



## 146 Series Standard Mechanical Convection Ovens

The Blue M Standard Mechanical Convection Oven is ideal for a number of laboratory and light industrial oven applications, including ASTM testing, epoxy curing, moisture drying, UL testing, aging of electronic components and devices, and other processes and testing requirements.



### ► 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
- Adjustable one-pass air flow system - tempered air passes over heater(s) and through chamber only once if necessary readily adjusted to suit a broad range of product loads and operating requirements. Motorized damper available for automatic operation
- Direct drive, multi-blade, centrifugal blower with high-volume air delivery and dynamically balanced or noise reduction

### ► Oven Features

- Adjustable air intake and exhaust dampers
- 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

### ▶ Available Oven Options

- Nickel-plated wire rod or stainless steel slotted shelves
- Door switch (disables heat and circulation blower upon door opening)
- Motorized intake damper (two-position or proportional)
- Welded and sealed inner chamber
- 24-hour, 7-day digital process timer
- Temperature recorders (paper or paperless)
- Reverse door hinge
- Glass observation panel(s) in door(s)
- 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
- Inert gas purge system
- Rear access door(s)
- 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

Please contact the factory to inquire on other available or engineered to order options.

### ▶ 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>

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)	40 x 34 x 49 (1016 x 864 x 1295)	45 x 36 x 49 (1143 x 914 x 1245)	45 x 40 x 63 (1143 x 1016 x 1600)	45 x 36 x 75 (1143 x 914 x 1905)	68 x 40 x 73 (1727 x 1016 x 1854)
Machine Footprint	9.4 sq. ft.	11.3 sq. ft.	12.5 sq. ft.	11.3 sq. ft.	19.0 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



**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.