

M&H Engineering Empowers a Multicultural Workforce with Datanomix

Next-gen production intelligence fosters communication in a shop where English is often a second language.

M&H Engineering is an award-winning precision machine components manufacturer located in Danvers, Massachusetts. Founded in 1966, M&H is a second-generation shop that is focused on producing high-volume critical engineered components and mechanical assemblies for the semiconductor, high-tech, aerospace, and medical industries. M&H prides itself on delivering “Precision with Consistency.”

M&H is in the midst of a multi-year program to evolve the shop, transitioning from a company that started out primarily as a job shop into a high-volume production shop. Central to that effort is upgrading technology and processes while maintaining the core principles of great manufacturing that M&H has developed over the years. In addition, M&H employs a culturally-diverse workforce, so any new technologies must support effective communication to the many shop personnel where English is a second language.

Using Data to Improve Operations

One of the key drivers of innovation at M&H is Chris Burns, vice president of business development. A manufacturing industry veteran, Chris has been with M&H for two plus years. “I came to M&H Engineering after spending most of my career in sales and business development in the manufacturing industry,” said Chris. “By coming to M&H, I was able to take on a bigger role. Change is never easy, but as a company, we have aggressive goals in mind, so one of the first projects I worked on was how to use data to improve operations.”

According to Chris, “Fairly quickly, it was obvious that our ERP system was not going to provide all of the data we needed to reach our goals, especially when it comes to live operations. With our



LOCATION:

25,000 square foot facility in Danvers, Massachusetts

KEY TAKEAWAYS:

- The ERP system at M&H is useful for a lot of things – inventory, invoicing, tracking deliveries, etc—but doesn’t provide insights into production in real-time
- Identifying bottlenecks in production and understanding if they are a result of process or people allows M&H to aggressively address performance in the factory
- For M&H, no operator input is essential —getting data directly from machines means there are no delays in driving insights from actual operations
- Datanomix provides a communication hub that empowers a culturally-diverse workforce to work together despite language differences

INTERESTING FACT:

M&H achieved national attention when partnering with Abiomed to create nearly all of the critical components for the first implantable replacement heart pump

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Delivering Insights in Real Time

Chris had some familiarity with production monitoring software, so he started researching how these different solutions could support M&H's goals. It was important to Chris and the rest of the evaluation team to use the data directly from their CNC machines so it wasn't filtered or altered by operator input. After seeing an in-depth demonstration of the Datanomix platform, M&H decided to purchase the solution for a subset of their CNC machines.

Following a fairly seamless installation, Greg McHale, CTO and co-founder of Datanomix, trained the team at M&H. "One of the points we stress when training the shop floor operators is that we're not trying to be a "big brother" watching their every move. There's a reason there are no names on the screen - just what's happening with each machine and each job. Once you explain and demonstrate that Datanomix is there to help improve operations and performance—not monitor individual operators—most people get on board," stated Greg McHale.

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—Chris Burns, VP of Business Development M&H Engineering

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—Chris Burns, VP of Business Development M&H Engineering

A Virtual Window to the Shop Floor

For M&H, the ability to measure efficiencies and identify bottlenecks in real time using data directly from the CNC machines is critical. According to Chris, "Unlike other monitoring systems, with Datanomix, insights are driven by machine data, not operator input. This frees up our operators to focus on their work and delivers better data because our operators could misinterpret the meaning of reason codes because English is a second language. Datanomix is essentially a virtual window into what's happening on the shop floor right now."



