**CASE STUDY** 



# Increased Efficiency and Reduced Workload for the Talerico-Martin Bakery

### **EXECUTIVE SUMMARY**

The filling process for pound cakes at the Talerico-Martin Bakery was daunting, time consuming, and had many imperfections. Consumer demand for the product was also continuing to rise. This caused a problem for the bakery that needed to be solved. The options were to increase the operations up to 24 hour shifts for the pound cake lines instead of the 8 or 16 hour shifts the bakery currently used, or find a way to help automate the process so that it could be done more efficiently with fewer imperfections. The Talerico-Martin Bakery opted to find a way to help automate the process, reducing the human workforce required to do the job, and reducing the imperfections that cost the company some of their goods. This allowed the company to save money or increase their supply by putting the same amount of pay towards workers over different shifts, thus increasing the supply they had to meet the increase in demand.



# Customer Challenge

Even with 8-hour shifts during most of the year, and 16-hour shifts during the peak buying season, the Talerico-Martin Bakery was facing a struggle to keep up with demand. When human error is included, more issues would come up that would impact the supply. The occasional dropped pan or the spraying process missing a part of the pan would leave occasional pound cakes unable to be packaged and sold to consumers. This would impact the supply that could be sent out, and put more pressure on the human aspect of the process.

Since the entire process was done by hand, there were numerous chances that problems could arise. First, an employee would put the pan on the line and spray each of the four loaf areas of the pan by hand. Then, the pan would get pushed manually down the line and be filled, also by hand. Finally, the pan would be lifted to the racks that would go into the over to bake. None of this process was able to be automated. This led to the potential of a lot of mistakes. First, pans were left unsprayed occasionally, which left the pound cake stuck to the pan. Second, pans were unevenly filled, leaving some of the cakes unable to be sold due to them being smaller than the package's guaranteed weight.

Humans are not able to see every corner of the pound cake pans to ensure there are no dry spots as quickly as the pan had to be shifted down the line to be filled. Also, humans would do their best to keep each pan uniformly filled, but there were times where pans wound up somewhat short or somewhat over the standard weight, leaving an imperfect product as the result.

# The Solution

For the Talerico-Martin Bakery, the solution was simple. They needed to expand their operations and include an automated filling station for the pound cake pans. However, there was no such machine anywhere that could do what they needed. Talerico-Martin turned to three different companies to fix their automation issues. The first part of the solution was getting an automated sprayer that could guarantee that each pan would be completely and evenly coated with a non-stick spray. They opted to get a Mallet & Company sprayer installed along the line. Next, they wanted a way to deposit the right amount of pound cake batter into each pan to give them the right sized pound cake each and every time. Reiser had the perfect deposition machine to make this job much easier.





### COMPANY BACKGROUND

Through Talerico Martin Wholesale Bakery, Robert Talerico and Michael "Mickey" Martin have provided high-quality fresh bakery products for local community events, restaurants, convenience stores, and other wholesale customers for over 33 years. Established in 1984, Talerico Martin Bakery continues the journey. Fresh bakery, with an emphasis on quality, value, and customer service.



POUND CAKE FILLING LINE

However, the final solution to this problem didn't exist. No one had a conveyor that would allow these machines to work together, turn the pans, and return them to the single operator who would be used on this line. That is when Talerico-Martin approached Shuttleworth since they specialize in uniquely specialized conveyor systems. After a bit of ingenuity, a conveyor system was created that allowed one person to run the entire pound cake filling line where three used to be required, and removed nearly every aspect of human error from the equation.

## **RESULTS**

Automating the pound cake filling process reduced how much manual labor each person on the pound cake filling line had to do, and saved the Talerico-Martin Bakery money. It allowed them to keep up with the demand by increasing the supply as necessary without going beyond their previously established budget for employee wages. Automation can help improve numerous aspects of the manufacturing business, so long as it is used properly.



SLIP-TOROUE ROLLER CONVEYOR



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