

DENTAL

How to Choose a Sterilizer



Get the Full Picture





Effective instrument processing begins with a quality sterilizer. How do you decide which sterilizer is right for your practice?



WHEN CHOOSING YOUR STERILIZER, LOOK BEYOND THE INITIAL PURCHASE PRICE TO GET THE FULL PICTURE. CONSIDER THE FOLLOWING SIX IMPORTANT FACTORS:

- 1. STERILIZER AND CLEANING CAPACITY**
Prepare beyond today's sterilization needs and consider the future needs of your practice. Make sure the number and types of sterilizers and cleaning equipment you select can accommodate future growth.
- 2. TURNAROUND TIME**
Consider turnaround time as you determine the capacity you need. Instrument processing requires more time than most procedures, and every practice must find a balance between available instruments and planned procedures.
- 3. EASE OF OPERATION**
Keep it simple with an easy-to-use sterilizer and seamless workflow. Dental practice teams are usually busy managing many tasks. By keeping the sterilization process simple, more work can be accomplished in other areas.
- 4. STERILIZER DOCUMENTATION REQUIREMENTS**
Understand how the sterilizer provides you with documentation and how you will need to manage it. Regulations require that effective sterilization of reusable medical and dental instruments be proven and documented. Information on sterilizer performance can be recorded in print or electronically.
- 5. MAINTENANCE REQUIREMENTS**
Make sure you get the full picture of what maintenance, associated costs, and time will be required to keep the sterilizer operating properly.
- 6. COST OF OWNERSHIP**
Consider everything you will need to purchase to routinely operate the sterilizer. Operating any sterilizer includes some ongoing expenses, and your choices can impact that cost. You can spend pennies per day or dollars per day.

Compare Steam Sterilizers

				
	Midmark M Series	Tuttnauer® EZ Series	W&H® Lexa	SciCan StatClave® G4
Sterilization Method	Steam Flush Pressure Pulse: Steam, Heat, Positive Pressure	Steam Flush Pressure Pulse with Post Air Flush: Steam, Heat, Positive Pressure	Steam Flush Pressure Pulse with Pre-Vacuum: Steam, Heat, Positive Pressure, Vacuum	Pre/Post Vacuum (Class B): Steam, Heat, Positive Pressure, Vacuum
Total Cycle Time	44–60 Minutes Load independent	47–60 Minutes Load dependent	43–71 Minutes Load dependent	36–50 Minutes Load dependent
Performance Testing	Chemical or Biological Indicators	Chemical or Biological Indicators	Chemical or Biological Indicators Bowie–Dick Test for Vacuum	Chemical or Biological Indicators, Bowie–Dick Test for Vacuum
Air Requirements	Ambient	Filtered	Filtered	Filtered
Water Requirements	Manual; Distilled	Manual; Filtered	Manual; Filtered, Optional Autofill	Manual; Filtered
Vacuum or Air Pump	N/A	Air	Vacuum	Vacuum
Documentation	Printer	Printer, USB (Limited)	Printer, USB, App (Wi-Fi Required)	Printer, USB
Training Requirement	Minimal	Moderate	Moderate	Extensive
Cost of Ownership	Pennies per Day ~\$120/year in disposables for printer and water systems (if distilled water is purchased)	\$3+ per Day ~\$1,000/year in disposables for air and water systems	\$8+ per Day \$5–8/day for Bowie–Dick Test ~1,000/year in disposables for printer(s), air and water systems Additional cost for data services	\$8+ per Day \$5–8/day for Bowie–Dick Test ~\$1,500–2,000/year in disposables for air and water systems

Data gathered from manufacturers' published materials. Costs are estimated based on average price of required consumables.

Dig Deeper

1. STERILIZER AND CLEANING CAPACITY

- How many clinicians are in your practice today and will be in the future?
- What type and number of sterilizers and cleaning units does your practice need?
- How much instrumentation needs to be processed each day?

EQUIPMENT CONSIDERATIONS

1 Doctor/1 Hygienist	1 Steam Sterilizer	1, 11" Sterilizer
1–2 Doctors/2–4 Hygienists	2 Steam Sterilizers	<ul style="list-style-type: none"> • 2, 11" Sterilizers • 1, 11" Sterilizer + 1, 9" Sterilizer
3 Doctors/3–5 Hygienists	3 Steam Sterilizers	<ul style="list-style-type: none"> • 3, 11" Sterilizers • 2, 11" Sterilizers + 1, 9" Sterilizer

Match instrument processing capabilities with the anticipated procedure volume.

2. TURNAROUND TIME

The CDC recommends a multi-step approach for instrument processing.¹

	Receiving, Cleaning and Decontamination	Preparation and Packaging	Sterilization	Sterilization Monitoring	Storage
Description	Sort, clean, rinse and dry instruments.	Wrap or pouch instruments.	Start steam sterilization and drying.	Collect physical data (temperature, time) of sterilization. Use chemical and biological indicators and record results.	Keep sterilized instruments dry and organized for easy access.
Time Required	10–15 Minutes Depends on number of instruments	10–20 Minutes Depends on number and type of instruments	50–70 Minutes 15–20 minutes with immediate use sterilizer, but capacity is limited	5–10 Minutes May need more time to collate data from multiple sources	As needed

¹ <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/sterilization/sterilizing-practices.html>

Choose a layout and equipment that will help you efficiently follow CDC guidelines.



3. EASE OF USE

- How many sterilization cycles do you have to choose between?
- How do you know which sterilization cycle to use when?
- How much training and expertise is required to use the sterilizer?
- How many accessory systems (i.e., water, air, vacuum, printers, e-records) are needed?

Minimize the effort and steps required to operate the sterilizer to keep the process flowing.



4. STERILIZATION DOCUMENTATION REQUIREMENTS

- How does the sterilizer generate all the daily auditable data?
- Do you need to manage paper records from chemical indicators, biological indicators and Bowie–Dick test results?
- Is IT expertise and support needed for electronic record keeping?
- Will mixed documentation from paper and electronic records complicate documentation?
- Are frequent internal checks and training needed to maintain documentation diligence?

Keep the documentation process as easy as possible to help ensure compliance with safety standards. Be sure that adequate time is allocated for your team to perform this critical task.

5. MAINTENANCE REQUIREMENTS

- Does the sterilizer have complex components (i.e., vacuum or air pump, steam generator, Wi-Fi)?
- Does the sterilizer need special air and water filtration systems to operate?
- How often will you have to change items like filters on the unit?
- How will you know it's time for maintenance on a filter-using system?
- What are the daily, weekly and monthly maintenance requirements for the sterilizer?
- Can your staff do the maintenance, or will you need a service call to maintain the sterilizer?

Make sure you understand the maintenance time and cost required for any sterilizer. Instrument processing is an inherently simple process—but only if your sterilizer helps keep it that way.

6. COST OF OWNERSHIP

- Do you have to maintain a water or air filtration system that requires periodic replacement of the filter?
- How many times will you need to change filters each year?
- Do you have to do a Bowie–Dick test on the sterilizer?
- Do you need to pay for data or cloud services to manage documentation?
- How much time is needed for documentation?
- How much training is needed for new staff to use the unit?

Get the scoop on the true cost of ownership. Sterilizers range in cost of operation from pennies per day to dollars per day.



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