

Aluminum Injection Mold Company

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CimatronE is the perfect software for our streamlined workflow process... Everything from the quoting to the design and production is done in CimatronE.

Tom Bergman, Vice President of Manufacturing

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Industry Aluminum molds for industries such as automotive, medical, computer/business machines, telecommunications, and consumer products

Location Rochester, NY

Website www.aluminuminjectionmold.com

Based in Rochester, NY, Aluminum Injection Mold Company (AIM) has been an industry pioneer in providing creative aluminum mold solutions to a wide range of industries since 1985.

One of AIM's unique operating processes that sets it apart from many other tool shops is that it assigns each project to a single member of staff who is responsible for it from start to finish. This enables each employee to develop a complete picture of the mold they are building.

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The Challenges

- Keeping up with demands for increasingly shorter delivery times
- Models received from customers are often incomplete
- The need to build complete mold bases, owing to a lack of availability of standard off-the-shelf aluminum mold bases
- Ensuring that machinery will operate effectively while unattended
- Creating complex molds with few or no flat surfaces

The Solutions

CimatronE's MoldDesign and NC

The Results

- Using a single, integrated software for both CAD and CAM with an array of functionalities ensures that no time or data is lost in having to switch between programs in different design and programming phases
- CimatronE's powerful mending functionality can repair all types of incomplete models, regardless of whether they are open or closed objects
- Rich design capabilities and user-defined catalog creation allows for new mold bases to be created quickly, stored and easily adapted for later use
- CimatronE's error-free toolpaths ensure that the tool operates efficiently while unattended and the part is cut without any gouging
- All types of molds, regardless of size or complexity, are effectively designed and programmed using CimatronE's range of capabilities

AIM is now able to deliver high quality custom aluminum molds in weeks rather than months, and has also garnered a wide reputation for handling complex parts.

For more information, please visit www.CimatronE.com

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Staff members' jobs are made easier with AIM's integrated CAD/CAM software – CimatronE. "We use CimatronE right from the get go in the quoting process. When we get the customer file, CimatronE is great for viewing and analyzing the part," says Tom Bergman, Vice President of Manufacturing.

"When it's time to build the mold, that very same person just switches to machining mode, and the design just flows naturally right into machining. There is no time lost in having to bring in more people, explain the design, export the file to other software... it's all done from start to finish in CimatronE."

As aluminum molding is a relatively niche market, there are few off-the-shelf aluminum mold bases available. AIM therefore builds every mold in-house from the ground up, including the mold base. To help expedite this process, AIM has created its own library of common mold bases in CimatronE:

"In the past, we used to create every mold base from scratch. With CimatronE, when we get a new job we can expand or shrink the mold base size with just a couple of clicks. This allows us to create a new mold base very quickly yet still customize it to the specific job. And even though the mold base might be a custom size, we have all the flexibility of utilizing components from the CimatronE library available to us."

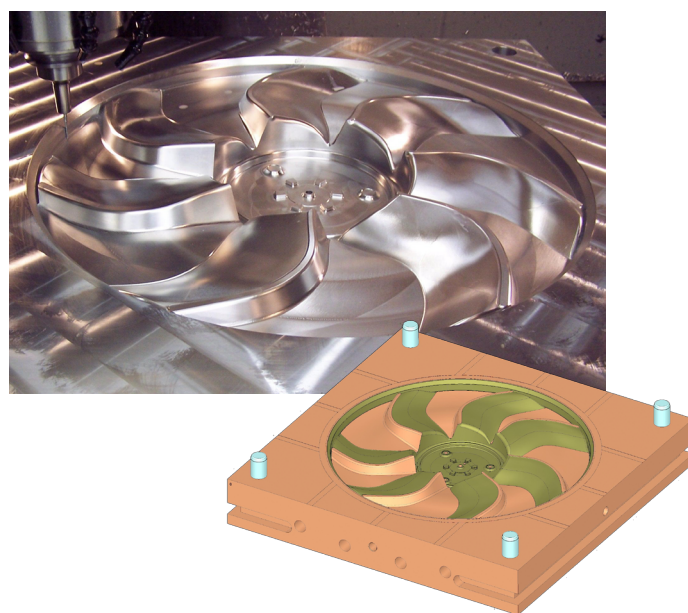
CimatronE has also been of significant help in handling CAD models with missing data: "More often than not the CAD models we receive from our customers are not quite complete... That's where CimatronE is very powerful because we can take an incomplete CAD model and start working with it right away instead of losing time going back to the customer to have them fix the file."

In addition, CimatronE facilitates unattended

machining: "The tool paths generated by CimatronE are so robust and error-free that we have complete confidence that the machine is not going to take some bad motions and damage the work piece or have tools crashing."

AIM has garnered a reputation for handling complex parts, becoming the mold maker of choice for cooling fans for many of the automotive brands. "These molds are particularly challenging because there's nothing flat. All the shut-offs that have to be created tend to be rolling and curving geometries with very little flat references. We found that CimatronE has been very effective in doing that kind of shut-off work in the mold design."

"In addition, these files often come undrafted so we need to add draft to certain parts of the geometry. The fan blade itself might be the shape they want, but the center area the blade is attached to may not have any draft. With other software you'd be stuck, but we have the ability to work with a file that isn't necessarily a hundred percent accurate. I know of no other software where you have the capability to do that, and our customers really appreciate that."



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