

## Materials of Main Parts

### 7) Handwheel / Handle Boss / Lever Handle

Abbreviation	Description	JIS	ASTM (Reference only)
FCMB340	Black heart malleable iron castings	G5702 FCMB340	A47-32510
FCMB340+STPG	Black heart malleable iron castings + carbon steel pipes for pressure service	G5702 FCMB340 + G3454 STPG	A47-32510+A53
FCD450	Spheroidal graphite (Ductile) iron castings	G5502 FCD450	-
SUS403	13Cr-Low Si stainless steel bars	G4304 SUS403 G4305 SUS403	A240-S30400
SUS430+PVC Coating	18Cr. stainless steel sheet + PVC coating	G4305 SUS430	
SS400	Rolled steels for general structure	G3101 SS400	A36
ADC12	Aluminium alloy die castings	H5302 ADC12	-
ZDC2	Zinc alloy die castings	H5301 ZDC2	B86-AG40A

### 8) Gasket

Abbreviation	Description	JIS	ASTM (Reference only)
H1215	Expanded graphite sheets are adhered to both sides of type 304 stainless steel sheet (0.2mm thick)	H1215	
C1100P	Copper and copper alloy sheet, plates and strips	H3100 C1100P	B152-C11000
PTFE reinforced with filler	PTFE reinforced with filler	PTFE reinforced with filler	
PTFE	Polytetrafluoroethylene	PTFE	
H1804GR	Spiral wound SUS304 hoops, expanded graphite tape filler,	H1804GR	
SUS304	18Cr-8Ni stainless steel bars	G4303	A276-S30400
H1215	Grafoil Sheet on both side of plain SUS304 sheet		
H1804GR	Spiral wound gasket filled pure graphite with SUS304 inner ring.		
H1806GR	Spiral wound gasket filled pure graphite with SUS316 inner ring.		

### 9) Packing

Abbreviation	Description
H2200	Packing made from expanded graphite cut into strips and shaped into rings in a mold.
H350	Expanded graphite strips reinforced with SUS304 stainless steel wire are braided. Round expanded graphite core, surface-treated with PTFE and pressed in a mold.
H2661-V	V Packing of NBR (NBR : Acrylonitrile-butadiene rubber)
H9077	Non-asbestos packing made from carbon fiber impregnated with PTFE
PTFE	Polytetrafluoroethylene

### 10) Bellows

Abbreviation	Description	JIS	ASTM (Reference only)
SUS316L	18Cr-12Ni-2.5Mo-Low C stainless steel	SUS316L	

### 11) Screen

Abbreviation	Description	JIS	ASTM (Reference only)
SUS304/20,40,50,150mesh	18Cr-8Ni stainless steel wires, 20, 40, 50, 150 mesh	G4309 SUS304 / 20, 40, 50, 150 Mesh	A313-S30400
SUS304/Punched metal	18Cr-8Ni stainless steel sheet	SUS304 / Punched metal	

### 12) Overlaying surface of body seat and disc seat

Abbreviation	Description	JIS	ASTM (Reference only)
HF	Hard facing (Co.Cr-W Alloy depositing)	Z3251 DCoCrA	A5.13 DCoCr-A
13Cr	13Cr stainless steel depositing	Z3221 D410	A5.9 ER410

# General-purpose

## Features

1. This is the economical Malleable/ Ductile iron valve. A ready substitute for bronze valves installed with steam piping. A tensile valve.
2. The main parts are mostly stainless steel, which is far more resistant to abrasion than bronze valves.
3. Perfect for iron pipes and resistant to corrosion because of the contact potential difference.

## Product Types

Globe, Gate, Check, Strainer and Mini ball valves

△Caution: Oil specification

1. Can be used with: Heavy oil (A, B, C), lubricant oil, turbine oil (#90 and up), coal tar, pitch
2. Not recommended for use with: Crude oil, naphthalene, gasoline, heating oil (kerosene), light oil, turbine oil (#80 and down), heat transfer oil

## Fluid • Temperature • Pressure

Unit: MPa

Maximum working pressure by product type MPa	Service temperature limit by fluid used (°C)	Steady water flow			Steam, air, gas, oil, pulsating water					LPG		City gas
		50	80	120	80	120	160	183	220	80	120	120
Globe	Standard			1.37					0.98			
	Reinforced PTFE disc			1.37				0.98				
	For LPG									0.19		
Check	Gate/Strainer			1.37					0.98			
	Standard			1.37					0.98			
	Reinforced PTFE disc			1.37					0.98			
	NBR disc		1.37		0.98							
Mini ball	Inline			1.37					0.98			
	600 model	4.11			0.98 (air)	1.96 (oil)		0.98 (steam)				
	400 model	2.74			0.98 (air)	1.96 (oil)		0.98 (steam)				
	For LPG									0.19		
	For city gas											0.098

## Test Pressure

Unit: MPa

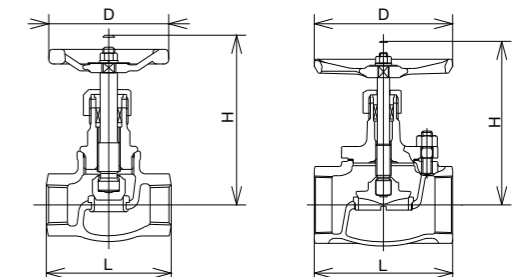
Model	Test description	Valve body pressure resistance		Valve seat leakage	
		Water pressure	Air pressure	Water pressure	Air pressure
Globe, Gate, check valves		2.06		1.51	
Globe valve for LPG		0.78			0.29
Strainer		2.06			
Mini ball	MB2-MBT2-UB2-UBT2	6.18			0.59
	MB1-MBT1	4.12			0.59
	ML1-MLC1		0.29		0.29
	MG1-MGC1-MGR0		0.15		0.15

## Product Code HM10KSG

General-purpose 10K

Globe Screwed

Product Name	Material	Remarks
Body	FCMB-S35	
Cover	FCD-S	
Stem	SUS403	
Disc	SUS403	
Seat ring	SUS403	
Handwheel	FCMB340	Color: Red / Nominal diameter: ¼-2B
	Gasket	Color: Red/Nominal diameter: 2½, 3B
Gasket	H1215	Nominal diameter: 2½, 3B
Gland Packing	H2200	



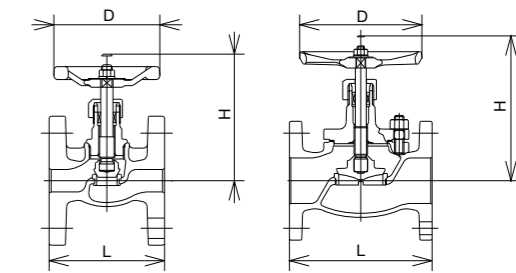
Nominal diameter (B)	1/4	3/8	1/2	3/4	1	1¼	1½	2	2½	3
L	50	55	65	80	90	105	120	140	180	200
H	90	90	92	106	128	145	156	183	225	260
D	70	70	70	80	90	100	120	140	180	180

## Product Code HM10KFG

General-purpose 10K

Globe Flanged

Product Name	Material	Remarks
Body	FCD-S	
Cover	FCD-S	
Stem	SUS403	
Disc	SUS403	
Seat ring	SUS403	
Handwheel	FCMB340	Color: Red / Nominal diameter: 10-50A
	FCD450	Color: Red / Nominal diameter: 65-80A
Gasket	H1215	Nominal diameter: 65-80A
Gland Packing	H2200	



Nominal diameter (A)	10	15	20	25	32	40	50	65	80
L	85	85	95	110	130	150	180	210	240
H	88	88	99	125	142	156	179	225	260
D	70	70	80	90	100	120	140	180	180