



# METALLIC RING JOINT



Metallic ring joint gaskets are heavy duty, high-pressure gaskets largely used in offshore petrochemical applications.

Ring Type Joints (RTJ) are precision-engineered components designed to be used in conjunction with precision-machined flanges. All our Ring Joints are manufactured according to ASME B16.20 and API 6A.

TYPE	NOMINAL PIPE SIZE	CLASS RATINGS
Type R Oval and Octagonal	1/2" to 24"	150 to 2500 ASME B16.20
	26" to 36"	300 to 900 ASME B16.20
	1 1/2" to 20"	Series A API 6A
Type RX	1 1/2" to 24"	720 to 5000 ASME B16.20
	26" to 36"	300 to 900 ASME B16.20
	1 1/2" to 20"	Series A API 6A
Type BX	1 11/16" to 21 1/4"	5000 to 20000 ASME B16.20

## MATERIALS

The gasket material is selected on a number of grounds primarily; chemical compatibility with the media and the hardness of the flange. The gasket material ideally needs to be less than the flange material to ensure sufficient deformation of the gasket without damaging the flange facing.

MATERIAL	TYPICAL MAXIMUM HARDNESS	TEMP. RANGE	MARKING
Soft Iron	90	-60 to 500°C	D
Low Carbon Steel	120	-40 to 500°C	S
4-6% Cr 1/2% Mo	130	-40 to 650°C	F5
304	160	-250 to 550°C	S304
316	160	-110 to 800°C	S316
321	160	-250 to 800°C	S321
347	160	-250 to 800°C	S347
410	170	-20 to 500°C	S410
Monel (N04400)	135	400°C	N04400
UNS N08904	180	400°C	904L
Inconel 625	-	650°C	625
Incoloy 825	-	450°C	825
Hastelloy C-276	-	450°C	C-276
Titanium	-	350°C	TI

\*Soft iron and carbon steel gaskets are zinc plated to prevent atmospheric corrosion.

## RING JOINT STYLES

### Type R Oval



- » The original ring joint design
- » Can be used on standard flat bottomed groove flanges and older round bottomed groove flanges
- » Can be used for ASME B16.5 flange class 150 to 2500 and API 6B to Class 5000
- » Soft iron and carbon steel gaskets are zinc plated to prevent corrosion
- » All rings are marked with the ring number, material and the date of manufacture and API designation.

### Type R Octagonal



- » An improvement on the original oval design
- » Can be used on standard flat bottomed groove flanges
- » Available for use on ASME B16.5 flange class 150 to 2500, ASME B16.47 Series A flanges and API 6B to Class 5000
- » Soft iron and carbon steel gaskets are zinc plated to prevent corrosion
- » All rings are marked with the ring number, material and the date of manufacture and API designation.

### Type BX



- » Suitable for use on API 6BX Flanges up to Class 20000
- » During installation the ring is compressed inwards to provide additional sealing stress
- » Pressure energised; as the internal pressure increases the sealing force increases
- » Type BX rings are supplied with pressure relief holes to avoid compressing fluid beneath the gasket
- » Can be drilled with additional hole to create a gasket suitable for subsea installation Type "SBX"

### Type RX



- » Interchangeable with Type R gaskets
- » Pressure energised; as the internal pressure increases the sealing force increases
- » The outer sealing faces make initial contact with the slightly smaller flange groove allowing the gasket to impart additional sealing force
- » Can be drilled with additional hole to create a gasket suitable for subsea installation Type "SRX"
- » Suitable for use on ASME B16.5, API 6B to Class 5000 and ASME B16.47 Series A flanges

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FM 10571

OHS 570166

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