



John Imparato, the proud and colorful owner of Giannella Modern Baking Company in Paterson, New Jersey, has one of those “bigger-than-life” personalities that makes meeting him an unforgettable experience. His bakery is famous for authentic Old World breads baked from recipes handed down through his family—recipes John wants kept secret.

Marcelo Tise, engineer, inventor, and owner of Advanced Automation, Riverdale, N.J., had experience working with bakery equipment and knew what needed improving at Giannella. The result is a minor-ingredient batching system geared toward the baking industry and named

the Batch Process Analysis (BPA) system, all designed, fabricated and installed by Advanced Automation in Riverdale. With BPA's modular design, Marcelo and his team can design and build systems with as many ingredient hoppers as needed, and write all the software needed as well.

The BPA also allows bakeries to tweak recipes for maximum cost savings. For instance, if a recipe calls for five pounds of sugar, a bakery could leave out one ounce of sugar from each batch. The end product will be consistent from batch to batch, and the BPA allows a bakery's recipes to remain secret under password protection.

The BPA has a very small footprint, taking no more room than the work

benches used today. The system also allows bakeries to track all minor ingredients without having to put pen to paper. Giannella uses eight IQ plus® 355 weight indicators and one 820i® weight indicator. The IQ plus 355 indicators have analog outputs that the PC reads. It is used to monitor the weight in any one of eight feed hoppers that are filled with micro ingredients for commercial baking. The PC stores the many family-secret formulas. The operator can select the formula he or she wants. The 820i indexes a moving bench scale under the feed hoppers. As the hoppers get low on product, a signal is sent to the batch master who manually re-loads. Software automatically tracks and records daily

production runs, allowing bakeries to adhere to strict standards demanded by quality regulation associations.

Through the BPA's touchscreen system, workers can select the recipe and the total batch count and hit "run." The BPA will measure the ingredients into a tray, with accuracy down to the ounce, eliminating waste of expensive minor ingredients.

It took Marcelo about a year and a half to develop the BPA, from conception to programming to manufacturing. The machine and software system conforms to, and in some instances surpasses, all mandatory ingredient traceability and handling standards.

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"I can't control the prices of my ingredients, but I can control how much I use. BPA was the answer. Since installing BPA we increased our yield, tracked our use, and traced raw products via lot numbers down to the batch number. No more writing down lot numbers or errors in my batch. Our operators just select the recipe, select the mixer to use, and start the batch."

John Imparato, president of Giannella Modern Baking Company, Paterson, N.J.



John demonstrates the old way—when bakers measured ingredients by eye and instinct, with a pinch of this and a scoop of that. He scoops and pinches ever more expensive ingredients like sugar and flour out of a barrel before weighing them on a baker's scale. This inevitably results in waste and spillage.



With BPA's modular design, Marcelo and his team can design and build systems with as many ingredient hoppers as needed. The eight-silo BPA, 10 feet tall and 8 feet wide, stands in the back corner of Giannella's, turning out perfect batches every time.

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Center: Marcelo Tise, and left: Angela Falzarano

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What trailer?

the Advanced Automation team showed their first BPA prototype at the International Baking Industry Exposition in Las Vegas last September. Companies of all sizes showed great interest in Marcelo’s innovative solution.

Angela Falzarano, director of New Business Development, said, “After the show, we were floating on air—until we went outside to the parking lot. The trailer with the prototype inside was gone!” Angela recalls a comment Marcelo made at the time, “This is not going to bring us down!”

Indeed, it did not. Marcelo’s team rebuilt the BPA and made it even better.

Today, the eight-silo BPA, 10 feet tall and 8 feet wide, stands in the back corner of Giannella’s, turning out perfect batches every time.



During initial installation and setup, Marcelo ran into some glitches with one of the scales and called Joe Geisser, director of Rice Lake’s Northeastern region. Joe told Marcelo not to worry. He would be there the next day, and he would stay there until the system was up and running perfectly.

Angela said, “It was this level of commitment that solidified the reason for Marcelo to depend on Rice Lake for all his needs when it comes to all scales and accessories.” Angela added, “Whether it is a Saturday at 2 p.m. or a regular work day, Joe Geisser and the Rice Lake team have been there to support us with ALL of our needs. We appreciate that. We believe in that same level of commitment.”

Angela confides, “We love Joe...we love Rice Lake.”

What became of the missing trailer?

It was found ditched along the roadside. Security video caught the thieves cutting the lock and hitching up the trailer. It turns out that the theft wasn’t to steal Marcelo’s invention. There was also a Harley-Davidson show going on, and the perps thought there were a couple of nice “hogs” in the trailer. The thieves went to prison for grand theft. The prototype was returned to Marcelo—disassembled. Had the thieves actually stolen a bro’s bike, they might have been disassembled and ditched themselves. ■



Just-in-time technology

The introduction of the BPA to the market falls directly in line time-wise with President Barack Obama’s signing of the Food Safety Modernization Act (FSMA) into law on January 4. The bill brings the first major updates to U.S. food safety legislation in more than 70 years. It requires food processors and manufacturers to be able to verify that any imported ingredients or products are produced in compliance with U.S. laws and regulations. The food safety bill also calls for increasing government inspections at food processing facilities and, for the first time, gives the Food and Drug Administration (FDA) the power to recall unsafe foods.

The Food Safety Modernization Act requires the FDA to establish a product tracing system, which, in turn, could force food companies to better track the supply-chain movement of each ingredient used in every batch. Bakers in New Jersey, for example, will need to document which sack of salt they used to make the last round of semolina bread, and more importantly, which stores and restaurants received those loaves. ■