WPS Weiler Process Solutions

WEILER

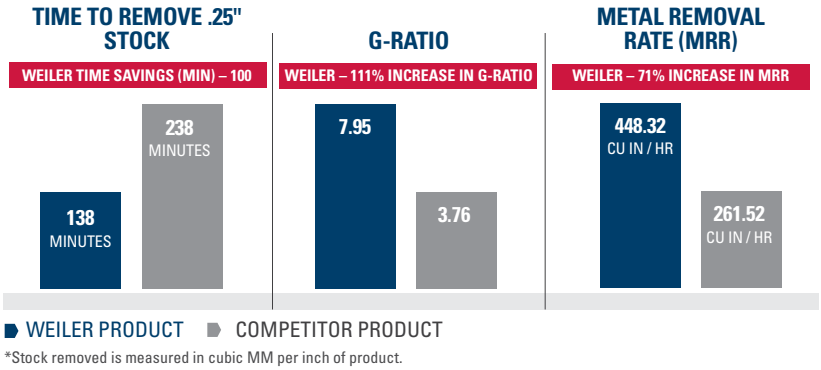
IMPROVED GRINDING EFFICIENCY SAVES FACILITY TIME AND MONEY

ORGANIC SEGMENTS CASE STUDY

CHALLENGE: A highly respected custom steel processing facility was facing margin compression in the midst of a competitive market. Although they process some of the most challenging steel plate jobs in the US on powerful surface grinding equipment, they have struggled to remain competitive on smaller and mid-sized jobs. Operating 23 surface grinders between two facilities, the company believed the greatest opportunity to regain its competitive edge was to improve productivity by increasing grinding efficiency. A grinding solution that removes material faster would reduce cost allowing them to win more business and increase their margins on existing customer business.

SOLUTION: After evaluating the grinding applications and consulting with the plant manager, the Weiler Abrasives team quickly got to work designing a new high performance ceramic segment. Using the Weiler Process Solutions (WPS) documentation tools, the team would collect key data points to measure results, including total material removed, grind time, wheel loss, and plate dimension. The newly designed Weiler segments were tested on A36 Steel Plate and immediately delivered excellent results. The new Weiler wheel delivered a **111% increase in G-Ratio**, which measures the amount of material removed compared to the wear of the wheel. The metal removal rate was also increased by 71% with the Weiler wheel removing 449.32 cubic inches an hour. Grinding speed also saw a significant improvement, reducing grind time by 42%.

RESULT: By switching to the Weiler organic segments, the steel processing facility was able to **reduce grind time by 1,494 hours**, equating to $224K of operational cost savings. In addition, $53K in savings was realized through increased wheel life and reduced changeovers, bringing the total productivity and **cost savings to $277K annually**. The improvement in throughput and reduction in abrasive spend allowed this customer to regain a competitive position in the market and improve margins on their repeat customer business.



*Stock removed is measured in cubic MM per inch of product.

Weiler helps steel processing facility regain 1,494 hours of grinding time and realize $277K savings.