

## Batch Costing

Batch cost is the cluster of costs incurred when a group of products or services are produced, and which cannot be identified to specific products or services within the group.

For cost accounting purposes, it may be considered necessary to assign the batch cost to individual units within a batch.

The formula for batch costing is as follows:  $\text{Batch Costing} = (\text{Total Cost of Goods Produced} / \text{Number of Units Produced}) \times \text{Number of Units in Batch}$ .

For example, if the total cost of goods produced is ₹100,000 and the number of units produced is 10,000, then the batch cost would be ₹10 per unit

Batch costing is a type of specific order costing where articles are manufactured in predetermined lots known as batch.

Here each batch is treated as a separate cost unit and cost are accumulated and ascertained for each batch.

A batch consists of number of units which are processed simultaneously.

### Statement of Cost per Batch and Order

Particulars	Cost per Batch (₹)	Total Cost (₹)
Direct Material Cost	500	6000
Direct Wages	50	600
Set-up Cost	150	1800
Add: Production Overheads (20% of Direct Wages)	10	120
<b>Total Production Cost</b>	<b>710</b>	<b>8520</b>
Add: Selling, Distribution and Administration Overheads (10% of Total production cost)	71	852
<b>Total Cost</b>	<b>781</b>	<b>9372</b>
Add: Profit 1/3 <sup>rd</sup> of Total Cost	260.33	3124
<b>Selling Cost</b>	<b>1041.33</b>	<b>12496</b>

## **Features of Batch Costing**

Batch costing which is also known as 'lot costing' has following important features :

Batch costing is a variation of job costing. In job costing work of production is carried out according to the specifications and instructions given by a customer whereas in batch costing a large number of units of an identical product are produced as ordered by a customer or for storage and sale in the market. 2.

Batch is a unit for cost calculation. In a batch the units of identical product may be in hundreds or in thousands but each batch is regarded as an independent unit and its total cost is equally divided by the number of units produced in that batch in order to decide the cost of production of a single unit of the product. 3.

Each batch is given a separate number and the output of a batch is identified by the number of the batch recorded on each unit of output of the batch. Therefore a unit of the product is output of which batch can be easily found out by referring to the batch number recorded on the unit, e.g. the number of the batch in which bottle of medicine has been produced is recorded on the bottle of medicine.

If the contents of bottles of a batch are found harmful to the patients, all bottles of that batch can be taken out of market for investigation and if necessary for destruction, on the basis of the batch number recorded on the bottles.

Unit cost of a product varies with the size of the batch. If quantity produced in a batch is small, the unit cost of the product is more and if the quantity produced in a batch is large, the unit cost of the product of that batch is less. Therefore, it is necessary to find out the economic batch

quantity by producing which the cost of production of a unit of the product can be kept to the minimum.

### **Advantages of Batch Costing**

The accounting work is considerably reduced as a group of homogeneous jobs constitute a batch.

The variations in the costs arising under job costing is smoothened by means of averaging such costs and spreading over the batch of articles. This gives a consistent cost of production of every article in the batch.

It takes the benefit of reduced cost of production arising out of EBQ.

Supervision becomes very easy and effective. So idle time is eliminated.

The loss of time due to inter job transfer of materials, labourers and tools is minimised under batch costing.

### **Disadvantages of Batch Costing**

These are some disadvantages of batch costing:

Determination of a batch from various jobs often poses problem. It is difficult to come across absolute homogeneity of jobs.

When quantity of goods to be manufactured differs from customer to customer, it becomes difficult to determine the batch.

If the production of a batch is wrongly undertaken due to sub-standard of materials or defective operation, the whole batch of articles are required to be discarded which causes a great loss to the manufacturing concern.

### **Procedure of Batch Costing**

- The costing procedure for batch costing is similar to that of job costing. The only difference is that a batch becomes the cost unit rather than a job.

- For the purpose of costing, each batch (or group of identical products) is allotted a serial number (known as a batch number), just like a job number.
- The presentation of the various items of cost is made in the form of a statement known as a batch cost sheet.
- The batch cost sheet includes the cost of any direct materials, direct labor, and direct expenses that can be directly identified with a particular batch.
- The share of overheads chargeable to the batch (calculated on some equitable basis) is also included.
- The total cost of a batch, as shown in the batch cost sheet, divided by the total number of products in the batch yields the cost per product in the batch.
- $\text{Cost per product in the batch} = \frac{\text{Total cost of a batch}}{\text{Total number of products in the batch}}$

### **Economy Batch Quantity**

**Economic batch quantity (EBQ)** also called optimal batch quantity or economic production quantity is a measure used to determine the number of units that can be produced at minimum average costs in a given batch or production run. The Economic Batch Quantity model, or Production lot-size model, is similar to the EOQ model in that an optimum is to be calculated for

the batch quantity to be produced. It is the order size of a production batch that minimizes the total cost. Hence, the batch cost is used to determine the cost per unit or article per unit.

The Economic Batch Quantity (EBQ) is worked out by applying the following formula:

$$EBQ = \sqrt{[(2*U*S) / C_c]}$$

Where U = Total number of units to be produced in a year,

S = Set-up cost per batch

C<sub>c</sub> = Carrying cost per unit of production for one year.

If the rate of interest and cost of the production per unit is given, the formula may be amended as under:

$$EBQ = \sqrt{[(2*U*S) / (I * C_m)]}$$

Where I = Interest per Taka per year

C<sub>m</sub> = Cost per manufacture per unit.

#### **YouTube Links:-**

- <https://www.youtube.com/watch?v=45MwRIcXAh0>
- [https://youtu.be/ZPYD6\\_FxkYM](https://youtu.be/ZPYD6_FxkYM)