



PLANT CONSTRUCTION

Vessel construction – Assembly – Industrial Service



BUTTING

Progress by Tradition

BUTTING was founded in 1777 as a coppersmith's by the ancestors of the current owner, Hermann Butting. In 1945, the family-owned company moved its headquarters to Knesebeck and started producing soldered, and later welded, copper pipes and pipelines. In the late 1950s, stainless steel gradually replaced

copper as the main raw material for BUTTING products. The company has been in family ownership for seven generations, and its staff of more than 1,300 now handle more than 40,000 t of stainless steel of various grades every year.

A versatile Product Range

The production of high-quality longitudinally welded pipes made from stainless

steel – in both standard and special sizes – has long been the focal point of our business since the development of stainless steels. Few companies in Europe can point to such longstanding experience and variety as BUTTING in the production of stainless steel pipes in sizes ranging from NB 15 to NB 1,800. Alongside the production of longitudinally welded pipes, BUTTING manufactures and supplies a wide range of pipe fittings. Our customers

Longitudinally welded Pipes



Prefabrication



Vessel Construction



Pipework Fittings



can cover all their pipework and fittings needs with us – from one source. The combination of pipes and fittings of proven BUTTING quality into special ready-to-install piping components within our extensive prefabrication capacities also guarantees you optimum cost-effectiveness and reliability. Since BUTTING was founded, the construction and assembly of vessels has been an established part of our wide range of services.

All-Round Service for the Customer

For many decades, BUTTING has been a reliable partner for projects from the plant construction industry. BUTTING Anlagenbau, situated in Schwedt/Oder, offers customers a combination of vessel and pipe construction, CAD planning and cost-effective prefabrication right through to completing the assembly work.

We will tailor a package to suit your individual needs, and supply you with everything round the pipe – “Everything from one source”!



Assemblies



Industrial Service



Surface Technology



Close to Customers Worldwide

The history of BUTTING is one of continuous healthy growth with its roots in a far-sighted entrepreneurial spirit. It was this thinking that prompted Dr Hannshermann Butting to establish an affiliated company in Schwedt on the Oder following German reunification in 1991. Today, BUTTING Anlagenbau in Schwedt is our expert unit for vessel and pipework construction and for international assemblies.

BUTTING has been present in China since 2004, where we have a production facility in Jiading on the outskirts of Shanghai, producing pipes and customised pieces for the Chinese market. Our pipe store for urgent needs from our Chinese customers is also set up there.

Our aim is to inspire our customers, and for some services and/or products this requires geographical proximity to them. For the same reason, we decided in 2005 to establish a branch in Canada, and BUTTING Canada in Calgary will provide our Canadian customers with our many years of experience in processing stainless steels more quickly and directly.



A team with visions: (from left to right) Managing Directors Markus Bartsch, Hermann Butting, Dr Iris Rommerskirchen, Thomas Schüller, Dr Jens Peter Lux

Our core Competences

Over the last few years, BUTTING has invested in the latest manufacturing techniques, environmental protection and quality assurance systems, to expand its core competences in the fields of materials, forming and welding technology. We consider all the material properties of stainless steels throughout the value creation process. Our know-how and capabilities in surface engineering guarantee you BUTTING products with maximum corrosion resistance.

At BUTTING, the use of compatible weld procedures for the materials in question guarantees you problem-free product deployment, based on over 50 years of experience in the welding of stainless steels. The daily work of our welding engineers is to use and optimise familiar weld procedures and tackle new challenges.

Worldwide Yardstick for Quality

Since BUTTING was founded, reliable quality management has been a prominent pillar of our corporate philosophy. All over the world, the name BUTTING stands for high-quality stainless steel pipes, vessels and piping components. The high quality and reliability of our products are shown by the variety of applications in which they are used in all branches of industry, such as chemical plants, the paper and pulp industry, energy and environmental engineering and shipbuilding engineering.

The constant development of new products and processes and the continuous improvement of the status quo have a long tradition at BUTTING. Combining craftsmanship and engineering knowledge, we have been facing the challenges of tomorrow together with our customers for over 230 years, according to the motto "Nothing is impossible".

Assembly: a traditional focus of our business activity – here: Witzenhausen paper mill in 1959





Prefabrication and assembly of pipelines and vessels by BUTTING Anlagenbau

BUTTING Anlagenbau

In 1991 BUTTING Anlagenbau was founded in Schwedt. In its early years, the affiliated company was mainly active as a stainless steel pipe servicing company, providing maintenance for the local paper industry, and had only 5 employees.

However, the rented workshop premises quickly became too small. So in 1992 BUTTING purchased some industrial land with workshop premises in Schwedt, and a new production building was constructed there in 1995. In the meantime, the company had developed into a specialist in vessel construction for a wide variety of sectors. A vessel hall, high enough to accommodate large vessels became necessary, and was taken into service in 2000.

Active Worldwide

Today, BUTTING Anlagenbau has about 600 employees and achieves an annual turnover of EUR 70 million. This positive development is based not least on the fact that it no longer restricts itself to the German market, but is also active abroad. The company by now achieves more than two-thirds of its turnover outside Germany.

In the course of the positive development of orders, BUTTING Anlagenbau has further expanded its capacity: At three sites in Schwedt and the surrounding area, more than 15,500 m² of factory hall space is available for the construction of vessels having a height of up to 17 m for unit weights of up to 50 t. In halls 3,000 m² in size, shaped parts are manufactured using isometric drawings.

Around 2,000 t of material of various types of stainless steel and wall thickness are stored on 80,000 m² of outdoor space.

Advantages for Customers

One cornerstone of our successful commitment is the all-round service: through the combination of vessel and pipeline construction, of CAD planning and cost-saving prefabrication right through to completing the installation work, BUTTING takes on all the responsibility.

The motto "Everything from one source" brings our customers advantages in communication and project completion, quality assurance and profitability.



Markus Bartsch,
Managing Director
BUTTING Anlagenbau
Phone: +49 3332 2097-10, Email:
markus.bartsch@butting-schwedt.de



Frank Schulze,
Managing Director
BUTTING Behälterbau
Phone: +49 3332 2097-64, Email:
frank.schulze@butting-schwedt.de



Marko Busse,
Managing Director
BUTTING Montage
Phone: +49 3332 2097-30, Email:
marko.busse@butting-schwedt.de

Pipe Manufacturing

BUTTING produces high-quality longitudinally welded pipes for use all over the world. Since stainless steels were first developed, we have been working a wide variety of material grades into pipes and piping components. Our experience and variety in the production of stainless steel pipes is unique across Europe. Our know-how in forming, welding and materials technology and our quality assurance are in evidence every day as we satisfy requirements from diverse industrial sectors.

BUTTING basically has two different production processes available for manufacturing pipes:

- continuous production from coil
- pipe production from plates

Forming metal plates



View of a fittings store



Cost-effective Production

The continuous, fully-automated production process is the most technically sophisticated and economical process for manufacturing longitudinally welded pipes and profiles. In the process, cold forming, welding, heat treatment, calibration and non-destructive testing take place online, i.e. in a carefully arranged work sequence.

Individual Manufacturing

When a small order for longitudinally welded stainless steel pipes is required (often in special dimensions or materials), with a diameter of more than NB 600 or wall thicknesses greater than 12 mm, then BUTTING produces them from steel plates in 6 m or 12 m lengths. Pipes with a maximum outside diameter of 3,000 mm can be produced in this way. The maximum ratio of wall thickness to outside diameter is around 1.20:10.

Fittings from one Source

Along with longitudinally welded pipes, BUTTING also produces and supplies the necessary pipe fittings from all the stainless steel materials that we handle. For this, the company keeps a wide range of selected fittings in stock. In addition, fittings related to projects in special sizes and from special materials are produced in-house for a wide variety of uses, or manufactured by qualified suppliers.

Forming to make an open seam pipe as part of continuous production



A well-equipped store of pipes and fittings is available to customers for urgent needs

Works Prefabrication of Pipes

The prefabrication of pipes and vessels is a form of assembly moved forward into the production plant. The lesser welds to be made and pickled on site, the better the quality of the weld and surface what also means a reduction of maintenance and repair costs. The clear advantages of extensive prefabrication at BUTTING cannot be denied:

- Security over materials, since any missing parts are discovered in good time and in addition the "wastage" on the construction site is reduced
- Improved production quality and less extensive testing due to the use of a wide range of modern workshop facilities at BUTTING (verifiable reproducibility)
- Less space required on site
- Less staff required on site
- Shorter installation time on site
- Full-body pickling of all ready-to-install piping components and vessels at the BUTTING workshops – the most reliable and environmentally-friendly method for sustainable corrosion resistance
- Certification by classification companies at BUTTING and thus consignment of parts ready for installation to the production site
- Increase in planning security for the assembly schedule through high-quality factory prefabrication that is completed on time



BUTTING full-body pickling – an economical and environmentally sound treatment for surfaces

It all depends on the Surface

After their fabrication, high-alloy special steels must have the same corrosion resistance – especially when used as welded joints – as the base metal. It is therefore very important to provide a bright metallic surface, i.e. it must be completely free from tinting, scale and ferrite contamination.

BUTTING has a number of ways of producing a corrosion resisting surface of the components. Chemical full-body pickling remains the most reliable method of eliminating ferrite contamination and tinting, as well as grease left over from production.



A high degree of prefabrication reduces the need for construction site staff

The fewer the welds on site, the higher the quality of welds and surfaces



BUTTING on principle subjects all stainless steel pipes, piping components and pipeline elements to this kind of full-body pickling. This ensures that the part is clean and that the necessary corrosion resisting passive layer is formed even in otherwise inaccessible places.

On our sites, pipes, shaped parts and vessels can be treated as required, including by spray pickling and brushing. Other options which you can select include glass bead blasting and ball blasting with multiple use blasting agents.



Pulper construction in a manufacturing hall of BUTTING Behälterbau (vessel construction)

Vessel Manufacturing Automated Welding

The welding technology is a decisive quality factor throughout vessel construction. Our modern production facilities as well as our technically educated and skilled employees guarantee quality and regularity of the welds. We are regularly testing and implementing latest technologies and new findings in the forming and welding process. The vessel production line in Schwedt is therefore equipped and working successfully with state-of-the-art automatic welders for PAW, TIG, MIG and MAG processes. In our biggest workshop of BUTTING Anlagenbau, vessels having a height of 17 metres and a diameter of up to 6,000 mm can be manufactured in one piece.

For the construction of vessels, we are holding pulley blocks on rails available. Vessels of a weight up to 25 t can be handled upright on our horizontal turning gear. The welding process – whether longitudinal or circumferential – can optionally be controlled by video cameras.

A laser weld tracking system ensures exact positioning of the beam on the weld groove and thus guarantees a higher production reliability and quality. Advanced monitoring technology of the welding equipment and an automation of approximately 2/3 of the operations enable reproducible production procedures as well as a high product quality and productivity. Forward-looking technologies allow us



Laser-controlled welding

to process varying material grades on different production lines and by means of computerized welding equipment using the Plasma welding process (PAW). Pipes and vessels with a length of up to 3,000 mm and a diameter of 450 up to 4,700 mm can be welded on our special clamping bench.

Vertical installation of thin-walled towers



Your Quality Requirements set the Benchmark

For decades the BUTTING vessels have proved their worth meeting the varied requirements of numerous branches. To date BUTTING has participated in the realization of more than 600 projects worldwide. In particular many important European paper and pulp industry projects have been provided with vessels from the eastern German Uckermark region.

Assembly is a Matter of Trust

BUTTING is aware of the fact that the assembly of high-quality products is a responsible task. The quality of any plant is highly dependent on the professional handling of pipe parts and vessels made from carbon steel and stainless steel and their further fabrication and installation.

BUTTING predominantly undertakes the assembly of piping components only from their own prefabrication shops. The advantages of this have already been mentioned (see page 7). During segmentation of piping components to being prefabricated, flange connections should already be taken into consideration for the final installation. This is of utmost importance in the case of aggressive media. Even in the case of automatic welding processes, tinting of the circumferential welds would occur if inert gas could not be used or were not desired during installation.

Longstanding Experience

BUTTING has been engaged in the assembly of piping systems and vessels ever since the company was founded in 1777. Copper was the material used at that time. The first pipe systems and vessels in stainless steel were installed at the German paper mill of Oberau in

Works prefabrication accelerates assembly



The BUTTING trade mark: our highly qualified, experienced staff



Installation of pipes up to 60 metres above the ground

1950. Over all these years our first-rate team of experienced, highly skilled and on their own authority working pipe fitters have become our trademark. The excellent reputation we have at domestic and foreign sites is owed to them and the product quality we provide.

Many Fields of Application

In a number of major projects for various sectors at home and abroad, such as gas tanker projects for the German shipbuilding industry, in piggyback pipe systems for constructing chemical and waste water treatment plants, we were responsible for the entire pipe-work.

Assembly of individual vessel segments in Plattling



More than 350 vessels with a total tonnage of around 4,000 t were shipped by mid-2007 to Fray Bentos in Uruguay, as part of the largest assembly order in our company history. The materials supplied were for the most part fitted by BUTTING staff on the construction site. During peak periods, BUTTING employed 350 staff from Europe on the construction site. More than 530,000 construction site hours were performed on the project on the spot, under the responsibility of the site supervisor and an experienced team of site managers and head fitters from all the BUTTING locations over a period of 15 months.

Industrial Service: Maintenance & Process Optimisation

After the "birth" of a plant, i. e. its assembly and commissioning, the real test begins. In daily use it must guarantee efficient production, through the highest possible degree of plant availability along with maximum operational safety. In order to fulfil these requirements, it is necessary to adapt the plant constantly to current requirements, to forestall any system failure and minimise standstill periods during maintenance. This can increase the lifetime of a plant considerably and ensure its optimum use, and at the same time improve operational safety.

BUTTING is therefore not only your reliable partner, when it comes to manufacturing vessels, pipelines and ready-to-install components, and to their assembly on the construction site. At the same time we offer our customers, as a service, to maintain not only the parts of the plant we have installed ourselves, but also those installed by other companies. As part of our high-quality maintenance and inspection process, we ensure that your plant and system components are constantly improved.

Modern production plants develop enormously from year to year in their structure and technology and it is becoming increasingly difficult to understand the condition of individual components or modules. Well-founded specialist knowledge of the systems installed and a

We keep your plant well maintained, both inside and out



considerable amount of experience are therefore indispensable in machine maintenance. At BUTTING we have suitably qualified and experienced staff with long years of maintenance experience.

Maintenance Workshop on the Spot

Thus a long business relationship, rich in tradition, links us to Varel GmbH & Co. KG. As early as 1966, BUTTING gained its first order to supply and install pipelines for cardboard factory 3. Since then other machines and a variety of major reconstruction work and extensions of the existing plant have followed. For the ongoing maintenance of the existing machines, our experienced systems mechanics have been, and still are, on the spot for what is now over forty years.

We did our first job for Nordland Papier in Dörpen in 1971 and supplied the PM 2 paper machine with pipelines. This laid the foundations for a longstanding and successful partnership. In small work-



The professional maintenance of a plant is crucially important for its lifetime

shops on the spot, staff were available to cater for the needs of the moment. They maintain all the pipelines and vessels for the paper and coating machines, and make a major contribution to keeping the machines state-of-the-art through sensible expansions and innovations.

Even after your successful commissioning, we offer you our services in the form of industry service



Short Assignments

For what is up to now the largest project of BUTTING Anlagenbau, the Metsä-Botnia pulp plant in Uruguay, we also offered our industry service successfully. From October 2007 till March 2008, up to 25 BUTTING fitters were employed at the plant. During this time, the processes were optimised, minor changes were undertaken and additional pipelines were installed. In this way, our experienced staff were able to guarantee the smooth commissioning of the plant. They were also able to sort out initial troubles, even with the assembly sections installed by companies which were no longer on the site.

Tried and tested for Decades in many Sectors

Innumerable projects have been implemented worldwide with BUTTING participation up to the present day. However, our field of activity is no longer limited to Germany and Europe. Throughout the world, construction sites are to be found where the flag of BUTTING waves proudly. The know-how, reliability and flexibility of our fitters have become our trademark.

Paper Industry

In 2007 BUTTING received what is to date the biggest order for a large vessel from a paper and pulp company in Plattling, Bavaria. A total of 18 vessels for the outside of the plant from about 1,000 t of stainless steel, some of them made from clad material, were prefabricated, supplied and assembled. The two largest vessels, each 35 m high, can contain a volume of 4,000 m³. In this project too, our tried and tested principle "Vessels, pipes and assembly – everything from one source" was applied to release our customer. Furthermore we received the order to install pipework consisting of more than 300 t of pipes in sizes from NB 18 up to NB 1,000 for the pipe bridges, pulp preparation, parts of the paper machine and various items of secondary equipment. 250 BUTTING employees were employed in Plattling during this period.

Inspection of shaped parts ready for shipment to the Metsä-Botnia pulp plant in Uruguay



We also were commissioned to provide the pipework for the TMP plant of our customer, Holmen Paper, in Braviken, Sweden. The paper mill is about 10 km north of Norrköping, and it is one of the most modern and efficient plants in the world for manufacturing paper for newspapers and telephone books. For this project we supplied and installed more than 10,000 m of pipes in sizes from NB 14 to NB 700.

Pulp Industry

On the Uruguay river, which forms the border with Argentina, the largest pulp plant in South America was built in Uruguay within two years. Metsä-Botnia commissioned BUTTING not only to supply stainless steel and carbon steel pipes and others made from special alloys but also vessels with a total weight of more than 3,500 t; we were also asked to deal with assembly on the spot. After a number

of construction sites in other European countries, this plant in Uruguay, planned to have an annual capacity of one million tonnes of cellulose, was our first major project overseas. In addition to the manufacture and prefabrication of the various products to a high level of quality, a precise schedule for production, dispatch and assembly had to be adhered to, so as to be able to carry out the customer's requirements.

53 interior vessels were built, supplied and installed by the company. 100,000 m of pipe spools prefabricated in Germany were laid on the site in due time and welded there under the supervision of our site manager.

More than 390 vessels with 4,550 piping components, 1,500 t of stainless steel pipe material, 500 t of carbon steel pipe material and 650 t of fixing material had to be shipped in around 6 weeks from Hamburg to Montevideo, Uruguay.



Vessels for the paper mill in Plattling

Reconstruction in the Pulp Plant at Stendal

In the course of comprehensive reconstruction and process optimisation measures at the pulp plant in Stendal, BUTTING Anlagenbau was able to demonstrate its speed and flexibility. With the combined strength of 120 BUTTING fitters, an evaporator was completely replaced in a mere 10 days, while the plant was out of service. As well as fitting this giant, made from material 1.4362 with a diameter of 6,000 mm and a height of 12 m, we also repaired two other evaporators. In addition, we fitted a 32 m high accumulator with a diameter of 6,000 mm and an overall weight of 152 t, made from the same material, including the complete pipework, all secondary and primary steel construction, the scaffolding and insulation. The linepipe sections were initially prefabricated, before they were supplied to the construction site at Stendal and installed there. In addition to the activities mentioned, we also performed further



True to the motto "Everything from one source", BUTTING installed pipelines and vessels for the Metsä-Botnia pulp plant in Uruguay

More than 390 vessels were packed for dispatch to Uruguay



assembly work amounting to around 5,000 hours as part of additional expansion schemes in the existing area of the plant. Thanks to detailed planning and prefabrication even before the optimisation work began, we were able to complete the reconstruction on time, and to the full satisfaction of our customer.

Power Stations

Boiler houses in the pulp industry in Europe and overseas, as well as black pipe grades like 16Mo3 and 13CrMo4 are part

of the range of products which we supply and fit. Metso-Power gave us the order to assemble the pipework for the boiler house in Celbi in Portugal.

In the power station in Walsum, we clad the coal bunkers above the coal pulverisers with stainless steel for the Hitachi company. Power stations for the Lynn paper mill, the Botnia pulp plant in Uruguay and Ence in Spain as well as the Niederaußem power station are fitted with our vessels or pipelines.

Prefabricated flotation cell for the paper and cardboard factory in Varel



Oil & Gas

In a project for the oil & gas industry for our customer, RWE Dea, 80,000 litre surplus water precipitator manufactured from duplex steel were produced and supplied, to be used on the North Sea oil-rig "Mittelplate".

Chemical Industry

In the field of the chemical industry, the plant manufacturers GEA, Lurgi, Linde and Ferrostaal are among our most loyal customers, with a variety of projects. But we are also happy to carry out new building and reconstruction work direct for the plant operator. Thus we supplied and installed storage tanks with false bottoms, and also the process pipes in acid-resistant quality for a major manufacturer of zinc and sulphuric acid in the Ruhr.

Directly on the Rhine, in the Kalle-Albert industrial estate in Wiesbaden, we constructed a 3,000m³ vessel for the storage of caustic soda. Because of the high risk level, the entire vessel was constructed with double walls at the bottom and on the sides, and equipped with leak monitoring devices. On-time completion with the required quality turned our client, InfraServ, into a new and satisfied customer.

Biofuels

For the booming alternative energy market, which has a bright future, BUTTING installs plants to manufacture bioethanol and biodiesel with vessels and columns and fits their pipework. The

Reactors and columns for a biodiesel plant



Manufacturing a surplus water precipitator for RWE Dea



Double-walled vessel for Infraserv GmbH/Wiesbaden

generally high degree of prefabrication enables the cost of assembly on site to be kept as low as possible.

Thus the Schwedt-based company NUW (Nordbrandenburger Umesterungswerke GmbH & Co. KG) commissioned BUTTING Anlagenbau with the prefabrication, supply and assembly of 16 vessels and columns for the expansion of bio-ester production at an existing biodiesel plant. Sugar-beet is regarded as an effective raw material for the production of bioethanol. This argument proved decisive for the Danisco company in Anklam, in constructing a bioethanol plant on the site of the town's existing sugar factory; it is designed to produce 55,000 m³ of ethanol every year. BUTTING was entrusted with the prefabrication, supply and assembly of 10 vessels and with the pipework. The largest vessel has a volume of 43 m³. More than 12,000 m of pipes with the dimensions from 21.3 x 2.0 mm up to 914 x 10.0 mm were prefabricated in Brandenburg and installed on site. In August 2008, the plant on the site of the Anklam sugar factory went into production. The capacity of the initial expansion stage amounts to 450,000 t of beet with an annual production of 55,000 m³ of ethanol.



Vessels for a biodiesel plant, ready for dispatch

In the Norwegian port of Fredrikstad a new biodiesel production plant was built in 2008. Biodiesel, made from plant oils, waste edible oils and animal fats, fulfils the EU standard EN 14214 and is considered to be one of the most promising alternative fuels. BUTTING Anlagenbau received the order for the pipework of the biodiesel plant, including the assembly of the equipment and fitting of the pipes for the storage tanks and the pipe bridge. 30 BUTTING fitters were employed on the site at peak times and they installed pipelines with diameters from NB 8 – 600 and wall thicknesses from 2–5 mm. The pipes used were mainly made from the V2A and V4A materials, as well as 1.4539 and St 35.8.

Food Industry

One of the most renowned manufacturers of meat processing machines buys his high-quality, ground vessels exclusively from BUTTING. The rotating drums with cooling and insulating jackets provide the required high true running accuracy without subsequent expensive mechanical processing. The exact processing with subsequent grinding of all the welds seams guarantees the necessary food hygiene and a high visual effect.



Digital x-ray equipment: symbol of quality assurance at the highest stage

Approved worldwide

The Quality Management System of BUTTING is approved by Germanischer Lloyd according to DIN EN ISO 9001. BUTTING also hold approvals from classification companies and third party inspectorates, like Bureau Veritas and BDLI and renowned companies.

Various Testing Installations

A great number of testing installations is available at BUTTING. As regards **non-destructive testing**, there are among others:

- Radiography
- Eddy-current testing
- Radioscopy
- Ultrasonic testing
- Endoscope
- Surface roughness measurements
- X-ray flash device

The following **destructive tests** are performed in the internal laboratory accredited according to DIN EN ISO/IEC 17025:2000:

- Corrosion tests
- Hardness tests
- Ferrite determination
- Tensile tests with microstrain measurements
- Technological testings
- Metallographic examinations
- Spectroscopic analyses

Quality Assurance during Transport

The stainless steel pipes and components are packed in customized pallets/ wooden cases/ crates to avoid any direct contact with the transport and handling equipment. Logistic processes are rendered more efficiently by the various packing



Tensile test with microstrain measurement

methods we use. The loading and off-loading times are reduced, less safety measures are needed, trans-shipments are easier in case of collect freight and storage of unit loads, without additional equipment.

Shipment of vessels at the port of Schwedt for a biodiesel plant in Ireland



Correct packaging of prefabricated piping components





Longitudinally welded pipes

Produced continuously from coil in sizes of 15 mm – 762 mm OD and wall thicknesses up to 16 mm

From plate: in sizes of 33.7 mm – 3,000 mm OD and wall thicknesses up to 70 mm

Pipes in special shapes

In random lengths up to 24m with circumferential welds



Clad pipes

Mechanically bonded BuBi[®]-pipes in sizes of 114.3 mm – 660 mm OD

Metallurgically clad pipes

In random lengths up to 24m with circumferential welds



Vessel construction

Up to 6,000 mm OD: complete prefabrication at the mill

Above 6,000 mm OD: prefabrication at the mill and assembly on site



Pre-fabrication

Piping components ready for assembly

Pipe bends acc. to drawings, piping segments, isometric drawings



Fittings

Tees, reducers, special fittings

Pipe bends acc. to DIN 2605

Collars acc. to DIN 2642

Elbows with long radii



Piping technology

Pipes with special tolerances, e.g. furnace rollers, jackets for pumps

Pipes with special surface requirements, e.g. for the pharmaceutical industry, architecture

Further processing of pipes using forming, grinding, laser cutting, e.g. jackets for pumps, valves and lamps

Special products, e.g. BUTTING HeRo[®] (an uncooled furnace roller)



Assemblies

Vessels

Linepipes

Special constructions, equipment



Surface treatment

Pickling (also on subcontract basis)

Blasting, peening (also on subcontract basis)

Grinding (also on subcontract basis)



Services

Expert technical and metallurgical guidance

CAD-facilities, isometric drawings

Metallurgical testing and non-destructive testing

Material selection

- Steels containing 10.5 % Cr min, e.g.
 - Stainless steels
 - Heat resisting steels
 - Creep resisting steels
- Nickel alloys
- Titanium
- Aluminium and aluminium alloys
- Special alloys
- Clad materials

Approvals

- By TÜV acc. to AD-WO/HPO and TRD 100/201 and DIN EN 729-2
- DGRL (pressure equipment directive)
- Acc. to the Water Resources Act (WHG) § 19 I
- Quality Management System acc. to DIN EN ISO 9001:2000
- Accreditation of the laboratory acc. to DIN EN ISO/IEC 17025:2000
- Statement of Assessment ASD-EASE acc. to EN 9100 (without design)
- Environmental Management System acc. to DIN EN ISO 14001
- Work Safety Management acc. to OHSAS 18001

Photographs:

Cover:
C. Stimpel
Aerial view:
Thomas Keller,
Agentur Luftbild
Inside:
Heike Butting,
BUTTING Schwedt
company archives,
Rutzen & Scherer,
V. Konow, S. Wilke,
C. Schulze, S. Salzbrunn
R. Päger, T. Funke
O. Müller, Falk Weigelt

Edition 2009



Aerial view BUTTING Knesebeck



H. BUTTING GmbH & Co. KG
Gifhorner Straße 59
29379 Knesebeck
Germany

Phone: +49 583450-0
Fax: +49 583450-320
Email: info@butting.de

Internet: www.butting.de



BUTTING Anlagenbau
GmbH & Co. KG
Kuhheide 13
16303 Schwedt/Oder
Germany

Phone: +49 3332 2097-0
Fax: +49 3332 2097-18
Email: info@butting-schwedt.de



BUTTING Canada Ltd.
239 Crawford Place
Cochrane, Alberta
T4C 2G8
Canada

Phone: +1 403932 5844
Fax: +1 403932 4237
Email: canada@butting.de



MPE S. A.
Avenue de Tyras 51
1120 Brussels
Belgium

Phone: +32 2262 1010
Fax: +32 2262 0241
Email: info@mpe.be



BUTTING (Shanghai) Co., Ltd.
Jingxue Rd. 199/2
Malu Jiading
201801 Shanghai
China

Phone: +86 21 69157598
Fax: +86 21 69157599
Email: info@butting.com.cn



BUTTING Hong Kong
Representative Office
1/F, Airport World Trade Centre
1 Sky Plaza Road, HK International Airport
Hong Kong

Phone: +852 3756 3651
Fax: +852 3756 3599
Email: hongkong@butting.de