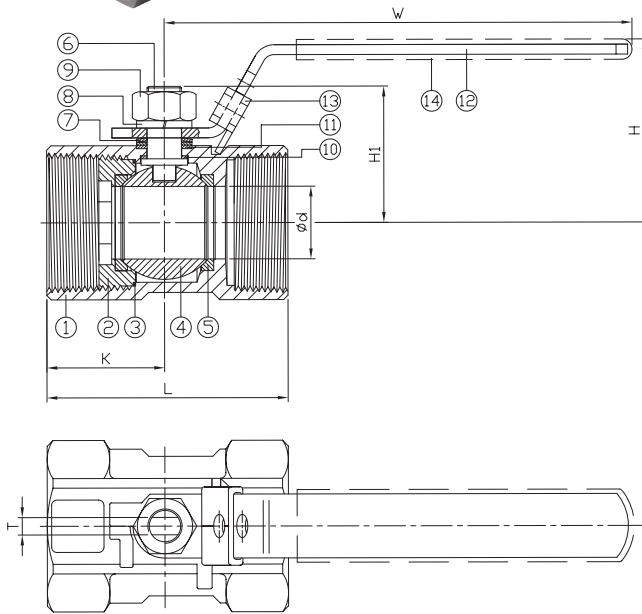




SERIES: B110TC - CARBON STEEL 1-PC. SCREWED END BALL VALVE (1/4" - 2")

DESIGN FEATURES:

- Reduced port, 1/4"~2" (DN8~DN80)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Anti-Static Device
- Silicone Free
- Locking device
- Thread type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL
		B110TCPTXXX
1	BODY	ASTM A216-WCB
2	RETAINER	
3	BODY SEAL (1)	PTFE
4	BALL	ASTM A351-CF8M
5	BALL SEAT	PTFE
6	STEM	ASTM A276-316
7	FLAT WASHER	AISI 304
8	SPRING WASHER	
9	STEM NUT	
10	THRUST WASHER	PTFE
11	PACKING	STAINLESS STEEL
12	HANDLE	
13	LATCH LOCK	AISI 304
14	HANDLE SLEEVE	PVC

(1) 1-1/4" - 2" size only

DN	d	L	H	H1	T	W	K	Torque (N-m)	Weight (kg)
8	5.0	39.0	38.0	17.0	3.0	61.7	20.0	0.8	0.1
10	7.0	44.0	41.1	21.4	4.0	73.5	23.0	1.0	0.1
15	9.0	56.5	40.6	26.1	5.0	94.7	29.0	1.2	0.2
20	12.5	59.0	44.1	28.8	5.0	94.7	29.0	1.8	0.3
25	15.0	71.0	56.5	36.5	6.0	111.5	35.0	3.0	0.4
32	20.0	78.0	62.0	40.5	112.5	113.0	38.0	4.9	0.7
40	25.0	83.0	63.2	46.5	160.0	141.0	40.5	7.4	0.9
50	32.0	100.0	68.5	51.0	160.5	141.0	49.0	8.8	1.4

unit: mm

NPS	d	L	H	H1	T	W	K	Torque (in-lb)	Weight (lb)
1/4"	0.20	1.54	1.50	0.67	0.12	2.43	0.79	7.1	0.2
3/8"	0.28	1.73	1.62	0.84	0.16	2.89	0.91	8.9	0.2
1/2"	0.35	2.22	1.60	1.03	0.20	3.73	1.14	10.6	0.4
3/4"	0.49	2.32	1.74	1.13	0.20	3.73	1.14	15.9	0.7
1"	0.59	2.80	2.22	1.44	0.24	4.39	1.38	25.7	0.9
1-1/4"	0.79	3.07	2.44	1.59	4.43	4.45	1.50	43.4	1.5
1-1/2"	0.98	3.27	2.49	1.83	6.30	5.55	1.59	65.1	2.0
2"	1.26	3.94	2.70	2.01	6.32	5.55	1.93	78.1	3.1

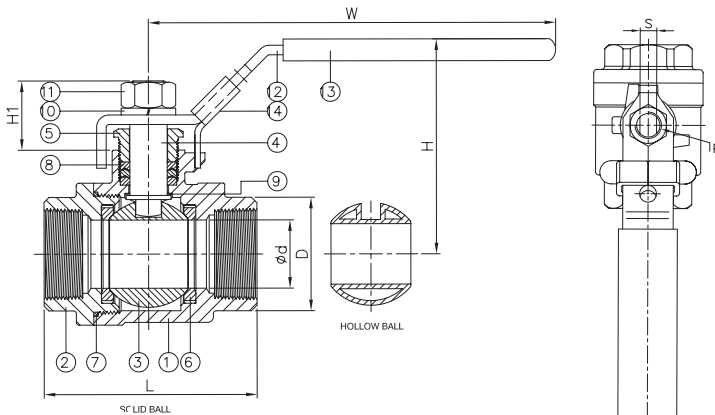
unit: in



SERIES: B210TM - B210TC (1/4" - 4") 2-PC. SCREWED END BALL VALVE Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4" - 4" (DN8 - DN80)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C - 200°C (-4°F - 392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-Static Device
- Locking device
- Tapped & drilled mounting pad (option)
- Thread type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B210TMRTXXX	B210TCRTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	SOLID BALL	ASTM A351-CF8M	
	HOLLOW BALL	ASTM A240-316	
4	STEM	ASTM A276-316	
5	GLAND	AISI 304	
6	SEAT	RTFE	
7	SEAL	PTFE	
8	PACKING		
9	THRUST WASHER	AISI 304	
10	SPRING WASHER		
11	NUT	AISI 304	
12	HANDLE	STAINLESS STEEL	
13	HANDLE SLEEVE	PVC	
14	LOCK DEVICE	STAINLESS STEEL	

DN	d	D	L	H	H1	W	S	P	Torque (N-M)	Weight (kg) SOLID BALL
8	11.6	19.0	50.8	58.5	18.5	99.5	5.0	3/8"-24UNF	3.5	0.2
10	12.5	22.5	50.8	58.5	18.5	99.5	5.0	3/8"-24UNF	4.0	0.2
15	15.0	26.0	58.0	60.5	18.8	99.5	5.0	3/8"-24UNF	5.5	0.3
20	20.0	32.0	65.6	63.0	23.4	123.0	6.5	7/16"-20UNF	7.5	0.5
25	25.0	38.0	78.7	79.5	26.2	149.0	8.0	7/16"-20UNF	11.0	0.8
32	32.0	48.0	90.0	86.0	23.6	149.0	8.0	7/16"-20UNF	15.0	1.1
40	38.0	54.8	105.0	101.7	28.2	190.0	10.0	1/2"-20UNF	20.0	1.8
50	50.0	67.0	124.0	109.3	23.4	190.0	10.0	1/2"-20UNF	40.0	2.7
65	63.0	85.0	146.0	140.0	39.4	247.0	12.0	3/4"-10UNF	60.0	5.6
80	76.0	100.0	163.2	148.5	39.4	247.0	12.0	3/4"-10UNF	85.0	7.5
100	100.0	126.0	240.0	175.0	43.0	300.0	15.0	3/4"-10UNF	90.0	13.9

unit: mm

NPS	d	D	L	H	H1	W	S	P	Torque (in-lb)	Weight (lb) SOLID BALL
1/4"	0.46	0.75	2.00	2.30	0.73	3.92	0.20	3/8"-24UNF	31.0	0.5
3/8"	0.49	0.89	2.00	2.30	0.73	3.92	0.20	3/8"-24UNF	35.4	0.5
1/2"	0.59	1.02	2.28	2.38	0.74	3.92	0.20	3/8"-24UNF	48.7	0.7
3/4"	0.79	1.26	2.58	2.48	0.92	4.84	0.26	7/16"-20UNF	66.4	1.0
1"	0.98	1.50	3.10	3.13	1.03	5.87	0.31	7/16"-20UNF	97.4	1.7
1-1/4"	1.26	1.89	3.54	3.39	0.93	5.87	0.31	7/16"-20UNF	132.8	2.5
1-1/2"	1.50	2.16	4.13	4.00	1.11	7.48	0.39	1/2"-20UNF	177.0	3.9
2"	1.97	2.64	4.88	4.30	0.92	7.48	0.39	1/2"-20UNF	354.0	5.9
2-1/2"	2.48	3.35	5.75	5.51	1.55	9.72	0.47	3/4"-10UNF	531.0	12.4
3"	2.99	3.94	6.43	5.85	1.55	9.72	0.47	3/4"-10UNF	752.3	16.5
4"	3.94	4.96	9.45	6.89	1.69	11.81	0.59	3/4"-10UNF	796.6	30.6

unit: in



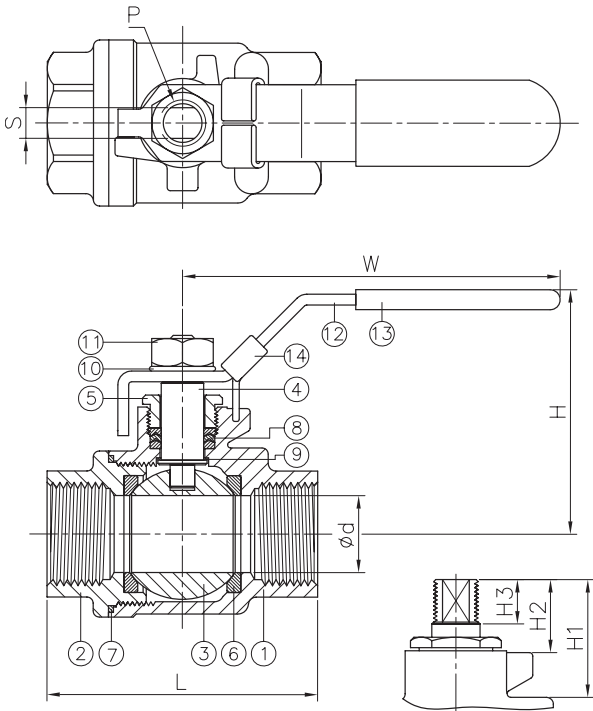
SERIES: B220TM - B220TC (1/4" - 2")

2-PC. SCREWED END BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port
- **W.P. :**
 - » 1/4"~1" - 2000 WOG (PN150)
 - » 1-1/4"~2" - 1500 WOG (PN100)
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Silicone Free
- Blow-out proof stem
- Anti-static device
- Locking device
- Thread type :
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B220TMRTXXX	B220TCRTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	STEM	ASTM A276-316	
5	GLAND NUT	AISI 304	
6	BALL SEAT	RTFE	
7	BODY SEAL	PTFE	
8	PACKING		
9	THRUST WASHER	AISI 304	
10	SPRING WASHER		
11	NUT		
12	HANDLE	STAINLESS STEEL	
13	HANDLE SLEEVE	PVC	
14	LOCK DEVICE	STAINLESS STEEL	

DN	D	L	H	H1	H2	H3	W	S	P	TORQUE (N-M)	WEIGHT (KG)
8	11.6	60.5	54.1	25.0	17.1	11.0	103	5.0	5/16"W	4.1	0.3
10	13.0	60.5	54.1	25.0	17.1	11.0	103	5.0	5/16"W	4.1	0.3
15	15.0	64.0	56.7	26.0	17.7	11.0	103	5.0	5/16"W	4.4	0.3
20	20.0	77.0	63.7	31.7	22.7	13.5	126	6.5	3/8"W	5.9	0.6
25	25.0	90.0	76.7	37.3	26.1	15.7	164	8.0	7/16"W	7.4	0.8
32	32.0	100.0	82.7	37.7	24.9	15.7	164	8.0	7/16"W	8.8	1.3
40	38.0	118.0	95.5	42.1	27.2	17.0	190	9.0	1/2"W	13.2	2.0
50	50.8	138.0	105.3	43.3	28.3	17.0	190	9.0	1/2"W	16.2	3.1

unit: mm

NPS	D	L	H	H1	H2	H3	W	S	P	TORQUE (IN-LB)	WEIGHT (LB)
1/4"	0.46	2.38	2.13	0.98	0.67	0.43	4.06	0.20	5/16"W	36.0	0.6
3/8"	0.51	2.38	2.13	0.98	0.67	0.43	4.06	0.20	5/16"W	36.0	0.6
1/2"	0.59	2.52	2.23	1.02	0.70	0.43	4.06	0.20	5/16"W	39.0	0.7
3/4"	0.79	3.03	2.51	1.25	0.89	0.53	4.96	0.26	3/8"W	52.0	1.2
1"	0.98	3.54	3.02	1.47	1.03	0.62	6.46	0.31	7/16"W	65.1	1.9
1-1/4"	1.26	3.94	3.26	1.48	0.98	0.62	6.46	0.31	7/16"W	78.1	2.8
1-1/2"	1.50	4.65	3.76	1.66	1.07	0.67	7.48	0.35	1/2"W	116.8	4.4
2"	2.00	5.43	4.15	1.70	1.11	0.67	7.48	0.35	1/2"W	143.4	6.9

unit: in



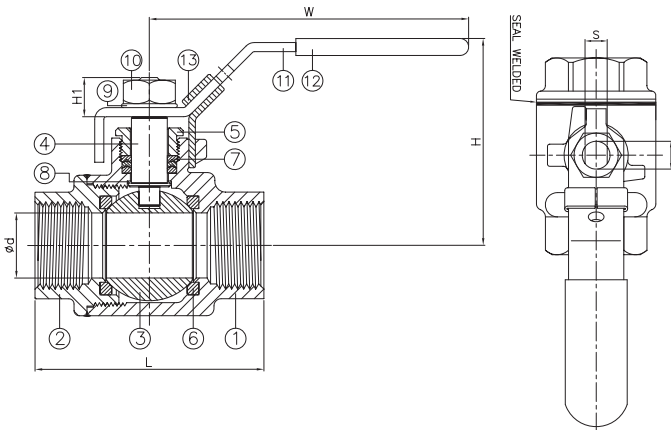
SERIES: B820TM - B820TC (1/4" - 4")

2-PC. SCREWED END BALL VALVE

SEAL WELDED

DESIGN FEATURES:

- Full port
- **W.P. :**
 - » 1/4"-1" - 2000 WOG(PN150)
 - » 1-1/4"-2" - 1500 WOG(PN100)
 - » 2-1/2"-4" - 1000 WOG(PN63)
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Anti-static device
- Silicone Free
- Locking device
- **API 607 Fire safe approved**
- ASME B16.34 Wall thickness
- API 608 Design
- **NACE MRO103**
- Seal welded ends
- Thread type :
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B820MRGNXX	B820TCRGNXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	316 ASTM CF8M	
4	STEM	ASTM A276-316	
5	GLAND NUT	AISI 304	
6	SEAT	RTFE	
7	PACKING	GRAPHITE	
8	THRUST WASHER	CTFE	
9	SPRING WASHER	AISI 304	
10	NUT		
11	HANDLE	STAINLESS STEEL	
12	HANDLE SLEEVE	PVC	
13	LOCK DEVICE	STAINLESS STEEL	

DN	d	L	H	H1	W	S	P	Torque (N-M)		Weight (kg)
								Action	Breakaway	
8	11.6	60.5	53.6	10.5	102	5.0	5/16"	3.6	5.1	0.4
10	12.8	60.5	53.6	10.5	102	5.0	5/16"	3.8	6.4	0.4
15	15.0	62.5	57.0	10.5	102	5.0	5/16"	3.8	6.4	0.4
20	20.2	77.0	62.1	13.5	124	6.5	3/8"	3.8	6.4	0.7
25	25.6	90.0	80.0	15.7	165	8.0	7/16"	7.7	11.4	1.3
32	32.0	100.0	83.7	15.7	165	8.0	7/16"	19.5	28.6	2.0
40	38.0	118.0	99.0	17.0	188	9.0	1/2"	19.5	32.5	2.5
50	50.8	138.0	107.0	17.0	188	9.0	1/2"	20.8	44.2	4.1
65	65.5	167.0	142.0	27.5	250	12.0	3/4"	33.0	55.0	6.4
80	80.0	193.0	153.0	27.5	250	12.0	3/4"	42.0	70.0	10.9
100	100.0	258.0	180.0	34.0	324	16.0	1"	54.0	90.0	21.0

unit: mm

NPS	d	L	H	H1	W	S	P	Torque (in-lb)		Weight (lb)
								Action	Breakaway	
1/4"	0.46	2.38	2.11	0.41	4.02	0.20	5/16"	31.9	45.1	0.9
3/8"	0.50	2.38	2.11	0.41	4.02	0.20	5/16"	33.6	56.6	0.9
1/2"	0.59	2.46	2.24	0.41	4.02	0.20	5/16"	33.6	56.6	0.9
3/4"	0.80	3.03	2.44	0.53	4.88	0.26	3/8"	33.6	56.6	1.5
1"	1.01	3.54	3.15	0.62	6.50	0.31	7/16"	68.2	100.9	2.9
1-1/4"	1.26	3.94	3.30	0.62	6.50	0.31	7/16"	172.6	253.1	4.4
1-1/2"	1.50	4.65	3.90	0.67	7.40	0.35	1/2"	172.6	287.6	5.5
2"	2.00	5.43	4.21	0.67	7.40	0.35	1/2"	184.1	391.2	9.0
2-1/2"	2.58	6.57	5.59	1.08	9.84	0.47	3/4"	292.1	486.8	14.1
3"	3.15	7.60	6.02	1.08	9.84	0.47	3/4"	371.7	619.5	24.0
4"	3.94	10.16	7.09	1.34	12.76	0.63	1"	477.9	796.6	46.3

unit: in



SERIES: B410TM - B410TC (1/4" - 3")

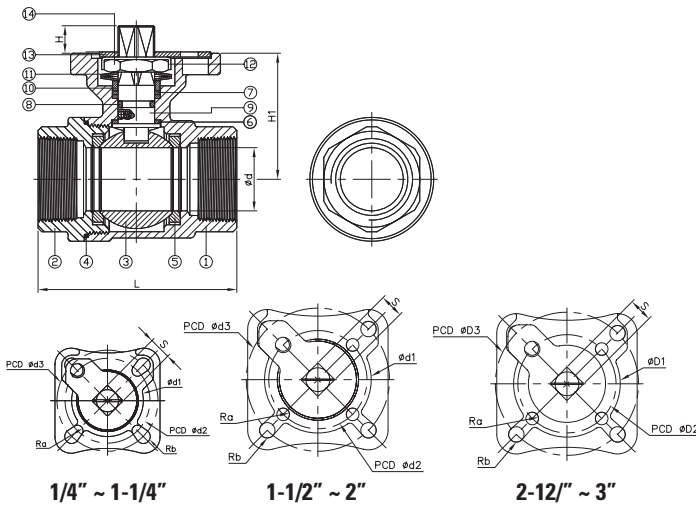
2-PC. SCREWED END BALL VALVE

Stainless / Carbon Steel

DIRECT MOUNT

DESIGN FEATURES:

- Full port, 1/4" ~ 3" (DN8~DN50)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Live-loading design
- Anti-static device
- Supplied with level handle
- Silicone Free
- Locking device
- **Direct Mounting pad ISO 5211**
- Thread type :
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B410TMMTXXX	B410TCMTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	SEAL	PTFE	
5	SEAT	TFM 1600	
6	THRUST WASHER	PTFE	
7	PACKING		
8	O-RING	VITON	
9	STEM	ASTM A276-316	
10	GLAND RING	AISI 304	
11	BELLEVILLE WASHER	AISI 301	
12	LOCK WASHER	AISI 304	
13	STOPPER		
14	STEM NUT		

DN	d	L	H	H1	S	d1	d2	d3	Ra	Rb	ISO 5211	Torque (N-m)	Weight (kg)
8	11.6	58.0	8.0	36.4	9	31.0	36	42	2.8	2.8	F03 / F04	5.5	0.5
10	12.7	58.0	8.0	36.4	9	31.0	36	42	2.8	2.8	F03 / F04	5.5	0.5
15	15	58.0	8.0	36.4	9	31.0	36	42	2.8	2.8	F03 / F04	5.5	0.5
20	20	65.6	9.0	39.2	9	31.0	36	42	2.8	2.8	F03 / F04	7.5	0.5
25	25	78.7	11.0	48.7	11	35.5	42	50	2.8	3.5	F04 / F05	11.0	0.8
32	32	90.0	11.0	54.2	11	35.5	42	50	2.8	3.5	F04 / F05	15.0	1.2
40	38	105.0	11.5	65.7	14	56.0	50	70	3.5	4.5	F05 / F07	20.0	2.0
50	50	124.0	11.5	75.5	14	56.0	50	70	3.5	4.5	F05 / F07	40.0	2.9
65	63	146.2	20.5	91.5	17	76.0	70	102	4.5	5.5	F07 / F10	60.0	5.3
80	76	163.7	20.5	100.8	17	76.0	70	102	4.5	5.5	F07 / F10	85.0	7.2

unit: mm

NPS	d	L	H	H1	S	d1	d2	d3	Ra	Rb	ISO 5211	Torque (in-lb)	Weight (lb)
1/4"	0.46	2.28	0.31	1.43	0.35	1.22	1.42	1.65	0.11	0.11	F03 / F04	48.7	1.0
3/8"	0.50	2.28	0.31	1.43	0.35	1.22	1.42	1.65	0.11	0.11	F03 / F04	48.7	1.0
1/2"	0.59	2.28	0.31	1.43	0.35	1.22	1.42	1.65	0.11	0.11	F03 / F04	48.7	1.0
3/4"	0.79	2.58	0.35	1.54	0.35	1.22	1.42	1.65	0.11	0.11	F03 / F04	66.4	1.0
1"	0.98	3.10	0.43	1.92	0.43	1.40	1.65	1.97	0.11	0.14	F04 / F05	97.4	1.8
1-1/4"	1.26	3.54	0.43	2.13	0.43	1.40	1.65	1.97	0.11	0.14	F04 / F05	132.8	2.6
1-1/2"	1.50	4.13	0.45	2.59	0.55	2.20	1.97	2.76	0.14	0.18	F05 / F07	177.0	4.4
2"	1.97	4.88	0.45	2.97	0.55	2.20	1.97	2.76	0.14	0.18	F05 / F07	354.0	6.4
2-1/2"	2.48	5.76	0.81	3.60	0.67	3.0	2.76	4.02	0.18	0.22	F07 / F10	531.0	11.7
3"	2.99	6.44	0.81	3.97	0.67	3.0	2.76	4.02	0.18	0.22	F07 / F10	752.0	15.8

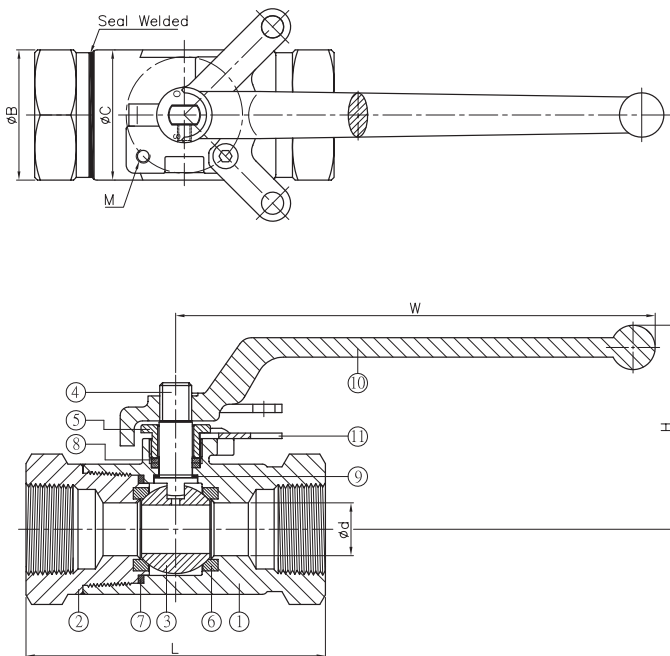
unit: in



SERIES: B836TM - B836TC (1/4" - 2") HIGH PRESSURE THREADED BALL VALVE

Stainless / Carbon Steel

SEAL WELDED • FIRE SAFE



DESIGN FEATURES:

- 1/4"~2" (DN8~DN50)
- **W.P. : 3600 WOG (PN250)**
- W.T. : -20°C~260°C (-4°F~500°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Locking device
- **Mounting pad ISO 5211**
- Silicone Free
- **Seal welded ends**
- ASME B16.34 Wall thickness
- **NACE MR0103**
- **API 607 Fire safe approved**
- Thread type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226

ITEM	PARTS	MATERIAL	
		B836TMKGNXX	B836TCCKGNXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	17-4PH	
4	STEM	ASTM A564-630 H900	
5	GLAND NUT	AISI 304	
6	SEAT	PEEK	
7	SEAL	GRAPHITE	
8	PACKING	GRAPHITE	
9	THRUST WASHER	CTFE	
10	HANDLE	AISI 304	
11	LOCK PAD	AISI 304	

PN 250	DN	d	B	C	L	H	W	M	ISO 5211	Torque (N-M)	Weight (kg)
	8 F	6.4	32	39	76.2	56.6	142.0	M5*P0.80	F03	9.5	0.7
	10 S	6.4	32	39	76.2	56.6	142.0	M5*P0.80	F03	9.5	0.7
	15 F	12.7	32	39	101.6	56.6	142.0	M5*P0.80	F03	9.5	0.8
	20 F	19.0	47	47	108.0	76.1	173.0	M5*P0.80	F04	28.0	1.3
	25 S	19.0	47	47	108.0	76.1	173.0	M5*P0.80	F04	28.0	1.3
	40 F	38.1	77	86	134.0	117.0	247.5	M8*P1.25	F07	53.0	4.9
	50 S	38.1	82	86	158.1	117.0	247.5	M8*P1.25	F07	53.0	5.4

F: Full Port S: Standard Port

unit: mm

3600 WOG	NPS	d	B	C	L	H	W	M	ISO 5211	Torque (in-lb)	Weight (lb)
	1/4" F	0.25	1.26	1.54	3.00	2.23	5.59	M5*P0.80	F03	84.1	1.5
	3/8" S	0.25	1.26	1.54	3.00	2.23	5.59	M5*P0.80	F03	84.1	1.5
	1/2" F	0.50	1.26	1.54	4.00	2.23	5.59	M5*P0.80	F03	84.1	1.7
	3/4" F	0.75	1.85	1.85	4.25	3.00	6.81	M5*P0.80	F04	247.8	2.9
	1" S	0.75	1.85	1.85	4.25	3.00	6.81	M5*P0.80	F04	247.8	2.9
	1-1/2" F	1.50	3.03	3.39	5.28	4.61	9.74	M8*P1.25	F07	469.1	10.8
	2" S	1.50	3.23	3.39	6.22	4.61	9.74	M8*P1.25	F07	469.1	11.8

F: Full Port S: Standard Port

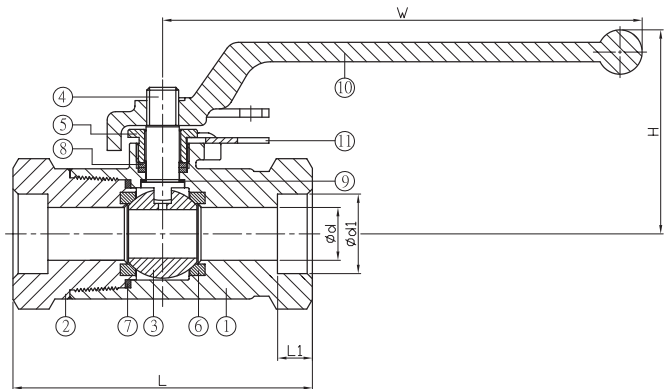
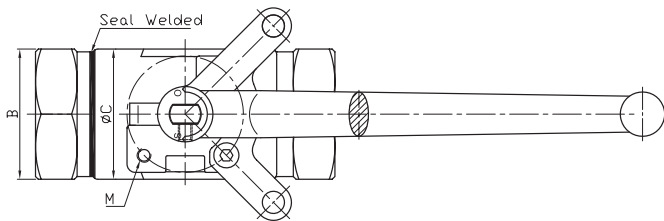
unit: in



SERIES: B836SM - B836SC (1/4" - 2") HIGH PRESSURE SOCKET WELD BALL VALVE

Stainless / Carbon Steel

SEAL WELDED • FIRE SAFE



DESIGN FEATURES:

- 1/4"~2" (DN8~DN50)
- **W.P. : 3600 WOG (PN250)**
- W.T. : -20°C~260°C (-4°F~500°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Locking device
- **Mounting pad ISO 5211**
- Silicone Free
- **Seal welded ends**
- ASME B16.34 Wall thickness
- **NACE MR0103**
- **API 607 Fire safe approved**
- Socket Weld Ends:
 - » ASME B16.34 / 1.20.1
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226

ITEM	PARTS	MATERIAL	
		B836SMKGNXX	B836SCKGNXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	17-4PH	
4	STEM	ASTM A564-630 H900	
5	GLAND NUT	AISI 304	
6	SEAT	PEEK	
7	SEAL	GRAPHITE	
8	PACKING		
9	THRUST WASHER	CTFE	
10	HANDLE	AISI 304	
11	LOCK PAD		

PN 250	DN	d	B	C	L	H	W	M	ISO 5211	Torque (N-M)	Weight (kg)
	8 F	6.4	32	39	76.2	56.6	142.0	M5*P0.80	F03	9.5	0.7
	10 S	6.4	32	39	76.2	56.6	142.0	M5*P0.80	F03	9.5	0.7
	15 F	12.0	32	39	101.6	56.6	142.0	M5*P0.80	F03	9.5	0.8
	20 F	19.0	47	47	108.0	76.1	173.0	M5*P0.80	F04	28.0	1.3
	25 S	19.0	47	47	108.0	76.1	173.0	M5*P0.80	F04	28.0	1.3
	40 F	38.1	77	86	134.0	117.0	247.5	M8*P1.25	F07	53.0	4.9
	50 S	38.1	82	86	158.1	117.0	247.5	M8*P1.25	F07	53.0	5.4

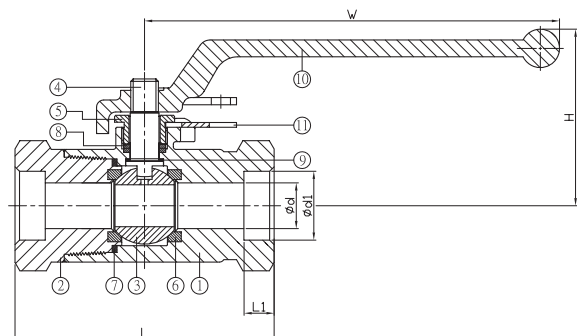
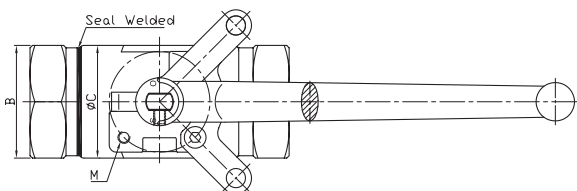
F: Full Port S: Standard Port

unit: mm

3600 WOG	NPS	d	B	C	L	H	W	M	ISO 5211	Torque (in-lb)	Weight (lb)
	1/4" F	0.25	1.26	1.54	3.00	2.23	5.59	M5*P0.80	F03	84.1	1.5
	3/8" S	0.25	1.26	1.54	3.00	2.23	5.59	M5*P0.80	F03	84.1	1.5
	1/2" F	0.50	1.26	1.54	4.00	2.23	5.59	M5*P0.80	F03	84.1	1.7
	3/4" F	0.75	1.85	1.85	4.25	3.00	6.81	M5*P0.80	F04	247.8	2.9
	1" S	0.75	1.85	1.85	4.25	3.00	6.81	M5*P0.80	F04	247.8	2.9
	1-1/2" F	1.50	3.03	3.39	5.28	4.61	9.74	M8*P1.25	F07	469.1	10.8
	2" S	1.50	3.23	3.39	6.22	4.61	9.74	M8*P1.25	F07	469.1	11.8

F: Full Port S: Standard Port

unit: in



SERIES: B860SM - B860SC (1/4" - 2") HIGH PRESSURE BALL VALVE

Stainless / Carbon Steel

SEAL WELDED • FIRE SAFE

DESIGN FEATURES:

- 1/4"-2" (DN8-DN50)
- **W.P. : 6000 WOG (PN420)**
- W.T. : -20°C~260°C (-4°F~500°F)
- Investment casting
- Blow-out proof stem
- Anti-static device
- Locking device
- **Mounting pad ISO 5211**
- Silicone Free
- **Seal welded ends**
- ASME B16.34 Wall thickness
- **NACE MR0103**
- **API 607 Fire safe approved**
- Socket Weld:
 - » ASME 16.34 / 16.11
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226

ITEM	PARTS	MATERIAL	
		B860SMKGNXX	B860SCKGNXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	17-4PH	
4	STEM	ASTM A564-630 H900	
5	GLAND NUT	AISI 304	
6	SEAT	PEEK	
7	SEAL	GRAPHITE	
8	PACKING		
9	THRUST WASHER	CTFE	
10	HANDLE	AISI 304	
11	LOCK PAD		

PN 420	DN	d	B	C	L	H	W	M	ISO 5211	Torque (N-M)	Weight (kg)
	8 F	6.4	32	39	76.2	56.6	142.0	M5*P0.80	F03	9.5	0.7
	10 S	6.4	32	39	76.2	56.6	142.0	M5*P0.80	F03	9.5	0.7
	15 F	12.7	38	39	101.6	56.6	142.0	M5*P0.80	F03	9.5	0.9
	20 F	19.0	47	52	108.0	76.1	173.0	M5*P0.80	F04	28.0	1.6
	25 S	19.0	55	55	108.0	76.1	173.0	M5*P0.80	F04	28.0	1.8
	25 F	25.4	55	68	122.0	83.1	173.0	M6*P1.00	F05	33.3	2.7
	40 F	38.1	77	97	134.0	117	247.5	M8*P1.25	F07	53.0	6.1
	50 S	38.1	92	97	158.1	117	247.5	M8*P1.25	F07	53.0	7.4

F:Full Port S:Standard Port

unit: mm

6000 WOG	NPS	d	B	C	L	H	W	M	ISO 5211	Torque (in-lb)	Weight (lb)
	1/4" F	0.25	1.26	1.54	3.00	2.23	5.59	M5*P0.8	F03	84.1	1.5
	3/8" S	0.25	1.26	1.54	3.00	2.23	5.59	M5*P0.8	F03	84.1	1.5
	1/2" F	0.50	1.50	1.54	4.00	2.23	5.59	M5*P0.8	F03	84.1	2.0
	3/4" F	0.75	1.85	2.05	4.25	3.00	6.81	M5*P0.8	F04	247.8	3.4
	1" S	0.75	2.17	2.17	4.25	3.00	6.81	M5*P0.8	F04	247.8	5.9
	1-1/2" F	1.50	3.03	3.82	5.28	4.61	9.74	M8*P1.25	F07	469.1	13.4
2" S	1.50	3.62	3.82	6.22	4.61	9.74	M8*P1.25	F07	469.1	16.3	

F:Full Port S:Standard Port

unit: in



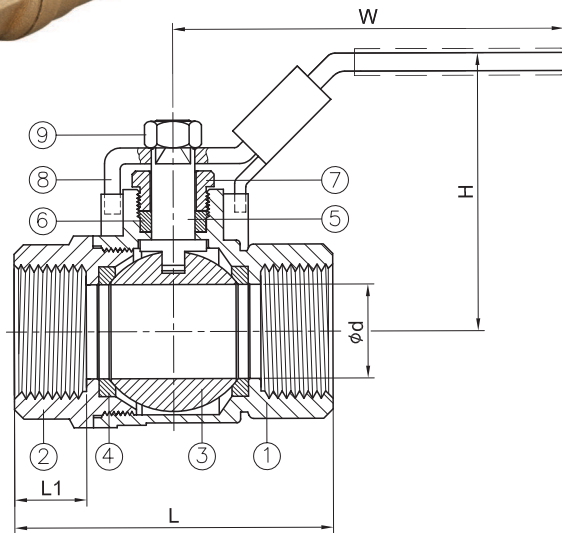
SERIES: B200T (1/4" - 4")

2-PC. SCREWED END BALL VALVE

Brass

DESIGN FEATURES:

- Full port, 1/4"~4" (DN8-DN100)
- **W.P. :**
 - » 1/4" - 2": **600 WOG**
 - » 2-1/2" - 4": **400 WOG**
- U.L. Listed
- Solid Ball
- NSF/ANSI 61-8
- CSA-ANSI Z21.15
- CGA9.1, ASME B16.44, CGA CR91-002
- Thread type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226
- Blow-out proof stem
- Locking device (1/4 - 2" only)



ITEM	PARTS	MATERIAL
		B200T
1	BODY	BRASS
2	CAP	
3	BALL	
4	SEAT	PTFE
5	STEM	BRASS
6	PACKING	PTFE
7	GLAND	BRASS
8	HANDLE	NICKEL PLATING STEEL
9	STEM NUT	BRASS PLATING STEEL

DN	d	L	L1	H	W	NPT THREAD	Weight (kg)
8	10.0	44.6	11.6	47.8	90.0	1/4"	0.4
10	10.0	44.6	11.6	47.8	90.0	3/8"	0.4
15	14.8	52.0	13.2	53.1	90.0	1/2"	0.4
20	19.0	60.0	14.3	56.8	96.0	3/4"	0.7
25	24.0	70.0	16.0	67.8	115.0	1"	1.1
32	32.0	84.0	18.0	77.50	115.0	1-1/4"	1.6
40	40.0	93.0	18.2	88.5	140.0	1-1/2"	2.4
50	50.0	106.2	19.0	97.5	140.0	2"	3.4
65	64.0	136.6	26.0	121.0	220.0	2-1/2"	9.0
80	74.0	153.4	28.0	129.0	220.0	3"	12.0
100	99.0	187.6	31.0	149.0	244.0	4"	18.0

unit: mm

NPS	d	L	L1	H	W	NPT THREAD	Weight (lb)
1/4"	0.39	1.76	0.46	1.88	3.54	1/4"	0.7
3/8"	0.39	1.76	0.46	1.88	3.54	3/8"	0.7
1/2"	0.58	2.05	0.52	2.09	3.54	1/2"	1.0
3/4"	0.75	2.36	0.56	2.24	3.78	3/4"	1.5
1"	0.95	2.76	0.63	2.67	4.53	1"	2.4
1-1/4"	1.26	3.31	0.71	3.05	4.53	1-1/4"	3.5
1-1/2"	1.58	3.66	0.72	3.48	5.51	1-1/2"	5.3
2"	1.97	4.18	0.75	3.84	5.51	2"	7.4
2-1/2"	2.52	5.38	1.02	4.76	8.66	2-1/2"	19.8
3"	2.91	6.04	1.10	5.08	8.66	3"	26.0
4"	3.90	7.39	1.22	5.87	9.61	4"	40.0

unit: in



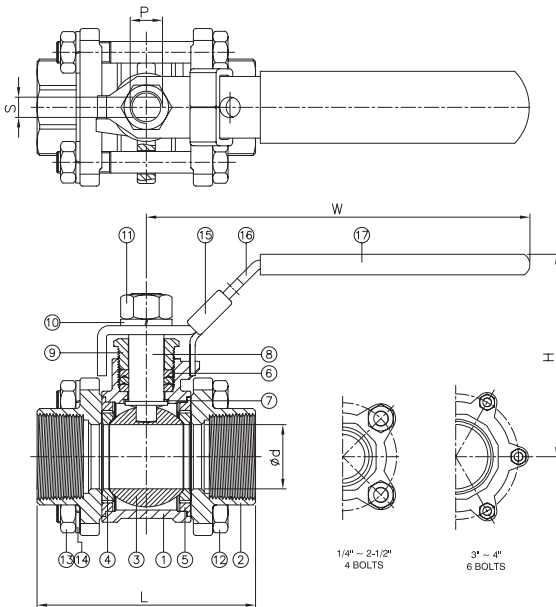
SERIES: B310TM - B310TC (1/4" - 4")

3-PC. SCREWED END BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4"-4" (DN8~DN100)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-Static
- Locking device
- Thread type :
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B310TMRTXXX	B310TCRTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	SEAT	RTFE	
5	SEAL	PTFE	
6	PACKING		
7	THRUST WASHER	ASTM A276-316	
8	STEM		
9	GLAND	AISI 304	
10	SPRING WASHER		
11	STEM NUT		
12	BOLT		
13	NUT		
14	SPRING WASHER		
15	LOCKING DEVICE	STAINLESS STEEL	
16	HANDLE		
17	HANDLE SLEEVE	PVC	

DN	d	L	H	W	S	P	Torque (N-m)	Weight (kg)
8	11.6	65	60.2	98	5.0	3/8"-24UNF	3.5	0.4
10	12.5	65	60.2	98	5.0	3/8"-24UNF	4.0	0.4
15	15.0	65	62.2	98	5.0	3/8"-24UNF	5.5	0.5
20	20.0	75	64.6	121	6.5	7/16"-20UNF	7.5	0.7
25	25.0	85	80.1	147	8.0	7/16"-20UNF	11.0	1.1
32	32.0	101	85.1	147	8.0	7/16"-20UNF	15.0	1.6
40	38.0	112	103.3	188	10.0	1/2"-20UNF	20.0	2.4
50	50.0	130	110.8	188	10.0	1/2"-20UNF	40.0	3.1
65	63.0	162	141.7	245	12.0	3/4"-10UNC	60.0	6.5
80	76.0	188	150.4	245	12.0	3/4"-10UNC	85.0	9.5
100	96.0	224	181.7	316	16.0	1"-8UNC	150.0	19.0

unit: mm

NPS	d	L	H	W	S	P	Torque (in-lb)	Weight (lb)
1/4"	0.46	2.56	2.37	3.86	0.20	3/8"-24UNF	31.0	0.8
3/8"	0.49	2.56	2.37	3.86	0.20	3/8"-24UNF	35.4	0.8
1/2"	0.59	2.56	2.45	3.86	0.20	3/8"-24UNF	48.7	1.1
3/4"	0.79	2.95	2.54	4.76	0.26	7/16"-20UNF	66.4	1.5
1"	0.98	3.35	3.15	5.79	0.31	7/16"-20UNF	97.4	2.3
1-1/4"	1.26	3.98	3.35	5.79	0.31	7/16"-20UNF	132.8	3.5
1-1/2"	1.50	4.41	4.07	7.40	0.39	1/2"-20UNF	177.0	5.3
2"	1.97	5.12	4.36	7.40	0.39	1/2"-20UNF	354.0	6.8
2-1/2"	2.48	6.38	5.58	9.65	0.47	3/4"-10UNC	531.0	14.3
3"	2.99	7.40	5.92	9.65	0.47	3/4"-10UNC	752.3	20.9
4"	3.78	8.82	7.15	12.44	0.63	1"-8UNC	1327.6	41.9

unit: in



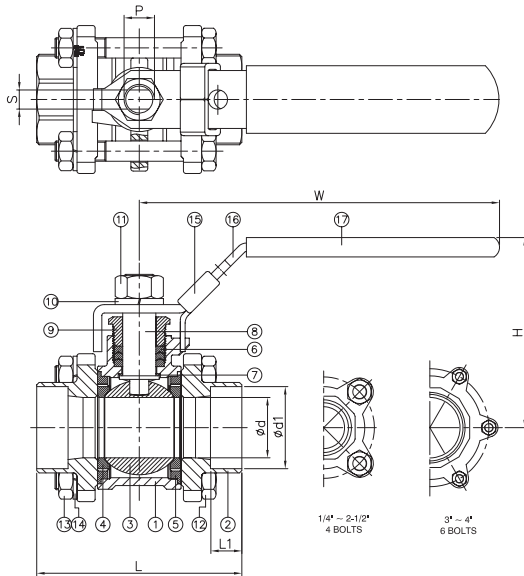
SERIES: B310SM - B310SC (1/4" - 4")

3-PC. SOCKET WELD END BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4"~4" (DN8-DN100)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-Static Device
- Locking device
- Socket weld ends:
 - » ASME B16.11
 - » DIN3239
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B310SMRTXXX	B310SCRTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	SEAT	RTFE	
5	SEAL	PTFE	
6	PACKING		
7	THRUST WASHER	ASTM A276-316	
8	STEM		
9	GLAND	AISI 304	
10	SPRING WASHER		
11	STEM NUT		
12	BOLT		
13	NUT		
14	SPRING WASHER		
15	LOCKING DEVICE	STAINLESS STEEL	
16	HANDLE		
17	HANDLE SLEEVE	PVC	

DN	d	d1	L	L1	H	W	S	P	Torque (N-m)	Weight (kg)
8	11.6	14.5	65	10	60.2	98	5.0	3/8"-24UNF	3.5	0.4
10	12.5	18.0	65	10	60.2	98	5.0	3/8"-24UNF	4.0	0.4
15	15.0	22.0	65	10	62.2	98	5.0	3/8"-24UNF	5.5	0.5
20	20.0	27.5	75	13	64.6	121	6.5	7/16"-20UNF	7.5	0.7
25	25.0	34.0	85	13	80.1	147	8.0	7/16"-20UNF	11.0	1.1
32	32.0	43.0	101	13	85.1	147	8.0	7/16"-20UNF	15.0	1.6
40	38.0	49.0	112	13	103.0	188	10.0	1/2"-20UNF	20.0	2.4
50	50.0	61.0	130	16	111.0	188	10.0	1/2"-20UNF	40.0	3.1
65	63.0	74.0	162	16	142.0	245	12.0	3/4"-10UNC	60.0	6.5
80	76.0	90.0	188	16	150.0	245	12.0	3/4"-10UNC	85.0	9.5
100	96.0	115.5	224	20	182.0	316	16.0	1"-8UNC	150.0	19.0

unit: mm

NPS	d	d1	L	L1	H	W	S	P	Torque (in-lb)	Weight (lb)
1/4"	0.46	0.57	2.56	0.39	2.37	3.86	0.20	3/8"-24UNF	31.0	0.8
3/8"	0.49	0.71	2.56	0.39	2.37	3.86	0.20	3/8"-24UNF	35.4	0.8
1/2"	0.59	0.87	2.56	0.39	2.45	3.86	0.20	3/8"-24UNF	48.7	1.1
3/4"	0.79	1.08	2.95	0.51	2.54	4.76	0.26	7/16"-20UNF	66.4	1.5
1"	0.98	1.34	3.35	0.51	3.15	5.79	0.31	7/16"-20UNF	97.4	2.3
1-1/4"	1.26	1.69	3.98	0.51	3.35	5.79	0.31	7/16"-20UNF	132.8	3.5
1-1/2"	1.50	1.93	4.41	0.51	4.06	7.40	0.39	1/2"-20UNF	177.0	5.3
2"	1.97	2.40	5.12	0.63	4.37	7.40	0.39	1/2"-20UNF	354.0	6.8
2-1/2"	2.48	2.91	6.38	0.63	5.59	9.65	0.47	3/4"-10UNC	531.0	14.3
3"	2.99	3.54	7.40	0.63	5.91	9.65	0.47	3/4"-10UNC	752.3	20.9
4"	3.78	4.55	8.82	0.79	7.17	12.44	0.63	1"-8UNC	1327.6	41.9

unit: in



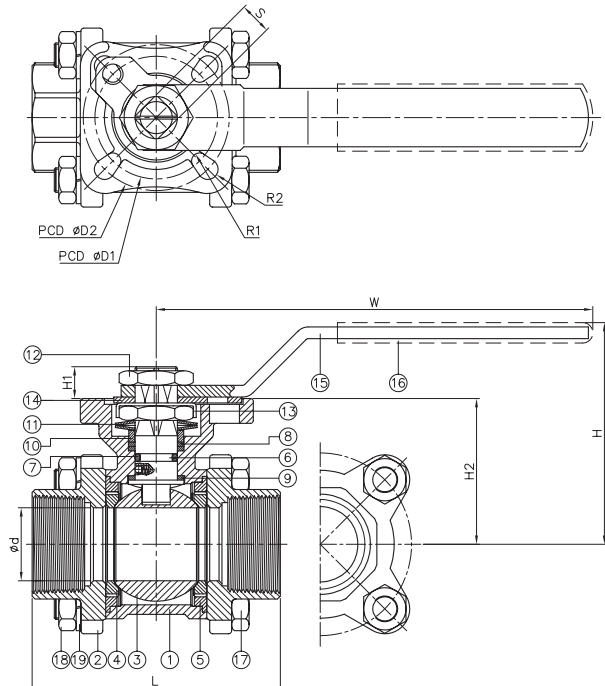
SERIES: B710TM - B710TC (1/4" - 2")

3-PC THREADED BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4" ~ 2" (DN8-DN50)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Live-loading design
- Locking device
- Silicone Free
- Supplied with lever handle
- Anti-static device
- **Direct mounting pad ISO 5211**
- Automation accessories (option)
- Thread type :
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B710TMMTXXX	B710TCMTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	SEAT	TFM 1600	
5	SEAL	PTFE	
6	STEM	ASTM A276-316	
7	O-RING	VITON	
8	PACKING	PTFE	
9	THRUST WASHER		
10	GLAND RING	AISI 304	
11	BELLEVILLE WASHER	AISI 301	
12	STEM NUT	AISI 304	
13	LOCK WASHER		
14	LOCKING DEVICE	STAINLESS STEEL	
15	HANDLE		
16	HANDLE SLEEVE	PVC	
17	BOLT	AISI 304	
18	NUT		
19	SPRING WASHER		

DN	d	d1	L	L1	H	H1	H2	W	S	D1	D2	R1	R2	ISO 5211	Torque (N-M)		Weight (kg)
															Breakaway	Action	
8	11.6	14.5	65	10	61.0	7.5	35.3	114.5	9	36	42	2.8	2.8	F03/F04	7	4	0.6
10	12.5	18.0	65	10	61.0	7.5	35.3	114.5	9	36	42	2.8	2.8	F03/F04	7	4	0.6
15	15.0	22.0	65	10	62.7	7.1	36.4	114.5	9	36	42	2.8	2.8	F03/F04	7	4	0.6
20	20.0	27.5	75	13	65.1	7.3	39.5	114.5	9	36	42	2.8	2.8	F03/F04	9	5	0.7
25	25.0	34.0	85	13	76.5	11.0	49.0	140.0	11	42	50	2.8	3.5	F04/F05	15	9	1.1
32	32.0	43.0	101	13	82.0	9.5	54.2	140.0	11	42	50	2.8	3.5	F04/F05	18	11	1.7
40	38.0	49.0	112	13	102.0	12.4	64.6	172.0	14	50	70	3.5	4.5	F05/F07	25	15	2.6
50	50.0	61.0	130	16	110.1	13.6	72.5	172.0	14	50	70	3.5	4.5	F05/F07	35	21	3.7

unit: mm

NPS	d	d1	L	L1	H	H1	H2	W	S	D1	D2	R1	R2	ISO 5211	Torque (in-lb)		Weight (lb)
															Breakaway	Action	
1/4"	0.46	0.57	2.56	0.39	2.40	0.30	1.39	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	62.0	35.4	1.2
3/8"	0.49	0.71	2.56	0.39	2.40	0.30	1.39	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	62.0	35.4	1.2
1/2"	0.59	0.87	2.56	0.39	2.47	0.28	1.43	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	62.0	35.4	1.2
3/4"	0.79	1.08	2.95	0.51	2.56	0.29	1.56	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	79.7	44.3	1.6
1"	0.98	1.34	3.35	0.51	3.01	0.43	1.93	5.51	0.43	1.65	1.97	0.11	0.14	F04/F05	132.8	79.7	2.4
1-1/4"	1.26	1.69	3.98	0.51	3.23	0.37	2.13	5.51	0.43	1.65	1.97	0.11	0.14	F04/F05	159.3	97.4	3.7
1-1/2"	1.50	1.93	4.41	0.51	4.02	0.49	2.54	6.77	0.55	1.97	2.76	0.14	0.18	F05/F07	221.3	132.8	5.8
2"	1.97	2.40	5.12	0.63	4.33	0.54	2.85	6.77	0.55	1.97	2.76	0.14	0.18	F05/F07	309.8	185.9	8.1

unit: in

FOR ADDITIONAL SIZES SEE NEXT PAGE



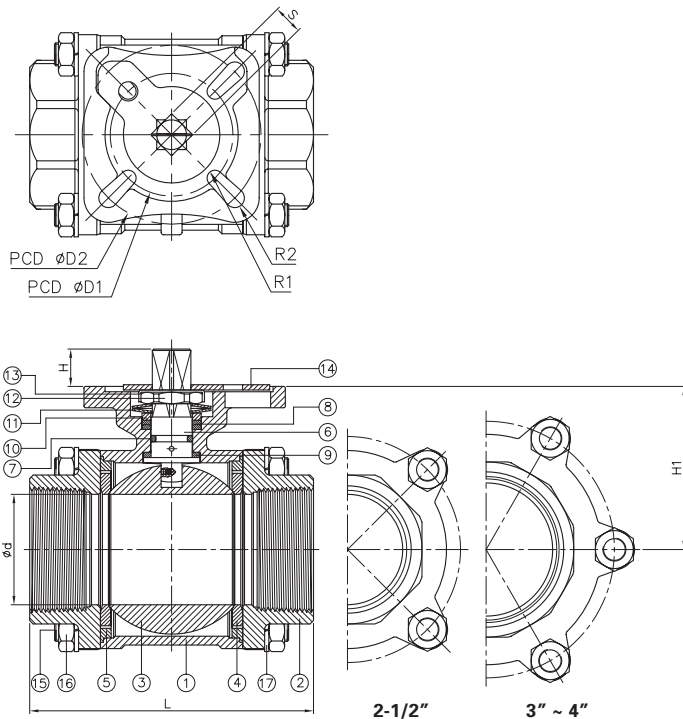
SERIES: B710TM - B710TC (2-1/2" - 4")

3-PC THREADED BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 2-1/2"~ 4" (DN65 ~ DN100)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Live-loading design
- Locking device
- Silicone Free
- Supplied with lever handle
- Anti-static device
- **Direct mounting pad ISO 5211**
- Automation accessories (option)
- Thread type :
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B710TMMTXXX	B710TCMTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	TFM 1600	
4	SEAT	PTFE	
5	SEAL	ASTM A276-316	
6	STEM	VITON	
7	O-RING	PTFE	
8	PACKING	AISI 304	
9	THRUST WASHER	AISI 301	
10	GLAND RING	AISI 304	
11	BELLEVILLE WASHER		
12	STEM NUT		
13	LOCK WASHER		
14	LOCKING DEVICE		
15	HANDLE		
16	BOLT		
17	NUT		
18	SPRING WASHER		
19	BOLT		
20	NUT		

DN	d	d1	L	L1	H	H1	H2	W	S	D1	D2	R1	R2	ISO 5211	Torque (N-M)		Weight (kg)
															Breakaway	Action	
65	63	74.0	162	16	127.3	16.3	92	325	17	70	102	4.5	5.5	F07/F10	55	33	7.4
80	76	90.0	188	16	136.3	16.3	100	325	17	70	102	4.5	5.5	F07/F10	70	42	10.3
100	96	115.5	224	20	142.5	20.5	130	325	22	102	125	5.5	6.5	F10/F12	90	54	19.9

unit: mm

NPS	d	d1	L	L1	H	H1	H2	W	S	D1	D2	R1	R2	ISO 5211	Torque (in-lb)		Weight (lb)
															Breakaway	Action	
2-1/2"	2.48	2.91	6.38	0.63	5.01	0.64	3.62	12.8	0.67	2.76	4.02	0.18	0.22	F07/F10	486.8	292.1	16.3
3"	2.99	3.54	7.40	0.63	5.37	0.64	3.94	12.8	0.67	2.76	4.02	0.18	0.22	F07/F10	619.5	371.7	22.7
4"	3.78	4.55	8.82	0.79	5.61	0.81	5.12	12.8	0.87	4.02	4.92	0.22	0.26	F10/F12	796.6	477.9	43.9

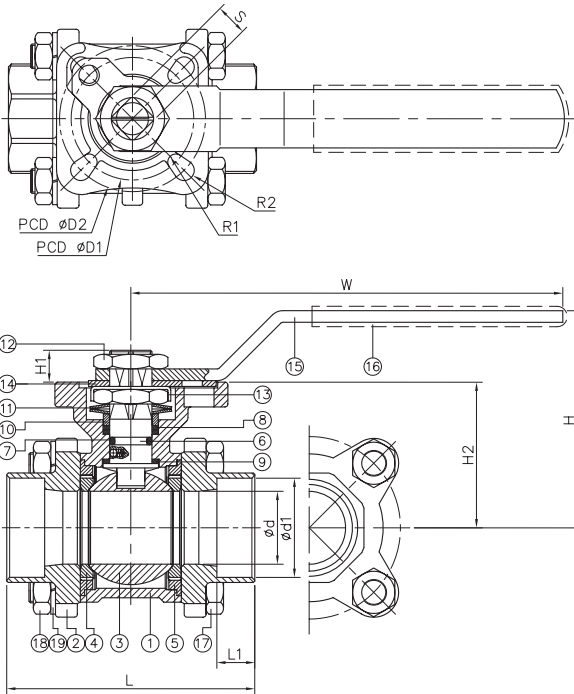
unit: in



SERIES: B710SM - B710SC (1/4" - 2") 3-PC SOCKET WELD BALL VALVE Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4"~ 2" (DN8~DN50)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Live-loading design
- Locking device
- Silicone Free
- Anti-static device
- **Direct mounting pad ISO 5211**
- Automation accessories (option)
- Socket Weld Ends:
 - » ASME B16.11
 - » DIN3239
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B710SMMTXXX	B710SCMTXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL	ASTM A351-CF8M	
4	SEAT	TFM 1600	
5	SEAL	PTFE	
6	STEM	ASTM A276-316	
7	O-RING	VITON	
8	PACKING	PTFE	
9	THRUST WASHER	PTFE	
10	GLAND RING	AISI 304	
11	BELLEVILLE WASHER	AISI 301	
12	STEM NUT	AISI 304	
13	LOCK WASHER	AISI 304	
14	LOCKING DEVICE	AISI 304	
15	HANDLE	STAINLESS STEEL	
16	HANDLE SLEEVE	PVC	
17	BOLT	AISI 304	
18	NUT	AISI 304	
19	SPRING WASHER	AISI 304	

DN	d	L	H	H1	H2	W	S	D1	D2	R1	R2	ISO 5211	Torque (N-M)		Weight (kg)
													Breakaway	Action	
8	11.6	65	61.0	7.5	35.3	114.5	9	36	42	2.8	2.8	F03/F04	7	4	0.6
10	12.5	65	61.0	7.5	35.3	114.5	9	36	42	2.8	2.8	F03/F04	7	4	0.6
15	15.0	65	62.7	7.1	36.4	114.5	9	36	42	2.8	2.8	F03/F04	7	4	0.6
20	20.0	75	65.1	7.3	39.5	114.5	9	36	42	2.8	2.8	F03/F04	9	5	0.7
25	25.0	85	76.5	11.0	49.0	140.0	11	42	50	2.8	3.5	F04/F05	15	9	1.1
32	32.0	101	82.0	11.5	54.2	140.0	11	42	50	2.8	3.5	F04/F05	18	11	1.7
40	38.0	112	102.0	12.4	64.6	172.0	14	50	70	3.5	4.5	F05/F07	25	15	2.6
50	50.0	130	110.1	13.6	72.5	172.0	14	50	70	3.5	4.5	F05/F07	35	21	3.7

unit: mm

NPS	d	L	H	H1	H2	W	S	D1	D2	R1	R2	ISO 5211	Torque (in-lb)		Weight (lb)
													Breakaway	Action	
1/4"	0.46	2.56	2.40	0.30	1.39	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	62.0	35.4	1.2
3/8"	0.49	2.56	2.40	0.30	1.39	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	62.0	35.4	1.2
1/2"	0.59	2.56	2.47	0.28	1.43	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	62.0	35.4	1.2
3/4"	0.79	2.95	2.56	0.29	1.56	4.51	0.35	1.42	1.65	0.11	0.11	F03/F04	79.7	44.3	1.6
1"	0.98	3.35	3.01	0.43	1.93	5.51	0.43	1.65	1.97	0.11	0.14	F04/F05	132.8	79.7	2.4
1-1/4"	1.26	3.98	3.23	0.45	2.13	5.51	0.43	1.65	1.97	0.11	0.14	F04/F05	159.3	97.4	3.7
1-1/2"	1.50	4.41	4.02	0.49	2.54	6.77	0.55	1.97	2.76	0.14	0.18	F05/F07	221.3	132.8	5.7
2"	1.97	5.12	4.33	0.54	2.85	6.77	0.55	1.97	2.76	0.14	0.18	F05/F07	309.8	185.9	8.2

unit: in

FOR ADDITIONAL SIZES SEE NEXT PAGE



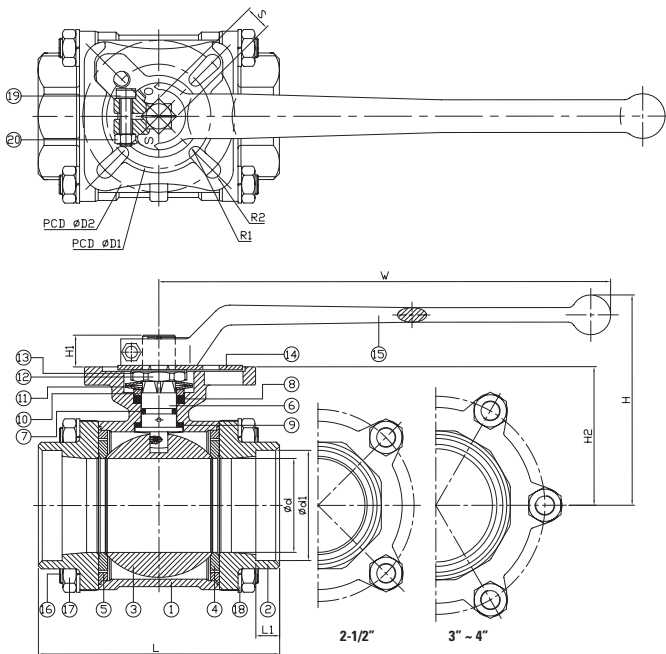
SERIES: B710SM - B710SC (2-1/2" - 4")

3-PC SOCKET WELD BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 2 1/2"~ 4" (DN65~DN100)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Live-loading design
- Locking device
- Silicone Free
- Anti-static device
- **Direct mounting pad ISO 5211**
- Automation accessories (option)
- Socket Weld Ends:
 - » ASME B16.11
 - » DIN3239
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL	
		B710SMXXX	B710SCXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP		
3	BALL		
4	SEAT	TFM 1600	
5	SEAL	PTFE	
6	STEM	ASTM A276-316	
7	O-RING	VITON	
8	PACKING	PTFE	
9	THRUST WASHER		
10	GLAND RING	AISI 304	
11	BELLEVILLE WASHER	AISI 301	
12	STEM NUT	AISI 304	
13	LOCK WASHER		
14	LOCKING DEVICE		
15	BOLT		
16	NUT		
17	SPRING WASHER		

DN	d	L	H	H1	S	D1	D2	R1	R2	ISO 5211	Torque (N-M)		Weight (kg)
											Breakaway	Action	
65	63	162	16.3	92	17	70	102	4.5	5.5	F07/F10	55	33	7.4
80	76	188	16.3	100	17	70	102	4.5	5.5	F07/F10	70	42	10.3
100	96	224	20.5	130	22	102	125	5.5	6.5	F10/F12	90	54	19.9

unit: mm

NPS	d	L	H	H1	S	D1	D2	R1	R2	ISO 5211	Torque (in-lb)		Weight (lb)
											Breakaway	Action	
2-1/2"	2.48	6.38	0.64	3.62	0.67	2.76	4.02	0.18	0.22	F07/F10	486.8	292.1	16.3
3"	2.99	7.40	0.64	3.94	0.67	2.76	4.02	0.18	0.22	F07/F10	619.5	371.7	22.7
4"	3.78	8.82	0.81	5.12	0.87	4.02	4.92	0.22	0.26	F10/F12	796.6	477.9	43.9

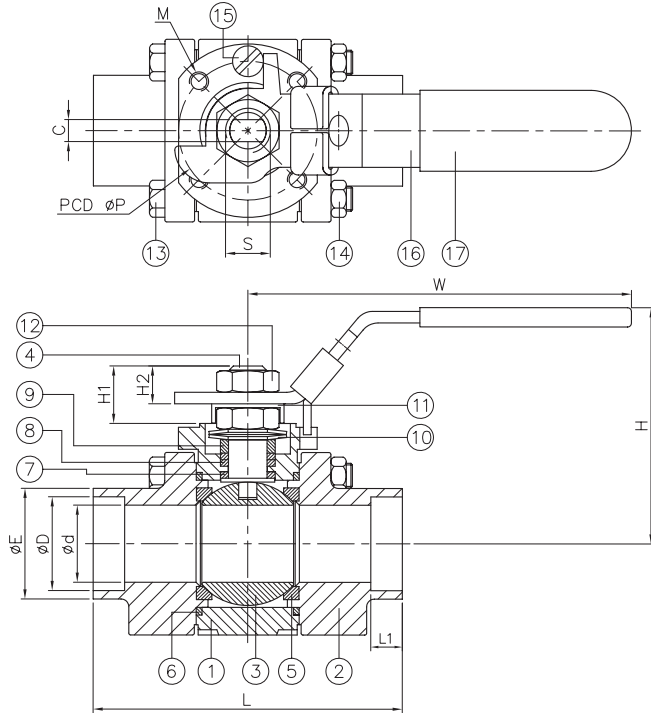
unit: in



SERIES: B920SM - B920SC (1/4" - 3/4") 3-PC SOCKET WELD END BALL VALVE Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4" ~ 3/4" (DN8~DN20)
- **W.P. :**
» 1/4" ~ 1" - 2000 WOG
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-static device
- Locking device
- Thread Type:
» ASME B1.20.1 (NPT)
» DIN2999 & BS21
» ISO7/1 & EN10226
- NACE MR0103
- **API 607 Fire Safe Approved**
- API 608 Design



ITEM	PARTS	MATERIAL	
		B920SMRGXXX	B920SCRGXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP	ASTM A351-CF3M	
3	BALL	ASTM A351-CF8M	
4	STEM	ASTM A276-316	
5	BALL SEAT	RTFE	
6	GASKET	GRAPHITE	
7	THRUST WASHER	CTFE	
8	PACKING	GRAPHITE	
9	GLAND RING	AISI 304	
10	DISC SPRING	AISI 301	
11	LOCK PAD	ASTM A167-304	
12	STEM NUT	ASTM A194-8A	
13	BOLT	ASTM A193-B8A	
14	NUT	ASTM A194-8A	
15	STOP PIN	AISI 304	
16	HANDLE	STAINLESS STEEL	
17	HANDLE SLEEVE	PVC	

DN	d	D	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (N-M)	Weight (kg)
8	8	14.0	25.0	65.7	10	57.0	12.1	9.8	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	3.8	0.7
10	10	18.0	25.0	65.7	10	57.0	12.1	9.8	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	3.8	0.7
15	15	22.0	30.3	74.8	10	57.0	12.1	9.8	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	3.8	0.8
20	20	27.5	36.0	80.2	13	59.7	14.5	10.6	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	5.1	0.9

unit: mm

NPS	d	D	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (in-lb)	Weight (lb)
1/4"	0.31	0.55	0.98	2.59	0.39	2.24	0.48	0.39	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	33.8	1.6
3/8"	0.39	0.71	0.98	2.59	0.39	2.24	0.48	0.39	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	33.8	1.6
1/2"	0.59	0.87	1.19	2.94	0.39	2.24	0.48	0.39	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	33.8	1.7
3/4"	0.79	1.08	1.42	3.16	0.51	2.35	0.57	0.42	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	45.1	1.9

unit: in



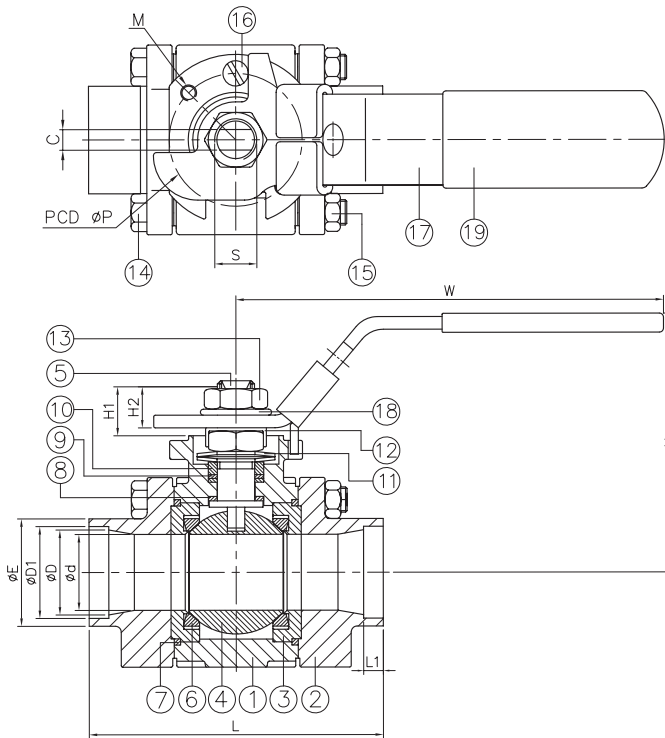
SERIES: B920SM - B920SC (1" - 2")

3-PC SOCKET WELD END BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1" ~ 2" (DN25~DN50)
- **W.P. :**
 - » 1/4" ~ 1" - **2000 WOG**
 - » 1-1/4" ~ 2" - **1500 WOG**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-static device
- Locking device
- Thread Type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226
- NACE MR0103
- **API 607 Fire Safe Approved**
- API 608 Design



ITEM	PARTS	MATERIAL	
		B920SMRGXXX	B920SCRGXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP	ASTM A351-CF3M	
3	RETAINER	ASTM A351-CF8M	
4	BALL		
5	STEM	ASTM A276-316	
6	BALL SEAT	RTFE	
7	GASKET	GRAPHITE	
8	THRUST WASHER	CTFE	
9	PACKING	GRAPHITE	
10	GLAND RING	AISI 304	
11	DISC SPRING	AISI 301	
12	LOCK PAD	ASTM A167-304	
13	STEM NUT	ASTM A194-8A	
14	BOLT	ASTM A193-B8A	
15	NUT	ASTM A194-8A	
16	STOP PIN	AISI 304	
17	HANDLE	STAINLESS STEEL	
18	SPRING WASHER	AISI 304	
19	HANDLE SLEEVE	PVC	

DN	d	D	D1	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (N-M)	Weight (kg)
25	24	26.6	34.5	44.8	93.0	13	81.5	15.5	14.0	146	7.5	42	F04	M5*0.8	7/16"-20UNF	10.2	1.7
32	30	35.0	43.0	54.0	110.6	13	85.9	15.5	15.0	146	7.5	42	F04	M5*0.8	7/16"-20UNF	15.9	2.7
40	38	41.0	49.0	62.0	122.6	13	96.7	27.3	18.7	180	8.6	50	F05	M6*1.0	9/16"-18UNF	21.0	3.9
50	50	52.5	61.2	76.0	140.0	16	104.9	28.1	19.0	180	8.6	50	F05	M6*1.0	9/16"-18UNF	32.1	6.2

unit: mm

NPS	d	D	D1	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (in-lb)	Weight (lb)
1"	0.94	1.05	1.36	1.76	3.66	0.51	3.21	0.61	0.55	5.75	0.30	1.65	F04	M5*0.8	7/16"-20UNF	90.2	3.8
1-1/4"	1.18	1.38	1.69	2.13	4.35	0.51	3.38	0.61	0.59	5.75	0.30	1.65	F04	M5*0.8	7/16"-20UNF	141.0	6.0
1-1/2"	1.5	1.61	1.93	2.44	4.83	0.51	3.81	1.07	0.74	7.09	0.34	1.97	F05	M6*1.0	9/16"-18UNF	186.0	8.5
2"	1.97	2.07	2.41	2.99	5.51	0.63	4.13	1.11	0.75	7.09	0.34	1.97	F05	M6*1.0	9/16"-18UNF	284.1	13.6

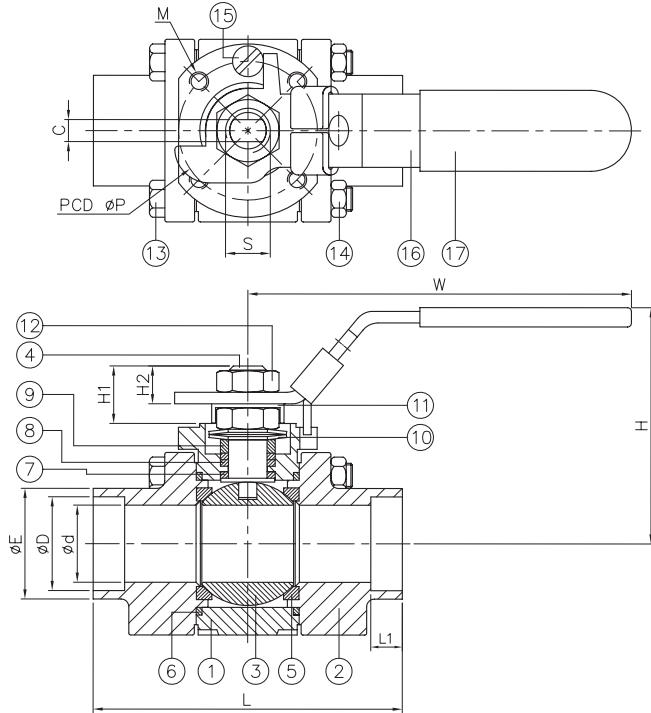
unit: in



SERIES: B920SM - B920SC (1/4" - 3/4") 3-PC SOCKET WELD END BALL VALVE Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1/4" ~ 3/4" (DN8~DN20)
- **W.P. :**
» 1/4" ~ 1" - 2000 WOG
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-static device
- Locking device
- Thread Type:
» ASME B1.20.1 (NPT)
» DIN2999 & BS21
» ISO7/1 & EN10226
- NACE MR0103
- **API 607 Fire Safe Approved**
- API 608 Design



ITEM	PARTS	MATERIAL	
		B920SMRGXXX	B920SCRGXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP	ASTM A351-CF3M	
3	BALL	ASTM A351-CF8M	
4	STEM	ASTM A276-316	
5	BALL SEAT	RTFE	
6	GASKET	GRAPHITE	
7	THRUST WASHER	CTFE	
8	PACKING	GRAPHITE	
9	GLAND RING	AISI 304	
10	DISC SPRING	AISI 301	
11	LOCK PAD	ASTM A167-304	
12	STEM NUT	ASTM A194-8A	
13	BOLT	ASTM A193-B8A	
14	NUT	ASTM A194-8A	
15	STOP PIN	AISI 304	
16	HANDLE	STAINLESS STEEL	
17	HANDLE SLEEVE	PVC	

DN	d	D	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (N-M)	Weight (kg)
8	8	14.0	25.0	65.7	10	57.0	12.1	9.8	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	3.8	0.7
10	10	18.0	25.0	65.7	10	57.0	12.1	9.8	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	3.8	0.7
15	15	22.0	30.3	74.8	10	57.0	12.1	9.8	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	3.8	0.8
20	20	27.5	36.0	80.2	13	59.7	14.5	10.6	113.5	5.7	36	F03	M5*0.8	3/8"-24UNF	5.1	0.9

unit: mm

NPS	d	D	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (in-lb)	Weight (lb)
1/4"	0.31	0.55	0.98	2.59	0.39	2.24	0.48	0.39	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	33.8	1.6
3/8"	0.39	0.71	0.98	2.59	0.39	2.24	0.48	0.39	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	33.8	1.6
1/2"	0.59	0.87	1.19	2.94	0.39	2.24	0.48	0.39	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	33.8	1.7
3/4"	0.79	1.08	1.42	3.16	0.51	2.35	0.57	0.42	4.47	0.22	1.42	F03	M5*0.8	3/8"-24UNF	45.1	1.9

unit: in



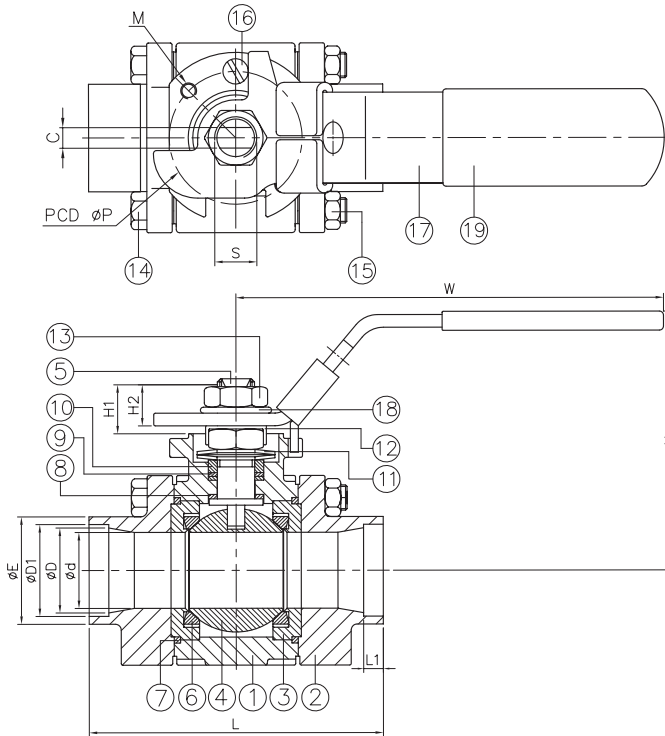
SERIES: B920SM - B920SC (1" - 2")

3-PC SOCKET WELD END BALL VALVE

Stainless / Carbon Steel

DESIGN FEATURES:

- Full port, 1" ~ 2" (DN25~DN50)
- **W.P. :**
 - » 1/4" ~ 1" - **2000 WOG**
 - » 1-1/4" ~ 2" - **1500 WOG**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Anti-static device
- Locking device
- Thread Type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226
- NACE MR0103
- **API 607 Fire Safe Approved**
- API 608 Design



ITEM	PARTS	MATERIAL	
		B920SMRGXXX	B920SCRGXXX
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP	ASTM A351-CF3M	
3	RETAINER	ASTM A351-CF8M	
4	BALL		
5	STEM	ASTM A276-316	
6	BALL SEAT	RTFE	
7	GASKET	GRAPHITE	
8	THRUST WASHER	CTFE	
9	PACKING	GRAPHITE	
10	GLAND RING	AISI 304	
11	DISC SPRING	AISI 301	
12	LOCK PAD	ASTM A167-304	
13	STEM NUT	ASTM A194-8A	
14	BOLT	ASTM A193-B8A	
15	NUT	ASTM A194-8A	
16	STOP PIN	AISI 304	
17	HANDLE	STAINLESS STEEL	
18	SPRING WASHER	AISI 304	
19	HANDLE SLEEVE	PVC	

DN	d	D	D1	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (N-M)	Weight (kg)
25	24	26.6	34.5	44.8	93.0	13	81.5	15.5	14.0	146	7.5	42	F04	M5*0.8	7/16"-20UNF	10.2	1.7
32	30	35.0	43.0	54.0	110.6	13	85.9	15.5	15.0	146	7.5	42	F04	M5*0.8	7/16"-20UNF	15.9	2.7
40	38	41.0	49.0	62.0	122.6	13	96.7	27.3	18.7	180	8.6	50	F05	M6*1.0	9/16"-18UNF	21.0	3.9
50	50	52.5	61.2	76.0	140.0	16	104.9	28.1	19.0	180	8.6	50	F05	M6*1.0	9/16"-18UNF	32.1	6.2

unit: mm

NPS	d	D	D1	E	L	L1	H	H1	H2	W	C	P	ISO 5211	M	S	Torque (in-lb)	Weight (lb)
1"	0.94	1.05	1.36	1.76	3.66	0.51	3.21	0.61	0.55	5.75	0.30	1.65	F04	M5*0.8	7/16"-20UNF	90.2	3.8
1-1/4"	1.18	1.38	1.69	2.13	4.35	0.51	3.38	0.61	0.59	5.75	0.30	1.65	F04	M5*0.8	7/16"-20UNF	141.0	6.0
1-1/2"	1.5	1.61	1.93	2.44	4.83	0.51	3.81	1.07	0.74	7.09	0.34	1.97	F05	M6*1.0	9/16"-18UNF	186.0	8.5
2"	1.97	2.07	2.41	2.99	5.51	0.63	4.13	1.11	0.75	7.09	0.34	1.97	F05	M6*1.0	9/16"-18UNF	284.1	13.6

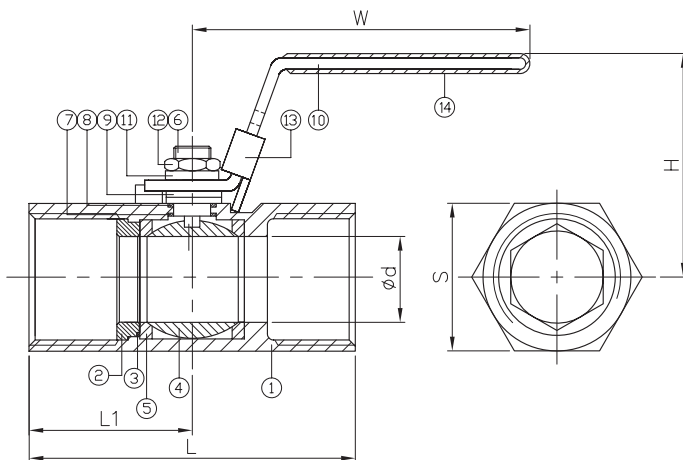
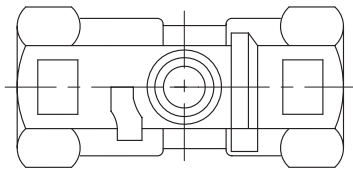
unit: in



SERIES: B110TM - STAINLESS STEEL 1-PC. SCREWED END BALL VALVE (1/4" - 2")

DESIGN FEATURES:

- Reduced port, 1/4"~2" (DN8~DN80)
- **W.P. : 1000 WOG (PN63)**
- W.T. : -20°C~200°C (-4°F~392°F)
- Investment casting
- Blow-out proof stem
- Silicone Free
- Locking device
- Thread type:
 - » ASME B1.20.1 (NPT)
 - » DIN2999 & BS21
 - » ISO7/1 & EN10226



ITEM	PARTS	MATERIAL
		B110TMRTXXX
1	BODY	ASTM A351-CF8M
2	RETAINER	AISI 316
3	BODY SEAL (1)	PTFE
4	BALL	AISI 316
5	SEAT	PTFE
6	STEM	AISI 316
7	THRUST WASHER	PTFE
8	PACKING	
9	GLAND WASHER	AISI 304
10	HANDLE	
11	SPRING WASHER	
12	NUT	
13	LOCKING DEVICE	PVC
14	HANDLE SLEEVE	

(1) 1-1/4" - 2" size only

DN	d	L	L1	H	W	S	Torque (N-M)	Weight (kg)
8	5.0	39.0	20.0	38.0	67.0	17.0	0.8	0.1
10	7.0	44.0	23.5	39.4	75.5	21.0	1.3	0.1
15	9.2	55.5	28.5	51.0	90.0	24.5	1.9	0.2
20	12.5	59.0	29.0	51.5	90.0	32.0	2.6	0.3
25	16.0	71.0	36.0	53.5	101.5	38.0	4.5	0.4
32	20.0	78.0	40.0	61.5	101.5	49.0	7.0	0.7
40	25.0	83.0	42.5	65.4	132.0	53.0	8.9	0.9
50	32.0	100.0	51.0	71.0	132.0	65.0	9.6	1.4

unit: mm

NPS	d	L	L1	H	W	S	Torque (in-lb)	Weight (lb)
1/4"	0.20	1.54	0.79	1.50	2.64	0.67	6.7	0.2
3/8"	0.28	1.73	0.93	1.55	2.97	0.83	11.2	0.2
1/2"	0.36	2.19	1.12	2.01	3.54	0.96	16.9	0.4
3/4"	0.49	2.32	1.14	2.03	3.54	1.26	22.6	0.6
1"	0.63	2.80	1.42	2.11	4.00	1.50	39.5	0.9
1-1/4"	0.79	3.07	1.57	2.42	4.00	1.93	62.0	1.6
1-1/2"	0.98	3.27	1.67	2.57	5.20	2.09	78.9	1.9
2"	1.26	3.94	2.01	2.80	5.20	2.56	84.6	3.0

unit: in