

Buying a Used Chamber? 10 Questions to Ask

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

Start out with an easy question that the reseller should have an answer for: When was the chamber built? Does the seller actually know or is it just a guess? While it is true that a well built chamber can last decades, the reality is that no matter how well a test chamber is built, the amount of time it properly functions depends on how hard and frequently the test chamber is run and its maintenance, service, and calibration history. This leads us to our next two questions.

2. Was the Chamber Cared for Properly?

Service, calibration, and maintenance records are extremely important to 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 ask follow-up questions. 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, users will have a better chance of having a successful partnership with the chamber.

3. How Was the Test Chamber Used?

Certain types of environmental testing can be more strenuous than others on a chamber. Sometimes test chambers are run to the extremes, constantly ramping up and down in temperature and operating over several days or even 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. Also, 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, then some of the internal tubing could be corroded or ruined.



4. What Type of Refrigerant is Used in the Chamber's Cooling System?

In 1995 the U.S. federal government passed regulations prohibiting the use of certain types of refrigerants, which are used to cool environmental test chambers. (The Montreal Protocol banned chlorofluorocarbons—CFCs—which includes many older types of refrigerants.) If an environmental test chamber was built before 1995, it's possible the chamber is cooled with outlawed refrigerants. It may be difficult to fix future refrigeration leaks because the refrigerant might not be commercially available. The only option for repair would be a cooling system field retrofit, which can be quite expensive. This may ultimately negate any cost savings you might have had when you initially purchased the used chamber.

5. What Controller Does the Chamber have?

It's important to find out what controller is on the used chamber. Is it a generic controller that only displays certain features? Or is it the original manufacturer controller, which allows a full range of capabilities? For example, a Thermotron test chamber is not the same without a Thermotron controller. The controller is the "brains" of the chamber, and, with the right controller, you can harness 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. When this happens the chamber immediately loses some of its functionality and features.

6. What Are the Chamber's Utility Requirements?

It is important to know the used chamber's utility requirements to ensure it is compatible with your facility. Make sure you know the chamber's electrical and voltage requirements. Is it air-cooled or water-cooled? Does it require compressed air or liquid nitrogen or CO₂ 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 can go a long way for a chamber. 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. Hopefully by providing this information you can verify some of the seller's claims, and make good decision for you and your company.

8. How did the Reseller Obtain the Chamber?

Is the seller the original owner? If the used chamber is with a reseller, then how did they acquire the chamber? They could have purchased it from the original owner or maybe they found it on Craigslist or just bought it at an auction. Knowing who has owned the equipment is important because it gives a deeper knowledge of the chamber, including its operating environment and service history, and you're not worried about gaps in the ownership.

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. Receiving a used chamber that has not properly been refurbished can cause a lot of problems (equipment downtime and money).



10. Is Support Available for the Used Chamber?

Does a product manual come with the purchase? If there isn't a manual then do you know how to run the chamber? What if you require troubleshooting to solve some problems? What do you do when the controller doesn't do what you want it to do? Often times, buying a chamber from a third party reseller you are only buying the chamber, not the support required to run the chamber efficiently.

Buying a test chamber is a big decision, and buying one from a reseller requires additional due diligence. We hope that by providing these 10 questions you can get the answers to necessary information about the used test chamber so that you can make an informed decision.

Lastly, there is one question you need to ask yourself. What kind of chamber do I need to test my product? Knowing what size you need and what you will be testing will be vital to ensure you are making the right investment. You want to make sure you find a solution that best fits your needs. Be sure to consider some of the following questions:

- Is the chamber workspace big enough for your product?
- Does it have a wide enough temperature range for all the test specifications you need to meet?
- Will you need the chamber to have humidity capabilities?

It is important to make sure the chamber will meet these initial needs and fit into your future testing programs.

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. Learn more at www.thermotron.com/refurbished-equipment and review Thermotron's guide, "Buying a Used Chamber? Consider Thermotron". For additional information feel free to contact Thermotron at 616-393-4580 or info@thermotron.com.

