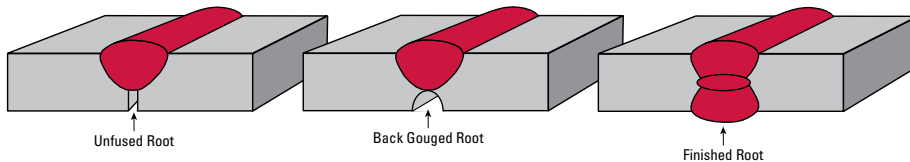


# WEILER ABRASIVES HELPS SHIPBUILDER MEET GOVERNMENT CONTRACT REQUIREMENTS



## SHIPBUILDING CASE STUDY

**CHALLENGE:** A United States shipbuilder that specializes in the commercial and defense aluminum vessel market had recently expanded its production to include steel ships. The Welding Engineer charged with leading the expansion faced a challenge that threatened the company's ability to deliver steel ships to government specifications. According to the Navy Back gouge Standard – Mil Standard 1689A, structures that are welded on both sides must be back gouged to sound metal to ensure full penetration of a weld. In this process, back gouging on aluminum is done with carbide blades, however they are not an effective option on steel. Having no standard operating procedures in place or previous experience testing abrasives the Welding Engineer needed to find an abrasive product that worked on steel. Without a solution they would not be able to fulfill their current contracts and run the risk of not winning future bids.



Back gouging procedures are implemented during the shipbuilding process where it is not possible to guarantee the consistency of a weld root.

**SOLUTION:** To address this urgent need, Weiler brought in a team of experts that included the local District Sales Manager, Abrasive Specialist, and Product Category Manager. After reviewing the application during an on-site visit, the team recommended an 1/8 inch bonded combination wheel as the best solution for steel back gouging. To select the best wheel for the application several options were brought in for testing. Throughout testing, the Weiler Consumable Productivity process was leveraged to accurately measure cut rate, wheel life, and labor costs. This provided the Welding Engineer with hard data to select the wheel that offered the best productivity and total cost. "I don't want to base any of this on my opinion."

**RESULT:** Through collaboration, comprehensive testing, and evaluation it was proven that the Tiger Ceramic 1/8 combination wheel was the best solution, delivering an **annual savings of \$20,000** over the other wheels tested. The Weiler team **delivered an SOP** to the Welding Engineer for future testing and most importantly **solved a production halting application challenge** that threatened current and future business, allowing the shipbuilder to meet customer demands.

### END USER COMMENT:

*"Nobody captures grinding costs in our industry like Weiler"*

- Welding Engineer

Tiger Ceramic allows shipbuilder to meet back gouge standards, while delivering

**\$20K**  
in savings