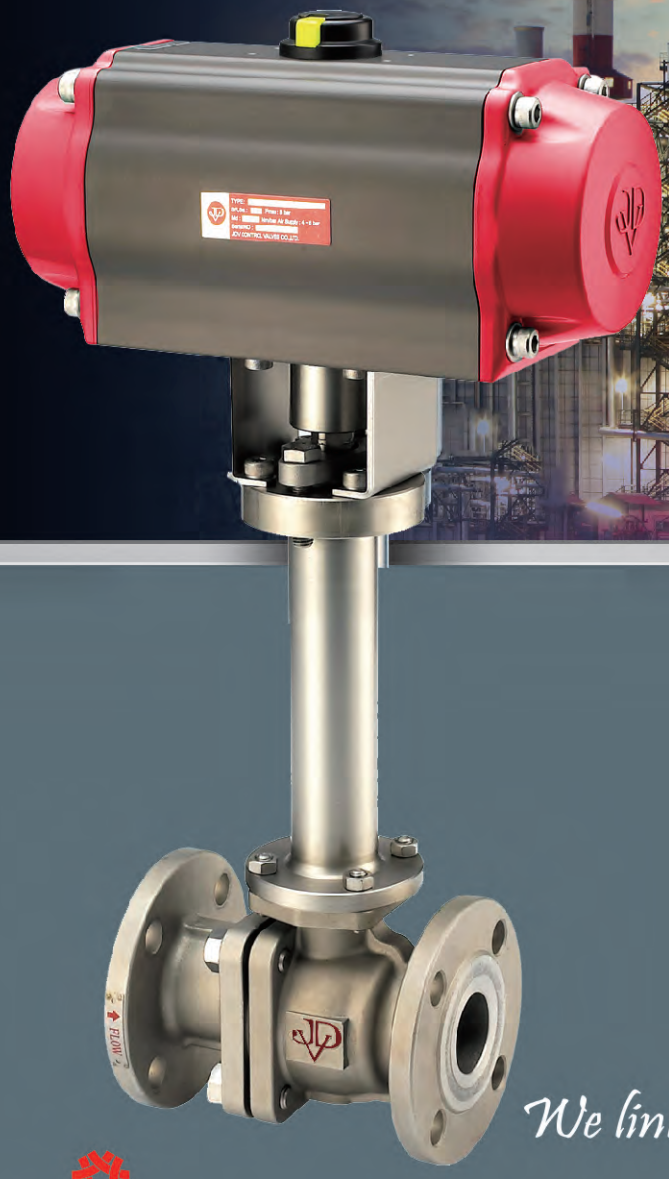
JDV CONTROL VALVES

QUALITY SWISS

JBF-L /JBF-LM Cryogenic Type

Floating Type Soft Metal Seat Ball Valve

浮動式軟密封/金屬密封低溫球閥



We link all you need and more than you expect.

TAIWAN EXCELLENCE 2015

JDV CONTROL VALVES

JBF-L /JBF-LM

Floating Type Soft Metal Seat Ball Valve
浮動式軟密封/金屬密封低溫球閥

Full Bore Two-Piece Flanged Ends 全通徑二片式法蘭球閥
JIS 10/20K ASME CLASS 150/300 DIN PN16/40

In order to satisfy the ever growing needs of high-quality cryogenic valves for a wide range of industries, our skilled engineers, who already possess an extensive experience in critical applications, designed the JBF-L/JBF-LM Cryogenic Series. Based on the successful and renowned design of the JBF-L/JBF-LM Series, our cryogenic products offer an unmatched level of reliability, stability and most importantly safety, whatever the low temperature medium may be: oxygen, nitrogen, hydrogen, helium, argon, etc.

JDV通過對JBF/JBFM系列閥桿延伸的設計,開發了低溫球閥系列,應用於煉油、石化等低溫工況場合

Product Features

1. Available in soft and metal seats to meet the requirements of all kinds of industries.
   可選擇的軟/硬密封設計，可滿足各種產業需求
2. Highly precise machining enabling the seat leakage to reach the strict requirements standard.
   精準的製造工藝，確保閥座防洩漏能力達到最嚴格的標準
3. Extended stem protecting efficiently the actuator from the frozen temperature of the medium.
   加長型閥桿，有效的防護驅動器不被低溫流體介質影響， 維持正常運作
4. Spring-loaded design keeping the metal seat in tight contact with the ball, even at low pressure.
   彈性複歸設計，即使是在低壓環境下，也能確保閥球與閥座緊密接觸
5. Design with a larger ball, to offer the best sealing efficiency.
   閥球設計提供了最佳密封效果
6. Upstream relief hole on the ball, preventing any overpressure in the cavity.
   上游端閥球洩壓孔設計，防止閥腔壓力過高
7. Antistatic design
   防靜電設計
8. Anti-blowout stem design
   閥桿防飛出設計
9. ISO 5211 Mounting Pad design.
   ISO 5211安裝平台設計

Applicable Standards
適用標準

- Body Material(閥體材質) : Standard in LCB, LCC, LC9, CF8, CF8M Special materials are available according to requirements.(可依專案客制需求)
- Nominal Size(尺寸) : 1/2" to 6" (DN15 to DN150)
- Pressure Rating (壓力等級): JIS 10/20K ASME CLASS 150/300 DIN PN16/40
- End Connections(連接型式) : RF(法蘭凸緣)
- Temperature Range (溫度範圍): Soft Seat (軟密封): -321~356°F (-196~180°C)
  Metal Seat(硬密封) : -321~661°F (-196~350°C)
- Face-To-Face Dimensions (面間尺寸): JIS B2002 I ASME B16.10 / EN558 SERIES 1/27
- Flange Dimensions(法蘭尺寸): JIS B2220 / ASME B16.5 / EN 1092-1
- Body Pressure Testing(本體壓力測試) : JIS B2003 / API 598
- Seat Leakage Testing(閥座洩漏測試): GB / T 24925 / ISO 28921-1 / BS 6364
- Casting(鑄造標準) : MSS-SP-25 / MSS-SP-55

Industrial Fields: 應用產業

Oil & Gas
煉油產業

Power Plant
造紙業

Refinery / Petrochemical
石油精煉/石化業

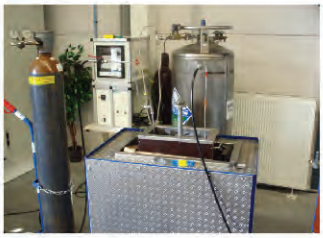
Steel Mill
煉鋼廠

Chemical
化工業

Food
食品業

Pulp & Paper
造紙業

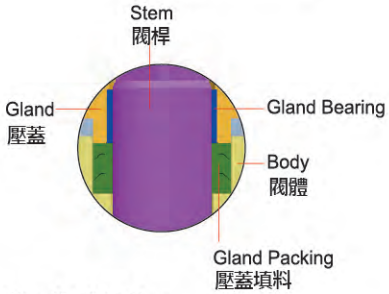
Mining
採礦業



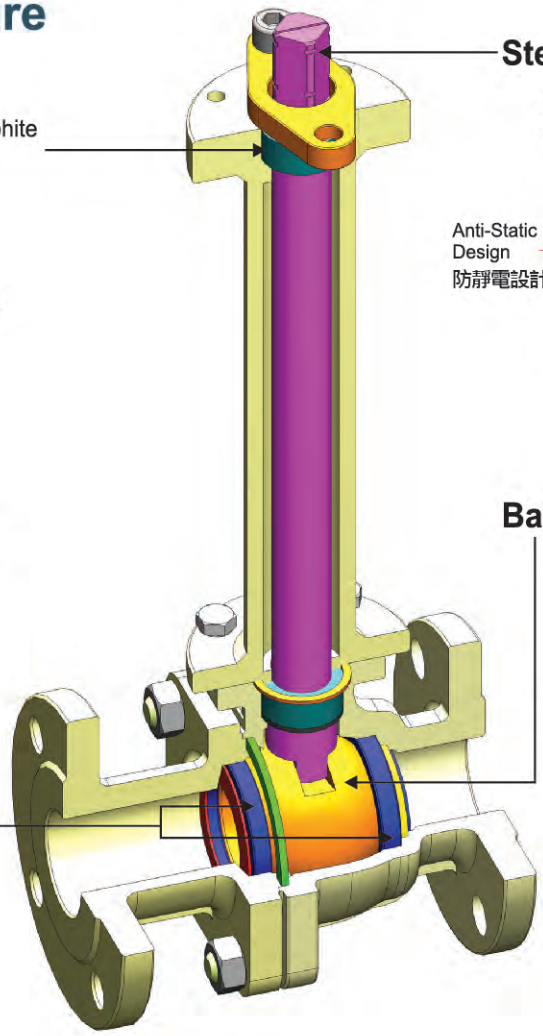
Cryogenic Testing according
低溫測試製程，根據規範

Design & Structure
設計&結構

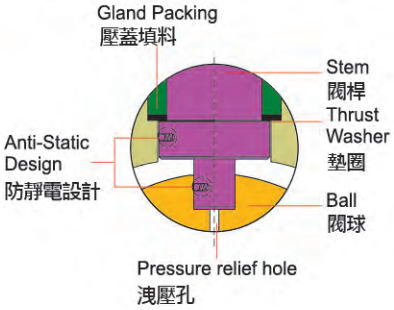
Gland Packing : Flexible Graphite
壓蓋填料: 彈性石墨



Gland Packing Area
Graphite gland packing designed for Fire Safe ensures the safety under fire accident.
採用柔性石墨的防火設計,可適用高溫場合。



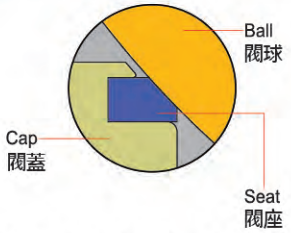
Stem: A276-304 / A276-316



Ball: Stainless Steel
Stainless Steel + Hard Face
Upstream relief hole design

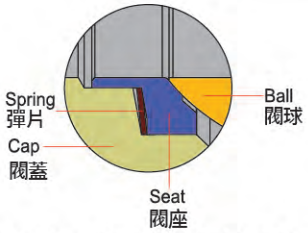
Seat Options:
Soft
Metal

Soft Seat 軟密封閥座

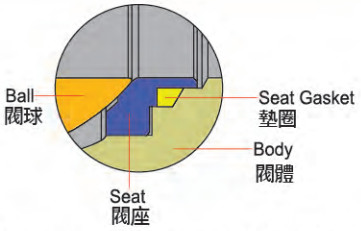


Seat Area (Upstream & Downstream Sides) - Soft Seat

Metal Seat 金屬密封閥座

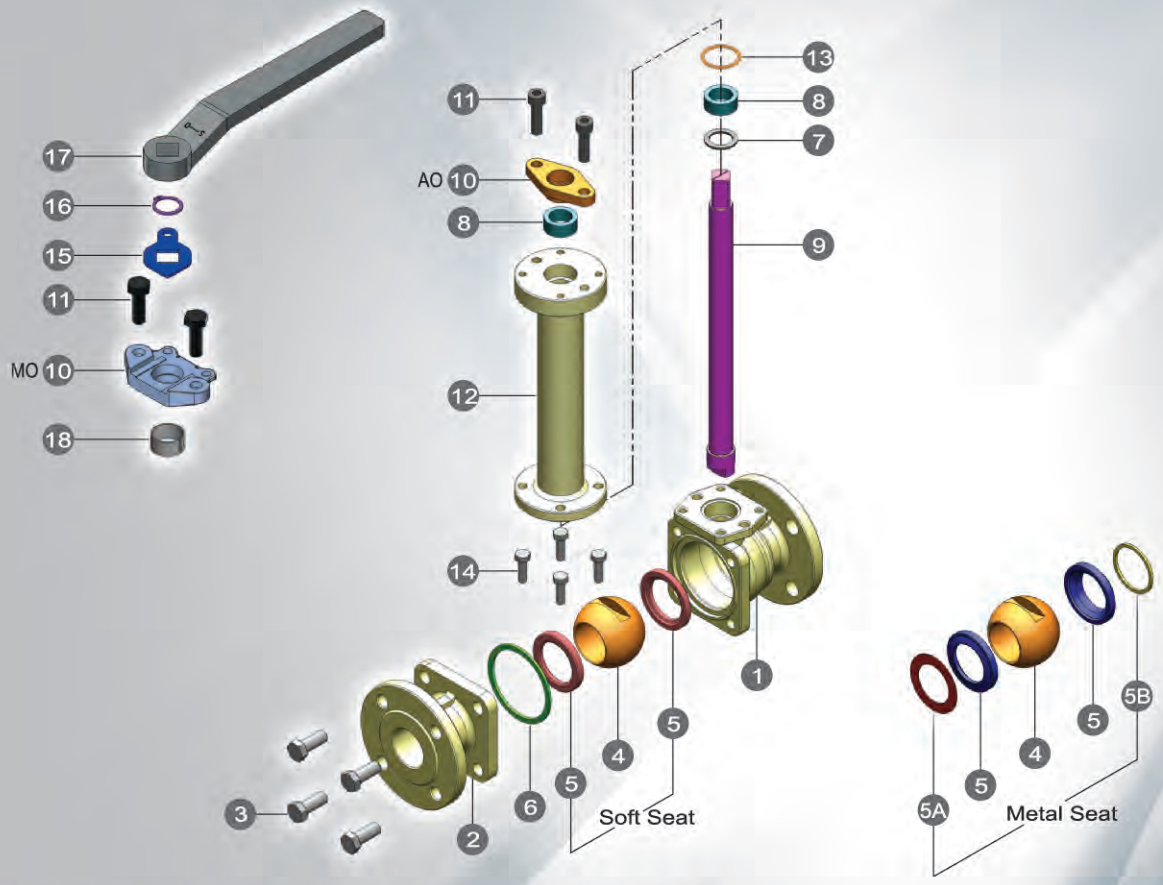


Seat Area (Upstream side) Metal Seat
Seat Spring provides flexibility to piping stress for stabilizing the operation.
具有彈性的彈片 設計,當管內壓力升高時,也可保持動作穩定



Seat Area (Downstream side) Metal Seat
Seat-Gasket is Pressed-fit into the body and this provides the stability for a wide temperatures range.
墊片採用嵌入閥體設計、可適用於-196到500攝氏度的溫度範圍。

JDV CONTROL VALVES



Technical Specifications 技術規範

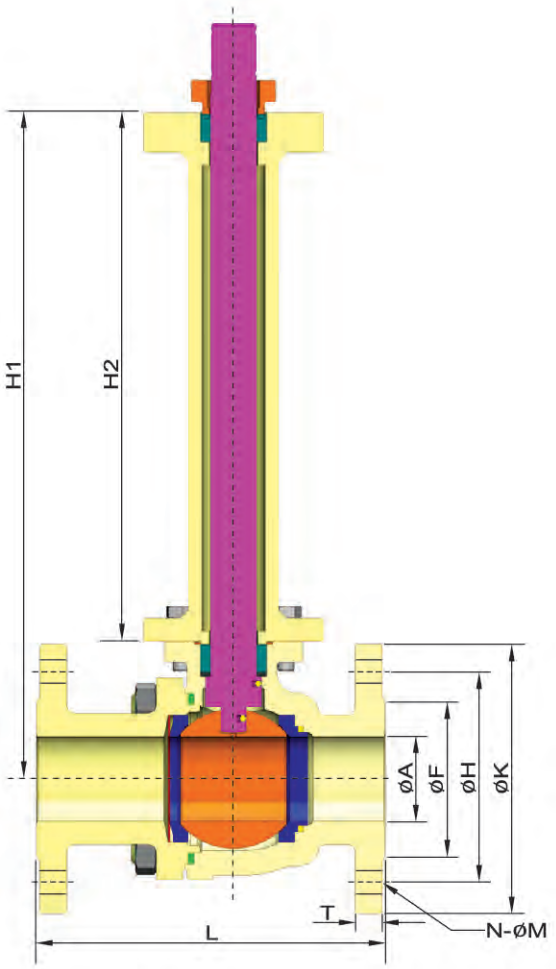
STANDARD MATERIALS 材質表

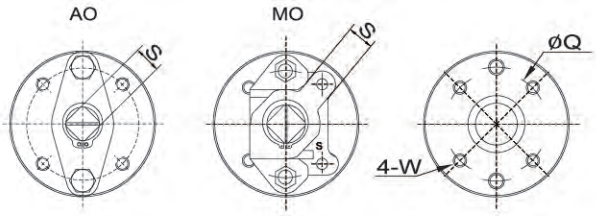
JBF SERIES								
NO		TYPE	LM			LH		
		TEMPERATURE	-40~356°F (-40~180°C)			-321~356°F (-196~180°C)		
1		BODY 閥體	A352-LCB/LCC	A351-CF8	A351-CF8M	A352-LC9	A351-CF8	A351-CF8M
2		CAP 閥蓋	A352-LCB/LCC	A351-CF8	A351-CF8M	A352-LC9	A351-CF8	A351-CF8M
3		BOLT&NUT 螺栓&螺帽	A193-B8 & A194-8					
4	SOFT SEAT	BALL 閥球	A351-CF8		A351-CF8M	A351-CF8		A351-CF8M
5	SOFT SEAT	SEAT 閥座	TFM-1600			PCTFE		
6		BODY GASKET 大薄片	SS316+GRAPHITE					
7		THRUST WASHER 小薄片	METAL+HARD FACE					
8		GLAND PACKING中口迫緊	GRAPHITE					
9		STEM[2] 閥桿	A276-304		A276-316	A276-304		A276-316
10		GLAND[3]填料壓蓋	A351-CF8					
11		GLAND BOLT 牛楠螺絲	STAINLESS STEEL					
12		BONNET 閥蓋	A276-304		A276-316	A276-304		A276-316
13		BONNET GASKET 閥蓋大薄片	GRAPHITE					
14		BONNET BOLT 閥蓋螺栓	STAINLESS STEEL					
15		TRAVEL STOP (MO) 檔片	A240-304					
16		SNAP CATCH (MO) 扣環	AISI 420					
17		HANDLE (MO) 把手	A240-304(1/2"~1") / FCD45(1-1/2"~3") / FCD45+SGP(4" AND ABOVE)					
18		GLAND BEARING 牛楠襯套	A240-316+PTFE					

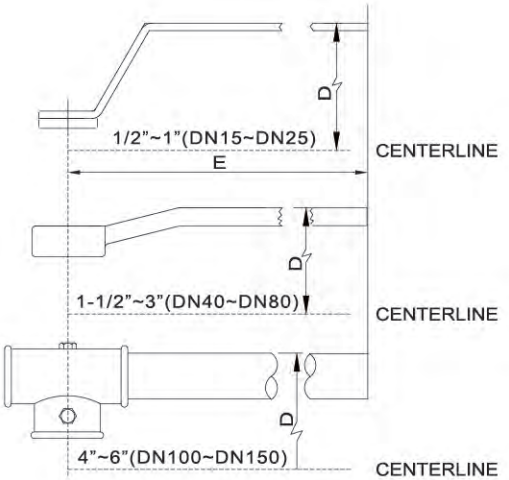
JBFM SERIES						
NO		TYPE	LM	LH		
		TEMPERATURE	-40~661°F (-40~350°C)	-321~661°F (-196~350°C)		
1		BODY 閥體	A352-LCB/LCC	A352-LC9	A351-CF8	A351-CF8M
2		CAP 閥蓋	A352-LCB/LCC	A352-LC9	A351-CF8	A351-CF8M
3		BOLT&NUT 螺栓	A193-B8 & A194-8			
4	METAL SEAT	BALL 閥球	A351-CF8+HCR[1] /TC[1]			A351-CF8M+HCR/TC
5	METAL SEAT	SEAT 閥座	A351-CF8+STELLITE® /TC			A351-CF8M+STELLITE® /TC
5A	METAL SEAT	SPRING 彈片	INCONEL® X-750			
5B	METAL SEAT	SEAT GASKET 閥座大薄片	GRAPHITE			
6		BODY GASKET 閥體大薄片	SS316+GRAPHITE			
7		THRUST WASHER小薄片	METAL+HARD FACE			
8		GLAND PACKING中口迫紧	GRAPHITE			
9		STEM[2] 閥桿	A276-304			A276-316
10		GLAND[3]填料壓蓋	A351-CF8			
11		GLAND BOLT 牛楠螺絲	STAINLESS STEEL			
12		BONNET 閥蓋	A276-304			A276-316
13		BONNET GASKET 閥蓋大薄片	GRAPHITE			
14		BONNET BOLT 閥蓋螺栓	STAINLESS STEEL			
15		TRAVEL STOP (MO) 檔片	A240-304			
16		SNAP CATCH (MO) 扣環	AISI 420			
17		HANDLE (MO) 手柄	A240-304(1/2"~1") / FCD45(1-1/2"~3") / FCD45+SGP(4" AND ABOVE)			
18		GLAND BEARING 牛楠襯套	A240-316+PTFE			

The above materials may be changed with different using conditions.
以上閥門部件的材質為標準配置,可根據客戶需求和工況選擇其他材質

NOTES:
(1) HCR=Hard Chrome Plated, TC=Tungsten Carbide Coated
鍍硬鉻 碳化鎢噴塗
(2) Extended stem is recommended according to using coniditions.
(3) AO:Automation MO:Manual Operation







DIMENSIONS (JIS 10K) (mm)

SIZE		A	F	H	K	M	N	L	T	H1		H2		S	Q	W	D		E	Wt(Kg)	
										Short	Long	Short	Long				Short	Long		Short	Long
15	1/2"	15	51	70	95	15	4	108	12	140	240	100	200	10	42	M5	200	300	150	2.6	3
20	3/4"	20	56	75	100	15	4	117	14	145	245	100	200	10	42	M5	205	305	150	3	3.4
25	1"	25	67	90	125	19	4	127	14	150	250	100	200	12	50	M6	215	315	160	4.4	5
40	1-1/2"	38	81	105	140	19	4	165	16	190	315	125	250	17	70	M8	245	370	230	8.8	10
50	2"	50	96	120	155	19	4	178	16	200	325	125	250	17	70	M8	250	375	230	11.5	12.7
65	2-1/2"	65	116	140	175	19	4	190	18	245	395	150	300	20	70	M8	295	445	325	16.8	18.5
80	3"	76	126	150	185	19	8	203	18	250	400	150	300	20	70	M8	300	450	325	21	22.7
100	4"	100	151	175	210	19	8	229	18	275	425	150	300	27	102	M10	370	520	420	34.5	37.6
150	6"	150	212	240	280	23	8	394	22	345	520	175	350	32	125	M12	445	630	565	73.3	77.8

DIMENSIONS (JIS 20K) (mm)

SIZE		A	F	H	K	M	N	L	T	H1		H2		S	Q	W	D		E	Wt(Kg)	
										Short	Long	Short	Long				Short	Long		Short	Long
15	1/2"	15	51	70	95	15	4	140	14	140	240	100	200	10	42	M5	200	300	150	3.3	3.7
20	3/4"	20	56	75	100	15	4	152	16	145	245	100	200	10	42	M5	205	305	150	4.3	4.7
25	1"	25	67	90	125	19	4	165	16	150	250	100	200	12	50	M6	215	315	160	6.1	6.8
40	1-1/2"	38	81	105	140	19	4	190	18	190	315	125	250	17	70	M8	245	370	230	12.3	13.5
50	2"	50	96	120	155	19	8	216	18	200	325	125	250	17	70	M8	250	375	230	14.6	15.8
65	2-1/2"	65	116	140	175	19	8	241	20	245	395	150	300	20	70	M8	295	445	325	26.0	27.7
80	3"	76	132	160	200	23	8	282	22	250	400	150	300	20	70	M8	300	450	325	34.8	36.5
100	4"	100	160	185	225	23	8	305	24	275	425	150	300	27	102	M10	370	520	420	54.3	57.4
150	6"	150	230	260	305	25	12	403	28	345	520	175	350	32	125	M12	445	630	565	109.1	113.6

DIMENSIONS (ASME CLASS 150) (mm)

SIZE		A	F	H	K	M	N	L	T	H1		H2		S	Q	W	D		E	Wt(Kg)	
										Short	Long	Short	Long				Short	Long		Short	Long
15	1/2"	15	35	60.5	89	16	4	108	11.2	140	240	100	200	10	42	M5	200	300	150	2.6	3
20	3/4"	20	43	70.0	98	16	4	117	11.2	145	245	100	200	10	42	M5	205	305	150	3	3.4
25	1"	25	51	79.5	108	16	4	127	11.2	150	250	100	200	12	50	M6	215	315	160	4.4	5
40	1-1/2"	38	73	98.5	127	16	4	165	14.3	190	315	125	250	17	70	M8	245	370	230	8.8	10
50	2"	50	92	120.5	152	19	4	178	15.9	200	325	125	250	17	70	M8	250	375	230	11.5	12.7
65	2-1/2"	65	105	139.5	178	19	4	190	17.5	245	395	150	300	20	70	M8	295	445	325	16.8	18.5
80	3"	76	127	152.5	190	19	4	203	19.1	250	400	150	300	20	70	M8	300	450	325	21	22.7
100	4"	100	157	190.5	229	19	8	229	23.9	275	425	150	300	27	102	M10	370	520	420	34.5	37.6
150	6"	150	216	241.5	279	22	8	394	25.4	345	520	175	350	32	125	M12	445	630	565	73.3	77.8

DIMENSIONS (ASME CLASS 300) (mm)

SIZE		A	F	H	K	M	N	L	T	H1		H2		S	Q	W	D		E	Wt(Kg)	
										Short	Long	Short	Long				Short	Long		Short	Long
15	1/2"	15	35	66.5	95	16	4	140	14.3	140	240	100	200	10	42	M5	200	300	150	3.3	3.7
20	3/4"	20	43	82.5	117	19	4	152	15.9	145	245	100	200	10	42	M5	205	305	150	4.3	4.7
25	1"	25	51	89.0	124	19	4	165	17.5	150	250	100	200	12	50	M6	215	315	160	6.1	6.8
40	1-1/2"	38	73	114.5	156	22	4	190	20.7	190	315	125	250	17	70	M8	245	370	230	12.3	13.5
50	2"	50	92	127.0	165	19	8	216	22.3	200	325	125	250	17	70	M8	250	375	230	14.6	15.8
65	2-1/2"	65	105	149.0	190	22	8	241	25.4	245	395	150	300	20	70	M8	295	445	325	26.0	27.7
80	3"	76	127	168.0	210	22	8	282	28.6	250	400	150	300	20	70	M8	300	450	325	34.8	36.5
100	4"	100	157	200.0	254	22	8	305	31.8	275	425	150	300	27	102	M10	370	520	420	54.3	57.4
150	6"	150	216	270.0	318	22	12	403	36.6	345	520	175	350	32	125	M12	445	630	565	109.1	113.6

DIMENSIONS (DIN PN16) (mm)

SIZE		A	F	H	K	M	N	L		T	H1		H2		S	Q	W	D		E	Wt(Kg)	
								S1	S27		Short	Long	Short	Long				Short	Long		Short	Long
DN 15~DN 50 USE PN40																						
65	2-1/2"	65	122	145	185	18	4	290	170	18	245	395	150	300	20	70	M8	295	445	325	16.8	18.5
80	3"	76	138	160	200	18	8	310	180	20	250	400	150	300	20	70	M8	300	450	325	21	22.7
100	4"	100	158	180	220	18	8	350	190	20	275	425	150	300	27	102	M10	370	520	420	34.5	37.6
150	6"	150	212	240	285	22	8	480	350	22	345	520	175	350	32	125	M12	445	630	565	73.3	77.8

DIMENSIONS (DIN PN40) (mm)

SIZE		A	F	H	K	M	N	L		T	H1		H2		S	Q	W	D		E	Wt(Kg)	
								S1	S27		Short	Long	Short	Long				Short	Long		Short	Long
15	1/2"	15	45	65	95	14	4	130	115	16	140	240	100	200	10	42	M5	200	300	150	3.3	3.7
20	3/4"	20	58	75	105	14	4	150	120	18	145	245	100	200	10	42	M5	205	305	150	4.3	4.7
25	1"	25	68	85	115	14	4	160	125	18	150	250	100	200	12	50	M6	215	315	160	6.1	6.8
40	1-1/2"	38	88	110	150	18	4	200	140	18	190	315	125	250	17	70	M8	245	370	230	12.3	13.5
50	2"	50	102	125	165	18	4	230	150	20	200	325	125	250	17	70	M8	250	375	230	14.6	15.8
65	2-1/2"	65	122	145	185	18	8	290	170	22	245	395	150	300	20	70	M8	295	445	325	26.0	27.7
80	3"	76	138	160	200	18	8	310	180	24	250	400	150	300	20	70	M8	300	450	325	34.8	36.5
100	4"	100	162	190	235	22	8	350	190	24	275	425	150	300	27	102	M10	370	520	420	54.3	57.4
150	6"	150	218	250	300	26	8	480	350	28	345	520	175	350	32	125	M12	445	630	565	109.1	113.6

Cv VALUES

SIZE	DN15	DN20	DN25	DN40	DN50	DN65	DN80	DN100	DN125	DN150
	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"
Cv	27	61	114	268	501	804	1158	2118	3412	5074

CERTIFICATES

ISO 9001 | CE | BS6364 TESTING REPORT

HOW TO ORDER

JBF-F → A → B → C → D → E → F → G

Ex: JBF-F → C1 → 03 → 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 (1.4308)	A	CF8 (1.4308)	T	TFM-1600	015	1/2"	F	FIRE SAFE	LM	-40~356°F (-40~180°C)
A2	JIS 20K	04	CF8M (1.4408)	C	CF8M (1.4408)	F	PCTFE	020	3/4"	I	LIVE LOADING	LH	-321~356°F (-196°C~180°C)
C1	ASME CLASS 150	05	CF3 (1.4306)	D	CF3 (1.4306)			025	1"	H	LEVER		
C2	ASME CLASS 300	06	CF3M (1.4404)	E	CF3M (1.4404)			032	1-1/4"	G	GEAR		
D2	DIN PN16	07	CG8M (1.4412)	F	CG8M (1.4412)			040	1-1/2"	A	BARE SHAFT		
D4	DIN PN40	11	LCB (1.1138)					050	2"				
		12	LCC (1.7219)					065	2-1/2"				
								080	3"				
								100	4"				
								150	6"				

JBF-M → A → B → C → D → E → F → G → H

Ex: JBF-M → C1 → 04 → C → C → 050 → G → LH → HCR

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 (1.4308)	A	CF8 (1.4308)	A	CF8	015	1/2"	F	FIRE SAFE	LM	-40~661°F (-40~350°C)
A2	JIS 20K	04	CF8M (1.4408)	C	CF8M (1.4408)	C	CF8M	020	3/4"	I	LIVE LOADING	LH	-321~661°F (-196°C~350°C)
C1	ASME CLASS 150	05	CF3 (1.4306)	D	CF3 (1.4306)	D	CF3	025	1"	H	LEVER		
C2	ASME CLASS 300	06	CF3M (1.4404)	E	CF3M (1.4404)	E	CF3M	040	1-1/2"	G	GEAR		
D2	DIN PN16	07	CG8M (1.4412)	F	CG8M (1.4412)	F	CG8M	050	2"	A	BARE SHAFT		
D4	DIN PN40	11	LCB (1.1138)					065	2-1/2"				
		12	LCC (1.7219)					080	3"				
								100	4"				
								150	6"				

H. COATING	
HCR	BALL W/HCR SEAT W/STELLITE®
CR	BALL W/TC SEAT W/TC

HOW TO ORDER

※ Alternative materials are available on request.
* 閥內件均做相應的硬化處理,以上內件為基材