



JDV  
CONTROL  
VALVES



# JBT-C / JBT-CM Type

3/4-Way Trunnion Type **Soft Metal** Seat Ball Valve  
三通/四通固定軸軟密封/金屬密封球閥



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



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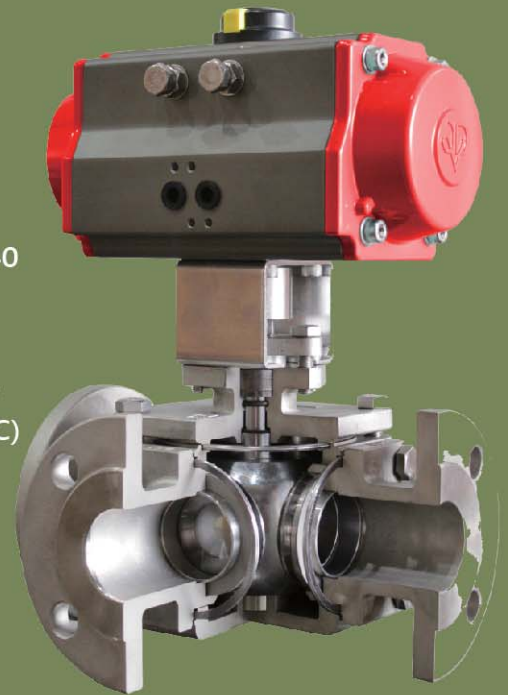
### T/L-Port Full Bore Flanged Ends ASME CLASS 150/300 DIN PN16/40 T/L型全通徑法蘭球閥

The JBT-C/JBT-CM Trunnion-mounted 3/4-way ball valves are designed for the most complex flow control equations. Our unique 4-seat design with many alternatives of soft and metal seats allows the JBT-C/JBT-CM Series to withstand the toughest operating conditions in the fields of Oil & Gas, Refineries, Power Generation, Pulp & Paper, Mining, Petrochemical and Chemical industries, etc.

三通/四通球閥,軟密封球閥適用於一般工況,金屬密封球閥適用於高溫、研磨性介質等惡劣環境,廣泛應用於石油、天然氣、石化、化工、電力、造紙、採礦等領域。

### Applicable Standards

- 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): 1-1/2" to 12" (DN40 to DN300) are on request.
- Pressure Rating(壓力等級): 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): -20~356°F (-29~180°C)  
Metal Seat(硬密封): -20~932°F (-29~500°C)
- Flange Dimensions(法蘭尺寸): ASME B16.5 / EN 1092-1
- Body Pressure Test(本體壓力測試): API 598
- Seat Leakage Test(球墊洩漏測試): Soft Seat(軟密封): API 598  
Metal Seat(硬密封): ANSI I FCI70-2 CLASS V
- Casting(鑄造標準): MSS-SP-25 / MSS-SP-55



### Product features: 產品特性:

1. Trunnion ball design keeping the torque stable and low, even at a high pressure drop.  
固定式閥球設計,在高壓環境下,操作扭力低且穩定
2. Robust 1-PC trim combining ball & stem (size 4" and below), to increase the valve life cycle.  
堅固的一體式閥球/閥桿設計(4"以下),提高閥門使用壽命
3. 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
4. Unique 4-seats design ensuring a perfect balance and an optimum position of the ball.  
獨特的4閥座設計,確保閥球保持在最佳的位置與平衡
5. Spring loaded design keeping the seat in tight contact with the ball, even at a low pressure.  
閥座加載彈片設計平衡閥球使其平穩運轉。
6. Many options of soft and metal seats to meet the requirements of all using conditions.  
多項可選擇的軟/硬密封設計,可滿足各種應用條件需求
7. Fire safe design.  
防火設計。
8. Anti-blowout stem design.  
閥桿防飛出設計。
9. Anti-static design.  
防靜電設計。
10. ISO 5211 Mounting Pad design.  
ISO 5211安裝平台設計。

## Design & Structure 設計&結構

### JBT-C/JBT-CM Type DN40~DN100 (1-1/2"~4")

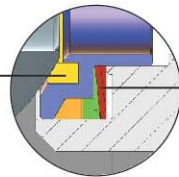
**Integrated Trunnion  
Ball & Stem Design**  
閥球&閥桿整合設計

**ISO 5211  
Mounting Pad Design**  
ISO安裝平台孔位設計

**Seat Options:**

- Soft Seat
  - Metal Seat
- 閥座選配:  
• 軟密封閥座  
• 金屬閥座

Seat  
閥座

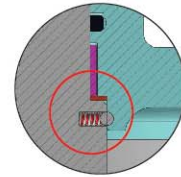


Soft Seat Design  
軟密封閥座設計

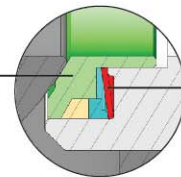
Spring  
彈片

**Spring Loaded Seat Design**  
閥座加載彈簧設計

**Anti-static Design**  
防靜電設計



Seat  
閥座



Metal Seat Design  
金屬閥座設計

Spring  
彈片

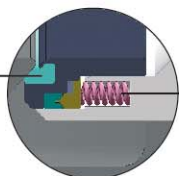
### JBT-C/JBT-CM Type DN125~DN200 (5"~8")

**ISO 5211  
Mounting Pad Design**  
ISO安裝平台孔位設計

**Seat Options:**

- Soft Seat 閥座
- Metal Seat

Seat  
閥座



Soft Seat Design  
軟密封閥座設計

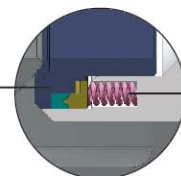
Spring  
彈片

**Spring Loaded Seat Design**  
閥座加載彈簧設計

**Anti-static Design**  
防靜電設計

**Trunnion Ball Design**  
固定軸閥球設計

Seat  
閥座

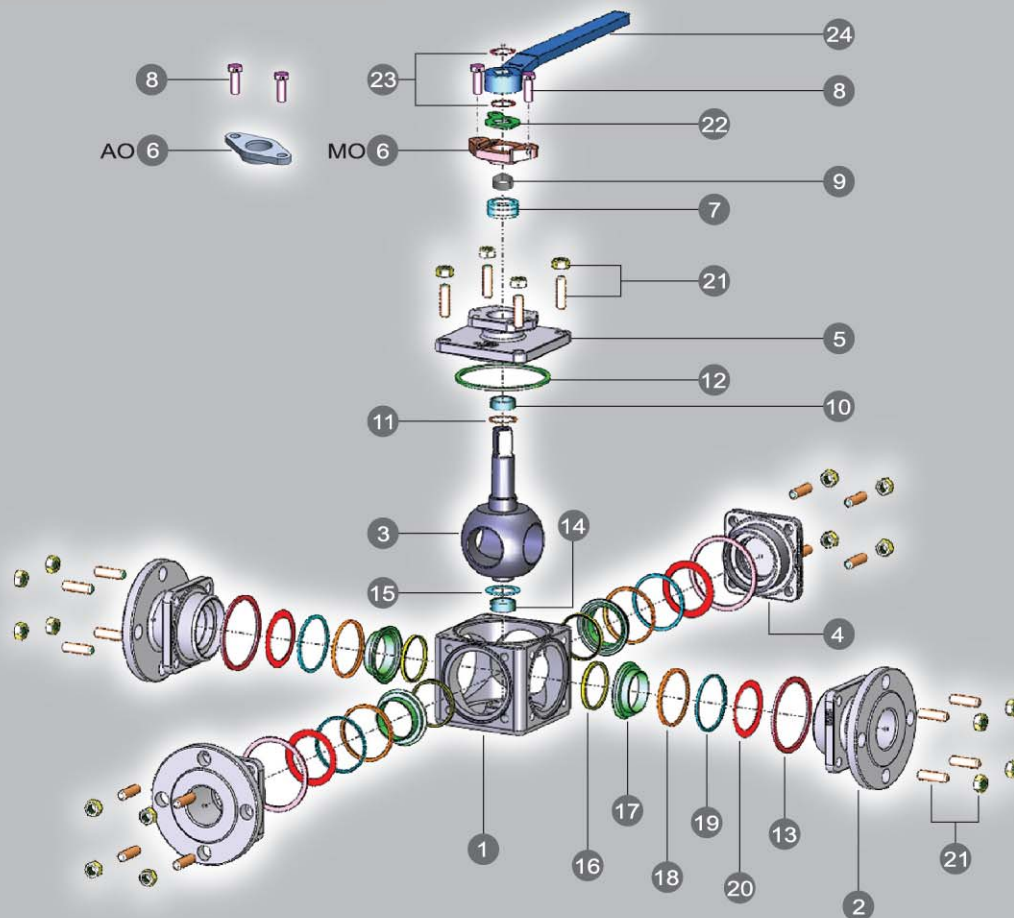


Metal Seat Design  
金屬閥座設計

Spring  
彈片



## JBT-C Type 1-1/2"~4" (DN40~DN100)



## Technical Specifications

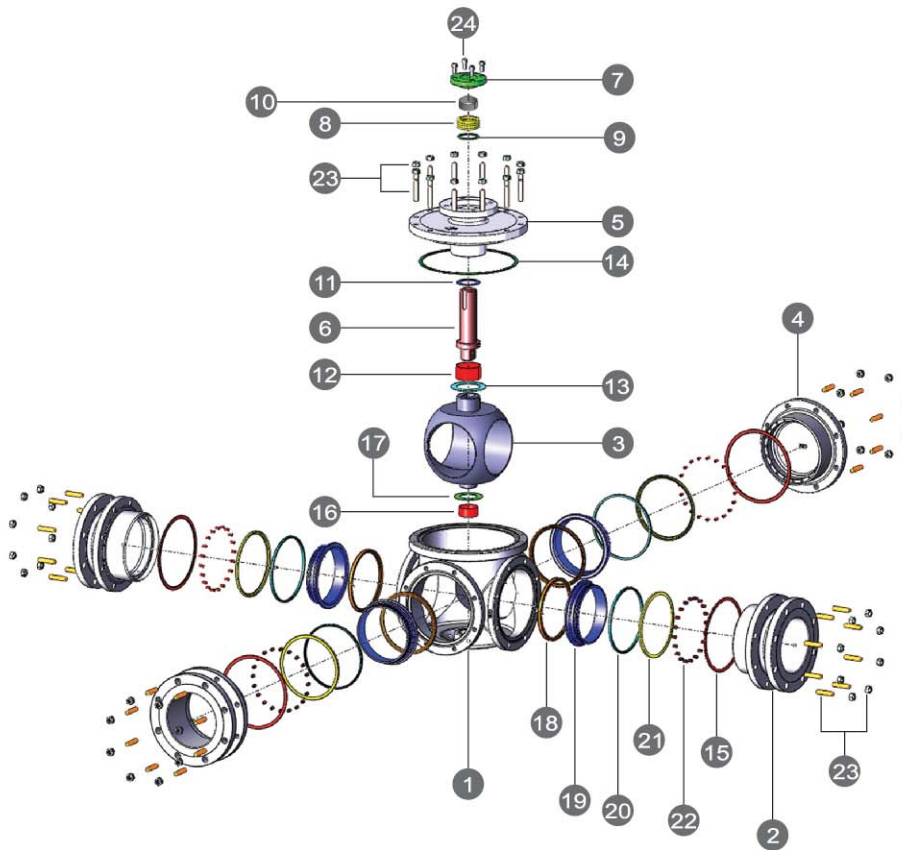
### STANDARD MATERIALS 材質表

NO	PART NAME	WCB	CF8	CF8M
1	BODY 閥體	A216-WCB	A351-CF8	A351-CF8M
2	CAP 閥蓋	A216-WCB	A351-CF8	A351-CF8M
3	BALL & STEM 閥球&閥桿	A351-CF8		A351-CF8M
4	SIDE COVER 側閥蓋	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER 頂閥蓋	A216-WCB	A351-CF8	A351-CF8M
6	GLAND <sup>(1)</sup> 壓蓋	A351-CF8		
7	GLAND PACKING 中口迫緊	PTFE/GRAPHITE		
8	GLAND BOLT 牛楠螺絲	STAINLESS STEEL		
9	GLAND BEARING 牛楠襯套	G-PTFE		
10	STEM BEARING 閥軸襯套	A240-316+PTFE		
11	STEM THRUST WASHER 中軸墊片	G-PTFE		
12	TOP COVER GASKET 頂蓋墊圈	316SS+GRAPHITE		
13	BODY GASKET 閥體密封墊	316SS+GRAPHITE		
14	TRUNNION BEARING 軸襯套	A240-316+PTFE		
15	TRUNNION WASHER 軸墊片	G-PTFE		
16	SEAT 閥座	PTFE / R-PTFE / TFM-1600 / PEEK		
17	SEAT RING 閥座環	A351-CF8		A351-CF8M
18	SEAT RING SEAL 止洩壓環迫緊	GRAPHITE		
19	SEAT RING RETAINER 止洩壓環	A351-CF8		A351-CF8M
20	SPRING 彈片	INCONEL® X-750		
21	BOLT & NUT 螺栓&螺母	A193-B7 & A194-7	A193-B8 & A194-8	
22	TRAVEL STOP <sup>(MO)</sup> 檔片	A240-304		
23	SNAP CATCH <sup>(MO)</sup> 扣環	AISI-420		
24	HANDLE <sup>(MO)</sup> 把手	FCD(1-1/2"~2") / FCD+SGP(2-1/2"~4")		

NOTES:

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

JBT-C Type 5"~8" (DN125~DN200)



STANDARD MATERIALS

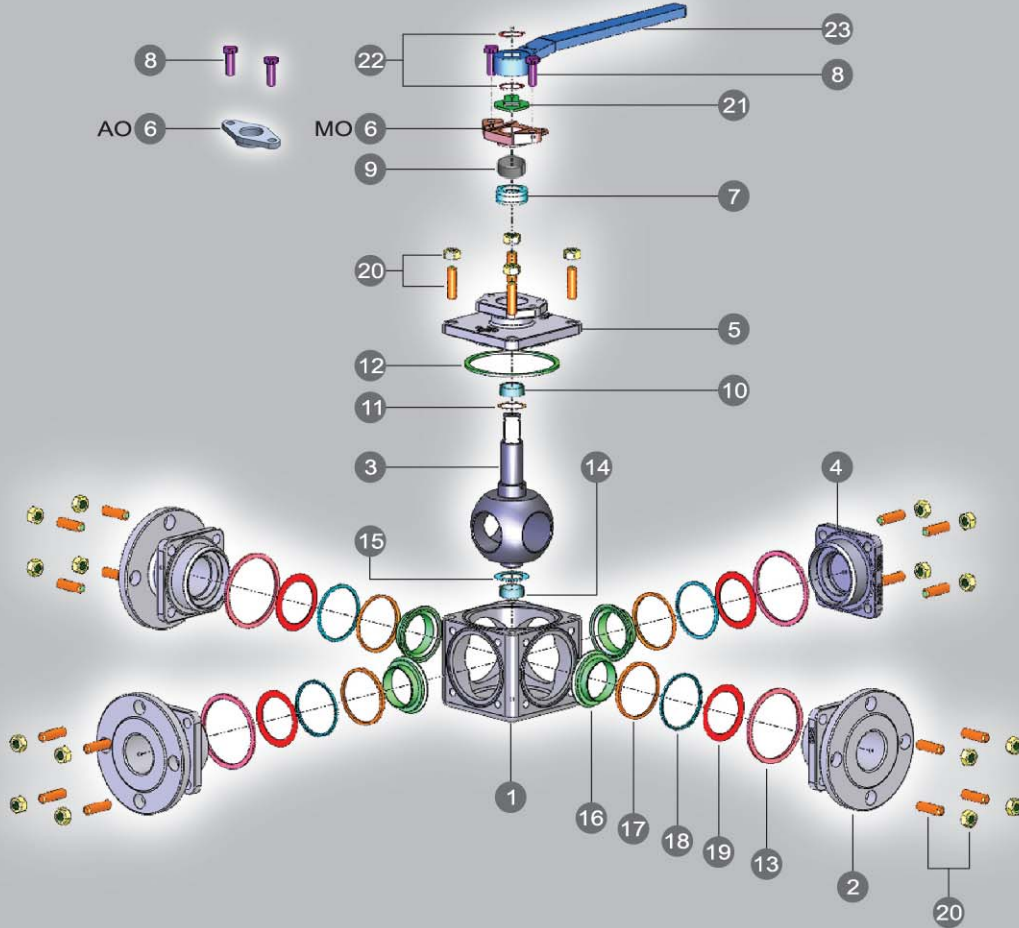
NO	PART NAME	WCB	CF8	CF8M
1	BODY 閥體	A216-WCB	A351-CF8	A351-CF8M
2	CAP 閥蓋	A216-WCB	A351-CF8	A351-CF8M
3	BALL 閥球	A351-CF8		A351-CF8M
4	SIDE COVER 側閥蓋	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER 頂閥蓋	A216-WCB	A351-CF8	A351-CF8M
6	STEM 閥桿	A276-304		A276-316
7	GLAND 壓蓋	A216-WCB	A351-CF8	A351-CF8M
8	GLAND PACKING 中口迫緊	GRAPHITE		
9	GLAND THRUST WASHER 牛楠小薄片	G-PTFE		
10	GLAND BEARING 牛楠襯套	G-PTFE		
11	STEM THRUST WASHER 中軸墊片	G-PTFE		
12	TOP TRUNNION BEARING 頂蓋襯套	A240-316+PTFE		
13	TOP TRUNNION WASHER 頂蓋墊片	G-PTFE		
14	TOP COVER GASKET 頂蓋墊圈	316SS+GRAPHITE		
15	BODY GASKET 閥體密封墊	316SS+GRAPHITE		
16	TRUNNION BEARING 軸襯套	A240-316+PTFE		
17	TRUNNION WASHER 軸墊片	G-PTFE		
18	SEAT 閥座	PTFE / R-PTFE / TFM-1600 / PEEK		
19	SEAT RING 閥座環	A351-CF8		A351-CF8M
20	SEAT RING SEAL 止洩壓環迫緊	GRAPHITE		
21	SEAT RING RETAINER 止洩壓環	A351-CF8		A351-CF8M
22	SPRING 彈簧	INCONEL® X-750		
23	BOLT & NUT 螺栓&螺帽	A193-B7 & A194-7	A193-B8 & A194-8	
24	GLAND BOLT 牛楠螺絲	STAINLESS STEEL		

The above materials may be changed with different using conditions.



# JDV CONTROL VALVES

## JBT-CM Type 1-1/2"~4" (DN40~DN100)



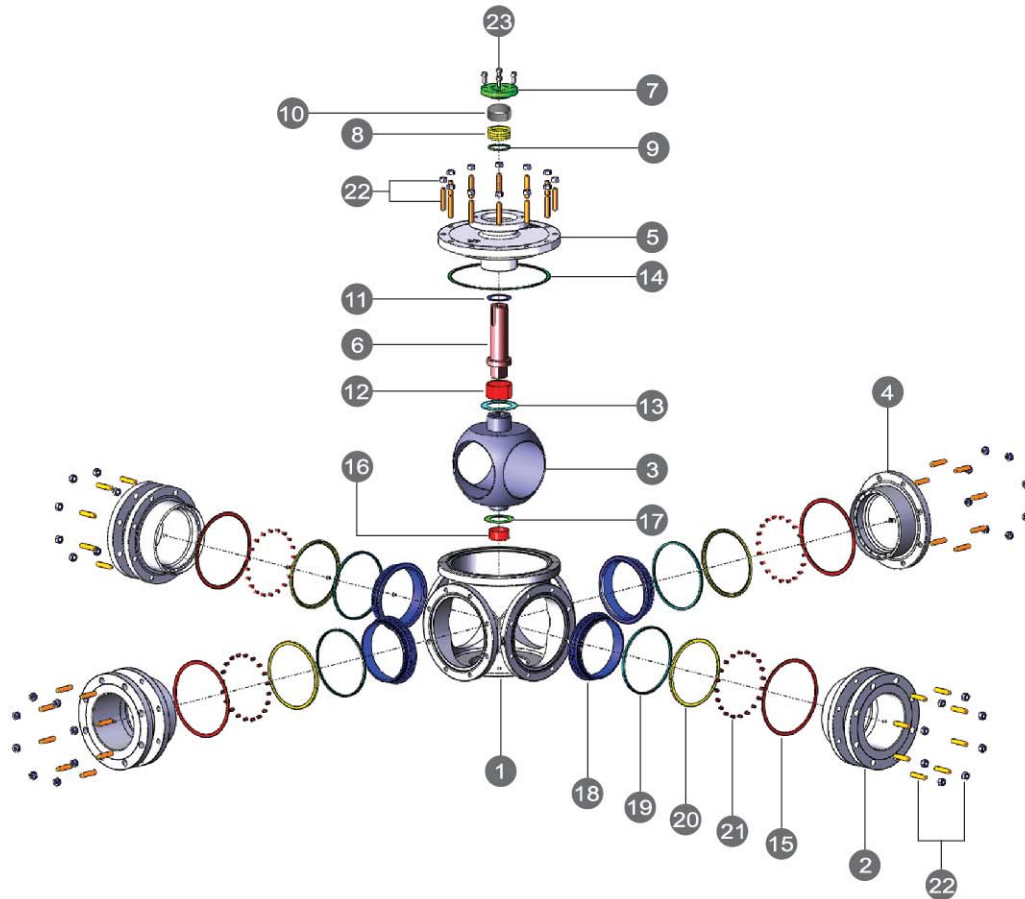
### STANDARD MATERIALS

NO	PART NAME	SM			SH		
		-20~661°F (-29~350°C)			-20~797°F (-29~425°C)		
1	BODY 閥體	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
2	CAP 閥蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
3	BALL & STEM 閥球&閥桿	A351-CF8+HCR <sup>(2)</sup>		A351-CF8M+HCR	A351-CF8+TC <sup>(2)</sup> / CRC <sup>(2)</sup>		A351-CF8M+TC / CRC
4	SIDE COVER 側閥蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER 頂閥蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
6	GLAND <sup>(1)</sup> 壓蓋	A351-CF8					
7	GLAND PACKING 中口迫緊	GRAPHITE					
8	GLAND BOLT 牛楠螺絲	STAINLESS STEEL					
9	GLAND BEARING 牛楠襯套	A240-316+PTFE					
10	STEM BEARING 閥桿軸承	METAL+HARD FACE					
11	STEM THRUST WASHER 中軸墊片	METAL+HARD FACE					
12	TOP COVER GASKET 頂蓋墊圈	316SS+GRAPHITE					
13	BODY GASKET 閥體密封墊	316SS+GRAPHITE					
14	TRUNNION BEARING 軸襯套	METAL+HARD FACE					
15	TRUNNION WASHER 軸墊片	METAL+HARD FACE					
16	SEAT 閥座	A351-CF8+STELLITE®		A351-CF8M+STELLITE®	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
17	SEAT RING SEAL 止洩壓環迫緊	GRAPHITE					
18	SEAT RING RETAINER 止洩壓環	A351-CF8		A351-CF8M	A351-CF8		A351-CF8M
19	SPRING 彈簧	INCONEL® X-750					
20	BOLT & NUT 螺栓&螺帽	A193-B7 & A194-7	A193-B8 & A194-8		A193-B7 & A194-7	A193-B8 & A194-8	
21	TRAVEL STOP <sup>(MO)</sup> 檔片	A240-304					
22	SNAP CATCH <sup>(MO)</sup> 扣環	AISI-420					
23	HANDLE <sup>(MO)</sup> 把手	FCD (1-1/2"~2") / FCD45+SGP (2-1/2"~4")					

NOTES:

(1) Options: AO:Automation / MO:Manual (2) HCR=Hard Chrome TC=Tungsten Carbide CRC=Chrome Carbide  
鍍硬鉻 碳化鉻噴塗

## JBT-CM Type 5"~8" (DN125~DN200)



### STANDARD MATERIALS

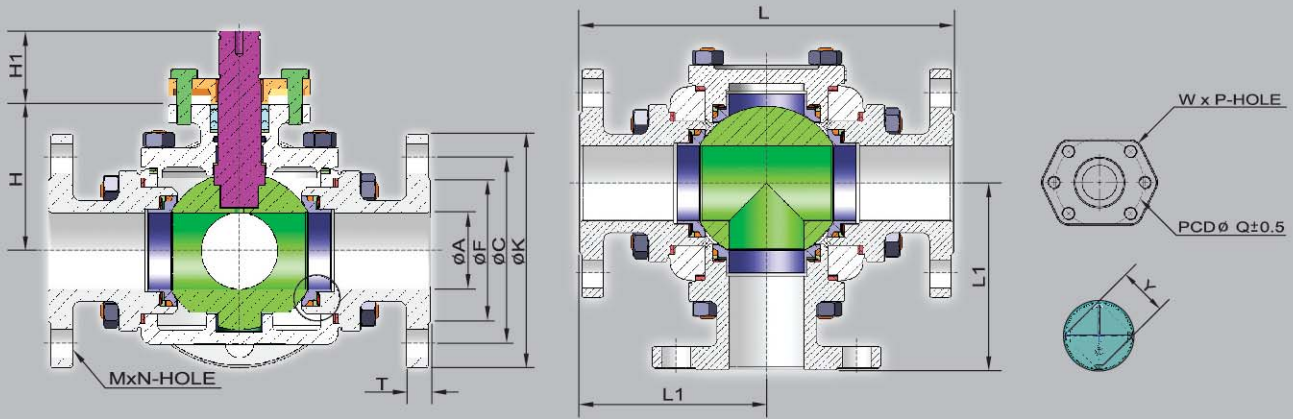
NO	PART NAME	SM			SH		
		-20~661°F (-29~350°C)			-20~797°F (-29~425°C)	-20~932°F (-29~500°C)	
1	BODY 閥體	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
2	CAP 閥蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
3	BALL 閥球	A351-CF8+HCR		A351-CF8M+HCR	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
4	SIDE COVER 側閥蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER 頂閥蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
6	STEM 閥桿	A564-630 (H1150)		A638-S66286	A638-S66286		
7	GLAND 壓蓋	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
8	GLAND PACKING 中口迫緊	GRAPHITE					
9	GLAND THRUST WASHER 牛楠小薄片	METAL+HARD FACE					
10	GLAND BEARING 牛楠襯套	A240-316+PTFE					
11	STEM THRUST WASHER 中軸墊片	METAL+HARD FACE					
12	TOP TRUNNION BEARING 頂蓋襯套	METAL+HARD FACE					
13	TOP TRUNNION WASHER 頂蓋墊片	METAL+HARD FACE					
14	TOP COVER GASKET 頂蓋墊圈	316SS+GRAPHITE					
15	BODY GASKET 閥體密封圈	316SS+GRAPHITE					
16	TRUNNION BEARING 軸襯套	METAL+HARD FACE					
17	TRUNNION WASHER 軸墊片	METAL+HARD FACE					
18	SEAT 閥座	A351-CF8+STELLITE®		A351-CF8M+STELLITE®	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
19	SEAT RING SEAL 止洩壓環迫緊	GRAPHITE					
20	SEAT RING RETAINER 止洩壓環	A351-CF8		A351-CF8M	A351-CF8		A351-CF8M
21	SPRING 彈簧	INCONEL® X-750					
22	BOLT & NUT 螺柱&螺帽	A193-B7 & A194-7	A193-B8 & A194-8		A193-B7 & A194-7	A193-B8 & A194-8	
23	GLAND BOLT 牛楠螺絲	STAINLESS STEEL					

The above materials may be changed with different using conditions.



**JDV  
CONTROL  
VALVES**

**JBT-C/JBT-CM Type DN40~DN100 (1-1/2"~4")**



**DIMENSION ( JBT-C/JBT-CM-C1 SERIES ANSI-150LB FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	Y
40 1-1/2"	38	73	98.5	127	230	115	14.3	80	42	16	4	70	M8	4	17
50 2"	50	92	120.5	152	257	128.5	15.9	95.5	47	19	4	70	M8	4	20
65 2-1/2"	65	105	139.5	178	291	145.5	17.5	142	52	19	4	102	M10	4	27
80 3"	76	127	152.5	190	334	167	19.1	155	52	19	4	102	M10	4	27
100 4"	100	157	190.5	229	392	196	23.9	172	57	19	8	125	M12	4	32

**DIMENSION ( JBT-C/JBT-CM-C2 SERIES ANSI-300LB FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	Y
40 1-1/2"	38	73	114.5	156	260	130	20.6	80	42	22	4	70	M8	4	17
50 2"	50	92	127	165	265	132.5	22.3	95.5	47	19	8	70	M8	4	20
65 2-1/2"	65	105	149.5	190	321	160.5	25.4	142	52	22	8	102	M10	4	27
80 3"	76	127	168	210	360	180	28.6	155	52	22	8	102	M10	4	27
100 4"	100	157	200	254	420	210	31.8	172	57	22	8	125	M12	4	32

**DIMENSION ( JBT-C/JBT-CM-D2 SERIES DIN PN16 FLANGED) (M.M.)**

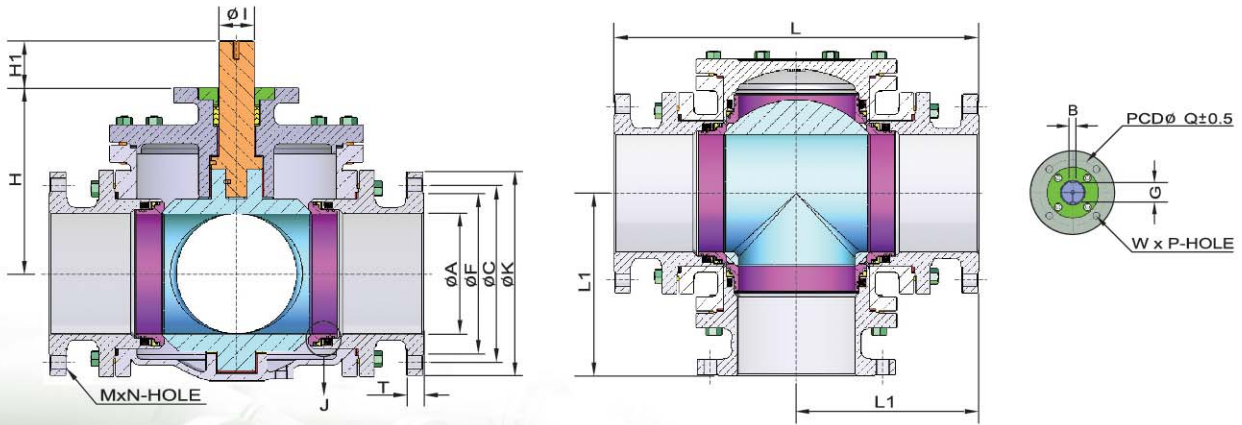
SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	Y
40 1-1/2"	38	88	110	150	245	122.5	16	80	42	18	4	70	M8	4	17
50 2"	50	102	125	165	257	128.5	18	95.5	47	18	4	70	M8	4	20
65 2-1/2"	65	122	145	185	292	146	18	142	52	18	4	102	M10	4	27
80 3"	76	138	160	200	330	165	20	155	52	18	8	102	M10	4	27
100 4"	100	158	180	220	380	190	20	172	57	18	8	125	M12	4	32

**DIMENSION ( JBT-C/JBT-CM-D4 SERIES DIN PN40 FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	Y
40 1-1/2"	38	88	110	150	250	125	18	80	42	18	4	70	M8	4	17
65 2-1/2"	65	122	145	185	308	154	22	142	52	18	4	102	M10	4	27
80 3"	76	138	160	200	350	175	24	155	52	18	8	102	M10	4	27
100 4"	100	162	190	235	404	202	24	172	57	22	8	125	M12	4	32



**JBT-C/JBT-CM Type DN125~DN200 (5"~8")**



**DIMENSION (ANSI-150LB FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	I	G	B
125 5"	125	186	216	254	450	225	24	222	89	22	8	140	M16	4	48	37	14
150 6"	152	216	241.5	279.5	504	252	25.4	246.5	80.5	22	8	140	M16	4	48	37	14
200 8"	203	270	298.5	343	630	315	28.5	311.5	80	22	8	165	M20	4	60	48	16

**DIMENSION (ANSI-300LB FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	I	G	B
125 5"	125	186	235	280	530	265	35.5	222	89	22	8	140	M16	4	48	37	14
150 6"	152	216	270	318	590	295	36.6	246.5	80.5	22	12	140	M16	4	48	37	14
200 8"	203	270	330	381	750	375	41.5	311.5	80	25	12	165	M20	4	60	48	16

**DIMENSION (DIN PN10/16 FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	I	G	B
125 5"	125	188	210	250	450	225	22	222	89	18	8	140	M16	4	48	37	14
150 6"	152	212	240	285	504	252	22	246.5	80.5	22	8	140	M16	4	48	37	14
200 8"	203	268	295	340	630	315	24	311.5	80	22	8	165	M20	4	60	48	16

**DIMENSION (DIN PN40 FLANGED) (M.M.)**

SIZE	A	F	C	K	L	L1	T	H	H1	M	N	Q	W	P	I	G	B
125 5"	125	188	210	250	450	225	22	222	89	18	8	140	M16	4	48	37	14
150 6"	152	212	240	285	504	252	22	246.5	80.5	22	8	140	M16	4	48	37	14
200 8"	203	268	295	340	630	315	24	311.5	80	22	12	165	M20	4	60	48	16



**JDV  
CONTROL  
VALVES**

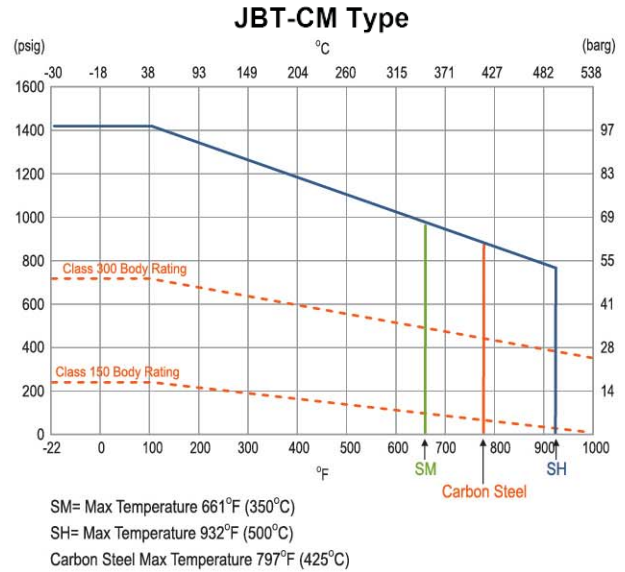
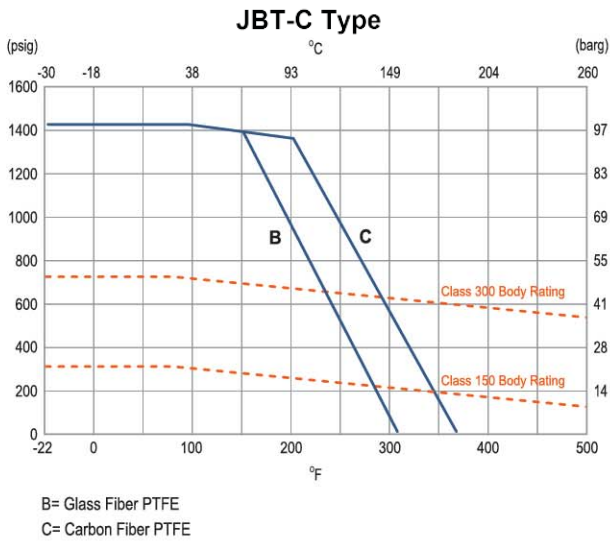
**CERTIFICATES**



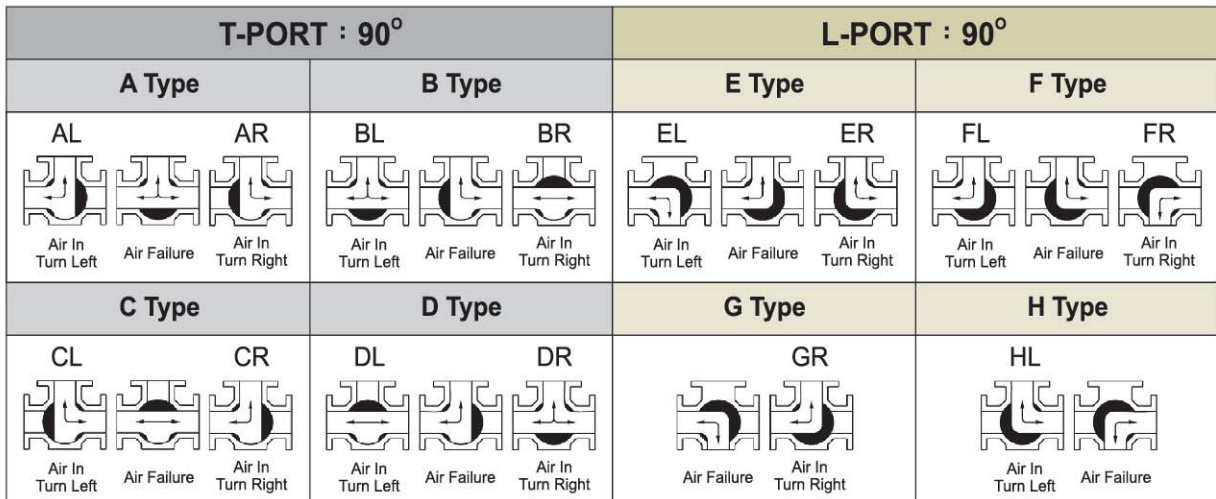
**Cv VALUES**  
CV值

Size	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
Cv	268	501	804	1158	2118	3412	5074	9337

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



**PORT TYPE**



## HOW TO ORDER

### 如何訂購

**JBT-C** → A → B → C → D → E → F → G → H

Ex: **JBT-C** → C1 → 04 → C → G → 00 → 100 → FIH → DL

A. SPECIFICATION	B. BODY MAT'L	C. BALL MAT'L	D. SEAT MAT'L	E. STEM MAT'L
C1 ASME CLASS 150	02 WCB (1.0619)	A CF8	P PTFE	00 1-1/2"~4" SAME AS BALL MAT'L
C2 ASME CLASS 300	03 CF8 (1.4308)	C CF8M	G G-PTFE (15% GLASS FIBER+PTFE)	02 304
D2 DIN PN16	04 CF8M (1.4408)	D CF3	C C-PTFE (15% CARBON+PTFE)	03 316
D4 DIN PN40	05 CF3 (1.4306)	E CF3M	S S-PTFE (50% 316+PTFE)	05 317
	06 CF3M (1.4404)	F CG8M	T TFM-1600 @	07 304L
	07 CG8M (1.4412)		E PEEK	08 316L
	11 LCB (1.1138)			
	12 LCC (1.7219)			

F. SIZE	G. OPTION	H. PORT TYPE
040 1-1/2"	F FIRE SAFE	AL T-Port AL
050 2"	L EXTENDED STEM	AR T-Port AR
065 2-1/2"	I LIVE LOADING	BL T-Port BL
080 3"	H LEVER	BR T-Port BR
100 4"	G GEAR	CL T-Port CL
125 5"	A BARE SHAFT	CR T-Port CR
150 6"		DL T-Port DL
200 8"		DR T-Port DR
250 10"		EL L-Port EL
300 12"		ER L-Port ER
		FL L-Port FL
		FR L-Port FR
		GR L-Port GR
		HL L-Port HL

**JBT-CM** → A → B → C → D → E → F → G → H

Ex: **JBT-CM** → C2 → 04 → C → 26 → 150 → LIA → SH1 → BL

A. SPECIFICATION	B. BODY MAT'L	C. BALL & SEAT MAT'L	D. STEM MAT'L	E. SIZE
C1 ASME CLASS 150	02 WCB (1.0619)	A CF8	00 1-1/2"~4" SAME AS BALL MAT'L	040 1-1/2"
C2 ASME CLASS 300	03 CF8 (1.4308)	C CF8M	10 S31803	050 2"
D2 DIN PN16	04 CF8M (1.4408)	D CF3	22 630	065 2-1/2"
D4 DIN PN40	05 CF3 (1.4306)	E CF3M	26 S66286	080 3"
	06 CF3M (1.4404)	F CG8M		100 4"
	07 CG8M (1.4412)			125 5"
	11 LCB (1.1138)			150 6"
	12 LCC (1.7219)			200 8"
				250 10"
				300 12"

F. OPTION	G. TEMPERATURE	H. PORT TYPE
F FIRE SAFE	SM -20~661°F (-29~350°C) BALL W/HCR SEAT W/STELLITE @	AL T-Port AL
L EXTENDED STEM	SH1 -20~842°F (-29~450°C) BALL W/TC SEAT W/TC	AR T-Port AR
I LIVE LOADING	SH2 -20~932°F (-29~500°C) BALL W/CRC SEAT W/CRC	BL T-Port BL
H LEVER		BR T-Port BR
G GEAR		CL T-Port CL
A BARE SHAFT		CR T-Port CR
		DL T-Port DL
		DR T-Port DR
		EL L-Port EL
		ER L-Port ER
		FL L-Port FL
		FR L-Port FR
		GR L-Port GR
		HL L-Port HL

HOW TO ORDER



■ HEADQUARTERS

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