



Product Training Manufacturing Orders

Where “Lean” principles are considered common sense and are implemented with a passion!



Manufacturing Orders

Manufacturing Orders are used to make assemblies or finished goods. Raw materials are consumed and the parent item is produced.

Manufacturing orders have the item to be completed in the header and the components to be consumed as line items.



Order Tab

- ❑ **Order number** - Determined by the prefix selected. Prefixes can be defined in the Manufacturing Order Prefixes module.

NOTE: A default prefix can be set up in the System Options module, on the General Tab for each site.

- ❑ **Product** - selected items must be a manufactured item.
- ❑ **Version** - The default version from products.

SYSTEM SETTING:

The default length of a Manufacturing Order number is 10 characters. To change this, use the Manufacturing Orders system option **Manufacturing order identifier length**. Enable the option and set the value to required length. Maximum length is 20 characters.

Order Tab

SYSTEM SETTING:

The next number as found in the Manufacturing Order prefixes will be defaulted. To remove the ability to change the MO number, use the Manufacturing Orders system option **Determines whether you can change the MO number when entering an MO**. Enable the option and set the value to N to prevent number changes.

SYSTEM SETTING:

A specific Prefix can be used for MO's created from Kanbans. Use the Manufacturing Orders system option **Manufacturing orders Kanban prefix**. Enable the option and set the value to the Prefix required. The Prefix must exist in the Manufacturing Orders Prefix module or the default prefix will be used.

SYSTEM SETTING:

A specific Prefix can be used for MO's created as re-work from the RMA. Use the Manufacturing Orders system option **Manufacturing order prefix for re work orders**. Enable the option and set the value to the Prefix required. The Prefix must exist in the Manufacturing Orders Prefix module or the default prefix will be used.

SYSTEM SETTING:

A specific Prefix can be used for MO's created from an import. Use the Manufacturing Orders system option **Manufacturing order prefix for imports**. Enable the option and set the value to the Prefix required. The Prefix must exist in the Manufacturing Orders Prefix module or the default prefix will be used.

Order Tab

- ☐ **Quantity on order** – Must be a positive number and is the number of assemblies being made.
- ☐ **Quantity made** – The number of items already completed. Partial finishes of a Manufacturing Order are allowed.
- ☐ **Quantity Scrapped** – The number of items scrapped when finishing items.
- ☐ **Quantity Outstanding** – Calculated as (Quantity on order – Quantity made – Quantity Scrapped).
- ☐ **Due Date** – The date the manufacturing order is scheduled to be completed.
- ☐ **Release Date** – The date the manufacturing order is scheduled to be started. The difference between the Release Date and Due Date is the procurement lead time as found in products for the assembly.
- ☐ **Location** – The location as it is found in Products for the assembly. This is the location that the item will be finished to.

Details Tab

Department – The department as it is found in the products module for the assembly. This could be a planner or department responsible for the MO.

Costs Tab

\$	Cost Planned	Value Issued	Value Outstanding
Material	0.00		
Labour	2,220.00		
Overhead	0.00		
Total	2,220.00		

- ☐ **Planned Costs** – The standard costs of the assembly from Products when the MO is created.
- ☐ **Value Issued** – The value of the WIP that has already been issued to the MO.
- ☐ **Value Outstanding** – The difference between the Planned and Issued values.

Notes Tab

- ☐ **Printed** – Indicates when the Picking Note has been printed. Automatically updated, and used for reference.
- ☐ **Notes** – Any notes that relate to the Manufacturing Order.

Work In Progress

Item	Description	Quantity	Quantity I	Quantity	Location Id	ItemType	Seq Num	Release Da
4000-07	Keyboard	1	0	1	MAIN	Component	10	30/08/2008
4000-08	Display Unit	1	0	1	MAIN	Component	20	30/08/2008
4000-09	Laser Read head	1	0	1	MAIN	Component	30	30/08/2008
4000-10	9 Volt Power Supply	1	0	1	MAIN	Component	40	30/08/2008

WIP lines are created based on the Bill of material and can be viewed on the Work in Progress Tab.

All components on the bill-of-material that have a valid effective date when compared to the release date of the Manufacturing Order will be included as a component on the MO.

The bill of Material is locked in once the MO has been firm.

Work In Progress – General Tab

Manufacturing Orders

General | Quantities | Values | Planned | Actual | Other

Order number: M000000022

Item: 4000-07

Description: Keyboard

Work In Progress Information

Quantity Required: 1

Due Date: 29 Aug 2008

Location: MAIN

Save Cancel

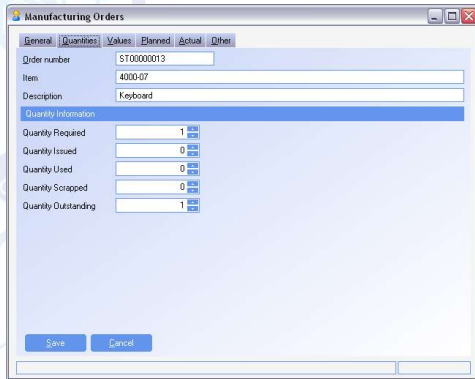
☐ **Quantity Required** – The quantity to be issued to the work order. This is defaulted from the Bill of Material

☐ **Due Date** – The Date the MO is to be completed.

Note: When using offset lead-times, the offset will be added to the release date for each line item. Release dates can be viewed on the WIP tab, in the grid.

☐ **Location** – The initial location that the items will be consumed from.

Work In Progress – Quantities Tab



The screenshot shows the 'Manufacturing Orders' window with the 'Quantities' tab selected. The 'Order number' is S100000013, 'Item' is 4000-07, and 'Description' is Keyboard. The 'Quantity Information' section contains the following fields:

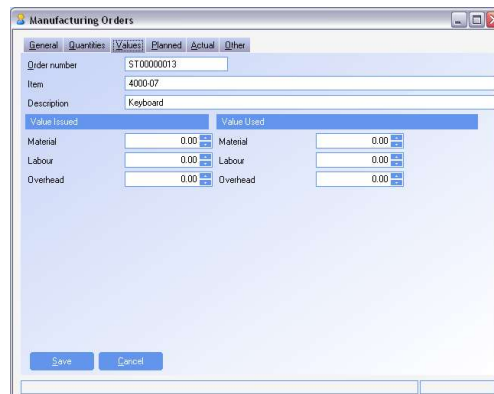
Quantity Information	Value
Quantity Required	1
Quantity Issued	0
Quantity Used	0
Quantity Scrapped	0
Quantity Outstanding	1

Buttons for 'Save' and 'Cancel' are at the bottom.

- ☐ **Quantity Required** – The quantity to be issued to the work order. This is defaulted from the Bill-of-Materials.
- ☐ **Quantity Issued** – The quantity issued to the MO for that component.
- ☐ **Quantity Used** – The quantity consumed when finishing assemblies.
- ☐ **Quantity Scrapped** – The quantity scrapped for the line item.
- ☐ **Quantity Outstanding** – The net quantity still to be issued to the work order.

Work In Progress – Value Tab

- ☐ **Issued Values** – The valued that have been issued for the specific component to the Manufacturing Order.
- ☐ **Used Values** – The values that have been consumed with any completions of the parent assembly.

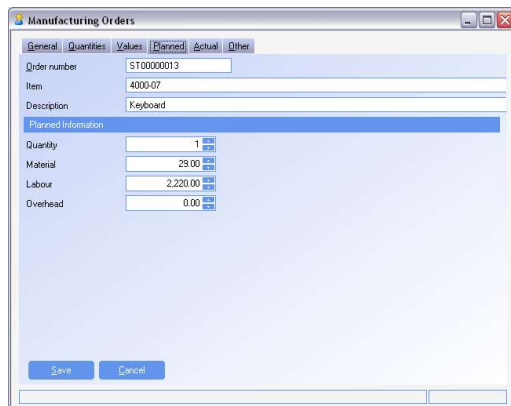


The screenshot shows the 'Manufacturing Orders' window with the 'Values' tab selected. The 'Order number' is S100000013, 'Item' is 4000-07, and 'Description' is Keyboard. The 'Value Issued' and 'Value Used' sections contain the following fields:

Value Issued		Value Used	
Material	0.00	Material	0.00
Labour	0.00	Labour	0.00
Overhead	0.00	Overhead	0.00

Buttons for 'Save' and 'Cancel' are at the bottom.

Work In Progress – Planned Tab



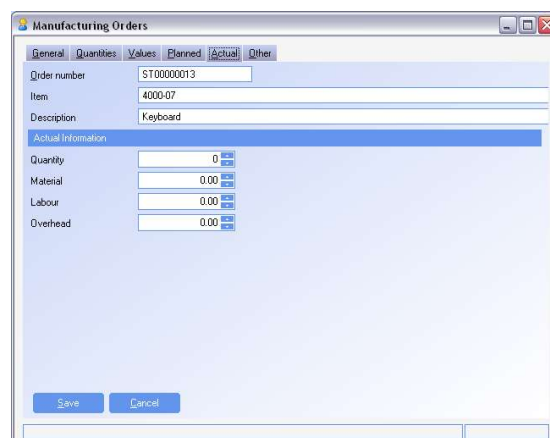
The screenshot shows the 'Manufacturing Orders' window with the 'Planned' tab selected. The 'Planned Information' section contains the following data:

Field	Value
Quantity	1
Material	29.00
Labour	2,220.00
Overhead	0.00

The standard quantity and values when the Manufacturing Order was firmed and the WIP was created.

Work In Progress – Actual Tab

The actual quantity and values that were issued to the Manufacturing Order.

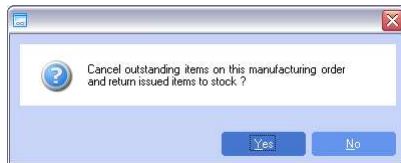


The screenshot shows the 'Manufacturing Orders' window with the 'Actual' tab selected. The 'Actual Information' section contains the following data:

Field	Value
Quantity	0
Material	0.00
Labour	0.00
Overhead	0.00

Actions

Cancel Remainder



Cancel Remainder will return any items that have not been consumed to inventory.

Any outstanding quantity in the manufacturing order header will be cancelled and the MO will be closed.

Actions

Process



☐ **Firm** – Used to lock in the Bill-of-Materials.

☐ **Release** – Releases the order to the floor.

☐ **Issue** – Issues items from inventory into Work In Progress. The system by default will issue the components based on FIFO. To select a specific batch to issue, go to the Work In Progress tab and right click on the line item and select Issue.

☐ **Finish** – Completes the manufacturing order and puts the assembly into stock. Using Finish via the Process Action will only complete the MO if there are no shortages and will also make all items on order.

☐ In order to finish the manufacturing order short or to scrap any of the assemblies, use Finish via Actions as discussed later.

Action

Finish

Quantity Completed	10.00000
Quantity Scrapped	0.00000
Lot Number	MO00000013
Location	MAIN
Effective Date	28 Aug 2008

Finish will complete items on the Manufacturing Order. Components will be consumed and a finished assembly will be completed to inventory.

- ☐ **Quantity Completed** – The quantity that is finished. This should be less than or equal to the quantity outstanding. Excess stock can be created, but Admin security for Manufacturing Orders is required for processing.
- ☐ **Quantity Scrapped** – When using actual cost, the value of the items being scrapped will be applied to the finished items.
- ☐ **Lot Number** – The MO number is automatically assigned but can be changed.
- ☐ **Location** – The location from the MO header for where the items are to be finished to.
- ☐ **Effective Date** – Defaults to the current date, and used for accounting purposes to determine which period the transaction will post to.

Action

Finish

When manufacturing, if more than 1 item is to be completed from a Manufacturing Order, a negative line item can be added and placed into inventory when the MO is finished (By-Product).

The By-Product can also be added as a negative requirement to a Manufacturing Order in cases where the By-Product is not planned.

SYSTEM SETTING:

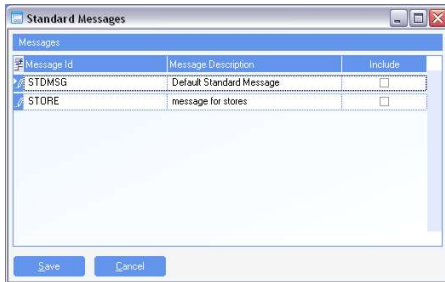
The ability to not allow by-products to a Manufacturing Order can be turned off by using the Manufacturing Orders system option **Allow negative issues to components**. Enable the option and set the value to N to prevent By-Products from being added to the Manufacturing Order

SYSTEM SETTING:

When By-Products are created, they are put into stock in the location found in Products for the By-Product. The location that they are finished to can be controlled by the location found on the WIP line. Use the Manufacturing Orders system option **Manufacturing Orders by products use WIP location**, enable the option and set the value to Y to use the WIP location.

Actions

Add Message



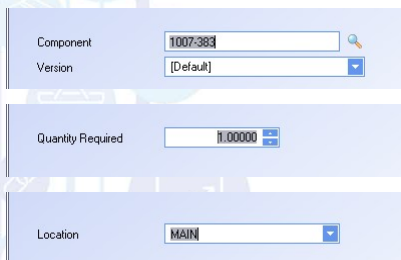
Message Id	Message Description	Include
STDMSG	Default Standard Message	☐
STORE	message for stores	☐

Save Cancel

Standard Messages can be added to a Manufacturing Order by selecting the Add Message action. Check the Include column to include a message and un-check to remove a message.

Actions

Add Components



Component: 1007:383
Version: [Default]

Quantity Required: 1.00000

Location: MAIN

- ☐ Components can be added to a manufacturing order that were not on the Bill of Material by using the Add Component action.
- ☐ Select the component to be added.
- ☐ Select the quantity to be added.
- ☐ Select the location for the component.
- ☐ Add any notes that might be applicable for why the component is added.

Note: If a quantity change is required to an existing item, a new item does not need to be added.

Note: If partial finishes are being used, and a component is added as a substitute, the original components should be finished, before the substitute is added to ensure proper costing.

Actions

Add Cost

The screenshot shows a dialog box titled 'Manufacturing Orders' with a sub-header 'Allocation Type'. Below the sub-header is the instruction 'Select the type of cost to be allocated'. There are two radio button options: 'Labour' (which is selected) and 'Activity Based Overhead'. At the bottom of the dialog box are four buttons: 'Back', 'Next', 'Finish', and 'Cancel'.

Labour and routing costs can be added to a Manufacturing Order using the Add Cost Action.

When using Standard costing for Labour or Activity Based costing, the costs will be recovered automatically and do not need to be added using this feature.

If Actual Labour or Actual Activity Based costing is required, use this action to add costs to the manufacturing order before it has been finished.

Actions

Mass Process

The screenshot shows a dialog box titled 'Manufacturing Orders' with a sub-header 'Manufacturing Order Processing'. Below the sub-header is the instruction 'Select a process'. There is a list of four processes with corresponding checkboxes: 'Firm' (checked), 'Release' (unchecked), 'Issue' (unchecked), and 'Finish' (unchecked). At the bottom of the dialog box are four buttons: 'Back', 'Next', 'Finish', and 'Cancel'.

The Mass Process is only available from the Summary Tab in the Manufacturing Orders module.

Manufacturing Orders can be selected and processed as a group. The process selected will be applied to all MO's selected for mass processing.

To select an item for mass processing, check the Include column for the required work order in the Summary Tab.

Actions

Delete



The Delete action will delete an order that has not had any completions.

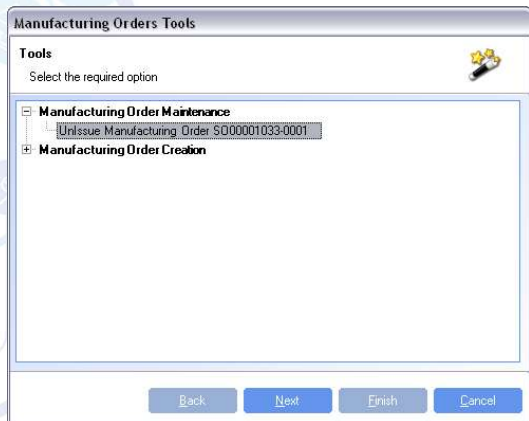
Any items that have been issued to the Manufacturing Order will be returned to stock.

When the order status is completed, it can not be deleted.

When a partial completion has been done, use the action Cancel Remainder to close out the remaining items on the Manufacturing Order.

Actions

Tools



An entire Manufacturing Order can be returned to stock using the Tool Unissue Manufacturing Order XXX.

To return individual items, expand the WIP line and right click on the batch. Select the action to Return to Stock.