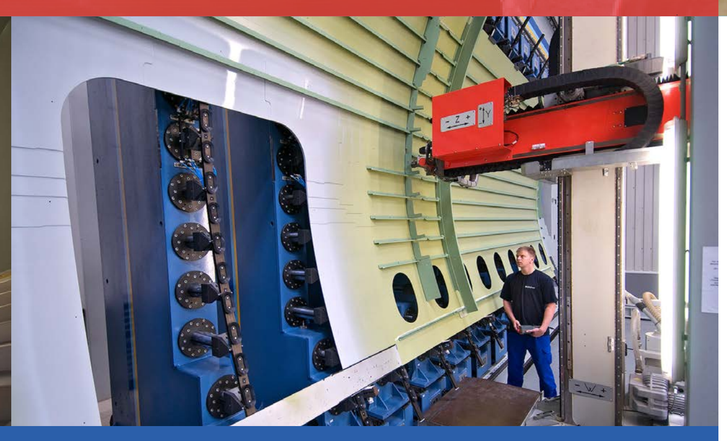
TAILORWELD

Energy Distribution for Laser Welding

The TailorWeld Project aims to develop and demonstrate an innovative laser welding system, which uses simple and robust diffractive optical elements, to increase the flexibility and simplify the application of laser welding.



TAILORWELD KEY BENEFITS

- A simplified method to determine the applicability of laser welding for welding processes undertaken.
- Replacement of high-cost and complex galvanometer scanner systems (~€80-150k) with simple DOE (diffractive optical element) (~€2k per application)
- A low-cost, robust system for producing tailored energy distributions, facilitating the adoption of laser welding by new end-users, across multiple industry sectors.
- A novel method of interpreting end-user requirements and reducing adoption costs.
- A retro-fittable DOE laser welding head module, suitable for new or existing laser beam welding systems.
- Built in process monitoring for optimum performance and Quality Assurance for end users.
- Interchangeable DOE module (cartridge system), allowing for a variety of welding operations and/or simple updating as necessary.

This project is comprised of a transnational consortium:

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www.tailorweld.eu