**Press release**

Syntegon Technology

Starchless production: Syntegon expands portfolio with next-generation turnkey solution

* Closed production process with innovative kitchen, depositing, and oiling technology
* Designed for special requirements in the production of functional gummy and jelly products
* Smooth processes thanks to high automation levels and digital monitoring solutions

Dierdorf/Germany, November 16, 2022. With the new turnkey line NutraFlash, the Syntegon subsidiary Makat Candy Technology sets new standards in the starchless production of gummy and jelly products. Manufacturers can increase the quality of sensitive products with upgraded kitchen, depositing, and finishing technologies. Besides producing gummies and jellies with high dry substance content and dosing ingredients precisely, the new line enables accurate starchless depositing in reusable plastic molds. The holistic turnkey approach ensures a highly reliable, closed production for consistent product quality along the entire process. To this effect, the system includes end-to-end recipe management and a coordinated control concept for harmonized operations.

“Our line covers all steps of jelly production from dosing and mixing the ingredients to product finishing,” explains Dr. Sandra Link, product manager at Makat Candy Technology. The starchless technology plays an increasingly important role in the production of so-called nutraceuticals. These highly sought-after functional sweets contain valuable ingredients such as vitamins or minerals. As a consequence, nutraceuticals require special handling along the entire production line, for example precise dosing to ensure the right additive content per individual piece. Makat relies on proven technologies for all process steps. The new turnkey line allows for even smoother production thanks to comprehensive adaptations. “Our high degree of automation combined with digital condition monitoring helps manufacturers to achieve reliable and time-saving processes with low reject rates,” Sandra Link explains.

**Two-step dissolving process with Rapidsolver Solids+**

The Makat Rapidsolver Solids+ is at the heart of the starchless kitchen. As a special execution of the proven Rapidsolver, the system achieves high dry substance content of up to 86 percent when dissolving the base jelly mass – a special characteristic of starchless production. It eliminates the need for subsequent moisture removal by means of starch, as is the case with starch-based depositing in a mogul line. “This significantly reduces process times and enable manufacturers to produce gummies and jellies in a time- and cost-efficient manner,” Sandra Link emphasizes. Adding supplements is another special feature in the production of nutraceuticals. The often sensitive ingredients are optimally protected from excessive thermal stress since functional additives are only added shortly before depositing and the dwell times in the depositor are kept short.

**Tailless depositing with the CMP**

Special tail-cutting nozzles of the CMP depositor ensure a high-quality processing, even of highly viscous and difficult jelly masses. Once the products have been deposited into reusable plastic molds, they cool down in the line’s integrated cooling tunnel. This spares manufacturers additional handling processes, such as removing the molds and cooling the products in external cooling chambers.

**Flexible product finishing with the BC 96**

The application of polishing agents in the fully automated BC 96 oiling drum has also been adapted significantly: in addition to a centerlining functionality for lower process variability, the drum features a Human Machine Interface (HMI). This allows operators to enter individual target values for each product recipe and call up the data as required. This way, the BC 96 ensures consistently high quality during the oiling process in addition to fast product changeovers and product-specific oiling.

**Continuous condition monitoring**

Sensors facilitate preventive error detection at the oiling drum and at several other process steps of the turnkey line. Integrated software immediately detects deviations and reports them to the operator via status lights at the line’s respective production stations, as well as via HMIs. “Thanks to these status updates, operators can promptly initiate troubleshooting and safeguard the availability of the entire line,” Sandra Link explains.

Monitoring, line control, and cleaning are based on a uniform concept: the recipe-controlled approach covers all production steps and ensures both consistent results and fast and easy product changeovers. CIP (cleaning in place) cycles for the kitchen and the depositor offer different cleaning modes, while the line’s hygienic stainless steel design enables fast and thorough cleaning – for the safe production of gummy and jelly products. In addition, the entire line is designed for contamination-free product handling, thus the line’s closed loop eliminates for example the need for manual mold handling.

**Support from the Application Technology Center**

Starchless nutraceutical production not only provides many advantages; it also poses numerous challenges. Manufacturers need to precisely coordinate the complex interplay of ingredients, formulations, and processes. Makat Candy Technology therefore offers comprehensive support for the demanding production of various gummies and jellies. At its own Application Technology Center in Dierdorf, Germany, the company also works with its customers to develop individual products and processes that support successful and efficient starchless production.

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**Images:**

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|  | Functional sweets (so-called nutraceuticals) often place high demands on production due to sensitive additives such as vitamins or minerals. |
| Ein Bild, das drinnen, Fenster enthält.  Automatisch generierte Beschreibung | When dissolving the base jelly mass, the new line achieves high dry substance contents. This results in shorter process times and time-efficient gummy and jelly production.  The new turnkey solution NutraFlash includes kitchen, depositing line, and product finishing for precise starchless production. |

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**About Syntegon Technology**

Processing and packaging for a better life – this is what 5,800 Syntegon employees work for every day. Be it with individual machines, systems, or services, Syntegon helps its customers in the global pharmaceutical and food industries to improve people's lives. The company, which is headquartered in Waiblingen, Germany, looks back on more than 160 years of experience and achieved annual sales of 1.4 billion EUR in 2021. In the pharma sector, the company’s intelligent solutions enable the safe and high-quality production, processing, filling, inspection, and packaging of liquid and solid pharmaceuticals. In the food industry, Syntegon’s flexible and reliable technologies produce and pack confectionery, dry food, frozen food, and dairy products. With 1,100 service experts and a comprehensive service portfolio throughout the entire machine lifecycle from spare parts management to digital line optimization, Syntegon lays the foundation for smooth production processes for all customers. More than 30 sites in almost 20 countries keep a firm eye on Syntegon’s impact on the environment and society. Syntegon is a leader in the development of sustainable packaging solutions, reduces the energy consumption of its machines and pursues ambitious goals to lower its emissions. [www.syntegon.com](http://www.syntegon.com)