



Features / Design

- 1.- **TFV Series 84** Top-Entry Ball Valve is designed for the industries required in-line repairing / cleaning/ maintaining in very short time for urgent situation; size from 1/2" to 4" is the fundamental offering.
- 2.- It is designed with ISO direct mounting pad for mounting pneumatic/ electric actuator for automatic control.
- 3.- While the valve is in "OPEN" position, it's easy to draw out the bonnet with the ball & seat at one time without any other tools & devices. And while the valve is in "CLOSE" position, the ball & seat will be compressed together closely without any other devices.
- 4.- The connection can be thread / socket weld/ butt weld and 800 psi pressure rating.
- 5.- Fire safe design is available for option, too, with graphite stem packing / bonnet gasket and SS 316 seat housing replacement.
- 6.- Special alloy such as Hastalloy C / Alloy 20 / Super Duplex / Monel are available for media with chlorine or others.
- 7.- For soft kits, we use TFM1600 (TFM) as standard. TFM4215 / UHMWPE (UPE) are both for options.

8.- General Features:

Body & end caps quality investment casting.

Available in stainless steel or carbon steel.

With ISO 5211 direct mounting pad.

Adjustable stem packing.

Blow-out proof stem design.

100% air tested under water at 80-100 psi.

Working pressure: 800 WOG.

Temperature range: -20 °F to 450 °F.

With locking function.

End type: threaded (ASME B1.20.1), socket weld (ASME B16.11), butt weld (ASME B16.25).

Face to face dimension acc. to MFG.

Test and inspection according to API 598.

9.- Options:

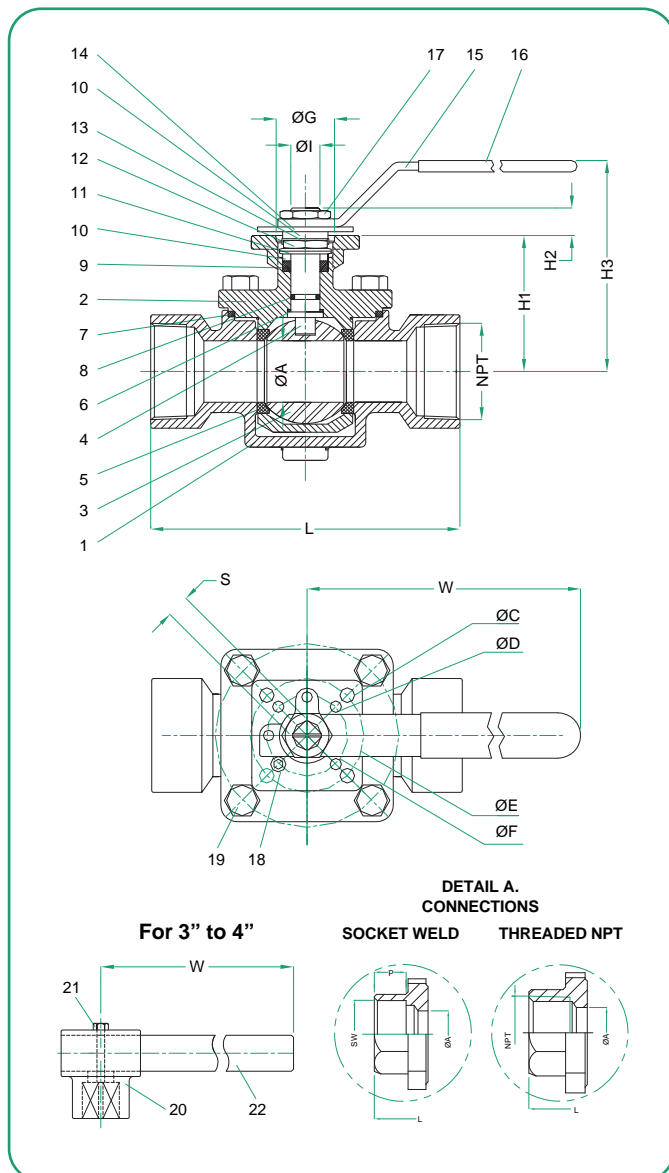
Spring handle (dead man handle).

Fire safe design (follow API 607 Edition 4).

Automation application.

PTFE / PFA coating (40-70 um).

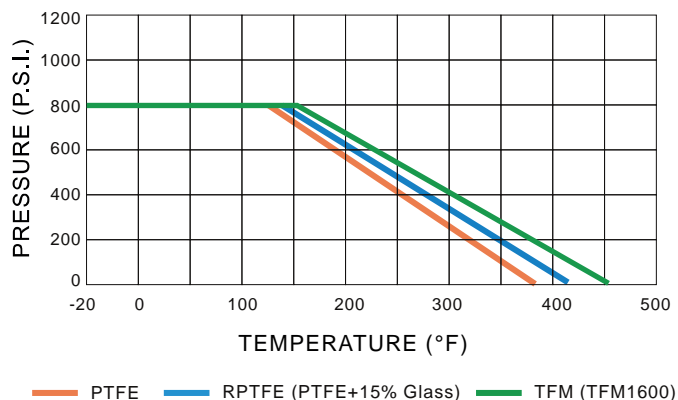
Hastalloy C / Super Duplex / Alloy 20 / Monel.



Material List

NO.	PART NAME	MATERIAL
1	BODY	A216 WCB / A351 CF8M
2	BONNET	A216 WCB / A351 CF8M
3	BALL	A351 CF8M
4	STEM	SS316
5	BALL SEATS	PTFE + 25% CARBON
6	THRUST WASHER	TFM1600
7	GASKET	TFM1600
8	O-RING	VITON
9	STEM PACKING	TFM1600
10	SPACE WASHER	SS304
11	DISK WASHER	SS301
12	STEM NUT	SS304
13	NUT STOP	SS304
14	STOPPER PLATE	SS304
15	HANDLE	SS304
16	HANDLEN COVER	PLASTIC
17	HANDLE NUT	SS304
18	STOP PIN	SS304
19	BONNET BOLTS	A193 B7 / A193 B8
20	LEVER HEAD	ASTM A351 CF8M
21	SET BOLT	SS304
22	LEVER	STEEL PIPE

Pressure-Temperature Chart



Dimensions (inches)

SIZE	ØA (in)	ØC (in)	ØD (in)	ØE (in)	ØF (in)	ØG (in)	ØI (in)	H1 (in)	H2 (in)	H3 (in)	L1 ⁽¹⁾ (in)	W (in)	S (in)	NPT (in)	SW (in)	P MIN (in)	CV (USgpm)	Torque ⁽²⁾ (Nm)	Weight (Kg)
1/2"	0.768	0.283	0.236	1.969	1.654	M14	1.181	2.559	0.551	3.780	5.000	6.496	0.433	1/2"	0.9 ± 0.008	0.374	15.25	103.54	4.299
3/4"	0.768	0.283	0.236	1.969	1.654	M14	1.181	2.559	0.551	3.780	5.236	6.496	0.433	3/4"	1.1 ± 0.008	0.492	27.93	147.26	4.376
1"	0.768	0.283	0.236	1.969	1.654	M14	1.181	2.559	0.551	3.780	5.512	6.496	0.433	1"	1.3 ± 0.008	0.492	35.61	147.26	4.619
1 1/2"	1.260	0.362	0.283	2.756	1.969	M18	1.378	3.091	0.709	4.370	6.772	8.071	0.551	1 1/2"	1.9 ± 0.008	0.492	86.35	216.28	10.163
2"	1.496	0.362	0.283	2.756	1.969	M18	1.378	3.287	0.709	4.370	7.520	8.071	0.551	2"	2.4 ± 0.008	0.629	130.69	310.62	12.081
2 1/2"	2.047	0.362	0.283	2.756	1.969	M18	1.378	3.858	0.709	5.079	9.173	8.071	0.551	2 1/2"	2.9 ± 0.01	0.629	212.57	*	21.517
3"	2.252	0.453	0.362	4.016	2.756	M22	2.165	4.311	0.906	6.024	9.488	12.205	0.669	3"	3.5 ± 0.01	0.629	263.33	9.06.55	31.372
4"	2.992	0.453	0.362	4.016	2.756	M22	2.165	5.256	0.906	6.024	11.024	12.205	0.669	4"	4.5 ± 0.01	0.629	435.51	1484.07	46.518

NOTES:

* Please consult with manufacturer.

(1) Face to face distance for threaded and socket weld connection.

(2) Torque value for pressures above 300 psi with 30% safety factor and with grease.



How to Order

CLASS	VALVE BODY DESIGN	SPECIAL FEATURES		MATERIAL			ENDS	SIZE		OPERATION		
				BODY ⁽³⁾	TRIM ⁽⁴⁾	SEAT						
8 800 WOG	4 Top Entry Full Port 2-Pcs Ball Valve	None	None	2 WCB	3 316 SS	T1 TFM 1600	T Threaded	0.5	1/2"	L Manual Lever Operator		
				3 CF8M	7 Duplex	T4 TFM 4215		0.75	3/4"		C Manual Lever with Locking Device	
				7 Duplex	8 Alloy 20	U UHMWPE (UPE)		01	1"			
				8 Alloy 20	9 Hastelloy C			01.5	1 1/2"			SR Spring Return Handle
				9 Hastelloy C				02	2"			
					02.5	2 1/2"	P Pneumatic Actuator					
							03	3"	E Electric Actuator			
										04	4"	

Example:

Top Entry Full Port Ball Valve, Body & Trim 316 SS, Seats: TFM 1600, Ends: Threaded, Size 1/2", Class 800 WOG with Lever.

8433T1T0.5L

NOTES:

(3)(4) Other options available like Hastelloy C, Duplex, Super Duplex, Alloy 20, Monel, etc.

