



We have the necessary equipment to perform repair, recovery and transformation work on mechanical seals and cartridge seals: the first step is to diagnose the state of the part and then carry out the necessary cleaning, polishing and lapping processes on the contact surfaces, rectification of parts and replacement of components, among others.

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.

These facilities provide additional service to our customers, and all our cartridge seals must succeed a static sealing control test at different pressures before delivery.

We provide spare parts for all our cartridges and we can adapt them to different combinations of materials on the contact surfaces and in O-rings, springs, gaskets etc. as well as offering faster and more flexible deliveries. All our operations are guaranteed by a static operating test after handling.



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

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.





# **Auxiliary products**

The auxiliary systems are provided with the mechanical seals in uses in which the integrity of the sealing must be guaranteed. These include tanks reservoirs for barrier and quench fluids that may include elements for controlling pressures, temperatures, levels, etc.

## **Standards**

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



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.



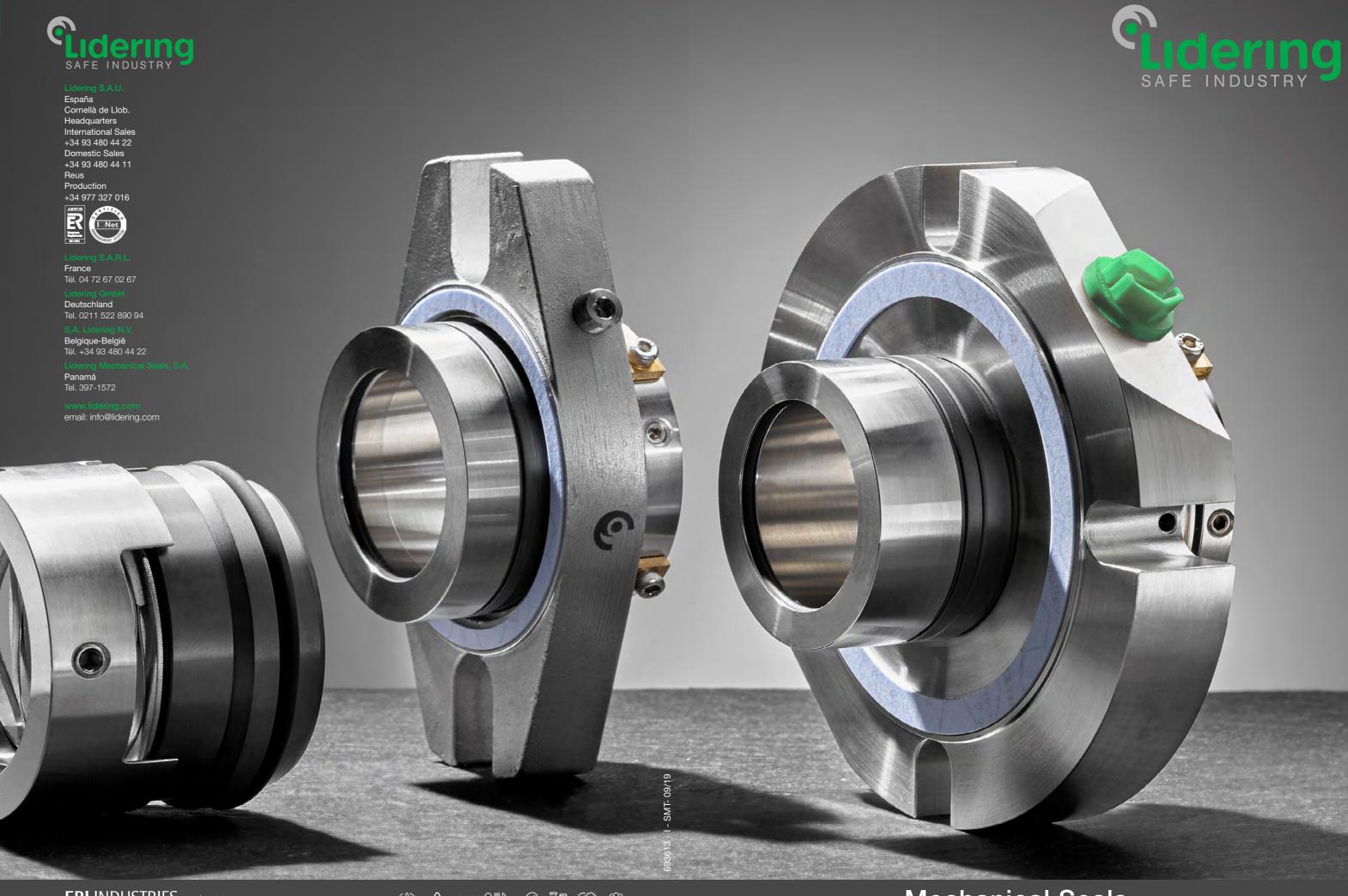
#### European Regulation (EC) 1935/2004:

terials in contact with food. It controls the migration of substances from the raw materials to the product with which it is



FDA Regulation §177.2600, CFR 21

This regulation is mandatory in the European Union for all ma-









# Mechanical Sea

als	



	Refere	псе	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min Max.	Speed (m/s)	Sector
	LSC10B-FD		OR	40	-40 +220	23	A A A
	LSC10		OR	10	-15 +200	20	
	LSC25		OR	20	-15 +200	15	
S	LSC38-FQ		Metal Bellows	20	-15 +200	25	\$ A B A Q M M Ø
Single cartridge seals	LSC40 LSC40 ANSI		OR	25	-15 +200	16	\$ A A Q fi 111 0
Single	LSC50-F	0	OR	10	-40 +150	10	\$ 4
	FSC82		OR	20	-40 +200	25	
	LSC211A-FD	9	OR	20	-15 +200	11	
	060ST	(60)	OR	25	-20 +140	20	
	FDC38		Bellows	20	-15 +200	20 met	A Q A ·M ⊘
Double cartridge seals	LDC39-D	0	OR	20	-15 +200	25	A Q A
	LDC40 LDC40 ANSI		OR	25	-15 +200	16	\$ A M A Q M M O
	LDC80		OR	16	-40 +300	5	

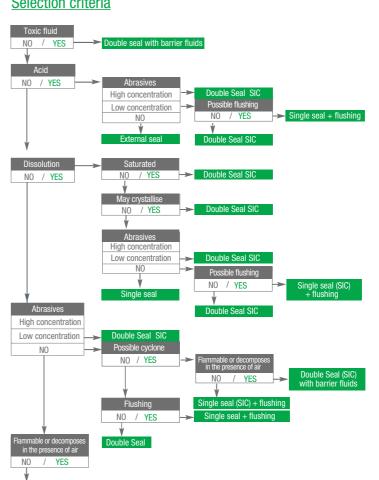
	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min Max.	Temperature (°C) Min Max. Speed (m/s)	
	CDC30	OR	25	-15 +200	16	
Bellows seals	LRBOO	Bellows	14	-20 +200	13	\$ 4 m
	LRBOOL	Bellows	14	-20 +200	13	\$ A
	LRB00U	Bellows	14	-20 +200	13	\$ A ==
	LRB01 / LRB01S	Bellows	10	-15 +200	10	
	LRB02	Bellows	7	-15 +200	10	
	LRB03	Bellows	6	-20 +100	10	
	LRB04 / LRB04 A	Bellows	10	-30 +200	10	\$ A
	LRB06	Bellows	10	-15+200	10	
	LRB17A	Bellows	12	-15 +200	10	
	LRB17KU LRB17KU LRB17NU	Bellows	12 -	15 +200	0	\$ A
	LRB25 LRB25KU LRB25NU	Bellows	20	-15 +200	15	
	AR / LRB31	Bellows	6	-20 +140	10	\$ A

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min Max.	Speed (m/s)	Sector
	LRB50	Bellows	20	-15+200	15	\$ 4 m
	LMB84	Metal Bellows	20	-40 +200	25	
seals	LMB85	Bellows	20	-40 +200	25	\$ A ■
Bellows seals	98gWT	Bellows	20	-75 +425	25	a Q fi
	LTB16	Fuelle en PTFE	12	-40 +100	16	
	PNE	Bellows	12	-20+200	10	\$ A
	LMS10D	OR	16	-15 +200	20	\$ 4 M A Q M O
	LMS11	OR	10	-15 +200	20	
ng seals	LINS13	OR	12	-40 +200	20	
Multi spring seals	LMS14	OR	14	-15 +200	15	\$ A A Q fi O
	LMS15D	OR	12	-40 +200	20	
	LMSZ0	OR	10	-15 +200	20	\$ A B
	LMSZZ	OR	12	-40 +200	20	

	Refer	ence	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min Max.	Speed (m/s)	Sector
	LMS26		OR	50	-20 +140	50	
S	LMS27	8	OR	6	-20 +150	2	
Multi spring seals	LMS28	9	OR	15	-20 +200	2	
Mu	LMS29	<b>e</b> 0	OR	25	-15 +200	20	\$ A
	R5S	0	OR	25	-15 +200	20	846
	LWS10		OR	10	-15 +200	20	
-	LWS10B	-0	OR	25	-50 +220	25	
ig seals	LWS12		OR	10	-15 +200	20	
Wave spring seals	LWS30 LWS31	90	OR	35	-15 +200	20	
-	LWS70	00	OR	10	-15 +200	15	
	LWS71		OR	10	-15 +200	15	4 0 fi
ng seals	EH FHC		OR	10	-30 +200	20	
Conical spring seals	FN / LS15		OR	10	-30+100	20	\$ A

	Reference	Type of Seal	Maximum Pressure (Bar)	Temperature (°C) Min Max.	Speed (m/s)	Sector
	EN.NU LS15 DIN	OR	10	-30 +100	20	
eals	LS18 / LS19	OR	10	-20 +200	20	\$ A
Conical spring seals	LS18B	OR	25	-20 +200	15	\$ A
<b>3</b> 00	RN / LS60 RN. NU / LS60DIN	OR	10	-30 +200	20	\$ 4 M
	RNB / LS60B RN.NB / LS60B DIN	OR	50	-30 +200	20	\$ 4 M

#### Selection criteria



# **TECHNICAL INFORMATION**

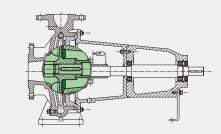
### **Arrangement instructions**

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

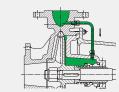
In the event of using auxiliary devices (Quench, washing flushing, etc.), make sure that the connections are correct.



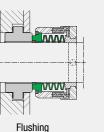
#### Double mechanical seal Recirculation



External seal



#### Quench



Single mechanical seal





Cyclonic separator

