

## We Fit Your Manufacturing Challenges

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

# Services

#### **Manufacturing Engineering**

Applied's team of engineers and specialists will work at your production site or at ours to help solve your manufacturing challenges, and help you increase quality, efficiency and productivity.

#### **Plant Design**

Our team will use the latest tools to help you with plant layout and design, allowing your to optimize production space and increase efficiency.

#### **Jigs and Fixtures**

Improve quality with the right jigs and fixtures. From manually-operated to fully-automated, Applied's team will design a solution that fits your needs.



#### **Sheet Metal**

Applied offers the latest tools for all of your sheet metal manufacturing, with advanced nesting integrated material tracking.

#### CAM

Reduce set up and programming times with the latest CAM software from Applied.

#### Integration

Eliminate redundancy and translations with integrated manufacturing software, and get better quoting, cost tracking and job bid creation.



#### Flexible

Applied will listen to your needs and propose a solution of services and/or software that fits your business and your budget.

#### Experienced

With experience in a wide variety of industries, our engineering, manufacturing, and IT expertise will help you with any manufacturing challenge.

#### Training

Our team is here to support you the whole way, with standard or custom training at our training centers or at your location with our mobile training lab.

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 Quality Tool Service

### Issue

Quality Tool Service is located in Shell Lake, Wisconsin and was started by a toolmaker in 1998 and has since grown to over 30 employees. They specialize in designing and building weld fixtures for the on-road and off-road vehicle market along with assembly and inspection fixtures, as well as robotic tooling.

Customers come from all parts of North America for the reliability of the tooling, top notch design and the rapid response time. According to Jim Scheu the Operations Manager, "First time customers will check us out with a small project and they return because we respond quickly and often improve upon the tool in ways they had not considered."

In 2009, QTS landed a first time customer with a need that wasn't so small. The customer had been manufacturing their own fixtures but production had fallen behind and forced them to outsource. *The demand was for 30 manual weld fixtures to be designed, built and delivered in a short period of time. The tooling fixtures held exhaust tube systems of varied sizes in place for welding.* The project was perfect for QTS. The only issue was Jim's engineering staff was already entrenched with current projects. Jim needed engineering support immediately and went with Applied Engineering. "At first we went to Applied because we needed a mechanical designer and fast. They were able to respond to our needs quickly. We continue to work with Applied because of the competent designers, accurate work produced and their creative approach to solve our customer's complex tooling issues", he said.

## Solution

Applied provides project engineers and consulting services with a focus in mechanical, electrical design and manufacturing automation. With over 25 years of experience, Applied is viewed by their customers as an integral resource to expand their capabilities, gain productivity, get products to market faster and help impact profitability.

In the end, the customer was thrilled with the response time. Very quickly the customer discovered a valuable asset. The fixtures, designed in a poka-yoke method required consistent placement of the exhaust tube within the fixture. In the past, the customer had experienced costly operator set-up errors, welding flaws and installation failures. Because of the consistent placement of the exhaust tubes those issues became almost non-existent. The savings for the customer were incredible. A long term relationship was formed.

When Jim was asked how he justifies the expense of an Applied project engineer, he stated, "Over the course of the project the engineer provided by Applied produced over 1200 fixtures at a cost that was 25% less than having a full time mechanical designer on staff. Our product design cycle is now within a day or two because of the engineers' expertise in utilizing the design features of our software. Without Applied we would be limited in the new customers we could seek out as well as the size of projects we can go after."



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