Batch Optimization

For food ingredient manufacturing

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PROJECT STARTING POINT

A global food ingredient company, has been trailblazing a path toward production efficiency and sustainability. Holding steadfast to its goal of delivering products and practices that bolster the health of people and the planet, they consistently innovate and find ways to optimize their business practices. They manufacture mixes, bases and concentrates for items such as breads, cakes, bagels, tortillas, pretzels, and pastries. Their facility's high number of raw materials and recipe variations lead to complex kitting and blending processes. To ensure product quality and customer satisfaction, they decided to optimize their batching processes and digitize their record-keeping practices.

THE CHALLENGE

The company brought in Inflexion Point to minimize downtime and capture OEE. The company wanted to migrate to electronic records to achieve a paper-free plant floor and eliminate many bottlenecks caused by the paper process which led to avoidable downtime.

HIGHLIGHTS

- Real-time access to production status of each in-process job.
- Decrease downtime and identify the root cause of stoppages
- Remove all paper from the plant floor, allowing operators and equipment to work together seamlessly.

PROJECT GOALS

Leveraging a Level-2 automation/SCADA system previously deployed by Inflexion Point, they were able to digitize the plant floor, removing all paper in the process. Starting with kitting and blending and ending with packaging and labeling, the TrakSYS software uses an algorithm to schedule the batches for the day in the most efficient way possible. Further enhancing the capabilities of their digital shop floor is the presence of TrakSYS staging screens, which allow operators to easily see the exact stage of each batch.

Using tablets to view their customizable TrakSYS dashboards, operators can follow production processes, take photos of various situation, and document and review all records. Working with TrakSYS digital forms, Inflexion Point and the end user created electronic work instructions that allowed for image capture. Traceability was implemented to ensure the production and quality teams could accurately track components from raw materials to final pack-out in real-time. This traceability, alongside electronic signatures and mandatory team member card scans, created a comprehensive audit trail.
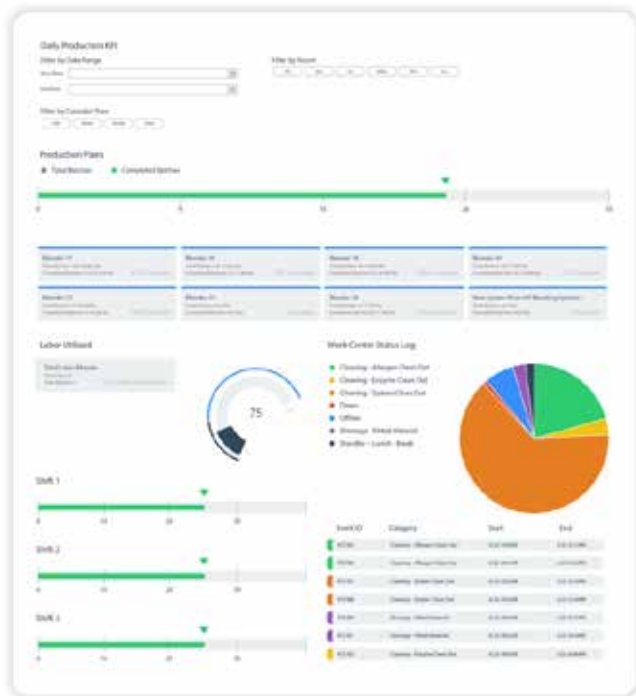
With document control, review, and approval being integral to using electronic batch records (EBRs), Inflexion Point implemented status screens for document management. Utilizing these screens, quality control personnel could see documents displayed by work order, view completion status, follow audit trails, identify approval status, make final approvals, and print PDFs as needed. A large TrakSYS staging screen on the plant floor allows operators to know the stage of each batch as a glance. Each operator uses a tablet to follow the process, take photos of various situations, and document and review all records to be overseen and approved. A call-to-alert button is available on the tablets to prevent unnecessary downtime and immediately contact a supervisor.
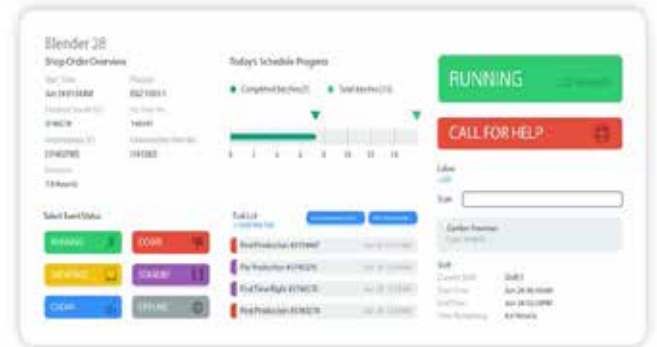
IMMEDIATE RESULTS

- Electronic Batch Records (EBRs), removing paper from the process, thereby providing instant visibility into food safety and cleaning record checks
- Ability to enforce and verify allergen cleaning compliance protocols
- Reduced Downtime
- Teams and supervisors have real-time batch and production data to stay on top of bottlenecks, and machine, labor resource, and material issues
- MRP is linked to automated scheduling of batched and batch components.