

Dear Reader,

Manufacturing cutting edge, high performance machinery for the confectionery industry certainly isn't easy, especially since the huge variety in confectionery items essentially rules out series production. Chocotech in Wernigerode, Germany, is a leading systems supplier for the confectionery industry, with drive technology from SEW-EURODRIVE being a major factor in the machines' exceptional energy efficiency. The two companies have worked in partnership for almost 30 years, offering tailored solutions for every customer need, whether it is luxury items on a small scale or industrial scale food production. To know more about the precision and technology that goes into producing delectable confectionery, do read the article below.

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Drive technology TODAY

Innovation meets tradition

► Chocolate and candy make you happy – no one can argue with that. Chocotech in Wernigerode is a company that knows precisely how to use quality to win the hearts of the sweet-toothed. Innovation, productivity and sustainability are all key to its corporate philosophy – and have been for almost a hundred years now. The tradition-steeped company is a leading systems supplier for the confectionery industry, with drive technology from SEW-EURODRIVE a major factor in the machines' exceptional energy efficiency.

► “Manufacturing cutting-edge, high-performance machinery for the confectionery sector certainly isn't easy. We simply couldn't do it without the commitment of our staff and the expertise they have built up over several decades,” explains Jens Fleisch, Technical Director at Chocotech in Wernigerode. “However, the huge variety in confectionery items these days essentially rules out series production for the machines. Both specific customer wishes and special requirements for the products themselves have to be taken into account.”

An extensive product portfolio

Chocotech can look back on almost 100 years in the business. Based in Wernigerode, the company manufactures a diverse range of chocolate and confectionery production machines that can be combined to create complete systems. These include systems for mixing and weighing individual ingredients before cooking; for continuous or batch cooking and caramelization; and for crystallizing both sugared and sugar-free chewing candies. The production portfolio also features dosing, mixing and tableting machines for



creating fondant, a soft sugar mass used as the basis for confectionery items including donuts and Easter eggs as well as food for bees. Another Chocotech specialty is filling and piping machinery for nougat, gianduja and truffles. Finally, the company also builds laboratory facilities for product development and small-scale production.

Diverse product solutions

“From jelly products to fruit candies, from butter toffee to hard caramel, and from brittle to fondant mass – we have the perfect solution for every type of confectionery,” says Birk Hochapfel, the company’s Head of Development. Chocotech supplies both SMEs and large, international companies.

Each and every customer benefits from a tailored solution, whether they are producing luxury items on a small scale or are involved in industrial-scale food production. “In the luxury sector, the typical expectation is for quantities of 100 to 500 kg per hour,” Hochapfel explains. “Meanwhile, for larger-scale industrial confectionery, we build hard candy production lines for up to 4 metric tons per hour – and for jelly products we even have machines capable of processing up to 6 metric tons per hour.” What’s more, Chocotech also helps customers with product development. At its headquarters in Wernigerode, the company operates a cutting-edge laboratory. This technical center is where the confectionery manufacturing processes are subjected to practical testing and optimized to maximize production speeds.

From kosher to halal

“We always cater to the specific wishes of our customers and don’t sell standardized machines but adapt them individually as required,” stresses Sales Area Manager Paulo Coco. “In collaboration with our parent company Sollich, we are thus able to deliver complete solutions.” The customers that Chocotech supplies range from SMEs to large international companies. The specific requirements of each customer are always taken into



A hard-sugar processing system from Chocotech during assembly.

account. As Jens Fleisch explains, “From gourmet confectioners right through to industrial-scale food production, today’s customers have very high demands. Considerations include stricter hygiene regulations, longer machine operating times, the need to save energy, and better integration into the manufacturing process.” The food-related requirements of different cultures also play a role – from kosher to halal. The Chocotech solution is to respond with innovation. Constantly improving on what is already at hand and working closely with customers to develop new ideas – this is what lies at the heart of the company’s philosophy.

The sweet taste of tradition

A good 95 years ago, Otto Lauenstein launched a business specializing in packaging machines for ice-cream and pralines in Wernigerode in Germany's Harz region. This was the company that would later become "Chocotech", a name derived from machinery designed for processing raw chocolate mass. Innovation was a key element of the company's philosophy right from the outset. In 1925, it became the first company in the world to start manufacturing praline wrapping machinery in series production, going on to build the world's first tempering machine just a few years later. Amidst the historical context of war, reconstruction and rejuvenation, the company continued with further innovations. After 1990, the company was renamed, restructured and essentially relaunched. In collaboration with Sollich KG, a confectionery industry machinery manufacturer based some 200 km away in Bad Salzungen, Chocotech has gone from strength to strength. A new site was opened in Wernigerode in 1995, and the confectionery division was built up in 1999. In 2001, the business was significantly expanded and a new assembly hall was commissioned in 2014. This doubled the company's assembly capacity. These days, the Wernigerode-based company is a global manufacturer and supplier of machinery and systems for the confectionery industry. These machines are used to produce a huge range of confectionery products – from butter toffee to hard caramel, from brittle to fondant mass, and from jelly products and layered candy bars to luxury pralines. Production output can range from 5 to 6000 kg per hour, depending on the product. Behind this extensive product portfolio is a team of some 180 highly qualified and fully committed employees, all working with cutting-edge production processes and to the most stringent standards in hygiene.



In collaboration with its parent company Sollich, Chocotech specializes in complete solutions for the confectionery industry.

High-impact energy savings

In line with this spirit of continuous innovation, Chocotech is committed to cutting back its use of energy and resources. One concrete example of this involves using less water to dissolve the sugar. In the traditional method for producing hard candies, three parts sugar are mixed with one part water. Of this 25% water used in the solution, some 24% is evaporated out again at the end of the process. Clearly, this uses additional energy. Chocotech has therefore developed ECOGRAV®, a system that can process a 90% sugar solution.

Sales Manager Paulo Coco sees this as a revolutionary change in the processing technology, as only eight to nine percent of the water needs to be evaporated at the end: "This has delivered energy savings of up to 50% for our customers. Of course, the system is more expensive than the conventional method. However, thanks to smaller heating units, fewer cycles and fewer pumps, the line as a whole costs virtually the same." What's more, when it comes to producing fondant and chewy bars, the pre-cooking is no longer necessary. This leads to further high-impact energy savings.

The pressure cooker model In essence, the system works like a pressure cooker. Pressure is applied as temperature is increased so the sugar dissolves without evaporation. The ECOGRAV® unit can be used as a module in different machines to manufacture a wide variety of products. As is often the case when it comes to innovations, a number of obstacles had to be overcome. For instance, there were initially some concerns that quality could be compromised. However, tests conducted at the Chocotech technical center soon proved these reservations were unfounded. Given the quality of raw ingredients these days, the ECOGRAV® process can be used without any cause for concern.

By combining the Sucromaster hard candy system with ECOGRAV®, for example, the confectionery mass can be produced with less water. Depending on the model and the scale of production lines, throughput rates of 600 to 4400 kg/h are possible. Energy savings for manufacturing indented hard candy masses are over 50% compared to conventional systems.



Gearmotors from SEW-EURODRIVE drive a continuous tempering unit for processing soft and hard candy mass.



From left: Jens Fleisch, (Chocotech Technical Director), Birk Hochapfel (Chocotech Head of Development) and Volker Schulz (Head of SEW-EURODRIVE Technical Office in Magdeburg)



SEW-EURODRIVE gearmotors drive the tableting rotors of the MICRON continuous tableting machine.



From colorful jelly products (pictured) and butter toffee to hard caramel, from brittle to fondant mass, and from chewy candy and layered bars to luxury pralines – Chocotech has the perfect solution for every type of confectionery.

A modular system that delivers quality

But this is not the only area where significant savings can be made. Using cutting-edge electric drives also saves energy. “Of course, we know there are several drive manufacturers active in this field,” says Birk Hochapfel. “But the perfect supplier for our company structure has to be an owner-run business such as SEW-EURODRIVE. We work exceptionally well together.” Volker Schulz, who heads the SEWEURODRIVE Technical Office in Magdeburg, knows exactly what this means: “It’s all about the flexibility – not all companies can offer this. Chocotech appreciates the quality of our products, the fast delivery times and the many flexible variants in the modular system. It’s no coincidence that companies look for suppliers and partners with a comparable philosophy and equally reliable performance.”

However, the value delivered to customers goes even further. As Birk Hochapfel explains: “Key impetus for our own innovations often comes from SEW.” Chocotech and SEW-EURODRIVE have been working together since as far back as the 1990s. “The fact that SEW operates worldwide is another major advantage,” adds Jens Fleisch, citing a service incident in Japan, where the local SEW-EURODRIVE customer service team was quickly able to step in and help – Chocotech was fully satisfied with the results. This marked the start of the business relationship with the Bruchsal-based drive automation specialist that is still going strong today. With its own internal production and service teams, SEW-EURODRIVE has proved to be a reliable partner for the mechanical engineering industry all over the world. ◀