

# Impingement Freezer.

The most effective freezer in the industry.



## Benefits

- Highest freezing capacity per square foot of floor space
- Lowest dehydration rate in the industry
- Unique impingement design provides faster, more-efficient freezing
- Simple design eases cleaning process
- Minimum air infiltration
- Modular design allows for ease of expansion

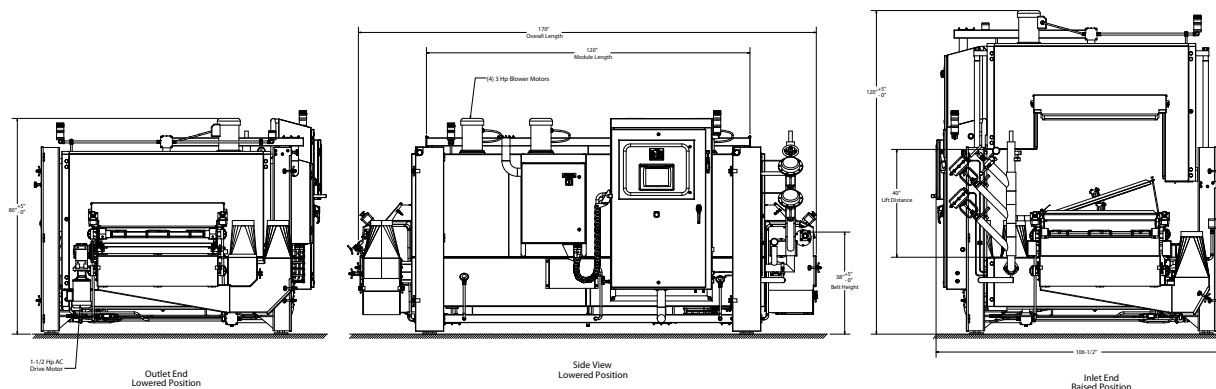
The unique Messer impingement freezer is designed to easily and quickly freeze a diversified range of product types. Smaller in size than conventional cryogenic freezers, it occupies less space on the production floor (typically 60 percent less floor space than conventional cryogenic tunnel freezers for the same production rate). Its unique cryogen delivery mode reduces dehydration losses up to four or five times that of mechanical methods and up to two or three times that of conventional cryogenic freezers.

With its modular design and choice of belt widths, the impingement freezer gives processors several options to satisfy their freezing needs. The versatility of this patented system makes it the ideal freezer for nearly all frozen food products including formed patties, raw chicken filets, cookies and cookie dough, crusts and shells, and fish filets.

The Messer impingement freezer offers extremely high convective heat transfer rates and provides efficient use of liquid nitrogen, thereby reducing the cost to freeze. The uneven heat transfer rate found in conventional freezing equipment is replaced with continuous, consistent, even freezing across and along the belt and from both the top and bottom surfaces. Additionally, the hydraulic lift design provides easier access to internal surfaces for cleaning.

## How it works

At the inlet port, the surface of the food product is instantly crust frozen with a liquid nitrogen spray and high velocity nitrogen gas, which traps moisture inside the product. As the product continues along the belt, it continues to be impinged from both sides with high velocity nitrogen gas. Maximum process efficiency is achieved by moving and warming the nitrogen gas as it travels with the product flow down the length of the freezer. In addition to adding efficiency, the modular design adds flexibility by assembling 10 and 20 foot-long sections to be assembled to fulfill a customer's precise requirements.



## Impingement Freezer

Model	KFIT-26-xx	KFIT-38-xx
Dwell Time	As Required	As Required
Construction Materials	Stainless Steel	Stainless Steel
Insulation Materials	Polyurethane Foam: 6 in. Bottom, 5 in. Sides and Top	
Dimensional Data		
Belt Width	28 in.	40 in.
Belt Height	39 in.	39 in.
Active Freezing Length	10 ft. and 20 ft. modules assembled to desired length	
Overall Width	73 in.	89 in.
Overall Lowered Height	64 in.	68 in.
Overall Raised Height	119 in.	123 in.
Electrical Data		
Belt Drive Motor	1.5 hp (1.1 kW)	1.5 hp (1.1 kW)
Fan Motors	4@3hp (2.2 kW) (10' module)	4@3hp (2.2 kW) (10' module)
Electrical Requirements	460V / 3 Phase / 60 Hz	460V / 3 Phase / 60 Hz



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