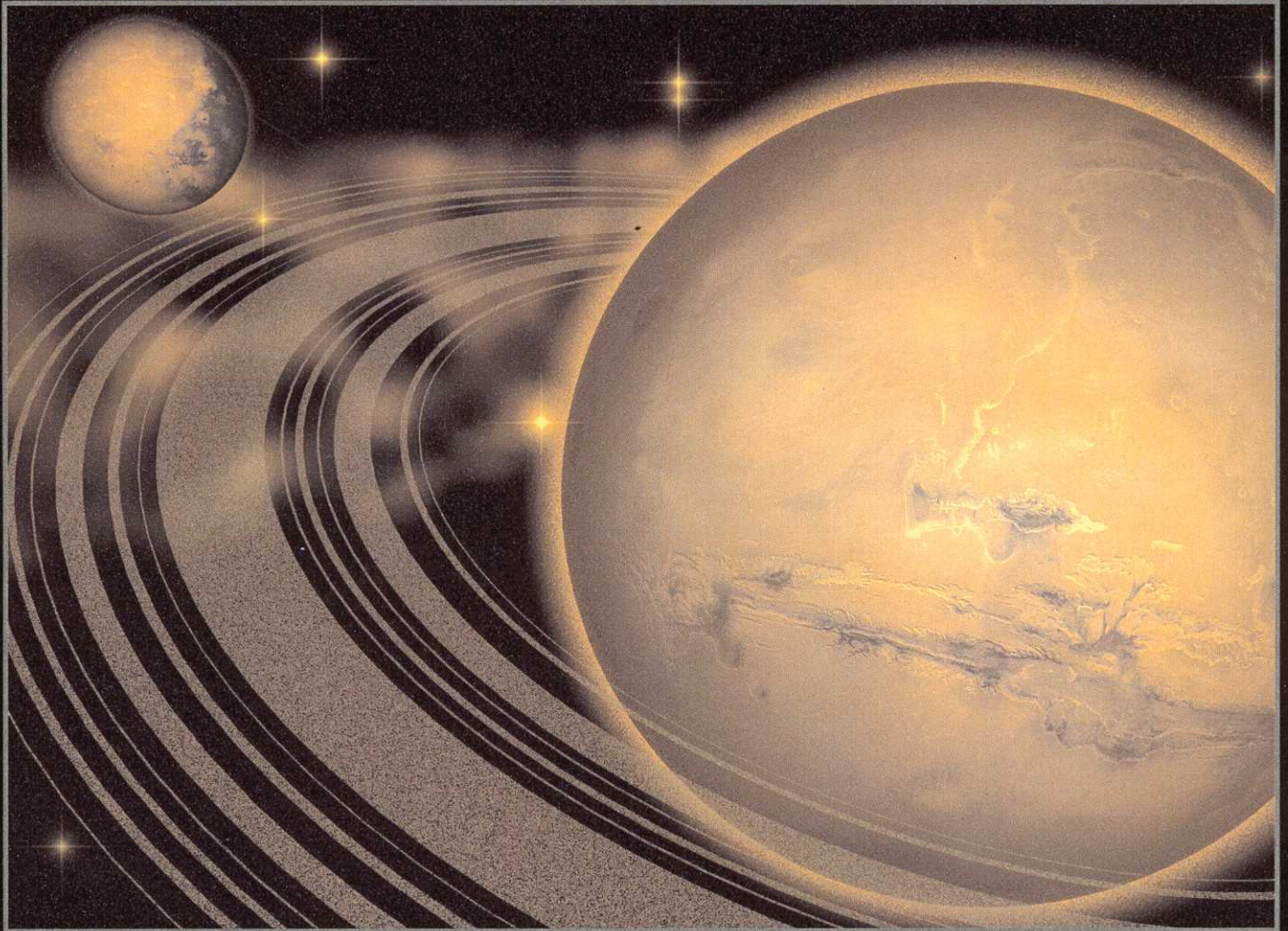


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# Garlock FLEXSEAL® Spiral Wound Gaskets

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With a Garlock® Metal Gasket -  
Consider it Sealed



Delivering a World of Value

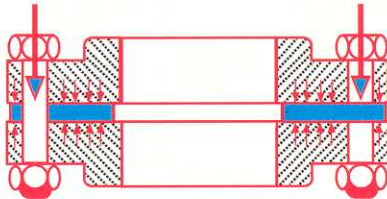
# Garlock

SEALING TECHNOLOGIES®

# Spiral Wound Gasket Density

When your plant maintenance workers install a new gasket, you expect that the gasket will meet the minimum compression requirements set out in ASME B16.20, and they will work properly with the ASME flanges in your piping system. If a gasket is too hard, then the bolting load required to compress the gasket to the designed thickness can't be achieved. If a gasket is extremely hard, the bolts may be over-torqued and yielded in an effort to compress the gasket to the gauge ring.

**ASME B16.20-1997, section 3.2.6.** Spiral-wound gaskets, NPS 1/2, NPS 3/4, and NPS1 in classes 150,300, and 600, shall be designed so that a uniform bolt stress, based on the nominal bolt root diameter, of 25,000 psi will compress the gasket to a thickness of  $0.130 \pm 0.005$  inch. All other gasket sizes and classes, shall be designed so that a uniform bolt stress of 30,000 psi will compress the gasket to a thickness of  $0.130 \pm 0.005$  inch.



**Gasket Compressibility**

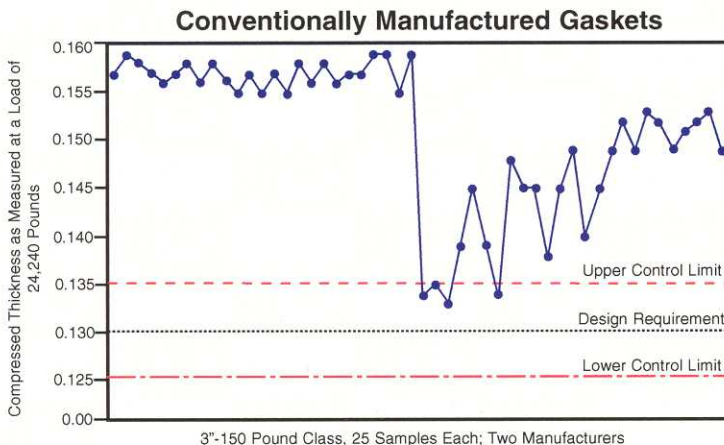
# CONTROLLED DENSITY® Technology

## Ensures

- More reliable sealing at low loading
- Predictable compression between flanges
- Improved sealing of bowed, distorted, or misaligned flanges

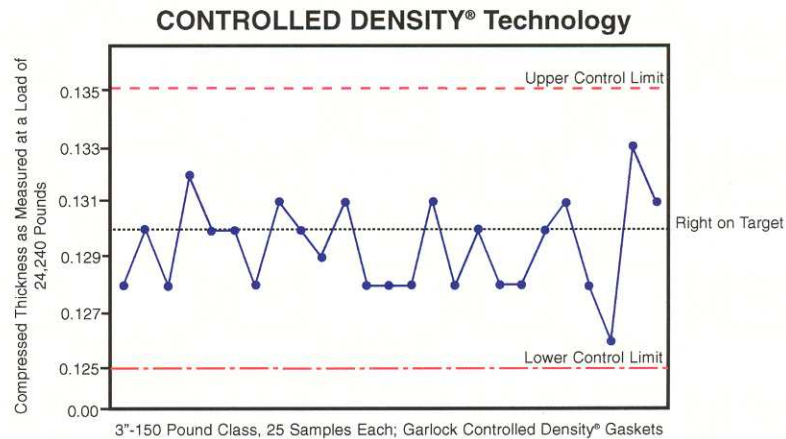
## Eliminates

- Deformed flanges from overloading
- Fatigued bolts
- Loose or leaking flanges
- Unpredictable, costly outages



**Graph 1: Conventionally Manufactured Gaskets**  
(Garlock Test Lab)

Conventionally Manufactured Gaskets were compression tested to evaluate their ability to meet B16.20 code. The results indicate that the gaskets routinely failed to meet the compression requirements of the ASME specification.



**Graph 2: Garlock CONTROLLED DENSITY®**  
(Garlock Test Lab)

With Garlock's CONTROLLED DENSITY® technology, every gasket will compress to the design level every time. Your mechanics can predict that the gasket will be properly seated when the flanges are compressed to the gauge ring.

# CONTROLLED DENSITY® Specifications

- Controlled Density® is standard on flexible graphite filled 150 and 300 pound class gaskets
- 1/2" to 24" sizes
- 304 / 316L Stainless steel spiral wound gaskets with carbon steel guide rings
- Proprietary anodizing process for gauge rings



Garlock FLEXSEAL®  
Resilient Gaskets for  
Demanding Applications

## Comparison of Loading Values

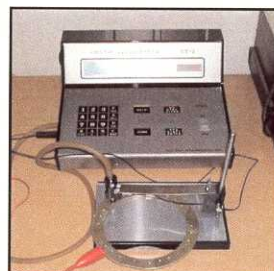
Product	M Value	Y Value
Typical Spiral Wound	Gasket Factor 3.00	10,000 psi
Garlock CONTROLLED DENSITY® Gasket	Gasket Factor 3.00	7,500 psi

# Global Gasket Manufacturing and Testing

- State-of-the-art global manufacturing facilities in Houston and Korea
- New level of manufacturing excellence and product reliability
- Controlled Density® technology ensures highly compressible, reliable gaskets
- ISO-9002 quality standards; most stringent quality audits anywhere
- Specifications on all materials of construction
- Certificates of conformance of materials available
- Coating thickness tested during manufacture
- New anodized corrosion treatment evaluated by salt spray corrosion testing (ASTM B117)



State-of-the-Art  
Houston and Korean  
Facilities



Coating Thickness  
Testing



Salt Spray (Cass)  
Testing Instrument

# More than just great products...

**Beyond offering you the widest available range of products for packing and sealing, Garlock enhances the value of its products with technical services and comprehensive training programs:**

- ISO 9002-94 registration for Industrial Gasketing, Industrial Packing, KLOZURE® Oil Seals, Bearing Protectors, Expansion Joints, Hydraulic Components, Mechanical Seals, and Industrial Rubber Products.
- A global network of stocking Authorized Garlock Distributors.
- Factory sales representatives and applications engineers available for problem solving when and where it is needed.
- Toll-free 800 telephone and FAX numbers for immediate product information.
- In-plant surveys of equipment and processes, providing the customer with recommendations to identify and eliminate sealing and packing problems before they start.
- The most sophisticated and most comprehensive test facilities available.
- Technical field seminars on all Garlock products.
- Factory-sponsored product training programs, including hands-on seminars, to ensure that Garlock representatives and their distributor personnel are the best in the industry.
- Technical Bulletins to keep you up-to-date on product enhancements and changes.

**Customers who specify Garlock fluid sealing products get, at no extra cost, the high quality support needed to run a profitable operation.**

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### WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury.

Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

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