

Do Drastic Times Require a Call for Drastic Measures?

History

“Unique and innovative work requires unique and innovative partners”

Our customer regularly pushes the boundaries of product and tooling complexity with their latest generation’s product releases. Their mold that recently transferred to Matrix is certainly no exception. The prior supplier, a competent molder in their own right, struggled with no-fills and sticking issues. These issues not only interrupted production but often damaged the fragile and expensive tooling in this highly-complex, thin-walled electrical connector. This vendor worked hard to support their customer, but had to perform time-consuming and costly offline sorting of everything they produced from this mold. Even with the use of RJG’s in-cavity process sensors and their continued debug efforts, they were unable to resolve the manufacturing issues preventing them from fulfilling our customer’s orders in a timely manner.

Heading down the dangerous path where our customer’s demand was ramping up while their vendor’s output was dwindling, our customer needed immediate resolution. They needed an expert, full-service supplier to quickly debug their manufacturing issues and begin molding production parts of the highest quality—as soon as possible.

Challenge

“Challenging projects are common landmarks within the injection molding landscape”

When asked to help, we felt confident that our extensive expertise with high-precision tooling and with our specialized injection molding machines (IMMs) and processes would be crucial for quickly attaining success. Our team of specialized Debug Toolmakers and Tooling and Plastics Engineers thoroughly evaluated the mold upon receipt and throughout our initial sampling. Our engineers directed immediate tooling improvements while implementing best practices in process optimization and product handling. An end-of-arm tool (EOAT) with part detection was quickly created in-house and paired with a full-servo robot to reduce part damage. The appropriate anti-static equipment and a vacuum system were implemented into the automated work cell to provide optimal results.

Results

“Results-oriented companies use systematic approaches to generate solutions”

A successful product launch requires a highly capable and reliable production pipeline to support the capacity for which it was planned. Desperate for help after investing significant debug efforts without achieving success, our customer called upon Matrix and our tooling and engineering experts for the solution.

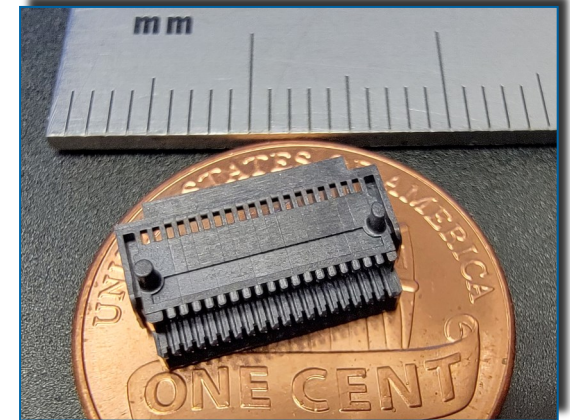
Our team provided rapid results for this highly challenging molded product by developing a sound plan, systematically addressing each issue, and delivering parts of the highest quality to our customer within weeks of the tool’s transfer to Matrix. **As a result of our focused attention, we were able to match the original vendor’s 5 month shipment total after only 3 days of production at Matrix while quickly replenishing our customer’s pipeline. Quality issues were resolved, costly, repetitive tooling damage was prevented, secondary sorting efforts were eliminated, our customer’s pipeline was able to be re-stocked and maintained, and a crisis was averted.** What was once a sense of risk and worry for our customer has turned into a calm and reassuring confidence. Our tooling work, custom manufacturing cell, advanced processing techniques, and the exceptional dosing accuracy and repeatability of the specialized Sodick IMMs in our Small Parts Molding (SPM) division all played a role in our success and ability to improve upon estimated throughput and capacity.



We appreciate the faith our customers place in Matrix to help them succeed as we push the envelope with thin-walled, high-precision, tight-tolerance, micro-featured injection molded products, especially with projects like this one that can stump other premier full-service injection molding suppliers. If you have a challenging new product upcoming or already find yourself struggling to reach the finish line with another, then please reach out to Matrix to find the help—and the manufacturing partner you need.

**“AT MATRIX,
WE
CHALLENGE
INDUSTRY
PARADIGMS
TO
ENGINEER
YOUR
SUCCESS”**

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