

BALANCING TECHNOLOGY AND LABOR

Efficiency, Safety and Resilience
in the Packaging Center





Food-processing companies that are implementing advanced technologies in their facilities to improve efficiency should consider the impacts on their current workforce as well as the potential benefits to their bottom lines.

Partnering with the right equipment suppliers can help companies achieve their goals, both around optimizing the work environment and driving toward improved operational results.

Coping with the ongoing challenges of a tight labor market has emerged as a top priority for companies throughout the food industry, from growers to manufacturers, retailers and restaurant operators.

The American Bakers Association, for example, recently released [research](#) indicating that the workforce shortage in commercial baking is projected to accelerate as employers will continue to struggle to fill positions and aging workers retire. The ABA projected that the industry will have 53,500 unfilled jobs by 2030.

According to the ABA research, this shortfall of skilled workers is impacting critical areas in commercial bakery operations, including production; engineering and equipment maintenance, and shipping and distribution.

“By 2030, the ripple effect of these shortages will be felt throughout the supply chain, adversely impacting communities and businesses nationwide,” the ABA concluded.

The impacts caused by shortages of skilled workers will include reduced productivity, which can in turn result in higher unemployment in areas where businesses are forced to scale back their operations or to forego growth opportunities. Companies competing for the limited pool of skilled workers will also likely face higher costs to attract and retain employees, and the risk of overburdening existing employees.

Data from the U.S. Bureau of Labor Statistics shows a shortfall of more than 600,000 jobs in manufacturing overall, and some studies have projected that the shortfall could exceed 2 million jobs by 2030.

As a result, companies are turning to technology to help streamline their operations and to function more efficiently. In some cases, repetitive, routine tasks currently performed by human workers can be handled by machines, but technology also increasingly provides data- and sensor-driven solutions that can augment efficiency. Equipment such as the Kwik Lok 893C Automated Bag Closing Machine allows operators to view production data, machine life data and diagnostic information on a smartphone, tablet or computer, as well as on the machine's own touchscreen. Operators can also set up automated service reminders to avoid downtime.

Ryan Towry, VP of Engineering and Innovation at Kwik Lok, said the machine is a huge leap forward in the market, and features ethernet and wireless communications, along with a host of other new features, such as state-of-the-art motion control and automated alerts that can be sent to smartphones. You can now also operate the machine from your phone or other smart device if the equipment is placed in a hard to reach area. The machine now also has the service and troubleshooting manuals loaded directly onto the machine's human interface to speed in educating personnel on proper operation.

This automated functionality frees up staff to perform other tasks. Automated service reminders help ensure regular maintenance so that equipment performs at optimum levels, enhancing efficiency and productivity.

In addition, the ability to leverage data from such “smart” machines is key to ongoing efficiency improvements, Towry said.

“It’s enabling users to see the data more easily, and to see it in a different way,” he said.

Technologies with these types of functionalities stand to reduce operating costs for manufacturers and other businesses that deploy them, thus helping them compete more effectively in the marketplace and drive economic growth.

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Ryan Towry
VP of Engineering and Innovation, Kwik Lok

In addition, the manufacturing processes of the future may foster opportunities for employers to create safer and more rewarding jobs for workers. This in turn could help the businesses that utilize these technologies to attract and retain employees.

For example, if some repetitive, manual tasks are performed by machines, the workers who previously did those jobs could be employed in more rewarding and potentially higher-paying roles, such as overseeing the operations of those machines. A recent [report on CNBC](#) cited the example of Zipline, which builds and operates autonomous delivery drones. Rather than hiring a single driver to do one delivery at a time, the company trains people to manage multiple deliveries at once using drones. That enables the company to pay each of those drone operators “a lot more,” according to the article.



Impact of Advanced Technologies

A recent report from the U.S. Census Bureau indicated that manufacturing jobs are much more likely to be effected by advanced technologies than other industries.

30%

of all workers are potentially exposed to advanced technologies used for automation purposes

52%

of manufacturing workers are potentially exposed to advanced technologies used for automation purposes

Companies that impliment automation technologies are more likely to report that they resulted in increased employment, and companies that utilize artificial intelligence in particular report increased demand for skilled labor.

Source: [U.S. Census Bureau](#)



Embracing Technology in Bakery Manufacturing

One family-owned bakery company located on the West Coast has been implementing automated technologies at its facilities, while remaining conscious of the impact on employees. The company prides itself on providing safe and rewarding job opportunities, as well as being a conscious steward of the environment.

As a successful business, this company has also paid close attention to the efficiency of its operations as it has added production facilities in multiple U.S. locations. It is carefully evaluating opportunities to deploy advanced technologies that boost efficiency, minimize waste, and support the company's high quality standards.

One of the benefits of incorporating automation into the company's packaging process is the consistency that it provides. For example, an automated case packer helps ensure that cases are wrapped properly to prevent damage during transport and lessens the opportunity for human error.

While the increasing use of automation in bakery production does impact human job functions, it is something that the company takes under very serious consideration. It considers whether technology can be used to "do the heavy lifting" or perform machine movements that reduce risks to its workers.



Incorporating automated processes requires a shift in mindset around training, a process sometimes described as “leveling up the workforce.” For example, instead of asking three people to perform repetitive manual tasks all day, manufacturers are seeking to implement solutions in which a single person handles those tasks with the help of additional training and technology.

The company also seeks to work with vendors that share the company’s values around community and sustainability. High levels of both their quality and service are important criteria that the company considers when it chooses a partner.

The partnership this company has with Kwik Lok, for example, provides a foundation for growth as the baking company explores opportunities to improve its packaging processes. Kwik Lok’s high standards for quality and environmental consciousness make it a perfect fit as a partner.

The bakery company uses Kwik Lok 910 Automatic Bag Closing Machines, and has received positive feedback from its employees about the use of Kwik Lok machinery and labels, which are helping the company in its messaging efforts to customers.

The company has also been considering using more sustainable versions of its Kwik Lok bag closures, which include the Enviro-Lok and the Fibre-Lok.

Viktoria Pakhnyuk, sustainable product development manager at Kwik Lok, said Kwik Lok offers multiple types of sustainable bag closure and continues to research new solutions because its customers’ specific needs and preferences are varied.

“Being able to offer options is important,” she said. “We are able to meet customers where they are.”



Automation Challenges in the Produce Industry

While commercial bakeries and Consumer Package Goods distribution centers lend themselves to some forms of automation, the produce industry poses multiple challenges for the implementation of such technologies, according to Ed Treacy, Vice President of Supply Chain and Sustainability at the International Fresh Produce Association.

Among the biggest challenges is the lack of conformity of produce packaging, said Treacy, a former logistics executive at Canadian grocery chain Sobeys, which has automated its distribution centers to move almost all of its products within its facilities.

“Fresh produce is the only item that distribution centers handle that has multiple suppliers for the same item,” Treacy said, citing as an example the potential of having 15 different suppliers for wrapped heads of iceberg lettuce, each of which uses packaging of differing dimensions.

“It’s hard for warehouse systems and automation to adjust to that,” he said. “[A case of] 24, 10-ounce cans of tomato soup is the same every day. It’s only one supplier every day. It doesn’t vary.”





Another challenge produce presents relates to the integrity of the packaging materials, Treacy said. Because many fresh fruits and vegetables, such as lettuce, onions and corn, are stored at high humidity, the cardboard packaging they are often stored in does not hold up well to the rigors of automated movement in a distribution center.

In addition, the fast rate of turnover for fresh produce also poses challenges for automated systems. Many items are moved in and out on a daily basis, compared with shelf-stable products that can have hold times of weeks or more in the warehouse or distribution center.

“By the time the system puts the product away, they’d have to go back and retrieve it,” Treacy said.

There are solutions that automate some packaging processes in produce facilities, however.

When it comes to bag closures in produce processing facilities and other venues, Kwik Lok offers many automated solutions that are already widely used in these operations. One example is, they include the Kwik Lok 865B

Automatic Bag Closing Machine, which offers increased safety features, lighter weight, and an updated control system compared to its processor model, the 865A. It is ideal for apples, potatoes, pears and numerous fresh produce items.

In addition, the Kwik Lok 915 is a programmable thermal ink jet printer that enables users to print complex 2D barcodes and QR codes, which facilitates traceability and provides opportunities to incorporate other messaging on the labels.

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Ed Treacy
VP of supply chain and sustainability at the International Fresh Produce Association

Working With the Right Partners

For food-processing companies, working with the right technology and equipment partners is paramount, especially when it comes to packaging.

Companies that are considering automating their packaging processes need to consider not only the efficiencies that the solutions might provide, but also whether or not those solutions are scalable and adaptable to the evolving demands of production environments.

In addition, reliability and dependability are vital considerations. Does the equipment supplier have a reputation for the durability of its products, and for being available in a timely manner?

“Having long-lasting, durable machines that don’t break down easily is definitely a strength of ours, and that’s how we get our customers coming back to us,” said Towry.

Towry states that Kwik Lok machines often last for decades on users’ production lines, and have a well-earned reputation for durability.

“They are known to be workhorses, and our customer service is also a value-add over all of our competitors,” Towry said. “We take a strong approach to making sure all of our customer’s needs are met, and our machines are well taken care of.”





For example, Kwik Lok has technicians available to provide remote support after hours to help users minimize downtime.

Production machinery that is unreliable and causes delay can result in a big hit to a manufacturer's financial performance, Towry pointed out. This is especially true of the packaging processes at the end of the production line, where products are being prepared for delivery.

"Our reliability is crucial for our customers' profitability," he said.

With its long history in the packaging space and worldwide presence, Kwik Lok also has a wealth of industry knowledge that provides an advantage over competitors, Towry said.

Finally, equipment suppliers that align with a company's goals around waste reduction, automation-driven productivity, sustainability and other environmental, social and governance (ESG) concerns can add tremendous value beyond the efficiencies they provide on the production line. Food processing companies and their equipment supplier partners can work together to create safer, more rewarding workplaces for employees while at the same time contributing to bottom-line results.

At a time when companies are under ongoing pressures to recruit and retain staff in a tight labor market, implementing the right solutions can help companies achieve their goals in all these areas. Kwik Lok works together with innovative companies to navigate this ever-evolving environment.

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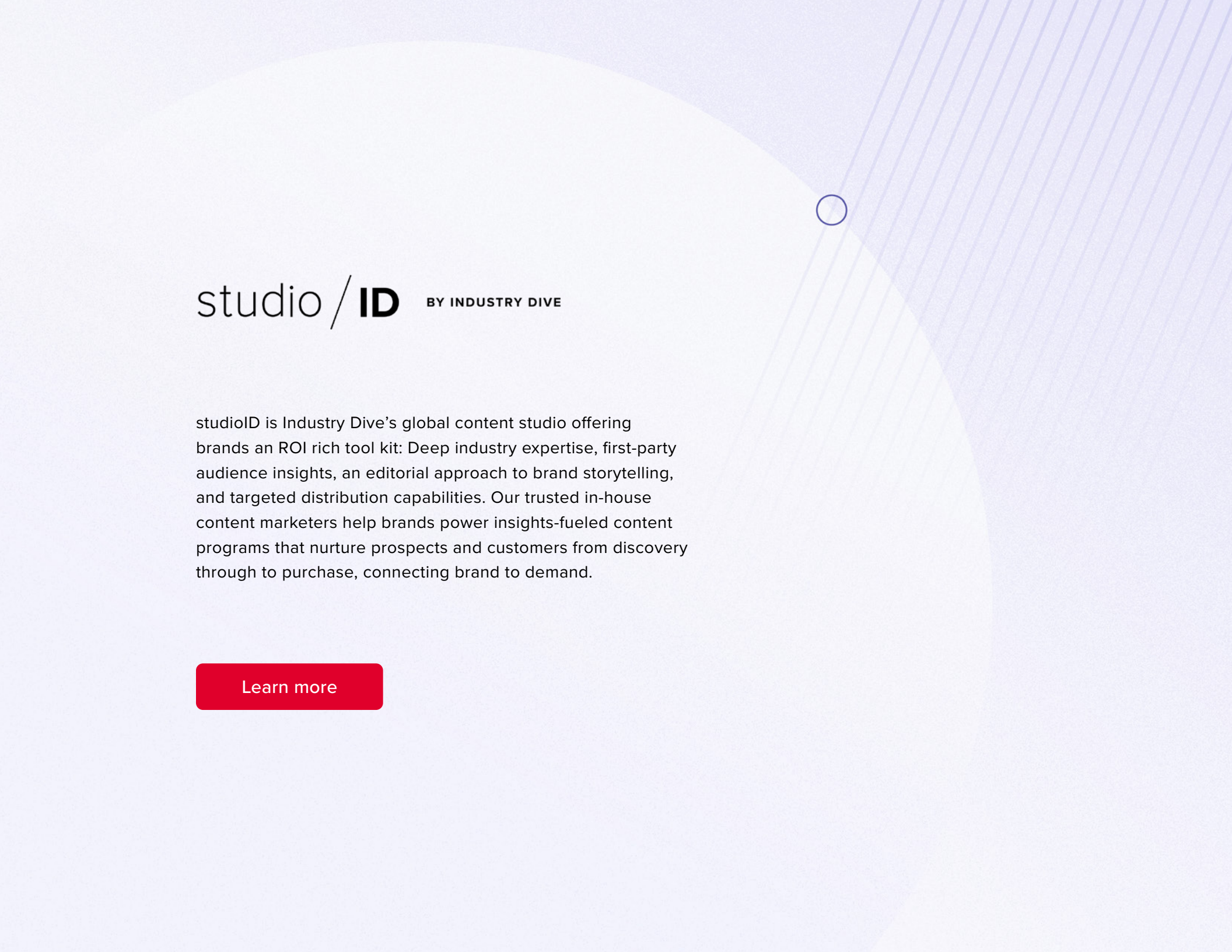


About Kwik-Lok

Kwik Lok brings almost 70 years of expertise to deliver advanced engineering and design that you can trust. Kwik Lok is committed to delivering new and innovative solutions. We work with our customers and industry partners to identify their unique needs - plus we provide the ongoing customer support you can rely on.

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