



# Ver. N, Model F-C1 / F-C2

Split Body Flange Ball Valve  
 Belleville Washer Design, Full Port,  
 Model F-C1: ANSI Class 150  
 Model F-C2: ANSI Class 300  
 1/2" (DN15) to 4" (DN100)

Body Thickness According to ANSI B16.34  
 Face-to-Face According to ANSI B16.10  
 Flange Dimensions According to ANSI 16.5

## MATERIALS LIST

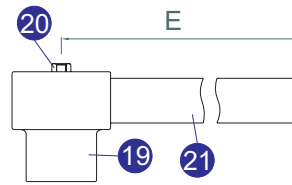
NO.	PART NAME	MATERIAL (Stainless)	MATERIAL (Carbon)	Q'TY
1	Body	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
2	Cap	ASTM A351 Gr. CF8M	ASTM A216 Gr. WCB	1
3	Ball	ASTM A351 Gr. CF8M	ASTM A351 Gr. CF8M	1
4	Stem	SUS316	SUS316	1
5	Stem Nut	SUS 304	SUS 304	1
6	Belleville Washer	SUS 301	SUS 301	2
7	Handle Sleeve	Vinyl	Vinyl	1
8	Seat	PTFE	PTFE	2
9	Gland	SUS 304	SUS 304	1
10	Stem Packing	PTFE	PTFE	1
11	Thrust Washer	†	†	1
12	Lock Saddle	SUS 304	SUS 304	1
13	Joint Gasket	PTFE	PTFE	1
14	Bolt	SUS 304	SUS 304	‡
15	Position Pin	SUS 304	SUS 304	1
16	Stop Plate	SUS 304	SUS 304	1
*17	Handle Nut	SUS 304	SUS 304	1
*18	Flat Handle	SUS 304	SUS 304	1
**19	T - Boss	ASTM A351 Gr. CF8	ASTM A351 Gr. CF8	1
**20	Handle Bolt	SUS 304	SUS 304	1
**21	Round Handle	Steel Bar	Steel Bar	1

† 25% Carbon fiber filled PTFE

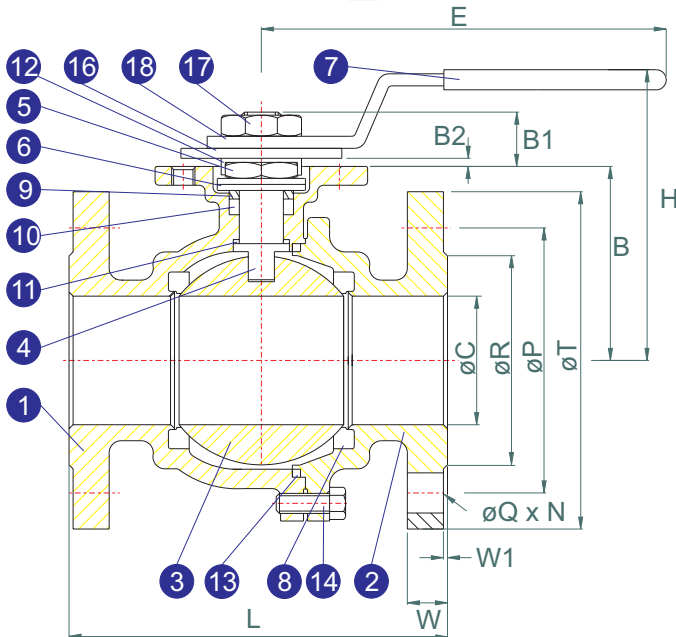
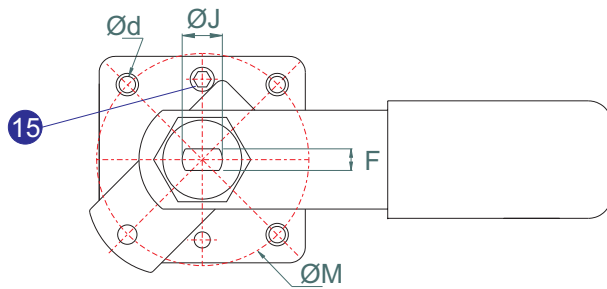
‡ 1/2" to 1 1/2" 4 pcs; 2" 4 pcs; 3" 8pcs; 4" 10 pcs

\* Parts for 1/2" to 2" only

\*\* Parts for 2 1/2" to 4" only



Handle Style for 2 1/2" to 4"





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 1/2" (DN15) to 4" (DN100)

## Torque Value with Non-Lubricated PTFE Seats

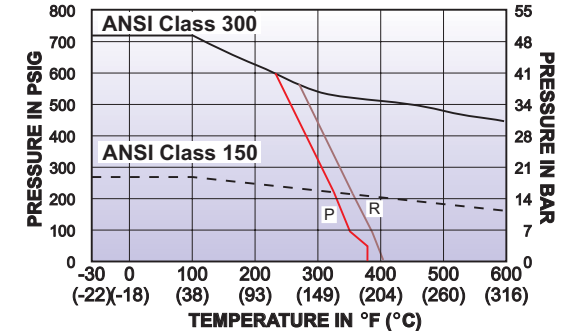
SIZE	Break-Away		Running	
	IN-LB	NM	IN-LB	NM
1/2"	53	6.0	48	5.4
3/4"	80	9.0	69	7.8
1"	106	12.0	80	9.0
1 1/4"	127	14.4	96	10.8
1 1/2"	228	25.8	159	18.0
2"	281	31.8	212	24.0
2 1/2"	903	102.0	584	66.0
3"	1221	138.0	743	84.0
4"	2071	234.0	1593	180.0

## Torque Value with Lubricated PTFE Seats

SIZE	Break-Away		Running	
	IN-LB	NM	IN-LB	NM
1/2"	48	5.4	42	4.8
3/4"	58	6.6	53	6.0
1"	69	7.8	64	7.2
1 1/4"	96	10.8	74	8.4
1 1/2"	149	16.8	106	12.0
2"	170	19.2	127	14.4
2 1/2"	425	48.0	266	30.0
3"	504	57.0	372	42.0
4"	1009	114.0	531	60.0

## Pressure Vs. Temperature Chart

for Valve 1/2" (DN15) ~ 4" (DN100)



### LEGEND

**P** PTFE Seat Rating      **R** RPTFE Seat Rating

Note: Torque values based on dry run (no medium in the valve) @ atmospheric pressure and ambient temperature. Data listed is the maximum value taken from tested samples. 20% additional torque has been added to the torque value as safety margin. Torque value may vary due to flow media. The user is responsible for testing the actual torque prior to actuator installation. Our standard ball valve comes with lubricated PTFE seats unless otherwise noted.

## DIMENSIONS (inch)

SIZE	øC	ød	øJ	F	B	B1	B2	E	H	^H	øM	ISO	L	^L	øP	^øP	N	^N	øQ	^øQ	øR	øT	^øT	W	^W	W1
1/2"	0.60	M5	0.39	0.26	1.36	0.55	0.12	5.70	2.70	2.95	1.65	42-F04	4.25	5.50	2.38	2.62	4	4	0.62	0.62	1.38	3.50	3.75	0.45	0.56	0.06
3/4"	0.78	M5	0.39	0.26	1.53	0.56	0.12	5.70	3.00	3.35	1.65	42-F04	4.62	6.00	2.75	3.25	4	4	0.62	0.75	1.69	3.86	4.60	0.45	0.63	0.06
1"	1.00	M6	0.55	0.38	1.72	0.85	0.12	6.90	3.50	*	1.97	50-F05	5.00	6.50	3.12	3.50	4	4	0.62	0.75	2.01	4.25	4.88	0.45	0.70	0.06
1 1/4"	1.25	M6	0.55	0.38	1.94	0.85	0.12	6.90	3.50	*	1.97	50-F05	5.50	7.10	3.50	3.88	4	4	0.62	0.75	2.50	4.60	5.28	0.50	0.77	0.06
1 1/2"	1.50	M8	0.71	0.38	2.68	0.94	0.20	9.20	4.20	*	2.76	70-F07	6.50	7.50	3.87	4.50	4	4	0.62	0.87	2.87	5.00	6.15	0.56	0.81	0.06
2"	2.00	M8	0.71	0.38	3.04	0.94	0.20	9.20	4.70	4.70	2.76	70-F07	7.00	8.50	4.75	5.00	4	8	0.75	0.87	3.62	5.98	6.50	0.63	0.88	0.06
2 1/2"	2.50	M10	0.79	0.47	3.52	0.90	0.20	12.0	5.40	*	4.02	102-F10	7.50	9.50	5.50	5.87	4	8	0.75	0.87	4.13	7.01	7.48	0.69	1.00	0.06
3"	3.00	M10	0.79	0.47	3.94	0.86	0.20	13.5	5.90	*	4.02	102-F10	8.00	11.1	6.00	6.62	4	8	0.75	0.87	5.00	7.48	8.27	0.75	1.13	0.06
4"	4.00	M10	0.94	0.59	4.74	1.17	0.20	16.0	6.70	*	4.02	102-F10	9.00	12.0	7.50	7.88	8	8	0.75	0.87	6.18	9.02	10.0	0.94	1.25	0.06

^ Dimensions for ANSI Class 300 only. Currently ANSI Class 300 (2 1/2" to 4") is not in our regular inventory production please contact us for more information.