



Priorclave

“autoclaves are our business”

Laboratory Autoclaves



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Dedicated Autoclave Specialists

Our business of producing laboratory autoclaves began in the late-eighties and was founded on the premise of bringing together all that is good about British design and manufacture, offering our customers some of the most advanced yet simply practical sterilising equipment.

Today we are firmly established a truly international organisation with the Priorclave brand of autoclaves in use in virtually every country around the world – America, Europe, Africa, Asia, Middle East and as far afield as Australia.

Our success is no accident, we take pride in delivering autoclaves that meet and often surpass customer expectations, whatever the size, the application and location.

Continual re-investment in machine tool technology and use of advanced design software, coupled with a skilled engineering team, first class sales support and dedicated service centre ensures every Priorclave purchased gives the customer a laboratory autoclave that will deliver on performance, reliability and a long service life.

Worldwide support is always on hand, part of our commitment to customers ensuring they utilise all the features and gain all the benefits of a Priorclave autoclave.

We are truly dedicated to the design and manufacture of some of the best autoclaves in the world, hence we believe we have the right to claim

autoclaves are our business.

Tony Collins
Managing Director



Priorclave

“autoclaves are our business”

Priorclave – The Company – A Leading Brand

- The autoclave manufacturer
- The autoclave design house
- The autoclave service centre
- The autoclave calibration facility

The Priorclave name has grown to become synonymous with robust build qualities, great sterilising performance and superior reliability. The very much extended range offers laboratories a superb choice of autoclave – from compact bench top machines to ultra large free standing rectangular chamber autoclaves, there are even power door and pass-through designs. In the unlikely event that a standard autoclave does not match a specific requirement the in house engineering team has the expertise to create that special build, only possible due to Priorclave's in depth manufacturing capability.

Through technical innovation and pioneering product development the company has spearheaded the advancement in so many areas of autoclave design and this has been reflected throughout the product range.

With its own dedicated UK manufacturing plant Priorclave achieves total control over every aspect of product design, build and stringent QA procedures.

Every Priorclave is conceived within the in-house design studio using the most advanced CAD software available. This has enabled Priorclave to introduce some of the highest specified autoclaves as part of a standard range. It is this design facility where customised autoclaves also start their life.

On the production floor there is a modern metal fabrication workshop leading to an assembly line; here all components are brought together - the anti-microbial frames, the stainless steel chambers (all pressure tested and carrying a 10 year warranty) and bespoke electronic control circuitry. Such is the build quality all autoclaves are produced to international standards including offering ASME accreditation when required.

Priorclave autoclaves are designed to offer unrivalled reliability for many years. The company's dedicated service and support teams are always on hand to give advice and guidance when required to ensure customers achieve trouble-free sterilising performance.

Priorclave also hold UKAS accreditation as a Calibration Laboratory.

Benchtop Autoclaves

These are the smallest in the Priorclave range of autoclaves and the ideal choice for laboratories seeking a bench top steam steriliser that is extremely easy to install and simple to operate. They will appeal to laboratories with low volume requirements whilst allowing them to enjoy a level of settings and operating flexibility usually reserved for larger autoclaves.

This front loading design, available with models of up to 60 litres capacity and including a host of features, enables laboratories to enjoy the full benefits of a feature-packed steam steriliser at an affordable price.

Models in this versatile range can be supplied for either single or multi programs as well as a choice of standard or highly efficient vacuum operation, adding further to its appeal for laboratories where space is limited, infrequent sterilisations take place or a more demanding medium requires faster processing.

Extremely easy to install, these bench top autoclaves plug directly into an appropriate socket.



40L capacity

chamber size (mm)	350 dia x 420
operating range	up to 140°C, 2.5 bar
heater power	3kW - 13A single phase
external dimension (mm)	520w x 610d x 640h
weight	70kg

40L capacity - vacuum

chamber size (mm)	350 dia x 420
operating range	up to 140°C, 2.5 bar
heater power	3kW - 13A single phase
external dimension (mm)	695w x 610d x 640h
weight	75kg

60L capacity

chamber size (mm)	350 dia x 625
operating range	up to 140°C, 2.5 bar
heater power	3kW - 13A single phase
external dimension (mm)	520w x 815d x 640h
weight	85kg

60L capacity - vacuum

chamber size (mm)	350 dia x 625
operating range	up to 140°C, 2.5 bar
heater power	3kW - 13A single phase
external dimension (mm)	695w x 815d x 640h
weight	90kg

 electrically heated only.

for Features, Options and Accessories see [page 13](#)

[for more on benchtop autoclaves click here](#)

Compact Autoclaves

The Compact range of Priorclaves is a top-loading design introduced specifically for those laboratories with limited space yet wanting to perform high-quality steam sterilisation of taller than normal items such as fermentors and large capacity Erlenmeyer flasks.

Typically the chamber can easily accommodate ten one-litre or sixteen 500ml bottles or alternatively six one-litre Erlenmeyer flasks, highlighting the high density loading that can be achieved in a machine with an extremely small foot print.

Models in Compact range of top-loading autoclaves are extremely easy to install, simply plug directly into an appropriate electrical power socket.

As with all Priorclaves the TACTROL®2 controller offers simple pushbutton controls providing easy programming of settings for process time and temperature.




60L capacity

chamber size (mm)	350 dia x 625
operating range	up to 140°C, 2.5 bar
heater power	3kW - 13A single phase
external dimension (mm)	472w x 620d x 900h
weight	85kg

60L capacity - vacuum

chamber size (mm)	350 dia x 625
operating range	up to 140°C, 2.5 bar
heater power	3kW - 13A single phase
external dimension (mm)	472w x 790d x 900h
weight	90kg

 electrically heated only.

for Features, Options and Accessories see [page 13](#)

[for more on compact autoclaves click here](#)

Top Loading Autoclaves

QCS top loading autoclaves from Priorclave are a highly reliable mid-capacity range of steam sterilisers that will appeal to most laboratory managers looking to improve lab sterilising efficiencies. The combination of easy programming, a large chamber able to sterilise small and tall objects side-by-side in a single process and a stainless steel Load Support Plate improves and speeds loading and processing times.

As with the majority of Priorclaves these top loading autoclaves are equipped with one of the easiest and safest single handed opening systems, a design developed by the company many years ago and still as practical today.

The standard QCS models have a compact footprint which makes this range of top loading autoclaves ideal for locations where space is at a premium and high yield is required.



100L capacity

chamber size (mm)	500 dia x 500
operating range	up to 140°C, 2.5 bar
heater power	7kW - 30A single phase 10.5kw - 15A three phase
external dimension (mm)	660w x 840d x 840h
weight	147kg

100L capacity - vacuum

chamber size (mm)	500 dia x 500
operating range	up to 140°C, 2.5 bar
heater power	10.5kW - 15A three phase
external dimension (mm)	960w x 840d x 840h
weight	157kg

150L capacity

chamber size (mm)	500 dia x 720
operating range	up to 140°C, 2.5 bar
heater power	7kW - 30A single phase 10.5kW - 15A three phase
external dimension (mm)	660w x 840d x 1020h
weight	165kg

150L capacity - vacuum

chamber size (mm)	500 dia x 720
operating range	up to 140°C, 2.5 bar
heater power	10.5kW - 15A three phase
external dimension (mm)	960w x 840d x 1020h
weight	175kg

electrically heated, direct steam or internal steam generator versions available.

for Features, Options and Accessories see [page 13](#)

[for more on top loading autoclaves click here](#)

Front Loading Autoclaves

The QCS range of autoclaves is one of the most versatile and cost efficient steam sterilisers available today. Choose from one of the three standard chamber sizes of 100, 150 and 200 litres, and since they offer 20% more loading capacity than other sterilisers of the same capacity the QCS has the flexibility to accommodate both small and taller than usual items, avoiding the need to invest in larger, heavier and more costly rectangular sterilisers.

From simple cycles to fully featured multi-programme operation with printed records, the powerful TACTROL®2 controller allows unrivalled flexibility and monitoring.

For a busy working environment, automating the sterilising process and with features to assist in autoclave management, TACTROL®2 enables other tasks to be undertaken secure in the knowledge that sterilisation is proceeding safely and efficiently.



100L capacity

chamber size (mm)	500 dia x 535
operating range	up to 140°C, 2.5 bar
heater power	7kW - 30A single phase 7kW - 15A three phase
external dimension (mm)	740w x 905d x 1535h
weight	190kg

150L capacity

chamber size (mm)	500 dia x 740
operating range	up to 140°C, 2.5 bar
heater power	7kW - 30A single phase 10.5kW - 15A three phase
external dimension (mm)	740w x 1135d x 1535h
weight	208kg

200L capacity

chamber size (mm)	500 dia x 1025
operating range	up to 140°C, 2.5 bar
heater power	7kW - 30A single phase 10.5kW - 15A three phase
external dimension (mm)	740w x 1385d x 1535h
weight	236kg

■ electrically heated, direct steam or internal steam generator versions available.

for Features, Options and Accessories see [page 13](#)

[for more on front loading autoclaves click here](#)

Front Loading Autoclaves

For laboratories wishing to acquire a high capacity, front loading cylindrical chamber autoclave with an exceptional pack density at a more affordable price the Q63 range is difficult to better.

Proven build quality and reliability plus a chamber with a taller profile than that found in most 'cylindrical' machines, gives these autoclaves impressive load capacities ideally suited to sterilising larger bulky items.

This front loading autoclave range, now part of Priorclave's standard range, was designed initially to solve a customer problem – a cylindrical chamber steriliser with exception load capacity - 20% more space than conventional machines.

These autoclaves also offer much easier and safer chamber access due to their lower loading height of just 725 mm.

The design has made this Priorclave one of Europe's most sought-after autoclaves.



320L capacity

chamber size (mm)	630 dia x 1025
operating range	up to 140°C, 2.5 bar
heater power	18kW - 30A three phase
external dimension (mm)	760w x 1310d x 1525h
weight	300kg

500L capacity - vacuum

chamber size (mm)	630 dia x 1600
operating range	up to 140°C, 2.5 bar
heater power	18kW - 30A three phase
external dimension (mm)	760w x 1860d x 1525h
weight	390kg

■ electrically heated, direct steam or internal steam generator versions available.

for Features, Options and Accessories see [page 13](#)

[for more on front loading autoclaves click here](#)

Front Loading Autoclaves

rectangular chamber

Developed for high-throughput applications or to handle extra bulky items, models in this range of mid-capacity, front loading autoclaves feature large rectangular chambers. In spite of the chamber sizes, these autoclaves require a relatively small floor area which enables some of the smallest laboratories to acquire a high capacity steam autoclave.

All models are castor mounted for easy positioning and they will even pass through a standard door - installation features that add to an already highly specified performance steriliser range.

An integral part of the extensive safety features is the patented two hand-wheel door closure system, permitting easy, safe opening and closure of the rigid robust hinged door.

This popular range of rectangular chamber Priorclaves are used extensively in many industries including food and drink, dairy, pharmaceutical agriculture, education, healthcare and research laboratories.



230L capacity

chamber size (mm)	580 x 600 x 600
operating range	up to 140°C, 2.5 bar
heater power	21kW - 30A three phase
external dimension (mm)	760w x 1025d x 1630h
weight	560kg

285L capacity

chamber size (mm)	580 x 760 x 600
operating range	up to 140°C, 2.5 bar
heater power	21kW - 30A three phase
external dimension (mm)	760w x 1155d x 1630h
weight	600kg

350L capacity

chamber size (mm)	580 x 900 x 600
operating range	up to 140°C, 2.5 bar
heater power	21kW - 30A three phase
external dimension (mm)	760w x 1325d x 1630h
weight	640kg

■ electrically heated, direct steam or internal steam generator versions available.

for Features, Options and Accessories see [page 13](#)

[for more on front loading autoclaves click here](#)

Front Loading Autoclaves

rectangular chamber

The Priorclave RSC range of autoclaves with their taller, large rectangular steam sterilising chambers has become a popular choice for laboratories undertaking high-volume throughput or frequently tasked with handling taller and bulkier items. Despite the extra-large chamber these autoclaves require only a relatively small floor area.

All RSC models are equipped with a patented large hand-wheel door closure system for easy safe opening/closing of the rigid robust hinged door.

An inherent feature is the fitting of thermal and pressure lock systems to the lower hand-wheel, this prevents door opening at load temperatures above 80°C and pressures above 0.2 bar thus averting potential accidents through discharge of hot, high-pressurised steam.

These are ideally suited to a wide variety of applications within food and drink, dairy, pharmaceutical, agriculture, education, healthcare and research laboratories.



450L capacity

chamber size (mm)	675 x 900 x 755
operating range	up to 140°C, 2.5 bar
heater power	32.5kW - 45A three phase
external dimension (mm)	855w x 1325d x 1785h
weight	770kg

700L capacity

chamber size (mm)	675 x 1360 x 755
operating range	up to 140°C, 2.5 bar
heater power	42kW - 60A three phase
external dimension (mm)	855w x 1780d x 1785h
weight	950kg

■ electrically heated, direct steam or internal steam generator versions available.

for Features, Options and Accessories see [page 13](#)

[for more on front loading autoclaves click here](#)

Pass Through Autoclaves

Priorclave Pass-Through autoclaves are designed to provide a sterile path in and out of sealed laboratories with door interlocks to preserve the integrity of the seal between the two parts of the laboratory.

Where there is concern about bio-hazardous material in the autoclave a microbiological filter can be fitted. Unfiltered condensate is returned to the autoclave for sterilisation.

Each Pass-Through autoclave is individually tailored to meet a customer specification and is designed and manufactured in the UK following the high Priorclave standards throughout the build and test procedures which adhere to strict QA procedures.

Double-ended Priorclaves are available in a range of chamber capacities and styles.



Pass Through autoclaves are available in both cylindrical and rectangular designs and are available with a Tactrol®2 on one or both sides.

Chamber style	Capacity (litres)
cylindrical	150
cylindrical	200
cylindrical	320
rectangular	400
rectangular	450
rectangular	700

for Features, Options and Accessories see [page 13](#)

[for more on pass through designs click here](#)

Power Door Autoclaves

The POWERDOOR range of Priorclaves satisfies a demand for autoclaves with a large rectangular sterilising chamber suited to handling bulky items but where the laboratory does not have sufficient space to allow for the conventional hinged door opening.

With the Priorclave PowerDoor range the chamber door lowers within the body of the actual machine, thereby enabling laboratories to acquire an autoclave suited for high throughput sterilising procedures or able to handle extra bulky items despite restricted room size.

An advantage of the PowerDoor autoclaves is a fixed gasket onto which the door closes. When raised in line with the chamber opening, the door automatically moves forward directly onto the seal to create an air-tight lock. This action prevents undue wear on the fixed seal, extending service intervals and improving operational performance of these autoclaves.



230L capacity

chamber size (mm)	580 x 600 x 600
operating range	up to 140°C, 2.5 bar
heater power	21kW - 30A three phase
external dimension (mm)	905w x 1510d x 1880h
weight	960kg

350L capacity

chamber size (mm)	580 x 900 x 600
operating range	up to 140°C, 2.5 bar
heater power	21kW - 30A three phase
external dimension (mm)	905w x 1510d x 1880h
weight	1060kg

450L capacity

chamber size (mm)	675 x 900 x 755
operating range	up to 140°C, 2.5 bar
heater power	32.5kW - 45A three phase
external dimension (mm)	1540w x 1525d x 2065h
weight	1180kg

700L capacity

chamber size (mm)	675 x 1360 x 755
operating range	up to 140°C, 2.5 bar
heater power	42kW - 60A three phase
external dimension (mm)	1540w x 1975d x 2065h
weight	1360kg

■ electrically heated, direct steam or internal steam generator versions available.

for Features, Options and Accessories see [page 13](#)

[for more on power door autoclaves click here](#)

Tactrol®2 autoclave control

At the heart of every Priorclave is the highly successful TACTROL®2 microprocessor control system, specially developed for laboratory autoclaves. From simple cycles to fully featured multi-program operation with printed records, this unique and powerful control system allows unrivalled flexibility and monitoring.

By fully automating the autoclave process and including features to assist with autoclave management, TACTROL®2 allows you to continue with other tasks secure in the knowledge that autoclaving is proceeding safely and efficiently. Packed with self-monitoring systems, TACTROL®2 has pre-set actions for events such as power failure or low water levels. A number of features are built in allowing cycle optimisation for the diverse functions demanded by the modern laboratory. Control options are available for every autoclaving need.

TACTROL®2 is simple to use, just set the temperature and time required, select any options needed and press start. For added security a setting lock is available. A tough, clear control panel with digital displays continuously provides information on status. A full log of activity is held in the system and can be downloaded for diagnostic or monitoring purposes.

Load Sensed Process Timing (O)

Automatic Freesteaming (S)



Media Warming (S)

Accelerated Cooling (S)

Process Printer (O)

Vacuum Options (O)

Multi-Program Memory (O)

S - Standard

O - Optional

Features, Options and Accessories

Standard Features

- Quickseal single-action door fitted with thermal and pressure locks to prevent rapid opening at load temperature above 80°C and pressures above 0.2bar.
- Patented Door retention devices guarding against residual pressure.
- Reliable and long lasting door seals.
- Tactrol® 2 microprocessor control with fully variable setting of process time, temperature with graphic indication of cycle station.
- Pressure vessels manufactured in-house and tested to 3.94 bar, approximately 1.5 times the maximum working pressure of 2.5 bar.
- Low surface temperatures.
- Epoxy coated panels and frame members are treated with an anti-bacterial agent which is effective against bacteria and fungi including MRSA.
- Automatic free-steaming - a venting period during heating, which greatly improves temperature distribution by encouraging air removal. Also available - Pulsed Freesteaming - for improved waste load performance.
- Accelerated Cooling - powerful fans blow cold air over the autoclave vessel reducing cooling times to safe load temperatures. A delayed start can be set to protect loads sensitive to media volume loss.
- Media Warming - at the end of the cycle the autoclave is kept warm to keep sterilised media at a 'ready to pour' temperature. When combined with the Delayed Start setting this can put an end to early morning starts to melt media!
- Non-tip shelves on front loading models.
- Service and worldwide support direct from manufacturer (or appointed distributor).

Options

- Load Sensed Process Timing - an internal probe placed in the anticipated coolest part of the load gives guaranteed sterilisation times. If a printer is fitted load temperature is included on the printed record.
- Vacuum Options
 - Pre-Cycle Vacuum - a powerful vacuum pump draws a series of vacuum pulses to ensure air removal from difficult loads. This is combined with Pulsed Free-steaming to achieve excellent steam penetration.
 - Post-Cycle Vacuum - Vacuum Cooling cycle to accelerate the cooling of waste loads to a safe door opening temperature.
 - Vacuum Drying cycle for fabric and wrapped loads using chamber wall heaters to reduce condensation onto the load.
- Multi-Program Memory - simply press the program number required to restore all your settings. Five and ten program options are available.
- Process Printer - Temperature and time are printed at key stages of the cycle to give a clear, long lasting record. Details can be printed at the start of each printout, together with the autoclave serial and cycle number. Pressure and load temperature printing options are also available.

Accessories

- Waste containers - for operator safety and autoclave chamber cleanliness. These contain spillages whilst allowing good steam penetration.
- Loading trolleys and cassettes for front loading Priorclaves.
- Load-lite lifting hoist - helps with heavy loads on top loading models.
- Extended range of consumables including printer ribbons, deodorising capsules, Bowie & Dick test packs, Spore as well as more specialised items such as Self-Contained Biological Indicators (SCBI) and Mini Self-Contained Biological Indicators (MSCBI) for monitoring steam sterilisation processes.

Service and Calibration

All Priorclave autoclaves carry one of the most supportive Service and Warranty agreements currently available. This has only been made possible due to quality precision build standards combined with using the very best materials and components to create the most reliable and efficient steam sterilisers. Strength in design is proven by the fact that a large number of autoclaves supplied in the early years of the company are still performing exceptionally well.

A dedicated Service and Support team is always on hand to give advice and help guiding you through program set-up. They can also respond quickly to any queries regarding operational performance since data from the autoclave can be sent via the internet direct to the UK based Service Support Team from anywhere in the world.

The Support team is available to ensure customers get the most from their Priorclave autoclave at all times.

The longevity of a Priorclave can also be enhanced through Preventative Maintenance Contracts designed to keep the autoclave in a safe, efficient working condition, reducing the possibility of costly downtime.



Priorclave is a UKAS accredited calibration laboratory and offers specialist autoclave calibration. This is usually carried out as part of a Maintenance Plan, but one off calibrations can easily be arranged.



Priorclave operates a network of trained and certified technicians both in the UK and through accredited distributors throughout the world.

[for more on service click here](#)

Our Commitment to Excellence

With years of experience in the design, manufacture and use of laboratory autoclaves, we at Priorclave are justifiably proud of our reputation as one of Europe's leading manufacturers.

- Operation of an ISO9001:2008 Quality System.
- Full EMC Compliance Testing.
- Independently monitored approval of vessel design and welding.
- Continued investment in new technology.
- Continued development of products, keeping quality conscious laboratories at the cutting edge of technology.
- Design of equipment that is reliable, hardwearing, easy to operate and good value for money.
- Continued use of the best materials available. For instance, our pressure vessels are only made from grade 316L stainless steel for its superior corrosion resistance over other grades. Priorclave vessels are supplied with a 10-year warranty and all vulnerable fixed external panels are made in Stainless or corrosion resistant steel.
- Maintaining a dedicated Service & Technical Support Team.
- UKAS Accreditation as a Calibration Laboratory - ISO17025. 2005 (Registration No: 0602)
- Priorclaves are built and where appropriate, C€ marked to:
 - BS2646-1993
 - BS5500 cat.3
 - EN61010-2-41
 - ANSI/UL 61010-1, 3rd Edition.
 - CAN/CSA-C22.2 No. 61010-1, 3rd Edition
 - EN50081-1 / EN50082-1
 - HSE Note PM73
- European Pressure Vessel Directive - 97/23/EC.
- ASME Boiler and Pressure Vessel code, Part VIII, Division 1 accreditation.

Our Commitment to Safety

Autoclaves at working pressure can be dangerous, so for your protection Priorclaves include the following features:

- Pressure vessels designed and manufactured in-house to international pressure standards and tested to 3.94 bar, approximately 1.5 times the maximum working pressure of 2.5 Bar.
- Temperature interlocks to protect against the hazards associated with liquid loads
- Pressure interlocks on rapid opening door systems.
- Patented Mechanical Failsafe Door retention devices guarding against residual pressure.
- Regulation safety valves to BS6759.
- Reliable and long lasting door seals.
- Low surface temperatures.
- Non-tip shelves on front loading models.



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Laboratory Autoclaves by Priorclave

A Global Brand

- The autoclave design house
- The autoclave manufacturer
- The autoclave service centre
- The autoclave calibration facility

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