Thermal Solutions Provider Relies on DataMetrics Software to Help Customers Keep Cool





Based in Woburn, Mass., Aavid Thermal Division of Boyd Corporation develops, designs, tests, optimizes and fabricates

high-performance, reliable cooling solutions across multiple industries. Through consistent engineering and manufacturing innovations, Aavid provides optimized, cost-efficient thermal solutions using a large range of cooling technologies, including fully integrated aircooled, two phased and liquid systems.

Challenge:

Aavid began using DataMetrics in 2014, and employees appreciated the robust system. However after two years, the program was placed on hold due to a lack of engineering resources. During this period, Aavid had no way to collect data during production for statistical process control (SPC) purposes. Process control issues were only identified when nonconforming material was discovered at final inspection which proved to be very costly.

"Discovering issues so late in the process made it difficult to make changes before a lot of scrap parts were already in the pipeline," says Continuous Improvement Engineer Nick Chase. "This resulted in an unacceptable level of scrap and rework."

Solution:

"We investigated one other software solution in 2019, but it didn't integrate with our data collection

infrastructure," adds Chase. "We began using an updated version of DATAMYTE's DataMetrics software in 2019 and we've been using it ever since. It's a much better fit for the work we're doing on process control."

DataMetrics provides operators, engineers, quality teams and managers with the detailed, real-time SPC data, analytics and reporting needed to assess current processes. It also enables them to proactively maintain or improve product quality, meet production goals, reduce scrap and rework costs, and comply with OEM or industry standards.

Using DataMetrics accelerates productivity and performance through real-time monitoring of in-line processes in order to quickly identify quality nonconformities. DataMetrics Insight! Analysis & Reporting, backed by the centralized repository, provides the data integrity and process traceability to meet the toughest standards across numerous industries.

Most manufacturers are low product mix, high product volume (for example, a plant that makes 6 million plastic syringes daily). Aavid relies on high product mix, low product volume data collection, and applies DATAMYTE's DataMetrics to effectively manage production.

One of the benefits for high product mix plants is the part number memory feature. Even if a part only runs once every six months, learnings carry forward to the next part to run six months from now.

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Improvement, while still continuous, happens in "slow motion." DataMetrics can also reduce manual inspection needs, as high mix plants often need to inspect 100 percent of their parts.

"We can gather data and provide reports to our customers that can get their customers to agree to less than 100 percent inspection, saving time. We've been using the software quite a bit for capability and maturity model (CMM) data collecting lately," says Chase. "We're very high mix, low volume but we've worked out some great methods to quickly create very involved programs in only a few hours."

Results:

"The best feature about DataMetrics is the separate modules that exist in the



software suites. Employees and departments can interact with just the information they need," says Chase. "Engineers can create programs and secure them so employees can't make changes to the data collection templates. Employees find it simple to follow the directions outlined by the engineers in the data collection templates."

Chase recently used DataMetrics to solve a production problem. A legacy product that ran fine on a machining center was moved to a new, more efficient machine when production volume increased. Inspections of the first few lots determined 10 dimensions in a region of the parts were nonconforming. Once the data was collected, it took Chase only an hour to create a program in DataMetrics, run all the data, and export the report to management that showed a bimodal distribution was created by an incorrect tool path.

"We were able to determine the direction of the shift based on the shape of the data. Within a few days, engineering had a fix that addressed the issue and the parts have been running successfully since," adds Chase. "DataMetrics allowed us to chart 150 pieces with 10 features, or 1,500 lines of output, in a few minutes. Minitab or Excel would have taken much longer to analyze the data as comprehensibly as was needed."

A larger company recently purchased Boyd Corporation, and Chase has shared this software with other facilities within the thermal management group. Several of those facilities are performing their own evaluations.

"Managers like being able to open the reporting software and filter data by product, time, lot, etc., without having to go through the entire DataMetrics software package, says Chase. "Administratively it's easy to allow individual users access to certain software modules. This feature gives great control to our organization."

About DATAMYTE

The organization's singular focus for almost 50 years has been the development and global deployment of hardware and software related quality management solutions. This focus has given us the knowledge and experience to create a unique position in the manufacturing sector, as well as provide long-standing products and service to some of the world's most prestigious brands. In addition to training and consulting, DATAMYTE delivers solutions in SPC, Data Collection, Quality Planning, Production Workflow, Residual Torque, and Gage & Tool Management.

For more information visit the website: www.datamyte.com



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