

**RELIABLE.
FLEXIBLE.
PROGRAMMABLE.
AFFORDABLE.**

AUTOCLAVES

THE RIGHT AUTOCLAVE FOR YOUR INDUSTRY



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DOES YOUR AUTOCLAVE MEET YOUR NEEDS AND EXCEED EXPECTATIONS?

Research, quality assurance, product testing, schools and universities, medical startups and government facilities—at the heart of every lab is an autoclave. Without a reliable steriliser, they cannot be confident in their results, meet client expectations, train the next generation of innovators, or live up to the demands of their communities and industries.

But in too many labs, the autoclave is a constant frustration: It's unreliable, slow to start, and frequently offline for repairs. Affordable models don't last and offer limited programming options. Expensive models are often too complicated to be convenient. Every autoclave demands frequent maintenance and service. None of them can readily adapt to changing standards, methods, or demands. Once you factor in high water and electric use, expensive service calls and replacement parts, and unavoidable downtime, the total lifetime cost of a steriliser can easily dwarf its purchase price.

The problem isn't the autoclave—it's the type of autoclave. Far too many research and industrial labs worldwide are using autoclaves that were purpose-built for medical settings in Europe and North America. Such devices are quickly taken to their breaking point by the rigors of research, manufacturing, and education.



THE AUTOCLAVES BUILT FOR RESEARCH

The right autoclave for research is one built for research: a rugged, stand-alone device with flexible controls, straightforward maintenance, and efficient operations.

That's the autoclave Charles Prior set out to build in 1987, and those are the autoclaves we are delivering to this day. The designs, of course, have evolved over the years. But the goal has remained the same:

- To match every user to the right autoclave
- To make sure that autoclave is reliable, flexible, affordable, efficient, and safe
- And to support them all the way

For more than 30 years, our steam autoclaves have been known for their reliability, low maintenance costs, and remarkable energy and water efficiency.

Who chooses Priorclave?

Governments. Educators. Researchers. Quality assurance professionals. Safety experts. Professionals of every stripe. They are in the world's busiest cities and remotest outposts, the most prestigious research universities and the humblest food-processing plants.

Why?

Because a Priorclave autoclave keeps sterilising, year in and year out. No nasty surprises, no lingering complaints, no mysterious problems. It does its job so you can do yours.



RELIABILITY, FLEXIBILITY, EFFICIENCY AND VALUE

Priorclave autoclaves are Reliable, Flexible, Programmable, and offer excellent Lifetime Value. The first Priorclave autoclaves were built in 1987—and some are still in regular service. How is that possible?

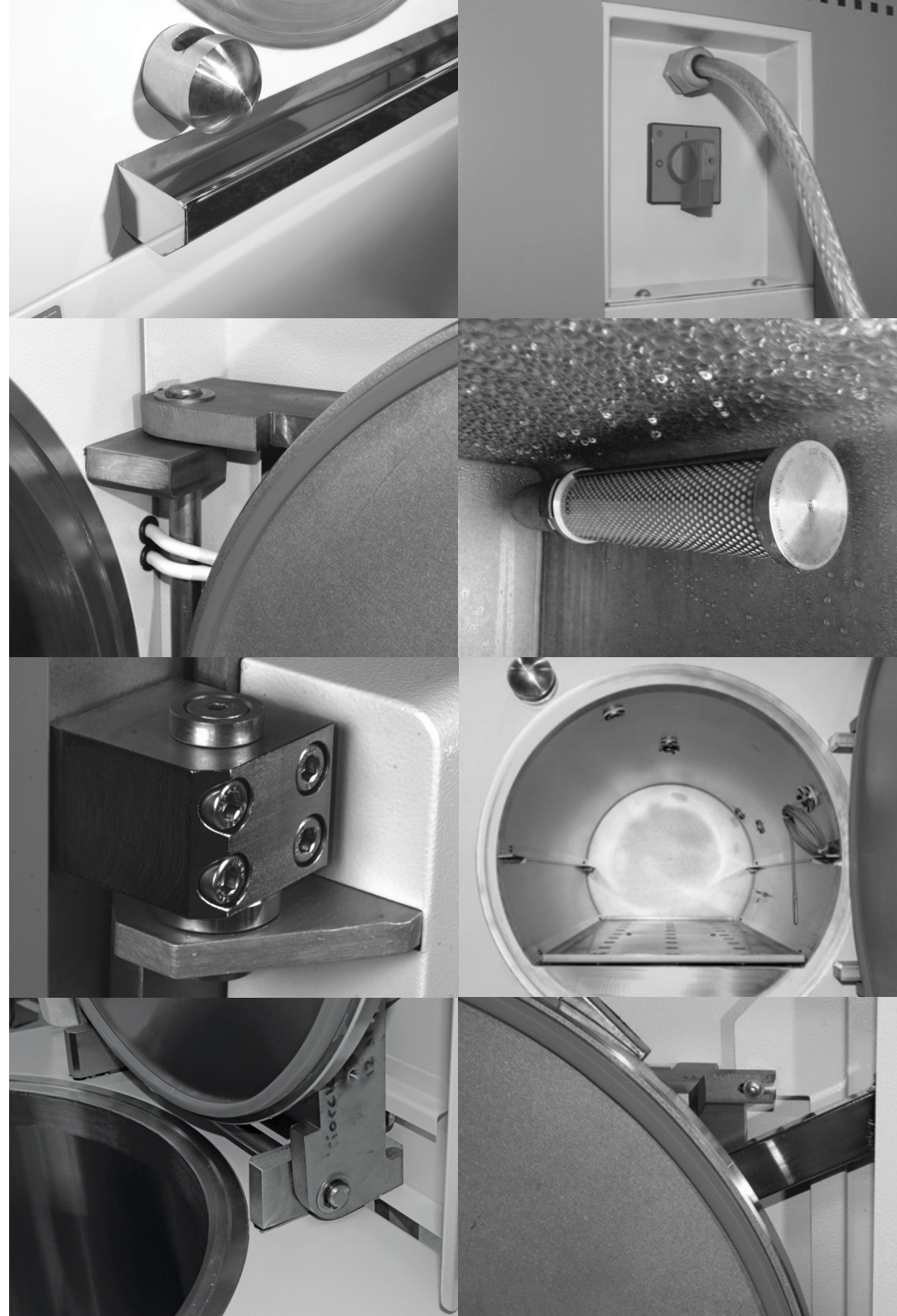
The Priorclave Commitment to Quality

We've put all of our resources behind a quality design, invested in a quality build, and committed ourselves to quality support for as long as you own your autoclave.

With a Priorclave, you enjoy the reliability that comes with a sharp focus on design. Priorclave sterilisers are optimized for research and industrial tasks: media preparation, instrument and labware sterilisation, quality and durability testing, and waste loads. These designs rest on time-tested fundamentals that have proven to be durable and efficient. We pair them with an advanced, full-featured control system that offers both “one-touch” ease-of-use for regular tasks and an open platform for innovators.

We build to exacting standards, using standard non-proprietary components, and keeping as much production as possible in-house so that we can have absolute confidence in the craftsmanship that went into every component. Every Priorclave steriliser is built by hand with care and pride in our factory in London, England.

Whether it is our own in-house techs, one of our trained dealers, or a member of our global network of authorized service agents, you can be sure you're getting the same quality support throughout the lifetime of your Priorclave.





Priorclave Sustainability

Save your budget when you save the planet. Priorclaves are designed for labs—not hospitals or clinics. By designing specifically for research tasks and use patterns we minimize the total part-count, eliminate proprietary components, and remove unneeded complexity and medical-specific features. This sharply reduces ongoing maintenance costs for our customers while maximizing efficiency of operation. This regularly results in drastic energy, water, and cost savings. In one side-by-side study, the University of California–Riverside found that their Priorclave used 81% less energy and 93% less water than a comparable non-research model. The total lifecycle cost for a Priorclave autoclave (from purchase, through regular maintenance, and factoring in utility costs) over 15 years is roughly one-third that of conventional autoclaves performing similar tasks.

THE RIGHT RANGE FOR YOU

Priorclave autoclaves are available in three ranges:

- **BASE**
- **SMART**
- **PERFORMANCE**

Regardless of which range you choose, every Priorclave autoclave puts safety first. Every Priorclave autoclave is equipped with the same core control system. Despite putting powerful programming options at your fingertips, your Priorclave can be as easy to operate as a microwave. Need to run a simple cycle? Set the temperature and time then press START. Need a more complex cycle? Program it into one of the pre-sets for one-touch access. This vastly reduces the possibility of human error, even if an operator is distracted or careless. To further assure operator safety, Priorclave doors are fitted with thermal pressure interlocks. Redundant safety gates allow any residual pressure to escape safely before the door can be fully opened. All front-loaded models are fitted with non-tip shelves.

BASE

The Base range covers “the basics”—standard lab work (including media preparation), waste loads, and the like. These are available in both cylindrical and rectangular models.



- ✓ Media, liquids, and waste fluid
- ✓ Unwrapped instruments
- ✓ Sealed containers, including cans and pouches (requires air ballast and compressor)
- ✓ Fermenters, bioreactors

SMART

The Smart range of sterilisers are vacuum-equipped for greater flexibility. They can handle a wider range of loads (including mixed loads), produce drier loads, and offer expanded programming functions. These are available in both cylindrical and rectangular models.



- ✓ Media, liquids, and waste fluid
- ✓ Unwrapped instruments
- ✓ Sealed containers, including cans and pouches (requires air ballast and compressor)
- ✓ Fermenters, bioreactors
- ✓ Soil, substrate, plant tissue culture
- ✓ Plastic, glassware, mixed waste, tubing and pipettes for disposal
- ✓ Prosthetics, implants, devices
- ✓ Wrapped instruments, porous loads, clothing
- ✓ Pathogens, prions, biological agents (requires Effluent Retention Filter)

PERFORMANCE

The Performance range are mid-sized and larger sterilisers for “power users.” All models are steam-jacketed and vacuum-equipped, ready to handle more load types, more loads per day, and produce dryer loads more quickly.



- ✓ Media, liquids, and waste fluid
- ✓ Unwrapped instruments
- ✓ Sealed containers, including cans and pouches (requires air ballast and compressor)
- ✓ Fermenters, bioreactors
- ✓ Soil, substrate, plant tissue culture
- ✓ Plastic, glassware, mixed waste, tubing and pipettes for disposal
- ✓ Prosthetics, implants, devices
- ✓ Wrapped instruments, porous loads, clothing
- ✓ Pathogens, prions, biological agents (requires effluent retention filter)



BASE AUTOCLAVES COVER THE BASICS

Priorclave's Base range of autoclaves are intended for research, quality assurance, and teaching labs that regularly need to handle "the basics": media preparation, waste loads, and sterilizing loose instruments, open containers, and labware. Base units efficiently handle a wide variety of loads. Easy maintenance and light resource consumption help ensure a low lifetime cost of ownership. Some "affordable" entry-level autoclaves are nothing more than "stripped down" medical autoclaves. They are plagued with cheap parts, meager controls limited to "standard" cycles, and few options. That's not the case with Base Priorclaves. Even the smallest benchtop Base Priorclave autoclave enjoys the same robust design, custom build, and quality components as our larger models. Because our autoclaves are all hand-built in the UK, customization is an option. For example, Base models can be equipped with an optional air ballast/compressor system for safely processing sealed containers without risk of rupture. All Base models are piped and fitted to accommodate an optional air intake filtration system (if your application calls for this).

Base models are especially useful for labs that need to run just a few cycles each day, do not need to have a dry load quickly, and largely focus on research tasks.

All Base models include fully featured programmable controls: create cycles that meet your specific needs, with custom cycle and dwell times, delays, temperature and pressure ramps, repeats, "media warming" periods, and so on. Base models come with 5 Program Memory, built-in cooling and freesteaming systems, USB, drain protection (required by many building codes and not necessarily standard on all cost-conscious autoclaves on the market).



BENCHTOP

High-efficiency cylindrical-chamber front-loading tabletop autoclaves, available in 40 and 60 litre capacities.



FRONT LOADING

High-efficiency cylindrical chamber, caster-mounted front loading autoclaves with non-tip shelves. Available in 100, 150, 200, 320, and 400 litre capacities.



TOP LOADING

High-efficiency cylindrical chamber, small footprint autoclaves with convenient top-loading. Available in 60, 85, 100, 150, 200 litre capacities. Loading baskets included.



RECTANGULAR

Rectangular chamber autoclaves, front loading autoclaves with non-tip shelves. Available in 230, 285, 350, 450, 700, and 850 litre capacities with either standard doors or zero-clearance no-swing power doors.



SMART AUTOCLAVES OVERCOME OBSTACLES

Smart models are intended for labs and facilities with greater or more diverse needs. They can adeptly handle standard tasks like media prep, waste loads, and labware. But they also are capable of pre- and post-cycle vacuum stages. As a result, Smart autoclaves produce drier loads and can more reliably sterilise trickier items, such as deep fermenters and boiling flasks (which tend to trap cold air). Smart Priorclaves are ideal for mixed waste loads (i.e., those composed of a combination of glassware, pipettes, reagents and biological waste or pathogen-heavy materials, etc.), cloth and textile sterilisation, soil and substrate preparation, wrapped instruments, complex instruments (composed of multiple materials), and porous loads.

Smart autoclaves are favoured by more demanding industrial, research, and production labs. These models are vacuum-equipped as standard. They process a wider range of loads with a wider range of cycles, more quickly processing more challenging loads more reliably.

All Smart models are equipped for both pre-cycle and post-cycle vacuum operations. Their fully featured programmable control systems have expanded memory, allowing you to program twice as many custom cycles (each with its own start delays, temperature and pressure ramps, repeats, dwell times, vacuum stages and timing, “media warming”/ holding temperatures, etc.) Built-in cooling, freesteaming, USB, drain protection, and air intake filtration are standard on all Smart models.



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High-efficiency cylindrical-chamber front-loading tabletop autoclaves, available in 40 and 60 litre capacities.



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PERFORMANCE AUTOCLAVES **DO MORE, FASTER**

Autoclaves in the Performance range run the widest set of cycles on the most diverse array of loads. They produce drier loads more quickly and reliably and at lower cost than many comparable sterilisers. Performance autoclaves are designed for high-throughput operation (i.e., more than four complete cycles each day) and are especially adept at processing awkward, bulky, and tall items. Fast to heat and fast to cool, their small footprint (relative to chamber size and capabilities) allow some of the smallest laboratories to have the highest capacity and performance steam autoclaves available.

Every steriliser in the Performance range comes both vacuum-equipped and steam/water-jacketed—yielding both fast sterilisation operations and the full range of load types and mixed loads. The fully featured programmable control system has expanded memory, allowing you to program twice as many custom cycles (each with its own start delays, temperature and pressure ramps, repeats, dwell times, vacuum stages and set-points, “media warming”/holding temperatures, etc.). Built-in cooling, freesteaming, USB, drain protection and air intake filtration are standard.



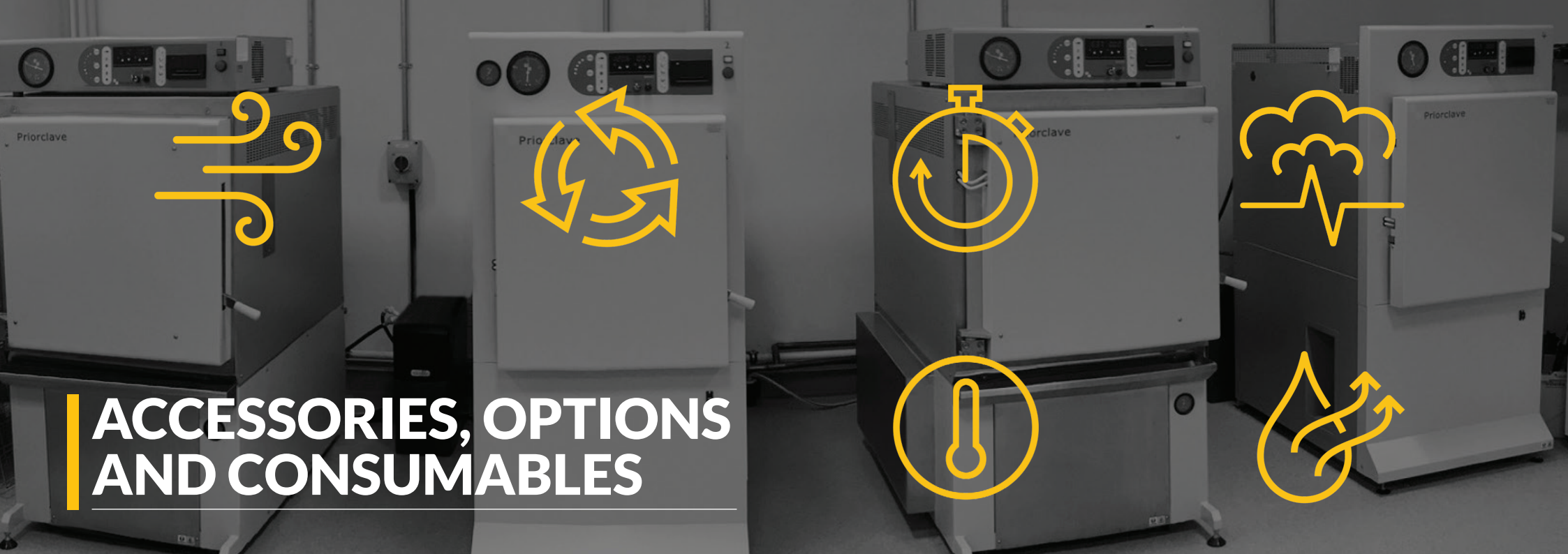
STANDARD RECTANGULAR

Rectangular chamber autoclaves, front loading with non-tip steaming and drying shelves. Caster-mounted for easy installation or transfer. Doors can be mounted for left- or right-hand swing. Available in 230, 285, 350, 450, 700, and 850 litre capacities.



POWER DOOR

Rectangular chamber autoclaves, front loading with non-tip steaming and drying shelves. Power doors require zero-clearance, giving even the smallest labs access to the largest and most advanced research-grade autoclaves. Available in 230, 285, 350, 450, 700, and 850 litre capacities.



ACCESSORIES, OPTIONS AND CONSUMABLES

Priorclave exists to make life easier in labs around the world. That means supporting not just the ideal user, but every user with everything they need to get their work done.

That starts with the autoclave itself. Too many labs are miserable with their steriliser, because too many industrial and research labs are stuck with a mass-produced generic steriliser designed and built for medical clinics and hospital campuses. It's enormously frustrating to spend your days trying to sterilise soil, prepare growth media, or perform accelerated aging tests using an autoclave designed to handle scalpels and forceps.

The space where you work, the tasks that fill your days, the goals of your organization, and the region and community you belong to all play a role in creating a unique set of specifications.

With a Priorclave, you can order from our standard range and still get an autoclave ready to meet your specific needs. Because the bulk of Priorclave autoclaves are built-to-order, it's possible for us to customise any of our autoclaves to best suit your tasks, facility, and staff.

More importantly, we're here to continue supporting you as you use that autoclave over time. That may mean supplying new accessories, additional monitoring probes, or upgrading the unit itself.

Unsure what you need to get your job done? Contact us—we're happy to help you find the perfect device and process for your facility or develop a custom solution for your specific application.

UNDERSTAND YOUR OPTIONS

Customise your unit for the tasks in your lab. Process specific load types faster and more reliably, home in on the data you most need to track, or simply make the autoclave better fit your work space, schedule, or safety needs.

Priorclave is ready to support you with all the accessories and additional items you need to simplify regular tasks or expand in new directions.

Common accessories include:

- Loading cassettes with adjustable divider shelves
- Stacking loading baskets
- Custom safety loading carts—fixed-height or adjustable
- Benchtop mounting carts (portable, fixed, with or without shelves)
- Replacement “wandering” load sensing temperature probes and cables
- ... and more

Unsure what you need to get your job done?

Contact us: we're happy to help you find the perfect device and process for your needs.

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Core Options

Expanded Memory Upgrade
Tamper-proof Setting Lock Key Switch
Pulsed Freesteaming
Load Sensed Process Timing
Automatic Waterfill Systems
Alternate Door Orientation

Monitoring Options

Data Printer
Load Temperature Monitoring
Chamber Pressure Monitoring

Heating/Cooling and Water Quality Options

Scale Prevention Systems
Purified Water Sensor Bundle
Accelerated Heating
Air Ballast System
Dual Electric/Steam Heating
Fast Cooling Systems
Air Intake Filtration
Steam Intake Filtration
Exhaust Filtration



ABOUT US

At Priorclave, we don't just stand by our products; we stand by our customers. We believe that it is absolutely vital for us all to participate in creating a better, more sustainable future. And we know that the best way to ensure that future is to make sure that the broadest range of individuals and organizations have access to the best and most reliable tools.

That's why we've made it our mission to produce high quality, reliable, affordable autoclaves that stand the test of time—so you can focus on your work instead of wasting time with maintenance and repair.

We'll help you select the right autoclave, work with you to set up the cycles you need, and train you to get the most out of it every day. Every Priorclave autoclave comes with a one-year full parts and labor warranty, a 10-year/10,000-cycle pressure vessel guarantee, and unlimited lifetime technical support. Our top priority is making sure that you can continue your work.

HOW WE WORK

We'll help you select the right autoclave, work with you to set up the cycles you need, and train you to get the most out of it every day.

That begins with a conversation. All too often, when customers come in with autoclave horror stories, it's because they were sold the wrong autoclave to begin with. We never want you to be in that position again. Our team will help you determine what options and features you need and make sure your autoclave will do what you need and stay out of your way.

That autoclave will then be built to order in our UK facility. We engage in a continuous process of improvement and quality assurance. Throughout the build processes supervisors check and re-check to ensure the quality of each component and assembly before it passes to the next stage. Our manufacturing processes are ISO9001 certified, ETL listed, and UKAS accredited. Our autoclaves and control systems are EMC certified and our pressure vessels are ASME stamped and comply with European Pressure Equipment Directive 97/23/EC and UKAS Accreditation as a Calibration Laboratory.

When your autoclave is ready, we ship it, install it, commission and train your team. Every Priorclave unit ships with lifetime 24/7 technical support (usually with a four-hour response window) at no additional charge. Our remote diagnostics make it possible to monitor your autoclave's performance in real time and answer technical questions quickly. If something goes wrong with your autoclave, one of the certified technicians in our global network of dealers and authorized service agents is ready to assist you—typically on-site within 48-hours of your call.

Our top priority is always getting you back to work ASAP.





HELPING YOU WORK SUSTAINABLY

We all know that research, quality assurance, and other lab work has a high price tag. What's become abundantly clear is that its environmental price tag often dwarfs the monetary price tag. For example, the average autoclave used in a non-medical lab right now wastes between 220 and 2500 gallons of water each day—regardless of whether or not they've run a single cycle.

Sustainability is more urgent now than ever. But we absolutely do not need to accept a trade-off between doing our work and protecting our planet.

The problem is that most industrial and research labs have been mistakenly outfitted with high-throughput medical autoclaves. Such sterilisers must generate large volumes of steam extremely quickly. That demands extremely large quantities of water and electricity.

Those resource demands plummet when a lab is matched with a properly specified research autoclave. In 2015, the University of California, Riverside built a new facility for their Department of Environmental Health and Safety. This facility sterilises large waste loads, but on a fairly relaxed schedule (never more than one load per day). Nonetheless, they'd committed to buying a large medical-style steriliser, designed for high-throughput 24/7 operation (similar to other units they already had on campus). By switching to a similarly sized, properly specified Priorclave, they enjoyed an immediate 57% reduction in energy use and 87% reduction in water consumption.

CERTIFICATIONS, QUALIFICATIONS, AND QUALITY ASSURANCE

We build our autoclaves to be as efficient, cost-effective, and safe as possible. Priorclave is one of the very few steriliser manufacturers in the world who retain complete control of its supply chain by manufacturing all principal components in-house. Other autoclave manufacturers bolster profit margins by outsourcing many components to factories around the world—including the fabrication of pressure vessels. Priorclave continues to make its own chambers exclusively in our Southeast London facility. These high-quality 316L stainless steel vessels meet both European standards and the stringent standards of the ASME Boiler and Pressure Vessel Code. All doors and lids include retention devices that comply with the UK Health and Safety Executive's note PM73, and our regulation safety valves are set to ensure microbiological and physical safety (as per BS2646-2021).

All Priorclave autoclaves comply with national US, UK, and EU safety regulations. They are manufactured under an ISO 9001:2008 quality management system in our UKAS-accredited facility. Our autoclaves and control systems are ETL listed and EMC certified and feature ASME-stamped pressure vessels tested to 1.5 times their maximum working pressure. They have full insurance approval for pressure vessel design and construction and are CE & UKCA marked under the Pressure Equipment Directive PD 5500 Cat 3: 2012, Certificate Number PS20-0472/B/001 & iP1123-T010-I-08-00 and PS20-0472/B/001 & iP1123-T022-I-12-00.

Our Manufacturing Incorporates:

ISO9001 Quality Management System covering:

Full EMC Compliance Testing

Vessel design and fabrication monitoring to the requirements of the European Pressure Equipment Directive 2014/68/EU

UKAS Accreditation as a Calibration Laboratory

European Standards

UKAS accreditation (ISO/IEE 17025:2017)

EMC Directive certification (BS EN 61000/BS EN 61326)

Pressure Equipment Regulations 1999 certification (Pressure Equipment Directive 2014/68/EU)

BS2646-2021

PD 5500 Cat 3: 2012

BS EN 61000 & BS EN 61326

HSE Note PM73

European Pressure Vessel Directive 2014/68/EU

Autoclave Quality Certificates

ASME (American Society of Mechanical Engineers)

ETL listed to UL and CSA standards

ISO 9001

National Board of Boiler & Pressure Inspectors

21 CFR, Part 11 compliant

CRN (Canadian Registration Number)

Alberta: H150

British Columbia: C40, H60, V100-150

Ontario: H150

Québec: C40, H60, V100-150

HELPING LABS DO MORE AND DO IT BETTER

Case Study: Advancing Innovation in Cancer Treatments

A cancer research center was internationally recognized for their novel approach to targeting and destroying prostate tumors using genetically-altered strains of bacteria. In 2013, with their research progressing toward clinical trials, they needed to add another autoclave to their facility.

As a privately funded research endeavor, it all came down to cost: They needed a large autoclave, but didn't have a large budget. Priorclave was able to outfit them with a research-specific 150L steam steriliser for a fraction of the cost of a similar medical-grade unit. Not only was such a research-grade autoclave better suited to their daily media prep and waste disposal needs, but the ongoing savings when it came to utilities, maintenance, and operating costs meant more funds available for their most important work: The research itself.



Case Study: Pushing Medical Devices to their Limits

Priorclaves are regularly used to determine the durability of everything from disposable contact lens packaging to cell phone solder points and spacecraft thermal tiles. For years, the U.S. military has had a Priorclave to simulate the impact of years of desert heat on ballistic materials.

In 2015, a company was working on a new robotics-assisted suite of tools to improve partial and total knee replacement surgery. The system relied on several complex reusable electronic tools that must be sterilised after each procedure. They had limited testing capacities and budget; even a single testing cycle took them months. Once they had a Priorclave in place, they increased prototype testing throughput by 500%, doing months of testing in mere days.



MEANINGFUL WARRANTIES AND LIFETIME SUPPORT

We back our quality construction and reliable design with the best support program of any autoclave or steriliser supplier. Every Priorclave comes with a one-year full parts and labor warranty, a 10-year/10,000-cycle pressure vessel guarantee, unlimited free lifetime technical support, an international network of factory-certified authorized service agents (ASAs)—and greater than 90% customer satisfaction. We're proud to offer both two-year and five-year extended warranties. These include installation, bi-annual scheduled maintenance visits, and all parts and labor.

What happens next?

Priorclave Ltd. delivers hand-built autoclaves backed with a promise of prompt customer care, quick autoclave service, and lifetime customer support starting the day you contact our sales team or worldwide dealer network.

Selection
Inquiry &
Quotation

Signed
Purchase
Order

Production
Updates &
Delivery
Coordination

Installation
& Training

Ongoing
Customer
Care



RELIABLE. FLEXIBLE. PROGRAMMABLE. AFFORDABLE.

AUTOCLAVES WORLDWIDE

Africa

Asia Pacific

Europe

Middle East

North America

South America

Need help choosing your autoclave? Contact us today.



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