Sage ERP X3
Process Manufacturing

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Designed to support the dynamics of process manufacturing, Sage ERP X3 Process enables manufacturers to achieve greater product and process consistency, while improving the ability to satisfy increasing customer demand.

In particular, the advanced planning and control capabilities of Sage ERP X3 Process use real-time and historical information to help manage inventory levels and costs, optimize product mix, reduce waste, and shorten product development cycles. Its industry focus and modular design promote faster implementation of key process and business functions to provide a rapid return on investment.

Formula Management

Formula management is the basic building block of the process manufacturing capabilities within Sage ERP X3. Unlike its bill of material equivalent in discrete manufacturing, formulas specify the ingredients required to make an end item. And, because ingredients can be expressed in different proportions (such as gallons, liters, pounds), Sage ERP X3 Process provides a powerful unit of measure conversion engine that accounts for this inherent variability and integrates it with the production process. This natural integration is important because it allows ingredients to be added at different times during the manufacturing process. And it permits specified routing steps to be run simultaneously, such as when a batch must simmer at the same time another operation commences.

Formula Management takes the complexities out of dealing with specific gravity calculations, calculations for theoretical vs. actual yields, multiple formulas for the same product, and decimal point precision for managing unit quantities. Sage ERP X3 Process supports multiple packaging variations per product by permitting individual items to be tracked and processed in different package or container units than those in which they can be produced or sold. This feature allows users to view inventory availability and to process transactions for products according to their unique packaging unit. It not only minimizes the number of product numbers that need to be maintained, but it allows products to be priced and sold in ways that satisfy specific customer requirements.

Measurement of the production process, as well as sound pricing strategy, is based on valid cost information. Using traditional legacy software, process manufacturers have long had difficulty setting up and maintaining such vital information. With Sage ERP X3 Process, cost data is integral to defining and producing product. Once formulas are created, costs for intermediate and finished goods are automatically calculated based on user-specified methods, overhead, and batch cost factors. Both standard production reporting and purchasing functions automatically update actual costs, ensuring timely updates and accurate cost calculations. Armed with timely decision-making tools such as variance reports, margin analyses, and work-in-process reports, managers can make more informed decisions.

Sage ERP X3 Process also accounts for by-products of the production process, as well as maintaining raw material potency and other key product attributes.

Lot Control and Tracking

Either by government regulation or to satisfy company requirements for quality assurance and warranties, many process manufacturers have a critical need to maintain lot-related information and trace its use. Sage ERP X3 Process provides such tracking and control to the extent that any product or ingredient defined as lot-controlled will have its identity recorded on any material transaction. It is also possible to allocate inventory immediately from a specific lot on demand to meet any specific customer requirements prior to an order being placed. In addition, the system provides complete expiration date management, affording users the opportunity to pull material from lots prior to their expiration date, resulting in reduced waste and lower inventory costs.

Quality Management

A key success factor for many process manufacturers is knowing the quality characteristics of finished goods at various stages in their life cycle. Sage ERP X3 Process is designed to track and maintain quality specifications and test results for raw materials, intermediates, and finished goods. It tracks material quality from procurement and production—all the way to the customer. As batch production runs of finished goods are completed, test results are recorded and maintained together with production history.

Regulatory Compliance

Dealing in a simple and accurate way with the complex procedures demanded by government hazardous material reporting and labeling is a major concern for process manufacturers. Sage ERP X3 Process provides users with alternatives—as attachments linked to the products or through full-featured, integrated third-party solutions—for maintaining appropriate safety information for both raw materials and finished goods MSDS. The system also issues container labels, as needed, for any drum, pail, carton, or box containing potentially hazardous materials.

Batch/Continuous Processing

Sage ERP X3 Process affords complete command of process production. Production runs can be scheduled based on user defined criteria: An hour, a shift, or any other period of time that fits the production cycle. Work orders are updated as production moves through work-in-progress, while any required changes in ingredient quantities are easily reported as they occur. Standard quantities can either be backflushed or recorded as completed production.

Users are also able plan a production run and, based on availability, instantaneously rescale the batch up or down to reflect availability of ingredients or resource constraints. Ingredient quantities may be scaled by automatically calculating the expected batch yield.

MRP/MPS/CRP

Sage ERP X3 Process provides the capability to analyze purchase orders, scheduled batches, and batches in progress so planners can view the impact of demands against available inventory. Independent demand (orders, forecasts, and others) and dependent demand (lower-level demands generated by a top level or intermediate-level need) are matched against available inventory.

When demand exceeds supply, the system recommends placing either a production or purchase order to satisfy the need. This suggestion takes the form of time-phased requirements so that material is either completed or scheduled to arrive exactly when needed.

Sage ERP X3 Process supports both finite and infinite capacity requirements planning. Finite capacity planning can be done automatically through use of a powerful, integrated optimization facility that helps resolve bottleneck areas according to user defined constraints. Material planners can also use an interactive drag-and-drop scheduling tool—in GANTT format—for manual viewing, simulation, and update of outstanding work orders and routing operations.

Optional Centralized Weighing and Scale Integration

The Central Weighing module provides the ability to track the material associated with production batches/orders using weighing equipment/scales. This includes material identification, weight checks, order reconciliations, calibration management, box space, bar code identification, density, creation of weighing tickets, and the handling of multiple types of raw material. All activities result in real-time updates of Sage ERP X3 stock and work-in-process production data.

For a detailed listing of manufacturing functionality available through Sage ERP X3 please reference the Sage ERP X3 Solution-In-Detail.

About The Sage Group plc

We provide small and medium-sized organizations with a range of easy-to-use, secure, and efficient business management software and services—from accounting and payroll to enterprise resource planning, customer relationship management, and payments. Our customers receive continuous advice and support through our global network of local experts to help them solve their business problems, giving them the confidence to achieve their business ambitions. Formed in 1981, Sage was floated on the London Stock Exchange in 1989 and entered the FTSE 100 in 1999. Sage has over 6 million customers and more than 12,700 employees in 24 countries covering the UK & Ireland, mainland Europe, North America, South Africa, Australia, Asia, and Brazil. For further information please visit na.sage.com.