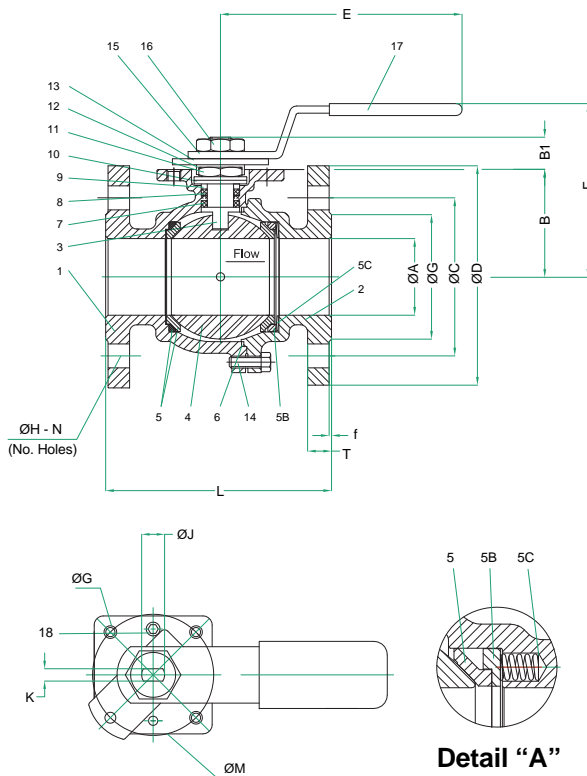




Features / Design

- 1.- **TFV 2W Series** is a 2-pc high performance metal seated ball valve with ISO 5211 mounting for use in HT⁽¹⁾, abrasive media in power generation, petrochemical, mining, pulp & paper industries.
- 2.- TFV makes valve structure & wall thickness totally follow ASME B16.34 std. The exact structure make safe in the high performance application.
- 3.- The std. material for metal seat & ball is Co element (Stellite) or SS 316 with HCP⁽²⁾ (HVOF coating).
- 4.- The TFV unique split seat design is perfect to seal leakage from & over the seat area to make these valves meet at least Class V leakage class⁽³⁾.
- 5.- **General Features:**
 - Full Port⁽⁴⁾ / Single Direction.
 - Body & end caps quality investment casting.
 - Inconel spring design provide better sealing.
 - Ends: ANSI Class 150 / 300 construction design.
 - Adjustable stem packing.
 - Live loaded & blow-out proof stem design.
 - Anti-static device.
 - Fire safe design.

**Design for 1/2" to 2" valves
ANSI 150# and 300#**



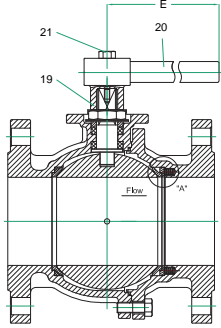
NOTES:
 (1) High Temperature.
 (2) Hard Chrome Plating. The Co based material is good at hardness, corrosion resistance and stable under high temperature.
 (3) 1/2" to 6" (Class V); 8" & 10" (Class IV to Class V).
 (4) V-Ball option available.

Material List

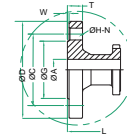
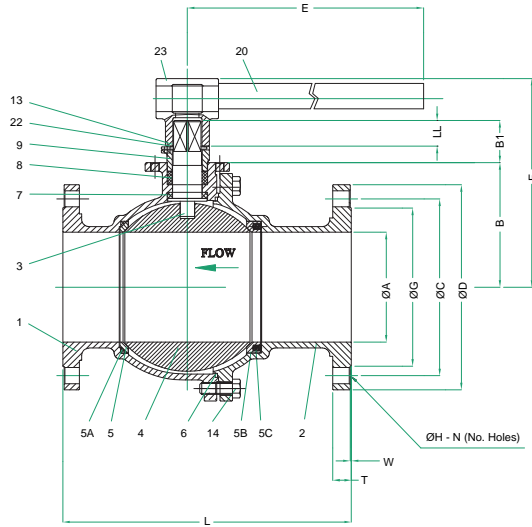
NO.	PART NAME	MATERIAL
1	BODY	A216 WCB / A351 CF8M
2	FLANGE END	A216 WCB / A351 CF8M
3	STEM	17-4PH
4	BALL	STELLITE / CF8M + HARD CHROME
5	BALL SEAT	SS316 + STELLITE
5B	SEAL HOLDERS	SS316
5C	SPRING	INCONEL
	SEAT SPRING	INCONEL
6	GASKET	GRAPHITE
7	THRUST WASHER	GRAPHITE
8	STEM PACKING	GRAPHITE
9	GLAND	SS304
10	DISK WASHER	17-4PH
11	STEM NUT	SS304
12	NUT LOCK	SS304
13	STOP PLATER	SS304
14	BOLTS	SS304
15	HANDLE	SS304
16	HANDLE NUT	SS304
17	HANDLE COVER	VINYL PLASTIC
18	STOP PIN	SS304
19	LEVER HEAD	ASTM A351 CF8M
20	LEVER	STEEL PIPER
21	LEVER HEAD BOLTS	SS304
22	STOPPER	SS304
23	HANDLE HEAD	CARBON STEEL
24	GLAND BOLT	SS304



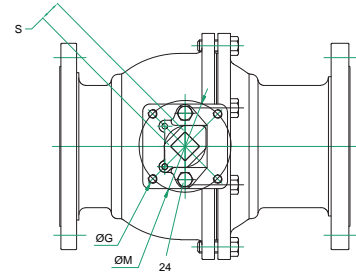
Design for 2 1/2" to 4"
ANSI 150# and 300#



Design for 5" to 12" valves
ANSI 150# and 300#



Detail A.
Connections
Flanged RF



Dimensions (inches)

CLASS 150#

SIZE	ØA (in)	B (in)	B1 (in)	F (in)	E (in)	L (in)	K (in)	M (in)	M (in)	G (in)	S (in)	J (in)	ØD (in)	ØC (in)	ØH (in)	N (in)	ØT (in)	ØG (in)	f (in)	Weight (Kg)	CV (USgpm)	Torque (Nm)
1/2"	1.378	1.358	0.551	2.992	5.709	4.252	0.256	1.654	/	M5	/	0.394	3.504	2.382	0.630	4	0.441	1.378	0.063	3.880	21	185.841
3/4"	1.693	1.535	0.551	3.150	5.709	4.606	0.256	1.654	/	M5	/	0.394	3.858	2.756	0.630	4	0.441	1.693	0.063	4.982	50	238.938
1"	2.008	1.732	0.846	3.465	7.677	5.000	0.382	1.969	/	M6	/	0.551	4.252	3.130	0.630	4	0.441	2.008	0.063	6.834	90	256.637
1 1/4"	2.520	1.929	0.846	3.622	7.677	5.512	0.382	1.969	/	M6	/	0.551	4.606	3.504	0.630	4	0.500	2.520	0.063	*	110	*
1 1/2"	2.874	2.677	0.945	4.488	9.843	6.496	0.382	2.756	/	M8	/	0.709	5.000	3.878	0.630	4	0.563	2.874	0.063	13.801	240	*
2"	3.622	3.031	0.945	4.843	9.843	7.008	0.382	2.756	/	M8	/	0.709	5.984	4.744	0.748	4	0.626	3.622	0.063	20.459	400	1238.938
2 1/2"	4.134	3.524	0.906	5.591	12.205	7.480	0.472	4.016	/	M10	/	0.787	7.008	5.492	0.748	4	0.701	4.134	0.063	31.173	700	*
3"	5.000	3.937	0.906	5.984	12.205	7.992	0.472	4.016	/	M10	/	0.787	7.480	6.004	0.748	4	0.752	5.000	0.063	39.771	980	2725.664
4"	6.181	4.744	1.142	7.165	12.205	9.016	0.591	4.016	/	M10	/	0.945	9.016	7.500	0.748	8	0.945	6.181	0.063	65.389	1700	3451.327
5"	7.323	5.906	2.283	10.433	27.559	14.016	/	4.921	1.339	M12	1.102	/	10.000	8.504	0.866	8	0.941	7.323	0.063	111.554	*	*
6"	8.504	6.693	2.283	11.220	33.465	15.512	/	4.921	1.339	M12	1.102	/	10.984	9.508	0.866	8	1.000	8.504	0.063	154.324	5000	10929.204
8"	10.630	8.622	2.520	13.937	43.307	17.992	/	4.921	1.496	M12	1.417	/	13.504	11.752	0.866	8	1.126	10.630	0.063	283.294	10000	*
10"	12.756	10.039	2.520	15.354	47.244	20.984	/	4.921	1.496	M12	1.417	/	15.984	14.252	0.984	12	1.189	12.756	0.063	*	15000	*
12"	15.000	12.087	3.110	17.402	59.055	24.016	/	5.512	1.811	M16	1.417	/	19.016	17.008	0.984	12	1.252	15.000	0.063	*	21000	*

NOTES:

* Please consult with manufacturer.

** Face to face distance for 1/2" diameter is according to supplier design.

*** Torque value when valve is greased.



Dimensions (inches)

CLASS 300#

SIZE	ØA (in)	B (in)	B1 (in)	F (in)	E (in)	L (in)	K (in)	M (in)	M (in)	G (in)	S (in)	J (in)	ØD (in)	ØC (in)	ØH (in)	N (in)	ØT (in)	ØG (in)	f (in)	Weight (Kg)	CV (USgpm)	Torque (Nm)
1/2"	0.591	1.358	0.551	2.992	5.709	5.512	0.256	1.654	/	M5	/	0.394	3.740	2.618	0.630	4	0.571	1.378	0.063	4.938	21	292.035
3/4"	0.787	1.535	0.551	3.150	5.709	5.984	0.256	1.654	/	M5	/	0.394	4.606	3.248	0.748	4	0.630	1.693	0.063	7.584	50	300.885
1"	0.984	1.732	0.846	3.465	7.677	6.496	0.382	1.969	/	M6	/	0.551	4.882	3.504	0.748	4	0.689	2.008	0.063	10.274	90	318.584
1 1/4"	1.260	1.929	0.846	3.622	7.677	7.087	0.382	1.969	/	M6	/	0.551	5.276	3.878	0.748	4	0.768	2.520	0.063	*	110	*
1 1/2"	1.496	2.677	0.945	4.488	9.843	7.480	0.382	2.756	/	M8	/	0.709	6.142	4.508	0.866	4	0.827	2.874	0.063	19.842	240	*
2"	1.969	3.031	0.945	4.843	9.843	8.504	0.382	2.756	/	M8	/	0.709	6.496	5.000	0.787	8	0.886	3.622	0.063	26.720	400	1610.619
2 1/2"	2.559	3.524	0.906	5.591	12.205	9.488	0.472	4.016	/	M10	/	0.787	7.480	5.866	0.866	8	1.004	4.134	0.063	44.092	700	*
3"	3.150	3.937	0.906	5.984	12.205	11.142	0.472	4.016	/	M10	/	0.787	8.268	6.614	0.866	8	1.142	5.000	0.063	53.616	980	*
4"	3.937	4.744	1.142	7.165	12.205	12.008	0.591	4.016	/	M10	/	0.945	10.000	7.874	0.866	8	1.260	6.181	0.063	75.619	1700	*
5"	4.921	5.906	2.283	10.433	27.559	/	/	4.921	1.339	M12	1.102	/	/	/	/	/	/	7.323	0.063	/	*	/
6"	5.906	6.693	2.283	11.220	33.465	15.866	/	4.921	1.339	M12	1.102	/	12.520	10.630	0.866	12	1.457	8.504	0.063	211.644	5000	*
8"	7.874	8.622	2.520	13.937	43.307	19.764	/	4.921	1.496	M12	1.417	/	15.000	13.000	1.024	12	1.634	10.630	0.063	*	10000	*
10"	9.843	10.039	2.520	15.354	47.244	22.382	/	4.921	1.496	M12	1.417	/	17.520	15.248	1.142	16	1.890	12.756	0.063	*	15000	*
12"	11.811	12.087	3.110	17.402	59.055	/	/	5.512	1.811	M16	1.417	/	/	/	/	/	/	15.000	0.063	/	21000	/

NOTES:

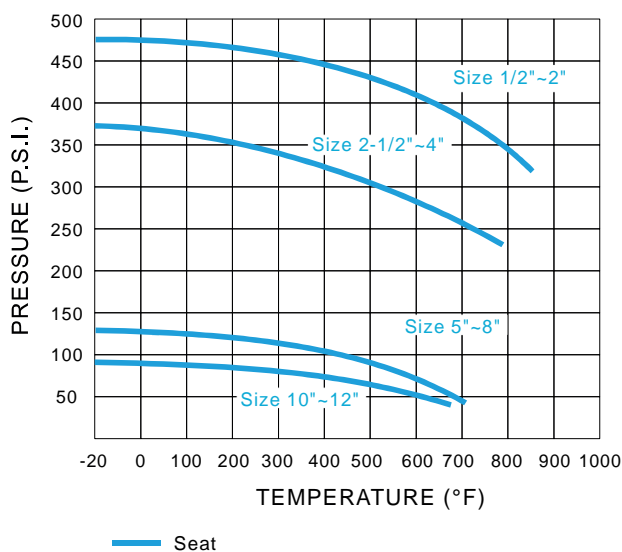
* Please consult with manufacturer.

** Face to face distance for 1/2" diameter is according to supplier design.

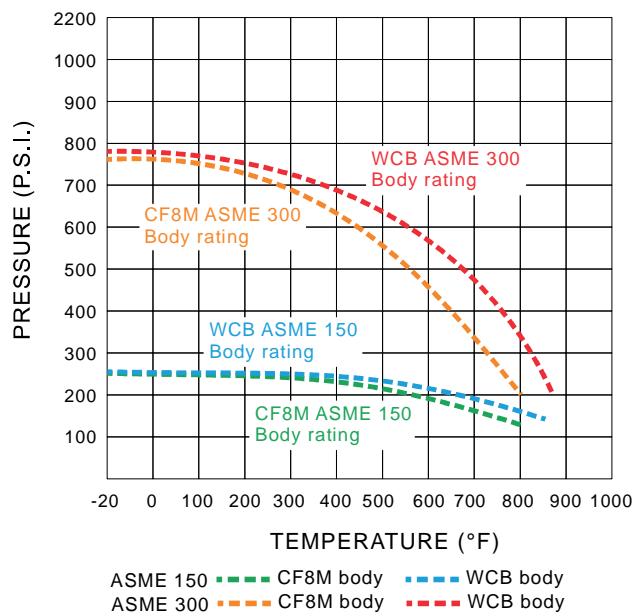
*** Torque value when valve is greased.

Pressure-Temperature Chart

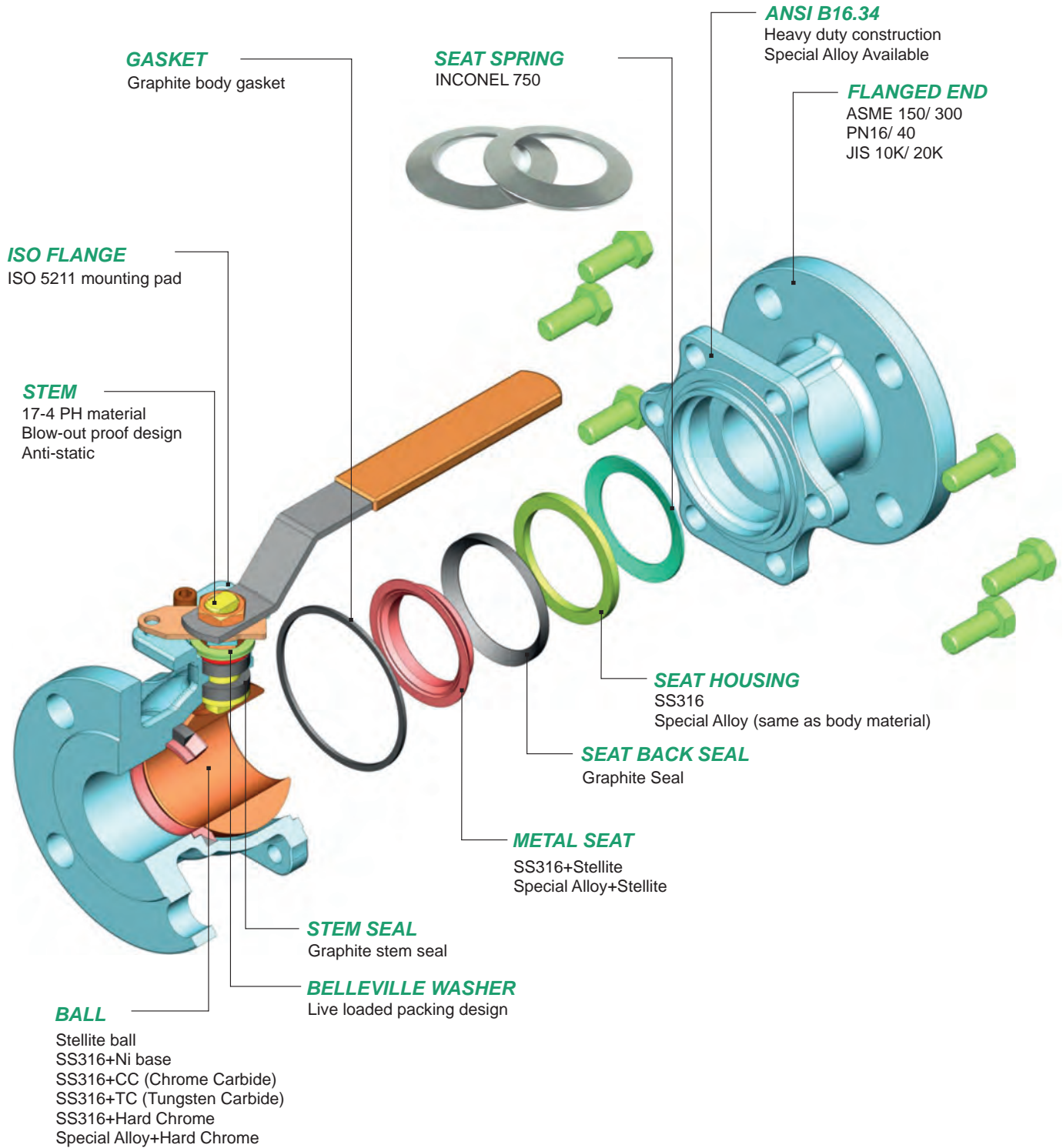
PRESSURE-TEMPERATURE CHART



BODY PRESSURE-TEMPERATURE CHART



Metal Seated Valves Design Features



How to Order

DESIGN (SERIES)	SPECIAL FEATURES	MATERIAL			ENDS	CLASS	SIZE		OPERATION
		BODY ⁽⁶⁾	TRIM ⁽⁷⁾	SEAT					
2W Full Port 2 Pcs Floating Ball Valve Metal Seat Flange Design	None None F Fire Safe 6FA	2 WCB	ST STL	T 316SS + STL	F Flanged RF	0 ANSI 150#	0.5	1/2"	L Manual Lever Operator C Manual Lever with Locking Device B Bare Shaft P Pneumatic Actuator E Electric Actuator
		3W Full port 3 Pcs Floating Ball Valve Metal Seat Flange Design ⁽⁵⁾	3 CF8M	3H 316SS +HC (HVOF)		H 316SS + TC	3 ANSI 300#	0.75	
	3N 316SS +Ni (HVOF)					01	1"		
	3C 316SS +CC (HVOF)					01.25	1 1/4"		
	3T 316SS +TC (HVOF)					01.5	1 1/2"		
						02	2"		
						02.5	2 1/2"		
						03	3"		
						04	4"		
						05	5"		
						06	6"		
				08		8"			
				10	10"				
				12	12"				

Example:

2 Pcs Metal Seated Full Port Ball Valve, Body CF8M, Stem 17-4 PH, Stellite Ball, Seats: 316 + STL,
Ends: Flanged RF, ANSI Class 150#, Size 2" with Lever.

2W3STTF002L

NOTES:

(5) Please contact us for more information about this model / design.

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

(7) Std. material for stem: 17-4 PH. Listed material options for ball:

STL = Stellite.

CC = Chrome Carbide.

TC = Tugsten Carbide.

HVOF = High-Velocity Oxygen Fuel Coating Process.

Other options available, please contact us.

