

CASE NOTE

OctoFrost

A colourless challenge



Safety is paramount in the business of producing food on a commercial scale. Anything that is not meant to be eaten must be kept strictly away from the finished product. ABB reconfigured its production process to meet the needs of a major maker of industrial freezer.

Text: Susanna Lindgren

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01 To guarantee a high-quality end product, the environment in the freezer has to be absolutely free from any risk of contamination. Therefore OctoFrost wanted unpainted motors only.

What is Industrial quick freezing (IGF)?

Malmö-based OctoFrost produces industrial freezers for individual quick freezing, or IQF. Anyone who ever bought a box of frozen raspberries, diced mango or shrimp knows the concept. If the food items are easily separated and have kept their original shape, the products may well have been freshly frozen in a freezer from the Swedish company using the OctoFrost™ patented technology of bedplates and fluidization.

“We freeze anything small enough to fit between my thumb and my index finger,” says Aleksandar Karabeleski, operations manager at OctoFrost, and shapes a large strawberry-sized circle with his hand.

Regardless of what passes through the freezers – ham or mozzarella topping for pizza, mussels, octopus rings or small balls of falafel – the patented technique is the same. The items are placed on bedplates that perform a shaking movement to make sure they are all individually and separately frozen.

“It is this particular accelerative motion that we have patented,” Karabeleski says. “It’s similar to the snatching movement of pulling out a newspaper from underneath the remote control.”

Global presence makes ABB an ideal partner

Karabeleski leads the way through the huge, bright assembly hall, where a medium-sized freezer has just been hoisted onto a trailer for transport to a customer in Mexico. Farther along, 14 gray aluminum fan motors from ABB are lined up on pallets.

“These motors will soon be fitted in one of the biggest freezers we ever built,” says Karabeleski, pointing out the large housing. When all the parts are in place, the freezer is bound for a North American pea producer. “It will have a capacity of 15 tons of peas per hour,” he says.

With customers all over the world who want their freezers close to their food production, OctoFrost set high standards for its suppliers.

“We make our money from selling good freezers, not from spare parts,” Karabeleski says. “If anything, like a motor, needs to be replaced, it has to be easily available regardless of where our customers are located, whether it’s in Poland or in India. That’s why we have worked with ABB since our start 15 years ago.”



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01 Paintfree solution eliminates the risk of paint chipping off and causing a food safety hazard.

02 Paintfree motors are ideal for freezer applications with a controlled environment.

Food safety is a key

A freezer is a highly exposed environment for any type of equipment. The temperature can shift from 25 degrees Celsius to minus 30 degrees in a few minutes. To keep up with hygiene requirements in the food industry, the equipment has to be thoroughly cleaned regularly – twice a day for some food items. To guarantee a high-quality end product, the environment in the freezer has to be absolutely free from any risk of contamination.

When a couple of customers mentioned that corrosion made the blue color of the ABB motors flake, Karabeleski immediately brought up the potential problem with Jonas Bjarnö, sales engineer at ABB. The request was simple. From now on, OctoFrost wanted only unpainted motors.



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“It’s the customer who has the experience and the industry knowledge and knows what’s required,” Jonas Bjarnö says. “My job is to listen and see how we can come up with a solution. But to deliver a motor without paint is a bit like making a Snickers chocolate bar without the peanuts. The color is not something added at the end of the production line. It is incorporated in the whole manufacturing process, which made this a real challenge.”

Even so, this was a challenge that could be solved. By making sure that unpainted parts were delivered through the whole supply chain, OctoFrost has been able to install unpainted fan motors from ABB in all its freezers since August 2014. Unpainted replacements are also available regardless of where in the world the customers are located.

Facts

Customer	OctoFrost <ul style="list-style-type: none"> a Swedish-based company manufacturing OctoFrost™ freezers enables individual quick freezing of fruits, berries, vegetables, seafood, meat, poultry, cheese and grains
Location	Malmö, Sweden
Industry	food & beverage
Motors and Generators deliveries	200 pcs customized IE2 Process performance aluminum LV motors with nominal powers of 11, 15 and 22 kW
Keys to success	customer’s problem was solved, good local support and service, long business relationship with ABB