

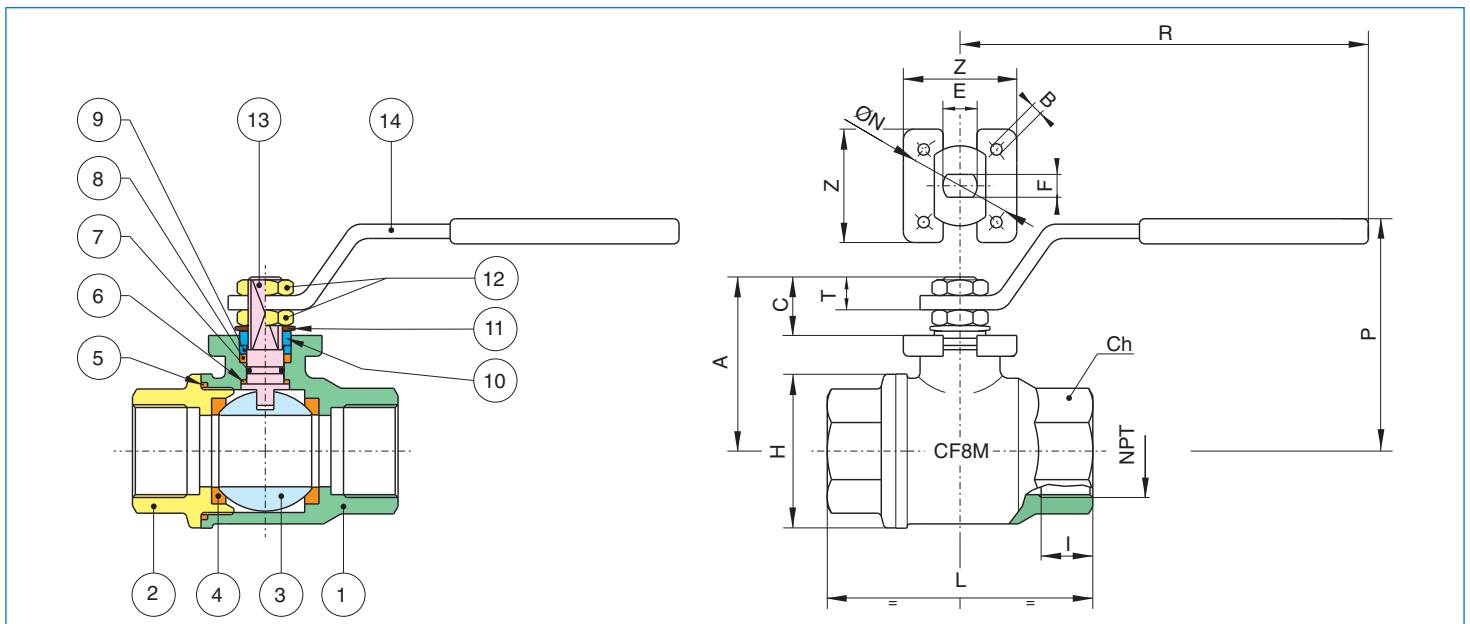
SERIES 700001 STAINLESS STEEL BALL VALVE

2 piece stainless steel FNPT threaded ball valve.

- Full port sizes 1/8" to 4".
- Pressure rating 2000 psi to 1/2", 1500 psi 3/4" to 1", 1000 psi 1 1/4" to 2", 150 psi steam.
- Temperature range -4° F to +366° F.
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing, and thrust washer.
- ISO 5211 mounting pad and double "D" stem.
- 100% electronically tested in the open and closed position at 80 psi.
- TUV T.A. Luft approved.
- ANSI B1.20.1 connections.

700071: FIRE SAFE APPROVED WITH ANTISTATIC STEM AND CARBON FILLED P.T.F.E.

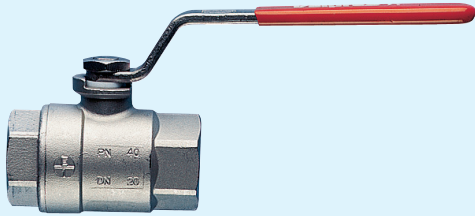
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	1
3	BALL	AISI 316 - CF8M	1
4	BALL SEAT	P.T.F.E.	2
5	SEAT	P.T.F.E.	1
6	THRUST WASHER	P.T.F.E.	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	P.T.F.E.	1
9	PACKING GLAND	AISI 303 (1/8" - 2") STEEL (2 1/2" - 4")	1
10	END STOP	AISI 430 (1/8" - 2") STEEL (2 1/2" - 4")	2
11	SPRING WASHER	STEEL (2 1/2" - 4")	1
12	NUT	AISI 304 (1/8" - 2") STEEL (2 1/2" - 4")	2
13	STEM	AISI 316	1
14	HANDLE	AISI 430 (1/8" - 2") STEEL (2 1/2" - 4")	1

SIZE	I	L	H	CH	R	P	A	C	T	E	F	ØN ISO 5211	B	Z	Cv	psi	Weight Lbs
1/8"	0.29	2.18	1.18	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	F03	0.21	1.41	5.80	2000	0.59
1/4"	0.43	2.18	1.18	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	F03	0.21	1.41	6.36	2000	0.57
3/8"	0.44	2.18	1.18	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	F03	0.21	1.41	9.83	2000	0.52
1/2"	0.59	2.59	1.41	1.06	4.35	2.08	1.49	0.53	0.35	0.31	0.19	F03	0.21	1.41	22.21	2000	0.70
3/4"	0.64	3.11	1.77	1.25	5.17	2.67	2.00	0.59	0.39	0.39	0.27	F04	0.21	1.65	40.50	1500	1.19
1"	0.77	3.66	2.12	1.61	6.88	3.11	2.36	0.76	0.49	0.47	0.31	F04	0.21	1.65	74.63	1500	2.18
1 1/4"	0.84	3.93	2.51	1.96	6.88	3.28	2.53	0.76	0.49	0.47	0.31	F04	0.21	1.65	120.10	1000	2.95
1 1/2"	0.84	4.33	3.14	2.16	9.84	3.93	3.11	0.94	0.64	0.62	0.39	F05	0.25	1.96	201.32	1000	4.71
2"	1.01	5.15	3.74	2.75	9.84	4.21	3.38	0.94	0.64	0.62	0.39	F05	0.25	1.96	348.60	1000	7.40
2 1/2"	1.18	6.25	4.80	3.54	12.65	5.00	4.09	1.12	0.72	0.78	0.55	F07	M8	2.51	631.37	350	14.10
3"	1.31	7.28	5.66	4.13	12.65	5.41	4.48	1.10	0.70	0.78	0.55	F07	M8	2.51	1009.48	350	22.04
4"	1.54	8.74	6.96	5.11	15.01	6.16	5.39	1.35	0.86	0.94	0.70	F10	M10	3.62	1577.34	350	39.90



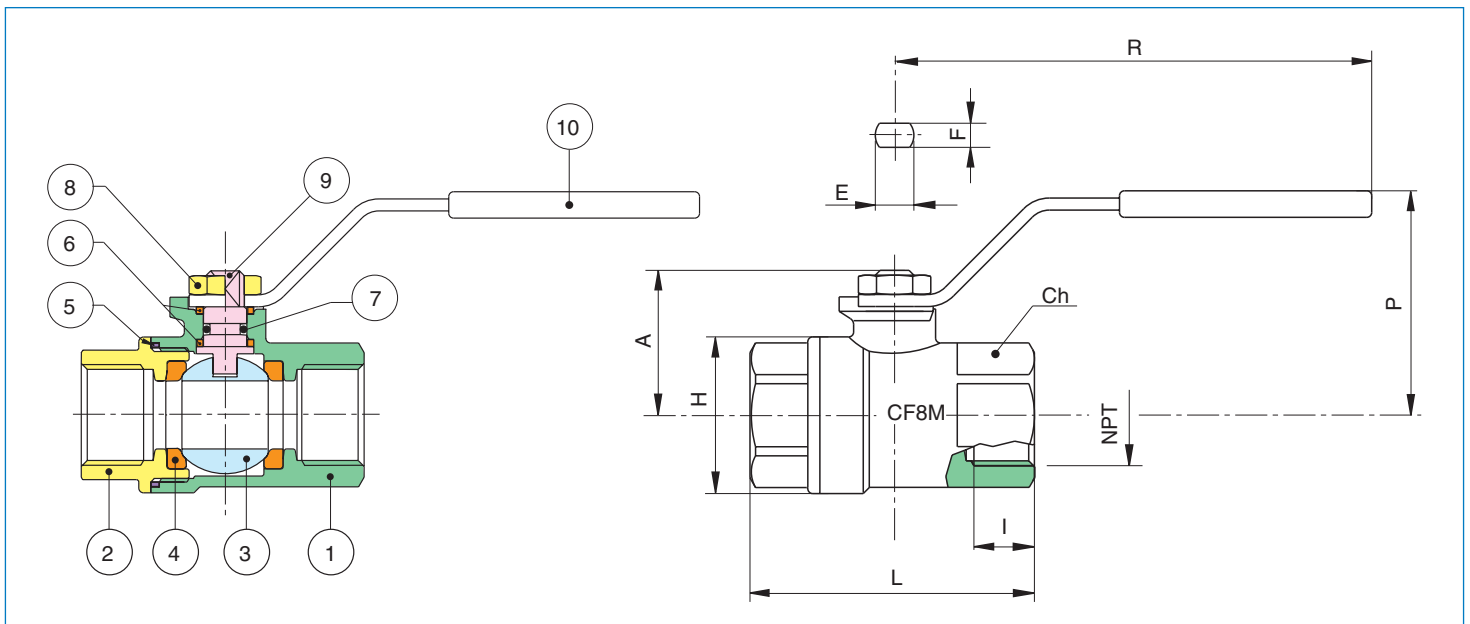


SERIES 700023 STAINLESS STEEL BALL VALVE

2 piece stainless steel FNPT threaded ball valve.

- Full port sizes 1/4" to 2".
- Pressure rating 1000 psi - 150 psi steam.
- Temperature -4° F to +366° F.
- Blow out proof stem.
- P.T.F.E. seats, packing, and thrust washer.
- 100% electronically tested in the open and closed position at 80 psi.
- ANSI B1.20.1 connections.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	1
3	BALL	AISI 316 - CF8M	1
4	BALL SEAT	P.T.F.E.	2
5	SEAL	P.T.F.E.	1
6	STEM SEAL	P.T.F.E.	2
7	O-RING	FKM (Viton®)	1
8	NUT	AISI 304	1
9	STEM	AISI 316	1
10	HANDLE	AISI 430	1

SIZE	A	H	L	R	CH	I	E	F	P	Cv	psi	Weight Lbs
1/4"	1.10	1.18	2.10	4.35	0.86	0.39	0.31	0.19	1.75	6.36	1000	0.48
3/8"	1.10	1.18	2.10	4.35	0.86	0.39	0.31	0.19	1.75	9.83	1000	0.44
1/2"	1.20	1.27	2.36	4.35	1.06	0.51	0.31	0.19	1.85	22.21	1000	0.55
3/4"	1.45	1.57	2.75	5.17	1.25	0.55	0.39	0.27	2.14	40.50	600	1.00
1"	1.61	1.92	3.11	5.17	1.61	0.66	0.39	0.27	2.30	74.63	600	1.88
1 1/4"	1.96	2.44	3.58	6.87	1.96	0.74	0.47	0.31	0.27	120.10	350	2.66
1 1/2"	2.24	2.95	4.05	6.87	2.16	0.76	0.47	0.31	3.01	201.32	350	4.00
2"	2.59	3.74	4.88	6.87	2.75	0.88	0.47	0.31	3.38	348.60	350	6.00



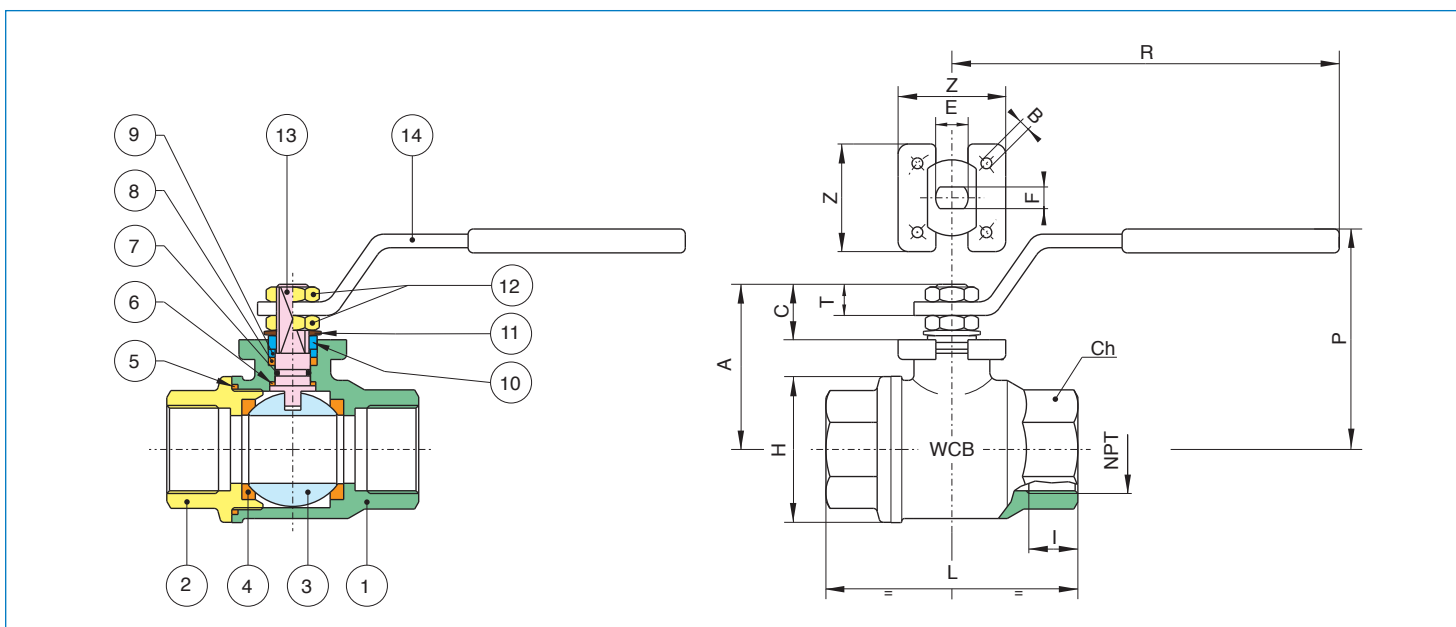
SERIES 700056 CARBON STEEL BALL VALVE

2 piece carbon steel, FNPT threaded ball valve, stainless steel ball and stem.

- Full port sizes 1/4" to 2".
- Pressure rating 1000 psi -150 psi steam.
- Temperature -4° F to +366° F.
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing and thrust washer.
- 100% electronically tested in the open and closed position at 80 psi.
- TUV T.A. luft approved.
- ISO 5211 pad with double "D" stem.
- ANSI B1.20.1 connections.

700077: FIRE SAFE APPROVED WITH ANTISTATIC STEM DEVICE AND P.T.F.E CARBON SEATS.

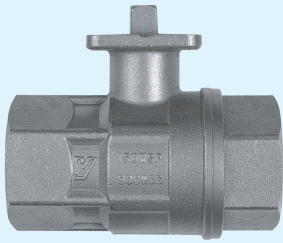
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A105-WCB	1
2	END CONNECTION	ASTM A105-WCB	1
3	BALL	AISI 304 - CF8	1
4	BALL SEAT	P.T.F.E	2
5	SEAL	P.T.F.E.	1
6	THRUST WASHER	P.T.F.E.	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	P.T.F.E.	1
9	PACKING GLAND	STEEL	1
10	END STOP	AISI 430	2
11	NUT	STEEL	2
12	STEM	AISI 304	1
13	HANDLE	STEEL	1

SIZE	I	L	H	Ch	R	P	A	C	T	E	F	ISO 5211	B	Z	Cv	psi	Weight Lbs
1/4"	0.43	2.17	1.18	0.87	4.33	1.97	1.38	0.53	0.31	0.31	0.20	F03	0.22	1.42	6.36	1000	0.57
3/8"	0.45	2.17	1.18	0.87	4.33	1.97	1.38	0.53	0.31	0.31	0.20	F03	0.22	1.42	9.83	1000	0.53
1/2"	0.59	2.60	1.42	1.06	4.33	2.09	1.50	0.53	0.31	0.31	0.20	F03	0.22	1.42	22.21	1000	0.73
3/4"	0.64	3.11	1.77	1.26	5.16	2.68	2.01	0.59	0.39	0.39	0.28	F04	0.22	1.65	40.50	1000	1.32
1"	0.75	3.66	2.13	1.61	6.85	3.11	2.36	0.77	0.49	0.47	0.31	F04	0.22	1.65	74.63	1000	2.25
1 1/4"	0.84	3.86	2.52	1.97	6.85	3.27	2.52	0.77	0.49	0.47	0.31	F04	0.22	1.65	120.10	1000	3.09
1 1/2"	0.84	4.33	3.15	2.17	9.84	3.94	3.11	0.94	0.65	0.63	0.39	F05	0.26	1.97	201.32	1000	5.31
2"	1.01	5.12	3.74	2.76	9.84	4.21	3.39	0.94	0.65	0.63	0.39	F05	0.26	1.97	348.60	1000	7.80

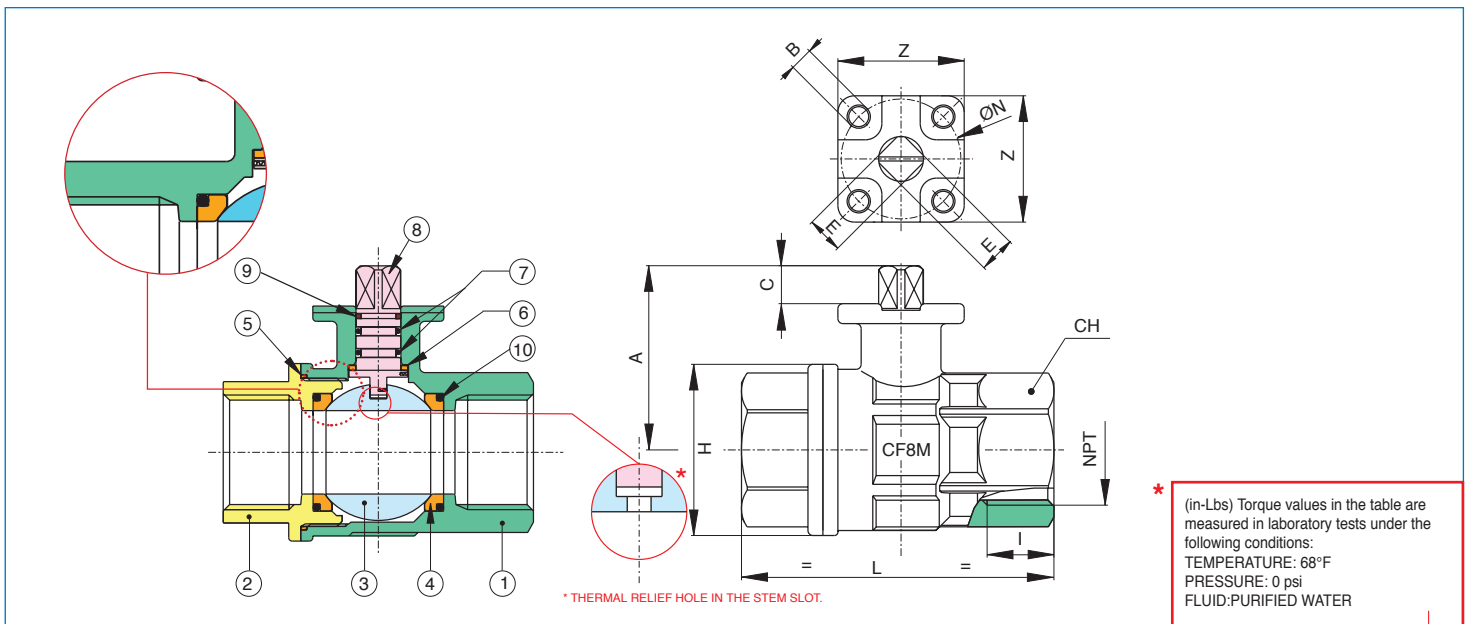




SERIES 700076 STAINLESS STEEL DIRECT MOUNT BALL VALVE

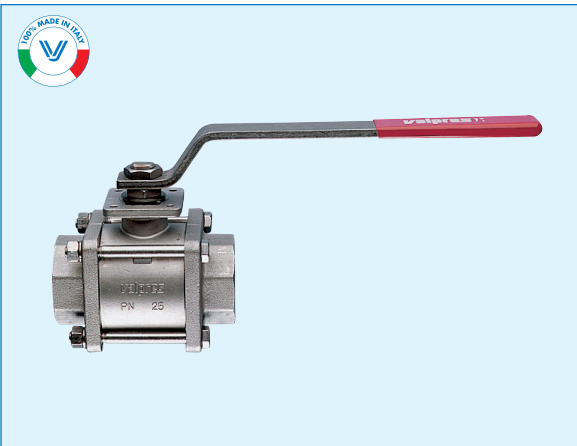
- 2 piece stainless steel FNPT threaded, direct mount ball valve.
- Full port sizes 1/4" to 3".
 - Pressure rating 1000 psi, 150 psi steam.
 - Temperature -4° F to +366° F.
 - Blow out proof stem.
 - P.T.F.E. seats with O-ring backing for low operating torque.
 - P.T.F.E. seals and double O-ring stem packing.
 - 100% electronically tested in the open and closed position at 80 psi.
 - ISO 5211 mounting pad.
 - ANSI B1.20.1 connections.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	1
3	BALL	AISI316-CF8M	1
4	BALL SEAT	P.T.F.E.	2
5	SEAL	P.T.F.E.	1
6	STEM SEAL	P.T.F.E.	1
7	O-RING	FKM (Viton®)	2
8	STEM	AISI 316	1
9	STEM SEAL	P.T.F.E.	1
10	O-RING	FKM (Viton®)	2

SIZE	I	L	H	CH	A	C	E mm	ISO 5211	B	Z	Cv	psi	Weight Lbs	* Torque in-Lbs
1/4"	0.59	2.56	1.44	1.02	1.78	0.26	9	F03/F04 1.42-1.65	0.24	1.65	7.91	1000	0.95	60
3/8"	0.59	2.56	1.44	1.02	1.78	0.26	9	F03/F04 1.42-1.65	0.24	1.65	10.22	1000	0.89	60
1/2"	0.59	2.63	1.35	1.06	1.63	0.35	9	1.42 (ISO F03)	0.23	1.49	22.21	1000	0.68	53.10
3/4"	0.64	3.07	1.65	1.25	1.71	0.35	9	1.42 (ISO F03)	0.23	1.49	40.50	1000	0.91	53.10
1"	0.75	3.54	2.02	1.61	2.10	0.35	9	1.42 (ISO F03)	0.23	1.49	74.63	1000	1.35	53.10
1 1/4"	0.84	3.93	2.53	1.96	2.24	0.35	9	1.42 (ISO F03)	0.23	1.49	120.10	1000	2.22	53.10
1 1/2"	0.84	4.40	3.03	2.16	2.91	0.43	11	1.97 (ISO F05)	0.27	1.96	201.32	1000	3.69	150.46
2"	1.01	5.31	3.81	2.75	3.27	0.43	11	1.97 (ISO F05)	0.27	1.96	348.60	1000	6.49	150.46
2 1/2"	1.22	6.32	4.64	3.39	4.94	0.66	17	F07/F10 2.76-4.02	0.39 0.47	3.64	631.37	800	16.38	484
3"	1.34	7.01	5.48	4.09	5.34	0.71	17	F07/F10 2.76-4.02	0.39 0.47	3.64	1009.48	800	22.82	772



SERIES 710001 - 711000 - 712000 STAINLESS STEEL 3-PC BALL VALVE

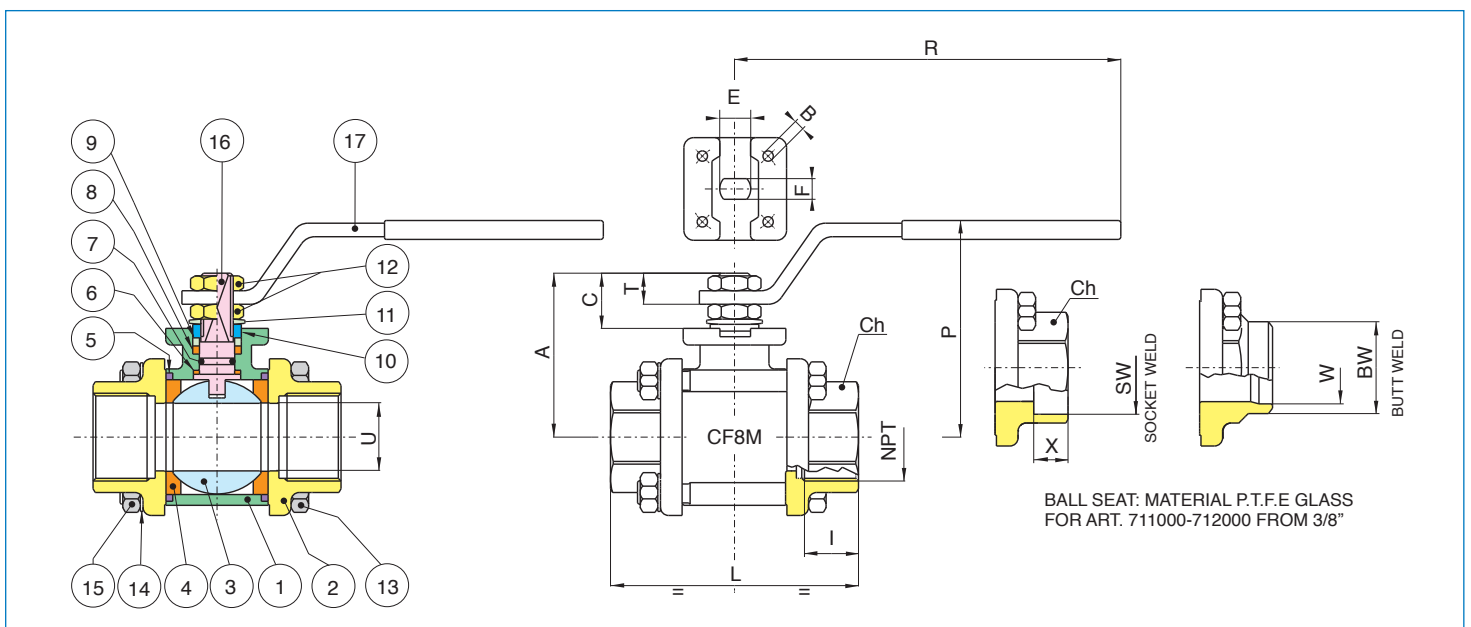
- 3 piece stainless steel ball valve.
- Full port sizes 1/4" to 4".
- Pressure rating 1000 psi WOG, 150 psi steam.
- Temperature -4° F to +366° F.
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing and thrust washer.
- ISO 5211 mounting pad with double "D" stem.
- 100% electronically tested in the open and closed position at 80 psi.
- TUV T.A. Luft approved.

710001: NPT THREADED - ANSI B1.20.1 CONNECTIONS.

711000: SOCKET WELD.

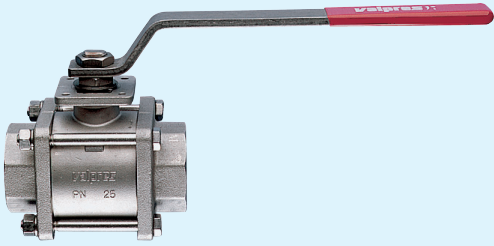
712000: BUTT WELD.

* On request available with gas antistatic device.
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N.PCS	PART NAME	MATERIAL	N.PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	2
3	BALL	AISI316-CF8M	1
4	BALL SEAT	P.T.F.E	2
5	SEAL	P.T.F.E	2
6	STEM SEAL	P.T.F.E	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	P.T.F.E	1
9	PACKING GLAND	AISI 303 (1/4" - 2") STEEL (2 1/2" - 4")	1
10	END STOP	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	2
11	SPRING WASHER	STEEL (2 1/2" - 4")	1
12	NUT	AISI 303 (1/4" - 2") STEEL (2 1/2" - 4")	2
13	BOLT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
14	WASHER	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
15	NUT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
16	STEM	AISI 316	1
17	HANDLE	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	1

SIZE	U	I	SW	X	BW	W	L	CH	R	P	A	C	T	E	F	ISO 5211	B	Cv	psi	Weight Lbs
1/4"	0.39	0.43	-	-	-	-	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	6.36	1000	0.61
3/8"	0.39	0.44	0.71	0.37	0.67	0.49	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	9.83	1000	0.61
1/2"	0.59	0.59	0.88	0.37	0.83	0.62	2.55	1.06	5.17	2.51	1.85	0.59	0.39	0.39	0.27	F03	0.23	22.21	1000	0.88
3/4"	0.78	0.64	1.09	0.43	1.05	0.82	2.99	1.25	5.17	2.67	2.02	0.59	0.39	0.39	0.27	F04	0.21	40.50	600	1.32
1"	0.98	0.75	1.35	0.50	1.31	1.04	3.62	1.61	6.87	3.09	2.36	0.76	0.49	0.47	0.31	F04	0.23	74.63	600	2.42
1 1/4"	1.25	0.84	1.70	0.56	1.66	1.38	4.19	1.96	6.87	3.28	2.53	0.76	0.49	0.47	0.31	F04	0.21	120.10	350	3.36
1 1/2"	1.49	0.84	1.94	0.62	1.90	1.61	4.56	2.16	9.86	3.93	3.11	0.94	0.64	0.62	0.39	F05	0.25	201.32	350	4.61
2"	1.96	1.01	2.44	0.68	2.37	2.06	5.35	2.75	9.86	4.21	3.38	0.94	0.64	0.62	0.39	F05	0.25	348.60	350	7.03
2 1/2"	2.55	1.18	3.01	0.78	2.87	2.46	6.04	3.54	12.65	4.98	4.05	1.10	0.70	0.78	0.55	F07	M8	631.37	230	18.24
3"	3.15	1.31	3.52	0.78	3.50	3.06	7.08	4.13	12.65	5.41	4.48	1.10	0.70	0.78	0.55	F07	M8	1009.48	230	29.45
4"	3.93	1.54	4.52	0.78	4.50	4.02	8.54	5.11	15.01	6.16	5.39	1.35	0.86	0.94	0.70	F10	M10	1577.34	230	46.79



SERIES 710190 - 710061 - 710062 STAINLESS STEEL 3-PC BALL VALVE

3 piece stainless steel ball valve.

- Full port sizes 1/4" to 4".
- Blow out proof stem, adjustable stem packing.
- ISO 5211 mounting pad with double "D" stem.
- 100% electronically tested in the open and closed position at 80 psi.
- TUV T.A. Luft approved.
- Steam pressure to 250 psi.
- 25% carbon filled P.T.F.E. ball seats.
- Temperature range: -4°F to 406° F.

710190: NPT THREADED - ANSI B1.20.1 CONNECTIONS.

710061: SOCKET WELD.

710062: BUTT WELD.

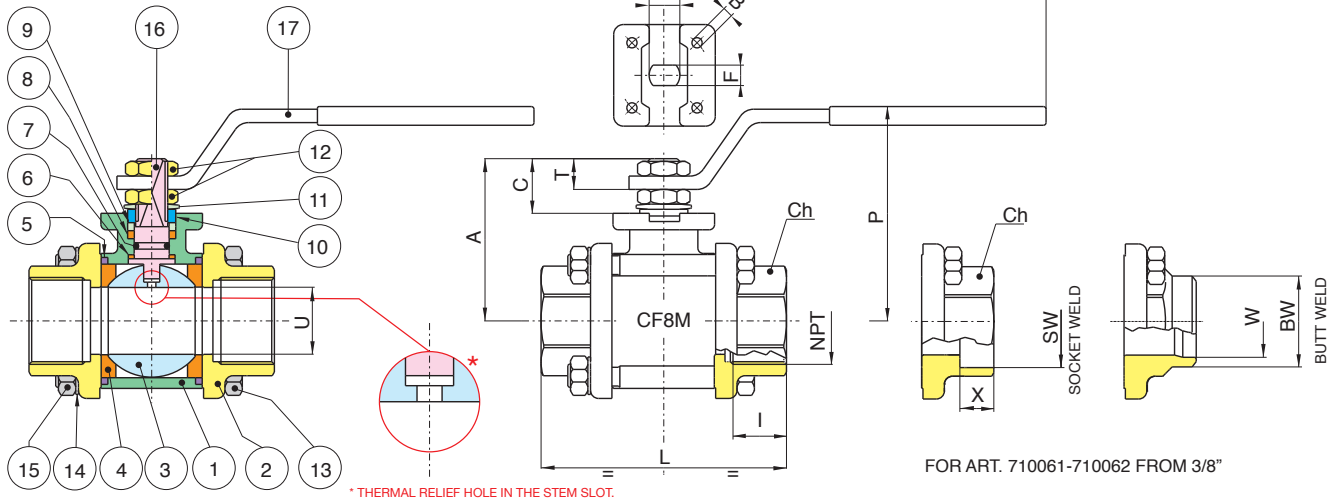
FOR STEAM

* On request available with gas antistatic device.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

MAXIMUM WORKING PRESSURE 250 psi

STEAM PRESSURE IN psi	15	29	44	58	73	87	102	116	131	145	160	174	189	203	220
STEAM TEMPERATURE IN °F	212	248	271	289	306	316	329	338	347	356	363	370	376	383	388



N POS	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	2
3	BALL	AISI316	1
4	BALL SEAT	R.P.T.F.E	2
5	O-RING	FKM	2
6	STEM SEAL	R.P.T.F.E	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	R.P.T.F.E	1
9	PACKING GLAND	AISI 303 (1/4" - 2") STEEL (2 1/2" - 4")	1
10	END STOP	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	2
11	SPRING WASHER	STEEL (2 1/2" - 4")	2
12	NUT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	2
13	BOLT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
14	WASHER	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
15	NUT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
16	STEM	AISI 316	1
17	HANDLE	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	1

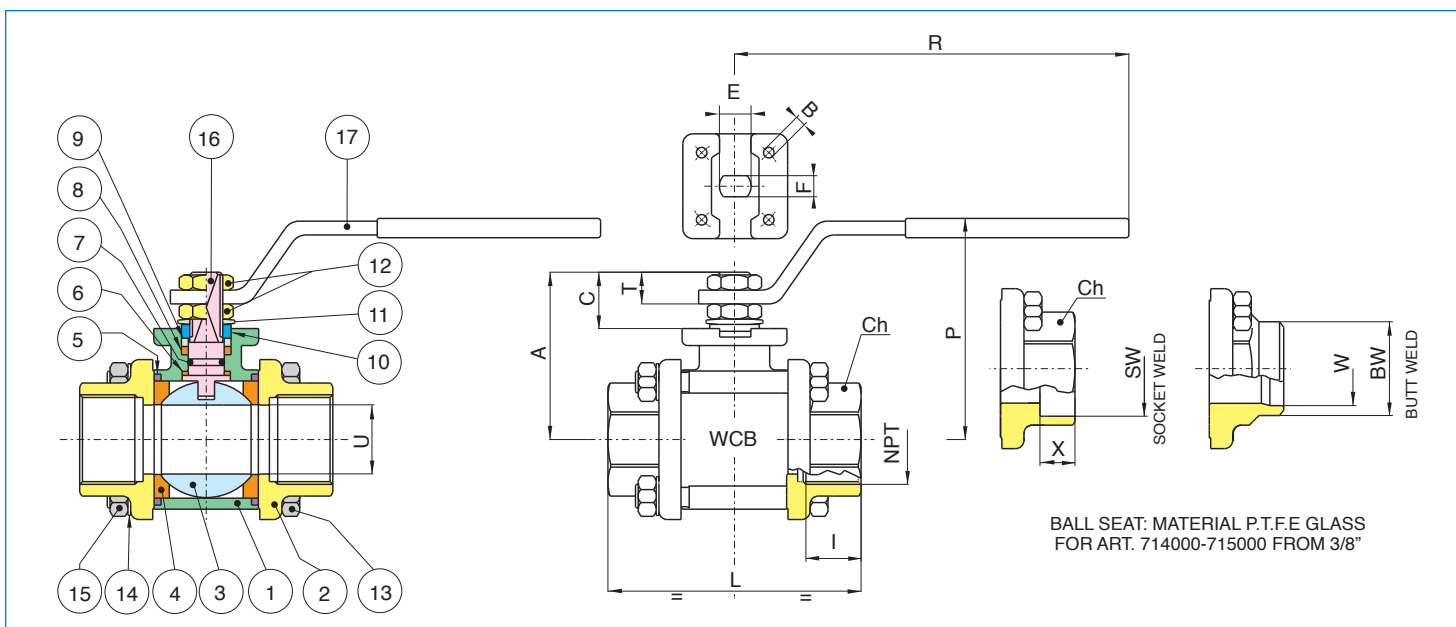
SIZE	U	I	SW	X	BW	W	L	CH	R	P	A	C	T	E	F	ISO 5211	B	Cv	psi	Weight Lbs
1/4"	0.39	0.43	-	-	-	-	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	6.36	250	0.61
3/8"	0.39	0.44	0.71	0.37	0.67	0.49	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	9.83	250	0.61
1/2"	0.59	0.59	0.88	0.37	0.83	0.62	2.55	1.06	5.17	2.51	1.85	0.59	0.39	0.39	0.27	F03	0.23	22.21	250	0.88
3/4"	0.78	0.64	1.09	0.43	1.05	0.82	2.99	1.25	5.17	2.67	2.02	0.59	0.39	0.39	0.27	F04	0.21	40.50	250	1.32
1"	0.98	0.75	1.35	0.50	1.31	1.04	3.62	1.61	6.87	3.09	2.36	0.76	0.49	0.47	0.31	F04	0.23	74.63	250	2.42
1 1/4"	1.25	0.84	1.70	0.56	1.66	1.38	4.19	1.96	6.87	3.28	2.53	0.76	0.49	0.47	0.31	F04	0.21	120.10	250	3.36
1 1/2"	1.49	0.84	1.94	0.62	1.90	1.61	4.56	2.16	9.86	3.93	3.11	0.94	0.64	0.62	0.39	F05	0.25	201.32	250	4.61
2"	1.96	1.01	2.44	0.68	2.37	2.06	5.35	2.75	9.86	4.21	3.38	0.94	0.64	0.62	0.39	F05	0.25	348.60	250	7.03
2 1/2"	2.55	1.18	3.01	0.78	2.87	2.46	6.04	3.54	12.65	4.98	4.05	1.10	0.70	0.78	0.55	F07	M8	631.37	250	18.24
3"	3.15	1.31	3.52	0.78	3.50	3.06	7.08	4.13	12.65	5.41	4.48	1.10	0.70	0.78	0.55	F07	M8	1009.48	250	29.45
4"	3.93	1.54	4.52	0.78	4.50	4.02	8.54	5.11	15.01	6.16	5.39	1.35	0.86	0.94	0.70	F10	M10	1577.34	250	46.79



SERIES 710003 - 714000 - 715000 CARBON STEEL 3-PC BALL VALVE

- 3 piece carbon steel ball valve, stainless steel ball and stem.
- Full port sizes 1/4" to 4".
 - Pressure rating 1000 psi WOG, 150 psi steam.
 - Temperature -4° F to +366° F.
 - Blow out proof stem, adjustable stem packing.
 - P.T.F.E. seats, packing and thrust washer.
 - ISO 5211 mounting pad with double "D" stem.
 - 100% electronically tested in the open and closed position at 80 psi.
 - TUV T.A. Luft approved.
- 710003: NPT THREADED - ANSI B1.20.1 CONNECTIONS.
714000: SOCKET WELD.
715000: BUTT WELD.

* On request available with gas antistatic device.
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A105- WCB	1
2	END CONNECTION	ASTM A105- WCB	2
3	BALL	AISI 304-CF8	1
4	BALL SEAT	P.T.F.E	2
5	SEAL	P.T.F.E	2
6	STEM SEAL	P.T.F.E	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	P.T.F.E	1
9	PACKING GLAND	STEEL	1
10	END STOP	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	2 1
11	SPRING WASHER	STEEL (2 1/2"-4")	2
12	NUT	STEEL	2
13	BOLT	STEEL(1/4" - 2") STEEL (2 1/2" - 4")	4 6
14	WASHER	STEEL(1/4" - 2") STEEL (2 1/2" - 4")	4 6
15	NUT	STEEL(1/4" - 2") STEEL (2 1/2" - 4")	4 6
16	STEM	AISI 304	1
17	HANDLE	STEEL	1

SIZE	U	I	SW	X	BW	W	L	CH	R	P	A	C	T	E	F	ISO 5211	B	Cv	psi	Weight Lbs
1/4"	0.39	0.43	-	-	-	-	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	6.36	1000	0.61
3/8"	0.39	0.44	0.71	0.37	0.67	0.49	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	9.83	1000	0.61
1/2"	0.59	0.59	0.88	0.37	0.83	0.62	2.55	1.06	5.17	2.51	1.85	0.59	0.39	0.39	0.27	F03	0.23	22.21	1000	0.88
3/4"	0.78	0.64	1.09	0.43	1.05	0.82	2.99	1.25	5.17	2.67	2.02	0.59	0.39	0.39	0.27	F04	0.21	40.50	600	1.32
1"	0.98	0.75	1.35	0.50	1.31	1.04	3.62	1.61	6.87	3.09	2.36	0.76	0.49	0.47	0.31	F04	0.23	74.63	600	2.42
1 1/4"	1.25	0.84	1.70	0.56	1.66	1.38	4.19	1.96	6.87	3.28	2.53	0.76	0.49	0.47	0.31	F04	0.21	120.10	350	3.36
1 1/2"	1.49	0.84	1.94	0.62	1.90	1.61	4.56	2.16	9.86	3.93	3.11	0.94	0.64	0.62	0.39	F05	0.25	201.32	350	4.61
2"	1.96	1.01	2.44	0.68	2.37	2.06	5.35	2.75	9.86	4.21	3.38	0.94	0.64	0.62	0.39	F05	0.25	348.60	350	7.03
2 1/2"	2.55	1.18	3.01	0.78	2.87	2.46	6.04	3.54	12.65	4.98	4.05	1.10	0.70	0.78	0.55	F07	M8	631.37	230	18.24
3"	3.15	1.31	3.52	0.78	3.50	3.06	7.08	4.13	12.65	5.41	4.48	1.10	0.70	0.78	0.55	F07	M8	1009.48	230	29.45
4"	3.93	1.54	4.52	0.78	4.50	4.02	8.54	5.11	15.01	6.16	5.39	1.35	0.86	0.94	0.70	F10	M10	1577.34	230	46.79





SERIES 710085 - 710064 - 710065 CARBON STEEL 3-PC BALL VALVE

- 3 piece carbon steel ball valve, stainless steel ball and stem.
- Full port sizes 1/4" to 4".
 - Blow out proof stem, adjustable stem packing.
 - ISO 5211 mounting pad with double "D" stem.
 - 100% electronically tested in the open and closed position at 80 psi.
 - TUV T.A. Luft approved.
 - Steam pressure to 250 psi.
 - Temperature range: -4° F to 406° F.
 - 25% carbon filled P.T.F.E ball seats.

710085: NPT THREADED - ANSI B1.20.1 CONNECTIONS.

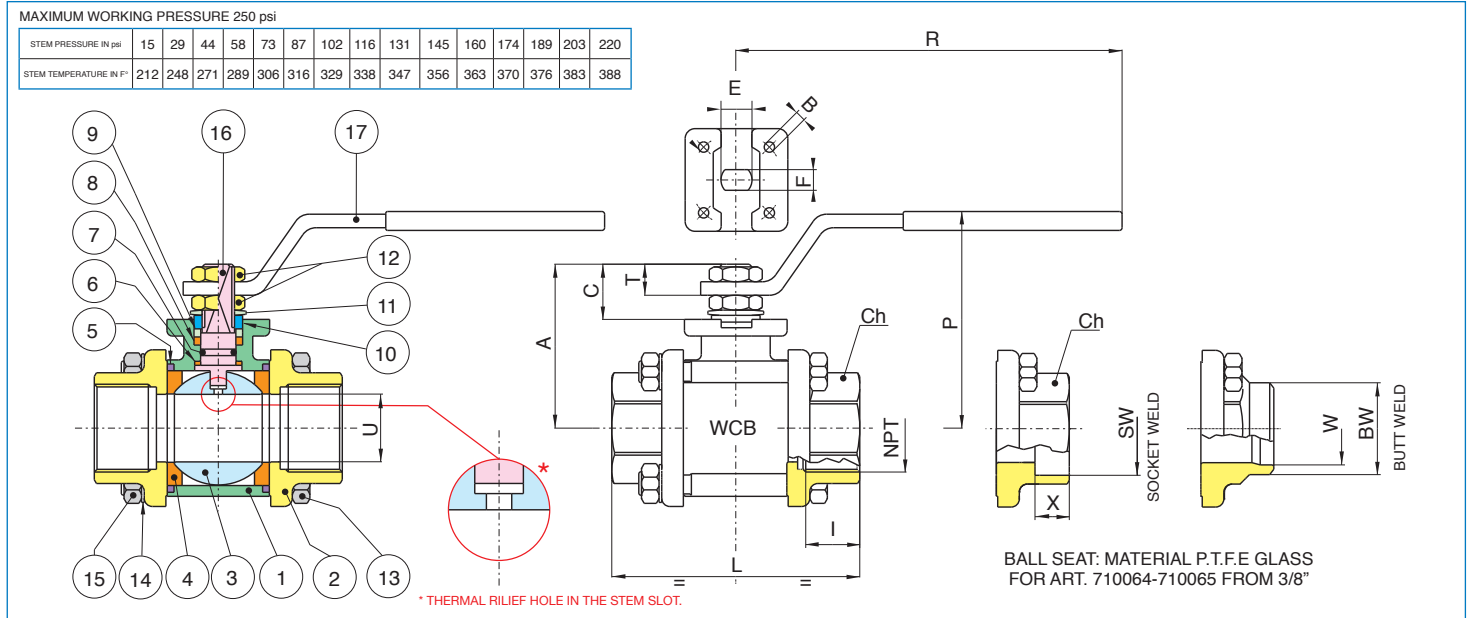
710064: SOCKET WELD.

710065: BUTT WELD.

FOR STEAM

* On request available with gas antistatic device.

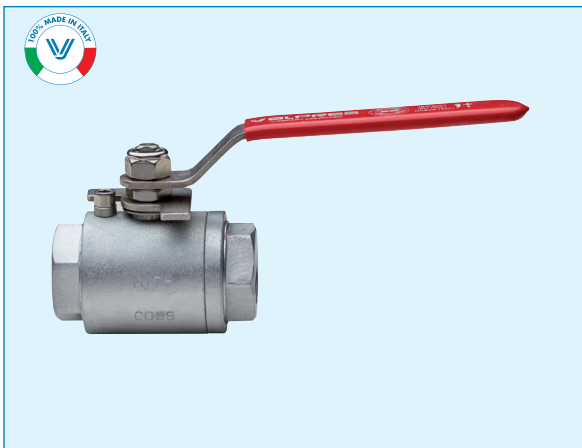
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A105- WCB	1
2	END CONNECTION	ASTM A105- WCB	2
3	BALL	AISI 304-CF8	1
4	BALL SEAT	R.P.T.F.E	2
5	SEAL	VITON	2
6	STEM SEAL	R.P.T.F.E	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	R.P.T.F.E	1
9	PACKING GLAND	STEEL	1
10	END STOP	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	2 1
11	SPRING WASHER	STEEL (2 1/2"-4")	2
12	NUT	STEEL	2
13	BOLT	STEEL (1/4" - 2") STEEL (2 1/2" - 4")	4 6
14	WASHER	STEEL (1/4" - 2") STEEL (2 1/2" - 4")	4 6
15	NUT	STEEL (1/4" - 2") STEEL (2 1/2" - 4")	4 6
16	STEM	AISI 304	1
17	HANDLE	STEEL	1

SIZE	U	I	SW	X	BW	W	L	CH	R	P	A	C	T	E	F	ISO 5211	B	Cv	psi	Weight Lbs
1/4"	0.39	0.43	-	-	-	-	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	6.36	250	0.61
3/8"	0.39	0.44	0.71	0.37	0.67	0.49	2.24	0.86	4.35	1.96	1.37	0.53	0.35	0.31	0.19	-	-	9.83	250	0.61
1/2"	0.59	0.59	0.88	0.37	0.83	0.62	2.55	1.06	5.17	2.51	1.85	0.59	0.39	0.39	0.27	F03	0.23	22.21	250	0.88
3/4"	0.78	0.64	1.09	0.43	1.05	0.82	2.99	1.25	5.17	2.67	2.02	0.59	0.39	0.39	0.27	F04	0.21	40.50	250	1.32
1"	0.98	0.75	1.35	0.50	1.31	1.04	3.62	1.61	6.87	3.09	2.36	0.76	0.49	0.47	0.31	F04	0.23	74.63	250	2.42
1 1/4"	1.25	0.84	1.70	0.56	1.66	1.38	4.19	1.96	6.87	3.28	2.53	0.76	0.49	0.47	0.31	F04	0.21	120.10	250	3.36
1 1/2"	1.49	0.84	1.94	0.62	1.90	1.61	4.56	2.16	9.86	3.93	3.11	0.94	0.64	0.62	0.39	F05	0.25	201.32	250	4.61
2"	1.96	1.01	2.44	0.68	2.37	2.06	5.35	2.75	9.86	4.21	3.38	0.94	0.64	0.62	0.39	F05	0.25	348.60	250	7.03
2 1/2"	2.55	1.18	3.01	0.78	2.87	2.46	6.04	3.54	12.65	4.98	4.05	1.10	0.70	0.78	0.55	F07	M8	631.37	250	18.24
3"	3.15	1.31	3.52	0.78	3.50	3.06	7.08	4.13	12.65	5.41	4.48	1.10	0.70	0.78	0.55	F07	M8	1009.48	250	29.45
4"	3.93	1.54	4.52	0.78	4.50	4.02	8.54	5.11	15.01	6.16	5.39	1.35	0.86	0.94	0.70	F10	M10	1577.34	250	46.79

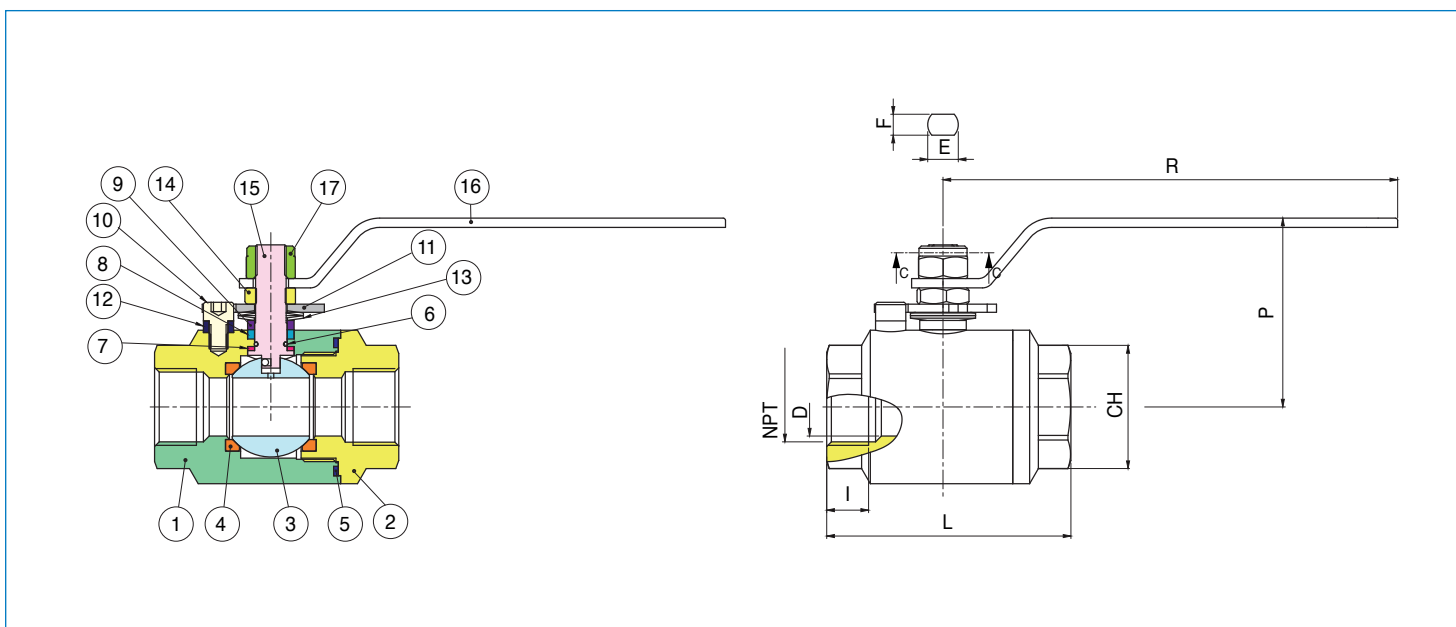




SERIES 709001 STAINLESS STEEL (ANSI 316)
SERIES 709101 CARBON STEEL (A105)
HIGH PRESSURE BALL VALVE

Bar stock ANSI class 800, FNPT threaded ball valve.

- Full port sizes 1/4" to 2".
- Temperature range -4° F to 366° F.
- Vacuum rating 10⁻³ Torr.
- Antistatic device.



N POS	PART NAME	MATERIAL 709001	MATERIAL 709101	N POS
1	BODY	A182-F316 / F316L	ASTM-A105	1
2	END CONNECTION	A182-F316 / F316L	ASTM-A105	1
3	BALL	A182-F316	A182-F304	1
4	BALL SEAT	R.P.T.F.E	R.P.T.F.E	2
5	BODY SEAT	R.P.T.F.E	R.P.T.F.E	1
6	O-RING	FKM (VITON®)	FKM (VITON®)	1
7	THRUST WASHER	R.P.T.F.E	R.P.T.F.E	1
8	STEM SEAT	R.P.T.F.E	R.P.T.F.E	1
9	BUSH	STAINLESS STEEL	STAINLESS STEEL	1
10	SCREW	STAINLESS STEEL	STAINLESS STEEL	1
11	90° STOP	STAINLESS STEEL	STAINLESS STEEL	1
12	BUSH	STAINLESS STEEL	STAINLESS STEEL	2
13	SPRING WASHER	STAINLESS STEEL	CARBON STEEL	2
14	NUT	STAINLESS STEEL	STAINLESS STEEL	1
15	STEM	A182-F304	A182-F304	1
16	HANDLE	STAINLESS STEEL	STAINLESS STEEL	1
17	NUT	STAINLESS STEEL	STAINLESS STEEL	1

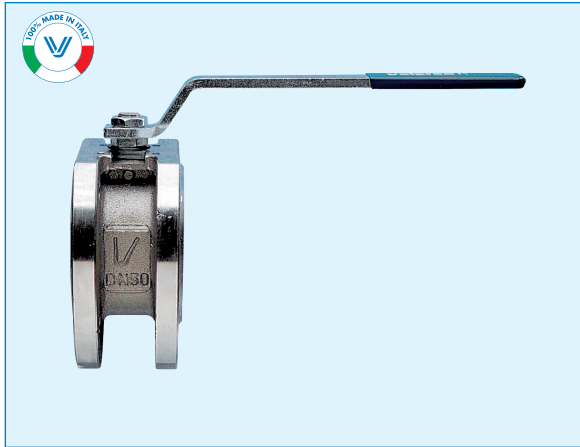
SIZE	D	I	L	R	P	E	F	CH	Cv	Weight Lbs
1/4"	0.39	0.39	2.76	5.24	2.20	M8	0.20	1.26	6.51	1.54
3/8"	0.39	0.39	2.76	5.24	2.20	M8	0.20	1.26	6.51	1.48
1/2"	0.51	0.51	3.35	6.30	2.52	M10	0.24	1.26	21.16	2.12
3/4"	0.79	0.67	3.74	7.09	2.87	M12	0.28	1.54	40.70	3.42
1"	0.98	0.67	4.13	7.68	3.15	M14	0.35	1.85	75.00	5.18
1 1/4"	1.26	0.79	4.72	8.27	3.19	M14	0.35	2.36	120.70	7.05
1 1/2"	1.50	0.91	5.12	10.63	3.78	M18	0.47	2.52	195.35	12.34
2"	1.97	0.91	5.91	10.63	4.09	M18	0.47	3.15	350.35	17.41

SERIES 720016 STAINLESS STEEL WAFER BALL VALVE

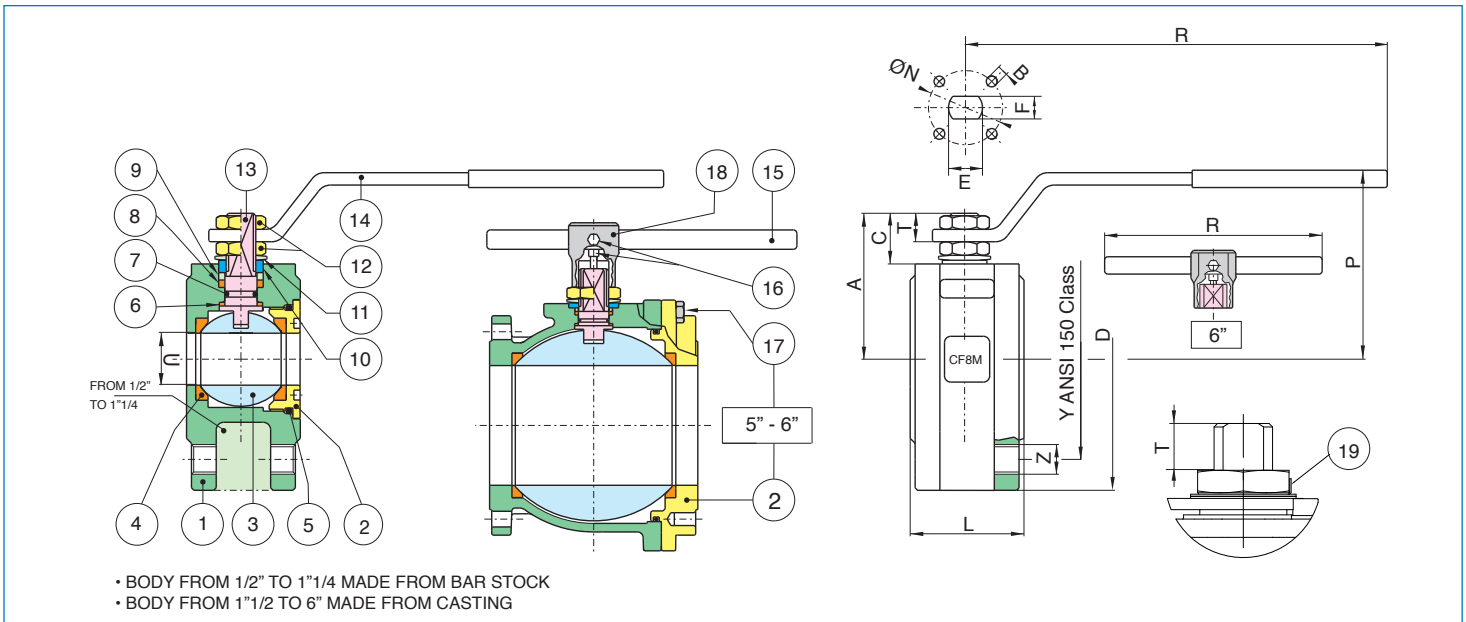
Stainless steel ANSI class 150 flanged ball valve.

- Full port, sizes 1/2" to 6".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- Space saving design.
- 100% tested.
- TUV T.A. Luft approved.
- ANSI B16.34 design.
- ISO 5211 mounting pad with double "D" stem.
- Locking handles available.

720370: FIRE SAFE APPROVED WITH ANTISTATIC STEM DEVICE AND CARBON FILLED P.T.F.E SEATS.



COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	QTY	SIZE	D	Y	Z UNC	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1	BODY	A479-316 / A351 CF8M	1	1/2"	3.50	2.38	4x1/2"	1.37	5.17	2.53	1.85	0.61	0.35	M10	0.27	1.26	4XM5	35	22.21	2.86
2	END CONNECTION	A479-316 / A351 CF8M	1																	
3	BALL	A479-316 / A351 CF8M	1	3/4"	3.88	2.75	4x1/2"	1.57	5.17	2.71	2.02	0.61	0.35	M10	0.27	1.26	4XM5	115	40.50	3.96
4	BALL SEATS	R.P.T.F.E	2																	
5	RING	FKM (Viton®)	1	1"	4.25	3.12	4x1/2"	1.81	6.87	3.16	2.40	0.76	0.45	M12	0.31	1.65 (F04)	4XM5	124	74.63	5.95
6	THRUST WASHER	P.T.F.E	1																	
7	RING	FKM (Viton®)	1	1 1/4"	4.62	3.50	4x1/2"	2.12	6.87	3.32	2.53	0.64	0.45	M12	0.31	1.65 (F04)	4XM5	150	120.10	9.47
8	STEM SEAL	P.T.F.E	1	1 1/2"	5.00	3.88	4x1/2"	2.50	9.86	4.03	3.07	0.96	0.51	M16	0.39	1.97 (F05)	4XM6	195	201.32	7.27
9	PACKING GLAND	STEEL	1																	
10	END STOP	AISI 430 (1/2"-2") STEEL (2 1/2"-6")	2 1	2"	6.00	4.75	4x5/8"	3.22	9.86	4.37	3.42	0.98	0.53	M16	0.39	1.97 (F05)	4XM6	292	348.60	12.12
11	SPRING WASHER	STEEL	2																	
12	NUT	STEEL	2	2 1/2"	7.00	5.50	4x5/8"	4.05	12.65	5.03	4.11	1.10	0.70	M20	0.55	2.76 (F07)	4XM8	540	631.37	21.16
13	STEM	A479-316	1	3"	7.50	6.00	4x5/8"	4.80	12.65	5.45	4.52	1.12	0.70	M20	0.55	2.76 (F07)	4XM8	637	1009.48	28.21
14	HANDLE	STEEL	1																	
15	HANDLE DN 150-200	STEEL	1																	
16	SCREW	STEEL	2	4"	9.00	7.50	8x5/8"	5.98	15.01	6.16	5.39	1.35	0.86	M24	0.70	4.02 (F10)	4XM10	956	1577.34	46.07
17	SCREW	STEEL	8	5"	10.00	8.50	8x3/4"	7.71	15.01	7.02	6.25	1.33	0.86	M24	0.70	4.02 (F10)	4XM10	1018	2730.87	82.67
18	BODY HANDLE DN150-200	CAST IRON	1																	
19	UNSCREWING GROWER	A182-F316	1	6"	11.00	9.50	8x3/4"	9.13	27.55	9.33	7.93	2.02	1.18	M42	1.18	4.92 (F12)	4XM12	2903	4247.46	101.63



SERIES 720017 CARBON STEEL WAFER BALL VALVE

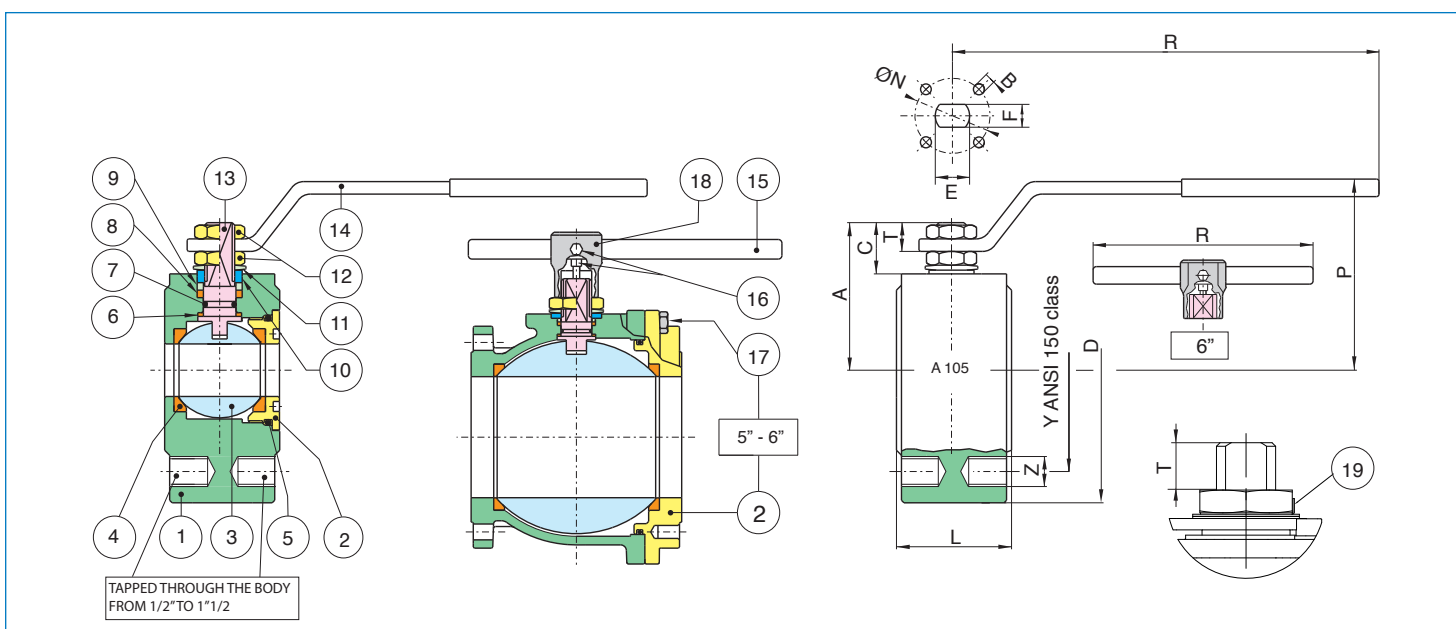
Carbon steel ANSI class 150 flanged ball valve.

- Full port sizes 1/2" to 6".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- Space saving design.
- 100% tested.
- TUV T.A. Luft approved.
- ANSI B16.34 design.
- ISO 5211 mounting pad with double "D" stem.
- Locking handles available.

720569: FIRE SAFE APPROVED WITH ANTISTATIC STEM DEVICE AND CARBON FILLED P.T.F.E SEATS.

720791: STEAM SERVICE TRIM.

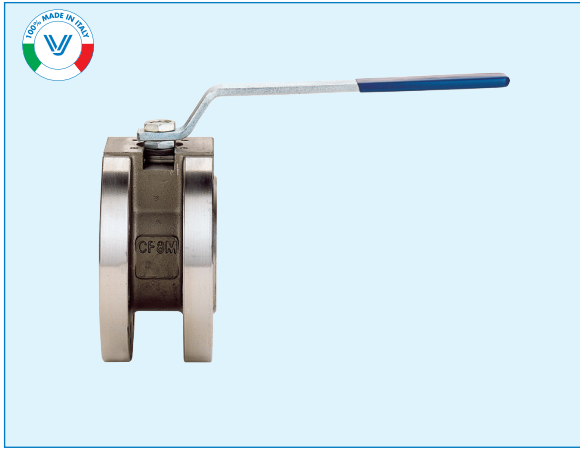
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A105/WCB	1
2	END CONNECTION	ASTM A105/WCB	1
3	BALL	A479-304 / A351 CF8	1
4	BALL SEATS	R.P.T.F.E	2
5	O-RING	FKM (Viton®)	1
6	THRUST WASHER	P.T.F.E	1
7	RING	FKM (Viton®)	1
8	STEM SEAL	P.T.F.E	1
9	PACKING GLAND	STEEL	1
10	END STOP	STEEL	2-1
11	SPRING WASHER	STEEL	2
12	NUT	STEEL	2
13	STEM	AISI 304	1
14	HANDLE	STEEL	1
15	HANDLE DN 150-200	STEEL	1
16	SCREW	STEEL	2
17	SCREW	STEEL	8-12
18	BODY HANDLE DN150-200	CAST IRON	1
19	UNSCREWING GROWER	A182-F316	1

SIZE	D	Y	Z UNC	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.50	2.38	4x1/2"	1.37	5.17	2.53	1.85	0.61	0.35	M10	0.27	1.26	4XM5	35	22.21	2.86
3/4"	3.88	2.75	4x1/2"	1.57	5.17	2.71	2.02	0.61	0.35	M10	0.27	1.26	4XM5	115	40.50	3.96
1"	4.25	3.12	4x1/2"	1.81	6.87	3.16	2.40	0.76	0.45	M12	0.31	1.65 (F04)	4XM5	124	74.63	5.95
1 1/4"	4.62	3.50	4x1/2"	2.12	6.87	3.32	2.53	0.64	0.45	M12	0.31	1.65 (F04)	4XM5	150	120.10	9.47
1 1/2"	5.00	3.88	4x1/2"	2.50	9.86	4.03	3.07	0.96	0.51	M16	0.39	1.97 (F05)	4XM6	195	201.32	11.31
2"	6.00	4.75	4x5/8"	3.22	9.86	4.37	3.42	0.98	0.53	M16	0.39	1.97 (F05)	4XM6	292	348.60	19.18
2 1/2"	7.00	5.50	4x5/8"	4.05	12.65	5.03	4.11	1.10	0.70	M20	0.55	2.76 (F07)	4XM8	540	631.37	34.17
3"	7.50	6.00	4x5/8"	4.80	12.65	5.45	4.52	1.12	0.70	M20	0.55	2.76 (F07)	4XM8	637	1009.48	45.85
4"	9.00	7.50	8x5/8"	5.98	15.01	6.16	5.39	1.35	0.86	M24	0.70	4.02 (F10)	4XM10	956	1577.34	75.39
5"	10.00	8.50	8x3/4"	7.71	15.01	7.02	6.25	1.33	0.86	M24	0.70	4.02 (F10)	4XM10	1018	2730.87	115.74
6"	11.00	9.50	8x3/4"	9.13	27.55	9.33	7.93	2.02	1.18	M42	1.18	4.92 (F12)	4XM12	2903	4247.46	135.5





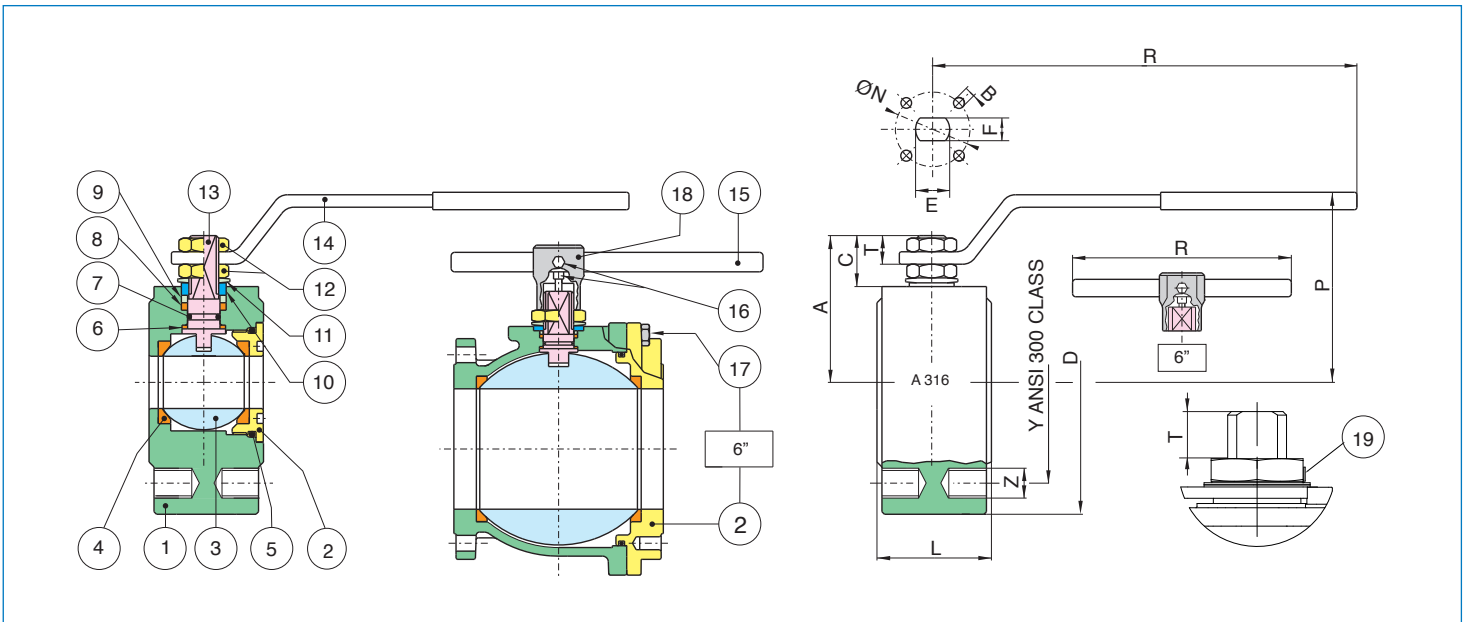
SERIES 720288 STAINLESS STEEL WAFER BALL VALVE

Stainless steel, ANSI class 300 flanged ball valve, stainless steel ball and stem.

- Full port, sizes 1/2" to 6".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- Space saving design.
- 100% tested.
- TUV T.A. Luft approved.
- ANSI B16.34 design.
- ISO 5211 mounting pad with double "D" stem.

720741: FIRE SAFE APPROVED WITH ANTISTATIC STEM DEVICE AND P.T.F.E. CARBON FILLED P.T.F.E SEATS.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N POS	SIZE	D	Y	Z UNC	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1	BODY	A479-316/A351 CF8M	1	1/2"	3.75	2.62	4X1/2"	1.38	5.17	2.54	1.85	0.45	0.33	M10	0.28	1.26	4XM5	35	22.21	3.10
2	END CONNECTION	A479-316/A351 CF8M	1	3/4"	4.62	3.25	4X5/8"	1.57	5.17	2.71	2.03	0.37	0.33	M10	0.28	1.26	4XM5	115	40.50	5.50
3	BALL	A479-316/A351 CF8M	1																	
4	BALL SEATS	R.P.T.F.E	2	1"	4.88	3.50	4X5/8"	1.81	6.87	3.17	2.40	0.51	0.45	M12	0.32	1.65 (F04)	4XM5	124	74.63	6.80
5	RING	FKM (Viton®)	1	1 1/4"	5.25	3.88	4X5/8"	2.12	6.87	3.33	2.54	0.65	0.45	M12	0.32	1.65 (F04)	4XM5	150	120.10	9.30
6	THRUST WASHER	P.T.F.E	1	1 1/2"	6.12	4.50	4X3/4"	2.50	9.86	4.03	3.07	0.80	0.47	M16	0.39	1.97 (F05)	4XM6	195	201.32	15.00
7	RING	FKM (Viton®)	1																	
8	STEM SEAL	P.T.F.E	1	2"	6.50	5.00	8X5/8"	3.23	9.86	4.43	3.43	0.63	0.47	M16	0.39	1.97 (F05)	4XM6	292	348.60	23.00
9	PACKING GLAND	STEEL	1																	
10	END STOP	STEEL	2-1	2 1/2"	7.50	5.88	8X3/4"	4.05	12.66	5.08	4.11	0.73	0.67	M20	0.55	2.75 (F07)	4XM8	540	631.37	39.00
11	SPRING WASHER	STEEL	2																	
12	NUT	STEEL	2	3"	8.25	6.62	8X3/4"	4.80	12.66	5.45	4.53	0.83	0.71	M20	0.55	2.75 (F07)	4XM8	637	1009.48	55.00
13	STEM	AISI 316	1																	
14	HANDLE	STEEL	1	4"	10.00	7.88	8X3/4"	5.98	15.02	6.20	5.39	0.93	0.83	M24	0.71	4.02 (F10)	4XM10	956	1577.34	100.00
15	HANDLE DN 150-200	STEEL	1																	
16	SCREW	STEEL	2	6"	12.50	10.62	12X3/4"	9.13	27.56	9.33	7.93	2.03	1.18	M42	1.18	4.92 (F12)	4XM12	2903	4247.46	223.00
17	SCREW	STEEL	12																	
18	BODY HANDLE DN150-200	CAST IRON	1																	
19	UNSCREWING GROWER	A182-F316	1																	



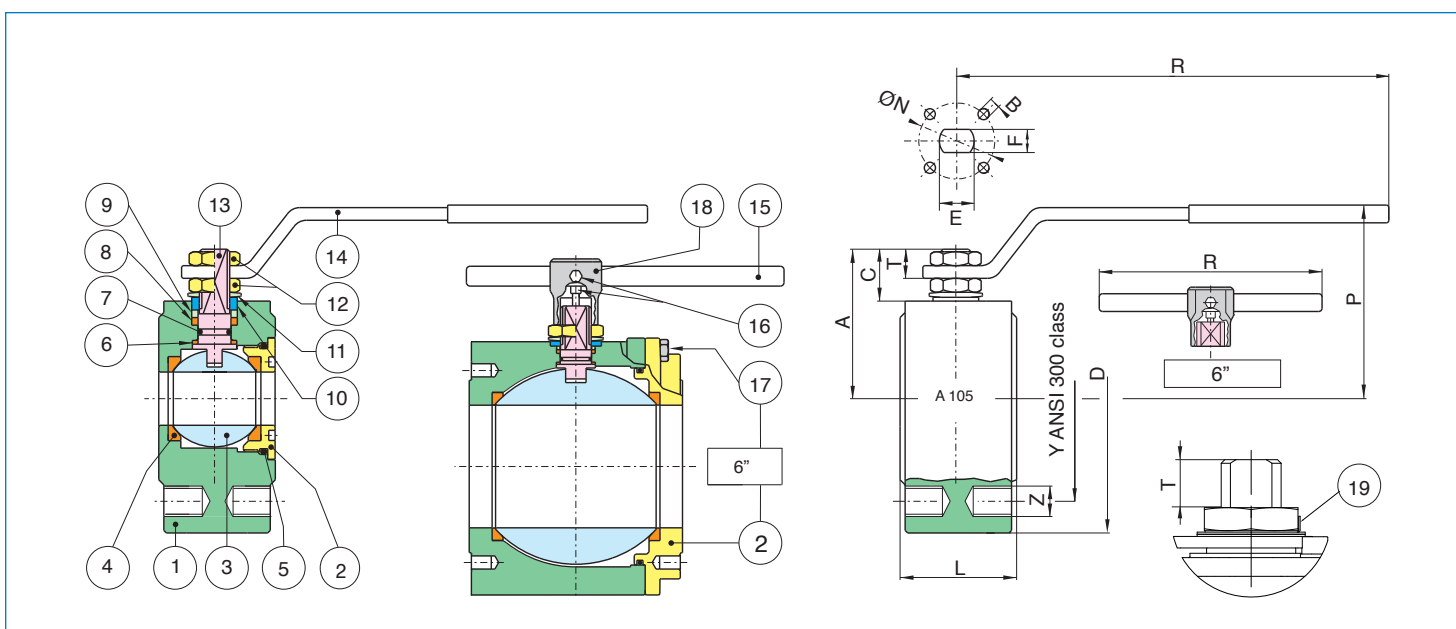
SERIES 720289 CARBON STEEL WAFER BALL VALVE

Carbon steel, ANSI class 300 flanged ball valve, stainless steel ball and stem.

- Full port sizes 1/2" to 6".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- Space saving design.
- 100% tested.
- TUV T.A. Luft approved.
- ANSI B16.34 design.
- ISO 5211 mounting pad with double "D" stem.
- Locking handles available.

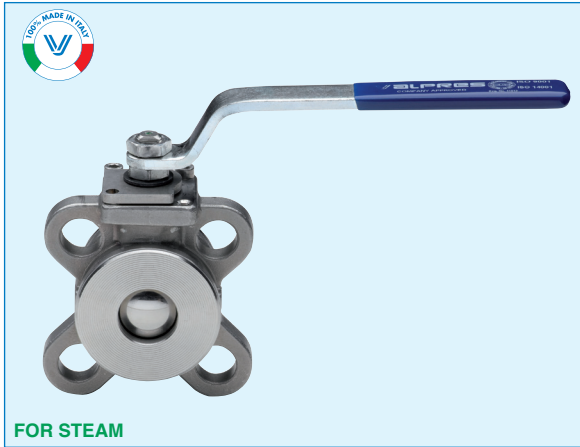
720744: FIRE SAFE APPROVED WITH ANTISTATIC STEM DEVICE AND P.T.F.E. CARBON FILLED SEATS.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A105/WCB	1
2	END CONNECTION	ASTM A105	1
3	BALL	A479-304/A351CF8	1
4	BALL SEATS	R.P.T.F.E	2
5	RING	FKM (Viton®)	1
6	THRUST WASHER	P.T.F.E	1
7	RING	FKM (Viton®)	1
8	STEM SEAL	P.T.F.E	1
9	PACKING GLAND	STEEL	1
10	END STOP	STEEL	2-1
11	SPRING WASHER	STEEL	2
12	NUT	STEEL	2
13	STEM	AISI 304	1
14	HANDLE	STEEL	1
15	HANDLE DN 150-200	STEEL	1
16	SCREW	STEEL	2
17	SCREW	STEEL	12
18	BODY HANDLE DN150-200	CAST IRON	1
19	UNSCREWING GROWER	A182-F316	1

SIZE	D	Y	Z UNC	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/ Lbs)	Cv	Weight Lbs
1/2"	3.75	2.62	4X1/2"	1.38	5.17	2.54	1.85	0.45	0.33	M10	0.28	1.26	4XM5	35	22.21	3.10
3/4"	4.62	3.25	4X5/8"	1.57	5.17	2.71	2.03	0.37	0.33	M10	0.28	1.26	4XM5	115	40.50	5.50
1"	4.88	3.50	4X5/8"	1.81	6.87	3.17	2.40	0.51	0.45	M12	0.32	1.65 (F04)	4XM5	124	74.63	6.80
1 1/4"	5.25	3.88	4X5/8"	2.12	6.87	3.33	2.54	0.35	0.45	M12	0.32	1.65 (F04)	4XM5	150	102.10	9.30
1 1/2"	6.12	4.50	4X3/4"	2.50	9.86	4.03	3.07	0.80	0.47	M16	0.39	1.97 (F05)	4XM6	195	201.32	15.00
2"	6.50	5.00	8X5/8"	3.23	9.86	4.43	3.43	0.63	0.47	M16	0.39	1.97 (F05)	4XM6	292	348.60	23.00
2 1/2"	7.50	5.88	8X3/4"	4.05	12.66	5.08	4.11	0.73	0.67	M20	0.55	2.76 (F07)	4XM8	540	631.37	39.00
3"	8.25	6.62	8X3/4"	4.80	12.66	5.45	4.53	0.83	0.71	M20	0.55	2.76 (F07)	4XM8	637	1009.48	55.00
4"	10.00	7.88	8X3/4"	5.98	15.02	6.20	5.39	0.93	0.83	M24	0.71	4.02 (F10)	4XM10	956	1577.34	100.00
6"	15.74	10.62	12X3/4"	9.13	27.56	9.33	7.93	2.03	1.18	M42	1.18	4.92 (F12)	4XM12	2903	4247.46	223.00



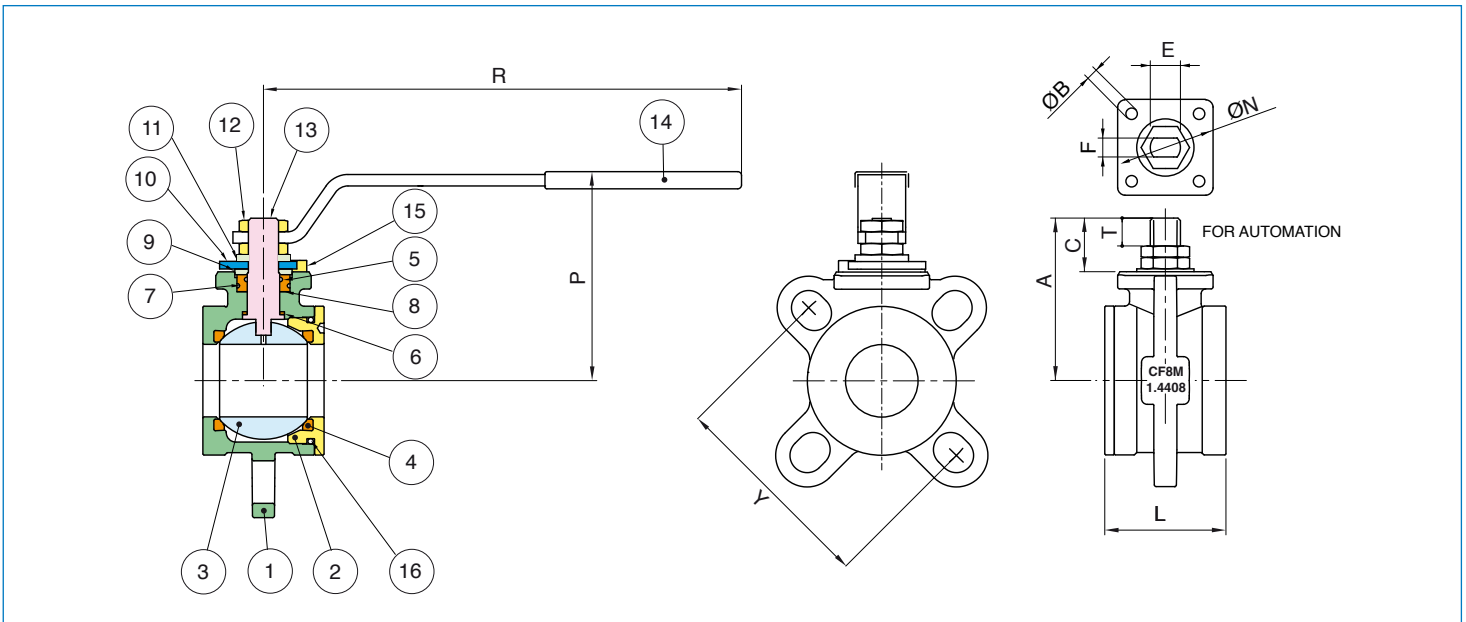
SERIES 725002 STAINLESS STEEL WAFER BALL VALVE

Stainless steel, ANSI class 150 flanged ball valve.

- Full port, sizes 1" to 4".
- Temperature range -4° F to 406° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- Space saving design.
- 100% tested.
- TUV T.A. Luft approved.
- Antistatic stem device.
- Steam service trim (250 WSP).
- ISO 5211 mounting pad with double "D" stem.

FOR STEAM

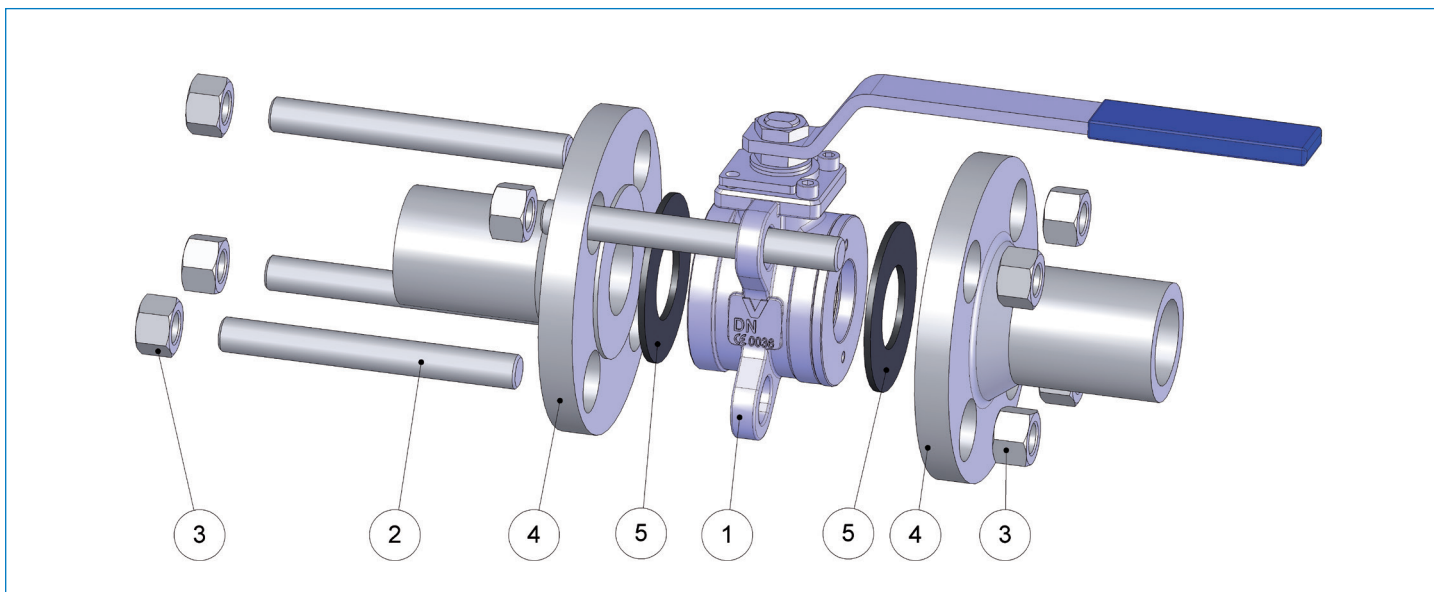
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A351 - CF8M	1
2	END CONNECTION	A479-316	1
3	BALL	A479-316/A351 CF8M	1
4	BALL SEAT	R.P.T.F.E	2
5	O-RING	FKM (VITON®)	1
6	THRUST WASHER	P.T.F.E.	1
7	RING	FKM (VITON®)	1
8	STEM SEAL	P.T.F.E.	1
9	PACKING GLAND	A479-316	1
10	END STOP	CARBON STEEL	1
11	SPRING WASHER	CARBON STEEL	2
12	NUT	CARBON STEEL	2
13	STEM	A479-316	1
14	HANDLE	CARBON STEEL	1
15	SCREW	CARBON STEEL	2
16	O-RING	FKM (VITON®)	1

SIZE	Y	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1"	ANSI-150	1.81	6.85	3.58	2.81	0.90	0.41	M12	0.31	1.65 (F04)	4XM5	124	74.63	2.86
1 1/4"	ANSI-150	2.12	6.85	3.74	2.95	0.90	0.41	M12	0.31	1.65 (F04)	4XM5	150	120.10	3.64
1 1/2"	ANSI-150	2.50	9.84	4.33	3.34	1.10	0.59	M16	0.39	1.96 (F05)	4XM6	195	201.32	4.74
2"	ANSI-150	3.23	9.84	4.68	3.68	1.10	0.59	M16	0.39	1.96 (F05)	4XM6	292	348.60	8.27
2 1/2"	ANSI-150	4.05	12.63	5.70	4.78	1.31	0.70	M20	0.55	2.76 (F07)	4XM8	540	631.37	16.20
3"	ANSI-150	4.80	12.63	6.06	5.15	1.31	0.70	M20	0.55	2.76 (F07)	4XM8	637	1009.48	22.71
4"	ANSI-150	5.60	12.63	6.57	5.67	1.31	0.70	M20	0.55	2.76 (F07)	4XM8	956	1577.34	35.28

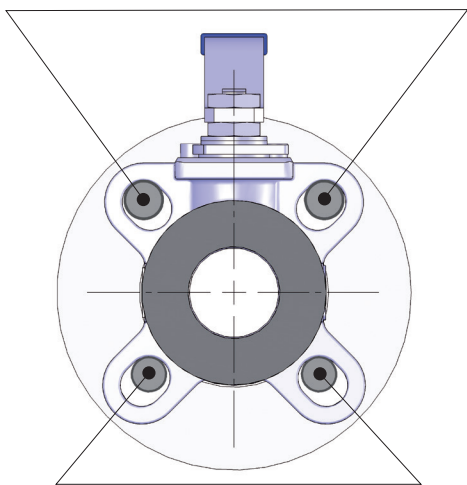
ASSEMBLING BETWEEN FLANGES LAYOUT



POS.	PART NAME
1	BODY
2	BOLT
3	NUT
4	END CONNECTION
5	TIGHTENING SEAL

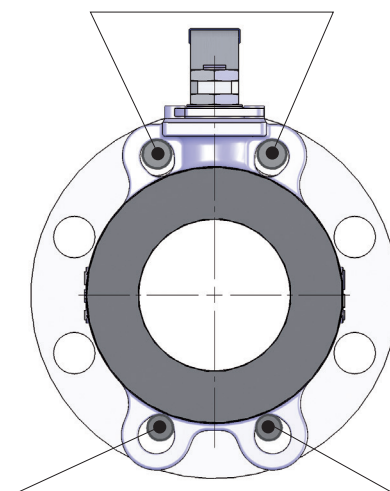
VALVE ALIGNMENT SIZES FROM (1" TO 3")

First insert the two bottom bolts. Let the valve lean, insert the two upper bolts, tighten the nuts.

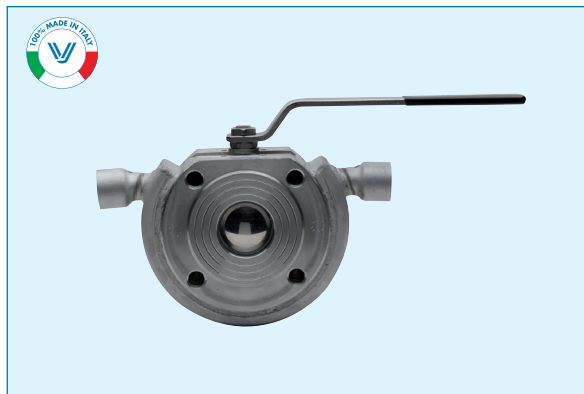


VALVE ALIGNMENT (4")

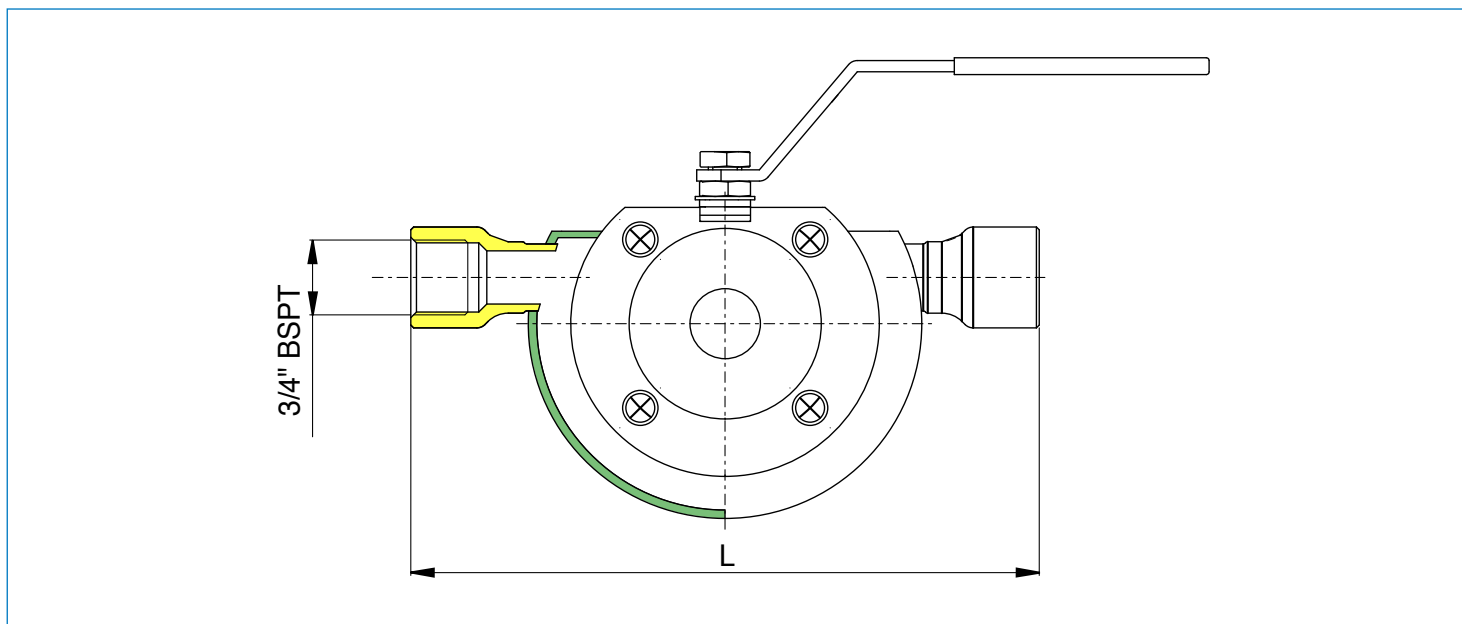
First insert the two upper bolts. Let the valve lean, put the two bottom bolts, tighten the nuts.



SERIES WAFER - SPECIAL USES



Flanged ball valve, with heating jacket in stainless or carbon steel.
 • Full port sizes from 1/2" to 6".

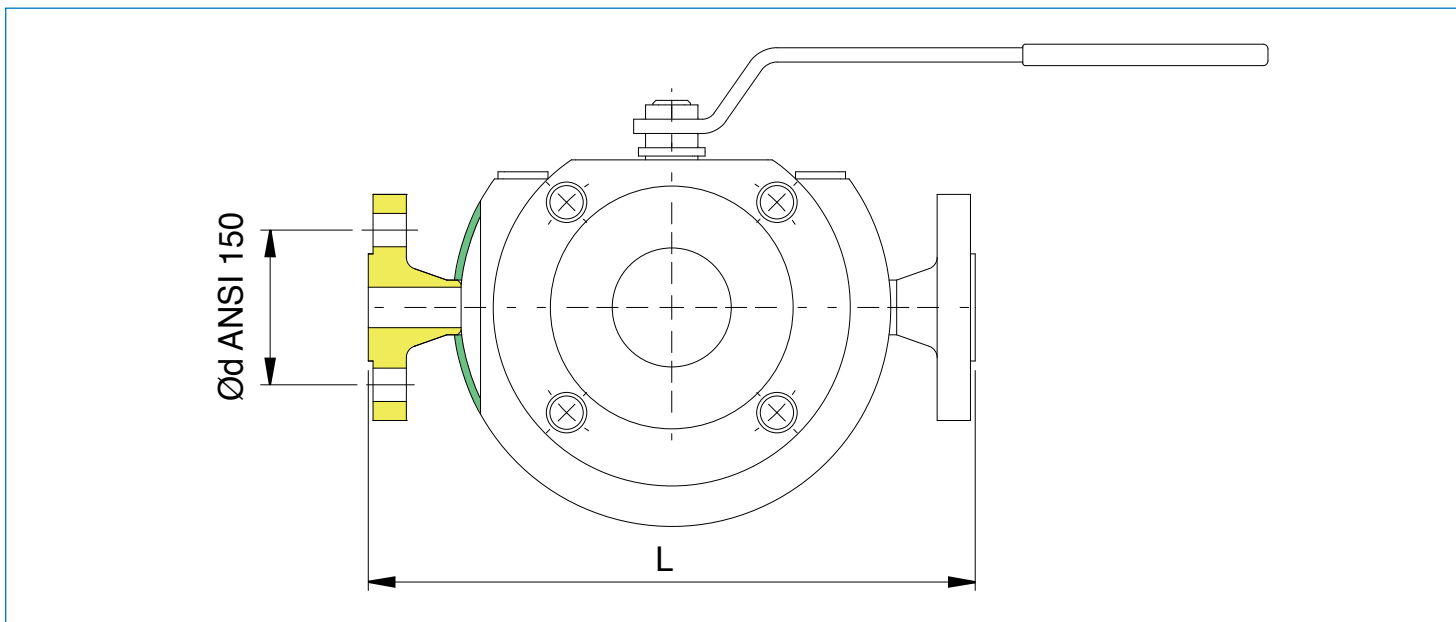


SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	
Ød	3/4" BSPT									1" BSPT		
L	CARBON STEEL	8.86	9.25	8.86	9.45	9.84	10.24	10.83	11.42	11.81	12.60	14.17
	STAINLESS STEEL							10.63	10.63	10.63	12.01	13.39

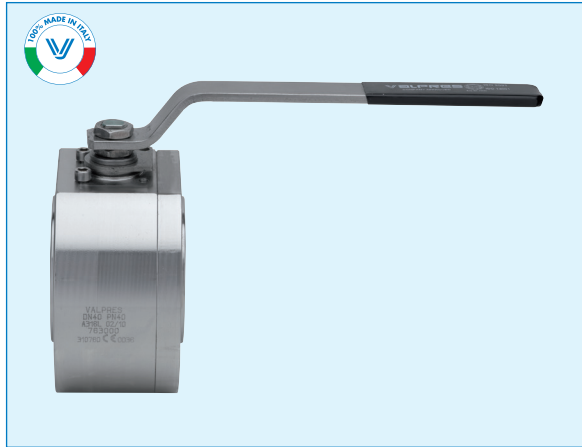


SERIES WAFER - SPECIAL USES

Flanged ball valve, with heating jacket in stainless or carbon steel.
 • Full port sizes from 1/2" to 6".



SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	
Ød	1/2"								1"			
CARBON STEEL	7.87	8.27	8.27	9.05	9.45	10.04	10.83	11.42	12.60	14.96	16.34	
STAINLES STEEL							10.24	10.83	11.81	14.96	16.34	

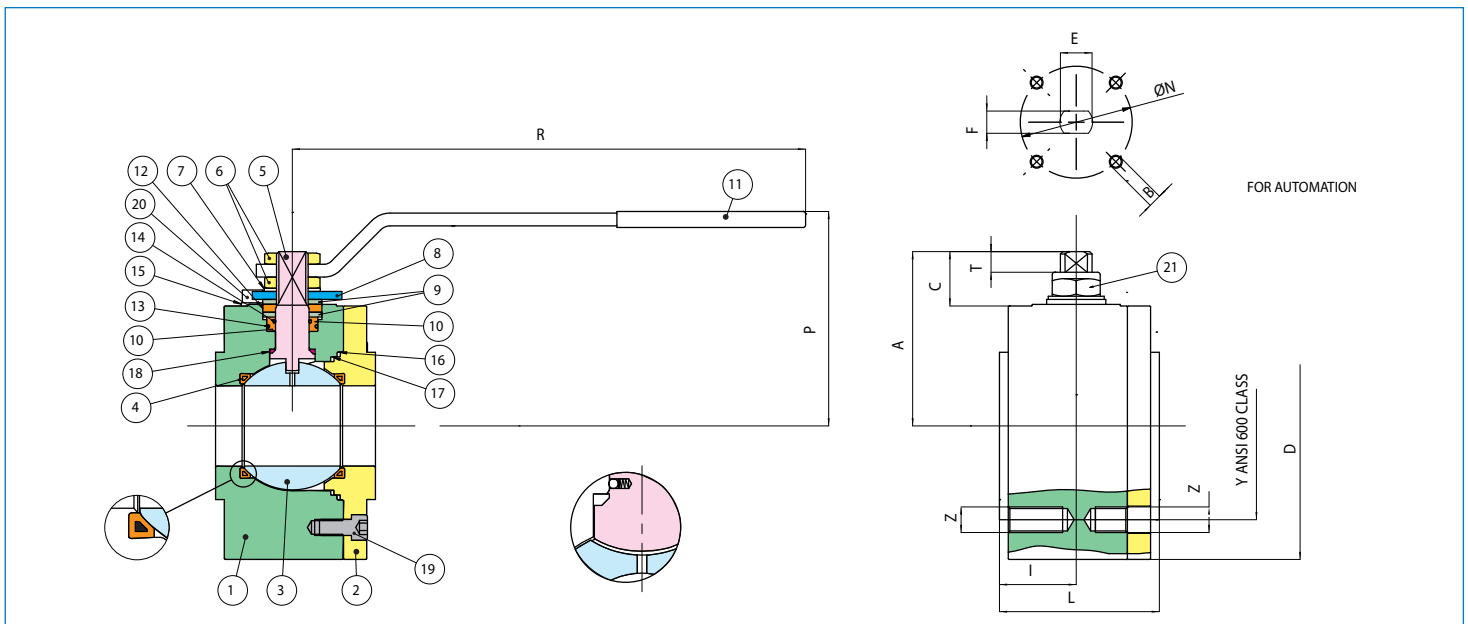


SERIES 763100 STAINLESS STEEL WAFER BALL VALVE

Stainless steel, ANSI class 600 flanged ball valve.

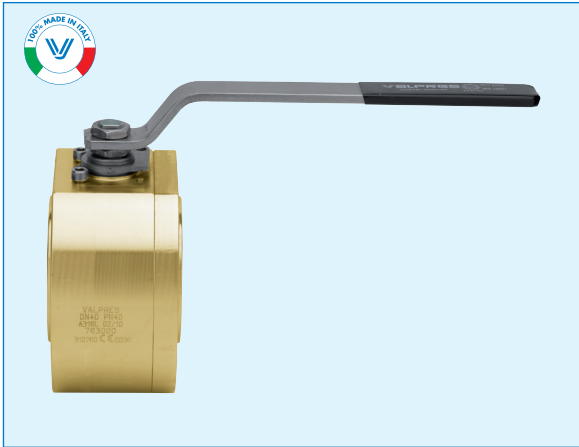
- Full port, sizes 1/2" to 4".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- Metal filled P.T.F.E. seats.
- Space saving design.
- 100% tested.
- Fire Safe certified to API 607 6th edition.
- ANSI B16.34 design.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A479-316/316L	1
2	END CONNECTION	A479-316/316L	1
3	BALL	A479-316/A351-CF8M	1
4	BALL SEAT	R.P.T.F.E.	2
5	STEM	A479-316	1
6	NUT	STAINLESS STEEL	2
7	SPRING WASHER	STAINLESS STEEL	2
8	90° STOP	STAINLESS STEEL	1
9	BUSH	A479-316	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	STAINLESS STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	RING	FKM (VITON)	1
14	RING	FKM (VITON)	1
15	WASHER	A479-304	2
16	BODY SEAL	GRAPHOIL	1
17	BODY SEAL	P.T.F.E.	1
18	THRUST WASHER	P.T.F.E.	1
19	SCREW	STAINLESS STEEL	3-4-7
20	SCREW	STAINLESS STEEL	2
21	NUT	STAINLESS STEEL	1

SIZE	D	Y	Z	I	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.74	2.63	4x1/2"	0.93	2.17	5.16	2.80	2.07	0.69	0.30	M10	0.28	1.65-F04	M5	58	22.21	5.29
3/4"	4.53	3.25	4x5/8"	0.94	2.36	6.85	3.46	2.66	0.89	0.40	M12	0.31	1.65-F04	M5	93	40.50	8.38
1"	4.92	3.50	4x5/8"	1.04	2.56	6.85	3.62	2.85	0.93	0.43	M12	0.31	1.65-F04	M5	177	74.63	10.58
1 1/2"	6.10	4.50	4x3/4"	1.50	3.35	9.88	5.16	4.21	1.26	0.48	M16	0.39	1.97-F05	M6	354	201.32	24.68
2"	6.50	5.00	8x5/8"	1.89	3.94	12.64	5.28	4.29	1.34	0.51	M20	0.55	2.76-F07	M8	443	348.60	30.86
3"	8.27	6.63	8x3/4"	2.95	5.91	15.00	6.10	5.20	1.71	0.63	M24	0.71	2.76-F07	M8	2213	1009.48	70.53
4"	10.83	8.50	8x7/8"	3.64	7.28	15.00	7.28	6.50	1.71	0.75	M24	0.71	4.02-F10	M10	2478	1577.34	154.28

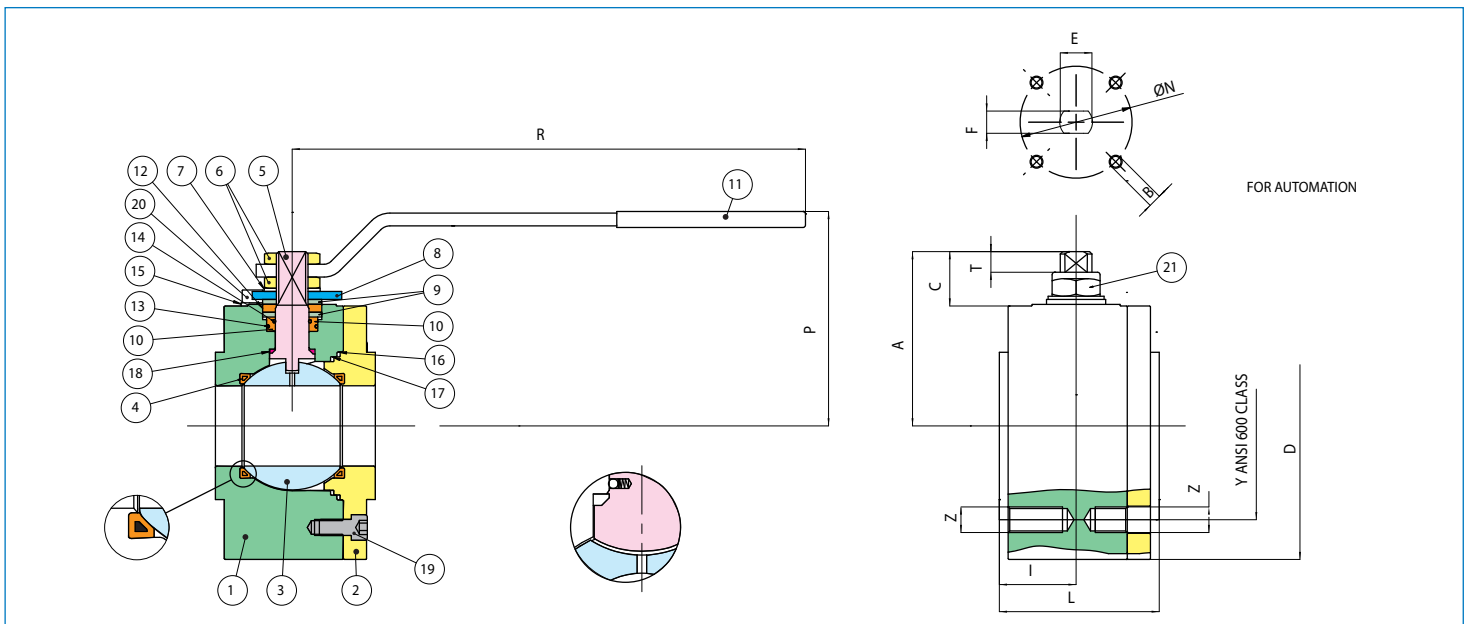


SERIES 764100 LOW TEMPERATURE CARBON STEEL WAFER BALL VALVE

Carbon steel, ANSI class 600 flanged ball valve.

- Full port, sizes 1/2" to 4".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- Metal filled P.T.F.E. seats.
- Space saving design.
- 100% tested.
- Fire Safe certified to API 607 6th edition.
- ANSI B16.34 design.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.

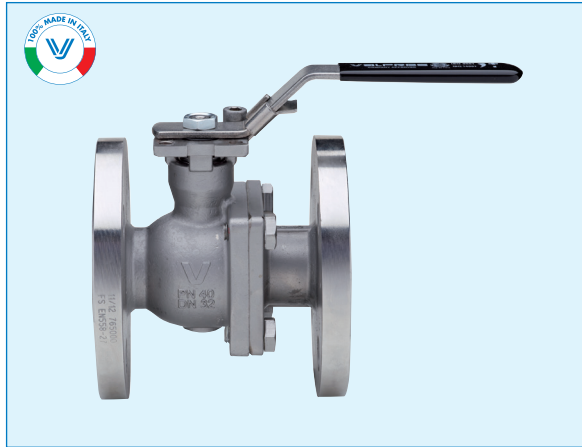
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A350 - LF2	1
2	END CONNECTION	A350 - LF2	1
3	BALL	A479-304/A351-CF8	1
4	BALL SEAT	R.P.T.F.E.	2
5	STEM	A182 - F304	1
6	NUT	CARBON STEEL	2
7	SPRING WASHER	CARBON STEEL	2
8	90° STOP	CARBON STEEL	1
9	BUSH	A479-316	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	CARBON STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	RING	FKM (VITON)	1
14	RING	FKM (VITON)	1
15	WASHER	A479-304	2
16	BODY SEAL	GRAPHOIL	1
17	BODY SEAL	P.T.F.E.	1
18	THRUST WASHER	P.T.F.E.	1
19	SCREW	CARBON STEEL	3-4-7
20	SCREW	STAINLESS STEEL	2
21	NUT	STAINLESS STEEL	1

SIZE	D	Y	Z	I	L	R	P	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.74	2.63	4x1/2"	0.93	2.17	5.16	2.80	2.07	0.69	0.30	M10	0.28	1.65-F04	M5	58	22.21	5.29
3/4"	4.53	3.25	4x5/8"	0.94	2.36	6.85	3.46	2.66	0.89	0.40	M12	0.31	1.65-F04	M5	93	40.50	8.38
1"	4.92	3.50	4x5/8"	1.04	2.56	6.85	3.62	2.85	0.93	0.43	M12	0.31	1.65-F04	M5	177	74.63	10.58
1 1/2"	6.10	4.50	4x3/4"	1.50	3.35	9.88	5.16	4.21	1.26	0.48	M16	0.39	1.97-F05	M6	354	201.32	24.68
2"	6.50	5.00	8x5/8"	1.89	3.94	12.64	5.28	4.29	1.34	0.51	M20	0.55	2.76-F07	M8	443	348.60	30.86
3"	8.27	6.63	8x3/4"	2.95	5.91	15.00	6.10	5.20	1.71	0.63	M24	0.71	2.76-F07	M8	2213	1009.48	70.53
4"	10.83	8.50	8x7/8"	3.64	7.28	15.00	7.28	6.50	1.71	0.75	M24	0.71	4.02-F10	M10	2478	1577.34	154.28



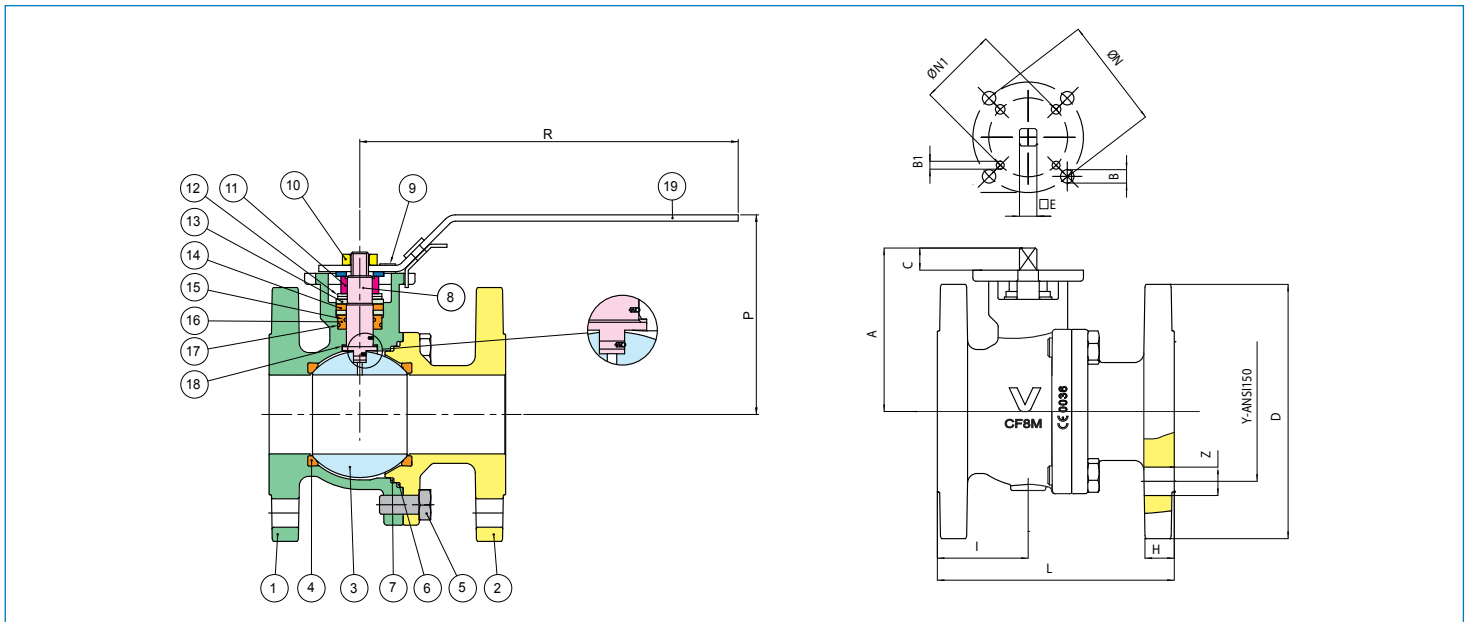


SERIES 766000 STAINLESS STEEL - DIRECT MOUNT BALL VALVE

Stainless steel, ANSI class 150 flanged ball valve with locking handle.

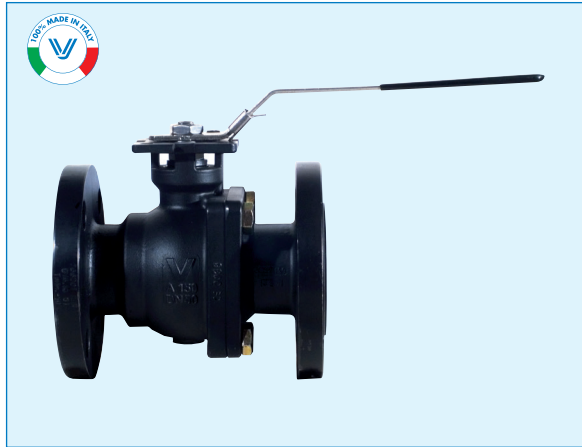
- Direct mount ISO 5211/square stem.
- Full port, sizes 1" to 4".
- Temperature range -4° F to 366° F.
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing and thrust washer and FKM Viton O-rings.
- Fire safe certified to API 607 6th edition.
- 100% tested.
- ANSI B16.5, B16.10, B16.34. design.
- Antistatic Device.
- Standard locking handle.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A351-CF8M	1
2	END CONNECTION	A351-CF8M	1
3	BALL	A479-304/A351-CF8	1
4	BALL SEAT	P.T.F.E.	2
5	SCREW	STAINLESS STEEL	4-8
6	BODY SEAL	GRAPHOIL	1
7	BODY SEAL	P.T.F.E.	1
8	STEM	A479-304	1
9	SCREW	STAINLESS STEEL	1
10	NUT	STAINLESS STEEL	1
11	NUT	STAINLESS STEEL	1
12	SPRING WASHER	STAINLESS STEEL	2
13	BUSH	A479-316	2
14	STEM SEAL	GRAPHOIL	1
15	O-RING	FKM (VITON®)	1
16	STEM SEAL	P.T.F.E.	1
17	O-RING	FKM (VITON®)	1
18	THRUST WASHER	P.T.F.E.	1
19	HANDLE	STAINLESS STEEL	1

SIZE	D	Y	Z	H	I	L	P	R	A	C	E mm	ØN	B	ISO 5211	B1	Break Torque (in/Lbs)	Cv	Weight Lbs
1"	4.33	3.13	4xØ0.63	0.57	2.13	5.00	3.66	6.30	2.72	0.43	9	1.97-F05	0.28	-	-	124	74.63	8.38
1 1/2"	5.12	3.88	4xØ0.63	0.69	2.99	6.50	4.65	9.45	3.70	0.55	11	2.76-F07	0.33	1.97-F05	M6	195	201.32	15.43
2"	5.91	4.04	4xØ0.75	0.77	3.33	7.01	5.00	9.45	4.06	0.53	11	2.76-F07	0.33	1.97-F05	M6	292	348.60	21.16
3"	7.48	6.00	4xØ 0.75	0.94	3.66	7.99	6.38	12.60	5.41	0.69	14	4.02-F10	0.43	2.76-F07	M10	637	1009.48	39.45
4"	9.06	7.50	8xØ0.75	0.94	3.92	9.02	6.97	14.96	6.04	0.75	17	4.02-F10	0.43	2.76-F07	M10	956	1577.34	53.56

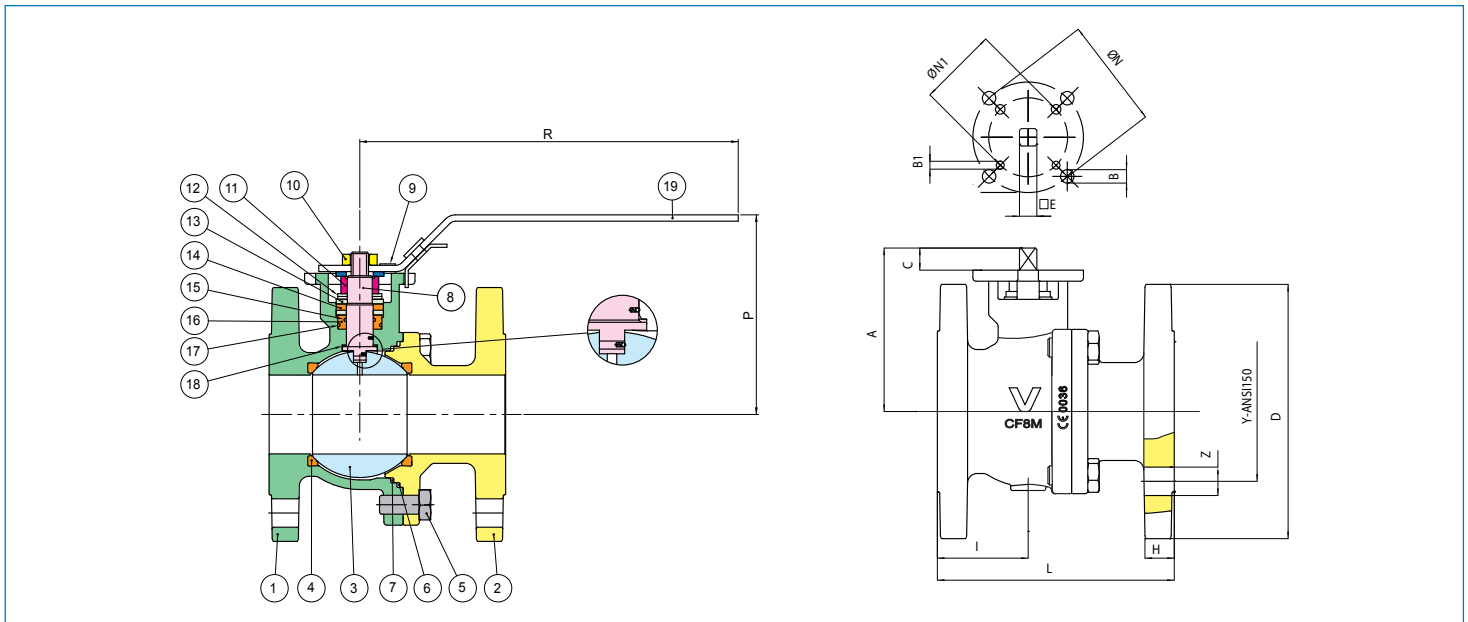


SERIES 766001 CARBON STEEL - DIRECT MOUNT BALL VALVE

Carbon steel, ANSI class 150 flanged ball valve with locking handle.

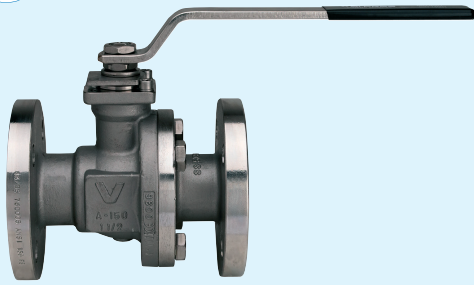
- Direct mount ISO 5211/square stem
- Full port, sizes 1" to 3".
- Temperature range -4° F to 366° F.
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, and FKM Viton O-rings.
- Fire Safe certified to API 607 6th edition.
- 100% tested.
- ANSI B16.5, B16.10, B16.34 design.
- Antistatic Device.
- Standard locking handle.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 010.3



N	P	OS	PART NAME	MATERIAL	N	P	CS
1			BODY	A216-WCB	1		
2			END CONNECTION	A216-WCB	1		
3			BALL	A479-304 A351-CF8	1		
4			BALL SEAT	P.T.F.E.	2		
5			SCREW	CARBON STEEL	4-8		
6			BODY SEAL	GRAPHOIL	1		
7			BODY SEAL	P.T.F.E.	1		
8			STEM	A479-304	1		
9			SCREW	CARBON STEEL	1		
10			NUT	CARBON STEEL	1		
11			NUT	CARBON STEEL	1		
12			SPRING WASHER	CARBON STEEL	2		
13			BUSH	A479-316	2		
14			STEM SEAL	GRAPHOIL	1		
15			O-RING	FKM (VITON®)	1		
16			STEM SEAL	P.T.F.E.	1		
17			O-RING	FKM (VITON®)	1		
18			THRUST WASHER	P.T.F.E.	1		
19			HANDLE	STAINLESS STEEL	1		

SIZE	D	Y	Z	H	I	L	P	R	A	C	E mm	ØN	B	ISO 5211	B1	Break Torque (in/Lbs)	Cv	Weight Lbs
1"	4.33	3.13	4xØ0.63	0.57	2.13	5.00	3.66	6.30	2.72	0.43	9	1.97-F05	0.28	-	-	124	74.63	8.38
1 1/2"	5.12	3.88	4xØ0.63	0.69	2.99	6.50	4.65	9.45	3.70	0.55	11	2.76-F07	0.33	1.97-F05	M6	195	201.32	15.43
2"	5.91	4.04	4xØ0.75	0.77	3.33	7.01	5.00	9.45	4.06	0.53	11	2.76-F07	0.33	1.97-F05	M6	292	348.60	21.16
3"	7.48	6.00	4xØ 0.75	0.94	3.66	7.99	6.38	12.60	5.41	0.69	14	4.02-F10	0.43	2.76-F07	M10	637	1009.48	39.45
4"	9.06	7.50	8xØ0.75	0.94	3.92	9.02	6.97	14.96	6.04	0.75	17	4.02-F10	0.43	2.76-F07	M10	956	1577.34	53.56



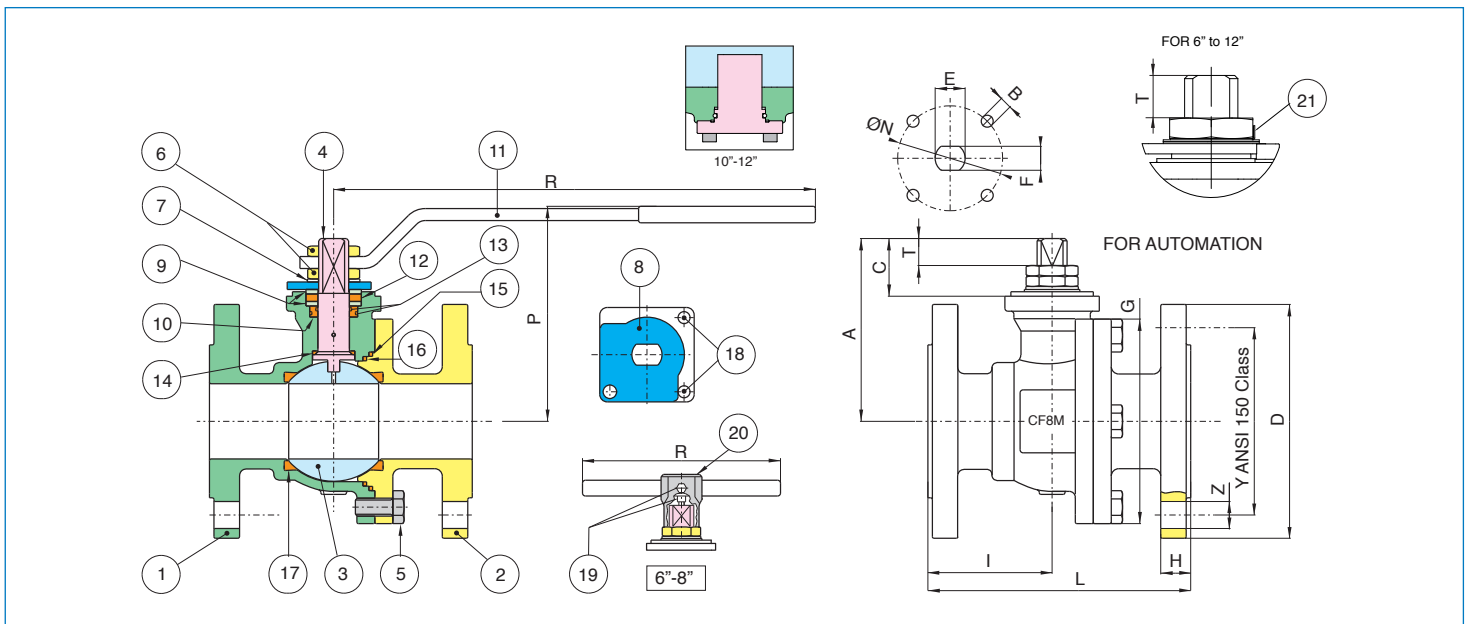
SERIES 760005 STAINLESS STEEL BALL VALVE

Stainless steel, ANSI class 150 flanged ends ball valve.

- Full port, sizes 1/2" to 12" (10" and 12" TRUNNION).
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing and thrust washer.
- Standard grounded stem and ball.
- 100% tested.
- PED 97/23/CE.
- Locking handle plate.
- Temperature range -4° F to 366° F.
- ANSI B16.5, B16.10, B16.34 design.
- Fire Safe API 6FA-API 607 4th edition.
- Antistatic Device.
- ISO 5211 mounting pad and double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

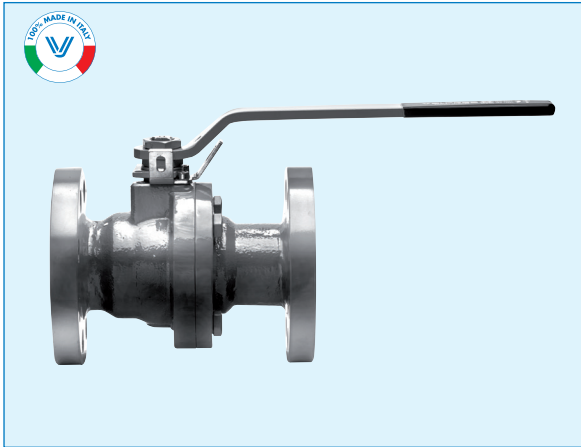
760021: STEAM SERVICE TRIM.



N POS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1	BODY	A351 CF8M	1	1/2"	3.54	2.38	4xØ0.63	0.45	1.83	4.25	2.80	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	35	22.21	4.21
2	END CONNECTION	A351 CF8M	1	3/4"	3.94	2.76	4xØ0.63	0.51	2.09	4.61	2.89	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	115	40.50	5.36
3	BALL	A479-316/A351-CF8M	1	1"	4.33	3.13	4xØ0.63	0.57	2.34	5.00	3.56	3.50	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	124	74.63	8.15
4	STEM	A479-316	1	1 1/2"	5.12	3.88	4xØ0.63	0.69	3.03	6.50	4.49	5.24	9.84	4.17	1.18	0.39	M16	0.39	1.97-F05	M6	195	201.32	15.65
5	SCREW	STAINLESS STEEL	4-8-12	2"	5.91	4.74	4xØ0.75	0.77	3.39	7.01	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	292	348.60	23.80
6	NUT	STAINLESS STEEL	1-2	3"	7.48	6.00	4xØ0.75	0.94	3.13	7.99	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	637	1009.48	47.61
7	SPRING WASHER	STAINLESS STEEL	2	4"	9.06	7.50	8xØ0.75	0.94	4.33	9.02	8.21	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	956	1577.34	67.00
8	TRAVEL STOP	STAINLESS STEEL	1	6"	11.02	9.51	8xØ0.87	1.00	7.13	15.51	12.24	12.01	27.56	9.65	2.68	1.61	M42	1.18	4.92-F12	M12	2903	4247.46	171.91
9	PACKING GLAND	STAINLESS STEEL	2	8"	13.58	11.75	8xØ0.87	1.14	8.35	17.99	15.83	13.70	27.56	11.34	2.68	1.61	M42	1.18	4.92-F12	M12	5824	7886.81	274.62
10	STEM SEAL	P.T.F.E.	1	10"*	15.94	14.25	12xØ1.02	1.27	11.88	20.98	19.69	-	-	13.90	3.19	1.85	M52	1.50	5.51-F14	M16	-	12924.50	429.78
11	HANDLE	STAINLESS STEEL	1	12"*	19.09	17.00	12xØ1.02	1.33	13.93	24.02	22.05	-	-	15.12	3.19	1.85	M52	1.50	5.51-F14	M16	-	19444.08	559.82
12	STEM SEAL	GRAPHOIL	1																				
13	O-RING	FKM (Viton®)	2																				
14	THRUST WASHER	P.T.F.E.	1																				
15	SEAL	GRAPHOIL	1																				
16	SEAL	P.T.F.E.	1																				
17	BALL SEATS	P.T.F.E.	2																				
18	SCREW	STAINLESS STEEL	2																				
19	SCREW	STAINLESS STEEL	2																				
20	BODY HANDLE	CAST IRON	1																				
21	UNSCREWING GROWER	A182-F316	1																				

* TRUNNION supplied without handle

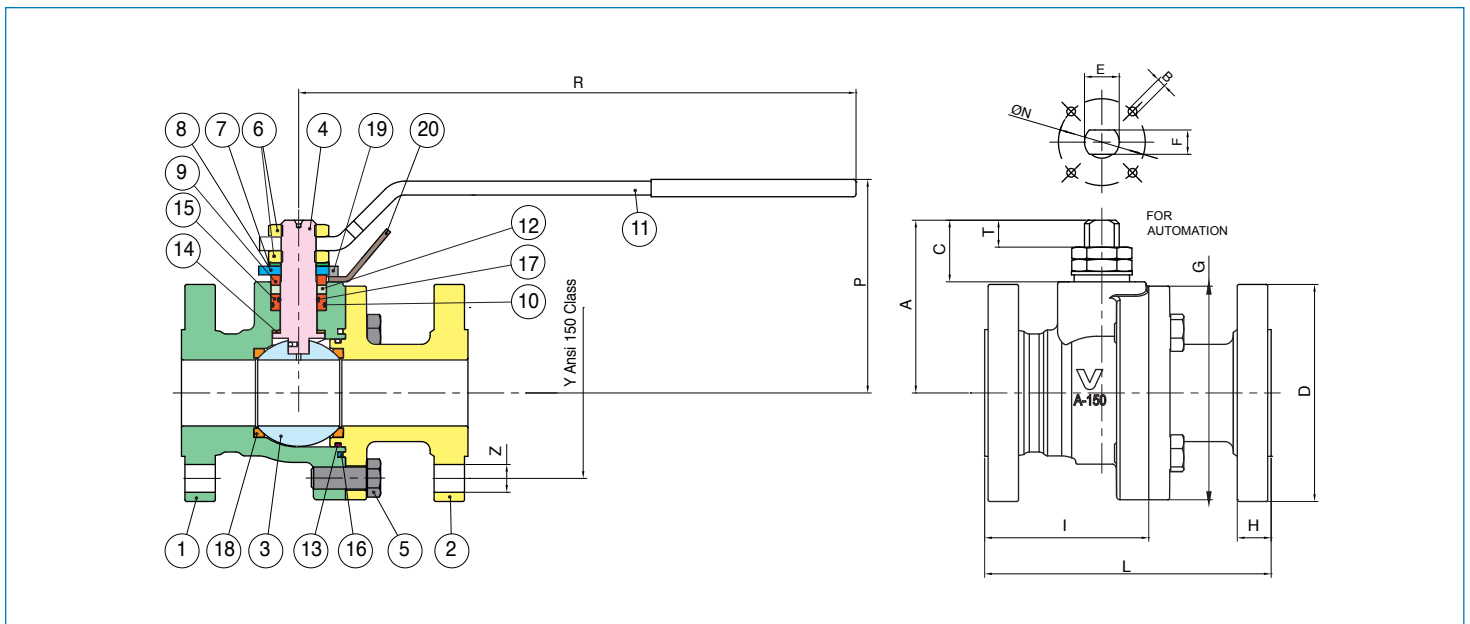




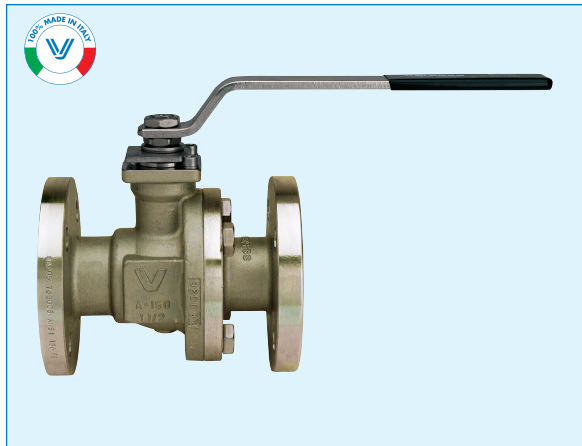
SERIES 68J000 API 608 STAINLESS STEEL BALL VALVE

- Stainless steel, ANSI Class 150, flanged ball valve.
- API 608, ASME B16.34, ASME B16.10, ASME B16.5, ASME B1.1 design.
 - 100% tested according to API 598 standards.
 - R.T.F.E seats, packing and thrust washer.
 - Full port, sizes 1/2" - 6".
 - Blow out proof stem, locking handle.
 - Fire Safe design.
 - Antistatic Device.
 - ISO 5211 mounting pad with double "D" stem.
 - Locking device.
 - Temperature range: -4° F to 366° F.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Cv	Weight Lbs
1	BODY	A351-CF8M	1	1/2"	3.54	2.37	4xØ0.63	0.46	1.79	4.25	3.23	3.74	6.85	2.13	0.87	0.30	M12	0.31	1.65-F04	M5	22.33	5.29
2	END CONNECTION	A351-CF8M	1		3/4"	3.94	2.75	4xØ0.63	0.53	1.91	4.61	3.54	3.90	6.85	2.28	0.85	0.30	M12	0.31	1.65-F04	M5	40.70
3	BALL	A479-Tp316	1	1"		4.33	3.13	4xØ0.63	0.58	2.09	5.00	4.13	3.94	9.84	2.94	1.16	0.41	M16	0.39	1.97-F05	M6	75.00
4	STEM	A564 Tp630 H1150D (17-4-PH)	1		1 1/2"	4.92	3.87	4xØ0.63	0.71	3.72	6.50	4.84	4.84	12.64	3.94	1.40	0.61	M20	0.55	1.97-F05	M6	202.33
5	SCREW	A193 B8 Cl.2	4	2"		5.91	4.74	4xØ0.75	0.77	2.99	7.01	5.51	5.24	12.64	4.27	1.44	0.57	M20	0.55	1.97-F05	M6	350.35
6	NUT	STAINLESS STEEL	2		3"	7.48	6.00	4xØ0.75	0.96	3.23	7.99	7.40	6.57	15.00	5.89	1.87	0.87	M24	0.71	2.75-F07	M8	1014.53
7	SPRING WASHER	A182-F304	2	4"		9.06	7.50	8xØ0.75	0.96	3.54	9.02	9.25	7.32	15.00	6.57	1.77	0.81	M24	0.71	4.02-F10	M10	1585.23
8	90° STOP	AISI 316	1		6"	11.02	9.50	8xØ0.87	1.02	9.49	15.51	12.40	12.01	27.56	9.65	2.68	1.34	M42	1.18	4.92-F12	M12	4268.72
9	BUSH	A479-Tp316L	1																			
10	O-RING	FKM (VITON®)	1																			
11	HANDLE	AISI 316	1																			
12	STEM SEAL	GRAFITE	1																			
13	O-RING	FKM (VITON®)	1																			
14	THRUST WASHER	R.P.T.F.E.	1																			
15	O-RING BUSH	A479-Tp316L	1																			
16	BODY SEAT	GRAFITE	1																			
17	O-RING	FKM (VITON®)	2																			
18	BALL SEAT	R.P.T.F.E.	2																			
19	SCREW	A2-70	1																			
20	LOCKING DEVICE	AISI 316	1																			

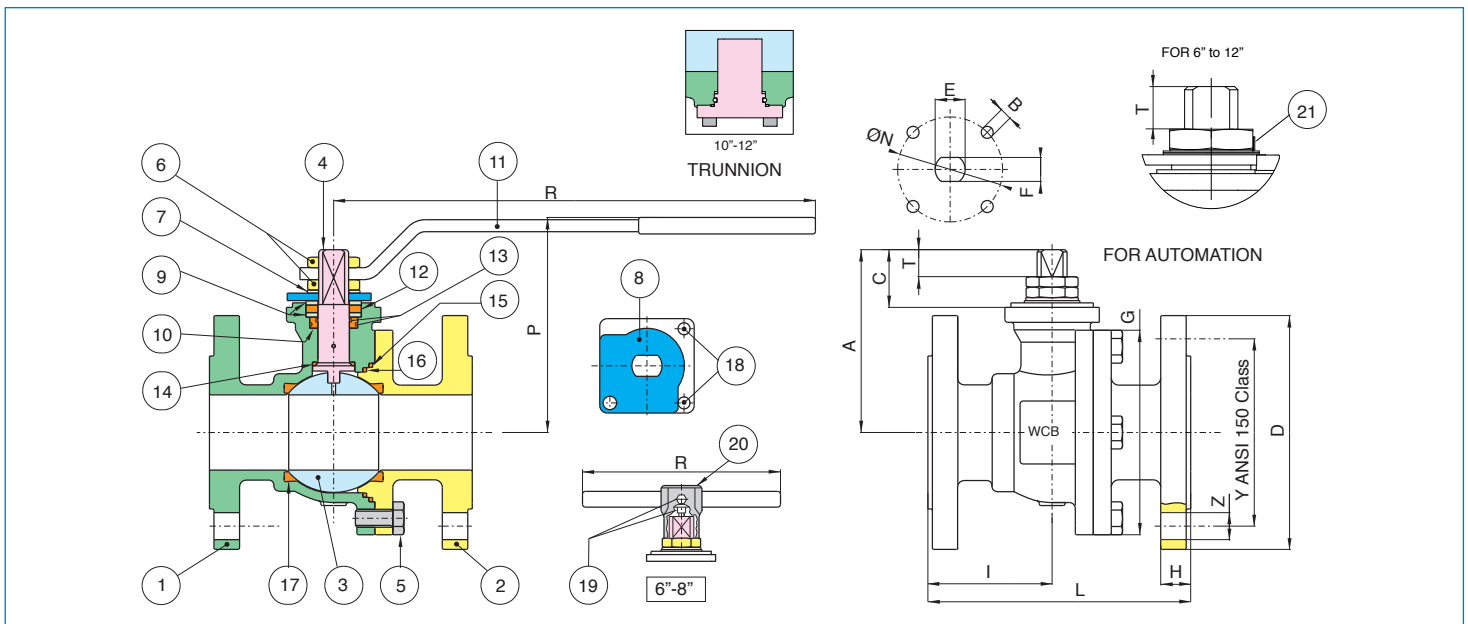


SERIES 762000 CARBON STEEL BALL VALVE

- Carbon steel, ANSI CLASS 150 flanged ball valve.
- Full port, sizes 1/2" to 12" (10" and 12" TRUNNION).
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing and thrust washer.
- 100% tested.
- PED 97/23/CE.
- Locking handle plate.
- Temperature range -4° F to 366° F.
- ANSI B16.5, B16.10, B16.34 design.
- Fire Safe API 6FA-API 607 4th edition.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

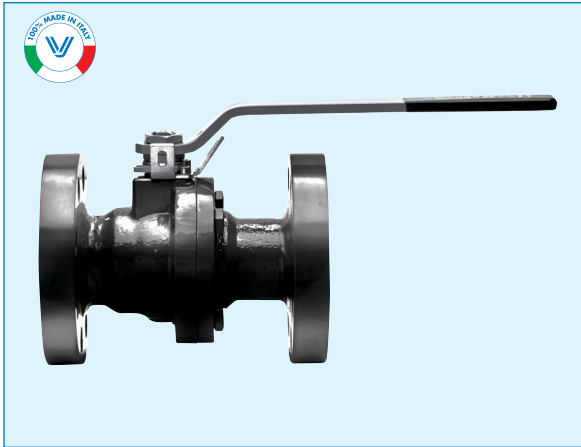
760137: STEAM SERVICE TRIM.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A216 WCB	1
2	END CONNECTION	A216 WCB	1
3	BALL	A479-304/A351 CF8	1
4	STEM	A479-304	1
5	SCREW	STAINLESS STEEL	4-8-12
6	NUT	STAINLESS STEEL	1-2
7	SPRING WASHER	STEEL	2
8	TRAVEL STOP	STEEL	1
9	PACKING GLAND	STEEL	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	O-RING	FKM (Viton®)	2
14	THRUST WASHER	P.T.F.E.	1
15	SEAL	GRAPHOIL	1
16	SEAL	P.T.F.E.	1
17	BALL SEATS	P.T.F.E.	2
18	SCREW	STEEL	2
19	SCREW	STEEL	2
20	BODY HANDLE	CAST IRON	1
21	UNSCREWING GROWER	A182-F316	1

SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.54	2.38	4xØ0.63	0.45	1.83	4.25	2.80	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	35	22.21	4.21
3/4"	3.94	2.76	4xØ0.63	0.51	2.09	4.61	2.89	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	115	40.50	5.36
1"	4.33	3.13	4xØ0.63	0.57	2.34	5.00	3.56	3.50	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	124	74.63	8.15
1 1/2"	5.12	3.88	4xØ0.63	0.69	3.03	6.50	4.49	5.24	9.84	4.17	1.18	0.39	M16	0.39	1.97-F05	M6	195	201.32	15.65
2"	5.91	4.74	4xØ0.75	0.77	3.39	7.01	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	292	348.60	23.80
3"	7.48	6.00	4xØ0.75	0.94	3.13	7.99	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	637	1009.48	47.61
4"	9.06	7.50	8xØ0.75	0.94	4.33	9.02	8.21	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	956	1577.34	67.00
6"	11.02	9.51	8xØ0.87	1.00	7.13	15.51	12.24	12.01	27.56	9.65	2.68	1.61	M42	1.18	4.92-F12	M12	2903	4247.46	171.91
8"	13.58	11.75	8xØ0.87	1.14	8.35	17.99	15.83	13.70	27.56	11.34	2.68	1.61	M42	1.18	4.92-F12	M12	5824	7886.81	274.62
10" *	15.94	14.25	12xØ1.02	1.27	11.88	20.98	19.69	-	-	13.90	3.19	1.85	M52	1.50	5.51-F14	M16	-	12924.50	429.78
12" *	19.09	17.00	12xØ1.02	1.33	13.93	24.02	22.05	-	-	15.12	3.19	1.85	M52	1.50	5.51-F14	M16	-	19444.08	559.82

* TRUNNION supplied without handle

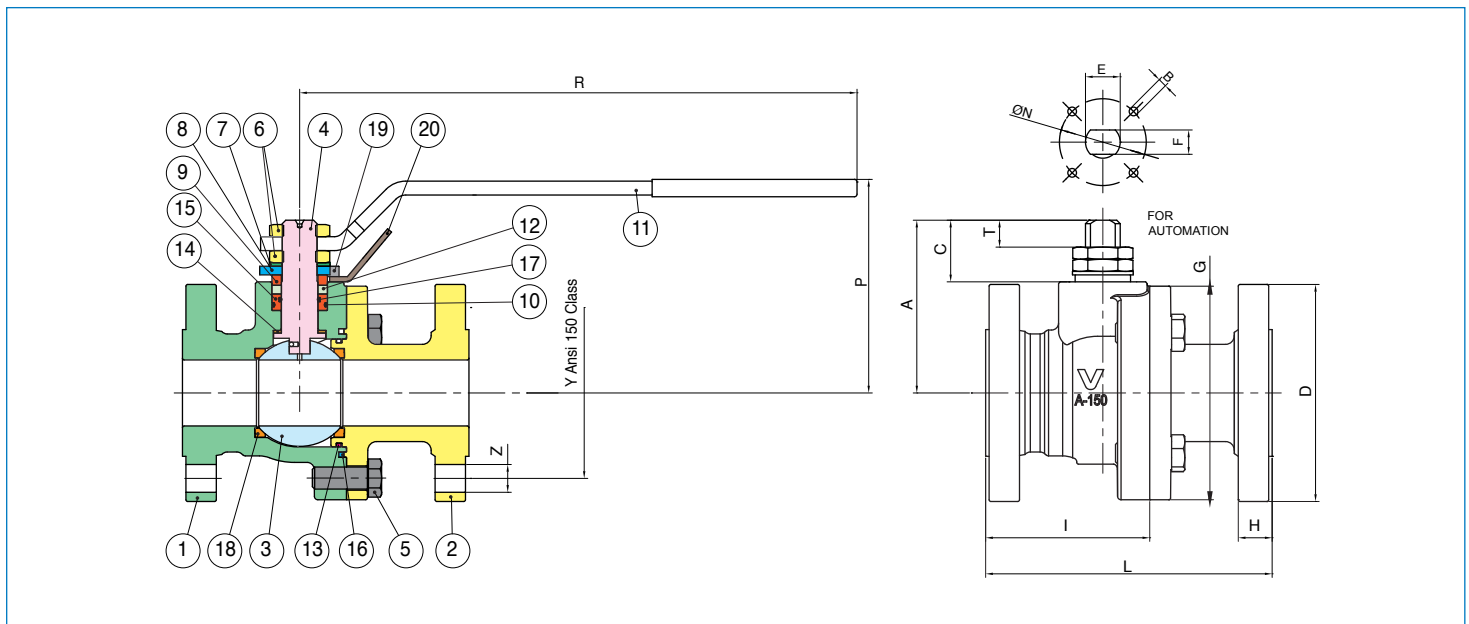


SERIES 68F000 API 608 CARBON STEEL BALL VALVE

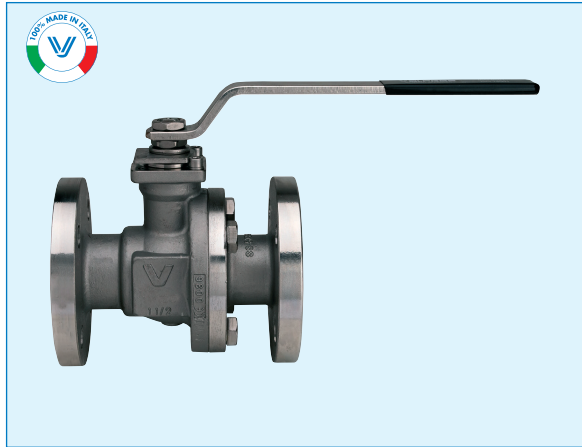
Carbon steel, ANSI Class 150, flanged ball valve.

- API 608, ASME B16.34, ASME B16.10, ASME B16.5, ASME B1.1 design.
- 100% tested according to API 598 standards.
- R.T.F.E seats, packing and thrust washer.
- Full port, sizes 1/2" - 6".
- Blow out proof stem, locking handle.
- Fire Safe design.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.
- Temperature range: -4° F to 366° F.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Cv	Weight Lbs
1	BODY	A352-LCB	1	1/2"	3.54	2.37	4xØ0.63	0.46	1.79	4.25	3.23	3.74	6.85	2.13	0.87	0.30	M12	0.31	1.65-F04	M5	22.33	5.29
2	END CONNECTION	A352-LCB	1		3/4"	3.94	2.75	4xØ0.63	0.53	1.91	4.61	3.54	3.90	6.85	2.28	0.85	0.30	M12	0.31	1.65-F04	M5	40.70
3	BALL	A479-Tp316	1	1"		4.33	3.13	4xØ0.63	0.58	2.09	5.00	4.13	3.94	9.84	2.94	1.16	0.41	M16	0.39	1.97-F05	M6	75.00
4	STEM	A564 Tp630 H1150D (17-4-PH)	1		1 1/2"	4.92	3.87	4xØ0.63	0.71	3.72	6.50	4.84	4.84	12.64	3.94	1.40	0.61	M20	0.55	1.97-F05	M6	202.33
5	SCREW	A320 L7	4	2"		5.91	4.74	4xØ0.75	0.77	2.99	7.01	5.51	5.24	12.64	4.27	1.44	0.57	M20	0.55	1.97-F05	M6	350.35
6	NUT	CARBON STEEL	2		3"	7.48	6.00	4xØ0.75	0.96	3.23	7.99	7.40	6.57	15.00	5.89	1.87	0.87	M24	0.71	2.75-F07	M8	1014.53
7	SPRING WASHER	CARBON STEEL	2	4"		9.06	7.50	8xØ0.75	0.96	3.54	9.02	9.25	7.32	15.00	6.57	1.77	0.81	M24	0.71	4.02-F10	M10	1585.23
8	90° STOP	AISI 316	1		6"	11.02	9.50	8xØ0.87	1.02	9.49	15.51	12.40	12.01	27.56	9.65	2.68	1.34	M42	1.18	4.92-F12	M12	4268.72
9	BUSH	A479-Tp316L	1																			
10	O-RING	FKM (VITON®)	1																			
11	HANDLE	CARBON STEEL	1																			
12	STEM SEAL	GRAFITE	1																			
13	O-RING	FKM (VITON®)	1																			
14	THRUST WASHER	R.P.T.F.E.	1																			
15	O-RING BUSH	A479-Tp316L	1																			
16	BODY SEAT	GRAFITE	1																			
17	O-RING	FKM (VITON®)	2																			
18	BALL SEAT	R.P.T.F.E.	2																			
19	SCREW	CARBON STEEL	1																			
20	LOCKING DEVICE	AISI 316	1																			



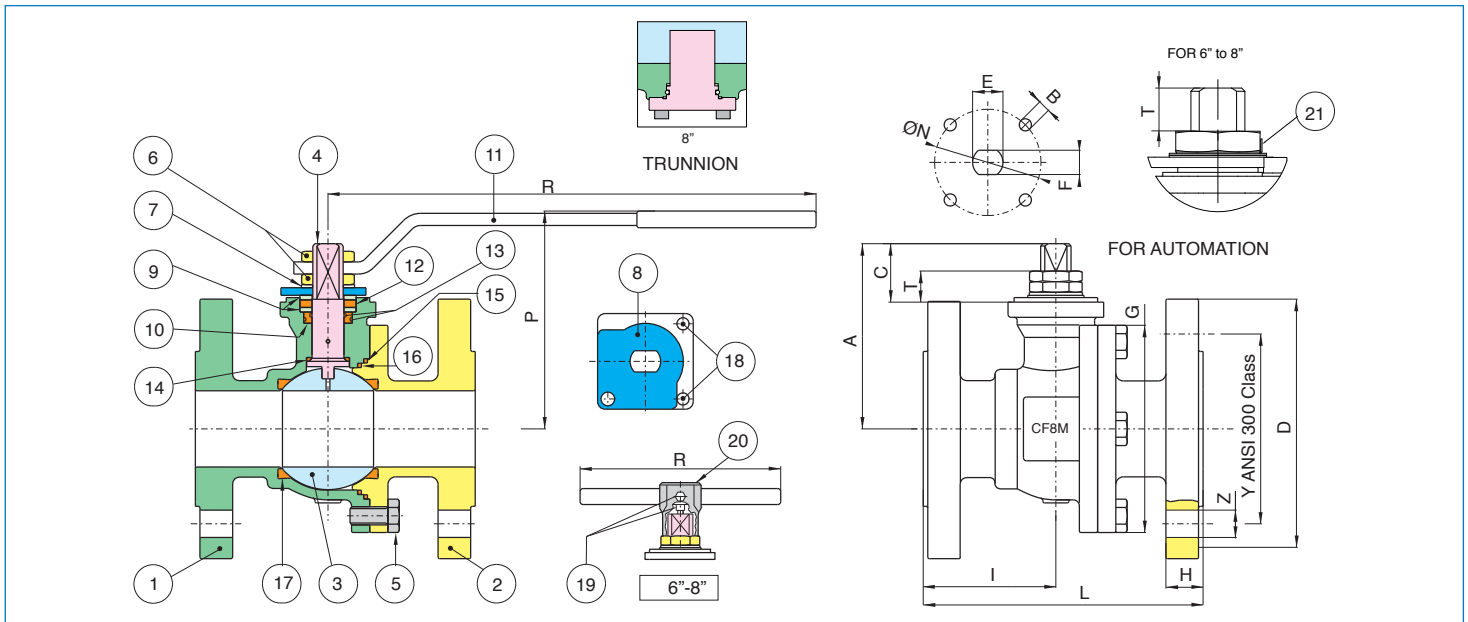
SERIES 761030 STAINLESS STEEL BALL VALVE

Stainless steel, ANSI class 300 flanged ball valve.

- Full port, sizes 1/2" to 8" (8" TRUNNION).
- Blow out proof stem, adjustable stem packing.
- R.T.F.E. seats, packing and thrust washer.
- 100% tested.
- PED 97/23/CE.
- Locking handle plate.
- Temperature range -4° F to 366° F.
- ANSI B16.5, B16.10, B16.34 design.
- Fire Safe API 6FA-API 607 4th edition.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

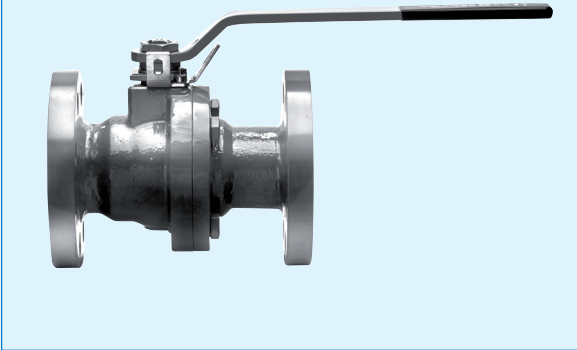
760195: STEAM SERVICE TRIM.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	1
3	BALL	A479-316/A351-CF8M	1
4	STEM	A479-316	1
5	SCREW	STAINLESS STEEL	4-8-12
6	NUT	STAINLESS STEEL	1-2
7	SPRING WASHER	STAINLESS STEEL	2
8	TRAVEL STOP	STAINLESS STEEL	1
9	PACKING GLAND	STAINLESS STEEL	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	STAINLESS STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	O-RING	VITON	2
14	THRUST WASHER	P.T.F.E.	1
15	SEAL	P.T.F.E.	1
16	SEAL	P.T.F.E.	1
17	BALL SEATS	R.P.T.F.E.	2
18	SCREW	STAINLESS STEEL	2
19	SCREW	STAINLESS STEEL	2
20	BODY HANDLE	CAST IRON	1
21	UNSCREWING GROWER	A182-F316	1

SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.74	2.62	4xØ0.63	0.57	2.42	5.51	3.35	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	44	22.21	5.07
3/4"	4.53	3.25	4xØ0.75	0.63	2.40	5.98	3.07	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	142	40.50	7.71
1"	4.92	3.50	4xØ0.79	0.69	2.78	6.50	3.78	4.29	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	150	74.63	11.46
1 1/2"	6.10	4.51	4xØ0.87	0.83	3.09	7.48	4.96	5.24	9.84	4.21	1.18	0.39	M16	0.39	1.97-F05	M6	240	201.32	22.04
2"	6.50	5.00	8xØ0.79	0.89	3.39	8.50	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	345	348.60	26.45
3"	8.27	6.63	8xØ0.87	1.14	3.19	11.14	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	770	1009.48	59.51
4"	10.04	7.87	8xØ0.87	1.26	3.48	12.01	8.62	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	1160	1577.34	90.36
6"	12.60	10.63	12xØ0.87	1.46	6.77	15.87	12.05	12.01	27.56	9.65	2.68	1.61	M42	1.18	4.92-F12	M12	1240	4247.46	204.97
8" *	15.00	12.99	12xØ1.02	1.63	9.88	19.76	16.14	13.70	27.56	11.34	2.70	1.61	M42	1.18	4.92-F12	M12	3505	7886.81	332.80

* TRUNNION max Δp= 362 psi

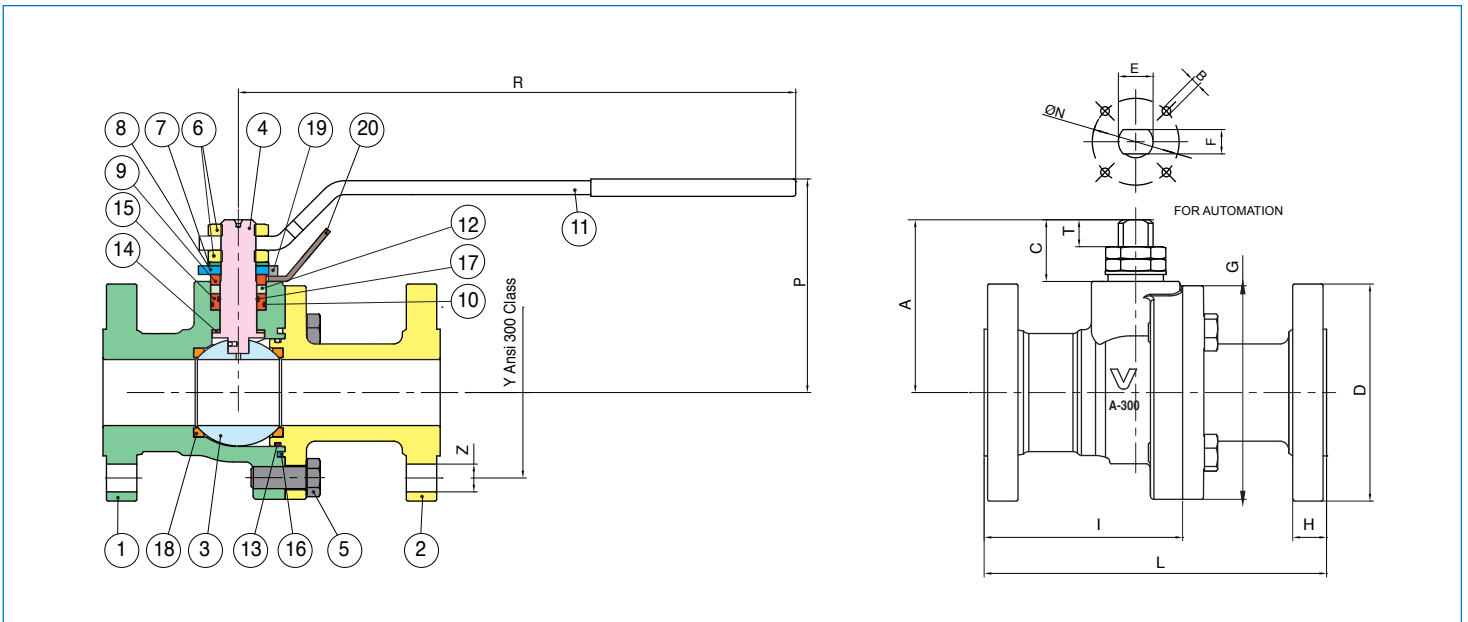


SERIES 68J100 API 608 STAINLESS STEEL BALL VALVE

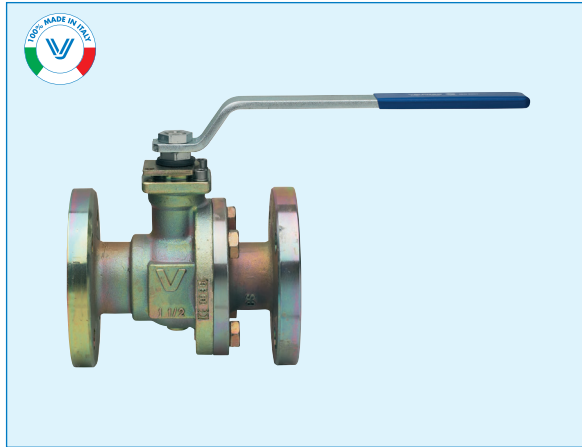
Stainless steel, ANSI Class 300, flanged ball valve.

- API 608, ASME B16.34, ASME B16.10, ASME B16.5, ASME B1.1 design.
- 100% tested according to API 598 standards.
- R.T.F.E seats, packing and thrust washer.
- Full port, sizes 1/2" - 6".
- Blow out proof stem, locking handle.
- Fire Safe design.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.
- Temperature range: -4° F to 366° F.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N PCS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Cv	Weight Lbs
1	BODY	A351-CF8M	1	1/2"	3.74	2.63	4xØ0.63	0.58	2.47	5.51	3.23	3.74	6.85	2.13	0.87	0.30	M12	0.31	1.65-F04	M5	22.33	6.83
2	END CONNECTION	A351-CF8M	1																			
3	BALL	A479-Tp316	1	3/4"	4.53	3.25	4xØ0.75	0.64	2.64	5.98	3.54	3.90	6.85	2.28	0.85	0.28	M12	0.31	1.65-F04	M5	40.70	9.92
4	STEM	A564 Tp630 H1150D (17-4-PH)	1																			
5	SCREW	A193 B8 Cl.2	4	1"	4.92	3.50	4xØ0.75	0.70	2.78	6.50	4.13	3.94	9.84	2.94	1.16	0.41	M16	0.39	1.97-F05	M6	75.00	14.11
6	NUT	STAINLESS STEEL	2																			
7	SPRING WASHER	A182-F304	2	1 1/2"	6.10	4.50	4xØ0.87	0.83	4.09	7.48	5.04	4.84	12.64	3.90	1.38	0.61	M20	0.55	1.97-F05	M6	202.33	25.57
8	90° STOP	AISI 316	1																			
9	BUSH	A479-Tp316L	1	2"	6.50	5.00	8xØ0.75	0.91	3.54	8.50	5.51	5.24	12.64	4.29	1.46	0.59	M20	0.55	1.97-F05	M6	350.35	31.74
10	O-RING	FKM (VITON®)	1																			
11	HANDLE	AISI 316	1	3"	8.27	6.63	8xØ0.87	1.14	4.80	11.10	7.40	6.57	15.00	5.91	1.85	0.85	M24	0.71	4.02-F10	M10	1014.53	70.53
12	STEM SEAL	GRAFITE	1																			
13	O-RING	FKM (VITON®)	1	4"	10.04	7.87	8xØ0.87	1.27	5.04	12.01	9.25	7.32	15.00	6.57	1.77	0.81	M24	0.71	4.02-F10	M10	1585.23	115.49
14	THRUST WASHER	R.P.T.F.E.	1																			
15	O-RING BUSH	A479-Tp316L	1	6"	12.60	10.63	12xØ0.87	1.46	7.89	15.87	12.68	12.17	27.56	9.65	2.52	1.18	M42	1.18	4.92-F12	M12	4268.72	240.24
16	BODY SEAT	GRAFITE	1																			
17	O-RING	FKM (VITON®)	2																			
18	BALL SEAT	R.P.T.F.E.	2																			
19	SCREW	A2-70	1																			
20	LOCKING DEVICE	AISI 316	1																			

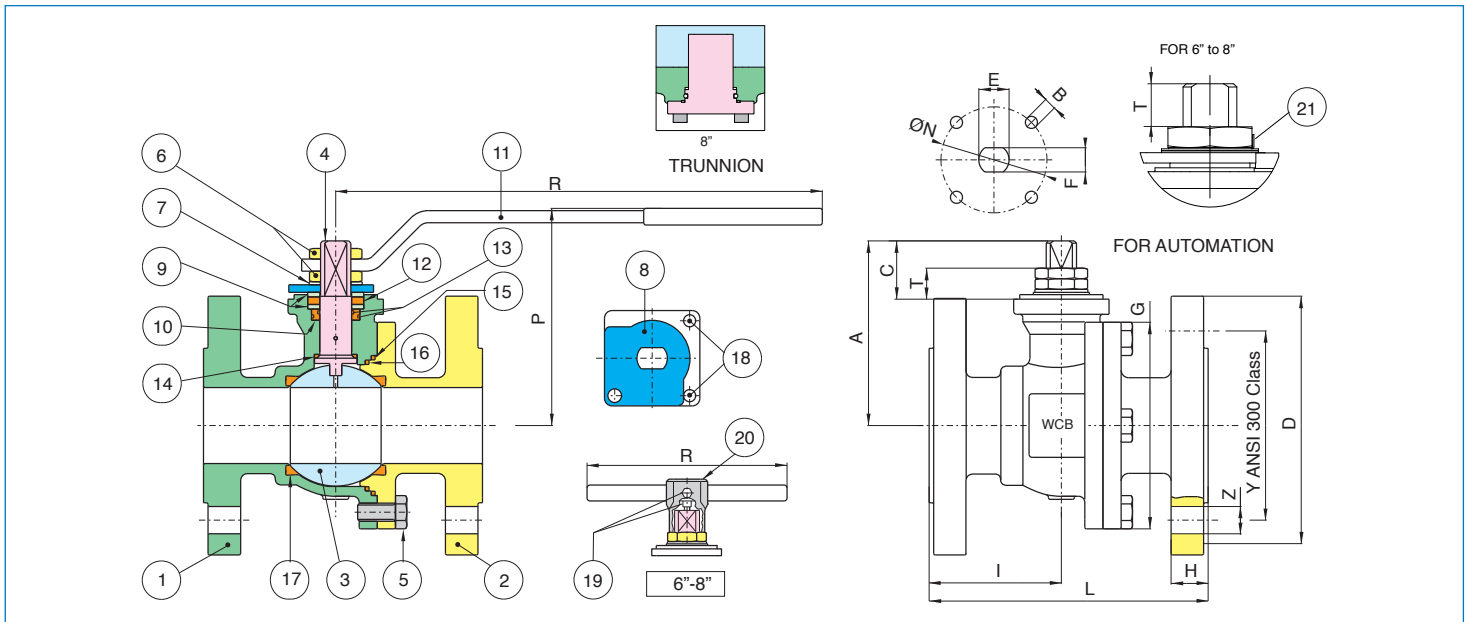


SERIES 761031 CARBON STEEL BALL VALVE

- Carbon steel, ANSI class 300 flanged ball valve.
- Full port, sizes 1/2" to 8" (8" TRUNNION).
- Blow out proof stem, adjustable stem packing.
- R.T.F.E. seats, packing and thrust washer.
- 100% tested.
- PED 97/23/CE.
- Locking handle plate.
- Temperature range -4° F to 366° F.
- ANSI B16.5 - B16.10 B16.34 design.
- Fire Safe API 6FA-API 607 4th edition.
- Antistatic device.
- ISO 5211 mounting pad with double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

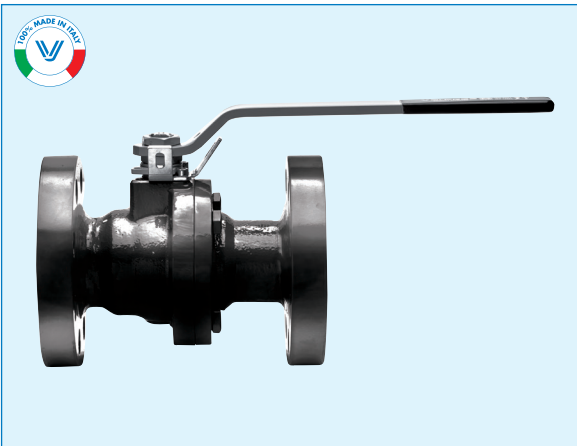
760266: STEAM SERVICE TRIM.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A216 WCB	1
2	END CONNECTION	A216 WCB	1
3	BALL	A479-304/A351-CF8	1
4	STEM	A479-304	1
5	SCREW	STAINLESS SELL	4-8-12
6	NUT	CARBON STEEL 1/2"-1 1/2" 2"-8"	1-2
7	SPRING WASHER	STEEL	2
8	TRAVEL STOP	CARBON STEEL	1
9	PACKING GLAND	CARBON STEEL	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	CARBON STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	O-RING	VITON	2
14	THRUST WASHER	P.T.F.E.	1
15	SEAL	GRAPHOIL	1
16	SEAL	P.T.F.E.	1
17	BALL SEATS	R.P.T.F.E.	2
18	SCREW	CARBON STEEL	2
19	SCREW	CARBON STEEL	2
20	BODY HANDLE	CAST IRON	1
21	UNSCREWING GROWER	A182-F316	1

SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.74	2.62	4xØ0.63	0.57	2.42	5.51	3.35	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	44	22.21	5.07
3/4"	4.53	3.25	4xØ0.75	0.63	2.40	5.98	3.07	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	142	40.50	7.71
1"	4.92	3.50	4xØ0.79	0.69	2.78	6.50	3.78	4.29	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	150	74.63	11.46
1 1/2"	6.10	4.51	4xØ0.87	0.83	3.09	7.48	4.96	5.24	9.84	4.21	1.18	0.39	M16	0.39	1.97-F05	M6	240	201.32	22.04
2"	6.50	5.00	8xØ0.79	0.89	3.39	8.50	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	345	348.60	26.45
3"	8.27	6.63	8xØ0.87	1.14	3.19	11.14	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	770	1009.48	59.51
4"	10.04	7.87	8xØ0.87	1.26	3.48	12.01	8.62	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	1160	1577.34	90.36
6"	12.60	10.63	12xØ0.87	1.46	6.77	15.87	12.05	12.01	27.56	9.65	2.68	1.61	M42	1.61	4.92-F12	M12	1240	4247.46	204.97
8" *	15.00	12.99	12xØ1.02	1.63	9.88	19.76	16.14	13.70	27.56	11.34	2.70	1.61	M42	1.61	4.92-F12	M12	3505	7886.81	332.80

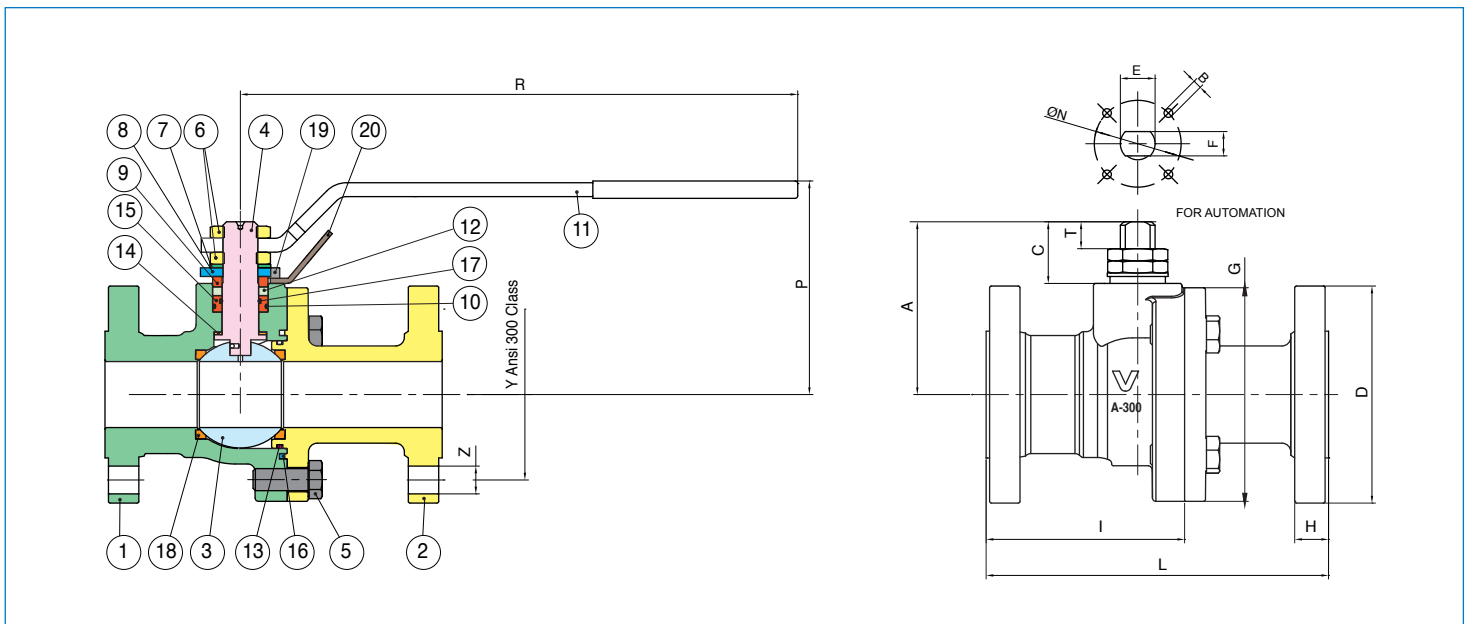
* TRUNNION max Δp= 362 psi



SERIES 68F100 API 608 CARBON STEEL BALL VALVE

- Carbon steel, ANSI Class 300, flanged ball valve.
- API 608, ASME B16.34, ASME B16.10, ASME B16.5, ASME B1.1 design.
 - 100% tested according to API 598 standards.
 - R.T.F.E seats, packing and thrust washer.
 - Full port, sizes 1/2" - 6".
 - Blow out proof stem, locking handle.
 - Fire Safe design.
 - Antistatic Device.
 - ISO 5211 mounting pad with double "D" stem.
 - Temperature range: -4° F to 366° F.

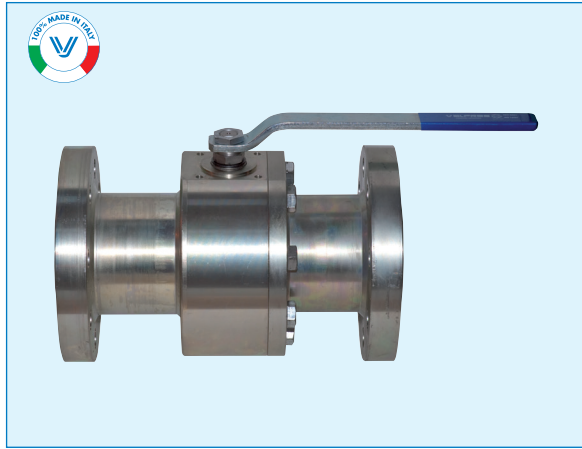
COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



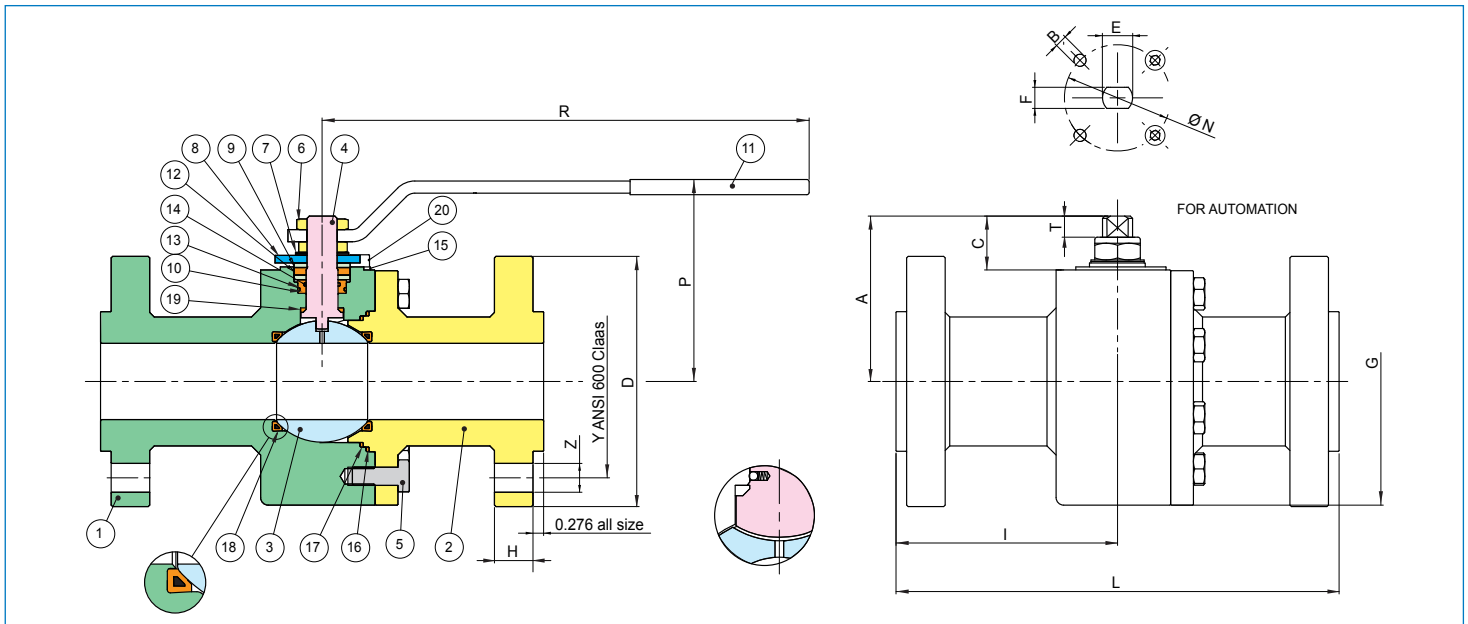
N PCS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Cv	Weight Lbs
1	BODY	A352-LCB	1	1/2"	3.74	2.63	4xØ0.63	0.58	2.47	5.51	3.23	3.74	6.85	2.13	0.87	0.30	M12	0.31	1.65-F04	M5	22.33	6.83
2	END CONNECTION	A352-LCB	1	3/4"	4.53	3.25	4xØ0.75	0.64	2.64	5.98	3.54	3.90	6.85	2.28	0.85	0.28	M12	0.31	1.65-F04	M5	40.70	9.92
3	BALL	A479-Tp316	1	1"	4.92	3.50	4xØ0.75	0.70	2.78	6.50	4.13	3.94	9.84	2.94	1.16	0.41	M16	0.39	1.97-F05	M6	75.00	14.11
4	STEM	A564 Tp630 H1150D (17-4-PH)	1	1 1/2"	6.10	4.50	4xØ0.87	0.83	4.09	7.48	5.04	4.84	12.64	3.90	1.38	0.61	M20	0.55	1.97-F05	M6	202.33	25.57
5	SCREW	A320 L7	4	2"	6.50	5.00	8xØ0.75	0.91	3.54	8.50	5.51	5.24	12.64	4.29	1.46	0.59	M20	0.55	1.97-F05	M6	350.35	31.74
6	NUT	CARBON STEEL	2	3"	8.27	6.63	8xØ0.87	1.14	4.80	11.10	7.40	6.57	15.00	5.91	1.85	0.85	M24	0.71	4.02-F10	M10	1014.53	70.53
7	SPRING WASHER	CARBON STEEL	2	4"	10.04	7.87	8xØ0.87	1.27	5.04	12.01	9.25	7.32	15.00	6.57	1.77	0.81	M24	0.71	4.02-F10	M10	1585.23	115.49
8	90° STOP	AISI 316	1	6"	12.60	10.63	12xØ0.87	1.46	7.89	15.87	12.68	12.17	27.56	9.65	2.52	1.18	M42	1.18	4.92-F12	M12	4268.72	240.24
9	BUSH	A479-Tp316L	1																			
10	O-RING	FKM (VITON®)	1																			
11	HANDLE	CARBON STEEL	1																			
12	STEM SEAL	GRAFITE	1																			
13	O-RING	FKM (VITON®)	1																			
14	THRUST WASHER	R.P.T.F.E.	1																			
15	O-RING BUSH	A479-Tp316L	1																			
16	BODY SEAT	GRAFITE	1																			
17	O-RING	FKM (VITON®)	2																			
18	BALL SEAT	R.P.T.F.E.	2																			
19	SCREW	CARBON STEEL	1																			
20	LOCKING DEVICE	AISI 316	1																			

SERIES 760200 STAINLESS STEEL BALL VALVE

- Stainless steel, ANSI class 600 flanged ball valve.
- Full port sizes 1/2" to 4"
 - Blow out proof stem.
 - Metal filled P.T.F.E. ball seats.
 - 100% tested.
 - PED 97/23/CE.
 - Temperature range -4° F to 366° F.
 - ANSI B16.5, B16.10, B16.34 design.
 - Fire Safe certified to API 607 6th edition.
 - Antistatic Device.
 - ISO 5211 mounting pad with double "D" stem.

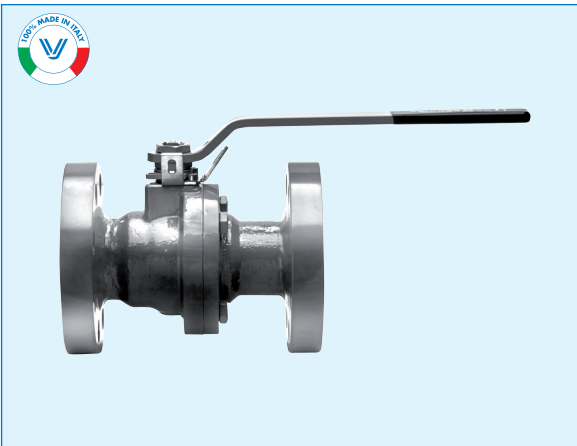


COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A479-316	1
2	END CONNECTION	A479-316	1
3	BALL	A479-316/A351-CF8M	1
4	STEM	A479-316	1
5	SCREW	STAINLESS STEEL	4-8
6	NUT	STAINLESS STEEL	2
7	SPRING WASHER	STAINLESS STEEL	2
8	90° STOP	STAINLESS STEEL	1
9	PACKING GLAND	STAINLESS STEEL	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	STAINLESS STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	O-RING	FKM (VITON)	1
14	O-RING	FKM (VITON)	1
15	THRUST WASHER	STAINLESS STEEL	2
16	BODY SEAL	GRAPHOIL	1
17	SEAL	P.T.F.E.	1
18	BALL SEAT	R.P.T.F.E.	2
19	THRUST WASHER	P.T.F.E.	1
20	SCREW	STAINLESS STEEL	2

SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.74	2.63	4xØ0.63	0.57	3.25	6.50	3.35	3.46	5.16	2.07	0.77	0.31	M10	0.28	1.65-F04	M5	58	22.21	9.04
3/4"	4.53	3.25	4xØ0.75	0.63	3.76	7.52	3.74	3.62	5.16	2.20	0.77	0.33	M10	0.28	1.65-F04	M5	93	40.50	13.22
1"	4.92	3.50	4xØ0.75	0.69	4.25	8.50	4.25	4.33	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	177	74.63	19.62
1 1/2"	6.10	4.51	4xØ0.87	0.88	4.74	9.49	6.26	5.16	9.88	4.21	1.26	0.51	M16	0.39	1.97-F05	M6	354	201.32	44.08
2"	6.50	5.00	8xØ0.75	1.00	5.75	11.50	6.42	5.24	12.64	4.29	1.40	0.55	M20	0.55	2.76-F07	M8	443	348.60	56.20
3"	8.27	6.63	8xØ0.87	1.25	7.01	14.02	8.19	6.14	15.00	5.20	1.57	0.63	M24	0.71	4.02-F10	M10	2213	1009.48	114.61
4"	10.04	8.50	8xØ1.02	1.50	8.50	17.01	10.28	7.32	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	2478	1577.34	213.79

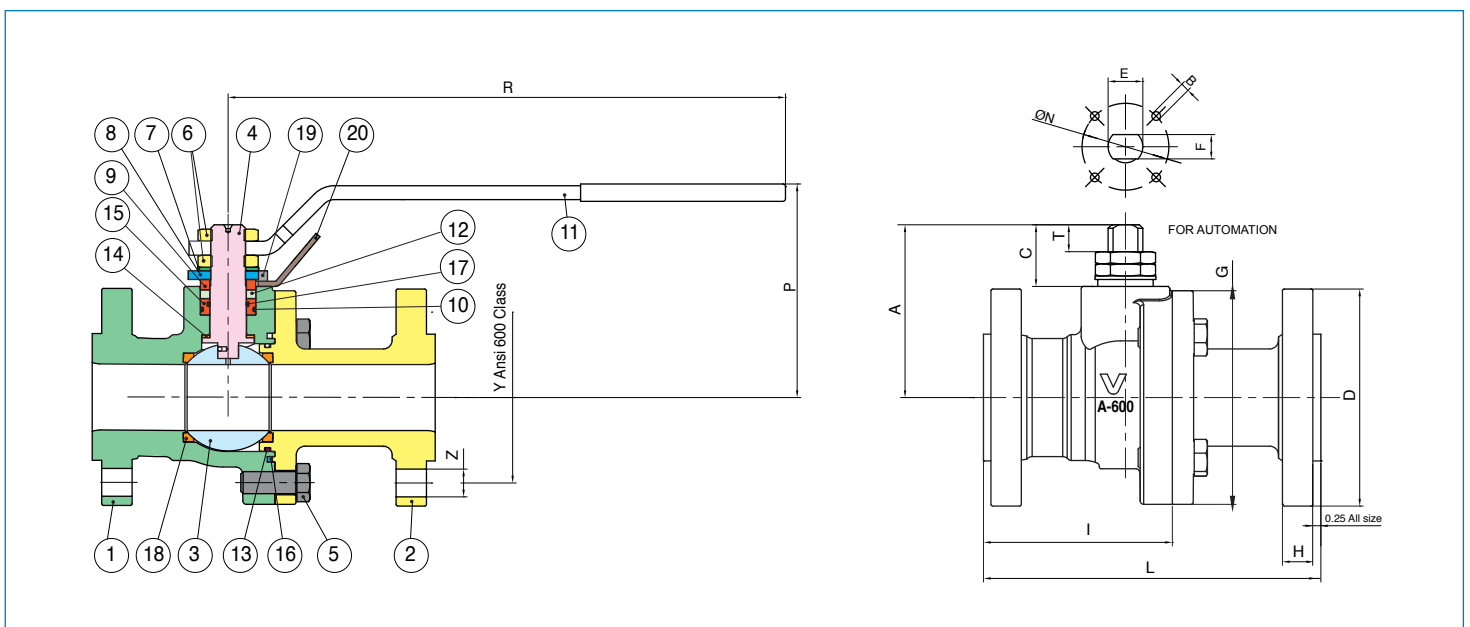


SERIES 68J401 API 608 STAINLESS STEEL BALL VALVE

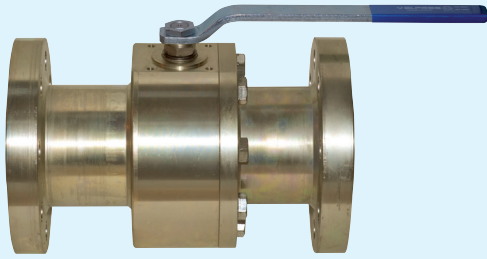
Stainless steel, ANSI class 600, flanged ball valve.

- API 608, ASME B16.34, ASME B16.10, ASME B16.5, ASME B1.1 design.
- 100% tested according to API 598 standards.
- R.T.F.E seats, packing and thrust washer.
- Full port, sizes 1/2" - 2".
- Blow out proof stem, locking handle.
- Fire Safe design.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.
- Temperature range: -4° F to 366° F.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



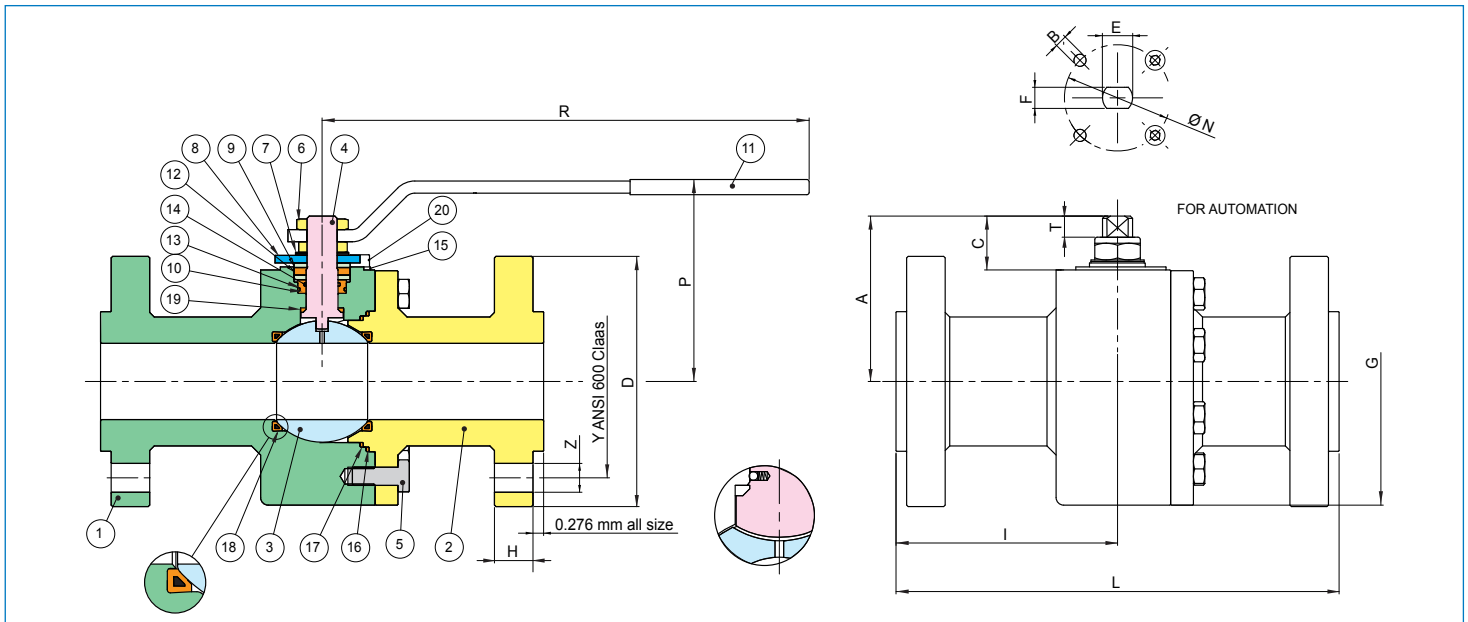
N PCS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Cv	Weight Lbs
1	BODY	A351-CF8M	1	1/2"	3.74	2.63	4xØ0.63	0.56	2.72	6.50	3.35	3.74	6.85	2.13	0.87	0.30	M12	0.31	1.65-F04	M5	22.33	7.93
2	END CONNECTION	A351-CF8M	1																			
3	BALL	A479-Tp316	1	3/4"	4.53	3.25	4xØ0.75	0.63	3.09	7.48	3.74	3.90	6.85	2.28	0.87	0.30	M12	0.31	1.65-F04	M5	40.70	11.24
4	STEM	A564 Tp630 H1150D (17-4-PH)	1																			
5	SCREW	A193 B8 Cl.2	4	1"	4.92	3.50	4xØ0.75	0.69	3.84	8.50	4.13	3.94	9.84	2.95	1.16	0.39	M16	0.39	1.97-F05	M6	75.00	15.87
6	NUT	STAINLESS STEEL	2																			
7	SPRING WASHER	A182-F304	2	1 1/2"	6.10	4.50	4xØ0.87	0.88	5.12	9.49	5.04	4.84	12.64	3.93	1.40	0.61	M20	0.55	1.97-F05	M6	120.70	29.09
8	90° STOP	AISI 316	1																			
9	BUSH	A479-Tp316L	1	2"	6.50	5.00	8xØ0.75	1.00	4.70	11.50	5.67	5.24	12.64	4.29	1.44	0.57	M20	0.55	1.97-F05	M6	350.35	38.35
10	O-RING	FKM (VITON®)	1																			
11	HANDLE	AISI 316	1																			
12	STEM SEAL	GRAFITE	1																			
13	O-RING	FKM (VITON®)	1																			
14	THRUST WASHER	R.P.T.F.E.	1																			
15	O-RING BUSH	A479-Tp316L	1																			
16	BODY SEAT	GRAFITE	1																			
17	O-RING	FKM (VITON®)	2																			
18	BALL SEAT	R.P.T.F.E.	2																			
19	SCREW	A2-70	1																			
20	LOCKING DEVICE	AISI 316	1																			



SERIES 760150 LOW TEMPERATURE CARBON STEEL BALL VALVE

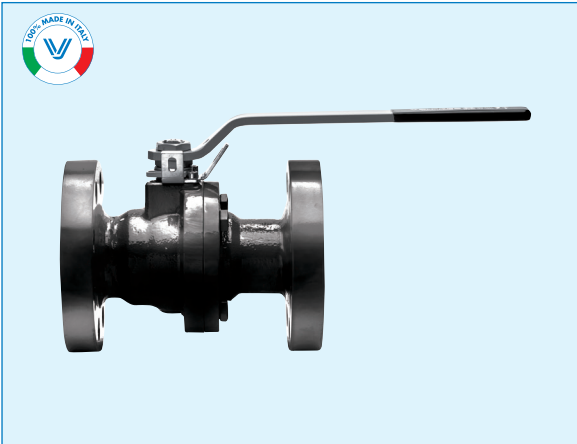
- Carbon steel, ANSI class 600 flanged ball valve.
- Full port sizes 1/2" to 4".
- Blow out proof stem.
- Metal filled P.T.F.E. ball seats.
- 100% tested.
- PED 97/23/CE.
- Temperature range -4° F to 366° F.
- ANSI B16.5, B16.10, B16.34 design.
- Fire Safe certified to API 607 6th edition.
- Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N POS	PART NAME	MATERIAL	N PCS
1	BODY	A350-LF2	1
2	END CONNECTION	A350-LF2	1
3	BALL	A479-304/A351-CF8	1
4	STEM	A479-304	1
5	SCREW	CARBON STEEL	4-8
6	NUT	CARBON STEEL	2
7	SPRING WASHER	CARBON STEEL	2
8	90° STOP	CARBON STEEL	1
9	PACKING GLAND	STAINLESS STEEL	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	CARBON STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	O-RING	FKM (VITON)	1
14	O-RING	FKM (VITON)	1
15	THRUST WASHER	STAINLESS STEEL	2
16	BODY SEAL	GRAPHOIL	1
17	SEAL	P.T.F.E.	1
18	BALL SEAT	R.P.T.F.E.	2
19	THRUST WASHER	P.T.F.E.	1
20	SCREW	STAINLESS STEEL	2

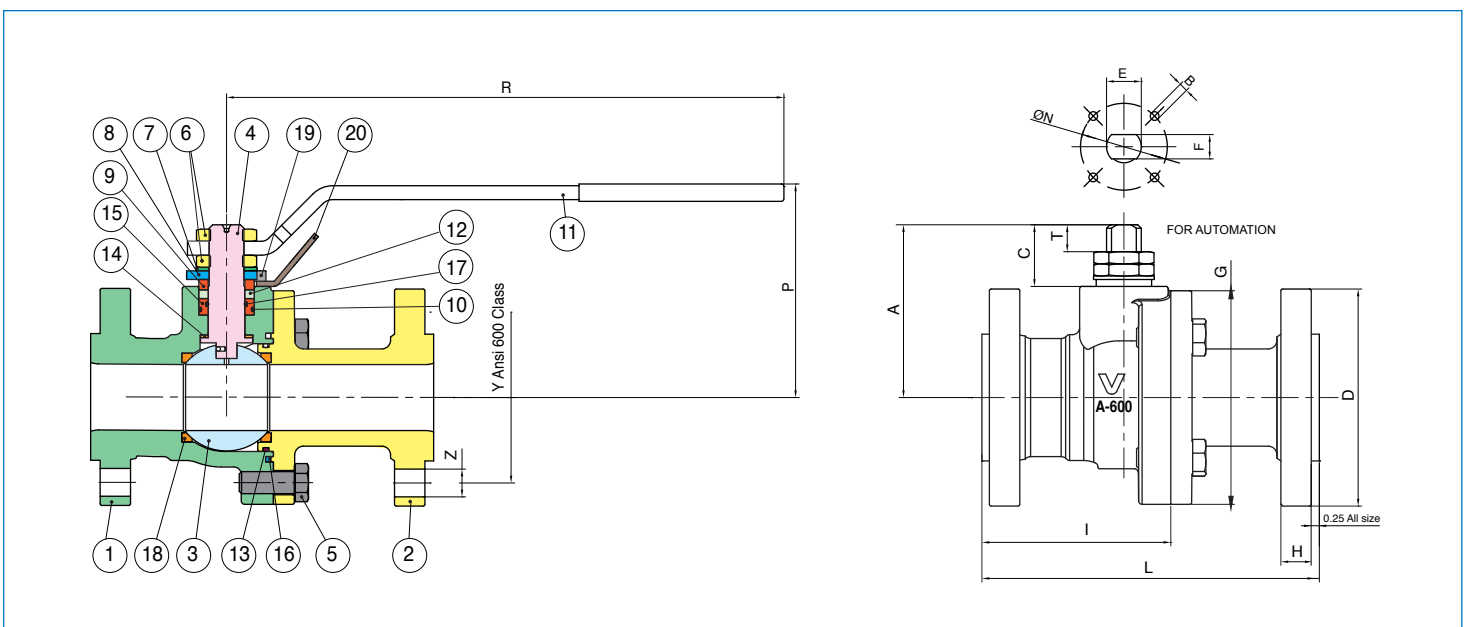
SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Break Torque (in/Lbs)	Cv	Weight Lbs
1/2"	3.74	2.63	4xØ0.63	0.57	3.25	6.50	3.35	3.46	5.16	2.07	0.77	0.31	M10	0.28	1.65-F04	M5	58	22.21	9.04
3/4"	4.53	3.25	4xØ0.75	0.63	3.76	7.52	3.74	3.62	5.16	2.20	0.77	0.33	M10	0.28	1.65-F04	M5	93	40.50	13.22
1"	4.92	3.50	4xØ0.75	0.69	4.25	8.50	4.25	4.33	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	177	74.63	19.62
1 1/2"	6.10	4.51	4xØ0.87	0.88	4.74	9.49	6.26	5.16	9.88	4.21	1.26	0.51	M16	0.39	1.97-F05	M6	354	201.32	44.08
2"	6.50	5.00	8xØ0.75	1.00	5.75	11.50	6.42	5.24	12.64	4.29	1.40	0.55	M20	0.55	2.76-F07	M8	443	348.60	56.20
3"	8.27	6.63	8xØ0.87	1.25	7.01	14.02	8.19	6.14	15.00	5.20	1.57	0.63	M24	0.71	4.02-F10	M10	2213	1009.48	114.61
4"	10.04	8.50	8xØ1.02	1.50	8.50	17.01	10.28	7.32	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	2478	1577.34	213.79



SERIES 68F400 API 608 CARBON STEEL BALL VALVE

- Carbon steel, ANSI class 600, flanged ball valve.
- API 608, ASME B16.34, ASME B16.10, ASME B16.5, ASME B1.1 design.
 - 100% tested according to API 598 standards.
 - R.T.F.E seats, packing and thrust washer.
 - Full port, sizes 1/2" to 2".
 - Blow out proof stem, locking handle.
 - Fire Safe design.
 - Antistatic Device.
 - ISO 5211 mounting pad with double "D" stem.
 - Temperature range: -4° F to 366° F.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



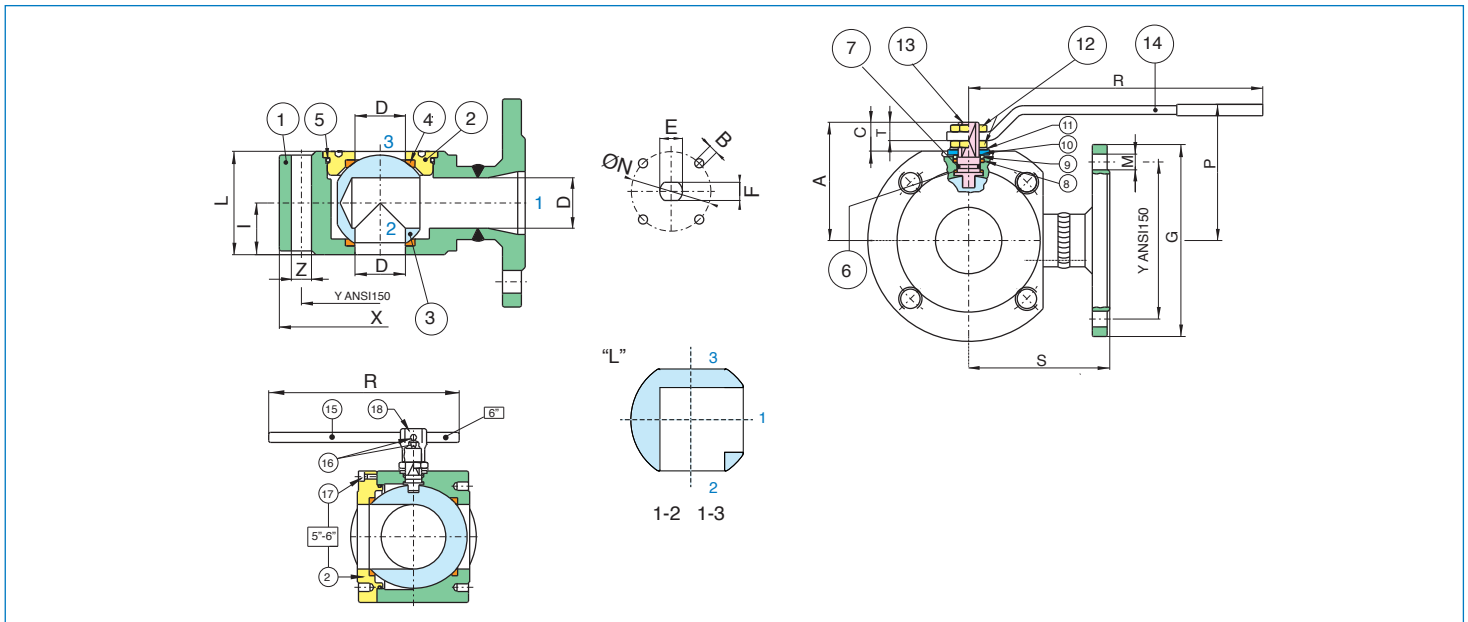
N POS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Cv	Weight Lbs
1	BODY	A352-LCB	1	1/2"	3.74	2.63	4xØ0.63	0.56	2.72	6.50	3.35	3.74	6.85	2.13	0.87	0.30	M12	0.31	1.65-F04	M5	22.33	7.93
2	END CONNECTION	A352-LCB	1																			
3	BALL	A479-Tp316	1	3/4"	4.53	3.25	4xØ0.75	0.63	3.09	7.48	3.74	3.90	6.85	2.28	0.87	0.30	M12	0.31	1.65-F04	M5	40.70	11.24
4	STEM	A564 Tp630 H1150D (17-4-PH)	1																			
5	SCREW	A320 L7	4	1"	4.92	3.50	4xØ0.75	0.69	3.84	8.50	4.13	3.94	9.84	2.95	1.16	0.39	M16	0.39	1.97-F05	M6	75.00	15.87
6	NUT	CARBON STEEL	2																			
7	SPRING WASHER	CARBON STEEL	2	1 1/2"	6.10	4.50	4xØ0.87	0.88	5.12	9.49	5.04	4.84	12.64	3.93	1.40	0.61	M20	0.55	1.97-F05	M6	120.70	29.09
8	90° STOP	AISI 316	1																			
9	BUSH	A479-Tp316L	1	2"	6.50	5.00	8xØ0.75	1.00	4.70	11.50	5.67	5.24	12.64	4.29	1.44	0.57	M20	0.55	1.97-F05	M6	350.35	38.35
10	O-RING	FKM (VITON®)	1																			
11	HANDLE	CARBON STEEL	1																			
12	STEM SEAL	GRAFITE	1																			
13	O-RING	FKM (VITON®)	1																			
14	THRUST WASHER	R.P.T.F.E.	1																			
15	O-RING BUSH	A479-Tp316L	1																			
16	BODY SEAT	GRAFITE	1																			
17	O-RING	FKM (VITON®)	2																			
18	BALL SEAT	R.P.T.F.E.	2																			
19	SCREW	CARBON STEEL	1																			
20	LOCKING DEVICE	AISI 316	1																			



SERIES 776032 (L) CARBON STEEL 3 WAY BALL VALVE

Compact design, carbon steel, ANSI class 150 flanged 3 way ball valve. stainless steel ball and stem.

- 3 way, diverter, two seats, L reduced port, sizes 1/2" to 6".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- 100% tested.
- TUV T.A. Luft approved.
- ISO 5211 mounting pad with double "D" stem.



N POS	PART NAME	MATERIAL	N PCS	SIZE	X	Y	Z UNC	I	L	R	P	A	C	T	G	M	D	S	E	F	ISO 5211	B	Break Torque (in/Lbs)	CV	Weight Lbs
1	BODY	ASTM A105	1	1/2"	3.50	2.38	4X1/2"	0.78	1.57	5.17	2.54	1.85	0.61	0.35	3.50	4 X Ø 0.62	0.39	2.99	0.39	0.27	1.26	4XM5	35	3.2	4.91
2	END CONNECTION	ASTM A105	1																						
3	BALL	AISI 304	1	3/4"	3.88	2.75	4X1/2"	0.78	1.57	5.17	2.71	1.95	0.53	0.35	3.88	4 X Ø 0.62	0.59	3.23	0.39	0.27	1.26	4XM5	115	6	6.30
4	BALL SEATS	R.P.T.F.E	2																						
5	O-RING	FKM (Viton®)	1	1"	4.25	3.12	4X1/2"	0.90	1.81	6.87	3.17	2.32	0.70	0.49	4.25	4 X Ø 0.62	0.78	3.38	0.47	0.31	1.65 (F04)	4XM5	124	10.6	8.57
6	THRUST WASHER	P.T.F.E	1	1 1/4"	4.62	3.50	4X1/2"	1.14	2.28	6.87	3.33	2.52	0.61	0.45	4.62	4 X Ø 0.62	0.98	3.93	0.47	0.31	1.65 (F04)	4XM5	150	16.6	13.69
7	O-RING	FKM (Viton®)	1																						
8	STEM SEAL	P.T.F.E	1	1 1/2"	5.00	3.88	4X1/2"	1.39	2.79	9.86	4.03	3.07	0.96	0.51	5.00	4 X Ø 0.62	1.26	4.13	0.63	0.39	1.97 (F05)	4XM6	195	29.9	18.73
9	PACKING GLAND	STEEL	1																						
10	END STOP	STEEL (1/2" - 2") STEEL (2 1/2" - 6")	2	2"	6.00	4.75	4X5/8"	1.61	3.22	9.86	4.29	3.35	0.98	0.53	6.00	4 X Ø 0.75	1.57	4.52	0.63	0.39	1.97 (F05)	4XM6	292	46.7	27.05
11	SPRING WASHER	STEEL	2	2 1/2"	7.00	5.50	4X5/8"	2.08	4.17	12.65	4.29	4.11	1.10	0.71	7.00	4 X Ø 0.75	1.97	4.92	0.78	0.55	2.76 (F07)	4XM8	540	73.1	44.10
12	NUT	STEEL	2																						
13	STEM	AISI 304	1	3"	7.50	6.00	4X5/8"	2.40	4.80	12.65	5.37	4.45	1.10	0.71	7.50	4 X Ø 0.75	2.52	5.90	0.78	0.55	2.76 (F07)	4XM8	637	133.9	53.66
14	HANDLE	STEEL	1	4"	9.00	7.50	8X5/8"	2.99	5.98	15.01	6.12	5.35	1.36	0.86	9.00	8 X Ø 0.75	2.99	6.26	0.94	0.70	4.02 (F10)	4XM10	956	188.7	84.76
15	HANDLE DN 150	CARBON STEEL	1																						
16	SCREW	CARBON STEEL	1	5"	9.84	8.50	8x3/4"	3.85	7.70	15.02	7.01	6.25	1.36	0.86	10.03	8 X Ø 0.86	3.93	7.48	0.94	0.72	4.92 (F12)	4xM10	1018	326.7	140.00
17	SCREW	CARBON STEEL	8																						
18	BODY HANDLE	EN-GJL250	1	6**	11.08	9.50	8x3/4"	4.56	9.13	27.6	9.92	7.90	1.92	1.18	11.02	8 X Ø 0.86	4.90	8.26	1.65	1.18	4.92 (F12)	4xM12	2903	510.5	220.00

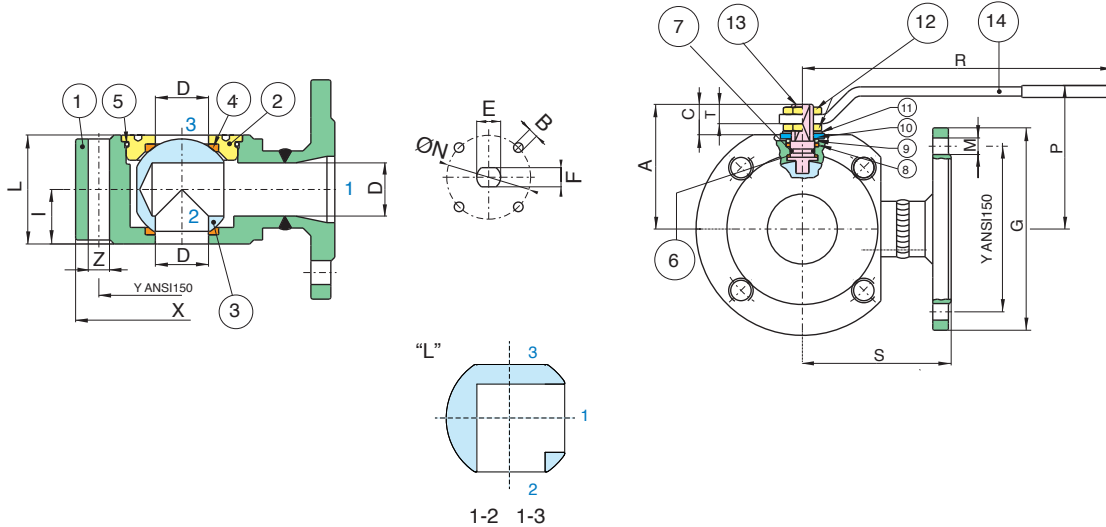
* For automation please consult factory.



SERIES 776018 (L) STAINLESS STEEL 3 WAY BALL VALVE

Compact design, stainless steel, ANSI class 150 flanged 3 way ball valve.




- 3 way, diverter, two seats, L reduced port, sizes 1/2" to 4".
- Temperature range -4° F to 366° F.
- Blow out proof stem.
- R.P.T.F.E. seats, packing and thrust washer.
- 100% tested.
- TUV T.A. Luft approved.
- ISO 5211 mounting pad with double "D" stem.



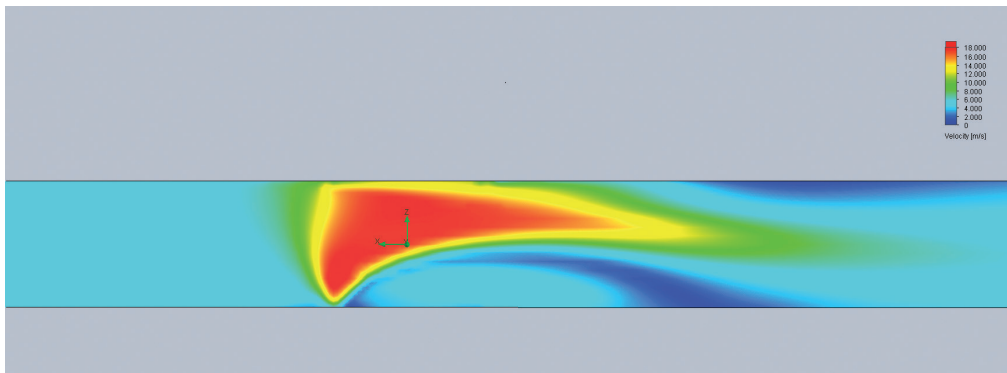
N POS	PART NAME	MATERIAL	N PCS	SIZE	X	Y	Z UNC	I	L	R	P	A	C	T	G	M	D	S	E	F	ISO 5211	B	Break Torque (in/Lbs)	CV	Weight Lbs
1	BODY	AISI 316	1	1/2"	3.50	2.38	4X1/2"	0.78	1.57	5.17	2.54	1.85	0.61	0.35	3.50	4 X Ø 0.62	0.39	2.99	0.39	0.27	1.26	4XM5	35	3.2	4.91
2	END CONNECTION	AISI 316	1	3/4"	3.88	2.75	4X1/2"	0.78	1.57	5.17	2.71	1.95	0.53	0.35	3.88	4 X Ø 0.62	0.59	3.23	0.39	0.27	1.26	4XM5	115	6	6.30
3	BALL	AISI 316	1	1"	4.25	3.12	4X1/2"	0.90	1.81	6.87	3.17	2.32	0.70	0.49	4.25	4 X Ø 0.62	0.78	3.38	0.47	0.31	1.65 (F04)	4XM5	124	10.6	8.57
4	BALL SEATS	R.P.T.F.E	2	1 1/4"	4.62	3.50	4X1/2"	1.14	2.28	6.87	3.33	2.52	0.61	0.45	4.62	4 X Ø 0.62	0.98	3.93	0.47	0.31	1.65 (F04)	4XM5	150	16.6	13.69
5	O-RING	FKM (Viton®)	1	1 1/2"	5.00	3.88	4X1/2"	1.39	2.79	9.86	4.03	3.07	0.96	0.51	5.00	4 X Ø 0.62	1.26	4.13	0.63	0.39	1.97 (F05)	4XM6	195	29.9	18.73
6	THRUST WASHER	P.T.F.E	1	2"	6.00	4.75	4X5/8"	1.61	3.22	9.86	4.29	3.35	0.98	0.53	6.00	4 X Ø 0.75	1.57	4.52	0.63	0.39	1.97 (F05)	4XM6	292	46.7	27.05
7	O-RING	FKM (Viton®)	1	2 1/2"	7.00	5.50	4X5/8"	2.08	4.17	12.65	4.29	4.11	1.10	0.71	7.00	4 X Ø 0.75	1.97	4.92	0.78	0.55	2.76 (F07)	4XM8	540	73.1	44.10
8	STEM SEAL	P.T.F.E	1	3"	7.50	6.00	4X5/8"	2.40	4.80	12.65	5.37	4.45	1.10	0.71	7.50	4 X Ø 0.75	2.52	5.90	0.78	0.55	2.76 (F07)	4XM8	637	133.9	53.66
9	PACKING GLAND	STEEL	1	4"	9.00	7.50	8X5/8"	2.99	5.98	15.01	6.12	5.35	1.36	0.86	9.00	8 X Ø 0.75	2.99	6.26	0.94	0.70	4.02 (F10)	4XM10	956	188.7	84.76
10	END STOP	STEEL (1/2" - 2") STEEL (2 1/2" - 4")	2																						
11	SPRING WASHER	STEEL	2																						
12	NUT	STEEL	2																						
13	STEM	AISI 316	1																						
14	HANDLE	STEEL	1																						

Floating control valves

Valpres has expanded its own product range adding V-ball control ball valves. This type of ball can be mounted on the valve series INOX-VAL, RADIAMONT, WAFER, SPLIT-BODY, WAFER-SPLIT. V-ball control valves are available with the patterns V30-60, V60, V90.

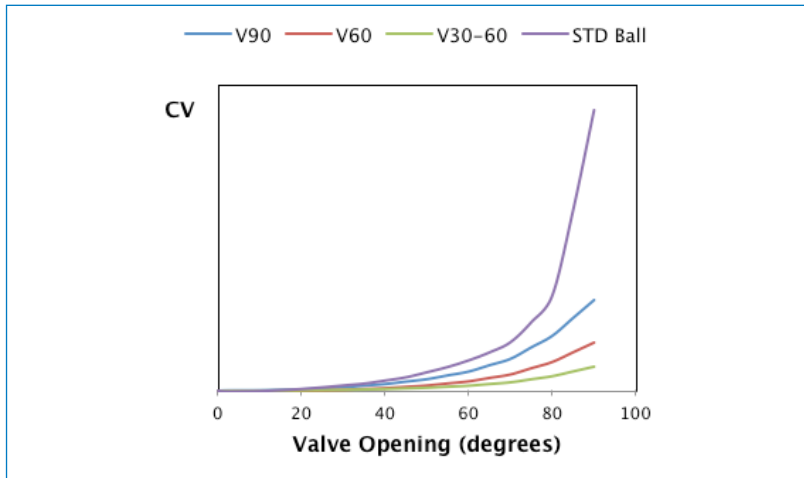
Valve type	Pressure Class Range	Openings (Degrees)	10°	20°	30°	40°	50°	60°	70°	80°	90°
		SIZE [inch]	CV	CV	CV	CV	CV	CV	CV	CV	CV
 V 90	150-300 CLASS	1/2"	0	0.1	0.3	0.7	1.2	2.0	3.4	5.9	10
		3/4"	0	0.3	0.8	1.6	2.7	4.6	7.7	13.3	22
		1"	0	0.5	1.4	2.8	4.9	8.2	13.7	23.7	39
		1 1/4"	0	0.8	2.2	4.5	8.0	13.4	22.4	38.8	64
		1 1/2"	0	1.1	3.3	6.6	11.6	19.5	32.6	56.4	93
		2"	0	2.0	6.0	12.0	21.2	35.6	59.5	102.9	170
		3"	0	4.7	13.6	27.3	48.1	80.9	135.4	234.1	387
		4"	0	8.1	23.6	47.5	83.8	140.8	235.7	407.5	675
		6"	0	17.7	51.6	103.8	183.1	307.6	514.9	890.2	1473
F ₁	-	-	0.94	0.93	0.92	0.88	0.85	0.81	0.75	0.65	0.50
X ₁	-	-	0.84	0.86	0.84	0.82	0.82	0.82	0.79	0.62	0.24
 V 60	150-300 CLASS	1/2"	0	0.1	0.2	0.4	0.7	1.2	1.9	3.3	6
		3/4"	0	0.1	0.4	0.9	1.5	2.6	4.3	7.5	12
		1"	0	0.3	0.8	1.6	2.7	4.6	7.7	13.4	22
		1 1/4"	0	0.4	1.3	2.5	4.5	7.6	12.7	21.9	36
		1 1/2"	0	0.7	2.0	4.0	7.1	11.9	20.0	34.5	57
		2"	0	1.1	3.1	6.3	11.1	18.7	31.2	54.0	89
		3"	0	2.7	7.9	16.0	28.2	47.4	79.3	137.1	227
		4"	0	4.3	12.4	25.0	44.1	74.1	124.1	214.5	355
		6"	0	9.6	28.0	56.3	99.3	166.8	279.3	482.8	799
F ₁	-	-	0.94	0.93	0.92	0.88	0.85	0.81	0.75	0.65	0.50
X ₁	-	-	0.84	0.86	0.84	0.82	0.82	0.82	0.79	0.62	0.24
 V 30-60	150-300 CLASS	1/2"	0	0.0	0.1	0.2	0.4	0.6	1.0	1.7	3
		3/4"	0	0.1	0.2	0.5	0.8	1.3	2.2	3.9	6
		1"	0	0.1	0.4	0.8	1.4	2.4	4.0	6.9	11
		1 1/4"	0	0.2	0.7	1.3	2.3	3.9	6.5	11.3	18
		1 1/2"	0	0.3	1.0	2.0	3.5	5.9	9.8	17.0	28
		2"	0	0.5	1.5	3.1	5.5	9.2	15.4	26.7	44
		3"	0	1.3	3.9	7.8	13.8	23.2	38.9	67.2	111
		4"	0	2.1	6.1	12.3	21.6	36.3	60.8	105.2	174
		6"	0	4.7	13.7	27.6	48.7	81.9	137.0	236.9	392
F ₁	-	-	0.94	0.93	0.92	0.88	0.85	0.81	0.75	0.65	0.5
X ₁	-	-	0.84	0.86	0.84	0.82	0.82	0.82	0.79	0.62	0.24

Quotes valid for series: Inox-val, Radiamont, Wafer and Split Body for the relevant sizes and pressure classes.



Example velocity plot for V-ball 30-60

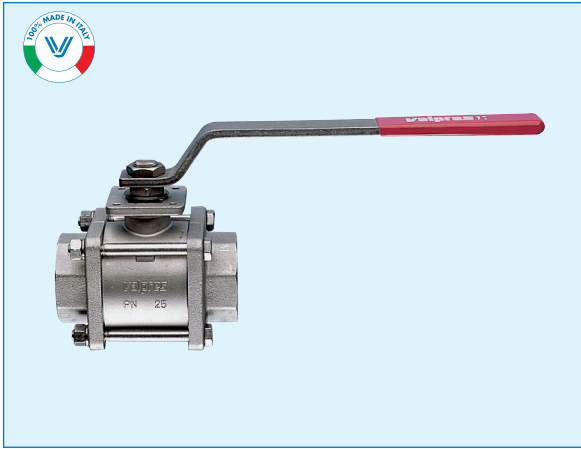
V-ball can be used on liquid, gas and steam service and grants an accurate and precise flow control with a rangeability up to 500:1. Valve design has been validated using finite element analysis software FEA, computational fluid dynamics software CFD and Flow Loop testing. CV and KV curves are available upon request.



VALPSIZE software, available upon request, allows the user to size the valves properly (ISA 75.02, IEC 60534-2-1) to check fluid velocity, valve openings, noise and other critical issues. Valpres control valves are available with manual lever, Valbia electric or pneumatic actuators.

unit	case 1	case 2	case 3	case 4	case 5
Travel °	61.0	83.7	63.4	65.2	14.2
Travel %	67.8	93.0	70.4	72.4	15.8
Flow exit velocity m/s	4.07	11.32	4.07	FLASHING	0.06
DP Terminal bar	2.03	1.13	1.69	1.52	1.88
Cv inherent	605.55	2315.99	643.00	679.00	36.57
Cv installed	603.80	2221.71	640.91	676.54	36.57
FI	0.91	0.68	0.91	0.91	0.96
Noise dBA	76	85	76	FLASHING	23
Xf	0.776	0.776	0.994	1.117	0.050

unit	case 1	case 2	case 3	case 4	case 5
flow rate m ³ /h	720.00	2000.00	720.00	720.00	10.00
inlet temp K	303.15	305.15	353.15	363.15	363.15
inlet press barA	2.500	2.500	2.500	2.500	2.500
outlet press barA	0.600	0.600	0.500	0.500	2.400
pressure drop bar	1.900	1.900	2.000	2.000	0.100
vap press barA	0.051	0.051	0.488	0.710	0.488
Reynold's nr	1.00	1.00	1.00	1.00	1.00

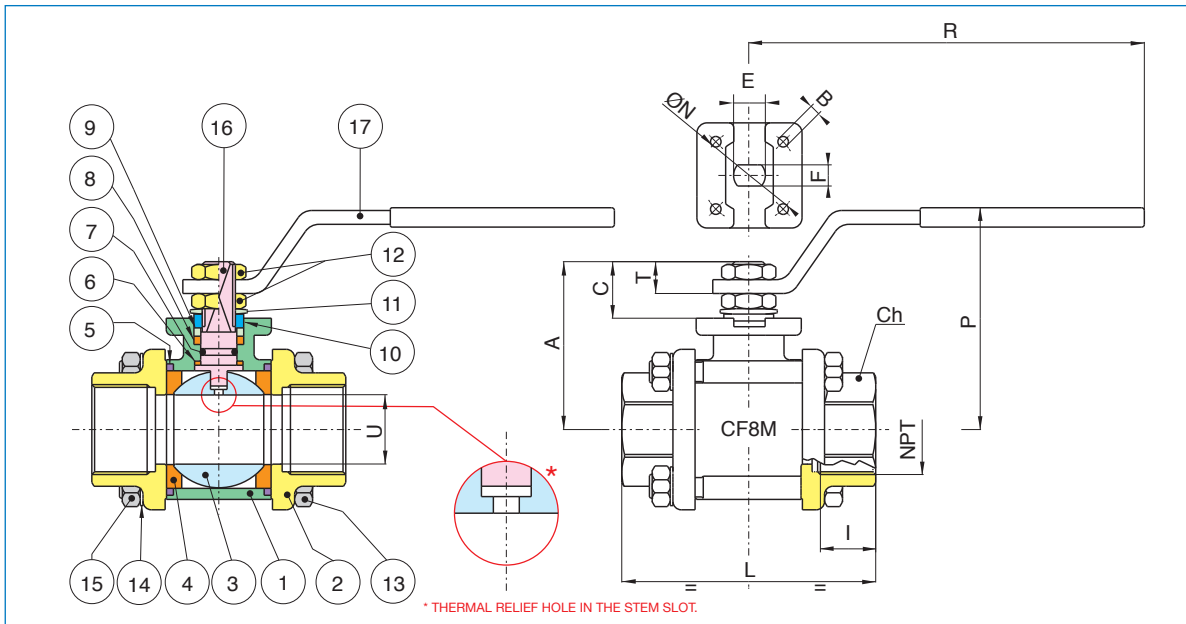


SERIES 710190-V36 - 710190-V6 - 710190-V9 STAINLESS STEEL 3-PC V-BALL VALVE

3 piece stainless steel 1000 psi-250 psi stem, FNPT threaded V-ball valve, 30-60, 60,90 degrees V ports.

- Sizes 1/2" to 4"
- Temperature range: -4°F to 406° F.
- Blow out proof stem, Antistatic Device.
- ISO 5211 mounting pad with double "D" stem.
- 100% tested.
- TUV T.A. Luft approved.
- 25% carbon filled P.T.F.E. ball seats; thermal relief hole in the ball.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



V-ball options



V30-60



V60



V90

N POS	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	2
3	BALL	AISI316	1
4	BALL SEAT	R.P.T.F.E	2
5	O-RING	FKM (Viton®)	2
6	STEM SEAL	R.P.T.F.E	1
7	O-RING	FKM (Viton®)	1
8	STEM SEAL	R.P.T.F.E	1
9	PACKING GLAND	AISI 303 (1/4" - 2") STEEL (2 1/2" - 4")	1
10	END STOP	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	2
11	SPRING WASHER	STEEL (2 1/2" - 4")	2
12	NUT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	2
13	BOLT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
14	WASHER	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
15	NUT	AISI 304 (1/4" - 2") STEEL (2 1/2" - 4")	4
16	STEM	AISI 316	1
17	HANDLE	AISI 430 (1/4" - 2") STEEL (2 1/2" - 4")	1

SIZE	U	I	L	CH	R	P	A	C	T	E	F	ISO 5211	B	psi	Weight Lbs
1/2"	0.59	0.59	2.55	1.06	5.17	2.51	1.85	0.59	0.39	0.39	0.27	1.41 (F03)	0.23	250	0.88
3/4"	0.78	0.64	2.99	1.25	5.17	2.67	2.02	0.59	0.39	0.39	0.27	1.65 (F04)	0.21	250	1.32
1"	0.98	0.75	3.62	1.61	6.87	3.09	2.36	0.76	0.49	0.47	0.31	1.65 (F04)	0.23	250	2.42
1 1/4"	1.25	0.84	4.19	1.96	6.87	3.28	2.53	0.76	0.49	0.47	0.31	1.65 (F04)	0.21	250	3.36
1 1/2"	1.49	0.84	4.56	2.16	9.86	3.93	3.11	0.94	0.64	0.62	0.39	1.96 (F05)	0.25	250	4.61
2"	1.96	1.01	5.35	2.75	9.86	4.21	3.38	0.94	0.64	0.62	0.39	1.96 (F05)	0.25	250	7.03
3"	3.15	1.31	7.08	4.13	12.65	5.41	4.48	1.10	0.70	0.78	0.55	2.75 (F07)	M8	250	29.45
4"	3.93	1.54	8.54	5.11	15.01	6.16	5.39	1.35	0.86	0.94	0.70	4.01 (F10)	M10	250	46.79

SERIES V300 - V600 - V900 STAINLESS STEEL V-BALL VALVE



Stainless steel, 1000 psi-250 psi stem, FNPT threaded, locking handle, V-ball valve 30, 60, 90 degrees V ports.

- Sizes 1/2" thru 4".
- 25% carbon filled P.T.F.E ball seats.
- Temperature Range -18°F to 428°F.
- Pressure rating: 1000 PSI (1/2" to 2"), 800 PSI (2-1/2" to 4").
- ISO 5211/DIN 3337 direct mounting.
- Blow-Out proof stem, Anti-Static design.
- Thermal relief hole in the ball.

V-ball options



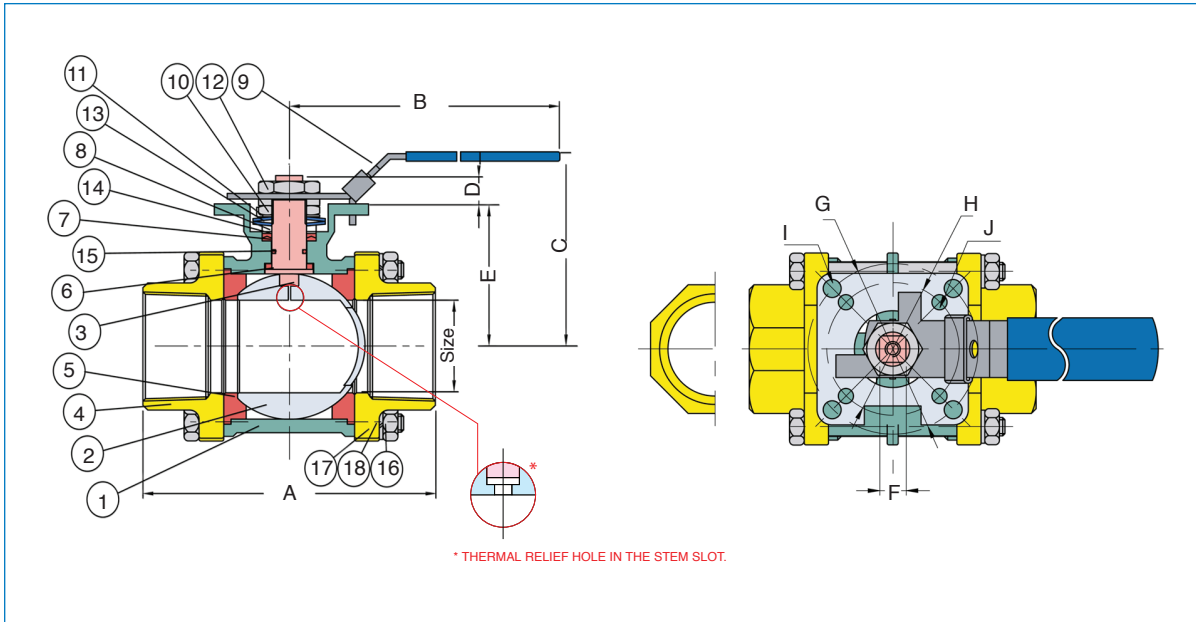
V30



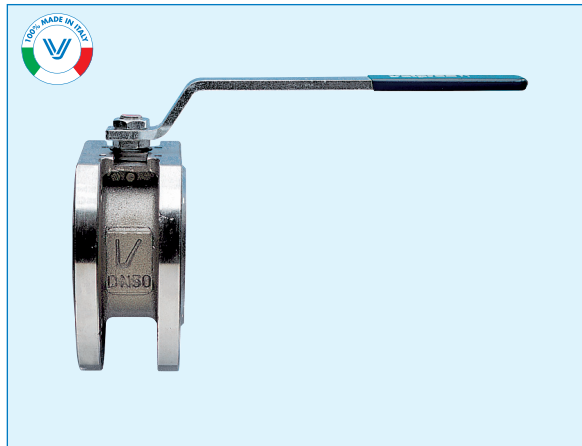
V60



V90



N POS	PART NAME	MATERIAL	N POS	SIZE	A	B	C	D	E	F	G	H	I	J	Weight Lbs	Torque in/Lbs	ISO 5211	Drive mm
1	BODY	ASTM A351 Gr. CF8M	1	1/2"	2.50	4.41	2.87	0.33	1.46	0.35	1.97	1.42	0.28	0.24	1.3	62.0	F03/F05	9
2	BALL	ASTM A351 Gr. CF8M	1	3/4"	2.85	4.41	3.18	0.33	1.77	0.35	1.97	1.42	0.28	0.24	1.6	70.8	F03/F05	9
3	STEM	S.S. 316	1	1"	3.19	5.35	3.56	0.45	2.11	0.35	1.97	1.65	0.28	0.24	2.3	123.9	F03/F05	9
4	END CAP	ASTM A351 Gr. CF8M	2	1 1/4"	3.72	7.28	3.89	0.45	2.32	0.35	1.97	1.65	0.28	0.24	3.4	194.7	F03/F05	9
5	SEAT	25% carbon filled P.T.F.E	2	1 1/2"	4.25	7.79	4.54	0.55	2.94	0.55	2.76	1.9	0.35	0.28	5.5	274.4	F05/F07	14
6	THRUST WASHER	15% GF P.T.F.E	1	2"	4.78	7.79	4.88	0.54	3.29	0.55	2.76	1.97	0.35	0.28	7.6	283.2	F05/F07	14
7	STEM PACKING	S.S. 304	1	2 1/2"	6.20	10.4	6.10	0.1	4.28	0.67	4.02	2.76	0.43	0.35	14.1	681.5	F07/F10	17
8	GLAND BUSHING	S.S. 304	1	3"	7.48	10.4	8.21	0.71	4.66	0.67	4.02	2.76	0.43	0.35	24.6	743.5	F07/F10	17
9	HANDLE	S.S. 304	1	4"	8.86	12.8	8.53	0.91	6.06	0.67	4.02	2.76	0.43	0.35	48.4	1354.2	F07/F10	17
10	STEM NUT	S.S. 304	1															
11	HANDLE WASHER	S.S. 304	1															
12	HANDLE NUT	S.S. 304	1															
13	BELLEVILLE WASHER	S.S. 304-CSP	2															
14	PACKING FOLLOWER	P.T.F.E +25% GF	1															
15	STEM O-RING	VITON	1															
16	BODY BOLT	S.S. 304	*															
17	BOLT WASHER	S.S. 304	*															
18	BOLT NUT	S.S. 304	*															



SERIES 720370-V36 - 720370-V6 - 720370-V9 STAINLESS STEEL WAFER V-BALL VALVE

Stainless steel ANSI class 150 flanged V-ball valve 30-60, 60, 90 degrees V ports.

- Sizes 1/2" to 6".
- Temperature range -4° F to 406° F.
- Blow out proof stem, Antistatic Device.
- R.P.T.F.E. seats, packing and thrust washer.
- Thermal relief hole in the ball.
- Space saving design.
- 100% tested.
- TUV T.A. Luft approved.
- ANSI B16.34 design.
- ISO 5211 mounting pad and double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

V-ball options



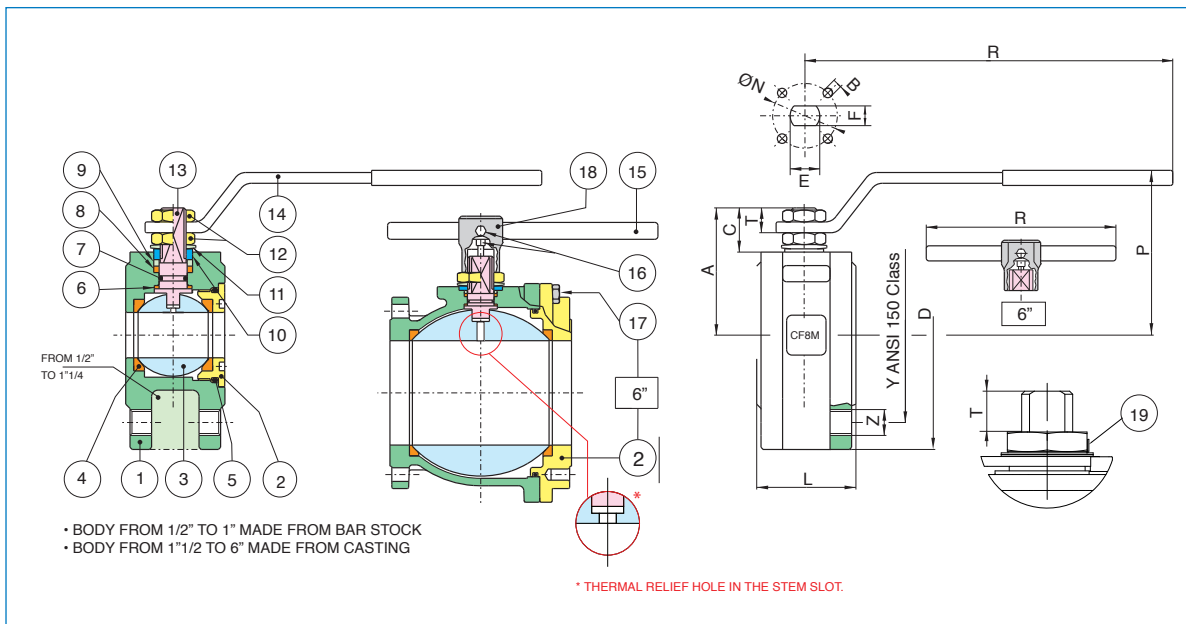
V30-60



V60



V90



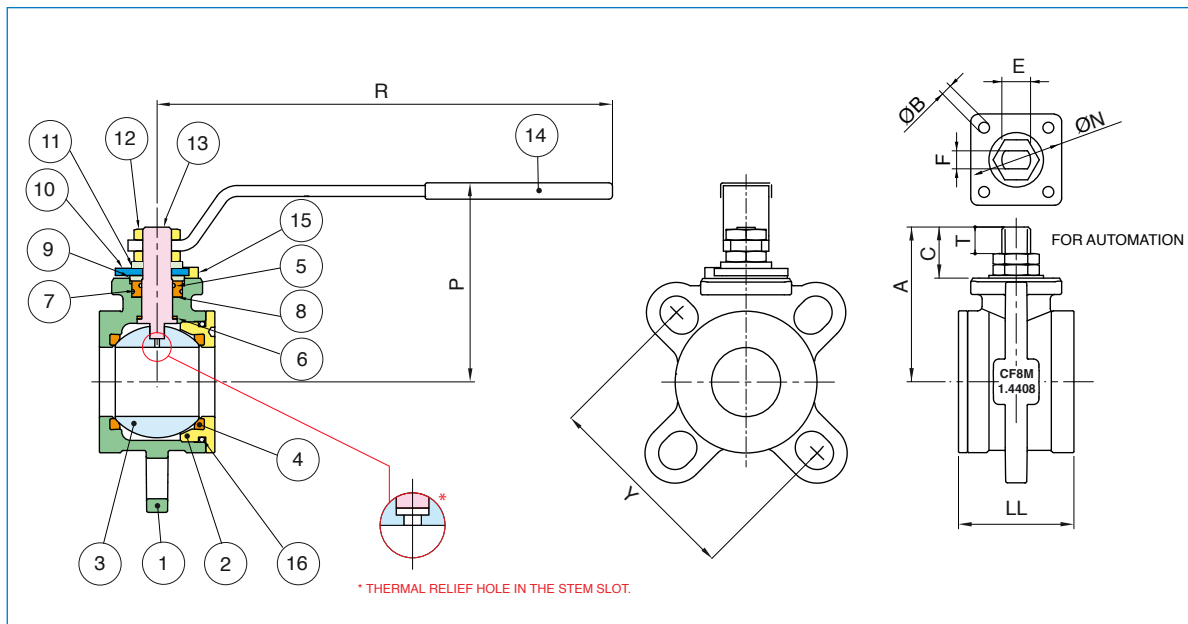
N POS	PART NAME	MATERIAL	N POS	SIZE	D	Y	Z UNC	L	R	P	A	C	T	E	F	ISO 5211	B	Weight Lbs
1	BODY	A479-316 / A351 CF8M	1	1/2"	3.50	2.38	4x1/2"	1.37	5.17	2.53	1.85	0.61	0.35	M10	0.27	1.26 (F03)	4XM5	2.86
2	END CONNECTION	A479-316 / A351 CF8M	1															
3	BALL	A479-316 / A351 CF8M	1	3/4"	3.88	2.75	4x1/2"	1.57	5.17	2.71	2.02	0.61	0.35	M10	0.27	1.26 (F03)	4XM5	3.96
4	BALL SEATS	R.P.T.F.E	2															
5	RING	FKM (Viton®)	1	1"	4.25	3.12	4x1/2"	1.81	6.87	3.16	2.40	0.76	0.45	M12	0.31	1.65 (F04)	4XM5	5.95
6	THRUST WASHER	R.P.T.F.E	1															
7	RING	FKM (Viton®)	1	1 1/2"	5.00	3.88	4x1/2"	2.50	9.86	4.03	3.07	0.96	0.51	M16	0.39	1.97 (F05)	4XM6	7.27
8	STEM SEAL	R.P.T.F.E	1															
9	PACKING GLAND	STEEL	1	2"	6.00	4.75	4x5/8"	3.22	9.86	4.37	3.42	0.98	0.53	M16	0.39	1.97 (F05)	4XM6	12.12
10	END STOP	AISI 430 (1/2"-2") STEEL (2 1/2"-6")	2 1															
11	SPRING WASHER	STEEL	2	3"	7.50	6.00	4x5/8"	4.80	12.65	5.45	4.52	1.12	0.70	M20	0.55	2.76 (F07)	4XM8	28.21
12	NUT	STEEL	2															
13	STEM	A479-316 / A351 CF8M	1	4"	9.00	7.50	8x5/8"	5.98	15.01	6.16	5.39	1.35	0.86	M24	0.70	4.02 (F10)	4XM10	46.07
14	HANDLE	STEEL	1															
15	HANDLE DN 150-200	STEEL	1	6"	11.00	9.50	8x3/4"	9.13	27.55	9.33	7.93	2.02	1.18	M42	1.18	4.92 (F12)	4XM12	101.63
16	SCREW	STEEL	2															
17	SCREW	STEEL	8															
18	BODY HANDLE DN150-200	CAST IRON	1															
19	UNSCREWING GROWER	A182-F316	1															



COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

SERIES 725002-V36 - 725002-V6 - 725002-V9 STAINLESS STEEL WAFER V-BALL VALVE

- Stainless steel, ANSI class 150 flanged ends V-ball valve 30-60, 60, 90 degrees V ports.
- Sizes 1" to 3"
 - Temperature range -4° F to 406° F.
 - Blow out proof stem.
 - R.P.T.F.E. seats, packing and thrust washer,
 - Thermal relief hole in the ball.
 - Space saving design.
 - 100% tested.
 - TUV T.A. Luft approved.
 - Antistatic stem device.
 - ISO 5211 mounting pad and double "D" stem.



V-ball options



V30-60



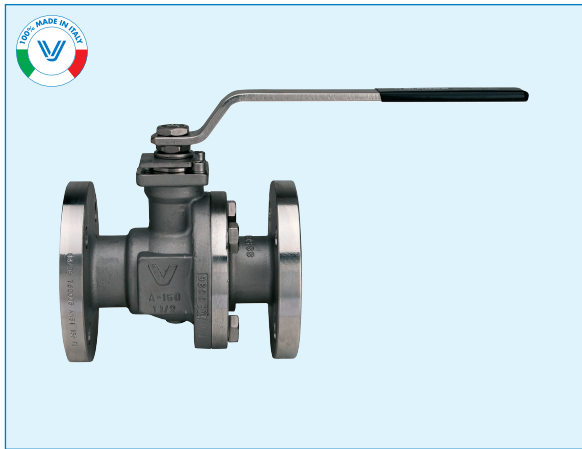
V60



V90

N POS	PART NAME	MATERIAL	N PCS	SIZE	Y	L	R	P	A	C	T	E	F	ØN	B	Weight Lbs
1	BODY	A351 - CF8M	1	1"	ANSI-150	1.81	6.85	3.58	2.81	0.90	0.41	M12	0.31	1.65	4XM5	2.86
2	END CONNECTION	A479-316	1													
3	BALL	A479-316/A351 CF8M	1	1 1/4"	ANSI-150	2.12	6.85	3.74	2.95	0.90	0.41	M12	0.31	1.65	4XM5	3.64
4	BALL SEAT	R.P.T.F.E	2													
5	O-RING	FKM (VITON®)	1	1 1/2"	ANSI-150	2.50	9.84	4.33	3.34	1.10	0.59	M16	0.39	1.96	4XM6	4.74
6	THRUST WASHER	P.T.F.E.	1													
7	RING	FKM (VITON®)	1	2"	ANSI-150	3.23	9.84	4.68	3.68	1.10	0.59	M16	0.39	1.96	4XM6	8.27
8	STEM SEAL	P.T.F.E.	1													
9	PACKING GLAND	A479-316	1	3"	ANSI-150	4.80	12.63	6.06	5.15	1.31	0.70	M20	0.55	2.76	4XM8	22.71
10	END STOP	CARBON STEEL	1													
11	SPRING WASHER	CARBON STEEL	2													
12	NUT	CARBON STEEL	2													
13	STEM	A479-316	1													
14	HANDLE	CARBON STEEL	1													
15	SCREW	CARBON STEEL	2													
16	O-RING	FKM (VITON®)	1													

SPLIT-BODY V-BALL



SERIES 760021V36 - 760021V6 - 760021V9 STAINLESS STEEL V-BALL VALVE

Stainless steel, ANSI class 150 flanged ends V-ball valve 30-60, 60, 90 degrees V ports.

- Sizes 1/2" to 6".
- Blow out proof stem, adjustable stem packing.
- R.P.T.F.E. seats, packing and thrust washer.
- Standard grounded stem and ball.
- Thermal relief hole in the ball.
- 100% tested.
- PED 97/23/CE.
- Locking handle plate.
- Temperature range -4° F to 406° F.
- ANSI B16.5, B16.10, B16.34 design.
- Fire Safe API 6FA-API 607.
- Antistatic Device.
- ISO 5211 mounting pad and double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.

V-ball options



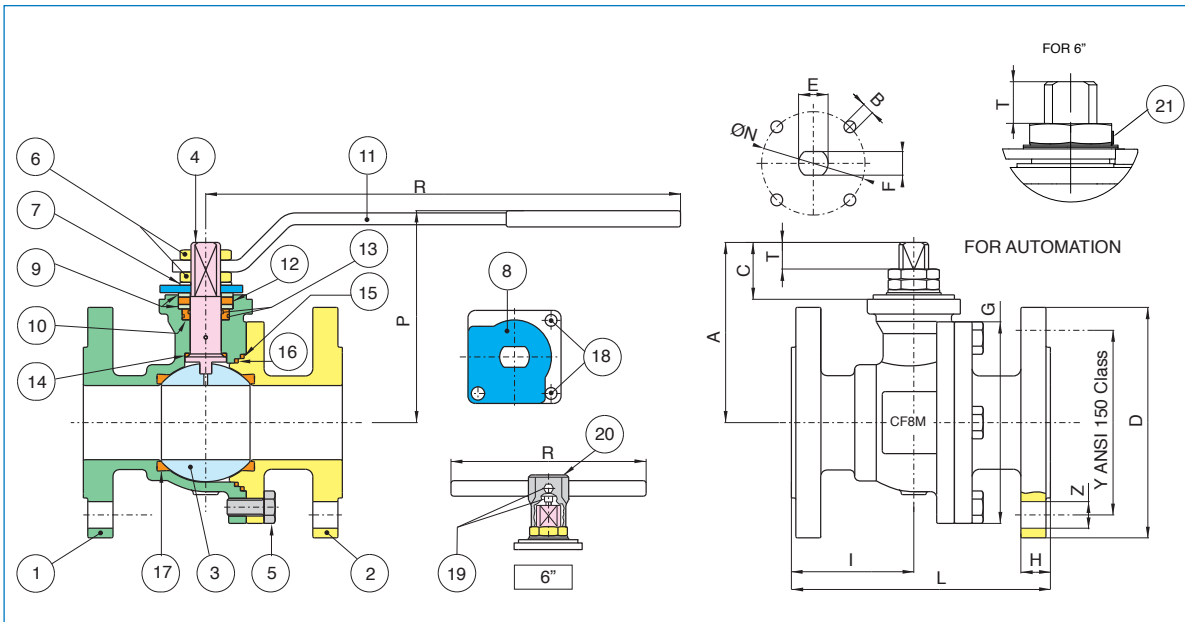
V30-60



V60

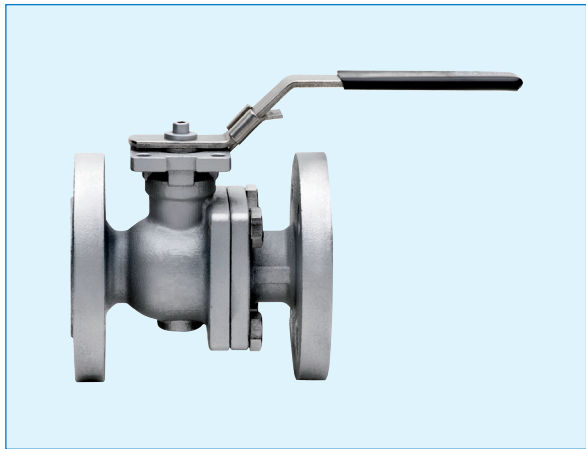


V90



N POS	PART NAME	MATERIAL	N PCS	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Weight Lbs
1	BODY	A351 CF8M	1	1/2"	3.54	2.38	4xØ0.63	0.45	1.83	4.25	2.80	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	4.21
2	END CONNECTION	A351 CF8M	1																		
3	BALL	A479-316/A351-CF8M	1	3/4"	3.94	2.76	4xØ0.63	0.51	2.09	4.61	2.89	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	5.36
4	STEM	A479-316	1																		
5	SCREW	STAINLESS STEEL 1/2"-2" 3/8"-8"	4	1"	4.33	3.13	4xØ0.63	0.57	2.34	5.00	3.56	3.50	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	8.15
6	NUT	STAINLESS STEEL 1/2"-4" 6"	2																		
7	SPRING WASHER	STAINLESS STEEL	2	1 1/2"	5.12	3.88	4xØ0.63	0.69	3.03	6.50	4.49	5.24	9.84	4.17	1.18	0.39	M16	0.39	1.97-F05	M6	15.65
8	TRAVEL STOP	STAINLESS STEEL	1																		
9	PACKING GLAND	STAINLESS STEEL	2	2"	5.91	4.74	4xØ0.75	0.77	3.39	7.01	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	23.80
10	STEM SEAL	P.T.F.E.	1																		
11	HANDLE	STAINLESS STEEL	1	3"	7.48	6.00	4xØ0.75	0.94	3.13	7.99	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	47.61
12	STEM SEAL	GRAPHOIL	1																		
13	O-RING	FKM (Viton®)	2	4"	9.06	7.50	8xØ0.75	0.94	4.33	9.02	8.21	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	67.00
14	THRUST WASHER	R.P.T.F.E.	1																		
15	SEAL	GRAPHOIL	1	6"	11.02	9.51	8xØ0.87	1.00	7.13	15.51	12.24	12.01	27.56	9.65	2.68	1.61	M42	1.18	4.92-F12	M12	171.91
16	SEAL	P.T.F.E.	1																		
17	BALL SEATS	R.P.T.F.E.	2																		
18	SCREW	STAINLESS STEEL	2																		
19	SCREW	STAINLESS STEEL	2																		
20	BODY HANDLE	CAST IRON	1																		
21	UNSCREWING GROWER	A182-F316	1																		

SERIES VF300 - VF600 - VF900 STAINLESS STEEL V-BALL VALVE



Stainless steel, ANSI class 150 flanged V-ball valve, 30,60, 90 degrees V ports.

- Sizes 1/2" to 6".
- ISO 5211 mounting pad.
- Locking handle standard.
- ANSI 16.5, 16.10, and 16.34.
- Antistatic design.
- Blowout proof stem and carbon filled P.T.F.E. ball seats.
- Thermal relief hole in the ball.
- Temperature Range -18°F to 392°F.
- Direct mount ISO 5211.
- Latch locking handle.

V-ball options



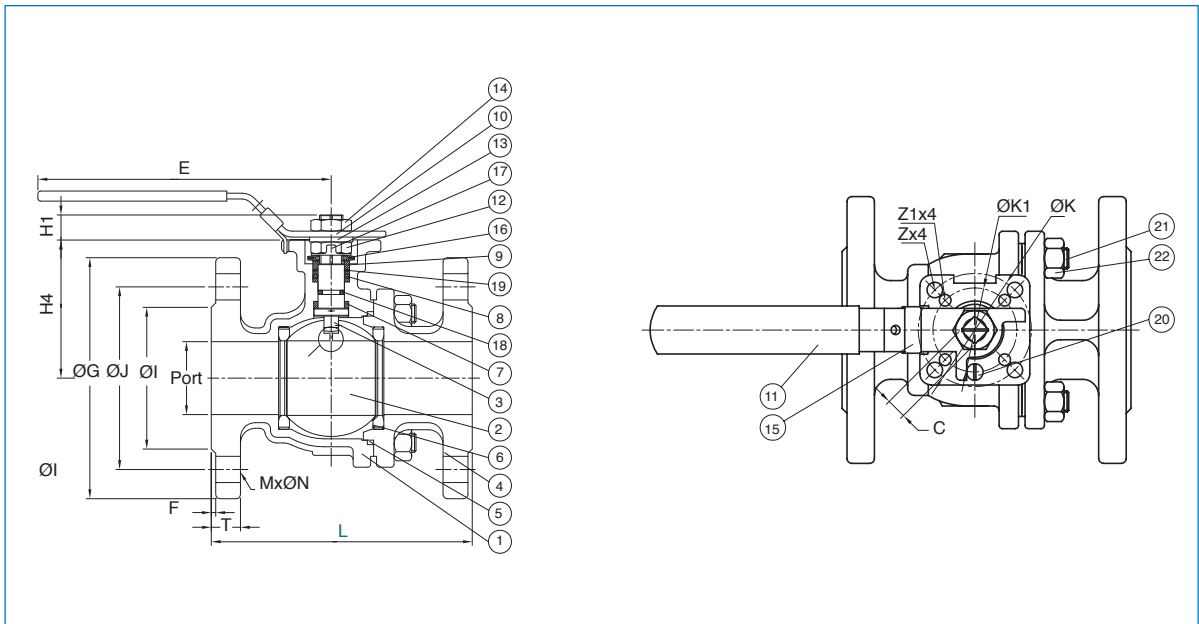
V30



V60

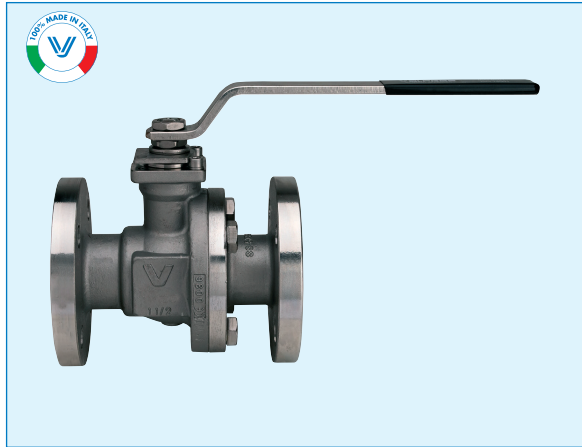


V90



N POS	PART NAME	MATERIAL	N POS	SIZE	Port	L	E	H1	H4	C mm	ØG	ØJ	ØI	T	F	M	ØN	ISO 5211	Z	Z1	Break Torque in-Lbs	Weight Lbs		
1	BODY	ASTM A351 Gr. CF8M	1	1/2"	0.59	4.25	4.41	0.33	1.89	9	3.50	2.38	1.38	0.44	0.06	4	0.63	F05	F03	7.0	6.0	62	3.9	
2	BALL	ASTM A351 Gr. CF8M	1		3/4"	0.79	4.61	4.41	0.33	2.44	9	3.88	2.76	1.69	0.50	0.06	4	0.63	F05	F03	7.0	6.0	106	4.9
3	STEM	S.S. 316	1			1"	0.98	5.00	5.35	0.37	2.52	9	4.25	3.12	2.01	0.56	0.06	4	0.63	F05	F03	7.0	6.0	177
4	END CAP	ASTM A351 Gr. CF8M	2	1 1/4"	1.26		5.51	7.28	0.37	2.80	9	4.63	3.50	2.50	0.63	0.06	4	0.63	F05	F03	7.0	6.0	224	9.2
5	BODY SEAL	P.T.F.E	1		1 1/2"		1.50	6.50	7.80	0.55	2.99	14	5.00	3.88	2.88	0.69	0.06	4	0.63	F07	F05	9.0	7.0	371
6	SEAT	Carbon graphite filled P.T.F.E	2	2"		1.97	7.01	7.80	0.54	3.33	14	6.00	4.75	3.62	0.75	0.06	4	0.75	F07	F05	9.0	7.0	486	19.2
7	THRUST WASHER	P.T.F.E	1			2 1/2"	2.52	7.48	10.34	0.71	4.20	17	7.00	5.50	4.12	0.92	0.06	4	0.75	F10	F07	11.0	9.0	840
8	STEM PACKING	P.T.F.E	1	3"	2.99		7.99	10.34	0.71	4.57	17	7.50	6.00	5.00	0.94	0.06	4	0.75	F10	F07	11.0	9.0	1250	41
9	GLAND	S.S. 304	1		4"		3.94	9.02	12.80	0.71	6.08	17	9.00	7.50	6.19	0.94	0.06	4	0.75	F10	F07	11.0	9.0	1860
10	HANDLE	S.S. 304	1	6"		5.91	15.51	29.53	1.18	8.39	27	11.00	9.50	8.50	1.00	0.06	8	0.88	F12	n/a	0.55	n/a	2310	168
11	HANDLE COVER	PLASTIC	1																					
12	STEM NUT	S.S. 304	1																					
13	HANDLE WASHER	S.S. 304	1																					
14	HANDLE NUT	S.S. 304	1																					
15	LOCKING PAD	S.S. 304	1																					
16	BELLEVILLE WASHER	S.S. 304	2																					
17	TAB WASHER	S.S. 304	1																					
18	O-RING	VITON	1																					
19	PACKING FOLLOWER	P.T.F.E +25% GF	1																					
20	STOP PIN	S.S. 304	1																					
21	BODY STUD	ASTM A193 GR.B8	4-8																					
22	BOLT NUT	ASTM A194 GR.8	4-8																					



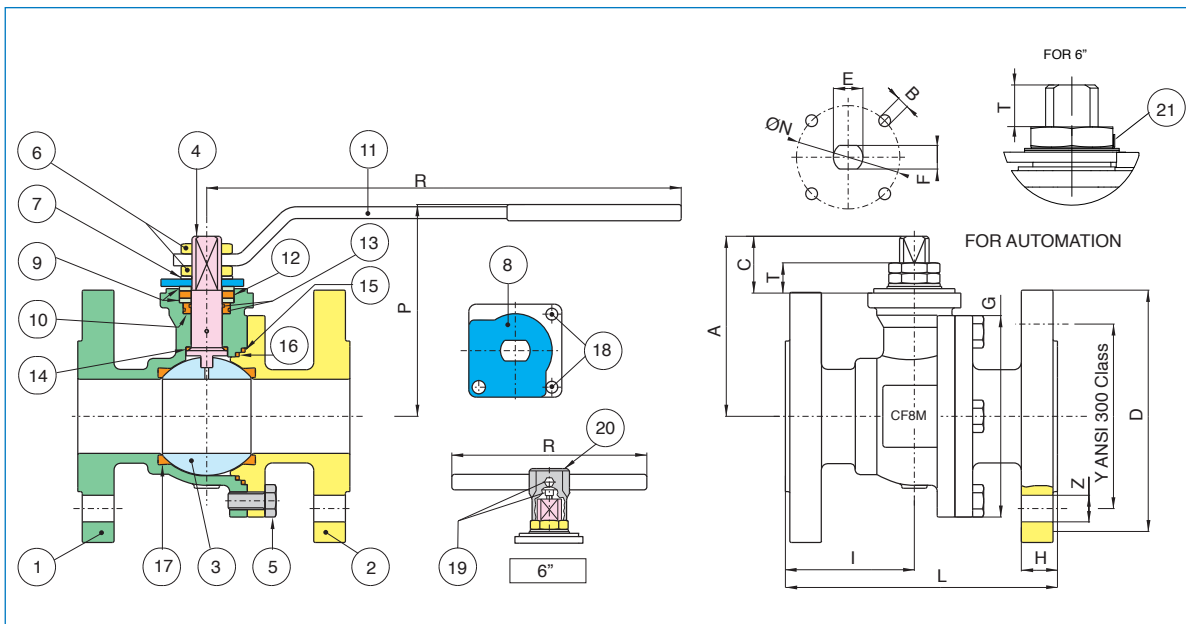


SERIES 760195-V36 - 760195-V6 - 760195-V9 STAINLESS STEEL V-BALL VALVE

Stainless steel, ANSI class 300 flanged V-ball valve 30-60, 60, 90 degrees V ports.

- Sizes 1/2" to 6"
- Blow out proof stem, adjustable stem packing.
- R.P.T.F.E. seats, packing and thrust washer.
- 100% tested.
- PED 97/23/CE.
- Locking handle plate.
- Temperature range -4° F to 406° F.
- Thermal relief hole in the ball.
- ANSI B16.5, B16.10, B16.34 design.
- Fire Safe API 6FA-API 607.
- Antistatic Device.
- ISO 5211 mounting pad and double "D" stem.

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



V-ball options



POS	PART NAME	MATERIAL	N PCS
1	BODY	CF8M	1
2	END CONNECTION	CF8M	1
3	BALL	A479-316/A351-CF8M	1
4	STEM	A479-316	1
5	SCREW	STAINLESS STEEL 1/2"-1 1/2" 2"-6"	4
6	NUT	STAINLESS STEEL 1/2"-1 1/2" 2"-6"	2
7	SPRING WASHER	STAINLESS STEEL	2
8	TRAVEL STOP	STAINLESS STEEL	1
9	PACKING GLAND	STAINLESS STEEL	2
10	STEM SEAL	P.T.F.E.	1
11	HANDLE	STAINLESS STEEL	1
12	STEM SEAL	GRAPHOIL	1
13	O-RING	VITON	2
14	THRUST WASHER	R.P.T.F.E.	1
15	SEAL	GRAPHOIL	1
16	SEAL	P.T.F.E.	1
17	BALL SEATS	R.P.T.F.E.	2
18	SCREW	STAINLESS STEEL	2
19	SCREW	STAINLESS STEEL	2
20	BODY HANDLE	CAST IRON	1
21	UNSCREWING GROWER	A182-F316	1

SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ISO 5211	B	Weight Lbs
1/2"	3.74	2.62	4xØ0.63	0.57	2.42	5.51	3.35	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	5.07
3/4"	4.53	3.25	4xØ0.75	0.63	2.40	5.98	3.07	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	7.71
1"	4.92	3.50	4xØ0.79	0.69	2.78	6.50	3.78	4.29	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	11.46
1 1/2"	6.10	4.51	4xØ0.87	0.83	3.09	7.48	4.96	5.24	9.84	4.21	1.18	0.39	M16	0.39	1.97-F05	M6	22.04
2"	6.50	5.00	8xØ0.79	0.89	3.39	8.50	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	26.45
3"	8.27	6.63	8xØ0.87	1.14	3.19	11.14	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	59.51
4"	10.04	7.87	8xØ0.87	1.26	3.48	12.01	8.62	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	90.36
6"	12.60	10.63	12xØ0.87	1.46	6.77	15.87	12.05	12.01	27.56	9.65	2.68	1.08	M42	1.18	4.92-F12	M12	204.97