

Ramco Solution for Chemical Industry

“ Now, information from across locations and departments on sundry debtors, creditors, profit and loss accounts, etc. is available for view, online, at the click of a button ...

The biggest change that we have observed is, earlier we used to spend over 12 hours a day at work to keep our books and data updated. But post ERP implementation, everything has got so organized and easy to process that everyone is able to wrap up work and go home, on time. ”

Avinash Nirgude
IT Manager, Henkel Information Technology



Overview

Maturing traditional markets and increased international competition are squeezing profit margins for many chemical companies. Environmental issues and product stewardship costs also strongly impact the business practices and management focus of the Chemical Industry.

To maintain competitiveness in the global marketplace, companies continue to invest heavily in Integrated Enterprise software applications. These applications provide the tools to control supply chain costs, maximize asset effectiveness, and improve customer service. All of this can counter present market forces and give the company a competitive boost.

Process Manufacturing, the broad segment that Chemical Manufacturers are a part of, poses several challenges and unique requirements, which need to be readily addressed. In addition to the generic requirements to the Process Industry, Chemical Manufacturers require additional capabilities in several specific areas. Thus, the right solution must address all these in a native manner.

<i>Process Industry Requirements</i>	<i>Chemical Industry Requirements</i>
<ul style="list-style-type: none"> • Formulation • Attribute Tracking • Quality Control • Variance Analysis • Product Costing • Multiple Pack Sizes • Bill and Hold • Conformance to HACCP Standards • Management of Reusable Containers 	<ul style="list-style-type: none"> • Flexible Scheduling • Variance Analysis • Reformulation • Research and Development • Process Control • Lot Tracking & Lot History • Shelf Life • Quality Assurance • Multiple Units of Measure • Plant Maintenance • Efficient Procurement • Customer Responsiveness • Demand Forecasting • Advanced Pricing, Promotions and Deals • Weigh Bridge Integration
<p><i>Chemical Industry Requirements</i></p> <ul style="list-style-type: none"> • Regulatory Compliance (MSDS etc.) • Co Products, By Products & Recycling • Special Characters Support • Active Formula Adjustment 	

This white paper probes the requirements of the Process Industry in general, as well as the specific issues of the Chemical Industry. A generic ERP simply will not suffice for the Chemical Industry as different segments of the Chemical Industry face different business challenges. Precisely for this reason, the IT solution needs to be designed to suit each of these segments.

Ramco ERP Suite has been designed to cater to variations in requirements. It focuses on the very detailed needs of the Chemical Industry, on a category-by-category basis— including Paints, Colorants and Dyes, Soaps and Cleaning compounds, Lubricants and Adhesives, Specialty Chemicals, Plastics, Rubber, Agricultural Chemicals, Basic Chemicals and other related categories. Functional depth and breadth of Ramco ERP Suite, combined with a high degree of flexibility, makes it a powerful offering for Chemical Manufacturers.

Generic Requirements of the Process Industry



In this section, we look at the unique challenges that are inherent to the Process Industry. The suitability of a solution is determined by its ability to address these requirements in a comprehensive manner. For Process ERP, the crux is a detailed and accurate model of the process.

Formulation

The competitive advantage for companies in the Process Industry stems from the uniqueness of the products manufactured. This is a direct result of the formulations developed (and possibly patented) by the company. Several important requirements arise in this context, in order to maintain and enhance its standing in the industry. These include:

Formula Security

Information on formulations needs to be under strict control, with access to formulas being a security privilege. The ability to grant rights to people at the level of each formula is extremely important.

Formula Management

The composition of the formulas may need to change from time to time, due to market demands, cost considerations, etc. The ability to revise the formula without losing history information, and switch production from one revision to the next (based on several considerations) is critical.

Not only is there raw material and finished goods variability in quality, quantity and characteristics within each item, but there is also variability in the raw material, depending on the time of year, the type of item and the region in which it was grown.

New Product Development

New products are developed, either to enhance existing formulations or to research and develop new products that will sell in the market. The ability to track the time, costs, trials and revisions, and test results and comments on such projects is critical to building a powerful knowledge base of formula development history.

Ramco ERP Suite offers powerful functionality to manage the entire lifecycle of formulations. Data level security is provided to control access to formulations— access can be granted or denied at the level of each and every formula. The system supports multiple revisions for the same formula, with automatic switchover of production to the new revision based on business rules. All aspects of New Product Development are tracked by the system. New Product Development Projects are given a unique identification, employees associated to projects, costs are tracked against the project, and complete history including revisions, comments, tests, results etc. is recorded.

Ramco ERP Suite features a versatile formula development, costing, and laboratory analysis tool. Using this tool, new formulations can be rapidly developed by modifying and mixing existing formulas in various proportions. Using this Formulator, one can dynamically scale batch quantities, perform cost calculations and arrive at the desired result in a quick and effective fashion.

Thus, Ramco ERP Suite focuses on the needs of the Process Manufacturing Industry to handle these complex variability issues through flexible formula management capabilities.

Attribute Tracking

Ability to track unlimited product attributes is a critical feature in the Process Industry where attribute values vary from batch to batch, and where customers order product and specify their requirements for specific product attributes. For example, customers might have varying standards for moisture content in a product. One customer's tolerance might be very stringent, while others could be lax. The ability to capture the attribute value (e.g., the percentage of moisture content) and then evaluate product lots at order entry would be critical to meeting customer demands.

With the rich functionality of Ramco ERP Suite, the order entry process can define customer specifications and then compare the needs of the customer to available product.

Quality Control



One of the most critical requirements of the Process Industry is to track multiple attributes of each product, and to ensure that it strictly conforms to the specifications. Process Manufacturing is inherently not a perfect science, due to differences in quality of raw material, processing, wastage, etc. with the result that every batch is slightly different. It is extremely important to be able to analyze raw materials, finished products and co-products and ensure that they conform to specifications, both internal and those specified by the customer

Ramco ERP Suite allows for unlimited attributes, such as pH, Percentage fatty acids, Color, etc. to be associated to materials, whether it is raw materials, intermediates or finished products. A Quality Control module enables you to analyze samples, measure and record the values of attributes, confirm the clearance of each batch, and generate Certificate of Analysis.

Product Costing

Accurate determination of the cost of finished products considering materials, labor, activities and overheads is essential to determine the correct profitability levels of various products. The cost of products needs to be re-established on a periodic basis to keep it consistent with current market conditions.

Ramco ERP Suite supports ABC Costing techniques to accurately roll-up the cost of the product from the cost of raw material, labor and activities. The entire process of cost roll-up simulation and inventory revaluation at the new standard cost is supported.

Multiple Pack Sizes



Manufactured products are typically packaged in multiple package sizes and containers. Efficiency in production planning is achieved through consolidating the demand for the same product across package sizes, and manufacturing them in large batch quantities. Subsequently, the product is processed in separate packaging lines and the same product can be Packaged, Labeled or Private Labeled before selling.

Ramco ERP Suite is designed to package the same manufactured product in multiple packs and labels. This is made possible by modeling a common formula for the intermediate and separate formulas for the packaging operations. This design enables the MRP process to automatically aggregate demand, irrespective of the pack size, as well as generate production orders for optimal batch sizes.

Bill and Hold

Though distributors might have ordered goods, many of them might be small and may not have the facilities to stock the finished goods. In such cases, the manufacturing company might need to store the goods on the distributor's behalf though the goods have been billed for. This process is generally known as Bill and Hold. Usually, a warehousing fee is charged for the service provided, with the goods being shipped to the distributor on request.

Ramco ERP Suite features 'Bill and Hold' functionality, tracks such invoiced material at zero cost in your warehouses, and provides for charging a warehousing fee on the customer, based on the duration of storage.

Management of Reusable Containers



The chemicals that are manufactured in the process industry may be processed immediately or may be stored in containers before it is processed further. The WIP tracking process also needs to account for the inventory of these reusable containers, and monitor their levels and proactively generate new purchase requisitions for them.

The use and release of reusable containers is captured as part of the definitions in Ramco ERP Suite. This facilitates easy tracking and usage of reusable containers and ability to consume it or release it back into inventory, through production reporting. Automatic reordering based on inventory levels in inventory takes care of replenishment.

Supportive Sales and Distribution

For the Process Industry, sales planning and analysis is an essential feature. Efficient business control is achieved by detailed analysis of the bottom line on a regional and customer level. Order fulfillment needs to be powerful. Tax regulations, commissions, discounts and foreign trade need to be supported. Integration of distribution with inventory and production planning are critical.

In Ramco ERP Suite, control is provided with access to order status, product availability, online order transactions and goods tracking. Order fulfillment is integrated with the sales process so that blanket sales orders can be easily managed. Multi-tiered, rule based, customer specific commercial terms and conditions are supported.

Interface with existing third party transportation planning system, is possible. Actual shipment and bills of lading can be easily reconciled. Material replenishment through stock transfers is possible.

Integration

The extensive manufacturing functionality of the Process Industry has to be integrated with sales, customer service, maintenance, finance and more. It also needs to have a strong supply chain support.

Ramco ERP Suite is a complete solution for the Process Industry, having in depth functionality and seamless integration across all modules. Its supply chain functionality is customized to suit the Process Industry.

Web Enabled, Multiple Deployment Choices

Ramco ERP Suite is web-enabled and helps to reach out to customers, suppliers, employees and other stakeholders. They empower the organization's stakeholders - located anywhere on the globe - with real-time information and online transactional capability. While information is provided over the Internet, care should be taken in limiting access only to the information specific to them.

Ramco ERP Suite is completely web-architected and supports multiple deployment options based on customer requirements – on-premise, on public or private cloud. The solution has zero client footprint and users need only a web browser and Internet connection.

Customer Portal

Customers need to manage and track the entire order life cycle from product inquiry to billing information. Ramco Customer Portal application facilitates instant access of accurate, real-time information to customers, order tracking and shipment status, as well as the ability to instantly order requirements. This reduces order lead times and customer support cost. Ultimate result is enhanced customer satisfaction owing to improved quality of service.

Supplier Portal

Two-way information flow between the enterprise and the suppliers involves expensive human intervention. So, enabling enterprise supply chain collaboration over the Internet is significant.

Ramco Supplier Portal application empowers closer supplier relationships, by enhancing their visibility in your enterprise. Leaner purchase organization, instant access to information on goods shipment and better management of inventory leads to savings in material costs and reduction of purchase overheads.

Requirements Unique to Chemical Manufacturers

The Chemical Industry is more diverse than other Process industries. The industry processes significantly different kinds of products. In addition, the nature of the processing also includes significant variation. For example, the ERP requirements of a company that processes crude oil are very different from a company that makes soap. The crude processor has to be concerned about the cost optimization of processed crude products while the soap manufacturer is more concerned about the optimization of the upstream supply of materials. The issue is not only what the system can do, but also how it is accomplished.

The Chemical Industry's present day focus is on the following issues:

- Reducing operating costs
- Increasing asset utilization
- Consolidation & Globalization
- New growth strategies
- Risk management
- Global sourcing
- Improving supply chain management
- Centralized purchasing
- Product diversification
- Closer customer/supplier relationships
- Increasing customer service
- Attaining superior pricing power

Chemical Manufacturers need an exceptional, nimble IT solution that enables them to continuously improve their operations while managing the demanding requirements of the present day Chemical Industry. Standard ERP systems can only meet about half of the chemical industries' requirements. The best-fit ERP has to model the exact Chemical Manufacturing processes without having to do major customizations and workarounds. Some of the unique requirements of Chemical Industry (including Paints, Colorants and Dyes, Soaps and Cleaning compounds, Lubricants and adhesives, Specialty chemicals, Plastics, Rubber, Agricultural chemicals, Basic chemicals and other related categories.) are listed here:

Regulations and Standards



Ensuring safety and environmental compliance are essential requirements for the Chemical Industry. Regulatory compliance to HACCP guidelines and conformance to similar standards like Material Safety Data Sheet (MSDS) are other critical requirements. For companies that come under the purview of these regulatory guidelines, compliance is of utmost importance. It is necessary to ensure that the Business Solution conforms to the standards and enables one to comply with these guidelines.

Product Safety, including Material Safety Data Sheet (MSDS) capability and dangerous goods management are covered in Ramco ERP Suite for Chemicals to ensure safety and environmental compliance. Ramco ERP Suite Chemicals solution covers the standards of HACCP guidelines. It helps in conforming to these standards and generates regulatory reports. The Plant Maintenance System has all the safety issues incorporated.

Co Products, By Products and Recycling

Addressing co-products and by-products resulting from chemical production process is a basic and critical requirement in chemical industries. One should be able to move these products to the inventory directly or move them after further processing. Recycling and rework of intermediates and finished products are frequently encountered in the Chemical Industry.

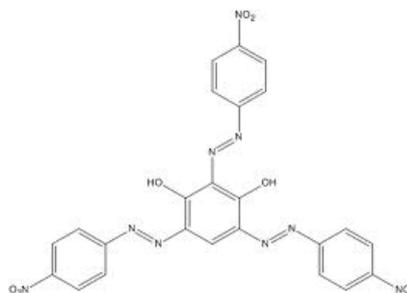
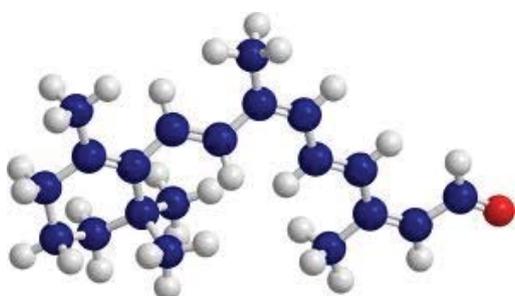
Formula Definitions in Ramco ERP Suite for Chemicals allow a manufacturing process to take in multiple inputs to make Primary Products, Co-Products and By-Products. Co-Products can be planned in addition to planning Primary Products. All outputs can be further processed, packaged, etc. before they are sold. It is also possible to analyze co and by-products and to compare the costs and benefits of selling or disposing them. Ramco also enables you to address recycling and rework of intermediates and finished products.

Special Characters Support

Chemical Industry specialists are used to representing Chemicals using various formulas. (Sulfuric acid is represented as H₂SO₄). Labs of a chemical company extensively use chemical formulas, with its Valencies, etc. This is one of their basic and key requirements.

Ramco ERP Suite for Chemicals has fulfilled this unique need of the Chemical Industry in the solution provided to its chemical customers. Special characters including subscripts, super scripts, and selected Greek characters are all provided in the solution.

Active Formula Adjustment



For Chemical Manufacturers, raw materials often vary in concentration and other characteristics from one batch to another. These variations have to be accounted for, and the formula has to be adjusted to compensate for these differences. For example, Sulfuric acid is dependent on percentage sulfur content of the ore. The value of sulfur content may vary from one load to another. Accordingly, the formula has to be adjusted. The desired value is obtained by varying the mix of active ingredients or fillers.

Ramco ERP Suite for Chemicals has the capability to dynamically adjust formulas, based on the actual characteristics of input materials. Using a static BOM system different product IDs or recipes are needed for all possible variations in input items. This is avoided with Ramco ERP Suite for Chemicals.

Flexible Scheduling

Scheduling flexibility aids increased plant throughput and minimized downtime. Scheduling has to be sensitive to capacity. The idle production orders may have to be treated differently from past due scheduled orders. Capacity reservation should not only be based on capacity availability but also should take into consideration the due dates to optimally schedule to reduce operating costs

Ramco ERP Suite for Chemicals has the versatility to do both forward and backward scheduling based on the type of the production order and also taking into consideration the constraints. It is based on finite scheduling logic, which is sensitive to capacity availability.

Variance Analysis

The formula defines the standard consumption of ingredients for a given yield of a batch. The actual yield could vary from batch to batch. An analysis of this variance is necessary to identify inefficiencies in the production process, make refinements to the formula and cost the product with accuracy.

Ramco ERP Suite for Chemicals allows specifications of standard yields as part of the formula definition, report the actual yield, and enable analysis of variance by Product lines, Cost centers, etc.

Reformulation

The quality and grades of raw materials used determine the characteristics of each batch of chemical intermediate. Chemical Manufacturers often mix multiple batches of more or less the same attribute value to achieve the desired characteristics.

In Ramco ERP Suite for Chemicals, the characteristics of each batch are captured, and the ability to dynamically choose specific lots to use as inputs to get the desired characteristics is facilitated. Attribute-based allocation of material to the production order supports this process of reformulation further.

Research and Development



Changing customer requirements need to be met with rigorous Research and Development. New products or product improvements have to be made continuously. At the same time, processes have to be reengineered or new processes have to be developed to make the new product. Estimation of costs for such new products needs to be simulated.

Ramco ERP Suite Chemicals solution provides tools to ensure new products and processes move smoothly from the laboratory to production. When developing new products or product improvements, all batch and recipe information can be automatically integrated wherever required. This feature enables estimation of cost of Finished Product based on existing Product/ existing Formula/New Formula, corresponding network activities and/or new activities. This may also be used for new product cost estimation. It is required to estimate whether the sale would be viable/profitable and at what volumes the returns would justify the costs.

Process Control

Process Control, a critical process in the Chemical Industry has to be fully integrated in the production execution process. Close and continuous online data capturing across industrial controls, plant management, process management and quality management is necessary to bridge the gap between 'information islands' between business and plant-floor or process control systems.

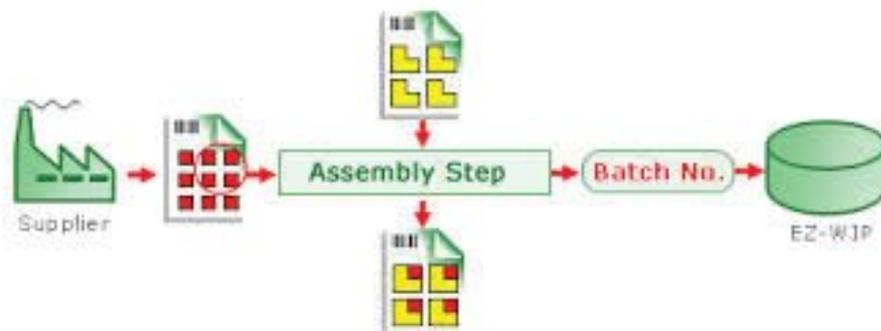
The Real Time Integrator (RTI) of Ramco ERP Suite for Chemicals interfaces with PC based systems through open interfaces. With this interface, plant control systems, namely DCS, PLC, SCADA, vibration analysis devices, bar coding devices, hand held data collectors and other PC based systems can be effectively linked to the solution. Parameter Measurement Values, Critical Alarm Conditions, Production Hours of process units etc. can be transferred to the solution. Ramco RTI automates accurate data collection, thus eliminating the errors inherent in manual entry. In addition, RTI's open architecture enables it to integrate with third party applications, data warehouses, CRM applications and LIMS, thus ensuring consistent product, service, and process quality.

Shelf Life

Expiry period is the key to a many a chemical manufacturer's success. Given the perishable nature of the products, tracking shelf life of products and allocating stocks based on expiration date is necessary for efficient operations.

Ramco ERP Suite for Chemicals is designed to track shelf life on all lot controlled items and automatically suggest a retest. The system automatically 'holds' the stock that has gone past the expiration date, so that such lots are not inadvertently consumed or shipped. The application also supports multiple allocation methods including 'Expiration date based' and 'FIFO'

Lot Tracking & Lot History



Complete traceability from receipt of chemical raw materials through manufacturing and to shipments of finished products is essential for taking quick stop-loss arrangements. Transparency and analysis of Lots, bi-directional Lot Tracking and the ability to record, store and retrieve the Certificate of Analysis (CoA) of raw materials, Intermediates and finished products is a fundamental requirement. These need to be addressed by the solution in a simple manner.

Ramco ERP Suite for Chemicals provides the functionality for proactive, forward and backward traceability. The information that can be readily accessed includes:

- Customers to whom a given finished product lot has been shipped
- Raw materials and the vendor lot numbers that were used to manufacture a finished product lot
- Finished product lots that have used a given raw material lot
- Access to Certificate of Analysis (CoA) for raw materials and finished products alike
- Machines, labor and accessories used in the manufacture of a finished product lot

Lot History helps in finding out what happened to a lot in sequence all through issue, receipt, adjustment, product conversion etc. This is helpful at times of Product Recall.

Quality Assurance – Raw Material

The Chemical Manufacturing process starts with controlling the quality of chemical commodities. Chemical Manufacturers are subject to the vagaries of nature, such as humidity, temperature etc. In addition, the quality of input material can vary widely resulting in variations in the quality of batches. The ability to track the characteristics of raw material, and classify them according to grades is extremely critical.

All inbound material can be subjected to QC analysis and attributes of each lot is determined and classified according to grades. This information is used to pick and choose the right lots for formulating a batch through allocation of lots based on attribute values.

Quality Assurance – Finished Goods

Each manufactured batch needs to strictly conform to the specifications defined for that product. Quality Clearance needs to be done on each batch to ensure conformance to specifications before it is released for packaging.

The attribute values for the batch are captured in the system, and analyzed for conformance to specifications before it is cleared for packaging. Ramco archives all information on the attribute values for the batch for access at a later time, and generates Certificates of Analysis along with shipping documents. Ramco ERP Suite for Chemicals has an integrated quality system. (i.e. based on feedback from the lab, batch correction takes place). Audit trail for QC changes is supported.

Multiple Units of Measure

The Chemical Industry requires specialized functions that support multiple units of measure. For example, one can buy in gallons, use in liters, stock in pounds and sell in kilograms. Inventory can vary in terms of unit of measure, quality, product attributes, concentration, packaging etc.

Ramco ERP Suite for Chemicals handles these requirements comprehensively. One can even use non-convertible units of measure for your transactions. It supports a way to measure inventory so that accurate measurements are maintained as the item goes along various stages of the process chain. The solution also allows users to report quantity in multiple units of measurement at the same time - called the “catch weight” functionality. For instance, the user may want to record consumption of 1 bag of a chemical, which is equivalent to 9.5 kilograms of the material. The users can record both quantities at the same time, thus maintaining an accurate record of the lot quantities in the system.

Plant Maintenance



It is common for the Chemical Industry to be asset intensive. Therefore, maximizing the use of resources is of primary importance. Facility for planning the maintenance and shutdown has to be part of the production system. Production Planning and Scheduling have to take into account the available time of resources, which excludes the maintenance down time.

Ramco ERP Suite for Chemicals can manage scheduled and unscheduled work to maximize capital utilization. It supports integrated plant maintenance, which allows scheduled and unscheduled maintenance to be easily planned and integrated into the work. It gives a seamless way to regularly schedule preventive and predictive maintenance, while at the same time automatically creating work orders. For comprehensive planning, plant maintenance is integrated with production planning so that down times are shown throughout the planning process and kept to a minimum.

Efficient Procurement

A typical aspect of the Chemical Industry is that the proportion of value of the raw material to the value of the finished good is high. So, efficient procurement is a crucial requirement, especially in cases where the procurement is centralized.

Ramco ERP Suite for Chemicals offers integrated vendor management and analysis, which can be linked to goods receipt, quality and batch. The solution enables chemical enterprises to plan for the direct and indirect purchases, contracts, inventory planning and control, subcontracting, stores management, and physical stock verification to meet the organizational objectives of achieving high customer service. It facilitates requisitioning, ordering, receiving, and warehousing across geographically scattered locations.

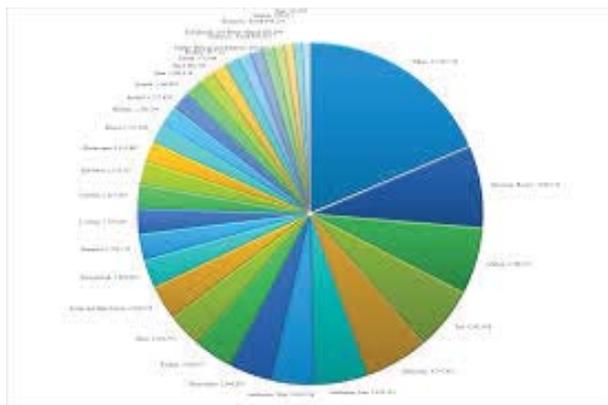
Customer Responsiveness



To maintain the competitive advantage, chemical companies are vying with each other to have better customer relationship. Faster response is the key to good relations. Order execution and delivery exactly as per the customer requirement is a basic requirement.

Ramco ERP Suite for Chemicals has various features to improve customer relationship including Availability To Promise (ATP), consignment inventory, customer agreements and contracts, customer self-service through Customer Portal, post-order processing facilities like customer complaints, returns resolution, return material request, and advanced pricing.

Planning



The planning process in the Chemical Industry is quite extensive. Planning is driven by the following factors:

- Finished goods demand
- Lack of control over the grade of inputs received
- Planning for finished products, given both of the above

Ramco ERP Suite for Chemicals provides a comprehensive planning engine, using which, long-term Production Planning, bottleneck Resource Capacity Planning, Material Requirement Planning and Finite Capacity Scheduling of resources can be carried out.

Advanced Pricing, Promotions and Deals

The Chemical Industry thrives on the power to price. Chemical players need to be very aggressive and have to continuously come out with innovative promotions and deals. Product-specific promotion activities that must be tailored and managed for different markets have to be supported. A flexible promotion management application and a comprehensive order management solution will allow effective targeting of trade promotion funds to achieve superior market performance.

Ramco ERP Suite for Chemicals provides advanced pricing flexibility, coupled with an excellent ability to plan and manage trade promotions. The solution facilitates various promotion schemes including, free and discounted products. Ramco ERP Suite for Chemicals offers a complete promotions management solution, allowing companies to deliver clearly defined market results and improve planning, offering, tracking and control of trade promotion. The flexible pricing functionality offers a choice of FOB pricing, freight added pricing and delivered pricing.

Weigh Bridge Integration



As Chemicals are received in bulk, the ERP application needs to integrate with weigh bridges so as to automatically compute the quantity of receipt.

Ramco ERP Suite for Chemicals integrates seamlessly with weigh bridges to simplify the receiving process.

Benefit Summary

Ramco ERP Suite for Chemicals is a one-stop solution that is ideally suited for Chemical Manufacturers, who are working on integrating plant systems as one of the internal improvement projects. Flexibility and functionality of Ramco ERP Suite for Chemicals results in improved information flow and optimization as a result of linking internal and external planning to the plant execution system. Ramco ERP Suite for Chemicals goes into the details of production and supply chain issues, and offers a perfect-fit solution.

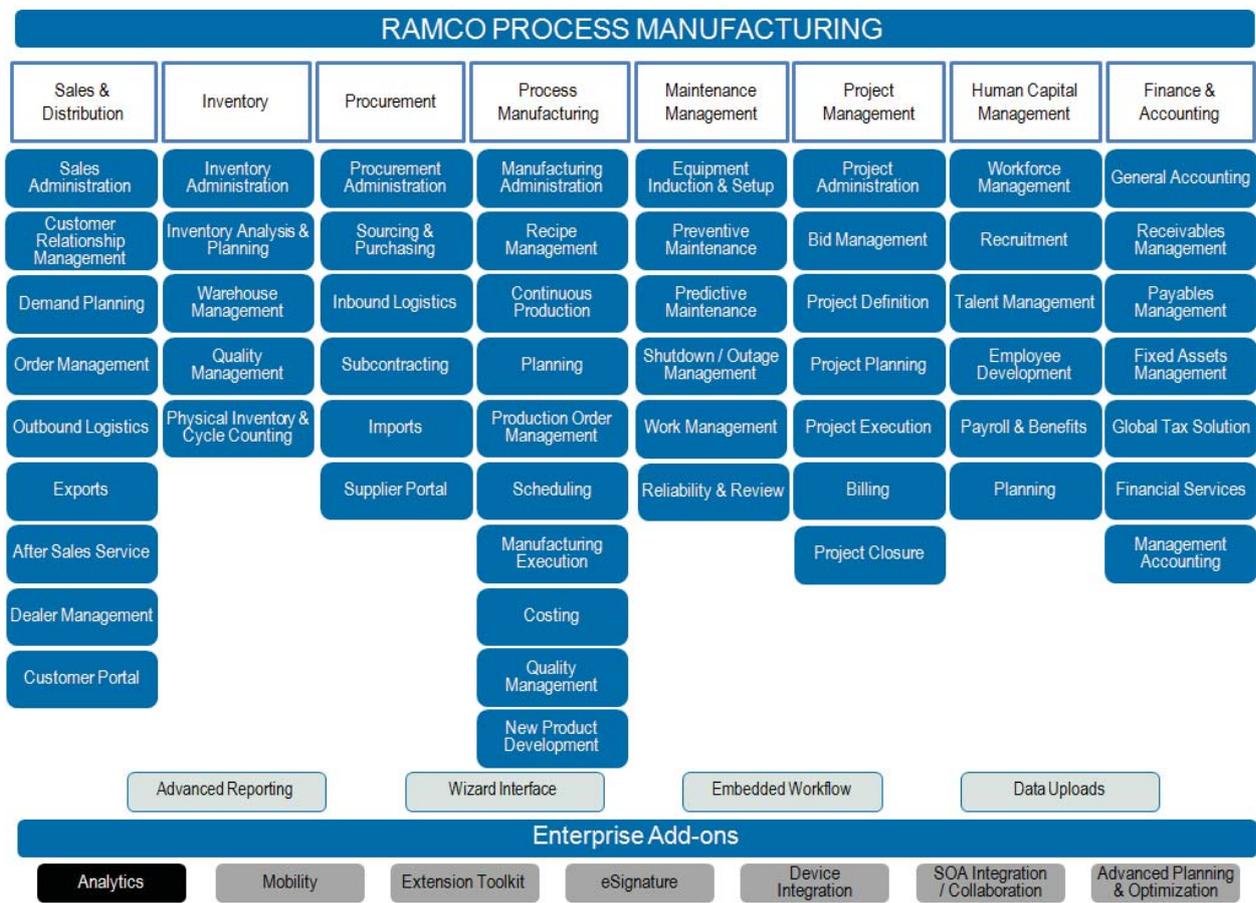
This ERP solution comprehensively addresses all business processes specific to the Chemical Industry, such as Co-products and By products Planning, Flexible Scheduling, Industry Standards and Regulatory Compliance, Quality Control, Lot Tractability, etc. In summary, it is a proven, single-point solution to manage all aspects of chemical operations.

About Ramco ERP Suite

Ramco ERP Suite is one of the most comprehensive ERP products in the market with a strong value proposition and addresses all facets of your organization. (Refer chart below for more details). Additionally, our Tools & Utilities – Extension Development Kit, Portlet Development Kit, Data Drill Downs, Advanced Reporting and Intelligence, Workflow and other functionalities allow you to flex and extend the product, beyond the defined boundaries, with little or no programming knowledge.

Highlights

- Comprehensive functionality to the Chemical Industry
- Integration capability with third party products for LIMS, Bar Coding, CRM, EDI and MSDS
- Completely web-architected, with multiple deployment options
- Packages powerful tools: Highly flexible and extendible
- Quick & simple to implement



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Product Guide Rev. 23NOV2012

ramco erp on cloud Now on iPad

Intuitive. Location Aware. Gen-Y Interface.

For more information, you can e-mail us at contact@ramco.com or visit us at www.ramco.com

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