



TOP-FLO[®] TF4 Flow Ball Valves



Stainless Steel Flow Control Equipment for the
Food, Beverage, Dairy, Cosmetics, Biotechnology,
Pharmaceutical and Electronics Processing Industries

www.toplineonline.com

TOP-FLO® Full Flow Ball Valves **TOP LINE**

Top Line's Ball Valve is engineered to be the finest in the industry. Each valve is built to exacting specifications and is constructed to perform flawlessly in the most hostile environment.

Top Line's Ball Valves are utilized by firms which demand the uncompromised ability to regulate flow - from full flow open to various degrees of closure.



Tank bottom valve with actuation

IMPORTANT FEATURES

- 360° Installation - Valve may be installed in any position.
- PTFE cavity fillers are precision machined to maintain sanitary environment.
- Easy "In-line" servicing. Unique design allows valve ends to remain attached while servicing valve body.
- No special tools needed.
- Minimal turbulence - maximum flow through.
- USDA approved
- ISO 5211 Mounting Pad
- Surface finish ID: 20Ra

MECHANICAL SPECIFICATIONS

- Sizes - 1/2" - 6"
- Materials - 316 Stainless Steel
- PTFE seating
- Connections - Clamp & Butt Weld. (Other connections available upon request)
- Locking handle
- Pressure - 1,000 psi at 170°F sizes 1/2" - 2"
- 800 psi at 150°F sizes 2-1/2" - 4", 250 psi at 150°F size 6"
- Full port to ID of tubing for reduced pressure drop
- Pneumatic & electric actuators available

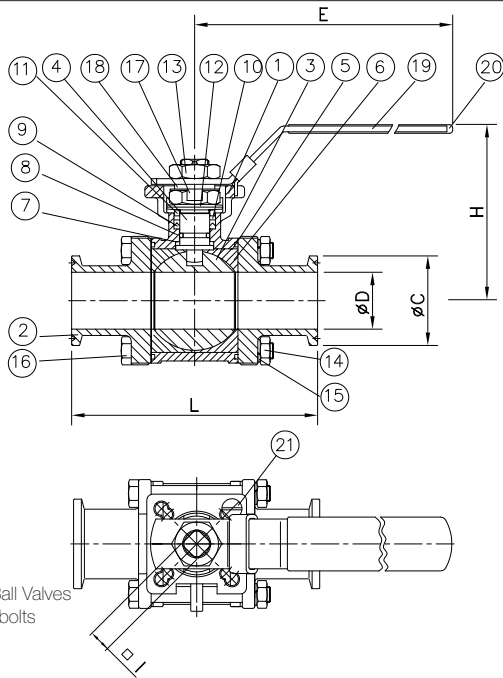
Top Line TE Series electric actuators provide unsurpassed quality, reliability and value to your automated system.

FEATURES

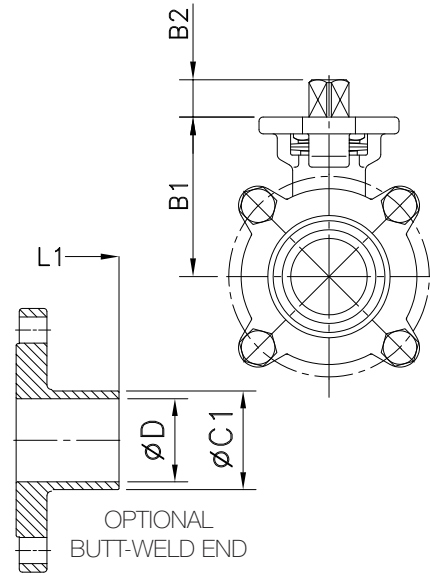
- Multiple voltages available : 24VAC, 24VDC, and 115VAC single phase to fit your process needs
- Nema 4, 4X & IP67 lightweight polyester powder coated aluminum housing
- External manual override so you won't need to worry in a power failure
- Four limit switches – two for operation / two auxiliary dry contacts
- Anti-condensation space heater for reduced downtime and increased reliability
- Visual position indicator for your convenience
- Captive cover bolts for your convenience



TOPLINE TOP-FLO® Full Flow Ball Valves



2-1/2" - 4" Ball Valves
have 6 stud bolts

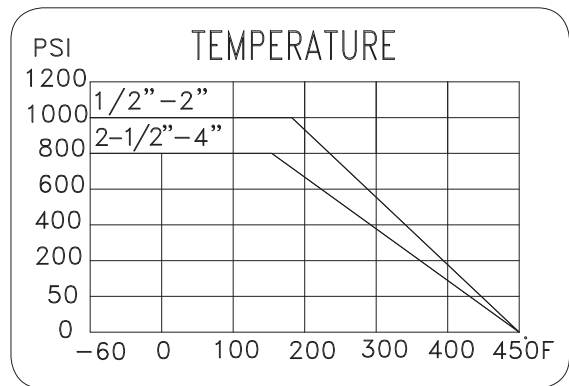


MATERIALS LIST

NO.	PART NAME	QTY	MATERIALS
1	BODY	1	CF8M (316SS)
2	END CAP	2	CF8M (316SS)
3	BALL	1	316SS
4	STEM	1	316SS
5	JOINT GASKET	2	PTFE
6	SEAT/CAVITY FILLER	2	PTFE
7	STEM SEAL	1	PTFE
8	O-RING	1	FKM
9	V-RING PACKING	1SET	PTFE
10	BUSHING	1	50 %S.S.Powder filled PTFE
11	GLAND RING	1	304SS
12	BELLEVILLE WASHER	2	301SS
13	STEM NUT	2	304SS
14	BOLT	*	304SS
15	WASHER	**	304SS
16	BOLT NUT	**	304SS
17	LOCK SADDLE	1	304SS
18	WASHER	1	304SS
19	HANDLE	1	304SS
20	HANDLE SLEEVE	1	VINYL
21	STOP PIN	1	304SS

* FOR 1/2" TO 2"-4PCS. ; FOR 2-1/2" TO 4"-6PCS.

** FOR 1/2" TO 2"-4PCS. ; FOR 2-1/2" TO 4"-12PCS.



Dimensional Specifications

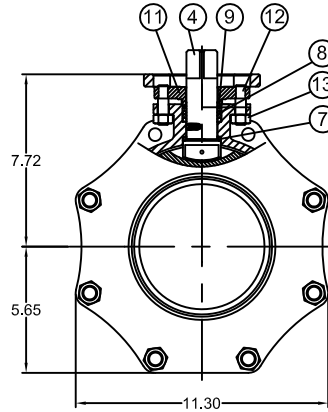
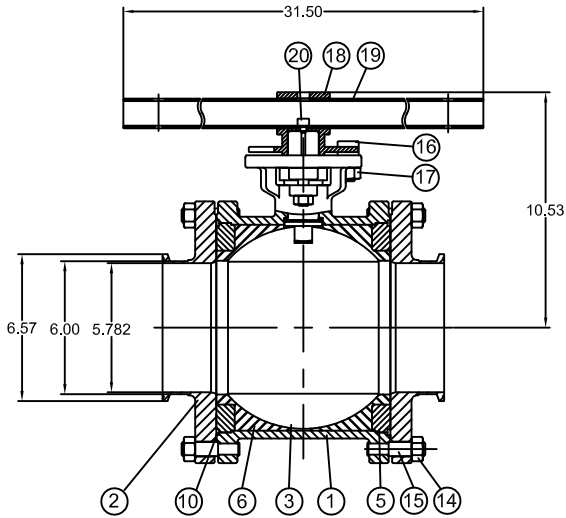
CLAMP END/WELD END DIMENSIONS

* TORQUE IN IN/LBS

SIZE	B1	B2	ØC	ØC1	ØD	E	H	□ I	L	L1	WT #	TORQUE*	ISO5211
1/2"	1.58	0.35	0.98	0.50	0.37	5.04	2.78	9MM	3.50	3.50	1.60	57	F04 F05
3/4"	1.71	0.35	0.98	0.75	0.62	5.04	2.91	9MM	3.98	3.98	1.80	143	F04 F05
1"	2.05	0.43	1.98	1.00	0.87	6.54	3.36	11MM	4.49	4.49	3.05	184	F04 F05
1-1/2"	2.59	0.61	1.98	1.50	1.37	8.46	3.92	14MM	5.51	5.51	6.90	379	F05 F07
2"	2.91	0.61	2.54	2.00	1.87	8.46	4.24	14MM	6.14	6.14	9.65	432	F05 F07
2-1/2"	3.66	0.65	3.06	2.50	2.37	12.68	5.74	17MM	7.76	7.76	20.65	743	F07 F10
3"	4.02	0.65	3.58	3.00	2.87	12.68	6.09	17MM	9.02	9.02	29.10	857	F07 F10
4"	5.20	0.85	4.68	4.00	3.83	12.44	7.40	22MM	9.48	9.48	45.85	1708	F10

6" Full Flow Ball Valve

Manual Pipe T-Handle (Std.)

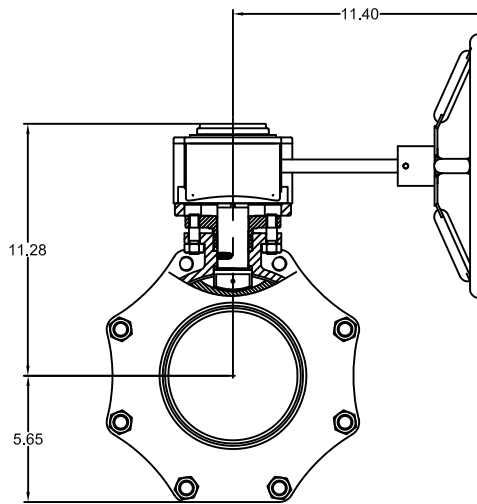
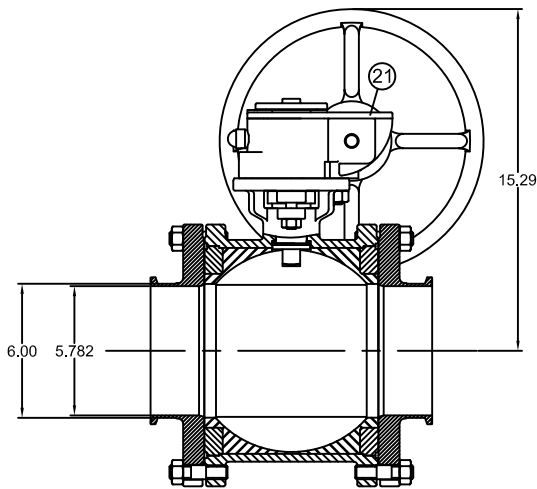


MATERIALS LIST

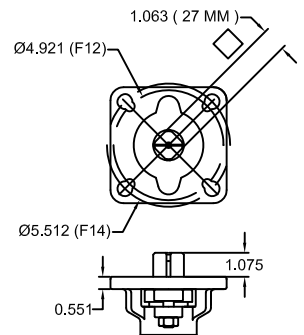
NO.	PART NAME	Q'TY	MATERIAL
1	BODY	1	CF3M
2	END CAP	2	CF3M
3	BALL	1	SUS316L
4	STEM	1	17-4PH
5	JOINT GASKET	2	SUS316
6	SEATS CAVITY FILL	2	PTFE
7	STEM SEAL	1	TFM1600
8	V-RING PACKING	1SET	PTFE
9	BUSHING	1	50 X.S.S.Powder filled PTFE
10	PACKING	2	PTFE
11	GLAND	1	CF8
12	GLAND BOLT	2	SUS304
13	GLAND NUT	2	SUS304
14	BOLT	16	SUS304
15	NUT	16	SUS304
16	STOP PIN	1	SUS304
17	STOP PIN NUT	1	SUS304
18	HANDLE ADAPTER	1	CF8
19	PIPE HANDLE	1	SUS304
20	HANDLE BOLT	1	SUS304
21	GEAR OPERATOR	1	CI EPOXY
22	TRIAC SR ACT.	1	ALUMINIUM

TORQUE: ~2255 IN/LBS
250 WOG

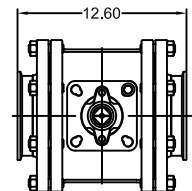
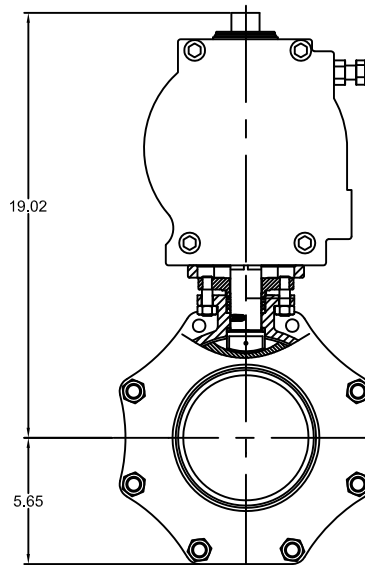
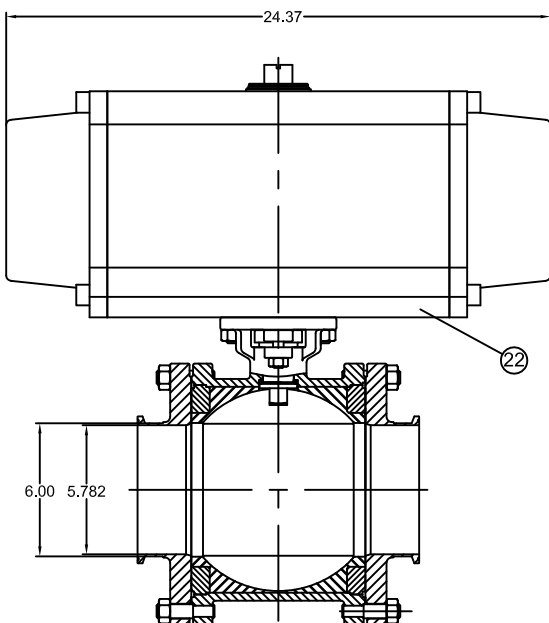
Manual Gear Operator (Optional)



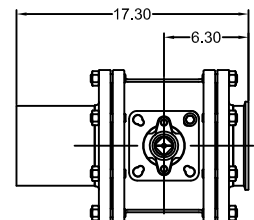
Topworks Mounting Dims.



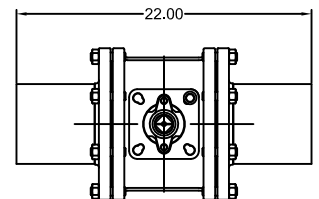
Spring Return Pneumatic Actuator



Clamp X Clamp



Weld X Clamp



Weld X Weld

TOP-FLO® TF4 Series 2-Way Sanitary Ball Valve

Manual - Part Number Matrix

MATERIAL		END CONNECTIONS		VALVE SERIES		SIZE		SEAT MATERIAL & TYPE		HANDLE TYPE	
3	316SS	8	C X C	43	TF4 SERIES	05	1/2	TEF4	CAVITY FILLED PTFE	-	STANDARD HANDLE
		9	BW X BW			07	3/4	NCF4	NON-CAVITY FILLED PTFE	G	GEAR OPERATOR
		C	C X BW			10	1	SCF4	NON-CAVITY FILLED 50/50 STFE		
		T	WELD TANK FLANGE X C			15	1-1/2				
						20	2				
						25	2-1/2				
						30	3				
						40	4				
						60	6				

PART NUMBER EXAMPLE:

394320TEF4

TOP-FLO® 2" TF4 SERIES SANITARY 3-PC BALL VALVE,
WELD ENDS, FDA PTFE CAVITY FILLED SEATS, 20RA ID,
316SS, 1000 WOG

Automated - Part Number Matrix

MATERIAL		END CONNECTIONS		VALVE SERIES		SIZE		SEAT MATERIAL & TYPE		AUTOMATION TYPE	
3	316SS	8	C X C	4	TF4 SERIES 2-WAY	05	1/2	P	CAVITY FILLED PTFE	A1	DOUBLE ACTING - 80 PSI SUPPLY
		9	BW X BW			07	3/4	N	NON-CAVITY FILLED PTFE	A2	DOUBLE ACTING - 60 PSI SUPPLY
		C	C X BW			10	1	S	NON-CAVITY FILLED 50/50 STFE	A3	SS DOUBLE ACTING - 80 PSI SUPPLY
		T	WELD TANK FLANGE X C			15	1-1/2			A4	SS DOUBLE ACTING - 60 PSI SUPPLY
						20	2			S1	SPRING RETURN - 80 PSI SUPPLY
						25	2-1/2			S2	SPRING RETURN - 60 PSI SUPPLY
						30	3			S3	SS SPRING RETURN - 80 PSI
						40	4			S4	SS SPRING RETURN - 60 PSI
						60	6			E1	115VAC - 1PH, NEMA 4,4X,6
										E2	24VDC, NEMA 4,4X,6
										E3	220VAC - 1PH, NEMA 4,4X,6

PART NUMBER EXAMPLE:

38430PS1

TOP-FLO® 3" TF4 SERIES SANITARY 3-PC BALL VALVE,
CLAMP ENDS, FDA PTFE CAVITY FILLED SEATS, 20RA ID,
316SS, 800 WOG, WITH DIRECT MOUNT SPRING RETURN
ACTUATOR SIZED FOR 80 PSI AIR SUPPLY

ALTERNATE END CONNECTIONS UPON REQUEST - CONSULT FACTORY FOR OPTIONS



Always Giving You
Top of the Line Service
and Quality

Contact your Top Line Representative for Assistance

Office: P.O. Box 264 · Bradford, PA 16701

Plant: 21 Valley Hunt Drive · Lewis Run, PA 16738

800-458-6095

814-362-4626

Fax: 814-362-4453

Top Line is a leading supplier of sanitary stainless steel process equipment. Serving the food, beverage, dairy, pharmaceutical, biotechnological and personal care industries. For over 50 years we've provided our customers with exceptional customer service and quality products. We are committed to meeting the fastest delivery, new product development and application engineering to meet all our customer's needs with our extensive inventory and expert sales team.

Top Line specializes in stainless steel materials – type 304 and 316L. Our modern, well equipped manufacturing facilities are staffed by skilled and dedicated craftsmen. Consistently meeting important tolerances and finish specifications is of primary concern to us. Before any products leave our plant they are subjected to rigid quality assurance checks.

Top Line should always be considered your first choice for both standard and custom fabricated stainless steel products.

Limited Warranty

Top Line Process Equipment Company products are warranted to be free of defects in material or workmanship for a period of one year from date of shipment. Warranty covers those Top Line products used in an approved installation and maintained in strict accordance with recognized standard industry practice. If, after properly authorized return, Top Line determines that products are defective, Top Line may at its option, repair or replace such defective products.

Top Line shall not be liable for consequential, indirect or incidental damages. The above warranty is in lieu of all other warranties, expressed or implied.

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