



Conveyor

Case Study

Improved safety, health and environmental performance from screw conveyor

Increased
production and
lower cost of
ownership achieved
through reduced
downtime

MECO Seals

MECO seals are full contact, soft face mechanical shaft seals which can be used in process applications across a wide range of industries.

MECO seals permit 6mm diametric shaft eccentricity (runout), ensuring product containment while also eliminating packing and associated abrasion, product leakage and other contamination.

- Custom designed to fit with existing machinery
- Fully split options available
- 6mm runout capacity
- Low purge air consumption (where required by applications)
- Easily removed for cleaning

Retrofit MECO seals can usually be fitted with little or no modifications required to existing machinery.

The Client

A leading manufacturer of Aircrete blocks, and one of the largest manufacturers of building products in the United Kingdom.



Approximately seven days worth of waste caused by leakage from incipient seals

Four tonnes of waste product a year reduced to zero

The Challenge

The client was experiencing significant leakage from the screw conveyors they were operating.

This leakage issue not only caused Safety, Health, Environment and Quality (SHEQ) concerns, but the vast amount of leakage from the equipment was causing damage to other auxiliary equipment.

The incumbent sealing arrangement required extensive maintenance every four months—resulting in a high total cost of ownership and waste amounting to four tons per year.

In the picture (left) is approximately seven days' worth of waste.

The Solution

FTL collaborated closely with the client to propose a better suited sealing solution for their screw conveyor system.

The recommended solution was a MECO seal, which offered a range of advantageous features to solve the leakage issue, along with broader improvements to their operational efficiency.

These features included:

- No required modification to the existing housing - FTL Technology provided an adapter plate to match existing geometry
- Abrasion resistant rotors
- Allows dry running so no 'running in' period required, as would be needed with braided packing

Shift from reactive maintenance to scheduled PM cycles

The Benefits

There were several key beneficial outcomes from this project, including but not restricted to:

- Increase in production capacity for Aircrete blocks
- Reduced downtime
- Lower total cost of ownership
- Shift in maintenance approach from reactive to preventative

Critically, with the MECO seal installation, the waste from the previous screw conveyor system was reduced from four tons per year through to zero.



MECO seals are manufactured by Woodex Bearing Co. Inc.



For more in-depth solutions

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