

Open-structure linear friction welding machine

LinFric Group linear friction welding machine

The world's first open-structure LFW machine, developed by the LinFric Group and TWI.

Features and benefits

- Fully instrumented to record input parameters, and force and displacement histories
- Universal adapter, allowing for customised tooling
- Repeatable weld quality
- Short welding times

Some applications

- LFW research and development for the joining of:
 - o Titanium alloys
 - o Nickel-based superalloys
 - o Aluminium alloys
 - o Steels
 - o Dissimilar materials
- Integrated bladed disks (blisks) for aero-engines
- Aircraft wing ribs
- Structural preforms (near-net-shape manufacturing)

Technical specification

Override force:

- Oscillation type: servo control (hydraulic)
- Oscillation movement:short-stroke oscillation

250kN

- Max. oscillation amplitude: ± 4.0mm
 Max. oscillation frequency: 100Hz
- Max. oscillation requertey.
 Max. oscillation capacity:
 Forge type:
 Max. force:
 200kN

