

**TDZ/F14AZ**  
**WCB and CF8M material**  
**Floating Ball Valve, ASME CLASS 150 / CLASS 300**



## Features

Full bore.

**Design Standards:** ISO 17292:2004 / EN 12516-1 / ASME B16.34:2009 / API 608 / BS 5351\*

\*Although it is obsolete, it is adopted because most customers specify it

**Flanges:** ASME B16.5:1996, RF

**Lengths/Face-to-face:** ASME B16.10:2010

**Leak test:** EN 12266-1 Rate A / API 598

**Top flange:** ISO 5211:2001 and CAPI: 2002

**Seats:** Modified PTFE HYPATITE

**Stem:** Anti-static

Autoadjustable packing

NACE MR0175

## Approvals

Fire test Certification: API 607 ed. 6<sup>th</sup>, EN 10497:2004

PED 2014/68/UE approval for CE marked products

Marine Division certificate

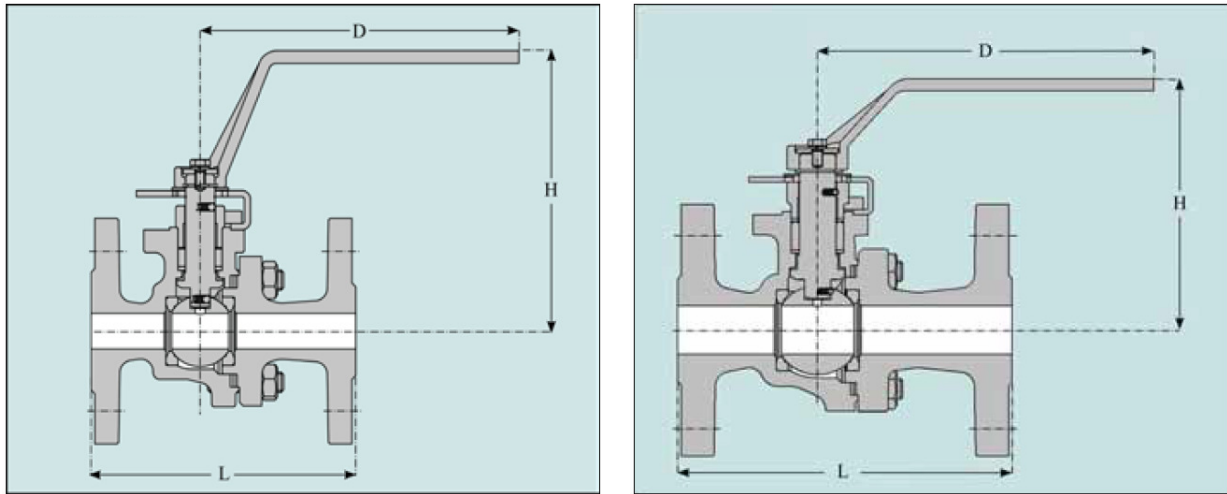
ATEX approval

Fugitive Emission approval: ISO 15848-1 / API 641

SIL approval

EAC TR CU approval

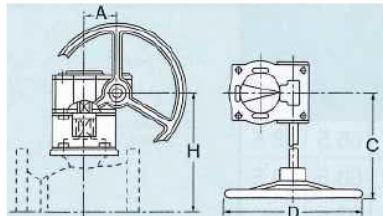
## Dimensions



<b>Class 150 (150SCTDZM/150UTDZM-FS)</b>											
<b>General Dimensions [mm]</b>											
Valve Size	in.	1/2	3/4	1	1 1/2	2	3	4	6	8	10
	mm.	15	20	25	40	50	80	100	150	200	250
Ball Bore		14	19	24	38	50	76	100	151	202	-
L		108	117	127	165	178	203	229	394	457	-
H		108	111	124	134	143	189	224	315	406	Gear operation*
D		130	130	160	230	230	400	460	1000	1500	Gear operation*
ISO 5211 flange type		F03	F03	F05	F07	F07	F10	F12	F14	F16	F16
Cv (m <sup>3</sup> /h)		15	33	59	181	346	1020	1910	4317	8589	14338
Weight (kg)		2,6	2,8	4,5	8,5	11,4	25	45	112 <sup>(1)</sup>	186 <sup>(1)</sup>	269 <sup>(1)</sup>

<b>Class 300 (300SCTDZM/300UTDZM-FS)</b>											
<b>General Dimensions [mm]</b>											
Valve Size	in.	1/2	3/4	1	1 1/2	2	3	4	6	8	10
	mm.	15	20	25	40	50	80	100	150	200	250
Ball Bore		14	19	24	38	50	76	100	151	202	-
L		140	152	165	190	216	283	305	403	502	-
H		108	111	124	134	143	189	251	315	406	-
D		130	130	160	230	230	400	750	1000	1500	-
ISO 5211 flange type		F03	F03	F05	F07	F07	F10	F12	F14	F16	-
Cv (m <sup>3</sup> /h)		15	33	59	181	346	1020	1910	4317	8589	-
Weight (kg)		3	4,5	7,2	13,9	18,4	38	80	150 <sup>(1)</sup>	230 <sup>(1)</sup>	-

Valve Operator:  
 1/2"~8": Lever operation  
 6" ~8": Optional gear operation  
 10": Standard gear operation  
<sup>(1)</sup> Manual Gear included



<b>Gear Dimensions [mm]</b>										
Class	150	300	H		D		C		A	
			150	300	150	300	150	300	150	300
Valve Size (inch)	6	6	322	335	310	360	165	210	66,5	88,5
	8	8	412	412	360	360	210	210	88,5	88,5
	10	-	448	-	500	-	363	-	93,5	-

## Operation Torque (BTO)

Maximum differential pressure [barg] / Operation torque [Nm]*				MAST [Nm]
Valve Size		Class 150	Class 300	
15	½"	5,2	6,3	35,7
20	¾"	7,8	8,9	35,7
25	1"	13,0	19,3	128
40	1½"	28,4	38,8	232
50	2"	32,6	54,0	232
80	3"	84,5	205,0	493
100	4"	163,9	384,9	965
150	6"	494,0	-	2288
200	8"	843,3	-	4645
250	10"	1952,7	-	4645

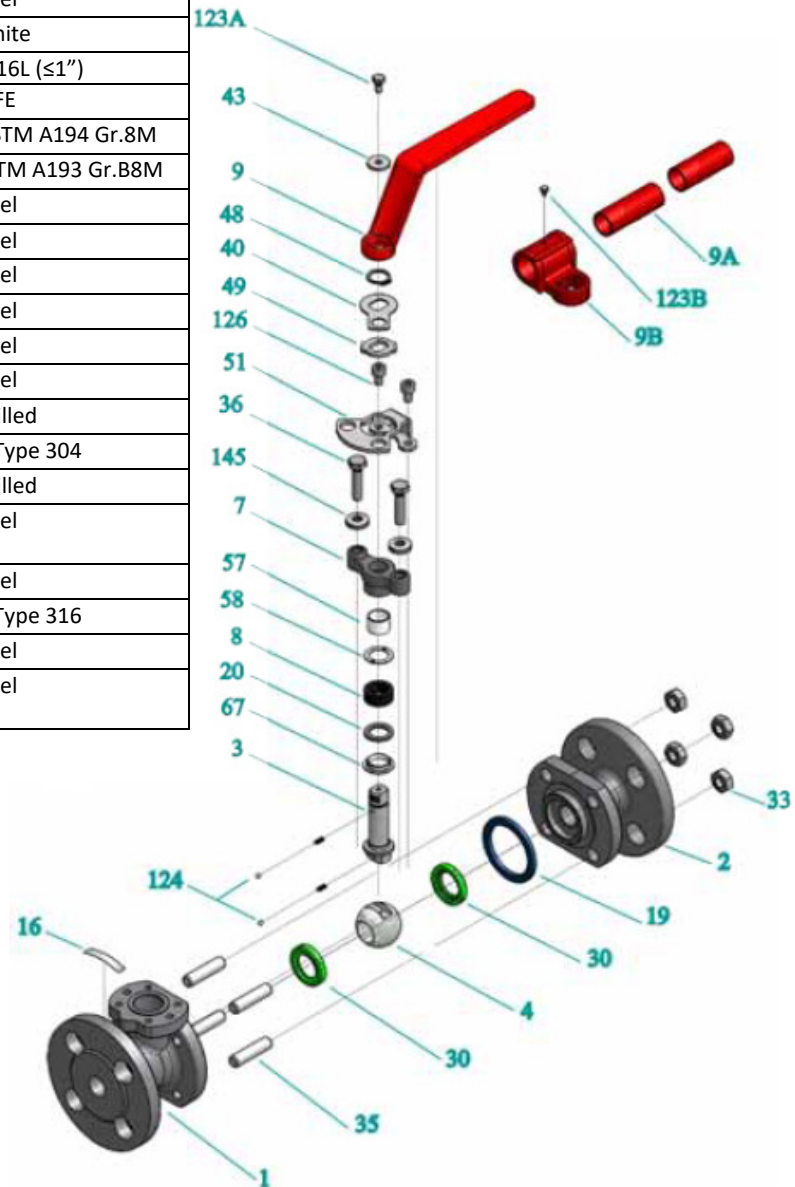
\*All torque values include a 30% safety factor. Values are for clean, static water at ambient temperature.

## Material List

No.	DESCRIPTION	CARBON STEEL	STAINLESS STEEL
		150/300STDZM-FS	150/300UTDZM-FS
1	Body	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8M
2	Cap	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8M
3	Antistatic stem	ASTM A276/A479 Type 316	
4	Ball	ASTM A276/A479 Type 316 ASTM A351 Gr.CF8M	
7	Gland	ASTM A351 Gr.CF8M	
8	Gland Packing	Flexible Graphite	
9	Handle	Ductile Iron ( $\leq 4$ A150 & $\leq 3$ " A300)	
9A	Handle bar	Carbon Steel ( $\geq 6$ " A150 & $\geq 4$ " A300)	
9B	Handle head	Ductile Iron ( $\geq 6$ " A150 & $\geq 4$ " A300)	
16	Name plate	Stainless Steel	
19	Gasket	Flexible Graphite	
20	Packing washer	ASTM A276 Type 316L ( $\leq 1$ "	
30	Ball seat	Hypatite PTFE	
33	Cap nut	ASTM A194 Gr.2HM	ASTM A194 Gr.8M
35	Cap bolt	ASTM A193 Gr.B7M	ASTM A193 Gr.B8M
36	Gland bolt	Stainless Steel	
40	Key lock plate	Stainless Steel	
43	Handle lock plate	Stainless Steel	
48	Snap ring	Stainless Steel	
49	Stopper	Stainless Steel	
51	Stopper plate	Stainless Steel	
57	Gland bush	PTFE + Glass Filled	
58	Gland washer	ASTM A240/A276 Type 304	
67	Stem bearing	PTFE + Glass Filled	
123A	Handle lock plate bolt	Stainless Steel	
123B	Handle bolt	Stainless Steel	
124	Spring & pin	ASTM A313/A276 Type 316	
126	Stopper plate bolt	Stainless Steel	
145	Coned disc springs	Stainless Steel	

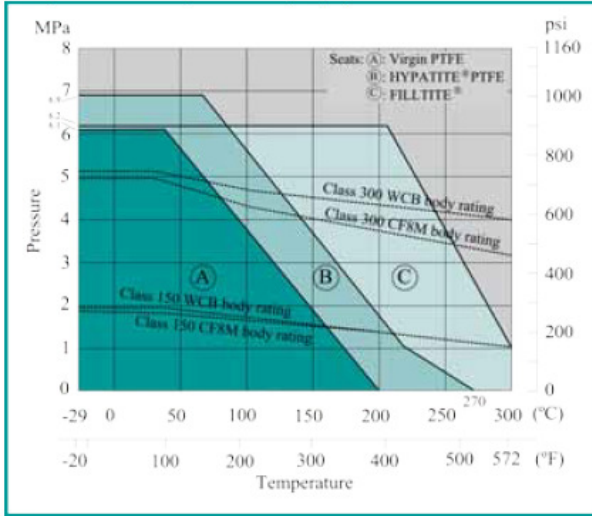
Notes:

- All part numbers are corresponding with those shown in valve assembly drawings.
- Illustration shows Size 1" design.

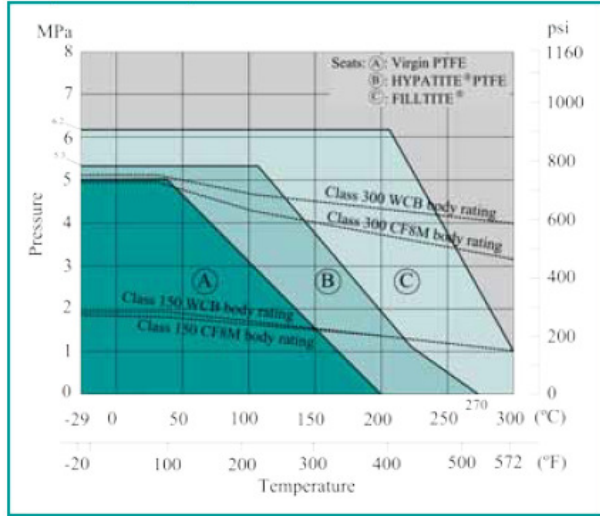


**P-T Rating**

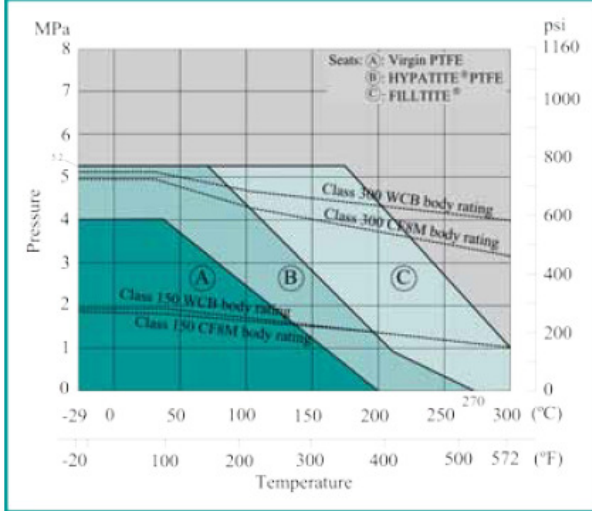
150/300 UTDZM/SCTDZ: 1/2", 3/4"



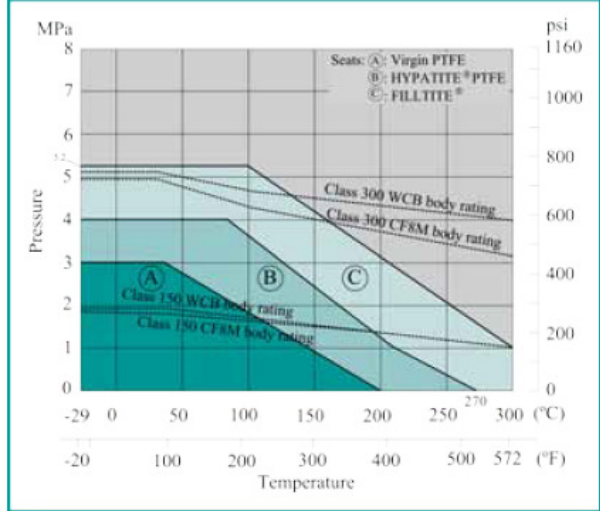
150/300 UTDZM/SCTDZ: 1"~ 2"



150/300 UTDZM/SCTDZ: 3", 4"



150/300 UTDZM/SCTDZ: 6"



150/300 UTDZM/SCTDZ: 8", 10"

