

TOPICS

Gadget Advancement Due to the COVID-19

HI-COOK Eye

Frozen Foods Change the World's Food Culture

We exhibit at SOUZAI • DELICA JAPAN 2021 -Readymade food and deli processing machine / equipment exhibition-

The Man with Enthusiasm

The café is located in Ataka, where the Kabuki play, "Kanjincho" was set, enjoys the view of Japan Sea, and serves cuisine using lots of special local produce. All these attract visitors to the café.





Trend

Gadget Advancement Due to the COVID-19 Situation

Nearly two years have passed since the pandemic outbreak, which occurred in November 2019. Life has changed dramatically since then. We have gone through lockdowns and got accustomed to thorough sanitization, mask-wearing, and social distancing. While total recovery will have a long way off, we need to keep moving an economy. We have to do it while keeping risks at a minimum by wearing a non-woven fabric mask, doing daily self-checkup, setting and following business-trip rules, and again doing sanitization. *Let me take this opportunity to thank every visitor to our company for following our policies to conduct temperature checks.

Whenever I go out these days, I bring my portable disinfectant spray. I spray it over, for example, doorknobs, elevator buttons, toilet handles, chairs and tables. My kids call me a sterlization man, by the way. Trying not to touch anything outside the home, I find smart gadgets more and more indispensable.

The Appearance of Smart Watch

The growing tendency to go touchless has accelerated the spread of cashless payment using, for example, a credit card and electronic money. Let's talk about the equipment we use here. The most popular one up until now was a contactless IC card such as Suica: it has been being replaced by NFC*equipped smartphones these days. *NFC: near field communication

Next came is a smartwatch. I use Apple Watch myself, too. The watch is more convenient than I first thought: you do not have to pull out your smartphone. What you do, instead, is you hold the wristwatch over the reader for train tickets, convenience-store shopping, and drinks from vending machines. You do not have to take out coins nor a smartphone. Also, the watch can do workout recording and remind you about rehydration.

Smart Ring, the Promising Successor

Furthermore, the new cashless payment devices, smart rings, were released this year. They were first less attractive to me than smartwatches: some of them have only limited functions, and others need charging. On the other hand, Evering, which was introduced to Japan this spring, seemed just perfect to me. It enables you to make electronic money payments, does not need battery charge, and is waterproof. You can control it through applications: you can shut it down instantly when it is lost. Though I love it so much. I was not able to get one on the launch date. I am still waiting for the next release. Once I get one, I will be able to live a more stress-less and touchless life.

The Rapid Evolution and the Future of Smart Devices

Just like smart contact lenses which attracted much attention last year, smart devices these days have been made smaller and smaller and coming in closer and closer contact with users. Though many people use wearable devices these days, they will be widely replaced by implantable devices shortly. The Swedish national rail company has already introduced a system that lets passengers use an implanted-microchip train ticket. In the United States, in addition, people pay with an implanted chip for drinks from vending machines. More and more people have been using such chips for locking and unlocking doors and cars, too.

The time might come soon when people use such technology for other applications to see all things moving without being touched. Though the spreading of the COVID-19 is partly leading to the evolution, I want to see such an SF film-like future as I dreamed of when I was a kid soon. However, and above all, I hope that the pandemic will be over as quickly as possible.



HI-COOK Eye

Frozen Foods Change the World's Food Culture

Such climate change as global warming, population explosions, and labor shortages are aggravating worldwide

food shortage. On the other hand, people not only in advanced nations but in developing nations waste food. That causes a production-consumption cycle imbalance. The world is paying close attention to the social food issues caused by such imbalance. Food preservation techniques using exponentially developing freezing technologies could probably solve the problems.

What Happens When Foods Are Frozen?

Freezing is an essential food preservation technique in today' s food life. It keeps foods just as tasty, colorful, flavorful, and fresh as they were before frozen. That is because freezing mitigates microbe growth, enzyme activity, oxidation, and drying to prevent food deterioration. Meanwhile, freezing causes ice crystals to rupture cell tissues and walls and removes moisture (juices) to spoil the taste of the foods. When you freeze foods between -1 and -5°C, the food temperature goes down very slowly to form large ice crystals. If foods are cooled guickly, instead, so they take less than 30 min. to go through the temperature range, they are frozen before crystals grow. We call this rapid food freezing, which can prevent the large-ice-crystal formation and preserve the food flavor.

Various Freezing Technologies

Vegetables and fishes frozen employing the latest method can

remain fresh and palatable for a long time after shipment. Worldwide food industries' increasing demand for the technique has led to the following technologies' development.

① Quick Freezing Using "Magnetic Field" and "Electromagnetic Wave"

You can flash freeze foods in the supercooled state (*) by cooling and putting them into the magnetic field to vibrate the water molecule inside the cells. You can freeze foods, too, using magnetic flux, electromagnetic waves, and cold wind together. Both technologies generate only fine ice crystals.

Minimizing the size of the crystals inside the cells in the freezing process can prevent cell rupture, hinder moisture (juice) removal, and finally avert food deterioration. (*) the state where foods do not get

frozen even when they are below 0°C.

2 Rapid Freezing Using Antifreeze

You put a bagged food into -30°C alcohol or saltwater to freeze it. The liquid touches the surface equally to freeze it evenly and rapidly. Ice crystals do not swell, and the cells do not break. The foods do not lose juices and stay fresh and tasty accordingly.

③Rapid Freezing Using Liquefied Gas

Spraying foods with -196°C liquefied nitrogen or -78.5°C liquefied carbon

[Images of Quick and Slow Freezing]

Cell before Frozen

a water molecule



A calledy Proceed cell The crystals are so fine that they do not rupture cell walls: you ice foods with their flavor and moisture contained inside. Defrosted foods taste the same as they were before frozen.

the crystals

dioxide can freeze foods extremely fast. By doing this, you can again prevent the ice crystals' enlargement and foods' deterioration.

Meeting Both Manufacturer's and Consumer's Needs

As more and more people dine at home due to the pandemic, more new frozen foods, which are tasty, high-quality, healthy, and reasonable in price, have come to the market than they did last vear. Consumers have been making full use of frozen foods to address such recent issues as global food waste, overbuying, and household overwork. The restaurant industry now can, with the freezing technologies, send out food products to its customers who have difficulties coming and who live too far away for the delivery otherwise. Furthermore, the latest icing technologies enable you to enjoy the same quality foods after defrosting as they have just cooked. I want to say the technologies for the preceding process cooking - are equally important. I strongly hope that those two technologies, in synergy with each other, will further assist in providing delicious foods to families worldwide and tackling global food shortage and food waste problems.



A Slowly Frozen Cell The crystals get so large that they rupture cell walls. The juice will be gone after they unfreeze: they will lose their texture and flavor.

What is Slow Freezing?

a cell

To freeze things slowly within a relatively high-temperature range. It takes a long time to cool them from -1°C to -5°C. Ice crystals grow fast as a result.

We exhibit at SOUZAI · DELICA JAPAN 2021 -Readymade food and deli processing machine / equipment exhibition-



ост27 • 29 •

Fryer

Compact Gas Fryer

We are proposing food process line systems that meet cooked meal businesses' needs.

SOUZAL • DELICA JAPAN 2021 is an exhibition specialized for deli food businesses. We introduce varieties of food processing systems that achieve automation and efficiency in deli food production for such businesses as boxed lunch, frozen food, and convenience store in our booth. An industrial gas fryer and an impingement oven will be displayed there. Come stop by our booth.

Date: 27 (Wed.) -29 (Fri.) Oct. 2021

Time: 10:00 - 17:00

Venue: Tokyo Big Sight Aomi Exhibition Halls (1 Chome-2-33 Aomi, Koto-Ku, Tokyo, Japan) Booth: BR-13, Hall-B

Improved Production Efficiency with Automated and Theme: Labor-Saving Production Lines -Delicious Readymade Food Cooking in a Comfortable Work Environment-

Can cook stable-quality, delicious and beautiful tempura and other batter-coated products because of the flat top conveyor. You can set oil depth at the infeed to 3 levels.

The central-waste-gas-discharge and low-heat-radiation system improves your work environment and reduces the air conditioning system's load.

The unique heating system transfers heat effectively and realizes an energy-saving production process. Environmentally-friendly dedicated peripheral

devices are available (optional): filters, oil mist catchers, and cooling jacket filtering oil tanks.

Directly jets hot air over products. Its rapid heat transfer produces delicious and savory

Can cook various types of foods effectively



Environmentally Friendly Tank Type Oil Filter Model HYT Extends oil life by eliminating fine impurities. You can use clean oil every time to cook tasty foods.





Model DC-G (Equipped with a Model HYT)

The Man with Enthusiasm Vol. 7

Welded stainless plates form three-dimensional objects, and Mr. Minotani, who has been working for Asahi for 17 years, checks the results. He leads Welding Section: he became the leader with his personality and management skill on top of his technical skill valued highly.

He is likely to directly contribute to building the Asahi's future, maintaining "the spirit of craftsmanship and aesthetic values" which the company has fostered since its foundation. Though still being a junior leader and an inexperienced welder, he first tried to "create an open working environment, where his staff can work perfectly following the standardized manufacturing processes."

He also encouraged the team to have more communication



food products.

and to assess each other's job performance. It is because they were not good at cooperating while performing their job correctly. Furthermore, he developed a system for

Manufacturing Section Chief Hideki Minotani

visualizing mistakes, if any, so the team grasp and manage them to improve product quality. He worked very hard to better the department by creating a culture of "welcoming changes" and promoting 5S activities to create an organized and ordered workplace. He now aims to hold lively discussions among younger staff in their thirties and forties to set up new projects. He, as a good coordinator, and his peers could succeed in the endeavor shortly.



ASAHI SOSETSU CO., LTD.

Head office Research center Tokyo office Osaka office Fukuoka office

1863-1 Miyanaga-machi, Hakusan-city, Ishikawa 924-0017 500-3 Mizushima-machi, Hakusan-city, Ishikawa 924-0855 4-15-33, Shibaura, Minato-ku Tokyo 108-0023 7-1-26 Nishinakajima, Yodogawa-ku, Osaka, 532-0011 2-12-5 Yamada, Oonojyo-city, Fukuoka, 816-0922

+81-76-275-8159 +81-76-277-8159 +81-3-3453-8159 +81-6-7662-8159 +81-92-574-1802

<Agency> Yasuda Co., Ltd.

SK System Co., Ltd.

Meiko Co., Ltd.

18-7-21 Kitanijyujyohigashi, Higashi-ku, Sapporo-shi, +81-11-785-1768 Hokkaido, 065-0020

8-9 Sakae-cho, Shiogama-shi, Miyagi 985-0063 Keivo Foods Machines Co., Ltd. 3218-5.Oomiva-cho.Wakaba-ku, Chiba, 264-0016 12-30. Kotobuki-cho, Suruga-ku, Shizuoka, 422-8055

+81-22-363-2521 +81-43-262-8466 +81-54-281-8581

<Associated company>

HI-COOK Co.,Ltd / Asahi Sosetsu Korea Co.,Ltd. / HI-COOK (Thailand) Co.,Ltd. / Asahi Sosetsu (Thailand) Co.,Ltd.

due to separate upper-lower fan settings. The simple design enables tool-free disassembly for easy cleaning. The easy-to-operate touch screen can store 30-item-process-settings.

