Advanced Manufacturing

Last Modified on 12/01/2023 9:59 am CST

Advanced Manufacturing uses one or more raw goods to produce multiple finished goods. An example is dividing cleaned corn into bags, totes, and screenings. With Advanced Manufacturing this is done in one step.

Typically, a company uses their own production sheet to enter the advanced manufacturing transaction. The production sheet shows each raw product used, each finished good produced, and the quantities of each.

Finished product cost calculations can be generated by raw Product Average Cost or Commodity purchase price. New transactions optionally generate from existing Manufactured Formulas or templates.

1. Navigate to *Accounting / Inventory / Advanced Manufacturing*.

2. On the *Select an Advanced Manufactured Entry* window, select **Add**.

3. Enter the *Date*, and optionally enter any *Comments* or *Source Ticket* for reference.

4. The *Cleanout %* is calculated based on the raw materials marked as *Clean Out* and the finished good products that are marked as *Cleaned*. The total weight of the *Cleaned* products divided by the total weight of the *Clean Out* products equals the percentage of cleaned product. 100% less the percentage of cleaned product is the *Cleanout %*.

5. Select the *Finished Good Type* of *Manufactured Formulas* or *Products*. If *Manufactured Formulas* is selected, only Products with Manufactured Formulas established are available to choose.

6. Double-click in the *Product Name* field under *Raw Materials* to select the Products being used. Enter the *Quantity* for each Product selected.

   Note: Best practice is to select the Raw Materials first, but this is not required.

7. If an Assembly should be used, double-click under *Assembly #* to select it. The *Assembly Location, Assembly*

Lineitem, *Lot #*, *Custid*, *Unit Cost*, and *DPR Disposition* default based on the selected Assembly. If no Assembly is used, the Lot # may be manually entered, and the *Custid* may optionally be selected by double-clicking in the column.

Note: If Grain Bank Products are being used, a customer is required. The *Unit Cost* defaults to the selected cost for the department of the Product. This cost can be manually changed by typing in the column.

8. A comment for the line item can be entered in the *Comment* column if desired.

9. Check the *Clean Out* box if the Product should be included in the *Cleanout %* calculation.

10. The *Extended Cost* calculates based on the *Quantity* and the *Unit Cost*.

11. The *Dept ID* and *Prod ID* of the Product selected displays.

12. The *Bin Reference* may optionally be selected from the drop-down. Bins are set up at *Grain / Setup / Bins*.

13. In the top grid, select the finished good products being manufactured by double-clicking on the *Product Name* column heading. Enter the *Quantity* being produced.

14. A *Lot Number* may be selected from the drop-down or manually entered if applicable. Lot Numbers that are manually entered are saved with the Product.

15. The *Destination* is user-defined and may be optionally entered. Once a Destination is entered, it becomes part of the drop-down selection. The *Destination* may be used to show where the finished good is going.

16. The *Variety and Comment* may be manually entered.

17. If an *Owner* is required, double-click to select a customer from the list.

    Note: The *Destination*, *Variety*, *Owner*, and *Comment* only display on the Production Journal in the Advance Manufactured reports.

18. The *Cleaned* checkbox determines what Products are included in the *Cleanout %* calculation.

19. The *Cost Percent* checkbox determines if the Product's *Cost Rate* as a percentage of the overall cost should be used in calculating the cost. If not checked, a user-defined cost may be entered in the *Cost Rate*.

20. *Cost Rate* is the percentage of total cost of overall Product based on unit weight. The percentage is calculated using percent of line item to overall finished Product(s). The total *Cost Rate* of all line items with the *Cost Percent* checkbox selected must equal 100% for the entry to be saved.

21. The *Extended Cost* is calculated based on the *Quantity* and *Unit Cost*.

22. The *Weight in Lbs* is calculated based on the *Quantity* and *Unit Weight* designated in the Product file. This is used in the *Cost Rate* percentage if percentage is used.

The *Total Finished Good Cost* and the *Total Raw Materials Cost* must equal before the entry can be saved. Upon selecting **Save**, a Journal Entry is created and the inventory *Amount On Hand* is updated.

To keep costs and the DPR the most accurate on a daily basis, it is best practice to enter Advanced Manufacturing transactions either the first thing that day or at the end of the day.

Product Setup

Products being used must have a valid *Unit Weight* set at A*ccounting / File / Open / Products* on the *Profile* tab and a valid cost set on the *Pricing* tab for the cost specified on the Inventory Department at *Accounting / Setup / Inventory Departments / G/L Posting / Compute Invoice Cost.*

If a Grain-related Product is used, the *GL Posting* Unit on the Inventory Department setup must be set to *Grain Units* at *Accounting / Setup / Inventory Departments* on the *Profile* tab and a *Commodity Ref* must be selected on the Product at *Accounting / File / Open / Products* on the *Profile* tab.

If a Grain Bank Product is used, the Product must be set up on the Commodity at *Grain / Setup / Commodities* in the *Agvance Grain Bank Product Linked to this Commodity/Location* field.

Daily Prove-Out

Run the Production Journal report for a date range, found at *Accounting / Inventory / Advanced Manufacturing* by selecting **Reports**. This should correspond to the production sheets used to create the Advanced Manufacturing entries.