

# USED CHAMBERS: 10 QUESTIONS TO ASK

Buying a used environmental test chamber can save time and money in the short term, but without proper insight and research, you might soon encounter issues that quickly negate any initial savings. At Thermotron, we recommend compiling as much information as possible about the used chamber in order to make an informed decision about a capital equipment purchase.

Before starting your buying process, there is one question that needs to drive your decision making: What kind of chamber do I need to test my product? Knowing your size requirements and what you will be testing are vital to ensuring you make the right investment.

After you have determined your initial testing needs, we have developed the following list of 10 questions to ask a used chamber reseller to help you determine if purchasing a used environmental test chamber is the best option for your company.

## 1. How old is the used chamber?

First things first: When was the chamber built? Does the seller actually know or is it just a guess? It's true that a well built chamber can last decades, but no matter how well a test chamber is built, its longevity depends on how hard and frequently the test chamber is run, as well as its maintenance, service, and calibration history.

## 2. Was the chamber cared for properly?

Service, calibration, and maintenance records are extremely important in examining the history of a used chamber. What work was done? When was it done? Do you have records for it? Ask the reseller all these questions and follow up on whatever information they can give you. Accurate service records will help determine the chamber's condition and can help predict its reliability in the future. If the chamber had yearly calibration and preventive maintenance service, it's more likely to continue running at a high level.

## 3. How was the test chamber used?

Different types of testing place different amounts of strain on your environmental test chamber. Some chambers are run to the extremes, constantly ramping up and down in temperature and operating over several days or weeks non-stop. It's helpful to determine how the chamber was used and in what type of environment the chamber was operating. Was it in a clean lab environment or was it in a dirty and dusty manufacturing plant? Another possible issue is that products previously tested in the chamber may have leached chemicals into the chamber, which could rust or compromise the chamber's workspace and performance. If the used test chamber has a humidity feature, what kind of water was used? If the water was not at the proper purity standards, some of the internal tubing could be corroded or ruined.

## 4. What type of refrigerant is used in the chamber's cooling system?

Since 1995, the U.S. federal government has been updating regulations prohibiting the use of certain types of refrigerants used to cool environmental test chambers. (The Montreal Protocol banned chlorofluorocarbons—CFCs—which includes many older types of refrigerants.) Be sure to clarify your chamber's cooling methods as it may be difficult to fix future refrigeration leaks if your refrigerant is no longer commercially available. In this case, the only option for repair would be a cooling system field retrofit, which can be quite expensive.

## 5. What controller does the chamber have?

A Thermotron test chamber is not the same when it isn't paired with a Thermotron controller, so it's important to find out what kind of controller is included with your purchase. Is it a generic controller that only displays certain features or is it the original manufacturer controller, which allows a full range of capabilities? The controller is the "brains" of the chamber, and, with the right controller, you can program the test chamber to perform at optimal levels. Often times, the controller on used test chambers is replaced with a generic controller by the third-party reseller, impacting the chamber's functionality and ease of use.



## 6. What are the chamber's utility requirements?

Before purchasing, ensure the used chamber is compatible with your facility, including electrical and voltage requirements. Is the chamber air-cooled or water-cooled? Does it require compressed air, liquid nitrogen, or CO<sub>2</sub> supply? If your facility is not set up for what the chamber requires, it could be very costly to upgrade utilities to accommodate the used chamber.

## 7. What are the chamber's model and serial numbers?

A serial number goes a long way. Specifically, if you are looking at a used Thermotron test chamber, please call us. If you provide us with the serial number and model number, we can check our records and verify how old the chamber is, who the original owner is, and any service work that Thermotron has performed on the test chamber. By providing this information, hopefully you can verify some of the seller's claims and make a good decision for you and your company.

## 8. How did the reseller obtain the chamber?

Is the seller the original owner or are they a reseller who acquired the chamber from a third party?

Knowing the ownership history provides more knowledge of the chamber, including its operating environment and service history.

## 9. Did the reseller refurbish the chamber?

If the reseller did any work on the chamber, find out if a qualified, certified service engineer with experience in refurbishing test equipment performed the upgrade. Each chamber manufacturer is different, so upgrades can be complicated, and an improperly refurbished test chamber can cause major problems down the line.

## 10. Is support available for the used chamber?

Does a product manual come with the purchase? If not, do you know how to run the chamber?

What if you require troubleshooting to solve some problems? Often times, buying a chamber from a third party reseller means you are only buying the chamber, not the support required to ensure the chamber runs efficiently and effectively for the remainder of its lifetime.



Buying a test chamber is a big decision, and buying one from a reseller requires additional due diligence. Ensure you make an informed decision by utilizing this guide.

Thermotron can serve as a resource when buying a used chamber. As an industry leader, Thermotron can give expert information and insight on used chambers as well as sell nearly new refurbished chambers.

For more than 55 years, Thermotron has provided quality environmental test equipment. We've worked to establish a trusted reputation among our peers, and when people hear the name *Thermotron*, they have confidence in the testing of their own product. We've been building our name since 1962; now it's your turn.

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