

# DRIVES<sup>®</sup> KILN DRYER CHAIN

## INNOVATION IN PERFORMANCE

Engineered roller chains are designed for specific applications and industries. At Drives, we engineer Kiln Dryer Chain to maximize performance on dryer or wallboard systems.

Starting with high-quality materials leads to greater strength, durability and service life. Our kiln dryer chain components are designed, engineered and built to strict quality standards.

From concept to production and throughout the life of the chain, we aim to solve industry problems and offer the most cost-effective solutions possible.



## STANDARD/HEAVY KILN DRYER CHAIN

- Manufactured with increased transverse clearance between sidebars to prevent stiff joints under elevated temperatures
- Nominal lateral plate clearance provides tolerance for heat expansion and contraction, accommodating for misalignment of the hangers
- Delivers non-binding chain operations in higher temperatures or longer cycle board systems
- J-style designed connectors can be specified for retention and service access



J Connector

### STANDARD

- Case-hardened pins are manufactured from high-quality alloy steel
- Supplied in suitable lengths for handling

### HEAVY

- Through-hardened pins are manufactured from high-quality alloy steel
- Features heavy inner link plate for applications with higher working loads
- Supplied in suitable lengths for handling

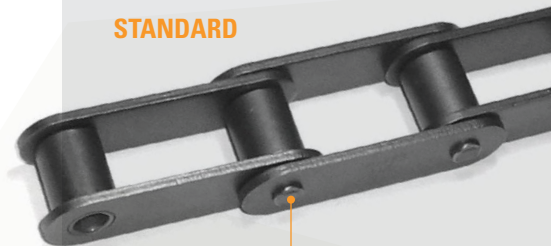
### 3000

- Case-hardened pins are manufactured from high-quality alloy steel
- Offers higher working loads due to greater pin diameter and length of bushing; supports higher working loads due to heavy inner link plate, greater pin diameter and length of bushing
- Supplied in suitable lengths for handling

## KILN DRYER CHAIN WITH CHP UPGRADE

- Chrome-hardened pins (CHP) provide an extremely hard surface to decrease the wear between the pin and bushing, reducing chain elongation and increasing wear life over conventional premium chains
- Offers outstanding wear and shock load performance at the same temperature ranges as standard carbon steel chain
- No reduction in working loads or operating speeds

### STANDARD



Case-Hardened Pins

### HEAVY



Through-Hardened Pins

Heavy Inner Link Plate

Case-Hardened Pins

### 3000



### CHP UPGRADE



Chrome-Hardened Pins

## INNOVATION IN APPLICATION

Built with solid rollers for smooth engagement with sprockets, Drives® Kiln Dryer Chain is used to convey drywall boards through massive ovens. These systems contain multiple decks, with each deck using up to 1,000 feet of chain.

Wallboard ovens frequently experience elevated temperatures (approximately 650°F). As such, roller chains face twisting in these environments. A twisted chain may result in further destruction to the guide hangers. Factoring in downtime and hanger damage, this can become a very costly problem for customers to face.

At Drives our goal is to solve the issue at the source. Twisting often occurs when pins are inserted into the side plate at an angle. Using a two-step process, we manufacture kiln dryer chain to extremely tight tolerances to ensure that the hole is straight. This helps prevent the pins from being inserted at an angle, which improves pin retention in the side plate.

Transverse clearance design



Hook-tooth sprockets rotate the rollers in the oven

Hold-down brackets used to track the chain and keep the stands engaged with hook-tooth sprockets

## SUCCESS STORY

*A paper and pulp manufacturer was using the competitor's roller chain on their wallboard oven applications. To better serve the manufacturer's needs, Drives recommended switching to 81X Kiln Dryer Chain.*

*This product is manufactured to perform well under elevated temperatures, delivering non-binding chain operations. Using high-quality alloy steel ensures greater strength, durability and service life.*

*Together, our exceptional performance and market availability led to the manufacturer making the switch to Drives 81X Kiln Dryer Chain.*



## INNOVATION IN SERVICE

Producing products that push the boundaries of performance is only the beginning. Drives recognizes that kiln dryer chain applications demand technical, logistical and after-sales support.

### IN-HOUSE MANUFACTURING

- Ensures production flexibility for standard and customized products

### QUALITY OF SERVICE

- State-of-the-art engineering includes research and development plus product testing
- All Drives® Kiln Dryer Chains are inspected for twisting

### REEL AVAILABILITY

- Offering Kiln Dryer Chain on reels allows for reduced installation time and fewer connecting links per deck

### TOOLS & RESOURCES

- **Chain Engineer App** ([www.chain-engineer.com](http://www.chain-engineer.com)): Allows users to track elongation of multiple kiln dryer chain installations online; select equipment used, enter measurements and submit to receive date in real-time



## NOMENCLATURE

CHAIN NUMBER	STANDARD	HEAVY	3000	CHP
	81XKD	81XHKD	3000KD	81XKD-CH



Drives® chains are part of The Timken Company's portfolio of engineered bearings and industrial motion products.

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