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# APOLLON

## RING JOINT GASKETS



Ein Unternehmen der



**Gasket & Pipe**  
Holding GmbH

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## Ring joint gaskets



Due to the high degree of precision in the production of our ring joint gaskets, it is possible that temperatures of up to 1,000 °C as well as a total pressure of approximately 1,300 bar can be withstood. The strict API standards are thereby of course always met and often exceeded. Our ring joint gaskets are among the worlds most prestigious, in particular with regard to geometrical precision and the surface finish of the gasket itself as well as the sealing surface of the flanges.

Our ring joint gaskets are characterised by a special effectiveness, which is achieved on account of the fact that they are inserted into the trapezoidal groove of the flanges. As a result, the bolt load can be concentrated exclusively on a small area and a high material stress can thereby be reached.

It is of utmost importance that the ring material itself always exhibits a softer texture as that of the pair of flanges. The enormous resilience of the ring joint gasket thus results in a material flow into the groove front end, which in turn leads to the sealing effect.

Our assortment features not only oval and octagonal ring joint gaskets, but also a wide range of special shapes. We deliver according to our standard materials or tailored to your specifications.

### Order information

When placing your order or inquiry, please provide us with the following parameters:  
Profile type, ring number and material

## Overview



The ring joint gasket is in principle regarded as one of the most reliable and highest-quality metallic gasket, available.

They are deployed wherever pipes and fittings are not only exposed to enormously high pressures, but must also have to withstand extreme temperatures. They are in particular deployed in the petrochemical industry, in power plants, in the oil and gas industry as well as in the offshore sector. It is crucial that both the production and processing of this type of gasket complies with the high quality standards.

## Specifications:

We supply you with the following standards:

API 6A (oilfield application)  
ASME B 16.20 (generally) suitable for ASME, BS and DIN/EN flanges.

## Profile:



oval



octagonal

### Type R

(oval und octagonal)  
Perfect fit for standard ring joint flanges with trapezoidal grooves.



BX



RX

### Type BX und RX

With complex, bevelled edges for pressures above 700 bar.

## Dimensionen:

Standard sizes of up to 1,200 mm Ø  
We gladly supply you with larger dimensions, on request.

## Ring joint gaskets

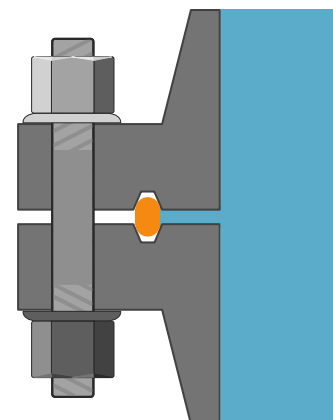
## Flanges

### Ring joint gasket Type R oval



In the case of the oval ring joint gasket, the annular circular surface of the gasket presses against the trapezoidal groove of the flanges.

The sealing surface pressure increases under-proportionally to the increase of the bolt force.

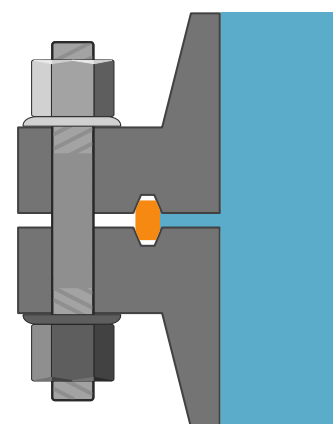


### Ring joint gasket Type R Octagonal



The octagonal ring joint gasket acts as a spherical gasket, thereby creating a larger contact or sealing surface. The effect is larger than in the case of the oval ring joint gaskets.

The sealing surface pressure increases proportionally to the increase of the bolt force.

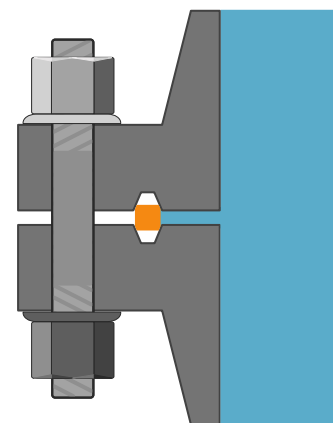


### Ring joint gasket Type BX



The gasket has a square cross-section with bevelled corners. The diameter of the ring joint gasket Type BX is slightly larger than that of the groove. It as such remains pre-compressed and thereby creates a high sealing value. The compensating bores correspond to the API.

The sealing surface pressure increases proportionally to the increase of the bolt force

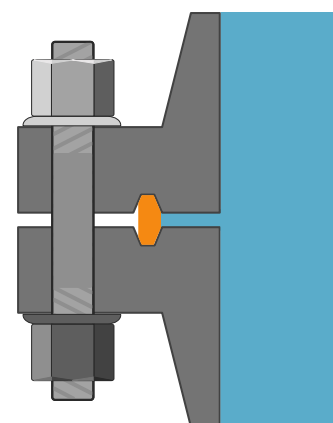


### Ring joint gasket Type RX



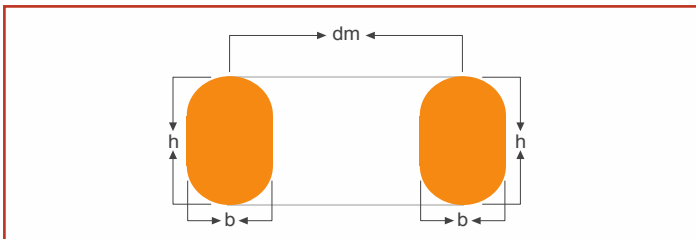
The gasket has been designed to take advantage of the fluid pressure and to increase the sealing values. The higher the inner pressure, the more the side surfaces press the ring joint gasket Type RX into the groove surface.

The sealing surface pressure increases proportionally to the increase of the bolt force.



# Ring joint gaskets

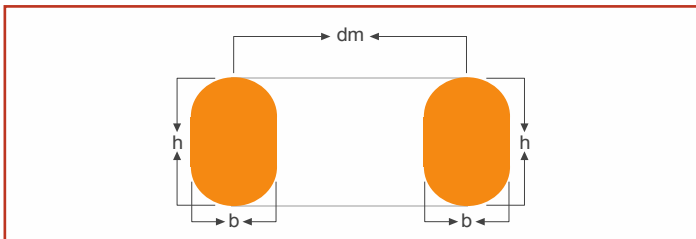
<b>Type R oval</b>	<b>R 11 to R 44</b>
<b>Norm:</b>	<b>ASME B 16.20 / API 6A</b>
	<b>and EN 12560-5</b>
<b>Flanges:</b>	<b>ASME B 16.5 and 16.47 A</b>
<b>Pressure:</b>	<b>Class 150 - 10.000</b>



NPS (inches)	Class (lbs)	Ring-Nr.	dm (mm)	b (mm)	h (mm)
1/2	300 to 600	R 11	34,13	6,35	11,11
1/2	900, 1.500	R 12	39,68	7,93	14,28
1/2	2500	R 13	42,86	7,93	14,28
3/4	300 to 600	R 13	42,86	7,93	14,28
3/4	900, 1.500	R 14	44,45	7,93	14,28
1	150	R 15	47,62	7,93	14,28
3/4	2500	R 16	50,80	7,93	14,28
1	300 to 1.500	R 16	50,80	7,93	14,28
1 1/4	150	R 17	57,15	7,93	14,28
1	2500	R 18	60,32	7,93	14,28
1 1/4	300 to 1.500	R 18	60,32	7,93	14,28
1 1/2	150	R 19	65,06	7,93	14,28
1 1/2	300 to 1.500	R 20	68,26	7,93	14,28
1 1/4	2500	R 21	72,23	11,11	17,46
2	150	R 22	82,55	7,93	14,28
1 1/2	2500	R 23	82,55	11,11	17,46
2	300 to 600	R 23	82,55	11,11	17,46
2	900, 1.500	R 24	95,25	11,11	17,46
2 1/2	150	R 25	101,60	7,93	14,28
2	2500	R 26	101,60	11,11	17,46
2 1/2	300 to 600	R 26	101,60	11,11	17,46
2 1/2	900, 1.500	R 27	107,95	11,11	17,46
2 1/2	2500	R 28	111,12	12,70	19,05
3	150	R 29	114,30	7,93	14,28
3	300 to 600	R 30	117,47	11,11	17,46
3	300 to 900	R 31	123,82	11,11	17,46
3	2500	R 32	127,00	12,70	19,05
3 1/2	150	R 33	131,76	7,93	14,28
3 1/2	300 to 600	R 34	131,76	11,11	17,46
3	1500	R 35	136,52	11,11	17,46
4	150	R 36	149,22	7,93	14,28
4	300 to 900	R 37	149,22	11,11	17,46
4	2500	R 38	157,16	15,87	22,22
4	1500	R 39	161,92	11,11	17,46
5	150	R 40	171,45	7,93	14,28
5	300 to 900	R 41	180,97	11,11	17,46
5	2500	R 42	190,50	19,05	25,40
6	150	R 43	193,67	7,93	14,28
5	1500	R 44	193,67	11,11	17,46

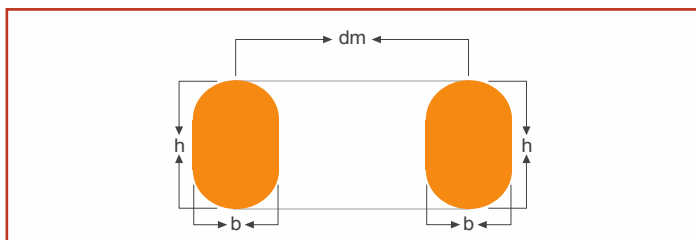
# Ring joint gaskets

<b>Type R oval</b>	<b>R 45 to R 84</b>
<b>Norm:</b>	<b>ASME B 16.20 / API 6A</b>
	<b>and EN 12560-5</b>
<b>Flanges:</b>	<b>ASME B 16.5 and 16.47 A</b>
<b>Pressure:</b>	<b>Class 150 - 10.000</b>



NPS (inches)	Class (lbs)	Ring-Nr.	dm (mm)	b (mm)	h (mm)
6	300 to 900	R 45	211,13	11,11	17,46
6	1.500	R 46	211,13	12,70	19,05
6	2.500	R 47	228,60	19,05	25,40
8	150	R 48	247,65	7,93	14,28
8	300 to 900	R 49	269,87	11,11	17,46
8	1.500	R 50	269,87	15,87	22,22
8	2.500	R 51	279,40	22,22	28,57
10	150	R 52	304,80	7,93	14,28
10	300 to 900	R 53	323,85	11,11	17,46
10	1.500	R 54	323,85	15,87	22,22
10	2.500	R 55	342,90	28,57	36,51
12	150	R 56	381,00	7,93	14,28
12	300 to 900	R 57	381,00	11,11	17,46
12	1.500	R 58	381,00	22,22	28,57
14	150	R 59	396,87	7,93	14,28
12	2.500	R 60	406,40	31,75	39,68
14	300 to 600	R 61	419,10	11,11	17,46
14	900	R 62	419,10	15,87	22,22
14	1.500	R 63	419,10	25,40	33,33
16	150	R 64	454,02	7,93	14,28
16	300 to 600	R 65	469,90	11,11	17,46
16	900	R 66	469,90	15,87	22,22
16	1.500	R 67	469,90	28,57	36,51
18	150	R 68	517,52	7,93	14,28
18	300 to 600	R 69	533,40	11,11	17,46
18	900	R 70	533,40	19,05	25,40
18	1.500	R 71	533,40	28,57	36,51
20	150	R 72	558,80	7,93	14,28
20	300 to 600	R 73	584,20	12,70	19,05
20	900	R 74	584,20	19,05	25,40
20	1.500	R 75	584,20	31,75	39,68
24	150	R 76	673,10	7,93	14,28
24	300 to 600	R 77	692,15	15,87	22,22
24	900	R 78	692,15	25,40	33,33
24	1.500	R 79	692,15	34,92	44,45
22	150	R 80	615,95	7,93	--
22	300 to 600	R 81	635,00	14,28	--
1	10.000	R 82	57,15	11,11	--
1 1/2	10.000	R 84	63,50	11,11	--

## Ring joint gaskets


**Type R oval**

R 85 to R 105

**Norm:** ASME B 16.20 / API 6A

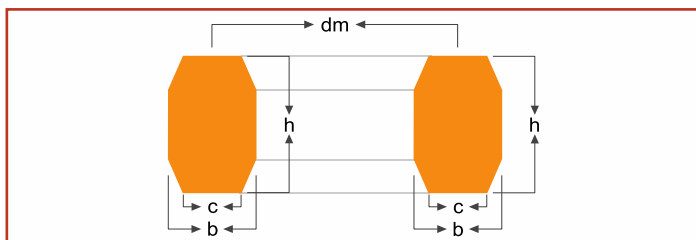
and EN 12560-5

**Flanges:** ASME B 16.5 and 16.47 A

**Pressure:** Class 150 - 10.000

NPS (inches)	Class (lbs)	Ring-Nr.	dm (mm)	b (mm)	h (mm)
2	10.000	R 85	79,37	12,70	--
2 1/2	10.000	R 86	90,49	15,87	--
3	10.000	R 87	100,01	15,87	--
4	10.000	R 88	123,83	19,05	--
3 1/2	10.000	R 89	114,30	19,05	--
5	10.000	R 90	155,58	22,22	--
10	10.000	R 91	260,35	31,75	--
--	--	R 92	228,60	11,11	17,46
26	300, 400, 600	R 93	749,30	19,05	--
28	300, 400, 600	R 94	800,10	19,05	--
30	300, 400, 600	R 95	857,25	19,05	--
32	300, 400, 600	R 96	914,40	22,22	--
34	300, 400, 600	R 97	965,20	22,22	--
36	300, 400, 600	R 98	1.022,35	22,22	--
8	2.000, 3.000	R 99	234,95	11,11	--
26	900	R 100	749,30	28,58	--
28	900	R 101	800,10	31,75	--
30	900	R 102	857,25	31,75	--
32	900	R 103	914,40	31,75	--
34	900	R 104	965,20	34,93	--
36	900	R 105	1.022,35	34,93	--

## Ring joint gaskets



### Type R oktagonal R 11 to R 44

Norm: ASME B 16.20 / API 6A

and EN 12560-5

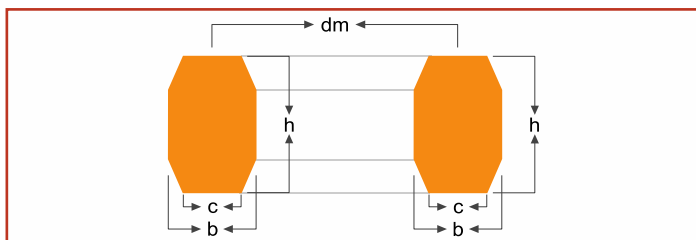
Flanges: ASME B 16.5 and 16.47 A

Pressure: Class 150 - 10.000

NPS (inches)	Class (lbs)	Ring-Nr.	dm (mm)	b (mm)	h (mm)	c (mm)
1/2	300 to 600	R 11	34,13	6,35	9,52	4,32
1/2	900, 1.500	R 12	39,68	7,93	12,70	5,32
1/2	2.500	R 13	42,86	7,93	12,70	5,32
3/4	300 to 600	R 13	42,86	7,93	12,70	5,32
3/4	900, 1.500	R 14	44,45	7,93	12,70	5,32
1	150	R 15	47,62	7,93	12,70	5,32
3/4	2.500	R 16	50,80	7,93	12,70	5,32
1	300 to 1.500	R 16	50,80	7,93	12,70	5,32
1 1/4	150	R 17	57,15	7,93	12,70	5,32
1	2.500	R 18	60,32	7,93	12,70	5,32
1 1/4	300 to 1.500	R 18	60,32	7,93	12,70	5,32
1 1/2	150	R 19	65,06	7,93	12,70	5,32
1 1/2	300 to 1.500	R 20	68,26	7,93	12,70	5,32
1 1/4	2.500	R 21	72,23	11,11	15,87	7,75
2	150	R 22	82,55	7,93	12,70	5,23
1 1/2	2.500	R 23	82,55	11,11	15,87	7,75
2	300 to 600	R 23	82,55	11,11	15,87	7,75
2	900, 1.500	R 24	95,25	11,11	15,87	7,75
2 1/2	150	R 25	101,60	7,93	12,70	5,23
2	2.500	R 26	101,60	11,11	15,87	7,75
2 1/2	300 to 600	R 26	101,60	11,11	15,87	7,75
2 1/2	900, 1.500	R 27	107,95	11,11	15,87	7,75
2 1/2	2.500	R 28	111,12	12,70	17,46	8,66
3	150	R 29	114,30	7,93	12,70	5,23
3	300 to 900	R 30	117,47	11,11	15,87	7,75
3	300 to 900	R 31	123,82	11,11	15,87	7,75
3	2.500	R 32	127,00	12,70	17,46	8,66
3 1/2	150	R 33	131,76	7,93	12,70	5,23
3 1/2	300 to 600	R 34	131,76	11,11	15,87	7,75
3	1.500	R 35	136,52	11,11	15,87	7,75
4	150	R 36	149,22	7,93	12,70	5,23
4	300 to 900	R 37	149,22	11,11	15,87	7,75
4	2.500	R 38	157,16	15,87	20,64	10,49
4	1.500	R 39	161,92	11,11	15,87	7,75
5	150	R 40	171,45	7,93	12,70	5,23
5	300 to 900	R 41	180,97	11,11	15,87	7,75
5	2.500	R 42	190,50	19,05	23,81	12,32
6	150	R 43	193,67	7,93	12,70	5,23
5	1.500	R 44	193,67	11,11	15,87	7,75



## Ring joint gaskets



### Type R oktagonal R 11 to R 44

Norm: ASME B 16.20 / API 6A

and EN 12560-5

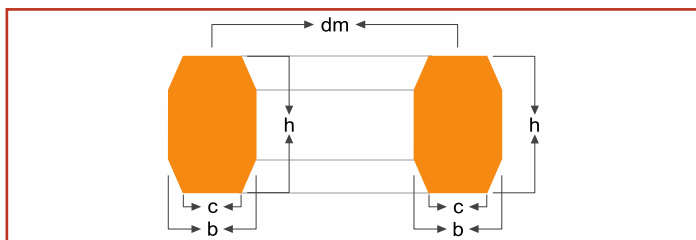
Flanges: ASME B 16.5 and 16.47 A

Pressure: Class 150 - 10.000

NPS (inches)	Class (lbs)	Ring-Nr.	dm (mm)	b (mm)	h (mm)	c (mm)
6	300 to 900	R 45	211,13	11,11	15,87	7,75
6	1.500	R 46	211,13	12,70	17,46	8,66
6	2.500	R 47	228,60	19,05	23,81	12,32
8	150	R 48	247,65	7,93	12,70	5,23
8	300 to 900	R 49	269,87	11,11	15,87	7,75
8	1.500	R 50	269,87	15,87	20,64	10,49
8	2.500	R 51	279,40	22,22	26,99	14,81
10	150	R 52	304,80	7,93	12,70	5,23
10	300 to 900	R 53	323,85	11,11	15,87	7,75
10	1.500	R 54	323,85	15,87	20,64	10,49
10	2.500	R 55	342,90	28,57	34,92	19,81
12	150	R 56	381,00	7,93	12,70	5,23
12	300 to 500	R 57	381,00	11,11	15,87	7,75
12	1.500	R 58	381,00	22,22	26,99	14,81
14	150	R 59	396,87	7,93	12,70	5,23
12	2.500	R 60	406,40	31,75	38,10	22,33
14	300 to 600	R 61	419,10	11,11	15,87	7,75
14	900	R 62	419,10	15,87	20,64	10,49
14	1.500	R 63	419,10	25,40	31,75	17,30
16	150	R 64	454,02	7,93	12,70	5,23
16	300 to 600	R 65	469,90	11,11	15,87	7,75
16	900	R 66	469,90	15,87	20,64	10,49
16	1.500	R 67	469,90	28,57	34,92	19,81
18	150	R 68	517,52	7,93	12,70	5,23
18	300 to 600	R 69	533,40	11,11	15,87	7,75
18	900	R 70	533,40	19,05	23,81	12,32
18	1.500	R 71	533,40	28,57	34,92	19,81
20	150	R 72	558,80	7,93	12,70	5,23
20	300 to 600	R 73	584,20	12,70	17,46	8,66
20	900	R 74	584,20	19,05	23,81	12,32
20	1.500	R 75	584,20	31,75	38,10	22,33
24	150	R 76	673,10	7,93	12,70	5,23
24	300 to 600	R 77	692,15	15,87	20,64	10,49
24	900	R 78	692,15	25,40	31,75	17,30
24	1.500	R 79	692,15	34,92	41,27	24,82
22	150	R 80	615,95	7,93	12,70	5,23
22	300 to 600	R 81	635,00	14,28	19,05	9,57
1	10.000	R 82	57,15	11,11	15,87	7,75
1 1/2	10.000	R 84	63,50	11,11	15,87	7,75



## Ring joint gaskets



### Type R oktagonal R 85 to R 105

Norm: ASME B 16.20 / API 6A

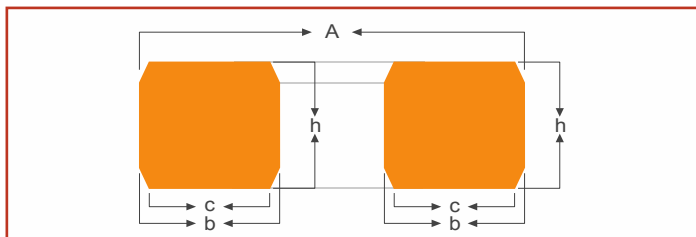
and EN 12560-5

Flanges: ASME B 16.5 and 16.47 A

Pressure: Class 150 - 10.000

NPS (inches)	Class (lbs)	Ring-Nr.	dm (mm)	b (mm)	h (mm)	c (mm)
2	10.000	R 85	79,37	12,70	17,46	8,66
2 1/2	10.000	R 86	90,49	15,87	20,63	10,49
3	10.000	R 87	100,01	15,87	20,63	10,49
4	10.000	R 88	123,83	19,05	23,81	12,32
3 1/2	10.000	R 89	114,30	19,05	23,81	12,32
5	10.000	R 90	155,58	22,22	26,98	14,81
10	10.000	R 91	260,35	31,75	38,10	22,33
--	--	R 92	228,60	11,11	15,87	7,75
26	300, 400, 600	R 93	749,30	19,05	23,81	12,32
28	300, 400, 600	R 94	800,10	19,05	23,81	12,32
30	300, 400, 600	R 95	857,25	19,05	23,81	12,32
32	300, 400, 600	R 96	914,40	22,22	26,98	14,81
34	300, 400, 600	R 97	965,20	22,22	26,98	14,81
36	300, 400, 600	R 98	1.022,45	22,22	26,98	14,81
8	2.000, 3.000	R 99	234,95	11,11	15,87	7,75
26	900	R 100	749,30	28,58	34,92	19,81
28	900	R 101	800,10	31,75	38,10	22,33
30	900	R 102	857,25	31,75	38,10	22,33
32	900	R 103	914,40	31,75	38,10	22,33
34	900	R 104	965,20	34,93	41,27	24,82
36	900	R 105	1.022,35	34,93	41,27	24,82

## Ring joint gaskets



### Type BX

BX 150 to BX 172

Norm: API 6 A

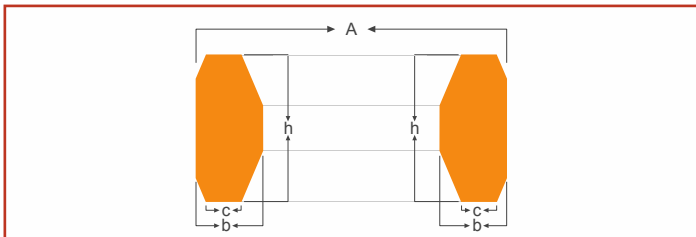
Flanges: API 6 BX

Pressure: Class 2.000 - 20.000

NPS (inches)	Class (lbs)	Ring-Nr.	A (mm)	b (mm)	h (mm)	c (mm)	dø
1 11/16	10.000, 15.000	BX 150	72,19	9,30	9,30	7,98	1,60
1 13/16	10.000, 15.000, 20.000	BX 151	76,40	9,63	9,63	8,26	1,60
2 1/16	10.000, 15.000, 20.000	BX 152	84,68	10,24	10,24	8,79	1,60
2 9/16	10.000, 15.000, 20.000	BX 153	100,94	11,38	11,38	9,78	1,60
3 1/16	10.000, 15.000, 20.000	BX 154	116,84	12,40	12,40	10,64	1,60
4 1/16	10.000, 15.000, 20.000	BX 155	147,96	14,22	14,22	12,22	1,60
5 1/8	10.000	BX 169	173,52	12,93	15,84	10,69	1,60
7 1/16	10.000, 15.000, 20.000	BX 156	237,92	18,62	18,62	15,98	3,20
9	10.000, 15.000	BX 157	294,46	20,98	20,98	18,01	3,20
11	10.000, 15.000	BX 158	352,04	23,14	23,14	19,86	3,20
13 5/8	10.000	BX 159	426,72	25,70	25,70	22,07	3,20
13 5/8	5.000	BX 160	402,59	13,74	23,83	10,36	3,20
16 3/4	5.000	BX 161	491,41	16,21	28,07	12,24	3,20
16 3/4	5000, 10.000	BX 162	475,49	14,22	14,22	12,22	1,60
18 3/4	5.000	BX 163	556,16	17,37	30,10	13,11	3,20
18 3/4	10.000	BX 164	570,56	24,59	30,10	20,32	3,20
21 1/4	5.000	BX 165	624,71	18,49	32,03	13,97	3,20
21 1/4	10.000	BX 166	640,03	26,14	32,03	21,62	3,20
26 3/4	2.000	BX 167	759,36	13,11	35,86	8,03	1,60
26 3/4	3.000	BX 168	765,25	16,05	35,86	10,97	1,60
5 1/8	10.000	BX 169	173,52	12,93	15,84	--	1,60
9	--	BX 170	218,03	14,22	14,22	--	1,60
11	--	BX 171	267,44	14,22	14,22	--	1,60
13 5/8	--	BX 172	333,07	14,22	14,22	--	1,60
30	2.000, 3.000	BX 303	852,75	16,97	37,95	--	1,60

# Ring joint gaskets

Type RX	RX 20 to RX 201
Norm:	ASME B 16.20 and API 6 A
Flanges:	API 6 B
Pressure:	Class 2.000 - 20.000



NPS (inches)	Class (lbs)	Ring-Nr.	A (mm)	b (mm)	h (mm)	c (mm)	hs (mm)	dø
1 1/26	2.000, 3.000, 5.000	RX 20	76,20	8,73	19,05	4,62	3,18	--
2	5.000	RX 20	76,20	8,73	19,05	4,62	3,18	--
2	2.000	RX 23	93,27	11,91	25,40	6,45	4,24	--
2	3.000, 5.000	RX 24	105,97	11,91	25,40	6,45	4,24	--
3	5.000	RX 25	109,54	8,73	19,05	4,62	3,18	--
2 1/2	2.000	RX 26	111,92	11,91	25,40	6,45	4,24	--
2 1/2	3.000, 5.000	RX 27	118,27	11,91	25,40	6,45	4,24	--
3	2.000, 3.000	RX 31	134,54	11,91	25,40	6,45	4,24	--
3	5.000	RX 35	147,24	11,91	25,40	6,45	4,24	--
4	2.000, 3.000	RX 37	159,94	11,91	25,40	6,45	4,24	--
4	5.000	RX 39	172,64	11,91	25,40	6,45	4,24	--
5	2.000, 3.000	RX 41	191,69	11,91	25,40	6,45	4,24	--
5	5.000	RX 44	204,39	11,91	25,40	6,45	4,24	--
6	2.000, 3.000	RX 45	221,85	11,91	25,40	6,45	4,24	--
6	5.000	RX 46	222,25	13,49	28,58	6,68	4,78	--
8	--	RX 47	245,27	19,84	41,28	10,34	6,88	--
8	2.000, 3.000	RX 49	280,59	11,91	25,40	6,45	4,24	--
8	5.000	RX 50	283,37	16,67	31,75	8,51	5,28	--
10	2.000, 3.000	RX 53	334,57	11,91	24,40	6,45	4,24	--
10	5.000	RX 54	337,34	16,67	31,75	8,51	5,28	--
12	2.000, 3.000	RX 57	391,72	11,91	25,40	6,45	4,24	--
14	5.000	RX 63	441,72	26,99	50,80	14,78	8,46	--
16	2.000	RX 65	480,62	11,91	25,40	6,45	4,24	--
16	3.000	RX 66	483,39	16,67	31,75	8,51	5,28	--
18	2.000	RX 69	544,12	11,91	25,40	6,45	4,24	--
18	3.000	RX 70	550,07	19,84	41,28	10,34	6,88	--
20	2.000	RX 73	596,11	13,49	31,75	6,68	5,28	--
20	3.000	RX 74	600,87	19,84	41,28	10,34	6,88	--
--	--	RX 82	67,87	11,91	25,40	6,45	4,24	1,60
--	--	RX 84	74,22	11,91	25,50	6,45	4,24	1,60
--	--	RX 85	90,09	13,49	25,40	6,68	4,24	1,60
--	--	RX 86	103,58	15,08	28,58	8,51	4,78	2,40
--	--	RX 87	113,11	15,08	28,58	8,51	4,78	2,40
--	--	RX 88	139,30	17,46	31,75	10,34	5,28	3,20
--	--	RX 89	129,78	18,26	31,75	10,34	5,28	3,20
--	--	RX 90	174,63	19,84	44,45	12,17	7,42	3,20
--	--	RX 91	286,94	30,16	45,24	19,81	7,54	3,20
--	--	RX 99	245,67	11,91	25,40	6,45	4,24	--
1 1/4	5.000	RX 201	51,46	5,74	11,30	3,20	1,45	--
1 3/4	5.000	RX 205	62,31	5,56	11,10	3,05	1,83	--
2 1/2	5.000	RX 210	97,63	9,53	19,05	5,41	3,18	--
4	5.000	RX 215	140,89	11,91	25,40	5,33	4,24	--
4 + 4 1/4	5.000	RX 215	140,89	11,91	25,40	5,33	4,24	--
2 3/4	5.000	RX 205	180,18	15,09	32,55	6,47	5,45	--

# APOLLON



## Apollon InduTec GmbH

Kurt-A.-Körper-Chaussee 73  
Halle J  
21033 Hamburg  
Germany

Tel. +49 (0)40 361 661 52  
Fax +49 (0)40 361 661 53

[info@apollon-indutec.de](mailto:info@apollon-indutec.de)  
[www.apollon-indutec.de](http://www.apollon-indutec.de)



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