

TOYO Products Catalog

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



Toyo Valve

Notes

- 1) Refer to individual specification sheet and/or the drawing for details of the product.
- 2) Main units of this catalog are shown in SI (MPa, °C, millimeter).
- 3) Refer to the attached P-T ratings for applicable pressure and temperature.
- 4) Non-asbestos product is used for gland packing and gasket for bronze, brass and cast iron valves as manufacturer's standard. Please consult with KITZ representative for other materials.
- 5) Bronze and cast iron strainers have perforated metal screen equivalent to 12-16 meshes. Other meshes on screen are also available upon request. Please consult with KITZ representative 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 Guarantee: Within twelve (12) months after shipment from the factories of KITZ Corporation.

Exception of guarantee: For the following reasons, articles of guarantee in the above will not apply.

- 1) Non-compliance to the technical instructions furnished in the catalog and specification sheet
- 2) Natural disaster incidents, such as fire, flood earthquake, and falling stone
- 3) Reconstruction or repair by any third party other than KITZ Corporation.
- 4) Deterioration (such as shot rust, degradations, chemical changes, etc.)
- 5) Any other damages 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.

Products in this catalog are subject to change without prior notice to the customers. Do not 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)		11
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	11
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	11
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	11
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)		11
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	11
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)		11
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)		11
209	150-BSR-NR-NPT<UL1R1>	1/2-2	Class 150	Gate (Inside Screw)	Threaded (NPT)	with Export Packing	12
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)		12
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)		12
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)		12
213A	150E-BG-NR-NPT<UL1R1>	1/2-3	Class 150	Globe	Threaded (NPT)	with Export Packing	12
213P	150E-BG-N-PN25-B62-	1/2-2	PN25 (Body Marking Class 150)	Globe	Threaded (Rc)	Body/Disc ASTM B62	12
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	12
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	12
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	12
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)		13
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)		13
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)		13
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)		13
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	PN16 (Body Marking Class 125)	Swing Check	Threaded (Rc)		13
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)		13
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	13
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)		13
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	11
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	11
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	12
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	12
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)		13
360	N300-BNS-NR-NPT<UC8R1>	1/2-2	Class 300	Swing Check	Threaded (NPT)	with Barcode (On Request Basis)/Export Packing	-
-	10-BNW	11/2-12	10K	Wafer Check	Wafer (JIS 10K)		14
380	150-BT-N	1/2-3	Class 150	Strainer	Threaded (Rc)		14
380	150-BT-N-B62-	1/2-3	Class 150	Strainer	Threaded (Rc)	Body/Disc ASTM B62	14
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)		14
-	PN16-BTE	1/2-2	PN16	Strainer	Threaded (Rc)		14
5011	BX-N	1/2-2	Type 400	Ball (Standard Bore)	Threaded (Rc)	Long Neck Type	14
5002P	BV-R-NPT<UL1R1>	3/8-2	Type 400	Ball (Standard bore)	Threaded (NPT)		-
5011T	BX-N-T	1/2-2	Type 400	Ball (Standard Bore)	Threaded (Rc)	Long Neck/T-handle Type	14
5090	BOV	3/8-2	10K	Ball (Full Bore)	Threaded (Rc)		15
5091	BOX-N	1/2-2	10K	Ball (Full Bore)	Threaded (Rc)	Long Neck/Lever Type	15

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Brass							
5026	600RC-N	1/4-3	Type 600	Ball (Full Bore)	Threaded (Rc)		14
5026N	600RC-NR-NPT<Z01R1>	1/4-3	Type 600	Ball (Full Bore)	Threaded (NPT)	with Export Packing	15
5026W	600RC-N-T	1/4-2	Type 600	Ball (Full Bore)	Threaded (Rc)	Wing Handle Type	14
5041	600RP-LL-R-NPT<UC8R1>	1/4-2	Type 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	Type 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	Type 200	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	Type 600	Ball (Full Bore)	Solder End	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	Type 600	Ball (Full Bore)	Solder End	Latch Lock Lever Type, Solder End, Trim 316, with Barcode (On Request Basis)/Instruction Manual/Export Packing	-
5044A	RP-NK	1/4-3	Type 600	Ball (Full Bore)	Threaded (Rc)		14
5044A	RP-NK-NPT	1/4-3	Type 600	Ball (Full Bore)	Threaded (NPT)		-

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
5044A	RP-NK-R-NPT<UL1R3>	1/4-3	Type 600	Ball (Full Bore)	Threaded (NPT)	with Export Packing/Trustgram	-
5044ALF	LRP-NK-NPT	1/4-3	Type 600	Ball (Full Bore)	Threaded (NPT)	Lead Free, with Instruction Manual/Export Packing	-
5044W	RP-NK-T-NPT	1/4-2	Type 600	Ball (Full Bore)	Threaded (NPT)	Wing Handle, with Barcode/Instruction Manual	-
5044WLF	LRP-NK-T-NPT	1/4-2	Type 600	Ball (Full Bore)	Threaded (NPT)	Lead Free, Wing Handle, with Instruction Manual	-
5045A	RB-3N	1/4-2	Type 400	Ball (Standard Bore)	Threaded (Rc)		15
5045A	RB-3N-R-NPT<UC8R1>	1/4-2	Type 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	Type 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	Type 600	Ball (Full Bore)	Threaded (NPT)	Lead Free, with Cap Chain, with Instruction Manual/ Export Packing	-
5049A	RP-SE-NK	3/8-3	Type 600	Ball (Full Bore)	Solder End	Lever Type, with Barcode/Instruction Manual	-
5049ALF	LRP-SE-NK	1/2-3	Type 600	Ball (Full Bore)	Solder End	Lead Free, Lever Type, with Instruction Manual	-
5049W	RP-SE-T-NK	3/8-3	Type 600	Ball (Full Bore)	Solder End	Wing Handle Type, with Barcode/Instruction Manual	-
5049WLF	LRP-SE-T-NK	1/2-2	Type 600	Ball (Full Bore)	Solder End	Lead Free, Wing Handle Type, with Instruction Manual	-
5080	RZ-N	1/4-2	Type 600	Ball (Reduced Bore)	Threaded (Rc)	One Piece, Lever Type	15
5080W	RZ-N-T	1/4-3/4	Type 600	Ball (Reduced Bore)	Threaded (Rc)	One Piece, T-Handle Type	15

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)		19
381AFC	125FTF	2-12	Class 125	Strainer	Flanged (ASME)		-
400AF	EA125-FGF<GA101>	2-12	Class 125	Globe	Flanged (ASME)		18
405AF	EA125-FGF10KFF<GA101>	2-12	Class 125	Globe	Flanged (JIS10K)		18
405J	J10-FGF	11/2-8	10K	Globe	Flanged (JIS10K)		-
405JS	J10-FGF-S	11/2-12	10K	Globe	Flanged (JIS10K)	Trim 13Cr	-
405JU	J10-FGF-U	11/2-8	10K	Globe	Flanged (JIS10K)	Trim 304SS	-
409	J10-FGF-CN	21/2-8	10K	Globe	Flanged (JIS10K)	Nylon Lining	-
410AF	EA125-FSF10KFF<GA101>	2-12	Class 125	Gate (Inside Screw)	Flanged (JIS10K)		18
415AF	EA125-FSF<GA101>	2-12	Class 125	Gate (Inside Screw)	Flanged (ASME)		18
420AF	EA125-FSRF10KFF<GA101>	2-12	Class 125	Gate (Outside Screw)	Flanged (JIS10K)		18
421AF	EA125-FSRF<GA101>	2-12	Class 125	Gate (Outside Screw)	Flanged (ASME)		18
423E	(PHOX)EN25-FSRF	2-12	PN25	Gate (Outside Screw)	Flanged (ASME)		18
425J	J10-FSRF	11/2-14	10K	Gate (Outside Screw)	Flanged (JIS10K)		-
425J	J5-FSRF	2-10	5K	Gate (Outside Screw)	Flanged (JIS5K)		-
-	J10-FSRF-S	11/2-14	10K	Gate (Outside Screw)	Flanged (JIS10K)	Trim 13Cr	-
-	J10-FSRF-U	11/2-14	10K	Gate (Outside Screw)	Flanged (JIS10K)	Trim 304SS	-
-	J10-FSRF-CN	2-12	10K	Gate (Outside Screw)	Flanged (JIS10K)	Nylon Lining	-
430AF	EA125-FNSF10KFF<GA101>	2-20	Class 125	Swing Check	Flanged (JIS10K)		19
433E	(PHOX)EN25-FNSF	2-12	PN25	Swing Check	Flanged (ASME)		19
435AF	EA125-FNSF<GA101>	2-20	Class 125	Swing Check	Flanged (ASME)		19
435DJ	J10-FDNSF	2-6	10K	Swing Check	Flanged (JIS10K)	NBR Seat	-
435J	J10-FNSF	11/2-10	10K	Swing Check	Flanged (JIS10K)		-
435JS	J10-FNSF-S	11/2-14	10K	Swing Check	Flanged (JIS10K)	Trim 13Cr	-
435JU	J10-FNSF-U	11/2-14	10K	Swing Check	Flanged (JIS10K)	Trim 304SS	-

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
437J	J10-FNSF-U-W/CW	2-8	10K	Swing Check	Flanged (JIS10K)	Trim 304SS, with Counter Weight	-
439	J10-FNSF-CN	21/2-8	10K	Swing Check	Flanged (JIS10K)	Nylon Lining	-
440	10-FNW	11/2-18	10K	Wafer Check	Wafer (JIS10K)	with Bypass Valve *Seat:EPDM Optional (No Additional Charge)	19
442F	E150-FNW	2-12	Class 150	Wafer Check	Wafer (ASME)	Disc:Bronze Seat:NBR without Bypass Valve *Disc:316SS Optional (Additional Charge) *Seat:EPDM Optional (No Additional Charge)	19
443B	E16-FNW	2-18	PN16	Wafer Check	Wafer (PN16)	Disc:Bronze Seat:NBR without Bypass Valve *Disc:316SS Optional (Additional Charge) *Seat:EPDM Optional (No Additional Charge)	19
445	125-FNW	2-12	Class 125	Wafer Check	Wafer (ASME)		19
450	10-FTF-N	2-14	10K	Strainer	Flanged (JIS10K)		-
450AF	EA125-FTF10KFF<GA101>	2-20	Class 125	Strainer	Flanged (JIS10K)		20
459	10-FTF-N-CN	21/2-12	10K	Strainer	Flanged (JIS10K)	Nylon Lining	-
461	10-FOF	21/2-8	10K	Foot	Flanged (JIS10K)		-
470L	10-FBF-N-L	1/2-8	10K	Ball (Full Bore)	Flanged (JIS10K)	Lever Type	20
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)		18
501AF	EAEN16-FSF<GA101>	2-12	PN16	Gate (Inside Screw)	Flanged (PN16)		18
510AF	EAEN16-FGF<GA101>	2-12	PN16	Globe	Flanged (PN16)		19
514	125-FSRF	2-12	Class 125	Gate (Outside Screw)	Flanged (ASME)		18
520AF	EAEN16-FNSF<GA101>	2-20	PN16	Swing Check	Flanged (PN16)		19
530AF	EAEN16-FTF<GA101>	2-20	PN16	Strainer	Flanged (PN16)		20

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Ductile Iron							
600A	10-DG-N	1/4-2	10K	Globe	Threaded (Rc)	Screwed In Bonnet	22
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	22
607L	10-DBF-N-L	1/2-8	10K	Ball (Full Bore)	Flanged (JIS10K)	Lever Type	25
610A	10-DGF-N	1/2-2	10K	Globe (Inside Screw)	Flanged (JIS10K)	Screwed In Bonnet	23
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	23
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	22
613A	10-DSRF-N(BB)	2-12	10K	Gate (Outside Screw)	Flanged (JIS10K)	Bolted Bonnet	22
-	10-DN-N	1/2-2	10K	Lift Check	Threaded (Rc)		24
615A	10-DNSF-N	2-8	10K	Swing Check	Flanged (JIS10K)		23
618	10-DTF-N	2-8	10K	Strainer	Flanged (JIS10K)		24
620A	16-DG-N	1/2-2	16K	Globe (Inside Screw)	Threaded (Rc)	Union Bonnet	23
622A	16-DSR-N	1/2-2	16K	Gate (Inside Screw)	Threaded (Rc)	Union Bonnet	22
624A	16-DN-N	1/2-2	16K	Lift Check	Threaded (Rc)		24
628	16-DT-N	1/2-2	16K	Strainer	Threaded (Rc)		24
630A	16-DGF-N	1/2-2	16K	Globe (Inside Screw)	Flanged (JIS16K)	Union Bonnet	23
631	16-DGF-N(BB)	2-8	16K	Globe (Outside Screw)	Flanged (JIS16K)	Bolted Bonnet	23
632A	16-DSRF-N	1/2-2	16K	Gate (Inside Screw)	Flanged (JIS16K)	Union Bonnet	22

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
633	16-DSRF-N(BB)	2–12	16K	Gate (Outside Screw)	Flanged (JIS16K)	Bolted Bonnet	22
634A	16-DNF-N	1/2–2	16K	Lift Check	Flanged (JIS16K)		24
635A	16-DNSF-N	2–8	16K	Swing Check	Flanged (JIS16K)		23
638	16-DTF-N	3/4–12	16K	Strainer	Flanged (JIS16K)		24
640A	20-DG-N	3/8–2	20K	Globe (Inside Screw)	Threaded (Rc)	Union Bonnet	23
642A	20-DSR-N	1/2–2	20K	Gate (Inside Screw)	Threaded (Rc)	Bolted Bonnet	22
644A	20-DN-N	1/2–2	20K	Lift Check	Threaded (Rc)		24
645	20-DNW	11/2–18	20K	Wafer Check	Wafer (JIS20K)		24
648A	20-DT-N	3/8–2	20K	Strainer	Threaded (Rc)		25
650A	20-DGF-N	3/8–2	20K	Globe (Inside Screw)	Flanged (JIS20K)	Union Bonnet	23
651A	20-DGF-N(BB)	2–8	20K	Globe (Outside Screw)	Flanged (JIS20K)	Bolted Bonnet	23
652A	20-DSRF-N	1/2–11/2	20K	Gate (Inside Screw)	Flanged (JIS20K)	Bolted Bonnet	22
653A	20-DSRF-N(BB)	2–12	20K	Gate (Outside Screw)	Flanged (JIS20K)	Bolted Bonnet	22
654A	20-DNF-N	1/2–2	20K	Lift Check	Flanged (JIS20K)		24
655A	20-DNSF-N	2–8	20K	Swing Check	Flanged (JIS20K)		24
658A	20-DTF-N	3/8–2	20K	Strainer	Flanged (JIS20K)		25
678E	(PHOX)EN25-DTF	2–12	PN25	Strainer	Flanged (PN25)		25

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)		30
800J	UGF-N	1/2–2	10K	Globe	Flanged (JIS10K)		30
-	10-UGF-VA	2–4	10K	Globe	Flanged (JIS10K)	TOYO Brand 2–4" Only, Other Size KITZ Brand	30
-	10-UMGF-VA	2-4	10K	Globe	Flanged (JIS10K)	TOYO Brand 2-4" only, Other Size KITZ Brand	-
802	US-N	1/2–2	10K	Gate (Inside Screw)	Threaded (Rc)		30
802J	USF-N	1/2–2	10K	Gate (Inside Screw)	Flanged (JIS10K)		30
803J	10-USRF-VA	1/2–10	10K	Gate (Outside Screw)	Flanged (JIS10K)	TOYO Brand 1/2–10" Only, Other Size KITZ Brand	30
804	UNS-N	1/2–2	10K	Swing Check	Threaded (Rc)		30
804J	UNSF-N	1/2–2	10K	Swing Check	Flanged (JIS10K)		31
805J	10-UNSF-VA	2–8	10K	Swing Check	Flanged (JIS10K)	TOYO Brand 2–8" Only, Other Size KITZ Brand	30
-	10-UMNSF-VA	2-8	10K	Swing Check	Flanged (JIS10K)	TOYO Brand 2-8" only, Other Size KITZ Brand	-
-	20-UNSF-VA	11/2-8	10K	Swing Check	Flanged (JIS10K)	TOYO Brand 11/2-8" only, Other Size KITZ Brand	-
-	10-UNW	11/2–12	10K	Wafer Check	Wafer (JIS10K)		31
-	10-UTF-VA	21/2–10	10K	Strainer	Flanged (JIS10K)		30
809	UT-N	1/2–2	20K	Strainer	Threaded (Rc)		31
809J	UTF-N	1/2–2	10K	Strainer	Flanged (JIS10K)		31
-	20-USRF-VA	1/2–10	20K	Gate (Outside Screw)	Flanged (JIS20K)	TOYO Brand 1/2–10" Only, Other Size KITZ Brand	-
-	10-UNF-VA	1/2–11/2	10K	Lift Check	Flanged (JIS10K)		30
-	20-UNF-VA	1/2-11/2	10K	Lift Check	Flanged (JIS10K)		-
830	UD-N	3/8–2	10K	Globe	Threaded (Rc)	PTFE Disc	-
830J	UDF-N	1/2–2	10K	Globe	Flanged (JIS10K)	PTFE Disc	-
-	10-UMSRF-VA	1/2–10	10K	Gate (Outside Screw)	Flanged (JIS10K)	TOYO Brand 1/2–10" Only, Other Size KITZ Brand	-

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
Stainless Steel							
3011L	A10-UBF-L	1/2-8	10K	Ball (Full Bore)	Flanged (JIS10K)	PTFE Seat, Lever Type	31
-	A10-UBF-G	4-8	10K	Ball (Full Bore)	Flanged (JIS10K)	PTFE Seat, Gear Type	-
3550	UZ-N	1/4-2	Type 600	Ball (Reduced Bore)	Threaded (Rc)	One Piece, PTFE Seat, Lever Type	31
3550W	UZ-N-T	1/4-3/4	Type 600	Ball (Reduced Bore)	Threaded (Rc)	One Piece, PTFE Seat, T-handle Type	31
3060	10-UB-N	3/8-2	10K	Ball (Full Bore)	Threaded (Rc)	Split Type	-
4580	UMU	1/2-2	Type 800	Ball (Standard Bore)	Threaded (Rc)	PTFE Seat, Lever Type	-
4760A	UMO2-	1/2-2	Type 800	Ball (Full Bore)	Threaded (Rc)	PTFE Seat, Lever Type	-

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	27
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	27
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	27
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	27
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)	27
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	27
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	27

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	-
560-UESG	10L2-N-UE	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type	-
-	10L1-N-U	2-8	10K	Butterfly	Wafer (JIS10K)	Seat:NBR, Disc:304SS, Lever Type	-
562-UNSG	10L2-N-U<Z0T02>	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:NBR, Disc:304SS, Gear Type	29
562-UESL	10L1-N-UE	2-6	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Lever Type	29
562-UESG	10L2-N-UE<Z0T02>	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type	29
562-UESG	10L2-N-UEL	2-24	10K	Butterfly	Wafer (JIS10K)	Seat:EPDM, Disc:304SS, Gear Type, Dew Condensation Type	-
570-UESG	20L2-N-UE	2-24	20K	Butterfly	Wafer (JIS20K)	Seat:EPDM, Disc:304SS, Gear Type	29
907-BNSG	150L2-N-B<Z0T05>	14-24	Class 150	Butterfly	Wafer (Class 150)	Seat:NBR, Disc:Aluminium Bronze, Gear Type	-
907-UESG	150L2-N-UE<Z0T05>	14-16	Class 150	Butterfly	Wafer (Class 150)	Seat:EPDM, Disc:304SS, Gear Type	28
908-UESG	150L2T-N-UE<Z0T05>	14-16	Class 150	Butterfly	Lug (Class 150)	Seat:EPDM, Disc:304SS, Gear Type	28
917-BNSL	200L1-N-B<Z0T06>	2-8	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Lever Type	27
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>	2-12	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Aluminium Bronze, Gear Type	28
917-BNSG-2	200L2-NR-B	2-12	Class 200	Butterfly	Wafer (Class 200)	Seat:EPDM, Disc:Aluminium Bronze, Gear Type, with Bar- code/Instruction Manual	-
917-BESL-2	200L1-NR-BE	2-8	Class 200	Butterfly	Wafer (Class 200)	Seat:EPDM, Disc:Aluminium Bronze, Gear 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	27

Standard Product Range

Product Code	Fig	Size (inch)	Pressure class	Type	End Connection	Remarks	Page
917-DNSG	200L2-N<Z0T06>	2–12	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:Ductile, Gear Type	27
917-UESL	200L1-N-UE<Z0T06>	2–8	Class 200	Butterfly	Wafer (Class 200)	Seat:EPDM, Disc:304SS, Lever Type	28
917-UESG	200L2-N-UE<Z0T06>	8–12	Class 200	Butterfly	Wafer (Class 200)	Seat:EPDM, Disc:304SS, Gear Type	28
-	200L1-N-UM<Z0T06>	2–8	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:316SS, Lever Type	-
-	200L2-N-UM<Z0T06>	2–12	Class 200	Butterfly	Wafer (Class 200)	Seat:NBR, Disc:316SS, Gear Type	-
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 Barcode/ Instruction Manual	-
918-UESL	200L1L-N-UE<Z0T06>	2–8	Class 200	Butterfly	Lug (Class 200)	Seat:EPDM, Disc:304SS, Lever Type	28
918-UESG	200L2L-N-UE<Z0T06>	8–12	Class 200	Butterfly	Lug (Class 200)	Seat:EPDM, Disc:304SS, Gear Type	28
957-DNSL	PN16L1-N<Z0T04>	2–8	PN16	Butterfly	Wafer (PN16)	Seat:NBR, Disc:Ductile, Lever Type	28
957-DNSG	PN16L2-N<Z0T04>	2–24	PN16	Butterfly	Wafer (PN16)	Seat:NBR, Disc:Ductile, Gear Type	28
957-MESL	PN16L1-N-UME<Z0T04>	2–8	PN16	Butterfly	Wafer (PN16)	Seat:EPDM, Disc:316SS, Lever Type	28
957-MESG	PN16L2-N-UME<Z0T04>	2–24	PN16	Butterfly	Wafer (PN16)	Seat:EPDM, Disc:316SS, Gear Type	29

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

PRODUCT CODING

1. Bronze/Brass gate, globe, check valves & strainer

1.1 Product Coding (for Bronze gate/globe/check & strainer)

L **125** **E** — **B** **S** — **NR** — **NPT** **<UC8R1>**

1 2 3 4 5 6 7 8 9

1 Standard or Lead free material

J JIS Standard
L Lead free material
None Others

2 Class

5 5K
10 10K
125 Class 125
150 Class 150
300/N300 Class 300

3 Series

E E series
N Nseries
C Cseries
H H series
S S series
None Others

4 Shell materials

B Bronze
R Brass

5 Valve type

G Globe
NS Swing Check
O Ball Foot
S Gate (NRS)
SR Gate (RS)
SRU Gate (RS, Union Bonnet)
D PTFE seated Globe
N Lift Check
DNS PTFE seated Swing Check
DR(S,L,LS) Fancoil
L Angle
T Strainer
NW Wafer Check

6 End Connection

F Flanged
-SE Solder

7

NR New design
N New design
R New design

1.2 Out of product coding (for Bronze or Brass gate)

(1) Class 125/PN16, Bronze Gate valves

H-BS-N(CAC406)
H-BS(B62)PN16-
H-BS-N
H-BS-PN16-

(2) Class 125, Brass Gate valves

RH-N
RH-NR-NPT<UL1R2>

8 Others

NPT NPT
F150H- Class 150 Flanged ends
F150- Class 150 Flanged ends
PN25- PN25
PN16- PN16
PF BSP
B62- B62 Body/Disc

9 Package code

UC8R1 Red White
UL1R1 Red White (PH)
UL1R2 Red White (PH) but red handle
UL1R3 Red White (PH) w/trustgram
EG1R1 Red Yellow
ZS2R1 Red White (PH)
Z01R1 Red White
Z01R2 Red White (PH)
Z01R3 Red White (PH) w/trustgram

2. Bronze/Brass ball valves

2.1 Product Coding (for Bronze ball)

B **O** **X-N** — **T**

1 2 3 4

1 Shell materials

B Bronze

2 Class

O Full bore
None Standard bore

3 Neck type

X-N Long neck
None Standard neck

4 Operator

T T handle
None Lever

2.2 Out of product coding (for Brass ball)

(1) Class 600, Brass ball valves, Full bore

600RC-N
600RC-NR-NPT<--->
600RC-N-T
600RP-LL-R-NPT<--->
600RP-LL-R-316-NPT<--->
600RP-SE-LL-R<--->
600RP-SE-LL-316<--->
RP-AD-R-NPT<--->
RP-NK
RP-NK-NPT
RP-NK-R-NPT<--->
RP-NK-T-NPT
RP-CA-R-NPT<--->
RP-SE-NK
RP-SE-T-NK

(2) Class 600, Lead free Brass ball valves, Full bore

LRP-NK-NPT
LRP-NK-T-NPT
LRP-CA-R-NPT<--->
LRP-SE-T-NK

(3) Class 600, Brass ball valves, Standard bore

RZ-N
RZ-N-T

(4) Class 400, 3-way Brass ball valves, Standard bore

RB-3N
RB-3N-R-NPT<--->

3. Cast iron & Ductile iron valves

3.1 Product Coding (for Cast Iron)

EA **125** — **F** **SR** **F** **10KFF** — — — **<GA101>**

1 2 3 4 5 6 7 8 9

1 Standard

J JIS
EA ASME Class
(PHOX)EN PN Class
E ASME oe PN
Class for wafer
EAEN PN Class
None Maker standard

2 Class

5 5K
10 10K
125 Class 125
16 PN16
25 PN25

3 Shell material

F Cast Iron

4 Valve type

G Globe
NS Swing Check
O Ball Foot
S Gate (NRS)
SR Gate (RS)
DNS NBR seated
Swing Check
T Strainer
NW Wafer Check
B Ball

5 End Connection

F Flanged

6

10KFF 10K Flanged

7

-N New design

8

S Trim 13Cr
U Trim 304SS
CN Nylon lining
L Lever type for
ball valve

9 Package code

GA101 Made in china

3.2 Product Coding (for Ductile Iron)

10 — **D** **G** **F** — **N**

1 2 3 4 5

1 Class

10 10K
16 16K
20 20K
(PHOX)EN25 PN25

2 Shell material

D Ductile Iron

3 Valve type

G Globe
NS Swing Check
O Ball Foot
S Gate (NRS)
SR Gate (RS)
DNS NBR seated
Swing Check

T Strainer
NW Wafer Check
B Ball
D PTFE seated Globe

4 End Connection

F Flanged
None Threaded or wafer

5

F Flanged
None Threaded or wafer

4. Stainless steel & Carbon steel valves

4.1 Product Coding (for Stainless steel)

10 — **U** **G** **F** — **VA**

1 2 3 4 5

1 Class

10/A10 10K
20 20K
K150 Class 150
None Maker standard

2 Shell material

U 304SS/13A
UM 316SS/14A

3 Valve type

G Globe
D PTFE seated Globe
N Lift Check
NS Swing Check
S Gate (NRS)
SR Gate (RS)
T Strainer
NW Wafer Check
B Ball (10K,FB)
Z Ball (Class 600,RB)
U Ball (Class 800,SB)
O2 Ball (Class 800,FB)

4 End Connection

F Flanged
None Threaded or wafer

5

N New design
VA V series (Industrial use)
ME Without by-pass valve

4.2 Product Coding (for Forged carbon steel)

S800 — **SF** — **G** —

1 2 3 4

1 Class

S150 Class 150
S800 Class 800

2 Shell material

SF Forged carbon steel

3 Valve type

G Globe
SR Gate (RS)
N Lift Check

4 End connection

None Threaded (Rc)
F Flanged
W Socket weld
-NPT Threaded (NPT)

4.3 Product Coding (for Cast carbon steel)

150 — **S** **SR** **F**

1 2 3 4

1 Class

150 Class 150

2 Shell material

S Cast carbon steel

3 Shell material

G Globe
SR Gate (RS)
NS Swing Check

4 End connection

F Flanged
WB Butt weld

5. Butterfly valves

5.1 Product Coding (for Ductile Iron Butterfly)

200 **L** **1** **L** — **N** — **U** **E** — **<Z0T06>**

1 2 3 4 5 6 7 8 9

1 Class

10 10K
20 20K
150 Class 150
200 Class 200
PN16 PN16

2 Shell materials

L Ductile Iron

3 Operation

1 Lever
2 Gear

4 End connection

None Wafer
L Lugged

5

N New design
NR New design

6 Disc materials

B Aluminum Bronze
U 304SS
UM 316SS
None Ductile

7 Seat materials

None NBR
E EPDM

8 Special

L Dew condensation type
None Standard

9 Package code

Z0T02 5/10L type
Z0T04 PN16L type
Z0T05 150L type
Z0T06 200L type

5.2 Product Coding (for Aluminum Butterfly)

10 **ALM** — **N** — **L** **U** **E** — **<Z0T01>**

1 2 3 4 5 6 7

1 Class

10 10K
PN10 PN10

2 Shell materials

ALM Aluminum
ALZ Aluminum

3

N New design

4 Operation

L Lever
G Gear

5 Disc materials

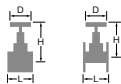
U 304SS
E 316SS

6 Seat materials

None NBR
E EPDM

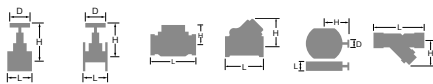
7 Package code

Z0T01 PH type



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	D	L	H	D	L	H	D	L	H	D	L	H	D
1/4	8	42	75	48	42	75	48									
3/8	10	38	74	48	38	74	48				43	76	48			
1/2	15	42	74	48	42	74	48	42	74	48	43	76	48	43	76	48
3/4	20	47	85	55	47	85	55	47	85	55	48	86	55	48	85	55
1	25	50	97	63	50	97	63	50	97	63	53	98	63	53	97	63
1 1/4	32	60	116	70	60	116	70	60	116	70	60	118	70	60	117	70
1 1/2	40	63	125	80	63	125	80	63	125	80	63	126	80	63	128	70
2	50	72	155	90	72	155	90	72	155	90	71	154	80	71	151	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			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 WSD*			 PN25 Body Marking: Class 125			 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	D	L	H	D	L	H	D	L	H	D	L	H	D
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 *Water Supply Dept (HK)			Non-rising Stem Solid Wedge Disc			Screwed Bonnet Inside Screw		

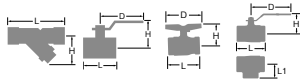


Type		Gate			Gate			Gate			Globe			Globe		
		 150			 150			 300			 100			 125		
Fig		150-BSR-NR-NPT<UL1R1>			150-BSRU-NR-NPT<UC8R1>			300-BSRU-NR-NPT<UC8R1>			100N-BG-N			125C-BG-N		
Product Code		209			298			318A			210A			211A		
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
1/4	8										40	67	48	44	67	48
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		
		 125			 150			 150			Body Marking: Class 150  PN25			 150		
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	D	L	H	D	L	H	D	L	H	D	L	H	D
1/4	8				44	67	48	44	67	48						
3/8	10	53	87	55	44	69	48	44	69	48						
1/2	15	57	88	63	53	80	63	53	80	63	53	80	63	64	114	63
3/4	20	66	103	70	65	94	70	65	94	70	65	94	70	78	138	90
1	25	76	113	80	77	104	80	77	104	80	77	104	80	90	156	100
1 1/4	32	88	138	90	85	127	90	85	127	90	85	127	90	105	183	110
1 1/2	40	100	154	100	100	145	100	100	145	100	100	145	100	120	186	110
2	50	120	183	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 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			Aramid Fibers Graphite		
Hand Wheel		Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast			Aluminum Die-Cast		
Disc Holder		Forged Brass												Forged Brass/Cast Bronze		
Note		Screwed Bonnet Inside Screw Union Bonnet(21/2&3)			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			 125			 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	D	L	H	D	L	H	D	L	H	D	L	H	D
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			
		 150				 150				 300				 150				 PN25			
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			Strainer		
		 10K			 150			 150			 Body Marking: Class 150 PN25			 PN16		
Fig		10-BNW			150-BT-N			150-BT-N-B62-			150-BT-N-PN25-			PN16-BTE		
Product Code					380			380			380P			-		
inch	mm	L	H	D	L	H	H1*	L	H	H1*	L	H	H1*	L	H	H1*
1/4	8															
3/8	10															
1/2	15				80	49	68	80	49	68	80	49	68	65	42	68
3/4	20				100	57	83	100	57	83	100	57	83	80	52	83
1	25				115	70	105	115	70	105	115	70	105	92	60	105
1 1/4	32				135	82	124	135	82	124	135	82	124	110	72	124
1 1/2	40	54	132	55	160	98	149	160	98	149	160	98	149	122	81	149
2	50	56	139	70	195	121	188	195	121	188	195	121	188	150	101	188
2 1/2	65	56	146	70	230	148	216	230	148	216						
3	80	59	152	70	240	180	267	240	180	267						
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 or Cast Bronze			Forged Brass			Forged Brass			Forged Brass			Forged Brass		
Gasket					Non-Asbestos Sheet			Non-Asbestos Sheet			Non-Asbestos Sheet			Non-Asbestos Sheet		
Screen					Stainless Steel			Stainless Steel			Stainless Steel			Stainless Steel		
Seat		NBR														
O ring					FKM for 2 1/2 & 3			FKM for 2 1/2 & 3								
Note		FKM or EPDM available By-pass valve mounted			Screwed Cap *Height for removing the screen			Screwed Cap *Height for removing the screen			Screwed Cap End Connection : PN25 *Height for removing the screen			Screwed Cap *Height for removing the screen		

Type		Ball			Ball			Ball			Ball			Ball		
																
Fig		BX-N			BX-N-T			RP-NK			600RC-N			600RC-N-T		
Product Code		5011			5011T			5044A			5026			5026W		
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
1/4	8							42	37	70	50	37	70	50	38	60
3/8	10							42	37	70	50	37	70	50	38	60
1/2	15	56	75	80	56	79	82	53	40	80	65	40	80	65	43	65
3/4	20	65	79	80	65	83	82	60	44	80	68	44	80	68	47	65
1	25	78	83	110	78	90	94	72	50	110	79	50	110	79	57	100
1 1/4	32	86	98	110	86	105	94	84	55	110	86	55	110	86	62	100
1 1/2	40	96	102	110	96	109	94	92	65	150	96	65	150	96	76	120
2	50	109	109	140	109	124	120	110	72	150	109	72	150	109	83	120
2 1/2	65							138	101	200	138	100	200			
3	80							167	103	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			SCS13A			Brass/Chrome Plated of Stainless steel			Brass / Chrome Plated			Brass / Chrome Plated		
Seat		PTFE			PTFE			PTFE			PTFE			PTFE		
O ring		FKM			FKM			FKM			FKM			FKM		
Note		Standard Bore Long neck for thermal insulation			Standard Bore Long neck for thermal insulation T-Handle			UL/FM/CSA approved (up to 50mm)			Full Bore			Full Bore T-Handle		

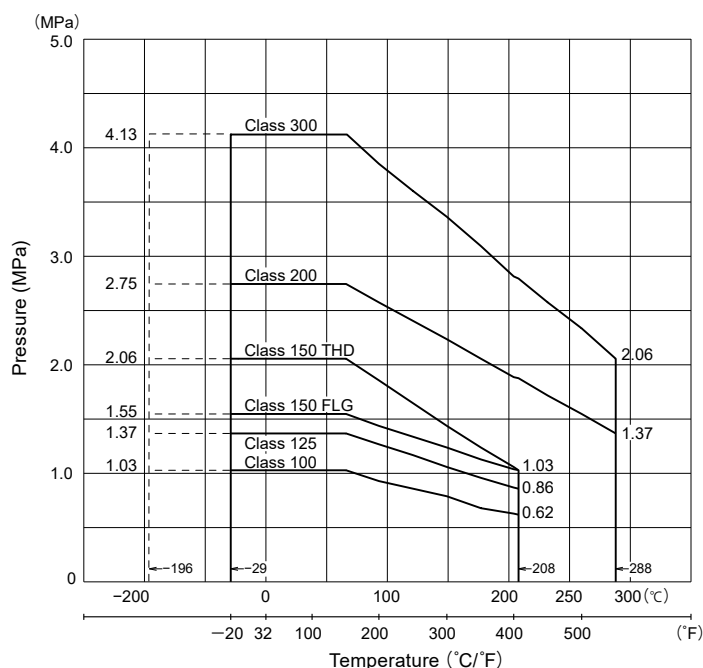
Type	Ball				Ball			Ball			Ball			Ball		
																
Fig	600RC-NR-NPT<Z01R1>				RZ-N			RZ-N-T			BOV			BOX-N		
Product Code	5026N				5080			5080W			5090			5091		
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
1/4	8	50	37	70	39	31	60	39	25	39						
3/8	10	50	37	70	44	36	70	44	29	40	49	39	80			
1/2	15	68	40	80	56.5	41	85	56.5	35	55	62	45	100	56	75	80
3/4	20	68	44	80	59	44	85	59	39	55	71	48	100	65	79	80
1	25	79	50	110	71	48	100				83	54	130	77	85	110
1 1/4	32	86	55	110	78	54	100				96	59	130	96	102	110
1 1/2	40	96	65	150	83	65	125				106	70	150	98	110	140
2	50	109	72	150	100	72	125				125	77	150	119	118	140
1 1/2	65	138	100	200												
3	80	167	112.5	300												
Body	Forged Brass				Forged Brass			Forged Brass			Cast Bronze			Cast Bronze		
Stem	Brass / Nickel Plated				Dezincification Resistant Brass			Dezincification Resistant Brass			Forged Brass			SUS304		
Disc/Ball	Brass / Chrome Plated				Stainless Steel / Brass / Chrome Plated			Brass / Chrome Plated			SUS304			SCS13A		
Packing	PTFE				G/F PTFE			G/F PTFE								
Seat	FKM				G/F+PTFE			G/F+PTFE			PTFE			PTFE		
O ring	Full Bore										FKM			FKM		
Note	Full Bore				Reduced Bore One piece body			Reduced Bore One piece body T-Handle			Full Bore			Full Bore Long neck for thermal insulation		

Type	Ball			
	400			
Fig	RB-3N			
Product Code	5045A			
inch	mm	L	H	D
1/4	8	40	30	60
3/8	10	46	34	70
1/2	15	67	45	80
3/4	20	68	48	80
1	25	79	55	110
1 1/4	32	89	60	110
1 1/2	40	100	65	110
2	50	115	75	140
Body	Forged Brass			
Stem	Dezincification Resistant Brass			
Disc/Ball	Brass/Chrome Plated			
Packing	G/F PTFE			
Seat	PTFE			
O ring	FKM			
Note	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

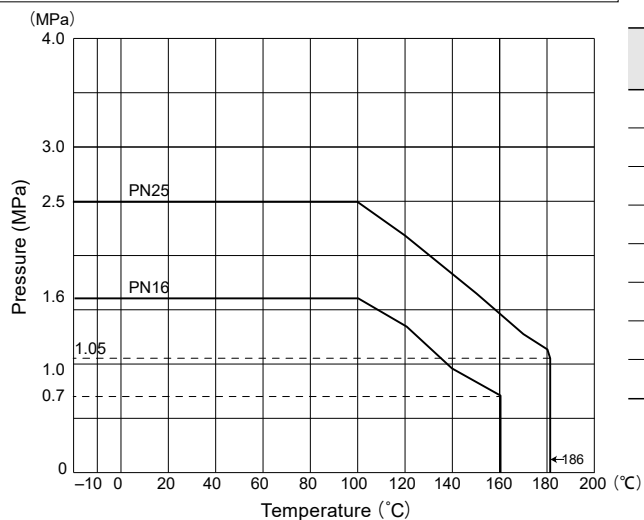


Unit: MPa

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	1.55	2.06	3.10	2.41	4.13	6.20
	seat	0.55	0.55	0.55	0.55	0.55	0.55

NOTE: Class 100 outside of MSS SP-80

PN16, PN25

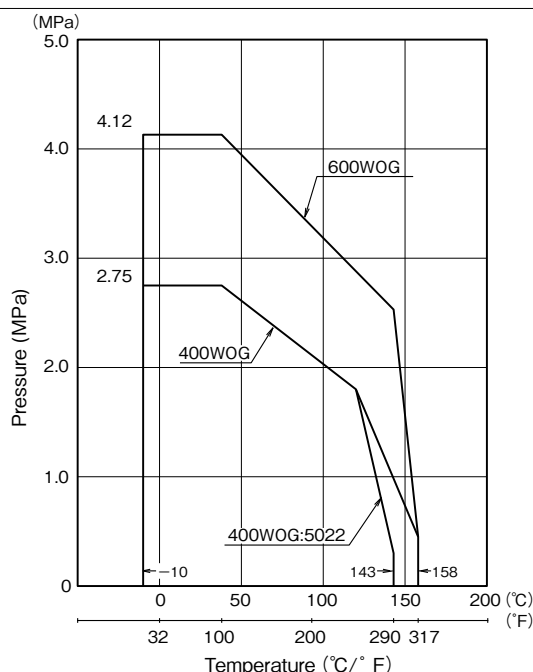


Unit: MPa

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	—	—

Pressure-Temperature Ratings

Ball Valves

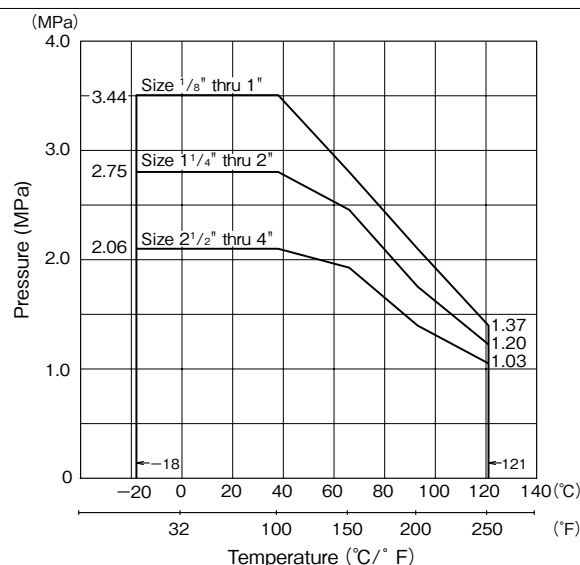


Unit: MPa

Class	WOG38 (3°F)	Test shell (water)	pressure 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" MPa	1 1/4" thru 2" MPa	2 1/2" thru 4" MPa	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) Safe Drinking Water Act Amendment of 1986 prohibits the use in potable water systems of any solder having lead content in excess of 0.2%.

(2) Safe working pressure-rating for solder end valve is restricted lower pressure-rating.

a) Shall be the maximum service temperature and in case of gate valves, it shall be 134°C

b) Shall be the maximum service temperature and in case of globe valves it shall be 171°C

c) Maximum permissible pressure at intermediate temperature between temperature above 120°C and maximum service temperature which shall be obtained by proportional interpolation.

JIS Standard Valves

Bronze Gate, Globe and Check Valves (JIS B2011)

1. Fluid

Water, oil, gas, air and steam. However, flammable gas and toxic gas are excluded.

2. 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.

3. In case where the use of valves is prohibited, restricted by High Pressure Gas Safety Act or other regulation, user shall properly use the product within framework of laws and ordinances.

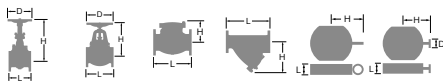
Nominal pressure	Temperature of fluid (°C)	Max. permissible working temp. ^{a)} (MPa)
5K	-29 to 120 159 ^{a)}	0.7 0.5
10K	-29 to 120 185 ^{b)}	1.4 1.0

Gray Cast Iron Gate, Globe and Check Valves (JIS B2031)

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	Press-fit seat CAC 406
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) Please specify the above specification. Please specify when used under saturated steam at 0.5 MPa or higher.

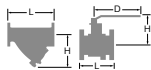


Type	Gate				Gate			Gate			Gate			Gate		
	 125				 125			 Body Marking:Class 125 125			 125			 Body Marking:Class 125 125		
Fig	125-FSRF				EA125-FSRF<GA101>			EA125-FSRF10KFF<GA101>			EA125-FSF<GA101>			EA125-FSF10KFF<GA101>		
Product Code	514				421AF			420AF			415AF			410AF		
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
2	50	178	329	160	178	322	178	178	322	178	178	282	180	178	282	180
2 1/2	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	D	L	H	D	L	H	D	L	H	D	L	H	D
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	D	L	H	L	H	D	L	H	D	L	H	D
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			Wafer Check			Strainer		
															
Fig	E150-FNW			E16-FNW			10-FNW			125-FNW			EA125-FTF<GA101>		
Product Code	442F			443B			440			445			381AF		
inch	mm	L	H	L	H	D	L	H	D	L	H	D	L	H	H1*
11/2	40						54	128	55						
2	50	54	105	54	109		56	143	70	56	102		230	158	213
2 1/2	65	54	124	54	129		56	150	70	56	121		290	176	251
3	80	57	137	57	144		59	156	70	59	133		310	199	273
4	100	64	175	64	164		66	169	70	66	172		350	240	340
5	125	70	197	70	194		72	183	70	72	194		400	292	410
6	150	76	222	76	220		78	216	80	78	219		480	320	435
8	200	95	279	95	275		96	243	80	96	277		600	399	581
10	250	108	340	108	331		109	290	90	109	337		730	517	777
12	300	143	410	143	386		145	315	90	145	407		850	568	842
14	350			184	446		184	330	90				980	642	949
16	400			191	498		191	355	90				1100	750	1129
18	450			203	558		204	388	90				1200	784	1172
20	500												1250	857	1293
Body	Cast Iron			Cast Iron			Cast Iron			Cast Iron			Cast Iron		
Bonnet/Cap/Cover							Forged Brass or Cast Bronze						Cast Iron		
Disc	Cast Bronze			Cast Bronze			Cast Bronze			Cast Bronze					
Hinge Pin	Stainless Steel			Stainless Steel			Stainless steel			Stainless Steel					
Screen													Stainless Steel		
Seat Rubber	NBR			NBR			NBR			NBR					
Note													*Height for removing the screen		

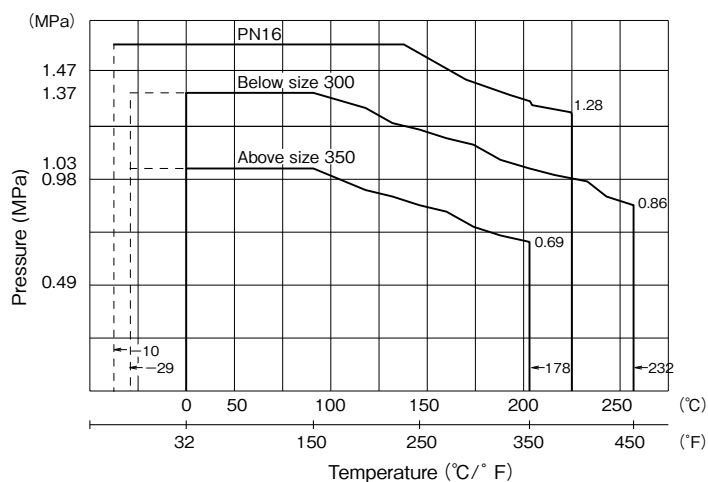


Type	Strainer				Strainer			Ball		
	Body Marking:Class 125 125 				PN16 			10K 		
Fig	EA125-FTF10KFF<GA101>				EAEN16-FTF<GA101>			10-FBF-N-L		
Product Code	450AF				530AF			470L		
inch	mm	L	H	H1*	L	H	H1*	L	H	D
1/2	15							110	102	130
3/4	20							120	105	130
1	25							130	124	160
1 1/4	32							140	128	160
1 1/2	40							165	114	230
2	50	230	158	213	230	158	213	180	121	230
2 1/2	65	290	176	251	290	176	251	190	154	400
3	80	310	199	273	310	199	273	200	163	400
4	100	350	240	340	350	240	340	230	199	460
5	125	400	292	410	400	292	410	300	219	460
6	150	480	320	435	480	320	435	340	292	1000
8	200	600	399	581	600	399	581	450	352	1500
10	250	730	517	777	730	517	777			
12	300	850	568	842	850	568	842			
14	350	980	642	949	980	642	949			
16	400	1100	750	1129	1100	750	1129			
18	450	1200	784	1172	1200	784	1172			
20	500	1250	857	1293	1250	857	1293			
Body	Cast Iron				Cast Iron			Cast Iron		
Bonnet/Cap/Cover	Cast Iron				Cast Iron			Cast Iron		
Stem								SUS403		
Disc/Ball								Stainless Steel		
Packing								PTFE		
Gasket								PTFE		
Screen	Stainless Steel				Stainless Steel					
Body/Ball Seat								PTFE		
Note	End Connection : JIS 10K *Height for removing the screen				*Height for removing the screen			Full Bore		

Pressure-Temperature Ratings

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

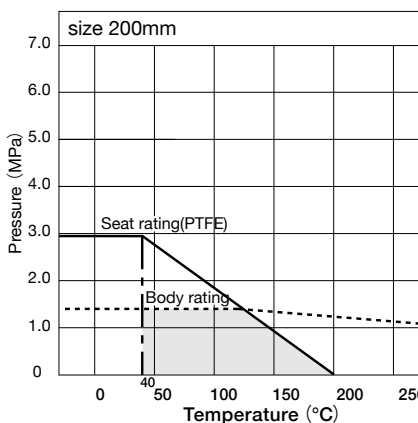
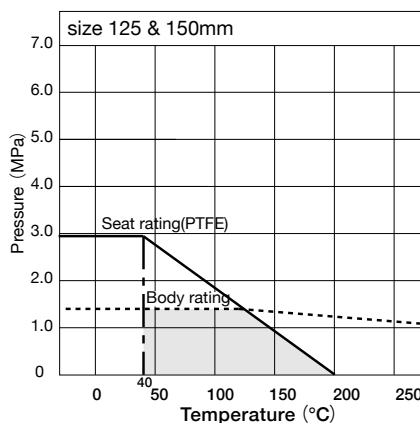
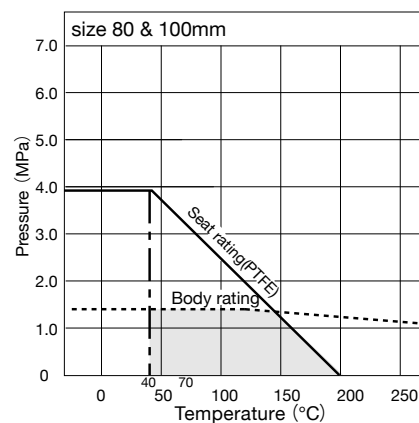
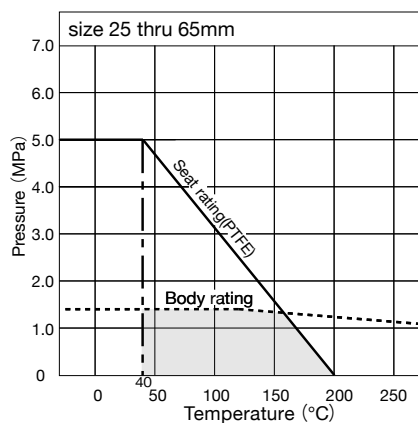
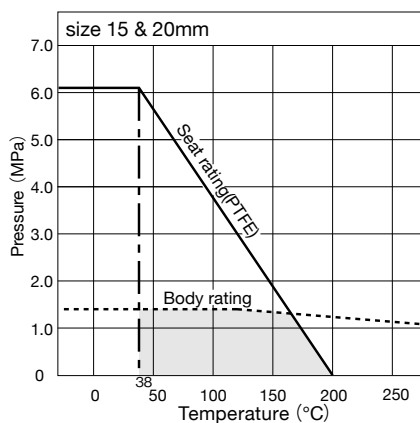
Class 125 Gate, Globe and Check Valves

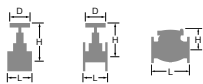


Service Temperature (°C)	PN16
-10 to 66	1.6
100	
120	
150	1.44
170	1.37
180	1.34
186	1.32
198	1.29
200	1.28

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



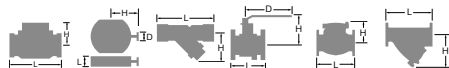


Type	Gate				Gate				Gate				Gate				Gate			
																				
Fig	10-DSR-N				10-DSRF-N				10-DSRF-N(BB)				16-DSR-N				16-DSRF-N			
Product Code	602A				612A				613A				622A				632A			
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D				
1/2	15	60	150	60	90	164	70				65	163	70	108	163	70				
3/4	20	70	171	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	D	L	H	D	L	H	D	L	H	D	L	H	D
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-DGF-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	D	L	H	D	L	H	D	L	H	D	L	H	D
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	308	200	145	196	135	203	198	135	203	308	200
2 1/2	65				216	311	225							216	311	225
3	80				241	352	250							241	352	250
4	100				292	371	250							292	371	250
5	125				356	459	300							356	459	300
6	150				406	520	350							406	526	350
8	200				495	589	400							495	589	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	D	L	H	D	L	H	D	L	H		L	H	
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	295	225	203	120		203	125	
21/2	65							292	341	250	216	130		216	136	
3	80							318	372	250	241	145		241	153	
4	100							356	449	300	292	160		292	171	
5	125							400	534	350	330	195		330	200	
6	150							444	600	400	356	215		356	220	
8	200							559	693	560	495	255		495	265	
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																



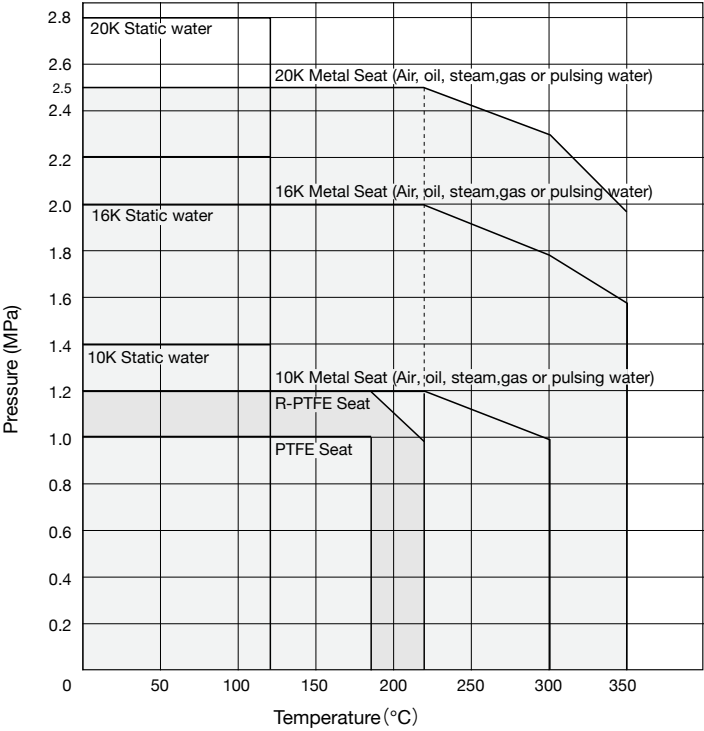
Type	Swing Check				Lift Check			Lift Check			Lift Check			Lift Check		
	 20K				 10K			 16K			 16K			 20K		
Fig	20-DNSF-N				10-DN-N			16-DN-N			16-DNF-N			20-DN-N		
Product Code	655A							624A			634A			644A		
inch	mm	L	H		L	H		L	H		L	H		L	H	
1/2	15				65	39		70	50		108	50		78	56	
3/4	20				80	42		85	53		117	53		91	60	
1	25				90	48		95	61		127	61		105	68	
11/4	32				105	56		110	69		140	69		122	80	
11/2	40				120	65		125	75		165	75		135	85	
2	50	267	135		140	73		145	87		203	87		160	99	
21/2	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		L	H	D	L	H	H1*	L	H	H1*	L	H	H1*
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	158	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)			Brass											
Disc/Ball					Cast Bronze											
Screen								Stainless Steel			Stainless Steel			Stainless Steel		
Body/Ball Seat		Stainless Steel (hard facing)														
Note								*Height for removing the screen			*Height for removing the screen			*Height for removing the screen		

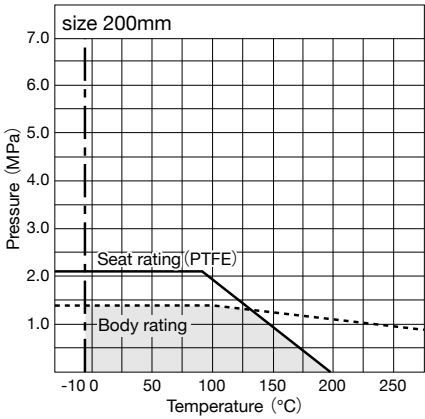
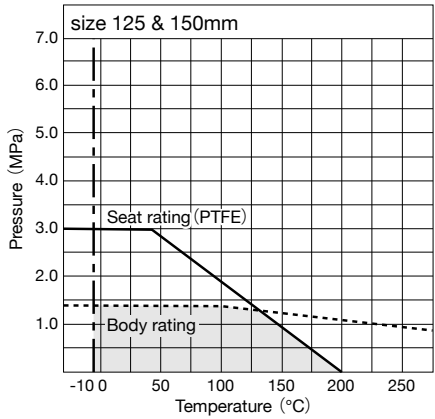
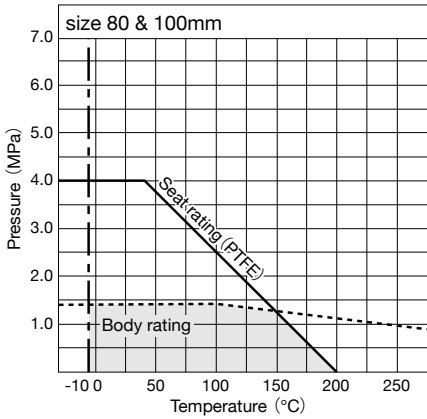
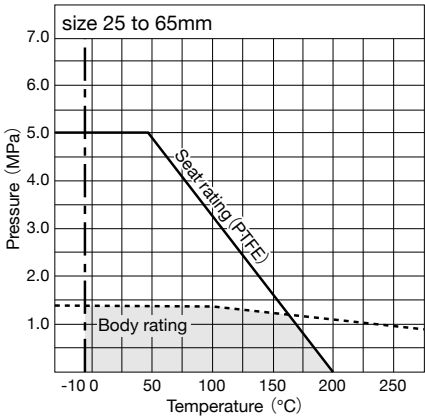
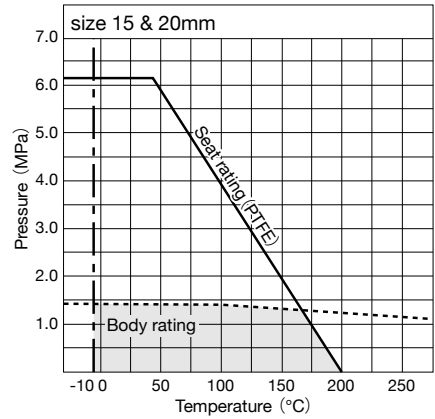
Type	Strainer					Strainer			Strainer			Ball		
	 20K					 20K			 PN25			 10K		
Fig	20-DT-N					20-DTF-N			(PHOX)EN25-DTF			10-DBF-N-L		
Product Code	648A					658A			678E			607L		
inch	mm	L	H	H1*	L	H	H1*	L	H	H1*	L	H	D	
3/8	10	80	65	76	120	65	76							
1/2	15	85	65	76	125	65	76				108	106	130	
3/4	20	100	70	86	140	70	86				117	109	130	
1	25	115	83	103	160	85	105				127	130	160	
1 1/4	32	135	120	122	185	124	126				140	135	160	
1 1/2	40	150	130	135	200	135	138				165	115	230	
2	50	180	152	162	250	163	172	216	140	180	178	120	230	
2 1/2	65							241	162	219	190	153	400	
3	80							283	184	258	203	162	400	
4	100							305	225	339	229	199	460	
5	125							381	280	388	356	219	460	
6	150							403	318	441	394	293	1000	
8	200							521	405	606	457	352	1500	
10	250							635	485	722				
12	300							749	580	890				
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	*Height for removing the screen					*Height for removing the screen			*Height for removing the screen			Full Bore		

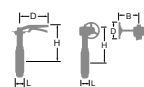
Pressure-Temperature Ratings

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



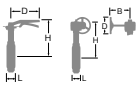
10K DUCTILE IRON BALL VALVES 10-DBF-N-L (607L)





Type	Butterfly				Butterfly				Butterfly			Butterfly			Butterfly			
																		
Fig	PN10ALZ-N-LUE<Z0T01>				PN10ALZ-N-GUE<Z0T01>				10ALM-N-LU<Z0T01>			10ALM-N-LUE<Z0T01>			10ALM-N-GU<Z0T01>			
Product Code	552-UEL				552-UEG				550LA			550LA			550GA			
inch	mm	L	H	D	L	H	D	B	L	H	D	L	H	D	L	H	D	B
11/2	40								33	163	188	33	163	188	33	177	100	131
2	50	43	170	188	43	180	100	131	43	167	188	43	167	188	43	181	100	131
21/2	65	46	178	188	46	188	100	131	46	175	188	46	175	188	46	189	100	131
3	80	46	188	188	46	198	100	131	46	185	188	46	185	188	46	199	100	131
4	100	52	198	188	52	208	100	131	52	195	188	52	195	188	52	209	100	131
5	125	56	242	260	56	255	100	132	56	239	260	56	239	260	56	255	100	132
6	150	56	254	260	56	267	100	132	56	251	260	56	251	260	56	267	100	132
8	200	60	282	350	60	303	140	149							60	303	140	149
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<Z0T01>					10ALM-N-GE<Z0T01>				200L1-N<Z0T06>			200L2-N<Z0T06>				200L1-N-B<Z0T06>		
Product Code	550GA					550GA				917-DNSL			917-DNSG				917-BNSL		
inch	mm	L	H	D	B	L	H	D	B	L	H	D	L	H	D	B	L	H	D
11/2	40	33	177	100	131														
2	50	43	181	100	131					42.9	191	180	42.9	194	80	122	42.9	191	180
21/2	65	46	189	100	131					46	199	180	46	202	80	122	46	199	180
3	80	46	199	100	131					46	217	180	46	236	110	135	46	217	180
4	100	52	209	100	131					52.3	227	180	52.3	246	110	135	52.3	227	180
5	125	56	255	100	132					55.6	265	230	55.6	274	110	150	55.6	265	230
6	150	56	267	100	132					55.6	277	230	55.6	286	110	150	55.6	277	230
8	200	60	303	140	149					60.5	295	350	60.5	325	170	180	60.5	295	350
10	250	68	405	170	180	68	405	170	180										
12	300	78	430	170	180	78	430	170	180										
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 Bronze		
O ring	EPDM					EPDM													
Seat Rubber	EPDM					EPDM				NBR			NBR				NBR		
Note																			



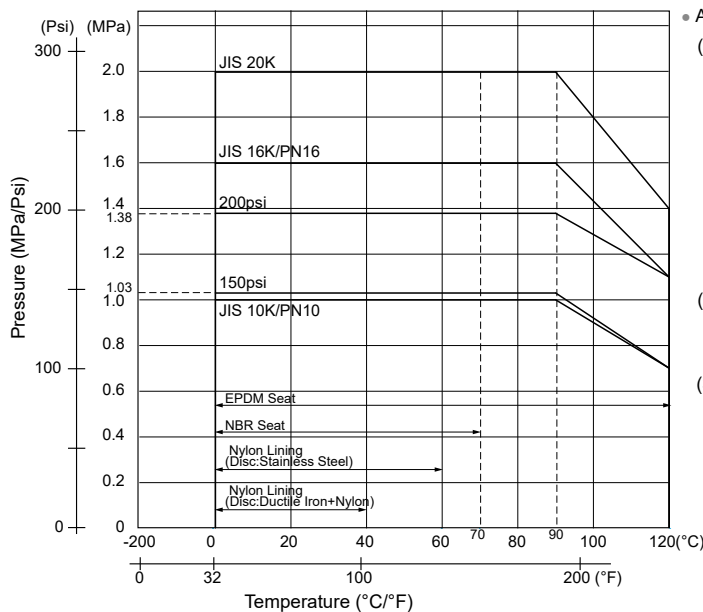
Type	Butterfly				Butterfly				Butterfly				Butterfly				Butterfly			
	 200				 200				 200				 150				 200			
Fig	200L2-N-B<Z0T06>				200L1-N-UE<Z0T06>				200L2-N-UE<Z0T06>				150L2-N-UE<Z0T05>				200L1L-N-UE<Z0T06>			
Product Code	917-BNSG				917-UESL				917-UESG				907-UESG				918-UESL			
inch	mm	L	H	D	B	L	H	D	B	L	H	D	B	L	H	D	B	L	H	D
2	50	42.9	194	80	122	42.9	191	180										42.9	191	180
2 1/2	65	46	202	80	122	46	199	180										46	199	180
3	80	46	236	110	135	46	217	180										46	217	180
4	100	52.3	246	110	135	52.3	227	180										52.3	227	180
5	125	55.6	274	110	150	55.6	265	230										55.6	265	230
6	150	55.6	286	110	150	55.6	277	230										55.6	277	230
8	200	60.5	325	170	180	60.5	295	350	60.5	325	170	180						60.5	295	350
10	250	68.3	381	170	180				68.3	381	170	180								
12	300	77.7	406	170	180				77.7	406	170	180								
14	350												77.7	447	310	220				
16	400												101.6	502	310	220				
18	450																			
20	500																			
24	600																			
Body	Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron				Ductile Iron			
Stem	Stainless Steel				Stainless Steel				Stainless Steel				Stainless Steel				Stainless Steel			
Disc	Aluminum Bronze				Stainless Steel				Stainless Steel				Stainless Steel				Stainless Steel			
O ring					EPDM				EPDM				EPDM				EPDM			
Seat Rubber	NBR				EPDM				EPDM				EPDM				EPDM			
Note																	End Connection : Lug			

Type	Butterfly				Butterfly				Butterfly				Butterfly				Butterfly			
	 200				 150				 PN16				 PN16				 PN16			
Fig	200L2L-N-UE<Z0T06>				150L2L-N-UE<Z0T05>				PN16L1-N<Z0T04>				PN16L2-N<Z0T04>				PN16L1-N-UME<Z0T04>			
Product Code	918-UESG				908-UESG				957-DNSL				957-DNSG				957-MESL			
inch	mm	L	H	D	B	L	H	D	B	L	H	D	B	L	H	D	B	L	H	D
2	50									43	191	180		43	194	80	122	43	191	180
2 1/2	65									46	199	180		46	202	80	122	46	199	180
3	80									46	217	180		46	236	110	135	46	217	180
4	100									52	227	180		52	246	110	135	52	227	180
5	125									56	265	230		56	274	110	150	56	265	230
6	150									56	277	230		56	286	110	150	56	277	230
8	200	60.5	325	170	180					60	295	350		60	325	170	180	60	295	350
10	250	68.3	381	170	180									68	381	250	250			
12	300	77.7	406	170	180									78	406	250	250			
14	350					77.7	447	310	220					78	461	360	350			
16	400					101.6	502	310	220					102	516	360	350			
18	450													114	540	360	350			
20	500													127	623	500	400			
24	600													154	671	500	400			
Body	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				Ductile Iron				Ductile Iron				Stainless Steel			
O ring	EPDM				EPDM				NBR				NBR				EPDM			
Seat Rubber	EPDM				EPDM				NBR				NBR				EPDM			
Note	End Connection : Lug				End Connection : Lug															

Type	Butterfly					Butterfly				Butterfly			Butterfly				Butterfly			
	 PN16					 10K				 10K			 10K				 20K			
Fig	PN16L2-N-UME<Z0T04>					10L2-N-U<Z0T02>				10L1-N-UE			10L2-N-UE<Z0T02>				20L2-N-UE			
Product Code	957-MESG					562-UNSG				562-UESL			562-UESG				570-UESG			
inch	mm	L	H	D	B	L	H	D	B	L	H	D	L	H	D	B	L	H	D	B
2	50	43	194	80	122	43	194	80	122	43	191	180	43	194	80	122	43	194	80	122
2 1/2	65	46	202	80	122	46	202	80	122	46	199	180	46	202	80	122	46	202	80	122
3	80	46	236	110	135	46	236	110	135	46	217	180	46	236	110	135	46	236	110	135
4	100	52	246	110	135	52	246	110	135	52	227	180	52	246	110	135	52	246	110	135
5	125	56	274	110	150	56	274	110	150	56	265	230	56	274	110	150	56	274	110	150
6	150	56	286	110	150	56	286	110	150	56	277	230	56	286	110	150	56	286	110	150
8	200	60	325	170	180	60	325	170	180				60	325	170	180	60	325	170	180
10	250	68	381	250	250	68	381	170	180				68	381	170	180	68	381	250	250
12	300	78	406	250	250	78	406	170	180				78	406	170	180	78	406	250	250
14	350	78	461	360	350	78	445	310	220				78	445	310	220	78	445	310	220
16	400	102	516	360	350	102	500	310	220				102	500	310	220	102	500	310	220
18	450	114	540	360	350	114	524	310	220				114	524	310	220	114	540	360	350
20	500	127	623	500	400	127	589	360	350				127	589	360	350	127	589	500	350
22	550																154	646	500	400
24	600	154	671	500	400	154	637	360	350				154	637	360	350	154	871	500	400
Body	Ductile Iron					Ductile Iron				Ductile Iron			Ductile Iron/Cast Iron				Ductile Iron			
Stem	Stainless Steel					Stainless Steel				Stainless Steel			Stainless Steel				Stainless Steel			
Disc	Stainless Steel					Stainless Steel				Stainless Steel			Stainless Steel				Stainless Steel			
O ring	NBR/EPDM					NBR				EPDM			EPDM				EPDM			
Seat Rubber	NBR/EPDM					NBR				EPDM			EPDM				EPDM			

Pressure-Temperature Ratings

Rubber Seat



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

• Application of Pressure-Temperature Rating

- (1) This diagram is 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 safety allowance in consideration of piping design conditions, etc.

Generally, the following safety allowance is recommended.

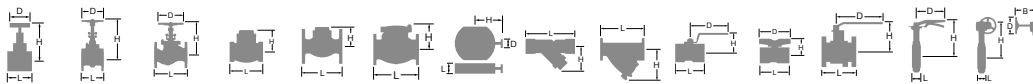
- For large size
10 - 15%.
- For pulsated flow or steam (Teflon® or metal seat)
20 - 25%.

- (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 velocity of fluid when the valve is fully open is specified as 3m/s at nominal pressure of 10K and 4m/s at nominal pressure or at 16K and 30m/s in case of gas. If flow velocity exceeds the above criteria, the pipe diameter should be amended.



Caution

1. Rubber seat (NBR/EPDM) may deteriorate at early stage in service of hot water supply line.
2. EPDM seated butterfly valve shall not be used for any 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						805J								
	inch	mm	L	H	D	L	H	D	L	H		L	H		L	H	H1*		
	1/2	15	108	201	90														
3/4	20	117	211	90															
1	25	127	224	100															
1	32	140	240	100															
1 1/2	40	165	284	140															
2	50	178	336	160	203	234	160	203	121										
2 1/2	65	190	374	180	216	247	180	216	134										
3	80	203	444	200	241	292	200	241	148										
4	100	229	523	225	292	324	225	292	162										
5	125	254	606	250				330	192										
6	150	267	711	250				356	217										
8	200	292	924	300				495	264										
10	250	330	1126	350															
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														*Height for removing the screen					

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	D	L	H	D	L	H	D	L	H	D	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																

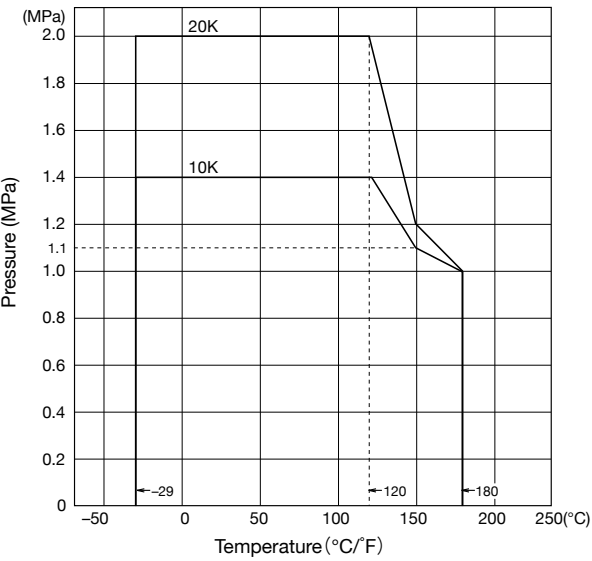
Type	Swing Check				Strainer			Strainer			Ball			Ball			
U-Series																	
	UNSF-N				UT-N			UTF-N			UZ-N			UZ-N-T			
Product Code		804J				809			809J			3550			3550W		
inch	mm	L	H	D1	L	H	H1*	L	H	H1*	L	H	D	L	H	D	
1/4	8										39	31	60	39	25	35	
3/8	10										44	36	70	44	29	40	
1/2	15	85	45		85	58	79	120	58	79	56.5	41	85	56.5	35	55	
3/4	20	95	55		100	64	89	130	66	91	59	44	85	59	39	55	
1	25	110	61		115	76	107	150	78	109	71	48	100				
1	32	130	71		135	89	127	170	93	131	78	54	100				
1 1/2	40	150	72		150	98	139	190	104	144	83	65	125				
2	50	180	81		180	115	167	220	121	173	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					*Height for removing the screen			*Height for removing the screen			Standard Bore			Standard Bore T-Handle			

Type	Ball				Wafer Check		
	 10K				 10K		
Fig	A10-UBF-L				10-UNW		
Product Code	3011L						
inch	mm	L	H	D	L	H	D
1/2	15	108	102	130			
3/4	20	117	105	130			
1	25	127	124	160			
11/4	32	140	128	160			
11/2	40	165	115	230	54	118	63
2	50	178	120	230	60	126	63
21/2	65	190	155	400	67	134	63
3	80	203	165	400	73	138	63
4	100	229	200	460	73	151	63
5	125	356	220	460	86	174	70
6	150	394	295	1000	98	188	70
8	200	457	355	1500	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

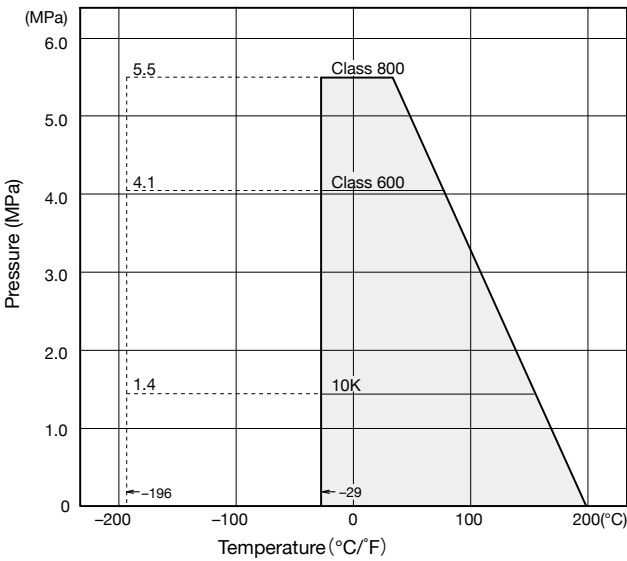
Gate, Globe, and Check Valves, strainers / screwed & flanged ends



		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.

Pressure-Temperature Ratings

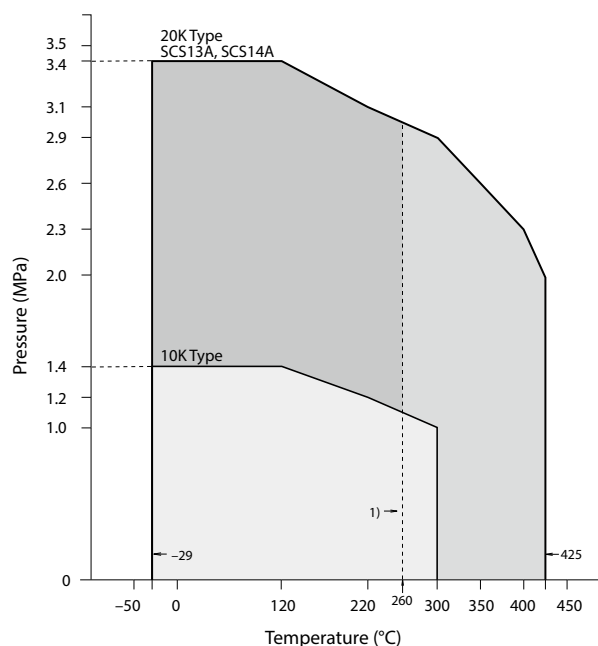
VA-Series Stainless Steel Valves

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) Max. working temperature for standard products is restricted to 260°C by gland packing, gasket or material.
- 2) In case of use in 260°C and above, proper selection of gland packing and 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

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

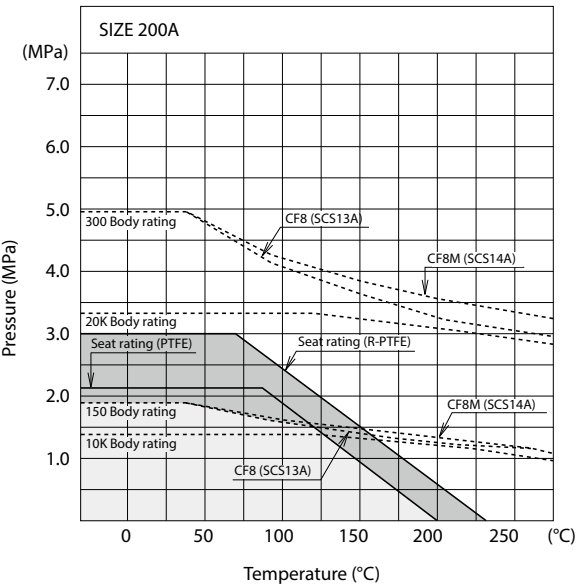
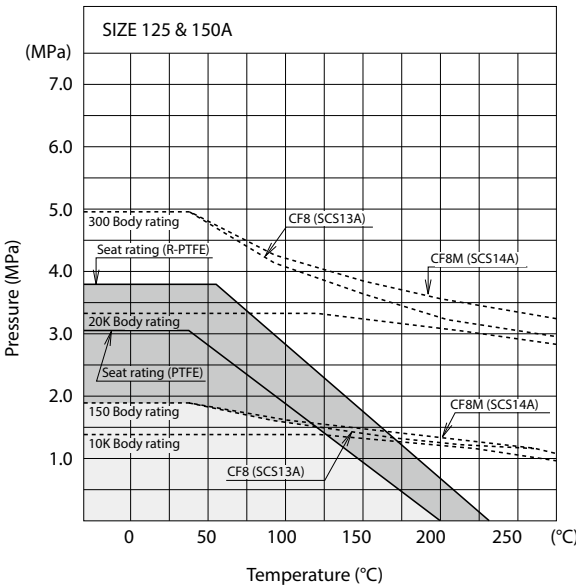
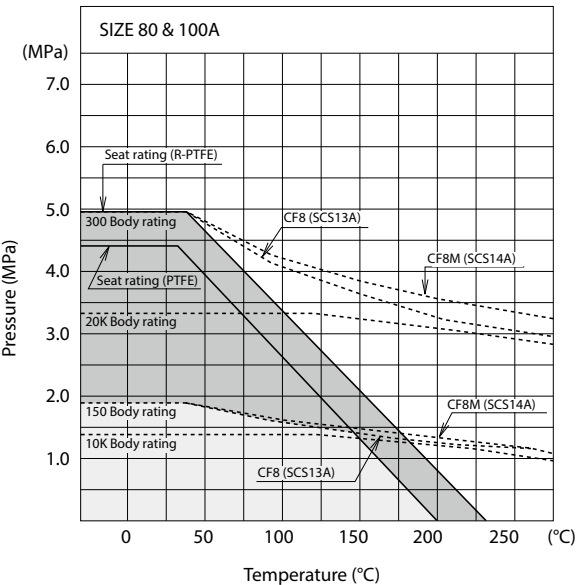
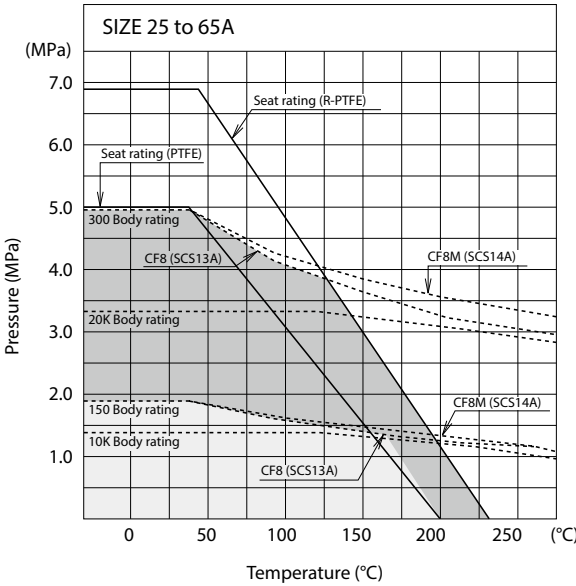
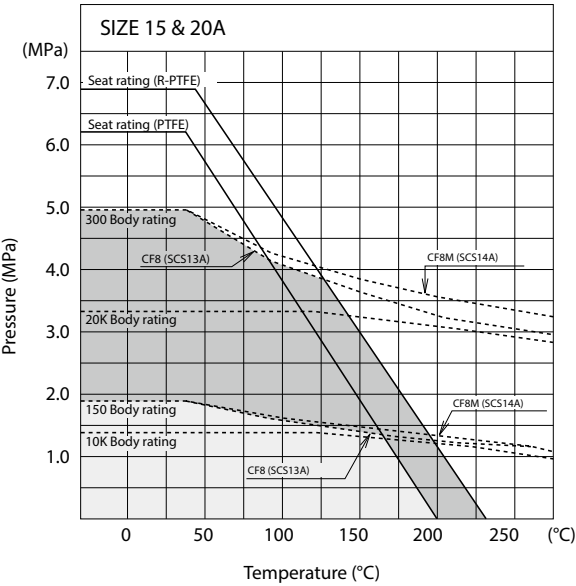
Note:

- (1) Applicable to valves with butt welded end only. Limited to 528°C (1000.4°F) for flanged end valves.
- (2) Permissible, however, please consult with KITZ representative or agent for use 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 any 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.

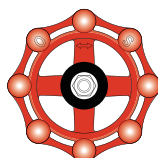
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Furthermore, there may be cases in which an export license issued by the Government of the United States or the government of another country will be required under the applicable export-related laws and ordinances of that country.

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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