Fraunhofer Institute for Laser Technology ILT

About this organisation

Machine translation

This organisation has been machine-translated based on data provided in German.

The Fraunhofer Institute for Laser Technology ILT is one of the world's one of the most important contract research and development institutes in the field of laser development and laser applications. Our core competences include the development of new laser beam sources and components as well as laser manufacturing technology such as cutting, ablation, drilling, welding and soldering as well as micro manufacturing and rapid manufacturing.

The manufacturing processes in the laser material processing technology field include cutting and joining processes in micro and macro technology as well as surface processes. Whether laser cutting or laser welding, drilling or soldering, laser deposition welding or cleaning, structuring or polishing, generating or coating, the range of services extends from process development and feasibility studies, through simulation and modelling, to the integration of processes into production lines. Extensive process expertise is tailored to customer requirements. This also results in hybrid and combination processes. In addition, complete system solutions are offered in cooperation with specialised network partners. Specialised systems, system modifications and additional components are part of numerous R&D projects. For example, special processing heads for laser material processing are developed and manufactured according to customer requirements.

Fraunhofer ILT

Organisation type
Non-university research institution

Sectors
No specific sector

Employees
250 up to 499

Turnover
€10m - €50m

Funding

Steinbachstr. 15
52074 Aachen
North Rhine-Westphalia
Germany
www.ilt.fraunhofer.de

Fraunhofer Institute for Laser Technology ILT

About this organisation

Main areas covered	Laser-based production technology, Product and process design
Infrastructure	
Certifications	ISO 9001
Keywords	Laser processing
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products			
Services & consulting Training, Testing and trials, Engineering, Prototyping	✓	✓	
Field of technology			
Design & layout Lightweight manufacturing, Hybrid structures, Lightweight construction concepts	✓	✓	
Functional integration			
Measuring and testing technology			
Modelling and simulation			
Plant construction & automation			
Recycling technologies			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Deposition welding, Selective laser melting (SLM, LPBF, ...)	✓	✓	✓
Coating (surface engineering)			
Fibre composite technology			
Forming			
Joining Hybrid joining, Soldering, Welding	✓	✓	
Material property alteration			
Primary forming			
Processing and separating Cutting, Others (Laser cutting)	✓	✓	
Textile technology			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites			
Fibres			
Functional materials			
Metals			
Plastics			
Structural ceramics			
(Technical) textiles			

Contacts

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