Aalen University
GTA Foundry Technology Aalen

About this organisation

Machine translation

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

Aalen University - Foundry Technology in the Faculty of Mechanical and Materials Engineering

The core competencies of the foundry laboratory at Aalen University lie in the die casting of aluminium and magnesium light metal alloys This includes the development of new process variants for lightweight construction, such as the production of thin-walled, hollow die-cast parts using salt cores or gas injection. Extremely rigid parts can be produced in this way. In addition, the development of composite materials made from carbon fibre and die casting for car body structures is an area in which research is being carried out as part of the federal government's SmartPro project. Thanks to the use of 4 production-related die casting machines, the results can be quickly applied in near-series processes. In addition, prototypes can be produced using sand or permanent mould casting or the lost foam process. The production of small series is also possible. The Steinbeis Transfer Centre GTA - Foundry Technology Aalen and GTA GmbH are connected to the university laboratory.

Beethovenstraße 1
73430 Aalen
Baden-Württemberg
Germany
www.htw-aalen.de

Organisation type
University or higher education institution

Sectors

Employees
Up to 9

Turnover
n/a

Funding

Main areas covered	Sand and permanent mould casting, die casting
Infrastructure	Computer tomography, tensile testing, Fatigue strength
Certifications	University laboratory
Keywords	Magnesium alumnium die casting, Salt cores Gas injection
Memberships	

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts	✓		
Services & consulting Training, Consulting	✓		
Field of technology			
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	
Functional integration			
Measuring and testing technology Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	✓
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			
Coating (surface engineering)			
Fibre composite technology Others (CFRP cast hybrid)	✓		
Forming			
Joining			
Material property alteration			
Primary forming Casting	✓	✓	✓
Processing and separating			
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 Carbon fibres	✓		
Functional materials			
Metals Aluminium, Magnesium	✓	✓	✓
Plastics			
Structural ceramics			
(Technical) textiles			

Contacts

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Contacts

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