

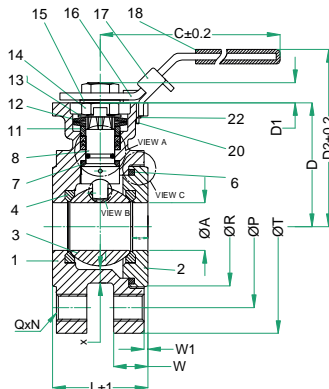
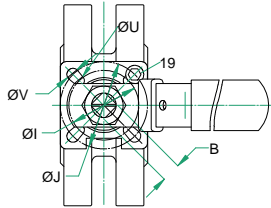


Features / Design

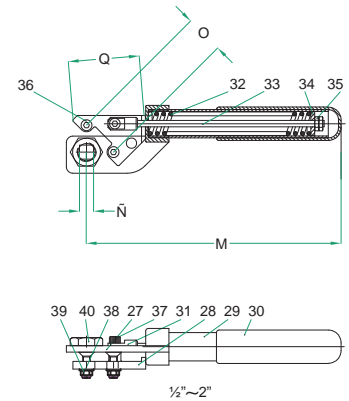
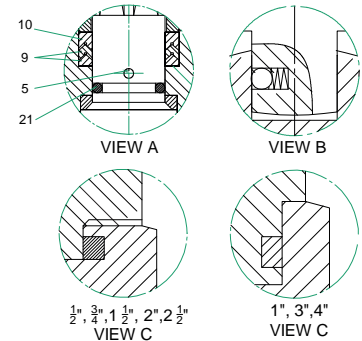
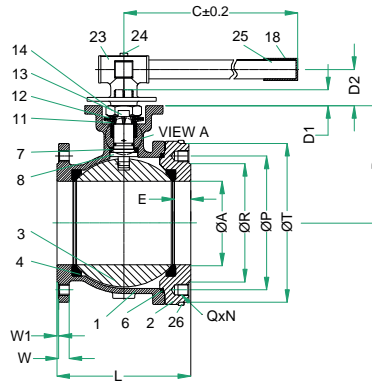
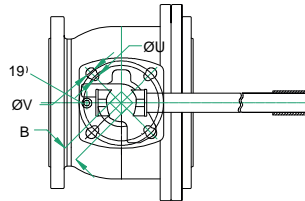
- 1.- One-Piece Direct Mount High Performance Compact Ball Valve (compact space saving design). Investment cast body construction.
- 2.- Design, manufacture and pressure-temperature rating acc. to ASME B16.34; bolt holes acc. to ASME B16.5.
- 3.- Full port, minimizes pressure drop and prolong life.
- 4.- Patented ISO 5211 Direct Mount Pad allows direct mounting of pneumatic and electric actuators (no brackets and coupling are required).
- 5.- Easy and Low Cost for automated service and extremely high cycle life.
- 6.- TFV Triple – Sealing Stem (High Cycle) Stem Packing System – live loaded maintenance free – extra long cycle life – TA-Luft approved.
- 7.- Double Anti-Static Device (stem to ball and stem to body) as standard & Blow-Out proof stem.
- 8.- Wide range of valve (body) and seat materials available.
- 9.- Inspection and testing according to API 598.
- 10.- Fire Safe Design API 607 & NACE MR0175 (upon request).
- 11.- Locking Device as standard.
- 12.- Manufactured in ISO 9001 approved facility.



FOR 1/2" TO 4" VALVES



FOR 5" TO 6" VALVES



Material List

POS	DESCRIPTION	MATERIAL
1	BODY	A216 WCB / A351 CF8M
2	END CAP	A216 WCB / A351 CF8M
3	BALL	SS316
4	SEAT	PTFE
5	ANTISTATIC DEVICE	SS316
6	JOIN GASKET	PTFE
7	STEM SEAL	R-PTFE
8	STEM	SS316
9	CHEVRON PACKING	PTFE
10	STEM PACKING	25% GLASS FIBER FILLED + PTFE
11	GLAND	SS304
12	BELLEVILLE WASHER	SS301
13	LOCK SADDLE	SS304
14	STEM NUT	SS304
15	STEM WASHER	SS304
16	HANDLE	SS304
17	LOCKING DEVICE	SS304
18	HANDLE SLEEVE	VINYL
19	STOP PIN	SS304
20	PIN NUT	SS304
21	O-RING	VITON
22	WASHER	SS304
23	HANDLE SCREW	SS304
24	HANDLE-A	SS304
25	HANDLE-B	CARBON
26	BOLT	SS304
27	HANDLE PAD	SS304
28	TRIANGLE PAD	SS304
29	TUBE	SS304
30	HANDLE SLEEVE	VINYL
31	SUB. SHAFT	SS304
32	SPRING	^{1/4" - 1/4" SWP} 1 1/2" - 2" CARBON STEEL
33	SHAFT	SS304
34	WASHER	SS304
35	NUT	A194 2HM / A194 8M
36	BOLT	A193 B7M / A193 B8M
37	SCREW	SS304
38	WASH	SS304
39	NUT	A194 2HM / A194 8M
40	STEM NUT	A194 2HM / A194 8M

Dimensions (inches)

NPS	ØA	B	C	D	E	D1	D2	ØI	ØJ	L	N	ØP	Q	ØR	ØT	W	W1	ØU	ØV	X	ISO5211
(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
1/2"	0.591	0.354	5.472	1.917	0.319	0.276	3.346	1.417	1.654	1.606	4	2.382	1/2 -13 UNC	1.382	3.500	0.441	0.063	0.236	0.236	0.295	F03/F04
3/4"	0.787	0.354	5.472	2.114	0.260	0.315	3.543	1.417	1.654	1.732	4	2.752	1/2 -13 UNC	1.689	3.882	0.441	0.063	0.236	0.236	0.354	F03/F04
1"	0.984	0.433	6.496	2.559	0.315	0.472	4.094	1.575	1.969	1.969	4	3.180	1/2 -13 UNC	2.520	4.252	0.441	0.063	0.236	0.276	0.276	F04/F05
1 1/4"	1.260	0.433	6.496	3.031	0.378	0.445	4.567	1.575	1.969	2.362	4	3.500	1/2 -13 UNC	2.508	4.618	0.500	0.063	0.236	0.276	0.276	F04/F05
1 1/2"	1.496	0.551	8.465	3.366	0.268	0.610	5.315	1.969	2.756	2.559	4	3.882	1/2 -13 UNC	2.882	5.000	0.563	0.063	0.295	0.354	0.217	F05/F07
2"	1.969	0.551	8.465	3.661	0.299	0.630	5.591	1.969	2.756	3.150	4	4.752	5/8 -11 UNC	3.634	6.000	0.626	0.063	0.295	0.354	0.236	F05/F07
2 1/2"	2.559	0.669	10.354	4.319	0.657	0.622	6.614	2.756	4.016	4.331	4	5.500	5/8 -11 UNC	4.118	7.000	0.693	0.063	0.394	0.472	0.315	F07/F10
3"	3.150	0.669	12.323	4.705	0.547	0.630	7.008	2.756	4.016	4.724	4	6.000	5/8 -11 UNC	5.000	7.500	0.709	0.063	0.394	0.472	0.354	F07/F10
4"	3.937	0.669	13.543	5.224	0.669	0.701	7.520	2.756	4.016	5.906	8	7.500	5/8 -11 UNC	6.189	9.000	0.941	0.063	0.394	0.472	0.362	F07/F10
5"	4.921	1.063	27.756	7.587	0.878	1.122	2.618	4.921	5.512	7.874	8	8.500	3/4 -10 UNC	7.311	9.843	0.878	0.063	0.551	0.709	/	F12/F14
6"	5.906	1.063	27.756	8.276	1.161	1.122	2.618	4.921	5.512	9.449	8	9.500	3/4 -10 UNC	8.500	11.220	0.937	0.063	0.551	0.709	/	F12/F14

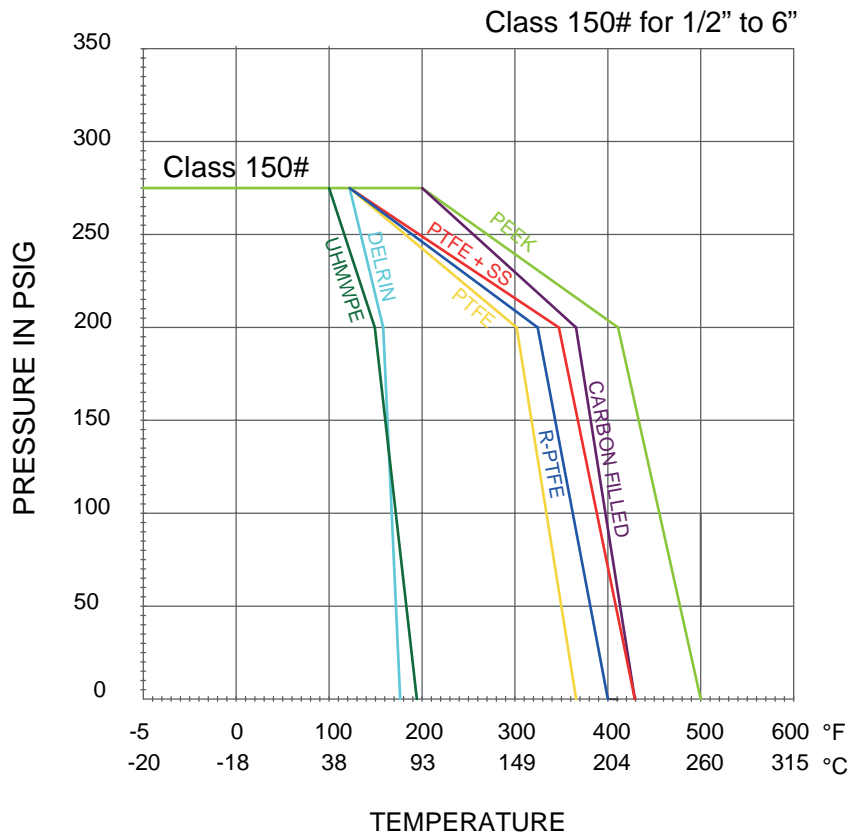


Dimensions

Cv, Torque, Weight & Safety Spring Handle Data (Inches)

NPS (in)	M (in)	N̄ (in)	O (in)	Q (in)	CV (USGAL/min)	TORQUE ⁽¹⁾ (Lb*in) PTFE	Weight ⁽²⁾ (lb)	Weight ⁽³⁾ (SR Handle) (lb)
1/2"	7.677	0.354	1.169	1.673	15.0	44.0	2.6	0.857
3/4"	7.677	0.354	1.169	1.673	40.0	62.0	3.3	0.857
1"	7.677	0.433	1.390	2.720	70.0	142.0	4.4	0.868
1 1/4"	7.677	0.433	1.390	2.720	110.0	159.0	6.4	0.868
1 1/2"	10.433	0.551	1.949	2.154	250.0	257.0	8.4	1.653
2"	10.433	0.551	1.949	2.154	430.0	319.0	13.4	1.653
2 1/2"	/	/	/	/	700.0	532.0	24.7	/
3"	/	/	/	/	1100.0	656.0	28.9	/
4"	/	/	/	/	2000.0	797.0	51.5	/
5"	/	/	/	/	3700.0	1958.0	*	/
6"	/	/	/	/	5400.0	2073.0	144.5	/

Pressure-Temperature chart



How to Order

VALVE BODY DESIGN (SERIES)	SPECIAL FEATURES	MATERIAL			ENDS	CLASS	SIZE		OPERATION
		BODY	TRIM	SEAT					
4M Full Port 1 Pc BALL Valve ISO 5211 MK Wafer Design	NONE None	2 WCB	3 316 SS	P PTFE	W Wafer	0 ANSI 150#	0.5	1/2"	L Manual Lever Operator
	F Fire Safe API 607	3 CF8M	5 316L SS	R R-PTFE			0.75	3/4"	C Manual Lever with Locking Device
		5 CF3M	8 ALLOY 20	U UHMWPE			0.1	1"	
	O Oxigen Service	8 ALLOY 20	9 HASTELLOY	S 50/50 SS Filled PTFE			01.25	1 1/4"	O Oval Handle
		9 HASTELLOY	0 MONEL	C Carbon Filled PTFE			01.5	1 1/2"	
	T TITANIUM	0 MONEL	T TITANIUM	M MG1241			02	2"	S Spring Return safety Handle
		D DELRIN	K PEEK				03	3"	
							04	4"	
							06	6"	
								SR Spring Return Sliding lock	
								X Economical Stem extention	
								B Bare Shaft	
					P Preumatic Actuator				
					E Electric Actuator				

Example:

Full Port Ball Valve, ISO 5211 Integral Mounting K[Body & Trim 316SS, Seats: PTFE, Ends: Wafer, ANSI Class 150#, Size 1/2" with Lever and Locking Device.

4M33PF00.5C

Notes:

- (1) The torque es measured based on the conditions of with 30% safety factor, with grease, at 0 bar pressure and ambiental temperature.
- (2) The weight change depending on the type of lever .
- (3) Spring safety handle weight.

