



Your Partner for Friction Stir Welding

Our Services

Research & Development

- Collaborative projects working to advance FSW techniques and processes

Consultancy, design and development

- Develop the design, the process and tools for optimal FSW
- Applying our robotics and FSW expertise for comprehensive solutions
- Bespoke training and technology transfer to your site
- Feasibility studies

Manufacturing

- In-house prototyping
- UK-based production for initial low to medium volume FSW runs

Quality control

- High integrity joint assessment for metallic assemblies

Benefits of Friction Stir Welding

Superior welds:

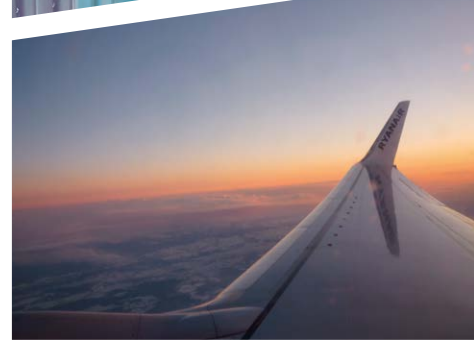
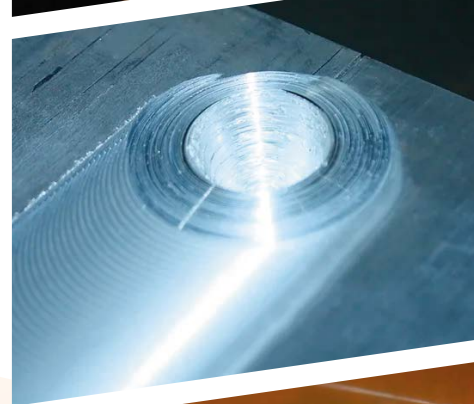
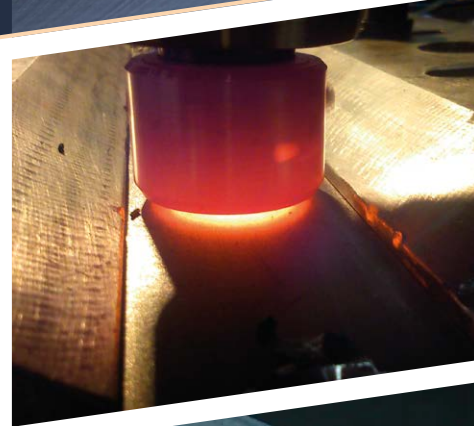
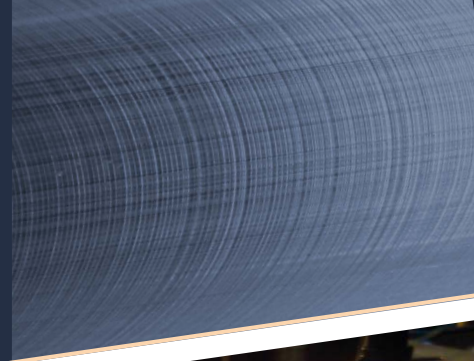
- **Minimal distortion:** perfect for critical applications
- **Consistent quality:** automated process for reliable, zero-defect welds
- **Unmatched strength:** can be as strong as the original material
- **Gas-tight and waterproof:** ideal for fuel tanks and pressure vessels
- **Highly conductive joints:** excellent thermal and electrical conductivity

Save time and money:

- **Fast welds:** up to 4 meters per minute
- **No consumables:** reduces costs
- **No pre or post-process preparation:** streamlined process
- **Eco-friendly:** less fumes, spatter, and energy use

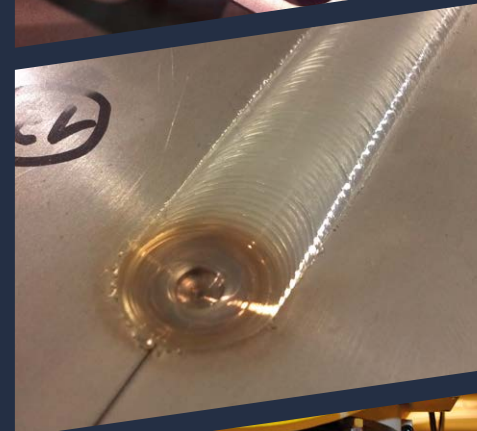
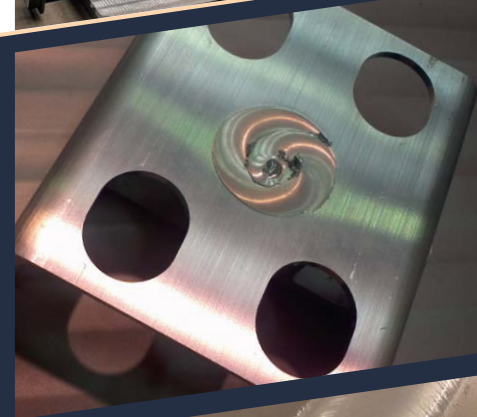
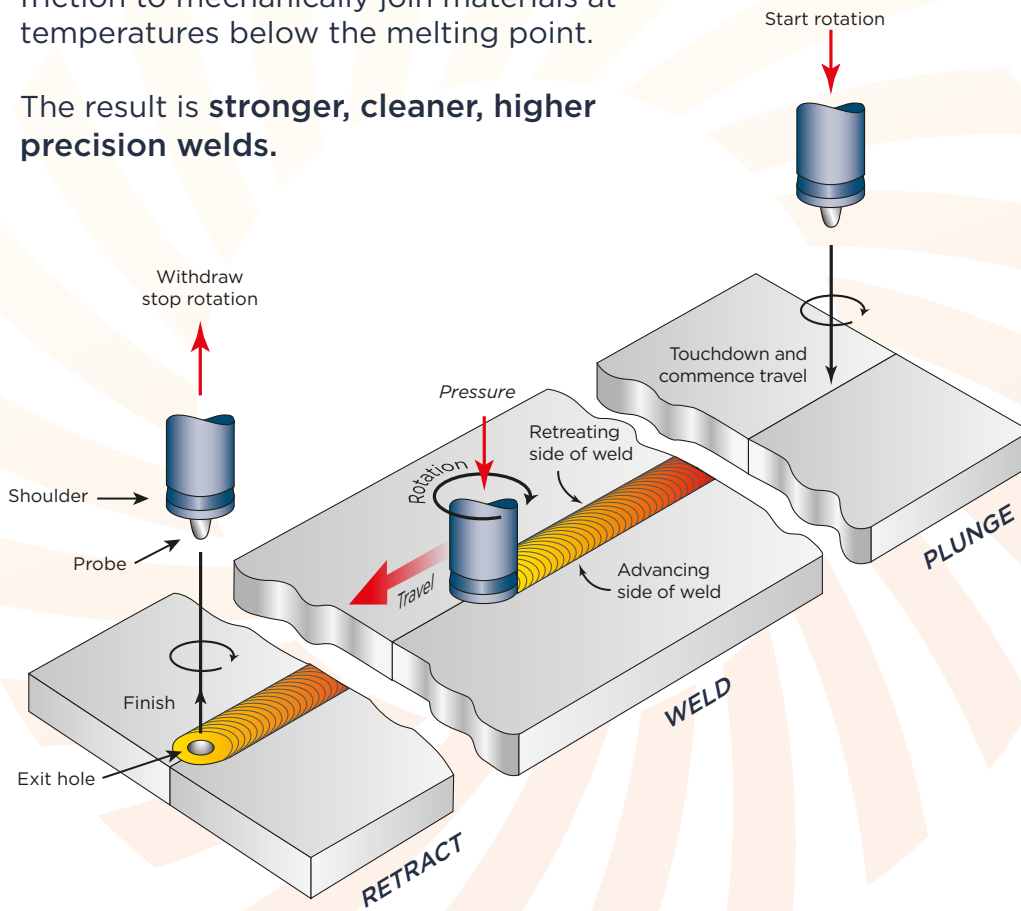
Works with a variety of metals:

- **Lightweighting:** use stronger, lighter materials that may not be compatible with other welding techniques
- **Aluminium expert:** welds all grades of aluminium alloys and is indifferent to the forming method
- **Dissimilar metals:** joins aluminium to copper, steel, and more
- **Versatility:** welds steel, copper, magnesium, titanium, thermoplastics



Friction Stir Welding is a solid-state joining technique that uses the heat generated from friction to mechanically join materials at temperatures below the melting point.

The result is **stronger, cleaner, higher precision welds**.



Why choose StirLight?

- Small and agile
- Strong research background
- Robotics and FSW expertise
- Focus on sustainability

Get in touch today to discuss your project:

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StirLight is a trading name of Baclor Ltd

