



EXPERIENCE THE EXCEPTIONAL

LabTecta® upgrade gives over 8 years of trouble free operation

A paper mill in Maine, USA was having issues with water and stock getting into their Hydropulper gearbox. This was shortening the life of the gearbox and was costing the mill up to \$50,000 per outage.

At the bottom of the Hydropulper unit is a gearbox which has a vertical shaft that goes up into the Hydropulper tank. This shaft is usually sealed with packing and leaks excessive amounts of stock and water down into the gearbox which is normally sealed with a lip seal.

AESSEAL® installed a LabTecta®TE (top entry) bearing protector to help prevent the entry of water and stock into the gearbox. The LabTecta®TE has been installed since August 2006 and has been running without failure ever since.

“Every failure meant gear set replacement along with machining to repair bearing fits. Since we installed LabTecta we have doubled the previous life span and have savings to date of \$96,000.”

Daniel Dio
Twin Rivers Paper Company

‘\$96,000 savings to date.’

Industry:	Pulp & Paper
Product:	LabTecta®TE
Application:	Hydropulper Gearbox
Savings:	\$96,000 to date
Reference N.O:	34560



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AESSEAL® upgrade solution leads to 700% improvement in MTBF

A brown coal mine in Poland had lip seals fitted on their intermediate shaft bearing housings. The bearing housing was flooded with oil to about 75% of capacity and this was causing the lip seals to fail every 2 to 3 months.

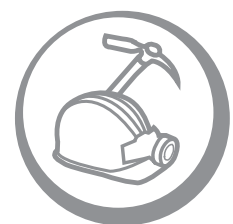
AESSEAL® installed a MagTecta™ bearing protection device in place of the lip seal. The MagTecta™ is a magnetically energised bearing protection device that is specifically designed for oil flooded applications like that found in this bearing housing.

The MagTecta™ seal was initially tested on a single bearing housing, and has been running trouble free for over 2 years, proving a far superior sealing solution. The success of the initial installation has seen a further 18 MagTecta installations significantly increasing bearing life and reducing maintenance costs.



“Increased MTBF by more than 700%”

Industry:	Mining
Product:	MagTecta™ MX-S
Application:	Oil Bearing Housing
MTBF Increase:	700% (and counting)
Reference N.O:	CH01001



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\$40,000 a year saving with LabTecta® and minimal plant disruption

A coal fired power plant in the USA, was having 3 - 4 bearing failures a year on their primary air fan, used to blow the coal from the mill to the boiler.

For safety reasons the customer would inert the fan duct with steam to reduce the risk of a flash fire from the coal dust in the system. This safety procedure was causing water to get into the pillow block bearings, leading to premature bearing failure, and a \$10,000 to \$12,000 bearing replacement cost.

AESSEAL® installed a LabTecta®RDS (Radially Divided Seal) on the drive end to ensure no heavy equipment needed moving or shaft realignment was necessary, and a standard LabTecta® on the non drive end.

The LabTecta® bearing protectors have been installed and running trouble free for over 2 years, saving the customer over \$80,000 in bearing replacement costs.



“Eliminating costly bearing failure”

Industry:	Power
Product:	LabTecta®
Application:	Primary Air Fan
Savings:	\$80,000 (and counting)
Reference N.O:	CH00163





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Replacing lip seals with LabTecta®66 improves gearbox reliability

A pharmaceutical plant in the UK was using standard lip seals on various gearboxes. The lip seals were failing every 3 months approximately, and this failure was resulting in a new shaft being required every 6 months.

AESSEAL® replaced the lip seals with the LabTecta®66 bearing protector, which is proven to offer far superior protection than standard lip seals. LabTecta®66 is also non-contacting so doesn't wear shafts, and due to its installation position can be used on shafts already damaged by lip seals.

The failures and subsequent shaft replacements were costing over £4,000 in parts, labour and downtime every year. The success of the LabTecta®66 has seen a further three gearboxes fitted with LabTecta®66 bearing protectors and has resulted in first year savings of £3682 per gearbox, increasing to over £4000 per gearbox in subsequent years.



“£16,000 per annum cost saving after LabTecta®66 upgrade”

Industry:	Chemical
Product:	LabTecta®
Application:	Gearbox
MTBF Increase:	Improved 300% (and counting)
Savings:	£3,682 year 1, £4,000 year 2 onwards per gearbox
Reference N.O:	CH00246



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\$10,500 yearly cost saving for Chemical manufacturer

A chemical manufacturer was losing 630 gallons of oil per year through leakage from their low pressure boiler feed pump. The leakage was not only costing thousands of dollars in lost oil, but there were significant daily clean up costs, and equipment failures.

The LabTecta-PB™ is specifically engineered for sealing split bearing blocks, through a self-aligning joint that allows the seal to align both to the bearing block and the shaft. This helps to absorb the common misalignment between the shaft and bearing block and reduces the amount of lubrication needed, whilst enabling better lubrication retention, reducing leakage.

Since installing the LabTecta-PB™ oil leakage has been eliminated and the cost of the LabTecta-PB™ was repaid in less than two months. This is expected to save the customer roughly \$10,500 per annum in saved oil and reduced clean up costs, without taking into account the reduction in downtime.



‘Under 2 months payback period’

Industry:	Chemical
Product:	LabTecta-PB™
Application:	Low pressure boiler feed pump
Savings:	\$10,520 per annum (and counting)
Reference N.O:	CH00333





LabTecta® upgrade increases MTBF rate by over 1300%

A food and beverage manufacturer in Ireland was seeing failure rates as often as 2 months on their Auger screw transfer pump.

An Auger screw transfer pump was drawing sugar out of a hopper at a food & beverage manufacturer in Ireland. Sugar from the hopper was working its way into the lip seal on the pump causing it to fail every 2 – 3 months.

AESSEAL® installed a LabTecta® IAP (Inboard Air Purge), which is specifically designed for applications where it is important to retain the product. The IAP uses labyrinth technology to direct the air purge inboard preventing the product being sealed from entering the seal and escaping to the environment.

Since installation in September 2010, the LabTecta® IAP has been running without failure, increasing the mean time between failure from 2 -3 months to over 40 months and counting. The upgrade has delivered significant downtime and maintenance savings as well as reducing product loss.



“MTBF increase from 3 months to over 40 months”

Industry:	Food & Beverage
Product:	LabTecta® IAP
Application:	Auger Screw Transfer Pump
MTBF Increase:	1333% (and counting)
Reference N.O:	CH00349





An upgrade to LabTecta-PB™ gives a 500% MTBF increase.

A UK Pulp & Paper manufacturer was having high breakdown rates on their DNT rollers where the existing plummer block seals were not offering adequate protection. The seals were failing on average every 6 weeks, resulting in high bearing and seal replacement costs along with excessive downtime.

The LabTecta-PB™ is specifically engineered for sealing plummer blocks, where significant misalignment can occur between the shaft and bearing block. The LabTecta®PB absorbs this misalignment, without using large clearances increasing the protection against contamination and improving seal performance and life.

The LabTecta-PB™ bearing protector installed, was checked after 7 weeks and the bearings and grease were found to be in excellent condition. With the previous average failure rate, the cost of bearings alone would have been £2,100, and would have needed replacing six times since the LabTecta-PB™ was installed over 9 months ago.



‘500% MTBF increase and £1,400 savings’

Industry:	Pulp & Paper
Product:	LabTecta-PB™
Application:	DNT Rollers/ Plummer blocks
MTBF Increase:	500%
Savings:	£2,100 (Replacement bearings)
Reference N.O:	CH00696





Next day delivery on bearing protection, leaves the competition floundering.

A major global Oil & Gas exploration and production company was being left vulnerable due to the high delivery lead times available from their bearing protector supplier. With continued unacceptable lead times, and an urgent requirement that couldn't be satisfied by their current supplier, they turned to AESSEAL®.

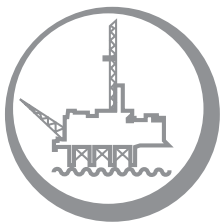
AESSEAL® were able to offer next day delivery on a LabTecta® bearing protector and were more competitive on price as well. After installation the LabTecta® was checked for performance and the condition of the oil was superior to test results from the old bearing protector. This has resulted in a swop out program being commissioned for all steam turbines at the plant.

AESSEAL® hold up to 6 months of stock, and offer a free of charge service to any standard product not shipped in 48 hours. With a 98.7% on-time delivery rate, AESSEAL® can guarantee exceptional delivery performance giving their customers exceptional turnaround times, saving both time and money.



‘Guaranteed exceptional delivery performance’

Industry:	Oil & Gas
Product:	LabTecta®
Application:	Steam Turbines
Benefits:	Next day delivery
Reference N.O:	CH00884





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Process manufacturer sees a 540% increase in MTBF rates.

A leading paint manufacturer was experiencing unacceptable reliability levels on a badly aligned bottom entry paint mixer.

Leaking paint was entering the motor bearing through the OEM lip seal, causing the mixer motor to fail on average every 2.5 months. With each breakdown costing around £1,300 and over £6,000 for the year, without taking into account loss of production, a solution was needed fast.

AESSEAL's solution to the problem was to replace the lip seal with the LabTecta®66 bearing protector. LabTecta®66 is a patented design that utilises the centrifugal force of rotating equipment to open a micro gap in the seal to allow the bearings to breathe, but closes the gap when the equipment isn't running and the centrifugal force stops. This ensures the bearings are protected from the ingress of dust and water from the surrounding environment.

The cost of replacing the lip seal with the LabTecta®66 was repaid within 1 month of fitting and the plant has increased the MTBF of this application by 540% (and counting). This has saved the customer over £8,000 in reduced maintenance costs and an expected 9.5 days per year of lost production.



'9.5 days per year of lost production saved'

Industry:	Chemical
Product:	LabTecta®66
Application:	Bottom entry paint mixer
MTBF Increase:	540% (and counting)
Savings:	£8,000+ (and counting)
Reference N.O:	CH01158



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Preventing steam ingress into the bearing housing

A UK based Oil Refinery was having repeated failures on a Coppus 24 Steam Turbine. The original OEM labyrinth seal was ineffective at sealing the bearing housing from the ingress of steam, leading to premature bearing failure.

Steam turbines present a unique challenge for bearing protection, as high temperature and high velocity steam travels down the shaft directly at the bearing seal. Labyrinth seals have proven ineffective at preventing this steam ingress. At this refinery, the ingress of steam would begin immediately after the turbine was refurbished and would see the turbine being removed for repair approximately every 9 months.

The LabTecta®66ST is designed specifically to address these issues and the decision to switch was based on knowledge the refinery had on the success of the LabTecta®66ST from another refinery. The success of the LabTecta®66ST on this installation has seen AESSEAL® awarded a contract to replace all current labyrinth seals with the LabTecta®66ST.



‘Replacing all bearing protection at the refinery’

Industry:	Oil & Gas
Product:	LabTecta®66ST
Application:	Coppus 24 Steam Turbine
Reference N.O:	CH01224

