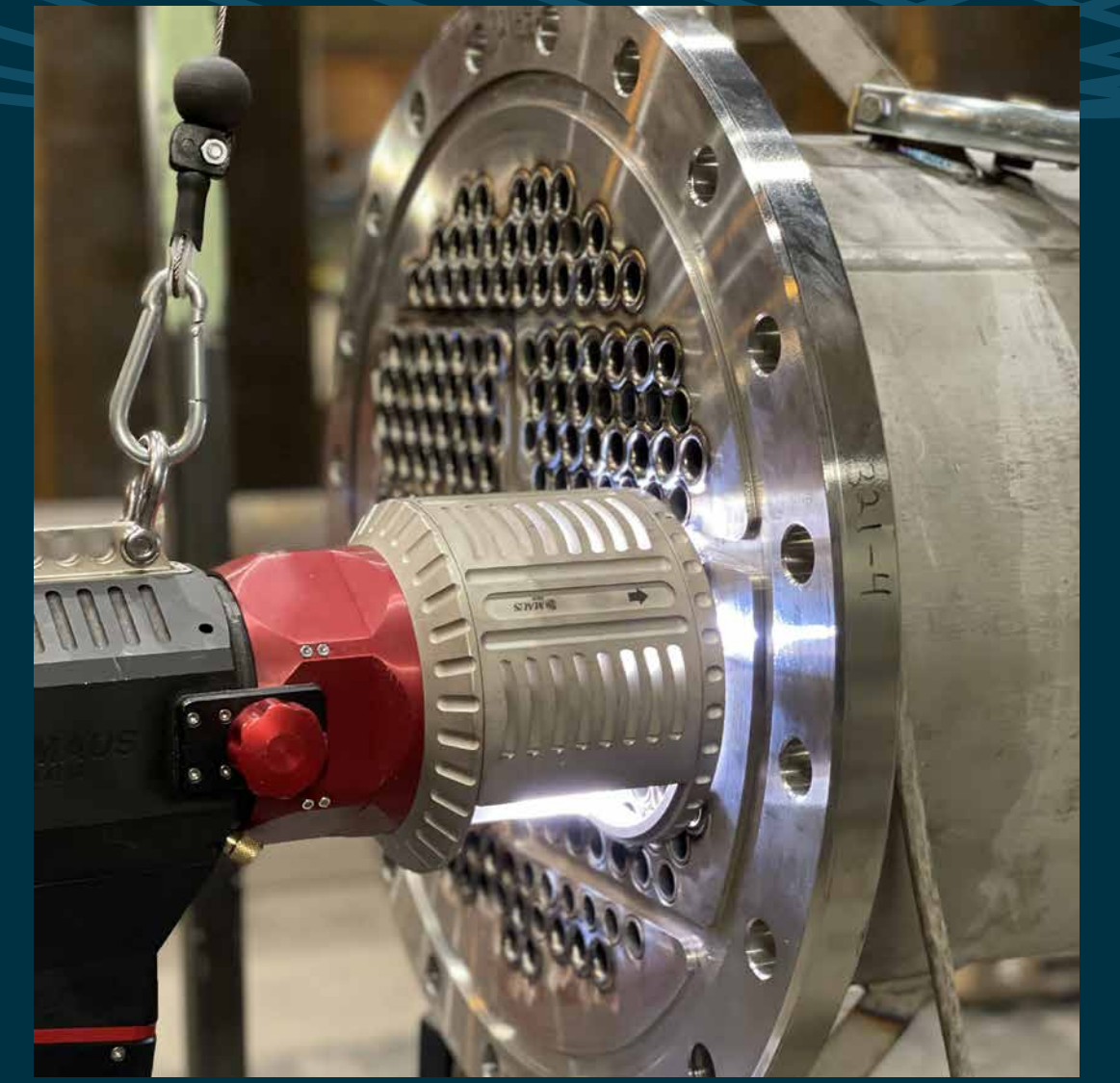
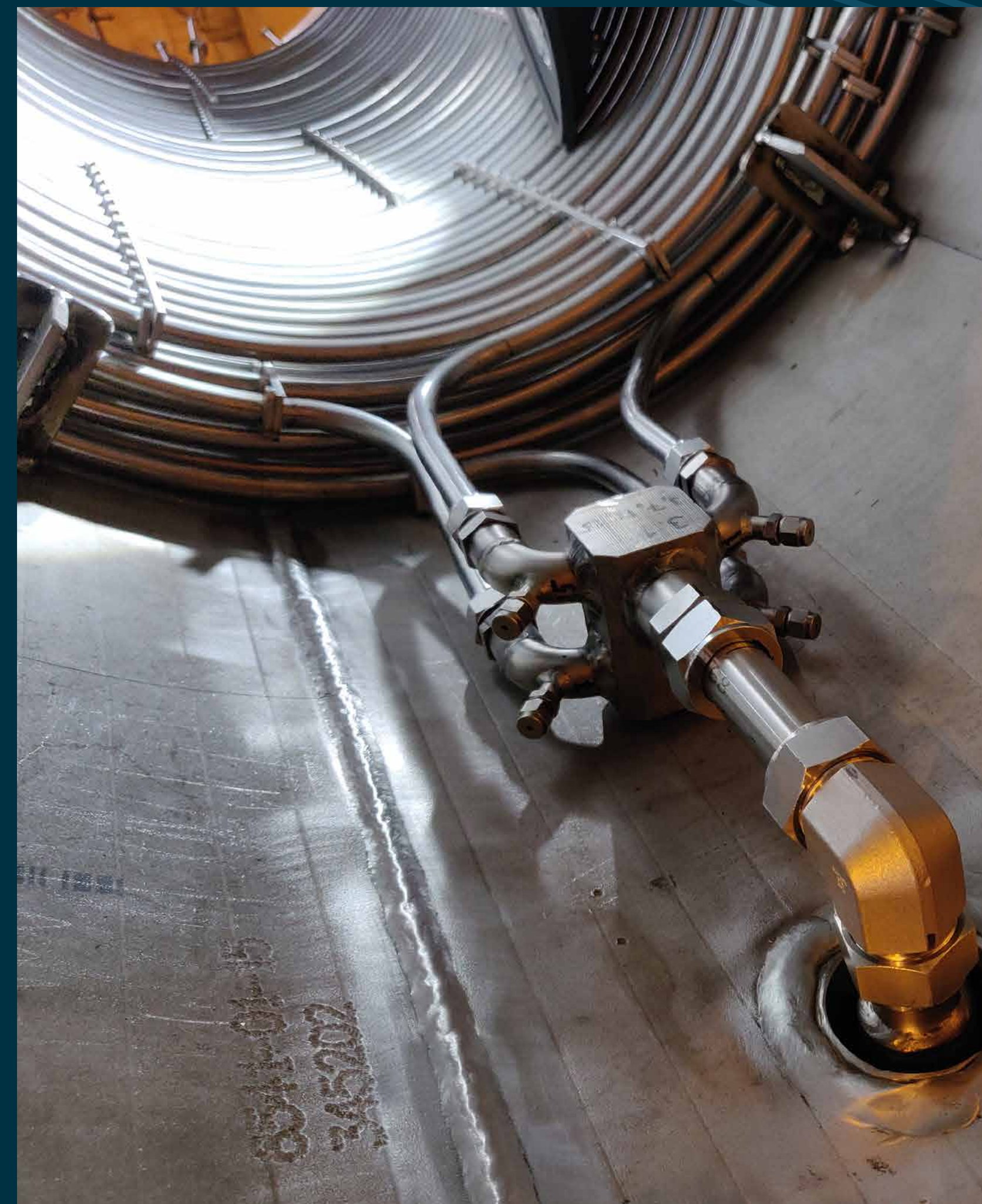
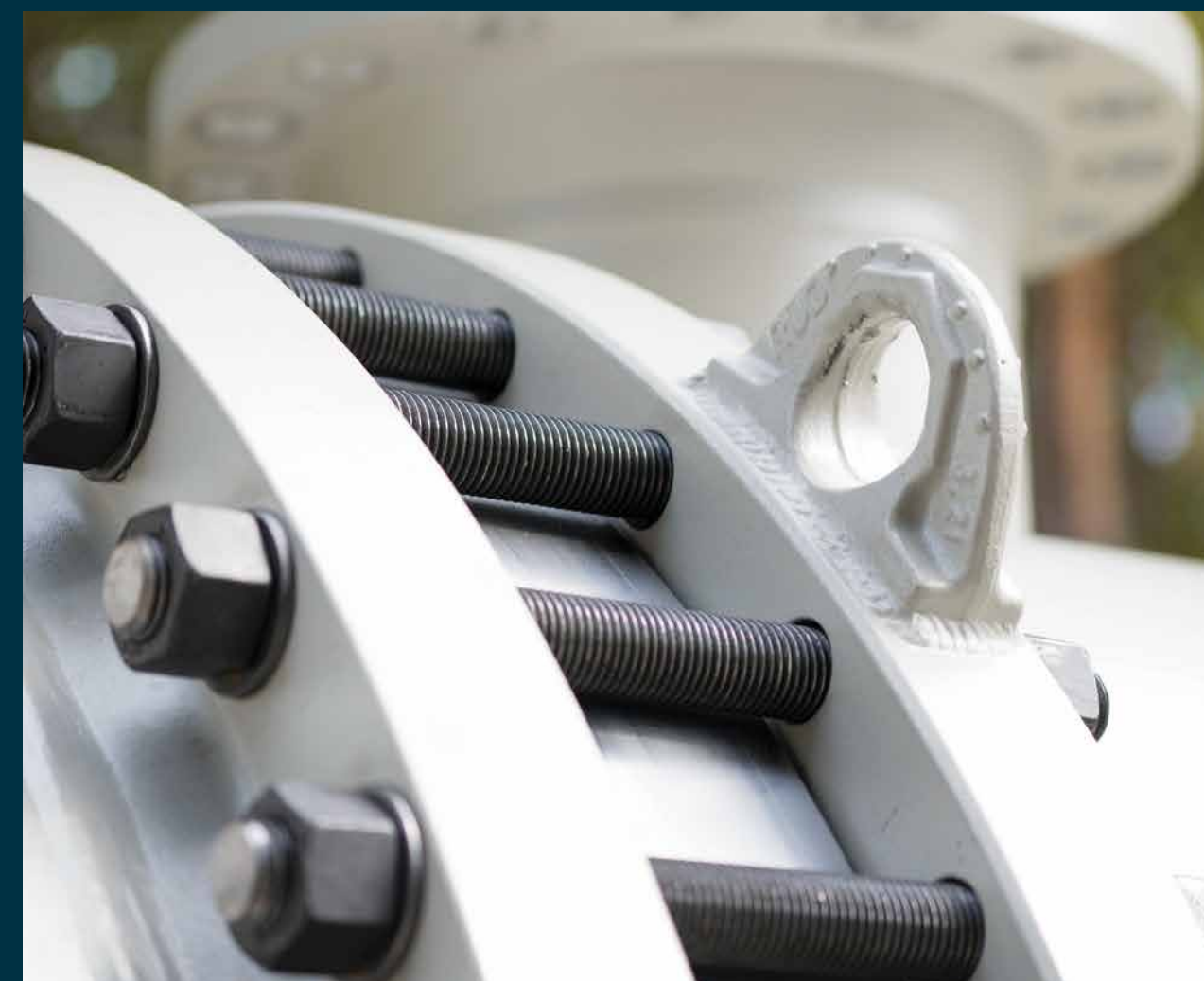
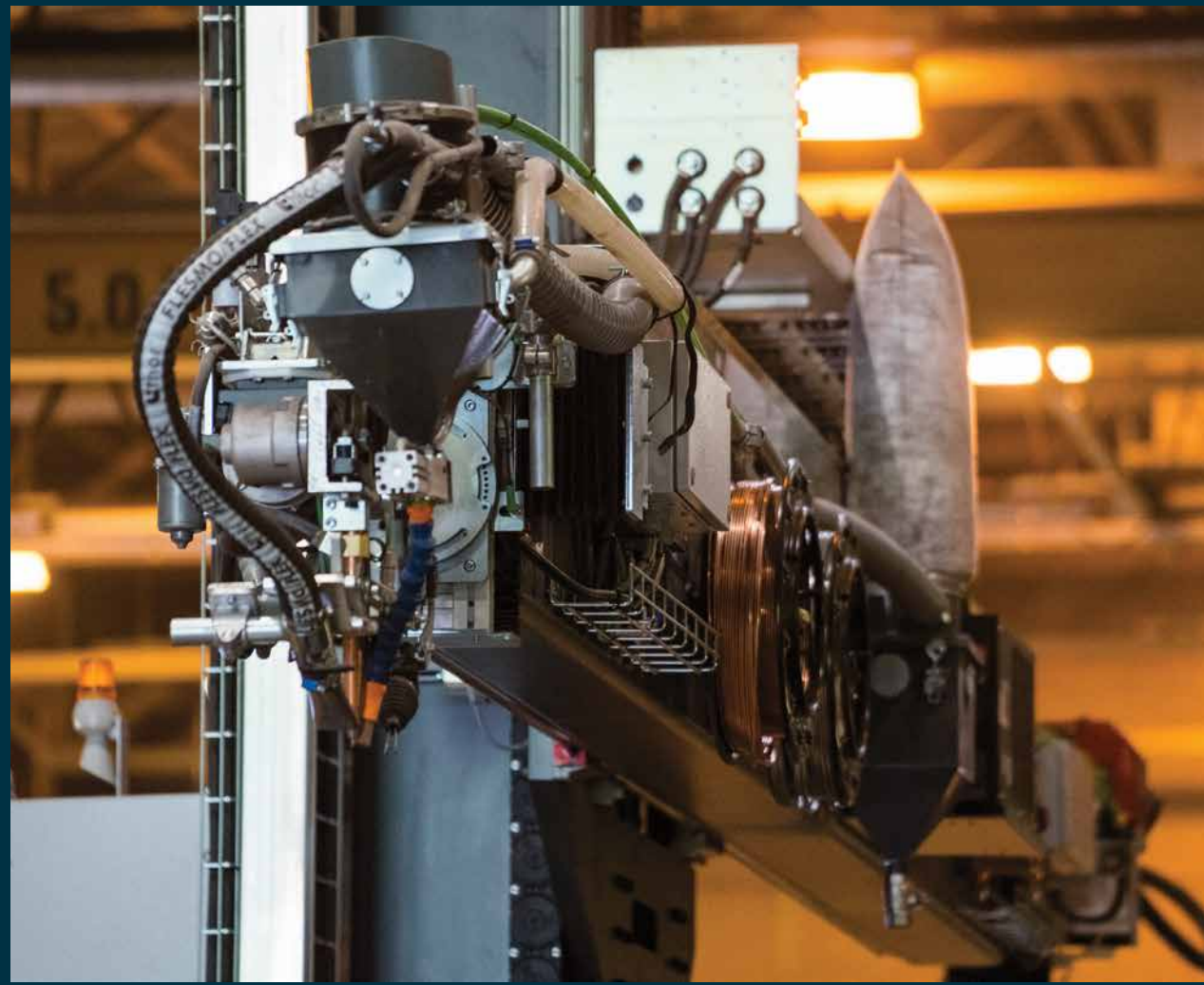




# REFINEC

## Heat-exchangers and Pressure vessels



### Company

Established in 2014 in Lappeenranta, Finland. We provide dynamically designing and manufacturing of equipment such as heat-exchangers, pressure and non-pressure vessels and other pressure equipment.

We deliver our products flexibly with fast delivery times if needed. Manufacturing facilities with a 1200 m<sup>2</sup> floor area.

### Rating and Designing

- Thermodynamic rating
- Aspen Exchanger Design & Rating software
- Structure design
- Strength calculations
- Visual Vessel Design software

### Manufacturing

Welding procedures qualified by welding procedure tests according to the newest EN standards.

- 60 qualified welding procedure tests for permanent joints
- Over 130 welding procedure specifications
- Processes include: MIG/MAG, TIG, MMA
- TIG-orbital Tube-to-Tube Sheet welding
- Submerged Arc Welding (SAW)

Wide range of materials:

- 316L, 904L, 254SMO
- AISI321
- Duplex 2205 and 2507
- Hastelloy, Inconel 625
- CS, CS+HIC-requirements, LTCS
- 13CrMo4-5, X16CrMo5-1, X11CrMo5, T5.
- Titanium Grade 2 and Grade 7

### Quality

We have certified our Quality Management System according to

- ISO 9001
- ISO 3834-2 (Comprehensive quality requirements for fusion welding of metallic materials)

### SMR-technology

#### OUR SOLUTION

As research and interest on Small Modular Reactors have started to increase, more testing using physical prototype reactors is needed.

Refinec offers:

- Developing and manufacturing prototype reactors for SMR research institutes and companies
- Researching manufacturability and manufacturing technologies different reactor materials and structure types

Key interest:

- How the conventional pressure equipment directive could be implemented on SMRs with necessary additions in testing and management systems

#### COMPETITIVE ADVANTAGE

- Excelling in project management and documentation
- State-of-the-art automated welding equipment ensuring top quality
- Our in-house rating, designing and R&D departments alongside in-house manufacturing

#### REFERENCE

Alongside with numerous conventional pressure vessels and heat-exchangers, Refinec has manufactured a prototype SMR.

Our supply included:

- Strength calculations
- Designing of structural details related to manufacturing
- Manufacturing

With one SMR prototype under our belt, Refinec is very well equipped to continue manufacturing of new SMR prototypes. Any customer planning to build research prototypes or more advanced functional phase equipment might very well benefit from our expertise and know-how.

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