

Objective

Stork Gears & Services is focused on repairing gearbox related parts for marine and industrial applications. An ongoing challenge of lasercladding is 100% metallic adhesion with a minimum of dilution. The project focuses on minimizing dilution by meltpool detection and real-time control of the laser power and heat input.

Research topics

- Constant heat input and dilution independent of product geometry (edges, material thickness etc.)
- Performance and robustness of the controller
- Capability of dealing with geometrical changes

Industrial benefits

- Increased application of laser cladding
- Increased quality control of laser clad products
- Tool for process monitoring and continuous improvements

