



JDV  
CONTROL  
VALVES



# JSB-F / JSB-M Type

## V-Port Segment Control Valve

### V型半球控制閥



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



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### V型半球控制閥

JSB Series V-segment valve is the segment ball with V-notch design for both regulating and shut-off services. The high valve capacity with optimum flow characteristics provides the ideal solution in flow control.

獨特設計的非球型閥球與V型開口槽，提供了可調整流量與關閉的功能。具有最佳流量控制能力特性的高性能閥門，在流量控制上提供了理想的解決方案。

### Industrial Fields: 應用產業

Oil & Gas 石油&天然氣

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

Water Treatment 水處理



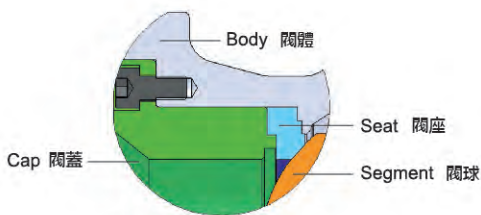
### Product Features:

#### 產品特色

- 1-PC Body design reducing the leakage.  
一體式的閥體設計，減少洩漏的風險。
- V-segment design providing the large and straight path giving a high Cv even in case of fibers or particles.  
V型開口設計，提供了大範圍與直通流道的流量值，即使在纖維或顆粒狀的介質環境。
- Trunnion design with self-lubricating bearings making the torque lighter and life cycle longer.  
固心式設計搭配自潤軸承，操作輕巧，提高閥門使用壽命
- V-notch in the segment offering a shearing function to allow fibrous mediums or slurries to pass without any obstruction.  
V型開口槽設計，提供了剪切功能，纖維或泥漿狀的介質也可順利通過，不會附著殘留在密封面
- Optional seat design meeting many applications.  
可選配的閥座設計，符合多種應用環境
- Alternative hard faces satisfying numerous services.  
可選配的硬密封面設計，可滿足多種工況需求
- Spring-loaded metal seat design providing a lower torque.  
彈簧復歸的金屬閥座設計，減低操作扭力
- Removable end-cap making the maintenance easier.  
移動式端蓋設計，易於維修更換
- Equal percentage flow characteristics.  
具有等比式的流量特性
- Spline stem design reducing the deadband to optimizes the control performance.  
閥桿花齒結合設計，使得操作控制最佳化
- Available in flangeless (wafer) or flanged connections.  
連接方式，法蘭面及非法蘭面皆可提供
- ISO 5211 mounting pad.  
安裝平台符合 ISO 5211
- Anti-static design.  
防靜電設計
- Anti-blowout stem design.  
閥桿防飛出設計

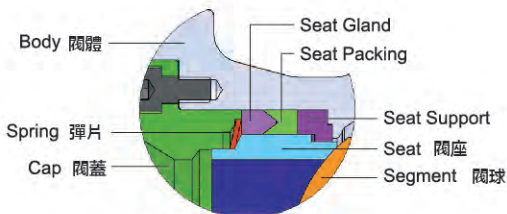
## Design & Structure 設計&結構

### Seat Options: 閥座選配:



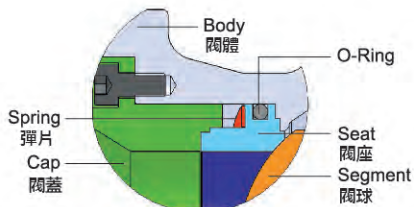
#### 軟密封閥座 Soft Seat

Temp. : -20~356 °F (-29~180 °C)



#### 金屬密封閥座 Metal Seat-S01 Type

Temp. : -20~661 °F (-29~350 °C)  
Graphite seat packing design allowing higher temperature range.



#### Metal Seat-S02 Type

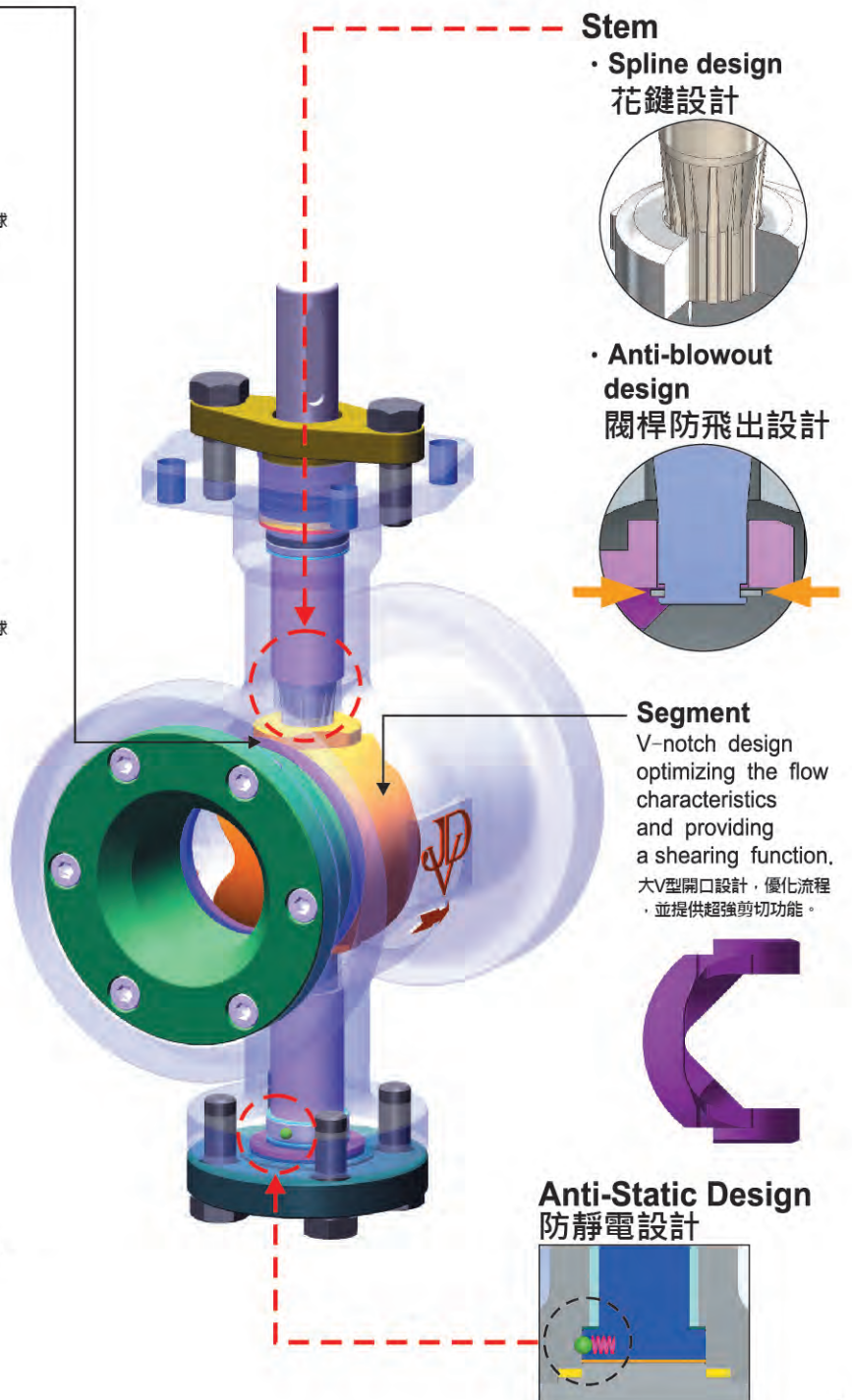
Temp. : -20~446 °F (-29~230 °C)  
FKM O-Ring design providing light torque to enhance the control performance.

## Applications

1. Flow control.
2. Pressure control.
3. Slurries or viscous mediums.
4. Mediums containing powders or particles.
5. Mediums with chips or fibers, especially in the Pulp & Paper industry.

## 適用場合

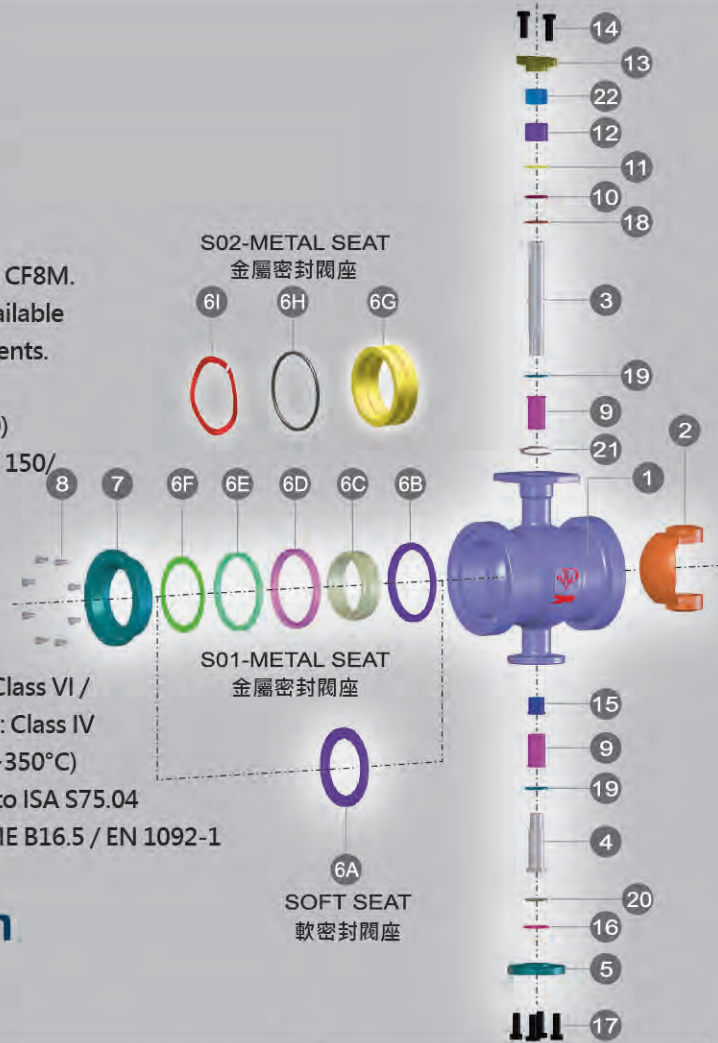
1. 流量控制
2. 壓力控制
3. 漿料及粘性流體
4. 含粉塵和硬質顆粒的流體
5. 造紙過程中的紙漿、碎屑和纖維





## Applicable Standards 適用標準

- Body Material(閥體材質): Standard in WCB, CF8, CF8M.  
Other materials are available according to requirements.  
(可依專案客制需求。)
- Nominal Size(尺寸): 1" to 16" (DN25 to DN400)
- Pressure Rating(壓力等級): JIS 10K ASME CLASS 150/  
300 DIN PN16/40
- End Connections(連接型式): Flangeless /  
RF Flanged
- Range Ability(開度比): Greater than 150:1.
- Seat Leakage(球墊洩漏測試): ANSI/FCI70-2 /  
Soft-seat(軟密封): Class VI /  
Metal-seat(硬密封): Class IV
- Temperature Range(溫度範圍): -20~661°F (-29~350°C)
- Face-to-face Dimensions(面間尺寸): According to ISA S75.04
- Flanged Dimensions(法蘭尺寸): JIS B2220 / ASME B16.5 / EN 1092-1



## Technical Specification 技術規範

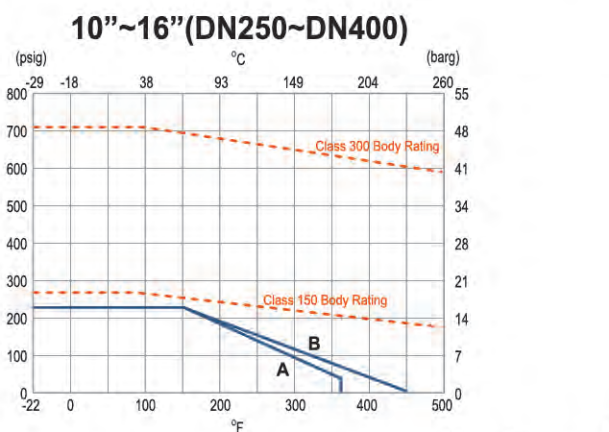
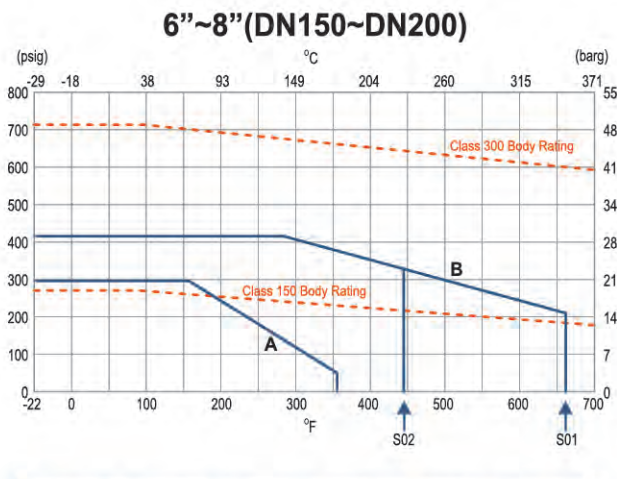
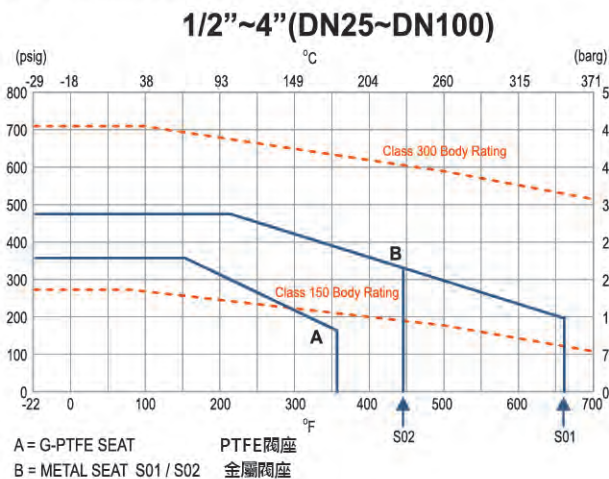
### STANDARD MATERIALS 標準材料

NO	料件名稱	材質		
1	BODY 閥體	A216-WCB	A351-CF8	A351-CF8M
2-1	SEGMENT - SOFT SEAT 閥球	A351-CF8		
2-2	SEGMENT - METAL SEAT 閥球	A351-CF8+HCR <sup>(1)</sup> / TC <sup>(1)</sup>		
3	STEM 閥桿	A276-304		
4	SHAFT 支撐軸	A276-304		
5	END COVER 底蓋	AISI-1045	A276-304	A276-316
SOFT SEAT	6A SEAT 閥座	G-PTFE		
S01 METAL SEAT	3 STEM 閥桿	A564-630(HH1150)		
	4 SHAFT 支撐軸	A564-630(HH1150)		
	6B SEAT SUPPORT 支撐環	A351-CF8		
	6C SEAT 閥座	A351-CF8+STELLITE® / TC		A351-CF8M
	6D PACKING 填料	GRAPHITE		
	6E SEAT GLAND 閥座壓環	A351-CF8		
	6F SPRING 彈片	INCONEL® X-750		
S02 METAL SEAT	6G SEAT 閥座	A351-CF8+STELLITE®		A351-CF8M+STELLITE®
	6H O-RING O型圈	FKM		
	6I SPRING 彈片	INCONEL® X-750		
7	CAP 閥蓋	A351-CF8		A351-CF8M
8	BOLT <sup>(2)</sup> 螺栓	304SS		
9	THURST BEARING	A240-316+PTFE/A240-316+HARD FACE		
10	WASHER 墊圈	G-PTFE/GRAPHITE		
11	WASHER 墊圈	A240-316+HARD FACE		
12	GLAND PACKING 壓蓋填料	G-PTFE/GRAPHITE		
13	GLAND 閥蓋	A351-CF8		
14	GLAND BOLT 中口螺絲	304SS		
15	SUPPORT <sup>(3)</sup> 套筒	A276-304	A-276-316	
16	COVER GASKET 底部封蓋迫緊	G-PTFE/GRAPHITE		
17	COVER BOLT 底蓋螺絲	304SS		
SOFT SEAT & S02 METAL SEAT	18 STEM O-RING <sup>(4)</sup>	FKM		
19	WASHER 中軸墊片	TFE COMP./A240-316+HARD FACE		
20	WASHER 中軸墊片	TFE COMP./GRAPHITE		
21	C-CLIP C型扣環	STAINLESS STEEL		
22	GLAND BEARING 牛捕襯套	G-PTFE / A240-316+PTFE		

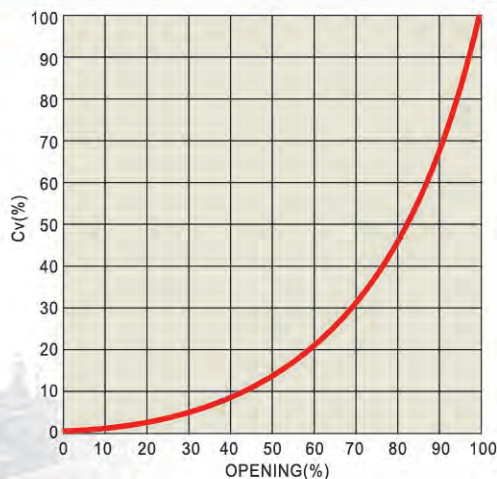
NOTES: (1) HCR = Hard Chrome TC = Tungsten Carbide (2) For size 2" and above. (3) For size 2-1/2" and above. (4) Max temp 446 °F (230 °C)  
鍍硬鉻

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

**TEMPERATURE & PRESSURE DIAGRAM**  
溫度&壓力曲線



**INHERENT FLOW CHARACTERISTICS**  
固有流量特性



**Cv VALUES**

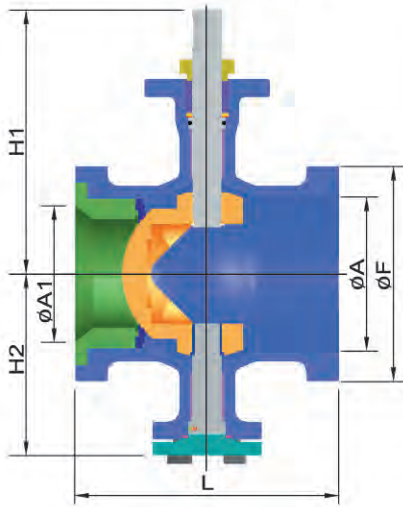
SIZE	OPENING %									
	10	20	30	40	50	60	70	80	90	100
1"	0.01	0.52	1.66	3.44	5.87	9.11	13.36	18.83	27.54	40.50
1-1/2"	0.02	1.06	3.35	6.95	11.85	18.38	26.96	38.00	55.55	81.70
2"	0.04	1.68	5.30	11.00	18.75	29.10	42.67	60.12	87.90	129.30
2-1/2"	0.06	2.79	8.80	10.23	31.10	40.26	70.78	99.74	145.86	214.50
3"	0.10	4.54	14.30	29.67	50.62	78.50	115.20	162.30	237.40	349.10
4"	0.15	6.57	20.70	43.00	73.30	113.70	166.80	235.00	343.70	505.50
5"	0.23	10.20	32.10	66.64	113.70	176.40	258.70	360.60	533.00	784.00
6"	0.38	16.70	52.70	109.30	186.50	289.50	424.54	598.20	874.80	1286.50
8"	0.50	21.90	69.00	143.00	244.10	378.90	555.68	783.00	1145.00	1683.90
10"	0.93	39.58	124.85	258.80	441.50	685.13	1004.80	1416.00	2040.00	3045.00
12"	1.29	55.96	176.50	366.00	624.20	968.60	1420.60	2001.80	2927.40	4305.00
14"	1.73	75.30	237.40	492.20	839.50	1302.00	1910.70	2663.40	3937.00	5790.00
16"	2.27	98.30	310.20	643.00	1097.00	1702.00	2497.00	3480.00	5145.00	7566.00

※ Above values are just for reference, and the exact values will be presented by the practical testing.

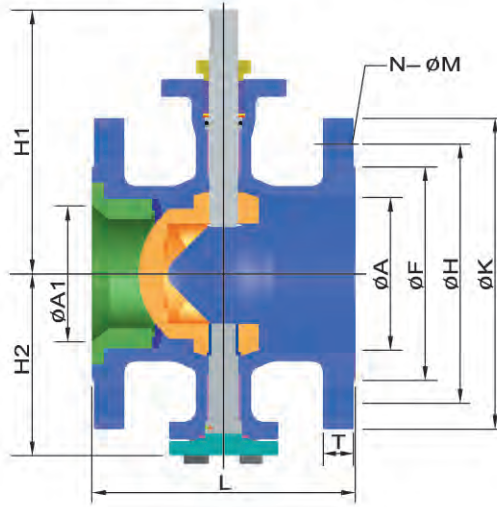


# JDV CONTROL VALVES

## FLANGELESS TYPE

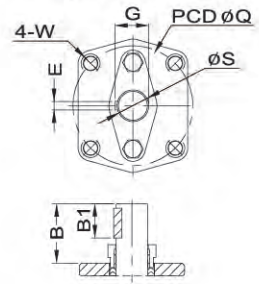


## FLANGED TYPE

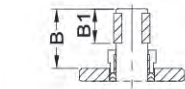
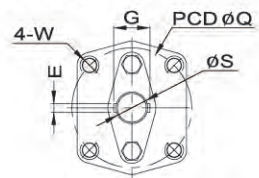


## ISO MOUNTING PAD

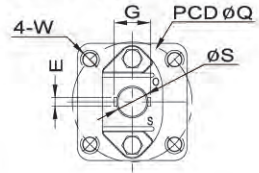
1"~4"(DN25~DN100)



5"~10"(DN125~DN250)



12"~16"(DN300~DN400)



### DIMENSIONS FOR FLANGELESS TYPE

(mm)

SIZE	A	A1	L	F	H1	H2	S	E	G	B	B1	Q	W	Wt (Kg)	
25	1"	33	25	102	64	108	70	15.5	5	17.5	33	20	50	M6	2.5
40	1-1/2"	49	40	114	82	134	84	15.5	5	17.5	45	30	70	M8	3.75
50	2"	60	50	124	100	142	92	15.5	5	17.5	44	30	70	M8	4.8
65	2-1/2"	73	65	140*	118	151	101	15.5	6	17.5	45	30	70	M8	5.51
80	3"	89	80	165	131	164	112	22	8	25	45	30	70	M8	9.11
100	4"	113	100	194	158	194	134	22	8	25	51	30	102	M10	14.85
125	5"	140	125	254*	185	215	154	25	8	31	52	30	102	M10	25.9
150	6"	160	132	229	216	232	171	25	8	31	52	30	102	M10	28.22
200	8"	203	200	243	267	279	199	30	8	36	70	45	140	M16	45.2
250	10"	252	250	297	324	326	234	36.3	14	46.3	76	55	140	M16	75
300	12"	300	285	338	375	386	272	48	14	61	86	67	165	M20	125

Face-to-Face dimensions L according to ISA S75.04

\*Not in ISA standard

### DIMENSIONS FOR FLANGED TYPE (JIS 10K)

(mm)

SIZE	A	A1	L	F	JIS 10K					H1	H2	S	E	G	B	B1	Q	W	Wt (Kg)	
					H	K	M	N	T											
25	1"	33	25	127	67	90	125	19	4	14	108	70	15.5	5	17.5	33	20	50	M6	3.7
40	1-1/2"	49	40	165	81	105	140	19	4	16	134	84	15.5	5	17.5	45	30	70	M8	5.8
50	2"	60	50	178	96	120	155	19	4	16	142	92	15.5	5	17.5	44	30	70	M8	7.5
65	2-1/2"	73	65	190	116	140	175	19	4	18	151	101	15.5	6	17.5	45	30	70	M8	11.8
80	3"	89	80	203	126	150	185	19	8	18	164	112	22	8	25	45	30	70	M8	12.8
100	4"	113	100	229	151	175	210	19	8	18	194	134	22	8	25	51	30	102	M10	23
125	5"	140	125	254	182	210	250	23	8	20	215	154	25	8	31	52	30	102	M10	31.5
150	6"	160	132	267	212	240	280	23	8	22	232	171	25	8	31	52	30	102	M10	38
200	8"	203	200	292	262	290	330	23	12	22	279	199	30	8	36	70	45	140	M16	62.5

Face-to-Face dimensions L according to JIS B 2002

### DIMENSIONS FOR FLANGED TYPE (ASME CLASS 150/300)

(mm)

SIZE	A	A1	L	F	ASME CLASS 150					ASME CLASS 300					H1	H2	S	E	G	B	B1	Q	W	Wt (Kg)		
					H	K	M	N	T	H	K	M	N	T										CLASS 150	CLASS 300	
25	1"	33	25	102	51	79.5	108	16	4	14.3	89	124	19	4	17.5	108	70	15.5	5	17.5	33	20	50	M6	3.4	5.8
40	1-1/2"	49	40	114	73	98.5	127	16	4	17.5	114.5	156	22	4	20.6	134	84	15.5	5	17.5	45	30	70	M8	5.4	8.9
50	2"	60	50	124	92	120.5	152	19	4	19.1	127	165	19	8	22.3	142	92	15.5	5	17.5	44	30	70	M8	7.2	12.8
65	2-1/2"	73	65	140*	105	139.5	178	19	4	22.3	149	190	22	8	25.4	151	101	15.5	6	17.5	45	30	70	M8	11	16
80	3"	89	80	165	127	152.5	190	19	4	23.9	168	210	22	8	28.6	164	112	22	8	25	45	30	70	M8	14.5	19.8
100	4"	113	100	194	157	190.5	229	19	8	23.9	200	254	22	8	31.8	194	134	22	8	25	51	30	102	M10	21.8	32.8
125	5"	140	125	254*	186	216	254	22	8	23.9	235	279.4	22	8	35.1	215	154	25	8	31	52	30	102	M10	30	42
150	6"	160	132	229	216	241.5	279	22	8	25.4	267.9	318	22	12	36.6	232	171	25	8	31	52	30	102	M10	36	51
200	8"	203	200	243	270	298.5	343	22	8	28.6	330	381	25	12	41.2	279	199	30	8	36	70	45	140	M16	59	86.5
250	10"	252	250	297	324	362	406	25	12	30.2	387.5	445	29	16	47.7	326	234	36.3	14	46.3	76	55	140	M16	98.6	143.3
300	12"	300	285	338	381	431.8	483	25	12	31.8	451	521	32	16	50.8	386	272	48	14	61	86	67	165	M20	165	210.6
350	14"	350	336	400	413	476.3	533	29	12	35	514.4	584	32	20	54	450	340	67	20	76	115	80	165	M20	255	340
400	16"	400	380	470	539.8	597	29	16	36.6	571.5	648	35	20	57	505	373	67	20	76	135	100	165	M20	340	450	

Face-to-Face dimensions L according to ISA S75.04

\*Not in ISA standard

## DIMENSIONS FOR FLANGED TYPE (DIN PN16/40)

(mm)

SIZE	A	A1	L	DIN PN16						DIN PN40						H1	H2	S	E	G	B	B1	Q	W	Wt (Kg)		
				F	H	K	M	N	T	F	H	K	M	N	T										DIN PN16	DIN PN40	
25	1"	33	25	102	68	85	115	14	4	18	68	85	115	14	4	18	108	70	15.5	5	17.5	33	20	50	M6	5.5	5.5
40	1-1/2"	49	40	114	88	110	150	18	4	18	88	110	150	18	4	18	134	84	15.5	5	17.5	45	30	70	M8	8	8
50	2"	60	50	124	102	125	165	18	4	18	102	125	165	18	4	20	142	92	15.5	5	17.5	44	30	70	M8	13	13
65	2-1/2"	73	65	140*	122	145	185	18	8	18	122	145	185	18	8	22	151	101	15.5	6	17.5	45	30	70	M8	13.5	15
80	3"	89	80	165	138	160	200	18	8	20	138	160	200	18	8	24	164	112	22	8	25	45	30	70	M8	15	17
100	4"	113	100	194	158	180	220	18	8	20	162	190	235	22	8	24	193	134	22	8	25	51	30	102	M10	19.5	26
125	5"	140	125	254*	188	210	250	18	8	22	188	220	270	26	8	26	215	154	25	8	31	52	30	102	M10	30.5	36.7
150	6"	160	132	229	212	240	285	22	8	22	218	250	300	26	8	28	232	171	25	8	31	52	30	102	M10	36.5	41
200	8"	203	200	243	268	295	340	22	12	24	285	320	375	30	12	34	279	198	30	8	36	70	45	140	M16	54	76.5
250	10"	252	250	297	320	355	405	26	12	26	345	385	450	33	12	38	326	234	36.3	14	46.3	76	55	140	M16	99	133
300	12"	300	285	338	378	410	460	26	12	28	410	450	515	33	16	42	386	272	48	14	61	86	67	165	M20	155	191
350	14"	350	336	400	438	470	520	26	16	30	465	510	580	36	16	46	445	315	48	14	61	100	80	165	M20	240	320
400	16"	400	380	400	490	525	580	30	16	32	535	585	660	39	16	50	505	373	67	20	76	135	100	165	M20	320	440

Face-to-Face dimensions L according to ISA S75.04 \*Not in ISA standard

## HOW TO ORDER 如何訂購

**JSB-F Soft Seat** Ex: → **W1** → **04** → **C** → **G** → **03** → **050** → **A1**

A. SPECIFICATION	B. BODY MAT'L	C. SEGMENT MAT'L	D. SEAT MAT'L	E. STEM MAT'L	F. SIZE	G. OPTION
<b>W1</b> FLANGELESS	<b>02</b> WCB (1.0619)	<b>A</b> CF8 (1.4308)	<b>G</b> G-PTFE (15% GLASS FIBER+PTFE)	<b>02</b> 304 (1.4301)	<b>025</b> 1"	<b>I</b> LIVE LOADING
<b>A1</b> JIS 10K	<b>04</b> CF8 (1.4308)	<b>C</b> CF8M (1.4408)	<b>S</b> S-PTFE (50% SS316+PTFE)	<b>03</b> 316 (1.4401)	<b>040</b> 1-1/2"	<b>H</b> LEVER
<b>C1</b> ASME CLASS 150	<b>04</b> CF8M (1.4408)	<b>D</b> CF3 (1.4306)	<b>T</b> TFM-1600	<b>05</b> 317 (1.4449)	<b>050</b> 2"	<b>G</b> GEAR
<b>C2</b> ASME CLASS 300	<b>05</b> CF3 (1.4306)	<b>E</b> CF3M (1.4404)	<b>E</b> PEEK	<b>07</b> 304L (1.4306)	<b>065</b> 2-1/2"	<b>A</b> BARE SHAFT
<b>D2</b> DIN PN16	<b>06</b> CF3M (1.4404)	<b>F</b> CG8M (1.4412)		<b>08</b> 316L (1.4404)	<b>080</b> 3"	
<b>D4</b> DIN PN40	<b>07</b> CG8M (1.4412)	<b>I</b> CD3MN (1.4470)		<b>10</b> S31803 (1.4462)	<b>100</b> 4"	
	<b>15</b> CD3MN (1.4470)				<b>125</b> 5"	
					<b>150</b> 6"	
					<b>200</b> 8"	
					<b>250</b> 10"	
					<b>300</b> 12"	
					<b>350</b> 14"	
					<b>400</b> 16"	

**JSB-M Metal Seat** Ex: → **C1** → **04** → **C** → **7** → **050** → **A1** → **S01** → **HCR**

A. SPECIFICATION	B. BODY MAT'L	C. SEGMENT MAT'L	D. STEM MAT'L	E. SIZE	F. OPTION	G. TEMPERATURE
<b>W1</b> FLANGELESS	<b>02</b> WCB (1.0619)	<b>A</b> CF8 (1.4308)	<b>02</b> 304 (1.4301)	<b>025</b> 1"	<b>I</b> LIVE LOADING	<b>S01</b> -20~661 °F (-29~350 °C)
<b>A1</b> JIS 10K	<b>04</b> CF8 (1.4308)	<b>C</b> CF8M (1.4408)	<b>03</b> 316 (1.4401)	<b>040</b> 1-1/2"	<b>H</b> LEVER	<b>S02</b> -20~446 °F (-29~230 °C)
<b>C1</b> ASME CLASS 150	<b>04</b> CF8M (1.4408)	<b>D</b> CF3 (1.4306)	<b>05</b> 317 (1.4449)	<b>050</b> 2"	<b>G</b> GEAR	
<b>C2</b> ASME CLASS 300	<b>05</b> CF3 (1.4306)	<b>E</b> CF3M (1.4404)	<b>07</b> 304L (1.4306)	<b>065</b> 2-1/2"	<b>A</b> BARE SHAFT	
<b>D2</b> DIN PN16	<b>06</b> CF3M (1.4404)	<b>F</b> CG8M (1.4412)	<b>08</b> 316L (1.4404)	<b>080</b> 3"		<b>H. HARD FACE</b>
<b>D4</b> DIN PN40	<b>07</b> CG8M (1.4412)	<b>I</b> CD3MN (1.4470)	<b>10</b> S31803 (1.4462)	<b>100</b> 4"		<b>HCR</b> SEGMENT W / HCR
	<b>15</b> CD3MN (1.4470)		<b>22</b> 630 (1.4542)	<b>125</b> 5"		SEAT W / STELLITE®
				<b>150</b> 6"		<b>TC</b> SEGMENT W / TC
				<b>200</b> 8"		SEAT W / TC
				<b>250</b> 10"		
				<b>300</b> 12"		
				<b>350</b> 14"		
				<b>400</b> 16"		

# HOW TO ORDER

※ Alternative materials are available on request.



■ HEADQUARTERS

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