

## Solutions for nuclear technology

Corrosion resistant pipes

Special and machined pipes

Clad pipes

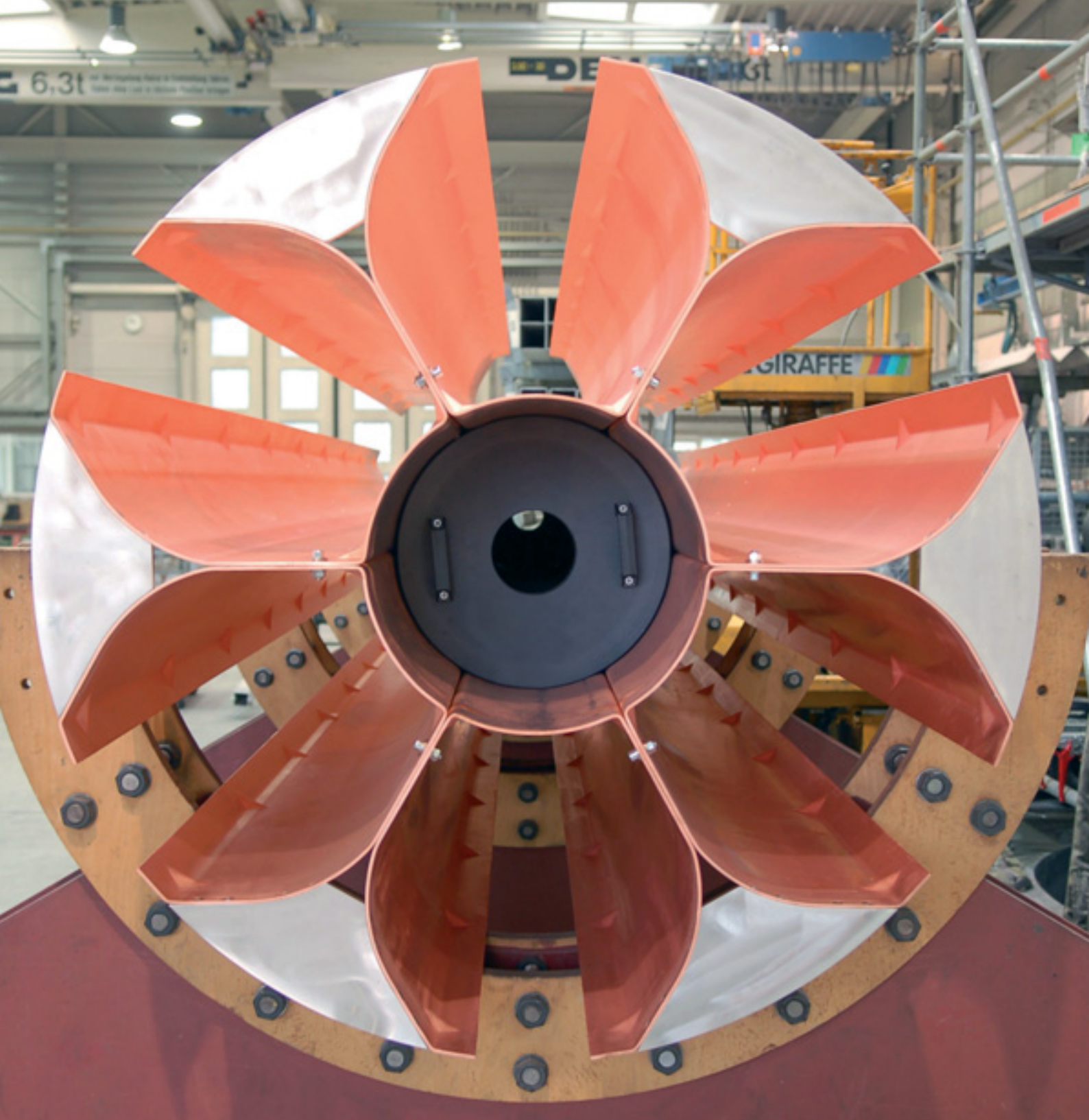
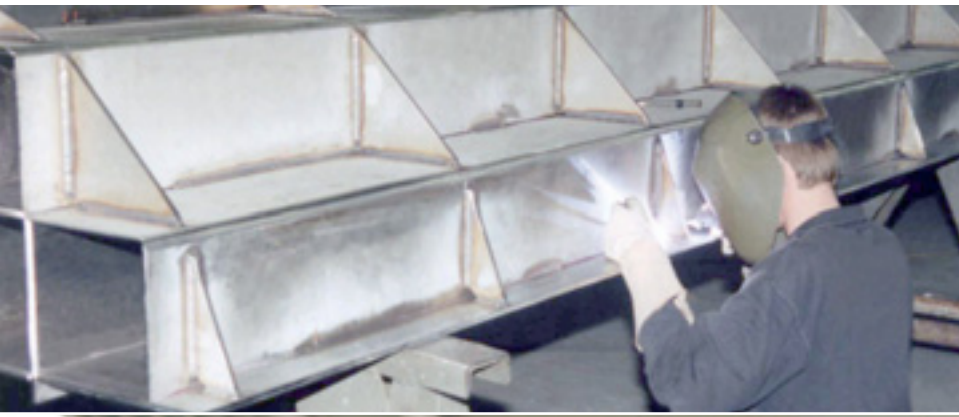
Components and pipes  
ready for installation

Vessels, tanks and columns

Fittings



**BUTTING**



Quality through skills in material grade, forming and welding technology: Container made from copper for transport and storage

## Security for more than 50 years

To manufacture complex components for the energy industry, especially for nuclear plants, requires work of the highest quality, able to be reproduced again and again. This is essential for risk-affected plant and power stations to function safely. It builds confidence among the operators and the general public.

Companies in the BUTTING Group have been producing a variety of products for nuclear plants since 1958:

- ▶ Longitudinally welded circular pipes and profile pipes
- ▶ Specially shaped parts and components
- ▶ Storage and transport racks for fuel elements
- ▶ Handling systems for the primary and secondary circuits
- ▶ Customised complete solutions

### Contact



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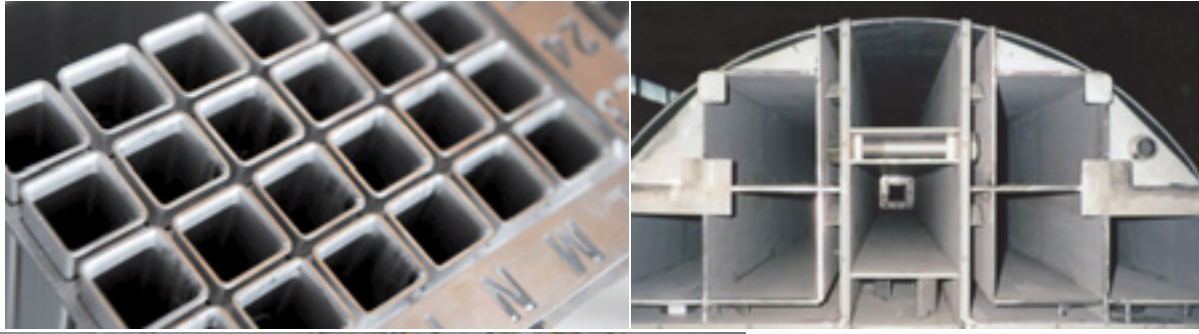


State-of-the-art welding technology: Rectangular ducts welded by laser technology for wet storage

## A quality product: Welded profile pipes

BUTTING manufactures square pipes to strict tolerance requirements for the compact wet storage of used fuel elements. We make special shaped parts for the power station sector using the most modern laser welding and milling equipment. The use of laser technology offers metallurgical benefits. In addition, this almost totally excludes distortion of the material by heat tension.

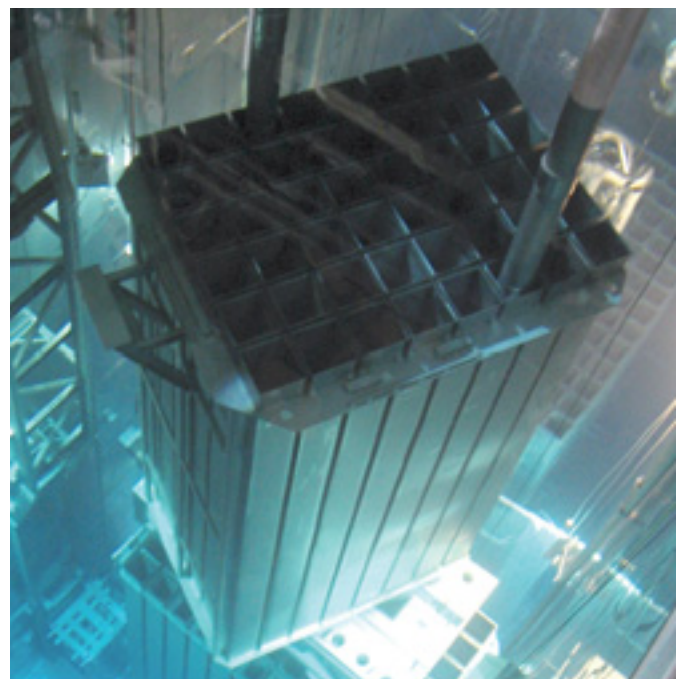
Thus BUTTING has for example produced square pipes with inner dimensions of  $222 \times 222 \text{ mm} + 0 / - 1 \text{ mm}$  and a wall thickness of 2.7 mm. The permissible deviation in measurements was a maximum of 1.5 mm for the 5-m pipe. The pipes were then fitted to frames with strict tolerances.



CASTOR® HAW type transport/storage container in use

## Components for nuclear installations

The manufacture of high-quality components and welded constructions from stainless steels and special alloys is one of the main activities of the BUTTING Group. Our customers can obtain all their requirements from a single source: Pipes and piping components in sizes ranging from ½" (21.3 mm) to 72" (1,829 mm). Thanks to our long experience in a number of sectors and the range of our products you will benefit from works pre-fabrication of piping systems. Superior product quality and considerable potential savings will convince you.



Frames for the wet storage of fuel elements



Top: German power stations opt for quality work from Knesebeck: Container for fuel elements |  
Below: Special manufacture of a base plate for a container

## First-class processing: Special containers for CASTOR®

BUTTING has specialised, among other things, in the manufacture of various dry storage and transportation containers in the energy technology field. Depending on the purpose, special containers are produced for fuel elements from different types of reactors. You can select the individual quality of material for processing from a wide range, such as boron-alloyed stainless

steels, copper or aluminium. We manufacture complete modules which then are welded together in precisely defined positions. Tightly monitored tolerances are maintained by our experienced employees. In line with customer requirements, BUTTING implements the strictest cleaning regulations. Every process is precisely documented and can be reproduced.



N. Garrel, CERN 1211 Genève 23 - Suisse, MKI plate assembling

## Design and Production: Handling Systems

As a specialist for turnkey solutions for nuclear technology, BUTTING has gained an excellent reputation in the field of precision engineering. A major market segment involves equipment for the dismantling or modernisation of old power stations. This includes a variety of mechanical components, such as:

- ▶ gantries
- ▶ shielded containers
- ▶ transport and storage vessels
- ▶ sorting systems for used nuclear material

For example, BUTTING has developed and produced several handling systems for a pressurised water reactor for Areva.



## Complete solutions for you

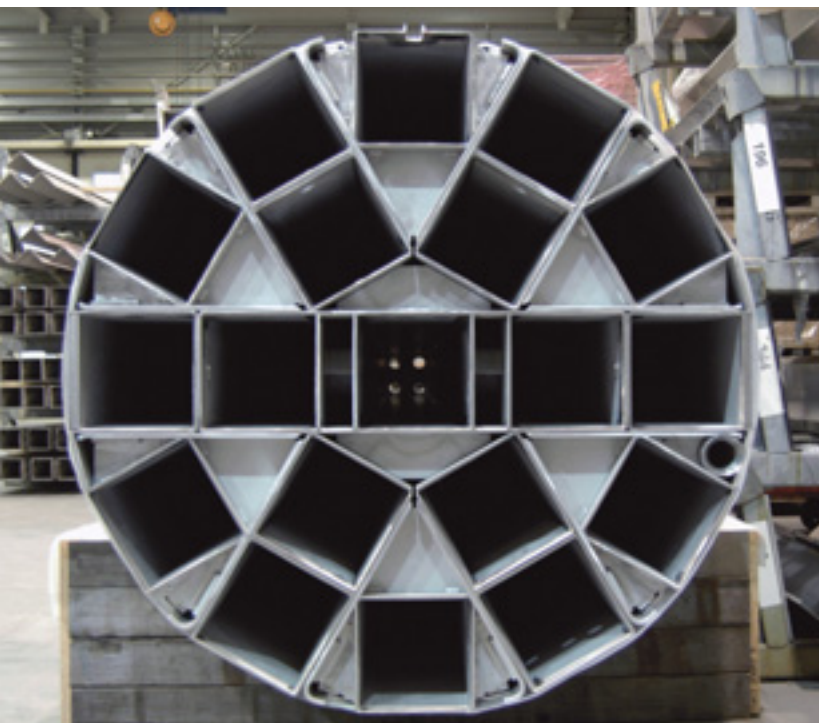
Already in the development process for demanding products, BUTTING is an important partner for a large number of our customers. Experienced engineers put their ideas into practice at a very high quality level. We make sure the high expectations of our products are fulfilled with our comprehensive know-how of

metallurgical processes and the use of specific procedural techniques. Both at our Knesebeck site and in Brussels we have the most modern equipment available, for example for lathing and milling, and innovative solutions. We complete your product solution by installing the systems on-site.



## Recognised quality – certified reliability

Quality assurance is an important part of our corporate philosophy. All over the world, the name BUTTING stands for high quality stainless steel products.



Worldwide licences and qualifications from recognised organisations demonstrate our high quality consciousness

The quality management system at BUTTING is certified under DIN EN ISO 9001. Other recognised licences and qualifications held are:

- ▶ on the basis of the KTA 1401, AVS D 100/50 and IAEA 50-c-Q regulations of Areva, BUTTING has received approval to manufacture components (pipes and pressure vessels) of stainless steel for nuclear plants
- ▶ on the basis of the regulations in the RCC-M code, we meet the special requirements for the production of mechanical components for the nuclear industry
- ▶ component cleaning requirements are met at the Knesebeck and Brussels sites in line with the ISO 14644 classification, up to class 7 (clean room)



More than 1,400 employees process stainless steels and clad materials

## Progress by Tradition

Knesebeck in Lower Saxony is the main site of the family business, founded in 1777. BUTTING has been continually growing to this very day, thanks to its competence, courage, hard work and innovations. Affiliated companies, for example in Belgium, China, Canada and Brazil, are an expression of a healthy strategic development.

The core business of the internationally active group lies in processing stainless steels, particularly special

steels, and clad materials. Our skills in materials technology, welding technology, mechanical processing and in quality assurance are continuously expanded.

For more than 50 years, BUTTING has been developing, manufacturing and testing ready-to-fit solutions for the nuclear industry. We stand for innovative, tailor-made solutions which promise you the maximum degree of success and satisfaction.

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