



## Shell & Tube Heat-Exchangers



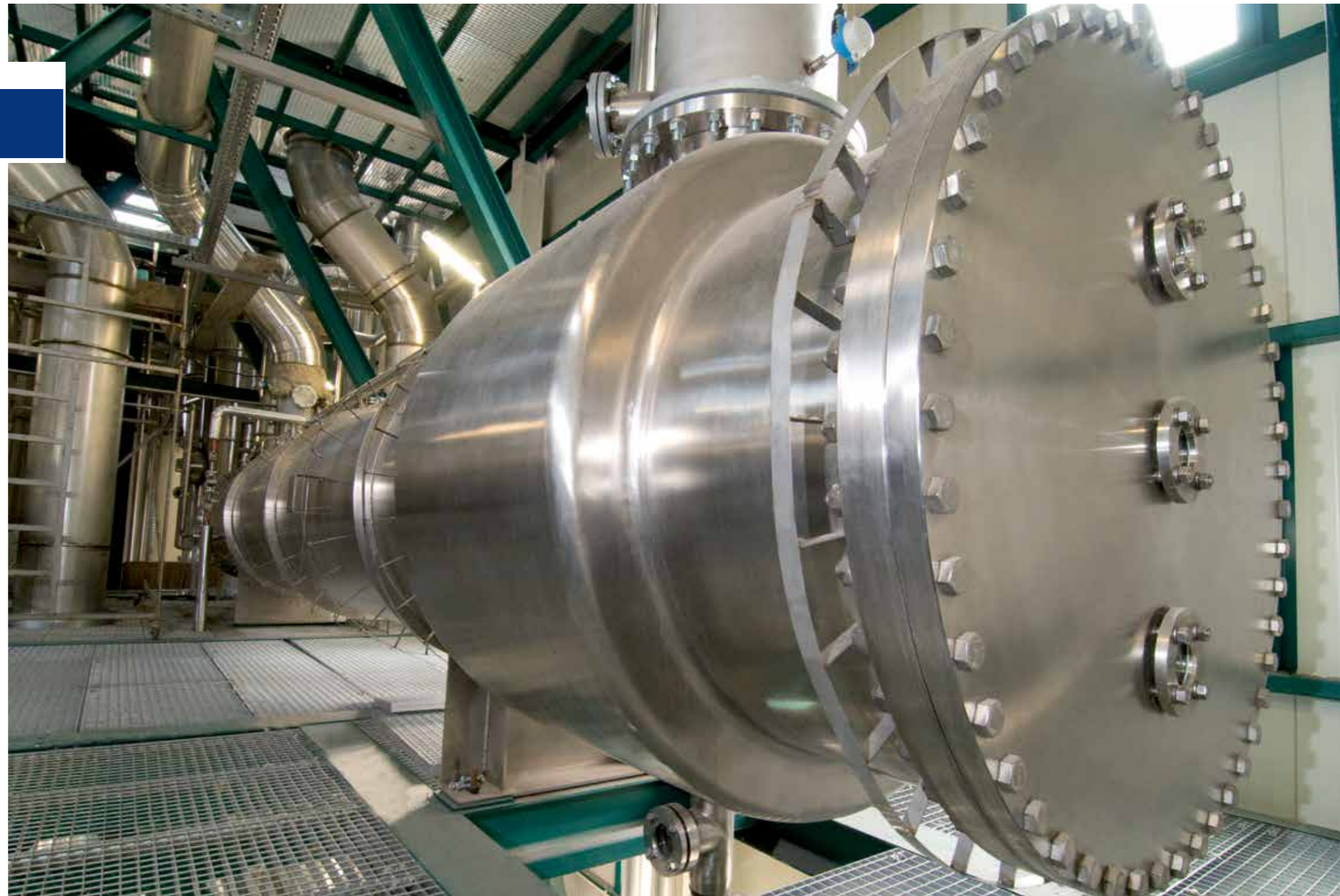
## Shell & Tube Heat-Exchangers

Shell & Tube Heat Exchangers are widely spread and preferred in all types of production. The reliable design ensures their convenient use as well as predictable behavior during temperature, pressure or product overload. Biomashin has developed as preferred and recognized supplier of S&T heat-exchangers made of stainless steel. They are targeted at the largest engineering companies worldwide and are corresponding to the company's basic principles of:

- Responsibility & Long-term Orientation
- Quality, Sustainability & Innovations
- Partnership

Fortified by our high-qualified personnel, vast experience and up-to-date production technologies, we manage to cover the exceptionally high food standards and requirements for S&T heat-exchangers used in pharmaceutical, food-processing, and chemical industries.

We work hand in hand with our customers to create preferred and working solutions. Our clients receive highly professional, reliable, innovative technical solutions corresponding to the European standards and rules. For the production of S&T heat-exchangers, we use the most modern and high-efficiency production technologies to ensure top notch quality products.







## Production Capabilities

In having the opportunity to work with the leaders in our industry, we gain vast experience and continuously develop and optimize S&T heat-exchangers production. Biomashin offers a wide range of heat-exchangers with different applications oriented towards the requirements of certain projects. Our partners can rely on our large production capacity as well as Biomashin's adequate reaction concerning the ever-increasing demands on quality, hygiene and safety of the end product. Depending on the specific project, we are able to offer heat-exchangers with:

- Diameter from 150 mm to 3200 mm
- Length up to 30000 mm
- Maximum weight 100 tons
- Shell thickness up to 14 mm
- Automatic expansion and/or automatic welding of tubes to plates
- Materials: 1.4404, 1.4571, 1.4301, 1.4307

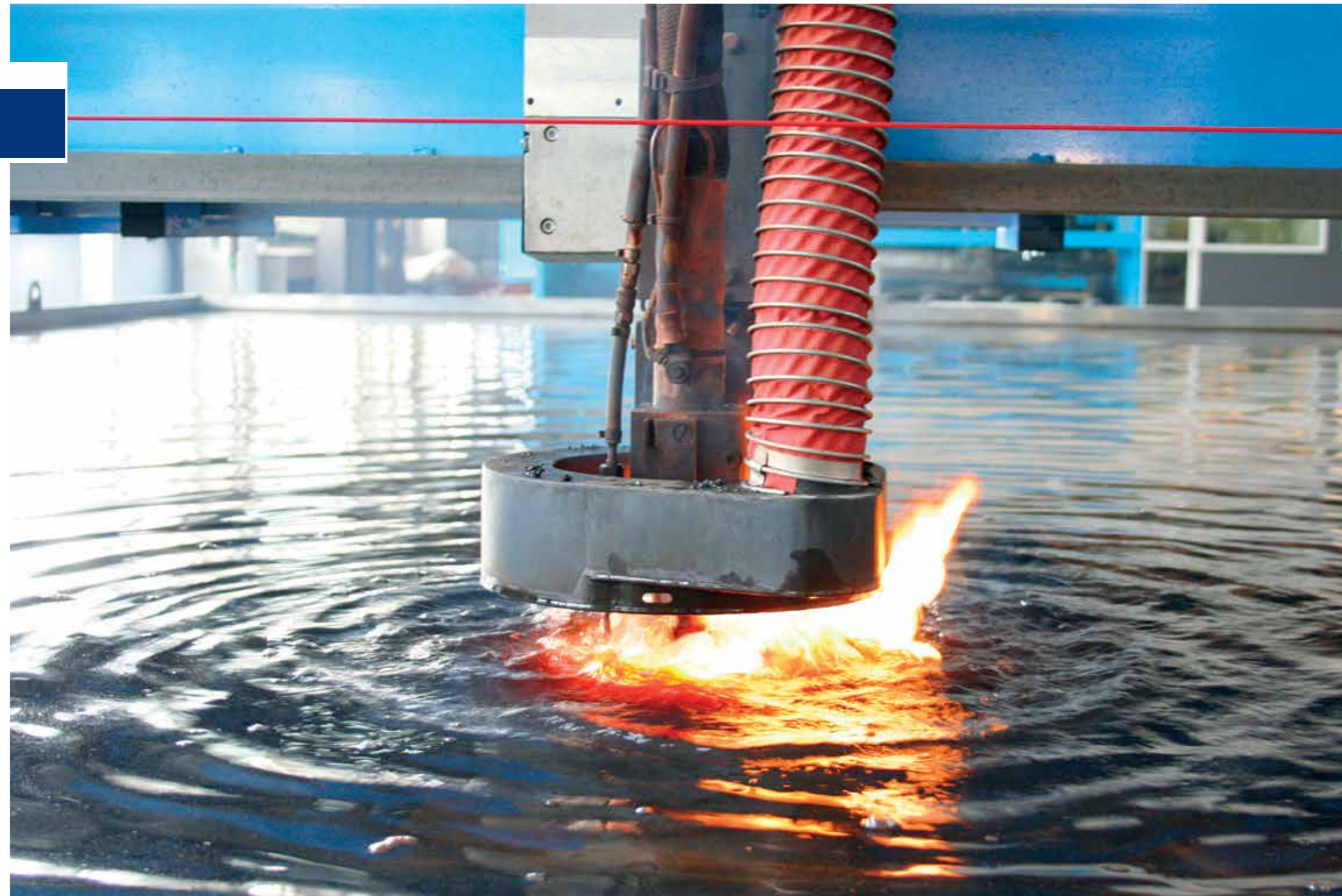




## Technological Equipment

Biomashin is equipped with the most up-to-date and innovative production technologies used for the production of S&T heat-exchangers. This enables more than 80% of the production processes to be automated.

- Plasma cutting of sheet material with thickness up to 110 mm
- Laser cutting of sheet material with thickness up to 15 mm
- Laser cutting of pipes
- High-efficiency machines for production and drilling of plates with diameter up to 3200 mm

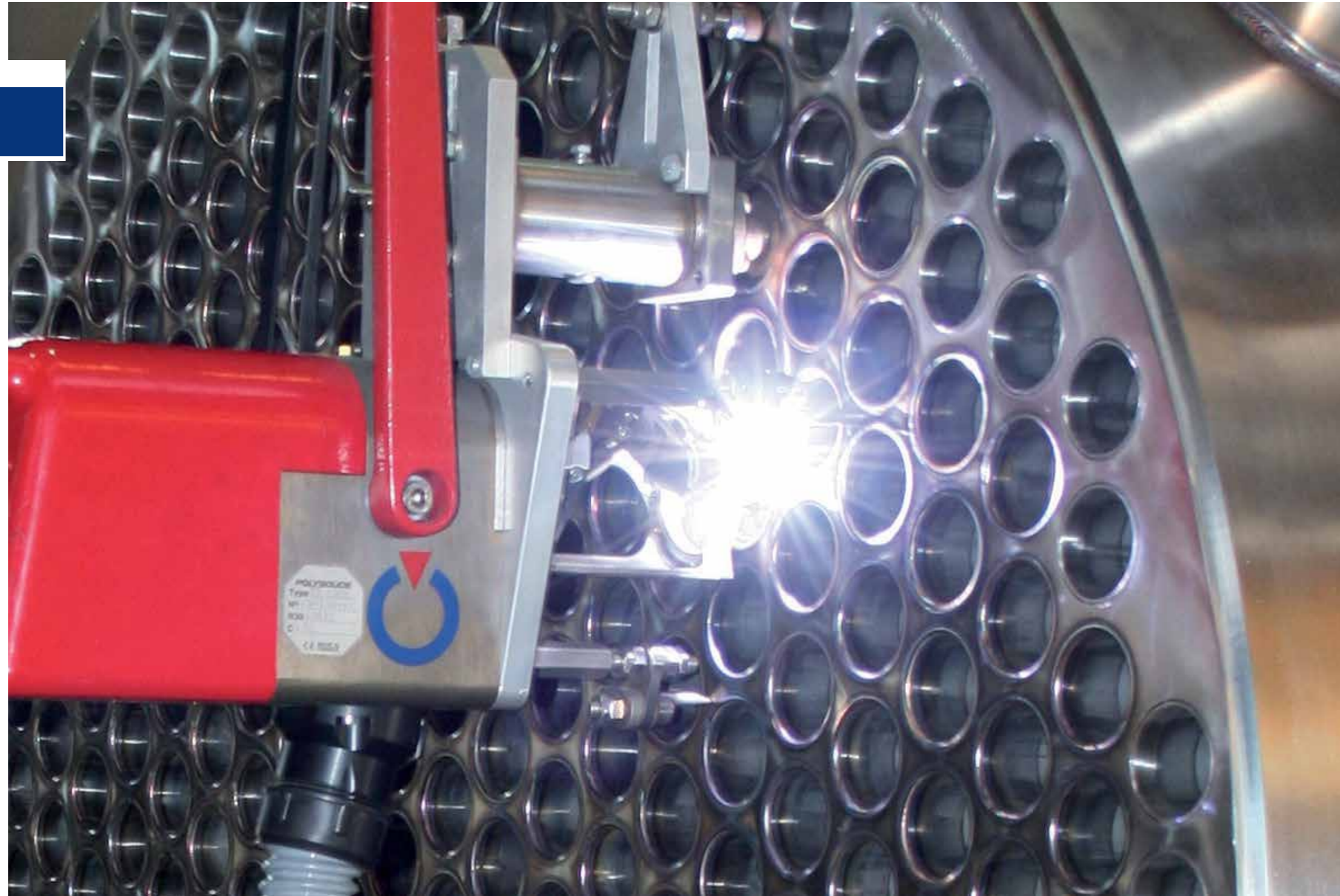




## Technological Equipment

Biomashin focuses on the quality in each production process. This allows us to achieve the best results and continuously improve with time.

- Modern equipment with automatic expansion of tubes in the plate
- Automatic orbital welding of tubes/pipes to plates
- Equipment for production of flanges with diameter up to 3200 mm
- Treatment of inner and outer surfaces of the welding seams, including automatic grinding of dished and conical bottoms and cylindrical surfaces with diameter up to 4500 mm





## Design & Software

Biomashin has its own technical department consisting of 20 experienced professionals. Based on their vast knowledge and master skills they are able to find optimal technical solutions.

We use contemporary software products such as Vessel Visual Design, AutoCAD Inventor. We base our design and production on AD 2000 Merkblatt & EN 13445 last version, DGR 97/23/EU & EN ISO 3834-2.



## Quality & Innovations

What is most important for us at Biomashin is the reliability of our products. We monitor technological developments in our field and constantly improve.

Each piece of equipment manufactured at Biomashin is checked for strength, controlled and tested in accordance with the Good Engineering Practices or the specific requirements of PED 97/23/EC. We guarantee complete traceability of processes and used materials in each unit of production in order to ensure that our customers have the comfort to work with contemporary and safe products as we realize quality means safety.

For that reason, a Quality Control System ISO 9001: 2008 is implemented at Biomashin and a System for Health and Safety Management BS OHSAS 18001-2007. We are a certified producer in accordance with PED 97/23/EU Modul G & HP 0 /DIN EN 729-2, GOST-R including RTN and Hygienic certificate.





*Excellent performance.*

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