

TOYO Products Catalog

Bronze, Brass, Cast Iron, Butterfly and Stainless Steel Valves



Toyo Valve

Notes

- 1) Refer to the individual specification sheet or the drawing for details of a product.
- 2) Main units of this catalog are shown in SI (MPa, °C, millimeter).
- 3) Refer to the attached P-T ratings about applicable pressure and temperature.
- 4) The non-asbestos product is used for the gland packing and gasket of bronze, brass and cast iron valves as a manufacturer's standard. Please consult about other products.
- 5) Bronze and cast iron strainers have the perforated metal screen equivalent to 12-16 meshes. Other meshes of the screen are also available upon request. Please consult KITZ sales staff for details.
- 6) Legends
 d: Port diameter(mm)
 (L, H, D: shown on each page)
- 7) Teflon is Du Pont's tradename.



Products guarantee

Term of a guarantee: Within one year after the date of delivery from our factory to the original customer.

Contents of a guarantee: If the installations and the service conditions (such as pressure, temperature, fluid, etc.) are proper, necessary replacement and repair of our product will be carried out without charge.

Guarantee exceptions: Please keep in mind that the above articles of guarantee will not apply to the case owing to the following reasons:

- 1) Non-compliance of the customer with the technical instructions furnished by our catalog and specification sheet
- 2) Natural disaster incidents, such as a fire, flood damage, an earthquake, and falling stone
- 3) Reconstruction or repair by any third party other than KITZ Corporation.
- 4) Deterioration (such as shot rust, degradation, chemical changes, etc.)
- 5) Any other matter resulting from the damage not being regarded as manufacturer's responsibility

In addition, you will be required necessary charge for repair or exchange of parts on failure or damage by the guarantee exceptions. Please contact our sales staff or agency for details.

The specification and the performance term of our product indicated in this catalog are based on the internationally governed standards and specifications, our products experience or the design calculation and our in-house examination.

When using the product beyond the service conditions mentioned in this catalog, users are requested to consult KITZ Corporation for further advice in advance, or to conduct the verification or evaluation for the performance under users' responsibility. We shall not be liable for any damages resulting from lack of aforementioned procedures by the customer.

Items mentioned in this catalog are subject to change without prior notice to the customers.

Don't use our products in flammable or toxic gas services.

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Bronze							
005	J10-BG	1/4-3	10K	Globe	Threaded (Rc)		-
065	J10-BNS	3/8-2	10K	Swing Check	Threaded (Rc)		-
097	10-BO	11/2-2	10K	Foot	Threaded (Rc)		-
204	150-BS-NR-NPT	1/2-2	Class 150	Gate (Inside Screw)	Threaded (NPT)	with Barcode/Instruction Manual with Lead Warning/ Export Packing	-
204A	150-BS-N	3/8-3	Class 150	Gate (Inside Screw)	Threaded (Rc)		9
204A	150-BS-NR-NPT<UC8R1>	1/2-2	Class 150	Gate (Inside Screw)	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
205A	150-BSF-N	1/2-4	Class 150	Gate (Inside Screw)	Flanged (JIS)		-
205A	150-BSF-N-F150H-LG	1/2-4	Class 150	Gate (Inside Screw)	Flanged (ASME)	Light Green Handle	-
205A	150-BSF-NR-F150-<UC8R1>	1/2-4	Class 150	Gate (Inside Screw)	Flanged (ASME)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	9
206	125E-BS-NR-NPT	1/4-4	Class 125	Gate (Inside Screw)	Threaded (NPT)	with Barcode/Instruction Manual with Lead Warning/ Export Packing	-
206A	125E-BS-N	1/4-4	Class 125	Gate (Inside Screw)	Threaded (Rc)	Light Green Handle	9
206A	125E-BS-NR-NPT<UC8R1>	1/4-4	Class 125	Gate (Inside Screw)	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
206A	125E-BS-NR-NPT<UL1R1>	1/4-4	Class 125	Gate (Inside Screw)	Threaded (NPT)	with Export Packing	9
206A	125E-BS-NR-NPT<UL1R3>	1/2-4	Class 125	Gate (Inside Screw)	Threaded (NPT)	with Export Packing/Trustgram	-
206A	125E-BS-NR-PF<EG1R1>	3/8-3	Class 125	Gate (Inside Screw)	Threaded (BSP)	Red-Yellow Handle, with Barcode/Export Packing	-
206ALF	L125E-BS-NR-NPT<UC8R1>	1/2-2	Class 125	Gate (Inside Screw)	Threaded (NPT)	Lead Free, with Instruction Manual/Export Packing	-
206P	125E-BS-N-PN25-	1/2-2	PN25 (Body Marking Class 125)	Gate (Inside Screw)	Threaded (Rc)		9
207A	125E-BS-SE-N	3/8-4	Class 125	Gate (Inside Screw)	Solder End (ASME)	Name Plate (Open/Close Indication Mark only)	-
207A	125E-BS-SE-NR<UC8R1>	3/8-4	Class 125	Gate (Inside Screw)	Solder End (ASME)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
207A	125E-BS-SE-NR<UL1R1>	1/2-1	Class 125	Gate (Inside Screw)	Solder End (JIS)	with Export Packing	-
207A	125E-BS-SE-NR<ZS2R1>	1/2-2	Class 125	Gate (Inside Screw)	Solder End (BS864)	with Simple Export Packing with Instruction Manual	9
207ALF	L125E-BS-SE-NR<UC8R1>	1/2-2	Class 125	Gate (Inside Screw)	Solder End (ASME)	Lead Free, with Instruction Manual/Export Packing	-
207P	125E-BS-SE-NR<Z01R2>	1/2-2	PN25 (Body Marking Class 125)	Gate (Inside Screw)	Solder End (BS864)		9
208	125-BSR-NR-NPT	1/2-2	Class 125	Gate (Inside Screw)	Threaded (NPT)	with Barcode/Instruction Manual with Lead Warning/ Export Packing	-
209	150-BSR-N	1/2-2	Class 150	Gate (Inside Screw)	Threaded (Rc)		9
209	150-BSR-NR-NPT<UL1R1>	1/2-2	Class 150	Gate (Inside Screw)	Threaded (NPT)	with Export Packing	10
210	100N-BG-NR-NPT	1/4-3	Class 100	Globe	Threaded (NPT)	with Barcode/Instruction Manual with Lead Warning/ Export Packing	-
210A	100N-BG-N	1/4-3	Class 100	Globe	Threaded (Rc)		10
210A	100N-BG-N(N)	1/4-3	Class 100	Globe	Threaded (Rc)	Body/Disc ASTM B62	-
210A	100N-BG-NR-NPT<UC8R1>	1/4-3	Class 100	Globe	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
210A	100N-BG-NR-PF<EG1R1>	1/2-2	Class 100	Globe	Threaded (BSP)	Red-Yellow Handle, with Barcode/Export Packing	-
210P	100N-BG-N-PN16-	1/2-2	PN16 (Body Marking Class 100)	Globe	Threaded (Rc)		-
211A	125C-BG-N	1/4-3	Class 125	Globe	Threaded (Rc)		10
211A	125C-BG-NR-NPT<UC8R1>	1/4-3	Class 125	Globe	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
211ALF	L125C-BG-NR-NPT<UC8R1>	1/2-2	Class 125	Globe	Threaded (NPT)	Lead Free, with Instruction Manual/Export Packing	-
212A	125C-BG-SE-NR<UC8R1>	1/2-2	Class 125	Globe	Solder End	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
212ALF	L125C-BG-SE-NR<UC8R1>	1/2-2	Class 125	Globe	Solder End	Lead Free, with Instruction Manual/Export Packing	-
213A	150E-BG-N	1/4-3	Class 150	Globe	Threaded (Rc)		10
213A	150E-BG-NR-NPT<UL1R1>	1/2-3	Class 150	Globe	Threaded (NPT)	with Export Packing	10
213P	150E-BG-N-PN25-B62-	1/2-2	PN25 (Body Marking Class 150)	Globe	Threaded (Rc)	Body/Disc ASTM B62	10
215	150E-BGF-N	1/2-4	Class 150	Globe	Flanged (JIS)		-

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
215A	150E-BGF-N-F150H-LG	1/2-4	Class 150	Globe	Flanged (ASME)	Light Green Handle	11
220	125C-BD-NR-NPT	3/8-3	Class 125	Globe	Threaded (NPT)	PTFE Disc, with Barcode/Instruction Manual with Lead Warning/Export Packing	-
220A	125C-BD-N	1/4-3	Class 125	Globe	Threaded (Rc)	G/F PTFE Disc	10
220A	125C-BD-NR-NPT<UC8R1>	3/8-3	Class 125	Globe	Threaded (NPT)	G/F PTFE Disc, with Barcode (On Request Basis)/ Instruction Manual/Export Packing	-
220A	125C-BD-NR-NPT<UL1R1>	3/8-3	Class 125	Globe	Threaded (NPT)	PTFE Disc, with Export Packing	-
220A	125C-BD-NR-PF<EG1R1>	1/2-2	Class 125	Globe	Threaded (BSP)	PTFE Disc, Red-Yellow Handle, with Barcode/Export Pack- ing	-
221	150-BD-N	1/2-2	Class 150	Globe	Threaded (Rc)	PTFE Disc	10
221A	150-BD-NR-NPT	1/2-2	Class 150	Globe	Threaded (NPT)	PTFE Disc, with Barcode/Instruction Manual with Lead Warning/Export Packing	-
221A	150-BD-NR-NPT<UC8R1>	1/2-2	Class 150	Globe	Threaded (NPT)	PTFE Disc, with Barcode (On Request Basis)/ Instruction Manual/Export Packing	-
230A	150E-BN-N	3/8-3	Class 150	Lift Check	Threaded (Rc)		11
230A	150E-BN-NR-NPT<UC8R1>	3/8-3	Class 150	Lift Check	Threaded (NPT)	with Barcode (On Request Basis)/Export Packing	-
230P	150E-BN-N-PN25-	1/2-2	PN25 (Body Marking Class 150)	Lift Check	Threaded (Rc)		11
230P	150E-BN-N-PN25-(N)	1/2-2	PN25 (Body Marking Class 150)	Lift Check	Threaded (Rc)	Body/Disc ASTM B62	-
234	125-BNS-N	3/8-3	Class 125	Swing Check	Threaded (Rc)		11
236	125H-BNS-NR-NPT	1/4-3	Class 125	Swing Check	Threaded (NPT)	with Barcode/Export Packing	-
236A	125H-BNS-N	1/4-3	Class 125	Swing Check	Threaded (Rc)		11
236A	125H-BNS-N(N)	1/4-3	Class 125	Swing Check	Threaded (Rc)	Body/Disc ASTM B62	-
236A	125H-BNS-NR-NPT<UC8R1>	1/4-3	Class 125	Swing Check	Threaded (NPT)	with Barcode (On Request Basis)/Export Packing	-
236A	125H-BNS-NR-NPT<UL1R1>	1/4-3	Class 125	Swing Check	Threaded (NPT)	with Export Packing	-
236A	125H-BNS-NR-NPT<UL1R3>	1/2-3	Class 125	Swing Check	Threaded (NPT)	with Export Packing/Trustgram	-
236A	125H-BNS-NR-PF<EG1R1>	1/2-2	Class 125	Swing Check	Threaded (BSP)	Red-Yellow Handle, with Barcode/Export Packing	-
236ALF	L125H-BNS-NR-NPT<UC8R1>	1/2-2	Class 125	Swing Check	Threaded (NPT)	Lead Free, with Export Packing	-
236P	125H-BNS-N-PN16-	1/2-2	PN25 (Body Marking Class 125)	Swing Check	Threaded (Rc)		11
236T	125H-BDNS-NR-NPT	3/8-2	Class 125	Swing Check	Threaded (NPT)	PTFE Disc	-
236T	125H-BDNS-NR-NPT<UC8R1>	3/8-2	Class 125	Swing Check	Threaded (NPT)	PTFE Disc, with Barcode (On Request Basis)/ Export Pack- ing	-
236TLF	L125H-BDNS-NR-NPT<UC8R1>	1/2-2	Class 125	Swing Check	Threaded (NPT)	Lead Free, PTFE Disc, with Export Packing	-
237	125H-BNS-SE-NR	3/8-3	Class 125	Swing Check	Solder End	with Barcode/Export Packing	-
237A	125H-BNS-SE-NR<UC8R1>	1/2-3	Class 125	Swing Check	Solder End	with Barcode (On Request Basis)/Export Packing	-
237ALF	L125H-BNS-SE-NR<UC8R1>	1/2-2	Class 125	Swing Check	Solder End	Lead Free, with Export Packing	-
238	150H-BNS-N	3/8-3	Class 150	Swing Check	Threaded (Rc)		11
238	150H-BNS-NR-NPT	3/8-3	Class 150	Swing Check	Threaded (NPT)	with Barcode/Export Packing	-
238	150H-BNS-NR-NPT<Z01R1>	3/8-3	Class 150	Swing Check	Threaded (NPT)	with Export Packing	11
250A	200-BDR-R-NPT<UC8R1>	1/2-1	Class 200	Fancoil	Threaded (NPT)	For Adjusting/Straight Type, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
251A	200-BDRL-R-NPT<UC8R1>	1/2-1	Class 200	Fancoil	Threaded (NPT)	For Adjusting/Angle Type, with Barcode (On Request Basis)/ Instruction Manual/Export Packing	-
252A	200-BDRS-R-NPT-W/H<UC8R1>	1/2-1	Class 200	Fancoil	Threaded (NPT)	For Changing/Straight Type, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
253A	200-BDRLS-R-NPT-W/H<UC8R1>	1/2-1	Class 200	Fancoil	Threaded (NPT)	Angle Type, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
260A	150E-BL-N	1/4-3	Class 150	Angle	Threaded (Rc)		11
260A	150E-BL-NR-NPT	1/4-3	Class 150	Angle	Threaded (NPT)	with Barcode/Instruction Manual with Lead Warning/ Export Packing	-
260A	150E-BL-NR-NPT<UC8R1>	1/4-3	Class 150	Angle	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
272	H-BS-N(CAC406)	3/8-3	Class 125	Gate (InsideScrew)	Threaded (Rc)	Body/Disc CAC406	-

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
272	RH-N	3/8-3	Class 125	Gate (InsideScrew)	Threaded (Rc)		-
272A	RH-NR-NPT<UL1R2>	1/2-3	Class 125	Gate (InsideScrew)	Threaded (NPT)	Red handle/with Export Packing	-
272P	H-BS(B62)PN16-	1/2-3	PN16 (Body Marking Class 125)	Gate (InsideScrew)	Threaded (Rc)	Orange Handle, Body/Disc ASTM B62	9
275A	H-BS-N	3/8-3	Class 125	Gate (InsideScrew)	Threaded (Rc)		-
275P	H-BS-PN16-	3/8-3	PN16	Gate (InsideScrew)	Threaded (Rc)	PN16	9
280	125S-BS-NR-NPT	3/8-2	Class 125	Gate (InsideScrew)	Threaded (NPT)		-
280A	125S-BS-NR-NPT<UC8R1>	3/8-2	Class 125	Gate (InsideScrew)	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
293	125-BSRU-NR-NPT<UC8R1>	1/2-2	Class 125	Gate (InsideScrew)	Threaded (NPT)	Union Bonnet, with Barcode (On Request Basis)/ Instruction Manual/Export Packing	-
298	150-BSRU-N	1/2-2	Class 150	Gate (InsideScrew)	Threaded (Rc)	Union Bonnet	-
298	150-BSRU-NR-NPT	1/2-2	Class 150	Gate (InsideScrew)	Threaded (NPT)	Union Bonnet, with Barcode/Instruction Manual with Lead Warning/Export Packing	-
298	150-BSRU-NR-NPT<UC8R1>	1/2-2	Class 150	Gate (InsideScrew)	Threaded (NPT)	Union Bonnet, with Barcode (On Request Basis)/ Instruction Manual/Export Packing	10
318A	300-BSRU-NR-NPT	1/2-2	Class 300	Gate (Outside Screw)	Threaded (NPT)	Union Bonnet, with Barcode/Instruction Manual with Lead Warning/Export Packing	-
318A	300-BSRU-NR-NPT<UC8R1>	1/2-2	Class 300	Gate (InsideScrew)	Threaded (NPT)	Union Bonnet, with Barcode (On Request Basis)/ Instruction Manual/Export Packing	10
335	N300-BG-NR-NPT<UC8R1>	3/8-2	Class 300	Globe	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
360	N300-BNS-N	1/2-2	Class 300	Swing Check	Threaded (Rc)		11
360	N300-BNS-NR-NPT<UC8R1>	1/2-2	Class 300	Swing Check	Threaded (NPT)	with Barcode (On Request Basis)/Export Packing	-
365	10-BNW	11/2-8	10K	Wafer Check	Flanged (JIS 10K)		12
380	150-BT-N	1/2-3	Class 150	Strainer	Threaded (Rc)		12
380	150-BT-N-B62-	1/2-3	Class 150	Strainer	Threaded (Rc)	Body/Disc ASTM B62	12
380A	150-BT-NR-NPT<UC8R1>	1/2-2	Class 150	Strainer	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
380P	150-BT-N-PN25-	1/2-2	PN25 (Body Marking Class 150)	Strainer	Threaded (Rc)		12
5011	BX-N	1/2-2	Class 400	Ball (Standard Bore)	Threaded (Rc)	Long Neck Type	12
5011T	BX-N-T	1/2-2	Class 400	Ball (Standard Bore)	Threaded (Rc)	Long Neck/T-handle Type	12
5090	BOV	3/8-2	10K	Ball (Full Bore)	Threaded (Rc)		13
5091	BOX-N	1/2-2	10K	Ball (Full Bore)	Threaded (Rc)	Long Neck/Lever Type	13

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
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Brass							
5026	600RC-N	1/4-3	Class 600	Ball (Full Bore)	Threaded (Rc)		12
5026N	600RC-NR-NPT<Z01R1>	1/4-3	Class 600	Ball (Full Bore)	Threaded (NPT)	with Export Packing	12
5026W	600RC-N-T	1/4-2	Class 600	Ball (Full Bore)	Threaded (Rc)	Wing Handle Type	12
5041	600RP-LL-R-NPT<UC8R1>	1/4-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Latch Lock Lever Type, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
5041S	600RP-LL-R-316-NPT<UC8R1>	1/4-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Latch Lock Lever Type, Trim 316SS, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
5042A	RP-AD-R-NPT<UC8R1>	1/4-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Latch Lock Lever Type, with Exhaust System, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
5043	600RP-SE-LL-R<UC8R1>	1/2-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Latch Lock Lever Type, Solder End, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
5043S	600RP-SE-LL-R-316-<UC8R1>	1/2-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Latch Lock Lever Type, Solder End, Trim 316, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
5044A	RP-NK	1/4-3	Class 600	Ball (Full Bore)	Threaded (Rc)		12
5044A	RP-NK-NPT	1/4-3	Class 600	Ball (Full Bore)	Threaded (NPT)		-
5044A	RP-NK-R-NPT<UL1R3>	1/4-3	Class 600	Ball (Full Bore)	Threaded (NPT)	with Export Packing/Trustgram	-

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
5044ALF	LRP-NK-NPT	1/4-3	Class 600	Ball (Full Bore)	Threaded (NPT)	Lead Free, with Instruction Manual/Export Packing	-
5044W	RP-NK-T-NPT	1/4-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Wing Handle, with Barcode/Instruction Manual	-
5044WLF	LRP-NK-T-NPT	1/4-2	Class 600	Ball (Full Bore)	Threaded (NPT)	Lead Free, Wing Handle, with Instruction Manual	-
5045A	RB-3N	1/4-2	Class 400	Ball (Standard Bore)	Threaded (Rc)		13
5045A	RB-3N-R-NPT<UC8R1>	1/4-2	Class 400	Ball (Standard Bore)	Threaded (NPT)	with Barcode (On Request Basis)/Instruction Manual/ Export Packing	-
5046	RP-CA-R-NPT<UC8R1>	1/2-3/4	Class 600	Ball (Full Bore)	Threaded (NPT)	with Cap Chain, with Barcode (On Request Basis)/Instruc- tion Manual/Export Packing	-
5046LF	LRP-CA-R-NPT<UC8R1>	1/2-3/4	Class 600	Ball (Full Bore)	Threaded (NPT)	Lead Free, with Cap Chain, with Instruction Manual/ Export Packing	-
5049A	RP-SE-NK	3/8-3	Class 600	Ball (Full Bore)	Solder End	Lever Type, with Barcode/Instruction Manual	-
5049ALF	LRP-SE-NK	1/2-3	Class 600	Ball (Full Bore)	Solder End	Lead Free, Lever Type, with Instruction Manual	-
5049W	RP-SE-T-NK	3/8-3	Class 600	Ball (Full Bore)	Solder End	Wing Handle Type, with Barcode/Instruction Manual	-
5049WLF	LRP-SE-T-NK	1/2-2	Class 600	Ball (Full Bore)	Solder End	Lead Free, Wing Handle Type, with Instruction Manual	-
5080	RZ-N	1/4-2	Class 600	Ball (Standard Bore)	Threaded (Rc)	One Piece, Lever Type	13
5080W	RZ-N-T	1/4-3/4	Class 600	Ball (Standard Bore)	Threaded (Rc)	One Piece, T-Handle Type	13

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
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Cast Iron

381AF	EA125-FTF<GA101>	2-20	Class 125	Strainer	Flanged (ASME)		17
400AF	EA125-FGF<GA101>	2-12	Class 125	Globe	Flanged (ASME)		16
405AF	EA125-FGF10KFF<GA101>	2-12	Class 125	Globe	Flanged (JIS10K)		16
405J	J10-FGF	2-8	10K	Globe	Flanged (JIS10K)		-
405JS	J10-FGF-S	2-12	10K	Globe	Flanged (JIS10K)	Trim 13Cr	-
405JU	J10-FGF-U	2-8	10K	Globe	Flanged (JIS10K)	Trim 304SS	-
409	J10-FGF-CN	2 1/2-8	10K	Globe	Flanged (JIS10K)	Nylon Lining	-
410AF	EA125-FSF10KFF<GA101>	2-12	Class 125	Gate (Inside Screw)	Flanged (JIS10K)		16
415AF	EA125-FSF<GA101>	2-12	Class 125	Gate (Inside Screw)	Flanged (ASME)		16
420AF	EA125-FSRF10KFF<GA101>	2-12	Class 125	Gate (Outside Screw)	Flanged (JIS10K)		16
421AF	EA125-FSRF<GA101>	2-12	Class 125	Gate (Outside Screw)	Flanged (ASME)		16
423E	(PHOX)EN25-FSRF	2-12	PN25	Gate (Outside Screw)	Flanged (ASME)		16
425J	J10-FSRF	1 1/2-14	10K	Gate (Outside Screw)	Flanged (JIS10K)		-
425J	J5-FSRF	2-12	5K	Gate (Outside Screw)	Flanged (JIS5K)		-
430AF	EA125-FNSF10KFF<GA101>	2-20	Class 125	Swing Check	Flanged (JIS10K)		17
433E	(PHOX)EN25-FNSF	2-12	PN25	Swing Check	Flanged (ASME)		17
435AF	EA125-FNSF<GA101>	2-20	Class 125	Swing Check	Flanged (ASME)		17
435DJ	J10-FDNSF	2-6	10K	Swing Check	Flanged (JIS10K)	NBR Seat	-
435J	J10-FNSF	1 1/2-10	10K	Swing Check	Flanged (JIS10K)		-
435JS	J10-FNSF-S	1 1/2-14	10K	Swing Check	Flanged (JIS10K)	Trim 13Cr	-
435JU	J10-FNSF-U	1 1/2-14	10K	Swing Check	Flanged (JIS10K)	Trim 304SS	-
437J	J10-FNSF-U-W/CW	2-8	10K	Swing Check	Flanged (JIS10K)	Trim 304SS, with Counter Weight	-
439	J10-FNSF-CN	2 1/2-8	10K	Swing Check	Flanged (JIS10K)	Nylon Lining	-
440	10-FNW	1 1/2-18	10K	Wafer Check	Flanged (JIS10K)	with Bypass Valve *Seat:EPDM Optional (No Additional Charge)	17
442F	E150-FNW	2-12	Class 150	Wafer Check	Flanged (JIS10K)	Disc:Bronze Seat:NBR without Bypass Valve *Disc:316SS Optional (Additional Charge) *Seat:EPDM Optional (No Additional Charge)	17

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
443B	E16-FNW	2-18	PN16	Wafer Check	Flanged (PN16)	Disc: Bronze Seat: NBR without Bypass Valve *Disc: 316SS Optional (Additional Charge) *Seat: EPDM Optional (No Additional Charge)	17
450	10-FTF-N	2-14	10K	Strainer	Flanged (JIS10K)		-
450AF	EA125-FTF10KFF<GA101>	2-20	Class 125	Strainer	Flanged (JIS10K)		17
459	10-FTF-CN	2 1/2-12	10K	Strainer	Flanged (JIS10K)	Nylon Lining	-
461	10-FOF	2 1/2-8	10K	Foot	Flanged (JIS10K)		-
470L	10-FBF-N-L	1 1/2-8	10K	Ball (Full Bore)	Flanged (JIS10K)	Lever Type	18
473L	125-FBF-N-L	2-4	Class 125	Ball (Full Bore)	Flanged (ASME)	Lever Type	-
500AF	EAEN16-FSRF<GA101>	2-12	PN16	Gate (Outside Screw)	Flanged (PN16)		16
501AF	EAEN16-FSF<GA101>	2-12	PN16	Gate (Inside Screw)	Flanged (PN16)		16
510AF	EAEN16-FGF<GA101>	2-12	PN16	Globe	Flanged (PN16)		17
514	125-FSRF	2-12	Class 125	Gate (Outside Screw)	Flanged (ASME)		16
520AF	EAEN16-FNSF<GA101>	2-20	PN16	Swing Check	Flanged (PN16)		17
530AF	EAEN16-FTF<GA101>	2-20	PN16	Strainer	Flanged (PN16)		18

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
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Ductile Iron							
600A	10-DG-N	1/4-2	10K	Globe	Threaded (Rc)	Screwed In Bonnet	20
600AT	10-DD-N	3/8-2	10K	Globe	Flanged (JIS10K)	Screwed In Bonnet, R-PTFE Disc	-
602A	10-DSR-N	1/2-2	10K	Gate (Inside Screw)	Threaded (Rc)	Screwed In Bonnet	20
607L	10-DBF-N-L	1/2-8	10K	Ball (Full Bore)	Flanged (JIS10K)	Lever Type	23
610A	10-DGF-N	1/2-2	10K	Globe (Inside Screw)	Flanged (JIS10K)	Screwed In Bonnet	21
610AT	10-DDF-N	1/2-2	10K	Globe (Inside Screw)	Flanged (JIS10K)	Screwed In Bonnet, R-PTFE Disc	-
611A	10-DGF-N(BB)	2-8	10K	Globe (Outside Screw)	Flanged (JIS10K)	Bolted Bonnet	21
611A	10-DGF-N-W/GB	10"	10K	Globe (Outside Screw)	Flanged (JIS10K)	Bolted Bonnet, Gear Type	-
612A	10-DSRF-N	1/2-2	10K	Gate (Inside Screw)	Flanged (JIS10K)	Bolted Bonnet	20
613A	10-DSRF-N(BB)	2-12	10K	Gate (Outside Screw)	Flanged (JIS10K)	Bolted Bonnet	20
614	10-DN-N	1/2-2	10K	Lift Check	Threaded (Rc)		22
615A	10-DNSF-N	2-8	10K	Swing Check	Flanged (JIS10K)		21
620	10-DTF-N	2-8	10K	Strainer	Flanged (JIS10K)		22
620A	16-DG-N	1/2-2	16K	Globe (Inside Screw)	Threaded (Rc)	Union Bonnet	21
622A	16-DSR-N	1/2-2	16K	Gate (Inside Screw)	Threaded (Rc)	Union Bonnet	20
624A	16-DN-N	1/2-2	16K	Lift Check	Threaded (Rc)		22
628	16-DT-N	1/2-2	16K	Strainer	Threaded (Rc)		22
630A	16-DGF-N	1/2-2	16K	Globe (Inside Screw)	Flanged (JIS16K)	Union Bonnet	21
631	16-DGF-N(BB)	2-8	16K	Globe (Outside Screw)	Flanged (JIS16K)	Bolted Bonnet	21
632A	16-DSRF-N	1/2-2	16K	Gate (Inside Screw)	Flanged (JIS16K)	Union Bonnet	20
633	16-DSRF-N(BB)	2-12	16K	Gate (Outside Screw)	Flanged (JIS16K)	Bolted Bonnet	20
634A	16-DNF-N	1/2-2	16K	Lift Check	Flanged (JIS16K)		22
635A	16-DNSF-N	2-8	16K	Swing Check	Flanged (JIS16K)		21
638	16-DTF-N	3/4-12	16K	Strainer	Flanged (JIS16K)		22
640A	20-DG-N	3/8-2	20K	Globe (Inside Screw)	Threaded (Rc)	Union Bonnet	21

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
642A	20-DSR-N	1/2–2	20K	Gate (Inside Screw)	Threaded (Rc)	Bolted Bonnet	20
644A	20-DN-N	1/2–2	20K	Gate	Threaded (Rc)		22
645	20-DNW	11/2–20	20K	Wafer Check	Threaded (Rc)		22
648A	20-DT-N	3/8–2	20K	Strainer	Threaded (Rc)		23
650A	20-DGF-N	3/8–2	20K	Globe (Inside Screw)	Flanged (JIS20K)	Union Bonnet	21
651A	20-DGF-N(BB)	2–8	20K	Globe (Outside Screw)	Flanged (JIS20K)	Bolted Bonnet	21
652A	20-DSRF-N	1/2–11/2	20K	Gate (Inside Screw)	Flanged (JIS20K)	Bolted Bonnet	20
653A	20-DSRF-N(BB)	2–12	20K	Gate (Outside Screw)	Flanged (JIS20K)	Bolted Bonnet	20
654A	20-DNF-N	1/2–2	20K	Lift Check	Flanged (JIS20K)		22
655A	20-DNSF-N	2–8	20K	Swing Check	Flanged (JIS20K)		22
658A	20-DTF-N	3/8–2	20K	Strainer	Flanged (JIS20K)		23
678E	(PHOX)EN25-DTF	2–12	PN25	Strainer	Flanged (PN25)		23

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
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Stainless Steel

800	UG-N	1/4–2	10K	Globe	Threaded (Rc)		28
800J	UGF-N	1/2–2	10K	Globe	Flanged (JIS10K)		28
801	K150-UGF-VA	2–8	Class 150	Globe	Flanged (ASME)	KITZ Brand	-
801J	10-UGF-VA	2–4	10K	Globe	Flanged (JIS10K)	TOYO Brand 2–4" Only, Other Size KITZ Brand	28
802	US-N	1/2–2	10K	Gate (Inside Screw)	Threaded (Rc)		28
802J	USF-N	1/2–2	10K	Gate (Inside Screw)	Flanged (JIS10K)		28
803J	10-USRF-VA	1/2–10	10K	Gate (Outside Screw)	Flanged (JIS10K)	TOYO Brand 1/2–10" Only, Other Size KITZ Brand	28
804	UNS-N	1/2–2	10K	Swing Check	Threaded (Rc)		28
804J	UNSF-N	1/2–2	10K	Swing Check	Flanged (JIS10K)		29
805	K150-UNSF-VA	2–8	Class 150	Swing Check	Flanged (ASME)	KITZ Brand	-
805J	10-UNSF-VA	2–8	10K	Swing Check	Flanged (JIS10K)	TOYO Brand 2–8" Only, Other Size KITZ Brand	28
806	10-UNW	11/2–12	10K	Wafer Check	Flanged (JIS10K)		29
807J	10-UTF-VA	21/2–10	10K	Strainer	Flanged (JIS10K)		28
809	UT-N	1/2–2	10K	Strainer	Threaded (Rc)		29
809J	UTF-N	1/2–2	10K	Strainer	Flanged (JIS10K)		29
813J	20-USRF-VA	1/2–10	20K	Gate (Outside Screw)	Flanged (JIS20K)	TOYO Brand 1/2–10" Only, Other Size KITZ Brand	-
824J	10-UNF-VA	1/2–11/2	10K	Lift Check	Flanged (JIS10K)	TOYO Brand 1/2–11/2" Only, Other Size KITZ Brand	28
830	UD-N	3/8–2	10K	Globe	Threaded (Rc)	PTFE Disc	-
830J	UDF-N	1/2–2	10K	Globe	Flanged (JIS10K)	PTFE Disc	-
851	K150-UMGF-VA	2–8	Class 150	Globe	Flanged (ASME)	KITZ Brand	-
853J	10-UMSRF-VA	1/2–10	10K	Gate (Outside Screw)	Flanged (JIS10K)	TOYO Brand 1/2–10" Only, Other Size KITZ Brand	-
3011L	A10-UBF-L	1/2–8	10K	Ball (Full Bore)	Flanged (JIS10K)	PTFE Seat, Lever Type	29
3550	UZ-N	1/4–2	Class 600	Ball (Reduced Bore)	Threaded (Rc)	One Piece, PTFE Seat, Lever Type	29
3550W	UZ-N-T	1/4–3/4	Class 600	Ball (Reduced Bore)	Threaded (Rc)	One Piece, PTFE Seat, T-handle Type	29
3060	10-UB-N	3/8–2	10K	Ball (Full Bore)	Threaded (Rc)	Split Type	-
4580	UMU	1/2–2	Class 800	Ball (Standard Bore)	Threaded (Rc)	PTFE Seat, Lever Type	-
4760A	UMO2-	1/2–2	Class 800	Ball (Full Bore)	Threaded (Rc)	PTFE Seat, Lever Type	-

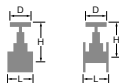
Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Aluminum Butterfly Valves							
550LA	10ALM-N-LU<Z0T01>	11/2-6	10K	Butterfly	Wafer (JIS10K)	Seat:NBR, Disc:304SS, Lever Type *Compatible with JIS5K, Class 125/150, PN10/16	25
550LA	10ALM-N-LUE<Z0T01>	11/2-6	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Lever Type *Compatible with JIS5K, Class 125/150, PN10/16	25
550GA	10ALM-N-GU<Z0T01>	11/2-8	10K	Butterfly	Wafer (JIS10K)	Seat:NBR, Disc:304SS, Gear Type *Compatible with JIS5K, Class 125/150, PN10/16	25
550GA	10ALM-N-GUE<Z0T01>	11/2-8	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type *Compatible with JIS5K, Class 125/150, PN10/16	25
550GA	10ALM-N-GE<Z0T01>	10-12	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:316SS, Gear Type *Compatible with JIS5K(10" & 12"), Class 125/150(N/A), PN10/16(10" only)	25
552-UEL	PN10ALZ-N-LUE<Z0T01>	2-8	10K	Butterfly	Wafer (PN10)	Seat:EPDM, Disc:304SS, Lever Type, Neck/Plate Engineering Plastic *Compatible with JIS5K, Class 125/150, PN10/16	25
552-UEG	PN10ALZ-N-GUE<Z0T01>	2-8	10K	Butterfly	Wafer (PN10)	Seat:EPDM, Disc:304SS, Gear Type, Neck/Plate Engineering Plastic *Compatible with JIS5K, Class 125/150, PN10/16	25

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Ductile Iron Butterfly Valves							
560-UNSG	10L2-N-U	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:NBR, Disc:304SS, Gear Type, Short Neck Type	-
560-UESG	10L2-N-UE	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type, Short Neck Type	-
562-UNSG	10L2-N-U<Z0T02>	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:NBR, Disc:304SS, Gear Type, Long Neck Type	26
562-UESL	10L1-N-UE	2-6	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Lever Type, Long Neck Type	26
562-UESG	10L2-N-UE<Z0T02>	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type, Long Neck Type	26
562-UESG	10L2-N-UEL	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type, Long Neck Type, Dew Condensation Type	-
570-UESG	20L2-N-UE	2-24	20K	Butterfly	Wafer (JIS20K)	Seat:EPDM, Disc:304SS, Gear Type	26
907-BNSG	150L2-N-B<Z0T05>	14-24	Class 150	Butterfly	Wafer (Class 150)	Seat:NBR, Disc:Aluminium Bronze, Gear Type	-
917-BNSL	200L1-N-B<Z0T06>	2-8	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Lever Type	25
917-BNSL-2	200L1-NR-B	2-8	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Lever Type, with Bar- code/Instruction Manual	-
917-BNSG	200L2-N-B<Z0T06>	21/2-12	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Gear Type	26
917-BNSG-2	200L2-NR-B	2-12	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Gear Type, with Barcode/ Instruction Manual	-
917-BESL-2	200L1-NR-BE	2-8	Class 200	Butterfly	Wafer (Class 200)	Seat:EPDM, Disc:Aluminium Bronze, Lever Type, with Bar- code/Instruction Manual	-
917-BESG-2	200L2-NR-BE	2-12	Class 200	Butterfly	Wafer (Class 200)	Seat:EPDM, Disc:Aluminium Bronze, Gear Type, with Bar- code/Instruction Manual	-
917-DNSL	200L1-N<Z0T06>	2-8	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Ductile, Lever Type	25
917-DNSG	200L2-N<Z0T06>	2-12	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Ductile, Gear Type	25
918-BNSL-2	200L1L-NR-B	2-8	Class 200	Butterfly	Lug (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Lever Type, with Bar- code/Instruction Manual	-
918-BNSG-2	200L2L-NR-B	2-12	Class 200	Butterfly	Lug (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Gear Type, with Barcode/ Instruction Manual	-
918-BESL-2	200L1L-NR-BE	2-8	Class 200	Butterfly	Lug (Class 200)	Seat:EPDM, Disc:Aluminium Bronze, Lever Type, with Bar- code/Instruction Manual	-
918-BESG-2	200L2L-NR-BE	2-12	Class 200	Butterfly	Lug (Class 200)	Seat:EPDM, Disc:Aluminium Bronze, Gear Type, with Bar- code/Instruction Manual	-
957-DNSL	PN16L1-N<Z0T04>	2-8	PN16	Butterfly	Wafer (PN16)	Seat:NBR, Disc:Ductile, Lever Type	26
957-DNSG	PN16L2-N<Z0T04>	2-24	PN16	Butterfly	Wafer (PN16)	Seat:NBR, Disc:Ductile, Gear Type	26
957-MESL	PN16L1-N-UME<Z0T04>	2-8	PN16	Butterfly	Wafer (PN16)	Seat:EPDM, Disc:316SS, Lever Type	26
957-MESG	PN16L2-N-UME<Z0T04>	2-24	PN16	Butterfly	Wafer (PN16)	Seat:EPDM, Disc:316SS, Gear Type	26

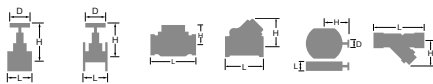
Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Forged Steel							
900C	S800-SF-G	1/4–2	Class 800	Globe	Threaded (Rc)	Hard Faced (Seat only)	-
900CW	S800-SF-GW	1/4–2	Class 800	Globe	Socket Weld (ASME/JIS)	Hard Faced (Seat only)	-
910C	S800-SF-SR	3/8–2	Class 800	Gate	Threaded (Rc)	Hard Faced (Seat only)	-
910C	S800-SF-SR-NPT	1/2–2	Class 800	Gate	Threaded (NPT)	Hard Faced (Seat only)	-
910CW	S800-SF-SRW	3/8–2	Class 800	Gate	Socket Weld (ASME/JIS)	Hard Faced (Seat only)	-
920C	S800-SF-N	3/8–2	Class 800	Lift Check	Threaded (Rc)	Hard Faced (Seat only)	-
920CW	S800-SF-NW	3/8–2	Class 800	Lift Check	Socket Weld (ASME/JIS)	Hard Faced (Seat only)	-
Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Cast Steel							
712A	150-SSRF	2–12	Class 150	Gate (Outside Screw)	Flanged (Class 150)	Hard Faced (Seat only)	-
722A	300-SSRF	2–6	Class 300	Gate (Outside Screw)	Flanged (Class 300)	Hard Faced (Seat only)	-
710A	150-SGF	2–6	Class 150	Globe	Flanged (Class 150)	Hard Faced (Seat only)	-



Type		Gate			Gate			Gate			Gate			Gate		
		 125			 125			Body Marking: Class 125  PN25			 PN16			Body Marking: Class 125  PN16		
Fig		125E-BS-N			125E-BS-NR-NPT<UL1R1>			125E-BS-N-PN25-			H-BS-PN16-			H-BS(B62)PN16-		
Product Code		206A			206A			206P			275P			272P		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8	42	75	48	42	75	48									
3/8	10	42	75	48	42	75	48									
1/2	15	45	81	48	45	81	48	45	81	48	43	76	48	43	76	48
3/4	20	50	90	55	50	90	55	50	90	55	48	86	55	48	86	55
1	25	57	106	63	57	106	63	57	106	63	53	98	63	53	98	63
1 1/4	32	61	119	70	61	119	70	61	119	70	60	118	70	60	118	70
1 1/2	40	67	135	80	67	135	80	67	135	80	63	126	70	63	126	70
2	50	74	159	90	74	159	90	74	159	90	71	154	80	71	154	80
2 1/2	65	90	201	110	90	201	110				87	180	90	87	180	90
3	80	100	223	125	100	223	125				96	211	100	96	211	100
4	100	140	302	160	140	302	160									
Body		Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Bonnet/Cap		Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Stem		Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass		
Disc/Ball		Dezincification Resistant Brass or Cast Bronze			Dezincification Resistant Brass or Cast Bronze			Dezincification Resistant Brass or Cast Bronze			Cast Bronze			Cast Bronze		
Packing		Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite		
Hand Wheel		Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast								
Note		Screwed Bonnet (Size 2 1/2 to 4) Inside Screw Non Rising Stem			Screwed Bonnet (Size 2 1/2 to 4) Inside Screw Non Rising Stem			Screwed Bonnet (Size 2 1/2 to 4) Inside Screw Non Rising Stem			Non-rising Stem			Non-rising Stem		

Type		Gate			Gate			Gate			Gate			Gate		
		 150			 150			 125			Body Marking: Class 125  PN25			 150		
Fig		150-BS-N			150-BSF-NR-F150-UC8R1			125E-BS-SE-NR-ZS2R1			125E-BS-SE-NR-Z01R2			150-BSR-N		
Product Code		204A			205A			207A			207P			209		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
3/8	10	43	87	48												
1/2	15	48	96	55	75	96	55	46	81	48	46	81	48	51	137	55
3/4	20	53	112	63	80	112	63	61	90	55	61	90	55	56	157	70
1	25	62	123	70	95	123	70	72	106	63	72	106	63	66	180	70
1 1/4	32	69	141	80	110	142	80	78	119	70	78	119	70	68	216	80
1 1/2	40	75	164	90	120	165	90	87	135	80	87	135	80	74	257	90
2	50	86	197	100	140	197	100	102	159	90	102	159	90	84	296	100
2 1/2	65	105	224	110	165	224	110									
3	80	116	261	125	190	263	140									
4	100				230	309	225									
Body		Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Bonnet/Cap		Forged Brass			Forged Brass or Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Stem		Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass			Cast Bronze		
Disc/Ball		Cast Bronze			Cast Bronze			Dezincification Resistant Brass or Cast Bronze			Dezincification Resistant Brass			Cast Bronze		
Packing		Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite		
Hand Wheel		Aluminum Die-Cast			Zinc Die-Cast or Aluminum Die-Cast or Ductile Iron			Aluminum Die-Cast						Aluminum Die-Cast		
Note		Screwed Bonnet Inside Screw Non Rising Stem			Screwed Bonnet Inside Screw Non Rising Stem			Inside Screw Non Rising Stem			Non-rising Stem Solid Wedge Disc			Screwed Bonnet Inside Screw		

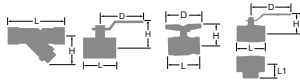


Type		Gate			Gate			Gate			Globe			Globe		
																
Fig		150-BSR-NR-NPT<UL1R1>			150-BSRU-NR-NPT<UC8R1>			300-BSRU-NR-NPT<UC8R1>			100N-BG-N			125C-BG-N		
Product Code		209			298			318A			210A			211A		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8										40	67	48	44	67	48
3/8	10										42	68	48	44	69	48
1/2	15	51	137	55	51	137	55	51	150	70	48	69	55	53	77	63
3/4	20	56	157	70	56	158	70	56	173	80	53	81	63	65	99	70
1	25	66	180	70	66	181	70	66	194	80	63	95	70	77	108	80
1 1/4	32	68	216	80	68	216	80	74	228	100	73	104	80	85	137	90
1 1/2	40	74	257	90	74	257	90	84	273	110	81	127	90	100	160	100
2	50	84	296	100	84	297	100	98	313	125	94	147	100	119	179	110
2 1/2	65										115	178	110	150	202	125
3	80										131	200	125	178	242	160
Body		Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Bonnet/Cap		Cast Bronze			Cast Bronze			Cast Bronze			Forged Brass			Forged Brass or Cast Bronze		
Stem		Cast Bronze			Cast Bronze			Cast Bronze			Dezincification Resistant Brass			Cast Bronze		
Disc/Ball		Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Packing		Aramid Fibers Graphite			Flexible Graphite & Aluminum			Flexible Graphite & Aluminum			Aramid Fibers Graphite			Aramid Fibers Graphite		
Hand Wheel		Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast		
Note		Screwed Bonnet Inside Screw			Union Bonnet Inside Screw			Union Bonnet Inside Screw			Screwed Bonnet Inside Screw			Screwed Bonnet Inside Screw		

Type		Globe			Globe			Globe			Globe			Globe		
																
Fig		125C-BD-N			150E-BG-N			150E-BG-NR-NPT<UL1R1>			150E-BG-N-PN25-B62-			150-BD-N		
Product Code		220A			213A			213A			213P			221		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8				44	67	48	44	67	48						
3/8	10	53	88	55	44	69	48	44	69	48						
1/2	15	57	101	63	53	80	63	53	80	63	53	80	63	64	114	63
3/4	20	66	111	70	65	94	70	65	94	70	65	94	70	78	138	90
1	25	76	120	80	77	104	80	77	104	80	77	104	80	90	156	100
1 1/4	32	88	140	90	85	127	90	85	127	90	85	127	90	105	183	110
1 1/2	40	100	156	100	100	145	100	100	145	100	100	145	100	120	186	110
2	50	120	184	110	119	173	110	119	173	110	119	173	110	145	212	125
2 1/2	65	147	210	125	139	199	125	139	199	125						
3	80	162	230	140	158	214	140	158	214	140						
4	100															
Body		Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Bonnet/Cap					Forged Brass or Cast Bronze			Forged Brass or Cast Bronze			Forged Brass			Forged Brass or Cast Bronze		
Stem		Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass			Dezincification Resistant Brass		
Disc/Ball		R-PTFE			Cast Bronze			Cast Bronze			Cast Bronze			G/F+PTFE		
Packing					Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite			Aramid Fibers Graphite		
Hand Wheel					Aluminum Die-Cast			Aluminum Die-Cast						Aluminum Die-Cast		
Disc Holder														Forged Brass/Cast Bronze		
Note					Screwed Bonnet Inside Screw			Screwed Bonnet Inside Screw			Rising Stem Screwed Bonnet			Union Bonnet Inside Screw		

Type	Globe (Angle)				Globe			Swing Check			Swing Check			Swing Check		
	 150				 150			 PN16			 125			 Body Marking: Class 125 PN16		
Fig	150E-BL-N				150E-BGF-N-F150H-LG			125-BNS-N			125H-BNS-N			125H-BNS-N-PN16-		
Product Code	260A				215A			234			236A			236P		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8	21	67	48							54	40				
3/8	10	24	69	48				53	39		54	40				
1/2	15	28	80	63	83	80	63	60	39		56	40		56	40	
3/4	20	34	94	70	88	95	70	70	45		70	49		70	49	
1	25	40	104	80	100	105	80	80	52		80	58		80	58	
1 1/4	32	47	127	90	113	127	90	92	62		95	71		95	71	
1 1/2	40	52	145	100	120	145	100	102	67		110	80		110	80	
2	50	61	173	110	145	173	110	122	79		128	95		128	95	
2 1/2	65	74	199	125	165	198	125	150	91		156	114				
3	80	85	214	140	177	214	140	165	102		184	131				
4	100				220	259	160									
Body	Cast Bronze				Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Bonnet/Cap	Forged Brass or Cast Bronze				Forged Brass or Cast Bronze			Forged Brass			Forged Brass			Forged Brass		
Stem	Dezincification Resistant Brass				Dezincification Resistant Brass											
Disc/Ball	Cast Bronze				Cast Bronze			Forged Brass			Cast Bronze			Cast Bronze		
Packing	Aramid Fibers Graphite				Aramid Fibers Graphite											
Hand Wheel	Aluminum Die-Cast				Aluminum Die-Cast											
Hinge Pin								Forged Brass			Copper			Copper		
Plug								Brass Rod			Brass Rod			Brass Rod		
Note	Screwed Bonnet Inside Screw				Screwed Bonnet Inside Screw			Screwed Cap			Screwed Cap Y Pattern			Screwed Cap Y Pattern		

Type		Swing Check				Swing Check				Swing Check				Lift Check				Lift Check			
																					
Fig		150H-BNS-N				150H-BNS-NR-NPT<Z01R1>				N300-BNS-N				150E-BN-N				150E-BN-N-PN25-			
Product Code		238				238				360				230A				230P			
inch	mm	L	H		L	H		L	H		L	H		L	H						
3/8	10	54	39		54	39					44	26									
1/2	15	60	39		60	39		60	42		53	28		53	28						
3/4	20	72	49		72	49		72	51		65	34		65	34						
1	25	84	58		84	58		84	61		77	42		77	42						
1 1/4	32	99	70		99	70		99	74		85	50		85	50						
1 1/2	40	113	79		113	79		113	83		100	56		100	56						
2	50	131	95		131	95		131	98		119	67		119	67						
2 1/2	65	162	114		162	114					139	79									
3	80	186	132		186	132					158	91									
Body		Cast Bronze				Cast Bronze				Cast Bronze				Cast Bronze				Cast Bronze			
Bonnet/Cap		Forged Brass				Forged Brass				Cast Bronze				Forged Brass or Cast Bronze				Forged Brass			
Disc/Ball		Cast Bronze				Cast Bronze				Cast Bronze				Cast Bronze				Cast Bronze			
Hinge Pin		Copper				Copper				Copper											
Plug		Brass Rod				Brass Rod				Brass Rod											
Arm		Cast Bronze				Cast Bronze				Cast Bronze											
Note		Screwed Cap Y Pattern				Screwed Cap Y Pattern				Screwed Cap Y Pattern				Screwed Cap				Screwed Cap			



Type	Wafer Check				Strainer			Strainer			Strainer			Ball		
	 10K				 150			 150			 Body Marking: Class 150 150			 400		
Fig	10-BNW				150-BT-N			150-BT-N-B62-			150-BT-N-PN25-			BX-N		
Product Code	365				380			380			380P			5011		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8															
3/8	10															
1/2	15				80	49		80	49		80	49		56	75	80
3/4	20				100	57		100	57		100	57		65	79	80
1	25				115	70		115	70		115	70		78	83	110
1 1/4	32				135	82		135	82		135	82		86	98	110
1 1/2	40	54	132	55	160	98		160	98		160	98		96	102	110
2	50	56	139	70	195	121		195	121		195	121		109	109	140
2 1/2	65	56	146	70	230	148		230	148							
3	80	59	152	70	240	180		240	180							
4	100	66	165	70												
5	125	72	183	70												
6	150	78	208	80												
8	200	96	237	80												
Body	Cast Bronze				Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze		
Bonnet/Cap					Forged Brass			Forged Brass			Forged Brass					
Stem														Dezincification Resistant Brass		
Disc/Ball														SCS13A		
Gasket					Non-Asbestos Sheet			Non-Asbestos Sheet			Non-Asbestos Sheet					
Screen					Stainless Steel			Stainless Steel			Stainless Steel					
Seat	NBR													PTFE		
O ring					FKM			FKM			FKM			FKM		
Note	FPM or EPDM available By-pass valve mounted				Screwed Cap			Screwed Cap			Screwed Cap End Connection : PN25			Standard Bore Long neck for thermal insulation		

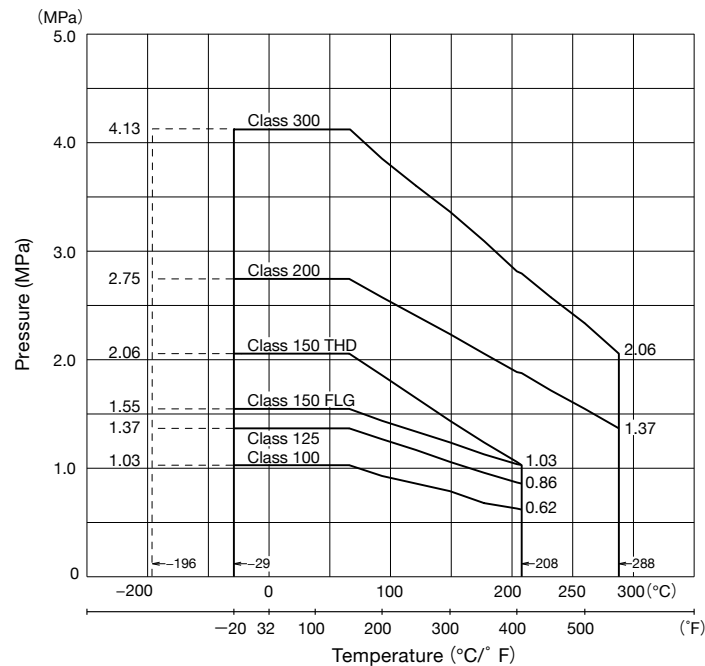
Type		Ball			Ball			Ball			Ball			Ball		
		 400			 600			 600			 600			 600		
Fig		BX-N-T			RP-NK			600RC-N			600RC-N-T			600RC-NR-NPT<Z01R1>		
Product Code		5011T			5044A			5026			5026W			5026N		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8				42	37	70	50	37	70	50	38	60	50	37	70
3/8	10				42	37	70	50	37	70	50	38	60	50	37	70
1/2	15	56	79	82	53	40	80	65	40	80	65	43	65	65	40	80
3/4	20	65	83	82	60	44	80	68	44	80	68	47	65	68	44	80
1	25	78	90	94	72	50	110	79	50	110	79	57	100	79	50	110
1 1/4	32	86	105	94	84	55	110	86	55	110	86	62	100	86	55	110
1 1/2	40	96	109	94	92	65	150	96	65	150	96	76	120	96	65	150
2	50	109	124	120	110	72	150	109	72	150	109	83	120	109	72	150
2 1/2	65				138	101	200	138	100	200				138	100	200
3	80				167	103	300	167	112.5	300				167	112.5	300
Body		Cast Bronze			Forged Brass			Forged Brass			Forged Brass			Forged Brass		
Stem		Dezincification Resistant Brass			Dezincification Resistant Brass			Brass / Nickel Plated			Brass / Nickel Plated			Brass / Nickel Plated		
Disc/Ball		SCS13A			Brass/Chrome Plated of Stainless steel			Brass / Chrome Plated			Brass / Chrome Plated			Brass / Chrome Plated		
Seat		PTFE			PTFE			PTFE			PTFE			PTFE		
O ring					FKM			FKM			FKM			FKM		
Note		Standard Bore Long neck for thermal insulation T-Handle			UL/FM/CSA approved (up to 50mm)			Full Bore			Full Bore T-Handle			Full Bore		

Type	Ball				Ball			Ball			Ball			Ball		
																
Fig	RZ-N				RZ-N-T			BOV			BOX-N			RB-3N		
Product Code	5080				5080W			5090			5091			5045A		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8	39	31	60	39	25	39							40	30	60
3/8	10	44	36	70	44	29	40	49	39	80				46	35	70
1/2	15	56.5	41	85	56.5	35	55	62	45	100	56	75	80	67	45	80
3/4	20	59	44	85	59	39	55	71	48	100	65	79	80	68	48	80
1	25	71	48	100				83	54	130	77	85	110	79	55	110
1 1/4	32	78	54	100				96	59	130	96	102	110	89	60	110
1 1/2	40	83	65	125				106	70	150	98	110	140	100	65	110
2	50	100	72	125				125	77	150	119	118	140	115	75	140
Body	Forged Brass				Forged Brass			Cast Bronze			Cast Bronze			Forged Brass		
Stem	Dezincification Resistant Brass				Dezincification Resistant Brass			Forged Brass			SUS304			Dezincification Resistant Brass		
Disc/Ball	Stainless Steel / Brass / Chrome Plated				Brass / Chrome Plated			SUS304			SCS13A			Brass/Chrome Plated		
Packing	G/F PTFE				G/F PTFE									G/F PTFE		
Seat	G/F+PTFE				G/F+PTFE			PTFE			PTFE			PTFE		
O ring								FKM			FKM			FKM		
Note	Reduced Bore One piece body				Reduced Bore One piece body T-Handle			Full Bore			Full Bore Long neck for thermal insulation			Standard Bore L-port 3 way, 2 seat		

Pressure-Temperature Ratings

Bronze and Brass Valves(Extracted from MSS SP-80)

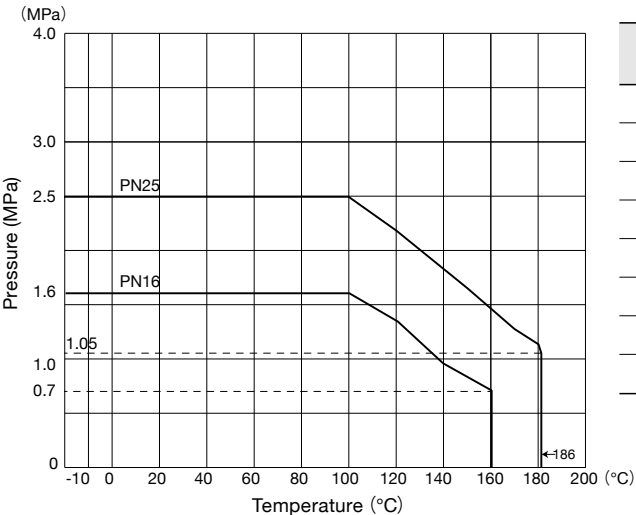
Class100, 125, 150, 200, 300



Service temperature			100	125	150		200	300
°C	°F		TDH		FGL		TDH	
-29-66	-20-150		1.03	1.37	2.06	1.55	2.75	4.13
93	200		0.93	1.27	1.86	1.44	2.58	3.86
121	250		0.86	1.17	1.65	1.34	2.41	3.62
149	300		0.79	1.06	1.44	1.24	2.23	3.37
177	350		0.68	0.96	1.24	1.13	2.06	3.10
204	400		0.63	—	—	—	1.89	2.82
208	406		0.62	0.86	1.03	1.03	—	—
232	450		—	—	—	—	1.72	2.58
260	500		—	—	—	—	1.55	2.34
288	550		—	—	—	—	1.37	2.06
Saturated steam			0.68	0.86	1.03	1.03	1.37	2.06
Test pressure	shell	water	1.55	2.06	3.10	2.41	4.13	6.20
	seat	air	0.55	0.55	0.55	0.55	0.55	0.55

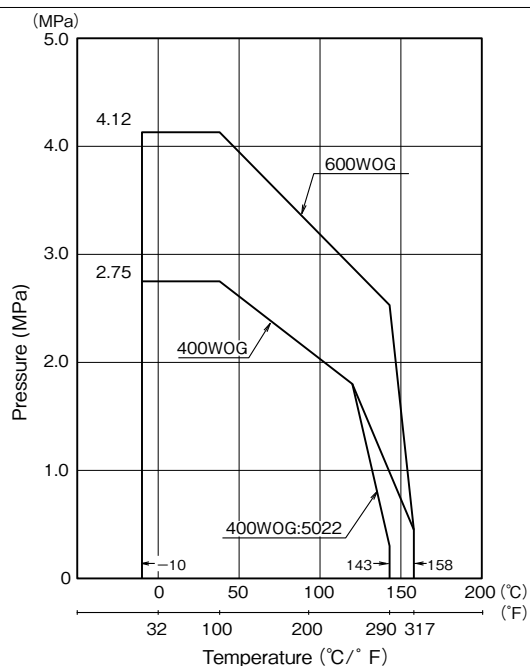
NOTE: Class 100 outside of MSS SP-80

PN16, PN25



Service Temperature (°C)	PN16	PN25
-10 to 100	1.6	2.5
120	0.95	2.18
150	1.35	1.65
170	0.7	1.28
180	—	1.13
186	—	1.05
198	—	—
200	—	—

Ball Valves

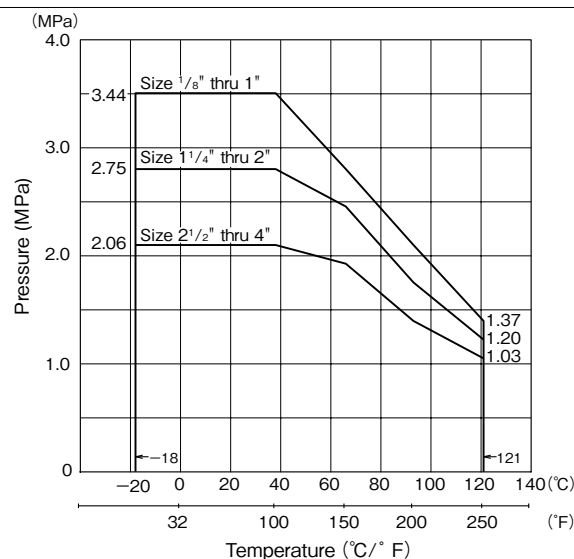


Unit: MPa

Class	WOG38°C	Test pressure	
	(3°F)	shell (water)	seat (air)
400WOG	2.75	4.12	0.6
600WOG	4.12	6.18	0.6

Do not use products in flammable or toxic gas.

Solder



Joint material	Working temperature		Maximum working gage pressure			Test pressure	
	°C	°F	1/8" thru 1"	1 1/4" thru 2"	2 1/2" thru 4"	shell water	seat air
ASTM B32 Alloy Grade 50A [Notes(1),(2)]	38	100	1.37	1.20	1.03	2.07MPa	0.6MPa
	66	150	1.03	0.86	0.68		
	93	200	0.68	0.62	0.51		
	121	250	0.58	0.51	0.34		
ASTM B32 Alloy Grade 95TA [Note(2)]	38	100	3.44	2.75	2.06		
	66	150	2.75	2.41	1.89		
	93	200	2.06	1.72	1.37		
	121	250	1.37	1.20	1.03		

Notes: (1) The Safe Drinking Water Act Amendment of 1986 prohibits the use in potable water systems of any solder having a lead content in excess of 0.2%.

(2) The safe working pressure-rating for a solder end valve is restricted to the lower pressure-rating.

JIS Standard Valves

Bronze Gate, Globe and Check Valves (JIS B2011)

- Fluid
Water, oil, gas, air and steam. However, flammable gas and toxic gas are excluded.
- Relationship between the temperature of the fluid and the maximum permissible pressure (hereinafter referred to as the "pressure-temperature criteria") shall be in accordance with Table 1. However, the fluid shall not be frozen.
- In the case where the use of valves is prohibited or restricted by the High Pressure Gas Safety Act and other regulations, the user shall use them within the framework of laws and ordinances.

Nominal pressure	Temperature of fluid (°C)	Max. permissible working temp. ^(c) (MPa)
5K	-29 to 120 159 ^{a)}	0.7 0.5
10K	-29 to 120 185 ^{b)}	1.4 1.0

a) It shall be the maximum service temperature, and in the case of a gate valve, it shall be 134°C.
b) It shall be the maximum service temperature, and in the case of a gate valve, it shall be 171°C.
c) The maximum permissible pressure at an intermediate temperature between a temperature above 120°C and the maximum service temperature shall be obtained by proportional interpolation.

Unit: MPa

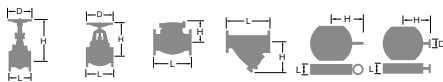
Standards		5K	10K		
Nominal pressure		JIS B2031	JIS B2031		
Valve type		Outside screw gate valve	Outside screw gate valve	Globe valve, Swing check valve	
Disc seat structure		Press-fit seat	Screw seat	Screw seat	
Main section		CAC406	CAC 406 13 chrome 18-8 stainless steel	CAC 406	13 chrome 18-8 stainless steel
Maximum permissible working pressure	Steady flow below 120 degrees in centigrade	0.7	1.4	1.4	1.4
	Oil, pulsating flow and water below 120 degrees in centigrade	0.5	1.0	1.0	1.0
	Saturated steam ⁽¹⁾	0.2	0.7	0.7	0.2
	Gas below 120 degrees in centigrade ⁽²⁾	0.2	0.2	0.2	0.2
	120 degrees in centigrade	—	—	—	1.4
	220 degrees in centigrade	—	—	—	1.0

(1) When the main section is made of 18-8 stainless steel and used for steam piping, it is necessary to weld hardened metal cladding on the seat surface. Please designate the same together with the steam specification.

When it is used for saturated steam at a pressure of 0.5 MPa or more, please designate accordingly.

(2) Such gases as set forth in the High Pressure Gas Safety Act shall be excluded.

Gases—Gases other than flammable and toxic gases

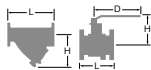


Type	Gate				Gate			Gate			Gate			Gate		
	 125				 125			 Body Marking:Class 125 125			 125			 Body Marking:Class 125 125		
Fig	125-FSRF				EA125-FSRF<GA101>			EA125-FSRF10KFF<GA101>			EA125-FSF<GA101>			EA125-FSF10KFF<GA101>		
Product Code	514				421AF			420AF			415AF			410AF		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
2	50	178	329	160	178	322	178	178	322	178	178	282	180	178	282	180
21/2	65	190	383	180	190	379	200	190	379	200	190	309	180	190	309	180
3	80	203	437	180	203	432	200	203	432	200	203	366	200	203	366	200
4	100	229	534	230	229	528	254	229	528	254	229	415	254	229	415	254
5	125	254	629	230	254	620	254	254	620	254	254	475	254	254	475	254
6	150	267	727	250	267	722	280	267	722	280	267	531	300	267	531	300
8	200	292	920	280	292	922	300	292	922	300	292	642	300	292	642	300
10	250	330	1135	360	330	1137	350	330	1137	350	330	775	350	330	775	350
12	300	356	1364	450	356	1351	400	356	1351	400	356	860	400	356	860	400
Body	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Bonnet/Cap/Cover	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Stem	Stainless Steel				Brass			Brass			Brass			Brass		
Disc	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Packing	Non-asbestos				Graphite			Graphite			Graphite					
Trim	Bronze				Bronze			Bronze			Bronze			Bronze		
Note								End Connection : JIS 10K						End Connection : JIS 10K		

Type	Gate				Gate			Gate			Globe			Globe		
	 PN16				 PN16			 PN25			 125			Body Marking: Class 125  125		
Fig	EAEN16-FSRF<GA101>				EAEN16-FSF<GA101>			(PHOX)EN25-FSRF			EA125-FGF<GA101>			EA125-FGF10KFF<GA101>		
Product Code	500AF				501AF			423E			400AF			405AF		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
2	50	178	322	178	178	282	180	215.9	385	175	203	275	178	203	275	178
2 1/2	65	190	379	200	190	309	180	241.3	437	200	216	301	178	216	301	178
3	80	203	432	200	203	366	200	282.5	493	254	241	353	200	241	353	200
4	100	229	528	254	229	415	254	304.8	611	300	292	403	254	292	403	254
5	125	254	620	254	254	475	254	381	716	300	330	461	300	330	461	300
6	150	267	722	280	267	531	300	403.2	813	348	356	528	300	356	528	300
8	200	292	922	300	292	642	300	419.1	1023.5	400	495	604	348	495	604	348
10	250	330	1137	350	330	775	350	457	1211	457						
12	300	356	1351	400	356	860	400	502	1386	457						
Body	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Bonnet/Cap/Cover	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Stem	BRASS				BRASS			Forged Brass			Brass			Forged Brass		
Disc	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Packing								Graphite			Graphite			Graphite		
Hand Wheel/Lever								Cast Iron			Cast Iron			Cast Iron		
Trim	Bronze				Bronze			Bronze			Bronze					
Note								Bolted bonnet Outside screw & yoke Test Pressure:Shell 3.75MPa (Water)						End Connection : JIS 10K		

Type	Globe				Swing Check			Swing Check			Swing Check			Swing Check		
																
Fig	EAEN16-FGF<GA101>				EA125-FNSF<GA101>			EA125-FNSF10KFF<GA101>			(PHOX)EN25-FNSF			EAEN16-FNSF<GA101>		
Product Code	510AF				435AF			430AF			433E			520AF		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
2	50	203	275	178	203	103		203	103		267	135		203	103	
2 1/2	65	216	301	178	216	119		216	119		292	150		216	119	
3	80	241	353	200	241	141		241	141		318	166		241	141	
4	100	292	403	254	292	162		292	162		356	190		292	162	
5	125	330	461	300	330	187		330	187		400	206		330	187	
6	150	356	528	300	356	211		356	211		444	244		356	211	
8	200	495	604	348	495	270		495	270		533	291		495	270	
10	250				622	314		622	314		622	337		622	314	
12	300				699	356		699	356		711	383		699	356	
14	350				787	560		787	560					787	560	
16	400				914	589		914	589					914	589	
18	450				914	645		914	645					914	645	
20	500				1016	702		1016	702					1016	702	
Body	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Bonnet/Cap/Cover	Cast Iron				Cast Iron			Cast Iron						Cast Iron		
Stem	Brass															
Disc	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Packing	Graphite															
Hand Wheel/Lever					Stainless Steel			Stainless Steel								
Hinge Pin														Stainless Steel		
Note								End Connection : JIS 10K			Bolted cover Test Pressure: Shell 3.75MPa (Water)					

Type	Wafer Check				Wafer Check			Wafer Check			Strainer			Strainer		
																
Fig	E150-FNW				E16-FNW			10-FNW			EA125-FTF<GA101>			EA125-FTF10KFF<GA101>		
Product Code	442F				443B			440			381AF			450AF		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1 1/2	40							54	128							
2	50	54	105		54	109		56	143		230	158		230	158	
2 1/2	65	54	124		54	129		56	150		290	176		290	176	
3	80	57	137		57	144		59	156		310	199		310	199	
4	100	64	175		64	164		66	169		350	240		350	240	
5	125	70	197		70	194		72	183		400	292		400	292	
6	150	76	222		76	220		78	216		480	320		480	320	
8	200	95	279		95	275		96	243		600	399		600	399	
10	250	108	340		108	331		109	290		730	517		730	517	
12	300	143	410		143	386		145	315		850	568		850	568	
14	350				184	446		184	330		980	642		980	642	
16	400				191	498		191	355		1100	750		1100	750	
18	450				203	558		204	388		1200	784		1200	784	
20	500										1250	857		1250	857	
Body	Cast Iron				Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Bonnet/Cap/Cover											Cast Iron			Cast Iron		
Disc	Cast Bronze				Cast Bronze			Cast Bronze								
Hinge Pin	Stainless Steel				Stainless Steel											
Screen											Stainless Steel			Stainless Steel		
Seat Rubber	NBR				NBR			NBR								
Note														End Connection : JIS 10K		

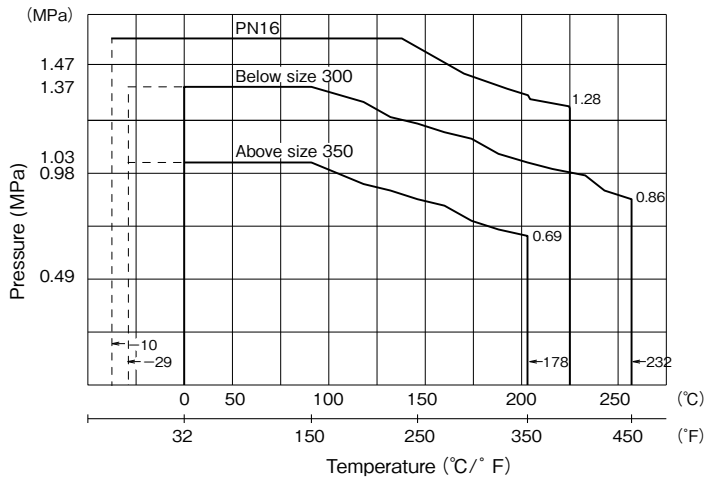


Type	Strainer				Ball		
	PN16 				10K 		
Fig	EAEN16-FTF<GA101>				10-FBF-N-L		
Product Code	530AF				470L		
inch	mm	L	H	D1	L	H	D1
1/2	15				110	102	130
3/4	20				120	105	130
1	25				130	124	160
1 1/4	32				140	128	160
1 1/2	40				165	114	230
2	50	230	158		180	121	230
2 1/2	65	290	176		190	154	400
3	80	310	199		200	163	400
4	100	350	240		230	199	460
5	125	400	292		300	219	460
6	150	480	320		340	292	1000
8	200	600	399		450	352	1500
10	250	730	517				
12	300	850	568				
14	350	980	642				
16	400	1100	750				
18	450	1200	784				
20	500	1250	857				
Body	Cast Iron				Cast Iron		
Bonnet/Cap/Cover	Cast Iron				Cast Iron		
Stem					SUS403		
Disc/Ball					Stainless Steel		
Packing					PTFE		
Gasket					PTFE		
Screen	Stainless Steel						
Body/Ball Seat					PTFE		
Note					Full Bore		

Pressure-Temperature Ratings

Cast Iron Valves (Extracted from MSS SP-70, 71 & 85)

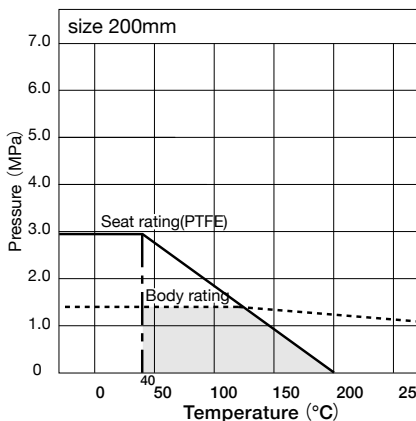
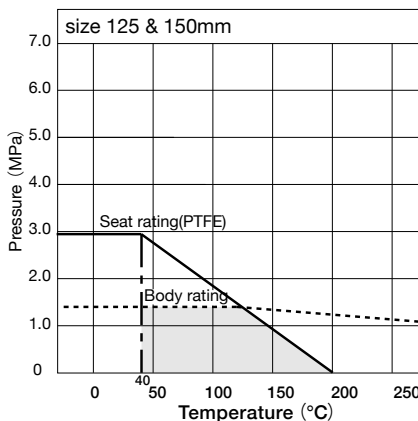
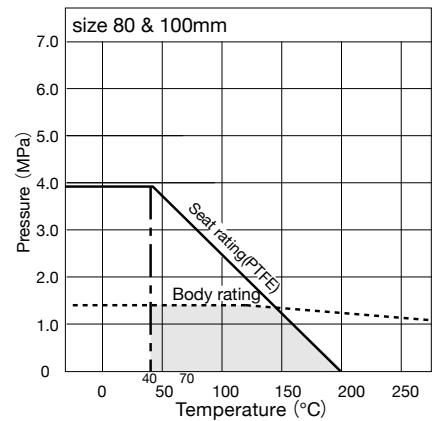
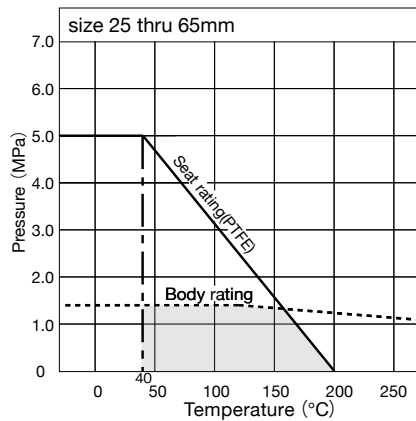
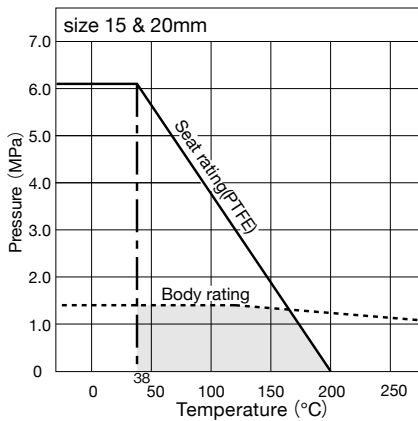
Class 125 Gate, Globe and Check Valves

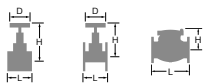


Service Temperature (°C)	PN16
-10 to 66	1.6
100	
120	
150	1.44
170	1.37
180	1.34
186	1.32
198	1.29
200	1.28

Temperature		Unit: MPa	
°C	°F	Size 50 thru 300	Above size 350
-29-66	-20-150	1.37	1.03
93	200	1.31	0.93
107	225	1.24	0.90
121	250	1.21	0.86
135	275	1.17	0.83
149	300	1.14	0.76
163	325	1.07	0.72
178	350	1.03	0.69
191	375	1.00	—
208	400	0.97	—
218	425	0.90	—
232	450	0.86	—
Saturated steam		0.86	0.68
Test pressure	shell water	2.41	1.83
	seat air	0.55	0.55

10K Cast Iron Ball Valves



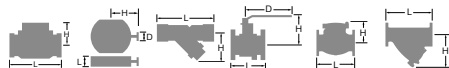


Type	Gate				Gate				Gate				Gate				Gate			
																				
Fig	10-DSR-N				10-DSRF-N				10-DSRF-N(BB)				16-DSR-N				16-DSRF-N			
Product Code	602A				612A				613A				622A				632A			
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1				
1/2	15	60	150	60	90	164	70				65	163	70	108	163	70				
3/4	20	70	171	70	100	165	70				75	182	80	117	164	70				
1	25	75	198	80	110	188	80				80	212	90	127	187	80				
11/4	32	85	233	90	120	219	90				90	245	100	140	219	90				
11/2	40	95	274	100	130	253	100				100	285	115	165	253	100				
2	50	105	318	115	140	285	115	178	352	200	110	330	135	178	285	115				
21/2	65							190	410	200										
3	80							203	479	250										
4	100							229	566	250										
5	125							254	667	300										
6	150							267	779	300										
8	200							292	969	350										
10	250							330	1181	400										
12	300							356	1404	450										
Body	Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron			
Bonnet/Cap/Cover	Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron			
Stem	Stainless Steel				Stainless Steel				Stainless Steel				Stainless Steel				Stainless Steel			
Disc	Stainless Steel				Stainless Steel								Stainless Steel							
Note	Screwed ends				Screwed ends								Screwed ends							

Type	Gate				Gate			Gate			Gate			Globe		
																
Fig	16-DSRF-N(BB)				20-DSR-N			20-DSRF-N			20-DSRF-N(BB)			10-DG-N		
Product Code	633				642A			652A			653A			600A		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/4	8													50	108	60
3/8	10													55	108	60
1/2	15				70	175	90	108	175	90				65	122	70
3/4	20				75	177	90	117	177	90				80	125	80
1	25				85	214	100	127	214	100				90	146	90
1 1/4	32				95	241	115	140	241	115				105	160	100
1 1/2	40				105	277	135	165	277	135				120	180	115
2	50	178	352	200	115	301	135				216	395	200	140	198	135
2 1/2	65	190	410	200							241	450	200			
3	80	203	479	250							283	520	250			
4	100	229	566	250							305	595	250			
5	125	254	667	300							381	725	300			
6	150	267	779	300							403	820	350			
8	200	292	993	350							419	1070	400			
10	250	330	1181	400							457	1247	450			
12	300	356	1404	450							502	1451	500			
Body	Ductile Iron				Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Bonnet/Cap/Cover	Ductile Iron				Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Body Seat	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Note					Screwed ends									Screwed ends		

Type	Globe				Globe			Globe			Swing Check			Swing Check		
																
Fig	10-DG-N				10-DGF-N(BB)			16-DG-N			16-DGF-N			16-DGF-N(BB)		
Product Code	610A				611A			620A			630A			631		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/2	15	85	122	70				70	122	80	108	122	80			
3/4	20	95	125	80				85	128	80	117	128	80			
1	25	110	146	90				95	147	100	127	146	100			
1 1/4	32	130	160	100				110	165	115	140	165	115			
1 1/2	40	150	180	115				125	182	115	165	182	115			
2	50	180	198	135	203	302	200	145	196	135	203	198	135	203	302	200
2 1/2	65				216	317	225							216	313	225
3	80				241	356	250							241	356	250
4	100				292	377	250							292	377	250
5	125				356	460	300							330	460	300
6	150				406	524	350							356	524	350
8	200				495	585	400							495	585	400
Body	Ductile Iron				Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Bonnet/Cap/Cover	Ductile Iron				Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Disc	Stainless Steel							Stainless Steel			Stainless Steel			Stainless Steel / Ductile Iron		
Body Seat	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Note								Screwed ends								

Type		Globe			Globe			Globe			Swing Check			Swing Check		
																
Fig		20-DG-N			20-DGF-N			20-DGF-N(BB)			10-DNSF-N			16-DNSF-N		
Product Code		640A			650A			651A			615A			635A		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
3/8	10	75	136	70	110	136	70									
1/2	15	78	138	80	110	138	80									
3/4	20	91	157	100	120	157	100									
1	25	105	178	115	130	178	115									
11/4	32	122	202	135	160	202	135									
11/2	40	135	210	135	180	210	135									
2	50	160	239	180	230	239	180	267	243	225	203	120		203	120	
21/2	65							292	347	250	216	130		216	135	
3	80							318	382	250	241	145		241	145	
4	100							356	457	300	292	160		292	165	
5	125							400	534	350	330	195		330	200	
6	150							444	593	400	356	215		356	260	
8	200							559	697	560	495	255		495	317	
Body		Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Bonnet/Cap/Cover		Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Stem		Stainless Steel			Stainless Steel			Stainless Steel								
Disc		Stainless Steel (hard facing)			Stainless Steel (hard facing)			Stainless Steel (hard facing)			Stainless Steel			Stainless Steel		
Body Seat		Stainless Steel (hard facing)			Stainless Steel (hard facing)			Stainless Steel (hard facing)			Stainless Steel			Stainless Steel		
Note																



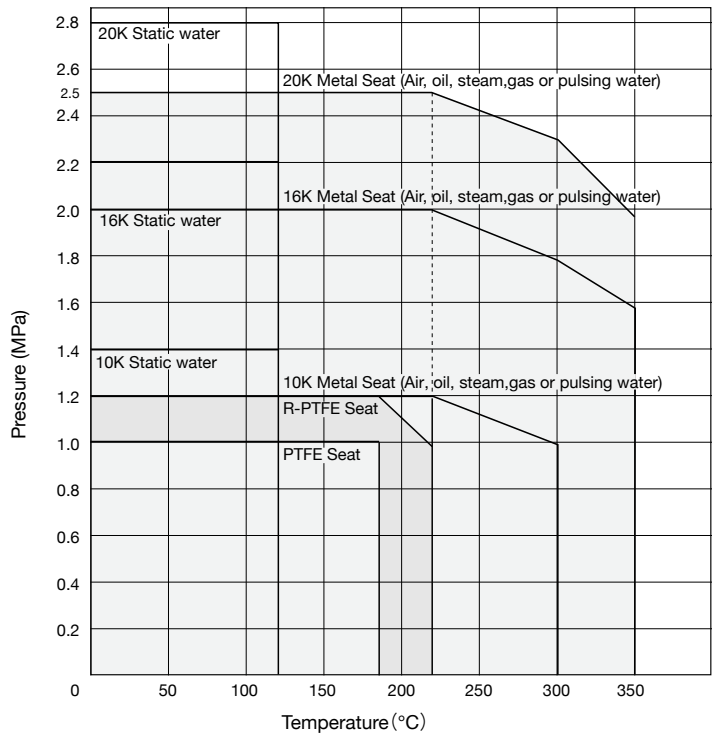
Type	Swing Check				Lift Check			Lift Check			Lift Check			Lift Check		
																
Fig	20-DNSF-N				10-DN-N			16-DN-N			16-DNF-N			20-DN-N		
Product Code	655A				614			624A			634A			644A		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/2	15				65	39		70	50		108	50		78	56	
3/4	20				80	42		85	53		117	53		91	60	
1	25				90	48		95	61		127	61		105	68	
1 1/4	32				105	56		110	69		140	69		122	80	
1 1/2	40				120	65		125	75		165	75		135	85	
2	50	267	135		140	73		145	87		203	87		160	99	
2 1/2	65	292	145													
3	80	318	160													
4	100	356	185													
5	125	400	220													
6	150	444	240													
8	200	533	275													
Body	Ductile Iron				Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Bonnet/Cap/Cover	Ductile Iron				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel (hard facing)		
Disc	Stainless Steel/Carbon Steel							Stainless Steel			Stainless Steel			Stainless Steel		
Body Seat	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel (hard facing)		
Note																

Type		Lift Check			Wafer Check			Strainer			Strainer			Strainer		
		 20K			 20K			 10K			 16K			 16K		
Fig		20-DNF-N			20-DNW			10-DTF-N			16-DT-N			16-DTF-N		
Product Code		654A			645			618			628			638		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
1/2	15	110	56								85	60	85			
3/4	20	120	60								100	65	95	140	63	91
1	25	130	68								115	75	110	150	77	114
1 1/4	32	160	80								135	90	130	170	90	134
1 1/2	40	180	85		54	128	55				150	100	145	190	100	146
2	50	230	99		56	133	55	230	138	172	180	115	170	250	168	218
2 1/2	65				60	150	70	305	212	290				305	212	285
3	80				67	156	70	360	242	340				360	242	340
4	100				68	169	70	415	284	391				415	284	391
5	125				83	183	70	465	325	450				465	325	450
6	150				95	216	80	515	370	502				515	370	502
8	200				127	243	80	580	462	645				580	462	645
10	250				140	290	90							680	536	757
12	300				181	315	90							800	625	882
14	350				184	330	90									
16	400				191	355	90									
18	450				204	388	90									
Body		Ductile Iron			Ductile Iron+NBR			Ductile Iron			Ductile Iron			Ductile Iron		
Bonnet/Cap/Cover		Stainless Steel			Cast Bronze			Ductile Iron			Forged Brass			Ductile Iron/Forged Brass		
Stem		Stainless Steel (hard facing)														
Disc/Ball					Cast Bronze											
Screen								Stainless Steel			Stainless Steel			Stainless Steel		
Body/Ball Seat		Stainless Steel (hard facing)														
Note																

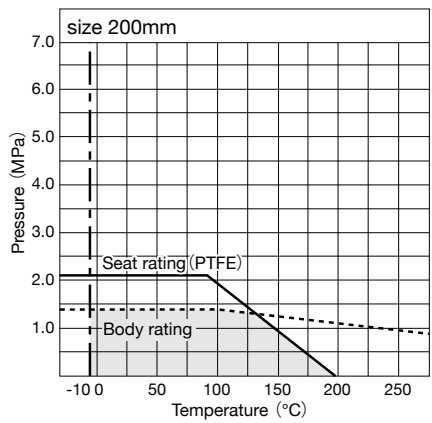
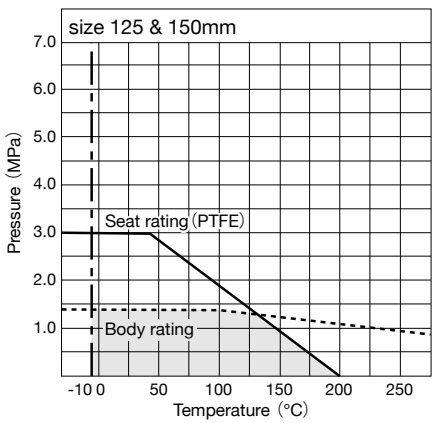
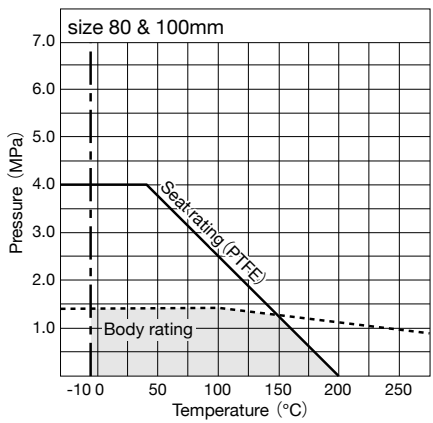
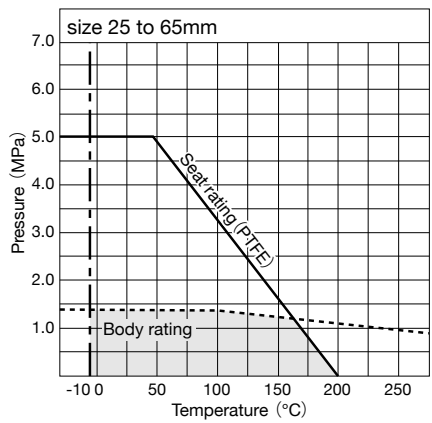
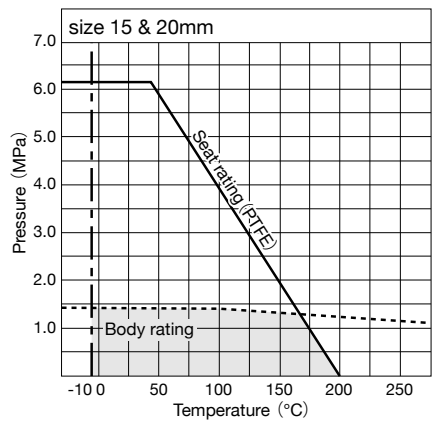
Type	Strainer				Strainer				Strainer				Ball			
	 20K				 20K				 EN25				 10K			
Fig	20-DT-N				20-DTF-N				(PHOX)EN25-DTF				10-DBF-N-L			
Product Code	648A				658A				678E				607L			
inch	mm	L	H		L	H		L	H		L	H	D1			
3/8	10	80	65		120	65										
1/2	15	85	65		125	65					108	106	130			
3/4	20	100	70		140	70					117	109	130			
1	25	115	83		160	85					127	130	160			
1 1/4	32	135	120		185	124					140	135	160			
1 1/2	40	150	130		200	135					165	115	230			
2	50	180	152		250	163		216	140		178	120	230			
2 1/2	65							241	162		190	153	400			
3	80							283	184		203	162	400			
4	100							305	225		229	199	460			
5	125							381	280		356	219	460			
6	150							403	318		394	293	1000			
8	200							521	405		457	352	1500			
10	250							635	485							
12	300							749	580							
Body	Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron			
Bonnet/Cap/Cover	Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron			
Stem													Stainless Steel			
Disc/Ball													Stainless Steel			
Screen	Stainless Steel (40 mesh)				Stainless Steel (40 mesh)				Stainless Steel							
Note													Full Bore			

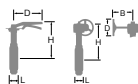
Pressure-Temperature Ratings

GATE, GLOBE, CHECK, STRAINER / SCREWED, FLANGED ENDS



10K DUCTILE IRON BALL VALVES 10-DBF-N-L (607L)

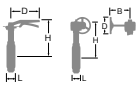




Butterfly

Type	Butterfly				Butterfly			Butterfly			Butterfly			Butterfly		
																
Fig	PN10ALZ-N-LUE<ZOT01>				PN10ALZ-N-GUE<ZOT01>			10ALM-N-LU<ZOT01>			10ALM-N-LUE<ZOT01>			10ALM-N-GU<ZOT01>		
Product Code	552-UEL				552-UEG			550LA			550LA			550GA		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
11/2	40							33	162	188	33	162	188	33	201	100
2	50	43	170	87	43	170	87	33	162	188	43	167	188	43	205	100
21/2	65	46	178	107	46	178	107	33	162	188	46	175	188	46	213	100
3	80	46	188	122	46	188	122	46	185	188	46	185	188	46	223	100
4	100	52	198	152	52	198	152	52	195	188	52	195	188	52	233	100
5	125	56	242	178	56	242	178	56	239	260	56	239	260	56	269	100
6	150	56	254	208	56	254	208	56	251	260	56	251	260	56	281	100
8	200	60	280	257	60	280	257							60	335	140
Body	Aluminum Die-cast				Aluminum Die-cast			Aluminum Die-cast			Aluminum Die-cast			Aluminum Die-cast		
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Disc	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Seat Rubber	EPDM				EPDM			NBR			EPDM			NBR		
Note																

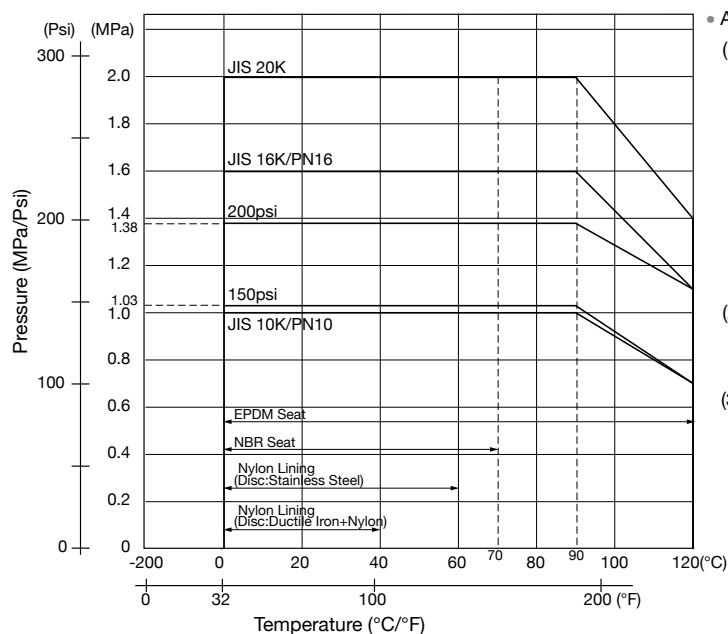
Type	Butterfly					Butterfly			Butterfly			Butterfly			Butterfly		
																	
Fig	10ALM-N-GUE<ZOT01>					10ALM-N-GE<ZOT01>			200L1-N<ZOT06>			200L2-N<ZOT06>			200L1-N-B<ZOT06>		
Product Code	550GA					550GA			917-DNSL			917-DNSG			917-BNSL		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1	
11/2	40	56	281	100													
2	50	60	335	140				43	191	90	43	194	90	43	194	90	
21/2	65	33	201	100				46	199	104	46	202	104	46	202	104	
3	80	43	205	100				46	217	124	46	236	124	46	236	124	
4	100	46	213	100				52	227	146	52	246	146	52	246	146	
5	125	46	223	100				56	265	176	56	274	176	56	274	176	
6	150	52	233	100				56	277	206	56	286	206	56	286	206	
8	200	56	269	100				60	295	257	60	325	257	60	325	257	
10	250				68	445	170				68	381	312				
12	300				78	470	170				78	406	364				
Body	Aluminum Die-cast				Aluminum Die-cast			Ductile Iron			Ductile Iron			Ductile Iron			
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel			
Disc	Stainless Steel				Stainless Steel			Ductile Iron			Ductile Iron			Aluminum Die-cast			
O ring					EPDM												
Seat Rubber	EPDM				EPDM			NBR			NBR			NBR			
Note																	



Type	Butterfly				Butterfly			Butterfly			Butterfly			Butterfly		
	 200				 PN16			 PN16			 PN16			 PN16		
Fig	200L2-N-B<Z0T06>				PN16L1-N<Z0T04>			PN16L2-N<Z0T04>			PN16L1-N-UME<Z0T04>			PN16L2-N-UME<Z0T04>		
Product Code	917-BNSG				957-DNSL			957-DNSG			957-MESL			957-MESG		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1
2	50				43	191	90	43	194	90	43	194	90	43	194	90
2 1/2	65	46	202	104	46	199	104	46	202	104	46	202	104	46	202	104
3	80	46	236	124	46	217	124	46	236	124	46	236	124	46	236	124
4	100	52	246	146	52	227	146	52	246	146	52	246	146	52	246	146
5	125	56	274	176	56	265	176	56	274	176	56	274	176	56	274	176
6	150	56	286	206	56	277	206	56	286	206	56	286	206	56	286	206
8	200	60	325	257	60	295	257	60	325	257	60	325	257	60	325	257
10	250	68	381	312				68	381	312				68	381	312
12	300	78	406	364				78	406	364				78	406	364
14	350							78	461	407				78	461	407
16	400							102	516	466				102	516	466
18	450							114	540	522				114	540	522
20	500							127	623	575				127	623	575
24	600							154	671	680				154	671	680
Body	Ductile Iron				Ductile Iron			Ductile Iron			Ductile Iron			Ductile Iron		
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Disc	Aluminum Die-cast				Ductile Iron			Ductile Iron			Stainless Steel			Stainless Steel		
Seat Rubber	NBR				NBR			NBR			EPDM			EPDM		
Note																

Type	Butterfly					Butterfly			Butterfly			Butterfly		
	 10K					 10K			 10K			 20K		
Fig	10L2-N-U<Z0T02>					10L1-N-UE			10L2-N-UE<Z0T02>			20L2-N-UE		
Product Code	562-UNSG					562-UESL			562-UESG			570-UESG		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	
2	50	43	206	80	43	191	180	43	206	80	43	194	80	
2 1/2	65	46	214	80	46	199	180	46	214	80	46	202	80	
3	80	46	252	110	46	217	180	46	252	110	46	236	110	
4	100	52	262	110	52	227	180	52	262	110	52	246	110	
5	125	56	290	110	56	265	230	56	290	110	56	274	110	
6	150	56	302	110	56	277	230	56	302	110	56	286	110	
8	200	60	365	170				60	365	170	60	325	170	
10	250	68	461	250				68	461	250	68	381	250	
12	300	78	486	250				78	486	250	78	406	250	
14	350	78	562	310				78	562	310	78	445	310	
16	400	102	617	310				102	617	310	102	500	310	
18	450	114	641	319				114	641	319	114	540	360	
20	500	127	728	360				127	728	360	127	589	500	
22	550										154	646	500	
24	600	154	776	360				154	776	360	154	671	500	
Body	Ductile Iron				Ductile Iron			Cast Iron			Ductile Iron			
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			
Disc	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			
O ring	NBR							EPDM						
Seat Rubber	NBR				EPDM			EPDM			EPDM			
Note														

Rubber Seat



• Application of Pressure-Temperature Rating

- (1) This diagram is prepared with based on maximum allowable working pressure and temperature, pressure-temperature characteristics of EPDM in JIS B2032 (Wafer type rubber-seated butterfly valves). In actual application, it is necessary to expect the safety allowance in consideration of piping design conditions, etc.

Generally, the following safety allowance is recommended.

- For large size
10 - 15%.
- For pulsated flow or steam (Teflon® or metal seat)
20- 25%.

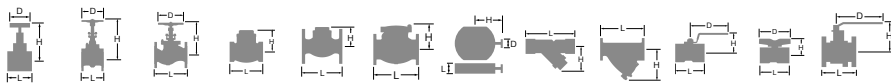
- (2) In case of applying some regulations, such as Japanese government standards, etc., it may be restricted in material, temperature, design, strength, etc. Beforehand, please refer to related regulation or standard.
- (3) In JIS B2032, the maximum allowable flow verocity of fluid when the valve is fully opened is specified as 3m/s at nominal pressure 10K and 4m/s at nominal pressure 16K, and 30m/s in case of gas. If the flow verocity exceeds these criteria, the pipe diameter should be revised.

Note: The maximum allowable working pressure is affected by the mating flange when installing the valve with JIS 5K flanges.
Static water flow : 0.7 MPa
Pulsated water flow : 0.6 MPa



Caution

1. A rubber seat (NBR/EPDM) may deteriorate at an early stage in service for hot water supply line.
2. An EPDM seated butterfly valve shall not be used for all oil applications.



Type	Gate				Globe			Swing Check			Lift Check			Strainer		
VA-Series	 10K				 10K			 10K			 10K			 10K		
Fig	10-USRF-VA				10-UGF-VA			10-UNSF-VA			10-UNF-VA			10-UTF-VA		
Product Code	803J				801J			805J			824J			807J		
inch	mm	L	H	D1	L	H	D1	L	H		L	H		L	H	
1/2	15	108	201	90												
3/4	20	117	211	90							117	76				
1	25	127	224	100							127	76				
1	32	140	240	100							140	84				
1 1/2	40	165	284	140							165	85				
2	50	178	336	160	203	234	160	203	121							
2 1/2	65	190	474	180	216	247	180	216	134					270	160	
3	80	203	494	200	241	292	200	241	148					290	197	
4	100	229	523	225	292	324	250	292	162					340	233	
5	125	254	606	250				330	192					490	267	
6	150	267	711	250				356	217					440	320	
8	200	292	924	300				495	264					540	380	
10	250	330	1126	350										760	538	
Body	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Bonnet/Cap/Cover	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Stem	Stainless Steel				Stainless Steel											
Disc/Ball	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel					
Hinge Pin								Stainless Steel								
Plug								Stainless Steel								
Screen														Stainless Steel		
Arm								Stainless Steel								
Note																

Type	Gate				Gate			Globe			Globe			Swing Check		
U-Series	 10K				 10K			 10K			 10K			 10K		
Fig	US-N				USF-N			UG-N			UGF-N			UNS-N		
Product Code	802				802J			800			800J			804		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	
1/4	8							44	68	55						
3/8	10							48	68	55						
1/2	15	54	97	70	85	100	70	52	68	55	85	112	70	65	45	
3/4	20	58	102	70	95	106	70	60	94	70	95	113	70	80	55	
1	25	65	112	80	100	116	80	72	101	70	110	143	100	90	61	
1 1/4	32	74	123	80	110	128	80	80	124	90	130	152	100	105	71	
1 1/2	40	78	150	100	125	170	100	90	138	90	150	172	110	120	72	
2	50	87	167	100	140	188	100	100	153	100	180	190	125	140	81	
Body	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Bonnet/Cap/Cover					Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Stem	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel					
Disc/Ball	Stainless Steel				Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Packing	Flexible Graphite+PTFE Braided Packing				Flexible Graphite+PTFE Braided Packing			Flexible Graphite+PTFE Braided Packing			Flexible Graphite+PTFE Braided Packing					
Hinge Pin														Stainless Steel		
Plug														Stainless Steel		
Note																

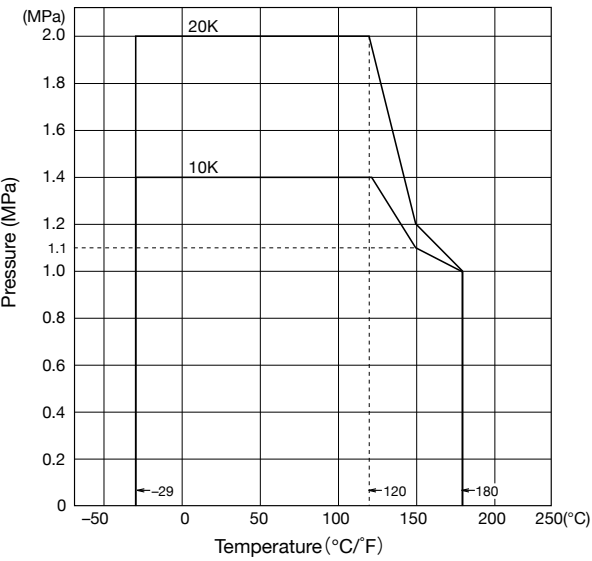
Type	Swing Check				Strainer			Strainer			Ball			Ball			
U-Series																	
	UNSF-N				UT-N			UTF-N			UZ-N			UZ-N-T			
Product Code		804J				809			809J			3550			3550W		
inch	mm	L	H	D1	L	H	D1	L	H	D1	L	H	D1	L	H	D1	
1/4	8										39	31	60	39	25	35	
3/8	10										44	36	70	44	29	40	
1/2	15	85	45		85	60		120	58		56.5	41	85	56.5	35	55	
3/4	20	95	55		100	65		130	66		59	44	85	59	39	55	
1	25	110	61		115	77		150	78		71	48	100				
1	32	130	71		135	90		170	93		78	54	100				
1 1/2	40	150	72		150	100		190	104		83	65	125				
2	50	180	81		180	115		220	122		100	72	125				
Body		Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel			
Bonnet/Cap/Cover					Stainless Steel			Stainless Steel									
Stem		Stainless Steel									Stainless Steel			Stainless Steel			
Disc/Ball		Stainless Steel									Stainless Steel			Stainless Steel			
Hinge Pin		Stainless Steel															
Plug		Stainless Steel															
Screen					Stainless Steel			Stainless Steel									
Seat											R-PTFE			R-PTFE			
Note											Standard Bore			Standard Bore T-Handle			

Type	Ball				Wafer Check		
							
Fig	A10-UBF-L				10-UNW		
Product Code	3011L				806		
inch	mm	L	H	D1	L	H	D1
1/2	15	108	81	130			
3/4	20	117	84	130			
1	25	127	93	160			
11/4	32	140	97	160			
11/2	40	165	113	230	54	118	63
2	50	178	120	230	60	126	63
21/2	65	190	150	400	67	134	63
3	80	203	161	400	73	138	63
4	100	229	189	460	73	151	63
5	125	356	209	800	86	174	70
6	150	394	262	980	98	188	70
8	200	457	317	1971	127	215	70
10	250				146	254	80
12	300				181	282	80
Body	Stainless Steel				Stainless Steel		
Bonnet/Cap/Cover	Stainless Steel						
Stem	Stainless Steel						
Disc/Ball	Stainless Steel				Stainless Steel		
Seat Rubber					NBR		
Note	Full Bore						

Pressure-Temperature Ratings

U-Series Stainless Steel Valves

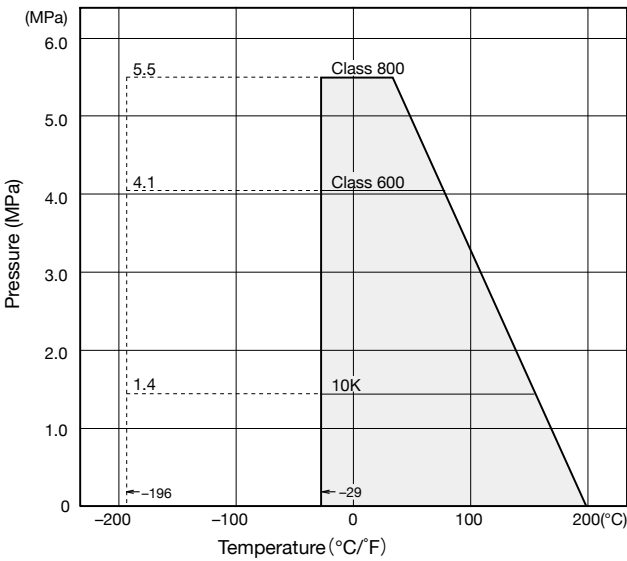
Gate, Globe, and Check Valves, strainers / screwed & flanged ends



		Unit: MPa	
Class		10K	20K (Fig.809)
Service conditions	Class		
Static water	Less than 120°C	1.4	2.0
	Less than 150°C	1.1	1.2
Air, oil, gas, steam	Less than 180°C	1.0	1.0

*Do not use our products in flammable or toxic gas service.

Ball Valves / screwed end type
UZ-N (3550), UZ-N-T (3550W), UMU (4580), UM02- (4760A) or 10-UB-N (3060)



		Unit: MPa		
Class		600WOG	800WOG	10K
Service conditions	Class			
Water, oil, gas	Less than 120°C	4.1	5.5	1.4
	Less than 150°C	1.0	1.0	1.0
Saturated steam	Less than 180°C	1.0	1.0	1.0

*Do not use our products in flammable or toxic gas service.

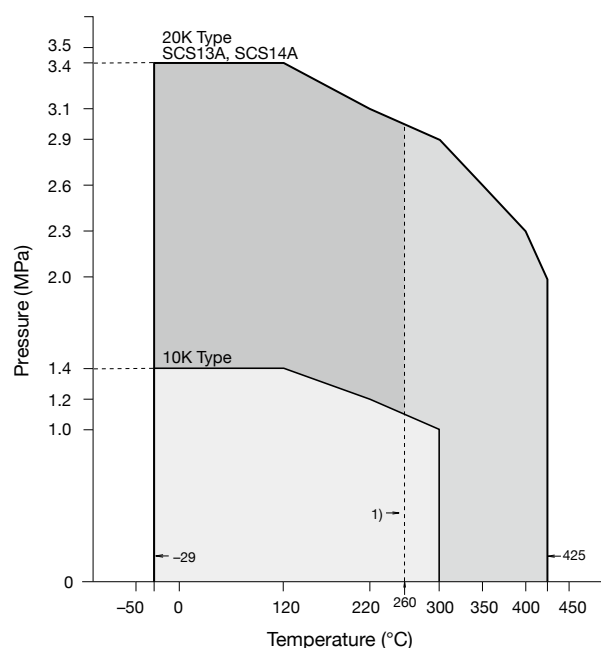
VA-Series Stainless Steel Valves

JIS Flanged Valves

Unit: MPa			
Nominal pressure		10K	20K
Body material		SCS13A, SCS14A	SCS13A, SCS14A
Temperature	below 120°C	1.4	3.4
	220°C	1.2	3.1
	300°C	1.0	2.9
	350°C	—	2.6
	400°C	—	2.3
	425°C	—	2.0

Notes:

- 1) The max. working temperature for standard products is restricted to 260°C by gland packing, gasket or material.
- 2) In case of use at 260°C and above, applicable selection for gland packing & gasket is required.
- 3) Do not use our products in flammable or toxic gas service.



ASME B16.34 Table 2-2.1A & 2-2.2A

Unit: MPa

Service temperature		Class 150		Class 300	
(°C)	(°F)	A351 Gr. CF8 (SCS13A)	A351 Gr. CF8M (SCS14A)	A351 Gr. CF8 (SCS13A)	A351 Gr. CF8M (SCS14A)
-29 ~38	-20 ~100	1.90	1.90	4.96	4.96
93	200	1.59	1.62	4.14	4.27
149	300	1.41	1.48	3.72	3.86
204	400	1.31	1.34	3.41	3.55
260	500	1.17	1.17	3.20	3.31
316	600	0.97	0.97	3.03	3.10
343	650	0.86	0.86	2.96	3.03
371	700	0.76	0.76	2.90	3.00
399	750	0.66	0.66	2.86	2.93
427	800	0.55	0.55	2.79	2.90
454 ⁽²⁾	850	0.45	0.45	2.72	2.90
482 ⁽²⁾	900	0.34	0.34	2.69	2.86
510 ⁽²⁾	950	0.24	0.24	2.62	2.65
538 ⁽²⁾	1000	0.14	0.14	2.44	2.52
566 ⁽²⁾	1050	0.14 ⁽¹⁾	0.14 ⁽¹⁾	2.24	2.48
593 ⁽²⁾	1100	0.14 ⁽¹⁾	0.14 ⁽¹⁾	1.76	2.10
621 ⁽²⁾	1150	0.14 ⁽¹⁾	0.14 ⁽¹⁾	1.41	1.62
649 ⁽²⁾	1200	0.14 ⁽¹⁾	0.14 ⁽¹⁾	1.14	1.28
677 ⁽²⁾	1250	0.14 ⁽¹⁾	0.14 ⁽¹⁾	0.93	1.00
704 ⁽²⁾	1300	0.14 ⁽¹⁾	0.14 ⁽¹⁾	0.79	0.79
732 ⁽²⁾	1350	0.14 ⁽¹⁾	0.14 ⁽¹⁾	0.66	0.66
760 ⁽²⁾	1400	0.14 ⁽¹⁾	0.14 ⁽¹⁾	0.52	0.52
788 ⁽²⁾	1450	0.14 ⁽¹⁾	0.14 ⁽¹⁾	0.41	0.41
816 ⁽²⁾	1500	0.10 ⁽¹⁾	0.10 ⁽¹⁾	0.28	0.28

Note:

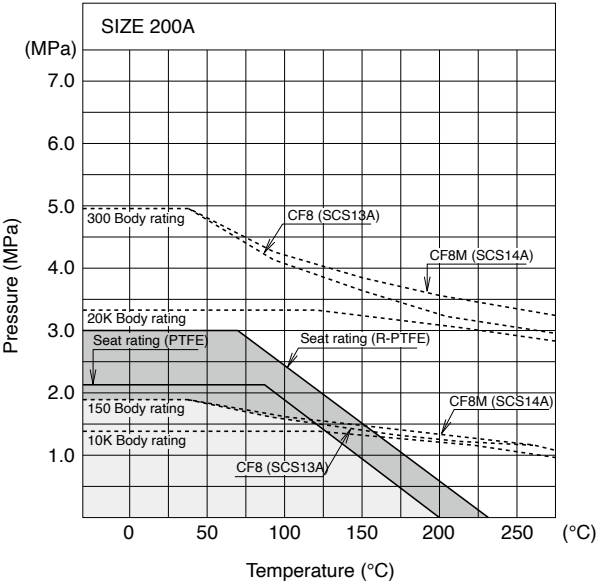
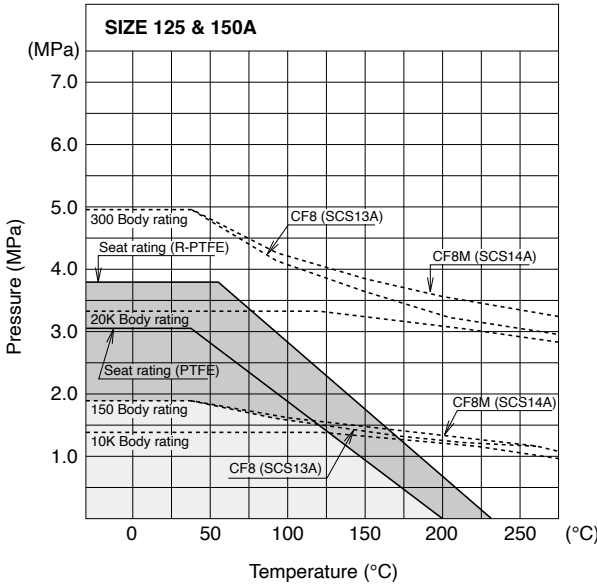
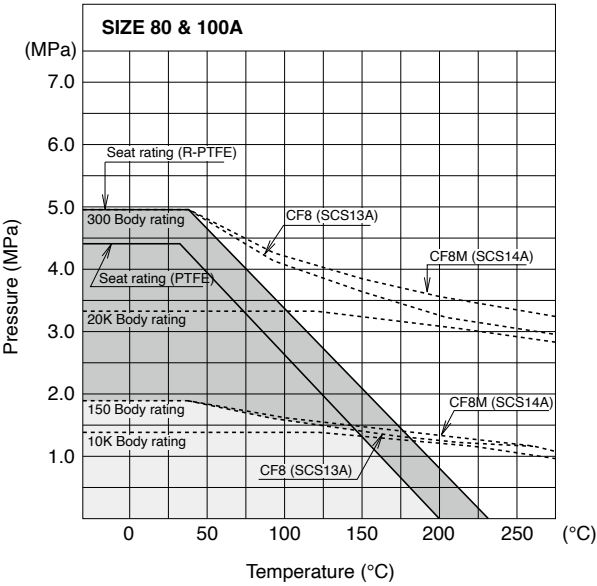
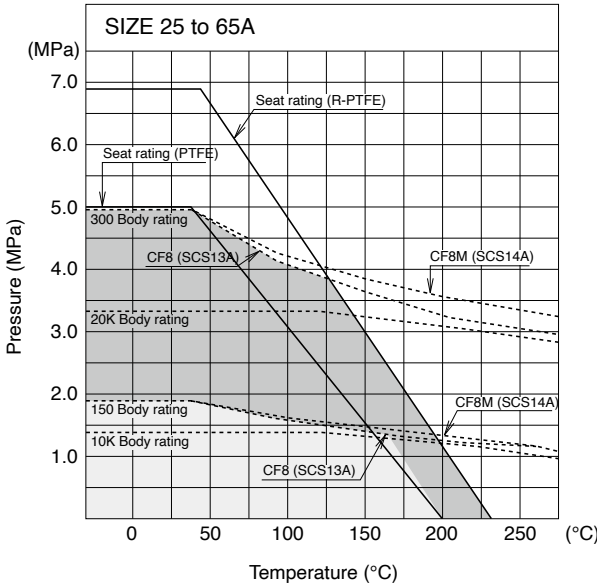
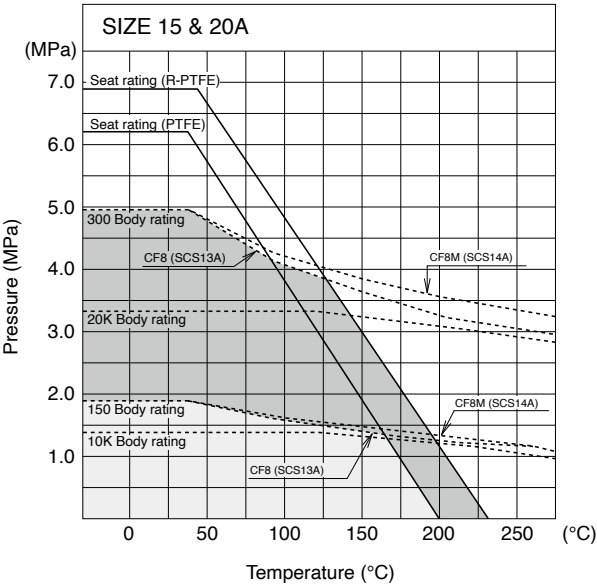
(1) For welding end valves only. Flanged ends ratings terminate at 1000°F.

(2) Permissible, but please consult our sales staff or contributor for usage above 450°C.

Pressure-Temperature Ratings

10/20K, Class 150/300 Stainless Steel Flanged Ball Valves

A10-UBF-L(3011L)



Wafer Check Valves Rubber Seat (with Bypass-Valve)

Fig. 10-UNW (806), 10K Unit: MPa

Seat material		NBR	FKM	EPDM
Service conditions				
Static water	below 80°C	1.4	1.4	1.4
	above 120°C	—	—	1.4
Oil, water, air	below 80°C	1.0	1.0	1.0
	above 120°C	—	1.0	1.0

Note: An EPDM seat shall not be used for all oil application.

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. These data apply only to typical applications and are provided as general guidelines to users of KITZ products introduced in this catalog.

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

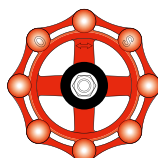
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If any products designated as strategic material in the Foreign Exchange and Foreign Trade Law, Cabinet Order Concerning Control of Export Trade, Cabinet order Concerning Control of Foreign Exchange and other related laws and ordinances ("Foreign Exchange Laws") are exported to any foreign country or countries, an export license issued by the Japanese Government will be required under the Foreign Exchange Laws.

Furthermore, there may be cases in which an export license issued by the Government of the United States or the government of another country will be required under the applicable export-related laws and ordinances of that country.

The contract shall become effective subject to a relevant export license being 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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