

a **TNA** case study

100% productivity at high speeds

Egyptian snack leader achieves efficiency to develop tasty and guilt-free snack with TNA's expertise. With a CAGR of 5.8% during 2016 –2020, pretzels are considered to be the fastest growing segment in the savoury snacks category.¹ To maximise the opportunities this flourishing sector offers, Future Foods needed equipment to optimise seasoning application, capitalise on packaging efficiency and minimise waste to ensure a successful launch of its new range.



pretzels

Future Foods, an Egyptian snack manufacturer, prides itself on being an industry leader. Founded in Giza, Egypt, in 2016, the company continuously brings new and innovative products to the market. With plans to launch a new pretzels range, the company was looking for a solutions provider to help deliver new and high-quality product range while ensuring a healthy, guilt-free snacking experience.

¹ Country Profile: Savory Snacks sector in Egypt, GlobalData (Nov. 2017)

challenge 1.

taste impact

Gaining consumer acceptance at the very first bite is vital when launching any new product. Future Foods needed to feel confident that its new product range would meet consumer expectations to ensure it would gain market acceptance and generate loyalty. In addition, application accuracy was a key

consideration for the snack manufacturer. Applying an incorrect level of seasoning can have a significant impact on both input costs in terms of raw materials and wastage costs from rejected products that are either over or under seasoned.

solution 1.

precise seasoning control

The company opted for TNA's on-machine seasoning (OMS) system, the tna intelli-flav® OMS 5. Featuring a responsive variable mass seasoning system with dynamic vibratory weigher, the tna intelli-flav® OMS 5 precisely controls seasoning application within the drum. This enables an accurate, proportional amount of seasoning to be evenly applied to the product for consistent coverage and flavour dispersion, meeting Future Food's objectives for a high-quality, evenly seasoned end product.

Further performance benefits are achieved through the enhanced position of the scarfplate on the tna intelli-flav® OMS 5 infeed. Mounted to the edge of the drum, the scarf better directs the product into the spraying and flavouring area, providing an even amount of seasoning on each pretzel. Additionally, the scalloped infeed conveyor design allows more product to enter

the seasoning drum, while also helping to control product direction for greater seasoning accuracy and reduced waste. This helped Future Foods achieve cost savings and ultimately increase profitability.

"As we produce a delicate product that is new to the market, we had to make sure we deliver a consistently seasoned, great tasting product to appeal to the consumer," comments George Soussou, Vice-Chairman & Operations Director at Future Foods. "TNA helped us efficiently spray our seasoning powders with no waste. This is why our snacks taste better than those of the competition. With the new seasoning system from TNA, our powder consumption never exceeds 5% and the breakage level from seasoning to packaging is less than 0.5%."

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challenge 2.

gentle distribution without waste

When it came to choosing a distribution system for the new range, reduced product breakage and ease of cleaning were critical factors. From the onset, Future Foods knew reducing the risk of potential product damage or loss of flavour was key for success.

solution 2.

smooth product transfer and minimising waste

TNA's vibratory and horizontal motion conveyors ensure a smooth product transfer through the line, which is why Future Foods chose the tna roflo® HM 3.

"When it comes to minimising product damage, our tna roflo® HM 3 is the ideal solution as there is no vertical lifting or bouncing of the products and no flavour buildup in the pan," comments Mohamed Hamed, sales manager at TNA." In addition, our patented 'true' gateless design helps protect the pretzels from damage. Unlike traditional conveyors that use mechanical gates, our servo-controlled 'virtual gates' simply open up a gap between the pans where the product is discharged, significantly reducing the risk of any potential damage to the product and practically eliminating any loss of flavour."

TNA's roflo conveyors also offer significant maintenance benefits due to their overall mechanical simplicity, resulting in greater equipment reliability and therefore lower total cost of ownership over the lifespan of the system. The tna roflo® HM is the only conveyor in the world that uses a single linear servo motor. One of the main benefits of this design is that there is almost zero maintenance as there are no big drives, shafts, belts or pulleys.



"The new packaging systems are very reliable, achieving 100% productivity at very high speeds," says Mr. Soussou. "What's more, with less than 1% film waste, we're able to achieve significant cost savings. Adding to that, the user-friendliness of the machine and the ease of changeover between bag sizes keeps downtime to a minimum, further increasing our production efficiencies."

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challenge 3.

packaging at pace

Future Foods is offering its new range of pretzels in 16g, 35g and 100g pillow-style bags. As a result, the company was not only looking for a system that would deliver consistently high speeds, but also capable of quick changeovers to maximise throughput and reduce downtime between bag sizes to less than three minutes.

solution 3.

high-speed and efficient packaging

The solution was the installation of two tna robag® FX 3ci vertical form, fill and seal (VFFS) packaging systems. Renowned for its high speeds, the tna robag® FX 3ci was able to offer both production flexibility and improved performance in a compact, easy-to-clean system. With their rotary double jaws, the new baggers were quickly able to deliver speeds of up to 165 bags per minute, while quick-release formers ensure that Future Foods can change between bag sizes in less than three minutes.

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one partner, multiple solutions

“As a new company, it was essential to work with a reliable partner that could ensure a smooth start up, achieve the line efficiencies we were looking for and deliver the best return on investment in the long term,” comments Mr. Soussou.

“For us, TNA’s turnkey solutions and services really stood out amongst the other suppliers. The company is a leader in its field and the wider snacks industry. TNA’s VFFS packaging systems are not only one of the most widely-used across the globe, but since its inauguration 36 years ago, the company has never stopped innovating and has continued to pioneer new product solutions for the entire snack industry. All of TNA’s equipment is built to last, delivers the highest performance in the industry and can also easily adapt to different kinds of industries and applications.”

Now offering complete lines, TNA offers one of the widest equipment portfolios for the snack industry. This includes fryers, conveyors, seasoning and coating systems to metal detectors, weighing and inserting and labelling solutions, bagging and case packing equipment, making it the only global supplier that can deliver equipment for the entire snack production line.

Mr. Soussou adds: “But it’s not just the products TNA offers. The TNA team was always on hand to support and train our own team members throughout the entire commissioning, installation and start-up phase. That way, TNA ensured that our new equipment operates at its optimal level of performance at all times. For us, TNA is much more than just a supplier, we consider TNA a true partner. Their turnkey solutions make production line equipment virtually carefree and put any company on the road to success.”



TNA solutions is a global leader in food processing and packaging solutions, committed to helping people succeed responsibly in a changing world. With over 40 years of experience, TNA’s global team of experts have installed more than 14,000 systems in over 120 countries. The company creates and sustains solutions that help customers realise goals and exceed their expectations, with performance, responsibility, and a customer-centric approach at the core of the business. A collaborative, consultative approach ensures measurable results and lasting success, with solutions designed to evolve and perform over time.

As an inclusive partner, TNA supports a growth agenda that goes beyond business, emphasising its commitment to people, prosperity and the planet in harmony. TNA is a powerful advocate of social justice, and aims to support children in disadvantaged communities through education, healthcare, and social enterprise programmes, through the humanitarian initiatives undertaken by the Nadia and Alf Taylor Foundation.