



GGC VALVES

TIANSHENG VALVE

HIGH QUALITY INDUSTRIAL VALVES



ZHEJIANG TIANSHENG VALVE CO.,LTD



GATE VALVE >>



Standards

Design and Manufacture: Cast steel gate valve to API 600 (ISO 10434) or API 6D; Cast stainless steel gate valve to API 603 or API 600; Forged steel gate valve to API 602. Inspection and Test: API 598, API 600 or API 6D.

End flange dimension: ASME B 16.5 (for NPS ≤ 24 ;

ASME B 16.47 Series B, API 605, ASME B 16.47 Series A, MSS SP - 44 (for NPS > 24)

BW end dimension: ASME B 16.25

Socket-weld dimension: ASME B 16.11

Face to face and end to end: ASME B 16.10

Pressure-temperature ratings: ASME B 16.34

Gasket of Cover Flange

Carbon steel or stainless steel + flexible graphite combined gasket is used for Class 150 gate valve; Stainless steel + flexible graphite wound gasket is used for Class 300 gate valve; Stainless steel + flexible graphite wound gasket is used for Class 600 gate valve; and ring joint gasket is also optional for Class 600 gate valve; Ring Joint gasket is used for Class 900 gate valve; Pressurized seal design is used for Class 1500~Class 500 gate valve.

Packing Seal

Molded flexible graphite is used for packing material. PTFE or combined packing material can also be used if being requested by the customer. The internal surface of the stuffing box, of which area is contacted with the packing, is of excellent finish (Ra3.2 μ m). The stem surface, contacting with the packing, should be rolled and pressed after being precisely machined, so as to reach to the high finish and compactness (Ra0.8 μ m) and ensure the reliable tightness of the stem area.

Body and Bonnet Connection

The body and bonnet of Class 150~Class 900 gate valves are usually connected with studs and nuts. And the body and bonnet of Class 1500~Class 2500 gate valves are usually of pressurized seal design.

Actuation

Hand wheel or gear box is usually used for gate valve actuation. Chain wheel and electric actuator can also be used for gate valve actuation if being requested by the customers.

Belleville spring Loaded Packing Impacting System

If being requested by the customer, the Belleville spring loaded packing impacting system can be adopted for enhancing the durability and reliability of the packing seal.

Design of Disc

Gate Valves with NPS ≥ 2 " are of wedge flexible gate; gate valves with NPS < 2 " are of wedge solid gate.

Back Seating Design

All our gate valves have the back seating design. In most cases, the carbon steel gate valve is fitted with a renewable back seat. For stainless steel gate valve, the back seat is machined directly in the bonnet or is machined after welding. When the gate valve is at fully open position, the sealing of the back seat can be very reliable. However, as per the requirement of API 600, it is not advisable to add or change packing by the means of back seating when the valve is pressure containing.

Seat

For carbon steel gate valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy specified by the customer. Renewable threaded seat is used for NPS ≤ 10 gate valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS ≤ 10 carbon steel gate valves. For stainless steel gate valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel gate valve if being requested by the customer.

Stem Design

The stem is of integral forged design. The minimum diameter of the stem shall per the standard requirement. The connection of the stem and disc is T type. The strength of the connecting area is bigger than that of the T threaded part of the stem. The strength test of that area conforms to API 591.

Special Gate Valve

Besides the common gate valves, OK Valve also makes cryogenic gate valve, Jacketed Gate Valve, Bellows Sealed Gate Valve, Extension Stem Gate Valve for underground application, Flat Gate Valve, etc.

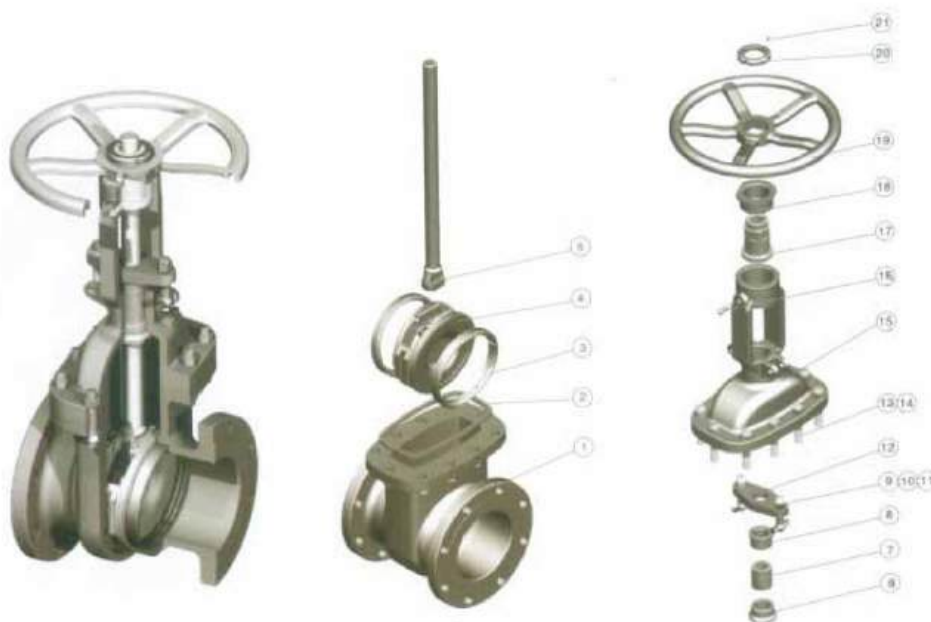
Stem Nut

Usually, the stem nut is made of ASTM A439 D2. It can also be made of copper alloy if being requested by the customer. For large sized gate valves (NPS 10 for Class 150, NPS 8 for Class 300, NPS 6 for Class 600, NPS 5 for Class 900), rolling bearing is fitted at the two sides of the stem nut in order to minimize the open and close torque of the gate valve.





Parts and material list

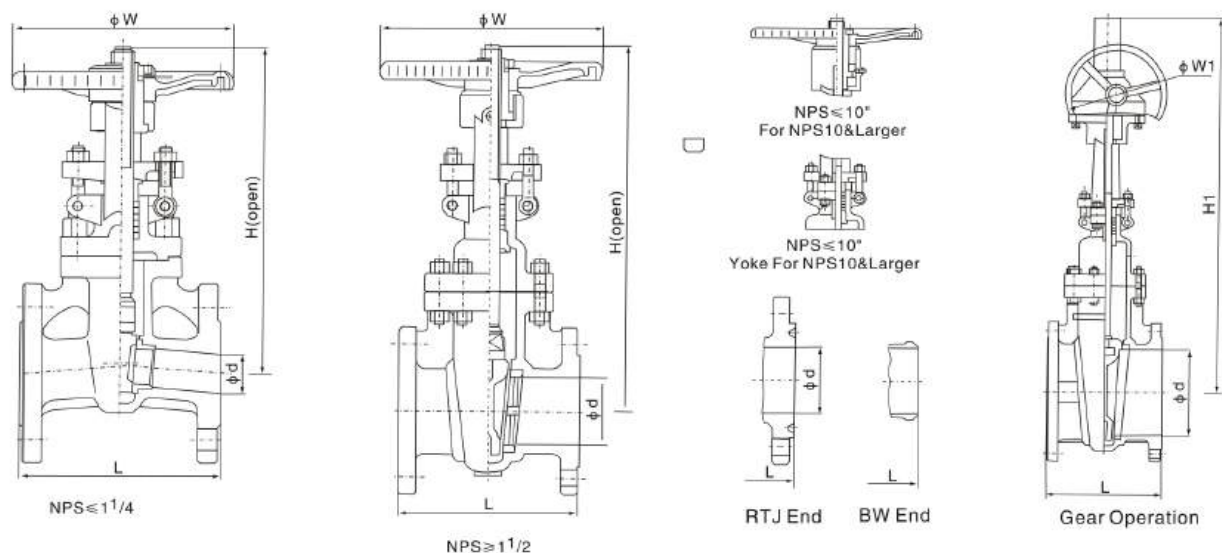


Parts NO.	Parts name	Materials				
		WCB/Trim1	WCB/Trim5	WCB/Trim8	CF8/304	CF8M/316
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 Cf8	ASTM A351 CF 8M
2	Gasket	Soft Iron+Graphite or 304+Graphite			304+Graphite	304+Graphite
3	Seat ring	A105+13Cr	A105+STL	A105+STL	ASTM A351 CF8	ASTM A351 CF 8M
4	Gate	ASTM A216WCB+13Cr	ASTM A216WCB+STL	ASTM A216WCB+13Cr	ASTM A351 CF8	ASTM A351 CF 8M
5	Stem	ASTM A182F 6a	ASTM A182F 6a	ASTM A182F 6a	ASTM A182F 304	ASTM A182F 316
6	Backseat bushing	ASTM A182F 6a	ASTM A182F 6a	ASTM A182F 6a	ASTM A182 304	ASTM A182 316
7	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
8	Gland	ASTM A182F 6a	ASTM A182F 6a	ASTM A182F 6a	ASTM A182F 304	ASTM A182F 316
9	Gland eyebolt	ASTM A193B 7	ASTM A193B 7	ASTM A193 B7	ASTM A193 B8	ASTM A193B 8M
10	Eyebolt nut	ASTM A194 2 H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
11	Eyebolt pin	ASTM A 36	ASTM A 36	ASTM A 36	304SS	304SS
12	Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF 8M
13	Bonnet bolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193B 8	ASTM A193B 8M
14	Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
15	Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF 8M
16	Nipple	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
17	Stem nut	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2
18	Y Yoke sleeve nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
19	Hand wheel	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
20	Hand wheel nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
21	Set screw	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7

Note: The chart above only lists out some common composition of steel gate valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.



Class 150 & JIS 10K Cast Steel Gate valve



CLASS	Size		Dimensions(mm)							
	NPS	DN	L			d	H	H1	W	W1
			TR	RTJ	BW					
Class 150 JIS 10K	1/2	15	108	119	108	14	195	—	120	—
	3/4	20	117	130	117	19	210	—	120	—
	1	25	127	140	127	25	240	—	140	—
	1 1/4	32	140	153	140	32	300	—	180	—
	1 1/2	40	165	178	165	38	395	—	200	—
	2	50	178	191	216	51	400	—	200	—
	2 1/2	65	191	203	241	64	435	—	200	—
	3	80	203	216	283	76	515	—	250	—
	4	100	229	241	305	102	595	—	280	—
	5	125	254	267	381	127	725	—	280	—
	6	150	267	279	403	152	780	820	300	310
	8	200	292	305	419	203	975	1020	350	310
	10	250	330	343	457	254	1150	1200	400	310
	12	300	356	368	502	305	1380	1430	450	310
	14	350	381	394	572	337	1545	1580	500	310
	16	400	406	419	610	387	1733	1780	500	460
	18	450	432	445	660	438	1915	1990	500	460
	20	500	457	470	711	489	2122	2220	600	460
	24	600	508	521	813	591	2520	2600	600	460
	26	650	559	—	864	633	—	2800	—	600
	28	700	610	—	914	684	—	3050	—	600
	30	750	610	—	914	735	—	3130	—	600
	32	800	711	—	965	779	—	3280	—	600
	34	850	762	—	1016	830	—	3500	—	600
	36	900	711	—	1016	874	—	3720	—	600

NPS $\leq 10^4$
For NPS10&Larger

NPS ≤ 10*
Yoke For NPS10&Larger

Technical drawing of a mechanical part, showing a cross-section with dimensions L and 10.

RTJ End

A diagram of a cylinder with a horizontal axis. Below the cylinder, a horizontal line segment is labeled L , representing the length of the cylinder.

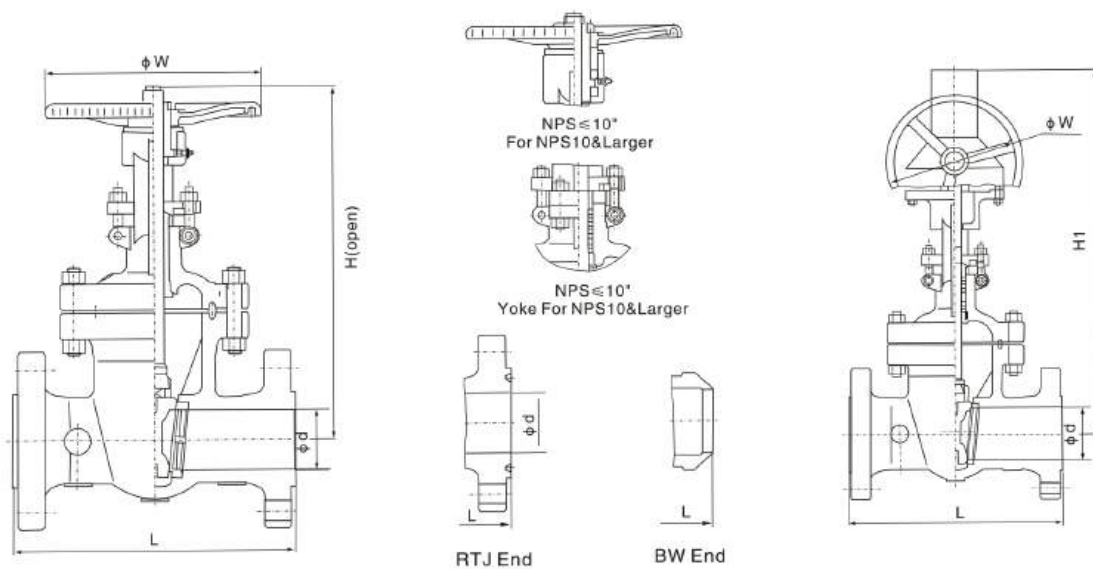
BW End

Gear Operation

- 05 -



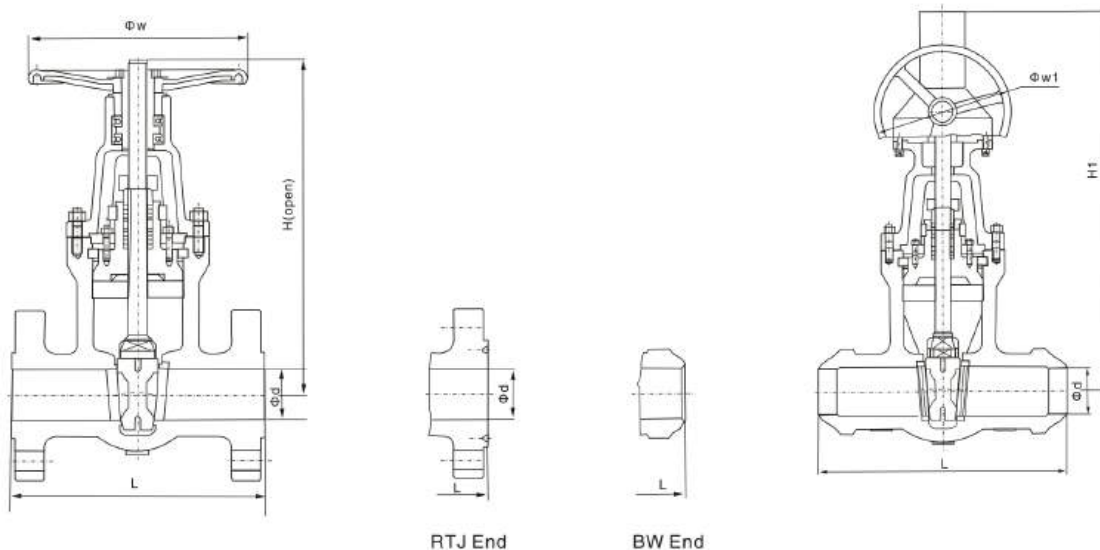
Class 600 & Class 900 Cast Steel Gate valve



CLASS	Size		Dimensions(mm)							
	NPS	DN	L			d	H	H1	W	W1
			TR	RTJ	BW					
Class 600	2	50	292	295	292	51	444	—	200	—
	2 1/2	65	330	333	330	64	500	—	250	—
	3	80	356	359	356	76	558	585	280	310
	4	100	432	435	432	102	665	695	300	310
	5	125	508	511	508	127	760	790	350	310
	6	150	559	562	559	152	868	900	450	310
	8	200	660	664	660	203	1073	1110	500	310
	10	250	787	791	787	254	1263	1300	650	460
	12	300	838	841	838	305	1600	1650	700	460
	14	350	889	892	889	337	1705	1750	900	460
	16	400	991	994	991	387	1835	1900	900	460
	18	450	1092	1095	1092	438	—	2020	—	600
	20	500	1194	1200	1194	489	—	2172	—	600
	24	600	1397	1407	1397	591	—	2650	—	600
Class 900	2	50	368	371	368	51	500	—	280	—
	2 1/2	65	419	422	419	64	550	—	280	—
	3	80	381	384	381	76	610	660	300	310
	4	100	457	460	457	102	702	750	350	310
	5	125	559	562	559	127	850	900	400	310
	6	150	610	613	610	152	980	1060	500	460
	8	200	737	740	737	203	1100	1140	650	460
	10	250	838	841	838	254	1320	1370	700	460
	12	300	965	968	965	305	1500	1560	900	460
	14	350	1029	1038	1029	322	1900	1950	900	600
	16	400	1130	1140	1130	373	2050	2100	900	600



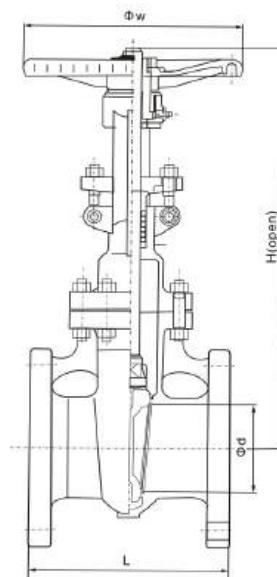
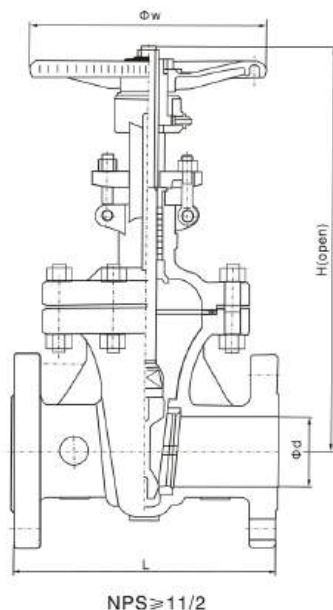
Class 1500 & Class 2500 Cast Steel Gate valve



Class	Size		Dimensions(mm)							
	NPS	DN	L			D	H	H1	W	W1
			RF	RTJ	BW					
Class 1500	2	50	368	371	368	51	510	—	280	—
	2 1/2	65	419	422	419	64	560	—	300	—
	3	80	470	473	470	76	620	670	350	310
	4	100	546	549	546	102	728	770	400	310
	5	125	673	676	673	127	870	920	450	310
	6	150	705	711	405	144	1000	1070	500	460
	8	200	832	841	832	192	1130	1180	750	460
	10	250	991	1000	991	239	1360	1410	900	600
	12	300	1130	1146	1130	287	—	1620	—	600
	14	350	1257	1276	1257	315	—	2020	—	600
	16	400	1384	1407	1384	360	—	2180	—	600
Class 2500	2	50	451	454	451	42	530	580	280	310
	2 1/2	65	508	514	508	52	580	630	300	310
	3	80	578	584	578	62	650	700	350	310
	4	100	673	683	673	87	750	800	400	310
	5	150	794	807	794	96	900	960	500	460
	6	125	914	927	914	131	1040	1100	600	460
	8	200	1022	1038	1022	179	1150	1200	750	460
	10	250	1270	1292	1270	223	1400	1460	900	600
	12	300	1422	1445	1422	265	—	1660	—	600



API 603 Class 150~ Class 300 Cast Stainless Steel Gate valve



Standards

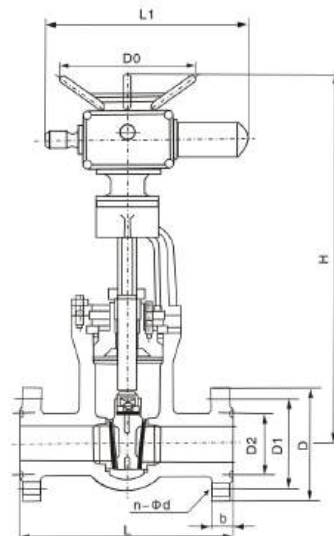
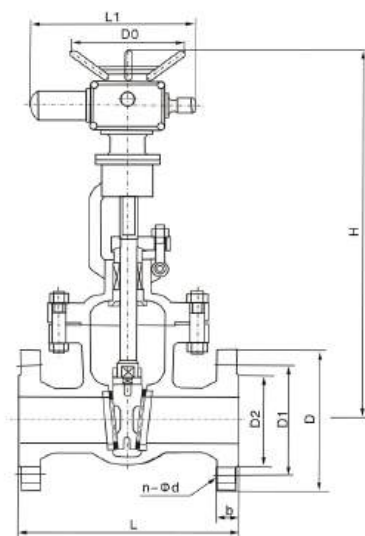
Design and Manufacture : API 603
Inspection and Test : API 598
End flange dimension : ASME B 16.5

Face to face : ASME B 16.10
Pressure-temperature ratings : ASME B 16.34

Size		Class 150				Class 300			
NPS	DN	Dimensions(mm)				Dimensions(mm)			
		L	D	H	W	L	D	H	W
1/2	15	108	14	195	120	140	14	198	120
3/4	20	117	19	210	120	152	19	215	140
1	25	127	25	240	140	165	25	245	160
1 1/4	32	140	32	300	180	178	32	306	180
1 1/2	40	165	38	395	200	190	38	400	200
2	50	178	51	365	160	216	51	400	200
2 1/2	65	191	64	420	160	241	64	435	200
3	80	203	76	485	200	283	76	515	250
4	100	229	102	580	250	305	102	600	280
5	125	254	127	710	250	381	127	715	300
6	150	267	152	741	280	403	152	780	350
8	200	292	203	960	300	419	203	980	400
10	250	330	254	1055	350	457	254	1200	400
12	300	356	305	1352	400	502	305	1400	400
14	350	381	337	1520	400	762	337	1560	500
16	400	406	387	1734	500	838	387	1760	500
18	450	432	438	1920	500	914	438	1940	600
20	500	457	489	2110	600	991	489	2140	600
24	600	508	591	2520	700	1143	591	2550	700

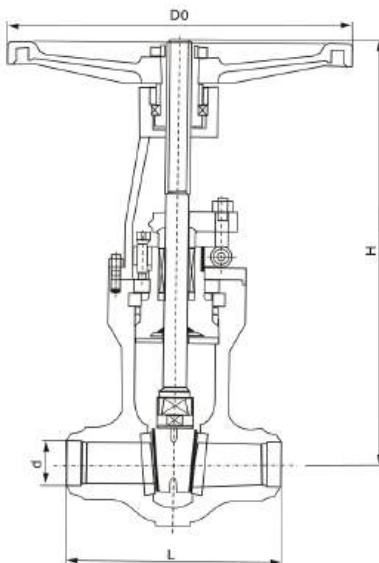
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API 603 Cast Stainless Steel Gate valve



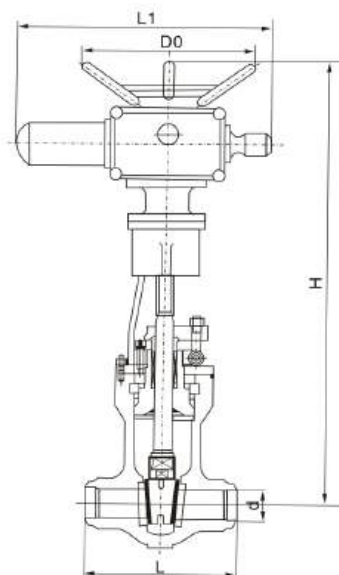
Class	mm	in	L	D	D1	n-φd	Electric Actuator Code	L1	D0	H
600Lb RF	50	2	292	165	127.0	8-φ19	DZW15	590	365	810
	65	2 1/2	330	190	149.4	8-φ22.5	DZW20	590	365	860
	80	3	356	210	168.1	8-φ22.5	DZW20	590	365	892
	100	4	432	273	216.0	8-φ25.4	DZW30	810	470	1013
	125	5	508	330	266.7	8-φ28.5	DZW45	810	470	1250
	150	6	559	356	292.1	12-φ28.5	DZW60	810	470	1250
	200	8	660	419	349.3	12-φ32	DZW90	830	550	1420
	250	10	787	508	431.8	16-φ35	DZW120	830	550	1650
	300	12	838	559	489.0	20-φ35	DZW180	870	320	1800
	350	14	889	603	527.0	20-φ38	DZW250	870	320	2030
	400	16	991	686	603.3	20-φ41	DZW500	1170	570	2250
900Lb RTJ Self-sealing	50	2	371	216	165.0	8-φ25.4	DZW20	590	365	832
	65	2 1/2	422	244	190.5	12-φ28.5	DZW20	590	365	880
	80	3	384	241	190.5	8-φ25.4	DZW30	590	365	905
	100	4	460	292	235.0	8-φ32	DZW30	810	470	1071
	125	5	562	349	279.5	8-φ35	DZW60	810	470	1112
	150	6	613	381	317.5	12-φ32	DZW90	830	550	1170
	200	8	740	470	393.7	12-φ38	DZW120	830	550	1440
	250	10	841	546	470.0	16-φ38	DZW180	870	320	1930
	300	12	968	610	533.4	20-φ38	DZW250	870	320	2259

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ANSI Gate valve



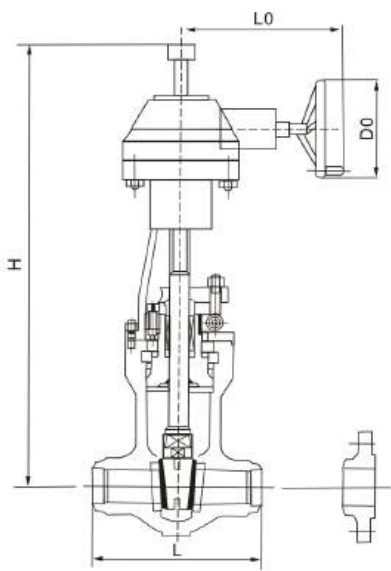
Class	Size DN	Dimensions				
	mm	in	d	L	H	D0
900Lb	65	2 1/2	65	254	680	200
	80	3	80	305	974	200
	100	4	100	356	1038	230
	150	6	146	508	1432	260
	200	8	178	660	1705	360
1500Lb	65	2 1/2	56	254	671	200
	80	3	64	305	692	200
	100	4	84	406	790	230
	125	5	100	483	875	260
	150	6	126	559	1055	360
	200	8	158	711	1148	410
2500Lb	65	2 1/2	46	330	639	200
	80	3	54	368	680	230
	100	4	70	457	805	260
	125	5	86	533	965	360
	150	6	104	610	1070	410

► 闸阀
ANSI Gate valve



Class	Size DN	Dimensions						
	mm	in	L	d	Electric Actuator Code	L0	D0	H
1500Lb	65	2 1/2	254	56	DZW45A	810	470	698
	80	3	305	64	DZW45A	810	470	701
	100	4	406	84	DZW45A	810	470	737
	150	6	559	126	DZW180A	870	320	991
	200	8	711	158	DZW180A	870	320	999
	250	10	864	200	DZW180A	870	320	1124
	300	12	991	250	DZW250	870	320	1196
	350	14	1067	280	DZW800	1060	500	1688
	400	16	1194	318	DZW1000	1060	500	1713
2500Lb	65	2 1/2	330	46	DZW45A	810	470	970
	80	3	368	54	DZW45A	810	470	990
	100	4	457	70	DZW60A	810	470	1080
	125	6	610	104	DZW180	870	320	1450
	150	8	762	130	DZW180	870	320	1460
	200	10	914	162	DZW250	870	320	1620
	250	12	1041	210	DZW350	870	320	1830
	350	14	1118	234	DZW800	1060	500	2310
	400	16	1245	164	DZW1000	1060	500	2480

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Gate valve



Class	Dimensions						
	Size DN		H	D0	L0	(RF)	(BW)
	mm	in				L	L
600Lb	150	6	990	305	357	559	559
	200	8	1130	305	357	660	660
	250	10	1357	458	427	787	787
	300	12	1519	610	427	838	838
	350	14	1730	610	427	889	889
	400	16	1836	610	507	991	991
	450	18	2364	813	665	1092	1092
	500	20	2594	813	665	1194	1194
	600	24	3152	813	665	1397	1397
900Lb	150	6	893	458	427	610	610
	200	8	1070	458	427	737	737
	250	10	1292	610	427	838	838
	300	12	1540	610	507	965	965
	350	14	1618	813	665	1092	1092
	400	16	1732	813	665	1130	1130



GLOBE VALVE >>



Standards

Design and Manufacture: Cast steel globe valve to BS1873 and ASME B16.34; Forged steel globe valve to API 602.

Inspection and Test: API 598.

End flange dimension: ASME B16.5.

BW end dimension: ASME B16.25.

Socket-weld dimension: ASME B16.11.

Face to face and end to end: ASME B16.10.

Pressure-temperature ratings: ASME B16.34.

Actuation

Hand wheel, impact hand wheel & gear box is usually used for Globe valve actuation. Chain wheel and electric actuator can be also used for globe valve actuation if being requested by the customers.

Body and Bonnet Connection

The body and bonnet of Class 150 ~ Class 900 check valves are usually with studs and nuts. And the body and bonnet of Class 1500 ~ Class 2500 check valves are usually of pressurized seal design.

Gasket of Cover Flange

Stainless steel + flexible graphite wound gasket is used for Class 150 and Class 300 globe valve. Stainless steel + flexible graphite wound gasket is used for Class 600, and ring joint gasket is also optional for Class 600. Ring joint gasket is used for Class 900 globe valve. Pressurized seal design is used for Class 1500 ~ Class 2500 globe valve.

Packing Seal

Molded flexible graphite is used for packing material. PTFE or combined packing material can be also used if being requested by the customer. The internal surface of the stuffing box, of which area is contacted with the packing, is of excellent finish (Ra 3.2μm). The stem surface, contacting with the packing, should be rolled and pressed after being precisely machined, so as to reach to the high finish and compactness (Ra 0.8μm) and ensure the reliable tightness of the stem area.

The features of globe valve

Bolted Bonnet: Outside Screw and Yoke; Rising stems; Metallic seating surfaces.

Belleville Spring Loaded Packing Impacting System

If being requested by the customer, the Belleville spring loaded Packing impacting can be adopted for enhancing the durability and reliability of the packing seal.

Stem Design

The stem is of integral forged design. The minimum diameter of the stem shall per the standard requirement.

Back Seating Design

All our globe valves have the back seating design. In most cases, the carbon steel globe valve is fitted with a renewable back seat. For stainless steel globe valve, the back seat is machined directly in the bonnet or is machined after welding. When the globe valve is at fully open position, the sealing of the back seat can be very reliable. However, as per the requirement of API, it is not advisable to add or change packing by the means of back seating when the valve is pressure containing.

Seat

For carbon steel globe valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy specified by the customer. Renewable threaded seat is used for NPS ≤ 10 globe valve, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS ≥ 12 carbon steel globe valves. For stainless steel globe valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel globe valve if being requested by the customer.

Stem Nut

Usually, the stem nut is made of ASTM A439 D2. It is also can be made of copper alloy if being requested by the customer. For large sized globe valve, rolling bearing is fitted at the two sides of stem nut in order to minimize the open and close torque of the globe valve.

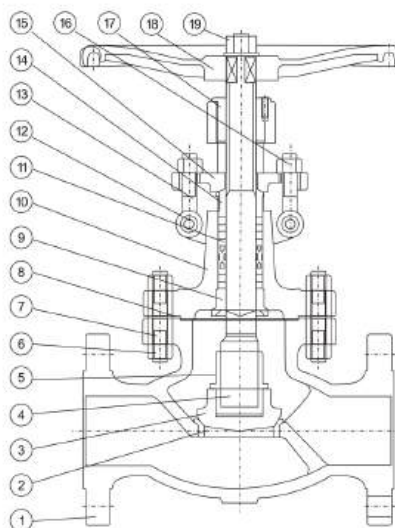
Special Globe Valve

Besides the common globe valves, we also make cryogenic globe valve, bellows sealed globe valve, Jacketed globe valve, etc.





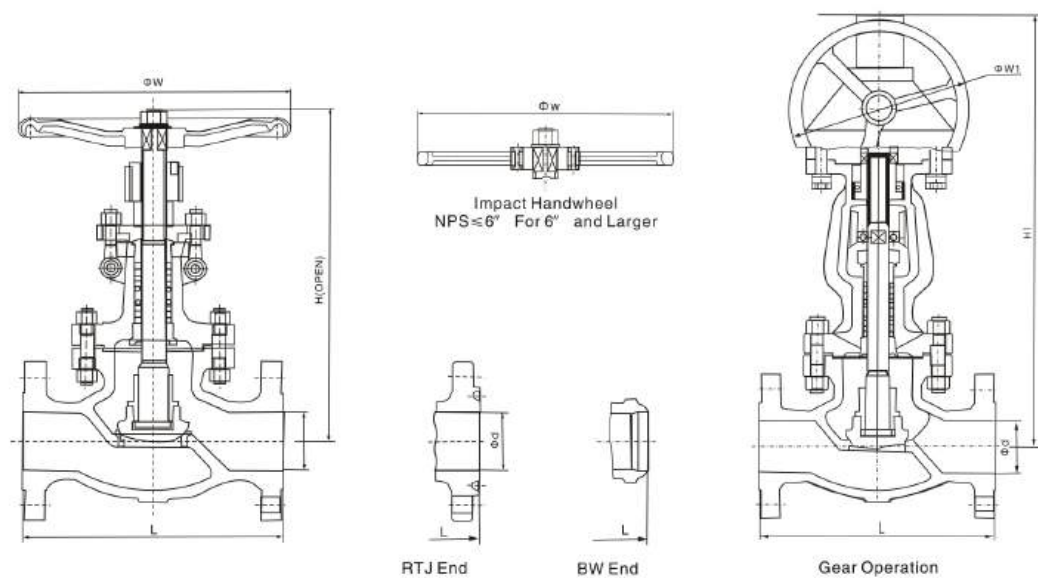
Parts and material list



Parts Number	Parts name	Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8/316
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Seat ring	A105+13Cr	A105+STL	A105+STL	ASTM A351 CF8	ASTM A351 CF8M
3	Stem	ASTM A216 WCB+13Cr	ASTM A216 WCB+STL	ASTM A216 WCB+13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	Disc	ASTM A182F6a	ASTM A182F6a	ASTM A182F6a	ASTM A182F304	ASTM A182F316
5	Disc nut	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
6	Bonnet nut	ASTM A194 2H	ASTM A194 2 H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
7	Bonnet bolt	ASTM A193B 7	ASTM A193B 7	ASTM A193B 7	ASTM A193B 8	ASTM A193 B8M
8	Gasket	304sheet+Graphite	304sheet+Graphite	304sheet+Graphite	304sheet+Graphite	304sheet+Graphite
9	Backseat bushing	ASTM A182F6a	ASTM A182F6a	ASTM A182F6a	ASTM A351 CF8	ASTM A351 CF8M
10	Bonnet	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
11	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
12	Eyebolt pin	ASTM A36	ASTM A36	ASTM A36	304ss	316ss
13	Gland eyebolt	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193B 8	ASTM A193 B8M
14	Gland	ASTM A182F6a	ASTM A182F6a	ASTM A182F6a	ASTM A182F304	ASTM A182F316
15	Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
16	Eyebolt nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
17	Stem nut	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2	ASTM A439 D2
18	Hand wheel	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
19	Hand wheel nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel

Note: The chart above only lists out some common composition of steel gate valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

Class 150 & JIS 10K Cast Steel Globe Valve

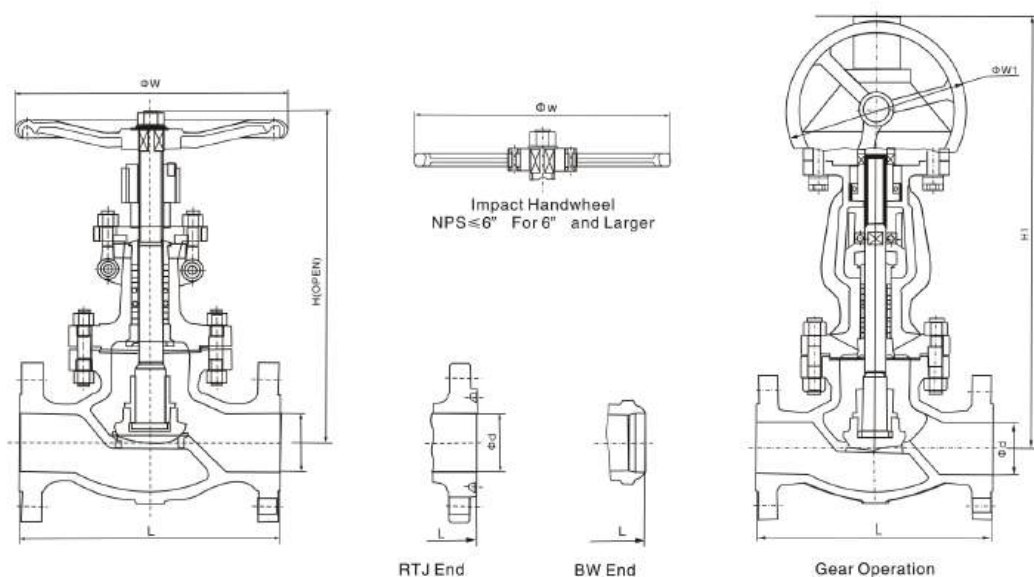


Class	Size		Dimensions(mm)							
	NPS	DN	L			D	H	H1	W	W1
			RF	RTJ	BW					
150	1/2	15	108	119	108	13	182	-	100	-
	3/4	20	117	130	117	19	193	-	100	-
	1	25	127	140	127	25	217	-	100	-
	1 1/4	32	140	152	140	32	235	-	135	-
	1 1/2	40	165	178	165	38	258	-	135	-
	2	50	203	216	203	51	330	-	200	-
	2 1/2	65	216	229	216	64	360	-	250	-
	3	80	241	254	241	76	390	-	280	-
	4	100	292	305	292	102	445	-	300	-
	5	125	356	369	356	127	480	-	350	-
	6	150	406	419	406	152	520	556	350	310
	8	200	495	508	495	203	600	658	400	310
	10	250	622	635	622	254	773	805	450	460
	12	300	698	711	698	305	880	955	500	460

▶ 截止阀
Globe valve



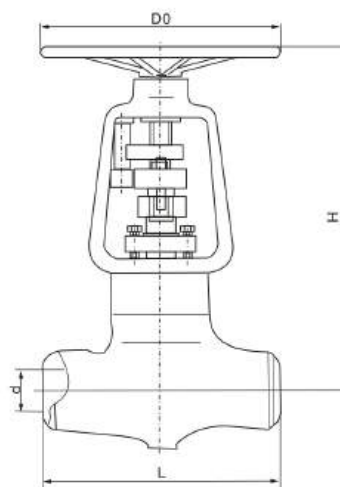
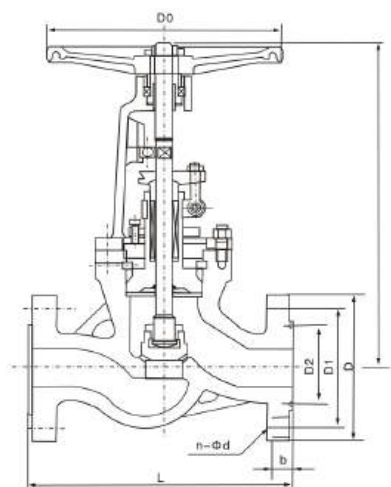
Class 300 & JIS 20K Cast Steel Globe Valve



Class	Size		Dimensions(mm)							
	NPS	DN	L			D	H	H1	W	W1
			RF	RTJ	BW					
300	1/2	15	152	164	152	14	185	-	100	-
	3/4	20	178	191	178	19	195	-	100	-
	1	25	203	216	203	25	220	-	135	-
	1 1/4	32	216	229	216	32	240	-	135	-
	1 1/2	40	229	241	229	38	260	-	160	-
	2	50	267	283	267	51	385	-	200	-
	2 1/2	65	292	308	292	64	420	-	200	-
	3	80	318	333	318	76	440	-	280	-
	4	100	356	371	356	102	515	-	350	-
	5	125	400	416	400	127	580	-	350	-
	6	150	444	460	444	152	660	690	400	310
	8	200	559	575	559	203	900	950	550	460
	10	250	622	638	622	254	950	990	600	460
	12	300	711	727	711	305	1030	1080	700	460

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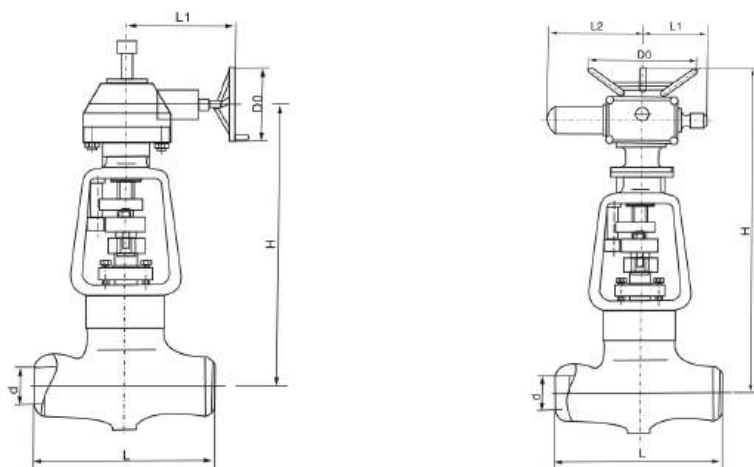
▶ 截止阀
Globe valve



Class	DN		RTJ							
	mm	in	L	D	D1	D2	b	n-φd	H	D0
1500Lb	65	2 1/2	422	244	190.5	108.0	49.0	8-φ28.5	461	400
	80	3	473	267	203.2	136.5	55.7	8-φ32	554	450
	100	4	549	311	241.3	161.9	61.8	8-φ35	639	500
	125	5	676	375	292.1	193.7	81.1	8-φ41	780	560
	150	6	711	394	317.5	211.1	92.1	12-φ38	904	630
	200	8	841	483	393.7	269.9	103.0	12-φ44.5	1140	680
2500Lb	65	2 1/2	514	267	196.9	111.1	66.7	8-φ32	492	400
	80	3	584	305	228.6	127.0	76.0	8-φ32	559	450
	100	4	683	356	273.0	157.2	87.3	8-φ41	715	560
	125	5	806	419	323.9	190.5	104.6	8-φ48	830	630
	150	6	927	483	368.3	228.6	120.7	8-φ54	1070	630
	200	8	1038	552	438.2	279.4	141.3	12-φ54	1300	680

600Lb					900Lb		
DN		Dimensions (mm)			Dimensions (mm)		
mm	in	L	H	D0	L	H	D0
50	2	292	460	250	368	620	300
65	2 1/2	330	490	300	419	680	350
80	3	356	555	350	381	680	400
100	4	432	630	450	457	780	450
150	6	559	955	560	610	1240	630
200	8	660	1310	630	737	1520	710
1500Lb					2500Lb		
DN		Dimensions (mm)			Dimensions (mm)		
mm	in	L	H	D0	L	H	D0
50	2	368	620	250			
65	2 1/2	419	680	300			
80	3	470	760	350			
100	4	546	1100	450			
150	6	705	1500	560	578	937	610
200	8	832	1750	630	673	1048	660

▶ 截止阀
ANSI Globe valve

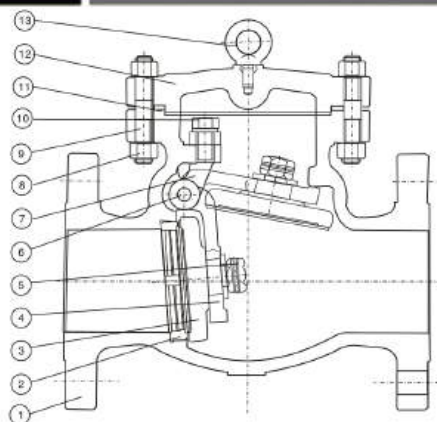


Class	mm	in	d	L	H	D0	L1	Gear device code
1500Lb	125	5	100	580	995	460	332	BA-1
					1170	610	417	BA-2
	150	6	125	630	1360	460	332	BA-1
	200	8	158	770	1500	610	417	BA-2
2000Lb	100	4	80	570	1125	460	332	BA-1
					1185	610	417	BA-2
	125	5	96	660	1370	610	417	BA-2
					1435	760	459	BA-3
	150	6	118	760	1430	610	417	BA-2
					1495	760	459	BA-3
2500Lb	100	4	70	570	1125	460	332	BA-1
					1185	610	417	BA-2
	125	5	88	660	1370	610	417	BA-2
					1435	760	459	BA-3
	150	6	104	760	1430	610	417	BA-2
					1495	760	459	BA-3

Class	DN		Dimensions						Electric Actuator Code
	mm	in	d	L	H	D0	L1	L2	
1500Lb	80	3	64	390	1030	305	400	555	SMC-00
					1077	305	410	565	SMC-0
	100	4	84	480	1033	305	410	565	SMC-0
					1070	305	420	654	SMC-1
	125	5	100	580	1125	305	420	654	SMC-1
					1135	457	440	688	SMC-2
2500Lb	150	6	125	630	1681	305	420	654	SMC-1
					1960	305	420	654	SMC-1
	200	8	158	770	1960	305	420	654	SMC-1
					1960	305	420	654	SMC-1
	65	2 1/2	46	420	975	305	410	565	SMC-0
					1015	305	420	654	SMC-1
	80	3	54	470	1065	305	410	565	SMC-0
					1095	305	420	654	SMC-1
	100	4	70	570	1220	305	420	654	SMC-1
					1235	457	440	688	SMC-2
	125	5	88	660	1425	457	440	688	SMC-2
					1500	610	690	840	SMC-3
2500Lb	150	6	104	760	1480	457	440	688	SMC-2
					1680	610	690	840	SMC-3



CHECK VALVE >>



Reliable seat seal

Design and Manufacture: Cast steel check valve to BS1868, ASME B16.34 and API 6D; Forged steel check valve to API 602.

Inspection and Test: API 598 or API 6D.

End flange dimension: ASME B 16.5 (for NPS ≤ 24);

ASME B16.47 series B, API 605 or ASME B16.47 series A, MSS SP-44 (for NPS > 24).

BW end dimension: ASME B16.25.

Socket-weld dimension: ASME B16.11.

Face to face and end to end: ASME B16.10.

Pressure-temperature ratings: ASME B16.34.

Wall thickness dimension: API 600 and BS1868.

Body and Bonnet Connection

The body and bonnet of Class 150 ~ Class 900 check valves are usually with studs and nuts. And the body and bonnet of Class 1500 ~ Class 2500 check valves are usually of pressurized seal.

Standards

Design and Manufacture : BS1868 or API 6D

Inspection and Test: API 598 or API 6D

End flange dimension : ASME B16.5;

ASME B16.47A, MSS SP-44;

ASME B16.47B, API 605

Part and material list

Parts Number	Parts name	Materials				
		WCB/Trim 1	WCB/Trim 5	WCB/Trim 8	CF8/304	CF8M/316
1	Body	ASTM A216WCB	ASTM A216WCB	ASTM A216WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Seat ring	A105+13Cr	A105+STL	A105+STL	ASTM A182 304	ASTM A182 316
3	Disc	ASTM A216+13Cr	ASTM A216+STL	ASTM A216+13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	Racker	ASTM A216WCB	ASTM A216WCB	ASTM A216WCB	ASTM A351 CF8	ASTM A351 CF8M
5	Nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
6	Arm pin	ASTM A182F6a	ASTM A182F6a	ASTM A182F6a	ASTM A182F304	ASTM A182F316
7	Yoke	ASTM A216WCB	ASTM A216WCB	ASTM A216WCB	ASTM A351 CF8	ASTM A351 CF8M
8	Bonnet nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
9	Bonnet bolt	ASTM A193B7	ASTM A193B7	ASTM A193B7	ASTM A193B8	ASTM A193B8M
10	Bolt	ASTM A193B7	ASTM A193B7	ASTM A193B7	ASTM A193B8	ASTM A193B8M
11	Gasket	304 Graphite	304 Graphite	304 Graphite	304 Graphite	304 Graphite
12	Bonnet	ASTM A216WCB	ASTM A216WCB	ASTM A216WCB	ASTM A351 CF8	ASTM A351 CF8M
13	Eye bolt	ASTM A181	ASTM A181	ASTM A181	ASTM A181	ASTM A181

Body -To-Bonnet Joint

Stainless steel+flexible graphite wounded gasket is used for Class 150 and Class 300 check valve; Stainless steel +flexible graphite wounded gasket is used for Class 600 check valve, and joint gasket is also optional for Class 600 check valve; Ring joint gasket is used for Class 900 check valve; Pressurized seal design is used for Class 1500 ~ Class 2500 check valves.

Seat

For carbon steel check valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy Specified by the customer. Renewable threaded seat is used for NPS ≤ 10 check valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS ≥ 12 carbon steel gate valves. For stainless steel check Valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel check valve if being requested by the customer.

BW end dimension : ASME B16.25

Face to face (end to end) : ASME B16.10

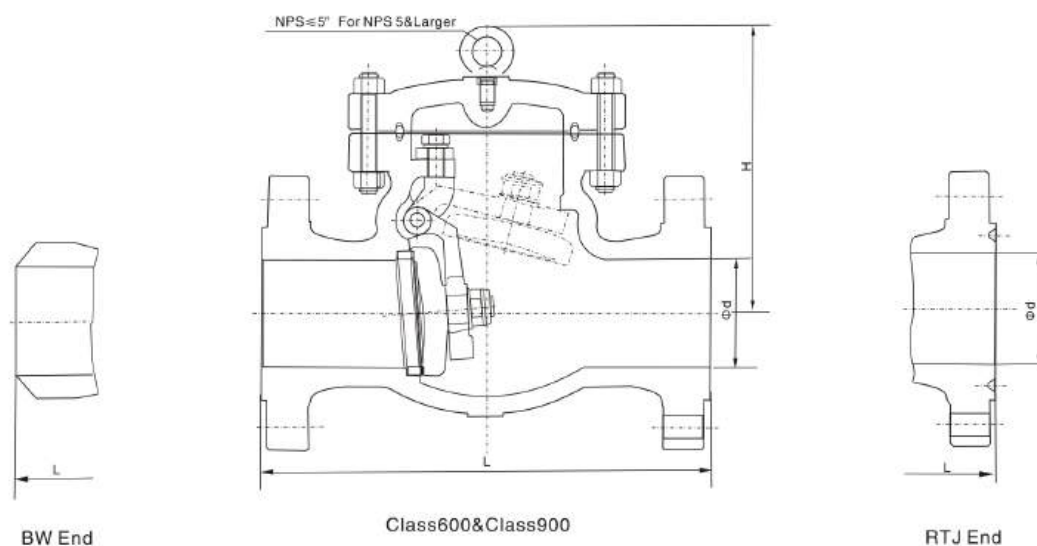
Pressure- temperature ratings : ASME B 16.34

Wall thickness dimension : API 600 and BS 1868

► 旋启式止回阀 Swing Check valve



Class 150~Class 300 Cast Steel Swing Check Valve

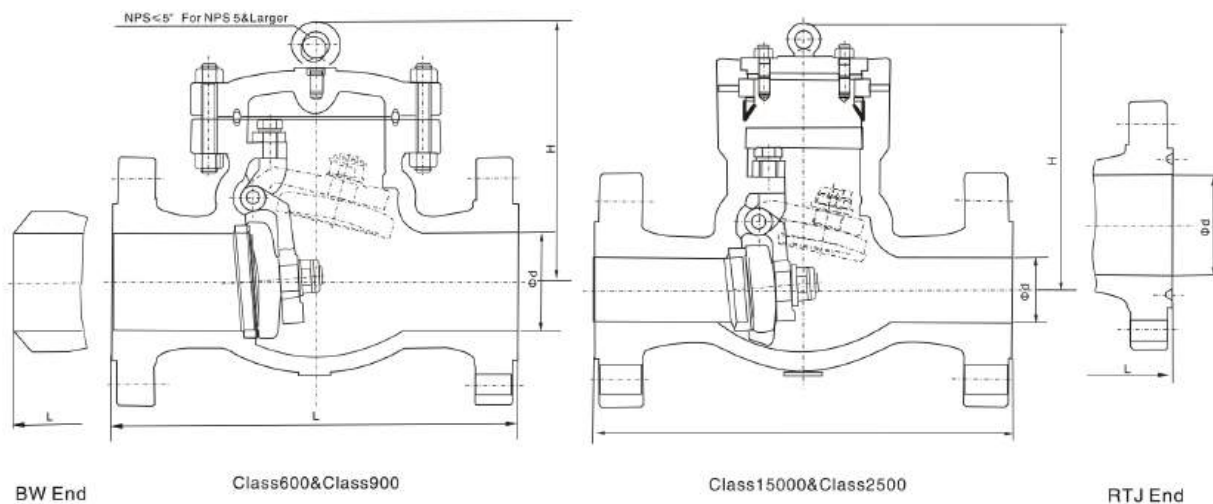


Size		Class 150					Class 300				
NPS	DN	Dimensions (mm)					Dimensions (mm)				
		L			d	H	L			d	H
		RF	RTJ	BW			RF	RTJ	BW		
2	50	203	216	203	51	132	267	283	267	51	144
2 1/2	65	216	229	216	64	147	292	308	292	64	169
3	80	241	254	241	76	176	318	333	318	76	210
4	100	292	305	292	102	198	356	371	356	102	260
5	125	330	343	330	127	255	400	416	400	127	295
6	150	356	368	356	152	320	445	460	445	152	326
8	200	495	508	495	203	380	533	549	533	203	380
10	250	622	635	622	254	440	622	638	622	254	440
12	300	699	711	699	305	480	711	727	711	305	520
14	350	787	800	787	337	530	838	854	838	337	540
16	400	864	876	864	387	580	864	879	864	387	588
1	450	978	991	978	438	618	978	994	978	438	670
20	500	978	991	978	489	657	1016	1035	1016	489	720
24	600	1295	1308	1295	591	760	1346	1368	1346	591	850
26	650	1295	—	1295	633	840	1346	1372	1346	633	920
28	700	1448	—	1448	684	920	1499	1524	1499	684	1150
30	750	1524	—	1524	735	980	1594	1619	1594	735	1260

► 旋启式止回阀 Swing Check valve



Class 600~Class 2500 Cast Steel Swing Check Valve



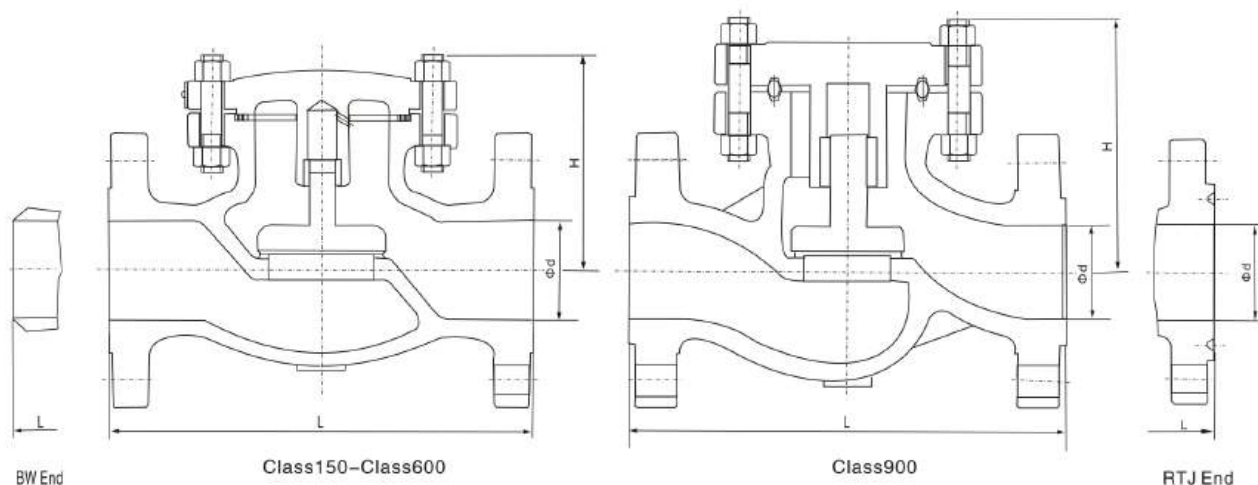
Size		Class 600					Class 900				
NPS	DN	Dimensions (mm)					Dimensions (mm)				
		L			d	H	L			d	H
		RF	RTJ	BW			RF	RTJ	BW		
2	50	292	295	292	51	170	368	371	368	51	200
2 1/2	65	330	333	330	64	178	419	422	419	64	220
3	80	356	359	356	76	246	381	384	381	76	280
4	100	432	435	432	102	290	457	460	457	102	320
5	125	508	511	508	127	320	559	562	559	127	360
6	150	559	562	559	152	360	610	613	610	152	400
8	200	660	664	660	203	430	737	740	737	203	480
10	250	787	791	787	254	502	838	841	838	254	560
12	300	838	841	838	305	554	965	968	965	305	632
14	350	889	892	889	337	595	1029	1038	1029	322	680
16	400	991	994	991	387	680	1130	1140	1130	373	780
18	450	1092	1095	1092	438	778	1219	1232	1219	423	880
20	500	1194	1200	1194	489	970	1321	1334	1321	471	1050
24	600	1397	1407	1397	591	1100	1549	1568	1549	522	1200

Size		Class 1500					Class 2500				
NPS	DN	Dimensions (mm)					Dimensions (mm)				
		L			d	H	L			d	H
		RF	RTJ	BW			RF	RTJ	BW		
2	50	368	371	368	51	210	451	454	451	42	230
2 1/2	65	419	422	419	64	240	508	514	508	52	260
3	80	470	473	470	76	303	578	584	578	62	330
4	100	546	549	546	102	340	673	683	673	87	370
5	125	673	676	673	127	380	794	807	794	96	410
6	150	705	711	705	144	430	914	927	914	131	460
8	200	832	841	832	192	500	1022	1038	1022	179	530
10	250	991	1000	991	239	590	1270	1292	1270	223	620
12	300	1130	1146	1130	287	660	1422	1445	1422	265	690
14	350	1257	1276	1257	315	710	-	-	-	-	-
16	400	1384	1407	1384	360	820	-	-	-	-	-

► 铸钢升降式止回阀 Cast Steel Lift Check valve



Class150~Class900 Cast Steel Lift Check Valve



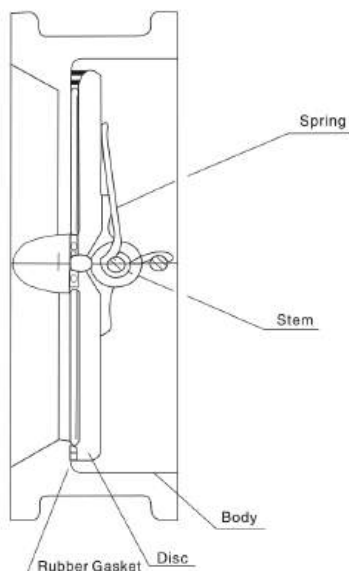
Size		Class 150					Class 300				
NPS	DN	Dimensions (mm)					Dimensions (mm)				
		RF	RTJ	BW	d	H	RF	RTJ	BW	d	H
1/2	15	108	119	108	13	76	152	162	152	13	78
3/4	20	117	130	117	19	76	178	191	178	19	82
1	25	127	140	127	25	98	203	216	203	25	102
1 1/4	32	140	153	140	32	102	216	229	216	32	106
1 1/2	40	165	178	165	38	115	229	242	229	38	118
2	50	203	216	203	21	140	267	293	267	51	140
2 1/2	65	216	229	216	64	162	292	308	292	64	164
3	80	241	254	241	76	168	318	333	318	76	178
4	100	292	305	292	102	194	356	371	356	102	195
5	125	356	368	356	127	210	400	416	400	127	223
6	150	406	419	406	152	226	445	460	445	152	245
8	200	495	508	495	203	250	533	249	533	203	280
10	250	622	635	622	254	275	622	638	622	254	336
12	300	699	711	699	305	332	711	727	711	305	380

Size		Class 600					Class 900				
NPS	DN	Dimensions (mm)					Dimensions (mm)				
		RF	RTJ	BW	d	H	RF	RTJ	BW	d	H
2	50	292	295	292	51	152	368	371	368	50	180
2 1/2	65	330	333	330	64	167	419	422	419	64	200
3	80	356	359	356	76	178	381	384	381	74	235
4	100	432	435	432	102	215	457	460	457	100	270
5	125	508	511	508	125	240	559	562	559	125	300
6	150	559	562	559	152	379	610	613	610	150	350
8	200	660	664	660	200	328	737	740	737	200	400

► 蝶式旋启式止回阀 Butterfly Swing Check valve



Standards compliance



Design and Manufacture :ANSI B16.34,API 6D

Face to face :API 6D

Flanged connection :2" ~ 24" ANSI B16.5 22",26" ~ 36"

MSS-SP-44 API 605 on request

Test and inspection :API 6D

Shell test :150Lb 450 PSI 300Lb 1125 PSI

Seat test :150Lb 315 PSI(Hydrostatic)80PSI

(Air) 300Lb 815 PSI

Product introduction

The wafer flange clamped butterfly check valve is a energy-save product .It is manufactured based the foreign advanced technology and in accordance with relative international standards. This product is featured by excellent retaining per-formance high safety and reliability and low flow resistance. It si suitable for systems in the industries of petrochemical food processing medicine, textile, paper-making .Water, supply, drainage, metallurgy, energy And light industry, etc, used as a check valve in one way.

Featutes

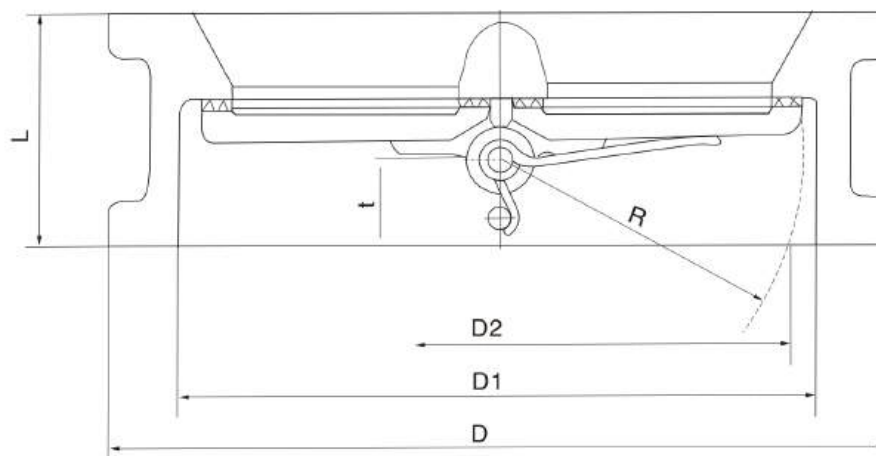
- 1.Small in size,light in weight ,compact in structure, easy in maintenance.
- 2.Two torsion springs are used exerting on each of the pair valve plates. Which close the plates quickly and automatically.
- 3.The quick-close action prevents the medium from flowing back and eliminates water-hammer ffect.
- 4.This valve is short in length, so that it is laid horizontally or vertically.
- 5.It is easy to install on pipeline which is laid horizontally or vertically.
- 6.This valve is tightly sealed without leakage under the pressure water test.
- 7.Safe and reliable in operation ,high interference-resistance.
- 8.The connection dimensions of flanges accord with the standards of GB4216-84 GB4216.5-84
- 9.The face to face dimensions are in accordance with GB12221-89. ISO 5752-82.The stem of the valve should be perpendicular to the horizontal level when the valve is mounted on horizontal pipeline. For vertical installation the direction of flow should be downward.

CLASS 150 ~ CLASS300 Butterfly swing check valve

Materials for main parts

part	WCB	A352LCB	A217 WC 6	A217 WC 9	A217 C 5	A217 C 12	A351 CF 8	A351 CF 8M
Body	A216 WCB	A352LCB	A217 WC 6	A217 WC 9	A217 C 5	A217 C 12	A351 CF 8	A351 CF 8M
Disc	A351 CF 8	A351 CF 8	A182 F 11	A182 F 22	A217 C 5	A217 C 12	A182 F 304	A182 F 316
Stem	A182 F 304	A182 F 304	A182 F 304	A182 F 304	A182 F 304	A182 F 304	A182 F 304	A182 F 316
Spring	Stainless steel							
Rubber Gasket	EPDM-46 ~ +121 Neoprene-50 ~ +150 NBR-35 ~ +113 Fluororabber-23 ~ +150							

▶ 蝶式旋启式止回阀 Butterfly Swing Check valve



Overall & structure dimension & weight

Size		D	D1	D2	L	R	t
mm	inch						
50	2"	107	65	43.3	43	28.8	19
65	2.5"	127	80	60.2	46	36.1	20
80	3"	142	94	66.4	64	43.4	28
100	4"	162	117	90.8	64	52.8	27
125	5"	192	145	116.9	70	65.7	30
150	6"	213	170	144.6	76	78.6	31
200	8"	273	224	198.2	89	104.4	33
250	10"	323	265	233.7	114	127	50
300	12"	378	310	283.9	114	148.3	43
350	14"	438	360	332.9	127	172.4	46
400	16"	439	410	381.0	140	197.4	52
450	18"	555	450	419.9	152	217.8	58
500	20"	594	505	467.8	152	241	58
600	24"	690	624	572.6	178	295.4	73
700	28"	800	720	680	29	354	98

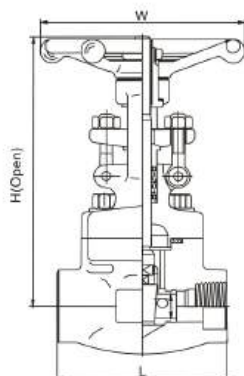


FORGED STEEL VALVES >>

► 内螺纹和内插焊接闸阀 Female Threaded And Socket Welded Gate Valve



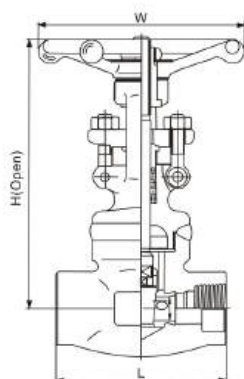
Bolted bonnet, full port reducing port outside screw and yoke (OS&Y)
Threaded, butt-welded or socket welded ends design to API602



CL800

Specification (NPS)	R.P	—	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	79	79	92	111	120	120	140	178	180
Handwheel diameter (mm)	W	100	100	100	125	160	160	180	200	220
Height (mm)	H	161	161	163	196	223	251	290	333	370
Flow port dimension (mm)	d	8	10.5	13.5	18	24	29	36.5	45	51

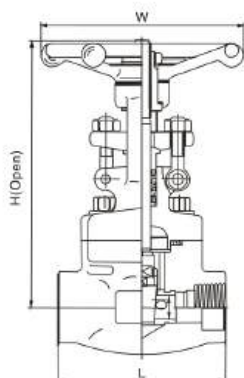
Welded bonnet, full port reducing port outside screw and yoke (OS&Y)
Threaded, butt-welded or socket welded ends design to API602



CL800

Specification (NPS)	R.P	—	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	79	79	92	111	120	120	140	178	180
Handwheel diameter (mm)	W	100	100	100	125	160	160	180	200	220
Height (mm)	H	161	161	163	196	223	251	290	333	370
Flow port dimension (mm)	d	8	10.5	13.5	18	24	29	36.5	45	51

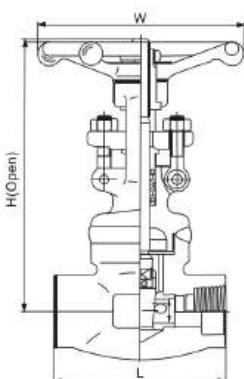
Bolted bonnet, full port reducing port outside screw and yoke (OS&Y)
Threaded, butt-welded or socket welded ends design to API602



CL900-CL1500

Specification (NPS)	R.P	—	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	92	111	111	120	120	140	178	180	—
Handwheel diameter (mm)	W	100	125	125	160	160	180	200	220	—
Height (mm)	H	191	191	192	219	243	296	316	370	—
Flow port dimension (mm)	d	8	10.5	13.5	18	24	29	36.5	45	—

Welded bonnet, full port reducing port outside screw and yoke (OS&Y)
Threaded, butt-welded or socket welded ends design to API602



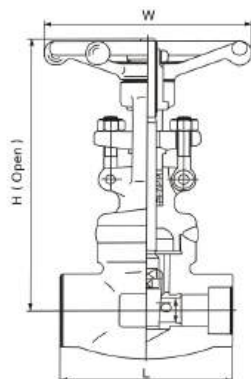
CL900-CL1500

Specification (NPS)	R.P	—	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	92	111	111	120	120	140	178	180	—
Handwheel diameter (mm)	W	100	125	125	160	160	160	200	220	—
Height (mm)	H	171	207	207	240	258	330	355	370	—
Flow port dimension (mm)	d	8	10.5	13.5	18	24	29	36.5	45	—

► 内螺纹和内插焊接闸阀 Female Threaded And Socket Welded Gate Valve



Welded bonnet, full port outside screw and yoke (OS&Y)
Socket welded ends, design conform to ASME B 16.34

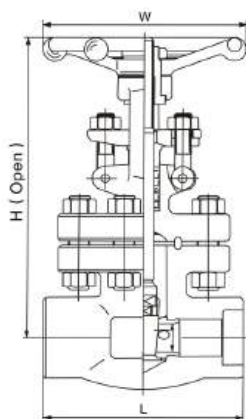


CL2500

Specification (NPS)		1/4	3/8	1/2	3/4	1	1 1/4	2	
Specification (mm)	L		111	120	120	120	140		
Handwheel diameter (mm)	W		125	160	160	180	220		
Height (mm)	H		215	218	220	238	281		
Flow port dimension (mm)	d		14	14	14	19	25		

Bolted bonnet, full port outside screw and yoke (OS&Y)
Socket welded ends, design conform to ASME B 16.34

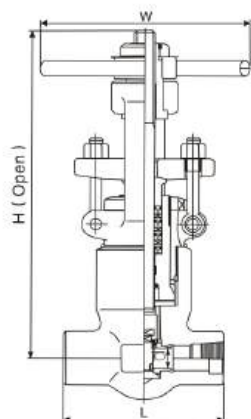
CL1500-CL2500



Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Specification (mm)	L	CL1500	110	150	150		210	235	
		CL2500	150	150	210		235	235	
Handwheel diameter (mm)	W	CL1500	110	130	130		180	250	
		CL2500	130	130	250		300	300	
Height (mm)	H	CL1500	277	300	390		400	435	
		CL2500	293	300	390		435	435	
Flow port dimension (mm)	d	CL1500	14	17	22		35	37	
		CL2500	14	14	14		25	30	

Pressure seal bonnet, full port outside screw and yoke (OS&Y)
Socket welded ends, design conform to ASME B 16.34

CL1500-CL2500



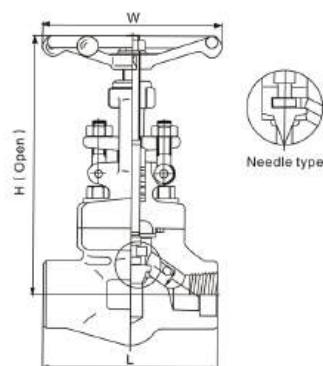
Specification (NPS)	R.P		3/8	1/2	3/4	1	1 1/4	1 1/2	2
Specification (mm)	L	CL900~1500	140	140	140	140	178	178	216
		CL2500	186	186	186	186	232	232	279
Handwheel diameter (mm)	W	CL900~1500	200	200	200	200	280	280	300
		CL2500	200	200	200	200	280	280	300
Height (mm)	H	CL900~1500	318	318	318	322	467	468	540
		CL2500	325	325	325	327	467	468	540
Flow port dimension (mm)	d	CL900~1500	14	14	14	14	25	30	36.5
		CL2500	14	14	14	14	25	30	36.5

► 内螺纹和内插焊接截止阀 Female Threaded And Socket Welded Globe Valve



Olded bonnet,full port reducing port outside screw and yoke(OS&Y)
Threaded,butt-welded or socket welded ends design to Bs5352

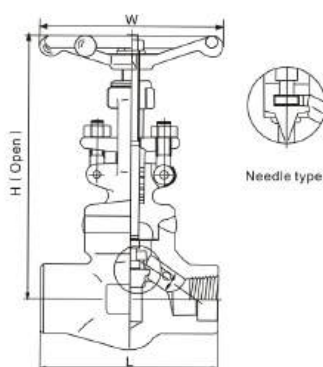
CL800



Specification (NPS)	R.P	-	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	79	79	92	111	120	152	172	200	
Handwheel diameter (mm)	W	100	100	100	125	160	160	180	200	
Height(mm)	H	161	164	164	203	224	260	300	355	
Flow port dimension (mm)	d	7	10.5	13.5	17.5	23	29	35	45	

Welded bonnet,full port reducing port outside screw and yoke(OS&Y)
Threaded,butt-welded or socket welded ends design to Bs5352

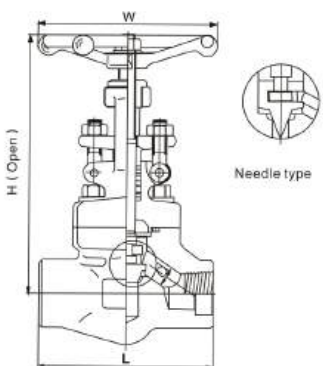
CL800



Specification (NPS)	R.P	-	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	79	79	92	111	120	152	172	200	
Handwheel diameter (mm)	W	100	100	100	125	160	160	180	200	
Height(mm)	H	164	164	164	203	224	260	300	355	
Flow port dimension (mm)	d	7	10.5	13	17.5	23	29	35	45	

Bolted bonnet,full port reducing port outside screw and yoke(OS&Y)
Threaded,butt-welded or socket welded ends design to Bs5352

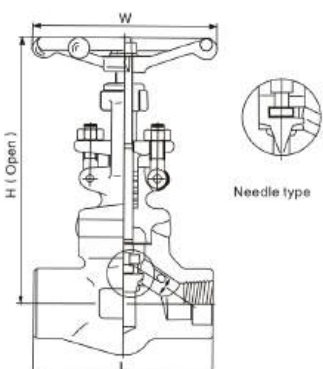
CL900-CL1500



Specification (NPS)	R.P	-	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	92	111	111	120	152	172	200	220	-
Handwheel diameter (mm)	W	100	125	125	160	160	180	200	220	-
Height(mm)	H	171	207	207	240	258	330	355	370	-
Flow port dimension (mm)	d	7	10.5	13.5	18	22	29	35	45	-

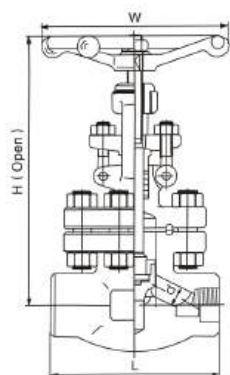
Welded bonnet,full port reducing port outside screw and yoke(OS&Y)
Threaded,butt-welded or socket welded ends design to Bs5352

CL900-CL1500



Specification (NPS)	R.P	-	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂	3
	F.P	1/4	3/8	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	2 ¹ / ₂
Face to face (mm)	L	92	111	111	120	152	172	200	220	-
Handwheel diameter (mm)	W	100	125	125	160	160	180	200	220	-
Height(mm)	H	171	207	207	240	258	330	355	370	-
Flow port dimension (mm)	d		10.5	13.5	18	22	29	35	45	-

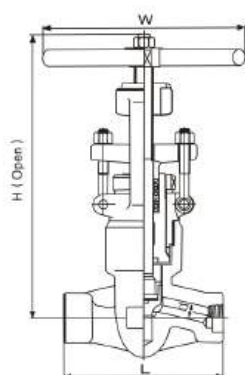
► 内螺纹和内插焊接截止阀 Female Threaded And Socket Welded Globe Valve



Bolted bonnet,full port outside screw and yoke(OS&Y)
Threaded,butt-welded or socket welded ends design to Bs5352

CL900-CL1500

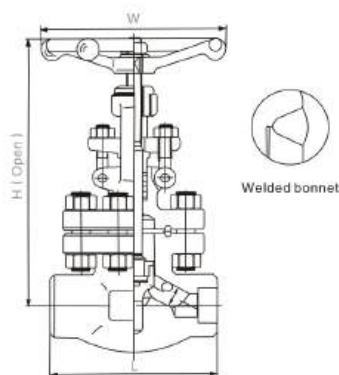
Specification (NPS)	F.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L	110	110	150	150		210	235
Handwheel diameter (mm)	W	110	110	130	180		210	250
Height(mm)	H	227	227	300	307		400	448
Flow port dimension (mm)	d	9	13.5	18	22		35	45



Pressure seal bonnet,full port outside screw and yoke(OS&Y)
Threaded,butt-welded or socket welded ends design to Bs5352

CL900-CL1500

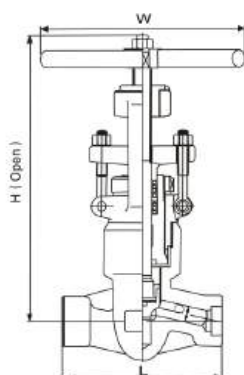
Specification (NPS)	F.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L	140	140	140	178	178	216	
Handwheel diameter (mm)	W	200	200	200	280	280	300	
Height(mm)	H	320	320	320	440	440	490	
Flow port dimension (mm)	d	13.5	18	22	29	35	45	



Bolted bonnet,full port outside screw and yoke(OS&Y)
Socket welded ends,design conform to ASME B16.34

CL2500

Specification (NPS)	F.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L	150	150	210		235	235	
Handwheel diameter (mm)	W	130	130	250		300	300	
Height (mm)	H	293	300	390		435	435	
Flow port dimension (mm)	d	13.5	18	22		35	45	

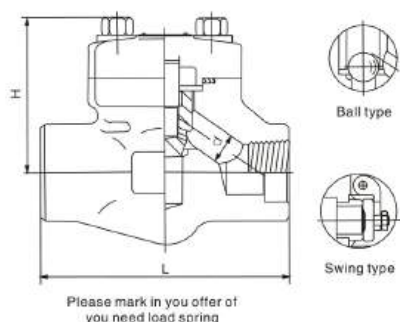


Pressure seal bonnet,full port outside screw and yoke(OS&Y)
Socket welded ends,design conform to ASME B16.34

CL2500

Specification (NPS)	F.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L	186	186	186	232	232	279	
Handwheel diameter (mm)	W	200	200	200	280	280	300	
Height(mm)	H	375	378	380	490	490	540	
Flow port dimension (mm)	d	13.5	18	22	29	35	45	

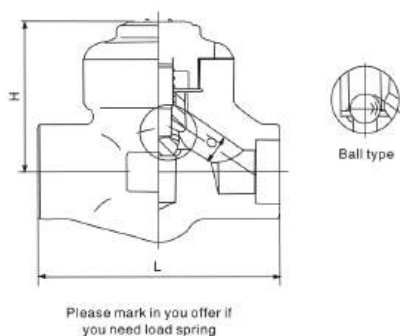
► 内螺纹和内插焊接止回阀 Female Threaded And Socket Welded Check Valve



CL800

Bolted bonnet, full port and reducing port
Threaded, butt-welded or socket welded ends; design to Bs5352

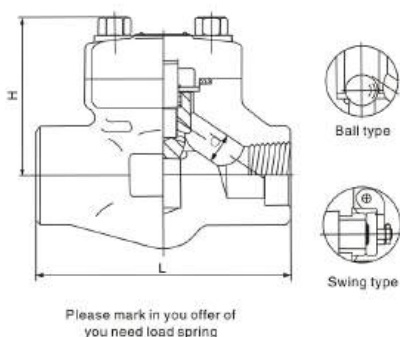
Specification 规格(NPS)	R.P	F.P								
				1/2	3/4	1	1 1/4	1 1/2	2	
Face to face (mm)	L	Lift	79	79	92	111	120	152	172	200
		Swing	79	79	92	111	120	120	140	178
Height(mm)	H	Lift	61	61	61	78	84	84	118	132
		Swing	61	61	61	78	84	84	120	133
Flow port dimension (mm)	d	Lift	7	9	13	17.5	23	30	35	46
		Swing	8	10.5	13.5	18	22	29	35	45



CL800

Welded bonnet, full port and reducing port
Threaded, butt-welded or socket welded ends; design to Bs5352

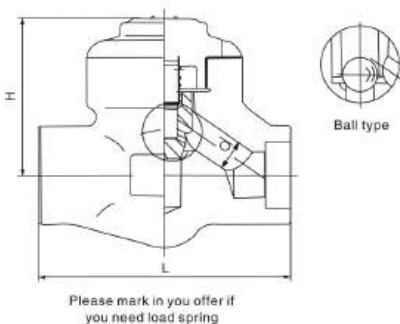
Specification (NPS)	R.P	F.P								
				1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L		79	79	92	111	120	152	172	200
Height(mm)	H		65	65	61	78	84	103	118	132
Flow port dimension (mm)	d		7	10.5	13.5	17.5	23	30	35	46



CL900-CL1500

Bolted bonnet, full port and reducing port
Threaded, butt-welded or socket welded ends; design to Bs5352

Specification (NPS)	R.P	F.P								
				1/2	3/4	1	1 1/4	1 1/2	2	
Face to face (mm)	L	Lift	92	111	111	120	152	172	200	
		Swing	92	111	111	120	120	140	178	
Height(mm)	H	Lift	61	78	78	84	103	118	132	
		Swing	61	78	78	84	101	120	133	
Flow port dimension (mm)	d	Lift	7	13.5	18	22	28	35	45	
		Swing	8	10.5	13.5	18	24	29	48.5	

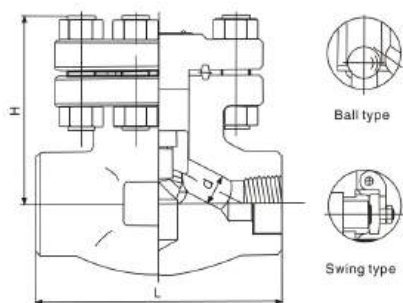


CL900-CL1500

Welded bonnet, full port and reducing port
Threaded, butt-welded or socket welded ends; design to Bs5352

Specification (NPS)	R.P	F.P								
				1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L		92	111	111	120	152	172	200	
Height(mm)	H		61	78	78	84	103	118	132	
Flow port dimension (mm)	d		7	13.5	18	22	29	35	45	

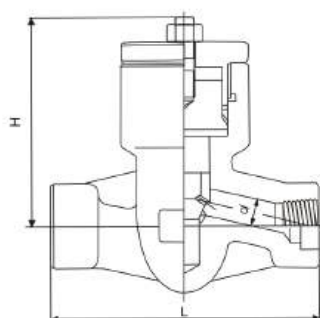
► 内螺纹和内插焊接止回阀 Female Threaded And Socket Welded Check Valve



CL900-CL1500

Bolted bonnet, full port and reducing port
Threaded, butt-welded or socket welded ends; design to Bs5352

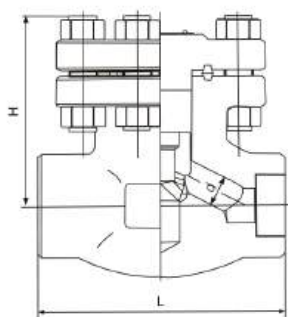
Specification (NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face (mm)	L	110	110	110	110	150	150	210	235
Height (mm)	H	166	166	171	207	240	258	330	355
Flow port dimension (mm)	d	Lift	9	10	10.5	13.5	18	22	29
		Swing	8	10.5	13.5	18	24	29	35



CL900-CL1500

Pressure seal bonnet, full port and reducing port
Threaded, butt-welded or socket welded ends; design to Bs5352

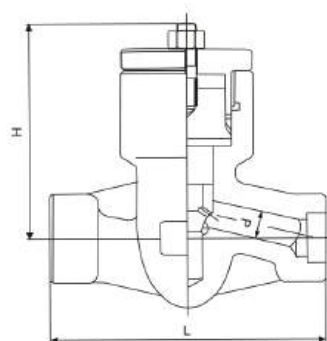
Specification (NPS)	R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face (mm)	L		140	140	140	178	216	216		
Height (mm)	H		117	117	117	152	195	195		
Flow port dimension (mm)	d		10.5	13.5	18	23	29	35		



CL2500

Bolted bonnet, full port
Threaded, butt-welded or socket welded ends; design to ASMEB16.34

Specification (NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face (mm)	L	150	150	150	150	210	235	235	235
Height (mm)	H	166	166	171	207	240	258	330	355
Flow port dimension (mm)	d	7.5	10.5	13.5	18	22	29	35	45



CL2500

Pressure seal bonnet, full port
Threaded, butt-welded or socket welded ends; design to ASMEB16.34

Specification 规格(NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face (mm)	L			186	186	186	232	232	279
Height (mm)	H			117	117	117	152	152	195
Flow port dimension (mm)	d			13.5	18	22	29	35	45



ASTM Code	Chemical Compositions %											Mechanical				Hardness	Charpy
	C ≤	Mn ≤	P ≤	S ≤	Si ≤	Cr ≤	Mo ≤	Ni ≤	Cu ≤	V ≤	Nb ≤	Tensile MPa, ≥	Yield MPa, ≥	Tensile MPa, ≥	Yield MPa, ≥	Brinell HB, ≤	J, ≥
A105	0.35	0.60 ~ 1.05	0.035	0.040	0.10 ~ 0.35	0.30	0.12	0.4	0.40	0.08	0.02	485	250	30	30	187	
A182F11	0.05 ~ 0.15	0.30 ~ 0.60	0.030	0.030	0.50 ~ 1.00	1.00 ~ 1.50	0.44 ~ 0.65					415	205	20	45	121 ~ 174	
A182F22	0.05 ~ 0.15	0.30 ~ 0.60	0.040	0.040	0.50	2.00 ~ 2.50	0.87 ~ 1.13					415	205	20	35	170	
A182F304	0.08	2.00	0.045	0.030	1.00	18.0 ~ 20.0		8.0 ~ 11.0				515	205	30	50		
A182F304L	0.030	2.00	0.045	0.030	1.00	18.0 ~ 20.0		8.0 ~ 13.0				485	170	30	50		
A182F316	0.08	2.00	0.045	0.030	1.00	16.0 ~ 18.0	2.00 ~ 3.00	10.0 ~ 14.0				515	205	30	50		
A182F316L	0.030	2.00	0.045	0.030	1.00	16.0 ~ 18.0	2.00 ~ 3.00	10.0 ~ 15.0				485	170	30	50		
A182F51	0.030	2.00	0.030	0.020	1.00	21.0 ~ 23.0	2.5 ~ 3.5	4.5 ~ 6.5				620	450	25	45		
A182F6a	0.15	1.00	0.040	0.030	1.00	11.5 ~ 13.5		0.50				585	380	18	35	167 ~ 229	
A193B7	0.37 ~ 0.49	0.65 ~ 1.10	0.035	0.040	0.15 ~ 0.35	0.75 ~ 1.20	0.15 ~ 0.25					860	720	16	50	321	
A193B7M	0.37 ~ 0.49	0.65 ~ 1.10	0.035	0.040	0.15 ~ 0.35	0.75 ~ 1.20	0.15 ~ 0.25	8.0 ~ 11.0				690	550	18	50	235	
A193B8	0.08	2.00	0.045	0.030	1.00	18.0 ~ 20.0		10.0 ~ 14.0		0.25 ~ 0.35		515	205	30	50	223	
A193B8M	0.08	2.00	0.045	0.030	1.00	16.0 ~ 18.0	2.00 ~ 3.00					515	205	30	50	223	
A193B16	0.36 ~ 0.47	0.45 ~ 0.70	0.035	0.040	0.15 ~ 0.35	0.80 ~ 1.150	0.50 ~ 0.65					860	720	18	50	321	
A194 2H	≥0.40	1.00	0.040	0.050	0.04											248 ~ 352	
A194 2HM	≥0.40	1.00	0.040	0.050	0.04			8.0 ~ 11.0								159 ~ 237	
A1948	0.08	2.00	0.045	0.030	1.00	18.0 ~ 20.0		10.0 ~ 14.0								126 ~ 300	
A1948M	0.08	2.00	0.045	0.030	1.00	16.0 ~ 18.0	2.00 ~ 3.00									126 ~ 300	
A216WCB	0.30	1.00	0.04	0.045	0.60	0.50	0.20	0.50	0.30	0.03		485 ~ 655	250	22	35		
A216WCC	0.25	1.20	0.04	0.045	0.60	0.50	0.2	0.50	0.30	0.03		485 ~ 655	275	22	35		
A217C5	0.20	0.40 ~ 0.70	0.04	0.045	0.75	4.00 ~ 6.50	0.45 ~ 0.65	0.50	0.50			620 ~ 795	415	18	35		
A217CA15	0.15	1.00	0.040	0.040	1.50	11.5 ~ 14.0	0.50	1.00				620 ~ 795	450	18	30		
A217WC6	0.05 ~ 0.20	0.50 ~ 0.80	0.04	0.045	0.60	1.00 ~ 1.50	0.45 ~ 0.65	0.50	0.50			485 ~ 655	275	20	35		
A217WC9	0.05 ~ 0.18	0.40 ~ 0.70	0.04	0.045	0.60	2.00 ~ 2.75	0.90 ~ 1.20		0.50			485 ~ 655	275	20	35		
A276 410	0.08 ~ 0.15	1.00	0.040	0.030	1.00	11.5 ~ 13.5						480	275	20	45		
A276 420	≥0.15	1.00	0.040	0.030	1.00	12.0 ~ 14.0										241	
A320 L7	0.38 ~ 0.048	0.75 ~ 1.00	0.035	0.040	0.15 ~ 0.35	0.80 ~ 1.10	0.15 ~ 0.25					860	725	16	50		AVG:27; min:20
A320 L7M	0.38 ~ 0.048	0.75 ~ 1.00	0.035	0.040	0.15 ~ 0.35	0.80 ~ 1.10	0.15 ~ 0.25					690	550	18	50	235	AVG:27; min:20
A336 F22	0.05 ~ 0.15	0.30 ~ 0.60	0.025	0.025	0.50	2.00 ~ 2.50	0.90 ~ 1.10					515 ~ 690	310	19	40		
A350 LF1	0.30	0.60 ~ 1.35	0.035	0.040	0.15 ~ 0.30	0.30	0.12	0.40	0.40	0.08	0.02	415 ~ 585	205	28	38		AVG:18; min:14
A350 LF2	0.30	0.60 ~ 1.35	0.035	0.040	0.15 ~ 0.30	0.30	0.12	0.40	0.40	0.08	0.02	485 ~ 655	250	30	30		AVG:20; min:16
A351 CF8	0.03	1.50	0.040	0.040	2.00	17.0 ~ 21.0	0.50	8.0 ~ 12.0				485	205	35.0			
A351 CF3M	0.03	1.50	0.040	0.040	1.50	17.0 ~ 21.0	2.0 ~ 3.00	9.0 ~ 13.0				485	205	30.0			
A351 CF8	0.08	1.50	0.040	0.040	2.00	18.0 ~ 21.0	0.50	8.0 ~ 11.0				485	205	35.0			
A351 CF8M	0.08	1.50	0.040	0.040	1.50	18.0 ~ 21.0	2.0 ~ 3.00	9.0 ~ 12.0				485	205	30.0			
A351 CF8C	0.08	1.50	0.040	0.040	2.00	18.0 ~ 21.0	0.50	9.0 ~ 12.0	3.0 ~ 4.0			485	205	30.0			
A351 CN7M	0.07	1.50	0.040	0.040	1.50	19.0 ~ 22.0	2.0 ~ 3.00	27.5 ~ 30.5				425	170	35			
A352 LC1	0.25	0.50 ~ 0.80	0.04	0.045	0.60		0.45 ~ 0.65					450 ~ 620	240	24	35		
A352 LC2	0.25	0.50 ~ 0.80	0.04	0.045	0.60			2.00 ~ 3.00				485 ~ 655	275	24	35		AVG:18; min:14
A352 LC3	0.15	0.50 ~ 0.80	0.04	0.045	0.60		4	3.00 ~ 4.00				485 ~ 655	275	24	35		AVG:20; min:16
A352 LCB	0.30	1	0.04	0.045	0.60	0.50	0.20	0.50	0.30	0.03		450 ~ 620	240	24	35		AVG:20; min:16
A352 LCC	0.25	1.20	0.04	0.045	0.60	0.50	0.20	0.50		0.03		485 ~ 655	275	22	35	139 ~ 202	AVG:18; min:14
A439 D2	3.00	0.70 ~ 1.25	0.08		1.50 ~ 3.00	1.75 ~ 2.75		18.00 ~ 22.00				400	207	8.0			AVG:20; min:16



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