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Wafer

Double Flange

Wafer Lug

Hub End

Buttwelding



TYPICAL MATERIAL SELECTION

- API Trim#1. (F6)
WCB (A105) / 13%Cr. / 410SS Overlay on Body Seat / Inconel X-750
- API Trim#5. (HF)
WCB (A105) / 13%Cr. / Stellite#6 Overlay on Body & Plate Seats (Full HF) / Inconel X-750
- API Trim#8. (F6 & HF)
WCB (A105) / 13%Cr. / Stellite#6 Overlay on Body Seat (Half HF) / Inconel X-750
- API Trim#10. (316SS)
WCB (A105) / 316SS / 316SS Overlay on Body Seat / Inconel X-750
- API Trim#12. (316SS & HF)
WCB (A105) / 316SS / Stellite#6 Overlay on Body Seat (Half HF) / Inconel X-750

FOR SEA WATER APPLICATION:

- B148 C95800 (Ni-Al Bronze) / B148 C95800 / EPDM / Inconel X-750
or B148 C95800 (Ni-Al Bronze) / Monel / EPDM / Monel K500

SPECIAL NOTE

- 1. API 594** Peach Valve produces all Dual Plate Check Valves as per API 594.
- 2. Retainerless** For 100% no outer leakage.
Peach Valve provides "Retainerless Type" Dual Plate Check Valves for fugitive emission control.
- 3. Flange Standard** ASME B16.5 for 2" ~ 24"
ASME B16.47 Ser. A or B for 26" and above.
Customer's Specification and etc. (AWWA, ASME Sec. VIII...)
- 4. Seat Leakage** For metal to metal seated Dual Plate Check Valves, API598 indicate 3cc/min per inch with water
- 5. Double Flange** Double Flange Type available from 8" and above
- 6. Rubber Lining inside of Body** Rubber lining inside body available from 10" and above

VALVE TRIM MATERIAL

Trim No. HD Symbol	Norminal Trim	Body Seat* Surface	Plate Seat* Surface	Stem(Hinge Pin) and Stop Pin	Note
01	F6	13 Cr	13 Cr	13 Cr	Available Optionally
02	304	18 Cr-8Ni	18 Cr-8Ni	18 Cr-8Ni	Available Optionally
05	Hard Face (HF)	Stellite No. 6	Stellite No. 6	13 Cr	HD Standard No. 5
08	F6 & HF	Stellite No. 6	13 Cr	13 Cr	HD Standard No. 8
09	Monel	Ni-Cu Alloy	Ni-Cu Alloy	Ni-Cu Alloy	Available Optionally
10	316	18Cr-10Ni-2Mo	18Cr-10Ni-2Mo	18Cr-10Ni-2Mo	Available Optionally
11	Monel & HF	Stellite No. 6	Ni-Cu Alloy	Ni-Cu Alloy	Available Optionally
12	316 & HF	Stellite No. 6	18Cr-10Ni-2Mo	18Cr-10Ni-2Mo	Available Optionally
13	Alloy 20	19Cr-29Ni	19Cr-29Ni	19Cr-29Ni	Available Optionally
14	Alloy 20 & HF	Stellite No. 6	19Cr-29Ni	19Cr-29Ni	Available Optionally

* The material of the plate & body seat should have equal corrosion resistance of the material of the shell.

EX: 2 4 C 1 A 3 R W S 1 6 X

= 24inch wafer Type; Class 150; RF; A216 WCB-Body; CA15-Plate; Half Stellite; inconel X-750 spring

BODY & PLATE MATERIAL

JIS		ASTM	
CAST IRON / DUCTILE IRON			
C	GC250(FC250)	A126 Class B, GC200 (FC200 alternative)	
D	GCD450(FCD450)	A536 65-45-12	
D2		A439 D2	
CAST STEEL			
W	SCPH2 (Forged:SFVC2A)	A216 Gr.WCB, (Forged:A105)	
W1		A216 Gr.WCC	
U1	SCPH11	A217 Gr.WC1	
U	SCPH21	A217 Gr.WC6	
U9	SCPH32	A217 Gr.WC9	
S5	SCPH61	A217 Gr.C5	
L		A217 Gr.LCB	
LC		A217 Gr.LCC	
L1	SCPL11	A217 Gr.LC1	
STAINLESS STEEL			
S1	SCS1	A217 CA15	
S3	SCS13	A351 CF8	
S4	SCS14	A351 CF8M	
SL	SCS16	A351 CF3M	
S10		A351 CF10	
S21	SCS21	A351 CF8C	
S12		A217 C12	
SG		A351 CG8M	
SGL		A351 CG3M	
SN	SCS23	A351 CN7M	
SD4		A351 CD4MCu	
S3L	SCS19A	A351 CF3	
S6	SCS6	A352 CA6NM	
ST1		A351 CE8MN	
SK3		A182 F51	
S8	SCS8	A351 CH8	
SPECIAL ALLOY			
A	ALBC3 (CAC703)	B148 C95800	
B	BC6 (CAC406)	B584 C83600	
AC	AC4C		
A2		B148 C95200	
A5		B148 C95500	
A6	Incoloy 625	B564 (UNS N06625)	
A8	Incoloy 825	B564 (UNS N08825)	
M		A494 M35-1	
T			
H			
S04		A890 4A (UNS J92205) CD3MN	
S05		A890 5A (UNS J93404) CE3MN	
S06		A890 6A (UNS J93380) CE3MWCuN	
SCK		A351 CK-3MCuN	
AL		B26 319.0	

FACE

F	Flat Face	63 AARH	Smooth Finish
R	Raised Face	250 AARH	Spiral Serrated
R1	Raised Face	63 AARH	Smooth Finish
J	Ring Joint	63 AARH	Smooth Finish
T	Tong Face	63 AARH	Smooth Finish
Z	Ref. to Drawing		
SG	Small Groove	63 AARH	Smooth Finish
LG	Large Groove	63 AARH	Smooth Finish
SF	Small Female	63 AARH	Smooth Finish
LF	Large Female	63 AARH	Smooth Finish
H	Hub		
S	Screw		
BT	Buttwelding		
NP	NPT Screw		

TYPE

C	6	Pin Retainerless Wafer
C	7	Pin Retainerless Double Flanged
C	8	Pin Retainerless Wafer Lug
C	9	Hub Ended
C	10	By-Pass Attached Double Flanged
C	11	Buttwelding
C	12	Pin Retainerless Hub
C	13	Pin Retainerless Buttwelding
C	1	Wafer
C	2	By-Pass Attached Wafer
C	3	Double Flanged (Full Flanged)
C	4	Wafer Lug
C	5	Extended Body
N	L	Wafer Type Single Plate Check Valve

REMARK

SUS 410	
SUS 304	
SUS 316	
SUS 316L	
SUS 347	
SUS 317	
SUS 317L	
Alloy 20	
25Cr Duplex	
SUS 304L	
A276-316Ti	
22 Cr Duplex	
REMARK	
ALBC1 (CAC701)	
Aluminum	
Alloy 625	
Alloy 825	
Monel	
Titanium	
Hastelloy	
22Cr Duplex (UNS S31803) A182 F51	
22Cr Duplex (UNS S32750) A182 F53	
22Cr Duplex (UNS S32760) A182 F55	
UNS S31254	
Aluminum	

RATING

abbr.	Cast Iron									
	0	1	2	3	4	5	6	7	8	9
JIS B2210	J	5	10	16	10	20	30	40	63	100
ASME(ANSI) B16.5	A	125	250		150	300	400	600	900	1500
ASME(ANSI) B16.47 Ser.A	AA				150	300		600	900	
ASME(ANSI) B16.47 Ser.B	AB				150	300		600	900	
ISO DIN	S	10	25	16	40	64	100	160	250	320
TAYLAR	T	75	125	250	175	350				
AWWA C207	AW	C	D	E						
KS B 1511	K	5	10	16	10	20	30	40	63	100
JPI 7S-15	JP				150	400				
BS 1560	B				PN20					
KS D 3578	F	F12	F15	F20						
API 6A	AP						2000	3000	5000	10000

SEAT

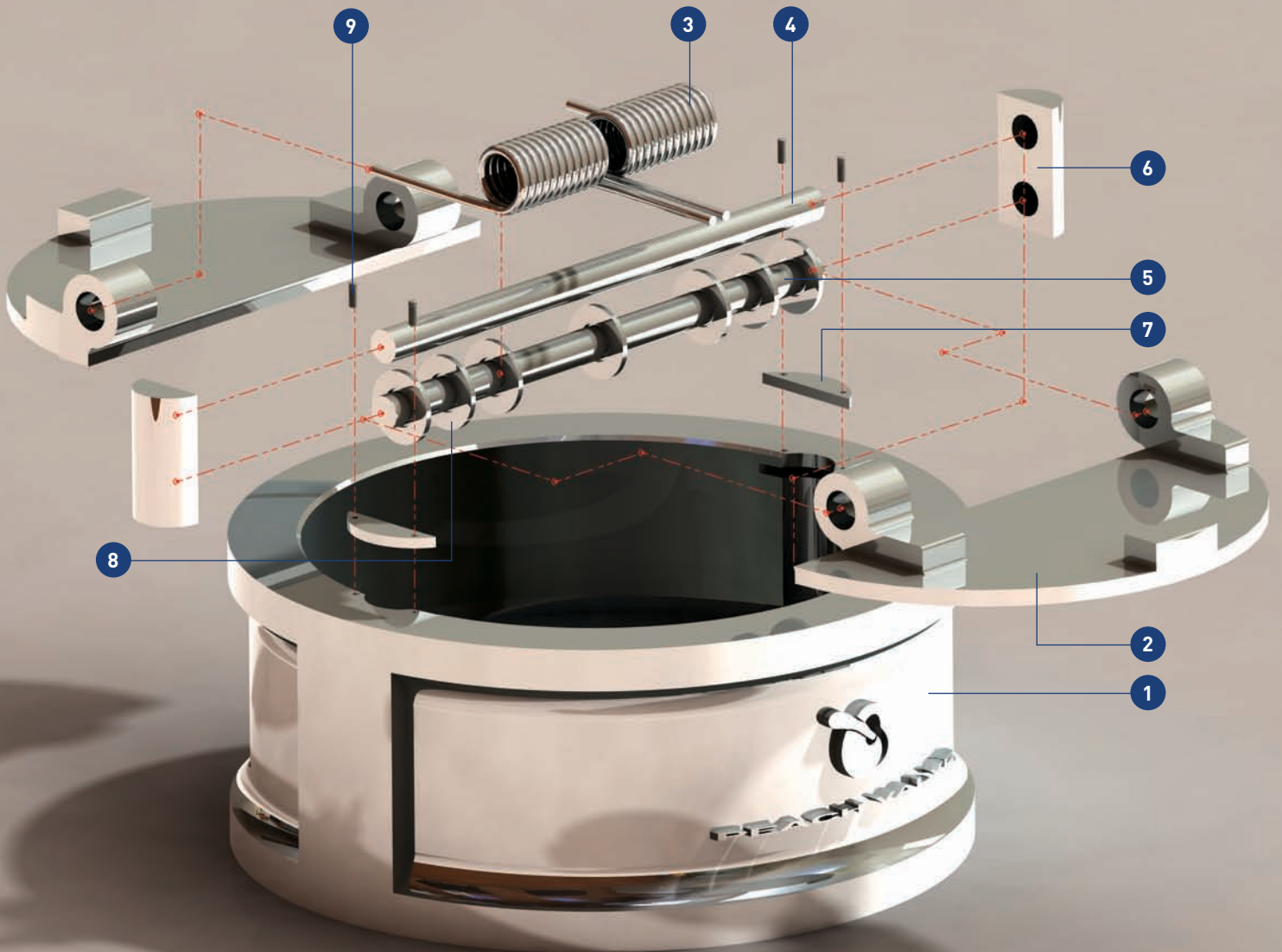
		Hardness	Tensile Strength	Transform %
N	NBR (BUNA-N)	40±5	3(31)	400
C	CR (Neoprene)	30±5	3(31)	300
F	FPM (Viton)	60±5	7(71)	200
S	SI (Silicone)			
E	EPDM (EPT)	40±5	7(71)	400
I	IIR (Butyl)			
U	UR (Urethane)			
CL	CR (Lining)			
EL	EPDM (Lining)			
T	PTFE (Teflon)			
O	Non-Overlay			
S6	SS316 Overlay on Body			
S1	SS410 Overlay on Body			
S4	SS308 Overlay on Body			
SL	SS316L Overlay on Body			
M	Monel Overlay on Body or Plate			
6	Stellite #6 Overlay on Body			
66	Stellite #6 overlay on Body & Plate			
S1M	SS410 Overlay on Body, Ni & Monel Overlay on Plate			
A6	Alloy 625 Overlay on Body			
A8	Alloy 825 Overlay on Body			
TU6	Tungsten Body with Stellite #6 Overlay on Body			
A6L	Internal Alloy 625 Cladded			
A8L	Internal Alloy 825 Cladded			

SPRING

MATERIAL	
S	STS316 WPA [SUS316WPA]
X	Inconel X-750
M	Monel K-500
H	Hastelloy
T	Titanium
TORQUE	
	Low L
	High H
	Extra X
	Min. M

CODING SYSTEM

- 1. BODY
- 2. PLATE
- 3. SPRING
- 4. STOP PIN
- 5. HINGE PIN
- 6. THRUST BEARING
- 7. THRUST PLATE
- 8. BEARING
- 9. THRUST PIN

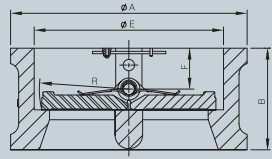
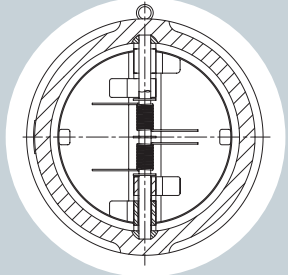




Installation Dimension

A. Wafer	ASME B16.5	6
B. Wafer	ASME B16.47 Ser.A	7
C. Wafer	ASME B16.47 Ser.B	8
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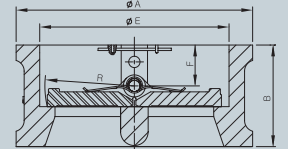
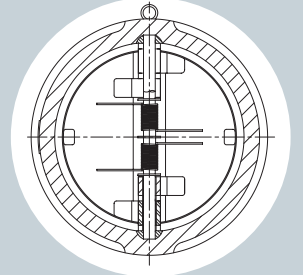
**C1, C6
WAFER TYPE**
INSTALLATION DIMENSIONS
ASME B16.5
(ANSI B16.5)



Size	Pressure Rating	End Facing	ϕA	B	ϕE	F	R	Flange Bolt Circle	STUD		Valve Approx	
in.(mm)	ANSI		mm	mm	mm	mm	mm	Circle	No.	Diameter inches	Length mm	Weight(Kg)
2(50)	150	RF	105	60	60	33	27	120.7	4	5/8	165	3
	300	RF	111	60	60	33	27	127.0	8	5/8	175	4
	600	RF/RJ-23	111	60	60	33	27	127.0	8	5/8	195	5
	900	RF/RJ-24	143	70	60	33	29	165.1	8	7/8	240	8
	1500	RF/RJ-24	143	70	60	33	29	165.1	8	7/8	240	13
2 1/2(65)	2500	RF/RJ-26	146	70	60	33	29	171.4	8	1	275	14
	150	RF/RJ-25	124	67	73	32	33	139.7	4	5/8	175	5
	300	RF/RJ-26	130	67	73	32	33	149.2	8	5/8	175	6
	600	RF/RJ-26	130	67	73	32	33	149.2	8	5/8	205	8
	900	RF/RJ-27	165	83	73	35	35	190.5	8	7/8	250	10
3(80)	1500	RF/RJ-27	165	83	73	35	35	190.5	8	7/8	250	14
	2500	RF/RJ-28	168	83	73	35	35	196.8	8	1	285	19
	150	RF	137	73	89	36	41	152.4	4	5/8	185	6
	300	RF	149	73	89	36	41	168.3	8	3/4	205	8
	600	RF	149	73	89	36	41	168.3	8	3/4	230	9
4(100)	900	RF/RJ-31	168	83	89	34	42	190.5	8	7/8	255	13
	1500	RF/RJ-35	175	83	89	34	42	203.2	8	1 1/8	285	24
	2500	RF/RJ-32	197	86	89	36	42	228.6	8	1 1/4	335	27
	150	RF	175	73	114	38	54	190.5	8	5/8	185	9
	300	RF	181	73	114	38	55	200.0	8	3/4	210	12
5(125)	600	RF/RJ-37	194	79	114	42	55	215.9	8	7/8	255	15
	900	RF/RJ-37	206	102	114	40	55	235.0	8	1 1/8	300	37
	1500	RF/RJ-39	210	102	114	40	55	241.3	8	1 1/4	325	40
	2500	RF/RJ-38	235	105	114	34	55	273.0	8	1 1/2	395	40
	150	RF/RJ-41	197	86	141	41	65	215.9	8	3/4	195	12
6(150)	300	RF/RJ-41	216	86	141	41	65	235.0	8	3/4	215	20
	600	RF/RJ-41	241	105	141	40	65	266.7	8	1	280	30
	150	RF	222	98	168	44	79	241.3	8	3/4	240	18
	300	RF	251	98	168	44	79	269.9	12	3/4	245	29
	600	RF/RJ-45	267	136	168	46	82	292.1	12	1	340	40
8(200)	900	RF/RJ-45	289	159	168	56	82	317.5	12	1 1/8	380	55
	1500	RF/RJ-46	283	159	168	56	82	317.5	12	1 3/8	455	70
	2500	RF/RJ-47	318	159	168	56	82	368.3	8	2	540	90
	150	RF	279	127	219	48	102	298.5	8	3/4	255	33
	300	RF	308	127	219	48	102	330.2	12	7/8	290	42
10(250)	600	RF/RJ-49	321	165	219	54	105	349.2	12	1 1/8	385	68
	900	RF/RJ-49	359	206	219	73	107	393.7	12	1 3/8	455	132
	1500	RF/RJ-50	352	206	219	73	107	393.7	12	1 5/8	530	133
	2500	RF/RJ-51	387	206	219	73	107	438.2	12	2	630	146
	150	RF	340	146	273	56	126	362.0	12	7/8	285	60
12(300)	300	RF	362	146	273	52	126	387.4	16	1	325	65
	600	RF/RJ-53	400	213	273	70	133	431.8	16	1 1/4	460	140
	900	RF/RJ-53	435	241	273	87	133	469.9	16	1 3/8	505	201
	1500	RF/RJ-54	435	248	273	87	133	482.6	12	1 7/8	620	210
	2500	RF/RJ-55	476	154	273	87	133	539.8	12	2 1/2	790	225
14(350)	150	RF	410	181	324	70	152	431.8	12	7/8	325	92
	300	RF	422	181	324	70	152	450.8	16	1 1/8	375	105
	600	RF/RJ-57	457	229	324	67	152	489.0	20	1 1/4	480	179
	900	RF/RJ-57	498	292	324	100	159	533.4	20	1 3/8	575	379
	1500	RF/RJ-58	521	305	324	102	159	571.5	16	2	720	384
16(400)	2500	RF/RJ-60	549	305	324	103	159	619.1	12	2 3/4	895	410
	150	RF	451	184	356	90	170	476.3	12	1	340	107
	300	RF	486	222	356	94	170	514.4	20	1 1/8	425	160
	600	RF/RJ-61	492	273	356	103	164	527.0	20	1 3/8	535	227
	900	RF/RJ-62	541	356	356	130	181	558.8	20	1 1/2	660	450
18(450)	1500	RF/RJ-63	578	356	356	130	181	635.0	16	2 1/4	810	550
	150	RF	514	191	406	86	195	539.8	16	1	350	149
	300	RF	540	232	406	95	195	571.5	20	1 1/4	445	208
	600	RF/RJ-65	565	305	406	92	198	603.2	20	1 1/2	590	354
	900	RF/RJ-66	575	384	406	137	203	616.0	20	1 5/8	705	550
20(500)	1500	RF/RJ-67	641	384	406	137	203	704.8	16	2 1/2	885	635
	150	RF/RJ-68	549	203	457	86	219	577.9	16	1 1/8	375	171
	300	RF/RJ-69	597	264	457	127	219	628.6	24	1 1/4	485	301
	600	RF/RJ-69	613	362	457	121	228	654.0	20	1 5/8	665	474
	900	RF/RJ-70	638	451	457	167	232	685.8	20	1 7/8	815	770
24(600)	1500	RF/RJ-71	705	468	457	167	216	774.7	16	2 3/4	1010	1062
	150	RF/RJ-72	606	219	508	89	244	635.0	20	1 1/8	400	205
	300	RF/RJ-73	654	292	508	108	244	685.8	24	1 1/4	520	381
	600	RF/RJ-73	683	368	508	116	248	723.9	24	1 5/8	685	640
	900	RF/RJ-74	699	451	508	116	248	749.3	20	2	835	884
	1500	RF/RJ-75	755	533	508	116	248	831.8	16	3	1125	1478
	150	RF/RJ-76	718	222	610	86	292	749.3	20	1 1/4	435	315
	300	RF/RJ-77	775	318	610	122	292	812.8	24	1 1/2	582	605
	600	RF/RJ-77	791	438	610	133	295	838.2	24	1 7/8	800	964
	900	RF/RJ-78	838	495	610	149	300	901.7	20	2 1/2	975	1500
1500	RF/RJ-79	901	559	610	149	300	990.6	16	3 1/2	1235	3010	

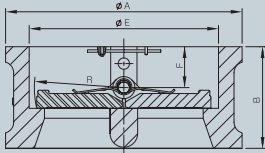
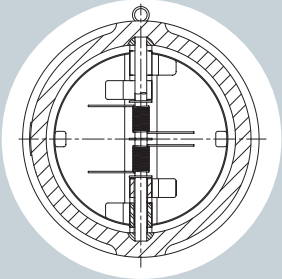
Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD			Valve Approx Weight(Kg)
									No.	Diameter inches	Length mm	
26 (650)	150	RF	774	279	660	98	316	806.5	24	1 1/4	605	609
	300	RF/RJ-93	835	356	660	98	316	876.3	28	1 5/8	650	710
	600	RF/RJ-93	866	457	660	122	312	914.4	28	1 7/8	850	920
	900	RF/RJ-100	882	533	660	122	312	952.5	20	2 3/4	1045	1250
28 (700)	150	RF	831	279	711	132	351	863.6	28	1 1/4	635	602
	300	RF/RJ-94	898	381	711	132	351	939.8	28	1 5/8	685	773
	600	RF/RJ-94	914	483	711	165	347	965.2	28	2	890	929
	900	RF/RJ-101	946	572	711	165	347	1022.4	20	3	1100	1328
30 (750)	150	RF	882	305	762	137	371	914.4	28	1 1/4	565	584
	300	RF/RJ-95	952	368	762	137	375	997.0	28	1 3/4	685	923
	600	RF/RJ-95	971	505	762	165	362	1022.4	28	2	920	1680
	900	RF/RJ-102	1009	635	762	165	362	1085.9	20	3	1180	2320
32 (800)	150	RF	939	356	813	119	389	977.9	28	1 1/2	645	857
	300	RF/RJ-96	1006	406	813	119	389	1054.1	28	1 7/8	750	1230
	600	RF/RJ-96	1022	533	813	145	370	1079.5	28	2 1/4	970	1642
	900	RF/RJ-103	1073	660	813	145	370	1155.7	20	3 1/4	1235	2100
34 (850)	150	RF	990	360	859	130	423	1028.7	32	1 1/2	675	742
	300	RF/RJ-97	1057	455	859	130	423	1104.9	28	1 7/8	787	1480
	600	RF/RJ-97	1073	580	859	195	417	1130.3	28	2 1/4	985	1944
	900	RF/RJ-104	1136	660	859	195	417	1225.6	20	3 1/2	1240	2586
36 (900)	150	RF	1047	368	914	143	452	1085.9	32	1 1/2	675	956
	300	RF/RJ-98	1117	483	914	165	452	1168.4	32	2	845	1269
	600	RF/RJ-98	1130	635	914	210	445	1193.8	28	2 1/2	1095	2760
	900	RF/RJ-105	1200	718	914	210	445	1289.1	20	3 1/2	1335	3542
38 (950)	150	RF	1111	-	-	-	-	1149.4	32	1 1/2	-	-
	300	RF	1054	-	-	-	-	1092.2	32	1 1/2	-	-
	600	RF	1104	-	-	-	-	1162.1	28	2 1/4	-	-
	900	RF	1200	-	-	-	-	1289.1	20	3 1/2	-	-
40 (1000)	150	RF	1162	419	1016	153	499	1200.2	36	1 1/2	730	1386
	300	RF	1114	546	1016	191	499	1155.7	32	1 5/8	920	2085
	600	RF	1155	660	1016	238	492	1212.9	32	2 1/4	1147	3580
	900	RF	1250	762	1016	238	492	1339.9	24	3 1/2	1320	4571
42 (1050)	150	RF	1219	432	1067	173	527	1257.3	36	1 1/2	755	1270
	300	RF	1165	568	1067	148	522	1206.5	32	1 5/8	940	2550
	600	RF	1219	-	-	-	-	1282.7	28	2 1/2	-	-
	900	RF	1301	-	-	-	-	1390.7	24	3 1/2	-	-
44 (1100)	150	RF	1276	500	1110	188	535	1314.5	40	1 1/2	865	-
	300	RF	1219	-	-	-	-	1263.7	32	1 3/4	-	-
	600	RF	1270	-	-	-	-	1333.5	32	2 1/2	-	-
	900	RF	1368	-	-	-	-	1463.5	24	3 3/4	-	-
46 (1150)	150	RF	1327	-	-	-	-	1365.3	40	1 1/2	-	-
	300	RF	1273	-	-	-	-	1320.8	28	1 7/8	-	-
	600	RF	1327	-	-	-	-	1390.7	32	2 1/2	-	-
	900	RF	1435	-	-	-	-	1536.7	24	4	-	-
48 (1200)	150	RF	1384	524	1219	178	603	1422.4	44	1 1/2	880	2180
	300	RF	1323	629	1219	171	591	1371.6	32	1 7/8	1050	2958
	600	RF	1390	787	1219	-	-	1460.5	32	2 3/4	-	-
	900	RF	1485	-	-	-	-	1587.5	24	4	-	-
50 (1250)	150	RF	1435	530	1240	180	610	1479.6	44	1 3/4	-	-
	300	RF	1377	-	-	-	-	1428.8	32	2	-	-
	600	RF	1447	-	-	-	-	1524.0	28	3	-	-
52 (1300)	150	RF	1492	550	1300	185	568	1536.7	44	1 3/4	-	-
	300	RF	1428	-	-	-	-	1479.6	28	2	-	-
	600	RF	1498	-	-	-	-	1574.8	32	3	-	-
54 (1350)	150	RF	1549	573	1370	180	663	1593.9	44	1 3/4	-	-
	300	RF	1492	718	1370	-	-	1549.4	28	2 1/4	-	-
	600	RF	1555	-	-	-	-	1632.0	32	3	-	-
56 (1400)	150	RF	1606	610	1410	235	660	1651.0	48	1 3/4	1020	3160
	300	RF	1543	-	-	-	-	1600.2	28	2 1/4	-	-
	600	RF	1612	-	-	-	-	1695.5	32	3 1/4	-	-
58 (1450)	150	RF	1663	635	1473	253	703	1708.2	48	1 3/4	-	-
	300	RF	1593	-	-	-	-	1651.0	32	2 1/4	-	-
	600	RF	1663	-	-	-	-	1746.3	32	3 1/4	-	-
60 (1500)	150	RF	1714	660	1524	279	740	1759.0	52	1 3/4	1065	4350
	300	RF	1644	838	1524	-	-	1701.8	32	2 1/4	1330	5321
	600	RF	1733	-	-	-	-	1822.5	28	3 1/2	-	-

**C1, C6
WAFER TYPE**
INSTALLATION DIMENSIONS
ASME B16.47 Ser. A
[ANSI B16.47 Ser.A]



C1, C6 WAFER TYPE

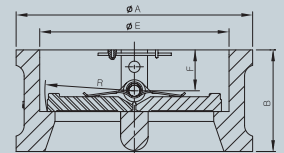
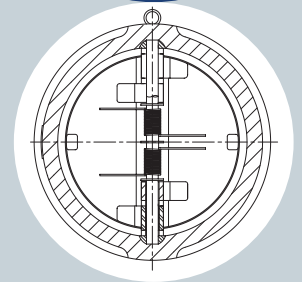
INSTALLATION DIMENSIONS
ASME B16.47 Ser.B
[ANSI B16.47 Ser.B]



Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
26 (650)	150	RF	725	279	660	98	316	744.5	36	3/4	525	471
	300	RF/RJ-93	771	356	660	98	316	803.3	32	1 1/4	650	734
	600	RF/RJ-93	765	457	660	122	312	806.4	28	1 5/8	850	867
	900	RF/RJ-100	838	533	660	122	312	901.7	20	2 1/2	1123	1257
28 (700)	150	RF	776	279	711	132	351	795.3	40	3/4	555	531
	300	RF/RJ-94	825	381	711	132	351	857.2	36	1 1/4	675	672
	600	RF/RJ-94	819	483	711	165	347	863.6	28	1 3/4	895	876
	900	RF/RJ-101	901	572	711	165	347	971.6	20	2 3/4	1110	1421
30 (750)	150	RF	827	305	762	137	371	846.1	44	3/4	480	703
	300	RF/RJ-95	885	368	762	137	375	920.8	36	1 3/8	675	956
	600	RF/RJ-95	879	505	762	165	362	927.1	28	1 7/8	935	1521
	900	RF/RJ-102	958	635	762	165	362	1035.0	20	3	1185	2202
32 (800)	150	RF	881	356	813	119	389	900.2	48	3/4	530	754
	300	RF/RJ-96	939	406	813	119	389	977.9	32	1 1/2	755	1410
	600	RF/RJ-96	933	533	813	145	370	984.2	28	2	985	1750
	900	RF/RJ-103	1016	660	813	145	370	1092.2	20	3	1230	2320
34 (850)	150	RF	935	360	859	130	423	957.3	40	7/8	552	658
	300	RF/RJ-97	993	455	859	130	423	1031.9	36	1 1/2	800	-
	600	RF/RJ-97	996	580	859	195	417	1054.1	24	2 1/4	1043	2023
	900	RF/RJ-104	1073	660	859	195	417	1155.7	20	3 1/4	1244	-
36 (900)	150	RF	987	368	914	143	452	1009.6	44	7/8	565	740
	300	RF/RJ-98	1047	483	914	165	452	1089.0	32	1 5/8	840	1360
	600	RF/RJ-98	1047	635	914	210	445	1104.9	28	2 1/4	1135	2355
	900	RF/RJ-105	1123	718	914	210	445	1200.2	24	3	1310	3540
38 (950)	150	RF	1044	-	-	-	-	1070.0	40	1	604	678
	300	RF	1098	-	-	-	-	1139.8	36	1 5/8	883	1214
40 (1000)	150	RF	1095	419	1016	153	499	1120.8	44	1	640	1028
	300	RF	1149	546	1016	191	499	1190.6	40	1 5/8	910	2221
42 (1050)	150	RF	1146	432	1067	173	527	1171.6	48	1	645	1150
	300	RF	1200	568	1067	148	522	1244.6	36	1 3/4	945	3099
44 (1100)	150	RF	1196	500	1110	188	535	1222.4	52	1	713	-
	300	RF	1250	-	-	-	-	1295.4	40	1 3/4	-	-
46 (1150)	150	RF	1255	-	-	-	-	1284.3	40	1 1/8	-	-
	300	RF	1317	-	-	-	-	1365.2	36	1 7/8	-	-
48 (1200)	150	RF	1306	524	1219	178	603	1335.1	44	1 1/8	760	2755
	300	RF	1368	629	1219	171	591	1416.0	40	1 7/8	1130	4800
50 (1250)	150	RF	1357	530	1240	180	610	1385.9	48	1 1/8	775	-
	300	RF	1419	-	-	-	-	1466.8	44	1 7/8	-	-
52 (1300)	150	RF	1408	550	1300	185	568	1436.7	52	1 1/8	815	-
	300	RF	1470	-	-	-	-	1517.6	48	1 7/8	-	-
54 (1350)	150	RF	1463	573	1370	180	663	1492.2	56	1 1/8	840	-
	300	RF	1530	718	1370	-	-	1578.0	48	1 7/8	1150	-
56 (1400)	150	RF	1514	610	1410	235	660	1543.0	60	1 1/8	874	-
	300	RF	1593	-	-	-	-	1651.0	36	2 1/4	-	-
58 (1450)	150	RF	1579	635	1473	253	703	1611.3	48	1 1/4	915	-
	300	RF	1655	-	-	-	-	1712.9	40	2 1/4	-	-
60 (1500)	150	RF	1630	660	1524	279	740	1662.1	52	1 1/4	925	4548
	300	RF	1706	838	1524	-	-	1763.7	40	2 1/4	1305	6080

C1, C6 WAFFER TYPE

INSTALLATION DIMENSIONS
API6A-(TYPE 6B)



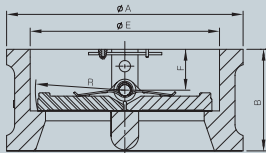
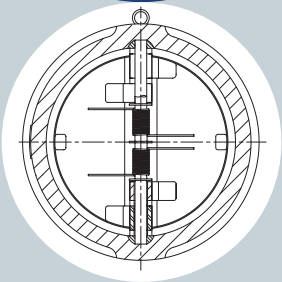
Size in.	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
2 1/16	2000	RJ-23	111	70	57	-	-	127	8	5/8	210	3
	3000	RJ-24	142	70	57	-	-	165.1	8	7/8	245	8
	5000	RJ-24	142	70	57	-	-	165.1	8	7/8	245	8
2 9/16	2000	RJ-26	130	78	-	-	-	149.4	8	3/4	-	-
	3000	RJ-27	165	78	-	-	-	190.5	8	1	-	-
	5000	RJ-27	165	83	-	-	-	190.5	8	1	-	-
3 1/8	2000	RJ-31	149	83	87	-	-	168.1	8	3/4	240	7
	3000	RJ-31	168	83	87	-	-	190.5	8	7/8	260	13
	5000	RJ-35	174	86	87	-	-	203.2	8	1 1/8	295	14
4 1/16	2000	RJ-37	194	102	113	-	-	215.9	8	7/8	280	9
	3000	RJ-37	206	102	113	-	-	235	8	1 1/8	305	20
	5000	RJ-39	209	105	113	-	-	241.3	8	1 1/4	335	28
5 1/8	2000	RJ-41	241	135	-	-	-	266.7	8	1	-	-
	3000	RJ-41	247	135	-	-	-	279.4	8	1 1/8	-	-
	5000	RJ-44	254	150	-	-	-	285.8	8	1 1/2	-	-
7 1/16	2000	RJ-45	266	159	166	-	-	292.1	12	1	360	32
	3000	RJ-45	288	159	166	-	-	317.5	12	1 1/8	385	54
	5000	RJ-45	282	159	166	-	-	317.5	12	1 3/8	455	53
9	2000	RJ-49	320	206	207	-	-	349.3	12	1 1/8	430	65
	3000	RJ-49	358	206	207	-	-	393.7	12	1 3/8	460	123
	5000	RJ-50	352	206	207	-	-	393.7	12	1 5/8	535	117
11	2000	RJ-53	400	241	260	-	-	431.8	16	1 1/4	490	113
	3000	RJ-53	434	248	260	-	-	469.9	16	1 3/8	515	197
	5000	RJ-54	434	254	260	-	-	482.6	12	1 7/8	630	204
13 5/8	2000	RJ-57	457	292	300	-	-	487.7	20	1 1/4	545	140
	3000	RJ-57	498	305	300	-	-	533.4	20	1 3/8	590	327
16 3/4	2000	RJ-65	565	-	-	-	-	603.3	20	1 5/8	-	-
	3000	RJ-66	574	-	-	-	-	616	20	1 5/8	-	-
21 1/4	2000	RJ-73	682	-	-	-	-	723.9	24	1 5/8	-	-

API6A-(TYPE 6BX)

4 1/16	10000	RJ-BX155	228	150	110	45	53	258.8	8	1 1/8	-	-
5 1/8	10000	RJ-BX169	270	170	136	48	57	300	12	1 1/8	-	-
9	10000	RJ-BX157	438	-	-	-	-	476.3	16	1 1/2	-	-
16 3/4	10000	RJ-BX162	728	-	-	-	-	776.2	24	1 7/8	-	-

C1, C6 WAFER TYPE

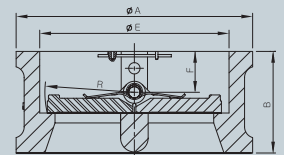
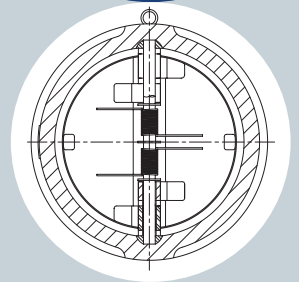
INSTALLATION DIMENSIONS
KS B1511 / JIS B2210



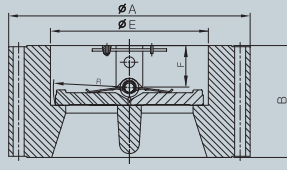
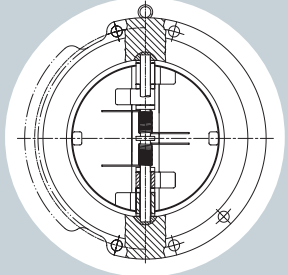
Size mm	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
50	10K	RF/FF	101	60	60	27	32	120	4	M16	150	2.5
	20K	RF/FF	101	60	60	33	27	120	8	M16	155	2.5
65	10K	RF/FF	121	67	73	27	37	140	4	M16	155	4
	20K	RF/FF	121	67	73	32	33	140	8	M16	165	5
80	10K	RF/FF	131	73	89	30	45	150	8	M16	168	6.5
	20K	RF/FF	137	73	89	36	41	160	8	M20	180	6.5
100	10K	RF/FF	156	73	114	32	53	175	8	M16	165	8.1
	20K	RF/FF	162	73	114	38	55	185	8	M20	185	8.1
125	10K	RF/FF	187	86	141	33	67	210	8	M20	185	8
	20K	RF/FF	200	86	141	41	65	225	8	M22	205	14
150	10K	RF/FF	217	98	168	35	79	240	8	M20	205	16
	20K	RF/FF	235	98	168	44	79	260	12	M22	215	16.2
200	10K	RF/FF	267	127	219	42	105	290	12	M20	235	29
	20K	RF/FF	280	127	219	48	102	305	12	M22	250	29.2
250	10K	RF/FF	330	146	273	42	128	355	12	M22	265	48.5
	20K	RF/FF	353	146	273	52	126	380	12	M24	275	49
300	10K	RF/FF	375	181	324	58	155	400	16	M22	300	91
	20K	RF/FF	403	181	324	70	152	430	16	M24	315	92
350	10K	RF/FF	420	184	356	94	170	445	16	M22	305	90
	20K	RF/FF	447	222	356	94	170	480	16	M30	375	92
400	10K	RF/FF	483	191	406	86	195	510	16	M24	320	125
	20K	RF/FF	507	232	406	95	195	540	16	M30	395	127
450	10K	RF/FF	538	203	457	86	219	565	20	M24	335	132
	20K	RF/FF	572	264	457	127	219	605	20	M30	435	134
500	10K	RF/FF	593	219	508	89	244	620	20	M24	350	185
	20K	RF/FF	627	292	508	108	244	660	20	M30	465	188
600	10K	RF/FF	697	222	610	87	292	730	24	M30	370	285
	20K	RF/FF	731	318	610	122	292	770	24	M36	510	289
700	10K	RF/FF	807	381	711	132	337	840	24	M30	535	576
	20K	RF/FF	852	381	711	132	337	900	24	M45	625	579
750	10K	RF/FF	867	305	762	127	365	900	24	M30	465	442
	20K	RF/FF	914	368	762	137	365	970	24	M52	634	447
800	10K	RF/FF	917	356	813	156	397	950	28	M30	515	1319
	20K	RF/FF	974	406	813	156	397	1030	24	M52	680	1325
900	10K	RF/FF	1017	368	914	146	440	1050	28	M30	530	640
	20K	RF/FF	1084	483	914	143	440	1140	28	M52	765	647
1000	10K	RF/FF	1121	432	1016	160	495	1160	28	M36	585	855
1200	10K	RF/FF	1341	524	1219	178	603	1380	32	M36	710	1891

Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
4(100)	150~175	FF	174	73	114	38	54	190.5	8	15.9	-	9
5(125)	150~175	FF	196	86	141	41	65	215.9	8	19.1	-	12
6(150)	150~175	FF	222	98	168	44	79	241.3	8	19.1	-	18
8(200)	150~175	FF	279	127	219	48	102	298.45	8	19.1	-	33
10(250)	150~175	FF	339	146	273	56	126	361.95	12	22.2	-	60
12(300)	150~175	FF	409	181	324	70	152	431.8	12	22.2	-	92
14(350)	150~175	FF	450	184	356	90	170	476.25	12	25.4	-	107
16(400)	150~175	FF	511	191	406	86	195	539.75	16	28.6	-	149
18(450)	150~175	FF	549	203	457	86	219	577.85	16	28.6	-	171
20(500)	150~175	FF	606	219	508	89	244	635	20	28.6	-	205
24(600)	150~175	FF	717	222	610	86	292	749.3	20	31.8	-	315
26(650)	150~175	FF	774	279	660	98	316	806.45	24	31.8	-	609
28(700)	150~175	FF	831	279	711	132	351	863.6	28	31.8	-	602
30(750)	150~175	FF	882	305	762	137	371	914.4	28	31.8	-	584
32(800)	150~175	FF	939	356	813	119	389	977.9	28	38.1	-	857
34(850)	150~175	FF	990	360	859	130	423	1028.7	32	38.1	-	742
36(900)	150~175	FF	1047	368	914	143	452	1085.85	32	38.1	-	956
38(950)	150~175	FF	1111	390	965	150	474	1149.35	32	38.1	-	-
40(1000)	150~175	FF	1162	419	1016	153	499	1200.15	36	38.1	-	1386
42(1050)	150~175	FF	1219	432	1067	173	527	1257.3	36	38.1	-	1270
44(1100)	150~175	FF	1276	500	1110	188	535	1314.45	40	38.1	-	-
48(1200)	150~175	FF	1384	524	1219	178	603	1422.4	44	38.1	-	2180
50(1250)	150~175	FF	1435	530	1240	180	610	1479.55	44	44.5	-	-
52(1300)	150~175	FF	1492	550	1300	185	568	1536.7	44	44.5	-	-
54(1350)	150~175	FF	1549	573	1370	180	663	1593.85	44	44.5	-	-
60(1500)	150~175	FF	1714	660	1524	279	740	1758.95	52	44.5	-	-
66(1650)	150~175	FF	1885	787	-	-	-	1930.4	52	44.5	-	-
72(1800)	150~175	FF	2051	851	-	-	-	2095.5	60	44.5	-	-
78(1950)	150~175	FF	2209	927	-	-	-	2260.6	64	50.8	-	-
84(2100)	150~175	FF	2374	1041	-	-	-	2425.7	64	50.8	-	-
90(2250)	150~175	FF	2533	-	-	-	-	2590.8	68	57.2	-	-
96(2400)	150~175	FF	2698	-	-	-	-	2755.9	68	57.2	-	-
102(2550)	150~175	FF	2844	-	-	-	-	2908.3	72	63.5	-	-
108(2700)	150~175	FF	3003	-	-	-	-	3067.05	72	63.5	-	-
114(2850)	150~175	FF	3149	-	-	-	-	3219.45	76	69.9	-	-
120(3000)	150~175	FF	3302	-	-	-	-	3371.85	76	69.9	-	-
126(3150)	150~175	FF	3460	-	-	-	-	3536.95	80	76.2	-	-
132(3300)	150~175	FF	3625	-	-	-	-	3702.05	80	76.2	-	-
138(3450)	150~175	FF	3778	-	-	-	-	3860.8	84	82.6	-	-
144(3600)	150~175	FF	3937	-	-	-	-	4019.55	84	82.6	-	-

**C1, C6
WAFER TYPE**
INSTALLATION DIMENSIONS
AWWA C207 CLASS D
[STEEL-RING FLANGE]



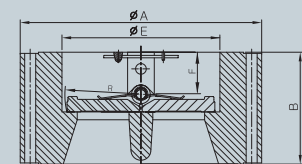
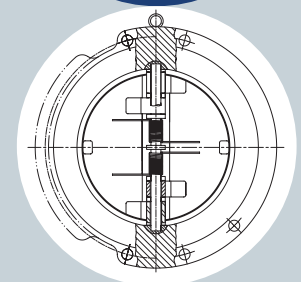
**C4, C8
WAFLER LUG
TYPE**
INSTALLATION DIMENSIONS
ASME B16.5
(ANSI B16.5)



Size	Pressure Rating	End Facing	ØA	B	ØE	F	R	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
in.(mm)	ANSI		mm	mm	mm	mm	mm		No.	Diameter inches	Length mm	
2(50)	150	RF	150	60	60	33	27	120.7	4	5/8	165	11
	300	RF	165	60	60	33	27	127.0	8	5/8	175	10
	600	RF/RJ-23	165	60	60	33	27	127.0	8	5/8	195	12
	900	RF/RJ-24	215	70	60	33	29	165.1	8	7/8	240	17
	1500	RF/RJ-24	215	70	60	33	29	165.1	8	7/8	240	22
2500	RF/RJ-26	235	70	60	33	29	171.4	8	1	275	29	
2 1/2(60)	150	RF/RJ-25	180	67	73	32	33	139.7	4	5/8	175	12
	300	RF/RJ-26	190	67	73	32	33	149.2	8	5/8	175	15
	600	RF/RJ-26	190	67	73	32	33	149.2	8	5/8	205	19
	900	RF/RJ-27	245	83	73	35	35	190.5	8	7/8	250	23
	1500	RF/RJ-27	245	83	73	35	35	190.5	8	7/8	250	28
2500	RF/RJ-28	265	83	73	35	35	196.8	8	1	285	32	
3(80)	150	RF	190	73	89	36	41	152.4	4	5/8	185	13
	300	RF	210	73	89	36	41	168.3	8	3/4	205	23
	600	RF	210	73	89	36	41	168.3	8	3/4	230	23
	900	RF/RJ-31	240	83	89	34	42	190.5	8	7/8	255	30
	1500	RF/RJ-35	265	83	89	34	42	203.2	8	1 1/8	285	35
2500	RF/RJ-32	305	86	89	36	42	228.6	8	1 1/4	335	40	
4(100)	150	RF	230	73	114	38	54	190.5	8	5/8	185	26
	300	RF	255	73	114	38	55	200.0	8	3/4	210	49
	600	RF/RJ-37	275	79	114	42	55	215.9	8	7/8	255	55
	900	RF/RJ-37	290	102	114	40	55	235.0	8	1 1/8	300	61
	1500	RF/RJ-39	310	102	114	40	55	241.3	8	1 1/4	325	70
2500	RF/RJ-38	355	105	114	34	55	273.0	8	1 1/2	395	82	
5(125)	150	RF/RJ-41	255	86	141	41	65	215.9	8	3/4	195	35
	300	RF/RJ-41	280	86	141	41	65	235.0	8	3/4	215	55
	600	RF/RJ-41	330	105	141	40	65	266.7	8	1	280	80
6(150)	150	RF	280	98	168	44	79	241.3	8	3/4	220	42
	300	RF	320	98	168	44	79	269.9	12	3/4	245	55
	600	RF/RJ-45	355	136	168	46	82	292.1	12	1	340	98
	900	RF/RJ-45	380	159	168	56	82	317.5	12	1 1/8	380	131
	1500	RF/RJ-46	395	159	168	56	82	317.5	12	1 3/8	455	135
2500	RF/RJ-47	485	159	168	56	82	368.3	8	2	540	197	
8(200)	150	RF	345	127	219	48	102	298.5	8	3/4	255	56
	300	RF	380	127	219	48	102	330.2	12	7/8	290	98
	600	RF/RJ-49	420	165	219	54	105	349.2	12	1 1/8	385	134
	900	RF/RJ-49	470	206	219	73	107	393.7	12	1 3/8	455	200
	1500	RF/RJ-50	485	206	219	73	107	393.7	12	1 5/8	530	212
2500	RF/RJ-51	550	206	219	73	107	438.2	12	2	630	300	
10(250)	150	RF	405	146	273	56	126	362.0	12	7/8	285	88
	300	RF	445	146	273	52	126	387.4	16	1	325	148
	600	RF/RJ-53	510	213	273	70	133	431.8	16	1 1/4	460	245
	900	RF/RJ-53	545	241	273	87	133	469.9	16	1 3/8	505	350
	1500	RF/RJ-54	585	248	273	87	133	482.6	12	1 7/8	620	380
2500	RF/RJ-55	675	254	273	87	133	539.8	12	2 1/2	790	512	
12(300)	150	RF	485	181	324	70	152	431.8	12	7/8	325	180
	300	RF	520	181	324	70	152	450.8	16	1 1/8	375	181
	600	RF/RJ-57	560	229	324	67	152	489.0	20	1 1/4	480	330
	900	RF/RJ-57	610	292	324	100	159	533.4	20	1 3/8	575	529
	1500	RF/RJ-58	675	305	324	102	159	571.5	16	2	720	752
2500	RF/RJ-60	760	305	324	103	159	619.1	12	2 3/4	895	880	
14(350)	150	RF	535	184	356	90	170	476.3	12	1	340	223
	300	RF	585	222	356	94	170	514.4	20	1 1/8	425	312
	600	RF/RJ-61	605	273	356	103	164	527.0	20	1 3/8	535	442
	900	RF/RJ-62	640	356	356	130	181	558.8	20	1 1/2	660	795
1500	RF/RJ-63	750	356	356	130	181	635.0	16	2 1/4	810	923	
16(400)	150	RF	595	191	406	86	195	539.8	16	1	350	284
	300	RF	650	232	406	95	195	571.5	20	1 1/4	445	512
	600	RF/RJ-65	685	305	406	92	198	603.2	20	1 1/2	590	680
	900	RF/RJ-66	705	384	406	137	203	616.0	20	1 5/8	705	850
	1500	RF/RJ-67	825	384	406	137	203	704.8	16	2 1/2	885	1274
18(450)	150	RF/RJ-68	635	203	457	86	219	577.9	16	1 1/8	375	265
	300	RF/RJ-69	710	264	457	127	219	628.6	24	1 1/4	485	538
	600	RF/RJ-69	745	362	457	121	228	654.0	20	1 5/8	665	857
	900	RF/RJ-70	785	451	457	167	232	685.8	20	1 7/8	815	1350
	1500	RF/RJ-71	915	468	457	167	216	774.7	16	2 3/4	1010	1760
20(500)	150	RF/RJ-72	700	219	508	89	244	635.0	20	1 1/8	400	313
	300	RF/RJ-73	775	292	508	108	244	685.8	24	1 1/4	520	770
	600	RF/RJ-73	815	368	508	116	248	723.9	24	1 5/8	685	1033
	900	RF/RJ-74	855	451	508	116	248	749.3	20	2	835	2050
	1500	RF/RJ-75	985	533	508	116	248	831.8	16	3	1125	2396
24(600)	150	RF/RJ-76	815	222	610	86	292	749.3	20	1 1/4	435	396
	300	RF/RJ-77	915	318	610	122	292	812.8	24	1 1/2	582	1166
	600	RF/RJ-77	940	438	610	133	295	838.2	24	1 7/8	800	1488
	900	RF/RJ-78	1040	495	610	149	300	901.7	20	2 1/2	975	2300
1500	RF/RJ-79	1170	559	610	149	300	990.6	16	3 1/2	1235	3528	

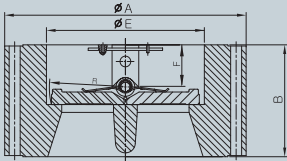
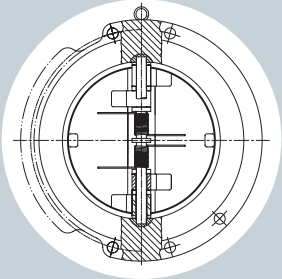
Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
26 (650)	150	RF	869.0	279	660	98	316	806.5	24	1 1/4	605	1380
	300	RF/RJ-93	971.0	356	660	98	316	876.3	28	1 5/8	650	1649
	600	RF/RJ-93	1016.0	457	660	122	312	914.4	28	1 7/8	850	1900
	900	RF/RJ-100	1085.0	533	660	122	312	952.5	20	2 3/4	1045	2356
28 (700)	150	RF	927.0	279	711	132	351	863.6	28	1 1/4	635	1355
	300	RF/RJ-94	1035.0	381	711	132	351	939.8	28	1 5/8	685	1540
	600	RF/RJ-94	1073.0	483	711	165	347	965.2	28	2	890	2022
	900	RF/RJ-101	1168.0	572	711	165	347	1022.4	20	3	1100	3177
30 (750)	150	RF	984.0	305	762	137	371	914.4	28	1 1/4	565	1071
	300	RF/RJ-95	1092.0	368	762	137	375	996.0	28	1 3/4	685	2033
	600	RF/RJ-95	1130.0	505	762	165	362	1022.4	28	2	920	3250
	900	RF/RJ-102	1231.0	635	762	165	362	1085.9	20	3	1180	4054
32 (800)	150	RF	1060.0	356	813	119	389	977.9	28	1 1/2	645	3166
	300	RF/RJ-96	1149.0	406	813	119	389	1054.1	28	1 7/8	750	3793
	600	RF/RJ-96	1193.0	533	813	145	370	1079.5	28	2 1/4	970	4255
	900	RF/RJ-103	1314.0	660	813	145	370	1155.7	20	3 1/4	1235	4498
34 (850)	150	RF	1111.0	360	859	130	423	1028.7	32	1 1/2	675	2477
	300	RF/RJ-97	1206.0	455	859	130	423	1104.9	28	1 7/8	787	3155
	600	RF/RJ-97	1244.0	580	859	195	417	1130.3	28	2 1/4	985	3549
	900	RF/RJ-104	1397.0	660	859	195	417	1225.6	20	3 1/2	1240	4027
36 (900)	150	RF	1168.0	368	914	143	452	1085.9	32	1 1/2	675	1511
	300	RF/RJ-98	1270.0	483	914	165	452	1168.4	32	2	845	2890
	600	RF/RJ-98	1314.0	635	914	210	445	1193.8	28	2 1/2	1095	4720
	900	RF/RJ-105	1460.0	718	914	210	445	1289.1	20	3 1/2	1335	6434
38 (950)	150	RF	1238.0	-	-	-	-	1149.4	32	1 1/2	-	-
	300	RF	1168.0	-	-	-	-	1092.2	32	1 1/2	-	-
	600	RF	1270.0	-	-	-	-	1162.1	28	2 1/4	-	-
	900	RF	1460.0	-	-	-	-	1289.1	20	3 1/2	-	-
40 (1000)	150	RF	1289.0	419	1016	153	499	1200.2	36	1 1/2	730	1571
	300	RF	1238.0	546	1016	191	499	1155.7	32	1 5/8	920	2760
	600	RF	1320.0	660	1016	238	492	1212.9	32	2 1/4	1147	-
	900	RF	1511.0	762	1016	238	492	1339.9	24	3 1/2	1320	-
42 (1050)	150	RF	1346.0	432	1067	173	527	1257.3	36	1 1/2	755	2377
	300	RF	1289.0	568	1067	148	522	1206.5	32	1 5/8	940	5515
	600	RF	1403.0	-	-	-	-	1282.7	28	2 1/2	-	6672
	900	RF	1562.0	-	-	-	-	1390.7	24	3 1/2	-	-
44 (1100)	150	RF	1403.0	500	1110	188	535	1314.5	40	1 1/2	865	-
	300	RF	1352.0	-	-	-	-	1263.7	32	1 3/4	-	-
	600	RF	1454.0	-	-	-	-	1333.5	32	2 1/2	-	-
	900	RF	1647.0	-	-	-	-	1463.5	24	3 3/4	-	-
46 (1150)	150	RF	1454.0	-	-	-	-	1365.3	40	1 1/2	-	-
	300	RF	1416.0	-	-	-	-	1320.8	28	1 7/8	-	-
	600	RF	1511.0	-	-	-	-	1390.7	32	2 1/2	-	-
	900	RF	1733.0	-	-	-	-	1536.7	24	4	-	-
48 (1200)	150	RF	1511.0	524	1219	178	603	1422.4	44	1 1/2	880	4255
	300	RF	1466.0	629	1219	171	591	1371.6	32	1 7/8	1050	6487
	600	RF	1593.0	787	1219	-	-	1460.5	32	2 3/4	-	-
	900	RF	1784.0	-	-	-	-	1587.5	24	4	-	-
50 (1250)	150	RF	1568.0	530	1240	180	610	1479.6	44	1 3/4	-	-
	300	RF	1530.0	-	-	-	-	1428.8	32	2	-	-
	600	RF	1670.0	-	-	-	-	1524.0	28	3	-	-
	52 (1300)	150	RF	1625.0	550	1300	185	568	1536.7	44	1 3/4	-
300		RF	1581.0	-	-	-	-	1479.6	32	2	-	-
600		RF	1720.0	-	-	-	-	1574.8	32	3	-	-
54 (1350)		150	RF	1682.0	573	1370	180	663	1593.9	44	1 3/4	-
	300	RF	1657.0	718	1370	-	-	1549.4	28	2 1/4	-	7950
	600	RF	1778.0	-	-	-	-	1631.0	32	3	-	-
	56 (1400)	150	RF	1746.0	610	1410	235	660	1651.0	48	1 3/4	1020
300		RF	1708.0	-	-	-	-	1600.2	28	2 1/4	-	-
600		RF	1854.0	-	-	-	-	1695.5	32	3 1/4	-	-
58 (1450)		150	RF	1803.0	635	1473	253	703	1708.2	48	1 3/4	-
	300	RF	1758.0	-	-	-	-	1651.0	32	2 1/4	-	-
	600	RF	1905.0	-	-	-	-	1746.3	32	3 1/4	-	-
	60 (1500)	150	RF	1854.0	660	1524	279	740	1758.0	52	1 3/4	1065
300		RF	1809.0	838	1524	-	-	1701.8	32	2 1/4	1330	11548
600		RF	1993.0	-	-	-	-	1822.5	28	3 1/2	-	-

**C4, C8
WAFLER LUG
TYPE**
INSTALLATION DIMENSIONS
ASME B16.47 Ser. A
(ANSI B16.47 Ser.A)



C4, C8 WAFER LUG TYPE

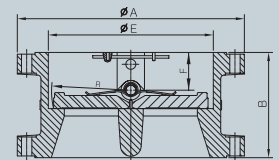
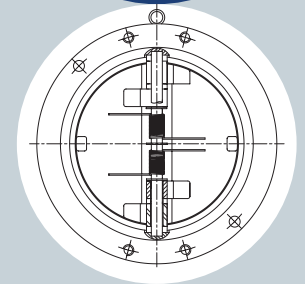
INSTALLATION DIMENSIONS
ASME B16.47 Ser.B
{ ANSI B16.47 Ser.B }



Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
26 (650)	150	RF	785	279	660	98	316	744.5	36	3/4	525	1126
	300	RF/RJ-93	866	356	660	98	316	803.3	32	1 1/4	650	1312
	600	RF/RJ-93	889	457	660	122	312	806.4	28	1 5/8	850	1454
	900	RF/RJ-100	1022	533	660	122	312	901.7	20	2 1/2	1123	2088
28 (700)	150	RF	836	279	711	132	351	795.3	40	3/4	555	1103
	300	RF/RJ-94	920	381	711	132	351	857.2	36	1 1/4	675	1218
	600	RF/RJ-94	952	483	711	165	347	863.6	28	1 3/4	895	1592
	900	RF/RJ-101	1104	572	711	165	347	971.6	20	2 3/4	1110	2841
30 (750)	150	RF	887	305	762	137	371	846.1	44	3/4	480	870
	300	RF/RJ-95	990	368	762	137	375	920.8	36	1 3/8	675	1672
	600	RF/RJ-95	1022	505	762	165	362	927.1	28	1 7/8	935	2658
	900	RF/RJ-102	1181	635	762	165	362	1035.0	20	3	1185	3726
32 (800)	150	RF	941	356	813	119	389	900.2	48	3/4	530	2494
	300	RF/RJ-96	1054	406	813	119	389	977.9	32	1 1/2	755	3190
	600	RF/RJ-96	1085	533	813	145	370	984.2	28	2	985	3520
	900	RF/RJ-103	1238	660	813	145	370	1092.2	20	3	1230	3991
34 (850)	150	RF	1004	360	859	130	423	957.3	40	7/8	552	2025
	300	RF/RJ-97	1107	455	859	130	423	1031.9	36	1 1/2	800	2660
	600	RF/RJ-97	1162	580	859	195	417	1054.1	24	2 1/4	1043	3093
	900	RF/RJ-104	1314	660	859	195	417	1155.7	20	3 1/4	1244	3565
36 (900)	150	RF	1057	368	914	143	452	1009.6	44	7/8	565	1236
	300	RF/RJ-98	1171	483	914	165	452	1089.0	32	1 5/8	840	2458
	600	RF/RJ-98	1212	635	914	210	445	1104.9	28	2 1/4	1135	4018
	900	RF/RJ-105	1346	718	914	210	445	1200.2	24	3	1310	5466
38 (950)	150	RF	1123	-	-	-	-	1070.0	40	1	604	-
	300	RF	1222	-	-	-	-	1139.8	36	1 5/8	883	-
40 (1000)	150	RF	1174	419	1016	153	499	1120.8	44	1	640	1304
	300	RF	1273	546	1016	191	499	1190.6	40	1 5/8	910	2917
42 (1050)	150	RF	1225	432	1067	173	527	1171.6	48	1	645	1970
	300	RF	1333	568	1067	148	522	1244.6	36	1 3/4	945	5901
44 (1100)	150	RF	1276	500	1110	188	535	1222.4	52	1	713	-
	300	RF	1384	-	-	-	-	1295.4	40	1 3/4	-	-
46 (1150)	150	RF	1341	-	-	-	-	1284.3	40	1 1/8	-	-
	300	RF	1460	-	-	-	-	1365.2	36	1 7/8	-	-
48 (1200)	150	RF	1392	524	1219	178	603	1335.1	44	1 1/8	760	3610
	300	RF	1511	629	1219	171	591	1416.0	40	1 7/8	1130	6886
50 (1250)	150	RF	1442	530	1240	180	610	1385.9	48	1 1/8	775	-
	300	RF	1562	-	-	-	-	1466.8	44	1 7/8	-	-
52 (1300)	150	RF	1493	550	1300	185	568	1436.7	52	1 1/8	815	-
	300	RF	1612	-	-	-	-	1517.6	48	1 7/8	-	-
54 (1350)	150	RF	1549	573	1370	180	663	1492.2	46	1 1/8	840	4421
	300	RF	1673	718	1370	-	-	1578.0	48	1 7/8	1150	8104
56 (1400)	150	RF	1600	610	1410	235	660	1543.0	60	1 1/8	874	-
	300	RF	1765	-	-	-	-	1651.0	36	2 1/4	-	-
58 (1450)	150	RF	1674	635	1473	253	703	1611.3	48	1 1/4	915	-
	300	RF	1827	-	-	-	-	1712.9	40	2 1/4	-	-
60 (1500)	150	RF	1725	660	1524	279	740	1662.1	52	1 1/4	925	7584
	300	RF	1878	838	1524	-	-	1763.7	40	2 1/4	1305	12436

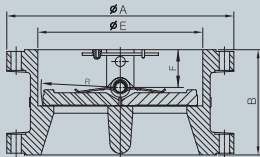
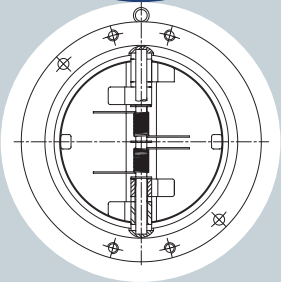
C3, C7
DOUBLE
FLANGE TYPE
 INSTALLATION DIMENSIONS
 ASME B16.5
 [ANSI B16.5]

Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
8(200)	150	RF	345	127	219	48	102	298.5	8	3/4	140	51
	300	RF	380	127	219	48	102	330.2	12	7/8	-	85
	600	RF/RJ-49	420	165	219	54	105	349.2	12	1 1/8	-	110
	900	RF/RJ-49	470	206	219	73	107	393.7	12	1 3/8	-	177
	1500	RF/RJ-50	485	206	219	73	107	393.7	12	1 5/8	-	199
	2500	RF/RJ-51	550	206	219	73	107	438.2	12	2	-	238
10(250)	150	RF	405	146	273	56	126	362.0	12	7/8	150	88
	300	RF	445	146	273	52	126	387.4	16	1	-	196
	600	RF/RJ-53	510	213	273	70	133	431.8	16	1 1/4	245	214
	900	RF/RJ-53	545	241	273	87	133	469.9	16	1 3/8	265	301
	1500	RF/RJ-54	585	248	273	87	133	482.6	12	1 7/8	-	355
2500	RF/RJ-55	675	254	273	87	133	539.8	12	2 1/2	-	420	
12(300)	150	RF	485	181	324	70	152	431.8	12	7/8	150	130
	300	RF	520	181	324	70	152	450.8	16	1 1/8	205	155
	600	RF/RJ-57	560	229	324	67	152	489.0	20	1 1/4	255	250
	900	RF/RJ-57	610	292	324	100	159	533.4	20	1 3/8	285	349
	1500	RF/RJ-58	675	305	324	102	159	571.5	16	2	-	470
	2500	RF/RJ-60	760	305	324	103	159	619.1	12	2 3/4	-	595
14(350)	150	RF	535	184	356	90	170	476.3	12	1	165	148
	300	RF	585	222	356	94	170	514.4	20	1 1/8	210	210
	600	RF/RJ-61	605	273	356	103	164	527.0	20	1 3/8	265	389
	900	RF/RJ-62	640	356	356	130	181	558.8	20	1 1/2	310	480
	1500	RF/RJ-63	750	356	356	130	181	635.0	16	2 1/4	-	611
16(400)	150	RF	595	191	406	86	195	539.8	16	1	176	161
	300	RF	650	232	406	95	195	571.5	20	1 1/4	301	285
	600	RF/RJ-65	685	305	406	92	198	603.2	20	1 1/2	451	447
	900	RF/RJ-66	705	384	406	137	203	616.0	20	1 5/8	610	550
	1500	RF/RJ-67	825	384	406	137	203	704.8	16	2 1/2	-	835
18(450)	150	RF/RJ-68	635	203	457	86	219	577.9	16	1 1/8	210	205
	300	RF/RJ-69	710	264	457	127	219	628.6	24	1 1/4	230	388
	600	RF/RJ-69	745	362	457	121	228	654.0	20	1 5/8	305	560
	900	RF/RJ-70	785	451	457	167	232	685.8	20	1 7/8	365	850
	1500	RF/RJ-71	915	468	457	167	216	774.7	16	2 3/4	-	1020
20(500)	150	RF/RJ-72	700	219	508	89	244	635.0	20	1 1/8	190	282
	300	RF/RJ-73	775	292	508	108	244	685.8	24	1 1/4	240	499
	600	RF/RJ-73	815	368	508	116	248	723.9	24	1 5/8	325	776
	900	RF/RJ-74	855	451	508	116	248	749.3	20	2	385	1780
	1500	RF/RJ-75	985	533	508	-	-	831.8	16	3	-	2221
24(600)	150	RF/RJ-76	815	222	610	86	292	749.3	20	1 1/4	205	410
	300	RF/RJ-77	915	318	610	122	292	812.8	24	1 1/2	265	760
	600	RF/RJ-77	940	438	610	133	295	838.2	24	1 7/8	365	1154
	900	RF/RJ-78	1040	495	610	149	300	901.7	20	2 1/2	485	1890
	1500	RF/RJ-79	1170	559	610	-	-	990.6	16	3 1/2	-	3050



C3, C7 DOUBLE FLANGE TYPE

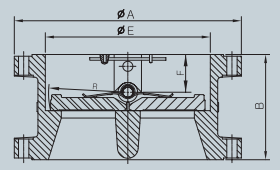
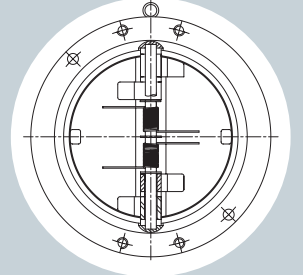
INSTALLATION DIMENSIONS
ASME B16.47 Ser.A
[ANSI B16.47 Ser.A]



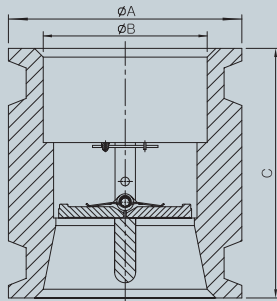
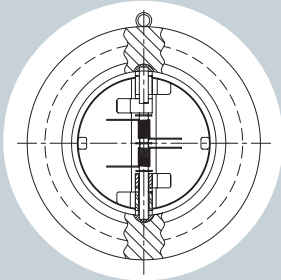
Size in. (mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD		Valve Approx Weight(Kg)	
									No.	Diameter inches		Length mm
26 (650)	150	RF	869.0	279	660	98	316	806.5	24	1 1/4	245	1180
	300	RF/RJ-93	971.0	356	660	98	316	876.3	28	1 5/8	290	1356
	600	RF/RJ-93	1016.0	457	660	122	312	914.4	28	1 7/8	390	1428
28 (700)	900	RF/RJ-100	1085.0	533	660	122	312	952.5	20	2 3/4	510	2150
	150	RF	927.0	279	711	132	351	863.6	28	1 1/4	255	1125
	300	RF/RJ-94	1035.0	381	711	132	351	939.8	28	1 5/8	305	1260
30 (750)	600	RF/RJ-94	1073.0	483	711	165	347	965.2	28	2	405	1610
	900	RF/RJ-101	1168.0	572	711	165	347	1022.4	20	3	525	2600
	150	RF	984.0	305	762	137	371	914.4	28	1 1/4	260	810
32 (800)	300	RF/RJ-95	1092.0	368	762	137	375	996.0	28	1 3/4	325	1425
	600	RF/RJ-95	1130.0	505	762	165	362	1022.4	28	2	410	1690
	900	RF/RJ-102	1231.0	635	762	165	362	1085.9	20	3	540	3268
34 (850)	150	RF	1060.0	356	813	119	389	977.9	28	1 1/2	290	1096
	300	RF/RJ-96	1149.0	406	813	119	389	1054.1	28	1 7/8	345	1481
	600	RF/RJ-96	1193.0	533	813	145	370	1079.5	28	2 1/4	430	2133
36 (900)	900	RF/RJ-103	1314.0	660	813	145	370	1155.7	20	3 1/4	570	3650
	150	RF	1111.0	360	859	130	423	1028.7	32	1 1/2	-	-
	300	RF/RJ-97	1206.0	455	859	130	423	1104.9	28	1 7/8	-	-
38 (950)	600	RF/RJ-97	1244.0	580	859	195	417	1130.3	28	2 1/4	-	-
	900	RF/RJ-104	1397.0	660	859	195	417	1225.6	20	3 1/2	-	-
	150	RF	1168.0	368	914	143	452	1085.9	32	1 1/2	305	1142
40 (1000)	300	RF/RJ-98	1270.0	483	914	165	452	1168.4	32	2	360	2139
	600	RF/RJ-98	1314.0	635	914	210	445	1193.8	28	2 1/2	455	2865
	900	RF/RJ-105	1460.0	718	914	210	445	1289.1	20	3 1/2	615	-
42 (1050)	150	RF	1238.0	-	-	-	-	1149.4	32	1 1/2	-	-
	300	RF	1168.0	-	-	-	-	1092.2	32	1 1/2	-	-
	600	RF	1270.0	-	-	-	-	1162.1	28	2 1/4	-	-
44 (1100)	900	RF	1460.0	-	-	-	-	1289.1	20	3 1/2	-	-
	150	RF	1289.0	419	1016	153	499	1200.2	36	1 1/2	305	1590
	300	RF	1238.0	546	1016	191	499	1155.7	32	1 5/8	360	2733
46 (1150)	600	RF	1320.0	660	1016	238	492	1212.9	32	2 1/4	490	-
	900	RF	1511.0	762	1016	238	492	1339.9	24	3 1/2	630	-
	150	RF	1346.0	432	1067	173	527	1257.3	36	1 1/2	320	2160
48 (1200)	300	RF	1289.0	568	1067	148	522	1206.5	32	1 5/8	370	3965
	600	RF	1403.0	702	-	-	-	1282.7	28	2 1/2	520	-
	900	RF	1562.0	787	-	-	-	1390.7	24	3 1/2	650	-
50 (1250)	150	RF	1403.0	500	1110	188	535	1314.5	40	1 1/2	-	-
	300	RF	1352.0	-	-	-	-	1263.7	32	1 3/4	-	-
	600	RF	1454.0	-	-	-	-	1333.5	32	2 1/2	-	-
52 (1300)	900	RF	1647.0	-	-	-	-	1463.5	24	3 3/4	-	-
	150	RF	1454.0	-	-	-	-	1365.3	40	1 1/2	-	-
	300	RF	1416.0	-	-	-	-	1320.8	28	1 7/8	-	-
54 (1350)	600	RF	1511.0	-	-	-	-	1390.7	32	2 1/2	-	-
	900	RF	1733.0	-	-	-	-	1536.7	24	4	-	-
	150	RF	1511.0	524	1219	178	603	1422.4	44	1 1/2	340	2890
56 (1400)	300	RF	1466.0	629	1219	171	591	1371.6	32	1 7/8	410	5210
	600	RF	1593.0	787	1219	-	-	1460.5	32	2 3/4	575	-
	900	RF	1784.0	-	-	-	-	1587.5	24	4	-	-
58 (1450)	150	RF	1568.0	530	1240	180	610	1479.6	44	1 3/4	-	-
	300	RF	1530.0	-	-	-	-	1428.8	32	2	-	-
	600	RF	1670.0	-	-	-	-	1524.0	28	3	-	-
60 (1500)	150	RF	1625.0	550	1300	185	568	1536.7	44	1 3/4	-	-
	300	RF	1581.0	-	-	-	-	1479.6	32	2	-	-
	600	RF	1720.0	-	-	-	-	1574.8	32	3	-	-
62 (1550)	150	RF	1682.0	573	1370	180	663	1593.9	44	1 3/4	380	3495
	300	RF	1657.0	718	1370	-	-	1549.4	28	2 1/4	470	5760
	600	RF	1778.0	-	-	-	-	1631.0	32	3	-	-
64 (1600)	150	RF	1746.0	610	1410	235	660	1651.0	48	1 3/4	-	-
	300	RF	1708.0	-	-	-	-	1600.2	28	2 1/4	-	-
	600	RF	1854.0	-	-	-	-	1695.5	32	3 1/4	-	-
66 (1650)	150	RF	1803.0	635	1473	253	703	1708.2	48	1 3/4	-	-
	300	RF	1758.0	-	-	-	-	1651.0	32	2 1/4	-	-
	600	RF	1905.0	-	-	-	-	1746.3	32	3 1/4	-	-
68 (1700)	150	RF	1854.0	660	1524	279	740	1758.0	52	1 3/4	400	-
	300	RF	1809.0	838	1524	-	-	1701.8	32	2 1/4	490	-
	600	RF	1993.0	-	-	-	-	1822.5	28	3 1/2	-	-

Size in.(mm)	Pressure Rating ANSI	End Facing	ØA mm	B mm	ØE mm	F mm	R mm	Flange Bolt Circle	STUD			Valve Approx Weight(Kg)
									No.	Diameter inches	Length mm	
26 (650)	150	RF	785	279	660	98	316	744.5	36	3/4	165	659
	300	RF/RJ-93	866	356	660	98	316	803.3	32	1 1/4	290	1027
	600	RF/RJ-93	889	457	660	122	312	806.4	28	1 5/8	380	1213
	900	RF/RJ-100	1022	533	660	122	312	901.7	20	2 1/2	480	1759
28 (700)	150	RF	836	279	711	132	351	795.3	40	3/4	175	743
	300	RF/RJ-94	920	381	711	132	351	857.2	36	1 1/4	290	940
	600	RF/RJ-94	952	483	711	165	347	863.6	28	1 3/4	395	1226
30 (750)	900	RF/RJ-101	1104	572	711	165	347	971.6	20	2 3/4	515	1989
	150	RF	887	305	762	137	371	846.1	44	3/4	175	984
	300	RF/RJ-95	990	368	762	137	375	920.8	36	1 3/8	305	1338
32 (800)	600	RF/RJ-95	1022	505	762	165	362	927.1	28	1 7/8	420	2129
	900	RF/RJ-102	1181	635	762	165	362	1035.0	20	3	545	3082
	150	RF	941	356	813	119	389	900.2	48	3/4	175	955
34 (850)	300	RF/RJ-96	1054	406	813	119	389	977.9	32	1 1/2	330	1548
	600	RF/RJ-96	1085	533	813	145	370	984.2	28	2	440	1998
	900	RF/RJ-103	1238	660	813	145	370	1092.2	20	3	555	3250
36 (900)	150	RF	1004	360	859	130	423	957.3	40	7/8	-	-
	300	RF/RJ-97	1107	455	859	130	423	1031.9	36	1 1/2	-	-
	600	RF/RJ-97	1162	580	859	195	417	1054.1	24	2 1/4	-	-
38 (950)	900	RF/RJ-104	1314	660	859	195	417	1155.7	20	3 1/4	-	-
	150	RF	1057	368	914	143	452	1009.6	44	7/8	195	1030
	300	RF/RJ-98	1171	483	914	165	452	1089.0	32	1 5/8	340	1856
40 (1000)	600	RF/RJ-98	1212	635	914	210	445	1104.9	28	2 1/4	480	2490
	900	RF/RJ-105	1346	718	914	210	445	1200.2	24	3	585	3694
	150	RF	1123	-	-	-	-	1070.0	40	1	-	-
42 (1050)	300	RF	1222	-	-	-	-	1139.8	36	1 5/8	-	-
	150	RF	1174	419	1016	153	499	1120.8	44	1	210	1477
44 (1100)	300	RF	1273	546	1016	191	499	1190.6	40	1 5/8	365	3016
	150	RF	1225	432	1067	173	527	1171.6	48	1	215	1960
46 (1150)	300	RF	1333	568	1067	148	522	1244.6	36	1 3/4	375	4793
	150	RF	1276	500	1110	188	535	1222.4	52	1	-	-
48 (1200)	300	RF	1384	-	-	-	-	1295.4	40	1 3/4	-	-
	150	RF	1341	-	-	-	-	1284.3	40	1 1/8	-	-
50 (1250)	300	RF	1460	-	-	-	-	1365.2	36	1 7/8	-	-
	150	RF	1392	524	1219	178	603	1335.1	44	1 1/8	235	2601
52 (1300)	300	RF	1511	629	1219	171	591	1416.0	40	1 7/8	400	5905
	150	RF	1442	530	1240	180	610	1385.9	48	1 1/8	-	-
54 (1350)	300	RF	1562	-	-	-	-	1466.8	44	1 7/8	-	-
	150	RF	1493	550	1300	185	568	1436.7	52	1 1/8	-	-
56 (1400)	300	RF	1612	-	-	-	-	1517.6	48	1 7/8	-	-
	150	RF	1549	573	1370	180	663	1492.2	46	1 1/8	245	2956
58 (1450)	300	RF	1673	718	1370	-	-	1578.0	48	1 7/8	415	6439
	150	RF	1600	610	1410	235	660	1543.0	60	1 1/8	-	-
60 (1500)	300	RF	1765	-	-	-	-	1651.0	36	2 1/4	-	-
	150	RF	1674	635	1473	253	703	1611.3	48	1 1/4	-	-
	300	RF	1827	-	-	-	-	1712.9	40	2 1/4	-	-
	150	RF	1725	660	1524	279	740	1662.1	52	1 1/4	260	-
	300	RF	1878	838	1524	-	-	1763.7	40	2 1/4	465	-

C3, C7
DOUBLE
FLANGE TYPE
INSTALLATION DIMENSIONS
ASME B16.47 Ser.B
[ANSI B16.47 Ser.B]



**C9, C12
HUB END
TYPE**

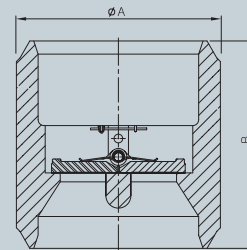
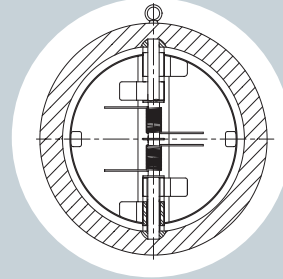


Hub End Type: Class 150~2500 (3" Over)



**C11, C13
BUTTWELDING
TYPE**

ASME B16.25



**Buttwelding Type:
Class 900~2500 (3" Over)**

For more dimensional information,
please, contact our sales team:
mail@peachvalve.com
tel. +82-31-988-6678

steps toward the world

• Production Range (with Large Valves) 20 • Cryogenic Valves 20 • Special Equipments 21 • Technical Data 22 • Installation 23 • Impact Testing of Low Alloy Steel 24 • ASTM-JIS Material Comparison List 25 • Material Specification 26~27 • Special Alloy Steel 28 • Certificates



**PRODUCTION RANGE
CRYOGENIC VALVES**

Item Range	Size & Class Range	Material Range
Dual Plate Check Valve (API 594)	2-144 B; 150-10000 lb	Duplex Monel Titanium Hastelloy
Casting Valve	2B ~36B; 150-2500 lb	Alloy 625 and Inconel Alloy Alloy 825 and Incoloy Alloy CZ-100 and Nickel Alloy CN7M and Carpenter Alloy Stainless Steel
Others		Cast Steel Cast Iron Al-Bronz and Bronze Ductile Iron

**PRODUCTION RANGE
(WITH LARGE VALVES)**



CRYOGENIC VALVES



Certificate of Registration by Korea Gas Corporation (KOGAS)

Along with the growth of LNG industry, Peach Valve has invested in its production and test facilities for cryogenic valves in recent years. Last year of 2008, Korea Gas Corporation (KOGAS) approved the ability and quality of Peach Valve cryogenic valves and admitted Peach Valve as its valuable supplier for the demand of cryogenic valves.





**SPECIAL
EQUIPMENTS**

- 1. MULTIPLE PROCESSING MECHANISM
- 2. MECHANISM OF PLASMA CVD DIAMOND COATING
- 3. 3D MEASURING MECHANISM



SPECIAL EQUIPMENTS

Opening Pressure & Cv

Size Inch(mm)	Spring (mm Aq)			Cv
	Standard	Low Coil	Standard + Weight of Plate	
2 (50)	54	12	82	56
2.5 (65)	72	13	90	93
3 (80)	88	22	87	157
4 (100)	82	16	88	325
5 (125)	49	12	89	540
6 (150)	58	15	92	815
8 (200)	79	16	106	1450
10 (250)	59	12	118	2350
12 (300)	50	10	141	3640
14 (350)	41	9	128.4	5480
16 (400)	39	9	109	7930

Comparison of Check Valves (Dual Plate, Swing and Lift Types)

Weight(kg) - 10K Class

Type	Size (mm)														
	50	65	80	100	125	150	200	250	300	350	400	450	500	600	
Dual Plate	2.7	3.2	5	6	9	10	19	31	26	71	99	118	180	258	
Swing	12	17	21	31	50	70	110	100	230						
Lift	10	14	16	16	30	40	80	180	210						

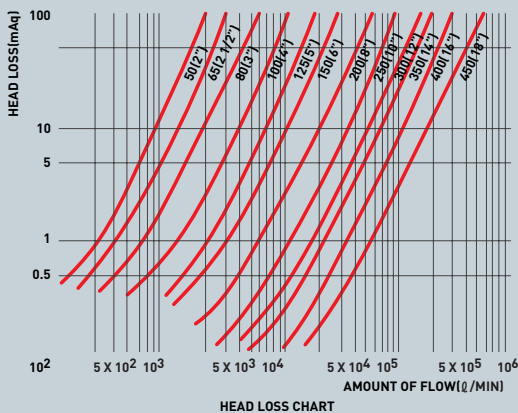
Face to Face Dimension(mm) - 10K Class

Type	Size (mm)														
	50	65	80	100	125	150	200	250	300	350	400	450	500	600	
Dual Plate	54	54	57	64	70	76	95	108	143	184	191	203	213	222	
Swing	200	220	240	290	360	410	500	620	700	787					
Lift	206	216	241	292	356	406	495	622	698	787	914	978	978	1295	

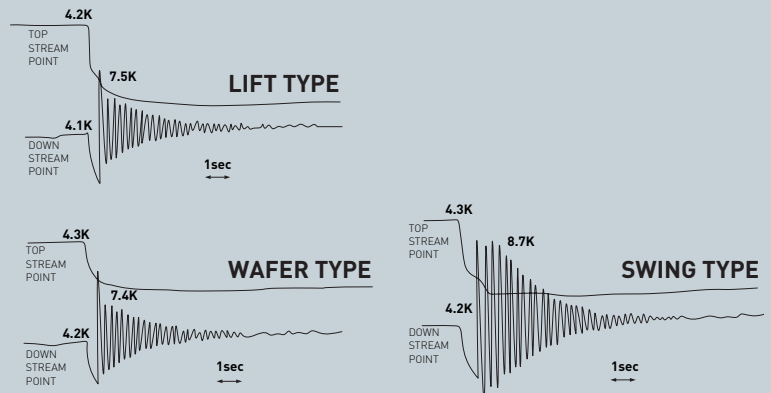
Comparison of Characteristic

Character	Swing check	Lift check	Dual plate check
Weight	Heavy	Medium	Light
Face to Face Dim.	Large	Medium	Small
Direction of Installation	Horizontal / Vertical	Generally Vertical	Horizontal / Vertical
Support Beam	Required Min. 150A (10kg)	Required Min 200A (10kg)	Not Required
Workmanship (At the Installation and Others)	Not Good	Not Good	Good
Prevention of Water Hammer	Not Good	Very Good	Very Good
Resistance of Fluid Loss of Pressure	Not Good	Very Good	Normal
Energy effectiveness	Not Good	Good	Very Good
Flow Condition	Not Good	Not Good	Good

Curve of Head Loss



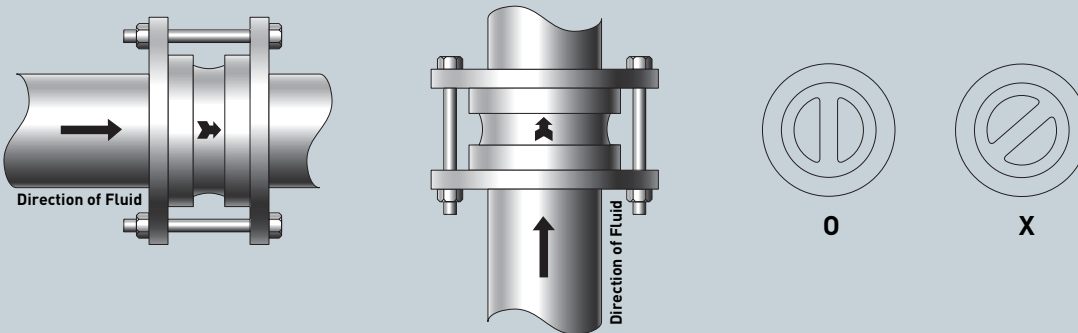
Prevention of Water Hammer



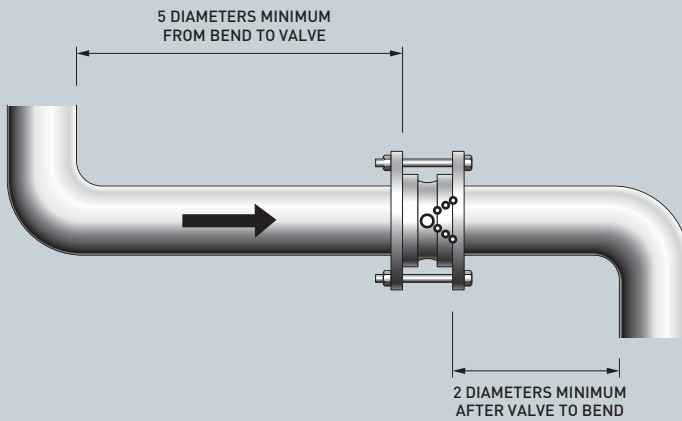
INSTALLATION OF THE DUAL PLATE CHECK VALVE

1. Basic Method

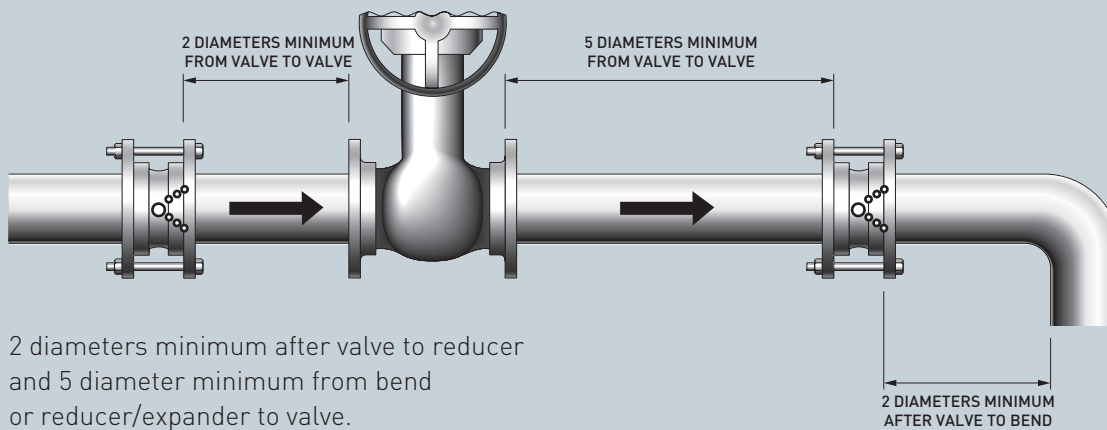
- Install the valve making the arrow mark in the valve along to the flow direction.
- Regardless of the vertical or horizontal pipeline, the valve pin should be perpendicular to the flow direction.



2. In the Bending Lines



3. With Other Valves



2 diameters minimum after valve to reducer and 5 diameter minimum from bend or reducer/expander to valve.

2 DIAMETERS MINIMUM AFTER VALVE TO BEND

*** 6 times diameter distance from turbulence in the pipeline will keep the durability of the valves.

INSTALLATION



1. Scope

Materials of valve parts for the service of -10° C or under shall be subject to the impact test in accordance with this procedure.

2. Testing Area

Body and Bonnet

Material: ASTM A350 Gr LF1, LF2, LF3, SUS304, SUS316 (ASTM A182 F304 or F316)

3. Method

The impact test shall be made in accordance with the provisions for the case where the Charpy impact test machine is used in A370, "Method of Impact Test for Metallic Materials."

4. Impact Test Pieces

Table 1. Charpy V-Notch Energy Requirements for Standard Size (10 by 10 min.) Specimens

GRADE	Minimum impact energy required for average of each set of three specimens lbf(J)	Minimum impact energy permitted for one specimen only of a set, ft. (J)
LF1 & LF9	13 (18)	10 (14)
LF2, LF3, LF5, CLASS1	15 (20)	12 (16)

Table 2. Standard Impact Test Temperature for Standard Size (10 by 10 min.) Specimens

LF 1	LF 2	LF 3	LF 5, Class1 & 2	LF 9	LF 787, Class 2	LF 787, Class 3
-20°F(-28.9)	-50°F(-45.6)	-150°F(-101.1)	-75°F(-28.9)	-20°F(-28.9)	-75 (-59°C)	-100 (-73°C)

Table 3. Minimum Equivalent Absorbed Energy for Various Specimen Sizes*

Standard Size (10 by 10 min.)	3/4 (10 by 7.5 min.)	2/3 (10 by 7.5 min.)	1/2 (10 by 7.5 min.)	1/3 (10 by 7.5 min.)	1/4 (10 by 7.5 min.)
15	12	10	8	5	4
13	10	9	7	5	4
12	10	9	5	4	3
10	8	7	5	3	3

* Straight line interpolation for intermediate valves is permitted.

Table 4. Charpy Impact Test Temperature Reduction below Table 2. Test Temperature When the Subsize Charpy Impact Width Along Notch is Less Than 80 % of the Forging Thickness

Size of Bar (Inch)	Thickness of the Material Represented (see 6.2.4.3 of Charpy) Impact Specimen width along Notch: Inch (mm)	Temperature Reduction °F(°C)
Standard	0.394 (10)	0 (0)
Standard	0.354 (9)	0 (0)
Standard	0.315 (8)	0 (0)
3/4	0.295 (7.5)	5 (3)
3/4	0.276 (7)	8 (5)
2/3	0.262 (6.67)	10 (6)
2/3	0.236 (6)	15 (8)
1/2	0.197 (5)	20 (11)
1/2	0.158 (4)	30 (17)
1/2	0.131 (3.33)	35 (20)
1/3	0.118 (3)	40 (22)
1/4	0.099 (2.5)	50 (28)

UNS DESIGNATION	GRADE	BAR		CASTING		FORGING	
		ASTM A 276	JIS G 4303	ASTM A 351	JIS G5121	ASTM A182	JIS G3214
AUSTENITIC STEELS							
S20910	22Cr-12Ni5 Mn-2 Mo-Cb-V-N-O, 0.04C	XM-19		CGMMN		F XM-19	
S21800	17Cr-8.5Ni-8Mn-4Si-N-0.08C	...		CF102MnN			
S21904	20Cr-6.5Ni-9Mn-N-0.02	XM-11				F XM-11	
S24000	18Cr-3 Ni-13Mn-N-0.06C	XM-29					
S24100	18Cr-1.5Ni-13Mn-N-0.01C	XM-28					
JIS	17Cr-7Ni-0.1C	SUS 301					
S30200	18Cr-8Ni-0.1C	302	SUS302	(A743 CF-20)	SCS12	(A473 302)	
JIS	18Cr-8Ni-0.06C		SUS304		SCS13		SUS F 304
S30400	18Cr-8Ni-0.06C	304	SUS304	CF8, 8A	SCS13A	F304	SUS F 304
JIS	18Cr-9Ni-Lo,C		SUS304L		SCS19		SUS F 304L
S30403	18Cr-9Ni-Lo,C	304L	SUS304L	CF3, 3A	SCS19A	F304H	SUS F 304L
S30409	18Cr-8Ni-0.07C	(A479 304H)		CF10		F304H	SUS F 304H
S30430	18Cr-9Ni-3.5Cu-O.06C	XM-7	SUSXM7				
S30451	18Cr-8Ni-0.15N-0.06C	304N	SUS304N1			F304N	
S30452	18Cr-8Ni-0.25N-0.06C	XM-21	SUS304N2				
S30453	18Cr-9Ni-0.15N-Lo,C	304LN	SUS304LN			F304LN	
...	18Cr-13Ni-0.06C		SUS305J1				
S30600	18Cr-15Ni-4Si-0.009C					F46	
S30800	18Cr-11Ni-0.06C	308		(A743 CG-12)		(A473 308)	
S30815	20Cr-10Ni-1.5Si-N-Ce-0.08C	...				F45	
S30880	20Cr-10Ni-2Mn-Si-0.06C	ER308					
S30900	22Cr-12Ni-0.1C	309		CH20	SCS17	(A473 309)	
S30908	22Cr-12Ni-0.06C	309S	SUS309S	CH8		(A473 309S)	
S30909	22Cr-12Ni-0.07C			CH10		(A336 F309H)	
S30940	22Cr-12Ni-Cb-0.06C	309Cb					
S31000	22Cr-20Ni-0.1C	310		CK20	SCS18	F310	SUS F 310
S31008	25Cr-20Ni-0.06C	310S	SUS310S			(A473 310S)	
S31040	25Cr-20Ni-Cb-0.06C	310Cb					
S31254	20Cr-18Ni-6.5Mo-N-Cu-0.01C	...		CKMCuN		F44	
S31400	25Cr-20Ni-2Si-0.15C	314				(A473 314)	
JIS	18Cr-12Ni-2.5Mo-0.06C		SUS316		SCS14		SUS F 316
S31600	18Cr-12Ni-2.5Mo-0.06C	316	SUS316	CF8M	SCS14A	F316	SUS F 316
JIS	18Cr-12Ni-2.5Mo-Lo,C		SUS316L		SCS16		SUS F 316L
SC1603	18Cr-12Ni-2.5Mo-Lo,C	316L	SUS316L	CF3M, CMA	SCS16A	F316L	SUS F 316L
S31609	18Cr-12Ni-2.5Mo-0.07C	(A479 316H)		CF10M		F316H	SUS F 316H
S31635	18Cr-12Ni-2.5Mo-Ti-0.06C	316Ti					
S31640	18Cr-13Ni-2Mo-Cb-0.06C	316Cb		CF10MC	SCS22		
S31651	18Cr-12Ni-2.5Mo-0.15N-0.06C	316N	SUS316N			F316N	
S31653	18Cr-12Ni-2.5Mo-0.15N-Lo,C	316LN	SUS316LN	(A-743 CF-3MN)		F316LN	
S31654	18Cr-12Ni-2.5Mo-0.2N-Lo,C			(A-743 CF-3MN)			
JIS	18Cr-12Ni-2Mo-2Cu-0.06C		SUS316J1		SCS15		
JIS	18Cr-12Ni-2Mo-2Cu-Lo,C		SUS316J1L		SCS20		
S31700	18Cr-12Ni-3.5Mo-0.06C	317	SUS317	CG8M		F317	
S31703	18Cr-12Ni-3.5Mo-Lo,C		SUS317L			F317L	
S31725	18Cr-16Ni-5Mo-Lo,C	...	SUS317J1				
S32100	18Cr-9Ni-Ti0.06C	321	SUS321			F321	SUS F 321
S32109	18Cr-9Ni-Ti0.07C	(A479 321H)				F321H	SUS F 321H
S33100	8Cr-20Ni-1Si-MN-0.15C					F10	
S34700	18Cr-9Ni-Cb-0.06C	347	SUS347	CF8C	SCS21	F347	SUS F 347
S34709	18Cr-9Ni-Cb-0.07C	(A479 347H)				F347H	SUS F 347H
S34800	18Cr-9Ni-Cb-0.06C	348				F348	
JIS	18Cr-13Ni-4Si-0.06C		SUS XM15J1				
...	10Cr-24Ni-3Mo-2Cu-3Si-0.05C			(A743CN-7MS)			
...	20Cr-29Ni-2.5Mo-3.5Cu-0.05C			CN7M	SCS23		
...	20Cr-33Ni-Mn-Si-Cb-0.1C			CT15C			
...	21Cr-24Ni-5Mo-Lo,C			(A743 CN-3M)			
...	25Cr-20Ni-0.3C			HK30			
...	25Cr-20Ni-0.4C			HK40			
FERRITIC-AUSTENITIC STEELS							
S31100	25Cr-6Ni-0.04C	XM-26					
S31200	25Cr-6Ni-2Mo-N-Lo,C	...				F50	
S31803	25Cr-6Ni-3Mo-N-Lo,C				SCS10	F51	
...	25Cr-5Ni-2Mo-3Cu-0.02			CD4MCu			
S32900	25Cr-4.5Ni-2Mo-0.06C		SUS329J1		SCS11		



MATERIAL SPECIFICATION

*Condition A **Annealed

Nominal designation	MATERIAL		CHEMICAL COMPOSITION %									MECHANICAL PROPERTIES				
	ASTM	JIS	C	Si	Mn	P	S	Ni	Cr	Mo	Other requirements	Tensile strength min. ksi	Yield strength min.ksi	Elongation in 2in., min %	Reduction of area, min. %	
13 Cr (12Cr)	A217-CA15	SCS1	0.15	1.50	1.00	0.040	0.040	1.00	11.5-14.0	0.50		90-115	65	18	30	
			0.15	1.50	1.00	0.040	0.040	1.00	11.50-14.00	0.05		78	50	20	40	
	A182-F6a		0.15	1.00	1.00	0.040	0.030	0.50	11.5-13.5			85	55	18	35	
													(class2)	(class2)	(class2)	(class2)
	A276-410		0.15	1.00	1.00	0.040	0.030		11.50-13.50			70*	40*	20*	45*	
			SUS403	0.15	0.50	1.00	0.040	0.030	0.60	11.50-13.00			85	57	25	55
SUS410			0.15	1.00	1.00	0.040	0.030	0.60	11.50-13.50		78	50	25	55		
SUS420J1	0.61-0.25	1.00	1.00	0.040	0.030	0.60	12.00-14.00		92	64	20	50				
SUS420J2	0.26-0.40	1.00	1.00	0.040	0.030	0.60	12.00-14.00		106.5	78	12	40				
16Cr-8Ni	A351-CF8	SCS13	0.08	2.00	1.50	0.40	0.040	8-11.0	18.0-21.0			70	30	35		
			0.08	2.00	2.00	0.040	0.040	8.00-11.0	18.00-21.00			64	27	30		
	A182-F304	SUSF304	0.08	1.00	2.00	0.040	0.030	8.00-11.0	18.00-20.00			75	30	45	50	
			0.08	1.00	2.00	0.040	0.030	8.00-11.0	18.00-20.00			75	30	45	50	
	A276-304L	SUS304	0.08	1.00	2.00	0.045	0.030	8.00-10.50	18.00-20.00			N 0.10 max	75**	30**	30**	40**
0.08			1.00	2.00	0.040	0.030	8.00-10.50	18.00-20.00			75	30	40	60		
18Cr-8Ni low carbon	A351-CF3	SCS19	0.03	2.00	1.50	0.040	0.030	8.00-12.0	17.0-21.0			70	30	35		
			0.03	2.00	2.00	0.040	0.040	8.00-12.00	17.00-21.00			57	27	35		
	A182-F304L	SUSF304L	0.035	1.00	2.00	0.040	0.030	8.00-13.00	18.00-20.00			70	25	30	50	
			0.030	1.00	2.00	0.040	0.030	8.00-13.00	18.00-20.00			65	26	30	50	
A276-304L	SUS304L	0.030	1.00	2.00	0.045	0.030	9.00-13.00	18.00-20.00		N 0.10 max	70	25	30	40		
		0.030	1.00	2.00	0.040	0.030	8.00-12.00	18.00-20.00			70	26	40	60		
16Cr-12Ni-2Mo (18Cr-8Ni-Mo)	A182-F316	SUSF316	0.08	1.00	2.00	0.040	0.030	8.00-12.00	16.00-18.00	2.00-3.00		75	30	30	50	
			0.08	1.00	2.00	0.040	0.030	9.00-13.00	16.00-18.00	2.00-3.00		75	30	45	50	
	A276-304L	SUS316	0.08	1.00	2.00	0.045	0.030	10.00-14.00	16.00-18.00	2.00-3.00		N 0.01 max	75**	30**	30**	40**
0.08			1.00	2.00	0.040	0.030	10.00-14.00	16.00-18.00	2.00-3.00		75	30	40	60		
16Cr-12Ni-2Mo (18Cr-8Ni-Mo) (low carbon)	A182-F316	SUS316L	0.035	1.00	2.00	0.040	0.030	10.00-14.00	16.00-18.00	2.00-3.00		65	26	30	50	
			0.030	1.00	2.00	0.040	0.030	12.00-15.00	16.00-18.00	2.00-3.00			65	26	30	50
18Cr-9Ni-2Mo	A276-316L	SUS316L	0.030	1.00	2.00	0.045	0.030	10.00-14.00	16.00-18.00	2.00-3.00	N 0.10 max	70	25	30	40	
			0.030	1.00	2.00	0.040	0.030	12.00-15.00	16.00-18.00	2.00-3.00			70	26	40	60
18Cr-9Ni-2Mo (low carbon)	A351-CF8M	SCS14	0.08	1.50	1.50	0.040	0.040	9.00-12.00	18.0-21.0	2.0-3.0		70	30	30		
			0.08	1.50	2.00	0.040	0.040	10.00-14.00	17.00-20.00	2.00-3.00			64	27	30	
18Cr-10Ni-Ti (18Cr-8Ni-Ti)	A182-CF3M	SCS16	0.03	1.50	1.50	0.040	0.040	9.00-13.00	17.0-21.0	2.0-3.0		70	30	30		
			0.08	1.50	2.00	0.040	0.040	12.00-16.00	17.00-20.00	2.00-3.00			57	36	35	
	A182-F321	SUSF321	0.08	1.00	2.00	0.030	0.030	9.00-12.00	17.00mm			Ti	75	30	30	50
0.08			1.00	2.00	0.040	0.030	9.00-13.00	17.00-20.00		5times C% 59 0.60% Ti 5times C% min	75	30	45	50		
18Cr-10Ni-Cb (18Cr-8Ni-Cb)	A351-CF8C	SCS21	0.08	2.00	1.50	0.040	0.040	9.00-12.00	18.0-21.0			Cb	70	30	30	
			0.08	2.00	2.00	0.040	0.040	9.00-12.00	18.00-21.00			8times C% 59 1.00% Nb+Ta	64	30	30	
	A182-F347	SUSF347	0.08	1.00	2.00	0.030	0.030	9.00-13.00	17.00-20.00			10times C% to 1.35% Cb+Ta	75	30	30	50
			0.08	1.00	2.00	0.040	0.030	9.00-13.00	17.00-20.00			10times C% to 1.00% Nb+Ta 10times C% to C%	75	30	45	50
20Cr-29Ni-Cu-Mo (Alloy20)	A351-CN7M		0.07	1.50	1.50	0.040	0.040	27.5-20.5	19.0-22.0	2.0-3.0		Cu 3.0-4.0	62	25	35	
			0.07	1.00	2.00	0.045	0.035	32.00-38.00	19.00-21.00	2.00-3.00		Cu, Cb+Ta 3.00-4.00 10times C% to 1.00%	80	35	30	50

NOTE: C: carbon; Si: silicon; Mn: maganese; P: phosphorous; S: sulfur; Ni: nikel; Cr: chromium; Mo: molybdenum; N: nitrogen; Ti: titanium; Ta: tantalum; Cb: columbium; Nb: niobium; Cu: copper(Unless otherwise stated, ranges are equal maximum.)

*2 1/2 & under **Annealed

Nominal designation	MATERIAL		CHEMICAL COMPOSITION %									MECHANICAL PROPERTIES			
	ASTM	C	Si	Mn	P	S	Ni	Cr	Mo	Fe	Other requirements	Tensile strength min. ksi	Yield strength min.ksi	Elongation in 2in., min %	Reduction of area, min. %
Cr-Mo for Bolts	A193 Gr.B7	0.38-0.48	0.15-0.35	0.75-1.00	0.040	0.040	-	0.08-1.10	0.15-0.025	-	-	125	105	16	50
	A320 Gr.L7*	0.38-0.48	0.15-0.35	0.75-1.00	0.040	0.040	-	0.80-1.100	0.15-0.025	-	-	15	105	16	50
Cr-Mo-V for Bolts	A193 Gr.B16	0.36-0.44	0.15-0.35	0.45-0.70	0.040	0.040	-	0.80-1.15	0.50-0.65	-	V 0.25-0.35	125*	105*	16*	50*
18 Cr-8Ni for Bolts	A193 Gr.B8	0.08	1.00	2.00	0.045	0.030	8.00-10.50	18.00-20.00	-	-	-	75(class1)	30(class1)	30(class1)	50(class1)
	A320 Gr.B8*	0.08	1.00	2.00	0.045	0.030	8.00-10.5	18.00-20.00	-	-	-	75(class1)	30(class1)	35(class1)	50(class1)
carbon steel for Nuts	A194 Gr.2H	0.40 min	-	-	0.040	0.050	-	-	-	-	-				
C-Mo for Nuts	A194 Gr.4	0.40-0.50	0.15-0.35	0.70-0.90	0.0035	0.040	-	-	0.20-0.30	-	-				
18Cr-8Ni for Nuts	A194 Gr.8	0.08	1.00	2.00	0.045	0.030	8.00-10.50	18.00-20.00	-	-	-				
Ni-Mo alloy (Hastelloy B)	A744 N12M	0.12	1.00	1.00	0.040	0.030	remainder	1.00	26.0-33.0	6.00	V 0.60 max	72	46	6	
Mi-Mo-Cr Alloy (Hastelloy C)	A744 -CW12M-2	0.12	1.50	1.00	0.040	0.030	remainder	15.50-20.00	16.00.200	7.50	V 0.40 max W 5.25 max	72	46	4	
Ni-Cu alloy (Monel)	A744-M35	0.35	2.00	1.50	0.040	0.030	63.0	-	-	3.50	Cu26.0-33.0	65	30	25	
	B164 classA	0.30	0.50	2.00	-	-	-	-	-	2.50	Cu28.0-34.0	70	25**	35**	
Ni-Cr-Fe Alloy (Inconel)	A744-CY40	0.40	3.00	1.50	0.040	0.030	remainder	-	-	11.00		70	28	30	

* For low temperature service **Quarter hard

Nominal designation	MATERIAL		CHEMICAL COMPOSITION %									TENSILE REQUIREMENT			
	ASTM	JIS	Cu	Al	Pb	Zn	Fe	Sn	Si	Mn	Other requirements	Tensile strength min. ksi	Yield strength min.ksi	Elongation in 2in., min %	Reduction of area, min. %
Brass Rod & Bar	B16-C36000		60-63.0		2.5-3.7	remainder	0.35				other than Cu,Pb, Zn,Fe 0.50max				
		C3604BD	57.0-61.0		1.8-3.7	remainder	0.70								
Brass Plate	B36-C26000		68.5-71.5		0.70	remainder	0.05				Fe+Sn 1.5max	49-59**			
		C2600P	68.5-71.5		0.07	remainder	0.05					40		40	
Bronze Castings	B61-C92200		86.0-90.0		1.0-2.0	3.0-5.0	0.25	5.5-6.5			Ni 1.0max P 0.05max other elements total 1.0 max	34	16	22	
		BC3	86.5-89.5		1.00	1.0-3.0		9.0-11.0			other elements total 2.0 max	35.5		15	
		BC6	82.0-87.0		4.0-6.0	4.0-7.0		4.0-6.0				28		15	
Al-Bronze Rod & Bar	B150-C61900			8.5-10.0	0.02	0.80	3.0-4.5	0.6			Cu+Al+Pb+Zn+Fe+Sn 99.5 min	85 (over1to2)	40 (over1to2)	20 (over1to2)	
		C6191BD	81.0-88.0	8.0-11.0			3.0-5.0		0.50-2.0	Ni Cu+Al+Fe+Mn+Ni 0.50-2.0 99.5min	100		15		
Al-Bronze Castings	B148-C95500		78.0 min	10.0-11.5			3.0-5.0		3.50		Ni (3.0-5.5)	90	40	6	
		AIBC2	78 min	8.0-10.5			2.5-5.0		1.50	Cu+Al+Fe+Mn+Ni 99.5min Ni (1.0-3.0)	71		20		
Aluminum Plate	B209-No.1060		0.05	99.60min		0.05	0.35		0.25	0.03	Mg. 0.03 max Ti. 0.03 max V 0.05 max other elements 0.03 max	8-14	2.5	22	
		A1050P	0.05	99.5min		0.05	0.40		0.25	0.05	Mg. 0.05 max Ti 0.03 max other elements each 0.03 ma	8.5-14	3	25	

NOTE: C: carbon; Si: silicon; Mn: maganese; P: phosphorous; S: sulfur; Ni: nikel; Cr: chromium; Mo: molybdenum; N: nitrogen; Ti: titanum; Fe: Iron; V: Vanadium; W: Tungsten; Cu: Copper; Al: Aluminum; Pb: Lead; Zn: Zinc; Sn: Tin; Mg: Magnesium (Unless otherwise stated, ranges are equal maximum.)

**SPECIAL
ALLOY STEEL**

Steel Type	GRADE	BAR		CASTING		FORGING	
		ASTM	JIS	ASTM	JIS	ASTM	JIS
CARPETNER 20 Cr-Ni-Fe-Mo-Cu-Cb							
Alloy 20Cb-3	35Ni-20Cr-2.5Mo-39Fe-3.5Cu-Cb-0.05C	B473	NO8020				B462 NO8020
CN7M,SCS23	29Ni-20Cr-2.5Mo-45Fe-3.5Cu-0.05C			A351 CN7M	G 5121 SCS 23		
CN-7MS	24Ni-19Cr-2.5Mo-49Fe-2Cu-3Si-0.05C			A743 CN-7MS			
CARPETNER 20 Mod Ni-Fe-Cr-Mo							
Alloy 20 Mod	26Ni-22Cr-5Mo-47Fe-Ti-0.03C	B621	NO8320				B621 NO8320
CN-3M	25Ni-21Cr-5Mo-49Fe-Lo, C			A743 CN-3M			
NICKEL Ni							
Alloy 200	99Ni-0.1C	B160	NO2200	H4562NNCB			B160 NO2200
Alloy 201	99Ni-0.01C	B160	NO2201	H4562NNCB			B160 NO2201
CZ-100	97Ni-0.8C				A494 CZ-100		
Duranickel 301	95Ni-4.5Al-Ti-0.2C			H4562NDB			
MONEL Ni-Cu							
Alloy 400	69Ni-31Cu-0.2C(Si<0.5)(S<0.024)	B164	NO4400	H4553NCuB			B564 NO4400
Alloy 405	69Ni-31Cu-0.2C(Si,0.5)(S:0.025-0.06)	B164	NO4405				B164 NO4405
M-35-1	70Ni-30Cu-0.25C(Si<1.25)				A494M-35-1		
M-35-2	70Ni-30Cu-0.25C(Si<200)				A494M-35-2		
N-30H	67Ni-30Cu-3Si-0.2C				A494M-30H		
M-25S	66Ni-30Cu-4Si-0.15C				A494M-25S		
M-30C	66Ni-30Cu-1.5 Si -2Cb-0.2C				A494M-30C		
INCONEL Ni-Cr-Fe(Ni-Cr-Mo-Cb)							
Alloy 600	77Ni-15Cr-8Fe-0.1C	B166	NO6600	G4901 NCF 600			B564 NO6600
CY-40	77Ni-15Cr-(8Fe)-0.3C				A494 CY-40		
Alloy 625	65Ni-22Cr-9Mo-4Cb-0.08C	B446	NO6625		A494 CW-6MC		B564 NO6625
CW-6MC	65Ni-22Cr-9Mo-4Cb-0.04C						
Inconel 601	61Ni-23Cr-14Fe-1.5Al-0.08C			G4901 NCF 601			
Inconel 690	62Ni-29Cr-9Fe-0.03C	B166	NO6690				
Inconel X-750	73Ni-16Cr-7Fe-1Cb-2.5Ti-A1-0.06C	B637	NO7750	G4901 NCF 750			B637 NO7750
Inconel 751	73Ni-16Cr-7Fe-1Nb-2.5Ti-A1-0.08C			G4901 NCF 751			
CY5SnBIM	76Ni-13Cr-3Mo-4Bi-4Sn-0.03C				A494CY5SnSIM		
INCOLOY Ni-Fe-Cr(Ni-Fe-Cr-No-Cu)							
Alloy 800	33Ni-21Cr-46Fe-A1-Ti-0.08C	B408	NO8800	G4901 NCF 800			B564 NO8800
Alloy 800H	33Ni-21Cr-46Fe-A1-Ti-0.075C	B408	NO8810	G4901 NCF 800H			B564 NO8810
Alloy 825	42Ni-22Cr-3Mo-30Fe-2Cu-1Ti-0.03C	B425	NO8825	G4901 NCF 825			B425 NO8825
HASTELLOY B Ni-Mo							
Alloy B	67Ni-28Mo-5Fe-V-0.03C	B335	N10001				B335 N1001
N-12MV	67Ni-28Mo-5Fe-V-0.1C				A494N-12MV		
Alloy B-2	72Ni-28Mo-0.01C	B335	NO0665				B335 N10665
N-7M	68Ni-32Mo-0.05C				A494N-7M		
HASTELLOY C Ni-Mo-Cr							
Alloy C-276	58Ni-16Cr-16Mo-6Fe-4W-0.005C	B574	NO1276				B564N10276
CW-12MW	58Ni-16Cr-16Mo-6Fe-4W-V-0.1C				A494CW-12MW		
Alloy C-4	68Ni-16Cr-16Mo-0.008C	B574	NO6455				B574NO6455
CW-2M	68Ni-16Cr-16Mo-0.01C				A494CW-2M		
Alloy C-22	58Ni-21Cr-14Mo-4Fe-3W-0.008C	B574	NO6022				B574NO6022
CW-6M	62Ni-19Cr-19Mo-0.05C				A494MCW-6M		
HASTELLOY G Ni-Cr-Fe-Mo-Cu							
Alloy G	46Ni-22Cr-6.5Mo-20Fe-1.5mN-2Cu-2Cb-0.003C	B581	NO6007				B581 NO6007
Alloy G-2	50Ni-25Cr-6Mo-17Fe-1Cu-1Ti-Lo,C	B581	NO6975				B581 NO6975
Alloy G-30	44Ni-30Cr-5Mo-15Fe-Cu-1Cb-3W-LO,C	B581	NO6030				B581 NO6030
Alloy G-3	49Ni-22Cr-7Mo-20Fe-2Cu-0.008C	B581	NO6985				B581 NO6985
HASTELLOY N Ni-Mo-Cr-Fe							
Alloy N	76Ni-7Cr-17Mo-0.06C	B573	N10003				B573 NO1003
HASTELLOY X Ni-Cr-Mo-Fe							
Alloy X	48Ni-22Cr-9Mo-19Fe-1.5Co-W-0.1C	B572	NO6002				B572 NO6002
JS 700 Ni-Fe-Cr-Mo-Cb							
Alloy 700	25Ni-21Cr-4.5Mo-49Fe-Cb-0.02C	B672	NO8700				B672 NO8700
CN-3M	25Ni-21Cr-5Mo-49Fe-Lo, C				A743 CN-3M		
904L Ni-Fe-Cr-Mo-Cu-Lo, C							
Alloy 904L	26Ni-21Cr-4.5Mo-47Fe-1.5Cu-0.01C	B649	NO8904				B649 NO8904
RA-330 Ni-Fe-Cr-Si							
Alloy 330	36Ni-19Cr-44Fe-1Si-0.06C	B511	NO8330				B511 NO8330
NIMONIC 80A Ni-Cr							
Nimonic 80A	76Ni-20Cr-2Ti-1.5Al-0.08C	B637	NO7080	G4901 NCF 80A			B637 NO7080
IN-102 Ni-Cr-Fe-Cb-Mo-W							
IN-102	68Ni-15Cr-3Mo-7Fe-3Cb-3W-A1-Ti-Mg-B-ZR-0.06C	B518	NO6102				
Allcorr Ni-Cr-Mo-W							
Allcorr	55Ni-31Cr-10.5Mo-2.5W-Cb-0.1C	B756	NO6110				B564 NO6110
RA-333 Ni-Cr-Mo-Co-W-Fe-Si							
RA-333	46Ni-26Cr-3Mo-19Fe-3Cu-3W-0.08C						
AL-6X Cr-Ni-Mo-Fe							
AL-6X	25Ni-21Cr-6.5Mo-47Fe-Lo, C	B691	NO8366				
CN-3M	25Ni-21Cr-5Mo-49Fe-Lo, C				A743 CN-3		
AL-6XN	25Ni-21Cr-6.5Mo-47Fe-0.2N-Lo, C	B691	NO8367				B462 NO8367