# Bench Ovens Quincy Lab, Inc.

# **FEATURING**

Large Bench or Portable Capacity
All Encompassing Circular Air Flow
ER Model Programmable PID Control
80 lb Capacity shelves
Rapid Run-Up And Recovery
Proven Reliability
Full 18 Month Factory Warranty





7 AND 10 FT<sup>3</sup> 300°F (150°C) 450°F (235°C) 550°F (288°C)



### **TIME TESTED**

Quincy Lab bench series ovens have been the workhorse in the industry for over 35 years. Now these time tested bench ovens are even better. A redesigned chamber and air flow distribution system, improved cabinet insulation and an optional PID microprocessor temperature controller (ER MODELS) make the bench series ovens an easy choice for heating applications everywhere.

### **APPLICATION**

Developed for the industrial lab, these rugged general purpose ovens are perfect for: preheating, thermal testing, shelf-batch processing, part

drying, curing, baking, evaporating or dehydrating various media, soils or aggregate and many other applications. All models feature large work spaces and excellent portability. They can be moved to the job, or stacked on one another to conserve floor space. Wherever thermal processing is needed, the bench series ovens bring year after year of trouble-free service and performance.

## **DESIGNED STANDARDS**

A virtual non-contact exterior to interior cabinet design and high density industrial thermal fiber insulation greatly reduce thermal conductive transfer. That means greater energy efficiency and lower

wall temperatures. Refinements in the air plenums and mixing chamber deliver an evenly heated horizontal circular flow of air for rapid heat to part transfer. A reliable quick-sensing hydraulic thermostat balances temperature stability with recovery performance. Heavy duty chrome plated wire shelves can support 80 lbs. and can be spaced on 1.5" centers to provide up to 56 square feet of shelf surface (31-350). Cabinet exteriors are finished in our exclusive Q-Lab "high-tech" bronze polyester. Large high impact thermal-plastic door handles always remain cool to the touch. See our complete list of options and accessories.

Quincy Lab, Inc. has been a mainline manufacturer of laboratory ovens and incubators for more than 40 years.

We are dedicated to product value, customer satisfaction, and ongoing product support



GENERAL SPECIFICATIONS	MODEL 21-250	MODEL 21-350	MODEL 31-350	MODEL 51-550
INTERIOR DIMENSIONS INCHES W x H x D (CM) W x H x D	25.5x20x24 64x50x60	25.5x20x24 64x50x60	25.5x30x24 64x76x60	25.5x20x22.5 64x50x57
EXTERIOR DIMENSIONS INCHES W x H x D (CM) W x H x D	33x24x35.5 83x60x90	33x24x35.5 83x60x90	33x34x35.5 83x86x90	33x24x35.5 83x60x90
CAPACITY CUBIC FEET (LITERS)	7 198	7 198	10.6 300	6.60 186
TEMPERATURE MAXIMUM FAHRENHEIT CENTIGRADE	300 150	450 232	450 232	550 287
SHELVES (1-1/2" CENTERS)  MAXIMUM PER UNIT  MAXIMUM POUNDS / SHELF	11 80	11 80	17 80	11 80

120/8.75

1050

185

165

5-15P\*

ELECTRICAL VOLTS/AMPS

PLUG/NEMA

STAND ALONE

WATTS

WEIGHT SHIPPING





120/16

5-20P\*

1920

185

165

120/16

5-20P\*

1920

225

200

230/12.5

2850

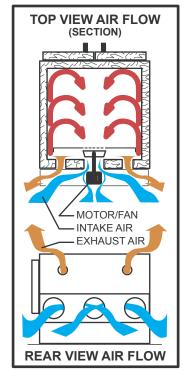
6-20P

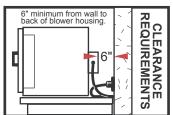
195

170

MODEL 21-350ER shown with optional window and chamber light & 10" "swing-out" circular chart recorder







PERFORMANCE CHARACTERISTICS*	MODEL 21-250/ER	MODEL 21-350/ER	MODEL 31-350/ER	MODEL 51-550/ER
CONTROL SENSITIVITY @ 100C @ 200C	+/- 1.0 <b>/</b> 0.2 °C NA	+/- 1.5 <b>/</b> 0.3 °C +/- 1.5 <b>/</b> 0.5 °C	+/- 2.0 <b>/</b> 0.5 °C +/- 2.0 <b>/</b> 0.5 °C	+/- 1.5 <b>/</b> 0.5 °C +/- 3.0 <b>/</b> 0.5 °C
UNIFORMITY @ 100C @ 200C	+/- 2.5 <b>/</b> 2.0 °C NA	+/- 2.5 <b>/</b> 2.0 °C +/- 3.5 <b>/</b> 4.0 °C	+/- 3.0 <b>/</b> 2.0 °C +/- 4.0 <b>/</b> 3.0 °C	+/- 3.5 <b>/</b> 2.5 °C +/- 5.5 <b>/</b> 4.5 °C
TIME TO TEMPERATURE  AMBIENT TO 100C  AMBIENT TO MAX	15 Min. / 16 Min. 36 Min. / 38 Min.	8 Min. / 9 Min. 30 Min. / 32 Min.	9 Min. / 10 Min. 35 Min. / 38 Min.	3 Min. / 6 Min. 40 Min. / 45 Min.
RECOVERY @ 150C DOOR OPEN 15 SEC. DOOR OPEN 30 SEC.	4 Min. / 5 Min. 5 Min. / 6 Min.	2 Min. / 3 Min. 3 Min. / 4 Min.	3 Min. / 4 Min. 4 Min. / 5 Min.	1 Min. / 2 Min. 2 Min. / 3 Min.
REPEATABILITY @ 150C (SET POINT DRIFT)**	+/- 2.0 <b>/</b> 0.5 °C	+/- 1.0 <b>/</b> 0.5 °C	+/- 1.5 <b>/</b> 0.5 °C	+/- 2.0 <b>/</b> 0.75 °C
AIR CHANGES MAX / HOUR @150C WITH NO LOAD	8 to 12	8 to 12	8 to 12	8 to 12
MAX CHAMBER AIR VELOCITY	7 ft/sec.	7 ft/sec.	7 ft/sec.	7 ft/sec.
ENERGY EFFICIENCY @ 150C % DUTY CYCLE RUN COST / HOUR @ \$0.22/KWH	80% \$0.18	45% \$0.20	55% \$0.20	30% \$0.19

<sup>\*</sup> PERFORMANCE CHARACTERISTICS FOR STANDARD VOLTAGE MODELS, ALTERNATE VOLTAGE MODELS MAY VARY. ALL TESTS CONDUCTED UNDER CONTROLLED LABORATORY CONDITIONS.

<sup>\*\*</sup> REPEATABILITY OR SET POINT DRIFT MEASURED FOR 24 HRS. WITH CONTROLLED LAB AMBIENT TEMPERATURES NOT VARYING MORE THAN 2 DEGREES C & SUPPLY VOLTAGE BY NOT MORE THAN 2%.



<sup>\* 230</sup> Volt optional on models 21 & 31