2013.004
FF

# Student Technology Fee
# Grant Proposal Request Form
# Fiscal Year 2012-13
# Northwestern State University of Louisiana

## ALL BLANKS MUST BE FILLED COMPLETELY

Prepared by: Zafer Hatahet For: Biological and Physical Sciences

Department/Unit: BPS College: SB Campus: Natchitoches

Which NSTEP Goals/Objectives does this project meet? 3, 8

Requested equipment will be located/installed/housed? Building Bienvenu Room 224C

Does the department requesting funding receive lab fees? (circle one) [YES] NO

Are department property policies and procedures in place for requested equipment? Yes

Which individual will be responsible for property control of the requested equipment? Z. Hatahet

Signature: _____ Date: 10/25/2012

Proposal Requested Amount: $ 44,897 Budget Attached (circle one): [YES] NO

Proposal delivered to Student Technology located in Watson Library, Room 113. Date 10/30/2012

**The proposal must include all specifications, description, model number, quotation, cost, state contract number, and vendor for each item. If the proposal does not include all requested information, it will be returned.**

1. Describe target audience.

All biology and VTEC labs that need steam sterilization equipment. These include: BIOL1011, 2061, 2121, 2201, 3091, 3251, 3271, 3501, 4121, 4191, 4301, 4311, 4351, 4361, VTEC3101, 3191, and 3201.

2. Describe project/initiative for which you are requesting funds.

Many laboratory courses taught in the biology department require access to steam sterilization equipment for two critical reasons:

1. Proper disposal of hazardous biological waste, e.g., bacteria and fungi.
2. Preparation of sterile solutions, e.g., growth media and buffers.

Although some labs, e.g., introductory biology (BIOL1011), require sterilization in a few experiments per semester, many other labs, including microbiology (BIOL2061), pathogenic microbiology (BIOL4121), parasitology (BIOL2201 and VTEC3101), genetics (BIOL3271), molecular biology (BIOL4301 and 4311), and immunology (BIOL4191) would not be able to operate safely or effectively in the absence of a steam sterilizer. Over 700 students consistently enroll each year in the courses listed above, making it necessary to have a large capacity steam sterilizer. For instance, in microbiology, genetics, and molecular biology, we often have to prepare as many as 400 petri dishes per week which requires sterilization of ~20 liters of media. Once these plates have been used, they would have to be steam sterilized before they can be safely disposed.

Bienvenu hall, where most biology lab courses are taught, has one large capacity steam sterilizer that was purchased in 1969. The manufacturer of the instrument declared it "end of life", i.e., it stopped making parts for it, in 1997. Since then, we have relied on scavenging old parts from wherever we can get them to maintain the instrument. Two years ago the cost of the service contract on the instrument increased from $800 to $6,000 per year and the university decided to terminate it. We have since been put on notice that there is no possibility of repairing this instrument when it breaks down and that the solution would be to replace it. Considering that purchase and installation of such a large piece of equipment (both physically and monetarily) would require weeks if not months, and that many labs would grind to a halt when it breaks down, it would be extremely prudent to have a replacement in place as soon as possible.

3. State measurable objectives that will be used to determine the impact/effectiveness of the project.

There is simply one critical objective of this grant proposal. The large number of biology labs that require access to steam sterilization need to operate safely and effectively. Funding of this grant would allow this objective to be accomplished.

4. Indicate how each project objective will be evaluated.

We will monitor use of the steam sterilizer in the different biology labs as well as student enrollment and evaluation in these courses.

5. If funded, which NSTEP http://www.nsula.edu/nstep/NSTEP.pdf objective(s) will this funding of this project advance? How will funding of the project advance the University and College/unit technology plan?

- Objective 3 To upgrade laboratories with modern technology. Funding of this grant goes beyond advancing the department's technology plan. Replacing the existing obsolete steam sterilizer is an absolute necessity.
- Objective 8 To encourage innovation and research. Although this is not the focal point of this grant, many of the biology faculty conduct research that would be impossible or unsafe in the absence of a steam sterilizer.

6. Provide a justification for funding of this project. Estimate the number of student that will be served per academic year and in what ways. Please indicate also any unique needs of the target group.

As stated earlier, over 700 students are enrolled per year in the biology lab courses that require sterilization equipment. These students would simply not receive quality hands-on experience if the sterilizer is not available.

7. List those individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project.

Dr. Hatahet will be responsible. For the past 6+ years, he has overseen the purchase, installation and upkeep of a large number of instruments funded by student tech fee grants as well as the Louisiana Board of Regents. All equipment that has been purchased in the past few years has been put to extensive use by students and faculty and are kept in very good order.

8. Describe any personnel (technical or otherwise) required to support the project/initiative.

Other than Dr. Hatahet, none.

9. Provide a schedule for implementation and evaluation.

We will begin to use the sterilizer as soon as it is installed. Evaluation of lab course operation will be done annually.

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years.

Since the sterilizer we currently have was purchased in 1969, we anticipate that the new one should operate for at least 30 years.

11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received through a Student Technology Fee.
If you are requesting equipment that will be either/or checkout to students or moved within the department, you must provide a checkout/loan policy.

All labs in Bienvenu hall are kept under lock and key. Given the size and weight of this instrument (over 500 lb), theft is not a major concern.

12. Does the department that is requesting equipment receive lab fees? If so, please provide a justification for requesting funds from tech fee funds over using lab fees from your department.

This is a "big ticket" item that cannot be supported through lab fees. Most of our lab fees are used to provide consumable supplies in each lab.

13. Attach a detailed budget.

| Qty | Description | Price | |
|---|---|---|---|
| 1 | 320 Liter Front Loading Electrically Heated Priorclave | $ 20,845 | 7281 |
| 1 | Combined Pre-Cycle Vacuum & Vacuum Cooling | $ 3,680 | 7280 |
| 1 | Post-Cycle Vacuum Drying | $ 794 | |
| 1 | Clean Steam Generation | $ 5,533 | |
| 1 | Priorclave Tactrol Printer | $ 910 | |
| 1 | Serial Communication Package | $ 510 | |
| 1 | Drain Condenser | $ 1,096 | |
| 1 | Additional Manually Operated Drain Valve | $ 77 | |
| 1 | Wiring for 208V 60Hz 3 Phase Supplies | $ 148 | |
| 1 | Wooden Export Case | $ 671 | |
| 1 | Freight | $ 2,869 | 7280 |
| 1 | Installation (incl. Start-up, Configuration, PM Service Training) | $ 3,500 | 7280 |
| 1 | Scale Prevention System | $ 765 | |
| 1 | Tactrol 10 Program Memory Upgrade | $ 226 | |
| 6 | Stainless Steel Discard Containers | $ 2,440 | |
| 6 | False Floor for Discard Containers | $ 465 | |
| 1 | Load Sensed Process Timing | $ 368 | |
| | **Total** | $44,897.00 | |

14. Attach two (2) letters of support for the project from the following individuals: the requesting department's Dean, the appropriate Vice President or for student request, the SGA President from the requesting campus.

**COLLEGE OF SCIENCE, TECHNOLOGY, & BUSINESS**
**OFFICE OF THE DEAN**

OCTOBER 26, 2012

**TO**: Student Technology Fee Committee
**FROM**: Austin L. Temple Jr., Ph.D.
**SUBJECT:** Endorsement of a Proposal

Thank you for serving on this most important committee. I strongly recommend the funding of the proposal to purchase a steam sterilizer. Given the currently fiscal problems at the University, there are no funds available to purchase the equipment. The sterilizer will be used in seventeen courses in the Department of Biological and Physical Sciences. These courses have an annual enrollment of seven hundred students. This sterilizer is critical because if the old one goes out, our laboratories would effectively close down. Your favorable consideration of this proposal is appreciated.

Very truly yours,

Austin L. Temple Jr., Ph.D.
Professor of Mathematics
Dean, College of Science, Technology, and Business

Provost & Vice President for Academic Affairs

Telephone (318) 357-5361
FAX (318) 357-4517
E-mail vpaa@nsula.edu
www.nsula.edu/provost/

Northwestern State University
Natchitoches, Louisiana 71497

A Member of the University
of Louisiana System

October 29, 2012

Ms. Jennifer Long Martin
Student Technology Office
Watson Library

Ms. Long:

I am writing in support of Dr. Zafer Hatahet's Student Tech Fee grant proposal to purchase a new steam sterilizer for Bienvenu Hall. Teaching and research activities at the biology department produce a significant amount of hazardous biological waste on a daily basis, and this waste must be properly sterilized prior to disposal. Having a functional sterilizer in Bienvenu hall is critical to the mission of the department and to the safety of our students, faculty and staff. Given the current economic situation and the relatively high cost of this piece of equipment, it would be extremely helpful if you can fund this grant proposal. I am confident that the requested equipment will see extensive use and your investment will be well justified, especially when you consider the large number of students and major served by biology courses.

Sincerely,

Lisa Abney
Provost & Vice President
Academic & Student Affairs

Priorclave
North America

October 23, 2012

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USA

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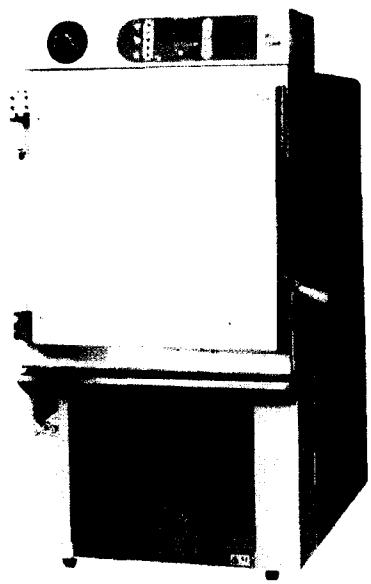
Fax: (888) 506-3650
info@priorclavena.com

Dr. Zafer Hatahet
Chairman, Department of Biology and
Physical Sciences
Northwestern State University
175 Sam Sibley Drive
Bienvenu Hall 112C
Natchitoches, LA 71497
USA



## Quotation

This equipment is built in accordance with our ISO9001:2008 regime, which specifically covers autoclaves, boilers, electrical control systems, and precision machining. The Priorclave offered has been optimized to suit your specific requirements.

| Item Reference | Qty | Description |
|---|---|---|
| **PS/Q63/EH320** | **1** | **320 Liter Front Loading Electrically Heated Priorclave** |

**Technical Specification:**

| | |
|---|---|
| Operating Range: | Up to 138°C, 2.4 Bar (280°F, 34.8psi) |
| Chamber Volume: | 320 liters |
| Chamber Dimensions: | 630mm (24.8") diameter x 1020mm (40.2") deep |
| Chamber Material: | Brushed grade 316L stainless steel |
| Door Material: | Burnished grade 316L stainless steel |
| Heat Input: | 18kW three phase |
| Door Closure: | Quickseal 2 single action door closure system |

**Safety Features**

All Priorclave autoclaves comply with current US, UK, and EU safety regulations. They have full Insurance approval for pressure vessel design and construction and are CE Marked under the Pressure Equipment Directive PD5500:2000 Cat 3, Certificate Number SS42059010-2 Rev 1. They also conform to the general requirements of BS2646 and are CE Marked for BS EN61010-2-41, Low Voltage and Electromagnetic Compatibility Directives.

The Quickseal 2 door, with **Permission-based Door Release**, is fitted with thermal and pressure locks preventing opening of the autoclave at load temperatures above 80°C (176°F) and pressures above 0.2 Bar (2.9 psi). The door is also fitted with a **Redundant Safety Gate**, allowing potential residual pressure to safely escape before the door can be fully opened (in accordance with the UK Health and Safety Executive's note PM73). Fitted with a Pressure Safety Valve set to 2.5 Bar (36.3 psi) and a 150°C (302°F) thermal cut out; selected external panels and surfaces are **Thermally Insulated**.

Epoxy coated panels and frame members are treated with the unique **BioCote®** anti-bacterial agent, which is effective against all bacteria and fungi, including MRSA.

UKAS CALIBRATION 0602

GAMBICA

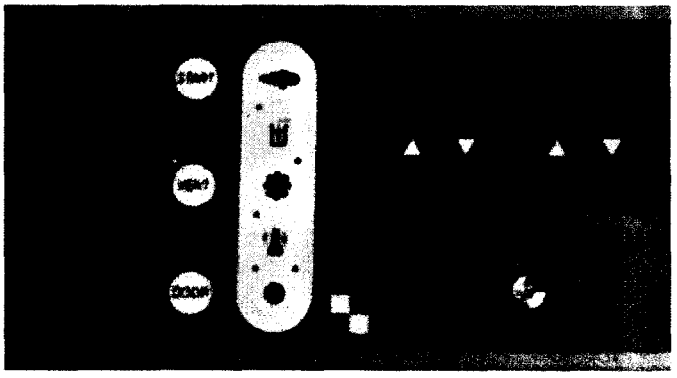
ISO 9001 Registered

UKAS

Certificate Number 6973

Priorclave North America Inc. is the exclusive North American distributor for Priorclave Ltd
Registered in England 2221879
A subsidiary of
Prior Group Holdings Ltd

**Standard Equipment**



At the heart of every Priorclave is the **Tactrol® 2 Control System**, specially developed for laboratory steam sterilizers. From simple cycles to fully featured multi-program operations with printed records (printer optional), this unique control system allows unrivalled flexibility.

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 sterilization is carried out safely and efficiently. Packed with self-monitoring systems, Tactrol 2 has pre-set actions for events such as power failure and low water levels. A number of features are built-in, allowing cycle optimization for the diverse functions demanded by the modern laboratory:

**Automatic Timed Free Steaming:** Standard equipment on all Priorclaves. Used to remove the air burden from difficult loads such as plastic waste.

**Assisted Load Cooling:** Standard equipment on all Priorclaves. Powerful fans blow cold air over the outside of the chamber, reducing cooling times. A delayed start can be set to protect loads sensitive to media volume loss. The cooling system can be set to begin cooling at the end of the sterilizing hold time, at a pre-set temperature, or not at all.

**Media Warming:** Standard equipment on all Priorclaves. At the end of the cycle the autoclave is kept warm to keep sterilized media at 'ready to pour' temperature. When combined with the **Delayed Start** setting, to prevent caramelizing high glucose media, this maintains the media in a liquid condition, allowing it to be poured immediately at the start of the day.

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 control panel with brightly lit color digital displays, visible from across the room, continuously provides information on status.

Every Priorclave is fitted with a Chamber Pressure Gauge, Thermostatic Air Purge Valve, Low Water Cut Out, electrically operated Vent Valve, Thermocouple Entry and Test Ports, and Water Conservation. All pipe to pipe joints are brazed with compression joints to specific components.

This Priorclave is supplied complete with two full width stainless steel anti-tip loading shelves.

Priorclave autoclaves are built in the UK to a modular design enabling easy upgrading during their working life as customer requirements change. Priorclave autoclaves have a 12 months parts and labor warranty and a 15 year or 15,000 cycle pressure vessel warranty, whichever comes first.

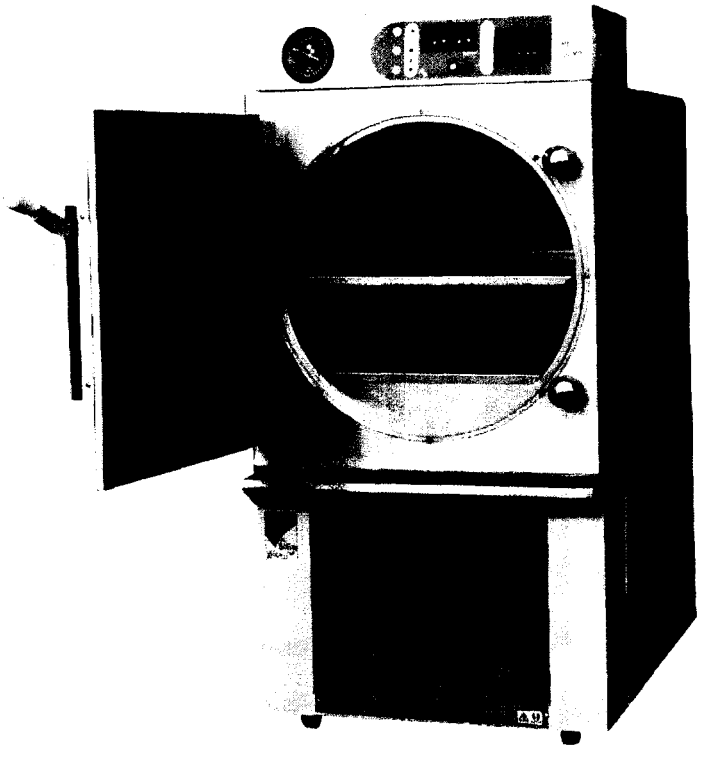
**Services Required**

**Electrical Supply**: 208 volts, 60 Hz, three phase rated at 30 amps per phase with earth and neutral terminated to within 2 meters (6.6') run of the rear of the Priorclave. (alternate electrical configurations available - 2 meter flexible conduit connection preferred)

**Water Supply, Electrically Heated Steam Generation**: A 15mm (1/2") soft or pure cold water supply, pressurized to a minimum pressure of 1 Bar (14.5 psi) and terminated at a stopcock within 2 meters (6.6') run of the rear of the Priorclave. (2 meter flexible hose connection preferred)

**Water Supply, General**: A 22mm (3/4") soft cold water supply, pressurized to a minimum pressure of 2.5 Bar (36.3 psi) and terminated at a stopcock within 2 meters (6.6') run of the rear of the Priorclave. (2 meter flexible hose connection preferred)

**Drain Service**: A 35mm sealed drain with one untrapped 28mm (1") entry, capable of withstanding effluent at 60°C (140°F), with a constant fall to waste, vented at a high level outside of the building to satisfy the requirements of BS 2646 Part 2 1990. A separately trapped, 22mm (3/4") drain should be provided for the Automatic Water Fill tank, Drip Tray/Vacuum Pump tank, and Manual Drain. All drains should be provided at a low level within 2 meters (6.6') run of the rear of the Priorclave. (a sealed connection is preferred, but a floor sink is acceptable - 2 meter flexible hose connections preferred)



**Dimensions:**

| | |
|---|---|
| External Dimensions: | 760mm (29.9")W x 1280mm (50.4")D x 1600mm (63")H |
| Door Swing Length: | 760mm (29.9") |
| Floor Weight: | Approx. 300kg (660lbs) |

**Accessories Included**

**PC/VPC/600 1 Combined Pre-Cycle Vacuum & Vacuum Cooling**

**Vacuum Air Removal**

This is a facility to assist in the satisfactory sterilization of difficult loads. It consists of a liquid ring vacuum pump with an evacuation capability down to approximately 300mb absolute. Multiple vacuum stages can be programmed and are interspersed with heating stages to achieve steam penetration of the load.

Used in conjunction with Pulsed Free Steaming this system produces excellent and reliable results.

A 5 Program Memory unit is fitted with this option as there are fixed parameters, which require setting by a competent engineer during commissioning to enable the vacuum options to function correctly. The Pulsed Free steaming option is similarly fitted, as this is required to maximize the efficiency of the Pre-Cycle Vacuum phase.

**Vacuum Assisted Cooling**

Designed to rapidly cool plastic and small bottled waste loads, this cooling system utilizes the vacuum pump to rapidly reduce the pressure in the chamber. The reduction in pressure causes the fluids present in the waste load to evaporate, initiating a cooling action in the solid items in the load. The cooling phase of the cycle is thus typically reduced to approximately 5 to 10 minutes.

This cooling system, optional for each cycle, is not suitable for bottled fluids where the contents are intended for further use.

When a Priorclave Tactrol Printer is supplied with the Combined Vacuum option, the printer will also display the chamber pressure as part of the printout.

**Pulsed Free Steaming**

A timed free steaming facility with pulsed venting for air removal to assist with the complete sterilization of the many problematic loads which require a period of free steaming before the vessel is pressurized to sterilizing conditions. The freesteam period allows the load to be fully penetrated with steam and expel pockets of air, which inhibit the sterilization process. Once a chamber temperature of 112°C is reached the vent valve opens and reduces the chamber temperature to 107°C, when the valve closes again. This cycle is repeated until the timed period is completed, creating an enhanced level of turbulence in the chamber.

**Tactrol 5 Program Memory**

Can store up to 5 complete programs in memory to be recalled at the touch of a button. Complete with three position Setting Lock Keyswitch allowing either no alteration of Temperature, Time, and Option Selection Settings, selection of programs only, or full access to all settings. The key is removable in the first two positions.

**Automatic Water Fill System**

Fills and tops up the autoclave water charge from a rear mounted tank which provides a Class A Air Gap, on demand. No additional header tank is required.

**Accessories Included, cont.**

**PC/VPD/600** **1** **Post-Cycle Vacuum Drying**

Used in conjunction with the Combined Pre-Cycle Vacuum and Vacuum Cooling option and when properly set up, this provides the facility to dry a suitable load.

At the end of the process time the autoclave is rapidly drained and vented and a series of vacuum pulses applied. The chamber walls are heated by strategically placed externally mounted silicone mat contact heaters. The duration and number of vacuum pulses can be programmed for individual cycles to suit particular load types.

**Air Intake Filter System**

Filters air re-entering the vessel during the cooling stage of the cycle. This is particularly important when sterilizing 'preparative' loads to prevent contamination by airborne particles. Replacement filters are available from Priorclave and can be easily fitted by the user.

**PC/PWS/100** **1** **Clean Steam Generation**

When supplied with high purity water, with a conductivity of less than 10 micro Siemens, this option provides a supply of Clean Steam for sterilization when added to an Electrically Heated Priorclave. An ultrasonic Water Level Sensor ensures a safe level of water in the Priorclave. Its operation is not dependent upon a level of electrical continuity and can therefore be used to detect levels of purified water. All submerged fittings and pipe are replaced with Grade 316 stainless steel.

**PC/PRN/000** **1** **Priorclave Tactrol Printer**

The Priorclave Tactrol Printer provides a printed record of each autoclave cycle – a log of chamber temperature at regular time intervals and at key points of the cycle. Paper and ink are used to give a clear, long lasting record, unaffected by the conditions usually associated with autoclaves. Cycle data recorded includes: Machine Serial Number, Owner Information, Pass/Fail, Fault Codes, and Cycle Number. No additional thermocouples are required as the information is gathered directly from the Tactrol 2 microprocessor. Can be activated or deactivated on a cycle by cycle basis.

**PC/COM/232** **1** **Serial Communication Package**

Allows communication between the Tactrol 2 microprocessor and an external computer or other device. Includes serial connection cable and software to download data from the autoclave controller to a computer. The autoclave logs all temperature, pressure, time, and cycle data available, depending on the options fitted. Data is logged into a single compact archive file. Data can then be saved as a secure encrypted file, or exported as a delimited text file for easy importing into a spreadsheet. Data logging rates can be varied for each cycle stage. Log set-up, download, saving, and exporting are via a simple to use Windows interface.

**PC/DRC/020** **1** **Drain Condenser**

Operating as a heat exchanger to cool the effluent from the autoclave to 60°C (140°F), a Drain Condenser enables the use of conventional plastic drains. A temperature operated demand valve reduces the water consumption to a minimum, but utilization is considerable, and cannot be recycled.

**Accessories Included, cont.**

**PC/DRN/MAN** 1 **Additional Manually Operated Drain Valve**

Manually operated ball valve for the removal of water from the pressure vessel for maintenance or service purposes.

**PC/VOL/208** 1 **Wiring for 208V 60Hz 3 Phase Supplies**

The autoclave is fitted with suitable components compatible with 208V 60Hz three phase power supplies.

**PC/AEC/020** 1 **Wooden Export Case**

Suitable for export freight, external dimensions approximately 1460mm (57.5")W x 1480mm (58.3")D x 1810mm (71.2")H, weight 330Kg (728 lbs). The case is manufactured from lumber compliant to ISPM 15.

**Optional Accessories (not included)**

**PNA/WSC/020** **1** **Scale Prevention System**

A medium duty, sodium ion exchange water treatment unit with a rechargeable cation and anion resin bed, ion exchange cylinder, and salt storage tank. Requires regular replenishment with salt to recharge the ion exchange resin. For use in conjunction with Automatic Water Fill Systems. Recommended option for systems fed by non-DI/RO sources. Minimum feed water pressure required: 1 Bar (14.5 psi).

**PC/P10/UPG** **1** **Tactrol 10 Program Memory Upgrade**

Upgrade from 5 to 10 program memory for Vacuum Priorclave models. Allows storage of up to 10 complete programs in memory to be recalled at the touch of a button.

**PC/SSD/HOL** **6** **Stainless Steel Discard Containers**

Liquid tight, stainless steel container for increased cleanliness, hygiene, and protection of heaters from media and plastic spillage when sterilizing 'discard' loads. Capacity per EH320: 6

**PC/SSD/HLB** **6** **False Floor for Discard Containers**

Designed to enhance the performance of the standard Discard Container by providing a false floor in the Discard Container. This lifts the solid waste up to reduce the amount lying in the liquid at the bottom of the Discard Container, reducing the amount of drips from the waste.

**PC/LPT/000** **1** **Load Sensed Process Timing**

Consisting of a wandering temperature probe, which can be positioned in the place that is potentially the coolest part of the load. Typically used for loads with containers larger than 1 liter, or for dense loads. Delays the start of the sterilizing timer until the probe reaches the desired sterilizing temperature. The control of the chamber temperature is not affected by this option as it is controlled from a separate probe.

When the Priorclave Tactrol Printer is fitted, the Load Sensed Process Timing option also provides a second temperature printout, recording the temperatures registered by the wandering probe.

**Price Consolidation**

| Qty | Item No. | Description | | Price |
|---|---|---|---|---|
| 1 | PS/Q63/EH320 | 320 Liter Front Loading Electrically Heated Priorclave | $ | 20,845 |
| 1 | PC/VPC/600 | Combined Pre-Cycle Vacuum & Vacuum Cooling | | 3,680 |
| 1 | PC/VPD/600 | Post-Cycle Vacuum Drying | | 794 |
| 1 | PC/PWS/100 | Clean Steam Generation | | 5,533 |
| 1 | PC/PRN/000 | Priorclave Tactrol Printer | | 910 |
| 1 | PC/COM/232 | Serial Communication Package | | 510 |
| 1 | PC/DRC/020 | Drain Condenser | | 1,096 |
| 1 | PC/DRN/MAN | Additional Manually Operated Drain Valve | | 77 |
| 1 | PC/VOL/208 | Wiring for 208V 60Hz 3 Phase Supplies | | 148 |
| 1 | PC/AEC/020 | Wooden Export Case | | 671 |
| | | Material | $ | 34,264 |
| | | Freight | | 2,869 |
| | | **Total** | **$** | **37,133** |

Add for Turnkey Installation (incl. Start-up, Configuration, PM Service Training): $ 3,500

**Optional Accessories**

| Qty | Item No. | Description | | Price |
|---|---|---|---|---|
| 1 | PNA/WSC/020 | Scale Prevention System | $ | 765 |
| 1 | PC/P10/UPG | Tactrol 10 Program Memory Upgrade | | 226 |
| 6 | PC/SSD/HOL | Stainless Steel Discard Containers | | 2,440 |
| 6 | PC/SSD/HLB | False Floor for Discard Containers | | 465 |
| 1 | PC/LPT/000 | Load Sensed Process Timing | | 368 |

| | |
|---|---|
| Currency: | All pricing shown in US Dollars |
| Taxes: | Not included |
| Delivery Time: | 10 - 12 Weeks from receipt of your order |
| Validity of Quotation: | 90 Days |
| Country of Origin: | United Kingdom |
| Payment Terms: | Deposit of 50% due at time of factory order, balance due upon delivery. Interest will be charged @ 1% per month on all past due accounts. |

**Notes**

Priorclave offers an extensive range of optional accessories to optimize the efficiency of your autoclave. Please see our Product Brochure or Website for details. If you require any further information, please do not hesitate to contact our Sales Department.

The HSCC Tariff Code No. 8419.20.00.00 applies for all autoclaves, optional accessories, and spare parts, for the purposes of export quotations. Where freight terms are given they relate to INCOTERMS 2000 unless otherwise stated. Priorclave reserves the right to refuse to load a collection vehicle where there is no method of securing the load to the collection vehicle including where the sale is subject to Ex Works freight terms.

The stated delivery charge assumes free and unobstructed access to the delivery point. Priorclave reserves the right to vary prices based on inaccurate information supplied by others. Installation is to services supplied to within 2 meters (6.6') run of the rear of the Priorclave unless otherwise stated. Failure to supply services at the required values may result in damage to the Priorclave or building services. Such damage to be the responsibility of the end user.

Priorclaves other than Compact Range models, supplied to countries outside of the European Community, will not be supplied with electrical power leads and plugs.

All sales are subject to Priorclave's Conditions of Sale, which are available upon request or from our website –

http://www.priorclave.co.uk/downloads/Conditions_of_Sale.PDF

Priorclave has a policy of continuous development and reserves the right to alter the specification of our products without prior notice. Where those alterations involve significant alterations to the cost of supply, Priorclave reserves the right to pass on those costs where appropriate.

E. & O.E.

For and on behalf of Priorclave North America,

Bernie Youngblood

.....