



JDV  
CONTROL  
VALVES



# JBF-M Type

Floating Type Metal Seat Ball Valve  
浮动式金属密封球阀



TAIWAN  
EXCELLENCE  
2017

*We link all you need  
and more than you expect.*



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CONTROL  
VALVES**

# JBF-M

## Floating Type Metal Seat Ball Valve

### 浮动式金属密封球阀

**Full Bore Two-Piece Flanged Ends 全口径两片式法兰连接**

**JIS 10/20K ASME CLASS 150/300/600 DIN PN16/40/100**

JBF-M Metal-Seat Ball Valve is designed especially for severe services with high temperature, abrasion or corrosion in the industrial processes. With JDV's self-owned coating technology, a wide range of hard faces are available to satisfy all your using conditions.



### Industrial Fields: 应用产业

Oil & Gas 石油 & 天然气  
Refinery / Petrochemical 石油精炼 / 石化业  
Chemical 化工  
Pulp & Paper 造纸业  
Power Plant 发电厂  
Steel Mill 炼钢厂  
Food 食品业  
Mining 采矿业

JBF-M金属密封球阀适用于高温、磨损性介质等恶劣环境,广泛应用于石油天然气、石化、化工、电力、造纸、采矿冶金等领域。

### Product Features 产品特性

1. Highly precise machining enabling the seat leakage rate to reach FCI-70-2 Class V in standard and Class VI in option.  
精准的制造工艺,提升阀座防泄漏能力达到ANSI / FCI70-2 V级为标准;VI级为选配。
2. Spring-loading design keeping the seat in tight contact with the ball even at low pressure. It also offers stable valve torques under higher pressure drop.  
弹性补偿阀座设计,使阀座与球阀在低压时仍保持紧密接触,高压时只需稳定的运作扭力。
3. Various seat designs meeting the different requirements.  
多样式的阀座设计,可符合不同条件的需求。
4. Wide choice of hard faces satisfying the needs of all applications.  
可选择性的硬密封面设计,可满足各种工况需求。
5. Oversized stem design reducing the deformation under high pressure or high temperature services.  
高强度阀杆设计,在高温高压环境应用下不容易变形。
6. Larger ball design providing the best sealing. 球阀设计提供了最佳密封效果。
7. Anti-jam design of seating area precluding particles from getting stuck between the spring and the valve cap. 阀座防卡设计,可防止颗粒在弹簧与阀盖间形成堵塞。
8. ISO 10497 Fire Safe Test certificated. 通过ISO 10497防火认证。
9. Anti-static design. 防静电设计。
10. Anti-blowout stem design. 阀杆防飞出设计。

## 适用场合 Applications

1. High temperature 高温工况
2. High abrasion 耐磨耗
3. Corrosion 耐腐蚀



HVOF 超音速火焰喷涂技术

## Design & Structures 设计&结构

### Seat:

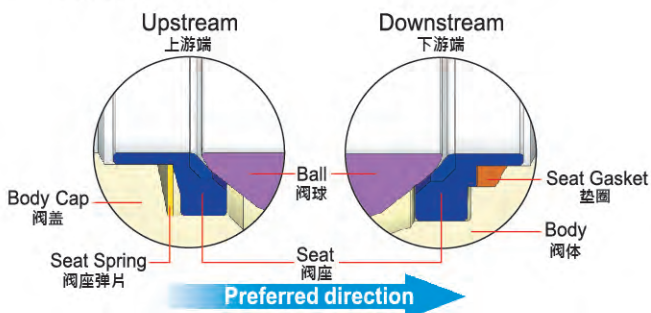
Stainless Steel+Hard Face

阀座:  
不锈钢+硬化面

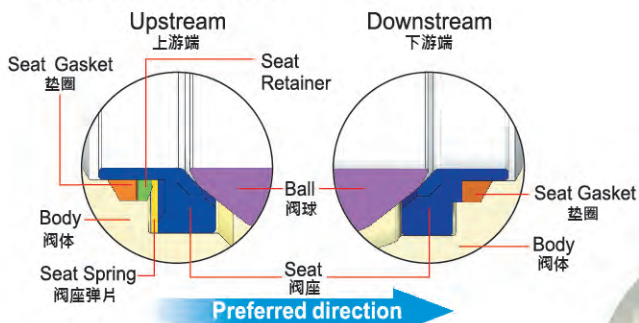


### Options:

**U Type : Uni-directional** 单向密封设计  
Standard

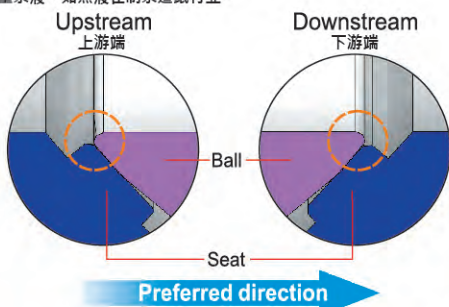


**B Type : Bi-directional** 双向密封设计  
For backflow service



**S Type : Scraper** S类型:刮板  
For heavy slurry such as the black liquor in pulp & paper industry.

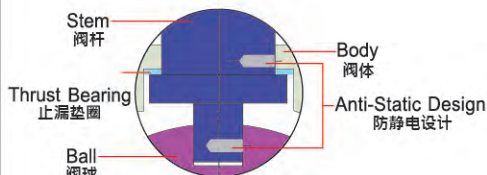
用于重浆液，如黑液在制浆造纸行业。



### Seat Spring:

Spring-loaded seat design

阀座弹片:  
阀座弹片设计



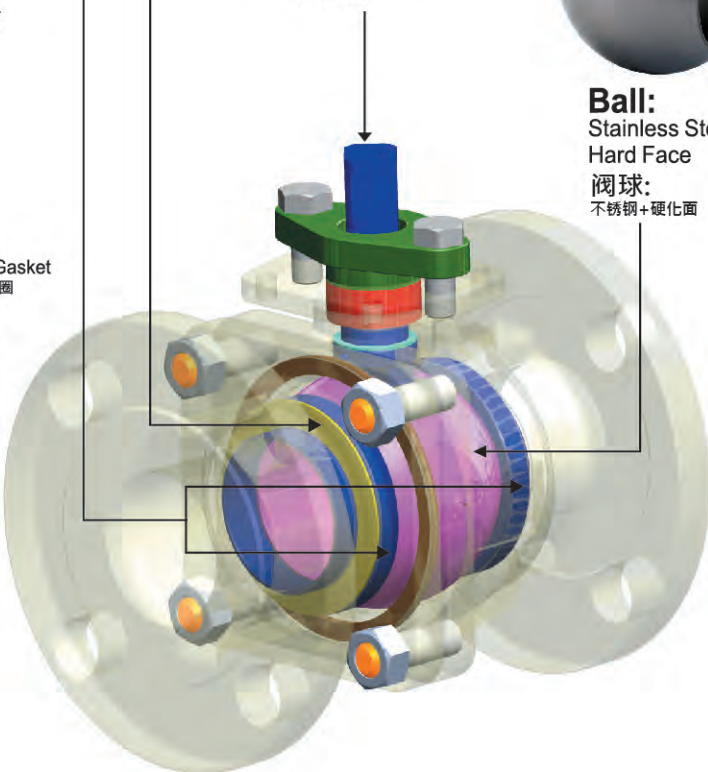
### Stem:

Anti-blowout design

Anti-static design  
阀杆防飞出设计:  
防静电设计



**Ball:**  
Stainless Steel+  
Hard Face  
球阀:  
不锈钢+硬化面

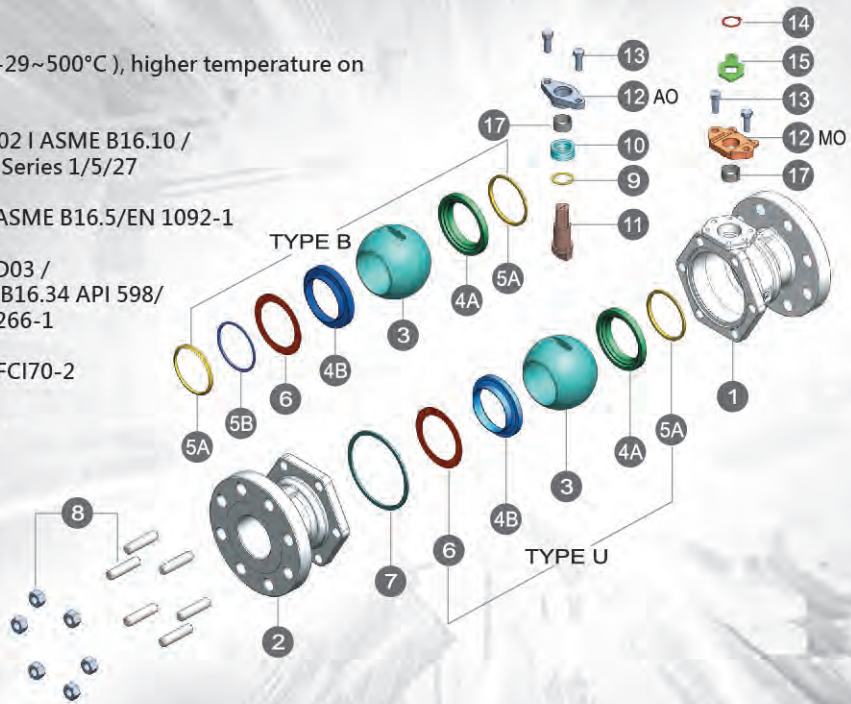


※ Downstream scraper on request for very heavy services.  
下游端刮板可应要求提供排渣服务。



## Applicable Standards 适用标准

- Body material (阀体材质): Standard in WCB, CF8, CF8M Other materials are available according to requirements.(可依专案定制需求)
- Nominal size (尺寸): 1/2" to 8" (DN15 to DN200)
- Pressure rating(压力等级): JIS 10(20K ASME CLASS 150/300/600 DIN PN16/40/100)
- End connections(连接型式): RF(法兰凸缘)
- Temperature Range (温度范围): -20~932°F (-29~500°C), higher temperature on request.
- Face-to-Face Dimensions(面间尺寸): JIS B2002 | ASME B16.10 / EN 558 Series 1/5/27
- Flanged Dimensions(法兰尺寸): JIS B2220 / ASME B16.5/EN 1092-1
- Body Pressure Testing(本体压力测试): JIS B2D03 / ASME B16.34 API 598/ EN 12266-1
- Seat Leakage Testing(球垫泄漏测试): ANSI /FCI70-2
- Casting(铸造标准): MSS-SP-25 / MSS-SP-55
- Fire Safe Design(防火设计): ISO 10497



## Technical Specifications

### STANDARD MATERIALS 材质表

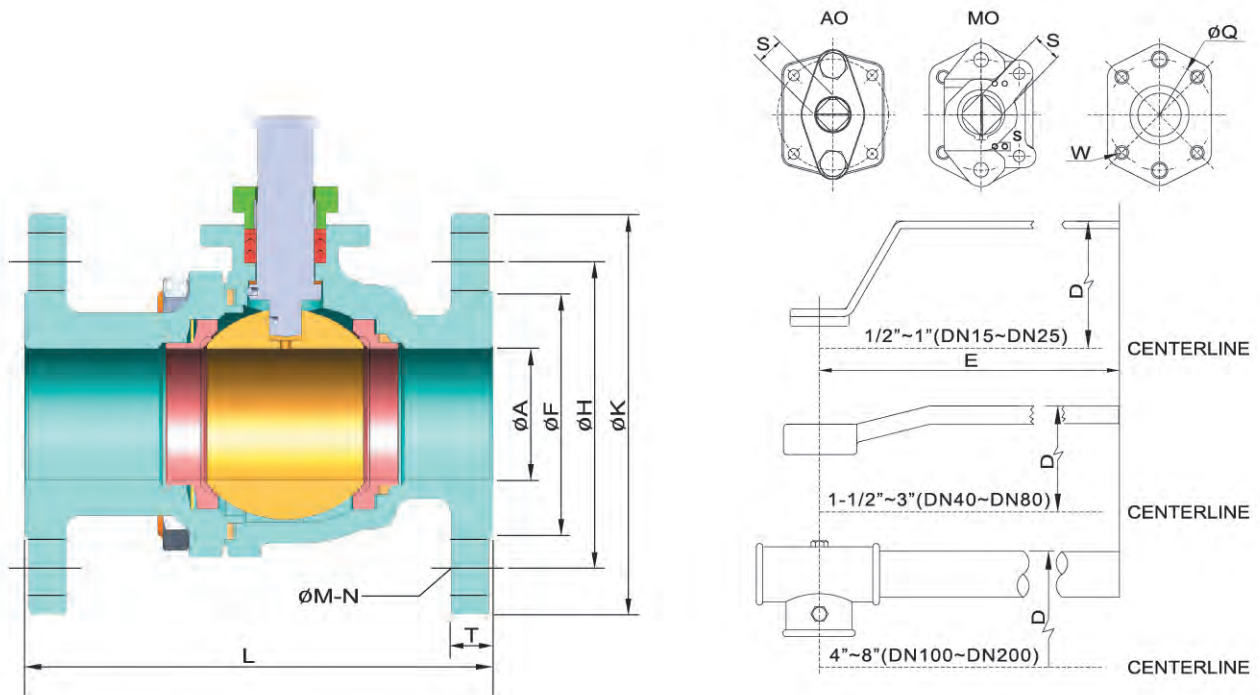
NO	PART NAME	SM -20~661°F (-29~350°C)			SH -20~932°F (-29~500°C)		
		A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
1	BODY 阀体	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
2	CAP 阀盖	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A194-A351-CF8	A351-CF8M
3	BALL 球阀	A351-CF8+HCR <sup>(2)</sup>		A351-CF8M+HCR	A351-CF8+TC <sup>(2)</sup> /CRC <sup>(2)</sup>		A351-CF8M+TC/CRC
4A	BODY SEAT 阀座	A351-CF8+STELLITE <sup>®</sup>		A351-CF8M+STELLITE <sup>®</sup>	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
4B	CAP SEAT 阀盖阀座	A351-CF8+STELLITE <sup>®</sup>		A351-CF8M+STELLITE <sup>®</sup>	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
5A	SEAT GASKET 阀座大薄片	GRAPHITE			GRAPHITE		
5B	SEAT RETAINER 座圈	A351-CF8		A351-CF8M	A351-CF8		A351-CF8M
6	SEAT SPRING 弹片	INCONEL <sup>®</sup> X-750			INCONEL <sup>®</sup> X-750		
7	BODY GASKET 大薄片	316SS+GRAPHITE			316SS+GRAPHITE		
8	BOLT&NUT 螺栓&螺母	A193-B7 & A194-7	A193-B8 & A194-8		A193-B7 & A194-7	A193-B8 & A194-8	
9	THRUST WASHER 小薄片	METAL+HARD FACE			METAL+HARD FACE		
10	GLAND PACKING 中口迫紧	GRAPHITE			GRAPHITE		
11	STEM 阀杆	A564-630(HH1150)		A638-S66286	A638-S66286		
12	GLAND <sup>(1)</sup> 压盖	A351-CF8			A351-CF8		
13	GLAND BOLT 牛楠螺丝	STAINLESS STEEL			STAINLESS STEEL		
14	SNAP CATCH (MO) 扣环	AISI 420			AISI 420		
15	TRAVEL STOP(MO) 档片	A240-304			A240-304		
16	HANDLE (MO) 手柄	A240-304(1/2"~1") FCD45 (1-1/2"~3") FCD45+SGP(4" AND ABOVE)					
17	GLAND BEARING 牛楠衬套	A240-316+PTFE			A240-316+PTFE		

The above materials may be changed with different using conditions.  
以上阀门部件的材质为标准配置,可根据客户需求和工况选择其他材质

#### NOTES:

(1) Options: AO: Automation / MO: Manual

(2) HCR = Hard Chrome 鍍硬铬 TC = Tungsten Carbide 碳化钨喷涂 CRC = Chrome Carbide 鍍硬铬



**DIMENSIONS (JIS-10K)**

(mm)

Size	A	F	H	K	M	N	L	T	S	Q	W	D	E	Wt (Kg)	
15	1/2"	15	51	70	95	15	4	108	12	10	42	M5	97	130	1.8
20	3/4"	20	56	75	100	15	4	117	14	10	42	M5	100	130	2.2
25	1"	25	67	90	125	19	4	127	14	12	50	M6	110	160	3.2
40	1-1/2"	38	81	105	140	19	4	165	16	17	70	M8	115	224	6.3
50	2"	50	96	120	155	19	4	178	16	17	70	M8	120	224	9.0
65	2-1/2"	65	116	140	175	19	4	190	18	20	70	M8	140	324	13.2
80	3"	76	126	150	185	19	8	203	18	20	70	M8	150	324	17.4
100	4"	100	151	175	210	19	8	229	18	27	102	M10	220	400	28.2
125	5"	125	182	210	250	23	8	356	20	27	102	M10	240	550	44.0
150	6"	150	212	240	280	23	8	394	22	32	125	M12	280	550	62.5
200	8"	200	262	290	330	23	12	457	22	35	140	M16	340	1000	128.5

**DIMENSIONS (JIS-20K)**

(mm)

Size	A	F	H	K	M	N	L	T	S	Q	W	D	E	Wt (Kg)	
15	1/2"	15	51	70	95	15	4	140	14	10	42	M5	97	130	2.5
20	3/4"	20	56	75	100	15	4	152	16	10	42	M5	100	130	3.5
25	1"	25	67	90	125	19	4	165	16	12	50	M6	110	160	4.9
40	1-1/2"	38	81	105	140	19	4	190	18	17	70	M8	115	224	9.8
50	2"	50	96	120	155	19	8	216	18	17	70	M8	120	224	12.2
65	2-1/2"	65	116	140	175	19	8	241	20	20	70	M8	140	324	22.4
80	3"	76	132	160	200	23	8	282	22	20	70	M8	150	324	31.2
100	4"	100	160	185	225	23	8	305	24	27	102	M10	220	400	48.0
150	6"	150	230	260	305	25	12	403	28	32	125	M12	280	550	98.3
200	8"	200	275	305	350	25	12	502	30	35	140	M16	340	1000	171.1

**DIMENSIONS (ASME CLASS-150)**

(mm)

Size	A	F	H	K	M	N	L	T	S	Q	W	D	E	Wt (Kg)	
15	1/2"	15	35	60.5	89	16	4	108	11.2	10	42	M5	97	130	1.8
20	3/4"	20	43	70	98	16	4	117	11.2	10	42	M5	100	130	2.2
25	1"	25	51	79.5	108	16	4	127	11.2	12	50	M6	110	160	3.2
40	1-1/2"	38	73	98.5	127	16	4	165	14.3	17	70	M8	115	224	6.3
50	2"	50	92	120.5	152	19	4	178	15.9	17	70	M8	120	224	9.0
65	2-1/2"	65	105	139.5	178	19	4	190	17.5	20	70	M8	140	324	13.2
80	3"	76	127	152.5	190	19	4	203	19.1	20	70	M8	150	324	17.4
100	4"	100	157	190.5	229	19	8	229	23.9	27	102	M10	220	400	28.2
125	5"	125	186	216	254	22	8	356	23.9	27	102	M10	240	550	44.0
150	6"	150	216	241.5	279	22	8	394	25.4	32	125	M12	280	550	62.5
200	8"	201	270	298.5	343	22	8	457	28.6	35	140	M16	340	1000	128.5

The weight refers to bare shaft valves.  
表中重量为裸阀重量



# JDV CONTROL VALVES

## DIMENSIONS (ASME CLASS-300)

(mm)

SIZE	A	F	H	K	M	N	L	T	S	Q	W	D	E	Wt (Kg)	
15	1/2"	15	35	66.5	95	16	4	140	14.3	10	42	M5	97	130	2.5
20	3/4"	20	43	82.5	117	19	4	152	15.9	10	42	M5	100	130	3.5
25	1"	25	51	89	124	19	4	165	17.5	12	50	M6	110	160	4.9
40	1-1/2"	38	73	114.5	156	22	4	190	20.7	17	70	M8	115	224	9.8
50	2"	50	92	127	165	19	8	216	22.3	17	70	M8	120	224	12.2
65	2-1/2"	65	105	149	190	22	8	241	25.4	20	70	M8	140	324	22.4
80	3"	76	127	168	210	22	8	282	28.6	20	70	M8	150	324	31.2
100	4"	100	157	200	254	22	8	305	31.8	27	102	M10	220	400	48.0
125	5"	125	186	235	280	22	8	381	35.2	32	125	M12	260	550	67.1
150	6"	150	216	270	318	22	12	403	36.6	32	125	M12	280	550	98.3
200	8"	201	270	330	381	25	12	502	41.2	35	140	M16	340	1000	171.1

## DIMENSIONS (ASME CLASS-600)

(mm)

SIZE	A	F	H	K	M	N	L	T	S	Q	W	D	E	Wt (Kg)	
15	1/2"	15	35	66.5	95	16	4	165	20.9	10	42	M5	97	130	2.6
20	3/4"	20	43	82.5	117	19	4	190	22.3	10	42	M5	100	130	4.0
25	1"	25	51	89	124	19	4	216	23.9	12	50	M6	110	160	5.9
40	1-1/2"	38	73	114.5	156	22	4	241	28.7	17	70	M8	115	224	11.8
50	2"	50	92	127	165	19	8	292	31.8	17	70	M8	130	224	16.9
65	2-1/2"	65	105	149.5	191	22	8	330	35	22	102	M10	190	324	29.9
80	3"	76	127	168	210	22	8	356	38.2	22	102	M10	200	324	36.0
100	4"	100	157	216	273	25	8	432	44.5	27	125	M12	240	550	67.0

## DIMENSIONS (DIN PN16)

(mm)

SIZE	A	F	H	K	M	N	L		T	S	Q	W	D	E	Wt (Kg)		
							S1	S27							S1	S27	
DN 15-DN 50 USE PN40																	
65	2-1/2"	65	122	145	185	18	8	290	170	18	20	70	M8	140	324	14.9	13.2
80	3"	76	138	160	200	18	8	310	180	20	20	70	M8	150	324	19.4	17.4
100	4"	100	158	180	220	18	8	350	190	20	27	102	M10	220	400	32.1	28.2
150	6"	150	212	240	285	22	8	480	350	22	32	125	M12	280	550	67.9	62.5
200	8"	201	268	295	340	22	12	600	400	24	35	140	M16	340	1000	141	128.5

## DIMENSIONS (DIN PN40)

(mm)

SIZE	A	F	H	K	M	N	L		T	S	Q	W	D	E	Wt (Kg)		
							S1	S27							S1	S27	
15	1/2"	15	45	65	95	14	4	130	115	16	10	42	M5	97	130	2.6	2.5
20	3/4"	20	58	75	105	14	4	150	120	18	10	42	M5	100	130	3.6	3.5
25	1"	25	68	85	115	14	4	160	125	18	12	50	M6	110	160	5.2	4.9
40	1-1/2"	38	88	110	150	18	4	200	140	18	17	70	M8	115	224	10.4	9.8
50	2"	50	102	125	165	18	4	230	150	20	17	70	M8	120	224	13.0	12.2
65	2-1/2"	65	122	145	185	18	8	290	170	22	20	70	M8	140	324	24.4	22.4
80	3"	76	138	160	200	18	8	310	180	24	20	70	M8	150	324	37.7	31.2
100	4"	100	162	190	235	22	8	350	190	24	27	102	M10	220	400	52.3	48.0
150	6"	150	218	250	300	26	8	480	350	28	32	125	M12	280	550	104.8	98.3
200	8"	201	285	320	375	30	12	600	400	34	35	140	M16	340	1000	187.4	171.1

## DIMENSIONS (DIN PN100)

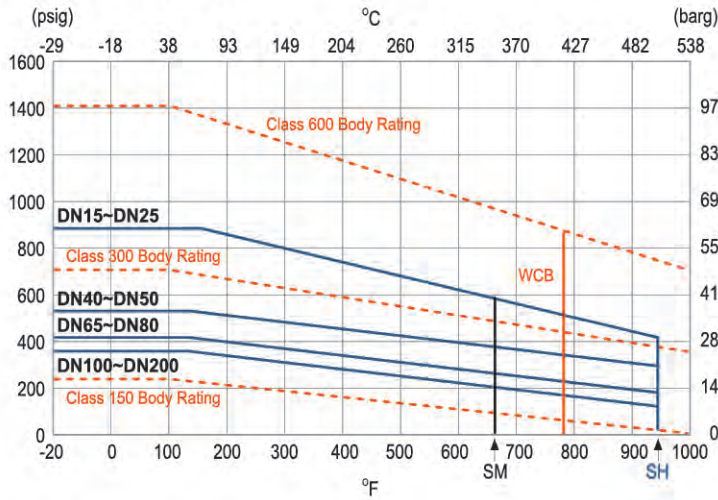
(mm)

SIZE	A	F	H	K	M	N	L	T	S	Q	W	D	E	Wt (Kg)	
							S5								
15	1/2"	15	45	75	105	14	4	165	20	10	42	M5	63	130	2.6
25	1"	25	68	100	140	18	4	216	24	12	50	M6	76	160	4.0
40	1-1/2"	38	88	125	170	22	4	241	26	17	70	M8	88	224	5.9
50	2"	50	102	145	195	26	4	292	28	17	70	M8	94	224	11.8
65	2-1/2"	65	122	170	220	26	8	330	30	20	102	M10	115	324	16.9
80	3"	76	138	180	230	26	8	356	32	20	102	M10	120	324	36.0
100	4"	100	162	210	265	30	8	432	36	27	125	M12	195	400	67.0

## Cv VALUES

SIZE	DN15	DN20	DN25	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
Cv	27	61	114	268	501	804	1158	2118	3412	5074	9337

**TEMPERATURE & PRESSURE DIAGRAM**  
温度&压力曲线



SM = MAX TEMPERATURE 661°F (350°C)  
SH = MAX TEMPERATURE 932°F (500°C)  
WCB = MAX TEMPERATURE 797°F (425°C)



API 6D

ISO 9001

CE

**HOW TO ORDER**

**JBF-M** → **A** → **B** → **C** → **D** → **E** → **F** → **G**

Ex: **JBF-M** → **C1** → **04** → **C** → **26** → **050** → **IAU** → **SH1**

A. SPECIFICATION	B. BODY MAT'L	C. BALL & SEAT MAT'L	D. STEM MAT'L	E. SIZE	F. OPTION	G. TEMPERATURE
A1 JIS 10K	02 WCB (1.0619)	A CF8	10 S31803	015 1/2"	F FIRE SAFE	SM -20~661°F(-29~350°C) BALL W/HCR SEAT W/STELLITE®
A2 JIS 20K	03 CF8 (1.4308)	C CF8M	22 630	020 3/4"	L EXTENDED STEM	SH1 -20~842°F(-29~450°C) BALL W/TC SEAT W/TC
<b>C1 ASME CLASS 150</b>	<b>04 CF8M (1.4408)</b>	D CF3	<b>26 S66286</b>	025 1"	I LIVE LOADING	SH2 -20~932°F(-29~500°C) BALL W/CRC SEAT W/CRC
C2 ASME CLASS 300	05 CF3 (1.4306)	E CF3M		040 1-1/2"	H LEVER	
C3 ASME CLASS 600	06 CF3M (1.4404)	F CG8M		<b>050 2"</b>	G GEAR	
D2 DIN PN16	07 CG8M (1.4412)	I CD3MN		065 2-1/2"	A BARE SHAFT	
D4 DIN PN40	11 LCB (1.1138)			080 3"	U UNI-DIRECTION	
D5 DIN PN100	12 LCC (1.7219)			100 4"	B BI-DIRECTION	
	15 CD3MN (1.4470)			125 5"	S1 SINGLE SCRAPER (UPSTREAM SIDE)	
				150 6"	S2 DOUBLE SCRAPER (UPSTREAM+DOWNSTREAM)	
				200 8"		

HOW TO ORDER

※ Alternative materials are available on request.  
\* 阀内件均做相应的硬化处理, 以上内件为基材。



■ HEADQUARTERS

NO. 6-1, QINGNIAN RD., YANGMEI DIST., TAOYUAN CITY 326, TAIWAN  
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**TGT**



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