



Case Study

Zotter Chocolate GmbH

noax industrial PCs ensure traceability and control production processes at a premium chocolate manufacturer



noax industrial PCs provide ergonomic data acquisition during chocolate production.

“I need these rugged PCs!” - Josef Zotter, Founder

“Chocolatier, farm lover and differentiator”, says Josef Zotter, Founder and Director of Zotter Chocolate GmbH, when asked to describe himself. How does Josef Zotter differentiate himself? It begins with product variety. While large manufacturers have anywhere from 5 to 40

different varieties, Zotter offers 500 delicious types of chocolate. He has exotic flavors like algae, beer, bacon, hemp seeds, poppy seeds, red wine, gin lemon and nettle jelly with chilli.

This multitude of variety and flavors is possible by having a flawlessly organized manufacturing process and synergy of teamwork and automation.

“When production is running at full speed, it gets really dusty in here. I've never had to worry about the computer technology.”

Fair supply chains and long term relationships

Josef Zotter consistently relies on organic ingredients and fair supply chains further setting him apart from a majority of confectionery manufacturers. Additionally and most importantly, for unparalleled efficiency in production, he relies on a high quality German technology manufacturer, noax Industrial PCs. As managing director, Zotter leads by example, pioneering a future-oriented production method that has not only the region, but the entire world, in his vision. Zotter and his family personally ensure the cultivation, ingredients and every step of the production process. From the cocoa bean to the finished product, he is ethical, social and meets ecological criteria. Zotter has a close partnership with cocoa farmers all over the world and has exclusive contracts with fixed rates, quality and quantities. Zotter's strategic and sustainable business approach is consistent with the technology the chocolatier uses.

The technology used throughout the entire production process is extremely important to the success and smooth operations of the company. Reliable industrial computers are essential. Zotter uses noax industrial computers for this vital computing equipment.

The stainless steel industrial computers from noax Technologies are expertly developed for 24/7 operation in industrial environments. Zotter uses the S19 and S21 noax PC models. These industrial-grade computers are used throughout the chocolate manufacturing plant for all work processes, important tasks, machine control, various recipe composition, and documenting and managing every step of the entire production process.

Quality comes first

The process of transforming the cocoa bean into mouthwatering chocolate begins with the arrival of raw materials to the production

facility. The cocoa beans are cleaned, roasted, debacterized and broken into small pieces. The small pieces of cocoa beans are now called nibs. The roasted nibs then undergo a grinding process and passes through mills. During the milling process, the cocoa mass is mixed with cocoa butter and melted into a viscous chocolate liquor. The cocoa butter determines the melting point and gives the chocolate its creaminess. Additional ingredients such as milk, sugar and vanilla are then added. A noax industrial computer controls the machinery during this process.

The finely dusted milk powder poses a challenge for technical hardware. In the selection of an industrial computer for this process, it was an absolute necessity to have a reliable and rugged computer that has a completely enclosed industrial design with no ventilation slots to worry about. “When production is running at full speed, it gets really dusty in here,” explains



Multi-touch and full-HD displays make it easy to weigh ingredients and quickly enter data.

Zotter Chocolate GmbH is committed to a production method that meets fair, ecological and ethical standards, from the cultivation of cocoa beans, to the delivery of the finished products. Zotter's corporate philosophy is trending, as sales of sustainable traded food have been increasing for years. The raw materials are held to very high standards in sustainability and quality and these standards are reflected in their choice for industrial computer hardware. The confectionery manufacturer made a strategic decision to use noax industrial PCs because their ruggedness, performance and longevity fit the high standards the company places on all durable capital goods.

noax IPCs are an integral part of the manufacturing process. They can be used in almost every area at the factory and helps increase efficiency in the production of over 500 types of chocolate.



the managing director. "I've never had to worry about the computer technology", he adds. It is finally time for the conching and refining processes. The chocolate is heated, stirred and ground, then aerated, giving the chocolate a delicious flavor and texture. During conching, intense mixing volatilizes the bitter flavors and the desired nutty, sweet or fruity flavors are developed. The chocolatier must find their desired ratio for the length of the conching process for every recipe, so each chocolate gets its individual flavor. A viscometer is used to measure the viscosity of the chocolate after it cools. The chocolate factory uses a noax industrial PC with a large HD screen that is connected to the viscometer to record all data.

Long service life

Zotter employees use rollers to spread the liquid chocolate and then hand scooped into chocolate fillings on to 15-meter-long strips. These molds are then cut in the chocolate, chilled and packaged. The industrial computers are used throughout the entire chocolate making process. Every stage of production can be checked electronically. Chocolate makers use the touchscreen PCs to know what ingredients to use and what fillings to add for each recipe. The industrial PCs are used for quality control, accuracy in production, required ingredients and employee traceability. Optimal hygienic conditions are required during the entire process, especially at the end when the chocolate comes into contact with the environment. The chocolate must be weighed and documented. noax industrial PCs are completely sealed and food-safe, making them ideal for hygienic environments. noax industrial PCs are created using only high quality industrial components.

The computers can last more than 10 years in a production environment, where traditional PCs would fail. Both noax and the chocolate manufacturer have a good eye for economic and ecological sustainability. The PCs are not only energy efficient, they are also built to last for years, saving valuable resources.

Performance makes the difference

Internal performance is not only a necessity for inside the industrial computers, the capa-



noax industrial PCs are efficient, durable and powerful while supporting all logistics processes at Zotter.

bilities of the outside construction is also of utmost importance to survive the tough conditions at the factory. Moisture, heat and most of all dust from the flour and milk powder create difficult environmental conditions for PCs to survive in. noax industrial computers are built to reliably withstand these conditions without fail. The PC has a hygienic design with smooth surfaces, no vents, gaps or possibility for ingress. The PCs have special food-safe seals and screws to ensure easy and thorough cleaning to meet strict hygienic requirements. The industrial PCs are also waterproof on all sides and dust-tight, according to the IP65 protection rating. Zotter requires this computing power for his ERP system. He used SAP in the past but had to adjust. "Our ERP system is very resource hungry. It was important for us that i7 processors are installed and the devices are able to store large amounts of data without any problems," explains the company's IT specialist. "The other manufacturers offer significantly lower processing capabilities." Several hardware companies have relocated production and service abroad. noax will always remain near Munich, Germany at its Ebergsberg facility. noax always responds promptly to inquiries. "The service in Germany was another reason why we chose noax. I don't have to be connected multiple times, but instead on the first call", says the IT officer. Even though both companies offer completely different products, Zotter has found a partner with similar values with noax - quality, customer service and sustainability. Zotter and noax are on the road to continued success with their forward-looking mindset.

"The service in Germany was also one of the reasons why we chose noax."



Zotter Chocolate GmbH

Company profile:

In 1999, Josef Zotter, the former cook and confectioner, laid the first foundation stone for his chocolate factory on his parents' farm in Riegersburg, Styria. Today the company employs over 200 people and has more than 500 varieties of chocolate in their portfolio, that are sustainable and meet ecological, social and ethical standards.

For more information visit:
www.zotter.at

Requirements and Applications

Objectives:

- ✓ Acquisition of operating data in the production of chocolate and pralines
- ✓ Secure traceability
- ✓ Support employees in composition of recipes
- ✓ Ensure product quality
- ✓ Documentation of all production process steps
- ✓ Production machine control
- ✓ Increase efficiency

IPC Requirements:

- ✓ Ergonomic and intuitive operation
- ✓ Waterproof and dustproof from all six sides, according to IP65 protection standards
- ✓ Bright multi-touch screen
- ✓ Operates with latex gloves
- ✓ Hygienic design for easy cleaning
- ✓ Adjustable screen brightness
- ✓ Reliable and durable

Components

Hardware:

- Industrial PCs: Steel S21Wx , Steel S19
- noax in-house developed all-in-one motherboard
- Input: rugged multi-touch screen
- Bright, high-contrast TFT display
- IP65 protection rating
- Completely closed, no external fan

Software:

- Operating system: Windows 10
- SAP
- Viewer

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Headquarters

noax Technologies AG
Am Forst 6
85560 Ebersberg (Germany)

Tel. +49 8092 8536-0
Fax +49 8092 8536-55

noax Technologies Corporation
5265 Parkway Plaza Blvd. Suite 110
Charlotte, NC 28217 (USA)

Tel. +1 704 992-1606
Fax +1 704 992-1712

Worldwide locations: www.noax.com; info@noax.com

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