

CAE Simulation

Engineering & Software

Expertise in virtual product development
and structural mechanics

**Analysis
of static and
dynamic problems
with industry leading software**

Who are we?

AWOTEC GmbH is an engineering consultancy for mechanical engineering with focus on virtual product development using modern simulation and analysis tools.

We offer software solutions and practical knowledge as one service.



RECURDYN



Since its foundation in 2009 as an engineering consultancy for mechanical engineering, AWOTEC GmbH has been known for the successful combination of practical design activities with in-depth know-how in the field of finite element analysis (FEA) and multi body dynamics (MBD) as well as for the customer oriented distribution of related software.

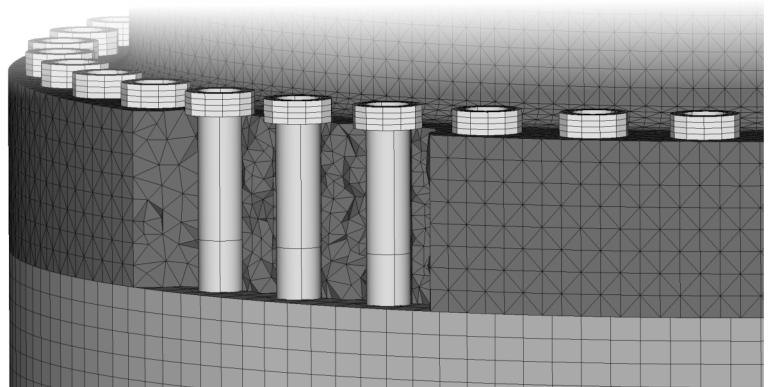
Our partnerships with leading software providers guarantee the use of state-of-the-art CAE technology with constantly expanded expert knowledge, which is gladly passed on to end customers via our software sales through customer-specific training and consulting.

Engineering Services

Numerical simulation with FEM and MBD to solve static and dynamic problems, optimally and efficiently integrated into your development process, with solution competence for the realization of concrete tasks.

Our range of services includes:

- **Static Analysis**
 - linear und nonlinear
 - contact problems
 - material nonlinearities
 - stability and buckling
- **Structural Dynamics**
 - direct und modal methods
 - random response and response spectrum
- **Multi Body Dynamics**
 - complex systemes with flexible components
 - chains, belts, bearings, gears, ...
- **Structural Optimization**
 - parameter optimization
 - topology optimization
 - design of experiments (DOE)
- **fatigue analysis based on measurement and/or simulation data**
 - stress- or strain based
 - critical plane method
 - random vibration fatigue
- **strength assessment according to industry standards**
 - FKM guidelines
 - bolted connections VDI2230
 - EUROCODE 3 and EUROCODE 9
 - crane structures, railway applications, pressure vessels and more
- **CAD Design**
 - concept design and 3D modeling
 - detail drawings and layouts
- **API Programming**
 - automation of CAE processes



The CAE software suite RecurDyn offers a unique combination of multi-body dynamics, finite element analysis, control simulation and optimization.

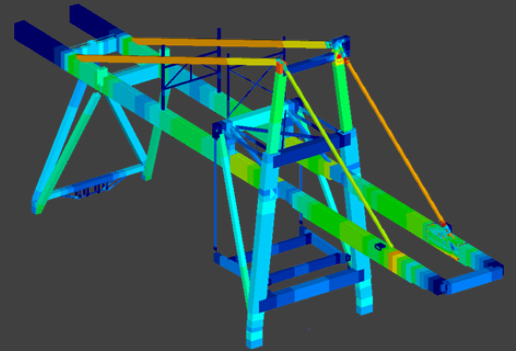


RECURDYN

Multi Flexible Body Dynamics

RecurDyn is the simulation tool for the dynamic analysis of rigid and non-linear flexible structures with large deformations and contacts. Complemented by integrated control simulation, particle simulation and optimization, RecurDyn is the first choice for simulating multiphysics tasks.

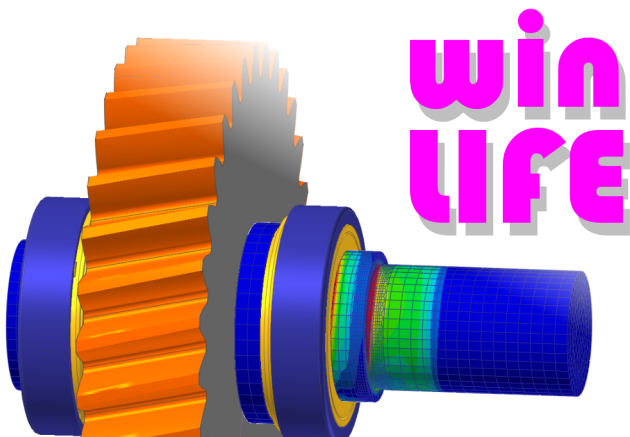
SDC Verifier is the comprehensive solution for standardized modeling and evaluation of finite element analyzes.



integrated standards:

EUROCODE 3; EN13001; DIN15018; DVS1608; DVS1612; FKM

SDC Verifier together with Ansys, Femap and Simcenter 3D makes the calculation procedure more transparent and facilitates checking complete sets of load cases according to predefined design code rules or user defined standards with a large number of features for complete documentation and automation.



With winLIFE you can predict the fatigue life of dynamically loaded components and structures.

Based on measurement data or results from MBD or FEM analyzes; with features for stress and strain concepts; S-N curves for seam weld and base material; crack growth analysis; critical plane method; random vibration fatigue; material libraries and much more.



Contact

AWOTEC GmbH
Hanuschgasse 1/1/3
2540 Bad Vöslau

+43 2252 266015

office@awotec.at
www.awotec.at



RECURDYN

