



FEA

Finite Element Analysis Consulting Services

Analysis-based design / Reliability improvement

Finite Element Analysis is a powerful engineering tool that simulates the physical behavior underlying many engineering problems. FEA allows you to gain valuable insight into your design or reliability problems without having to make compromising assumptions. The benefits of FEA include reduced prototyping costs, design safety verification, extended component life, vibration control, and optimized geometry and weight. At Pioneer Engineering we have advanced degreed engineers who have both the theoretical and practical know-how to tackle your analysis problems with FEA.

Analysis Capabilities:

- *Static stress (linear structural and buckling)*
- *Nonlinear analysis (large deformations, nonlinear material models)*
- *Assembly analysis (bonded and/or contacting parts)*
- *Contact (nodal, surface-to-surface)*
- *Dynamic analysis (modal analysis, transient response, random excitation)*
- *Mechanical event simulation (dynamics, kinematics, contact, linear and nonlinear materials, large deformations)*

Pioneer Engineering Also Offers These Essential Services:

- *Modal Analysis*
- *Condition Monitoring*
- *Reliability Centered Maintenance (RCM)*
- *Educational Seminars*

Please call us for more information.



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