

MIP 12

CONTINUOUS TEMPERING



Ferrite Continuous Tempering Takes Frozen Products from Zero to 28 Degrees in Minutes, Not Days!

Precision Tempering Control from Ferrite

Greatly reduce tempering time for frozen meat, fish, poultry, fruit or bakery products from days to minutes with Ferrite's MIP 12 Continuous Tempering Tunnel System. Temper up to 17,000 pounds (7,700 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, dicing, forming, and molding.



Simplify the Tempering Process

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 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 rise and predictable end temperature ensures processing flexibility.

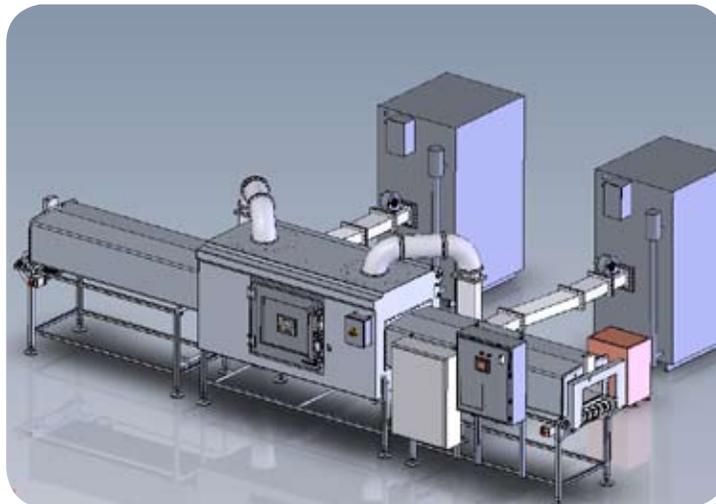
MIP 12 Highlights

- Adds flexibility to processing by allowing tempering on demand
- Allows predictable product ending temperature
- Eliminates the need for tempering rooms or racks, saves space and multiple handling sequences
- Improves quality and yield
- Allows remote system troubleshooting by Ferrite service technicians via modem access to PLC controls
- Industry proven, user-friendly Ferrite system software and Allen-Bradley controls

A Modular Tempering System

The basic 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 transmitters.

Product temperature control is maintained with simple belt speed or transmitter power adjustments. Additional transmitters, up to a total of four, can be added to the unit to significantly increase production output.



MIP 12

Specification Details

Typical Production Throughput at 75 kW from 0 Degrees Fahrenheit Starting Temperature.

<u>Temper to F/C</u>	<u>90% Lean</u>
20 degrees F/-7	14,750 lb/hr -6,690 kg/hr
22 degrees F/-6	12,500 lb/hr -5,670 kg/hr
24 degrees F/-4	10,625 lb/hr -4,820 kg/hr
26 degrees F/-3	8,250 lb/hr -3,740 kg/hr

<u>50% Lean</u>
17,500 lb/hr -7,940 kg/hr
15,625 lb/hr -7,090 kg/hr
13,625 lb/hr -6,180 kg/hr
11,125 lb/hr -5,045 kg/hr

Throughput amounts are estimates. Actual results may vary.

Electrical Specifications (per Transmitter):

United States:

INPUT LOAD	MICROWAVE OUTPUT
480 volts	75 kW
3 phase	915 MHz
50/60 cycles	0.9 power factor
103 KVA	

Reliable, Dependable Industrial Systems

A 20-inch wide positive drive, articulated belt of microwave transparent material transports the food product through the oven.

Product Transport

A 20-inch wide positive drive, articulated belt of microwave transparent material transports the food product through the oven.

Microwave Isolation

Each GET 2024 transmitter is electrically isolated from the process oven by an integral microwave circulator, which helps provide long magnetron tube life.

Sanitation

The MIP 12 ovens and microwave transmitters are manufactured from stainless steel, and the process oven and conveyor belt are washdown safe.

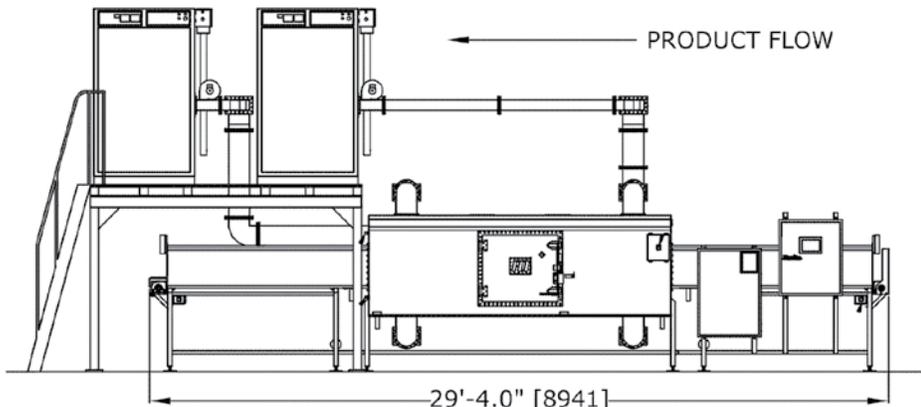
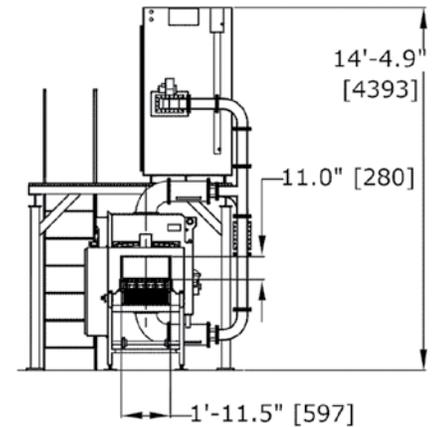
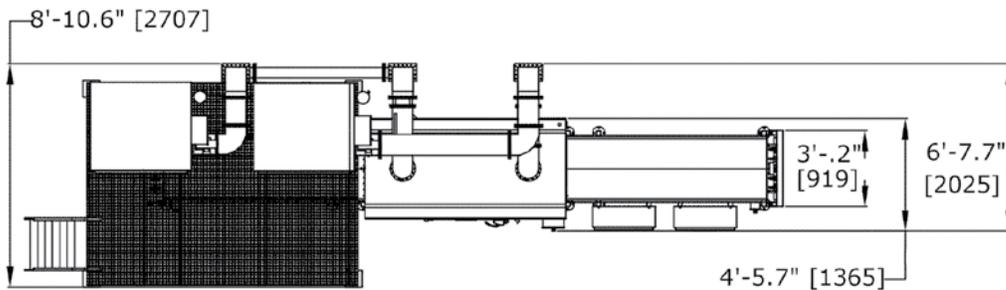
Safety

Interlocking access doors on the transmitters and process ovens, as well as passive microwave suppression tunnels, meet applicable government (OSHA and Health and Human Services) safety standards, and provide the safest operating environment available.

Fittings are provided on the oven to interface with an optional, customer-supplied fire suppression system. Light and temperature sensors in the oven send signals to trigger the system.

Customization

System design can be customized to meet specific customer requirements.



Ferrite
Microwave Technologies

High Power Microwave Systems and Technology.

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