

Friction Stir Welding



Our Company

HFW Solutions is one of North America's largest friction stir welding and large-scale machining providers producing ABS certified components. We use a process-driven, methodical approach to developing production, engineering and quality excellence. Products range from large sheets and plates to smaller complex fabricated structures.

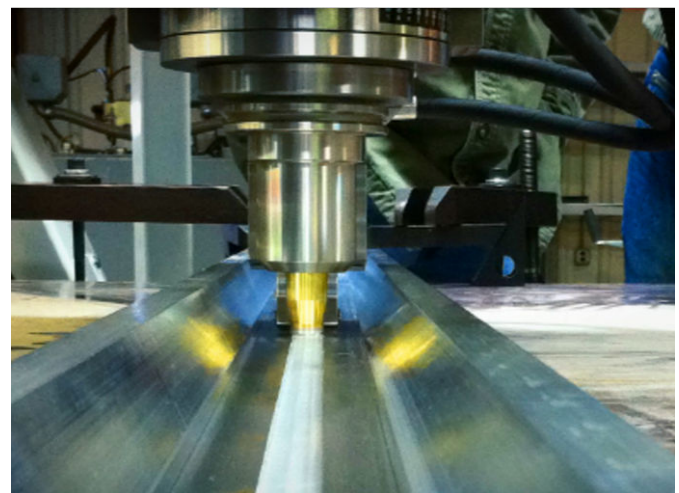
Friction Stir Welding

Friction stir welding (FSW) is a solid-state joining process that uses frictional heat. Using this method creates a high-strength, high-quality weld. FSW has many applications, including, but not limited to aerospace, shipbuilding, construction and architecture, railcar, truck trailer, and automotive industries.



Advantages of Friction Stir Welding

- Provides a significantly stronger joint than fusion welding or mechanical fastening
- Lower heat input leads to:
 - Low distortion in final product
 - Significantly reduced Heat Affected Zone
- CNC controlled – Significantly reduced defects in weld joint
- Ability to join thicker, more difficult and higher strength aluminum alloys
- No filler material – FSW joints retain parent metal chemistry
 - Allows for joining dissimilar alloys
- Produces an aesthetically appealing joint finish



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