

HOW TO MAXIMIZE THE PRODUCTIVITY OF YOUR PERSONAL CARE & HOUSEHOLD LABELING PROCESS

Labeling is a critical process in many industries, such as pharmaceuticals, food, beverage, personal care and household labeling.

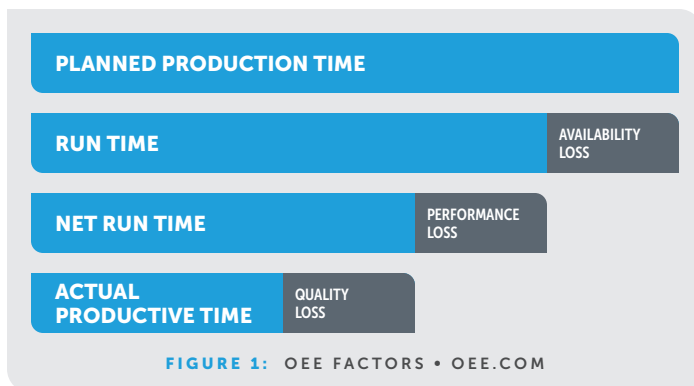
As companies strive to improve their manufacturing processes, focus often turns to the speed of production and packing lines – including labeling speed. Whilst this is one factor, successful labeling demands much more than just flat-out speed!

In this article, Accraply's Jamie Clark, Pressure Sensitive Product Line Leader, looks at how the concepts of OEE can be usefully applied when considering labeling productivity in the personal care and household manufacturing industries.



OPERATIONAL EQUIPMENT EFFECTIVENESS (OEE)

OEE is a widely used approach for measuring manufacturing productivity by considering the three factors that impact productivity time: Quality, Performance and Availability.



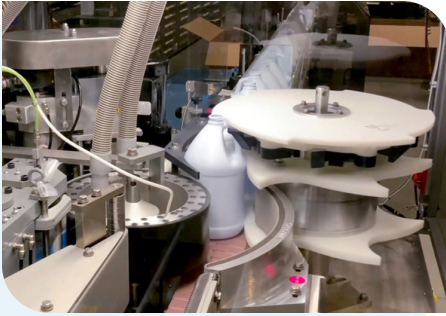
As illustrated in **Figure 1**, to achieve 100% OEE requires the Actual Production Time to equal the Planned Production Time, which means 100% Quality (only good labeled products), 100% Performance (labeling as fast as possible) and 100% Availability (no stopping).

Despite the stringent quality standards in label application and appearance, industry trends are driving Personal Care and Household product manufacturers to take more notice of their productivity.

TRENDS INCLUDE

- Shorter runs – resulting in more frequent changeovers
- Increased flexibility – resulting in longer changeovers
- Demands for new, innovative container shapes and label materials – resulting in more difficult setups
- Increasing consumer demands – requiring higher production speeds
- Highly competitive market – putting pressure on manufacturing costs

The good news is that, with proper consideration, you can achieve high OEE without compromising on labeling quality. Of course, while it is relatively straightforward to determine OEE for an existing line, it is more challenging to evaluate this for a new line or a new piece of equipment. To help with this, here are some key Availability, Performance and Quality factors to consider when looking for your next labeling system.



AVAILABILITY

The main reasons for Availability Loss are unplanned stops (such as breakdowns, web breaks and product handling issues) or planned stops (for example: changeover, label replenishing or planned maintenance). When the machine stops, productivity goes down:



UNPLANNED STOPS

This is the worst type! Besides the frustration of nagging issues that result in frequent machine stops, the downtime eats into production and subsequently into the bottom line. Choose a labeling equipment manufacturer who will take time to work alongside your operators and maintenance personnel to identify the cause and resolve each issue.



FAST CHANGEOVERS

Changeovers to a different size, shape or type of label and/or product require quick, easy and repeatable changeover. Scales, dials, toolless adjustments and drop-in change-parts dramatically reduce the setup time. A 'Smart' HMI provides recipes to select the correct labeling parameters for a given product and video tutorials to aid the operator in machine set-up and trouble shooting.



MINIMIZE LABEL ROLL CHANGEOVER

Replenishing labels and removing the waste roll are necessary activities when running a labeling system, and the higher the speed the more frequently this will occur. There are ways to minimize and even eliminate downtime for label roll changes. Stopping the labeller before the roll is completely depleted allows the operator to splice in the new roll rather than completely re-threading the labels onto the applicator, shaving minutes off the label change procedure. Label waste cutters eliminate the need to remove waste rolls. Redundant applicators reduce label roll replenishing and waste roll removal to zero.



PEOPLE

Key to the success of any labeling operation. They appreciate a machine that is straightforward to set up, operate and maintain. Effective training and ongoing support of operators and maintenance teams by your labeling machine provider will equip them to get the most out of the labeling system.



PERFORMANCE INFO

VIEW NEXT PAGE



PERFORMANCE

Performance loss takes into account anything that causes the manufacturing process to run at less than the maximum speed possible when it is running, including both slow cycles and small stops (www.oeo.com). It's crucial to remember these points:



GUARANTEED PERFORMANCE

Work with a labeling system manufacturer that stands by the performance they have quoted. This includes taking the necessary steps to correct any problems at the customer's plant once the machine has been put into production.



HIGH SPEED PERFORMANCE

Of course, when you need to label fast then you need a supplier who has the capability to deliver this! Everything becomes more challenging as the speed increases such as set-up, label placement, label finishing, label roll replenishing, waste roll removal, product handling and machine durability.



TEST PERFORMANCE

Performing a thorough machine acceptance test at the factory is crucial before taking receipt of the labeller. Seeing is believing.



RELATIVE SPEED PERFORMANCE

It is common practice that the speed at each stage of the packaging line increases slightly as you move toward the end of the line. This helps prevent any upstream backlogs. A labeling system needs to provide consistent throughput while maintaining labeling quality.



FOCUS ON PERFORMANCE

Does the labeling system supplier focus solely on labeling solutions? Does the company have the expertise, knowledge and experience to support you in specifying and developing your labeling solution?



QUALITY INFO

VIEW NEXT PAGE



QUALITY

Regardless of the labeling system used, it must be fit for purpose and meet the high-quality standards expected in personal care and household production. This is true not just in terms of its overall labeling capability, but also in terms of the wider solution, i.e. project deliverables and after-market support. Quality must be defined in a number of ways:



QUALITY OF LABELING

As a minimum, this means that the product handling must be positive, accurate and gentle (no damage or marking of products), and labels must be applied precisely and reliably without skew, wrinkles or trapped air. Rework or scrap is an unnecessary Quality Loss that must be avoided.

Product and label inspection systems with track and eject will guarantee that every product coming off the end of the labeller is a 'good' product, i.e. correctly labeled.



QUALITY OF PRODUCT

Look for suppliers who use well-proven components and designs, apply cGMP standards and incorporate up-to-date technology.



QUALITY OF PROJECT DELIVERY

Dedicated project managers, high quality documentation (operation, maintenance & parts manuals), rigorous factory-testing and machine-acceptance all contribute towards a successful personal care or household labeling project.



QUALITY OF SOLUTION

It is critical that the labeling system supplier works with you to ensure that the application requirements are fully defined and understood. An expectation-focused approach reduces the risks and costs to both you and the supplier, ensuring the right quality solution at a competitive price.



QUALITY OF SUPPORT

Competent and responsive spares and service support is essential to keep a quality labeling system working for you for many years to come.

TO SUMMARIZE...

In order to maximize the productivity of your labeling process you need a system that is built for your specific requirements, is reliable, easy to use, easy to maintain and backed by a company who will be there for you when you need them.

If you have any questions about labeling, or are looking for your next labeling system, then reach out to learn more from the experts at Accraply.