



Manufacturing Technology, Inc.  
Offers a full range of FSW Services:

- Consulting Services
- Machine Design
- Machine Build
- Turn-Key Installation
- Process Development
- Contract FSW Production

We are licensed and listed by  
The Welding Institute (TWI-England)  
as a Friction Stir Welding machine manufacturer.

**Custom Tooling ▲  
Design for FSW**

Tooling for the Eclipse Fuselage

Prior to joining Manufacturing Technology, Inc., TTI developed the concepts and designs for the FSW tooling systems for the Eclipse 500 airplane. Eclipse was the first company to achieve high volume FSW production of precision, complex contour components in light gauge materials.



**Custom Systems  
and Tooling**

MTI is ready to serve all of your FSW needs! MTI is the only company in the world offering all forms of friction welding – rotational, linear, and stir.



1702 West Washington Street | South Bend, IN 46628  
[www.mtiwelding.com](http://www.mtiwelding.com) | Phone: (574) 233-9490

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 [www.mti-nash.com](http://www.mti-nash.com)



## Universal Weld System ▼

TTI, now part of Manufacturing Technology, Inc., designed the primary X, Y and Z weld axis and structures for the Universal Weld System (shown) for MTS Systems Corp.



## NASA's New Ares I Rocket ▼

The new Ares I rocket, which is now being developed by NASA, will be the backbone of America's manned space program in the years to come.

The second stage cryogenic tank for this new rocket will be Friction Stir Welded. TTI, now part of Manufacturing Technology, Inc., provided the longitudinal seam welder for Marshall Space Flight Center and has been a key contributor to other FSW equipment used to create the prototype vessel.

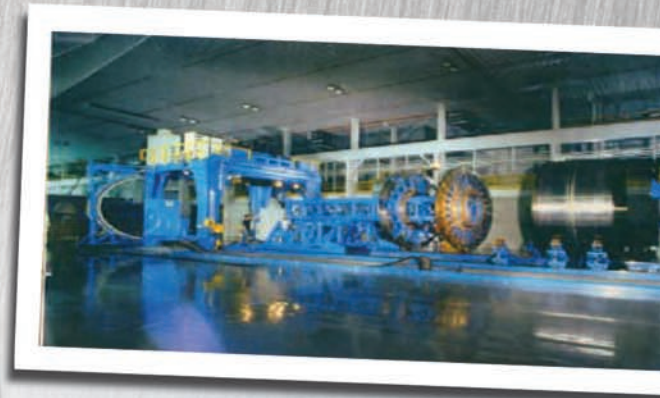


Photo courtesy of Lockheed-Martin Space Systems

## Gantry Machine ▼

for Pacific Northwest National Laboratory

This machine will weld titanium, steel or any other weldable material with the FSW process. This picture shows a custom configuration which was developed to meet the customer's needs and budget.



## Circumferential Welder ▲

for the Advanced Solid Rocket Motor (Sciaky, Inc.)

Our principal engineer was responsible for the design and construction of the circumferential welding tools for the Advanced Solid Rocket Motor program.

## Vertical Welder ►

for the Ares I rocket

The Vertical Weld Tool at NASA Marshall Space Flight Center was designed, built and installed by TTI, now part of Manufacturing Technology, Inc.

*Vertical Friction Stir Welding Machine  
for NASA Marshall Space Flight Center*

