

Tanks and Pressure Vessels

Components for Safety Relevant Applications

Custom made tanks and pressure vessels, engineered and manufactured to customer specification

Challenge

Tanks and pressure vessels are essential for the safe operation of nuclear power plants. Many safety-related systems rely heavily on these vessels to ensure the stability, integrity and operability of the plant during seismic events or after load cases.

To cope with the high pressures and chemicals prevalent in many systems, pressure vessels must be custom made for their individual purpose under strict adherence to quality manufacturing procedures.

Solution

Our services offered:

- Detail design according to nuclear (e.g. ASME Section III, RCC-M and KTA) and conventional codes (e.g. EN13445, AD2000, ASME Section VIII), considering internal loads, e.g. piping loads and external loads, e.g. seismic loads or APC
- Preparation of all necessary analyses, like dimensioning analysis and stress and fatigue analysis
- Supplier management and qualification
- Handling of the document approval process with third parties and authorities
- Feasibility studies and concepts for authority acceptance
- Dismantling and installation studies

References

Basic and detail design has been performed, among others, for nuclear power plants in Finland, France, Sweden, Switzerland and the United Kingdom. Applications range from volume control to lithium hydroxide injection tanks, from gas separators to expansion and surge tanks.



Selection of tanks and pressure vessels

Technical information

Our vessels can be manufactured with the following key parameters:

- Pressure ratings from 1 bar to 50 bar
- Dimensions from Ø150 mm to Ø4.000 mm
- Weights from 30 kg to 55.000 kg

For the construction of our tanks and pressure vessels the following materials are used:

- Carbon steel
- Austenitic steel
- Rubber lined carbon steel
- Austenitic clad carbon steel

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