Maintenance

Maintenance processes and **maintenance programs** are the foundation of business productivity and **reliability**. Thus, many types of maintenance coexist in order to provide manufacturers with **opportunities to optimize their production.** Each company defines its industrial maintenance needs and implements a planning strategy. The main types of industrial maintenance are:

- corrective maintenance
- preventive maintenance
- predictive maintenance
- systematic preventive maintenance
- conditional preventive maintenance.

Corrective maintenance

As its name implies, corrective maintenance is **carried out** to correct **deterioration** and malfunctions of any equipment or production line as soon as they occur. If the failure that disrupts the production process has not been anticipated by other types of maintenance, such as preventive maintenance, **industrial maintenance technicians deal with the problem as soon as it occurs**. This is unplanned /**unscheduled** preventive maintenance or curative maintenance. This type of intervention can be costly for companies. To limit this **repair** cost, manufacturers opt for the so-called palliative corrective maintenance, which consists in **repairing** and fixing the problem at a lower cost and more quickly.

Preventive maintenance

This type of maintenance is **performed** by the technicians in charge of industrial maintenance before any failure or malfunction occurs. It concerns spare parts, components and machinery and equipment in order to reduce the risk of failure. **The digitalization of industrial companies** has provided many **computerized** and technological solutions that allow technicians to perform, monitor, **keep track** and plan preventive maintenance effectively.

Predictive maintenance

The emergence of data processing and analysis solutions, as well as artificial intelligence, has enabled manufacturers to plan predictive maintenance based on the prediction of failures and malfunctions. This type of industrial maintenance allows companies to anticipate problems by planning the necessary interventions and **maintenance operations** based on predictions. It thus makes it possible to limit the expenses caused by unexpected breakdowns, **equipment downtime** and production disruption.

Systematic preventive maintenance

This type of preventive maintenance is distinguished by its frequency. It is **periodic** and systematically carried out by the technicians at well-defined time intervals beforehand. This allows components and spare parts to be replaced regularly, improving machine productivity. Systematic preventive maintenance is therefore based on regular inspection of the various equipment, enabling **maintenance** technicians to collect the necessary information on the various components of the production line and to effectively prevent breakdowns and **repair costs**.

Conditional preventive maintenance

Conditional preventive maintenance consists of monitoring the key parameters and indicators of the property's operation and implementing the necessary corrective actions to anticipate any failure or malfunction. Many **emergent** computer tools are available to automate this type of industrial maintenance. Thus, technicians and **maintenance workers** can **simplify** and facilitate their work by opting for **the digitalization of industrial maintenance processes.**