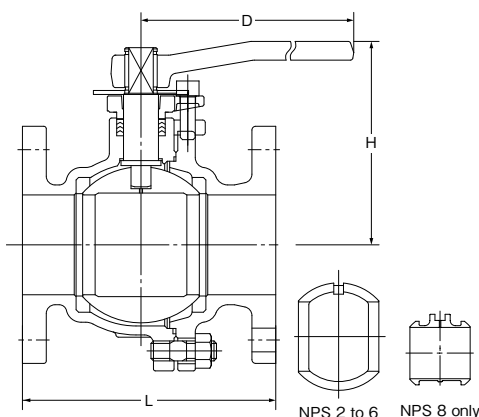


10K Ball Valve (Full Bore)

(G)-10STBF (G)-10STLBF (Gas service)

FF-flanged



Face to face dimensions : ASME B16.10
End flanges : JIS B 2239 10K (FF)

Dimensions of 10STBF, 10STLBF

Unit: mm

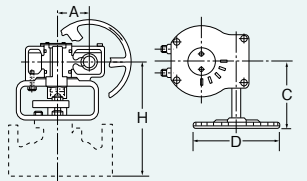
Nominal Size	NPS	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
	DN	15	20	25	32	40	50	65	80	100	125	150	200
L		108	117	127	140	165	178	190	203	229	356	394	457
H		106	109	130	135	115	120	153	162	199	219	293	352
D		130	130	160	160	230	230	400	400	460	460	1000	1500

※RF-flanged ends are optionally available.

Gear Operation

Unit: mm

Nominal Pressure	10K	Gear Operator			
		H	D	C	A
Nominal size (NPS)	2 1/2	260	175	140	65.5
	3	269	185	150	65.5
	4	292	210	175	65.5
	5	312	250	210	65.5
	6	337	280	240	65.5
	8	414	330	290	88.5



Maximum Service Pressure

Code	Valve Size	Temperature	Pressure
10STBF	All size	-10~120°C W.O.G.	1.4 MPa
10STLBF	All size	-10~80°C gas	1.2 MPa

●Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS Material
Body	FCD-S
Body cap	FCD-S
Stem	SUS 403
Ball	SUS 304 / SCS 13A / SUS 304TP
Gland	FCD-S
Gland packing	PTFE
Gasket	PTFE
Packing washer	SUS 304 (1/2 to 1 1/4)
Ball seat	HYPATITE® PTFE*1
Cap bolt/nut	SS 400*2
Gland bolt	Alloy steel
O ring*3	NBR
Stopper	SUS 430
Name plate*3	SUS 304

*1 PTFE or C/F PTFE is optionally available.

*2 Different bolt/nut material is required for service exceeding temperature range of 0 to 225°C.

Contact KITZ Corporation for technical advice.

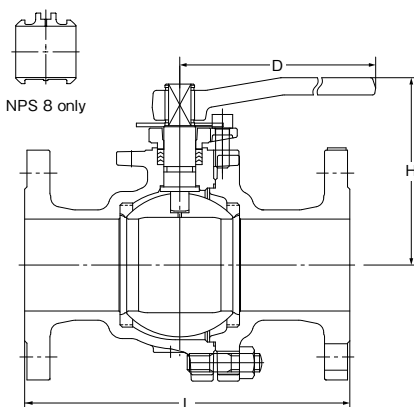
*3 for 10STLB only

Contact KITZ Corporation for use of valve actuators.

20K Ball Valve for Gas Service (Full Bore)

(G)- 20STLB

RF-flanged



Face to face dimensions : ASME B16.10
End flanges : JIS B 2239 20K

-10~80°C Gas 2.4 MPa

Materials

Parts	JIS Material
Body	FCD-S
Body cap	FCD-S
Stem	SUS 403
Ball	SUS 304 / SCS 13A
Gland	FCD-S
Gland packing	PTFE
Gasket	PTFE
Packing washer	SUS 304 (NPS 1 1/4 & smaller)
Ball seat	HYPHTITE® PTFE
O-ring	NBR
Cap bolt/nut	Carbon steel
Stopper	SUS 430
Snap ring	SK5

Dimensions of 20STLB

Unit: mm

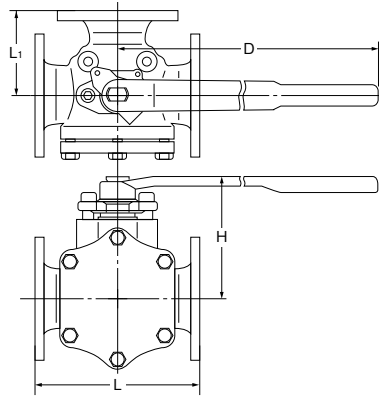
Nominal Size	NPS	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8
	DN	15	20	25	32	40	50	65	80	100	150	200
L		140	152	165	178	190	216	241	283	305	403	502
H		106	109	130	135	115	120	153	162	241	293	352
D		130	130	160	160	230	230	400	400	750	1000	1500

Refer to "Product Range" on Page 3.

※Please contact KITZ or KITZ distributors for details about gear operated products.

10K Ball Valve 3-way 4-seat

- 10STB4LAF**
(L-port. Full Bore NPS 1½ to 4)
- 10STB4TAF**
(T-port. Full Bore NPS 1½ to 4)
- 10STR4LAF**
(L-port. Reduced Bore NPS 5 and larger)
- 10STR4TAF**
(T-port. Reduced Bore NPS 5 and larger)



End to end dimensions : KITZ Std.
End flanges : JIS B 2239 10K (FF)

-10~90°C W.O.G. 1.4 MPa

Materials

Code	JIS Material
Body	FCD-S
Body cap	FCD-S
Ball	SCS 13A or SUS304
Stem	SUS 304
Ball seat	HYPATITE® PTFE
Gland packing	PTFE

Gear operators may be optionally used for NPS 6 and 8.

● Page 106 for Allowable Port Orientation.

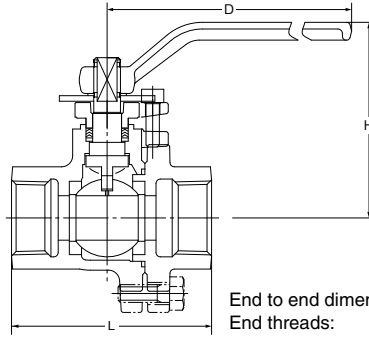
Dimensions of 10STB4LAF, 10STB4TAF, 10STR4LAF, 10STR4TAF Unit: mm

Nominal Size	NPS	1½	2	2½	3	4	5	6	8
	DN	40	50	65	80	100	125	150	200
L	(STB)	180	200	240	260	330	—	—	—
	(STR)	—	—	—	—	—	340	400	450
L ₁	(STB)	90	100	120	130	165	—	—	—
	(STR)	—	—	—	—	—	170	200	225
H	(STB)	143	152	183	190	259	—	—	—
	(STR)	—	—	—	—	—	267	289	334
D	(STB)	400	400	460	460	1000	—	—	—
	(STR)	—	—	—	—	—	1000	1000	1500

*RF-flanged ends are optionally available.

20K Ball Valves (Reduced Bore)

20ST 20STL (Gas service)



End to end dimensions: KITZ Std.
End threads: JIS B 0203

Maximum Service Pressure

Code	Temperature	Pressure
20ST	110°C W.O.G.	2.8 MPa
	140°C W.O.G.	2.0 MPa
20STL	80°C gas.	2.4 MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS Material
Body	FCD-S
Body cap	FCD-S
Stem	SUS 403
Ball	SUS 304/SCS 13A
Gland	FCD-S
Gland packing	PTFE
Gasket	PTFE
Ball seat	HYPATITE® PTFE
O ring*	NBR
Gland bolt	Alloy steel
Cap bolt	Carbon steel
Handle	FCD 400-15
Name plate*	SUS 304

*for 20STL only

Dimensions of 20ST, 20STL

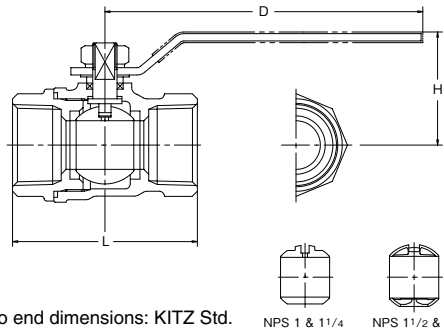
Unit: mm

Nominal Size	NPS	1/2	3/4	1	1 1/4	1 1/2	2	3
	DN	15	20	25	32	40	50	80
L		75	80	90	105	115	130	180
H		106	106	107	129	133	114	154
D		130	130	130	160	160	230	400

NPS3 : Only 20STL

Type 400 Ball Valves (Reduced Bore)

STZ



End to end dimensions: KITZ Std.
End threads: JIS B 0203

NPS 1 & 1 1/4 NPS 1 1/2 & 2

W.O.G. at Room temp 2.75 MPa
Saturated steam 0.98 MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS Material
Body	FCD-S
Cap	FCD-S
Ball	C3771BE*1
Stem	C3531*1
Gland packing	PTFE
Ball seat	G/F PTFE
Gland	C3604BD*2
Gasket	PTFE
Handle nut	SS 400*3
Handle	SUS 430*4

*1 Ni + Cr electroplated

*2 Zinc electroplated

*3 Zinc dichromate electroplated

*4 Plastic covering

Dimensions of STZ

Unit: mm

Nominal Size	NPS	1/2	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	DN	8	10	15	20	25	32	40	50
L		46	51	57	65	76	86	95	115
H		38	38	42	49	52	57	63	68
D		80	80	100	130	130	130	130	150

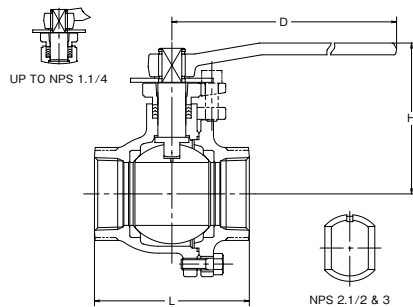
10K Iron Threaded Ball Valves (Full Bore)

120°C non-shock water 1.4 MPa, 120°C W.O.G. 1.0 MPa
Saturated steam 0.7 MPa

10FCT



Blowout-proof stem



UP TO NPS 1.1/4

NPS 2.1/2 & 3

Materials

Parts	Material	JIS Spec.
Body	Cast iron	FC200
Body cap	Cast iron	FC200
Stem	Stainless steel	SUS403
Ball	Stainless steel	SCS13A or SUS304 or SUS304TP
Grand packing		PTFE
Gasket		PTFE
Ball Seat		PTFE
Cap bolt	Carbon steel	SS400
Handle	Ductile iron	FCD400

Design Specifications

Items	
Shell wall thickness and general valve design	KITZ standard
Face to face dimensions End to end dimensions	KITZ standard
End connection	JIS B0203

Dimensions of 10FCT

Unit: mm

Nominal Size	NPS	3/8	1/2	1/2	1	1 1/4	1 1/2	2	2 1/2	3
	DN	10	15	20	25	32	40	50	65	80
L		72	80	85	95	120	120	140	160	182
H		71	102	105	125	130	115	120	155	165
D		130	130	130	160	160	230	230	400	400