NEWS RELEASE:

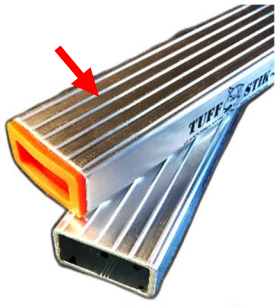
Dry Kiln Upgrades Realized with TUFF-STIK™ Aluminum-Alloy Kiln Sticks: Enhanced Efficiency, Quality and Rapid ROI and They're GREEN!

In a significant move towards improving kiln-drying efficiency and the quality of finished lumber, a growing number of kiln drying operations are upgrading from traditional and 'hybrid' wooden kiln sticks to the TUFF-STIK™ aluminum-alloy kiln sticks. This shift addresses longstanding challenges associated with wood kiln sticks, such as moisture retention, airflow obstruction, and the risk of catastrophic failure due to brittleness, while also delivering a fast return on investment (ROI).

Kiln-drying with wooden sticks leads to the collapse of the wood's cellular structure, compromising the kiln stick's ability to retain strength and original physical properties. Repeated cycles of drying render these sticks increasingly brittle, causing them to break easily and catastrophically after just three turns in the dry kiln. This brittleness, combined with the moisture retained under the wooden kiln sticks on green lumber, often results in uneven drying, leading to wet spots under the wood stickers. Such inconsistencies degrade the final lumber product, diminishing both its grade quality and market value.

Additionally, wooden kiln sticks impede airflow within the kiln, disrupting the laminar flow of hot air critical for efficient drying. The solid structure of these sticks blocks air from circulating freely around the lumber, creating significant airflow obstructions. With thousands of sticks used in a single kiln load, these obstructions accumulate, representing an estimated 80-200 surface feet or more of airflow impedance per four-package stack.

The multi-patented TUFF-STIK™ aluminum-alloy kiln sticks offer a far superior alternative. Unlike wood, aluminum is a thermal conductor, allowing heat to travel more efficiently through the core of the lumber stack. This results in faster, more even drying from the outer areas to the core. The hollow design of TUFF-STIK™ further greatly enhances airflow, reducing the workload on kiln fans. Lower fan resistance translates to reduced energy consumption and extended fan life.



optional ***Belt-Bumpers***™

Moreover, TUFF-STIK™ is engineered with patented transverse ribs that grip the lumber, significantly reducing bow and crook during the drying process. These ribs embed slightly into the lumber surface, holding it straight without causing damage. Post-drying planing removes any minimal indentation, leaving no trace of the gripping ribs while ensuring superior lumber grade quality.

In addition to these benefits, TUFF-STIK™ kiln sticks are easily detected in sawmills' chip conveyor systems. This detectability ensures that if a TUFF-STIK inadvertently makes its way into the chipper, it can be quickly identified and removed, preventing potential damage to equipment and ensuring the purity of wood chips. This feature adds an extra layer of operational safety and efficiency, further solidifying TUFF-STIK™ as a valuable "green" investment. Other 'hybrid' wood-core kiln sticks that are coated with what some refer to as "bed-liner plastic" are not detectable in chipper lines and not only could they contaminate the purity of the wood chips being usable, the toxicity of using them to burn in kiln boilers, potentially gumming up equipment, creating enviromental issues and lead to increased maintenance needs as well.

A significant advantage of TUFF-STIK™ is its simple recyclability. Aluminum is one of the most recyclable materials available, and TUFF-STIK™ kiln sticks can be fully recycled at the end of their long service life. This recyclability not only reduces waste streams at a sawmill but also contributes to a more sustainable mill operation, aligning with the growing emphasis on environmentally responsible practices in the timber industry. The ability to recycle these sticks further enhances the return on investment, as the material retains good value even after its use in the kiln. Other kiln sticks present significant challenges and continued costs in disposing after their short service life is over.

While aluminum kiln sticks are only marginally more cost upfront, they offer a far longer service life—lasting years longer, with the absolute lowest cost-per-turn in the lumber industry. This longevity, combined with their numerous operational benefits, makes the TUFF-STIK™ the most economical and logical choice in the long run.

The adoption of TUFF-STIK™ kiln sticks not only improves operational efficiency and product quality but also delivers a rapid ROI. The reduction in energy costs, minimized lumber degradation, and extended equipment lifespan and longer service life of the kiln sticks all contribute to significant cost savings. Many kiln operators report recouping their investment in TUFF-STIK™ within a short period, (after 20 turns or less) making it a financially sound decision that continues to pay dividends in improved performance and profitability.

Industrty experts in the field agree that the switch to TUFF-STIK™ kiln sticks is more than justified by the substantial improvements in drying efficiency, energy savings, overall product quality, and the fast return on investment. This innovation marks a pivotal advancement in kiln operations, promising enhanced performance and higher returns for lumber producers.

For more information **www.tuff-stik.com** call toll-free **844-TUFFSTIK** or **573-525-8587**

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