

Rotor Bearing System Design and Analysis

The AxSTREAM® Advantage

Purchase options are individually tailored for each customer.

Extremely cost-competitive compared to similar software packages; protected by ESS-G®, SoftInWay's price match guarantee.

Integrated solution from aero to rotordynamics.

Automation of analyses and workflow through batch processing and AxSTREAM ION™ for process integration and design optimization.

Extensive technical support by more than 75 engineers.

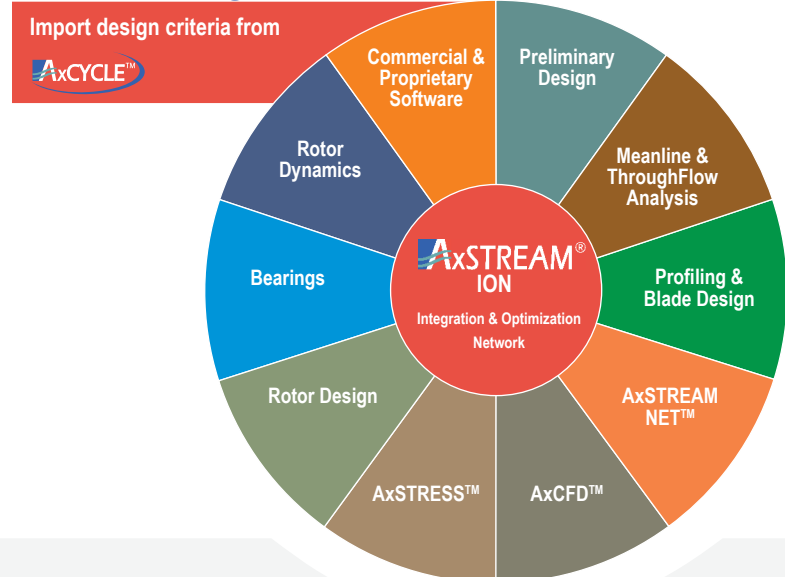
Streamlined user-interface makes learning a nonissue.

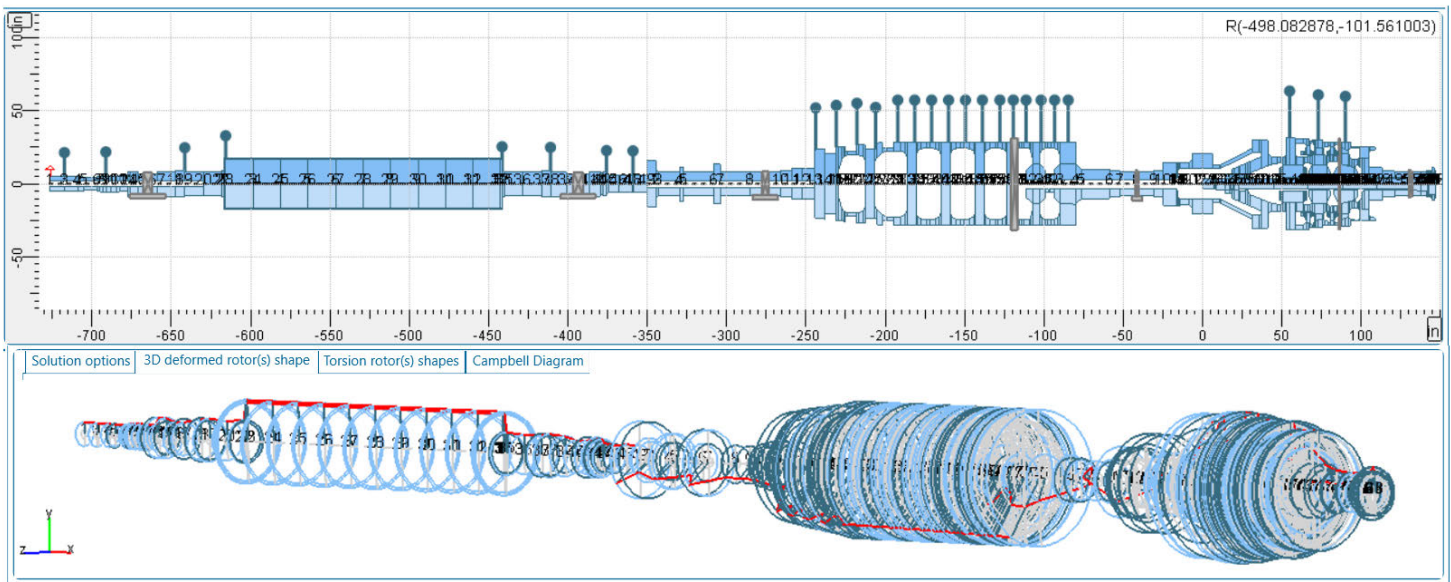
Constant updates are being added, and new features can also be added upon request.

Software Solutions | Consulting Services
 Training and Technology Transfer
Turbomachinery Mastered

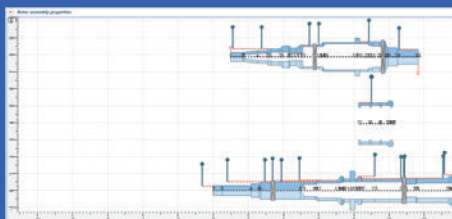
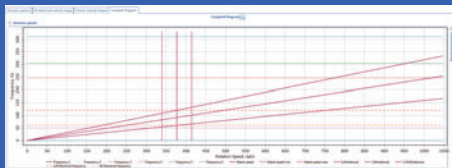
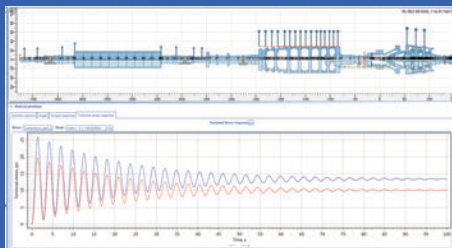
SoftInWay, Inc. is a global R&D engineering company specializing in the development of efficient turbomachinery components and systems by offering its industry leading software platform, AxSTREAM® for rotating machinery design, redesign, analysis, and optimization, as well as engineering services and educational courses.

AxSTREAM® Integrated Architecture





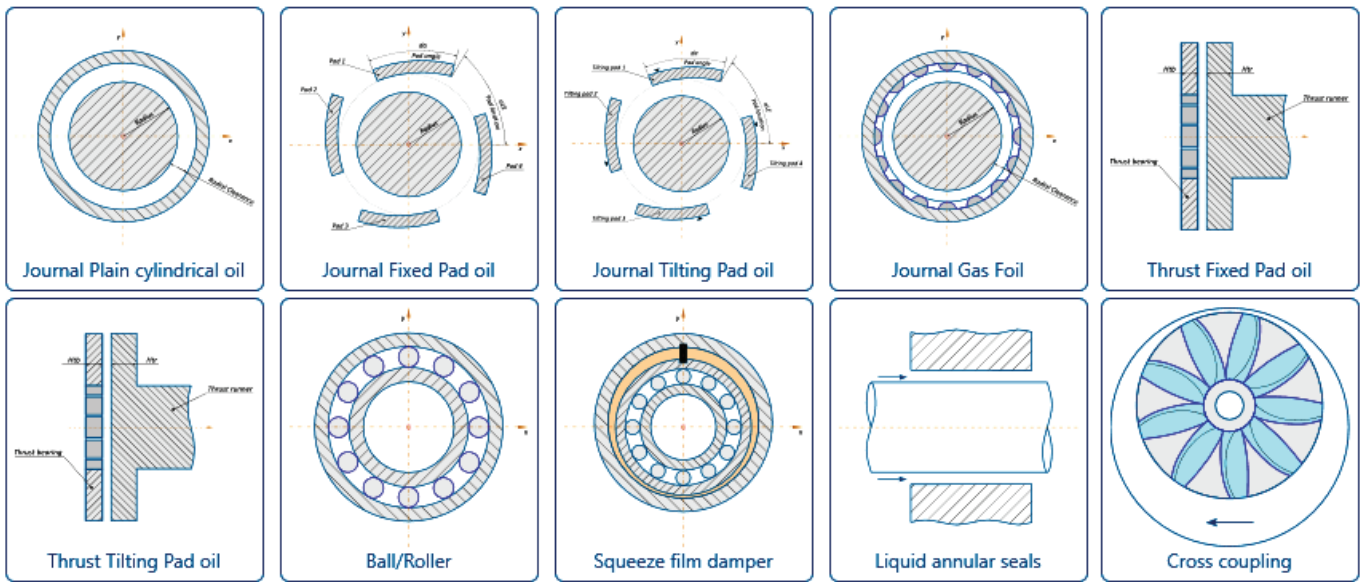
Packages



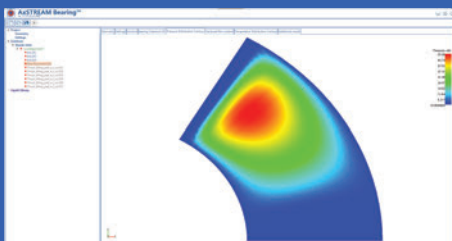
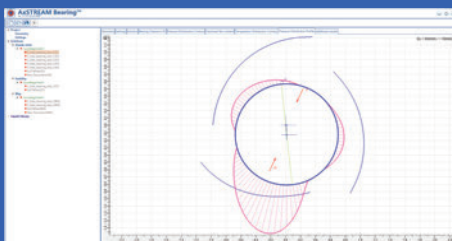
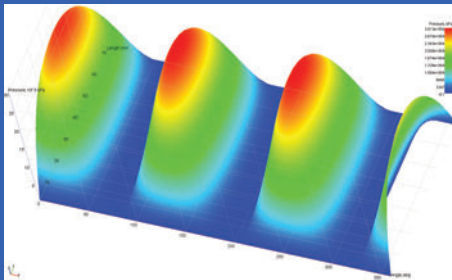
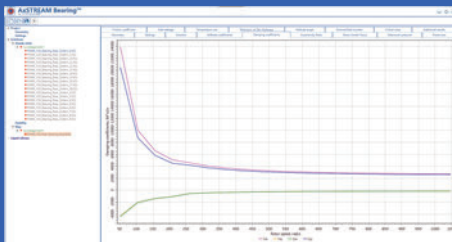
AxSTREAM RotorDynamics™

AxSTREAM RotorDynamics™ allows users to perform the full scope of rotor dynamics analysis (**lateral, torsional and axial vibrations**) for all widely used rotor types in a user-friendly and intuitive interface, providing engineers with fast and accurate analysis results using the Finite Element Method (FEM), based on utilizing either beam (Bernoulli-Euler or Timoshenko) or 2D-axisymmetric elements.

- Model simulation capabilities:
 - Single rotor or entire rotor train (multi-rotor)
 - Coupling simulation
 - Journal and thrust bearing properties
 - Structural support by two approaches
 - Temperature dependent material properties
 - Rotor misalignment (angle and shear misalignment)
- Loads and excitation sources:
 - Forces and gravity acceleration in 3 directions
 - Harmonic lateral excitation
 - Torsional universal excitation sources
 - Earthquake simulation
- Analysis functions:
 - Lateral: Static deflection, critical speed, unbalance response stability, harmonic response, and time-transient analyses
 - Torsional: Modal and time-transient analyses
 - Axial: Modal analysis
- Post processing capabilities:
 - Plots and additional info calculation according to API standards
 - Automatic report generation for each analysis
 - Data exchange with other software



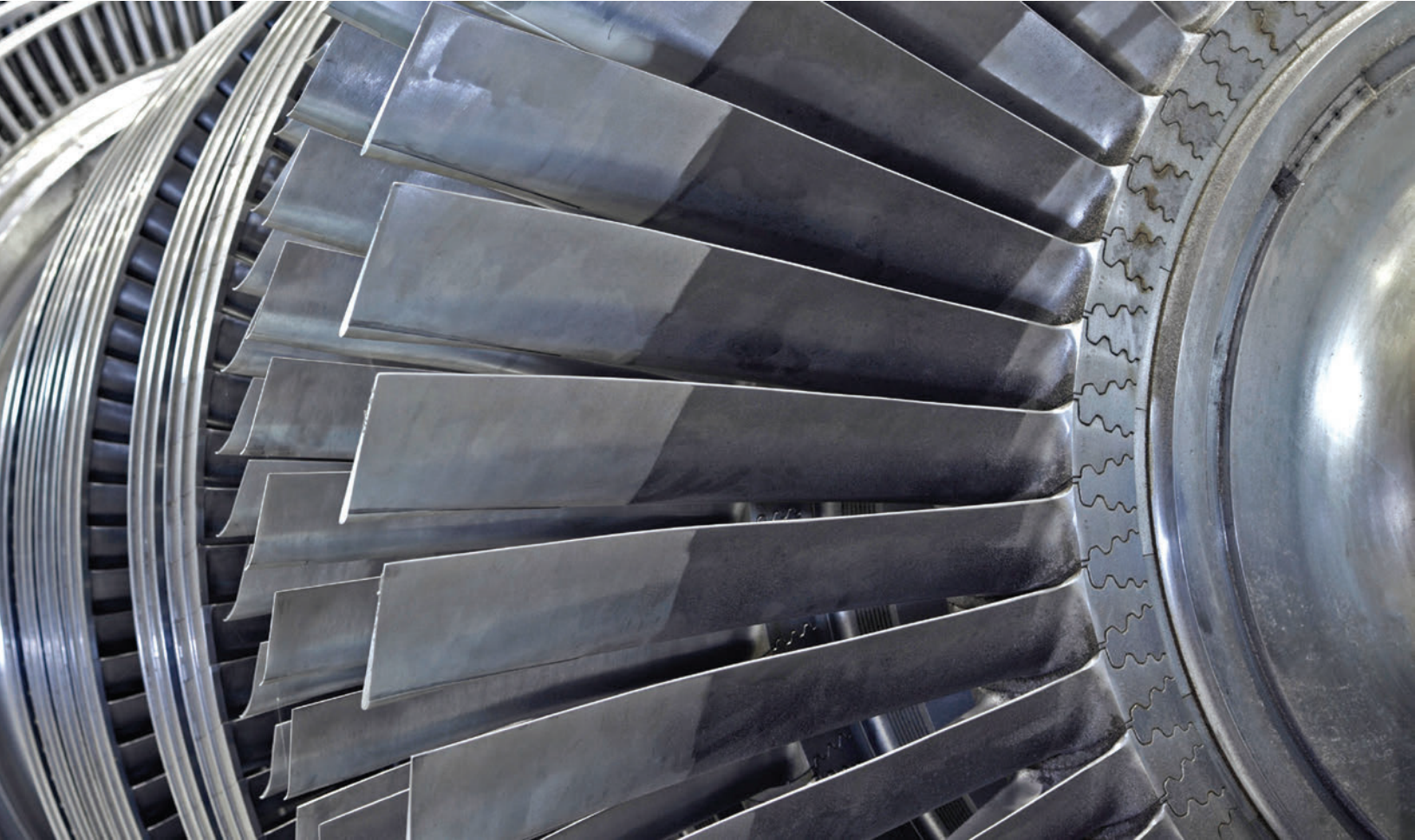
Packages



AxSTREAM Bearing™

AxSTREAM Bearing™ was developed to determine the performance and hydrodynamic characteristics of different types of bearings based on the Finite Difference Method (FDM) in a user-friendly and intuitive interface which provides users with fast and accurate analysis results.

- AxSTREAM Bearing™ allows users to simulate the following bearing types and additional calculations:
 - Fluid film bearings:
 - Journal bearings, including plain cylindrical, elliptical, and fixed/tilt pad
 - Thrust bearings, including fixed/tilt pad
 - Gas foil bump bearings
 - Rolling element bearings:
 - Deep groove angular contact ball bearings and self-aligning ball bearings
 - Spherical roller bearings
 - Straight roller or tapered roller bearings
 - Non-standard/custom bearings
- Auxiliary components:
 - Squeeze film dampers
 - Seals
 - Aerodynamic cross-couplings
- Available analyses include: bearing preliminary design, steady-state, bearing maps, and stability analysis.
- Post processing abilities:
 - Review 2D/3D corresponding plots and work with corresponding numerical data
 - Automatic report generation for each analysis
 - Data exchange with other software



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