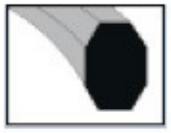
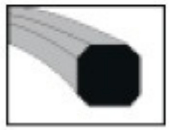
RTJ and IX seal ring gasket

Type RX



R octagonal



Type BX

Type R oval

General information and description

The RTJ standard size gaskets are manufactured inaccordance to API-6A and ASME B16.20 specifications. Total control of manufacturing processes ensures correct gasket surface and hardness to give a goodseal without damaging flange connections.The hardness of the ring shouldalways be less than the hardness of the flanges to prevent flange deformation. The sealing surfaces on the ring joint grooves must be smoothly finished to63 micro inches.

Description of available sections

API ring Joint gasketscome in two standard types, an oval cross section and an octagonal cross section. These standard shapes are used in pressures up to 10,000 psi. The dimensions are standardized and require specially grooved flanges.

Type R octagonal
Octagonal and Oval configurations are interchangeable on flat-bottomed groove flanges that have a 23° angle groove wall.

Type R oval
An oval ring joint flange that was designed for a flange that is now out of production. This flange had a rounded bottom ring groove. Oval and octagonal configurations are interchangeable on flat-bottomed groove flanges that have a 23° angle groove wall.

Type RX RX is a gasket designed for pressures up to approx. 700 bar. This is a self-sealing gasket that uses a pressure-energised effect, which improves the efficiency of the seal as the pressure rises. The RX series is interchangeable with the R series

Features

Ringtype joints are manufactured according to ASME B16.20 (2007) standards and to API specification 6A and 17B.
Total control of manufacturing processes ensures correct surface hardness to give a good seal withoutdamaging flange sections.

Type B X BX is a gasket designed for very high pressures up to approx. 1,500 bar. These rings may only be used in connection with API type BX flanges and grooves. The BX ring has a through horizontal hole that acts as a pressure equaliser.

Type SRX and Type SBX
Type SRX and SBX gaskets per API 17D for Subsea Wellhead and Tree Equipment are vented to prevent pressure lock when connections are made up underwater. They have identical measurements to RX and BX ring gaskets with the same number designation, and they will fit the same corresponding connectors. The "S" indicates these gaskets have cross-drilled holes, as fluid entrapment in the ring groove can interfere with proper make up underwater (subsea). With the vent hole, any water trapped between a ring groove bottom and the sealing area of the gasket can escape to the equipment I.D. bore. Material per spec is defined as a corrosion resistant alloy.

IX Seal Ring gaskets The IX-rings are designed and used where the NORSOK CFC (Compact Flange Connections) are in use. The rings come in three different kinds of steel and are coated with PTFE in varying colours in order to distinguish between them. Standard identification NORSOK STANDARD L-005 (NCF5). All markings should be on the inside of the ring.

Materials

RTJ gaskets are available in many different materials.
We stock the following materials :

- SOFT IRON	- LOW CARBON STEEL	- F-5	- AISI 304	- AISI 316
- AISI 316L *	- AISI 321	- AISI 347	- DuplexS31803	- ALLOY 825

* AISI 316L with a hardness of HB 135 max
Other materials on request

RTJ and IX seal ring gasket

ASMEB16.20 - API 6A

For Flanges:
ASME/ANSI B16.5 -
ISO/DIS7005 - ASME B16.47 Series
A (MSS SP44)

RTJ type R, selection table

ASME-ANSI	ISO	150# PN20	300/600# PN50/PN100	900# PN150	1500# PN250	2500# PN420
1/2"	15		R 11	R 12	R 12	R 13
3/4"	20		R 13	R 14	R 14	R 16
1"	25	R 15	R 16	R 16	R 16	R 181
1 1/4"	32	R 17	R 18	R 18	R 18	R 21
1 1/2"	40	R 19	R 20	R 20	R 20	R 23
2"	50	R 22	R 23	R 24	R 24	R 26
2 1/2"	65	R 25	R 26	R 27	R 27	R 28
3"	80	R 29	R 31	R 31	R 35	R 32
3 1/2"	90	R 33	R 34			
4"	100	R 36	R 37	R 37	R 39	R 38
5"	125	R 40	R 41	R 41	R 44	R 42
6"	150	R 43	R 45	R 45	R 46	R 47
8"	200	R 48	R 49	R 49	R 50	R 51
10"	250	R 52	R 53	R 53	R 54	R 55
12"	300	R 56	R 57	R 57	R 58	R 60
14"	350	R 59	R 61	R 62	R 63	
16"	400	R 64	R 65	R 66	R 67	
18"	450	R 68	R 69	R 70	R 71	
20"	500	R 72	R 73	R 74	R 75	
22"	550	R 80	R 81			
24"	600	R 76	R 77	R 78	R 79	
26"	650		R 93	R 100		
28"	700		R 94	R 101		
32"	800		R 96	R 103		
30"	750		R 95	R 102		
34"	850		R 97	R 104		
36"	900		R 98	R 105		

RTJ and IX seal ring gasket

RTJ type BX, selection table

Nom Dia	2000	3000	5000	10000	15000	20000
1 11/16"				BX 150	BX 150	
1 13/16"				BX 151	BX 151	BX 151
2 1/16"				BX 152	BX 152	BX 152
2 9/16"				BX 153	BX 153	BX 153
3 1/16"				BX 154	BX 154	BX 154
4 1/16"				BX 155	BX 155	BX 155
5 1/8"				BX 169		
6 5/8"				BX 170	BX 170	
7 1/16"				BX 156	BX 156	BX 156
8 9/16"				BX 171	BX 171	
9"				BX 157	BX 157	BX 157
11"				BX 158	BX 158	BX 158
11 5/32"				BX 172	BX 172	
13 5/8"			BX 160	BX 159	BX 159	BX 159
16 3/4"			BX 161/162	BX 162	BX 162	
18 3/4"			BX 163	BX 164	BX 164	
21 1/4"			BX 165	BX 166		
26 3/4"	BX 167	BX 168				
30"	BX 303	BX 303				

RTJ and IX seal ring gasket

RTJ tabeltype RX ASME B16.20 - API 6A For flanges: API 6B

Nom Dia	2000	3000	50000
2 1/16"	RX 23	RX 24	RX 24
2 9/16"	RX 26	RX 27	RX 27
3 1/8"	RX 31	RX 31	RX 35
4 1/16"	RX 37	RX 37	RX 39
5 1/8"	RX 41	RX 41	RX 44
7 1/16"	RX 45	RX 45	RX 46
9"	RX 49	RX 49	RX 50
11"	RX 53	RX 53	RX 54
13 5/8"	RX 57	RX 57	
16 3/4"	RX 65	RX 66	
20 3/4"		RX 74	
21 1/4"	RX 73		

RTJ tabel type RX
For segmented flanges
in accordance with API spec 6A

Ring number at pressure rating 5000 (lbs)		
Nom Dia	Dual	Triple Quadruble
1 3/8"	RX 201	-
1 13/16"	RX 205	RX 205
2 1/16"	RX 20	RX 20
2 9/16"	RX 210	RX 210
3 1/8"	RX 25	RX 25
4 1/16"	RX 45	RX 215
4 1/16" x 4 1/4"	RX 215	RX 215

RTJ and IX seal ring gasket

IX Seal rings

ASME-ANSI	ISO DIS7005	150 - 2500# PN20-PN420
1/2"	15	IX15
3/4"	20	IX20
1"	25	IX25
1 1/4"	32	IX32
1 1/2"	40	IX40
2"	50	IX50
2 1/2"	65	IX65
3"	80	IX80
3 1/2"	90	IX90
4"	100	IX100
5"	125	IX125
6"	150	IX150
8"	200	IX200
10"	250	IX250
12"	300	IX300
14"	350	IX350
16"	400	IX400
18"	450	IX450
20"	500	IX500
22"	550	IX550
24"	600	IX600
26"	650	IX650
28"	700	IX700
30"	750	IX750
32"	800	IX800
34"	850	IX850
36"	900	IX900

Waranty exclusion In view of the variety of different installation and operation conditions and application and process engineering options, the information given in this datasheet can only provide approximate guidance and cannot be used as basis for warranty claims.