

Mechanical convection inert gas ovens

Blue M inert gas ovens are designed for:

- Processing materials in a controlled atmosphere environment
- Dry packaging of electronic components

All the strengths of the Blue M mechanical convection oven plus...

- ◆ **All welded and sealed construction is standard**
 - assures trace oxygen levels and eliminates gas migration into insulation
- ◆ **Pressure tested at operating temperatures**
- ◆ **Suitable for all inert gases and non-flammable forming gas** (Maximum 8% hydrogen, balance nitrogen)
 - complete process flexibility
- ◆ **Standard safety door switch**
 - recycles purge after the door is opened to maintain atmosphere integrity
 - shuts down heaters and blowers when door is opened

Accurate, reliable temperature and gas control

- ◆ **Available with profiling or single setpoint controls** – (see page 3 for details)
- ◆ **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 adjustable purge bypass valve

- ◆ **Exclusive Blue M gas delivery system**
 - gas introduced at the blower shaft insures proper mixing and eliminates the possibility of air being drawn into the chamber
 - electro polished stainless blower wheel to minimize contamination
 - maintains positive chamber pressure at all times
- ◆ **Direct drive blower**
 - multi-blade centrifugal blower with matched helical scroll
 - high volume air delivery
 - dynamically balanced for minimum noise and maximum reliability
 - lifetime lubricated motor

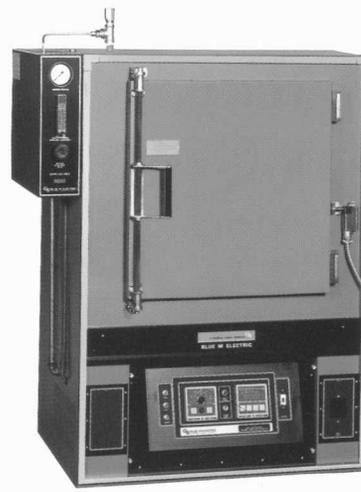
Mechanical Convection Inert Gas Oven Options

- High power for fast heat-up and/or large loads
- Stainless steel shelves
- Floorstands
- Circular chart recorder
- 24 hour or 7 day program timer
- 200 hour digital process timer
- Airflow switch on single phase models
- Reverse hinge door
- Casters

Condensed specifications

Model	146 (Bench Model)		206 (Bench Model)		256 (Bench Model)		136 (Floor Model)		336 (Floor Model)		1406 (Floor Model)	
Interior volume	1.6 cu. ft. (45.0 liter)		4.2 cu. ft. (118.0 liter)		5.8 cu. ft. (163.9 liter)		11.0 cu. ft. (311.4 liter)		11.0 cu. ft. (311.4 liter)		24.0 cu. ft. (679.6 liter)	
width	14 in. (35.6 cm)		20 in. (50.8 cm)		25 in. (63.5 cm)		38 in. (96.5 cm)		25 in. (63.5 cm)		48 in. (121.9 cm)	
depth	14 in. (35.6 cm)		18 in. (45.7 cm)		20 in. (50.8 cm)		20 in. (50.8 cm)		20 in. (50.8 cm)		24 in. (61.0 cm)	
height	14 in. (35.6 cm)		20 in. (50.8 cm)		20 in. (50.8 cm)		25 in. (63.5 cm)		38 in. (96.5 cm)		36 in. (91.4 cm)	
Exterior Overall												
width	34 in. (86.4 cm)		40 in. (101.6 cm)		45 in. (114.3 cm)		58 in. (147.3 cm)		45 in. (114.3 cm)		68 in. (172.7 cm)	
depth	30 in. (76.2 cm)		34 in. (86.4 cm)		36 in. (91.4 cm)		36 in. (91.4 cm)		36 in. (91.4 cm)		40 in. (101.6 cm)	
height	51 in. (129.5 cm)		57 in. (144.8 cm)		57 in. (144.8 cm)		71 in. (180.3 cm)		84 in. (213.4 cm)		82 in. (208.3 cm)	
machine footprint	7.1 sq. ft. (0.7 sq. m)		9.4 sq. ft. (0.9 sq. m)		11.0 sq. ft. (1.0 sq. m)		15.0 sq. ft. (1.3 sq. m)		11.0 sq. ft. (1.0 sq. m)		19.0 sq. ft. (1.8 sq. m)	
Electrical Service	standard	high power	standard	high power	standard	high power	standard	high power	standard	high power	standard	high power
208 VAC- 1 ph. -50/60 Hz												
Heater Capacity	2.2 KW	5.2 KW	3.0 KW	6.8 KW	4.5 KW	6.8 KW	6.0 KW	NA	6.0 KW	NA	6.8 KW	NA
Line current (per phase)	14 Amps	28 Amps	17 Amps	36 Amps	25 Amps	36 Amps	33 Amps		33 Amps		38 Amps	
240 VAC- 1 ph. -50/60 Hz												
Heater Capacity	3.0 KW	7.0 KW	4.0 KW	9.0 KW	6.0 KW	9.0 KW	8.0 KW	NA	8.0 KW	NA	9.0 KW	NA
Line current (per phase)	16 Amps	32 Amps	20 Amps	41 Amps	29 Amps	41 Amps	35 Amps		35 Amps		44 Amps	
208 VAC- 3 ph. -50/60 Hz												
Heater Capacity	NA	NA	3.0 KW	6.8 KW	4.5 KW	9.0 KW	6.8 KW	13.5 KW	6.8 KW	13.5 KW	9.0 KW	18.0 KW
Line current (per phase)			10 Amps	20 Amps	14 Amps	27 Amps	21 Amps	40 Amps	21 Amps	40 Amps	28 Amps	53 Amps
240 VAC- 3 ph. -50/60 Hz												
Heater Capacity	NA	NA	4.0 KW	9.0 KW	9.0 KW	12.0 KW	9.0 KW	18.0 KW	9.0 KW	18.0 KW	12.0 KW	24.0 KW
Line current (per phase)			12 Amps	23 Amps	16 Amps	31 Amps	24 Amps	46 Amps	31 Amps	16 Amps	32 Amps	61 Amps
480 VAC- 3 ph. -50/60 Hz												
Heater Capacity	NA	NA	NA	9.0 KW	NA	12.0 KW	9.0 KW	18.0 KW	9.0 KW	18.0 KW	12.0 KW	24.0 KW
Line current (per phase)				12 Amps		16 Amps	12 Amps	23 Amps	12 Amps	23 Amps	16 Amps	31 Amps

* These models are available as an Engineered Option



206 Mechanical Convection Inert Gas Oven

Operating characteristics

Temperature range: 15° C above ambient to +316° C (+ 600° F)

Uniformity: ±1% of setpoint

Control Accuracy: ± 0.5° C

Resolution: ± 0.1° C (or 1° F)

Performance data (typical):

Run-up to +300° C 60 Min. (or less)

Empty chamber performance at rated voltage

Recommended gas flow rates

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

Mechanical Convection Inert Gas Oven Engineered Options

- Redundant overtemperature protection
- Lead-in pipes
- Rear access door(s)
- Comm-Link RS-485 to RS-232 converter
- All stainless steel construction
- Space saving stacking oven design
- Special control systems