

## CASE STUDY

# Ensuring Operational Continuity Within the Med-tech

Utilizing eMoldino's digital supply network, the med-tech manufacturer can solve two major pain points: quality management and delivery risk, enabling a new business model.

With a portfolio of healthcare technologies, the global conglomerate referenced in this case study is among the largest medical device producers in the world. However, like other companies within the industry, the ripple effects of the pandemic combined with other forces – recent semiconductor shortages, shifting consumer demands, and regulatory and quality measures, posed a major threat to the company's supply chain. This has reinforced our role to constantly develop the supply chain solutions required to serve our clients. It is imperative to identify lapses in supplier networks to insulate OEMs and suppliers from further disruptions. By providing an iterative assessment of the production process using process anomaly analysis, there was a discovery of waste in cost and a reduction in defect rate. By reducing unplanned production downtime using mold life cycle charts and alerts, there was a significant improvement in parts' quality.

## Client Challenge

When product parts fail to function appropriately, leading to defective devices, companies are liable to huge financial damages. To mitigate any cost and brand-related consequences, companies must ensure conformity to quality and safety standards and comply with regulations that govern the manufacture of their products.

## Client Pain Points

- Improve medical device parts quality
- Shorten time-to-market by speeding up delivery

## eMoldino Control Tower Solution

- Establish process compliance assurance
- Provide delivery forecast

## Client Benefits

- Reduction in unplanned production downtime
- Timely production to accelerate time-to-market

The company will always resort to reverse logistics in the event of recalls which comes with higher costs. Further, shortages were experienced that threatened the provision of efficient and effective timely care to the right persons at the right time. These shortages occurred due to the producer's inability to forecast delivery. In most cases, as shortages continue, the probability of error in production is heightened. In addition, the industry giant had no gleaned data with regards to their suppliers' capacity, making it difficult to react quickly to unexpected supply disruptions. It was difficult to compare the demand and output of suppliers since there was no real-time monitoring of the production process.



## Quote

“We operate in an industry where even trivial errors cannot be entertained. We find it extremely important that the production process of our medical parts be iteratively monitored to ensure that our products satisfy quality standards”

– Company Vice President

## eMoldino Control Tower Solution

eMoldino has developed a process compliance assurance solution that has proved to be helpful for the med-tech industry. The solution is also widely used in other manufacturing companies and offers an easy-to-understand dashboard that provides relevant information to manufacturers. The system tracks deviations in cycle time and temperature during the production process.

**Process Compliance Assurance:** With the help of eMoldino’s cloud platform and dashboard, the client had access to real-time data over key process conditions which helped them to know whether production was adhering to standards or not. The non-compliance to the approved cycle time observed indicated an inconsistent production process, resulting in defective parts.

An optimal temperature is required for molds to ensure quality parts production. eMoldino’s system tracked the exterior mold temperature every few minutes to ensure consistent quality and lower

reject rates. Our collaborative efforts revealed that inconsistent production processes were contributing to the production of substandard parts. These deviations observed were compelling; indicating that their molds were either faulty or needed repairs.

Knowing that a positive relationship exists between molds’ health and parts quality, we provided a solution through alerts and charts that contributed to determining when mold maintenance was required. This action assisted in mitigating any imminent danger. As med-tech manufacturers require specialized parts to create their products, our enhanced platform powered by AI and data analytics became a game-changer, allowing more control through the insights and intelligence we provided.

**Delivery Forecast:** To facilitate the company’s delivery needs, eMoldino introduced a delivery forecast solution that helped to estimate delivery times by tracking production rates and uptime. The system made it possible to add the demand of each part to compare total and expected production. This made it possible to anticipate delays in demand based on the daily productions and capacities of their suppliers. The smart use of data through our predictive analysis was imperative in accelerating faster time to market through swift parts delivery. The results were tremendous: a substantial increase in responsiveness to changing market needs and an increase in delivery reliability.



## Client Benefits

By helping the manufacturer reduce defect rates through our solution, we provided a more accurate scope of product recalls. This saved cost and brand reputation repercussions through the process compliance assurance solution established. Overall, our system is designed to give med-tech companies a solution to validate their parts manufacturing process. By having complete visibility in each step of the production process, errors were completely attenuated. Specifically, the automated monitoring of the production processes made it possible to predict scrap and yield rates resulting in a substantial decrease in defects.

Another important benefit to the medical device company was that they could assess their suppliers' total productivity to avoid any delays in parts production. This allowed them to receive parts on time to accelerate time-to-market. eMoldino understands that real-time monitoring of the production process helps match demand with the output of suppliers, allowing manufacturers to allocate tasks accordingly. All in all, eMoldino's solution enabled the conglomerate to produce in quality, reduce deviations by ensuring a significant reduction in the risk of faulty devices and recalls.

## About eMOLDiNO

eMoldino is an enterprise-level solution provider that specializes in cultivating digital transformation in the supply chain of fortune 500 partners worldwide. By utilizing cutting-edge technologies, such as AI and machine learning, eMoldino delivers data driven business intelligence to lead the industry 4.0 movement.

Our mission is to help global manufacturers rethink supply chain management, driving true corporate innovation and bring customer experience into the cycle.

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