

# DIAMOND-DRIVES AND GROENEVELD-BEKA JOIN FORCES IN KILN DRYER APPLICATION

## CHALLENGE ▼

A manufacturer of drywall boards was looking to replace the Drives<sup>®</sup> 81X kiln dryer chain used in their wallboard ovens. Natural wear progression had taken place over time, as the chain was 20+ years old. Due to this display of extended wear life, the manufacturer chose to repurchase the chain from Diamond-Drives.

The manufacturer used a jet spray lubrication system to lubricate the kiln dryer chain, reducing wear between the pins and bushings. This system tended to spray more lubricant than necessary, leading to high lubrication costs. The manufacturer asked Drives experts for recommendation on how to fix this problem.

## SOLUTION ▼

Drives experts recommended continuing usage of Drives 81X kiln dryer chain in the chosen application. This chain's successful performance can be attributed to its construction. Increased clearance between the sidebars reduces stiff joints under elevated temperatures, while nominal lateral plate clearance provides tolerance for heat expansion – delivering non-binding chain operations as a result.

Going a step further, Diamond-Drives leveraged their relationship with a fellow Timken industrial motion business, Groeneveld-BEKA ([www.groeneveld-beka.com](http://www.groeneveld-beka.com)). Groeneveld-BEKA proposed an automatic lubrication system that could be used in conjunction with the kiln dryer chain. The system was designed to apply regular and consistent amounts of oil to the chain during production.

## RESULTS THAT MATTER ▼

After replacing the 81X kiln dryer chain and installing a new lubrication system, Drives engineers project that the chain could run for 20+ years like its predecessor. The drywall manufacturer has seen a significant decrease in lubrication usage as well.

