

Machinery Dynamics and Acoustics

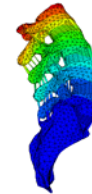
Finite Element Simulations

Sulzer Innotec

The possibility to analyse the behaviour of a component by means of computer simulations, before a real prototype even exists, has changed the world of designers and engineers forever. With the finite element method, they have a powerful and well-established tool at their disposal. Today stress, strain and temperature distributions can be predicted with high reliability for any loading conditions.

What we offer

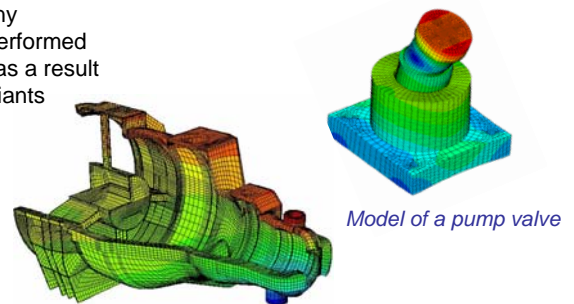
- Consulting by experts
- Geometric modelling
- Transfer and preparation of CAD data
- Selection of significant load cases in close cooperation with the customer
- Specific models, adapted to the problem
- Thermal, static and dynamical FE analyses
- Structural analysis, proof of strength
- Crash simulations
- Calibration and verification of models based on measurement data
- Structural and shape optimisation
- Evaluation and visualisation of results
- Analysis of claims and problematic issues



Spine model

Customer benefits

- Proof of stability and strength before any prototypes are built and experiments performed
- Shorter product development process as a result of fast and cost-effective studies of variants
- Efficient evaluation of critical areas
- Verified results through experiments accompanying the analysis

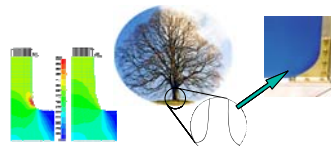


Model of a pump valve

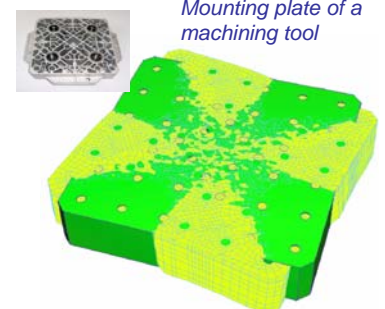
Casing of a steam turbine

Examples

- Modification of a mounting plate according to dynamic criteria
- Deformation analysis of a steam turbine casing
- Shape optimisation based on bionics



Structural optimisation



Mounting plate of a machining tool

Sulzer Innotec has many years experience in finite element-simulations. Our simulations laboratory ranks among the most competent ones of private industry in Switzerland. You benefit from our know-how and have access to the innovative, state-of-the-art solutions.

Our specialists will be pleased to advise you further.

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