

# MIP 8 Tempering Tunnel

## Precision Tempering Control

Greatly reduce tempering time for frozen meat, fish, poultry, fruit or bakery products from days to minutes with Ferrite Microwave Technologies' (FMT's) Tempering Tunnel System. Temper up to thousands of kilograms of zero degree Fahrenheit (-18 degrees Celsius) product per hour.

Microwave tempering enables precise control of product temperature for further processing, such as slicing, grinding, dicing, forming, and molding.



## Simplify the Tempering Process

## A Complete Tempering System

The basic system consists of a 4-foot by 4-foot by 8-foot long cavity with an internal oscillating conveyor, up to three dependable microwave generators, a loading conveyor, and an unloading conveyor.

Precise final product temperature control is maintained with simple time and generator power adjustments.

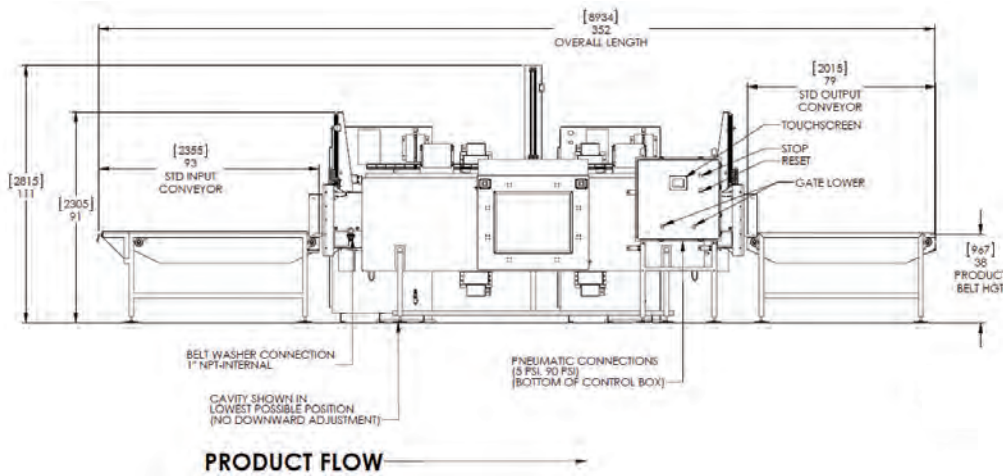
The MIP 8 simplifies the food tempering process. It eliminates tempering rooms and racks, along with the resulting sanitation issues and brings precision to your food processing procedures. Microwave tempering gives control over the production process and helps plan both input and output production on a daily, weekly or monthly basis. Product quality and yield are improved and drip loss is minimized. Flavor and protein compounds remain in the product and are passed along to the consumer. Controlled temperature increase and predictable final temperature ensures processing flexibility.

## MIP 8 Highlights

- Adds flexibility to processing by facilitating tempering on demand, aiding in cash flow management
- Enables predictable final product temperature control
- Eliminates the need for tempering rooms or racks, saves space and multiple handling sequences
- Improves quality and yield
- Allows remote system troubleshooting by FMT service technicians via Ethernet access to PLC controls
- Industry proven, user-friendly FMT system software and Allen-Bradley controls

# Ferrite Microwave Technologies

We design our Industrial Microwave Systems with three primary factors in mind – Generation, Application and Control.



## Microwave Isolation

Each FMT75A-01 generator is electrically isolated from the process oven by an integral microwave circulator, which helps provide long magnetron tube life.

## Product Transport

A 20-inch wide positive drive, articulated belt loads material onto the cavity conveyor and into the tempering cavity. After the loading step is complete, cavity doors are shut and microwave tempering automatically begins.

While in the tempering mode, the cavity conveyor oscillates the product back and forth to ensure uniform heating. Once the tempering cycle is complete, doors are opened and product is unloaded onto the exit conveyor.

## Safety

Interlocking access doors on the microwave transmitters and process ovens meet applicable government safety standards including CE compliance.

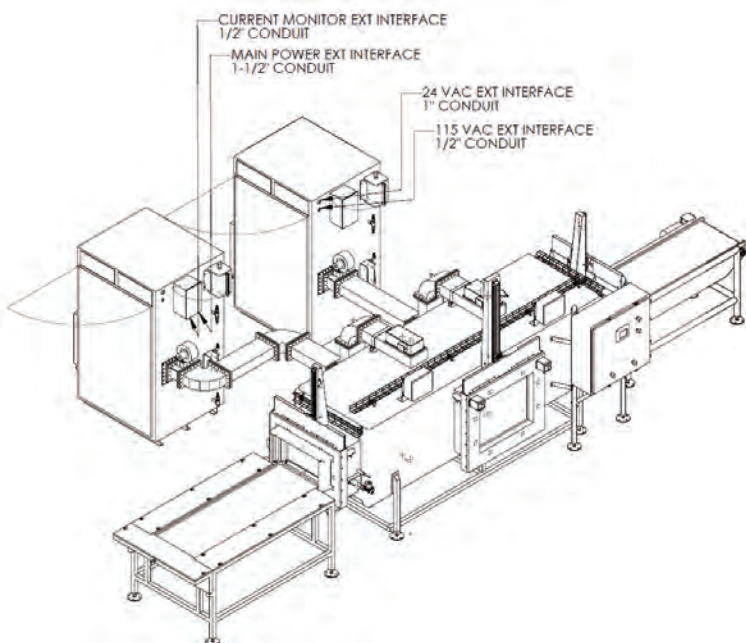
The unit also features arc detection, optional light curtains on either end of the tunnel, and emergency stop buttons. A two button gate lowering function provides extra protection.

## Customization

System design can be customized to meet specific customer requirements.

## Sanitation

The ovens and microwave generators are manufactured from stainless steel, and the process oven and conveyor belt are wash-down safe.



# Ferrite

## Microwave Technologies

High Power Microwave Systems and Technology

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