

PINCH ROLLS CASE STUDY

New refurbishing process led to 3x increase in pinch & wrapper rolls longevity





Introduction

In the early 1980s, a domestic steel producer was having longevity issues with their pinch and wrapper rolls. They were looking for a solution to improve the performance by finding a domestic source for roll refurbishment. For privacy reasons, the steel producer will be referred to as The Company.

CHALLENGE

Performance Issues

In the 1980s and 1990s, the majority of pinch and wrapper rolls were made of cast iron. Unfortunately, these rolls would wear very quickly. For reference, The Company was only running 6,000 coils over these rolls prior to pulling them for maintenance. Additionally, the cast iron bodies were throwaways, so they would need to be fully replaced. The Company realized that they needed to extend the life of their coiler rolls, so they began looking for a solution.

Choosing Kocsis

In order to combat their pinch and wrapper roll problems, The Company purchased a new coiler from an overseas OEM. The coiler included pinch and wrapper rolls that were overlayed with tool steel. After purchasing the new coiler, The Company worked to find a domestic source for refurbishing these new rolls. The Company narrowed down its search to five machine shops, one of which was Kocsis. As part of their vetting process, The Company visited each machine shop and performed an in-depth quality audit. Following these audits, The Company chose Kocsis to be their domestic source for pinch and wrapper roll refurbishment.

The Kocsis Way

The main challenge facing Kocsis revolved around the heat sensitivity of the tool steel overlays. Any fluctuations in the cladding process could lead to quality problems that would decrease the longevity of the rolls. Therefore, Kocsis developed controlled, standardized methods with tight parameters to ensure consistent product quality. Over the years, Kocsis' process has become so dialed in that we can now stress relieve multiple pinch rolls at once using standard stress relieving cycle. This standardization has led to greater efficiencies and cost savings for the client.

22,000 coils between equipment changes



RE-USE OF ORIGINAL ROLL BODIES FOR PAST 40 YEARS

RESULTS

Setting a New Standard

As previously stated, when The Company was using cast iron pinch and wrapper rolls, they expected to run 6,000 coils over them prior to replacement. Additionally, these roll bodies were fully replaced instead of refurbished. This led to increased downtime and maintenance costs.

Over the years, Kocsis has consistently enhanced its refurbishment process by developing a proprietary tool steel wire blend and further standardizing its cladding process. As a result, The Company can now run 22,000 coils over their pinch and wrapper rolls prior to pulling them for refurbishment. Also, Kocsis is still using the roll bodies that initially came with the coiler back in the 1980s! Together, these improvements have decreased downtime for The Company and saved them money in the long term. Overall, The Company's roll performance demonstrates the reliability, proven processes, quality overlays, and attention to detail that has allowed Kocsis to become a market leader in the steel services industry.

GET STARTED WITH KOCSIS TODAY

Request a quote for your next project at KocsisUSA.com

KOCSIS

Kocsis is an industrial technologies company that is building a brighter tomorrow for our employees, customers, and community. We're modernizing traditional manufacturing, engineering, and maintenance services with our creative team and the use of new technologies.

A leader in engineering, rolls, and machining for over 50 years, our extensive capabilities and decades of expertise provide integrated, cross-discipline solutions that enhance our customers' core capabilities and services to create a brighter future.

At Kocsis, what we build today, is built for tomorrow. Visit KocsisUSA.com to learn more.









11755 South Austin Avenue, Alsip, IL 60803