AESSEAL®
ENVIRONMENTAL TECHNOLOGY

Replacing lip seals improves reliability and saves energy

A major nutrition product producer was having problems with bearing reliability on one of its incline screw conveyors on one of its UK production facilities.

The bearing was fitted with a lip seal and the conveyor was carrying dry fish meal. The action of the screw was forcing fish meal to push in through the rubber seals on the bearings, which in turn was causing the bearings cage to collapse after typically just 3 weeks operation, leading to unplanned downtime during the production run.

The customer runs a manufacture to order production process so any unplanned downtime caused delivery issues, damaging the customers reputation in the market. In addition to the potential loss of business, the customer was forced to carry additional stock of bearings for this application and the additional labour costs was negatively affecting profit margins. The customer looking for a solution to this problem turned to AESSEAL® for assistance.

‘Improvement in reliability and saving money’

Industry:	Animal Feed
Product:	LabTecta IAP
Application:	Conveyor
MTBF Increase:	5 months (and counting)
Reference N.O:	CS0019

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AESSEAL® recommended replacing the bearing lip seal with a LabTecta® IAP bearing protector and worked with the original manufacturer to the conveyor to design a suitable flange to allow the LabTecta® IAP to be installed.

The LabTecta® IAP is designed with an inboard air purge for applications where it is necessary to retain the product within the enclosure and away from the seal. On this application the LabTecta® IAP keeps the end of the screw free from the product by the action of the air purge, backed up by the secondary sealing arrangement within the bearing protector, therefore preventing contamination of the bearings. The solution has now been running for 5 months without any problems, delivering a significant improvement in reliability and saving money on labour and spare parts. In addition to this, replacing the lip seal with a bearing protector has reduced the torque required to turn the conveyor shaft meaning the motor draws less power and saving energy.

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