



WHEN REQUIREMENTS GROW.

The image is a composite graphic design. On the left, a dark gray vertical band contains a pattern of white circles of varying sizes, some solid and some outlined, arranged in a grid-like fashion. To the right of this band is a large, vibrant red rectangle. Below the red rectangle is a dark gray horizontal band. The central part of the image is a photograph of a series of dark, curved, metallic-looking structures that resemble stylized, overlapping arches or a series of connected, curved walls. These structures are set against a bright red background. The overall composition is modern and abstract, with a strong emphasis on geometric forms and color contrast.

**The harmonic
interplay of
experience and
innovation**

PRECISION IN PERFECTION

Today, Ferro Umformtechnik makes many things possible that were unthinkable even a few years ago. As a supplier to the part and component manufacturing industry, we offer our customers specific solutions that are customised for their individual designs – all with the highest levels of quality and perfect precision, two aspects that, apart from lead times and customer satisfaction, are given highest priority. We employ laser and bending technology as well as laser welding. We treat surfaces by automated grinding and polishing. This enables us to manufacture products with exceptionally large dimensions. In order to offer our customers advantages during the subsequent processing of components, we additionally offer a complete portfolio of component and assembly manufacturing services. Upon request, our in-house design department offers comprehensive services that lead to new products and optimisations. They range from fundamental materials consulting to the full preparation of the design documents for the manufacture of the final products.

We supply components for mobile cranes, elevated work platforms, telescopic handlers and individual vehicle technology, carriage manufacturing, bridge construction and many other industries. Therefore, for us safety is paramount – both in the production processes and in the products that leave our company only after a thorough quality check.

Confidence is an indispensable basis for fair and flexible cooperation with our customers. This close relationship results in a perfect harmony of innovative designs with concomitant optimisations that are made in a perfect production workflow.

This is the only way to always react to specific customer needs and the latest trends on the market.

CUTTING METHOD THAT IS A CLASS APART

We specialise in thermal laser cutting, which facilitates highly individual cutting patterns whilst ensuring high levels of cost efficiency.

Innovative know-how combined with the proven technology of our 5-axis swivel head allow us to perform chamfered cuts in a single operation, thereby creating optimum preconditions for subsequent welding processes. The work pieces can be marked with permanent signatures that provide information about the different components.

*The special feature: Our 5-axis swivel head
for precise welding seam preparation*

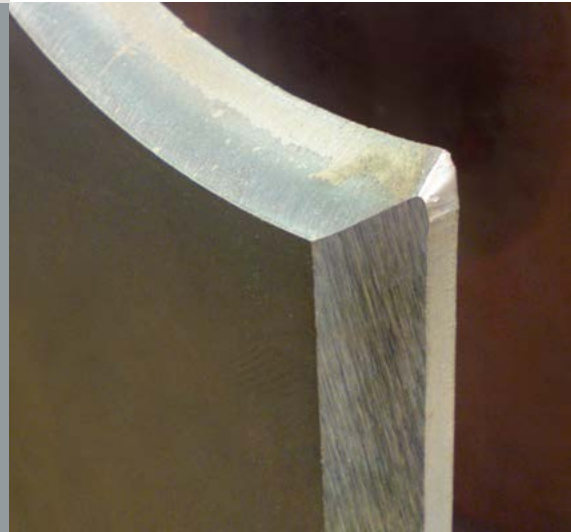
**High cost-
effectiveness
through
leading-edge
technology**





*Perfect interaction:
Chamfered cuts in combination
with our bending technology*

COMPETENCE



*Customised solutions for all
customer requirements*



*State-of-the-art technology in combination
with precise workmanship guarantees
a perfect result.*



**Diversity in form
and contour**



**Edges and corners
are in safe hands
with us**



THE **PRESSURE** MAKES THE DIFFERENCE

Each profile provides an individual design and lasting stability. During cold forming enormous forces are applied: **Up to 2,400 tonnes of press force for working lengths of up to 16,700 millimetres.**

Whether standardised U-profiles or complicated polygonal bends through to an almost completely closed bending profile – we have the technological expertise and the right tools for all special high-precision profiles.





We show strength and size.

www.ferro-umformtechnik.de

INNOVATION

- Specialization in the processing of high-strength to ultra-high-strength steels for dynamically loaded components
- Experience in the processing of long dimensions
- Minimal torsion and high angular accuracy
- Customer-specific tolerances

**Professionals for
individual ideas**



ANYTHING BUT SUPERFICIAL

Our precisely positioned surface treatment during automated grinding and polishing offers our customers advantages that pay off - saving time and money. This is due to the elimination of the labour-intensive grinding and polishing process and a decrease of investments in operating resources. In addition, the precise grinding and polishing process increases the production yield. A calculation that works out.

Automated grinding. Precision and optimised work processes go without saying – as does an even grinding pattern without indentations. Rust and paint are not a problem either anymore, because they simply disappear during the horizontal grinding of adjacent welding surfaces – automatically.

Automated polishing. The position is freely programmable, and the surface finish can be improved through reduced surface roughness. By the way: We already polish lightly rusted sheet metal on site in preparation for the reshaping and welding process. Polishing instead of blasting – a more cost-effective alternative.



AUTOMATION

**A sophisticated
appearance for
sheet metal or
similar products**

CONNECTING WHAT BELONGS TOGETHER

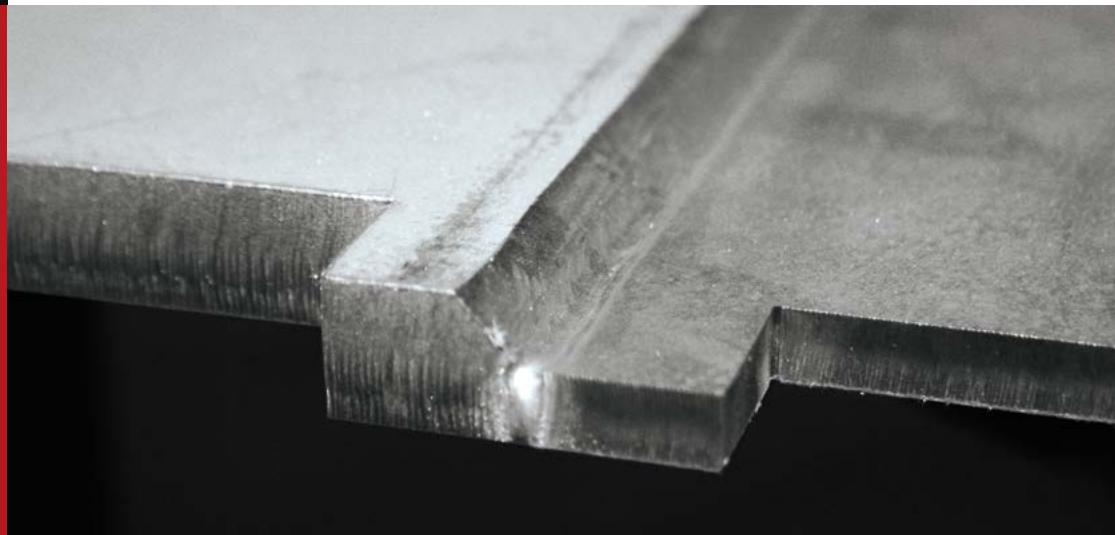
Research, development and innovation – a triad that is both maxim and aspiration for Ferro Umformtechnik. We are breaking new ground to meet the challenges of welding technology.

Our answers to pressing questions about feasibility and perfection: Laser welding. They convince in the welding of plates and shaped profiles by high welding speeds or retrievable optimised weld seam quality.

The added value: Targeted use of materials, narrow weld seams with low heat-affected zone and minimal distortion.

Our customers use the potential of a visually and technologically perfect weld seam to avoid refinishing. Such an innovative welding technology ensures a high degree of efficiency and reliability compared to conventional welding processes. Convincing arguments.

**Differing plate
thicknesses can
be edged in one
bending**



*Welding in longitudinal and
transversal direction is possible.*



A SOLUTION FOR EVERYTHING

For a complete end-to-end service, we can do even more for our customers: We take responsibility for the component and assembly production. That is, we are a reliable and competent partner from design consultancy to establishing the optimum manufacturing technology right through to the implementation of complete solutions – permanently.

Our services at a glance

■ Welding

Production of welded assemblies

Semi-automated welding

- Quality requirements for welding according to DIN EN ISO 3834-2
- Welding of railway vehicles and components according to DIN EN 15085-2:2008-01 Level CL1

■ Mechanical processing

Countersinking

Thread cutting

Drilling

Milling, etc.

■ Production of complete assemblies

■ Surface finishing

Powder-coating

Colorisation

Galvanizing

■ Pre-assembly / systems



- **Processing**
- **Finishing**
- **Production
through to final
assembly**



*End-to-end production enables
a fast final assembly.*

PERFECTION



Efficient, interlocking plug-in systems

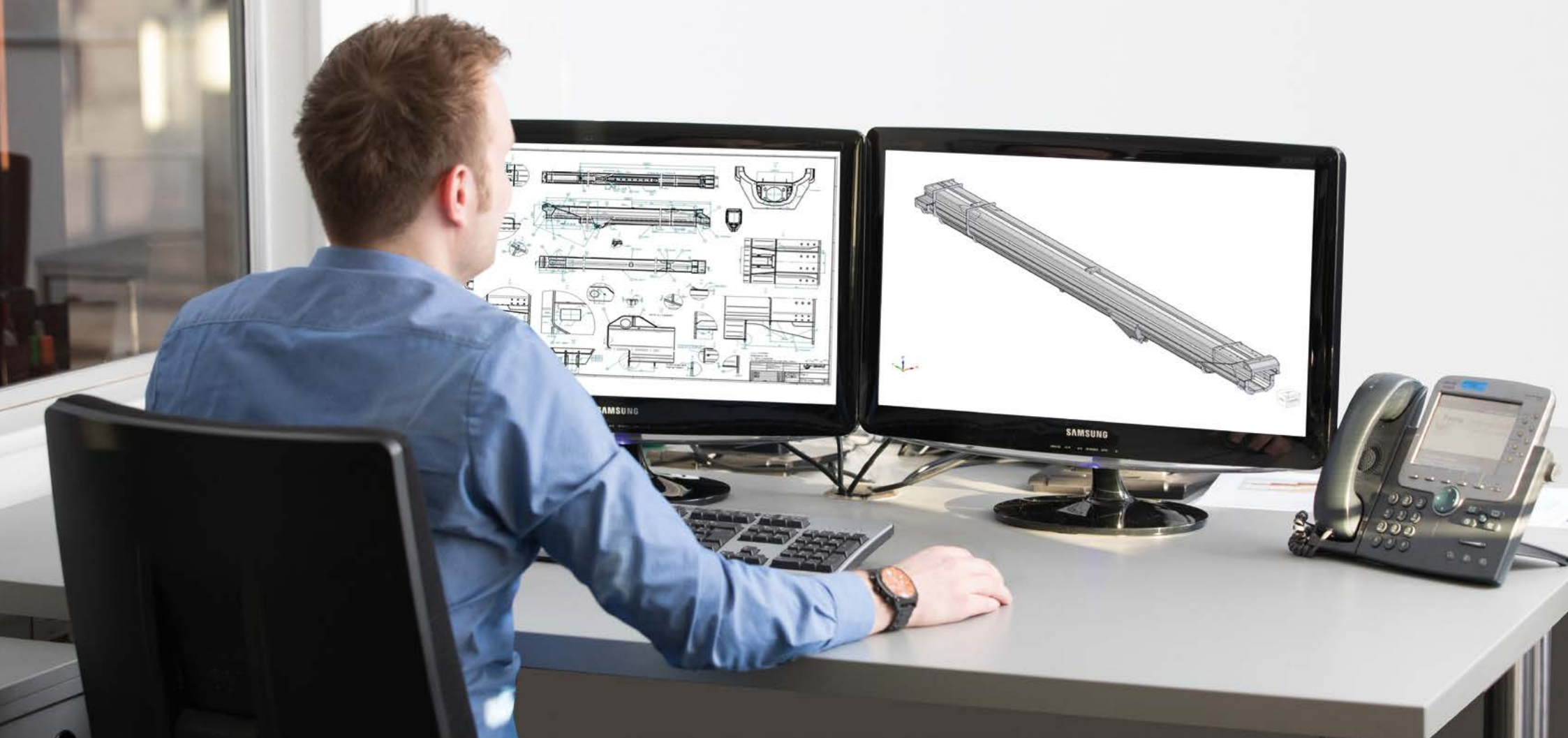
**The route
to the finished
product**



JOINTLY SUCCESSFUL

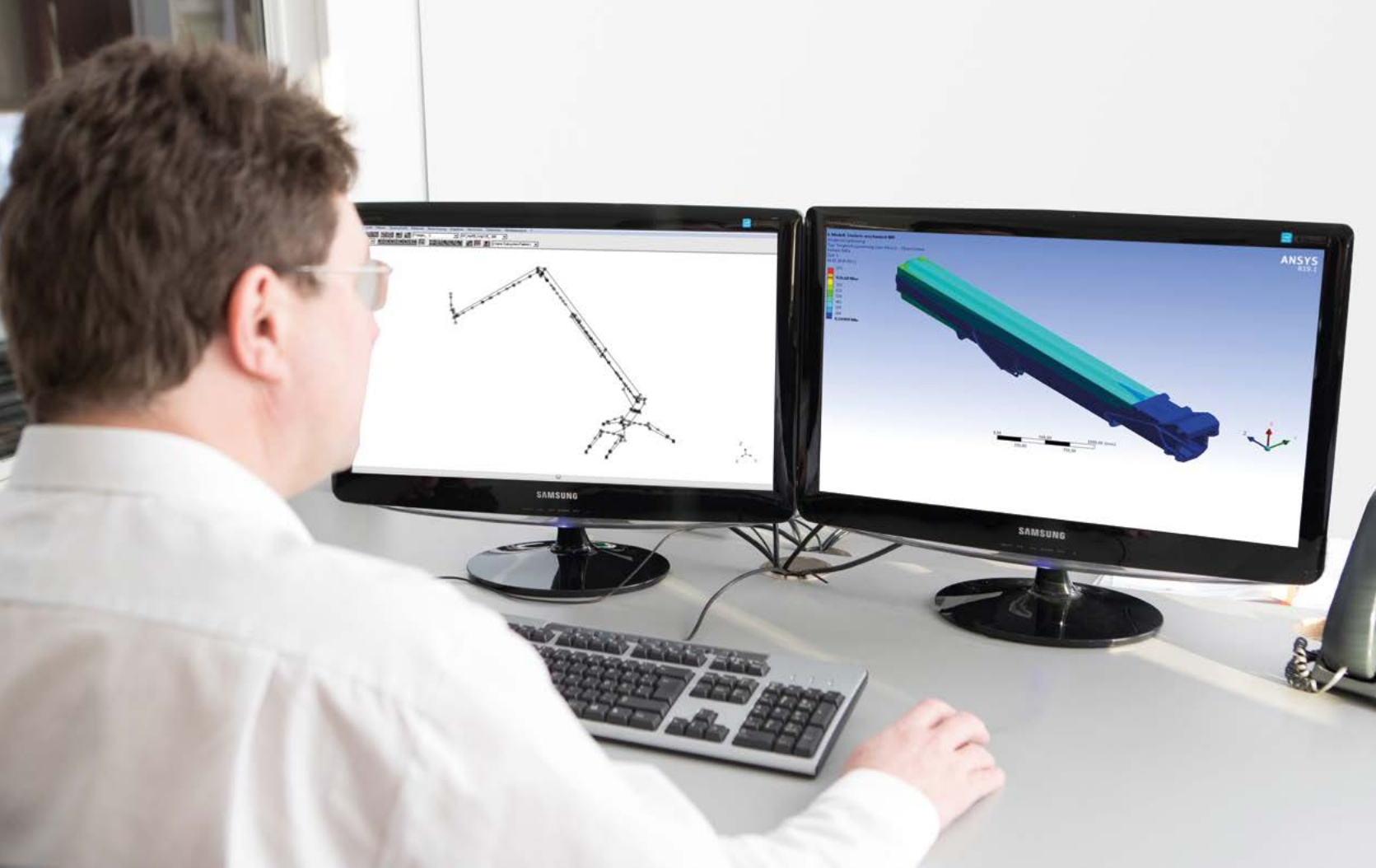
Our customers' needs are constantly growing, and we are always pleased to face new challenges. In close cooperation with our customers, we generate competitive and innovative designs based on the production methods of Ferro Umformtechnik.

Whether new product or optimisation of existing products – the employees of our in-house design department provide comprehensive services upon request. The spectrum ranges from fundamental materials consulting to the full preparation of the design documents for the manufacture of end products.



*Detailed design,
preparation of engineering data*

DESIGN



*Calculation of rod statics,
eigenvalue buckling analysis*

**Ideal
product solutions**

OUR RANGE OF SERVICES

- Preparation of technical and requirements specifications
- Feasibility studies
- Project management
- Detailed design using 3D CAD
- Preparation of engineering data
- Dimensioning and design calculation
 - Statics of rod supports
 - FEM
 - Hot spot stress analysis
 - Eigenvalue buckling analysis
 - Non-linear stability analysis
 - Operating strength verification
- Auditable verification documentation



*Up and running:
Teamwork comes first for us.*

**We see
complex tasks
as a challenge**



HIGHLY QUALIFIED EMPLOYEES AND PARTNERS

Our employees are experienced specialists equipped with solid training and years of expertise. They are competent and motivated and prove that they have a keen eye for detail and the requisite instinctive touch in the daily application of state-of-the-art technology.

Our employees regularly attend training and further education courses in order to keep abreast of the continuous change in this high-technology industry. Working in interdisciplinary teams guarantees short, effective communication routes and consistent, competent contacts for our customers. The mutual trust created by this approach enables a flawless execution of orders.

PEOPLE come first at Ferro Umformtechnik.

QUALITY CREATES SATISFACTION

As an innovative company, continuous development is important to us – that applies equally to production methods, internal structures and customer service. This is the only way that we can meet our high quality requirements.

To ensure clear, controlled and thought-through organisational processes, to motivate our employees and to maintain long-term customer satisfaction, our company complies with the requirements of **DIN EN ISO 9001**.

**Quality and
punctuality
come first**





*We regard consultation, information and communication
as the distinctive services offered by our company.*

Ferro Umformtechnik
GmbH & Co. KG

David-Roentgen-Straße 15-25
48703 Stadtlohn
Germany
Phone: +49 25 63 - 93 37 - 0
info@ferro-umformtechnik.de
www.ferro-umformtechnik.de



• schneiden • kanten • bearbeiten