

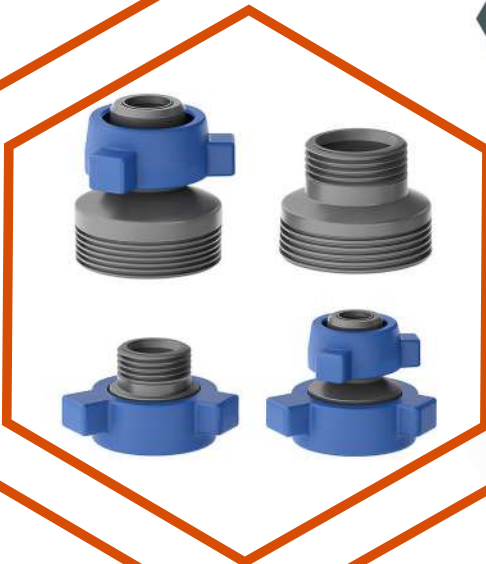


API Certified



**HARIOM**  
FORGINGS PVT. LTD.

Strength You Can Trust. Precision You Can Feel  
Manufacturer and Distributor of Quality Oilfield Equipments





API Certified

6A-2508

# About Us

## About Us

**Hariom Forgings Pvt. Ltd.** established in 2003, is an API 6A and ISO 9001:2015 certified manufacturer and distributor of high-quality oil-field equipment. We produce Hammer Unions, Ring Joint Gaskets, Fittings, Elbows, Flanges and Crosses etc. for Indian and international markets. Our facilities include close die forging, ring rolling, and advanced CNC and VMC machines. We are dedicated to delivering durable, reliable products for diverse oil-field applications worldwide.



## Certification





API Certified

6A-2508

# Products

## Ring Joint Gaskets

### Ring Type Joint Gasket (RTJ Gasket)

Ring type joint gasket (RTJ Gasket) is a high integrity sealing gasket, high temperature and high pressure gasket for applications in petroleum industry, oilfield drilling, pressure vessel joints, pipes and valves etc from Hariom Forgings Pvt. Ltd.

Hariom Forgings manufactures RTJ Gasket according to API 6A for numerous industrial applications based on the customer required specifications with corrosive protection using electroplated zinc or alternate material coating.

As a result of metal to metal sealing media they are made to be free of indentations, tool marks etc and have a surface finish of maximum,

- R, RX - 63 microinches Ra (1.6 micrometer Ra).
- BX - 32 microinches Ra (0.8 micrometer Ra).

The working of RTJ Gasket can be explained by the axial compressive load causing them to deform and flow to irregularities in the flange grooves that it seals. As load bearing area of RTJ Gasket are small high surface stresses are produced between the sealing face and the groove, making it poor in recovery characteristics and unfit for reuse.





# RTJ-Ring Type Joint



API Certified

6A-2508



**HARIOM**  
FORGINGS PVT. LTD.

Metallic Ring Type 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.



## RTJ Styles

A number of Ring Joint styles are available designed for specific flange types, and these are given in the below table:

## 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. Some common materials are listed in the table below.

TYPE	NOMINAL PIPE SIZE	CLASS RATINGS
<b>Type R Oval &amp; Octagonal</b>	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
<b>Type RX</b>	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
<b>Type BX</b>	1 11/16" to 21 1/4"	5000 to 20000 ASME B16.20

MATERIAL	HARDNESS BRINELL	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	-125 to 500°C	F5
304	160	-250 to 650°C	S304
316	160	-196 to 800°C	S316
321	160	-250 to 870°C	S321
347	160	-250 to 870°C	S347
410	170	-20 to 500°C	S410
Monel (N04400)	135	400°C	N04400
UNS N08904	180	400°C	904L
Inconel 625	200	+1000°C	625
Incoloy 825	160	+1000°C	825
Hastelloy C-276	200	+1000°C	C-276
Titanium	160	+540°C	TI

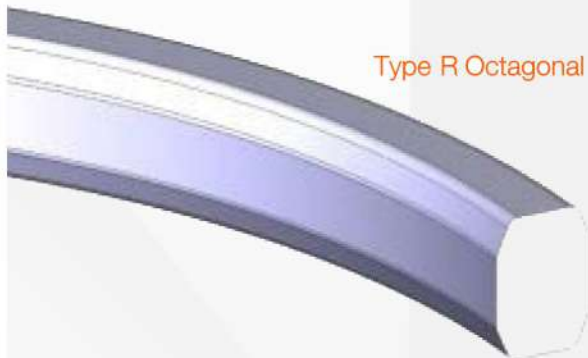
Please note that the properties shown here are typical and suitability for actual application should always be determined by a suitably qualified Engineer. Specifications are subject to change without notice.

## 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 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



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"

# Hammer Union



API Certified

6A-2508

Figure No.	Assembly Colour Key for Standard Service	Pressure Rating (psi)				Nominal Pipe Size (inch/Nominal Bore)												
		Standard Service		Sour Gas Service		1/2	1"	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
		Cold Working	Test	Cold Working	Test	15	25	32	40	50	65	80	100	125	150	200	250	300
50		500	750	NA	NA								T/B	T/B				
100		1,000	1,500	NA	NA					T/B	T/B	T/B	T/B	T/B	T/W	T/W		
200		2,000	3,000	2000	3000		T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B
206		2,000	3,000	2000	3000		T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B	T/B
207		2,000	3,000	2000	3000							T/B	T/B		T/B			
211		2,000	3,000	NA	NA					T								
300		2000	3,000	NA	NA	T												
400		4,000	6,000	4,000	6,000					T/B		T/B	T/B	T/B	T/B			T/B
602		6,000	9,000	6,000	9,000		T/B	T/B	T/B	T/B		T/B	T/B					
1002		10,000	15,000	7,500	11,250	T/B	T/B	T/B	T/B	T/B		T/B	T/B	T/B	T/B			
1003		10,000	15,000	7,500	11,250							T/B	T/B	B				
1004		10,000	15,000	7,500	11,250									B	B			
1502		15,000	22,500	10,000	15,000		T/B		T/B	T/B		T/B	T/B	T/B	T/B			
2002		20,000	30,000	NA	NA					B		B						
2202		NA	NA	15,000	22,500					B		B	B					

T/B - Threaded and Butt-Weld    T - Threaded    B -Butt-Weld

**Material**

Hariom Forgings Pvt. Ltd. Unions are manufactured from steel forgings using standard material (ASTM-A-105/ASTM-A-181/AISI 1020/AISI 1040 for low Pressure and AISI 4130 for high pressure.

**End Connections**

Hariom Forgings Pvt. Ltd. Unions are available with a choice of end connections. API line pipe threads are standard. Butt weld ends can be provided. Customer to specify schedule of pipe or O.D. and I.D. while ordering.

**Low Temperature Service**

Hariom Forgings Pvt. Ltd. Unions can be supplied for low temperature applications with suitable impact testing.

**Traceability**

Hariom Forgings Pvt. Ltd. Unions are supplied with full traceability documentation for each component with all test and material certificates as per the requirement.

**Interchangeability**

All Hariom Forgings Pvt. Ltd. components of the same size and figure number are Weco interchangeable.

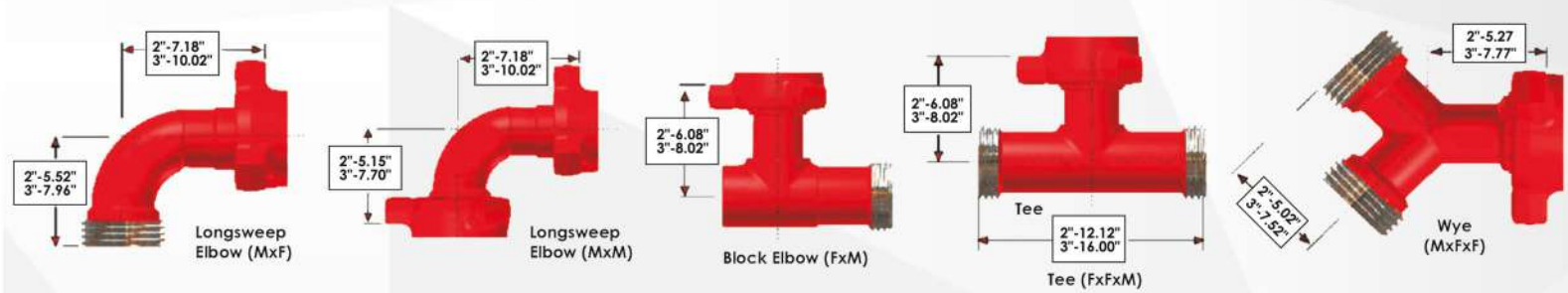
**Sour Service**

Sour service is also available and all H2S service parts of Hariom Forgings Pvt. Ltd. Unions conform to the latest NACE specifications.



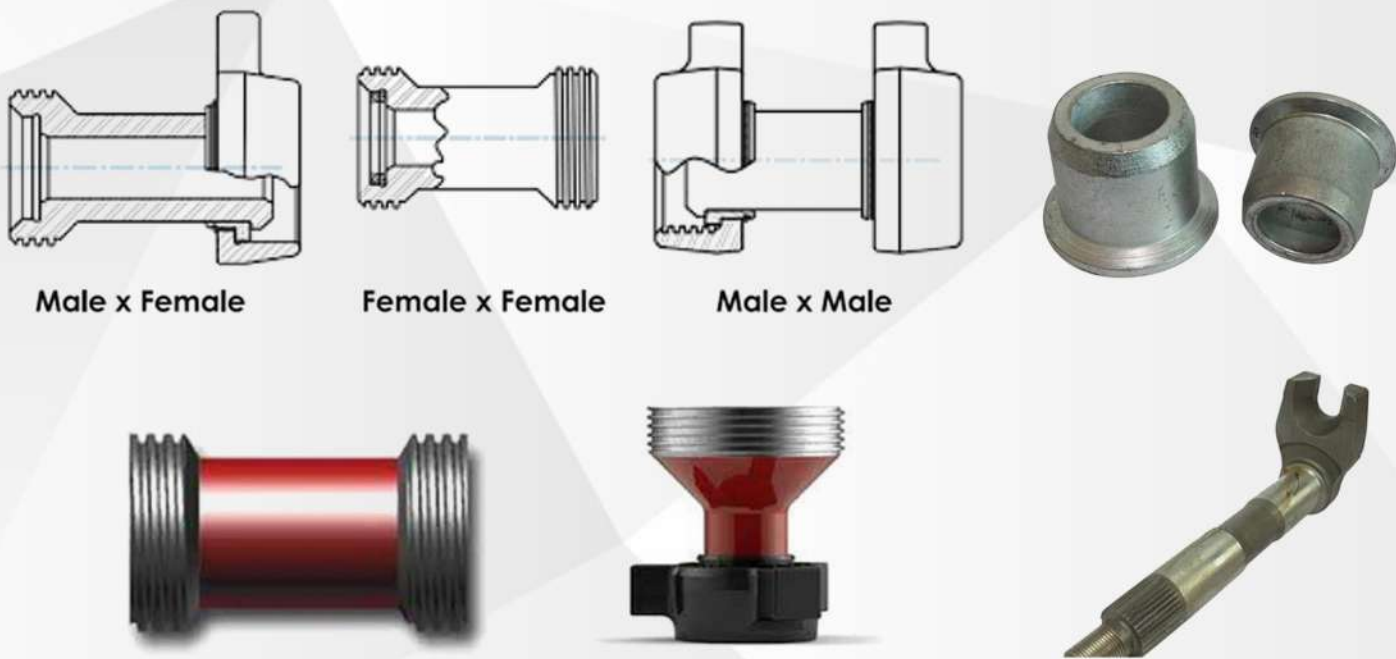
**Integral Fittings**

Hariom integral fitting is a high-quality forged construction and can be combined to virtual suit any installation. All integral Fittings come with full material traceability. Integral fittings from Hariom Forgings PVT. LTD. provide union ends for easy connection to various cementing or fracturing equipment, as well as welded end connections that meet API Spec 6A. Integral fittings from Hariom Forgings PVT. LTD. are used to join pipes of different diameters or threads.



**Adapters and Crossovers**

Hariom Forgings Pvt. Ltd. Adapters and Crossovers are available with high-quality forged construction in threaded, integral & welded hammer lug union end connection.



## Key Customer

- NORMEC Oilfield Products Gmbh (Germany)
- AMTEQ Bohrzubehor GmbH (Germany)
- Mathews Distributing Co. INC (USA)
- Indian Railways
- Ordnance Factory Board (Defence)
- Victora Auto Pvt. Ltd.
- LNM Auto Industries Pvt. Ltd. (Faridabad)
- Farmtrac Tractors (Escorts)
- Q.H. Talbros Ltd. (IMT Manesar, Gurgaon)
- Neeco Oilfield Products Pvt. Ltd.
- Sledgehammer Oil Tools
- Prithviraj Industries
- Talbros Engineering Ltd. (Faridabad)
- Windlass Engineers & Services Pvt. Ltd. (Dehradun)
- Sietz Technologies India Pvt. Ltd.



### Contact Information: -

#### Registered Office :

**Baljeet Dagar**  
(Director-Sales & Operations)  
Hariom Forgings Pvt. Ltd.

Plot No. T7 & T8, FIT  
Sector-57, Faridabad,  
Haryana- 121004, India

**Mobile :** +91 9212631967  
**Email :** baljeet@hariomforgings.com  
**Website :** www.hariomforgings.com

**Deepak Dagar**  
(Director - Marketing & Finance)  
Hariom Forgings Pvt. Ltd.

Plot No. T7 & T8, FIT  
Sector-57, Faridabad,  
Haryana- 121004, India

**Mobile :** +91 9873444031  
**Email :** deepak@hariomforgings.com  
**Website :** www.hariomforgings.com