



**QUICKFREEZE™**

THE **FASTEST**  
WAY TO  
**FREEZE** A PALLET  
TEMPER  
**CHILL**  
WARM



**FASTER**  
AT ANY  
**TEMP**

[www.QuickFreeze.com](http://www.QuickFreeze.com)



Today's cold storage market is a highly competitive space. The QuickFreeze system will give you the ultimate competitive advantage over facilities using outdated pallet freezing methods while quickly improving your ROI. The patented QuickFreeze family of products is the future of freeze technology.



**QUICKFREEZE™**



**QUICKFREEZE™**

## Results that Matter.

Tippmann Engineering (TE) specializes in the manufacturing of equipment for controlled environments. TE is world renowned for the patented QuickFreeze System. QuickFreeze draw-thru air technology is proven to be the fastest way to freeze, temper or chill palletized food. Our in-rack & modular technologies bring blast freezing into the 21<sup>st</sup> century.

 **Tippmann  
Engineering**



**QUICKFREEZE™**

# STATE OF THE ART FREEZE TECHNOLOGY

QuickFreeze is easier to work with, more consistent and predictable, less expensive to operate and turns product into profit more quickly. That's simply the definition of better in every way.

## Get your QuickFreeze System with our 3 Step Process:

- 1. Test:** We will test your product in your facility with our QuickFreeze test model.
- 2. Report:** TE will then analyze the test and provide a comprehensive report.
- 3. Install:** We can install our stock system in as little as 1 week.





**QUICKFREEZE™ [vs]**

## TRADITIONAL BLAST FREEZERS

The patented QuickFreeze System does more than provide an alternative to traditional blast freezers, it makes them obsolete. QuickFreeze beats the blast of the past with speed, flexibility and consistency.

### FASTER

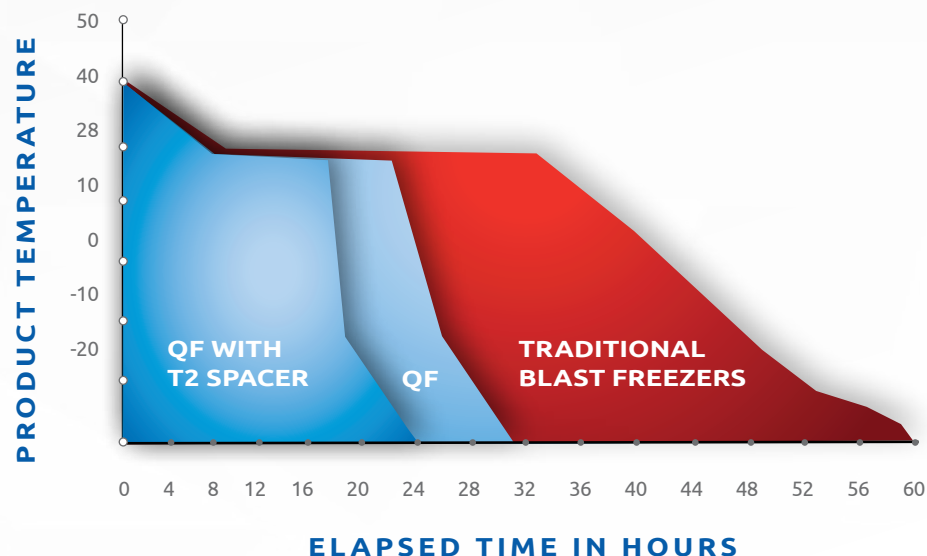
- The fastest way to freeze a pallet
- Up to 80% less time required to freeze a pallet
- Faster freezing results in higher quality frozen food product

### HIGHER CONSISTENCY

- All product freezes at the same rate
- Each pallet freezes at the same rate
- Predictable freezing reduces quality control issues
- No “sweet” or “slow” spots

### FLEXIBILITY

- Locations can be used for freezing or storage
- No more batch freezing
- Reduced handling costs
- 200 – 400% increase in throughput per pallet position
- Install QuickFreeze temporarily for seasonal products (QFM only)





# QUICKFREEZE™

## BEATING THE BLAST

What makes the QuickFreeze System so much better? It begins with the way it cools. Rather than blasting cold air at palletized products and hoping some airflow gets to the center, QuickFreeze uses patented technology to pull air through the product for more consistent and predictable freezing. And it's fast – freezing pallets up to 400% faster than conventional methods.

### MAXIMIZE AIRFLOW

QuickFreeze works by sealing the product against the negative air pressure plenum to draw air evenly through the spacers in every pallet. Using negative air pressure inside the plenum freezes the product much quicker than using positive air pressure blown towards the product. Pairing a QuickFreeze System with our exclusive T2 Spacers creates a uniform airflow pattern for maximum freezing.

QFM and QF+ are  
built in a standard  
rack configuration,  
so no blast freeze  
cells are needed.



Our patented design includes an exclusive swing gate feature that automatically adjusts to various pallet heights. (16" Standard for QF+ and 20" for the QFM)



## EASY LOADING AND UNLOADING

Because QuickFreeze uses single deep select rack, the system is much easier to load and unload than a traditional blast cell. QuickFreeze results in fewer touches and less time required to move each pallet, saving both time and money. Plus, you can leave pallets stored in their freezing positions when not in use.

## BOTTOM LINE

Because it freezes product faster, the QuickFreeze system makes a big impact on your bottom line. Faster freezing means shorter dwell times, which means you can turn inventory into revenue faster. It also reduces the amount of space devoted to freezing.

But that's not the only way QuickFreeze helps cut costs. Freezing product in a storage racking system results in fewer expensive inventory moves. Finally, the QuickFreeze System is less expensive to build per pallet position than a traditional blast freezer.

## FOOD SAFETY

Unlike traditional blast freezers, there aren't any "sweet" or "slow" spots with QuickFreeze. Every case on each pallet freezes at the same rate, in a predictable, repeatable pattern every time. Food safety experts love predictability. Because foods freeze faster, QuickFreeze results in higher quality frozen food products – something else safety professionals love.

## GUARANTEED RESULTS

Each QuickFreeze System is engineered based on product characteristics, pallet configuration, refrigeration capacity, in-bound product temperature and required throughput. TE guarantees the performance of the system based on these criteria and provides a specific freeze time. This way, you can determine the savings right away.





# QFM

## COOL MOVES.

### EXPERIENCE DRIVEN DESIGN

Now you can get the same revolutionary freezing power of the QuickFreeze QF+™ In-Rack Freezing System in a modular, mobile unit. QFM is the next evolution of QF+. It is designed to work with your existing racking and allows you to increase capacity—FAST! Plus, you can remove and transport QFM between locations.





**On average QFM will generate 26x the revenue of a standard pallet position.**

## **EQUIPMENT FOLLOWS DEMAND**

The days of “If you build it, they will come” are gone. Why invest in capital expenditures when you don’t have the account yet? With QFM, lead times for building your blast freezer have disappeared. Now you can build it when you know it is coming. Units are in stock and can arrive at your specified location within 1 week anywhere in the 48 contiguous states.

## **MORE THAN JUST FREEZING**

Whether you need to freeze, temper, chill or warm palletized product, QFM is the answer. Warm to cold or cold to warm QuickFreeze will take your product to the specified temperature faster than any other method. We will factor all the variables that make your warehouse unique and find the optimal configuration to get your product to its desired temp as quickly and efficiently as possible.



# The 'M' stands for Maximum airflow, Modular, Mobile...or just plain Magic.

## HOW IT WORKS

As with QF+, airflow is the most important factor in removing heat during the freezing process. This proven principle is the basis for QF+ and QFM. By drawing air through each pallet, heat is pulled away as quickly as the product will release it, providing speed, consistency, and predictability.

## MAXIMIZE AIRFLOW

- A dedicated fan and plenum rapidly pulls air through the pallet rather than blasting air at it.

## MODULAR

- Users can install & remove QFM themselves. This allows equipment to be moved to other locations or stored off season.

## SMARTER

- **Occupancy Sensing** - QFM starts when pallet is placed in front of the QFM unit and shuts off when product reaches target temperature or pallet is removed
- **Adjustable Dwell Time** - Change the cycle time remotely through API or web interface
- **IoT** - Data logging, remote control, WiFi, JSON Communication
- **Traceability** - License plate/lot info can be associated with freeze data

## FASTER

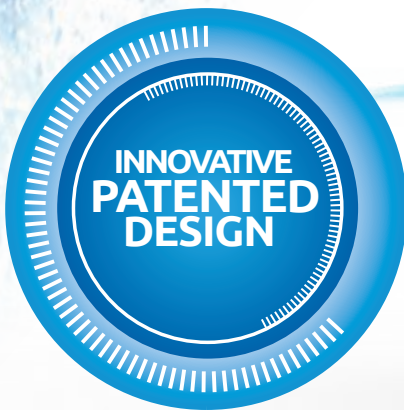
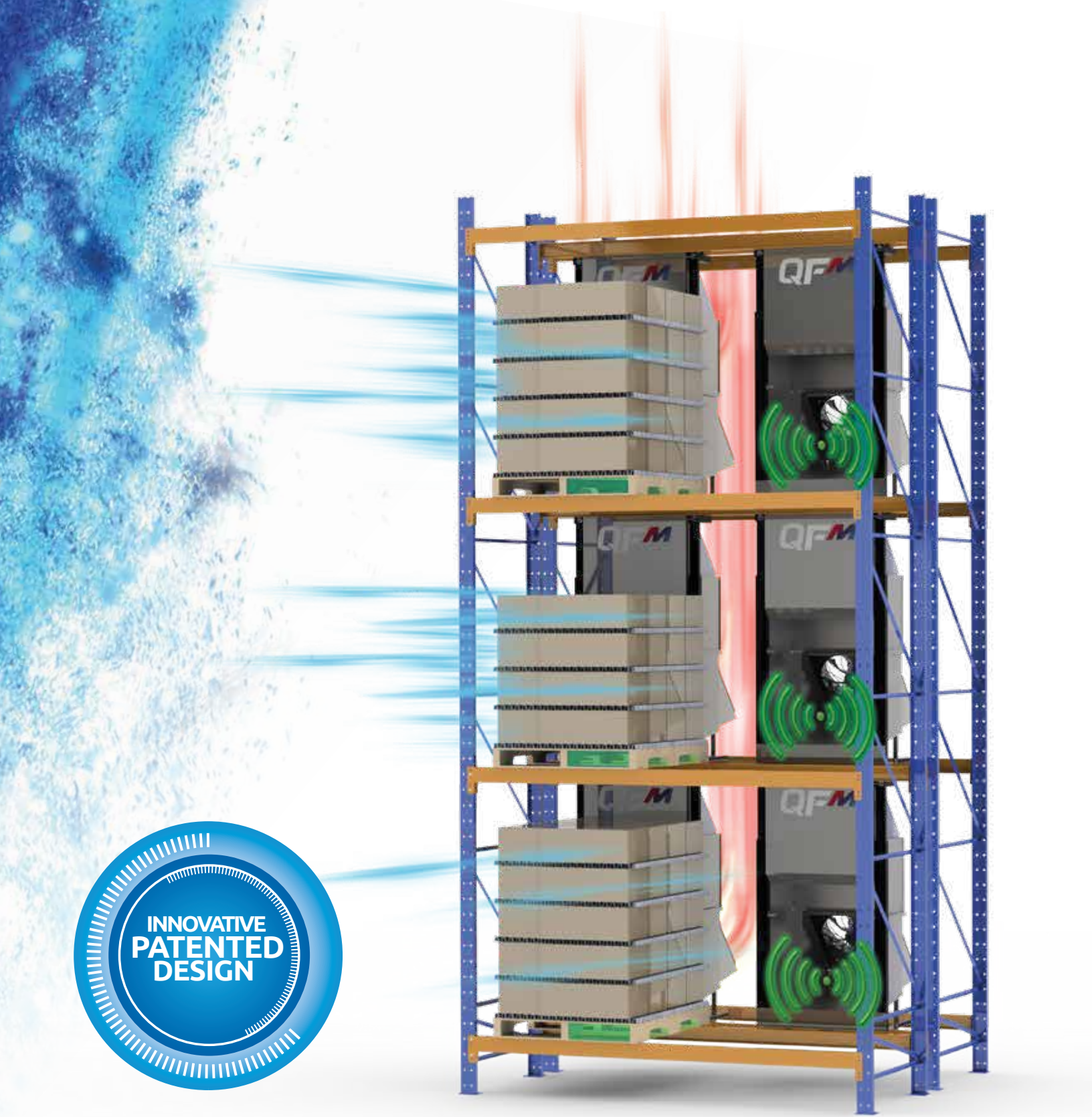
- QFM freezes up to 80% faster than conventional blast and up to 40% faster than QF+
- Faster and consistent freezing results in higher quality product
- Fastest freezing times in the industry

## AGILE

- Works with existing racking
- Easily expandable
- Allows you to adjust for seasonal product freezing fluctuations
- Eliminates downtime with no batch freezing
- Reduces handling costs
- Allows you to freeze occupied pallet locations only

## SPECIFICATIONS

- Unit weight: 274 lbs.
- Shipping Weight: 578 lbs. (2 units)
- Motor: 480V / 3-Phase / 60 Hz / EC Motor
- Width: 36"
- Maximum beam to beam height: 100"
- Minimum beam to beam height: 66"
- Maximum pallet height: 94"
- Minimum pallet height: 40"



## COOL FEATURES

- Advanced LED communication indicates status of each pallet position
- Automatic shutdown lowers utility costs
- Ability to gather KPI's and other smart data





## BLAST IS THE PAST

QF+ operates on the proven principle that airflow is the most important factor in removing heat during the freezing process. By drawing air through each pallet, the heat is pulled away as quickly as the product will release it. This allows pallets of product to be frozen more quickly and consistently when compared to any other pallet freezing method.



# THE FASTEST WAY TO FREEZE A PALLET

One look at the QuickFreeze QF+ In-Rack Freezing System from TE and suddenly the blast freezers that once seemed so revolutionary are immediately outdated. That's the power of the QF+ – the new look of cool.

Controls fully integrate with your refrigeration system for easy operation

Vacuum created by high pressure fans pull air through pallets rather than blowing cold air at them

Warm air is evenly distributed for ideal heat removal

Chilled air is pulled through exclusive T2 spacers™, providing even airflow around product for better heat transfer, reduced freeze times and even product freezing

Heavy duty racking provides durability

Airflow at the center of pallets have been measured at up to 30 times the airflow in a traditional blast freezer

Racking configuration makes loading and unloading easy, helping to cut labor costs

QF+ is built in a standard rack configuration so no blast freeze cells are needed.



## WHAT MAKES QF+ SO COOL?

Every part of the QF+ System is designed for performance and durability. Every inch is built to cut down freeze times and increase product quality. Traditional blast freezers don't even come close.



Easy to read pallet guides

Exclusive swing gate automatically adjusts to pallet heights

T2 Spacers provide crush-proof support for even freezing

Continuous freezing capability eliminates batch freezing

Pallet stop prevents air flowing through pallet

Fits standard width warehouse aisles for easy loading and unloading



# QF+™



# T2 SPACER SYSTEM™

## TWICE THE VELOCITY, HALF THE FREEZE TIME – GO FIGURE.

The T2 Spacer System's revolutionary design maximizes air velocity across and within the pallet. While consistent airflow eliminates partial freezing, the real news is in the freeze time – or lack of it. The T2 Spacer System has been proven to reduce freeze times by up to 40%. That's 40% shorter pallet turn-around or 40% more capacity for your existing facility. That's an instant improvement to your bottom line.

## SOLID DESIGN. GREAT PERFORMANCE.

- Up to 40% faster freezing
- Consistent freeze throughout pallet
- Reduced risk of food spoilage
- Increased energy efficiency
- Lowest amount of purge during tempering
- Fits standard blast freeze racks with full pallet

INCREASED  
SURFACE AREA  
FOR TWO TIMES  
THE CONTACT

RIGID  
SUPPORTS  
PREVENT  
CRUSHING

SINGLE AXIS  
AIRFLOW  
FOR FASTER  
FREEZING







## CRUSHING NEWS FOR THE COMPETITION.



VS



**Faster.  
More efficient.  
Crush-proof.  
It's almost not  
fair to compare.**

### T2 Spacer System™

- No crushing – up to 2 tons
- Airflow pattern matches same airflow in all blast freezers
- Increased air velocity across and within pallet
- Supports deformed and wet boxes
- Uniform 1.25" height

### Egg Crate Spacer

- Crushing is not unusual
- Poor airflow results in longer freeze times and partially frozen product
- Bottom, innermost cases prone to incomplete freezing
- Box integrity is always a safety issue
- Longer freeze times max out production capacity



# Product Overview



On-Demand freezing & tempering that works in existing racking to convert storage positions into blast positions overnight. Remote monitoring and control through wifi and integration into existing software through a standard API. Dedicated fan for each pallet ensures maximum performance and reliability.



The QF+ In-Rack Freezing System integrates into your existing cold storage facility and offers up to 30x the airflow compared to traditional blast freezers. Built to fit into standard warehouse aisles, the QF+ will easily convert your existing warehouse into a cost saving juggernaut.



The T2 Spacer System is first in class when it comes to durability and efficiency. It has the ability to withstand up to 4,000 lbs. of pressure while delivering the best airflow velocity on the market. The T2 Spacer has been proven to reduce freeze times by up to 40%.

For more information on the QuickFreeze Family of products, to schedule a phone call, in house consultation, or product demonstration please call us at 260-234-2151 or visit on the web @ [www.QuickFreeze.com](http://www.QuickFreeze.com)



**QUICKFREEZE™**



**TE** Tippmann  
Engineering

We Build **Cool** Solutions



6340 Innovation Blvd. Fort Wayne, IN 46818 • 260-234-2151  
[www.QuickFreeze.com](http://www.QuickFreeze.com)

MKT-196 • 01/15/2020 | Patents: <http://www.QuickFreeze.com/Patents>