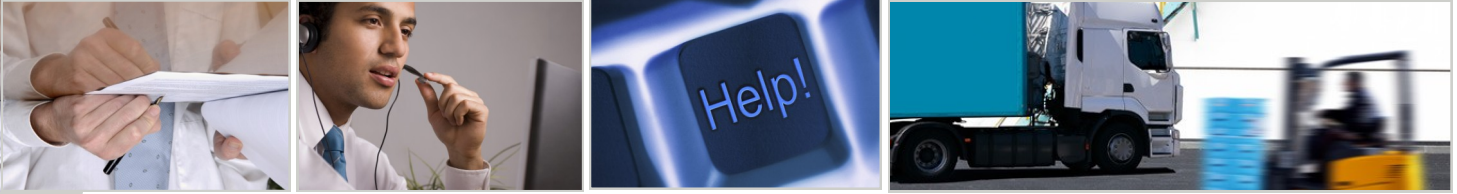


Business Need: Product Design



Accommodate variable end-products which result from re-grading and unpredictable chemical processes

Using SYSPRO's co-products and manufacturing inspection functionality, you can easily cost and capture the receipt of multiple products of varying grades from jobs originally planned for single-grade items.

You can choose to apportion costs between components and co-products according to a percentage breakdown for the entire material, operation and sub contract costs, or you can define percentages against specific operations and materials.

SYSPRO's Work in Progress inspection system gives you the tools to record the inspection details of manufactured items and, depending on the results, select to receipt, scrap or rework quantities. Units in inspection are visible, but unavailable for use until accepted into stock. Within the inspection function, you can capture detailed records of counts, inspection, scrap, rework and stock receipts.

You can receipt inspection items as the original product to manufacture on the job, or as a different product or products, which is useful for end products of variable grade. Also, you can receipt items into a warehouse different than what was originally planned.

Control product design changes

Constant innovation is one of the key factors to remaining competitive and ongoing research and development to design new and better products is integral to the industry. Your ability to design new products and modify existing designs, as well as improve time-to-market is critical to remaining competitive and profitable.

SYSPRO provides tools to streamline and track the introduction of new product designs and amendments to existing designs, along with relevant costings. SYSPRO's Engineering Change Control (ECC) enables you to apply strict control over your design-to-market processes by providing an integrated rules-based electronic workflow system with full version control, security and auditable history.

ECC gives you the tools to record and track new and modified product design and process changes, assess the impact of these changes on costs and associated data, and control the change routing and approval processes. ECC's queries, audit trail, history and archive facilities, give you quick on-line access to details of prior product versions, as well as the option of reverting to the production of a prior product version if required. In addition, the facility to attach copies of product design drawings to version and release levels provides access to visual details of revisions.

The Where-used Query facility enables you to identify all items affected by the raising of an Engineering Change order for all routes identified as being under Engineering Change Control. In addition, SYSPRO provides a 'replace component where-used' facility that enables the quick replacement of one item with a valid substitute item, thereby streamlining design changes.

SYSPRO's ECC, Bill of Materials, Work-in-Progress and Factory Documentation modules enable you to implement controls to ensure that your products are manufactured under consistent processes, to the correct designs and specifications. Single-level, multi-level, co and by-product bills are all catered for and flexible bill definitions accommodate complex component and sub-assembly requirements.

Control product design changes for batch processing environments

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ECC gives you the tools to record and track new and modified product recipe and process changes, assess the impact of these changes on costs and associated data, and control the change routing and approval processes. ECC's queries, audit trail, history and archive facilities, give you quick on-line access to details of prior product versions, as well as the option of reverting to the production of a prior product version if required. In addition, the facility to attach copies of product drawings to version and release levels provides access to visual details of revisions.

The Where-used Query facility enables you to identify all items affected by the raising of an engineering change order for all routes identified as being under engineering change control. In addition, SYSPRO provides a 'replace component where-used' facility that enables the quick replacement of one item with a valid substitute item, thereby streamlining formula changes.

SYSPRO's ECC, Bill of Materials, Work-in-Progress and Factory Documentation modules enable you to implement controls to ensure that your products are manufactured under consistent processes, to the correct formulae and specifications. Single-level, multi-level, co and by-product bills are all catered for.

Flexible bill definitions accommodate complex raw material and intermediary requirements to ensure precision in quantities required for bulks, batches and packs. You can define each structure level in a bill based on absolute fixed quantities, fixed quantities per, or wet weight percentages. Precision is further enhanced by SYSPRO's allowances for high tolerances in quantity definitions, as well as the number of levels catered for in a multi-level bill.

Ensure quality of raw materials and monitoring during the production process

Chemical production plants are often highly automated with sophisticated measuring and testing systems designed to ensure quality of raw materials and work in progress, as well as high production yields. It is therefore desirable that any ERP production control and tracking system is able to integrate seamlessly with this process technology to exchange information and highlight issues at the relevant points. SYSPRO e.net solutions enables rapid development of secure and version-independent integration with such best-of-breed technology.

SYSPRO enables you to implement continuous improvement by helping you to identify problems and points of waste as they happen. Raw materials and manufactured products in the industry often vary in grade and quality, so tracking and control is essential to reduce waste, scrap and defects. SYSPRO enables you to specify approved manufacturers for raw material supplies and supplier performance can easily be tracked using queries and reports. In addition, SYSPRO facilitates the tracking of materials from purchase through production to customer, thereby maximizing quality control and providing you with the tools to manage product recalls, should they occur.

You can flag purchased items as requiring inspection so that during receipting, detailed records of counts, inspection, scrap, rejects and returns is recorded. Units in inspection are visible, but unavailable for use until accepted into stock. Similarly, SYSPRO's Work in Progress inspection system provides the tools for you to inspect manufactured product quality and, depending on the results, select to receipt, scrap or rework quantities.



The Competitive Edge Since 1986.



Business Need: Product Design, cont.

Manage by-products

SYSPRO provides a mechanism for configuring the manufacture of multiple items against a single bill of material, including those products that result from the manufacturing process but which are not included in demand planning.

This is useful for companies that produce by-products as a result of their manufacturing processes and who want to recycle, sell or use these by-products for some other value-added purpose, rather than write them off as unrecoverable scrap.

Manage complex production recipes

SYSPRO's multi-level bill of materials functionality enables the definition of complex production recipes of up to 15 levels per route, and 10 routes per finished product. Control over recipe changes is seamlessly handled by the Engineering Change Control module, while a where-used query and substitution facility enables quick and easy replacement of ingredients. SYSPRO's powerful costing and what-if costing calculations, reports and queries provide a comprehensive and accurate picture of purchasing and production costs.

The work center and structures and routings facilities provide you with the means to define and maintain the elements required in a sequence of internal or subcontract manufacturing operations, as well as the structural relationships between parent and component parts. Phantom bills are catered for to accommodate transient production items, and planning bill functionality aids option forecasting and planning. In addition, the configuration and manufacture of multiple items which are produced in a single process are catered for by SYSPRO's co- and by-product features.

For each bill level, you can define ingredient quantities such as quantity per, fixed quantities or wet weight percentages in relation to that specific level's parent item. Component and operation copy, insertion, and move facilities enable straightforward maintenance of new and existing bills.

SYSPRO provides various operation run time methods, as well as material and progressive scrap functionality. The capture of various lead time elements enables accurate calculations of manufacturing and cumulative lead times, which in turn aid efficient materials planning and production scheduling, as well as product costing.

You can simulate the effects of varying batches sizes and subcontracting on product costs and lead times. You can also add information on tooling, operator skill levels, operation instructions and testing requirements to the operation and print these fields on SYSPRO's user-defined factory documentation.

The relationship validation function enables you to easily identify illogical relationships within your bills, while the structure validation function facilitates quick deletion of redundant or superseded components from bill of material structures.

The Work in Progress module enables seamless ingredient substitution where actual ingredients differ from planned. Furthermore, where intermediate or finished products differ from planned, the Work in Progress inspection functionality enables receipting of these products as alternate stock codes, or into alternate warehouses or bins.

SYSPRO's multimedia functionality enables you to attach visual and textual material, such as videos, photographs, and certificates of conformance, to structures and operations, to aid production and quality assurance staff, while custom forms enables you to create additional user-defined fields.

Manage different units of measure for different levels in product bills of material

SYSPRO's Inventory module enables the definition of multiple user-defined units of measure (UOM) for stocked items: Stocking UOM, Alternate UOM and Other UOM. In addition, a separate manufacturing UOM will be available in version SP3. These units of measure, along with their conversion factors are used in various parts of the system to ensure accurate quantities for sales, purchasing and production.

For production purposes, SYSPRO's multi-level bill of materials functionality enables you to define the manufacturing recipes and methods for bulk, intermediary and pack items, allowing for up to 15 levels per route, and 10 routes per finished product. For each level in a multi-level bill, you can define ingredient quantities as quantity per, fixed quantities or wet weight percentages in relation to that level's parent item.