

Ball Valves

Two-piece Ball Valves
Cast Steel, Soft seated

ECOLINE BLB-2FD



Main Applications

- General Industry
- Building
- Water

Fluids Handled

- Water
- Oil
- Gas
- Other fluids on request

Operating data

Operating properties

Characteristic	Value
Nominal pressure	CL150/ PN16/ JIS 10K
Nominal size	DN 15-250 (1/2"-10")
Max. permissible pressure [bar]	20/ 16
Max. permissible temperature [°C]	+220

Selection as per pressure/temperature ratings (=> Page 2)

Body materials

Overview of available materials

Material	Temperature limit
ASTM A216 WCB	≤+220°C
ASTM A351 CF8	≤+220°C
ASTM A351 CF8M	≤+220°C

Seat materials

Overview of available materials

Material	Temperature limit
RPTFE	≤+220°C

Design details

Design

- Design as per ASME B16.34
- Testing as per API 598
- Full bore
- Two-piece ball valve
- RPTFE seat
- PTFE packing
- Blow-out proof stem
- Locking device
- Anti-static design
- Lever-operated
- Flanged ends
- Top mounting flanges as per ISO 5211

Variants

- Electric actuator
- Pneumatic actuator

Product benefits

- Blow-out proof stem design with integral shoulder
- Resilient PTFE seat and smoother ball finish for reliable and tight shut-off
- Anti-static design prevents static charge build-up during operation
- Full bore for maximum flow rate without pressure drop

Related documents

Other applicable documentation

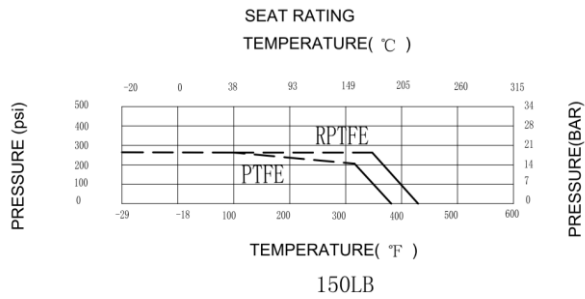
Document
Type series booklet ECOLINE BLB-1RN
Type series booklet ECOLINE BLB-3FD/FN

Purchasing order specifications

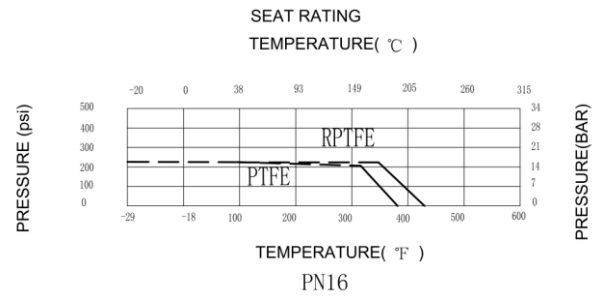
1. Type
2. Nominal pressure
3. Nominal size
4. Operating pressure
5. Differential pressure
6. Operating temperature
7. Fluid handled
8. Pipe connection
9. Valve materials, i.e. body, seat, ball
10. Variants

Pressure/temperature ratings
Permissible operating pressure

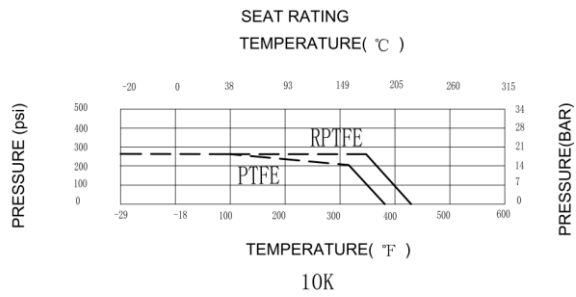
ECOLINE BLB-2FD (CL150)

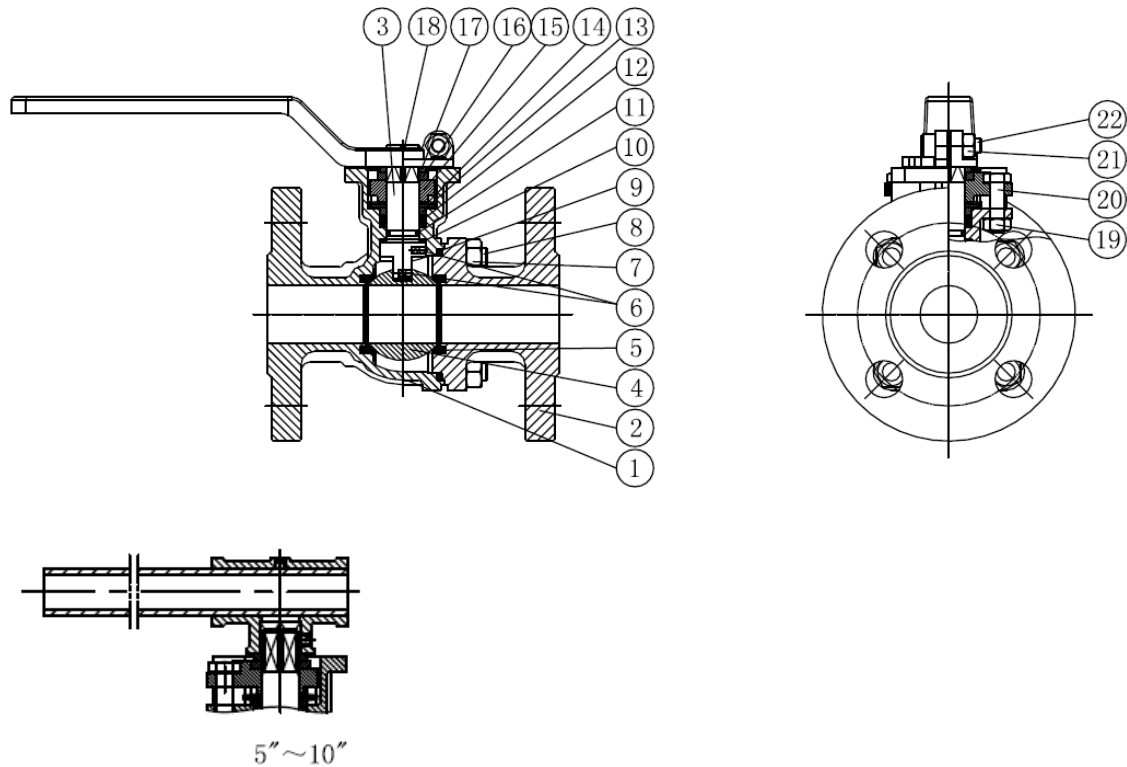


ECOLINE BLB- 2FD (PN16)

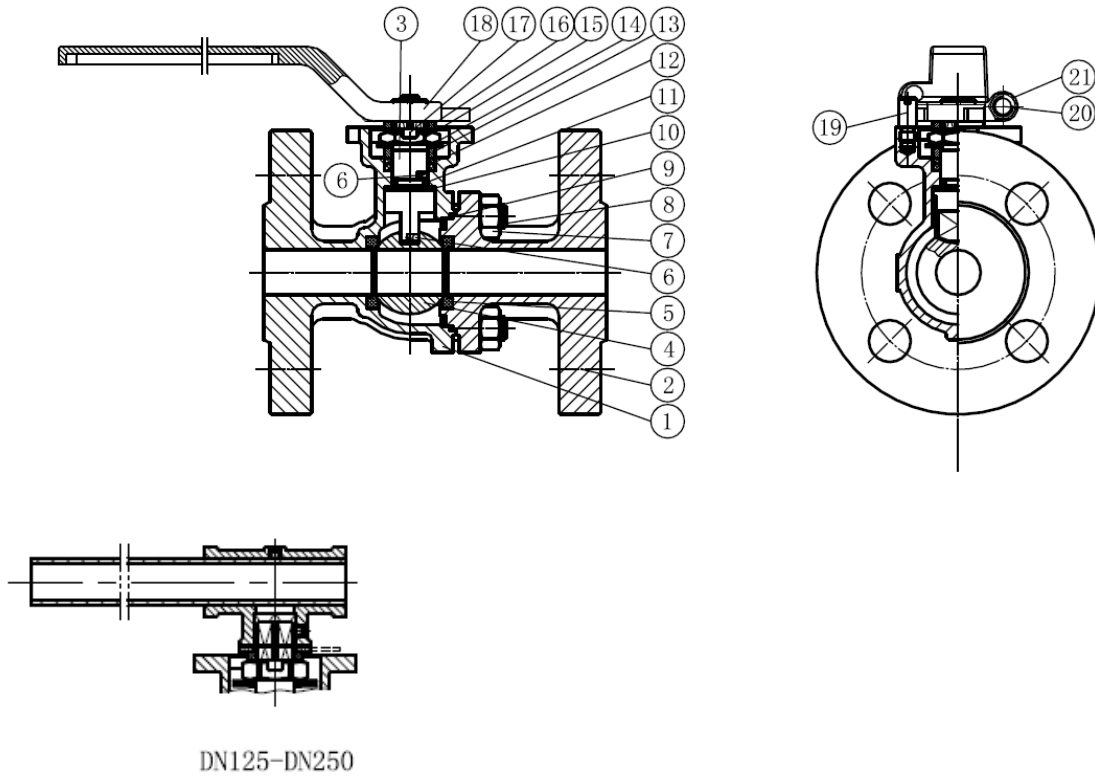


ECOLINE BLB-2FD (JIS 10K)

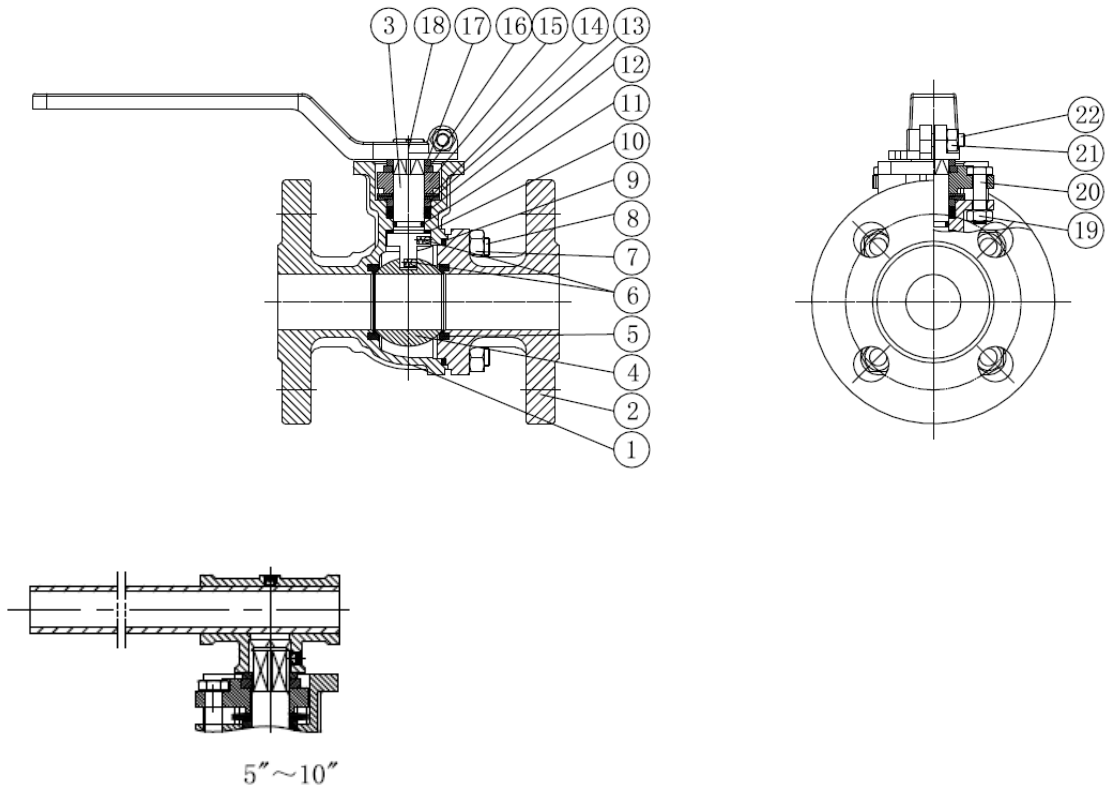


Materials
ECOLINE BLB-2FD (CL 150)


Part No.	Description	Material		
1	Body	WCB	CF8	CF8M
2	Bonnet	WCB	CF8	CF8M
3	Stem	SS304	SS304	SS316
4	Ball	SS304	SS304	SS316
5	Seat	RPTFE		
6	Anti-Static Device	SS304	SS304	SS316
7	Nut	A194-8		
8	Stud	A193/B8		
9	Gasket	PTFE		
10	Thrust Washer	PTFE		
11	O-Ring	VITON		
12	Packing	PTFE		
13	Gland	SS304		
14	Spring	SS304		
15	Gland	CF8		
16	Locating Piece	SS304		
17	Washer	SS304		
18	Lever	SS201		
19	Nut	A2-70		
20	Stud	A2-70		
21	Nut	A2-70		
22	Stud	A2-70		

ECOLINE BLB-2FD (PN16)


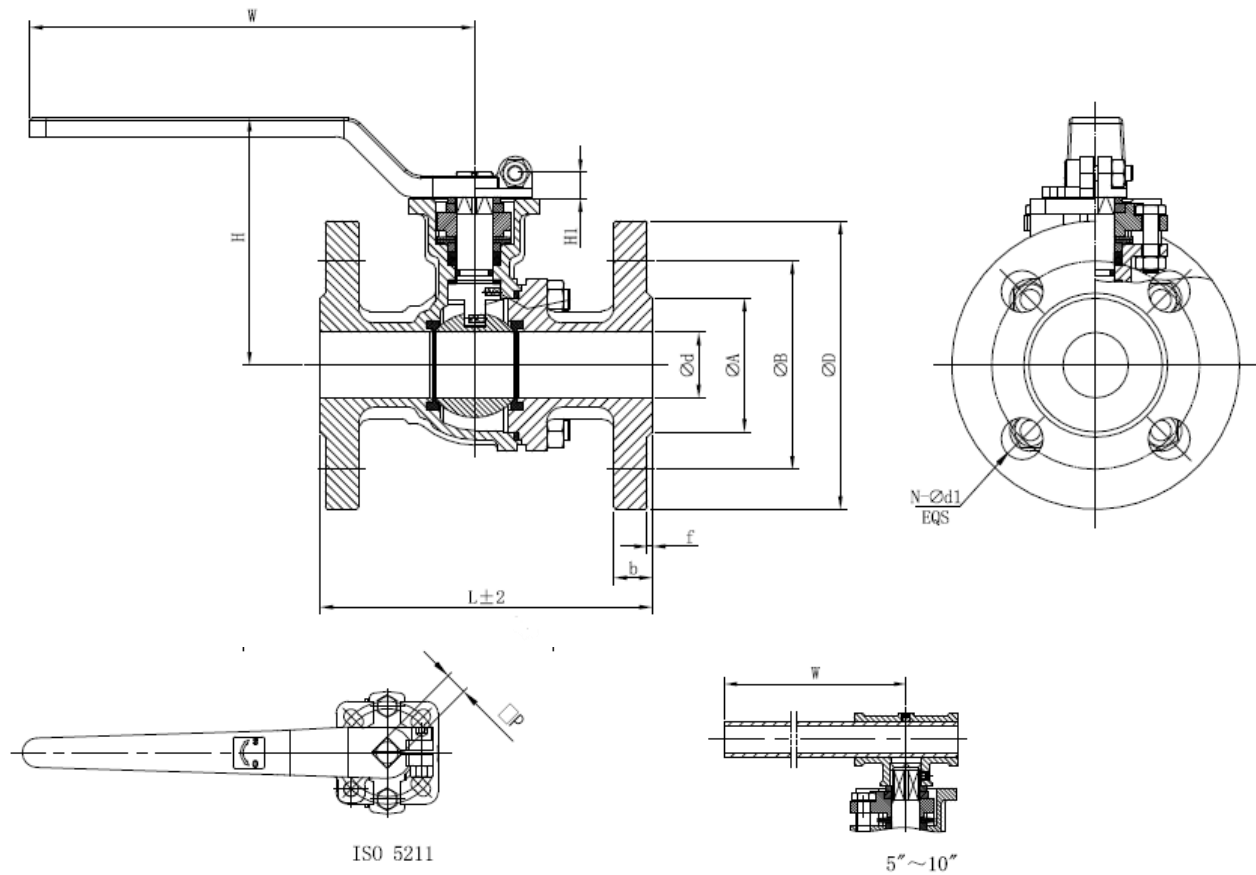
Part No.	Description	Material		
1	Body	WCB	CF8	CF8M
2	Bonnet	WCB	CF8	CF8M
3	Stem	SS304	SS304	SS316
4	Ball	SS304	SS304	SS316
5	Seat	RPTFE		
6	Anti-Static Device	SS304	SS304	SS316
7	Nut	A194-8		
8	Stud	A193/B8		
9	Gasket	PTFE		
10	Thrust Washer	PTFE		
11	O-Ring	VITON		
12	Packing	PTFE		
13	Gland	SS304		
14	Spring	SS304		
15	Nut	SS304		
16	Washer	SS304		
17	Captive Ring	SS304		
18	Lever	SS201		
19	Stop Pin	SS304		
20	Nut	A2-70		
21	Stud	A2-70		

ECOLINE BLB-2FD (JIS 10K)


Part No.	Description	Material		
		WCB	CF8	CF8M
1	Body	WCB	CF8	CF8M
2	Bonnet	WCB	CF8	CF8M
3	Stem	SS304	SS304	SS316
4	Ball	SS304	SS304	SS316
5	Seat	RPTFE		
6	Anti-Static Device	SS304	SS304	SS316
7	Nut	A194-8		
8	Stud	A193/B8		
9	Gasket	PTFE		
10	Thrust Washer	PTFE		
11	O-Ring	VITON		
12	Packing	PTFE		
13	Gland	SS304		
14	Spring	SS304		
15	Gland	CF8		
16	Locating Piece	SS304		
17	Washer	SS304		
18	Lever	SS201		
19	Nut	A2-70		
20	Stud	A2-70		
21	Nut	A2-70		
22	Stud	A2-70		

Dimensions (mm) and weight [kg]

ECOLINE BLB-2FD (CL150)

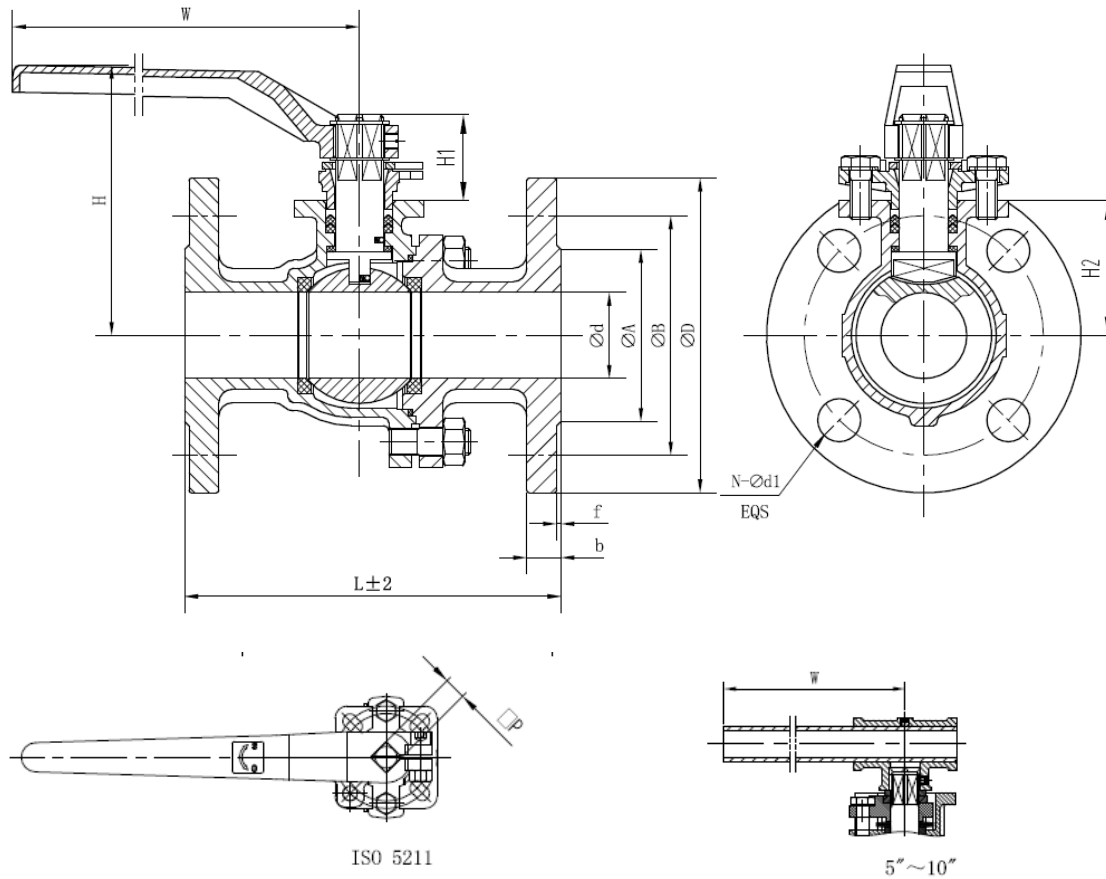


NPS	DN	Ød	ØA	ØB	ØD	N-Ød1	b	f	L	H	H1	P	W	ISO 5211	[kg]
1/2	15	15	34.9	60.3	90	4-Ø16	10.0	2	108	79	8.5	9	150	F03-F04	1.7
3/4	20	20	42.9	69.9	100	4-Ø16	10.9	2	117	80	8.5	9	150	F03-F04	2.2
1	25	25	50.8	79.4	110	4-Ø16	11.6	2	127	95	10.0	11	170	F04-F05	3.1
1-1/4	32	32	63.5	88.9	115	4-Ø16	13.2	2	140	100	10.0	11	170	F04-F05	3.6
1-1/2	40	38	73.0	98.4	125	4-Ø16	14.7	2	165	120	14.0	14	210	F05-F07	5.4
2	50	50	92.1	120.7	150	4-Ø19	16.3	2	178	125	14.0	14	210	F05-F07	7.5
2-1/2	65	65	104.8	139.7	180	4-Ø19	17.9	2	190	180	16.0	17	305	F07-F10	12.7
3	80	78	127.0	152.4	190	4-Ø19	19.5	2	203	190	16.0	17	305	F07-F10	15.5
4	100	100	157.2	190.5	230	8-Ø22	24.3	2	229	210	18.0	19	305	F07-F10	21.5
5	125	125	185.7	215.9	255	8-Ø22	24.3	2	356	220	23.0	22	500	F10-F12	33.3
6	150	150	215.9	241.3	280	8-Ø22	25.9	2	394	275	28.0	27	645	F12-F14	48.1
8	200	200	269.9	298.5	345	8-Ø22	29.0	2	457	315	28.0	27	845	F12-F14	80.7
10	250	250	323.8	362.0	405	12-Ø25	30.6	2	533	375	35.0	36	1335	F14-F16	130.2

Mating dimensions as per standard

Face-to-face lengths: ASME B16.10

Flanged ends: ASME B16.5

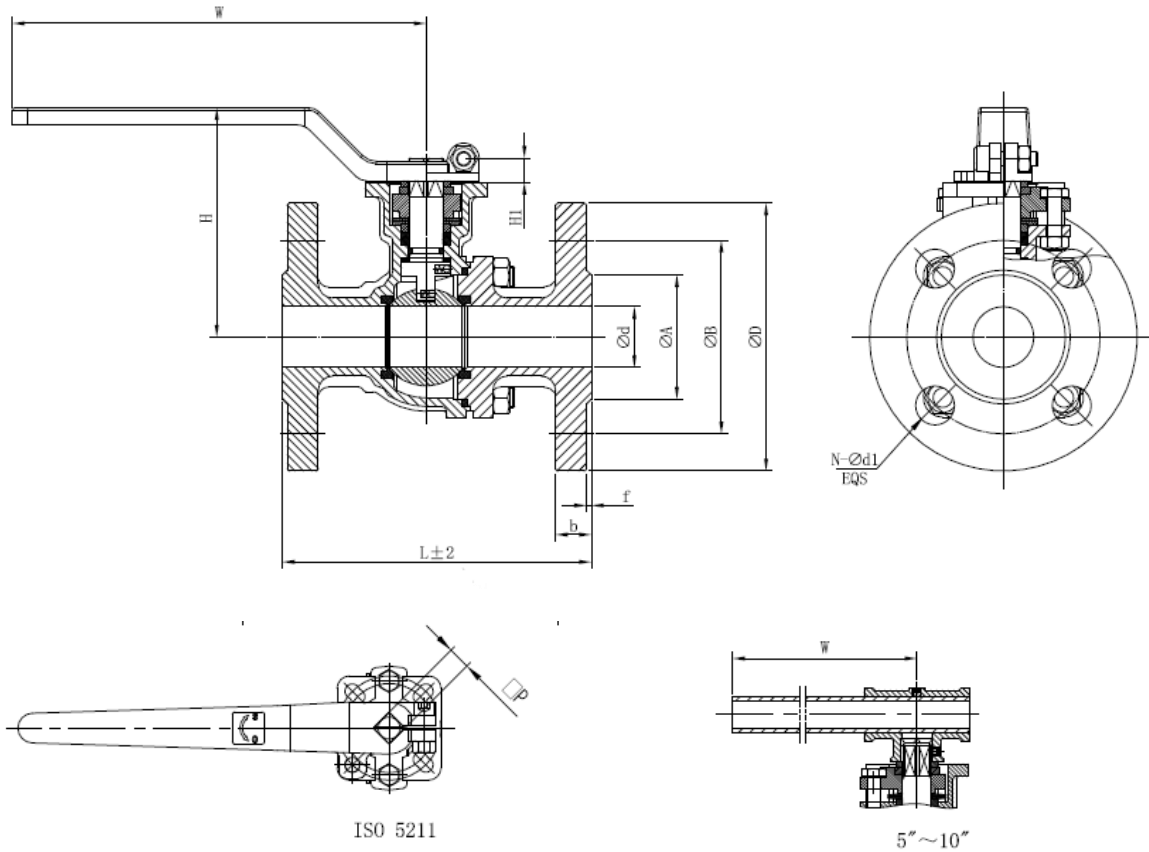
ECOLINE BLB-2FD (PN16)


NPS	DN	Ød	ØA	ØB	ØD	N-Ød1	b	f	L	H	H1	P	W	ISO 5211	[kg]
1/2	15	15	45	65	95	4-Ø14	16	2	115	76.0	8.5	9	150	F03-F04	2.0
3/4	20	20	58	75	105	4-Ø14	18	2	120	81.0	8.5	9	150	F03-F04	2.6
1	25	25	68	85	115	4-Ø14	18	2	125	90.0	10.0	11	170	F04-F05	3.3
1-1/4	32	32	78	100	140	4-Ø18	18	2	130	102.0	10.0	11	170	F04-F05	4.7
1-1/2	40	38	88	110	150	4-Ø18	18	2	140	114.5	14.0	14	210	F05-F07	5.9
2	50	50	102	125	165	4-Ø18	18	2	150	122.0	14.0	14	210	F05-F07	7.6
2-1/2	65	65	122	145	185	4-Ø18	18	2	170	168.0	16.0	17	305	F07-F10	11.3
3	80	78	138	160	200	8-Ø18	20	2	180	178.0	16.0	17	305	F07-F10	13.8
4	100	100	158	180	220	8-Ø18	20	2	190	198.0	18.0	19	305	F07-F10	18.0
5	125	125	188	210	250	8-Ø18	22	2	325	234.0	23.0	22	500	F10-F12	31.0
6	150	150	212	240	285	8-Ø22	22	2	350	250.0	28.0	27	645	F12-F14	37.7
8	200	200	268	295	340	8-Ø22	24	2	400	288.0	28.0	27	845	F12-F14	73.1

Mating dimensions as per standard

Face-to-face lengths: EN558-1: 2007 S14 (DN15-DN100)
 EN558-1: 2007 S15 (DN125-DN250)

Flanged ends: EN1092-1: 2002

ECOLINE BLB-2FD (JIS 10K)


NPS	DN	Ød	ØA	ØB	ØD	N-Ød1	b	f	L	H	H1	P	W	ISO 5211	[kg]
1/2	15A	15	51	70	95	4-Ø15	12	1	108	79	8.5	9	150	F03-F04	1.8
3/4	20A	20	56	75	100	4-Ø15	14	1	117	80	8.5	9	150	F03-F04	2.4
1	25A	25	67	90	125	4-Ø19	14	1	127	95	10.0	11	170	F04-F05	3.6
1-1/4	32A	32	76	100	135	4-Ø19	16	2	140	100	10.0	11	170	F04-F05	4.0
1-1/2	40A	38	81	105	140	4-Ø19	16	2	165	120	14.0	14	210	F05-F07	5.8
2	50A	50	96	120	155	4-Ø19	16	2	178	125	14.0	14	210	F05-F07	7.3
2-1/2	65A	65	116	140	175	4-Ø19	18	2	190	180	16.0	17	305	F07-F10	11.0
3	80A	78	126	150	185	8-Ø19	18	2	203	190	16.0	17	305	F07-F10	12.7
4	100A	100	151	175	210	8-Ø19	18	2	229	210	18.0	19	305	F07-F10	16.8
5	125A	125	182	210	250	8-Ø23	20	2	356	220	23.0	22	500	F10-F12	30.0
6	150A	150	212	240	280	8-Ø23	22	2	394	275	28.0	27	645	F12-F14	45.0

Mating dimensions as per standard

Face-to-face lengths: JIS B2220:2012

Flanged ends: JIS B2002 (15A-100A) form 2-4 Series6 (125A-250A) form 2-4 Series39

Torques

NPS	DN	CL150 / JIS 10K Torques (Nm)	PN16 Torques (Nm)
1/2	15	6	5
3/4	20	8	7
1	25	13	12
1-1/4	32	20	18
1-1/2	40	28	25
2	50	43	35
2-1/2	65	63	55
3	80	101	80
4	100	150	130
5	125	280	250
6	150	530	470
8	200	970	850
10	250	1270	1105

Note: A safety factor of 1.3 is recommended when sizing the actuator, for reference only.

Subject to technical modification without prior notice!