



# Bill of Materials

## MANUFACTURING

---

SYSPRO Bill of Material (BOM) is designed to ensure your organization has complete control over the product structure. This module ensures that engineering, production, purchasing and order processing are utilizing the same information. The Bill of Materials is defined by the manufacturing process and includes: work centers, labour, tools, dies, inserts, fixtures, raw materials, packaging, scrap rates, setup times, yields and equipment. The Bill of Material allows you to facilitate accurate expected costs against which actual production costs can be tracked. What-if costing facilities are provided, as well as the facility to calculate the cumulative and manufacturing lead times of an item and to update the relevant fields against the stock item.

The complete bill forms the foundation for material and capacity planning, shop floor control and costing. The Bill of Materials system enables you to construct quantity or percentage relationships between assemblies (final product) sub-assemblies (bulk batches) and components (raw materials) using up to 15 levels and you can assign each component to a selected operation in the parent routing. You can model the routing (i.e. the relationship between work centers and the time taken by the various elements of capacity usage) of the product to accommodate varying size batches, milestone operations, progressive scrap and dynamic elapsed times. The routing can also include information on tooling, operator skill levels, operation instructions, testing requirements, etc.

Various types of bills can be added:

- Planning bill
- Percentage bill
- Single Level bill (kits)
- Phantom part (part of a BOM for grouping purposes)
- Notional part (part of a BOM for co-products)
- Made-in-bill

For more information related to SYSPRO's Bill of Material offering please also refer to the following:

- SYSPRO Engineering Change Control (ECC) -enables you to control the design and release process of your products. It enforces discipline and management control over modifications to bills of materials and shop floor routings.
- SYSPRO Activity Based Costing (ABC) - enables you to more accurately apportion overhead costs to specific products, the aim being to associate elements of overhead cost to those products that actually cause the cost.

# Bill of Materials

## MANUFACTURING

---

### The Benefits of Bill of Materials

- Supports up to 15 levels
- Multiple recovery rates per cost center, work center and employee
- Multiple routes for lead time, cost and contingency modelling
- Calculation of manufacturing and cumulative lead times
- Calculation of dynamic elapsed time and capacity required from elements of operation time
- Unit, rate and block runtime
- Capacity unit of measure conversion factor for capacity units other than time
- Capacity calendar per work center and productive unit
- Material and operation scrap
- Percentage and planning bills, phantom parts, and sub-contract operations
- Optional components for sales of kits
- Co- and by-products
- Import functions for integration to third-party programs such as CAD



### Bill of Materials Features

- Define component relationships as quantity per, % of parent, or specific quantity, regardless of batch
- Facility to define restrictions by user to either deny access or limit access to the Bill of Material if engineering change control is not utilized
- Define and process parent and component quantities in a unit of measure other than stocking
- Manage elements of time, such as set-up, start-up, run and tear down, per operation
- Eliminate redundant data entry with real-time integration to CAD
- A single part used in many locations can be replaced simultaneously by utilizing the replace where-used facility
- The Bill of Material automatically feeds the work order, and as a result, material, assembly and schedule requirements are generated with extreme accuracy
- Each manufacturing configuration can consume any kind of operation - internal or external
- Outsourcing BOM is linked to the supplier to easily track external operations
- Indicate movement time between operations
- Define operation transfer quantities
- Edit the BOM for an individual work order, without effecting the master bill of material
- Document narrations at component and operation level
- Track effectivity dates of components
- Define scrap factors for more accurate planning
- Manage multiple routes per location for accurate costing and planning
- Plan for co- and by- products, and related cost apportionment
- Provides the capability to view files associated with any item from the BOM (CAD drawings, manufacturing procedures, inspection plans, etc.)
- Indicate scrap percentage and/or quantity with optional progressive scrap
- Analyse, calculate and compare BOM and current costs, what-if costs, inventory costs and costs-per warehouse.
- Transfer rolled-up costs to unit cost of item