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**Ishida Weigher Packs precious seeds with exceptional precision**

A specialist multihead weigher from Ishida has enabled the automated weighing and dispensing of high-quality plant seeds into small packs with maximum precision that avoids costly product giveaway.

The Ishida CCW-RV Micro weigher is part of a bespoke packing system from Ishida’s distributor in Switzerland Itech, which has been installed at specialist seed company UFA-Samen. The weigher can supply two packing machines and alternate flexibly between them. This has boosted output by 20% while significantly cutting labour costs.

Based in the Swiss city of Winterthur, UFA-Samen, a member of the Fenaco co-operative, specialises in seeds for vegetables and flowers. Seeds of almost 400 different plant species are obtained from all over the world and undergo stringent quality control before being stored and packed. Several million small, plastic-coated paper packs with weights ranging from 0.15g to 80g are delivered to retailers every year. With prices reaching as much as €15 per gram, maximum weighing accuracy is required.

In the past, the seeds were packed both automatically using volumetric weighing and counting systems as well as manually using measuring spoons. “The manual process was very time-consuming and needed to be automated so that we could meet rising demand and cut costs,” explained site manager Fabian Ochsner.

To meet this requirement, the packing experts from Itech and Ishida designed the bespoke system centred around the Ishida CCW-RV Micro. This is the world's smallest multihead weigher, with a footprint of just 650 x 650 mm and a height of only 970 mm, and was developed specifically for high value, ultra-low target weight applications.

Itech AG has installed the CCW-RV Micro and two feed systems on a single platform. The weigher has a mobile base that allows the machine to be moved between two positions. This means that one multihead weigher can be used to feed two packing stations. UFA-Samen packs its seeds in various pack types. Some of the product is first placed in antimicrobial bags made from aluminium, which are then inserted into paper bags as inlays. The rest of the seeds are weighed directly into the paper packs.

Depending on the required pack type, the seeds are poured onto one of the two vibratory feeders which interface with the CCW-Micro to allow a consistent feed of seeds onto the weigher’s dispersion table. Using pulse width modulation technology, both dispersion table and the 14 radial feeders are auto tuned to ensure a constant product delivery to the pool and weigh hoppers.

Ishida designed and manufactured load cells measure load increments as low as 0.01g, allowing very small combination weights to be selected for target weights down to 0.5g. Using a simultaneous triple combination calculation, the weigher’s software calculates three ideal weight combinations, double-checks them and selects the combination of weigh hoppers whose content comes closest to the target weight. This enables the weigher to operate at close to 100% efficiency.

Stepper motors optimise the opening and closing profile of the hopper doors to maximise weighing speed. The selected hoppers then discharge their seeds via a discharge chute into a timing hopper and through a special funnel into the VFFS bagmaker.

With its new packing system, UFA-Samen uses the CCW Micro to pack fill weights between 0.5g and 50g at a rate of 60 packs per minute (ppm), although the Ishida multihead weigher is capable of operating at up to 100ppm. This allows the customer plenty of scope for capacity increases in the future.

Most important, high output does not come at the expense of weighing accuracy. “We set a maximum overfill of 10%, but haven't come anywhere near that,” said Fabian Ochsner.

Another benefit is how much quicker it is to switch between different pack types. What used to take an entire day can now be done in a mere 30 minutes, thanks to the flexible design of the system. Product changeovers are carried out using pre-sets that can be called up on the CCW-Micro’s touchscreen. Cleaning also takes very little time because all contact parts can be removed and replaced without tools. In addition, the hygienic design of the multihead weigher with minimised gaps prevents the tiny seeds from accumulating in various nooks and crannies.

Prior to finalising the new system, UFA-Samen had the opportunity to give the 14-head weigher a trial run. As Fabian Ochsner explained, “The success of the trials with our most challenging products, coupled with the excellent advice that we received from Itech, were crucial factors in our investment decision.”

He describes the automated system as “a milestone for packing seeds at UFA-Samen”, praising the “consistent high performance and precise weighing” of the Ishida CCW-RV Micro multihead weigher. Thanks to its many benefits, the company expects to recoup the cost of its investment very soon.

**Ends**

**About UFA-Samen**

UFA-Samen is a Swiss supplier of seeds for agriculture, lawns and green spaces, vegetables and ornamental and wild flowers. The company, which was first established in 1965 and is now part of the Fenaco agricultural co-operative, employs more than 100 people at its three sites in Winterthur, Lyssach and Moudon. Its products are sold exclusively under its own brand in Switzerland. ([www.ufasamen.ch](http://www.ufasamen.ch))

**Notes to editors:**

Ishida is a world leader in the design, manufacture and installation of end-to-end weighing, packing and safety solutions for the food industry, helping manufacturers increase automation and compliance, reduce cost and downtime, increase operational efficiencies and brand protection, and maximise profits.

With an installed global base well in excess of 100,000 industrial machines, covering a huge number of applications and end markets, the company is the undisputed world market leader for multihead weighers and one of the leading global suppliers of snack food bagmakers, graders, traysealers, X-ray inspection systems, checkweighers, leak detectors and Industry 5.0 solutions.

This extensive product range, together with the company’s in-depth knowledge and experience of many food sectors, mean that Ishida is able to design and install complete turnkey solutions for products such as snacks and other dry foods, meat, poultry, fish, dairy, ready meals and fresh produce.

The company’s vision is to play an enduring and indispensable role in the global food supply chain, ensuring food products are delivered and consumed safely, efficiently and sustainably.

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