



THE PLEX MANUFACTURING CLOUD

6 Ways Error-Proofing Protects Your Plant Floor

PLEX[®]



6 Ways Error-Proofing Protects Your Manufacturing Business

Whether it's small product quality issues that get past inspection or a missed date that results in spoilage, there is a cost to your company when an error is made. That's why it's better to prevent errors from ever happening.

A Manufacturing Execution System (MES) that "systematizes" production processes with fundamental error-proofing protects your business from errors. Following are six ways error-proofed control helps you reduce errors:



1. Enforcing Customer and Industry Compliance

Compliance with customer and industry requirements and regulations requires a significant amount of work and rigorous management. A system that takes the risk out of compliance can provide peace of mind for company leaders who are accountable for, but not necessarily in control of, compliance procedures. Throughout the system, there are numerous “lockouts” such as not allowing an operator to record production unless the required quality checksheets have been completed.



“Quality is the lifeblood of our business because the demand is not just from a compliance standpoint but most importantly from our customers. Our ERP has to support quality standards because it’s how we remain competitive. Plex gives us the edge over other manufacturers who can’t meet customer requirements or third-party audits.”

— ROBERT MURPHY, CFO, SHANK'S EXTRACTS, INC.



2. Applying Rigorous Track and Trace Methodology

A system that uses rigorous track and trace methodology throughout governs operational behavior. Barcode scanners and printers record and document every step from receipt to movement to inspection ensuring an accurate record of who did what and when. For every action on the shop floor, there is a transaction in the system. Using the single database with pre-defined process workflows, each step is validated before the system allows the next step to occur, making it fast and easy to trace backwards or forwards to find any issues, contain the issue, and provide required documentation.



“From ingredients supply traceability to finished goods supply, our customers are demanding traceability in real time and instantaneously. Doing a mock recall on ingredients or finished goods can be accomplished in minutes or seconds. When we were paper-based, that couldn’t happen. Having that capability makes our customers very happy.”

— TIM HAUSBECK, PRESIDENT, HAUSBECK PICKLES & PEPPERS

3. Ensuring Production and Quality Control

Tying operations in the system to a production control plan creates evidence documentation for your customer to approve, and it doubles as the error-proofing control mechanism that governs operation. Each operation has defined input ingredients, production equipment, recipes, and good manufacturing practices to ensure that any food safety risks are minimized. Alerts are sent to a supervisor if an attempt is made to override or circumvent the control plan. Activities are recorded directly at the machine and are immediately available throughout the business for analysis by quality managers. Statistical Process Control (SPC) is also available at the machine for continuous monitoring by the operator (and online for monitoring by quality management) to watch for measurements that may trend towards the control limits.



“Because all of our analytical testing, product attributes, and quality data reside in Plex, we can easily trace the source of production materials in seconds, isolate issues faster, and automatically generate audit reports.”

— ROBERT MURPHY, CFO, SHANK'S EXTRACTS, INC



4. Relying on a Single Source of Truth

Having a single MES application with all the data in one database means that dispatched jobs are linked to the master production schedule, process routings, production operations, quality activities, and labeling requirements. All quality inspections are linked to the control plan. The single database also makes reporting more accurate as there is no need to re-enter, convert, or translate data between multiple disparate sources eliminating the potential for human error.



“Customer portals allow clients to manage their inventory offsite and do their ERP planning based on our inventories, production schedules and finished goods. They now have access [to] a majority of the information they would have once gotten from a sales rep directly through the system.”

— AARON BACON, SALES MANAGER, AARON THOMAS



5. Automating Production Communications

With the rapid increase of automation adoption and the drive for digital transformation, it's even more important to connect, collect, and communicate data from your production equipment. There is perhaps no greater error-proofing investment you can make than automating the recording of machine uptime (availability), production output (performance), and waste (quality) and the associated reason codes. These metrics combine to produce an overall equipment effectiveness (OEE) rating that plant leaders and executives use to measure plant performance. If any of those measures are adulterated by human error, the entire OEE number is incorrect and could result in wasted effort trying to improve it.



“Inter-department communication has improved tremendously and the system has had a spectacular effect on the efficiency of our production floor. Plex has not only brought our business up to date, it has given our customers an even greater level of security and satisfaction. And that’s never a bad thing.”

— CHARLIE CAIN, DLT, CEO

6. Freeing Up Employees from Mundane Tasks

Producing more high quality products at the lowest cost possible is the main goal of most manufacturers—however, a lot of manufacturers still rely on manual, paper-based processes. Not only can your people be freed from mundane tasks but your business can also be freed from risk as a result of error-prone processes. A system should provide control panels throughout your facility which allow employees to log in to record their hours, track job status, and monitor job costs in real time. Complying with the Food Safety Modernization Act (FSMA) becomes much easier because the system enforces current good manufacturing practices (cGMP). You can also monitor equipment training and certifications to ensure worker safety, reduce equipment damage, raw material waste, and more.



“Plex gives me a platform to work with all departments. It eliminates the time spent in maintaining equipment and worrying about backups, which frees me up and allows me to help our teams add more value.”

— KEVIN JABLONSKI, DIRECTOR, INFORMATION AND COMMUNICATIONS SYSTEMS, SANDERS





Too often business systems that were supposed to automate and streamline operations end up only conducting transactions and documenting what happened instead of controlling what is supposed to happen.

The Plex Manufacturing Cloud® gives you an embedded manufacturing execution system (MES) with all the workflows of an enterprise resource planning (ERP) system to “systematize” your business and production processes with fundamental error-proofing checks and balances to protect your manufacturing business, your customers, and their customers.

***See how leading manufacturers
are error-proofing their businesses
with the Plex Manufacturing Cloud.***

For more information, please visit plex.com