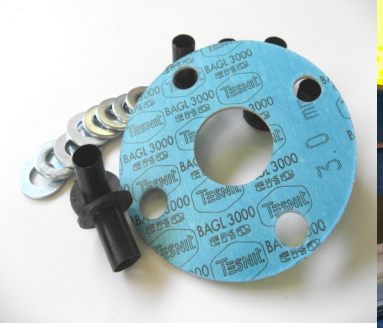
IG INDUSTRIAL GASKETS

Quality In Gasket and Sealing Technology



Certified System™

Quality
ISO 9001

SAI GLOBAL

INDUSTRIAL GASKETS

Industrial Gaskets is 100% Australian Owned and Operated.

Industrial Gaskets has been supplying High Quality Sealing products to an extensive variety of industries Australia wide at competitive prices for over 30 years.

We aim to make dealing with Industrial Gaskets as easy as possible. We have a team of highly experienced personnel who are able to offer advice on applications and help you with solutions.

As a commitment to providing quality service and products, Industrial Gaskets is a Quality Endorsed and Certified company to the ISO9001 system.

At Industrial Gaskets we are Proud of our Reputation for Service, Cost Effective Problem Solving, Well Recognised Quality and Pricing.

Our friendly, efficient sales team are ready to accept your orders, deal with your technical queries and assist with other problems or challenges that you may have with your application.

Please also visit our website at www.industrialgaskets.com.au for further technical information on our extensive product range.

Sales Enquiries Email: sales@industrialgaskets.com.au

Or call (08) 8276 4140 / Fax (08) 8357 4667

Unit 2 / 4 Iris Street, Melrose Park, South Australia

Contents

Contents Continued

Donit Application Engineering Software

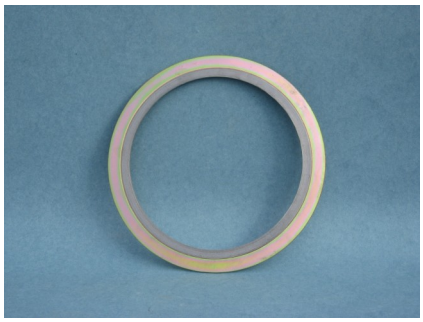
Donit calculation programs have been developed as a user-friendly package to assist our customers in the selection and installation of Donit Tesnit gasket products.

A comprehensive software that provides

- Selection of Gasket Material
- Suitability of Gasket Material for application
- Bolt Torque calculation
- Conversion Factors

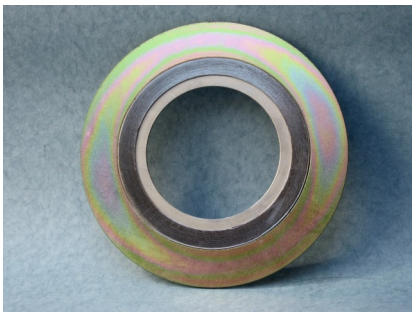
Industrial Gaskets reserves the right to change or modify any of its products, no liability is entered into or given on any of the data provided. Consultation of a technician should be sought if in any doubt .

Spiral Wound Gasket Styles
“SWG” or “SPWD”



IG Style 234 or “CG”

An integral centering ring (or guide ring) assures fast, accurate centering of the gasket on the flange.
It also acts as a compression limiter to prevent over compression of the winding （or sealing face ） of the gasket.



IG Style 1234 or “CGIR”

This style has an outer ring, windings （sealing element ） and inner ring.
Recommended for higher pressure applications and where specifying PTFE filler material.
Inner Ring also acts as a compression limiter, prevents inward buckling at the windings and provides protection of the windings from process media.

IG Style 24 or “R”

Windings （or sealing element ） only. This style is a V Shaped metal strip wound with a filler.
The filler is commonly Graphite.
Typically used in tongue and groove, male-female, valve bonnet and OEM applications.

IG Style 123 or “RIR”

This style is a V Shaped metal strip wound with a filler Windings （or sealing element ） with an Inner Ring.
Typically used to protect windings （sealing face ） against media and pressure.

Please contact our sales team for further information and technical advice.

Metal & Filler Material Limits For Spiral Wound Gaskets

INDUSTRIAL GASKETS

Temperature Limits for Common Materials

Material	Lower Limit °F	Lower Limit °C	Upper Limit °F	Upper Limit °C	Abbreviation	Guide Ring Colour Code
304 Stainless Steel	-320	-195	1400	760	304	Yellow
316L Stainless Steel	-150	-100	1400	760	316L	Green
321 Stainless Steel	-320	-195	1400	760	321	Turquoise
347 Stainless Steel	-320	-195	1700	925	347	Blue
Carbon Steel	-40	-40	1000	540	CRS	Silver
Alloy 20 (20Cb-3)	-300	-185	1400	760	A-20	Black
Hastelloy C276	-300	-185	2000	1090	HAST C	Beige
Hastelloy B2	-300	-185	2000	1090	HAST B	Brown
Incoloy 800	-150	-100	1600	870	IN800	White
Inconel 600	-150	-100	2000	1090	INC600	Gold
Inconel 750	-150	-100	2000	1090	INX	No Colour
Monel 400	-200	-150	1500	820	MON	Orange
Nickel 200	-320	-195	1400	760	NI	Red
Titanium	-320	-195	2000	1090	TI	Purple

Temperature Limits for Filler Materials

Material	Lower Limit °F	Lower Limit °C	Upper Limit °F	Upper Limit °C	Abbreviation	Guide Ring Colour Code
Ceramic	-350	-212	2000	1090	CER	Light Green
Flexible Graphite	-350	-212	950	510	FG	Grey
PTFE	-400	-240	500	230	PTFE	White
Mica Graphite	-350	-212	600	345	VC	Pink

Please contact our sales team for further information and technical advice.

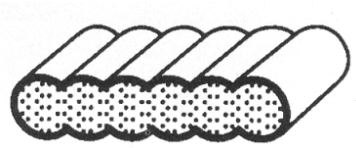
Industrial Gaskets — sales@industrialgaskets.com.au

Metal Jacketed Gaskets

Metal Jacketed gaskets are manufactured in many sizes and styles.
They consist of a metal cover with a softer material filler.
The sealing filler provides resilience while the metal jacket offers good sealing properties and protects the filler against pressure conditions, corrosion and temperature fluctuations.

Double Jacketed Corrugated

This gasket employs a corrugated jacket to increase resilience. Suited for circular and non – circular applications in widths of 3/8 ” and wider. It is an improvement over the standard double jacketed gasket. If slight leakage should occur across the primary seal at the inner edge of the gasket, the concentric corrugations act as a labyrinth seal.



MC—1

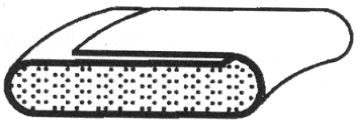
Corrugated Solid Metal

A plain all metal corrugated gasket for use in low pressure applications that require a thin line contact because of space or weight limitations.
Corrugated gaskets are a versatile sealing element where the available bolt loads are low. Depending on the materials and the construction these gaskets can be very resilient.

MC—2

Single Jacketed Overlap

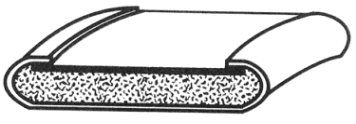
Constructions of this gasket offers more filler protection than the standard single jacketed design. It is especially useful for applications where the radial dimensions do not allow space for a double jacketed gaskets.



MC—3

Double Jacketed

The double jacketed gasket has good compressibility and resilience and is the most popular clad gasket manufactured.



MC—4

Shown above are just 4 of the most popular cross sections of gasket styles. Many more are available as a large range of materials and fillers. Please contact our sales team for further configurations

Please contact our sales team for further information and technical advice.

Kamprofile Gaskets

Kamprofile gaskets offer a safe, effective seal under the most exacting conditions on both standard pipework and specialist applications. It offers excellent flexibility and recovery characteristics, allowing seal integrity under pressure and temperature fluctuations, temperature differential across the flange face, flange rotation, bolt stress relaxation and creep.

The Kamprofile is comprised of concentrically serrated solid metal core with a soft, conformable sealing material bonded to each face. The soft facing material provides low stress gasket seating, while the serrated geometry of the metal core enhances sealing performance by inducing stress concentrations on the sealing surfaces. The serrations minimize lateral movement of the facing material, while the metal core provides rigidity and blowout resistance.

Key Benefits include:

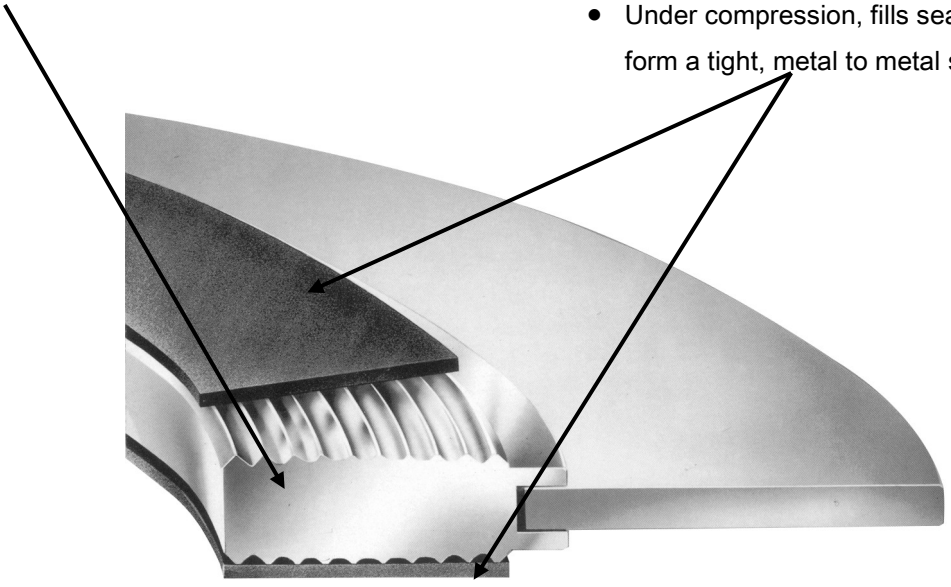
⇒ Gasket will not damage the flange surface and can be easily removed.
⇒ Reduced maintenance costs due to longevity of gasket and increase reliability.
⇒ Seals damaged and imperfect flanges.
⇒ Handles pressures from Vacuum to Class 2500
⇒ Accommodates all standard ASME flanges as well as non standard sealing faces.
⇒ Withstands temperatures from cryogenic to 1090°C (depending on sealing material or metal)

Serrated Solid Metal Core

- Solid Metal core resists cold flow, overcompression and blow out.
- Facilitates handling and installation.
- Available in wide variety of materials including Stainless Steel, Titanium, Soft Iron, Monel, Incolloy & Hastalloy.
- Rigid core provides superior stability even in larger sizes.

Deformable, Softer Sealing Material

- Seals under low stress, ideal for delicate flanges.
- Withstands extreme fluctuations in temperatures & pressures.
- Available in wide variety of materials including Graphite, Mica, PTFE (Teflon), Compressed Fibre or Metal (eg Aluminium).
- Under compression, fills seating surface imperfections to form a tight, metal to metal seal.

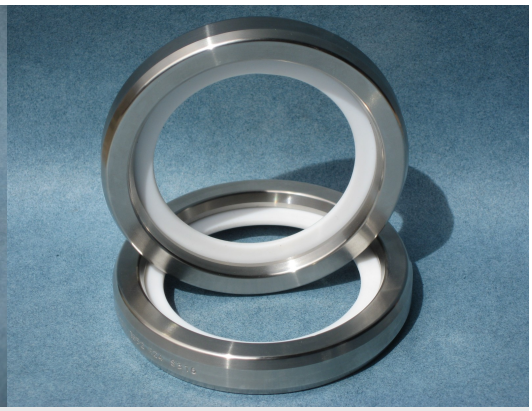


Please contact our sales team for further information and technical advice.

Ring Joint Gaskets “RTJ’s”

Introduction





Ring Type Joint Gaskets or “RTJ’s as they are commonly known are metallic sealing rings suitable for high temperature and pressure applications and are fitted in ring groove type flange applications. They are widely used in the oil/gas (onshore & offshore), petrochemical industries and in valve and pipework. Choice of material may be determined to suit higher temperatures and aggressive media. They comply with ASME B16.20 standards and API 6A specification. Industrial Gaskets only supplies Ring Type Joint Gaskets that are API approved and Certified.

Ring joint gaskets are commonly made out of the following materials:

Soft Iron / Low Carbon Steel / Stainless Steel / Monel® / Inconel® / Incoloy® / Hastelloy® / Duplex
The gasket material should be selected to suit the service conditions. It is always recommended that the gasket material be softer than the mating flanges.

Each Ring Type Joint is identified by low stress stamping with style, ring number, API license number, material reference, month and year of manufacture and unique Industrial Gaskets material identification number.

In accordance with API Specifications, soft iron and low carbon steel Ring Type Joints are protected with electroplated zinc to a maximum thickness of 8µm. Alternative material coatings can be supplied on request.

Cross Section / Styles

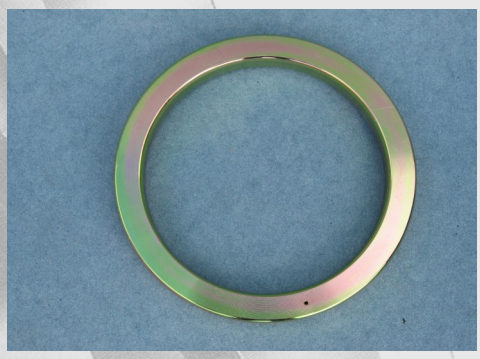
- **R** Oval or octagonal style of gasket
- **RX** Self-energizing style of gasket
- **BX** Used in API spec 6A flanges that have ring grooves machined into them to accept this style of gasket
- **SRX** Similar to the RX style gasket with special vent holes to allow water to escape in subsea applications
- **SBX** Similar to the BX style gasket with special vent holes to allow water to escape in subsea applications
- **Combo** Consists of two different sizes having the same pitch. Used where mating flanges have different groove dimensions

Please contact our sales team for further information and technical advice.

Ring Joint Gaskets “RTJ’s”
Sizes / Styles

R-Type ring gasket can be ordered to two different profiles, oval or octagonal in cross-sections. Both types have identical pitch diameter as the flange groove they correspond to. These gaskets are used in pressures up to 10,000 PSI. The octagonal type has a higher sealing coefficient than the oval, therefore being the better gasket of the two. The oval type is the only gasket that will fit a bottom radius groove. Newer style flanges with flat bottom v-grooves will accept either style.

RX gaskets are designed for pressures up to 15,000 PSI. These gaskets are interchangeable with r-oval or r-octagonal rings used on API 6B flanges. RX types of gaskets are more costly than your standard oval or octagonal rings, therefore not as popular. RX type gaskets perform excellent in 6B flanged blowout preventer stacks, which requires the additional mass of the RX gasket to support the higher pressures with higher vibrations and heavier weights of these units.



Although similar in style to the octagonal gaskets, the **BX Series** can only be used with 6BX flanges and 16BX hubs. BX-Gaskets have been designed for higher-pressure ratings starting at 5,000 lbs. and ending with 20,000 lbs. Pitch diameters on BX gaskets are slightly larger than the pitch diameter of the flange. This forces the gasket to initially seal on its outside angles and secondly seal with its inside angles as the flange is bolted down to respective torque settings.

The American Petroleum has standardized the underwater utilization of ring gaskets with the **SRX and the SBX series** rings. There is no dimensional difference between the standard RX and SRX or the BX and SBX. They will fit into their appropriate flange designated numbers. The "S" prefix identifies a gasket as having intersecting vent holes, allowing a pressure less metal-to-metal initial contact between the gasket and flange groove, while made up underwater. For pressure class ratings on these gaskets refer back to their non "S" type standard gasket classification chart for the RX and BX-Series.

Please contact our sales team for further information and technical advice.

Ring Joint Gaskets “RTJ’s”
Specialty Coatings

RUBBER COATED RING TYPE JOINTS

This is a Ring Type Joint totally enclosed in a Nitrile rubber coating. The RTJ material is usually soft iron or low carbon steel. This type of gasket has three main functions:

• It is used in pressure testing to minimise damage to flanges.

• The rubber contact points provide additional seals while protecting the flange surfaces.

• It provides increased assurance against corrosion, which can occur between conventional Ring Type Joints and the engaged surfaces of the groove.

PTFE COATED RING TYPE JOINTS

This is a Ring Type Joint totally enclosed in a PTFE coating. The RTJ material is usually soft iron or low carbon steel. This type of gasket is predominately used in aggressive media applications. Coating can be in various colours eg blue or green for ease of identification on site.

RING TYPE JOINTS WITH PTFE INSERTS

Ring Type Joints can also be supplied with PTFE inserts, in order to reduce turbulent flow and eliminate gasket/flange erosion. The insert is specially designed with radially drilled pressure passage holes so that the self energising performance of the Ring Joint is not impaired.

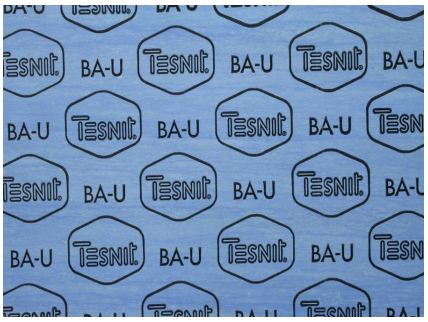
The insert is located between the inside diameter of the Ring Type Joint and the bore of the flange. On assembly, the insert is completely trapped between the make up of the flanges, filling the annular space between the flange bore and gasket.

Please contact our sales team for further information and technical advice.

Gasket Sheeting - Compressed Fibre

Compressed Fibre Materials

Industrial Gaskets can offer an extensive range of Gasket Sheeting to suit your specific requirements. From basic oil jointing material and compressed fibre sheeting through to Graphite reinforced and High Temperature sheeting. Industrial Gaskets has an extensive range of gasket materials that will conform to your specifications. Some of our most popular sheeting products are shown below. Industrial Gaskets is proud to be an Authorised Distributor of the Tesnit® range of gasket materials. Through this agreement Industrial Gaskets can offer Quality gasket sheet with an extensive range of approvals and international endorsements.



TESNIT® BA-U

TESNIT® BA-U is very applicable on aramid fibres based gasketing material and high resistant NBR - nitrile butadiene rubber. Material has excellent chemical resistance, good mechanical and thermal properties. TESNIT® BA-U has application in many different industries: Food industry, Gas supply, Potable water supply（Approved to AS/NZ4020）, Compressors and many more.

TESNIT® BAGL3000

TESNIT BAGL 3000 is a supreme fibre gasket material produced from a combination of aramid and glass fibres, specially selected fillers and elastomeric binders. With a well considered selection of all ingredients the material is free of harmful nitrosoamines（certified by MRPRA）and fibres which are hazardous to human health. Its carefully balanced composition provides exceptional thermal stability and torque retention when applied in flanged joints.

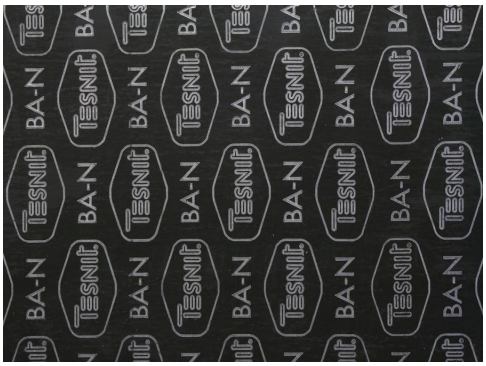
TESNIT® BA-C

TESNIT® BA-C is specially developed soft gasket material for the chemical industry. It is a sealing material based on aramid fibres and CSM rubber. The material has very good resistance to acids and alkaline media. It is also very convenient for the different aggressive media. TESNIT® BA-C finds the application in all places where the chemical resistance is the most demanding factor. Gasket material with very good resistance to acids and alkaline media.

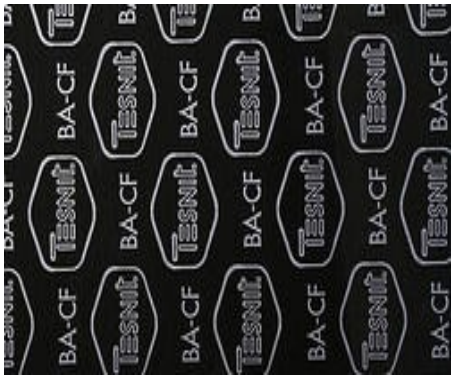
Please contact our sales team for further information and technical advice.

Gasket Sheeting - Compressed Fibre Continued

TESNIT® BA-N



TESNIT® BA-N consists of aramid fibres and CR Chloroprene rubber, so the material is specially suitable for the different media in the refrigeration industry. TESNIT® BA-N has in addition very good mechanical properties and thermal resistance which in combination with good general chemical resistance makes the material TESNIT® BA-N also very appropriate for the general application. A gasket material with extremely good resistance to cooling media.



TESNIT® BA-CF

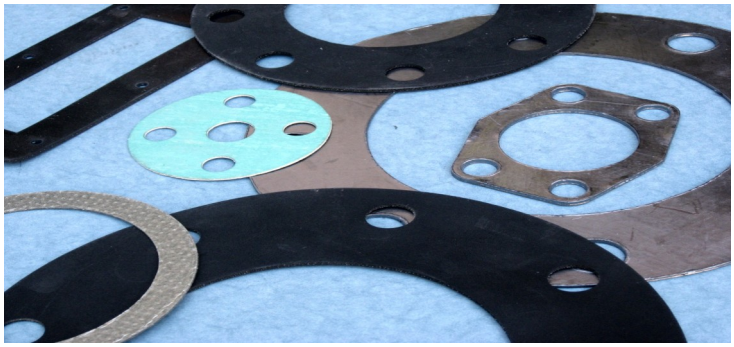
TESNIT® BA-CF is a high grade soft gasketing material based on Carbon fibres and bonded with NBR. Material has excellent resistance to steam and strong alkaline media. It is widely used in chemical and petrochemical industry. Gasket material with excellent resistance against steam and strong alkalies. Material also complies with the requirements of BS 7531 Grade X. Specially designed gasketing material TESNIT® BA-CF is the answer to the growing demands many of aggressive chemicals.

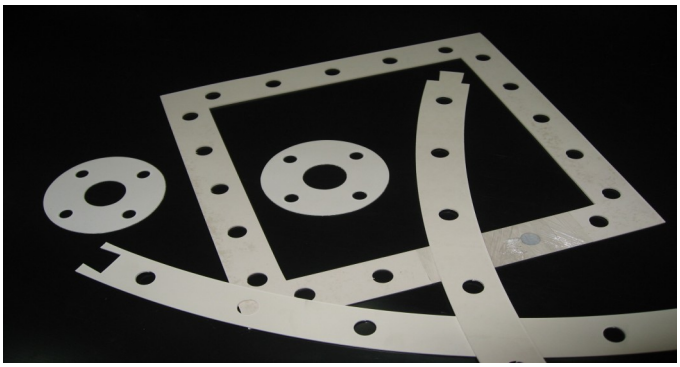
MP4430

MP4430 is a compressed proprietary fibre sheet, combining aramid fibres and a NBR binder. A good and reliable general purpose, high temperature and pressure sheet. Has superior sealability with excellent oil resistance. Water treatment plants, chilled and cold water lines / hot water and service steam, oil, fuel and alcohols / compressed air, gases (inc oxygen), moderate organic & inorganic acids.

For a more comprehensive range of sheet gasket materials please contact us

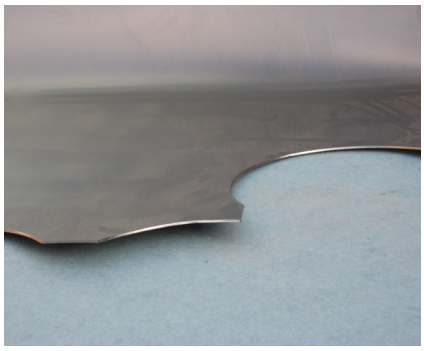
All of Industrial Gaskets' sheeting material is available in sheet form, cut to size or to suit your design specifications





Please contact our sales team for further information

Gasket Sheet - High Temperature

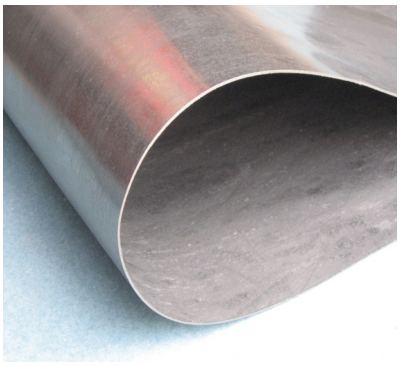


GraphFoil

GraphFoil is a graphite sheet with stainless steel foil insertion adhesive. Purity 99.8%. Chemical resistance is excellent with graphite sheet due to wide pH range. Compressibility is high, as the compatibility to conform easily to irregular sealing surfaces. Good resistance to sudden changes of temperature. High resistance to media, particularly corrosive substances and chemicals. Excellent for steam applications. Available in 304 Stainless Steel and 316 Stainless Steel insertions

GraphTang

GraphTang is a graphite sheet with stainless steel tanged insertion. Purity 99.8%. Chemical resistance is excellent with graphite sheet due to wide pH range. Compressibility is high, as the compatibility to conform easily to irregular sealing surfaces. Good resistance to sudden changes of temperature. High resistance to media, particularly corrosive substances and chemicals. Available in 304 Stainless Steel and 316 Stainless Steel insertions. A sturdy gasket material with excellent mechanical strength.



GraphTek 5130

GraphTek5130 is a compressed proprietary fibre sheet, combining a high percentage of graphite, reinforced with aramid fibres and a NBR binder. An excellent gasket sheet for high temperature and pressure. It is produced under high load which ensures the material has very low gas leakage. Because of low tensile strength and low gas tightness, GraphTek5130 is much more restricted in application.

Micalit®

MICALIT is suitable for applications where temperatures of up to 1000°C can be reached. It is made from mica paper impregnated with a silicone binder. Mica is an aluminosilicate with lamellar, nonfibrous structure.
Beside high temperature resistance, it also features a high chemical resistance to almost all media (exceptions are strong oxidizing chemicals). Mainly used in hot dry gas applications such as Exhaust Manifolds, Gas Turbines, Heat Exchangers and Industrial Burners. Micalit is a material with high chemical and temperature resistance (up to 1000°C).

For a more comprehensive range of sheet gasket materials please contact us

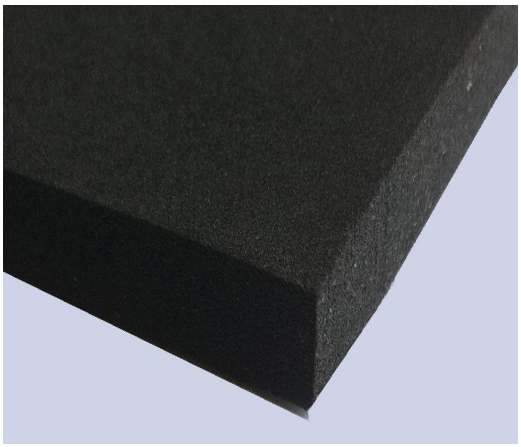
Please contact our sales team for further information and technical advice.

Gasket Sheet -
Other Cork / Sponge Foam

Cork Sheet

Cork Sheet material is manufactured with NBR binders. One of the main applications is transformers in the power service. It has a high compressibility and moderate resistance to most oils. Ideal where light bolt loads only are available and pressures are low. Pressed steel flanges and uneven surfaces are easily sealed due to the high deformation of the cork. Operating temperature of 120°C.

Neoprene Sponge Foam Sheet



Neoprene Sponge is an airtight and waterproof sponge which displays very good resistance to ageing, oil, alkalis, acids, solvents and a range of chemicals.

Neoprene Sponge is a good general purpose material for seals, cushions and insulation.

It is an excellent gasket material where long term sealing and moderate compression recovery is required.

Available in thicknesses from 1.5mm to 40mm
Available in Sheet / Strips / Tape / Cut to specifications

EPDM Sponge Foam Sheet

EPDM Closed Cell Sponge has excellent weathering ability with superior resistance to UV, ozone and oxidation. It also has good resistance to oil, ageing, solvents and many other chemicals.

EPDM Sponge is a good general purpose material for seals, cushions and insulation in outdoor applications.

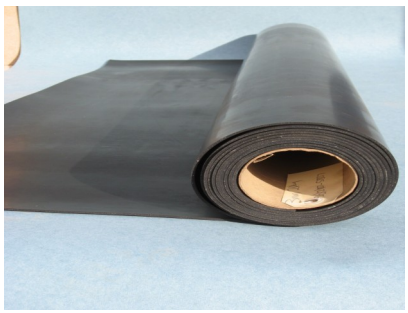
It is an excellent gasket material where long term sealing and moderate compression recovery is required.

Available in thicknesses from 1.5mm to 40mm
Available in Sheet / Strips / Tape / Cut to specifications

Please contact our sales team for further information and technical advice.

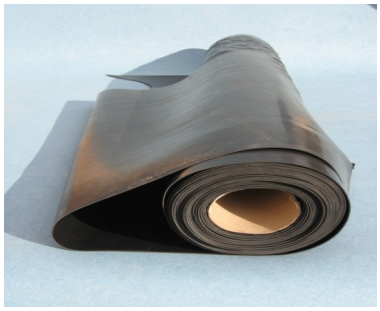
Rubber and Elastomers

Industrial Gaskets stocks an extensive range of rubber sheeting. It can be supplied by the metre, in rolls or cut to specific requirements including standard gaskets. Rubber / Elastomers are used across a broad range of industries and are the most cost-effective material to use where temperatures and pressures are low and the chemical environment is mild. Cloth inserted materials are better able to handle movement and high compression loads.



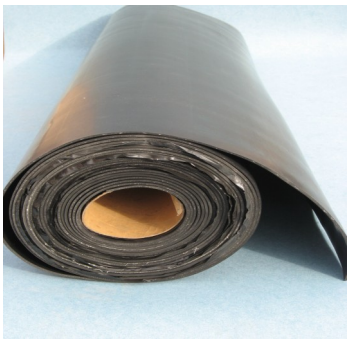
Natural Rubber

Natural Rubber has good all round properties including resistance to abrasion. It has relatively low resistance to temperature and petroleum based fluids. It has excellent mechanical properties, good ozone, acid and alkali resistance, but not adequate for use with oils and solvents. It is available with 1Ply or 2 Ply cotton or nylon insertions for reinforcement.



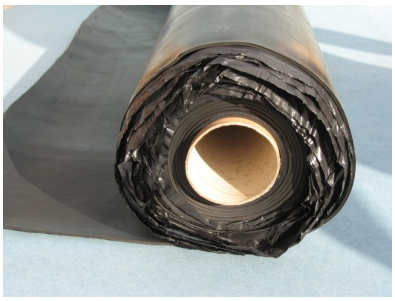
EPDM Rubber

A fully synthetic rubber made from 100% EPDM Polymer. It also has basic resistance to some chemicals and acids. EPDM rubber has good ozone, weathering and temperature resistance. It is used for sealing against diluted and highly concentrated acids and lyes. Available in Potable Water Certified to AS/NZS4020 drinking water standards.



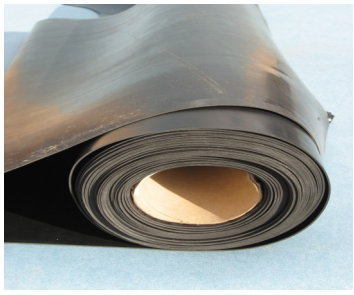
Neoprene Rubber

Neoprene is a chloroprene rubber jointing sheet, both sides smooth. It has good weathering and heat resistance and good mechanical properties. It is available with 1 ply cotton reinforcement for standard applications or a high strength nylon where extra tear resistance is required. It has excellent resistance to ageing, seawater and to all meteorological conditions. It has excellent resistance to alcohol, alkali and acid (both dilute and concentrate). Great dielectric strength for use in flange insulation.



Nitrile (Buna-N) Rubber

A fully synthetic rubber made from 100% Nitrile Rubber which has excellent resistance to petroleum based fluids and aromatics. Nitrile Rubber is suitable for sealing against oil, gasoline and gas. It ages moderately well. It also has good mechanical properties, like traction, compression and impermability to gases.

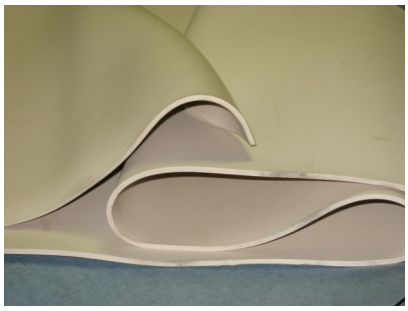


Viton Rubber

Viton is a high grade fully synthetic fluoroelastomer. Of all synthetic rubber types, Viton is the most resistant to hydrocarbons. It is non ageing and has good mechanical properties. Viton is resistant to chemicals and useful for sealing against acids and lyes of any concentration, solvents, aliphatics and aromatic hydrocarbons, Freon 12, oils and fats and gasoline. It has excellent resistance to weathering and ozone.

Please contact our sales team for further information and technical advice.

Rubber and Elastomers Continued



White Nitrile（Hygienic）Rubber

A high grade natural rubber with good all round properties, including resistance to abrasion. Available with no insertion or 1 ply or 2 ply insertions. Meets with requirements of FDA Part 177, making it suitable for use in food manufacturing and h andling applications. Can also be used in flange isolation.

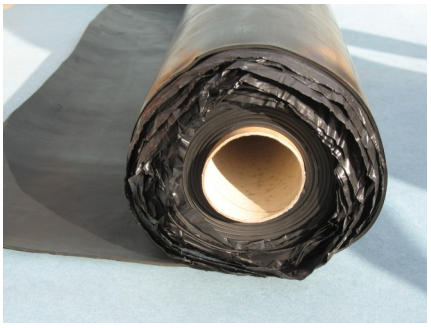
Silicone Rubber

Silicone Rubber is extremely resilient, totally synthetic rubber available in a wide range of colours. The material does not impart taste or smell and has excellent antiageing properties . Silicone displays excellent resistance to heat, weathering, ozone and a wide range of chemicals. It is impervious to UV light, is non toxic, chemically inert and will retain its flexibility and properties over a wide temperature range. Meets the requirements of FDA making it suitable for use in food manufacturing and handling applications.

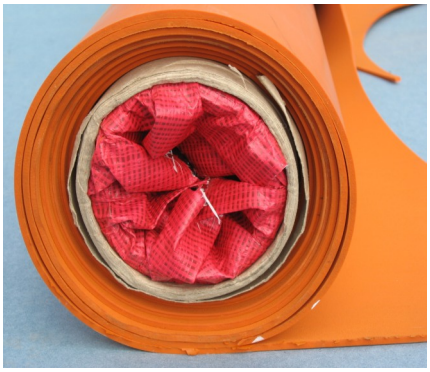
Hypalon Rubber

Hypalon is a synthetic rubber made from 100% Hypalon Polymer. It is non-ageing and has good mechanical properties. Hypalon has outstanding resistance to most chemicals, oils and heat. It has high abrasion, ozone and weather resistance. It also has excellent tensile strength and elongation.

Butyl Rubber



Butyl Rubber is a fully synthetic rubber made from 100% Bromo Butyl Polymer. Butyl Rubber has excellent chemical and heat resistance with low permeability to air and good weathering properties. It has however poor resistance to petroleum based fluids. It has high resistance to permeation.



Linatrile® Rubber

Linatrile® is a Nitrile（NBR） based vulcanizate reinforced with silica fillers. It is a specially blended rubber formulated specifically to give good abrasion resistance in the presence of oils and chemicals. Its features include excellent resistance to mineral/vegetable oils, greases, aliphatic hydrocarbons and other chemicals. Excellent high temperature, thermal aging and fatigue properties. Good resistance to wear with a low permeability to gases. Orange in colour for easy identification.

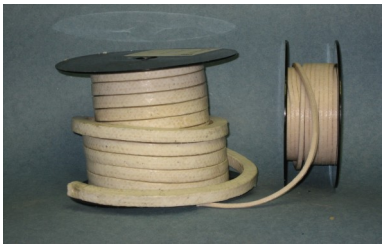
For a more comprehensive range of rubber materials please contact us

Please contact our sales team for further information and technical advice.

Valve & Pump Packing

Industrial Gaskets offers an extensive range of Valve & Pump Gland Packing to suit all applications.

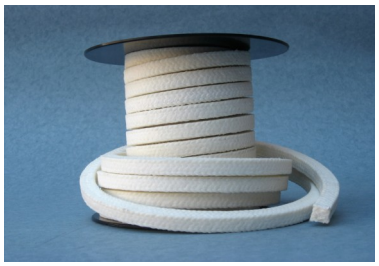
The most popular styles of packing are shown below.



MP1890F

MP1890F is a long ramie fibre which is square and thoroughly impregnated with mineral grease and PTFE (or tallow) to make the packing pliable and resilient. A very white packing suited to use in the mid range of pH. Services-Pumps, Valves, plungers to seal hot and cold water, brine, especially suited for marine use.

Construction	Inter-braided
pH Value	5 – 9
Temperature	-50˚C to 140˚C
Pressure	150Psi (1050Kpa)
Speed	2000 FPM (10m/sec)



MP4130

MP4130 is a pure PTFE fibre inter-braided into a deformable square packing. A clean packing capable of handling the full pH range. It remains soft and flexible throughout service with negligible water absorption. Conforms to FDA requirements. Also available Lubricated (L) with silicon oil to enhance pump start up . Services-Pumps and Valves in strong acid & alkali services.

Construction	Inter-braided
pH Value	0 – 14
Temperature	-268˚C to +260˚C
Pressure	500Psi (3500Kpa)
Speed	1575 FPM (8m/sec)

MP1900

MP1900 is manufactured using synthetic fibres lattice braided for greater strength, lubricated throughout with PTFE. This packing has high strength and impact resistance. An ideal replacement for asbestos. Services-Pumps & Valves both centrifugal and reciprocating.

Construction	Polyacrylonitrile Filament Lattice braid
pH Value	2 – 12 (except strong oxidizers)
Temperature	-100˚C to +250˚C
Pressure	3000Psi (20684Kpa) static seal
Speed	2360 FPM (12m/sec)

MP4140

MP4140 is a virgin PTFE fibre yarn heavily impregnated with ultra pure graphite powder and lubricated with an inert lubrication. This fibre is commonly known in industry as GFO. This fibre is noted for its low coefficient of friction. Services-Rotary & Reciprocating Pumps, Mixers, Blenders, Agitators, Valves.

Construction	Inter-braided
pH Value	0–14 (except strong oxidizers)
Temperature	-200˚C to 280˚C
Pressure	1900Psi (13,100Kpa)
Speed	2500 FPM (12.5m/sec)

Please contact our sales team for further information and technical advice.

Valve & Pump Packing Continued

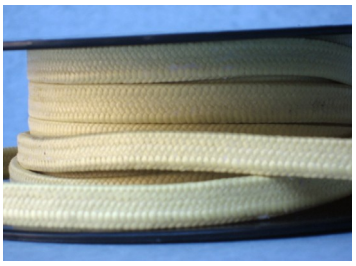
Industrial Gaskets offers an extensive range of Valve & Pump Gland Packing to suit all applications.

The most popular styles of packing are shown below.

MP4168

MP4168 is a unique packing with the strength of Kevlar® and excellent running qualities of GFO. Built to resist extrusion at elevated pressures, with minimal shaft wear, attributed to the pure Kevlar® (aramid yarn). Services-Digester pumps, chemical pumps, mixers, slurry pump, particularly suitable for pulp & paper and sugar industry.

Construction	Inter-braided
pH Value	2 – 13
Temperature	-110˚C to 260˚C
Pressure	300 Psi (2100 Kpa)
Speed	2250 FPM (11.25m/sec)



MP4188

MP4188 is an Aramid fibre (Kevlar®) impregnated with PTFE and break in lubricant. Kevlar® has a reputation of lasting under the toughest of applications. One of its features is high (excellent) abrasion resistance. Services-Extreme service in slurries, water, steam, oils, brine, many solvents, mild acids & caustics. Suited to pulp, paper & sugar industries.

Construction	Inter-braided
pH Value	3 – 11
Temperature	-268˚C to +260˚C
Pressure	5000Psi (3500Kpa)
Speed	2500 FPM (12m/sec)

MP1840

MP1840 is a tough low abrasion carbon fibre packing impregnated with PTFE. This packing was developed for long service against strong caustics, acids, slurries and any application where contamination is prohibited. The material has high thermal conductivity and heat dissipation. Services-Strong Acid, Alkali Hot Oil, Organic solvents, Hydrocarbon & steam, pumps & reciprocating.

Construction	Lattice Braid
pH Value	0 – 14
Temperature	-250˚C to +300˚C
Pressure	300Psi (2100Kpa)
Speed	4000 FPM (20m/sec)

MP8005

MP8005 is constructed from pure expanded graphite fibre yarn with corrosive inhibitors. This packing is just as capable as a valve packing in high temperatures as it is in a high speed pump. It is suited to bronze sleeves as well as stainless steel. A versatile packing developed from the old graphite tape that does away with many designer styles and makes of packing. Services-Steam Valves, boiler feed pumps, condensate pumps, chemical & petrochemical applications.

Construction	Inter- Braided
pH Value	0 – 14
Temperature	-240˚C to 649˚C in Steam, to 454˚C in Oxidising, to 3300˚C in Non-Oxidizing
Pressure	300Psi (2100Kpa)
Speed	4400 FPM (25m/sec)

Please contact our sales team for further information and technical advice.

Valve & Pump Packing Continued

Industrial Gaskets offers an extensive range of Valve & Pump Gland Packing to suit all applications.

The most popular styles of packing are shown below.

MP8006

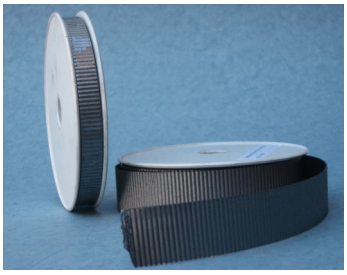
MP8006 is constructed from high purity graphite twisted yarn with multiple inconel wires reinforcing each yarn. A braided core of graphite and multiple inconel wires provide enhanced sealing & high-pressure performance. The encapsulated wire is further enhanced by applying an inhibitor & a blocking agent avoiding all contact between the reinforced inner core & the valve stem, elevating the possibility of stem scoring.

Construction	Inter-braided
pH Value	2 – 14 (except oleum, fuming nitric acid & aqua regia)
Temperature	-200˚C Cryogenics +3300˚C Non-oxidizing atmosphere +500˚C Oxidizing atmosphere +650˚C Steam
Pressure	6620 Psi (46000 Kpa)
Speed	2000 FPM (10.16m/sec)

MP200

MP200 is a lattice braid graphite fibre which can withstand elevated temperatures and aggressive chemicals. Its low coefficient of friction reduces shaft wear. It has an ideal end ring (with graph-lock* centre rings) in valve service.
Services-Premium packing for steam water, petroleum, oils, acids and many solvents.

Construction	Lattice braid
pH Value	0 – 14 (except strong oxidizers)
Temperature	-200˚ to +455˚C atmosphere to +650˚C steam
Pressure	500Psi (3500Kpa) in rotary/centrifugal service
Speed	4000 FPM (20m/sec)



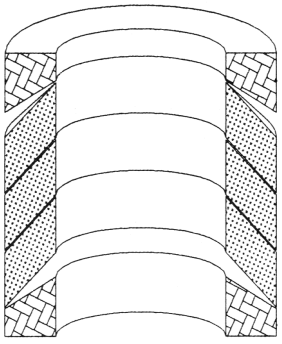
MP8007

MP8007 (Valv-Pac) is a corrugated or smooth formed pure graphite tape. Available with or without adhesive backing for ease of installation. Valv-Pac is able to conform to some stuffing box irregularities, It offers excellent sealing capabilities under extreme conditions for longer equipment life and less maintenance.

Purity	Lattice braid
pH Value	0 – 14 (except strong oxidizers)
Temperature	-200˚ to +455˚C atmosphere to +650˚C steam
Pressure	500Psi (3500Kpa) in rotary/centrifugal service
Speed	4000 FPM (20m/sec)

Packing Ring Set

Valve Packing Sets incorporate ultrahigh purity flexible graphite and ultrahigh purity graphite yarns to ensure low contaminant levels. High density pre-formed graphite rings form the stack with Flexible Graphite Braided top and bottom sealing rings. These rings ensure compression of the middle sealing rings and will prevent any packing extrusion. These packing sets provide maximum performance whether installed in a new valve or when repacking an installed valve.

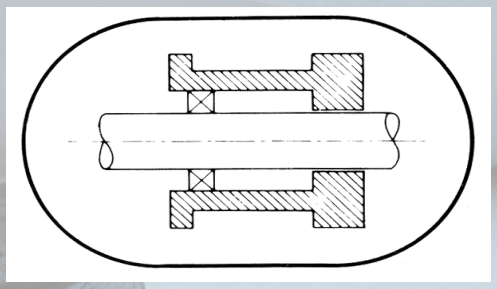


Please contact our sales team for further information and technical advice.

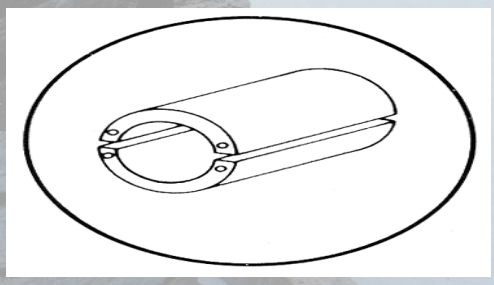
Valve & Pump Packing Installation Instructions

Installation Instructions for Industrial Gasket Packing

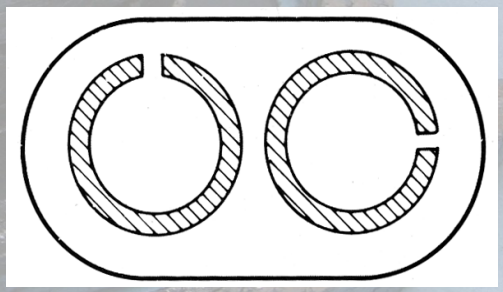
REMOVE ALL THE OLD PACKING using packing hooks, being careful not to damage the shaft/sleeve. This means all rings, even the lantern ring and the rings below the lantern. Clean the stuffing box and examine the shaft / sleeve if scored or deeply grooved, replace worn parts.



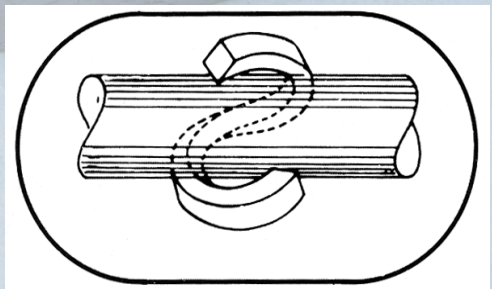
MEASURE AND RECORD SHAFT DIAMETER, STUFFING BOX BORE AND BOX DEPTH To determine the correct packing size, measure the diameter of the shaft and the stuffing box bore. Subtract the shaft diameter from the bore diameter, and divide the difference by two. This is the required cross—sectional size.



ALWAYS CUT THE PACKING INTO INDIVIDUAL RINGS Never wind the packing into a coil in the stuffing box. Rings should be cut with a butt joint. Cut rings by using a mandrel with the same diameter as the shaft in the stuffing box area. If there is no wear, rings can be cut on the shaft outside the stuffing box. Hold the packing tightly on the mandrel, but do not stretch excessively. Cut the ring and insert it into the stuffing box, making certain that it fits the packing space properly. Each additional ring can be cut in the same manner.



INSTALL ONE RING AT A TIME. Make sure it is clean and has not picked up any dirt in handling. Lubricate the ID of each ring lightly. Start one end and then the other, butted closely. Work around circumference from either or both directions. Joints of successive rings should be staggered and kept at least 90° apart. Each individual ring should be firmly seated with a tamping tool. When enough rings have been individually seated so that the nose of the gland will reach them, individual tamping should be supplemented by the gland.



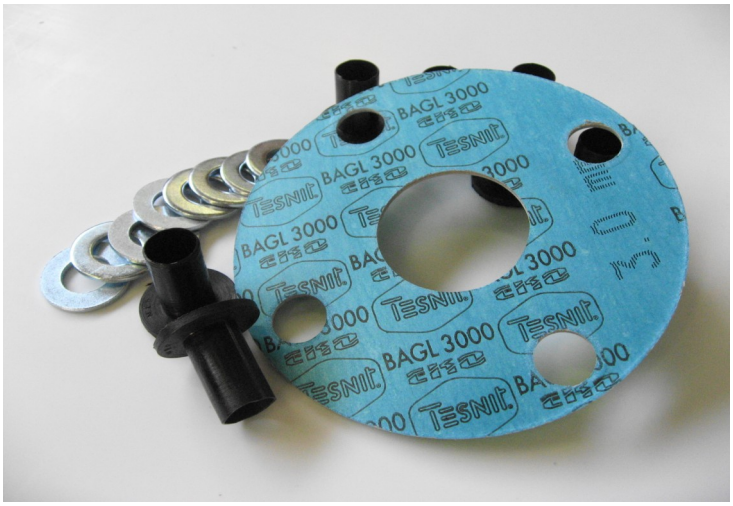
AFTER THE LAST RING IS INSTALLED Bring down the gland follower and apply 25% to 35% compression to the entire packing set. If possible, record the gland nut torque values and actuate the valve through five complete cycles (ending with the stem in the down position). Re-tighten the gland bolt nuts to the previously recorded torque value after each full actuation.

Please contact our sales team for further information and technical advice.

Flange & Bolt Insulation
Flange Insulation Kits

FLANGE INSULATION KITS

Flange Insulation Kits are designed to combat the effects of corrosion often found in a flanged pipe system. Galvanic corrosion between dissimilar metal flanges, flange insulation associated with cathodic protection of underground piping are other examples where Flange Insulation Gasket Kits can be put to effective use.

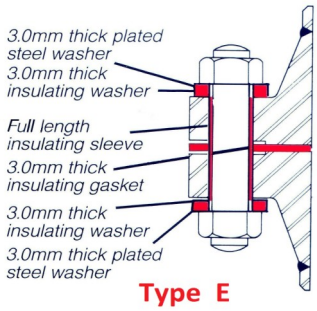


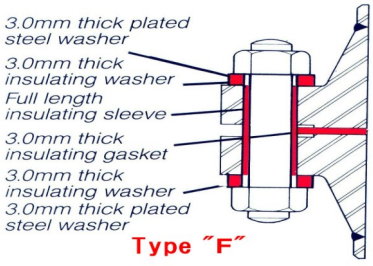
Industrial Gaskets Flange Insulation Kits -

- Designed to minimise electro-chemical erosion
- Used to electrically isolate sections of pipework
- Comprise of materials with high dielectric strength
- Easily identified with each kit labelled with flange size & rating
- Supplied as standard with “Top Hats” or Mylar Sleeve for bolt isolation and ease of instalment, gasket and steel washers

Type E

Suitable for full face or raised face flanges in all Flange Standards. In this type, the gasket completely covers the flange bed to outside diameter. This design helps easy alignment of the gaskets during installation and maximum protection against foreign material “shorting out” the flange.



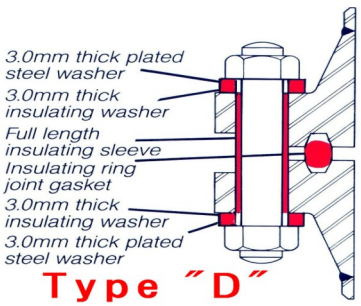


Type F

Suitable for raised face flanges only. In this type, the gasket is designed to be located inside the flange bolt circle and sits fully on the raised porting of the flange.

Type D

Specifically designed to fit the grooves of RTJ Flanges. In this type typically the gaskets are fabric reinforced Phenolic or PTFE. Available in basic oval & octagonal, RX and BX type. This type has the contact faces with oval shape. It provides a high reliability seal. These gaskets comply with ASME B – 16.20



Please contact our sales team for further information and technical advice.

Flange & Bolt Insulation

Bolt Insulators - Sleeves

Insulating Sleeves

Industrial Gaskets offers insulating sleeves in a range of materials including Mylar, Phenolic, Epoxy and Nylon. Insulating sleeves are designed to be easily inserted in the bolt hole leaving ample room for the bolt, even when bolt holes are misaligned. Available in standard full length sizes or cut to suit your application.

Mylar Sleeve

Mylar is the most recognised and industry approved sleeve material. Industrial Gaskets recommends Mylar Sleeve as it is stronger than Phenolic and less prone to cracking during the installation process. It is available in both Metric and Imperial sizes. The standard length is 900mm or 3Ft and can be supplied in full lengths or we cut to suit your bolt length.

Phenolic Sleeve

Phenolic has been a cheaper alternative to Mylar in years of the past. However, it is prone to cracking or splitting during the installation process as the material can be brittle, especially under high bolt torque. It is available in both Metric and Imperial sizes. The standard length is 900mm and can be supplied in full lengths or we cut to suit your bolt length.

Top Hat Bolt Insulators

Tough, convenient-to-use, cost effective, one-piece sleeves and washers are available moulded from Mineral reinforced Nylon -Minlon® . TopHats reduce handling and make-up problems in the field.

They are moulded to specific lengths and are in many instances longer than the thickness of a single flange. Minlon® has an excellent dielectric strength and high compression strength. Industrial Gaskets Top Hats also contain a UV stabilizer.

Available for all standard bolt diameters to suit metric & imperial bolts.

Please contact our sales team for further information and technical advice.

Flange & Bolt Insulation

Bolt Insulators - Washers

INSULATING WASHERS

Industrial Gaskets offers insulating washers in a range of materials that are best suited to your operating requirements. Insulating Washers are available to suit bolts in standard Metric and Imperial sizes or specialised sizes to suit your design. Insulating washers are available in a range of materials including PTFE, Compressed Fibre, Nylon, Phenolic & Glass Epoxy.

Phenolic Washers

Standard insulating washers are made of high strength phenolic and provide positive insulation at temperatures to 120°C. They are made to fit over the insulating sleeves. Standard thickness is 3.2mm. Other thicknesses available on request. Phenolic washers are not recommended where high bolt torque is required as they tend to crack. Phenolic has a dielectric strength of 400-500VM with a water absorption rate of 1.1%.

Glass Epoxy Washers

G10 / G11 Glass Epoxy washers are tough and recommended where high bolt torque is required. Glass Epoxy maintains good dielectric and physical strength where some other materials weaken. Standard thickness is 3.2mm. Other thicknesses available on request. G10/11 has a dielectric strength of 530 VM, Water Absorbtion of 0.09% and maximum continuous operating temperature of 140°C.

Ground Joint or "O" Union

Ground Joint connections provide a long reliable life with a seal that is widely used in the oil and gas industry. "O" Ring Unions provide a leak proof static seal. They can be used and removed in the field without replacement or damage to the insulator. Their dielectric strength goes beyond the toughest requirements. Ranging up to 3000psi and sizes 1/4" up to 3".

Please contact our sales team for further information and technical advice.

PTFE Products

Modified PTFE Sheet

Industrial Gaskets offers a wide range of PTFE sealing products that are suited for applications where chemical resistance is demanded or there are FDA requirements. PTFE is non-conductive, making it resistant to high electric fields. It is also highly resistant to water, heat, and chemical corrosion. PTFE also possesses very low frictional properties, which is expressed as frictional coefficient. The only limitation of PTFE is the maximum temperature range of 260°C.

Doniflon 2030

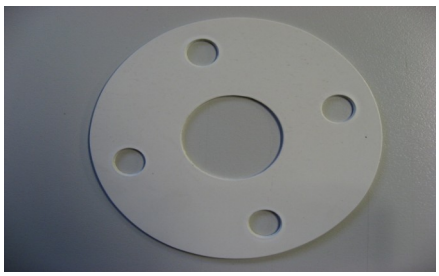
Doniflon 2030 is biaxially orientated PTFE sheet produced from virgin PTFE resin filled with barium sulphate. It is a general purpose grade suitable for use with a wide variety of chemicals including alkalis, solvents, fuels and steam. Doniflon 2030 can be used also with strong acids like hydrofluoric acid, but is not suitable for sealing fluorine gas.

Doniflon 2010

Donifilon 2010 is biaxially orientated PTFE sheet produced from virgin PTFE resin filled with special fillers that give sealing material highly conformable properties. Specially designed for sealing flanges with low bolt loads like glass lined, uneven or distorted flanges. Chemically suitable for almost all substances except molten alkali metals.

Doniflon 2020

Doniflon 2020 is biaxially orientated PTFE sheet produced from virgin PTFE resin filled with silica. This material is particularly suitable for use with strong acids, except hydrofluoric acid.

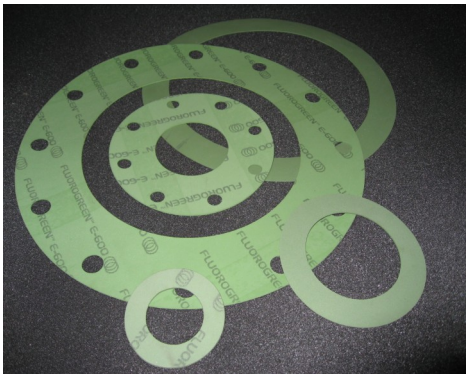


Unitef 6040

Unitef6040 is a modified PTFE sheet containing Barium Sulphate. A suitable sealing application across the whole Ph range. Eliminates the problem of creep relax and cold-medium occurring in common skived PTFE sheets. Unitef6040 is superior in handling various corrosive mediums including hydrofluoric acid, alkalis, refrigerants, solvents and chlorine. Suitable for pressure sensitive and brittle flange connections such as glass, ceramics and plastics, because of its high compressibility.

Fluorogreen®

Fluorogreen E-600 is a chemically modified PTFE material. It is particularly suited for use in very caustic environments. E-600 is the perfect choice as a general high performance gasket material and as a proven superior replacement to Gylon 3500®. It is the material of choice for NASA's liquid oxygen and liquid nitrogen applications and continues today, unequaled in performance in the ever-changing, high tech space industry. E-600 is a tested and proven superior cryogenic material. Industrial Gaskets is the only Australian Distributor of the Fluorogreen® range of products.



Please contact our sales team for further information and technical advice.

PTFE Products

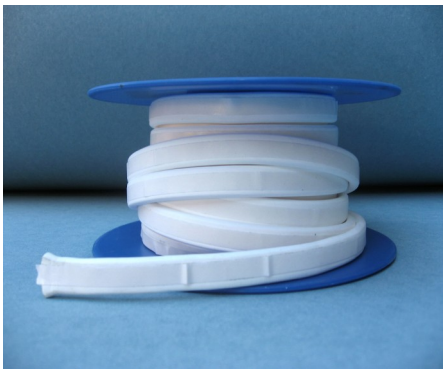
Expanded & Virgin PTFE Sheet / Tape / Cord

Soft-Tef

Soft-Tef sheet gasket sheet is made of 100% Microcellular Expanded PTFE. The special proprietary expansion process generates a highly fibrillated microstructure, making the sheet soft and pliable. The material is very tough and can withhold high compressive loads without affecting its sealing capability. Soft-Tef has excellent resistance to creep relaxation and cold flow and is exceptional in sealing damaged and uneven flanges. Soft-Tef is so versatile because of its capabilities to handle nearly all liquid and gases. Soft-Tef is incomparable in sealing fragile flanges, FRP, Plastic, Porcelain and glass lined piping or vessels due to its low compressive load to seal.

Virgin PTFE

PTFE Skived Sheet is suited to more aggressive applications in the chemical or cryogenic industry or the food manufacturing where hygiene is a necessary requirement. PTFE has the lowest coefficient of friction of all known solid materials. It also has the best electrical properties of all plastics and is virtually unaffected by weather and is chemically inert.



Pacseal

Pacseal is a non-toxic, non-contaminating Expanded Virgin PTFE Tape. It has a sticky back for ease of installation and removal which saves labour in cleaning and machining. It is tough but gentle making it useful in high pressure steam joints and fragile glass joints the same. Coming in various widths, thicknesses and lengths, it is suitable in both critical and general service.

Paclon

Paclon is a non-toxic, non-contaminating expanded virgin PTFE Cord, coming in various diameters and lengths. It is easy to install and remove which saves labour in cleaning and machining. It is tough but gentle making it useful in high pressure steam joints and fragile glass joints the same. Typical applications include valves, flanges, ducts, tanks, evaporators, pump cases, digesters, transmission cases, compressor housings, drum lids, man ways, towers, glass joints, heat exchangers and sight glasses. Not recommended for oxygen service.

Please contact our sales team for further information and technical advice.

Capabilities

Industrial Gaskets capabilities are infinite.

Extensive stock of specialty steel gaskets including Spiral Wound Gaskets and Ring Type Joint Gaskets （RTJ） are held at our manufacturing facility in South Australia.

Gasket materials for all sealing requirements including any Elastomer（Rubber）through to High Temp Compressed Fibre, Graphite, Potable Water Approved Sheeting and Specialty PTFE Sheeting.

With the leading edge technology of our Aristo CNC Gasket cutter there are no limitations to the size or style of gasket that can be produced. Laser cutters can leave burned edges, the Aristo cutter leaves smooth clean edges on gaskets. Waterjet cutting is a messy, longer and more expensive way to cut materials.

With the Aristo CNC Gasket Cutter Industrial Gaskets is able to offer a quality, cost effective part with a fast turnaround and pinpoint accuracy.

Abundant pre-cut Gasket stocks held in standard pipe configurations and commonly sought after materials.

Minimal lead times for specialty gaskets.

Please contact our sales team for further information and technical advice.

Fibreglass Products

Woven Plain Fibreglass Tape

Style FGT is fibreglass fibres woven into tape form. It is user friendly in so much as particle emission is minimized due to process, therefore reducing the chance of irritability when being applied in the workplace. It does not shrink with atmospheric changes. The tape will not support combustion or burn. It is unaffected by most dilute alkalis and acids. Usual applications include welding blankets, lagging on pipe work, insulation and expansion joints.

Woven Fibreglass Ladder Tape

Style FGTL is fibreglass fibres woven ladder tape. It is user friendly in so much as particle emission is minimized due to process, therefore reducing the chance of irritability when being applied in the workplace. It does not shrink with atmospheric changes . The tape will not support combustion or burn. It is unaffected by most dilute alkalis and acids. Applications include wrapping steam tracer lines, hose, piping, tadpole tapes, gasketing, boiler close up and duct flanges.

Fibreglass Tadpole Tape

Tadpole Tape has a high temperature, heat & flame resistance. The thermal insulating fibreglass tadpole tapes are fabricated with high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures up to 520°C. Commonly used as a gasket or seal for access doors and gate valves and other applications. The core portion in the bulb is a twisted fibreglass rope. A side profile of the tape represents the shape of a Tadpole, hence the name. This material resists most acids and alkalis and is unaffected by most bleaches and solvents.

Fibreglass Woven Cloth

Style FGC is fibreglass fibres woven into cloth form. It is user friendly in so much as particle emission is minimized due to process, therefore reducing the chance of irritability when being applied in the workplace. It does not shrink with atmospheric changes. Usual applications include welding blankets, lagging on pipe work, insulation and expansion joints.

Fibreglass Bulk Rope & Sleeving

Fibreglass Rope comprises of fibres twisted into yarn/rope and braided into either round or square form. Smaller sizes are fully braided as the larger sizes can, if required, be braided over a core to make manufacturing more economical. Density of the core is either soft or hard. Fibreglass Tube Sleeving is designed for fitting over cable or cords to protect from damage. Available coated in silicone.

Please contact our sales team for further information and technical advice.

Ceramic Products

Ceramic fibre ropes, tapes and textiles are produced by processing refractory ceramic fibre yarn.

Industrial Gaskets ceramic fibre textiles are woven or braided from yarn consisting of refractory ceramic fibre. Insert materials are incorporated into the yarn to increase fabric tensile strength. Alloy wire inserts are available for obtaining maximum strength at elevated temperatures. Glass filament inserts are used in applications where electrical resistance is required.

Industrial Gaskets ceramic fibre textiles be used up to 1000℃+, however, when tensile strength is important the temperature limits of the insert materials should be considered. Products available include Blanket, Tape, Sleeve, Yarn, Twisted Rope, Braided Rope and Cloth.

Ceramic Fibre Blanket

The Ceramic Fibre Blanket has excellent thermal stability and thermal shock resistance . This material has low thermal conductivity, low heat and storage. Temperature rated to 1260°C. Applications including furnace lining of every type, industrial furnace and heating equipment, metallurgy, machine construction and materials, petrol and chemical engineering.

Ceramic Fibre Tape & Ceramic Fibre Ladder Tape

Ceramic Fibre Tape is manufactured from ceramic fibre yarn which is reinforced with either glass or inconel wire. It is suited for high temperature, low pressure applications where poor flanges or low bolt loadings are present. Typical applications are for ductwork flange gasket, furnace / boiler door seals and cable and pipe protection. Ceramic Tape is rated to 1000°C.

Twisted Ceramic Fibre Rope

Twisted rope consists of a multiple of ceramic yarn strands which can be either fibreglass or stainless steel reinforced with a single filament glass fibre or alloy wire depending upon use temperature. These products are especially recommended for heavy duty applications. Ceramic Twisted Rope is rated to 1000°C. Ceramic Fibre is non combustible.

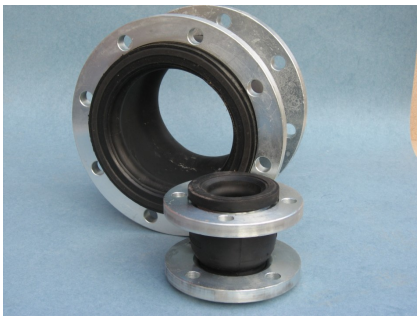
Ceramic Woven Cloth

Ceramic Fibre Cloth is a high temp fabric made from ceramic yarn, available in a number of different thickness and construction to provide a comprehensive high temperature range. Optionally reinforced with either filament, 316SS or inconel wire.

Please contact our sales team for further information and technical advice.

Expansion Joints - Metallic & Non Metallic

Expansion Joints are used in piping systems to absorb thermal expansion or terminal movement where the use of expansion loops is undesirable or impracticable or there is vibration or noise reduction required. Pipe Expansion Joints are available in all standard pipe sizes and a range of materials depending on the application. A bellow is made up of a series of one or more convolutions, with the shape of the convolution designed to withstand the internal pressures of the pipe, but flexible enough to accept the axial, lateral and /or angular deflections. The most common styles are detailed below.
Pipe Expansion Joints are also known as "compensators" as they compensate for the thermal movement.

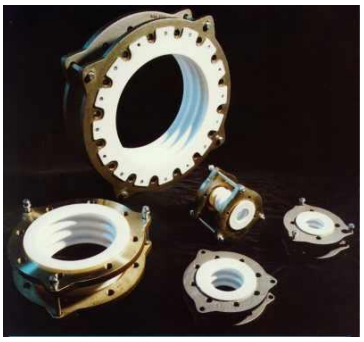


Single Sphere Expansion Joint

Rubber Expansion joints provide superior movement capability in axial compression, axial extension and lateral deflection, as well as in the angular and torsional direction. This performance cannot be obtained with metallic joints or grooved couplings. They contain floating flanges (non fixed) to allow for easy alignment in a range of materials including 316 Stainless Steel, Mild Steel and Galv Coated. Also available with Control / Tie Rods to enhance its pressure capability in unanchored systems, and to control the movement of the joint.

Twin Sphere Expansion Joint

Twin Sphere Rubber Expansion joints are ideal for applications requiring large axial, lateral and angular movements. They contain floating flanges (non fixed) to allow for easy alignment in a range of materials including 316 Stainless Steel, Mild Steel and Galv Coated.



PTFE Expansion Joints

PTFE Expansion Joints are flexible connectors and tremor barriers designed to compensate for misalignments absorb expansion and contraction, and isolate vibration and shock in process piping, tanks and pumps. PTFE expansion joints have a proven record worldwide handling the chemical process I industry's most corrosive pipe stress problems. They are formed from isostatically moulded, FDA approved, virgin PTFE resin. PTFE Expansion Joints have almost universal chemical inertness, high and low temperature resistance, invulnerability to ozone and sunlight, outstanding flex life.

Metal Expansion Joints

Metal Expansion joints or Exhaust Bellows are the most important part of an exhaust system as they act as a shock absorber isolating engine vibration from exhaust systems to avoid metal fatigue and ultimate failure. The bellow is made up of a series of convolutions which assist in the axial and lateral movements.

Please contact our sales team for further information and technical advice.

Sundry Products

Industrial Gaskets has a wide range of Sundry Products that supports our comprehensive range of sealing materials. For more information on our complimentary products please contact one of our sales team.

Chemtools®

Industrial Gaskets is proud to be an Authorised Distributor of the Chemtools® range of Industrial products. The comprehensive product range includes Anaerobic Adhesives (Thread locker, Thread sealant, Gasket compounds), Structural Adhesives, Anti-Corrosion and Anti-Seize compounds, Greases and Lubricants just to name a few. Chemtools® offers over 1,000 products in a universal product range suitable to every industry including Industrial, Engineering, Electronic and Manufacturing.

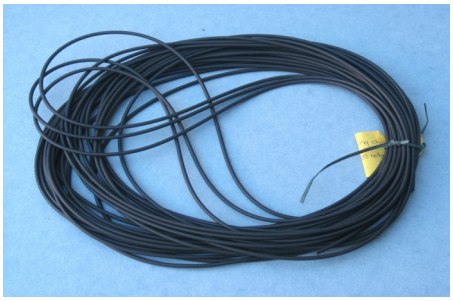
O 'Ring & O 'Ring Kits

O 'Ring kits are available in either Imperial or Metric measurements. O-Ring kits are carried in stock in NBR 70. Also available in NBR 90 and VITON 75 materials. These kits are ideally suited for service van or field use. Each kit has around 180 pieces in standard sizes. O 'Ring cord is also available in a wide range of materials and diameters.

Chevron V Packings

Vee Packings are multiple lip (chevron) packing sets designed to seal static, reciprocating and centrifugal applications. The male and female adaptors are used to complete a set of vees and to assist in sealing when compressed. Chevron Vee Packing are widely used in medium to high pressure hydraulic applications. Applications include heavy duty hydraulic pistons and rod seals. Available in wide range of materials including PTFE, Rubber and Fabric. Sizes include metric and imperial standard.

O Ring Cord



Industrial Gaskets 'O' Ring Cord is available in Fluorocarbon, Nitrile, EPDM, Neoprene, Viton, Natural Rubber, Buna and Silicone in a variety of sizes and duro. Supplied by the metre. Special requests for Military spec material, polyurethane or standard compounds in Durometers from 40 through 90 can also be supplied.

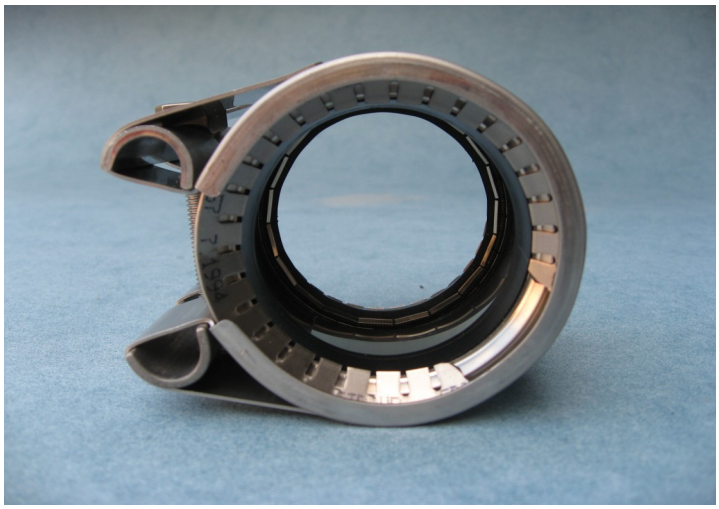
Please contact our sales team for further information and technical advice.

Straub® Couplings

Straub ® Couplings

Industrial Gaskets is a proud Authorised Distributor for the Straub® Range of Coupling Products

The Straub pipe coupling concept is backed by over 40 years of experience and continuous development, guaranteeing Swiss quality and value.



Straub® Couplings are the easiest way to join pipes of all materials. They require no special tools or pipe-end preparation. Flexible, lightweight, 316SS construction; Straub® Couplings handle pipe misalignment, vibration, and are used in ship building, wastewater treatment, general industry, and construction.

They will replace welded, flanged, threaded, or grooved type pipe joints. Straub® Hi-Performance Pipe Couplings, are the 21st Century way to join pipes.
Available in diameters from 1" to 120 ”.

Straub® Couplings come fully assembled and ready to install. A torque wrench is the only tool required to do the job. Light weight and with a low profile, Straub® Couplings are easy to handle and can be installed in the tightest of spaces. The unique lip seal design seals on even rough pipe surfaces.

STRAUB® Couplings are used to join virtually any plain end pipe or tube including steel, stainless steel, ductile iron, FRP, PVC, CPVC, C900, concrete pipe, copper and CuNi piping.

Straub® Pipe Repair Clamps

Also available is a range of Pipe Repair Clamps. The Straub Clamp® repair clamps are designed to safely and reliably seal damaged pipes made from a range of materials (steel, cast iron, ductile cast iron, fibre cement, PVC etc).
Straub Clamp® repair clamps are available in sizes from OD 44mm to OD 440mm.

Please contact our sales team for further information and technical advice.

Torque Saver Gasket

Torque Saver Gasket (Tombo ®)

Superior low-torque gaskets for metallic or non-metallic flanges

Torque Saver Gaskets offer the same sealing performance with 1/3 bolt tightening torque compared with flat envelope style gaskets. Suited to Chemical, Petrochemical, Food, Medicine and other industries where corrosive medium or high cleanliness is required for pipe flange sealing.

- Raised molded-in sealing rings seal with 75 % less surface area for excellent performance in non metallic flanges (e g HDPE, FRP, CPVC, Polypropylene & PVDP)
- Reinforced bolt holes
- Limited Creep and Cold Flow
- Locating tab on gasket for ease of installation
- Long service life
- Recommended and manufactured to suit #150 flat face flanges

Torque Saver Gasket - Style SR (Solid Rubber)

Features: EPDM Rubber molded gaskets have a cross section shape. Reliable sealing performance is obtained even at lower seating stress than that of a traditional rubber gasket. Recommended for locations where service conditions are not critical and chemical resistances is not particularly required.

Service Temperature : -40°C to + 150°C

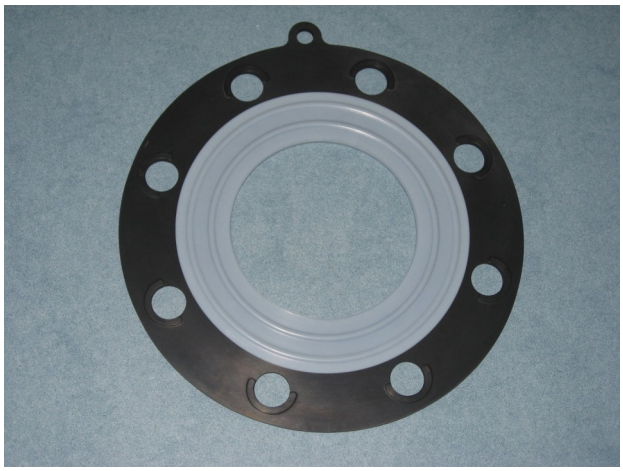
Maximum Service Pressure: 2.0MPa

Torque Saver Gasket - Style PJ (PTFE Jacketed)

Features: EPDM rubber molded gasket having the same cross sectional shape as Style SR, but the sealing surface is jacketed with PTFE film. This gasket has the elasticity of rubber and the corrosion resistance of PTFE. It simultaneously gives good sealing performance. Ideal for applications such as PVC and glass lining piping where only low seating stress is attainable.

Service Temperature : -30°C to + 150°C

Maximum Service Pressure: 2.0MPa



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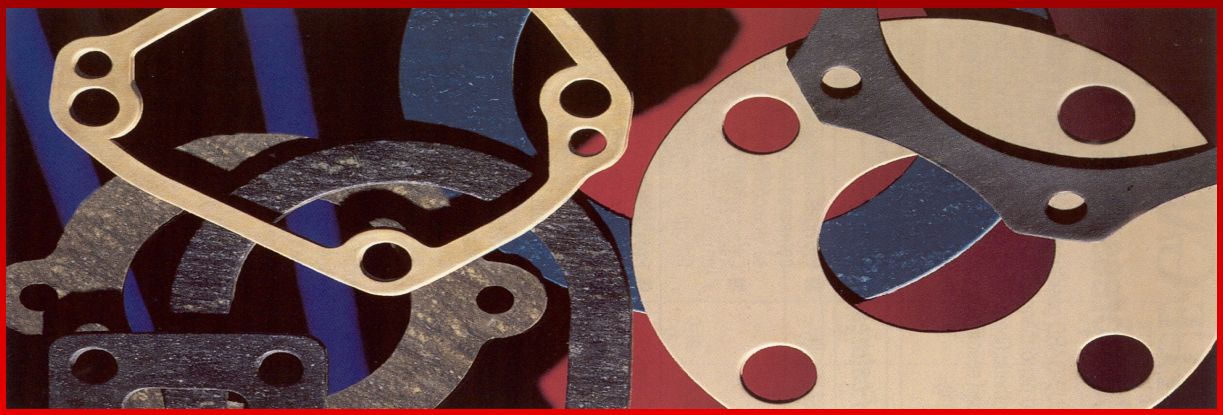
TECHNICAL INFORMATION



Please contact our sales team for further information and technical advice.

Technical

RTJ Sizing - RX

Ring Type Joint (”R TJ ”) Size Designation Chart

“ RX “ Configuration

API RING NUMBER	Sizes of Flange, Inches			
	2000	2900	3000	5000
RX20	1 ½		1 ½	1 ½
RX23	2			
RX24			2	2
RX26	2½			
RX27			2½	2½
RX31	3		3	
RX35				3
RX37	4		4	
RX39				4
RX41	5		5	
RX44				5
RX45	6		6	
RX46				6
RX47				8
RX49	8		8	
RX50				8
RX53	10		10	
RX54				10
RX57	12		12	
RX63				14
RX65	16			
RX66			16	
RX69	18			
RX70			18	
RX73	20			
RX74			20	
RX82		1		
RX85		2		
RX86		2½		
RX87		3		

Please contact our sales team for further information and technical advice.

Technical

RTJ Sizing - RX

Ring Type Joint (”R TJ”) Size Designation Chart - “RX “ Configuration

API RING NUMBER	Sizes of Flange, Inches			
	2000	2900	3000	5000
RX86		2½		
RX87		3		
RX88		4		
RX89		3½		
RX90		5		
RX91		10		
RX99	8		8	
RX201				1¼
RX205				1¾
RX210				2½
RX215				4

Please contact our sales team for further information and technical advice.

Technical

RTJ Sizing - BX

Ring Type Joint ("RTJ") Size Designation Chart

"BX" Configuration

API RING NUMBER	Nominal Flange Bore (in)					
	2000	3000	5000	10000	15000	20000
BX150				1 11/16	1 11/16	
BX151				1 13/16	1 13/16	1 13/16
BX152				2 1/16	2 1/16	2 1/16
BX153				2 9/16	2 9/16	2 9/16
BX154				3 1/16	3 1/16	3 1/16
BX155				4 1/16	4 1/16	4 1/16
BX156				7 1/16	7 1/16	7 1/16
BX157				9	9	
BX158				11	11	
BX159				13 5/8		
BX160			13 5/8			
BX161			16 3/4			
BX162			16 3/4	16 3/4		
BX163			18 3/4			
BX164				18 3/4		
BX165			21 1/4			
BX166				21 1/4		
BX167	26 3/4					
BX168		26 3/4				
BX169				5 1/8		
BX170				6 5/8	6 5/8	
BX171				8 9/16	8 9/16	
BX172				11 5/32	11 5/32	
BX303	30	30				

Please contact our sales team for further information and technical advice.

Technical

RTJ Sizing - “R” Oval & Octagonal

INDUSTRIAL GASKETS

Ring Type Joint (”R TJ”) Size Designation Chart

Oval and Octagonal configurations

Nominal Pipe Size	Flange Pressure Rating				
	#150	#300 - #600	#900	#1500	#2500
½	-	R11	R12	R12	R13
¾	-	R13	R14	R14	R16
1	R15	R16	R16	R16	R18
1 ¼	R17	R18	R18	R18	R21
1 ½	R19	R20	R20	R20	R23
2	R22	R23	R24	R24	R26
2 ½	R25	R26	R27	R27	R28
3	R29	R31	R31	R35	R32
3 ½	R33	R34	R34	-	-
4	R36	R37	R37	R39	R38
5	R40	R41	R41	R44	R42
6	R43	R45	R45	R46	R47
8	R48	R49	R49	R50	R51
10	R52	R53	R53	R54	R55
12	R56	R57	R57	R58	R60
14	R59	R61	R62	R63	-
16	R64	R65	R66	R67	-
18	R68	R69	R70	R71	-
20	R72	R73	R74	R75	-
22	R80	R81	-	-	-
24	R76	R77	R78	R79	-
26	-	R93	R100	-	-
28	-	R94	R101	-	-
30	-	R95	R102	-	-
32	-	R96	R103	-	-
34	-	R97	R104	-	-
36	-	R98	R105	-	-

Please contact our sales team for further information and technical advice.

Technical
Ring Type Joint Materials

Ring Type Joint Materials

Gasket material should be selected to suit the service conditions. It is always recommended that the gasket material be softer than the mating flanges.

In accordance with API Specifications, Soft Iron and Low Carbon Steel Ring Type Joints are protected with electroplated zinc to a maximum thickness of 8µm. Alternative material coatings can be supplied on request.

MATERIAL	UNS NUMBER	MAXIMUM HARDNESS		IDENTIFICATION (Stamped on Ring)
		BRINELL*	ROCKWELL B †	
Soft Iron	-	90	56	D
Low Carbon Steel	-	120	68	S
4-6% Chrome 1/2% Moly	K42544	130	72	F5
Type 304 Stainless Steel	S30400	160	83	S304
Type 316 Stainless Steel	S31600	160	83	S316
Type 347 Stainless Steel	S34700	160	83	S347
Type 410 Stainless Steel	S41000	170	86	S410
Titanium Grade 2	R50400	-		
Alloy 600	N06600	200		
Alloy 625	N06625	200		
Alloy 800	N08800	200		
Alloy 825	N08825	150		
Hastelloy	N10001	200		
Alloy C276	N10276	200		
SMO 254	S32154	180		
Zeron 100	-	200		
Super Duplex	S31803	-		

* Measured with 3000 Kg load except soft iron which is measured with 500 Kg load

† Measured with 100 Kg load and 1/16 inch diameter ball

Please contact our sales team for further information and technical advice.

PHYSICAL PROPERTIES OF RUBBER

PRODUCT	ASTM	Gauge Range (mm)	Hardness Shore A	S.G.	Max Temp ˚C	Tensile Strength (MPA)	Elonga-tion %	Abrasion Resis-tance	Ozone/UV Resis-tance	Oil Resis-tance	Acid Resis-tance	Main Application
Butyl Rubber / Isobutylene-Isoprene	IIR	1.5 - 6.0	45/55	1.27	100	5	350	Fair	Excellent	Poor	Excellent	Heat/Chemical
Chutex Rubber	NR	1.5 - 25.0	40/50	1.07	60	17	550	Excellent	Good	Poor	Fair	Lining
Ethylene - Insertion	EPDM	1.5 - 3.0	65/75	1.30	110	11	350	Fair	Excellent	Poor	Good	Heat/Ozone
Ethylene - Propylene	EPDM	1.0 - 12.0	65/75	1.10	110	11	350	Fair	Excellent	Poor	Good	Heat/Ozone
Ethylene - Propylene (Peroxide Cured)	EPDM	3.0 - 6.0	55/65	1.09	120	9	400	Fair	Excellent	Poor	Good	Heat/Ozone
Ethylene - Propylene Potable	EPDM	1.5 - 6.0	55/65	1.07	110	15	350	Fair	Excellent	Poor	Good	Potable Water
Hypalon Rubber	CSM	1.5 - 6.0	65/75	1.35	120	9	300	Good	Excellent	Good	Excellent	Heat/Acid/Chemical
Natural	NR	0.8 - 25.0	60/70	1.27	70	6	350	Good	Fair	Poor	Fair	General Purpose
Natural Insertion	NR	0.8 - 9.0	60/70	1.27	70	6	300	Good	Fair	Poor	Fair	General Purpose
Neoprene / Chloroprene Insertion	CR	1.5-6.0	55/65	1.30	90	8	450	Fair	Excellent	Good	Fair	Heat/Oil/Ozone
Neoprene / Chloroprene	CR	0.8-25.0	55/65	1.30	90	8	450	Fair	Excellent	Good	Fair	Heat/Oil/Ozone
Nitrile / Buna N	NBR	0.8 - 12.0	65/75	1.21	90	10	300	Good	Fair	Excellent	Good	Petrol and Oil
Nitrile / Buna N Insertion	NBR	1.5 - 6.0	60/70	1.21	90	16	520	Good	Fair	Excellent	Good	Petrol and Oil
Pure Gum	NR	3.0-6.0	30/40	1.00	60	19	650	Excellent	Poor	Poor	Fair	Soft, High Flexibility
Silicone Rubber - Red	VQM	0.5 - 10.0	55/65	1.17	200	8	300	Fair	Excellent	Good	Excellent	Heat/Ozone/ Chemical
Silicone Rubber - Translucent	VQM	1.0 - 3.0	55/65	1.28	200	8	300	Fair	Excellent	Good	Excellent	Heat/Ozone/ Chemical
Silicone Rubber - White	VQM	1.5 - 6.0	55/65	1.17	200	8	300	Fair	Excellent	Good	Excellent	Heat/Ozone/ Chemical
Viton A Rubber	FKM	1.0 - 6.0	70/80	1.80	200	7	200	Fair	Excellent	Excellent	Excellent	Solvent/Heat/ Chemical
Viton A Rubber - Nomex Insertion	FKM	1.5 - 3.0	60/70	1.85	200	8.4	200	Fair	Excellent	Excellent	Excellent	Solvent/Heat/ Chemical
Viton B Rubber	FKM	1.0 - 6.0	70/80	1.85	200	6	175	Fair	Excellent	Excellent	Excellent	Solvent/Heat/ Chemical
White Faced Insertion	WHR	6	50/68	1.27	70	6	300	Fair	Fair	Poor	Fair	General Purpose
White Hygienic (Natural Rubber)	WHR	1.5 - 6.0	45/55	1.38	70	12	600	Good	Fair	Fair	Fair	Food Grade
White Nitrile	WHR	1.5 - 12.0	60/70	1.40	90	6.5	350	Good	Fair	Excellent	Good	Food Grade

Please contact our sales team for further information and technical advice.

Technical
Leaking Joints

TROUBLE SHOOTING LEAKING JOINTS

One of the best available tools to aid in determining the cause of leakage is a careful examination of the gasket in use when leakage occurred

Observation	Possible Remedies
Gasket badly corroded	Select replacement material with improved corrosion resistance
Gasket extruded excessively	Select replacement material with better cold flow properties, select replacement material with better bearing capability – i.e. more dense
Gasket grossly crushed	Select replacement material with better load bearing capability, provide means to prevent crushing the gasket by use of a stop ring or re-design of flanges
Gasket mechanically damaged due to overhang of raised face or flange bore	Review gasket dimensions to ensure gaskets are proper size. Make certain gaskets are properly centered in joint
No apparent gasket compression achieved	Select softer gasket material. Select thicker gasket material. Reduce gasket area to allow higher unit seating load
Gasket substantially thinner on OD than ID	Indicative of excessive "flange rotation" or bending. Alter gasket dimensions to move gasket reaction closer to bolts to minimize bending movement. Provide stiffness to flange by means of back-up rings. Select softer gasket material to lower required seating stresses. Reduce gasket area to lower seating stresses
Gasket unevenly compressed around circumference	Improper bolting up procedures followed. Make certain proper sequential bolt up procedures are followed
Gasket thickness varies periodically around circumference	Indicative of "flange bridging" between bolts or warped flanges. Provide reinforcing rings for flanges to better distribute bolt load. Select gasket material with lower seating stress. Provide additional bolts if possible to obtain better load distribution. If flanges are warped, re-machine or use softer gasket material

Please contact our sales team for further information and technical advice.

Technical
Gasket Recommendations

RECOMMENDATION ON GASKET USE

The following information is for general guidance only. Please contact one of our sales team for further clarification.

Yes	No
Use gasket material and bolt grades that suit the tensile loading requirements of the flange	**NEVER** reuse an old gasket
Check that the gasket is compatible with the media at required operating temperature and pressure ranges	Do not use low quality gaskets or jointing. Any initial cost savings will soon be lost in downtime caused by joint failures
Non-metallic gaskets should be stored flat, at a moderate temperature (ie +15°C to + 20°C), in dry conditions, away from direct sunlight and heat and remote from any electrical equipment that may produce ozone	Never use sealing compounds or grease on joints. They reduce the friction between the gasket and its flanges which can allow a gasket to stress-relax and creep, leading to premature failure
Ensure flanges are clean, undamaged, free from grease and oil and has correct surface finish	Avoid using impact adhesives or pressure sensitive tapes at temperatures exceeding 40°C. Above this temperature the tackifying resins may melt and act as a lubricant
Specify the thinnest gasket that will suit the flange finish and parallellism	Do not mate flange faces that have different surface finishes
Lightly lubricate the flange bolts and check that the nut can run freely down the threads before use	Do not retighten bolts after use at elevated temperatures on flanges sealed with gaskets of compressed fibre
Tighten down the gasket evenly in several stages using an approved bolting sequence. This avoids flange distortion and gives an even stress distribution within the gasket	
Ensure the gasket is the correct size for the flange	

Please contact our sales team for further information and technical advice.

Australian Supplier of Quality Gaskets for Over 30 Years

Certified System
Quality
ISO 9001
SAI GLOBAL

Industrial Gaskets

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INDUSTRIAL GASKETS

Please contact our sales team for further information and technical advice.