







## Special pipes and components ready for installation

-  Corrosion resistant pipes
-  Special pipes and components ready for installation
-  Clad pipes
-  Spools and components in CRA or clad materials
-  Vessels, tanks and apparatus
-  Assemblies



**BUTTING**





## Special pipes and components ready for installation

The range of services from BUTTING includes the production of longitudinally welded pipes, their pre-fabrication and also processing into components ready for installation at the highest level of quality.

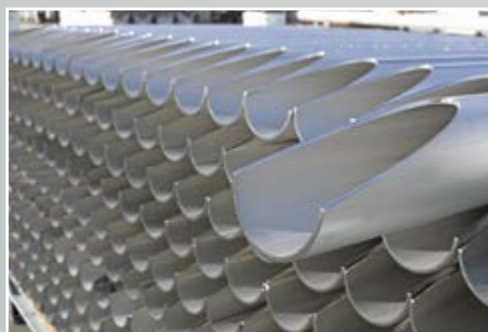
Through a combination of state-of-the-art production technology, craftsmanship and long-standing experience we offer our customers special pipes with particular

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

You have extensive machining possibilities:

- Mechanical processing
- 3D laser cutting technology
- Fully automated welding with robot system
- Calibration by tapering or expanding
- Special forming technology
- Surface technology by grinding or blasting
- Coding

Through the individual combination of the base product (normally our high-quality pipe) and the production facilities, we create your components ready for installation.



Special pipes and components ready for installation: the base product is our high-quality pipe

## Your benefit

BUTTING manufactures high-quality special pipes as well as prefabricated pipes and components. We offer you solutions for industrial applications. The base product is the longitudinally welded pipe we manufacture ourselves at the highest quality level.



The following benefits will be available to you:

- Cost-effectiveness through direct processing of our pipe
- Responsibility lies with a single source along the entire value chain
- Assurance of product quality through consistent quality assurance
- Experience and expertise of our staff, who constantly manufacture products for highly demanding industries
- Customised complete solutions through the use of specific procedural applications along the value added chain, such as the laser, welding, metal cutting and forming technologies



## Years of experience as a pipe manufacturer

For more than 60 years, BUTTING has been producing stainless steel pipes for worldwide use. Pipes for the facades of the tallest building in the world, the Burj Khalifa in Dubai and fuel lines for the Ariane carrier rocket testify to the range of services BUTTING provides.

Our manufacturing programme offers you a broad spectrum of high-quality materials for specific corrosion applications. We produce pipes with outer diameters from 15 to 2 032 mm (80") with wall thicknesses up to 70 mm.

We use all the up-to-date welding procedures, such as TIG, SAW, laser beam and electron beam processes.





"The impossible is possible": BUTTING realizes your requirements for special geometric shapes

## Special geometries – adapted to your requirements

For many years, BUTTING has been manufacturing pipes in special sizes for a large number of application areas, including the pump industry and for research as well as the process industry.

All the technical product characteristics – such as size, form, tolerances, material, testing requirements and mechanical technological qualities – can be agreed with us and optimised to meet your needs.

Thus we offer you a very great variety of forms for individual components, such as:

- Triangular pipes
- Square pipes
- Hexagonal pipes
- Oval pipes
- Elliptical pipes
- Half shells



Our collateral quality assurance system guarantees adherence of the chosen tolerances

## Very tight tolerance requirements

The basis for form and position tolerances in manufacturing our pipes and components is provided by the German and the 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 procedures and special production processes to meet your requirements regarding:

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

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





## Forming to meet your requirements

The forming of our quality pipes is done by means of mechanical and hydraulic calibration, bending and forming procedures, while complying with very strict tolerances.



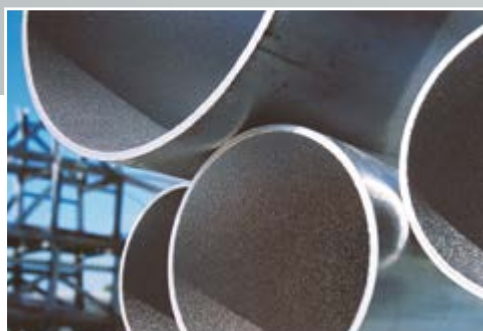
Our wide range of services for forming comprises:

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

This gives you a range of benefits:

- Compliance with precise inner and outer diameter
- Flexibility through a wide range of sizes
- Consistently high product quality





## Special surfaces

Depending on the material and the industrial application, BUTTING satisfies a range of requirements for inner and outer surfaces and the weld seam area. We therefore offer you both chemical surface treatments and a variety of mechanical ones.

Chemical pickling after production is standard at BUTTING. This guarantees pipes and components with optimum corrosion resistance.

You can also specify different surface types:

- The choice of raw material depends on the specified nature of the surfaces (material from cold rolled or hot rolled coil)
- Rolling operations/flattening
- Individual requirements for roughness
- Grinding the inner and outer surfaces
- Blasting the inner and outer surfaces
- Deliberate roughening of the surfaces through raumatic surface finishing

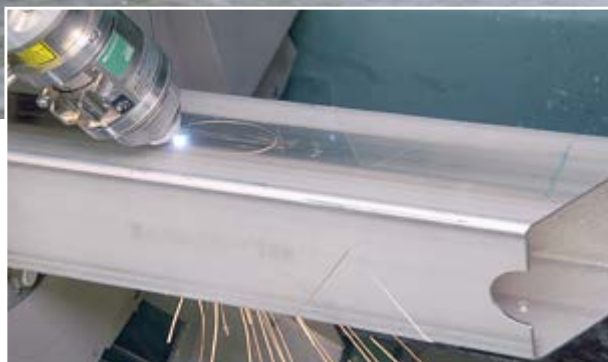


## Mechanical processing

Our production center is equipped with state-of-the-art 3d laser and forming technology, as well as CNC turning and milling facilities. Thus we process piping components to comply with technological requirements and cost effectiveness. Whether as a unique specimen or in batch production, we see it as our challenge to solve the problems you set us.

Depending on the area of use, stainless steel and very heat resisting alloys are employed, along with special alloys. We offer you the following possibilities for mechanical or thermal processing:

- Turning
- Milling
- Drilling
- Clearing



## All-round laser technologies

Laser technology offers many opportunities for further processing. It is characterised by especially 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 cutting edge

Demanding cut-outs are achieved, e.g. cutting geometries and notches up to 10 mm in wall thickness – deformation and burr-free, and complying with very tight tolerances.

We guarantee a splash-free inner surface.

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

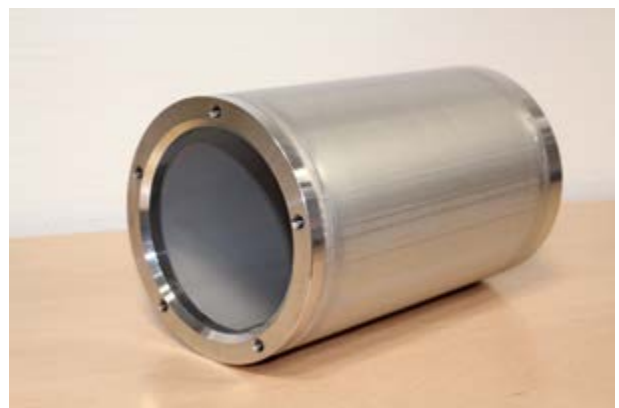


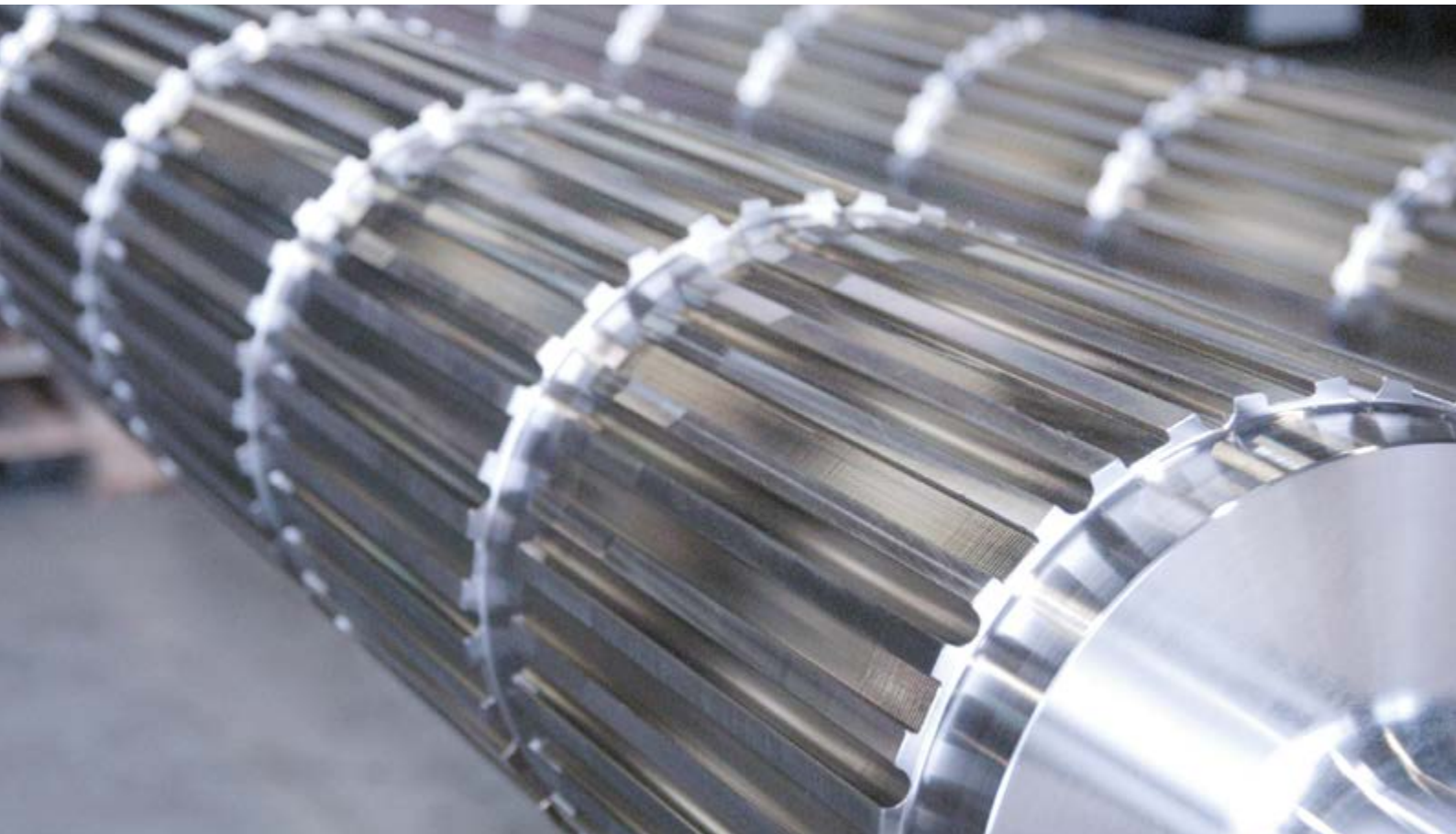
## “More than pipes” in the production centre

Every year a large number of different components are manufactured in our in-house production centre. Whether as a one-off specimen or in series production, we see it as our challenge to solve the individual tasks that you set us.

The latest expansion is a fully automated welding cell, combined with a robot system. This system is suitable for both TIG and MAG welds on components. The use of optical seam guidance during the welding process ensures 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.

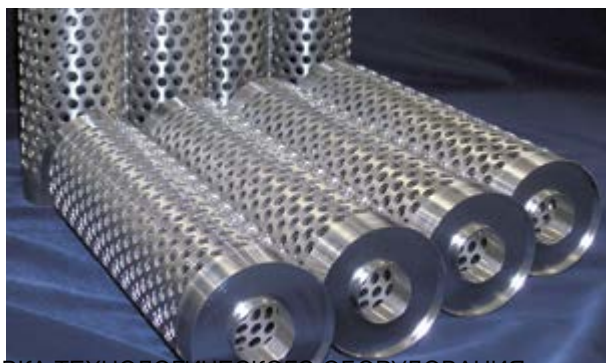


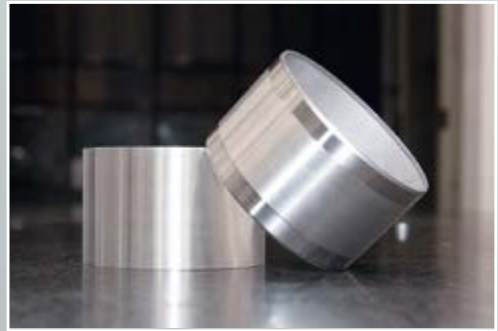


## From the special pipe to the component ready for installation

As well as the special pipes, we enable you to have good value overall solutions through the production of components ready for installation. Here we achieve the highest quality and meet demanding logistical requirements.

Through the combination of different production processes along the value added chain, e. g. laser, welding, forming and milling technology and surface processing, we manufacture your components ready for installation from our corrosion resistant special pipes. BUTTING is the expert when entire components are required, complying with the strictest form and position tolerances – from the planning stage through production to delivery to your assembly line.





From prototype construction to series production,  
BUTTING is your partner

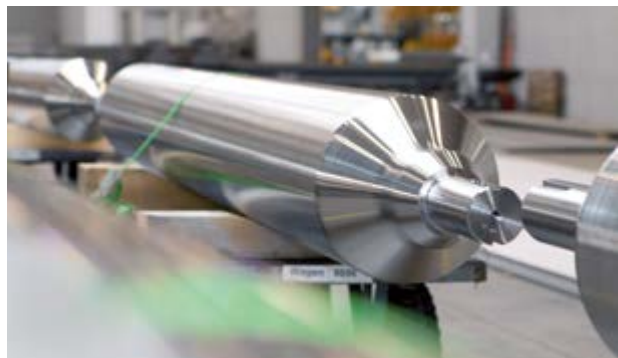
## Ready for installation: your benefit

There are clear arguments for the use of our components ready for installation:

- Optimum product quality
- High cost-effectiveness
- High degree of functional security
- Fulfilment of technical requirements
- Increased flexibility
- Smooth project completion
- Improved environmental friendliness
- Bundled responsibility and fewer interfaces
- Rapid availability by Kanban-logistics

We guarantee you in the production of complex components first-class processing by:

- The use of high-quality base products
- A high degree of automation
- Well-qualified staff





## Individual product solutions

For years, BUTTING has been seen as a reliable supplier of special components ready for installation. In the course of time, many products have been further developed together with the end customer. We have our own construction department for designing complex components. This puts us in a position to improve planning quality, shorten project lead times and reduce costs. Above all, we can provide our experience and expertise to create your components.

The choice of a suitable material grade is made through an intensive dialogue with you as the user, as early as the planning and construction stage.

Our manufacturing programme covers a broad spectrum of high-quality materials for specific corrosion applications:

- Corrosion resistant steels
- Nickel alloys
- Special alloys

– more than pipes –

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ  
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Телефоны: +7 (495) 7774788, 7489626, 5007155, 54 Эл. почта: [info@tisys.ru](mailto:info@tisys.ru) [info@tisys.kz](mailto:info@tisys.kz) [info@tisys.by](mailto:info@tisys.by)