



Award-Winning Quality in Manufacturing

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FARO® Quantum^M ScanArm

FARO Quantum ScanArm and CAM2 Software Help ICP Lead the Way in Product Development and Quick-Turn Manufacturing

Industrial Custom Products (ICP) is a world leader in prototyping, developing, and manufacturing high-quality OEM and custom thermoformed and vacuum-formed plastic components, as well as die-cut and dieless knife-cut parts. What makes ICP unique among its competitors is its award-winning quality, on-time delivery rate of 99.5%, and a dazzling 22 ppm reject rate.

As an ISO 9001:2015 registered company, ICP is serious about quality. In fact, ICP has been awarded the Polaris Industries Award of Excellence a whopping eight times in a row. How do they do it? One contributing factor is investing in appropriate technology and infrastructure to reduce bottlenecks that increase the cost of quality and reduce profitability.

Investing in Infrastructure

“We recently invested in a new quality room located right off of the production floor,” says Adam Lunde, V.P. of sales and marketing at ICP. “This has given us more space to bring in large parts for 3D scanning without interrupting progress on the production floor.”

“Going from traditional inspection tools to 3D scanning on complex parts easily cuts your time in half, and the FAROBlu® with CAM2 software cuts that time even more because the features are all right in front of you. The X, Y, and Z dimensions are very obvious.”

Kyle Van Tatenhove

Engineer and CNC Manager, ICP

Even before the infrastructure upgrade, the ICP team’s inspection solutions included FARO products.

“When I came aboard with ICP, they already had a FAROArm-Bronze using an early version of CAM2 software,” explains Kyle Van Tatenhove, engineer and CNC manager at ICP. “Before coming to ICP, I was primarily using more traditional tools like rulers and gauges.”

The nature of thermo-formed products necessitates a more versatile inspection solution than traditional tools.

“There’s a lot of unknown features and geometry that you really can’t measure without a 3D scanner,” says Kyle Van Tatenhove. “I’ve also worked [around] fixed CMMs and I’ll tell you, having an inspection tool like the FARO ScanArm right there in the quality room is pretty amazing.”

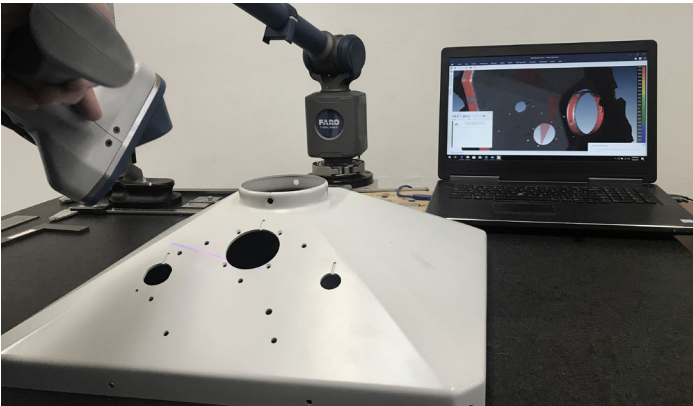
When it came time for ICP to upgrade their inspection equipment, they had every reason to once again choose FARO products. Accuracy, reliability, and affordability were features that led the team to invest in the FARO Quantum^M ScanArm with the FAROBlu[®] High-Definition Laser Line Probe.

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FARO Quantum[™] ScanArm and CAM2 inspecting a cover for a medical diagnostic device

ICP paired the Quantum with FARO CAM2[®] 3D measurement software. With intuitive workflows and insightful reporting capabilities, CAM2 delivers perfect alignment with FARO hardware to gather measurement data anywhere in the production environment. It provides a seamless and easy measurement experience for all users, along with accurate and comprehensive insight into measurement results, without the need for extensive training or expertise.



Reducing Time and Costs Associated with Development and Production

The ICP crew realized immediate time savings with the updated scanner technology and CAM2 software.

Another huge benefit of ICP's use of 3D metrology is a drastically reduced need for physical gages and jigs. In product development and prototyping this is a quantum leap towards quick turn-around and profitability.

"There are fixtures and jigs we've had to purchase because we didn't have time or weren't capable of making them," admits Kyle Van Tatenhove. "Delivery of a fixture can sometimes take weeks depending on its complexity. Our FARO ScanArm can cut that down to hours."

Time and cost savings are significant when you literally don't have to purchase and/or wait for a jig or fixture. For most products, inspection now involves a digital comparison between CAD files and scanning data, instead of physically fitting the part into a fixture for visual verification.

"We see a lot of internal benefits by keeping the process moving forward," says Kyle Van Tatenhove. "It's awesome not having to implement [jigs or fixtures] to verify that your part is in or out of spec."

Also, the benefit of eliminating physical inspection fixtures cannot be overstated when considering the ramifications of storage and version control. Every new part iteration may require modifications to an existing jig, whereas a digital jig can be modified and verified quickly on-the-fly. Additionally, when a physical jig is no longer useful, it becomes scrap.

"We save hundreds and even thousands of dollars by not using physical fixturing," reveals Kyle Van Tatenhove.

"FARO 3D scanning technology helps us reduce time to market by anywhere from 20 percent up to even 70 percent faster in some cases."

Kyle Van Tatenhove
Engineer and CNC Manager, ICP

Reducing Costs Associated with Rejects

"We are ISO 9001:2015 certified, so we have the processes in place to ensure everything flows through here accurately," explains Lunde. "We all know it's a lot more expensive to have parts shipped back to you if there are any issues than it is to ship them out right the first time. We do everything we can to make sure that we're taking an ample amount of time to ensure our products meet and exceed our customers' expectations."

Integrating with the Customer

Although there are still some manufacturers using paper-based part drawings, it is a rapidly dwindling method. To be competitive (or even relevant), having a digitally-based ecosystem is absolutely necessary to provide a smooth interaction between supplier and customer.

"The CAM2 software prints out reports and shows our customers the actual inspection measurements we're getting," says Kyle Van Tatenhove. "This helps things move forward a lot quicker than relying on a go-or-no-go gauge that's either supplied or approved by the customer."

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“Our investment in FARO equipment is another way to help deliver the message that, ‘When you get ICP parts, quality is going to be second to none.’”

Adam Lunde

Vice President of Sales and Marketing , ICP

With the FARO scanner and CAM2, we can just whip out a report or show screenshots of measurements and instantly get the customer’s approval.”

ICP uses all of these advantages to provide superior quality products in the most timely manner possible to their customers.

“Customers want to see that you’re continually investing in your business, that you have a successful business, and you’re moving forward,” says Lunde. “They want to make sure they’re getting accurate parts every time.”

Four Good Reasons Why Industrial Custom Products Chose the FARO ScanArm

- 1** Prior positive experience with FARO products going back to the FARO Gold Arm.
- 2** Ability to quickly and accurately inspect complex parts with exceptional repeatability.
- 3** Easy-to-use solution with Quantum ScanArm and CAM2 working together seamlessly.
- 4** Ability to significantly reduce the cost of externally-made jigs and fixtures that were previously used in quality inspection, reducing time-to-market by up to 70%.

ICP ratings for the Quantum ScanArm:

Accuracy & Repeatability



Measurement Speed



Ease of Use



[View more FARO case studies at www.FARO.com](http://www.FARO.com)

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