

Hörmann Vehicle Engineering GmbH

About this organisation

Machine translation

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

At HÖRMANN Vehicle Engineering, we accompany our customers through the entire development process chain for rail, road and special vehicles. As a globally active engineering partner, we offer reliable complete vehicle expertise from the initial idea to the finished prototype and series production run. The HÖRMANN Group has more than 200 qualified employees working in vehicle engineering - most of them engineers.

To increase the comfort and efficiency of modern vehicles, the number and weight of additional components (e.g. supercap, traction components) is increasing. In order to compensate for this, we provide load-optimised designs, e.g. of car bodies, by significantly reducing the mass of the structure, wall thickness and dimensions, use new materials in our developments and rely on innovative production technologies. Simulation-based optimisation ensures function and product quality while simultaneously reducing costs and materials. For example, topology and sheet thicknesses can be optimised in critical corners of windows and doors. By using hybrid construction methods of metal-fibre composite patches, we generate extremely lightweight and highly durable structures.

Aue 23 - 27
09112 Chemnitz
Saxony
Germany
www.hoermann-engineering.de



Organisation type

Small or medium-sized enterprise

Sectors



Employees

50 up to 249

Turnover

€10m - €50m

Funding



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Main areas covered	Structurally optimised lightweight construction, New materials, Simulation-based optimisation
Infrastructure	IVENTOR, CATIA and more., AUCOTEC, ePLAN and more., Selectron, UniControls and more., MSCNastran, Altair and more.
Certifications	DIN ISO 9001, DIN 3834-2, DIN 6701, and more.
Keywords	Rail vehicle, Tramway, Bogie
Memberships	thermoPre e.V., VDB e.V., BTS Rail Saxony, HZwo e.V.

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
<i>Products</i>			
Services & consulting Consulting, Engineering, HR services, Prototyping, Simulation, Approval	✓	✓	✓

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Hybrid structures, Lightweight construction concepts	✓	✓	✓
Functional integration Sensor technology, Thermal activation, Material functionalisation	✓	✓	✓
Measuring and testing technology Component and part analysis, System analysis	✓	✓	✓
Modelling and simulation Crash behaviour, Loads & stress, Life-cycle analysis, Multiphysics simulation, Optimisation, Processes, Structural mechanics, Materials, Reliability validation	✓	✓	✓
<i>Plant construction & automation</i>			
Recycling technologies Recycling		✓	✓

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing			
Coating (surface engineering)			
Fibre composite technology			
Forming			
Joining			
Material property alteration			
Primary forming			
Processing and separating			
Textile technology			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Biocomposites	✓	✓	✓
<i>Cellular materials (foam materials)</i>			
Composites Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Metal matrix composite, Natural fibre reinforced plastics (NFRP)	✓	✓	✓
Fibres Aramid fibres, Basalt fibres, Glass fibres, Carbon fibres, Natural fibres	✓	✓	✓
<i>Functional materials</i>			
Metals Aluminium, Magnesium, Steel	✓	✓	✓
Plastics Thermoset plastics, Elastomers, Thermoplastics	✓	✓	
<i>Structural ceramics</i>			
(Technical) textiles Yarns, rovings, Meshes, Laid webs, Crocheted fabrics, Woven fabrics, Knitted fabrics, Nonwovens, mats	✓	✓	

Contacts

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Contacts

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