

Mechanical Seals



Fields

Boiler systems

Boiler systems

A retrofit paradise

With a firm foothold in heating systems, LATTY® is increasingly replacing packing seals by mechanical seals after assessment of the project from all angles, including profitability, not forgetting a mechanical analysis of the equipment.



As LATTY® is frequently consulted for the repair of already installed products, there is a major opportunity for winning market shares.

Special and standard

Special products are still the LATTY® strong point and call for large design budgets, for the big EDF boiler heating system pumps, for example.



The fruit of major efforts by the LATTY® teams over several years, standard seals are now on a par with special seals.

But standard seals destined for urban and industrial heating systems render the production tool more profitable.



Boiler systems

Reference case

B 6832 AU2E

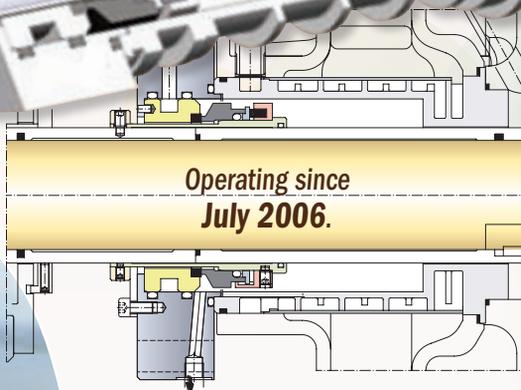
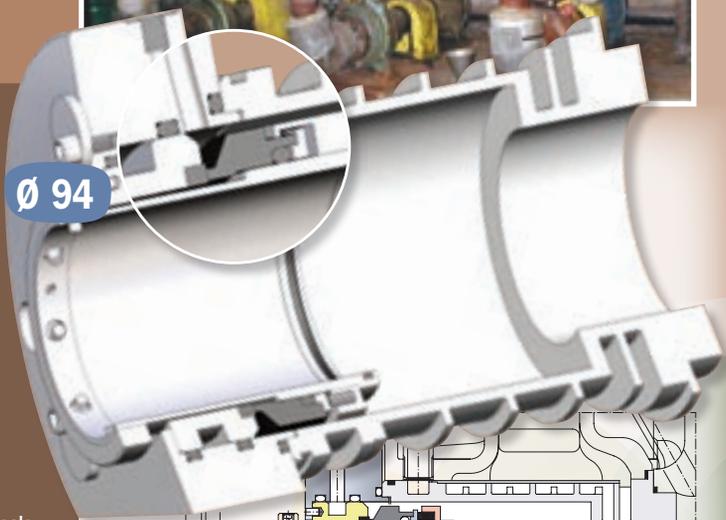
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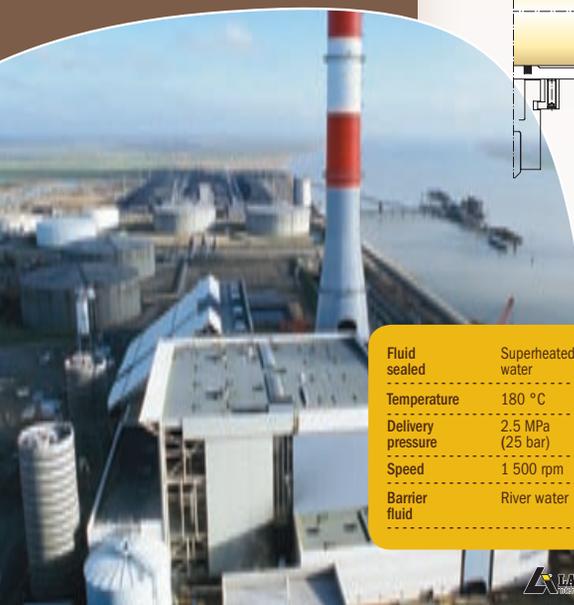
The Metz Electricity Plant

SALMSON water circulating pumps for urban heating

Objective:
the replacement of Packing Seals by Mechanical Seals.



Operating since July 2006.



Fluid sealed	Superheated water
Temperature	180 °C
Delivery pressure	2.5 MPa (25 bar)
Speed	1 500 rpm
Barrier fluid	River water



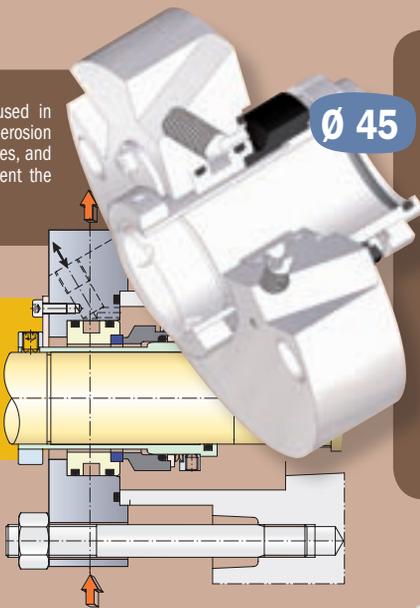
■ The new materials available on the market today, enable recommendation of single action seals on applications with much higher pressure / temperature combinations.

■ This new approach has the advantage of reducing and simplifying the installations and the ever-restricting cooling systems.

■ Our DRD departments and drawing office are at the disposal of our customers in order to assess the operating conditions and offer them the most suitable equipment.

An internal circulation is used in order to avoid problems of erosion on the faces due to pressures, and also tappings in order to vent the seal chambers.

Fluid sealed	Boiler water
Temperature	130 °C
Delivery pressure	4.5 MPa (45 bar)
Speed	2 900 rpm



Technical environment

B 6852 A.U2.E

KSB WKF pump

Fitting of two B 6852 Ø45 AU2E to a KSB WKF 125/4-P5305 C/S pump, with a dual output and two similar seals but requiring different circulations between the suction and the delivery sides.

Cooling is provided by water flowing through the double casing of the pump, but also by circulating through the face ring enabling heat dissipation.

Technical environment

B 2199 A.U2.E

STORK pump

In very numerous fields, but even more so in heating systems, pumps were fitted originally with packing seals, and technical departments are calling upon manufacturers to study retrofits with mechanical seals.

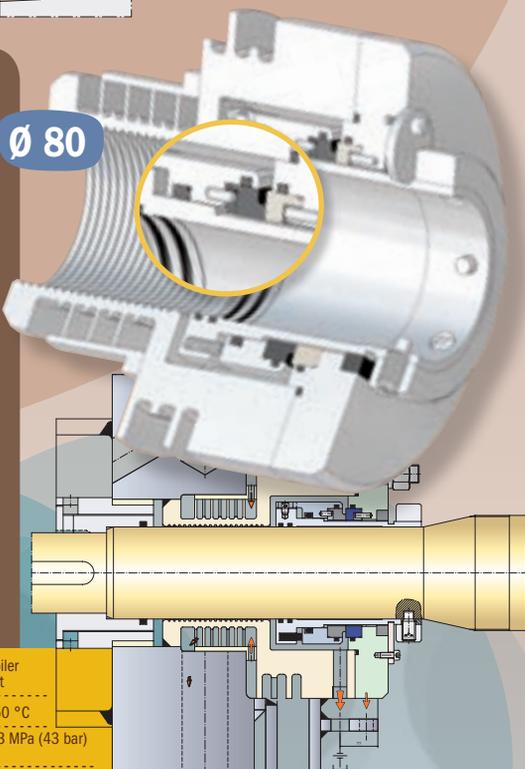
The pump was fitted with a cooling outer casing. The design produced with a single side, compensated seal, but whose faces are floating, thus avoiding differential distortions between the supports and the face rings, optimising resistance to pressure and temperature.

The choice of seal is for a proven design, for which the positive feedback from fossil fuel and nuclear power plants for similar applications, has enabled us to respond favourably to manufacturer's requirements.

The heat barrier, deliveries and throttling were defined by the **LATY® technical departments**.

The case described is a specific example of pumps manufactured by STORK, for the following operating conditions:

Fluid sealed	Boiler hot
Temperature	250 °C
Nominal pressure	4.3 MPa (43 bar)
Speed	985 rpm



Boiler systems

Application

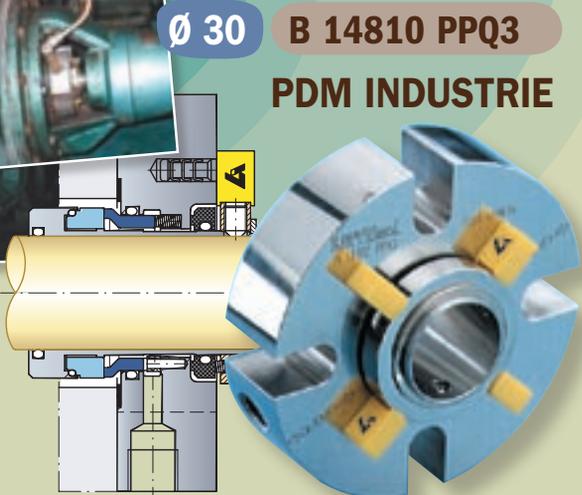
B 14810 PPQ3

PDM INDUSTRIE



Return pump condensates

Fluid sealed	Fibrous organic particle laden water
Temperature	130 °C
Pressure	0,05 MPa (0,5 bar)
Speed	2 rpm



Our other documents



Food industry



Boiler systems



Chemical industry



Automobile industry



Energy



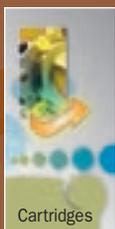
Marine



The water industry



Paper mills



Cartridges



Modules



Standard series and derivatives



Selection of types of seals
LATTY®
Designations

Standardised Mechanical Seals



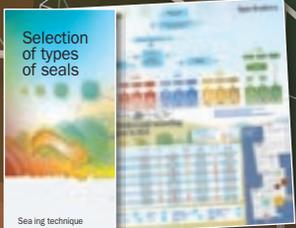
Rotating couplings



Custom



Sealing technique



Selection of types of seals

Sealing technique



Our other products



Complete range available on...

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