CARLSON TOOL & MANUFACTURING CORP.

Mold Repair and Enhancement



Carlson Tool designs and builds plastic injection molds for a wide variety of customers. Since 1958, we have understood the importance of mold repair and performance improvements for plastic injection molders.

Our success is built on a foundation of state-of-the-art equipment, dedicated craftsmanship, customer-driven solutions and time-sensitive service.

AN UNDERPERFORMING MOLD WILL RUIN A LOT MORE THAN JUST YOUR DAY.

Your customers may not care about your problems with cycle times or molds that run too hot, but you do. High scrap rates shave valuable dollars right off of your bottom line. Carlson's mold repair and enhancement services can turn problem molds into profit builders.

Just fixing an underperforming or broken mold is like treating a symptom without understanding the cause. Carlson's expert team uses a variety of diagnostic tools including mold flow analysis, thermal imaging, pyrometers, high-speed cameras, and D.O.E. to identify problem areas in the mold.

CARLSON CASE STUDY

When a customer's mold failed, Carlson Tool:

- 1. Determined a mold block defect though stress analysis which was highlighted in a report to the customer.
- **2.** Was awarded the work to repair three of our competitor's molds plus the design and manufacturing of a new mold.
- **3.** Verified that millions of cycles later, the molds are still in production.

WE RE-ENGINEER YOUR MOLDS SO YOU CAN RE-ENGINEER YOUR BOTTOM LINE.

Carlson's engineers and manufacturing team become an extension of your company, understanding your business and developing effective working relationships with your inhouse team.

OUR SERVICE TEAM OFFERS:

- Product Design and Development
- Mold Engineering and Design plus Reverse Engineering
- Prototype and Bridge Tooling
- In-house mold sampling utilizing multiple
 High-Speed KraussMaffei Injection
 Molding Presses with capacities up to
 1,100 tons including Cinpres gas assist.
- Our contract measurement services utilize four CMM machines operated by an expert multi-shift staff trained in advanced quality technologies.

Carlson Tool's state-of-the-art facility in Wisconsin features the industry's latest engineering and manufacturing equipment.

Client Testimonials

We rely on the Carlson 360 to provide multiple services that include product design, FEA, prototyping, mold repair and production molds. Carlson Tool provides turn key solutions that ensure we meet our demanding customer expectations.

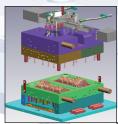
Darren Scholl

KW Container Director of Manufacturing

Using their expertise and creativity, Carlson Tool analyzed, developed and manufactured Isolite's new molds that produce a better quality part with a 40% reduction in cycle time over our current molds. It's nice to do business with a competent company, where the employee stands by their word. We have found our new mold maker.

Brian Halleck

Isolite Systems Senior Mechanical Engineer







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We define quality as conformance to requirements. Customers who haven't worked with Carlson just aren't experiencing this measure of quality. We add capabilities whenever our customers' needs demand it. This flexibility maintains our competitive edge.

You can rely on Carlson's quality assurance practices including first article layouts from simple to complex 3D features and 3D CAD surface analysis. We provide statistical analysis and inspection reports in multiple formats. Carlson even offers off-site development, PC-DMIS training and evaluation of oversized parts. At Carlson, we don't give our customers more quality than they need — just more than they are used to.

COMMON MOLD INTEGRITY ISSUES

Is Your Mold Leaving Money on the Table?

Every time your mold produces a part that doesn't conform to requirements, it costs you money. It could even cost you a customer! Carlson Mold Repair specialists can convert your underperforming molds into money makers.

Is Your Molding Cycle Time as Fast as it Could Be?

Let Carlson employ our diagnostic tools to detect hot spots. We can determine if your mold could use more BeCu or more water flow in key areas to remove additional heat thus increasing productivity.

Could Your Mold Scrap Rate Be Lower?

Let Carlson check your parts and steel sizes to verify shrink calculations to reduce your scrap and enhance your bottom line.



Do Your Parts Have Cosmetic Issues?

Looks aren't everything but cosmetic variances may reflect problems in the mold. Let Carlson evaluate the processing, venting, gating, cooling, melt delivery and mold finishes. Through our advanced reverse engineering processes using shrink or sink data, Carlson can then incorporate windage or anti-warp/shrink into the mold. Carlson also utilizes a Cinpres unit for further trials and testing of your underperforming mold.

Use Carlson's ROI Calculator

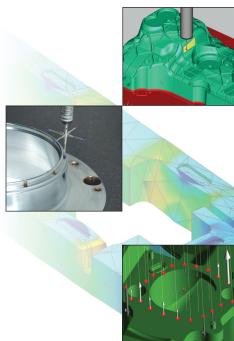
Learn how enhancing the condition of your mold translates into real savings. Click here: carlsontool.com/plastic-molds-ROI.php

CONTACT US

Achieve a higher level of quality and performance on your next project. Contact us.

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Carlson Tool has extensive knowledge of metallurgy and engineering. Carlson engineers each mold for appropriate performance and life expectancy. Carlson's engineering ability turns ideas into reality.



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