

PTA Corp.

case study



URL: www.ptacorp.com

Location: Connecticut & Colorado, USA

Industry: PTA Corporation is a leader in plastic injection molding, providing a complete set of services from design to tooling, manufacturing, and assembly for the medical, computers, telecommunications, industrial and security applications industries.

Challenges

- Providing customers with a complete solution from concept to production, including design consultation, material selection, and manufacturability analysis
- Maintaining exceptional speed-to-market working with customers in competitive, highly-accurate and aesthetic-driven industries

Solutions

PTA Corporation uses CimatronE as a single, completely integrated solution throughout the entire design and manufacturing process

Results

Implementing CimatronE across different departments and offices has improved PTA's design capabilities and improved overall communications, resulting in shorter delivery time of higher quality products

Bringing Ideas to Reality

Few manufacturers have been able to withstand the drastically evolving global economic and technological changes for a period of over half a century, while sustaining a solid reputation as a reliable, efficient, and innovative supplier. Nonetheless, with a combination of state-of-the-art technology, dedicated and knowledgeable employees, and a philosophy that emphasizes quality and collaboration with customers, PTA Corporation has been able to maintain its leadership in the highly-competitive plastic injection molding industry since 1953.

PTA has gained a reputation for bringing ideas to reality, collaborating with world-leading companies such as Apple, GE, Philips, Siemens, and Zoll Medical to address all areas of design, quality, cost, and manufacturability. Each client works with a specific team at PTA that takes the product idea through a step-by-step process from CAD design to production and assembly.

"We get involved with projects far before they are ready to be released to manufacturing," says Rich Dorans, Vice President of Operations at PTA. "Files coming in are often no more than a basic concept. We give our clients suggestions to optimize manufacturability with better part design and material selection, assisting in the selection of different plastic resins, surface finishes, and finish treatments, as well as defining proper draft and other details needed for applying solid tooling concepts."

Adds Don Miller, Senior Mold Designer at PTA: "We emphasize extensive design review and analysis so by the time a project is ready to go it greatly streamlines the rest of the manufacturing process."

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To maintain its competitive edge, PTA has had to adapt to changes in the demands of its customers, including lead time reduction. "PTA has always been known for speed-to-market; Cimatron allows us to design and build molds more efficiently so we can maintain our industry leadership," says Dorans.

Using CimatronE as an All-Inclusive Solution

Prior to standardizing on Cimatron, PTA was using different applications for each department. Dormer notes that "this forced us to do a lot of translating of geometry back and forth between different platforms, which made the process very time-consuming and non-cohesive." PTA has now adopted Cimatron as their all-inclusive solution. "Cimatron has all the different applications that are geared towards our industry, and therefore are a perfect fit for us. Now we are designing in Cimatron, the moldmakers and programmers are doing everything in Cimatron, our electrodes are being designed in Cimatron, and we are now working towards downloading information directly to our EDM machines through Cimatron," says Dormer. "The fact that we're all on the same platform has really helped streamline and speed up our operations."

Dormer adds: "I believe the area where we saw the biggest advantage from operating under the same platform was in electrode design. Even though they had been using Cimatron for five years, their work was really hindered by different departments functioning on separate platforms."

Using Cimatron, PTA is also able to provide customers with better feedback. Says Miller, "The fact that we can take parts, run sections through it, see the interferences, and put parts into

an assembly to see how they interact with one another are key features that enable us to quickly let customers know whether they should modify some of the geometry. Cimatron has built-in tools that our project managers use to simulate a split of how the part will fit into the tool to analyze drafts before it goes to the designers. Moving forward, I can see this being a big help to our quoting department."

Working on a recent project provided a concrete example of how valuable these capabilities are to PTA. The project comprised a package of over twenty tools, all designed in Cimatron. The majority of parts were overmolded, building one mold for a solid substrate and another to overmold an elastomer on top of that substrate. "Working in solids provides beautiful 3D visualizations which really help the moldmakers plan out their job and understand where they want to take it much faster than they were able to in the past", says Dormer. Adds Miller: "The hybrid modeling system is a huge advantage; I can do things in solid, unstitch the part and work with faces and surfaces as needed, and then re-stitch them when I'm done."

Dorans is happy to say that the transition process exceeded his expectations. "The training and learning process has been quick and the benefits were clearly worth the effort. In addition, Cimatron's technical support resources have been extremely helpful in smoothing out any issues that came up during the transition."

"We are now strictly using Cimatron for any new projects coming in," says Dorans. "We have completely turned off any other software we were using."

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For more information, please visit our web site at:
www.cimatron.com

