



G-METAL VALVES CORP.

**CENTERLINE RESILIENT SEATED BUTTERFLY VALVES
(WITH PIN)**



**ISO 9002
CERTIFIED**

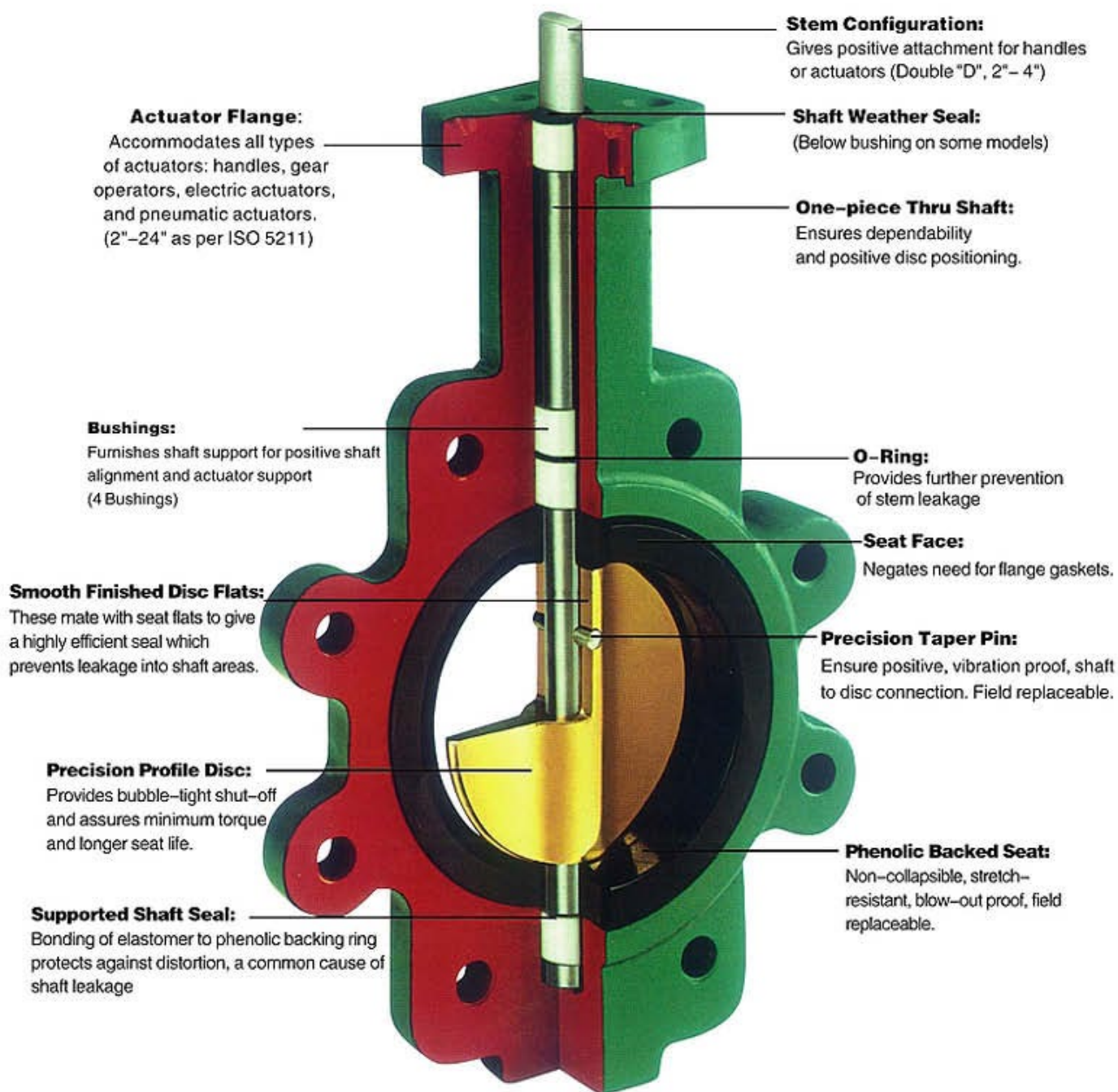


**CE
APPROVAL**

CENTERLINE RESILIENT SEATED BUTTERFLY VALVES (WITH PIN)

CENTERLINE butterfly valves is available with handles (1.5" to 12"), manual gear operators (1.5" to 48"), and electric or pneumatic actuators (1.5" to 48"). Designed to comply with MSS SP-67 and API 609. Compatible with ANSI 125/150, BS4504, DIN PN10/16 flanges. Valves (2" to 20") meet the intent and have passed the AWWA C-504-87 Section 5 proof of design tests.

STRUCTURE DISPLAY



CENTERLINE RESILIENT SEATED BUTTERFLY VALVES (WITH PIN)

Bill of Materials

Part Name	Materials	Optional Materials
Body	Grey Cast Iron Standard ASTM A126 Grade B , DIN1691 GG25	Ductile Cast Iron, Stainless Steel WCB
Disc	Ductile Cast Iron(Nickel plated or Nylon coated) Standard ASTM A536 65-45-12,DIN1693 GGG40	Stainless Steel ASTM CF8M CF8 AL-BZ ASTM C954
Seat	Buna-N or EPDM	PTFE, Viton, Neoprene, Hypalon
Shaft	Stainless Steel Standard ASTM 316 410 416	Carbon Steel
Pin	Stainless Steel Standard ASTM 316 410 416	No optional
Key	Carbon Steel	No optional
"O" Ring	Buna-N or EPDM	No optional
Bushing	PTFE	Lubricated Bronze

Valve Seating Torques (in • Lbs.)

Valve Size		Standard Disc, Differential Pressure							
		50PSI ΔP Bushing		100PSI ΔP Bushing		150PSI ΔP Bushing		200PSI ΔP Bushing	
NPS	DN	Bronze	PTFE	Bronze	PTFE	Bronze	PTFE	Bronze	PTFE
1.5"	40								
2"	50	106	100	117	106	129	111	140	117
2.5"	65	152	150	166	163	181	176	195	189
3"	80	213	207	230	220	248	322	265	244
4"	100	321	290	386	323	450	357	515	390
5"	125	481	423	598	481	715	540	832	598
6"	150	692	599	878	691	1063	783	1248	875
8"	200	1362	1060	1716	1183	2106	1307	2496	1430
10"	250	2239	1671	3010	1872	3780	2074	4550	2275
12"	300	3959	2568	4953	2795	5948	3023	6942	3250
14"	350	4881	2640	6226	3070	7570	3500	—	—
16"	400	7020	4260	8580	4880	10140	5500	—	—
18"	450	10105	6287	12202	7243	14300	8200	—	—
20"	500	13923	8360	16582	9180	19240	10000	—	—
24"	600	23617	15427	26953	16813	30290	18200	—	—
30"	750	39721	27313	43391	29407	47060	31500	—	—

All torque values shown on chart are for "wet" (water and other non-lubricating media) on-off service. For "dry" service (non-lubricating, dry gas media), multiply values by 1.6. For "lubbed" service (clean, non-abrasive lubricating media), multiply values by 0.85. When sizing actuators for single valve applications, multiply values by 1.25. When sizing for 3-way ("tee") applications multiply values by 1.5.

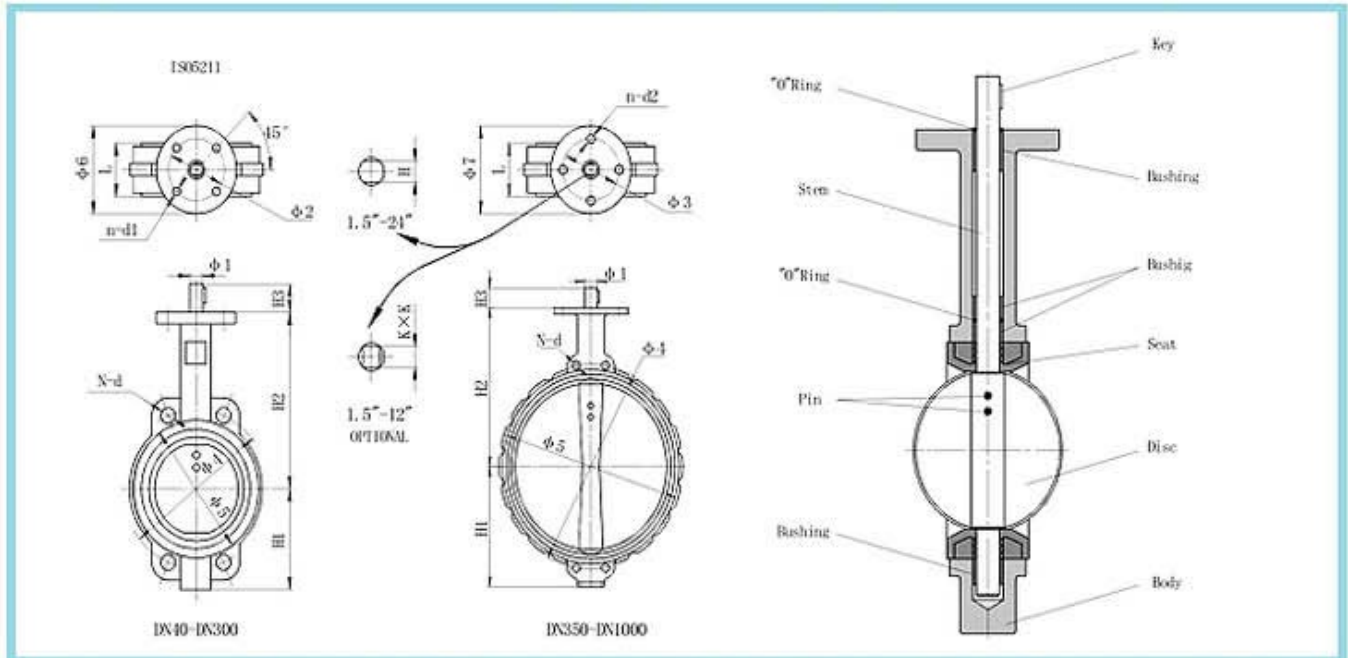
Under certain conditions, hydrodynamic torque can meet or exceed seating and unseating torques. When designing valve systems, hydrodynamic torque must be considered to help ensure correct selection of application.

Seat Temperature Ratings

Material	Buna-N	Abrasive Resistant Buna-N	Neoprene	EPDM			Hypalon	Viton	High Temp. Viton	PTFE over Buna-N		
				EPDM (2"-16")	EPDM (≥18")	EPDM food grade				75PSI 2"-12"	125PSI 2"-12"	
Temperature Ratings	C	-12-82	-12-82	-7-93	-35-135	-35-110	-35-110	-32-135	-12-135	-12-382	4.4-135	4.4-121
	F	10-180	10-180	20-200	-30-275	-30-225	-30-225	0-275	10-275	10-400	40-275	40-250

Seat materials are capable of withstanding lower temperatures without damage. However, the elastomer becomes hard and torques increase. Some flow media may further restrict the published temperature limits or significantly reduce seat life. Please note that valve pressure rating will be derated with High Temp Viton Seats at temperatures greater than 275 °F.

CENTERLINE RESILIENT SEATED BUTTERFLY VALVES (WITH PIN)

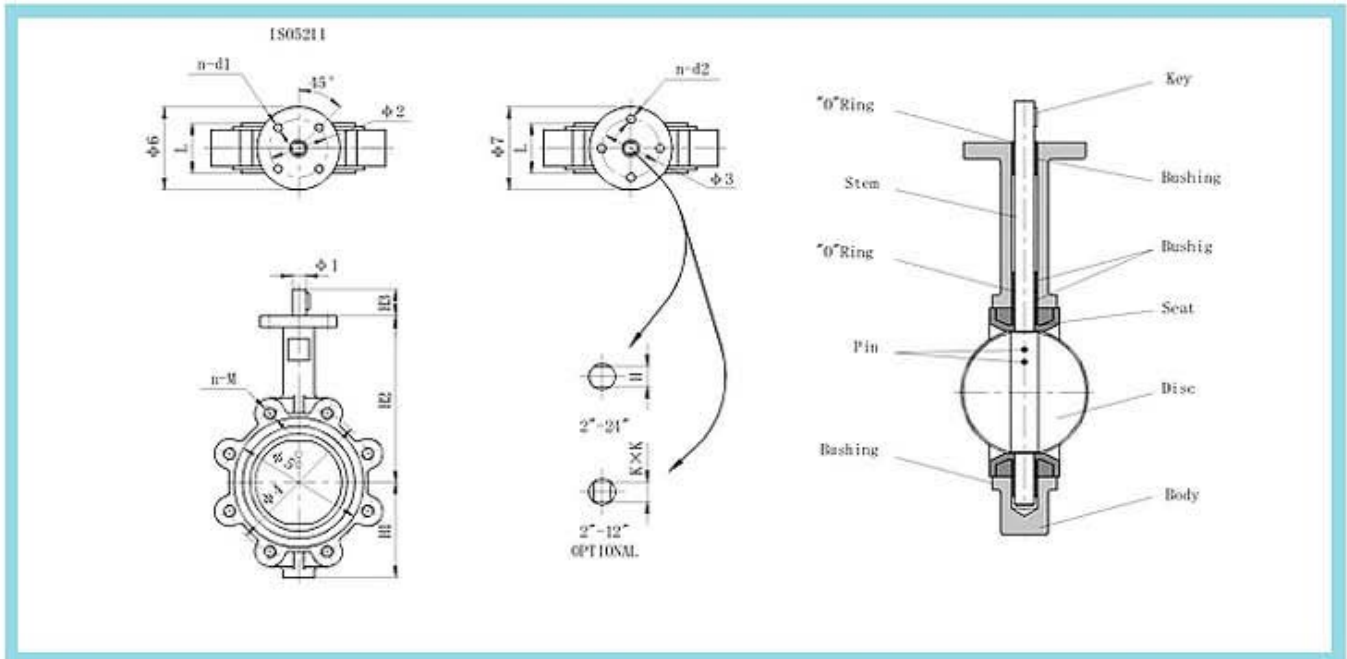


Dimension List of Wafer Type (with pin)

Size	H1	H2	H3	L	Φ1	Φ2	Φ3	Φ4					Φ5	Φ6	Φ7	N	d						n-d1	n-d2	H	K		
								ANSI B16.1	PN10	PN16	5K	10K					16K	ANSI	PN10	PN16	5k	10k					16k	
40	1.5'	60	130	32	36	12.7	50	57.15	98.5	110	110	95	105	105	82	70	80	4	15.87	18	18	15	19	19	4-7	4-6.8	10	10
50	2'	76	162	32	45	12.7	50	57.15	120.65	125	125	105	120	120	88	70	80	4	17.46	18	18	15	19	19	4-7	4-6.8	10	10
65	2.5'	89	175	32	48	12.7	50	57.15	139.7	145	145	130	140	140	108	70	80	4	17.46	18	18	15	19	19	4-7	4-6.8	10	10
80	3'	95	181	32	49	12.7	50	57.15	152.4	160	160	145	150	160	118	70	80	4	17.46	18	18	19	19	23	4-7	4-6.8	10	10
100	4'	114	200	32	55	15.9	70	69.85	190.5	180	180	165	175	185	156	90	90	4	17.46	18	18	19	19	23	4-9.5	4-10.3	12	12
125	5'	127	213	32	58	19	70	69.85	215.9	210	210	200	210	225	181	90	90	4	20.64	18	18	19	23	25	4-9.5	4-10.3	14	16
150	6'	140	225	32	59	19	70	69.85	241.3	240	240	230	240	260	210	90	90	4	20.64	22	22	19	23	25	4-9.5	4-10.3	14	16
200	8'	177	260	45	64	22.2	102	88.9	298.45	295	295	280	290	305	260	125	120	4	20.64	22	22	23	23	25	4-11.5	4-14.3	17	16
250	10'	203	292	45	70	28.6	102	88.9	361.95	350	355	345	355	380	321	125	120	4	23.81	22	26	23	25	27	4-11.5	4-14.3	22	24
300	12'	242	337	45	80	31.7	102	107.95	431.8	400	410	390	400	430	384	140	140	4	23.81	22	26	23	25	27	4-11.5	4-14.3	24	24
350	14'	267	368	45	80	31.7	102	107.95	476.25	460	470	435	445	480	400	140	140	4	26.98	22	26	25	25	33	4-11.5	4-14.3	24	—
400	16'	298	400	51	90	33.34	165	158.75	539.75	515	525	495	510	540	465	210	197	4	26.98	26	30	25	27	33	4-22.2	4-20.6	27	—
450	18'	318	422	51	109	38	165	158.75	577.85	565	585	555	565	605	514	210	197	4	31.75	26	30	25	27	33	4-22.2	4-20.6	27	—
500	20'	349	479	64	135	41.15	165	158.75	635	620	650	605	620	660	559	210	197	4	31.75	26	33	25	27	33	4-22.2	4-20.6	32	—
600	24'	410	562	70	156	50.65	165	215.9	749.3	725	770	715	730	770	686	210	286	4	34.92	30	36	27	33	39	4-22.2	4-22	36	—
700	28'	520	624	72	169	55	254	254	—	840	840	820	840	—	795	300	300	4	—	30	36	27	33	—	8-18	8-18	—	—
750	30'	616	648	72	173	55	254	215.9	914.5	—	—	880	900	—	851	300	286	4	1/4"-7	—	—	33	33	—	4-22.2	8-18	—	—
800	32'	591	672	72	195	55	254	254	—	950	950	930	950	—	900	300	300	4	—	33	39	33	33	—	8-18	8-18	—	—
900	36'	611	768	77	211	75	254	254	1086	1050	1050	1030	1050	—	1002	300	300	4	41.1	33	39	33	33	—	8-18	8-18	—	—
1000	40'	665	823	85	229	85	254	254	—	1160	1160	1130	1160	—	1111	300	300	4	—	36	42	33	39	—	8-18	8-18	—	—
1050	42'	777	858	85	261	85	254	254	1257.75	—	—	—	—	—	300	300	36	41.3	—	—	—	—	—	—	8-18	8-18	—	—
1200	48'	955	880	150	285	92	298	298	1422.4	1380	1390	1350	1380	—	350	350	44/32	41.3	39	48	33	39	—	—	8-22	8-22	—	—

Notes: The H2 dimensions may be changed into lengthened butterfly valve according to request of the users.

CENTERLINE RESILIENT SEATED BUTTERFLY VALVES (WITH PIN)



Dimension List of Lug Type (with pin)

Size		H1	H2	H3	L	Φ1	Φ2	Φ3	Φ4			Φ5	Φ6	Φ7	n-M			n-d1	n-d2	H	K
mm	inch								ANSI B16.1	PN10	PN6				ANSI	PN10	PN6				
40	1.5"	60	130	32	36	12.7	50	57.15	98.5	110	110	82	70	80	4-1/2"-13	4-M16	4-M16	4-7	4-6.8	10	10
50	2"	76	162	32	45	12.7	50	57.15	120.65	125	125	88	70	80	4-5/8"-11	4-M16	4-M16	4-7	4-6.8	10	10
65	2.5"	80	175	32	48	12.7	50	57.15	139.7	145	145	108	70	80	4-5/8"-11	4-M16	4-M16	4-7	4-6.8	10	10
80	3"	95	181	32	49	12.7	50	57.15	152.4	160	160	118	70	80	4-5/8"-11	4-M16	8-M16	4-7	4-6.8	10	10
100	4"	114	200	32	55	15.9	70	69.85	190.5	180	180	156	90	90	8-5/8"-11	8-M16	8-M16	4-9.5	4-10.3	12	12
125	5"	127	213	32	58	19	70	69.85	215.9	210	210	181	90	90	8-3/4"-10	8-M16	8-M16	4-9.5	4-10.3	14	16
150	6"	140	225	32	59	19	70	69.85	241.3	240	240	210	90	90	8-3/4"-10	8-M20	8-M20	4-9.5	4-10.3	14	16
200	8"	173	260	45	64	22.2	102	88.9	298.45	295	295	260	125	120	8-3/4"-10	8-M20	12-M20	4-11.5	4-14.3	17	16
250	10"	203	292	45	70	28.6	102	88.9	361.95	350	355	321	125	120	12-7/8"-9	12-M20	12-M24	4-11.5	4-14.3	22	24
300	12"	237	337	45	80	31.7	102	107.95	431.8	400	410	384	125	140	12-7/8"-9	12-M20	12-M24	4-11.5	4-14.3	24	24
350	14"	279	368	45	80	31.7	102	107.95	476.25	460	470	400	125	140	12-1"-8	16-M20	16-M24	4-11.5	4-14.3	24	—
400	16"	304	400	51	90	33.34	165	158.75	539.75	515	525	465	210	197	16-1"-8	16-M24	16-M27	4-22.2	4-20.6	27	—
450	18"	362	422	51	109	38	165	158.75	577.85	565	585	514	210	197	16-1/8"-7	20-M24	20-M27	4-22.2	4-20.6	27	—
500	20"	368	479	64	135	41.15	165	158.75	635	620	650	559	210	197	20-1/8"-7	20-M24	20-M30	4-22.2	4-20.6	32	—
600	24"	444	562	70	156	50.65	165	215.9	749.3	725	770	686	210	286	20-1/4"-7	20-M27	20-M33	4-22.2	4-22	36	—
700	28"	520	624	72	169	55	254	254	—	840	840	795	300	300	—	24-M27	24-M33	8-18	8-18	—	—
750	30"	621	648	72	173	55	254	215.9	914.5	—	—	851	300	286	28-1/4"-7	—	—	4-22.2	8-18	—	—
800	32"	591	672	72	195	55	254	254	—	950	950	900	300	300	—	24-M30	24-M36	8-18	8-18	—	—
900	36"	623	768	77	211	75	254	254	1086	1050	1050	1002	300	300	32-1/2"-6	28-M30	28-M36	8-18	8-18	—	—
1000	40"	665	823	85	229	85	254	254	—	1160	1160	1111	300	300	—	28-M33	28-M39	8-18	8-18	—	—
1050	42"	777	858	85	261	85	254	254	1257.8	—	—	—	300	300	36-1/2"-6	—	—	8-18	8-18	—	—
1200	48"	955	880	150	285	92	298	298	1422.4	1380	1390	—	350	350	44-1/2"-6	32-M36	32-M45	8-22	8-22	—	—

Notes: 1. The H2 dimensions may be changed into lengthened butterfly valve according to request of the users
 2. Bi-directional dead-end capability to 200psi (2" to 12") and 150psi (14" to 36") is available; Operators mounted perpendicular to pipe.

**CENTERLINE RESILIENT SEATED BUTTERFLY VALVES
(WITHOUT PIN)**



**ISO 9002
CERTIFIED**

**CE
APPROVAL**



CENTERLINE RESILIENT SEATED BUTTERFLY VALVES (WITHOUT PIN)

Wafer and Lug style body
Wafer has 4 alignment holes
Ideal for on-off and throttling services
Handle, worm gear, electric or pneumatic actuator available
Design complies with MSS SP-67 and API 609
Valves (2"–12") meet the intent of and have passed AWWA C504-87
Section 5 proof of design tests.

Mounting Flange:

ISO 5211 mounting flange accommodates direct mounting of all types of actuators, including: handles, gear operators, electric and pneumatic.

Weather Seal:

O-Ring seals keep dust and moisture from entering the upper stem journal.

O-Ring:

Tertiary stem seal provides further assurance against stem leakage.

Stem:

Stub shaft design allows the disc to float within the flowway increasing cycle life.

Bushings:

Stem bushings reduce torque and isolate the stem from the valve body, preventing seizure of the stem due to corrosion in the stem journal. (4 Bushings)

Hub Seal:

Smooth finished disc flats mate with seat flats to give a highly efficient primary seal which prevents leakage into the shaft area and minimizes torque

Seat Face:

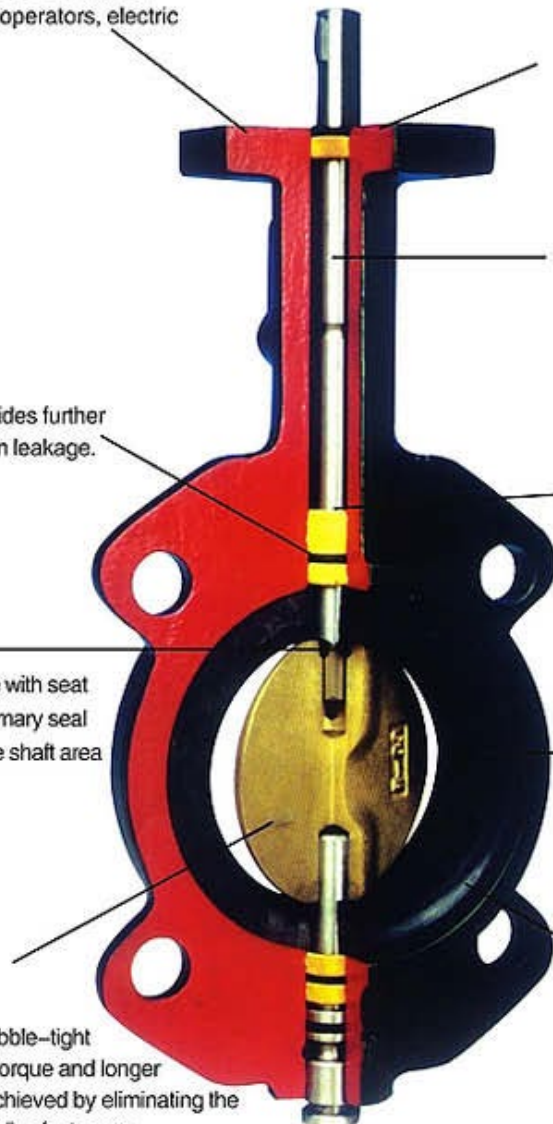
Seat to flange seal eliminates the need for flange gaskets

Disc:

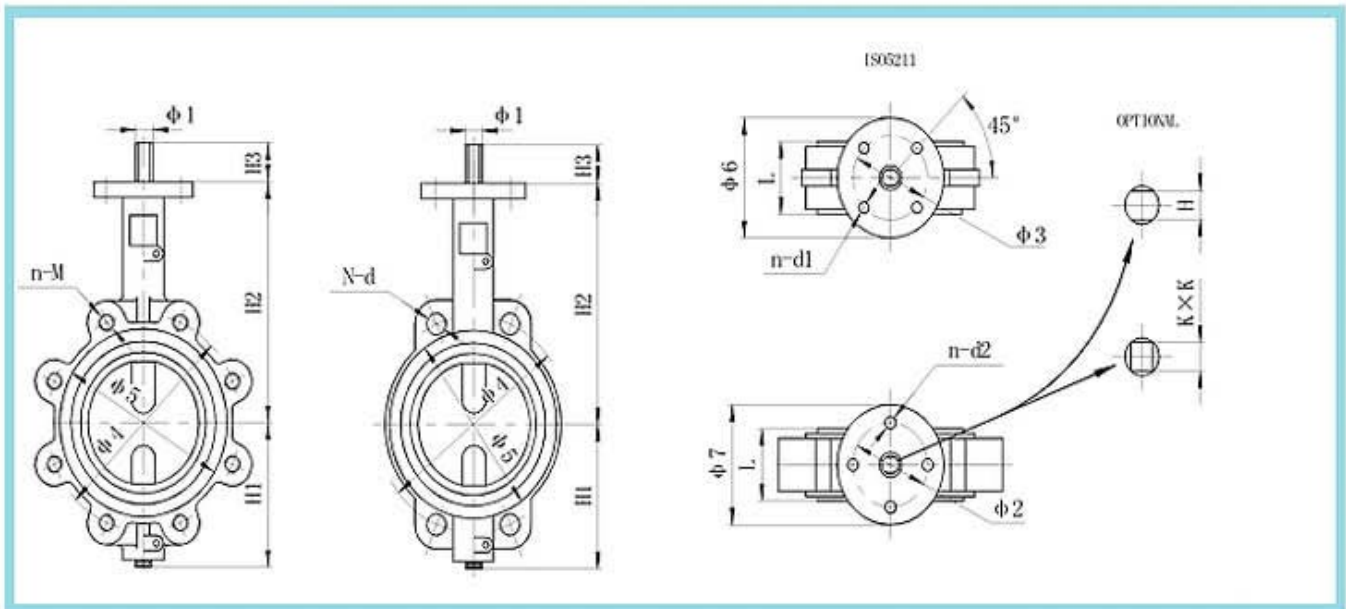
Precision profile provides bubble-tight shut-off, assures minimum torque and longer seat life. Maximum flow is achieved by eliminating the "through shaft" and external disc fasteners.

Seat:

Phenolic backed seat is non-collapsible, stretch-resistant, blow-out proof and easily replaced in the field.



CENTERLINE RESILIENT SEATED BUTTERFLY VALVES (WITHOUT PIN)



Dimension List of Wafer Type (without pin)

Size		H1	H2	H3	L	Φ1	Φ2	Φ3	Φ4						Φ5	Φ6	Φ7	H	K	N	d						n-d1	n-d2
mm	inch								ANSI B16.1	PN10	PN16	5K	10K	16K							ANSI	PN10	PN16	5k	10k	16k		
50	2"	85	162	32	45	12.7	57.15	50	120.65	125	125	105	120	120	88	70	80	10	10	4	17.46	18	18	15	19	19	4-7	4-6.75
65	2.5"	98	175	32	48	12.7	57.15	50	139.7	145	145	130	140	140	108	70	80	10	10	4	17.46	18	18	15	19	19	4-7	4-6.75
80	3"	104	181	32	49	12.7	57.15	50	152.4	160	160	145	150	160	118	70	80	10	10	4	17.46	18	18	19	19	23	4-7	4-6.75
100	4"	123	200	32	55	15.9	69.85	70	190.5	180	180	165	175	185	156	90	90	12	12	4	17.46	18	18	19	19	23	4-9.53	4-10.32
125	5"	136	213	32	58	19	69.85	70	215.9	210	210	200	210	225	181	90	90	14	16	4	20.64	18	18	19	23	25	4-9.53	4-10.32
150	6"	149	225	32	59	19	69.85	70	241.3	240	240	230	240	260	210	90	90	14	16	4	20.64	22	22	19	23	25	4-9.53	4-10.32
200	8"	186	260	45	64	22.2	88.9	102	298.45	295	295	280	290	305	260	125	120	17	16	4	20.64	22	22	23	23	25	4-11.51	4-14.3
250	10"	212	292	45	70	28.6	88.9	102	361.95	350	350	345	355	380	321	125	120	22	24	4	23.81	22	26	23	25	27	4-11.51	4-14.3
300	12"	251	337	45	80	31.7	107.95	102	431.8	400	400	390	400	430	384	125	140	24	24	4	23.81	22	26	23	25	27	4-11.51	4-14.3

Dimension List of Lug Type (without pin)

Size		H1	H2	H3	L	Φ1	Φ2	Φ3	Φ4			Φ5	Φ6	Φ7	H	K	n-M			n-d1	n-d2
mm	inch								ANSI B16.1	PN10	PN16						ANSI	PN10	PN16		
50	2"	85	162	32	45	12.7	57.15	50	120.65	125	125	88	70	80	10	10	4-5/8"-11	4-M16	4-M16	4-7	4-6.75
65	2.5"	89	175	32	48	12.7	57.15	50	139.7	145	145	108	70	80	10	10	4-5/8"-11	4-M16	4-M16	4-7	4-6.75
80	3"	104	181	32	49	12.7	57.15	50	152.4	160	160	118	70	80	10	10	4-5/8"-11	4-M16	8-M16	4-7	4-6.75
100	4"	123	200	32	55	15.9	69.85	70	190.5	180	180	156	90	90	12	12	8-5/8"-11	8-M16	8-M16	4-9.53	4-10.32
125	5"	136	213	32	58	19	69.85	70	215.9	210	210	181	90	90	14	16	8-3/4"-10	8-M16	8-M16	4-9.53	4-10.32
150	6"	149	225	32	59	19	69.85	70	241.3	240	240	210	90	90	14	16	8-3/4"-10	8-M20	8-M20	4-9.53	4-10.32
200	8"	182	260	45	64	22.2	88.9	102	298.45	295	295	260	125	120	17	16	8-3/4"-10	8-M20	12-M20	4-11.51	4-14.3
250	10"	212	292	45	70	28.6	88.9	102	361.95	350	350	321	125	120	22	24	12-7/8"-9	12-M20	12-M24	4-11.51	4-14.3
300	12"	246	337	45	80	31.7	107.95	102	431.8	400	400	384	125	140	24	24	12-7/8"-9	12-M20	12-M24	4-11.51	4-14.3

**DOUBLE FLANGED BUTTERFLY VALVES
WAFER TYPE DOUBLE DISC CHECK VALVES**



**ISO 9002
CERTIFIED**



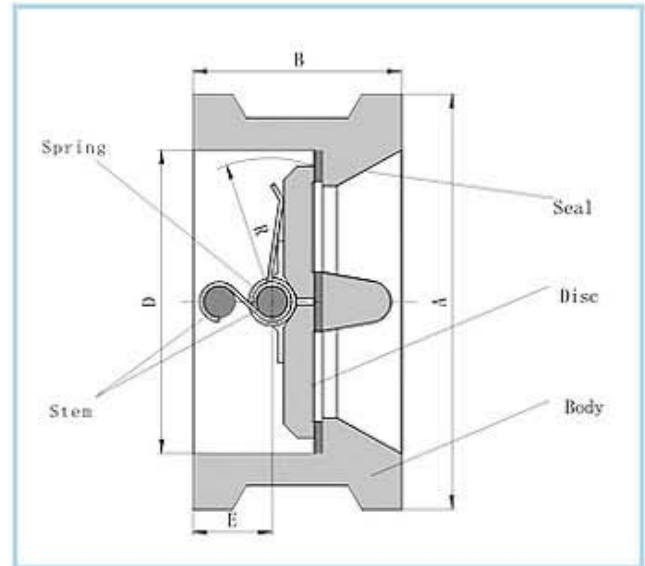
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WAFER TYPE DOUBLE DISC CHECK VALVES

Valve Design: API 594,
 Valve Pressure Testing & Inspection: API 598
 Flange Connections: ANSI Class 125/150 or DIN PN10/16

Bill of Materials

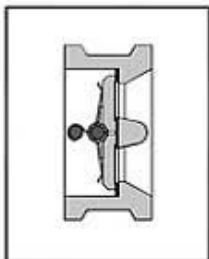
Description	Material	Optional Material
Body	CI	DI., Carbon Steel
Seal	Buna-N or EPDM	Neoprene
Disc	Stainless Steel	AL-BZ, DI
Stem	Stainless Steel	No Optional
Spring	Stainless Steel	No Optional
Screw	Carbon Steel	Stainless Steel



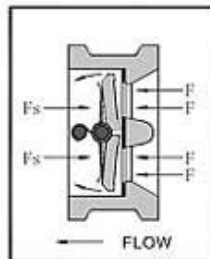
Dimension List & Weight

Size		A			B			R			D			E			Weight (Kg)	
inch	mm	ANSI		PN10 PN16	ANSI		PN10 PN16	ANSI		PN10 PN16	ANSI		PN10 PN16	ANSI		PN10 PN16	ANSI Class 125	PN10 PN16
		Class 125	Class 150		Class 125	Class 150		Class 125	Class 150		Class 125	Class 150		Class 125	Class 150			
2"	50	105	105	107	54	60	43	28	28	29.7	60	60	65	25	25	19	1.8	1.5
2.5"	65	124	124	127	54	67	46	35	35	39.5	73	73	78	25	25	20	2.7	2.4
3"	80	137	137	142	57	73	64	41	41	43.4	89	89	94	25	25	28	3.2	3.6
4"	100	175	175	162	64	73	64	53	53	56.6	114	114	117	29	29	26	5.4	5.7
5"	125	197	197	192	70	86	70	64	64	67.6	141	141	145	30	30	30	6.8	7.3
6"	150	222	222	218	76	98	76	78	78	80.6	168	168	171	19	19	31	9	9.
8"	200	279	279	273	95	127	89	101	101	103.9	219	219	222	40	40	33	18	17
10"	250	340	340	328	108	146	114	125	125	127	273	273	265	40	40	45	29	26
12"	300	410	410	378	143	181	114	151	151	147	324	324	310	56	56	45	45	42
14"	350	451	451	438	184	184	127	171	171	173	356	356	360	94	94	50	61	55
16"	400	514	514	489	191	191	140	197	197	198	406	406	410	89	89	54	77	75
18"	450	549	549	539	203	203	152	222	222	223	457	457	450	86	86	58	100	102
20"	500	606	606	594	213	219	152	248	248	241	508	508	505	90	90	58	130	107
24"	600	718	718	695	222	222	178	295	295	298	610	610	624	87	87	73	152	165

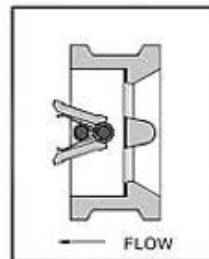
WAFER TYPE DOUBLE DISC CHECK VALVES



Plates in closed position. Top view.



Heel opens first as flow begins



Plates fully opened (85 °) under normal flow.

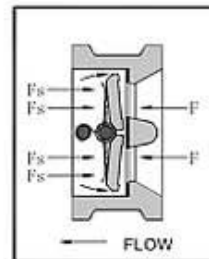
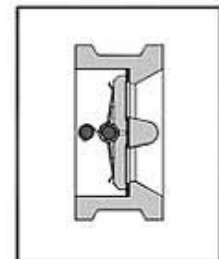


Plate toe closes first as flow decreases.

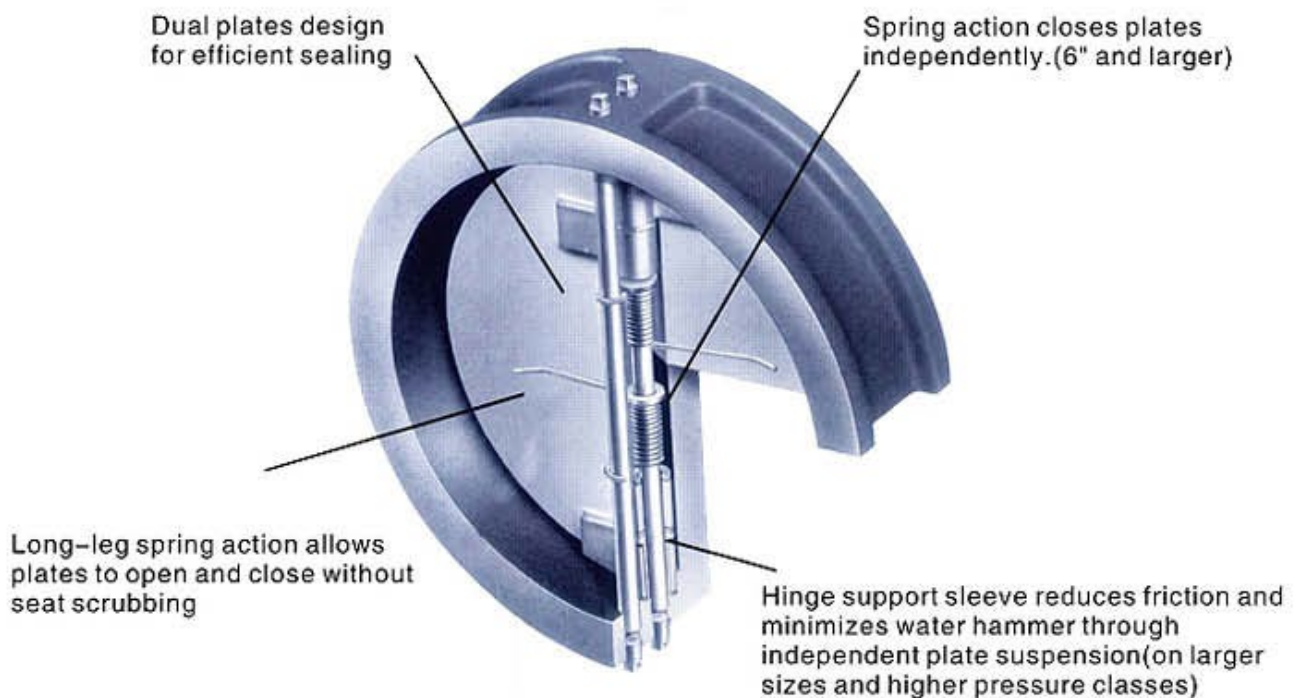


Plates fully seated for bubble-tight shut-off.

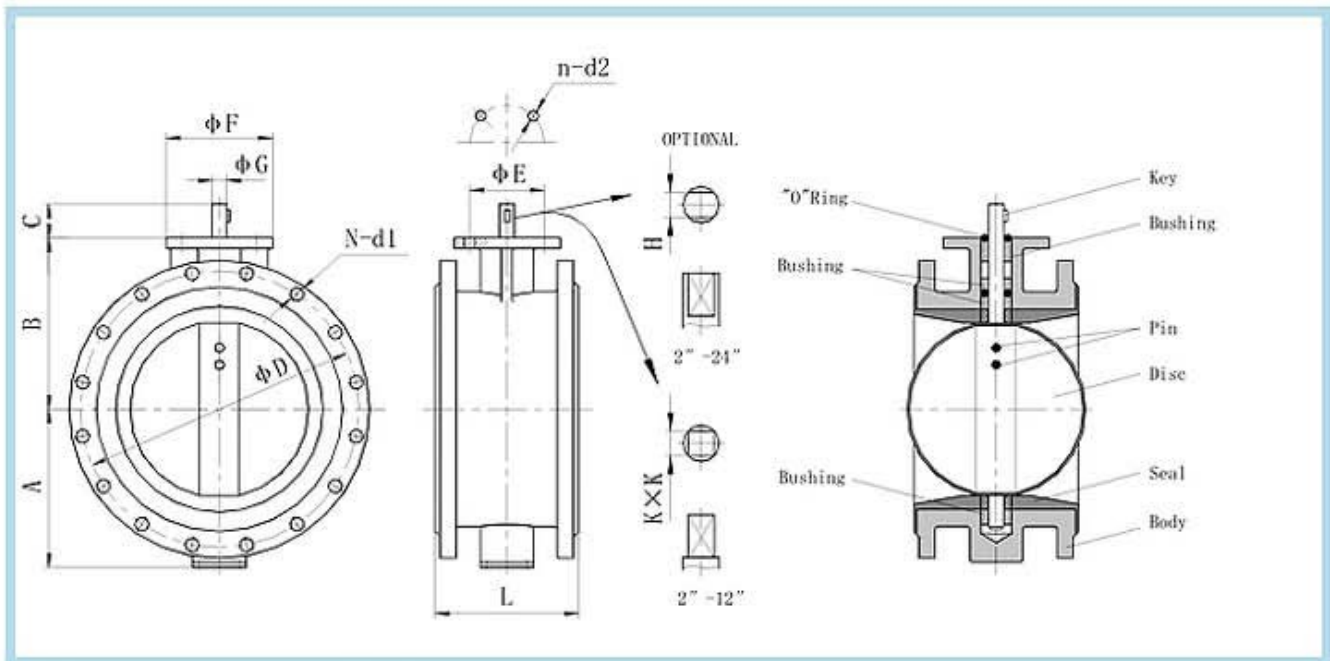
The innovative dual-plate design employs two spring-loaded plates (disc halves) suspended on a central vertical hinge pin. As flow begins, the plates open in response to a resultant force (F) which acts at the center of the sealed surface area. The contact point of the reacting spring leg's force (F_s) acts beyond the center of the plate area, causing the heel to open first. This prevents rubbing of the seal surface prior to normal plate opening.

As the velocity of flow decreases, torsion spring action reacts automatically. This moves the plates closer to the body seats, reducing the distance and time of travel for closure. By having the plates closer to the body seats at the time of flow reversal, the valve dynamic response is greatly enhanced. This dramatically reduces the water hammer effect.

At closing, the point of spring force causes the toe of the plates to close first. This prevents dragging of the heels of the plates and maintains seal integrity for much longer periods.



DOUBLE FLANGED BUTTERFLY VALVES



Dimension List

Size		A	B	C	ΦD						ΦE	ΦF	ΦG	n-d1						n-d2	L	H	K
mm	inch				ANSI B16.1	PN10	PN16	5K	10K	16K				ANSI	PN10	PN16	5k	10k	16k				
50	2"	65	120	32	120.65	125	125	105	120	120	70	90	12.7	4-17.46	4-18	4-18	4-15	4-19	8-19	4-9.5	108	10	10
65	2.5"	70	126	32	139.7	145	145	130	140	140	70	90	12.7	4-17.46	4-18	4-18	4-15	4-19	8-19	4-9.5	112	10	10
80	3"	80	133	32	152.4	160	160	145	150	160	70	90	12.7	4-17.46	4-18	8-18	4-19	8-19	8-23	4-9.5	114	10	10
100	4"	100	148	32	190.5	180	180	165	175	185	70	90	15.9	8-17.46	8-18	8-18	8-19	8-19	8-23	4-9.5	127	12	12
125	5"	110	160	32	215.9	210	210	200	210	225	70	90	19	8-20.64	8-18	8-18	8-19	8-23	8-25	4-9.5	140	14	16
150	6"	135	180	32	241.3	240	240	230	240	260	70	90	19	8-20.64	8-22	8-22	8-19	8-23	12-25	4-9.5	140	14	16
200	8"	160	205	45	298.45	295	295	280	290	305	102	125	22.2	8-20.64	8-22	12-22	8-23	12-23	12-25	4-11.5	152	17	16
250	10"	196	246	45	361.95	350	355	345	355	380	102	125	28.6	12-23.81	12-22	12-26	12-23	12-25	12-27	4-11.5	165	22	24
300	12"	220	270	45	431.8	400	410	390	400	430	102	125	31.7	12-23.81	12-22	12-26	12-23	16-25	16-27	4-11.5	178	24	24
350	14"	256	316	45	476.25	460	470	435	445	480	102	125	31.7	12-26.98	16-22	16-26	12-25	16-25	16-33	4-11.5	190	24	—
400	16"	308	365	51	539.75	515	525	495	510	540	165	210	33.34	16-26.98	16-26	16-30	16-25	16-27	16-33	4-22.2	216	27	—
450	18"	335	390	51	577.85	565	585	555	565	605	165	210	38	16-31.75	20-26	20-30	16-25	20-27	20-33	4-22.2	222	27	—
500	20"	360	415	64	635	620	650	605	620	660	165	210	41.15	20-31.75	20-26	20-33	20-25	20-27	20-33	4-22.2	229	32	—
600	24"	426	510	70	749.3	725	770	715	730	770	165	210	50.65	20-34.92	20-30	20-36	20-27	24-33	24-39	4-22.2	267	36	—
700	28"	480	560	72	—	840	840	820	840	—	254	300	55	—	24-30	24-36	24-27	24-33	—	8-18	292	—	—
750	30"	520	585	72	914.5	—	—	880	900	—	254	300	55	28-35	—	—	24-33	24-33	—	4-22.2	318	—	—
800	32"	525	610	72	—	950	950	930	950	—	254	300	55	—	24-33	24-39	24-33	28-33	—	8-18	318	—	—
900	36"	635	690	77	1086	1050	1050	1030	1050	—	254	300	75	32-41.1	28-33	28-39	24-33	28-33	—	8-18	330	—	—
1000	40"	685	740	85	—	1160	1160	1130	1160	—	254	300	85	—	28-36	28-42	28-33	28-39	—	8-18	410	—	—
1200	48"	870	856	150	1422.4	1380	—	1350	1380	—	298	350	92	44-41.3	32-39	32-48	32-33	32-39	—	8-22	470	—	—

ACTUATORS FOR BUTTERFLY VALVES

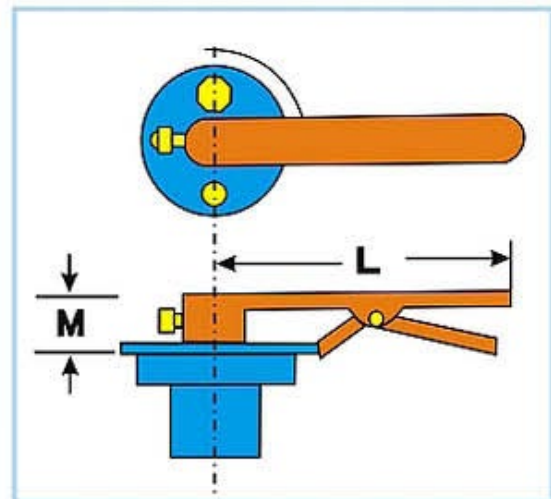
Operator Options

Centerline butterfly valves can be supplied for operation by lever, gear box/handwheel, pneumatic or electric actuator, or with bare shaft for fitting mounting of customer's own operating mechanism.

Lever Operators

The Lever comprise a ten position pressed steel lever and trigger release handle with carbon steel return spring. The indicator plate is cadmium plated carbon steel and mounts directly on the valve top mounting flange. A double "D" shaft gives positive attachment to the lever. The lever operators are available for size DN50 to 300 (2"-12"), but it is recommended that gear operators to be used on size DN200 (8") and larger.

Norm Size		Bore	L	M	Weight
DN	NPS	In/mm	In/mm	N/mm	Lbs/kg
50-80	2"-3"	1/2 12.7	10-1/4 260	1-1/4 32	2 0.9
100	4"	5/8 15.9			
125-150	5"-6"	3/4 19.05			
200	8"	7/8 22.22	14 356	1-1/2 38	4 1.8
250	10"	1-5/8 28.58			
300	12"	1-1/4 31.75			



Gear Operators

Gear operators can be used on all Centerline Resilient Seated Butterfly Valves. All series are weatherproof with the standard above-ground model equipped with a metal handwheel. A buried service model with square nut drive is available. For manual operation, a series of gear operators must be used for 14" and larger.

All units have cast iron housing, steel input shaft & worm gear, and ductile (SG) iron output gear segment. The enclosure is weatherproof and units are normally provided with a handwheel. Adjustable end of travel stops are standard and factory set when the gear box is factory mounted. Full details including dimensions are available upon request.



FLOW-EVER RESILIENT SEATED BUTTERFLY VALVES

Material of Construction

Item	Part Name	Material
1	Body	Ductile Iron ASTM A536 Grade 65-45-12
2	O-Ring	BUNA-N (NBR)
3	Seat	BUNA-N (NBR), EPDM, Viton
4	Disc	Ductile Iron ASTM A536 Grade 65-45-12 (Nickel plated or Nylon 11 coated) ; Aluminum Bronze ASTM B148 C95400; SS 316 ASTM A351 CF8M
5	Lower Stem	SS410 ASTM A433 Type 410, SS316 ASTM A276 Type 316
6	Upper Stem	SS410 ASTM A433 Type 410, SS316 ASTM A276 Type 316
7	Bushing	NYLON

Cv Values – Valve Sizing Coefficients (US-GPM @ 1/P)

DEG. OPEN SIZE	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.1	5	12	24	45	64	90	125	135
2.5"	0.2	8	20	37	65	98	144	204	220
3"	0.3	12	22	39	70	116	183	275	302
4"	0.5	17	42	78	139	235	364	546	600
5"	0.8	29	88	155	250	490	625	1000	1125
6"	2	45	145	250	410	800	1030	1650	1950
8"	3	89	250	420	700	1300	1750	2725	3250
10"	4	151	320	694	1237	2047	3240	4859	5340
12"	5	234	495	1072	1911	3162	5055	7507	8250

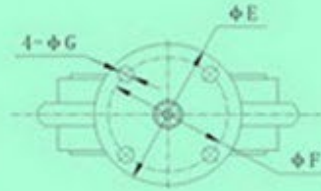
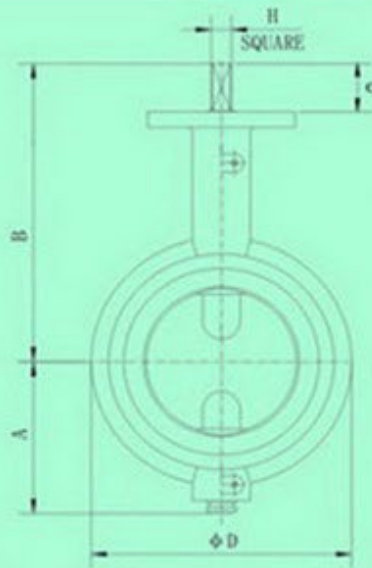
Valve Seating Torques (in. Lbs)

Valve Size		Standard Disc, Different Pressure							
		50PSI ΔP Bushing		100PSI ΔP Bushing		150PSI ΔP Bushing		200PSI ΔP Bushing	
NPS	DN	Bronze	NYLON	Bronze	NYLON	Bronze	NYLON	Bronze	NYLON
2"	50	106	100	117	106	129	111	140	117
2.5"	65	152	150	166	163	181	176	195	189
3"	80	213	207	230	220	248	322	265	244
4"	100	321	290	386	323	450	357	515	390
5"	125	481	423	598	481	715	540	832	598
6"	150	692	599	878	691	1063	783	1248	875
8"	200	1362	1060	1716	1183	2106	1307	2496	1430
10"	250	2239	1671	3010	1872	3780	2074	4550	2275
12"	300	3959	2568	4953	2795	5948	3023	6942	3250

All torque values shown on chart are for "wet" (water and other non-lubricating media) on-off service. For "dry" service (non-lubricating, dry gas media), multiply values by 1.6. For "lubbed" service (clean, non-abrasive lubricating media), multiply values by 0.85. When sizing actuators for single valve applications, multiply values by 1.25. When sizing for 3-way ("tee") applications multiply values by 1.5.

Under certain conditions, hydrodynamic torque can meet or exceed seating and unseating torques, when designing valve systems, hydrodynamic torque must be considered to help ensure correct selection of application.

FLOW-EVER RESILIENT SEATED BUTTERFLY VALVES



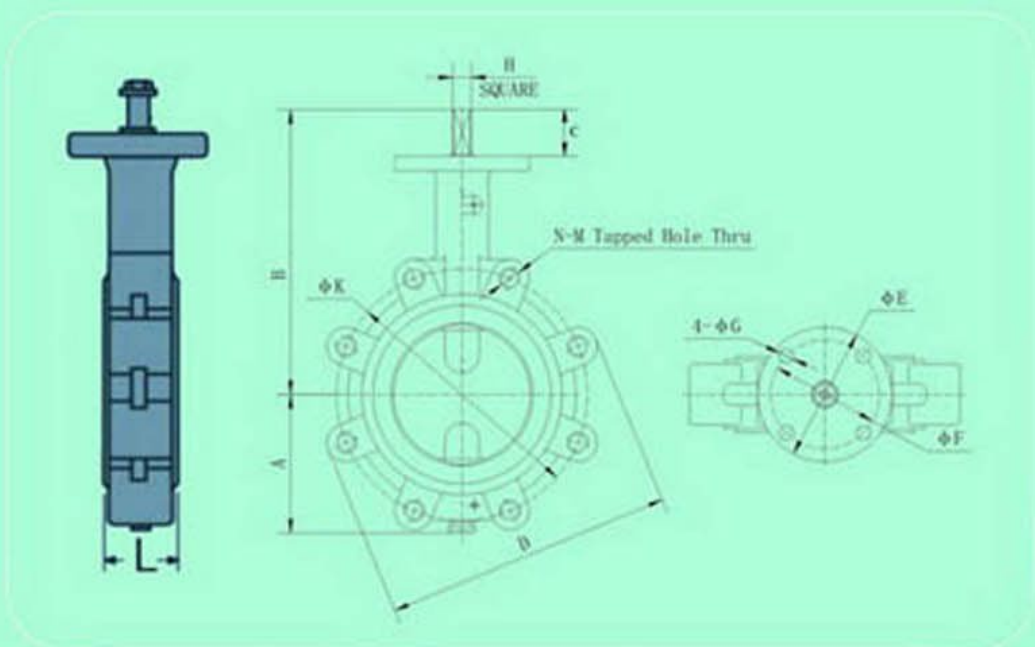
Long Neck Wafer Type Model 5, Dimension List (Inch)

NPS	A	B	C	ΦD	ΦE	ΦF	ΦG	H	L
2	3	7 ⁹ / ₃₂	1 ¹ / ₃₂	4 ¹ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²¹ / ₃₂
2 ¹ / ₂	3 ¹¹ / ₃₂	7 ²⁵ / ₃₂	1 ¹ / ₃₂	4 ⁷ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ³ / ₄
3"	3 ²¹ / ₃₂	8 ¹ / ₁₆	1 ¹ / ₃₂	5 ³ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²⁵ / ₃₂
4"	4 ⁹ / ₃₂	9 ⁵ / ₃₂	1 ⁹ / ₃₂	6 ⁷ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ³ / ₆₄
5"	4 ²⁷ / ₃₂	9 ²¹ / ₃₂	1 ⁹ / ₃₂	7 ³ / ₄	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ¹ / ₈
6"	5 ¹¹ / ₃₂	10 ⁵ / ₃₂	1 ⁹ / ₃₂	8 ³ / ₄	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ¹ / ₁₆
8"	6 ¹⁷ / ₃₂	11 ¹⁹ / ₃₂	1 ⁹ / ₃₂	11	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ³ / ₈
10"	7 ²⁷ / ₃₂	12 ²⁷ / ₃₂	1 ⁹ / ₃₂	13 ³ / ₈	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ²⁷ / ₆₄
12"	9 ³ / ₈	14 ¹¹ / ₃₂	1 ⁹ / ₃₂	16 ¹ / ₈	6	5	9 ⁹ / ₁₆	1 ¹ / ₈	3 ¹ / ₃₂

Short Neck Wafer Type Model 15, Dimension List (Inch)

NPS	A	B	C	ΦD	ΦE	ΦF	ΦG	H	L
2	3	4 ³¹ / ₃₂	1 ¹ / ₃₂	4 ¹ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²¹ / ₃₂
2 ¹ / ₂	3 ¹¹ / ₃₂	5 ⁵ / ₈	1 ¹ / ₃₂	4 ⁷ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ³ / ₄
3"	3 ²¹ / ₃₂	5 ¹⁵ / ₁₆	1 ¹ / ₃₂	5 ³ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²⁵ / ₃₂
4"	4 ⁹ / ₃₂	7 ⁹ / ₃₂	1 ⁹ / ₃₂	6 ⁷ / ₈	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ³ / ₆₄
5"	4 ²⁷ / ₃₂	7 ¹³ / ₃₂	1 ⁹ / ₃₂	7 ³ / ₄	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ¹ / ₈
6"	5 ¹¹ / ₃₂	7 ³¹ / ₃₂	1 ⁹ / ₃₂	8 ³ / ₄	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ¹ / ₁₆
8"	6 ¹⁷ / ₃₂	10 ²³ / ₃₂	1 ⁹ / ₃₂	11	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ³ / ₈
10"	7 ²⁷ / ₃₂	12 ¹ / ₂	1 ⁹ / ₃₂	13 ³ / ₈	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ²⁷ / ₆₄
12"	9 ³ / ₈	13 ³ / ₃₂	1 ⁹ / ₃₂	16 ¹ / ₈	6	5	9 ⁹ / ₁₆	1 ¹ / ₈	3 ¹ / ₃₂

FLOW-EVER RESILIENT SEATED BUTTERFLY VALVES



Long Neck Lug Type Model 10, Dimension List (Inch)

NPS	A	B	C	D	ΦE	ΦF	ΦG	H	L	ΦK	N	M
2	3	7 ⁹ / ₃₂	1 ¹ / ₃₂	6	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²¹ / ₃₂	4 ³ / ₄	4	5 ⁵ / ₈ -11
2 ¹ / ₂	3 ¹¹ / ₃₂	7 ²⁵ / ₃₂	1 ¹ / ₃₂	7	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ³ / ₄	5 ¹ / ₂	4	5 ⁵ / ₈ -11
3	3 ²¹ / ₃₂	8 ¹ / ₁₆	1 ¹ / ₃₂	7 ¹ / ₂	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²⁵ / ₃₂	6	4	5 ⁵ / ₈ -11
4	4 ⁹ / ₃₂	9 ⁵ / ₃₂	1 ⁹ / ₃₂	9	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ³ / ₆₄	7 ¹ / ₂	8	5 ⁵ / ₈ -11
5	4 ²⁷ / ₃₂	9 ²¹ / ₃₂	1 ⁹ / ₃₂	10	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ¹ / ₈	8 ¹ / ₂	8	3 ³ / ₄ -10
6	5 ¹¹ / ₃₂	10 ⁵ / ₃₂	1 ⁹ / ₃₂	11	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ³ / ₁₆	9 ¹ / ₂	8	3 ³ / ₄ -10
8	6 ¹⁷ / ₃₂	11 ¹⁹ / ₃₂	1 ⁹ / ₃₂	13 ¹ / ₂	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ³ / ₈	11 ³ / ₄	8	3 ³ / ₄ -10
10	7 ²⁷ / ₃₂	12 ²⁷ / ₃₂	1 ⁹ / ₃₂	16	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ²⁷ / ₆₄	14 ¹ / ₄	12	7 ⁷ / ₈ -9
12	9 ³ / ₈	14 ¹¹ / ₃₂	1 ⁹ / ₃₂	19	6	5	9 ⁹ / ₁₆	1 ¹ / ₈	3 ¹ / ₃₂	17	12	7 ⁷ / ₈ -9

Short Neck Lug Type Model 20, Dimension List (Inch)

NPS	A	B	C	D	ΦE	ΦF	ΦG	H	L	ΦK	N	M
2	3	4 ³¹ / ₃₂	1 ¹ / ₃₂	6	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²¹ / ₃₂	4 ³ / ₄	4	5 ⁵ / ₈ -11
2 ¹ / ₂	3 ¹¹ / ₃₂	5 ⁵ / ₈	1 ¹ / ₃₂	7	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ³ / ₄	5 ¹ / ₂	4	5 ⁵ / ₈ -11
3	3 ²¹ / ₃₂	5 ¹⁵ / ₁₆	1 ¹ / ₃₂	7 ¹ / ₂	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	1 ²⁵ / ₃₂	6	4	5 ⁵ / ₈ -11
4	4 ⁹ / ₃₂	7 ⁹ / ₃₂	1 ⁹ / ₃₂	9	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ³ / ₆₄	7 ¹ / ₂	8	5 ⁵ / ₈ -11
5	4 ²⁷ / ₃₂	7 ¹³ / ₃₂	1 ⁹ / ₃₂	10	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ¹ / ₈	8 ¹ / ₂	8	3 ³ / ₄ -10
6	5 ¹¹ / ₃₂	7 ³¹ / ₃₂	1 ⁹ / ₃₂	11	4	3 ¹ / ₄	7 ⁷ / ₁₆	5 ⁵ / ₈	2 ³ / ₁₆	9 ¹ / ₂	8	3 ³ / ₄ -10
8	6 ¹⁷ / ₃₂	10 ²³ / ₃₂	1 ⁹ / ₃₂	13 ¹ / ₂	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ³ / ₈	11 ³ / ₄	8	3 ³ / ₄ -10
10	7 ²⁷ / ₃₂	12 ¹ / ₂	1 ⁹ / ₃₂	16	6	5	9 ⁹ / ₁₆	7 ⁷ / ₈	2 ²⁷ / ₆₄	14 ¹ / ₄	12	7 ⁷ / ₈ -9
12	9 ³ / ₈	13 ³ / ₃₂	1 ⁹ / ₃₂	19	6	5	9 ⁹ / ₁₆	1 ¹ / ₈	3 ¹ / ₃₂	17	12	7 ⁷ / ₈ -9

FLOW-EVER RESILIENT SEATED BUTTERFLY VALVES

FLOW-EVER BUTTERFLY VALVES ARE AVAILABLE WITH HANDLES, MANUAL GEAR OPERATORS, AND ELECTRIC OR PNEUMATIC ACTUATORS, DESIGNED TO COMPLY WITH MSS SP-67 AND API 609, COMPATIBLE WITH ANSI 125/150, BS4504, DIN PN10/PN16 FLANGES, ALL THE VALVES ARE PRODUCED UNDER QUALITY ASSURANCE SYSTEM ISO 9001 AND PED 97/23/EC.

STRUCTURE DISPLAY

STEM

Dual stems with upper and lower tangential pins allows a self-centering disc. This design provides equal sealing pressure 360° around the disc, assuring positive shut off and extending service life.

BUSHING

Stem bushings reduce torque and isolate the stem from the valve body, preventing seizure of the stem due to corrosion in the stem journal.

SQUARE DRIVE

Square drive provides positive disc movement without in-line pins, screws, or bolts. All stem parts are out of the flow path.

SEAT

Phenolic backed seat is non-collapsible, stretch-resistant, blow-out proof and easily replaced in the field.

DISC

Precision profile provides bubble-tight shut-off, assures minimum torque and longer seat life. Maximum flow is achieved by eliminating the "Through Shaft" and external disc fasteners.

MOUNTING FLANGE

Mounting flange accommodates direct mounting of all types of actuators, including: handles, gear operators, electric and pneumatic actuators.

O-RING

Tertiary stem seal provides further assurance against stem leakage

HUB SEAL

Smooth finished disc flats mate with seat flats to give a highly efficient primary seal that prevents leakage into the shaft area and minimizes torque.

SEAT FACE

Seat to flange seal eliminates the need for flange gaskets



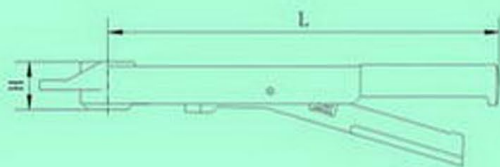
ACTUATORS FOR BUTTERFLY VALVES

OPERATOR OPTIONS

FLOW-EVER resilient seated butterfly valves can be supplied for operation by lever, gear box/hand wheel, pneumatic or electric actuator, or with bare shaft for fitting mounting of customer's own operating mechanism.

LEVER OPERATOR

The lever comprises a ten position pressed steel lever and trigger release handle with carbon steel return spring. The indicator plate is chrome plated carbon steel and mounts directly on the valve top mounting flange. The lever operators are available for size DN50 to DN300 (2" TO 12"), but it is recommended that gear operators to be used on size DN200 (8") and larger.



Handle Dimensions (inch)

NPS	DIM.	
	L	H
2-3	9 ¹ / ₂	1 ¹ / ₈
4-6	11 ¹ / ₈	1 ⁵ / ₁₆
8-12	15 ¹ / ₈	1 ⁷ / ₁₆

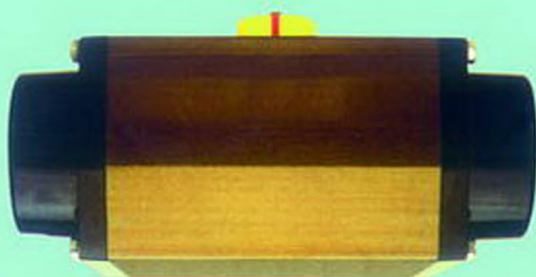
GEAR OPERATOR

The gear operators are weatherproof with standard above-ground model equipped with a metal handwheel. All the units have cast iron housing, steel input shaft & worm gear, and ductile (SG) iron output gear segment. Adjustable end of travel stops are standard and factory set when the gear box is factory mounted. Full details including dimensions are available upon request.



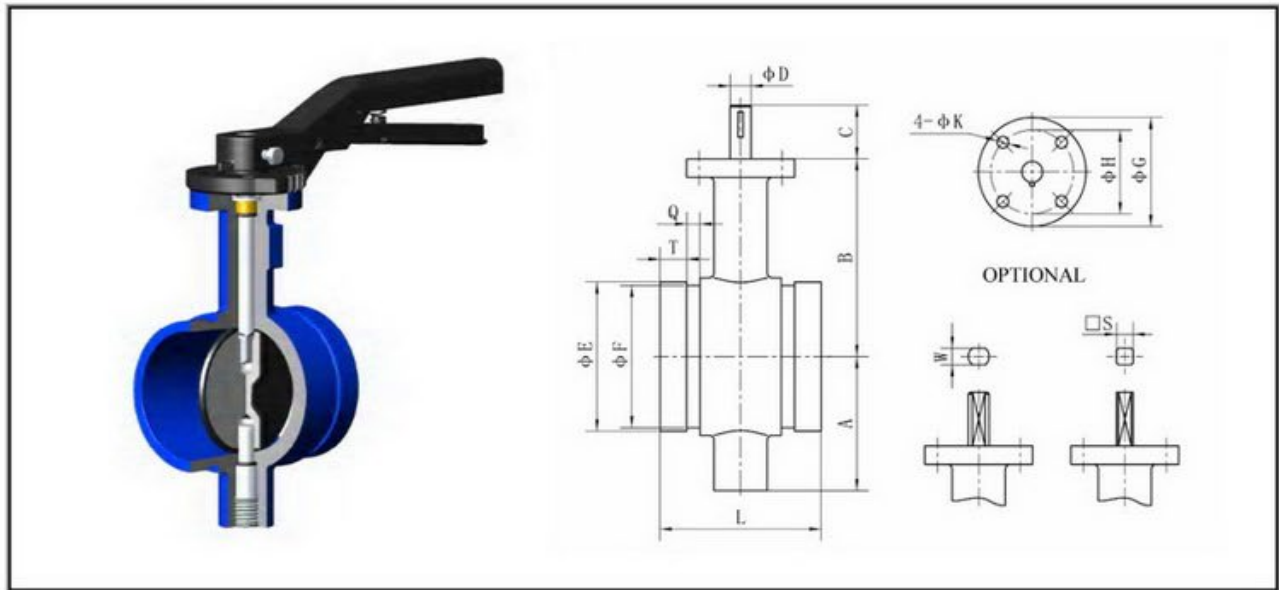
PNEUMATIC AND ELECTRIC OPERATOR

The pneumatic and electric operators can be used on all FLOW-EVER resilient seated butterfly valves, full details are available upon request.



RESILIENT SEATED BUTTERFLY VALVE

Shouldered Butterfly Valve



- ✧ Valves designed to comply with MSS SP-67;
- ✧ Face to face conform to MSS SP-67;
- ✧ Grooves conform to AWWA C606 TABLE 4;

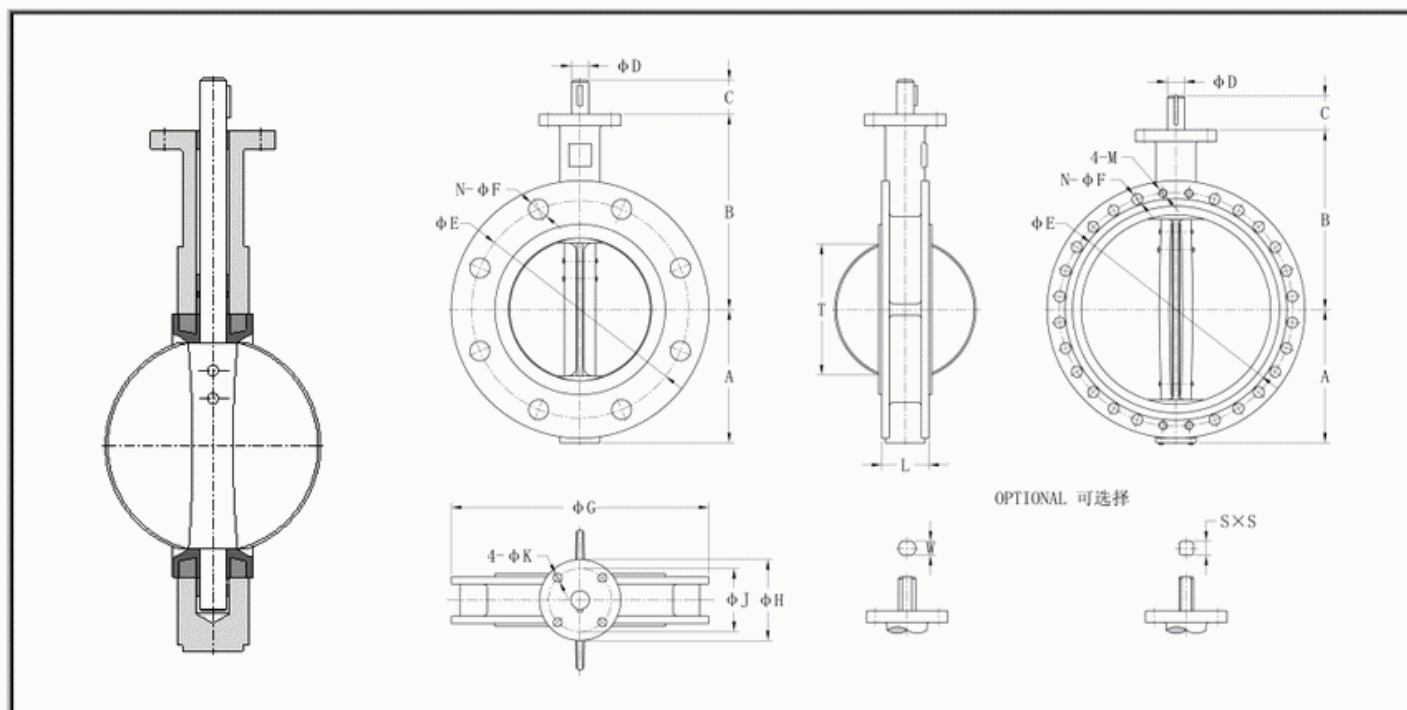
Part Name	Materials
Lever	Malleable Cast Iron / Carbon steel
Body	Ductile Iron
Disc	Ductile Iron +Rubber (EPDM or NBR)
Stem	SS 410
Bushing	PTFE
O-Ring	NBR or EPDM

Dimensions List (mm)

Size		A	B	C	D	E	F	Q	T	L	G	H	K	S	W
inch	mm														
2	50	65	102	32	12.7	60.5	57	8	16	81	65	50	7	10	10
2½	65	72	112	32	12.7	73	69	8	16	97	65	50	7	10	10
3	80	80	118	32	12.7	89	85	8	16	97	65	50	7	10	10
4	100	100	137	32	15.9	114.5	110	9.5	16	116	90	70	9.5	14	12
5	125	118	149	32	19.1	141.5	137	9.5	16	148	90	70	9.5	17	14
6	150	140	170	32	19.1	168.5	164	9.5	16	148	90	70	9.5	17	14
8	200	175	204	38	22.2	219	214.5	11.5	19	134	125	102	11.5	17	17
10	250	215	250	38	28.6	273	268.5	13	19	159	125	102	11.5	22	22
12	300	258	275	38	31.8	324	318.5	13	19	165	125	102	11.5	22	24

RESILIENT SEATED BUTTERFLY VALVE

U-Section Wafer Type Butterfly Valve



Dimensions List (mm)

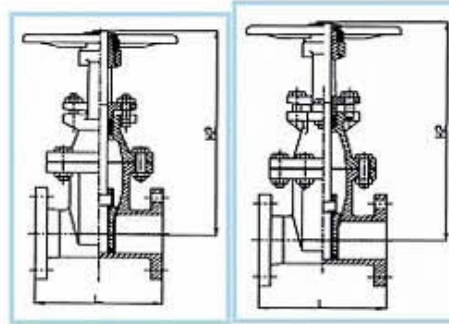
规格 Size		A	B	C	D	E			N-F/(4-M)			G			H	J	I-K	L	T	S	W
mm	inch					ANSI 125/150	PN10	PN16	ANSI 125/150	PN10	PN16	ANSI 125/150	PN10	PN16							
40	1½	70	145	32	12.7	98.4	110	110	4-16	4-18	4-18	127	150	150	65	50	4-7	33	27	9	10
50	2	76	162	32	12.7	120.7	125	125	4-19	4-18	4-18	152	165	165	65	50	4-7	42	32	9	10
65	2½	80	174	32	12.7	139.7	145	145	4-19	4-18	4-18	178	185	185	65	50	4-7	45	47	9	10
80	3	90	181	32	12.7	152.4	160	160	4-19	4-18	8-18	191	200	200	65	50	4-7	45	65	9	10
100	4	110	200	32	15.9	190.5	180	180	8-19	8-18	8-18	229	220	220	90	70	4-9.5	52	90	11	12
125	5	125	213	32	19.1	215.9	210	210	8-22	8-18	8-18	254	250	250	90	70	4-9.5	54	111	14	14
150	6	143	225	32	19.1	241.3	240	240	8-22	8-22	8-22	279	285	285	90	70	4-9.5	56	145	14	14
200	8	175	260	38	22.2	298.5	295	295	8-22	8-22	12-22	343	340	340	125	102	4-11.5	60	193	17	17
250	10	203	292	38	28.6	362	350	355	12-25	12-22	12-26	406	395	405	125	102	4-11.5	66	241	22	22
300	12	245	337	38	31.8	431.8	400	410	12-25	12-22	12-26	483	445	460	125	102	4-11.5	77	292	22	24
350	14	277	368	45	31.8	476.3	460	470	12-29	16-22	16-26	533	505	520	125	102	4-11.5	77	325	22	24
400	16	308	400	51	33.3	539.8	515	525	16-29	16-26	16-30	597	565	580	210	165	4-22	86	380	27	27
450	18	342	422	51	38.1	577.9	565	585	16-32	20-26	20-30	635	615	640	210	165	4-22	105	428	27	27
500	20	374	479	64	41.3	635	620	650	20-32	20-26	20-33	699	670	715	210	165	4-22	130	474	27	32
600	24	459	562	70	50.8	749.3	725	770	20-35	20-30	20-36	813	780	840	210	165	4-22	152	575	36	36
700	28	520	624	72	55	—	840	840	—	24-30	24-36	—	895	910	300	254	8-18	165	674	—	—
750	30	565	650	72	55	914.4	900	900	24-35 4-1½"	24-33	24-36	984	965	970	300	254	8-18	167	726	—	—
800	32	591	672	72	55	—	950	950	—	24-33	24-39	—	1025	1025	300	254	8-18	190	771	—	—
900	36	610	768	77	75	1085.9	1050	1050	28-41 4-1½"	24-33 4-M30	24-39 4-M36	1168	1115	1125	300	254	8-18	207	839	—	—
1000	40	685	823	85	85	—	1160	1170	—	24-36 4-M33	24-42 4-M39	—	1230	1255	300	254	8-18	216	939	—	—
1050	42	785	858	85	85	1257.3	—	—	32-41 4-1½"	—	—	1346	—	—	300	254	8-18	256	997	—	—
1200	48	839	940	150	92	1422.4	1380	1390	40-41 4-1½"	28-39 4-M36	28-48 4-M45	1511	1455	1485	350	298	8-22	276	1125	—	—

✧ Please contact manufacturer if you want more flange standards.

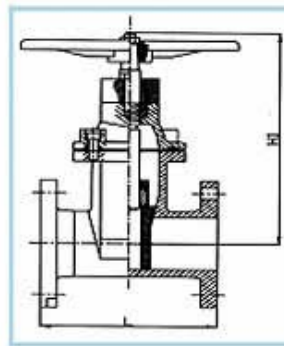
**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
NRS/ O.S. & Y. , CLASS125/CLASS150 TO
AWWA/ANSI, RESILIENT SEATED**



HB-01(A)



2"-6" 8"-12"
HB-01(B)



HB-01(A)



HB-01(B)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Wedge	Cast iron/Ductile iron with NBR/EPDM
Stem	Stainless steel/Brass
Bolt & Nut	Stainless steel/Steel with zinc

Design

Face to face is according to ANSI B16.10
Flange drilled is according to ANSI B16.1/ANSI B16.5

Test

Working pressure	125PSI	150PSI
Shell pressure	200PSI	
Seat pressure	200PSI	

Dimension

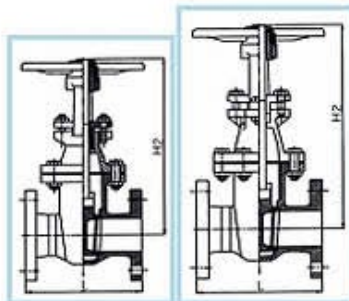
Unit:mm

Size(Inch)	2 "	2.1/2 "	3 "	4 "	5 "	6 "	8 "	10 "	12 "	14 "	16 "
L	178	190	203	229	254	267	292	330	356	381	406
H1(appr.)	236	261	297	329	394	424	518	601	693	770	851
H2(appr.)	290	340	390	460	530	575	770	920	1040	1160	1280
Working Pressure:Class 125LBS											
Dia.of flange	152	178	191	229	254	279	343	406	483	533	597
Nos.of hole	4	4	4	8	8	8	8	12	12	12	16
Dia.of hole	19	19	19	19	22	22	22	25	25	29	29
P.C.D	1205	1395	1525	1905	216	2415	2985	362	432	476	5395
Working Pressure: Class 150LBS											
Dia.of flange	152	178	191	229	254	279	343	406	483	533	597
Nos.of hole	4	4	4	8	8	8	8	12	12	12	16
Dia.of hole	19	19	19	19	22	22	22	25	25	29	29
P.C.D	1205	1395	1525	1905	216	2415	2985	362	432	476	5395

**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
NRS/ O.S. & Y. , CLASS125/CLASS150 TO
ANSI, METAL SEATED**

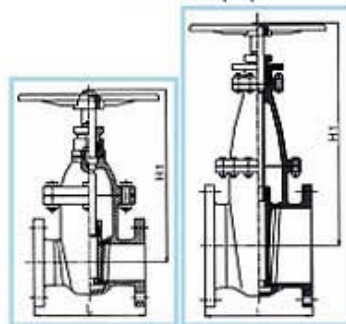


HB-02(A)



2" - 6" 8" - 12"

HB-02(B)



2" - 6" 8" - 12"

HB-02(A)



HB-02(B)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Wedge	Cast iron/Ductile iron
Stem	Stainless steel/Brass
Body seat ring	Brass/Bronze/Stainless steel
Wedge seat ring	Brass/Bronze/Stainless steel

Design

Face to face is according to ANSI B16.10 (MSS-SP-70)
Flange drilled is according to ANSI B16.1/ANSI B16.5

Test

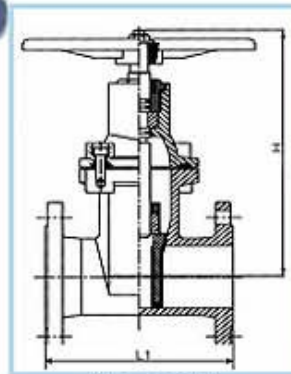
Working pressure	125PSI	150PSI
Shell pressure	300PSI	
Seat pressure	200PSI	

Dimension

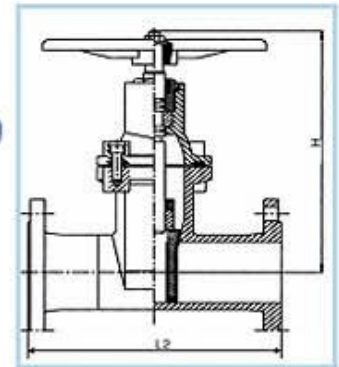
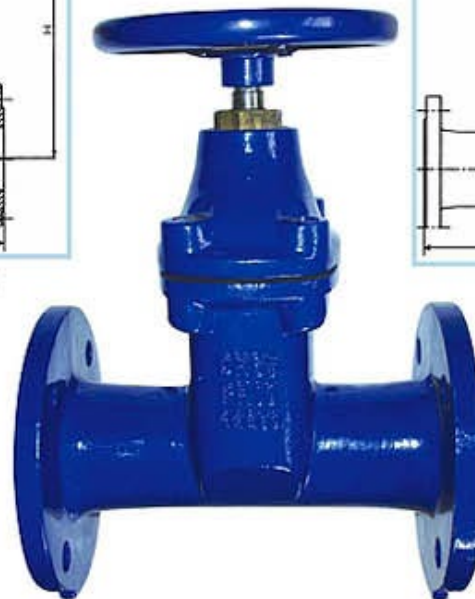
Unit:mm

Size(Inch)	1.1/2"	2"	2.1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L	165	178	190	203	229	254	267	292	330	356	381	406	432	457	508
H1	285	302	322	380	420	475	490	645	750	870	940	1060	1180	1300	1420
H2	250	290	340	390	460	530	575	770	920	1040	1160	1280	1420	1580	1760
Class 125LBS															
Dia.of flange	127	152	178	191	229	254	279	343	406	483	533	597	635	699	813
Nos.of hole	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20
Dia.of hole	16	19	19	19	19	22	22	22	25	25	29	29	32	32	35
P.C.D	98.5	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432	476	539.5	578	635	749.5
Class 150LBS															
Dia.of flange	127	152	178	191	229	254	279	343	406	483	533	597	635	699	813
Nos.of hole	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20
Dia.of hole	16	19	19	19	19	22	22	22	25	25	29	29	32	32	35
P.C.D	98.5	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432	476	539.5	578	635	749.5

**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
NON RISING STEM,PN10/PN16 TO DIN3352-F4/F5
RESILIENT SEATED**



HB-03(A)



HB-03(B)

HB-03(A)

HB-03(B)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Wedge	Cast iron/Ductile iron with NBR/EPDM
Stem	Stainless steel/Brass
Bolt & Nut	Stainless steel/Steel with zinc

Design

Face to face is according to DIN3202 F4/F5
Flange drilled is according to DIN2501

Test

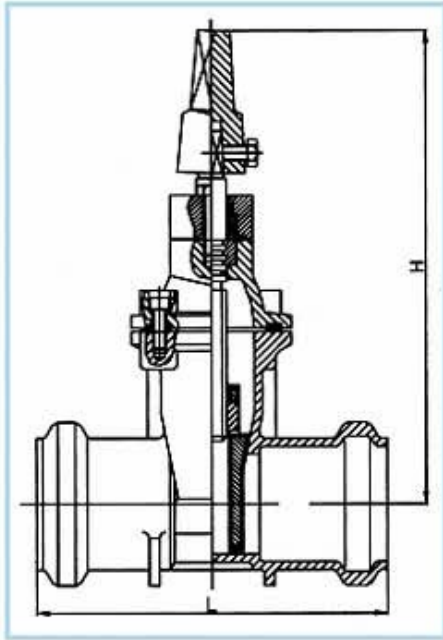
Working pressure	PN10	PN16
Shell pressure	PN15	PN24
Seat pressure	PN11	PN17.6

Dimension

Unit:mm

Size(DN)	40	50	65	80	100	125	150	200	250	300
L1	140	150	170	180	190	200	210	230	250	270
L2	240	250	270	280	300	325	350	400	450	500
H	230	240	270	303	330	375	426	514	600	689
Working Pressure:PN10										
Dia.of flange	150	165	185	200	220	250	285	340	395	445
Nos.of hole	4	4	4	8	8	8	8	8	12	12
Dia.of hole	18	18	18	18	18	18	22	22	22	22
P.C.D	110	125	145	160	180	210	240	295	350	400
Working Pressure:PN16										
Dia.of flange	150	165	185	200	220	250	285	340	405	460
Nos.of hole	4	4	4	8	8	8	8	12	12	12
Dia.of hole	18	18	18	18	18	18	22	22	26	26
P.C.D	110	125	145	160	180	210	240	295	355	410

CAST IRON/DUCTILE IRON GATE VALVE SOCKET END NON RISING STEM, PN10/PN16 RESILIENT SEATED



HB-04



HB-04

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Wedge	Cast iron/Ductile iron with NBR/EPDM
Stem	Stainless steel/Brass
Bolt & Nut	Stainless steel/Steel with zinc

Design

Face to face is according to BS, DIN, ANSI, AWWA, SABS standard etc.

Test

Working pressure	PN10	PN16
Shell pressure	PN15	PN24
Seat pressure	PN11	PN17.6

Dimension

Unit:mm

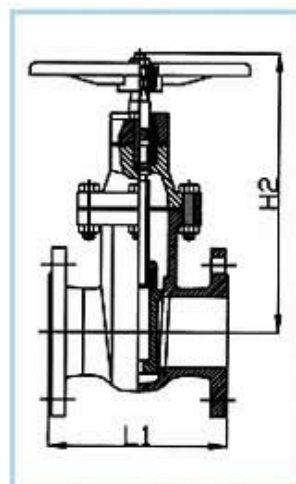
Size(DN)	50/63	65/75	80/90	100/110	150/160	200/220	250/270
L	335	335	335	355	405	450	500
H	239	264	294	321	413	506	583

Dimension Of "L" Can Be Designed According To Buyers' Request

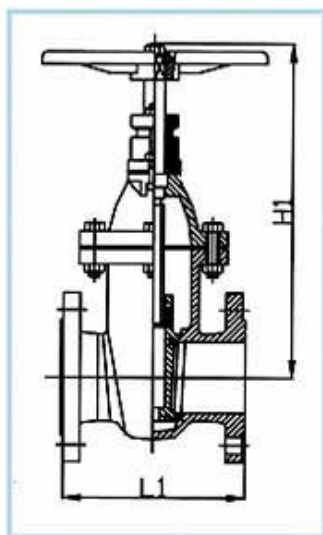
**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
NON RISING STEM, PN10/PN16 TO
DIN3352-F4/F5, METAL SEATED**



HB-05(A)



HB-05(A)



HB-05(B)



HB-05(B)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Wedge	Cast iron/Ductile iron
Stem	Stainless steel/Brass
Body seat ring	Brass/Bronze/Stainless steel
Wedge seat ring	Brass/Bronze/Stainless steel

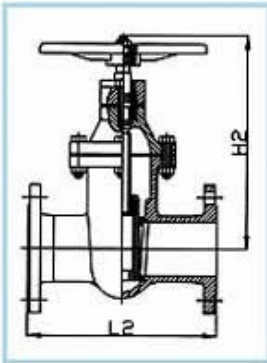
Design

Face to face is according to DIN3202 F4/F5
Flange drilled is according to DIN2501

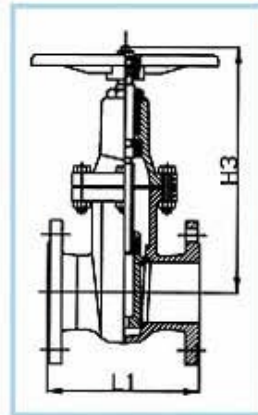
Test

Working pressure	PN10	PN16
Shell pressure	PN15	PN24
Seat pressure	PN11	PN17.6

**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
NON RISING STEM, PN10/PN16 TO
DIN3352-F4/F5, METAL SEATED**



HB-05(C)



HB-05(D)



HB-05(C)



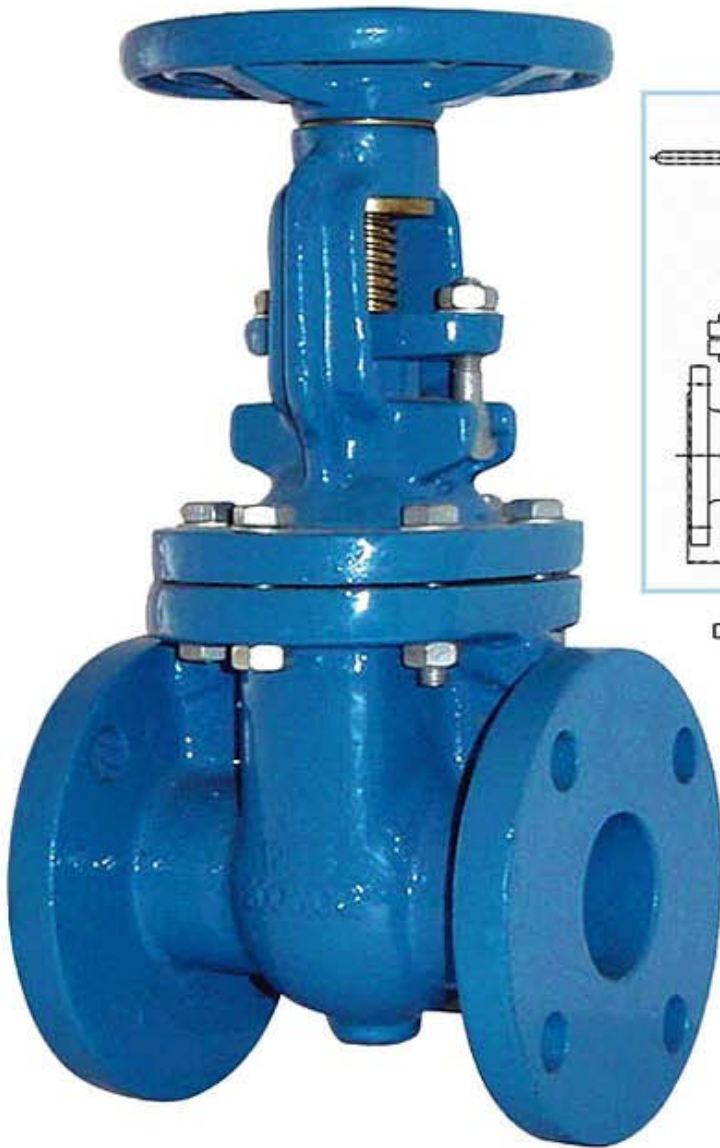
HB-05(D)

Dimension

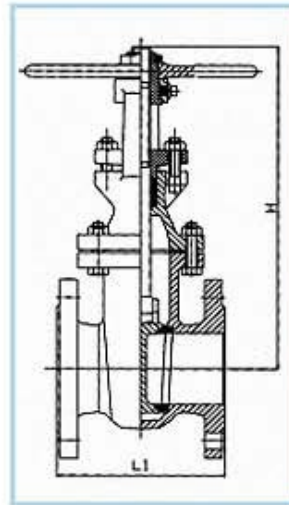
Unit:mm

Size(DN)	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	
L1	140	150	170	180	190	200	210	230	250	270	290	310	330	350	390	
L2	240	250	270	280	300	325	350	400	450	500	550	600	650	700	800	
H1	260	287	315	345	365	439	480	583	665	746	871	1000	1140	1290	1450	
H2	215	237	264	294	327	372	415	530	611	695	790	885	980	1080	1190	
H3	240	255	320	335	380	450	480	600	660	750	820	910	1000	1135	1250	
Working Pressure:PN10																
Dia.of flange	150	165	185	200	220	250	285	340	395	445	505	565	615	670	780	
Nos.of hole	4	4	4	8	8	8	8	8	12	12	16	16	20	20	20	
Dia.of hole	18	18	18	18	18	18	22	22	22	22	22	26	26	26	30	
P.C.D	110	125	145	160	180	210	240	295	350	400	460	515	565	620	725	
Working Pressure:PN16																
Dia.of flange	150	165	185	200	220	250	285	340	405	460	520	580	640	715	840	
Nos.of hole	4	4	4	8	8	8	8	12	12	12	16	16	20	20	20	
Dia.of hole	18	18	18	18	18	18	22	22	26	26	26	30	30	33	36	
P.C.D	110	125	145	160	180	210	240	295	355	410	470	525	585	650	770	

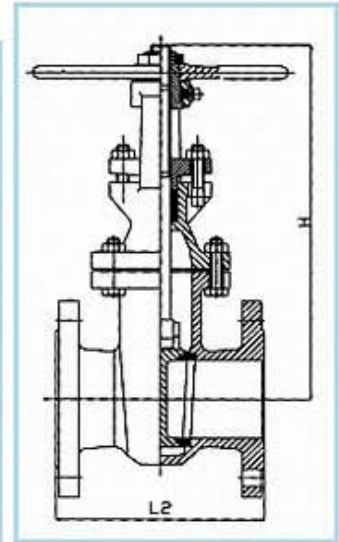
**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
O.S. & Y. , RISING STEM, PN10/PN16 TO
DIN3352-F4/F5, METAL SEATED**



HB-06(A)



DN40-DN150



DN200-DN600

HB-06(A)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Wedge	Cast iron/Ductile iron
Stem	Stainless steel/Brass
Body seat ring	Brass/Bronze/Stainless steel
Wedge seat ring	Brass/Bronze/Stainless steel

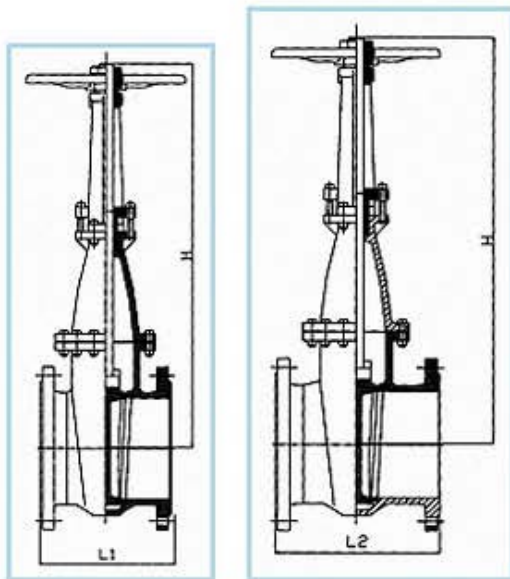
Design

Face to face is according to DIN3202 F4/F5
Flange drilled is according to DIN2501

Test

Working pressure	PN10	PN16
Shell pressure	PN15	PN24
Seat pressure	PN11	PN17.6

**CAST IRON/DUCTILE IRON GATE VALVE FLANGED END
O.S. & Y. , RISING STEM, PN10/PN16 TO
DIN3352-F4/F5,METAL SEATED**



DN40-DN150

DN200-DN600

HB-06(B)



HB-06(B)

Dimension

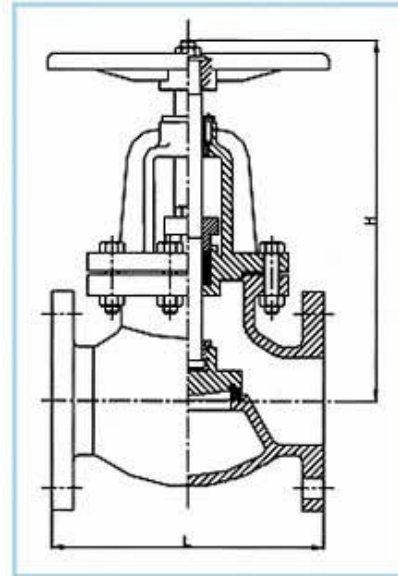
Unit:mm

Size(DN)	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L1	140	150	170	180	190	200	210	230	250	270	290	310	330	350	390
L2	240	250	270	280	300	325	350	400	450	500	550	600	650	700	800
H	275	297	329	357	414	507	575	756	894	1022	1150	1280	1420	1570	1730
Working Pressure:PN10															
Dia.of flange	150	165	185	200	220	250	285	340	395	445	505	565	615	670	780
Nos.of hole	4	4	4	8	8	8	8	8	12	12	16	16	20	20	20
Dia.of hole	18	18	18	18	18	18	22	22	22	22	22	26	26	26	30
P.C.D	110	125	145	160	180	210	240	295	350	400	460	515	565	620	725
Working Pressure:PN16															
Dia.of flange	150	165	185	200	220	250	285	340	405	460	520	580	640	715	840
Nos.of hole	4	4	4	8	8	8	8	12	12	12	16	16	20	20	20
Dia.of hole	18	18	18	18	18	18	22	22	26	26	26	30	30	33	36
P.C.D	110	125	145	160	180	210	240	295	355	410	470	525	585	650	770

CAST IRON/DUCTILE IRON GLOBE VALVE FLANGED END CLASS125/CLASS150 TO ANSI METAL SEATED



HB-07



HB-07

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Disc	Cast iron/Ductile iron
Disc seat ring	Brass/Bronze/Stainless steel/Rubber
Body seat ring	Brass/Bronze/Stainless steel
Stem	Stainless steel/Brass

Design

Face to face is according to MSS-SP-85
Flange drilled is according to ANSI B16.1/ANSI B16.5

Test

Working pressure	125PSI	150PSI
Shell pressure	300PSI	
Seat pressure	200PSI	

Dimension

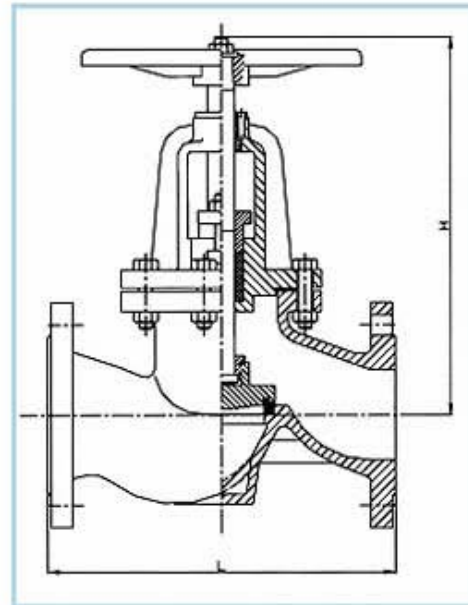
Unit:mm

Size(Inch)	3/4 "	1 "	1.1/4 "	1.1/2 "	2 "	2.1/2 "	3 "	4 "	5 "	6 "	8 "	10 "	12 "
L	117	127	140	165	203	216	241	292	330	356	495	622	698
H	207	212	227	238	254	273	292	314	364	400	469	553	634
Working Pressure:Class 125LBS													
Dia.of flange	98	108	117	127	152	178	191	229	254	279	343	406	483
Nos.of hole	4	4	4	4	4	4	4	8	8	8	8	12	12
Dia.of hole	16	16	16	16	19	19	19	19	22	22	22	25	25
P.C.D	70	79.5	89	98.5	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432
Working Pressure: Class 150LBS													
Dia.of flange	98	108	117	127	152	178	191	229	254	279	343	406	483
Nos.of hole	4	4	4	4	4	4	4	8	8	8	8	12	12
Dia.of hole	16	16	16	16	19	19	19	19	22	22	22	25	25
P.C.D	70	79.5	89	98.5	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432

CAST IRON/DUCTILE IRON GLOBE VALVE FLANGED END PN10/PN16 TO DIN3202-F1 METAL SEATED



HB-08



HB-08

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Disc	Cast iron/Ductile iron
Disc seat ring	Brass/Bronze/Stainless steel/Rubber
Body seat ring	Brass/Bronze/Stainless steel
Stem	Stainless steel/Brass

Design

Face to face is according to DIN3202 F1
Flange drilled is according to DIN2501

Test

Working pressure	PN10	PN16
Shell pressure	PN15	PN24
Seat pressure	PN11	PN17.6

Dimension

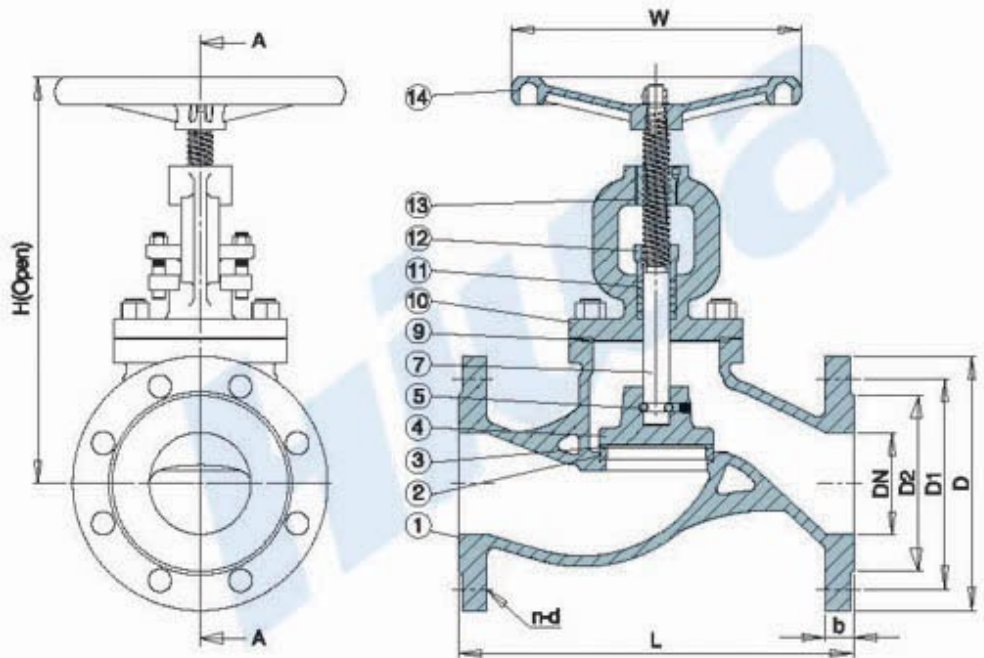
Unit:mm

Size(DN)	15	20	25	32	40	50	65	80	100	125	150	200	250	300
L	130	150	160	180	200	230	290	310	350	400	480	600	730	850
H	217	222	227	240	250	269	294	316	340	397	431	497	559	639
Working Pressure:PN10														
Dia.of flange	95	105	115	140	150	165	185	200	220	250	285	340	395	445
Nos.of hole	4	4	4	4	4	4	4	8	8	8	8	8	12	12
Dia.of hole	14	14	14	18	18	18	18	18	18	18	22	22	22	22
P.C.D	65	75	85	100	110	125	145	160	180	210	240	295	350	400
Working Pressure: PN16														
Dia.of flange	95	105	115	140	150	165	185	200	220	250	285	340	405	460
Nos.of hole	4	4	4	4	4	4	4	8	8	8	8	12	12	12
Dia.of hole	14	14	14	18	18	18	18	18	18	18	22	22	26	26
P.C.D	65	75	85	100	110	125	145	160	180	210	240	295	355	410

CAST IRON GLOBE VALVES DIN3356



DIN3356 Globe Valve



Features

- Bolt bonnet
- Clockwise closing direction
- Graphite packing
- Seat rings are pressed into body
- Product color: Blue RAL 5017

Technical Specification

- Design: DIN 3356
- Face to Face : DIN3202 F1
- Flanges: DIN 2533 PN16
- Hydraulic test to ISO 5208
 Seat Test Pressure: 17.6 bar
 Shell Test Pressure: 24 bar

▲ MATERIAL SPECIFICATION

Item	Part Name	Material	Item	Part Name	Material
1	Body	GG25	4	Disc	GG25/ Carbon Steel
2	Seat Ring	Stainless Steel	7	Stem	SS AISI 420
		Brass	9	Bonnet Gasket	Graphite With Soft Steel
3	Disc Ring	Stainless Steel	10	Bonnet	GG25
		Brass	11	Packing	Graphite

▲ DIMENSIONS(mm)

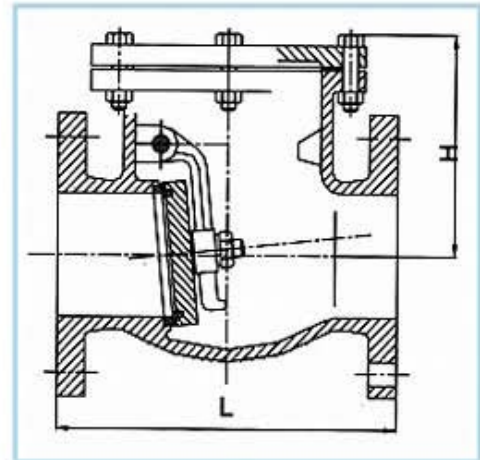
Size	L	D	D1	D2	b	n-d	H(open)	W	W.T(kg)
DN15	130	95	65	45	14	4-14	200	120	3.4
DN20	150	105	75	58	16	4-14	220	120	4.7
DN25	160	115	85	68	16	4-14	225	120	5.1
DN32	180	140	100	78	18	4-18	250	120	7.6
DN40	200	150	110	88	18	4-18	270	160	9.5
DN50	230	165	125	102	20	4-18	290	200	13.7
DN65	290	185	145	122	20	4-18	320	200	18.5
DN80	310	200	160	138	22	8-18	365	200	22.1
DN100	350	220	180	158	24	8-18	410	240	34
DN125	400	250	210	188	26	8-18	460	240	47.8
DN150	480	285	240	212	28	8-22	525	280	65.9
DN200	600	340	295	268	30	12-22	685	360	128.8
DN250	730	405	355	320	32	12-26	830	400	196
DN300	850	460	410	378	32	12-26	925	450	245

■ Request for special characteristics is available. Hwa reserves the right to modify dimensions, materials, or design on products without prior notice.

CAST IRON/DUCTILE IRON CHECK VALVE FLANGED END SWING TYPE, CLASS125 / CLASS150 TO ANSI METAL SEATED



HB-09



HB-09

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Disc	Cast iron/Ductile iron
Disc seat ring	Brass/Bronze/Stainless steel
Body seat ring	Brass/Bronze/Stainless steel
Hinge pin	Stainless steel

Design

Face to face is according to MSS-SP-71
Flange drilled is according to ANSI B16.1/ANSI B16.5

Test

Working pressure	125PSI	150PSI
Shell pressure	300PSI	
Seat pressure	200PSI	

Dimension

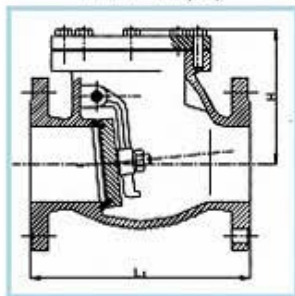
Unit:mm

Size(Inch)	2 "	2.1/2 "	3 "	4 "	5 "	6 "	8 "	10 "	12 "	14 "	16 "
L	203	216	241	292	330	356	495	622	698	787	864
H	136	147	158	184	212	227	263	304	335	355	394
Working Pressure:Class 125LBS											
Dia.of flange	152	178	191	229	254	279	343	406	483	533	597
Nos.of hole	4	4	4	8	8	8	8	12	12	12	16
Dia.of hole	19	19	19	19	22	22	22	25	25	29	29
P.C.D	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432	476	539.5
Working Pressure: Class 150LBS											
Dia.of flange	152	178	191	229	254	279	343	406	483	533	597
Nos.of hole	4	4	4	8	8	8	8	12	12	12	16
Dia.of hole	19	19	19	19	22	22	22	25	25	29	29
P.C.D	120.5	139.5	152.5	190.5	216	241.5	298.5	362	432	476	539.5

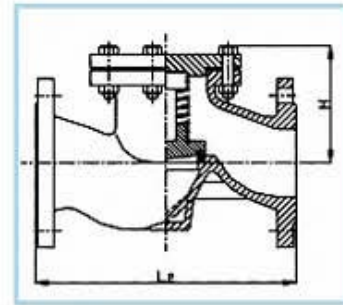
CAST IRON/DUCTILE IRON CHECK VALVE FLANGED END SWING TYPE TO DIN3202-F6 LIFT TYPE TO DIN3202-F1



HB-10(A)



HB-10(A)



HB-10(B)



HB-10(B)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Disc	Cast iron/Ductile iron/Rubber
Disc seat ring	Brass/Bronze/Stainless steel
Body seat ring	Brass/Bronze/Stainless steel

Design

Face to face is according to DIN3202 F1/F6

Flange drilled is according to DIN2501

Test

Working pressure	PN10	PN16
Shell pressure	PN15	PN24
Seat pressure	PN11	PN17.6

Dimension

Unit:mm

Size(DN)	40	50	65	80	100	125	150	200	250	300
L1	180	200	240	260	300	350	400	500	600	700
L2	200	230	290	310	350	400	480	600	730	850
H	95	100	115	135	145	160	180	270	320	350
Working Pressure:PN10										
Dia.of flange	150	165	185	200	220	250	285	340	395	445
Nos.of hole	4	4	4	8	8	8	8	8	12	12
Dia.of hole	18	18	18	18	18	18	22	22	22	22
P.C.D	110	125	145	160	180	210	240	295	350	400
Working Pressure:PN16										
Dia.of flange	150	165	185	200	220	250	285	340	405	460
Nos.of hole	4	4	4	8	8	8	8	12	12	12
Dia.of hole	18	18	18	18	18	18	22	22	26	26
P.C.D	110	125	145	160	180	210	240	295	355	410

Y TYPE STRAINER SCREWED ENDS

适用介质：水、蒸气、油品

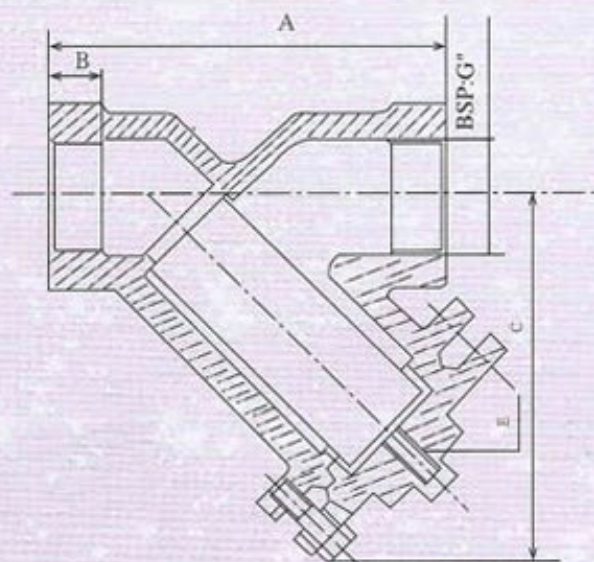
适用温度：≤ 200℃

联接螺纹：BSP

Available Medium: Water, Steam Petroleum Products

Working Temperature: ≤ 200℃

SCREWED: BSP



主要零件材料 MATERIALS

零件名称 PARTS NAME	材料 MATERIAL
阀体、阀盖 BODY COVER	灰铸铁 GRAY CAST IRON
过滤网 SCREEN	不锈钢 STAINLESS STEEL
排放螺塞 BLOWOFF PLUG	球墨铸铁 DUCTILE IRON
垫片 GASKET	石墨 GRAPHITE
螺栓 / 螺母 BOLT/NUT	碳钢 CARBON STEEL

主要外形尺寸 DIMENSIONS

WT(kg)	1.1	1.49	2	3.02	3.93	6.6	9.93	12.7
BSP:G"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
E	M12						M16	
C	72	80	90	105	115	170	205	210
B	12	16	18	18	18	20	25	28
A	90	100	120	140	170	200	260	280
DN	15	20	25	32	40	50	65	80

Y TYPE STRAINER ITALY DESIGN

适用介质: 水、蒸汽、油品

适用温度: $\leq 200^{\circ}\text{C}$

结构尺寸: DIN2533

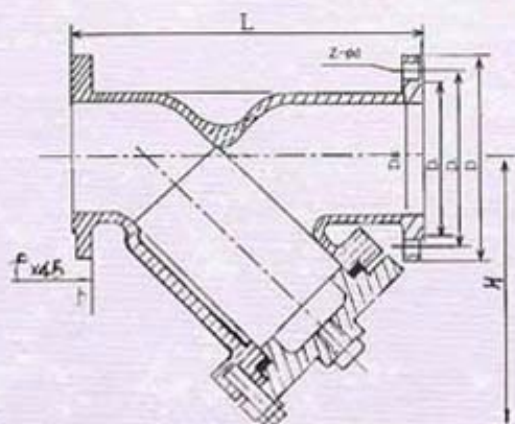
结构长度: DIN3202F1

Available Medium: Water, Steam, Petroleum

Working Temperature: $\leq 200^{\circ}\text{C}$

Flange: DIN2533

Face to face: DIN3202 F1



主要零件材料 MATERIALS

零件名称 PARTS NAME	材料 MATERIAL
阀体、阀盖 BODY BONNET	灰铸铁 GRAY CAST IRON
过滤网 SCREEN	不锈钢 STAINLESS STEEL
排放螺塞 BLOWOFF PLUG	球墨铸铁 DUCTILE IRON
垫片 GASKET	石墨 GRAPHITE
螺栓螺母 BOLT/NUT	碳钢 CARBON STEEL

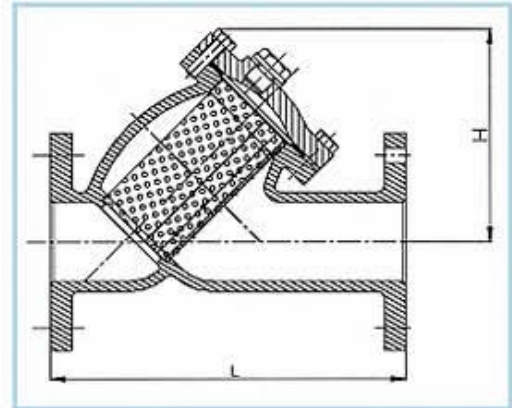
主要外形尺寸 DIMENSIONS

DN	L	D	D1	D2	b	Z-φd	H	f	kg
25	160	115	85	68	16	4-14	88	2	4.1
32	180	140	100	78	18	4-18	112	2	6.2
40	200	150	110	88	18	4-18	128	3	7.46
50	230	165	125	102	18	4-18	168	3	10.78
65	290	185	145	122	18	4-18	178	3	15.3
80	310	200	160	138	20	8-18	215	3	20.2
100	350	220	180	158	20	8-18	249	3	26.8
125	400	250	210	188	22	8-18	268	3	37.1
150	480	285	240	212	22	8-23	292	3	56.1
200	600	340	295	268	24	12-23	316	3	90.6
250	730	405	355	320	30	12-27	428	3	143.7
300	850	460	410	370	30	12-27	492	4	184.6

CAST IRON / DUCTILE IRON Y-STRAINER CLASS125 / CLASS150 TO ANSI



HB-11(A)



HB-11(A)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Screen	Stainless steel

Design

Face to face is according to ANSI CLASS125/150
Flange drilled is according to ANSI B16.1/ANSI B16.5

Test

Working pressure	125PSI	150PSI
Shell pressure	300PSI	
Seat pressure	200PSI	

Dimension

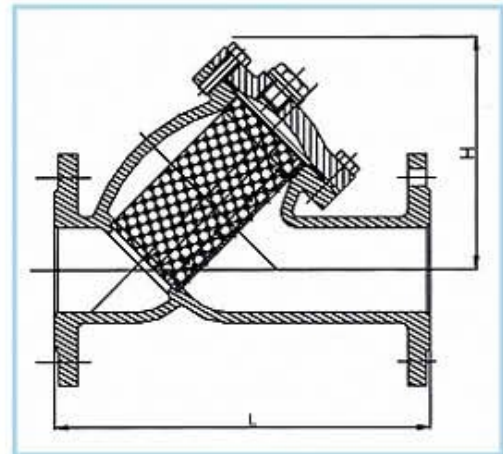
Unit:mm

Size(Inch)	2 "	2.1/2"	3 "	4 "	5 "	6 "	8 "	10 "	12"
L	251	289	317.5	378	420	517.5	609.5	749	857
H	160	185	200	225	280	360	440	525	585
Working pressure:Class 125LBS									
Dia.of flange	152	178	191	229	254	279	343	406	483
Nos.of hole	4	4	4	8	8	8	8	12	12
Dia.of hole	19	19	19	19	22	22	22	25	25
P.C.D	1205	1395	1525	1905	216	2415	2985	362	432
Working pressure: Class 150LBS									
Dia.of flange	152	178	191	229	254	279	343	406	483
Nos.of hole	4	4	4	8	8	8	8	12	12
Dia.of hole	19	19	19	19	22	22	22	25	25
P.C.D	1205	1395	1525	1905	216	2415	2985	362	432

CAST IRON/DUCTILE IRON Y-STRAINER FLANGED END PN6/PN10/PN16 TO DIN STANDARD



HB-11(B)



HB-11(B)

Material

Body	Cast iron/Ductile iron
Bonnet	Cast iron/Ductile iron
Screen	Stainless steel

Design

Face to face is according to DIN3202 F1
Flange drilled is according to DIN2531, 2532, 2533

Test

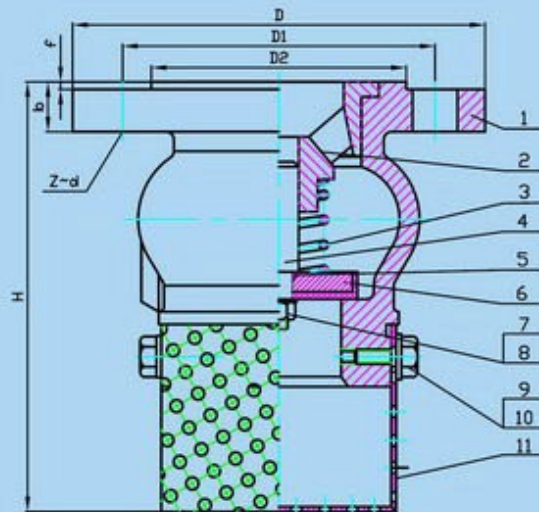
Working pressure	PN6/PN10/PN16
Shell pressure	PN9/PN15/PN24
Seat pressure	PN7.6/PN11/PN17.6

Dimension

Unit:mm

Size(DN)	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
L	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
H	90	100	110	125	140	160	185	200	225	280	360	440	525	585	670	750
Working Pressure:PN6																
Dia.of flange	80	90	100	120	130	140	160	190	210	240	265	320	375	440	490	540
Nos.of hole	4	4	4	4	4	4	4	4	4	8	8	8	12	12	12	16
Dia.of hole	11.5	11.5	11.5	14	14	14	14	18	18	18	18	18	18	22	22	22
P.C.D	55	65	75	90	100	110	130	150	170	200	225	280	335	395	445	495
Working Pressure:PN10																
Dia.of flange	95	105	115	140	150	165	185	200	220	250	285	340	395	445	505	565
Nos.of hole	4	4	4	4	4	4	4	4	8	8	8	8	12	12	16	16
Dia.of hole	14	14	14	18	18	18	18	18	18	18	22	22	22	22	22	26
P.C.D	65	75	85	100	110	125	145	160	180	210	240	295	350	400	460	515
Working Pressure:PN16																
Dia.of flange	95	105	115	140	150	165	185	200	220	250	285	340	405	460	520	580
Nos.of hole	4	4	4	4	4	4	4	8	8	8	8	12	12	12	16	16
Dia.of hole	14	14	14	18	18	18	18	18	18	18	22	22	26	26	26	30
P.C.D	65	75	85	100	110	125	145	160	180	210	240	295	355	410	470	525

CAST IRON/DUCTILE IRON FOOT VALVE FLANGED END



Material List

No	PART NAME	MATERIAL	STANDARD
1	BODY	CAST IRON	GG25
2	BONNET	CAST IRON	GG25
3	SPRING	65Mn	
4	GUIDING STEM	STAINLESS STEEL	2CR13
5	O-RING	NBR	
6	DISC	DUCTILE IRON/NBR	GG25
7	NUT	CARBON STEEL	A3
8	WASHER	CARBON STEEL	A3
9	NUT	CARBON STEEL	A3
10	WASHER	CARBON STEEL	A3
11	SLEVE	STAINLESS STEEL	SS304

Dimension For PN16

DN	D	D1	D2	H	b	f	Z-d
Φ40	Φ150	Φ110	Φ84	148	18	3	4-Φ19
Φ50	Φ165	Φ125	Φ99	166	20	3	4-Φ19
Φ65	Φ185	Φ145	Φ118	201	20	3	4-Φ19
Φ80	Φ200	Φ160	Φ132	221	22	3	8-Φ19
Φ100	Φ220	Φ180	Φ156	265	24	3	8-Φ19
Φ125	Φ250	Φ210	Φ184	300	26	3	8-Φ19
Φ150	Φ285	Φ240	Φ211	360	26	3	8-Φ23
Φ200	Φ340	Φ295	Φ266	470	30	3	12-Φ23
Φ250	Φ405	Φ355	Φ319	568	32	3	12-Φ28
Φ300	Φ460	Φ410	Φ370	653	32	4	12-Φ28

Dimension For 150LBS

DN	D	D1	D2	H	b	Z-d
Φ40	Φ127	Φ98.5	Φ73	148	15	4-Φ19
Φ50	Φ152	Φ120.5	Φ92	166	16	4-Φ19
Φ65	Φ178	Φ139.5	Φ105	201	18	4-Φ19
Φ80	Φ191	Φ152.5	Φ127	221	19	8-Φ19
Φ100	Φ229	Φ190.5	Φ157	265	24	8-Φ19
Φ125	Φ254	Φ216	Φ186	300	24	8-Φ22
Φ150	Φ279	Φ241.5	Φ216	360	26	8-Φ22
Φ200	Φ343	Φ298.5	Φ270	470	29	8-Φ22
Φ250	Φ406	Φ362	Φ324	568	31	12-Φ25
Φ300	Φ483	Φ432	Φ381	653	32	12-Φ25

1-PC BALL VALVE

1PC球阀

B101 ▶▶



DIMENSION TABLE

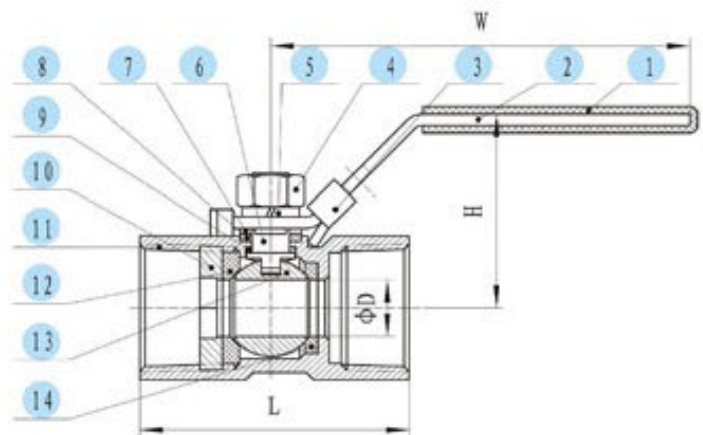
ITEM	SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
D		5	7	9.2	12.5	15	20	25	32	38	50
H		33	35	40	44	51	57	64	70	70	77
W		68.5	90	98	98	111	111	139	139	189	189
L		39	44	57	59	71	78	83	100	128	153

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	PLASTIC COVER	PLASTIC
2	HANDLE	SUS304
3	LOCKING	SUS304
4	STEM NUT	SUS304
5	SPRING WASHER	SUS304
6	STEM	SUS304
7	PACKRING	SUS304
8	STEM PACKING	PTFE
9	THRUST WASHER	PTFE
10	CAP	CF8/CF8M
11	BODY	CF8/CF8M
12	BALL SEAT(A)	RPTFE
13	BALL	CF8/CF8M
14	BALL SEAT(B)	RPTFE

FEATURES:

- 1000PSI/PN63
- Reduce Port
- Investment Casting
- Blow-out Proof Stem
- Locking Device Handle(Optional)
- PED97/23/EC(CE 0035)Approved
- Casting Approved AD2000-W0
- Thread:ASME B1.20.1 BS21.DIN2999/259, ISO228-1,JIS B 0203,ISO7/1
- Inspection Testing:API598,EN12266



1-PC WAFER FLANGED BALL VALVE(DIN)

1PC德标法兰球阀

B414D ▶▶



DIMENSION TABLE

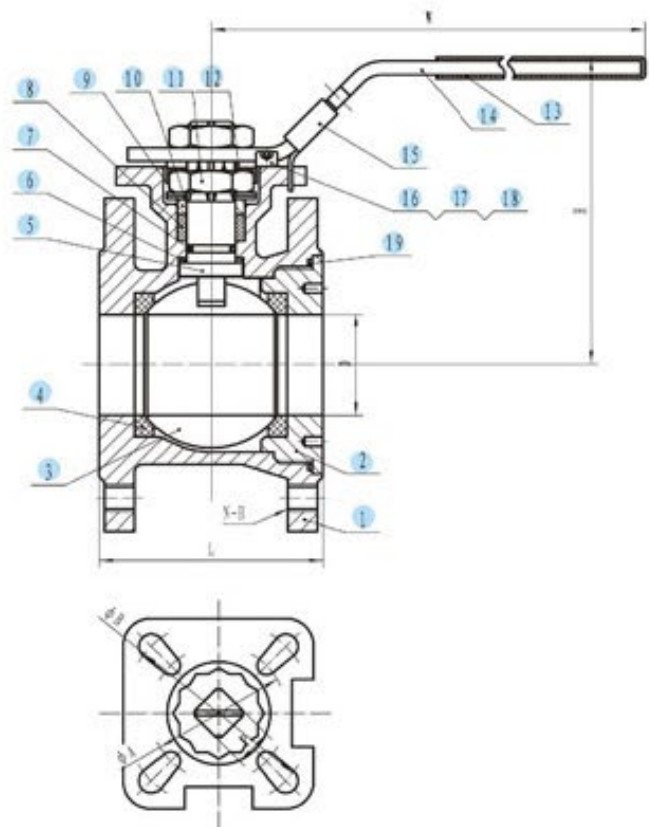
SIZE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
D	15	20	25	32	38	50	65	76	94
P	9	9	11	11	14	14	17	17	22
A	32	32	40	40	50	50	70	70	102
B	40	40	50	50	70	70	102	102	102
N	4	4	4	4	4	4	4	8	8
H	M12	M12	M12	M16	M16	M16	M16	M16	M16
W	140	140	152	152	188	188	230	230	230
H	78	84	93	105	112	120	145	155	189
L	42	44	50	60	65	80	113	120	154

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	CAP	CF8/CF8M
3	BALL	CF8/CF8M
4	SEAL	RPTFE
5	STEM	SUS304
6	STEM PACKING	PTFE
7	O-RING	NBR
8	STEM SEAT	PTFE
9	GLAND	SUS304
10	SPRING WASHER	SUS301
11	NUT	SUS304
12	WASHER	SUS304
13	PLASTIC COVER	PLASTIC
14	HANDLE	SUS304
15	LOCKING	SUS304
16	BOLT	SUS304
17	BOLT NUT	SUS304
18	BOLT WASHER	SUS304
19	BODY PACKING	PTFE

FEATURES:

- PN 16
- Full Port
- Investment Casting
- Blow-out Proof Stem
- ISO5211 Mounting Pad
- Locking Device Handle
- PED97/23/EC(CE 0035)Approved
- Casting Approved AD2000-W0
- Design:EN12516
- End Flange:DIN2542-DIN2545
- Inspection Testing:DIN3230, EN12266



1-PC BALL VALVE WITH MOUNTING PAD

1PC启动器球阀

B101M ▶▶



DIMENSION TABLE

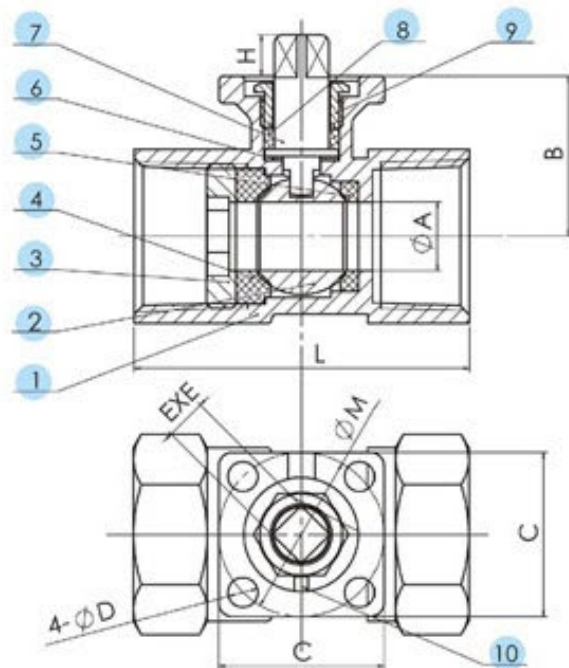
ITEM	SIZE	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A		7	9.2	12.5	15	20	25	32
B		24	26	32	35	38	42	50
C		36	36	36	36	36	50	50
H		9	9	9	9	9	11	11
D		6.5	6.5	6.5	6.5	6.5	7	7
M		36	36	36	36	36	50	50
E		9	9	9	9	9	11	11
L		45	50	60	73	78	89	100

FEATURES:

- 1000PSI/PN63
- Reduce Port
- Investment Casting
- ISO5211 Mounting Pad
- PED97/23/EC(CE 0035) Approved
- Casting Approved AD2000-W0
- Thread:ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203,ISO7/1
- Inspection Testing:API598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	BALL	CF8/CF8M
3	CAP	CF8/CF8M
4	BALL SEAT (A)	RPTFE
5	BALL SEAT (B)	RPTFE
6	THRUST WASHER	PTFE
7	STEM	SUS304
8	STEM PACKING	PTFE
9	GLAND	SUS304
10	BOLT	SUS304



2-PC BALL VALVE

2PC2000WOG球閥

B251 ▶▶



DIMENSION TABLE

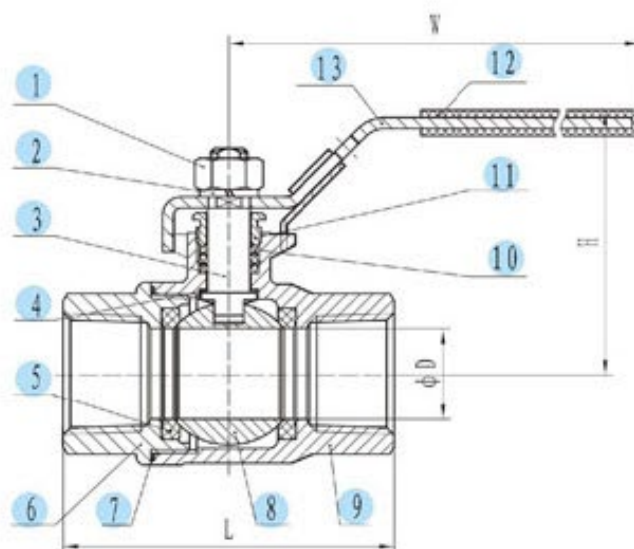
SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
D	15	20	25	32	38	50
W	126	144	190	190	233	232
H	62	75	83	89	100	110
L	65	75	90	105	120	140

FEATURES:

- 2000PSI
- Full Port
- Investment Casting
- Blow-out Proof Stem
- Locking Device Handle(Optional)
- PED97/23/EC(CE 0035)Approved
- Casting Approved AD2000-W0
- Thread:ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203,ISO7/1
- Inspection Testing:API598,EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	STEM NUT	SUS304
2	THRUST WASHER	SUS304
3	STEM	SUS304
4	STEM SEAL	PTFE
5	SEAT	RPTFE
6	CAP	CF8/CF8M
7	BODY SEAT	PTFE
8	BALL	CF8/CF8M
9	BODY	CF8/CF8M
10	STEM PACKING	PIFE
11	GLAND NUT	SUS304
12	PLASTIC COVER	PLASTIC
13	HANDLE	SUS304



2-PC BALL VALVE

2PC普通球阀

B221



(B221T)

DIMENSION TABLE

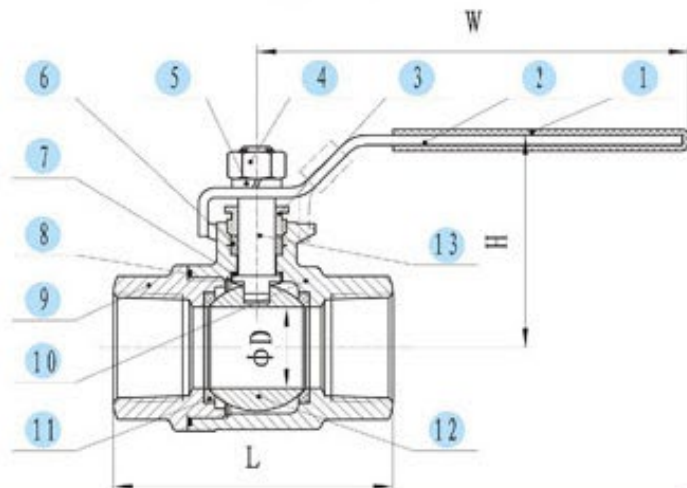
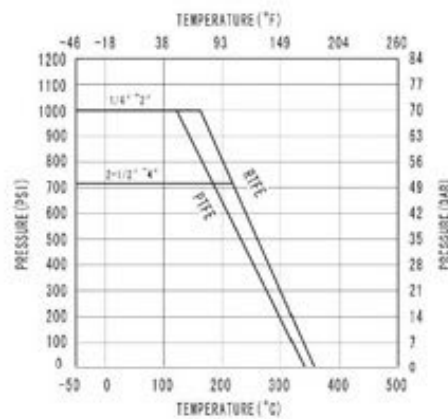
SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D	12.5	12.5	15	20	25	32	38	50	65	76	94
H	45	45	46	51	65	69	85	93	116	125	166
W	103	103	103	126	144	144	189	189	224	224	295
L	51	51	63	74	86	98	106	122	159	182	226

FEATURES:

- 1000PSI/PN63
- Full Port
- Investment Casting
- Blow-out Proof Stem
- Locking Device Handle(Optional)
- PED97/23/EC(CE 0035)Approved
- Casting Approved AD2000-W0
- Thread:ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203,ISO7/1
- Inspection Testing:API598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	PLASTIC COVER	PLASTIC
2	HANDLE	SUS304
3	GLAND NUT	SUS304
4	STEM NUT	SUS304
5	THRUST WASHER	SUS304
6	STEM PACKING	PTFE
7	STEM SEAL	PTFE
8	BODY SEAL	PTFE
9	CAP	CF8/CF8M
10	BODY	CF8/CF8M
11	SEAT	RPTFE
12	BALL	CF8/CF8M
13	STEM	SUS304



2-PC FLANGED BALL VALVE (ANSI)

2PC美标法兰球阀

B404A ▶▶



DIMENSION TABLE

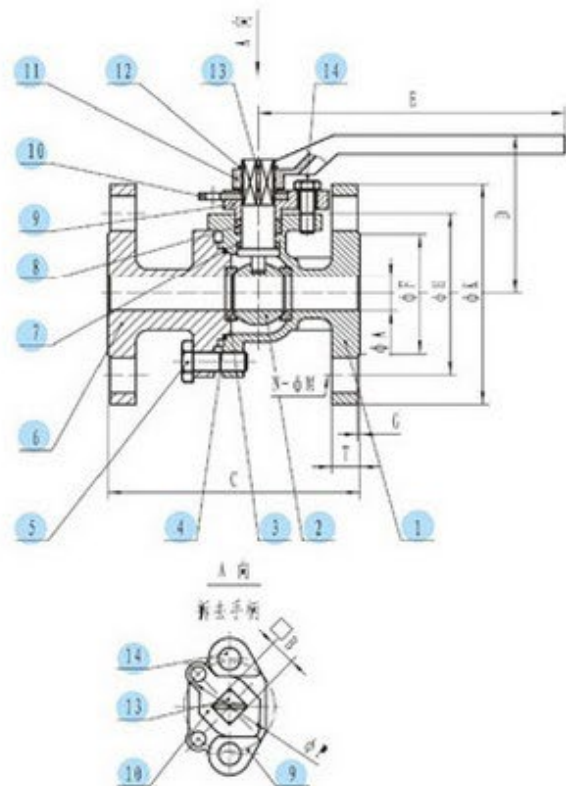
ITEM SIZE	A	B	D	E	F	F	H	K	T	G	N	M	C
1/2"	15	11	73	130	42	35	60.5	89	11	2	4	15	108
3/4"	20	11	76	130	42	43	70	98	11	2	4	15	117
1"	25	14	86	160	50	51	79.5	108	12	2	4	15	127
1 1/4"	32	14	91	160	50	64	89	117	13	2	4	15	140
1 1/2"	38	17	119	200	70	73	98.5	127	15	2	4	15	165
2"	50	17	127	200	70	92	120.5	152	16	2	4	19	178
2 1/2"	65	22	136	200	102	105	139.5	178	18	2	4	19	190
3"	76	22	164	325	102	127	152.5	190	19	2	4	19	203
4"	94	22	178	325	102	157	190.5	229	24	2	8	19	229

FEATURES:

- ANSI CLASS 150
- Full Port
- Investment Casting
- Blow-out Proof Stem
- ISO5211 Mounting Pad
- PED97/23/EC (CE 0035) Approved
- Casting Approved AD2000-W0
- Design: ASME B16.34
- End Flange: ASME B16.5
- Inspection Testing: API598

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	BALL	CF8/CF8M
3	BALL SEAT	RPTFE
4	BODY SEAL	PTFE
5	BOLT	SUS304
6	CAP	CF8/CF8M
7	STEM SEAL	PTFE
8	STEM PACKING	PTFE
9	GLAND	CF8
10	STOPPER	SUS304
11	HANDLE	CF8
12	SNAP RING	SUS304
13	STEM	SUS304
14	BOLT	SUS304



2-PC FLANGED BALL VALVE (DIN)

2PC德标法兰球阀

B404D ▶▶



DIMENSION TABLE

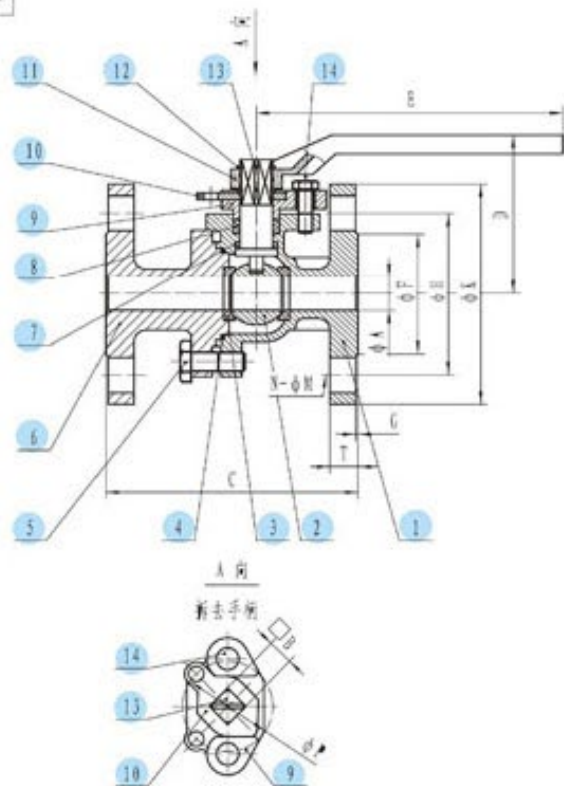
ITEM SIZE	A	B	D	E	C	PN10				PN16				PN25-PN40					
						F	H	K	T	G	M	N	P	B	K	T	G	M	N
1/2"	15	11	73	130	115	45	65	95	14	2	14	4	45	65	95	14	2	14	4
3/4"	20	11	76	130	120	58	75	105	16	2	14	4	58	75	105	16	2	14	4
1"	25	14	86	160	125	68	85	115	18	2	14	4	68	85	115	18	2	14	4
1 1/4"	32	14	91	160	130	78	100	140	18	2	18	4	78	100	140	18	2	18	4
1 1/2"	38	17	119	200	140	88	110	150	18	3	18	4	88	110	150	18	3	18	4
2"	50	17	127	200	150	102	125	165	18	3	18	4	102	125	165	20	3	18	4
2 1/2"	65	17	136	200	170	122	145	185	18	3	18	4	122	145	185	22	3	18	8
3"	76	22	164	325	180	138	160	200	20	3	18	8	138	160	200	24	3	18	8
4"	94	22	178	325	190	158	180	220	20	3	18	8	152	190	235	24	3	22	8

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	1.4308/1.4408
2	BALL	1.4308/1.4408
3	BALL SEAT	RPTFE
4	BODY SEAL	PTFE
5	BOLT	SUS304
6	CAP	1.4308/1.4408
7	STEM SEAL	PTFE
8	STEM PACKING	PTFE
9	GLAND	1.4308
10	STOPPER	SUS304
11	HANDLE	1.4308
12	SNAP RING	SUS304
13	STEM	SUS304
14	BOLT	SUS304

FEATURES:

- DIN PN10-40
- Full Port
- Investment Casting
- Blow-out Proof Stem
- ISO5211 Mounting Pad
- PED97/23/EC(CE0035) Approved
- Casting Approved AD2000-W0
- Design: DIN3357, EN12516
- End Flange: DIN2501, PN10-40
- Face to Face: DIN3202-F4
- Inspection Testing: DIN3230/3, EN12266



2-PC BALL VALVE WITH MOUNTING PAD

2PC启动器球阀

B201M▶▶



DIMENSION TABLE

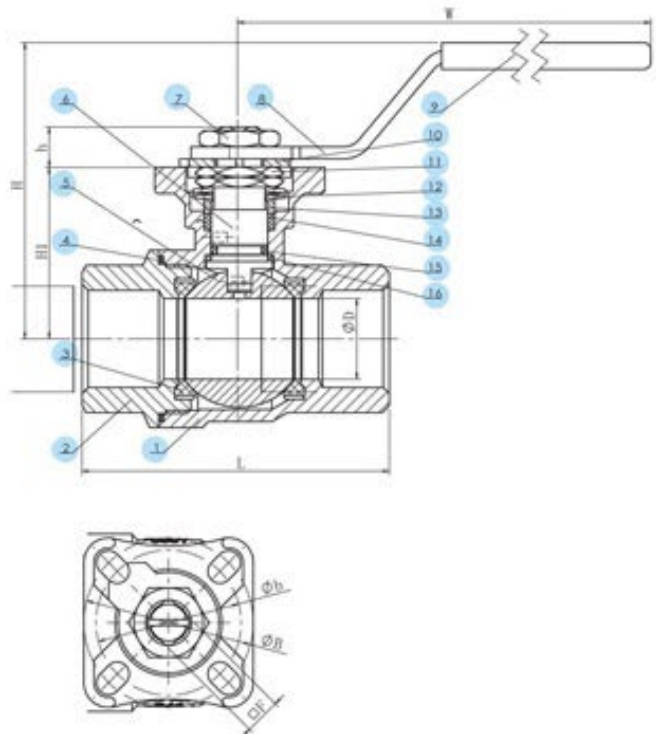
SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
φD	11	12.5	15	20	25	32	40	50
H	60.5	60.5	63	73.5	76	82.5	94	103
H1	36.5	36.5	37.8	42.5	45	51.5	59.5	68.5
h	7	7	7	10	10	10	12	12
W	100	100	100	137	137	137	205	205
φd	36	36	36	36	42	42	50	50
φB	42	42	42	42	50	50	70	70
F	9	9	9	9	9	9	11	11
L	50	50	55	76	83	100	103	136

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	CAP	CF8/CF8M
3	SEAT	RPTFE
4	BODY SEAL	PTFE
5	BALL	CF8/CF8M
6	STEM	SUS304
7	STEM NUT	SUS304
8	HANDLE	SUS304
9	PLASTIC COVER	PLASTIC
10	WASHER	SUS304
11	STEM NUT	SUS304
12	SPRING WASHER	SUS301
13	GLAND RING	SUS304
14	STEM PACKING	PTFE
15	O-RING	NBR
16	THRUST WASHER	PTFE

FEATURES:

- 1000PSI/PN63
- Full Port
- Investment Casting
- ISO5211 Mounting Pad
- Blow-out Proof Stem
- Locking Device Handle
- Fire Safe:API607
- Anti-Static Devices
- PED97/23/EC (CE0035) Approved
- Casting Approved AD2000-W0
- Thread:ASME B1.20.1 BS21.DIN2999/259, ISO228-1 ,JIS B0203,ISO7/1
- Inspection Testing:API598, EN12266



3-PC BUTT WELD BALL VALVE

3PC对焊球阀

B302



(B312)

DIMENSION TABLE

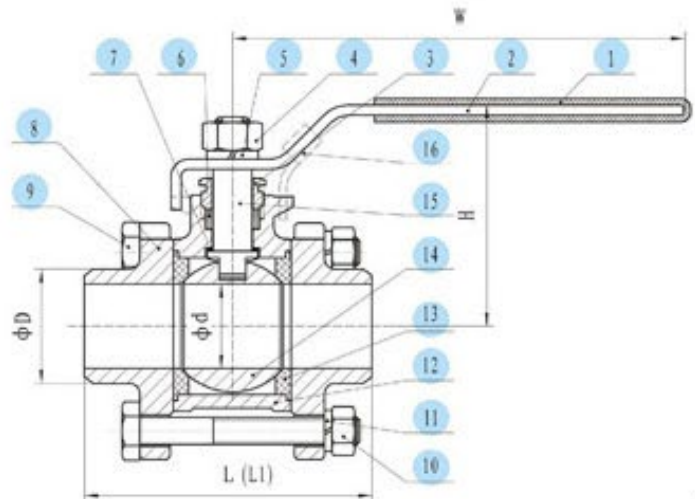
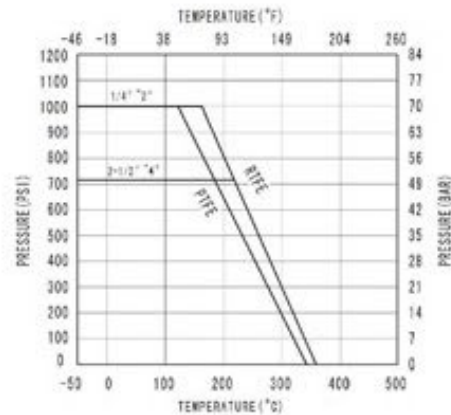
SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
d	12.5	12.5	15	20	25	32	38	50	65	76	94
D	15.2	17.2	21.3	26.9	34.5	43.5	50	61.5	77	90	115
H	48	48	50	52	65	70	85	93	116	125	180
W	105	105	105	126	144	144	189	189	224	224	251
L	72	72	72	80	85	105	113	134	170	186	220
L1	225	225	225	225	245	256	260	275	334	345	365

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	HANDLE SLEEVE	PLASTIC
2	HANDLE	SUS304
3	GLAND NUT	SUS304
4	STEM NUT	SUS304
5	SPRING WASHER	SUS304
6	PACKING	PTFE
7	STEM SEAL	PTFE
8	CAP	CF8/CF8M
9	BOLT	SUS304
10	NUT	SUS304
11	THRUST WASHER	SUS304
12	BODY	CF8/CF8M
13	BALL SEAT	RPTFE
14	BALL	CF8/CF8M
15	STEM	SUS304
16	LOCKING	SUS304

FEATURES:

- 1000PSI/PN63
- Full Port
- Investment Casting
- Blow-out Proof Stem
- Locking Device Handle (Option)
- PED97/23/EC (CE 0035) Approved
- Casting Approved AD2000-W0
- Butt Weld: ASME B16.25 (Sch40)
- Inspection Testing: API598, EN12266



3-PC FLANGED BALL VALVE (DIN)

3PC法兰球阀

B304D ▶▶



DIMENSION TABLE

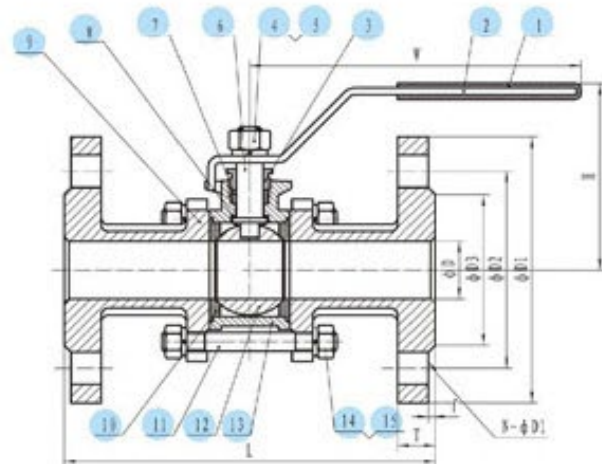
SIZE ITEM	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D	15	20	25	32	38	50	65	76	94
D1	95	105	115	140	150	165	185	200	235
D2	65	75	85	100	110	125	145	160	190
D3	45	58	68	78	88	102	122	138	162
f	2	2	2	2	3	3	3	3	3
T	16	18	18	18	18	20	22	24	24
N-φd	4-φ14	4-φ14	4-φ14	4-φ18	4-φ18	4-φ18	8-φ18	8-φ18	8-φ22
L	130	150	160	180	200	230	290	310	350
W	72	78	90	95	107	122	155	164	170
H	135	135	152	152	188	188	233	233	233

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	COVER	PLASTIC
2	HANDLE	SUS304
3	GLAND	SUS304
4	STEM NUT	SUS304
5	THRUST WASHER	SUS304
6	STEM	SUS304
7	STEM PACKING	PTFE
8	STEM WASHER	PTFE
9	CAP	CF8/CF8M
10	SEAT	RPTFE
11	BOLT	SUS304
12	BALL	CF8/CF8M
13	BODY	CF8/CF8M
14	NUT	SUS304
15	THRUST WASHER	SUS304

FEATURES:

- PN25~40
- Full Port
- Investment Casting
- Blow-out Proof Stem
- PED97/23/EC(CE 0035) Approved
- Casting Approved AD2000-W0
- Design: DIN3357, EN12516
- End Flange: DIN2501, PN10-40
- Face to Face: DIN3202-F1
- Inspection Testing: DIN3230/3, EN12266



3-PC SOCKET WELD BALL VALVE

3PC插焊球阀

B303



DIMENSION TABLE

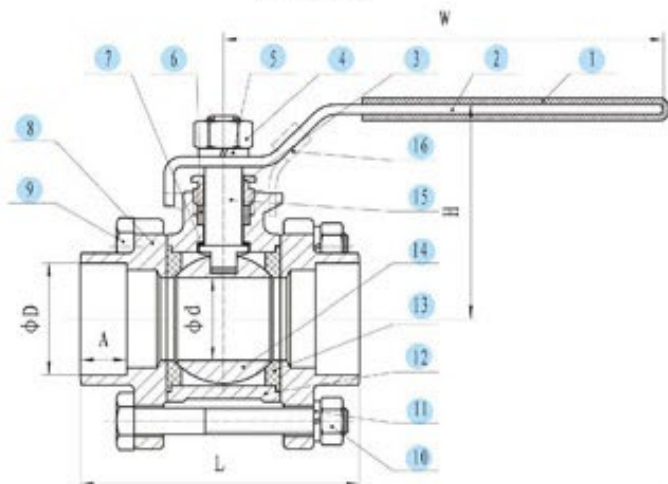
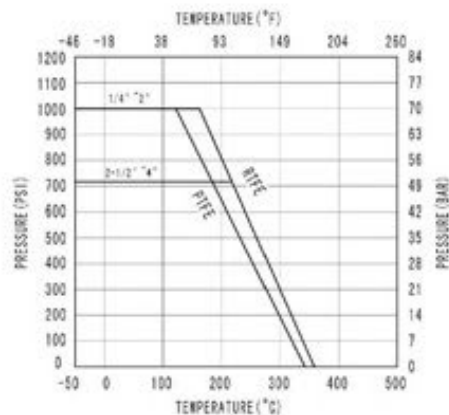
ITEM \ SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
d	12.5	12.5	15	20	25	32	38	50	65	76	94
D	14.1	17.6	21.7	27.1	33.9	42.6	48.7	61.1	77	89.8	115.5
A	10	10	10	13	13	13	13	16	16	16	19
H	48	48	50	52	65	70	85	93	116	125	180
W	105	105	105	126	144	144	189	189	224	224	251
L	72	72	72	80	85	105	113	132	170	186	220

FEATURES:

- 1000PSI/PN63
- Full Port
- Investment Casting
- Blow-out Proof Stem
- Locking Device Handle(Optional)
- PED97/23/EC(CE 0035) Approved
- Casting Approved AD2000-W0
- Socket Weld: ASME B16.11
- Inspection Testing: API598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	PLASTIC COVER	PLASTIC
2	HANDLE	SUS304
3	GLAND NUT	SUS304
4	STEM NUT	SUS304
5	THRUST WASHER	SUS304
6	STEM PACKING	PTFE
7	STEM SEAL	PTFE
8	CAP	CF8/CF8M
9	BOLT	SUS304
10	NUT	SUS304
11	THRUST WASHER	SUS304
12	BODY	CF8/CF8M
13	SEAT	RPTFE
14	BALL	CF8/CF8M
15	STEM	SUS304
16	LOCKING	SUS304



3-PC THREAD BALL VALVE

3PC普通球阀

B301 ▶▶



DIMENSION TABLE

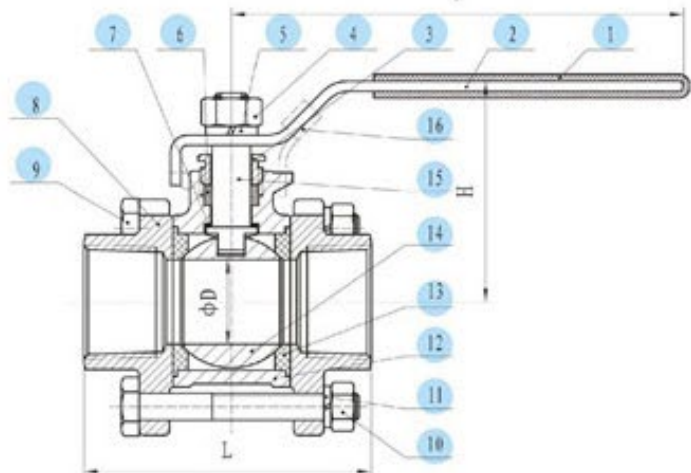
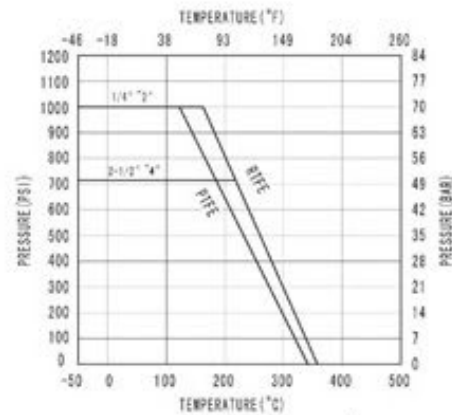
SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D	12.5	12.5	15	20	25	32	38	50	65	76	94
H	48	48	50	52	65	70	85	93	116	125	180
W	105	105	105	126	144	144	189	189	224	224	251
L	72	72	72	80	85	105	113	132	170	186	220

FEATURES:

- 1000PSI/PN63
- Full Port
- Investment Casting
- Blow-out Proof Stem
- Locking Device Handle(Optional)
- PED97/23/EC(CE 0035) Approved
- Casting Approved AD2000-W0
- Thread:ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203,ISO7/1
- Inspection Testing:API598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	PLASTIC COVER	PLASTIC
2	HANDLE	SUS304
3	GLAND NUT	SUS304
4	STEM NUT	SUS304
5	THRUST WASHER	SUS304
6	STEM PACKING	PTFE
7	THRUST WASHER	PTFE
8	CAP	CF8/CF8M
9	BOLT	SUS304
10	NUT	SUS304
11	THRUST WASHER	SUS304
12	BODY	CF8/CF8M
13	SEAT	RPTFE
14	BALL	CF8/CF8M
15	STEM	SUS304
16	LOCKING	SUS304



3-PC BALL VALVE WITH MOUNTING PAD

3PC启动器球阀

B301M ▶▶



DIMENSION TABLE

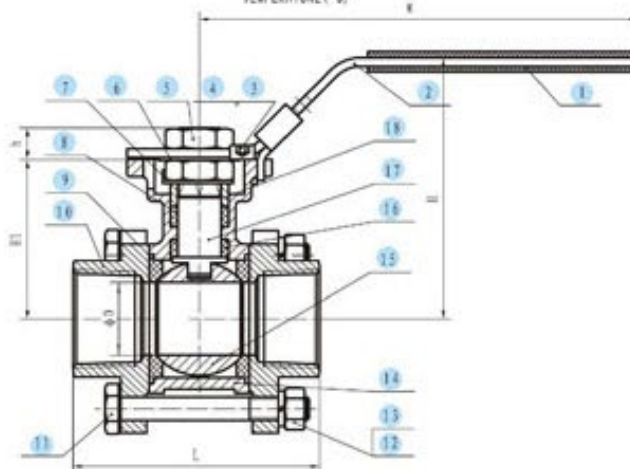
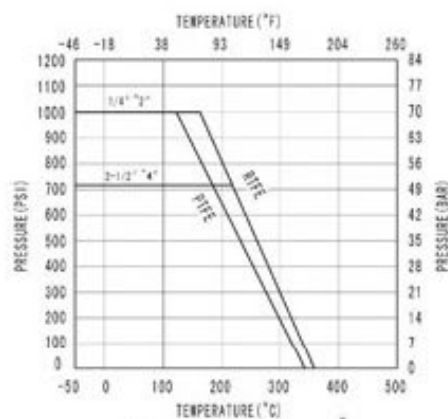
SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D	11	12.5	15	20	25	32	38	50	65	76	94
H	69	69	72	78	90	95	105	122	155	164	168
W	140	140	140	140	162	162	188	188	233	233	333
H1	38.4	38.4	42	48	55	60	70	85	109	118	115.5
h	9	9	9	9	11	11	15	15	20	20	20
∅	9	9	9	9	11	11	14	14	17	17	17
ISO5211	F03	F03	F03	F03	F04	F04	F05	F05	F07	F07	F07
	F04	F04	F04	F04	F05	F05	F07	F07	F10	F10	F10
L	64	64	72	80	85	105	113	132	170	186	226

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	PLASTIC COVER	PLASTIC
2	HANDLE	SUS304
3	BOLT	SUS304
4	NUT	SUS304
5	STEM NUT	SUS304
6	PACKING RING	SUS304
7	THRUST WASHER	SUS304
8	STEM PACKING	PTFE
9	BODY SEAL	PTFE
10	CAP	CF8/CF8M
11	BOLT	SUS304
12	THRUST WASHER	SUS304
13	NUT	SUS304
14	BODY	CF8/CF8M
15	BALL	CF8/CF8M
16	STEM SEAL	PTFE
17	STEM	SUS304
18	GLAND RING	SUS304

FEATURES:

- 1000PSI/PN63
- Full Port
- Investment Casting
- Blow-out Proof Stem
- ISO5211 Mounting Pad
- Locking Device Handle
- PED97/23/EC(CE 0035) Approved
- Casting Approved AD2000-W0
- Thread: ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B 0203, ISO7/1
- Inspection Testing: API598, EN12266



GATE VALVE

闸阀

G901 ▶▶



DIMENSION TABLE

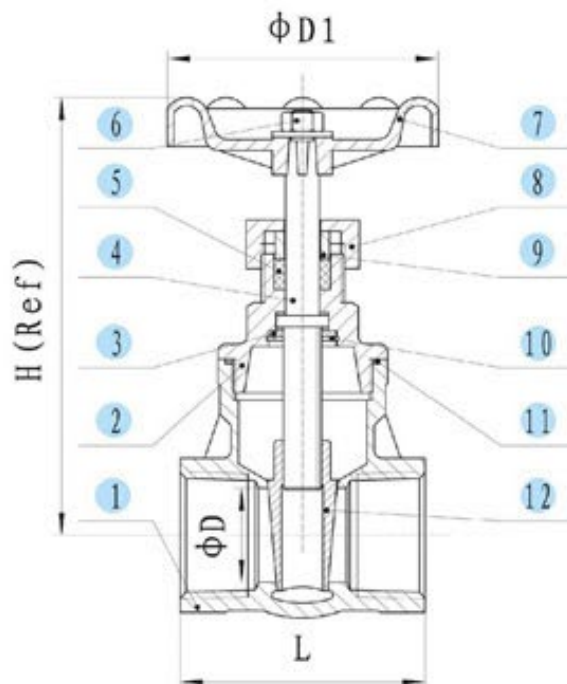
ITEM	SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
D		15	20	25	32	40	50
H		92	99	113	128	147	168
D1		70	70	80	80	100	100
L		55	60	66	76	86	96

FEATURES:

- 200PSI/PN16
- Investment Casting
- PED97/23/EC(CE0035) Approved
- Casting Approved AD2000-W0
- Thread: ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203, ISO7/1
- Inspection Testing: API598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	BONNET	CF8/CF8M
3	STOP RING	SUS304
4	STEM	SUS304
5	PACKING	PTFE
6	HANDWHEEL NUT	SUS304
7	HANDWHEEL	ALUMINUM ALLOY
8	PACKING NUT	SUS304
9	RING	SUS304
10	LOCK NUT	SUS304
11	GASKET	PTFE
12	DISC	CF8/CF8M



GLOBE VALVE (REDUCE)

截止閥- II 型

G811



DIMENSION TABLE

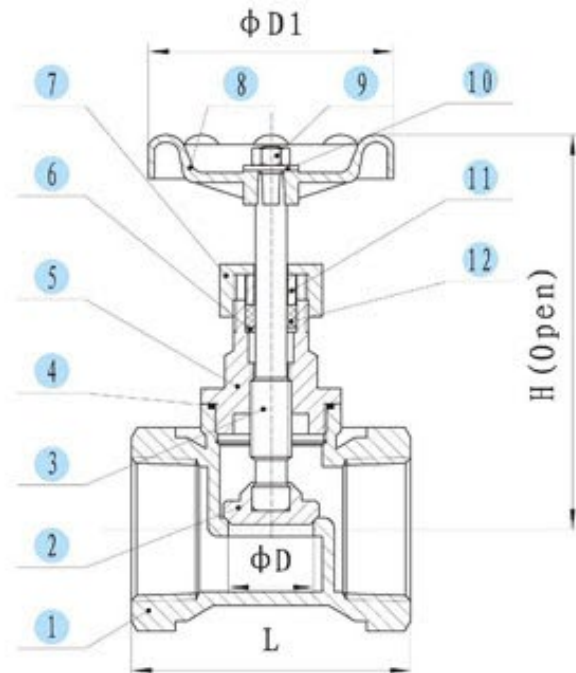
ITEM	SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
D		12	15	20	25	32	40
H		87	90	99	118	140	155
D1		70	70	80	80	100	100
L		52	60	71	82	90	101

FEATURES:

- 200PSI/PN16
- Investment Casting
- PED97/23/EC(CE 0035) Approved
- Casting Approved AD2000-W0
- Thread: ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203, ISO7/1
- Inspection Testing: API598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	PETAL	CF8/CF8M
3	STEM	SUS304
4	GASKET	PTFE
5	CAP	CF8/CF8M
6	WASHER	SUS304
7	BONNET	CF8M
8	HANDWHEEL	ALUMINUM ALLOY
9	NUT	SUS304
10	WASHER	SUS304
11	RING	SUS304
12	STEM PACKING	PTFE



SWING CHECK VALVE

旋启式止回阀

C401 ▶▶



DIMENSION TABLE

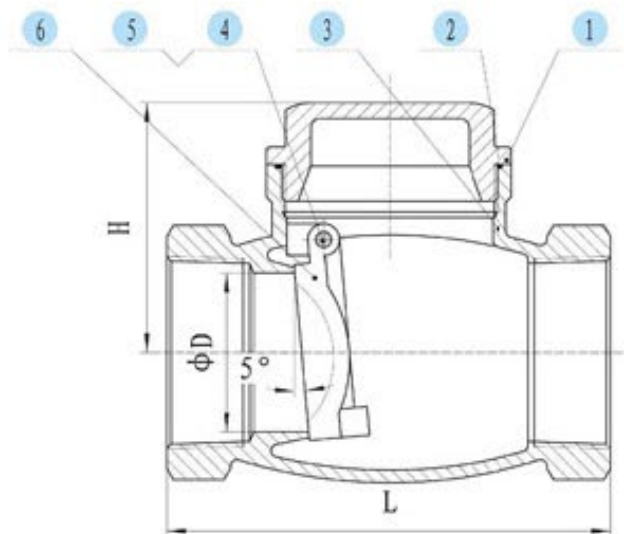
ITEM \ SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
D	15	20	25	32	38	50	62	75
H	43	53	60	60	75	79	90	100
L	65	80	90	105	120	140	156	188

FEATURES:

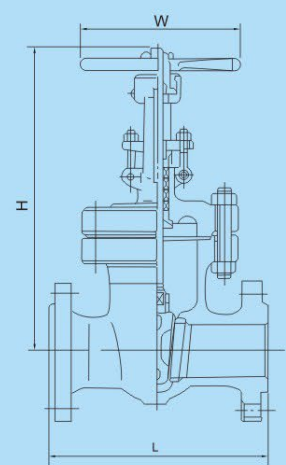
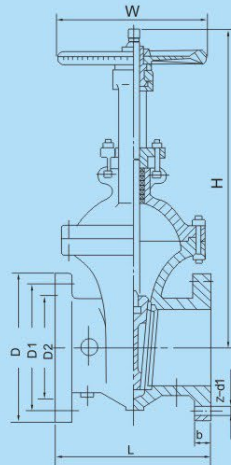
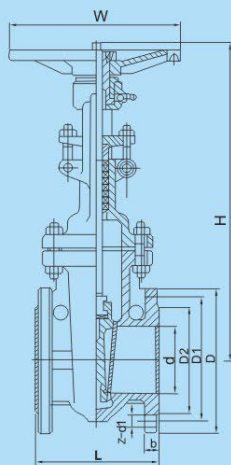
- 200PSI/PN16
- Investment Casting
- Precise Grinding
- PED97/23/EC(C€ 0035) Approved
- Casting Approved AD2000-W0
- Thread: ASME B1.20.1 BS21.DIN2999/259, ISO228-1, JIS B0203, ISO7/1
- Inspection Testing: AP1598, EN12266

MATERIAL LIST

ITEM	DESIGNATION	MATERIAL
1	BONNET	CF8/CF8M
2	GASKET	PTFE
3	BODY	CF8/CF8M
4	HANGER PIN	SUS304
5	PLUG GASKET	PTFE
6	DISC	CF8/CF8M



CLASS 150/300/600 CAST STEEL GATE VALVE



Dimension and Weight

Class 150										Weight(kg)
Size		Overall Dimension(mm)				Flange Dimension(mm)				
DN	NPS	L	D	D1	D2	b	z-d1	H \approx	W \approx	
15	1/2	108	89	60.5	35	12	4-15	188	90	
20	3/4	117	98	70	43	12	4-15	202	90	
25	1	127	108	79.5	51	12	4-15	225	100	8
32	1-1/4	140	117	89	64	13	4-15	252	100	11
40	1-1/2	165	127	98.5	73	15	4-15	277	140	16
50	2	178	152	120.5	92	16	4-19	323	200	23
65	2-1/2	190	178	139.5	105	18	4-19	347	250	28
80	3	203	190	152.5	127	19	4-19	383	250	31
100	4	229	229	190.5	157	24	8-19	457	300	45
125	5	254	254	216	186	24	8-22	632	300	66
150	6	267	279	241.5	216	26	8-22	635	350	76
200	8	292	343	298.5	270	29	8-22	672	350	148
250	10	330	406	362	324	31	12-25	895	400	196
300	12	356	483	432	381	32	12-25	1080	500	290
350	14	381	533	476	413	35	12-29	1295	600	395
400	16	406	597	540	470	37	16-29	1435	600	350
450	18	432	635	578	578	40	16-32	1626	650	
500	20	457	698	635	635	43	20-32	1829	650	
600	24	508	813	749.5	749.5	48	20-35	2175	700	
750	30	610	984	914.5	914.5	75	28-35	2692	700	

Materials list

Shell	ASTM A216-WCB								ASTM A351-CF8		
	WCB		CF8		CF8M		Monel		F304	F316	
Disc	WCB		CF8		CF8M		Monel		F304	F316	
Stem	F6a		304		316		Monel		304	316	
Disc facing	13Cr	13Cr	STL	304	STL	316	STL	Monel	304	STL	304
Seat	13Cr	STL	STL	304	STL	316	STL	Monel	304	STL	STL

BB, OS & Y Structure

Design and Manufacture: API 600, API6D

Face to Face: ANSI B 16.10

Flange standard: ANSI B16.5

Check and test: API 598

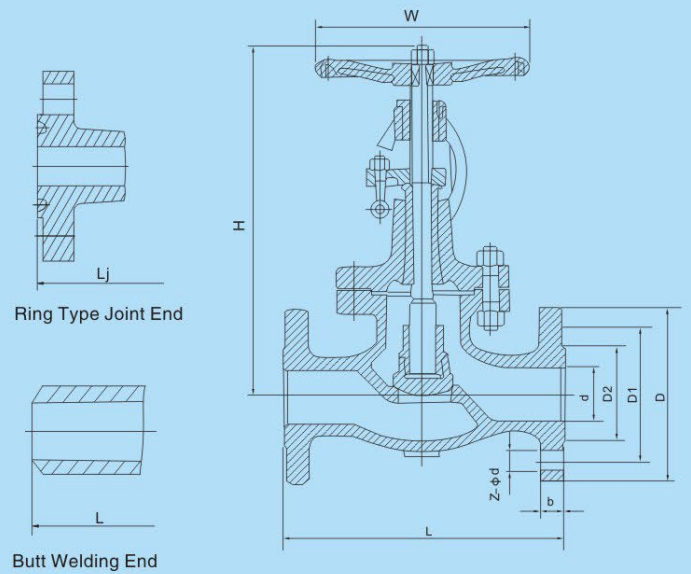
Dimension and weight

Class 300										Weight(kg)
Size		Dimension(mm)								
DN	NPS	L	D	D1	D2	b	z-d1	H≈	W≈	
15	1/2	140	95	66.5	35	15	4-15	155	100	3.7
20	3/4	152	117	82.5	43	16	4-19	160	100	4.3
25	1	165	124	89	51	18	4-19	186	125	7.0
32	1-1/4	178	133	98.5	64	19	4-19	216	160	9.0
40	1-1/2	190	156	114.5	73	21	4-22	250	160	13.1
50	2	216	165	127	92	22	8-19	330	250	30
65	2-1/2	241	190	149	105	25	8-22	368	250	36
80	3	283	210	168.5	127	29	8-22	394	300	54
100	4	305	254	200	157	32	8-22	473	300	77
125	5	381	279	235	186	35	8-22	660	350	106
150	6	403	318	270	216	37	12-22	711	350	153
200	8	419	381	330	270	41	12-25	813	400	220
250	10	457	444	387.5	324	48	16-29	1003	500	350
300	12	502	521	451	381	51	16-32	1137	600	520
350	14	762	584	514.5	413	54	20-32	1489	600	
400	16	838	648	571.5	470	57	24-35	1581	650	
450	18	914	711	682.5	533	60	24-35	2017	838	
500	20	991	775	686	584	64	24-35	2228	889	
600	24	1143	914	813	692	70	24-41	2650	1092	

Dimension and weight

Class 600										Weight(kg)
Size		Dimension(mm)								
DN	NPS	L	D	D1	D2	b	z-d1	H≈	W≈	
15	1/2	165	95	66.5	35	22	4-15	155	100	3.8
20	3/4	190	117	82.5	43	23	4-19	160	100	5.4
25	1	216	124	89	51	25	4-19	186	125	7.6
32	1-1/4	229	137	98.5	63	28	4-19	216	160	10
40	1-1/2	241	156	114.5	73	30	4-22	250	160	15
50	2	292	165	127	92	33	8-19	510	250	44
65	2-1/2	330	190	149	100	36	8-22	554	250	60
80	3	356	210	168.5	127	39	8-22	595	300	80
100	4	432	273	216	157	45	8-25	712	300	145
125	5	508	330	266.5	186	52	8-29	826	350	236
150	6	559	356	292	216	55	12-29	995	350	309
200	8	660	419	349	270	63	12-32	1157	400	522
250	10	787	508	432	324	71	16-35	1373	500	779
300	12	838	559	489	381	74	20-35	1603	600	1108
350	14	889	603	527	413	77	20-38	1930	600	1503
400	16	991	686	603	470	84	20-41	2032	650	1939
450	18	1092	743	654	533	90	20-44	2286	838	2733
500	20	1194	813	724	584	96	24-44	2591	889	3214
600	24	1397	940	838	692	109	24-52	3124	1092	4177

CLASS 150/300/600 CAST STEEL GLOBE VALVE



Materials List

Shell	ASTM A216-WCB								ASTM A351-CF8		
Cap	F6a		F304		F316		Monel	F304			
Seat	13Cr	13Cr	STL	304	STL	316	STL	Monel	304	304	STL
Disc facing	13Cr	STL	STL	304	STL	316	STL	Monel	304	STL	STL

Materials List

Shell	ASTM A351 -CF3			ASTM A216-WCB			ASTM A351 -CF3M		
Cap	F304L			F316L			F316L		
Seat	304L	304L	STL	316	316	STL	316L	316L	STL
Disc facing	304L	STL	STL	316	STL	STL	316L	STL	STL

Figure Number Examples: J41AA-CH Stands for globe valve With RF end Connections, Single and flexible disc. Class 150, ASTM A-216 WCB Shell ASTM A182-F6a Stem, 13Cr seat facing and disc facing. J41AB-P8Y-B stands for globe valve with RTJ end connections, straight-way type construction, ASTM A351-CF8 shell, ASTM A182-F304 stem, stellite(STL) seat facing and disc facing, bevel gear operation.



CLASS 150/300/600 CAST STEEL GLOBE VALVE

Feature

- BB OS & Y structure
- Flanged Or Butt-welding end
- Manufacture in accordance with BS 1873
- Face to Face/End to End. dimensions to ANSI B 16.10
- Flange dimensions to ANSI B 16.5
- Butt-welding end dimensions to ANSI B 16.1
- Valve tested to API 6D or API 598

Dimension List (mm)

Class	Size/DN	d	L	Lj	D	D1	D2	b	Z- φ d	W	open	Wt(kg)	
150	1/2	15	15	108	-	89	60.5	35	10	4-15	100	181	3.5
	3/4	20	20	117	-	98	70	43	11	4-15	100	191	3.9
	1	25	25	127	-	108	79.5	51	12	4-15	120	216	5.8
	1 1/2	40	40	165	-	127	98.5	73	15	4-15	133	354	10.8
	2	50	50	178	-	152	120.5	92	16	4-19	200	330	20
	2 1/2	65	65	190	-	178	139.5	105	18	4-19	250	359	32
	3	80	80	203	-	190	152.5	127	19	4-19	280	390	42
	4	100	100	229	-	229	190.5	157	24	8-19	298	444	64
	6	150	150	394	-	279	241.5	216	26	8-22	350	521	114
300	8	200	200	457	-	343	298.5	270	29	8-22	400	609	186
	1/2	15	15	140	164	95	66.5	35	15	4-15	100	162	3.7
	3/4	20	20	152	190.5	117	82.5	43	16	4-19	120	168	5.3
	1	25	25	165	216	124	89	51	18	4-19	125	194	7.3
	1 1/2	40	40	190	241	156	114.5	73	21	4-22	168	235	15.4
	2	50	50	216	283	165	127	92	23	8-19	200	387	26
	2 1/2	65	65	241	308	190	149	105	26	8-22	200	419	40
	3	80	80	283	333	210	168.5	127	29	8-22	280	438	50
	4	100	100	305	371	254	200	157	32	8-22	350	504	90
600	6	150	150	403	460	318	270	216	37	8-22	400	660	160
	8	200	200	502	575	381	330	270	42	12-25	450	902	290
	1/2	15	15	165	164	95	66.5	35	22	4-15	100	162	4.5
	3/4	20	20	190	190.5	118	82.5	43	23	4-19	140	168	7.3
	1	25	25	216	216	124	89	51	25	4-19	159	194	9.6
	1 1/2	40	40	241	241	156	114.5	73	30	4-22	190	235	19
	2	50	50	292	295	165	127	92	33	8-19	255	362	35
	2 1/2	65	65	330	333	190	149	100	36	8-22	267	394	50
	3	80	80	356	359	210	168	127	39	8-22	305	464	60
4	100	100	432	435	273	216	157	45	8-25	400	546	110	
6	150	150	559	562	356	292	216	55	12-29	495	883	230	

CLASS 150/300/600 CAST STEEL SWING CHECK VALVE



Feature

- Bolted Cover
- Flanged Or Butt-welding ends
- Manufacture in accordance with API 6D
- Face to Face/End to End dimensions to ANSI B 16.10
- Flange dimensions to ANSI B16.25
- Butt-welding end dimensions to ANSI B 16.25
- Valve tested to API 6D

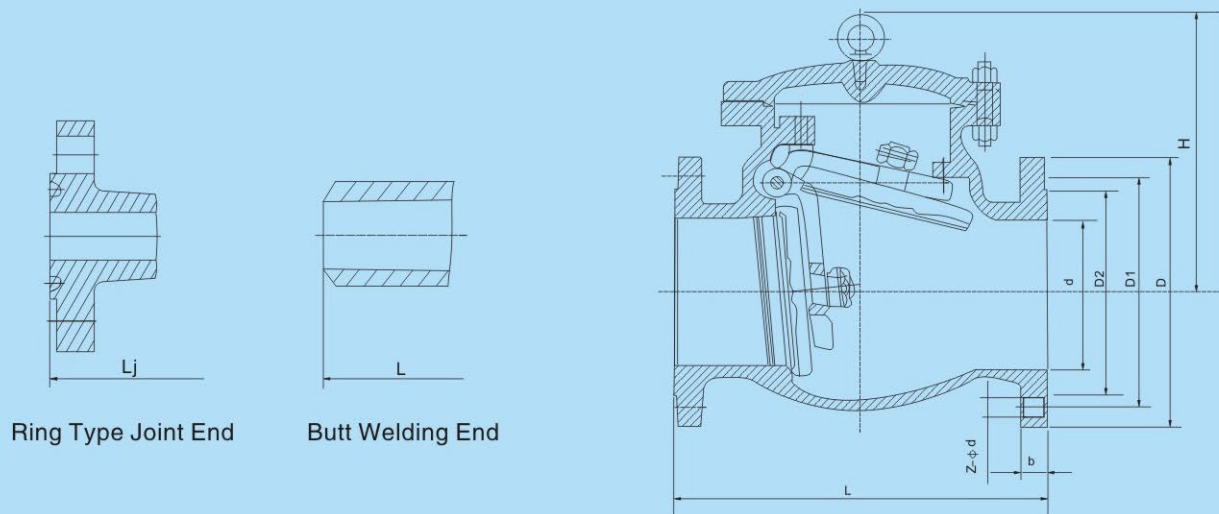
Materials List

Shell	ASTM A216-WCB								ASTM A351-CF8		
Disc & Arm	WCB		CF8		CF8M		Monel				
Arm Pin	F6a		F304		F316		Monel		F304		
Seat	13Cr	STL	STL	304	STL	316	STL	Monel	304	STL	STL
Disc facing	13Cr	13Cr	STL	304	STL	316	STL	Monel	304	304	STL

Materials List

Shell	ASTM A351-CF3				ASTM A351-CF8M			ASTM A351-CF3		
Disc & Arm										
Arm Pin	F304L				F316L			F316L		
Seat	304L	STL	STL	316	STL	STL	316L	STL	STL	STL
Disc facing	304L	304L	STL	316	316	STL	316L	316L	STL	STL

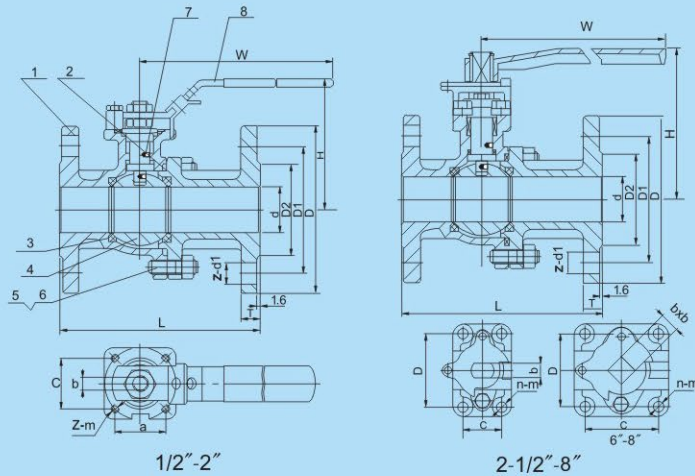
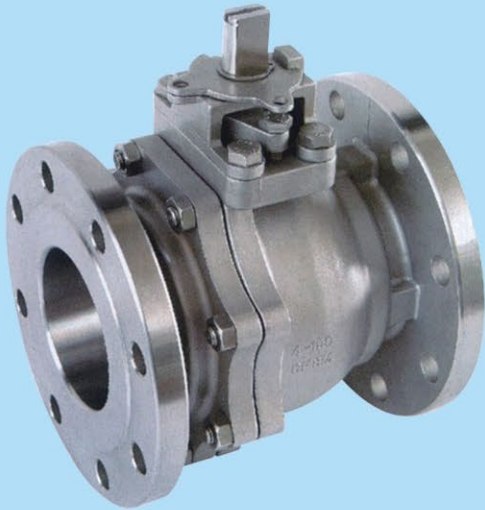
Figure Number Examples: H44AA-CH Stands for check valve with RF end connections, single and single disc. class 150, ASTM-A-216 WCB Shell disc & arm, ASTM A182-F6a arm pin, 13Cr disc facing and seat facing, H4J4AD-P8Y stands for check valve with RTJ end connections, swing and single disc, class 600, ASTM A351-CF8 shell, disc & arm, ASTM A182-F304 arm pin, stellite(STL) disc facing and seat facing.



Dimension List (mm)

Class	Size/DN	d	L	Lj	D	D1	D2	b	Z- ϕ d1	H open	Wt(kg)	
150	2	50	50	203	216	152	120.5	92	19	4-19	159	17
	2 1/2	65	65	216	229	178	139.5	105	22	4-19	168	25
	3	80	80	241	354	190	152.5	127	24	4-19	181	29
	4	100	100	292	305	229	190.5	157	24	8-19	203	50
	6	150	150	356	368	279	241.5	216	25	8-22	276	85
	8	200	200	495	508	343	298.5	270	29	8-22	330	150
	10	250	250	622	635	406	362	324	30	12-25	381	240
	12	300	300	698	711	483	432	381	32	12-25	410	350
	14	350	350	787	800	533	476	413	35	12-29	524	460
300	2	50	50	267	283	165	127	92	22	8-19	175	28
	2 1/2	65	65	292	308	190	149	105	25	8-22	181	33
	3	80	80	318	333	210	168.5	127	29	8-22	191	45
	4	100	100	356	371	254	200	157	32	8-22	241	70
	6	150	150	444	460	318	270	216	37	12-22	305	150
	8	200	200	533	549	381	330	270	41	12-25	362	230
	10	250	250	622	638	444	387.5	324	48	16-29	413	390
	12	300	300	711	727	521	451	381	51	16-32	451	520
	14	350	350	838	854	584	514.5	413	54	20-32	550	710
600	2	50	50	292	295	165	127	92	25	8-19	203	32
	2 1/2	65	65	330	333	190	149	100	29	8-22	219	42
	3	80	80	356	359	210	168	127	32	8-22	238	60
	4	100	100	432	438	273	216	157	38	8-25	280	110
	6	150	150	559	562	356	292	216	48	12-29	381	220
	8	200	200	660	664	419	349	270	56	12-32	438	390
	10	250	250	787	791	508	432	324	64	16-35	527	630
	12	300	300	838	841	559	489	381	67	20-35	641	870

CLASS 150/300 2PC BALL VALVE



Class150、Class300
 Size:1/2"-8" (DN15-DN200)
 Working Temperature:<180℃ (PPL<300℃)
 Suitable Medium:Water, Gas, Oil, Nitric acid, acetic acid etc.
 2PC; Full Bore; ISO5211 mounting pad
 Fire-safe and Anti-static device available
 Flange Standard:ANSI B16.5
 Face to Face:ANSI B16.10
 Fire-safe:API 607
 Check and Test:ANSI B 16.34 or API 598

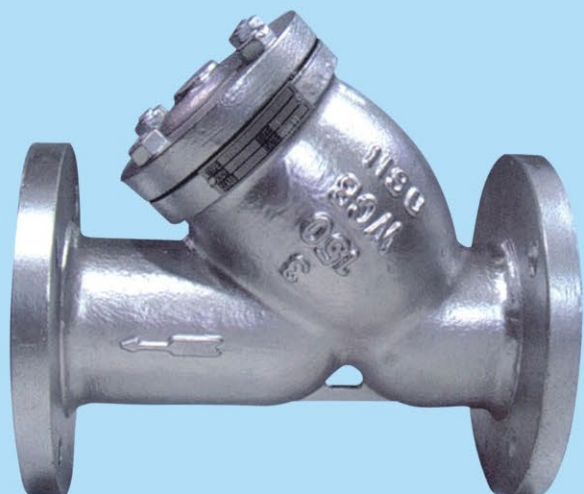
Material List

No	Part Name	Material		Q'TY
1	Body	WCB	CF8M	1
2	Cap	WCB	CF8M	1
3	Seat	RPTFE		2
4	Ball	SS316		1
5	Nut	ANSI A194 2H	ANSI A194 8	/
6	Bolt	ANSI A193 B7	ANSI A193 B8	/
7	Packing	PTFE/GRAPHITE		/
8	Handle	SS304		1

Dimension List (mm)

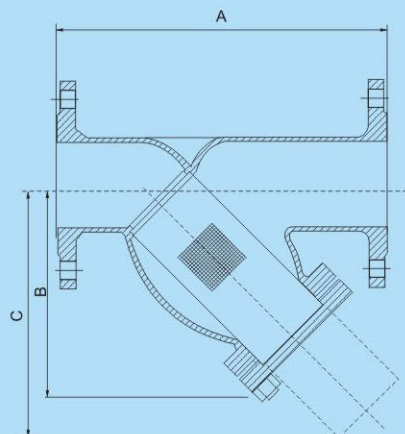
	NPS	d	L	H	W	D2	D1	D	T	z-d1	n-m	a	b	c
Class 150	1/2	16	108	66	165	35	60.5	88.9	11.2	4-16	4-M5	29.7	6.35	29.7
	3/4	20	117	74	165	43	70	98.5	12.7	4-16	4-M5	29.7	6.35	29.7
	1	25	127	87	200	51	79.5	108	14.3	4-16	4-M6	35.4	8	35.4
	1-1/4	32	140	92	200	64	89	117	15.7	4-16	4-M6	35.4	8	35.4
	1-1/2	38	165	105	250	73	98.5	127	17.6	4-16	4-M8	49.5	9.5	49.5
	2	50	178	115	300	92	120.5	152	19.1	4-19	4-M8	49.5	9.5	49.5
	2-1/2	65	190.5	158	390	105	139.5	178	22.3	4-19	4-M14	90	17	47.6
	3	76	203	166	390	127	152.5	190	23.9	4-19	4-M14	90	17	47.6
	4	102	229	183	390	157	190.5	229	23.9	8-19	4-M14	90	17	47.6
Class 300	6	152	394	285	550	216	241.5	279	26	8-22	4-M14	85.7	26	85.7
	8	203	457	294	700	270	298.5	343	29	8-22	4-M14	85.7	26	85.7
	1/2	16	104	66	165	35	66.5	95	15	4-16	4-M5	29.7	6.35	29.7
	3/4	20	152	74	165	43	82.5	117	16	4-19	4-M5	29.7	6.35	29.7
	1	25	165	87	200	51	89	124	18	4-19	4-M6	35.4	8	35.4
	1-1/4	32	178	92	200	64	98.5	133	19	4-19	4-M6	35.4	8	35.4
	1-1/2	38	190	105	250	73	114.5	156	21	4-22	4-M8	49.5	9.5	49.5
	2	50	216	115	300	92	127	165	23	8-19	4-M8	49.5	9.5	49.5
	2-1/2	65	241	158	390	105	149	190	26	8-22	4-M14	90	17	47.6
3	76	283	166	390	127	168.5	210	29	8-22	4-M14	90	17	47.6	
4	102	305	183	550	157	200	254	32	8-22	4-M14	90	17	47.6	
6	152	403	285	700	216	270	318	37	12-22	4-M16	115	41.2	115	
8	203	502	294	700	270	330	381	42	12-25	4-M16	115	51	115	

CLASS 150/300/600 Y TYPE STRAINER



Feature

- Design and Manufacture in accordance dimensions to MFG.
- Check and Test dimensions to AP1598.
- Face to Face/End.dimension to MFG.
- Flange dimension to ANSI B16.5.



Materials List

Pound grade		150LB	300LB	600LB
Pressure test	Shell test	3.0MPa	6.5MPa	15MPa
Suitable Temperature		-29-425° C		
Suitable Medium		Water, Oil, Gas		

Materials List

Part Name	Materials
Body	Carbon steel, Stainless steel, Brass
Strainer cover	Carbon steel, Stainless steel, Brass
Filter mesh	Stainless steel
Seal materials	Flexible graphite, PTFE

Dimension List (mm)

Inch	ANSI			B	C	cm ²
	150LB	300LB	600LB			
1/2"	A	A	A	70	110	27
3/4"	127	127	130	80	130	43
1"	145	150	150	90	150	73
1 1/4"	154	160	160	130	235	135
1 1/2"	180	180	160	147	260	164
2"	200	210	200	180	320	251
2 1/2"	230	240	230	200	325	327
3"	290	290	250	205	330	361
4"	310	310		255	405	545
5"	315	351		315	510	843
6"	410	401		345	560	1117
8"	473	478		440	710	1909
10"	593	600		503	760	2010

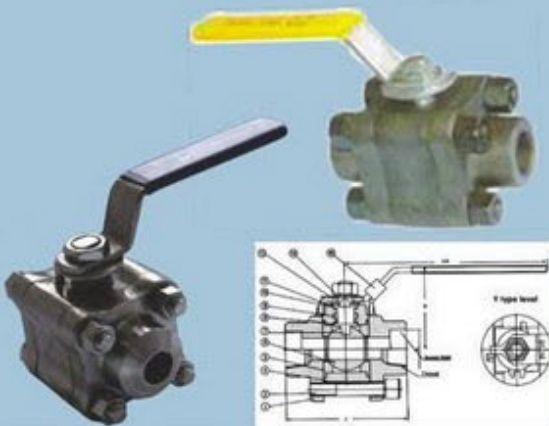
FORGED STEEL VALVES

MAIN PARTS MATERIAL LIST

Part name	Valve material								
	A105	A 350		A 182					
		LF2	F5	F11	F22	F304	F304L	F316	F316L
Body	A105	LF2	F5	F11	F22	F304	F304L	F316	F316L
Bonnet	A105	LF2	F5	F11	F22	F304	F304L	F316	F316L
Stem	A276-410			A276-304	A276-304L	A276-316	A276-316L		
Wedge or disc	A276-420			304 (+STL)	304L(+STL)	316(+STL)	316L(+STL)		
Sealing ring or seat	A276-410+STL			304 (+STL)	304L(+STL)	316(+STL)	316L(+STL)		
Bonnet bolt	A193 -B7	A320 -L7	A193-B16		A320-B8		A193-B8M		
Gasket	304+Flexible graphite spiral wound gasket				316+Flexible graphite spiral wound gasket				
Busing	A276-410			A276-304		A276-316			
Packing	Carbon fiber+Flexible graphite				Carbon fiber+Flexible graphite or PTFE				
Packing plate	A105 or WCB				304 or CF 8				
Ring bolt	A276-410				A276-304				
Nut	A194-2H			A276-304		A276-316			
Rivet	A276-410				A276-304				

Notes:

1. STL-stellite hare alloy
2. Accessory compose of sealing:gaet valve (wedge/sealing ring), globe valve,check valve(disk/seat)
3. It is available to follow other material required by the client.



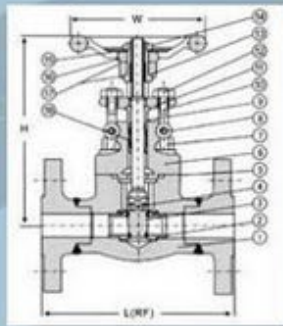
THREE-PIECE (FLANGE) BALL VALVE
800 – 1500 Lb

FORGED STEEL BALL VALVE

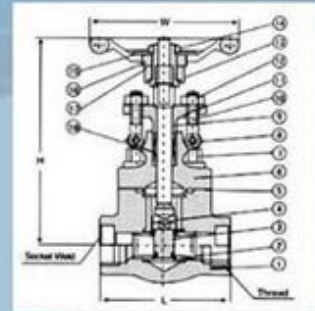
Applied norm:

1. Design and manufacture: BS5351
2. Ends connection
Dimension of Flange: ANSI B16.5
SW dimension: ANSI B16.11
Screwed dimension: ANSI B1.20.1
BW dimension: ANSI B16.25
3. Structural feature: bolt bonnet, three-piece type
4. Inspection and test: API 598
5. Body material: A105; 304 (L); 316(L)

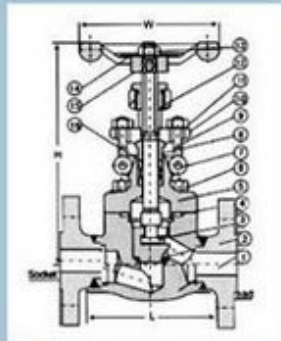
FORGED STEEL VALVES



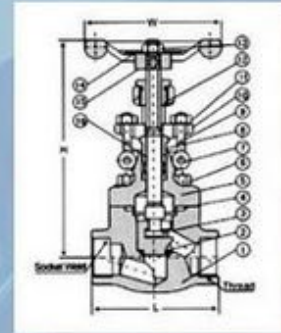
FLANGE GATE VALVE
150 – 600 Lb; 900 – 1500 Lb; 2500 Lb



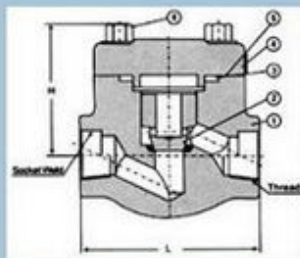
SOCKET WELDING, INNER SCREWED GATE VALVE
150 – 800 Lb; 900 – 1500 Lb



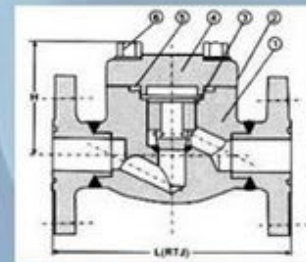
FLANGE GLOBE VALVE
150 – 600 Lb; 900 – 1500 Lb



SOCKET WELDING, INNER SCREWED GLOBE VALVE
150 – 800 Lb; 900 – 1500 Lb



SOCKET WELDING, INNER SCREWED CHECK VALVE
Lifting type or Swing type 150 – 800 Lb



FLANGE CHECK VALVE
Lifting type or Swing type
150 – 800 Lb

Applied norm

1. Design and manufacture: ASME/ANSI B16.34;
API 600; API 602
2. Ends connection:
Flange dimension: ASME/ANSI B16.5(RF)
SW dimension: ANSI B16.11
Screwed dimension: ANSI B1.20.1(NPT)
BW dimension: ANSI B16.25

3. Structural feature:

- Bolt bonnet (BB) and outside screwed and yoke (OS&Y)
 - Welded bonnet (WB) and outside screwed and yoke (OS&Y)
 - Pressure-in bonnet (PS) and outside screwed and yoke (OS&Y)
4. Body material: A105; F304, F304L, F316, F316L
 5. Inspection and test: API 598

**CENTERLINE
BUTTERFLY
VALVES**

