



Automotive

We form solutions to meet the
highest requirements



Focus forms added value

Metal Forming Division: Partner to the automotive industry.

The goal of the Metal Forming Division is to be first choice for customers who require efficient and future-oriented solutions in the automotive industry. We have bundled and streamlined our services so that they perfectly meet the requirements of automobile manufacturers and their suppliers.



Our know-how is comprised of laser-welded blanks, outer panel components, hot- and cold-rolled structural parts, special sections and precision steel tubes, and complex ready-to-install assemblies made of a variety of different materials such as steel, aluminum, hybrids, etc. Our excellent material expertise is coupled with our processing competence to create future-oriented solutions for our customers. In cooperation with our specialized companies, we offer the following:

- Complete solutions from a single source from product development to serial production and spare parts services
- Unique material and processing expertise that covers the entire process chain
- Technological leadership with innovative light-weight solutions
- Worldwide presence

The Metal Forming Division is one of the four voestalpine divisions. As a steelmaking and technology company, voestalpine is a world-leading provider of sophisticated and innovative steel products. Within the voestalpine Group, the Metal Forming Division is the center of competence for highly refined sections, tubes and precision strip steel products as well as for ready-to-install system components made of pressed, stamped and roll-formed parts.

Technologies form solutions

Yes, we can!

Whether outer panel and structural members, chassis, drive components or motor parts—no matter how different our components and production technologies are—our solutions have one thing in common: We set standards in innovative light-weight design, in supplying safe, economic and high-quality components. Leading automotive manufacturers and suppliers count on our combination of core technologies and processing competence for all of the following components:

Structural parts	•	•	•	•	
Chassis		•	•	•	•
Transmission, drive unit and steering		•		•	•
Motors, packages, engine fuel and brakes		•			•
Outer panel components		•			
	Blanks	Cold forming	Hot forming	Roll forming Further processing	Tube and rotational forming
		Surfaces			
		Assembly			
	Joining				



Services form success

Along the entire chain of services, the Metal Forming Division is a competent and reliable partner to our customers throughout the world.

- Material development
■ Product development
■ Project management
■ Toolmaking
- Prototypes
■ Large-scale series
■ Testing
■ Assembly
- Surface treatment
■ Spare parts service
■ Logistics

Focus on laser-welded blanks for successful serial production

Where quality begins



Companies in the Metal Forming Division specializing in laser-welded blanks
voestalpine Europlatinen

Laser-welded blanks are the best answer to the diverging requirements of increased crash safety and reduced weight. The use of laser-welded blanks is the optimized solution when strength and toughness are required in combination with lower weight, where thrift is needed together with material variety and where robustness is in demand in conjunction with flexibility. voestalpine Europlatinen has been a reliable partner since 1997 to leading automotive manufacturers in the development and optimization of the following:



Inner door panel with a non-linear seam
voestalpine Europlatinen

Laser-welded blanks with linear, semi-linear and non-linear weld seams
Optimized modern plant technologies guarantee high-quality products. The entire spectrum of linear and non-linear seams is covered through implementation of multiple loading and weld seam lengths of up to 2800 mm.



B pillar
voestalpine Europlatinen

Laser-welded aluminum blanks
The benefits of laser-welded steel blanks are the same as those of laser-welded aluminum blanks. Additional weight savings can be achieved with aluminum in the car body.

The joining processes for aluminum car bodies are much more sophisticated. This makes the utilization of laser-welded aluminum blanks even more cost-effective.



Structural part
voestalpine Europlatinen

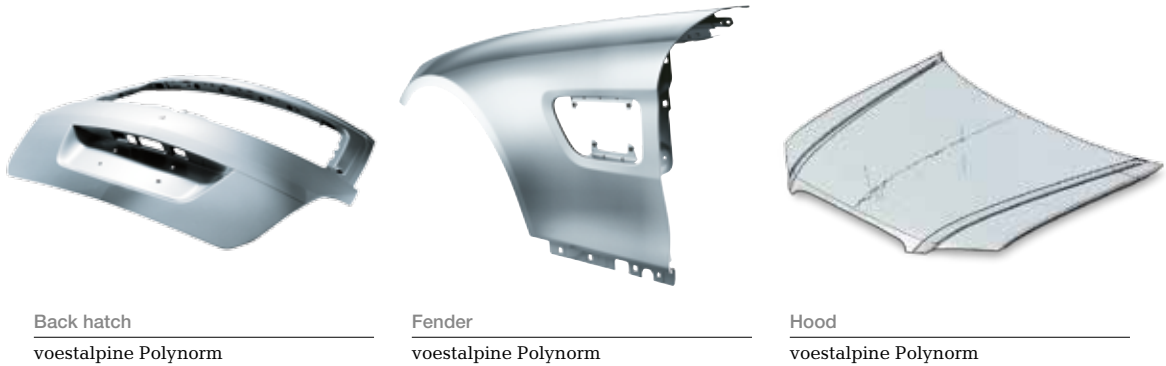
Small sizes
Small-sized laser-welded blanks are being implemented more and more in the vehicle structure. voestalpine Europlatinen has expanded the product portfolio through technological modification of the laser welding lines. Meanwhile shapes with dimensions beginning at 100 x 300 mm can be welded. The advantages of laser-welded blanks, such as weight savings and reduced material usage, are thus further enhanced.

Flexibility forms class

Class-A partner to the international automotive industry.



In collaboration with our customers, we develop the best solution for perfectly sized visible components made of steel and aluminum. Our most innovative class-A outer-panel components are here to stay in international automotive manufacturing.



Back hatch
voestalpine Polynorm

Fender
voestalpine Polynorm

Hood
voestalpine Polynorm

Wide range of products coupled with complete chain of services
From side walls to roofs, engine hoods and doors to back hatches and fenders, our outer panels meet all the stringent requirements imposed on large visible parts. We are partners to all renowned automobile manufacturers. We supply class-A outer panel parts to OEMs and their suppliers. Beyond serial production, we offer additional production capacity to OEMs who are interested in outsourcing services.

- Additional benefits include the following:
- Pressing forces ranging from 400 to 2800 tons
 - Tools for dimensions up to 5500 x 2700 mm
 - In-house production of tailor-made blanks
 - State-of-the-art joining technologies for steel and aluminum (including laser welding for visible seams)

Companies in the Metal Forming Division specializing in the cold forming of structural parts

voestalpine Polynorm Group
voestalpine Stamptec Group
voestalpine Automotive Body Parts Shenyang
voestalpine Automotive Body Parts (USA)



Meeting the demands for advanced safety and light-weight design in the automotive industry, we develop and produce cold-formed structural parts and assemblies made of steel and aluminum. The spectrum ranges from small reinforcement components to B pillars and floor parts, always with a focus on developing the best-possible solution.



Side member
voestalpine Stamptec



Aluminum brake cover plate
voestalpine Stamptec



Oil pan
voestalpine Stamptec

Presses form components

Partner to the international automotive industry.

Economy of scale coupled with automotive expertise

From oil pans to gear components, from sidewall protection parts made of different materials to ready-to-install welded assemblies, our components combine innovative joining technologies and efficient automation systems in high-precision and economical serial production, particularly when it comes to complex ready-to-install assemblies.

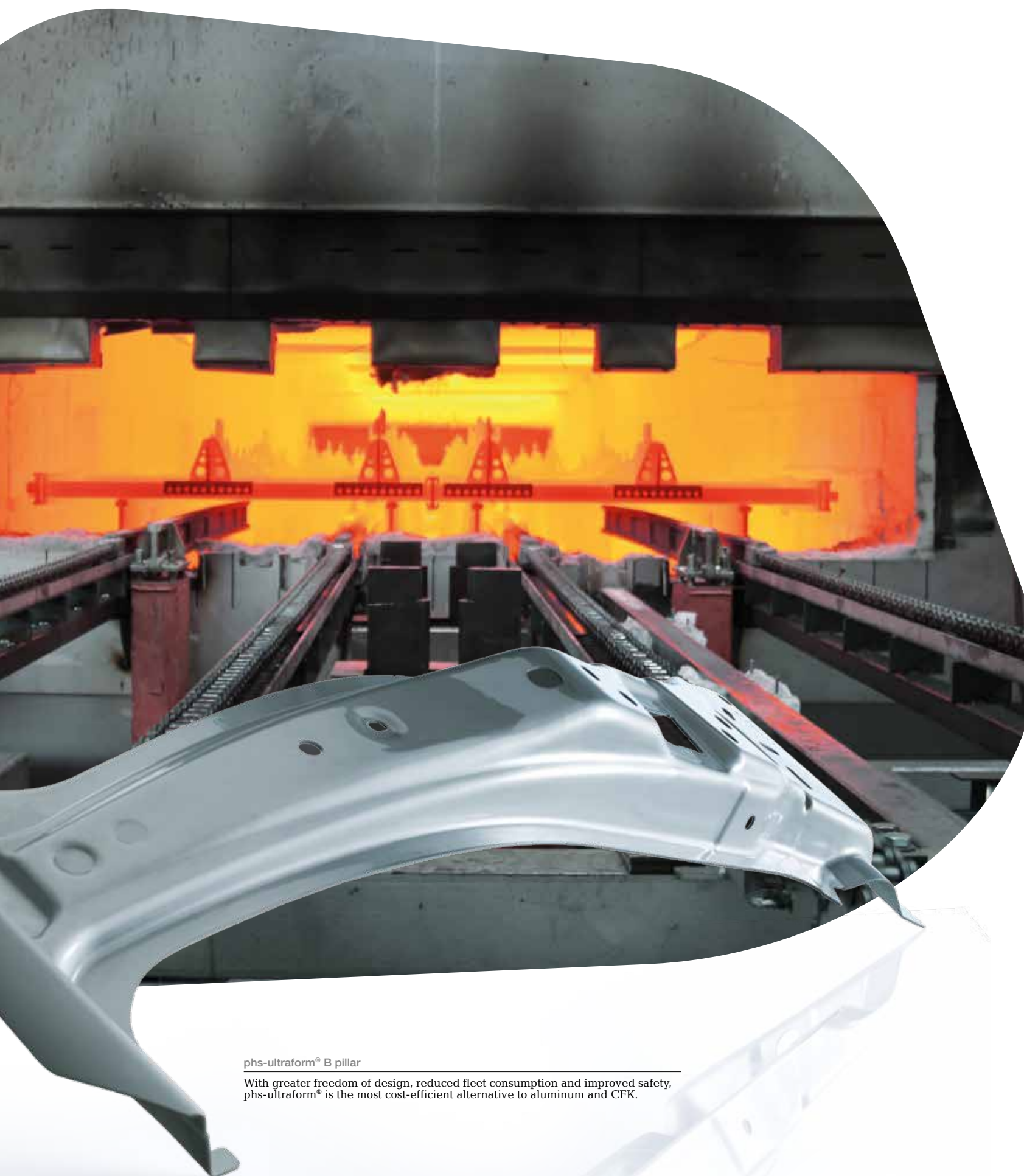
Further convincing advantages are as follows:

- Individual logistics solutions
- Forming expertise in UHSS materials up to 1200 MPa and sheet thicknesses up to 8 mm
- In-house toolmaking
- Surface treatment



B-pillar reinforcement

As supporting structures, B-pillar reinforcements must provide what is most important: Safety. These components protect passengers when accidents occur. The driving dynamics of the vehicle also benefits from component lightness.



Companies in the Metal Forming Division specializing in the hot forming of structural parts

voestalpine Stamptec Group
voestalpine Polynorm Group
voestalpine Automotive Body Parts Shenyang
voestalpine Automotive Body Parts (USA)

Innovative power forms new light-weight design

Overall provider for hot forming.

phs-ultraform®
phs-directform®

Safer, lighter, more economically efficient. Demands on steel structures are continually growing. We meet these demands by focusing on galvanized steels formed in both hot and cold condition. We also set new standards in hot forming with phs-ultraform® and the future-oriented technology phs-directform®.



B pillar
voestalpine Polynorm



Longitudinal barrier
voestalpine Polynorm

Patent solution

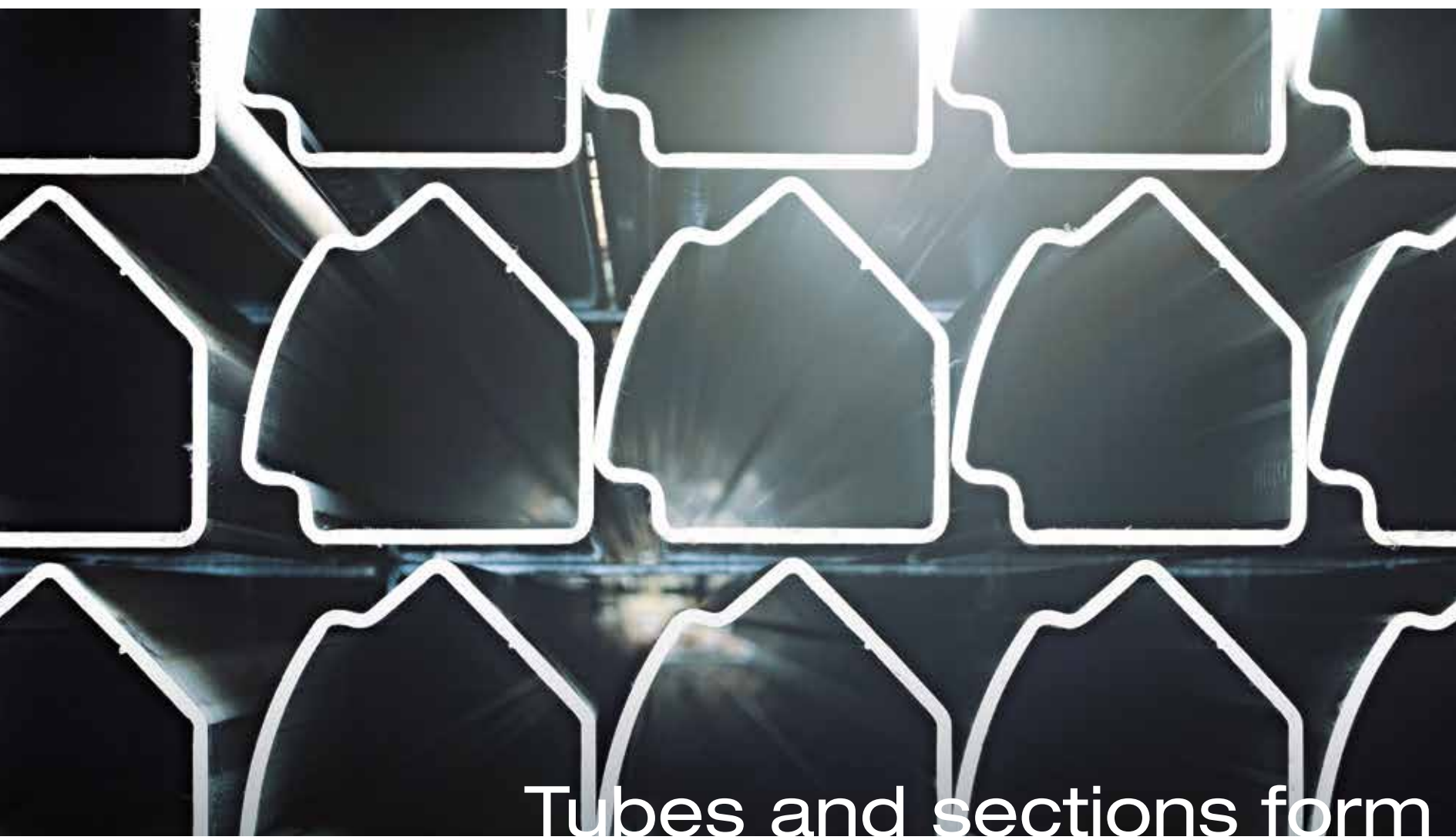
phs-ultraform® hot-forming technology was developed and patented by voestalpine and is a unique press-hardening process for specially galvanized material. The components made using this process combine all of the advantages of press-hardened steel with excellent cathodic corrosion protection for optimized light-weight solutions.

Convincing advantages

Complex component geometries are achievable with high levels of process reliability and cost efficiency. phs-ultraform® allows the production of large components and is characterized by low tool wear for high numbers of produced units. (Laser-welded) blanks made of a variety of different materials and thickness combinations can be processed. A strong argument in any case is the high final strength of up to 1,800 MPa and the precise final component geometry.

phs-ultraform® B pillar

With greater freedom of design, reduced fleet consumption and improved safety, phs-ultraform® is the most cost-efficient alternative to aluminum and CFK.



Tubes and sections form individualized solutions

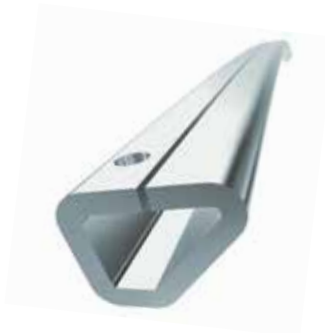
Companies in the Metal Forming Division specializing in roll forming

voestalpine Krems
voestalpine Sadef
voestalpine Meincol
voestalpine Profilaform
voestalpine Profilform
voestalpine Profilform (China)
voestalpine Roll Forming Corporation
voestalpine Präzisionsprofil

Do you want to reduce car body weight without compromising safety and design? Our roll-forming solutions permit complex, high-strength and economical solutions for tailored tubes and sections. Roll-form hardening achieves final strengths of up to 1800 MPa.



Reinforcement section for sun roofs
voestalpine Profilform



Trunk cover tube
voestalpine Präzisionsprofil

Tailored roll-forming solutions.

As a first-choice partner and market leader, we offer cold-rolled special tubes and sections in all feasible cross-sections. The unbeatable combination of economic efficiency and high level of safety is a perfect solution to the high requirements of the automotive industry with respect to light-weight design and material strength.

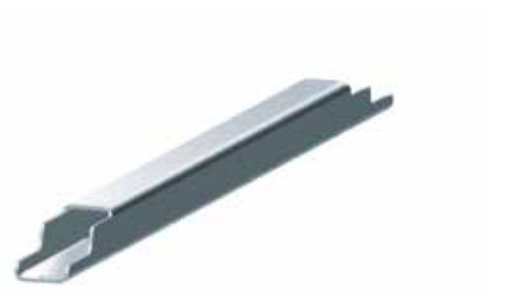
The tube and section solutions find perfect application in structural parts as well as mounted parts and in the chassis. We are also specialized in three-dimensional bent reinforcement sections for sun roofs. Based on our comprehensive expertise, we develop tailored solutions for individual applications.

Examples of tube and section applications

- Front, rear and lateral crash protections
- Side members
- Bumpers
- Axle supports and axle structures
- Crossmembers
- Instrument panel mounts
- Lifting devices
- 3D bent sun roof reinforcement sections
- Space frame structures



Stiffener
voestalpine Krems



Strut brace
voestalpine Krems

Precision forms special components

Tube forming precision for our customers



Customized tube forming solutions

We form tubes in cold and hot condition and make them completely gastight upon request. Special products and manufacturing technologies are developed in our in-house technology and toolmaking center. We are a reliable partner to customers who require tube forming solutions: We specialize in bending, punching, bulging, edging, notching, riveting and combinations of various techniques in highly developed processes.

We develop customer-specific solutions in the form of seamless and welded cold-drawn precision steel tubes.



Tube for belt tightener
voestalpine Rotec



Axle support tube
voestalpine Rotec



Airbag tube components
voestalpine Rotec



Steering components
voestalpine Rotec

In close cooperation with our customers, we create precision components that are technically and economically convincing. You will also profit from the following:

- Short development times
- Process, product and production line development from a single source
- Cost-saving serial production

We develop, manufacture and supply precision tube components in the following areas:

- Airbag
- Belt and buckle tensioners
- Engine hood lifters (pedestrian protection)
- Pneumatic suspension: Rotary pistons, external guides and pressure accumulators
- Steering components: Column jackets and assemblies for steering columns
- Hydraulic components
- Chassis and drive components



More expertise forms customer benefits

The creation of products of the highest quality is our claim, and yet we think far beyond the boundaries of our production facilities. As a global development partner, we support our customers as early as during the design and engineering phase. We want to make the best-possible contribution to efficient manufacturing for our customers, and to this end we complete our product solutions in the form of ready-to-install components. This way we save work steps and expenses for our customers.

Whether they are pressed, punched or roll-formed system components, composite parts made of different materials or extremely complex laser-welded, flanged and adhesive-bonded door modules, we manufacture and deliver directly to the assembly line of the customer. Our broad range of expertise forms a strong foundation for high-quality processing, assembly and surface treatment.

Joining

Our competitive edge begins in part production. We have mastered all the joining techniques, including during the cold-forming process. This includes classical fusion welding processes, laser technologies as well as mechanical and hybrid joining techniques.

Assembly

Production and assembly are accomplished, depending on the product and the unit quantities, either in fully automatic or manual mode. This makes us the provider of choice and favored tier-one supplier, especially in the field of major assemblies.

Surfaces

We take high quality a step further—into the final coating layer of our products. We create the desired level of highly refined and corrosion-protected surfaces in our coating and painting lines. Surface types range from galvanized piece goods and phosphate coating to cathodic-dip coating, powder enameling, electrophoresis coating and aluminum painting.

Ready-to-install assemblies from a single source



Instrument panel beam

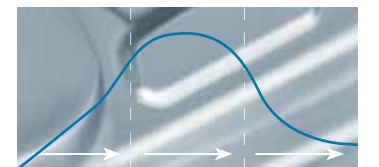
Instrument panel beams demonstrate the highest performance when components such as tubes, sections and pressed parts are cleverly combined to create an assembly. The Metal Forming Division of voestalpine offers a complete spectrum and global supply of such combinations.



Partnerships form long-lasting safety

Lifecycle spare parts service.

Our customers produce vehicles of the highest quality and service life or are important suppliers. OEM spare parts must be available for decades.



This is where our partnership is important. We ensure spare part supply throughout the entire lifecycle, from beginning to end of serial production and until the model is discontinued. Our companies' high level of flexibility in the production and supply of customer-service can reliably provide parts upon request in small lots and over long periods of time. Our original quality parts are reliably supplied to automotive manufacturers and suppliers and their customers, the vehicle owners.

We are a long-lasting and reliable partner. We underline this reliability with our many years of partnerships with leading companies in the automotive industry.

Our companies form global presence

We are everywhere the customer needs us to be.



With more than 30 locations, development centers and production facilities on four continents, the companies in the Metal Forming Division are specialized in services for the automotive industry and are your reliable partners worldwide. These companies combine geographical proximity and personal flexibility with the innovativeness, expertise and reliability of the voestalpine Group.

- voestalpine Europlatinen
Innovation leader in tailor-welded blanks with headquarters in Linz, Austria.
www.voestalpine.com/europlatinen
- voestalpine Polynorm Group
Tier-1 supplier specialized in body parts with centers in Germany and The Netherlands.
www.voestalpine.com/polynorm
- voestalpine Stamptec Group
Development and manufacturing of ready-to-install punched and formed parts with headquarters in Dettingen, Germany.
www.voestalpine.com/stamptec
- voestalpine Automotive Body Parts (USA)
Strategic partner to the American automotive industry with headquarters in Cartersville, United States.
www.voestalpine.com/automotivebodyparts
- voestalpine Automotive Body Parts Shenyang
Strategic partner to the Chinese automotive industry with headquarters in Shenyang, China.

- voestalpine Krems
European market leader in the field of cold-rolled steel tubes and sections.
www.voestalpine.com/krems
- voestalpine Sadeif
Specialist in open and closed tailor-made steel sections with headquarters in Gits, Belgium.
www.voestalpine.com/sadeif
- voestalpine Roll Forming Corporation
With locations in Kentucky, Indiana and Pennsylvania, the voestalpine tube and section manufacturer in the United States.
www.voestalpine.com/rfc
- voestalpine Meincol
voestalpine Meincol, Brazil's leading manufacturer of special tubes and sections with headquarters near Sao Paulo.
www.voestalpine.com/meincol
- voestalpine Profilafröid, voestalpine S.A.P.
French company specializing in applications ranging from building construction to vineyards with two section plants.
www.voestalpine.com/profilafröid

- voestalpine Präzisionsprofil GmbH
Specialist in highest-quality cold-rolled special sections with headquarters in Hürth, Germany.
www.voestalpine.com/praezisionsprofil
- voestalpine Profilform
High-quality section manufacturer with focus on the construction and automotive industries in the heart of Europe in Vyskov, Czech Republic.
www.voestalpine.com/profilform-cz
- voestalpine Profilform (China)
The voestalpine roll former for markets in Eastern Asia, headquarters in Suzhou, China.
www.voestalpine.com/profilform-china
- voestalpine Rotec Group
Specialist in precision tube components based on cold-drawn tubes, headquarters in Krieglach, Austria, and other locations in Europe, United States and Asia.
www.voestalpine.com/rotec

Leading in metal forming with excellent material expertise.

The Metal Forming Division is voestalpine's center of competence for highly refined sections, tubes and precision strip steel products as well as for ready-to-install system components made of pressed, stamped and roll-formed parts. Its combination of material expertise and processing competence, which is unparalleled throughout the industry, and its global presence make this division the preferred partner to **customers who are looking for innovation and quality**. The division is comprised of four business units:

- **Tubes & Sections** – Customized special tubes and sections, with a global presence
- **Automotive Body Parts** – Innovative automotive body parts for lightweight solutions
- **Precision Strip** – Leading competence in precision strip steel for demanding applications
- **Warehouse & Rack Solutions** – Intelligent rack system solutions for complex logistical tasks