

# OVERALL EQUIPMENT EFFECTIVENESS (OEE)

Overall equipment effectiveness (OEE) is a metric used to measure the overall efficiency of manufacturing equipment.

It can also be measured on a group of machines within a factory or across a company with several factories.

**OEE is used to determine how to improve productivity over time.**



An OEE score consists of the percentage multiplication of three components - availability, quality and performance - based on the following formulas:



**Availability =**  
 $(\text{Charging Time} - \text{Downtime}) / \text{Charging Time}$



**Quality Rate =**  
 $(\text{Cycle time} \times \text{No. of good parts}) / \text{Total Count}$



**Yield =**  
 $(\text{Ideal Cycle Time} \times \text{No. of Parts}) / \text{Gross Time}$