



PRODUCTS

GATE VALVE, GLOBE VALVE, CHECK VALVE, BALL VALVE,
TRIPLE OFFSET BUTTERFLY VALVE, GRYOGENIC VALVE, SPECIAL VALVE etc.

DAE HAN CONTROL CO., LTD.

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D.H.C. CONTROL VALVES

GATE VALVES / GLOBE VALVES / SWING CHECK VALVES
CAST CARBON STEEL / CAST ALLOY STEEL / CAST STAINLESS STEEL



 DAE HAN CONTROL CO., LTD.

New Revolution Technology of D.H.C



GREETINGS

Based on our vast experiences and continuous research & development, Dae Han Control Co., Ltd. has become one of the leading manufacturers of metal seated valves.

Power plant, Cogeneration, Petro-Chemical, Refining, Water and Waste Water Purification, Pulp & Paper, Marine, Steel and other Industrial process applications are some of the vast industries that we supply.

Throughout our history, we have endeavored to produce high quality products at competitive prices that meet and exceed customer's expectations.

Our desire is to make DHC valve a recognized standard in the valve industry. We would like to insure you that each of our products will be conforming to international standards such as ASME/ANSI, MSS, DIN, BS, JIS. Quality Assurance to ISO9001-2000, CE and API, will insure we maintain a high level of excellence to you our respected customer.

Thank you for your consideration.

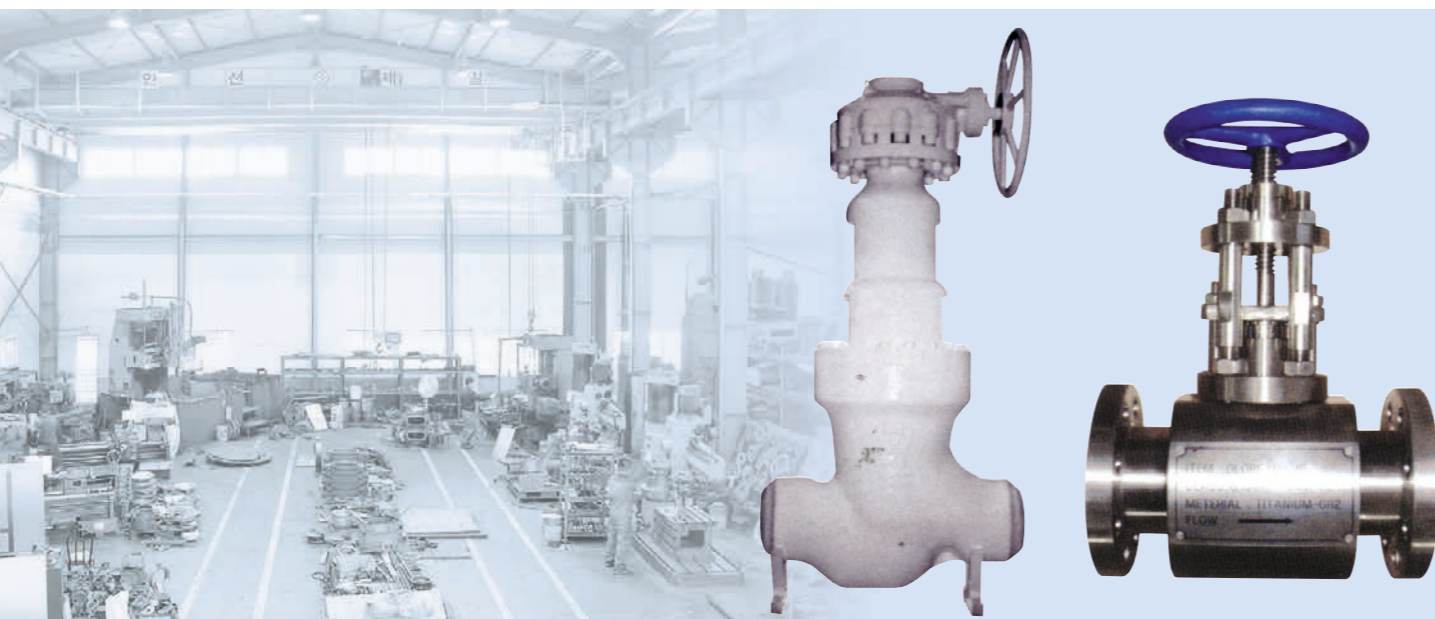
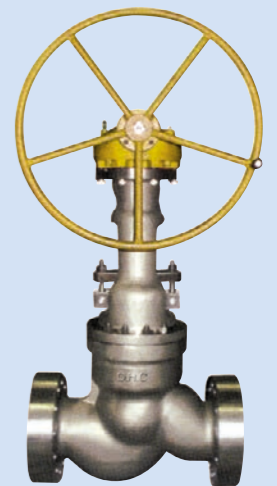
President **Y. G. Kim**
DAE HAN CONTROL CO., LTD.



The best of best D.H.C

BRIEF HISTORY

- Oct. 1995 • Established DAE HAN CONTROL.
• Started manufacturing Butterfly and Check Valves.
• Exported Valves to Japan.
- Oct. 1998 • Moved into New Factory at Sasang-Gu, Busan, Korea.
• Produced Butterfly Valve of Metal Seat and Hi-Performance Type.
• Exported Valves to South-East Asia.
- Jan. 2000 • Incorporated the company DAEHAN CONTROL CO.,LTD.
- Oct. 2000 • Moved into bigger Factory at Kamjeon-Dong, Sasang-Gu, Busan, Korea.
• ISO 9001 Quality Management System Approved for Butterfly and Check Valves.
• Supplied with POSCO, KEPCO and KHNP.
- Nov, 2002 • Moved into New Factory with bigger Space and Equipments at Songjeong-Dong, Kangseo-Ku, Busan City.
• Started Producing Special Valves.
- Jan. 2005 • Registered vendor list on KEPCO for Butterfly Valves
- Jan. 2006 • Moved into Current Address at #1207-13, Busan Science Complex, Jisa-dong, Kangseo-gu, Busan, Korea.
- Jan. 2007 • Registered vander list on POSCO for Butterfly, Check, Ball and Gate Valves etc.
- Aug. 2007 • Fire Test Certificate Approved for Butterfly Valve.
- Sept. 2007 • CE Certificate Approved for Butterfly and Check Valves.
- Oct. 2008 • API Certificate Approved for Butterfly Valve & Ball Valve.
- Dec. 2008 • Fire Test Certificate Approved for Ball Valve & Plug Valve.



APPROVAL CERTIFICATES



The World Best D.H.C

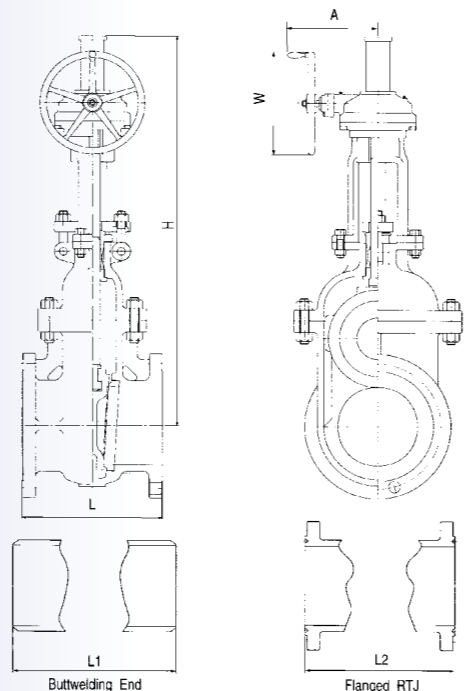
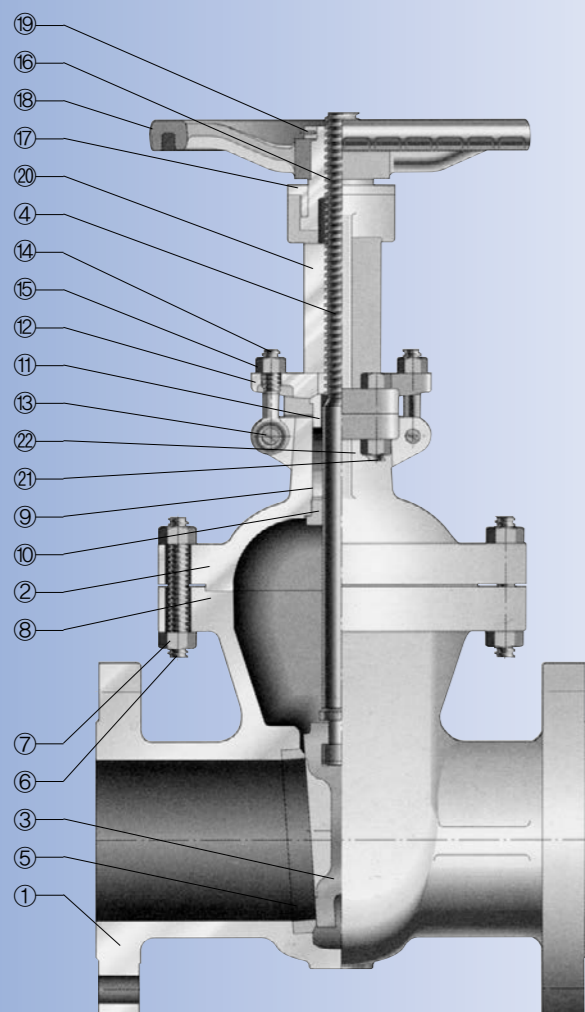
GATE VALVES | D.H.C

CLASS 150/300/600/900/1500/2500

GATE VALVES

CLASS 150/300/600/900/1500/2500
OS & Y, BB TYPE

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STANDARDS APPLICABLE
ANSI B16.5, B16.10, B16.25, B16.34, API 598, 600, BS 1414

No.	NAME OF PARTS	SPECIFICATION
8	GASKET	COMMERCIAL
9	PACKING	COMMERCIAL
23	BEARING	STEEL
24	SET SCREW	STEEL
25	GREASE NIPPLE	STEEL
26	NAME PLATE	ALUMINIUM

No.	NAME OF PARTS	ASTM SPECIFICATION							
		STANDARD	HIGH TEMPERATURE SERVICE				LOW TEMPERATURE SERVICE		
1	BODY	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
2	BONNET	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
3	DISC ★	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
4	STEM	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
5	SEAT RING	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	
6	BONNET BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr-B7	A193Gr B7	
7	BONNET NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr-2H	A194Gr 2H	
10	BACK SEAT	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr-410	A479Gr 410	
11	PACKING GLAND	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr-410	A479Gr 410	
12	GLAND FLANGE	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	
13	HINGE PIN	A105	A105	A105	A105	A105	A105	A105	
14	GLAND BOLT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
15	GLAND NUT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
16	YOKE SLEEVE	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	
17	SLEEVE NUT	A105 or 410	A105 or 410	A105 or 410	A105 or 410	A105 or 410	A105 or 410	A105 or 410	
18	HANDWHEEL	A197	A197	A197	A197	A197	A197	A197	
19	HANDWHEEL NUT	A105 or 410	A105 or 410	A105 or 410	A105 or 410	A105 or 410	A105 or 410	A105 or 410	
20	YOKE	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
21	YOKE BOLT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
22	YOKE NUT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	

※ Note : In case of 8" and larger size, we use the one overlaid with the same or equivalent material of the body.

CLASS 150

SIZE	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	30"	36"	42"	48"	52"	
L(RF)	178	190	203	229	254	267	292	330	356	381	406	432	457	508	559	610	711	813	864	914	
	7.00	7.50	8.00	9.00	10.00	10.50	11.50	13.00	14.00	15.00	16.00	17.00	18.00	20.00	22.00	24.00	28.00	34.00	32.00	36.00	
L1(B/W)	216	241	282	305	381	403	419	457	502	572	610	660	711	813	864	914	1016	1168	1092	1372	
	8.50	9.50	11.12	12.00	15.00	15.88	16.50	18.00	19.75	22.50	24.00	26.00	28.00	32.00	34.00	36.00	40.00	46.00	43.00	54.00	
L2(RTJ)	191	203	216	241	267	279	305	343	368	394	419	445	470	521	-	-	-	-	-	-	
	7.50	8.00	8.50	9.50	10.50	11.00	12.00	13.50	14.50	15.50	16.50	17.50	18.50	20.50	-	-	-	-	-	-	
H	400	425	511	568	670	793	987	1191	1379	1700	1810	2050	2130	2630	2982	3220	4037	4372	5525	5766	
	15.75	16.73	20.12	22.36	26.38	31.22	38.86	46.89	54.29	66.93	71.26	80.71	83.86	103.5	117.4	126.8	158.9	172.1	217.5	227	
W	180	180	224	260	260	300	355	400	450	350	500	500	630	630	710	710	800	900	900	900	
	7.09	7.09	8.82	10.24	10.24	11.81	13.98	15.75	17.72	13.78	19.69	19.69	24.80	24.80	27.95	27.95	31.50	35.43	35.40	35.40	
A	-	-	-	-	-	-	-	-	-	307	337	337	372	372	397	397	431	474	670	670	
	-	-	-	-	-	-	-	-	-	12.1	507	13.3	14.6	14.6	15.2	15.2	16.9	18.7	26.4	26.4	
WEIGHT	RF kg	20	23	33	47	62	81	119	175	273	361	13.3	617	746	1157	1313	1604	3938	4600	7110	8500
	lb	44.09	50.71	72.75	103.6	136.7	178.6	262.3	385.8	601.9	795.9	1117.7	1360.2	1644.6	2550.7	2894.6	3536.2	8681.7	10141.2	15677	18742
BW	kg	17	22	30	44	57	74	119	169	264	350	497	587	726	1217	1380	1780	4050	4650	7050	8550
	lb	37.48	48.50	66.14	97.00	125.7	163.1	262.3	372.6	582.0	771.6	1095.7	1294.1	1600.5	2683.0	3042.3	3924.2	8928.6	1025.4	15545	18853

CLASS 300

SIZE	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	30"	36"	42"	
L(RF)&L1(B/W)	216	241	282	305	381	403	419	457	502	762	838	914	991	1143	1245	1397	1727	1981	
	8.50	9.50	11.12	12.00	15.00	15.88	16.50	18.00	19.75	30.00	33.00	36.00	39.00	45.00	49.00	55.00	68.00	78.00	
L2(RTJ)	232	257	298	321	397	419	435	473	517	778	854	930	1010	1165	1270	1422	1756		
	9.12	10.12	11.74	12.62	15.62	16.50	17.12	18.62	20.37	30.62	33.62	36.62	39.75	45.88	50.00	56.00	69.12		
H	419	444	526	580	717	813	983	1189	1390	1600	1808	2089	2292	2814	3020	3720	4270	5973	
	16.50	17.48	20.71	22.83	28.23	32.01	38.70	46.81	54.72	62.99	71.18	82.24	90.24	110.8	118.9	146.5	168.1	235.2	
W	180	180	224	260	300	355	400	450	450	500	500	630	630	710	710	800	900	900	1000
	7.09	7.09	8.82	10.24	11.81	13.98	15.75	17.72	17.72	19.69	19.69	24.80	24.80	27.95	27.95	31.50	35.43	35.43	39.37
A	-	-	-	-	-	-	-	-	-	337	337	372	372	397	431	474	525	548	
	-	-	-	-	-	-	-	-	-	13.3	13.3	14.6	14.6	15.2	16.9	18.7	20.7	21.6	
WEIGHT	RF kg	25	33	49	65	96	147	212	287	434	540	931	1260	1547	2573	3150	4725	7350	8300
	lb	55.12	72.75	108.0	143.3	211.6	324.1	467.4	632.7	956.8	1190.5	2052.5	2777.8	3410.5	5672.4	6944.5	10416.7	16203.8	18298.2
BW	kg	20	26	38	50	85	114	176	251	361	500	850	1160	1397	2200	2900	3900	5350	6300
	lb	44.09	57.32	83.77	110.2	187.4	251.3	388.0	553.4	795.9	1102.3	1873.9	2557.3	3079.8	4850.1	6393.3	8597.9	11794.6	13889.0

CLASS 600

SIZE	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	30"	36"	
L(RF)&L1(B/W)	292	330	356	432	508	559	660	787	838	889	991	1092	1194	1397	1448	1651	2083	
	11.50	13.00	14.00	17.00	20.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00	57.00	65.00	82.00	
L2(RTJ)	295	333	359	435	511	562	664	791	841	892	994	1095	1200	1407	1461	1664	2099	
	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	57.50	65.50	82.62	
H	420	492	541	676	810	904	1141	1294	1619	1862	2085	2314	2561	2910	3262	3780	4420	
	16.54	19.37	21.30	26.61	31.89	35.60	44.92	50.94	63.74	73.31	82.09	91.10	100.8	114.6	128.4	148.8	174.0	
W	224	224	260	300	400	400	450	500	630	630	710	710	800	900	900	900	1000	
	8.82	8.82	10.24	11.81	15.75	15.75	17.72	19.69	24.80	24.80	27.95	27.95	31.50	35.43	35.43	35.43	39.37	
A	-	-	-	-	-	-	-	-	372	372	397	397	431	474	525	525	548	
	-	-	-	-	-	-	-	-	14.6	14.6	15.2	15.2	16.9	18.7	20.7	20.7	21.6	
WEIGHT	RF kg	38	43	68	109	185	233	425	668	986	1313	1694	2289	2783	4315	5040	7455	12180
	lb	83.77	94.80	149.9	240.3	407.90	513.8	937.0	1472.7	2173.7	2894.6	3734.6	5046.3	6135.4	9512.8	11111.2	16435.3	26852.0
BW	kg	28	33	58	94	160	192	368	572	892	1193	1548	2150	2630	4046	4340	6655	11000
	lb	61.73	72.75	127.9	207.2	352.7	423.3	811.3	1261.0	1966.5	2630.1	3412.7	4739.9	5798.1	8919.8	9568.0	14671.6	24250.6

GATE VALVES

CLASS 150/300/600/900/1500/2500
OS & Y, BB TYPE

CLASS 900

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L(RF)& L1(B/W)	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549
L2(RTJ)	371	422	384	460	613	740	841	968	1038	1140	1232	1334	1568
H	543	642	658	815	1034	1390	1670	1850	1904	2030	2215	2765	3115
W	300	355	355	400	500	500	630	630	710	710	900	900	1000
A	-	-	-	-	-	337	372	372	397	397	474	474	548
WEIGHT													
RF	kg	77	83	111	202	399	743	1085	1630	1850	2480	3700	4760
	lb	169.8	183.0	244.7	445.3	879.6	1638.0	2392.0	3593.5	4078.5	5467.4	8157.0	10493.9
BW	kg	57	66	89	162	320	594	868	1304	1572	2108	3145	4046
	lb	125.7	145.5	196.2	357.1	705.5	1309.5	1913.6	2874.8	3465.6	4647.3	6933.5	8919.8

CLASS 1500

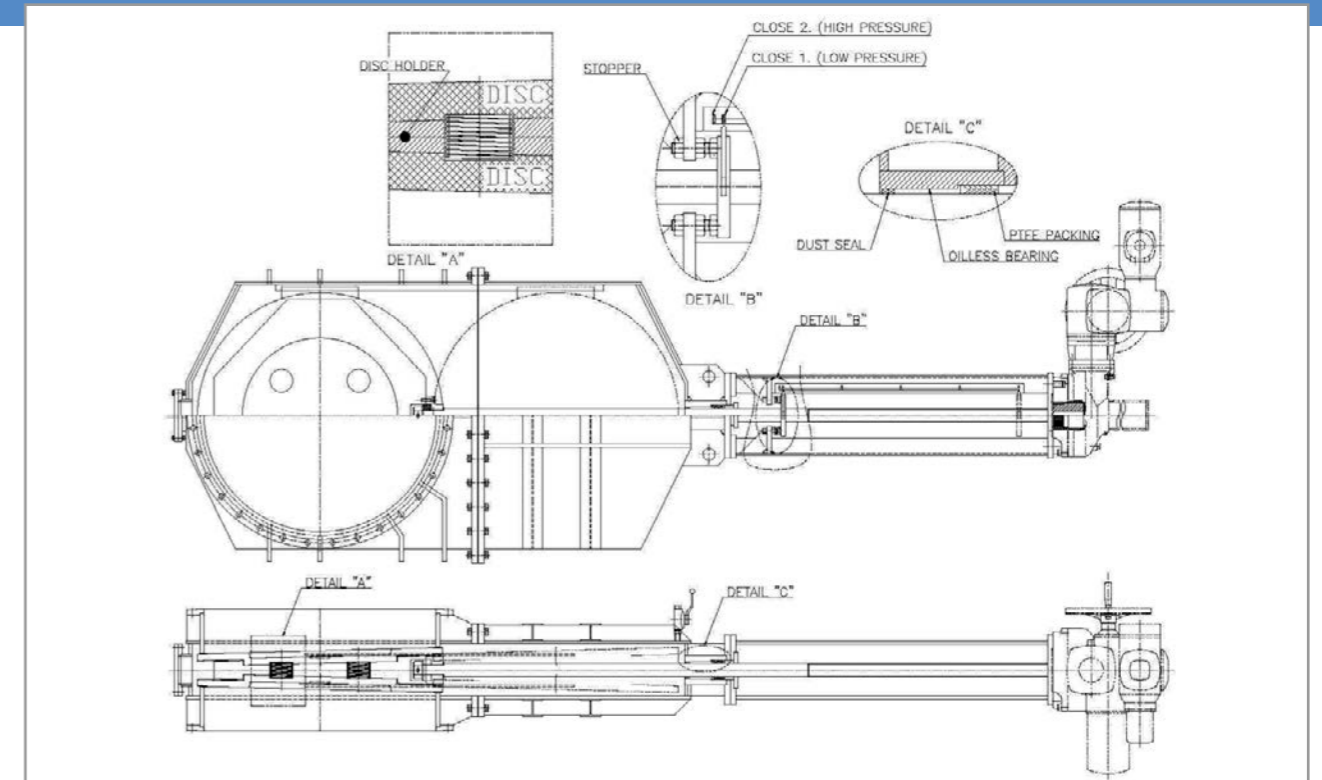
SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L(RF)& L1(B/W)	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	1943
L2(RTJ)	371	422	473	549	711	842	1000	1146	1276	1407	1559	1686	1972
H	569	675	770	813	1178	1317	1692	2100	2185	2430	2742	3085	3711
W	260	355	400	450	500	630	710	710	800	900	900	900	1000
A	-	-	-	-	-	372	397	397	431	474	474	525	548
WEIGHT													
RF	kg	92	128	175	267	711	1064	2250	2500	3600	6750	8654	11020
	lb	202.8	282.2	385.8	588.6	1567.5	2345.7	4960.4	5511.5	7936.6	14881.1	19078.6	24294.7
BW	kg	78	109	149	227	604	904	1912	2125	3060	5737	7536	9367
	lb	172.0	240.3	328.5	500.4	1331.6	1993.0	4215.2	4684.8	6746.1	12647.8	16217.0	20650.5

CLASS 2500

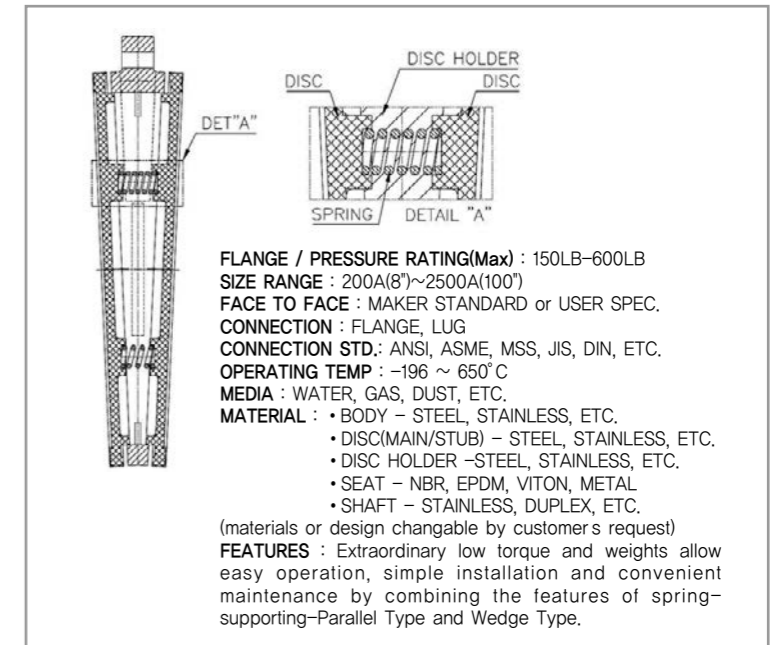
SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"
L(RF)& L1(B/W)	451	508	578	673	914	1022	1270	1422
L2(RTJ)	454	514	584	683	927	1038	1292	1445
H	625	819	924	1091	1445	1597	2040	2280
W	260	300	355	450	500	710	800	900
A	-	-	-	-	337	397	431	474
WEIGHT								
RF	kg	93	147	198	599	1578	2442	4530
	lb	205.0	324.1	436.5	1320.6	3478.9	5383.6	9986.8
BW	kg	79	125	168	509	1341	2076	3850
	lb	174.2	275.6	370.4	1122.1	2956.4	4576.7	8487.7

LOW TORQUE GATE VALVES

LOW TORQUE GATE VALVE'S FEATURES



LOW TORQUE GATE VALVE



Low torque gate valve has a patent application by its unique disc features which combine feature of Parallel Type and that of Wedge Type.

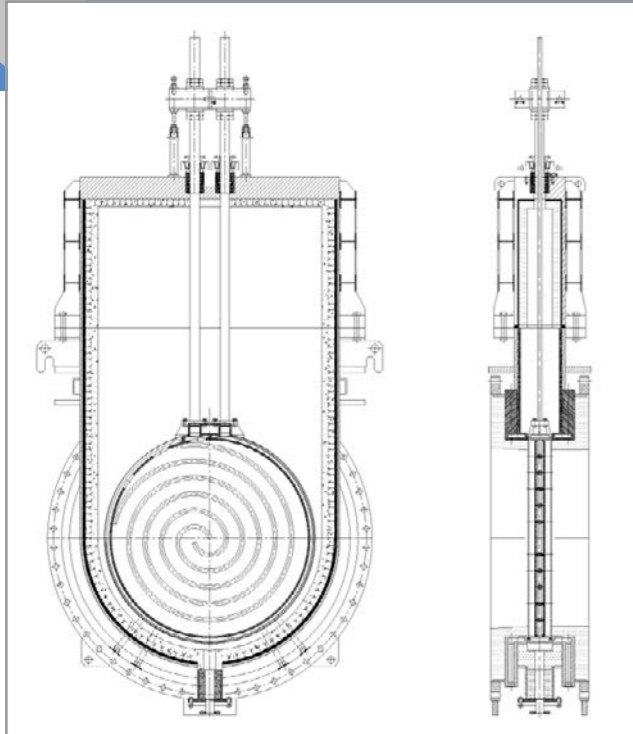
This valve has a structure of wedge type disc with \angle symmetric multiprocessing.

As shown in picture, there are springs in the each inner side of discs which is a feature of spring-supporting-Parallel Type when moving from CLOSE 1 (LOW TORQUE) to OPEN area.

Additionally due to the Parallel Type feature, It is possible to obtain the Full Closure which requires much more torque than prior area from CLOSE 1 to CLOSE 2 when it is needed.

Technically this kind of tight sealing in full closure can be available by sticking to body seat through interfacing between inner side of disc and proceeded face respectively like wedge.

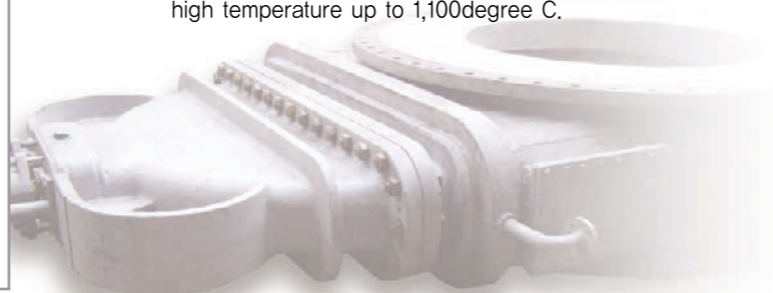
HOT BLAST GATE VALVES



FLANGE / PRESSURE RATING(Max) : 150LB
SIZE RANGE : 200A(8")~2500A(100")
FACE TO FACE : MAKER STANDARD or USER SPEC.
CONNECTION : FLANGE, LUG
CONNECTION STD. : ANSI, ASME, MSS, JIS, DIN, ETC.
OPERATING TEMP : -196 ~ 1100° C
MEDIA : HOT AIR, DUST, GAS, ETC
MATERIAL :

- BODY - STEEL, STAINLESS, ETC.
- DISC(MAIN/STUB) - STEEL, STAINLESS, ETC.
- DISC HOLDER -STEEL, STAINLESS, ETC.
- SHAFT - STAINLESS, DUPLEX, ETC.

 (materials or design changable by customer's request)
FEATURES : Due to a special design of COOLING LINE at inner side of valve in addition to CASTABLE, it is possible to sustain its performance at ultra high temperature up to 1,100degree C.



The World Best D.H.C

GLOBE VALVES | D.H.C

CLASS 150/300/600/900/1500/2500

PRODUCTS

GATE VALVE WITH AIR CYLINDER MODEL NO.:



FLANGE/PRESSURE RATING(Max): 150LB-600LB
SIZE RANGE: 200A(8")~2000A(80")
FACE TO FACE: MAKER STANDARD.
CONNECTION: FLANGE,LUG
CONNECTION STD.: ANSI, ASME, MSS, JIS, DIN, ETC
SERVICE: DUST, SLURRY, SLUDGE, ETC
OPERATING TEMP: -10~230DEG C
MEDIA: TAP WATER, SEA WATER, ETC
MATERIAL:

- BODY-STEEL,STAINLESS,ETC.
- DISC (MAIN/STUB)-STEEL, STAINLESS, ETC.
- SEAT-NBR, EPDM, VITON, METAL
- SHAFT-STAINLESS, DUPLEX, ETC.

 (materials or design changable by customer's request)
FEATURES: This design can assure optimal tight sealing at high pressure line by adopting Wedge Type. Bronze Gate and Rubber Seat prevent corrosions even at sea water and make a seat replacement more convenient.

LONG KNIFE GATE VALVE MODEL NO.: DHC-K SERIES

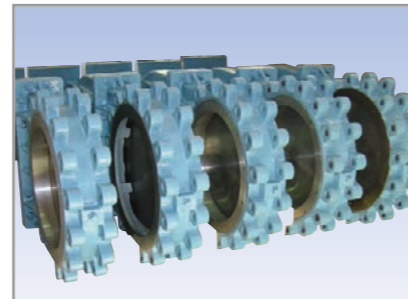


FLANGE/PRESSURE RATING(Max): 150LB
SIZE RANGE: 200A(8")~2000A(80")
FACE TO FACE: MAKER STANDARD.
CONNECTION: FLANGE,LUG
CONNECTION STD.: ANSI, ASME, MSS, JIS, DIN, ETC
SERVICE: DUST, SLURRY, SLUDGE, ETC
OPERATING TEMP: -10~230DEG C
MEDIA: TAP WATER, SEA WATER, ETC
MATERIAL:

- BODY-STEEL, STAINLESS, ETC.
- DISC (MAIN/STUB)-STEEL, STAINLESS, ETC.
- SEAT-NBR, EPDM, VITON, METAL
- SHAFT-STAINLESS, DUPLEX, ETC.

 (materials or design changable by customer's request)
FEATURES: It is easy to install valve due to its short face to face distance. Easy maintenances and No extra charges by adopting a inner water cleansing system, which can get rid of dust or sludge without disassembly of valve.

BONNET TYPE KNIFE GATE VALVE MODEL NO.: DHC-K SERIES



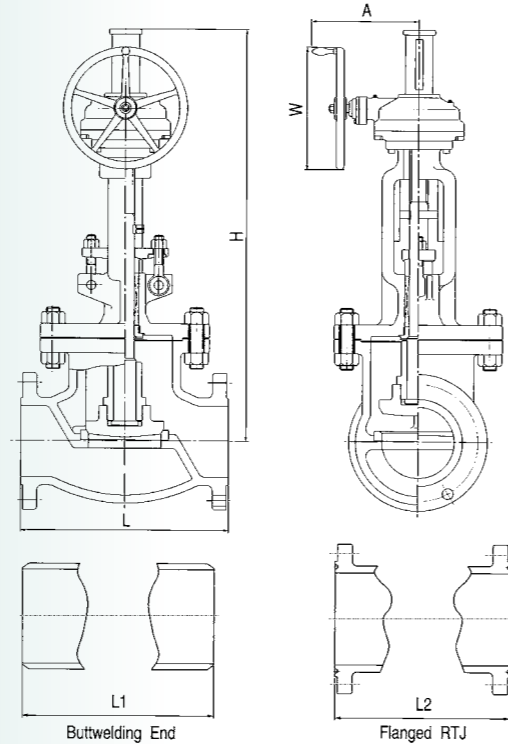
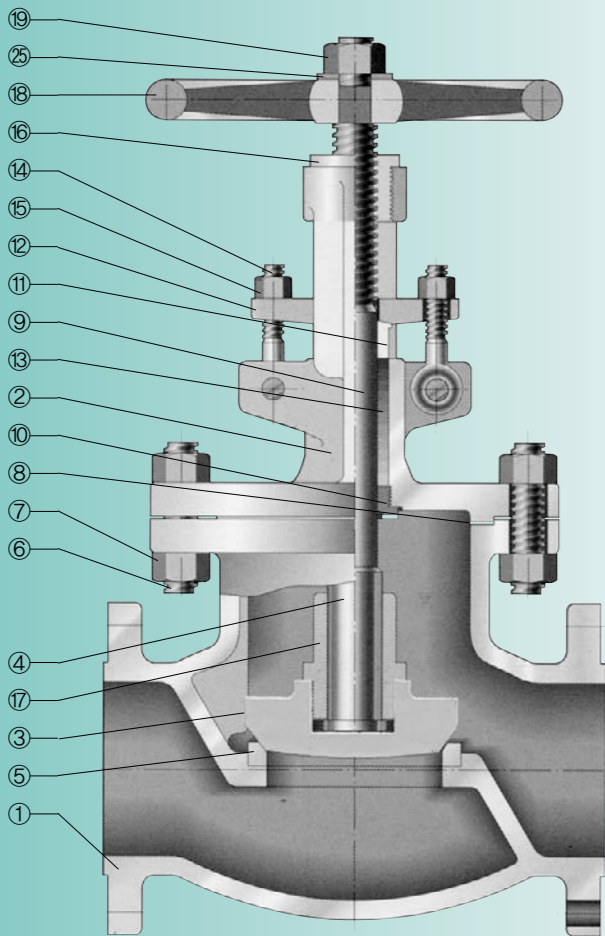
FLANGE/PRESSURE RATING(Max): 150LB
SIZE RANGE: 200A(8")~2000A(80")
FACE TO FACE: MAKER STANDARD.
CONNECTION: FLANGE,LUG
CONNECTION STD.: ANSI, ASME, MSS, JIS, DIN, ETC
SERVICE: DUST, SLURRY, SLUDGE, ETC
OPERATING TEMP: -10~230DEG C
MEDIA: TAP WATER, SEA WATER, ETC
MATERIAL:

- BODY-STEEL, STAINLESS, ETC.
- DISC (MAIN/STUB)-STEEL, STAINLESS, ETC.
- SEAT-NBR,EPDM,VITON,METAL
- SHAFT-STAINLESS,DUPLEX,ETC.

 (materials or design changable by customer's request)
FEATURES : It is easy to install valve due to its short face to face distance. There is no shaft in this design which could penetrate a inside of valve. And this makes it possible not only to obtain a sufficient flux but also minimum pressure losses. Additionally low operating torques regardless of its differential pressure.

GLOBE VALVES

CLASS 150/300/600/900/1500/2500
OS & Y, BB TYPE



STANDARDS APPLICABLE		
ANSI B16.5, B16.10, B16.25, B16.34, API 598, 600, BS 1873		
No.	NAME OF PARTS	SPECIFICATION
8	GASKET	COMMERCIAL
9	PACKING	COMMERCIAL
24	SET SCREW	STEEL
25	WASHER	STEEL
26	NAME PLATE	ALUMINIUM

No.	NAME OF PARTS	ASTM SPECIFICATION							
		STANDARD	HIGH TEMPERATURE SERVICE				LOW TEMPERATURE SERVICE		
1	BODY	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
2	BONNET	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
3	DISC ★	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
4	STEM	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
5	SEAT RING	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	
6	BONNET BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	
7	BONNET NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	
10	BACK SEAT	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
11	PACKING GLAND	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
12	GLAND FLANGE	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	
13	HINGE PIN	A105	A105	A105	A105	A105	A105	A105	
14	GLAND BOLT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
15	GLAND NUT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
16	BONNET BUSH	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	
17	DISC NUT	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
18	HANDWHEEL	A197	A197	A197	A197	A197	A197	A197	
19	HANDLE NUT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	

* Note : In case of 8" and larger size, we use the one overlaid with the same or equivalent material of the body.

CLASS 150

SIZE		2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L(RF)& L1(B/W)		203	216	241	292	356	406	495	622	699	787	914	978	978	1295
		8.00	8.50	9.50	11.50	14.00	16.00	19.50	24.50	27.50	31.00	36.00	38.50	38.50	51.00
L2(RTJ)		216	229	254	305	368	419	508	635	711	800	927	991	991	1308
		8.50	9.00	10.00	12.00	14.50	16.50	20.00	25.00	28.00	31.50	36.50	39.00	39.00	51.50
H		329	378	395	444	485	611	736	854	1011	1290	1398	1478	1692	2197
		12.95	14.88	15.55	17.48	19.09	24.06	28.98	33.62	39.80	50.79	55.05	58.19	66.61	86.50
W		180	200	224	250	280	315	400	450	500	710	710	800	900	900
		7.09	7.87	8.82	9.84	11.02	12.40	15.75	17.72	19.69	27.95	27.95	31.50	35.43	35.43
A		-	-	-	-	-	-	-	-	-	397	397	431	474	474
		-	-	-	-	-	-	-	-	-	15.2	15.2	16.9	18.7	18.7
WEIGHT	RF	kg 22	32	37	58	82	109	184	298	480	670	890	1040	1410	1690
	lb	48.50	70.54	81.57	127.9	180.8	240.3	405.6	657.0	1058.2	1477.1	1962.1	2292.8	3108.5	3725.8
BW	kg	17	27	32	50	74	97	166	268	432	600	800	936	1270	1520
	lb	37.48	59.52	70.55	110.2	163.1	213.8	366.0	590.8	952.4	1322.8	1763.7	2063.5	2799.8	3351.0

CLASS 300

SIZE		2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L(RF)& L1(B/W)		267	292	318	356	400	444	559	622	711	762	864	978	1016	1346
		10.50	11.50	12.50	14.00	15.75	17.50	22.00	24.50	28.00	30.00	34.00	38.50	40.00	53.00
L2(RTJ)		283	308	333	371	416	460	575	638	727	778	879	994	1035	1369
		11.12	12.12	13.12	14.62	16.37	18.12	22.62	25.12	28.62	30.62	34.62	39.12	40.75	53.88
H		375	390	480	559	615	671	786	912	1091	1341	1786	1872	2186	2667
		14.76	15.35	18.90	22.00	24.21	26.42	30.94	35.91	42.95	52.80	70.31	73.70	86.06	105.0
W		180	200	224	280	315	355	450	500	500	800	800	900	900	1000
		7.09	7.87	8.82	11.02	12.40	13.98	17.72	19.69	19.69	31.50	31.50	35.43	35.43	39.37
A		-	-	-	-	-	-	-	-	-	431	431	474	525	548
		-	-	-	-	-	-	-	-	-	16.9	16.9	18.7	20.7	21.6
WEIGHT	RF	kg 30	41	59	82	115	164	254	330	832	1020	1250	1490	1823	2050
	lb	66.14	90.39	108.0	180.0	253.5	361.6	560.0	727.5	1834.2	2248.7	2755.8	3284.9	4019.0	4519.4
BW	kg	28	35	50	71	104	137	229	297	748	918	1125	1340	1640	1845
	lb	61.73	77.16	110.2	156.5	229.3	302.0	504.9	654.8	1649.0	2023.8	2480.2	2954.2	3615.6	4067.5

CLASS 600

SIZE		2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L(RF)& L1(B/W)		292	330	356	432	559	660	787	838	889	991	1092	1194	1397
		11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
L2(RTJ)		295	333	359	435	562	664	791	841	892	994	1095	1200	1407
		11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38
H		447	480	511	567	753	898	1253	1475	1710	1890	2010	2470	2820
		17.60	18.90	20.12	22.32	29.65	35.35	49.33	50.07	67.32	74.41	79.13	97.24	111.0
W		200	224	250	315	450	500	500	900	900	1000	1000	1000	1000
		7.87	8.82	9.84	12.40	17.72	19.50	19.50	35.43	35.43	39.37	39.37	39.37	39.37
A		-	-	-	-	-	-	-	474	525	548	548	590	590
		-	-	-	-	-	-	-	18.7	20.7	21.6	21.6	23.2	23.2
WEIGHT	RF	kg 39	53	69	118	255	370	720	900	970	1350	2020	2390	2867
	lb	85.98	116.8	152.1	260.1	562.2	815.7	1587.3	1984.1	2138.5	2976.2	4453.3	5269.0	6320.6
BW	kg	33	43	60	100	210	315	612	765	824	1210	1818	2150	2436
	lb	72.75	94.80	132.3	220.5	463.0	694.5	1349.2	1686.5	1816.6	2667.6	4008.0	4740.0	5370.4

GLOBE VALVES

CLASS 150/300/600/900/1500/2500
OS & Y, BB TYPE

CLASS 900

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"
L(RF)& L1(B/W)	368	419	381	457	610	737	838	965	1029	1130
L2(RTJ)	371	422	384	460	613	740	841	968	1038	1140
H	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88
W	673	695	710	842	1260	1563	1680	1740	2100	2520
A	26.50	27.36	27.95	33.15	49.61	61.54	66.14	68.50	82.68	99.21
WEIGHT	300	355	400	450	500	800	900	900	1000	1000
RF	11.81	13.98	15.75	17.72	19.69	31.50	35.43	35.43	39.37	39.37
BW	-	-	-	-	-	431	474	525	548	548
kg	97	99	102	177	417	1140	1910	2450	3450	4155
lb	213.8	218.3	224.9	390.2	919.3	2513.2	4210.8	5401.3	7605.9	9160.1
kg	82	84	87	150	354	1026	1720	2205	3105	3740
lb	180.8	185.2	191.8	330.7	780.4	2261.9	3791.9	4861.1	6845.3	8245.2

CLASS 1500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"
L(RF)& L1(B/W)	368	419	470	546	705	832	991	1130	1257	1384
L2(RTJ)	371	422	473	549	711	842	1000	1146	1276	1407
H	14.62	16.62	18.62	21.62	28.00	33.13	39.38	45.12	50.25	55.38
W	697	720	805	1030	1360	1910	2300	2650	3150	4030
A	27.44	28.35	31.69	40.55	53.54	75.20	90.55	104.3	124.0	158.7
WEIGHT	300	355	450	450	710	900	1000	1000	1000	1000
RF	11.81	13.78	17.72	17.72	27.95	35.43	39.37	39.37	39.37	39.37
BW	-	-	-	-	397	474	548	548	590	590
kg	97	145	209	340	652	1910	3115	4235	5155	6435
lb	213.8	319.7	460.8	749.6	1437.4	4210.8	6867.3	9336.5	11364.7	14186.6
kg	85	120	155	290	554	1624	2648	3599	4640	5792
lb	187.4	264.6	341.7	639.3	1221.3	3580.3	5837.8	7934.4	10229.3	12769.0

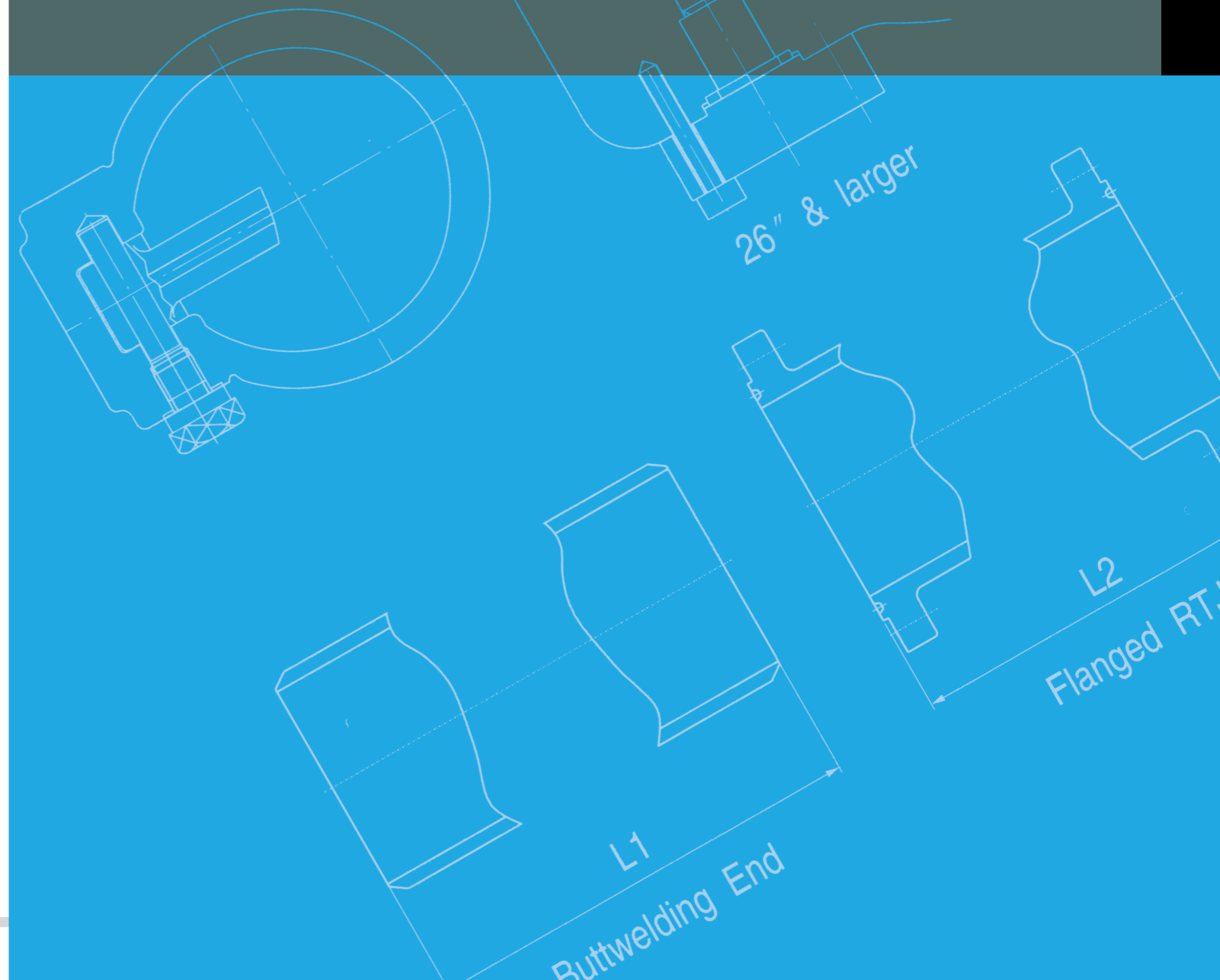
CLASS 2500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"
L(RF)& L1(B/W)	451	508	578	673	914	1022	1270	1422
L2(RTJ)	454	514	584	683	927	1038	1292	1445
H	17.75	20.00	22.75	26.50	36.00	40.25	50.00	56.00
W	690	780	860	1210	1810	2390	2730	3450
A	27.17	30.71	33.86	47.64	71.26	94.09	107.5	135.8
WEIGHT	400	450	450	500	800	900	1000	1000
RF	15.75	17.72	17.72	19.69	31.50	35.43	39.37	39.37
BW	-	-	-	-	431	474	548	590
kg	182	294	347	805	2220	4700	6745	8325
lb	401.2	648.2	765.0	1774.7	4894.2	10361.6	14870.0	18353.3
kg	158	235	280	684	1887	3995	6000	7490
lb	348.3	518.1	617.3	1507.9	4160.1	8807.4	13227.6	16512.5

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SWING CHECK VALVES | D.H.C

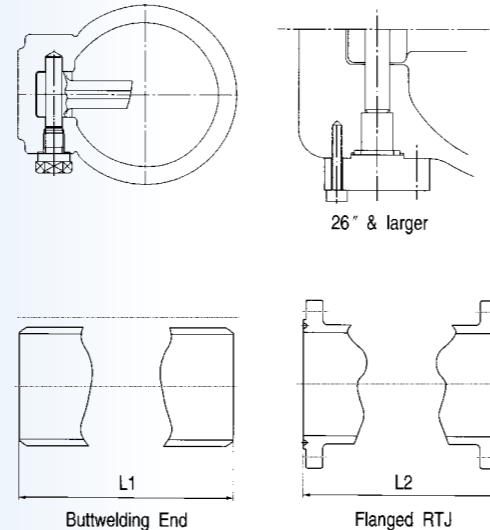
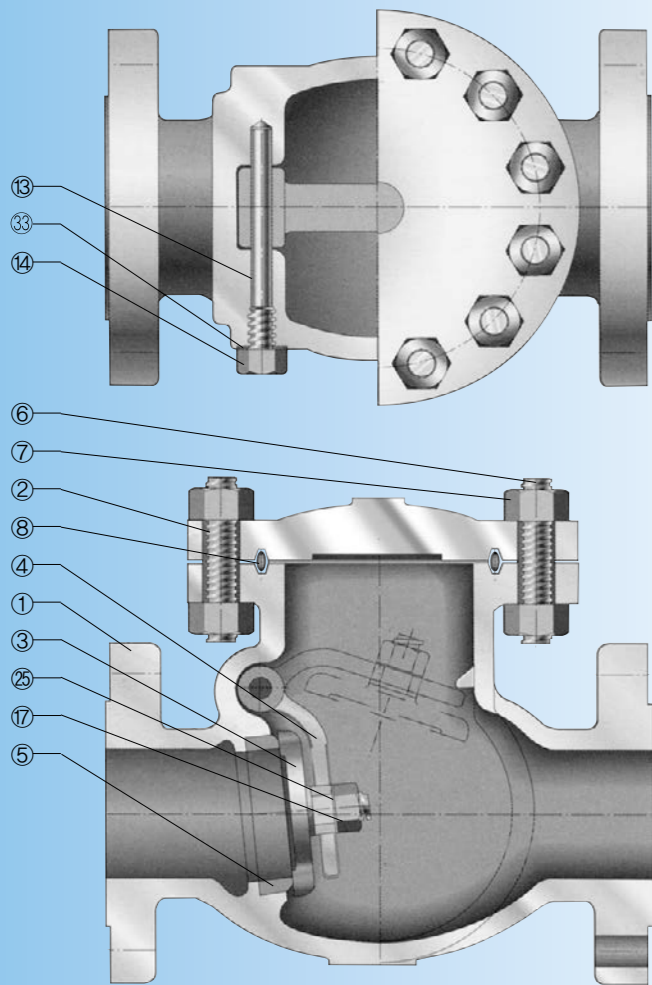
CLASS 150/300/600/900/1500/2500



SWING CHECK VALVES

CLASS 150/300/600/900/1500/2500

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STANDARDS APPLICABLE		
ANSI B16.5, B16.10, B16.25, B16.34, API 598, 600, BS 1868		
No.	NAME OF PARTS	SPECIFICATION
8	GASKET	COMMERCIAL
18	EYE BOLT	STEEL
25	WASHER	STEEL
26	NAME PLATE	ALUMINIUM
33	HINGE GASKET	COMMERCIAL

No.	NAME OF PARTS	ASTM SPECIFICATION							
		STANDARD	HIGH TEMPERATURE SERVICE				LOW TEMPERATURE SERVICE		
1	BODY	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
2	COVER	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
3	DISC ★	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
4	ARM	A216Gr WCB	A216Gr WCB	A217Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	
5	SEAT RING	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	
6	COVER BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	
7	COVER NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	
13	HINGE PIN	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
14	HINGE BOLT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
17	DISC NUT	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	

* Note : In case of 8" and larger size, we use the one overlaid with the same or equivalent material of the body.

CLASS 150

SIZE	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	30"	36"
L(RF)&L1(B/W)	203 8.00	216 8.50	241 9.50	292 11.50	330 13.00	356 14.00	495 19.50	622 24.50	698 27.50	787 31.00	864 34.00	978 38.50	978 38.50	1295 51.00	1295 51.00	1524 60.00	1956 77.00
L2(RTJ)	216 8.50	229 9.00	254 10.00	305 12.00	343 13.50	368 14.50	508 20.00	635 25.00	711 28.00	800 31.50	876 34.50	991 39.00	991 39.00	1308 51.50	-	-	-
H	141 5.55	166 6.53	178 7.01	211 8.31	218 8.58	227 8.94	294 11.57	357 14.05	404 15.90	414 16.29	492 19.37	503 19.80	541 21.29	682 26.85	810 31.89	920 36.22	1080 42.52
	kg 15	23	28	40	53	64	107	200	270	388	504	684	807	1228	1410	1880	2750
WEIGHT RF	lb	33.07	50.71	61.73	88.18	116.8	235.9	440.9	595.2	855.4	1111.1	1507.9	1779.1	2707.2	3108.5	4144.6	6062.7
	kg 12	16	20	29	45	54	91	178	243	349	454	620	750	1150	1270	1700	2500
WEIGHT BW	lb	26.46	35.27	44.09	63.93	99.20	119.0	200.6	392.4	535.7	769.4	1000.9	1366.9	1653.5	2535.3	2799.8	5511.5

CLASS 300

SIZE	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	30"	36"
L(RF)&L1(B/W)	267 10.50	292 11.50	318 12.50	356 14.00	400 15.75	444 17.50	533 21.00	622 24.50	711 28.00	838 33.00	864 34.00	978 38.50	1016 40.00	1346 53.00	1346 53.00	1594 62.75	2083 82.00
L2(RTJ)	283 11.12	308 12.12	333 13.12	371 14.62	416 16.37	460 18.12	549 21.62	638 25.12	727 28.62	854 33.62	879 34.62	994 39.12	1035 40.75	1369 53.88	1372 54.00	1619 63.75	2111 83.12
H	188 7.40	215 8.46	235 9.25	253 9.96	268 10.55	271 10.67	319 12.58	407 16.02	450 17.72	508 20.00	566 22.28	608 23.94	645 25.39	737 29.02	810 31.89	966 38.03	1140 44.88
	kg 20	33	49	67	82	105	181	299	444	634	784	980	1260	1930	2310	3100	4720
WEIGHT RF	lb	44.09	72.75	108.0	147.7	180.8	399.0	659.2	978.8	1397.7	1728.4	2160.5	2777.8	4254.9	5092.6	6834.3	10405.7
	kg 18	31	37	51	70	90	160	240	400	540	705	882	1135	1740	2080	2790	4250
WEIGHT BW	lb	39.68	68.34	81.57	112.4	154.3	198.4	352.7	529.1	881.8	1190.5	1554.2	1944.5	2502.2	3836.0	4585.6	9363.6

CLASS 600

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	26"	30"	
L(RF)&L1(B/W)	292 11.50	330 13.00	356 14.00	432 17.00	559 22.00	660 26.00	787 31.00	838 33.00	889 35.00	991 39.00	1092 43.00	1194 47.00	1397 55.00	1448 57.00	1651 65.00	
L2(RTJ)	295 11.62	333 13.12	359 14.12	435 17.12	562 22.12	664 26.12	791 31.12	841 33.12	892 35.12	994 39.12	1095 43.12	1200 47.25	1407 55.38	1461 57.50	1664 65.50	
H	188 7.40	190 7.48	225 8.85	264 10.39	312 12.28	391 15.39	446 17.56	521 20.51	619 24.37	670 26.38	730 28.74	808 31.81	890 35.04	1029 40.51	1204 47.40	
	kg 30	42	61	92	190	323	522	790	938	1343	2020	2390	2873	3400	4700	
WEIGHT RF	lb	66.14	92.59	134.5	202.8	418.9	712.1	1150.8	1741.6	2067.9	2960.8	4453.3	5269.0	6333.8	7495.6	10361.6
	kg 27	38	54	76	162	274	470	711	844	1208	1700	2150	2500	3060	4230	
WEIGHT BW	lb	59.52	83.77	119.0	167.5	357.1	604.1	1036.2	1567.5	1860.7	2663.2	3747.8	4739.9	5511.5	6746.1	9325.5

SWING CHECK VALVES

CLASS 150/300/600/900/1500/2500

CLASS 900

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"		
L(RF)& L1(B/W)	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549		
	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00	61.00		
L2(RTJ)	371	422	384	460	613	740	841	968	1038	1140	1232	1334	1568		
	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.50	52.50	61.75		
H	265	288	296	299	344	467	506	589	699	763	812	897	986		
	10.43	11.34	11.65	11.77	13.54	18.39	19.92	23.19	27.52	30.04	31.97	35.31	38.82		
WEIGHT	RF	kg	73	84	92	135	290	611	940	1270	1580	2000	2600	3010	4800
		lb	160.9	185.2	202.8	297.6	639.3	1347.0	2072.3	2799.8	3483.2	4409.2	5732.0	6635.8	10582.1
	BW	kg	50	76	83	122	262	510	850	1140	1420	1850	2350	2710	4320
		lb	110.2	167.5	183.0	269.0	577.6	1124.3	1873.9	2513.2	3130.5	4078.5	5180.8	5974.5	9523.9

CLASS 1500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"		
L(RF)& L1(B/W)	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	1943		
	14.50	16.50	18.50	21.50	27.75	32.75	39.00	44.50	49.50	54.50	60.50	65.50	76.50		
L2(RTJ)	371	422	473	549	711	842	1000	1146	1276	1407	1559	1686	1972		
	14.62	16.62	18.62	21.62	28.00	33.13	39.38	45.12	50.25	55.38	61.38	66.38	77.62		
H	269	281	297	358	471	580	638	712	834	892	960	1020	1140		
	10.59	11.06	11.69	14.09	18.54	22.83	25.12	28.03	32.83	35.12	37.80	40.16	44.82		
WEIGHT	RF	kg	73	133	145	295	486	820	1750	2250	2500	3900	5600	7150	10750
		lb	160.9	293.2	319.7	650.4	1071.4	1807.8	3858.1	4960.4	5511.5	8597.9	12345.8	15762.9	23699.5
	BW	kg	55	92	125	245	420	700	1480	2000	2250	3510	5100	6400	9000
		lb	121.3	202.8	275.6	540.1	925.9	1543.2	3262.8	4409.2	4960.4	7738.1	11243.5	14109.4	19841.4

CLASS 2500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"		
L(RF)& L1(B/W)	451	508	578	673	914	1022	1270	1422	1575	1727		
	17.75	20.00	22.75	26.50	36.00	40.25	50.00	56.00	62.00	68.00		
L2(RTJ)	454	514	584	683	927	1038	1292	1445	-	-		
	17.87	20.25	23.00	26.88	36.50	40.87	50.88	56.88	-	-		
H	397	410	436	472	510	689	831	988	1200	1299		
	15.63	16.14	17.17	18.28	20.08	27.13	32.72	38.90	47.20	51.10		
WEIGHT	RF	kg	145	230	330	625	1400	2350	3715	5585	7500	9700
		lb	319.7	507.1	727.5	1377.9	3086.4	5180.8	8190.1	12312.7	16500	21340
	BW	kg	119	190	270	532	1190	1998	3158	4700	6200	8100
		lb	262.3	418.9	595.2	1172.8	2623.5	4404.8	6962.1	10361.6	13671	17860

The World Best D.H.C

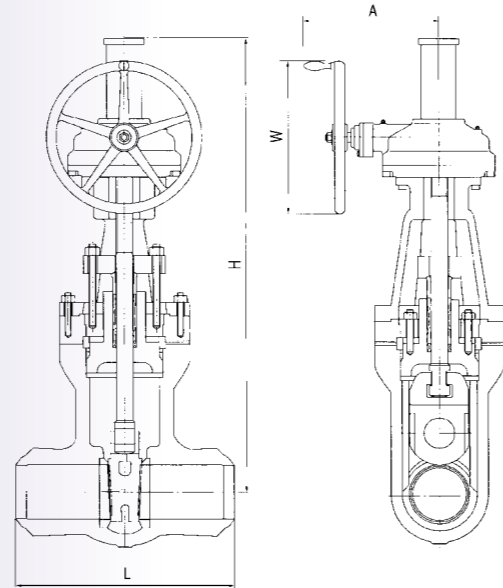
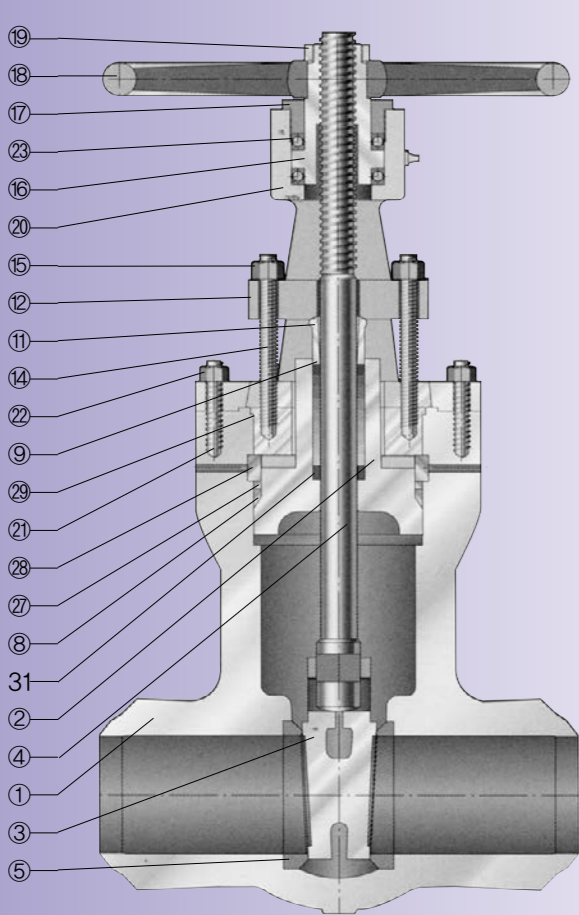
Pressure Seal Type **GATE / GLOBE**
SWING CHECK VALVE
CLASS 600/900/1500/2500

D.H.C

GATE VALVES

**CLASS 600/900/1500/2500
PRESSURE SEAL TYPE**

World best DHControl www.dhcv.co.kr



STANDARDS APPLICABLE

ANSI B16.5, B16.10, B16.25, B16.34, API 598, 600

No.	NAME OF PARTS	SPECIFICATION
8	GASKET	COMMERCIAL
9	PACKING	COMMERCIAL
23	BEARING	STEEL
24	SET SCREW	STEEL
25	GREASE NIPPLE	STEEL
26	NAME PLATE	ALUMINIUM

No.	NAME OF PARTS	ASTM SPECIFICATION							
		STANDARD	HIGH TEMPERATURE SERVICE				LOW TEMPERATURE SERVICE		
1	BODY	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
2	BONNET	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
3	DISC ★	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
4	STEM	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
5	SEAT RING	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	
6	BONNET BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	
7	BONNET NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	
11	PACKING GLAND	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
12	GLAND FLANGE	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	
14	GLAND BOLT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
15	GLAND NUT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
16	YOKE SLEEVE	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	
17	SLEEVE NUT	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	
18	HANDWHEEL	A197	A197	A197	A197	A197	A197	A197	
19	HANDLE NUT	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	
20	YOKE	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
21	YOKE BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	
22	YOKE NUT	A194 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	
27	ADAPTER RING	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
28	RETAINER	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
29	BONNET CLAMP	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	
31	STUFFING RING	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	

* Note : In case of 8" and larger size, we use the one overlaid with the same or equivalent material of the body.

CLASS 600

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	178	216	254	305	457	584	711	813	889	991	1092	1194	1397
	7.00	8.50	10.00	12.00	18.00	23.00	28.00	32.00	35.00	39.00	43.00	47.00	55.00
H	488	620	669	915	1045	1232	1500	1770	1837	2147	2240	2475	2990
	19.21	24.41	26.34	36.02	41.14	48.50	59.06	69.69	72.32	84.53	88.19	97.44	117.7
W	260	260	260	300	400	450	500	630	630	710	710	800	900
	10.24	10.24	10.24	11.81	15.75	17.72	19.69	24.80	24.80	27.95	27.95	31.50	35.43
A	-	-	-	-	-	-	-	372	372	397	397	431	474
	-	-	-	-	-	-	-	14.6	14.6	15.2	15.2	16.9	18.7
WEIGHT	kg	72	90	105	140	245	318	450	550	650	900	1200	1380
	lb	156.7	198.4	231.4	308.6	540.1	701.0	992.0	1212.5	1432.9	1984.1	2645.5	3042.3

CLASS 900

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	216	254	305	356	508	660	787	914	991	1092	1181	1283	1511
	8.50	10.00	12.00	14.00	20.00	26.00	31.00	36.00	39.00	43.00	46.50	50.51	59.49
H	600	750	760	870	1005	1268	1528	1771	2000	2245	2460	2740	3220
	23.62	29.53	29.92	34.25	39.57	49.92	60.16	69.72	78.74	88.39	96.85	107.9	126.8
W	260	300	355	400	500	500	630	630	710	710	900	900	900
	10.24	11.81	13.98	15.75	19.69	19.69	24.80	24.80	27.95	27.95	35.43	35.43	35.43
A	-	-	-	-	-	337	372	372	397	397	474	474	525
	-	-	-	-	-	13.3	14.6	14.6	15.2	15.2	18.7	18.7	20.7
WEIGHT	kg	62	95	100	150	300	700	950	1320	1700	2350	3400	4200
	lb	136.6	209.4	220.4	330.6	661.3	1543.2	2094.3	2910.0	3747.8	5180.8	7495.6	9259.3

CLASS 1500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	216	254	305	406	559	711	864	991	1067	1194	1346	1473	1626
	8.50	10.00	12.00	16.00	22.00	28.00	34.00	39.00	42.00	47.00	53.00	58.00	64.02
H	600	750	755	868	1215	1300	1625	1960	2210	2315	2810	3105	3730
	23.62	29.53	29.72	34.17	47.83	51.18	63.98	77.17	87.01	91.14	110.6	122.2	146.9
W	260	355	400	450	500	630	710	800	800	900	900	900	1000
	10.24	13.98	15.75	17.72	19.69	24.80	27.95	31.50	31.50	35.43	35.43	35.43	39.37
A	-	-	-	-	-	372	397	431	431	474	474	525	548
	-	-	-	-	-	14.6	15.2	16.9	16.9	18.7	18.7	20.7	21.6
WEIGHT	kg	62	90	122	200	500	920	1440	2180	2600	3650	5850	7300
	lb	136.6	198.4	268.9	440.9	1102.3	2028.2	3174.6	4806.0	5731.9	8046.7	12896.9	16093.5

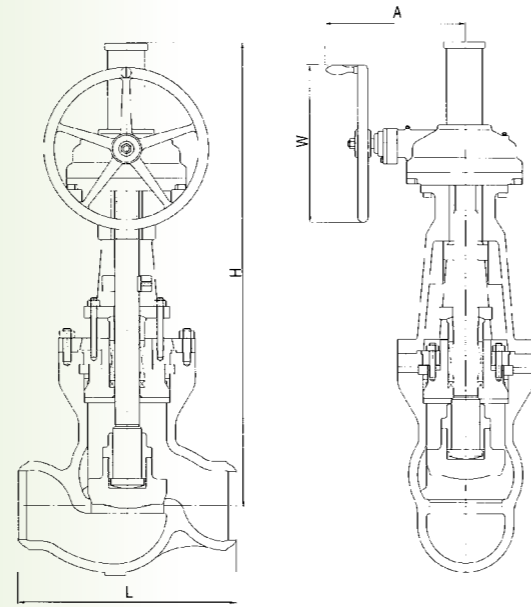
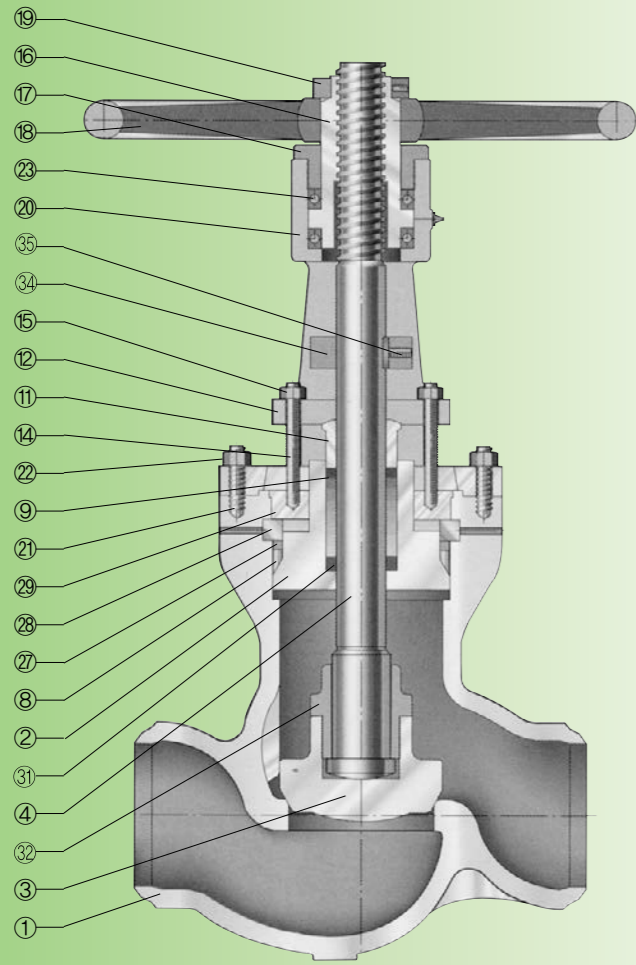
CLASS 2500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
L	279	330	368	457	610	762	914	1041	1118	1245	1397	1575
	11.00	13.00	14.50	18.00	24.00	30.00	36.00	41.00	44.00	49.00	55.00	62.00
H	603	758	760	875	1208	1445	1600	2080	2291	2470	2950	3270
	23.74	29.84	29.92	34.45	47.56	56.89	62.99	81.89	90.20	97.20	116.1	128.7
W	260	300	355	450	500	710	800	900	900	1000	1000	1000
	10.24	11.81	13.98	17.72	19.64	27.95	31.50	35.43	35.43	39.37	39.37	39.37
A	-	-	-	-	337	397	431	474	474	548	548	548
	-	-	-	-	13.3	15.2	16.9	18.7	18.7	21.6	21.6	21.6
WEIGHT	kg	84	130	166	350	800	1330	2370	3450	4200	5000	5700
	lb	185.1	286.5	365.9	771.6	1763.6	2932.1	5224.9	7605.8	9240	11000	12540

GLOBE VALVES

CLASS 600/900/1500/2500
PRESSURE SEAL TYPE

World best DHControl www.dhcv.co.kr



STANDARDS APPLICABLE	
ANSI B16.5, B16.10, B16.25, B16.34, API 598, 600	

No.	NAME OF PARTS	SPECIFICATION
8	GASKET	COMMERCIAL
9	PACKING	COMMERCIAL
23	BEARING	STEEL
24	SET SCREW	STEEL
25	GREASE NIPPLE	STEEL
26	NAME PLATE	ALUMINIUM
35	GUIDE BOLT	STEEL

No.	NAME OF PARTS	ASTM SPECIFICATION							
		STANDARD	HIGH TEMPERATURE SERVICE				LOW TEMPERATURE SERVICE		
1	BODY	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
2	BONNET	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
3	DISC ★	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
4	STEM	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
6	BONNET BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	
7	BONNET NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	
11	GLAND RING	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
12	GLAND FLANGE	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	
14	GLAND BOLT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
15	GLAND NUT	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	A307Gr B	
16	YOKE SLEEVE	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	A439Gr D2C	
17	SLEEVE NUT	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	
18	HANDWHEEL	A197	A197	A197	A197	A197	A197	A197	
19	HANDLE NUT	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	A105 or WCB	
20	YOKE	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3	
21	YOKE BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	
22	YOKE NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	
27	ADAPTER RING	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
28	RETAINER	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
29	BONNET CLAMP	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	
31	STUFFING RING	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	
32	DISC NUT	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	
34	STEM GUIDE	A283Gr D	A283Gr D	A283Gr D	A283Gr D	A283Gr D	A283Gr D	A283Gr D	

* Note : In case of 8" and larger size, we use the one overlaid with the same or equivalent material of the body.

CLASS 600

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"
L	178	216	254	305	457	584	711	813	889	991
	7.00	8.50	10.00	12.00	18.00	23.00	28.00	32.00	35.00	39.00
H	555	632	687	750	1165	1245	1390	1540	1805	2157
	21.85	24.88	27.05	29.53	45.87	49.02	54.72	60.63	71.06	84.92
W	260	355	400	500	560	710	900	900	1000	1000
	10.24	13.98	15.75	19.69	22.05	27.95	35.43	35.43	39.37	39.37
A	-	-	-	-	-	397	474	474	548	548
	-	-	-	-	-	15.2	18.7	18.7	21.6	21.6
WEIGHT	kg	50	60	84	132	310	640	1350	1900	2700
	lb	110.2	132.2	185.1	291.0	683.4	1410.9	2976.2	4188.7	5952.4

CLASS 900

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"
L	216	254	305	356	508	660	787	914	991	1092
	8.50	10.00	12.00	14.00	20.00	26.00	31.00	36.00	39.00	43.00
H	620	648	730	855	1230	1345	1555	1742	2010	2300
	24.41	25.51	28.74	33.66	48.53	52.95	61.22	68.58	79.13	90.55
W	400	400	400	500	710	800	900	900	1000	1000
	15.75	15.75	15.75	19.69	27.95	31.50	35.43	35.43	39.37	39.37
A	-	-	-	-	397	431	474	474	548	548
	-	-	-	-	15.2	16.9	18.7	18.7	21.6	21.6
WEIGHT	kg	80	105	125	172	400	1050	1700	2310	3300
	lb	176.3	231.4	275.5	379.1	881.8	2314.8	3747.8	5092.6	7275.1

CLASS 1500

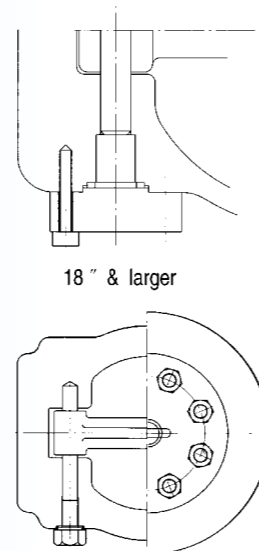
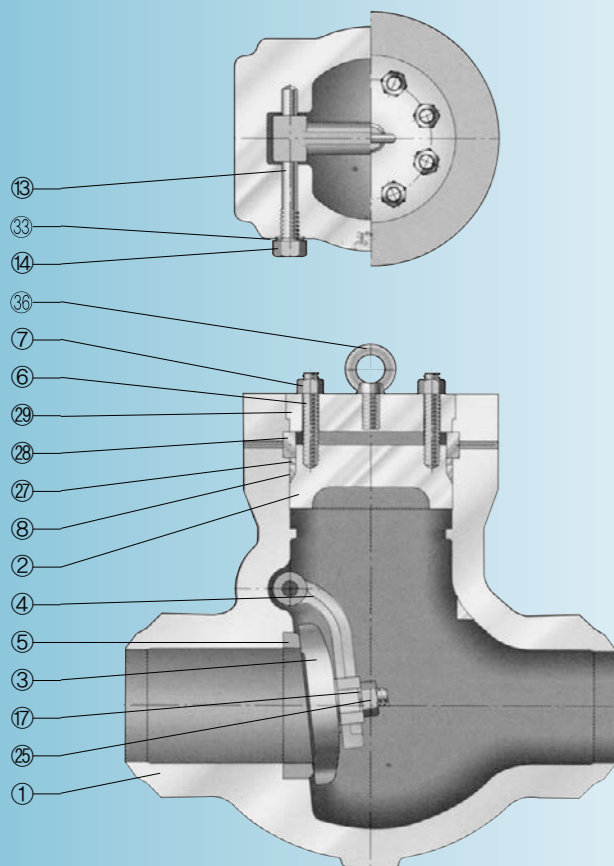
SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"
L	216	254	305	406	559	711	864	991	1067
	8.50	10.00	12.00	16.00	22.00	28.00	34.00	39.00	42.00
H	623	650	838	8.62	1237	1783	1995	2310	2698
	24.53	25.59	32.99	33.94	48.70	70.20	78.54	90.94	106.2
W	400	450	500	560	710	900	1000	1000	1000
	15.75	17.72	19.69	22.05	27.95	35.43	39.37	39.37	39.37
A	-	-	-	-	397	525	548	590	590
	-	-	-	-	15.2	20.7	21.6	23.2	23.2
WEIGHT	kg	80	115	135	220	660	1690	2600	3420
	lb	176.3	253.5	297.6	485.0	1455.0	3725.7	5731.9	7539.7

CLASS 2500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"
L	279	330	368	457	610	762	914	1041
	11.00	13.00	14.50	18.00	24.00	30.00	36.00	41.00
H	625	788	810	1295	1372	2140	2520	2688
	24.61	31.02	31.89	50.98	54.02	84.25	99.21	105.8
W	400	450	500	560	900	1000	1000	1000
	15.75	17.72	19.69	22.04	35.43	39.37	39.37	39.37
A	-	-	-	-	525	548	590	590
	-	-	-	-	20.7	21.6	23.2	23.2
WEIGHT	kg	105	160	200	495	1200	2420	3300
	lb	231.4	352.7	440.9	1091.2	2645.5	5335.1	7275.1

SWING CHECK VALVES

CLASS 600/900/1500/2500 PRESSURE SEAL TYPE



STANDARDS APPLICABLE	
ANSI B16.5, B16.10, B16.25, B16.34, API 598, 600	

No.	NAME OF PARTS	SPECIFICATION
8	GASKET	COMMERCIAL
17	WASHER	STEEL
26	NAME PLATE	ALUMINIUM
33	HINGE GASKET	COMMERCIAL
36	EYE BOLT	STEEL

No.	NAME OF PARTS	ASTM SPECIFICATION						
		STANDARD	HIGH TEMPERATURE SERVICE			LOW TEMPERATURE SERVICE		
1	BODY	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3
2	COVER	A216Gr WCB	A217Gr C5	A217Gr WC1	A217Gr WC6	A217Gr WC9	A352Gr LCB	A352Gr LC1/LC2/LC3
3	DISC ★	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15	A217Gr CA15
4	ARM	A216Gr WCB	A217Gr WCB	A217Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB
5	SEAT RING	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE	A105+HARD FACE
6	COVER BOLT	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7	A193Gr B7
7	COVER NUT	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H	A194Gr 2H
13	HINGE PIN	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410
14	HINGE BOLT	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410
25	DISC NUT	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8	A194Gr 8
27	ADAPTER RING	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410
28	RETAINER	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410	A479Gr 410
29	COVER CLAMP	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB	A216Gr WCB

※ Note : In case of 8" and larger size, we use the one overlaid with the same or equivalent material of the body.

CLASS 600

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	178	216	254	305	457	584	711	813	889	991	1092	1194	1397
	7.00	8.50	10.00	12.00	18.00	23.00	28.00	32.00	35.00	39.00	43.00	47.00	55.00
H	245	267	270	320	405	583	610	670	700	740	770	820	947
	9.65	10.51	10.63	12.600	15.94	22.95	24.02	36.38	27.56	29.13	30.31	32.28	37.28
WEIGHT	kg	25	35	42	86	190	355	495	680	890	1100	1500	2550
	lb	55.12	77.16	92.59	189.5	418.8	782.6	1091.2	1499.1	1962.0	2425.0	3306.9	5621.7

CLASS 900

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	216	254	305	356	508	660	787	914	991	1092	1181	1283	1511
	8.50	10.00	12.00	14.00	20.00	26.00	31.00	36.00	39.00	43.00	46.50	50.51	59.49
H	245	267	279	320	410	585	600	690	735	788	850	870	950
	9.65	10.51	10.98	12.60	16.14	23.03	23.62	27.17	28.94	31.02	33.46	34.25	37.40
WEIGHT	kg	40	50	76	100	230	550	850	1350	1500	1700	2320	3010
	lb	88.18	110.2	167.5	220.4	507.0	1212.5	1873.9	2976.2	3306.9	3747.8	5114.6	6635.8

CLASS 1500

SIZE	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	216	254	305	406	559	711	864	991	1067	1194	1346	1473	1626
	8.50	10.00	12.00	16.00	22.00	28.00	34.00	39.00	42.00	47.00	53.00	58.00	64.02
H	250	270	289	320	395	475	595	640	700	750	885	940	1100
	9.84	10.63	11.38	12.60	15.55	18.70	22.43	25.20	27.56	29.53	34.84	37.01	43.31
WEIGHT	kg	40	50	105	142	395	600	1000	1580	2200	2500	3250	5900
	lb	88.18	110.2	231.4	313.0	870.8	1322.7	2204.6	3483.2	4850.1	5511.5	7164.9	13007.1

CLASS 2500

SIZE	2"	2 1/2"	3"	4"	×6"	8"	10"	12"	14"	16"	18"	
L	279	330	368	457	610	762	914	1041	1118	1245	1397	
	11.00	13.00	14.50	18.00	24.00	30.00	36.00	41.00	44.00	49.00	55.00	
H	253	275	290	325	405	560	627	685	860	899	1000	
	9.96	10.83	11.42	12.79	15.94	22.05	24.69	26.97	33.90	35.40	39.40	
WEIGHT	kg	90	120	160	280	750	1300	2200	2950	4180	5060	7480
	lb	198.4	264.5	352.7	617.2	1653.4	2865.9	4850.1	6503.5	9216.9	11157.3	16493

COMPARISON TABLE FOR CASTING & FORGING

CHEMICAL & PHYSICAL PROPERTIES

General Classification	'ASTM' Symbols		'JIS' Symbols		Service Temp	
	Castings	Forgings	Castings	Forgings		
HIGH-TEMPERATURE	Cast Iron	A126Gr Class B		G5501 - FC20	250°C	
	Cast Iron	A126Gr Class C		G5501 - FC25	250°C	
	Carbon Steel	A216Gr WCA		G5151 - SCPH1	420°C	
	Carbon Steel	A216Gr WCB	A105	G5151 - SCPH2	G3202 - SFVC 2A	425°C
	1/2 Mo Steel	A217Gr WC1	A182Gr F1	G5151 - SCPH11	G3203 - SFVA F1	455°C
	11/4 Cr - 1/2Mo	A217Gr WC6	A182Gr F11	G5151 - SCPH21	G3203 - SFVA F11A	593°C
	21/4 Cr - 1Mo	A217Gr WC9	A182Gr F22	G5151 - SCPH32	G3203 - SFVA F22A	593°C
	5Cr - 1/2Mo	A217Gr C5	A182Gr F5a	G5151 - SCPH61	G3203 - SFVA F5D	650°C
	9Cr - 1Mo	A217Gr C12	A182Gr F9		G3203 - SFVA F9	650°C
LOW-TEMPERATURE	Al Steel	A352Gr LCB, LOC	A350Gr LF2	G5121 - SCPL1	G3205 - SFL2	-46°C
	1/2 Mo Steel	A352Gr LC1		G5121 - SCPL11		-59°C
	21/2 Ni Steel	A352Gr LC2		G5121 - SCPL21		-73°C
	31/2 Ni Steel	A352Gr LC3	A350Gr LF3	G5121 - SCPL31	G3205 - SFL3	-101°C
STAINLESS STEEL	13Cr - 1/2Mo	A217Gr CA15	A182Gr F6a	G5121 - SCS1	G4303 - 410	550°C
	18Cr-8Ni (CO.03)	A351Gr CF3	A182Gr F304L	G5121 - SCS19A	G3214 - SUS F304L	800°C
	18Cr-8Ni (CO.08)	A351Gr CF8	A182Gr F304	G5121 - SCS13A	G3214 - SUS F304	800°C
	18Cr-8Ni-2Mo(CO.03)	A351Gr CF3M	A182Gr F316L	G5121 - SCS16A	G3214 - SUS F316L	800°C
	18Cr-8Ni-2Mo(CO.08)	A351Gr CF8M	A182Gr F316	G5121 - SCS14A	G3214 - SUS F316	800°C
	18Cr - 8Ni - Ti		A182Gr F321		G3214 - SUS F321	800°C
	18Cr - 8Ni - Cb	A351Gr CF8C	A182Gr F347	G5121 - SCS21	G3214 - SUS F347	800°C
	22Cr - 12Ni	A351Gr CH20		G5121 - SCS17		1200°C
	23Cr - 19Ni	A351Gr CK20		G5121 - SCS18		1200°C
	19Cr-27Ni-2Mo-3Cu	A351Gr CN7M		G5121 - SCS23		1200°C

LOW-TEMPERATURE (BOLT)

General Classification	'ASTM' Symbols	'JIS' Symbols	Service Temp
Cr - MO	A320Gr L7		-101°C
18Cr - 8Ni	A320Gr B8	G4303 - SUS304	-196°C
18Cr - 10Ni - Cb	A320Gr B8C	G4303 - SUS347	-196°C
18Cr - 10Ni - Ti	A320Gr B8T	G4303 - SUS321	-196°C
18Cr - 12Ni - 2Mo	A320Gr B8M	G4303 - SUS316	-196°C

NUT

General Classification	'ASTM' Symbols	'JIS' Symbols	Service Temp
Carbon Steel (CO.15)	A194Gr 2H	G4051 - S20C	420°C
Carbon Steel (CO.40)	A194Gr 4	G4051 - S45C	550°C
Carbon Mo Steel	A194Gr 8		600°C
18Cr - 8Ni	A194Gr 8C	G4303 - SUS304	800°C
18Cr - 10Ni - Cb	A194Gr 8T	G4303 - SUS347	800°C
18Cr - 10Ni - Ti	A194Gr 8M	G4303 - SUS321	800°C
18Cr - 12Ni - 2Mo	A197Gr 8M	G4303 - SUS316	800°C

VALVE BODY BOLTING MATERIALS

Body Materials	Temperature Degrass F.	Bolts Material Specifications	Nuts
Carbon Steel (Grade WCB)	- 20 to 800	ASTM A193 Gr B7	ASTM A194 Gr 2H
Carbon Steel (Grade LCB)	- 50 to 650	ASTM A320 Gr L7	ASTM A194 Gr 4
Carbon Moly (Grade WC1)	- 20 to 850	ASTM A193 Gr B7	ASTM A194 Gr 2H
11/4Cr-1/2Mo (Grade WC6)	- 20 to 1000	ASTM A193 Gr B7	ASTM A194 Gr 2H
21/4Cr-1Mo (Grade WC9)	- 20 to 1000	ASTM A193 Gr B7	ASTM A193 Gr B7
	1000 to 1050	ASTM A193 Gr B16	ASTM A194 Gr 4
5Cr-1/2Mo (Grade C5)	- 20 to 1000	ASTM A193 Gr B7	ASTM A194 Gr 2H
	1000 to 1100	ASTM A193 Gr B16	ASTM A194 Gr 4
9Cr-1Mo (Grade C12)	- 20 to 1000	ASTM A193 Gr B7	ASTM A194 Gr 8H
	1000 to 1100	ASTM A193 Gr B16	ASTM A194 Gr 2
Type 304 (Grade CF8)	- 425 to 100	ASTM A320 Gr B8	ASTM A194 Gr 8
	100 to 1500	ASTM A193 Gr B8	ASTM A194 Gr 8
Type 316 (Grade CF8M)	- 425 to 100	ASTM A320 Gr B8	ASTM A194 Gr 8
	100 to 1500	ASTM A193 Gr B8M	ASTM A194 Gr 8M
31/2Ni (Grade LC3)	- 150 to - 50	ASTM A320 Gr B7	ASTM A194 Gr 8
	- 50 to 650	With Charpy Test or 8M	
		ASTM A193 Gr B7	ASTM A194 Gr 2H

HIGH-TEMPERATURE (BOLT)

General Classification	'ASTM' Symbols	'JIS' Symbols	Service Temp
Mild Steel		G3101 - SS41	260°C
Carbon Steel	A307Gr B	G4051 - S25C	204°C
5Cr-1/2 Mo	A193Gr B5	G4107 - SNB5	600°C
1Cr-1/5 Mo	A193Gr B7	G4107 - SNB7	550°C
Cr-Mo-Va	A193Gr B16	G4107 - SNB16	600°C
18Cr-8Ni	A193Gr B8	G4303 - SUS304	800°C
18Cr-10Ni-Cb	A193Gr B8C	G4303 - SUS347	800°C
18Cr-10Ni-Ti	A193Gr B8T	G4303 - SUS321	800°C
18Cr-12Ni-2Mo	A193Gr B8M	G4303 - SUS316	800°C
15Cr-25Ni-MO-Ti-V-B	A453Gr 660		540°C

WROUGHT MATERIALS

CHEMICAL PROPERTIES

	11-13%Cr	Ductile	Carbon Steel	B-8F	321-S.S.	304-S.S.	316-S.S.	304L-S.S.	316-S.S.	Hard Facing	Bolts	Nuts
ASTM Std.	A182	A439	ASTM	A320	A182	A182	A182	A182	A182	KLS	A193	A194
Grade	F6a	D2C	A105	B8F	F321	F304	F316	F304L	F316L	HF6R	B7	2H
C%Max.	0.15	0.29	0.22-0.35	0.15	0.08	0.08	0.08	0.035	0.035	1.05	0.38-0.48	0.04
Si%Max	1.00	1.00-3.00	0.35	1.00	1.00	1.00	1.00	1.00	1.00	1.11	0.15-0.35	-
Mn%Max	1.00	1.80-2.40	0.60-1.05	2.00	2.00	2.00	2.00	2.00	2.00		0.75-1.00	-
P%Max.	0.04	0.08	0.04	0.20	0.030	0.04	0.04	0.040	0.040		0.04	0.04
S%Max.	0.03	-	0.05	0.150-0.350	0.030	0.03	0.03	0.030	0.030		0.04	0.05
Ni%	0.50	21.0-24.0	-	8.00-10.00	9.00-12.00	8.0-11.0	10.0-14.0	8.00-13.0	10.00-15.00	-	-	-
Cr%	11.5-14.5	0.50	-	17.00-19.00	17.00Min	18.0-20.0	16.0-18.0	18.0-20.0	16.00-18.00	28.3	0.80-1.10	-
Mo%	-	-	-	-	-	-	2.00-3.00	-	2.00-3.00	-	0.15-0.25	-
Ti%	-	-	-	-	C% x5 -0.06	-	-	-	-	-	-	-
Fe%	Bal.	-	-	-	-	-	-	-	-	0.30	Bal.	Bal.
W%	-	-	-	-	-	-	-	-	-	4.20	-	-
Co%	-	-	-	-	-	-	-	-	-	Bal.	-	-

PHYSICAL PROPERTIES

	85	58	70	75	75	75	75	70	70		125	175
Tensile Strength Min.Ksi MPa	586	400	483	517	517	517	517	483	493	-	862	-
Yield Point Min.Ksi MPa	379	28	36	30	30	30	30	25	25	-	105	-
Elongation in 2 inch (50mm) %Min.	18	20	22	35	45	30	30	30	30	-	16	-
Reduction of Area %Min.	35	45	30	50	50	50	50	50	30	-	50	-

CASTING MATERIALS

CHEMICAL PROPERTIES

	Carbon Steel	CA-15	High temp.	High temp.	304-S.S.	316-S.S.	HASTELLOLOY -B	304L-S.S.	316L-S.S.	LOW Temp.	HIGH TEMP.	
ASTM Std	A216	A217	A217	A217	A351	A351	A494	A351	A351	A352	A217	A217
Grade	WCB	CA15	WC6	WC9	CF8	CF8M	N12MV	CF3	CF3M	LCB	C5	C12
C%Max.	0.30	0.15	0.20	0.18	0.08	0.08	0.12	0.03	0.03	0.03	0.20	0.20
Mn%	1.00Max.	1.00	0.50-0.80	0.40-0.70	1.50	1.50	1.00	1.50	1.50	1.00	0.40-0.70	0.35-0.65
P%Max.	0.04	0.040	0.04	0.04	0.04	0.04	0.040	0.04	0.04	0.05	0.040	0.040
S%Max.	0.045	0.040	0.045	0.045	0.04	0.04	0.030	0.04	0.04	0.06	0.045	0.045
Ni%	0.50	1.00	-	-	8.0	9.0-12.0	Bal	8.00-12.0	9.00-13.0	-	-	-
Cr%	0.40	11.5-14.0	1.00-1.50	2.00-2.75	18.0-21.0	18.0-21.0	1.00	17.0-21.0	17.0-21.0	-	4.0-6.50	8.00-10.00
Mo%	0.25	-	0.45-0.65	0.90-1.20	-	2.00-3.00	26.0-30.0	-	2.00-3.00	-	0.45-0.65	0.90-1.20
Cu	0.10	-	-	-	-	-	-	-	-	-	-	-
Si	0.30	1.50	0.60	0.60	2.00	2.00	1.00	2.00	1.50	0.60	0.75	1.00
Fe	-	-	-	-	-	-	4.0-6.0	-	-	-	-	-
V	-	-	-	-	-	-	0.20-0.60	-	-	-	-	-

PHYSICAL PROPERTIES

	70	90-115	70	70	70	70	76	70	70	65	90-115	90-115
Tensile Strength Min.Ksi MPa	485	621-793	485	485	485	485	525	485	485	450	621-793	621-793
Yield Point Min.Ksi MPa	30	65	40	40	28	30	40	30	30	35	60	60
	205	448	275	275	195	205	275	205	205	240	414	414
Elongation in 2 inch (50mm) %Min.	22	18	20	20	35	30	6	35	30	24	18	18
Reduction of Area %Min.	35	30	35	35	-	-	-	-	-	35	35	35