

# Average Costing

Last Modified on 09/20/2024 1:51 pm EDT

Managely can use average costing for inventory parts per warehouse, which is the cost assigned to parts based on a moving average; it is calculated like this:

$$\text{Average unit cost} = \text{Cost of units purchased} + \text{cost of existing units} / \text{Number of units available for sale}$$

Average cost is maintained for each part in each warehouse. Average cost is updated as parts are received, billed, or adjusted through physical inventory, average cost adjustment, or other entries that increase the quantity of a part or alter the cost of the part in a specified warehouse. When parts are transferred between warehouses, Managely uses the average cost of the part in its original (from) warehouse to recalculate the average cost in the destination (to) warehouse.

For GL entries of a part that is issued through a work order or an invoice, the average cost of the selected warehouse for the part is used for the inventory and COGS general ledger and part ledger entries. There is no recalculation of the average cost due to a part being issued from a warehouse.

When completing a physical inventory, if additional parts are found in a warehouse, the additional parts increase the quantity on hand and the average cost is recalculated. If the quantity on hand that is entered during the physical inventory is less than the quantity in stock, then the quantity is reduced by the variance. The cost used for the physical inventory is the average cost for the part in the selected warehouse. Users can change the cost (the field is called Rate) for the part in the selected warehouse. Managely creates GL entries for the physical inventory using the entered cost when the physical inventory is complete. If the cost defined on the physical inventory is changed, then general journal entries are created to remove the original stock quantity at the original average cost and then to add the new quantity at the cost (Rate) defined during the physical inventory.

The average cost of a part is recalculated when a purchase order received has a cost that does not equal the current average cost. If the cost on a bill associated with the purchase order is changed, the average cost is recalculated. If a purchase order receipt or bill associated with the purchase order receipt is deleted, then the average cost is recalculated and the quantity on hand is adjusted based on the entry being deleted.

On warehouses, inventory managers can manually update the quantity, if needed, by clicking the Adjust Quantity button. Also, inventory managers can make average cost adjustments for individual parts by clicking the Adjust Average Cost button. (Only inventory managers can make these adjustments.) Any average cost adjustments create appropriate part ledger and general ledger entries.

## Average Cost Setup

There are two places to set up Managely to use average cost:

1. On the Preferences page Inventory tab Costing Method field. (Setup > Preferences > Inventory) This sets the default for the costing method.
2. On the Parts page Costing Method field. (Setup > Items & Parts > Parts) This sets the costing method for the part. Once the costing method is chosen and the part saved, the part costing method cannot be changed.

## Physical Inventory

The physical inventory has been changed to show the current warehouse part quantity as the On Hand quantity in the grid when creating a new physical inventory. The Variance value defaults to zero for new physical inventories.

We added two fields: Rate and Initial Rate. These allow users to enter a new part rate. Any rate changes entered through the physical inventory are used to reset the baseline warehouse part cost. The initial rate is used to detect that rate change and create part ledger entries.

If there is a rate change, the part ledger and general ledger are adjusted by reversing the original on hand quantity using the original average cost rate and then creating new ledger entries to add the on-hand quantity from the physical inventory using the new rate.

If there is only a quantity adjustment, only the current on-hand quantity is adjusted. Ledger entries are made to reflect the part quantity adjustment.

## Receiving Parts into a Warehouse

Receipts and bills update the warehouse quantity regardless of the costing method. The average cost for parts is calculated like this:

$$\text{Average unit cost} = (\text{Cost of unit purchased} + \text{Cost of existing units}) / \text{Number of units available for sale}$$

For inventory:

$$\text{The new warehouse part quantity} = \text{Current warehouse part quantity} + \text{Received quantity}$$

The new warehouse part cost:

$$(\text{Receipt or Bill amount} + \text{Current warehouse part cost} * \text{Warehouse part quantity}) / (\text{Current warehouse quantity} + \text{Receipt or bill quantity})$$

If a receipt or bill is deleted, the current cost and quantity are adjusted like this:

$$\text{Adjusted warehouse part quantity} = (\text{Current warehouse quantity} - \text{receipt or bill quantity})$$

$$\text{Adjusted warehouse part cost} = (\text{Current warehouse part cost} * \text{warehouse part quantity}) - \text{receipt or bill amount}$$

If a part quantity, rate, or both are changed on a receipt or bill-

1. The cost and quantity are changed to reverse the change on the original receipt or bill.
2. The cost and quantity are recalculated using details of the changed receipt or bill part detail.

If a part is deleted from the original part list on a receipt or bill, the cost and quantity are changed to reverse the charges on the receipt or bill for the deleted part detail.

If the on-hand quantity is zero or negative, even with the addition of new quantity, the average cost is set to the rate on the receipt or bill. Once the on-hand quantity is greater than zero, the average cost is recalculated using the average formula.

## Part Adjustments

On the Warehouse page, for each item in the warehouse there is a button to adjust quantity. (This is visible for Administrator role.) Clicking this button opens the Part Adjustment form. This no longer has a field for adjusting costs because the average cost for parts is a calculated value.

## Selling Parts Using Average Costing

When parts are sold, only the warehouse part quantity for the parts is adjusted. The cost for any parts using average cost is not affected.

## Transferring Parts Using Average Costing

When transferring parts between warehouses, Managely takes the existing average cost associated with the original warehouse to recalculate the average cost in the destination warehouse.

The transferred parts in the destination warehouse are entered in the part ledger using a rate of the average cost of the part in the original warehouse.

The average cost for that part in the destination warehouse is recalculated using this:

$$\text{Average unit cost} = \text{Cost of units transferred in} + \text{cost of existing unit} / \text{Number of units available for sale}$$

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