THERMOSEAL®
A KLINGER Company

KLINGER MAXIFLEX

Spiral Wound Gaskets

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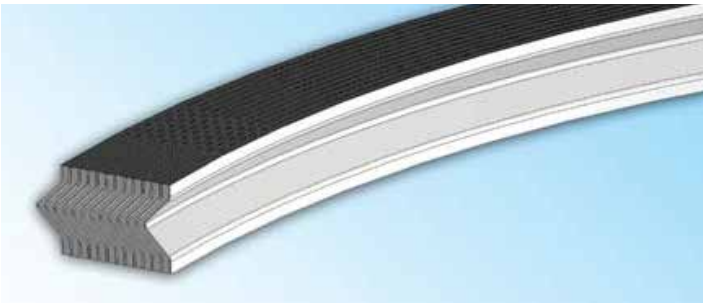
Maxiflex spiral wound gaskets have the ability to recover under the action of fluctuating loads caused by process fluid pressure and temperature changes, flange face temperature variations, flange rotation, bolt stress relaxation and creep.

The gasket sealing element consists of a pre-formed metallic winding strip with layers of a softer, more compressible sealing material which, during compression, is densified and flows to fill imperfections in the flange surfaces. The metal strip holds the filler giving the gasket mechanical resistance and resilience.

Product Advantages

Maxiflex spiral wound gaskets combine the ease of sealing a graphite, PTFE or mica filler with the strength afforded by a specially profiled metallic, spring-like reinforcement. The sealing element is manufactured by interleaving plies of alternating metallic winding strip and filler to create a gasket that is robust and easy to install. Maxiflex spiral wound gaskets create a very tight and reliable seal suitable for high temperature and pressures and can be manufactured to suit standard flanges and also custom-designed vessels.

Maxiflex gaskets are capable of giving an excellent seal over a wide range of flange surface finishes, but as a general guide we suggest under general duties, a flange surface finish of 125-248µin. (3.2-6.4 µm).



Maxiflex Spiral Wound Gasket Construction

Above is the “Maxiflex” spiral wound gasket’s basic sealing element. Several layers of specially formed continuous chevron-shaped metal strips are spirally wound with alternate plies of soft filler strip.

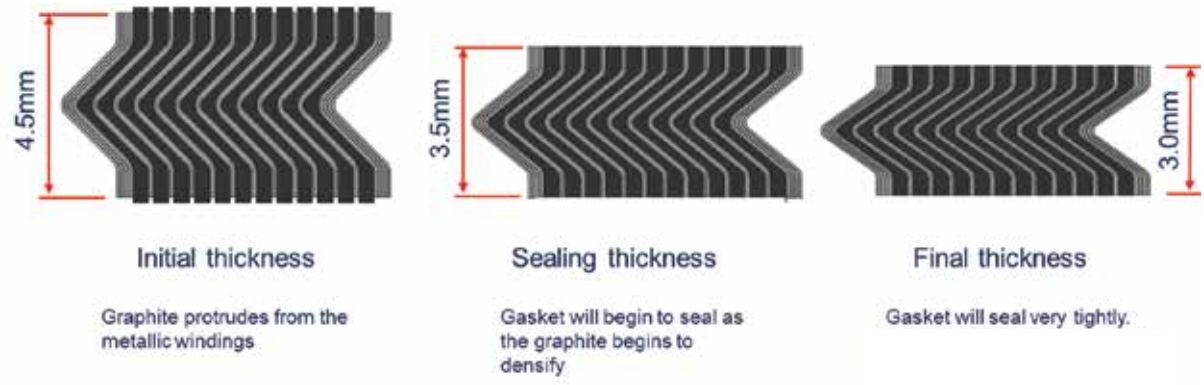
The chevron profile allows the gasket to act as a spring and the depth is carefully controlled to give the sealing element the best compression and recovery characteristics. Maxiflex spiral wound gaskets are manufactured to specifications of ASME B16.20.

Computer controlled winding machines carefully monitor and adjust the tension of the winding strips. A uniform density throughout the product is produced. This provides the spring-like action within the gasket that resists buckling and maintains a seal even when subject to fluctuating compressive loads.

Maxiflex Thickness After Installation

Spiral wound gaskets are manufactured in a number of standard thicknesses which are designed to compress to a specific thickness to attain the best sealing performance and adaptation to the flanges. The thickness is measured to the metallic windings not to the filler.

Example:



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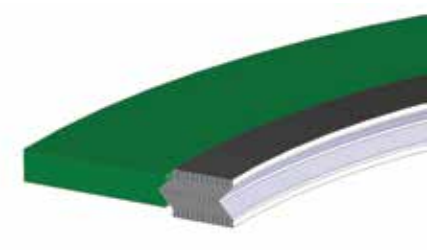
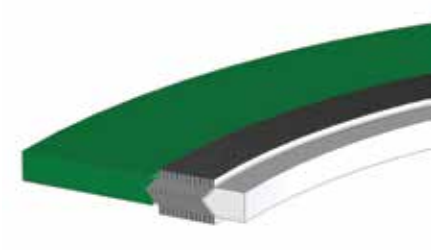
KLINGER Maxiflex spiral wound gaskets are available in a range of configurations and materials. Below are the most common gasket types:



Type CR

- Solid metal outer ring used as a centering device and compression stop
- Used mainly on raised face and flat face flanges
- Wide choice of material for filler and metallic strip
- General duties

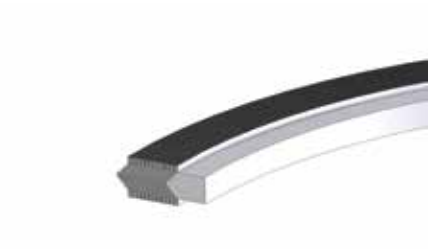


Type CRIR

- Solid metal inner and outer rings
- Suitable for high pressure and high temperature applications
- Standard spiral wound gasket for raised face or flat flanges
- Prevents turbulence and erosion damage to flange
- Prevents damage to the gasket bore and inner windings
- Inner ring acts as a heat shield and a corrosion barrier
- Wide choice of material for filler and metallic strip
- General and critical duties

Type R

- Wide choice of materials for filler and metallic strip
- Suitable for high pressure and high temperature applications
- Recommended flanges: tongue and groove, male to female and flat face to recess in vessels, valves and pumps
- General and critical duties



Type RIR

- Solid metal inner ring
- High pressure and high temperature capability
- Male to female flanges in vessels, valves and pumps
- Wide choice of materials for filler and metallic strip
- General and critical duties

Type R Graflex Faced

- Covered with 0.5mm Graflex
- Used on manhole covers
- Low bolt load applications
- Uneven sealing faces
- Double integrity seal

Type HTX

- A combination of inner and outer rings
- The inner ring could have pass bars or carry either a metal clad or soft gasket with pass bars
- Manufactured to customer designs
- Wide choice of materials for filler and metallic strip
- Manufactured with thin outer windings to create stable, large diameter gaskets for narrow heat exchanger application
- For heat exchanger applications

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Material and Temperature Specifications

KLINGER Maxiflex spiral wound gaskets can be manufactured from a wide range of metals to resist against chemical attack and temperature related degradation and used in combination with either graphite, PTFE or mica filler in accordance with ASME B16.20. Gaskets are color coded to help expedite the selection and identification of the gaskets. The filler material is indicated with a color stripe on the OD. The color on the entire outer edge of the OD indicates the winding material.

Please note: The temperatures given are for guidance only and do not apply in all fluids. Please contact Thermoseal's customer service department for advice.

KLINGER Maxiflex spiral wound gasket dimensions available in accordance with ASME B16.20 used with ASME B16.5 or ASME B16.47 flanges. DIN, BS10, and JIS standards are available upon request. Custom special gaskets are also available upon request.

Filler Material	Maximum Temperature	ASME B16.20 Color Coding
Graphite	932°F / 500°C	Grey Stripe
PTFE	500°F / 260°C	White Stripe
Mica	1832°F / 1000°C	Light Green Stripe
Mica and Graphite	1652°F / 900°C	N/A

Metallic Winding Material	Maximum Temperature	ASME B16.20 Color Coding
Carbon Steel	932°F / 500°C	Silver
304L Stainless Steel	1202°F / 650°C	Yellow
316L Stainless Steel	1472°F / 800°C	Green
347 Stainless Steel	1598°F / 870°C	Blue
321 Stainless Steel	1598°F / 870°C	Turquoise
Monel 400	1472°F / 800°C	Orange
Nickel 200	1112°F / 600°C	Red
Titanium	842°F / 450°C	Purple
Hastelloy B-2	932°F / 500°C	Brown
Hastelloy C-276	842°F / 450°C	Beige
Inconel 600	1832°F / 1000°C	Gold
Inconel 625	842°F / 450°C	Gold
Inconel X-750	1832°F / 1000°C	Light Grey

When ordering, please specify: Gasket Style, Nominal Pipe Size, Pressure Class, Gasket Standard, Outer Ring Material/Winding Material/Filler Material/Inner Ring Material

Example: CRIR 2" 150# B16.20 CS/316L/GRA/316L

Quality Sealing with Service and Innovation

Thermoseal Inc., an independent Klinger Company, is a leading manufacturer and distributor of high end fluid sealing products. KLINGER is a world-leading developer and manufacturer of fluid sealing and fluid control products founded in 1886 by Austrian engineer, Richard Klinger. KLINGER operates 60+ manufacturing, distribution and service hubs in over 40 countries worldwide. For over 125 years KLINGER gaskets have been meeting the toughest sealing demands with quality, integrity, and performance. For more information, please visit www.klinger-international.com

KLINGER trusted. worldwide.

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