SuperBatch Entry

This screen resolves the common process-manufacturing problem of trying to produce a batch and its low-level intermediates in a single operation. Manufacturers are often required to produce, in separate batches, the intermediates used in a formula and the formulas used to create finished goods. With the SuperBatch group, however, you can select a formula and its associated finished good and move directly to production, automatically creating the intermediate batches needed to produce the finished good. As part of the process, you can specify the use of non-committed inventory, close either the entire SuperBatch or individual sub-batches, and size the SuperBatch in various ways.

A SuperBatch can also be formed via the following screens:

- *Transfer MPS Production Orders* (MPS).
- *Transfer SO to Batches* (Production Utilities).
- *Create Batches from Schedules* (Production Utilities).

The *SuperBatch Entry* screen also allows you to create multiple batches of the same item by equally distributing the quantity ordered into a user-defined number of batches using the *Batches with Runs* option. This eliminates the process of creating multiple batches for the same item using the *Batch Entry* screen.

You can create two types of SuperBatches:

- **SuperBatch:** Batches are created for the top item as well as all the intermediates used to make that item.
- **BatchWithRuns:** You can specify the number of runs and the quantity of the item to be produced. The number of runs determines the number of batches of the end item to be produced. Using this information, BatchMaster WEB splits the quantity to be produced equally among the batches. This feature is used when the total required quantity of a finished good cannot be produced in the existing plant in a single batch.

Go To: Production → Production → Super Batch Entry

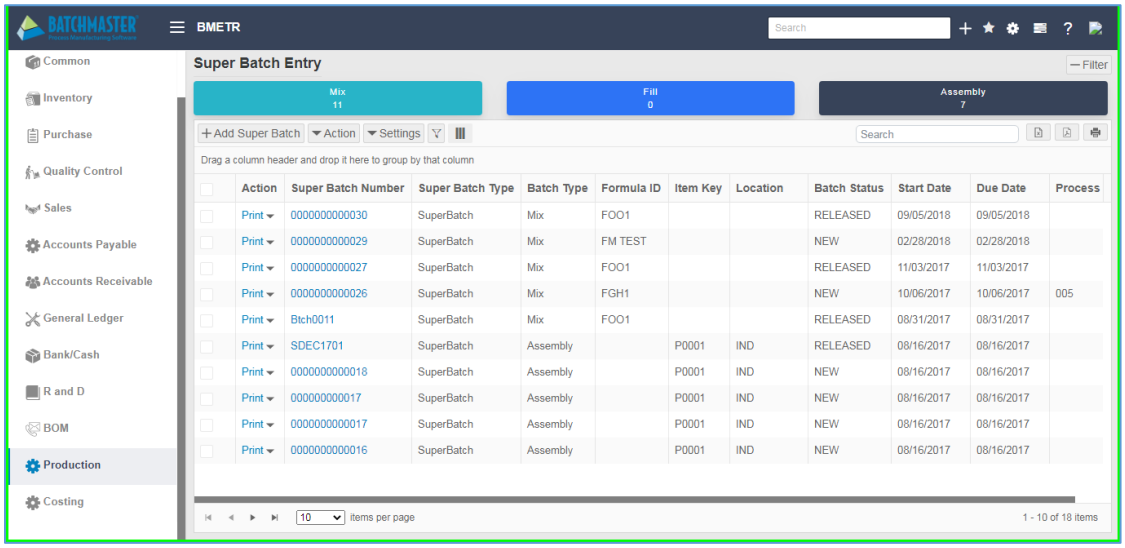
Prerequisite:

- A BOM for the top items associated with the SuperBatch as well as the sub-batches should have been created and released before a SuperBatch can be created.

- The WIP account number should have been defined at the *Production Setup* screen before an assembly-type batch can be created.

Super Batch Entry– Dashboard

You can manage and create super batches from this dashboard. By default, the system displays all the existing Super Batches as maintained for your business/company. You can click on any of the super batch record to view its details.

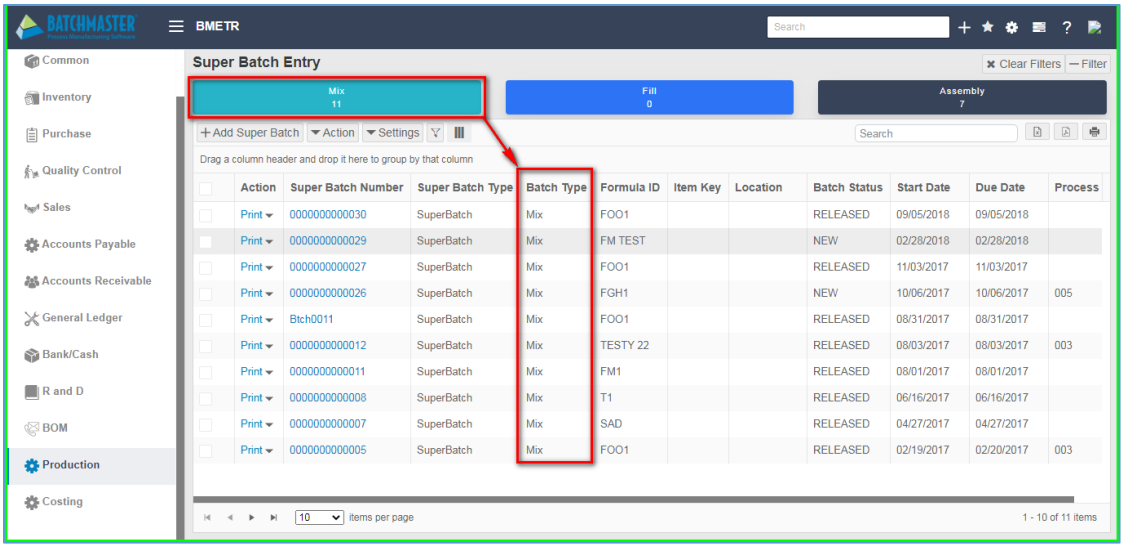


The *Super Batch Entry* dashboard contains many elements that occupy 100% of the browser window. Resizing the window would resize the elements to fit. The elements can be rearranged, i.e., docked, resized, grouped, and stacked. The header and the side panel can't be rearranged.

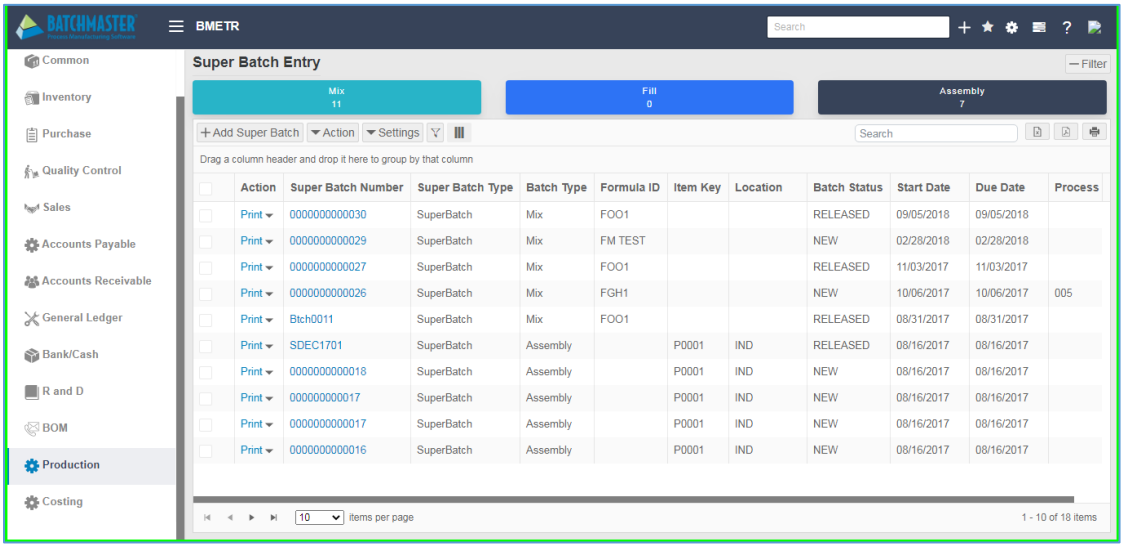
Using the *Action* button from the dashboard you can:

- Print selected super batches
- Release selected super batches
- Goto SuperBatch Close from line action
- Delete selected super batches

By default, this dashboard displays all type of super batch records. You can click on any of the Mixed/ Fill/ Assembly button to filter the SuperBatch records accordingly.



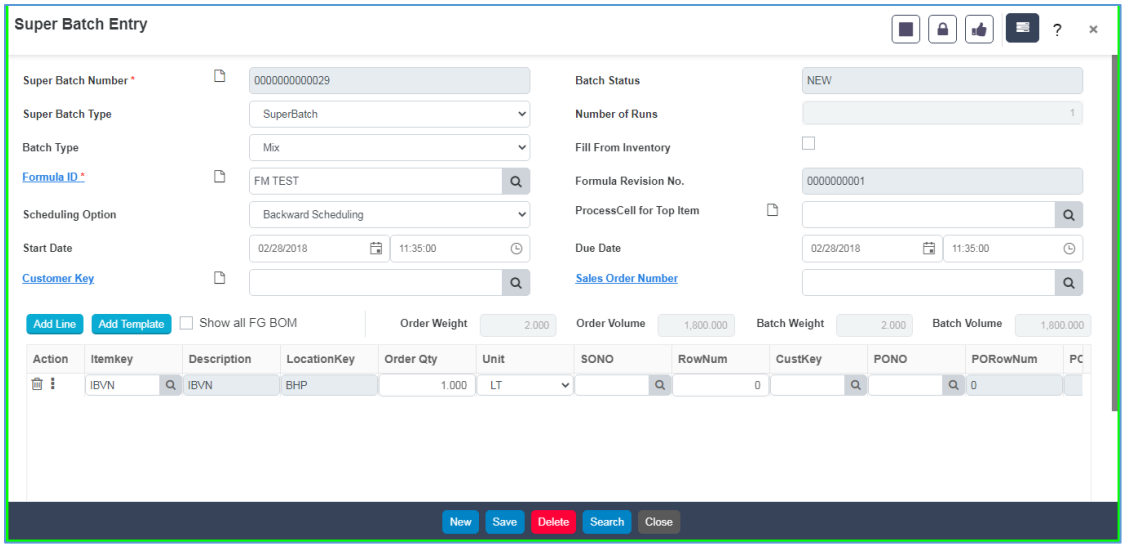
After you select all the columns of the *Super Batch Entry* dashboard, the middle grid displays the selected columns.



The *Super Batch Entry* dashboard provides a clear vision of the created records in a read-only mode. You can view the records as per the number of pages provided per page.

Super Batch Entry – Add Mode

To create a batch and its low-level intermediates in a single operation, click on the + *Add Super Batch* button. The system displays the *Super Batch Entry* screen form.



Super Batch Number: This is the number that uniquely identifies the Super Batch. It can be an automatically generated or user defined number depending upon the selection made while creating a new Super Batch record via this screen. This is a mandatory field.

Batch Status: This is the status of the batch. Only 'NEW' and 'RELEASE' batches can be viewed and only batches with 'NEW' status can be modified at this screen.

If 'Create Batches with Release Status' option is selected at the *Production Setup* screen, the Batch is created with 'RELEASED' status. While if this option is let un-chosen, the batch is created with status 'NEW' and user needs to make it 'RELEASED' using the *Release* button available under the special functions.

Super Batch Type: The type of Super Batch can be one of:

1. **SuperBatch**: In this type of super batch, batches are created for the top item as well as all the intermediates being used to make that item.

2. **BatchWithRuns**: In this type of super batch, the user can specify the number of runs and the quantity of the item to be produced. The number of runs specifies the number of batches of the end item to be produced. Using this information BatchMaster Enterprise splits the quantity to be produced equally among the batches.

Number of Runs: This option is present when the value in the Super Batch Type field is BatchWithRuns. The value in this field decides the number of batches of the end item that will be made. The order quantity of the end item is equally distributed in these batches.

Batch Type: The type of the Super Batch can be:

1. **Mix**: In this case, the Formula materials are processed and filled directly into the 'container'. This type of a batch requires a formula.

2. **Fill**: In this case, a pre-made Intermediate is packaged into the 'container'. This type of a batch requires an Intermediate Key.

3. **Assembly**: Finished goods are repackaged, e.g., bottles in a case. This type of a batch requires an assembly BOM.

Fill from Inventory: This option is present when the value in the *Super Batch Type* field is 'SuperBatch'. If this box is checked, then the related intermediates are taken from the available inventory; if the 'Available Quantity' of an intermediate suffices the required quantity, then a sub-batch is not created for this intermediate. If the 'Available Quantity' of an intermediate is less than the required quantity, then a sub-batch is created for the remaining quantity. For this purpose, the Available Quantity is equal to On Hand Quantity plus On Order Quantity in Production minus Committed to Production.

If this box is not checked, the *Fill From Inventory* option is turned off. In such a case, the available quantities of any related intermediates are ignored when the super batch is created.

Formula ID/Intermediate Key/Assembly key: This field should be filled in accordance with the 'Batch Type':

1. **Formula ID**: This caption is displayed if the batch type is mix. This is the formula that is to be used for producing the end item of this batch.

2. **Intermediate Key**: This caption is displayed if the batch type is fill. This key refers to the intermediate that is to be filled into a container for producing the end item of this batch. The lookup at this field displays all those Released BOMs whose Assembly Type is 'Intermediate'.

3. **Assembly Key**: This caption is displayed if the batch type is assembly. The lookup at this field displays all those Released BOMs whose Assembly Type is 'Assembly'.

This is a mandatory field.

Formula Revision No.: This is the version of the selected formula from which this particular batch is being made. The value at this field gets fetched while selecting a Formula ID for this batch. Versioning of formulas help in better tracking of batches. At any instance in future, user can easily track all batches which were manufactured from a particular version. This is a read-only field.

Location: This field is enabled when the Batch Type selected is either Fill or Assembly. It determines the Location from where the intermediate Item is to be fetched for filling or an Assembly item is to be used for assembling. This is a read-only field.

Scheduling Option: Select one of the options from the following:

- **Forward Scheduling:** When this option is selected, while working with *Batch Entry* screen the Due Date is calculated based on Start Date given.
- **Backward Scheduling:** When this option is selected, while working with *Batch Entry* screen Start Date is calculated based on Due Date given.

Process Cell for Top Item: This is the process cell associated with the top item. If routing has been implemented, then BatchMaster WEB permits the user to save the record only if a routing entry has been defined linking the item with the selected process cell.

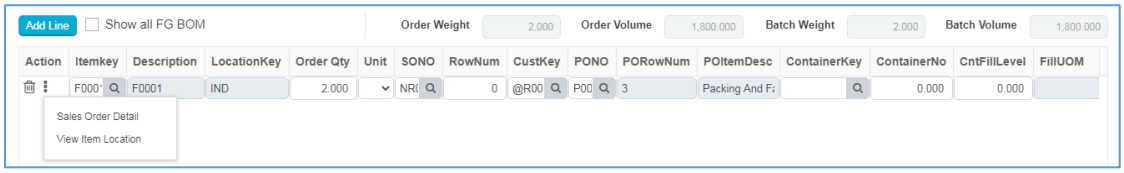
Start Date: This is the date on which the production of this batch is scheduled to start. The actual production of this batch can commence on a different date. If routing is implemented, the start date is automatically calculated by the system based on the Due Date and lead time.

Due Date: This is the date on which the production of this batch is scheduled to complete. The actual production of this batch can complete on a different date.

Customer Key: This field is for user reference. If this batch is being produced against a sales order, then the associated customer will be displayed at this field. When the batch is saved, this customer key gets defaulted to the 'CustKey' field of the grid for all the Items selected at this grid. However, this customer key can be changed at the grid. This is an optional field.

Sales Order Number: This is the sales order for which this batch is being produced. When the batch is saved, this sales order gets defaulted to the 'SONO' field of the grid for all the Items selected at this grid. However, this sales order and the corresponding customer can be changed at the grid. This is an optional field.

Grid Fields



Add Line: When the *Show all FG BOM* box is un-checked, clicking this button displays:

1. All the Released BOMs for the finished goods and the intermediates that use the selected Formula ID (if this is a Mix type Batch)
2. All the Released BOMs for the finished goods that use the formula associated with the selected Intermediate Key (if this is a Fill type batch).

When the 'show all FG BOM' box is checked, clicking the Add Line button displays:

1. All the Released BOMs for the finished goods that use any formulas (if this is a Mix type Batch). The lookup is not limited by the Formula ID selected for this batch.
2. All the Released BOMs for the intermediates that use the selected Formula ID (if this is a Mix type Batch)
3. All the Released BOMs for the finished goods that use any formula (if this is a Fill type batch).

The lookup is not limited by the Formula ID associated with the Intermediate Key selected for this batch.

This button is disabled in the case of an Assembly type batch.

Show all FG BOM: When the 'Show all FG BOM' box is checked, clicking the *Add* button displays:

- All the Released BOMs for the finished goods that use any formulas (if this is a Mix type Batch). The lookup is not limited by the Formula ID selected for this batch.
- All the Released BOMs for the intermediates that use the selected Formula ID (if this is a Mix type Batch)
- All the Released BOMs for the finished goods that use any formula (if this is a Fill type batch). The lookup is not limited by the Formula ID associated with the Intermediate Key selected for this batch.

When the 'Show all FG BOM' box is un-checked, clicking the *Add* button displays:

- All the Released BOMs for the finished goods and the intermediates that use the selected Formula ID (if this is a Mix type Batch)
- All the Released BOMs for the finished goods that use the formula associated with the selected Intermediate Key (if this is a Fill type batch).

Order Weight: This is the total order weight calculated on the basis of the order quantities of all the End Items specified at the grid. The Order Weight for an End Item is calculated as follows:

1. If the Bill of Material for the End Item is of Finished Good type, then,
    a. If the Fill Level of BOM is specified in Weight, then the Order Weight is determined by multiplying the Fill Level of BOM with the Order Qty in Stock UOM.
    b. If the Fill Level of BOM is specified in Volume, then the Order Weight is determined by multiplying the Order Volume with the Density of the item. The Order volume is

determined by multiplying the Fill Level of BOM with the Order Qty in Stock UOM. The Density is taken from the Formula.

2. If the Bill of Material for the End Item is Intermediate type, then the Order Weight is determined by multiplying the ordered Quantity (in Stock UOM of the End Item) with applicable conversion factor for converting the Stock UOM to the System Weight UOM. The conversion factor is taken from one of the following scopes (in decreasing preference):
    a. Item Master level
    b. Item Class level
    c. Global level

Order Volume: This is the total order volume calculated on the basis of the order quantities of all the End Items specified at the grid. The Order Volume for an End Item is calculated as follows:

1. If the Bill of Material for the End Item is of Finished Good type, then,
    a. If the Fill Level of BOM is specified in Volume, then the Order Volume is determined by multiplying the Fill Level of BOM with the Order Qty in Stock UOM.
    b. The Fill Level of BOM is specified in Weight, and then the Order Volume is determined by dividing the Order Weight with the Density of the item. The Order Weight is determined by multiplying the Fill Level of BOM with the Order Qty in Stock UOM. The Density is taken from the Formula.
2. If the Bill of Material for the End Item is Intermediate type, then the Order Volume is determined by multiplying the ordered Quantity (in Stock UOM of the End Item) with applicable conversion factor for converting the Stock UOM to the System Volume UOM. The conversion factor is taken from one of the following scopes (in decreasing preference):
    a. Item Master level
    b. Item Class Level
    c. Global Level

For an Assembly type batch, the Order Volume is not considered in BatchMaster WEB.

Batch Weight: This is the total Batch Weight calculated on the basis of the order quantities of all the End Items specified at the grid. The Batch Weight is generally larger than the Order Weight to accommodate the Formula Loss Constant, the Formula Loss Factor, the Formula Line Loss and any byproducts produced by the formula.

For an Assembly type batch, the Batch Weight is not considered in BatchMaster WEB.

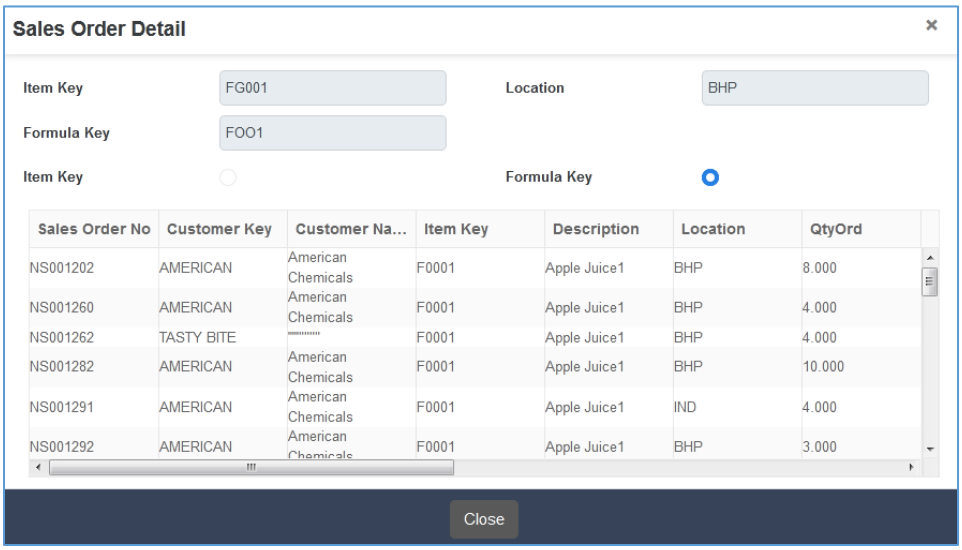
Batch Volume: This is the total Batch Volume calculated on the basis of the order quantities of all the End Items specified at the grid. The Batch Volume for an End Item is calculated as follows:

- If the Bill of Materials for the End Item is Finished Good type, then the Batch Volume is determined by dividing the Batch Weight with the Formula Density.
- If the Bill of Material for the End Item is Intermediate type, then the Batch Volume is determined by dividing the Batch Weight with the density. This density is equal to: (the conversion factor for converting the Stock UOM to the System Weight UOM)/ (the conversion factor for converting the Stock UOM to the System Volume UOM).These conversion factors are taken from one of the following scopes (in decreasing preference):
    a. Item Master level
    b. Item Class Level
    c. Global Level

For an Assembly type batch, the Batch Volume is not considered in BatchMaster WEB.

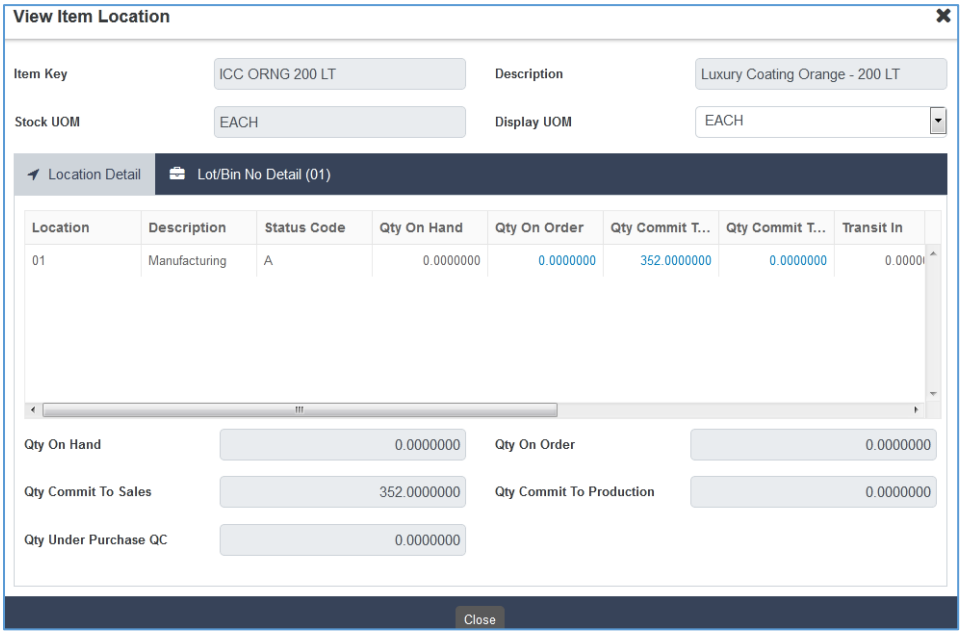
Actions: The following options are available in this section:

- **Delete:** Click this icon to delete a row from the grid.
- **More Action Options:** The following options are available under this section:
    - **Sales Order Detail:** Click this option to view the Sales order details.



    - **View Item Location:** The *View Item Location* button allows you to view all inventory-related details for the selected end item. This may include location-related details like the quantity on hand, quantity on order, quantity committed to sales, etc., as well as

bin/lot-related details including the lot number, bin number, expiry date, quarantine date, Quantity Under Purchase QC, etc.



Itemkey: This is the item key associated with the selected Top Item. This field is defaulted when

1. A line is added via the *Add* button near the grid or the *Show Finished Goods* button at the top of the screen.
2. A Finished Good is added using the *Show Finished Goods* button available at the top of the screen.
3. An Assembly Key is entered for an Assembly type batch.

Description: This is the item description associated with the Item Key. This field is defaulted when

1. A line is added via the *Add* button near the grid or the *Show Finished Goods* button available at the top of the screen.
2. A Finished Good is added using the *Show Finished Goods* button available at the top of the screen.
3. An Assembly Key is entered for an Assembly type batch.

LocationKey: This is the location to which the End Item produced will be posted. This location cannot be changed. This field is defaulted when

1. A line is added via the *Add* button near the grid or the *Show Finished Goods* button available at the top of the screen.

2. A Finished Good is added using the Show Finished Goods button available at the top of the screen.
3. An Assembly Key is entered for an Assembly type batch.

Order Qty: This is the quantity to be produced for the Top Item. This quantity must be greater than zero.

Unit: This is the Stock unit of this Top Item. The end item will be produced and stocked in this unit.

SONO: This field is for user reference. If this batch is being produced against a sales order or is fulfilling multiple sales orders, then the SO Number of the corresponding Sales Order will be displayed at this field. In case of a batch fulfilling multiple Sales Order, separate lines are inserted corresponding to each order and each line holds the associated Sales Order Number.

If a sales order number selected at the 'Sales Order Number' field on the header of this screen, it gets defaulted to this field. This defaulted sales order number can be changed. This is an optional field.

RowNum: This field displays the row number of the line in the End Items grid.

CustKey: This is the unique identifier of the customer.

PONO: This field specifies the unique Purchase Order Number against the Job Work Batch. This is an auto generated number, generated as soon as user saves the Job Work Batch. User can view the generated purchase order on the *Purchase Order Entry* screen. The number gets defaulted to the *Purchase Order Number* field at the *Purchase* Tab of the *Purchase Order Entry* screen.

PORowNum: This field displays the row number of the line in the grid.

POItemDesc: This field displays the description of the End item as defined on the *Non Inventory Item* screen.

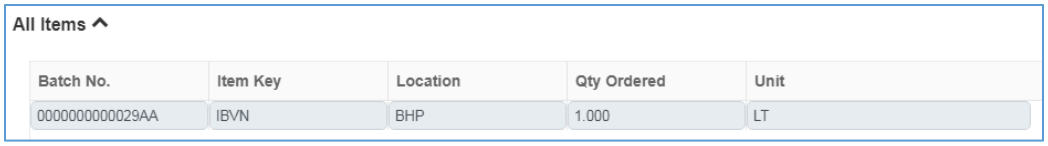
ContainerKey: This field provides information about the containers used to store the item to be produced.

Container No: This field provides additional information about the containers. A container number is a unique identification assigned to each container.

CntFillLevel: This field provides information about the fill-level for each container.

FillUOM: This field provides information about the fill UOM for the container.

All Items Section: This section displays details of all the batches, from the Top Batch to the lowest Sub-batch. The Top Batch displayed at this section reflects the first 'Top Item' at the above grid. All the information displayed on this section is system generated and is read-only.



BatchNo: This is the number that uniquely identifies this Batch (Top Batch or a Sub-batch).

Item Key: This is the item key associated with the end item of this Batch (Top Batch or a Sub-batch).

Location: This is the location associated with the end item of this Batch.

Qty Ordered: This is the quantity (of this end item) to be produced.

Unit: The Quantity Ordered is interpreted in this unit.

Creating a SuperBatch

1. Open the *Super Batch Entry* dashboard.
2. Click on the *+Add Super Batch* option to open the *Super Batch Entry* screen.
3. If the *Batch Number Entry* window appears, select one of the following options for the batch number generation:
    a. ***Auto Generate*:** Select the *Auto Entry* option and click *OK*.
    b. **Manually:** Select the *Manual Entry* option, enter the batch number, and click *OK*.
    c. ***Batch Series*:** Select the *Batch Series* option, and then choose a batch series using the activated lookup.
4. Select the SuperBatch type. Available options are *SuperBatch* or *BatchWithRuns*.
    a. For the *SuperBatch* option, select the *Fill from Inventory* box, if desired. This would check that intermediates are available in inventory before creating sub-batches for them. When a sufficient quantity of required intermediates is available in inventory, sub-batches will not be created for them. If you wish to create sub-batches for all intermediates, even if they are available in inventory, leave this box unchecked.
    b. For *BatchWithRuns*, enter a value in the *Number of Runs* field.
5. Enter the type of the batch at the *Batch Type* field. Available options are *Mix*, *Fill*, and *Assembly*.
6. Select the formula ID for a mix-type batch, an intermediate key for a fill-type batch, and an assembly key for an assembly-type batch.

7. Select one of the scheduling type using the dropdown next to the *Scheduling Option* field. Available options are *Backward Scheduling* and *Forward Scheduling*.

8. Select a customer key and a sales order number if you are creating this batch for a particular customer or against a particular sales order.

9. Click the *Add Line* button and select the Item, or click the *Show Finished Goods* button at the top of the screen to add an item.

10. In the *Order Quantity* field, enter the required quantity of the Item.

11. Add more Items, if desired.

12. Click the *Save* button to create the batch. The *All Items* section will display the sub-batches created as a result of the SuperBatch. The top level batch number will have a suffix of AA, and sub-batches will have a suffix of AB, AC, AD, etc. For example, SuperBatch number 0000000000013AA will have sub-batches of 0000000000013AB, 0000000000013AC, etc. BatchMaster calculates the order quantity of these sub-batches based on the order quantity of the Top Item.

13. If the *Create Batch with Released Status* option is not checked at the *Production Setup* screen, click the *Release* button under the special function to release the batch.

Special Functions

Show Finished Goods: The *Show Finished Goods* button is enabled only for a mix-type batch. Click this button to open a lookup that displays all the Released BOMs of finished-good type. Selecting a finished good defaults the associated formula to the *Formula ID* field and the selected finished good in the grid .

Go To SuperBatch Close: Click this button to display the selected batch on the *SuperBatch Close* screen.

Release: Clicking this button releases the newly created batch. A batch with Released status is released to the *Batch Ticket* screen, where you can perform a number of operations such as allocate, issue, modify the BOM line items, etc.

You are not allowed to make any changes to a SuperBatch that has been released.