

# Metallic ring type joints (RTJs)

For use on high pressure offshore oil & gas and petrochemical applications



## Type R - Oval

The type R oval configuration is the original ring joint design for use on flange grooves with a rounded profile however the oval section is suitable for use on flat bottom groove applications.

- ASME B16.20 & API 6A



## Type R - Octagonal

The type R octagonal configuration is an improvement to the type R oval with direct surface contact with the 23° groove faces. Oval and Octagonal profiles are fully interchangeable with flat bottom grooves.

- ASME B16.20 & API 6A



## Type RX

The type RX is an adaptation of the type R octagonal ring and has a unique self sealing action where the outer sealing faces make initial contact with the flanges and introduce a semi pressurised effect to the ring as the internal pressure is increased.

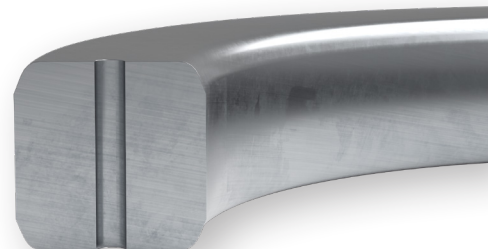
- ASME B16.20 & API 6A



## Type BX

The type BX is intended for high pressure applications up to 20,000 psi (1,380 bar). The BX ring design is only applicable for use with special BX grooves and is not interchangeable with the type R or RX groove design. A small pressure equalisation hole can be offered for installation on sub sea applications.

- ASME B16.20 & API 6A



## APPROVALS

API 6A  
NACE MR0175  
ASME B16.20

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The gasket material is mostly selected to match the material of the flanges, the maximum ring hardness needs to be less than the hardness of the groove to prevent the groove from becoming damaged as the ring is seated into the flange faces.

Material selection must also be made based on the chemical compatibility of the media stream and the operating temperature.

Property	Maximum hardness (BHN)	Marking
Soft Iron (SI)	90	D
Low Carbon Steel	120	S
4 - 6 % Cr / ½ % Mo	130	F5
410 Alloy Steel	170	S410
304 SS	160	S304
304L SS	160	S304L
316 SS	160	S316
316L SS	160	S316L
347 SS	160	S347
321 SS	160	S321
Monel	135	N04400
Inconel 625	On request	625
Inconel 825	On request	825
Hastelloy C	On request	C276
Titanium	On request	Ti

## Specialised sealing components

James Walker also produces a wide range of highly specialised metallic sealing components to exacting customer dimensional tolerances across a wide range of high nickel alloys.



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