



Maintenance Indicators (KPIs)

Availability: *It is the proportion of time that a piece of equipment was not in maintenance "that is" it was available to be used in operational tasks.*

Utilization: *It is the proportion of time that a piece of equipment did not interrupt its production due to any type of stoppage (not only preventive or corrective), that is, how much the equipment was really "usable".*

Compliance: *It is the ratio between the hours of maintenance executed versus the scheduled hours of maintenance for the same equipment.*

Mean Time Between Failures (MTBF): *For an arbitrary interval, it is the average of all the times between stoppages due to Unscheduled Maintenance. That is, the times from each end of detention to the beginning of the next.*

Average Time Between Maintenance (MTBM): *Likewise, for an arbitrary interval, it is the average of all the times between stoppages due to Scheduled Maintenance. That is, the times from each end of detention to the beginning of the next.*

Corporate Strategy Indicators

% of Department's Used Budget: *Determine the percentage used of the Budget programmed for Maintenance Department tasks.*

Distribution of total maintenance expense (by type of work): *Identify the performance of the asset based on the expected maintenance cost according to benchmarking studies carried out in world-class companies.*

%Maintenance Costs Per Tons Produced: *Control of Maintenance Costs in relation to the tons produced monthly.*

Operational Cost of Maintenance as % of Asset Valuation: *The total cost of maintenance: includes all work orders and costs of related incidents includes materials, man-hours and contractors personnel in related activities (planning, safety meetings, reliability, are activities that are directly related to the work). It does not include indirect work such as training activities, safety goals, shut down, etc.*



% efficiency of critical equipment: Check the available efficiency of critical equipment. Evaluate and improve the repairs and commissioning, time of use and increase in the capacity of this equipment.

Recordable Injury Frequency (RIF) rate: Evaluate the frequency of recordable incidents within the corporation. Where, Hours of Exposure is the fraction of time that the worker is working on the premises. Includes overtime

Preventive Maintenance Cost Index: Measures the cost of preventive maintenance with the total cost of maintenance. It allows you to determine the attention paid to failure prevention.

Corrective maintenance cost: Relates the cost of corrective maintenance to the total cost of maintenance. It allows the efficiency of existing preventive programs to be evaluated. **THIS IS THE COST OF UNRELIABILITY.**