



## AUTOMATION

# 4 STEPS TO START USING OEE TODAY

Make your packaging or manufacturing line efficient by adopting overall equipment effectiveness.

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**A**s packaging lines have become more efficient, waste or problems on the line can become less visible and harder to identify. For example, lines might be slow due to multiple micro-stops, or overall line performance might falter due to lack of standard work or

process for operators. We can miss what we don't see.

But there are solutions available that allow line managers to better see and correct problems. Overall Equipment Effectiveness (OEE), a Lean manufacturing principle that measures the productivity of a line, shift or piece of equipment over a given timeframe, is one such solution.



# OEE TRACKER FOR IMPROVED EFFICIENCY ON PHARMACEUTICAL PACKAGING LINES

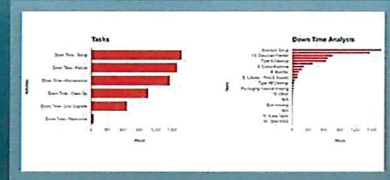
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## OEE & LINE VIEW DASHBOARD



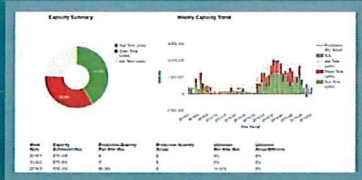
## ROOT-CAUSE ANALYSIS



## EXECUTIVE KPI DASHBOARDS



## CAPACITY ANALYSIS



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The OEE Tracker is an analytics-based tool to improve the overall equipment efficiency of pharmaceutical packaging and manufacturing lines in a cost-effective, expedited manner.

**S**upply Chain Wizard (supplychainwizard.com), a leading full-service global consulting firm specializing in serialization and traceability, supply chain strategy and operational transformation programs, has introduced a user-friendly OEE Tracker — an analytics-based tool to improve the overall equipment efficiency of pharmaceutical packaging and manufacturing lines in a

cost-effective, expedited manner.

The OEE Tracker measures and improves line efficiency by uncovering and honing line-specific best practices. The solution amounts to a business-bolstering way to utilize the vast amounts of data generated by systems necessary to stay compliant with modern-day regulations, especially those pertaining to serialization and aggregation.

Eight predefined reports provide details of OEE performance, exceptions and root causes of discovered shortcomings, with "Live view" and "Historical view" dashboards highlighting issues and opportunities. The tracker also offers an advanced analytics package that supports scheduling optimization and "keep or buy" decisions for best asset replacement and predictive maintenance. **PS**

Line managers who look to increase overall efficiency should consider adopting OEE because it helps reduce the six big losses of manufacturing (discussed below). OEE gives line managers data from across an operation. Having access to that data can mean the difference between a line that works efficiently and one that doesn't.

In addition to implementing OEE, line managers should also implement and understand Total Productive Maintenance (TPM) and Single-Minute Exchange of Die (SMED), which is also detailed below.

First, let's break down what OEE itself is.

## WHAT IS OEE?

OEE identifies the amount of time that is truly productive. It measures quality, performance and availability. There's a bit of math behind it, but it is pretty straightforward. Your OEE percentage is the percentage of your equipment's availability multiplied by performance and quality. It looks like this in an equation:

$$\begin{aligned} & \text{OEE} \\ & = \\ & \text{Availability Factor} \\ & \times \\ & \text{Performance Factor} \\ & \times \\ & \text{Quality Factor} \end{aligned}$$

For example: If a packaging line can produce a unit in 30 seconds and I'm operating the line for an hour, I should have 120 units by the end of that hour. If I've only produced 100 units at the end of that hour, my line has suffered a performance loss somewhere.

By using OEE you'll be able to see what went wrong, where that loss occurred and why you produced 20 fewer units than you should have. And you'll be able to introduce countermeasures to reduce inefficiencies.