

Flash Freeze

SAMPLE SPECIFICATIONS AND DATA

About US

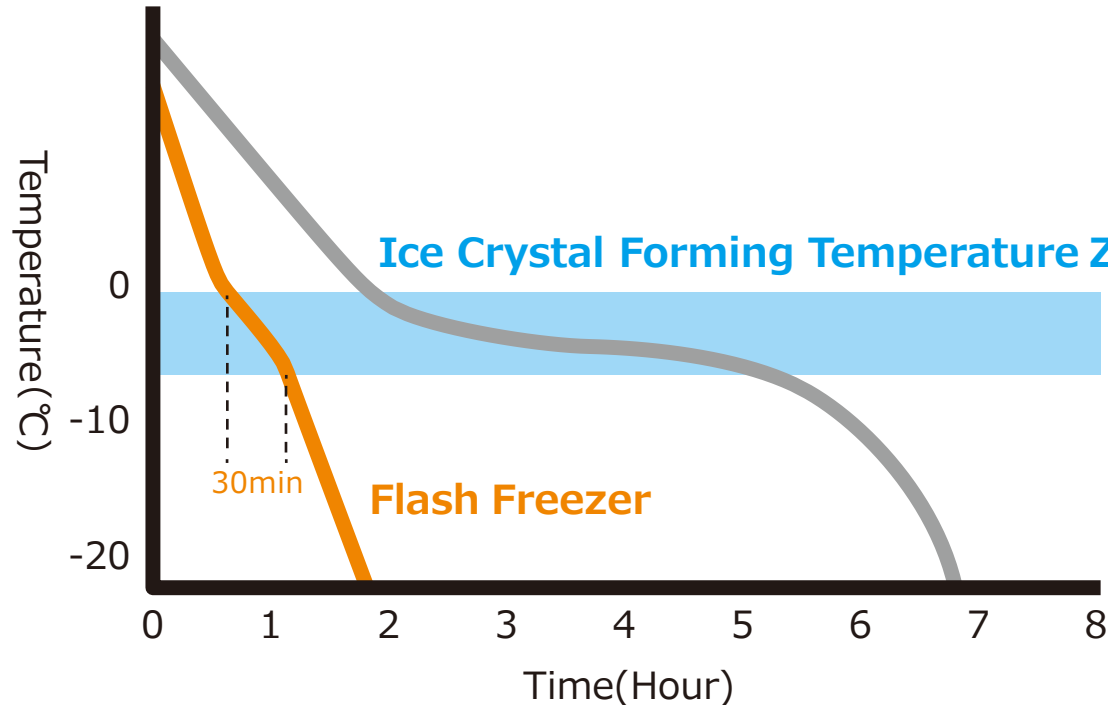


- ▶ Flash Freeze operates exclusively with **DAYBREAK Co., Ltd.** headquartered in Tokyo, Japan.
- ▶ After just 5 years, **DAYBREAK Co., Ltd.** has consulted over 4,000 companies and has made a name for themselves with their vast knowledge of Freezer's technology and great customer service.
- ▶ With Daybreak's vast knowledge, we were able to make flash-freeze.net. A place where professionals can come and look for the best freezers in the market.
- ▶ We work with only the best flash freezer manufacturers in Japan and consult together with you to see which freezer model is right for your business. We focus on providing our clients and partners fully transparent and unbiased support

What is Flash Freezing?

High Speed Efficiency While Ensuring Quality

- ▶ By letting food pass through the ice crystal forming temperature zone (Between -1 and -5°C) within 30 min, ice crystals do not damage the food cells, and it prevents food from losing its taste and flavor



The longer it takes before the food passes through this temperature zone, the more damaged food gets.

Cellular Structure and Wall Preservation

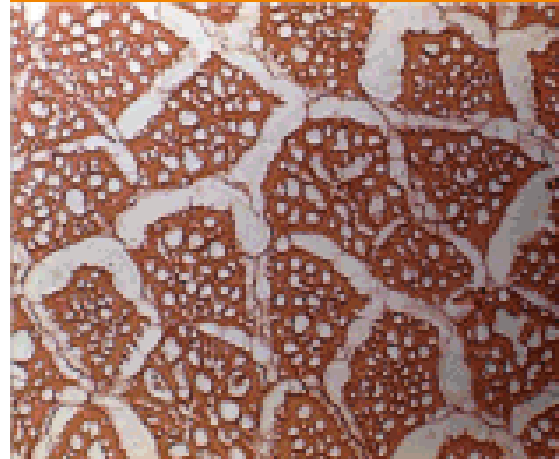
Food cells before Freezing



Food cells look untouched and healthy

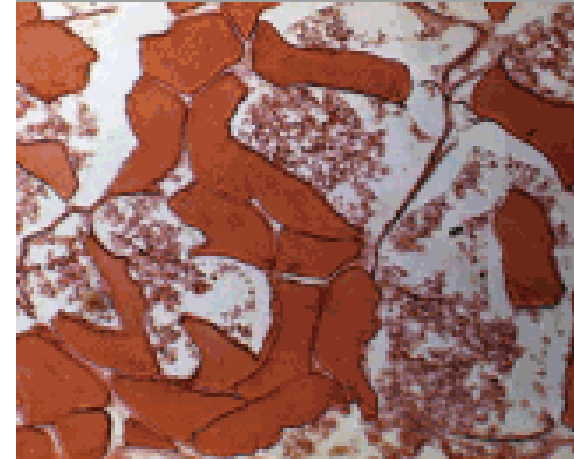


Food cells after Flash Freezing



Small ice crystals were formed and they hardly damaged the cellular structure

Food cells after Regular Freezing



Huge ice crystals were formed and they damaged the cellular structure

Biggest Benefits of Flash Freezers

Decrease in Drip Loss

Reduce the drip loss in your product to store products longer!

Reduction of Running Cost

Reduce running and operational costs and make your business more efficient!

Increase in Frozen Product Quality

Maintain high product quality despite long storage times!

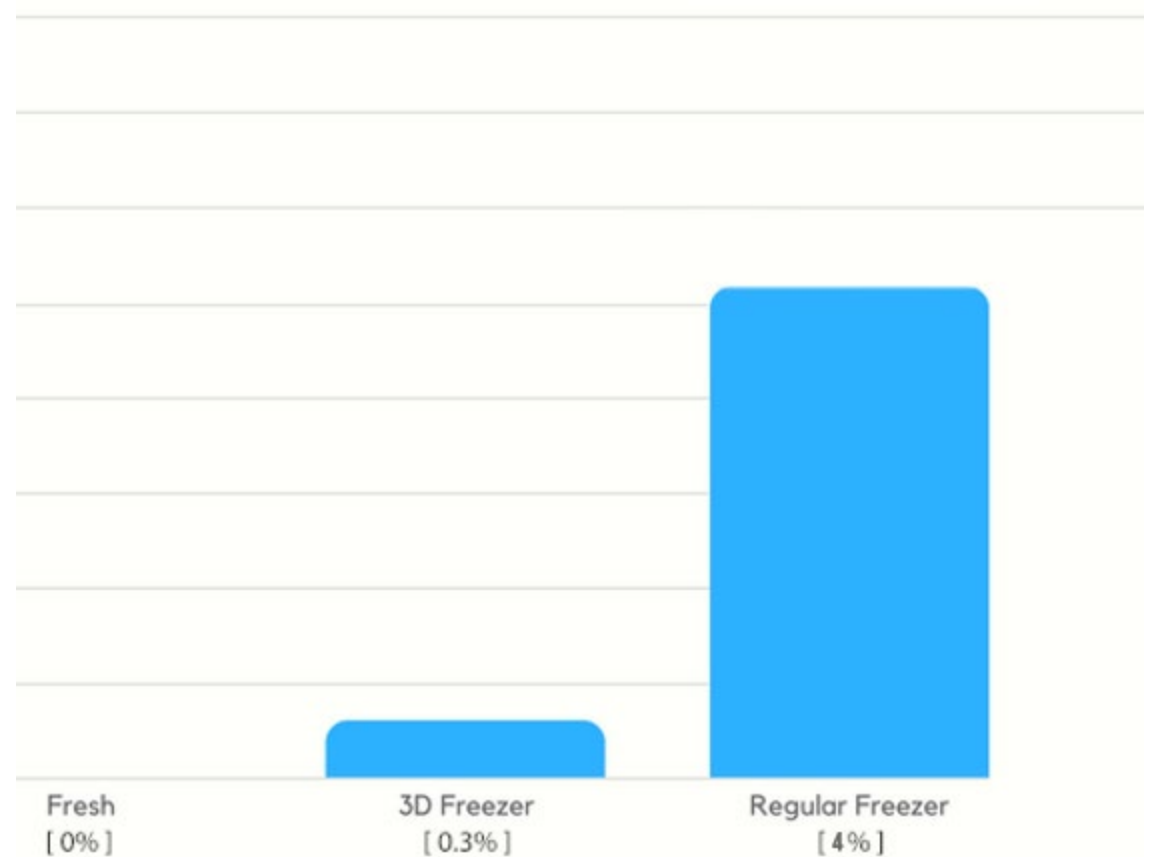
Drip Loss Percentage

- ▶ Includes drip loss percentages of food when compared to:
 - ▶ Fresh Unprocessed State
 - ▶ After using a 3D Freezer
 - ▶ Using a Regular Freezer

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Drip Loss Percentage

PERCENTAGE ANALYSIS RATIO



Money Lost (Driploss)		
Price of Skipjack Tuna (Yen/Kg)		
1,400		
Capacity (Kg/hour)	Capacity (Kg/day)	Running time
500	5,000	10 hours
3D Freezer Driploss	Regular Freezer Driploss	Difference
0.30%	4.00%	3.70%
Difference in Driploss (Kg/day)	Difference in Driploss (Kg/month)	Difference in Driploss (Kg/year)
185	5,735	67,525
Money Lost Per Year (Yen)	Losses based on using a Regular Freezer	
94,535,000		

Losses
Based on
Drip Loss
[Example]

Example of Driploss Reduction



Profit Increase

ADDING THE CUSTOM 3D TUNNEL AND SPIRAL FREEZER TO YOUR BUSINESS WILL HELP YOU DRASTICALLY INCREASE YOUR PROFIT MARGIN AND IMPROVE PRODUCT MAINTENANCE, PRESERVABILITY AND INVENTORY MAINTENANCE

- ▶ By implementing Flash Freezers, you will be able to boost your profits in **two ways**:
 1. Lower Drip Loss
- ▶ Lowering Drip loss will result in products lasting longer, making it easier to have stock all year round and minimize inventory waste
- 2. Lower Power Consumption:
 - ▶ The 3D Tunnel Freezers boast having about half of the electrical costs of a typical freezer of this scale



REJOICE
リ・ジョイス SYSTEM



スリーディーフリーザー
3D Freezer®

The Flash Freezers

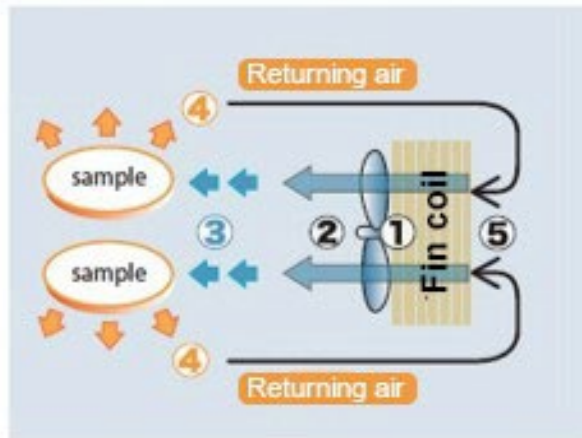
Rejoice: How it works

► The ReJoice Liquid Freezing Line utilizes the power of brine alcohol to rapidly cool and flash freeze a wide range of vacuum packed products from seafood to vegetables and even sweets and snacks. Boasting some of the fastest liquid freezing times on the market, the ReJoice series of Liquid Based Chillers is a perfect option for producers looking to ship pre-packed goods and products.



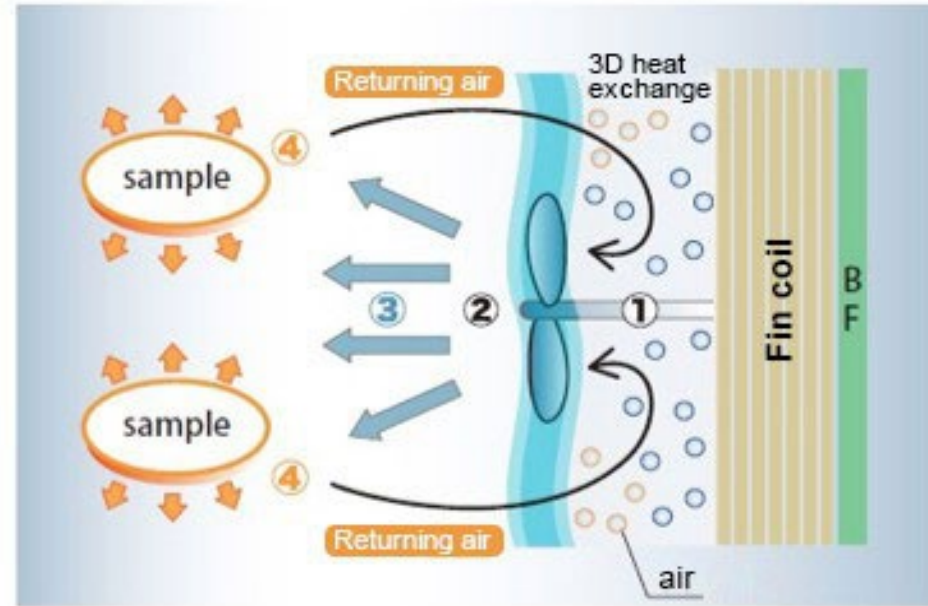
3D Freezer: How it works [Part 1]

Conventional freezing./Non-ACVCS



1. Heat exchange at the fin coil
2. Stirring the air
3. Sending the cooling air
4. Returning air
5. Duct structure to circulate the air

3D/ACVCS



THE 3D/ACVCS TECHNOLOGY ELIMINATES THE NEED FOR STEP FIVE

3D Freezer: How it Works

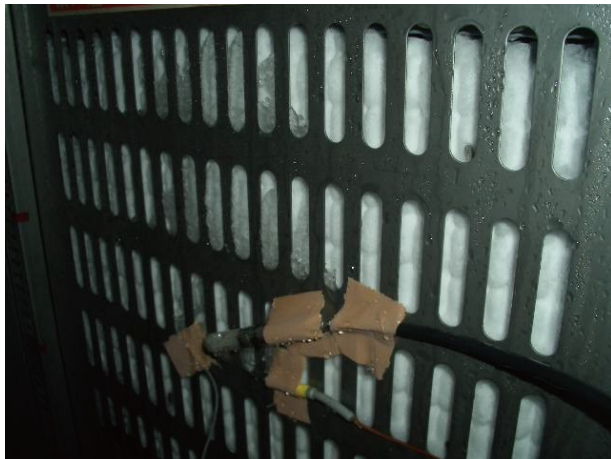
- ▶ Our range of 3D freezers are high end commercial freezers that use a special freezing technology called, “Anti Cycle Vibration Cold System” or ACVCS for short.
- ▶ ACVCS specializes in freezing ingredients, food, or other products via instantly freezing them from all angles using a 360° freezing method that cycles the air from different sections of the freezer, therefore by starting cellular crystallization from all angles, freezing the item in question faster than other conventional commercial freezers which only have air moving one direction.
- ▶ Instant Flash freezing means that the products frozen will not be damaged and maintain their original state when they are thawed. For more, let's answer some of the most asked question we receive from our clients.



ONLY ONE in the World
ACVCS® Anti Cycle Vibration Cold System

No Internal Frost Production: 3D Freezers

By generating steam inside the freezer, we observed the amount of frost in both. You can see that frost in a conventional freezer is clogging. In contrast to that, in a 3D freezer there is no clogging.



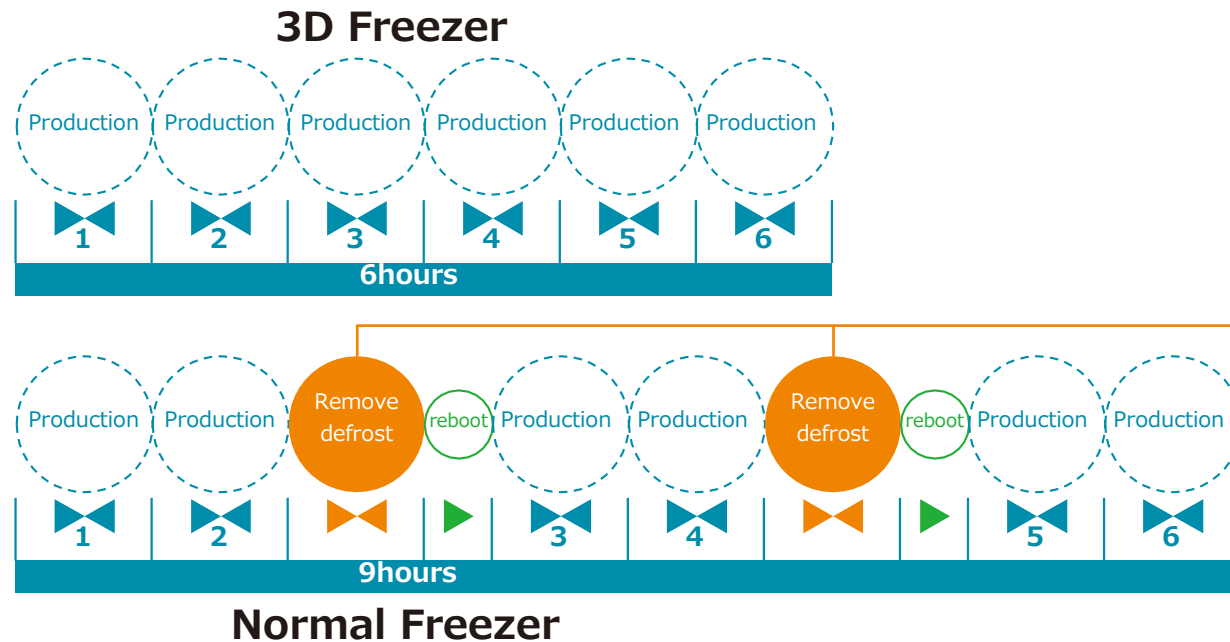
Conventional Freezer



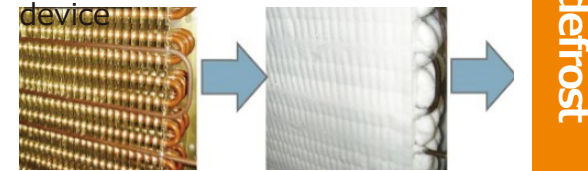
3D Freezer



Production Rate



Fin Coil device



Frost causes the internal temperature to increase. This puts additional load upon the compressor. The 3D Freezer does not experience this issue.

What merits arise from a decrease in frost production??

1. Increase in Production Time:

As I am sure you know, since the 3D Freezer does not need to defrost for 24 hours, the user is able to run it continuously during the day and just turn it off when finished using. This allows the user to run it throughout the day and increase his/her production greatly.

2. Stable Supply of Quality:

The problem that many companies run into when using conventional freezers is the sway in difference of taste and quality. This is mainly due to the fact that some of their products are being frozen during the mandatory defrost period, which causes a great loss in quality for that batch. The 3D Freezer does not have this problem due to the fact that it generally does not need to defrost. **Having a stable supply of great tasting products is quintessential for continued consumer support and repeat purchasers.**

Running Cost And Production

	Power consumption (when working)	Power consumption (when removing frost)	Removing frost	Hours of operation	Production number (per hour)	Production number (per day)	Power consumption (per day)	Electrical fee (per day)
3D freezer	22.8kw/h	7.2kw/h	0	15 hour	1,600	24,000	342.0kw/Day	0.29yen
Conventional Air Blast Freezer	24.2kw/h	19.9kw/h	4	11 hour	1,600	17,600	19.9kw/Day	0.39yen

Weight of product (food)

	Grilled rice ball		
	Before freezing	After freezing	After defrosting
3D freezer	100g	96g	99g
Conventional Air Blast Freezer	100g	92g	95g

Productivity
increased
36%

Reduce
0.1yen(26%)
per product!

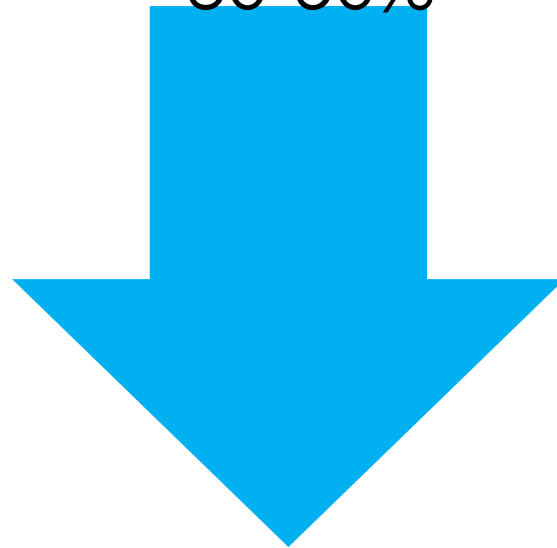
Yield rate
raised 4%!

Since 3D freezers prevent food from drying, the yield rate got higher!



Regular Blast Freezers have
Higher Electrical
Operational Expenses VS
the 3D Freezers or Rejoice
Freezers

30-50%



The Rejoice and 3D freezers cut
Operational Expenses by almost
30-50%

Freezing Test Results

A LOOK AT PRODUCTS FROZEN USING THE 3D FREEZER

Frozen To Defrost : Sushi



Fresh Vs Frozen : Shrimp



Frozen To Defrost : Sushi



Frozen To Defrost : Salmon



Frozen to Defrost : Pineapple



Frozen to Defrost : Mango



Frozen to Defrost : Cake



Exceptional Quality After Defrosting

WITH THE 3D FREEZER'S
ADVANCED ACVCS
TECHNOLOGY, OVERALL
PRODUCT QUALITY REMAINS
UNCHANGED AND
PRODUCTS RETAIN THEIR
TEXTURE AND FLAVOR

Final Words and Quality Assurance

We at flash-freeze.net believe in bringing the best service and satisfaction to our valued customers.

Given the scale of our operations, there are lots of factors to keep in mind when making a purchase. But we will be sure to help you every step of the way!

And you can be sure of one thing, when it comes to **quality**, we do not compromise.

Thank you for your patronage.

Flash-Freeze.net

The Pinnacle of Flash Freezing Technology

Contact:

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