

# Improved Efficiency for Semiconductor Industry Manufacturer



## The Problem

Cross Automation Helps a Manufacturer in the Semiconductor Industry Improve Efficiency and Raise Quality Through World-Class Technical Expertise and Customer Service

A manufacturer of machines that inspect semiconductor wafers and packages for defects wanted to upgrade their machine performance to increase quality and throughput. The machines they produce must be very fast and very precise in order to meet the needs of their customers, so they are constantly searching for new components to help them both speed the inspection process as well as improve repeatability. This customer had worked with Cross Automation for more than 20 years so they came to them for recommendations to improve their equipment. By developing this relationship and building trust over time, the two teams have learned to work together to improve their processes and machines.

## The Solution

The completed solution provided to the customer came in two separate areas:

1. The customer knew that one of the actuators they currently used was a limiting factor and wanted it upgraded. The challenge was the actuator had to have high performance, but also be very lite. This was something the customer could not find off the shelf. Cross worked with their provider, Parker, to develop a custom actuator for the customer. This actuator has minimal material to make it as lightweight as possible but is still able to hit the needed precision and speed requirements.
2. Cross engineers also found that the amplifier driving the axis on the machine was not the best option for performance. Because of Cross's relationship with a number of providers our team was able to find an amplifier from Copley Controls that further improved the speed and repeatability of the axis.

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When designing the new custom actuator, the Cross engineering team worked closely with the Parker team to ensure that the final design met the needs of the customer. In addition, because the customer would be regularly purchasing these components, it was critical that they be properly tested before shipment. Because of the lightweight design of the actuator, it would be prone to stalling if not assembled properly. Our engineering team designed and programmed a test stand that Parker uses to test each actuator before leaving the manufacturing facility.

## Parts Inventory Management

Because this customer utilizes custom components, keeping the items they need in stock is critical to avoid issues related to long lead times. To best serve the customer, the Cross CSR assigned to their account manages the stock that we hold in-house for them. With regular monthly meetings to check on their production needs, she works proactively as an extension of their purchasing department to make sure they have the parts that they need—when they need them.

By providing the best products with world-class customer service, the team at Cross Automation has helped them to improve their efficiency and raise the quality of the customer's equipment. Their team has saved countless hours that would have been spent finding the best components for their applications and managing inventory. In addition, the actual quality of their machine has been improved because of the product knowledge and technical expertise that the Cross team has brought to the table.

If you would like to let the Cross Automation experts help you streamline your processes, contact us today! We look forward to working with you.