How a Plastics Manufacturer Saves $1.5M per Year by Tracking & Leveraging Data

CASE STUDY: ASH Industries

Company Overview

Louisiana-based **ASH Industries is a leader in the rapid mold-making and thermoplastic injection-molding industry.** Founded in 1991, the manufacturer employs 90 workers and operates 19 injection molding machines. ASH serves a number of markets, including the medical, defense and electronics industries, making everything from surgical devices to structural components for laser light shows.

ASH's strength lies in its engineering knowledge, technical expertise and driving desire to wow customers. ASH's management is committed to continuous improvement—such as investing in new materials and equipment and embracing processes like JIT and TOC.

However, **before adopting Amper, the manufacturer wasn't able to use machine data to drive its CI initiatives, which severely hampered its efforts.**

Before: Too Much Downtime, Too Little Dependable Data

Prior to implementing Amper's production monitoring system, ASH was collecting machine data manually—a labor-intensive, often-inaccurate process. **Management knew it was losing money to excessive machine downtime, but didn't have enough good information to identify the root causes.**

Operators used pen and paper to collect production data, including uptime, downtime, scrap and suspected downtime causes. However, its accuracy was suspect, and ASH's Operations Manager and production leads didn't have time to verify it, let alone analyze it.

Flawed as it was, the process consumed an estimated 3,000 labor hours per year, the equivalent of $150,000 in payroll.

"Prior to Amper, we did a whole lot of nothing when it came to data and machine tracking," says Stefen Clement, ASH's Data & Systems Analyst.

"We'd have a guy walk around and take his best guess at machine utilization for the day."

Recognizing that, **particularly with injection molding shops, it's key to know each machine's real-time status,** Clement's team began searching for a solution. Their goal: find a system that would replace manual tracking, while allowing them to resolve downtime issues quickly and develop preventative solutions going forward.

Highlights

- Louisiana
- 40,000+ sq ft
- Injection-molding
- 90+ Employees

Gamechanger: ASH's One-Month Transformation

Impressed with Amper's ease of implementation, low cost of entry and passion for the injection-molding industry, ASH decided to test Amper's monitoring system on three of its machines.

Immediately, ASH was able to view the real-time status of each piece of equipment—a benefit so advantageous that, before that first month's trial was over, ASH made the decision to deploy Amper across all of its injection-molding machinery.

With the help of an Amper Six Sigma Black Belt Success Manager, ASH started by using Amper's:

- Real-time machine status scoreboards
- Production reports
- Downtime analysis

"Just being able to see machines that are running without manually tracking proved so useful," says Clement.

"We see tremendous value from utilization and live statuses—and now the data reports are integrated into our structures around KPIs."

After: Saving Money, Saving Time and Making Justified Purchases

Within four weeks of adopting Amper across most of their injection molding machines, **ASH saw a return on its investment—saving more than $60K across all connected machines.**

Because ASH could view the real-time status of its injection molding machines, **staff was not only able to respond to downtime more quickly, but identify the root causes** as they occurred before their eyes.

End result: ASH decreased machine downtime by nearly 10%, while increasing utilization by 20%—a $1,500,000 savings per year.

"Amper's downtime tracking has been key," says Clement.

"When we started to label downtimes, it enabled us to see where we were losing money on the floor—and that has allowed us to do something about it."

Plus, by tracking—and optimizing—uptime on its existing machines, **ASH justified the addition of new equipment, resulting in the purchase of 3 new injection-molding machines in 2019.**

Lighting the Path to Tomorrow's CI

In addition to the efficiencies it's already realized, ASH is using the data generated by Amper to drive all its continuous improvement initiatives.

For example, using root causes analysis, **the manufacturer was able to hone in on $150K worth of downtime incurred over a one-quarter period.** Now, it is prioritizing CI projects that will address these specific problems.

"With Amper, we can identify and prioritize the biggest areas of improvements on the floor," says Clement, "Our system provides great root cause analysis for our upcoming CI projects."

Every factory industry has its own unique challenges, including the injection-molding industry. But, despite their differences, they all can benefit from having access to accurate, actionable machine monitoring data—starting from Day One.

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> **Stefen Clement, Data & Systems Analyst, ASH Industries**

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