

The Blue M Mechanical Convection Inert Gas Oven, which we pressure-test at normal operating levels, is ideal for applications that involve processing materials in a controlled atmosphere environment, as well as dry packaging of electronic components.

### Features

- Heavy gauge steel exterior and stainless steel interior, all exterior panels are at least 16 gauge, interior features reinforced 304 stainless steel.
- All welded and sealed construction assures trace oxygen levels and eliminates gas migration into insulation.
- Fiberglass insulation - 4 full inches minimizes heat loss.
- Baked on powder-coated enamel finish for long-lasting corrosion protection.
- Blue M silicone door seal design for positive sealing of door.
- Suitable for all inert gases and non flammable forming gas offers complete process flexibility (maximum 8% H<sub>2</sub>, balance N<sub>2</sub>).
- Standard safety door switch recycles purge after door is opened to maintain atmosphere integrity, and shuts down heaters and blowers when door is opened.

### Temperature Control

- Available with profiling or single setpoint temperature controls.
- Horizontal air flow assures uniform thermal performance under all loading conditions.
- All stainless steel cooling coil speeds cool down without risk of contamination allows near ambient operation depending on cooling water temperature.
- Exclusive Blue M inert gas controls purge timer to assure full chamber inerting, pressure gauge and pressure relief valve, adjustable flowmeter and purge bypass valve.
- Exclusive Blue M gas delivery system where gas is introduced at the blower shaft that ensures proper mixing and eliminates the possibility of air being drawn into the chamber.
- Electropolished stainless blower wheel to minimize contamination maintains positive chamber pressure at all times.
- Direct Drive Motor includes multi-blade centrifugal blower, high-volume air delivery, dynamically balanced for minimum noise.

# Blue M Mechanical Convection Ovens

## 146 Series Inert Gas Ovens



# Blue M

## Blue M 146 Series Inert Gas Oven Specifications

### General Specifications

**Temperature range:** 15°C above ambient to 350°C (600°F)

**Uniformity:** ±1% of setpoint

**Control Accuracy:** +0.5°C

**Resolution:** ±0.1°C

**Performance data (typical):**

Run-up to 300°C 60 min. (or less)

- Empty chamber performance at rated voltage -

### Inert Gas Oven Options

- Stainless steel slotted shelves
- 24-hour, 7-day digital process timer
- Circular chart recorder
- Reverse door hinge
- Floorstands
- Safety airflow switch on single-phase models
- Casters
- Comm-Link RS-485 to RS-232 computer interface
- Control and Monitor Software

### Engineered Oven Options

- Lead-in pipes
- Redundant overtemperature protection
- All stainless steel exterior construction
- Special control systems
- Space-saving stack oven design

Model	146 (Bench model)	206 (Bench model)	256 (Bench model)	296 (Floor model)	136 (Floor model)	336 (Floor model)	1406 (Floor model)
Interior Volume	1.6 cu. ft.	4.2 cu. ft.	5.8 cu. ft.	9 cu. ft.	11.0 cu. ft.	24.0 cu. ft.	24.0 cu. ft.
Interior Dimensions WxDxH in(mm)	14 x 14 x 14 (356 x 356)	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)	38 x 20 x 25 (965 x 508 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)	34 x 30 x 51 (864 x 762 x 1295)	40 x 34 x 57 (1016 x 864 x 1448)	45 x 36 x 57 (1143 x 914 x 1448)	45 x 36 x 66 (1143 x 914 x 1676)	58 x 36 x 71 (1473 x 914 x 1803)	45 x 36 x 84 (1143 x 914 x 2134)	68 x 40 x 82 (1727 x 1016 x 2083)
Machine Footprint	7.1 sq. ft.	9.4 sq. ft.	11.0 sq. ft.	11.0 sq. ft.	15.0 sq. ft.	11.0 sq. ft.	19.0 sq. ft.
<b>Electrical Service</b>							
208 VAC 1 Ph 50/60 Hz Line current (per ph)	2.2 kW 14	3.0 kW 17	4.5 kW 25	6.0 kW 33	6.0 kW 33	6.0 kW 38	6.8 kW 38
240 VAC 1 Ph 50/60 Hz Line current (per ph)	3.0 kW 16	4.0 kW 20	6.0 kW 29	8.0 kW 35	8.0 kW 35	8.0 kW 44	9.0 kW 44
208 VAC 3 Ph 50/60 Hz Line current (per ph)	N/A	6.8 kW 20	9.0 kW 27	13.5 kW 40	13.5 kW 40	13.5 kW 53	18.0 kW 53
240 VAC 3 Ph 50/60 Hz Line current (per ph)	N/A	9.0 kW 23	12.0 kW 31	18.0 kW 46	18.0 kW 46	18.0 kW 61	24.0 kW 61
480 VAC 3 Ph 50/60 Hz Line current (per ph)	N/A	9.0 kW 12	12.0 kW 16	18.0 kW 23	18.0 kW 31	18.0 kW 31	24.0 kW 31

### Recommended Gas Flow Rates

Model	Purge (SCFH)	Run (SCFH)
146	100 SCFH for 11 minutes	20
206	120 SCFH for 27 minutes	25
256	200 SCFH for 18 minutes	30
136	200 SCFH for 30 minutes	60
336	200 SCFH for 30 minutes	60
1406	600 SCFH for 24 minutes	120



**Thermal Product Solutions**

A Unit of **SPX** Corporation

Specifications and Product Information is subject to change without notice.