#### About this organisation

#### **Machine translation**

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

FkL Ingenieurbüro Schumacher is a young, innovative company. We are independent of large corporations and can therefore act quickly and flexibly. As specialists in fibre composites, we offer various services tailored to your needs.

The main competence lies in the FEM calculation of fibre composite components. We also offer - Support in the preparation of the specifications - Selection of suitable materials and manufacturing processes - Materialappropriate geometry development - Determination of material characteristics - Draping simulation with derivation of the blanks - Precise FEM calculation of fibre composite components with Ansys ACP - Optimisation of the laminate in terms of effort (fibre and inter-fibre breakage), stiffness, weight, costs, etc. - FEM strength verification according to VDI 2014 - Stiffness and natural frequency analyses -Workshops on the topic of "Calculation and simulation of FRP"

Egerländer Str. 6 64331 Weiterstadt Hesse Germany 🖸 www.fkl-ing.de





**Organisation type** Small or medium-sized enterprise

Sectors No specific sector

Employees Up to 9

**Turnover** Up to €2m

Funding n/a

About this organisation		
Main areas covered	FEM calculation, Advice on all aspects of FKV components	
Infrastructure	Ansys ACP	
Certifications		
Keywords		
Memberships		

## Overview of lightweighting expertise

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		N	lanufacturing	
	Research	Development	& Supply	
Offer				
Products				
<b>Services &amp; consulting</b> Consulting, Testing and trials, Engineering, Prototyping, Validation, Simulation		$\checkmark$		

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	Research	Development	Manufacturir & Supply		
Field of technology					
<b>Design &amp; layout</b> Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	$\checkmark$	$\checkmark$			
Functional integration					
Measuring and testing technology					
<b>Modelling and simulation</b> Crash behaviour, Loads & stress, Life-cycle analysis, Optimisation, Structural mechanics, Reliability validation		$\checkmark$			
Plant construction & automation					
Recycling technologies					
Manufacturing process					
Additive manufacturing					
Coating (surface engineering)					
Fibre composite technology					
Forming					
Joining					
Material property alteration					
Primary forming					
Processing and separating					

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		Manufacturin	
	Research	Development	& Supply
Material			
Biogenic materials			
<b>Cellular materials (foam materials)</b> Closed-pore	$\checkmark$	$\checkmark$	
<b>Composites</b> Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Natural fibre reinforced plastics (NFRP)	~	~	~
<b>Fibres</b> Aramid fibres, Basalt fibres, Glass fibres, Ceramic fibres, Carbon fibres, Metal fibres, Natural fibres	$\checkmark$	$\checkmark$	
Functional materials			
Metals			
<b>Plastics</b> Thermoset plastics, Thermoplastics	$\checkmark$	$\checkmark$	
Structural ceramics			
(Technical) textiles			

### Contacts

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