




WE.MOVE.FUTURE.

Expert partner
to the automotive industry

www.kirchhoff-automotive.com

 **KIRCHHOFF**
AUTOMOTIVE

Global player and development partner to the automotive industry

 KIRCHHOFF Automotive is a development partner to the automotive industry for complex metal and hybrid structures in body-in-white and chassis applications. And we are active all over the globe as a full-service supplier!

The family-owned company that was established in 1785, today is part of the KIRCHHOFF Group, which consists of the business units Automotive, KIRCHHOFF Ecotec, KIRCHHOFF Mobility, and WITTE Tools.

KIRCHHOFF Automotive is the largest business unit in the KIRCHHOFF Group, with over 8,000 employees and about 30 production plants in 11 countries. As a global player, we offer complex body components to our customers on the continents of Europe, Asia, and North America. Our global production network includes the core technologies of forming, joining, lightweight design, and surface treatment, ensuring uniform manufacturing and production standards around the world. We operate with a logistical chain optimized for cost means; products such as bumper systems, front-end frames, and cross members are assembled into complete components at JIT plants that are located in the immediate vicinity of our customers.

As early as in the development phase for new vehicle models, we strive for close cooperation with automobile manufacturers. Our customers can thus take advantage of our expertise in automotive lightweight design. We develop structural parts for the body-in-white, for example in hybrid designs; combinations

of steel and aluminum, or metal and plastic, are used for this purpose. With the advanced technology of partial press hardening, we are able to produce steel products with different strength ranges and thus, for body components that are optimised for weight and crash performance.

Our focus, however, is not only on the process and machines, but also most importantly on our employees. Only if we are highly motivated can we together with our customers reach the set objectives and thus be successful in the long term.

ARNDT G. KIRCHHOFF

is the CEO of KIRCHHOFF Automotive and manages the business together with his brother J. Wolfgang Kirchhoff (COO). For four generations, the company has been owned by the Kirchhoff family. Corporate responsibility and social commitment are important factors in every corporate decision.





Our Products



The whole is often greater than the sum of its parts. This is why we supply our customers with not only individual parts, but complex components as well. For the passenger car market, for example we produce front-end frames, bumper systems, cross car beams, side and cross members, and mounting plates. For the commercial vehicle market, our product portfolio includes axle housings, cross members, skid plates, front underrun protections, cab-in-white structures, and tank brackets.

Our products mainly consist of steel up to 12 mm of thickness and with strengths up to 2,000 MPa as well as of aluminum. Beyond that we combine different materials in hybrid construction for the automotive lightweight design. Almost all international automobile manufacturers are our customers.

Our core competencies

— Everything from a single source: operating under this principle, we support our customers throughout the entire development and manufacturing process. This is our strength.



Technical Development

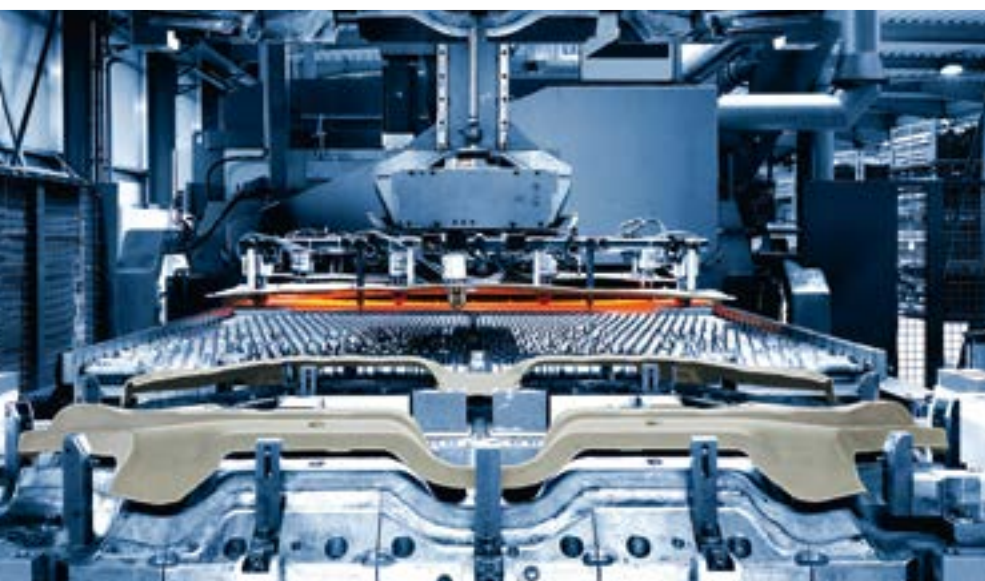
Highly qualified engineers and technicians investigate and develop product innovations and technologies for complex components to enable our customers to realize their future car models. Our research and development centers in Germany, Canada, and China offer our customers worldwide solutions for their specific regional requests. From design concept via finite element analysis to prototyping pre-production and final quality sign-off, we are present from the beginning.

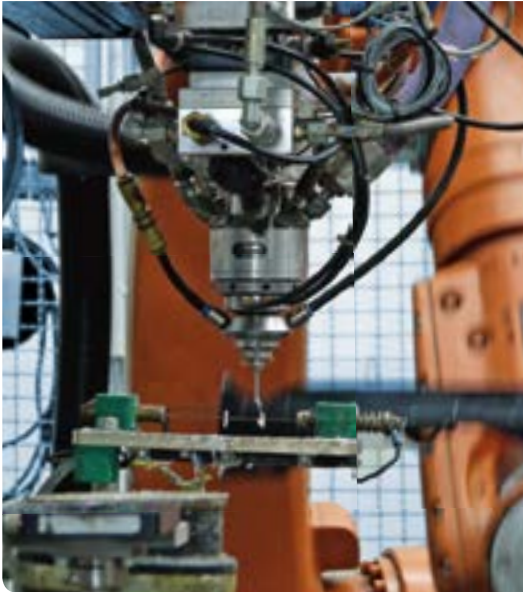
Light Weight Design

Basically very easy: Less material means less weight and therefore less fuel consumption and finally less environmental pollution. To produce lightweight parts with higher strength needs the most modern technologies. Our holistic light weight approach ensures a geometrically optimal component design by using the right material in the right place. This integral development process fulfills not only our customers' requests on product and process but also on cost optimization.

Global Program Management

The platform strategies of big car producers require worldwide planning and production. Therefore international





presence and development competence are important conditions to be competitive—today as well as in the future. The Global Program Management of KIRCHHOFF Automotive provides an overview of the state of all KIRCHHOFF Automotive projects at any time, in each stage. All procedures are globally standardized and comparable, and all necessary resources are optimally planned.

Forming

Forming represents the beginning of our production chain. On modern Servo and Transfer Presses with press capacities up to 2,500 tons we produce complex metal parts with thicknesses from 0.6 mm to 12 mm. We use all modern steel and aluminum materials. By use of the most modern hot forming produc-

tion lines we are able to manufacture products with strengths up to 2,000 MPa. By partial press hardening we offer our customers the production of parts with different strength regions to fulfill crash relevant requirements in the passenger cab area. Additionally, some of our plants are capable of producing parts using a CNC wing bending process. This process is especially suited to produce profiles for modern body shell structures with small tolerances while having low tooling costs and optimal material utilization.

Joining

For the joining of our parts we use different fusion and cold joining techniques. Besides the established methods spot and arc welding, new laser and cold joining techniques become

more and more important. These techniques, along with weld monitoring are applied to minimize distortion especially with thin gage material. Cold joining procedures are applied if different materials are to be joined in modern body constructions (multi material solutions). Thanks to our longtime experience in adhesives and with mechanical procedures we do all this well and efficiently.

Surfaces

Our primary focus is on best-in-class E-Coating processes. Truck and passenger chassis parts requiring a higher level of corrosion protection will have extra steps such as powder coating and/or waxing. Our parts will then be ready for assembly without the need for additional expensive joining sealants.

Focus on employees

— Honesty, credibility and reliability shape our company philosophy. But also our employees are always in the focus of our action. Together we work towards one goal: WE.MOVE.FUTURE.

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Family-owned company

For four generations, the KIRCHHOFF Group has been owned by the entrepreneurial Kirchhoff family. As an owner-managed medium-sized company, we feel a connection to tradition and an obligation to the future.

Family-owned companies are the backbone of society. We are very aware of this responsibility. Honesty, credibility, and reliability are at the core of our corporate culture.

Flat hierarchies and rapid decision-making paths drive our activities every day. Our company philosophy is based on sustainability.

WORK LIFE FAMILY BALANCE

This motto defines our efforts to become even more employee-friendly. Supporting family life is important to us. In particular KIRCHHOFF Automotive encourages employees to optimally balance private and professional matters by means of a family-friendly personnel policy.

Our vision

- KIRCHHOFF Automotive is a global leader in designing and supplying best-in-class-structures for body and chassis of vehicles.
- The corporation creates sustainable and profitable growth while committing to be financially independent and family owned.
- KIRCHHOFF Automotive is performance oriented and stands for the highest level of customer service.
- The company develops its employees and actively supports their health and satisfaction.

Generations and cultures

With over 8,000 employees on three continents—in Asia, Europe, and America—KIRCHHOFF Automotive links generations and cultures around the globe. Local managers have been intentionally selected for the top job at each of our various production plants. They are the perfect link between acting locally and thinking globally.

Not only our management meets regularly. Also other hierarchy levels meet for a continuous exchange of experience.

Our employees are important to us

Our annual employee development talk between manager and employee ensures a continuous feedback concerning strengths and development potentials. An individual development plan is agreed with development activities that fit each employee's personal needs. We also offer development opportunities and special programs such as a global leadership and a talent management program. Together with our employees we want to create a learning organization to be ready to meet future challenges, because WE.MOVE.FUTURE.

Focus on people

In the KIRCHHOFF Automotive Production System (KAPS), the focus is not only on the process and machines, but also on people, who ensure that everything runs smoothly. The seven principles of KAPS apply to everyone, from corporate management to administration to production.





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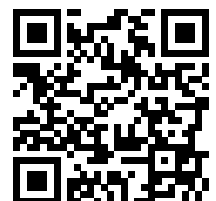


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