



## 146 Series Inert Gas Mechanical Convection Ovens

The Blue M Inert Gas Mechanical Convection Oven, which we pressure-test at normal operating levels, is ideal for industrial oven applications that involve curing, heat treating and packaging of electronic components as well as other applications which require controlled atmosphere environment.



### ► General Mechanical Convection Industrial Oven Specifications

- Temperature range: 15°C (27°F) above ambient to 350°C (662°F)
- Control Accuracy: +/- 1.0°C (+/- 1.8°F)
- Resolution: +/- 0.1°C (+/- 0.1°F)
- Workspace capacity: 4.2 to 24.0 cubic feet
- Heat up time to 350°C (662°F): 60 minutes or less depending on model and voltage, empty chamber
- Uniformity: Blue M can provide varying levels of uniformity; if you have a specific tolerance or specification which must be met, please contact us with your requirements so we can ensure the equipment is designed, tested, and adjusted to meet those requirements

### ► Uniform, Accurate and Reliable Temperature Control

- Available with profiling or single set point temperature controls
- Horizontal air flow assures uniform thermal performance under most loading conditions
- Exclusive Blue M Eterna heating elements – the most reliable available, with heavy-gauge high temperature nickel chromium wire and low-watt density for longer service life
- Air flow switch provided as standard to protect oven and product
- Direct drive, multi-blade, centrifugal blower with high-volume air delivery and dynamically balanced for noise reduction

### ► Oven Features

- All welded and sealed construction assures continuously low oxygen levels
- Door switch (disables heat and circulation blower upon door opening)
- Adjustable inert gas purge system including a flowmeter, two-way gas control valve, cycle start-up high flow purge, low flow adjustment, chamber pressure gauge and supply connection. This feature allows for consistently low oxygen PPM levels within the work chamber
- Stainless steel, cooling coil provided. Water supply required
- Adjustable shelf levels
- Fiberglass insulation to ensure safe cabinet skin temperature
- Heavy-duty door - double-wall, insulated construction
- Independent, over-temperature protection (high limit controller) included
- Corrosion resistant, stainless steel (type 304) interior
- All-welded, heavy-duty exterior with heavy-gauge, reinforced, cold-rolled steel
- Baked on white powder-coated enamel finish on exterior for long-lasting corrosion protection
- Every oven is fully assembled and individually factory tested
- Circuit breaker provided for ground fault protection as standard
- Single or three phase operation available in 50 Hz or 60 Hz

Condensed Specifications					
Model	206 (Bench model)	256 (Bench model)	296 (Floor model)	336 (Floor model)	1406 (Floor model)
Interior Volume	4.2 cu. ft.	5.8 cu. ft.	9 cu. ft.	11.0 cu. ft.	24.0 cu. ft.
Interior Dimensions WxDxH in(mm)	20 x 18 x 20 (508 x 457 x 508)	25 x 20 x 20 (635 x 508 x 508)	25 x 25 x 25 (635 x 635 x 635)	25 x 20 x 38 (635 x 508 x 965)	48 x 24 x 36 (1219 x 610 x 914)
Exterior Dimensions WxDxH in(mm)	42 x 34 x 56 (1067 x 864 x 1423)	47 x 36 x 56 (1194 x 914 x 1423)	47 x 40 x 70 (1194 x 1016 x 1778)	47 x 36 x 83 (1194 x 914 x 2109)	70 x 40 x 81 (1778 x 1016 x 2058)
Machine Footprint	9.9 sq. ft.	11.8 sq. ft.	13.1 sq. ft.	11.8 sq. ft.	19.5 sq. ft.
Electrical Service					
208 VAC 1 Ph 60 Hz Line current	3.0 kW 17	4.5 kW 26	6.0 kW 35	6.0 kW 35	6.8 kW 38
240 VAC 1 Ph 60 Hz Line current	4.0 kW 20	6.0 kW 29	8.0 kW 40	8.0 kW 40	9.0 kW 44
208 VAC 3 Ph 60 Hz Line current	6.8 kW 20	9.0 kW 27	13.5 kW 40	13.5 kW 40	18.0 kW 53
240 VAC 3 Ph 60 Hz Line current	9.0 kW 23	12.0 kW 31	18.0 kW 46	18.0 kW 46	24.0 kW 61
480 VAC 3 Ph 60 Hz Line current	9.0 kW 12	12.0 kW 16	18.0 kW 23	18.0 kW 23	24.0 kW 31

### ► Exclusive Two-Year Warranty

Blue M warrants the equipment will be free from defects in material and workmanship for a period of two (2) years from the date of shipment (or from the installation date if this service is provided by TPS or a TPS approved partner and the date is approved by TPS). If a TPS Preventive Maintenance Plan is purchased before the end of the standard warranty period, these limited warranties shall be extended by one (1) additional year. If within the warranty period the original purchaser notifies Blue M in writing of an alleged non-conformity, and Blue M determines to its reasonable satisfaction that the product or service is in fact non-conforming, then Blue M shall, at its option and expense, repair or replace the non-conforming product or correct the non-conforming service, either at the original purchaser's facility, or Blue M's. Labor is only included for domestically installed units. Equipment installed outside of the United States (USA) will be one year parts only from date of shipment. For full details, exclusions, and other information on our warranty please go to: <https://www.thermalproductsolutions.com/support/blue-m>

### ► Available Oven Options

- Nickel-plated wire rod or stainless steel slotted shelves
- 24-hour, 7-day digital process timer
- Trace oxygen analyzer
- Temperature recorders (paper or paperless)
- Reverse door hinge
- Floor stands (bench models only)
- Swivel casters with leveling feet
- Programmable controller, Ethernet and USB communications
- Data logging and trending
- Nine-point thermocouple monitoring system
- Variable frequency drive on circulation blower
- Exclusive, adjustable, semi-pierced duct walls for tuning of air flow
- Lead-in ports (various locations available)
- Electro-mechanical or pneumatic door lock
- Emergency Power Off Pushbutton
- Emergency stop
- Light tower assembly with audible alarm
- Maintenance lock-out system
- Interior light
- Rear access door
- Trace solvent safety package
- Main power fused disconnect switch
- Redundant over-temperature protection (high limit controller)
- UL508A labeled control panel
- Alternative exterior finishes
- CE Mark



**Baker Furnace, Blue M, Gruenberg, Lindberg/MPH,  
Lunaire, Tenney, Wisconsin Oven**

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Specifications and Product Information are subject to change without notice.

»» Baker Furnace    »» Blue M    »» Gruenberg    »» Lindberg/MPH  
»» Lunaire    »» Tenney    »» Wisconsin Oven