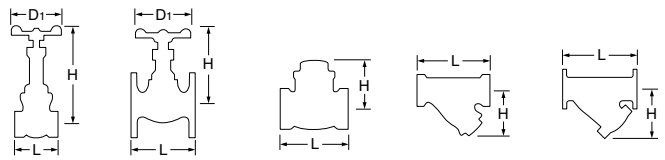
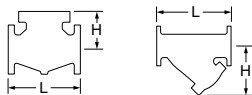


U-Series Stainless Steel Valves








Design	Manufacturers Standard															
Type	Gate Valves						Globe Valves									
Class	10K															
Fig.	802			802J			800			800J			830			
Size	L	H	D ₁	L	H	D ₁	L	H	D ₁	L	H	D ₁	L	H	D ₁	
8 (mm)	1/4"						44	68	55							
10	3/8"						48	68	55				55	110	70	
15	1/2"	54	97	70	85	100	70	52	68	55	85	112	70	65	113	70
20	3/4"	58	102	70	95	106	70	60	94	70	95	113	70	80	114	70
25	1"	65	112	80	100	116	80	72	101	70	110	143	100	90	144	100
32	1 1/4"	74	123	80	110	128	80	80	124	90	130	152	100	105	151	100
40	1 1/2"	78	150	100	125	170	100	90	138	90	150	172	110	120	172	110
50	2"	87	167	100	140	188	100	100	153	100	180	190	125	140	190	125
Material	Body	SCS13A			SCS13A			SCS13A			SCS13A			SCS13A		
	Stem	SUS304			SUS304			SUS304			SUS304			SUS304		
	Disc	SCS13A			SCS13A			SUS304			SUS304			PTFE		
Service conditions	See P-T rating on page 12															
Remarks													PTFE seat			

Design	Manufacturers Standard											
Type	Globe Valves			Swing Check Valves					Strainers			
Class	10K											
Fig.	830J			804		804J			809		809J	
Size	L	H	D ₁	L	H	L	H	L	H	L	H	
8 (mm)	1/4"											
10	3/8"											
15	1/2"	85	113	70	65	45	85	45	85	60	120	58
20	3/4"	95	114	70	80	55	95	55	100	65	130	66
25	1"	110	144	100	90	61	110	61	115	77	150	78
32	1 1/4"	130	151	100	105	71	130	71	135	90	170	93
40	1 1/2"	150	172	110	120	72	150	72	150	100	190	104
50	2"	180	190	125	140	81	180	81	180	115	220	122
Material	Body	SCS13A			Body	SCS13A			Body	SCS13A		
	Stem	SUS304			Pin	SUS304			Screen	SUS304		
	Disc	PTFE			Disc	SCS13A						
Service conditions	See P-T rating on page 12											
Remarks	PTFE seat					40 meshes screen						

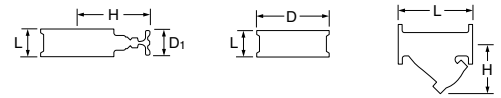




V-Series / VN-Series Stainless Steel Valves


Design		Manufacturers Standard												
Type	Globe with PTFE seat			Swing Check Valves										
Class	10K			10K		10K / 150				20K / 300				
														
		JV8-1												
Fig.	831J (SCS13A) / 881J (SCS14A)			805J (JV8-1)		805 (150)		855J (10K) (JV8-1) / 855 (150)		815J (20K) (JV8-1) / 815 (300)		865J (20K) (JV8-1) / 865 (300)		
Size	L	H	D ₁	L	H	L	H	L	H	L	H	L	H	
15 (mm)	1/2"	108	176	100										
20	3/4"	117	178	100										
25	1"	127	180	100										
32	1 1/4"	140	211	140										
40	1 1/2"	165	211	140	165	129	165	117	165	117	241	162	241	162
50	2"	203	237	160	203	129	203	117	203	117	267	167	267	167
65	2 1/2"	216	280	180	216	145	216	138	216	138	292	175	292	175
80	3"	241	321	200	241	152	241	144	241	144	318	180	318	180
100	4"	292	365	250	292	172	292	165	292	165	356	214	356	214
125	5"	356	414	250	330	198	330	186	330	186	400	235	400	235
150	6"	406	488	355	356	270	356	233	356	233	444	278	444	278
200	8"	495	610	450	495	309	495	290	495	290	533	325	533	325
250	10"				622	356	622	327	622	327	622	395	622	395
300	12"						698	392	698	392	711	494	711	494
Material	Body	Body	SCS13A / SCS14A		SCS13A / CF8		SCS13A / CF8		SCS14A / CF8M		SCS13A / CF8		SCS14A / CF8M	
	Pin	Stem	SUS304 / SUS316		SUS304 / F304		SUS304 / F304		SUS316 / F316		SUS304 / F304		SUS316 / F316	
	Disc	Disc	PTFE		SUS304 or SCS13A / F304 or CF8		SUS304 or SCS13A / F304 or CF8		SUS316 or SCS14A / F316 or CF8M		SUS304 or SCS13A / F304 or CF8		SUS316 or SCS14A / F316 or CF8M	
Service conditions	10K/20K: See P-T rating for JIS flanged valves on page 13 Class 150/300: See P-T rating for ASME flanged valves on page 13													
Remarks														

Design		Manufacturers Standard							
Type	Lift Check Valves								
Class	10K / 150				20K / 300				
									
Fig.	824J (10K) (JV8-1) / 824 (150)		874J (20K) (JV8-1) / 874 (300)		834J (20K) (JV8-1) / 834 (300)		884J (20K) (JV8-1) / 884 (300)		
Size	L	H	L	H	L	H	L	H	
15 (mm)	1/2"	108	64	108	64	152	73	152	73
20	3/4"	117	66	117	66	178	84	178	84
25	1"	127	67	127	67	203	84	203	84
32	1 1/4"	140	82	140	82	216	103	216	103
40	1 1/2"	165	82	165	82	229	103	229	103
50	2"	203	95	203	95				
Material	Body	SCS13A / CF8		SCS14A / CF8M		SCS13A / CF8		SCS14A / CF8M	
	Disc	SUS304 or SCS13A / F304 or CF8		SUS316 or SCS14A / F316 or CF8M		SUS304 or SCS13A / F304 or CF8		SUS316 or SCS14A / F316 or CF8M	
Service conditions	10K/20K: See P-T rating for JIS flanged valves on page 13 Class 150/300: See P-T rating for ASME flanged valves on page 13								
Remarks									

Dual Plate Check Valves Strainers



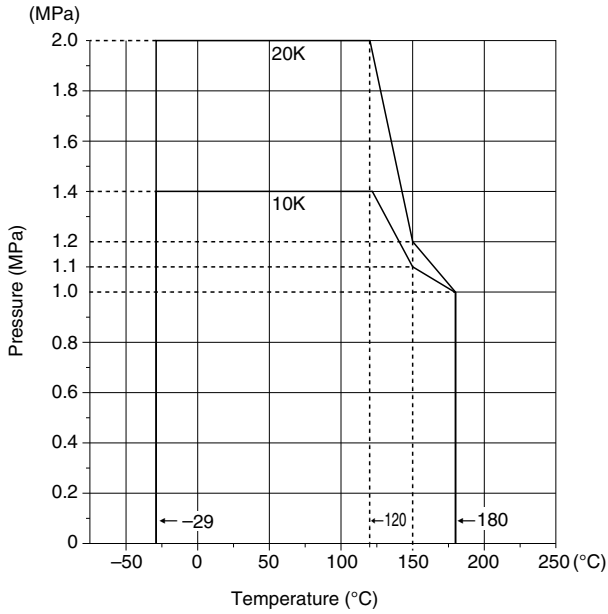
Design		Manufacturers Standard									
Type		Dual Plate Check Valves									
Class		10K			20K			10K / 150		20K / 300	
Fig.											
Fig.		806			816			806M (10K) / 806MW (150)		816M (20K) / 816MW (300)	
Size		L	H	D ₁	L	H	D ₁	L	D	L	D
40(mm)	1½"	54	118	63	54	118	63	60	86		
50	2"	60	126	63	60	126	63	60	101	60	101
65	2½"	67	134	63	67	134	63	67	121	67	121
80	3"	73	138	63	73	138	63	73	131	73	137
100	4"	73	151	63	73	151	63	73	156	73	162
125	5"	86	174	70	86	174	70	86	187	86	197
150	6"	98	188	70	98	188	70	98	217	98	235
200	8"	127	215	70	127	215	70	127	267	127	279
250	10"	146	254	80	146	254	80	146	330	148	353
300	12"	181	282	80	181	282	80	181	375	181	403
350	14"							184	420	222	447
400	16"							191	483	232	507
450	18"							203	538	264	572
500	20"							219	593	292	627
Material	Body	SCS13			SCS13			SCS13 / CF8		SCS13 / CF8	
	Plate	SCS13			SCS13			SCS13 / CF8		SCS13 / CF8	
	Seat	NBR			NBR			304 (Matal)		304 (Matal)	
Service conditions	See P-T rating on page 15										
Remarks	SCS14 / CF8M body available upon request						Metal seated, without bypass valve				

Design		Manufacturers Standard			
Type		Strainers			
Class		10K / 150			
Fig.					
Fig.		807J (10K) (JV8-1) / 807 (150)		857J (10K) (JV8-1) / 857 (150)	
Size		L	H	L	H
15(mm)	½"	125	66	125	66
20	¾"	140	80	140	80
25	1"	160	80	160	80
32	1¼"	180	110	180	110
40	1½"	190	110	190	110
50	2"	220	135	220	135
65	2½"	270	195	270	195
80	3"	290	220	290	220
100	4"	350	260	350	260
125	5"	390	265	390	265
150	6"	440	315	440	315
200	8"	540	375	540	375
250	10"	680	490	680	490
Material	Body	SCS13A / CF8		SCS14A / CF8M	
	Screen	SUS304 / F304		SUS316 / F316	
Service conditions	10K/20K: See P-T rating for JIS flanged valves on page 13 Class 150/300: See P-T rating for ASME flanged valves on page 13				
Remarks	Screen 40 Mesh				

Pressure–Temperature Ratings

U-Series Stainless Steel Valves

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

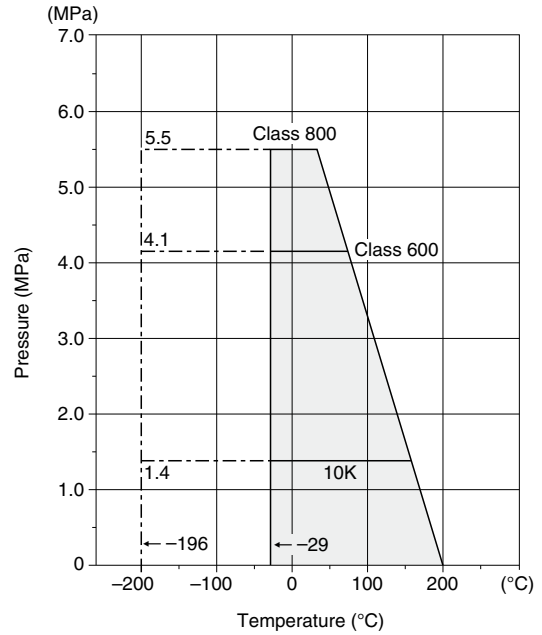


Service conditions		Class	
		10K	20K (Fig.809)
		MPa	MPa
Static water	Less than 120°C	1.4	2.0
	Less than 150°C	1.1	1.2
Air, oil, gas, steam	Less than 150°C	1.1	1.2
	Less than 180°C	1.0	1.0

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

U-Series Stainless Steel Valves

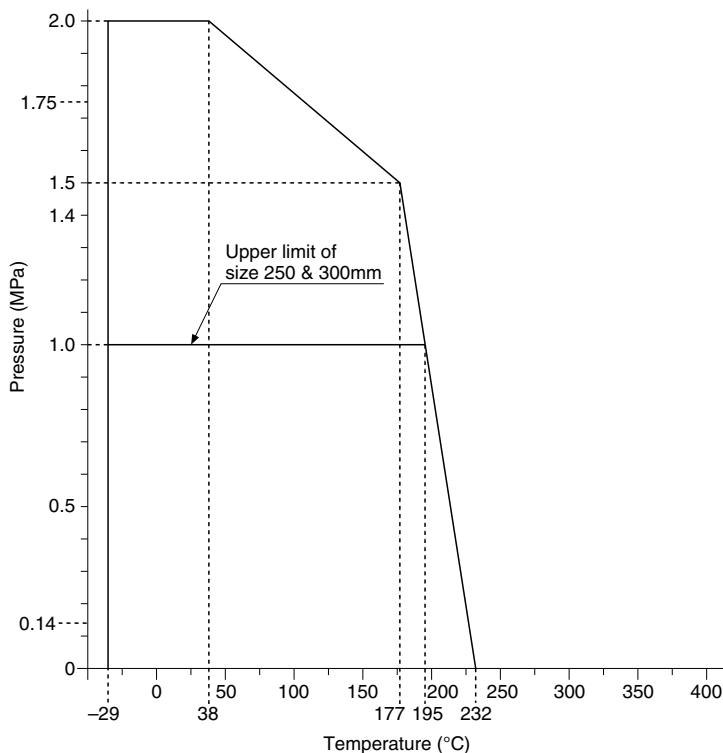
■ Ball Valves / screwed end type Fig. 3550(W), 4550A(W), 4580, 3380, 4760A or 3060



Service conditions		Class		
		600WOG	800WOG	10K
		MPa	MPa	MPa
Water, oil, gas,		4.1	5.5	1.4
Saturated steam		1.0	1.0	1.0

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

High Performance Butterfly Valves



Pressure–Temperature Ratings

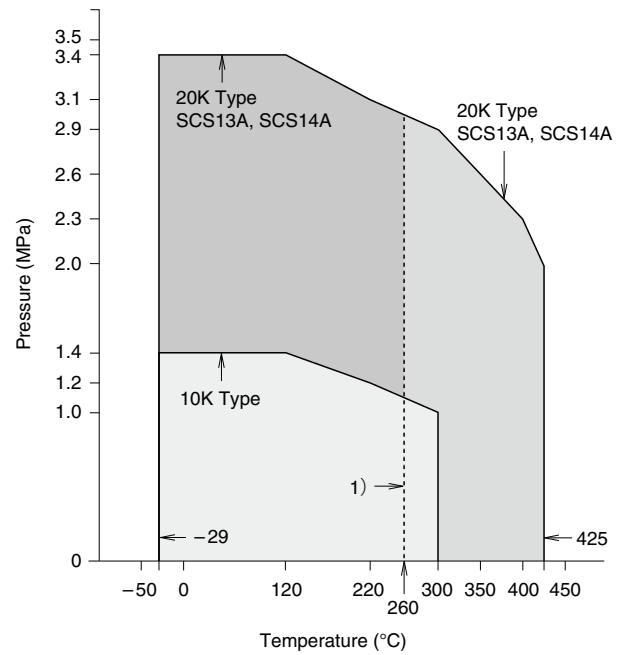
V-Series / VN-Series Stainless Steel Valves

■ JIS Flanged Valves

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

Notes:

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



V-Series Stainless Steel Valves

■ ASME B16.34 Table 2-2.1A & 2-2.2A

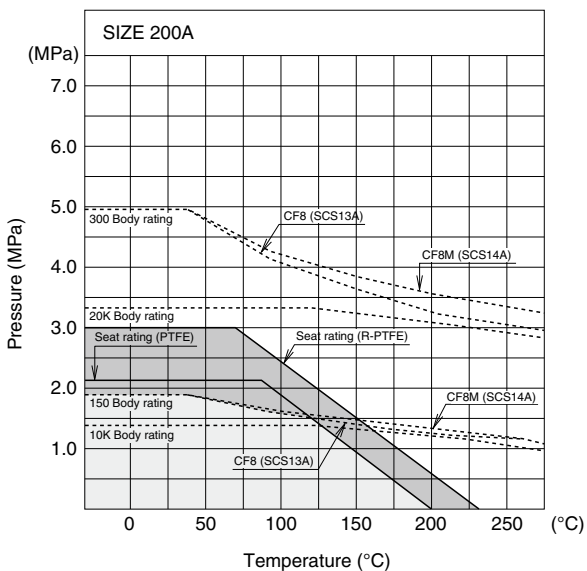
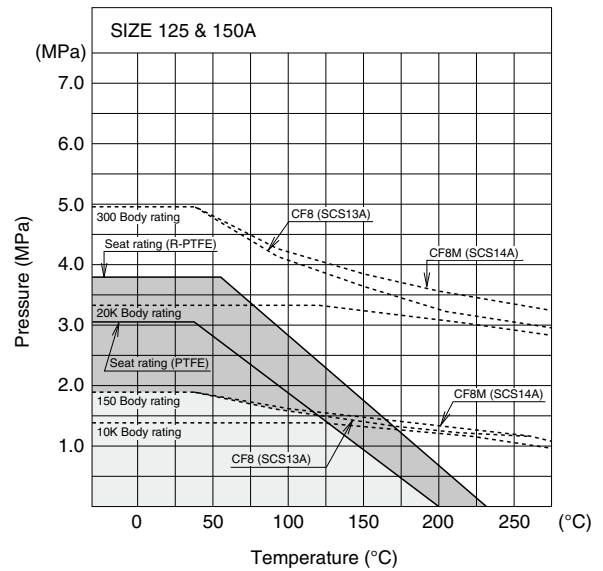
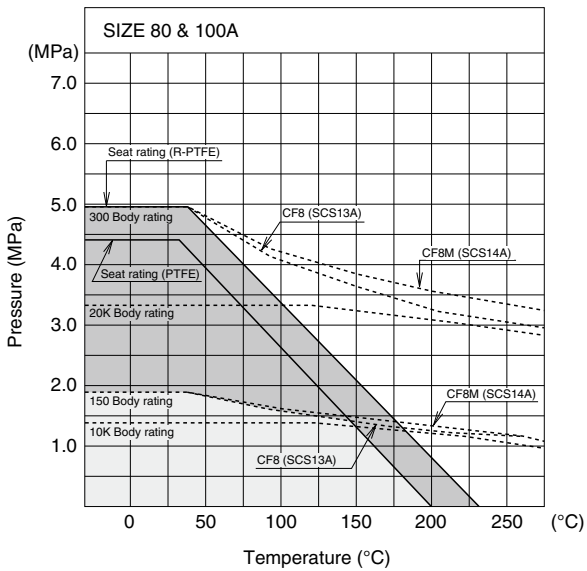
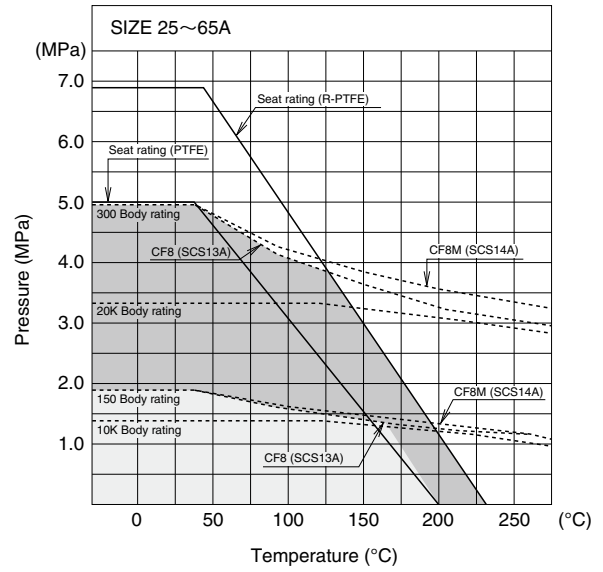
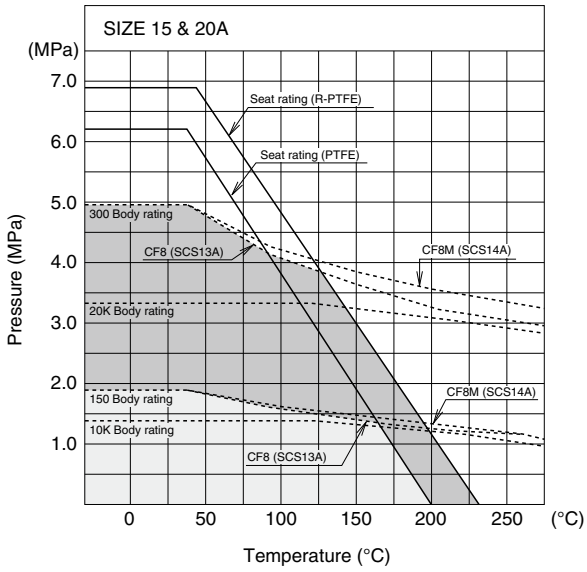
Service temperature		Class 150		Class 300	
		A351 Gr. CF8 (SCS13A)	A351 Gr. CF8M (SCS14A)	A351 Gr. CF8 (SCS13A)	A351 Gr. CF8M (SCS14A)
(°C)	(°F)	MPa	MPa	MPa	MPa
-29 –38	-20 –100	1.90	1.90	4.96	4.96
93	200	1.62	1.65	4.14	4.27
149	300	1.41	1.48	3.65	3.86
204	400	1.24	1.34	3.24	3.55
260	500	1.17	1.90	3.00	3.31
316	600	0.965	0.965	2.86	3.10
343	650	0.862	0.862	2.83	3.07
371	700	0.758	0.758	2.79	2.96
399	750	0.655	0.655	2.76	2.93
427	800	0.552	0.552	2.72	2.86
454 ⁽²⁾	850	0.448	0.448	2.69	2.79
482 ⁽²⁾	900	0.345	0.345	2.65	2.72
510 ⁽²⁾	950	0.241	0.241	2.59	2.65
538 ⁽²⁾	1000	0.138	0.138	2.24	2.52
566 ⁽²⁾	1050	0.138 ⁽¹⁾	0.138 ⁽¹⁾	2.14	2.48
593 ⁽²⁾	1100	0.138 ⁽¹⁾	0.138 ⁽¹⁾	1.79	2.24
621 ⁽²⁾	1150	0.138 ⁽¹⁾	0.138 ⁽¹⁾	1.34	1.90
649 ⁽²⁾	1200	0.138 ⁽¹⁾	0.138 ⁽¹⁾	1.07	1.41
677 ⁽²⁾	1250	0.138 ⁽¹⁾	0.138 ⁽¹⁾	0.758	1.240
704 ⁽²⁾	1300	0.138 ⁽¹⁾	0.138 ⁽¹⁾	0.586	0.965
732 ⁽²⁾	1350	0.138 ⁽¹⁾	0.138 ⁽¹⁾	0.414	0.724
760 ⁽²⁾	1400	0.138 ⁽¹⁾	0.138 ⁽¹⁾	0.345	0.517
788 ⁽²⁾	1450	0.103 ⁽¹⁾	0.138 ⁽¹⁾	0.241	0.414
816 ⁽²⁾	1500	0.069 ⁽¹⁾	0.138 ⁽¹⁾	0.172	0.276

Note:

- (1) For welding end valves only. Flanged ends ratings terminate at 1000°F.
- (2) Permissible, but please consult our sales staff or distributor for usage above 450°C.

Pressure–Temperature Ratings

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



Pressure–Temperature Ratings

Dual Plate Check Valves

■ Rubber Seat (with Bypass-Valve)

Fig. 806, 10K

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

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

Fig. 816, 20K

Service conditions \ Seat material		NBR	FKM	EPDM
		MPa	MPa	MPa
Static water	below 80°C	3.4	3.4	3.4
	above 120°C	—	—	3.4
Oil, water, air	below 80°C	2.6	2.6	2.6
	above 120°C	—	2.0	2.0

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

■ Service Temperature Range

NBR (Buna-N) seat	0°C to +80°C
FKM seat	0°C to +120°C
EPDM seat	-20°C to +120°C

■ Metal Seat (without Bypass-Valve)

Fig. 806M(10K) and 816M(20K)

Service conditions \ Ratings			10K	20K
			MPa	MPa
Static water	below 120°C		1.4	3.4
	above 220°C		1.2	3.1
Test pressure	shell	water	2.1	5.0
	seat	air	0.6	0.6

Note:

- 1) Standard products are designed up to 150°C.
- 2) in case of use at 150°C & above, please consult us.
- 3) Do not use our products in flammable or toxic gas service.

Fig. 806MW(150) and 816MW(300)

Please refer to table for ASME B16.34.

Note:

- 1) Standard products are designed up to 150°C.
- 2) In case of use at 150°C & above, please consult us.
- 3) Do not use our products in flammable or toxic gas service.