

Streamlining the Shipbuilding Process

Two-year Project Showed a 30% Reduction in Distortion, 13% Reduction in Production Costs

THE CHALLENGE

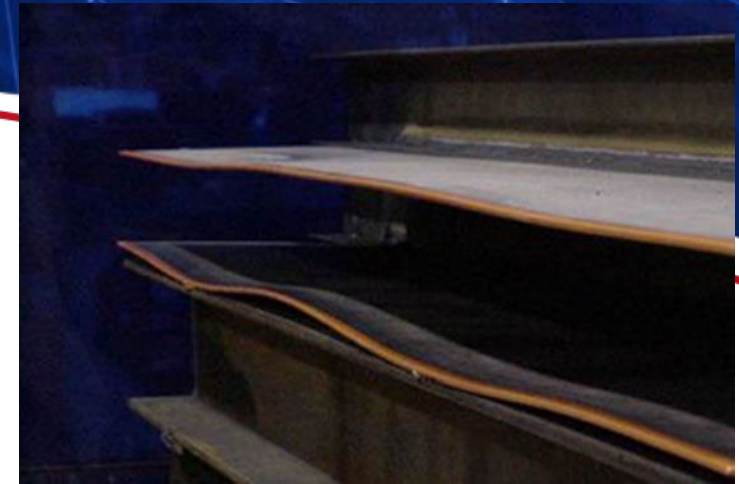
- Welding of plates in shipbuilding process resulted in drastic warping and required a tremendous amount of manual post-work to reshape

THE LIFT SOLUTION

- Observed the baseline Coast Guard Cutter production assembly and collected distortion data at each process step
- Fabricated nineteen (19) test panels featuring different variables and assembly sequences
- Employed Integrated Computational Materials Engineering (ICME) modeling to establish recommended fitting, welding and assembly sequences for optimized distortion control

THE OUTCOME

- Recommended procedures were employed on a full-scale mock-up unit
- Detailed process flows showed cost savings due to improved technology and reduced distortion



Distorted Plates



Assembled Coast Guard Test Article

