

APPLICATION

This sterilizer is offered in a prevacuum configuration and is designed for fast, efficient sterilization of heat- and moisture-stable materials in scientific applications. The prevacuum configuration sterilizer is equipped with prevacuum, gravity, liquid, leak test, and daily air removal (Bowie-Dick) test cycles.

All configurations include choice of a single or double door.

DESCRIPTION

The AMSCO Century Medium Steam Sterilizer 26 x 26" (Scientific) is equipped with the latest features in both state-of-the-art technology and ease of use.

Primary Product Features

Interior Chamber Dimensions

- 26 x 26 x 39" (660 x 660 x 991 mm) – 430 L capacity
- 26 x 26 x 49" (660x660x1245 mm) – 540 L capacity
- 26 x 26 x 61" (660x660x1549 mm) – 675 L capacity

Vertical-sliding door with quiet, motor-driven cable and pulley mechanism. The door travels down vertically to open and is controlled from the touch screen.

Century control system with enhanced functionality and user-friendly color interface screen features:

- Touch-sensitive screen with 30-line x 40-character display area.
- Display features a wide viewing angle and high-visibility backlighting.
- Ink-on-paper impact printer.



(Typical - details may vary.)

Selections Checked Below Apply To This Equipment

SIZE

- 26 x 26 x 39" (660 x 660 x 991 mm)
- 26 x 26 x 49" (660 x 660 x 1245 mm)
- 26 x 26 x 61" (660 x 660 x 1549 mm)

STEAM SOURCE

- Building Steam
- Stand Alone Electric Steam Generator (Provided by STERIS)
- Stand Alone Electric Steam Generator (Not Provided by STERIS)
- Integral Indirect Clean Steam Generator
 - Single Tube Double Tube
- Electric Steam Generator, Carbon Steel¹
- Electric Steam Generator, Stainless Steel¹

ELECTRIC SERVICE

(for Vacuum Pump & Electric Steam Generator)

- 208/240 VAC, 60 Hz, 3-Phase
- 480 VAC, 60 Hz, 3-Phase
- 400 VAC, 50 Hz, 3-Phase (International)
- 600 VAC, 60 Hz, 3-Phase (Canada Only)

DOOR CONFIGURATION

- Single Door
 - Cabinet Enclosed/Freestanding
 - Recessed
- Double Door¹
 - Recessed through One Wall
 - Recessed through Two Walls

ACCESSORIES

- Loading Car
- Transfer Carriage
- Loading Car, Transfer Carriage, and Track Assembly
 - Single Door Double Door
- Rack and Shelves (39" [991 mm] Only)
- Seismic Tie-Down Kit²
- Air Compressor, Portable, 115 Vac

OPTIONS

- Liquid Air Cooling (with Vacuum)
- Decontamination (with Vacuum)³
- Air Detector System
- Air Differential Seal (Double Door Only)
 - Sterile side Non-Sterile side
- Bioseal (Double Door Only)³
 - Sterile side Non-Sterile side
- Pure Steam Piping to Chamber
 - without Pressure Reducing Valve
 - with Pressure Reducing Valve
- AMSCO™ Stand Alone Water Conservation System
- Closed Loop Chilled Water System
 - Drain Only Vacuum & Drain
- One Load Probe plus Drain Line Probe
- RTD Load Probe(s)
 - One Probe Two Probes
- 0.2 Micron Bacterial Retentive Filter
- Right Hand Piping

- Backflow Preventer
- TRI-CLAMP® Shell Penetration(s)⁴
 - 1" (25 mm) TRI-CLAMP* Fitting
 - 3" (75 mm) TRI-CLAMP Fitting
- Eighteen Cycle Capability
- Auto Flush for Steam Generator
- Stainless-Steel Back Panel
- Printer on Both Ends
- Reference Recorder (Three Pen)

REMOTE MONITORING

- ProConnect® Technical Support Services (Remote Monitoring, Priority Technical Support, Customer Care Center Access, Equipment Performance Reports). Available in U.S. and Canada only.

Notes:

1. SSQ is required for double door cabinet enclosed units with integral generators.
2. Seismic Tie-Down Kit based on CA Requirements.
3. Units with decontamination and/or bioseal options require UL/CSA field certification.
4. Both 1" and 3" TRI-CLAMP® fittings can be selected as part of the same order.*
5. Compressed air required for Single Door and Double Door sterilizers with integral electric steam generator, units with air differential or bioseal, or single tube column, integral indirect steam generator units.

Item _____

Location(s) _____

¹TRI-CLAMP® is a registered trademark of ALFA LAVAL INC.

- Help screens for programming and troubleshooting alarm conditions.
- Standard communication interface with most PC-compatible peripheral devices (e.g., disk drives, printers).
- Automatic check of control program and cycle data maintains process integrity.
- Vacuum pump supplied on all units to effectively pull chamber to specified vacuum levels and reduce water consumption.

STANDARDS

Each sterilizer meets applicable requirements of the following listings and standards, and carries the appropriate symbols:

- **EMC Directive:** 2004/108/EC, 93/68/EEC, 92/31/EEC, 89/336/EEC.
- **Low Voltage Directive:** 2006/95/EC, 93/68/EEC, 72/23/EEC.
- **Machinery Directive (MD):** 2006/42/EC, 98/37/EEC, 93/68/EEC, 91/368/EEC, 89/392/EEC.
- **Pressure Equipment Directive (PED):** 97/23/EC.
- **Canadian Standards Association (CSA) Standard C22.2, No. 1010.**
- **Underwriters Laboratory (UL) Standard 61010-1** as certified by ETL Testing Laboratories, Inc.
- **ASME Code, Section VIII, Division 1** for unfired pressure vessels. The pressure vessel is so stamped; ASME Form U-1 is furnished. The shell and door are constructed to withstand a working pressure of 45 psig (3.1 bar).

FEATURES

26 x 26" (660 x 600 mm) chamber cross-section is sized to allow for efficient, high-volume processing.

Vertical-sliding power door is controlled from the touch screen display. The door slides down vertically to open. Door is propelled by a cable and pulley driven by an electric motor.

Resistive Thermal Detectors (RTD) are installed for sterilizer temperature control. The chamber drain line RTD senses and controls temperature variations within the sterilizer chamber. A jacket RTD provides temperature control within the jacket space. These RTD signals, converted into electrical impulses, provide accurate control inputs and readouts throughout the entire cycle.

Electronic water saving control includes an RTD to control amount of water used in condensing exhausted chamber steam. See *Automatic Drain Effluent Cooling* on page 4.

Software calibration is performed in the service mode, accessible through the touch screen displays, and accomplished using external or internal temperature and pressure sources. The control system provides printed record of all calibration data for verification to current readings.

Automatic utilities startup/shutdown permits slow cooling of the entire vessel and load. Shutdown may be programmed to activate at the end of any designated cycle or time of day. When activated, the control system automatically shuts off all utility valves, conserving steam and water usage. Sterilizer utilities can be restarted either by programmed time or manual operation. A different shutdown and restart time can be programmed for each day.

Steam purge feature is provided to assist in air removal and to preheat the load.

Insulation, one-inch thick, asbestos-free spin-glass (rated at 500 °F [260 °C] continuous) encompasses the exterior of the sterilizer vessel and is sealed in an oil and water resistant outer jacket.

Lighted DIN connectors are installed on all steam, water, and exhaust valves for reliability and ease of maintenance.

Visible pressure gauges (chamber and jacket pressure gauges) are mounted in the fascia panel and visible to the operator.

ProConnect® Technical Support Services - Maximize operational efficiencies with secure, internet-based, real-time equipment monitoring. Data from your equipment is used by STERIS to provide pro-active Customer alert notifications, technical support, and predictive maintenance. Online parts ordering, equipment performance dashboards, and online service scheduling at steris.com is also available. (ProConnect Technical Support Services is available in U.S. and Canada only.) Refer to Tech Data sheet *SD983, PROCONNECT TECHNICAL SUPPORT SERVICES*, for details.

PROCESSING CYCLES

This scientific sterilizer is factory programmed with the following cycles:

- **Prevacuum Cycle:** for efficient, high-volume sterilization of porous, heat- and moisture-stable materials at 121°C to 137°C. The prevacuum cycle uses a mechanical air-evacuation system.
- **Gravity Cycle:** for the sterilization of heat- and moisture-stable goods at 100°C to 137°C, and decontamination of bagged basic laboratory wastes. The gravity cycle uses the gravity air-displacement principle.
- **Liquid Cycle:** for the sterilization of liquids and media in vented borosilicate glass or metal containers at 100°C to 123°C. Liquid cycle uses the optimal solution cooling feature during the exhaust (cooling) phase to control the exhaust rate.

TEST CYCLES

- **Vacuum Leak Test** is used for testing the vacuum integrity of sterilizer piping. Sterilizer chamber must be empty while running this test cycle. All temperatures and timing are preprogrammed and cannot be adjusted.
- **Daily Air Removal Test Cycle:** used to conduct a Bowie-Dick test on the sterilizer. Recommended load is a Dart® Testing Apparatus to Determine the Effectiveness of Removing Air from a Chamber, or a properly prepared Bowie-Dick test pack. Sterilize exposure temperature: 132°C; sterilize exposure time: 3-1/2 minutes; dry time: 1 minute.

OPTIONAL CYCLES

- **Liquid Air Cool Cycle** provides water to the jacket, and air pressure to the chamber to improve exhaust time for liquid loads, and to reduce boil over.
- **Effluent Decontamination Cycle** is used for the processing of contaminated biohazardous laboratory waste (BL-3 and BL-4). The condensate produced during the processing cycle is decontaminated before discharge to the floor drain. Steam is admitted through bottom of sterilizer chamber and exhausted out the top side of the vessel. During the purge and vacuum pulses, all purge and exhaust gases are vented through a 0.2 micron bacterial retentive filter. Filter housing is steam jacketed to prevent wetting of filter membrane. Available with fast exhaust or optimal solution cooling (slow exhaust) exhaust types. User is responsible for development of process parameters. Control display screen provides number of hours of filter use.

CONTROL SYSTEM

Design Features

Control system is factory-programmed with standard sterilizing cycles and monitors and controls all sterilizer operations and functions. Each cycle is adjustable to meet specific processing requirements. All operator accessible control functions can be changed using touch screen control.

Cycle values and operating features may be adjusted and visually verified prior to cycle operation. Cycle parameters are retained in control memory for repeated use. Any changes to cycle values must be validated by the user.

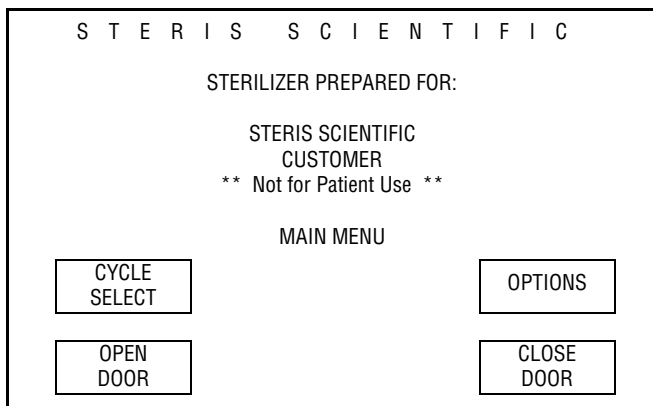
Once a cycle is started, cycles and cycle values cannot be changed until the cycle is complete. If the chamber temperature drops below the set point during the exposure phase, the timer is set to stop. Timer will automatically reset once normal operating temperature is reached.

Critical control system components are housed within a sealed compartment to protect the components from moisture and heat generated during the sterilization process. A cooling fan with filter is installed in the housing compartment to maintain positive pressure within the compartment, keeping components cool and dust-free.

Operator interface control panel, consisting of a touch screen and impact printer, is located on the operating (load or nonsterile) end of the sterilizer. If the sterilizer is equipped with double doors, an additional touch screen is provided on the sterilizer non-operating (unload or sterile) end.

- **Touch-sensitive screen** features a 30-line x 40-character color graphics display. Touch screen color display features wide viewing angle and high-visibility backlighting. All sterilizer functions, including cycle initiation and cycle configuration, are operated by pressing touch-sensitive areas on display (touch pads). Display indicates appropriate control buttons, operator prompts, and status messages necessary to assist in sterilizer operation. All displayed messages are complete phases with no codes to be cross-referenced. Display also indicates any abnormal conditions that may exist either in or out of cycle.
- **Ink-on-paper impact printer**, located above the touch screen, provides an easy-to-read printed record of all pertinent cycle data on 2-1/4" (57 mm) wide paper. Data is automatically printed at the beginning and end of each cycle and at transition points during the cycle. Printer take-up spool stores an entire roll of paper, providing cycle records which can be saved for future reference. Three paper tape rolls and two printer ribbons are furnished with each unit.

Non-operating end (NOE) control panel, equipped on double-door sterilizers only, includes a touch-sensitive screen similar to the operating end screen. Preprogrammed cycles can be started from the NOE control panel. The display concurrently shows the same information as the operating end screen display.



Cycle configuration is performed by accessing the change values menu through the operating end touch screen. The change values menu can be used to adjust cycle values and the following operating parameters:

- **Time display and printout units** in AM/PM or 24-hour.
- **Access code** requires entry of a four-digit access code to operate the sterilizer and/or change the cycle values. Operator is prompted to enter an access code when initiating a cycle or accessing the change values menu. If the access code is not properly entered, the display returns to the standby or main menu screen, denying user access to the sterilizer or programming.
- **Audible signals** are adjustable. **Touch pad** and **end-of-cycle signals** can be adjusted to one of four sound levels (off, low, medium, or high) as required for the operating environment. **Alarm signal** can be adjusted to low, medium, or high (it cannot be turned off).
- **Print format** allows selection of either a full or condensed printout of the cycle information during processing.
- **Temperature display and printout units** appear in Celsius (°C). Temperature is set, displayed, controlled, and printed to the nearest 1°. Recalibration is not required when changing temperature units to Fahrenheit (°F).
- **Pressure/vacuum display and printout units** appear in psig/InHg or bar. Recalibration is not required when changing pressure units.

Technical Data

The control system consists of microcomputer control boards and peripheral function circuit boards, located within the control PC board housing.

An **internal battery** backs up all cycle memory for up to 10 years. If a power failure occurs during a cycle, the battery backup system assures that cycle memory will be retained and proper cycle completion will occur once power is restored. When power is lost, the cycle is held in phase until power is restored. Once power returns, the event is recorded on the printout and the cycle automatically resumes or restarts, depending on what phase the cycle was in at the time of power loss. The operator can choose to manually abort the cycle.

SAFETY FEATURES

Control lockout switch, located on the chamber door, senses when the door seal is energized and tight against the door. The control prevents the cycle from starting until the limit switch signal is received. If the control loses the appropriate signal during the cycle, the alarm activates, the cycle aborts, and the chamber safely vents with a controlled exhaust.

Chamber float switch activates the alarm, aborts the cycle, and safely vents the chamber with a controlled exhaust if excessive condensate is detected in the vessel chamber.

Pressure relief valve limits the amount of pressure buildup so the rated pressure in the vessel is not exceeded.

CONSTRUCTION

Shell Assembly

Two fabricated Type 316L stainless-steel shells, welded one within the other, form the sterilizer vessel. Type 316L stainless-steel end frame(s) is welded to the door end. On a single door unit, the back of the chamber is fitted with a welded 316L stainless-steel dished head.

The sterilizer vessel is ASME and PED rated at 45 psig (3.1 bar) and insulated. The vessel includes one 3/4"-NPT access port for Customer use.

The steam-supply opening inside the chamber is shielded by a stainless-steel baffle.

Chamber Door(s)

The door is constructed of stainless steel. A layer of insulation is placed between the door and its outer stainless-steel cover to minimize chamber heat transfer through the door to surfaces touched by an operator.

During cycle operation, the door is sealed by a steam-activated door seal. Door seal is constructed of a special long-life rubber compound. When the sterilizer cycle is complete, the seal retracts under vacuum into a machined groove in the sterilizer end frame.

A proximity switch is used by the control to determine if the door is closed. An additional seal pressure switch prevents inadvertent cycle initiation if the door is not sealed.

The door assembly is equipped with a mechanical locking mechanism that assures the door cannot be opened, as long as the seal is intact and energized, and more than 2 psi (0.14 bar) pressure is in the chamber. Door interlocks on double door sterilizers can be programmed to prevent inadvertent opening of door(s). Access code is required to override door interlocks.

The sterilizer door is fitted with a stainless-steel panel that insulates the operator from the chamber end ring, reducing the chance of accidental contact with a hot metal surface.

Chamber Drain System

Drain system is designed to prevent pollutants from entering the sterilizer. An optional backflow preventer is available.

An automatic condensing system, consisting of a stainless-steel plate-type condenser, converts chamber steam to condensate, and disposes condensate to waste. Cooling water flow is regulated by waste line RTD to minimize water usage. Water supply shutoff valve is located in recessed area of unit.

Automatic Drain Effluent Cooling

The piping system to the drain provides automatic condensing of chamber steam and disposal of condensate to waste. Cooling water is added to ensure discharge temperature is discharged at or below 60°C (140°F). A separate resistance temperature detector (RTD) is included to limit the volume of water to only the amount required to achieve target temperature, thus conserving water.

Vacuum System

The vacuum pump reduces chamber pressure during prevacuum and post-drying phases. Air is drawn from the chamber through the vacuum system. Following the dry phase, chamber vacuum is relieved to atmospheric pressure by admitting air through a bacteria-retentive filter.

Steam Source

The sterilizer is piped, valved, and trapped to receive building-supplied steam delivered at 50 to 80 psig (3.5 to 5.6 bar) dynamic. Steam piping is constructed of brass and includes a shutoff valve, steam strainer, steam trap, and pressure regulator.

Steam feeds from the jacket to the chamber. A check valve is added between the jacket and chamber on sterilizers with decontamination cycle option.

Optional Integral Electric Steam Generator

A 45 kW generator, manufactured of carbon or stainless steel, is available for each size of sterilizer. When this option is selected an electric steam generator is positioned behind or to the side of the sterilizer. Additional floor space, either at the rear of the sterilizer (single door chamber), or at the side (double door chamber) is required. Additional utility requirements are also needed. Refer to the appropriate equipment drawings if an integral electric steam generator is required.

Integral Indirect Clean Steam Generator

Utilizes the Customer's plant steam (minimum 75 psig [517 kPa]) and high quality water (minimum specific resistivity of 1 MΩ·cm) to supply pure steam to the steam sterilizer. The

generator system is integrally mounted to the sterilizer framework and is automatically operated by the sterilizer electronic control system. The clean steam-to-chamber piping option must also be selected. Refer to the appropriate equipment drawings if an integral indirect clean steam generator is required. Available with single or double tube sheet constructions. (See tech data SD589 for further details).

Piping

All piping connections terminate within the confines of the sterilizer, and are accessible from the front and left side of the unit.

- **Solenoid valves** with DIN connectors simplify sterilizer piping and can be serviced individually.
- **Manual shutoff valves** are pressure rated at 125 psig (8.62 bar) for saturated steam. Valve handles are low-heat conducting. Valves are provided for steam, water, and drain line.

MOUNTING ARRANGEMENT

The sterilizer is designed for either freestanding or recessed installation, as specified. Each sterilizer is height-adjustable. Sterilizer subframe is equipped with a synthetic rubber gasket to assure a tight fit between the cabinet panels on freestanding units, or between the front cabinet panel and wall partition on recessed units.

Stainless-steel side panels enclose the sterilizer body and piping on freestanding units.

ACCESSORY

Seismic tie-down kit conforms to Title 24 California Code of Regulations, 1993 Amendment Section 2336(B).

Material handling accessories include stainless-steel chamber tracks and stainless-steel loading cars with painted-steel carriages. Stainless-steel chamber rack and shelf are available for 39" (991 mm) sterilizers. See separate product literature for details.

Air Compressor, Portable, 115 Vac. This accessory is intended for pneumatic valves on sterilizers when an air utility is not provided by the facility. It is also used for back-up pressure source for the door seal in bioseal applications and for sterilizers utilizing an electric steam generator.

This is a portable 1.5 Gallon compressor tank that delivers 59.5 LPM @ 345 KPa (1.7 CFM @ 100 PSI). Refer to STERIS drawing no. 755718-038 for complete specifications.

OPTIONS

Air detector (integral factory piping option) is used to determine whether any air or non-condensable gas present in the chamber is sufficient to impair the sterilizing process.

Air differential seal (double door units only) is provided for the operating and/or non-operating end of the sterilizer. The seal minimizes passage of air from the nonsterile area to the sterile area.

Bioseal (double door units only) is a 1/4" stainless-steel plate which is welded to the chamber and a 1/4" thick silicone gasket that extends between the plate and a carbon steel wall frame which is welded to wall imbeds. The bioseal is provided for the operating and/or non-operating end of the sterilizer to prevent the passage of airborne microorganisms from the space between the vessel body and the structural wall opening. Steam is the primary source of pressure behind the door seal. All sterilizers with bioseals have air back-up to maintain seal pressure when out of cycle or if the steam source is not available.

If the bioseal option is selected, an increased wall opening is needed; a compressed air supply is also required as a back-up means to operate the door seals. Refer to the STERIS equipment drawing for the bioseal specifications.

Clean steam-to-chamber piping delivers steam, generated from Customer purified water source, to the chamber and its contents. All steam-to-chamber piping components are constructed of 300 series stainless steel. Available with or without Pressure Reducing Valve.

One or two RTD load probe(s) automatically sense the load temperature during cycle operation. One or two thermal load probes are sealed through the sterilizer vessel and manually placed in the product container within the chamber prior to cycle operation.

Individual cycles can be set to start exposure phase according to load temperature, as sensed by the probe(s).

1" (25 mm) TRI-CLAMP chamber penetration permits insertion of temperature probes, such as thermocouples or resistance temperature detectors (RTDs), into the chamber. The 1" TRI-CLAMP capped chamber penetration port is located at the side of the vessel so as not interfere with other piping.

3" (76 mm) TRI-CLAMP penetration permits insertion of temperature probes, such as thermocouples or resistive thermal devices (RTD), into the chamber.

Drain line reference probe automatically senses the drain line temperature during cycle operation. Individual cycles can be set to start the exposure phase according to chamber drain temperature, or according to load temperature.

Backflow preventer option can be installed on sterilizer piping to prevent the unwanted reverse flow of water or other substances into the potable water supply.

Auto Flush for Steam Generator provides automatic flush of steam generator upon startup of sterilizer. Can be by-passed by pressing Cancel. Not required for SS generators.

Closed Loop Chilled Water System (drain only). Closed loop cooling source is used to cool the steam effluent from the jacket and chamber. This greatly reduces the amount of water sent to the drain. Plate heat exchanger is included. See equipment drawings for closed loop utility requirements.

Closed Loop Chilled Water System (vacuum pump & drain). Closed loop cooling source is used to cool the vacuum pump seal water to <15°C and sterilizer effluent to <60°C. This greatly reduces the amount of vacuum pump seal water and eliminates the need for water mixing with the effluent that is sent to drain. Plate heat exchangers and recirculation tank are included. See equipment drawings for closed loop utility requirements.

AMSCO Stand Alone Water Conservation System is designed to re-circulate and cool sterilizer process water to reduce the unit's water consumption. The system includes a collection tank, a heat exchanger with integral cooling fan, recirculation pump and temperature and pressure switches. During system operation, sterilizer water effluent passes through a fan-cooled heat exchanger. The fan cools the water before it returns to the collection tank. Additional cooling water is added only when a maximum temperature set-point is reached. Refer to tech data sheet SD929 for more details.

Right Hand Piping. Piping is located on right side of sterilizer.

Reference Recorder. An optional independent recorder is provided to record chamber drainline temperature and chamber pressure. The recorder is integrally mounted to the sterilizer fascia paneling.

0.2 Micron Bacterial Retentive Filter provides sterile air during airbreak at end of cycle.

Printer on both ends. An additional printer is provided on the non-operating end of the sterilizer.

Eighteen-cycle capability provides an additional 12 cycles to the control system memory for a total of 18 cycles.

PREVENTIVE MAINTENANCE

A global network of skilled service specialists can provide periodic inspections and adjustments to help assure low-cost peak performance. STERIS representatives can provide information regarding annual maintenance agreements.

NOTES

1. The sterilizer is not supplied with a backflow preventer and, where required by local codes, installation of a backflow preventer in the water line is not provided by STERIS.
2. Pipe sizes shown indicate terminal outlets only. Building service lines, not provided by STERIS, must supply the specified pressures and flow rates.
3. Disconnect switches (with OFF position lockout only, by third parties) should be installed in electric supply lines near the equipment.
4. Access to the recess area from the control end of the sterilizer is recommended.
5. Clearances shown are minimal for installing and servicing the equipment.
6. Depending on the loading equipment used, additional clearance is required:
 - If shelves are used, length of sterilizer plus 24" (610 mm) at each door.
 - If loading car and carriage will be used, twice the length of the sterilizer at each door.
7. Floor drain should be provided within the confines of the sterilizer framework.

UTILITY REQUIREMENTS

Refer to equipment drawing for detailed information.

Steam — 1" NPT, 50 to 80 psig (3.5 to 5.6 bar) dynamic, 97% to 100% vapor quality.

Drain — 2" ODT drain terminal. (Floor drain capacity must handle peak water consumption; refer to equipment drawing.)

Electrical – Controls

- Domestic: 120 VAC, 60 Hz, 1-Phase, 2 Amps
- International: 230 VAC, 50 Hz, 1-Phase, 1.5 Amps

Electrical – Vacuum Pump

- Domestic: 208/240 VAC, 60 Hz, 3-Phase, **or** 480 VAC, 60 Hz, 3-Phase
- International: 400 Volt, 50 Hz, 3-Phase
- Canada: 600 VAC, 60 Hz, 3-Phase

Sterilizer Feedwater

1" NPT, 20 to 50 psig (2.1 to 3.5 bar) dynamic. Water is used for vacuum pump, heat exchanger, and trap cooling. Refer to Table 1 for recommended water quality. Use of feed water within the nominal conditions will optimize equipment performance and reduce maintenance.

NOTE: Backflow prevention is not standard on the unit, but a backflow preventer option can be ordered.

Requirements for ProConnect Technical Support Services

Requirements for ProConnect Technical Support Services Refer to Tech Data sheet *SD983, PROCONNECT TECHNICAL SUPPORT SERVICES*. (Available in U.S. and Canada only.)

Additional utilities required for units with the following:

- Double Door w/Interlocks (Compressed Air)
- Liquid Air Cool (Compressed Air)
- Decontamination Cycle (Compressed Air)
- Bioseal (Compressed Air Backup)
- Air Differential Seal (Compressed Air)
- Stainless-Steel Pipe (Treated Water)
- Indirect Steam Generator (75 psig Steam, minimum)
- Electric Steam generator, with exception of 26 x 26 x 39" unit (Compressed Air)

Consult Customer Service for specially configured equipment drawings.

ENGINEERING DATA

Drain:	2" ODT drain terminal (floor drain capacity must handle peak water consumption)	
Electric:	Control:	120 Volt, 1-Phase, 60 Hz, 2 Amps.
• USA:	Vacuum Pump:	208/240 Volt, 3-Phase, 60 Hz, 6 Amps per phase, or 480 Volt, 3-Phase, 60 Hz, 3 Amps per phase.
• UK:	Control:	230 Volt, 1-Phase, 50 Hz, 1.5 Amps.
	Vacuum Pump:	400 Volt, 3-Phase, 50 Hz, 6 Amps per phase.
• International: (Outside UK)	Control:	230 Volt, 1-Phase, 50 Hz, 1.5 Amps
	Vacuum Pump:	400 Volt, 3-Phase, 50 Hz, 4 Amps per phase.
Steam:¹	Pressure: 50 to 80 psig (3.45 to 5.52 bar, dynamic), condensate free, and 97% to 100% vapor quality Consumption: 148 lb/hr (67 kg/hr) Peak Flow: 255 lb/hr (116 kg/hr) Size: 1" NPT	
Water:	Pressure: 20 to 50 psig (1.38 to 3.45 bar), dynamic Consumption: 130 gal/hr (495L/hr) Peak Flow: 15 gal/min (57 L/min) Size: 1" NPT	
Operating Weight:	26 x 26 x 39" (660 x 660 x 991 mm)	2756 lb (1250 kg)
	26 x 26 x 49" (660 x 660 x 1245 mm)	3200 lb (1450 kg)
	26 x 26 x 61" (660 x 660 x 1549 mm)	3500 lb (1590 kg)

¹ 75-90 PSI dynamic steam pressure is required when operated with steam-to-steam generators.

Notes:

Operating weight includes a full load in the chamber.

Water consumption data is based on running one fully loaded prevac cycle per hour and the machine idling for the remainder of the hour.

Table 1. Recommended Feed Water Quality for Sterilizers

Condition	Nominal Conditions	Maximum Conditions
Temperature	4°-16°C (40°-60°F)	21°C (70°F)
Total Hardness as CaCO₃¹	50-120 mg/L	171 mg/L
Total Dissolved Solids	100-200 mg/L	500 mg/L
Total Alkalinity as CaCO₃	70-120 mg/L	180 mg/L
pH	6.8-7.5	6.5-8.5
Total Silica	0.1 - 1.0 mg/L	2.5 mg/L

¹ 17.1 mg/L = 1.0 grain hardness

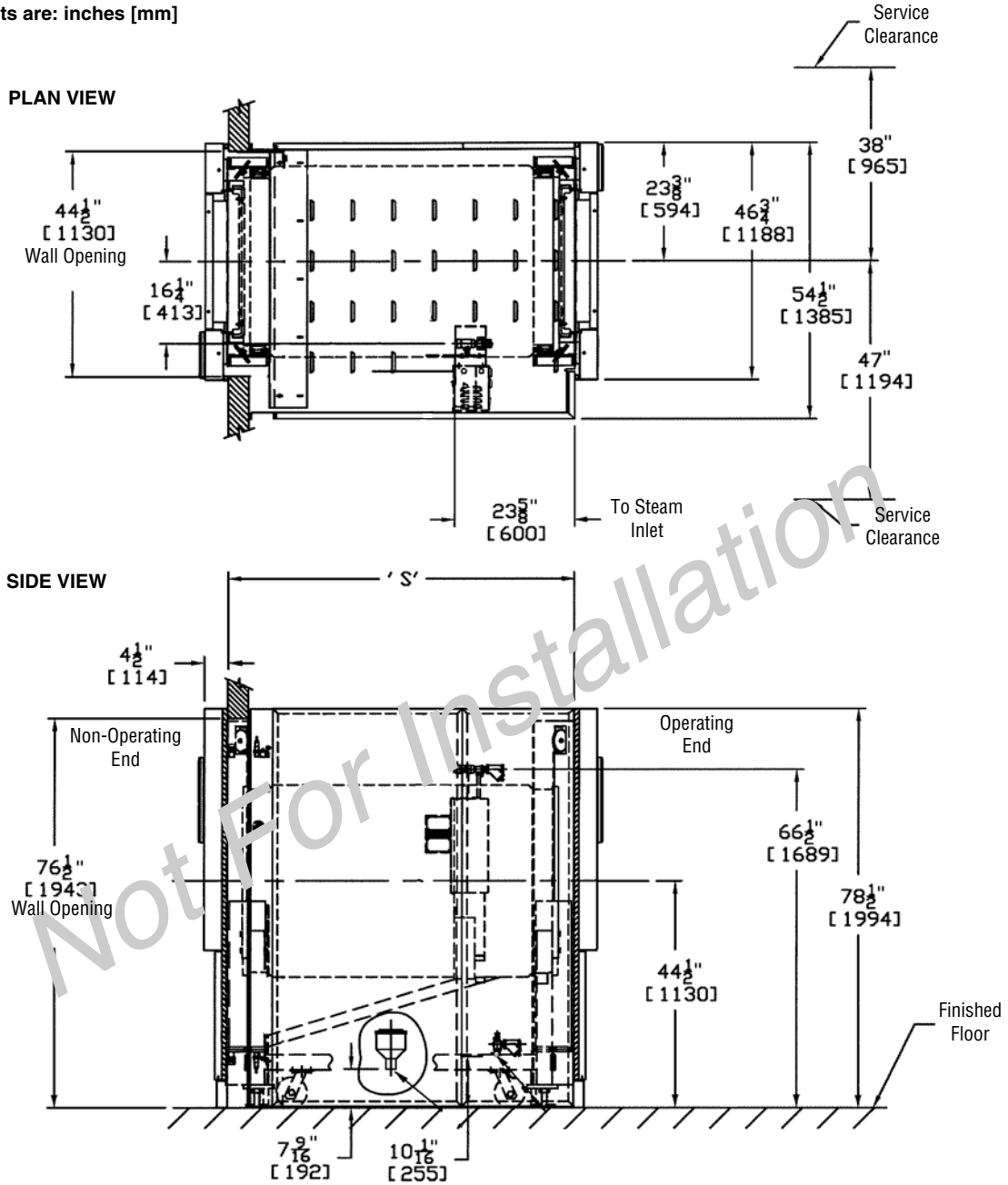
CUSTOMER IS RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE LOCAL AND NATIONAL CODES AND REGULATIONS.

**The base language of this document is ENGLISH.
Any translations must be made from the base language document.**

Refer to the Following Equipment Drawings for Installation Details

Equipment Drawing Number	Equipment Drawing Title
65435-794	26 X 26 AMSCO Century Ster. Prevac Or Sfpp Double Sliding Door Recessed One Wall Steam Heat
65435-795	26 X 26 AMSCO Century Ster. Prevac Or Sfpp Double Sliding Door Recessed Two Walls Steam Heat

Measurements are: inches [mm]

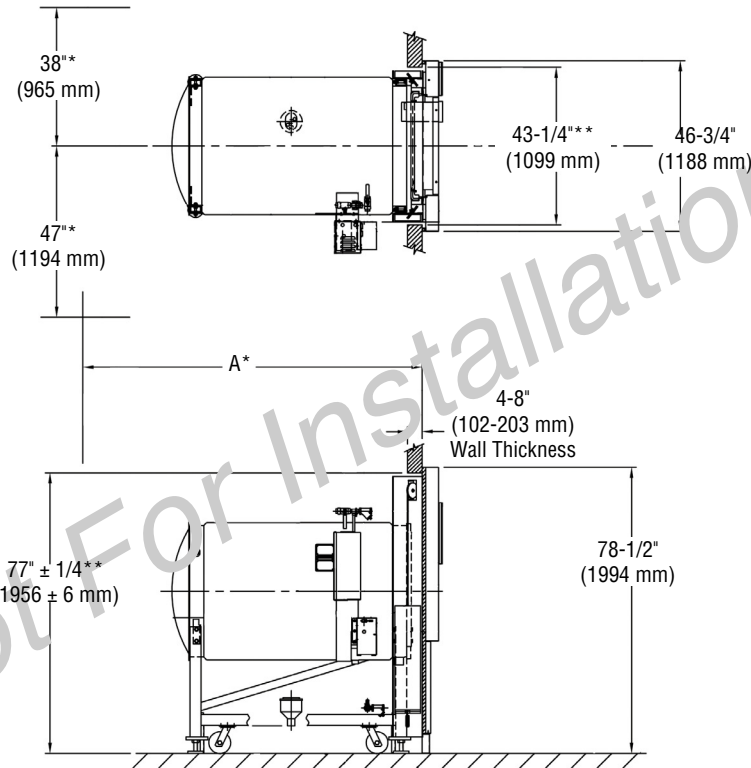


SIZE	'S'
26 x 26 x 39" (660 x 660 x 991 mm)	46" (1168 mm)
26 x 26 x 49" (660 x 660 x 1245 mm)	56" (1422 mm)
26 x 26 x 61" (660 x 660 x 1549 mm)	68" (1727 mm)

IF A LOADING CAR AND CARRIAGE ARE TO BE USED, THE FRONT CLEARANCE SHOULD EQUAL TWICE THE LENGTH OF THE STERILIZER

Refer to the Following Equipment Drawings for Installation Details

Equipment Drawing Number	Equipment Drawing Title
65435-792	26 X 26 AMSCO Century Ster. Prevac Or Sfpp Single Sliding Door Cabinet Steam Heat
65435-793	26 X 26 AMSCO Century Ster. Prevac Or Sfpp Single Sliding Door Recessed Steam Heat



* Service Clearance
 ** Wall Opening

**OVERALL INSTALLED LENGTH
 (SERVICE CLEARANCE)
 Refer to Illustrations**

A	Chamber Length		
	39" (991 mm)	49" (1245 mm)	61" (1549 mm)
64" (1626 mm)	74" (1880 mm)	86" (2184 mm)	

For further information, contact:



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