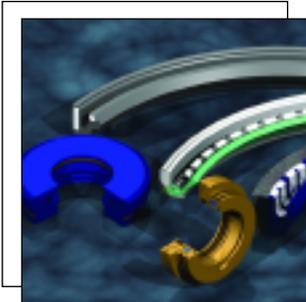
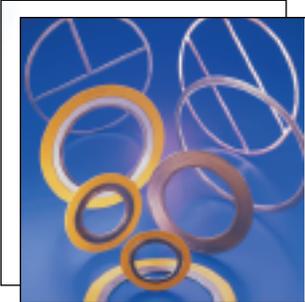


Seals & Sealing Systems



Garlock
SEALING TECHNOLOGIES®

an EnPro Industries company

You'll find there's not just one reason to turn to us,
there are all the reasons in the world.

Broad product range. Garlock has developed countless products including gaskets and sheet material, metallic gaskets, resilient metal seals, KLOZURE® oil seals, bearing isolators and mechanical seals, compression packing, expansion joints, elastomer seals, hydraulic components, and tools to increase production in your plant and reduce hard costs.

Products designed to last. Every Garlock product is specifically designed, constructed and tested to ensure a longer operating life, leading to lower cost, higher safety and real bottom-line savings consistent with Life Cycle Costing (LCC) programs.

Design/engineering. Garlock application and product engineers have designed countless sealing solutions throughout the world, and provide on-site surveys, product recommendations and training.

Testing/quality assurance. With the most complete in-house testing facilities in the industry, Garlock can provide test verification documentation for your sealing solution, based on your specifications, or any industry or government standard.

A partner present everywhere. Garlock offers fluid sealing solutions to virtually any industry you can think of.

- ▶ Chemical and petrochemical
- ▶ Power generation
- ▶ Steel mills
- ▶ Mining
- ▶ Pulp and paper
- ▶ Electronics
- ▶ Food and pharmaceutical
- ▶ Original equipment manufacturers

Through a worldwide network of manufacturing, sales and distribution locations, Garlock Sealing Technologies can guarantee product and technical support.



Garlock
SEALING TECHNOLOGIES®

an EnPro Industries company

Advancing the Science of Sealing™

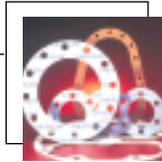
GASKETS & SHEET

Material

Garlock offers a complete range of non-asbestos gasket materials that comply with the most stringent environmental regulations.

GYLON®

Restructured PTFE gasketing with excellent chemical resistance. Significantly reduces creep relaxation problems typical of conventional PTFE.



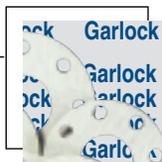
IFG®

Inorganic fiber gasketing with excellent thermal stability and torque retention for optimal sealability in temperatures up to 550°F (290°C) continuous.



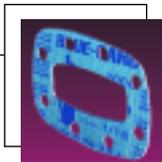
ST-706

Heat and oxidation-resistant inorganic fibers for superior performance in saturated and superheated steam. Range of applications in power generation, chemical processing and hydrocarbon processing industries.



BLUE-GARD®

Gasketing material made from a unique blend of fibers, fillers, and a choice of several elastomeric binders. Excels in a wide range of industrial applications.



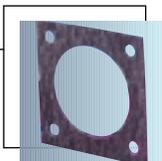
STRESS SAVER®

Superior low torque gasket for non-metallic flanges in chemical and ultra-pure applications. Available in EPDM, EPDM with a PTFE envelope (jacket), and a proprietary fluoroelastomer for aggressive chemical service.



G-9900

Graphite fiber gasketing withstands extreme temperature and pressure, provides good chemical resistance, and is fire-safe. Handles and cuts more easily than exfoliated graphite sheet or metal-inserted gasket materials.



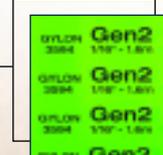
BLUE-GARD, CEFIL'AIR, CHEVRON, EDGE, EZ-FLO, FLEXSEAL, FLUIDTEC, GARTHANE, GRAPHONIC, GUARDIAN, GYLON, HELICOFLEX, IFG, ISO-GARD, KLOZURE MODEL 64, P/S, STRESS SAVER and SYNTHETAK are registered trademarks of Garlock Inc.

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GYLON® Gen2™

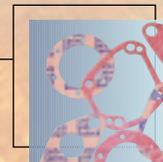
Styles 3591, 3594

New restructured PTFE gasketing offers the same performance characteristics as GYLON® at a more economical price. Style 3591 can be substituted for other barium sulfate-filled PTFE products, and is more compressible for less-than-perfect flanges, while Style 3594 can replace glass-filled PTFE, while providing improved sealability and blowout resistance.



LEAK-GARD™ Style 3750

Proprietary compound virtually eliminates oil and hydrocarbon leaks even under low bolt load, and avoids “weep-through” common to vegetable fiber gasketing. Recommended for lightweight gear box covers and fuel pumps, as well as standard ASME raised face flanges.



Rubber Sheet

Premium grade elastomer (rubber) sheet products for applications where the low load requirements of rubber are necessary.



GRAPH-LOCK™

Pure exfoliated graphite material handles extreme temperatures, resists nearly all non-oxidizing chemicals, and offers excellent compressibility and low creep relaxation. Available in homogeneous material, or with metallic or non-metallic inserts.



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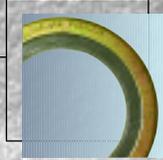
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Metallic GASKETS

Innovative metal gaskets designed to standard and customer configurations. Incorporating a wide range of quality materials to suit all process applications.

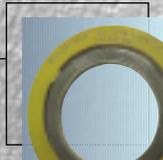
FLEXSEAL® Spiral Wound

Made by winding alternating strips of metal and soft filler material such as flexible graphite or PTFE. Ideal for standard flanges, heat exchangers, boiler handholes, manholes and other high temperature, high pressure applications.



EDGE®

Innovative new spiral wound gasket design, eliminates the radial buckling problems typical of traditional spiral wound gaskets.



GRAPHONIC® Series

Corrugated metal core encapsulated by soft sealing elements. Excellent for high temperatures and corrosive chemicals. Works well in less-than-perfect flanges and thermocycling applications.



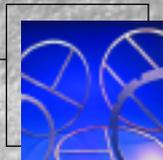
Kammprofile™

Serrated solid metal core for rigidity coupled with a deformable sealing material for compressibility ensures tight, reliable sealing even under low bolt loads. Durable and tight in extreme temperature and pressure fluctuations.



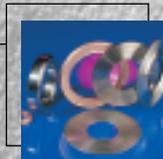
Heat Exchanger Gaskets

Custom configurations available in a wide range of materials and gasket styles. Solutions for almost any application.



Solid Metal

Machined, cut or corrugated from all-metal sheets; excellent resistance to high temperatures and corrosion.



Resilient Metal SEALS

A diverse range of engineered seals for extreme conditions, available in a wide selection of metals, sizes, and shapes to suit customer applications. Supported by a comprehensive design service.

HELICOFLEX®

Unique spring-energized seal, offering exceptional compression and elastic recovery properties at extreme temperatures and pressures. For grooved or full face flanges in applications such as heat exchangers (aggressive chemicals), reactor pressure vessels, gas turbines, vacuum and semi-conductor systems.



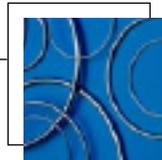
Metallic O-Rings

Tubular seals offering good compression and elastic recovery properties. Typical uses range from reactor pressure vessels and plastics processing to general use.



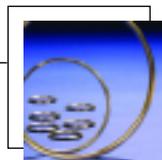
Metallic C-Seals

Provide effective sealing under adverse conditions, ideal for moderate flange load conditions. For aerospace to general industrial use.



ULTRA-FLEX™ Seal

Low-load metal seal provides exceptionally low permeability and outgassing properties. An all-metal alternative to perfluoroelastomer seals. Ideal for semiconductor, high-purity applications.



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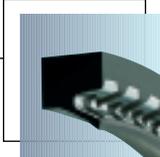
Garlock KLOZURE®

By retaining lubricants, excluding contamination or separating fluids, KLOZURE® Oil Seals and Bearing Isolators protect bearings and keep processes moving in the most demanding conditions. KLOZURE® mechanical seals provide reliable sealing for most types of rotating equipment throughout the processing industry. *Bring KLOZURE® to all your sealing requirements.*

Oil Seals

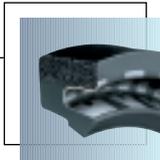
Model 23

The original split seal has saved thousands of downtime hours. More than 300,000 sizes (in standard nitrile) available in 24 hours or less. (Requires a cover plate.)



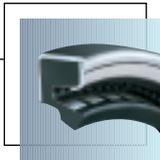
Model 26

Versatile rubber O.D. seal, available in shaft sizes from 0.750" to 60", in solid and split configurations. (Split seal does not require a cover plate.)



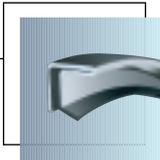
Model 59

Metal O.D. large-bore seal for moderate to severe operating conditions. Reverse bevel lip allows installation in either direction without rollover.



P/S®-I

The exclusive Garlock GYLON® lip material provides outstanding resistance to chemicals and high temperatures, with greatly reduced creep and cold flow as compared to standard PTFE. Runs dry up to 700 fpm.



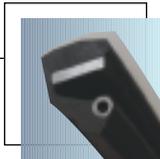
Model 64®

Fifty years of proven success in severe service, large-bore applications. Accommodates the highest speed (7,000 fpm) and misalignment/runout (0.125") in the industry.



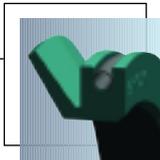
Model 87

Combines the sealing and installation ease of a rubber O.D. seal with the rigidity of metal. The top choice for many primary metals and pulp and paper applications.



Model 145

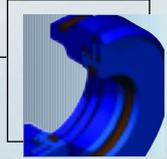
Face-type excluder seal prevents water, scale, dirt and other contaminants from penetrating the primary seal or bearing. Stainless steel garter spring provides tension to create an effective seal against the shaft.



Bearing Isolators

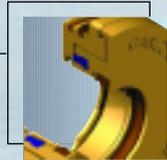
ISO-GARD® Bearing Isolator

Unitized PTFE construction of this non-contacting, two-piece seal provides excellent chemical and temperature resistance. The ideal alternative to lip seals in non-flooded, oil or grease applications.



GUARDIAN™ Metallic Bearing Isolator

Bronze bearing isolator for non-flooded applications with patented cam-lock system and internal PTFE unitizing seal feature. Surpasses all test requirements as specified by IEEE 841-2001.



Mechanical Seals

GMP-I and II

Single or double cartridge seal fits all standard ANSI pumps; especially well-suited for centrifugal pumps.



P/S®-II

Cartridge seal with multiple sealing elements offers excellent performance in thick, viscous fluids; especially effective in positive displacement pumps.



PK™

Economical design features a single spring and rubber bellows protected by stainless steel outer shell. Excellent choice for centrifugal pumps.



GPA

Mechanical seal with a coated metallic membrane as spring element. Specifically designed for pumps and mixers handling abrasive, corrosive, crystallizing or clogging fluids.



3-D Mixer Seal

Ideal in mixers and agitators where extreme mechanical conditions make sealing difficult. The floating housing compensates for excessive axial movement, eccentricity, shaft deflection and vibration.

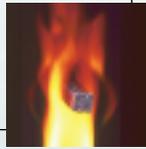


Compression PACKING

Garlock compression packings are rigorously tested to ensure dependable, cost-effective sealing in valves, pumps, agitators, and other rotary equipment.

1303-FEP

Braided packing combines flexible graphite with a non-scoring filament jacket for high temperature and pressure applications in the chemical, petrochemical and power generation industries. Fire-safe and compliant with stringent VOC and VHAP emissions regulations.



9000 EVSP

The ultimate solution for environmental protection through reduced VOC emissions. Patented "cup and cone" design permits selective component compression and controlled radial flow, creating an effective seal against both valve stem and bore.



8093 DSA

Innovative pump packing set engineered for dry running and reduced flush water consumption.



Carbon/Graphite

Styles 98, 1333-G, Carbāe™ 105 & 108

Braided carbon filament with graphite lubrication for valves or pumps in high temperature, high pressure, and/or high speed chemical applications. Style 98 available with reinforced corners for extra abrasion resistance in pumps.



PTFE

Styles 5888, 5889, 5904

High density, non-porous PTFE continuous fiber resists chemical attack and prevents leakage through the braid. Ideal for valves and pumps in the chemical and food processing industries.



SYNTHEPAK®

Styles 8909, 8913, 8921-K, 8922

Lubricated, braided synthetic fiber packing performs well with minimal shaft and sleeve wear. Excellent for general service applications.

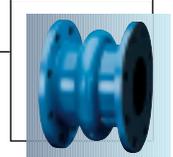


Expansion JOINTS

Expansion joints are engineered to absorb movement and dampen vibration, reducing stress on pumps, pipes, and anchoring systems.

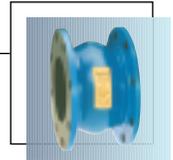
Styles 204, 204HP, 204 EVS

Industry standard spool-type joints with single or multiple arch configuration withstand full vacuum and excessive movement. Available in a variety of elastomers to handle a wide range of temperature, pressure and media combinations.



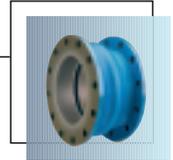
Style 206 EZ-FLO®

Featuring a unique self-flushing arch, this joint is the perfect choice for difficult slurry applications. The lightweight design is economical and easy to install.



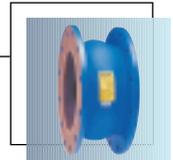
GUARDIAN® 200

The mechanically bonded, high-density FEP liner, high pressure and full vacuum capabilities make this abrupt arch style expansion joint an excellent choice for a wide variety of chemical applications. Available in 2" to 30" I.D.



GUARDIAN® 306 EZ-FLO®

This expansion joint flowing arch design prevents media buildup and reduces turbulence. The FEP liner resists corrosive attack at elevated temperatures and pressures, making it ideal for the chemical processing and pulp and paper industries.



Styles 214/215

PTFE flexible couplings reduce noise and compensate for expansion and contraction in air conditioning and heating systems. Superior corrosion resistance for use in the chemical processing industry.



SABER™ Metallic Expansion Joints

Metal joints withstand pressures to 1,000 psi and temperatures to 1,500°F (815°C). Available in wide range of configurations and alloys.

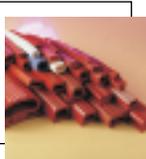


Elastomer SEALS

Garlock manufacturing sites in the US and Europe offer both standard and custom-made elastomeric products, as well as high-quality engineering support.

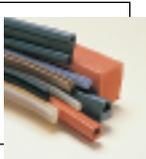
CEFIL'AIR®

Inflatable seals for your most difficult sealing, lifting, handling or fixturing problems in industries and applications including: aerospace, autoclaves, automotive, CPI and powder processing, marine, nuclear, ovens, pharmaceutical, pulp and paper, and sterilizers. Available in straight lengths or vulcanized to form continuous configurations.



Profiles

Extruded seals available in a variety of shapes and a wide range of elastomer materials. Silicone materials comply with many standards of aerospace, food processing and other industries.



Molded Seals

Specially engineered materials and designs for custom-molded products. Materials meet a variety of industry specifications and standards.



Hydraulic COMPONENTS

Heavy-duty seals for reciprocating and rotating equipment in a wide range of applications.

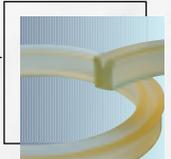
CHEVRON® Set

Vee-ring packing with unique multiple lip design automatically responds to changes in system pressure; exceptionally reliable seal for rods, rams, pistons and plungers. Also available in Deep Vee Ring design for large diameter, deep stuffing box applications.



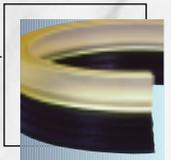
GARTHANE® U-Seal

Tough urethane seal with excellent tear and abrasion resistance; withstands a wide range of temperatures, pressures and chemicals. Ideal for plungers, pistons, rams and rods.



Polytop Set

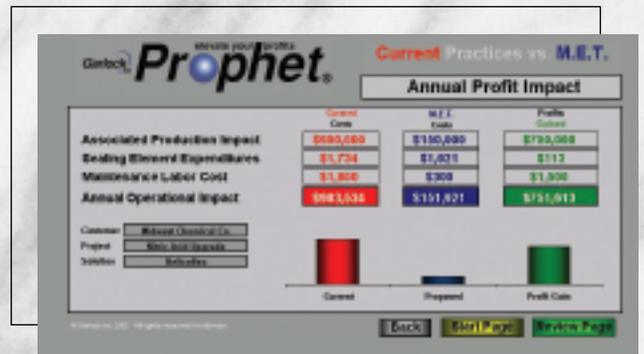
Combining the strength and flexibility of CHEVRON® rings with the abrasion resistance of GARTHANE® U-Seal, the unique Polytop Set offers maximum sealing performance and reliability.



Useful TOOLS

Garlock ^{elevate your profits} **Prophet** Software

Use our Prophet® Software to increase production in your plant and reduce hard costs. Prophet® Software documents cost savings utilizing specific information that you supply. Contact your local Garlock sales-person to create more profits at your company.



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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 9001:2000 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 application 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.

AUTHORIZED REPRESENTATIVE

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an EnPro Industries company

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Fax 971.4.8833682