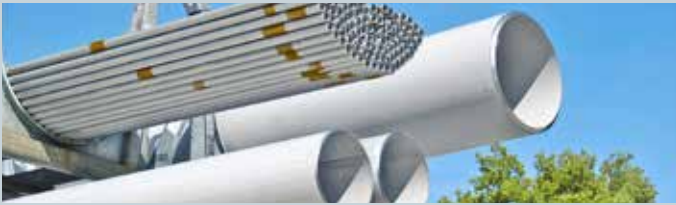


Progress by Tradition



**BUTTING**

## Performance profile: Diverse expertise



### Stainless steel welded pipes

We produce longitudinally welded pipes in dimensions ranging from 15 to 2 032 mm (80") and with wall thicknesses of up to 70 mm as well as special pipes with restricted shape and position tolerances and with special surfaces.



### Clad pipes

As the global market leader for clad pipes, we manufacture mechanically clad BuBi® pipes (4" to 26"), bonded mechanically clad GluBi® pipes (6" to 18") and metallurgically clad pipes (4" to 48") in Knesebeck.



### Customised components

From the pipe to your ready-to-install component – Together with you, we develop individual solutions for component parts from the prototype to series production.



### Spools and weld constructions

Take advantage of our factory prefabrication: Minimisation of the number of field welds ideally by more than 80%. We produce complex weld constructions including mechanical processing.



### Vessels, tanks and apparatus

BUTTING can manufacture vessels with heights of up to 16 m and diameters of up to 6 m in one piece, as well as larger multi-part vessels.



### Plant construction and maintenance

Our diverse portfolio includes ready-to-install spools, vessels, assembly work and supervision on your construction site.



### Vacuum-insulated piping systems

In addition to standard lines, our areas of expertise include transfer systems for trailers (helium and hydrogen), hydrogen systems for the automotive industry and refuelling systems for the aircraft and aerospace industries, as well as special components.



### Vacuum-insulated valves and components

The insertion of cryogenic fittings with bellows seals into the vacuum-insulated transfer lines requires their perfect integration into the insulation system. We implement this with our internally developed cryogenic valves of up to DN 300 (12").



Hermann Butting

## Dear customers, dear readers,

Successful companies have successful partners, both in terms of customers and of suppliers. So let us convince you that we are the right partner for you!

The name of BUTTING today stands – as it has for more than 240 years – for “Progress by Tradition”, for our customers and our staff, for this and the next generation. The courage and painstaking hard work of my ancestors helped to shape the development of metal processing and thus laid the foundations of our successful company history.

Our corporate philosophy is expressed in our mission statement. It shows the picture of how we as BUTTING see ourselves and how we want things to be in the future. The focus is on the customer, and what you require from us.

We want to be a reliable partner for you, our valued customers. Your satisfaction and your economic success are important to us and safeguard the future of the BUTTING Group.

With the innovatory power and top quality performance of all our staff, we will thus be able to hand over a healthy company to the next generation.

I would like to invite you to get to know us and convince yourself of our top performance.

A handwritten signature in blue ink that reads "H. Butting".

Hermann Butting  
BUTTING Group



#### Mission statement No. 1: Family business

We are an independent family business managed by the 7th generation of the Butting family. Our aim is to hand over a healthy company to the next generation!



"Good relationships to people – in the family, to staff, customers and suppliers", Hanns Butting (middle, at the front) in 1955

## Focus on customers

BUTTING was founded in Crossen by the Oder in 1777 as a coppersmith. In the course of the centuries the former German craftman's workshop turned into the international BUTTING Group. The family owned company has shaped the development of the processing of metals with courage, care and diligence, at the same time meeting the requirements of its customers and thus laying the foundations for a successful corporate history.

The name BUTTING stands for more than 240 years of "Progress by Tradition for our customers and our staff, for this and the next generation".

Today BUTTING is one of the world's leading producers of:

- Corrosion resistant pipes
- Clad and lined pipes
- Special pipes and components ready for installation
- Prefabricated pipelines and welding constructions
- Vessels

BUTTING is a company of history and tradition and values like respect, trust and reliability play a vital role. To this day we are committed to these values. It is this attitude enabling us to establish good relationships with customers, suppliers, cooperation partners and employees, thus boosting creativeness and working as partners. In this spirit we are contributing to the success of our customers and accept responsibility for our daily actions.

Mission statement No. 2:  
A family of employees

We are a well-trained, international family of employees and we understand ourselves as people who learn something new every day. We owe our innovative strength and ability to find solutions to many years of experience and teamwork, as well as to new ideas and unique personalities!



## Know-how, experience and passion

The interaction of craftsmanship, computer-aided technologies and advanced production processes is indispensable in the manufacture of sophisticated state-of-the-art products. The special skills of the BUTTING employees and their passion for the processing of metals, are the basis for this.

Mutual esteem, honesty, personal initiative and readiness to provide services shape our corporate culture. It enables all to be part of the BUTTING team with their talents and ideas.

Every year we offer more than 40 apprentices in Germany to become part of this community. Our understanding of cooperation and loyalty bears fruit. It is not uncommon for several generations of employees to work for BUTTING: meaningful work for generations!

## BUTTING – From a coppersmith to an international company

18th  
century



**1777** BUTTING foundation in Crossen/  
Oder as coppersmith's



**1877** Hermann Butting (1852–1925)  
representing the 4th generation



**1890** Transition from handcraft to  
industrial operation (mass production of  
soldered copper pipes)

19th  
century



**1912** Dipl.-Ing. Hanns Max Hermann Butting  
(1882–1966) representing the 5th generation



**1945** Rebuilding in Knesebeck



**1955** Dr Hannshermann Butting  
(left, 1925–2000) joins the company,  
representing the 6th generation

20th  
cent



**1979** First production of longitudinally  
welded duplex stainless steel pipes



**1987** First production of metallurgically  
clad pipes



**1988** Company qualification acc. to  
ISO 9002 by Germanischer Lloyd (GL)



**1991** Foundation of BUTTING Anlagenbau in Schwedt/Oder (Germany)



**1994** First order for BUTTING mechanically lined pipes (BuBi® pipes)

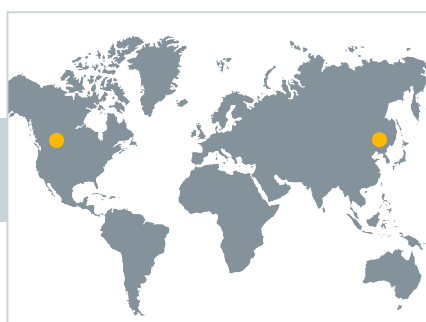


**2000** Dipl.-Kfm. and European Welding Eng. Hermann Butting from the 7th generation

20th century



**2004** Foundation of the BUTTING Akademie, Knesebeck (Germany)



**2005** Foundation of BUTTING China and BUTTING Canada



**2007** Biggest assembly order: pulp mill in Uruguay

21th century



**2011** Pre-salt Brazil: BuBi® pipes laid by reeling for the first time

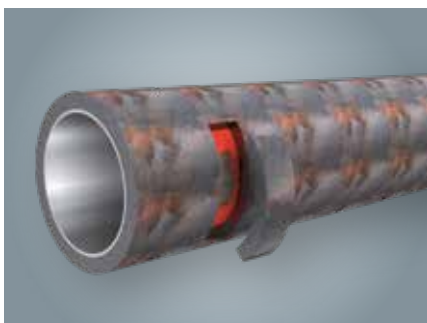


**2015** Biggest order in BUTTING history: Kashagan-Replacement, 170 km of clad pipes



**2017** The BUTTING Group produces pipes at the production site in Könnern (Germany)

21th century



**2017** The GuBi® pipe is presented to the market



**2020** SCHWANNER GmbH as a new member of the BUTTING Group



**2021** Construction and coomissioning of the second BuBi® production line in Knesebeck

21th century



BUTTING in Knesebeck



BUTTING Anlagenbau in Schwedt

## Serving where you are

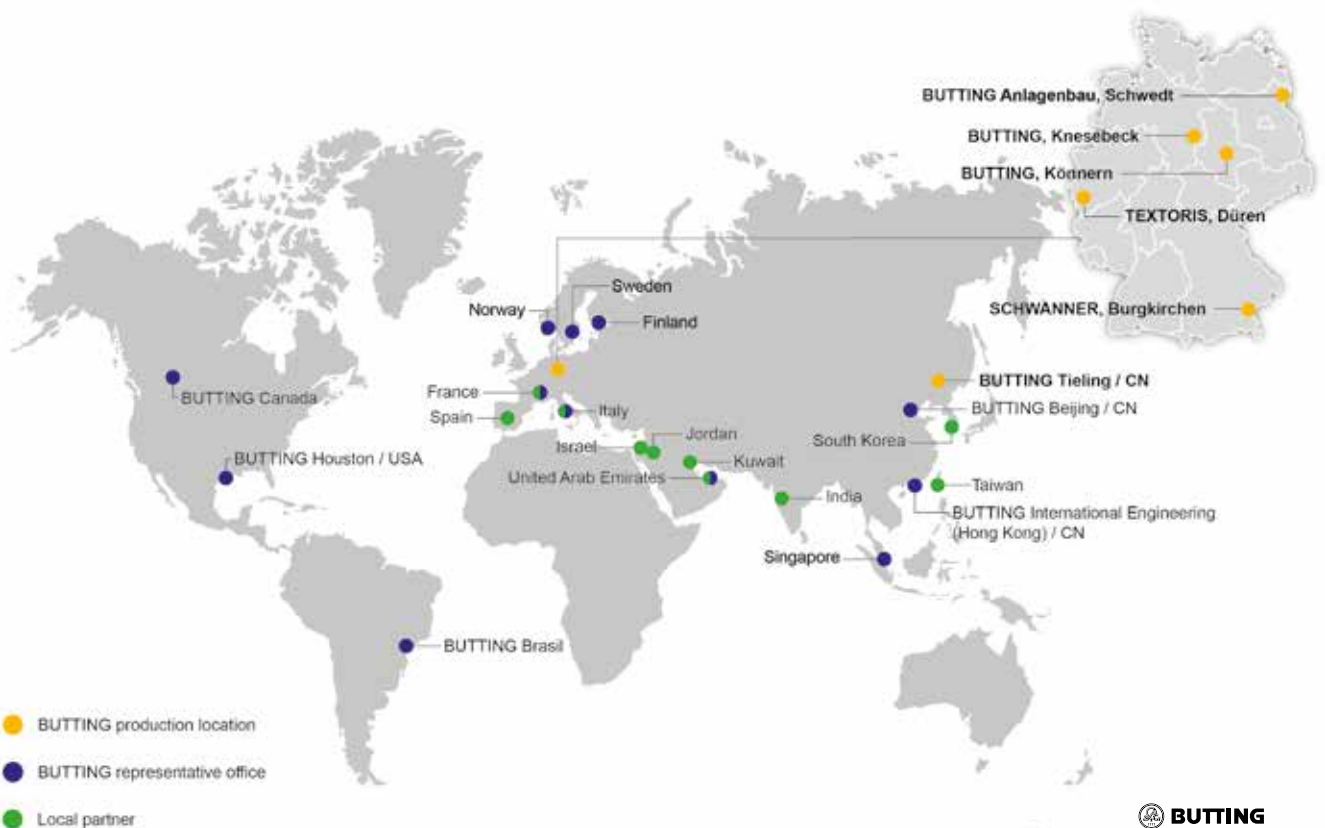
Clad pipes to replace a pipeline for the development of an oil field in Kashagan, clad pipelines for the upgrading of a refinery in South Africa, prefabricated piping spools for the world's largest PET plant in the USA, a pipe bridge for a bio product facility in Finland or vessels for the paper technology supply industry in Brazil.

BUTTING and its products are where you are and where you would like to make use of our competence and solutions. The BUTTING Group network is at your side at several production locations, sales offices and trading partners.



Mission statement No. 3:  
A powerful, global network

We create a powerful network with worldwide cooperation partners and through global market presence with BUTTING companies.





Mission Statement No. 4:  
Top performance

A top performance is our inspiration! We are strong in the sectors of

- Materials and welding technology
- Manufacturing technology and quality assurance
- Handling of major projects

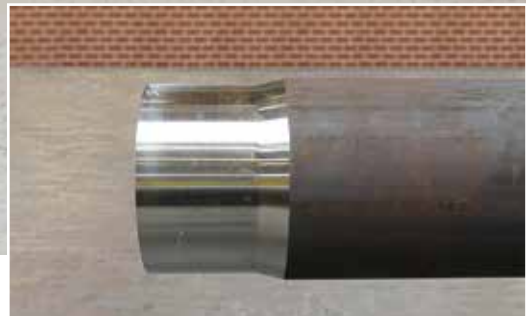
and we invest continuously in a successful future.



## Individual product solutions

Our core competences are in forming, welding and material technologies, as well as quality assurance, especially non-destructive testing. Continuous development of new products and processes together with ongoing improvement of existing methods have a long tradition at BUTTING. We are your partner when it comes to finding innovative solutions in the processing of stainless steels and clad materials.

Since more than 25 years we have been processing clad and lined materials into pipes and piping components. In the oil and gas industry these products are used as steel catenary risers (SCR) and linepipes, for example. In the middle of the 1990s we have introduced the innovative mechanically lined BuBi® pipe (BUTTING bimetal pipe). In 2017, BUTTING has developed the glued mechanically lined GluBi® pipe. This pipe can be installed using the reel-lay process without the necessity of pressurization with water or increasing the wall thickness of the corrosion resistant liner!



## Zohr project

### Zohr project, exploitation of gas field in the Mediterranean Sea

Application	Start up phase and optimized ramp up phase as well as ramp up to plateau phase for the Zohr project
Sector	Oil & gas industry
Scope of delivery	Altogether around 110 km metallurgically clad pipes and around 400 bends
Material	X65 MOS/QOS with cladding made from Alloy 625
Dimensions	The majority of the pipelines in ID 314,8 x (17,4 + 3,0) mm (14") as well as many other dimensions from ID 176,58 to ID 690,60 mm (8" - 30")
Special features	As well as the pipes, the delivery for Zohr also comprises 39 buckle arrestors. These are pipes with thick-walled rings built into the pipeline, thus preventing the pipe from buckling or failure of stability. BUTTING manufactures the buckle arrestors in one piece around 12 metres. It all starts with a thick-walled clad pipe that is processed by machining, i. e. the ends are cut down over a defined length from the outside to suit the dimensions of the pipeline and to make welding of the connecting seams easier.



With 818 m the Burj Dubai is currently the highest building in the world. BUTTING has supplied special pipes for this prestigious tower. Further to their decorative function the facade pipes have to comply with load-related requirements: over all its floors the tower is equipped with a device for maintenance and cleaning of the facade. The BUTTING pipes serve rails for this device.

## Burj Dubai



All pipes received a special surface grinding



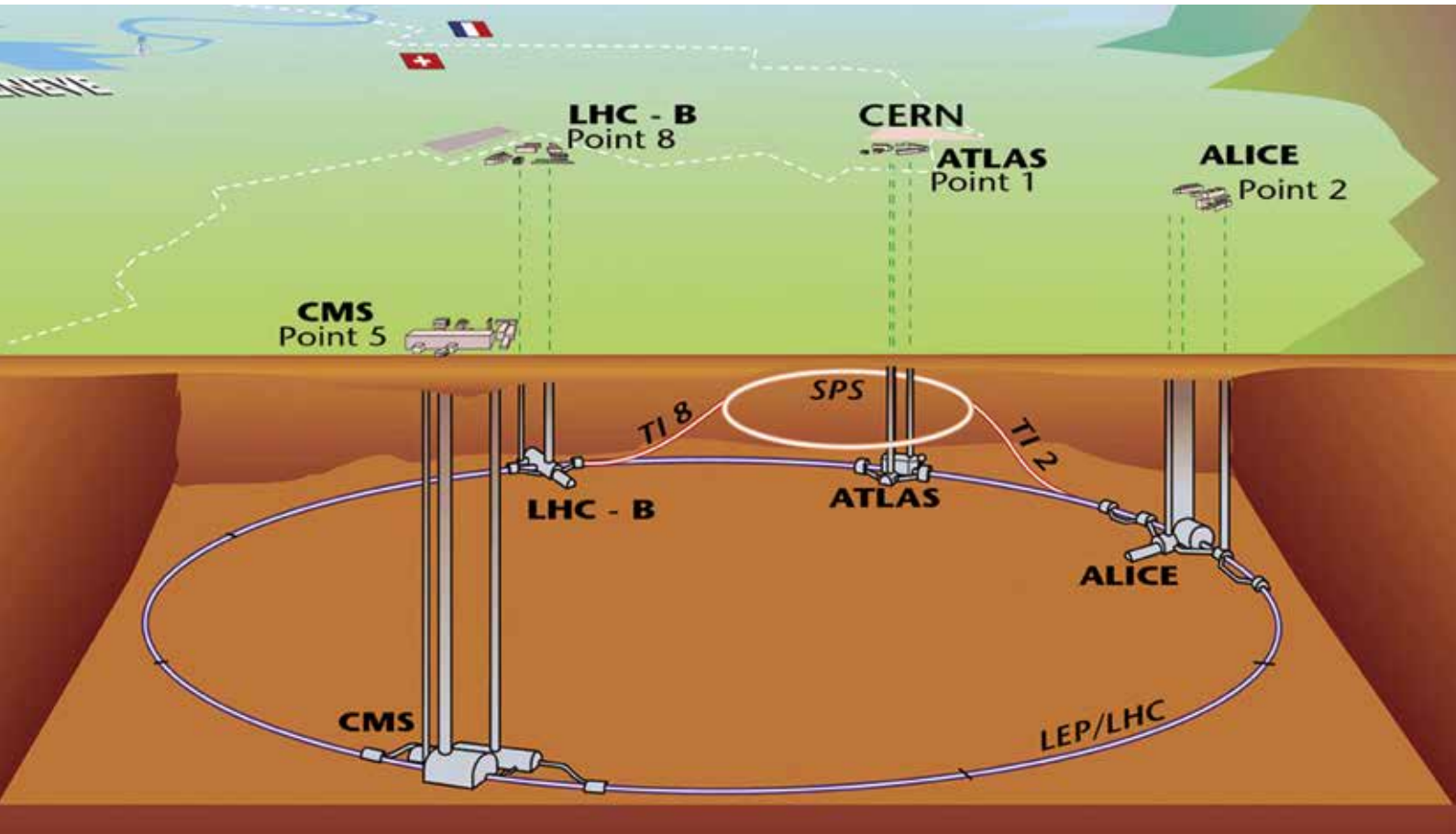
Dry storage: pipes for the Burj Dubai ready for shipment before loading

<b>Burj Dubai, high-rise building with 189 floors</b>	
Customer	Arabian Aluminium
Sector	Architecture & design
Scope of delivery	11 200 m of design & structural pipes for the external facade
Dimensions	Outer diameter 273 mm Wall thicknesses 3.0/5.0/8.0/12.5 mm Fixed lengths 5 to 12 m
Material	AISI 316L/1.4404
Special features	Elaborate surface grinding with $R_a \leq 0,5 \mu\text{m}$

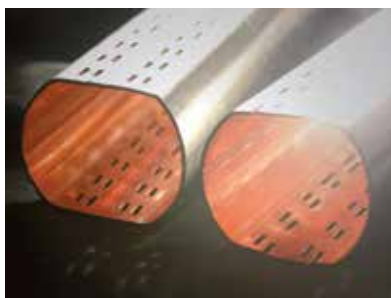


## Montes des Plata project in Uruguay

Pulp and paper mill in Punta Pereira, Uruguay	
Customer	Andritz
Sector	Pulp and paper industry
Object	Pulp and paper-making plant
Scope of delivery	60 interior vessels, 15 exterior vessels, 90 km of pipelines and spools, prefabrication, delivery and installation, 366 containers with prefabricated spools, 1 800 tons of piping material and 600 tons of brackets
Order value	EUR 40 million



## The CERN Research Institute

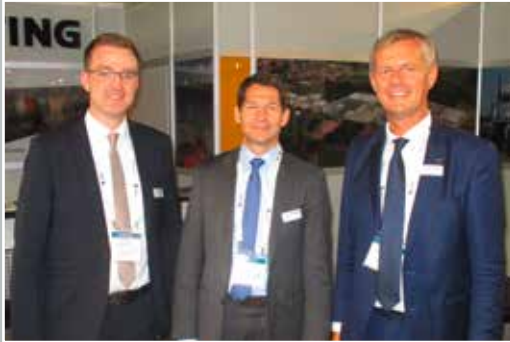


Beam screen pipe: particles will be accelerated in the perforated copper-clad stainless steel pipe



The superconductive magnet is coated by LHC half shells, encasing both beam screen pipes

The largest particle accelerator of all time	
Customer	The CERN Research Institute (Conseil Européen pour la Recherche Nucléaire)
Sector	Research and technology
Scope of delivery	Approx. 50 000 beam screen pipes 43 500 LHC half shells
Dimensions	Beam screen pipes: 48.5 x 38.9 x 1.000/0.075 mm, five additional special dimensions with wall thicknesses of 0.600/0.075 mm LHC half shells: inner diameter 550 mm Wall thickness 10.1 mm (+ 0.9/- 0 mm)
Material	Special material Böhler P506 Inner cladding of the pipes with copper (OFE-Cu) Half shells made of AISI 316 L
Special features	Processing of base material on a fully automatic production line specially modified for this project Highest purity demands Follow-up order received for spare pipes



#### Mission statement No. 5: BUTTING fans

We are well known for quality and reliability. We assume responsibility for our work – as well as for our mistakes. Our customers will be delighted with the service we render!



## Our goal: delighted customers

Every single day BUTTING meets the highest quality requirements of its customers from the oil and gas industry, the nuclear industry and aircraft and aerospace industry, to name a few. In so doing, diligence, quality awareness and reliability play a vital role. The quality assurance system at BUTTING is certified according to DIN EN ISO 9001 by DNV GL. Additionally, we have numerous further approvals at our disposal by classification companies and inspection authorities. As an internationally operating company we produce more than 80 000 tons of corrosion resistant steels and clad materials per annum

Our focus is on:

- Your needs
- Your quality requirements
- Longevity of your products
- Your long-term cost savings
- Your success
- A longterm relationship



Mission statement No. 6:  
Sense and quality of life

We support the success of our clients and with our corrosion resistant products we support sustainability and quality of life. With our economic success we assure our future as an independent family business and contribute substantially to the living standard of our employees and their families.



## Social responsibility

Wherever BUTTING affiliated companies are located, as a family owned business we support the various regions and future generations. To accept social commitment means to us giving something back to the people not only to our staff, of what was given to us. Therefore, as early as 1990, the BUTTING employees established the BUTTING foundation. It supports people and institutions

in difficult times. Furthermore, the BUTTING Academy supports the local services of child and youth work, students solarships and training for BUTTING staff and people in our region.

Mission statement No. 7:  
A valuable Cooperation

We represent the values of our  
'House of Cooperation':

- Mutual esteem
- Commitment to perform
- Honesty
- Openness
- Reliability
- Courage

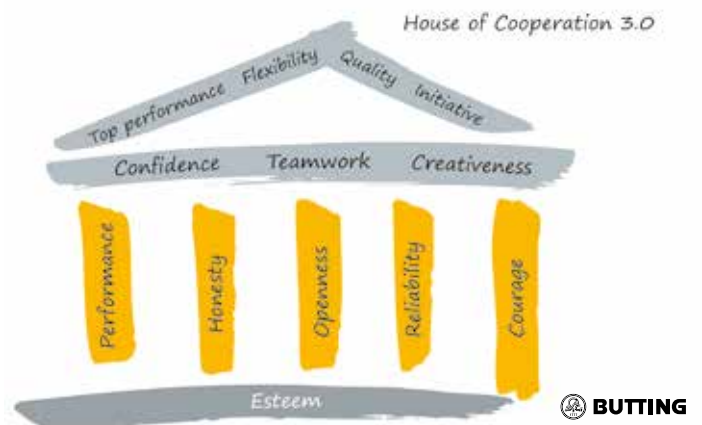
In order to make our cooperation  
successful and joyful!



## Lively values

In our understanding, good partnership is based on esteem, reliability and honest communication as well as knowledge and problem solving skills. This is always the starting point for our sustainable partnership with customers, suppliers and staff.

Collaborating as partners is the basis of our joint success. For us, your success is our success. Impressive examples include a number of product developments and innovations with our customers, such as the double-walled pipe for refineries with Haldor Topsoe or the BUTTING HeRo®, a heat resisting furnace roller, are respectable results of this approach.





**Mission statement No. 8:**  
Healthy, safe and environmentally friendly

In organizing the workplaces of our employees we take care of health and safety of our employees and visitors on-site. The safety at work has first priority in our daily work. We save resources, protect the environment and act in accordance with man and nature.



## We make BUTTING safe

As a globally active processor of corrosion resistant steels and clad materials we are setting an example in the areas of work safety, environmental and health protection (HSE). To BUTTING this means the prevention of risks to man and environment, to continually reduce the use of resources and energy and to minimise emissions and waste.

In this context BUTTING has implemented the environmental management system according to ISO 14001. The family-owned company has a well-established work safety system certified according to OHSAS 18001. In 2015 we have been accredited according to ISO 50001 for successful systematic energy management, too.

We do everything we can to avoid injuries, accidents or workrelated illnesses and are constantly engaged in the reduction of hazards at our locations.

Our understanding of sustainable commitment is to protect the environment. Legal provisions and environmental guidelines are considered minimum standards by us. We think also in thus regard in generations!

**BUTTING Group**

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**www.butting.com**  
- more than pipes -