



JDV
CONTROL
VALVES



JBT-C / JBT-CM Type

3/4-Way Trunnion Type **Soft Metal** Seat Ball Valve



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



JBT-C / JBT-CM

3/4-Way Trunnion Type **Soft Metal** Seat Ball Valve

T/L-Port Full Bore Flanged Ends ASME CLASS 150/300 DIN PN16/40

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.

Applicable Standards

- Body Material : Standard in WCB, CF8, CF8M Other materials are available according to requirements.
- Nominal Size : 1-1/2" to 12" (DN40 to DN300) are on request.
- Pressure Rating : ASME CLASS 150/300 DIN PN16/40
- End Connections : RF
- Temperature Range : Soft Seat : -20~356°F (-29~180°C)
Metal Seat: -20~932°F (-29~500°C)
- Flange Dimensions : ASME B16.5 / EN 1092-1
- Body Pressure Test : API 598
- Seat Leakage Test : Soft Seat : API 598
Metal Seat : ANSI I FCI70-2 CLASS V
- Casting : MSS-SP-25 / MSS-SP-55

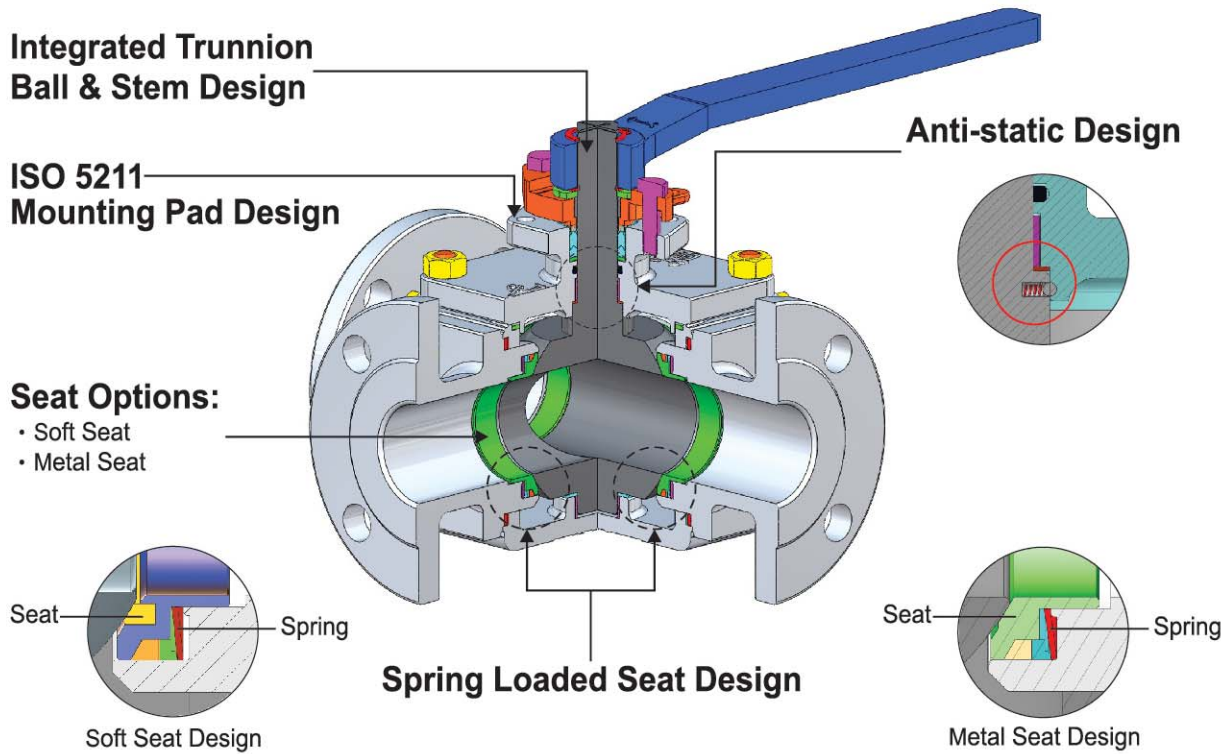


Product features:

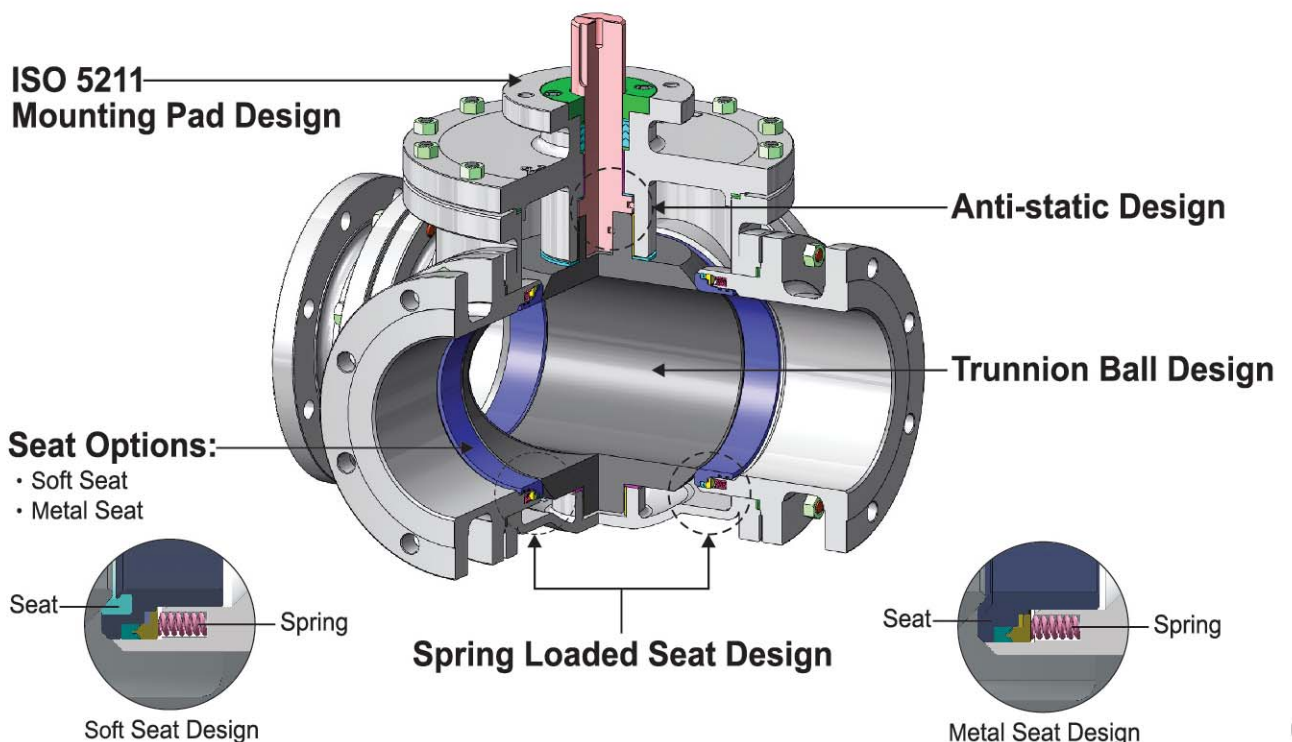
1. Trunnion ball design keeping the torque stable and low, even at a high pressure drop.
2. Robust 1-PC trim combining ball & stem (size 4" and below), to increase the valve life cycle.
3. Oversized stem design preventing any deformation from high pressure or high temperature.
4. Unique 4-seats design ensuring a perfect balance and an optimum position of the ball.
5. Spring loaded design keeping the seat in tight contact with the ball, even at a low pressure.
6. Many options of soft and metal seats to meet the requirements of all using conditions.
7. Fire safe design.
8. Anti-blowout stem design.
9. Anti-static design.
10. ISO 5211 Mounting Pad design.

Design & Structure

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

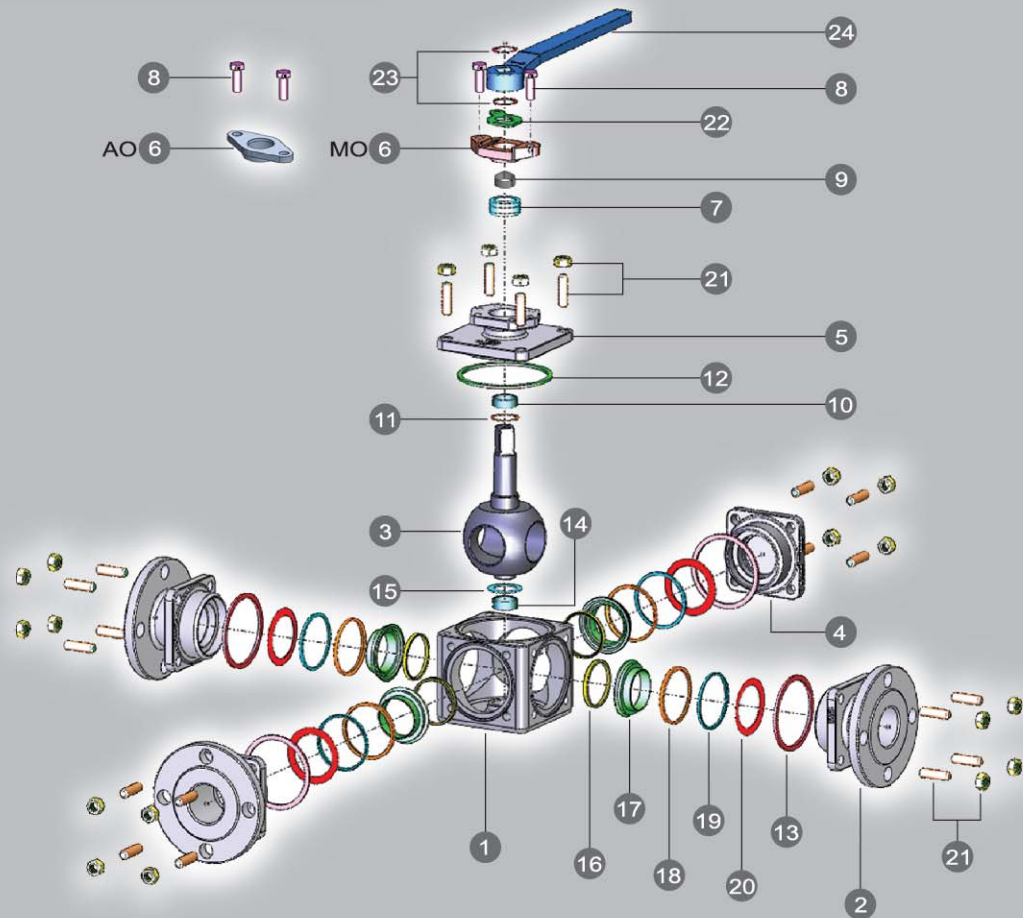


JBT-C/JBT-CM Type DN125~DN200 (5"~8")





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



Technical Specifications

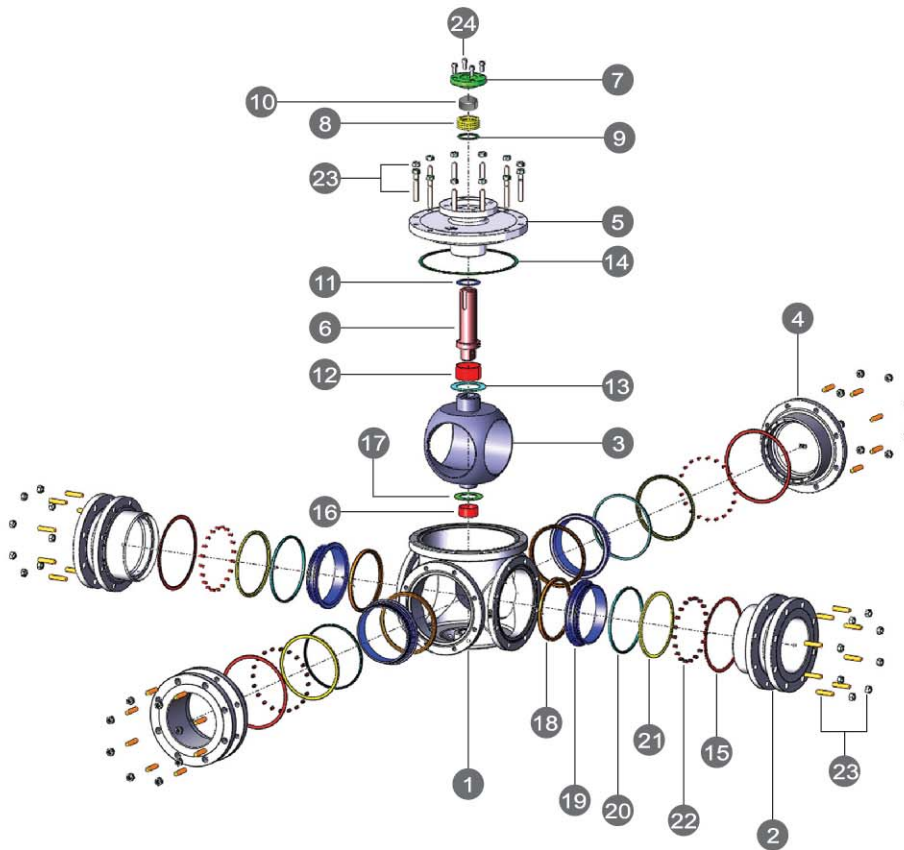
STANDARD MATERIALS

NO	PART NAME	WCB	CF8	CF8M
1	BODY	A216-WCB	A351-CF8	A351-CF8M
2	CAP	A216-WCB	A351-CF8	A351-CF8M
3	BALL & STEM	A351-CF8		A351-CF8M
4	SIDE COVER	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER	A216-WCB	A351-CF8	A351-CF8M
6	GLAND ⁽¹⁾	A351-CF8		
7	GLAND PACKING	PTFE/GRAPHITE		
8	GLAND BOLT	STAINLESS STEEL		
9	GLAND BEARING	G-PTFE		
10	STEM BEARING	A240-316+PTFE		
11	STEM THRUST WASHER	G-PTFE		
12	TOP COVER GASKET	316SS+GRAPHITE		
13	BODY GASKET	316SS+GRAPHITE		
14	TRUNNION BEARING	A240-316+PTFE		
15	TRUNNION WASHER	G-PTFE		
16	SEAT	PTFE / R-PTFE / TFM-1600 / PEEK		
17	SEAT RING	A351-CF8		A351-CF8M
18	SEAT RING SEAL	GRAPHITE		
19	SEAT RING RETAINER	A351-CF8		A351-CF8M
20	SPRING	INCONEL® X-750		
21	BOLT & NUT	A193-B7 & A194-7	A193-B8 & A194-8	
22	TRAVEL STOP ^(MO)	A240-304		
23	SNAP CATCH ^(MO)	AISI-420		
24	HANDLE ^(MO)	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

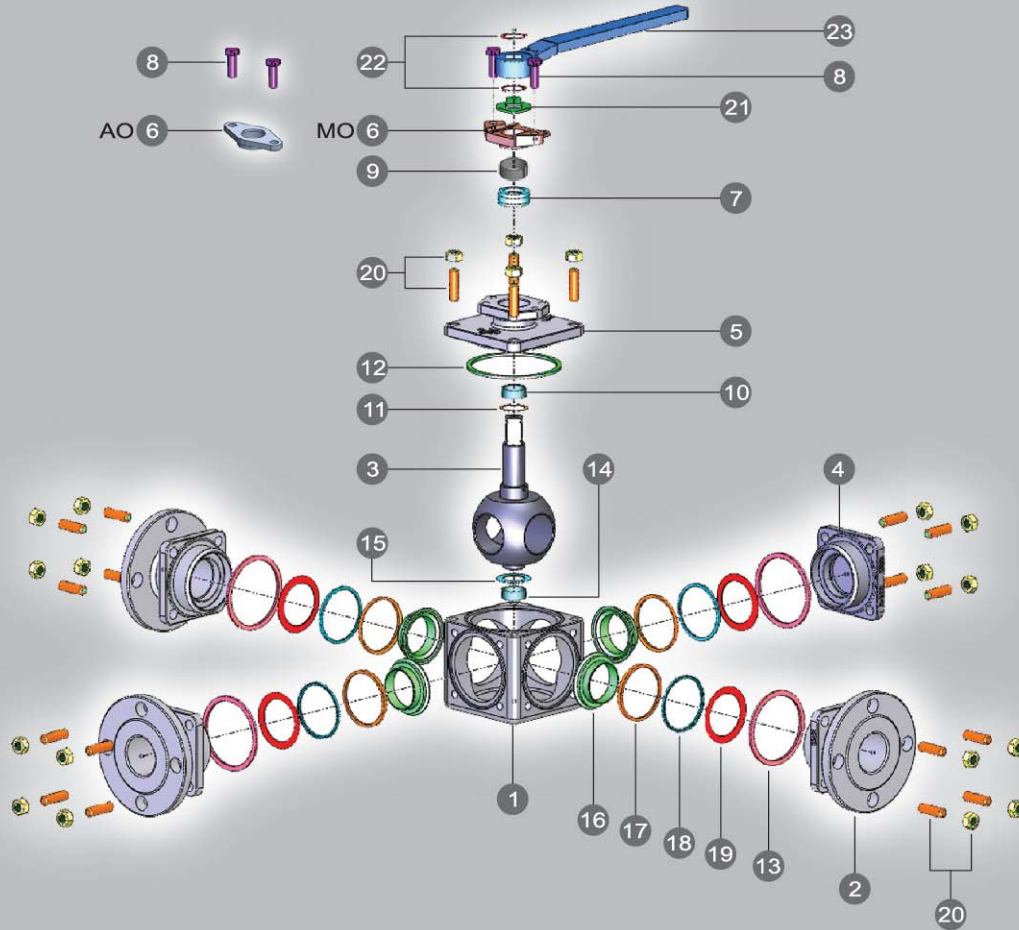
NO	PART NAME	WCB	CF8	CF8M
1	BODY	A216-WCB	A351-CF8	A351-CF8M
2	CAP	A216-WCB	A351-CF8	A351-CF8M
3	BALL	A351-CF8		A351-CF8M
4	SIDE COVER	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER	A216-WCB	A351-CF8	A351-CF8M
6	STEM	A276-304		A276-316
7	GLAND	A216-WCB	A351-CF8	A351-CF8M
8	GLAND PACKING	GRAPHITE		
9	GLAND THRUST WASHER	G-PTFE		
10	GLAND BEARING	G-PTFE		
11	STEM THRUST WASHER	G-PTFE		
12	TOP TRUNNION BEARING	A240-316+PTFE		
13	TOP TRUNNION WASHER	G-PTFE		
14	TOP COVER GASKET	316SS+GRAPHITE		
15	BODY GASKET	316SS+GRAPHITE		
16	TRUNNION BEARING	A240-316+PTFE		
17	TRUNNION WASHER	G-PTFE		
18	SEAT	PTFE / R-PTFE / TFM-1600 / PEEK		
19	SEAT RING	A351-CF8	A351-CF8M	
20	SEAT RING SEAL	GRAPHITE		
21	SEAT RING RETAINER	A351-CF8	A351-CF8M	
22	SPRING	INCONEL® X-750		
23	BOLT & NUT	A193-B7 & A194-7	A193-B8 & A194-8	
24	GLAND BOLT	STAINLESS STEEL		

The above materials may be changed with different using conditions.



JDV CONTROL VALVES

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



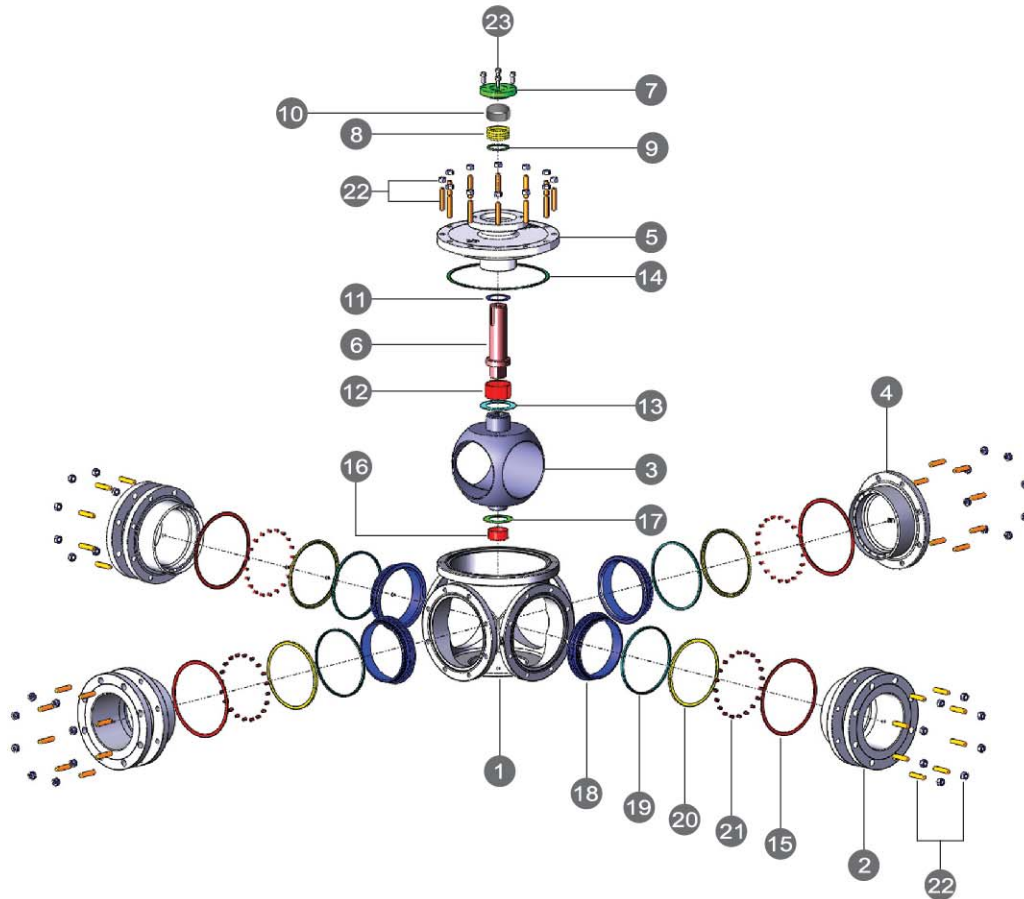
STANDARD MATERIALS

NO	PART NAME	SM			SH		
		-20~661°F (-29~350°C)			-20~797°F (-29~425°C)		
1	BODY	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
2	CAP	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
3	BALL & STEM	A351-CF8+HCR ⁽²⁾		A351-CF8M+HCR	A351-CF8+TC ⁽²⁾ / CRC ⁽²⁾		A351-CF8M+TC / CRC
4	SIDE COVER	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
6	GLAND ⁽¹⁾	A351-CF8					
7	GLAND PACKING	GRAPHITE					
8	GLAND BOLT	STAINLESS STEEL					
9	GLAND BEARING	A240-316+PTFE					
10	STEM BEARING	METAL+HARD FACE					
11	STEM THRUST WASHER	METAL+HARD FACE					
12	TOP COVER GASKET	316SS+GRAPHITE					
13	BODY GASKET	316SS+GRAPHITE					
14	TRUNNION BEARING	METAL+HARD FACE					
15	TRUNNION WASHER	METAL+HARD FACE					
16	SEAT	A351-CF8+STELLITE®	A351-CF8M+STELLITE®	A351-CF8+TC/CRC	A351-CF8M+TC/CRC		
17	SEAT RING SEAL	GRAPHITE					
18	SEAT RING RETAINER	A351-CF8	A351-CF8M	A351-CF8	A351-CF8M		
19	SPRING	INCONEL® X-750					
20	BOLT & NUT	A193-B7 & A194-7	A193-B8 & A194-8	A193-B7 & A194-7	A193-B8 & A194-8		
21	TRAVEL STOP ^(MO)	A240-304					
22	SNAP CATCH ^(MO)	AISI-420					
23	HANDLE ^(MO)	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

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



STANDARD MATERIALS

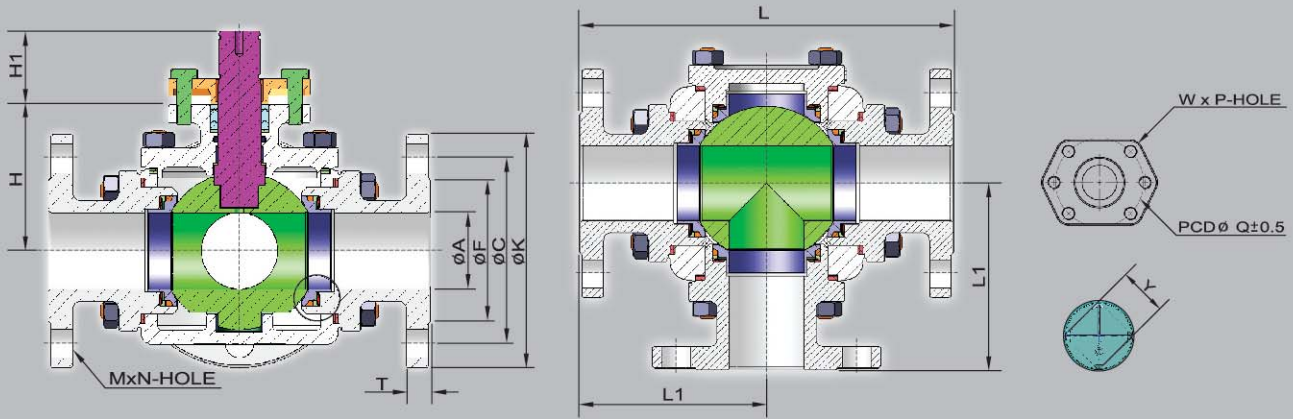
NO	PART NAME	SM			SH		
		-20~661°F (-29~350°C)			-20~797°F (-29~425°C)	-20~932°F (-29~500°C)	
1	BODY	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
2	CAP	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
3	BALL	A351-CF8+HCR		A351-CF8M+HCR	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
4	SIDE COVER	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
5	TOP COVER	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
6	STEM	A564-630 (H1150)		A638-S66286	A638-S66286		
7	GLAND	A216-WCB	A351-CF8	A351-CF8M	A216-WCB	A351-CF8	A351-CF8M
8	GLAND PACKING	GRAPHITE					
9	GLAND THRUST WASHER	METAL+HARD FACE					
10	GLAND BEARING	A240-316+PTFE					
11	STEM THRUST WASHER	METAL+HARD FACE					
12	TOP TRUNNION BEARING	METAL+HARD FACE					
13	TOP TRUNNION WASHER	METAL+HARD FACE					
14	TOP COVER GASKET	316SS+GRAPHITE					
15	BODY GASKET	316SS+GRAPHITE					
16	TRUNNION BEARING	METAL+HARD FACE					
17	TRUNNION WASHER	METAL+HARD FACE					
18	SEAT	A351-CF8+STELLITE®		A351-CF8M+STELLITE®	A351-CF8+TC/CRC		A351-CF8M+TC/CRC
19	SEAT RING SEAL	GRAPHITE					
20	SEAT RING RETAINER	A351-CF8		A351-CF8M	A351-CF8		A351-CF8M
21	SPRING	INCONEL® X-750					
22	BOLT & NUT	A193-B7 & A194-7	A193-B8 & A194-8		A193-B7 & A194-7	A193-B8 & A194-8	
23	GLAND BOLT	STAINLESS STEEL					

The above materials may be changed with different using conditions.



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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

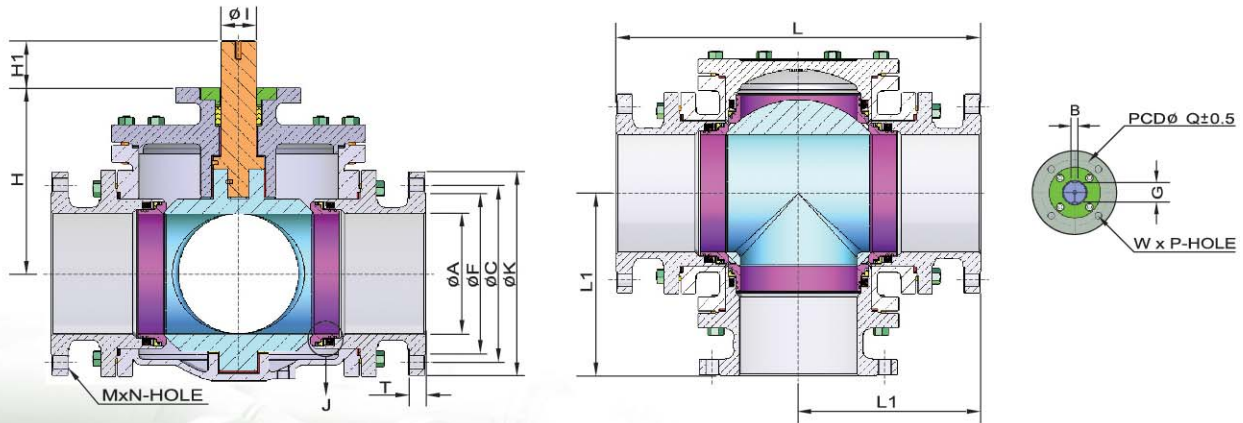
DIMENSION (JBT-C/JBT-CM-D2 SERIES DIN PN16 FLANGED) (M.M.)

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

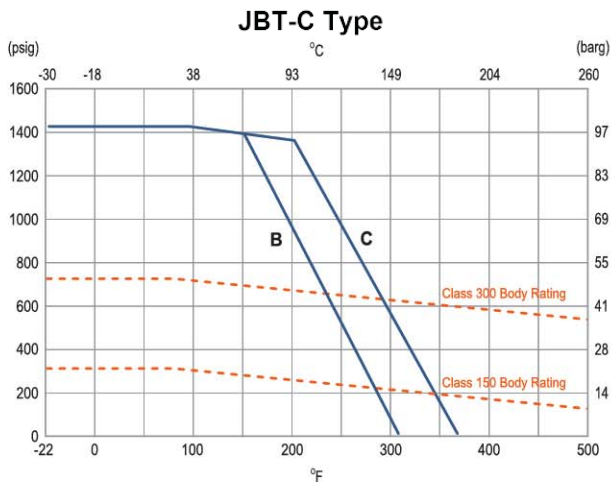
CERTIFICATES



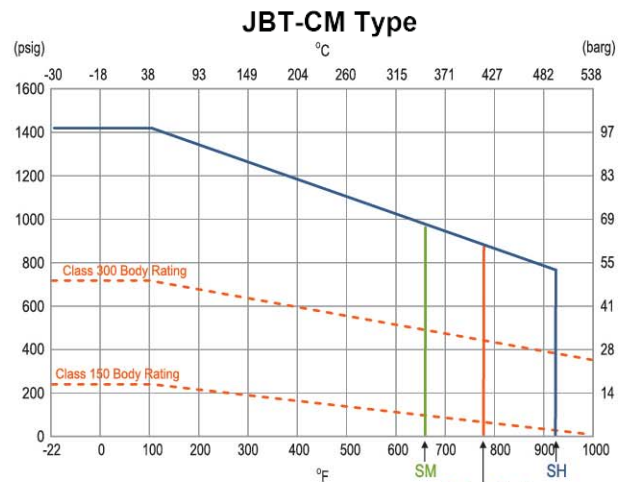
Cv VALUES

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

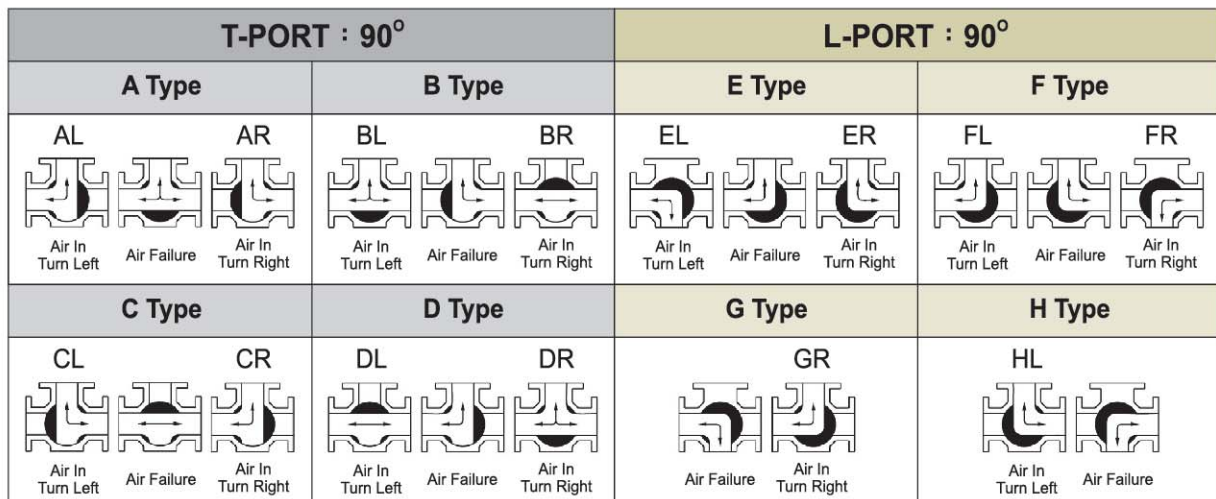


B= Glass Fiber PTFE
C= Carbon Fiber PTFE

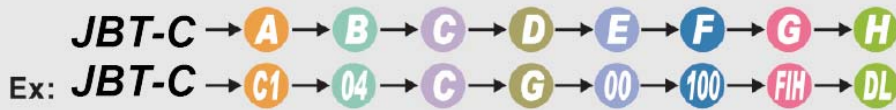


SM= Max Temperature 661°F (350°C)
SH= Max Temperature 932°F (500°C)
Carbon Steel Max Temperature 797°F (425°C)

PORT TYPE

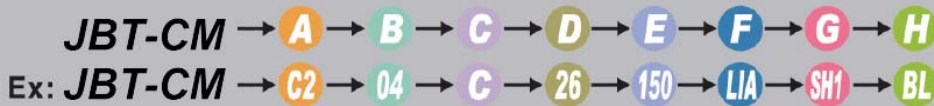


HOW TO ORDER



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



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

NO. 6-1, QINGNIAN RD., YANGMEI DIST., TAOYUAN CITY 326, TAIWAN
TEL +886-3-4965066 FAX +886-3-4963526 E-MAIL: sales@jdv.com.tw



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