BatchMaster ERP
for Bakeries

BATCHMASTER®
Process Manufacturing Software
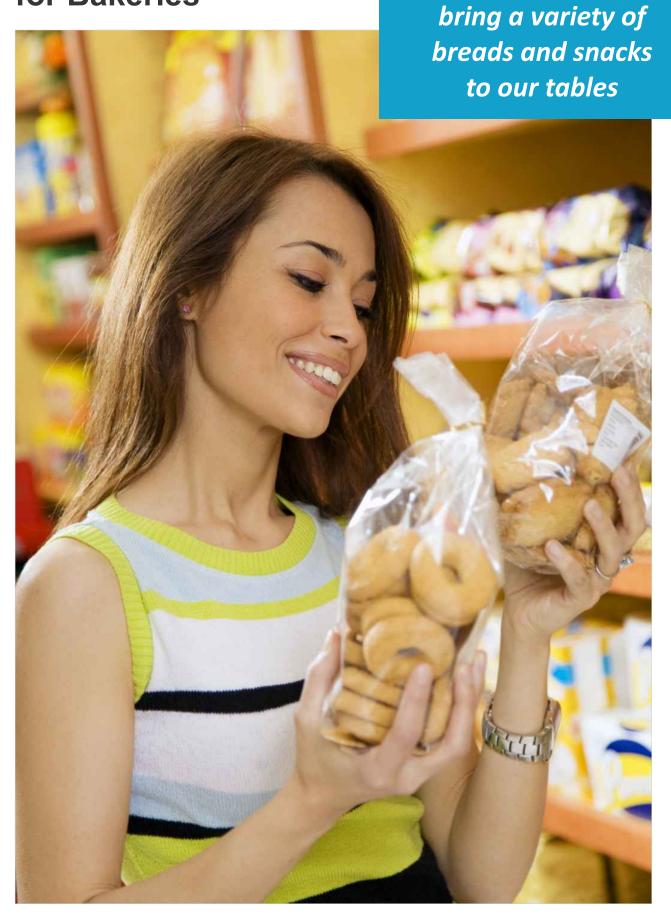
Introduction

BatchMaster Software offers an industry specific ERP solution that helps bakeries streamline their operations and bring products to market, faster and cheaper, while complying with ever more stringent regulatory mandates. Whether you private-label, co-pack or produce your own line of breads, snacks, pastries, or nutritional foods, BatchMaster ERP for Bakeries supports your unique manufacturing requirements in product development, production, quality, costing, and compliance, while supporting all of your sales, accounting, warehousing and distribution needs.

Overcome Industry Challenges

Consumer demands for more natural ingredients, less calories and more nutritional value is driving many bakeries to innovate their recipes. Produce developers are incorporating new ingredients that add flavor and nutritional value to their recipes, while reducing and eliminating artificial ingredients, preservatives and allergens - all with consideration to maintaining their flavor and reducing costs.

Effective sample management is important to bakeries who want to quickly develop and introduce products to their retailers, grocery stores, restaurants and end consumers. Allergens, Kosher, Halal, organic, non GMO, expiration dates and shelf life requirements must all be effectively managed by R&D, inventory allocation and product labeling processes.

Our bakery customers tend to have different customer bases, order volumes and physical plant layouts that dictate the need for a flexible software solution. Bakeries producing high volume, repetitive products through continuous production lines are looking for software to support their automated, continual processing from mixers to wrappers. Bakeries producing lower volume, customized products want better control over their manual processes as product is moved from one step to the next. For many, the utilization of mixers, dividers, extruders, proofers, fryers, ovens, wrappers and other process cells or steps across their production lines can add additional complexities when calculating the number, size and scheduling of batch jobs at each step of one's processes.

Let's address a few challenges that were faced and overcome by many customers employing BatchMaster ERP:

Run High Volume, Continuous Production

High volume bakeries with national and regional retail chain and food distributor customers typically run relatively small selection of products through automated production lines. They want to release large batch runs then monitor both products and equipment along the line in order to adjust their equipment settings. Their goal is to keep the continuous process flowing with minimum user involvement, such as starting and closing batch jobs within individual process cells or steps. In addition, these bakeries tend to keep a close eye on product expiration dates and lot traceability due to the fairly long shelf-lives of their products.

Support Low Volume, Manual Batch Production

Bakeries who supply fresh product daily to customers typically produce lower volumes of a larger selection of products. Effective sample and recipe management is important so that new products can be quickly introduced to restaurants, hotels, and supermarkets. With an assortment of recipes, many of which may contain allergen, Kosher or Halal requirements, these bakeries want better control during each step of production, in terms of product quality and batch job scheduling. And when customers are ordering on a regular basis, sales and customer service want to quickly and efficiently capture orders and track variations in ordering patterns.

Control Inventory Levels

In order to optimize their resources, manufacturers want more granular, yet easier to use demand planning and production scheduling tools that will consolidate demand, calculate the correct number of batch production orders, and help one balance inventory levels for raw materials, finished goods and intermediates, such as common dough and batter that can yield a variety of finished goods. In addition, they look for assistance in making better informed raw material procurement decisions, such as automating the generation of purchase requisitions.

Reduce Waste and Improve Yields

Bakeries want better accountability to minimize stales, spoilage and other losses, as well as avoid over production. Improved reconciliation reporting of production of yields at the mixer through wrapping is desired in order to track and reconcile losses at each step. In addition, bakeries need accurate demand planning and production scheduling information in order to make more informed raw material procurement decisions.

Ensure Product Freshness on Retail Shelves

Those bakeries that produce fresh, perishable goods want better control over their stored ingredients and shipped finished goods, including mandated QC inspection of received ingredients and stability tests of stored base inventory and finished goods.

Comply with FDA and FSMA mandates

Lot traceability is of major concern to those companies whose products have longer shelf life or contain allergens or ingredients that are historically subject to recall. The creation and assignment of lot numbers at the time of receiving and production is a challenge to many manufacturers, so automating these processes is desirable. When performing a product recall, the ability to quickly track and trace suspect products from suppliers to customers, from customers to suppliers or anywhere within production in minutes, not in days, is a requirement.

Generate Product Labels

Some manufacturers want to generate nutrition facts, ingredient and allergen statements on demand, which requires their software solution to have access to USDA or Genesis supplied physical and nutritional information.

Increase Margins and Profitability

To increase the bottom line, companies need to analyze their expected vs actual costs from conception thru production to customer shipments. Recognizing the need for a more granular view to accurate, real-time manufacturing data, managers want visibility to all raw material costs, based upon last purchased, standard and projected prices, and all static, scalable and tiered costs associated to labor, energy, water and other resources. In addition, purchasing wants to negotiate better terms for those raw materials that demand planning has determined there is a consolidated demand for. And to increase the top line, sales recognize that they can retain existing customers and gain new ones with demonstrated predictability, scalability and compliance across their company's operations.

Key Manufacturing Features

BatchMaster ERP for Bakery streamlines produce development, production, quality, costing, compliance, planning, and scheduling using preconfigured templates, automated processes, and customized dashboards and reports.

Lab and Samples

New product requests from internal and external sources can be managed from product development thru production to acceptance, including internal and customer approval workflows and communications. With access to USDA or Genesis product physical and nutritional information, the system identifies those ingredients that cause either an intermediate base or product to exceed fat or sugar levels, or fall below vitamin or protein levels for given serving sizes. And when necessary, theoretical items and substitutions can be used in the recipe calculations.

Separate Recipes and Packaging Bills of Material

In BatchMaster ERP, recipe specifications and packaging bills of material are managed separately. Sack (i.e. hundred weight), baker's percentage, expected losses from cuts, scraps, bakeoffs, as well as expected gains from fryers are all defined in the recipe specification. Product developers can perform what if analysis scenarios against a recipe and then compare multiple recipes against each other, side by side. QC tests, special manufacturing instructions, direct and indirect costs can all be assigned to both recipes and packaging BOMs. With visibility to all finished good specifications, one can create intermediate recipes for common dough and batter bases, which can be made to stock or made to order. Multilevel workflows expedite the review and approval of recipe and packaging specifications across departments.

Inventory

BatchMaster ERP captures, manages and reports on inventory levels in terms of weight, volume and units, as well as quality statuses, expiration dates, lot numbers, and strengths. An item's organic, Kosher and Halal certification documentation and expiration dates are maintained with BatchMaster ERP.

Planning and Scheduling

Standing orders, sales orders and forecast entries can be used as finished goods demand inputs; inventory levels, batch production jobs, and receipts can be used as supply inputs. An accurate, detailed plan for batch production orders can be generated down to the various production steps or process cells within the production lines. Planning and scheduling takes into account the rates and capacities of mixers, dividers, extruders, fryers, ovens, and wrappers. Real time production adds and cuts, as well as equipment maintenance and changeovers, can easily be entered and managed using the graphical scheduling tools. To ensure these batch jobs yield their expected results, demand planning can generate the required purchase requisitions to avoid shortages or rescheduling.

Production

BatchMaster ERP aggregates demand for finished goods, creates the optimal number of batch jobs across mixers, dividers, extruders, fryers, ovens, and wrappers, allocates the best inventory and back schedules the batch jobs. Recipes can be dynamically adjusted to compensate for available inventory characteristics (e.g. pH, strengths, etc) in order to meet specified target characteristics. Batch job releases and completions can be managed on an individual basis, which initiates all the necessary inventory pulls, QC tests and manufacturing instructions. Super batches that link and back schedule sequenced batch jobs together, can also be managed on an individual basis. To avoid individual batch job releases and completions in a large, automated production line, one can release a single batch job in which each process cell or step is scheduled, but only the wrapping or final step needs to be closed. Manufacturers can manually capture inventory usage or automatically back flush inventory when closing batch jobs, as well as capture actual costs and other batch job data.

Quality

System libraries for sample inspections, QC tests, checklists and special manufacturing instructions against recipes, finished goods, equipment and processes can be established. Received goods may be quarantined until associated vendor samples are released by QA. In terms of ensuring the freshness and stability of certain stored ingredients, users can be directed to check intermediate and finished good inventory in storage. Some procedures may just be informative in nature, where others require an acknowledgement or simple data entry. QC tests for microbial, pH, density, and other conditions require data collection and validation, and may result in further retesting or reworking. In all situations, the manual or system assignment of quality statuses to inventory will determine its disposition and availability. Customizable COAs are generated upon batch job completions.

Costing

Raw materials costs based upon last purchase price, standard costs, or projected costs are rolled up along with fixed, tiered and scalable labor costs. Cost estimates can be managed during product development of product recipes, including intermediate bases, and packaging BOMs. Actual costs, yields and other KPI's are captured during production, and can be compared against projections in a variety of analytic reports.

Compliance - Food Safety, Lot Traceability and Labeling

Lot number information is captured or auto generated at the time of receiving, auto generated for intermediates and finished goods, and then validated during finished goods distribution. A bi-directional view of lot controlled inventory enables users to track the creation and movement of suspect products from delivery to shipping, shipping to delivery, and anywhere within production. BatchMaster ERP generates GFSI and GS1 related documents, customized recall reports and personalized customer letters. In terms of production labeling, nutritional fact panels that address non GMO, gluten-free and allergen-free claims can be generated on demand. From an IT perspective, all key transactions are maintained in history logs for auditing purposes, including recipe approvals, batch job changes and QA releases.

Mobile

Warehouse activities that support receiving through production to shipping tasks, including manufacturing related inquiries, QC related inspections and instructions, can be executed via mobile devices.

Dashboards and Reporting

Customizable role-based screens provide visibility to critical manufacturing data, including inventory consumption and balances, actual versus expected yields and costs, and quality control results and trends.

Key Front Office Features

Available as a total financial and manufacturing ERP solution, BatchMaster ERP for Bakeries adds a tailored front office suite, including CRM, to its modular manufacturing and mobile warehousing product suite. Front office modules include:

Accounting and Financials

Capture, measure, analyze and report the cost of doing business, specifically the cost of intermediates and finished goods from the lab through to customer shipment.

Sales

Convert sales quotations into customer samples, then track and report on the status and profitability of every customer campaign, quote and order shipment, including their discounts and promotions.

Purchasing

Employ economies of scale to purchase raw materials from approved, certified vendors to feed planned batch production jobs created from demand planning.

Maintenance

Plan, schedule, and execute predictive and preventive maintenance activities against production line and warehouse equipment to optimize equipment availability and utilization.

Distribution

Effectively manage store replenishments, inbound and outbound activities across one or more facilities, as well as inter warehouse transfers.

Recognize These Benefits

By gaining greater control over product development and production, improving planning and scheduling, balancing inventory, and reducing costs and variances, companies employing BatchMaster ERP for Bakeries are increasing their profit margins, gaining market share and improving their bottom line.

Rapidly Develop New Products

To satisfy consumer craving for new tastier, more health conscious products, ones that are low in sugar and calories, high in nutritional value and without unwanted allergens, chemical additives and preservatives, your team of product developers will have the tools to quickly introduce new products to the marketplace. Advanced programming reduces your time spent on tedious, error-prone manual calculations in designing, updating and approving products that meet your targeted physical, nutritional and financial characteristics

Better Inventory Control

Accurate, granular demand planning and production scheduling optimizes your procurement and production of raw materials and finished goods, respectively, which will give you better control over inventory balances and space utilization within your plants.

Quickly Scale Up Production

Automation of your batch and continuous flow production processes reduces the need for manual intervention. Dynamic recipe adjustments, auto sizing and scheduling of batch job all work together to streamline production, while reducing the delays, risks and costs of operational downtimes. The establishment of a comprehensive, online quality program allows you to improve current processes, keep production line equipment settings at their optimal settings and ensure your manufacturing processes can meet the increased in demand.

Avoid Customer and Industry Fines and Penalties

Keep compliant with industry specific and federal regulations, in terms of nutritional labeling, allergen declarations, lot traceability and recall requirements. Bi-directional lot tracing enables you to report on suspect products in minutes, not days - minimizing the scope of the recall. You can now establish effective mock recall programs with your suppliers and customers. By establishing a comprehensive quality program, you can avoid customer chargebacks, buy-backs and returns due to order shortages and shelf life issues. And with a thorough and easily accessible audit trail of key business transactions, you will be in compliance with your auditors' record-keeping requirements.

Reduce Costs

You have the means to manage costs upfront during product development. Demand planning and production scheduling reduces the costs of excessive labor and inventory, as well as the costs associated to equipment clean-downs and changeovers. And with a quality program enacted at the time of receiving thru customer shipments, you will reduce the cost of spoilage and stales.

Increase Sales

Leverage BatchMaster ERP's quality, traceability and compliance capabilities not only to retain your valuable customers, but to gain new ones.

Improve Management Reporting and Analysis

Customizable role-based screens provide you with accurate, real-time visibility to those key metrics that will help you to make better informed decisions, faster, and maintain your competitive edge.

Take The Next Step

BatchMaster ERP for Bakeries gives you greater control over your business, from sales, procurement, and manufacturing to accounting and customer service. Our solution can be rapidly deployed as an add-on to your existing financial solution or as a total financial and manufacturing solution. BatchMaster ERP for Bakeries gives you system adaptability, accountability, reliability, scalability and traceability - all the system abilities you need to profitably grow your business.

As an industry focused company and solution provider, BatchMaster Software is ready to help you meet your business objectives, so please contact us today to discuss your business requirements:

For more information please contact:

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