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Picking up speed

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To speed changeover, analyze your process and look to newer equipment.



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The old cliché is true—time is money. That's why bakers are on a continual quest to hasten changeover from one product to another without incurring costly downtime. Less time spent on changeover equals more product going down the line and eventually sold.

A two-pronged approach helps here, experts say. The approach marries a review of the changeover process to isolate areas that need to be sped up with an investigation into newer equipment technologies that allow for a speedier changeover.

To begin, go over your changeover process with a fine-toothed comb. You'll be looking for areas where you can improve the process. This might include places where operators can work faster, or where equipment can be reconfigured, says Drew Locher, managing director for Change Management Associates, Mount Laurel, N.J., which offers lean manufacturing consulting services. Lean management, a practice derived from Toyota's production philosophy, deals in maximizing efficiency and eliminating waste.

Doug Ferguson, chief manufacturing engineer at Hixson Architecture and Engineering, Cincinnati, recommends adopting concepts found in lean manufacturing to simplify and speed changeovers. Lean management practice basically states that

spending extra or unnecessary resources during product production whatever the form is wasteful and should be eliminated.

Ferguson recommends bakers develop a standard operating procedure that describes what is done during the changeover. Make sure it includes procedures for cleaning and inspection products or equipment.

Employees should inspect equipment to make sure any needed repairs are completed or replacements are available for the next production run and should make sure operators are fully trained in the changeover procedures, he adds.

Bakers frequently spend too much time dealing with the small parts needed for equipment changeover, Ferguson says. He recommends they track the parts needed for equipment changeover. If changeover necessitates special parts or equipment, bakers should consider color-coding them for organization. Or, they could label each part so it can be easily identified.

A bakery manager might even consider buying a special part carts that can quickly be transported to the line, Ferguson says. Each cart has a specific, labeled position for each part. Parts can be cleaned directly on the cart.

And remember to store changeover parts in a secure, locked room for easy storage and retrieval, he adds.

Quick cleaning

Equipment makers have also been looking to ways to speed up the cleaning process, specifically between flavor runs.

Depositor makers like Hinds-Bock recently introduced features that allow bakeries to move from one product or flavor to the next very quickly and simply. The hoppers that hold the batter can tilt back from the depositor and are accessible at a lower level. This exposes the internal components to operators easier, making them easier to clean during a quick changeover, says Rodd Gregg, general sales manager at Hinds-Bock Corp., Bothell, Wash.

Some hoppers are bolted on permanently, so you have to fill them with water and cycle it through, Gregg says. But hoppers that are at eye level rather than six or eight feet off the ground make them much easier to clean. They re like a hatchback car that gives you easier access to the back seat.

Likewise some depositing machines are often bolted on the line and equipment makers are looking to change this. Depositors feature pistons that move back and forth to draw product in and must be cleaned when flavors are changed, Gregg says.

So when you clean them, you have to take them apart individually and if the machine is muffin depositor, you can have ten or 12 or 15 piston rods that need to be cleaned, he says.

Equipment makers are now producing depositors that can be pulled off quickly via release pins, rolled away, and cleaned. Then, a second, already-cleaned piston component is rolled onto the line. This takes changeover down to minutes.

The whole bank comes off and can be exposed for cleaning and changeover, Gregg says.

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