How Noms Bake Shop solved their staff shortage problem with robotic cookie decorating

Discover how a robot helped a family-owned bakery improve employee morale and increase efficiency.

A Painful Problem

Berry shortbread cookies sound harmless, but they were causing a big problem for Noms Bake Shop, a family-owned bakery in Arizona, USA. The situation got so dire that staff were frequently calling in sick because of those cookies! After an expensive re-branding, the company's new logo was based on their signature berry shortbread cookies — which are drizzled with icing in a specific curvy zig-zag. Unfortunately, it turned out that icing thousands of cookies in that pattern was painful for the staff.

"During busy times, we try to make 10,000 of these cookies in a day," says Trevor Martin, co-owner of Noms Bake Shop. "If there are 10 people on a shift, that's a thousand cookies each. Leaning over a table while squeezing a piping bag all day long would often cause pain and discomfort in their backs, hands, and wrists." Typically, at least one or two of the employees would call in sick to avoid icing cookies on berry shortbread days. Remaining staff had to take up the slack — working longer hours and enduring more pain.



Seeking a Sweet Solution

Changing the logo again, or changing the signature cookie so it no longer matched the logo, were both undesirable options. After such a big investment, it would have been disappointing and frustrating to undermine one of the key elements of their new brand. Repeatedly hiring temporary workers for berry shortbread days was an impractical solution that would have resulted in higher costs per cookie — something Martin's customers wouldn't have appreciated. But something *had* to change.

To stop his staff's pain, retain the signature cookie and matching logo, and keep costs in check, Martin realized he needed to find a way to automate the icing process. "We looked at a few different automation possibilities, but the Baker-Bot was the only one that could replicate the exact design we wanted. If we wanted to continue making our signature cookie, we absolutely needed this robot."

An Apex Motion Control technician came in to set up the Baker-Bot but, Martin says, "There wasn't a lot to do because it was mostly set up back in Canada. It needed only minor tweaks to deal

with the inevitable variations in trays, racks, and so on." Because of its highly articulated arm, the Baker-Bot can easily produce the precise pattern of icing on the signature cookie. And it can do it thousands of times per day, hour after hour, day after day – pain-free for both the robot and for Noms Bake Shop employees.

"In 16 hours, the Baker-Bot can ice 10,000 cookies, without taking a break," Martin says. "That would take 25 hours of staff time." 25 hours of staff time costs Noms Bake Shop US$425, and Martin estimates that they'll reach break-even point when they've owned the Baker-Bot for only 18 months.

These days, instead of enduring hours of painful icing — or taking sick days to avoid it — bakery staff can attend to other tasks. They're so fond of their tough, hard-working, robotic team member, they popped a hairnet on it, and nicknamed it Betty.

Remote Remedies

If Noms Bake Shop ever has a problem with Betty the Baker-Bot, Martin says he feels confident in the support from Apex Motion Control. "With our other machines, I have to pay $3,000 to $5,000 about once a month for a tech to come out and repair." When a machine is down, Martin says, it costs his company thousands of dollars each day.

"You expect issues to come up in manufacturing, so you really want to know there's a good support process after the sale. With Apex, I definitely feel that if we ever have any problems with the robot — and we haven't yet — we'll be fine. A big thing for us is that the Baker-Bot is connected to the internet. The Apex team can access the robot remotely from Canada and fix problems and write code without having to come here."

Cooking Up Some New Ideas

"The most important result is that our employees are happier at work!" Pain-free staff don't take sick days to avoid icing. With the Baker-Bot installed, Noms Bake Shop can more easily produce thousands of their signature cookies when they need to. Martin has plans for a couple of new products — brownies and bars, which are baked in individual silicone trays.

"The Baker-Bot has the flexibility for other applications in the future, which we're excited about," says Martin. "It has a camera that sees all the spots where it's supposed to go. So, instead of having our bakers deposit the batter by weight into the trays, we could have them mix up the batter, deposit it into the hopper, and let the Baker-Bot fill all the little trays."

The bakery managers said the Baker-Bot training was "relatively simple and easy", so they're confident they'll be able to re-program the robot to perform a different task. "Once you see the Baker-Bot in action, you immediately start thinking of all the possible ways this machine can help your business. The robot does highly repetitive jobs, which means staff can spend more time on other tasks. Once you realize how much you can increase efficiency, it becomes a pretty simple decision."

Want to learn more about how to solve your labor shortage issues with food and bakery production?
Call 1-778-298-8292 or email info@apexmotion.com to talk with one of our experts.

Apex Motion Control is a full-service automation company located in Surrey, B.C., Canada that builds turn-key automation systems. We specialize in robotics, machine automation and vision, and handle the design, fabrication, testing, installation and support of our systems. You can find Apex Motion Control equipment installed all around the world including Canada, United States, Korea, Australia and Europe.

This case study was researched and written by Zena Ryder at Zena, Freelance Writer.
Discover how a robot helped a family-owned bakery improve employee morale and increase efficiency.
April 2020
Industry: Robotics, Food and Bakery Production
Function: Cobot – Collaborative Robot Bakery Assistant

By rantonides | April 29th, 2020 | Uncategorized | 0 Comments

Share This Story, Choose Your Platform!

Related Posts

David Smart of Greenhalgh's talks about his production challenges and the success robotics has provided him
April 29th, 2020 | 0 Comments