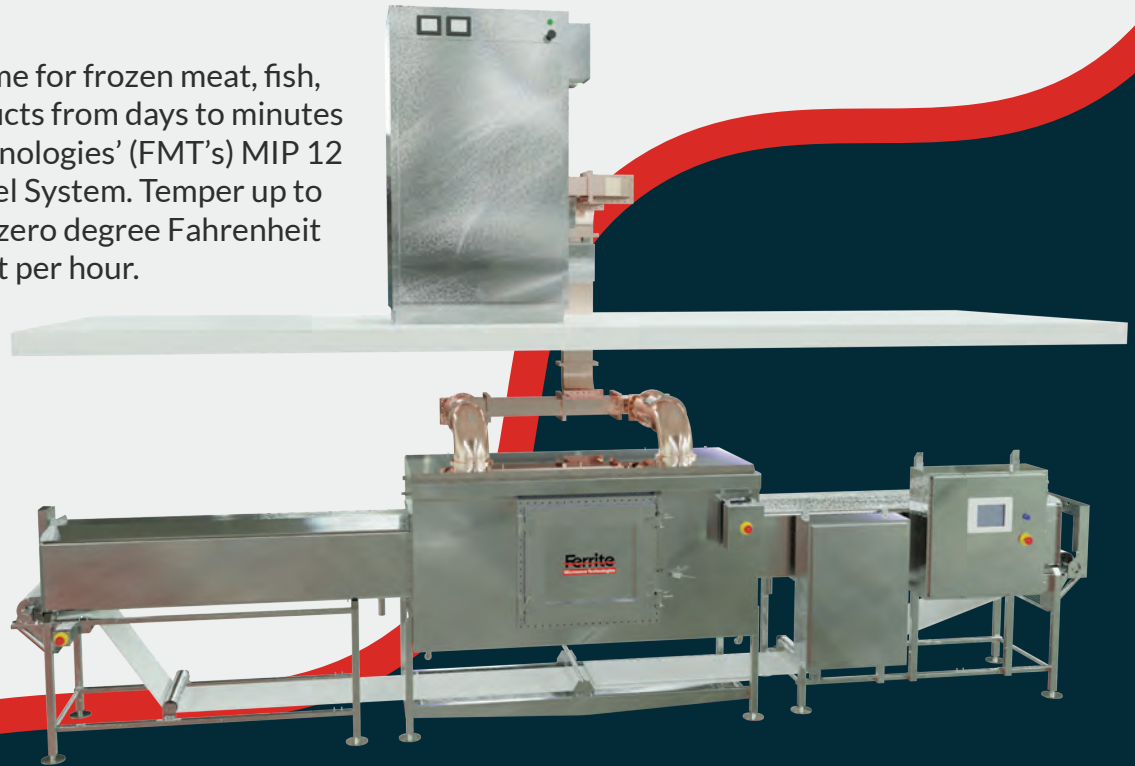


# MIP12 Tempering Tunnel

## 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) MIP 12 Continuous Tempering Tunnel System. Temper up to 15,000 pounds (6,800 kg) of zero degree Fahrenheit (-18 degrees Celsius) product per hour.

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



## Simplify the Tempering Process

## A Modular Tempering System

The standard system consists of a single 4-foot by 4-foot by 8-foot long tunnel (1.2 meters by 1.2 meters by 2.5 meters) with up to four dependable 75 kilowatt microwave generators. Product temperature control is maintained with simple belt speed or generator power adjustments. Additional generators, up to a total of four, can be added to the unit to significantly increase production output.

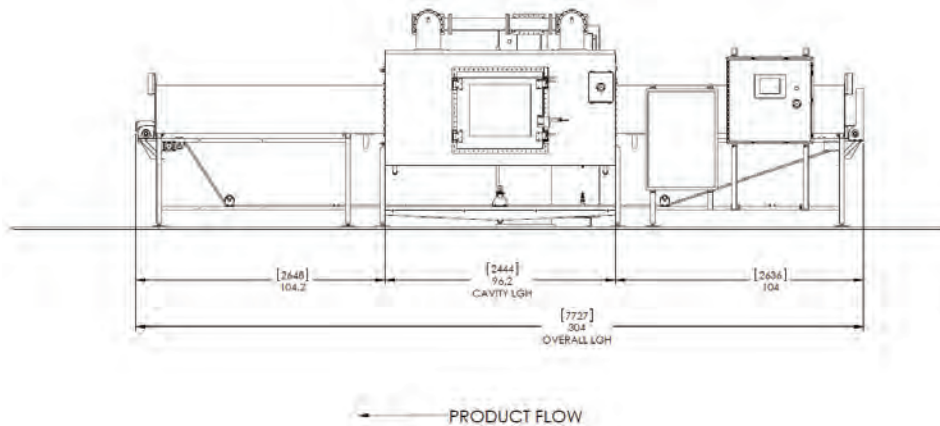
The MIP 12 simplifies the food tempering process. It eliminates tempering rooms and racks, along with the resulting sanitation issues and brings precision to your food processing procedures. Microwave tempering gives control over the production process and helps plan both input and output production 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 12 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.

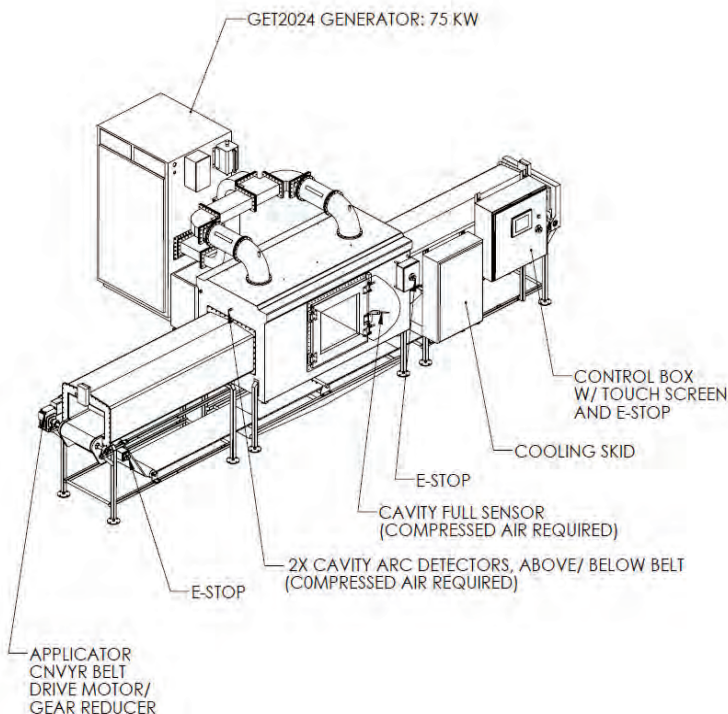


## Safety

Interlocking access doors on the generator meets all applicable government (OSHA and Health and Human Services) safety standards, and provide the safest operating environment available. Our equipment conforms to safety exposure limits of 5 mw/cm<sup>2</sup> measured 5 cm away from the equipment, twice as stringent as OSHA's voluntary standard.

*General Industry (29 CFR 1910) 1910 Subpart G, 1910.97, Non-ionizing radiation. The exposure limit in this standard (10 mW/sq. cm.) is expressed in voluntary language and has been ruled unenforceable for Federal OSHA enforcement.*

The unit also features arc detection, emission sensors on either end of the tunnel and safety interlocks on the door.



## 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 of microwave transparent material transports the food product through the oven. Standard tunnels accommodate boxes 20"x10" (50 cm x 25 cm); other tunnel sizes are also available.

## Sanitation

The MIP 12 ovens and microwave generators are manufactured from stainless steel, and the process oven and conveyor belt are wash-down safe.

# Ferrite

## Microwave Technologies

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