Agent Inforamtion：

WZLD®

QUALITY VALVE SOLUTIONS
MADE FOR THE WORLD

GATE/GLOBE/CHECK VALVE

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WZLD®

LEADER VALVE GROUP

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LEADER VALVE GROUP

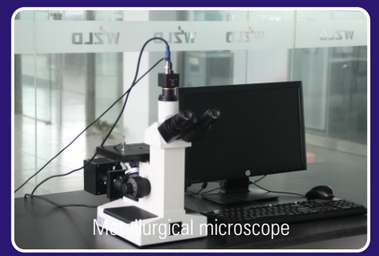
Catalog No.:LEADER-GGC-01

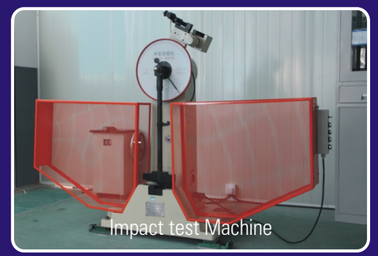
QUALITY VALVE SOLUTIONS MADE FOR THE WORLD


Pressure-test bench


PMI equipment


Cryogenic Box


Metallurgical microscope


Impact test Machine

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WZLD®

ABOUT US

We are one of the leading manufacturers in china to supply quality valve solutions for oil, gas, refinery, chemistry, marine, power plant, pipeline transmit industries etc.; We provide full range of industrial valves products, include Gate valve, Globe valve, Check valve, Ball valve, Plug valve, Butterfly valve, strainer etc. of different types ,sizes and material, Available standard include API, BS, JIS, EN, DIN, GOST etc. Our valves can be Carbon steel, Low-Temperature carbon steel, Austenitic stainless steel, Cr-Mo alloy steel, Duplex stainless steel, Super-duplex stainless steel, Bronze, Nickel alloy, Hastelloy, Titanium, Zirconium etc. The maximum pressure rating can be 2500lbs(PN420), The maximum size can be 80" (DN2000), service temperature can be -196 ℃~600 ℃

We own advanced metal material lab, which include PMI (PDA -5500S): It can analyse following element: Fe, C, Si, Mn, P, S, Cu, Ni, Cr, Mo, Ti, Al, V, Nb, N; so it can ensure us impose reliable control in metal material like casting and forging.

All our branch factories have strict Quality control system as per ISO 9001, API 600, API 6D , API Q1, CE/PED etc. so our products are designed and manufactured strictly as per client's requirements and latest manufacturing specification of international standar ds organization. We welcome most severe and critical valve application.

Leader Valve Group mission is to create a professional and comprehensive quality valve solutions for better serving the customers in the world;

CONTENTS

Standards

Design and Manufacture: Cast steel gate valve to API 600 (IS0 10434) or API 6D; Cast stainless steel gate valve to API 603 0r API 600; Forged steel gate valve to API 602. Inspection and Test: API 598, API 600 0r API 6D.
End flange dimension: ASME B16.5 (for NPS 24)ASME B16.47 series B.
API 605 0r 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.

Design of Disc

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

Body and Bonnet Connection

The body and bonnet of Class150 – Class900 gate valves are usually connected with studs and nuts. And the body and bonnet of Class1500 – Class2500 gate valves are usually of pressure seal design.

Gasket of Cover Flange

Carbon steel or stainless steel + flexible graphite combined gasket is used for Class150 gate valve; Stainless steel + flexible graphite wounded gasket is used for Class 300 gate valve; Stainless steel + flexible g raphite wounded gasket is used for Class600 gate valve,and ring joint gasket is also optional for Class600 gate valve; Ring Joint gasket is used for Class 900 gate valve; Pressurized seal design is used for Class1500 –Class500 gate valve.

Actuation

Hand wheel or gear box is usually used for gate valve actuation. Chain wheel and electric actuator can be also 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.

Packing Seal

Molded flexible graphite is used for packing material.PTFE or combined packing material can be also used ifbeing 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 u 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 u m) and ensure the reliable tightness of the stem area.

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 mean 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, integ ral seat is usually adopted, or to weld hard alloy directly integrally. Th readed 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 pari of the stem. The strength test of that area conforms to API 591.

Stem Nut

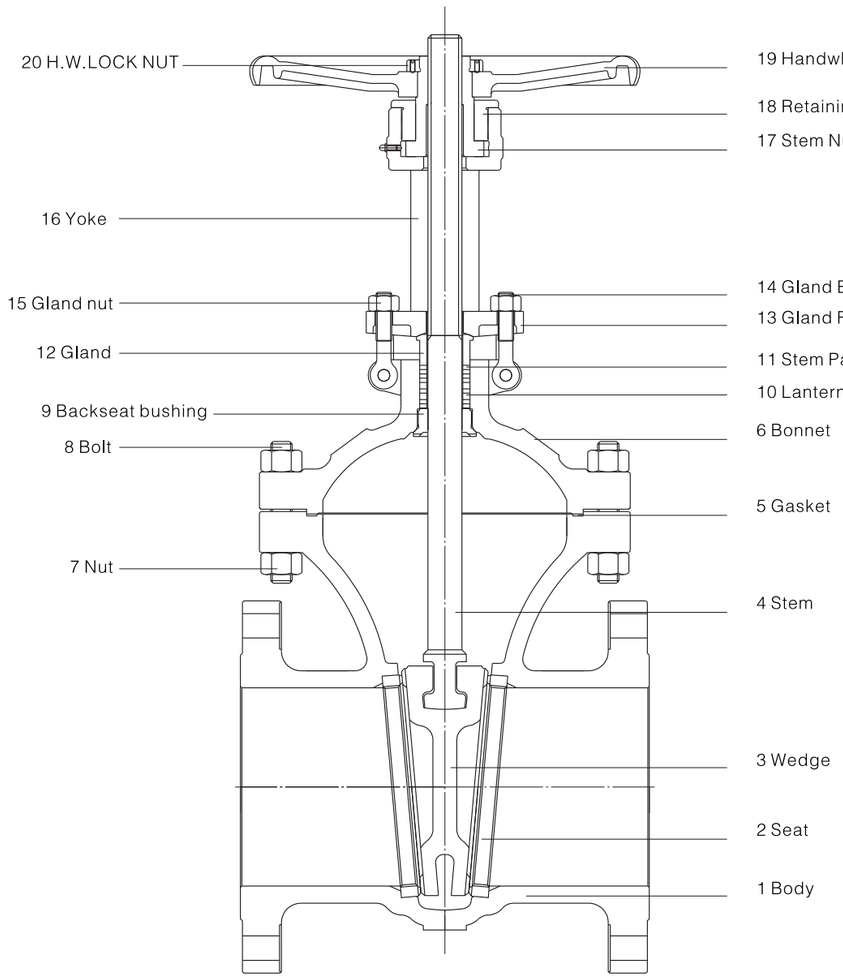
Usually, the stem nut is made of copper alloy. it is also can be made of ASTM A439 D2 if being requested by the customer. For large sized gate valves (NPS 10 for Class 150, NPS 8 for Class 300, NPS 6 for Class 600, NPS 5 for Class 900), rolling bearing is fitted at the two sides of the stem nut in order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

Special Gate Valve

Besides the common gate valves, YuanGao also makes cryogenic gate valve, Jacketed Gate Valve, Bellow Sealed Gate Valve, Extension Stem Gate Valve for underground application,Slat Gate Valve. Etc.

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
API600 BOLTED BONNET GATE VALVE

Cast Steel Gate Valve Major Features



Main Parameter Specification

Design and Manufacture:	API 600(BS1414,DIN3352),ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5,NPS≥26"PER ASME B16.47
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API 598

Main Part Material (150Lb/300lb/600Lb/900Lb)

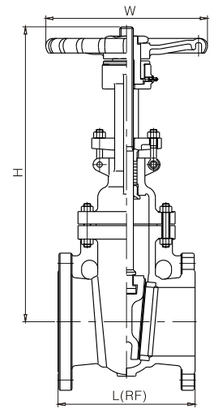
NO.	Part Name	Material						
1	Body	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
2	Seat	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF	A182 F51/F53/F55+HF*
3	Disc	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF	A890 4A/5A/6A+HF*
4	Stem	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
5	Gasket	S.S+Graphite						
6	Bonnet	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
7	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
8	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
9	Backseat	A182 F6a	A182 F316	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55
10	Lantern ring	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F316	A182 F304	A182 F316L
11	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	PTFE
12	Gland	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F316	A182 F304	A182 F316L
13	Gland follower	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8	A351 CF8	A351 CF8	A351 CF8
14	Eyebolt	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
15	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
16	Yoke	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A351 Cf8	A351 Cf8	A351 Cf8	A351 Cf8
17	Stem Nut	Copper Alloy						
18	Retaining Nut	AISI 1025	AISI 1025	AISI 1025	S.S	S.S	S.S	S.S
19	Handwheel	Ductile iron						
20	H.W.LOCK NUT	AISI 1025	AISI 1025	AISI 1025	S.S	S.S	S.S	S.S

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

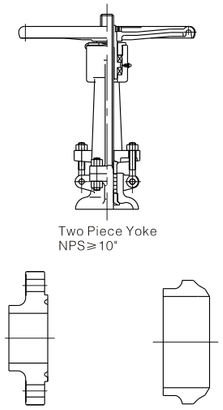
WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
API600 BOLTED BONNET GATE VALVE

Construction and Dimension

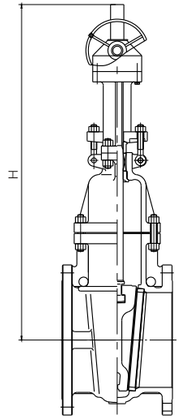
CLASS 150Lb



Handwheel Operation



L(RTJ) L(BW)

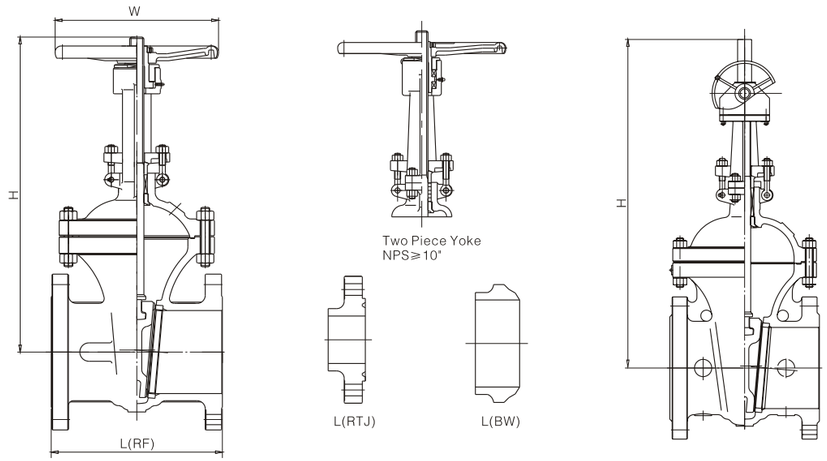


Gear Operation

SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
40	1 1/2	165	178	165	180	15	14	342	–
50	2	178	191	216	200	17	15	397	–
65	2 1/2	191	203	241	200	27	24	438	–
80	3	203	216	283	250	31	28	504	–
100	4	229	241	305	250	47	42	590	–
125	5	254	267	381	300	58	54	682	–
150	6	267	279	403	300	71	69	756	–
200	8	292	305	419	350	122	113	975	1015
250	10	330	343	457	400	185	170	1170	1210
300	12	356	368	502	450	225	214	1375	1415
350	14	381	394	572	500	355	340	1566	1610
400	16	406	419	610	600	495	475	1770	1825
450	18	432	445	660	600	688	635	1924	1980
500	20	457	470	711	680	900	770	2144	2210
600	24	508	521	813	760	1135	965	2522	2610
650	26	559	–	902	800	1700	1425	2728	2800
700	28	610	–	991	915	1950	1820	2941	3022
750	30	610	–	991	915	2210	1980	3175	3208
800	32	*660	–	*965	915	2900	2600	3320	3400
900	36	711	–	1219	915	3500	3150	3600	3740
1000	40	*762	–	*1066	–	4880	–	–	4100
1050	42	813	–	1397	–	5302	–	–	4300
1200	48	*864	–	*1270	–	7520	–	–	5080
1350	54	*1016	–	*	–	10050	–	–	6430
1500	60	*1270	–	*	–	14800	–	–	6850
1600	64	*1676	–	*	–	15025	–	–	7120
**"L will be confirmed by the costumer and factory									

Construction and Dimension

CLASS 300Lb



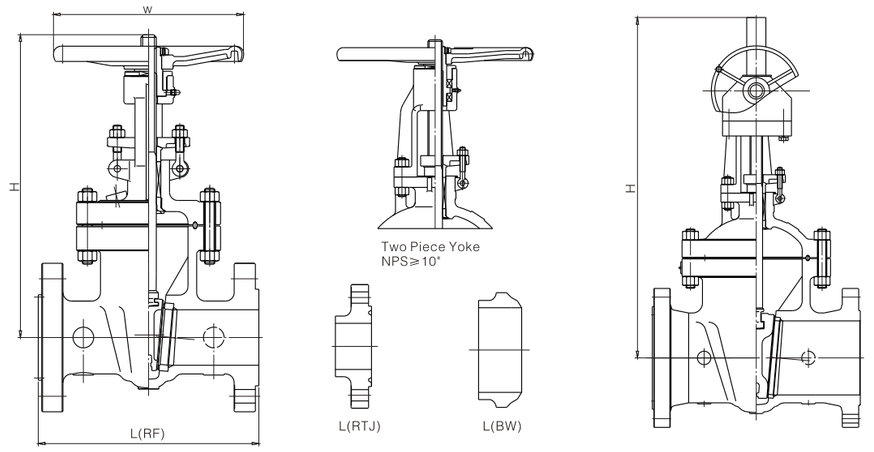
SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
40	1 1/2	191	203	191	160	22	16	300	–
50	2	216	232	216	200	26	20	430	–
65	2 1/2	241	257	241	200	39	35	510	–
80	3	283	298	283	250	48	40	540	–
100	4	305	321	305	250	73	59	650	–
125	5	381	397	381	300	110	95	760	–
150	6	403	419	403	350	144	124	840	–
200	8	419	435	419	400	204	176	1040	1080
250	10	457	473	457	450	320	278	1280	1320
300	12	502	518	502	500	465	405	1440	1484
350	14	762	778	762	600	715	643	1590	1646
400	16	838	854	838	600	970	876	1755	1810
450	18	914	930	914	680	1190	1076	1997	2150
500	20	991	1010	991	760	1655	1515	2192	2320
600	24	1143	1165	1143	915	2320	2114	2587	2730
650	26	1245	1270	1245	915	2900	2640	2890	2940
700	28	1346	1372	1346	915	3510	3210	3280	3350
750	30	1397	1422	1397	950	4100	3760	3510	3530
800	32	1524	1552	1524	–	5250	4860	–	3630
900	34	1626	1654	1626	–	–	–	–	–
1000	36	1727	1756	1727	–	6940	6632	–	3820
1050	42	1981	–	1981	–	–	–	–	–
1200	48	*2235	–	*2235	–	–	–	–	–

"*"L will be confirmed by the costumer and factory

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
API600 BOLTED BONNET GATE VALVE

Construction and Dimension

CLASS 600Lb

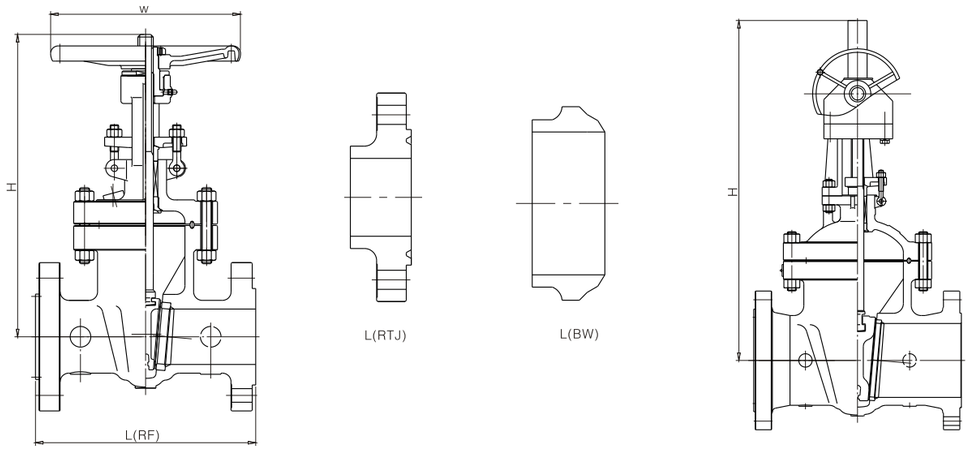


SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
50	2	292	295	292	250	47	39	438	–
65	2 1/2	330	333	330	250	55	47	512	–
80	3	356	359	356	250	75	66	549	–
100	4	432	435	432	350	123	102	668	–
150	6	559	562	559	450	260	208	890	–
200	8	660	663	660	500	400	373	1109	1159
250	10	787	790	787	600	700	630	1268	1318
300	12	838	841	838	680	854	766	1458	1508
350	14	889	892	889	760	1112	1059	1640	1735
400	16	991	994	991	800	1317	1243	1825	1895
450	18	1092	1095	1092	915	1862	1768	1992	2155
500	20	1194	1200	1194	–	2200	2090	–	2304
600	24	1397	1407	1397	–	4560	4228	–	2700
650	26	1448	1461	1448	–	5120	4682	–	3020
700	28	1549	1562	1549	–	7450	6850	–	3120
750	30	1651	1664	1651	–	8114	7500	–	3230
800	32	1778	1794	1778	–	9150	8450	–	3540
850	34	1930	1959	1930	–	9830	–	–	3560
900	36	2083	2099	2083	–	10400	9490	–	3905
950	38	*2235	–	*2235	–	11100	–	–	3910
1050	42	*2438	–	*2438	–	–	–	–	–

"*"L will be confirmed by the costumer and factory

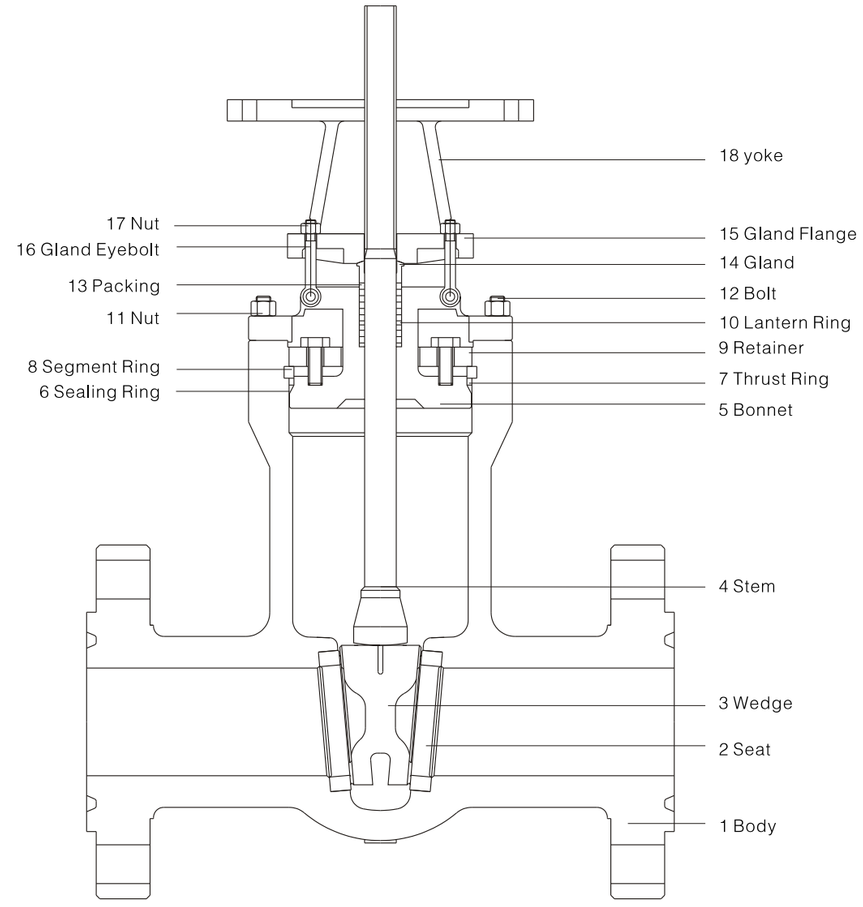
Construction and Dimension

CLASS 900Lb–1500Lb



CLASS	SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
	DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
900Lb	50	2	368	371	368	300	55	43	508	–
	65	2 1/2	419	422	419	300	75	59	580	–
	80	3	381	384	381	350	95	79	606	–
	100	4	457	460	457	450	135	111	796	–
	150	6	610	613	610	500	280	258	957	1060
	200	8	737	740	737	600	495	421	1172	1202
	250	10	838	841	838	600	725	684	1300	1334
	300	12	965	968	965	680	1341	1217	1655	1960
	350	14	1029	1038	1029	–	1900	1750	–	2090
	400	16	1130	1140	1130	–	2550	2364	–	2390
	450	18	1219	1232	1219	–	3275	3009	–	2580
	500	20	1321	1334	1321	–	3900	3574	–	2780
	600	24	1549	1568	1549	–	5985	5325	–	3130
1500Lb	50	2	368	371	368	300	95	80	475	–
	65	2 1/2	419	422	419	330	128	110	526	–
	80	3	470	473	470	400	181	145	735	–
	100	4	546	549	546	450	275	220	838	900
	150	6	705	711	705	600	627	560	1042	1221
	200	8	832	841	832	700	1050	922	1385	1555
	250	10	991	1000	991	800	2200	1950	1645	1800
	300	12	1130	1146	1130	915	3300	2850	1750	2010
	350	14	1257	1276	1257	–	4200	3550	–	2159
	400	16	1384	1407	1384	–	6300	5500	–	2330
	450	18	1537	1559	1537	–	7350	6400	–	2540
	500	20	1664	1686	1664	–	9800	8500	–	2862
	600	24	1943	1972	1943	–	17800	15600	–	3135

Pressure Seal Gate Valve Major Features



Main Parameter Specification

Design and Manufacture:	API 600(BS1414,DIN3352),ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5,NPS≥26"PER ASME B16.47
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API 598

Main Part Material(900Lb/1500Lb/2500Lb)

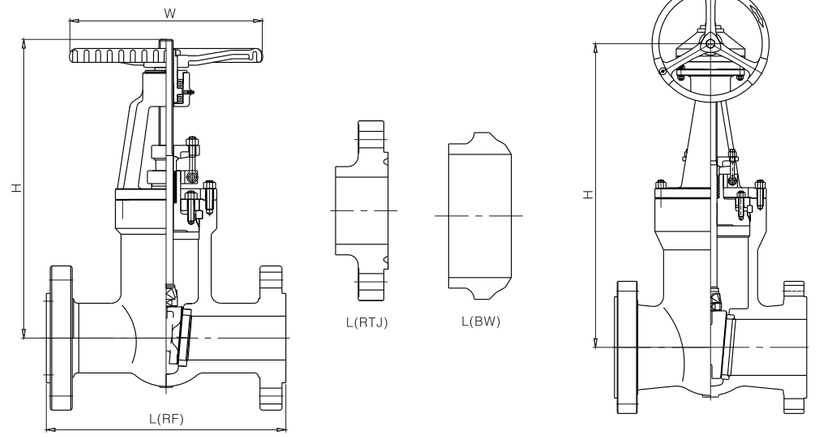
NO.	Parts	Material							
1	Body	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
2	Seat	A105+HF*	LF2+HF*	A182 F11/F22/F5+HF*	A182 F91	A182 F304(L)+HF*	A182 F316(L)+HF*	A182 F321+HF	A182 F51/F53/F55+HF*
3	Disc	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A217 C12A	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF	A890 4A/5A/6A+HF*
4	Stem	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
5	Bonnet	A105	LF2	A182 F11/F22/F5	A182 F91	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
6	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
7	Thrust ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
8	Segment Ring	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A
9	Retainer	A105	LF2	A182 F11/F22/F5	A182 F91	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55
10	Lantern Ring	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F316L
11	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
12	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
13	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
14	Gland	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F316L
15	Gland flange	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 CF8	A351 CF8	A351 CF8	A351 CF8
16	Gland eyebolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
17	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
18	Yoke	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 Cf8	A351 Cf8	A351 Cf8	A351 Cf8

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
ASME B16.34 PRESSURE SEAL GATE VALVE

Construction and Dimension

CLASS 900Lb



SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
50	2	368	371	216	300	70	52	438	–
65	2 1/2	419	422	254	300	95	71	488	–
80	3	381	384	305	350	138	119	721	–
100	4	457	460	356	450	220	190	807	–
150	6	610	613	508	500	280	224	1058	1046
200	8	737	740	660	600	610	522	1225	1265
250	10	838	841	787	600	743	634	–	1500
300	12	965	968	914	650	1341	1198	–	1685
350	14	1029	1038	991	–	1560	1394	–	1830
400	16	1130	1140	1092	–	2100	1892	–	2145
450	18	1219	1232	1219	–	2750	–	–	2300
500	20	1321	1334	1321	–	3450	2950	–	2483
600	24	1549	1568	1549	–	5464	4800	–	2944

Construction and Dimension

CLASS 1500Lb

SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
50	2	368	371	216	300	70	52	438	–
65	2 1/2	419	422	254	350	95	71	570	–
80	3	470	473	305	400	115	82	723	–
100	4	546	549	406	450	195	147	838	900
150	6	705	711	559	600	338	289	1042	1030
200	8	832	841	711	760	577	420	1235	1276
250	10	991	1000	864	800	1016	760	1440	1490
300	12	1130	1146	991	915	2010	1650	1650	1700
350	14	1257	1276	1067	–	2500	2003	–	1968
400	16	1384	1407	1194	–	2955	2313	–	2275
450	18	1537	1559	1346	–	3863	2454	–	2480
500	20	1664	1686	1473	–	5606	3200	–	2687
600	24	1943	1972	1943	–	6480	4900	–	3040

CLASS 2500Lb

SIZE		L(RF)	L(RTJ)	L(BW)	W	M(kg)		H(mm)	
DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
50	2	451	454	279	450	98	61	610	–
65	2 1/2	508	514	330	500	179	124	695	–
80	3	578	584	368	–	193	160	–	780
100	4	673	683	457	–	225	174	–	890
150	6	914	927	610	–	495	360	–	1135
200	8	1022	1038	762	–	700	527	–	1300
250	10	1270	1292	914	–	1480	1135	–	1680
300	12	1422	1445	1040	–	2400	1943	–	1750
350	14	–	–	1118	–	3700	–	–	–
400	16	–	–	1245	–	–	–	–	–
450	18	–	–	1397	–	–	–	–	–
500	20	–	–	1524	–	–	–	–	–
600	24	–	–	1676	–	–	–	–	–

Standards

Design and Manufacture: Cast steel globe valve to BS 1 873 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 B1 6.1 1 .
Face to face and end to end: ASME B16.10.
Pressure–temperature ratings: ASME B1 6.34.

The features of Globe Vlave

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

Body and Bonnet Connection

The body and bonnet of Class150 – Class900 check valves are usually with studs and nuts. And the body and bonnet of Classl 500 –Class2500 check valves are usually of pressure seal design.

Gasket of Cover Flange

Stainless steel + flexible graphite wounded gasket is used for Classl 50 and Class300 globe valve. Stainless steel + flexible graphite wounded gasket is used for Class 600, and ring joint gasket is also optional for Class600. Ring joint gasket is used for Class900 globe valve.Pressu rized seal design is used for Class 1500 – Class2500 globe valve.

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.

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 3.2 U 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 com–pactness (Ra 0.8 u m) and ensure the reliable tightness of the stem area.

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.

Back Seating Design

All our globe valves have the back seat 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 mean of back seating whenthe 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, integ ral 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 Design

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

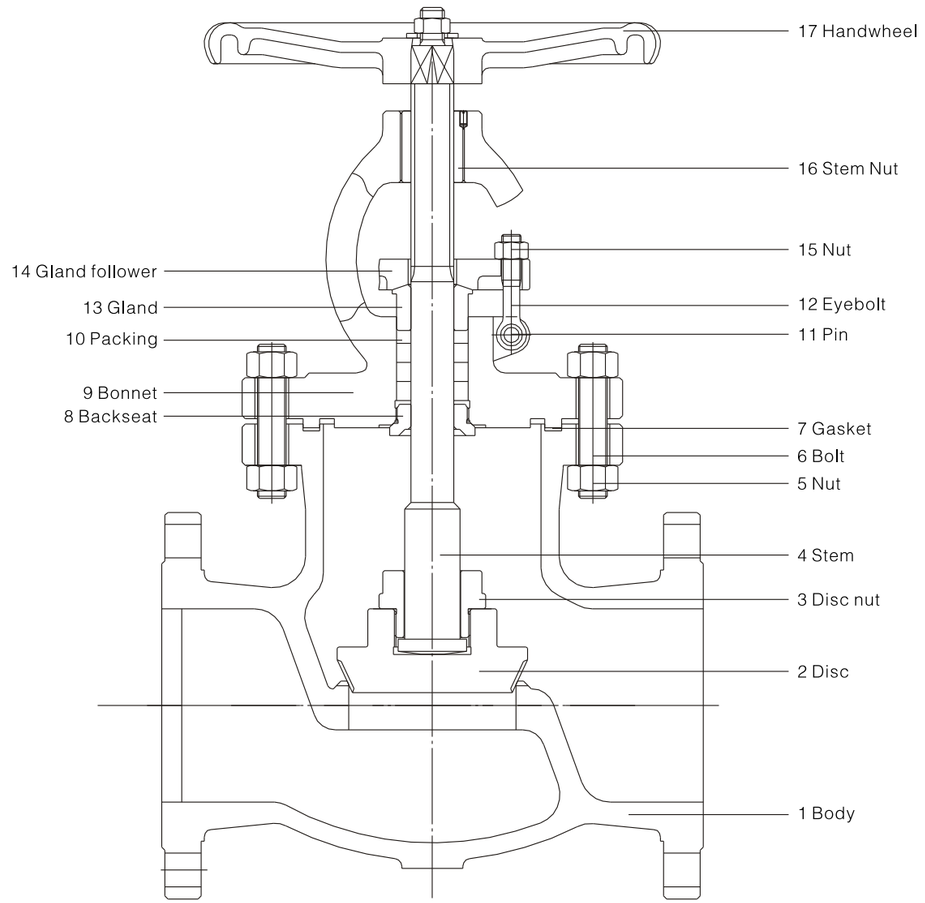
Stem Nut

Usually, the stem nut is copper alloy. It is also can be made of ASTM A439 D2 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 makes cntogenic globe valve, bellow sealed globe valve , Jacketed globe valve, etc.

Casted Steel Globe Valve, OS&Y, Bolted Bonnet



Main Parameter Specification

Design and Manufacture:	BS1873, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
BS1873 BOLTED BONNET GLOBE VALVE

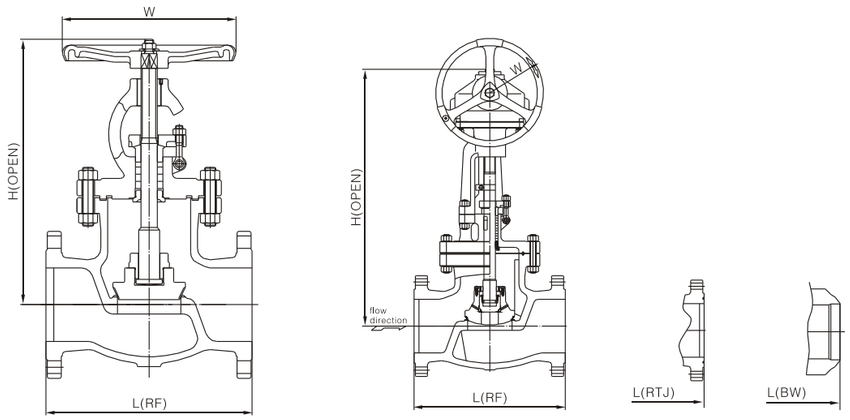
Main Part Material(150Lb/300lb/600Lb/900Lb)

NO.	Part Name	Material						
1	Body	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF*	A890 4A/5A/6A+HF*
2	Disc	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF	A182 F51/F53/F55+HF*
3	Disc nut	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55
4	Stem	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
5	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
6	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
7	Gasket	S.S+Graphite						
8	Backseat	A182 F6a	A182 F316	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55
9	Bonnet	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
10	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	PTFE
11	Pin	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a
12	Eyebolt	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
13	Gland	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F316	A182 F304	A182 F316L
14	Gland follower	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8	A351 CF8	A351 CF8	A351 CF8
15	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
16	Stem Nut	Copper Alloy						
17	Handwheel	Ductile iron						

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

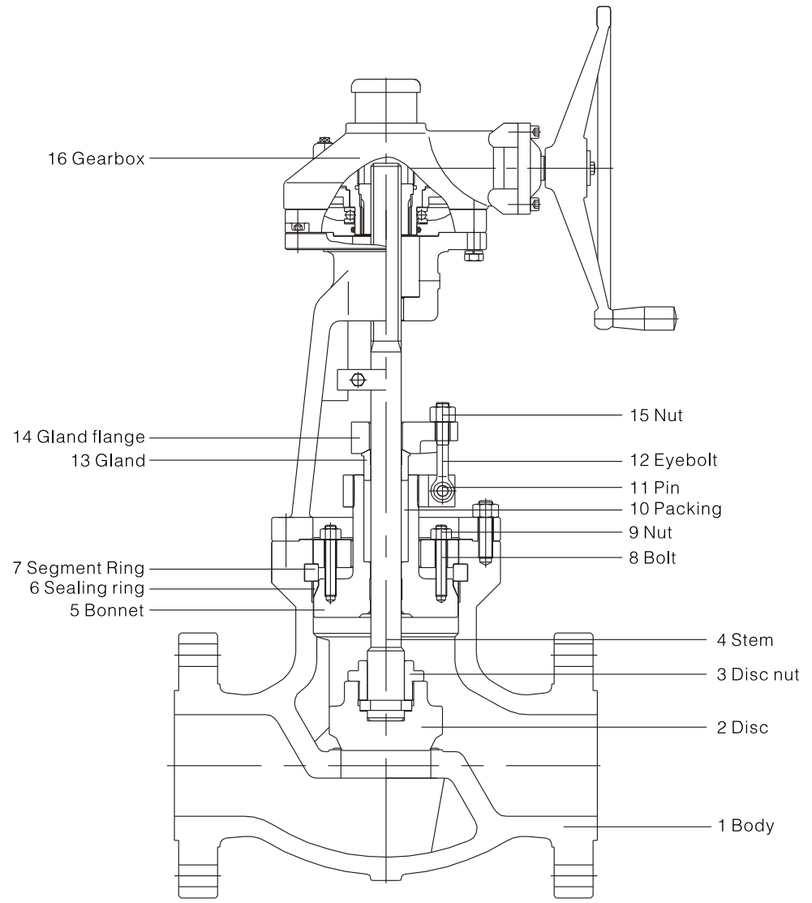
Construction and Dimension

CLASS 150Lb~600Lb



Rating	SIZE		L(RF)	L(RTJ)	L(BW)	W	Weight(kg)		H(mm)	
	DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
150Lb	50	2	203	216	203	200	24	35	354	
	65	2 1/2	216	229	216	250	31	50	392	
	80	3	241	254	241	250	38	61	429	
	100	4	292	305	292	300	62	97	486	
	125	5	356	369	356	350	90	155	537	
	150	6	406	419	406	400	112	203	597	
	200	8	495	508	495	500	178	338	705	
	250	10	622	635	622	550	256	500	814	
	300	12	698	711	698	610	430	715	945	
	350	14	787	800	787	680	632		1070	
	400	16	914	928	914	780	858		1165	
300Lb	50	2	267	283	267	250	32		425	
	65	2 1/2	292	308	292	250	45		465	
	80	3	318	333	318	300	58		530	
	100	4	356	371	356	350	91		616	
	125	5	400	416	400	400	135		695	
	150	6	444	460	444	450	178		781	
	200	8	559	575	559	550	265		857	
	250	10	622	638	622	650	395		935	
	300	12	711	727	711	760	580		1021	
600Lb	50	2	292	295	292	250	40		384	
	65	2 1/2	330	333	330	300	57		416	
	80	3	356	359	356	350	72		470	
	100	4	432	435	432	450	120		540	
	125	5	508	511	508	500	198		600	
	150	6	559	562	559	550	250		670	
	200	8	660	663	660	650	435		810	
	250	10	787	790	787	760	650		956	
	300	12	838	841	838	850	875		1118	

Cast Steel Globe Valve, OS&Y, Pressure Sealed Bonnet



Main Parameter Specification

Design and Manufacture:	BS1873, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

Main Part Material (900Lb/1500Lb/2500Lb)

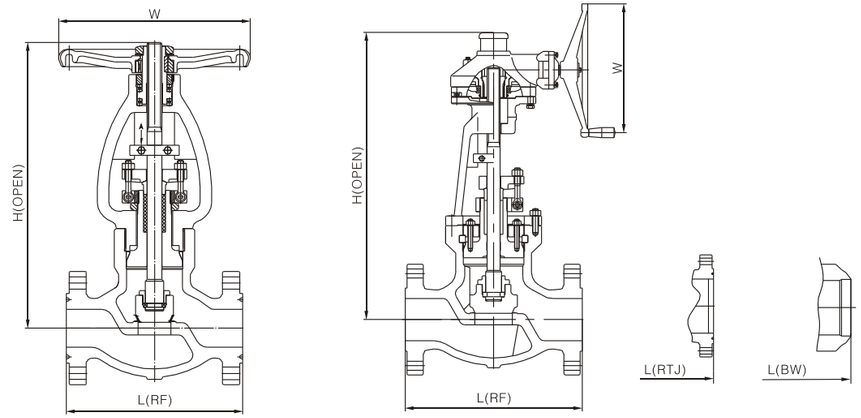
NO.	Parts	Material							
1	Body	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A217 C12A+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF*	A890 4A/5A/6A+HF*
2	Disc	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F91+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF	A182 F51/F53/F55+HF*
3	Disc nut	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F321	A182 F51/F53/F55
4	Stem	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
5	Bonnet	A105	LF2	A182 F11/F22/F5	A182 F91	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
6	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
7	Segment Ring	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A
8	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
9	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
10	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
11	Pin	A182 F6a							
12	Eyebolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
13	Gland	A182 F6a	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F316L
14	Gland flange	A216 WCB	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 CF8	A351 CF8	A351 CF8	A351 CF8
15	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
16	Gearbox	Assembly							

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
ASME B16.34 PRESSURE SEAL GLOBE VALVE

Construction and Dimension

CLASS 900Lb~2500Lb



Rating	SIZE		L(RF)	L(RTJ)	L(BW)	W	Weight(kg)		H(mm)	
	DN(mm)	NPS(in)					RF≈	BW	Manual≈	Gear
900Lb	50	2	368	371	368	350	107	92	354	
	65	2 1/2	419	422	419	400	125	104	392	
	80	3	381	384	381	450	145	128	429	
	100	4	457	460	457	500	225	191	486	
	125	5	559	562	559	560	308	252	537	
	150	6	610	613	610	610	405	332	597	
1500Lb	50	2	368	371	216	350	80	76	425	
	65	2 1/2	419	422	254	450	130	110	465	
	80	3	470	473	305	510	185	150	530	
	100	4	546	549	406	560	250	206	616	
	125	5	673	676	483	610	310	251	695	
	150	6	705	711	559	750	455	400	781	
2500Lb	50	2	454	457	454	450	210	130	384	
	65	2 1/2	514	517	514	510	290	150	416	
	80	3	584	587	584	560	320	190	470	
	100	4	683	686	683	700	410	255	540	
	125	5	807	810	807	460	560	365	600	
	150	6	927	933	927	460	710	520	670	

Reliable Seat Seal

Design and Manufacture: Cast steel check valve to BS 1 868
ASME B16.34 and API 6D;
Forged steel check valve to API 602.
Inspection and Test: API 598 0r API 6D.
End flange dimension; ASME B16.5 (forNPSs24) ;
ASME B 16.47 series B: API 605 0r ASME B16.47
series AMSS SP–44[for NP>24) .
BW end dimension: ASME B16.25.
Socket–weld dimension: ASME B1 6.1 1 .
Face to face and end to end: ASME B1 6.10.
Pressure–temperature ratings: ASME B1 6.34.
Wall thickness dimension: API 600 and BS 1868.

Seat

For carbon steel check valve, the seat is usually forged teel. 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, integ ral 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.

The Features of Check Valve

Bolted Bonnet;
Swing and lift disc;
Metallic seating sudaces.

Body-To-Bonnet Joint

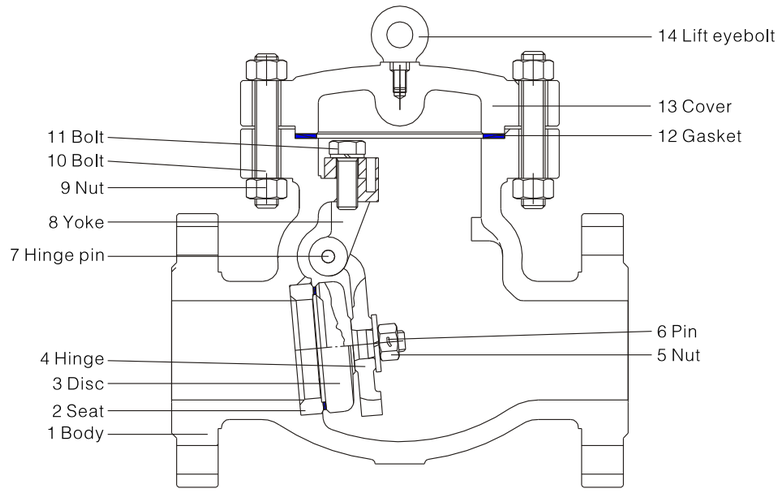
Stainless steel + flexible graphite wounded gasket is used for Class150 and Class300 check valve; Stainless steel + flexible graphite wounded gasket is used for Class600 check valve, and joint gasket is also optional for Class600 check valve; Ring joint gasket is used for Class900 check valve; Pressure seal design is used for Classl 500 – Class2500 check valves.

Bodyand Bonnet Connection

The body and bonnet of Class150–Class900 check valves are usually with studs and nuts. And the body and bonnet of Classl 500–Class2500 check valves are usually of pressure seal design .

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
BS1868 BOLTED COVER SWING CHECK VALVE

Cast Steel Swing Check Valve, Bolted Cover



Main Parameter Specification

Design and Manufacture:	BS1868, API6D, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5 (24" & below), ASME B16.47A/B(Above 24")
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

Main Part Material(900Lb/1500Lb/2500Lb)

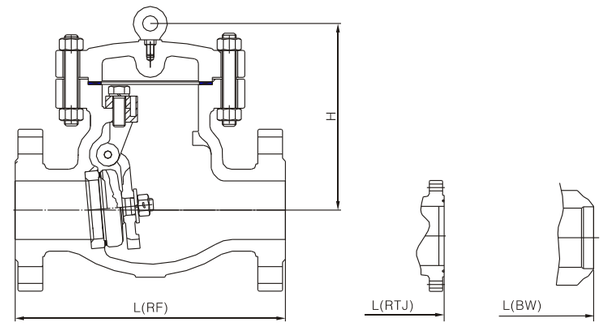
NO.	Parts	Material						
1	Body	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
2	Disc	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF	A182 F51/F53/F55+HF*
3	Disc nut	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF	A890 4A/5A/6A+HF*
4	Stem	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
5	Bonnet	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
6	Sealing ring	A182 F6a	A182 F6a	A182 F6a	A182 F304(L)	A182 F316(L)	A182 F316(L)	A182 F316(L)
7	Segment Ring	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
8	Bolt	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
9	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
10	Packing	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
11	Pin	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
12	Eyebolt		S.S+Graphite or S.S					
13	Gland	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
14	Gland flange	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
BS1868 BOLTED COVER SWING CHECK VALVE

Construction and Dimension

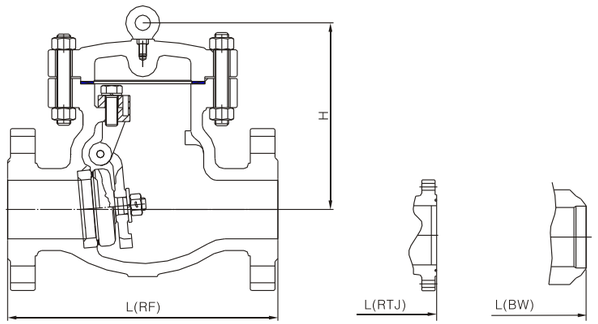
CLASS 150Lb~300Lb



SIZE		150Lb					300Lb				
		L(RF)	L(RTJ)	L(BW)	Weight(kg)	H(mm)	L(RF)	L(RTJ)	L(BW)	Weight(kg)	H(mm)
DN(mm)	NPS(in)				RF≈					RF≈	
50	2	203	216	203	17	132	267	283	267	28	144
65	2 1/2	216	229	216	23	147	292	308	292	31	169
80	3	241	254	241	29	176	318	333	318	42	210
100	4	292	305	292	48	198	356	371	356	65	260
125	5	330	343	330	70	255	400	416	400	95	295
150	6	356	368	356	85	320	444	460	444	140	326
200	8	495	508	495	148	380	533	549	533	223	380
250	10	622	635	622	240	440	622	638	622	360	440
300	12	699	711	699	350	480	711	727	711	505	520
350	14	787	800	787	435	530	838	854	838	665	540
400	16	864	876	864	560	580	864	879	864	835	588
450	18	978	991	978	665	618	978	994	978	968	670
500	20	978	991	978	850	657	1016	1035	1016	1350	720
600	24	1295	1308	1295	1240	691	1346	1368	1346	1825	850
700	28	1448		1448	1635	794	1499		1499	2385	1150
750	30	1524		1524	1920	857	1594		1594	2660	1260
900	36	1956		1956	2250	991	2083		2083	3315	1380

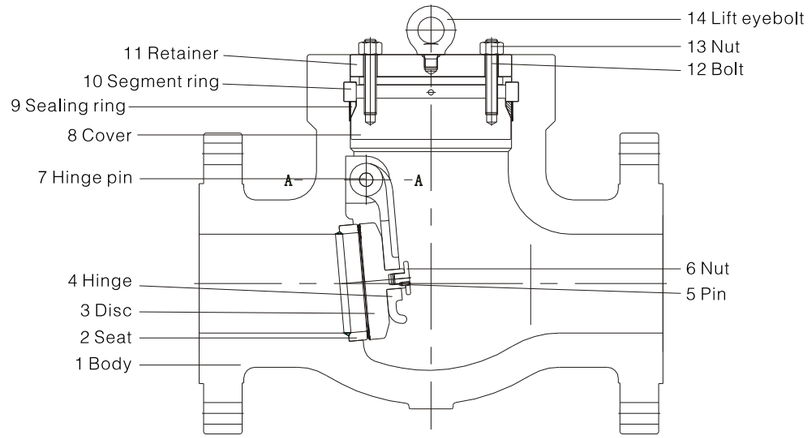
Construction and Dimension

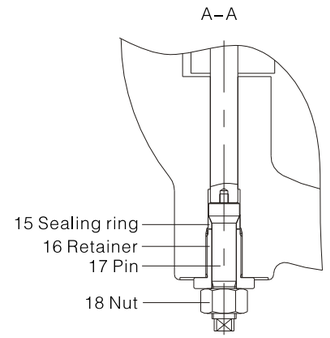
CLASS 600Lb~900Lb



SIZE		150Lb					300Lb				
DN(mm)	NPS(in)	L(RF)	L(RTJ)	L(BW)	Weight(kg) RF≈	H(mm)	L(RF)	L(RTJ)	L(BW)	Weight(kg) RF≈	H(mm)
50	2	292	295	292	28	170	368	371	368	48	200
65	2 1/2	330	333	330	40	178	419	422	419	75	220
80	3	356	359	356	68	246	381	384	381	95	280
100	4	432	435	432	117	290	457	460	457	135	320
125	5	508	511	508	155	320	559	562	559	200	360
150	6	559	562	559	192	360	610	613	610	264	400
200	8	660	664	660	340	430	737	740	737	424	480
250	10	787	791	787	515	502	838	841	838	730	560
300	12	838	841	838	750	554	965	968	965	1070	632
350	14	889	892	889	890	595	1029	1038	1029	1180	680
400	16	991	994	991	1303	680	1130	1140	1130	1790	780
450	18	1092	1095	1092	1800	778	1219	1232	1219	2500	880
500	20	1194	1200	1194	2150	970	1321	1334	1321	3080	1050
600	24	1397	1407	1397	3200	1100	1549	1568	1549	4600	1200

Cast Steel Swing Check Valve Pressure Sealed Cover





Main Parameter Specification

Design and Manufacture:	BS1868, API6D, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

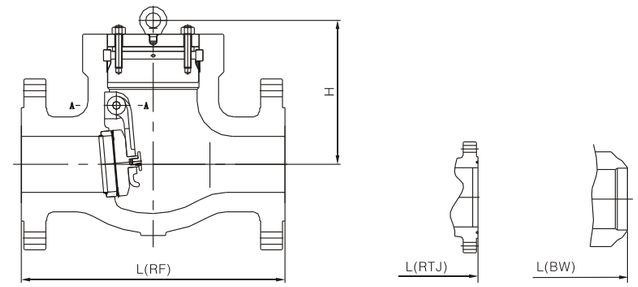
Main Part Material(900Lb/1500Lb/2500Lb)

NO.	Parts	Material							
1	Seat	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
2	Body	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F91+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF	A182 F51/F53/F55+HF*
3	Disc	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A217 C12A+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF	A890 4A/5A/6A+HF*
4	Hinge	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A217 C12A	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
5	Pin	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304(L)	A182 F316(L)	A182 F316(L)	A182 F316(L)
6	Nut	CS	CS	CS	CS	S.S	S.S	S.S	S.S
7	Hinge pin	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
8	Cover	A105	LF2	A182 F11/F22/F5	A182 F91	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
9	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
10	Segment ring	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A
11	Retainer	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304
12	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
13	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
14	Lift eyebolt	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn	AISI 1025+Zn
15	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
16	Retainer	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304
17	Pin	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
18	Nut	CS+Zn	CS+Zn	CS+Zn	CS+Zn	S.S	S.S	S.S	S.S

* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#,8#,10#,12#,16#etc.

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD
ASME B16.34 PRESSURE SEAL SWING CHECK VALVE

Construction and Dimension



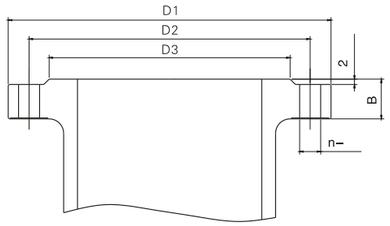
CLASS 900Lb~1500Lb

SIZE		900Lb					1500Lb				
		L(RF)	L(RTJ)	L(BW)	Weight(kg)	H(mm)	L(RF)	L(RTJ)	L(BW)	Weight(kg)	H(mm)
DN(mm)	NPS(in)				RF≈					RF≈	
50	2	368	371	368	48	200	368	371	368	48	210
65	2 1/2	419	422	419	75	220	419	422	419	75	240
80	3	381	384	381	95	280	470	473	470	120	303
100	4	457	460	457	135	320	546	549	546	180	340
125	5	559	562	559	200	360	673	676	673	294	380
150	6	610	613	610	264	400	705	711	705	385	430
200	8	737	740	737	424	480	832	841	832	634	500
250	10	838	841	838	730	560	991	1000	991	1140	590
300	12	965	968	965	1070	632	1130	1146	1130	1650	660
350	14	1029	1038	1029	1180	680	1257	1276	1257	2000	710
400	16	1130	1140	1130	1790	780	1384	1407	1384	2700	820
450	18	1219	1232	1219	2500	880					
500	20	1321	1334	1321	3080	1050					
600	24	1549	1568	1549	4600	1200					

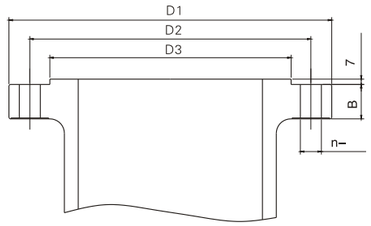
CLASS 2500Lb

SIZE		2500Lb				
		L(RF)	L(RTJ)	L(BW)	Weight(kg)	H(mm)
DN(mm)	NPS(in)				RF≈	
50	2	451	454	451	68	230
65	2 1/2	508	514	508	100	260
80	3	578	584	578	165	330
100	4	673	683	673	260	370
125	5	794	807	794	440	410
150	6	914	927	914	580	460
200	8	1022	1038	1022	970	530
250	10	1270	1292	1270	1700	620
300	12	1422	1445	1422	2600	690

Flange Dimension(Flange ends per ASME B16.5 RF)



CLASS150Lb~CLASS300Lb



CLASS600Lb~CLASS2500Lb

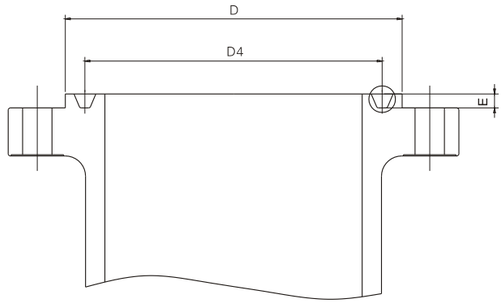
(mm)

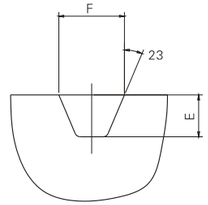
NPS		1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
DN		40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
CLASS 150Lb	D1	127	153	178	191	229	254	280	343	406	483	533	597	635	700	815
	D2	98.5	120.5	140	152.5	190.5	216	241.5	298.5	362	432	476	540	578	635	749.5
	D3	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	n	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20
		15	19	19	19	19	22	22	22	25	25	29	29	32	32	35
	B	15	16	18	19	24	24	26	29	31	32	35	37	40	43	48
CLASS 300Lb	D1	156	165	191	210	254	279	318	381	445	521	584	648	711	775	914
	D2	114.5	127	149	168.5	200	235	270	330	387.5	451	514.5	571.5	628.5	686	813
	D3	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	n	4	8	8	8	8	8	12	12	16	16	20	20	24	24	24
	Φ	22	19	22	22	22	22	22	25	29	32	32	35	35	35	41
	B	21	23	26	29	32	35	37	42	48	51	54	58	61	64	70
CLASS 600Lb	D1	156	165	191	210	273	330	356	419	508	559	603	686	743	813	940
	D2	114.5	127	149	168	216	266.5	292	349	432	489	527	603	654	724	838
	D3	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	n	4	8	8	8	8	8	12	12	16	20	20	20	20	24	24
	Φ	22	19	22	22	25	29	29	32	35	35	39	41	44	44	51
	B	23	26	29	32	38	45	48	56	64	67	70	77	83	89	102
CLASS 900Lb	D1	178	216	244	241	292	349	381	470	546	610	641	705	787	857	1041
	D2	123.8	165	190.5	190.5	235	279.4	317.5	393.7	469.9	533.4	558.8	615.9	685.8	749.3	901.7
	D3	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	n	4	8	8	8	8	8	12	12	16	20	20	20	20	20	20
	Φ	29	26	29	26	32	35	32	39	39	39	41	44	51	54	67
	B	32	38.5	41.5	38.5	44.5	51	56	63.5	70	79.5	86	89	102	108	140
CLASS 1500Lb	D1	178	216	244	267	311	375	394	483	585	673	750	826	915	985	1168
	D2	123.8	165	190.5	203.2	241.3	292	317.5	393.7	482.6	571.5	635	704.8	774.7	831.8	990.6
	D3	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	n	4	8	8	8	8	8	12	12	12	16	16	16	16	16	16
	Φ	29	26	29	32	35	41	39	44	51	54	61	67	74	80	92
	B	32	38.5	41.5	48	54	73.5	83	92	108	124	133.5	146.5	162	178	203.5
CLASS 2500Lb	D1	203	235	267	305	356	419	483	552	673	762	–	–	–	–	–
	D2	146	171.5	196.8	228.6	273	323.8	368.3	438	539.7	619.3	–	–	–	–	–
	D3	73	92	105	127	157	186	216	270	324	381	–	–	–	–	–
	n	4	8	8	8	8	8	8	12	12	12	–	–	–	–	–
	Φ	32	29	32	35	41	48	54	54	67	74	–	–	–	–	–
	B	44.5	51	57.5	67	76.5	92	108	127	165.5	184.5	–	–	–	–	–

WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD

END DIMENSION DATA

Flange Dimension(Flange ends per ASME B16.5 RTJ)

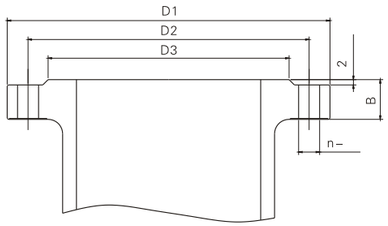




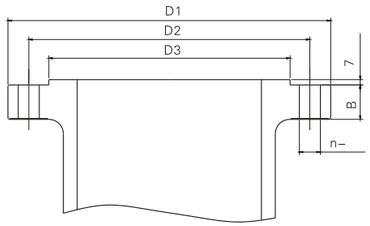
(mm)

NPS		1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
DN		40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
CLASS 150Lb	Groove N.	R19	R22	R25	R29	R36	R40	R43	R48	R52	R56	R59	R64	R68	R72	R76
	D	83	102	121	133	171	194	219	273	330	406	425	483	546	597	711
	D4	65.09	82.55	101.6	114.3	149.2	171.5	193.7	247.7	304.8	381	396.9	454	517.5	558.8	673.1
	E	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
	F	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74
	R(max)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
CLASS 300~600Lb	Groove N.	R20	R23	R26	R31	R37	R41	R45	R49	R53	R57	R61	R65	R69	R73	R77
	D	90.5	108	127	146	175	210	241	302	356	413	457	508	575	635	749
	D4	68.28	82.55	101.6	123.8	149.2	181	211.1	269.9	323.9	381	419.1	469.9	533.4	584.2	692.2
	E	6.4	8	8	8	8	8	8	8	8	8	8	8	8	9.52	11.2
	F	8.74	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	13.49	16.67
	R(max)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5
CLASS 900Lb	Groove N.	R20	R24	R27	R31	R37	R41	R45	R49	R53	R57	R62	R66	R70	R74	R78
	D	92	124	137	156	181	216	241	308	362	419	467	524	594	648	772
	D4	68.28	95.25	108	123.8	149.2	181	211.1	269.9	323.9	381	419.1	469.9	533.4	584.2	692.2
	E	6.4	8	8	8	8	8	8	8	8	8	11.13	11.13	12.7	12.7	15.9
	F	8.74	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	16.66	16.66	19.84	19.84	26.97
	R(max)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5	1.5	1.5	2.4
CLASS 1500Lb	Groove N.	R20	R24	R27	R35	R39	R44	R46	R50	R54	R58	R63	R67	R71	R75	R79
	D	92	124	137	168	194	229	248	318	371	438	489	546	613	673	794
	D4	68.28	95.25	108	136.5	161.9	193.7	211.1	269.9	323.9	381	419.1	469.9	533.4	584.2	692.2
	E	6.4	8	8	8	8	8	9.52	11.13	11.13	14.27	15.88	17.48	17.48	17.48	20.62
	F	8.74	11.91	11.91	11.91	11.91	11.91	13.49	16.66	16.66	23.01	26.97	30.18	30.18	33.32	36.53
	R(max)	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5	1.5	1.5	2.4	2.4	2.4	2.4	2.4
CLASS 2500Lb	Groove N.	R23	R26	R28	R32	R38	R42	R47	R51	R55	R60	–	–	–	–	–
	D	114	133	149	168	203	241	279	340	425	495	–	–	–	–	–
	D4	82.55	101.6	111.12	127	157.18	190.5	228.6	279.4	324.9	406.4	–	–	–	–	–
	E	8	8	9.52	9.52	11.13	12.7	12.7	14.27	17.48	17.48	–	–	–	–	–
	F	11.91	11.91	13.49	13.49	16.66	19.84	19.84	23.01	30.18	33.32	–	–	–	–	–
	R(max)	0.7	0.7	0.7	1.5	1.5	1.5	1.5	1.5	2.4	2.4	–	–	–	–	–

Flange Dimension(Flange ends per ASME B16.47-A & MSS SP 44 RF)



CLASS150Lb~CLASS300Lb



CLASS600Lb~CLASS900Lb

(mm)

CLASS 150Lb								CLASS 300Lb							
NPS	DN	D1	D2	D3	n	Φ	B	NPS	DN	D1	D2	D3	n	Φ	B
26	650	870	806	749	24	35	69	26	650	972	876	749	28	45	80
28	700	927	864	800	28	35	72	28	700	1035	940	800	28	45	86
30	750	984	914	857	28	35	75	30	750	1092	997	857	28	48	92
32	800	1060	978	914	28	41	81	32	800	1149	1054	914	28	51	99
34	850	1111	1029	965	32	41	83	34	850	1207	1105	965	28	51	102
36	900	1168	1086	1022	32	41	91	36	900	1270	1168	1022	32	54	105
38	950	1238	1149	1073	32	41	88	38	950	1160	1092	1029	32	41	108
40	1000	1289	1200	1124	36	41	91	40	1000	1238	1156	1086	32	45	115
42	1050	1346	1257	1194	36	41	97	42	1050	1289	1207	1137	32	45	120
44	1100	1403	1314	1245	40	41	102	44	1100	1353	1264	1194	32	48	124
46	1150	1454	1365	1295	40	41	104	46	1150	1416	1321	1245	28	51	129
48	1200	1511	1422	1359	44	41	108	48	1200	1467	1372	1302	32	51	134
50	1250	1568	1480	1410	44	48	112	50	1250	1530	1429	1359	32	54	140
52	1300	1626	1537	1461	44	48	116	52	1300	1580	1480	1410	32	54	145
54	1350	1683	1594	1511	44	48	121	54	1350	1657	1549	1467	28	60	153
56	1400	1746	1651	1575	48	48	124	56	1400	1708	1600	1518	28	60	154
58	1450	1803	1708	1626	48	48	129	58	1450	1759	1651	1575	32	60	159
60	1500	1854	1759	1676	52	48	132	60	1500	1810	1702	1626	32	60	164

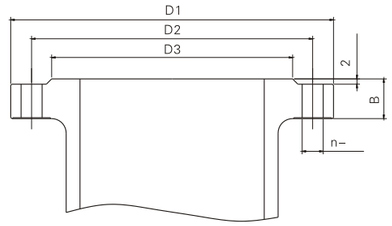
(mm)

CLASS 600Lb								CLASS 900Lb							
NPS	DN	D1	D2	D3	n	Φ	B	NPS	DN	D1	D2	D3	n	Φ	B
26	650	1016	914	749	28	51	108	26	650	1086	953	749	20	73	140
28	700	1073	965	800	28	54	113	28	700	1168	1022	800	20	79	143
30	750	1130	1022	857	28	54	115	30	750	1232	1086	857	20	79	150
32	800	1194	1080	914	28	60	118	32	800	1314	1156	914	20	86	159
34	850	1245	1130	965	28	60	121	34	850	1397	1226	965	20	92	166
36	900	1314	1194	1022	28	67	124	36	900	1461	1289	1022	20	92	172
38	950	1270	1162	1054	28	60	153	38	950	1461	1289	1099	20	92	191
40	1000	1321	1213	1111	32	60	159	40	1000	1511	1340	1162	24	92	197
42	1050	1403	1283	1168	28	67	169	42	1050	1562	1391	1213	24	92	207
44	1100	1454	1334	1226	32	67	173	44	1100	1648	1464	1270	24	99	215
46	1150	1511	1391	1276	32	67	180	46	1150	1734	1537	1334	24	105	226
48	1200	1594	1461	1334	32	73	189	48	1200	1784	1588	1384	24	105	234
50	1250	1670	1524	1384	28	79	197	50	–	–	–	–	–	–	–
52	1300	1721	1575	1435	32	79	204	52	–	–	–	–	–	–	–
54	1350	1778	1632	1492	32	79	210	54	–	–	–	–	–	–	–
56	1400	1854	1695	1543	32	86	218	56	–	–	–	–	–	–	–
58	1450	1905	1746	1600	32	86	223	58	–	–	–	–	–	–	–
60	1500	1994	1822	1657	28	92	234	60	–	–	–	–	–	–	–

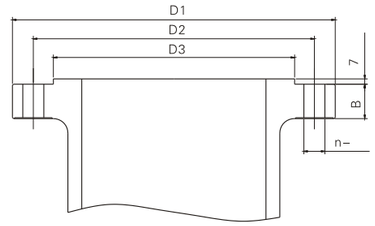
WZLD® QUALITY VALVE SOLUTIONS MADE FOR THE WORLD

END DIMENSION DATA

Flange Dimension (Flange ends per ASME B16.47-B & API 605 RF)



CLASS150Lb~CLASS300Lb



CLASS600Lb~CLASS900Lb

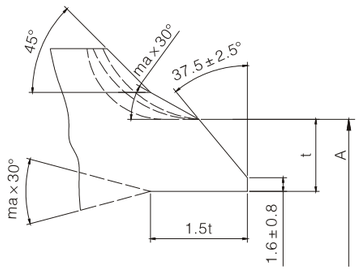
(mm)

CLASS 150Lb								CLASS 300Lb							
NPS	DN	D1	D2	D3	n	Φ	B	NPS	DN	D1	D2	D3	n	Φ	B
26	650	786	744	711	36	22	42	26	650	867	803	737	32	35	89
28	700	837	795	762	40	22	45	28	700	921	857	787	36	35	89
30	750	887	846	813	44	22	45	30	750	991	921	845	36	38	94
32	800	941	900	864	48	22	46	32	800	1054	978	902	32	41	104
34	850	1005	957	921	40	26	50	34	850	1108	1032	953	36	41	104
36	900	1057	1010	972	44	26	53	36	900	1171	1089	1010	32	44	104
38	950	1124	1070	1022	40	28	54	38	950	1222	1140	1060	36	44	112
40	1000	1175	1121	1080	44	28	56	40	1000	1273	1191	1115	40	44	116
42	1050	1226	1171	1130	48	28	59	42	1050	1334	1245	1168	36	48	120
44	1100	1276	1222	1181	52	28	61	44	1100	1384	1295	1219	40	48	127
46	1150	1341	1284	1235	40	32	62	46	1150	1461	1365	1270	36	51	129
48	1200	1392	1335	1289	44	32	65	48	1200	1511	1416	1327	40	51	129
50	1250	1443	1386	1340	48	32	69	50	1250	1562	1467	1378	44	51	139
52	1300	1494	1437	1391	52	32	70	52	1300	1613	1518	1429	48	51	143
54	1350	1549	1492	1441	56	32	72	54	1350	1673	1578	1480	48	51	137
56	1400	1600	1543	1492	60	32	74	56	1400	1765	1651	1537	36	60	154
58	1450	1675	1611	1543	48	35	75	58	1450	1827	1713	1594	40	60	154
60	1500	1726	1662	1600	52	35	77	60	1500	1878	1764	1651	40	60	151

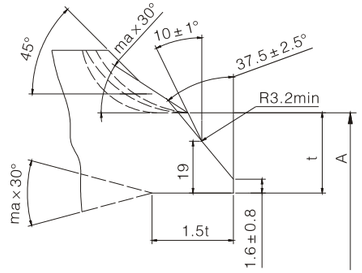
(mm)

CLASS 600Lb								CLASS 900Lb							
NPS	DN	D1	D2	D3	n	Φ	B	NPS	DN	D1	D2	D3	n	Φ	B
26	650	889	806	727	28	45	112	26	650	1022	902	762	20	67	135
28	700	953	864	784	28	48	116	28	700	1105	972	819	20	73	148
30	750	1022	927	841	28	51	126	30	750	1181	1035	876	20	79	156
32	800	1086	984	895	28	54	130	32	800	1238	1092	927	20	79	161
34	850	1162	1054	953	24	60	142	34	850	1314	1156	991	20	86	172
36	900	1213	1105	1010	28	60	146	36	900	1346	1200	1029	24	79	173

Butt Welding Ends Dimension(Butt Welding ends per ASME B16.25)



Pipe thickness of wall≤22mm



Pipe thickness of wall>22mm

(mm)

NPS	A(*)	t												
		sch.10	sch.20	sch.30	sch.std	sch.40	sch.60	sch.xs	sch.80	sch.100	sch.120	sch.140	sch.160	sch.xxs
1/2	21.3	2.11	–	2.41	2.77	2.77	–	3.73	3.73	–	–	–	4.78	7.47
3/4	26.7	2.11	–	2.41	2.87	2.87	–	3.91	3.91	–	–	–	5.56	7.82
1	33.4	2.77	–	2.90	3.38	3.38	–	4.55	4.55	–	–	–	6.35	9.09
1 1/2	48.3	2.77	–	3.18	3.68	3.68	–	5.08	5.08	–	–	–	7.14	10.15
2	60.3	2.77	–	3.18	3.91	3.91	–	5.54	5.54	–	–	–	8.74	11.07
2 1/2	73	3.05	–	4.78	5.16	5.16	–	7.01	7.01	–	–	–	9.53	14.02
3	88.9	3.05	–	4.78	5.49	5.49	–	7.62	7.62	–	–	–	11.13	15.24
4	114.3	3.05	–	4.78	6.02	6.02	–	8.56	8.56	–	11.13	–	13.49	17.12
5	141.3	3.04	–	–	6.55	6.55	–	9.53	9.53	–	12.7	–	15.88	19.05
6	168.3	3.04	–	–	7.11	7.11	–	10.97	10.97	–	14.27	–	18.26	21.95
8	219.1	3.76	6.35	7.04	8.18	8.18	10.31	12.7	12.7	15.09	18.26	20.62	23.01	22.23
10	273	4.19	6.35	7.8	9.27	9.27	12.7	12.7	15.09	18.26	21.44	25.4	28.58	25.4
12	323.8	4.57	6.35	8.38	9.53	10.31	14.27	12.7	17.48	21.44	25.4	28.58	33.32	25.4
14	355.6	6.35	7.92	9.53	9.53	11.13	15.09	12.7	19.05	23.83	27.79	31.75	35.71	–
16	406.4	6.35	7.92	9.53	9.53	12.7	16.66	12.7	21.44	26.19	30.96	36.53	40.49	–
18	457.2	6.35	7.92	11.13	9.53	14.27	19.05	12.7	23.83	29.36	34.93	39.67	45.24	–
20	508	6.35	9.53	12.7	9.53	15.09	20.62	12.7	26.19	32.54	38.1	44.45	50.01	–
24	609.6	6.35	9.53	14.27	9.53	17.48	24.61	12.7	30.96	38.89	46.02	52.37	59.54	–
26	660.4	7.92	12.7	–	9.53	–	–	12.7	–	–	–	–	–	–
28	711.2	7.92	12.7	15.88	9.53	–	–	12.7	–	–	–	–	–	–
30	762	7.92	12.7	15.88	9.53	–	–	12.7	–	–	–	–	–	–
32	812.8	7.92	12.7	15.88	9.53	17.48	–	12.7	–	–	–	–	–	–
34	863.6	7.92	12.7	15.88	9.53	17.48	–	12.7	–	–	–	–	–	–
36	914.4	7.92	12.7	15.88	9.53	19.05	–	12.7	–	–	–	–	–	–

MATERIAL TABLE (ASTM Standard)

ASTM Code	CHEMICAL COMPOSITION											MECHANICAL PROPERTIES				HARDNESS	SHOCK VALVE
	C ≤	Mn ≤	P ≤	S ≤	Si ≤	Cr ≤	Mo ≤	Ni ≤	Cu ≤	V ≤	Nb ≤	Tensife Mpa.≥	Yield Mpa.≥	ElonGation %, Mpa.≥	Reduce %, 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	
A182 F11	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	15	121~174	
A182 F22	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	
A182 F304	0.08	2.00	0.045	0.030	1.00	18.0~20.0		8.0~11.0				515	205	30	50		
A182 F304L	0.030	2.00	0.045	0.030	1.00	18.0~20.0		8.0~13.0				485	170	30	50		
A182 F316	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		
A182 F316L	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		
A182 F51	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		
A182 F6a	0.15	1.00	0.040	0.030	1.00	11.5~13.5		0.50				585	380	18	35	167~229	
A193 B7	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				860	720	16	50	321	
A193 B7M	0.37~0.49	0.65~1.10	0.035	0.040	0.15~0.35	0.75~1.20	0.15~0.25	10.0~14.0		0.25~0.35		690	550	18	50	235	
A193 B8	0.08	2.00	0.045	0.030	1.00	18.0~20.0						515	205	30	50	223	
A193 B8M	0.08	2.00	0.045	0.030	1.00	16.0~18.0	2.00~3.00					515	205	30	50	223	
A193 B16	0.36~0.47	0.45~0.70	0.035	0.040	0.15~0.35	0.80~1.15	0.50~0.65					860	720	18	50	321	
A194 2H	≥0.40	1.00	0.040	0.050	0.04			8.0~11.0								248~352	
A194 2HM	≥0.40	1.00	0.040	0.050	0.04			10.0~14.0								159~237	
A194 8	0.08	2.00	0.045	0.030	1.00	18.0~20.0										126~300	
A194 8M	0.08	2.00	0.045	0.030	1.00	16.0~18.0	2.00~3.00									126~300	
A216 WCB	0.30	1.00	0.040	0.045	0.60	0.50	0.20	0.50	0.30	0.30		485~655	250	22	35		
A216 WCC	0.25	1.20	0.04	0.045	0.60	0.50	0.2	0.50	0.30	0.30		485~655	275	22	35		
A217 C5	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		
A217 CA15	0.15	1.00	0.040	0.040	1.50	11.5~14.0	0.50	1.00				620~795	450	18	30		
A217 WC6	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		
A217 WC9	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											
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	241	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	0.80	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	0.80		485~655	250	30	30		Avg:20 Min:16
A351 CF3	0.03	1.50	0.040	0.040	2.00	17.0~21.0	0.50	8.0~12.0			0.02	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		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	19.0~22.0	0.45~0.65					450~620	240	24	35		Avg:18 Min:14
A352 LC2	0.25	0.50~0.80	0.04	0.045	0.60			2.00~3.00				485~655	275	24	35		Avg:20 Min:16
A352 LC3	0.15	0.50~0.80	0.04	0.045	0.60			3.00~4.00				485~655	275	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:20 Min:16
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			