



ROSENDAHL
AUSTRIA



Rosendahl Maschinen GmbH provides tube mills for longitudinally welded smooth and corrugated tubes and hoses with the highest demands in terms of precision and corrosion resistance. All solutions are individually customized, focusing on the needs of the final product application, including solar tubes, heating tubes, hygienic and process tubes, automotive industries and turnkey solutions.

The main technological competencies are in the fields of metal tape forming, welding, calibration and corrugation of circular round products. Our technical knowledge is reflected in a wide range of metal tube manufacturing systems and covers R&D, manufacturing control and software systems, installation and commissioning as well as staff training and maintenance.

Rosendahl is the leading partner in the industry, providing competent consulting and having competitive know-how and experience.

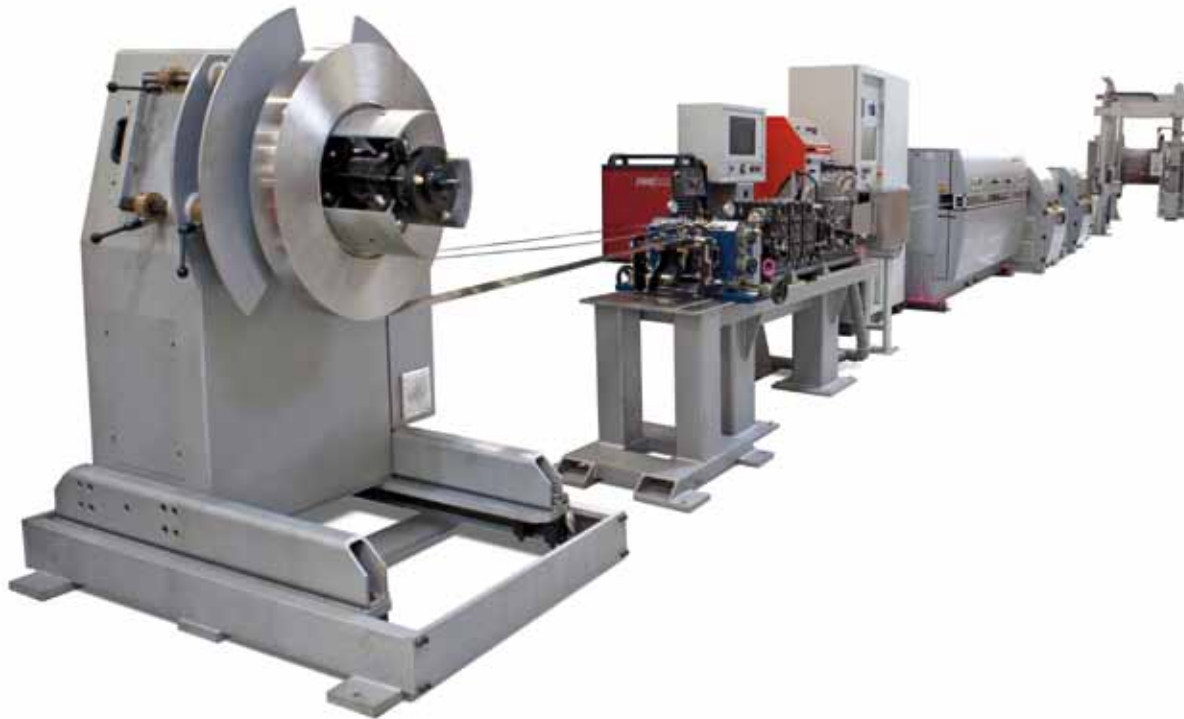
ROSENDAHL AT A GLANCE



It was in 1959 when the company Rosendahl was established. Over the years, the company invested intensively in technological development and constantly broadened its product portfolio for a variety of industries.

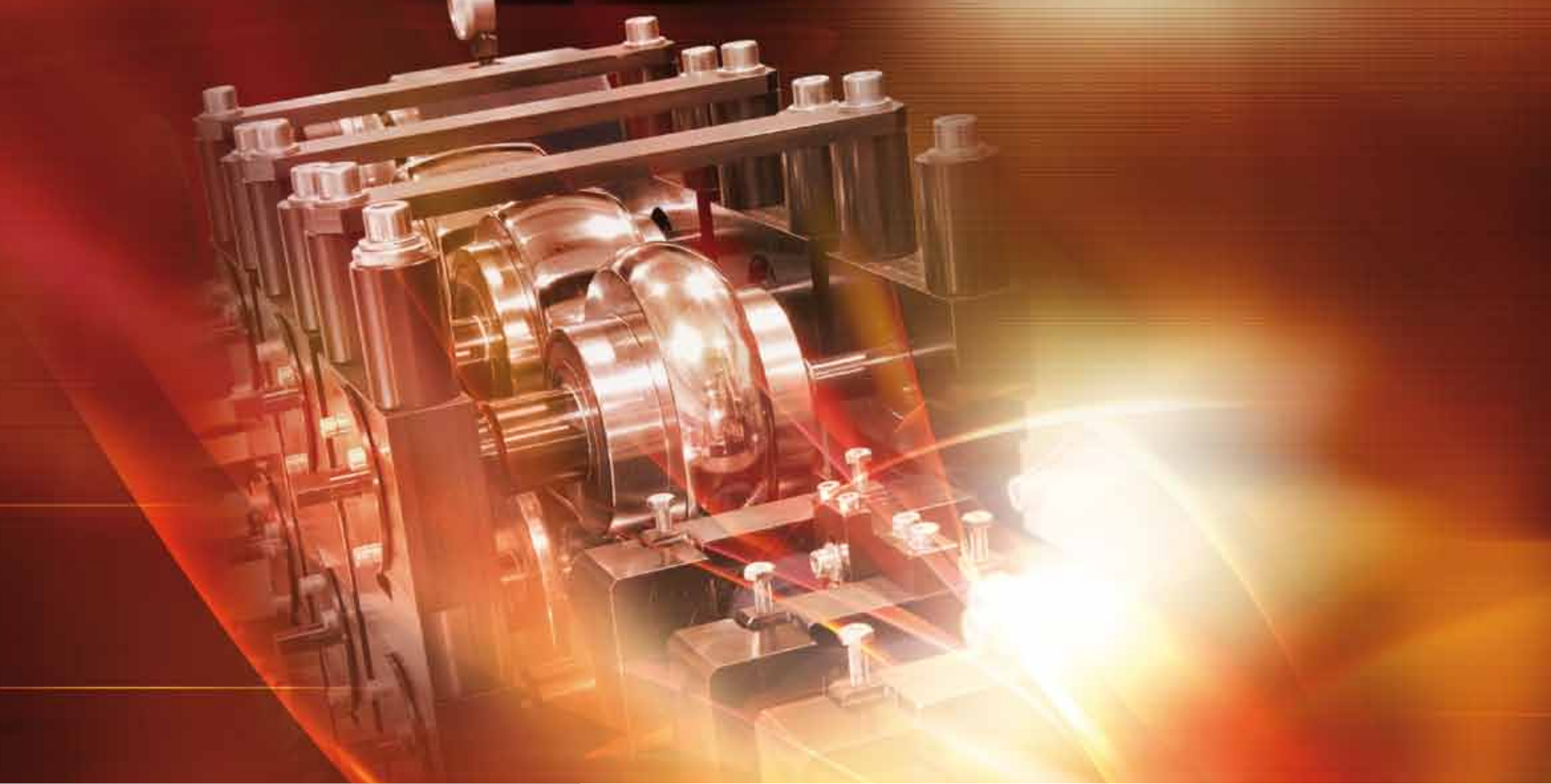
In 1997, Rosendahl became a member of the globally active Knill Gruppe. Today Rosendahl Maschinen GmbH is a world leader in providing manufacturing solutions for the global metal tube & hose, battery, bakery and cable & wire market. Rosendahl operates in over 100 countries and employs around 500 people at six locations.

INNOVATION
FOR GROWTH



Based on the experience of metal tape forming and welding technology for copper and aluminium Rosendahl has continuously extended its product portfolio for manufacturing solutions for smooth and corrugated tubes and hoses. In 2002, initial steps were taken to widen competencies from high performance tubes with long running length in continuous production right up to turnkey solutions.

EXTENSION OF
COMPETENCIES



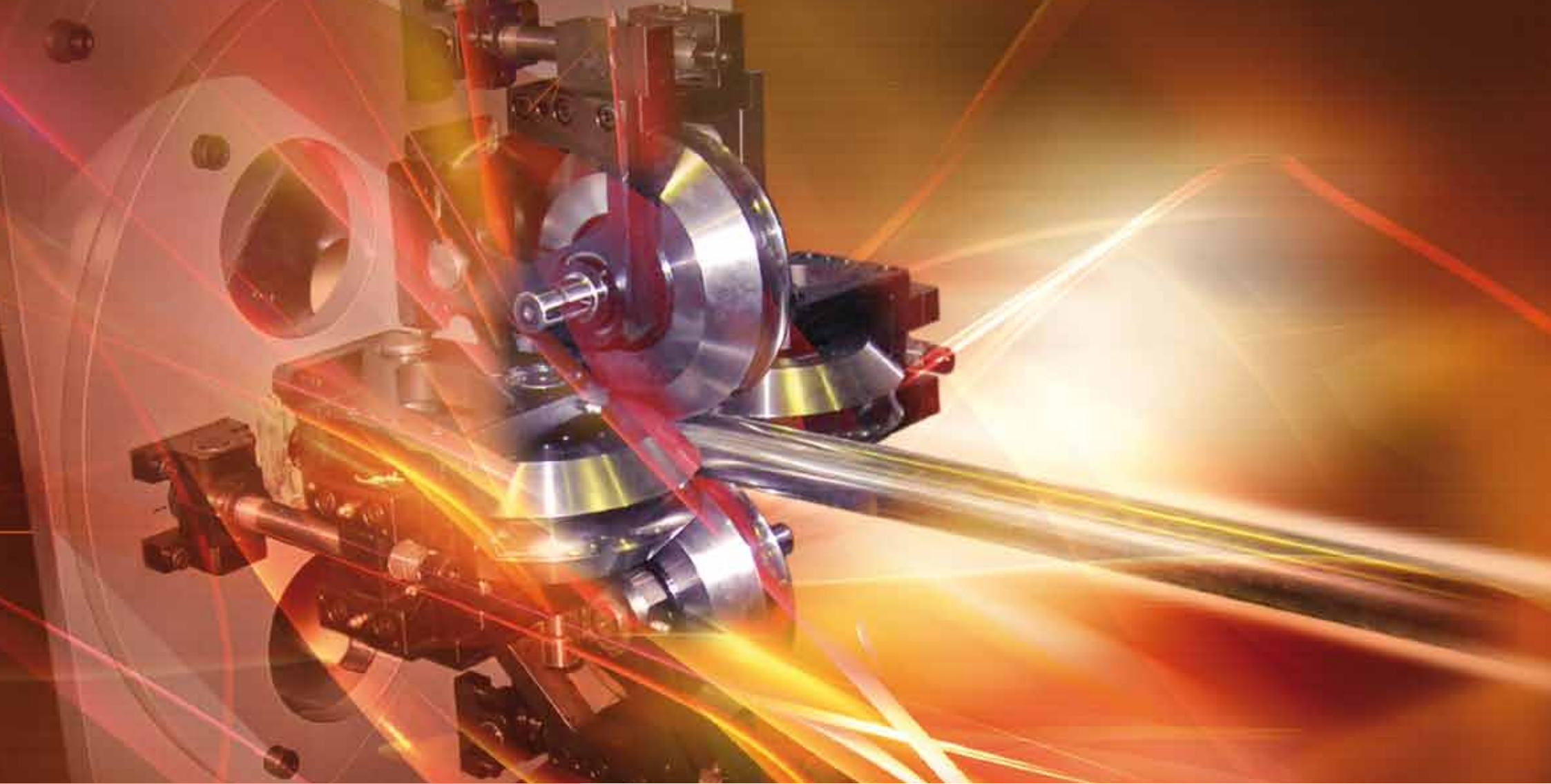
METAL TAPE FORMING

For the production of longitudinally welded tubes, an exact preparation and guiding of the tape edges is required. Rosendahl secures this preciseness by accounting for material properties and the design of both forming stations and forming tools.



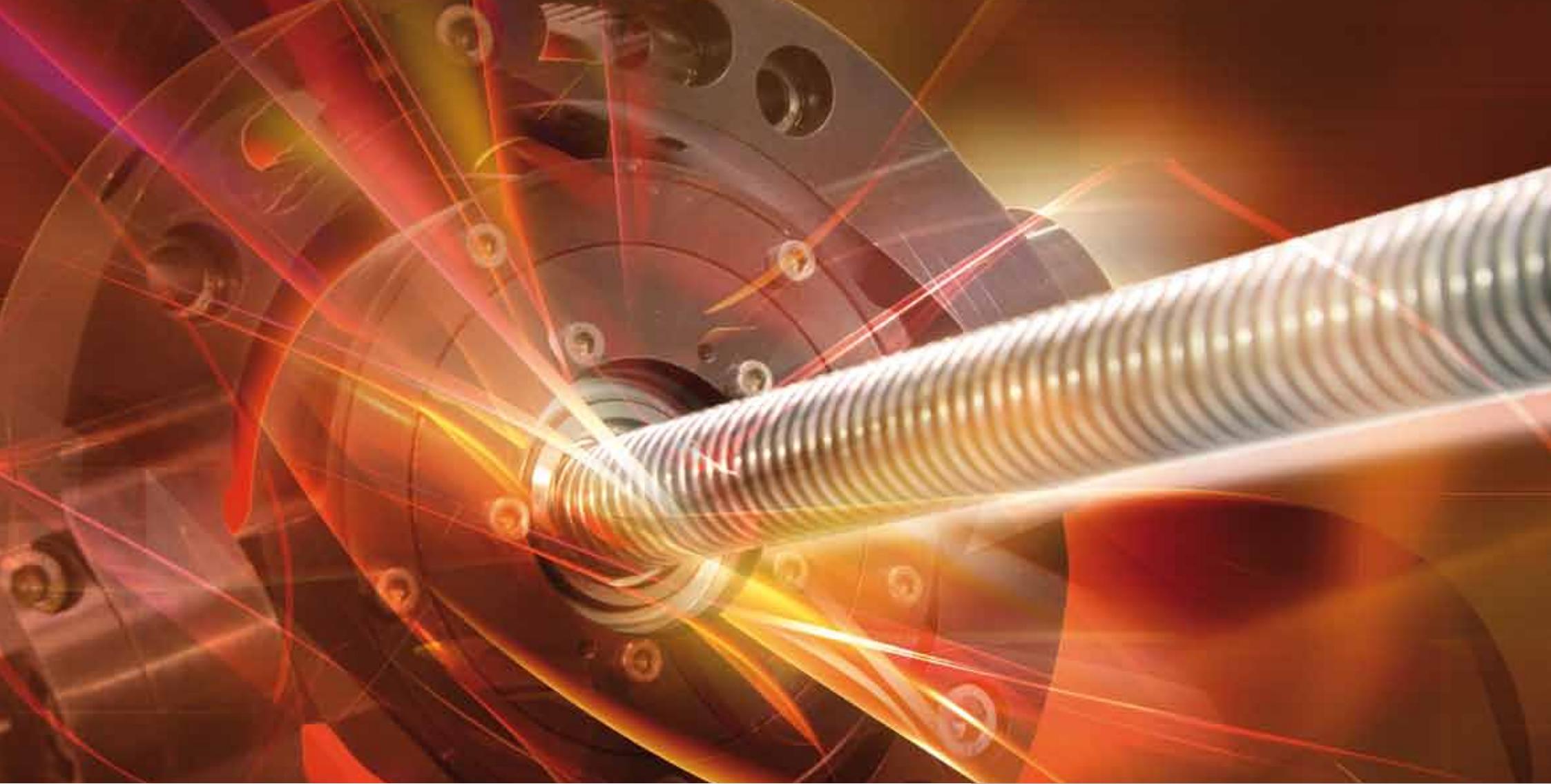
Different materials and applications require different welding technologies. With regard to economic efficiency, Rosendahl offers solutions with TIG, plasma and laser welding technologies.

WELDING



CALIBRATION

To achieve dimensional accuracy and the product properties in special applications, Rosendahl offers static and dynamic tube calibration.



Corrugated tubes combine mechanical stability with bending flexibility. The corrugation profile significantly influences the product characteristics. Depending on the task, Rosendahl offers efficient solutions for tube production and support in product design.

CORRUGATION

SOLAR TUBES



Flexible metal tubes & hoses

Annular and helical corrugation designs

High corrugator rotation speed

**For copper, aluminium, titanium,
nickel basic alloys and high alloy steel
applications**

The high performance concept of tube forming, welding and innovative corrugation technology improves productivity by keeping a perfect corrugation shape at high production speeds. Mechanical elements are replaced by electric or electronic systems that can be precisely measured and controlled. In this way, the process can be easily adapted to different products, increasing process stability and quality while reducing maintenance costs.

HEATING TUBES



**Optimized seam welding technology
with TIG, plasma or laser**

**High performance inline bright annealing
and bead rolling equipment**

The design principle of the tape forming unit by using driven or non-driven roll formers supports long lasting run lengths at high production speeds. The bright annealing system is integrated directly into the tube mill and consists of the three main sections: heating, soaking and cooling. Thanks to the modular system concept it can be adapted to customised application requests. The tube welding line can be equipped with inline weld bead rolling machines and inline bright annealing technology.

HYGIENIC & PROCESS TUBES



High-precision TIG-plasma-welding systems for sensitive treatment of corrosion resistant materials

Mechanical and heat-induced tube surface treatment for tube mill integration

A smooth inner surface, a homogenous shape and microstructure of the weld are achieved by an integrated lamination process

Rosendahl can supply tube mills for this industry with very high standards with respect to surface finish, hygiene and reliability. These production systems focus on final applications in the field of high corrosion-resistant tubing for the dairy industry, breweries, wine production, pharmaceutical plants, chemical industries, etc.



High-speed laser welding systems for best treatment of ferritic and austenitic steel

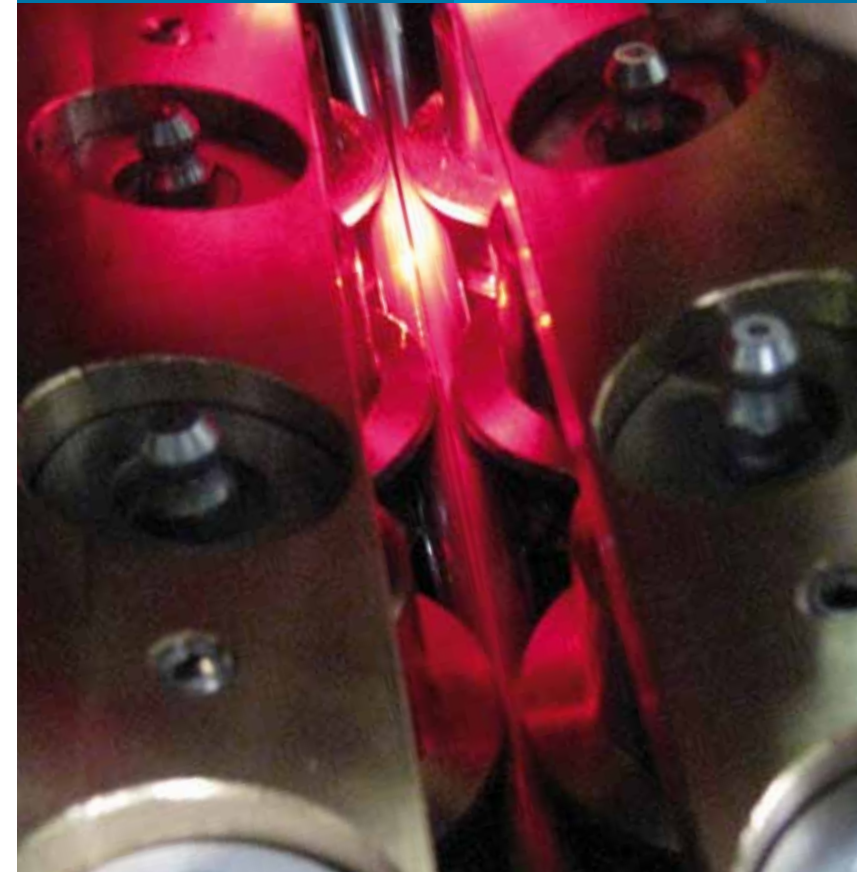
Special tube-forming systems for production of thick-walled, low diameter tubes

Tube mill equipment for manufacturing large-sized, thin-walled tubes for the production of flexible joints and bellows

Bead rolling systems which can handle the needs for the inline treatment of laser welds

Cutting solutions for manufacturing final tube lengths for application

Rosendahl can fulfil the needs of different automotive applications by applying a sophisticated technology standard for all tube mill components. Out of advanced tube manufacturing lines, it is possible to figure out benefits for the production of exhaust tubes and flexible joints from manifolds to rear exhaust pipes, fuel injector rail tubing, exhaust gas recycling tubing and coolers, fuel inlet pipes, tubes for structural automotive parts, etc.



TURNKEY SOLUTIONS

Development

Production

Mechanical
Design

Value
Engineering

Process
Technology



Customer support concerning material treatment of metal forming, welding and heat treatment

Concepts from coil- or tape-handling to final tube product downstream the tube mill

Integration of offline equipment for bending, forming, surface treatment, cutting, testing and handling

Rosendahl has the expertise to achieve the highly specific level of engineering required for on-site installation. Know-how as well as production support complete turnkey projects. Rosendahl conducts intensive study to attain a deep understanding of customer products and requirements and composes a concept that focuses on the entire manufacturing chain. We offer a comprehensive project management and integrate customer-supplied equipment and outsourced items.



All technological know-how is located in Austria where we manufacture on highest quality standards. On 10 000 m² our young, skilled and motivated specialists create solutions for your customized production line.

MADE IN AUSTRIA



RESEARCH & DEVELOPMENT

Continuous high investment in R&D is one of the key factors to our success. We focus on discovering new knowledge and reconsider our present methods. This strategy enables us to apply the newly discovered and up-graded methods to our products, processes and services in order to fulfil the market needs at the highest and best possible level.



Customer-focus is a central value at Rosendahl. In order to cope with today's and tomorrow's demands, we always strive for the right solution with the right service to fulfil the customers' needs for different applications.

**PARTNER FOR OUR
CUSTOMERS**



MOSCOW



VIENNA



NEW DELHI



SHANGHAI



NEW YORK



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