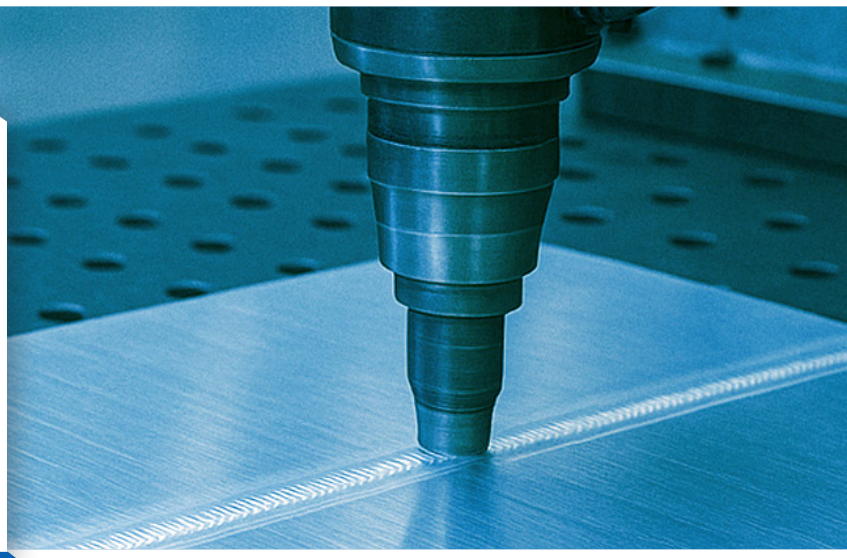
Friction Stir Welding (FSW)

High-Performance Aluminum Structures. Fast Turnarounds. Zero Compromise.



What We Do

LeapFast provides **contract Friction Stir Welding** for companies that need high-strength, distortion-free aluminum assemblies—without investing in internal FSW equipment or aerospace-grade expertise.

We deliver:

- Stronger, lighter parts
- Solid-state welding with zero melting
- Repeatable quality built to aerospace & defense standards

Why Companies Choose LeapFast

1

Aerospace-Grade Precision

Our team has **20+ years of NASA and national lab FSW experience**—including computational modeling, tooling development, and flight-hardware qualification. Every weld is executed to strict standards such as **AWS D17.3.**

You get: reliable welds, tight tolerances, and confidence that your product meets demanding spec requirements.

2

End-to-End Capability, All In-House

LeapFast's Youngstown, Ohio facility provides:

- Full-process FSW quality control
- Pre- and post-weld machining & processing
- Close-linked local suppliers to reduce lead times

You get: a faster, simpler, single-source workflow that keeps programs moving.

3

Fast, Flexible Production

As a lean manufacturer, we keep overhead low and responsiveness high. Whether you need:

- Increased FSW capacity
- Improved weld quality
- Prototype-to-production support

You get: speed, agility, and consistent quality.

4

Trusted by Major Prime Contractors

Our partnership with **BOND Technologies** provides additional equipment access and troubleshooting agility—ensuring we can handle complex programs and mitigate production risks.

You get: confidence that your work is backed by the same technology used by major defense and aerospace primes.

Where We Add Value

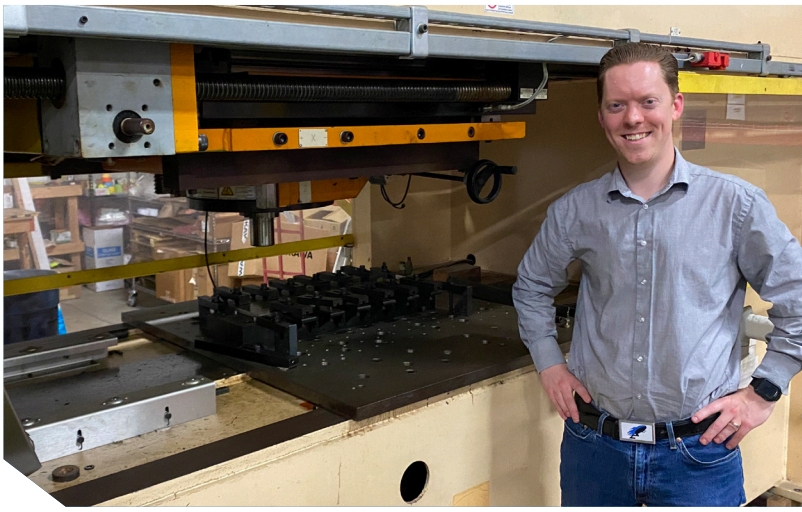
If aluminum performance matters, FSW unlocks better results. LeapFast makes it accessible. We support companies across:

- **Aerospace**
- **Defense**
- **Automotive**
- **Energy**
- **Marine & Shipbuilding**
- **Advanced Manufacturing**

About LeapFast

LeapFast Manufacturing is an advanced welding and manufacturing company specializing in **high-precision Friction Stir Welding.**

Our mission is simple: **Build high-performance aluminum structures with the quality, speed, and engineering depth that modern manufacturers require.**



Let's Build Something Stronger

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