JDV CONTROL VALVES

QUALITY SWISS

JBF-SM Type

3-PC Threaded / Welded Metal Seat Ball Valve
三片牙/焊口金屬密封球閥

TAIWAN EXCELLENCE 2018

We link all you need
and more than you expect.

JDV CONTROL VALVES

JBF-SM

Floating Type Metal Seat Ball Valve
浮動式金屬密封球閥

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.

夾套球閥是維持流體在一定的溫度下運作而設計。

Industrial Fields:
應用產業

Oil & Gas 煉油產業
Refinery / Petrochemical 石油精煉/石化業
Chemical 化工業
Pulp & Paper 造紙業
Power Plant 發電廠
Steel Mill 煉鋼廠
Food 食品業
Mining 採礦業

Product Features 產品特色

- Bidirectional design (with preferred direction), adequate for any kind of backflow application.
  雙向防逆壓設計，適用於防止逆流的應用
- Oversized stem design preventing any deformation from high pressure or high temperature.
  高強度閥桿設計，在高溫高壓環境應用下不容易變形
- Several alternatives of coating, suitable for slurries and very corrosive mediums.
  可選擇性的硬密封面噴塗，適用於黏漿類與腐蝕性的介質
- ASME Class 600 wall thickness design, enabling it to withstand severe operating conditions.
  採600LB閥體設計，可承受嚴苛的工作條件
- Scraper seat design in option, to avoid any accumulation of fluid deposit on the ball surface.
  閥座刮刀設計(選配)，防止流體累積殘留在閥球表面
- Design with a larger ball to provide the best sealing, in order to reduce any leakage.
  閥球設計提供了最佳密封效果
- Inconel® spring design ensuring a tight contact between the ball and the seats.
  採用高強度彈簧，確保閥球與閥座的緊密接觸
- Live-loading design eliminating any stem leakage and providing a longer life cycle.
  閥桿及時復歸設計，防止由閥桿洩漏的問題，大幅度提高閥門的使用壽命
- Anti-static design. 靜電設計
- Anti-blowout stem design. 閥桿防飛出設計
- ISO 5211 mounting pad. ISO 5211安裝盤設計
- Fire safe design. 防火設計

Applications 適用標準

1. High temperature 高溫
2. High abrasion 高耐磨性
3. Corrosion 腐蝕

Design & Structures 設計與結構

Packing Lock Washer
包裝鎖緊墊圈

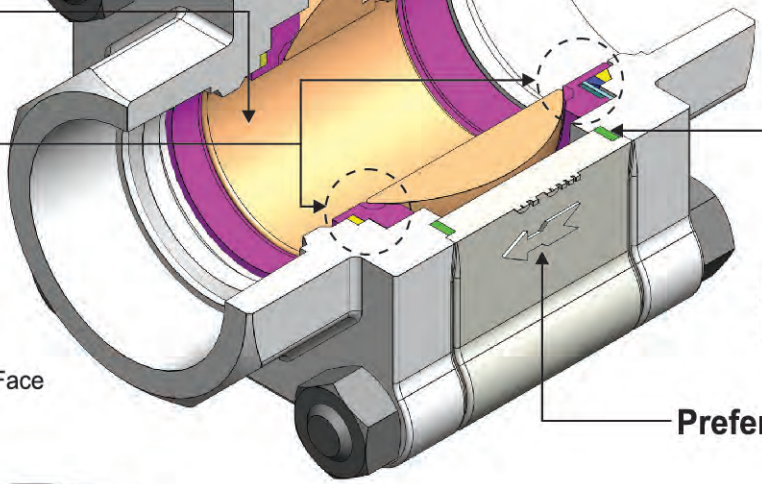
ISO 5211 Mounting Pad
安裝盤符合 ISO 5211

Live-loading packing design
動態負載填料設計

Stem :
閥桿:
- Oversized design 超規格設計
- Double packing design 雙重填料設計
- Anti-blow out design 防飛出設計
- Anti-static design 防靜電設計

Seat Spring :
閥座彈片 :
INCONEL® X750

Ball :
閥球
- Optional hard faces
- Large ball design



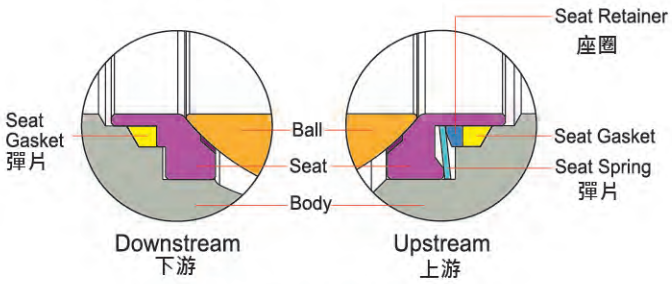
Seats:
球墊
Stainless Steel + Hard Face
不銹鋼+硬化面

Spiral Wound Body Gasket
閥體纏繞墊片

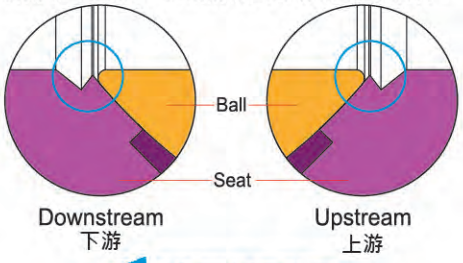
Preferred Direction
流向

Options:
選項 :

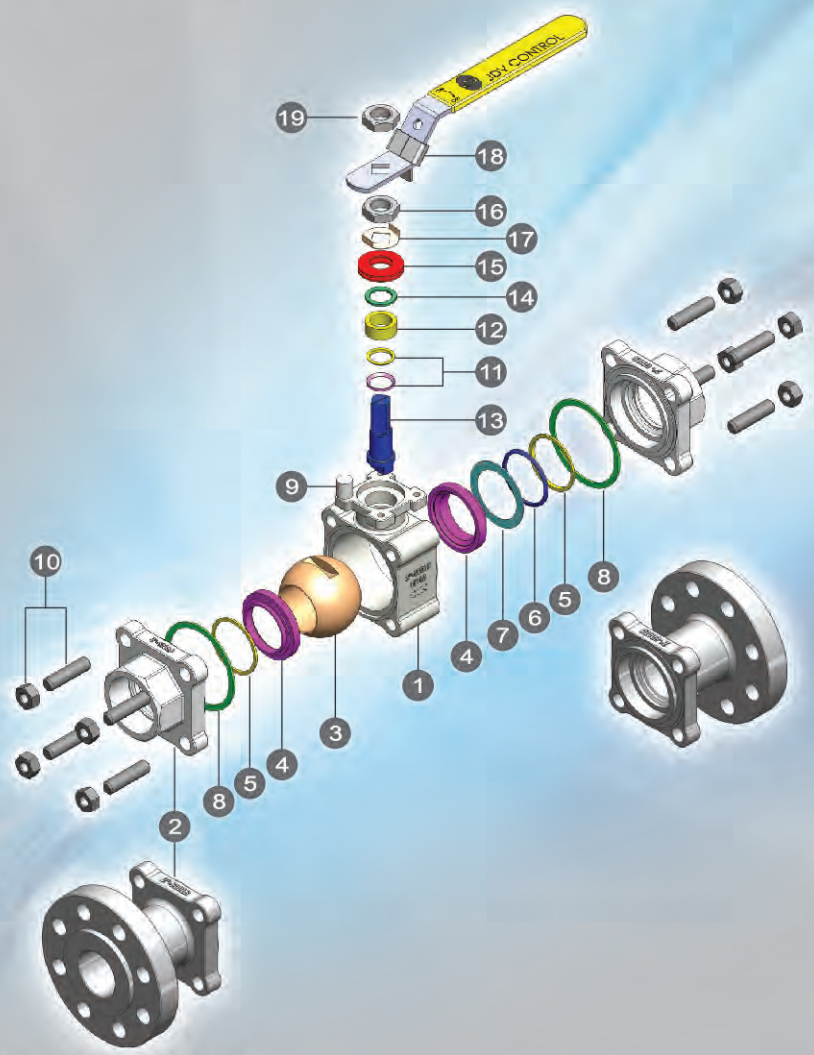
B Type : Bi-directional B型 : 雙向
Standard 標準



S Type : Scraper S型 : 刮板
For heavy slurry such as the black liquor in Pulp & Paper industry.
用於重漿液，如黑液在製漿造紙行業。



Downstream scraper on request for very heavy services.
下游端刮板可應要求提供排渣服務。



Technical Specifications

STANDARD MATERIALS

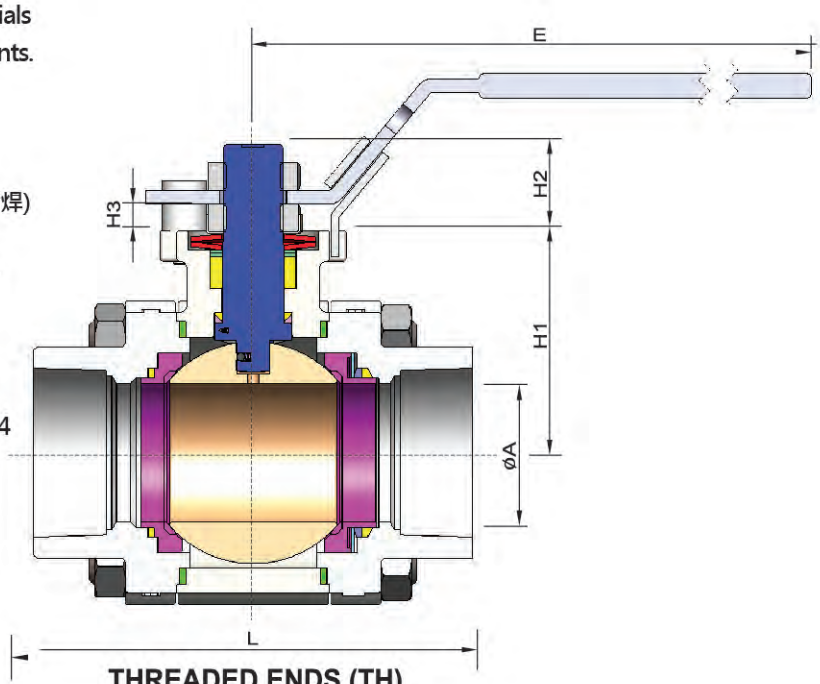
NO	PART NAME	-20~661°F (-29~350°C)	
1	BODY 閥體	A216-WCB	A351-CF8M
2	CAP 閥蓋	A216-WCB	A351-CF8M
3	BALL 閥球	A351-CF8M + HCR(1)/TC(1)	
4	SEAT 閥座	A351-CF8M + STELLITE® /TC	
5	SEAT GASKET 閥座大薄片	GRAPHITE	
6	SEAT RETAINER 座圈	A276-316	
7	SEAT SPRING 彈片	INCONEL® X750	
8	BODY GASKET 閥體大薄片	316SS+GRAPHITE	
9	STOPPER 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 閥軸	A564-630 (HH1150)	A276-XM-19
14	RING 密封環	A276-316	
15	BEVEL WASHER 方形墊圈	INCONEL® X750	
16	NUT 螺帽	A193-B8	
17	PACKING LOCK WASHER 破緊墊片	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.

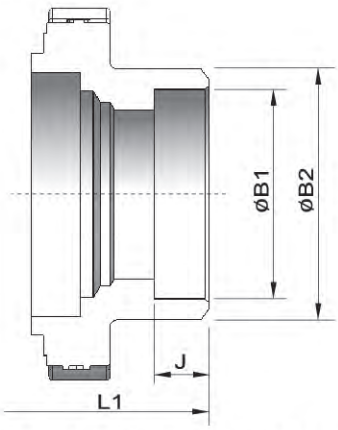
NOTES:
(1) HCR = Hard Chrome TC = Tungsten Carbide

Applicable Standards
適用標準

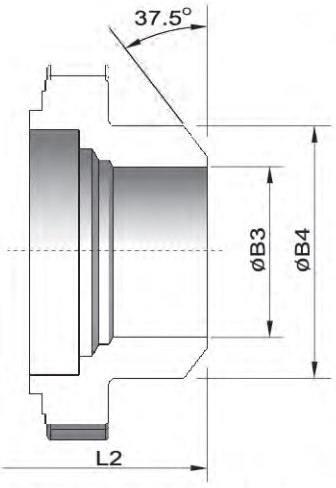
- Body Material(閥體材質): Standard in WCB, CF8M Other materials are available according to requirements. (可依專案客制需求)
- Nominal Size(尺寸): 1/2" to 2" (DN15 to DN50)
- Pressure Rating(壓力等級): ASME CLASS 600
- End Connections(連接型式): Threaded(螺牙)/Socket Weld(承插焊) Butt Weld(對焊)/Flanged(法蘭)
- Temperature Range(溫度範圍): -20~661°F (-29~350°C),higher temperature on request. (更高溫度可依需求客制)
- Flanged Face-To-Face Dimensions(面間尺寸):ASME B 16.1 0 / EN 558 Series 5/14
- Flanged Dimensions(法蘭尺寸):ASME B16.5 / EN 1092-1
- Body Pressure Testing(本體壓力測試): ASME B16.34/API 598
- Seat Leakage Testing(球墊洩漏測試):ANSI/FCI 70-2 CLASS V in standard,Class VI in option.(6級為選配)
- Casting(鑄造標準): MSS-SP-25 / MSS-SP-55



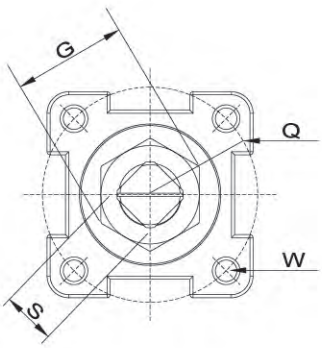
THREADED ENDS (TH)
螺紋端（TH）



SOCKET WELD ENDS (SW)
承插焊端（SW）

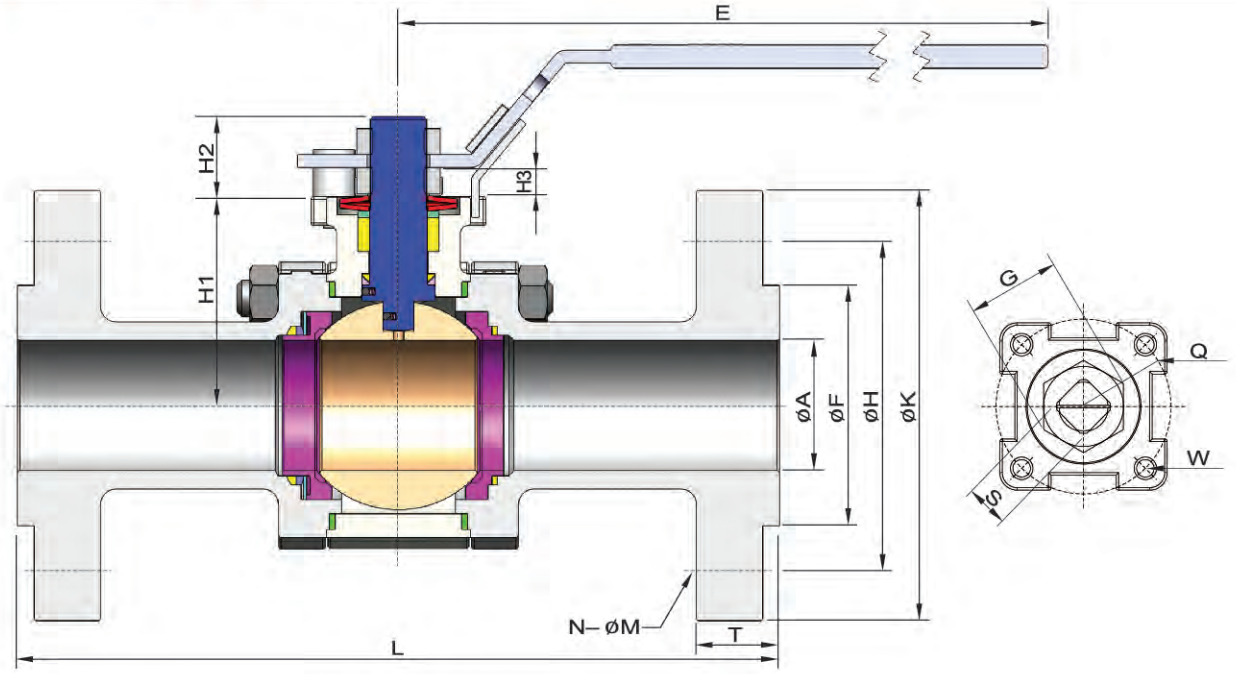


BUTT WELD ENDS (BW)
對焊端（BW）



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

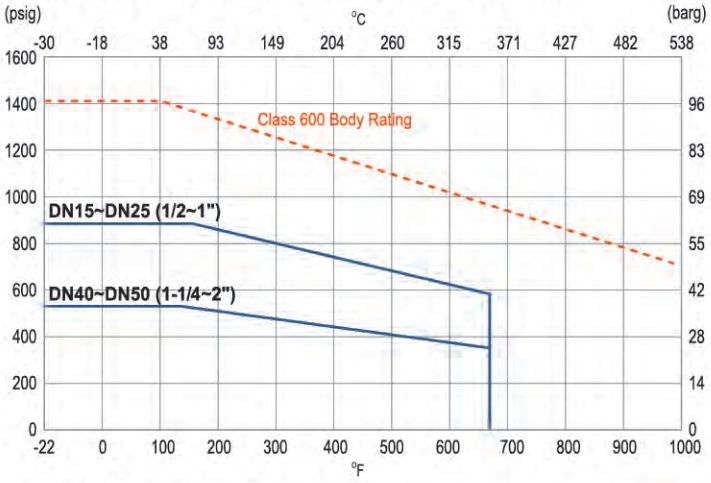
DIMENSIONS (DIN PN16/PN40 FLANGED ENDS) (mm)

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)

※ Alternative materials are available on request.