

SYSPRO in the **Assemble-to-Order**

manufacturing environment

Essential to success is having integrated systems that can foster customer and supply chain collaboration, provide comprehensive visibility to your operations and address the specific challenges inherent in your operational environment.

SYSPRO enables assemble-to-order manufacturers to differentiate their product offerings, improve delivery performance and customer service, and streamline constituent order-to-invoice processes and operations.

SYSPRO embodies the customer-centric philosophy. We focus on enabling our customers to excel by providing world-class integrated solutions that span multiple functions and place as great an emphasis on collaboration as transactions.

SYSPRO software incorporates integration and business process management layers into existing Enterprise Resource Planning (ERP) applications that manufacturers can use to create their own customer-centric business processes.

SYSPRO Manufacturing software integrates seamlessly with SYSPRO Financials and Distribution.



SYSPRO solutions for the Assemble-to-Order manufacturing environment

SYSPRO's integrated nature provides real-time and complete visibility across your operations. Its easy-to-use, powerful functionality promotes improved manufacturing and operational efficiency, as well as excellent customer service, throughout the entire enterprise.

SYSPRO's Enterprise Performance Management suite, gives you visibility to related information across your business, on multiple dimensions from local and remote locations. Our suite includes a variety of powerful analysis tools such as Executive Dashboards, Cash Flow Forecast, SYSPRO Analytics and Financial Ratios

SYSPRO has the capability to automatically raise all actions related to fulfilling the customer order, through its sales order, purchase order and job linking features, thereby ensuring the integrity of quoted and margin information, and the accuracy of order details. Once the product is receipted from production, the order is automatically updated and control passes to the Sales Order system.

SYSPRO's Product Configurator solution offers multiple configuration options to manufacturers in a controlled, cost-effective and user-friendly manner in order to maximize customer service and operational efficiency. It enables manufacturers to differentiate their product offerings through the customization of product to meet customer specifications and can help reduce configuration errors, while also reducing the involvement of experts in routine transactions.

Inventory control is a key aspect of almost every manufacturing business with the ultimate success of your businesses often dependent on your ability to provide customers with the right goods, at the right place, at the right time. Our inventory management suite of solutions enables effective customer servicing and improved profits by providing superior inventory control that optimizes stocking levels.

Planning the manufacture of commonly used sub-assembly stocks and the purchase of their constituent materials is facilitated by SYSPRO's Inventory Optimization and Material Requirements Planning features. SYSPRO's Inventory Optimization enables the analysis and ranking of stock for the modeling and creation of suitable stock policies to drive optimal inventory levels and reduce obsolescence.

SYSPRO Inventory Families and Groupings provides the tools to arrange 'collections' of stock keeping units (SKUs) into families and groupings of similar items. These collections provide a high-level view of items at which sales forecasts can be produced and the quality of the forecast measured.

SYSPRO Inventory Forecasting enables you to produce automatic or manual forecasts based on sales history as well as provide the tools to measure the quality of your sales forecasts.

SYSPRO's multi-level master production scheduling provides you with the capability to optionally master schedule standard stocked sub-assemblies based on the configurable inclusion of sources of demand and supply, as well as the application of requirements rules and order-point replenishment policies. The master schedule is exploded through all levels of the bills of material via the material requirements planning calculation using infinite capacity to determine detailed time-phased production, as well as material and capacity requirements. Alternatively, where the master scheduling phase is not required, configurable demand sources can be used to drive material requirements calculations directly.

Purchasers can use the resulting purchase suggestions to plan material procurement, while planners can use the resulting jobs as input to whichever scheduling tool within SYSPRO is most suited for modeling their capacity and scheduling requirements.

Scheduling functionality extends from manual load leveling in SYSPRO's Work in Progress solution through to automated single- or multiple-constraint-based scheduling and sequencing in SYSPRO's Factory Scheduler. The Work in Progress solution enables the capture, costing and tracking of time, materials and overheads consumed in production.

Trial kitting features enable you to quickly check that you have all components required for a job or bill of jobs before issuing any materials or launching a job onto the assembly area and, if not, where shortages exist. Material and labor consumed in assembly operations may be backflushed or, for longer jobs, issued to work-in-progress in real-time. And lot traceability and serial tracking features provide comprehensive product and component traceability.



Key features and functions within SYSPRO for the Assemble-to-Order manufacturing environment

■ Available-To-Promise (ATP)

SYSPRO's available-to-promise feature enables you to make reliable delivery promises to your customers by showing the portion of your inventory and planned production that is available to fill customer orders and on which dates. You can choose between regular (discrete) and cumulative modes of display and can define which components of supply and demand should be included in the calculation.

■ Backflushing

In SYSPRO, backflushing enables you to record the manufacture of items without having to create works orders. This is particularly relevant in situations where production runs are short and the benefits derived from creating a works order to track the activity on the shop floor do not justify the cost of processing all the data normally required for a works order.

■ Configuration libraries

Useful for improving the time taken to process quotations and orders for commonly sold configurations of configure-to-order products, SYSPRO's Product Configurator libraries enable you to store and rapidly retrieve specific configurations. During quotation or order processing, you can simply select the relevant library code instead of going through all the selection criteria and options with your customer.

■ Forecasting

SYSPRO's Forecasting enables the entry of manual forecasts, as well as the automatic generation of forecasts via a variety of forecast algorithms, including those that compute for trends, seasonality and cyclical events. In addition, the module provides a competition forecasting method (also known as focus forecasting or the tournament method) which attempts to select the most suitable forecast algorithm based on a selected error measurement and your recent SYSPRO sales history data.

■ Interactive graphical planning board with drag-and-drop operation editing

The interactive graphical planning board features of SYSPRO's Factory Scheduling are geared towards providing schedulers with complete visual control over scheduling activities. This is achieved via Gantt charts and other visual representations of production resources, load and schedules which, in addition to the more sophisticated automated scheduling and sequencing features, provide the capability for rapid manual manipulation of operations via drag-and-drop editing.

■ Jobs

Through its structured design and capability to copy from existing jobs, the jobs function in SYSPRO enables the rapid entry of production orders for the

manufacture of both standard and non-standard products, as well as for service and project jobs. Central to the Work in Progress module, its integrated nature simplifies the creation of jobs by facilitating the automatic creation of materials and internal and sub-contract labor allocations from bills of materials and estimates, as well as from product configurations formulated using SYSPRO's Product Configurator. Furthermore, it simplifies the entry of non-standard allocations for the assemble-to-order manufacturing environment and enables the rapid creation of bills of jobs.

■ Kit issues

SYSPRO's Kit Issues program helps you to streamline the process of preparing, kitting and issuing materials required for production, as well as the posting of labor hours, and negative issues if required. In the event there are material shortages, it helps prevent the creation of unnecessary work-in-progress by enabling you to quickly determine whether you have all parts for a job, and provides one-click posting if all required materials are available. The user-friendly review function provides facilities to change the kit and allocated material quantities, as well as to substitute suitable materials where shortages exist.

■ Kit sales

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■ Linked sales orders, purchase orders and jobs

Particularly useful in an assemble-to-order environment, the ability to create linked sales orders, purchase orders and jobs in SYSPRO provides a quick and simple way of raising and linking those transactions required to fulfil a customer order. If using the Quotations module, you can quickly raise the customer order and the supplying jobs and/or purchase orders from a single point of entry when confirming the quote.

■ Minimum/maximum levels

In SYSPRO, you can set up minimum and maximum stock levels, per stock code per warehouse, to assist with replenishment planning. Using SYSPRO's Warehouse Exception report, you can select to print those items that have fallen below minimum or exceeded



maximum. In addition, using SYSPRO's Office Automation and Messaging module, you can configure an event that will inform the relevant operators via mechanisms such as email when the minimum/maximum levels are breached.

■ **Product configuration**

SYSPRO's Product Configurator enables manufacturers to differentiate their product offerings through the ready customization of product to meet customer specifications. The Product Configurator provides a rules-based configurator that will primarily help companies efficiently process products that are manufactured to order, assembled to order or sold in many configurations.

■ **Production scheduling and sequencing**

SYSPRO scheduling tools offer flexibility to address different levels of complexity and automation required to balance scheduling priorities, constraints and conflicts. While SYSPRO's Material Requirements Planning and Work in Progress modules offer infinite capacity scheduling, as well as basic single-level forward finite loading for single constraints, SYSPRO Factory Scheduling (SFS) offers powerful finite backward, forward and bi-directional scheduling by job or resource. Creation and manipulation of schedules can be done manually or via automatic methods which allow for multiple constraints, including material availability in a multi-level bill of material environment.

■ **Safety stock**

The specification of safety stock is a key technique for mitigating the problems associated with demand or lead-time uncertainty. Within SYSPRO, exception reporting highlights stock below safety at a snapshot in time, while the Material Requirements Calculation

can be configured to include below-safety-stock levels as demand triggers. Furthermore, SYSPRO's Inventory Optimization suite of modules enables the tracking and calculation of optimal safety stocks based on your inventory investment and service-level profiles.

■ **Traceability**

Particularly for companies in highly regulated industries, the tracking and replacement of defective materials, as well as the efficient management of product recalls are compliance-critical activities. SYSPRO's traceability features facilitate the tracking of materials through the receiving, manufacturing, assembly, inspection, stocking and final dispatch stages. This comprehensive traceability helps streamline product replacement and recall activities.

■ **Trial kitting**

The Multi-level Trial Kitting program helps you to establish which jobs need to be raised through several levels of a bill-of-material structure, as well as the purchasing requirements required to complete the build. All sub-assemblies and components are processed, with the program multiplying the quantity by the net requirement of the parent. This result is then compared to the net quantities on hand to determine any shortages.

■ **Work in progress tracking**

Work-in-progress tracking enables you to track the progress of jobs until completion. Standard reports and queries provide information on complete and outstanding operations; they also highlight where variances are encountered to date between expected and actual material costs and quantities, and expected and actual labor costs and hours. ❖



About SYSPRO

SYSPRO software is an award-winning, best-of-breed Enterprise Resource Planning (ERP) software solution for on-premise and cloud-based utilization. Rated among the world's finest enterprise-resource planning solutions, SYSPRO software's powerful features, simplicity of use, scalability, information visibility, analytic/reporting capabilities, business process and rapid deployment methodology are unmatched in its sector. Formed in 1978, SYSPRO has earned the trust of thousands of companies globally for its suite of visionary, cost-effective software.

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