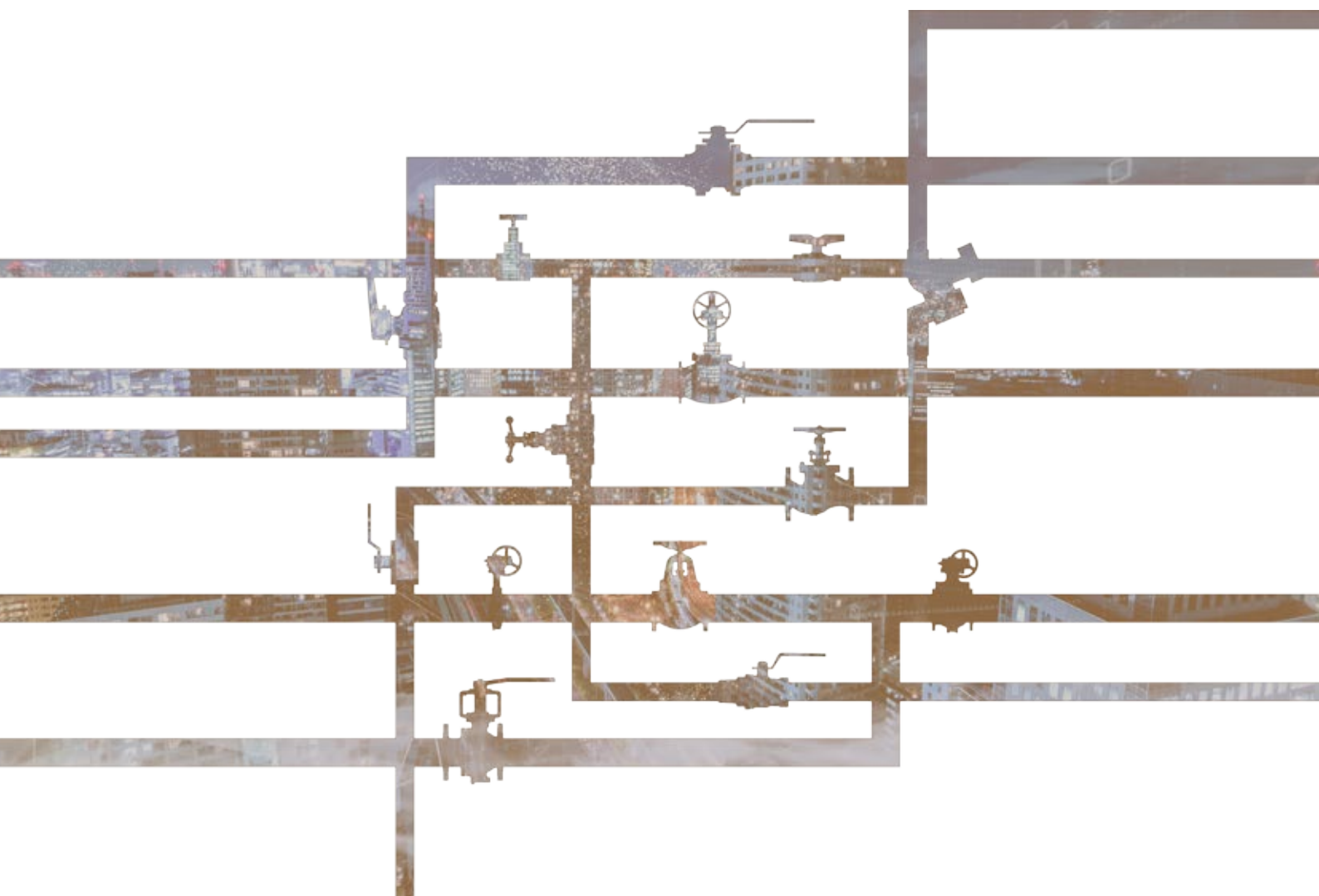


KITZ

GENERAL CATALOG

Cast Iron



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						Swing, BC		10FCON
						Swing, BC, with Counter Weight		10FCON-C
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	CI	Ball	10K	FE/FF	Y-Pattern, BC	10FCYN	C19 74	
					TE	FB		10FCT(G-)10FCTB
RB					10FCTR			
FB					125FCTB			
RB					125FCTR			
FB, 3-way					10FCTB2L			
RB, 3-way	10FCTR2L							

* (Abbreviation) FE: Flanged Ends, FF: Flat Face Ends, RF: Raised Face Ends, TE: Threaded Ends

BB: Bolted Bonnet, OS&Y: Outside Screw & Yoke, BC: Bolted Cover, IS: Inside Screw, NRS: Non Rising Stem, RS: Rising Stem, FB: Full Bore, RB: Reduced Bore

PRODUCT CODING

Cast Iron Valves

(Note: Some products do not follow this coding system)

G - 10 FC O U R

1 2 3 4 5 6

1 Valve Operation

None Handwheel or Lever
G Gear

2 Pressure Class

5 5K
10 10K
PN16 or EN16 PN16
EN25---E PN25
125 Class 125

3 Symbol of Shell Material

FC Cast Iron
F Cast Iron
FD Ductile Iron

4 Valve Type

L Gate (OS&Y)
W or H Gate (NRS, IS)
WI or HI Gate with Indicator
J Globe
O Swing Check
WZ Wafer Check with By-Pass
WNBM Wafer Check
Y Strainer
ETY Strainer
T or TB FB ball
TR RB ball

5 Trim

None Bronze
U 304SS
S 403SS
M 316SS

6 Others

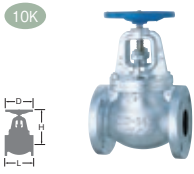
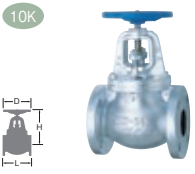
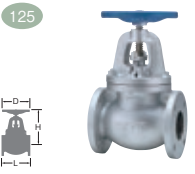
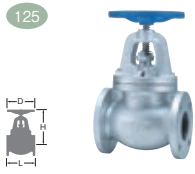
R Rubber Seat
N Nylone Lining
-C With Counter Weight

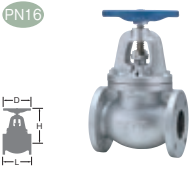
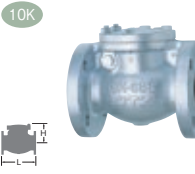
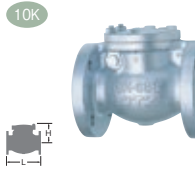
Type	Gate				Gate				Gate				Gate			
Cast Iron	5K  BB OS&Y RS  JIS				10K  BB OS&Y RS  JIS				10K  BB OS&Y RS  JIS				10K  BB OS&Y RS  JIS			
	Fig	5FCM				10FCL				10FCLS				10FCLU		
End Connection	JIS B2239 5K FF				JIS B2239 10K FF				JIS B2239 10K FF				JIS B2239 10K FF			
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D			
11/2	40				165	305	160	165	305	160	165	305	160			
2	50	160	329	160	180	343	170	180	343	170	180	343	170			
21/2	65	170	383	170	190	390	170	190	390	170	190	390	170			
3	80	180	437	170	200	464	200	200	464	200	200	464	200			
4	100	200	534	225	230	548	250	230	548	250	230	548	250			
5	125	220	629	225	250	649	280	250	649	280	250	649	280			
6	150	240	727	250	270	760	300	270	760	300	270	760	300			
8	200	260	920	280	290	957	350	290	957	350	290	957	350			
10	250	300	1135	350	330	1169	400	330	1169	400	330	1169	400			
12	300				350	1364	450	350	1364	450	350	1364	450			
14	350				381	1561	500	381	1561	500	381	1561	500			
16	400				406	1795	600	406	1795	600	406	1795	600			
18	450							432	1999	600	432	1999	600			
20	500							457	2232	680	457	2232	680			
24	600							508	2644	760	508	2644	760			
Body	FC200				FC200				FC200				FC200			
Bonnet	FC200				FC200				FC200				FC200			
Stem	C3771				C3771				403SS				304SS			
Disc	FC200				FC200				FC200				FC200			
Body/Disc Seat Rings	CAC406				CAC406				403SS				304SS			
Gland Packing	Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)			
Gasket	Asbestos-free (T/1995)				Asbestos-free (T/1995)				Asbestos-free (T/1995)				Asbestos-free (T/1995)			
Bolt/Nut	CS				CS				CS				CS			
Standard/Approval	JIS B2031				JIS B2031 for 2 ^B -12 ^B				JIS B2031 for 2 ^B -12 ^B				JIS B2031 for 2 ^B -12 ^B			
Reference Page	P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10			

Type	Gate				Gate				Gate				Gate			
Cast Iron	125  BB OS&Y RS				125  BB OS&Y RS				PN16  BB OS&Y RS				PN16  BB OS&Y RS			
																
Fig	125FCL				125FCLS				EN16FCL				EN16FCLM			
End Connection	ASME B16.1 CI.125FF				ASME B16.1 CI.125FF				EN 1092-2 PN16 RF				EN 1092-2 PN16 RF			
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D			
11/2	40	178	329	160	178	329	160	178	343	170	178	343	170			
2	50	190	383	170	190	382	170	190	389	170	190	389	170			
2 1/2	65	203	437	170	203	437	170	203	462	200	203	462	200			
3	80	229	534	225	229	534	225	229	547	250	229	547	250			
4	100	254	629	225	254	628	225	254	648	280	254	648	280			
5	125	267	727	250	267	726	250	267	759	300	267	759	300			
6	150	292	920	280	292	920	280	292	956	350	292	956	350			
8	200	330	1135	350	330	1135	350	330	1168	400	330	1168	400			
10	250	356	1364	450	356	1364	450	356	1363	450	356	1363	450			
12	300	381	1561	500	381	1561	500									
Body	FC200				FC200				EN-JL1030				EN-JL1030			
Bonnet	FC200				FC200				FC200				FC200			
Stem	C3771				403SS				C3771				316SS			
Disc	FC200				FC200				FC200				FC200			
Body/Disc Seat Rings	CAC406				403SS				CAC406				316SS			
Gland Packing	Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)			
Gasket	Asbestos-free (T/1995)				Asbestos-free (T/1995)				Graphite (P/6633)				Graphite (P/6633)			
Bolt/Nut	CS				CS				CS				CS			
Standard/Approval	MSS SP-70: Option				MSS SP-70: Option											
Reference Page	P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10			

Type	Gate				Gate				Gate				Gate											
Cast Iron	PN25				BB OS&Y RS		10K				BB IS * NRS		125				BB IS * NRS		PN16				BB IS * NRS	
											JIS													
Fig	(PHOX)EN25FCLE				10FCWI				125FCWI				EN16FCW											
End Connection	EN 1092-2 PN25 RF				JIS B2239 10K FF				ASME B16.1 Cl.125FF				EN 1092-2 PN16 RF											
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D											
11/2	40				165	285	160																	
2	50	215.9	385	175	180	313	180	178	249	140	178	271	180											
21/2	65	241.3	437	200	190	344	180	190	287	160	190	297	180											
3	80	282.5	493	254	200	401	200	203	247	160	203	352	200											
4	100	304.8	611	300	230	444	250	229	397	180	229	394	250											
5	125	381	716	300	250	517	280	254	459	225	254	451	280											
6	150	403.2	813	348	270	577	300	267	510	225	267	518	300											
8	200	419.1	1023.5	400	290	693	350	292	635	300	292	618	350											
10	250	457	1211	457	330	814	400	330	762	350	330	760	400											
12	300	502	1386	457	350	925	450	356	873	350	356	867	450											
Body	EN-JL1030				FC200				FC200				EN-JL1030											
Bonnet	FC200				FC200				FC300				EN-JL1030											
Stem	C3771				C3771BD				C3771				C3771											
Disc	FC200				FC200				FC300				EN-JL1030											
Body/Disc Seat Rings	CAC406				CAC406				CAC406				CAC406											
Gland Packing	Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				P6619W											
Gasket	Graphite (P/6633)				Asbestos-free (T/1995)				Asbestos-free (T/1995)				DP1102											
Bolt/Nut	CS				CS				CS				CS											
Standard/Approval					JIS B2031 for 2 ^B -12 ^B				MSS SP-70: Option															
Reference Page	P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10											
Remarks					* with Indicator				* with Indicator															

Type	Gate				Gate				Gate				Globe			
Cast Iron													JIS			
Fig	EN16FCWI				10FCHI				125FCHI				10FCJ			
End Connection	EN 1092-2 PN16 RF				JIS B2239 10K FF				ASME B16.1 Cl.125FF				JIS B2239 10K FF			
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D			
11/2	40	178	271	180	140	210	140	140	213	140	190	261	160			
2	50	190	297	180	146	250	140	146	249	140	200	274	180			
21/2	65	203	352	200	159	285	160	159	287	160	220	301	180			
3	80	229	394	250	165	350	160	165	347	160	240	353	225			
4	100	254	451	280	171	400	180	171	397	180	290	403	280			
5	125	267	518	300	190	460	225	190	459	225	360	465	300			
6	150	292	618	350	210	515	225	210	510	225	410	531	350			
8	200	330	760	400	241	635	300	241	635	300	500	618	450			
10	250	356	867	450	273	760	350									
12	300				305	870	350									
Body	EN-JL1030				FC300				FC300				FC200			
Bonnet	EN-JL1030				FC300				FC300				FC200			
Stem	C3771				C3771BE				C3771				C3771			
Disc	EN-JL1030				FC300/CAC406 for 11/2 ^B				CAC406 or FC300				CAC406 or FC200			
Body/Disc Seat Rings	CAC406				CAC406				CAC406				CAC406			
Gland Packing	P6619W				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)				Asbestos-free (P/A4531K)			
Gasket	DP1102				Asbestos-free (T/1995)				Asbestos-free (T/1995)				Graphite (P/6633)			
Bolt/Nut	CS				CS				CS				CS			
Standard/Approval													JIS B2031			
Reference Page	P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10				P-T Rating : Page CI10			
Remarks	* with Indicator				* with Indicator				* with Indicator							

Type	Globe					Globe					Globe					Globe				
Cast Iron	   					   					   					   				
	Fig 10FCJS					Fig 10FCJU					Fig 125FCJ					Fig 125FCJS				
	End Connection JIS B2239 10K FF					End Connection JIS B2239 10K FF					End Connection ASME B16.1 Cl.125FF					End Connection ASME B16.1 Cl.125FF				
	inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
	1 1/2	40	190	261	160	190	261	160	203	274	180	203	274	180	203	274	180	203	274	180
	2	50	200	274	180	200	274	180	216	301	180	216	301	180	216	300	180	216	300	180
	2 1/2	65	220	301	180	220	301	180	241	353	225	241	353	225	241	353	225	241	353	225
	3	80	240	353	225	240	353	225	292	403	280	292	403	280	292	403	280	292	403	280
	4	100	290	403	280	290	403	280	330	465	300	330	465	300	330	465	300	330	465	300
	5	125	360	465	300	360	465	300	356	531	350	356	531	350	356	533	350	356	533	350
	6	150	410	533	350	410	533	350	495	618	450	495	618	450	495	618	450	495	618	450
	8	200	500	618	450	500	618	450												
	10	250	620	669	450	620	669	450												
	12	300	700	756	500	700	756	500												
Body	FC200					FC200					FC200					FC200				
Bonnet	FC200					FC200					FC200					FC200				
Stem	403SS					304SS					C3771					403SS				
Disc	403SS or FC200					304SS or FC200					CAC406 or FC200					403SS or FC200				
Body/Disc Seat Rings	403SS					304SS					CAC406					403SS				
Gland Packing	Asbestos-free (P/A4531K)					Asbestos-free (P/A4531K)					Asbestos-free (P/A4531K)					Asbestos-free (P/A4531K)				
Gasket	Graphite (P/6633)					Asbestos-free (T/1995)					Asbestos-free (T/1995)					Asbestos-free (T/1995)				
Bolt/Nut	CS					CS					CS					CS				
Standard/Approval	JIS B2031					JIS B2031					MSS SP-70: Option					MSS SP-70: Option				
Reference Page	P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10				

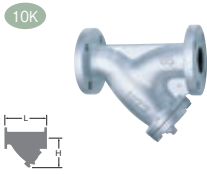
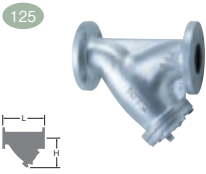
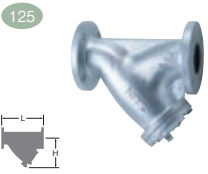
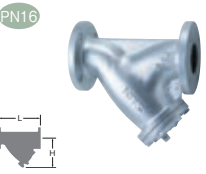
Type	Globe					Globe					Swing Check					Swing Check				
Cast Iron	   					   					   					   				
	Fig EN16FCJ					Fig EN16FCJM					Fig 10FCO					Fig 10FCOS				
	End Connection EN 1092-2 PN16 RF					End Connection EN 1092-2 PN16 RF					End Connection JIS B2239 10K FF					End Connection JIS B2239 10K FF				
	inch	mm	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
	1 1/2	40							190	108		190	108		190	108		190	108	
	2	50	203	277	180	203	277	180	200	113		200	113		200	113		200	113	
	2 1/2	65	216	307	180	216	307	180	220	123		220	123		220	123		220	123	
	3	80	241	353	225	241	353	225	240	149		240	145		240	145		240	145	
	4	100	292	404	280	292	404	280	290	165		290	165		290	165		290	165	
	5	125	330	467	300	330	467	300	360	207		360	207		360	207		360	207	
	6	150	356	533	350	356	533	350	410	225		410	225		410	225		410	225	
	8	200	495	620	450	495	620	450	500	271		500	268		500	268		500	268	
	10	250	622	665	450	622	665	450	620	319		620	319		620	319		620	319	
	12	300							700	356		700	356		700	356		700	356	
	14	350										787	381		787	381		787	381	
Body	EN-JL1030					EN-JL1030					FC200					FC200				
Bonnet	FC200					FC200					FC200					FC200				
Stem	C3771					316SS					C3771BD					403SS				
Disc	CAC406 or FC200					316SS or FC200					CAC406 or FC200					403SS or FC200				
Body/Disc Seat Rings	CAC406					316SS					CAC406					403SS/304SS				
Gland Packing	P/6619W					P/A4532K														
Gasket	Graphite (P/6633 or 6630)					Graphite (P/6633 or 6630)					Asbestos-free (T/1995)					P/6630 or 6633				
Bolt/Nut	CS					CS					CS					CS				
Standard/Approval											JIS B2031 for 2 nd -8 th					JIS B2031 for 2 nd -8 th				
Reference Page	P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10				

Type	Swing Check					Swing Check					Swing Check					Swing Check				
Cast Iron																				
Fig	10FCOU					10FCOR					10FCOUR					10FCOU-C				
End Connection	JIS B2239 10K FF					JIS B2239 10K FF					JIS B2239 10K FF					JIS B2239 10K FF				
inch	mm	L	H	D		L	H	D			L	H	D			L	H	D		
1 1/2	40	190	108			190	106				190	106				200	111			
2	50	200	113			200	111				200	111				200	111			
2 1/2	65	220	123			220	121				220	121				220	121			
3	80	240	145			240	145				240	145				240	145			
4	100	290	165			290	165				290	165				290	165			
5	125	360	207			360	207				360	207				360	207			
6	150	410	225			410	225				410	225				410	225			
8	200	500	268			500	268				500	268				500	268			
10	250	620	319			620	315				620	315								
12	300	700	356			700	356				700	356								
14	350	787	381																	
Body	FC200					FC200					FC200					FC200				
Bonnet	FC200					FC200					FC200					FC200				
Stem	304SS					C3771BD					C3771BD					304SS				
Disc	304SS or FC200					304SS+NBR or FC200+NBR					304SS+NBR or FC200+NBR					304SS or FC200				
Body/Disc Seat Rings	403SS/304SS					CAC406					304SS					304SS				
Gasket	P/6630 or 6633					P/6630 or 6633					P/6630 or 6633					P/6630 or 6633				
Bolt/Nut	CS					CS					CS					CS				
Standard/Approval	JIS B2031 for 2 ^B -8 ^B																			
Reference Page	P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10				
Remarks						NBR Disc Seat					NBR Disc Seat					Counter Weight				

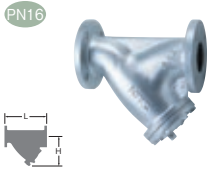
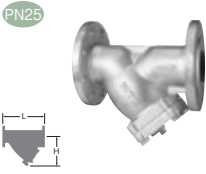
Type	Swing Check					Swing Check					Swing Check					Swing Check				
Cast Iron																				
Fig	125FCO					125FCOS					EN16FCO					EN16FCOM				
End Connection	ASME B16.1 CI.125FF					ASME B16.1 CI.125FF					EN 1092-2 PN16 RF					EN 1092-2 PN16 RF				
inch	mm	L	H	D		L	H	D			L	H	D			L	H	D		
2	50	203	113			203	113				203	111				203	111			
2 1/2	65	216	123			216	123				216	121				216	121			
3	80	241	143			241	143				241	145				241	145			
4	100	292	175			292	175				292	165				292	165			
5	125	330	207			330	207				330	207				330	207			
6	150	356	225			356	225				356	225				356	225			
8	200	495	268			495	268				495	268				495	268			
10	250	622	319			622	319				622	315				622	315			
12	300	698	356			698	356				698	356				698	356			
14	350					787	381													
Body	FC200					FC200					EN-JL1030					EN-JL1030				
Bonnet	FC200					FC200					FC200					FC200				
Stem	CAC406 or FC200					403SS					C3771					316SS				
Disc	CAC406					403SS					CAC406 or FC200					316SS or FC200				
Body/Disc Seat Rings	CAC406					403SS					CAC406					316SS				
Gasket	Asbestos-free (T/1995)					Asbestos-free (T/1995)					P/6633					P/6633				
Bolt/Nut	CS					CS					CS					CS				
Standard/Approval	MSS SP-71: Option					MSS SP-71: Option														
Reference Page	P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10					P-T Rating : Page CI10				

Type	Swing Check	Silent Check	Wafer Check	Wafer Check
Cast Iron				
Fig	(PHOX)EN25FCOE	125FCSR	10FWZ	125FWNB
End Connection	EN 1092-2 PN25 RF	ASME B16.1 Cl.125FF	Wafer (JIS 10K)	Wafer (Class 125)
inch	L	L	L	L
mm	H	H	H	H
	D	D	D	D
11/2	40		54	
2	50		56	105
21/2	65	140	56	124
3	80	152	59	137
4	100	184	66	175
5	125	216	72	197
6	150	248	78	222
8	200	318	96	279
10	250		109	340
12	300		145	410
14	350		184	
16	400		191	
18	450		204	
Body	EN-GJL-250	A126 CL.B	FC250+NBR	A126 CL.B+NBR
Bonnet	EN-GJL-250		C3771/CAC406	B584 C83600
Stem	BS970 304S15		304SS	304SS/Spring 316SS
Disc	EN-GJL-250	A351 Gr. FC8/SCS13A	CAC406	B584 C83600
Body/Disc Seat Rings	BS1400 LG2	A351 Gr. FC8/SCS13A		
Gasket	PTFE			
Bolt/Nut	CS			
Service Conditions		93°C at 1.38MPa	80°C W.O.G. : 1.4MPa	16bar at 80°C Non-shock Water (NBR Seat), 16bar at 100°C Non-shock Water (EPDM Seat)
Reference Page	P-T Rating : Page CI10		Features: Page BR35	
Remarks			Built-in Bypass Valve Dual Plate Type	Dual Plate Type

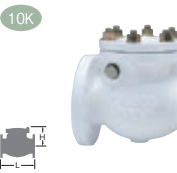
Type	Wafer Check	Wafer Check	Wafer Check
Cast Iron			
Fig	125FWNBE	PN16FWNBME	PN16FWNBME
End Connection	Wafer (Class 125)	Wafer (PN16)	Wafer (PN16)
inch	L	L	L
mm	H	H	H
	D	D	D
2	54	54	54
21/2	54	54	54
3	57	57	57
4	64	64	64
5	70	70	70
6	76	76	76
8	95	95	95
10	108	108	108
12	143	143	143
14		184	184
16		191	191
18		203	203
20		213	213
24		222	222
Body	A126 CL.B+EPDM	A126 CL.B+NBR	A126 CL.B+EPDM
Bonnet	B584 C83600		
Stem/Hinge Pin	304SS	304SS	304SS
Spring	316SS	316SS	316SS
Disc	B584 C83600	CF8M	CF8M
Service Conditions	16bar at 80°C Non-shock Water (NBR Seat), 16bar at 100°C Non-shock Water (EPDM Seat)	16bar at 80°C Non-shock Water (NBR Seat), 16bar at 100°C Non-shock Water (EPDM Seat)	16bar at 80°C Non-shock Water (NBR Seat), 16bar at 100°C Non-shock Water (EPDM Seat)
Remarks	Dual Plate Type	Dual Plate Type	Dual Plate Type

Type	Y-Strainer					Y-Strainer			Y-Strainer			Y-Strainer		
Cast Iron														
Fig	10FCY					125FCY			125FCETY<Z0P02>			EN16FCY		
End Connection	JIS B2239 10K FF					ASME B16.1 Cl.125FF			ASME B16.1 Cl.125FF			EN 1092-2 PN16 RF		
inch	mm	L	H	H1**		L	H	H1**	L	H	H1**	L	H	H1**
3/8	10	115	46	63										
1/2	15	125	57	81										
3/4	20	140	62	90										
1	25	150	77	114										
1 1/4	32	170	90	134										
1 1/2	40	190	100	145										
2	50	230	138	173	250	157	207					250	168	208
2 1/2	65	305	207	288	285	207	288					285	212	289
3	80	360	237	334	315	237	334					315	242	335
4	100	415	278	387	370	278	387					370	284	388
5	125	465	321	445	420	321	445					420	325	446
6	150	515	367	497	490	367	497					490	370	497
8	200	580	457	622	570	457	622					570	440	589
10	250	680	536	743	680	536	743					680	515	694
12	300	800	625	869	800	625	869					800	600	818
14	350	950	741	1031	950	741	1031							
16	400								1100	750	1129			
18	450								1200	784	1172			
20	500								1250	857	1293			
Body	FC200					FC200			FC200			EN-JGL-200		
Cap/Cover	C3771BE /FC200 for 2 ^B & over					FC200			FC200			EN-JGL-200		
Screen	304SS(Punched Plate)					304SS(Punched Plate)			304SS(Punched Plate)			304SS		
Gasket	T/1995					T/1995			Graphite			Non asbestos Sheet		
Bolt/Nut	CS					CS			CS			CS		
Plug	304SS					304SS			304SS			304SS		
Service Conditions	120°C Non-shock Water: 1.4MPa, 120°C Water,Oil,Air.: 1.0MPa, 120°C Gas: 0.2MPa, Saturated Steam: 0.7MPa													
Reference Page						P-T Rating : Page CI10			P-T Rating : Page CI10			P-T Rating : Page CI10		
Remarks	Screwed Cap up to 11/2 ^B													

**Height for removing the screen

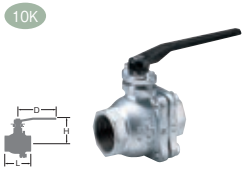
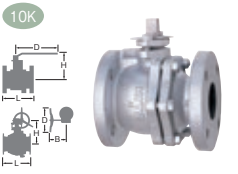
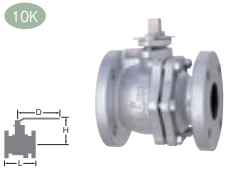
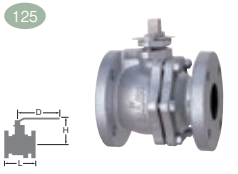
Type	Y-Strainer					Y-Strainer		
Cast Iron								
Fig	EN16FCYM					(PHOX)EN25FDYBE		
End Connection	EN 1092-2 PN16 RF					EN 1092-2 PN25 RF		
inch	mm	L	H	H1**		L	H	H1**
2	50	250	168	208	216	140	180	
2 1/2	65	285	212	289	241	162	219	
3	80	315	242	335	283	184	258	
4	100	370	284	388	305	225	339	
5	125	420	325	446	381	280	388	
6	150	490	370	497	403	318	441	
8	200	570	440	589	521	405	606	
10	250	680	515	694	635	485	722	
12	300	800	600	818	749	580	890	
Body	EN-JGL-200					EN1563 EN-GJS-450		
Cap	EN-JGL-200					EN1563 EN-GJS-450		
Screen	316SS					304SS(Punched Plate)		
Gasket	Non asbestos Sheet					Non-asbestos		
Bolt/Nut	CS							
Plug	SS					304SS		
Reference Page	P-T Rating : Page CI10					P-T Rating : Page CI10		

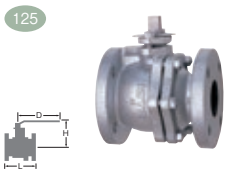
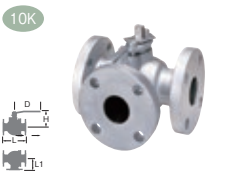
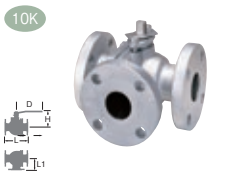
**Height for removing the screen

Type		Gate			Gate			Globe			Swing Check		
Cast Iron Nylon Lining													
Fig		5FCMN			10FCLN			10FCJN			10FCON		
End Connection		JIS B2239 5K FF			JIS B2239 10K FF			JIS B2239 10K FF			JIS B2239 10K FF		
inch	mm	L	H	D	L	H	D	L	H	D	L	H	D
2	50				180	343	170	200	274	180	200	116	
2 1/2	65	170	383	170	190	390	170	220	301	180	220	126	
3	80	180	437	170	200	464	200	240	353	225	240	153	
4	100	200	534	225	230	548	250	290	403	280	290	170	
5	125	220	629	225	250	649	280	360	466	300	360	217	
6	150	240	727	250	270	760	300	410	534	350	410	235	
8	200	260	920	280	290	957	350	500	620	450	500	273	
10	250	300	1135	350	330	1169	400						
12	300				350	1364	450						
Body		FC200+Nylon Lining			FC200+Nylon Lining			FC200+Nylon Lining			FC200+Nylon Lining		
Bonnet/Cap/Cover		FC200+Nylon Lining			FC200+Nylon Lining			FC200+Nylon Lining			FC200+Nylon Lining		
Stem/Hinge Pin		C3771BD			C3771BD			C3771BD			C3771BD		
Disc		CAC406 up to 6 ^B /FC200			CAC406 up to 6 ^B /FC200			CAC406 up to 4 ^B /FC200			CAC406		
Body/Disc Seat Rings		CAC406			CAC406			CAC406			CAC406		
Gland Packing		P/A4531K or P/A4532K			P/A4531K or P/A4532K			P/A4531K or P/A4532K					
Gasket		T/1995			T/1995			T/1995			T/1938		
Standard/Approval		JIS B2031,JWWA E-236			JIS B2031,JWWA E-236			JIS B2031,JWWA E-236			JIS B2031,JWWA E-236		
Service Conditions		0°C~+60°C, Fresh Water 0.7MPa, Water/Oil 0.5MPa			0°C~+60°C, Fresh Water 1.4MPa, Water/Oil 1.0MPa			0°C~+60°C, Fresh Water 1.4MPa, Water/Oil 1.0MPa			0°C~+60°C, Fresh Water 1.4MPa, Water/Oil 1.0MPa		

Type	Swing Check				Ball Check				Y-Strainer			
Cast Iron Nylon Lining	10K  BB				10K 				10K  BC			
									 JWWA			
Fig	10FCON-C				10FCFTN				10FCYN			
End Connection	JIS B2239 10K FF				JIS B2239 10K FF				JIS B2239 10K FF			
inch	mm	L	H	D	L	H	D	L	H	H1**		
1 1/2	40				190	101						
2	50	200	116		200	105		230	139	173		
2 1/2	65	220	126		220	127		305	210	288		
3	80	240	153		240	150		360	238	334		
4	100	290	170		290	188		415	282	387		
5	125	360	217		360	235		465	325	445		
6	150	410	235		410	280		515	373	497		
8	200	500	273					580	457	622		
10	250							680	536	743		
Body	FC200+Nylon Lining				FC200+Nylon Lining				FC200+Nylon Lining			
Bonnet/Cap/Cover	FC200+Nylon Lining				FC200+Nylon Lining				FC200+Nylon Lining			
Stem/Hinge Pin	304SS											
Disc/Ball/Screen	CAC406				NBR *				304SS			
Body/Disc Seat Rings	CAC406											
Gland Packing/O ring					NBR *							
Gasket/O ring	T/1938				NBR *				T/1995			
Standard/Approval									JWWA Z-52			
Service Conditions	0℃~+60℃, Fresh Water 1.4MPa, Water/Oil 1.0MPa				0℃~+60℃, Fresh Water 0.05~1.4MPa				0℃~+60℃, Fresh Water 1.4MPa, Water/Oil 1.0MPa			
Reference Page					Features & Pressure Loss: Page CPT21&22							
Remarks	Counter Weight				*EPDM Option							
**Height for removing the screen												

**Height for removing the screen

Type	Ball				Ball				Ball			Ball		
Cast Iron														
Fig	10FCT				10FCTB/G-10FCTB				10FCTR			125FCTB		
End Connection	BS21 (JIS B0203)				JIS B2239 10K FF				JIS B2239 10K FF			ASME B16.1 Cl.125FF		
inch	mm	L	H	D	L	H	D	B	L	H	D	L	H	D
3/8	10	72	71	130										
1/2	15	80	102	130	110	102	130							
3/4	20	85	105	130	120	105	130							
1	25	95	124	160	130	124	160							
1 1/4	32	120	128	160	140	128	160							
1 1/2	40	120	114	230	165	114	230							
2	50	140	121	230	180	121	230					178	121	230
2 1/2	65	160	154	400	190	154	400					190	154	400
3	80	182	163	400	200	163	400					203	163	400
4	100				230	199	460					229	199	460
5	125				300	219	460		250	200	460			
6	150				340	292	1000		270	220	460	394	292	1000
8	200				450	352	1500		290	295	1000	457	352	1500
10	250				533	477	500	363	330	355	1500			
Body & Cap	FC200				FC200				FC200			A126 CL. B		
Stem	403SS				403SS				403SS			403SS		
Ball	304SS/CF8				304SS/CF8				304SS/CF8			304SS/CF8		
Ball Seat	PTFE				PTFE				PTFE			PTFE		
Gland Packing	PTFE				PTFE				PTFE			PTFE		
Gasket	PTFE				PTFE				PTFE			PTFE		
Handle	DI/CS				DI/CS				DI/CS			DI/CS		
Bore	Full Bore				Full Bore				Reduced Bore			Full Bore		
Service Conditions	120°C Non-shock Water 1.4MPa, 120°C W.O.G. 1.0MPa, Saturated Steam 0.7MPa													
Reference Page					P-T Rating : Page CI13				P-T Rating : Page CI13			P-T Rating : Page CI13		
Remarks					Gear opo for 10 ³									

Type	Ball				3-way, 2-seats, L port Ball				3-way, 2-seats, L port Ball			
Cast Iron Nylon Lining												
Fig	125FCTR				10FCTB2L				10FCTR2L			
End Connection	ASME B16.1 Cl.125FF				JIS B2239 10K FF				JIS B2239 10K FF			
inch	mm	L	H	D	L	H	D	L1	L	H	D	L1
1 1/2	40				210	114	230	105				
2	50				220	123	230	110				
2 1/2	65				250	156	400	125				
3	80				260	163	400	130				
4	100				330	203	460	165				
5	125								370	205	460	185
6	150	267	220	460					430	225	460	215
8	200	292	295	1000					540	295	1000	270
10	250	330	355	1500								
Body & Cap	A126 CL. B				FC200				FC200			
Stem	403SS				403SS				403SS			
Ball	304SS/CF8				304SS/CF8				304SS/CF8			
Ball Seat	PTFE				PTFE				PTFE			
Gland Packing	PTFE				PTFE				PTFE			
Gasket	PTFE				PTFE				PTFE			
Handle	DI/CS				DI/CS				DI/CS			
Bore	Reduced Bore				Full Bore				Reduced Bore			
Reference Page	P-T Rating : Page CI13				P-T Rating : Page CI13 Port Orientation : Page TECH1				P-T Rating : Page CI13 Port Orientation : Page TECH1			

Cast Iron Valves

Conditions of Fluids and Maximum Permissible Pressures

Unit: MPa

Standards		5K	10K				10K	
Nominal Pressure		JIS B2031	JIS B2031				KITZ Standard	
Valve Type		Outside Screw Gate Valve	Outside Screw Gate Valve	Globe Valve, Swing Check Valve		Inside Screw Gate Valve	Valve 350 A or more	FC300 Valve
Disc Seat Structure		Press-fit Seat	Screw Seat	Screw Seat		Press-fit Seat	Screw Seat	Press-fit Seat
Main Section		CAC406	CAC 406 13 Chrome 18-8 Stainless Steel	CAC 406	13 Chrome 18-8 Stainless Steel	CAC 406	CAC 406 13 Chrome 18-8 Stainless Steel	CAC 406 13 Chrome
Maximum Permissible Working Pressure	Steady Flow Below 120°C	0.7	1.4	1.4	–	1.4	1.0	1.0
	Oil, Pulsating Flow and Water Below 120°C	0.5	1.0	1.0	–	1.0	0.9	0.9
	Saturated Steam	0.2	0.7	0.7	–	0.2	0.7	0.7
	Gas Below 120°C	0.2	0.2	0.2	–	0.2	0.2	0.2
	120°C	–	–	–	1.4	–	–	–
	220°C	–	–	–	1.0	–	–	–

- Use may be prohibited or restricted by the High Pressure Gas Safety Law and other regulations. Use the valve within legal limits.
- Maximum allowable pressure at intermediate temperatures between 120°C and 220°C is based on the proportional interpolation method.

Basic Design Specifications

Nominal Pressure	JIS5K/10K	Class 125	10K
Face-to-Face Dimension	JIS B 2031	ASME B 16.10	KITZ Std.
End Flange Dimension	JIS B 2239	ASME B 16.1	JIS B 2239
Wall Thickness	JIS B 2031	KITZ Std.	

Material Specifications for Grey Iron Casting

JIS Materials		FC200	FC250	FC300
Mechanical Properties	min.	200	250	300
Tensile Strength (N/mm ²)				
Brinell Hardness (HB) Max.		235	248	269
ASTM A126 Class B		Tensile Strength (min)		31ksi
Transverse Test Requirement	Face at Center, Min.	3,300 lb		
	Deflection at Center, Min.	0.12in		

Class 125 Valves Pressure-Temperature Ratings Maximum Allowable Non-Shock Pressure

Temperature	Class 125	
	Size 1 – 12	Size 14 – 24
°C	bar	
-29 to 65	13.8	10.3
80	13.3	9.8
100	12.7	9.2
120	12.1	8.6
140	11.5	8.0
160	10.8	7.4
178*	–	6.9

*178°C to reflect temperature of saturated steam at 8.6 bar.

Simplified Material Indication (as referred to on each page)

Bronze Trim : Iron Body with Bronze Trim

13 Cr. Trim : Iron Body with 13 Cr. Trim

18-8 Trim : Iron Body with 18 Cr.-8 Ni Trim

Certification by JIS Mark

Industrial Standardization Law of Japan provides an effective measure to promote the introduction of high-level quality assurance system of manufacture and processing. Wherever KITZ valves are identified with JIS Mark, it is officially certified that such valves are produced under strict quality assurance procedures and practices to satisfy the designated quality level stably and constantly.

Valve Position Indicators

Valve position indicator is provided on gate valves with inside screw design as illustrated. Opening or closing a valve does not move the vertical position of the stem. Instead, position indicator visually indicates three valve operating positions—fully opened, fully closed, or half opened.



Trim Materials

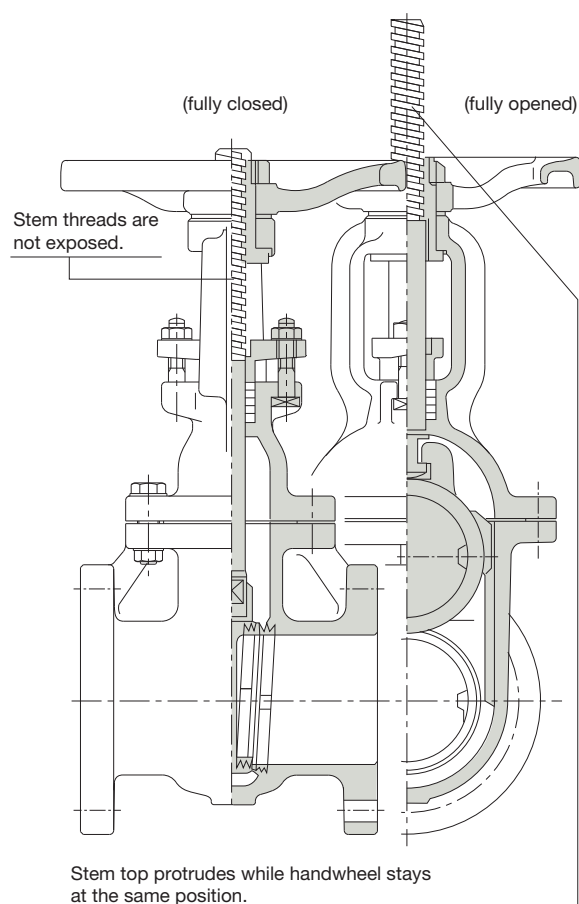
KITZ cast iron valves are provided with one of three trim materials given in the table below for versatility of service applications.

Color codes are given on a name plate of gate or globe valves and on the cover of swing check valves.

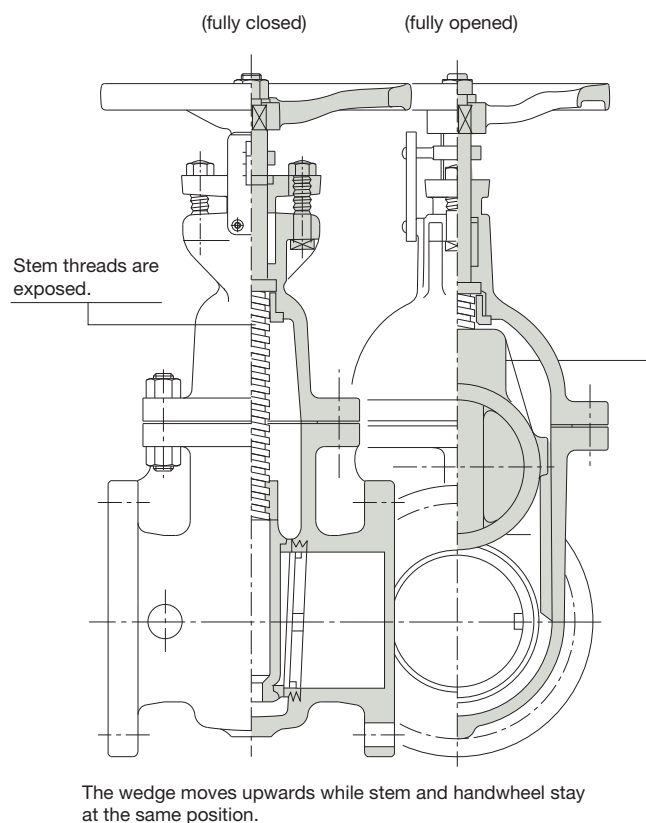
Trim Material	Color Coding	Suffix of Fig.
Bronze Seats / Brass Stem	None	–
13 Cr. Seats / Stem	Orange	S
18-8 Seats / Stem	Green	U

Outside Screw (O.S.) Valves and Inside Screw (I.S.) Valves

Outside Screw Gate Valve



Inside Screw Gate Valve



Outside Screw Gate Valves

Stem threads are not exposed to the fluid, and valve opening operation moves the stem upwards while the handwheel stays at the same position. Valve operating position can be visually determined by observing the stem travel KITZ Fig. FCM, FCL, FCLS, and FCLU are designed this way.

Outside Screw Globe Valves

Stem and handwheel move upwards or downwards at the same time, following valve opening or closing operation. All KITZ globe valves are provided with this design.

Inside Screw Gate Valves

Stem threads are exposed to the fluid. Opening the valve does not make the stem or handwheel move. Thus, the valve operating position is not visible. Position indicator is provided for this reason.

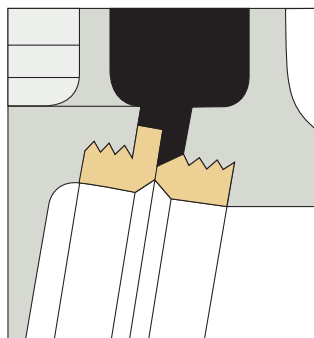
Inside screw gate valves are generally designed shorter than outside screw gate valves and the stem and handwheel always at the same position. For this feature, inside screw gate valves are widely employed for underground installation or service in narrow areas with limited room. KITZ Fig. FCWI and FCHI are designed this way.

Asbestos-free Packings and Gaskets

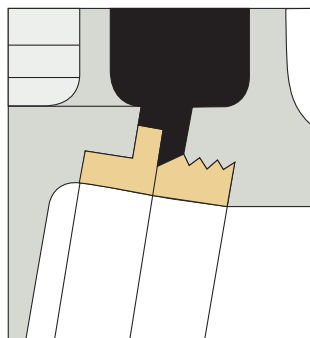
KITZ has led the industry in employing asbestos-free sealers for all cast iron valves, meeting the requirement of pollution-free valve materials. PTFE-impregnated glass fiber gland packings and compressed glass and aramid fiber gaskets are the standard sealers for KITZ cast iron valves.

Mounting of Seat Rings

In case of KITZ cast iron gate valves, seat rings are mounted on the valve disc by means of either threading or press-fitting. For example, 10K outside screw gate valves are provided with threaded seat rings that are ideal for saturated steam service. Or, 10K inside screw gate valves are provided with mechanically press-fit seat rings by means of a patented special process to suit them also for saturated steam service. All KITZ cast iron globe and check valves are provided with threaded seat rings.



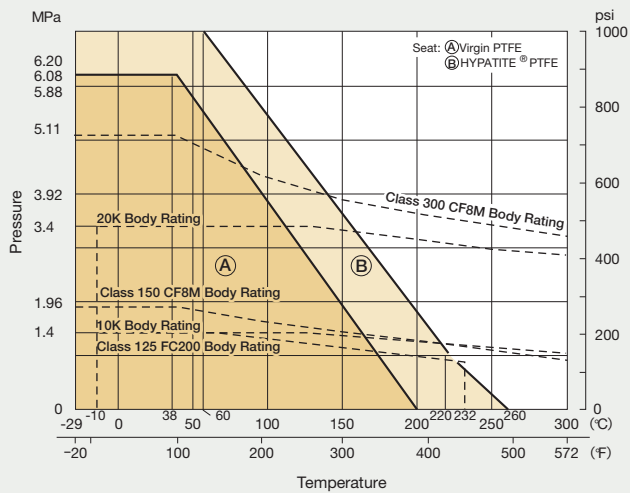
Threaded Seat Ring



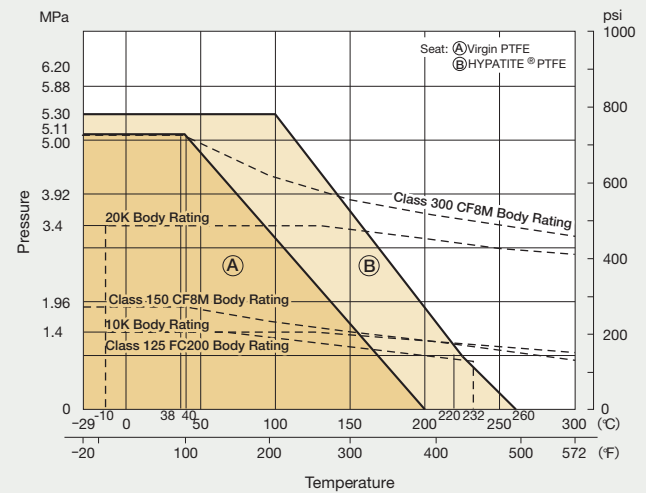
Press-fit Seat Ring

Pressure-Temperature Ratings

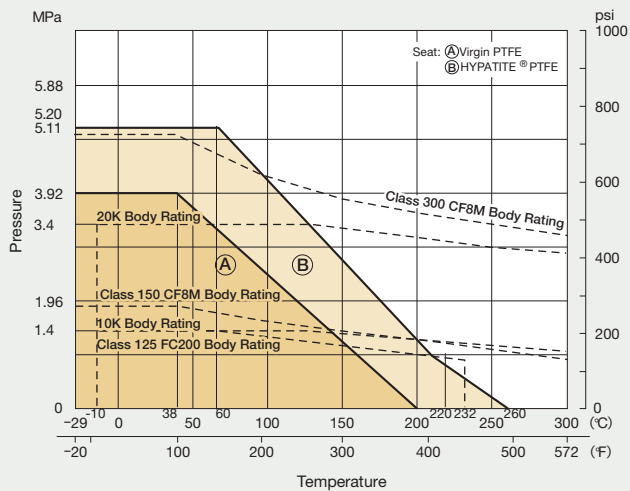
■ 150UTB(M)/150UTBT/10/125FCTB(2L) : NPS $\frac{1}{2}^B$, $\frac{3}{4}^B$
10/125FCTR(2L) : NPS $\frac{1}{2}^B$ to 1^B



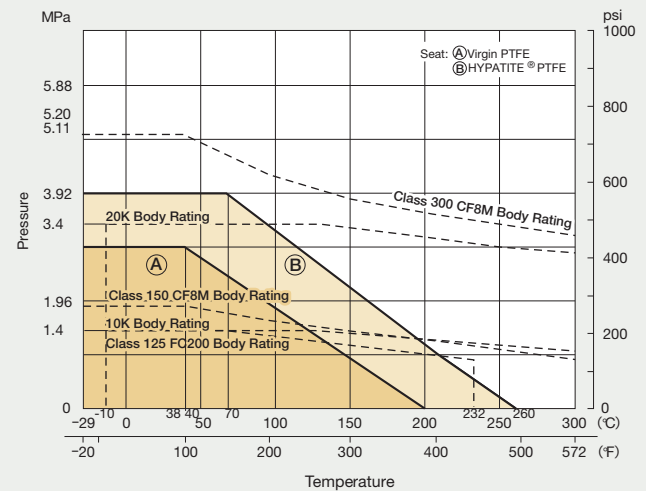
■ 150UTB(M)/150UTBT/10/125FCTB(2L) : NPS 1^B to $2 \frac{1}{2}^B$
10/125FCTR(2L) : NPS $\frac{1}{2}^B$ to 3^B



■ 150UTB(M)/150UTBT/10/125FCTB(2L) : NPS 3^B , 4^B
10/125FCTR(2L) : NPS 4^B , 5^B



■ 150UTB(M)/150UTBT/10/125FCTB(2L) : NPS 5^B , 6^B
10/125FCTR(2L) : NPS 6^B , 8^B



■ 150UTB(M)/150UTBT/10/125FCTB(2L) : NPS 8^B , 10^B
10/125FCTR(2L) : NPS 10^B , 12^B

