

Case Study: Production Efficiencies



CHALLENGE

An Italian specialty meats company, and customer of Tray-Pak, was experiencing several inefficiencies with the current method of packaging a line of rolled meat and cheese (paninos). Product was being hand-rolled, placed on large baking pans, and then transferred via spatula into the formed tray on a form, fill, and seal machine. One primary challenge the company was facing was the paninos were unrolling and falling apart due to the number of times they were handled during production. Additionally,

- *Immediate improvement of hand-filled production line speed, allowing for the transfer of 3 employees to other areas of production*

- *Loss of product during packaging decreased by 12%, providing a significant cost savings*

- *Increased shelf appeal and a new “microwave in the tray” feature was added to the product*

during the tray loading process, the rolled paninos would often come in contact with the seal flange of the tray, leaving oils on the seal area. This presented disruptions in the process because trays would not seal properly.

SOLUTION

The Engineering and Design team at Tray-Pak set forth to create a tailor-made solution that would improve upon the customer’s production processes and reduce the excessive product loss on the plant floor. During the discovery phase of the project, the Tray-Pak team also uncovered several secondary challenges that were occurring during production and at the retail level. First, employees were counting each panino by hand when placing them onto the large baking pans, which was subject to human error and added time into the production process. Second, while displayed on store shelves, the product was displayed upright, which caused the paninos to slide towards the bottom of the package and appear less full. Lastly, the customer indicated the desire to add a feature that was not feasible with the original product – the ability to microwave the paninos – including transfer from the freezer to the microwave.

Two concepts were submitted to the customer – the first, per the customer’s request, was a simple replacement of the current tray being used – a single cavity PET

tray that would fit into the opening currently created by the form, fill, and seal machine. The second concept, proposed by Tray-Pak, was a complete redesign that incorporated a multi-cavity, polypropylene, ribbed bottom tray. The ribbed bottom increased the strength of the tray so that a lighter gauge of material could be used, and also created individual cavities for each panino. This feature virtually eliminated the need to count the paninos, as the cavities provided clarity on volume being placed, and ultimately reduced production time. Also, the individual cavities/ribs held the product in place when displayed upright, improving the appearance and shelf appeal. Converting the tray to polypropylene allowed for the desire to microwave the paninos in the tray, to become a reality.

OUTCOME

Tray-Pak delivered a concept that not only satisfied their customer’s expectations of improving operational inefficiencies, but exceeded those expectations by the impact the redesign had on shelf appeal and retail sell-through. Within five minutes of testing the new trays in the production environment, higher accuracy of the number of paninos going into the trays, seal flange failures, and labor requirements were all improved.

