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#prosweetscologne

ProSweets Cologne 2022: New technologies for the production of sweets & snacks

The supplier fair for sweets and snacks demonstrates the advantages of networked automation

Hardly any other industry introduces as many innovations onto the market as the sweets industry. The manufacturers try to arouse buying interest with new recipes, new ingredients and exotic flavours. From 30.01.-02.02.2022, the visitors can experience live at ProSweets Cologne how flexible the machines have to be to enable this creative diversity on the sweets shelves. The exhibitors at the Cologne fair grounds are thereby focusing on intelligent automation technologies, which unite the high competitive pressure and changing market trends economically with each other.

With a view to ProSweets Cologne 2022, it becomes apparent that automation and digitalisation continue to be important driving forces on the way to the efficient and sustainable production of sweets. The exhibitors are accommodating the demand of the industry to introduce new sweets and snacks onto the market in increasingly shorter intervals with machinery that enables fast format changeovers and ensures high performance in confined spaces thanks to cutting-edge technology. As such, they increase the productivity and flexibility for ever smaller batch sizes - a trend that is ongoing at the Cologne fair grounds.

Intelligent and modular automation

The machines of the latest generation are networked and follow a plug-and-produce approach, which offers the fast adaption to an almost unlimited diversity of chocolate products, toffees and jellies - this allows the manufacturers to satisfy the consumers' wish for individual and seasonal sweets while at the same time fulfilling the increased demands for changing packaging formats. The ConfecPRO of Winkler & Dünnebier Süßwarenmaschinen GmbH from Rengsdorf illustrates the high-performance of the modular concept of modern casting machines. The highly-flexible production line was built for designing filled and solid chocolates and bars. It can be used to carry out different tasks and can be set up as a one or two-lane machine on one level or across several levels. Its decentralised control concept enables further stations to be added simply, especially if free space is planned from the onset. It is possible to adapt or expand the machine at any time based on the changing demands' of the producers.

The sweet side of artificial intelligence

The modular systems shown at ProSweets Cologne range through to image



ProSweets Cologne
30.01. - 02.02.2022
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processing, which can be modularly integrated into every machine as a quality control tool. Based on the implementation of artificial intelligence (AI), Bi-Ber Bildererkennungssysteme GmbH, shows how deep-learning algorithms enable such inspection tasks to be automated that are too complex for classic image processing. The Berlin-based company has implemented a solution for chocolate and waffle products, which carries out the inspection inside the casting moulds. The moulds contain up to 108 alveoli depending on the product, which the testing system has to segment and evaluate to make sure that no plastic or metal pieces are found on the products. Optical defects such as uneven coatings are also detected. The AI evaluates each product individually and awards quality indicators. The operator can set the tolerance limits and thus decide how homogenous the products have to be and how many rejects he allows.

Powderless moulding

Already a standard for hard sweets for some time, since recently the powderless moulding of fruit gums and jelly babies is also possible. Contrary to the traditional starch moulding method in mogul plants, neither trays nor stamps are used, but instead reusable silicon or polycarbonate moulds. The advantage: Gelatine products no longer need a ripening room and only take 20 to 40 minutes to cool down and set. After a visual check, the empty moulds are conveyed back to the moulding station via an automatic changeover station and are refilled. Doing away with powder not only leads to cost advantages, but also to energy conservations. It also allows the development of more innovative sweets, which weren't possible before. The method is particularly interesting for mass-produced items, such as nutraceuticals or OTC (over-the-counter) medicines. The latter account for around 40 percent of the overall prescription-free offer in chemist shops - a growth market in which sweets are increasingly taking over the function of traditional food supplements.

All-round hygienic construction

In addition to an accurate dosage technology, manufacturers, who want to add health-promoting substances such as vitamins, trace elements or Omega-3 fatty acids to OTC sweets, require a machine that complies with the GMP (good manufacturing practices) demands of the production of pharmaceuticals. This faces the machine builder with numerous technical challenges that have to be overcome - because casting machines for fruit gums and jelly products tend to soil rapidly. The exhibitors of ProSweets Cologne are thus targetedly setting new benchmarks in hygienic design. Whereas in the recent past, varnished components were often implemented, in the meantime corrosion-free materials guarantee immaculate and hygienic production throughout the entire line. The machine builders are combatting poor cleaning options with extractable casting stations and chainless design, which additionally reduces the maintenance efforts. All parts of the machine that come into contact with the products are consistently made from stainless steel and have a surface roughness of max. 0.8 micrometres. Thanks to the fact that the casting machine is directly connected to the cooking plant both systems can be cleaned in a CIP cycle as one unit. Easy accessibility and a good view of all potentially soiled areas contribute towards the satisfaction of high hygienic demands.

Highly-efficient automation in practice

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A growing diversity of products on the one hand, rising price pressure on the other - to be successful on the market, both flexible and highly economic production processes are required. At ProSweets Cologne, the visitors learn what is already possible today using networked automation and which advantages this brings the sweets and snacks manufacturers. The key topics, digitalisation and hygienic design, are also reflected in the extensive lecture programme and in the special events of the international supplier fair, which is being held from 30.01.-02.02.2022, once again as a trusted trade fair duo, together with ISM.

Koelnmesse - industry trade fairs for the food technology sector: Koelnmesse is an international leader in organising trade fairs in the field of food and beverage processing. Anuga FoodTec and ProSweets Cologne are established, world-leading trade fairs, hosted in Cologne/Germany. In addition to the events at its Cologne headquarters, Koelnmesse also stages further food technology trade fairs with different sector-specific areas of focus and content in key markets across the world, including India, Italy and Colombia. These global activities enable Koelnmesse to offer its customers bespoke events and leading regional trade fairs in a variety of markets, thus creating the foundation for sustainable international business. Koelnmesse is also ideally positioned in the field of food and beverages with its leading international trade fairs Anuga and ISM and its global network of satellite events.

Further information: <https://www.prosweets.com/fair/industry-sectors>

The next events:

ProSweets Cologne - The international supplier fair for the sweets and snacks industry, Cologne 30.01. - 02.02.2022

Anuga FoodTec - The international supplier fair for the food and drink industry, Cologne 26.04. - 29.04.2022

Cibus Tec - Exhibition & Conference on Food & Beverage Technologies Trends, Parma 25.10. - 26.10.2022

Note for editorial offices:

ProSweets Cologne photos are available in our image database on the Internet at www.prosweets.com in the "News" section or www.prosweets.com/imagedatabase

Press information is available at:

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