

Overall Equipment Effectiveness (OEE)

"Our output is much lower than the capacity of the equipment we installed!"

Production machines are designed on the basis of a certain production capacity. In practice, it turns out that due to various causes, the actual output lags far behind the capacity of the equipment that was installed. In addition, it appears that the implemented improvements have little or no effect: At a higher production speed, more products are being rejected, and when we focus more on quality the machine malfunctions regularly. Often we simply do not know any better; the situation is the way it is and we have learned to live with it.

OEE provides insight into the losses occurring during a production process

the output of approved (!) product lags far behind the capacity of the installed machinery we speak of a hidden production capacity, i.e., this capacity is not being used for the production of good product but - unintentionally or unwittingly - used for various types of losses.

How your machine performs in comparison to an ideal machine - namely, a machine, which always operates at maximum speed and with a quality rate of 100% - is determined by losses in availability, performance, and quality. The OEE indicates how effectively your machine is being used compared to the ideal machine (OEE = 100%). The diagram below illustrates how the OEE is determined.

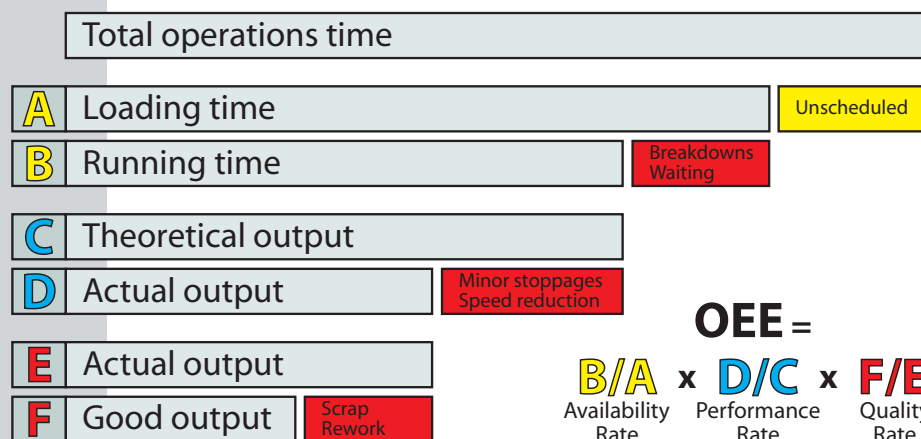
Measuring the OEE, a starting point for continuous improvement

In practice, the OEE value is usually much lower than expected! The difference between reality and the ideal equals the sum of the losses and, consequently, shows

right away where there is 'room for improvement'. You cannot improve what you cannot measure. The success of World Class Performance lies in measuring accurately and consistently the performances of the machine and the production process. Since the OEE is a very straightforward and powerful instrument for locating where losses occur, an improvement process always starts with measuring the OEE. For this purpose, FullFact has developed a very user-friendly software program that allows for detailed analyses of losses and production performances: the OEE Toolkit®. Within a few weeks, the OEE Toolkit® will make it clear to you what production capacity has been missed and where the losses are to be found. Furthermore, you can start with improving the production process whereby operators and mechanics play a leading role in eliminating the losses. The fact of the matter is that the improvements in your organization will become a real success story when everyone in the organization can contribute and share in the results. The OEE, therefore, will make it easy for everyone to see the effect of each action leading to an improvement and to justify this action with evidence.

Results

- The OEE is, therefore, a simple and an easily understandable tool for an improvement process:
- It is unrelenting in laying its finger on the problem (the losses become visible)
 - Priorities will become clear (fry the big fish first)
 - You will be able to make well-founded choices for specific improvements
 - The results of the actions leading to improvements can be observed right away ("the OEE increases!")
 - It is simple and easy to understand for all involved.



Add Power to Your Productivity