

Difco Group Continues its Baked Snack Expansion

The Lebanese cereal experts add baked chips and baked tortilla chips to their SNIPS® brand with help from RBS





After processing in the rotary cutting station, the cut potato dough product pieces are fed into the RBS SPECTRUM OVEN®.

Starting in Lebanon in 1998, what is now the Difco Group opened the first and only cereal factory in the Middle East. The mission? Make high-quality cereal accessible to all. At the time, the only available cereal product options were foreign brands with limited distribution.

Today, Difco Group consists of four companies, two manufacturing facilities, 500+ employees, and two successful brands – Poppins® breakfast cereals and breakfast bars, and SNIPS® baked salty snacks. Between them, the brands comprise more than 800 SKUs distributed across the Middle East and Africa.

Producing all of those SKUs are two state-of-the-art manufacturing facilities. The first opened in Mansoura, Lebanon in 2006. This 20,000 sqm plant was upgraded in 2018 to produce

muesli- and granola-based products, and is today dedicated to manufacturing Poppins brand products. The second facility opened in Ferzol, Lebanon in 2018 to support the launch of the SNIPS snack line, a project that began a few years earlier.

Moving into baked snacks

Initially, Difco Group had been part of a larger company with expertise in the manufacturing and distribution of fried snacks. Following consumer demand for more healthy snacking options, in 2016 the long-established cereal experts decided to draw on their fried snack experience and expand into baked snacks.

The overriding mission – to make the baked snacks available to all – was the same that launched the Poppins cereals brand. But



manufacturing the new baked products would be quite a different task. To help support its expansion into healthy snack production, Difco Group started looking to the world's leading bakery equipment manufacturers for innovative production solutions. When Difco Group contacted the U.S.-based Reading Bakery Systems (RBS), it learned that the company's regional sales representative is Lebanese. It was a nice coincidence, but Difco Group was more impressed to learn that RBS had what appeared to be an ideal solution for manufacturing products in the growing SNIPS line – the Multi-Crisp Baked Snack System.

As part of its long-term strategy, Difco Group sought an automated system that could boost product consistency and efficiency while reducing the number of employees needed to operate the line. The modular, fully automated Multi-Crisp Baked Snack System checked all of those boxes.

The system features an Exact Mixing FX Continuous Mixing System. Unlike more labor-intensive batch mixers, the Continuous Mixing System automatically distributes small amounts of moisture evenly into large amounts of powder, a process that is particularly well suited to the hydroscopic powders that would be used to make several SNIPS products.

The system also includes the SPECTRUM OVEN®, which features separate modules that enable precise, “hands-off” quality control. Each module has preset, recipe-driven controls, so operators don't have to spend time manually changing parameters during production.

As its consultations with RBS continued, Difco Group learned that the equipment manufacturer could also provide product and recipe development at the company's Science & Innovation Center. Located at the Reading Bakery Systems' U.S. headquarters in Robesonia, Pennsylvania, the Science &



An intuitive touchscreen system enables precise, automated production and quality control.

Innovation Center is a licensed food production facility used for product research and development, as well as RBS equipment testing and demonstration.

After weighing its options, Difco Group placed an order for the Multi-Crisp Baked Snack System in January 2018 and soon began working closely with RBS to install the line in its new plant in Ferzol.

Automating baked chip production

As part of Difco Group's five-year expansion plan, the Multi-Crisp System would initially be dedicated to producing several SNIPS baked potato chip varieties. They decided to



After baking, the chips are fed into a 3-Pass convection dryer that efficiently reduces the product to its final moisture.



The finished chip products are fed into packaging.

configure a version of the line that would support 750 kg of chip production per hour and allow for future product differentiation and expansion.

Production on the Multi-Crisp System begins with the automated FX Continuous Mixer, which optimizes food safety

“...their innovative technology and product support is helping us take our success to the next level.”

by eliminating dough exposure to the environment during mixing. From the mixer, dough travels along a transport conveyor and is automatically fed into a 2-Roll Sheeter.

Unlike the 4-roll sheeters used on traditional wheat-based cracker lines, the 2-roll sheeter is designed to handle more “sensitive” doughs – potato, corn, pea, multi-grain, and others – that are more difficult to sheet and form.

For additional product flexibility, Difco Group included a rippled gauge roll to create rippled baked chips as well. From there, an integrated conveyor moves the sheet through a rotary cutting station that pressurizes the dough against a rotating die assembly while continuously cutting it into distinct product shapes.

Finally, in the Ferzol line configuration, the cut chips travel through three modular, 12-meter oven convection zones and a Multi-Pass Dryer. This convection baking system provides a balanced bake and develops the interesting texture of the chips. The Multi-Pass Dryer efficiently brings the product to its final moisture and provides the operator with greater process control.

A successful launch and beyond

Once the line was commissioned in the spring of 2019, an RBS process technologist worked with the Difco Group team to perfect the SNIPS baked potato chips.

Launched in July of 2021, the line includes five baked potato chip flavor varieties – Sea Salt, Salt & Vinegar, French Cheese, Honey Mustard, and Barbeque. Currently, the automated Multi-Crisp System is operating on one 10-hour shift per day and is producing about 150 tons of chips per month – all with just one operator.

Difco Group reports that consumer feedback on SNIPS baked potato chips has been extremely positive, and is reflected by a 20% increase in demand every month since the launch.

Following the introduction of its baked potato chips, Difco has since been using the Multi-Crisp System to produce a new line of baked tortilla chips in four flavors – Nacho Cheese, Sour Cream & Onion, Sweet Chili Pepper, and Sweet Corn. Development of crackers and high-protein snacks is also well underway.

As Difco Group’s Deputy General Manager Sabine Daher summarizes, “Our SNIPS baked snack products were already an international success story before we began working with Reading Bakery Systems, but their innovative technology and product support is helping us take our success to the next level.”

