ProcessPro

Solving Six Common Challenges with ERP

An Enterprise Resource Planning (ERP) system is developed with several different business applications; all are integrated within the system as a whole, but each functions to manage specific areas of the organization. The following information highlights how utilizing a fully integrated ERP system addresses six common challenges faced by process manufacturers.

Inventory Control

When managing inventory, it is critical to find a balance between having too much or too little. Maintaining adequate quantities of the right inventory ensures that a company can meet the demands of its customers. Lead time, or the amount of time it takes for materials to arrive, should be factored in when considering inventory. Waiting until your material supply is completely depleted may create problems. Wait time to receive a certain product may be longer than expected, or the cost to expedite your materials could be expensive, thus creating a bigger need for an inventory control application.

The inventory control application of an ERP system provides manufacturers the visibility and inventory counts necessary for enhanced production planning. Beginning with a customer's sales order, inventory is accounted and any deficiencies are flagged immediately. The system will then automatically change the status of the inventory for the order to make it unavailable for any additional sales requests. Other functions of inventory control involve reconciling balances, monitoring item usages and reporting on inventory status.

Real-Time Data

Simply stated, real-time data is accounted for immediately after it has been entered. In a rapidly changing production environment, this type of up-to-the-minute reporting is critical to production success and is beneficial for all functions within an ERP system.

For example, process manufacturers typically follow predefined recipes for their products. ERP systems that do not operate in real-time base their production on forecast targets for each of its batches. Eventually, all process manufacturers will run into manufacturing glitches along the way, such as a bad batch of raw materials. All of these items need to be accounted for in order to have accurate batch fulfillment. Without real-time calculations, a company has the potential to lose substantial revenue.

Lot Traceability

Without an ERP system, many manufacturers resort to entering numbers into spreadsheets manually. The challenge in this method is producing accurate entries in complex manual entry spreadsheets to keep track of specific raw ingredient lot numbers used in multiple finished goods and shipped to numerous customers. In an ERP system, both forward and backward lot tracking is achieved and all information can be accounted for from the beginning of the process to the end.

While any company that utilizes process manufacturing could benefit from ERP lot traceability, companies regulated by the Food and Drug Administration (FDA) are required to be prepared for a recall at any given time. With a lot traceability feature, companies are able to easily isolate a food safety issue. In doing so, this allows them to forecast the extent a product has been affected, including what items have been contaminated and where they originated.

Additionally, quality control and quality assurance are added advantages of lot traceability. Manufacturers can quarantine raw materials and finished goods until they pass inspection, assuring that a brand name product is of the quality a consumer is seeking will ultimately benefit both sides of the market.

Material Requirements Planning (MRP)

MRP is another component of an integrated ERP system that addresses the challenges of managing resources (for example, what existing stock is already allocated to production versus the gap in goods needed to produce). Production planning optimizes and utilizes manufacturing capacity, ingredients and material resources using historical production data and sales forecasting.

When MRP is implemented properly, it reduces cash flow and increases profitability. This is achieved by calculating the optimum production schedule based on the master production schedule, sales forecasts, inventory status, open orders and bills of material. MRP reduces waste by providing information about purchasing the right amount of inventory at the right time, and determines the latest possible time frame to produce goods and buy raw materials while still meeting customer deadlines. With the use of MRP in an ERP system, modifications to the production schedule can be updated immediately for any changes in orders and materials.

Reporting

Utilizing the right reporting capabilities in an ERP system creates a tool for data visibility. In reports such as aging and financials, data can be presented in either a simple or more complex version.

Database information is automatically updated with each transaction throughout the system allowing for optimal accuracy. The data allows you to determine pre-calculated summaries, benchmarks and target projections. The compiled data in an ERP system can be designed to match a company's personalized, precise requirements and allows for ease of internal and external distribution of reporting data.

Single Source of Data

Regardless of the number of applications a company implements, there is one source of data with an ERP system. Without the use of an ERP system, companies spend valuable time pulling together fragments from different spreadsheets, accounting sources, batch tickets and sales orders to discover the company's financial position. Significant amounts of time are saved by eliminating dual entry of information and needing to perform data searches in various places. Current and consistent data yields more knowledgeable business decisions. An ERP system also helps to close the knowledge gaps between multiple departments.

Conclusion

Navigating through daily challenges and bottlenecks are common obstacles in a process manufacturing environment. The right ERP system provides manufacturers the tools necessary to make appropriate business decisions. It allows for lot tracking, inventory control, real-time data, MRP, reporting capabilities and a single source of data. An ERP system to this extent is exactly what helps companies succeed and prosper in changing environments, setting themselves apart from competitors.