DIAMOND® BY TIMKEN

MAXIMIZING UPTIME: DIAMOND® CHAIN IMPROVES EFFICIENCY IN THE PULP AND PAPER INDUSTRY

CHALLENGE

Unplanned downtime can cripple production and create both financial and operational pressures. A kraft paper production facility was struggling with frequent conveyor chain failures. The conveyor, responsible for transporting brown stock pulp into the mill, is critical to maintaining production. The chain's 24-week lifespan required frequent replacements, causing unplanned downtime and sizable hourly losses of $75,000. To remain competitive, the facility needed a solution to extend the chain's life, minimize interruptions and reduce overall costs.

SOLUTION

After thoroughly assessing the conveyor's operational demands and existing chain limitations, a Diamond-Drives expert recommended our Diamond® Heavy Series roller chain. Its superior engineering made it the ideal solution for this customer's conveyor system. 50% preloading minimized premature elongation, hot-dip lubrication provided long-lasting wear protection, precision assembly ensured consistent performance under high stress and advanced metallurgical properties were designed to withstand demanding environments.

RESULTS THAT MATTER

Implementing Diamond chain delivered two benefits: an extended life cycle and substantial cost savings.

The chain lasted an impressive 70 weeks – nearly triple the lifespan of the previous chain and double its projected 36-week lifespan. While the chain's cost remained minimal, when combined with the reduction in downtime, the savings were an estimated $88,000 annually. This success demonstrates Diamond-Drives' ability to provide tailored solutions that promote operational excellence while delivering measurable financial benefits.

	Competitor	Diamond Estimate*	Diamond Actual**
Annual chain expense	$1,443	$971	$666
Annual downtime expense	$162,500	$109,445	$75,000
Total chain expense	$163,943	$110,416	$75,666
Yearly Diamond chain savings		$53,527	$88,277

*projected 36-week lifespan ** 70-week actual lifespan