

// LASER-FOIL-WELDING

Ref-No: TA-PT 1.2655

BACKGROUND

The Central Institute for Engineering, Electronics and Analytics (ZEA) Engineering and Technology (ZEA-1) at Forschungszentrum Jülich GmbH developed a new technology to fix and weld thin foils without laborious and expensive fixtures.

The technology has been tested for welding operations at Forschungszentrum Jülich. Forschungszentrum Jülich GmbH is looking for a cooperation to realize ideas for an extended application and further development of the fixing method.

PROBLEM

A good welding result depends for a great part on exact and tight fixing of the parts to be welded:

- Fixing of thin foils with clamping-claws and -bars is very difficult
- Fixing of thin foils and thin sheets on thick parts demands special clamping device
- Fixtures for 3-D geometry welding are very laborious and expensive

SOLUTION

- The usage of an adhesive tape for fixing the parts to be welded can be a sufficient fixture for welding operations of thin foils and pre-welding (tack-welding) of thin sheets



Forschungszentrum Jülich GmbH

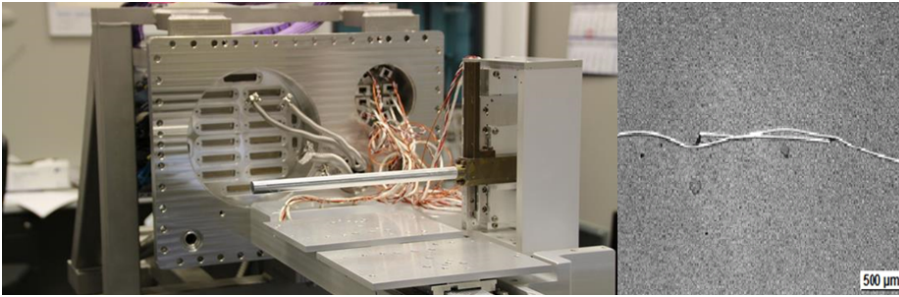
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DEVELOPMENT STATUS

Proof of concept

CATEGORIES

//Engineering //Process engineering



15 μm Al- tube; developed by ZEA-1

SCOPE OF APPLICATION

- Foil- and thin sheet- welding operations especially in 3-D geometry

SERVICE

If you have questions about the technology please refer to:

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