

TIGER GRINDING WHEELS DELIVER LONGER LIFE, COST SAVINGS FOR TANK FABRICATOR.



PRESSURE VESSEL CASE STUDY

Weiler Tiger 9 x 1/4" Ceramic Grinding Wheel

Item # 58334

CHALLENGE: A global manufacturer of storage vessels and tanks serving the Refining, Marine, and Petro-Chemical industries was looking for an abrasives expert to evaluate their current grinding wheel performance. For over 60 years, the company has specialized in the fabrication of large-scale, custom pressure vessels. With up to 200 welders working in their 150,000 square foot facility, they use grinding wheels to remove mill scale before the tank butt plates are welded together. Grinding wheels are also often used for deburring torch-cut hatches. Understanding that weld prep is a critical step to ensure quality and safety in their multi-pass welding process, the company contacted Weiler Abrasives to evaluate their grinding applications.

SOLUTION: While visiting the facility, Weiler abrasives specialists conducted the Weiler Consumable Productivity (WCP) process to compare grinding wheels. A simple test was developed to compare wheels by beveling the edge of a 12-inch steel plate. The test was timed, each wheel was measured for diameter loss, and each plate was weighed to determine total metal removal. After reviewing the data, the Weiler grinding wheel outperformed the competitive wheel both in cut-rate and in life. This combination of metal removal rate and grinding wheel life is known as the grinding ratio or G-ratio in the abrasives industry.

RESULT: The Weiler Tiger Ceramic grinding wheel outperformed the competitive disc, delivering 13% faster cut-rate and 22% longer wheel life. The change cost .40 cents more per wheel; however, the added value through increased performance reduced annual abrasive spending by an estimated \$9,000.

END USER COMMENTS:

"The Weiler wheel just cuts faster. Plus, the edge doesn't chunk out, so it grinds nice and smooth." - Welder / Fabricator



Grinding wheel test demonstrated longer life and faster cut.

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22%
longer, reducing
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a year.