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**Ishida Leak Detection System Provides Stringent Quality Checks at High Speeds for Tortilla Specialist**

The installation of an Ishida AirScan leak detection system at Sinnack Snacks, Germany’s only large-scale bakery to focus on tortillas, has enabled the company to automate its end-of-line packing process, while ensuring that its quality control procedures are able to keep pace with the increased throughput. The Ishida solution can inspect as many as 2,500 packs per hour, reliably detecting leaks as small as 0.5mm to ensure the integrity of the protective atmosphere packaging.

Sinnack Snacks produces wheat, multigrain and protein tortillas in diameters of 20, 25 and 30cm, which are sold in packs of 6, 8 and 12. The fresh products are made without preservatives but have a shelf life of six months thanks to their protective carbon dioxide and nitrogen atmospheres – provided that the thermoformed packaging is absolutely airtight.

However, bits of the tortillas can sometimes get into the seals during the packing process and cause leaks. Other potential sources of defects include wrinkles in the seal. The stage of the process that comes after the films are changed on the thermoforming machinery is also critical. If the films overlap at this point, the packaging may not be sealed correctly.

For these reasons, Sinnack Snacks has always made sure to test the integrity of its protective atmospheres. The company previously used a system with a vacuum chamber to check the entire content of fully packed boxes for leaks. “This was a very time-consuming quality control exercise, because when a reject was found, we didn't know first which of the packs was the one with the leak,” said managing partner Jana Sinnack. “Not only that, but quality control was also not 100% reliable.”

With growing sales of its tortillas, Sinnack Snacks needed to automate the end-of-line packing on one of its lines and this required a new means of leak testing. “We were looking for an in-line system that was capable of checking every single pack at high speed and picking out any rejects,” explained Jana Sinnack.

The Ishida solution is the company’s fully automated AirScan, which uses a laser module to detect the specific vibrations caused by leaking carbon dioxide molecules. The machine can reliably detect leaks measuring just 0.5 mm. As a result, users not only gain the security of knowing that leaks will be found but can also cut down on material costs because the inspection process exerts minimal pressure and is therefore non-destructive.

In addition, the Ishida AirScan is compact in size and can easily be integrated into existing packing lines. Another factor in Sinnack Snacks' decision was the fact that Ishida had already successfully deployed the system in a similar application in the bakery industry.

The Ishida AirScan has enabled quality assurance at Sinnack Snacks to reach a new level. Up to 2,500 packs can be inspected per hour, with the system checking both the top and bottom sides for escaping carbon dioxide. The leak detector compiles all the process data in reports that can then be viewed. As Jana Sinnack explained, “We scrutinise any rejected products in minute detail, because identifying the causes of problems ultimately makes our processes more efficient.”

The success of the first machine has led Sinnack Snacks to install Ishida AirScan systems on two further lines as part of its ongoing automation process. Ishida customised the machines to suit the company's specific requirements in terms of pack dimensions and its reject system. “The leak detectors are now standard for our processes,” confirmed Jana Sinnack. The quality control systems are also included in customer audits.

The Ishida AirScan’s operate in a three-shift mode and are very easy to use. No changes to settings are needed for product changeovers; only the control arm with the sensor head has to be adjusted to the different pack heights.

Jana Sinnack does not think that there is any alternative to automation given the shortage of skilled workers. “Using end-of-line packing robots saves us one employee for every line. However, faster processing requires quality control that is just as fast and needs to absolutely reliable.

“The AirScan systems have allowed us to grow whilst enhancing quality at the same time,” he concluded.

Sinnack Snacks’ packing department is now running at full capacity. The company intends to build a new facility so that it can continue to grow, and the Ishida AirScan is already very much part of those plans.

**Ends**

**About the customer:**

Sinnack Snacks GmbH is based in Bocholt and is Germany's only large-scale producer of tortillas, which it supplies under its own Sinnack brand as well as retailer own brands to food retailers, industry and the restaurant trade. The family-run business prepares the dough, bakes the products and packs them, all in house at its own production facilities. State-of-the-art production systems process high-quality raw materials, fulfilling strict international quality standards. ([www.sinnack-snacks.de](http://www.sinnack-snacks.de))

**Notes to editors:**

Ishida is a world leader in the design, manufacture and installation of complete weighing, packing and inspection solutions for the food industry, helping manufacturers increase automation, reduce cost and downtime, increase operational efficiencies 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 4.0 solutions.

This extensive product range, along with the company’s in-depth knowledge and experience of many industries, mean that Ishida is able to design and install complete turnkey solutions for markets 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 around the world.

**EDITORIAL ENQUIRIES:**

Bob Bushby/ Jack Readman

Nielsen McAllister Ltd

Tel: 44 1332 293939

Email: [info@nmpr.co.uk](mailto:info@nmpr.co.uk)

[www.nielsenmcallister.com](http://www.nielsenmcallister.com)

**SALES/READER ENQUIRIES:**

Torsten Giese

Ishida Europe Ltd

Tel: 44 121 607 7700

Fax: 44 121 607 7740

Email: [torsten.giese@ishidaeurope.com](mailto:torsten.giese@ishidaeurope.com)

[www.ishidaeurope.com](http://www.ishidaeurope.com/)