RotaLube **Solves** Lubrication **Issues** in **Glove Manufacturing**

Case Study

Challenge

One of our first customers was on a glove manufacturing line, they had previously faced several challenges with their chain lubrication process. The existing lubrication system was a traditional spit system which had bent nozzles, this was highly ineffective. It resulted in inconsistent and inaccurate oil delivery which often led to over-lubrication and a high waste of lubricant. This system had increased the oil delivery to compensate for the inefficiency, which resulted in large oil consumption, and as a result, a large amount of lubricant was washed away into the factory's water system leading to environmental concerns.

The chains ran under harsh conditions, they were exposed to corrosive chemicals, and high humidity and ran at high speeds 24/7. As a result, there were frequent chain replacements needed with sections and links being replaced regularly.

On average, the chains were being replaced annually for £49K, in addition to the downtime that was caused during these replacements.
The constant need for maintenance and the costs of downtime were unsustainable and impacted the productivity of the manufacturing line.

- The customer's traditional spit lubrication system was inefficient, causing inconsistent oil delivery, waste, and environmental concerns from oil washing into the water system.
- Harsh conditions, including corrosive chemicals, high humidity, and 24/7 use, led to frequent chain replacements costing £49K annually, along with downtime and productivity losses.

Solution

After investigating the issues, we determined the RotaLube Heavy-Duty System was ideal due to its steel construction, allowing it to withstand harsh chemicals and demanding environments. The system was designed to automatically lubricate the 90mm pitch conveyor chain, providing precise oil delivery that reduced lubricant waste and minimised maintenance costs.

The RotaLube system ensured accurate lubrication at the right time and location, regardless of chain speed or stretch, preventing over-lubrication and waste. It was crucial for the high-speed, continuous operations of the manufacturing line.

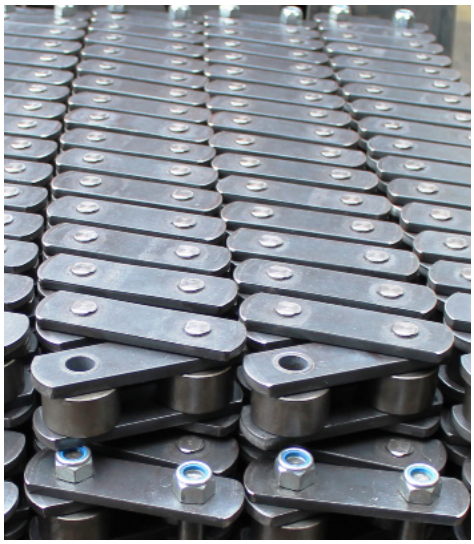

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Photo: RotaLube Heavy Duty.

Photo: RotaLube System.

Results

After the installation, the glove manufacturing process experienced immediate improvements. The system ensured the precise oil delivery at the correct time and place regardless of the chain's stretch or speed.

As a result, the customer saw a return on investment within 12 months, mainly due to the reductions in the use of chain lubricant.

The chain's lifespan tripled, and there were minimal unplanned shutdowns, and these improvements led to lower maintenance costs, increased productivity and a more reliable manufacturing process.

The chain lifespan tripled, reducing unplanned shutdowns, maintenance costs, and boosting productivity.

The new system delivered precise oil, reducing lubricant use and achieving ROI within 12 months.

These improvements enhanced the reliability and efficiency of the glove manufacturing process.

Pitch Conveyor Chains

In glove manufacturing, pitch conveyor chains are used in the transport of gloves through stages of production, including washing, drying, curing and packaging.

These chains are typically large, robust and are designed to handle heavy loads while moving at a constant speed.

The chains must operate continuously with minimal downtime, this means that they need reliable lubrication systems that can ensure optimal and consistent performance.

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