Alibre CAM: Changing Businesses, One Shop at a Time

Not to toot our own horn, but we hear success stories all the time about how our customers have utilized our software in effective ways, and how it’s helped their business. But our benchmark for a truly satisfied customer changed after speaking to Chris Milligan of CRM Fabrication & Repair. Chris began to tell us how our software has “literally changed his business”, & that Alibre CAM has “brought his manufacturing capacity into the 21st century.” Let’s back up and see what lead to Chris’ success with MecSoft CAM software.

CRM Fabrication & Repair is a small family-owned fabrication and machine shop located in the hills of Northeast Georgia. Chris told us their story is one of “humble beginnings and hardwork.” He started the company in Longview, Texas with only a stick welder and a 1978 Ford truck. Their drawings were constructed on graph paper, or on the floor with soapstone. Eventually they were able to get their hands on a student copy of AutoCAD 2D. At that time, their services were limited to what could be welded with a DC “stick” or “Tig” welding machine, or items that could be brazed with an Acetylene torch rig. Fast forward 15 years and a relocation to Georgia, CRM Fabrication & Repair now has 4 full time employees, upgraded equipment and machinery, and a full machine shop. This includes a recently purchased CNC machining center, and a vertical machining center. They of course have also purchased a seat of both Alibre Design (now Geomagic design), and Alibre CAM 3; which in the words of Chris has “transformed their business.”

“The ability to seamlessly work in both the CAD and CAM software has streamlined both the design and the post-processor features of what we do.”

CRM Fabrication employee performing a tapping operation
Wheel Finishing Stand

Over 10 years ago a company approached CRM Fabrication & Repair with a unique product request. The company specialized in refinishing car wheels and they wanted a stand that would assist in this process. Of course this was before CRM Fabrication had embraced CNC and CAD/CAM software, so creating a unique product was a little more difficult. They were able to complete the product and ship the order but it wasn’t pretty, and it wasn’t done efficiently. It was bittersweet when the customer would come back year after year and order more. Chris was happy to have satisfied the customer’s needs, but hated producing them. “I never had the software to build them right, or build them profitably,” Christ stated. Word got around to other auto shops about these handy “wheel stands” and Chris received more and more orders. He eventually finally had the right software (Alibre + Alibre CAM), and it was time for a redesign! The drawing went from a lunch break napkin drawing to a full CAD model in 4-5 hours. And thanks to Alibre, and Alibre CAM, the product has a more complex design which allows it to be adjustable resulting in a more economical shipping process. According to Chris, the retail cost for the completed modular units (fully powder coated) is 15% cheaper than the “crudely built units that originally spawned the idea 10 years ago.” This of course results in higher profit margins for CRM too.
Wheel Stand: “In Use”
“The capabilities, support and cost of this software package has played a major role in our small business showing greater growth in the last 8-10 months than we have experienced in the last 5 years.”
Bearing Housing

This next part from CRM Fabrication that is shown below is a high strength bearing housing for a linear actuator. Chris told us that these were originally made entirely on manual machinery for the 6 years prior to obtaining a CNC and CAD/CAM software. Thanks to Alibre + Alibre CAM, these parts take a small fraction of the time (and the man hours) to produce than before, resulting in much higher profit margins. As mentioned earlier in this Case Study, CRM Fabrication has only been utilizing CAD/CAM since the 4th quarter of 2012. In these first 5 months of 2013, CRM Fabrication’s revenues for this part alone have almost exceeded their entire 2012 revenues! Talk about growth!
Bearing Housing:

“CAD/CAM”
“Thanks to Alibre & Alibre CAM, we now have the luxury of doing more of the work that we want to do; & can do the work that we don’t want to do more efficiently.”
Bearing Housing:
“In Process”
Bearing Housing:
“The Finished Product”
Various Projects

This is an order of 1500 custom 26 ga galvanized parts for the audio industry. This is a part that was designed in the field on scrap paper. After 4 years of successful manufacture, Chris re-drew the part using CAD. After careful planning, they were able to change sheet sizes and reduce waste by 8-10%. They also brought the components into an assembly that helped their customer market the part and increased sales for both companies.

“This is the kind of stuff I’ve seen in shops with 15 years of CNC experience. We’ve been able to do it after only 6 months which is a testament to the software.”
Various Projects

This is one of CRM Fabrication’s modular rifle and handgun targets. The system was designed in as a combination of solids and sheet metal parts. The design has been in the works for about 6 months. No tools are required beyond a hammer to drive them into the ground. This target is sold in sporting good stores around Gainseville, as well as direct from CRM Fabrication & Repair. Click here to watch a YouTube video of the target in use!

“I don’t know where I would be without the countless hours on the phone that MecSoft support spent with me!”
Various Projects

This is a prototyped 6061 T6 Aluminum holster clip that was produced by CRM Fabrication for a local company in their area. Chris mentioned to us that they now make 200 units per month of this holster. To make the initial design, they glued 0.060" aluminum sheet to a slab of 1" aluminum and performed an "engraving" operation with a 3/16" carbide end mill. After machining, heat was applied to release the small parts that were later pressed out in a custom die set.
For information on CRM Fabrication & Repair, visit their website.

To learn more about MecSoft’s Alibre CAM software, visit our website or call (949) 654-8163.