

Tank Design - API 650, API 620 Capabilities Overview

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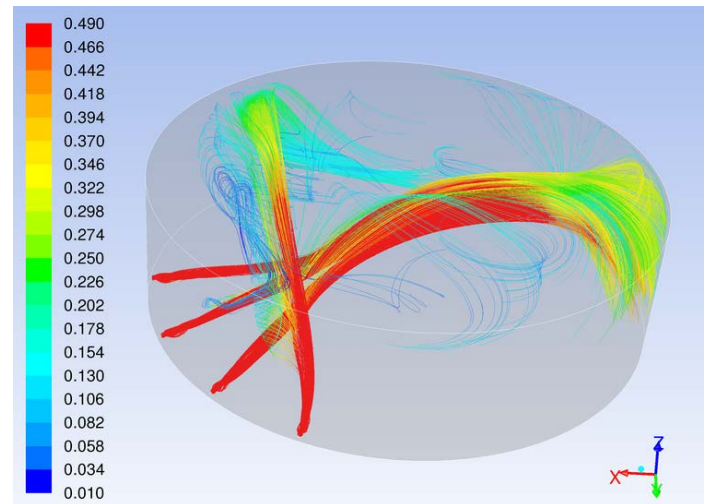
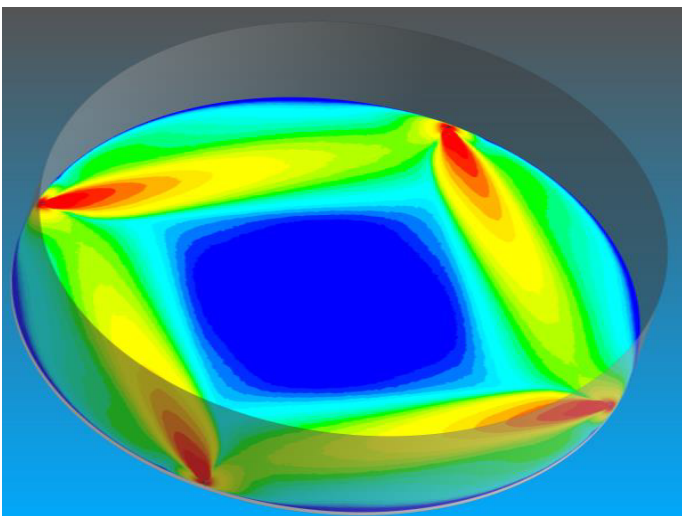
Engineering Services API 650, API 620 and TES Tanks

Mechartés specializes in providing advanced engineering services for Tank Design for API 650, API 620 and TES Tanks. An optimal design of tank internals are the crucial factor in deciding the efficiency of the Tank. Our specialists utilize Computational Fluid Dynamics (CFD) tool to optimize the internals of the tank design to meet the project design guarantee. Efforts at the design phase to optimize and validate the proposed design ensures the tanks are suitable for current and future demands.

Mechartés also apply Finite Element Analysis tool to estimate the fatigue life of tank internals at operating conditions against different loads like maximum operating pressure, temperature, etc.

Application of CFD Modelling

- API 650, API 620 Tank Design
- TES Thermal Energy Storage Tank
- Flow distribution and optimization studies
- Process design verification
- Performance based analysis and cost-effective design
- Sloshing analysis
- Efficiency study for different flowrates and fluid compositions.
- Fluid dynamical assessment studies



Application of Finite Element Analysis

- API 650, API 620 Tank design and detail engineering
- Tank internals FEA studies and mechanical optimization
- Life assessment studies
- Nozzle load analysis and Support design
- Stress, Vibration, Fracture and Fatigue studies for Tanks
- Skid Stress, Vibration, Fracture and Fatigue analysis
- Vessel design as per ASME Sec.VIII Div.2 & PD5500
- Root cause analysis