



## Cross Helps Segepo-FSM Speed Up Cylindrical Part Inspection

Segepo-FSM specializes in manufacturing high-precision screw-machined and turned parts for industries such as automotive, off-highway, heavy industrial, and electrical. With seven locations worldwide, including a facility in the greater Cincinnati area founded in 1905, Segepo-FSM produces a diverse range of products, including threaded metal inserts, compression limiters, fluid control and pressure regulation components, specialty parts, and custom fasteners. They excel in accommodating both high-volume and low-volume production runs.

During production changeovers, the quality team at Segepo-FSM conducts rigorous checks to ensure parts meet specifications. Part of this process includes measuring five initial parts for compliance. If the parts meet standards, production proceeds; if adjustments are needed, another five-part approval cycle is triggered.

Said Chris Kelley, Quality Manager, "The machine we had in the quality lab for checking parts was made for use with 2D, flat parts and our parts are cylindrical, so in order to measure, you had to modify and create attachments in order to get the machine to measure. It didn't fit the function for what we do."

Due to the wide variety of part families Segepo-FSM runs for its customers, frequent changeovers are common, making this approval process both time-intensive and resource-heavy. Furthermore, skilled quality technicians are often tied up in routine validation tasks, limiting their ability to focus on higher-value troubleshooting activities.



When he was looking for a way to speed up the measurement process, Chris had several different machines demo'd before ultimately choosing the TurnCheck Series 6 Optical Shaft Measurement System from OGP. The work piece is held between the rotary spindle and adjustable tailstock for scanning to create a 3D, highly accurate scan of the part.

Said Cross Senior Application Specialist Sam Conley, "The TurnCheck Series 6 was equipped with the optional helix motion for thread measurement. This provided Segepo-FSM with the ability to tilt the optics +/-15 degrees about the part to properly check the thread profile. This is unique to the TurnCheck Series 6 and essential for the customer's application."

OGP is known for accuracy and image quality and the combination of the illumination system and the specifically designed optics on the TurnCheck stands out. The highly collimated light source and fully telecentric optics produce a crisp, magnified image across the entire field of view eliminating image distortion for accurate and repeatable measurements. In addition, the TurnCheck features the ability to load and scan. Simply loading the part and pressing the button automatically performs the scan with the measured points and features created from the scan data. Pre-programmed part programs can easily be created for dimensional reporting. The software also features a built-in library of common thread types.

A post-purchase calculation, using Segepo-FSM's actual usage data shows a payback on the purchase in 10.6 months.

"Ultimately, it came down to price, customer service and the reliability of the machine. I am very pleased with the purchase. We looked at five different machines and narrowed them down to two. Price-wise, the TurnCheck was a little more expensive but customer service made the difference. No one was as timely as Cross."

The quality team is now using the TurnCheck for all their five part approval process. Said Chris, "I haven't had time to sit down and really measure it. But prior to the TurnCheck, the five piece approval process took between 45 minutes to an hour. Now, it's done in 15 minutes. With over 40+ machines a day and 30-45 minutes of time savings for each, the ROI will add up."

Once a part is in production, the machinists on the shop floor are required to check for ongoing quality once an hour and they are also using the new TurnCheck. Given that it's a new machine with a new process - and all the apprehension which goes along with that - there are still no bottlenecks in measurement.

Chris said the purchase process with Cross was very smooth. "I had no issues at all. Everything I asked for; I got answers too. Customer service was a big reason why we wanted to go with this product. If you're not in communication during the purchase, how is it going to be during maintenance or if I have an issue?"

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### About Cross Company

Cross Company is a 100% employee-owned solutions company that is innovating the industrial world one customer at a time. Cross specializes in robotics and machine automation, industrial measurement and calibration, process solutions, industrial and hydraulic hoses & fittings, and is an original equipment supplier in the mobile vehicle systems integration industry. To learn more about Cross visit [www.crossco.com](http://www.crossco.com).

### About Segepo-FSM

Segepo-FSM is a US-based manufacturer of precision metal parts. Based in the greater Cincinnati area since 1905, they are known for precision manufacturing of custom parts to meet unique customer needs. For more information, please visit [SegepoFSM.com](http://SegepoFSM.com)