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execute the order. the
time



Therefore, an efficient inventory management requires that a firm should maintain the optimum level of inventory where inventory costs are the minimum and at the same time there is no stock-out which may result in loss of sale or stoppage of production. Various stock levels are: 1. Minimum stock level 2. Re-ordering level 3.

Maximum stock level 4. Danger level 5. Average stock level

1. Minimum Stock Level:

This represents the quantity which must be maintained in hand at all times. If stocks are less than the minimum level, then the work will stop due to shortage of materials. Following factors are taken into account while fixing minimum stock level.

(a) Lead time (b) Rate of consumption (c) Nature of material (a) Lead time: A purchasing firm requires some time to process the order, and time is also required by the supplying firm to execute the order. The time taken in processing the order and then executing is known as lead time. It is essential to maintain some inventory during this period. (b) Rate of consumption: If the average consumption of materials in the factory, the rate of consumption will be decided on the basis of past experience and production plans. (c) Nature of material: It also affects the minimum level. If a material is required only against special orders of the customer, then minimum stock will not be required for such materials. Wheldon has given the following formula for calculating minimum level: $\text{Minimum Stock Level} = \text{Re-ordering level} - (\text{Normal consumption} \times \text{Normal Re-order Period})$

2.

Re-ordering Level:

When the quantity of materials reaches a certain figure then fresh order is sent to get materials again. The order is sent before the materials reach minimum stock level. Re-ordering level or ordering level is fixed between minimum level and maximum level. The rate of consumption, number of days required to replenish the stocks, and maximum quantities of materials required on any day are taken into account while fixing reordering level. Re-ordering level is fixed with the following formula: $\text{Re-ordering Level} = \text{Maximum Consumption} \times \text{Maximum Re-order point}$

3. Maximum Stock Level:

It is the quantity of material which a firm should not exceed in its stocks.

If the quantity exceeds maximum level limit then it will be overstocking. A firm should avoid overstocking because it will result in high material cost. Overstocking will mean blocking of more working capital, more space for storing the materials, more wastage of materials and more chances of losses from obsolescence. Maximum stock level depends on the following factors: 1.

The availability of capital for purchase of materials. 2. The maximum requirement of materials at any point of time. 3. The availability of space for storing the materials. 4.

The rate of consumption of materials during lead time. 5. The cost of maintaining the stores. 6. The possibility of fluctuation in prices. 7. The nature of materials.

If the materials are perishable in nature, then they cannot be stored for long.

8. Availability of material. If the materials are available only during the seasons then they will have to be stored for the rest of the period. 9.

Restrictions imposed by the government. 10. The possibility of change in fashion will also affect the maximum level. Maximum Stock Level = (Reordering level + Reordering quantity) - (Minimum consumption x Minimum Reordering Period).

4. Danger Level:

It is the level beyond which materials should not fall in any case.

If the danger level arises then immediate steps should be taken to replenish the stocks even if more cost is incurred in arranging the materials. If materials are not arranged immediately, there is a possibility of stoppage of work. Danger level is determined by the following formula: Danger Level = Average Consumption x Maximum Re-order point for emergency purchases

5.

Average Stock Level:

Average stock level is calculated as: Average Stock Level = Minimum Stock Level + $\frac{1}{2}$ of re-order quantity.