

Ductile Iron Valves

JIS 10K/16K/20K
ASME Class 150/300



Contents

Class	Type	End Connection	Remarks	Code	mm	8	10	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	Page	
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	Ball	3-way 4-seat		10STB4LAF								●	●	●	●	●										39
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* 1 RF-flanged ends shall be optionally available.
 △ Custom order item.

The products introduced in this catalog are all covered by the ISO 9001 Certification awarded to KITZ Corporation in 1989, the earliest in the valve industry.

What is Ductile Iron ?

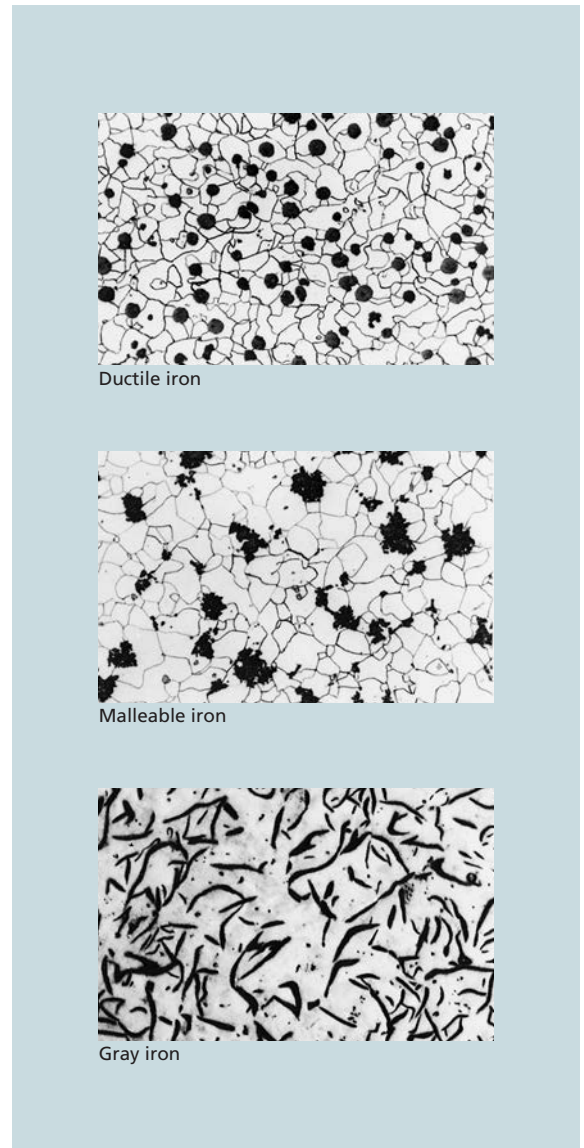
Gray iron, ductile iron, and malleable iron are the three kinds of iron used for valve construction. Unlike gray iron, which has thin, flake-like molecular formations, the metallic structures of both ductile and malleable iron contain nodular graphite. (Refer to the microscopic views shown here.) This structure provides ductile and malleable iron with mechanical properties that exceed those of gray iron. It almost equals the properties of cast steel, which is an expensive material for industrial valves. Furthermore, their superior castability and machinability help to increase their suitability as a valve material.

Ductile iron outperforms malleable iron due to its better mechanical characteristics to build a valve body, which is a kind of pressure containing device. For example, it has a 20% higher tensile strength and 70-80% better elongation. This difference comes from different formation processes of nodulated graphite molecules.

KITZ ductile iron valves are made of JIS FCD-5 or ASTM A395 ductile iron. The history of the introduction of ductile iron valves on the market is rather short; however, the demand is steadily increasing as a result of their economic advantage as well as the fact that their wide range of service applications is comparable with cast steel valves.

This catalog serves to provide design specifications, materials of construction, and external dimensions of the following ductile iron valves and strainers manufactured by KITZ Corporation :

- JIS 10K, 16K, & 20K Gate, Globe, & Check Valves
- JIS 10K & 20K Ball Valves
- JIS 10K, 16K, & 20K Strainers
- ASME 150 & 300 Gate, Globe, & Check Valves



Ductile iron

Malleable iron

Gray iron

Service Recommendation

For higher mechanical shock resistance under high or low temperature, and better tensile strength and elongation characteristics than those of ordinary gray iron valves, ductile iron valves are highly recommended for the following services, sometimes, in place of cast steel valves :

- Piping for steam supply
- Air conditioning and heating systems
- High-pressure gaseous service in general
- Piping for poisonous gas service

The range of high-pressure gaseous service for iron valves is specified by the Ministry of Economy, Trade and Industry of Japan as follows :

Valve material	Poisonous gas*	Inflammable gas	Other gas
Ductile iron (JIS FCD-5)	2.4MPa maximum -5°C to +350°C		
Ductile iron (JIS FCD400)	not recommended	1.6MPa maximum 0°C to +250°C	
Gray iron (JIS FC200)	not recommended		0.2MPa max. 0°C to +250°C

*Phosgene and hydrogen cyanide are excluded.

Material Specifications of JIS FCD-S

1. Chemical compositions :

Carbon : 3.00% minimum
 Phosphorus : 0.08% maximum
 Silicon : 2.50% maximum; however, 0.08% may be added for every decrease of 0.01% phosphor within the total maximum of 2.75%

2. Mechanical properties :

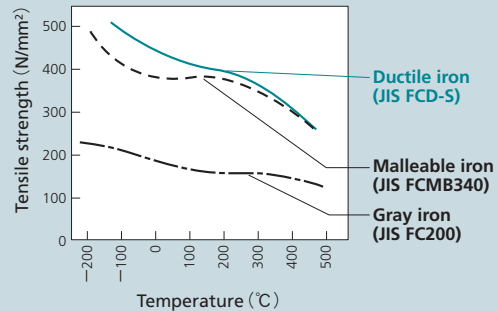
Tensile strength : 412N/mm² minimum
 Yield strength : 275N/mm² minimum
 Elongation : 18% minimum
 Brinell hardness : 143-187
 Charpy impact value :
 a) for ambient temperature service ;
 17N·m/cm² minimum in average of 3 test pieces.
 15N·m/cm² minimum for the lowest impact value.
 b) for -10°C or lower temperature service ;
 15.3N·m/cm² minimum in average of 3 test pieces.
 13.3N·m/cm² minimum for the lowest impact value.

Abbreviated Design Description

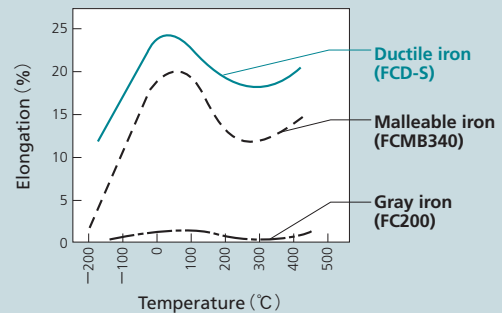
B.B. Bolted bonnet
 B.C. Bolted cover (or cap)
 S.B. Screwed bonnet
 S.C. Screwed cover (or cap)
 U.B. Union bonnet
 I.S. Inside screw
 O.S.Y. Outside screw & yoke

Compared Mechanical Properties of JIS Materials

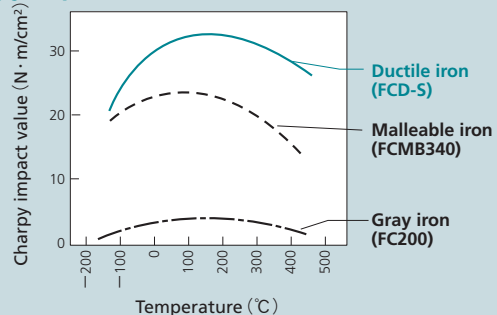
Tensile strength



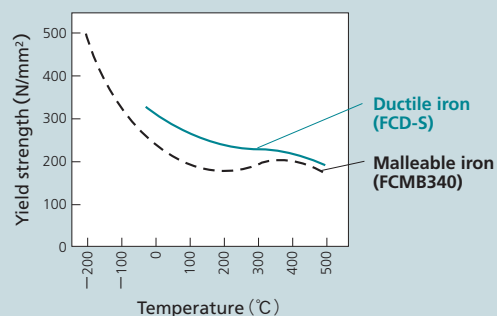
Elongation



Charpy impact value

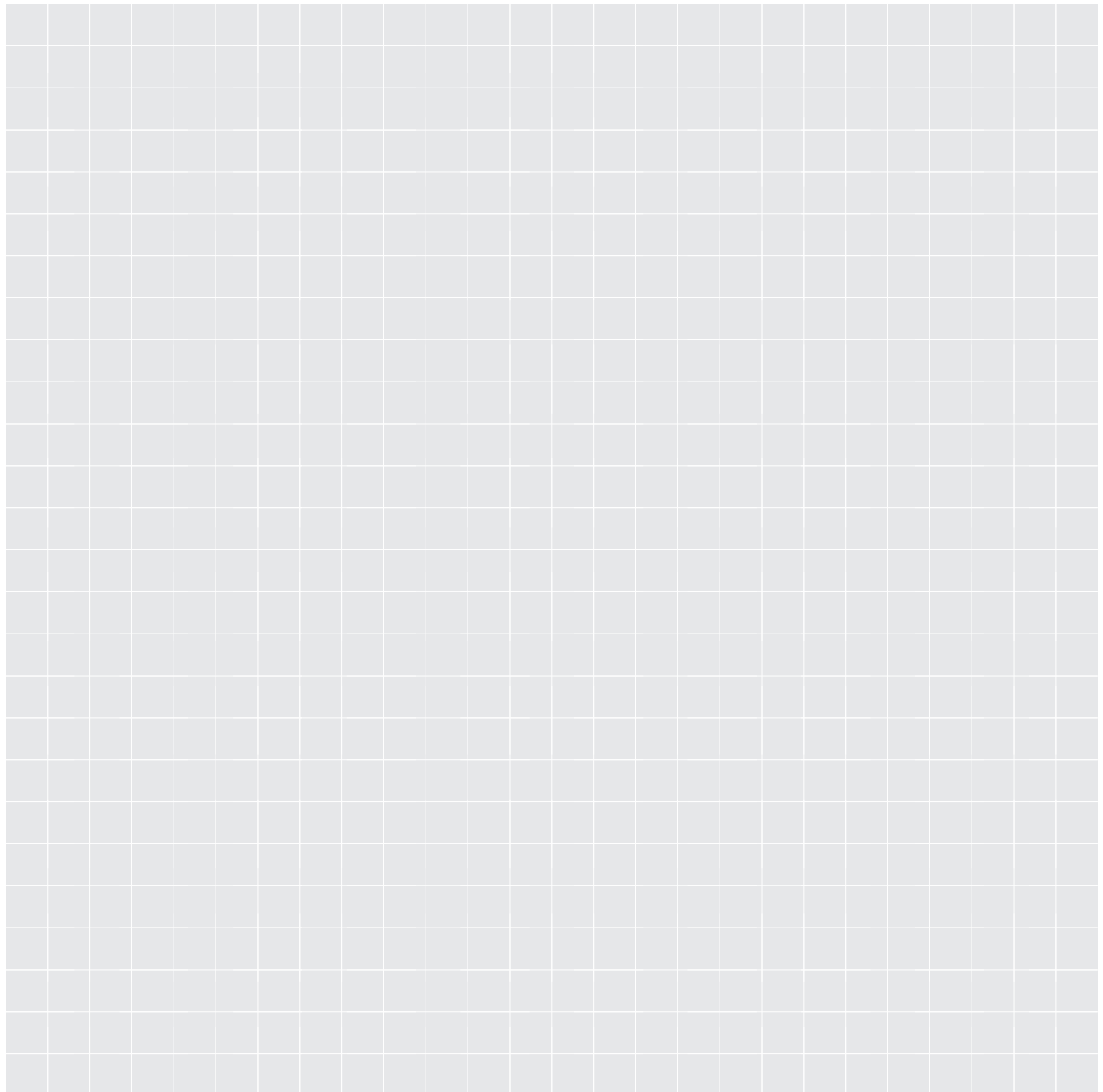


Yield strength



Design Specifications (For details, refer to the following pages)

Class	JIS 10K/16K/20K	ASME 150/300
Pressure-temperature rating	Refer to the tables on page 5	
Face-to-face dimension	JIS B 2011, B 2002, or KITZ Std.	ASME B16. 10
End-to-end dimension	JIS B 2051 or KITZ Std.	—
End flange dimension	JIS B 2239	ASME B16. 5
End thread dimension	JIS B 0203	—
Shell wall thickness	KITZ standard, unless otherwise indicated on the following pages	



10SJBF 10SFBF
10SF

Pressure-Temperature Rating

10K Commercial Valves

10SJ 10SJBF 10SMS	Static water pressure at 120°C maximum	1.4MPa
10SF 10SFBF 10FDY * ¹ 10SOZ	Steam, air, gas, oil, or pulsing water pressure at 220°C maximum	1.0MPa
10SD 10SDBF (with PTFE disc)	Static water pressure at 120°C maximum	1.4MPa
	Steam, air, gas, oil, or pulsing water pressure at 180°C maximum	1.0MPa
10SDL 10SDLBF	LPG at room temperature	0.20MPa
10SN 10SNBF	Static water pressure at 120°C maximum	1.4MPa
	Steam, air, gas, oil, or pulsing water pressure at 220°C maximum	1.2MPa

10K Valves

10SP 10SPBF 10SPBAF	Static water pressure at 120°C maximum	1.4MPa
10SPBOF 10SMAS 10SMBF	Steam, air, gas, oil, or pulsing water pressure at 220°C maximum	1.2MPa
10SMBOF 10SRBF 10FDYBF	Steam, air, gas, oil, or pulsing water pressure at 300°C	1.0MPa
10SPD 10SPDBF	Static water pressure at 120°C maximum	1.4MPa
10SPDBOF (with PTFE disc)	Steam, air, gas, oil, or pulsing water pressure at 180°C maximum	1.0MPa

16K Valves

16SP * ² 16SPB * ² 16SMS * ²	Static water pressure at 120°C maximum	2.2MPa
16SMB * ² 16SF * ² 16SFB * ²	Steam, air, gas, oil, or pulsing water pressure at 220°C maximum	2.0MPa
16FDY * ² 16SMBO 16SPBO	Steam, air, gas, oil, or pulsing water pressure at 300°C	1.8MPa
16SRB 16FDYB	Steam, air, gas, oil, or pulsing water pressure at 350°C	1.6MPa

20K Valves

20SY * ³ 20SYB * ³ 20YBO * ³	Static water pressure at 120°C maximum	2.8MPa
20SLS 20SLB 20SLBO	Steam, air, gas, oil, or pulsing water pressure at 220°C maximum	2.5MPa
20SN * ³ 20SNB * ³ 20SOB	Steam, air, gas, oil, or pulsing water pressure at 300°C	2.3MPa
20FDY 20FDYB	Steam, air, gas, oil, or pulsing water pressure at 350°C	2.0MPa
20SDL 20SDLB 20SDLBO	Gas at 80°C	2.4MPa
20SNDB 20SODB	Gas at 120°C	

Class 150 Valves

150SPB 150SPBO	-5°C ~ +38°C	1.73MPa
150SMBO 150SRB	149°C	1.48MPa
150SPDB * ⁴	260°C	1.18MPa
(with PTFE disc)	343°C	0.86MPa

Pressure-temperature rating specified for API 604 Class 150 valves is applied to ASME Class 150 ductile iron valves.

Class 300 Valves

300SLBO	-5°C ~ +38°C	2.94MPa
300SYB * ³	149°C	2.60MPa
300SYBO * ³	260°C	2.28MPa
300SOB	350°C	2.04MPa

10K / 20K / Class 400 Ball Valves

10STBF	W.O.G. at 120°C maximum	1.4MPa
	W.O.G. at 140°C ~ 160°C maximum depending on size	1.0MPa
10STB4LAF 10STB4TAF	W.O.G. at 120°C maximum	1.00MPa
10STR4LAF 10STR4TAF	W.O.G. at 150°C maximum	0.40MPa
20ST	W.O.G. at 110°C maximum	2.8MPa
	W.O.G. at 140°C maximum	2.0MPa
ST (Class 400)	W.O.G. at room temperature	2.75MPa
	Saturated steam	0.98MPa
10STLBF	Gas at 80°C	1.2MPa
20STL 20STLB	Gas at 80°C	2.4MPa

*¹ 200°C maximum *² 220°C maximum

*³ Valves marked are provided with Co-Cr-W alloy hard facing on the disc and seat ring surfaces for high temperature service. Hard facing is available for other valves listed here when specified.

*⁴ 180°C maximum

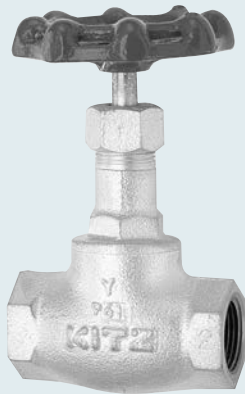
※KITZ Ductile Iron paintings are suitable for general service conditions.

For paintings used in severe atmospheres or at elevated temperatures, please contact us for recommendations based on your service environment.

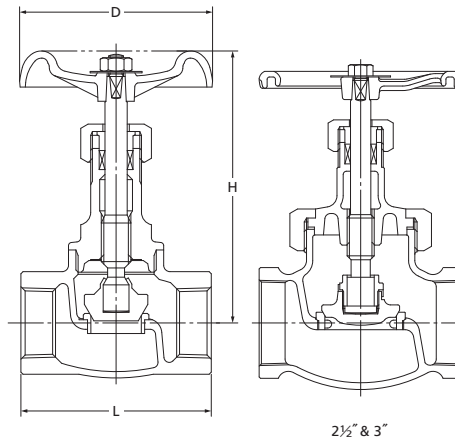
JIS 10K Globe Valve

10SJ

S.B.I.S. or U.B.I.S.



S.B.I.S. for 2" & smaller
U.B.I.S. for 2 1/2" & 3"



End to end : JIS B 2051 *
End connection : JIS B 0203
*KITZ Std. for 1/4", 3/8", 2 1/2", & 3"

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.0MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-5
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Gasket	Stainless Foil Inserted Flexible Graphite (2 1/2" & over)
Bonnet ring	FCD-5 (2 1/2" & over)
Name plate	Aluminum

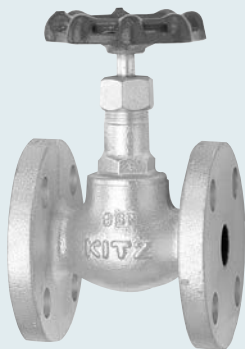
Dimensions

Size	mm										
	mm	8	10	15	20	25	32	40	50	65	80
	inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
L		50	55	65	80	90	105	120	140	180	200
H (open)		108	108	122	124	146	161	181	198	256	276
D		60	60	70	80	90	100	115	135	180	225

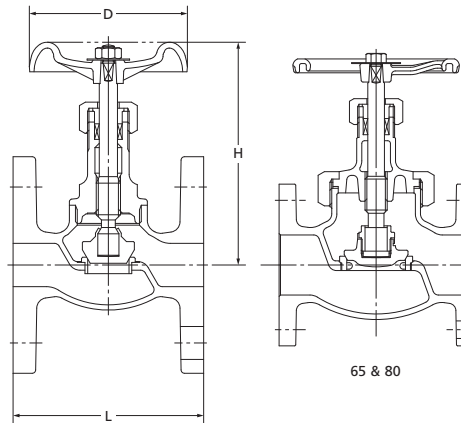
10K Globe Valve

10SJBF

S.B.I.S. or U.B.I.S.
FF-flanged



S.B.I.S. for 50 & smaller
U.B.I.S. for 65 & 80



Face to face : JIS B 2011 *
End connection : JIS B 2239 10K
*KITZ Std. for 15

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.0MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-5
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Gasket	Stainless Foil Inserted Flexible Graphite (65&80)
Bonnet ring	FCD-5 (65 & 80)
Name plate	Aluminum

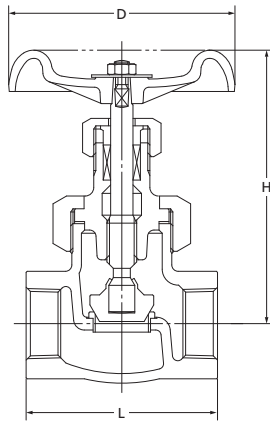
Dimensions

Size	mm									
	mm	10	15	20	25	32	40	50	65	80
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
L		85	85	95	110	130	150	180	210	240
H (open)		108	123	125	147	161	181	198	256	276
D		60	70	80	90	100	115	135	180	225

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Globe Valve

10SP
U.B.I.S.



End to end : JV 4-4*
End connection : JIS B 0203
*KITZ Std. for 3/8"

120°C Static water.....1.4MPa
220°C Steam, air, gas, oil.....1.2MPa
300°C Steam, air, gas, oil.....1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

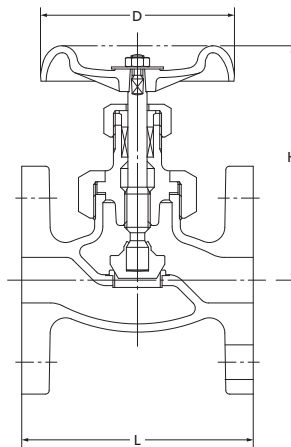
Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-5
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet ring	FCD-5
Gasket	Tough Pitch Copper
Name plate	Aluminum

Dimensions

Size	mm							
	mm	10	15	20	25	32	40	50
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		64	70	80	90	110	120	140
H (open)		108	124	125	147	162	180	198
D		60	80	80	100	115	115	135

10K Globe Valve

10SPBF
U.B.I.S.
FF-flanged



Face to face : JIS B 2002*
End connection : JIS B 2239 10K
*KITZ Std. for 10

120°C Static water.....1.4MPa
220°C Steam, air, gas, oil.....1.2MPa
300°C Steam, air, gas, oil.....1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS
Body seat ring	403SS
Gland	SUS420J5
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet ring	FCD-5
Gasket	Tough Pitch Copper
Name plate	Aluminum

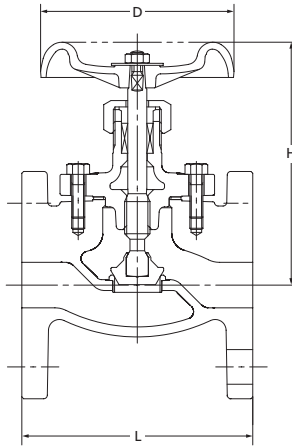
Dimensions

Size	mm							
	mm	10	15	20	25	32	40	50
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		108	108	117	127	140	165	203
H (open)		107	124	125	147	162	180	198
D		60	80	80	100	115	115	135

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Globe Valve

10SPBAF
B.B.I.S.
FF-flanged



Face to face : JIS B 2051
End connection : JIS B 2239 10K

120°C Static water.....1.4MPa
220°C Steam, air, gas, oil.....1.2MPa
300°C Steam, air, gas, oil.....1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	403SS
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-S
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet bolt	Carbon Steel
Gasket	Stainless Foil Inserted Flexible Graphite
Name plate	Aluminum

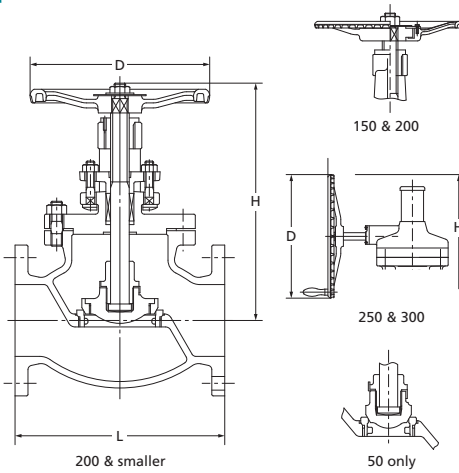
Dimensions

Size	mm	15	20	25	32	40	50	mm
	inch	1/2	3/4	1	1 1/4	1 1/2	2	
L		108	117	127	140	165	203	
H (open)		124	125	147	162	180	198	
D		80	80	100	115	115	135	

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Globe Valve

10SPBOF
B.B.O.S.Y.
FF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 10K

120°C Static water.....1.4MPa
220°C Steam, air, gas, oil.....1.2MPa
300°C Steam, air, gas, oil.....1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

● Bolting materials will be changed for servicing high temperature exceeding 225°C. Contact KITZ Corporation for detailed information.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	FCD-S (50 : 403SS)
Disc seat ring	403SS
Body seat ring	403SS
Lock nut	FCD-S
Gland	FCD-S
Gland packing	Non-asbestos Packing
Handwheel *	Ductile Iron
Wheel nut *	Carbon Steel
Packing washer	403SS
Bonnet bolt/nut	Carbon Steel
Gland bolt/nut	Carbon Steel
Gasket	Stainless Foil Inserted Flexible Graphite
Name plate	Aluminum
Yoke bush *	High Tension Brass

* 200 & smaller

Dimensions

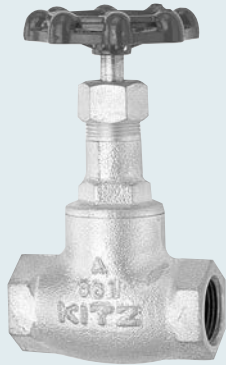
Size	mm	50	65	80	100	125	150	200	250	300	mm
	inch	2	2 1/2	3	4	5	6	8	10	12	
L		203	216	241	292	356	406	495	622	698	
H (open)		308	311	352	371	459	526	589	879	943	
D		200	225	250	250	300	350	400	360	360	

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

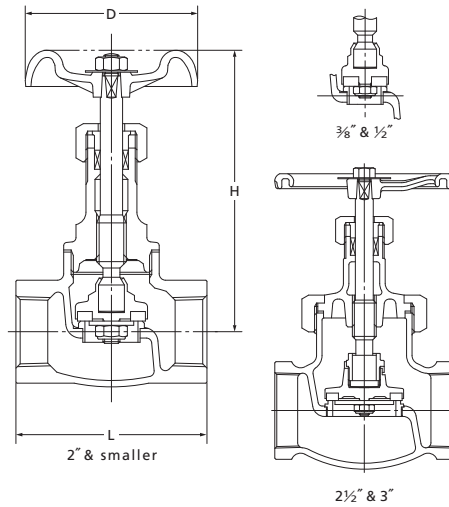
10K Globe Valve

10SD

S.B.I.S. or U.B.I.S.



Reinforced PTFE disc
S.B.I.S. for 2" & smaller
U.B.I.S. for 2 1/2" & 3"



End to end : JIS B 2051*
End connection : JIS B 0203
*KITZ Std. for 1/4", 3/8", 2 1/2", & 3"

120°C Static water.....1.4MPa
180°C Steam, air, gas, oil..... 1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	G/F PTFE
Disc holder	SCS1 (2 1/2" & 3" : 403SS)
Disc nut	SS400
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-5
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Gasket	Tough Pitch Copper (2 1/2" & 3" : Non-asbestos Sheet)
Name plate	Aluminum

Dimensions

Size	mm									
	8	10	15	20	25	32	40	50	65	80
L	50	55	65	80	90	105	120	140	180	200
H (open)	108	108	122	124	146	161	181	198	268	290
D	60	60	70	80	90	100	115	135	180	225

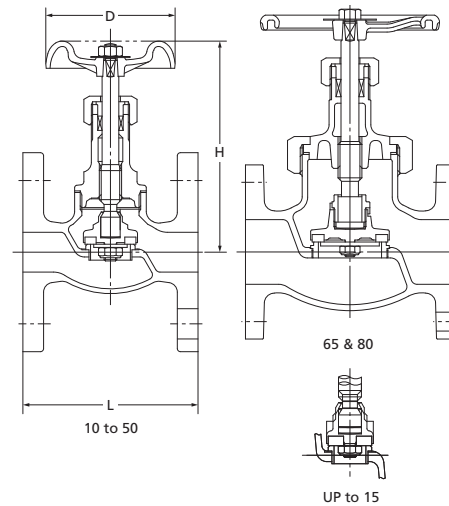
JIS 10K Globe Valve

10SDBF

S.B.I.S. or U.B.I.S.
FF-flanged



Reinforced PTFE disc
S.B.I.S. for 50 & smaller
U.B.I.S. for 65 & 80



Face to face : JIS B 2011*
End connection : JIS B 2239 10K
*KITZ Std. for 10

120°C Static water.....1.4MPa
180°C Steam, air, gas, oil..... 1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	G/F PTFE
Disc holder	SCS1 (65 & 80 : 403SS)
Disc nut	SS400
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-5
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Gasket	Tough Pitch Copper (65 & 80 : Non-asbestos Sheet)
Bonnet ring	FCD-5
Name plate	Aluminum

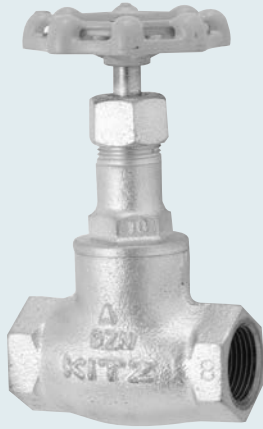
Dimensions

Size	mm									
	10	15	20	25	32	40	50	65	80	
L	85	85	95	110	130	150	180	210	240	
H (open)	108	122	124	146	161	181	198	268	290	
D	60	70	80	90	100	115	135	180	225	

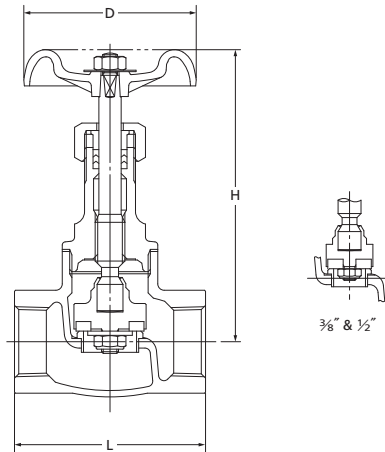
NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Globe Valve for LPG Service

10SDL
S.B.I.S.



Reinforced PTFE disc for low-pressure gas service



End to end : JIS B 2051*
End connection : JIS B 0203
*KITZ Std. for 3/8"

LPG at room temperature 0.20MPa

● Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	G/F PTFE
Disc holder	SCS1
Disc nut	SS400
Body seat ring	403SS
Gland	SUS420J2
Gland packing	NBR
Packing nut	FCD-5
Handwheel	Aluminum Die-cast (3/8"~3/4" : Zinc Die-cast)
Wheel nut	Carbon Steel
Gasket	Tough Pitch Copper
Name plate	Aluminum

Dimensions

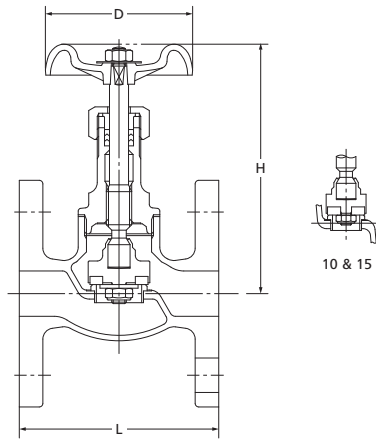
Size	mm	10	15	20	25	32	40	50
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		55	65	80	90	105	120	140
H (open)		112	122	130	149	169	187	205
D		55	60	70	80	90	100	115

10K Globe Valve for LPG Service

10SDLBF
S.B.I.S.
FF-flanged



Reinforced PTFE disc for low pressure gas service



Face to face : JIS B 2011*
End connection : JIS B 2239 10K
*KITZ Std. for 10

LPG at room temperature 0.20MPa

● Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	G/F PTFE
Disc holder	SCS1
Disc nut	SS400
Body seat ring	403SS
Gland	SUS420J2
Gland packing	NBR
Packing nut	FCD-5
Handwheel	Zinc Die-cast (25 ~ 50 : Aluminum Die-cast)
Wheel nut	Carbon Steel
Gasket	Tough Pitch Copper
Name plate	Aluminum

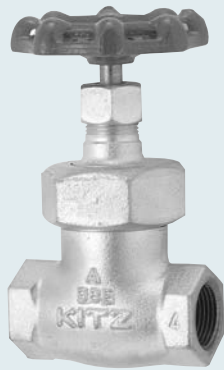
Dimensions

Size	mm	10	15	20	25	32	40	50
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		85	85	95	110	130	150	180
H (open)		112	122	130	149	169	187	205
D		55	60	70	80	90	100	115

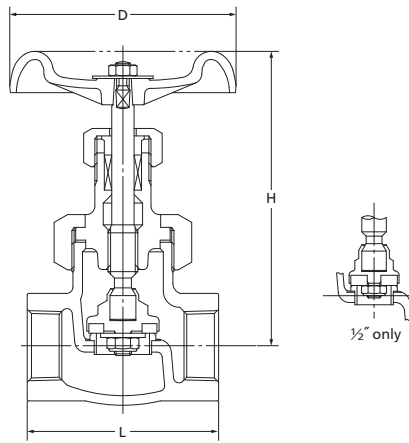
NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Globe Valve

10SPD
U.B.I.S.



Reinforced PTFE disc



End to end : JV 4-4
End connection : JIS B 0203

120°C Static water..... 1.4MPa
180°C Steam, air, gas, oil..... 1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS 420J2
Disc	G/F PTFE
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-S
Handwheel	Ductile Iron
Bonnet ring	FCD-S
Disc holder	SCS1
Disc nut	SS400
Gasket	Tough Pitch Copper
Body seat ring	403SS
Name plate	Aluminum

Dimensions

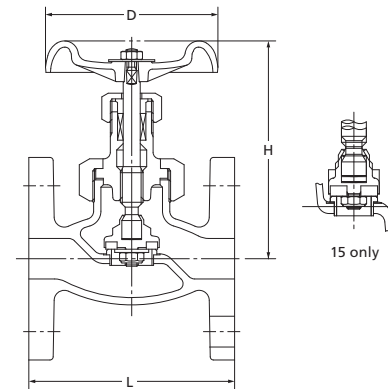
Size	mm					
	15	20	25	32	40	50
	1/2	3/4	1	1 1/4	1 1/2	2
L	70	80	90	110	120	140
H (open)	124	124	146	162	180	198
D	80	80	100	115	115	135

10K Globe Valve

10SPDBF
U.B.I.S.
FF-flanged



Reinforced PTFE disc



Face to face : JIS B 2002
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
180°C Steam, air, gas, oil..... 1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	G/F PTFE
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-S
Handwheel	Ductile Iron
Bonnet ring	FCD-S
Disc holder	SCS1
Disc nut	SS400
Gasket	Tough Pitch Copper
Body seat ring	403SS
Name plate	Aluminum

Dimensions

Size	mm					
	15	20	25	32	40	50
	1/2	3/4	1	1 1/4	1 1/2	2
L	108	117	127	140	165	203
H (open)	124	124	146	162	180	198
D	80	80	100	115	115	135

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

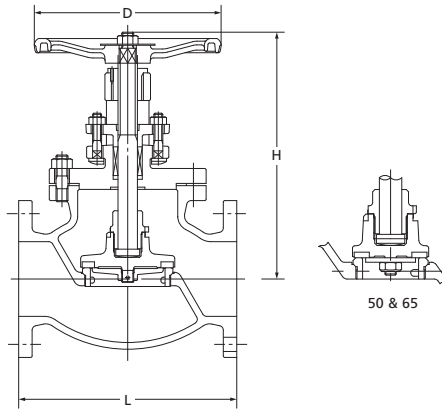
10K Globe Valve

10SPDBOF

B.B.O.S.Y.
FF-flanged



Reinforced PTFE disc



Face to face : JIS B 2002
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
180°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	G/F PTFE
Gland	FCD-S
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Disc holder	403SS
Disc nut	SCS13A (50 & 65 : S5400)
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Name plate	Aluminum

Dimensions

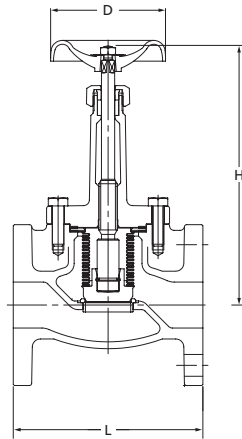
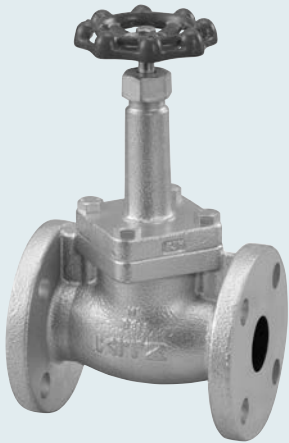
Size	mm								
	mm	inch	50	65	80	100	125	150	200
L			203	216	241	292	356	406	495
H (open)			308	311	352	371	459	518	581
D			200	225	250	250	300	350	400

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Bellows Seal Globe Valve

10SPBAWF

B.B.I.S
FF-flanged



F-F dimension : JIS B2002
End flanges : JIS B2239 10K

120°C Static water..... 1.4MPa
300°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

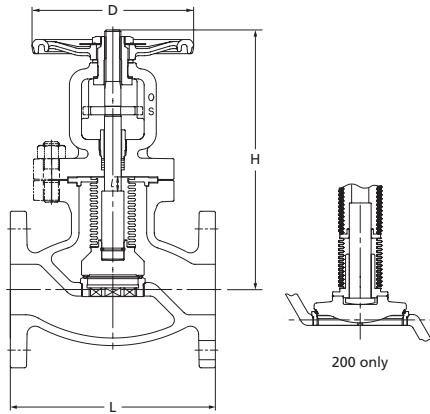
Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	403SS
Gland	SUS420J2
Gland packing	Flexible Graphite Braided Packing
Handwheel	Ductile Iron
Bonnet bolt/nut	Carbon Steel
Bellows	316LSS
Bellows holder	403SS
Body seat ring	403SS
Name plate	Aluminum

Dimensions

Size	mm						
	mm	inch	15	20	25	32	40
L			108	117	127	140	165
H (open)			166	167	188	243	243
D			80	80	80	100	100

10K Bellows Seal Globe Valve

10SPBOWF
B.B.O.S.Y
FF-flanged



Face to face : JIS B2002
End connection : JIS B2239 10K

120°C Static water 1.4MPa
300°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	304SS + HF *
Gland	403SS
Gland packing	Flexible Graphite
Handwheel	Ductile Iron
Bonnet bolt/nut	Carbon Steel
Bellows	316LSS
Bellows holder	304SS
Body seat ring	SCS13A + HF*(50) 304SS + HF*(65 ~ 150) 403SS + HF*(200)
Name plate	Aluminum

* Hard-faced with Co-Cr-W alloy

Dimensions

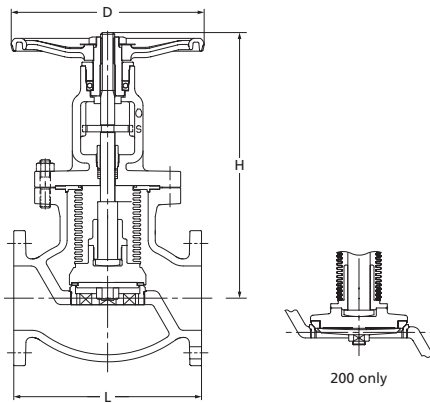
Size	mm							
	mm	50	65	80	100	125	150	200
	inch	2	2½	3	4	5	6	8
L		203	216	241	292	356	406	495
H		298	302	343	354	443	502	749
D		200	225	250	250	300	350	450

10K Bellows Seal Globe Valve

10SPDBOWF
B.B.O.S.Y
FF-flanged



Reinforced PTFE disc



Face to face : JIS B2002
End connection : JIS B2239 10K

120°C Static water 1.4MPa
180°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

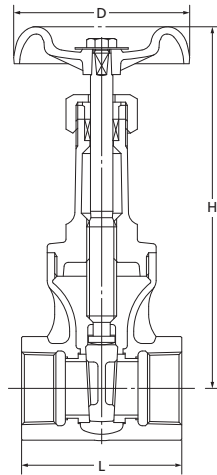
Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	G/F PTFE
Gland	403SS
Gland packing	Flexible Graphite
Handwheel	Ductile Iron
Bonnet bolt/nut	Carbon Steel
Bellows	316LSS
Bellows holder	304SS
Body seat ring	304SS / SCS13A(200 : 403SS)
Name plate	Aluminum

Dimensions

Size	mm												
	mm	15	20	25	32	40	50	65	80	100	125	150	200
	inch	½	¾	1	1¼	1½	2	2½	3	4	5	6	8
L		108	117	127	140	165	203	216	241	292	356	406	495
H		184	184	190	238	238	271	305	395	432	529	586	749
D		90	90	100	140	140	160	180	250	300	350	400	450

JIS 10K Gate Valve

10SMS
S.B.I.S.



End to end : JIS B 2051
End connection : JIS B 0203

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

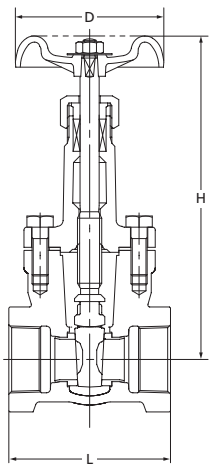
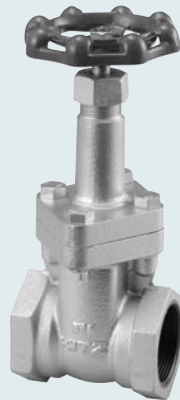
Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS1
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-S
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Name plate	Aluminum

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		60	70	75	85	95	105
H (open)		150	170	197	232	274	316
D		60	70	80	90	100	115

10K Gate Valve

10SMAS
B.B.I.S.



End to end : JIS B 2051
End connection : JIS B 0203

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa
300°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

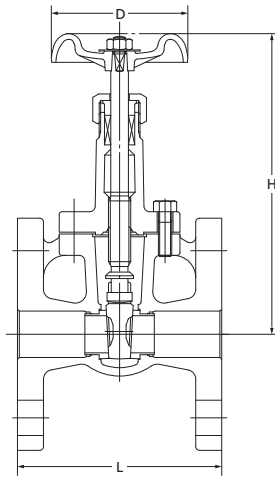
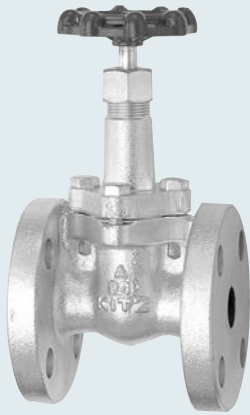
Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS1
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Packing nut	FCD-S
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet bolt	Carbon Steel
Gasket	Non-asbestos Sheet
Name plate	Aluminum

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		65	75	80	90	100	110
H (open)		161	163	185	216	251	286
D		70	70	80	90	100	115

10K Gate Valve

10SMBF
B.B.I.S.
FF-flanged



Face to face : JV4-4
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa
300°C Steam, air, gas, oil..... 1.0MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS1
Body seat ring	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Bonnet bolt	Carbon Steel
Gasket	Stainless Foil Inserted Flexible Graphite
Name plate	Aluminum

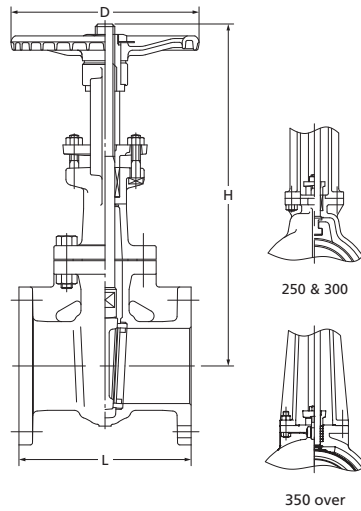
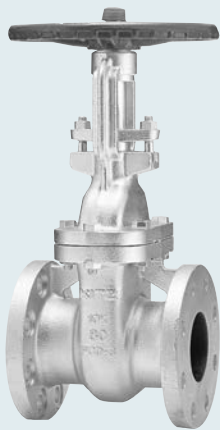
Dimensions

Size	mm					
	15	20	25	32	40	50
	1/2	3/4	1	1 1/4	1 1/2	2
L	90	100	110	120	130	140
H (open)	161	162	185	216	251	285
D	70	70	80	90	100	115

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Gate Valve

10SMBOF
B.B.O.S.Y.
FF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa
300°C Steam, air, gas, oil..... 1.0MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

●Bolting materials will be changed for servicing high temperature exceeding 225°C. Contact KITZ Corporation for detailed information.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	403SS / SCS1 (40~200) A105 + 13Cr (250) SCPH2 + 13Cr (300~500)
Body seat ring	403SS
Gland	FCD-S (400 & 500:403SS)
Gland packing	Non-asbestos Packing (50~300) Flexible Graphite Braided Packing (350~500)
Handwheel	Ductile Iron
Bonnet bolt/nut	Carbon Steel
Gland bolt/nut	Carbon Steel
Yoke sleeve	High Tension Brass(40~150) Cast Brass(200~300) Cast Bronze(350 & 450) Ductile Ni-resist(400 & 500)
Yoke	Ductile Iron
Gasket	Stainless Foil Inserted Flexible Graphite
Name plate	Aluminum

NOTE : Reduced port (450&500)

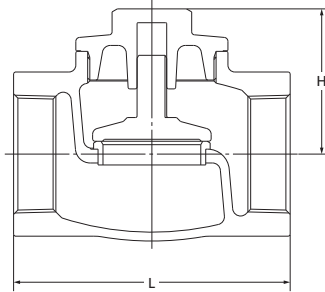
Dimensions

Size	mm															
	40	50	65	80	100	125	150	200	250	300	350	400	450	500		
	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20		
L	165	178	190	203	229	254	267	292	330	356	381	406	432	457		
H (open)	301	352	410	479	566	668	780	970	1181	1404	1538	1702	1538	1702		
D	160	200	200	250	300	300	350	400	450	500	600	500	600			

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

JIS 10K Lift Check Valve

10SF
S.C.



End to end : JIS B 2051
End connection : JIS B 0203

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

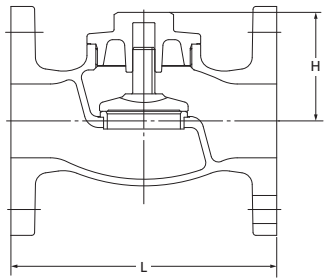
Parts	JIS material
Body	FCD-S
Cap	SCS1
Disc	SCS1
Body seat ring	403SS

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		65	80	90	105	120	140
H		39	42	48	56	65	73

10K Lift Check Valve

10SFBF
S.C.
FF-flanged



Face to face : JIS B 2011
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Cap	SCS1
Disc	SCS1
Body seat ring	403SS

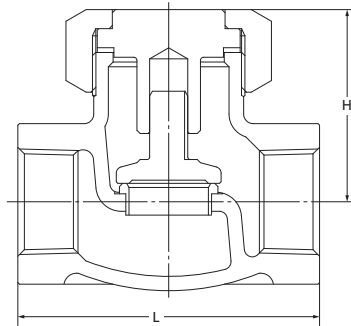
Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		85	95	110	130	150	180
H		39	42	49	56	65	74

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Lift Check Valve

10SN
S.C.



End to end : JV 4-4
End connection : JIS B 0203

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

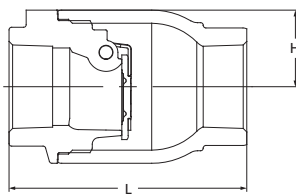
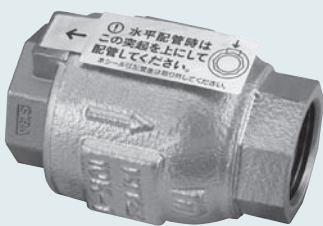
Parts	JIS material
Body	FCD-5
Bonnet	304SS
Disc	SCS1
Body seat ring	403SS
Gasket	Tough Pitch Copper

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		70	80	90	110	120	140
H		48	51	60	67	73	85

10K Swing Check Valve

10SOZ



Face to face : JIS B2051
End connection : JIS B0203

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.0MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

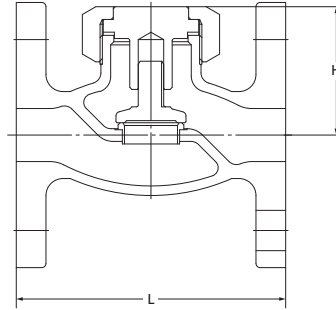
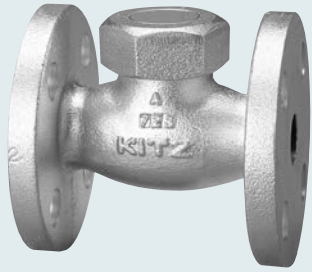
Parts	JIS material
Body	FCD-5
Cap	SCS13A / A351Gr.CF8
Disc	304SS
Hinge pin	304SS
Arm	304SS

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		65	80	90	105	120	140
H		21.5	24.5	29	35	41.5	48.5

10K Lift Check Valve

10SNBF
U.B.
FF-flanged



Face to face : JIS B 2002 JV 4-4
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	304SS
Disc	SCS1
Bonnet ring	FCD-S
Gasket	Tough Pitch Copper
Body seat ring	403SS

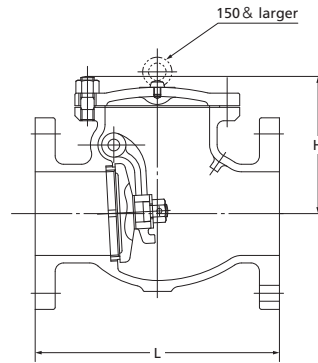
Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		108	117	127	140	165	203
H		49	52	60	68	74	86

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Swing Check Valve

10SRBF
B.C.
FF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 10K

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa
300°C Steam, air, gas, oil..... 1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Bolting materials will be changed for servicing high temperature exceeding 225°C. Contact KITZ Corporation for detailed information.
- A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-S
Cover	FCD-S
Disc	403SS(200 ~ 300 : SCPH2 + 13Cr)
Disc nut	SS400 (125 ~ 300 : A194Gr.8)
Body seat ring	403SS
Arm	SCS13A (125 ~ 300 : SCHP2)
Hinge pin	403SS
Split pin	304SS
Plug	SS400 (125 ~ 300 : S45C)
Washer	SS400 (125 ~ 300 : 403SS)
Gasket	Non-asbestos Sheet
Cover bolt/nut	Carbon Steel

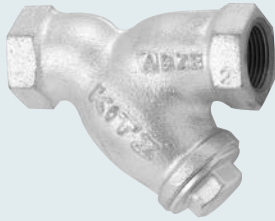
Dimensions

Size	mm										
	mm	40	50	65	80	100	125	150	200	250	300
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12
L		165	203	216	241	292	330	356	495	622	698
H		118	123	133	154	168	196	214	256	311	351

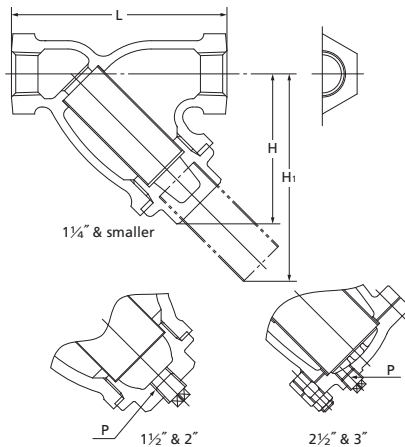
NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

10K Strainer for Gas Service

10FDY
B.C. or S.C.



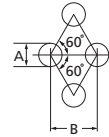
B.C. for 2 1/2" & 3"
S.C. for 2" & smaller



End to end : KITZ Std.
End connection : JIS B 0203

120°C Static water..... 1.4MPa
200°C Steam, air, gas, oil..... 1.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper cap prohibits use of this valve for ammonia or amine chemicals.



Screen Hole Size

Valve Size	A	B
1/4" ~ 2"	1.4	2.4
2 1/2" & 3	1.5	2.5

Materials

Parts	JIS material
Body	FCD-S
Cap (1/4" ~ 2")	C3771
Cover (2 1/2" & 3")	FCD-S
Gasket	Non-asbestos (2 1/2" & 3": Flexible Graphite)
Screen	304SS
Plug *	304SS

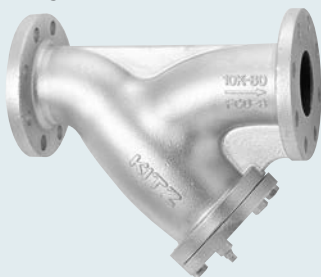
* 1 1/2" & larger

Dimensions

Size	mm	8	10	15	20	25	32	40	50	65	80
	inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
L		65	70	85	100	115	135	150	180	220	250
H		45	45	57	62	74	86	96	112	190	214
P		—	—	—	—	—	Rc3/8	Rc1/2	Rc1/4	Rc1/4	
H1		63	63	81	90	111	130	141	168	271	310

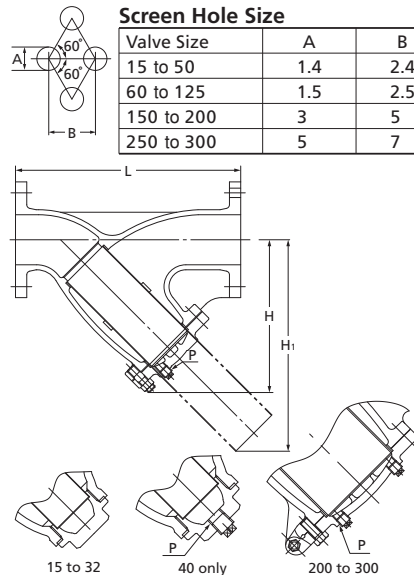
10K Strainer for Gas Service

10FDYBF
B.C. or S.C.
FF-flanged



B.C. for 50 & larger
S.C. for 40 & smaller

Face to face : KITZ Std.
End connection : JIS B 2239 10K



Screen Hole Size

Valve Size	A	B
15 to 50	1.4	2.4
60 to 125	1.5	2.5
150 to 200	3	5
250 to 300	5	7

120°C Static water..... 1.4MPa
220°C Steam, air, gas, oil..... 1.2MPa
300°C Steam, air, gas, oil..... 1.0MPa
Size 15^A ~ 40^A: 1.2MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper cap prohibits use of this valve for ammonia or amine chemicals.
- Bolting materials will be changed for servicing high temperature exceeding 225°C. Contact KITZ Corporation for detailed information.
- A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-S
Cap(15~40)	C3771
Cover(50~300)	FCD-S
Gasket	Non-asbestos (50 ~ 300:Flexible Graphite)
Screen	304SS
Cover bolt/nut	Carbon Steel
Plug *	304SS

* 40 & larger

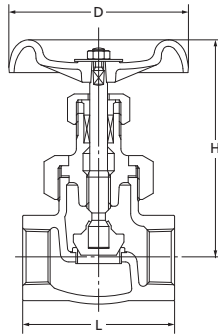
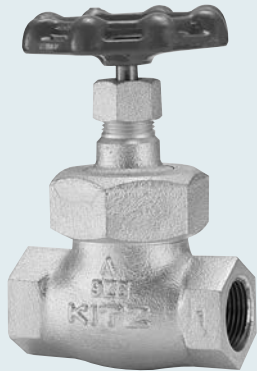
Dimensions

Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
L		125	140	150	170	190	230	305	360	415	465	515	580	680	800
H		57	62	77	90	100	137	207	237	279	321	367	461	534	623
P		—	—	—	—	Rc3/8	Rc1/4	Rc1/4	Rc1/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4
H1		81	90	114	134	145	173	289	334	387	446	497	631	745	874

NOTE : For flange dimensions, refer to Page 44. * RF-flanged ends shall be optionally available.

16K Globe Valve

16SP
U.B.I.S.



End to end : KITZ Std.
End connection : JIS B 0203

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

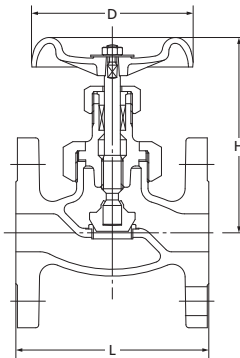
Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Body seat ring	403SS
Handwheel	Ductile Iron
Bonnet ring	FCD-S
Gasket	Tough Pitch Copper

Dimensions

Size	mm							
	10	15	20	25	32	40	50	
	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
L	64	70	85	95	110	125	145	
H (open)	108	124	125	147	162	180	198	
D	60	80	80	100	115	115	135	

16K Globe Valve

16SPB
U.B.I.S.
RF-flanged



Face to face : JIS B 2002 JV 4-4 *
End connection : JIS B 2239 16K
*KITZ Std. for 10

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Body seat ring	403SS
Handwheel	Ductile Iron
Bonnet ring	FCD-S
Gasket	Tough Pitch Copper

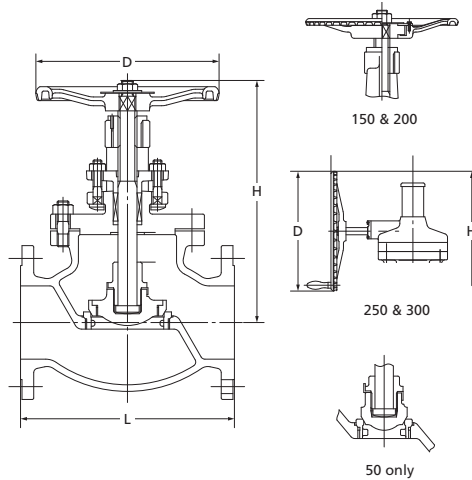
Dimensions

Size	mm							
	10	15	20	25	32	40	50	
	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
L	108	108	117	127	140	165	203	
H (open)	108	124	125	147	162	180	198	
D	60	80	80	100	115	115	135	

NOTE : For flange dimensions, refer to Page 44.

16K Globe Valve

16SPBO
B.B.O.S.Y.
RF-flanged



Face to face : JIS B 2002 *
End connection : JIS B 2239 16K
*KITZ Std. for 125 & 150.

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa
300°C Steam, air, gas, oil..... 1.8MPa
350°C Steam, air, gas, oil..... 1.6MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	403SS
Disc	FCD-5 (50 : 403SS)
Gland	FCD-5
Gland packing	Non-asbestos Packing
Handwheel *	Ductile Iron
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Disc seat ring	403SS
Yoke bush *	High Tension Brass
Bonnet bolt/nut	Carbon Steel
Name plate	Aluminum

* 200 & smaller

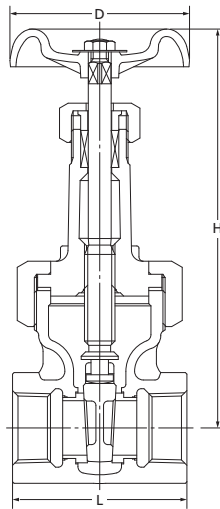
Dimensions

Size	mm	50	65	80	100	125	150	200	250	300	mm
	inch	2	2½	3	4	5	6	8	10	12	
L		203	216	241	292	356	406	495	622	698	
H (open)		308	311	352	371	459	526	589	880	943	
D		200	225	250	250	300	350	400	360	360	

NOTE : For flange dimensions, refer to Page 44.

16K Gate Valve

16SMS
U.B.I.S.



End to end : JV 4-2
End connection : JIS B 0203

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

●Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

●Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

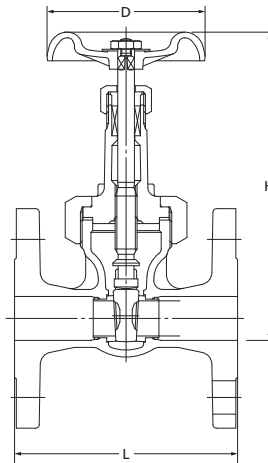
Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	SCS1
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Bonnet ring	FCD-5
Body seat ring	403SS
Gasket	Tough Pitch Copper
Handwheel	Ductile Iron
Name plate	Aluminum

Dimensions

Size	mm	15	20	25	32	40	50	mm
	inch	½	¾	1	1¼	1½	2	
L		65	75	80	90	100	110	
H (open)		163	182	212	245	285	330	
D		70	80	90	100	115	135	

16K Gate Valve

16SMB
U.B.I.S.
RF-flanged



Face to face : JIS B2002 JV 4-2
End connection : JIS B2239 16K

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS1
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Bonnet ring	FCD-S
Gasket	Tough Pitch Copper
Body seat ring	403SS
Name plate	Aluminum

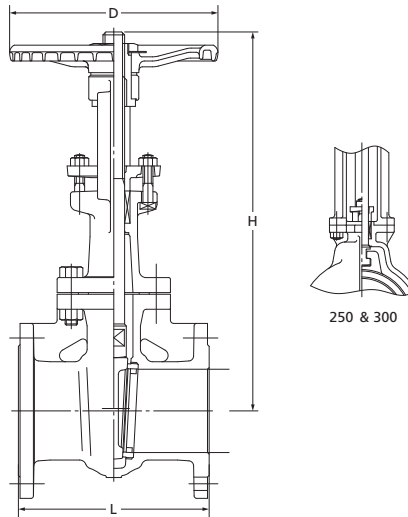
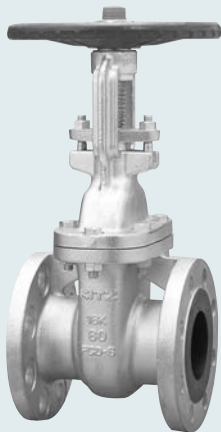
Dimensions

Size	mm	15	20	25	32	40	50	mm
	inch	1/2	3/4	1	1 1/4	1 1/2	2	
L		108	117	127	140	165	178	
H (open)		161	163	185	216	251	283	
D		70	70	80	90	100	115	

NOTE : For flange dimensions, refer to Page 44.

16K Gate Valve

16SMBO
B.B.O.S.Y.
RF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 16K

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa
300°C Steam, air, gas, oil..... 1.8MPa
350°C Steam, air, gas, oil..... 1.6MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body / Bonnet	FCD-S
Stem	403SS
Disc	403SS / SCS1 (40 ~ 200) A105+13Cr (250) SCPH2+13Cr (300)
Gland	FCD-S
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Bonnet bolt/nut	Carbon Steel
Gland bolt/nut	Carbon Steel
Yoke sleeve	High Tension Brass (200 ~ 300 : Cast Brass)
Yoke	Ductile Iron
Name plate	Aluminum

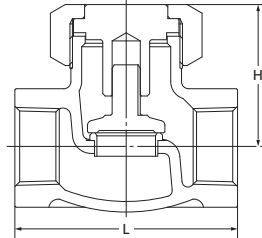
Dimensions

Size	mm	40	50	65	80	100	125	150	200	250	300	mm
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12	
L		165	178	190	203	229	254	267	292	330	356	
H (open)		301	352	410	479	566	668	780	970	1181	1404	
D		160	200	200	250	250	300	300	350	400	450	

NOTE : For flange dimensions, refer to Page 44.

16K Lift Check Valve

16SF
U.B.



Face to face : KITZ Std.
End connection : JIS B 0203

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

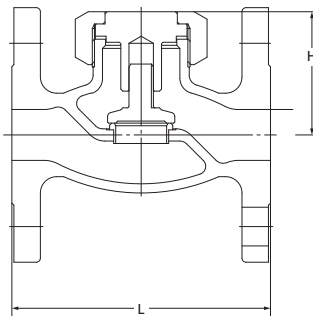
Parts	JIS material
Body	FCD-5
Bonnet	SCS13A
Disc	SCS1
Bonnet ring	FCD-5
Gasket	Tough Pitch Copper
Body seat ring	403SS

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		70	85	95	110	125	145
H		50	53	61	69	75	87

16K Lift Check Valve

16SFB
U.B.



Face to face : JIS B 2002 JV 4-2
End connection : JIS B 2239 16K

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	SCS13A
Disc	SCS1
Bonnet ring	FCD-5
Gasket	Tough Pitch Copper
Body seat ring	403SS

Dimensions

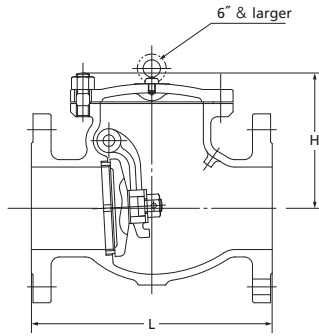
Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		108	117	127	140	165	203
H		50	53	61	69	75	87

NOTE : For flange dimensions, refer to Page 44.

16K Swing Check Valve

16SRB

B.C.
RF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 16K

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa
300°C Steam, air, gas, oil..... 1.8MPa
350°C Steam, air, gas, oil..... 1.6MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-5
Cover	FCD-5
Disc	403SS (200 ~ 300 : SCPH2 + 13Cr)
Body seat ring	403SS
Arm	SCS13A (125 ~ 300 : SCPH2)
Split pin	304SS
Hinge pin	403SS
Plug	SS400
Washer	SS400 (125 ~ 300 : 403SS)
Gasket	Non-asbestos Sheet
Cover bolt/nut	Carbon Steel

Dimensions

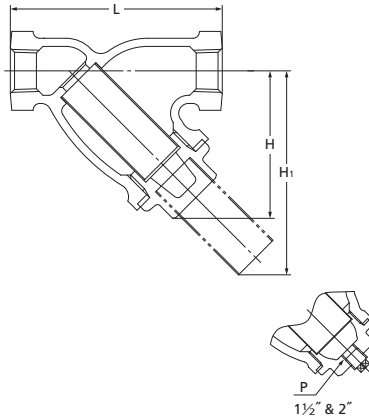
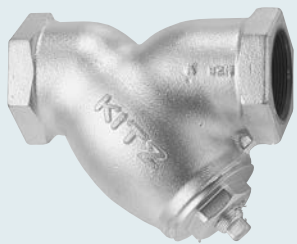
Size	mm	50	65	80	100	125	150	200	250	300	mm
	inch	2	2½	3	4	5	6	8	10	12	
L		203	216	241	292	330	356	495	622	698	
H		125	136	153	171	201	219	264	320	359	

NOTE : For flange dimensions, refer to Page 44.

16K Y-Pattern Strainer

16FDY

S.C.



End to end : KITZ Std.
End connection : JIS B 0203

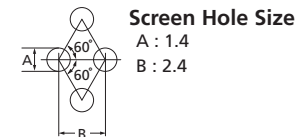
120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper cap prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Cap	C3771
Gasket	Non-asbestos Sheet
Screen	304SS
Plug*	304SS

* 1½" & larger

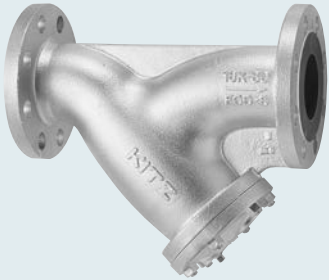


Dimensions

Size	mm	15	20	25	32	40	50	mm
	inch	½	¾	1	1¼	1½	2	
L		85	100	115	135	150	180	
H		57	62	74	86	96	112	
P		—	—	—	—	Rc ³ / ₈	Rc ¹ / ₂	
H1		81	90	111	130	141	168	

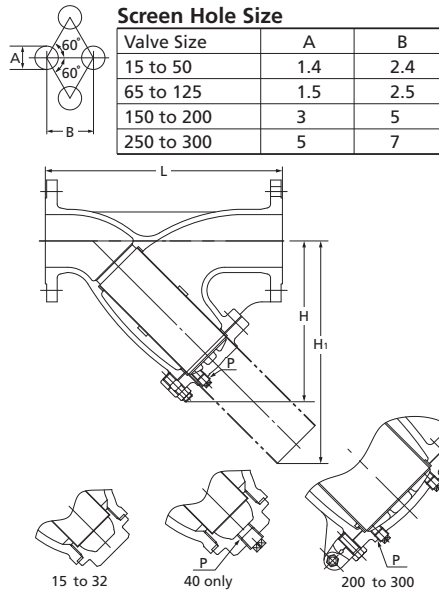
16K Y-Pattern Strainer

16FDYB
B.C. or S. C.
RF-flanged



B.C. for 50 & larger
S.C. for 40 & smaller

Face to face : KITZ Std.
End connection : JIS B 2239 16K



Screen Hole Size

Valve Size	A	B
15 to 50	1.4	2.4
65 to 125	1.5	2.5
150 to 200	3	5
250 to 300	5	7

120°C Static water..... 2.2MPa
220°C Steam, air, gas, oil..... 2.0MPa
300°C Steam, air, gas, oil..... 1.8MPa
350°C Steam, air, gas, oil..... 1.6MPa
15 ~ 40 : 260°C 1.9MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper cap prohibits use of this valve for ammonia or amine chemicals.
- A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-5
Cap (15 ~ 40)	C3771
Cover (50 ~ 300)	FCD-5
Gasket	Non-asbestos (50~300 : Flexible Graphite)
Screen	304SS
Cover bolt	Carbon Steel
Plug *	304SS

* 2 drain plugs will be provided for 200 & larger sizes.

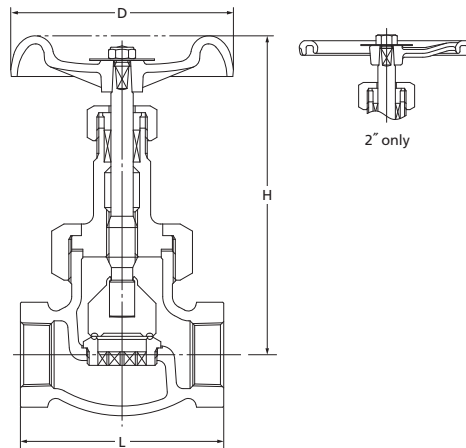
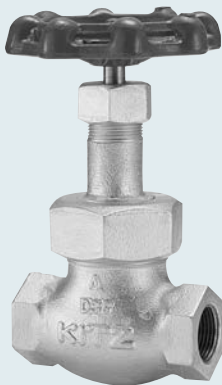
Dimensions

Size	mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300	mm
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	
L		125	140	150	170	190	250	305	360	415	465	515	580	680	800	
H		57	62	77	90	100	158	208	238	278	324	369	461	534	623	
P		—	—	—	—	Rc ^{3/8}	Rc ^{1/4}	Rc ^{1/4}	Rc ^{1/4}	Rc ^{3/4}	Rc ^{3/4}	Rc ^{3/4}	Rc ^{3/4}	Rc ^{3/4}	Rc ^{3/4}	
H1		81	90	114	134	145	207	289	334	387	446	497	631	745	879	

NOTE : For flange dimensions, refer to Page 44.

20K Globe Valve

20SY
U.B.I.S.



End to end : KITZ Std.
End connection : JIS B 0203

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS + HF *
Body seat ring	SCS13A + HF *
Gland	SUS420J2 (1" & 2" : 403SS)
Gland packing	Non-asbestos Packing
Packing nut	FCD-5
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet ring	FCD-5
Gasket	Tough Pitch Copper
Name plate	Aluminum

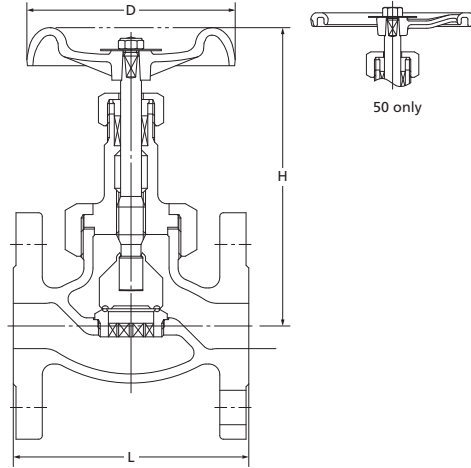
* Hard-faced with Co-Cr-W alloy

Dimensions

Size	mm	10	15	20	25	32	40	50	mm
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
L		75	78	91	105	122	135	160	
H (open)		136	138	157	180	205	210	240	
D		70	80	100	115	135	135	180	

20K Globe Valve

20SYB
U.B.I.S.
RF-flanged



Face to face : JIS B 2002 JV 4-4*
End connection : JIS B 2239 20K
*KITZ Std. for 10

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	403SS + HF*
Body seat ring	SCS13A + HF*
Gland	SUS420J2 (25 & 50 : 403SS)
Gland packing	Flexible Graphite Braided Packing
Packing nut	FCD-S
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Gasket	Tough Pitch Copper
Name plate	Aluminum

* Hard-faced with Co-Cr-W alloy

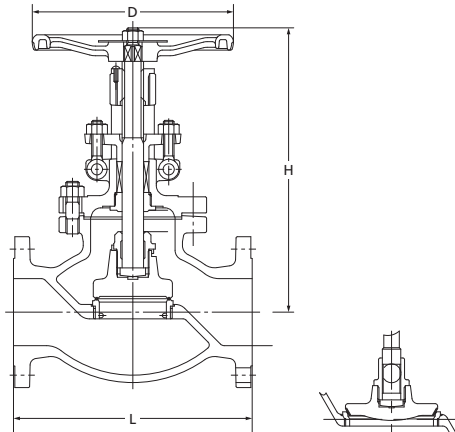
Dimensions

Size	mm							
	mm	10	15	20	25	32	40	50
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		110	110	120	130	160	180	230
H (open)		136	137	157	180	205	210	240
D		70	80	100	115	135	135	180

NOTE : For flange dimensions, refer to Page 44.

20K Globe Valve

20SYBO
B.B.O.S.Y.
RF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 20K

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	A105 + HF*
Lock nut	FCD-S (200 : 403SS)
Body seat ring	A105 + HF* (200 : 403SS + HF*)
Gland	FCD-S
Gland packing	Flexible Graphite Braided Packing
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet bolt/nut	Carbon Steel
Gland bolt/nut	Carbon Steel
Yoke bush	High Tension Brass
Gasket	Non-asbestos Sheet
Name plate	Aluminum

* Hard-faced with Co-Cr-W alloy

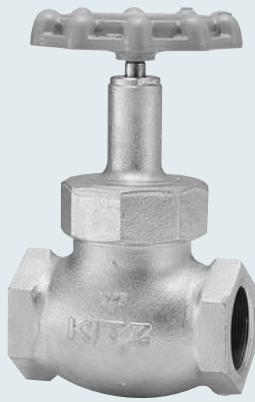
Dimensions

Size	mm							
	mm	50	65	80	100	125	150	200
	inch	2	2 1/2	3	4	5	6	8
L		267	292	318	356	400	444	559
H (open)		296	343	374	452	536	601	701
D		225	250	250	300	350	400	560

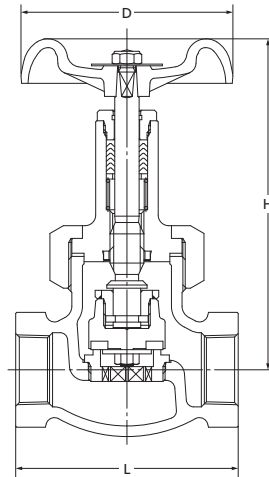
NOTE : For flange dimensions, refer to Page 44.

20K Globe Valve with Soft Disc for Gas Service

20SDL
U.B.I.S.



PTFE disc for gas service



End to end : KITZ Std.
End connection : JIS B 0203

80°C gas..... 2.4MPa

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Bonnet ring	FCD-5
Stem	SUS420J2
Disc	PTFE
Gland	SUS303
Gland packing	NBR
Handwheel	Aluminum Die-cast (3/8" & 1/2" : Zinc Die-Cast)
Gasket	Non-asbestos Sheet
Body seat ring	SCS13A
Stem washer	403SS

Dimensions

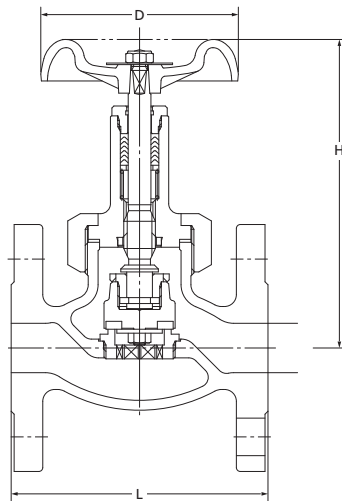
Size	mm							
	10	15	20	25	32	40	50	
	inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L		75	78	91	105	122	135	160
H (open)		128	128	147	168	192	201	237
D		70	70	90	100	115	135	155

20K Globe Valve with Soft Disc for Gas Service

20SDLB
U.B.I.S.
RF-flanged.



PTFE disc for gas service



Face to face : JIS B 2002
End connection : JIS B 2239 20K

80°C gas..... 2.4MPa

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	G/F PTFE
Gland	SUS303
Gland packing	NBR
Handwheel	Aluminum Die-cast (15 : Zinc Die-Cast)
Gasket	Non-asbestos Sheet
Body seat ring	SCS13A
Stem washer	403SS

Dimensions

Size	mm						
	15	20	25	32	40	50	
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		110	120	130	160	180	230
H (open)		128	147	168	192	201	237
D		70	90	100	115	135	155

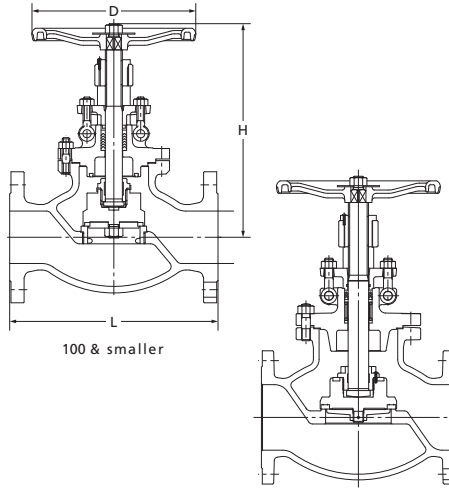
NOTE : For flange dimensions, refer to Page 44.

20K Globe Valve with Soft Disc for Gas Service

20SDLBO
B.B.O.S.Y.
RF-flanged



PTFE disc for gas service



Face to face : JIS B 2002
End connection : JIS B 2239 20K

80°C gas..... 2.4MPa

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	403SS
Disc	PTFE
Gland	FCD-5
Gland packing	NBR + PTFE
Gasket	Non-asbestos Sheet
Body seat ring *	403SS
Stem washer *	SKD1
Disc washer *	403SS
Spring (150 & 200)	Stainless Steel
Bonnet bolt/nut	Carbon Steel
Handwheel	Ductile Iron

* 100 & smaller

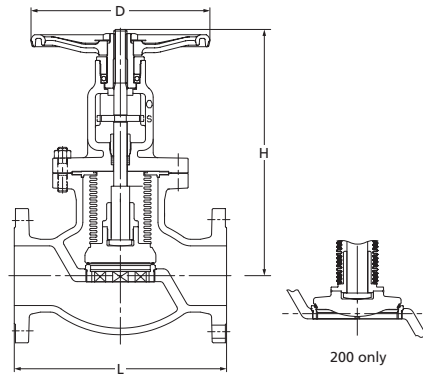
Dimensions

Size	mm				
	65	80	100	150	200
	2 1/2	3	4	6	8
L	292	318	356	444	559
H (open)	337	351	439	600	688
D	250	250	300	400	560

NOTE : For flange dimensions, refer to Page 44.

20K Bellows Seal Globe Valve

20SYBOW
B.B.O.S.Y.
RF-flanged



Face to face : JIS B2002
End connection : JIS B2239 20K

120°C Static water2.8MPa
350°C Steam, air, gas, oil.....2.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	403SS
Disc	304SS+HF *
Gland	403SS
Gland packing	Flexible Graphite
Handwheel	Ductile Iron
Bonnet bolt/nut	Carbon Steel
Bellows	316LSS
Bellows holder	304SS
Body seat ring	SCS13A + HF *(15 ~ 50) 304SS + HF *(65 ~ 150) 403SS + HF *(200)
Name plate	Aluminum

* Hard-faced with Co-Cr-W alloy

Dimensions

Size	mm												
	15	20	25	32	40	50	65	80	100	125	150	200	
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	
L	110	120	130	160	180	230	292	318	356	400	444	559	
H	184	184	190	238	238	271	286	395	433	529	586	749	
D	90	90	100	140	140	160	180	250	300	350	400	450	

NOTE : For flange dimensions, refer to Page 44.

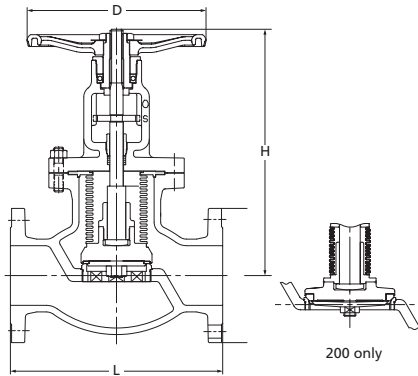
20K Bellows Seal Globe Valve

20SDBOW

B.B.O.S.Y
RF-flanged



Reinforced PTFE disc



Face to face : JIS B2002
End connection : JIS B2239 20K

120°C Static water2.5MPa
180°C Steam, air, gas, oil.....2.0MPa

● Use for lubricating or hydraulic oil is acceptable. Contact KITZ Corporation for technical advice, if valves are used as heat transfer media.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	G/F PTFE
Gland	403SS
Gland packing	Flexible Graphite
Handwheel	Ductile Iron
Bonnet bolt/nut	Carbon Steel
Bellows	316LSS
Bellows holder	304SS
Body seat ring	304SS(200 : 403SS)
Name plate	Aluminum

Dimensions

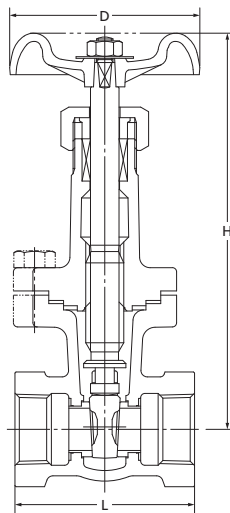
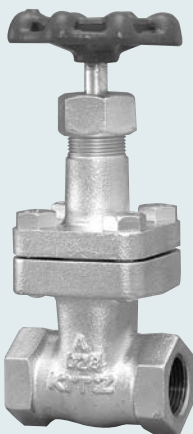
Size	mm												
	15	20	25	32	40	50	65	80	100	125	150	200	
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
L		110	120	130	160	180	230	292	318	356	400	444	559
H		184	184	190	238	238	271	285	395	432	529	586	749
D		90	90	100	140	140	160	180	250	300	350	400	450

NOTE : For flange dimensions, refer to Page 44.

20K Gate Valve

20SLS

B.B.I.S.



End to end : JV 4-4
End connection : JIS B 0203

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

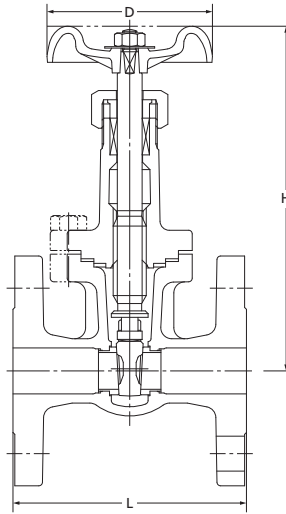
Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS1
Gland	SUS420J2 (1 1/2" & 2" : 403SS)
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Name plate	Aluminum

Dimensions

Size	mm						
	15	20	25	32	40	50	
	inch	1/2	3/4	1	1 1/4	1 1/2	
L		70	75	85	95	105	115
H (open)		175	177	214	241	277	301
D		90	90	100	115	135	135

20K Gate Valve

20SLB
B.B.I.S.
RF-flanged



Face to face : JIS B 2002 JV 4-4
End connection : JIS B 2239 20K

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa
● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS1
Body seat ring	403SS
Gland	SUS420J2 (40 : 403SS)
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet bolt	Carbon Steel
Gasket	Non-asbestos Sheet
Name plate	Aluminum

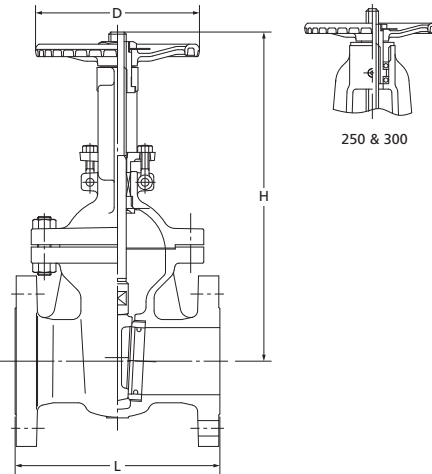
Dimensions

Size	mm					
	mm	15	20	25	32	40
	inch	1/2	3/4	1	1 1/4	1 1/2
L		108	117	127	140	165
H (open)		176	177	214	242	277
D		90	90	100	115	135

NOTE : For flange dimensions, refer to Page 44.

20K Gate Valve

20SLBO
B.B.O.S.Y.
RF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 20K

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa
● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	SCS1 (40) 403SS (50~150) SCPH2+13cr (200~300)
Body seat ring	403SS
Gland	FCD-S
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Wheel nut	Carbon Steel
Bonnet bolt/nut	Carbon Steel
Gland bolt/nut	Carbon Steel
Yoke sleeve	High Tension Brass (150~200 : Cast Brass)
Gasket	Non-asbestos Sheet
Name plate	Aluminum

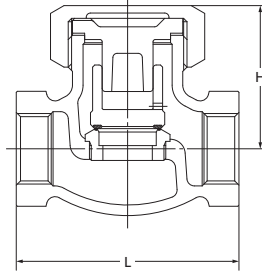
Dimensions

Size	mm										
	mm	40	50	65	80	100	125	150	200	250	300
	inch	1 1/2	2	2 1/2	3	4	5	6	8	10	12
L		190	216	241	283	305	381	403	419	457	502
H (open)		326	402	456	518	599	725	847	1076	1239	1448
D		160	200	200	250	250	300	350	400	450	500

NOTE : For flange dimensions, refer to Page 44.

20K Lift Check Valve

20SN
U.B.



End to end : KITZ Std.
End connection : JIS B 0203

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	SCS1
Disc	SCS13A + HF *
Bonnet ring	FCD-5
Gasket	Non-asbestos Sheet
Body seat ring	SCS13A + HF *

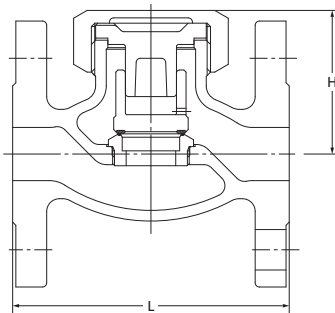
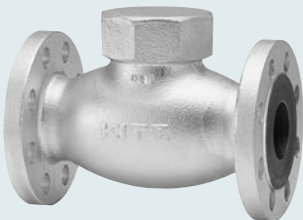
* Hard-faced with Co-Cr-W alloy

Dimensions

Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		78	91	105	122	135	160
H		56	60	68	80	85	99

20K Lift Check Valve

20SNB
U.B.
RF-flanged



Face to face : JIS B 2002 JV 4-4
End connection : JIS B 2239 20K

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	SCS1
Disc	SCS13A + HF *
Bonnet ring	FCD-5
Gasket	Non-asbestos Sheet
Body seat ring	SCS13A + HF *

* Hard-faced with Co-Cr-W alloy

Dimensions

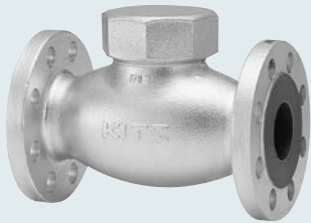
Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		110	120	130	160	180	230
H		56	60	68	80	85	99

NOTE : For flange dimensions, refer to Page 44.

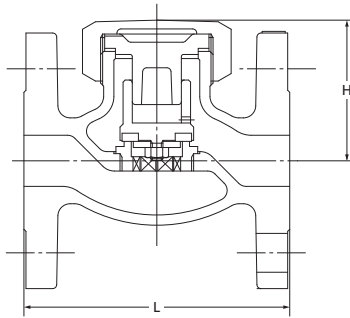
20K Lift Check Valve for Gas Service

20SNDB

U.B.
RF-flanged



PTFE disc for gas service



Face to face : JIS B 2002 JV 4-4
End connection : JIS B 2239 20K

120°C gas..... 2.4MPa

Materials

Parts	JIS material
Body	FCD-5
Bonnet	SCS1
Bonnet ring	FCD-5
Disc	PTFE
Disc holder	304SS
Gasket	Non-asbestos Sheet
Body seat ring	SCS13A
Disc washer	304SS

Dimensions

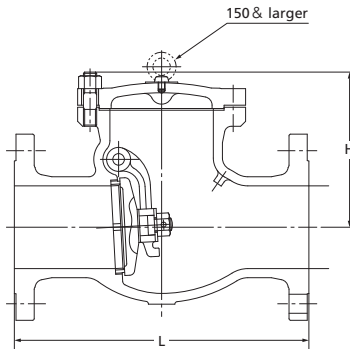
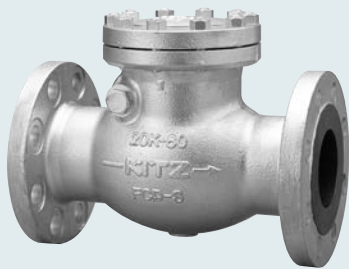
Size	mm						
	mm	15	20	25	32	40	50
	inch	1/2	3/4	1	1 1/4	1 1/2	2
L		110	120	130	160	180	230
H		56	60	68	80	85	99

NOTE : For flange dimensions, refer to Page 44.

20K Swing Check Valve

20SOB

B.C.
RF-flanged



Face to face : JIS B 2002
End connection : JIS B 2239 20K

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

Materials

Parts	JIS material
Body	FCD-5
Cover	FCD-5
Disc	403SS (200~300:SCPH2 + 13Cr)
Disc nut	SS400 (125 ~300: A194Gr.8)
Body seat ring	403SS
Arm	SCS13A (125 ~300: SCPH2)
Hinge pin	403SS
Split pin	304SS
Plug	SS400
Washer	SS400 (125 ~300: 403SS)
Gasket	Non-asbestos Sheet
Cover bolt/nut	Carbon Steel

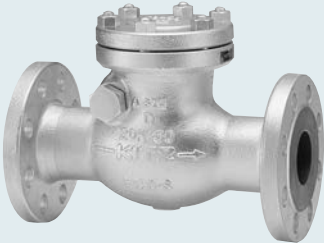
Dimensions

Size	mm									
	mm	50	65	80	100	125	150	200	250	300
	inch	2	2 1/2	3	4	5	6	8	10	12
L		267	292	318	356	400	444	533	622	711
H		133	143	158	186	218	238	278	335	370

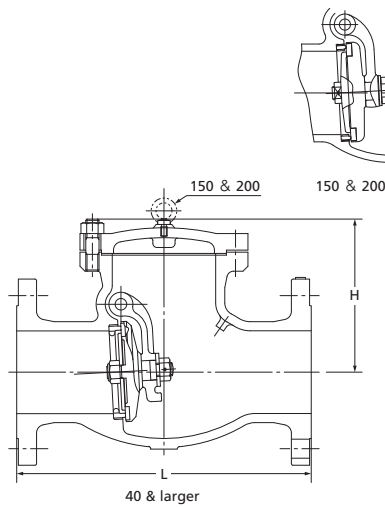
NOTE : For flange dimensions, refer to Page 44.

20K Swing Check Valve for Gas Service

20SODB
B.C. or U.B.
RF-flanged



PTFE disc for gas service
B.C. for 40 & larger
U.B. for 25 only



Face to face : JIS B 2002
End connection : JIS B 2239 20K

120°C gas..... 2.4MPa

Materials

Parts	JIS material
Body	FCD-S
Cover (50 ~ 200)	FCD-S
Disc	PTFE
Disc holder	403SS
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Arm	SCS13A (150&200:SCPH2)
Hinge pin	403SS
Split pin	304SS
Cover bolt/nut	Carbon Steel
Bushing	403SS

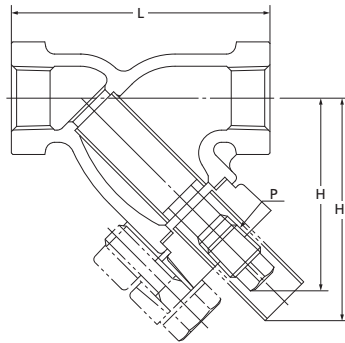
Dimensions

Size	mm						
	mm	50	65	80	100	150	200
	inch	2	2½	3	4	6	8
L		267	292	318	356	444	533
H		135	145	160	185	240	280

NOTE : For flange dimensions, refer to Page 44.

20K Strainer for Gas Service

20FDY
B.C.



End to end : KITZ Std.
End connection : JIS B 0203

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable.
- A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-S
Cover	FCD-S
Gasket	Flexible Graphite
Screen *	304SS
Plug	304SS
Cover bolt	Carbon Steel

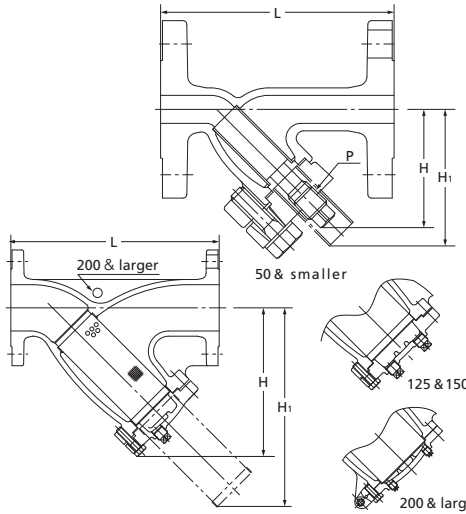
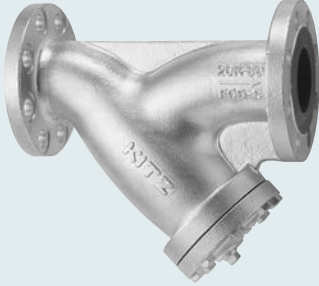
* 40 mesh wire cloth (reinforced with SUS304 punched plate)

Dimensions

Size	mm							
	mm	10	15	20	25	32	40	50
	inch	¾	1½	¾	1	1¼	1½	2
L		80	85	100	115	135	150	180
H		63	63	70	82	117	128	151
P		Rc¼	Rc¼	Rc¾	Rc½	Rc¾	Rc1	Rc1¼
H1		76	76	86	103	122	135	161

20K Strainer for Gas Service

20FDYB
B.C.
RF-flanged



Face to face : KITZ Std.
End connection : JIS B 2239 20K

120°C Static water..... 2.8MPa
220°C Steam, air, gas, oil..... 2.5MPa
300°C Steam, air, gas, oil..... 2.3MPa
350°C Steam, air, gas, oil..... 2.0MPa

- Use for lubricating or hydraulic oil is acceptable.
- A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-5
Cover	FCD-5
Gasket	Flexible Graphite
Screen *	304SS
Plug	304SS
Cover bolt	Carbon Steel

* 40 mesh wire cloth (reinforced with SUS304 punched plate)

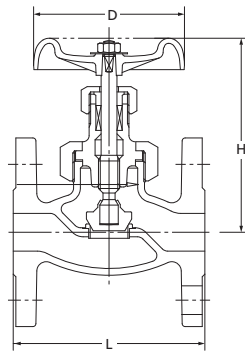
Dimensions

Size	mm	inch	10	15	20	25	32	40	50	65	80	100	125	150	200	250	300
L			120	125	140	160	185	200	250	305	360	415	465	515	620	760	870
H			63	63	71	85	120	132	161	221	252	292	333	380	441	548	655
P			Rc ¹ / ₄	Rc ¹ / ₄	Rc ³ / ₈	Rc ¹ / ₂	Rc ³ / ₄	Rc1	Rc1 ¹ / ₄	Rc ¹ / ₂	Rc ¹ / ₂	Rc ³ / ₄	Rc ³ / ₄	Rc ³ / ₄	Rc1	Rc1	Rc1
H1			76	76	86	105	126	138	172	298	344	397	456	506	610	763	916

NOTE : For flange dimensions, refer to Page 44.

Class 150 Globe Valve

150SPB
U.B.I.S.
RF-flanged



Face to face : ASME B16.10
End connection : ASME B16.5

-5°C ~ +38°C W.O.G. 1.73MPa
149°C W.O.G. 1.48MPa
260°C W.O.G. 1.18MPa
343°C W.O.G. 0.86MPa

- Use for lubricating or hydraulic oil is acceptable.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Gasket	Tough Pitch Copper
Body seat ring	403SS

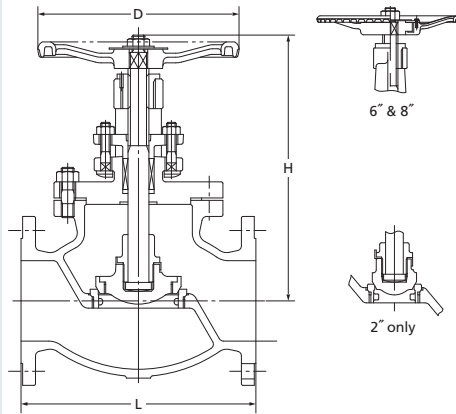
Dimensions

Size	mm	inch	15	20	25	32	40	50
L			108	117	127	140	165	203
H (open)			124	125	147	162	180	198
D			80	80	100	115	115	135

NOTE : For flange dimensions, refer to Page 45.

Class 150 Globe Valve

150SPBO
B.B.O.S.Y.
RF-flanged



−5°C ~ +38°C W.O.G. 1.73MPa
149°C W.O.G. 1.48MPa
260°C W.O.G. 1.18MPa
343°C W.O.G. 0.86MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	FCD-S (2": 403SS)
Gland	FCD-S
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Disc seat ring	403SS
Yoke bush	High Tension Brass

Face to face : ASME B16.10
End connection : ASME B16.5

Dimensions

Size	mm							
	50	65	80	100	125	150	200	
	2	2½	3	4	5	6	8	
L	203	216	241	292	356	406	495	
H (open)	308	311	352	371	459	526	588	
D	200	225	250	250	300	350	400	

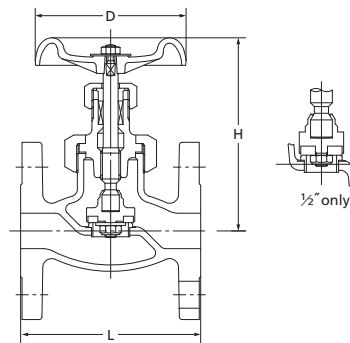
NOTE : For flange dimensions, refer to Page 45.

Class 150 Globe Valve

150SPDB
U.B.I.S.
RF-flanged



Reinforced PTFE disc



−5°C ~ +38°C W.O.G. 1.73MPa
149°C W.O.G. 1.48MPa
180°C W.O.G. 1.18MPa

● Use for lubricating or hydraulic oil is acceptable.

● Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	SUS420J2
Disc	G/F PTFE
Gland	SUS420J2 (1¼": 403SS)
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Gasket	Tough Pitch Copper
Body seat ring	403SS

Face to face : ASME B16.10
End connection : ASME B16.5

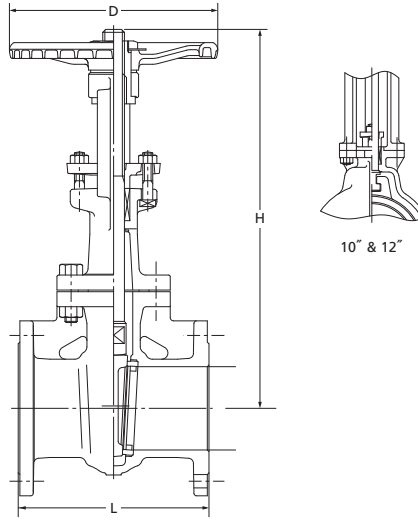
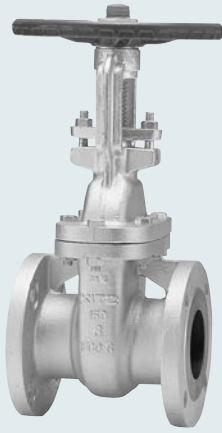
Dimensions

Size	mm						
	15	20	25	32	40	50	
	½	¾	1	1¼	1½	2	
L	108	117	127	140	165	203	
H (open)	122	122	145	160	180	198	
D	70	70	90	100	115	135	

NOTE : For flange dimensions, refer to Page 45.

Class 150 Gate Valve

150SMBO
B.B.O.S.Y.
RF-flanged



Face to face : ASME B16.10
End connection : ASME B16.5

-5°C ~ +38°C W.O.G. 1.73MPa
149°C W.O.G. 1.48MPa
260°C W.O.G. 1.18MPa
343°C W.O.G. 0.86MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-S
Bonnet	FCD-S
Stem	403SS
Disc	403SS / SCS1 (1½" ~ 8") A105 + 13Cr (10") SCPH2 + 13Cr (12")
Gland	FCD-S
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Yoke sleeve	High Tension Brass (8" ~ 12" : Cast Brass)
Yoke	Ductile Iron

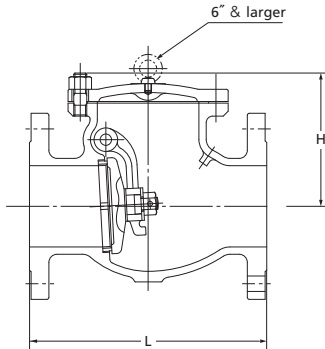
Dimensions

Size	mm										
	mm	40	50	65	80	100	125	150	200	250	300
	inch	1½	2	2½	3	4	5	6	8	10	12
L		165	178	190	203	229	254	267	292	330	356
H (open)		301	352	410	479	566	668	780	970	1181	1404
D		160	200	200	250	250	300	300	350	400	450

NOTE : For flange dimensions, refer to Page 45.

Class 150 Swing Check Valve

150SRB
B.C.
RF-flanged



Face to face : ASME B16.10
End connection : ASME B16.5

-5°C ~ +38°C W.O.G. 1.73MPa
149°C W.O.G. 1.48MPa
260°C W.O.G. 1.18MPa
343°C W.O.G. 0.86MPa

● Use for lubricating or hydraulic oil is acceptable.

● Bolting materials will be changed for servicing high temperature exceeding 225°C. Contact KITZ Corporation for detailed information.

● A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-S
Cover	FCD-S
Disc	403SS (8" ~ 12" : SCPH2 + 13Cr)
Disc nut	SS400 (5" ~ 12" : A194Gr.8)
Split pin	304SS
Hinge pin	403SS
Plug	SS400
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Arm	SCS13A (5" ~ 12" : SCPH2)
Cover bolt/nut	Carbon Steel

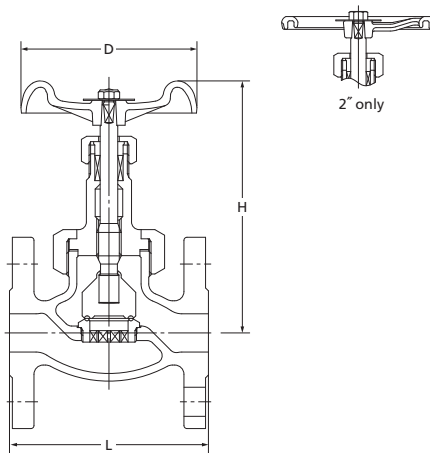
Dimensions

Size	mm										
	mm	40	50	65	80	100	125	150	200	250	300
	inch	1½	2	2½	3	4	5	6	8	10	12
L		165	203	216	241	292	330	356	495	622	698
H		115	125	136	153	171	206	224	264	325	364

NOTE : For flange dimensions, refer to Page 45.

Class 300 Globe Valve

300SYB
U.B.I.S.
RF-flanged



-5°C ~ +38°C W.O.G. 2.94MPa
149°C W.O.G. 2.60MPa
260°C W.O.G. 2.28MPa
350°C W.O.G. 2.04MPa

- Use for lubricating or hydraulic oil is acceptable.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	SUS420J2
Disc	403SS + HF *
Gland	SUS420J2 (1" & 2": 403SS)
Gland packing	Flexible Graphite Braided Packing
Handwheel	Ductile Iron
Gasket	Tough Pitch Copper
Body seat ring	SCS13A + HF *

* Hard-faced with Co-Cr-W alloy

Face to face : JIS B 2002 JV 4-4
End connection : ASME B16.5

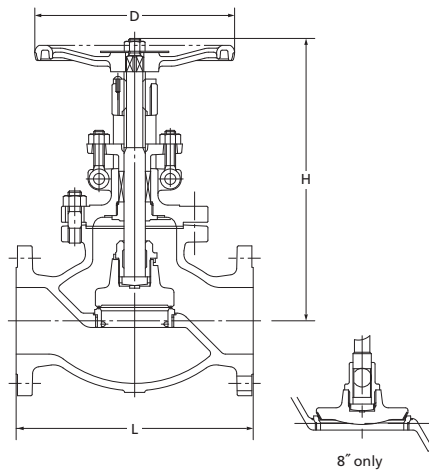
Dimensions

Size	mm					
	15	20	25	32	40	50
	1/2	3/4	1	1 1/4	1 1/2	2
L	110	120	130	160	180	230
H (open)	138	157	180	205	210	240
D	80	100	115	135	135	180

NOTE : For flange dimensions, refer to Page 45.

Class 300 Globe Valve

300SYBO
B.B.O.S.Y.
RF-flanged



-5°C ~ +38°C W.O.G. 2.94MPa
149°C W.O.G. 2.60MPa
260°C W.O.G. 2.28MPa
350°C W.O.G. 2.04MPa

- Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	403SS
Disc	A105 + HF *
Gland	FCD-5
Gland packing	Flexible Graphite Braided Packing
Handwheel	Ductile Iron
Gasket	Non-asbestos Sheet
Body seat ring	A105 + HF *
Yoke bush	High Tension Brass

* Hard-faced with Co-Cr-W alloy

Face to face : ASME B16.10
End connection : ASME B16.5

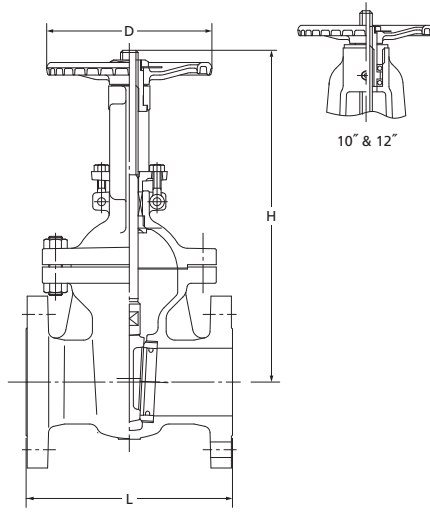
Dimensions

Size	mm						
	50	65	80	100	125	150	200
	2	2 1/2	3	4	5	6	8
L	267	292	318	356	400	444	559
H (open)	296	341	372	450	535	601	701
D	225	250	250	300	350	400	560

NOTE : For flange dimensions, refer to Page 45.

Class 300 Gate Valve

300SLBO
B.B.O.S.Y.
RF-flanged



Face to face : ASME B16.10
End connection : ASME B16.5

-5°C ~ +38°C W.O.G. 2.94MPa
149°C W.O.G. 2.60MPa
260°C W.O.G. 2.28MPa
350°C W.O.G. 2.04MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-5
Bonnet	FCD-5
Stem	403SS
Disc	403SS (8" ~ 12": SCPH2 + 13Cr)
Gland	FCD-5
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron
Body seat ring	403SS
Yoke sleeve	High Tension Brass (6" & 8": Cast Brass)
Gasket	Non-asbestos Sheet
Bonnet bolt/nut	Carbon Steel

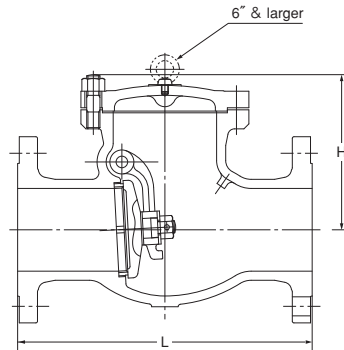
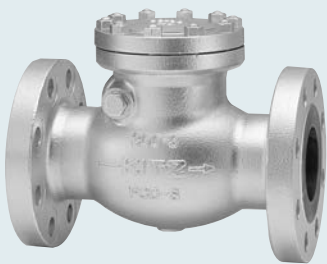
Dimensions

Size	mm									
	mm	50	65	80	100	125	150	200	250	300
	inch	2	2½	3	4	5	6	8	10	12
L		216	241	283	305	381	403	419	457	502
H (open)		407	462	522	599	725	847	1076	1240	1448
D		200	200	250	250	300	350	400	450	500

NOTE : For flange dimensions, refer to Page 45.

Class 300 Swing Check Valve

300SOB
B.C.
RF-flanged



Face to face : ASME B16.10
End connection : ASME B16.5

-5°C ~ +38°C W.O.G. 2.94MPa
149°C W.O.G. 2.60MPa
260°C W.O.G. 2.28MPa
350°C W.O.G. 2.04MPa

● Use for lubricating or hydraulic oil is acceptable.

● A gasket will be used for sealing the plug for application to high temperature exceeding 260°C. Specify your service temperature in advance. Ensure replacement of plug gaskets on your valve maintenance.

Materials

Parts	JIS material
Body	FCD-5
Cover	FCD-5
Disc	403SS (8" ~ 12": SCPH2 + 13Cr)
Disc nut	SS400 (5" ~ 12": A194Gr.8)
Split pin	304SS
Hinge pin	403SS
Plug	SS400
Gasket	Non-asbestos Sheet
Body seat ring	403SS
Arm	SCS13A (5" ~ 12": SCPH2)
Cover bolt/nut	Carbon Steel

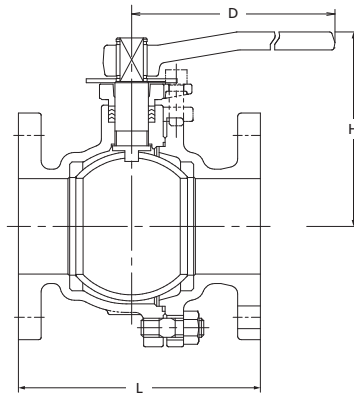
Dimensions

Size	mm									
	mm	50	65	80	100	125	150	200	250	300
	inch	2	2½	3	4	5	6	8	10	12
L		267	292	318	356	400	444	533	622	711
H		133	143	158	186	218	238	278	335	370

NOTE : For flange dimensions, refer to Page 45.

10K Ball Valve Full Bore

10STBF
10STLBF (Gas service)
 FF-flanged



Face to face : ASME B16.10
 End connection : JIS B 2239 10K

Maximum Service Pressure

Code	Valve size	Temperature	Pressure
10STBF	All size	120°C W.O.G.	1.4MPa
	4" and smaller	160°C W.O.G.	1.0MPa
	5" to 8"	140°C W.O.G.	1.0MPa
10STLBF	All size	80°C gas	1.2MPa

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-5
Body cap	FCD-5
Stem	403SS
Ball	304SS / SCS13A
Gland	FCD-5
Gland packing	PTFE
Handle	Ductile Iron
Gasket	PTFE
Packing washer	304SS (15 ~ 32)
Ball seat	HYPATITE PTFE *1 (10STBF) PTFE (10STLBF)
Cap bolt	S5400 *2
Cap nut	S5400 (10STBF), Carbon Steel (10STLBF)
Gland bolt	Alloy Steel
O ring *3	NBR
Stopper	Stainless Steel
Name plate *3	Stainless Steel

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

*2 Different bolt/nut material is required for service exceeding temperature range of 0 ~ 225°C. Contact KITZ Corporation for technical advice.

*3 for 10STLBF only
 Contact KITZ Corporation for use of valve actuators.

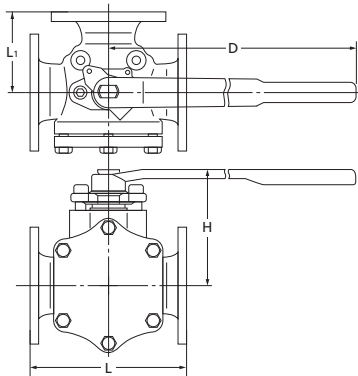
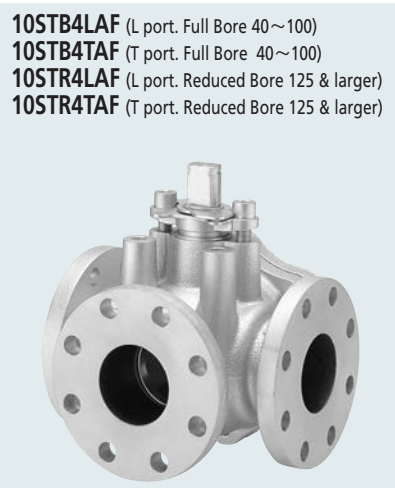
Dimensions

Size	mm												
	mm	15	20	25	32	40	50	65	80	100	125	150	200
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
L		108	117	127	140	165	178	190	203	229	356	394	457
H		106	109	129	132	114	121	154	163	199	219	292	352
D		130	130	160	160	230	230	400	400	460	460	1000	1500

NOTE1 : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.
 2 : The ball sizes differ according to the valve size.

10K Ball Valve 3-way 4-seat

10STB4LAF (L port. Full Bore 40~100)
10STB4TAF (T port. Full Bore 40~100)
10STR4LAF (L port. Reduced Bore 125 & larger)
10STR4TAF (T port. Reduced Bore 125 & larger)



Face to face : KITZ Std.
 End connection : JIS B 2239

120°C W.O.G. 1.0MPa
 150°C W.O.G. 0.4MPa

Materials

Parts	JIS material
Body	FCD-5
Body cap	FCD-5
Ball	SCS13A / 304SS
Stem	304SS
Ball seat	HYPATITE PTFE
Gland packing	PTFE

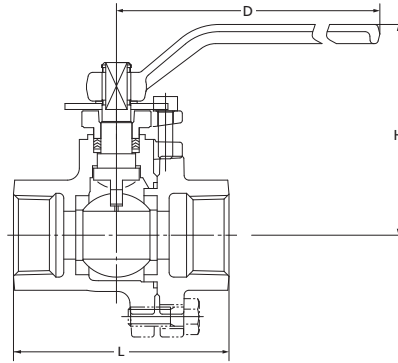
Gear operators may be optionally used for 150 and 200.

Dimensions

Size	mm								
	mm	40	50	65	80	100	125	150	200
	inch	1 1/2	2	2 1/2	3	4	5	6	8
L	(STB)	180	200	240	260	330	—	—	—
	(STR)	—	—	—	—	—	340	400	450
L1	(STB)	90	100	120	130	165	—	—	—
	(STR)	—	—	—	—	—	170	200	225
H	(STB)	143	154	183	195	267	—	—	—
	(STR)	—	—	—	—	—	267	289	334
D	(STB)	400	400	460	460	1000	—	—	—
	(STR)	—	—	—	—	—	1000	1000	1500

NOTE : For flange dimensions, refer to Page 44. ※ RF-flanged ends shall be optionally available.

20K Ball Valve Reduced Bore



End to end : KITZ Std.
End connection : JIS B 0203

Maximum Service Pressure

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

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-5
Body cap	FCD-5
Stem	403SS
Ball	304SS
Gland	FCD-5
Gland packing	PTFE
Gasket	PTFE
Ball seat	HYPATITE PTFE
O ring *	NBR
Gland bolt	Alloy Steel
Cap bolt	Carbon Steel
Handle	Ductile Iron
Name plate *	Stainless Steel

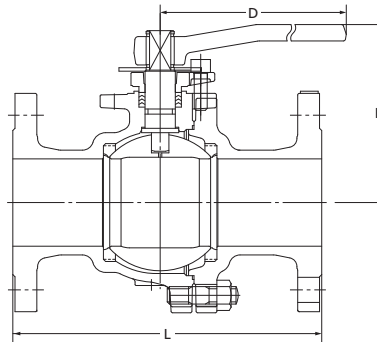
* for 20STL only

Dimensions

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

** Custom order item (20STL only).

20K Ball Valve for Gas Service Full Bore



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

80°C Gas 2.4MPa

Materials

Parts	JIS material
Body	FCD-5
Body cap	FCD-5
Stem	403SS
Ball	304SS
Gland	FCD-5
Gland packing	PTFE
Gasket	PTFE
Ball seat	HYPATITE PTFE
O-ring	NBR
Cap bolt/nut	Carbon Steel
Stopper	Stainless Steel
Snap ring	Carbon Steel
Handle	Ductile Iron

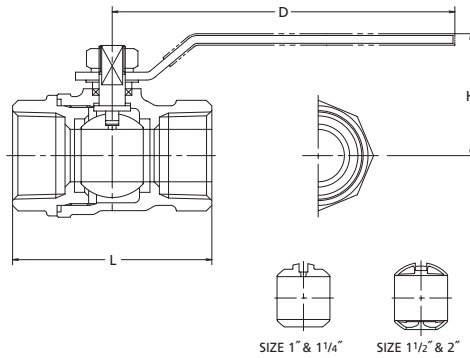
Dimensions

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

NOTE1 : For flange dimensions, refer to Page 44.
2 : The ball sizes differ according to the valve size.

Class 400 Ball Valve Reduced Bore

STZ



End to end : KITZ Std.
End connection : JIS B 0203

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

● Use for lubricating or hydraulic oil is acceptable.

Materials

Parts	JIS material
Body	FCD-S
Cap	FCD-S
Ball	C3771 * ¹
Stem	Dezincification Resistant Brass * ¹
Gland packing	PTFE
Ball seat	G/F PTFE
Gland	C3604 * ²
Gasket	PTFE
Handle nut	Carbon Steel * ³
Handle	Stainless Steel * ⁴

*¹ Ni + Cr electroplated

*² Zinc electroplated

*³ Zinc dicromate electroplated

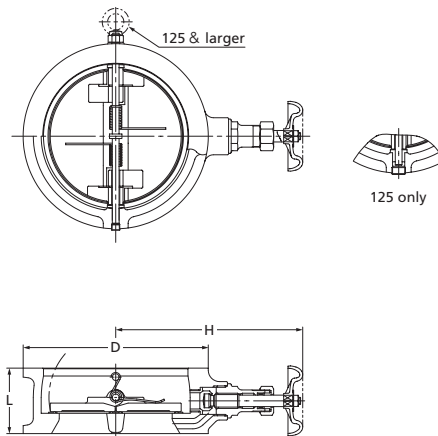
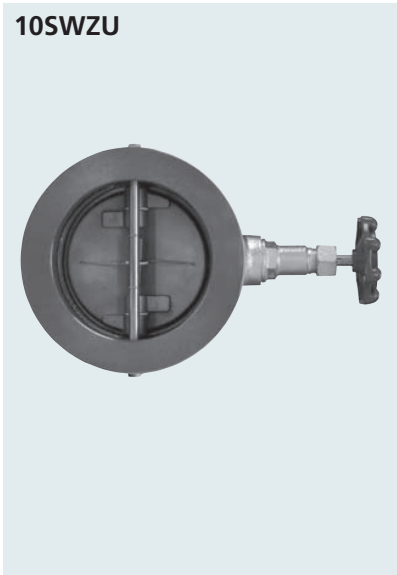
*⁴ Plastic covering

Dimensions

Size	mm							
	8	10	15	20	25	32	40	50
	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
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 Wafer Check Valve

10SWZU



Face to face : KITZ Std.

80°C Static water 1.4MPa
80°C W.O.G. 1.0MPa

● Use for lubricating or hydraulic oil is acceptable.

● Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S + NBR
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS13A
Plug *	S45CH
Spring	304SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron

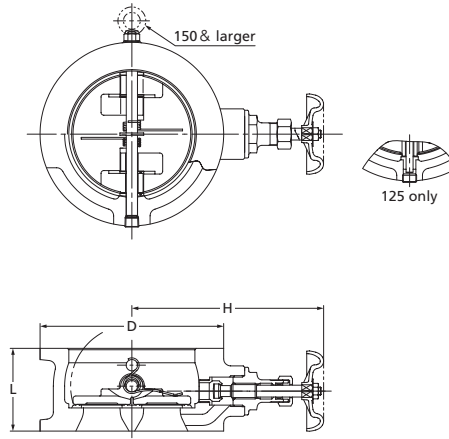
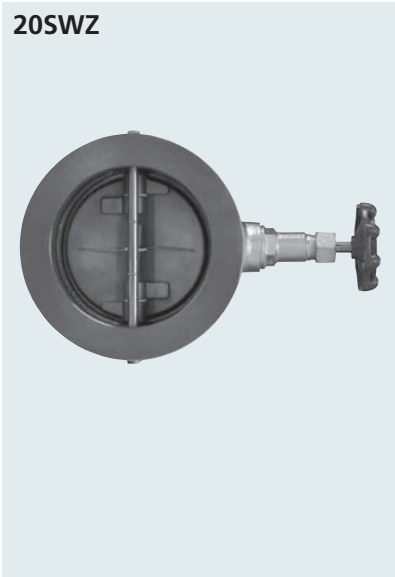
* 125 & smaller

Dimensions

Size	mm												
	50	65	80	100	125	150	200	250	300	350	400	450	
	2	2 1/2	3	4	5	6	8	10	12	14	16	18	
L	56	56	59	66	72	78	96	109	145	184	191	204	
H (open)	161	168	174	187	201	220	247	298	324	337	365	394	
D	101	121	131	156	187	217	267	330	375	420	483	538	

20K Wafer Check Valve

20SWZ



Face to face : KITZ Std.

80°C Static water 2.8MPa
80°C W.O.G. 2.0MPa

- Use for lubricating or hydraulic oil is acceptable.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S + NBR
Bonnet	CAC406 (40 ~ 125 : C3771)
Stem	C3531 (Tensile Strength and elongation shall be equal to or greater than those for C3771 in JIS H 3250)
Disc	CAC406
Plug*	S45CH
Spring	304SS
Gland	C3604
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron (40 : Aluminum Die-cast)

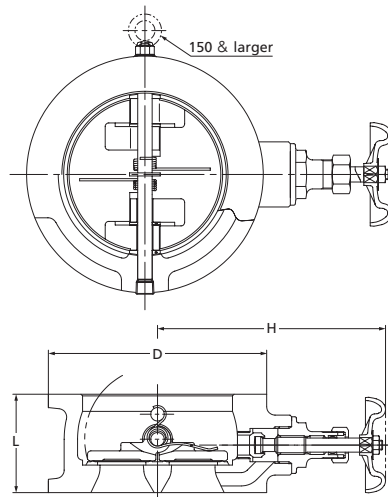
* 125 & smaller

Dimensions

Size	mm													
	mm	40	50	65	80	100	125	150	200	250	300	350	400	450
	inch	1½	2	2½	3	4	5	6	8	10	12	14	16	18
L		54	56	60	67	68	83	95	127	140	181	184	191	204
H (open)		128	133	150	156	169	183	216	243	290	315	330	355	388
D		86	101	121	137	162	200	235	280	353	403	447	507	572

20K Wafer Check Valve

20SWZU



Face to face : KITZ Std.

80°C Static water 2.8MPa
80°C W.O.G. 2.0MPa

- Use for lubricating or hydraulic oil is acceptable.
- Employment of copper gasket prohibits use of this valve for ammonia or amine chemicals.

Materials

Parts	JIS material
Body	FCD-S + NBR
Bonnet	FCD-S
Stem	SUS420J2
Disc	SCS13A
Plug*	S45CH
Spring	304SS
Gland	SUS420J2
Gland packing	Non-asbestos Packing
Handwheel	Ductile Iron

* 125 & smaller

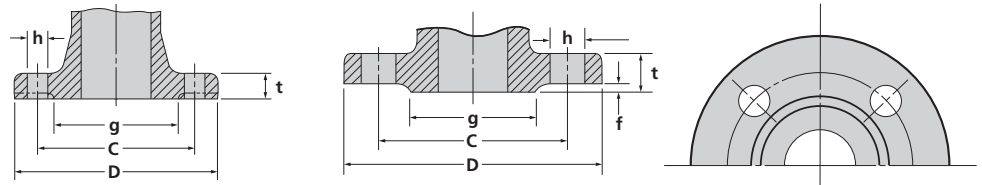
Dimensions

Size	mm												
	mm	50	65	80	100	125	150	200	250	300	350	400	450
	inch	2	2½	3	4	5	6	8	10	12	14	16	18
L		56	60	67	68	83	95	127	140	181	184	191	204
H (open)		146	168	174	187	201	219	247	297	324	337	365	394
D		101	121	137	162	200	235	280	353	403	447	507	572

Memo

A large grid of dotted lines for writing, covering most of the page. The grid consists of small squares formed by dotted lines, suitable for technical drawing or detailed notes.

Steel Pipe Flange Dimensions



f : Height of raised face

JIS 10K Steel Pipe Flange Dimensions

JIS B 2239-2013

Nominal Size		Flange Diam. (D)	Dimension of Flange Part			Bolt Holes			Bolt Size
mm	inch		Thickness (t)	Raised Height (f)	Face Diam. (g)	Circle Diam. (C)	Number	Hole Diam. (h)	
10	3/8	90	12	1	46	65	4	15	M12
15	1/2	95	12	1	51	70	4	15	M12
20	3/4	100	14	1	56	75	4	15	M12
25	1	125	14	1	67	90	4	19	M16
32	1 1/4	135	16	2	76	100	4	19	M16
40	1 1/2	140	16	2	81	105	4	19	M16
50	2	155	16	2	96	120	4	19	M16
65	2 1/2	175	18	2	116	140	4	19	M16
80	3	185	18	2	126	150	8	19	M16
100	4	210	18	2	151	175	8	19	M16
125	5	250	20	2	182	210	8	23	M20
150	6	280	22	2	212	240	8	23	M20
200	8	330	22	2	262	290	12	23	M20
250	10	400	24	2	324	355	12	25	M22
300	12	445	24	3	368	400	16	25	M22
350	14	490	26	3	413	445	16	25	M22
400	16	560	28	3	475	510	16	27	M24

JIS 16K Steel Pipe Flange Dimensions

JIS B 2239-2013

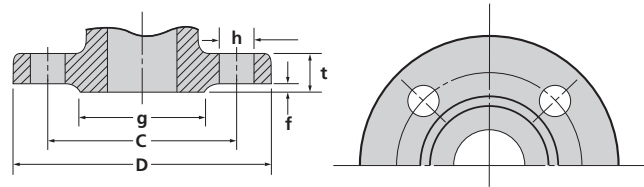
Nominal Size		Flange Diam. (D)	Dimension of Flange Part			Bolt Holes			Bolt Size
mm	inch		Thickness (t)	Raised Height (f)	Face Diam. (g)	Circle Diam. (C)	Number	Hole Diam. (h)	
10	3/8	90	12	1	46	65	4	15	M12
15	1/2	95	12	1	51	70	4	15	M12
20	3/4	100	14	1	56	75	4	15	M12
25	1	125	14	1	67	90	4	19	M16
32	1 1/4	135	16	2	76	100	4	19	M16
40	1 1/2	140	16	2	81	105	4	19	M16
50	2	155	16	2	96	120	8	19	M16
65	2 1/2	175	18	2	116	140	8	19	M16
80	3	200	20	2	132	160	8	23	M20
100	4	225	22	2	160	185	8	23	M20
125	5	270	22	2	195	225	8	25	M22
150	6	305	24	2	230	260	12	25	M22
200	8	350	26	2	275	305	12	25	M22
250	10	430	28	2	345	380	12	27	M24
300	12	480	30	3	395	430	16	27	M24
350	14	540	34	3	440	480	16	33	M30
400	16	605	38	3	495	540	16	33	M30

JIS 20K Steel Pipe Flange Dimensions

JIS B 2239-2013

Nominal Size		Flange Diam. (D)	Dimension of Flange Part			Bolt Holes			Bolt Size
mm	inch		Thickness (t)	Raised Height (f)	Face Diam. (g)	Circle Diam. (C)	Number	Hole Diam. (h)	
10	3/8	90	14	1	46	65	4	15	M12
15	1/2	95	14	1	51	70	4	15	M12
20	3/4	100	16	1	56	75	4	15	M12
25	1	125	16	1	67	90	4	19	M16
32	1 1/4	135	18	2	76	100	4	19	M16
40	1 1/2	140	18	2	81	105	4	19	M16
50	2	155	18	2	96	120	8	19	M16
65	2 1/2	175	20	2	116	140	8	19	M16
80	3	200	22	2	132	160	8	23	M20
100	4	225	24	2	160	185	8	23	M20
125	5	270	26	2	195	225	8	25	M22
150	6	305	28	2	230	260	12	25	M22
200	8	350	30	2	275	305	12	25	M22
250	10	430	34	2	345	380	12	27	M24
300	12	480	36	3	395	430	16	27	M24
350	14	540	40	3	440	480	16	33	M30
400	16	605	46	3	495	540	16	33	M30

Steel Pipe Flange Dimensions



f : Height of raised face

ASME B 16.5-1996

Class 150 Steel Pipe Flange Dimensions

Nominal Size		Flange Diam. (D)	Dimension of Flange Part			Bolt Holes			Bolt Size
mm	inch		Thickness (t)	Raised Height (f)	Face Diam. (g)	Circle Diam. (C)	Number	Hole Diam. (h)	
15	1/2	89	11	1.6	35	60.5	4	16	1/2
20	3/4	98	12.7 (11.1)	1.6	43	70.0	4	16	1/2
25	1	108	14.3 (11.1)	1.6	51	79.5	4	16	1/2
32	1 1/4	117	15.9 (12.7)	1.6	64	89.0	4	16	1/2
40	1 1/2	127	17.5 (14.3)	1.6	73	98.5	4	16	1/2
50	2	152	19.1 (15.9)	1.6	92	120.5	4	19	5/8
65	2 1/2	178	22.3 (17.5)	1.6	105	139.5	4	19	5/8
80	3	190	23.9 (19.1)	1.6	127	152.5	4	19	5/8
100	4	229	23.9	1.6	157	190.5	8	19	5/8
125	5	254	23.9	1.6	186	216.0	8	22	3/4
150	6	279	25.4	1.6	216	241.5	8	22	3/4
200	8	343	28.6	1.6	270	298.5	8	22	3/4
250	10	406	30.2	1.6	324	362.0	12	25	7/8
300	12	483	31.8	1.6	381	432.0	12	25	7/8
350	14	533	35.0	1.6	413	476.5	12	29	1
400	16	597	36.6	1.6	470	539.5	16	29	1

*Dimensions in () are for valve flanges.

Class 300 Steel Pipe Flange Dimensions

ASME B 16.5-1996

Nominal Size		Flange Diam. (D)	Dimension of Flange Part			Bolt Holes			Bolt Size
mm	inch		Thickness (t)	Raised Height (f)	Face Diam. (g)	Circle Diam. (C)	Number	Hole Diam. (h)	
15	1/2	95	14.3	1.6	35	66.5	4	16	1/2
20	3/4	117	15.9	1.6	43	82.5	4	19	5/8
25	1	124	17.5	1.6	51	89.0	4	19	5/8
32	1 1/4	133	19.1	1.6	64	98.5	4	19	5/8
40	1 1/2	156	20.7	1.6	73	114.5	4	22	3/4
50	2	165	22.3	1.6	92	127.0	8	19	5/8
65	2 1/2	190	25.4	1.6	105	149.0	8	22	3/4
80	3	210	28.6	1.6	127	168.0	8	22	3/4
100	4	254	31.8	1.6	157	200.0	8	22	3/4
125	5	279	35.0	1.6	186	235.0	8	22	3/4
150	6	318	36.6	1.6	216	270.0	12	22	3/4
200	8	381	41.3	1.6	270	330.0	12	25	7/8
250	10	444	47.7	1.6	324	387.5	16	29	1
300	12	521	50.8	1.6	381	451.0	16	32	1 1/8
350	14	584	54.0	1.6	413	514.5	20	32	1 1/8
400	16	648	57.2	1.6	470	571.5	20	35	1 1/4

CAUTION

Pressure-temperature ratings and other performance data published in this catalog have been developed from our design calculation, in-house testing, field reports provided by our customers, and / or published official standards or specifications. They are good only to cover typical applications as a general guideline to users of KITZ products introduced in this catalog.

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For any specific application, users are kindly requested to contact KITZ Corporation for technical advice, or to carry out their own study and evaluation for proving the suitability of these products to such an application. Failure to follow this request could result in property damage and / or personal injury, for which we shall not be liable.

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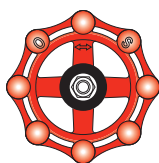
Read the instruction manual carefully before use.

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The contract shall become effective subject to the fact that a relevant export license is obtained from the Japanese Government.



*A chrysanthemum-handle is a symbol of KITZ,
the brand of valve reliability*

ISO 9001 certified since 1989

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