ASC Process Systems

Customer Success Story

Autodesk Intent™
Autodesk® Inventor®
Autodesk Consulting

I have nothing but good things to say about our relationship and experience with Autodesk Consulting and D3 Technologies. We've always received much more than we expected for our money.

—Dave Mason
President
ASC Process Systems

The autoclave answer.

ASC Process Systems uses Autodesk Intent™ software for better automated engineering and design of autoclaves.

Image courtesy of ASC Process Systems

Project Summary
When Dave Mason co-founded Aerospace Service & Control, it was because he and his partner recognized a growing need in California's burgeoning aerospace industry for service on highly specific equipment.

"We noticed that there were quite a few highly competent manufacturers of this type of equipment, but none of them were very good at after-market service," says Mason. "My partner was a mechanical guy and I was a controls guy, so we just went to work."

That was over two decades ago. In the ensuing years, Mason and his partner (who has since retired) proved so proficient at providing services to the aerospace industry that their loyal customers—including such firms as Boeing and General Electric—suggested that the company simply build the equipment themselves.

Today, Mason is president of ASC Process Systems, the Los Angeles–based provider of specialized process equipment, control systems, and custom manufacturing software used in the composites, plastics, glass, solar, lumber, and concrete; coatings; and finishing industries.

The company employs 170 people around the world and, perhaps most important, is the largest designer and provider of autoclaves for the aerospace industry in the world.

ASC engineers use Autodesk® Inventor® software daily and recently began using Autodesk Intent™ software to accelerate design efficiency through full automation of its design and engineering processes.

The Challenge
Autoclaves are large, self-locking vessels that utilize high pressure, high temperature, vacuum, and advanced instrumentation to cure composite parts for military and commercial aircraft, ballistic armor, and a host of other uses. The Econoclave® is ASC's flagship autoclave product designed for energy efficiency and low cost of ownership. It can be used for many applications including composite curing, glass laminating, vulcanizing, and nuclear sampling. The company also went on to build similarly efficient and economical autoclaves for glass lamination and concrete, as well as industrial and composite ovens.

ASC also creates and markets its own control software for a variety of uses, including process, autoclave, oven, and crane control.

Autodesk®

Using Autodesk Intent software, ASC Process Systems has reduced its autoclave design time to a matter of hours.

"The sheer complexity of designing and building autoclaves is our core challenge," says Mason. "A lot of so-called tribal knowledge goes into making them. It is very difficult to find, let alone retain, engineers with any experience working with autoclaves. As we grew in size, it was taking more time to train engineers in the process and, once we had them designing good autoclaves, they would tend to move on."

Mason reasoned that full automation of the engineering and design process could get ASC engineers up and running faster and more efficiently.

"For a long time now, it has been my goal to fully automate our engineering and design processes," says Mason. "As software developers and programmers ourselves, we do a lot of our own automation of our internal processes, whether it is for material requirements planning or general process dashboards, but we needed something more complete."

The Result

During a long search for an automation solution that would work with Autodesk Inventor software, Mason was frustrated to find solutions that were either too basic for the complexities of autoclave design or not sufficiently intuitive for his engineers to adopt quickly.

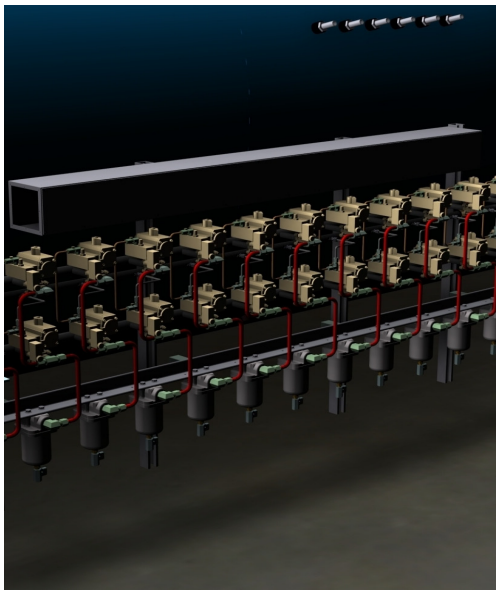
When ASC started working with Autodesk Consulting and D3 Technologies, an Autodesk Authorized Reseller, however, Mason would soon find a solution in Autodesk Intent software.

"Every autoclave is, in essence, a custom design," says Mason. "A typical autoclave can take even an experienced engineer up to 16 weeks to design and model. With the help of Autodesk Intent, we can reduce that timeline to just a few hours. I've always wanted my engineers to spend their time actually improving the product as opposed to modeling and applying rules. Autodesk Intent helps us accomplish that goal."

Although full integration of Autodesk Intent software is still in process at ASC, Mason is convinced of both the power of the software and the added value of having both D3 Technologies and Autodesk Consulting as trusted advisers.

"I have nothing but good things to say about our relationship and experience with Autodesk Consulting and D3 Technologies," he says. "We've always received much more than we expected for our money. More than that, I love the product. Every manufacturer would love to have Autodesk Intent on their side."

To learn more about Autodesk Consulting, visit, **www.autodesk.com/consulting.**



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