BAMAR PLASTICS

Objective

Bamar Plastics' initial goal with PlantStar MES was to set limits on key process parameters—their plant engineers wanted to know when the process was drifting on their manual controlled machines.

[Untitled illustration]. Retrieved June 24, 2019 from https://www.bamarplastics.com/

Solutions and Results

SYSCON International installed PlantStar, a world-class production monitoring system, at Bamar Plastics. Twenty injection molding presses are monitored by PlantStar software, and every four presses have a touchscreen data collection module (DCM). Bamar Plastics' technicians also use a mobile human-machine interface (HMI) for easy access to real-time information. PlantStar is linked with Bamar's ERP system for further visibility of the plant floor relative to the company's efficiency and profitability.

✓ **Achieves "Lights-Out" Production Runs**

Upon PlantStar installation, Bamar set control limits on all its key process parameters, attaching visual alarms to cycle times, peak injection pressure, ram position, and barrel temperatures. Bamar's managers have such confidence in the accuracy and predictability of PlantStar's data collection and analysis that they routinely run "lights out" on nights, weekends, and holidays: the MES controls the processes even without people on-site, and managers just check the progress logs before the next shift to ensure quality adherence.

✓ **Doesn't Miss a Shot**

Not all manufacturing runs are eligible for lights-out operation: Bamar takes advantage of PlantStar's ability to monitor and troubleshoot newly developed production runs in real-time. Stuck parts or plugged gates in multi-cavity tools are caught in a single shot by tracking the shot size. This high level of monitoring identifies worn machine components that need attention, thereby avoiding catastrophic failure and downtime.

Bamar also maintains tight control over cycle times: PlantStar detects variances in cycles and sub-cycles and reveals exactly which part of the cycle is causing the problem. Deviations fast or slow trigger an alarm so the cause can be addressed immediately. Cycle counts and machine learning enable Bamar's technicians to achieve predictive tool maintenance rather than unexpected down-time for tool repair or replacement.

✓ **Thrives on a Lean Workforce**

Insight into and control over every aspect of the manufacturing process--purchasing, quality control, machine operation, and maintenance--allows Bamar to operate with a small workforce. PlantStar made such a big difference that the company was able to increase production without additional hires.

✓ **Results**

- "lights-out" production
- reactive to preventative maintenance
- significant reduction in unexpected down-time
- reduced reliance on workforce

SYSCON PLANTSTAR

BAMAR PLASTICS INC.
ISO REGISTERED QUALITY SYSTEM
CAGE CODE: 4PKC6