



# TIMKEN® BELTS SAVES FOOD PROCESSING PLANT \$161,000 ANNUALLY BY RESOLVING BUCKET ELEVATOR CHALLENGES

## CHALLENGE ▼

A food processing plant utilizing a bucket elevator in its harvesting operations faced several challenges impacting the machine’s efficiency and reliability: tooth shear, dynamic crimp damage, and motor plate flexing. Finding a solution was imperative because downtime was costing the company \$32,500 per hour during a seasonal peak time.

## TIMKEN BELTS SOLUTION ▼

The customer attempted to remedy the issues by changing the machine from a chain drive to a belt drive, but they continued to experience machine failures with a competitor’s belt. A Timken Belts expert uncovered the root cause observing the customer was running the machine too fast in an effort to speed up production. This resulted in grain spillage which clogged up the boot causing component breakdown and belt failure.

A four-prong approach was taken to resolve the complex set of issues. First, the belt was replaced with a Timken® Panther® XT Belt specifically designed to withstand the demands of the harshest environments. Second, in spite of hesitancy from the food processing plant contacts, the machine speed was adjusted based on a diligent conversation initiated by the Timken expert with the machine manufacturer contact. Together they confirmed reducing the speed to a more optimal level would help prevent grain spillage, ultimately improving output. Third, a new motor plate was installed which stopped the flexing. Finally, the Laser-Align, Frequency Finder, and the Drive Engineer® mobile app were used to validate the alignment and tension specifications, ensuring peak belt performance and longevity. This proactive approach to maintenance will help prevent potential failures and help extend the lifespan of the components.



## RESULTS THAT MATTER ▼

The estimated reduction in downtime translates into significant savings:

- \$10,000 projected savings in replacement belt costs
- \$4,000 projected savings in maintenance labor costs
- \$12,000 projected savings in crane rental costs
- \$40,000 projected savings in component costs
- \$95,000 projected savings in unplanned downtime costs

These efforts result in a remarkable total savings of \$161,000 annually.



Timken Belts is part of The Timken Company’s growing portfolio of engineering bearings and industrial motion products. Timken Belts manufactures premium-performance power transmission belts that help keep industry in motion and the world more productive.

Performance Driven. Performance Proven.

[www.timkenbelts.com](http://www.timkenbelts.com)