

Class 150/300 Stainless Steel/Carbon Steel Ball Valves

Full bore, Split body, Side entry design

Features

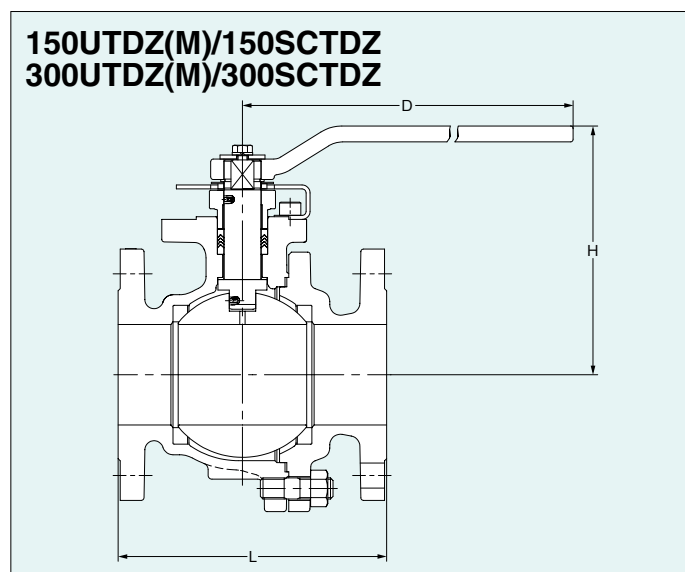
- Antistatic device
- Blowout-proof stem
- Fire test certification★(API 607, ISO 10497)
- Stem head conform to CAPI ADDS 2.02 dimensions
- High performance **HYPATITE® PTFE** ball seats
- Actuator mounting pad to ISO 5211

- Conform to NACE MR0175 for hardness of body, body cap, stem and ball.

Page 108 for Pressure-Temperature Ratings.

Page 38 for Construction and Materials.

Page 105 for Dimension of Actuator Mounting Pad.



Dimensions of 150UTDZ(M), 150SCTDZ

Unit: mm

Nominal Size	NPS	1/2	3/4	1	1 1/4*	1 1/2	2	2 1/2	3	4	5	6	8	10
	DN	15	20	25	32*	40	50	65	80	100	125	150	200	250
Ball bore		14	19	24	32	38	50	64	76	100	123	151	202	253
L		108	117	127	140	165	178	190	203	229	356	394	457	533
H		108	111	124	128	134	143	179	189	224	240	315	406	533
D		130	130	160	160	230	230	400	400	460	460	1000	1500	1500

Valve operator

NPS 1/2 to 8: Lever operation
NPS 5 to 8: Optional gear operation
NPS 10: Standard gear operation

Option

★Flexible graphite packing and gasket
(See Pages 8 and 38)

- Ball and stem to 316ss available in carbon steel valves upon request

Dimensions of 300UTDZ(M), 300SCTDZ

Unit: mm

Nominal Size	NPS	1/2	3/4	1	1 1/4*	1 1/2	2	2 1/2	3	4	5	6	8
	DN	15	20	25	32*	40	50	65	80	100	125	105	200
Ball bore		14	19	24	32	38	50	64	76	100	123	151	202
L		140	152	165	178	190	216	241	283	305	381	403	502
H		108	111	124	128	134	143	179	189	251	267	315	406
D		130	130	160	160	230	230	400	400	750	750	1000	1500

Valve operator

NPS 1/2 to 8: Lever operation
NPS 6 to 8: Optional gear operation

Option

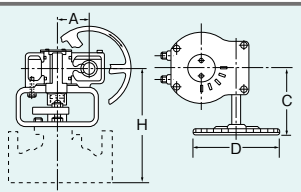
★Flexible graphite packing and gasket
(See Pages 8 and 38)

- Ball and stem to 316ss available in carbon steel valves upon request

Gear Operation

Unit: mm

Nominal Pressure	Class 150	Class 300	Gear Operator							
			H		D		C		A	
			150	300	150	300	150	300	150	300
Nominal size (NPS)	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	—



Worm gear operators may be mounted on KITZ ball valves at your option for the smoothest valve operation. Electric or pneumatic actuators are also optionally available. Contact KITZ distributors for appropriate choice and sizing of valve actuators.

Construction and Materials

Parts List :1H

No.	Parts	Standard	Fire-safe
		150/300SCTDZ	150/300SCTDZ-FS
1	Body* ¹	A216 Gr.WCB	
2	Body cap* ¹	A216 Gr.WCB	
3	Stem	A276 Type 304	
4	Ball* ²	A276 Type 304 or A351 Gr.CF8	
7	Gland	A351 Gr.CF8	
8	Gland packing	PTFE	Flexible graphite
9	Handle* ³	Ductile iron	
9A	Handle bar* ³	Carbon steel	
9B	Handle head* ³	Ductile iron	
16	Name plate	A276 Type 304	
19	Gasket	PTFE	Flexible graphite
20	Packing washer* ⁴	A276 Type 316L	
30	Ball seat	HYPATITE® PTFE	
33	Cap nut	A194 Gr.2H	
35	Cap bolt	A193 Gr.B7	
36	Gland bolt	Stainless steel	
40	Key-lock plate	A276 Type 304	
43	Handle-lock plate	A276 Type 304	
48	Snap ring	A276 Type 304	
49	Stopper	A276 Type 304	
51	Stopper plate	A276 Type 304	
57	Gland bush	Reinforced PTFE	
58	Gland washer	A276 Type 304	
67	Stem bearing	Reinforced PTFE	
123A	Handle-lock plate bolt	Stainless steel	
123B	Handle bolt	Stainless steel	
124	Spring & pin	A313 & A276 Type 316	
126	Stopper plate bolt	Stainless steel	
145	Coned disc spring	Stainless steel	

*1 A352 Gr. LCC low-temperature service materials are optionally available.

*2 CF8M or Type 316 is optionally available for balls and stems.

*3 Class 150: Bar type handle used for NPS 6 and 8.

Class 300: Bar type handle used for NPS 4 and 8.

*4 Up to NPS 1

All part numbers are corresponding with those shown in valve assembly drawings.

No.	Parts	ASTM Material Designation			JIS Material Designation		
		Stainless steel valve		Carbon steel valve	Stainless steel valve		Carbon steel valve
		150/300UTDZ1H	150/300UTDZ1HM	150/300SCTDZ1H	10/20UTDZ1H	10/20UTDZ1HM	10/20SCTDZ1H
1	Body	A351 Gr.CF8	A351 Gr.CF8M	A216 Gr.WCB	SCS13A	SCS14A	SCPH2
2	Body cap	A351 Gr.CF8	A351 Gr.CF8M	A216 Gr.WCB	SCS13A	SCS14A	SCPH2
3	Stem	A276 Type 304	A276 Type 316	A276 Type 304	SUS304	SUS316	SUS304
4	Ball	A276 Type 304 or A351 Gr.CF8	A276 Type 316 or A351 Gr.CF8M	A276 Type 304 or A351 Gr.CF8	SUS304 or SCS13A	SUS316 or SCS14A	SUS304 or SCS14A
7	Gland	A351 Gr.CF8			SCS13A		
8	Gland packing	Flexible graphite			Flexible graphite		
9	Handle* ¹	Ductile iron			FCD400-10		
9A	Handle bar* ¹	Carbon steel			SGP		
9B	Handle head* ¹	Ductile iron			FCD400-10		
16	Name plate	A276 Type 304			SUS304		
19	Gasket	Flexible graphite			Flexible graphite		
20	Packing washer	A276 Type 316L			SUS316L		
30	Ball seat	FILLTITE® PTFE			FILLTITE® PTFE		
33	Cap nut	A194 Gr.8		A194 Gr.2H	SUS304		S45C
35	Cap bolt	A193 Gr.B8		A193 Gr.B7	SUS304		SNB7
36	Gland bolt	Stainless steel			Stainless steel		
40	Key-lock plate	A276 Type 304			SUS304		
43	Handle-lock plate	A276 Type 304			SUS304		
47	Thrust washer	Carbon			Carbon		
48	Snap ring	A276 Type 304			SUS304		
49	Stopper	A276 Type 304			SUS304		
51	Stopper plate	A276 Type 304			SUS304		
57	Gland bush	Carbon			Carbon		
58	Gland washer	A276 Type 304			SUS304		
67	Stem bearing	Carbon			Carbon		
123A	Handle-lock plate bolt	Stainless steel			Stainless steel		
123B	Handle bolt	Stainless steel			Stainless steel		
124	Spring & pin	A313 & A276 Type 316			SUS316-WPA & SUS316		
126	Stopper plate bolt	Stainless steel			Stainless steel		
145	Coned disc spring	Stainless steel			SUS304-CSP		

*1) Refer to the following table *2) Equivalent to AISI Type 329

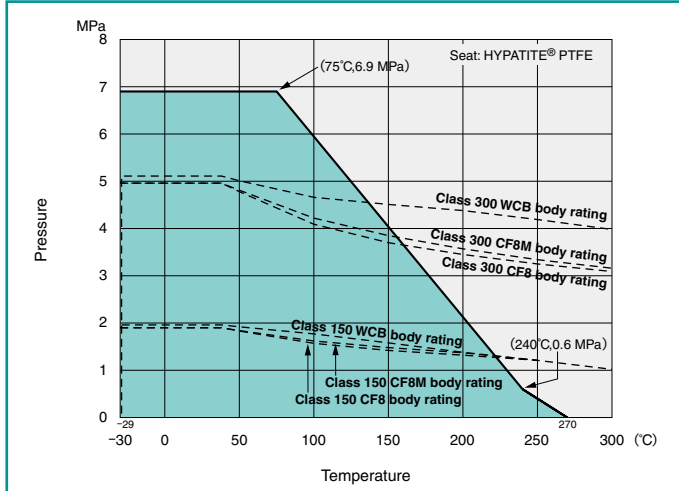
* The substitutional equivalent materials may be used for valve part materials where ASTM A276 and/or A564 is stated on the material descriptions in this catalog.

Operation (Standard)	Class 150/10K	Class 300/20K
Lever type	NPS 1/2 to 3	NPS 1/2 to 3
Bar type	NPS 4	
Gear	NPS 5 to 8	NPS 4 to 8

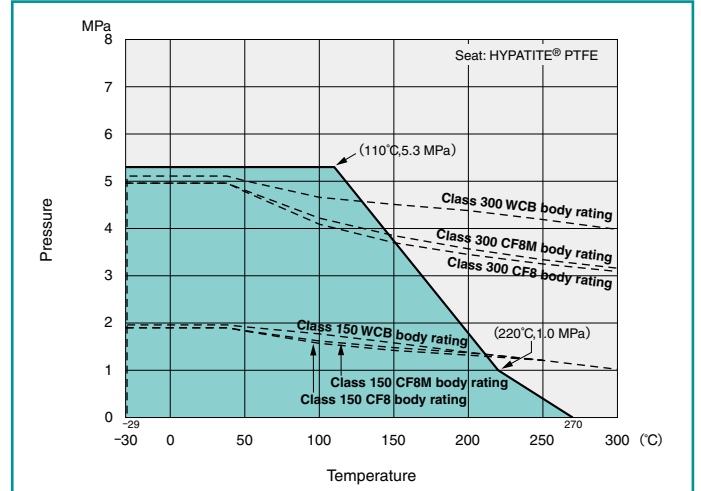
Refer to illustration on Page 33.

Pressure-Temperature Ratings

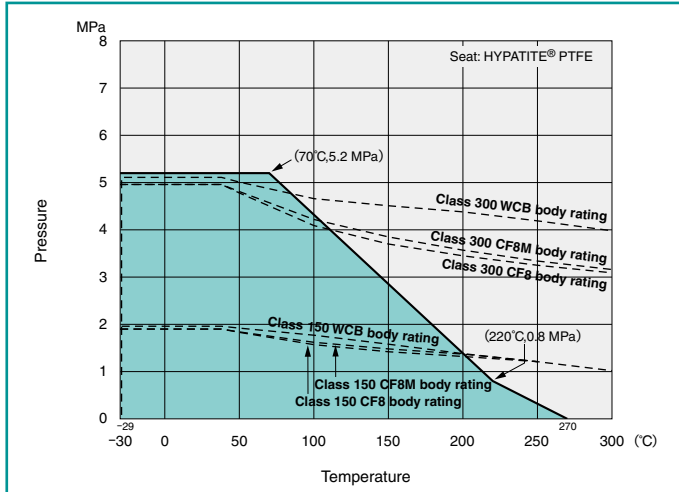
150/300UTDZ(M)/SCTDZ : NPS 1/2, 3/4



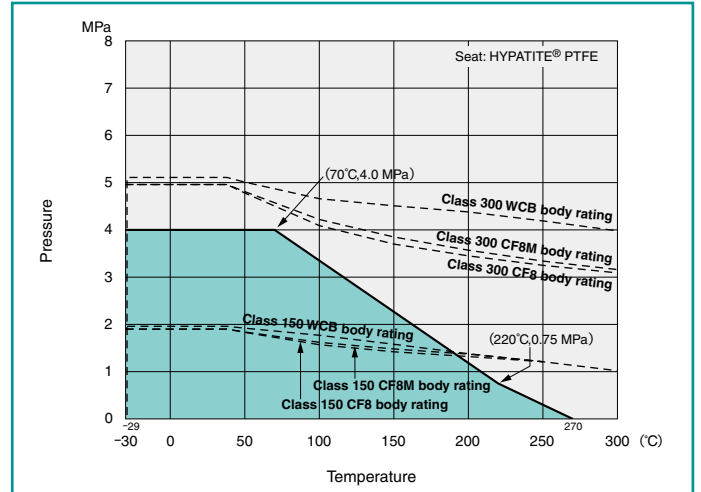
150/300UTDZ(M)/SCTDZ : NPS 1 to 2 1/2



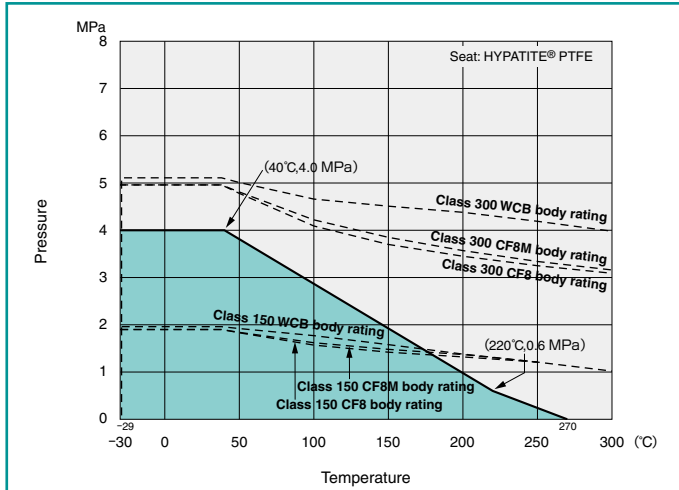
150/300UTDZ(M)/SCTDZ : NPS 3, 4



150/300UTDZ(M)/SCTDZ : NPS 5, 6



150/300UTDZ(M)/SCTDZ : NPS 8, 10



Note: Lowest working temperature for WCB is -29°C.