Design and Production

Design

We apply our extensive experience and own know-how in designing special solutions for each situation, using 3D modelling programs.

Our homogeniser seal designs provide important improvements, such as screwless fastening systems that ensure traction drive transmission, static multi-spring systems that permit the absorbance of high-frequency fluctuations caused by high rotational speeds and hygienic designs to prevent the build-up of particles that could damage the seal, thus improving the efficiency of cleaning processes.

Own production

Lidering carries out its manufacturing activities at its own facilities in Reus, using advanced technology such as CNC machining.

Testing

Lidering's products can be tested by simulating realistic conditions.

Its products comply with the main European and US standards.

ATEX

FDA

Lidering
SAFE INDUSTRY

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SERVICES

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We support the Sustainable Development Goals

Lidering
SAFE INDUSTRY

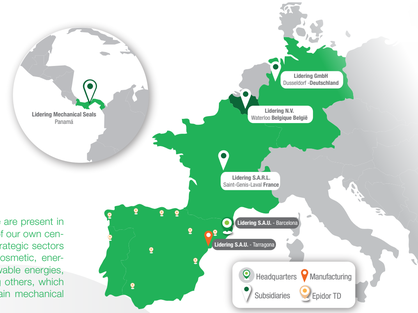
We, at Lidering, are experts in mechanical seals and associated products for the industry

Lidering is a company of reference in the design, manufacture and repair of mechanical seals.

We are able to manufacture any type of mechanical seal, including standard market solutions and special custom-engineered seals for our customers.

Our production plant in Reus produces prototypes and custom-engineered designs in medium-sized and small production runs.

For serial production runs, we have different partners from all over the world.



Lidering was founded in 1975 and we are present in all 5 continents, with a wide network of our own centres, distributors and customers, in strategic sectors such as the food, pharmaceutical, cosmetic, energy, water and waste treatment, renewable energies, chemical and naval industries, among others, which have put their trust in us as their main mechanical seal supplier.

Our mechanical seal range provides solutions for pumps, agitators and other complex systems in which sealing is an essential requirement to guarantee the efficiency and safety of the facilities.

CARTRIDGE SEALS

PROCESS SEALS

FLOATING SEALS

AUXILIARY ELEMENTS

DOMESTIC SEALS

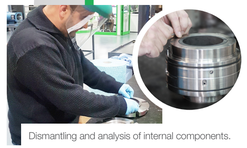
RELATED PRODUCTS

Repair and production centre

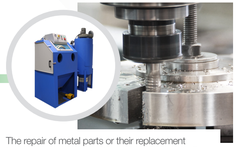
The centre has almost 1,000 m² of production space, with automated machining equipment, lathes, reamers and CNC milling machines and, together with our design capacity, it allows us to improve special mechanical seals for mills and mixers, in which the products to be sealed are in powder form or contain tiny particles processed at high revolutions.

Lidering production centre has repair areas of all types of rotating equipment and mechanical seals.

The most common processes are:



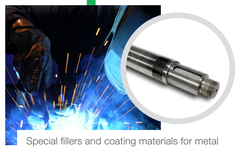
Dismantling and analysis of internal components.



The repair of metal parts or their replacement through our own production using high quality European steel.

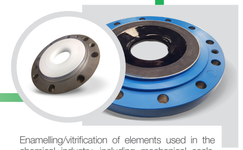
Replacement of secondary seals in diverse materials: NBR, EPDM, EPDMPEROX, FPM, FFKM, AFLAS, HNBR, PTFE, etc.

Grinding and lapping of seal faces in materials such as silicon or Tungsten carbide and their manufacture in materials such as graphite, antimony or PTFE.



Special fillers and coating materials for metal parts such as chromium oxide or stellite.

Checking of elastic elements (springs, leaves, Super-sinus springs) and their replacement if necessary, in all cases ensuring the correct force is exerted.



Enamelling/vitrification of elements used in the chemical industry, including mechanical seals, shafts, flanges, etc.

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SAFE INDUSTRY

Agitating machines

Dual cartridge pumping rings to increase the barrier fluid flow rate and thus, the cooling capacity.

Seals for agitators and reactors

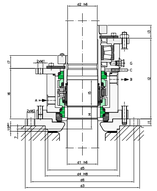
Extreme conditions:

Absence of lubrication or dry operation, as the product used is not in contact with the friction faces of the mechanical seal, which generates premature wear.

Exothermic reactions (generation of high temperatures) that could damage the seal materials.

The movement of the product inside it generates forces, turbulences, whirlpools and vibrations that are exacerbated as the fluid product viscosity increases.

Top-entry agitation



Side-entry agitation

Bottom-entry agitation

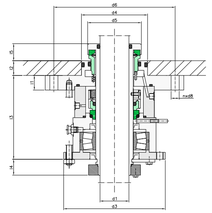
Bottom-entry agitation seals

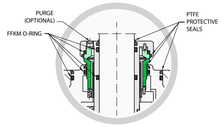
In these systems, the motor is mounted at the bottom of the tank.

This configuration means that the seal is submerged in the product but the shaft is usually shorter than in top-entry agitation.

Due to these features, the shaft is normally better guided and does not generate as much stress on the sealing area. On the other hand, the seal must be able to work in continuous contact with the product, w which is usually very viscous, abrasive or chemically aggressive.

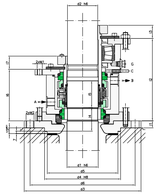
Lidering's solutions in such cases would be the LS83/ LDC83 or DRY SEALS.





Seals for enamel-coated agitators and reactors

Other special "glass-lined vessels" versions (seals for enamel-coated agitators). The metal parts of the cartridge that could come into contact with the chemical are coated with ceramic material that is resistant to abrasion and chemical attack.



Services

Repair and improvement of rotating equipment

We repair and recondition hydraulic pump parts, replacing worn elements such as shafts, impellers, scrolls and, of course, mechanical seals.

We propose improvements in the rotating equipment that we receive for repair, not only in terms of the sealing system, but the equipment in general, facilitating future maintenance.

The static sealing tests that we perform allow us to check that both the mechanical seal and the other seals can withstand the working pressure.

Pump alignment

We ensure the correct alignment of the shafts. This is of vital importance in preventing subsequent failures, preventing damage to the pump and thus reducing unforeseen stoppages.

Surface treatments/ Coating/ Fillings

Depending on the application requirements, we apply surface treatments to steel parts that are prone to wear (cartridge sleeves where retainers work) and on the friction faces to increase the useful life of the mechanical seal.

If necessary, we produce coatings to increase the surface hardness (greater than that of conventional stainless steel). We machine the area to be hardened and then the filler material, an alloy called stellite, is melted.

When a greater hardness than stellite is required, we produce fillers. We deposit a layer of chromium oxide using plasma, a material with great hardness and is comparable to silicon carbide. The treated area looks dark, and is thus easy to see.

3D drawings

Having 3D software allows us to design custom solutions that guarantee the sealing of agitation and pumping equipment, no matter how complex the application may be.

Assistance and assembly

As experts in the field, we can send our team of technicians to assemble the mechanical seals in agitation and pumping equipment. So that, we guarantee a smooth start-up with no hitches.

In-company training

We organise courses on our products and their applications in our training classroom that include general topics related to our product range or specifically for certain sectors, such as the pharmaceutical, food, chemical or paper industries.

In our virtual classroom, we resolve cases that pose specific problems, establishing improvements, designing pump modifications that make it possible to change from braided packing to cartridge, etc., and improving preventive or predictive maintenance procedures in pumping equipment.