

A Competent Partner

German Forging Association

(Industrieverband Massivumformung e. V.)

The German Forging Association (Industrieverband Massivumformung – IMU) pools and represents the interests of forging companies in Germany. More than 120 companies use the innovative industry association as their service and information centre. A core task is organising collaboration across the member companies, most of which are medium-sized businesses.

The IMU provides support in increasing the competitiveness of

its members. The member companies determine the content of collaborative work and they profit from a large research network.

The IMU draws upon diverse co operations and networks

in research and industry. Across Germany, it works together with more than 30 university institutes, each with different focal research topics. Excellent research papers are awarded each year with the “Otto Kienzle Prize of the German Forging Association”.

Core tasks also include public relations and promoting forging technology. Another focus is supporting the next generation. The IMU awards three scholarships each year to financially assist young academics. Schoolyard projects bring technology closer to school pupils. A dedicated channel at www.youtube.de provides audiovisual information.

One of the largest industry presentations is organized by the German Forging Association at the Hannover Messe. The trade publication SchmiedeJOURNAL has been reporting for more than 25 years on technology developments and trends in the area of forging.

Industry benchmarks assist companies in determining their position with respect to competitor companies.

Ensuring that energy in Germany remains available and at competitive prices forms the heart of the political activities of the German Forging Association.



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Forging High-Tech from Germany



Forging means ...

...pure innovation

No vehicle or machine – be it a car, aeroplane, train, construction machine or cruise liner – would drive, fly, roll or float without forged components such as crankshafts, gears, axles or turbine blades.

Forged parts are indispensable wherever safety, load bearing capacity and reliability are demanded.



...development partnership

The manufacturing process has decisive effects on the properties of a product. Innovation today thus takes place along the process chain across several companies.

The process know-how of forging companies plays a decisive role in this, flowing into the development and optimization of new products carried out in partnership with the customer. State-of-the-art processes are used for this, such as computer-aided simulation of production and forging operations.

...lightweight automotive design

Under the auspices of the German Forging Association and the steel association, Stahlinstitut VDEH, a consortium of 9 companies from the steel industry and 15 forging companies was founded. The goal is to work together on determining and presenting the potential of steel components in the area of lightweight automotive design.

Information on the participating companies as well as current news may be found at www.massiverLEICHTBAU.de

...diverse processes

Forging encompasses a multitude of different processes. At the heart of these processes is hot forging, during which the metal is worked at a high temperature. Key technologies include closed-die forging, hot extrusion, upsetting, open-die forging and ring rolling.

Another important field of activity for the industry is cold forging, during which the metal is worked in the cold state. For more information please also visit: www.gcfg.org

...a strong industry

With a total of around 31,000 employees, forging companies primarily supply to high-tech industries.

With a production volume of 2.7 million tons, the German forging industry is the market leader in Europe and the second largest producer worldwide.

...modern materials

Modern steels are the predominant material group for forging. Besides these, several other metals such as aluminium, magnesium, copper, brass and bronze are forged.

In all these areas, intensive research is being carried out into new alloys with improved properties. To assist in this, German forging companies draw on the outstanding academic support of national research institutes.

...resource and energy efficiency

Forging allows maximum material utilization and thus optimum resource efficiency compared to other production processes such as machining.

The high load bearing capacity of the components enables design engineers to implement lightweight design not only in the case of the forged parts themselves but also for neighbouring and surrounding components, too.

The diversity of forged parts in Germany is the result of innovative technologies and materials.

