

PREVENTIVE MAINTENANCE

Preventive maintenance is one of the four types of maintenance. It prevents the breakdown by timely inspection, lubrication, adjustment, and repair. In other words, preventive maintenance is maintenance carried out before the breakdown occurs. It tries to minimize problems of breakdown maintenance, like, excessive delay in production, time loss, productivity loss etc. The maintenance engineer locates the weak spot like parts under vibration then inspect and repair them thereby reducing the danger of breakdown.

Objectives of preventive maintenance include to:

- locate any condition which may lead to a breakdown
- make the machinery and equipment always ready to use and maintain their optimum production efficiency
- achieve maximum productivity by the minimum repair cost and ensure the safety of workers

Application of preventive maintenance to all the items is not necessary. There are certain items that are more essential for continuing the production than others. Breakdown of some key item can interrupt the whole production of the plant.

Equipment to inspect include:

Process equipment (furnace, compressor, pump, motor, electric wiring etc)

Material handling equipment (cranes, lifts, conveyors, hoists etc)

Safety equipment (pressure relief valve, fire extinguisher etc)

The frequency of inspection can be decided by past data which was created by a number of experiments. Also, the basis of costs and saving of the preventive maintenance program. If the cost is very high, then it's better to reduce the frequency of inspection. Equipment that is subjected to vibration, overloading, exposure to dirt, fatigue, stress, corrosion etc is required to inspect frequently.

Advantages of Preventive Maintenance

1. Reduced breakdown and repair time