

# GOODRICH GASKET PRIVATE LIMITED

## SPECIALISTS IN

Emergency Shutdown & Maintenance  
Supply of All Types of Spiral Wound Gasket, API Ring Joint  
Gasket, Studs & Nuts, Insulating Kit Gaskets, Customized  
Gaskets and Monolithic Insulating Joints



**RISK FREE  
GASKETS**



**Licence No.**  
6A-0722  
Ring Joint Gasket

**Certification**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007



## INTRODUCTION

Today Goodrich Gasket Private Limited is acknowledged as the market leader in manufacturing & supply of high-performance Industrial Static Sealing Products for the Global Processing Industries. Goodrich Gaskets is currently manufacturing and supplying the entire range of Industrial Gaskets from its 25000 m<sup>2</sup> state of the art brand new facility at Chennai, India.

The company was founded in 1987 and has more than 3000 satisfied customers worldwide. "We at Goodrich Gaskets Design, Manufacture, Supply, Install and also provide on-site support for all your Gasket related requirements and problems"

## STRENGTHS

- ⊙ 24X7 operational facility to meet customer's emergency and shut down requirements.
- ⊙ Proven track record of performance and reliability with high Gasket Performance.
- ⊙ Experience over three decades in manufacturing Gaskets & Investment in modern manufacturing technology.
- ⊙ Complete control over all critical processes including raw materials & preferred by reputed oil majors and EPC contractors.
- ⊙ Highly skilled engineers for designing products with optimal performance & ability to design products with special requirements.
- ⊙ Customized product development – working closely with the user groups.
- ⊙ Quality Assurance Program – Approved by Major EPC, PMC & PSUs.
- ⊙ Wide distribution network – Over 3000 Satisfied Customers Worldwide.
- ⊙ Availability of Gaskets from various locations including back up inventory at factories.

## INDUSTRIES SERVED – VARIOUS APPLICATIONS

- ⊙ Oil & Gas
- ⊙ Pipelines & Refineries
- ⊙ Petrochemicals
- ⊙ Chemical & Pharmaceutical Plants
- ⊙ Fossil, Hydro, Atomic & Nuclear Power Plants
- ⊙ Cement, Paper & Pulp
- ⊙ Fertilizers & Sugar Plants
- ⊙ Steel & Power Plants
- ⊙ Heat Exchanger
- ⊙ Valves, Pumps & Blowers Compressors and Burners
- ⊙ Steam & Gas Turbines
- ⊙ Defense & Railways
- ⊙ Navy & Ship Building
- ⊙ Aircraft Engines & Missiles
- ⊙ Internal Combustion Engines
- ⊙ Pressure Regulators & Strainers
- ⊙ Sight Glasses & Motors
- ⊙ OEMs Etc.

## GASKET MATERIAL IN STOCK

- ⊙ 304/ 304L/ 316 / 316L / 309 / 310 / 316TI / 317L / 321 / 347 / 430 / 410 / Alloy 20 / Monel® / Titanium® / Nickel® 200 / Inconel® 600 / Inconel 625 / Inconel X-750 / Hastelloy® B2 / Hastelloy® C276 / Incoloy® 800 / Incoloy® 825 / Duplex, Super Duplex / Zirconium® / Tantalum® / Copper / Phosphor-bronze / Carbon Steel / Aluminium / Soft Iron / LCS / F5 / F9 / F11 / F22 / AISI 105 / AISI 4130
- ⊙ Nuclear Grade Graphite Sheets / Rolls
- ⊙ Non-Asbestos Sheets
- ⊙ PTFE Sheets & Expanded PTFE Sheets
- ⊙ Rubber Sheets
- ⊙ Mica Sheets
- ⊙ Ceramic Sheets
- ⊙ Vermiculate Sheets

## SHUT DOWN – MOBILE MANUFACTURING

To provide control management on costs for preparation and storage shutdowns, we provide global solutions to meet foreseen delivery times specified and guarantee an optimal quality and security.

### PREPARATION

- ⊙ Work on routings and part lists of your equipment
- ⊙ Information data base creation
- ⊙ Specific packaging for your gaskets

### DEBRIEFING

- ⊙ Reporting at the end of shutdown
- ⊙ Information data base creation
- ⊙ Part list update

### SITE OPERATION

- ⊙ Shutdown stock management for standard gaskets
- ⊙ Troubleshooting all sealing systems
- ⊙ Cutting and/or storage on site
- ⊙ Technical support for installation (site supervision)
- ⊙ Flange control and/or sealing faces machining on site
- ⊙ Torque, Moment & Axial Load Calculations
- ⊙ Tightening with torque wrench or with tensioners
- ⊙ Sub - contractors' man power training on best practices



## RING TYPE JOINT GASKET

"RTJ" (Ring Type Joint) gaskets are manufactured in accordance with API-6A and ASME B16.20 specifications. RTJs have "R" numbers assigned to them for pipe size and pressure class identification. Stock materials include soft iron, low carbon steel, 4-6 chrome (F5), 304, 304L, 316, 316L, 347, Monel, Inconel, Incoloy, Duplex, Super Duplex etc.



### RING TYPE JOINT - (API RING JOINT GASKETS)

API ring joint gaskets come in two basic types, an oval cross section and an octagonal cross section. These basic shapes are used in pressures up to 10,000 psi. The dimensions are standardized & require specially grooved flanges.

### BX AND RX RING GASKETS

The BX ring gasket differs from the standard oval or octagonal shape in a way that it is square in cross section and tapered in each corner. BX can only be used in API 6BX flanges. RX ring gaskets are similar in shape to the standard octagonal ring joint gasket but their cross section is designed to take advantage of the contained fluid pressure in effecting a seal. They are both made to API 6A specifications.

### SPECIAL RING TYPE JOINT GASKET

For critical and non standard applications, where ring type joints are unsuitable in their standard form, GOODRICH offers a range of specialized ring type joint gaskets to suit the needs of the petrochemical industry.

## SPIRAL WOUND GASKET & LOW STRESS GASKET



Spiral Wound Gaskets are extremely popular and widely used. A spiral wound Gasket is manufactured by spirally winding a preformed metal strip and a filler on the outer periphery of metal winding mandrels. The winding mandrel outside diameter forms the inner diameter of the Gasket and superposed metal and nonmetallic windings are continually wound until the required outer diameter is attained. This engineered product is tailor made to be compatible with the flange closure in which it is to be used.

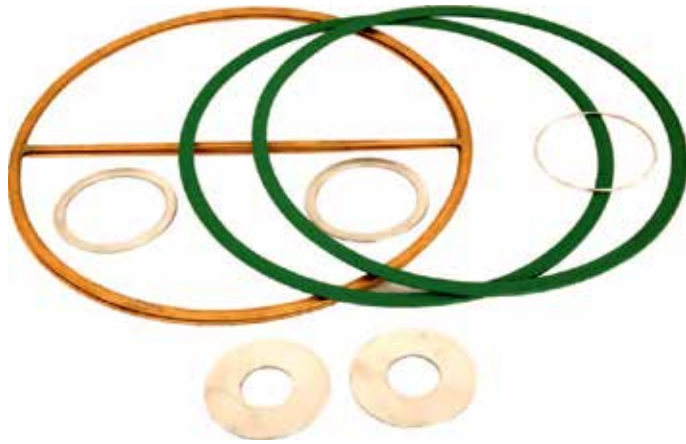
They are more resilient than any other type of metallic Gasket with the exception of pressure sealing metal Gaskets and, as a consequence, can compensate for flange movement that may occur due to temperature gradients, variations of pressure and vibration.

They can be used over the complete temperature range from cryogenic to approximately 2000° degrees Fahrenheit. This type of Gasket can be used in all pressures from vacuum to the standard 2500 PSI flange ratings.





## DOUBLE JACKETED GASKET



A "Heat Exchanger Gasket" is a term that has been given to the gasket that is called out for use in an exchanger. The make up of the gasket or type varies due to the operating conditions of the exchanger. Jacketed gaskets can come in different Types like; double jacket, single jacket. Soft compressible material can be PTFE, Non-Asbestos, Graphite & Ceramic.

### Types of Jacketed Gaskets

- ⦿ Single Jacketed Gasket
- ⦿ Double Jacketed Gasket
- ⦿ Corrugated Metal Jacketed Gasket with Graphite on Top & Bottom

## KAMMPROFILE GASKET

The Kammprofile is the preferred gasket when improved performance at low seating stresses is required. It features excellent anti-blowout properties associated with the reliability of a solid metal-to-metal seal combined with soft sealing face to ensure a tighter joint. Kammprofile is an ideal replacement for problem applications associated with jacketed gaskets.



### IMPROVED PERFORMANCE

- ⦿ Permits a tighter joint under operating conditions.
- ⦿ Results in reduced emissions.
- ⦿ Compensates for fluctuating ranges of temperature & pressures.
- ⦿ Manufactured for all flanges including class 150# to class 2,500# & PN designated flanges.
- ⦿ Easy to install and effortless to remove.
- ⦿ Improves plant efficiency
- ⦿ Maintains a tight seal over variable range of bolt stresses.

### DESIGN FEATURES

- ⦿ Fabricated in nominal pipe size and pressure.
- ⦿ Configured in standard shapes for heat exchanger application.
- ⦿ Available with centering ring for use on raised face flanges.
- ⦿ Metal cores available in soft iron, stainless steel and exotic materials.
- ⦿ Standard surface materials of flexible graphite, nuclear grade graphite or Expanded PTFE.
- ⦿ Low seating stress & Optimum combination of solid core with soft sealing face.



## TANGED GRAPHITE GASKET & SHEETS

Reinforced expanded graphite gasket are punched or cut from pure expanded graphite sheet or reinforced expanded graphite sheet. Reinforced expanded graphite gasket has excellent corrosion resistance, high and low temperature resistance. Reinforced expanded graphite gasket has good compression resilience and high intensity.

Reinforced expanded graphite gasket can be cut into all kinds of circular, complicated geometric expanded graphite cut gasket. Reinforced expanded graphite gasket is widely used in pipe, valve, pump, pressure vessel, thermal exchanger, condenser, engine, air compressor, exhaust tube, refrigerating machine, etc. We offer expanded graphite cut gaskets with SS304 insert, SS304L insert, SS316 insert, SS316L insert, thin plate insert and other inserts.

## FLANGE INSULATING KIT

Insulating sets are essentially used for pipeline flange corrosion protection, where a seal is required between dissimilar flange materials. The use of dissimilar metallic flanges with a conductive gasket material accompanied by a suitable electrolyte may set up a galvanic cell which will corrode the anodic metal. Insulating sets are also used to electrically isolate flange joints, preventing the flow of electrostatic charge along pipeline

Goodrich Gasket offers three standard types of insulating sets to suit raised face, flat face, and ring grooved flanges.

- ⊙ Goodrich Insulation Gaskets Type "F" for Raised Face Flanges
- ⊙ Goodrich Insulation Gaskets Type "E" for Full Face Flanges
- ⊙ Goodrich Insulation Gaskets Type "D" for Ring Joint Gaskets

### FLANGE INSULATING KITS (High Pressure/Low Pressure)

- ⊙ Metallic Core Gasket
- ⊙ API 6 FB Fire Test gasket
- ⊙ PTFE Seal at the bore of the metallic gasket
- ⊙ RTJ Type G10/G11 Insulating Gasket
- ⊙ Nitrile Rubber coated Flange Insulating Gaskets
- ⊙ Viton 'O' Ring / PTFE Spring Energised Insulating Gaskets



## CORRUGATED METALLATIC GASKET WITH FLEXIBLE GRAPHITE/ EXPANDED PTFE

The superior technology of the CORRUGATED family of gaskets ensures excellent sealing performance and reliability, even in the most difficult applications. All the three styles combine a corrugated metal core with a compressible sealing element of various materials, for resistance to a wide range of harsh conditions, including extreme temperature, corrosive chemicals, and thermal cycling.

## PRECISION MACHINE PRODUCTS

We specialize in manufacturing complex gaskets and seals to our customer's designs for use in very demanding sub sea applications. These are produced mainly from exotic alloys including 625, 825 and Monel, and range from 30mm to 750mm in diameter. Typically they will have a variety of complex angles, grooves and good surface finish requirements.

We also specialize in complex machined components to our customer's designs. We work closely with our customers and suppliers to deliver quality, cost effective components on time. We work for a variety of industries including oil and gas, heavy automotive, railway and metal processing. Our modern machine tools are complimented by our CAD/CAM and Factory master production control system.



## NON-ASBESTOS GASKETS & SHEETS



Non Asbestos Gaskets are used as heat exchanger gaskets, compressor and bonnet valve gaskets and in pipe flange applications etc.

Compressed Non Asbestos Fiber Gaskets are circle cut or die cut gaskets from compressed non asbestos jointing, manufactured from carefully picked fiber intimately blended with suitable heat resistant binders and vulcanized into sheets of homogenous compositions and uniform thickness.

## METAL BONDED RUBBER GASKET, 'O' RING & SHEETS

Our range of O rings & gaskets is applied in various sealing mechanisms. This range of products is used for chemicals, centrifugal pumps, generators, cement, marine industry, hydraulic cylinders, pumps, pneumatic applications in earth moving machines. The specifications of the range are provided as follows:

**RANGE FOR 'O' RINGS** : Available in diameter range of 5 mm to 2000 mm and various cross sections.

**RANGE FOR GASKETS** : From 15 NB to 2000 NB and pipe sizes, made from polymer - Natural, Nitrile, EPDM, Neoprene, SBR, Viton, Silicon, Butyl, Lead Free Rubber Grades are also available for Nuclear Applications.

We offer a wide range of elastomeric gaskets which consist of base polymers with the insertion of vulcanizing agents, fillers, pigments and various additives. They have relatively soft compression characteristics, which ensure excellent recovery properties due to their self energizing behaviour.

All our products adhere to the international quality standards and are accredited with several quality certifications. The products are manufactured from premium quality rubber that has excellent elasticity that enables our rubber gaskets to maintain a perfect seal after creating a pressure on the contact surface. These products are available in different sizes and shapes as specified by our esteemed clients.



## MONOLITHIC INSULATING JOINT

Goodrich Gasket manufactures Monolithic Insulating Joints in accordance with the highest technical standards which guarantees that mechanical requirements (torque, traction, bending, etc.) are met for the specific needs of a plant. They are designed according to ASME VIII, Division I

We have the facilities to do, all non-destructive tests like

- ⊙ Hydrostatic Test
- ⊙ Pneumatic Test
- ⊙ Radiographic Test
- ⊙ Ultrasonic Test
- ⊙ Magnetic Particle Test
- ⊙ Penetrant Test
- ⊙ High Voltage Breakdown Test
- ⊙ Electrical Resistance Test
- ⊙ Coating facility is available in house





## PTFE / EXPANDED PTFE GASKETS, PTFE ENVELOPE, SEALS & SHEETS

Goodrich Gasket offer qualitative assortment of Polytetrafluoroethylene (F4, PTFE), which are widely used in national defence, atomic energy, petroleum, wireless, electric machinery and chemical industries etc. Our range has the following

- ⊙ Long term application temperature: 250°C to (-)200°C
- ⊙ Low temperature: Soft even at (-)100°C
- ⊙ Corrosion resistance: Resistant to aqua regia and all organic solvents
- ⊙ Weather resistance: Best aging life in plastic, high lubricants
- ⊙ Smallest coefficient of friction in plastic: 0.04
- ⊙ Adhesion: Smallest surface tension in solid materials, nontoxic & physiologically inert, excellent behaviour of electricity

### EXPANDED PTFE GASKETS

Offering versatility and convenience in the form of a highly conformable flexible strip is the expanded PTFE gasket by Goodrich Gasket Pvt Ltd that is used in non-standard flange applications. It is also a backup sealing option under non availability of conventional gaskets.

Expanded PTFE gaskets are suitable for temperatures ranging up to 250°C and for cryogenic applications like hydraulic systems, water supply systems, ventilation ducts, fan housing, fume ducts, pneumatic systems, engine case doors etc.



### STUDS & NUTS

Goodrich Gasket manufactures B7/2H Studs & Nuts. With proven ability to produce specialty stainless steel fasteners to the customer's unique specifications and drawings, we provide the client with the highest quality products and the best customer service available in the industry.

Goodrich Gasket offers a variety of coating systems for stainless steel fasteners that are specifically selected to meet customer's performance specifications. Coating and plating options include:

- ⊙ Zinc Plating for Standard Products
- ⊙ Xylan Coating for Extreme Heat & Pressure
- ⊙ Cadmium Plating
- ⊙ Other special Coating like PTFE etc for other applications

### PACKING ROPES & RINGS

Goodrich Gasket offers a complete line of high performance packing for pumps, valves, and other rotating equipments.

We also offer packing for special purpose applications such as soot blowers, rotary steam joints, agitators, door seals, and knife gate valves etc.



## PRODUCT RANGE

S.No	DESCRIPTION	SIZE & RANGE	MFG. STD.	LEAD TIME
01	Ring Type Joint Gasket	R11 To R105 (Special Size upto 1.5 Mtrs) All R, BX& RX Sizes	API6A SPEC/API 17D/ ASME B16.20/ CUSTOMER SPEC	4 Weeks
02	Spiral Wound Gasket	½" To 120" (Any Shape, Size & Any Combinations) (Special Size of Any diameter above 120")	API 601/ASME B 16.20/DIN/IS/ CUSTOMER SPEC	4 Weeks
03	Insulating Kit Gasket	½" to 60" (Any material combination)	ASME B16.5 / API / CUSTOMER SPEC	4 Weeks
04	Metal Jacketed & Heat Exchanger Gasket	½" To 200" (Any Shape, Size & Any Combinations)	ASME B16.20/API 601/DIN/IS/CUSTOMER SPEC	4 Weeks
05	Metal 'O' Ring	Upto 60" (Special Size of Any diameter above 60")	CUSTOMER SPEC	4 Weeks
06	Soft Cut Gasket & Sheets (Asbestos & Non-Asbestos)	Upto 200" (Any Shape, Size & Any Combinations)	ASME B16.21 /DIN/IS/AWWA/BS4504/ CUSTOMER SPEC	4 Weeks
07	Non Metallic Gaskets Including PTFE, Graphite, Rubber, Cork, Ceramic, Glass Fiber, Gland packing Ropes Etc.	Upto 200" (Any Shape, Size & Any Combinations)	ASME B16.21 /DIN/IS/AWWA/BS4504/ CUSTOMER SPEC	4 Weeks
08	Kammprofile Gasket	½" TO 120" (Special Size of Any diameter above 120")	ASME B16.5/DIN/ CUSTOMER SPEC	4 Weeks
09	Flat & Serrated Metal Gasket	½" TO 120" (Special Size of Any diameter above 120")	ASME B16.5/DIN/ CUSTOMER SPEC	4 Weeks
10	Lens Gasket With Cladding & Without Cladding	Max Upto 1.5 Mtr (Any Shape, Size & Any Combinations)	DIN/ CUSTOMER SPEC	4 Weeks
11	Pressure Seat Rings	Max upto 1.5 Mtr (Any Shape, Size & Any Combinations)	ASME B16.21/DIN/IS/ CUSTOMER SPEC	4 Weeks
12	Composite, Ferrule & Envelope Gasket	Upto 120"	CUSTOMER DESIGN SPEC	4 Weeks
13	Seat Ring (Forged, Stellite & Machined) in Soft Iron, Carbon Steel, Stainless Steel & All Special Alloys)	Upto 1.5 mtr. (Any Shape, Size & Any Combinations)	CUSTOMER DESIGN SPEC	4 Weeks
14	Self Centering Ring of Soft Iron with Silver Coating used in TOA Valve	½" TO 60" (Special Size of Any diameter above 60") (Any Shape, Size & Any Combinations)	CUSTOMER DESIGN SPEC	4 Weeks
15	Body Retainer Rings (Forged & Machined) in Soft Iron, Carbon Steel, Stainless Steel & All Special Alloys)	½" TO 60" (Special Size of Any diameter above 60")	CUSTOMER DESIGN SPEC	4 Weeks
16	Non-Asbestos & Asbestos Sheet	Standard Sheet Size	ALL GRADES	4 Weeks
17	Monolithic Insulating Joint	From 2" TO 48"	AS PER CUSTOMER SPEC & ASME	4 Weeks



# PLANT TOUR



## VALUED CUSTOMERS



## MAJOR CUSTOMER REFERENCE LIST

- ABAN
- ADANI GROUP
- ADNOC
- AIR LIQUID
- ALFA LAVAL
- ALSTOM
- ARMSTRONG
- AUDCO
- BECHTEL
- BG EXPLORATION
- BHEL
- BPCL
- CAIRN
- CAMERON
- CCI
- CIRCOR
- CPCL
- DOAE
- DOOSHAN
- DRESSER
- EIL
- EMERSON
- EOL
- ESSAR PROJECTS
- FERNAS
- FLOWSERVE
- FMC
- FOSTER WHEELER
- GAIL
- GASCO
- GNFC
- GSFC
- GUJARAT GAS
- HARDY EXPLORATION
- HAZIRA - LNG
- HMEL - MITTAL ENERGY
- HPCL
- HPL
- IFFCO
- INDCON
- IOCL
- ISRO
- JACOBS
- JOHN ENERGY
- JSW
- KAZSTROY
- KRIBHCO
- L&T VALDEL
- L&T-ECC
- LURGI
- MCC PTA
- MECON
- METSO
- MITSUBISHI
- NAFTOGAS
- NLC
- NPCIL
- NSSL
- NTPC
- ONGC OFFSHORE
- ONGC PROCESS
- PLANTS
- PDIL
- PDO
- PETRON
- PETRONET
- PUNJ LLOYDS
- RELIANCE
- SAIL
- SAIPEM
- SAMSUNG
- SAUDI ARAMCO
- SCHLUMBERGER
- SHELL
- SPIC
- TCE
- TECHNIMONT
- TECHNIP
- TEMA
- THERMAX
- TOYO
- TPL
- TRACTEBEL
- TYCO
- UHDE
- VATECH
- VIRGO
- WOM
- WOOD GROUP







- ⊙ Australia
- ⊙ Bahrain
- ⊙ Brasil
- ⊙ Brunei
- ⊙ Canada
- ⊙ Chile
- ⊙ Czech Republic
- ⊙ Egypt
- ⊙ France
- ⊙ Germany
- ⊙ Indonesia
- ⊙ Iraq
- ⊙ Japan
- ⊙ Kazakhstan
- ⊙ Kenya
- ⊙ Korea
- ⊙ Kuwait
- ⊙ Libya
- ⊙ Malaysia
- ⊙ Mexico
- ⊙ Nigeria
- ⊙ Norway
- ⊙ Oman
- ⊙ Poland
- ⊙ Qatar
- ⊙ Saudi Arabia
- ⊙ Singapore
- ⊙ South Africa
- ⊙ Thailand
- ⊙ Turkey
- ⊙ UAE
- ⊙ UK
- ⊙ USA
- ⊙ Venezuela

## Ask the EXPERT

When you contact Goodrich Gaskets for your sealing issue, you access all experience and expertise of our teams for:

- ⊙ Specification and advise on the best products and solutions
- ⊙ Gaskets manufacturing and cutting.
- ⊙ Shutdown management
- ⊙ Engineering and technical expertise
- ⊙ New products development
- ⊙ Technical awareness and people training

Our technical expertise & experience in the most critical process industries in India & Abroad enables us to provide you the most adaptive products for your needs in critical and severe environments: high temperature, high pressure and corrosive environment.







## GOODRICH GASKET PRIVATE LIMITED.

### LOCATED AT

#### CORPORATE OFFICE

58, Hunter's Road, Vepery,  
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