

## Developments at Proof Engineering

Over the past several years, we have experienced a slight uptick in US-based manufacturing activity and get a sense of a possible reshoring, or what some are calling an “upshoring”, trend. Some experts suggest that the driver is increased labor costs overseas, others believe it is a general disappointment among US citizens fed up with a loss of US-based manufacturing jobs. Whatever the explanation, an increase in US manufacturing is beneficial to companies like Proof Engineering that help manufacturers to design and build custom machines, and to bring new products to market. In this article, we briefly present two case studies of how Proof Engineering is helping US manufacturers to turn the tables.

## US Manufacturer Achieves Record Sales of High-End Windows and Doors

Recently, Proof Engineering has helped a US-Based manufacturing company to design high-end windows and doors used by customers throughout the country. The trend for innovative doors and windows has been a result of the customers’ increasing demand for high-efficiency and a feeling of openness in their living and working spaces.

Manufacturing extremely large windows and doors create unique challenges in terms of wind loading, energy losses, and usability. To help our customers overcome these issues, we simulate the loads and stresses that a window or door will experience by use of advanced finite element analysis (FEA) tools. When a problem or opportunity for improvement is identified, we work closely with the customer to present our ideas, often through the use of 3D generated models. Through this collaboration, our expertise allows the manufacturer to focus on what they do best which is to get exceptional product out the door.



## US Firearm Manufacturer Eager to Automate

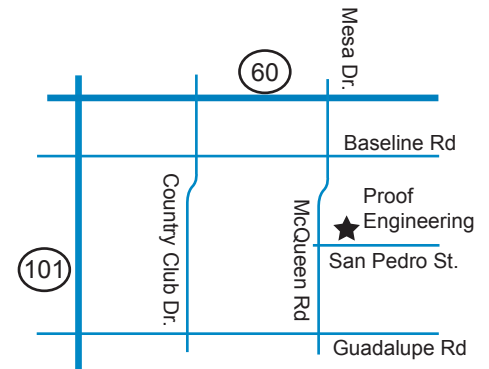
Challenges to the Second Amendment appear to have been a key driver in strong gun sales over the past decade. At least one US company has decided to take advantage of this newly found revenue by investing in their manufacturing facility in the form of automation. With the help of Proof Engineering, the company plans to improve the safety and throughput of their operation by addition of semi-automated machines. The idea is not to eliminate jobs, but to repurpose workers to higher-level tasks while reducing the chances of repetitive stress injury. Given the higher labor costs in the US, the return on investment when developing a custom machine can be as little as one year, but typically is 2 to 5 years. For many manufacturers, the ROI benefit is sufficient justification for the capital expenditure. We look forward to continued collaboration with this and similar companies in the years ahead.



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## What we do

We are engineering problem solvers who can help you to:

- Develop or improve products
- Reduce manufacturing costs
- Resolve technical issues
- Investigate and correct failures
- Design test and validation programs
- Comply with safety regulations
- Enhance FEA and CAD capabilities

## Our Specialties

- Custom machine design
- Solar tracking systems
- Turnkey industrial equipment
- Specialty vehicles
- Advanced FEA