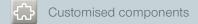


Stainless steel welded pipes





Clad pipes

Spools and plant construction

Vessels, tanks and apparatus







BUTTING in Knesebeck (Germany)



Production site in Könnern (Germany)

#### Knesebeck (Germany)

- Main warehouse location
- Manufacture of longitudinally welded stainless steel pipes from coil and plate:
  - Austenitic materials
- Austenitic-ferritic materials
- Special alloys
- Special tolerances
- Special surface designs
- Special geometries

#### Könnern (Germany)

- Manufacture of longitudinally welded pipes made from stainless steel coil and plate:
  - Austenitic materials
  - Austenitic-ferritic materials

## Corrosion resistant pipes

The focus of BUTTING's business activities is the manufacturing of high-quality longitudinally welded pipes made from stainless steels. Few companies in Europe can point to such long-standing experience and diversity in the production of pipes.

BUTTING offers you excellent value for money.

Our name is a by-word for reliability and high quality.

A wide range of high-performance production facilities offers you a large number of possibilities:



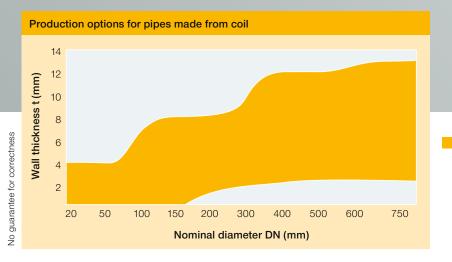




- Corrosion resistant pipes with outside diameters from 15 to 2 032 mm (80") and wall thicknesses up to 70 mm
- Pipes made from special alloys, titanium or clad materials
- Pipes with demanding tolerance requirements
- Pipes with special geometric shapes
- Pipes according to internationally valid standards
- Pipes with customer-specific requirements, e.g. for BASF, Shell, Saudi Aramco
- Standard pipes supplied at short notice from our varied range of stock







Standard production options; other diameters and wall thicknesses available on request

# Economical production: Pipes manufactured from coil

The fully-automated production process from coil is the most technically sophisticated and economical process for manufacturing longitudinally welded pipes.

As well as standard sizes, we produce pipes customised to your requirements, for example in intermediate sizes, special materials or to particular tolerance requirements in continuous production.

For this purpose, we have more than 200 roller sets in stock for your special applications. On several production lines, BUTTING produces pipes from coil with outside diameters ranging from 20 to 762 mm, with

wall thicknesses up to 12.7 mm. The standard lengths are 6 or 12 m. Fixed lengths or lengths up to a maximum of 18 m can be produced in a number of sizes without circumferential welding.

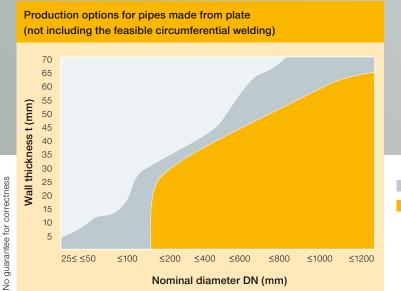
We use all the current welding processes in continuous production, the main ones being:

- TIG process
- Plasma/TIG process
- Laser beam welding process





Plates are edged or formed and then welded into pipes



Standard production options for lengths up to 6 m Standard production options for lengths up to 12 m Other diameters and wall thicknesses available on request

## Customised for you: Pipes manufactured from plate

BUTTING produces longitudinally welded pipes with wall thicknesses of up to 70 mm and an outside diameter of up to 2 032 mm (80") from individual steel plates - in standard dimensions from stock, as well as individually for your projects. We produce manufactured lengths of up to 12 m without circumferential weld, and up to 24 m with circumferential weld. This procedure is used for example if you order project-specific quantities in special sizes, special materials or in clad materials.

You can coordinate all the technical product features of the pipes for your project with us, for example:

- Size
- Tolerances
- Material
- Testing requirements
- Mechanical-technological characteristics

This is how we optimise our BUTTING products to meet your needs.







## **Diversity of materials**

BUTTING produces pipes made from stainless steel. This focuses partly on the area of special alloys. We have considerable experience and expertise in forming, joining and heat-treating. This benefits our customers from many industries.

The BUTTING manufacturing programme offers you a broad spectrum of high-quality materials for specific, corrosive applications.

Select what you need from:

- Austenitic-ferritic steels
- Austenitic steels
- Austenitic special steels
- Heat-resistant steels
- Highly corrosion resistant steels
- Ferritic steels
- Copper-nickel alloys
- Titanium alloys
- Clad materials





Our products meet the highest quality standards

## Quality pays off

A prerequisite for the corrosion resistance of stainless steels is a clean metallic surface. To achieve this, all pipes at BUTTING are always subjected to chemical full body pickling.

The quality management system at BUTTING is certified under DIN EN ISO 9001. The company's own laboratory is accredited acc. to DIN EN ISO/IEC 17025. This means that we independently carry out laboratory activities on the basis of this standard, fulfilling the general requirements for the laboratory's competence, impartiality and uniformity of operation.

We hold numerous other certificates - including from customers. In order to ensure that we meet projectspecific demands, a wide range of testing equipment is available for destructive and non-destructive tests. Acceptance tests by the customer during production can be performed for new productions.

We deliver pipes acc. to international standards, such as DIN EN ISO, AD 2000, ASTM, API and NORSOK. BUTTING also fulfils customer-specific requirements for clients such as BASF, IGR, Saudi Aramco, BP, Exxon and Shell.



# Rapid availability through components in store

BUTTING stores an average of more than 5 000 t of pipes for you:

- In more than 140 different sizes
- From DN 15 to DN 800
- Acc. to DIN EN, ISO and ASTM
- In 15 different material grades

Our capabilities are demonstrated in a wide selection of products. The strengths of our store are supplemented by our comprehensive services. These include for example cutting of fixed lengths, supplementary quality controls, production of special bevels and individual designations.

For your added benefit, we deliver in flexible bundle sizes. In addition, we produce in series for you, store the quantities for blanket orders and you can call off small quantities acc. to your logistics system.

Among the products we stock are pipes with the following quality criteria:

- In 1.4307/1.4404/1.4541/1.4571 acc. to DIN EN 10217-7
- In TP 304L/TP 316L acc. to ASTM A312/A358
- In 1.4462/UNS S31803/UNS S32205 acc. to **ASTM A928/ASTM A790**
- In 1.4410/UNS S32750 acc. to ASTM A928
- In 1.4539 acc. to DIN EN 10217-7
- In 1.4547/UNS S31254/254SMO acc. to ASTM A 358
- Acc. to DIN EN 10357 (food technology)
- Acc. to DIN 11866 (pharmaceutical industry)
- In 1.4307/TP 304L/1.4404/TP 316L acc. to DIN 2430-1 (pigging technology)







## Worldwide projects

BUTTING is your manufacturer of tailor-made stainless steel pipes for demanding projects.

Our high-quality pipes are in use all over the world, for example as line pipes or process pipes in the chemical industry or in the oil and gas industry.

We produce pipes in a broad range of diameters up to OD 2 032 mm (80") and wall thicknesses up to 70 mm.

BUTTING has been producing longitudinally welded pipes for onshore, offshore and subsea projects since 1978. The pipes are used, for example, as line, process and riser pipes transporting gases, oil and other flammable liquids, or solid materials.

We produce pipes for your individual project requirements, for example:

- In standard dimensions
- In your desired special dimensions
- In special materials, such as alloy, duplex, superduplex, copper-nickel alloys, titanium
- With special tolerance specifications
- Acc. to project-specific quality requirements
- In manufactured lengths of up to 24 m



## Special pipes

For many years, BUTTING has been manufacturing pipes in special sizes for a large number of application areas, including the process industry, apparatus engineering and mechanical engineering. Our combination of modern production technology, technical ability and years of experience allows us to produce special pipes for you with specific:

- Surfaces
- Tolerances of form and position
- Geometries

### 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 areas of the pipe.

In addition to the standard process of chemical pickling, you can also specify different surface types:

- Choice of raw material depending on the specified nature of the surfaces (material from cold rolled or hot rolled coil)
- Ground seams
- Individual requirements for roughness
- Grinding of external and internal surfaces
- Blasting of external and internal surfaces
- Raumatic
- Smoothing of weld seams

BUTTING meets your requirements: from especially rough to especially smooth surfaces!







#### Geometries

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.

This means that a wide variety of shapes is available to you, such as:

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

### Form and position tolerances

The basis for form and position tolerances in manufacturing our pipes is always provided by the German and internationally recognised standards. We meet the demanding requirements of our customers in a targeted way, whether in relation to the inner and outer diameters, wall thicknesses, straightness or true running accuracy.

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

- Defined inside and outside diameters
- Roundness and ovality
- True running
- Straightness
- Squareness

We have been producing high-quality pipes with smooth welds and complying with high quality requirements, for example for the pharmaceutical and food industries, in this way for decades. Our quality assurance system throughout the production process guarantees compliance with the selected tolerances for you.