

Toolmakers race for new targets for medical supplies

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The expanding response to the coronavirus outbreak is moving from rapid prototyping to higher-volume injection molding, which is leading to an increased role for mold makers.

Toolmakers in North America have responded with manufacturing turnarounds that have led them to making complete tools in a matter of days, rather than months.

"We were four weeks from the first phone call to tooling to making handles," said Michael Mualem, president of Proper Group International, a Warren, Mich.-based mold maker and molder.

The company typically focuses on mold making and molding for the auto industry, but when customer General Motors Co. called on the company for a quick pivot to supply its project to make ventilators at its Kokomo, Ind., plant, it was quick to sign on.

The three tools for the project were complex, requiring overmolding and texturized surfaces to ensure the ventilators can be handled by medical personnel with gloved hands, Mualem said. GM still re-

quired Proper to meet strict performance goals. That meant a big shift in the typical production flow from an industry where tools typically take months to produce.

"There were no corners cut from GM on the deliverables, but no one is waiting for signoff from somewhere else [in a remote office]," he said. "Everything is streamlined; everyone is on board."

Proper supplied tooling for outside covers and handles for the GM project. It is also making and supplying face shields to fill local needs.

Mualem's daughter, Sara Gifford, is an intensive care nurse in the Henry Ford hospital system and said some of the homemade shields couldn't stand up to the medical staff's needs or were uncomfortable to wear for extended periods.

"She said, 'Dad, you make things. Can't you make something for me?'" Mualem said.

The company has been using Gifford to provide feedback for its shields.

With the GM work, shields and other essential tooling projects, Proper has been able to keep its plant in Warren open along with a lighting plant in Pulaski, Tenn. A site in South Carolina supplying



Windsor, Ontario-based Cavalier Tool & Manufacturing Ltd. built an injection molding tool within two weeks for a hand sanitizer pump. Cavalier Tool & Manufacturing Ltd. photo

BMW AG has been shut down due to BMW's work stoppage.

To keep operations safe, all manufacturing sites were fogged with a disinfectant. Office employees are working at home. Supervisors and engineers have been spread throughout Proper's buildings to keep them separate.

"We're constantly cleaning," Mualem said. "We've eliminated standard break time. People go in individually to get their food. There's hand sanitizer everywhere, wipes when we can find them."

Masks and gloves are not manda-

tory but available for employees.

Mualem credits Proper's vertical business strategy for allowing it to both pivot quickly to new production and make tooling for the ventilator project on a timely basis. The company has everything from design to final production capabilities on one site.

The company also has launched Proper Group Medical and is looking at long-term business opportunities. The Tennessee lighting plant is responsible for complex molding projects, which make it ideal for technical projects on the medical

side, Vice President Joe Grippe said.

Other automotive toolmakers are doing similar rapid shifts to supply needed parts. Mold base supplier Superior Die Set of Oak Creek, Wis., said it delivered a base for ventilator tooling production within two days, rather than the typical seven days.

Windsor, Ontario-based Cavalier Tool & Manufacturing Ltd. completed tooling for a hand sanitizer dispenser within two weeks.

A Canadian Association of Mold Makers survey of tooling and automation companies showed one-third of those responding said they had increased products and services specifically for medical needs, supplying production tooling. Those companies still open were operating at more than 90 percent of capacity. Ten percent of companies were hiring.

But on the flip side, the vast majority of companies were struggling, CAMM said in a news release, with 2,700 people laid off in one week.

"Respondents are worried about how to deal with employee morale, demand reducing further (and project cancellations becoming more common) and the long-term impact on the health and safety of their workforces," CAMM said.