

Thermex-Thermatron Inc.

TMC75 CONVEYORIZED MODULAR MICROWAVE OVENS



The above picture shows a Continuous Microwave oven using two TMC75 applicators of approximately 72” long x 66” wide and 52” high terminated on each end with vestibules.

The Thermex-Thermatron **Conveyorized Modular Industrial Microwave Ovens** are built in a large variety of shapes and sizes according to the requirements of continuous heating process. Each module can apply up to 75 kW power to the product being heated. Based on the power requirements, two or more modules can be installed on the same conveyor. These ovens are fabricated out of aluminum for drying and heating industrial products or stainless steel for food applications. With a uniform load distribution within the oven, a multi mode cavity applicator develops a uniform heat distribution in the entire MW oven.

The product being heated is carried through the oven by a special **conveyor belt**. The belt material and configuration is selected based on the nature of the product being heated. Each end of the conveyor is provided with a special vestibule to suppress any MW energy leakage into the environment.

An air intake and exhaust ports are provided for **circulating air** to be used in cases where vapors or fumes are developed during the heating process. These ovens are ideal for laboratory research, as well as many industrial applications such as drying, curing, heating, cooking, thawing, etc.

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Standard Equipment:

To assure uniform the heat distribution in large variety of load configurations, each oven section is provided with **Wave-guide Splitter** with dual Microwave feed points and **Mode Stirrers**.

A **Control Box** is provided with each Microwave Continuous Oven with the following functions: Applicator Ready Light, Generator Ready light, Start Conveyor, Stop Conveyor, Heat ON Light, Start Heat Button, Stop Heat Button, Output Power Control, Conveyor Speed Control, Emergency Stop Button, Microwave Output Power Meter

TMC75 Conveyorized Microwave Oven Specifications:

- Operating Frequency: FCC Assigned 915 MHz +/-15 MHz
- Microwave Power: 0 – 75 kW Continuous per Module
- Oven Door Opening: 39 inches wide x 27 inches high per each Module
- Material for Cavity: Aluminum or Stainless Steel as specified when ordered.
- Belt width from 12 to 60 inches
- Compatible with any Thermex-Thermatron TM75 or TM75P MW Power Generators.

Optional Equipment:

- **PLC Control for Automatic Operation:** - Allen Bradley SLC 504 PLC with PanelView 600 Operator Interface provides the following benefits:

- The MW Oven is programmed to operate at maximum efficiency by optimizing all of the generator functions and controlling the power output based on the amount of power reflected by the load. Thus, the generator will automatically adjust the MW power to the load capability of absorbing the MW energy.
- On-screen Diagnostics and Alarm Messaging to help trouble shooting.
- Recording and storing all Operating Parameters– up to 32 recipes storing capability
- On-screen calibration of all analog signals complete with help screens with complete instructions for the operating personnel. These analog signals include the following: reflected power, anode current, anode voltage, filament current, magnet current, output power.
- With automatic power control the TMC75 MW oven will automatically compensate for line voltage fluctuations, delivering a steady power output.
- **Auxiliary Hot Air System** using electric heat to preheat the circulating air throughout the cavity.

For more detailed information about the TMC75 Microwave Ovens please don't hesitate to contact us:

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