RotaLube **Maximises Performance** in **Fibreglass** Forming Oven

Case Study

Challenge

Our customer, a leading fibreglass supplier, relies on ovens operating under extreme heat and abrasive dust. Ineffective lubrication affected performance and reliability, with studies showing 60% of chain wear caused by insufficient lubrication, 20% by mechanical damage, and 20% by other factors.

Proper lubrication prevents wear, elongation, corrosion, and friction while reducing power use, downtime, and costs. Their traditional drip-feed system applied lubricant inefficiently, causing waste, contamination, and higher expenses. This increased maintenance, unplanned downtime, and a negative carbon footprint.

In such a competitive industry, optimising lubrication is essential to minimising costs and improving efficiency.

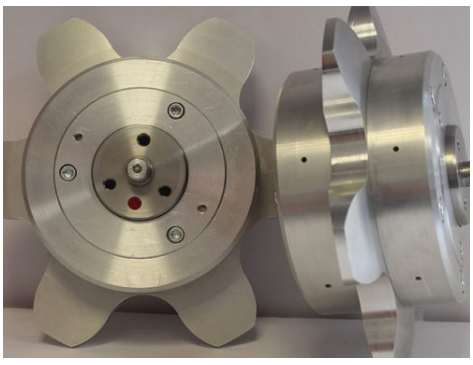
- The traditional drip-fed system caused ineffective lubrication, leading to more wear, higher AMP usage, excess lubricant use, downtime, and environmental harm.
- Accurate lubrication reduces chain wear, elongation, corrosion, and friction, lowering operational costs and maintaining efficiency.

Solution

A High-Temperature RotaLube System was chosen for its ability to withstand temperatures up to 210°C. Constructed from bronze and fitted with RotaLube seals, it improved efficiency.

The system was installed on a fibreglass-forming oven to lubricate two 8-inch pitch conveyor chains, applying lubricant precisely to chain pins.

This ensured consistent lubrication regardless of chain speed or tension, using an accurate and efficient application method to minimise waste and contamination while maintaining optimal lubrication.



+44(0)1254 311196 | sales@rotalube.com | rotalube.com
Unit 5, Greenbank Business Park, Dyneley Rd, Blackburn, BB1 3AB

Photo: RotaLube System.

Photo: Fibreglass Industry Equipment.

Results

Since the installation of the RotaLube system, there have been huge benefits. Previously, the chains required yearly replacement at a cost of around £32K, not including the production downtime costs during this change.

Over several years, the customer has only needed to replace the chains 4 times, resulting in a saving of around £130K. The reduced chain lubricant consumption, increased chain life and fewer planned shutdowns have led to a total saving of around £200K.

The original RotaLube applicators remain operational, and the system has proven its short and long-term benefits in this industry.

The new RotaLube system reduced the chain replacement costs, saving around £130K over several years.

The system cut lubrication use, extended chain life, reduced shutdowns, and saved around £200K overall.

The original RotaLube applicators still remain operational.

Fibreglass Forming Ovens

Fibreglass-forming ovens are specialised machines used to produce fibreglass materials, operating at high temperatures to cure and solidify strands.

They feature heavy-duty conveyor chains that transport materials through the oven, exposing them to constant heat, tension, and motion.

Proper lubrication is essential to ensure smooth operation and prevent wear. These ovens play a vital role in fibreglass manufacturing, requiring precise operation to meet industry standards.

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RotaLube®