

# Bench Ovens

from 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**



**MODEL 21-350**



**MODEL 31-350**

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



**MODEL 21-350ER**

## 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

exterior 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 good 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**



Quincy Lab Inc. 1925 N. Leamington Ave. Chicago IL. Phone 1-800-482-HEAT Fax 773-622-2282

GENERAL SPECIFICATIONS	MODEL 21-250	MODEL 21-350	MODEL 31-350	MODEL 51-550
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#### INTERIOR DIMENSIONS

INCHES W x H x D	25.5x20x24	25.5x20x24	25.5x30x24	25.5x20x22.5
(CM) W x H x D	64x50x60	64x50x60	64x76x60	64x50x57

#### EXTERIOR DIMENSIONS

INCHES W x H x D	33x24x35.5	33x24x35.5	33x34x35.5	33x24x35.5
(CM) W x H x D	83x60x90	83x60x90	83x86x90	83x60x90

#### CAPACITY

CUBIC FEET	7	7	10.6	6.60
(LITERS)	198	198	300	186

#### TEMPERATURE MAXIMUM

FAHRENHEIT	300	450	450	550
CENTIGRADE	150	232	232	287

#### SHELVES (1-1/2" CENTERS)

MAXIMUM PER UNIT	11	11	17	11
MAXIMUM POUNDS / SHELF	80	80	80	80

#### ELECTRICAL

VOLTS/AMPS	120/8.75	120/16	120/16	230/12.5
WATTS	1050	1920	1920	2850
PLUG/NEMA	5-15P*	5-20P*	5-20P*	6-20P

#### WEIGHT

SHIPPING	185	185	225	195
STAND ALONE	165	165	200	170

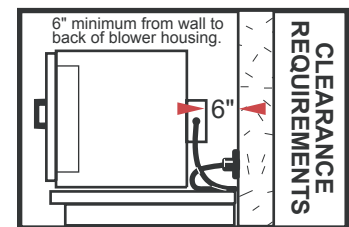
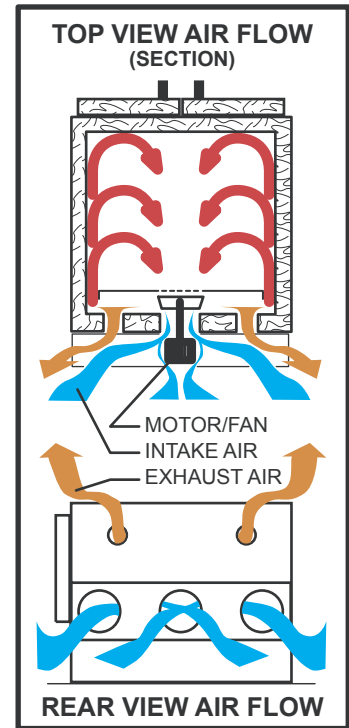
\* 230 Volt optional on models 21 & 31



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

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

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

\*\* 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%.



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