OEE

ShopFloor CONNECT

Overall Equipment Effectiveness (OEE) is the most reliable and accurate way to track the effectiveness of production machinery. The practice combines measurements of machine availability (running time versus available time), performance (actual production rate versus maximum production rate), and quality (good parts versus total parts) into one simple, easy-to-compare metric.

Calculating OEE

$$\frac{\text{Operating Time}}{\text{Total Time - Planned Downtime}} = \text{Availability}$$

$$\frac{\text{Good Parts}}{\text{Total Parts}} = \text{Quality}$$

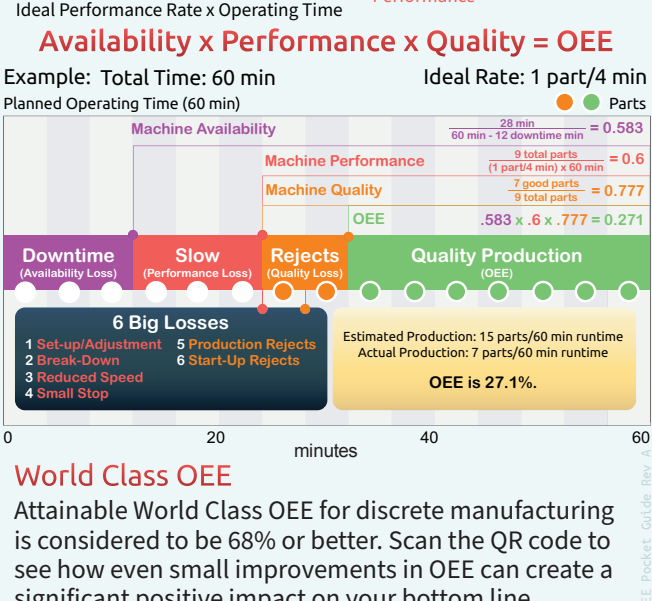
$$\frac{\text{Total Parts}}{\text{Ideal Performance Rate x Operating Time}} = \text{Performance}$$

Availability x Performance x Quality = OEE

Example: Total Time: 60 min

Ideal Rate: 1 part/4 min

Planned Operating Time (60 min)



World Class OEE

Attainable World Class OEE for discrete manufacturing is considered to be 68% or better. Scan the QR code to see how even small improvements in OEE can create a significant positive impact on your bottom line.

Seamlessly record machine uptime and downtime events and calculate OEE in real-time with ShopFloorConnect.

1-800-586-8324
www.shopfloorconnect.com

1140110 - SFC OEE Pocket Guide Rev A

OEE Glossary

Overall Equipment Effectiveness (OEE)

Framework for measuring the efficiency and effectiveness of a process, by breaking it down into the three OEE Factors.

OEE Factors

- **Availability** - Takes into account Downtime Loss.
- **Performance** - Takes into account Speed Loss.
- **Quality** - Takes into account Quality Loss.

OEE Losses

The three types of productivity loss associated with the three OEE Factors:

- **Downtime Loss** - Production time lost to planned or unplanned shutdowns.
- **Speed Loss** - Production time lost to equipment running below maximum rated speed.
- **Quality Loss** - Production time lost to parts which do not meet quality requirements.

Six Big Losses

- Six categories of productivity loss: Breakdowns, Setup/Adjustments, Small Stops, Reduced Speed, Startup Rejects, and Production Rejects

Cycle Time - The time it takes to produce one piece.

Ideal Cycle Time - Theoretical minimum time to produce one piece.

Ideal Run Rate - Theoretical maximum possible production rate.

Operating Time - Time remaining after Downtime Losses are subtracted.

Planned Production Time - Total time that equipment is scheduled for production. This is the starting point for OEE analysis.

Planned Downtime - Time deliberately scheduled for no production.

Plant Operating Time - The time the factory is open and available for equipment operation.

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