

Aptean Process Manufacturing OEE

A Practical Guide to Optimal Equipment Effectiveness and Plan Attainment for Process Manufacturers





For process manufacturers, nothing is more important than factory floor operations. You always want to be running at optimal efficiency, but does your business have the tools necessary to determine just how streamlined and productive your processes are?

Overall equipment effectiveness (OEE) systems provide organizations like yours with the visibility and control they need to eliminate inaccuracies, proactively solve problems and make plans for improvement. Implementing such a solution has the potential to benefit everyone in the organization, as well as your bottom line.

It won't happen overnight and will take effort across all your departments, but once your company makes the move to a modern OEE platform, you'll start seeing benefits right away and enjoy greater agility and profitability down the road.

Identifying Issues and Assessing Needs

All of your business's teams will be impacted by the implementation of a new OEE system, so it's important to approach the undertaking with a thorough plan for handling the adjustment. The good news is that once it's done, assuming you've found the right solution, your employees will find their new responsibilities simple to accomplish and will see the impacts of their work immediately.

An OEE platform eliminates the need for manual data entry, paper records and elaborate Excel spreadsheets. It tracks your products and processes in real-time, capturing important insights along the way that allow you to identify issues and devise the right ways to rectify them.

These solutions frequently replace outdated legacy systems that have long since outlived their usefulness, and with the automations they facilitate, your business can drastically reduce the risk of human error. That means you can rely on your facts and figures to be accurate and up-to-date.

We can look at an example of a hypothetical paint manufacturer to illustrate the difference an OEE platform can make. Without a system to help pinpoint where errors occurred or production slowed, the business is left guessing as to what happened when goals aren't met. With an OEE solution, though, they've got access to real-time data that shows specifically where the hold-ups were in their processes. That information would have been flagged for review immediately, likely allowing the company to avoid falling short on their efficiency and output.

When your people are left in the dark as to why operations didn't meet expectations, they begin to lose sight of the potential progress that could be made if they had the tools they needed. On the other hand, if they know what's going on minute to minute, they can act intelligently and quickly to address issues.

"As the data is presented in real-time, we can selectively improve production processes in real-time and ensure optimal utilization of plant facilities and manpower," said Jan van den Broek, Managing Director of Intersnack Knabber-Geback GmbH & Co. "This enables us to increase efficiency in each plant up to 10%, which is directly reflected in lower production costs."



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Defining OEE and Its Importance

A series of equations can help you quantify your business's overall equipment effectiveness. These allow you to account for rate, yield and utilization in one figure:

OEE = Rate x Yield x Utilization	Rate = Units per minute vs. standard rate
	Yield = Out/total processed in
	Utilization = Uptime/net available time

As you might expect, a core function of an OEE solution is to automatically perform these calculations for you and provide you with the results so that you can examine where your bottlenecks are and what can be done to streamline your processes.

Your teams will know as soon as operations fall below 70% of optimal figures—which is widely considered the threshold between “acceptable” and “slow” in process manufacturing—and get to solving whatever problems have arisen right away. You can't afford to make decisions in the rear-view mirror, after all.

The implementation of an OEE system can result in dramatic turnarounds in efficiency, considering many of a business's issues can remain hidden without such technology. Don Reese, Senior Operations Data Analyst at Litehouse Foods, can attest to the potential for massive improvement. “When we rolled out our OEE platform, we thought we were a 60-70% uptime company when we were only actually seeing 18-25% uptime because we were missing so much data,” Reese said.

Perfecting Your Plan Attainment Approach

Put simply, plan attainment measures how much of your production schedule is achieved. Having a good grasp on your figures and understanding why you might not be meeting your goals is critical in competitive and fast-moving process manufacturing industries.

What price do you pay when your processes aren't leading to the results you expected? You struggle to meet customer orders, putting a strain on those relationships, and miss out on revenue that the business could have earned. And if you scramble to make up for shortages with extra shifts and overtime, you create a ripple effect that hampers further operations.

An OEE solution lets you keep your finger on the pulse of the business's performance so that you don't have to guess or make assumptions about your productivity. With greater certainty and frequent assessments of up-to-date key performance indicators (KPIs), you maximize your organization's ability to adapt and make progress. “We make decisions based on hard facts and not gut feelings,” said Ina Wegener, Director of Operational Excellence at Intersnack. “This also tangibly increases the workforce's acceptance of improvement measures.”

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Another way of thinking about an OEE system is that it reveals the “why” behind your results, be they good or bad. If you exceed your production plan, you know why your values were higher than expected. Likewise, if you have to delay a shipment because an order is taking longer to fill than anticipated, you can drill down to the root cause of the hold-up.

Good OEE platforms also measure two critical areas for potential inefficiency and loss: changeover and giveaway.

- › **Changeover** – Just five minutes can make the difference between reaching plan attainment and failing. By simply measuring changeover times, your teams become more aware of how their personal efficiency affects overall production, and from there the organization can explore just what is causing changeovers to take longer than absolutely necessary.
- › **Giveaway** – Overfilling packages to ensure that minimum unit count or volume is met may seem like an unavoidable source of loss, but it’s vital that you closely track exactly what your giveaway is so that you can minimize the amount of product that goes to waste. That, in turn, will improve your bottom line by reserving materials and also keep your business safe from potential legal concerns from over- or under-packing.

The best OEE solutions allow you to act proactively, heading off problems before they even occur. When you’re launching a new line with new processes, you’ll know what issues have occurred with similar operations in the past and can safeguard against them going forward.



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Empowering Your Teams with Technology

Your plants are at the heart of your food and beverage manufacturing business. That's why it's so crucial that you equip them with the right modern systems and adopt agile, intelligent methods for optimizing your operations.

Knowing that getting a handle on your efficiency and effectiveness is so important, consider exploring what Aptean Process Manufacturing OEE could do for your organization. With decades of experience in the industry, our solution was designed for companies like yours and can propel you forward.

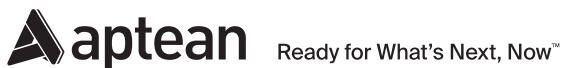
Contact us today to learn more about this purpose-built solution and how it can work for you.



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