



"...STATE OF THE ART ENGINEERING AND DESIGN..."



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FINITE ELEMENT ANALYSIS:

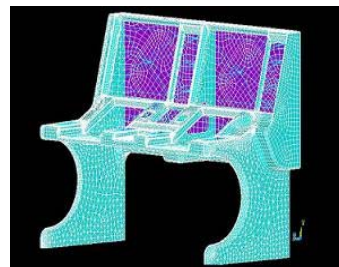
We use ANSYS© Tools for composite materials.

We offer services including:

- Analysis of quasi-isotropic and non-isotropic composite materials.
- 2D (shell) and 3D (solid) analysis.
- Structural Linear Analysis for static and transient issues.
- Analysis of Geometric non-linearities (large displacements), and Material non-linearities.
- Structural Dynamics (Modal, Harmonic, Spectrum, etc...).
- Buckling (linear and non-linear) and Fatigue testing/analysis.
- Integration with CAD software to allow import of complex models.

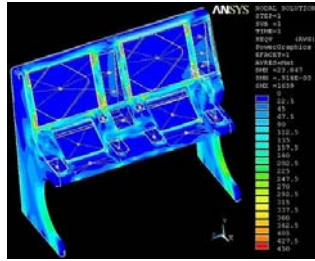
Below are some examples of analysis performed at our facilities.

Composite console for the aerospace industry.

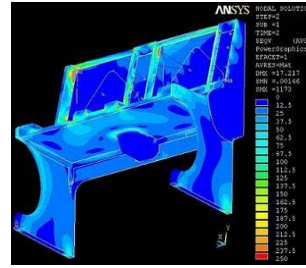


Prototype by Composites Atlantic Ltd.

Model of console.

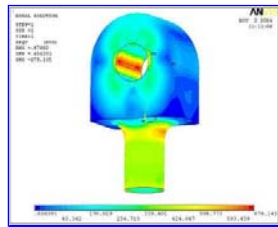


Model using shell elements with quasi-isotropic in-plane properties

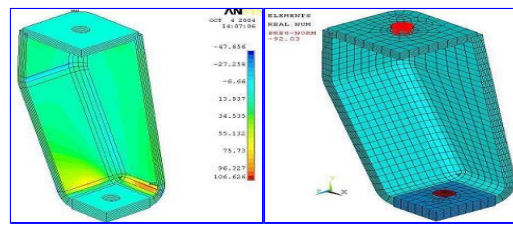


Stress Distributions

Linear Structural Analysis of Isotropic and Composite Materials

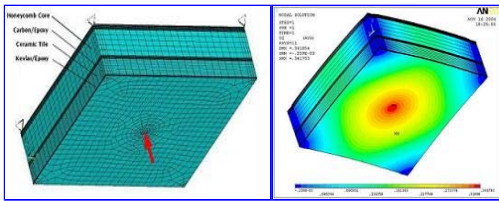


Steel Loading jig

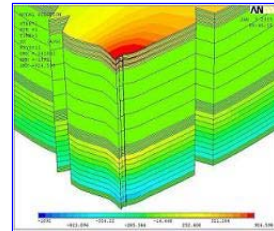


Simplified quasi-isotropic composite support

Analysis of Sandwich Constructions

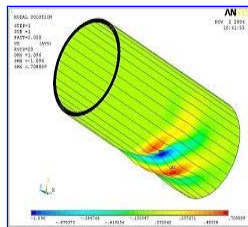


Examples of laminates.

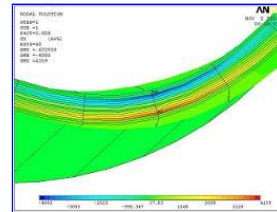


Through-thickness distribution of stresses (ply stress)

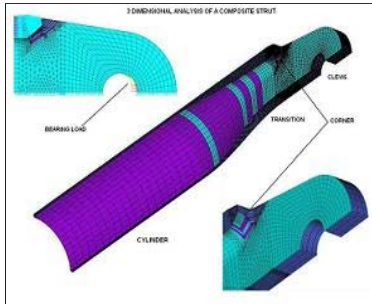
Linear and Non-Linear Buckling Analysis



Buckling zone



Stress distribution (ply stress)



Model using stacked solid 3D elements



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