

FRESH FRUIT SALAD GIVEAWAY SLICED BY 86%

Case Study
Mack Service

Facts and figures

- » Giveaway has been reduced from 7% to just 1%, maximising returns on this particular product range.
- » Anti-stick scraper gates on the hoppers ensure efficient product flow through the weigher.
- » Target weights and other parameters can be called up on the Touch Screen Control unit.

Every product poses its own challenges, and mixed fresh fruit pieces are no exception. There is, to start with, the tendency of the various pieces to stick and form clumps. But UK-based catering supplier Mack Service also required more effective management of the proportions in which the different fruits for mixed fruit salad were dosed.

Challenge

The Southampton company, which is part of the Fresca Group, recently developed a range of premium fruit salads for the retail sector. The company was eager to find a way of automating what had previously been a manual weighing and packing process.

Solution

The Ishida Fresh Food Weigher (FFW) was chosen for a variety of reasons. Firstly, as a variant of the multihead weigher, a technology pioneered and developed by Ishida, it is highly accurate. From an array of weigh hoppers, each containing an accurately known amount of product, a selection is made that closely approaches the target weight.

As a relatively recent development however, the design of the FFW abandons the closed circular arrangement of the classic multihead weigher, opening up space for an operator to closely and comfortably supervise the product infeed.

This development was aimed at products previously thought unsuitable for multihead weighing because their stickiness rendered some form of operator intervention necessary.

Fresh, sticky fruit is an excellent example of the type of application that can now benefit from multihead weighing, thanks to the advent of the FFW.





“ Our key priority was to reduce giveaway. We are delighted with the results from the line, and the high level of service and support we have received from Ishida. ”

This is particularly true for fruit salads, where the components of a mixture can be accurately weighed out and simultaneously mixed. Mack purchased two 12-head FFWs, capable of working together or separately. For the 4-mix fruit salads, they work in tandem, with 6 weigh heads dedicated to each component.

Both the overall pack weight and the proportion of a more expensive ingredient within it can be tightly controlled. In fact, thanks to the new system, Mack reports a reduction in giveaway from 7% to just 1%, maximising returns on this particular product range.

The speed and accuracy of the FFW benefit from the presence of booster hoppers. Weighed product not immediately closed into the trays falls into these hoppers, allowing the weigh hopper above each to accept a new load of fruit, and adding to the options for weight combinations. Another feature is the presence of anti-stick scraper gates on the hoppers to ensure efficient product flow through the weigher.

The selected batches drop through four height-adjusted dipping funnels. These are lowered below the lip of the tray for dosing, minimising the risk of juice splashing on to the sealing area.

Once filled, trays enter an Ishida QX-775 Traysealer. It can also apply different gas combinations for modified atmosphere packaging (MAP).

Final checkweighing is carried out on a DACS-W system before the labelling and casepacking stages.

Every day, Mack fills up to seven different product and pack variants, with tray sizes spanning the 160g-460g range. The speed of changeover through automatic product settings makes the Ishida line especially well-suited to such short runs. “Our operators find the FFW very user-friendly and easy to manage,” says Mr Kennedy. As he says, the benefits to Mack Service go well beyond accuracy and control: “The increased level of automation means we have halved the number of people required on this line, freeing up personnel for other duties.”

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Ishida's installation has exceeded Mack's expectations in other regards. What the customer asked for was a line capable of filling 25 packs per minute (ppm). What it got was a system able to provide a 20% improvement on that figure. The customer's verdict on the project as a whole? “We are delighted with the results from the line, and the high level of service and support we have received from Ishida,” says Mr Kennedy. At the time of installation, Mack calculated that it would achieve payback on the new weighers within 18 months.

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