

Connecting the World Through “Soft” Communication

— Providing cheerful smiles and a healthy food culture to people across generations and boundaries

Nissei Company, Ltd. (Head office: Ibaraki City, Osaka)



Nissei continues to evolve, making the world of dessert foods richer and more diverse

Nissei creates a world full of soft serve ice cream and other dessert foods. Staying true to its belief that delicious foods bring Japan together with the rest of the world, Nissei has continued to develop foods that meet the needs of the times by using technologies and information gathered from around the world.

This initiative has enabled us to create new products and to continue exploring new frontiers even to this day.



Allow me to start with a question: Do you like sweet foods? On what occasions do you eat soft serve ice cream? When Nissei—a comprehensive soft serve ice cream manufacturer that is celebrating its 70th anniversary this year—conducted a questionnaire survey, it was apparent from the results that soft serve ice cream always brings a smile to consumers’ faces. Ever since its foundation, the company has remained committed to its mission of helping to revitalize post-war Japan, bring a new culture of comfort to the Japanese people and establish a line of communication with its customers by delivering soft serve ice cream fresh from the machine. For this issue’s “Living and ULVAC,” we visited Nissei’s Tokyo Office (Shinagawa-ku, Tokyo) to interview Mr. Koji Barada, one of Nissei’s operating officers.



Mr. Koji Barada
Operating Officer, Nissei Company, Ltd.

Freshness is the key The surprising origin of soft serve ice cream The idea for ice cream cones came from waffles

The term “softcream” was coined by George Tanaka, the founder of Nissei. The correct English term is “soft serve ice cream.”

With its origins in China, the method for making milk sherbet was brought to Europe via the Silk Road before making its way to the United States. Some say that soft serve ice cream first appeared in its present form in 1904, when an ice cream store and a waffle store were exhibiting their products in booths next to each other at the St. Louis World Trade Fair. In those days, ice cream was usually sold on paper plates. However, with visitors swarming to buy ice cream to ward off the summer heat, the ice cream store soon ran out of paper plates. As a result, the ice cream vendor bought some waffles from the next-door waffle store to make them into cones, and this subsequently became a common style of serving ice cream. In other words, the idea for ice cream cones came from waffles.

Automatic soft serve machines were developed in the United States thanks to a desire to serve ice cream fresh from the machine as well as to the development of freezing technology. Made by mixing the ingredients in a specially designed machine that is also known as a freezer, soft serve ice cream also contains air, which contributes to its smooth melting texture. The temperature of soft serve ice cream is approximately minus 5°C. In contrast, hard ice cream is made by rapidly hardening a soft paste at a temperature of below minus 30°C and then sold in stores at a temperature of below minus 18°C. The biggest difference between soft serve ice cream and hard-frozen ice cream is that the former is served fresh from the machine.

Soft serve ice cream was launched in Japan in 1951 July 3 is Soft Serve Ice Cream Day

In 1947, a second-generation Japanese American called George Tanaka founded Nissei Shokai Co., Ltd. , which later became the present-day Nissei. Learning about soft serve ice cream from American soldiers, Tanaka purchased 10 freezers from the United States to begin selling soft serve ice cream in Japan. First served in Japan at an American Independence Day event held in Jingu Gaien on July 3, 1951, soft serve ice cream quickly became popular in Japan. Initially, it was sold in department stores and at coffee shops for 50 yen. Given that a



Fruits Preparation

Other

Shake Mix

Decoration Items

Whipped Cream

Consumer products

Cone Cup, fruit sauces, etc.



bowl of noodles cost 15 yen at that time, soft serve ice cream was a considerable luxury. Shortly after, Japan's first soft serve ice cream boom started, partly due to a scene in Roman Holiday—a movie that hit Japanese movie theaters in 1954—in which the protagonist, Audrey Hepburn, ate gelato on the Spanish Steps in Rome.

At first, Nissei imported cones, but the company later opened a factory in Osaka to start manufacturing its own cones. In 1963, Nissei also started the domestic freezers, and launched the production of soft serve mix, the ingredient used to manufacture soft serve ice cream. The second soft serve ice cream boom began in 1970, when soft serve ice cream was a big hit at the Osaka World Trade Fair.

In 1990, July 3 was designated as Softcream Day to commemorate the first soft serve ice cream in Japan.

How soft serve ice cream is made ULVAC technologies used in freezers and cones

When an order is received, soft serve ice cream is dispensed directly from a freezer into a cone cup to be served fresh from the machine. Figure 1 shows how soft serve ice cream is made in a freezer. First, a mixture of the raw ingredients is placed in a tank. After that, the mixture is cooled by passing a refrigerant gas that has been pressurized with a compressor through a water condenser so that it changes into a liquid. The material mixing chamber is cooled by making use of the properties of a liquefied refrigerant gas, which becomes cold when it returns to its gas form by being sprayed at high speed. As air is incorporated in it as it is stirred, the mixture has a smooth texture when served on a cone. Finally, the refrigerant

gas returns to the compressor. Under a different setting mode, the refrigerant gas can also be used to heat-sterilize the freezers every day in stores. Nissei's freezers are designed so that the refrigerant gas is used in a completely closed system. Furthermore, the various freezer operations are computer controlled. As this description demonstrates, a soft serve freezer is not simply a vending machine; it is actually a manufacturing equipment. The soft serve freezer is a familiar object that delivers, along with soft serve ice cream, a smile to the face of the customer.

Nissei manufactures its freezers independently. When these freezers are manufactured at Nissei's Takatsuki factory (in Osaka Prefecture) and cleaned for maintenance, ULVAC vacuum pumps play an important role in the process for breathing life into freezers by filling them with refrigerant gas. With the aim of delivering greater ease of use and improved management features, Nissei developed its next-generation CI series of soft serve freezers and started selling them in October 2016. These machines are equipped with a system for recording operations (data logging) and they meet the standards required under Hazard Analysis and Critical Control Point (HACCP; a food hygiene management system), which helps to enhance food hygiene management. Moreover, at the Higashi-Matsuyama factory in Saitama Prefecture, ULVAC's surface processing technology is used in cast molding facilities for the manufacture of Tuiles, a type of cone made under the "Nissei Oven Factory" brand.

Aiming to become the No. 1 soft serve ice cream manufacturer with unique selling points The happiness of sharing bonds with other people "Smile Soft Project"

Nissei manufactures cones, soft serve mixes, freezers, topping sauces and other related items independently and



**NISSEI
OVEN
FACTORY**

A Tuile cone, part of the "Nissei Oven Factory" brand



Next-generation CI series of soft serve freezers. Released in October 2016 this new product series was designed with the aim of delivering greater ease of use and improved management features.

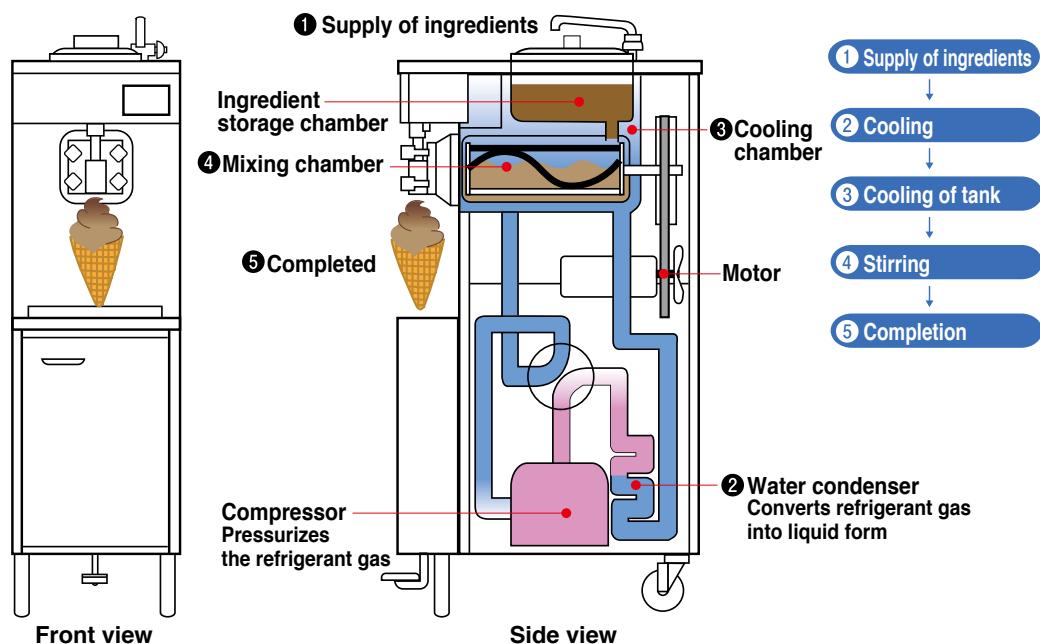


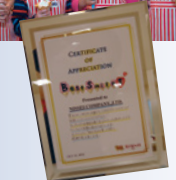
Figure 1: Mechanism of a soft serve freezer



Smile Soft Project

笑顔がうまれる。日世のソフトクリーム

Marketing characters that customers have long been familiar with, “Nikkun” and “Seichan” were given names by a public vote in 2010



Best Smile Award, presented by KidZania



Nissei Soft Dream Van

Nissei Pilot Shop



Softcream Land Sweden, Hankyu Sanbangai Store (Umeda, Osaka)



Dolci Café Silkream, Shibuya Store (Shibuya, Tokyo)

also provides comprehensive business management services, including store backup services. As a leading comprehensive soft serve ice cream manufacturer, we continue to take up new challenges. Soft serve ice cream may have originated overseas, but Japanese soft serve ice cream today has its own unique features, including a wide range of flavors and a rich variation of cones. An enormous variety of local soft serve ice creams are available, each of which has its own unique flavor and is made from the local products of well-known tourist spots throughout Japan. “Japan Premium”, made only from fruits grown in specific areas of Japan, are manufactured based on the concept of “whole luxury fruits.” These seasonal limited products include soft serve ice creams made from Amao strawberries grown in Fukuoka, mangoes grown in Miyazaki, white peaches grown in Okayama, and La France pears grown in Yamagata. As a partner of the Food Action Nippon program, Nissei aims to increase the food self-sufficiency rate by expanding the consumption of agricultural produce grown in Japan.

Nissei also conducted a questionnaire survey targeting 1,000 persons with the aim of better understanding what is important to our customers when it comes to soft serve ice cream. The survey revealed that the respondents associated the following images with soft serve ice cream: flavors that are liked by everyone; something special that we eat outside the home; or something that we eat together with someone close to us. Based on these results, Nissei believes that the core value of soft serve ice cream lies in the happiness produced by sharing bonds with other people. Therefore, to produce a network of smiles across Japan, we are carrying out the Smile

Soft Project with the slogan: Soft Serve Ice Cream That Melts Hearts Together.

Nissei operates the Soft Serve Ice Cream Shop Pavilion in KidZania Tokyo and KidZania Koshien to convey the pleasure of delivering products full of dreams by providing children with a tasty, enjoyable experience. We also have our pilot shops in Umeda district of Osaka as well as Shibuya district of Tokyo, where we may create a bond with our customers.

As Great East Japan Earthquake Support program, we visited the disaster areas in our Nissei Soft Dream Van to offer soft serve ice cream, or raised funds at tourist spots by offering soft serve ice cream free of charge. Also, in our fruit preparation business, we purchased strawberries from Sendai at an appropriate price and returned the profits to the producers. On our website, we are conducting a campaign that awards prizes to consumers who answer quiz questions correctly, or share easy recipes for homemade desserts made from Nissei products.

We are well aware that soft serve ice cream is not a necessity of life. Nevertheless, Nissei believes it is important to convey to future generations its founder’s commitment to revitalizing Japan, bringing a new culture to the Japanese people and enriching their lives, and delivering comfort to customers. This commitment is attested by the company’s attitude that we do not manufacture excessive cone products or reserve them for busy periods. As a comprehensive soft serve ice cream manufacturer, Nissei will continue using its proprietary technologies to provide safe, reliable, high-quality products with the aim of producing a network of smiles across the world.