

Ball Valves

Three-piece Ball Valves
Cast Steel, Soft seated

ECOLINE BLB-3FN/FD



Main Applications

- General Industry
- Building
- Water

Fluids Handled

- Water
- Oil
- Gas
- Other fluids on request

Operating data

Operating properties

Characteristic	Value
Nominal pressure	1000 WOG
Nominal size	DN 8-100 (1/4"-4")
Max. permissible pressure [bar]	84
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
- Three-piece ball valve
- RPTFE seat
- PTFE packing
- Blow-out proof stem
- Locking device
- Anti-static design
- Lever-operated
- Welded or Threaded ends
- Top mounting flanges as per ISO 5211 (ECOLINE BLB-3FD)

Variants

- Electric actuator (ECOLINE BLB-3FD)
- Pneumatic actuator (ECOLINE BLB-3FD)

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

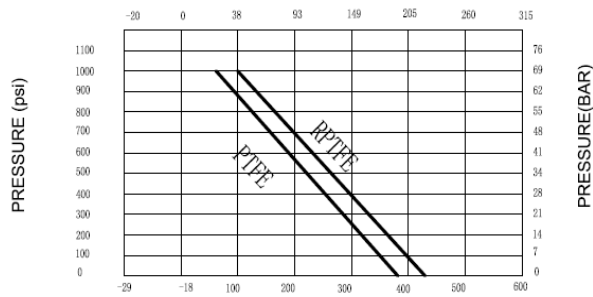
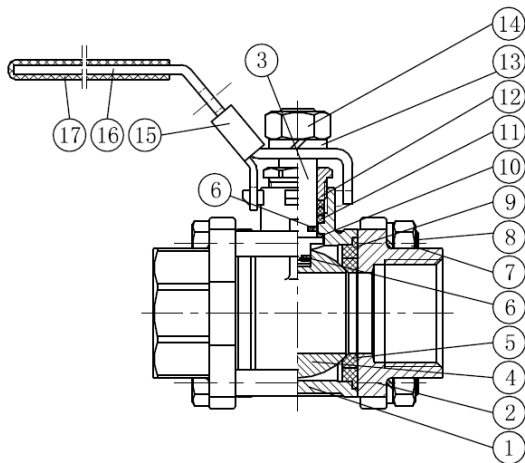
Document
Type series booklet ECOLINE BLB-1RN
Type series booklet ECOLINE BLB-2FD

Purchasing order specifications

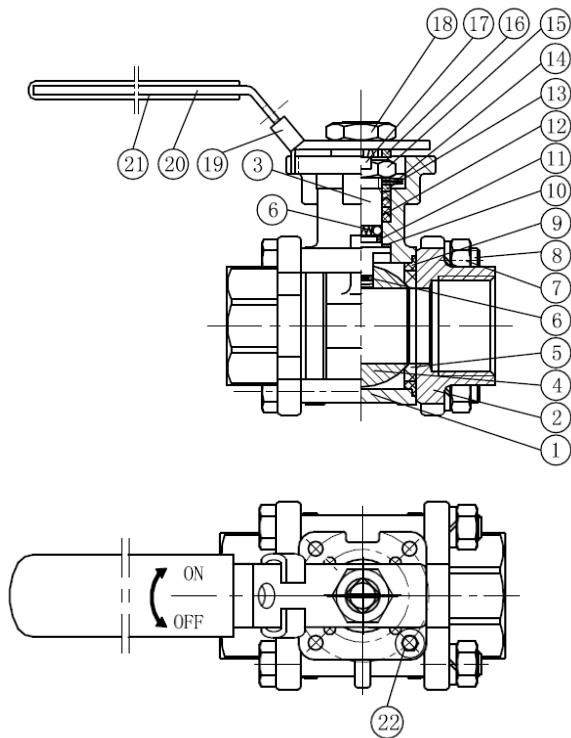
1. Type
2. Nominal pressure
3. Nominal size
4. Operating pressure
5. Differential pressure
6. Operating temperature
7. Fluid handled
8. Pipe connection
9. Valve materials, i.e. body, seat, ball
10. Variants

Pressure/temperature ratings

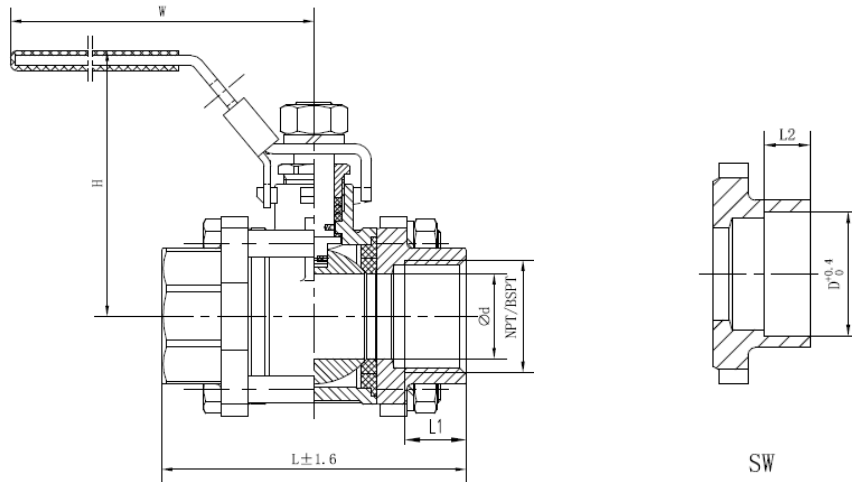
Permissible operating pressure


Materials
ECOLINE BLB-3FN


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	Packing	PTFE		
12	Gland	SS304		
13	Spring Washer	SS304		
14	Nut	A2-70		
15	Lever Lock	SS201		
16	Lever	SS201		
17	Lever Sleeve	PVC		

ECOLINE BLB-3FD


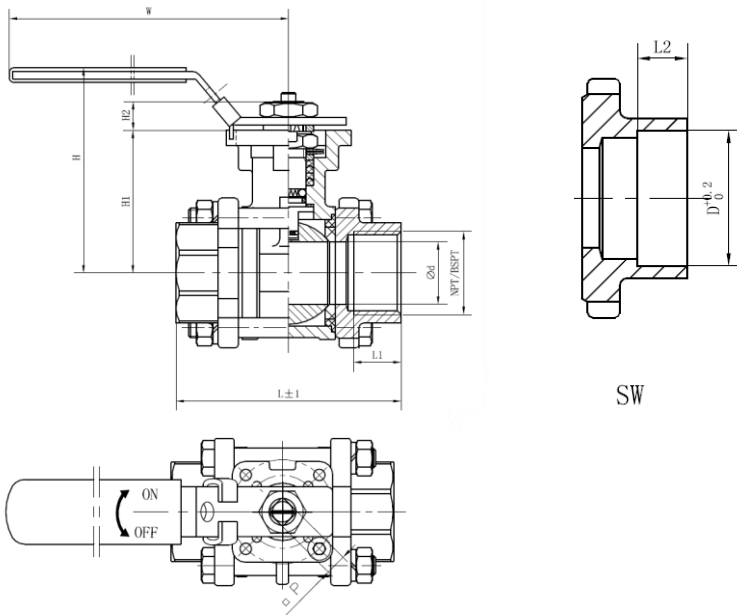
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2	Bonnet	WCB	CF8	CF8M
3	Stem	SS304	SS304	SS316
4	Ball	SS304	SS304	SS316
5	Seat	RPTFE		
6	Anti-Static Device	SS304	SS304	SS316
7	Nut	A194-8		
8	Stud	A193/B8		
9	Gasket	PTFE		
10	Thrust Washer	PTFE		
11	O-Ring	VITON		
12	Packing	PTFE		
13	Gland	SS304		
14	Spring	SS304		
15	Nut	SS304		
16	Washer	SS304		
17	Captive Ring	SS304		
18	Nut	SS304		
19	Lever lock	SS201		
20	Lever	SS201		
21	Lever Sleeve	PVC		
22	Stop Pin	SS304		

Dimensions (mm) and weight [kg]
ECOLINE BLB-3FN


NPS	DN	Ød	D	L	L1	L2	H	W	[kg]
1/4	8	10	14.2	50	10	10	51	98	0.33
3/8	10	12	17.6	60	12	10	58	98	0.36
1/2	15	15	21.8	70	16	10	62	102	0.52
3/4	20	20	27.2	80	18	13	67	125	0.72
1	25	25	33.9	86	18	13	73	125	0.93
1-1/4	32	32	42.7	101	21	13	84	150	1.57
1-1/2	40	38	48.8	108	20	13	101	177	2.07
2	50	49	61.2	136	25	16	112	177	2.95
2-1/2	65	65	73.9	165	32	16	134	255	5.50
3	80	78	89.8	192	36	16	140	255	7.70
4	100	98	115.2	242	47	19	169	300	13.50

Mating dimensions as per standard

Face-to-face lengths: Acc. to manufacturer
 Socket weld ends: ASME B16.11
 Threaded ends (NPT): ASME B1.20.1

ECOLINE BLB-3FD


NPS	DN	Ød	D1	L	L1	L2	H	H1	H2	P	W	ISO 5211	[kg]
1/4	8	10	14.2	60	10	10	58	31	7.5	9	110	F03-F04	0.70
3/8	10	12	17.7	60	12	10	58	31	7.5	9	110	F03-F04	0.70
1/2	15	15	21.8	75	15	10	67	40	8.0	9	110	F03-F04	0.71
3/4	20	20	27.2	80	15.5	13	73	46	8.0	9	110	F03-F04	0.90
1	25	25	33.9	90	18	13	88	57	10.0	11	160	F04-F05	1.27
1-1/4	32	32	42.7	110	20	13	95	64	10.0	11	160	F04-F05	1.97
1-1/2	40	38	48.8	120	23	13	107	71	14.0	14	185	F05-F07	2.62
2	50	50	61.2	140	25	16	118	82	14.0	14	185	F05-F07	3.63
2-1/2	65	65	73.9	185	36	16	168	98	16.0	17	305	F07-F10	7.30
3	80	78	89.8	205	36	16	178	110	16.0	17	305	F07-F10	11.50
4	100	100	115.2	240	39	19	198	130	18.0	19	305	F07-F10	16.90

Mating dimensions as per standard

Face-to-face lengths: Acc. to manufacturer
 Socket weld ends: ASME B16.11
 Threaded ends (NPT): ASME B1.20.1

Torques

NPS	DN	Torque (Nm)
1/4	8	13
3/8	10	13
1/2	15	15
3/4	20	25
1	25	42
1-1/4	32	58
1-1/2	40	75
2	50	92
2-1/2	65	172
3	80	260
4	100	380

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

Subject to technical modification without prior notice!