TIMKEN

Solid lube sealed stainless steel flanged bearings extend conveyor life and deliver more than $800,000 in savings

Challenge

For a leading food and beverage producer, conveyor reliability is critical to maintaining production uptime. However, bearings used throughout the filling and bottle wash process were failing every three to six months due to harsh washdown conditions, exposure to process liquids and contamination from moisture, cleaning chemicals and syrup residue.

The customer relied on competitor bearings in these demanding conveyor applications, resulting in frequent replacements, ongoing lubrication and maintenance activities, and increased risk of unplanned downtime. These recurring maintenance requirements created significant operating costs and made it difficult to achieve the customer's goal of extending maintenance intervals to a one-year preventive maintenance cycle.

To address the issue, the customer asked Timken to evaluate the application and suggest a more durable, maintenance-friendly solution. A conveyor position at the end of a container wash station, one of the wettest and most challenging areas in the process, was selected for a product trial.

Timken Solution

We evaluated the application, operating environment, and installation conditions, including shaft design and set-screw positioning, to identify the root causes of premature failure.

Based on this assessment, we suggested the **Timken® corrosion-resistant two-bolt flanged mounted ball bearing with food-grade Solid Lube and protective end covers.**

This solution delivers:

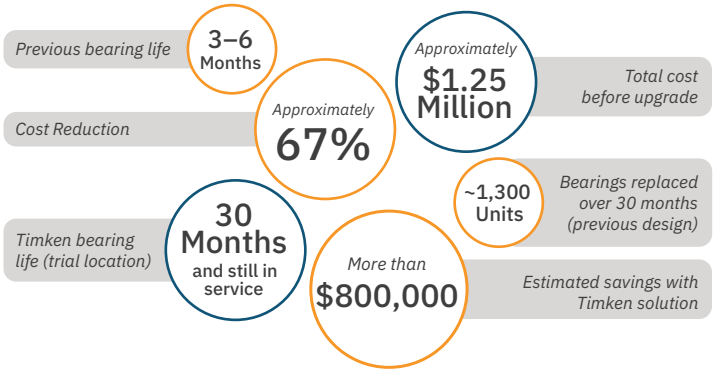
- Stainless steel construction with enhanced sealing for washdown protection
- NSF H1 food-grade Solid Lube that eliminates relubrication
- Full-fill lubrication to guard against moisture and contamination

After 30 months in service, the bearings continue to operate, far exceeding the previous three to six month life.

To reinforce long-term performance, we conducted a conveyor bearing audit and provided hands-on training for maintenance teams, ensuring proper installation and torque practices in wet, high-demand environments.

Results That Matter

The results were immediate and measurable.



The solution helped the customer reduce maintenance labor, minimize production interruptions, and lower total bearing consumption across the line. It also strengthened their ability to move toward a true annual preventive maintenance cycle, improving planning, reliability, and overall operational efficiency.

When washdown environments push equipment to its limits, we engineer solutions that keep production moving forward reliably and efficiently.

The Timken Company partners with customers to design and manufacture advanced motion technology systems and components for critical end markets including aerospace and defense, power and electrification, and automation and industrial solutions. With more than 125 years of specialized engineering expertise, we power performance across the application lifecycle.

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