JDV
CONTROL
VALVES

JBF/JBFM Cryogenic Series

Floating Type Soft Metal Seat Ball Valve



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Full Bore Two-Piece Flanged Ends
JIS 10/20K ANSI 150/300LB DIN PN16/40

Extending the design of JBF and JBFM series, JDV developed this series for low temperature application used in Refinery, Petrochemical, and other cryogenic industries.



Product Features

1. Seat material in Soft-Seat and Metal-Seat for different services
2. Anti-Static design
3. ISO Mounting pad design



Applicable Standards

- Body Material：Standard in LCB, LCC, LC9, CF8, CF8M
  Special material is available according to requirements.
- Nominal Size：1/2" to 6" (DN15 to DN150)
- Pressure Rating：JIS 10/20K ANSI 150/300LB DIN PN16/40
- End Connections：RF, RTJ
- Temperature Range：(a) JBF Series (Soft Seat)：-196 Deg C to 120 Deg C
  (b) JBFM Series (Metal Seat)：-196 Deg C to 300 Deg C
- Face-To-Face Dimensions：JIS B2002 / ANSI B16.10 / DIN 3202 F4/F5
- Flange Dimensions：JIS B2238 / ANSI B16.5 / DIN 2632/2633/2634/2635
- Body Pressure Testing：JIS B2003 / ANSI B13.34 / API 598
- Seat Leakage Testing： (a) JBF Series (Soft Seat)：BS6364
  (b) JBFM Series (Metal Seat：BS6364
- Casting：MSS-SP-25 / MSS-SP-55

Applications

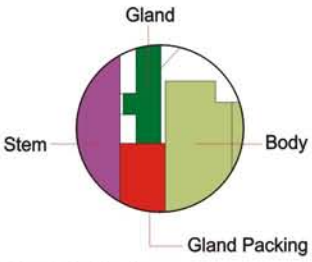
1. Low temperature
2. Abrasive fluids




Cryogenic Testing according to BS6364

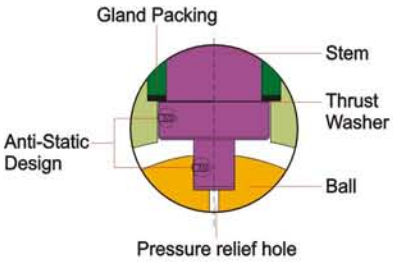
Design & Structures

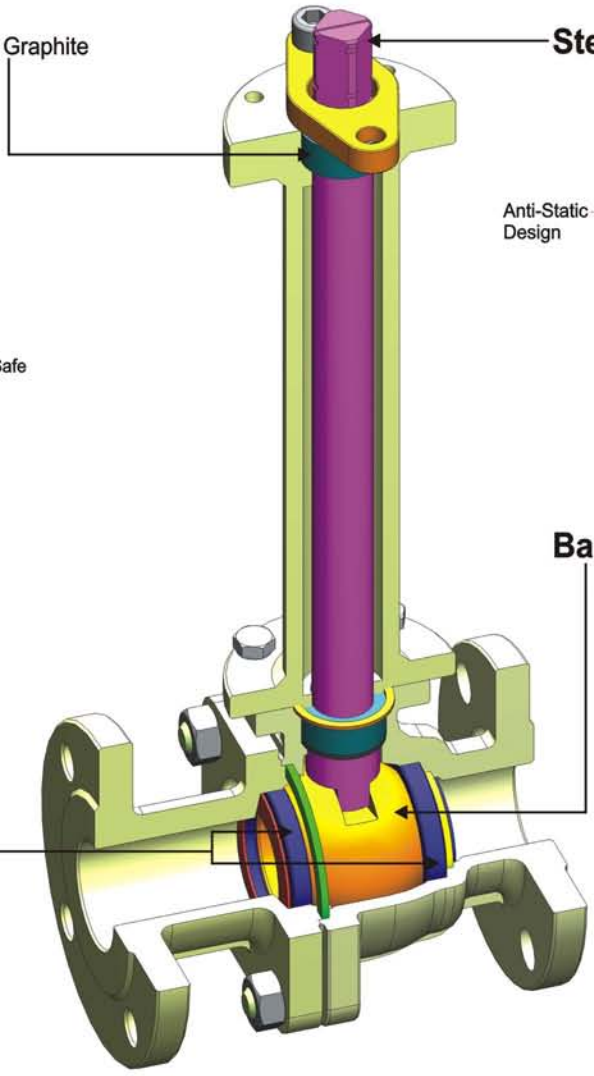
Gland Packing : Flexible Graphite



Gland Packing Area
Graphite gland packing designed for Fire Safe ensures the safety under fire accident.

Stem : SUS304/316

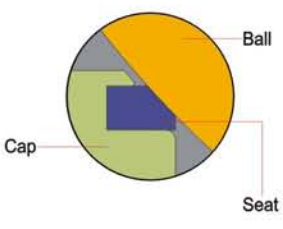




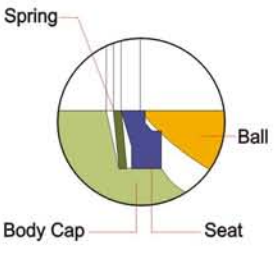
Ball : Stainless Steel
Stainless Steel + HCr/TC



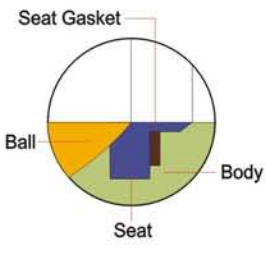
Seats :
TFM-1600
PCTFE
Stainless Steel + Stellite/TC



Seat Area (Upstream & Downstream Sides) - Soft Seat



Seat Area (Upstream side) Metal Seat
Seat Spring provides flexibility to piping stress for stabilizing the operation.



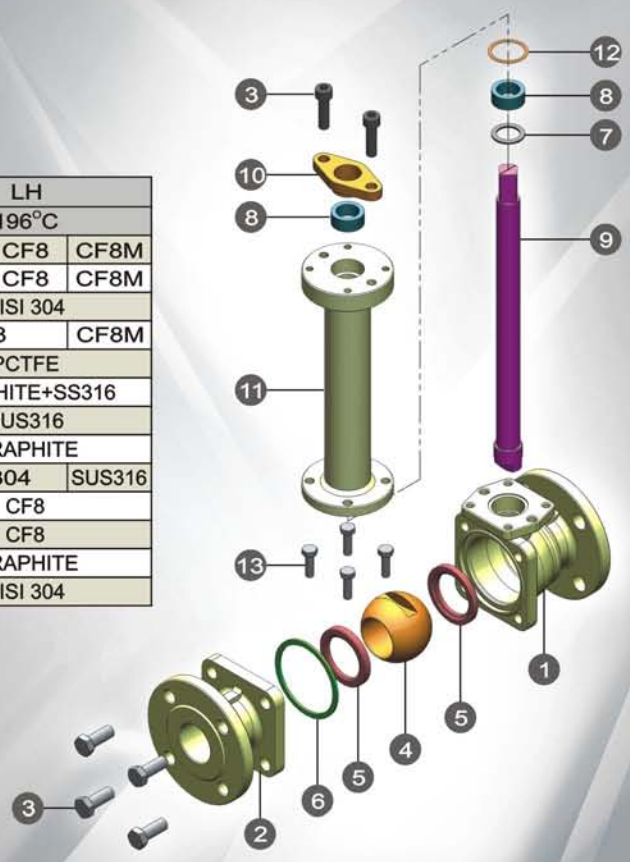
Seat Area (Downstream side) Metal Seat
Seat-Gasket is Pressed-fit into the body and this provides the stability for a wide temperatures range.

Technical Specification

JBF SERIES

MATERIAL

NO	TEMPERATURE	LM			LH		
		-40°C			-196°C		
1	BODY	LCB/LCC	CF8	CF8M	LC9	CF8	CF8M
2	CAP	LCB/LCC	CF8	CF8M	LC9	CF8	CF8M
3	BOLT	AISI 304			AISI 304		
4	BALL	CF8		CF8M	CF8		CF8M
5	SEAT	TFM-1600			PCTFE		
6	GASKET	GRAPHITE+SS316			GRAPHITE+SS316		
7	THRUST WASHER	SUS316			SUS316		
8	STEM PACKING	GRAPHITE			GRAPHITE		
9	STEM	SUS304		SUS316	SUS304		SUS316
10	GLAND	CF8			CF8		
11	BONNET	CF8			CF8		
12	BONNET GASKET	GRAPHITE			GRAPHITE		
13	BONNET BOLT	AISI 304			AISI 304		

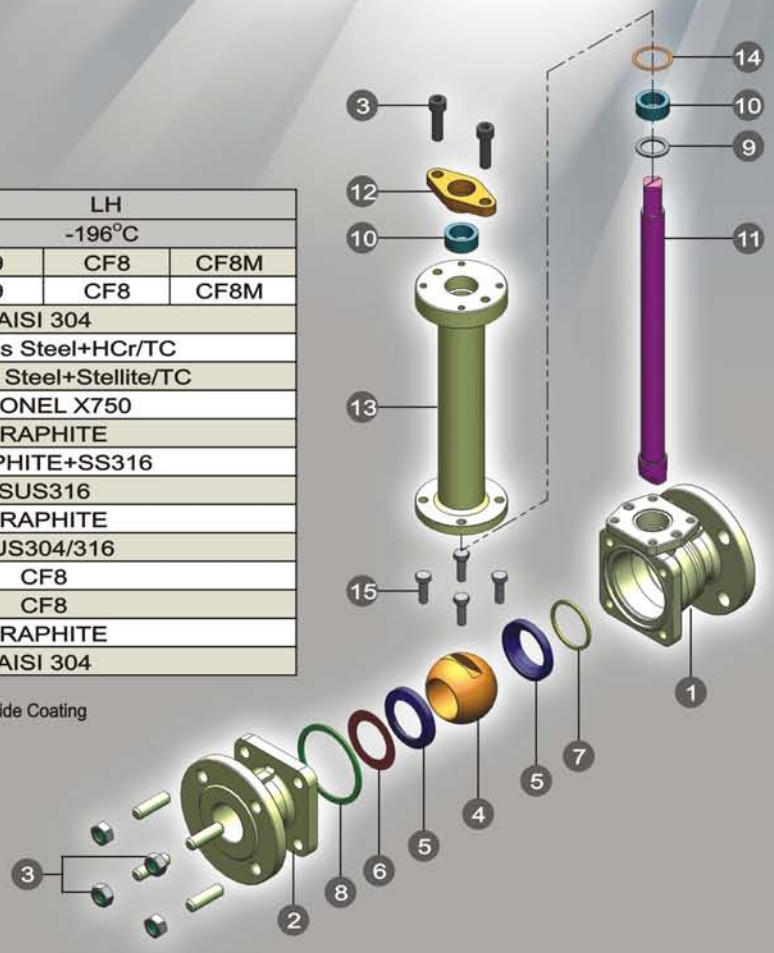


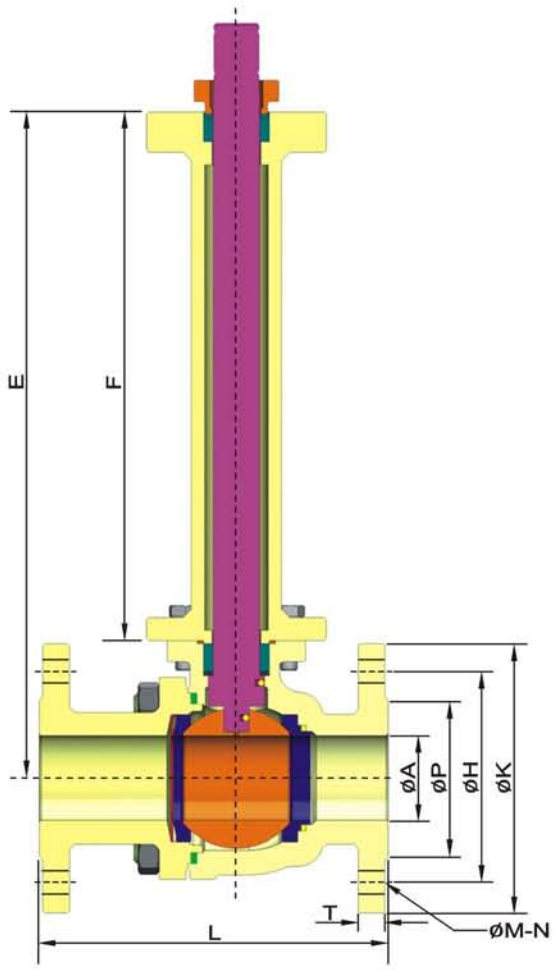
JBFM SERIES

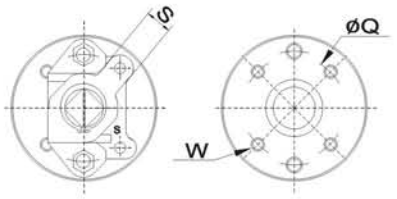
MATERIAL

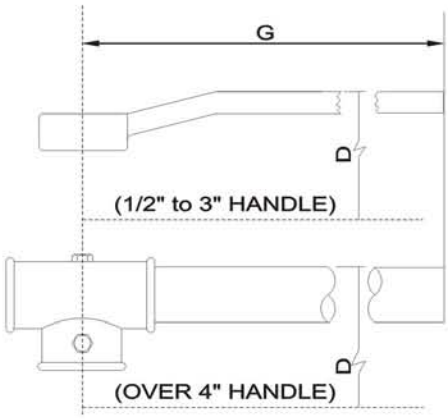
NO	TEMPERATURE	LM	LH		
		-40°C	-196°C		
1	BODY	LCB/LCC	LC9	CF8	CF8M
2	CAP	LCB/LCC	LC9	CF8	CF8M
3	BOLT	AISI 304			
4	BALL	Stainless Steel+HCr/TC			
5	SEAT	Stainless Steel+Stellite/TC			
6	SPRING	INCONEL X750			
7	SEAT GASKET	GRAPHITE			
8	GASKET	GRAPHITE+SS316			
9	THRUST WASHER	SUS316			
10	STEM PACKING	GRAPHITE			
11	STEM	SUS304/316			
12	GLAND	CF8			
13	BONNET	CF8			
14	BONNET GASKET	GRAPHITE			
15	BONNET BOLT	AISI 304			

Notes: HCr = Hard Chrome Plated TC = Tungsten Carbide Coating
Above materials may vary with different using conditions.









DIMENSION (JBF/JBFM-A1 SERIES JIS-10K) (M.M.)

SIZE		A	D	S	G	E		F		L	K	T	H	P	M	N	Q	W
						Short	Long	Short	Long									
15	1/2"	15	63	10	130	140	240	100	200	140	95	14	70	51	15	4	42	M5
20	3/4"	20	68	10	130	145	245	100	200	152	100	16	75	56	15	4	42	M5
25	1"	25	76	12	160	150	250	100	200	165	125	16	90	67	19	4	50	M6
40	1-1/2"	38	88	17	224	190	315	125	250	190	140	18	105	81	19	4	70	M8
50	2"	50	94	17	224	200	325	125	250	216	155	18	120	96	19	8	70	M8
65	2-1/2"	65	115	20	324	245	395	150	300	241	175	20	140	116	19	8	70	M8
80	3"	76	120	20	324	250	400	150	300	283	200	22	160	132	23	8	70	M8
100	4"	100	195	27	400	275	425	150	300	305	225	24	185	160	23	8	102	M10
150	6"	150	240	32	550	345	520	175	350	403	305	28	260	230	25	12	125	M12

DIMENSION (JBF/JBFM-A2 SERIES JIS-20K) (M.M.)

SIZE		A	D	S	G	E		F		L	K	T	H	P	M	N	Q	W
						Short	Long	Short	Long									
15	1/2"	15	63	10	130	140	240	100	200	108	95	12	70	51	15	4	42	M5
20	3/4"	20	68	10	130	145	245	100	200	117	100	14	75	56	15	4	42	M5
25	1"	25	76	12	160	150	250	100	200	127	125	14	90	67	19	4	50	M6
40	1-1/2"	38	88	17	224	190	315	125	250	165	140	16	105	81	19	4	70	M8
50	2"	50	94	17	224	200	325	125	250	178	155	16	120	96	19	4	70	M8
65	2-1/2"	65	115	20	324	245	395	150	300	190	175	18	140	116	19	4	70	M8
80	3"	76	120	20	324	250	400	150	300	203	185	18	150	126	19	8	70	M8
100	4"	100	195	27	400	275	425	150	300	229	210	18	175	151	19	8	102	M10
150	6"	150	240	32	550	345	520	175	350	394	280	22	240	212	23	8	125	M12

DIMENSION (JBF/JBFM-C1 SERIES ANSI-150LB) (M.M.)

SIZE		A	D	S	G	E		F		L	K	T	H	P	M	N	Q	W
						Short	Long	Short	Long									
15	1/2"	15	63	10	130	140	240	100	200	108	89	11.2	60.5	35	16	4	42	M5
20	3/4"	20	68	10	130	145	245	100	200	117	98	11.2	70.0	43	16	4	42	M5
25	1"	25	76	12	160	150	250	100	200	127	108	11.2	79.5	51	16	4	50	M6
40	1-1/2"	38	88	17	224	190	315	125	250	165	127	14.3	98.5	73	16	4	70	M8
50	2"	50	94	17	224	200	325	125	250	178	152	15.9	120.5	92	19	4	70	M8
65	2-1/2"	65	115	20	324	245	395	150	300	190	178	17.5	139.5	105	19	4	70	M8
80	3"	76	120	20	324	250	400	150	300	203	190	19.1	152.5	127	19	4	70	M8
100	4"	100	195	27	400	275	425	150	300	229	229	23.9	190.5	157	19	8	102	M10
150	6"	150	240	32	550	345	520	175	350	394	279	25.4	241.5	216	22	8	125	M12

DIMENSION (JBF/JBFM-C2 SERIES ANSI-300LB) (M.M.)

SIZE		A	D	S	G	E		F		L	K	T	H	P	M	N	Q	W
						Short	Long	Short	Long									
15	1/2"	15	63	10	130	140	240	100	200	140	95	14.3	66.5	35	16	4	42	M5
20	3/4"	20	68	10	130	145	245	100	200	152	117	15.9	82.5	43	19	4	42	M5
25	1"	25	76	12	160	150	250	100	200	165	124	17.5	89.0	51	19	4	50	M6
40	1-1/2"	38	88	17	224	190	315	125	250	190	156	20.7	114.5	73	22	4	70	M8
50	2"	50	94	17	224	200	325	125	250	216	165	22.3	127.0	92	19	8	70	M8
65	2-1/2"	65	115	20	324	245	395	150	300	241	190	25.4	149.0	105	22	8	70	M8
80	3"	76	120	20	324	250	400	150	300	283	210	28.6	168.0	127	22	8	70	M8
100	4"	100	195	27	400	275	425	150	300	305	254	31.8	200.0	157	22	8	102	M10
150	6"	150	240	32	550	345	520	175	350	403	318	36.6	270.0	216	22	12	125	M12

DIMENSION (JBF/JBFM-D2 SERIES DIN PN16) (M.M.)

SIZE		A	D	S	G	E		F		L		K	T	H	P	M	N	Q	W
						Short	Long	Short	Long	F4	F5								
15	1/2"	15	63	10	130	140	240	100	200	115		95	14	65	45	14	4	42	M5
20	3/4"	20	68	10	130	145	245	100	200	120		105	16	75	58	14	4	42	M5
25	1"	25	76	12	160	150	250	100	200	125		115	16	85	68	14	4	50	M6
40	1-1/2"	38	88	17	224	190	315	125	250	140		150	16	110	88	18	4	70	M8
50	2"	50	94	17	224	200	325	125	250	150		165	18	125	102	18	4	70	M8
65	2-1/2"	65	115	20	324	245	395	150	300	170		185	18	145	122	18	4	70	M8
80	3"	76	120	20	324	250	400	150	300	180		200	20	160	138	18	8	70	M8
100	4"	100	195	27	400	275	425	150	300	190		220	20	180	158	18	8	102	M10
150	6"	150	240	32	550	345	520	175	350		350	285	22	240	212	22	8	125	M12

DIMENSION (JBF/JBFM-D4 SERIES DIN PN40) (M.M.)

SIZE		A	D	S	G	E		F		L		K	T	H	P	M	N	Q	W
						Short	Long	Short	Long	F4	F5								
15	1/2"	15	63	10	130	140	240	100	200	115		95	16	65	45	14	4	42	M5
20	3/4"	20	68	10	130	145	245	100	200	120		105	18	75	58	14	4	42	M5
25	1"	25	76	12	160	150	250	100	200	125		115	18	85	68	14	4	50	M6
40	1-1/2"	38	88	17	224	190	315	125	250	140		150	18	110	88	18	4	70	M8
50	2"	50	94	17	224	200	325	125	250	150		165	20	125	102	18	4	70	M8
65	2-1/2"	65	115	20	324	245	395	150	300	170		185	22	145	122	18	8	70	M8
80	3"	76	120	20	324	250	400	150	300	180		200	24	160	138	18	8	70	M8
100	4"	100	195	27	400	275	425	150	300	190		235	24	190	162	22	8	102	M10
150	6"	150	240	32	550	345	520	175	350		350	300	28	250	218	26	8	125	M12

CERTIFICATES



API 6D ISO 9001 CE BS6364 TESTING REPORT

HOW TO ORDER

JBF → A → B → C → D → E → F → G

Ex: JBF → C1 → 13 → A → F → 050 → H → LH

A. SPECIFICATION		B. BODY MAT'L		C. BALL & STEM MAT'L		D. SEAT MAT'L		E. SIZE		F. OPTION		G. TEMPERATURE	
A1	JIS 10K	03	CF8	A	CF8	T	TFM-1600	015	1/2"	F	Fire Safe	LM	-40°C~ 160°C
A2	JIS 20K	04	CF8M	C	CF8M	F	PCTFE	020	3/4"	I	Life Loading	LH	-196°C~ 120°C
C1	ANSI 150LB	05	CF3	D	CF3			025	1"	H	Lever		
C2	ANSI 300LB	06	CF3M	E	CF3M			032	1-1/4"	G	Gear		
D2	DIN PN16	07	CG8M	F	CG8M			040	1-1/2"				
D4	DIN PN40	08	CG3M	H	CG3M			050	2"				
		11	LCB					065	2-1/2"				
		12	LCC					080	3"				
		13	LC9					100	4"				
								125	5"				
								150	6"				

JBFM → A → B → C → D → E → F → G

Ex: JBFM → C1 → 04 → C → C → 050 → G → LH

A. SPECIFICATION		B. BODY MAT'L		C. BALL & STEM MAT'L		D. SEAT MAT'L		E. SIZE		F. OPTION		G. TEMPERATURE	
A1	JIS 10K	03	CF8	A	CF8	A	CF8	015	1/2"	F	FIRE SAFE	LM	-40°C~ 300°C
A2	JIS 20K	04	CF8M	C	CF8M	C	CF8M	020	3/4"	I	LIFE LOADING	LH	-196°C~ 300°C
C1	ANSI 150LB	05	CF3	D	CF3	D	CF3	025	1"	H	LEVER		
C2	ANSI 300LB	06	CF3M	E	CF3M	E	CF3M	040	1-1/2"	G	GEAR		
D2	DIN PN16	07	CG8M	F	CG8M	F	CG8M	050	2"				
D4	DIN PN40	08	CG3M	H	CG3M	H	CG3M	065	2-1/2"				
		11	LCB					080	3"				
		12	LCC					100	4"				
		13	LC9					125	5"				
								150	6"				

HOW TO ORDER

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