

THE AUTOCLAVE BUYER'S GUIDE



Questions and Answers to Ensure that You Select
the Best Autoclave for Your Application



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Steam sterilization is popular across a variety of industries because it is effective, nontoxic and relatively inexpensive. By harnessing steam's ability to store energy better than air or liquid water, an autoclave can wipe out bacteria, viruses and spores in a short period of time.

Whether you manage a salon, dentist's office, tattoo parlor, laboratory, hospital or other facility that requires sterile tools and materials, it's important to select the autoclave that's right for you.

This guide is designed to help you make an educated autoclave purchase. By considering the following questions and suggestions, you will be better prepared to select the right autoclave and transition seamlessly into using it.

Which Autoclave Style Do You Need?

Autoclaves come in all different shapes and sizes, but the journey begins with a simple question: tabletop or freestanding? The answer to that question will most likely be determined by the kind of work you do.



1. TABLETOP

Tabletop autoclaves are typically used for small items such as hand tools and needles. If you are preparing instruments for dentistry, surgery or cosmetological use in relatively small batches, then a tabletop sterilization unit is probably right for you.



2. FREESTANDING

If you work in a hospital, laboratory or manufacturing facility, your sterilization needs will probably necessitate a freestanding autoclave.

Freestanding autoclaves can accommodate larger loads, which saves time and puts more sterilized, ready-to-use materials in your hands faster.



Freestanding autoclaves come in a variety of different door styles, ranging from single or double hinged doors to horizontal and vertical sliding and pocket doors.

It's important to choose the door style that best serves your work and your facility (see *“What Will Your Space Accommodate?”* on the next page). Try to visualize your autoclave in use and consider what kind of door would benefit users the most.

Once you've answered these questions, you should have a general idea of what style autoclave you're looking for. But before you commit to your purchase, be sure to consider how your autoclave will fit in your workspace.

Control Interface Selection

Another aspect of your autoclave to consider is its display and control system. The most traditional sterilizers may only have a manual lock and needed pressure gauge, while state-of-the-art autoclaves are equipped with full color touchscreen displays.

Consider the end user when selecting what control style you want for your autoclave. Are your colleagues likely to navigate touch screens effectively, or would they be more confident with buttons and dials?

Once you've answered these questions, you should have a general idea of what kind of autoclave you're looking for. Before you hit that “Check Out” button on any web sites, though, make sure to consider how your autoclave will fit in your workspace.

What Will Your Space Accommodate?



To avoid an embarrassing situation, look closely at the product specifications and dimensions of all the autoclaves you are considering to make sure they will fit properly in the workspace.

The first factor to consider is the device's footprint. Tabletop autoclaves generally have a base between 20 inches by 13 inches and 45 inches by 26 inches, so make sure your table or countertop is wide enough, sturdy enough and not already burdened with other heavy equipment.

Freestanding units, on the other hand, come in a wide variety of sizes, meaning you must measure your space thoroughly to determine what size is right for you.

Of course, when you're mapping out space for your freestanding autoclave, make sure not to forget about the device's doors. If your unit's doors swing outward, it's important to ensure that they will not obstruct doorways, violate any building codes or cause safety issues if left open. If space in your lab or facility is tight, make sure you purchase an autoclave whose design takes that into consideration.

Even the highest quality autoclave will eventually need professional service or maintenance at some point, which means it needs to be accessible. Once installed, you will want to move your autoclave as little as possible, so make sure you're placing it in an area that allows technicians access to key

control panels. The more space you can give your autoclave on each side, the better.

When it comes to placement of your autoclave, size is just one important factor. Before ordering your autoclave, you'll want to consult your plumber and electrician as well to ensure proper proximity and access.

Given that autoclaves use steam for sterilization, your device will need a supply of fresh water. Most tabletop autoclaves allow you to fill their reservoir manually, so a connection to a water line is not necessary. Freestanding autoclaves, however, will require an appliance tap and appliance hose to supply water for steam production. Make sure your facility has appropriate mains available and get the necessary fittings installed before your autoclave is delivered.

In addition, your freestanding autoclave will require a vent pipe and/or drainage system to eliminate hot steam at the end of sterilization cycles. Due to the high temperatures, your vent should not be made from rubber or plastic, which may melt. Having these vents installed before your device arrives will save time and allow you to transition quickly into use.

When you're confident that you understand your needs fully and have designated an appropriate space for your autoclave, make sure you consider how you will protect your investment and keep your autoclave running properly throughout its life.

How Will You Validate Your Autoclave?



Regardless of which autoclave is ideal for you and your business, you will also need a validation plan in place to maintain the integrity of your sterilization cycles.

Validation involves regularly measuring and monitoring the temperature and pressure inside of your autoclave chamber to guarantee that sterilization is taking place as designed. If you don't validate your sterilization cycles regularly, you risk sterilization failure, invalidation of scientific results and even lawsuits if pathogens are transmitted to patients/clients.

By developing a validation plan when (or even before) you purchase your autoclave, you are taking proactive steps to lower your sterilization system's overall cost of ownership. Owning your own validation system means you can avoid paying independent engineers for testing and will always be the first to know if your autoclave is malfunctioning.

Autoclave validation is done using temperature and pressure data loggers. Data loggers are small

sensor devices that measure environmental factors and record data for analysis, either stored to memory or transmitted in real time. Loggers are placed inside the autoclave chamber and then subjected to a sterilization cycle, during which they constantly measure temperature and pressure within the device.

If you have a small tabletop style autoclave, you may need just one or two data loggers to verify that the chamber of your autoclave is reaching adequate temperatures for sterilization.

For freestanding autoclaves, especially large ones, a set of six or more data loggers should be used to map the inside of your autoclave chamber.

The larger your autoclave, the higher the chance of hot and cold spots developing within the chamber, just like in a consumer oven. By evenly spacing loggers throughout the autoclave, you can create a second-by-second profile of every nook and cranny of your autoclave to ensure consistent, effective sterilization.

For more information on autoclave validation solutions, visit us at www.madgetech.com or call **(603) 456-2011**

