



## Customised components



Stainless steel welded pipes



**Customised components**



Clad pipes



Spools and plant construction



Vessels, tanks and apparatus



Assemblies



# BUTTING







## Customised components

The range of services from BUTTING includes the production of longitudinally welded pipes, including pre-fabrication and finishing for ready-to-install, high quality, customised components.

Our combination of modern production technology, technical ability and years of experience enables us to produce piping components for our customers with specific:

- Surfaces
- Form and position tolerances
- Geometries
- Mechanical machining
- Laser processing
- Welded joints
- Forming
- Joining technologies

You have a wide range of machining options:

- Mechanical machining
- 3-D-laser cutting technology
- Fully automated welding with robot system
- Calibration by shrinking or expanding
- Special forming technology
- 3-D-bending technology
- Surface technology using grinding or blasting
- Coding

The customised combination of the initial product (usually our quality pipe) and the production options results in your ready-to-install components.





Components ready for installation:  
the primary product is our high-quality pipe

## Your benefits

BUTTING manufactures high-quality special pipes and prefabricated pipes and components.

You benefit from:

- Cost-effectiveness thanks to in-house finishing
- Sole responsibility along the entire value chain
- Guaranteed product quality through continuous quality assurance
- The experience and expertise of our employees, who constantly manufacture products for highly demanding industries
- Customised complete solutions through the use of specific procedures along the value chain, such as laser, welding, metal cutting and forming technologies



## Years of experience as a pipe manufacturer

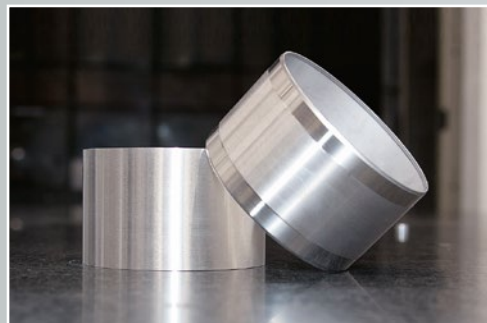
For more than 70 years, BUTTING has been producing stainless steel welded pipes for worldwide use. From pipes for the facades of the tallest building in the world, the Burj Khalifa in Dubai, to fuel feeder pipes for the Ariane carrier rocket.

Our manufacturing range offers you a broad spectrum of high-quality materials for specific corrosive applications. We manufacture pipes with outside diameters from 15 mm to 2 032 mm (80") and wall thicknesses up to 70 mm.

We use state of the art welding procedures, including TIG, SAW, laser beam and electron beam processes.







From prototype construction to series production, BUTTING is your partner

## More than pipes

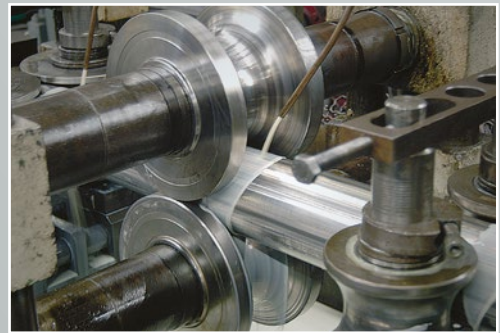
Whether it's individual items or series production, our goal is to provide solutions for your individual needs. For example, our products can be used in:

- Pump technology
- Measurement and control
- Process engineering
- Water treatment
- Mechanical engineering
- Fittings and valve technology
- Aircraft and aerospace technology
- Nuclear technology
- Food technology

Every year more than one million different components are manufactured in our in-house production centre. Depending on the field of application, we produce not only corrosion and heat-resistant steels but also special alloys.

The versatility of the production centre is characterised by a maximum machining diameter of 700 mm and two tool turrets on top with power-driven tools. Complete machining in the form of turning and milling in one clamping enables us to increase the cost-effectiveness of the machining processes. A quick-change system for clamping devices also ensures great flexibility.





Our quality assurance system throughout the production process guarantees compliance with the selected tolerances

## Strict tolerance requirements

The shape and position tolerances used in manufacturing our pipes and components are based on German and internationally recognised standards, e.g. DIN, ISO or ASTM.

We meet the demanding requirements of our customers in a targeted way, whether in relation to tolerance requirements for inner and outer diameters or to wall thicknesses.

We use mechanical and hydraulic calibration methods and special production processes to meet your requirements regarding:

- Inner and outer diameters
- Roundness and ovality
- True running
- Straightness
- Squareness

As a result of producing pipes for the pharmaceutical and food industry, we can use these high-quality pipes to produce valve housings and a variety of components ready for installation, due to their smooth weld seams and high quality requirements.







## Forming to meet your requirements

Our quality pipes are formed using mechanical and hydraulic calibrating, bending and forming methods while complying with the tightest tolerances.

Our wide range of services for forming includes:

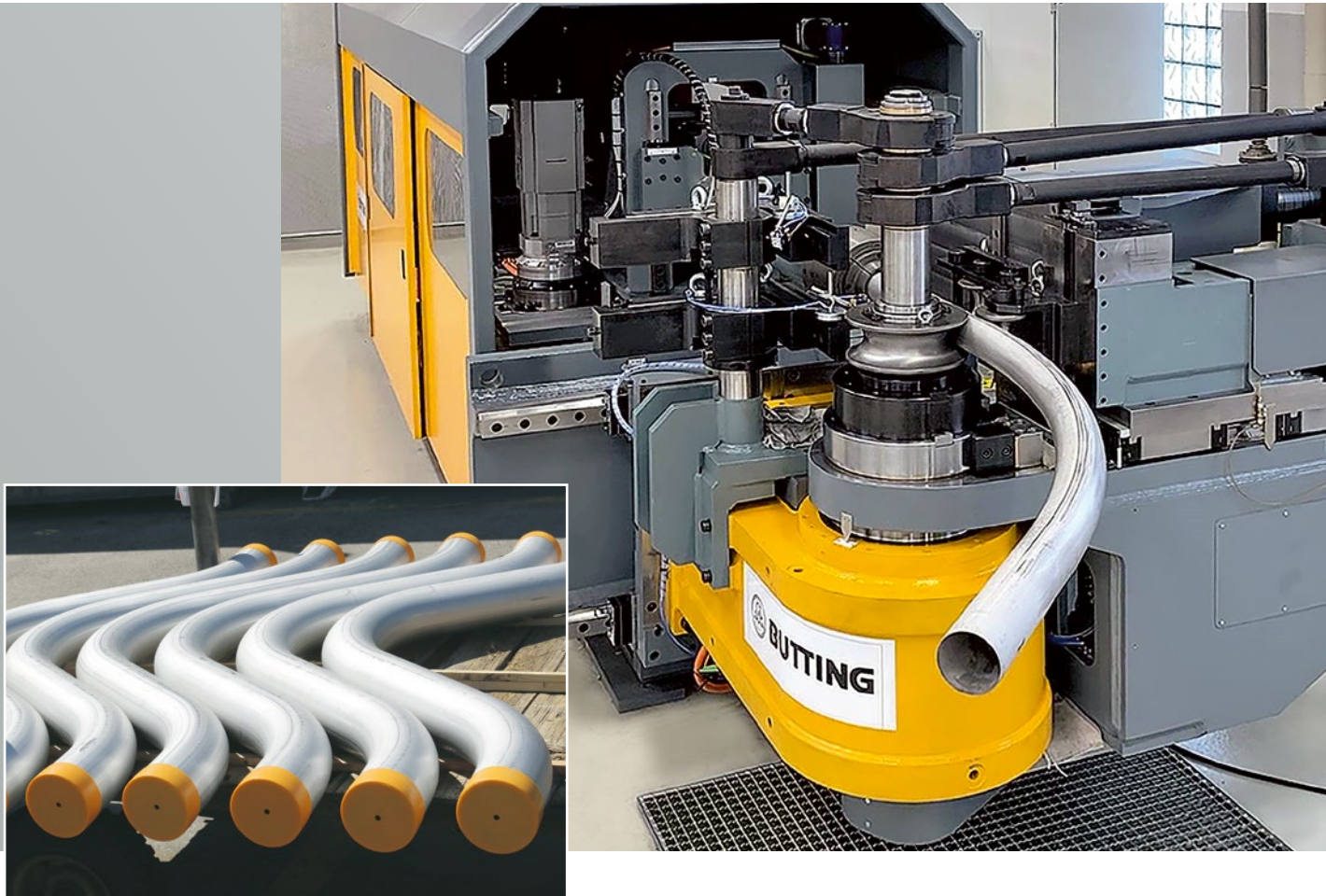
- Flanges
- Extrusions
- Hydroforming
- Shrinking
- Expanding
- Fitting of inner and outer beads

This gives you a range of benefits:

- Compliance with precise inside and outside diameters
- Flexibility through a wide range of pipe sizes
- Consistently high product quality







## We bend to your needs

We produce pipe bends in our modern bending centre according to our customers' drawings and preferences. In addition to its many tried and trusted bending units, BUTTING now has one of the most modern, fully electric CNC-controlled pipe bending machines.

In addition to pipe elbows, single and multiple bends are also produced. Various angles and positions can be implemented for multiple bends. The elbows are cold-formed, and no subsequent heat treatment is required. The use of integrated and multiple bends reduces the number of fittings required. It also means less welding and less testing – and lower project costs for you.

A wide range of bends can be produced:

- Mandrel bends from Ø 3 to 168 mm in diameter
- Freeform bends from Ø 25.4 to 130 mm in diameter
- Elbows with long radii minimum 3 x D up to Ø 323.9 mm in diameter







## Mechanical machining

Our production centre is equipped with modern 3-D-laser and forming technology as well as CNC turning and milling technology. This is how we refine the pipe parts and fulfil your economic and technological requirements.

Whether it's individual items or series production, our goal is to provide solutions for your needs.

Depending on the area of use, stainless steels and highly heat-resistant alloys are employed, along with special alloys. We offer you the following possibilities for mechanical or thermal machining:

- Turning
- Milling
- Drilling
- Clearing





## Many different laser technologies

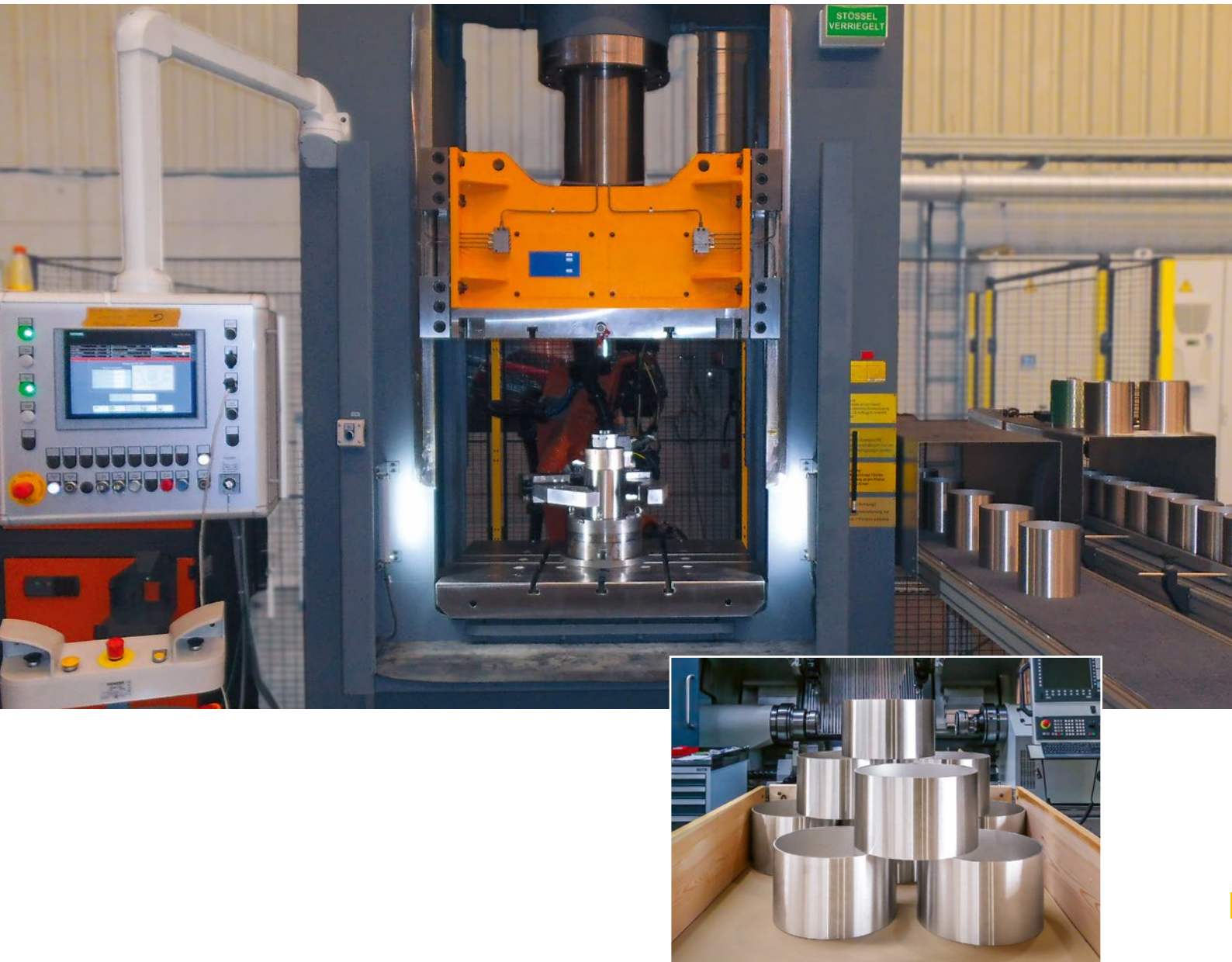
Laser technology offers many opportunities for finishing. It is characterised by great cost-effectiveness and offers you other benefits:

- High-speed cutting
- Three-dimensional variety of contours
- Reproducibility
- Even, burr-free cuts
- Compliance with precise tolerance requirements, including squareness
- Very small heat-impacted zone at the cut edge

Sophisticated cut-outs are achieved – such as cutting geometries and notches up to 10 mm wall thickness – without deformation or burrs, and complying with the tightest tolerances.

We guarantee a splash-free inner surface.

In the laser processing centre, fully automatic laser cutting machines are available. The 3-D-focusing head enables us to machine pipes or profiles in three dimensions: in a vertical cutting position and at an angle of up to 45°.



## Automated press system

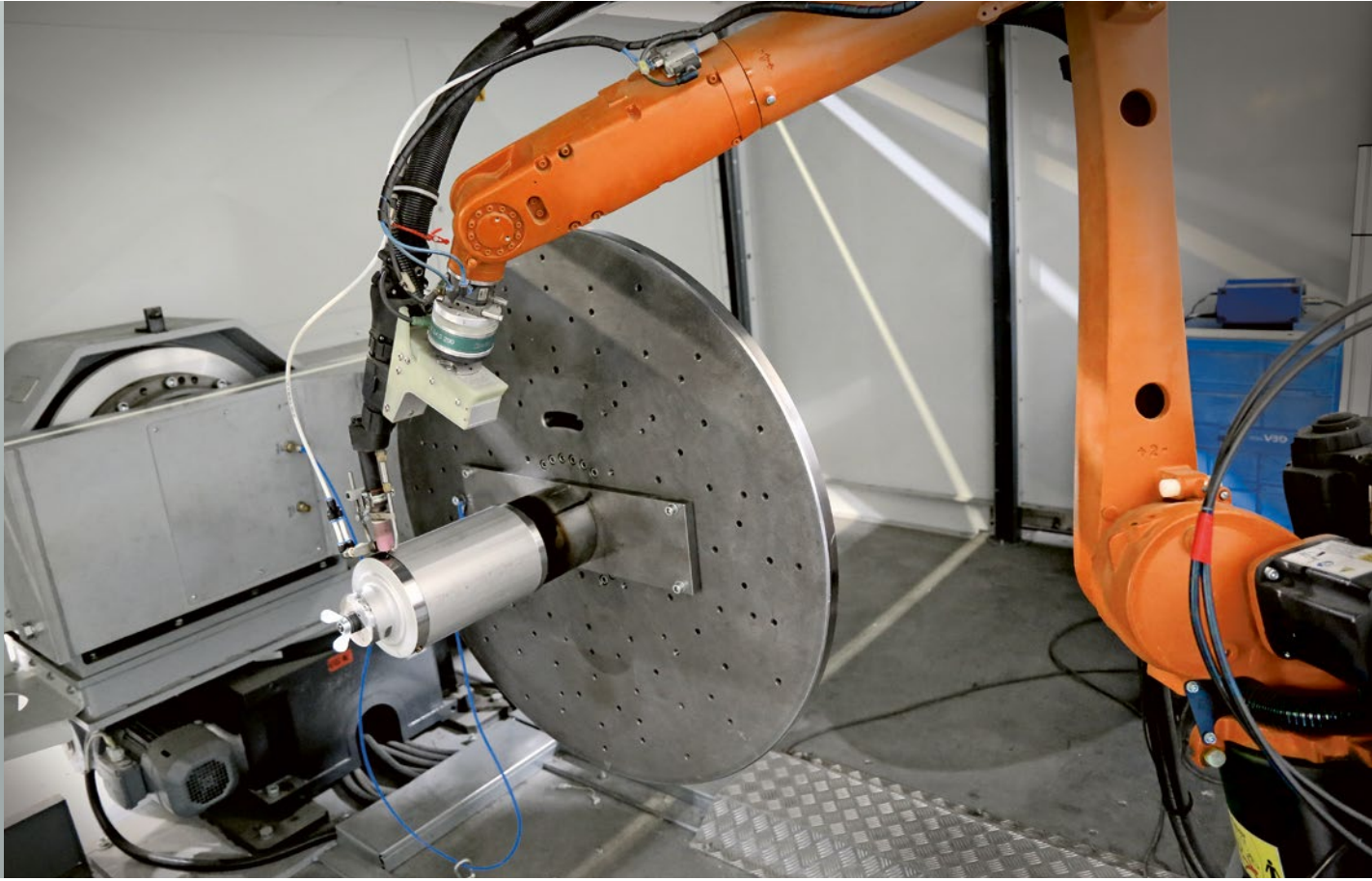
State-of-the-art control engineering, combined with a robot system for fitting, enables both individual parts and series products to be formed in large numbers.

In the press, casings can be processed with a pressing power of up to 200 metric tons. With the ram fixed stop and a drawing cushion, the press is equipped with components that also enable the advanced cold forming process to be applied.

This allows us to process pipes for you in the following ways:

- Expanding
- Calibrating
- Shrinking
- Extruding
- Flanging





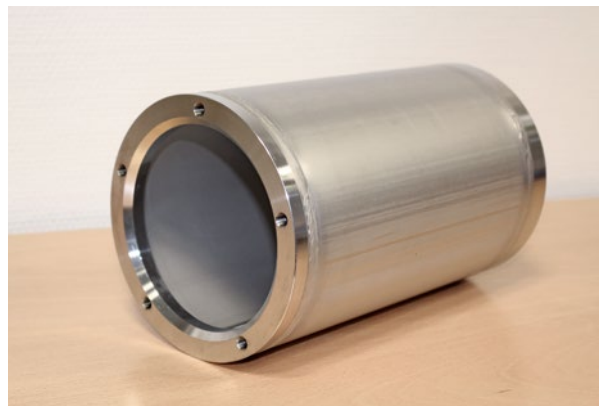
## Fully automated welding cell with robot system

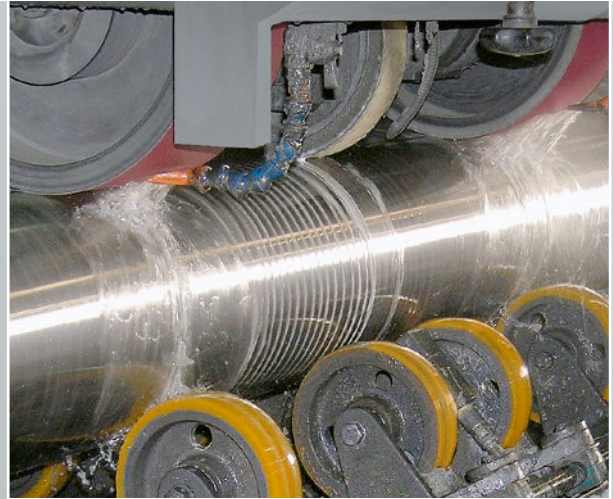
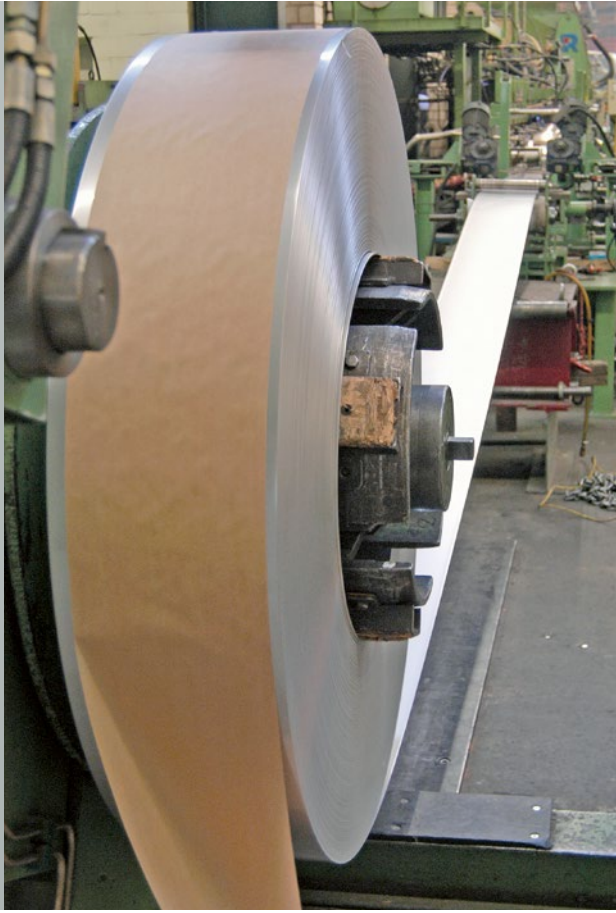
This fully automated welding cell, combined with a robot system, is suitable for both TIG and MAG welding on components.

The use of optical seam guidance during the welding process can ensure an even and excellent weld quality. A rotary swinging positioner enables complex geometric shapes to be welded.

We also ensure the high and exact reproducibility of the series parts and constant quality.

At the same time, we are able to reduce idle times through pendulum machining and thus achieve greater cost-effectiveness even with small batch sizes.





## Special surfaces

Depending on the material and the industrial application, BUTTING can satisfy a range of requirements for inner and outer surfaces and weld areas. We offer both chemical surface treatments and a variety of mechanical ones.



Chemical pickling after production is standard at BUTTING. This guarantees that pipes and components have optimal corrosion resistance.

You can also specify different surface types:

- The choice of raw material depends on the specified surface quality (material from cold rolled or hot rolled raw materials)
- Rolling operations
- Individual requirements for roughness
- Grinding the outer and inner surfaces
- Blasting the outer and inner surfaces





## Ready-to-install: Your advantage

There are many reasons to use our ready-to-install components:

- Optimal product quality
- High cost effectiveness
- High degree of functional security
- Fulfilment of technical requirements
- Individual product solutions
- Increased flexibility
- Smooth project management
- Combined responsibility
- Optimal availability based on individual logistics concepts

### Logistical responsibility

With an output of more than one million components per year, BUTTING has successfully and impressively demonstrated its logistics competencies. We take your individual needs into account and guarantee a continuous delivery process. So we deliver just in time, following the Kanban principle, or directly to a consignment warehouse. Our use of cost-effective shipping container management means that we can support our customers both sustainably and economically. This ensures that the right product is available to you at the right time and in the right place.

**BUTTING**

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