

We Fit Your Engineering Challenges

Applied Engineering's talent, technology and adaptability will help you conquer your challenges.

\land Design

Talent

Applied's talented team of engineers will work at your site or in our design centers using the latest tools to help you with product design and documentation.

Perspective

Our outside perspective will bring new ideas from a variety of industries and backgrounds.

Technology

Our software team will sell and implement industry-leading design software and will train and support your team the whole way.



Digital Prototype

Applied will digitally prototype your design, allowing you to analyze performance, physical properties and cost before cutting a single piece of steel.

Expertise

Our analysis and simulation experts provide a wide range of finite element analysis services, including structural analysis, CFD, thermal analysis and failure analysis.

Cutting Edge Tools

Our team will also sell and implement industry-leading analysis and simulation software and will train your in-house analysts.



Savings

Applied's talented team of engineers will help you with plant layout, process improvement, sourcing and other manufacturing engineering challenges, resulting in material savings, time savings and cost savings.

Complete Support

From concept to production, Applied Engineering will help you make your product better and get it to market faster.

By Your Side

Applied's experienced software team will sell and implement industry-leading design, manufacturing and product lifecycle management software. We will train and support your team the whole way.

Applied Engineering is the only firm with the talent and technology to fit your project, your process and your culture.

A Story of How We Fit CATERPILLAR REMANUFACTURING

Issue

In 2008 Caterpillar Remanufacturing acquired Gremada located in Fargo, ND. Caterpillar Reman repairs large equipment used in the mining industry. *The company has grown from 200 employees to over 350.* With growth comes change, and in 2010 Paul Olsen, Manufacturing Engineer and Facility Manager knew he would lead a plant expansion.

The completion of the plant expansion was slated for April 2011 with a budget of \$29 million. *It would require the consolidation of all locations, the relocation of equipment, construction of the plant expansion; all while maintaining business as usual.* Paul realized the task would require five engineers from outside of Caterpillar. His staff had experience with Applied Engineering, who had provided qualified engineers in the past.

Solution

Applied Engineering provided project engineers and consulting services with a focus in mechanical, electrical design and manufacturing automation. Applied ramped up for the project with five mechanical/manufacturing engineers within a six week period. The Applied team concentrated on the infrastructure of the new production area. Their focus was to relocate and layout the production lines from other plants. The goals for the Applied team included designing an efficient work flow, documenting the process flow and determining the requirements and locations of the air and electric power.

Paul had other project needs arise and requested additional resources from Applied. *To optimize their efficiency, a site leader from Applied was selected as the main point of contact for Paul, his team and the engineers from Applied.*

Applied began to source materials such as platforms, ergonomic tooling, work benches, tool holders and racking. With over 25 years of industry experience, Applied had the resources and the relationships with a broad range of vendors who had proven their capabilities. The standards were high; they must provide reliable materials, cost-effectively, quickly and provide efficient delivery. With Applied's help, Caterpillar met its tight project deadline with minimal business disruption.

Paul Olsen said, "The project would not have happened without Applied. We met all of the quarterly goals, finished on-time and within budget". Not bad, considering the project budget was \$29M, the production floor doubled in size and four facilities were combined into one location.



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