

Ball Valves



ASME Class 150 to 2500 | 8 mm - 200 mm (1/4" - 8")
ISO 17292/ API 6D


NTIV

Design Standards

Standards

Scope		Standard
Design*		ISO 17292/ API 6D/ BS 5351
End-to-End	Socket-weld ends	ASME B16.11
	Screwed-end BSPT	ISO 7-1
	Screwed-end NPT	ASME B1.20.1
	End flange	ASME B16.5 RF/ FF/ RTJ
Face-to-face (Flanged)		ASME B16.10
Pressure testing		ISO 5208/ API 598

Material of Construction

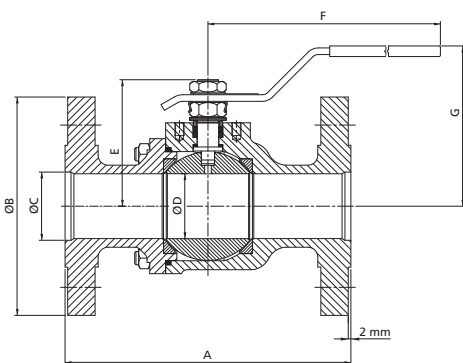
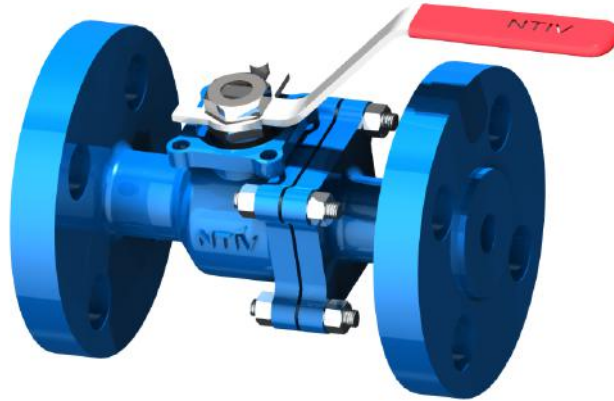
No.	Part	Material specification		
		Single-piece	Two-piece	Three-piece
1	Body/ Connector/ Insert	ASTM A216 Gr. WCB		ASTM A216 Gr. WCB ASTM A105
		ASTM A351 Gr. CF8M/ ASTM A182 Gr. F316		
2	Ball	ASTM A351 Gr. CF8M/ ASTM A182 Gr. F316/ ASTM A182 Gr. F304		
3	Seat	PTFE/ RPTFE/ Special filled PTFE/ PEEK/ Devlon®/ NXT-70/ SS316 + ST		
4	Stem	ASTM A479 Type 316		
5	Body Seal	Graphite		PTFE/ RPTFE/ Special filled PTFE/ Graphite
6	Stem Thrust Seal	Carbon-filled PTFE		
7	Stem Packing	Carbon-filled PTFE/ Graphite		

Test Pressures (bar)

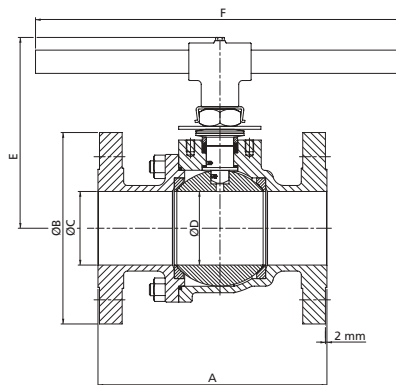
	Class 150	Class 300	Class 600*
Shell - Hydrostatic	30	77	155
Seat - Hydrostatic	22	56	113
Seat - Pneumatic	5.5	5.5	5.5

*With RPTFE/ Special filled PTFE

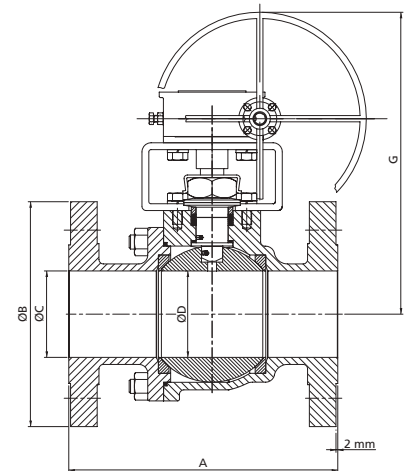
Two-piece Ball Valves - Full Bore (ASME Class 150 & 300)



Lever operated
(DN 15 - DN 50)



Wrench operated
(DN 65 - DN 200)



Gear operated
(DN 100 - DN 200)

Dimensions

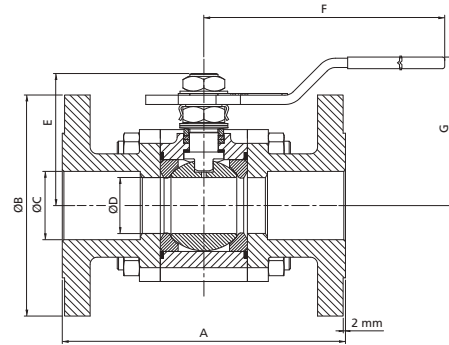
Size		A		B		C	D	E		F	G	Wt.		ISO 5211 Base	
DN	NPS	CI 150	CI 300	CI 150	CI 300			CI 150	CI 300			CI 150	CI 300	CI 150	CI 300
15	½	108	140	90	95	13	11	38	38	120	90	1	2		
20	¾	117	152	100	115	19	17	45	45	120	97	2	3		
25	1	127	165	110	125	25	24	55	55	158	97	3	4		
40	1½	165	190	125	155	38	37	75	75	212	122	5	6	F05	F05
50	2	178	216	150	165	51	49	103	103	212	142	9	12	F07	F07
65	2½	190	241	180	190	64	62	175	175	390		14	20.5	F07	F07
80	3	203	282	190	210	76	74	185	195	390		19	28	F07	F07
100	4	229	305	230	255	102	98	235	247	*		31	45	F10	F12
150	6	394	403	280	320	152	148	285	315	**		78	105	F12	F14
200	8	457	502	345	380	203	198	345	371	980		141.5	169	F14	F16

All dimensions in mm and weights in kg

*600 mm for CI 150 & 890 mm for CI 300

**890 mm for CI 150 & 980 mm for CI 300

Three-piece Ball Valves - HALF Bore (ASME Class 150 & 300)

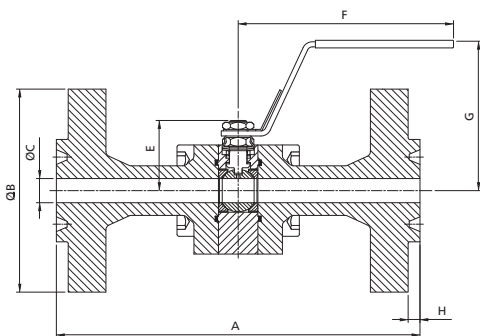


Dimensions

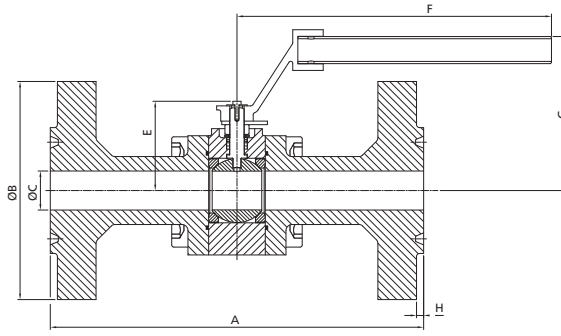
Flanged end - Class 150, 300 & 600

Size		A			B			C	D	E	F	G	Wt.		
DN	NPS	CI 150	CI 300	CI 600	CI 150	CI 300	CI 600						CI 150	CI 300	CI 600
15	½	108	140	165	90	95	95	13	11	38	122	92	2	2	2.5
20	¾	117	152	190	100	115	115	19	17	46	142	98	2	3	3.5
25	1	127	165	216	110	125	125	25	24	54	152	98	3	5	6.5
40	1½	165	190	241	125	155	155	38	37	75	212	125	8	11	12
50	2	178	216	292	150	165	165	51	49	87	212	125	13	15.5	12.5

All dimensions in mm and weights in kg



Lever operated
(DN 15 - DN 25)



Wrench operated
(DN 40)

Flanged end - Class 2500

Size		A	B	C	E	F	G	H	Wt.
DN	NPS								
15	½	264	135	14.3	50	195	103	6.35	10
20	¾	273	140	20.6	66	250	125	6.35	14
25	1	308	160	25.3	92	360	153	6.35	25
40	1½	386	205	38.5	100	315	162	7.92	40

All dimensions in mm and weights in kg