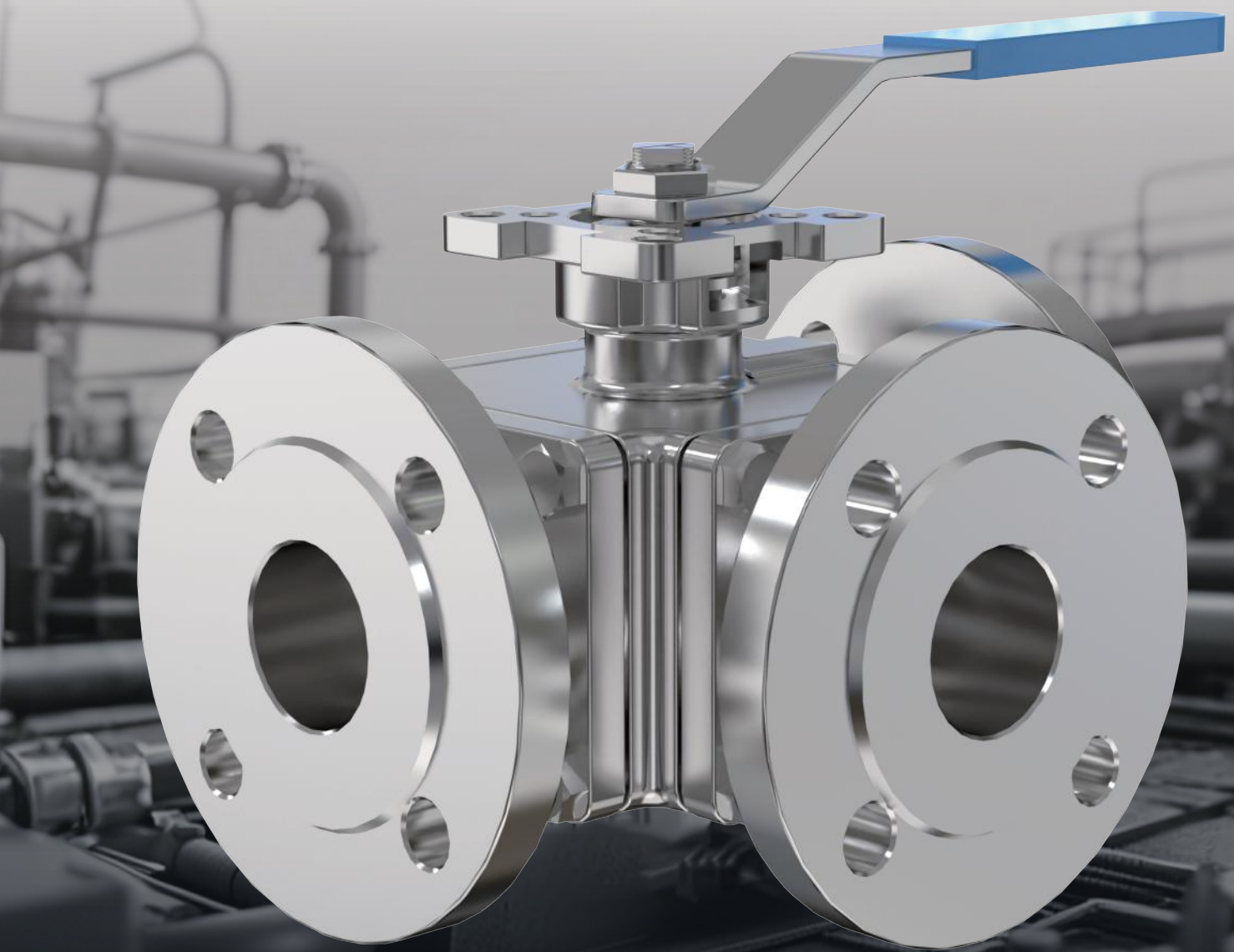
Flöriner
APPENDICES

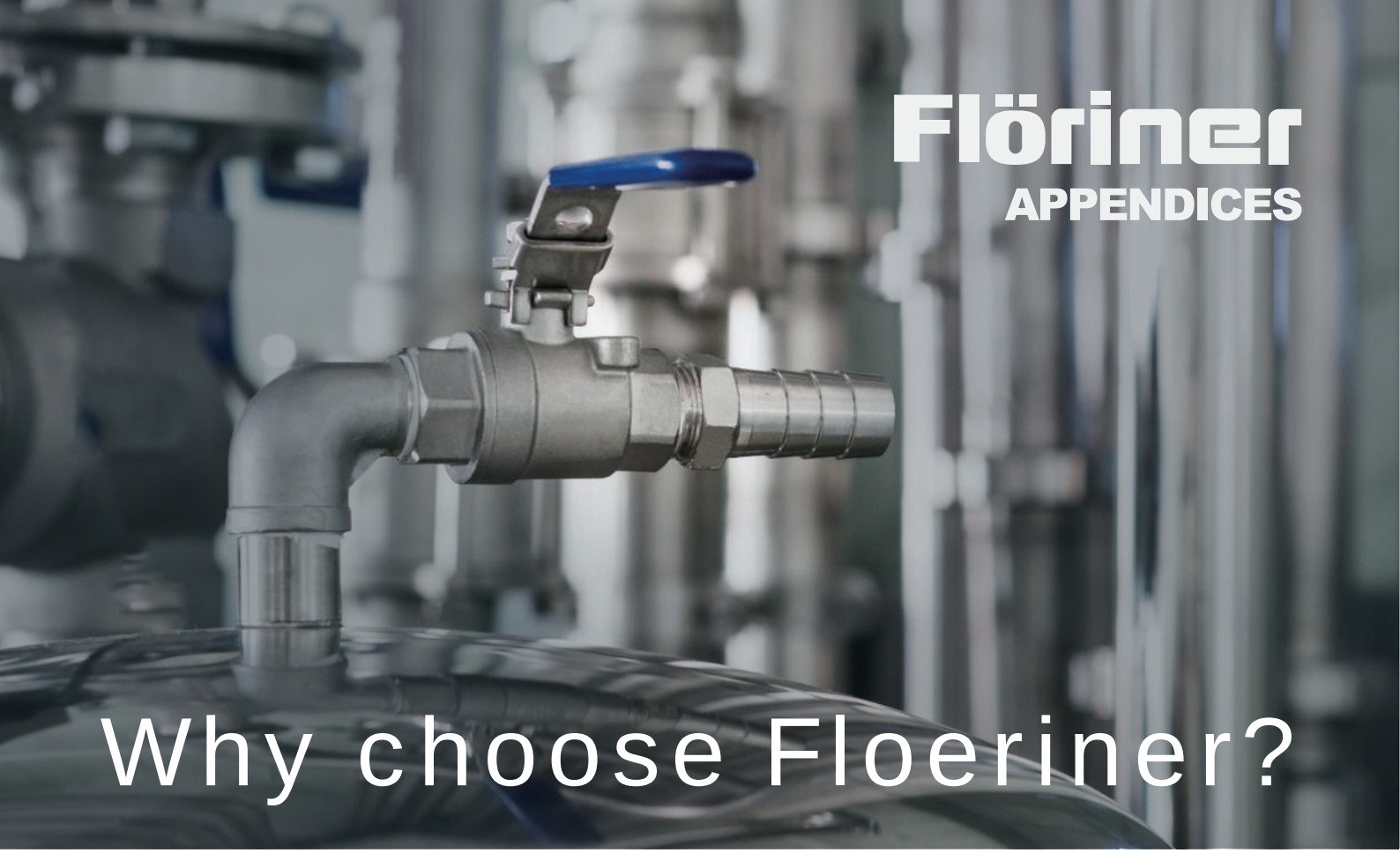
BALL VALVE

Applied in shipbuilding, offshore platforms, petrochemical plants, and other industrial applications.



Lloyd's Register

BUREAU VERITAS



Flöriner
APPENDICES

Why choose Floeriner?

Floeriner is a global manufacturer of innovatively designed and technologically advanced valves for the marine, offshore, and petrochemical industries. This, in turn, enhances plant safety, boosts the mechanical integrity of equipment, and enables customers to gain a competitive edge in the market.

Investment casting

The valve body and cap are cast using the investment casting process, resulting in a very smooth surface with no visible parting line, ensuring excellent dimensional accuracy.

Pressure relief hole in ball slot

The top of the ball is equipped with a pressure relief hole. When the valve is opened, the gap between the ball and valve body is connected, helping to prevent a rise in medium pressure due to temperature variations.

Anti-static devices for ball-stem-body

The valve stem is designed with two conductive small steel balls that maintain continuous contact with the valve body and ball, preventing static buildup.

Fire safe design

The valve is specially designed for sealing capabilities that meet fire safety standards, successfully passing the fire test according to API 607-6th edition and ISO 10497.

Blow-out proof stem

The valve stem is designed with a protective boss to ensure that, even if the gland is released, the stem will not blow out due to the pressure of the medium.

Handle with lock

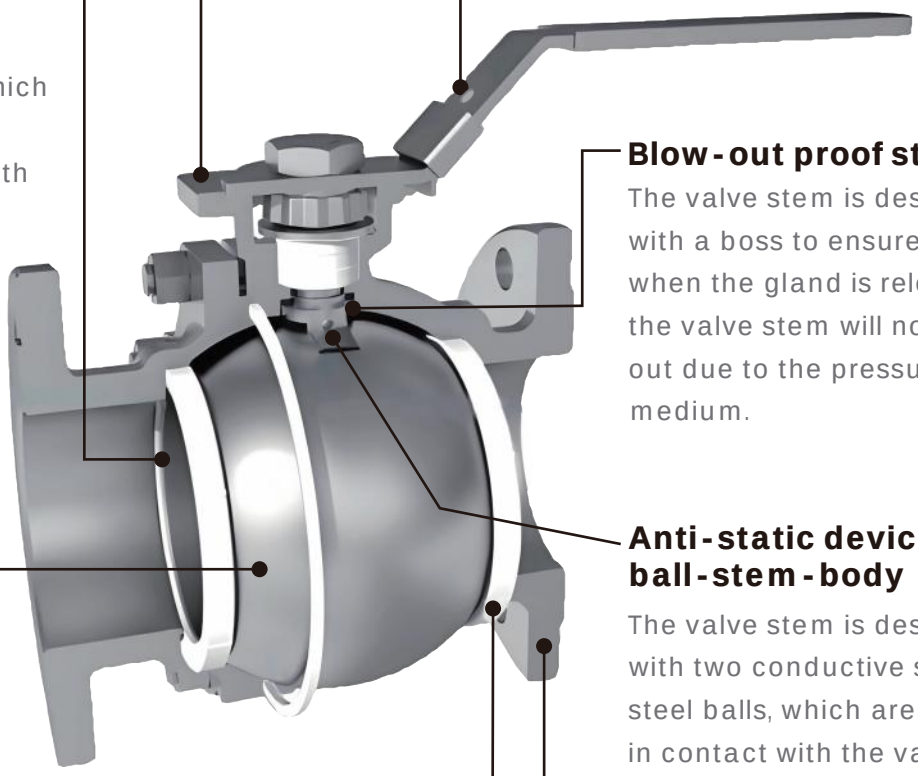
The valve handle can be locked in critical positions to prevent misuse or unauthorized operation.

Product advantages at a glance

Mounting pad
ISO 5211 direct mounting pad makes it easy to install actuator directly.

Handle with lock
Handle of valve in important positions can be locked to prevent misuse.

Fire safe design
Special designed for sealing capabilities, which passed the fire test according to API 607-6th edition and ISO 10497.



Blow-out proof stem
The valve stem is designed with a boss to ensure that when the gland is released, the valve stem will not blow out due to the pressure of the medium.

Anti-static devices for ball-stem-body
The valve stem is designed with two conductive small steel balls, which are always in contact with the valve body and the ball.

Solid ball
For high performance working conditions.

Pressure relief hole in seat
The top of the ball is designed with a pressure guide hole. When the valve is opened, the gap between the ball and the valve body can be connected to prevent the medium pressure from rising under the effect of temperature difference.

Investment casting
Investment casting body and cap with very smooth surface and no parting line, the dimensional accuracy is good.

FB SERIES

Floeriner ball valves are engineered for reliable performance and versatile applications. They are suitable for installation between flanges in accordance with DIN, EN, ISO PN6–40, JIS 5K–16K, and ASME 150# standards, with ASME 300# flange connections available upon request to meet special project requirements.

The valves are manufactured in compliance with international dimension standards, including ISO 5752 / EN 558, API 609, DIN 3202, BS 5155, and JIS B2002, ensuring compatibility and easy replacement in global markets. Sizes range from DN8 to DN100, covering a broad spectrum of piping systems commonly used in shipbuilding, offshore platforms, petrochemical plants, and other industrial applications.A wide selection of designs, materials, and seat configurations is available to suit different media and operating conditions, with working pressures up to 1000 psi. This flexibility makes Floeriner ball valves well-suited for demanding environments requiring durability, safety, and low maintenance.

For operation, the valves can be supplied with manual hand levers, gear operators, or remote control actuation. The actuator interface is designed with a standardized ISO 5211 mounting pad, allowing direct installation of pneumatic, electric, or hydraulic actuators without additional adapters, simplifying automation and integration.

FB2T

Threaded ball valve.

Nominal size: DN8~100 Design: ASME B16.34

Thread Options: G, ZG, NPT, BSPP, BSPT, etc.

Testing & inspection: EN 12266, API 598, and ISO 5208

FB2F

GB standard flange ball valve with ISO 5211 mounting pad.

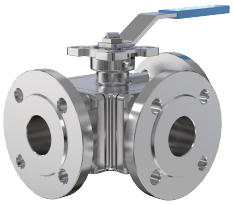
Nominal size: DN15~400 Design: GB/T 12237

Face to face: DIN 3202, EN 558, ISO 5752, JIS B2002, BS 2080, ANSI B16.10, etc.

Connection: GB/T 9113, GB/T 9119, GB/T 2506; JIS B2212 / B2220; EN 1092; DIN 2542 / 2543 / 2544 / 2545; ASME B16.5

Actuator Interface: Top flange in accordance with EN ISO 5211

Testing & inspection: EN 12266, API 598, ISO 5208



FB3F

Flange 3-way ball valve with ISO 5211 mounting pad.

Type: L&T type Nominal size: DN15~100

Design: ASME B16.34, BS 5351, DIN 3357, GB/T 12237

Face to face: DIN 3202, EN 558, ISO 5752, JIS B2002, BS 2080, ANSI B16.10, etc.

Connection: GB/T 9113, GB/T 9119, GB/T 2506; JIS B2212 / B2220; EN 1092; DIN 2542 / 2543 / 2544 / 2545; ASME B16.5

Actuator Interface: Top flange in accordance with EN ISO 5211

Testing & inspection: EN 12266, API 598, ISO 5208

FB3T

Type: L & T port Nominal Size: DN15 – DN50

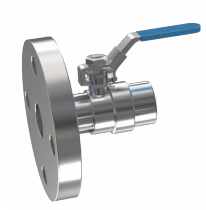
Design Standard: ASME B16.34

Thread Options: G, ZG, NPT, BSPP, BSPT, etc.

Compliant with ANSI B1.20.1, BS 21, DIN 2999/259, ISO 228/1

Actuator Interface: Top flange in accordance with EN ISO 5211

Testing & Inspection: EN 12266, API 598, ISO 5208



FB2FT

Nominal Size: DN15 – DN50

Thread Types: G, ZG, NPT, BSPP, BSPT, etc.

Flange Connections: GB/T 9113, GB/T 9119, GB/T 2506; JIS B2212 / B2220; EN 1092; DIN 2542 / 2543 / 2544 / 2545; ASME B16.5

Testing & Inspection: EN 12266, API 598, ISO 5208

FB2T series

The FB2T series threaded ball valve is a floating, full-port, straight-through type with a soft-seated design. The ball requires only a 90° rotation to achieve full opening or closing. Since the bore diameter matches the pipeline diameter, the valve provides excellent shut-off performance, minimal flow resistance, and maximum flow capacity. This valve is equipped with a blow-out-proof stem and anti-static device, ensuring safety and reliability during operation. It is suitable for on/off control of a wide range of fluids, including both liquids and gases. Thanks to its robust design and versatile compatibility, the FB2T2 threaded ball valve is widely applied in general industrial and marine piping systems, handling media such as seawater, fresh water, gases, oil, and corrosive fluids.

Nominal Size: DN8 – DN100
Design Standard: ASME B16.34
Thread Types: G, ZG, NPT, BSPP, BSPT, etc.
Testing & Inspection: EN 12266, API 598, ISO 5208

Pressure and temperature range

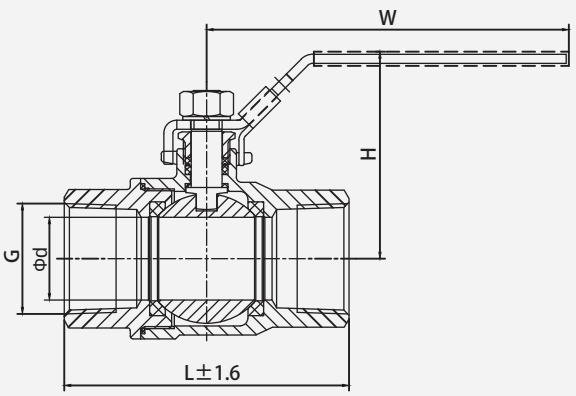
PN	DN	Temp.
☐ 6	DN8-DN100	☐ PTFE -46°C~+190°C
☐ 10	DN8-DN100	☐ PTFE -55°C~+190°C
☐ 16	DN8-DN100	☐ RPTFE -55°C~+230°C
☐ 25	DN8-DN100	☐ TFM -200°C~+260°C
☐ 40	DN8-DN100	☐ Metallic -10°C~+650°C
☐ 63	DN8-DN100	☐ RPTFE+Metallic -10°C~+650°C

Material

Body	Ball	Shaft	Shaft
Cast steel	SS 304	SS 304	PTFE
SS 304	SS 316	SS 316	RPTFE
SS 316	SS 316L	SS 316L	TFM
SS 316L	SS 420	SS 420	Metallic
Duplex SS	Duplex SS	Duplex SS	RPTFE+Metallic
Brass	Brass	Brass	

Dimension

Size		d	L	W	H	G
1/4"	DN8	10	55	90	49	1/4"
3/8"	DN10	12	60	90	49	3/8"
1/2"	DN15	15	75	110	52	1/2"
3/4"	DN20	20	80	120	63	3/4"
1"	DN25	25	90	130	67	1"
1 1/4"	DN32	32	110	140	80	1 1/4"
1 1/2"	DN40	38	120	175	93	1 1/2"
2"	DN50	49	140	175	110	2"
2 1/2"	DN65	64	185	220	117	2 1/2"
3"	DN80	76	205	270	134	3"
4"	DN100	100	240	310	157	4"



FB2F

The FB2F series is a floating, full-port, straight-through ball valve with a soft-seated design. The ball requires only a 90° rotation to achieve complete opening or closing. With a bore diameter equal to that of the pipeline, the valve ensures excellent shut-off performance, low flow resistance, and high flow capacity.

For enhanced safety and reliability, the valve is equipped with a blow-out-proof stem and anti-static device, making it suitable for the on/off control of liquids and gases under various operating conditions.

Thanks to its robust design and standardized ISO 5211 mounting pad, this valve can be easily automated with pneumatic, electric, or hydraulic actuators . It is widely used in industrial and marine piping systems, handling media such as seawater, fresh water, gases, oil, and corrosive fluids.

Pressure and temperature range

PN	DN	Temp.
☐ 6	DN65-DN400	☐ PTFE -55°C~+190°C
☐ 10	DN65-DN400	☐ RPTFE-55°C~+230°C
☐ 16	DN65-DN400	☐ TFM-200°C~+260°C
☐ 25	DN15-DN50	☐ Metallic-10°C~+650°C
☐ 40	DN15-DN50	☐ RPTFE+Metallic -10°C~+650°C

Material

Body	Ball	Shaft	Shaft
Cast steel	SS 304	SS 304	PTFE
SS 304	SS 316	SS 316	RPTFE
SS 316	SS 316L	SS 316L	TFM
SS 316L	SS 420	SS 420	Metallic
Duplex SS	Duplex SS	Duplex SS	RPTFE+Metallic
Brass	Brass	Brass	

Dimension

DN	L	H	W	A	B	R	r	K	h
DN15	130	75	110	42	36	3	3	9	10
DN20	130	83	110	42	36	3	3	9	10
DN25	140	90	150	50	42	3.5	3	11	12
DN32	165	102	150	50	42	3.5	3	11	12
DN40	165	114	190	70	50	4.5	3.5	14	15
DN50	203	122	190	70	50	4.5	3.5	14	15
DN65	222	168	300	70	50	4.5	3.5	14	15
DN80	241	179	300	102	70	5.5	4.5	17	18
DN100	305	197	300	102	70	5.5	4.5	17	18
DN125	325	230	410	125	102	14	12	22	18
DN150	350	265	410	125	102	14	12	22	18
DN200	400	297	410	140	125	18	14	27	23
DN250	450	334	500	140	125	18	14	27	23
DN300	500	364	500	165	140	22	18	36	23
DN350	550	394	500	165	140	22	18	36	23
DN400	600	425	500	254	165	18	22	46	23

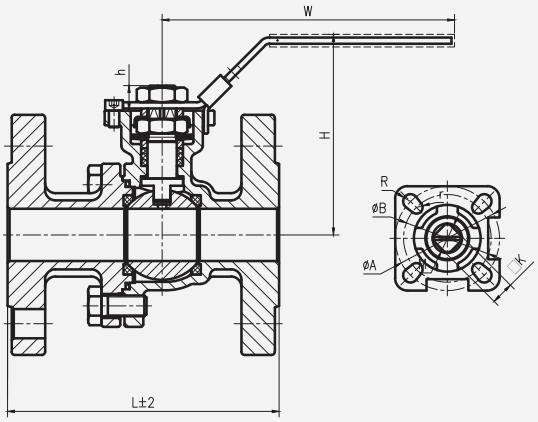
Nominal Size: DN15 – DN400

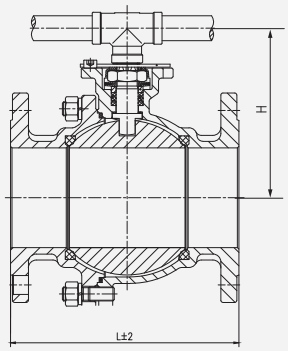
Design Standards: GB/T 12237, ASME B16.34, BS 5351, DIN 3357

Face-to-Face Dimensions: DIN 3202, EN 558, ISO 5752, JIS B2002, BS 2080, ANSI B16.10, etc.

Flange Connections: GB/T 9113, GB/T 9119, GB/T 2506; ASME B16.5; EN 1092; DIN 2542 / 2543 / 2544 / 2545

Actuator Interface: Top flange in accordance with EN ISO 5211



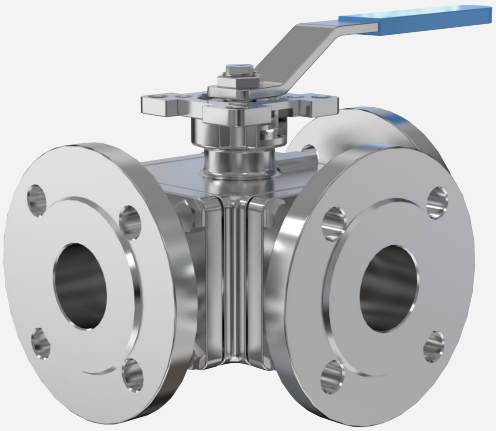


FB3F

The FB3F series is a floating, full-port, straight-through ball valve with a soft-seated design. The ball requires only a 90° rotation to achieve full opening or closing. With a bore diameter equal to that of the pipeline, the valve ensures excellent shut-off performance, minimal flow resistance, and high flow capacity.

Equipped with a blow-out-proof stem and anti-static device, this valve provides safe and reliable operation for the on/off control of liquids and gases.

Designed for versatility, the FB3F flanged 3-way ball valve is widely used in industrial and marine piping systems, handling media such as seawater, fresh water, gases, oil, and corrosive fluids. The ISO 5211 mounting pad allows for easy automation with pneumatic, electric, or hydraulic actuators.



Pressure and temperature range

PN	DN	Temp.
☐ 6	DN65-DN400	☐ PTFE -55°C~+190°C
☐ 10	DN65-DN400	☐ RPTFE -55°C~+230°C
☐ 16	DN65-DN400	☐ TFM -200°C~+260°C
☐ 25	DN15-DN50	☐ Metallic -10°C~+650°C
☐ 40	DN15-DN50	☐ RPTFE+Metallic -10°C~+650°C

Material

Body	Ball	Shaft	Shaft
Cast steel	SS 304	SS 304	PTFE
SS 304	SS 316	SS 316	RPTFE
SS 316	SS 316L	SS 316L	TFM
SS 316L	SS 420	SS 420	Metallic
Duplex SS	Duplex SS	Duplex SS	RPTFE+Metallic
Brass	Brass	Brass	

Dimension

DN	L1	L2	W	A	B	R	r	K
DN15	152	76	110	42	36	3	3	9
DN20	167	83.5	110	42	36	3	3	9
DN25	190	95	150	50	42	3.5	3	11
DN32	208	104	150	50	42	3.5	3	11
DN40	220	110	190	70	50	4.5	3.5	14
DN50	254	127	190	70	50	4.5	3.5	14
DN65	290	145	190	120	70	12	10	18
DN80	310	155	210	120	70	12	10	18
DN100	352	176	210	120	70	12	10	22

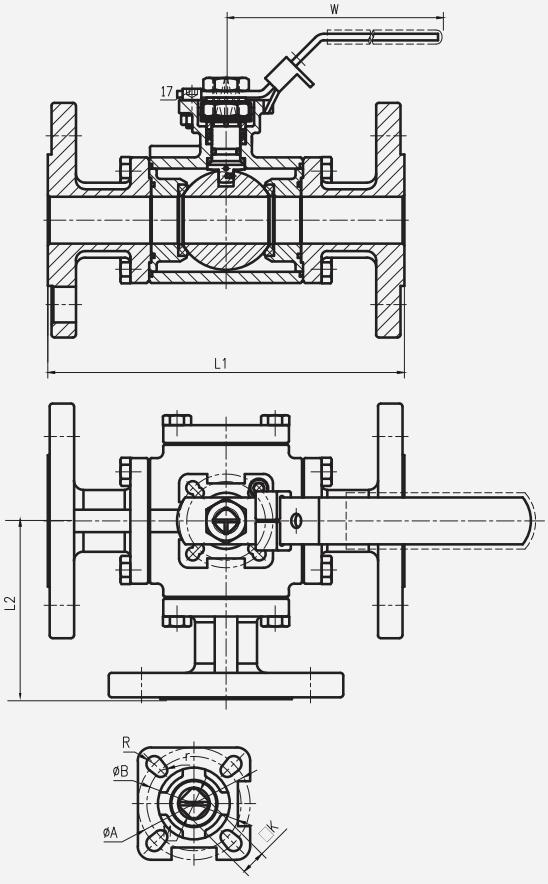
Nominal Size: DN15 – DN100

Design Standards: GB/T 12237, ASME B16.34, BS 5351, DIN 3357

Face-to-Face Dimensions: DIN 3202, EN 558, ISO 5752, JIS B2002, BS 2080, ANSI B16.10, etc.

Flange Connections: GB/T 9113, GB/T 9119, GB/T 2506; ASME B16.5; EN 1092; DIN 2542 / 2543 / 2544 / 2545

Actuator Interface: Top flange in accordance with EN ISO 5211



FB3T

FBL/TT1 series Threaded 3-way ball valve with ISO 5211 mounting pad, is a floating full port straight type ball with soft seal. The ball only needs to rotate 90° to achieve full opening or closing of the valve. The diameter of the ball channel is the same as the diameter of the pipeline so the valve has excellent cutting performance, small flow resistance and large flow capacity. Also it has the functions of blow out proof stem and anti-static devices, which is suitable for cutting off control of various fluids such as liquid and gas.

This ball valve can be widely used in general industrial and maritime piping systems for media such as seawater, water, gases, oil and corrosive media.

Pressure and temperature range

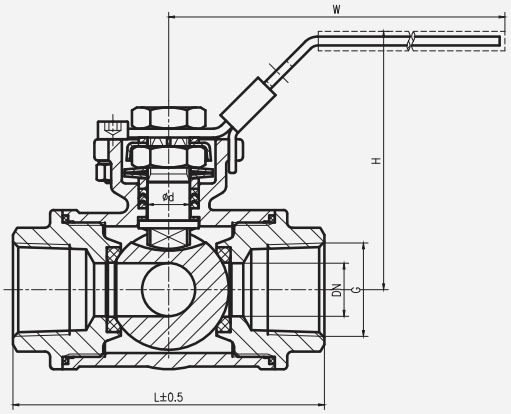
PN	DN	Temp.
☐ 6	DN15-DN50	☐ PTFE -55°C~+190°C
☐ 10	DN15-DN50	☐ RPTFE -55°C~+230°C
☐ 16	DN15-DN50	☐ TFM -200°C~+260°C
☐ 25	DN15-DN50	☐ Metallic -10°C~+650°C
☐ 40	DN15-DN50	☐ RPTFE+Metallic -10°C~+650°C

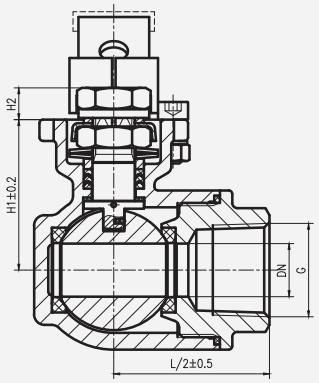
Material

Body	Ball	Shaft	Shaft
Cast steel	SS 304	SS 304	PTFE
SS 304	SS 316	SS 316	RPTFE
SS 316	SS 316L	SS 316L	TFM
SS 316L	SS 420	SS 420	Metallic
Duplex SS	Duplex SS	Duplex SS	RPTFE+Metallic
Brass	Brass	Brass	

Dimension

Size	DN	L	G	d	H	H1	H2	W	ISO 5211
1/2"	DN15	152	1/2"	12	73.5	43	9	120	F03 / F04
3/4"	DN20	167	3/4"	12	74	45	9	120	F03 / F04
1"	DN25	190	1"	14	92.5	56	11	140	F04 / F05
1 1/4"	DN32	208	1 1/4"	14	98	62	11	140	F04 / F05
1 1/2"	DN40	220	1 1/2"	18	107	74	14	190	F05 / F07
2"	DN50	254	2"	18	111	78	14	220	F05 / F07



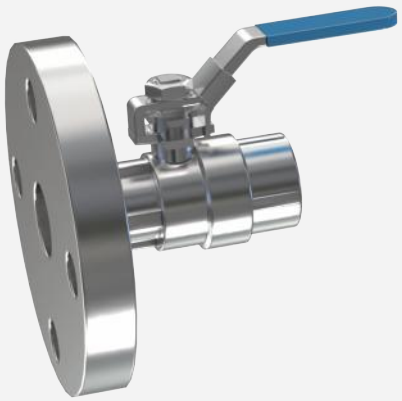


FB2FT

The FB2FT Series Single Flange Ball Valve features a unique one-flange, one-thread end design, offering an ideal solution for efficient connections between different piping and equipment specifications.

Optimized for a wide range of applications, it is perfectly suited for securely integrating various measurement and control components—such as pressure sensors, temperature instruments, and quick couplings—into system pipelines or tank installations. The threaded end facilitates easy attachment of instruments, while the flanged end ensures a robust seal to the piping system. It also serves as a perfect port for connecting hoses to enable rapid fluid transfer or temporary sampling.

This series boasts excellent pressure tolerance and quick shut-off, guaranteeing system integrity and streamlining installation and maintenance processes. It is a versatile and reliable choice for industrial fluid control systems.

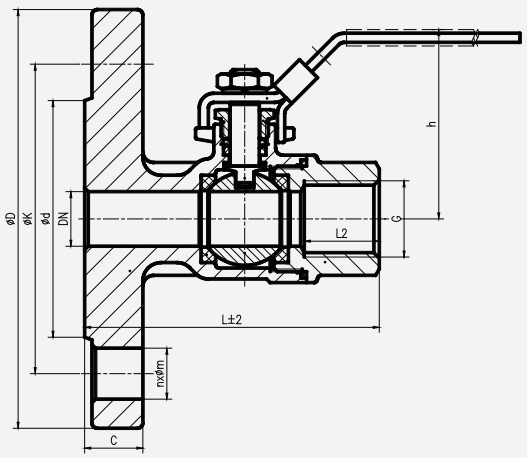


Pressure and temperature range

PN	DN	Temp.
☐ 6	DN15-DN50	☐ PTFE -55°C~+190°C
☐ 10	DN15-DN50	☐ RPTFE -55°C~+230°C
☐ 16	DN15-DN50	☐ TFM -200°C~+260°C
☐ 25	DN15-DN50	☐ Metallic -10°C~+650°C
☐ 40	DN15-DN50	☐ RPTFE+Metallic -10°C~+650°C

Material

Body	Ball	Shaft	Shaft
Cast steel	SS 304	SS 304	PTFE
SS 304	SS 316	SS 316	RPTFE
SS 316	SS 316L	SS 316L	TFM
SS 316L	SS 420	SS 420	Metallic
Duplex SS	Duplex SS	Duplex SS	RPTFE+Metallic
Brass	Brass	Brass	

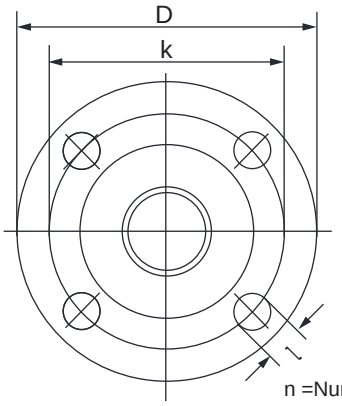


Dimension

DN	L	L1	L2	h	φD	φK	φd	nxφd	C	G
DN15	81	100	20.5	52	95	65	45	4x14	14	G 1/2"
DN20	81	100	20.5	52	105	75	58	4x14	16	G 1/2"/G3/4"
DN25	81	100	20.5	52	115	85	68	4x14	16	G 1/2"/G3/4"G1"
DN32	95	100	25	60	140	100	78	4x18	18	G 1 1/4"
DN40	105	150	25	72	150	110	88	4x18	18	G 1 1/2"
DN50	110	150	25	85	165	125	102	4x18	20	G 2"

Flanges

Flange Standard		DIN1092 PN 6				DIN1092 PN 10				DIN1092 PN 16				DIN1092 PN 25			
DN		D	k	n	l	D	k	n	l	D	k	n	l	D	k	n	l
mm	in.	mm	mm		mm	mm	mm		mm	mm	mm		mm	mm	mm		mm
40	1 1/2"	130	100	4	14	*identical with PN 16*				150	110	4	18	150	110	4	18
50	2"	140	110	4	14					165	125	4	18	165	125	4	18
65	2 1/2"	160	130	4	14					185	145	4	18	185	145	8	18
80	3"	190	150	4	18					200	160	8	18	200	160	8	18
100	4"	210	170	4	18					220	180	8	18	235	190	8	22
125	5"	240	200	8	18					250	210	8	18	270	220	8	26
150	6"	265	225	8	18					285	240	8	22	300	250	8	26
200	8"	320	280	8	18	340	295	8	22	340	295	12	22	360	310	12	26
250	10"	375	335	12	18	395	350	12	22	405	355	12	26	425	370	12	30
300	12"	440	395	12	22	445	400	12	22	460	410	12	26	485	430	16	30
350	14"	490	445	12	22	505	460	16	22	520	470	16	26	555	490	16	33
400	16"	540	495	16	22	565	515	16	26	580	525	16	30	620	550	16	36
450	18"	595	550	16	22	615	565	20	26	640	585	20	30	670	600	20	36
500	20"	645	600	20	22	670	620	20	26	715	650	20	33	730	660	20	36
600	24"	755	705	20	26	780	725	20	30	840	770	20	36	845	770	20	39
700	28"	860	810	24	26	895	840	24	30	910	840	24	36	960	875	24	42
800	32"	975	920	24	30	1015	950	24	33	1025	950	24	39	1085	990	24	48
900	36"	1075	1020	24	30	1115	1050	28	33	1125	1050	28	39	1185	1090	28	48
1000	40"	1175	1120	28	30	1230	1160	28	36	1255	1170	28	42	1320	1210	28	56
1200	48"	1450	1340	32	33	1455	1380	32	39	1485	1390	32	48	1530	1420	32	56

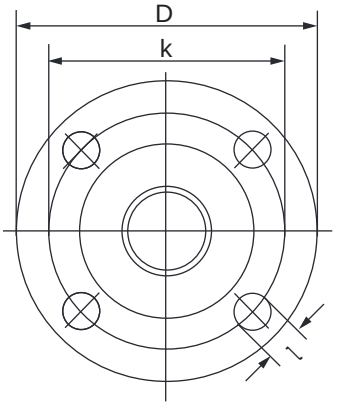


n =Number of Holes

Flange Standard		GB/T9119 PN 6				GB/T9119 PN 10				GB/T9119 PN 16				GB/T9119 PN 25			
DN		D	k	n	l	D	k	n	l	D	k	n	l	D	k	n	l
mm	in.	mm	mm		mm	m mm	m m		m	mm	mm		mm	mm	mm		mm
40	1 1/2"	130	100	4	14	*identical with PN 16*				150	110	4	18	150	110	4	18
50	2"	140	110	4	14					165	125	4	18	165	125	4	18
65	2 1/2"	160	130	4	14					185	145	4	18	185	145	8	18
80	3"	190	150	4	18					200	160	8	18	200	160	8	18
100	4"	210	170	4	18					220	180	8	18	235	190	8	22
125	5"	240	200	8	18					250	210	8	18	270	220	8	26
150	6"	265	225	8	18					285	240	8	22	300	250	8	26
200	8"	320	280	8	18	340	295	8	22	340	295	12	22	360	310	12	26
250	10"	375	335	12	18	395	350	12	22	405	355	12	26	425	370	12	30
300	12"	440	395	12	22	445	400	12	22	460	410	12	26	485	430	16	30
350	14"	490	445	12	22	505	460	16	22	520	470	16	26	555	490	16	33
400	16"	540	495	16	22	565	515	16	26	580	525	16	30	620	550	16	36
450	18"	595	550	16	22	615	565	20	26	640	585	20	30	670	600	20	36
500	20"	645	600	20	22	670	620	20	26	715	650	20	33	730	660	20	36
600	24"	755	705	20	26	780	725	20	30	840	770	20	36	845	770	20	39
700	28"	860	810	24	26	895	840	24	30	910	840	24	36	960	875	24	42
800	32"	975	920	24	30	1015	950	24	33	1025	950	24	39	1085	330	24	48
900	36"	1075	1020	24	30	1115	1050	28	33	1125	1050	28	39				
1000	40"	1175	1120	28	30	1230	1150	28	36	1255	1170	28	42				
1200	48"	1405	1340	32	33	1455	1380	32	39	1485	1390	32	48				

Flanges

Flange Standard		ANSI B 16.5 150 lb/sq. in							ANSI B 16.5 300 lb/sq. in.						
DN		D		k		n	l		D		k		n	l	
mm	in.	mm	in.	mm	in.		mm	in.	mm	in.	mm	in.		mm	in.
40	1 1/2"	127	5"	98.4	3 ⅞"	4	15.9	5/8"	155.6	6 1/8"	114.3	4 3/4"	4	22.2	3/4"
50	2"	152.4	6"	120.7	4 3/4"	4	19	3/4"	165.1	6 1/2"	127	5"	8	19	3/4"
65	2 1/2"	177.8	7"	139.7	5 1/2"	4	19	3/4"	190.5	7 1/2"	149.2	5 7/8"	8	22.2	7/8"
80	3"	190.5	7 1/2"	152.4	6"	4	19	3/4"	209.6	8 1/4"	168.3	6 5/8"	8	22.2	7/8"
100	4"	228.6	9"	190.5	7 1/2"	8	19	3/4"	254	10"	200	7 8/8"	8	22.2	7/8"
125	5"	254	10"	215.9	8 1/2"	8	22.2	7/8"	279.4	11"	235	9 1/4"	8	22.2	7/8"
150	6"	279.4	11"	241.3	9 1/2"	8	22.2	7/8"	317.5	12 1/2"	269.9	10 5/8"	12	22.2	7/8"
200	8"	342.9	13 1/2"	298.5	11 3/4"	8	22.2	7/8"	381	15"	330.2	13"	12	25.4	1"
250	10"	406.4	16"	361.9	14 1/4"	12	25.4	1"	444.5	17 1/2"	387.3	15 1/4"	16	28.6	1 1/8"
300	12"	482.6	19"	431.8	17"	12	25.4	1"	520.7	20 1/2"	450.8	17 3/4"	16	31.7	1 1/4"
350	14"	533.4	21"	476.2	18 3/4"	12	28.6	1 1/8"	584.2	23"	514.3	20 1/4"	20	31.7	1 1/4"
400	16"	596.9	23 1/2"	539.7	21 1/4"	16	28.6	1 1/8"	647.7	25 1/2"	571.5	22 1/2"	20	34.9	1 3/8"
450	18"	635	25"	577.9	22 3/4"	16	31.7	1 1/4"	711.2	28"	628.7	24 3/4"	24	34.9	1 3/8"
500	20"	698.5	27 1/2"	635	25	20	31.7	1 1/4"	774.7	30 1/2"	685.8	27"	24	34.9	1 3/8"
600	24"	812.8	32"	749.3	29 1/2"	20	34.9	1 3/8"	914.4	36"	812.8	32"	24	41.3	1 5/8"



n =Number of Holes

Flange Standard		JIS 5K				JIS 10K				JIS 16K			
DN		D	k	n	l	D	k	n	l	D	k	n	l
mm	in.	mm	mm		mm	mm	mm		mm	mm	mm		mm
40	1 1/2"	120	95	4	15	140	105	4	19	140	105	4	19
50	2"	130	105	4	15	155	120	4	19	155	120	8	19
65	2 1/2"	155	130	4	15	175	140	4	19	175	140	8	19
80	3"	180	145	4	19	185	150	8	19	200	160	8	23
100	4"	200	165	8	19	210	175	8	19	225	185	8	23
125	5"	235	200	8	19	250	210	8	23	270	225	8	25
150	6"	265	230	8	19	280	240	8	23	305	260	12	25
200	8"	320	280	8	23	330	290	12	23	350	305	12	25
250	10"	385	345	12	23	400	355	12	25	430	380	12	27
300	12"	430	390	12	23	445	400	16	25	480	430	16	27
350	14"	480	435	12	25	490	445	16	25	540	480	16	33
400	16"	540	495	16	25	560	510	16	27	605	540	16	33
450	18"	605	555	16	25	620	565	20	27	675	605	20	27
500	20"	655	605	20	25	675	620	20	27	730	660	20	33
600	24"	770	715	20	27	795	730	24	33	845	770	24	39
700	28"	875	820	24	27	905	840	24	33				
800	32"	995	930	24	33	1020	950	28	33				
900	36"	1092	1030	24	33	1120	1050	28	33				
1000	40"	1195	1130	28	33	1235	1160	28	39				
1200	48"	1420	1350	32	33	1465	1380	32	39				

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Flöriner

APPENDICES