toolcraft AG

About this organisation

toolcraft manufactures high-end precision parts, assemblies and injection moulded parts. The entire process chain - from design, production and post-processing to quality assurance - can be provided in-house. toolcraft focuses on innovations and invests in future-oriented technologies such as additive manufacturing and the construction of individual robot solutions.

We manufacture housing components and complex, thin-walled structures for gas turbines. Additive manufacturing can revolutionise entire processes and save costs in many areas. While previously, a tool mould and additional manufacturing steps such as pressure casting were needed to manufacture a new component, we can now construct this directly in a metal powder bed. This is faster, especially for single pieces. Short-term changes to the design can be implemented virtually at the push of a button, and previously complex assemblies can be produced in one piece after minor design changes. This means that critical joining technologies can be dispensed with and the components can be produced more cost-effectively. Since 2020 AMbitious powered by toolcraft is Siemens' NX AM Smart Expert Partner and Reseller. As a partner for AM consulting, training and software, AMbitious provides support along the entire AM process chain.

Handelsstraße 1
91166 Georgensgmünd
Bavaria
Germany
www.toolcraft.de

Organisation type
Large enterprises

Sectors

Employees
250 up to 499

Turnover
More than €50m

Funding
n/a

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Main areas covered	Design, CNC techniques, Finish, Quality assurance (Nadcap NDT), Efficient lightweight components, Cavities and comb structures, Multi laser systems
Infrastructure	Complete process chain, Consulting along AM process chain, Training AM, Siemens' NX software
Certifications	ISO 9001 und ISO 14001, EN 9100, DIN EN ISO 13485, Nadcap WLD (AM) and NDT (FPI), Qualified AM
Keywords	3D metal printing, Siemens' NX, Metal laser melting, Additive manufacturing, Rapid Manufacturing
Memberships	BDLI e.V., VDMA AM and Robotik, bavAIRia e.V., Additive Alliance, COG e.V.

Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Software & databases, Tools and moulds		✓	✓
Services & consulting Training, Consulting, Testing and trials, Engineering, Prototyping, Technology transfer	✓	✓	✓

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Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing	✓	✓	✓
Functional integration			
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), Materials analysis, Non-destructive analysis	✓		✓
Modelling and simulation Loads & stress, Optimisation, Materials	✓		✓
Plant construction & automation Robotics	✓	✓	✓
Recycling technologies Material separation			✓

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Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Deposition welding, Selective laser melting (SLM, LPBF, ...), Selective laser sintering (SLS)	✓	✓	✓
Coating (surface engineering) Galvanising, Painting, Plasma process, Powder coating			✓
Fibre composite technology			
Forming			
Joining Hybrid joining, Adhesive bonding, Soldering, Screwing, Welding			✓
Material property alteration			
Primary forming Injection moulding		✓	✓
Processing and separating Drilling, Turning, Milling, Electrical discharge machining, Honing, Sawing, Grinding		✓	✓
Textile technology			

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Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites			
Fibres			
Functional materials			
Metals Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium, Others (Nickelbasislegierungen)	✓		✓
Plastics Elastomers, Thermoplastics			✓
Structural ceramics			
(Technical) textiles			

Contacts

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