Four Operational Strategies to Boost Your Business
When questions arise among process manufacturing operation teams, members are often left to wonder why their current strategies are not working. Routinely, they debate complex solutions that require a great deal of time and resources that, in the end, do not provide the desired results. Learn how one tool, enterprise resource planning (ERP) software, is able to benefit four key areas within a process manufacturing organization.

**Compliance Management**

Most process manufacturers are painfully aware of food contamination risks or product recalls. While high profile contamination cases receive a majority of the media attention, low profile cases can be equally devastating to process manufacturers. Even voluntary recalls for possible contaminations can influence consumers to switch loyalties to a brand they perceive as safe. Process manufacturing companies will serve their consumers and their own best interests by being prepared for a product recall.

One of the steps today’s process manufacturers are taking to prepare for recalls is implementing an integrated ERP software solution as part of an overall compliance management strategy. Having a solid system in place that includes ERP software is part of the routine day-to-day efforts that help ensure product safety. Daily maintenance keeps compliance manageable, protects the health of consumers and protects the process manufacturer’s financials.

The global market presents quite a challenge for process manufacturers when it comes to supply chain management. Having a complete traceability and recall readiness plan is important in managing supply chain risks. An ERP software solution corresponds with supply chain and finished goods compliance management by providing complete lot traceability in which each product is stamped coming in and going out with a lot number. Consequently, a batch of product can be recalled when necessary as compared to a recall on an entire production shift of finished goods, thus saving the process manufacturer tremendous unnecessary expense. With the level of precision an ERP software solution provides, a lot number can be traced all the way back to the specific raw material source leading to thorough and conclusive investigations of exactly where in the process a product became contaminated.

Rather than viewing compliance measures as a burdensome regulation to follow, process manufacturers should look to compliance as a means of staying ahead of competitors. This is particularly beneficial when a recall becomes necessary in preserving brand loyalty. Typically, the faster the product is recalled, the lesser the impact on the business. An ERP software solution stores all Food and Drug Administration (FDA) required records and data with instant and easy access. Being able to provide accurate real time data to the FDA quickly, minimizes the impact of a recall. Recalling a specific lot number is far less complicated than recalling up to a year’s worth of finished product. Compared to a product recall, ERP software solutions are quite affordable.
Accurate Planning

Accurate planning and scheduling can reduce inventory costs by as much as 20% or more. The cost of carrying inventory includes interest, warehousing, handling, expiration, insurance, taxes, damage and shrinkage, and can be as high as 25%-30%. ERP software solutions help to reduce carrying costs by planning and scheduling purchases of only the correct quantities of needed items. Orders and deliveries are coordinated with the production schedule, and changed as needed in the event of a delay or cancellation. Bills of material are utilized to predict the correct materials required for production. Planned changes in the bills of material prevent inventory build-up or expiration. Additionally, orders can be processed faster, work-in-progress inventories reduced and goods can be produced on demand with integrated ERP software solution.

Another factor in helping reduce carrying costs is having visibility of the cost of materials and profit margins providing the opportunity to better manage overall cost structure. Integrated ERP software provides complete visibility of all vendors and raw materials sources. Knowledge of cost factors can allow for negotiation with raw material vendors.

Better planning and scheduling also reduces direct and indirect labor costs by as much as 10%. ERP software provides a structured system that leads to fewer shortages and interruptions, as well as less rework and overtime. Process manufacturers also experience fewer “rush jobs,” signifying employees spend less time handling extra material, performing setups, or tracking split lots or jobs that have been set aside. With ERP software in place, managers and/or supervisors are able to spend more time directing and training workers leading to quality employees. They are also able to spend extra time developing better management and production methods. Lastly, managers and or supervisors experience increased visibility of completed and in-process production.

Complex Formula Management

Formula management is a key component, if not the most important function of ERP software. A quality ERP software solution will include a formula research and development (R&D) management system that will allow R&D staff to create and enter new formulas into the system. Once in the system, key physical properties and calculations can be seen and identified, as the formula is being built as well as recording instructions unique for that formula. Within the formula management application, robust ERP software can track quality control (QC) tests, calculate labor costing, material costing and overhead. This valuable information provides quick visibility to how profitable an item is to produce.

A product revision tracking log is helpful in documenting changes to products over time in managing quality improvement or batch variations. In the event and audit, the FDA requires the tracking of revisions. Complete logging of batch tickets provides reporting for material transactions as well as user identification, date and time stamp.

Some key aspects to formula management include recording ingredient percentages or actual quantities depending on the preference. A complete formula management system will also record intermediate mixtures or experimental mixtures that may be good for referencing but ultimately do not become a final product. In addition to storing mixture formulas, ERP software should record manufacturing instructions and embedded mixture formulas, filling sequences and packaging instructions on multiple level bills of material.
QC Integration

When consumers develop loyalty to a brand, they trust that the products they know and love are going to be the same products each time they make a purchase. Therefore, process manufacturers strive to maintain consistency by eliminating variation. ERP software helps to ensure consistent products by providing each product a distinct identity with its specific ingredients and mixing instructions.

QC applications within an integrated ERP software help manufacturers eliminate variation while also making certain of regulation compliance and product quality. All products must be tested for safety and documented for auditing purposes. Documentation of tests and test results can be tracked within the ERP software.

QC applications will also generate a certificate of analysis providing evidence the item has been produced in a quality manner. QC personnel must continually monitor incoming raw goods and outgoing finished goods and enter status into the ERP software. The QC application allows for identification of materials with a quarantined, approved, conditional or rejected status. These statuses determine whether or not an item can be used in production. If a product does not pass quality standards upon inspection, raw materials can be refused or finished shipments can be stopped in the shipment process.

Conclusion

ERP for Your Process Manufacturing Business

A fully integrated ERP software solution can provide multiple business benefits to process manufacturers. These benefits aid process manufacturers in staying a step ahead of their competitors by improving business decisions through increased visibility and availability of real time information. ERP software offers compliance security and product quality by extending supply chain support beyond the immediate manufacturer. ERP software also provides flexibility and control over inventory to reduce costs, waste and production errors. ERP software also improves communication within the organization assisting departments in achieving the same goal; to provide safe, trusted products to their consumers.