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BENCH & LAB OVENS, INCUBATORS & WARMERS **QUICK SELECTION GUIDE**



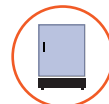
Bench Ovens

High-temperature applications



Lab Ovens

General Laboratory Heating



Incubators

Low-temperature / Biological Applications



Warmers

Gentle Product Heating



Precision-engineered thermal solutions for laboratories, healthcare and industrial applications

A Practical Guide to Choosing Bench Oven, Lab Ovens, Incubators, & Warmers

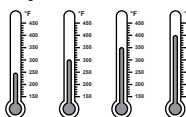
INSIDE THIS GUIDE, YOU'LL LEARN ABOUT

4 SELECTION CRITERIA

When Choosing a heating unit

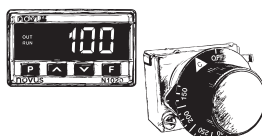
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Temperature Range



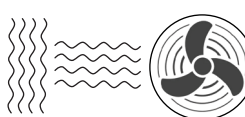
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Controls



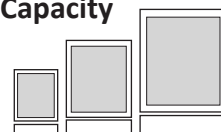
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Convection Methods



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Capacity



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Buying Smart: Choosing the Right Thermal Unit

When it comes to selecting the right thermal equipment for your application, four key criteria will guide you to the right choice — whether you need a Bench Oven, Lab Oven, Incubator, or Warmer from our lineup. Selecting the right unit means getting the right fit the first time: a unit that performs reliably from day one. This saves you guesswork, reduces back-and-forth communication, and avoids the cost of returning equipment that doesn't fit your needs.

4 SELECTION CRITERIA:

1— **Temperature Range**

2— **Controls**

3— **Convection Methods**

4— **Capacity**

PRODUCT SPECIFICATION SHEETS

Select a product category below or scan the QR code to access full sales sheets, specifications, and options.

► *Bench Oven Series*

► *Lab Oven Series*

► *Incubator Series*

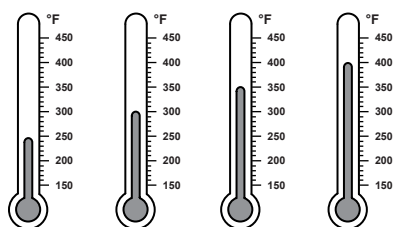
► *Warmers*

<https://quincylab.com/sales-brochures>



While each criterion is important on its own, the best equipment selection comes from understanding how temperature range, controls, convection method, and capacity work together to support your process. The sections that follow briefly explain each criterion and help you identify the best product for your application.

Temperature Range

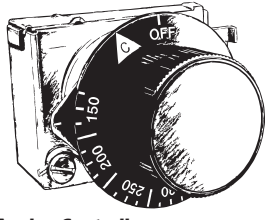


Temperature range refers to the minimum and maximum temperatures an oven, incubator, or warmer can achieve and maintain. Warmers operate within a lower temperature range above ambient temperature and up to their maximum rated limit, while ovens and incubators operate from above ambient temperature up to their maximum rated limit.

Selection Tip: When considering the best temperature range for your application, think beyond your current requirements—a slightly higher maximum temperature can provide greater versatility and accommodate future process changes.

Product	Temperature Range	Typical Uses
Bench Oven	Up to 300°F, 450°F, or 550°F (depending on model)	Industrial heating, curing, baking
Lab Oven	Ambient +25°F to 450°F; LT models: Ambient +15°F up to 225°F	Drying, testing, aging, sterilizing
Incubator	Ambient +2°C to 62°C; up to 93°C on select models	Cultures, biological applications
Warmer	100 - 125°F	Warming wipes and related products

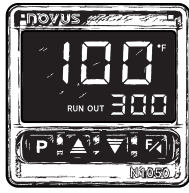
Controls



Analog Controller



Digital Controller



Advanced Digital Controller

A temperature controller regulates and maintains the desired temperature inside the unit by measuring the current temperature, comparing it to the set-point, and adjusting heat output accordingly. The level of temperature accuracy, stability, and uniformity depends on the type of controller used.

The Difference Is in Precision and Features

- **Analog controllers** provide simple, reliable temperature control for general heating applications.
- **Digital controllers** provide greater accuracy and consistency through continuously adjusting temperature.
- **Advanced digital controllers** add enhanced precision, repeatability, timers, and ramp/soak programming for demanding applications.

Selection Tip: When selecting a controller, consider the level of control your application requires. Digital controllers provide greater accuracy, repeatability, and ease of use, while analog controllers offer a simple, reliable, and cost-effective solution for maintaining a set temperature.

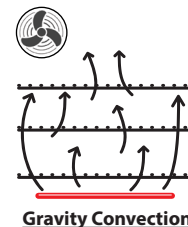
Convection Methods

Heat is distributed throughout an oven, incubator, or warmer using either **gravity convection** (natural heat rising) or **air-forced convection** (fan-driven air circulation). Each method has unique characteristics that affect temperature uniformity, heat transfer speed, drying performance, and recovery time.

Airflow Patterns in Air-Forced Units

Horizontal Airflow: Air circulates evenly across the chamber, providing superior temperature uniformity from shelf to shelf. This design is ideal for applications requiring consistent heating and reliable test results.

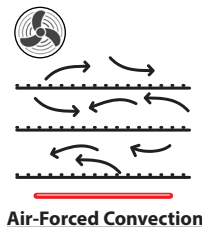
Vertical Airflow: Air moves directly through trays and product layers, promoting efficient heat transfer and moisture removal. This makes it well suited for drying, curing, and processing applications.



Gravity Convection



Vertical Air Flow



Air-Forced Convection



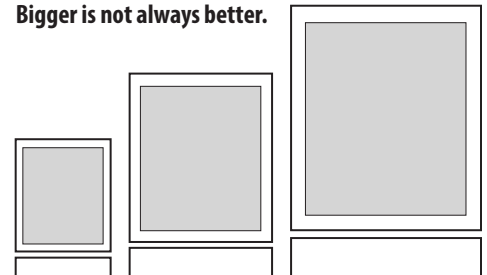
Horizontal Air Flow

Selection Tip: Choose gravity convection for delicate materials and minimal airflow. Choose air-forced convection for faster heating, better temperature uniformity, and improved drying performance.

Capacity

Choosing the right chamber capacity is essential for achieving optimal temperature performance, workflow efficiency, and operating costs. A chamber that is too small may limit sample capacity and restrict airflow, while one that is too large can waste energy, increase heat-up and recovery times, and take up unnecessary lab space. The ideal oven or incubator should provide sufficient usable space while maintaining proper airflow, temperature uniformity, and efficient operation.

Bigger is not always better.



Selection Tip: When selecting a chamber, consider installation space, access, ventilation, and shelving requirements. As a rule of thumb, subtract 2 inches from each interior wall when planning usable product space to maintain proper airflow and temperature uniformity. The ideal chamber provides enough capacity for your workload while maximizing performance and efficiency.

The right fit starts with the right requirements.

Temperature, Controls, Convection, and Capacity—the four principles of smart thermal equipment selection.

WHY QUINCY LAB

Reliable Thermal Solutions Designed Around Real Applications

Selecting the right oven, incubator, or warmer is about more than simply reaching a temperature set-point. Long-term reliability, consistent performance, practical controls, and dependable support all play a critical role in achieving repeatable results and protecting your process.

For decades, Quincy Lab has focused on designing thermal equipment that delivers dependable performance for laboratory, healthcare, industrial, and testing applications.

Our approach is simple:

Provide reliable, practical, and cost-effective thermal solutions backed by knowledgeable customer support.

WHAT MAKES QUINCY LAB DIFFERENT

RELIABLE PERFORMANCE

Quincy Lab products are engineered to provide:

- Long service life with minimal maintenance
- Consistent temperature performance
- Reliable airflow circulation
- Stable heat recovery
- Durable day-to-day operation



From drying and curing to incubation and testing, our chambers are designed to support repeatable process results across a wide range of applications.

ENGINEERED FOR REAL-WORLD APPLICATIONS

Quincy ovens, incubators, and warmers are designed around real process requirements including:

- Drying & curing
- Biological incubation
- Product warming
- Testing & conditioning
- Industrial heating applications

Available convection systems, chamber sizes, and control options allow customers to select the right solution for their process needs.

EXCELLENT CUSTOMER SUPPORT

Selecting thermal equipment is an important investment, and application requirements can vary significantly.

Quincy Lab is committed to providing responsive customer support and application guidance to help customers:

- Select the right unit
- Understand airflow and temperature requirements
- Identify appropriate control options
- Support long-term operation and performance

Our goal is to provide practical solutions and dependable continued support.

DESIGNED TO SUPPORT YOUR PROCESS

Quincy Lab thermal solutions are designed to deliver reliable performance, efficient operation, and long-term value across a wide range of laboratory and industrial applications. Whether your process requires gentle warming, precise incubation, laboratory heating, or industrial thermal processing, Quincy Lab provides dependable solutions and knowledgeable support designed to help customers operate with confidence.