

MANUFACTURING COSTING



INVENTORY VALUATION/COSTING SYSTEMS FOR RAW MATERIALS AND FINISHED PRODUCTS

VALUATION MODES

To value the exits and transfers of raw and WIP materials it is necessary to set the valuation mode associated with each article/group of articles. This definition is used for each stock movement and focuses on one of the four possible valuation modes:

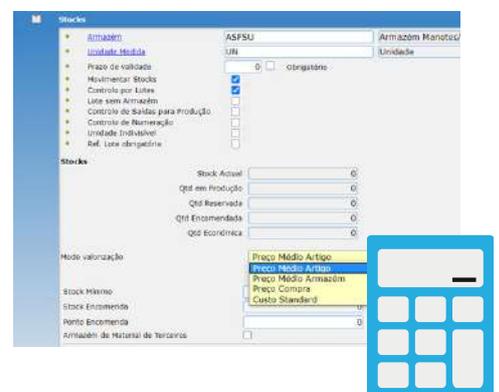
- Average article price;
- Average warehouse price;
- Purchase price;
- Standard cost;

The defined mode is responsible for obtaining the unit cost of the materials incorporated in the different job orders throughout the production process.

VALUATION CRITERIA

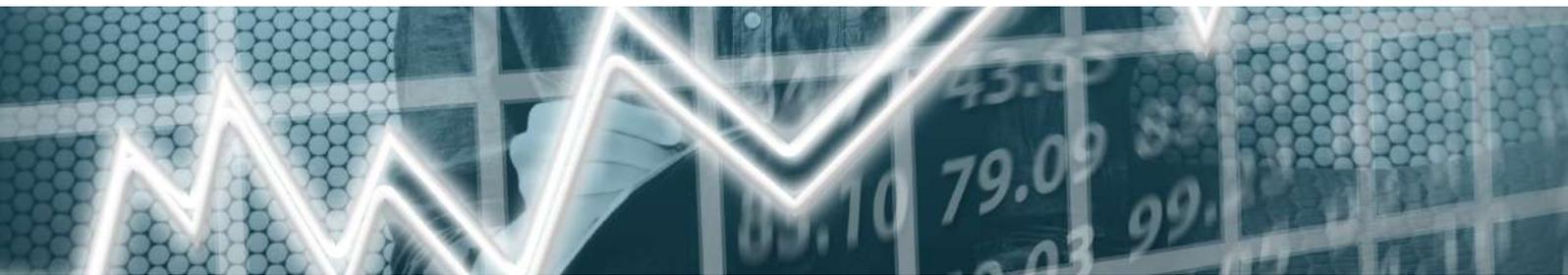
In terms of article stock movement, all movements are valued, according to the stock entry or exit valuation method.

The definition of the valuation method must be made according to each business process.



Here are some examples of entry valuation methods:

- **Sale price:** this valuation system is based on the use of the unit sale price (it is basically the order placed by the customer) for the valuation of all WIP and finished product entries of the corresponding job order. It is a theoretical cost, therefore, all entries of WIP/finished product will have the same value, from the beginning until the completion of manufacturing process.
- **Forecasted job order price:** this valuation system is based on the use of the forecasted price of the job order, without applied margins. This value will be applied as unit cost to all WIP and finished product entries of the job order. It is a theoretical cost so all entries will have the same value.
- **Difference between sale price and forecasted job order price:** this valuation system uses the lowest price between the two previous methods. By default, the forecasted cost of the job order is used. That is, the unit sale price is only used when the forecasted job order price is higher.
- **Real job order price:** this valuation system is based on the allocation of all direct costs associated with production, namely the sum of the value of the materials incorporated, the machine cost based on the machine cost/hour, the cost of operator, which means the costs per hour of the operators plus the indirect cost per hour. The values of WIP and finished product entries differ between each production movement because they depend on the time spent to carry out the task in question and on the costs incorporated during each production period.
- **Difference between sale price and real job order price:** this valuation system uses by default the real cost of the job order, theoretically, it will be the lowest. If the real cost is higher than the sale price, the system assumes the sale price. With this valuation method, all entries are made without cost until the job order is finalized. Only after this, all entries are recalculated according to the lowest cost found.
- **Standard cost:** this valuation method is normally used in productions based on products without variation, that is, where materials are always the same and set at the beginning (for example with a defined article tree and unchanged over time). This standard cost will be set at the product level and all entries will be valued at that cost.
- **Real cost per period:** this valuation method allows for all WIP or finished product entries to be made at the same value within the same open stock period. This value includes raw material costs, machine costs and operator costs. In this scenario, all entry consumptions in previous periods, when consumed in later periods, are incorporated into the entry value.
- **Real section cost:** this valuation method allows for all WIP or finished product entries to be made at the same real value calculated within the same section.
- **Theoretical section cost:** this valuation system is based on the theoretical cost set for each section where the work will go through in its production process. This way, all entries made in each manufacturing stage have the same theoretical cost, and this cost increases according to the manufacturing stage. This valuation mode is useful to manage WIP, that is, in order to obtain production tracking when there are no operational conditions for application of the real cost.



COST DEFINITION

Regardless of the valuation system adopted, it is important that there is a correct definition of all direct costs. These costs represent the cost per hour of all resources involved in the operations. Labour costs should only be recalculated when there is a revision or initial definition of the cost of employees. To these costs the material incorporation costs and the subcontracting costs that influence the material costs are added. Other costs incurred on the resource (economic operating costs) must be incorporated in the calculation of the hourly cost of the machine.