



Mechanical Seals

Production centre and repair service

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.

We have areas for the repair 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.
- Checking of elastic elements (springs, leaves, Super-sinus springs) and their replacement if necessary, in all cases ensuring the correct force is exerted.
 - Special fillers and coating materials for metal parts such as chromium oxide or stellite.
 - Enamelling/vitrification of elements used in the chemical industry, including mechanical seals, shafts, flanges, etc.

After the repair has been made we check the result in our test facilities through a pressure test in dynamic, static or both conditions, depending on the case. All our cartridges undergo a static leak test at different pressure values before delivery.

Other services

Repair and improvement of rotating equipment, pump alignment, surface treatments/coating/fillings, 3D drawings, assistance and assembly and in-company training.

RMS +Kitting

The RMS seal range is compatible with the best known pump brands: Flygt®, Grundfos®, Sarlin®, ABS®, Alfal-Laval®, Hilge®, APV®, Fristam®, etc.; they are mechanical seals specially designed for wastewater, heating, food and beverage, pharmaceutical pumps and in a wide range of applications in all industrial sectors.

In most cases, when the pump is repaired the mechanical seal is not the only element that is replaced. The renewal of other parts is also recommended, such as O-rings or elements other seals with special profiles, bearings, pins, flat gasket joints, etc. We provide kits with these elements which we can supply along with the mechanical seal.



Standards

Our mechanical seals are compliant with the following standards for industries subject to the strictest regulations:



ATEX.

Mechanical seals which are appropriate for installing in equipment certified in categories 2 and 3 of group II (2 G / D) cT2 in accordance with Directive 2014/34 / EU (ATEX) of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to equipment and protective systems for use in potentially explosive atmospheres.



European Regulation (EC) 1935/2004:



































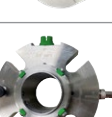


















































This regulation is mandatory in the European Union for all materials in contact with food. It controls the migration of substances from the raw materials to the product with which it is in contact.






















































































































FDA Regulation §177.2600, CFR 21












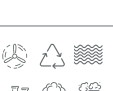














This legislation determines which materials are suitable for contact with food without being harmful for humans.

Mechanical Seals

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)	Sector
Single cartridge seals	LSC10B-FQ 	OR	40	-40 +220	23	  
	LSC10 	OR	10	-15 +200	20	     
	LSC25 	OR	20	-15 +200	15	     
	LSC38-FQ 	Metal Bellows	20	-15 +200	25	      
	LSC40 / LSC40 ANSI 	OR	25	-15 +200	16	      
	LSC41F 	OR	25	-15 +200	16	      
	LSC50-F 	OR	10	-40 +150	10	  
	LSC85 	Metal Bellows	20	-40 +200	25	      
	LSC211A-FD 	OR	20	-15 +200	11	  
	LSC90 	OR	25	-20 +140	20	   
Double cartridge seals	LDC38 	Metal Bellows	20	-15 +200	20	     
	LDC40 / LDC40 ANSI 	OR	25	-15 +200	16	      
	LDC80 	OR	16	-40 +300	5	     

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)	Sector
Double cartridge seals	LDC90 	OR	25	-15 +200	16	   
Bellows seals	LRB00 	Bellows	14	-20 +200	13	     
	LRB00L 	Bellows	14	-20 +200	13	     
	LRB00U 	Bellows	14	-20 +200	13	     
	LRB01 / LRB01S 	Bellows	10	-15 +200	10	     
	LRB02 	Bellows	7	-15 +200	10	     
	LRB03 	Bellows	6	-20 +100	10	     
	LRB04 / LRB04 A 	Bellows	10	-15 +200	10	     
	LRB05 	Bellows	7	-20 +100	10	     
	LRB06 	Bellows	10	-15 +200	10	     
	LRB07 	Bellows	12	-20 +200	10	     
	LRB17 / LRB17A 	Bellows	12	-15 +200	10	     
	LRB17E / LRB17KU / LRB17NU 	Bellows	12	-15 +200	10	     

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)	Sector
Bellows seals	LRB25 LRB25KU LRB25NU 	Bellows	20	-15 +200	15	
	LRB31 	Bellows	6	-20 +140	10	
	LRB50 	Bellows	20	-15 +200	15	
	LMB85 	Metal Bellows	20	-40 +200	25	
	LMB86 	Metal Bellows	20	-75 +425	25	
	LTB16 	Bellows PTFE	12	-40 +100	16	
Multi spring seals	LMS10D 	OR	16	-15 +200	20	
	LMS11 	OR	10	-15 +200	20	
	LMS13 	OR	12	-40 +200	20	
	LMS14 	OR	14	-15 +200	15	
	LMS15D 	OR	12	-40 +200	20	
	LMS20 	OR	10	-15 +200	20	
	LMS20B 	OR	60	-15 +200	25	

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)	Sector
Multi spring seals	LMS22 	OR	12	-40 +200	20	
	LMS23 	OR	10	-20 +200	3	
	LMS26 	OR	50	-20 +140	50	
	LMS27 	OR	6	-20 +150	2	
	LMS28 	OR	15	-20 +200	2	
	LMS29 	OR	25	-15 +200	20	
Wave spring seals	R5S 	OR	25	-15 +200	20	
	LWS10 	OR	10	-15 +200	20	
	LWS10B 	OR	25	-50 +220	25	
	LWS12 	OR	10	-15 +200	20	
	LWS30 LWS31 	OR	35	-15 +200	20	
	LWS70 	OR	10	-15 +200	15	
	LWS71 	OR	10	-15 +200	15	

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)	Sector
Conical spring seals	 LS15 / LS15 DIN	OR	10	-30 +100	20	
	 LS18 / LS19	OR	10	-20 +200	20	
	 LS18B	OR	25	-20 +200	15	
	 LS50 / LS50L	OR	10	-30 +200	20	
	 LS60 / LS60DIN	OR	10	-30 +200	20	
	 LS60B / LS60B DIN	OR	50	-30 +200	20	
	 LS61	OR	10	-20+200	20	
Auxiliary products	 LCY		64	up to +125		
	 LHP		30	-30 +110		
	 LQT			-30 +200		
	 LS					
	 LST8		16	-60 +200		
	 LST9		25	-60 +200		

TECHNICAL INFORMATION

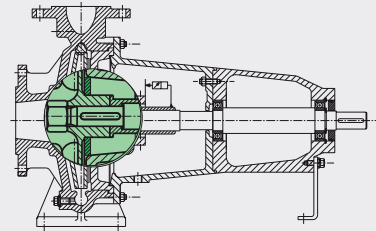
Arrangement instructions

The alignment of the pump and engine shafts is a decisive factor in ensuring a proper lifespan of the mechanical seal. The alignment, measured for operation with all the conduits connected and duly fixed to the bench, must be within the values established by the pump manufacturer. It is advisable to use a coupling system which is flexible enough to isolate the pump from vibrations in other system elements, such as vibrations due to faulty bearings.

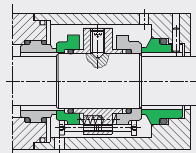
When installing, make sure that the different parts of the mechanical seal do not pass over sharp edges, splines or threads. All edges must be bevelled and rough areas eliminated or rounded. We recommend a bevel angle of approximately 15° and a length of 2 mm for diameters up to 50 mm and 3 mm or more for larger diameters. In the event of requiring lubrication to facilitate installation, we recommend using a water and neutral liquid soap solution. The use of oils and grease (even food-grade oils and grease) is strictly forbidden.

In mechanical seals with rotating parts fixed to the shaft by conical springs or bellows that convey movement, it is advisable to use a mounting cone to insert them. For conical springs the axial thrust will be accompanied by a rotating movement in the same direction as the spring coil. Before starting up the pump, check that the fluid is in contact with the mechanical seal. It is essential to prevent the seal from operating under dry conditions, even for a short length of time.

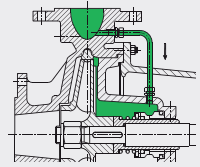
In the event of using auxiliary devices (Quench, washing flushing, etc.), make sure that the connections are correct.



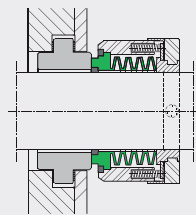
Double mechanical seal



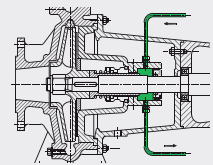
Recirculation



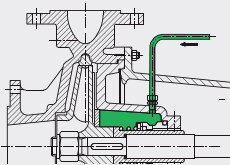
External seal



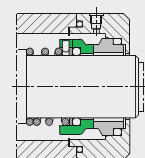
Quench



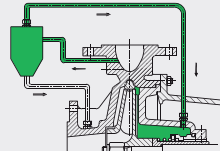
Flushing



Single mechanical seal



Cyclonic separator



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