

# We Fit Your Manufacturing Software Challenges

Applied Engineering's talent, technology and adaptability will help solve your manufacturing software challenges.



# **Profile Cutting**

Automatic nesting of 2D and 3D parts and assemblies will reduce scrap and improve material utilization. Capabilities include plasma, laser, router, punch, waterjet, oxyfuel, knife and tube cutters.

## **Inventory**

Integrated material and automated remnant tracking saves money on purchased materials.

# **Machining and Turning**

Reduce CNC machining time by 70% and more with advanced iMachining technology. Capabilities include turning, 2-½ & 3-Axis, 4-Axis, 5-Axis, Mill-Turn and wire EDM.



# Technology

Cut faster and use less material with SigmaNEST's Smart NC capabilities, utilizing bridge cutting, chain cutting and advanced iPierce functionality.

## **Optimization**

Simplified programming tools will optimize machine movements, reduce set-up, and decrease machine cutting time.

### **Efficiency**

Run InventorCAM/SolidCAM within Autodesk Inventor or SolidWorks, eliminating multiple systems, redundancy and translations.



#### Streamline

Applied's advanced tools provide fast and accurate quotes, product cost tracking and creation of job bids, ultimately increasing ROI.

# Integrate

From your product concept to the shop floor we can bridge your systems and improve information flow between all business functions. From this you will gain efficiency, productivity and cost savings.

## Manage

Bi-directional integration with MRP/ERP automates your workflow production management functions.

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 Cross-Tech Manufacturing

# Issue

Cross-Tech Manufacturing located in Crosslake, MN is a nationwide leader in the manufacturing of hydraulic rotary brush cutters under the name Brush Wolf. Brush Wolf is a quality driven product that is known for its industry leading high standards in construction, reliability, and safety. Brush Wolf rotary brush cutters are designed to fit all skid-steers, mini-skids and excavators.

Cross-Tech is growing their business exponentially, and they recognize their customers expect a high level of professionalism when it comes to design and manufacturing. Conducting business with fortune 500 companies requires a level of professionalism when it comes to design and file sharing that they previously didn't have. Designing in 3D and sharing that model in multiple ways with both internal and external customers became a top priority. Cross-Tech also wanted to expand their product line, improve product costing, and find a product to integrate with their accounting software.

# Solution

For product development, Applied Engineering recommended Autodesk Product Design Suite for 3D design simulation validation, Inventor Publisher for parts and assembly instruction and Autodesk Vault for documentation control.

SigmaNEST PowerPack is integrated within Autodesk Inventor for sheet metal design and flattening capabilities for use in manufacturing automation. By utilizing SigmaNEST SolidCAD they have enabled a seamless integration that allows Cross-Tech to produce "Nests" for their work orders within minutes versus hours.

As with all projects of this nature, we provided training, support, implementation and a timeline for the project. By working together with the Applied technical team, Cross-Tech Manufacturing was able to get up to speed with their new design to manufacturing solution in less than 6 months.

- Reduced Design to Production Time by 30% Reduced Physical Prototype costs Product to Market Faster
- Improved raw material yields by 15% Improved Parts/Assembly Manuals Full integration to MRP/ERP

# **Testimonial**

Nick Freiberg, Manufacturing Manager at Cross-Tech: "We are better organized, have a seamless integration to manufacturing, and the results we expect are being experienced the 'First Time' versus later since implementing Autodesk software and SigmaNEST."



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