

# AMF

## VESTA A-70 TRAY OVEN



### FEATURES & BENEFITS

- **Advanced Electronic Controlled Burner System Provides Reduced Gas Consumption**
- **PLC Controlled Baking Management System Provides Independent Burner Control, Exhaust Control, Operator Friendly Diagnostics and Quick Product Changeover**
- **Dual Temperature Control System Maintains Precise Baking Temperature Profile**
- **Advanced Lubrication Maintenance Indicator Based on AMPS Trending**
- **Available in Bread, Bun, and Cake Configurations**

## VESTA A-70 TRAY OVEN

### MECHANICAL FEATURES

#### Structure

- A structural steel frame encloses and supports the baking structure.
- Fully insulated baking chamber
- Baking chamber is supplied with expansion joints which allow for internal expansion with a minimal effect on the external structure.
- Access doors incorporating observation windows are provided on the operator side of the oven. One observation window and removable access panels are provided at the rear of the oven.
- Oven lights are provided at all observation windows and at the front and rear of the oven.

#### Oven Loader

- Loader conveyor with pusher bar type tray loader

#### Tray Conveyor

- Three strand tray conveyor system, two strands carry the tray and a third strand stabilizes the tray
- Tray conveyor drive is a 5 HP AC motor with optical encoder for synchronization.

#### Oven Unloader

- Pusher bar type tray unloader with unloading conveyor

#### Heating System

- Direct gas fired system
- Baking chamber zones with independent gas and air supply, modulating temperature controller, and multi-lateral zone burners
- Direct Spark Ignition (DSI)
- Independent flame adjustment for each burner

#### Recirculated Air System

- A tubular recirculating air system is provided throughout the baking chamber. This allows the complete recirculated air system to be used during baking. This system is designed to agitate the air and control the top and sidewall bake.
- Dampers are provided to change the amount of air discharged above and below the product.

#### Exhaust System

- Front and rear exhaust blowers are provided.

#### Steam

- Steam Option

### ELECTRICAL FEATURES

#### Oven Motion Controls

- Product code selection from integrated recipe management system automatically sets up operating parameters such as loading/unloading sequence and speeds, baking time and zone temperature set points
- Electric synchronization provides flawless real time operation, "computer free" adjustment features and minimal components maintenance
- PLC and operator interface controls include many useful features such as product tracking, tray skipping, blower manual/automatic controls, burner and zone temperature controls, product code recipe edition, temperature trending, active and historical alarm screens and various password protected maintenance and diagnostic screens.

#### Oven Temperature Controls

- PLC oven temperature controls insure constant monitoring and self-explanatory messaging to operator from initial purge cycle to automated, operator initiated oven burners shutdown sequence.
- Each individual burner from any zone can be controlled and monitored from operator interface.

#### Oven Mechanical and Temperature Related Safeties

- Adjustable electronic thermal overloads for each motor
- Photoelectric sensors for pan overlay detection and pan jam detection
- Light curtain operator safety at loader
- Safe load limit switches for loader and unloader pushers
- Electro-optic cam switches to monitor loader/unloader cycles

- High and low gas pressure safety switches
- Combustion air pressure switch
- Exhaust pressure switch
- Damper limit switch
- Purge cycle
- Flame monitoring module
- High temperature limit switch
- PLC monitors zone high temperature, thermocouple failure or PID loop errors

#### Control Panel

- ABB main breaker
- Allen Bradley motor protectors
- Allen Bradley motor contactor (IEC rated)
- Allen Bradley AC inverters
- Allen Bradley SLC 5/04 programmable controller with line filter
- Necessary I/O cards including T/C input and analog outputs for temperature control
- Allen Bradley Panelview Plus 1250 color operator interface (with keypad)
- Mimic board with oven layout
- Alarm buzzer and rotating light
- Convenience plug to connect programming equipment without opening door
- Air conditioning
- DSI control (DSI steel panel mounted on oven with remote I/O scanner and adaptor, includes 4" (102 mm) painted steel wiring duct for ignition module wiring)
- Hard wired purge cycle with PLC monitoring

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