

SW ULTRA LOW TEMPERATURE FREEZING

Overview and Product Introduction



**Individual Quick
Frozen Technology**

80 °C

DEFINING ULTRA LOW TEMPERATURE FREEZING

When we talk about Ultra Low Temperature Freezing, we are usually referring to temperatures within the range of -60 Degrees to -80 Degrees Celsius [-76 to -112 Degrees Fahrenheit]

These are temperatures that are used to freeze products for long time storage as well as shipping and inventory management.

The Ultra Low Temperature Freezing Technique allows us to minimize freezing time by rapidly freezing the product, improving product quality by reducing the size of the ice crystals that form during the ice crystal formation threshold [0 to -5 Degrees Celsius] in 30 minutes or less.

Ultra Low Temperature Freezing offers benefits such as **Minimal Drip Loss** , **Faster Freezing** and Processing of Inventory as well as the **Highest Freezing Quality** ensuring that the product always remains fresh.



PRODUCT OVERVIEW AND SPECIFICATIONS

AN OVERVIEW OF THE ULTRA LOW TEMPERATURE FREEZERS AND THEIR SPECIFICATIONS

The SW Ultra Low Temperature Freezer is designed using the highest quality components in order to deliver the best in industrial refrigeration. These features include but are not limited to :

Ice Crystal Nano Chemistry - The Ultra Low Temperature Freezer takes traditional IQF a step further by reducing the chemical bonds between ice particles, leading to further reduced ice crystal formation within cellular structure. This allows for safer freezing and minimal damage

German Made Cascade Design System for increased production at lower temperatures

304 Grade Stainless Steel providing unparalleled hygiene and safety standards

Components that are built to focus on **Durability, Sustainability and Energy Efficiency.**

DESIGNED WITH
EXCELLENCE

Compressor with Cascade Design

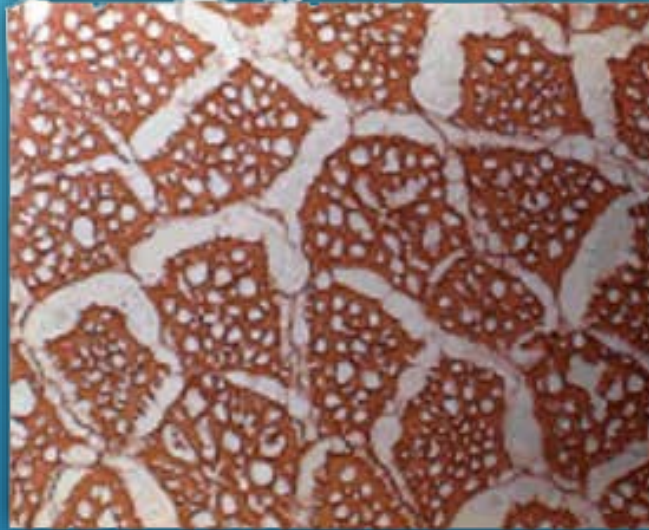


ICE CRYSTAL NANO CHEMISTRY

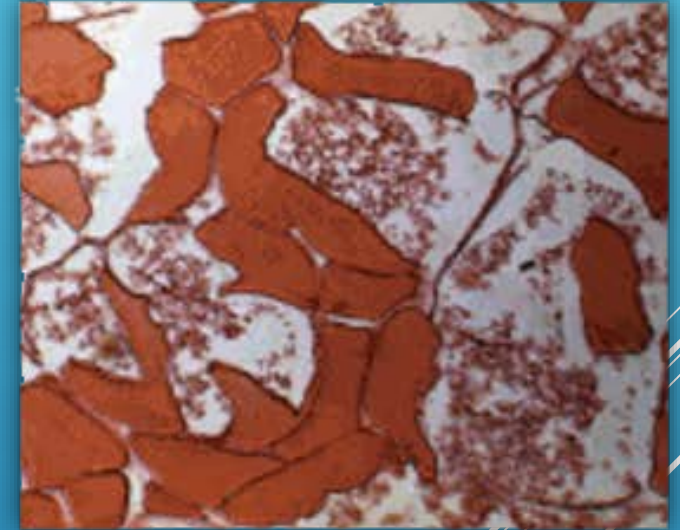
Food cells before freezing



Food cells after flash freezing



Food cells after freezing



Using Ice Crystal Nano Chemistry, the Ultra Low Temperature Freezer takes traditional IQF a step further by ensuring that the chemical bonds between the ice crystals are reduced significantly. This helps ensure the product undergoes minimal damage and is well preserved even upon defrosting with the lowest amounts of drip loss

STATISTICAL DATA

Statistical Data for Chicken Frozen 10 Hours Prior in Ultra Low Freezer	
Prior Weight (Gs before Freezing)	880.5 Grams
Current Weight (Gs after Freezing)	879.5 Grams
Weight Loss Percentage	0.16%
Food Appearance	Natural Light
Texture	Soft and Fresh
Time required to cook	15 Mins @ 100°C



Under regular freezing, products such as this have a weight loss percentage of 5-7%. This leads to huge losses in inventory sales price over time.

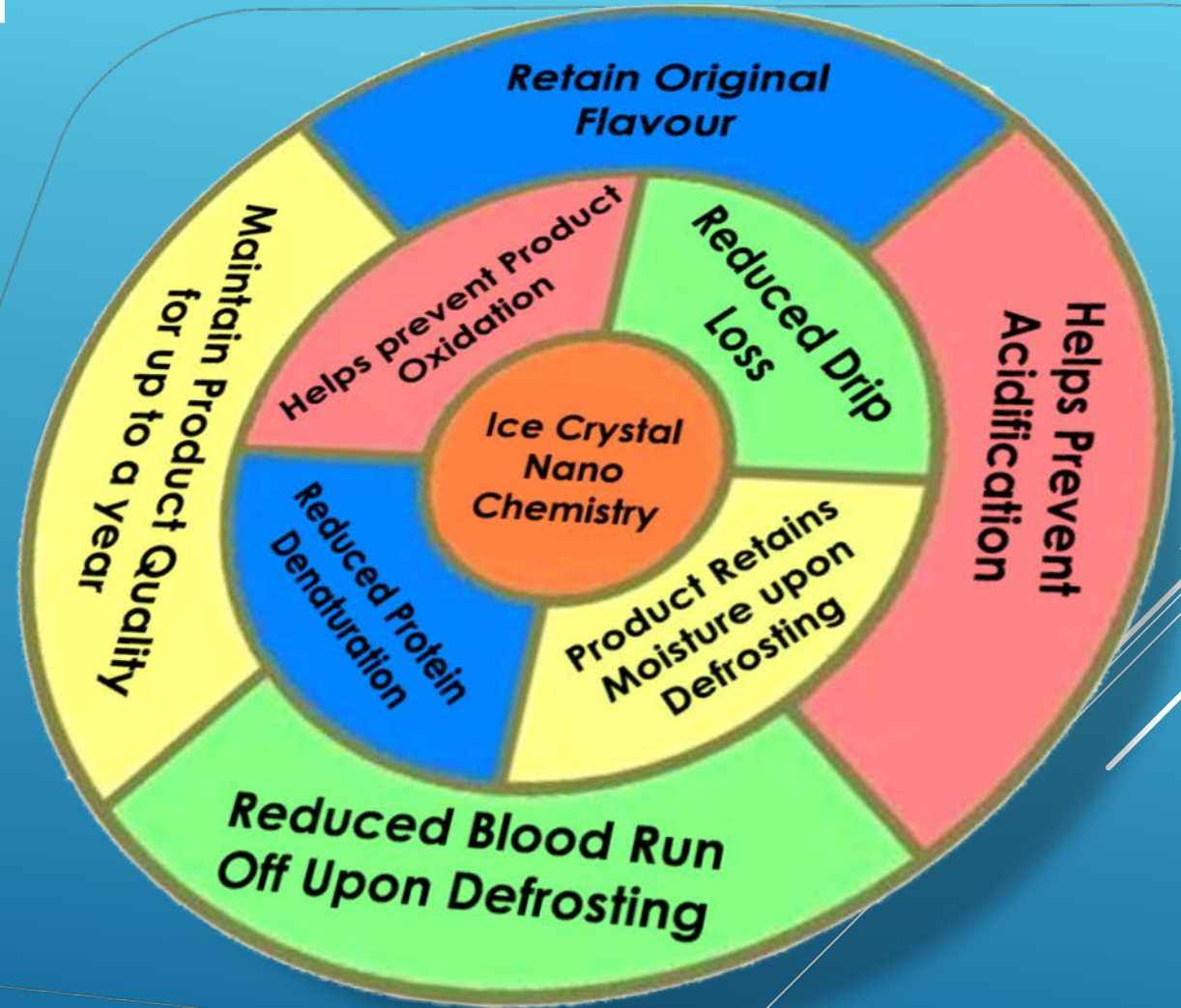
IQF Freezers can do better but Ultra Low IQF Freezing excels at it.

Noting a loss of barely 0.16% upon testing chicken, the statistical data speaks for itself in regards to quality.

ICE CRYSTAL NANO CHEMISTRY

The benefits of the Ultra Low Freezer's focus on Ice Crystal Nano Chemistry cannot be understated.

With a wide range of comprehensive benefits, and combining the best in refrigeration science and engineering expertise, the sky is the limit when it comes to Ultra Low IQF





MASS PRODUCTION SCALABILITY

The flexible design of the Ultra Low Temperature Freezer allows for unparalleled customizability.

Depending upon the range of operations, the Ultra Low Freezer can be scaled upwards allowing for Mass Production Capabilities that are tailored to meet the clients' needs.

If you would like to know more, reach out to us for a one on one consultation

Specifications



Model

SW-700-50

SW-700-60

- ◆ Tunnel Size
L:780cm/W:220cm/H:250cm
- ◆ System Host Size
L:130cm/W:210cm/H:230cm/2 Sets
- ◆ Frozen Capacity
300-500KG Efficiency by product

	Frequency	Compressor Horse	Cooling Tower
SW-700-50	50HZ	100HP	50 ton + 2 Sets
SW-700-60	60HZ	80HP	40 ton + 2 Sets

Common specification

- ◆ Conveying Belt Width 120cm
- ◆ Conveying Belt Height 12cm
- ◆ Conveying Belt Material SUS 304
- ◆ Tunnel Insulation Material Outer layer of tunnel SUS 304L
- ◆ Insulation material thickness 250mm



Model _____

SW-1000-50

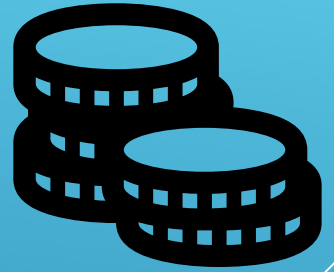
SW-1000-60

- ◆ Tunnel Size
L:1080cm/W:220cm/H:250cm
- ◆ System Host Size
L:130cm/W:210cm/H:230cm/3 Sets
- ◆ Frozen Capacity
500-700KG Efficiency by product

	Frequency	Compressor Horse	Cooling Tower
SW-1000-50	50HZ	150HP	50 ton * 3 Sets
SW-1000-60	60HZ	120HP	40 ton * 3 Sets

ULTRA LOW TEMPERATURE FREEZING : AS POWERFUL AS LIQUID NITROGEN AT A FRACTION OF THE COST

The Ultra Low Temperature Freezing Technology allows for rapid freezing with results comparable to liquid nitrogen freezing and temperatures as low as -80 Degrees Celsius at a fraction of the cost of a regular Liquid Nitrogen Freezer helps maintain the freshness of the product throughout the freezing process.



ULTRA LOW TEMPERATURE FREEZING : THE BENEFITS



Application



Fruit & Vegetable



Seafood



Meat Product



Frozen Foods



THE BENEFITS :



Ultra Low Temperature Freezing allows us to take advantage of a myriad of benefits.

Some of these benefits include but are not restricted to :

Faster Freezing :

Your products will be able to reach negative temperatures in a matter of a few minutes.

Reduced Drip Loss :

Better freezing technology allows for preservation of internal cellular structure and as such prevents reduced product weight and quality to water and drip loss.

Long Term Storage :

Products rapidly frozen this way can be stored for extremely long periods of time.

Highest Quality Maintenance :

The rapid freezing technology allows for the highest freezing quality.

Efficient and Economical :

Extremely efficient and at a fraction of the price of a nitrogen freezer while still achieving similar results.

PRODUCT HIGHLIGHTS

High Efficiency : German made compressor with Cascade Design System to increased production while still reaching ultra low IQF temperatures within a very short period of time.

Energy Efficient : The IQF Freezer can operate at only 80kw/hr. This is made possible by the isolation technology of the machine that is capable of maintaining lower temperatures with a lot less energy. This makes it an excellent choice for both going green and saving on electrical expenses.

Safe and Hygienic : The product is designed with 304 Grade Stainless Steel and includes supports. This facilitates easy cleaning even after mass production of a wide variety of products.

Customer Oriented : The products are designed keeping the customers needs in mind. Clients from various industries have varying requirements. These are factored into the design process to help create a machine that is suited perfectly for your business and its unique needs.



WORKING WITH US

At Flash Freeze, we choose to focus on a mentality of working together rather than working for sales. This involves working closely with our clients to understand their exact requirements as well as what they need specifically in a freezer to best improve their business.

By understanding our clients and their visions, we can deliver more than just a product, we deliver a solution.

For one on one consultations or support on any questions you may have regarding ultra low temperature freezing, please do not hesitate to contact us.

You may reach us here :

Website :

<https://flash-freeze.net>

Email & Skype:

support.en@flash-freeze.net