

CORE ENGINEERING CAPABILITIES

AUTOMOTIVE

Chassis components
Specialty vehicles
Car and truck seats
Handicapped equipment
FMVSS compliance
Mobility conversions

AEROSPACE

Crew protection
Airdrop pallets
Composites
Seating systems

SEMICONDUCTOR

Wafer Carriers
Fixtures: weld, assembly,
furnace, slotting
Related: custom tools, ma-
chines, pick-up tools

DESIGN SERVICES

Documentation
Checking
ANSI GD&T
Solid modeling
Reverse engineering

MANUFACTURING ENGINEERING

Machines; assembly, testing,
material handling.
Fixtures: weld, assembly,
test, locating, poka-yoke
Gages: go no-go, automat-
ed.

PROCESS MACHINERY

Conveyors
Screens
Shakers
Bins/Hoppers
Mobile wheeled plants
Steel structures

ENGINEERING ANALYSIS

Drop tests
Crash simulation
Stress/Strain
Vibrations
Fatigue, Creep, Fracture
Seismic engineering
Heat transfer
Human injury
Code compliance
Ballistics
Blast analysis

COMPONENT ENGINEERING

Gears
Springs
Couplings
Enclosures
Small mechanisms
Structural connections
Load carrying members
Energy absorbers

SOLAR ENERGY

Solar tracker systems
Solar thermal structures

ENTREPRENEURS

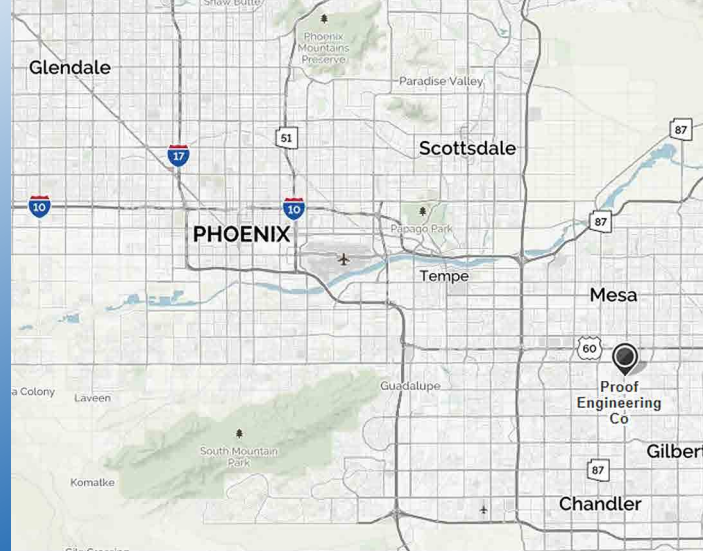
Technical due diligence
Feasibility studies
IP development
Cost reduction
Value engineering

PROCESS SIMULATION

Metal forming
Forging
Rolling
Heading
Extrusion

PRODUCT VALIDATION

Test definition
Data reduction
Failure investigation



Proof Engineering

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A scientist discovers that which exists. An engineer creates that which never was.

Theodore von Karman



PROOF

ENGINEERING



www.proofengineering.com

Mechanical

Structural

Product

Small Company with Big Aspirations

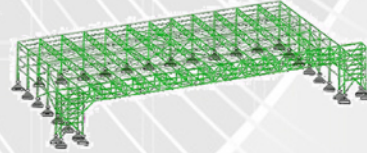
Practical implementation of best engineering practices:

- Requirements
- Conceptualization
- Analysis
- Development
- Prototyping
- Testing



Structural

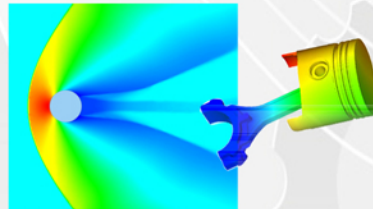
Proof Engineering can help you engineer non-building steel structures to support variety of mechanical and electrical equipment. We make sure that your plant is safe, economical, and complies with all applicable regulations and codes. Our proven approach allows for efficient use of funds and structural materials to achieve these goals.



Analysis

Specializing in Finite Element Analysis, Proof Engineering can accurately predict performance of products and processes. Using benchmark industry tools, we can deliver in the following areas:

- | | |
|--------------------------|---------------------------|
| Static Stress and Strain | Nonlinear materials |
| Critical Buckling Load | Creep/relaxation |
| Fatigue/Fracture | Optimization |
| Natural Frequency | Thermal stress |
| Frequency Response | Fluid-structure iteration |
| Heat transfer | Propellants |



Top 10 reasons

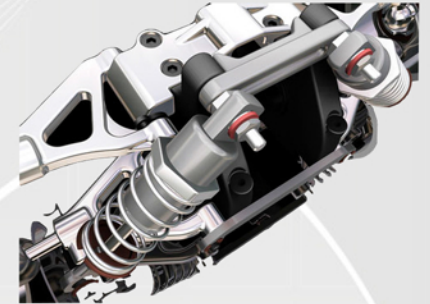
to partner with Proof Engineering:

1. Gain access to engineering "know how".
2. Benefit from high end tools without need to buy.
3. Reduce development time and budget.
4. Flexible terms: T&M and fixed contracts.
5. Pay for engineering only when needed.
6. Improve product quality.
7. Expand organizational bandwidth
8. Reserve third party opinion.
9. Optimize cost.
10. Bring in fresh perspective.

Proof Engineering is a mechanical/structural engineering services firm specializing in meeting the engineering outsourcing needs across a wide range of industries. We employ talented specialists with practical industry experience and an excellent command of the tools of the trade.

Mechanical

Proof Engineering offers a wide variety of mechanical engineering services including mechanism design, CAD modeling, plant layout, material selection, ruggedizing, manufacturing process selection and system integration. With a thorough understanding of engineering methods through years of experience, we avoid common technical pitfalls. Proof Engineering has experience working with plastics and metals such as thermal injection molding, thermal plastics, sheet metal, castings, and extrusions.



Design

Proof Engineering offers a broad range of services to support any aspect of product development. We are capable to produce turn-key designs for specialty and concept vehicles, automotive seats, construction equipment, small mechanisms and custom machines. In addition, we can provide CAD modeling, drafting, checking and procurement services.



Let us help you

To successfully introduce new products, you have to move very quickly to get ahead. And while product life cycles get shorter and shorter, many companies see the warranty and maintenance costs continue to rise. Do not resort to the traditional design-prototype-test approach to new product development - invite Proof Engineering team to help you cut time and costs.