

## HEXAGON REDUCES DOWNTIME, INCREASES ENGAGEMENT AND THROUGHPUT WITH STANDARDIZED WORK INSTRUCTIONS

**ABOUT HEXAGON METROLOGY, INC.** Headquartered in North Kingstown, Rhode Island, Hexagon Manufacturing Intelligence develops, manufactures, and distributes dimensional metrology hardware, software, and accessories. The company's products boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications throughout the United States and across the globe.

**THE CHALLENGE.** Hexagon was experiencing unscheduled equipment downtime on their CNC milling machines. True to the company's mission, Senior Manufacturing Engineer Brian Malloy wanted to gather measurements that would help the team understand what was happening by applying Six Sigma principles utilizing the DMAIC (Define-Measure-Analyze-Improve-Control) method.

Hexagon reached out to Polaris MEP Project Manager Phil Ward, part of the MEP National Network™. "I have limited bandwidth as an engineer. Having Polaris MEP as a partner allowed us to have our resources work on other projects that also contributed to generating revenue," Malloy said.

**MEP CENTER'S ROLE.** The team started with one CNC machine, observing operations and maintenance personnel. Ward and Malloy reviewed the machine performance metrics, maintenance records, replacement parts usage and spare parts inventory. Data revealed that maintenance was inconsistent and often not aligned with machine's true requirements. Lack of knowledge led to material waste, repeated calls to external specialists and machine downtime. Ownership of the problem was unclear.

The Hexagon/Polaris MEP team collaborated with CNC machine suppliers to document recommended maintenance procedures and frequencies. The team developed standardized work instructions (SWI) that reflected the true requirements and a Gantt chart of tasks that is posted monthly. Finally, Ward created a visual management system for the department. This lean tool promotes OLPC— operator-led process control.

"This board was an improved method to more easily assess the operational status of the part manufacturing department and to solicit input. Operators appreciate having a heightened level of ownership and responsibility in the process," said Malloy.

A side effect of the pilot was organization of the spare parts inventory. Lack of understanding often meant urgent calls to specialists for needed items or downtime while waiting for parts delivery. "Now knowing exactly what we need to do long term, we know what parts have to be on hand to allow facilities to do their job," said Malloy. "This was an added benefit. It was an outcome we hadn't planned on."

**"The operators are enthusiastic – they don't want to deal with breakdowns and downtime. The production manager is very enthusiastic – he's getting more throughput with less cost. It wouldn't have happened in the timeframe defined without the Hexagon/Polaris MEP team approach."**

-Brian Malloy, Senior Manufacturing Engineer

## RESULTS



\$80,000 in cost savings



\$500,000 in increased or retained sales



\$60,000 in new investment

## CONTACT US



315 Iron Horse Way  
Providence, RI 02908



(401)270-8896



[www.polarismep.org](http://www.polarismep.org)

