



Freshline® TRS freezer

The continuous cryogenic solution for crust freezing and chilling

In the last few years, lifestyle trends towards convenience products have led to a dramatic rise in demand for sliced packaged meat and other delicatessen style products eg. bacon, cooked ham, salamis etc. At the same time, advances in cutting technologies have increased the speed at which products can be sliced. Traditionally, to enable ease of slicing, large portions or logs of meat products are crust chilled using batch mechanical or cryogenic systems. In most cases these solutions involve a high proportion of manual labour to move products between chillers and slicing lines. This not only adds labour costs into the process, but products are also subject to temperature discrepancies while being moved from one area to another. This is why we developed the Freshline® TRS freezer.

Benefits of nitrogen systems

- Reduction in weight loss caused by dehydration
- Reduction in enzyme and oxidative deterioration

- Reduction in the size of ice crystals
- Microbial stability
- Improvements in appearance
- High freezing speed
- Flexibility in production
- Low financial investment
- Reduction in space taken up by the equipment

Crust chill, slice and pack continuously

The Freshline® TRS freezer is a continuous system for crust freezing meat and other products that require slicing. It is unique in that it uses the power, quality and speed advantages of nitrogen but unlike the traditional batch freezers or other cryogenic tunnels, it is designed to work in conjunction with high speed cutting machines and has special fan systems. The freezer ensures all sides of the product are evenly chilled. Effectively you can crust chill, slice and pack in one continuous line.

Meet peak demands, fast

Many processors these days are working to “just in time” production so need the flexibility to increase their output at short notice. The Freshline® TRS freezer can provide a fast and effective add-on to existing slicing lines which can be utilised as and when required.

The process takes between three and nine minutes depending on product composition (eg. fat content and added water). By just freezing the crust (between 0 and -5°C), the product surface becomes harder. This means the cutting blades get a better grip onto the meat during the slicing process and a clean and homogeneous cut is achieved.

Save space

Normal inlet temperature of the product is between 0 and 3°C and the slicing machines work continuously up to 2000 kg/h. The tunnel uses a double LIN injection system and a double exhaust system. In many factories space is a problem, but the Freshline® TRS freezer is just three metres long and 1220 millimetres wide which makes it possible to install in front of most slicing lines.

Advantages

- Crust chill/freeze in minutes not hours
- Reduce manual labour costs
- Increase refrigeration capacity
- Homogenise slicing for better yields
- Reduce waste from moisture loss and product damage
- Process inline with high speed cutting systems



Specifications

Services and other details				
Electricity	400V, 3ph, N, E, 23A			
Compressed air	2Nm ³ /h @ 5-7barg			
Design nitrogen requirement	500kg/h @ 3barg			
Freezing area dimensions	Length	3m	Width	1.22m
Overall dimensions	Length	4.05m	Width (doors open)	3.28m
	Height (to top of panel)	2.29m		
Maximum product height	200mm			
Weight of machine	1800 kg			
Default control panel position	Infeed end, right			
Normal operating temperature	-20°C to -60°C			
Normal operating hours	8 hours (1 shift) per day (room oxygen monitor recommended)			
	20 hours (2 shifts) per day (room oxygen monitor mandatory)			

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