SmartSights

Manufacturing Improvements with an Andon System

Allied Motion

LOCATION
Dordrecht, Netherlands

INDUSTRY
Manufacturing

WEBSITE
alliedmotion.com

CHAMPION
Judith van der Hoeven

Allied Motion Technologies Inc. is a global company that designs, manufactures, and sells precision and specialty motion control components and systems used in various industries including, Automotive, Medical, Aerospace & Defense, Electronics, and owning unique technical know-how and expertise for their products. These Technology Units, and support facilities, are in the United States, Canada, Mexico, Europe, and Asia. The Dordrecht facility in the Netherlands employs approximately 100 people and manufactures inner and outer rotor brushless and brushed DC motors according to customer requirements, which are sold worldwide.

Andon is an important concept in their industry. In many manufacturing settings, Andon systems improve production processes, enhance efficiency, and ensure product quality. Andon systems can be a visual and audial tool that helps teams on the factory floor monitor and respond to production issues in real-time while providing insights into process inefficiencies throughout the production process.

Challenges

- ⊗ Reliability and availability of an Andon system
- ⊗ Customer support for the Andon system
- ⊗ Customization capabilities
- ⊗ Consistent data gathering real-time machine intelligence
- ⊗ Issue response and resolution time
- ⊗ System adoption

The Business Situation

Allied Motion, Dordrecht's Andon legacy system provided inconsistent support of the product at best and at other times was non-existent. Communication with the provider was challenging, the Andon system was very basic, offering no customization, and was non-operational most of the time. Their Andon system was not easy, accessible, transparent, or digital. In addition, the Andon system wasn't delivering the real-time problem detection, quicker response times, efficiency improvements, data collection, or improved communications they'd been promised. As a result, the employees dependent on the Andon system lost their confidence in the Andon program.

Specifically, Allied Motion, Dordrecht experience increased downtime and longer mean time to repair (MTTR) times and shorter mean times between failures (MTBF). The facility was also losing efficiencies within its production processes, though they could not address them without the measurable data needed to target specific issues and locations. It was determined that a newer digitized Andon system with vendor support could address their primary issues as well as align their Lean manufacturing initiatives for continuous improvement if the solution could:

- Be reliable and available more than their old Andon system
- Get the maintenance staff to the correct location efficiently and reliably
- Provide transparent and dependable data for use in gathering real-time machine intelligence
- Help to improve issue response and resolution time, as well as address specific production inefficiencies
- Offer customization and reporting so they could get the most out of it without having to wait on the vendor

The SmartSights Solution

Allied Motion actively searched for Andon solution providers and initially thought they could modify an app but failed to find one that was suitable or customizable. Peer, SmartSights Next-Gen Andon System, met many of their initial requirements, offering improved communication and email alerts, built-in reports to track alerts and response times, and would show both machine and non-machine-related issues that were impacting production efficiencies. The Andon system from SmartSights, Peer, offered easy custom configuration, and the app provided an intuitive interface available on their existing smart devices.

"An intangible benefit of implementing Peer, the Next-Gen Andon System, is that it is easy to adopt, and there wasn't a need for a lot of user training; that's one of the things I am happy about," says Judith van der Hoeven, Lean Officer, Allied Motion, Dordrecht. "The app is very user-friendly, intuitive, adoptable, so the operators of all ages were very fast in picking it up," continued van der Hoeven.

Solution

Peer: Next-Gen Andon System Application

Benefits & ROI

- A 10% improvement in response and resolution time
- User-friendly, intuitive, and adoptable
- Implementation of several new business processes

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The Business Impact

Allied Motion went live with their Next-Gen Andon System, Peer, in December of 2022 and realized a data-supported 10% improvement in response time and issue resolution (MTTR) within a few short months. "Today, whenever Peer alarms, it sends out an email to warehouse and maintenance, and the email makes a sound as it is received on their smart devices. We have confidence that someone is deploying to address the right issue, and it keeps them from wasting time running from place to place," stated van der Hoeven.

"An additional tangible result is that our equipment reliability or mean time between failures (MTBF) is seeing improvements; as Peer provides insights into our response and repair times, we continue to see benefits from the reduction of movement and reduction of useless transport, all of which support our Lean objectives as well," continued van der Hoeven.

"The successful implementation and resulting reliable data from Peer enables customized reporting to help us identify specific inefficient processes within cells and improve them. We have the data to show where inefficiencies are today, and we can execute plans to address them to improve the future," says van der Hoeven.

"It has also enabled us to implement several new or more efficient business processes. We recently added some rules at the plant-floor level for a line runner's processes that had previously created many tickets. Now the runner has more breathing space in his job, and we have measurably fewer tickets," continued van der Hoeven. "In the end, our Next-Gen Andon system, Peer, informs improvements to our business from operations production output down to one individuals' job specifically, and we needed that level of transparency," concluded van der Hoeven.

What's Next

Allied Motion is analyzing their Andon data utilizing Power BI and actively reporting to management as soon as there's enough data to support their improvements, and in the near future, they'll show improvements based on the data. When Allied Motion adds new cells, they will also expand Peer to those new areas.

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