

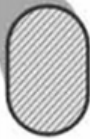
## Ring Joint Gaskets

Metallic ring joint gaskets are heavy duty, high-pressure/temperature gaskets typically used in the petrochemical and the Oil & Gas industry. They are precision-machined to dimensions listed in ASME B 16.20, API Spec. 6A or to special customer specific dimensions.

Material grades used are based on application such as media, temperature and service conditions.

### Gasket Profiles:

Type R, Oval



#### **Type R, oval**

Standard Ring Joint Gasket oval section, for flange with standard Ring Joint grooves.

Type R, Octagonal



#### **Type R Octagonal**

Standard Ring Joint Gasket octagonal section, for flanges with standard Ring Joint grooves.

Type RX



#### **Type RX**

Ring Joint Gaskets for pressure up to approx. 700 bar. With this type the outer sealing surface makes the first contact with the flanges. A higher system pressure produces a higher seating stress. Ring Joint Gaskets for RX type are interchangeable with the standard R type.

Type BX



#### **Type BX**

Ring Joint Gaskets for very high pressures (upto approx. 1500 bar). BX gaskets are self-energized by the internal system pressure which increases the gasket seating stress on the flange contact surface. This Ring Joint is only suited for API-type BX flanges and grooves.

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## RTJ Selection Chart, Weights & Dimensions – Type R

API Spec 6A / ASME B16.20

### Type R Oval & Octagonal

RTJ #	ASME B16.50 FLANGES					API 6B FLANGES			PCD (mm)	RING WIDTH (mm)	RING HEIGHT (mm)		GASKET WEIGHT (Kg)	
	150#	300 - 600#	900#	1500#	2500#	2000#	3000#	5000#			OVAL	OCT	OVAL	OCT
R11	-	1/2	-	-	-	-	-	-	34.14	6.35	11.2	9.7	0.05	0.05
R12	-	--	1/2	1/2	-	-	-	-	39.7	7.95	14.2	13	0.1	0.1
R13	-	3/4	-	-	1/2	--	-	-	42.88	7.95	14.2	13	0.1	0.1
R14	-	-	3/4	3/4	-	-	-	-	44.45	7.95	14.2	13	0.11	0.11
R15	1	-	-	-	-	-	-	-	47.63	7.95	14.2	13	0.12	0.11
R16	-	1	1	1	3/4	1	1	1	50.8	7.95	14.2	13	0.12	0.11
R17	1-1/4	-	-	-	-	-	-	-	57.15	7.95	14.2	13	0.14	0.13
R18	-	1-1/4	1-1/4	1-1/4	1	1-1/4	1-1/4	1-1/4	60.33	7.95	14.2	13	0.15	0.14
R19	1-1/2	-	-	-	-	-	-	-	65.1	7.95	14.2	13	0.16	0.15
R20*	-	1-1/2	1-1/2	1-1/2	-	1-1/2	1-1/2	1-1/2	68.28	7.95	14.2	13	0.17	0.15
R21	-	-	-	-	1-1/4	-	-	-	72.24	11.13	17.5	16	0.3	0.29
R22	2	-	-	-	-	-	-	-	82.55	7.95	14.2	13	0.2	0.19
R23*	-	2	-	-	1-1/2	2, 2 1/16	-	-	82.55	11.13	17.5	16	0.34	0.33
R24*	-	-	2	2	-	-	2, 2 1/16	2, 2 1/16	95.25	11.13	17.5	16	0.39	0.38
R25	2-1/2	-	-	-	-	-	-	-	101.6	7.95	14.2	13	0.25	0.23
R26*	-	2-1/2	-	-	2	2 1/2, 2 9/16	-	-	101.6	11.13	17.5	16	0.42	0.41
R27*	-	-	2-1/2	2-1/2	-	-	2-1/2, 2 9/16	2-1/2, 2 9/16	107.95	11.13	17.5	16	0.45	0.43
R28	-	-	-	-	2-1/2	-	-	-	111.13	12.7	19.1	18	0.57	0.55
R29	3	-	-	-	-	-	-	-	114.3	7.95	14.2	13	0.28	0.26
R30	-	3	-	-	-	-	-	-	117.48	11.13	17.5	16	0.48	0.47
R31*	-	3	3	-	-	3, 3 1/8	3, 3 1/8	-	123.83	11.13	17.5	16	0.51	0.5
R32	-	-	-	-	3	-	-	-	127	12.7	19.1	18	0.65	0.63
R33	3-1/2	-	-	-	-	-	-	-	131.78	7.95	14.2	13	0.32	0.3
R34	-	3-1/2	-	-	-	-	-	-	131.78	11.13	17.5	16	0.54	0.52
R35*	-	-	-	3	-	-	-	3, 3 1/8	136.53	11.13	17.5	16	0.56	0.55
R36	4	-	-	-	-	-	-	-	149.23	7.95	14.2	13	0.37	0.34
R37*	-	4	4	-	-	4, 4 1/16	4, 4 1/16	3-1/2	149.23	11.13	17.5	16	0.62	0.6
R38	-	-	-	-	4	-	-	-	157.18	15.88	22.4	21	1.16	1.14
R39*	-	-	-	4	-	-	-	4, 4 1/16	161.93	11.13	17.5	16	0.67	0.65
R40	5	-	-	-	-	-	-	-	171.45	7.95	14.2	13	0.42	0.39
R41*	-	5	5	-	-	5, 5 1/8	5, 5 1/8	-	180.98	11.13	17.5	16	0.75	0.73
R42	-	-	-	-	5	-	-	-	190.5	19.05	25.4	24	1.91	1.88
R43	6	-	-	-	-	-	-	-	193.68	7.95	14.3	13	0.48	0.44
R44*	-	-	-	5	-	-	-	5, 5 1/8	193.68	11.13	17.5	16	0.8	0.78
R45*	-	6	6	-	-	6, 7 1/16	6, 7 1/16	-	211.15	11.13	17.5	16	0.87	0.85
R46*	-	-	-	6	-	-	-	6, 7 1/16	211.15	12.7	19.05	18	1.08	1.05
R47*	-	-	-	-	6	-	-	-	228.6	19.05	25.4	24	2.29	2.26
R48	8	-	-	-	-	-	-	-	247.65	7.95	14.3	13	0.61	0.56
R49*	-	8	8	-	-	8, 9	8, 9	-	269.88	11.13	17.5	16	1.11	1.09
R50*	-	-	-	8	-	-	-	8, 9	269.88	15.88	22.22	21	1.99	1.95

## RTJ Selection Chart, Weights & Dimensions

API Spec 6A / ASME B16.20

### Type R Oval & Octagonal (continued)

RTJ #	ASME B16.50 FLANGES					API 6B FLANGES			PCD (mm)	RING WIDTH (mm)	RING HEIGHT (mm)		GASKET WEIGHT (Kg)	
	150#	300 - 600#	900#	1500#	2500#	2000#	3000#	5000#			OVAL	OCT	OVAL	OCT
R51	-	-	-	-	8	-	-	-	279.4	22.23	28.6	27	3.65	3.69
R52	10	-	-	-	-	-	-	-	304.8	7.95	14.3	13	0.75	0.69
R53*	-	10	10	-	-	10, 11	10, 11	-	323.85	11.13	17.5	16	1.34	1.3
R54*	-	-	-	10	-	-	-	10, 11	323.85	15.88	22.22	21	2.39	2.35
R55	-	-	-	-	10	-	-	-	342.9	28.58	36.51	35	7.35	7.68
R56	12	-	-	-	-	-	-	-	381	7.95	14.3	13	0.93	0.87
R57*	-	12	12	-	-	12, 13 5/8	12, 13 5/8	-	381	11.13	17.5	16	1.57	1.53
R58	-	-	-	12	-	-	-	-	381	22.23	28.6	27	4.98	5.03
R59	14	-	-	-	-	-	-	-	396.88	7.95	14.5	13	0.98	0.9
R60	-	-	-	-	12	-	-	-	406.4	31.75	39.7	38	10.47	11.09
R61	-	14	-	-	-	14	14	-	419.1	11.13	17.5	16	1.73	1.69
R62	-	-	14	-	-	-	-	-	419.1	15.88	22.22	21	3.09	3.04
R63*	-	-	-	14	-	-	-	-	419.1	25.4	33.33	32	7.33	7.54
R64	16	-	-	-	-	-	-	-	454.03	7.95	14.2	13	1.12	1.03
R65*	-	16	-	-	-	16, 16 3/4	-	-	469.9	11.13	17.5	16	1.94	1.89
R66*	-	-	16	-	-	-	16, 16 3/4	-	469.9	15.88	22.4	21	3.47	3.4
R67	-	-	-	16	-	-	-	-	469.9	28.58	36.6	35	10.07	10.53
R68	18	-	-	-	-	-	-	-	517.53	7.95	14.2	13	1.28	1.18
R69*	-	18	-	-	-	18	-	-	533.4	11.13	17.5	16	2.2	2.15
R70*	-	-	18	-	-	-	18	-	533.4	19.05	25.4	24	5.35	5.27
R71	-	-	-	18	-	-	-	-	533.4	28.58	36.6	35	11.43	11.95
R72	20	-	-	-	-	-	-	-	558.8	7.95	14.2	13	1.38	1.27
R73*	-	20	-	-	-	20, 20 3/4	-	-	584.2	12.7	19.1	18	2.99	2.92
R74*	-	-	20	-	-	-	20, 20 3/4	-	584.2	19.05	25.4	24	5.85	5.77
R75	-	-	-	20	-	-	-	-	584.2	31.75	39.6	38	15.05	15.94
R76	24	-	-	-	-	-	-	-	673.1	7.95	14.2	13	1.66	1.53
R77	-	24	-	-	-	-	-	-	692.15	15.88	22.4	21	5.11	5.01
R78	-	-	24	-	-	-	-	-	692.15	25.4	33.3	32	12.1	12.46
R79	-	-	-	24	-	-	-	-	692.15	34.93	44.5	41	22.58	22.06
R80	-	-	-	-	-	-	-	-	615.95	7.95	14.29**	13	1.59	1.4
R81	-	-	-	-	-	-	-	-	635	14.3	20.64**	19	4.05	3.86
R82*	-	-	-	-	-	-	-	-	57.15	11.13	17.46**	16	0.23	0.23
R84*	-	-	-	-	-	-	-	-	63.5	11.13	17.46**	16	0.25	0.25
R85*	-	-	-	-	-	-	-	-	79.38	12.7	19.05**	18	0.4	0.4
R86*	-	-	-	-	-	-	-	-	90.5	15.88	22.22**	21	0.65	0.65
R87*	-	-	-	-	-	-	-	-	100.03	15.88	22.22**	21	0.72	0.72
R88*	-	-	-	-	-	-	-	-	123.83	19.05	25.4**	24	1.22	1.22
R89*	-	-	-	-	-	-	-	-	114.3	19.05	25.4**	24	1.13	1.13
R90*	-	-	-	-	-	-	-	-	155.58	22.23	28.58**	27	2.05	2.05
R91*	-	-	-	-	-	-	-	-	260.35	31.75	39.68**	38	7.1	7.1
R92	-	-	-	-	-	-	-	-	228.6	11.13	17.5	16	0.94	0.92



## RTJ Selection Chart, Weights & Dimensions – Type BX

API Spec 6A / ASME B16.20

### Type BX

RTJ #	2000#	3000#	5000#	10000#	15000#	20000#	OD (mm)	HEIGHT (mm)	WIDTH (mm)	GASKET Wt (Kg)
BX 150	–	–	–	1 11/16	1 11/16	–	72.19	9.30	9.30	0.13
BX 151	–	–	–	1 13/16	1 13/16	1 13/16	76.40	9.63	9.63	0.15
BX 152	–	–	–	2 1/16	2 1/16	2 1/16	84.68	10.24	10.24	0.19
BX 153	–	–	–	2 9/16	2 9/16	2 9/16	100.94	11.38	11.38	0.29
BX 154	–	–	–	3 1/16	3 1/16	3 1/16	116.84	12.40	12.40	0.40
BX 155	–	–	–	4 1/16	4 1/16	4 1/16	147.96	14.22	14.22	0.55
BX 156	–	–	–	7 1/16	7 1/16	7 1/16	237.92	18.62	18.62	1.87
BX 157	–	–	–	9	9	9	294.46	20.98	20.98	2.97
BX 158	–	–	–	11	11	11	352.04	23.14	23.14	4.35
BX 159	–	–	–	13 5/8	–	–	426.72	25.70	25.70	6.53
BX 160	–	–	13-5/8	–	–	–	402.59	23.83	13.74	3.06
BX 161	–	–	16-3/4	–	–	–	491.41	28.07	16.21	5.35
BX 162	–	–	16-3/4	16 3/4	16 3/4	–	475.49	14.22	14.22	1.94
BX 163	–	–	18-3/4	–	–	–	556.16	30.10	17.37	6.90
BX 164	–	–	–	18 3/4	18 3/4	–	570.56	30.10	24.59	5.86
BX 165	–	–	21-1/4	–	–	–	624.71	32.03	18.49	8.76
BX 166	–	–	–	21-1/4	–	–	640.03	32.03	26.14	12.82
BX 167	26-3/4	–	–	–	–	–	759.36	35.86	13.11	8.53
BX 168	–	26-3/4	–	–	–	–	765.25	35.86	16.05	10.54
BX 169	–	–	–	5 1/8	–	–	173.51	15.85	12.93	0.73
BX 170	–	–	–	6 5/8	6 5/8	–	218.03	14.22	14.22	1.03
BX 171	–	–	–	8 9/16	8 9/16	–	267.44	14.22	14.22	1.24

## RTJ Selection Chart, Weights & Dimensions – Type RX

API Spec 6A / ASME B16.20

### Type RX

RTJ #	720-960, 2000#	2900#	3000#	5000#	OD (mm)	HEIGHT (mm)	WIDTH (mm)	GASKET Wt. ( kg )
RX20	1 ½	–	1 ½	1 ½	76.20	19.05	8.74	0.24
RX23	2, 2 1/16	–			93.27	25.40	11.91	0.52
RX24	–	–	2, 2 1/16	2, 2 1/16	105.97	25.40	11.91	0.60
RX25	–	–	–	3-1/8	109.55	19.05	8.74	0.50
RX26	2 ½ , 2 9/16	–	–	–	111.91	25.40	11.91	0.64
RX27	–	–	2 ½, 2 9/16	2 ½, 2 9/16	118.26	25.40	11.91	0.68
RX31	3, 3 1/8	–	3, 3 1/8		134.54	25.40	11.91	0.78
RX35	–	–	–	3, 3 1/8	147.24	25.40	11.91	0.86
RX37	4, 4 1/16	–	4, 4 1/16	–	159.94	25.40	11.91	0.95
RX39	–	–	–	4, 4 1/16	172.64	25.40	11.91	1.03
RX41	5, 5 1/8	–	5, 5 1/8	–	191.69	25.40	11.91	1.15
RX44	–	–	–	5, 5 1/8	204.39	25.40	11.91	1.23
RX45	6, 7 1/16	–	6, 7 1/16	–	221.84	25.40	11.91	1.34
RX46	–	–	–	6, 7 1/16	222.25	28.58	13.49	1.66
RX47	–	–	–	8	245.26	41.28	19.84	3.88
RX49	8, 9	–	8, 9		280.59	25.40	11.91	1.72
RX50	–	–	–	8, 9	283.36	31.75	16.66	2.43
RX53	10, 11	–	10, 11		334.57	25.40	11.91	2.06
RX54	–	–	–	10, 11	337.34	31.75	16.66	2.92
RX57	12, 13 5/8	–	12, 13 5/8		391.72	25.40	11.91	2.42
RX63	–	–	14		441.73	50.80	27.00	11.96
RX65	16, 16 3/4	–	–	–	480.62	25.40	11.91	3.00
RX66	–	–	16, 16 3/4	–	457.99	31.75	16.66	4.25
RX69	18	–			544.12	25.40	11.91	3.41
RX70	–	–	18	–	550.06	41.28	19.84	9.12
RX73	20, 21 1/4	–	–	–	596.11	31.75	13.49	5.27
RX74	–	–	20, 20 3/4	–	600.86	41.28	19.84	10.01
RX82	–	1	–	–	67.87	25.40	11.91	0.36
RX84	–	1 ½	–	–	74.22	25.40	11.91	0.40
RX85	–	2	–	–	90.09	25.40	13.49	0.40
RX86	–	2 ½	–	–	103.58	28.58	15.09	0.81
RX87	–	3	–	–	113.11	28.58	15.09	0.90
RX88	–	4	–	–	139.29	31.75	17.48	1.46
RX89	–	3 ½	–	–	129.77	31.75	18.26	3.09
RX90	–	5	–	–	174.63	44.45	19.84	7.75
RX91	–	10	–	–	286.94	45.24	30.18	1.50
RX99	8	–	8	–	245.67	25.40	11.91	2.20
RX201	–	–	–	1.3/8	51.46	11.30	5.74	0.10
RX205	–	–	–	1-13/16	62.31	11.10	5.56	0.13
RX210	–	–	–	2-9/16	97.64	19.05	9.53	0.35
RX215	–	–	–	4-1/16	140.89	25.40	11.91	0.80

## RTJ Raw Materials and Cross-Reference

TRADE NAME	RING MARKING	ASTM	DIN	WERKSTOFF No.	AISI/SAE	UK	OTHER
Soft Iron	D	A29		1.1003 / 1.0335	1006		Armco / StW24
Carbon Steel	S	A283 Grade C		1.1003 / 1.0335			Armco / StW24
CS360 LT	CS360LT	A516 Gr70					
4140	4140	UNS G41400	42CrMo4	1.7225	4140		
F5 (4/6% Cr. 1/2% Mo)	F5	UNS K42544	12CrMo195	1.7362			5Cr 1/2Mo
SS304	S304	S30400	X5CrNi 18 9	1.4301	304	304S15	
SS304L	S304L	S30403	X2CrNi 18 9	1.4306	304L	304SS12	
SS309	S309	S30900	X15CrNiSi2012	1.4828	309	309S24	
SS310	S310	S31008	XX15CrNiSi2520	1.4841	310	310S24	
SS316	S316	S31600	X5CrNiMo18 10	1.4401	316	316S16	
SS316L	S316L	S31603	X2CrNiMo18 10	1.4404	316L	316S11/316S12	
SS316L UREA	S316UG	S31603	X2CrNiMo 18 14 3	1.4435			
SS316 Ti	S316Ti	S31635	X10CrNiMoTi1810	1.4571	316Ti	320S31/320S17	
SS321	S321	S32100	X10CrNiTi18 9	1.4541	321	321S12	
SS347	S347	S34700	X10CrNiNb 18 9	1.455	347	347S51	
SS410	S410	S41000	X10Cr13	1.4006	410	410S21	
Monel 400	Monel400	N04400	NiCu30Fe	2.436			
Inconel 600	INC600	N06600	NiCr15Fe	2.4816			
Inconel 625	INC625	N06625	NiCr22Mo9Nb	2.4856			
Inconel 718	INC718	N07718					
Incoloy 800	INC800	N08800	X5NiCrAlTi31-20	1.4958			
Incoloy 800H	INC800H	N08810		1.4958			
Incoloy 825	INC825	N08825	NiCr21Mo	2.4858			
904L	904L	N08904	X1NiCrMoCu25-20-5	1.4539			
F51	F51	S31803	X2CrNiMoN22-5-3	1.4462			2205 /Duplex
F53	F53	S32750	X2CrNiMoN25-7-4	1.441			
F55	F55	S32760	X2CrNiMoCuWN 25 7 4	1.4501			Zeron 100
F60	F60	S32205					Duplex
Titanium	Ti	R 50400		3.7035			
17-4PH	17-4PH	S17400		1.4542			630
S254	S254	S31254	X1CrNiMoCuN20-18-7	1.4547			F44 / 6Mo
C276	C276	N10276	NiMo16Cr15W	2.4819			Hastelloy
Alloy 28	Alloy28	N08028	X1 NiCrMoCuN 31 27 4	1.4563			SANICRO 28



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