



CATALO PRODUCC



NICKEL PLATED BRASS BALL VALVES – Standard Port

ISO 9001 Manufacturer!

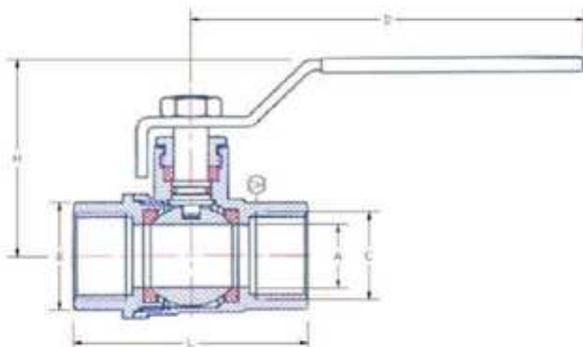


Features:

- ✦ Nickel Plated Brass Body – for extra strength & corrosive resistance
- ✦ Chrome Plated Brass Ball
- ✦ Suitable for full range of liquids and gas
- ✦ Fast 1/4 turn open or closed operation
- ✦ Flow can go both directions
- ✦ Each valve individually tested
- ✦ Blow-out proof stem
- ✦ NPT Threaded ends to ANSI B1.20.1
- ✦ Blue vinyl insulator on heavy duty plated steel handles

Dimension:

Part No.	Size	A	B	C	D	L	CH
VBBN3-025	1/4"	0.39	1.06	1/4"NPT	3.15	1.77	0.83
VBBN3-038	3/8"	0.39	1.06	3/8"NPT	3.15	1.77	0.83
VBBN3-050	1/2"	0.59	1.08	1/2"NPT	3.15	1.89	0.98
VBBN3-075	3/4"	0.75	1.34	3/4"NPT	3.62	2.09	1.18
VBBN3-100	1"	0.94	1.61	1"NPT	4.02	2.56	1.46
VBBN3-125	1 1/4"	1.14	2.28	1 1/4"NPT	5.12	3.15	1.85
VBBN3-150	1 1/2"	1.38	2.09	1 1/2"NPT	5.66	3.26	2.13
VBBN3-200	2"	1.93	3.15	2"NPT	5.71	3.94	2.64
VBBN3-250	2 1/2"	2.28	3.94	2 1/2"NPT	11.02	5.12	3.27
VBBN3-300	3"	2.76	4.72	3"NPT	8.82	5.59	3.66
VBBN3-400	4"	3.35	5.63	4"NPT	8.82	6.57	4.84



Material:

Body:	Nickle Plated Brass
Ball:	Chrome Plated Brass
Stem:	Brass
Seats:	Teflon
Gaskets:	Teflon
Handle:	Iron with rubber sleeves

Specification:

Pressure Rate:	400 WOG
Working Temp:	-20 – 200 degree F
Applicable	water ,oil and gas

- Information provided here may change without notification
- Other sizes and range are available on special order



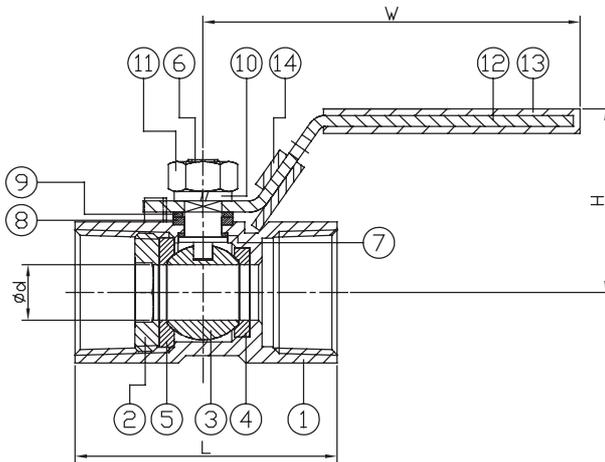
Industrial Valves
make it happen!

1-PC. SCREWED END BALL VALVE



FEATURES

- Reduced Port, 1/4"~2"
- W.P. : 1000 WOG (PN63)
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Locking device
- Thread type : ASTM B1.20.1 (NPT)
DIN2999 & BS21
ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
1	BODY	ASTM A351-CF8M	ASTM A351-CF8
2	RETAINER		
3	BALL	ASTM A351-CF8M	
4	SEAT A	PTFE / RTFE	
5	SEAT B		
6	STEM	AISI 316	AISI 304
7	THRUST WASHER	PTFE	
8	PACKING		
9	GLAND RING	AISI 304	
10	SPRING WASHER		
11	STEM NUT		
12	HANDLE	PVC	
13	HANDLE SLEEVE		
14	LOCKING DEVICE	AISI 304	

DN	d	L	W	H
8	5	39	71	33
10	7	44	91	35
15	9.2	55	95	40
20	12.5	59	95	44
25	15	69	113	50
32	20	77	113	57
40	25	81	141	64
50	32	97	141	68

unit:mm

NPS	d	L	W	H
1/4"	0.2	1.54	2.8	1.3
3/8"	0.28	1.73	3.58	1.38
1/2"	0.36	2.17	3.74	1.57
3/4"	0.49	2.32	3.74	1.73
1"	0.59	2.72	4.45	1.97
1-1/4"	0.79	3.03	4.45	2.24
1-1/2"	0.98	3.19	5.55	2.52
2"	1.26	3.82	5.55	2.68

unit:in





Industrial Valves
make it happen!

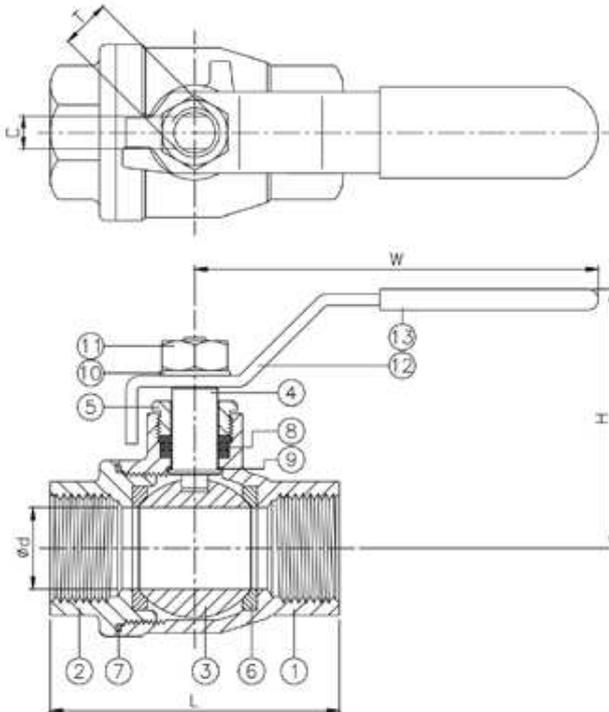
2-PC. SCREWED END BALL VALVE

Email: contacto@trivecavalves.com
www.trivecavalves.com



FEATURES

- Full port, 1/4"~3" (DN8~DN80)
- W.P. : 1000 WOG (PN63)
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Thread type : ASME B1.20.1 (NPT)
DIN2999 & BS21
ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	STEM	ASTM A276-316	
5	GLAND NUT	AISI 304	
6	SEAT	PTFE / RTFE	
7	SEAL	PTFE	
8	PACKING		
9	THRUST WASHER	AISI 304	
10	SPRING WASHER		
11	NUT	AISI 304	
12	HANDLE		
13	HANDLE SLEEVE	PVC	

DN	d	L	H	W	C	T	Torque (N-m)	Weight (kg)
8	12	51.5	49	102	5	5/16"W	4.1	0.2
10	13	51.5	49	102	5	5/16"W	4.1	0.2
15	15	60.5	49	102	5	5/16"W	4.9	0.3
20	20	70.5	62.5	120	6	3/8"W	7.4	0.5
25	25	83.5	75	158	8	7/16"W	11.4	0.9
32	32	97	81.5	158	8	7/16"W	17.9	1.3
40	38	107	99	188	9	1/2"W	21.2	2.2
50	50	135	108	188	9	1/2"W	26	3.5
65	65	159.5	136.5	245	12	3/4"W	48.6	6.2
80	80	185.5	145.5	245	12	3/4"W	156	10.3

NPS	d	L	H	W	C	T	Torque (in-lb)	Weight (lb)
1/4"	0.47	2.03	1.93	4.02	0.2	5/16"W	36	0.5
3/8"	0.51	2.03	1.93	4.02	0.2	5/16"W	36	0.5
1/2"	0.59	2.38	1.93	4.02	0.2	5/16"W	43	0.7
3/4"	0.79	2.78	2.46	4.72	0.24	3/8"W	65	1.1
1"	0.98	3.29	2.95	6.22	0.31	7/16"W	101	2
1-1/4"	1.26	3.82	3.21	6.22	0.31	7/16"W	158	2.9
1-1/2"	1.5	4.21	3.9	7.4	0.35	1/2"W	187	4.9
2"	1.97	5.31	4.25	7.4	0.35	1/2"W	230	7.7
2-1/2"	2.56	6.28	5.37	9.65	0.47	3/4"W	430	13.7
3"	3.15	7.3	5.73	9.65	0.47	3/4"W	1380	22.6

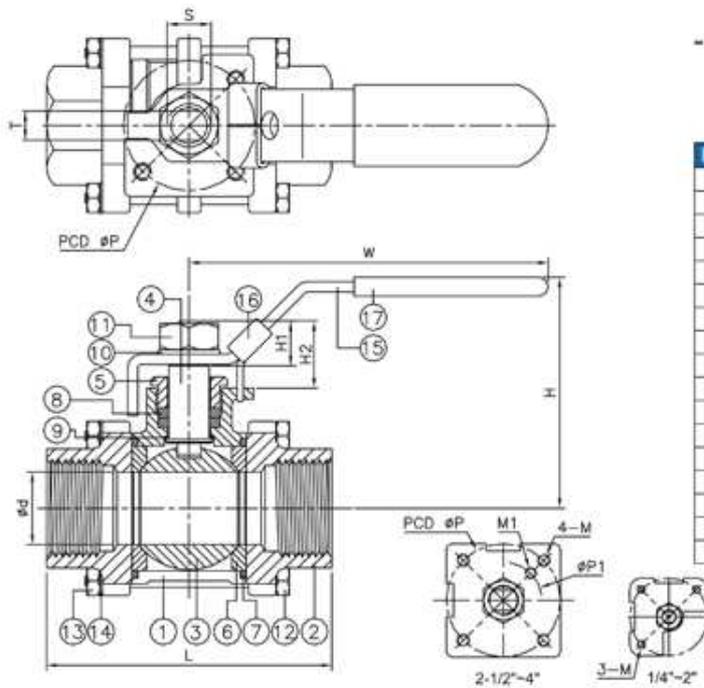
unit:mm

FEATURES



- Full port, 1/4"~4" (DN8~DN100)
- W.P. : 1000 WOG (PN63)
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Locking device
- ISO 5211 Mounting pad
- **ISO 5211 direct Mounting pad**
- **2413D (option)**

- Thread type : ASME B1.20.1 (NPT)
DIN2999 & BS21
ISO7/1 & EN10226

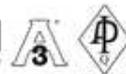


ITEM	PARTS	MATERIAL	
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	STEM	ASTM A276-316	
5	GLAND NUT	AISI 304	
6	SEAT	PTFE / RTFE / CTFE	
7	SEAL		
8	PACKING	PTFE	
9	THRUST WASHER		
10	SPRING WASHER		
11	STEM NUT		
12	BOLT	AISI 304	
13	NUT		
14	SPRING WASHER		
15	HANDLE		
16	LOCKING DEVICE		
17	HANDLE SLEEVE	PVC	

DN	d	L	W	H	H1	H2	P	P1	M	M1	T	S	Torque (N-M)	Weight (kg)
8	11.6	64.5	119	56	11	15	36	-	M 5	-	5	5/16"UNC	4	0.5
10	12.7	64.5	119	56	11	15	36	-	M 5	-	5	5/16"UNC	4	0.4
15	15	66	119	57	11	15	36	-	M 5	-	5	5/16"UNC	4	0.5
20	20	83.4	135.5	63	14	19.5	36	-	M 5	-	6.5	3/8"UNC	7	0.8
25	25	95	158.5	81	15.5	23.5	42	-	M 5	-	8	7/16"UNC	7.5	1.1
32	32	111.2	158.5	87	15.5	20	50	-	M 5	-	8	7/16"UNC	11	1.8
40	38	130	188	96	18	26	50	-	M 6	-	9	1/2"UNC	17	2.5
50	50	151	198	109	18	26	70	-	M 8	-	9	1/2"UNC	45	3.8
65	65	184	280	133	31	40	102	68.5	M 12	M10	12	3/4"UNC	59	8.8
80	80	209	320	149	31	38	102	68	M 12	M10	12	3/4"UNC	90	14.3
100	100	234.4	312	171	40	53	102	69	M 12	M10	16	1"UNC	160	23.5

NPS	d	L	W	H	H1	H2	P	P1	M	M1	T	S	Torque (in-lb)	Weight (lb)
1/4"	0.46	2.54	4.69	2.2	0.43	0.59	1.42	-	M 5	-	0.2	5/16"UNC	35.4	1.1
3/8"	0.5	2.54	4.69	2.2	0.43	0.59	1.42	-	M 5	-	0.2	5/16"UNC	35.4	0.9
1/2"	0.59	2.6	4.69	2.24	0.43	0.59	1.42	-	M 5	-	0.2	5/16"UNC	35.4	1.1
3/4"	0.79	3.28	5.33	2.48	0.55	0.77	1.42	-	M 5	-	0.26	3/8"UNC	62	1.8
1"	0.98	3.74	6.24	3.19	0.61	0.93	1.65	-	M 5	-	0.31	7/16"UNC	66.4	2.4
1-1/4"	1.26	4.38	6.24	3.43	0.61	0.79	1.97	-	M 5	-	0.31	7/16"UNC	97.4	4
1-1/2"	1.5	5.12	7.4	3.78	0.71	1.02	1.97	-	M 6	-	0.35	1/2"UNC	150.5	5.5
2"	1.97	5.94	7.8	4.29	0.71	1.02	2.76	-	M 8	-	0.35	1/2"UNC	398.3	8.4
2-1/2"	2.56	7.24	11.02	5.24	1.22	1.57	4.02	2.7	M 12	M10	0.47	3/4"UNC	522.2	19.4
3"	3.15	8.23	12.6	5.87	1.22	1.5	4.02	2.68	M 12	M10	0.47	3/4"UNC	796.6	31.5
4"	3.94	9.23	12.28	6.73	1.57	2.09	4.02	2.72	M 12	M10	0.63	1"UNC	1416.1	51.8

unit:in

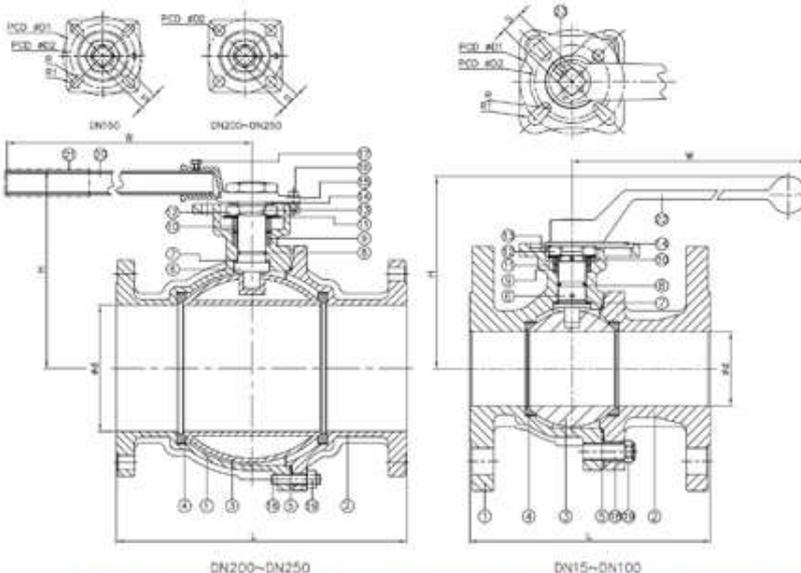




2-PC. FLANGED END BALL VALVE

FEATURES

- Full port, 1/2"~10" (DN15~DN250)
- W.P. : CLASS 150/300
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Live-loading design
- Anti-static device
- Locking device
- ISO 5211 direct mounting pad
- **API 607 Fire safe approved**
- **ISO 15848 fugitive emission approved (option)**
- **Automation accessories (option)**



ITEM	PARTS	MATERIAL
1	BODY	ASTM A351-CF8M
2	CAP	ASTM A216-WCB
3	BALL	SOLID: ASTM A351-CF8M / HOLLOW: ASTM A240-316
4	SEAT	PTFE / RTFE
5	SEAL	GRAPHITE
6	STEM	ASTM A276-316
7	THRUST WASHER	CTFE
8	O-RING	VITON
9	PACKING	GRAPHITE
10	GLAND RING	AISI 304
11	BELLEVILLE WASHER	AISI 301
12	STEM NUT	
13	LOCKING WASHER	
14	FLAT WASHER	
15	HANDLE HEAD	
16	STOP PIN	AISI 304
17	BOLT	
18	STUD	
19	NUT	
20	STEEL TUBE	
21	HANDLE SLEEVE	PVC
22	HANDLE	
23	SOCKET SET SCREW	AISI 301

- ABOVE MENTIONED MATERIALS APPLY TO FIRE SAFE DESIGN
- ISO 15848 DESIGN SHOULD REPLACE WITH PTFE SEAL & PACKING

DN	d	CLASS 150			CLASS 300			D1	D2	R	R1	S	Torque(N-M)
		L	H	W	L	H	W						
15	15	108	85	190	140	84.5	197.5	42	36	2.75	2.75	9	5.2
20	20	117	89.5	190	152	94.5	197.5	42	36	2.75	2.75	9	8
25	24	127.5	94.2	190	165	99.5	197.5	50	42	2.75	3.5	11	12.5
32	30	140.5	97.9	190	178	105	197.5	50	42	2.75	3.5	11	12
40	38	165	120.9	235	190	124.5	247.5	70	50	3.5	4.5	14	24.5
50	50	178	129.9	235	216	129	247.5	70	50	3.5	4.5	14	32
65	64	190.5	156.3	325	241	154.5	340	102	70	4.5	5.5	17	38
80	76	203	163.3	325	282	165.5	340	102	70	4.5	5.5	17	45
100	98	229	190.9	325	305	188	340	125	102	5.5	6.5	22	55
125	125	356	232	743	-	-	-	125	102	5.5	6.5	27	160
150	150	394	230	743	403	253	743	125	102	5.5	6.5	27	250
200	200	457	312	840	-	-	-	-	140	8.5	-	36	470
250	250	533	350	1040	-	-	-	-	140	8.5	-	36	750

NPS	d	CLASS 150			CLASS 300			D1	D2	R	R1	S	Torque(in-lb)
		L	H	W	L	H	W						
1/2"	0.59	4.25	3.35	7.48	5.51	3.33	7.78	1.65	1.42	0.11	0.11	0.35	46
3/4"	0.79	4.81	3.52	7.48	5.98	3.72	7.78	1.65	1.42	0.11	0.11	0.35	70.8
1"	0.94	5.02	3.71	7.48	6.5	3.92	7.78	1.97	1.65	0.11	0.14	0.43	110.6
1-1/4"	1.18	5.53	3.85	7.48	7.01	4.13	7.78	1.97	1.65	0.11	0.14	0.43	106.2
1-1/2"	1.5	6.5	4.76	9.25	7.48	4.9	9.74	2.76	1.97	0.14	0.18	0.55	218.8
2"	1.97	7.01	5.11	9.25	8.5	5.08	9.74	2.76	1.97	0.14	0.18	0.55	283.2
2-1/2"	2.52	7.5	6.15	12.8	9.49	6.08	13.39	4.02	2.76	0.18	0.22	0.67	336.3
3"	2.99	7.99	6.43	12.8	11.1	6.52	13.39	4.02	2.76	0.18	0.22	0.67	398.3
4"	3.86	9.02	7.52	12.8	12.01	7.4	13.39	4.92	4.02	0.22	0.26	0.87	486.8
5"	4.92	14.02	9.13	29.25	-	-	-	4.92	4.02	0.22	0.26	1.06	1416.1
6"	5.91	15.51	9.06	29.25	15.87	9.96	29.25	4.92	4.02	0.22	0.26	1.06	2212.7
8"	7.87	17.99	12.28	33.07	-	-	-	-	5.51	0.33	-	1.42	4159.8
10"	9.84	20.98	13.78	40.94	-	-	-	-	5.51	0.33	-	1.42	6638

unit:mm

unit:in

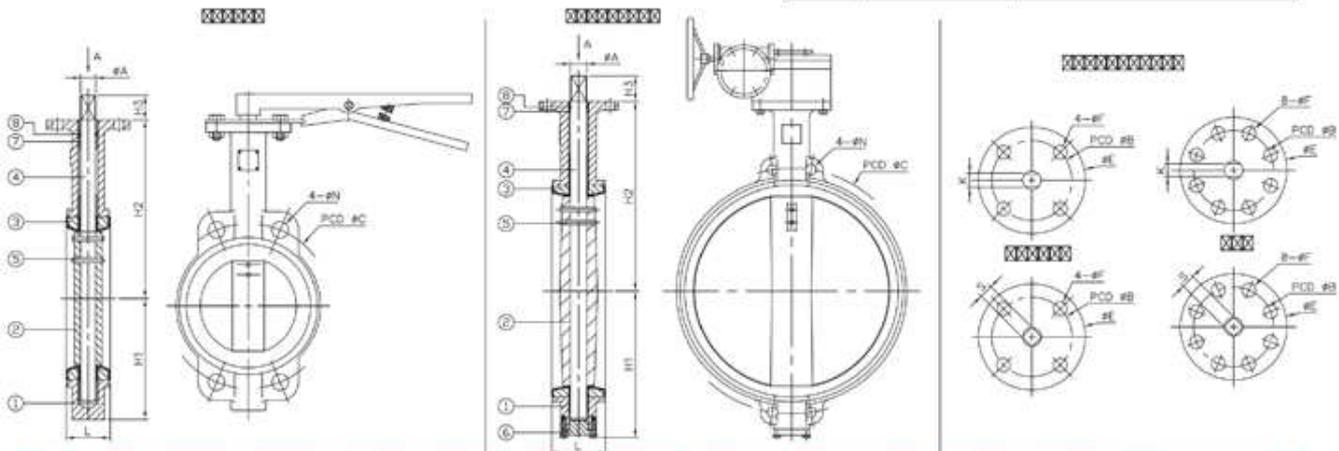




FEATURES

- 2"~24" (DN50~DN600)
- W.P. : PN10/16
CLASS 125/150
JIS 10K
- Wafer type
- Lever operator / Gear operator (option)
- High performance butterfly valve - 2014H

ITEM	PARTS	MATERIAL
1	BODY	CI / DI
2	DISC	DI / AL-BRONZE / AISI 316
3	SEAT	EPDM
4	STEM	AISI 416
5	TAPER PIN	STAINLESS STEEL
6	COVER	DI
7	BUSHING	PTFE
8	O-RING	EPDM



DN	H1	H2	H3	L	A	K	S	C	N	E	B	F	Torque (N-M)
50	76	162	30	45	12.7	10	9	120.5	19	92	70	9	26.7
65	89	175	30	48	12.7	10	9	139.5	19	92	70	9	37.9
80	95	181	30	49	12.7	10	9	152.5	19	92	70	9	50.1
100	114	200	30	55	15.9	12	11	190.5	19	92	70	9	92.3
125	127	213	30	58	19.05	14	14	216	22	92	70	9	149.5
150	140	225	30	59	19.05	14	14	241.5	22	92	70	9	222.8
200	177	280	36	64	22.2	17	17	298.5	22	125	102	11	429
250	203	292	36	70	28.6	22	22	362	25	125	102	11	711.1
300	242	337	36	80	31.8	24	22	432	25	150	125	13	1034.3
350	287	368	45	80	31.8	24	22	476	29	150	125	13	1216.8
400	298	400	51	90	33.8	27	22	539.5	29	210	165	22	1726.4
450	318	422	51	109	38	27	27	576	32	210	165	22	2234.7
500	349	479	64	135	41.15	32	27	635	32	210	165	22	3193.6
600	410	562	71	158	50.65	36	36	749.5	35	300	254	18	5765.5

NPS	H1	H2	H3	L	A	K	S	C	N	E	B	F	Torque (in-lb)
2"	2.99	6.38	1.18	1.77	0.5	0.39	0.35	4.74	0.75	3.62	2.76	0.35	236.6
2-1/2"	3.5	6.89	1.18	1.89	0.5	0.39	0.35	5.49	0.75	3.62	2.76	0.35	330.2
3"	3.74	7.13	1.18	1.93	0.5	0.39	0.35	6	0.75	3.62	2.76	0.35	443
4"	4.49	7.87	1.18	2.17	0.63	0.47	0.43	7.5	0.75	3.62	2.76	0.35	616.9
5"	5	8.39	1.18	2.28	0.75	0.55	0.55	8.5	0.87	3.62	2.76	0.35	1323.2
6"	5.51	8.86	1.18	2.32	0.75	0.55	0.55	9.51	0.87	3.62	2.76	0.35	1972.1
8"	6.97	10.24	1.42	2.52	0.87	0.67	0.67	11.75	0.87	4.92	4.02	0.43	3797
10"	7.89	11.5	1.42	2.76	1.13	0.87	0.87	14.25	0.98	4.92	4.02	0.43	6293.7
12"	9.53	13.27	1.42	3.15	1.25	0.94	0.87	17.01	0.98	5.91	4.92	0.51	9154.1
14"	10.51	14.49	1.77	3.15	1.25	0.94	0.87	18.74	1.14	5.91	4.92	0.51	10769.5
16"	11.73	15.75	2.01	3.54	1.31	1.06	0.87	21.24	1.14	8.27	6.5	0.87	15279.8
18"	12.52	16.61	2.01	4.29	1.5	1.06	1.06	22.76	1.26	8.27	6.5	0.87	19778.7
20"	13.74	18.86	2.52	5.31	1.62	1.26	1.06	25	1.26	8.27	6.5	0.87	28265.4
24"	16.14	22.13	2.8	6.14	1.99	1.42	1.42	29.51	1.38	11.81	10	0.71	51028.7

unit:mm

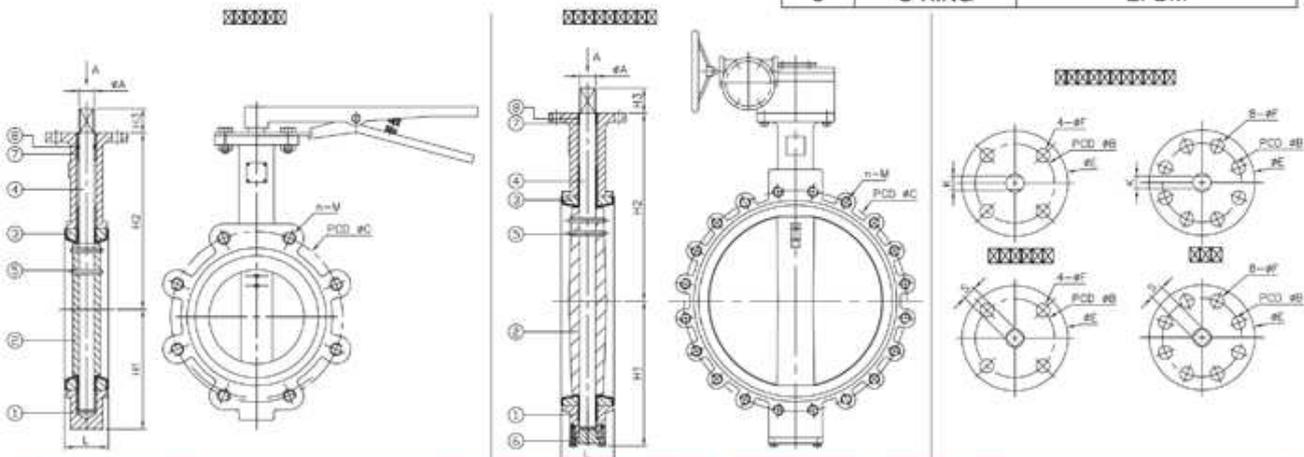




FEATURES

- 2"~24" (DN50~DN600)
- W.P. : PN10/16
CLASS 125/150
JIS 10K
- Lug type
- Lever operator /
Gear operator (option)
- High performance butterfly valve -
2014H

ITEM	PARTS	MATERIAL
1	BODY	CI / DI
2	DISC	DI / AL-BRONZE / AISI 316
3	SEAT	EPDM / BUNA
4	STEM	AISI 416
5	TAPER PIN	STAINLESS STEEL
6	COVER	DI
7	BUSHING	PTFE
8	O-RING	EPDM



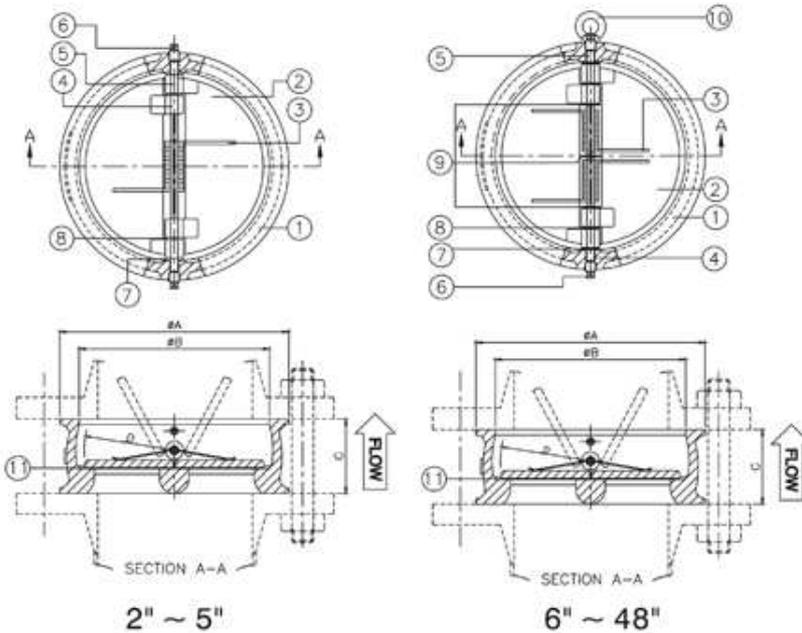
DN	H1	H2	H3	L	A	K	S	C	n	M	E	B	F	Torque (N·M)
50	76	76	30	45	12.7	10	9	120.5	4	5/8"-11	92	70	9	26.7
65	80	80	30	48	12.7	10	9	139.5	4	5/8"-11	92	70	9	37.3
80	95	95	30	49	12.7	10	9	152.5	4	5/8"-11	92	70	9	50.1
100	114	114	30	55	15.9	12	11	190.5	8	5/8"-11	92	70	9	92.3
125	127	127	30	58	19.05	14	14	216	8	3/4"-10	92	70	9	149.5
150	140	140	30	59	19.05	14	14	241.5	8	3/4"-10	92	70	9	222.8
200	173	173	36	64	22.2	17	17	298.5	8	3/4"-10	125	102	11	429
250	203	203	36	70	28.6	22	22	362	12	7/8"-9	125	102	11	711.1
300	237	237	36	80	31.8	24	22	432	12	7/8"-9	150	125	13	1034.3
350	279	279	45	80	31.8	24	22	476	12	1"-8	150	125	13	1216.8
400	304	304	51	90	33.3	27	22	539.5	16	1"-8	210	165	22	1726.4
450	362	362	51	109	38	27	27	578	16	1-1/8"-7	210	165	22	2234.7
500	368	368	64	135	41.15	32	27	635	20	1-1/8"-7	210	165	22	3193.6
600	444	444	70	156	50.65	36	36	749.5	20	1-1/4"-7	300	254	18	5785.5

NPS	H1	H2	H3	L	A	K	S	C	n	M	E	B	F	Torque (in·lb)
2"	2.99	6.38	1.18	1.77	0.5	0.39	0.35	4.74	4	5/8"-11	3.62	2.76	0.35	236.6
2-1/2"	3.15	6.89	1.18	1.89	0.5	0.39	0.35	5.49	4	5/8"-11	3.62	2.76	0.35	330.2
3"	3.74	7.13	1.18	1.93	0.5	0.39	0.35	6	4	5/8"-11	3.62	2.76	0.35	443
4"	4.49	7.87	1.18	2.17	0.63	0.47	0.43	7.5	8	5/8"-11	3.62	2.76	0.35	816.9
5"	5	8.39	1.18	2.28	0.75	0.55	0.55	8.5	8	3/4"-10	3.62	2.76	0.35	1323.2
6"	5.51	8.86	1.18	2.32	0.75	0.55	0.55	9.51	8	3/4"-10	3.62	2.76	0.35	1972.1
8"	6.81	10.24	1.42	2.52	0.87	0.67	0.67	11.75	8	3/4"-10	4.92	4.02	0.43	3797
10"	7.99	11.5	1.42	2.76	1.13	0.87	0.87	14.25	12	7/8"-9	4.92	4.02	0.43	6293.7
12"	9.33	13.27	1.42	3.15	1.25	0.94	0.87	17.01	12	7/8"-9	5.91	4.92	0.51	9154.1
14"	10.98	14.49	1.77	3.15	1.25	0.94	0.87	18.74	12	1"-8	5.91	4.92	0.51	10769.5
16"	11.97	15.75	2.01	3.54	1.31	1.06	0.87	21.24	16	1"-8	8.27	6.5	0.87	15279.8
18"	14.25	16.61	2.01	4.29	1.5	1.06	1.06	22.76	16	1-1/8"-7	8.27	6.5	0.87	19778.7
20"	14.49	18.86	2.52	5.31	1.62	1.26	1.06	25	20	1-1/8"-7	8.27	6.5	0.87	28265.4
24"	17.48	22.13	2.76	6.14	1.99	1.42	1.42	29.51	20	1-1/4"-7	11.81	10	0.71	51028.7



FEATURES

- 2"~48" (DN50~DN1200)
- W.P. : PN10/16/40
CLASS 150/300/600
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Metal to metal (option)



ITEM	PARTS	MATERIAL
1	BODY	ASTM A351-CF8M
		ASTM A216-WCB
		DUCTILE IRON
2	PLATE	ASTM A216-WCB / ASTM A351-CF8 ASTM A351-CF8M / ASTM A351-CF3M
3	SPRING	AISI 316 WPA
4	HINGE PIN	AISI 304 / AISI 316
5	STOP PIN	
6	PLUG	S25C
7	BODY BEARING	TEFLON
8	PLATE BEARING	
9	SPRING BEARING	
10	EYE BOLT	SS41
11	BODY SEAT	NBR / EPDM / VITON
		SAME MATERIALS AS THE PLATE
		410SS OVERLAY / STELLITY #6 OVERLAY

PN16 ONLY, OTHER PRESSURE RATING PLEASE CONTACT US.

DN	A	B	C	D	Weight (kg)
50	109	60	54	32	3
65	129	73	54	37	4
80	144	89	57	45	5
100	164	114	64	53	6
125	194	141	70	67	9
150	220	168	76	79	10
200	275	219	95	105	19
250	331	273	108	123	31
300	386	324	143	155	56
350	446	356	184	170	71
400	498	406	191	195	99
450	558	457	203	219	118
500	620	508	213	244	180
600	737	610	222	292	258
700	807	711	321	337	580
800	914	813	356	397	526
900	1014	914	368	440	656
1000	1131	1016	419	495	1010
1200	1345	1219	524	603	1926

unit:mm

NPS	A	B	C	D	Weight (kg)
2"	4.29	2.36	2.13	1.26	6.6
2-1/2"	5.08	2.87	2.13	1.46	8.8
3"	5.67	3.50	2.24	1.77	11
4"	6.46	4.49	2.52	2.09	13.2
5"	7.64	5.55	2.76	2.64	19.8
6"	8.66	6.61	2.99	3.11	22
8"	10.83	8.62	3.74	4.13	41.9
10"	13.03	10.75	4.25	4.84	68.3
12"	15.20	12.76	5.63	6.10	123.4
14"	17.56	14.02	7.24	6.89	156.5
16"	19.61	15.98	7.52	7.68	218.2
18"	21.97	17.99	7.99	8.62	260.1
20"	24.41	20.00	8.39	9.61	396.7
24"	29.02	24.02	8.74	11.50	568.6
28"	31.77	27.99	12.64	13.27	1278.3
32"	35.98	32.01	14.02	15.63	1159.3
36"	39.92	35.98	14.49	17.32	1445.8
40"	44.53	40.00	16.50	19.49	2226
48"	52.95	47.99	20.63	23.74	4244.9

unit:in

