

TYPE 400

BRASS BALL VALVE

Screwed body cap, Blowout-proof Stem,
Double O-ring stem seals
Threaded ends to BS21 or NPT

W.O.G. non-shock 2.76 MPa (400 psi), W.O.G. 150°C 0.69 MPa (100 psi)



Fig. T

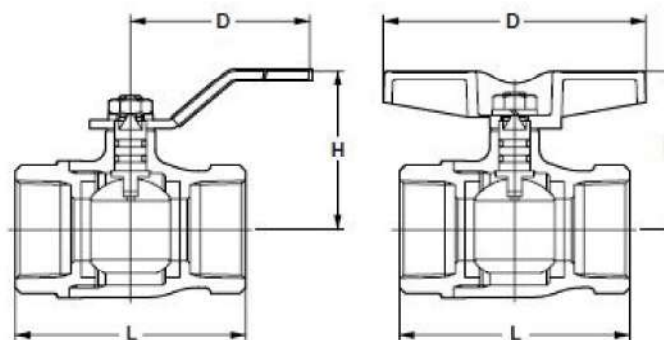
- Threaded end to BS21

Fig. AKT

- Threaded end to ASME B1.20.1

Fig. TT

- Threaded end to BS21



Materials

Parts	Material
Body	Brass/Bronze*
Body cap	Brass/Bronze*
Stem	Dezincification Resistant Brass
Ball	Brass**
Ball seat	PTFE
O-ring	FKM

*Size 4 only

**Nickel-chrome plated

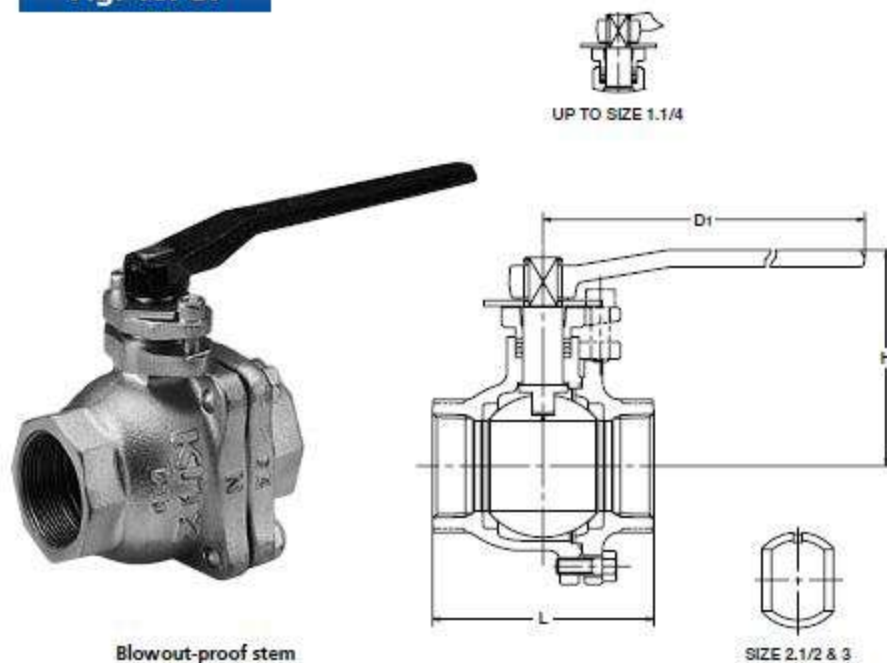
Dimensions

Nominal Size	mm											
	Inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
L Threaded end to end		50	50	65	68	79	86	96	109	127	153	179
H Height		45	45	45	50	55	60	65	75	91	105	124
H1 TT: Height		41	41	44	48	55	61	66	80			
D Length of Handle		60	60	80	80	110	110	110	140	200	300	400
D1 TT: Length of Handle		65	65	80	80	90	105	105	120			

*TT: 1/4 to 2

120°C Non-shock water 1.37MPa, 120°C Water, oil, gas 0.98MPa
Saturated steam 0.69MPa

Fig. 10FCT



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 flange dimensions Gasket contact facing	JIS B0203

Dimensions

Valve Size	inch mm	3/8	1/2	1/2	1	1 1/4	1 1/2	2	2 1/2	3	mm
L Face-to-face		72	80	85	95	120	120	140	160	182	
H Height		71	102	105	125	130	115	120	155	165	
D Handle		130	130	130	160	160	230	230	400	400	

TYPE 600

BRASS BALL VALVE

One-piece body, Blowout-proof Stem,
Threaded ends to BS21 or NPT

W.O.G. non-shock 4.14 MPa (600 psi), W.O.G. 150°C 1.03 MPa (150 psi)



Fig. TK

- Threaded end to BS21

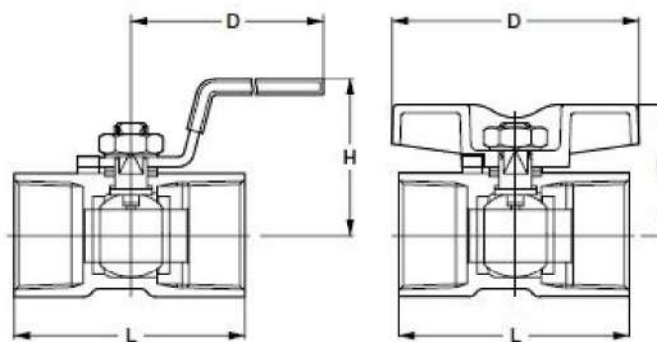


Fig. TKT

- Threaded end to BS21

Fig. AKTK

- Threaded end to ASME B1.20.1
- AKTK 1/4 to 2



Materials

Parts	Material
Body	Brass
Body cap	Brass
Stem	Dezincification Resistant Brass
Ball	Brass*
Ball seat	Reinforced PTFE
Grand packing	Reinforced PTFE

*Chrome or Nickel-chrome plated

Dimensions

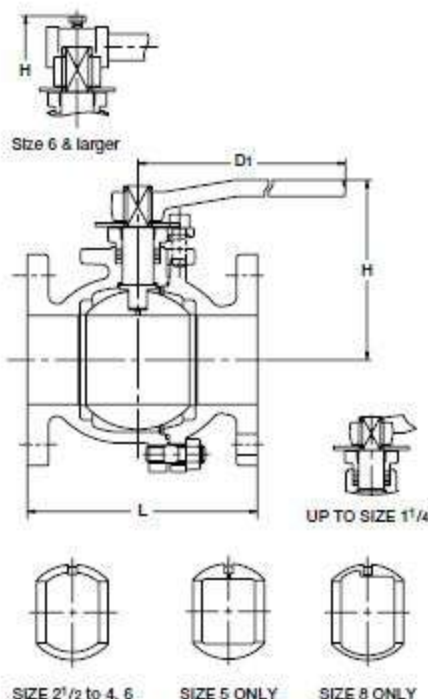
Nominal Size	mm									
	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L Threaded end to end		32	39	44	56.5	59	71	78	83	100
H Height		31	31	36	41	44	48	54	65	72
H1 TKT: Height		23	23	27	31	34	42	48	53	60
D Length of Handle		60	60	70	85	85	100	100	125	125
D1 TKT: Length of Handle		35	35	40	60	60	76	76	100	100

120°C Non-shock water 1.37MPa, 120°C Water, oil, gas 0.98MPa
Saturated steam 0.69MPa

Fig. 10FCTB



Blowout-proof stem



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 flange dimensions Gasket contact facing	JIS B2239 10K

Dimensions

Valve Size	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
	mm	15	20	25	32	40	50	65	80	100	125	150	200	250*
L Face-to-face		110	120	130	140	165	180	190	200	230	300	340	450	533
H Height		102	105	124	128	114	121	154	163	199	219	292	352	477
D Handle		130	130	160	160	230	230	400	400	460	460	1000	1500	-

*Note: Gear Operated. Contact KITZ or KITZ distributors for details.

CLASS 125

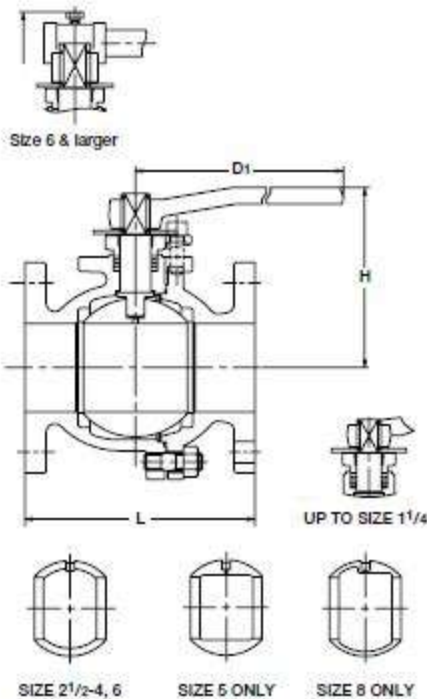
IRON BALL VALVE (Full Port)

120°C Non-shock water 1.37MPa, 120°C Water, oil, gas 0.98MPa
Saturated steam 0.69MPa

Fig. 125FCTB



Blowout-proof stem



Materials

Parts	Material	JIS Spec.
Body	Cast Iron	A126 CL. B
Body cap	Cast Iron	A126 CL. B
Stem	Stainless Steel	A276 Type403
Ball	Stainless Steel	A276 Type 304 or A312 Gr.TP304 or A351 Gr.CF8
Grand packing		PTFE
Gasket		PTFE
Ball Seat		PTFE
Cap bolt		Carbon Steel
Handle		Ductile Iron

Design Specifications

Items	Items
Shell wall thickness and general valve design	KITZ Standard
Face-to-face dimensions End-to-end dimensions	ASME B16.10 Class150
End flange dimensions Gasket contact facing	ASME B16.1 Class125

Dimensions

Valve Size	inch mm	2	2 1/2	3	4	6	8	mm
L Face-to-face		178	190	203	229	394	457	
H Height		120	155	165	200	295	355	
D Handle		230	400	400	460	1000	1500	

TYPE 400

3-WAY BRASS BALL VALVE

Screwed body cap, 2-seat, L-port design,
Blowout-proof Stem, Double O-ring stem seals*
Threaded ends to BS21 or NPT, or solder joint ends.

W.O.G. non-shock 2.76 MPa (400 psi), W.O.G. 150°C 0.69 MPa (100 psi)

*Size 1/2 and larger



Fig. TN

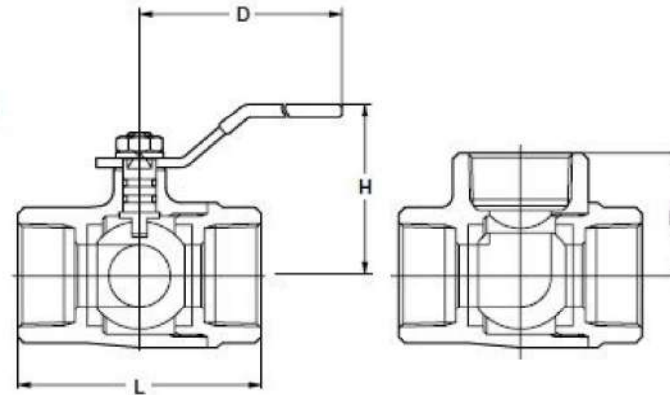
- Threaded end to BS21

Fig. AKTN

- Threaded end to ASME B1.20.1

Fig. CTN

- Solder joint end to ASME B16.18
- CTN 1/2 to 2



Dimensions

Nominal Size	mm										
	Inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
L Threaded end to end		40	46	67	68	79	89	100	115	138	166
L1 Solder				56	74	88	99	114	136		
H Height		30	34	45	48	55	60	65	75	91	105
H1 Height solder				45	48	55	60	65	75		
D Length of Handle		60	70	80	80	110	110	110	140	200	300

Port position fig: Position 1 & 2

Materials

*Size 2 1/2 and 3

Parts	Material
Body	Brass/Bronze*
Body cap	Brass
Stem	Dezincification Resistant Brass
Ball	Brass**
Ball seat	PTFE
O-ring	FKM

**Chrome or Nickel-chrome plated

Caution

Solder joint end valves should not be used in service where the temperature of line fluid is higher than the softening point of solder.

120°C Non-shock water 1.37MPa, 120°C Water, oil, gas 0.98MPa
Saturated steam 0.69MPa

Fig. 10FCTB2L

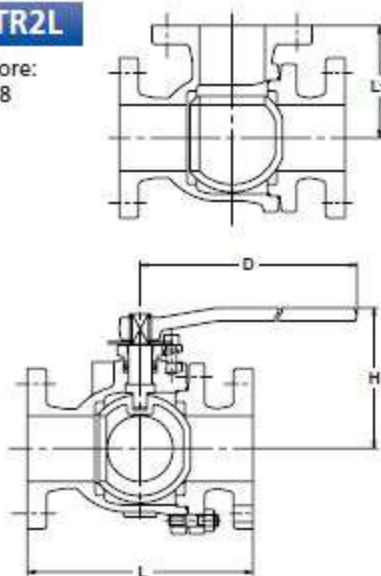
- Full Bore:
Size 1 1/2 to 4



Blowout-proof stem

Fig. 10FCTR2L

- Reduced Bore:
Size 5 to 8

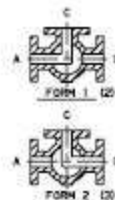


Materials

Parts	Material	JIS Spec.
Body	Cast Iron	FC200
Body cap	Cast Iron	FC200
Stem	Stainless Steel	SUS403
Ball	Stainless Steel	SCS13
Grand packing	PTFE	
Gasket	PTFE	
Ball Seat	PTFE	
Cap bolt/nut	Carbon Steel	SS400
Handle	Ductile Iron	FCD400

Note:

- ① Flow is between Ports "A" and "C" in Form 1. Flow is between Ports "B" and "C" in Form 2. Flow paths in Form 1 and Form 2 can be changed each other.
- ② When the fluid pressure P2 in the closed path is higher than P1 in the open path, a little fluid leakage may occur to P1 through the ball seat of the closed path.



Design Specifications

Items	
Shell wall thickness and general valve design	JIS B2031
Face-to-face dimensions End-to-end dimensions	KITZ Standard
End flange dimensions Gasket contact facing	JIS B2239 10K

Dimensions

Valve Size	inch	1 1/2	2	2 1/2	3	4	5	6	8	mm
	mm	40	50	65	80	100	125	150	200	
L Face-to-face		210	220	250	260	330	370	430	540	
L1		105	110	125	130	165	185	215	270	
H Height		115	123	155	163	205	205	225	295	
D Handle		230	230	400	400	460	460	460	1000	

Fig. AKTAF

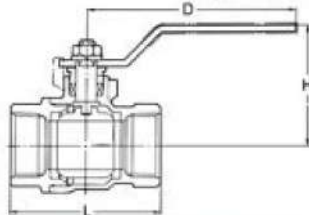


Type 600

AKTAF...Threaded ends to ASME B1.20.1

**Screwed body cap, Blowout-proof stem,
PTFE seat, Threaded ends to NPT.**

Specifications : MSS-SP-110
 Approvals : American Gas Association, USA
 : Canadian Gas Association, CANADA
 : Underwriters Laboratories, USA
 : Factory Mutual Engineering, USA



Dimensions

Valve size	inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	mm	8	10	15	20	25	32	40	50	65	80	100
L Threaded end to end		41	42	53	60	72	82	92	105	135	156	192
H Height		39	39	42	51	58	64	73	80	108	122	140
D Length of handle		80	80	80	100	130	130	150	150	200	300	300

4.14 MPa (600 psi) W.O.G. non-shock

1.03 MPa (150 psi) W.S.P. saturated

Materials

Parts	Material
Body	Brass/bronze*
Cap	Brass/bronze*
Stem	K-Metal [⊙]
Ball	Brass/bronze (chrome plated)
Ball seat	PTFE
Gland packing	PTFE
Handle	Carbon steel

⊙ K-Metal is a special brass developed for anti-dezincification.
 * Bronze for 2 1/2" and larger.

Test pressure: Shell 6.20 MPa (900 psi) (Hydrostatic)
 Seat 0.55 MPa (80 psi) (Air)

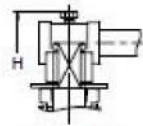
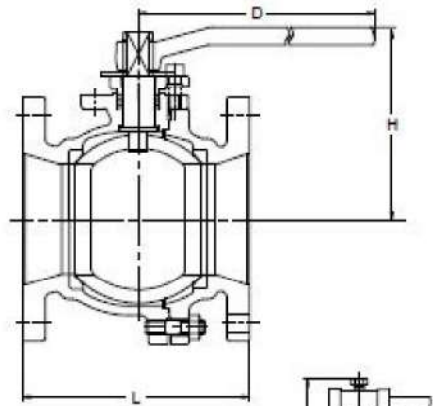
CLASS 125

IRON BALL VALVE (Reduced Bore)

Fig. 125FCTR



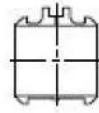
Blowout-proof stem



SIZE 8 & 10



SIZE 6 ONLY



SIZE 10 ONLY

Materials

Parts	Material	ASTM Spec.
Body	Cast Iron	A126 CL. B
Body cap	Cast Iron	A126 CL. B
Stem	Stainless Steel	A276 Type403
Ball	Stainless Steel	A312 Gr.TP304 or A351 Gr.CF8
Grand packing		PTFE
Gasket		PTFE
Ball seat		PTFE
Cap bolt		Carbon Steel
Handle		Ductile Iron

Design Specifications

Items	
Shell wall thickness and general valve design	KITZ Standard
Face-to-face dimensions, end-to-end dimensions	ASME B16.10 Class150
End flange dimensions, gasket contact facing	ASME B16.1 Class125

For Pressure-Temperature Ratings, refer to individual catalog(No.E-201).

Dimensions

Valve Size	NPS DN	6	8	10	mm
L Face-to-face		267	292	330	
H Height		220	295	355	
D Handle		460	1000	1500	

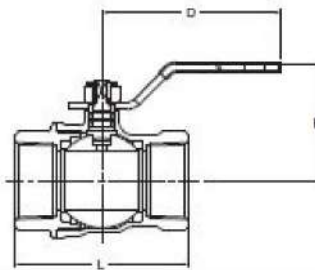
TYPE 600

BRASS BALL VALVE, FULL PORT

Bolted body and cap, Blowout-proof Stem,
Double O-ring stem seals,
Threaded ends to BS21

W.O.G. non-shock 4.14 MPa (600 psi), W.O.G. 150°C 1.03 MPa (150 psi)

*Size 4 : W.O.G. non-shock 2.76MPa (400psi), W.O.G. 150°C 0.69MPa (100psi)



Materials

Parts	Material
Body	Brass/Bronze*
Body cap	Brass/Bronze*
Stem	Brass: Nickel plated
Ball	Brass: chrome free plated (Size 1/4 to 3) Brass: Nickel-chrome plated (Size 4)
Ball seat	PTFE
O-ring	FKM

*Size 4 only

Fig. SZA
• Threaded end to BS21

Dimensions

Nominal Size	inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	mm	8	10	15	20	25	32	40	50	65	80	100
L		42	42	53	60	72	84	92	110	138	167	193
H		37	37	40	43	50	55	65	72	101	113	131
D		70	70	80	80	110	110	150	150	200	300	300

TYPE 400

BRASS BALL VALVE

Screwed body cap, Blowout-proof Stem,
Double O-ring stem seals
Threaded end to BS21 or solder joint end

*TL, CTL W.O.G. non-shock 2.76 MPa (400 psi), W.O.G. 150°C 0.69 MPa (100 psi),
TLT W.O.G. non-shock 2.76 MPa (400 psi), W.O.G. 80°C 1.96 MPa (286 psi)*



Fig. TL

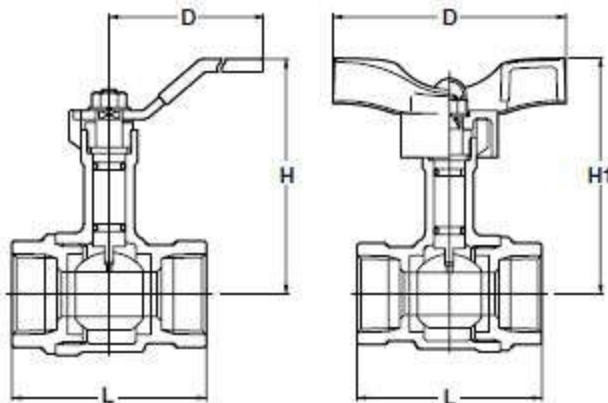
• Threaded end to BS21

Fig. CTL

• Solder joint end to ASME B16.18

Fig. TLT

• Threaded end to BS21



Materials

Parts	Material
Body	Bronze
Body cap	Bronze
Stem	Dezincification Resistant Brass
Ball	Stainless Steel (Type 304)
Ball seat	PTFE
O-ring	FKM

Caution

Solder joint end valves should not be used in service where the temperature of line fluid is higher than the softening point of solder.

Dimensions

Nominal Size	Inch	1/2	3/4	1	1 1/4	1 1/2	2
	mm	15	20	25	32	40	50
L Threaded end to end		56	65	78	86	96	109
L1 Solder		58	73	88	99	114	135
H Height		75	79	83	98	102	109
H1 Height: TLT		79	83	90	105	109	124
D Length of Handle: TL & CTL		80	80	110	110	110	140
D Length of Handle: TLT		82	82	94	94	94	120

10K

BRONZE BALL VALVE

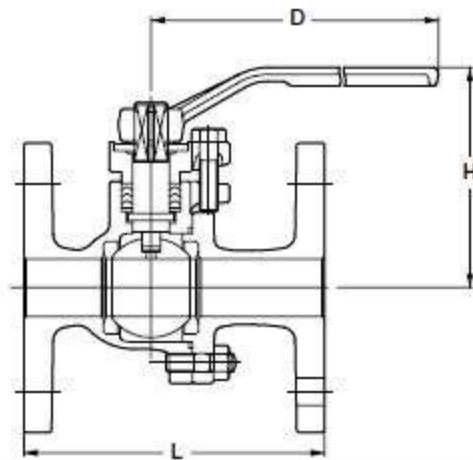
Bolted body cap, Full bore
Fringed ends to JIS B2240 10K

W.O.G. non-shock 1.37 MPa (14kgf/cm²), W.O.G. 150°C 0.68 MPa (7kgf/cm²)



Fig. TB

• Flanged ends to JIS 10K



Materials

Parts	Material
Body	Bronze
Body cap	Bronze
Stem	Dezincification Resistant Brass
Ball	Brass**/ Stainless Steel*
Ball seat	PTFE
Grand packing	PTFE

*Size 4 only

**Chrome or Nickel-chrome plated

Dimensions

Nominal Size	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	mm
	mm	15	20	25	32	40	50	65	80	100	
L Threaded end to end		110	120	130	140	165	180	190	200	230	
H Height		85	88	95	100	115	122	153	162	190	
D Length of Handle		130	130	160	160	230	230	400	400	460	