JDV CONTROL VALVES

QUALITY SWISS

JBF-SM Type

3-PC Threaded / Welded Metal Seat Ball Valve
三片牙/焊口金属密封球阀

TAIWAN EXCELLENCE 2018

We link all you need
and more than you expect.

JDV CONTROL VALVES

JBF-SM

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

Full Bore Three-Piece Threaded / Welded / Flanged Ends
ASME CLASS 600

To answer the growing demand of reliable and robust metal-seated threaded & welded ball valves, our experienced engineering teams designed the JBSM Series, meeting the requirements of the most challenging industries: Oil & Gas, Refineries, Petrochemical & Chemical Industries, Power Generation, Pulp & Paper, Mining, etc. Strengthened by our unique design and coated with our own High Velocity Oxygen Fuel technology, they are successfully used under the most extreme conditions, such as high temperature, high pressure, corrosive and/or abrasive fluids, slurries, etc.

夹套球阀是维持流体在一定的温度下运作而设计。

Industrial Fields:
应用产业

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

Product Features 产品特色

- Bidirectional design (with preferred direction), adequate for any kind of backflow application.
  双向防逆压设计，适用于防止逆流的应用
- Oversized stem design preventing any deformation from high pressure or high temperature.
  高强度阀杆设计，在高温高压环境应用下不容易变形
- Several alternatives of coating, suitable for slurries and very corrosive mediums.
  可选择性的硬密封面喷涂，适用于黏浆类与腐蚀性的介质
- ASME Class 600 wall thickness design, enabling it to withstand severe operating conditions.
  采600LB阀体设计，可承受严苛的工作条件
- Scraper seat design in option, to avoid any accumulation of fluid deposit on the ball surface.
  阀座刮刀设计(选配)，防止流体累积残留在阀球表面
- Design with a larger ball to provide the best sealing, in order to reduce any leakage.
  阀球设计提供了最佳密封效果
- Inconel® spring design ensuring a tight contact between the ball and the seats.
  采用高强度弹簧，确保阀球与阀座的紧密接触
- Live-loading design eliminating any stem leakage and providing a longer life cycle.
  阀杆及时复归设计，防止由阀杆泄漏的问题，大幅度提高阀门的使用寿命
- Anti-static design. 静电设计
- Anti-blowout stem design. 阀杆防飞出设计
- ISO 5211 mounting pad. ISO 5211安装盘设计
- Fire safe design. 防火设计

Applications 适用标准

1. High temperature 高温
2. High abrasion 高耐磨性
3. Corrosion 腐蚀

HVOF Thermal Spray

Design & Structures 设计与结构

Packing Lock Washer
包装锁紧垫圈

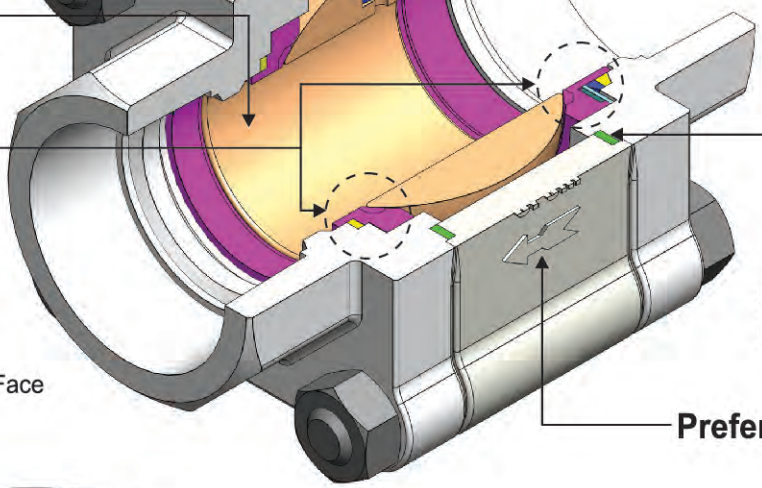
ISO 5211 Mounting Pad
安装盘符合 ISO 5211

Live-loading packing design
动态负载填料设计

Stem :
阀杆:
- Oversized design 超规格设计
- Double packing design 双重填料设计
- Anti-blow out design 防飞出设计
- Anti-static design 防静电设计

Seat Spring :
阀座弹片：
INCONEL® X750

Ball :
阀球
- Optional hard faces
- Large ball design



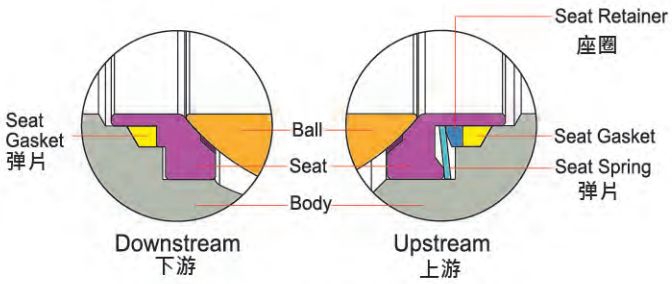
Seats:
球垫
Stainless Steel + Hard Face
不锈钢+硬化面

Spiral Wound Body Gasket
阀体缠绕垫片

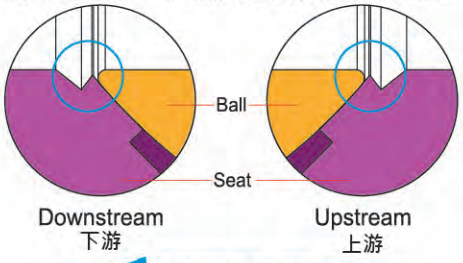
Preferred Direction
流向

Options:
选项：

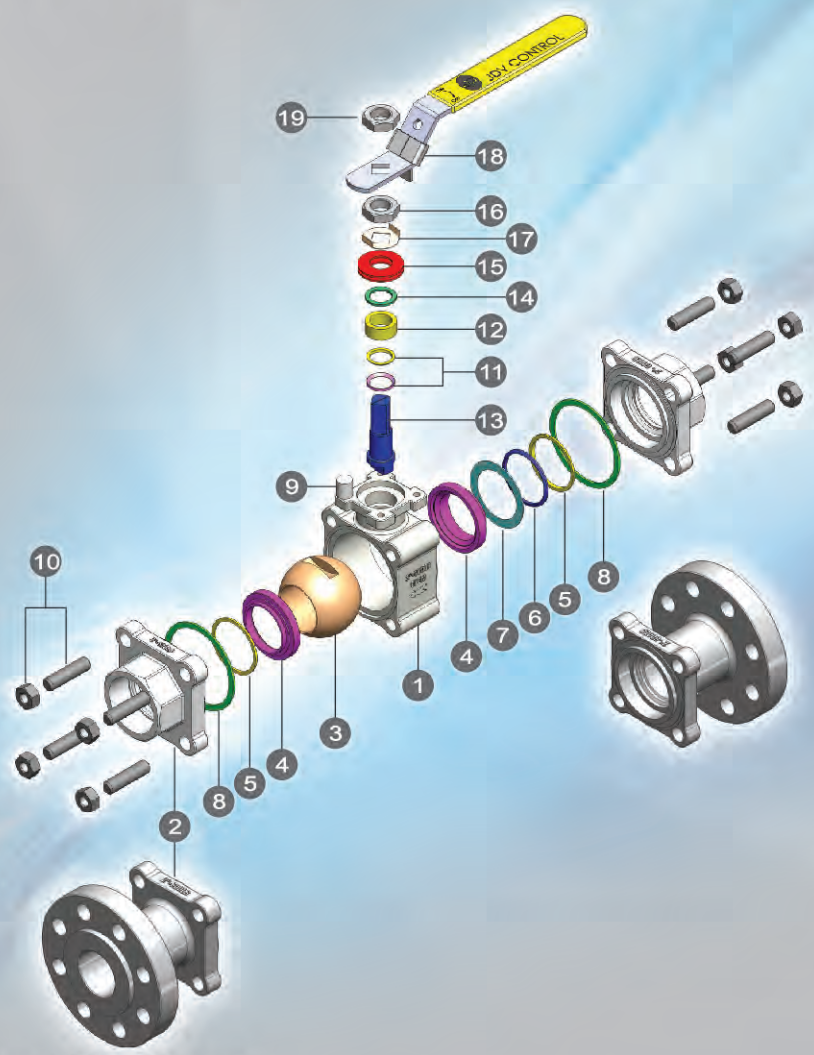
B Type : Bi-directional B型：双向
Standard 标准



S Type : Scraper S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。



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



Technical Specifications

STANDARD MATERIALS

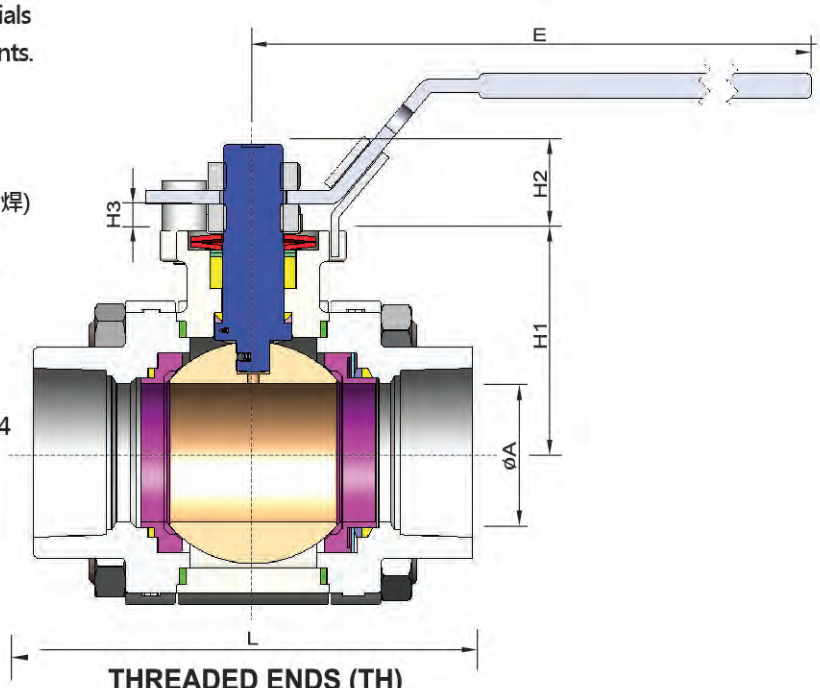
NO	PART NAME	-20~661°F (-29~350°C)	
1	BODY 阀体	A216-WCB	A351-CF8M
2	CAP 阀盖	A216-WCB	A351-CF8M
3	BALL 阀球	A351-CF8M + HCR(1)/TC(1)	
4	SEAT 阀座	A351-CF8M + STELLITE® /TC	
5	SEAT GASKET 阀座大薄片	GRAPHITE	
6	SEAT RETAINER 座圈	A276-316	
7	SEAT SPRING 弹片	INCONEL® X750	
8	BODY GASKET 阀体大薄片	316SS+GRAPHITE	
9	STOPPER 塞子	A276-304	
10	BOLT & NUT 螺栓&螺帽	A193-B7 & A194-7	A193-B8 & A194-8
11	THRUST WASHER 小薄片	A276-316 + GRAPHITE	
12	GLAND PACKING 中口迫紧	GRAPHITE	
13	STEM 阀轴	A564-630 (HH1150)	A276-XM-19
14	RING 密封环	A276-316	
15	BEVEL WASHER 方形垫圈	INCONEL® X750	
16	NUT 螺帽	A193-B8	
17	PACKING LOCK WASHER 破紧垫片	A240-304	
18	HANDLE 手柄	A240-304	
19	HANDLE NUT 手柄螺帽	A193-B8	

The above materials may be changed with different using conditions.

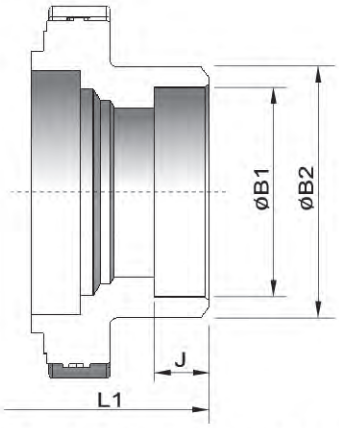
NOTES:
(1) HCR = Hard Chrome TC = Tungsten Carbide

Applicable Standards
适用标准

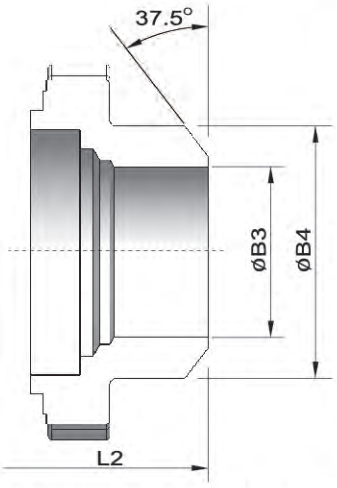
- Body Material(阀体材质): Standard in WCB, CF8M Other materials are available according to requirements. (可依专案客制需求)
- Nominal Size(尺寸): 1/2" to 2" (DN15 to DN50)
- Pressure Rating(压力等级): ASME CLASS 600
- End Connections(连接型式): Threaded(螺牙)/Socket Weld(承插焊) Butt Weld(对焊)/Flanged(法兰)
- Temperature Range(温度范围): -20~661°F (-29~350°C),higher temperature on request. (更高温度可依需求客制)
- Flanged Face-To-Face Dimensions(面间尺寸):ASME B 16.1 0 / EN 558 Series 5/14
- Flanged Dimensions(法兰尺寸):ASME B16.5 / EN 1092-1
- Body Pressure Testing(本体压力测试): ASME B16.34/API 598
- Seat Leakage Testing(球垫泄漏测试):ANSI/FCI 70-2 CLASS V in standard,Class VI in option.(6级为选配)
- Casting(铸造标准): MSS-SP-25 / MSS-SP-55



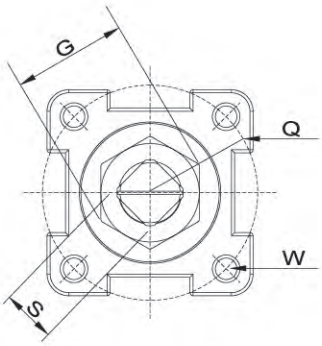
THREADED ENDS (TH)
螺纹端（TH）



SOCKET WELD ENDS (SW)
承插焊端（SW）

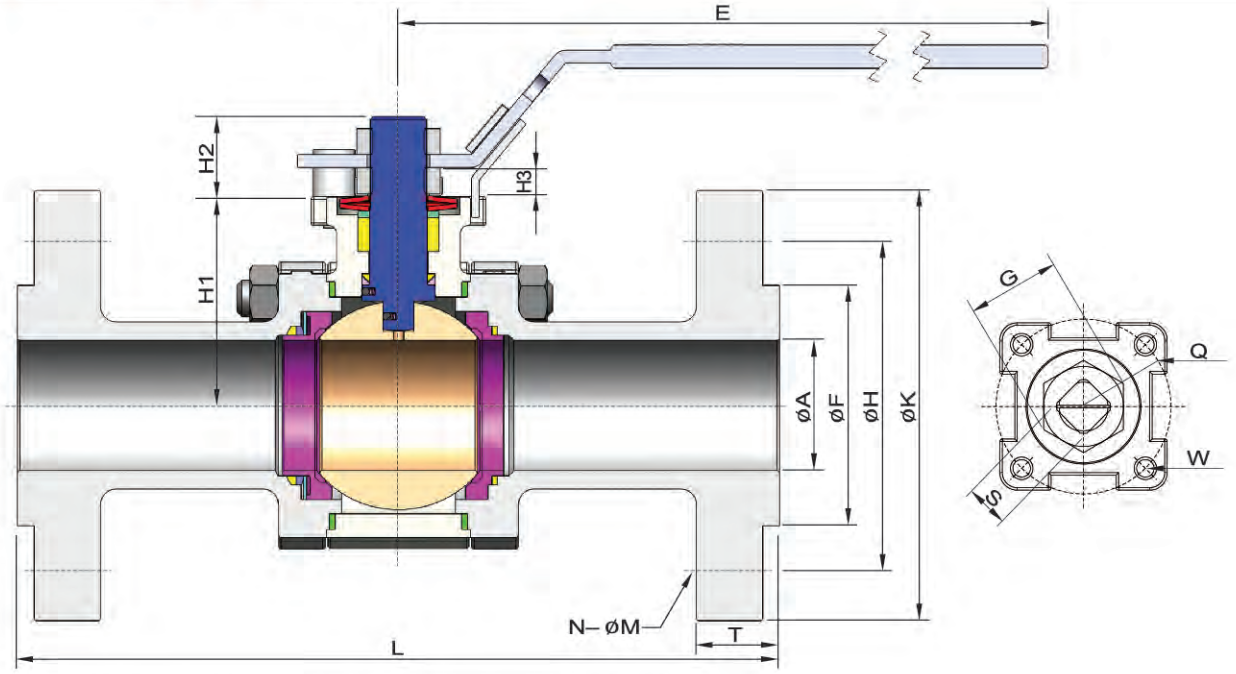


BUTT WELD ENDS (BW)
对焊端（BW）



DIMENSIONS (TH/SW/BW ENDS) 尺寸表 (mm)

SIZE		A	L	B1	B2	J	L1	B3	B4	L2	S	G	Q	W	H1	H2	H3	E	Wt (Kg)
15	1/2"	15	80.6	22.2	30	9.5	75	15	30	75	9	22	F04	M5	44.5	14	5	130	1.1
20	3/4"	20	96.6	27.6	38	12.5	90	20	38	90	9	22	F04	M5	47	14	5	130	1.5
25	1"	25	108	34.3	46	12.5	100	25	46	100	11	25.4	F05	M6	60	20	5	170	2.5
32	1-1/4"	32	127	43.1	56	12.5	110	32	56	110	11	25.4	F05	M6	64	20	5	170	3.9
40	1-1/2"	40	142	49.2	62	12.5	125	40	62	125	17	36.6	F07	M8	73	31	10	224	5.4
50	2"	50	158	61.7	74	16	150	50	74	150	17	36.6	F07	M8	80	31	10	224	7.9



DIMENSIONS (ASME CLASS 150 FLANGED ENDS) (mm)

SIZE		A	F	H	K	M	N	L	T	S	G	Q	W	H1	H2	H3	E	Wt (Kg)
15	1/2"	15	35	60.5	89	16	4	108	11.2	9	22	F04	M5	44.5	14	5	130	1.8
20	3/4"	20	43	70	98	16	4	117	11.2	9	22	F04	M5	47	14	5	130	2.2
25	1"	25	51	79.5	108	16	4	127	11.2	11	25.4	F05	M6	60	20	5	170	3.2
32	1-1/4"	32	64	89	117	16	4	140	12.7	11	25.4	F05	M6	64	20	5	170	4.3
40	1-1/2"	40	73	98.5	127	16	4	165	14.3	17	36.6	F07	M8	73	31	10	224	6.3
50	2"	50	92	120.5	152	19	4	178	15.9	17	36.6	F07	M8	80	31	10	224	9.0

DIMENSIONS (ASME CLASS 300 FLANGED ENDS) (mm)

SIZE		A	F	H	K	M	N	L	T	S	G	Q	W	H1	H2	H3	E	Wt (Kg)
15	1/2"	15	35	66.5	95	16	4	140	14.3	9	22	F04	M5	44.5	14	5	130	2.5
20	3/4"	20	43	82.5	117	19	4	152	15.9	9	22	F04	M5	47	14	5	130	3.5
25	1"	25	51	89	124	19	4	165	17.5	11	25.4	F05	M6	60	20	5	170	4.9
32	1-1/4"	32	64	98.6	133	19	4	178	19	11	25.4	F05	M6	64	20	5	170	5.4
40	1-1/2"	40	73	114.5	156	22	4	190	20.6	17	36.6	F07	M8	73	31	10	224	9.8
50	2"	50	92	127	165	19	8	216	22.3	17	36.6	F07	M8	80	31	10	224	12.2

DIMENSIONS (ASME CLASS 600 FLANGED ENDS) (mm)

SIZE		A	F	H	K	M	N	L	T	S	G	Q	W	H1	H2	H3	E	Wt (Kg)
15	1/2"	15	35	66.5	95	16	4	165	20.9	9	22	F04	M5	42	14	5	130	2.6
20	3/4"	20	43	82.5	117	19	4	190	22.3	9	22	F04	M5	45	14	5	130	4.0
25	1"	25	51	89	124	19	4	216	23.9	11	25.4	F05	M6	55	20	5	170	5.9
32	1-1/4"	32	64	98.6	133	19	4	229	26.9	11	25.4	F05	M6	59	20	5	170	9.0
40	1-1/2"	38	73	114.5	156	22	4	241	28.7	17	36.6	F07	M8	72	31	10	224	11.8
50	2"	50	92	127	165	19	8	292	31.8	17	36.6	F07	M8	80	31	10	224	16.9

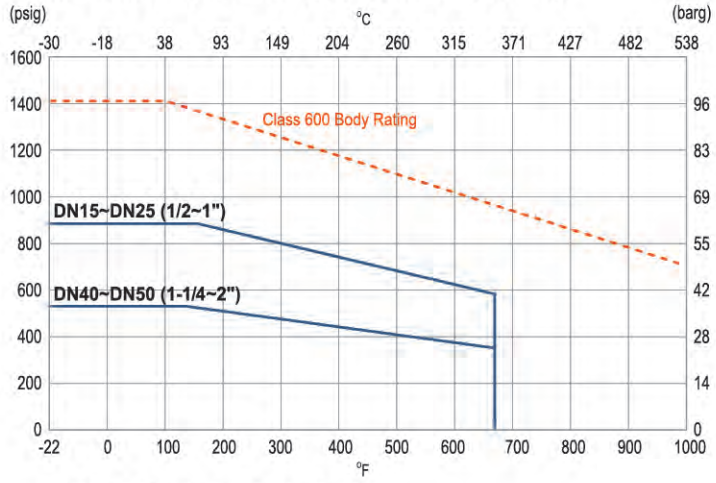
DIMENSIONS (DIN PN16/PN40 FLANGED ENDS) (mm)

SIZE		A	F	H	K	M	N	L	T	S	G	Q	W	H1	H2	H3	E	Wt (Kg)
15	1/2"	15	45	65	95	14	4	115	16	9	22	F04	M5	44.5	14	5	130	2.5
20	3/4"	20	58	75	105	14	4	120	18	9	22	F04	M5	47	14	5	130	3.5
25	1"	25	68	85	115	14	4	125	18	11	25.4	F05	M6	60	20	5	170	4.9
32	1-1/4"	32	78	100	140	18	4	130	18	11	25.4	F05	M6	64	20	5	170	6.6
40	1-1/2"	40	88	110	150	18	4	140	18	17	36.6	F07	M8	73	31	10	224	9.8
50	2"	50	102	125	165	18	4	150	20	17	36.6	F07	M8	80	31	10	224	12.2

DIMENSIONS (DIN PN100 FLANGED ENDS) (mm)

SIZE		A	F	H	K	M	N	L	T	S	G	Q	W	H1	H2	H3	E	Wt (Kg)
15	1/2"	15	45	75	105	14	4	165	20	9	22	F04	M5	44.5	14	5	130	2.6
25	1"	25	68	100	140	18	4	216	24	11	25.4	F05	M6	60	20	5	170	4.0
40	1-1/2"	40	88	125	170	22	4	241	26	17	36.6	F07	M8	73	31	10	224	5.9
50	2"	50	102	145	195	26	4	292	28	17	36.6	F07	M8	80	31	10	224	11.8

TEMPERATURE & PRESSURE DIAGRAM



MAX TEMPERATURE 661°F (350°C)

Cv VALUES

Size	DN15	DN20	DN25	DN32	DN40	DN50
	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Cv	27	61	114	181.9	268	501

CE PED 97/23/EC

ISO 9001

HOW TO ORDER

JBF-SM → A → B → C → D → E → F → G → H

Ex: JBF-SM → C3 → 04 → C → 22 → 025 → TH → HCR → FIH

A. SPECIFICATION

C3	ASME CLASS 600 BODY

B. BODY MAT'L

02	WCB (1.0619)
03	CF8 (1.4308)
04	CF8M (1.4408)
05	CF3 (1.4306)
06	CF3M (1.4404)
07	CG8M (1.4412)

C. BALL & SEAT MAT'L

A	CF8
C	CF8M
D	CF3
E	CF3M
F	CG8M

D. STEM MAT'L

10	S31803
22	630
25	XM-19
26	S66286

E. SIZE

015	1/2"
020	3/4"
025	1"
032	1-1/4"
040	1-1/2"
050	2"

F. END CONNECTION

TH	THREAD
SW	SOCKET WELD
BW	BUTT WELD
C1	150LB FLANGED
C2	300LB FLANGED
C3	600LB FLANGED
D2	PN16 FLANGED
D4	PN40 FLANGED
D5	PN100 FLANGED

G. HARD FACE

HCR	BALL W/HCR SEAT W/STELLITE®
TC	BALL W/TC SEAT W/TC

H. OPTION

F	FIRE SAFE
L	EXTENDED STEM
I	LIVE LOADING
H	LEVER
G	GEAR
A	BARE SHAFT
S1	SINGLE SCRAPER (UPSTREAM SIDE)
S2	DOUBLE SCRAPER (UPSTREAM + DOWNSTREAM)

HOW TO ORDER

※ Alternative materials are available on request.