
Quick Freeze Machine, Flash Freezing Equipment

Quick Freezing Process and Flash Freeze Machine



Quick freezing is rapid freeze of food by exposure to a blast of air at a very low temperature. Unlike slow freezing, very small crystals of ice are formed which do not rupture the cells of the food and so the structure is relatively undamaged.

A freeze tunnel is a process where the materials to be frozen are placed on an endless conveyor and passed through the tunnel where the refrigerants are used to cool the air and through circulation allow the material to become frozen.

In the freezer the product is individually quick-frozen. This means that a high capacity cold airflow is blowing through the product. In the first stage brings the product on the temperature of -5°C . The second is cooled down further till -18°C ; a retention time in a freezer is minimum 9 minutes.

Tunnel quick freezer application

Tunnel quick freezer is suitable for frozen fruits & vegetables, meat, seafood, such as asparagus, broccoli, carrot, strawberry, beef, divided meat, shrimp, sliced fish, meat ball, etc.

As a frozen French fries machine, the tunnel instant freezer works after chips fryer, it could keep it fresh for long time storage. The frozen French fries keep the original taste and are crispy. Frozen fries are of the best quality as service of top restaurants' French fries.

In the latest vacuum frying process, tunnel freezer is often used before vacuum fryer. Vacuum fried vegetable and fruit chips keep the natural taste and more crisp, more popular with low-fat content and retaining the desirable texture and flavor.

Tunnel Quick Freeze Machine Features



Tunnel Quick Freeze Machine adopts environment friendly and high efficient compressor and refrigerant R17 or R22, low noise.

Tunnel Quick Freezer is an efficient impingement mesh belt tunnel quick-freezing device

Due to blast air of higher velocity in freeze tunnel with the unique air ducting to achieve a uniform air distribution, unfrozen food material like fries, chips and fresh vegetable is fully exposed in the strong cold air.

There are independent vibration devices under the belt mesh; the mesh space is not block with frost, less wind resistance reducer, much stronger cold air flow smoothly. Also freezing materials will become into individual frozen food without agglomerate and sticks.

Flash Freezing Equipment Technical data

No.	Item	
1	Type	Tunnel Quick Freeze Machine
2	Application Freezing Products	fruits & vegetables, meat & seafood
3	Non-frozen Products Type	Bulk without any package or put in tray
4	Non-frozen Products Arrangement	Place on mesh belt directly
5	Freezer Working	Continuous freezing
6	Freeze Method	Blast freezing
7	Air Supply Mode	Strong convective blowing
8	Non-frozen Products Temperature	Less than 20°C (Central temperature)
9	Frozen Products Temperature	-18°C (Central temperature)
10	Freezing Time	10-45min
11	Freezing Temperature	-35°C
12	Mesh Belt Material	304 Stainless steel
13	Defrosting method	Water Defrosting
14	Library Body Thickness	120 mm
15	Bulk density of Polyurethane Plate	42 kg/m ³

16	Library door seal	Equipped with frame heating device
17	Energy saving	Multi block air strips both inlet and outlet

Specification	SSD300	SSD500	SSD1000	SSD1500
Freezing Capacity	300Kg/h	500Kg/h	1000Kg/h	1500Kg/h
Refrigerant	R717.R22	R717.R22	R717.R22	R717.R22
Cold consumption	54KW	96KW	170KW	255KW
Freezer Power	8KW	14KW	21KW	30KW
Dimension	12600*2700*2300 mm	13800*3200*2500 mm	22900*3700*2500 m	26400*4200*2500 m
Mesh Width	1500mm	2000mm	2500mm	3000mm
Refrigerating unit	Double screw compressor with condenser			

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Next Product: [Fluidized Quick-Freezer](#)

Refer to: [Frozen French Fries Making Machine](#)

Product link : <https://www.french-fries-machine.com/product/quick-freeze-machine-flash>