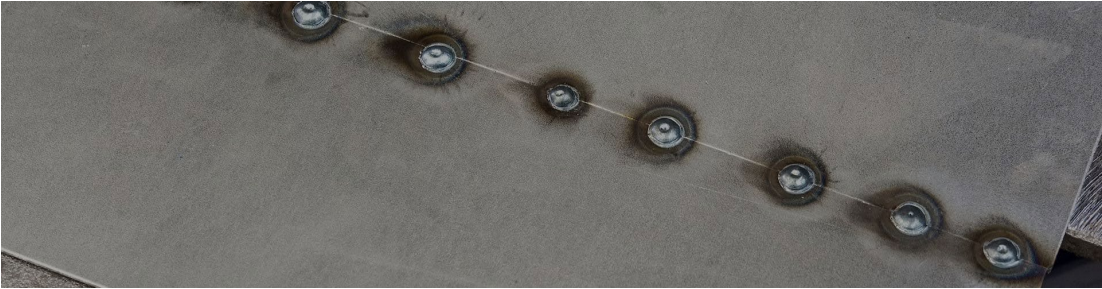


Reduction of Welding Using Adhesives

Surface Preparation & Coatings Panel

| PROJECT IMAGE | OBJECTIVE |
|--|---|
|  | <p>Identify and analyze the use of adhesives or other bonding materials that can be used in lieu of tack welding where coating repair is not feasible.</p> <p>TIP Items: 7.2.2.1.4, 7.2.2.2.4, 7.2.2.5.1, 7.3.2.7.3</p> |
| BENEFITS/ROI | PROJECT INFORMATION/FINANCIAL |
| <ul style="list-style-type: none">• Reduce the cost of coating removal prior to hot work by finding an adhesive that can replace a tack weld.• Eliminate inaccessible bare metal areas in lap joints that may result in corrosion during the ships life.• Final reports for NSRP and public yards showing adhesive strength results. | <p>Project Lead/Team Members: Elzly Technology, HII-Newport News Shipbuilding</p> <p><u>Duration:</u> 12 Months</p> <p>Program Funds: \$200K Cost Share: \$0 Public Sector: \$0</p> |

Reduction of Welding Using Adhesives

Replacing a tack weld with adhesive would eliminate the need for the 4-inch OSHA strip back rule prior to hot work. Since there will be no coating removal, there is minimal risk for corrosion in the lap joint area.

This project will provide the following benefits:

- Identify and share performance of various adhesives compared to tack welds for impact of stresses/vibrations, fire/toxicity, and corrosion protection on adhesive bonded bulkheads vs tack welded bulkheads.
- Compare adhesive performance to standard tack welding operations
- Provide cost savings data when using adhesives compared to current practices
- Publish a final report with data on findings.