

CRYOLINE®

Triple Deck Freezers



Operation

A triple deck freezer consists of an insulated box within which three belts turn, one upon other. After feeding in the product it travels along the top belt where it is sprayed with liquid nitrogen to quickly freeze the surface of the product. While the product travels from one belt to the next, the cold gas in form of vaporised nitrogen is used to fully freeze the product. It is circulated around the belts by means of fans located within the freezer and is then safely exhausted to the atmosphere by means of an exhaust fan. The circulation of the gas ensures that it is efficiently utilised before exhausting. At the lower belt the product is propelled to the out-feed of the freezer.

The very low temperatures give a very fast action that preserves quality and minimises weight loss by dehydration.

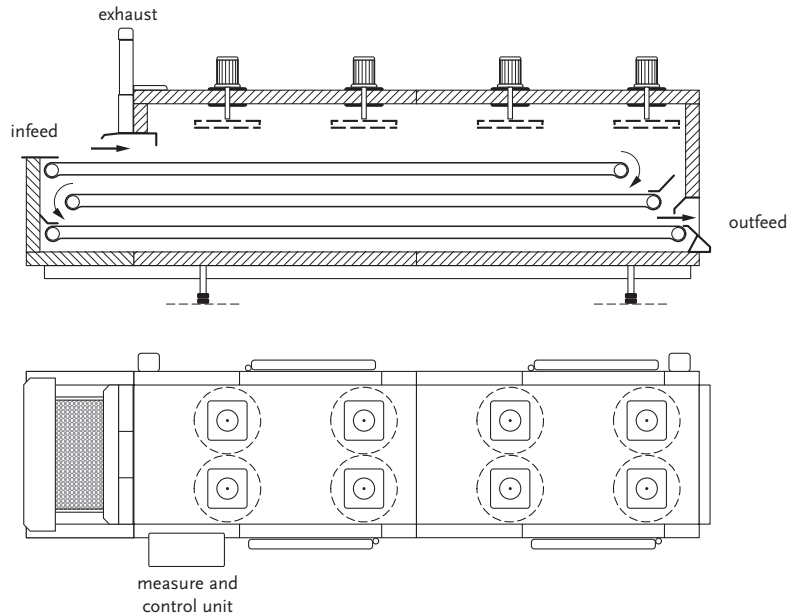
Applications

Many products can be frozen or chilled by this method, however they must be able to stand being tumbled from one conveyor to the next below it. It is very suitable for meat pieces, patties, ground or minced products, seafood and fruits for example. A triple deck freezer is a continuous in-line freezer so it is suitable to being placed within a production line.

It should not be considered for products that need to stay upright, such as pizzas and cartons of ready meals.

Hygiene

All triple deck freezers are built to high levels of hygiene allowing the processor to easily and quickly clean them after use. Some are also fitted with CIP (Clean In Place) systems to ensure thorough cleaning. The enclosure, all foodstuff contact points and the belt are constructed from stainless steel and care is taken to ensure good drainage of cleaning water.



Summary of benefits

- For the same capacity much smaller footprint than standard tunnel freezers
- High capacity
- Continuous freezing
- Fully controlled refrigerant injection for high efficiency
- Fast freezing for a higher quality
- Easy to clean
- Comparatively low investment cost
- Low maintenance requirement
- Easy to operate

Availability of triple deck freezers from Linde

We are able to offer a wide selection of triple deck freezers with varying lengths and belt widths. The choice will depend on the type of product, the temperature change required and the available floor space. Please consult your local Linde representative in order to make the best choice.

Linde can also offer a full range of different freezers for almost any type of product including:

- Cabinet freezers for batch production
- Tunnel freezers for continuous inline production
- Immersion freezers for small IQF products
- Spiral freezers where space is limited and a high capacity is required
- Pellet freezers to form pellets for sauces etc.

Treating Food Better

Other leaflets about our complete range of applications and products are available in all sales offices.

Our experts are available for consultation.

Subject to change

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