

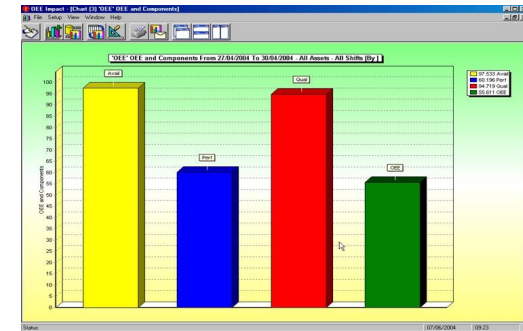
If you don't measure how can you hope to manage it?

No matter what type of process or manufacturing operation you are involved in and regardless of your company size you are likely to be under constant pressure to improve performance, improve quality and increase equipment availability.

Targeting any one of these three key areas for improvement, availability, performance or quality, may seem a major task and addressing all three together may seem a daunting task. However, if these areas can be addressed simultaneously, then significant improvements can be made throughout the production process. Production Output can be increased, Product Variations can be expanded and Production Cost Reductions can be achieved.

A good starting-point in attempting to achieve this is to identify and focus on simple but effective areas of the efficiency tree, areas such as asset (machine) performance which is always a hot topic. This is where OEE Analysis (Overall Equipment Effectiveness) can really help to make a difference to your productivity decision-making on a day-to-day basis.

OEE is a simple but clever calculation which focuses on individual items of process or manufacturing equipment at a finite level and allows their 'effectiveness' to be measured individually or in groups (i.e. with other equipment items). The OEE calculation is based on the ratio of the three key production parameters, availability, performance, and quality with time (e.g. planned shift time/s) being used as the baseline measurement.



The Calculation:

$$\text{OEE\%} = \text{Availability \%} \times \text{Performance\%} \times \text{Quality\%}$$

where:

Availability % = actual running time / planned cell production time

Performance % = pieces produced / the theoretical cell production rate

Quality % = number good pieces / total pieces made

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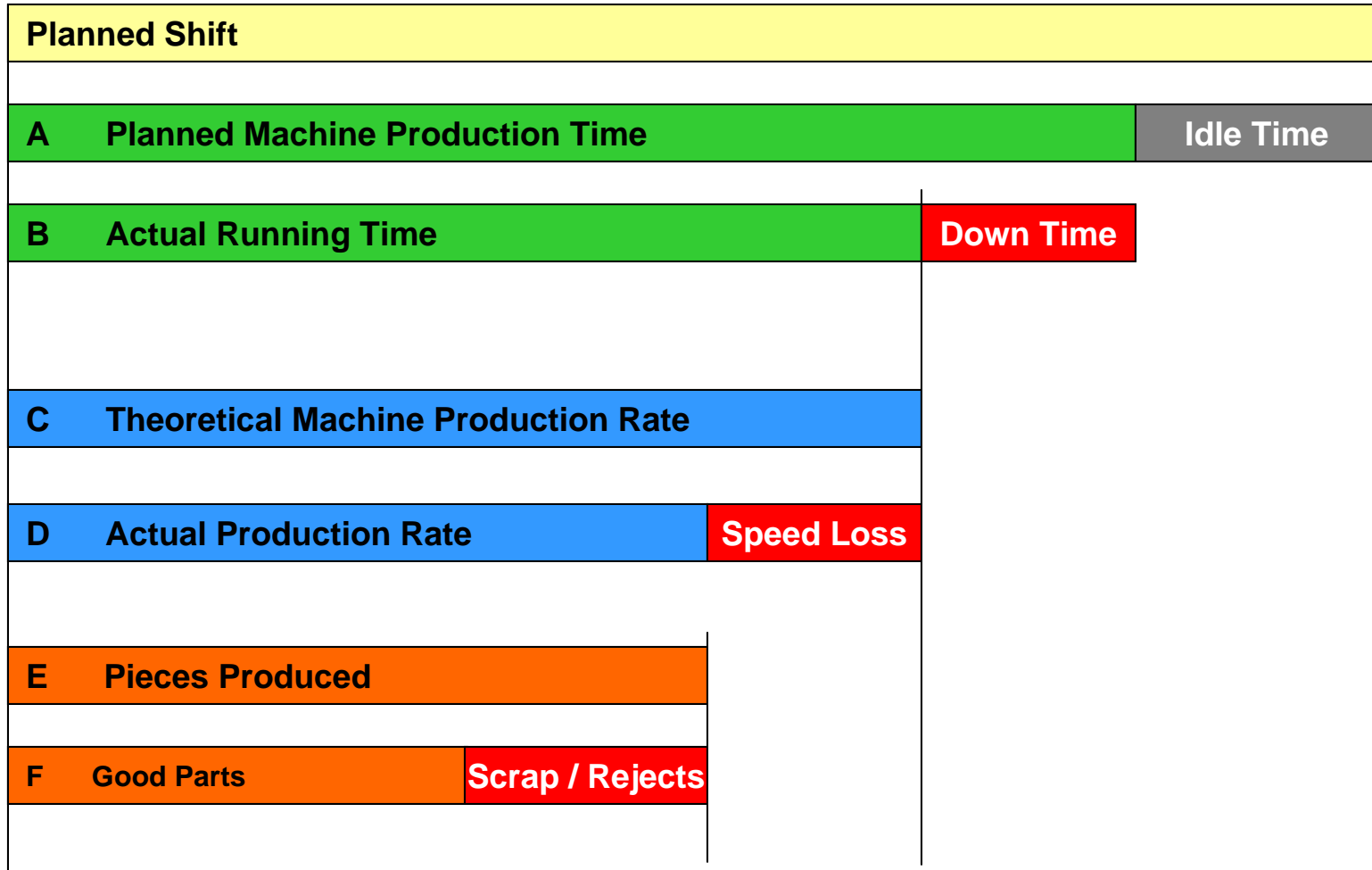
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What is OEE



PRODUCTIVITY IMPROVEMENTS COME AS STANDARD

$$OEE = \text{Availability (B/A)} \times \text{Performance (D/C)} \times \text{Quality (F/E)}$$



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