

THERE ARE FEW FACTS WHICH ARE UNCHALLENGED IN TODAY'S WORLD. A new scientific discovery can alter a long-accepted truth, or one's perceptions can change to alter their opinion with new insight. Indeed, consistency is hard to find. However, one infallible certainty remains undisputed: pizza is delicious. It is the Rocky Marciano of the kitchen—an undefeated culinary champion with few challengers.

In Chicago, they take their pizzas pretty seriously. It is a mainstay of local cuisine, and in the nearby suburb of Schaumburg, IL, Nation Pizza & Foods produces many of the pizzas that line the freezers of hungry Americans.

Nation Pizza manufactures private-label pizzas to each customer's recipe and requirements, and material usage has always been a key component of ensuring product quality and controlling manufacturing cost. Shahid Osman, SPC Manager for Nation Pizza, explains, "We used balances to spot-check the pizzas. Every thirty minutes, we would take a pizza off the line at each stage of the process—after each topping or spice was put on—and weigh it to ensure we were within an acceptable range. If we were off, a material adjustment had to be made at our control points. We thought it was working pretty well, but in the past year, our customers started giving us more strict weight requirements. They wanted a measurement down to 0.30 or 0.50 grams, for example. We couldn't do that with our existing balances, so we needed an upgrade."

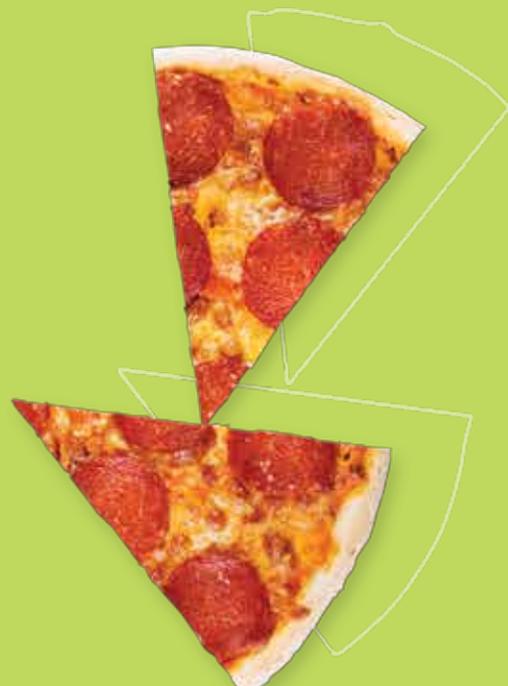
Advanced Weighing Systems in Addison, IL, had the solution. Art Guest typically focuses on scale service rather than sales. He, along with two partners, established the company in 1999 to focus primarily on ready-mix plants. Although those applications remain one of Advanced Weighing's specialties, over the years, Art has expanded his business to run the gamut from precision to heavy-duty scale applications. It just so happens that Art was introduced to the Equipoise on a recent visit to Rice Lake. When he got the call from Nation Pizza, he thought the new low-cost, full-featured balance

**The Equipoise®  
successfully  
balances  
features and price  
to aid the  
frozen food  
industry.**

By Caleb Olson

seemed to be a perfect fit for the application. "Budget was a dominating factor," remembers Art. "They needed the precision and repeatability often found only in higher-end balances, but at an entry-level price point. I saw what the Equipoise could do and presented it to Nation Pizza as a lot of balance for the money. It's the best value that's out there in terms of a balance."

Shahid decided to start with one Equipoise on a trial basis. It soon exposed its predecessor's additional limitations beyond its lack of precision. "Our old balances were A/C powered," recalls Shahid, "and the toppings rooms had only two outlets, so only two scales were installed. Plus, they had to be installed near the outlets, which were a 10-minute walk from the farthest production line. The situation produced a lot of wasted time. Since the Equipoise has a rechargeable battery, I can have a weighing table right next to the applicator, making it fast and convenient



# Balancing Act



to perform spot checks.” Soon, Shahid expanded his Equipoise collection to three units, and then 16. They worked so well that Equipoise balances were installed in all four toppings rooms, as well as additional areas of the plant.

In Nation Pizza’s two onsite bakeries, ascorbic acid tablets are used as a pizza dough conditioner. Essential to make the dough tender, the 0.8-gram tablets arrive at Nations Pizza in bulk; however, many recipes call for only 0.6 grams of ascorbic acid. Because of the Equipoise balance’s precision, the necessary tablet reduction can be accurately measured. While the tablets are on the scale, operators simply shave off a portion of each tablet until it reaches the correct weight for the recipe.

Soon, Equipoise benefits presented themselves in another improvement. Shahid always wondered how much of a factor environmental conditions were in the toppings rooms. There always seemed to be a breeze, and he wasn’t sure how much this affected the weight readings. The old balances wouldn’t register a change, but Equipoise quantified the draft by

showing a weight drift. The hundredths of a gram decimal position would fluctuate with the breeze, allowing Shahid to troubleshoot its location and position a barrier to block the wind. Once the numbers stopped fluctuating, he knew the windy variable had been neutralized. A few hundredths of a gram may not seem like a big deal, but it could topple a tenth-of-a-gram weight reading into the next digit on a less precise balance, and the operator would never know.

Installing the Equipoise at its optimal point of use increased efficiency. Because of its precision, ingredient overuse is down and product quality is assured. Nation Pizza predicts they are saving \$300,000 per month by incorporating Equipoise balances in their production lines. Their annual material over-usage is half the industry standard. These savings

allow Nation Pizza to invest back into the company, which is constantly expanding. “My job is all about saving the company time and money by being smarter,” explains Shahid. “My decisions are driven by data, and the numbers prove that Equipoise is saving us a great deal of money. It was a very smart decision.”

With all the elements involved with making a pizza, the Equipoise stands out as the key ingredient to success. Its balance of features and price give it a unique position in the industry—dishing up savings with minimal investment. ■

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Sixteen Equipoise balances are implemented throughout Nation Pizza & Foods. The balance’s portability allows it to boldly go where corded scales cannot.