

# LSE - Lightweight Structures Engineering GmbH

## About this organisation

### Machine translation

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

LSE-Lightweight Structures Engineering GmbH was spun off from Chemnitz University of Technology in 2008. The company focuses on the development and manufacture of structurally integrated and multifunctional lightweight structures.

- Calculation, design and simulation of lightweight structures - Active and passive structural integration in fibre-reinforced plastic composite systems - Component production from fibre-reinforced plastic composites and elastomer materials - Injection moulding - polyurethane - Prototype construction - Tool and mould making

Otto-Schmerbach-Str. 19  
09117 Chemnitz  
Saxony  
Germany  
[www.lse-chemnitz.de](http://www.lse-chemnitz.de)

# LSE

Lightweight Structures Engineering GmbH

### Organisation type

Small or medium-sized enterprise

### Sectors



### Employees

10 up to 49

### Turnover

Up to €2m

### Funding

n/a



# LSE - Lightweight Structures Engineering GmbH

## About this organisation

|                           |  |
|---------------------------|--|
| <b>Main areas covered</b> | Calculation, design, simulation, Structural integration in FKV, Component manufacture, Injection moulding, Tool and mould making |
| <b>Infrastructure</b>     | CAD (Solidworks), RTM press, Analytical/numerical simulation, Tool and mould making, PUR processing                              |
| <b>Certifications</b>     | ISO 9001:2015  |
| <b>Keywords</b>           | Calculation, Fibre composites, Adaptronics and sensor technology, Injection moulding, Elastomer technology                       |
| <b>Memberships</b>        |  |

## Overview of lightweighting expertise

### Machine translation

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|   | Research | Development | Manufacturing & Supply |
|---|----------|-------------|------------------------|
| <b>Offer</b>  |          |             |                        |
| <b>Products</b><br>Parts and components, Semi-finished parts,<br>Machines and plants, Software & databases,<br>Tools and moulds   |          | ✓           | ✓                      |
| <b>Services &amp; consulting</b><br>Training, Consulting, Testing and trials,<br>Funding, Engineering, HR services, Prototyping,<br>Validation, Simulation, Technology transfer |          | ✓           | ✓                      |

## Overview of lightweighting expertise

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|  | Research | Development | Manufacturing<br>& Supply |
|--|----------|-------------|---------------------------|
| <b>Field of technology</b>   |          |             |                           |
| <b>Design &amp; layout</b><br>Lightweight manufacturing, Lightweight design,<br>Hybrid structures, Lightweight construction<br>concepts, Lightweight material construction   |          | ✓           | ✓                         |
| <b>Functional integration</b><br>Actuator technology, Media conductivity,<br>Sensor technology, Thermal activation, Material<br>functionalisation  |          | ✓           | ✓                         |
| <b>Measuring and testing technology</b><br>Component and part analysis, Visual analysis<br>(e.g. microscopy, metallography), System<br>analysis, Materials analysis, Destructive analysis,<br>Non-destructive analysis |          |             | ✓                         |
| <b>Modelling and simulation</b><br>Loads & stress, Life-cycle analysis, Multiphysics<br>simulation, Optimisation, Processes, Structural<br>mechanics, Materials, Reliability validation                                |          | ✓           | ✓                         |
| <i>Plant construction &amp; factory automation</i>   |          |             |                           |
| <i>Recycling technologies</i>  |          |             |                           |

## Overview of lightweighting expertise

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|   | Research | Development | Manufacturing<br>& Supply |
|---|----------|-------------|---------------------------|
| <b>Manufacturing process</b>  |          |             |                           |
| <i>Additive manufacturing</i>   |          |             |                           |
| <i>Coating (surface engineering)</i>  |          |             |                           |
| <b>Fibre composite technology</b><br>Manual lamination, Resin infusion process,<br>Resin transfer moulding, Vacuum infusion |          | ✓           | ✓                         |
| <b>Forming</b><br>Impact extrusion, Compression moulding,<br>Thermal converting, Deep-drawing                               |          | ✓           | ✓                         |
| <b>Joining</b><br>Riveting, Welding   |          | ✓           | ✓                         |
| <i>Material property alteration</i>   |          |             |                           |
| <b>Primary forming</b><br>Injection moulding  |          |             | ✓                         |
| <b>Processing and separating</b><br>Drilling, Turning, Milling, Sawing, Grinding,<br>Cutting                                |          |             | ✓                         |
| <b>Textile technology</b><br>Preforming   |          | ✓           | ✓                         |

## Overview of lightweighting expertise

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|   | Research | Development | Manufacturing<br>& Supply |
|---|----------|-------------|---------------------------|
| <b>Material</b>   |          |             |                           |
| <b>Biogenic materials</b><br>Bioplastics, Biocomposites, Wood   |          | ✓           | ✓                         |
| <b>Cellular materials (foam materials)</b><br>Closed-pore, Open-pore  |          | ✓           | ✓                         |
| <b>Composites</b><br>Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Natural fibre reinforced plastics (NFRP), Laminates |          |             | ✓                         |
| <i>Fibres</i>   |          |             |                           |
| <i>Functional materials</i>   |          |             |                           |
| <i>Metals</i>   |          |             |                           |
| <b>Plastics</b><br>Thermoset plastics, Elastomers, Thermoplastics   |          |             | ✓                         |
| <i>Structural ceramics</i>  |          |             |                           |
| <i>(Technical) textiles</i>   |          |             |                           |

## Contacts

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# LSE - Lightweight Structures Engineering GmbH

| Contacts   |  |
|--|--|
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