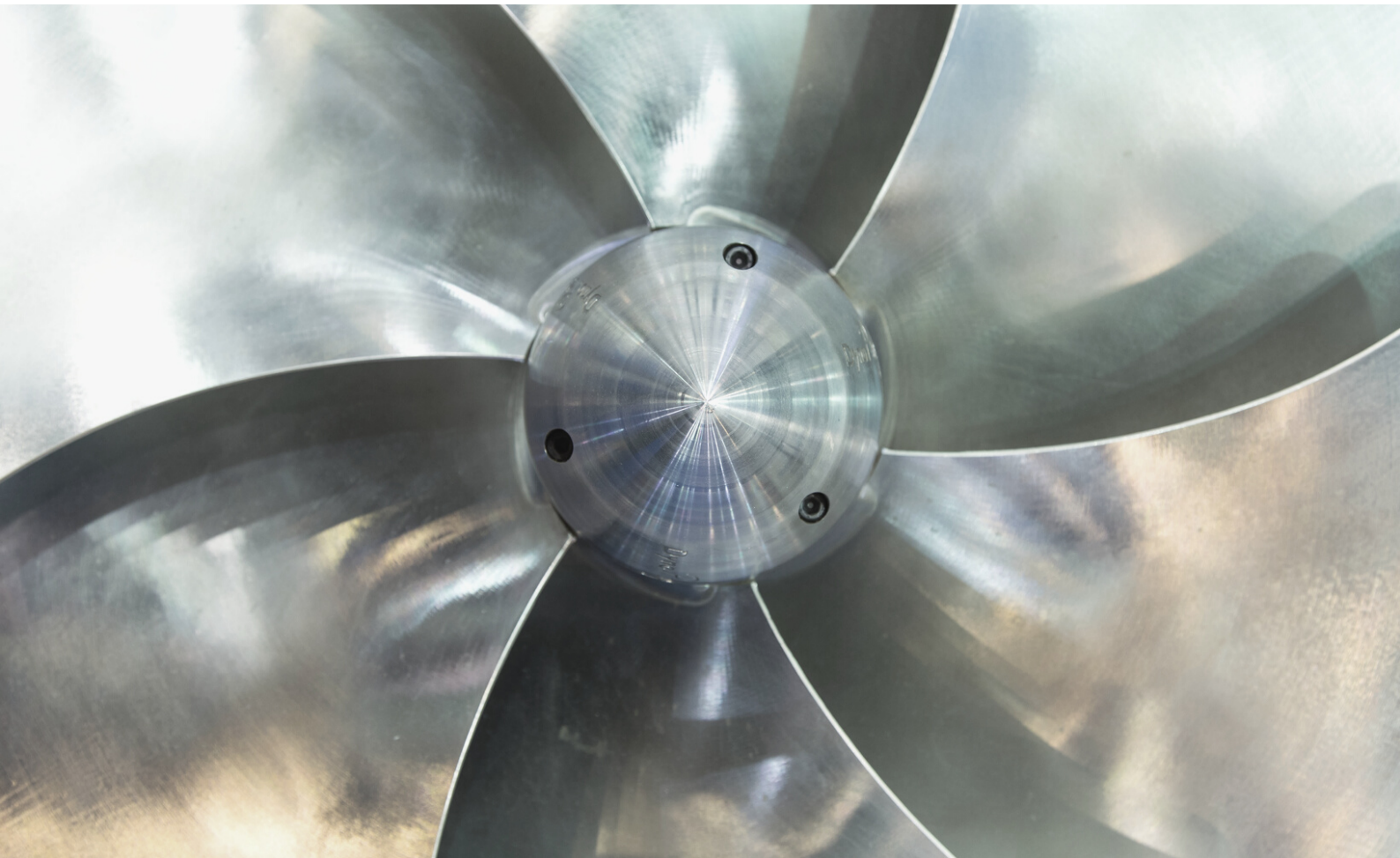


AT A GLANCE

Marine Propulsion Services

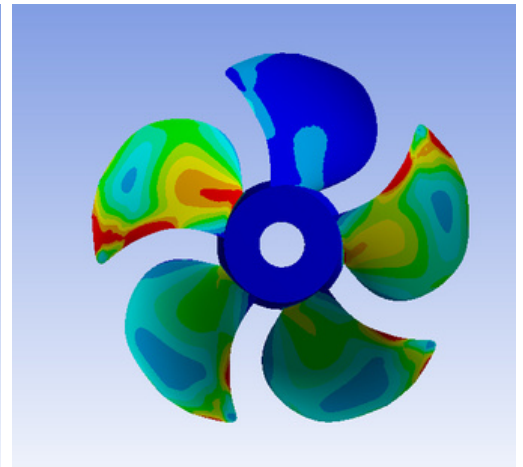
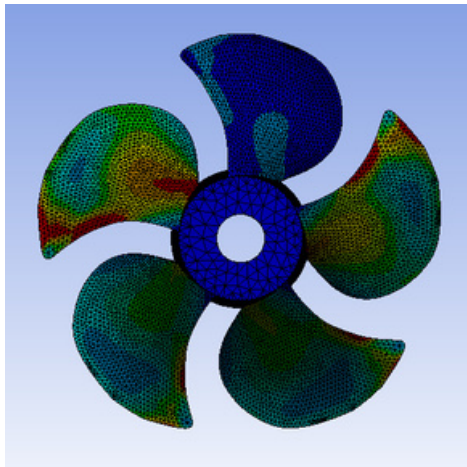
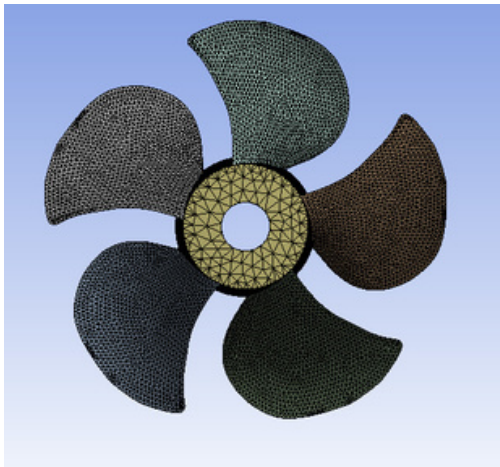


CORE CAPABILITIES

- Propeller performance analysis and design
- Blade and shaft line load prediction and stress analysis
- Derivation of propulsion requirements from tow tank test data and CFD
- High fidelity CFD for detailed flow analysis and design validation
- Shaft line whirl resonance analysis to minimise vibration prior to manufacture
- High fidelity analysis of shaft line bearings and supporting structures to support design
- Shrouded and unshrouded analysis of propeller and propulsors
- 3D CAD model generation from design parameters to enable CFD, FEA and manufacture

AT A GLANCE

Marine Propulsion Services



PROPELLER PERFORMANCE ANALYSIS AND DESIGN

Stirling Dynamics is skilled in supporting marine propeller and shaft line development.

Providing a range of services throughout the propeller development process we can produce preliminary propeller designs, loads and sensitivity studies for bespoke designs in addition to standard propeller series.

Utilising the latest industry leading toolsets, Stirling Dynamics is able to provide high fidelity modelling of propeller, shaft line and hull flows for design validation of installed propellers and the prediction of operational loads. Our structures team can carry out high fidelity finite element analysis for strength and produce detailed CAD solid models for manufacture.

SHAFT LINE ANALYSIS

Our skilled team of structural analysts have experience in static and dynamic analysis of propellers, shaft lines and their supporting structures. Our experience includes propeller shaft whirl resonance analysis for high value marine applications, static loading for shaft alignment analysis and diagnostic analysis of in-service issues.

3D FEA of propeller and shaft line

Blade element design methods

Modelling of shaft rotational dynamics

Nonlinear contact mechanics

3D CFD for propellers and hull effects

CAD solid modelling

StarCCM

ANSYS Product Family

PropElements

Solidworks

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