



SIDEA

—
ENGINEERING SOLUTIONS
Advanced Engineering

**ADVANCED ENGINEERING METHODS FOR PRESSURE
VESSEL DESIGN ASSESSMENT**

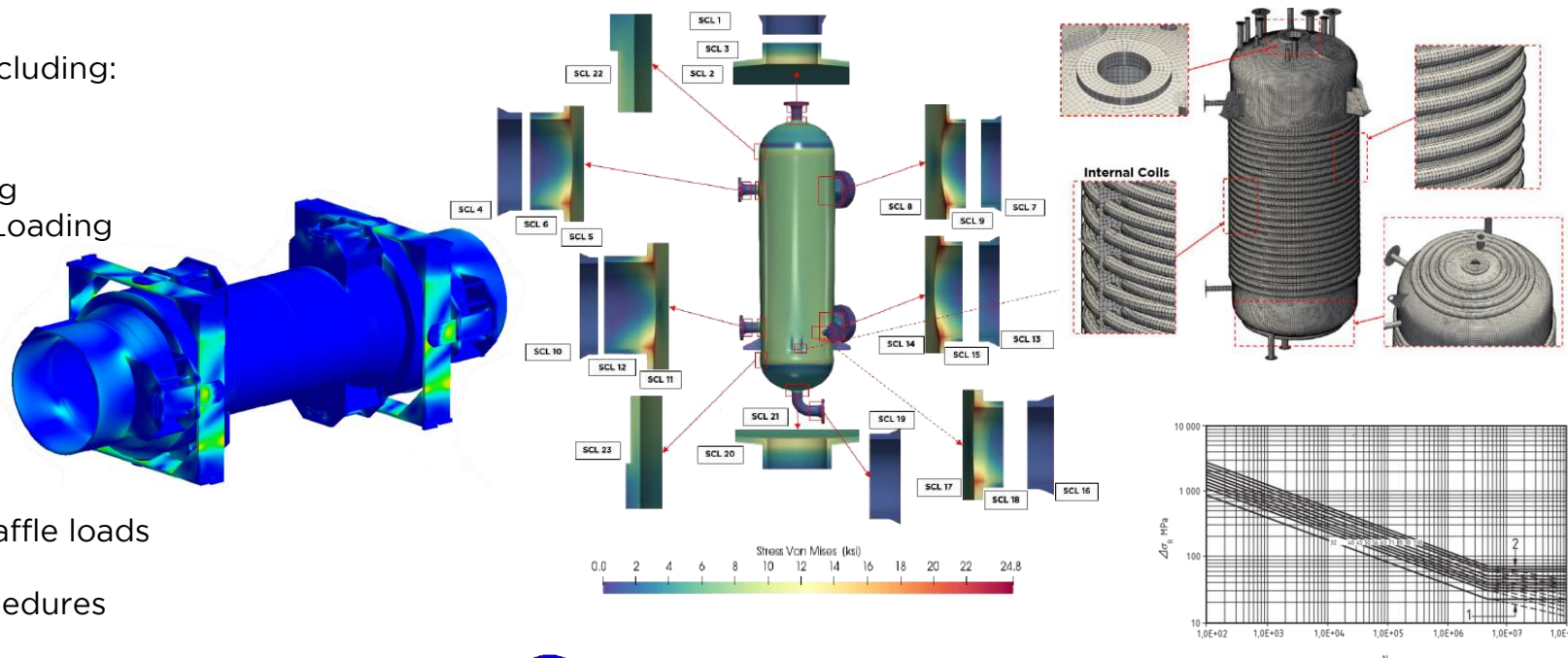
FEA Design by Analysis - Make it thinner & more secure

Design by Analysis of static pressure vessels including:

- Protection Against Plastic Collapse
- Protection Against Local Failure
- Protection Against Failure From Buckling
- Protection Against Failure From Cyclic Loading
- Ratcheting
- Fatigue

Using the latest FEA methods including:

- Transient and static Thermal
- Operational and testing pressure loads
- Seismic and wind accidental scenarios
- Specific loading: like agitators or fluid baffle loads
- Bellows detailed stress analysis
- Residual stress for specific welding procedures

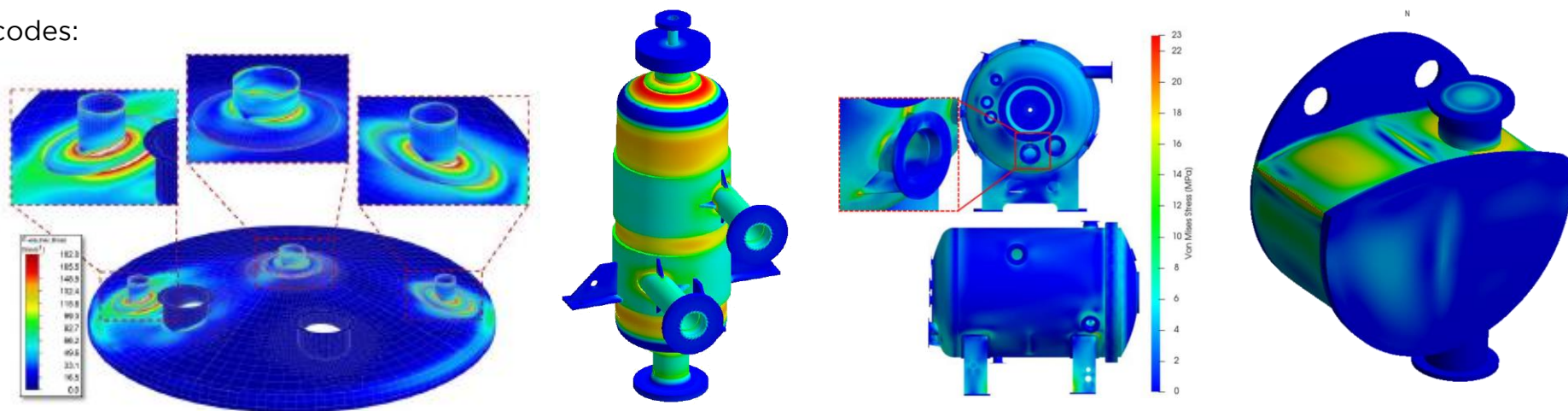


Wide knowledge on of different codes:

- ASME VIII Div 2
- EN-13445
- AD 2000 MERKBLATTER
- EJMA
- TEMA

Forensic analysis of failure

.. and of course: Design by Rules



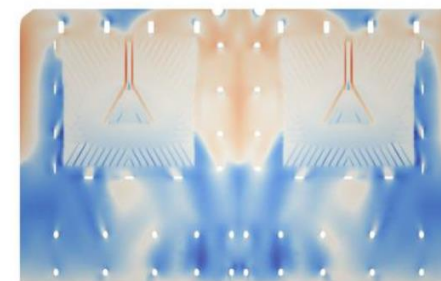
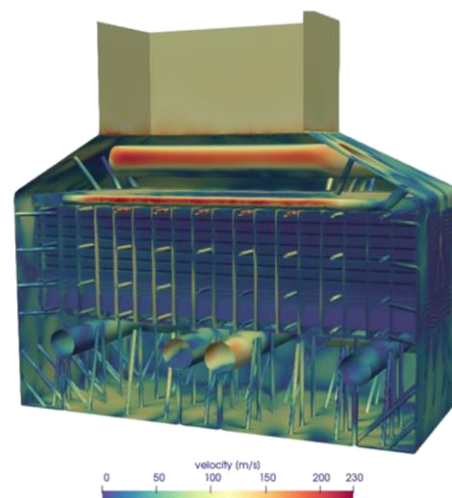
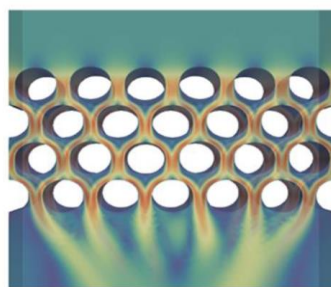
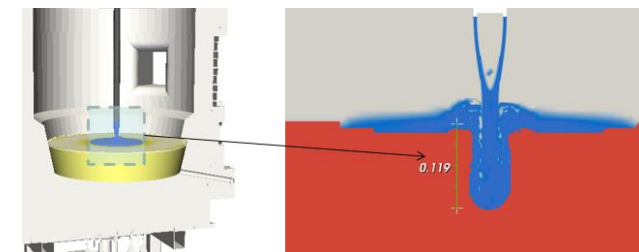
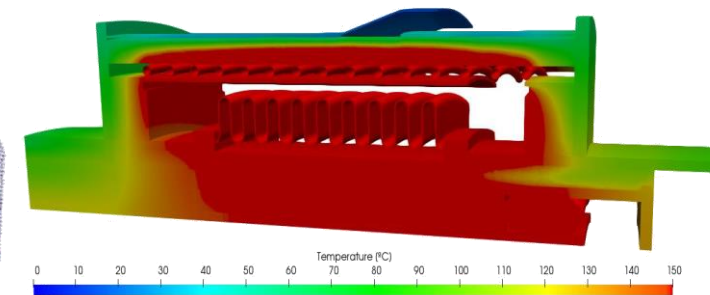
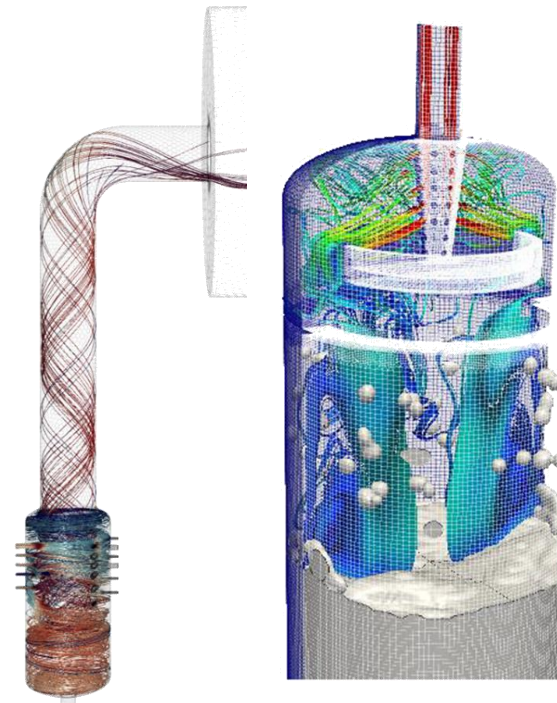
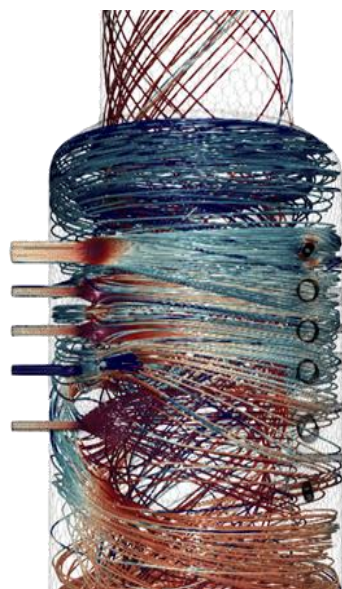
Computational Fluid Dynamics- Understanding the insights

Fluid Dynamic Analysis including:

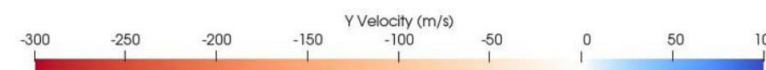
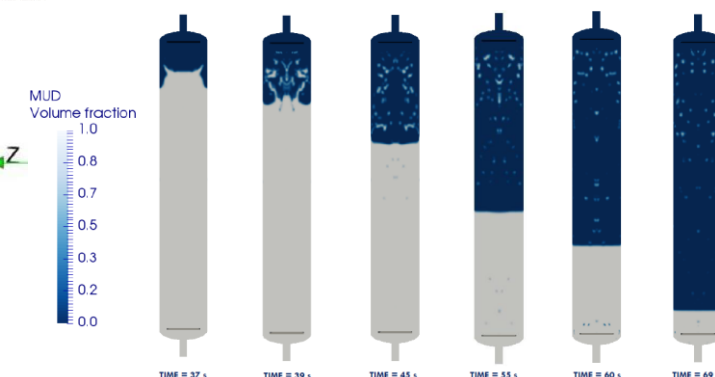
- Thermal performance
- Local temperature field
- Pressure drop
- Choking prediction for high speed flows
- Erosion
- Insulation design
- Non expected operational performance
- Fluid Induced Vibration
- Wind extreme conditions
- Enviromental effects

Using the latest CFD methods including:

- Advance turbulence modelling
- Transient effects
- Multiphase for disperse and non disperse media
- Particle tracking and pollution
- Film modelling
- Radiation including solar application



MIDPLANE +4 m





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We look forward to hearing from you!