

German Aerospace Centre (DLR)

Centre for Lightweight Production Technology (ZLP) Stade

About this organisation

Machine translation

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

Research at the ZLP site in Stade focuses on the production of very large and complex components in highly productive fibre placement processes and the sensor-guided, component-related control of thermally inert curing processes in autoclaves or open moulding tools. The researchers in Stade are also working on the fully automated production of large series components from dry textile semi-finished products using the RTM process.

In addition to aerospace, the processes to be developed are also aimed at applications in the automotive industry and the production of rotor blades for wind turbines. The ZLP site in Stade is equipped with the following innovative research facilities for these research activities: - Fully automated Resin Transfer Moulding (RTM) process chain - BALU research autoclave (420°C, length: 20 m, diameter: 5.8 m) - CNC-based multi-laying unit for fibre placement (AFP) and tape laying (ATL) - Rotor blade mould for wind turbines (length: 45 m)

Ottenbecker Damm 12
21684 Stade
Lower Saxony
Germany
www.dlr.de/zlp



Organisation type

Non-university research institution

Sectors



Employees

50 up to 249

Turnover

n/a

Funding

n/a

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About this organisation

Main areas covered	Resin Transfer Moulding (RTM), Fibre Placement (AFP), Tapelaying (ATL), Online quality assurance
Infrastructure	(RTM) process chain, Research autoclave BALU, Storage device for AFP and ATL
Certifications	DIN EN ISO 9001:2008
Keywords	
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Machines and plants, Software & databases, Materials, Tools and moulds	✓	✓	✓
Services & consulting Testing and trials, Engineering, Validation, Simulation, Maintenance and repair	✓	✓	✓
Field of technology			
<i>Design & layout</i>			
<i>Functional integration</i>			
<i>Measuring and testing technology</i>			
<i>Modelling and simulation</i>			
<i>Plant construction & automation</i>			
<i>Recycling technologies</i>			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
<i>Additive manufacturing</i>			
<i>Coating (surface engineering)</i>			
Fibre composite technology Fibre spraying, Filament winding, Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion	✓	✓	✓
Forming Compression moulding	✓	✓	✓
<i>Joining</i>			
<i>Material property alteration</i>			
<i>Primary forming</i>			
<i>Processing and separating</i>			
Textile technology Preforming	✓	✓	✓

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	Research	Development	Manufacturing & Supply
Material			
<i>Biogenic materials</i>			
<i>Cellular materials (foam materials)</i>			
Composites Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP)	✓	✓	✓
Fibres Glass fibres, Carbon fibres	✓	✓	✓
<i>Functional materials</i>			
<i>Metals</i>			
<i>Plastics</i>			
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

Contacts

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Contacts

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