### **Bharat Forge Global Holding GmbH**

#### Advanced Engineering

#### About this organisation

#### **Machine translation**

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

Bharat Forge develops, produces and supplies complex forged parts made of aluminium and steel for the chassis and engine sectors, including machining and assembly. In addition to the automotive industry, we also supply other industrial sectors.

For us, innovative lightweight construction covers the entire process chain - from material selection through to the automated series production process. With the help of topology and shape optimisation, we design the customer product to be as light as possible, but never at the expense of safety. This is because the safety requirements for chassis parts are constantly increasing. Bharat Forge has reduced its own CO2 footprint. Since 2012, we have been producing our aluminium pre-material ourselves using the HCM process. Recycling our burr at the Brand-Erbisdorf site saves more than 40% CO2 in the entire production process. We are involved in the Massive Lightweight Construction initiative to ensure that the vehicles of the future cause lower CO2 emissions due to less weight and that materials and other resources are used more efficiently.

Mittelstraße 64 58256 Ennepetal North Rhine-Westphalia Germany

☑ www.bharatforge-gh.com





Funding

n/a

Turnover

More than €50m

leichtbauatlas.de Page 1 of 5

# **Bharat Forge Global Holding GmbH**

# Advanced Engineering

About this organisation				
Main areas covered	Weight optimisation of components, Own input material HCM, Excellent structural properties			
Infrastructure	Material selection, Component development, Design optimisation, Heat treatment, Quality assurance			
Certifications	ISO/TS 16949, ISO 14001 and 50001			
Keywords	Component design, Material selection, Mechanical processing, Aluminium forging			
Memberships				

# Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Systems and end products, Materials, Tools and moulds	<b>✓</b>	~	<b>✓</b>
Services & consulting Testing and trials, Engineering, Prototyping, Validation, Simulation	~	~	<b>✓</b>

leichtbauatlas.de Page 2 of 5

# **Bharat Forge Global Holding GmbH**Advanced Engineering

Overview of lightweighting expertise					
Machine translation					
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	Research	l Development	Manufacturing & Supply		
Field of technology					
Design & layout Lightweight manufacturing, Lightweight design, Lightweight construction concepts, Lightweight material construction	<b>~</b>	<b>✓</b>			
Functional integration					
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis	<b>~</b>	<b>~</b>	<b>✓</b>		
Modelling and simulation Loads & stress, Life-cycle analysis, Optimisation, Structural mechanics, Materials	<b>✓</b>	~			
Plant construction & automation					
Recycling technologies					

leichtbauatlas.de Page 3 of 5

# **Bharat Forge Global Holding GmbH**Advanced Engineering

Overview of lightweighting expertise						
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	Research	Development	Manufacturing & Supply			
Manufacturing process						
Additive manufacturing 3D printing, Deposition welding, Electron beam melting, Selective laser melting (SLM, LPBF,)	<b>✓</b>	~	<b>✓</b>			
Coating (surface engineering)						
Fibre composite technology						
Forming Impact extrusion, Forging, Rolling	<b>✓</b>	<b>✓</b>	<b>✓</b>			
Joining Screwing, Welding	<b>✓</b>	<b>✓</b>	<b>✓</b>			
Material property alteration Heat treatment	<b>✓</b>	<b>✓</b>	<b>✓</b>			
Primary forming						
Processing and separating Drilling, Turning, Milling, Electrical discharge machining, Honing, Sawing, Shearing/punching, Grinding, Cutting	✓	<b>✓</b>	<b>✓</b>			
Textile technology						

leichtbauatlas.de Page 4 of 5

## **Bharat Forge Global Holding GmbH**

### Advanced Engineering

Ms Sylvia Hasch

s.hasch@bf-at.de

# Overview of lightweighting expertise **Machine translation** This organisation has been machine-translated based on data provided in German. Manufacturing **Development** & Supply Research Material Biogenic materials Cellular materials (foam materials) Composites **Fibres** Functional materials Metals Aluminium, Steel **Plastics** Structural ceramics (Technical) textiles **Contacts Machine translation** This organisation has been machine-translated based on data provided in German.

leichtbauatlas.de Page 5 of 5