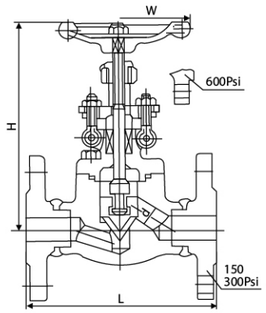


Main Dimensions & Weight

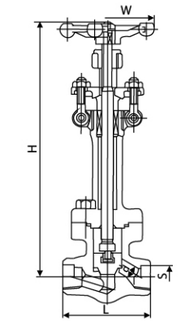
- Forged steel needle valve — Class150-800

Specification(DN)		S	L	W	H(Height)	Weight (kg)
in	mm	ANSI				
1/4	8	14.2	79	100	153	2.2
3/8	10	17.6	79	100	153	2.2
1/2	15	21.8	79	100	158	2.2
3/4	20	27.1	92	100	192	2.4
1	25	33.8	111	125	252	4.4
1¼	32	42.6	120	160	252	4.8
1½	40	48.7	152	160	289	7.2
2	50	61.1	172	180	330	11.5



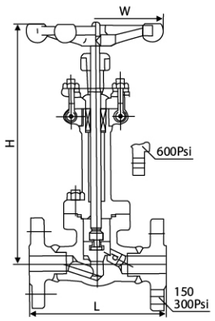
- Forged steel flange needle valve — Class150/300/600

Specification(DN)		Pressure Rating(Class)	L	H(Height)	W	Weight (kg)
in	mm					
1/2	15	150	108	158	100	4.2
		300	152			4.7
		600	165			5.8
3/4	20	150	117	163	100	5.2
		300	178			5.4
		600	190			7.2
1	25	150	127	193	125	6.9
		300	203			8.8
		600	216			10
1¼	32	150	140	250	160	11.2
		300	216			11.8
		600	229			15.8
1½	40	150	165	250	160	12.9
		300	229			16.8
		600	241			18.7
2	50	150	203	291	180	20.3
		300	267			26.5
		600	292			31.7



- Forged steel cryogenic globe valve — Class150/300/600

Specification(DN)		S	L	W	H(Height)	Weight (kg)
in	mm	ANSI				
1/2	15	21.8	92	125	370	7.2
3/4	20	27.1	111	125	370	9.5
1	25	33.8	120	160	410	13.5
1½	40	48.7	172	180	474	19.8
2	50	61.1	200	200	546	29.0



- Cryogenic forged steel flange globe valve — Class150/300/600

Specification(DN)		Pressure Rating(Class)	L	H	W	Weight (kg)
in	mm					
1/2	15	150	152	339	125	7.4
		300	152			8.4
		600	165			9.4
3/4	20	150	178	370	125	8.8
		300	178			9.5
		600	190			10.2
1	25	150	203	410	160	11.1
		300	203			11.8
		600	216			13.5
1½	40	150	229	474	180	20.5
		300	229			22.1
		600	241			24.6
2	50	150	267	546	200	23.6
		300	267			26.0
		600	292			28.8

FKV®

CHECK VALVE SERIES

CH SERIES www.fkv.jp

Cast Steel Swing Check Valve Structure Feature

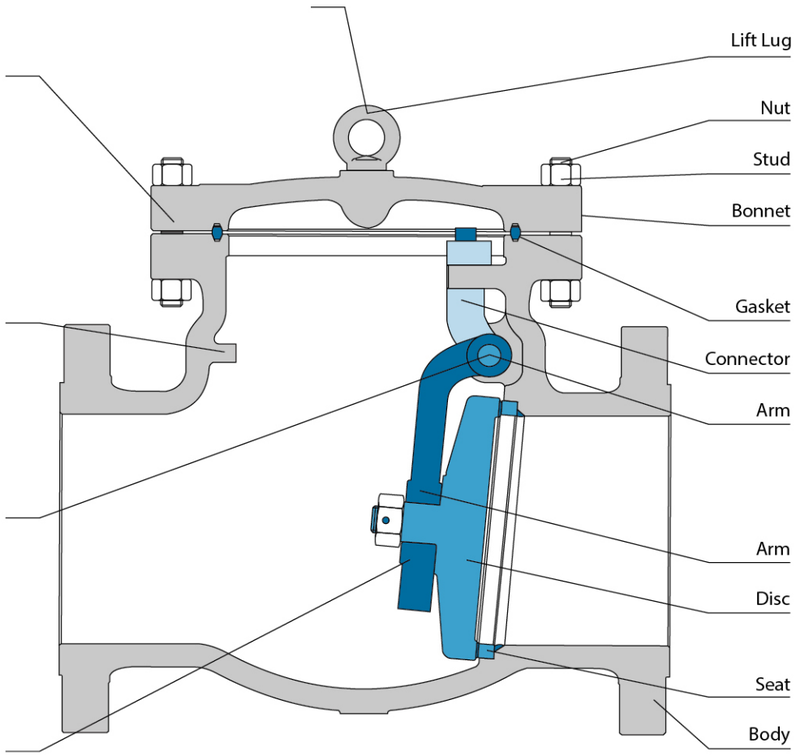
Large-caliber check valves are provided with lifting rings for the convenience of hoisting.

Bolted bonnet, and the type of middle flange gasket may be different according to pressure class; CLASS600 check valve may adopt pressure selftightening seal structure.

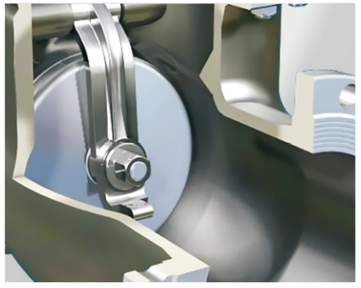
Disc stop device to prevent disc from being opened too high, thus causing failure to be closed down.

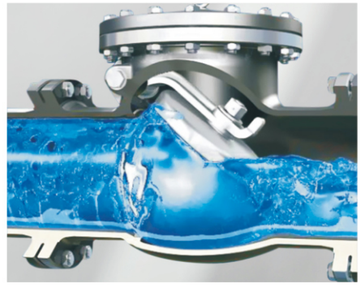
Solid pin is precisely installed and provided with high intensity to ensure operational performance and long service life.

Rocker arm is given enough intensity. Upon being closed down, it has enough freedom for the closedown of disc.



The disc is given enough intensity and rigidity.Disc sealing surface may be built-up welded with metal material or inlaid with non-metallic material responding to user's request.





ASTM Standard Material

No.	Part Name	Carbon Steel Series	Stainless Steel Series	Duplex Steel Series	Low Temperature Series
1	Body	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 GR 4A	ASTM A352 GR LCB
2	Seat	STL	/	/	ASTM A182 GR F304
3	Disc	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 GR 4A	ASTM A352 GR LCB
4	Arm	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 GR 4A	ASTM A352 GR LCB
5	Pin	ASTM A216 GR WCB	ASTM A276 T YPE 316	ASTM UNS S31803	ASTM A182 GR F304
6	Connector	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 GR 4A	ASTM A352 GR LCB
7	Gasket	Flexible Graphite +SS304	Flexible Graphite +SS316	Flexible Graphite +SS316	Flexible Graphite +SS304
8	Bonnet	ASTM A216 GR WCB	ASTM A351 GR CF8M	ASTM A890 GR 4A	ASTM A352 GR LCB
9	Stud	ASTM A193 GR B7	ASTM A193 GR B8M	ASTM UNS S32760	ASTM A194 GR B8
10	Nut	ASTM A194 GR 2H	ASTM A194 GR8M	ASTM UNS S32760	ASTM A193 GR 8

Remark: Select different material for different working temperature and medium.

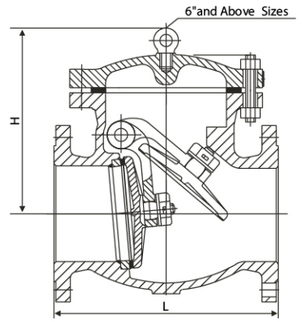
Cast Steel Swing Check Valve Product Line

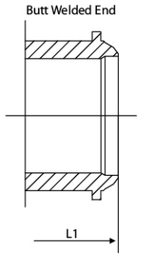
Specification(mm)		Bolted Bonnet			Pressure Seal Bonnet			
		BS Series			BS Series			
DN	NPS	CL150	CL300	CL600	Cl600	CL900	CL1500	CL2500
40	1½	*	*	*				
50	2	*	*	*	*	*	*	*
65	2½	*	*	*	*	*	*	*
80	3	*	*	*	*	*	*	*
100	4	*	*	*	*	*	*	*
125	5	*	*	*	*	*	*	*
150	6	*	*	*	*	*	*	*
200	8	*	*	*	*	*	*	*
250	10	*	*	*	*	*	*	*
300	12	*	*	*	*	*	*	*
350	14	*	*	*	*	*	*	
400	16	*	*	*	*	*	*	
450	20	*	*	*	*	*	*	
500	24	*	*	*	*	*	*	
600	26	*	*	*	*	*	*	
650	28	*	*	*	*	*		
700	30	*	*	*	*	*		
750	32	*	*	*	*	*		
800	36	*	*					
900		*	*					

Remark: Any needs not showed in the chart, please contact our sales department.

Technical Specification

Design Standard		BS 1868					
Pressure and Temperature Rating		ASME B16.34					
Face-Face		ASME B16.10					
Flange Ends		ASME B16.5, ASME B16.47					
Butt Welded End		ASME B16.25					
Inspection & Test		API 598					
Test Pressure (MPa)	Norminal Pressure	CL150	CL300	CL400	CL600	CL900	CL1500
	Shell Test	2.93	7.58	10.0	15.0	22.4	37.5
	High Pressure Seal Test	2.07	5.52	7.31	11.03	16.54	27.5
	Low Pressure Seal Test	0.6					

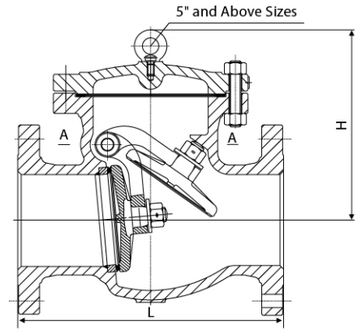


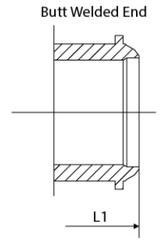


Main Dimensions & Weight

Class 150

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	8	8.5	9.5	11.5	13	14	19.5	24.5	27.5	31	34	38.5	38.5	51	51	57	60	68	77	85	89	101
	mm	203	216	241	292	330	356	495	622	699	787	864	978	978	1295	1295	1448	1524	1727	1956	2159	2261	2566
H	in	5.9	6.6	6.7	8	9.1	11.7	13.8	15.3	17.2	18.8	20.7	22.9	24.7	34.6	35.8	36.8	38.2	49.2	54.2	55.5	57.8	64.6
	mm	150.5	168	171	204	230	296.5	351.5	389.5	437.5	476.5	525	582	627	880	910	935	970	1250	1377	1410	1468	1642
WT(RF)	Kg	15	22	28	42	57	79	131	177	282	380	542	632	855	970	1276	1600	2020	2430	3130	4230	5030	6680
WT(BW)	Kg	10	12	17	29	45	57	96	143	227	294	468	552	755	831	1120	1420	1760	2130	2930	3730	4430	5680

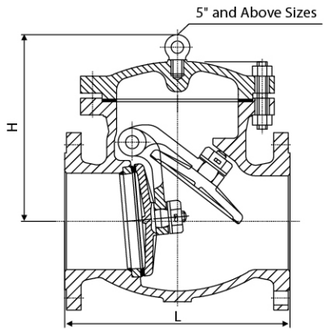


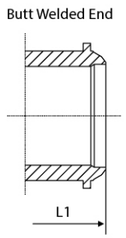


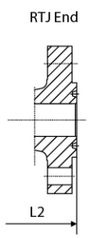
Main Dimensions & Weight

Class 300

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	10.5	11.5	12.5	14	15.75	17.5	21	24.5	28	33	34	38.5	40	53	53	59	62.75	68	82	96	103	124
	mm	267	292	318	356	400	445	533	622	711	838	864	978	1016	1346	1346	1499	1594	1727	2083	2438	2617	3151
H	in	6.9	7.3	8.5	10.2	12	12.5	15	17.1	20.1	22.1	23.5	26.6	28.7	33.9	36.6	45.8	50	50.0	59.4	68.9	73.6	87.8
	mm	176	185	216	259	304	317	380	434	511	561	596	675	730	860	930	1163	1270	1270	1510	1750	1870	2230
WT(RF)	Kg	20	30	40	65	84	118	193	310	450	595	840	933	1320	1848	2375	2660	3680	3880	5030	6290	7050	9310
WT(BW)	Kg	16	22	30	53	73	101	157	232	414	455	766	774	960	1792	1995	2260	2780	3380	4430	5640	6150	8310



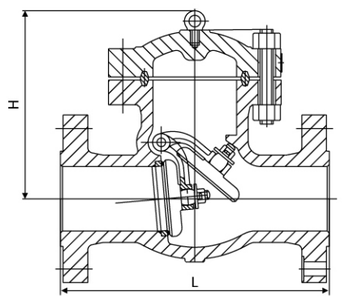


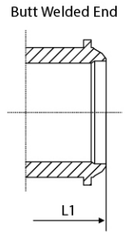


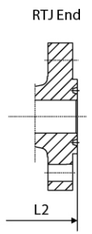
Main Dimensions & Weight

Class 600

NPS	in	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"	40"	42"	48"
DN	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900	1000	1050	1200
L-L1 (RF-BW)	in	11.5	13	14	17	20	22	26	31	33	35	39	43	47	55	57	63	65	70	82	90	96	100
	mm	292	330	356	432	508	559	660	787	838	889	991	1092	1194	1397	1448	1600	1651	1778	2083	2286	2438	2540
L2(RTJ)	in	11.62	13.12	14.12	17.12	20.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	57.5	63.5	65.5	70.6	82.6	-	-	-
	mm	295	333	359	435	511	562	663	790	841	892	994	1095	1200	1407	1461	1613	1664	1794	2099	-	-	-
H	in	7.2	8.3	9.1	10.4	11.6	14.7	16.8	20.4	22.4	24.5	26.8	29.6	38.4	43.7	43.7	46.9	52.1	53.8	60.7	67.0	70.9	85.5
	mm	184	210	232	263	295	374	426	517	569	622	680	752	975	1111	1110	1192	1324	1367	1542	1702	1800	2171
WT(RF)	kg	30	43	55	93	160	208	339	547	715	885	1310	1620	2120	3100	3800	4600	5500	6800	8100	8900	9800	11100
WT(BW)	kg	21	35	43	64	115	145	256	375	589	694	932	1279	1702	2497	3100	3900	4700	6000	7200	8100	9900	10200



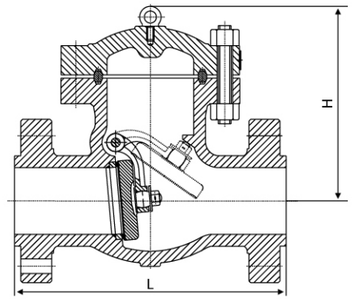


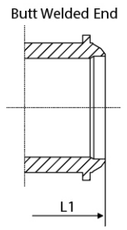


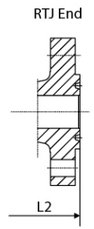
Main Dimensions & Weight

Class 900

NPS	in	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"	32"	36"
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	900
L-L1 (RF-BW)	in	14.5	16.5	15	18	24	29	33	38	40.5	44.5	48.0	52.0	61.0	65.0	69.0	73.0	77.0	84.9
	mm	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1651	1753	1854	1956	2156
L2(RTJ)	in	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.5	52.5	61.7	65.9	69.9	73.9	-	-
	mm	371	422	384	460	613	740	841	968	1038	1140	1232	1333	1568	1673	1775	1876	-	-
H	in	11.7	11.8	11.8	12.9	17.4	19.8	26.1	30.5	30.8	33	33.0	36.7	36.4	44.1	54.0	59.9	65.8	71.7
	mm	296	300	300	327	441	502	664	775	782	838	839	932	924	1121	1372	1521	1671	1821
WT(RF)	kg	70	100	110	150	305	510	810	1120	1380	1900	3000	4000	5200	6600	7550	8850	10150	12750
WT(BW)	kg	50	68	77	113	230	387	632	901	1139	1613	2650	3550	4650	5630	6420	7510	8600	10780



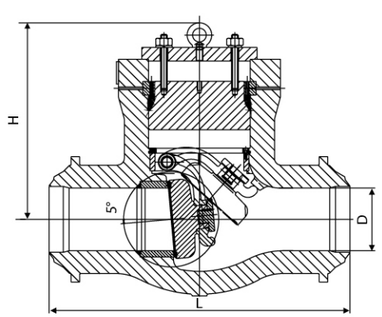


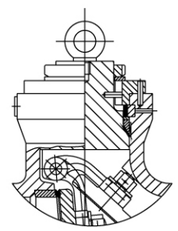


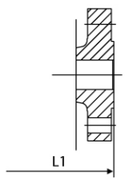
Main Dimensions & Weight

Class 1500

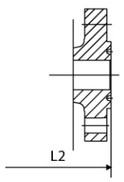
NPS	in	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	28"	30"
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750
L-L1 (RF-BW)	in	14.5	16.5	18.5	21.5	27.75	32.75	39	44.5	49.5	54.5	60.5	65.5	76.5	82.0	87.5	93.0
	mm	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	1943	2083	2222.5	2362
L2(RTJ)	in	14.62	16.62	18.62	21.62	28.00	33.13	39.38	45.12	50.25	55.38	61.4	66.4	77.6	-	-	-
	mm	371	422	473	549	711	842	1000	1146	1276	1407	1559	1686	1972	-	-	-
H	in	11.7	11.8	13.4	16.2	20.1	26.8	29.8	33.7	37.4	40.1	45.2	50.6	60.6	70.6	80.7	90.7
	mm	296	300	341	412	511	680	756	857	950	1020	1147	1284	1539	1794	2049	2304
WT(RF)	kg	70	100	150	245	550	1010	1476	2280	3060	4500	6100	8000	9800	11600	13400	15200
WT(BW)	kg	50	77	115	190	452	750	1012	1780	2290	3500	5200	7500	8400	9300	10200	11100




For 4" and Below Valve



Raised-face Flange



RTJ End

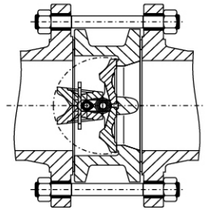
Main Dimensions & Weight

Class 2500

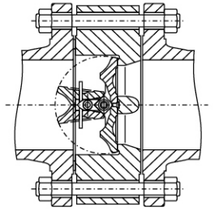
NPS	in	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600
L(BW)	in	11	13	14.5	18	24	30	36	41	44	49	55	61	68
	mm	279	330	368	457	610	762	914	1041	1118	1245	1397	1549	1727
L1(RF)	in	17.8	20	22.8	26.5	36	40.3	50	56	-	-	-	-	-
	mm	451	508	578	673	914	1022	1270	1422	-	-	-	-	-
L2(RTJ)	in	17.9	20.3	23	26.9	36.5	40.9	50.9	56.9	60.88	-	-	-	-
	mm	454	514	584	683	927	1038	1292	1445	1546	-	-	-	-
H	in	9.6	10.4	10.6	12.5	17.8	22	22.7	25.8	33.88	35.38	39.38	45.25	55.13
	mm	245	264	270	318	451	559	576	656	860	899	1000	1149	1400
WT(RF)	kg	89	124	163	299	588	1071	1676	2772	3350	-	-	-	-
WT(BW)	kg	53	74	89	142	285	598	783	1512	2450	3200	4050	5000	7200

Installation End Connection

No Ring Double Disc Wafer Swing Check Valve

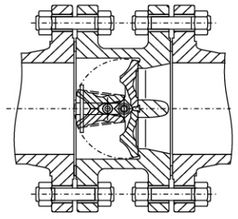


BR- Wafer

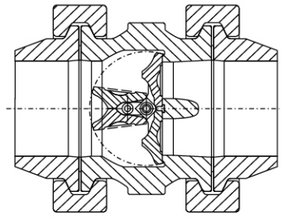


BFR-Solid Lug

Lug Wafer Double Disc Swing Check Valve



BSR-Flanged



Hub Ended

Notice: BR,BFR & BSR have face-to-face dimensions to API 594.BH&BHR face-to-face dimensions to manufactures standard.

Summary

Check valve is usually installed in line system,prevent medium from flowing back.Check valve is an automatic valve that it is open and close by pressure of fluid.
In the past,we use coupling flange swing type check valve& coupling flange vertical type check valve.Traditional check valve's volume is big,Resistance of fluid strong,Water-hammer's pressure is high when valve close,repair and Installation is inconvenient, service life is not long.

Against the problem of traditional check valve,we accord AMERICA API&GERMNEY DIN, after study and research for many years, developed lug body type wafer,double-disc swing type wafer check valve,swing single-plate wafer check valve,lift wafer check valve, and series of those products.Used in the industry of oil,petro,metallurgy,electric,light industry,food,received high appraisal from customers.

Selection and Ordering of Wafer Type Check Valve

1.For valves of normal diamarer DN≥100mm(NPS4),it is better to select dual-plate wafer type swing check valve,so as to effectively reduce the loss of flow resistance for the check valve;where as for valves of normal diameter DN≤80(NPS3).it is better to select wafer type lift check valve.
2.Customers are recommended to select generally the metal to metal sealed wafer type check valve,though the wafer type check valve with rubber sealed trim is available in the factory ,to ensure the wafer type check valve with longer service life applicable temperature,and excellent tightness function.
3.Dual-plate lug wafer type swing check valve is available,which should be specified clearly as ordering.However,customers are generally recommended to select the general purpose wafer type check valve to save cost and shorten delivery time,as the application function of the two sounds the same.Of the lug wafer type check valves,several design structures are avaiable as following figure,which would be determined as ordering by the company based on the processing technique,if there is no special requirement of customers.
4.For big sized check valve,it is avaiable for the company to design and manufature the flange-connected swing check valve with double discs.However,as a special product,it is necessary to be affirmed technically as ordering.
5.There are two kinds of face to face dimension series for wafer type lift check valve with normal pressure of PN1.0MPa,PN1.6MPa, PN2.5MPa and PN4.0MPa.To select the short series of check valve may lower the price,but if might be necessary to use a non-standard gasket between connecting flanges of check valve and pipeline.If the long series of check valve is to be sel- ected,it is possible to make use of the standard gasket.
6.In order to be at customer's convenience to make use of wafer type check valve,the matching flanges,gaskets,connection bolts and nuts should be spectified when ordering.
7.Order check valve can according to the types list in the catalogue.If there is a special requirement,it should be specified clearly in order.

CH SERIES www.fkv.jp
CHECK VALVE SERIES
Wafer Check Valve

Application

Wafer type check valves are suitable for using in various kinds of pipelines of normal pressure Class150~Class2500,PN10~PN420, JIS 10K~JIS 20K,of diameters NPS 1/2-48,DN15~1200mm,and of working temperature-196℃ ~540℃ ,to prevent the medium from return.

Standard and Specification

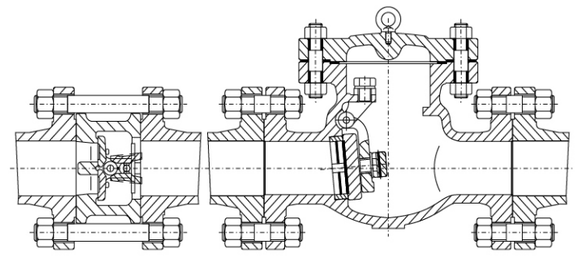
1.Design and manufacture: API 594,API 6D;
2.Face - face: API 594,API 6D,DIN 3202;
3.Pressure-temperature rating: ASME B 16.34,DIN 2401;
4.Inspection and test: API 598,API 6D,JB/T 9092;
5.Flange standard: ASME B16.5,ASME B16.47,API 605,MSS SP-44,ISO 7005-1,DIN 2543~2548.

Main Material

Carbon steel, Cryogenic steel, Duplex steel(F51,F53),Titanium alloy, Albronze Bronze, inconel, SS304, SS316L, SS316,SS316L,Chrome-molybdenum Steel,Monel(400/500), 20# Alloy, Hastelloy Alloy and other material.

Structure Features

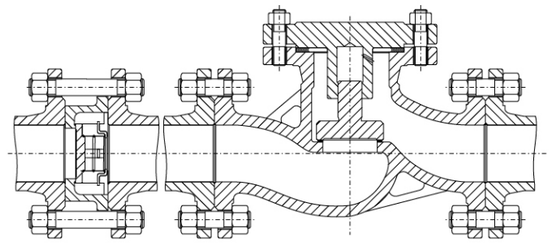
1. The structure length is short, is only 1/4~1/8 times of traditional flanged type check valves;
2. Small volume, light weight, the weight is only 1/4~1/20 times of traditional flange type check valves;
3. The disc close quickly with less water hammer pressure;
4. It's convenient in installation,being available for using in level or vertical pipelines;
5. Flow passage is fluent with less flow resistance;
6. It acts sensitively with good sealing performance;
7. Disc travel is short with less impact force caused by valve closing;
8. It is impact in integral structure with nice outline view;
9. Body structure with on ring,no leak,shell seal more reliable, shockproof;
10. Long service life, high reliability.



Dual-plate Wafer Swing Check Valve Type

Flange Swing Check Valve With Single Disc Type

Notice:Check valve is a look-down picture.



Wafer Lifting Check Valve Type

Flange Lifting Check Valve Type

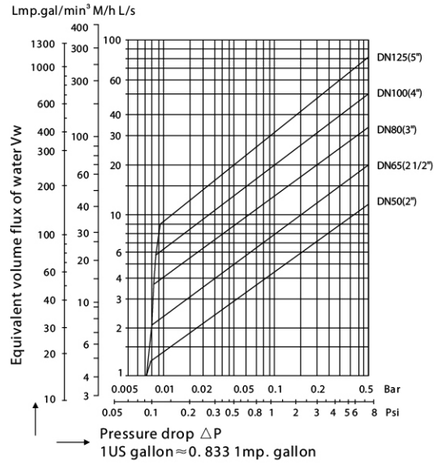
Contrast of Swing Check Valve

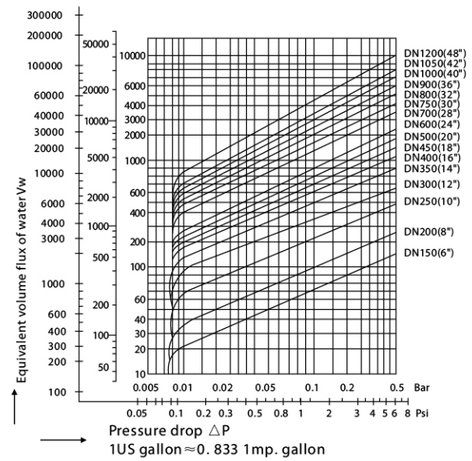
Structure	Dual-plate Wafer Swing Check Valve Type	Flange Swing Check Valve With Single Disc Type
Pressure of Water Hammer	Small, disc travel short, valve closes quickly with auxiliary spring.	Very high,disc travel longer,valve needs longer time to close.
	Water hammer pressure of dual-plate wafer type swing check valve is only 1/2-1/5 times that of flange type swing check valve with single disc.	
Size and Weight	Being short in face to face dimensions, small in overall sizes,light in wight,more convenient for installation, storage,handling and pipeline arrangement of the valve to save large quantity of material and reduce cost.	Being very long in face to face dimensions,bulky in structure and heavy in weight.
	The structure length of dual-plate wafer swing check valve is only 1/4~1/6 times that of flange swing check valve with single disc, the weight of former one is only 1/4~1/10 times that of the later one.	
Flow Resistance	Small, flow resistance coefficient ξ is from 2.6~0.7, it gets reduced as valve diameter becomes bigger.	Small,flow resistance coefficient ξ is from 1.3~3, disc unable to fully open and flow resistance is big under low pressure working condition.
Installation	Available for level & vertical installation,light weight, without necessary valve support.	Available for level & vertical installation,heavy weight of big size valve, needing support.
Open Pressure	Very low pressure, disc could be fully opened under very low pressure difference.	Higher pressure,disc could be fully opened under higher pressure difference.
Reliability	Being integrated structure and compact structure, less impact force and water hammer pressure as valve closed,long service life and high reliability.	Valve easily damaged by great impact force and water hammer pressure as valve closed.

Contrast of Lift Check Valve

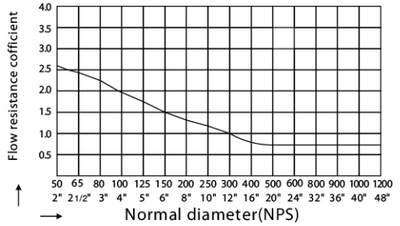
Structure	Wafer Lifting Check Valve Type	Flange Lifting Check Valve Type
Pressure of Water Hammer	Very low,disc travel short,valve closes quickly with auxiliary spring force.	Low, disc travel short without auxiliary spring.
Size and Weight	Short structure length, small volume, light weight,more convenience for installation,handling,storage of valve and convenience for pipeline arrangement, save quantity of material and reduce cost.	Very long structure length, big volume, heavy weight.
	The structure length of wafer lift check valve is only 1/4~1/8 times that of flange lift check valve , the weight of former one is only 1/7~1/20times that of the later one.	
Flow Resistance	Big, flow resistance coefficient ξ is 6.4~2.8.	Very big,flow resistance coefficient ξ is 12~6.
Installation	Available for level & vertical installation, light weight,easy for installation.	Only available for level installation, heavy weight with big valve, difficult for installation.
Open Pressure	Very low open pressure, disc could be opened at very small pressure difference.	Low open pressure, heavy disc, disc could be opened at certain amount of pressure difference.
Reliability	Being integrated structure and compact structure, less impact force and water hammer pressure as valve closed, long service life and high reliability.	Higher reliability, but two piece design of body and bonnet with one more potential leakage point.

Hydromechanics·Relationship Between Volume Flux and Pressure Drop for Dual-plate Wafer Swing Check Valve





Hydromechanics·Flow Resistance Coefficient of Dual-plate Wafer Swing Check Valve



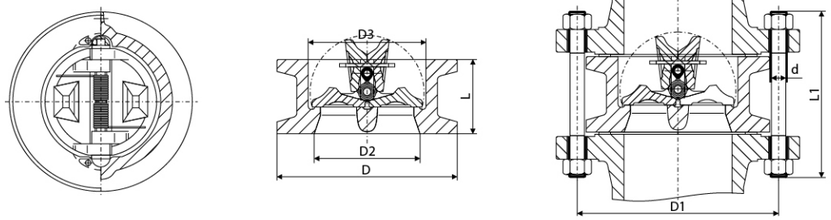
Equivalent volume flux of water (Vw) and actual volume flux of flow are calculated by follow formula:

$$Vw = \sqrt{\frac{P}{1000}} \cdot V$$

In formula: Vw-equivalent volume flux of water, L/s
ρ- density of flow, kg/m³
V- actual volume flux of flow, L/s

Hydromechanics · Flow Resistance Coefficient,Flow Capacity Coefficient and Open Pressure of Dual-plate Wafer Swing Check Valve

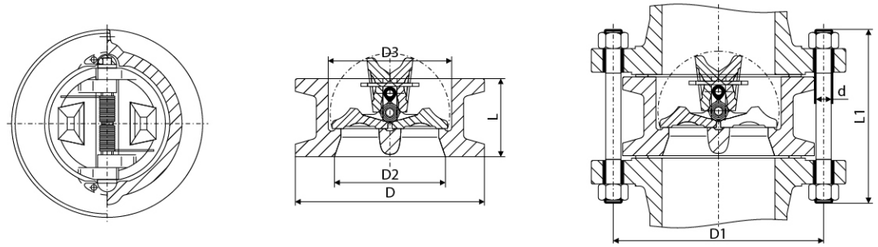
Size		Flow resistance coefficient as valve fully opens	Flow capacity coefficient of water as valve fully opens at normal temperature			Flow Direction	
						↑	→
DN	NPS		Kv(m³/h)	Cv(U.S)	Cv(U.K)	Approximate Open Pressure(KPa)	
50	2	2.6	63	74	62	2	1
65	2½	2.4	109	128	107	2	1
80	3	2.3	172	201	169	2	1
100	4	2.0	289	338	283	2	1
125	5	1.8	476	557	466	2	1
150	6	1.5	750	878	735	2	1
200	8	1.3	1432	1675	1403	2	1
250	10	1.2	2330	2726	2283	2	1
300	12	1.0	3676	4301	3602	2	1
350	14	0.9	5274	6171	5169	2	1
400	16	0.8	7306	8548	7160	3	1
450	18	0.8	9246	10818	9061	3	1
500	20	0.8	11415	13356	11187	3	1
600	24	0.7	17573	20560	17222	3	1
700	28	0.7	23919	27985	23441	4	1
750	30	0.7	27458	32126	26909	4	1
800	32	0.7	31241	36552	30616	4	1
900	36	0.7	39539	46261	38748	4	1
1000	40	0.7	48814	57112	47838	4	1
1050	42	0.7	53817	62966	52741	4	1
1200	48	0.7	70292	82242	68886	4	1



Main Dimensions & Weight

Class 150-2500

DN	Pressure (Class)	Dimension(mm)				Weight (Kg)	Pipeline Flange					
							Central Circle Diameter of Bolt Holes D1	Bolt Quantity	Bolt Diameterd		Bolt Length L1	
		L	D	D2	D3				in	mm	RF	RJ
2 (50mm)	150Lb	60	103	51	57	2	120.5	4	5/8	M16	140	155
	300Lb	60	110	51	57	3	127.0	8	5/8	M16	155	175
	600Lb	60	110	51	57	4	127.0	8	5/8	M16	175	180
	900Lb	70	140	51	57	8	165.0	8	7/8	M24	225	230
	1500Lb	70	140	51	57	8	165.0	8	7/8	M24	225	230
	2500Lb	70	143	42	57	10	171.5	8	1	M27	255	260
2½ (65mm)	150Lb	67	122	65	75	3	139.5	4	5/8	M16	150	165
	300Lb	67	128	65	75	4	149.0	8	3/4	M20	175	195
	600Lb	67	128	65	75	5	149.0	8	3/4	M20	195	200
	900Lb	83	162	65	75	11	190.5	8	1	M27	250	255
	1500Lb	83	162	65	75	11	190.5	8	1	M27	250	255
	2500Lb	83	166	52	75	18	197.0	8	1⅛	M30	290	305
3 (80mm)	150Lb	73	135	80	87	4	152.5	4	5/8	M16	160	175
	300Lb	73	147	80	87	6	168.5	8	3/4	M20	190	210
	600Lb	73	147	80	87	8	168.5	8	3/4	M20	210	215
	900Lb	83	165	80	87	14	190.5	8	7/8	M24	240	245
	1500Lb	83	172	80	87	19	203.0	8	1⅛	M30	270	275
	2500Lb	86	194	62	87	26	228.5	8	1¼	M33	320	330
4 (100mm)	150Lb	73	173	102	113	6	190.5	8	5/8	M16	170	185
	300Lb	73	179	102	113	8	200.0	8	3/4	M20	195	215
	600Lb	79	191	102	113	11	216.0	8	7/8	M24	235	240
	900Lb	102	204	102	113	20	235.0	8	1⅛	M30	285	290
	1500Lb	102	207	102	113	26	241.5	8	1¼	M33	310	315
	2500Lb	105	232	88	113	40	273.0	8	1½	M39	370	380
5 (125mm)	150Lb	86	195	127	149	8	216.0	8	3/4	M20	190	205
	300Lb	86	214	127	149	15	235.0	8	3/4	M20	215	235
	600Lb	105	239	127	149	20	267.0	8	1	M27	280	285
	900Lb	110	245	127	149	30	279.5	8	1¼	M33	310	315
	1500Lb	110	252	127	149	51	292.0	8	1½	M39	370	375
	2500Lb	110	277	100	149	59	324.0	8	1¾	M45	420	435
6 (150mm)	150Lb	98	220	152	166	13	241.5	8	3/4	M20	205	220
	300Lb	98	249	152	166	18	270.0	12	3/4	M20	230	250
	600Lb	136	264	152	166	26	292.0	12	1	M27	320	325
	900Lb	159	286	150	166	45	317.5	12	1⅛	M30	365	370
	1500Lb	159	280	150	166	68	317.5	12	1⅜	M36	430	440
	2500Lb	159	315	150	166	90	368.5	8	2	M52	515	530
8 (200mm)	150Lb	127	277	203	207	25	298.5	8	3/4	M20	240	255
	300Lb	127	305	203	207	31	330.0	12	7/8	M24	280	300
	600Lb	165	318	200	207	55	349.0	12	1⅛	M30	370	375
	900Lb	206	356	200	207	84	393.5	12	1⅜	M36	440	445
	1500Lb	206	350	200	207	130	393.5	12	1⅝	M42	510	520
	2500Lb	206	385	180	207	150	438.0	12	2	M52	600	620
10 (250mm)	150Lb	146	337	254	260	39	362.0	12	7/8	M24	270	285
	300Lb	146	359	254	260	51	387.5	16	1	M27	315	335
	600Lb	213	398	250	260	103	432.0	16	1¼	M33	440	445
	900Lb	241	432	250	260	145	470.0	16	1⅜	M36	490	495
	1500Lb	248	433	254	260	210	482.5	12	1⅞	M48	600	610
	2500Lb	254	474	225	260	240	539.5	12	2½	M64	750	775
12 (300mm)	150Lb	181	407	305	300	64	432.0	12	7/8	M24	310	325
	300Lb	181	420	305	300	83	451.0	16	1⅛	M30	365	385
	600Lb	229	455	305	300	140	489.0	20	1¼	M33	460	465
	900Lb	292	495	305	300	220	533.5	20	1⅜	M36	560	565
	1500Lb	305	518	305	300	384	571.5	16	2	M52	695	715
	2500Lb	305	547	266	300	440	619.0	12	2¾	M70	855	885



Main Dimensions & Weight

Class 150-900

DN	Pressure (Class)	Dimension(mm)				Weight (Kg)	Pipeline Flange					
							Central Circle Diameter of Bolt Holes D1	Bolt Quantity	Bolt Diameter d		Bolt Length L1	
		L	D	D2	D3				in	mm	RF	RJ
14 (350mm)	150Lb	184	448	350	339	85	476.0	12	1	M27	325	340
	300Lb	222	483	350	339	117	514.5	20	1⅛	M30	410	430
	600Lb	273	490	337	339	223	527.0	20	1⅜	M36×3	520	525
	900Lb	356	518	337	339	350	559.0	20	1½	M39×3	645	655
	1500Lb	356	576	337	339	550	635.0	16	2¼	M56×3	775	800
16 (400mm)	150Lb	191	512	400	387	114	540.0	16	1	M27	340	355
	300Lb	232	537	400	387	190	571.5	20	1¼	M33	435	455
	600Lb	305	562	387	387	360	603.0	20	1½	M39×3	575	580
	900Lb	384	572	387	387	470	616.0	20	1⅝	M42×3	685	695
	1500Lb	384	639	387	387	635	705.0	16	2½	M64×3	850	880
18 (450mm)	150Lb	203	547	450	438	138	578.0	16	1⅛	M30	365	380
	300Lb	264	594	450	438	200	628.5	24	1¼	M33	475	495
	600Lb	362	610	438	438	395	654.0	20	1⅝	M42×3	650	655
	900Lb	451	635	438	438	605	686.0	20	1⅞	M48×3	790	805
	1500Lb	468	701	430	438	790	774.5	16	2¾	M70×3	955	985
20 (500mm)	150Lb	219	604	500	487	163	635.0	20	1⅛	M30	385	400
	300Lb	292	652	500	487	265	686.0	24	1¼	M33	510	535
	600Lb	368	680	489	487	518	724.0	24	1⅝	M42×3	670	680
	900Lb	451	695	487	487	820	749.5	20	2	M52×3	810	825
	1500Lb	533	753	478	487	1275	832.0	16	3	M76×3	1065	1095
24 (600mm)	150Lb	222	715	600	579	331	749.5	20	1¼	M33	405	420
	300Lb	318	772	600	579	410	813.0	24	1½	M39×3	560	585
	600Lb	438	786	591	579	836	838.0	24	1⅞	M48×3	780	795
	900Lb	495	835	591	579	1050	901.5	20	2½	M64×3	945	965
	1500Lb	559	897	570	579	2710	990.5	16	3½	M90×3	1170	1205

Main Dimensions & Weight

Class 150-900

DN	Pressure (Class)	Dimension(mm)				Weight (Kg)	Pipeline Flange					
		L	D	D2	D3		Central Circle Diameter of Bolt Holes D1	Bolt Quantity	Bolt Diameter d		Bolt Length L1	
									in	mm	RF	RJ
26 (650mm) (ASME B16.47B)	150Lb	356	722	633	629	360	744.5	36	3/4	M20	500	-
	300Lb	356	767	633	629	565	803.0	32	1¼	M33	625	-
	600Lb	457	761	633	629	950	806.5	28	1⅝	M42×3	790	805
	900Lb	533	835	617	629	1182	901.5	20	2½	M64×3	955	975
26 (650mm) (ASME B16.47A)	150Lb	356	770	633	629	380	806.5	24	1¼	M33	590	-
	300Lb	356	831	633	629	580	876.0	28	1⅝	M42×3	625	-
	600Lb	457	863	633	629	980	914.5	28	1⅞	M48×3	795	810
	900Lb	533	879	617	629	1200	952.5	20	2¾	M70×3	975	995
28 (700mm) (ASME B16.47B)	150Lb	305	773	700	680	380	795.0	40	3/4	M20	455	-
	300Lb	368	821	685	680	585	857.0	36	1¼	M33	635	-
	600Lb	483	815	684	680	1215	863.5	28	1¾	M45×3	830	845
	900Lb	572	898	665	680	1441	971.5	20	2¾	M70×3	1030	1050
28 (700mm) (ASME B16.47A)	150Lb	305	827	700	680	400	863.5	28	1¼	M33	535	-
	300Lb	368	895	685	680	600	940.0	28	1⅝	M42×3	650	-
	600Lb	483	910	684	680	1250	965.0	28	2	M52×3	835	850
	900Lb	572	943	665	680	1460	1022.5	20	3	M76×3	1035	1055
30 (750mm) (ASME B16.47B)	150Lb	305	824	746	735	425	846.0	44	3/4	M20	455	-
	300Lb	368	882	735	735	660	921.0	36	1⅜	M36×3	650	-
	600Lb	505	875	735	735	1378	927.0	28	1⅜	M48×3	875	890
	900Lb	635	955	712	735	1578	1035.0	20	3	M76×3	1125	1145
30 (750mm) (ASME B16.47A)	150Lb	305	878	746	735	440	914.5	28	1¼	M33	545	-
	300Lb	368	949	735	735	680	997.0	28	1¾	M45×3	665	-
	600Lb	505	967	735	735	1420	1022.5	28	2	M52×3	860	905
	900Lb	635	1006	712	735	1600	1086	20	3	M76×3	1110	1130
32 (800mm) (ASME B16.47B)	150Lb	305	878	796	784	560	900.0	48	3/4	M20	460	-
	300Lb	368	936	784	784	970	978.0	32	1½	M39×3	675	-
	600Lb	533	928	779	784	1643	984.0	28	2	M52×3	920	940
	900Lb	660	1012	760	784	2030	1092.0	20	3	M76×3	1160	1180

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Main Dimensions & Weight

Class 150-900

DN	Pressure (Class)	Dimension(mm)				Weight (Kg)	Pipeline Flange					
		L	D	D2	D3		Central Circle Diameter of Bolt Holes D1	Bolt Quantity	Bolt Diameter d		Bolt Length L1	
									in	mm	RF	RJ
32 (800mm) (ASME B16.47A)	150Lb	305	935	796	784	580	978.0	28	1½	M39×3	570	-
	300Lb	368	1003	784	784	990	1054.0	28	1⅞	M48×3	685	-
	600Lb	533	1020	779	784	1700	1079.5	28	2¼	M56×3	905	925
	900Lb	660	1070	760	784	2050	1155.5	20	3¼	M82×3	1165	1185
36 (900mm) (ASME B16.47B)	150Lb	368	983	874	865	640	1009.5	44	7/8	M24	540	-
	300Lb	483	1044	873	865	1020	1089.0	32	1⅝	M42×3	800	-
	600Lb	635	1045	874	865	2120	1105.0	28	2¼	M56×3	1065	1085
	900Lb	718	1120	855	865	2607	1200.0	24	3	M76×3	1240	1260
36 (900mm) (ASME B16.47A)	150Lb	368	1045	874	865	660	1086.0	32	1½	M39×3	650	-
	300Lb	483	1113	873	865	1050	1168.5	32	2	M52×3	820	-
	600Lb	635	1126	874	865	2200	1194.0	28	2½	M64×3	1035	1055
	900Lb	718	1195	855	865	2607	1289.0	20	3½	M90×3	1265	1285
40 (1000mm) (ASME B16.47B)	150Lb	432	1090	976	987	870	1120.5	44	1	M27	620	-
	300Lb	546	1146	976	909	1420	1190.5	40	1⅝	M42×3	885	-
40 (1000mm) (ASME B16.47A)	150Lb	432	1167	976	987	890	1200.0	36	1½	M39×3	710	-
	300Lb	546	1110	976	909	1400	1156.0	32	1⅝	M42×3	885	-
	600Lb	660	1153	976	909	2650	1213.0	32	2¼	M56×3	1115	-
	900Lb	762	1246	950	909	2930	1340.0	24	3½	M90×3	1360	-
42 (1050mm) (ASME B16.47B)	150Lb	432	1142	1050	1062	960	1171 .5	48	1	M27	625	-
	300Lb	568	1196	1035	1016	1540	1244.5	36	1¾	M45×3	920	-
42 (1050mm) (ASME B16.47A)	150Lb	432	1213	1050	1062	980	1257.5	36	1½	M39×3	730	-
	300Lb	568	1161	1035	1016	1520	1206.5	32	1⅝	M42×3	915	-
	600Lb	702	1215	1020	972	3135	1283.0	28	2½	M64×3	1190	-
	900Lb	787	1296	995	972	3310	1390.5	24	3½	M90×3	1400	-
48 (1200mm) (ASME B16.47A)	150Lb	524	1302	1200	1193	1400	1335.0	44	1⅛	M30	740	-
	300Lb	629	1365	1166	1136	2260	1416.0	40	1⅞	M48×3	1010	-
48 (1200mm) (ASME B16.47A)	150Lb	524	1397	1166	1193	1450	1422.5	44	1½	M39×3	840	-
	300Lb	629	1320	1166	1136	2250	1371.5	32	1⅞	M48×3	1050	-
	600Lb	787	1386	1166	1136	3755	1460.5	32	2¾	M70×3	1330	-
	900Lb	851	1483	1140	1136	4415	1587.5	24	4	M100×3	1545	-

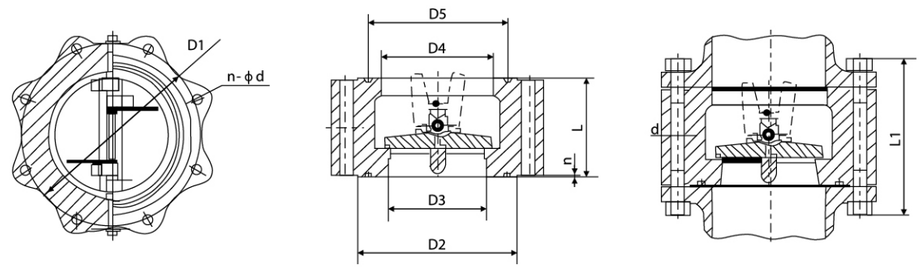
Notice: In the table 2"-24" flange standard refer to ASME B16.5 ,26"-60" flange standard refer to ASME B16.47 B series and A serie 66"-84" flange standards refer to AWWA C207.

Main Dimensions & Weight

Class 150-900

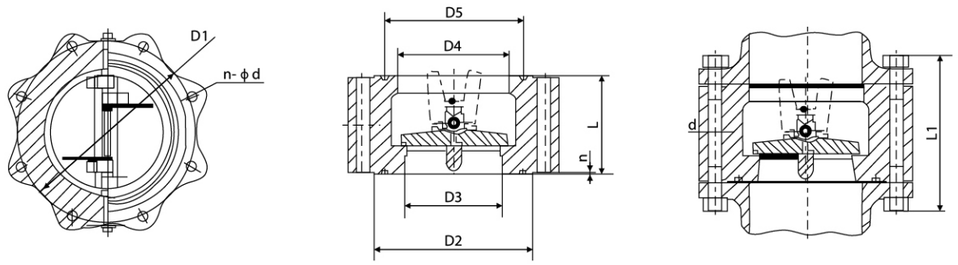
DN	Pressure (Class)	Dimension(mm)				Weight (Kg)	Pipeline Flange					
							Central Circle Diameter of Bolt Holes D1	Bolt Quantity	Bolt Diameter d		Bolt Length L1	
		L	D	D2	D3				in	mm	RF	RJ
54 (1350mm) (ASME B16.47A)	150Lb	591	1460	1312	1281	2245	1492.0	56	1⅛	M30	820	-
	300Lb	718	1526	1312	1281	3102	1578.0	48	1⅞	M48×3	1140	-
54 (1350mm) (ASME B16.47A)	150Lb	591	1545	1312	1281	2300	1594	44	1¾	M45×3	950	-
	300Lb	718	1489	1312	1281	3080	1549.5	28	2¼	M56×3	1160	-
56 (1400mm)	150Lb (ASME B16.47B)	591	1512	1360	1370	2830	1543.0	60	1⅛	M30	820	-
	150Lb (ASME B16.47A)	591	1602	1360	1370	2850	1651.0	48	1¾	M45×3	955	-
60 (1500mm) (ASME B16.47A)	150Lb	660	1628	1458	1417	3200	1662.0	52	1¼	M33	900	-
	300Lb	838	1704	1458	1417	4315	1764.0	40	2¼	M56×3	1280	-
60 (1500mm) (ASME B16.47A)	150Lb	660	1710	1458	1417	3225	1759.0	52	1¾	M45×3	1040	-
	300Lb	838	1642	1458	1417	4300	1702.0	32	2¼	M56×3	1305	-
66(1650mm)	150Lb	787	1881	1630	1663	5345	1930.5	52	1¼	M33	1075	-
72(1800mm)	150Lb	851	2046	1780	1818	6100	2095.5	60	1¼	M33	1145	-
78(1950mm)	150Lb	927	2204	1930	1973	8185	2260.5	64	2	M52×3	1250	-
84(2100mm)	150Lb	1041	2369	2080	2116	10220	2425.5	64	2	M52×3	1365	-

Notice: In the table 2"-24" flange standard refer to ASME B16.5, 26"-60" flange standard refer to ASME B16.47 B series and A serie 66"-84" flange standards refer to AWWA C207.



Main Dimensions & Weight

Pressure Rating	NPS	Size(mm)									Pipeline Flange			Weight (Kg)
		L	D1	D2		D3	D4	D5	n-Φd	n	n-Md	L1		
				RF	RJ							RF	RJ	
Class 150	2	60	120.5	92	102	51	56	82.55	4-19	1.6	4-16	140	155	4
	2½	67	139.5	105	121	65	73	101.6	4-19	1.6	4-16	150	165	5.5
	3	73	152.5	127	133	80	88	114.3	4-19	1.6	4-16	160	175	7
	4	73	190.5	157	171	102	108	149.2	8-19	1.6	8-16	170	185	11
	5	86	216	186	194	127	132	171.5	8-22	1.6	8-20	190	205	15
	6	98	241.5	216	219	152	160	193.7	8-22	1.6	8-20	205	220	19
	8	127	298.5	270	273	203	210	247.7	8-22	1.6	8-20	240	255	36
	10	146	362	324	330	254	266	304.8	12-25	1.6	12-24	270	285	61
	12	181	432	381	406	305	310	381	12-25	1.6	12-24	310	325	119
	14	184	476	413	425	350	355	396.9	12-29	1.6	12-27	325	340	131
	16	191	540	470	483	400	405	454	16-29	1.6	16-27	340	355	180
	18	203	578	533	546	450	455	517.5	16-32	1.6	16-30	365	380	203
	20	219	635	584	597	500	505	558.8	20-32	1.6	20-30	385	400	275
	24	222	749.5	692	711	600	605	673.1	20-35	1.6	20-33	405	420	315
	28	305	795.5	762	-	700	700	-	40-22	1.6	40-20	455	-	910
	30	305	846	813	-	746	750	-	44-22	1.6	44-20	455	-	1025
	32	305	900	864	-	796	800	-	48-22	1.6	48-20	460	-	1344
	36	368	1009.5	972	-	898	910	-	44-25	1.6	44-24	540	-	1536
	42	432	1171.5	1130	-	1050	1055	-	48-29	1.6	48-27	625	-	2310
	48	524	1335	1289	-	1200	1205	-	44-32	1.6	44-30	740	-	3364



Main Dimensions & Weight

Pressure Rating	NPS	Size(mm)									Pipeline Flange			Weight (Kg)
		L	D1	D2		D3	D4	D5	n-Φd	n	n-Md	L1		
				RF	RJ							RF	RJ	
Class 300	2	60	127	92	108	51	58	454	8-19	1.6	8-16	155	175	6
	2½	67	149	105	127	65	73	517.5	8-22	1.6	8-20	175	195	7
	3	73	168.5	127	146	80	88	558.8	8-22	1.6	8-20	190	210	10
	4	73	200	157	175	102	108	673.1	8-22	1.6	8-20	195	215	16
	5	86	235	186	210	127	132	-	8-22	1.6	8-20	215	235	29
	6	98	270	216	241	152	160	-	12-22	1.6	12-20	230	250	32
	8	127	330	270	302	203	210	-	12-25	1.6	12-24	280	300	55
	10	146	387.5	324	356	254	366	-	16-29	1.6	12-24	315	335	82
	12	181	451	381	413	305	310	-	16-32	1.6	16-27	365	385	92
	14	222	514.5	413	457	350	355	-	20-32	1.6	16-30	410	430	251
	16	232	571.5	470	508	400	405	-	20-35	1.6	20-30	435	455	342
	18	264	628.5	533	575	450	455	-	24-35	1.6	20-33	475	495	391
	20	292	686	584	635	500	505	-	24-35	1.6	24-33	510	535	536
	24	318	813	692	749	600	608	-	24-41	1.6	24-39	560	585	833
	30	368	921	845	-	735	740	-	36-38	1.6	36-36	650	-	1395
	36	483	1089	1010	-	873	880	-	32-45	1.6	32-42	800	-	1862
	42	568	1245	1168	-	1035	1045	-	36-48	1.6	36-45	920	-	3861
	48	629	1416	1327	-	1179	1190	-	40-51	1.6	40-48	1010	-	4370
Class 600	2	60	127	92	108	51	58	82.55	8-19	6.4	8-16	175	180	6.5
	2½	67	149	100	127	65	73	101.6	8-22	6.4	8-20	195	200	8
	3	73	168	127	146	80	88	123.8	8-22	6.4	8-20	210	215	10
	4	79	216	157	175	102	108	149.2	8-25	6.4	8-24	235	240	21
	5	105	266.5	186	210	127	136	171.5	8-29	6.4	8-27	280	285	41
	6	136	292	216	241	152	162	211.2	12-29	6.4	12-27	320	325	57
	8	162	349	270	302	200	212	269.9	12-32	6.4	12-30	370	375	94
	10	213	432	324	356	250	266	323.9	16-35	6.4	16-33	440	445	164
	12	229	489	381	413	305	312	381	20-35	6.4	20-33	460	465	213
	14	273	527	413	457	337	355	419.1	20-38	6.4	20-36	520	525	343
	16	305	603	470	508	387	400	469.9	20-41	6.4	20-39	575	580	476
	18	362	654	533	575	438	450	533.4	20-44	6.4	20-42	650	655	685
	20	368	724	584	635	489	500	584.2	24-44	6.4	24-42	670	680	908
	24	438	838	692	749	591	600	692.2	24-52	6.4	24-48	780	790	1088

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Lug Wafer Dual Plate Check Valve
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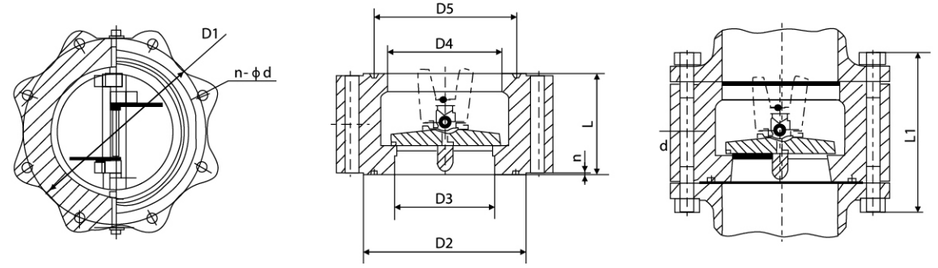

Main Dimensions & Weight

Pressure Rating	NPS	Size(mm)									Pipeline Flange			Weight (Kg)
		L	D1	D2		D3	D4	D5	n-Φd	n	n-Md	L1		
				RF	RJ							RF	RJ	
Class 900	2	70	165.1	92	124	51	58	95.25	8-26	6.4	8-24	225	230	13
	2½	83	190.5	105	137	65	73	107.9	8-29	6.4	8-27	250	255	18
	3	83	190.5	127	156	80	90	123.8	8-26	6.4	8-24	240	245	21
	4	102	234.9	157	181	102	108	149.2	8-32	6.4	8-30	285	290	36
	5	110	279.4	186	216	127	136	180.9	8-35	6.4	8-33	310	315	65
	6	159	317.5	216	241	150	162	211.1	12-32	6.4	12-30	365	370	92
	8	206	393.7	370	308	200	212	269.9	12-39	6.4	12-36	440	445	174
	10	241	469.9	324	362	250	266	323.9	16-39	6.4	16-36	490	495	264
	12	292	533.4	381	419	305	312	381	20-39	6.4	20-36	560	565	211
	14	356	559.8	413	467	337	355	419.1	20-42	6.4	20-39	645	655	612
	16	384	615.9	470	527	387	400	469.9	20-45	6.4	20-42	685	695	712
	18	451	685.8	533	594	438	450	533.4	20-51	6.4	20-48	790	805	1160
	20	451	749.3	584	648	487	496	584.2	20-54	6.4	20-52	810	825	1568
	24	495	901.7	692	772	591	600	682.2	20-67	6.4	20-64	945	965	1881
Class 1500	2	70	165.1	92	124	51	58	95.25	8-26	6.4	8-24	225	230	14
	2½	83	190.5	105	137	65	73	108	8-29	6.4	8-27	250	255	19
	3	83	203.2	127	168	80	90	136.5	8-32	6.4	8-30	270	275	25
	4	102	241.3	157	194	102	108	161.9	8-35	6.4	8-33	310	315	43
	5	110	292.1	186	229	127	136	193.7	8-42	6.4	8-39	370	375	72
	6	159	317.5	216	248	150	162	211.1	12-39	6.4	12-36	430	440	101
	8	206	393.7	270	318	200	212	269.9	12-45	6.4	12-42	510	520	240
	10	248	482.6	324	371	254	266	323.9	12-51	6.4	12-48	600	610	306
	12	305	571.5	381	438	305	312	381	16-54	6.4	16-52	695	715	541
	14	356	635	413	489	337	355	419.1	16-61	6.4	16-56	775	800	932
	16	384	704.8	470	546	387	400	469.9	16-67	6.4	16-54	850	880	980
Class 2500	2	70	171.4	92	133	42	48	101.6	8-29	6.4	8-27	255	260	19
	2½	83	196.8	105	149	52	58	111.1	8-32	6.4	8-30	390	305	31
	3	86	228.6	127	168	62	68	127	8-35	6.4	8-33	320	330	38
	4	105	273	157	203	88	94	157.2	8-42	6.4	8-39	370	380	69
	5	110	323.8	186	241	100	106	190.5	8-48	6.4	8-45	420	435	135
	6	159	368.3	216	279	150	162	228.6	8-54	6.4	8-52	515	530	184
	8	206	438.1	270	340	180	186	279.4	12-54	6.4	12-52	600	620	380
	10	254	539.7	324	425	225	232	342.9	12-67	6.4	12-64	750	775	489
	12	305	619.1	381	495	266	272	406.4	12-74	6.4	12-70	855	885	747

Summary

Axial flow check valve we produced is based on similar foreign products, and improved structure for more reasonable,better perfor- mance, to be an advanced new generation check valve.

Axial flow check valve is excellent in sealing, and it is small, light and widely used in petroleum,chemical,metallurgy,electric power and other fields.

Characteristics

1.Small size,light weight, the valve closed tightly. With special sealing structure, regardless of the level of back pressure valve, the valve can close tightly, sealing well. It overcomes the poor sealing performance of the general check valve in low pressure.
2.Structure with floating disc, self-aligning, automatic compensation for wear cased by error during installation and use. It can ensure sealing of fit, and to improve sealing performance.
3.The special streamlined design of the chamber, to meet the demand of the flow, the disc travels short, with spring return,opening and closing without impact,low noise,close quickly, small flow resistance and good effect in energy-saving.
4.Disc adopts anti-erosion structure, it reduces fluid erosion effect on the sealing surface,increase service life of the valve.
5.Unique structure, so that the position of the valve can be installed without restrictions, can be horizontal, vertical and installed at any angle.

Standard Specification

Name		Axial Flow Check Valve																				
Model		ZLH41,ZLKH41,ZLXH41,ZLH71,ZLKH71,ZLH61,ZLH11																				
DN/NPS	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800
	in	1/2	3/4	1	1¼	1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	28	32
Nominal Pressure(MPa/Lb)		PN1.0 1.6 2.5 4.0 6.4 10.0 16.0 22.0 25.0 32.0 42.0 ANSI Class 150 300 600 900 1500 2500																				
Connection		Flange, Butt Welding (BW), Wafer, Internal Thread																				
Body Materials		20# WCB CF8 CF8M 316 316L 304, etc.																				

Application Standard

1.Face-Face:ASME B16.10; API 6D and enterprise standard.
2.Flange :ASME B16.5.
3.Inspection and Testing: API 598.
4.Customers' requirement on flange structure and length structure can be designed and manufactured.

Bistinguish Between the Main Material

Body Materials		WCB CF8 CF8M 316 316L, etc.		
Disc	Material	410 420 CF8 CF8M 316 304 316L, etc.		
	Deal	Quench Surface, Solution Treatment		
Stem	Material	410 420 304 316 316L, etc.		
	Deal	Quench Surface, Solution Treatment,Hard Chrome Plating		
Bush	Material	410 420 304 316 316L, etc.		
	Deal	Quench Surface, Solution Treatment		
Yoke	Material	WCB CF8 CF8M 410 420, etc.		
	Deal	Annealing, Solution Treatment		
Spring	Material	316 Inconel X750		
	Deal	Quenching, Solution Treatment		
Sealing Pair	Material	Buna-n Rubber(NBR)	Fluoro Rubber	Metal Sealing Pair
	Deal	-	-	Quenching,Grinding
Operating Temperature	WCB	-29~100℃	-29~200℃	-29~400℃
	CF8	-29~100℃	-29~200℃	-29~400℃

Type ZLH41,ZLKH41,ZLXH41(Flange standard ANSI B16.5).

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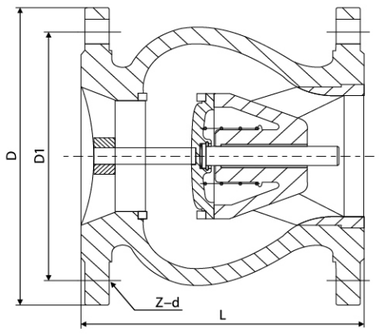
Axial Flow Check Valve



Main Dimensions & Weight

Class 150-2500

Flange Standard ②/①/③			in	1/2	3/4	1	1¼	1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
			mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
ANSI B16.5 SH3406	150Lb	L	Short Type	80	80	85	110	120	130	160	180	200	230	270	330	370	450	520	580	650	720	980
			Standard	130	150	160	180	200	230	290	310	350	400	480	500	600	700	790	910	980	980	1300
			D1	60.5	70	79.5	89	98.5	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432	476	540	578	635	749.5
			D	90	100	110	120	130	150	180	190	230	255	280	345	405	485	535	600	635	700	815
			Z-d	4-16	4-16	4-16	4-16	4-16	4-20	420	4-20	8-20	8-22	8-22	8-22	12-26	12-26	12-30	16-30	16-33	20-33	20-36
ANSI B16.5 SH3406	300Lb	L	Short Type	90	90	100	120	130	170	190	220	260	300	340	420	480	560	620	680	750	830	-
			Standard	170	190	210	230	260	300	340	380	430	500	550	650	775	900	1025	1150	1275	1400	-
			D1	66.5	82.5	89	98.5	114.5	127	149	168.5	200	235	270	330	387.5	451	514.5	571.5	628.5	686	-
			D	95	120	125	135	155	165	190	210	255	280	320	380	445	520	585	650	710	775	-
			Z-d	4-16	4-20	4-20	4-20	4-22	8-20	8-22	8-22	8-22	8-22	12-22	12-26	16-30	16-32	20-33	20-36	24-36	24-36	-
ANSI B16.5 SH3406	600Lb	L	Short Type	90	90	100	120	130	170	190	220	260	300	340	420	480	590	650	720	770	850	-
			Standard	170	190	210	230	260	300	340	380	430	500	550	650	775	900	1025	1150	1275	1400	-
			D1	66.5	82.5	89	98.5	114.5	127	149	168	216	267	292	349	432	489	527	603	654	724	-
			D	95	120	125	135	155	165	190	210	275	330	355	420	510	560	605	685	745	815	-
			Z-d	4-16	4-20	4-20	4-20	4-22	8-20	8-22	8-22	8-26	8-30	12-30	12-33	16-36	20-36	20-39	20-42	20-45	24-45	-
ANSI B16.5 SH3406	900Lb	L	Short Type	110	110	120	140	160	200	230	260	300	350	390	480	550	670	730	800	-	-	-
			Standard	200	230	250	270	300	340	380	410	460	530	590	690	810	940	-	-	-	-	-
			D1	82.5	89	101.5	111	124	165	190.5	190.5	235	279.5	317.5	393.5	470	533.5	559	616	-	-	-
			D	120	130	150	160	180	215	245	240	295	350	380	470	545	610	640	705	-	-	-
			Z-d	4-22	4-22	4-26	4-26	4-30	8-26	8-30	8-26	8-33	8-36	12-33	12-39	16-39	20-39	20-42	20-45	-	-	-
ANSI B16.5 SH3406	1500Lb	L	Short Type	110	110	120	140	160	200	230	290	330	400	450	550	640	-	-	-	-	-	-
			Standard	200	230	250	270	300	340	380	450	500	570	650	720	900	-	-	-	-	-	-
			D1	82.5	89	101.5	111	124	165	190.5	203	241.5	292	317.5	393.5	482.5	-	-	-	-	-	-
			D	120	130	150	160	180	215	245	270	310	375	395	485	585	-	-	-	-	-	-
			Z-d	4-22	4-22	4-26	4-26	4-30	8-26	8-30	8-33	8-36	8-42	12-39	12-45	12-52	-	-	-	-	-	-
ANSI B16.5 SH3406	2500Lb	L	Short Type	130	130	140	170	200	240	270	340	390	450	510	640	-	-	-	-	-	-	-
			Standard	220	250	270	300	330	380	420	500	560	620	700	790	-	-	-	-	-	-	-
			D1	89	95	108	130	146	171.5	197	228.5	273	324	368.5	438	-	-	-	-	-	-	-
			D	135	140	160	185	205	235	270	305	355	420	485	550	-	-	-	-	-	-	-
			Z-d	4-22	4-22	4-26	4-30	4-33	8-30	8-33	8-36	8-42	8-48	8-54	12-54	-	-	-	-	-	-	-

Notice:1.DN 2.Dimension(mm) 3.PN(MPa)

Application Specification

Design and Manufacture: ANSI B16.34;API 602;API 600;
Connecting Ends:
1)Socked Welded Dimension: ANSI B16.11
2)Screw Ends Dimension: ANSI B1.20.1; BS21; ISO7/1;

Testing and Inspection: API598;
Structure Features: API598;
Material in Accordance with AISI/ASTM
Main Materials: A105;F5;F11;F22;304;304L;316;316L;LF2, etc.

Parts Material List

No.	Parts	Material		
		Standard Material	High Temperature Material	Stainless Steel Material
1	Body	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
2	Bonnet	ASTM A105	ASTM A182-F11/F22	ASTM A182-F304/F316
3	Wedge Disc	ASTM A105/ER410 OVERLAY	ASTM A182-F6a	ASTM A182-F304/F316/STL. OVERLAY
4	Stem Nut	ASTM A276-420	ASTM A276-420	ASTM A276-420
5	Bushing Flange	ASTM A105	ASTM A216-WCB	ASTM A351-CF8
6	Handwheel	Nodular Cast Iron	Nodular Cast Iron	Nodular Cast Iron
7	Seat	ASTM A105/STL.OVERLAY	ASTM A276-410/STL.OVERLAY	ASTM A182-F304/F316
8	Stem	ASTM A182-F6a	ASTM A182-F6a	ASTM A182-F304/F316
9	Bushing	ASTM A276-420	ASTM A276-420	ASTM A276-304/316
10	Gasket	304 Spiral Wound Gasket	304 Spiral Wound Gasket	304/316 Spiral Wound Gasket
11	Middle Packing	Graphite	Graphite	Graphite
12	End Packing	Carbon Fiber(CF)	Carbon Fiber(CF)	Carbon Fiber(CF)
13	Hand Wheel Nut	Carbon Steel	Carbon Steel	ASTM A276-304
14	Gasket	ASTM A276-304	ASTM A276-304	ASTM A276-304
15	Bolt	ASTM A193-B7	ASTM A193-B16	ASTM A193-B8
16	Swing Bolt	ASTM A193-B8	ASTM A193-B8	ASTM A193-B8
17	Nut	ASTM A194-8	ASTM A194-8	ASTM A194-8
18	Pin	ASTM A276-304	ASTM A276-304	ASTM A276-304
19	Name Plate	ASTM A240-304	ASTM A240-304	ASTM A240-304

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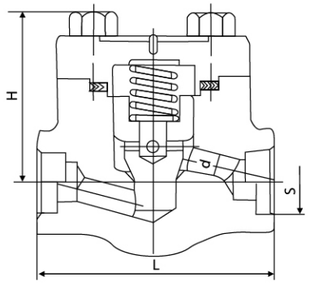
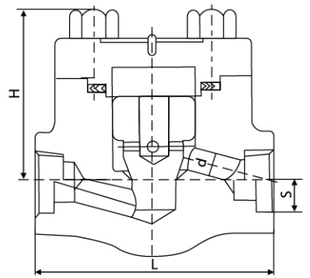
Main Dimensions & Weight



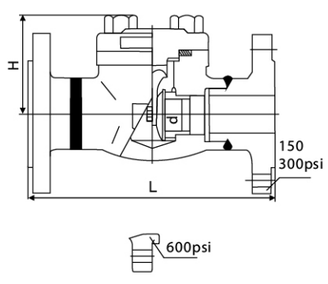
- Forged Steel Check Valve — Class150-800

Size(DN)		S	L				H				Weight(kg)			
in	mm	ANSI	Lift Type		Swing Type		Lift Type		Swing Type		Lift Type		Swing Type	
			B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B
1/4	8	14.2	79	79	79	79	61	61	61	61	1.5	1.4	1.3	1.2
3/8	10	17.6	79	79	79	79	61	61	61	61	1.4	1.2	1.2	1.0
1/2	15	21.8	79	92	79	92	61	61	61	61	1.2	1.4	1.0	1.1
3/4	20	27.1	92	111	92	111	61	78	61	78	1.4	2.3	1.1	1.9
1	25	33.8	111	120	111	120	78	84	78	84	2.3	3.9	1.9	3.4
1¼	32	42.6	120	152	120	120	84	103	84	101	3.9	5.6	3.4	4.5
1½	40	48.7	152	172	120	140	103	118	101	120	5.6	8.9	4.5	7.3
2	50	61.1	172	200	140	170	118	132	120	133	8.9	12.5	7.3	10



- Forged Steel Check Valve — Class900-1500

Size(DN)		S	L				H				Weight(kg)			
in	mm	ANSI	Lift Type		Swing Type		Lift Type		Swing Type		Lift Type		Swing Type	
			B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B	B.B	W.B
1/4	8	14.2	111	111	111	111	79	79	79	79	3.2	3.1	3.2	3.1
3/8	10	17.6	111	111	111	111	79	79	79	79	3.1	3.0	3.1	3.0
1/2	15	21.8	111	111	111	111	79	79	79	79	3.0	3.4	3.0	3.6
3/4	20	27.1	111	130	111	120	79	97	79	97	3.4	4.8	3.6	4.3
1	25	33.8	130	152	120	140	97	104	97	105	4.8	6.9	4.3	6.1
1¼	32	42.6	152	172	140	140	104	120	105	120	6.9	10.7	6.1	8.8
1½	40	48.7	172	220	140	162	120	139	120	140	10.7	14.6	8.8	12.6
2	50	61.1	220	-	162	-	139	-	140	-	14.6	-	12.6	-



- Forged Swing Flange Check Valve — Class150/300/600

Specification(DN)		Pressure (Class)	L	H		Weigh(kg)	
in	mm			B.B	W.B	B.B	W.B
1/2	15	150	108	61	61	2.5	3.3
		300	152			2.6	3.6
		600	165			2.9	4.3
3/4	20	150	117	61	78	3.3	4.8
		300	178			3.6	5.1
		600	190			4.3	6.2
1	25	150	127	78	84	4.8	7.0
		300	203			5.1	7.4
		600	216			6.2	7.7
1¼	32	150	140	84	101	7.0	7.5
		300	216			7.4	7.9
		600	229			7.7	9.3
1½	40	150	165	101	120	7.5	11.3
		300	229			7.9	11.7
		600	241			9.3	13.2
2	50	150	203	120	133	11.3	13.6
		300	267			11.7	16.8
		600	292			13.2	20.5

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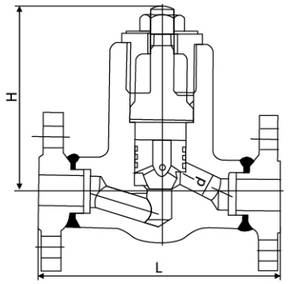
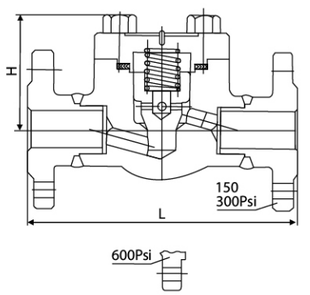
Main Dimensions & Weight



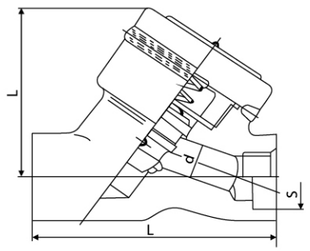
- Forged Self-sealing Flange Check Valve — Class900/1500/2500

Specification(DN)		Pressure (Class)	L	H	Weight(kg)
in	mm				
1/2	15	900	216	117.5	10.5
		1500			
		2500	264	117.5	12.6
3/4	20	900	228.6	117.5	11.9
		1500			
		2500	273	117.5	14.9
1	25	900	254	117.5	13.9
		1500			
		2500	308	117.5	16.5
1½	40	900	305	149	26.9
		1500			
		2500	384	149	30
2	50	900	368	195	32.5
		1500			
		2500	451	195	35



- Forged Flange Check Valve — Class150/300/600

Specification(DN)		Pressure (Class)	L	H		Weight(kg)	
in	mm			B.B	W.B	B.B	W.B
1/2	15	150	108	61	61	2.56	3.37
		300	152			2.73	3.65
		600	165			3.00	4.00
3/4	20	150	117	61	78	3.37	4.37
		300	178			3.65	4.74
		600	190			4.00	5.83
1	25	150	127	78	84	4.37	8.17
		300	203			4.74	8.77
		600	216			5.83	9.47
1¼	32	150	140	84	103	8.17	8.94
		300	216			8.77	9.60
		600	229			9.47	10.10
1½	40	150	165	103	118	8.94	12.04
		300	229			9.60	13.70
		600	241			10.10	15.61
2	50	150	203	118	132	12.64	14.3
		300	267			13.70	17.8
		600	292			15.61	24.6



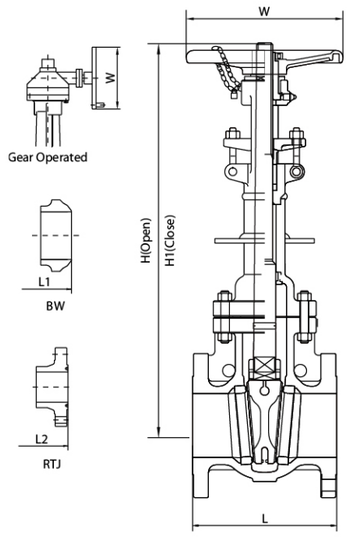
- Forged Y-type Check Valve — Class150-800/1500

Specification(DN)		S	L		H		Weight(kg)	
in	mm	ANSI	150~800 Class	1500Class	150~800 Class	1500Class	150~800 Class	1500Class
1/4	8	14.2	98	102	84	90	3.0	3.2
3/8	10	17.6	98	102	84	90	3.0	3.2
1/2	15	21.7	98	102	84	90	2.9	3.1
3/4	20	27.1	98	102	84	101	3.7	4.1
1	25	33.8	120	130	102	125	6.5	7.2
1¼	32	42.5	130	150	114	132	8.5	10.5
1½	40	48.7	140	190	114	142	9.6	11.6
2	50	61.1	170	190	145	203	10.8	12

FKV®

CRYOGENIC VALVE SERIES

CV SERIES www.fkv.jp



Standard Material

Part	Material
Body	ASTM A351 CF8/CF8M
Bonnet	ASTM A351 CF8/CF8M
Stem	ASTM A182 F304/F316
Wedge	ASTM A351 CF8M+STL.6
Seat	ASTM A182 F316+STL.6
Gland Flange	ASTM A351 CF8/CF8M
Gland	ASTM A276 304/316
Packing	Graphite
Gland Stud	ASTM A193 B8/B8M
Gland Nut	ASTM A194 8/8M
Body/Bonnet Nut	ASTM A194 8/8M
Body/Bonnet Stud	ASTM A193 B8/B8M
Bearing	PCTFE
Bush	ASTM A276 304/316
Stem Nut	ASTM A439 D-2
Gasket	SS316+Graphite
Key	SS304/SS316
Yoke	ASTM A351 CF8/CF8M
Handwheel Nut	Stainless Steel
Handwheel	Ductile Iron
Grease Fitting	Stainless Steel
Groove Pin	Stainless Steel
Bushing	Stainless Steel
Washer	Stainless Steel
Name Plate	Stainless Steel
Rivet	Stainless Steel

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CRYOGENIC VALVE SERIES
Cryogenic Cast Steel Gate Valve
FKV®

Dimensions

150LB

Size		L(RF)		L1(BW)		W		H(Open)		H1(Close)		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	7.00	178	8.50	216	8.00	200	25.28	642	22.64	575	55.12	25
2½"	65	7.48	190.0	9.50	241	8.00	200	27.52	699	24.33	618	74.96	34
3"	80	8.00	203	11.12	282	10.00	250	30.08	764	26.38	670	101.41	46
4"	100	9.00	229	12.00	305	10.00	250	33.58	853	29.02	737	141.10	64
6"	150	10.50	267	15.88	403	14.00	350	40.75	1035	33.78	858	231.49	105
8"	200	11.50	292	16.50	419	14.00	350	48.23	1225	39.41	1001	363.76	165
10"	250	13.00	330	18.00	457	16.00	400	55.75	1416	44.88	1140	584.23	265
12"	300	14.00	356	19.75	502	18.00	450	64.80	1646	51.85	1317	833.35	378
14"	350	15.00	381	22.50	572	20.00	500	69.13	1756	54.84	1393	1146.41	520
16"	400	16.00	406	24.00	610	22.05	560	77.87	1978	61.54	1563	1393.33	632
18"	450	17.00	432	26.00	660	25.20	640	84.72	2152	66.57	1691	1748.27	793
20"	500	18.00	457	28.00	711	27.00	680	93.62	2378	73.31	1862	2257.55	1024
24"	600	20.00	508	32.00	813	30.00	720	107.95	2742	83.54	2122	3527.41	1600
28"	700	24.02	610	36.00	914	28.00	*500	131.50	3340	102.76	2610	5445.45	2470
30"	750	24.00	610	36.00	914	35.00	*500	146.26	3715	115.55	2935	7279.70	3302
32"	800	25.98	660	38.00	965	24.00	*610	150.55	3824	117.87	2994	8476.82	3845
36"	900	28.00	711	40.00	1016	24.00	*810	154.21	3917	118.39	3007	9687.16	4394

300LB

Size		L-L1(RF-BW)		W		H(Open)		H1(Close)		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	8.50	216	8.00	200	26.97	685	24.21	615	74.96	34
2½"	65	9.49	241	10.00	250	30.12	765	26.97	685	101.41	46
3"	80	11.12	282	10.00	250	31.10	790	27.36	695	165.35	75
4"	100	12.00	305	10.00	250	34.76	883	30.12	765	242.51	110
6"	150	15.88	403	14.00	350	41.93	1065	34.96	888	421.09	191
8"	200	16.50	419	16.00	400	50.00	1270	41.34	1050	674.62	306
10"	250	18.00	457	18.00	450	57.56	1462	46.69	1186	1003.11	455
12"	300	19.75	502	20.00	500	66.54	1690	53.94	1370	1433.01	650
14"	350	30.00	762	22.05	560	70.87	1800	57.09	1450	1957.72	888
16"	400	33.00	838	23.62	600	79.53	2020	63.19	1605	2722.72	1235
18"	450	35.99	914	26.77	680	87.40	2220	69.37	1762	3282.70	1489
20"	500	39.00	991	29.92	760	94.76	2407	74.80	1900	4682.64	2124
24"	600	45.00	1143	29.92	760	110.63	2810	86.61	2200	7623.62	3458
28"	700	53.00	1346	24.00	*610	132.68	3370	103.74	2635	9493.15	4306
30"	750	55.00	1397	24.00	*610	142.17	3611	111.85	2841	10308.87	4676
32"	800	60.00	1524	32.00	*810	155.20	3942	121.73	3092	13900.22	6305
36"	900	68.00	1727	40.00	*810	162.56	4129	125.35	3184	19632.27	8905

600LB

Size		L-L1(RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	11.50	292	11.61	295	10.00	250	26.65	677	23.86	606	111.77	51
2½"	65	13.00	330	13.11	333	10.00	250	30.39	772	27.24	692	149.03	68
3"	80	14.00	356	14.13	359	11.81	300	32.52	826	28.66	728	194.89	88
4"	100	17.00	432	17.13	435	13.78	350	35.94	913	31.57	802	343.92	156
6"	150	22.00	560	22.13	562	17.72	450	45.71	1161	38.86	987	782.42	355
8"	200	26.00	660	26.10	663	19.69	500	53.98	1371	45.04	1144	1152.14	523
10"	250	31.00	788	31.10	790	25.20	640	60.51	1537	49.72	1263	1748.27	793
12"	300	33.00	838	33.11	841	26.77	680	67.64	1718	54.57	1386	2689.65	1220
14"	350	35.00	889	35.12	892	28.35	720	75.67	1922	61.38	1559	3568.20	1619
16"	400	39.00	991	39.12	994	29.92	760	80.91	2055	64.76	1645	4385.02	1989
18"	450	43.00	1092	43.12	1095	35.04	890	86.85	2206	69.53	1766	5818.03	2639
20"	500	47.00	1194	47.25	1200	42.91	1090	96.38	2448	74.72	1898	7838.58	3556
24"	600	55.00	1397	55.38	1407	42.91	1090	133.86	3400	110.43	2805	8157.15	3700
28"	700	61.00	1549	61.50	1562	40.00	*1000	142.20	3612	114.45	2907	17339.45	7865
30"	750	65.00	1651	65.50	1664	40.00	*1000	149.57	3799	120.83	3069	19904.54	9029
32"	800	70.00	1778	70.60	1794	40.00	*1000	159.88	4061	128.35	3260	23822.39	10806
36"	900	82.00	2083	82.60	2099	40.00	*1000	177.56	4510	142.01	3607	28660.24	13000

*Gear Operated

Dimensions

900LB

Size		L-L1(RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	14.50	368	14.61	371	11.81	300	29.72	755	27.05	687	212.09	96
2½"	65	16.50	419	16.61	422	9.84	250	31.38	797	28.07	713	263.67	120
3"	80	15.00	381	15.13	384	13.78	350	32.80	833	28.98	736	289.47	131
4"	100	18.00	457	18.13	461	15.75	400	35.87	911	31.30	795	492.96	224
6"	150	24.00	610	24.10	613	22.00	560	46.85	1190	40.39	1026	1834.26	832
8"	200	29.00	737	29.13	740	25.20	640	53.27	1353	44.72	1136	1984.17	900
10"	250	33.00	838	33.12	841	26.77	680	62.44	1586	52.01	1321	3152.63	1430
12"	300	38.00	965	38.12	968	29.92	760	68.50	1740	56.69	1440	3897.79	1768
14"	350	40.50	1029	40.91	1039	29.92	760	73.23	1860	60.04	1525	6448.55	2925
16"	400	44.50	1130	44.88	1140	24.00	* 610	85.83	2180	70.75	1797	8168.17	3705

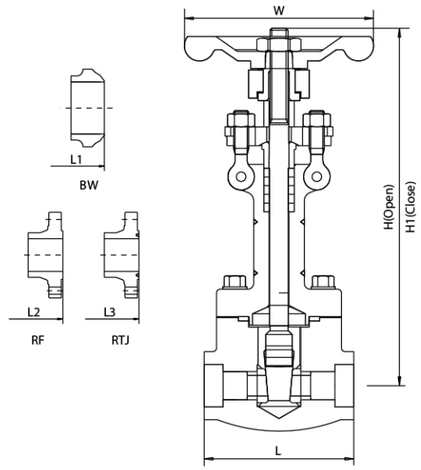
1500LB

Size		L-L1(RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	14.49	368	14.61	371	12.00	300	29.72	755	27.05	687	211.64	96
2½"	65	16.50	419	16.61	422	12.00	300	32.36	822	29.45	748	374.79	170
3"	80	18.50	470	18.62	473	15.75	400	34.57	878	31.02	788	474.00	215
4"	100	21.50	546	21.61	549	20.00	500	38.78	985	34.29	871	709.89	322
6"	150	27.76	705	27.99	711	25.20	640	48.15	1223	42.17	1071	1461.67	663
8"	200	32.76	832	33.15	842	29.92	760	55.00	1397	47.13	1197	2980.67	1352
10"	250	39.02	991	39.38	1001	18.00	* 460	66.54	1690	56.69	1440	5474.11	2483
12"	300	44.49	1130	45.12	1146	24.00	* 610	71.85	1825	60.51	1537	7897.00	3582

2500LB

Size		L-L1(RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	17.75	451	17.88	454	14.00	350	32.01	813	29.96	761	372.58	169
2½"	65	20.00	508	20.25	514	18.00	450	32.01	813	29.53	750	573.20	260
3"	80	22.75	578	23.00	584	18.00	450	32.76	832	29.96	761	703.28	319
4"	100	26.50	673	26.88	683	20.00	500	44.09	1120	40.63	1032	1404.35	637
6"	150	36.00	914	36.50	927	24.00	610	66.93	1700	61.93	1573	4585.64	2080
8"	200	40.25	1022	40.88	1038	24.00	610	66.93	1700	60.51	1537	4629.73	2100

*Gear Operated



Standard Material

Part	Material
Body	ASTM A182 F304/F316
Bonnet	ASTM A182 F304/F316
Stem	ASTM A182 F304/F316
Wedge	ASTM A182 F316 + STL.6/F304
Seat	ASTM A182 F316 + STL.6/F304
Flange	A182 A351 CF8/CF8M
Gland	ASTM A276 304/316
Packing	Graphite
Gland Stud	ASTM A193 B8/B8M
Gland Nut	ASTM A194 8/8M
Body/Bonnet Nut	ASTM A194 8/8M
Body/Bonnet Stud	ASTM A193 B8/B8M
Gasket	SPW. SS316 + Graphite/SPW. SS304 + Graphite
Handwheel Nut	Stainless Steel
Handwheel	Ductile Iron
Name Plate	SS304/SS316
Rivet	Stainless Steel
Stem Nut	Bronze/D-2

Dimensions

150LB

Size		L(RF)		H(Open)		W		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	4.25	108	18.03	458	3.94	100	14.88	7
3/4"	20	4.61	117	18.46	469	3.94	100	17.20	8
1"	25	5.00	127	19.57	497	4.92	125	27.12	12
1¼"	30	5.51	140	21.10	536	6.30	160	38.03	17
1½"	40	6.50	165	21.50	546	6.30	160	41.34	19
2"	50	7.01	178	22.95	583	7.09	180	67.13	30

300LB

Size		L(RF)		H(Open)		W		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	5.51	140	18.03	458	3.94	100	15.87	7
3/4"	20	5.98	152	18.46	469	3.94	100	20.50	9
1"	25	6.50	165	19.57	497	4.92	125	30.75	14
1¼"	30	7.01	178	21.10	536	6.30	160	46.30	21
1½"	40	7.48	190	21.50	546	6.30	160	51.26	23
2"	50	8.50	216	22.95	583	7.09	180	77.38	35

600LB

Size		L(RF)		H(Open)		W		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	6.50	165	18.46	469	3.94	100	19.51	9
3/4"	20	7.48	190	19.57	497	3.94	100	24.47	11
1"	25	8.50	216	21.10	536	4.92	125	34.39	16
1¼"	30	9.02	229	21.50	546	6.30	160	53.57	24
1½"	40	9.49	241	22.95	583	6.30	160	57.87	26
2"	50	11.50	292	24.41	620	7.09	180	93.59	42

800LB

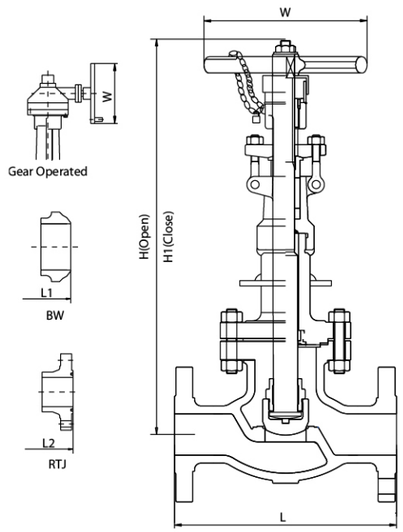
Size		L(NPT/SW)		H(Open)		H1(Close)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	2.99	76	13.46	342	12.99	330	3.94	100	11.46	5
3/4"	20	3.62	92	13.58	345	13.11	333	3.94	100	15.65	7
1"	25	4.17	106	14.78	376	14.17	360	4.92	125	20.72	9
1¼"	30	4.72	120	16.81	427	16.02	407	6.30	160	29.76	14
1½"	40	4.49	114	19.70	501	18.70	475	6.30	160	33.07	15
2"	50	5.67	144	19.92	506	18.70	475	7.09	180	39.24	18
2½"	65	6.69	170	23.23	590	21.69	551	7.87	200	61.73	28

900LB 1500LB

Size		L(NPT/SW)		L1/L2(RF/BW)		L3(RTJ)		H(Open)		H1(Close)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	4.37	111	/	/	/	/	18.21	463	17.60	447	4.92	125	9.48	4
3/4"	20	4.37	111	8.50	216	8.50	216	18.21	463	17.60	447	4.92	125	9.26	4
1"	25	4.72	120	10.00	254	9.00	229	19.74	502	19.13	486	6.30	160	14.55	7
1¼"	30	4.72	120	11.00	279	10.00	254	20.31	516	19.53	496	6.30	160	19.40	9
1½"	40	5.51	140	12.00	305	11.00	279	22.01	559	20.98	533	7.09	180	27.56	13
2"	50	6.69	170	14.50	368	12.00	305	24.09	612	22.83	580	7.87	200	37.92	17
2½"	65	8.27	210	16.50	419	14.62	371	25.31	643	23.78	604	8.27	210	51.81	24

2500LB

Size		L(NPT/SW)		L1/L2(RF/BW)		L3(RTJ)		H(Open)		H1(Close)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	5.51	140	10.39	264	10.39	264	25.28	642	24.76	629	6.30	160	28.66	13
3/4"	20	5.51	140	10.75	273	10.75	273	25.28	642	24.76	629	6.30	160	33.07	15
1"	25	7.32	186	12.13	308	12.13	308	25.28	642	24.76	629	7.09	180	39.68	18
1¼"	30	9.13	232	13.74	349	13.74	349	29.92	760	29.41	747	7.87	200	66.14	30
1½"	40	9.13	232	15.12	384	15.12	384	32.60	828	32.09	815	9.84	250	119.05	54
2"	50	10.98	279	17.76	451	17.87	454	39.53	1004	39.02	991	11.02	280	154.32	70



Standard Material

Part	Material
Body	ASTM A351 CF8/CF8M
Seat	STL.6 Overlay
Bonnet	ASTM A351 CF8/CF8M
Stem	ASTM A182 F316/F304
Packing	Graphite
Gland Flange	ASTM A351 CF8/CF8M
Gland	ASTM A276 316/304
Gland Stud	ASTM A193 B8/B8M
Gland Nut	ASTM A194 8/8M
Bonnet Nut	ASTM A194 8/8M
Bonnet Stud	ASTM A193 B8/B8M
Bearing	PCTFE
Bush	ASTM A276 316/304
Stem Nut	ASTM A439 D-2
Gasket	SPW.SS316+Graphite/SPW.SS304+Graphite
Handwheel Nut	Stainless Steel
Handwheel	Ductile Iron
Name Plate	SS304/SS316
Disc Nut	ASTM A182 F304/F316
Disc	ASTM A182 F316+STL.6/F304+STL.6

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CRYOGENIC VALVE SERIES
Cryogenic Cast Steel Globe Valve
FKV®

Dimensions

150LB

Size		L-L1 (RF-BW)		W		H(Open)		H1(Close)		Weight(RF)	Weight(BW)
in	mm	in	mm	in	mm	in	mm	in	mm	kg	kg
2"	50	8	203	8	200	22.5	572	21.46	545	27	22
2½"	65	8.5	216	8	200	24.9	632	23.74	603	38	26
3"	80	9.5	241	10	250	25.1	637	23.78	604	46	39
4"	100	11.5	292	12	300	26.9	683	25.59	650	75	61
5	125	14	356	14	350	28.2	716	26.14	664	101	92
6"	150	16	406	14	350	29.6	751	27.87	708	135	112
8"	200	19.5	495	17.7	450	31.6	803	28.94	735	211	179
10"	250	24.5	622	17.7	450	35.2	895	32.64	829	376	285
12"	300	27.5	698	25.2	640	42.2	1073	38.70	983	631	471
14"	350	31	787	25.2	640	44.1	1121	39.41	1001	715	638
16"	400	36	914	28.3	720	44.3	1124	39.49	1003	941	845
18"	450	38.5	978	24	*610	54.7	1390	49.88	1267	1820	1625
20"	500	38.5	978	24	*610	59.6	1513	54.65	1388	3380	2990
24"	600	51	1295	31.9	*810	69.8	1774	63.94	1624	4810	4225

300LB

Size		L-L1 (RF-BW)		W		H(Open)		H1(Close)		Weight(RF)	Weight(BW)
in	mm	in	mm	in	mm	in	mm	in	mm	kg	kg
2"	50	10.5	267	8	200	23.6	600	22.52	572	34	27
2½"	65	11.5	292	10	250	25.7	654	24.02	610	49	38
3"	80	12.5	318	10	250	25.8	656	24.65	626	66	49
4"	100	14.0	356	14	350	28.5	723	26.50	673	99	77
5	125	15.7	400	18	450	32.5	826.5	30.73	780.5	163	135
6"	150	17.5	444	17.7	450	32.6	828	30.79	782	225	178
8"	200	22.0	559	17.7	450	41.4	1051	39.09	993	386	308
10"	250	24.5	622	22.0	560	42.2	1072	38.94	989	650	562
12"	300	28.0	711	25.2	640	44.9	1141	40.08	1018	941	822
14"	350	33.0	838	30.3	770	45.8	1164	41.42	1052	1463	1268
16"	400	34.0	864	24	*610	65.1	1653	60.20	1529	2145	1885
18"	450	38.5	978	38.5	*610	67.3	1710	62.01	1575	3510	3120
20"	500	40	1016	40	*810	74.1	1882	68.19	1732	4745	4160

600LB

Size		L-L1 (RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight(RF)	Weight(BW)
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	kg	kg
2"	50	11.5	292	11.6	295	10	250	26.2	666	24.13	613	48	39
2½"	65	13	330	13.1	333	14	350	30.6	776	28.74	730	65	52
3"	80	14	356	14.1	359	14	350	31.0	787	29.33	745	81	75
4"	100	17.0	432	17.1	435	18	450	33.5	850	30.43	773	195	172
6"	150	22	559	22.1	562	22	550	38.6	980	35.35	898	382	295
8"	200	26	660	26.1	663	24	600	44.3	1125	41.81	1062	706	598
10"	250	31	787	31.1	790	24	600	46.0	1168	42.99	1092	1308	948
12"	300	33	838	33.1	841	28	720	48.1	1222	42.99	1092	1755	1378

*Gear Operated

Dimensions

900LB

Size		L-L1 (RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight(RF)	Weight(BW)
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	kg	kg
2"	50	14.5	368	14.6	371	14	350	28.1	714.0	27.32	694.0	124	98
2½"	65	16.5	419	16.6	422	14	350	35.8	910.0	34.76	883.0	179	111
3"	80	15	381	15.1	384	14	350	36.0	915.0	34.96	888.0	150	146
4"	100	18	457	18.1	460	17.7	450	36.5	926.0	34.53	877.0	256	205
6"	150	24	610	24.1	613	22.0	560	41.7	1059.0	39.57	1005.0	566	468
8"	200	29.0	737	29.1	740	28.3	720	43.2	1097.0	39.96	1015.0	936	776

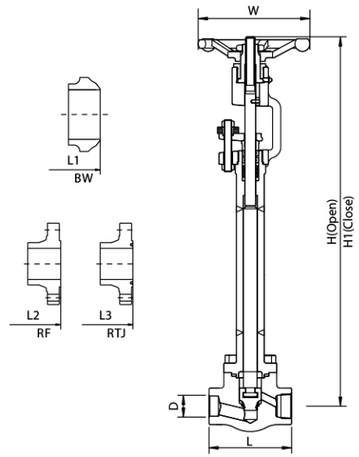
1500LB

Size		L-L1 (RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight(RF)	Weight(BW)
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	kg	kg
2"	50	14.5	368	14.6	371	14	350	28.1	714	27.40	696	111	98
2½"	65	16.5	419	16.6	422	14	350	32.4	822	31.30	795	179	146
3"	80	18.5	470	18.6	473	17.7	450	35.3	896	32.36	822	280	168
4"	100	21.5	546	21.6	549	19.7	500	39.6	1005	37.83	961	455	389
6"	150	27.8	705	28.0	711	25.2	640	44.6	1132	42.52	1080	728	601
8"	200	32.8	832	33.1	842	*24.0	*610	59.5	1511	56.42	1433	1287	1079

2500LB

Size		L-L1 (RF-BW)		L2(RTJ)		W		H(Open)		H1(Close)		Weight(RF)	Weight(BW)
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	kg	kg
2"	50	17.8	451	17.9	454	17.7	450	33.7	856.6	33.02	838.6	229	183
2½"	65	20	508	20.3	514	20	500	41.3	1050	40.28	1023	343	278
3"	80	22.8	578	23.0	584	22	560	44.7	1135	41.77	1061	400	309
4"	100	26.5	673	26.9	683	*24	*610	59.4	1510	57.72	1466	987	837
6"	150	36.0	914	36.5	927	*24	*610	84.8	2155	82.80	2103	2587	2210
8"	200	40.3	1022	40.9	1038	*24	*610	106.9	2715	103.82	2637	5707	5135

*Gear Operated



Standard Material

Part	Material
Body	ASTM A182 F316/F304
Seat	STL.6 Overlay on Body
Bonnet	ASTM A182 F316/F304
Stem	ASTM A182 F316/F304
Packing	Graphite
Gland Flange	ASTM A351 CF8/CF8M
Gland	ASTM A276 316/304
Gland Stud	ASTM A193 B8/B8M
Gland Nut	ASTM A194 8/8M
Bonnet Stud	ASTM A193 B8/B8M
Gasket	SPW. SS316+Graphite/SPW. SS304+Graphite
Handwheel Nut	Stainless Steel
Handwheel	Ductile Iron
Name Plate	Stainless Steel
Disc	ASTM A182 F316+STL.6/F304+STL.6

Dimensions

150LB

Size		L		L(SW/NPT)		H(Open)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	4.25	108	2.99	76	18.35	466	3.94	100	14.88	7
3/4"	20	4.61	117	3.62	92	18.54	471	3.94	100	22.82	10
1"	25	5.00	127	4.17	106	19.96	507	4.92	125	32.41	15
1¼"	30	5.51	140	4.72	120	21.26	540	6.30	160	44.64	20
1½"	40	6.50	165	5.83	148	21.97	558	6.30	160	64.49	29
2"	50	7.99	203	6.77	172	24.80	630	7.09	180	92.59	42

300LB

Size		L		L(SW/NPT)		H(Open)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	5.98	152	2.99	76	18.35	466	3.94	100	15.87	7
3/4"	20	7.01	178	3.62	92	18.54	471	3.94	100	25.46	12
1"	25	7.99	203	4.17	106	19.96	507	4.92	125	36.38	17
1¼"	30	8.50	216	4.72	120	21.26	540	6.30	160	55.56	25
1½"	40	9.02	229	5.83	148	21.97	558	6.30	160	70.11	32
2"	50	10.51	267	6.77	172	24.80	630	7.09	180	107.81	49

600LB

Size		L		L(SW/NPT)		H(Open)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	6.50	165	2.99	76	18.54	471	3.94	100	18.52	8
3/4"	20	7.48	190	3.62	92	19.96	507	3.94	100	25.79	12
1"	25	8.50	216	4.17	106	21.26	540	4.92	125	41.34	19
1¼"	30	9.02	229	4.72	120	21.97	558	6.30	160	56.22	26
1½"	40	9.49	241	5.83	148	24.80	630	6.30	160	77.71	35
2"	50	11.50	292	6.77	172	26.77	680	7.09	180	128.31	58

800LB

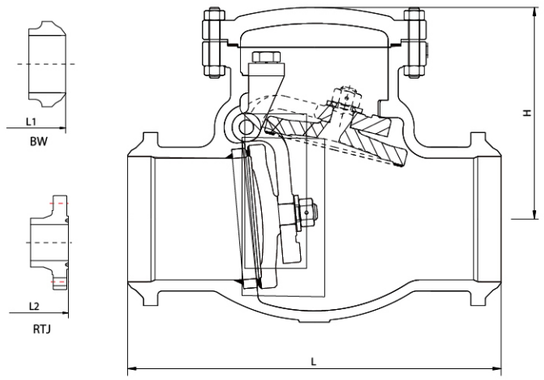
Size		L		L(SW/NPT)		H(Open)		H1(Close)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
3/8"	10	2.99	76	2.99	76	16.65	423	16.34	415	5.12	130	13.23	6
1/2"	15	2.99	76	2.99	76	16.65	423	16.34	415	5.12	130	15.43	7
3/4"	20	3.62	92	3.62	92	16.88	429	16.54	420	5.12	130	24.25	11
1"	25	4.17	106	4.17	106	17.60	447	17.13	435	6.30	160	30.86	14
1¼"	32	4.72	120	4.72	120	19.13	486	18.50	470	6.30	160	33.07	15
1½"	40	5.83	148	5.83	148	19.18	487	18.50	470	7.09	180	44.09	20
2"	50	6.77	172	6.77	172	22.01	559	20.87	530	7.87	200	63.93	29

900LB 1500LB

Size		L(SW/NPT)		L1(RF/BW)		L2(RTJ)		H(Open)		H1(Close)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	4.37	111	8.50	216	8.50	216	17.63	447.7	17.13	435	5.12	130	8.82	4
3/4"	20	4.37	111	9.00	229	9.00	229	17.63	447.7	17.13	435	5.12	130	11.02	5
1"	25	4.72	120	10.00	254	10.00	254	19.00	482.7	18.50	470	6.30	160	15.43	7
1¼"	30	5.98	152	11.00	279	11.00	279	18.98	482	18.50	470	6.30	160	17.64	8
1½"	40	6.77	172	12.00	305	12.00	305	21.77	553	20.47	520	7.09	180	26.46	12
2"	50	8.66	220	14.50	368	14.60	371	22.17	563	20.87	530	7.87	200	33.07	15

2500LB

Size		L(SW/NPT)		L1(RF/BW)		L2(RTJ)		H(Open)		H1(Close)		W		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	5.51	140	10.39	264	10.39	264	24.92	633	24.41	620	6.30	160	39.68	18
3/4"	20	5.51	140	10.75	273	10.75	273	24.92	633	24.41	620	6.30	160	44.09	20
1"	25	7.32	186	12.13	308	12.13	308	24.92	633	24.41	620	7.09	180	55.12	25
1¼"	30	9.13	232	13.74	349	13.74	349	27.95	710	27.44	697	7.87	200	81.57	37
1½"	40	9.13	232	15.12	384	15.12	384	28.35	720	27.83	707	9.84	250	110.23	50
2"	50	10.98	279	17.76	451	17.87	454	32.44	824	31.93	811	11.02	280	171.96	78



Standard Material

Part	Material
Body	ASTM A351 CF8/CF8M
Seat	ASTM A182 F316+STL.6
Hinge Pin	ASTM A182 F304/F316
Gasket	SPW. SS316+Graphite/SS316
Cover Stud	ASTM A193 B8/B8M
Cover Nut	ASTM A194 8/8M
Cover	ASTM A351 CF8/CF8M
Washer	Stainless Steel
Disc	ASTM A351 CF8/CF8M+STL.6
Hinge	ASTM A351 CF8/CF8M
Disc Nut	ASTM A194 8/8M
Name Plate	SS304/SS316

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Dimensions

150LB

Size		L-L1 (RF-BW)		H		Weight	
in	mm	in	mm	in	mm	lb	kg
2"	50	7.99	203	6.02	153	33.07	15
2½"	65	8.50	216	6.65	169	48.50	22
3"	80	9.50	241	7.13	181	61.73	28
4"	100	11.50	292	8.39	213	92.59	42
5"	125	14.02	356	10.55	268	125.66	57
6"	150	14.00	356	12.17	309	174.17	79
8"	200	19.50	495	14.45	367	288.81	131
10"	250	24.50	622	17.01	432	390.22	177
12"	300	27.48	698	19.76	502	621.71	282
14"	350	31.00	787	22.09	561	837.76	380
16"	400	34.00	864	23.31	592	1194.91	542
18"	450	38.50	978	27.64	702	1393.33	632
20"	500	38.50	978	27.95	710	1884.96	855
24"	600	51.00	1295	32.56	827	2138.50	970
26"	650	51.00	1295	35.31	897	2813.11	1276
28"	700	57.00	1448	36.80	935	3527.41	1600
30"	750	60.00	1524	38.20	970	4453.36	2020
32"	800	60.00	1524	49.20	1058	5357.26	2430
36"	900	77.01	1956	/	/	/	/

300LB

Size		L-L1 (RF-BW)		H		Weight	
in	mm	in	mm	in	mm	lb	kg
2"	50	10.50	267	6.97	177	44.09	20
2½"	65	11.50	292	7.17	182	66.14	30
3"	80	12.50	318	9.09	231	88.19	40
4"	100	14.00	356	10.47	266	143.30	65
5"	125	15.75	400	11.22	285	185.19	84
6"	150	17.48	444	12.72	323	260.15	118
8"	200	21.00	533	15.47	393	425.49	193
10"	250	24.50	622	16.69	424	683.44	310
12"	300	28.00	711	21.30	541	992.09	450
14"	350	33.00	838	23.94	608	1311.76	595
16"	400	34.00	864	25.71	653	1851.89	840
18"	450	38.50	978	28.19	716	2056.92	933
20"	500	40.00	1016	27.41	696	2910.12	1320
24"	600	53.00	1346	31.34	796	4074.16	1848
26"	650	53.00	1346	36.60	930	5236.01	2375
28"	700	59.00	1499	45.80	1163	5864.33	2660
30"	750	62.75	1594	50.00	1270	8113.05	3680
32"	800	68.00	1727	50.00	1270	8113.05	3680
36"	900	82.01	2083	/	/	/	/

600LB

Size		L-L1 (RF-BW)		L2 (RTJ)		H		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	11.50	292	11.63	295	7.20	184	66.14	30
2½"	65	13.00	330	13.11	333	8.30	210	94.80	43
3"	80	14.00	356	14.12	359	9.10	232	121.25	55
4"	100	17.00	432	17.13	435	10.40	263	205.03	93
5"	125	20.00	508	20.12	511	11.60	295	352.74	160
6"	150	22.00	559	22.13	562	14.70	374	458.56	208
8"	200	26.00	660	26.12	663	16.80	426	747.37	339
10"	250	31.00	787	31.10	790	20.40	517	1205.93	547
12"	300	33.00	838	33.12	841	22.40	569	1576.31	715
14"	350	35.00	889	35.12	892	24.50	622	1951.10	885
16"	400	39.00	991	39.12	994	26.80	680	2888.07	1310
18"	450	43.00	1092	43.12	1095	29.60	752	3571.51	1620
20"	500	47.00	1194	47.25	1200	38.40	975	4673.82	2120
24"	600	55.00	1397	55.38	1407	43.70	1111	6834.37	3100
26"	650	57.00	1448	57.50	1461	43.70	1110	8377.61	3800
28"	700	63.00	1600	63.50	1613	46.90	1192	10141.32	4600
30"	750	65.00	1651	65.50	1664	/	/	/	/
36"	900	82.00	2083	82.60	2099	/	/	/	/

Dimensions

900LB

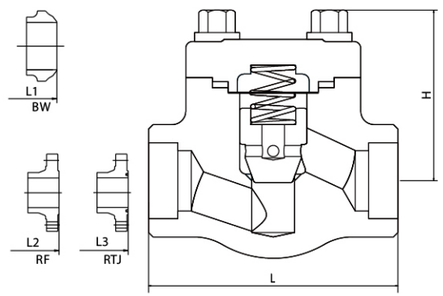
Size		L-L1 (RF-BW)		L2 (RTJ)		H		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	14.50	368	14.63	372	11.18	284	154.32	70
2½"	65	16.50	419	16.61	422	11.81	300	220.46	100
3"	80	15.00	381	15.12	384	12.01	305	242.51	110
4"	100	18.00	457	18.12	460	12.05	306	330.70	150
6"	150	24.00	610	24.13	613	16.65	423	672.41	305
8"	200	29.00	737	29.13	740	19.96	507	1124.36	510
10"	250	33.00	838	33.11	841	22.91	582	1785.75	810
12"	300	38.00	965	38.12	968	25.59	650	2469.19	1120
14"	350	40.50	1029	40.88	1039	27.01	686	3042.40	1380
16"	400	44.50	1130	44.88	1140	33.00	838	4188.80	1900
18"	450	48.00	1219	48.50	1232	33.00	839	6613.90	3000
20"	500	52.00	1321	52.50	1334	36.70	932	8818.54	4000
24"	600	61.00	1549	61.70	1568	36.70	933	11464.10	5200

1500LB

Size		L-L1 (RF-BW)		L2 (RTJ)		H		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	14.50	368	14.61	371	11.18	284	154.32	70
2½"	65	16.50	419	16.62	422	11.81	300	220.46	100
3"	80	18.50	470	18.63	473	13.07	332	330.70	150
4"	100	21.50	546	21.62	549	14.69	373	540.14	245
6"	150	27.75	705	28.00	711	19.76	502	1212.55	550
8"	200	32.75	832	33.15	842	23.94	608	2226.68	1010
10"	250	39.00	990.6	39.38	1000	25.55	649	3254.04	1476
12"	300	44.50	1130.3	45.12	1146	29.92	760	5026.57	2280
14"	350	49.50	1257	50.25	1276	37.40	950	6746.18	3060
16"	400	54.50	1384	55.38	1406	40.10	1020	9920.85	4500
18"	450	60.50	1537	61.40	1559	45.20	1147	13448.27	6100

2500LB

Size		L-L1 (RF-BW)		L2 (RTJ)		H		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
2"	50	17.75	451	17.87	454	16.40	416	319.67	145
2½"	65	20.00	508	20.25	514	16.50	419	529.11	240
3"	80	22.75	578	23.00	584	17.40	441	727.53	330
4"	100	26.50	673	26.88	683	18.90	479	1433.01	650
6"	150	36.00	914	36.50	927	20.10	511	1776.94	806
8"	200	40.25	1022	40.87	1038	28.00	711	5335.21	2420
10"	250	50.00	1270	50.88	1292	33.50	851	8267.38	3750



Standard Material

Part	Material
Body	ASTM A182 F304/F316
Seat	STL.6 Overlay on Body
Gasket	SPW.SS304/SS316+Graphite
Cover Stud	ASTM A193 B8/B8M
Cover	ASTM A182 F304/F316
Washer	Stainless Steel
Disc	ASTM A182 F304/F316+STL.6
Spring	SS304/SS316
Name Plate	SS304/SS316

Dimensions

150LB

Size		L(NPT/SW)		L1(RF-BW)		H		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	2.99	76	4.25	108	2.40	61	5.64	3
3/4"	20	3.62	92	4.61	117	2.40	61	7.43	3
1"	25	4.17	106	5.00	127	3.11	79	9.63	4
1¼"	30	4.72	120	5.51	140	3.74	95	18.01	8
1½"	40	5.83	148	6.50	165	4.06	103	19.71	9
2"	50	6.77	172	7.99	203	4.65	118	27.87	13

300LB

Size		L(NPT/SW)		L1(RF)		L2 (BW)		H		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	2.99	76	5.98	152	5.98	152	2.40	61	6.02	3
3/4"	20	3.62	92	7.01	178	7.01	178	2.40	61	8.05	4
1"	25	4.17	106	7.99	203	8.50	216	3.11	79	10.45	5
1¼"	30	4.72	120	8.50	216	9.02	229	3.74	95	19.33	9
1½"	40	5.83	148	9.02	229	9.49	241	4.06	103	21.16	10
2"	50	6.77	172	10.51	267	10.51	267	4.65	118	30.20	14

600LB

Size		L(NPT/SW)		L1(RF-BW)		H		Weight	
in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	2.99	76	6.50	165	2.40	61	6.61	3
3/4"	20	3.62	92	7.48	190	2.40	61	8.82	4
1"	25	4.17	106	8.50	216	3.11	79	12.85	6
1¼"	30	4.72	120	9.02	229	3.74	95	20.88	9
1½"	40	5.83	148	9.49	241	4.06	103	22.27	10
2"	50	6.77	172	11.50	292	4.65	118	34.39	16

800LB

Size		L(NPT/SW)		H		Weight	
in	mm	in	mm	in	mm	lb	kg
3/8"	15	2.99	76	1.97	50	2.87	1
1/2"	15	2.99	76	1.97	50	3.09	1
3/4"	20	3.62	92	2.36	60	3.31	2
1"	25	4.17	106	2.76	70	6.83	3
1¼"	30	4.72	120	3.15	80	8.60	4
1½"	40	5.83	148	3.35	85	12.35	6
2"	50	6.77	172	3.94	100	19.62	9
2½"	65	8.66	220	4.72	120	27.56	13

900LB 1500LB

Size		L(NPT/SW)		L1(RF/BW)		L2(RTJ)		H		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	4.37	111	/	/	/	/	2.95	75	3.53	2
3/4"	20	4.37	111	8.50	216	8.50	216	2.95	75	7.50	3
1"	25	4.37	111	9.00	229	9.00	229	2.95	75	7.72	4
1¼"	30	4.72	120	10.00	254	10.00	254	3.94	100	12.13	6
1½"	40	5.98	152	11.00	279	11.00	279	4.33	110	13.23	6
2"	50	6.77	172	12.00	305	12.00	305	4.72	120	20.28	9
2½"	65	8.66	220	14.50	368	14.60	371	5.51	140	28.44	13

2500LB

Size		L(NPT/SW)		L1(RF/BW)		L2(RTJ)		H		Weight	
in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
1/2"	15	5.51	140	10.39	264	10.39	264	5.91	150	22.05	10
3/4"	20	5.51	140	10.75	273	10.75	273	5.91	150	21.16	10
1"	25	7.32	186	12.13	308	12.13	308	6.69	170	20.72	9
1¼"	30	9.13	232	13.74	349	13.86	352	7.09	180	47.40	22
1½"	40	9.13	232	15.12	384	15.24	387	7.48	190	46.30	21
2"	50	10.98	279	17.76	451	17.87	454	8.46	215	50.71	23