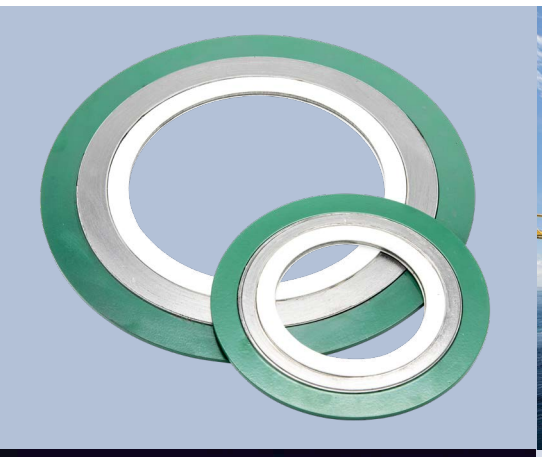
KLINGER GPI

INDUSTRIAL SEALING

Product | Quality | Reliability | Service






www.klinger-gpi.com

BUSINESS EXCELLENCE

WHO WE ARE

KLINGER GPI is well positioned to provide industrial facilities with a comprehensive range of fluid sealing products and services, through our three physical Texas locations including a gasket manufacturing facility located in Houston, Texas. The main industrial market sectors served are Oil & Gas, Chemical, Water, Energy, Manufacturing, Infrastructure and Food & Beverage.

CUSTOMER VALUE

KLINGER GPI manufactures and supplies a comprehensive range of fluid sealing and control products; including static and dynamic sealing products, valves, instrumentation, expansion joints and hoses, fasteners, hydraulic bolt tightening equipment and supplementary MRO products. In addition, our accredited in-house and mobile facilities provide tool calibration and equipment repair services, to suit any calibration schedule requirements.

GLOBAL REGIONALITY

Our highly skilled and experienced team of specialists, technical support staff and customer service teams are always on hand to assist you with product selections, training needs, shutdown requirements, projects and bolted joint integrity troubleshooting.

This product brochure provides an overview of the products and services available from KLINGER GPI. For more detailed information regarding any of the items described herein, please do not hesitate to contact our Customer Service team members, or visit our website at www.klinger-gpi.com.

INNOVATIVE EDGE

THE KLINGER GROUP

The KLINGER Group is an internationally active company in the field of industrial valves and sealing technology. With 45 production, sales and service companies and more than 2,600 employees worldwide, the company is one of the leading suppliers in this field.

PEOPLE SPIRIT

In total, the KLINGER Group operates 18 production sites, where seals, valves, measuring instruments, expansion joints and hoses are manufactured. In the process, the company is active in more than 60 countries on five continents.

For more than 130 years, KLINGER has been headquartered in Gumpoldskirchen, Austria. The company was founded there and has since developed into a globally active technology and service company.

SUSTAINABILITY

KLINGER trusted. worldwide.

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COMPRESSED FIBER

In 1900, KLINGER pioneered the first non-asbestos fiber gasket material, and for the last century has been a market leader in the manufacture of this globally recognized sealing solution.

KLINGERSIL is a range of specially formulated non-asbestos fiber-based materials designed to meet the highest standards of performance for a wide range of industrial applications.

KLINGERSIL C-4401

» Universal, general purpose gasket material that has excellent sealability and chemical resistance

» Manufactured with aramid fiber, reinforced with a nitrile binder

KLINGERSIL C-4430

» Universal gasket material with outstanding stress relaxation and resistance to hot water and steam, making it suitable for a wide range of applications

» Manufactured with a combination of aramid fiber and fiberglass, reinforced with a nitrile binder

KLINGERSIL C-4500

» Premium grade, high-pressure gasket material designed for use in high-temperature alkaline media and superheated steam

» Manufactured with carbon fibers and special heat-resistant additives, reinforced with a nitrile binder

KLINGER Quantum

» Multi-layer gasket material, providing excellent resistance to creep and cold flow

» Multi-layered structure is manufactured with a combination of synthetic fibers, HNBR and NBR rubber

KLINGER top-sil ML1

» A unique multi-layer fiber reinforced gasket material

» Can be used at higher temperatures and a wider range of media than any other fiber reinforced gasket material

KLINGER has an extensive range of KLINGERSIL calendared gasket materials to suit your applications. Scan the QR code to see the full range of KLINGERSIL gasket materials or contact your local service center to discuss your individual specification.

KLINGER MILAM

» Mica based gasket material with a 0.1mm (.0039”) thick perforated stainless steel reinforcement layer

» Suitable for temperatures up to 1652° F and higher

» Offers outstanding thermal stability with weight loss of less than 5% at 1472° F

» Superior chemical resistance to solvents, aggressive acids, alkalis and mineral oils

» Fire Safe to API 6FB and extensive history in Ammonia / Fertilizer applications.

PTFE

The KLINGER range of modified PTFE materials have been designed to offer class leading mechanical strength and creep resistance combined with the ability to withstand extreme chemical conditions.

KLINGER top-chem 2000

» Universal heavy-duty gasket, which offers an exceptional performance in applications with high mechanical requirements at high temperatures; it is the only PTFE gasket with a Fire-safe certificate

» Filled with silicon carbide

KLINGER top-chem 2003

» Excellent chemical resistance in strongly acidic and alkaline applications as well as very good properties at medium temperatures and loads

» Filled with hollow glass-microspheres

KLINGER top-chem 2005

» Outstanding performance and a high chemical resistance in strongly acidic applications

» Filled with inorganic fillers

KLINGER top-chem 2006

» Excellent resistance in strongly alkaline applications and good mechanical properties at medium and low temperatures and loads

» Filled with Barium sulfate

Soft-chem

» 100% expanded virgin PTFE

» Highly compressible and tight under low stress loads, Soft-chem combines excellent corrosion resistance, impermeability, along with superior creep resistance

GRAPHITE

KLINGER offer a range of high purity exfoliated graphite gaskets, available with either foil or tanged metallic inserts. Specified in a wide range of media, extensively in the petrochemical and refining industries.

KLINGER PSM

» Pure exfoliated graphite mechanically bonded to a tanged stainless steel insert, providing superior blow out resistance and increased material handling properties

» Used extensively in the petrochemical and chemical industries for process and steam applications

KLINGER SLS / SLN

» Pure graphite laminated to 0.05mm (.00197”) 316 stainless steel or nickel foil

» Combines excellent conformability with the ability to seal with limited bolt load and or damaged flange applications

KLINGER MLX

» Multi Layer Xtreme is a premium, multi-layered pure graphite, laminated without adhesive to several stainless steel foil inserts

» Offers very high compressive strength for increased pressure and heavy-duty applications

MAXIFLEX

KLINGER Maxiflex 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 from a preformed metallic strip in combination with a soft filler material. A wide combination of winding strip metal and filler material are available to suit your application.

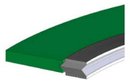
Styles Available

R

Metallic windings and filler only, for tongue & groove flanges, male to female flanges and flat face flanges to recess in vessels, valves and pumps

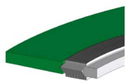
RIR

Sealing element with solid metallic inner ring for male to female flanges in vessels, valves and pumps



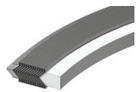
CR

Sealing element with solid metallic outer ring for raised face flanges



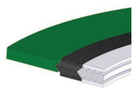
CRIR

Sealing element with solid metallic inner and outer ring. Our standard spiral wound for raised face flanges. Fire Safe to API 6FB



HTX

Sealing element with solid metallic inner ring and thin outer windings to create stable, large diameter gaskets for narrow heat exchangers



MAXIFLEX PRO / PRO X

Originally developed for Offshore and HF Alkylation applications. Including a Maxiprofile inner ring, faced with PTFE. Sealing element filler either graphite or mica or a combination of both. Fire Safe to API 6FB

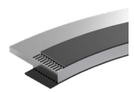
KLINGER Maxiflex spiral wound gasket dimensions available in accordance with ASME B16.20, used with ASME B16.5 or ASME B16.47 flanges. EN and JIS standards, as well as custom designs, are available upon request.

MAXIPROFILE

The KLINGER Maxiprofile is a composite gasket, utilizing a serrated metal core with soft conformable facing material. The Maxiprofile combines the benefits of soft cut materials with the mechanical integrity associated with metallic gaskets. A wide combination of metallic core materials and soft facings are available to suit your application.

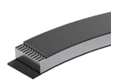
Styles Available

All styles also available with Convex core profiles



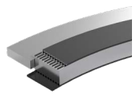
LA1

Sealing element with integral guide ring for use on standard raised or flat face flanges



LA2

Sealing element only for confined locations including male and female, tongue and groove and recessed flanges



LA3

Sealing element with loose guide ring. The loose guide ring is preferred in applications where thermal expansion is present

SAFEGUARD

Specially designed to combat flange corrosion and the issues associated with it, the Safeguard has long been trusted by operators as the number one choice in sealing a corroded flange when remachining is not possible.

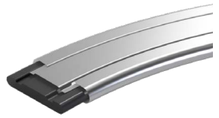
- KLINGER Maxiprofile technology, Fire safe to API 6FB
- Limits further corrosion
- Remake corroded flanges safely and quickly without the need for polymer repair; bring assets back online 70% faster
- Halts in production are reduced; avoiding major loss of revenue
- Suitable to RF, RTJ and mismatched RF to RTJ flanges, class 150 to 2500

JACKETED GASKETS

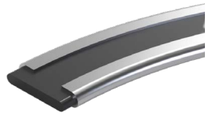
Jacketed gaskets consist of a soft, compressible filler material which is enclosed fully or partially within a metallic jacket.

- Used in medium to high pressure sealing applications and are typically found in bolted joint connections with narrow flanges, heat exchangers or valve bonnets
- Commonly used outer metal jacket materials include low carbon steels and stainless steels, and materials for the internal filler include flexible graphite, PTFE, compressed fiber or mica*

Styles Available:



Style 100
Double Jacket



Style 101
Single Jacket

Style 103
Corrugated Double Jacket

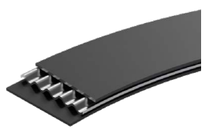
*Alternate materials options are also available on request.

CORRUGATED METAL GASKETS

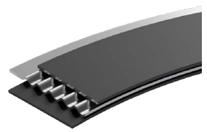
Corrugated metal gaskets consist of a thin, corrugated metal core which is faced top and bottom with a compressible sealing material.

- Typically used in low to medium pressure applications and are commonly found in standard piping flange connections, and heat exchanger or pressure vessel girth flanges
- Standard core metallic material is stainless steel grade 316Ti, but other grades and alloy materials are also available. The standard facing material is flexible graphite, and PTFE or mica materials can also be used depending on the nature of the application
- A metallic eyelet can be supplied on either the ID or OD of the gasket to improve leak tightness characteristics and protect the facing material from the internal media

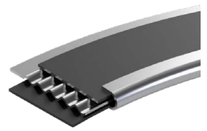
Styles Available:



Standard
CMG



CMG with flat
outer ring



CMG with flat
outer ring &
inner eyelet

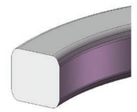
CMG with
corrugated
outer ring

RING TYPE JOINTS

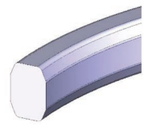
Metallic ring joint gaskets are heavy-duty, high integrity seals largely used in offshore and petrochemical applications. They are precision engineered components designed to be used in conjunction with precision machined flanges.

- Manufactured according to ASME B16.20 and API 6A or API 17D
- Metallurgy is selected primarily on chemical compatibility and hardness of the flange
- Under compression, it is imperative that the ring joint is softer than the mating flanges in order to plastically deform in the groove
- RTJs are often used in offshore applications and certain styles can be adapted to subsea installation

Styles Available:

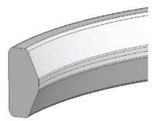


Type R Oval



Type R Octagonal

Type BX / SBX



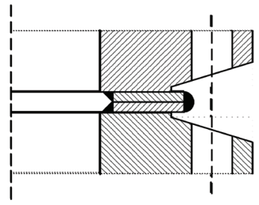
Type RX / SRX

WELD RING GASKETS

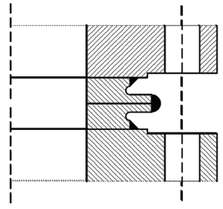
KLINGER weld rings are available for pipe flanges, vessels and exchangers in hazardous or toxic media service where a leak free assembly is required and limited opportunity for disassembly is available.

- Style A24 is used where differential thermal expansion effects are present
- Styles A21 / A22 are standard weld ring seals used on RF flanges
- Typically specified on pressure equipment such as heat exchangers, reactors and vessels
- Full design services including FEA available

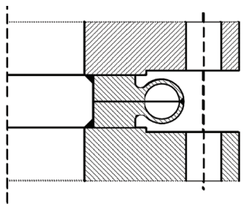
Styles Available:



A21 Membrane



A22 Weld Ring



A24 Hollow Lip

SENTRY REVERSE INTEGRITY

Maximize plant up time / Reduce emissions / Increase efficiency

- Save up to $1 million in shut down and pit stop costs
- Allows leak testing on individual flanged joints without the need to pressurize the full system
- Speeds up the leakage testing, reducing plant downtime
- Significantly reduces the volume of testing media required
- Validates individual joint integrity at installation reducing the need to revisit the joint
- Suitable for all ASME B16.5, B16.47, API flanges, Class 150-2500, API 5k-20k

SENTRY RTJ

For ring joint flanges

SENTRY IK

For cathodic protection

SENTRY DS

For raised face flanges

SENTRY SR

For clamped connections

GASKET INSERTION TOOL

KLINGER Gasket Insertion Tool (GIT) allows safe and precise insertion of a ring type joint between two flanges, allowing a safer, easier and faster fitting process.

- Shape of the tool prevents the handle from rotating in front of the stud bolt holes ensuring the gasket does not need to be repositioned to add the remaining bolts
- Allows quick and accurate location of RTJs
- Available for use on R, RX and BX rings
- Prevent injury to hands and fingers during installation
- Designed to be used with standard subsea tooling
- Minimal need for revisiting

BAFFLE SEALS

KLINGER baffle seals play an important role in effectively sealing the gap between the longitudinal baffle and the heat exchanger shell in high performance heat exchangers.

- Longitudinal baffle seals are used in heat exchangers with two-pass or split process flows within the shell
- Approximately 10% thermal efficiency saving using KLINGER baffle seal, calculated using our unique FDS (fluid dynamics simulator)
- Offered commonly in SS316TI, however are available in other metallurgies
- Increased internal flow and reduction in internal cleaning
- Simple to install

INSULATION KITS

Insulation kits are specified to prevent galvanic corrosion effects by insulating protected piping systems and preventing the flow of electro-static charges.

- Used in Cathodic Protection systems
- Preventing corrosion by removing the possibility of systems acting as a galvanic cell
- Full face or raised face option
- Non-metallic gasket for ANSI B16.5 flange, class 150 to 300
- Metallic gasket for ANSI B16.5 / ASME B16.20 flanges, class 600 to 2500
- Fire safe to API 6FB
- The industry’s only API 15k rated insulation kit

SAFETY SPRAY SHIELDS

FlangeGuards SUREBAND shields are used in a variety of industries, where their primary application is the prevention of harmful spray-outs and mist formation from failing pipe joints of toxic, corrosive and dangerous liquids such as acid, oil or steam.

FLANGE GUARDS™

SUREBAND® Clear

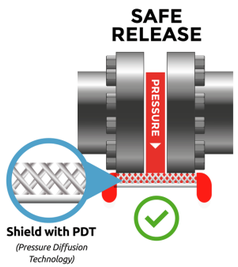
Outlasts conventional PTFE-coated fiberglass shields in corrosive environments

SUREBAND® Steel

Suitable for high pressure and temperature applications

SAFER

Pressure Diffusion Technology (PDT) makes SUREBAND® the most effective shield design on the market



QUICKER

No pull-cords. Quick fit connection cuts install time dramatically, saving time and money

Hook+loop connection

Quick latch connection

BETTER

Best-in-class materials for construction and performance

MULTI-SIZE FUNCTION increases flexibility & reduces stock holding

ADDITIONAL SEALING MATERIALS

KLINGER GPI carries an extensive selection of materials from which we can supply standard or custom cut gaskets, seals and components for a wide range of applications. Materials are available in different grades, thicknesses and hardness to meet any application requirements.

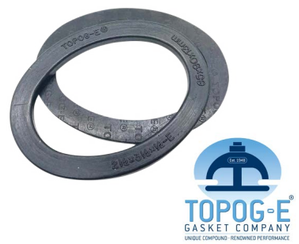
Rubber

Cork

Cellulose Fiber

Felt & Ceramic

Boiler Joints



Sponge & Foam Rubber

High Temperature Fabrics

FASTENERS

KLINGER GPI supplies various types of fasteners and bolting components to suit any requirements.

- » Standard and custom studs and bolts
- » Heavy hex nuts, bearing lock nuts
- » Flat washers, lock bearing washers, spring washers
- » Socket head and hex head cap screws
- » Fasteners are offered in variety of grades and coatings

KLINGER GPI

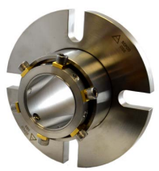
Colorado
Kansas
New Mexico
Borger
Oklahoma
Arkansas
Lubbock
Texas
Houston
Louisiana

MECHANICAL SEALS

Mechanical seals for pumps, agitators, mixers and other rotating equipment simplify installation, improve reliability and extend the performance of fluid handling.

Split Seals

- Easily assembled with only two halves
- O-rings and gaskets are factory installed and do not require user attention
- Eliminates the need to dismantle any piece of equipment, large or small



Cartridge Seals

- Completely pre-assembled, simplifying the installation process
- Pre-set design promotes uniform functionality
- Tight tolerances and quality construction contribute to a secure seal, preventing fluid leaks

Component Seals

- Modular design allows customization to fit specific equipment and applications
- Minimized friction and wear lead to improved overall energy efficiency
- Extended service life due to the durable seals ability to withstand challenging conditions

Air Seals

- Efficient design minimizes air usage while maintaining an internal sealing pressure profile
- Resilient to angular and parallel shaft movement
- Requires little or no maintenance after installation

SEPCO®
Sealing Equipment Products Co., Inc.

PACKINGS

Packings are produced using the highest quality raw materials and are available in a wide range of combinations to suit many different service applications in valves, rotary and reciprocating pumps.

Packing Materials:

Graphite

- Intended to offer high temperature capability, good chemical resistance and markedly reduced spindle wear
- Offers a versatile range with varied handling and performance characteristics including high conformability, resistance to extrusion, chemical purity, temperature and oxidation resistance

PTFE

- Outstanding resistance to chemical attack, low coefficient of friction and wide temperature tolerance including cryogenic service
- Popular choice for those difficult applications where strong solvents, corrosive chemicals and oxidizing media require to be sealed

Synthetic Fiber

- Demand for less leakage, downtime and wear combined with reasonable payback time remains the primary criteria for the use of synthetic packing
- Increasingly finding favor due to the effective techniques of the materials used, braiding and lubrication methods

Hybrid

- Achieved by combining two or more yarns by special braiding methods and adding selected lubricants
- Primarily designed for use in specialized duties, but can be equally effective in more standard applications
- Recommended in difficult applications where high stresses are involved and packing is required to offer a tight seal under high pressure

PNEUMATIC / HYDRAULIC SEALS

O-RINGS

» O-rings are used as sealing elements or as energizing wipers and hydraulic seals

» Wide choice of elastomers and plastics in both standard and custom o-rings for both static and dynamic applications

» Custom sized o-rings can also be supplied as vulcanized o-rings or as cord

Common Elastomers:

Buna-N	FKM (Viton®)	PTFE
EPDM	Silicone	FFKM

BACK-UP RINGS

» Back-up rings are specifically designed to be used in conjunction with an o-ring to prevent extrusion of the o-ring in machined grooves

» Can be used on eiher one or both sides of the o-ring for bidirectional pressure

» Available as contoured, spiral cut, butt cut or skive cut

HYDRAULIC SEALS

» Hydraulic seals are relatively soft, non-metallic rings captured in a groove or fixed in a combination of rings

» Use to block or separate fluid in reciprocating motion applications

Common Seal Types:

U-seals	Piston seals
Wiper rings	Rod Seals

OIL SEALS

» Oil seals prevent the passage of fluids along a rotating shaft, which are necessary when a shaft extends from a pump or a gear box

» Can be manufactured in standard sizes or tailored to suit any application

» Correct choice of seal profile and material is paramount to the successful operation of the oil seal

INDUSTRIAL LUBRICANTS

GREASES

» Industrial greases are designed to reduce friction between moving parts in machinery ande equipment, preventing wear and tear

» Greases provide solutions to a host of lubrication problems, including extreme heat, excessive pressure, water washout and contamination

» Smoother operation and optimized performance of machinery for increased efficiency and productivity; reduced maintenance, downtime, parts replacement and labor costs

OILS

» Oils lubricate and penetrate equipment to promote cleaning where grease, oil and dirt may accumulate

» Industrial oils include: penetrants, aerosols, valve lubricants, cleaners & degreasers, gear oils, open gear lubricants, hydraulic oils, wire rope lubricants & oils, frac lubricants

BOLT LUBRICANTS

» Anti-seize compounds are developed to protect and lubricate metal fasteners and parts from rust, corrosion, galling and metal-to-metal contact

» Proper particle distribution of bolt lubricants is a key factor for reaching proper torque loads and will aid in the disassembly of fasteners without damage

DISPENSERS

» Lubrication dispensers ensure precise equipment lubrication for most applications and environments

» Extend bearing life; reducing replacement and repair costs and avoiding unnecessary downtimes

» High operating pressures enable a variety of installation methods and options along with a wide range of ambient temperatures

BOLTED JOINT ASSEMBLY TOOLS

Choose from a wide variety of equipment to help you get the job done safely and up to industry standards.

Hand Type Clicker

Hydraulic Square Drive

Hydraulic Low Profile

Pneumatic Square Drive

Battery Square Drive

Electric Square Drive

Torque Pump

Electric
Pneumatic
Battery

Tensioner Pump

Electric
Pneumatic
Battery

Tensioner

Smart Socket

Flange Spreader

Nut Splitter

Distributors of:

SPXFLOW Bolting Systems

ENERPAC

RAD TORQUE SYSTEMS

TOOL CALIBRATION & SERVICE

KLINGER GPI's accredited calibration and repair labs are fully equipped to ensure your torque equipment is performing properly. Our in-house and mobile labs are accredited to ISO/IEC 17025 and are externally audited annually.

CALIBRATION

Whether it's time for your scheduled tool calibration, or you've found tools that are out of calibration, our full-service, accredicted calibration labs are equipped for the task.

SERVICE

If you have equipment needing regular service or a damaged tool in need of repairs, our experienced technicians are ready to get the job done.

MOBILE LAB

We offer accredited calibration and service of hand torque wrenches, pressure gauges and hydrauilc torque wrenches on-site at your plant. Our mobile labs can be scheduled for on-site calibrations and repairs to keep your processes running with little to no downtime.

OUR ACCREDITED SCOPE

- HAND TORQUE WRENCH
  5 in/lb to 2,000 ft/lb
- HYDRAULIC TORQUE WRENCH
  50 ft/lb to 40,000 ft/lb
- PRESSURE GAUGE
  20 psi to 10,000 psi
- PNEUMATIC TORQUE WRENCH
  50 ft/lb to 40,000 ft/lb

VALVES

PISTON VALVES

» KLINGER KVN Piston Globe Valves are designed to provide excellent sealability, reduced emissions and practical maintenance considerations

» Suitable to pressure Class 150 and 300, in sizes up to 8”

» Piping connections can be supplied as flanged, socket welded or threaded

» Body materials are cast iron, carbon steel or stainless steel

BALL VALVES

» KLINGER Intec Ball Valves are high integrity ball valves mainly for the chemical industry

» Range includes small bore quarter turn valves, soft seated or metal seated 2-piece valves, wafer valves, multiple port vavles, sampling valves and 3-piece high pressure valves

» Wide range of material options are available to suit any application

BUTTERFLY VALVES

» Quadax® butterfly valves can be supplied in various styles and configurations up to 40” nominal bore sizes

» Quadruple offset design offers many advantages including the reduction of friction, flow restrictions and stem torque

» Suitable for pressure ranges up to Class 900

STEAM TRAPS

» KLINGER offers a range of economical thermodynamic drains and thermostatic steam traps for the removal of condensate from steam systems

» Thermodynamic steam traps are designed with three outlet holes, offering a stable operation disk, which is linked to the seat hardening, ensuring longer life to the steam trap

» Suitable for pressure ranges up to Class 600

KLINGER GPI will gladly assist with any valve related inquiries. Please contact your local facility with specific needs relating to gate, globe and check valves, instrumentation valves and fittings, control valves or safety valves.

EXPANSION JOINTS

Expansion joints are generally custom designed, highly specialized products. They contain either one or multiple flexible elements to compensate for dimensional changes.

METAL

District heating
Steam lines
Chemical & process industries
Water lines (hot & cold)

RUBBER

Pumps (suction & discharge)
Rotating equipment & machinery
HVAC industry
Sewage lines

FABRIC

Power plants
Gas turbines
Chemical industries
Steel & iron plants

HOSES

Hoses can be customized to meet specific application requirements, such as temperature extremes, pressure ratings, abrasion resistance and compatibility with specific fuilds.

» Easy routing around obstacles, through tight spaces and over long distances

» Suitable for handling diverse fluids, including water, oil, chemicals, acids fuels and compressed air

» Available in a wide range of materials, sizes and configurations

» Requires minimal maintenance and upkeep, resulting in reduced downtime, lower maintenance costs and increased productivity

INSTRUMENTATION

LEVEL GAUGES

KLINGER® level gauges can be used for virtually every medium encountered in industry. Our range of construction materials varies from low temperature steels to high-tensile heat resistant steel.

» **Reflex** - Low maintenance costs and easy level reading

» **Transparent** - Suitable for use with aggressive media or steam

» **Bi-color** - Used to measure high-pressure water and steam

» **Magnetic** - Suitable for applications involving dangerous or toxic liquids & gases

GAUGE GLASS AND GASKETS

» KLINGER gauge glasses are exceptionally resistant to alkalis, acids and boiler water

» Available in reflex and transparent

» Available as sealing and cushion gaskets. Mica shields are available, which are recommended for steam pressures above 35 bar (508 psi)

GAUGES

» Wika® pressure gauges are available to measure gauge, absolute and differential pressures

» Temperature gauges are available in bimetal, expansion, gas-actuated and machine-glass

» Flow gauges include primary flow elements, flow switches, air flow sensors, ultrasonic and magnetic-inductive flow meters

TAPE & ROPE

SEALEX®

» 100% pure PTFE joint sealant provides soft, highly compressible gasketing for longer life and trouble-free sealing

» The high compressibility enables it to effectively fill flange imperfections for a tight, leak-free seal

» Available in roll form to help reduce storage space with virtually no shelf-life concerns since PTFE is unaffected by normal environmental conditions

GRAPHITE TAPE

» Well-suited as a flange seal for damaged flanges or joints where the bolt load is limited

» Can be used as a form-in-place gasket, valve stem packing, pump stuffing box packing or other irregular shaped seals or gaskets

» Available in a smooth or corrugated roll, with or without self adhesive backing

THREAD TAPE

» Provides a tight seal while providing natural lubrication to prevent galling of the threads

» Ideal for sealing threaded metal and plastic pipe connections up to 2” diameter

» Applications include: general purpose water, air, steam and hydraulic service; demanding service such as solvents, fuels and alkalis; critical application such as oxygen, hydrogen and acids

FIBERGLASS ROPE & TAPE

» Industrial-grade glass tapes are an economical alternative for most general purpose uses

» Available in drop warp option also known as bolt-hole tape

» Applications include aftermarket automotive, motorcycle, ATV exhaust wraps, cable wraps, process industry pipe wraps, steam tracer lines and high-temperature gaskets

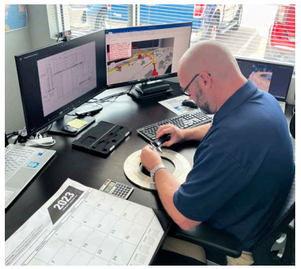
CERAMIC ROPE & TAPE

» Made by forming many strands of yarn into three separate plies, which are then twisted in a three-ply rope

» Can be used in different industrial applications for temperatures up to 2300°F and has excellent chemical stability and strong resistance to thermal shock and corrosion attack

TECHNICAL SUPPORT

KLINGER engineers can provide an extensive range of technical services to support facility operations.



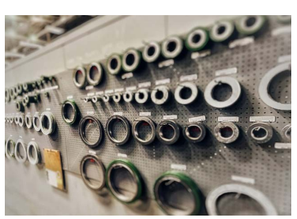
- Failure analysis
- Site surveys and product specification / recommendation
- Engineering: FEA, weld ring design and heat exchanger efficiency
- Static sealing design and design calculation to ASME PCC-1
- Tool rationalization / recommendation
- KLINGER IntegrityXpert cloud-based flange management software

PROJECT MANAGEMENT

KLINGER GPI will be a valued partner to your project, whether plant upgrade, green field development or subsea tie back.

- Efficient, dedicated, knowledgeable and value-added project team
- Ownership / partnership
- From conception, specification to execution

TOTAL COST OF OWNERSHIP REDUCTION (TCOR)



- Vendor managed inventory
- Product rationalization
- Product specification reviews

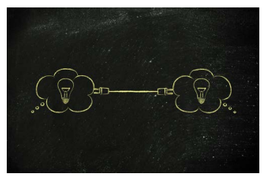
VALUE-ADDING SERVICES

24/7 TURNAROUND & MAINTENANCE SUPPORT

- Inventory planning
- Heat exchanger reviews and upgrade opportunities
- Problematic joint reviews, calculations and upgrades
- Torque & tension equipment calibration
- Flange management
- Gasket installation
- Dedicated engineering support - on and off site
- After-hours manufacturing and customer service
- Torque tool management - on and off site

TRAINING

KLINGER GPI understand that training and knowledge sharing are essential to product and plant safety. It is our mission, as an industry leader, to share our knowledge and expertise in bolted joint applications and play a major part in increasing safety, efficiency and emissions reduction.



- Functionality of gaskets & seals
- Best practice bolted joint assembly
- Design and installation codes and standards
- KLINGER Sentry gasket installation and testing

KLINGER®expert

KLINGER®expert 6.0 is a versatile software to assist users in the selection of non-metallic gasket materials. Scan the QR code below to learn more and receive the FREE software download.

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