



# 810000 SERIES BSL-3 LABORATORY STEAM STERILIZER

## APPLICATION

The ARS BSL-3 laboratory sterilizer is designed for destruction of bio-hazardous materials. It can also be used for processing reusable and moisture-stable items such as instruments, glassware, and utensils. Saturated steam is utilized as the sterilizing agent.

## FEATURES & BENEFITS

- Proprietary piping design vents chamber air into BSL-3 hood or room to prevent contamination of clean areas.
- BSL-3 cycle precludes release of any steam or condensate from the chamber until sterilization cycle is complete.
- Premium grade, industrial components provide years of reliable operation.
- Production of sterilizers to individual customer order permits economical customization and accountability of ARS factory personnel to each customer.
- Non-proprietary parts, conveniently available from ARS or from local industrial supply houses, contribute to an overall low cost of ownership.

- ARS Frontier 2000™ PLC controls are standard. Optional electromechanical controls are available.
- Drain line steam condenser eliminates fogging and splashing.
- Stainless steel strapped corrugated aluminum sheet around the chamber contains 1" foil backed fiberglass insulation and protects the chamber from corrosion from steam or water contact. Uninsulated bottom allows moisture to readily drain away from chamber.
- Brass piping and fittings, including unions on key lines, in all water and steam lines ensure long life, minimize leaks and permit efficient maintenance and repair procedures. Stainless steel piping is optional.
- Air drying capability for standard gravity cycles.

## PRINCIPLES OF OPERATION

Sterilization can be defined as the complete destruction of all living organisms. It is well established that the most dependable means of accomplishing sterilization is by exposure to saturated steam under

pressure for an adequate period of time.

With standard gravity sterilizers, steam is injected into a chamber. By gravity displacement, the steam forces the air from the chamber. After the air is removed from the chamber, a steam trap closes causing steam to fill and pressurize the chamber and the temperature rapidly rises to the desired set point, typically 250°F or 270°F. Once the desired temperature is achieved, a time and temperature sensing mechanism ensures that the temperature is maintained for a predetermined "sterilize time" or exposure. After the exposure time elapses, the steam is exhausted from the chamber. An optional air drying cycle can be selected for dry goods which causes air to circulate through the chamber for a user selected period of time.

The ARS BSL-3 laboratory sterilizer features a BSL-3 cycle that vents air from the chamber into the contaminated hood or room. After removal of air, a special piping design prevents condensate from leaving chamber. This condensate is re-vaporized into steam and re-injected into the chamber. After completion of the exposure phase of the cycle, the drain line is opened and the cycle is completed in a conventional manner.

## CYCLES

- BSL-3 Gravity Cycle
- Gravity with dry time
- Gravity without dry time

## SIZES, [Diameter x Length; in. (cm)]

- 10 x 24  
(25 x 61)
- 18 x 36  
(46 x 91)
- Custom sizes by request

## UTILITY REQUIREMENTS

- 115 v., 15 amp, 1 $\phi$  for controls.
- 208/220-230 v. 3 $\phi$  (1 $\phi$  optional),  
440 v. 3 $\phi$  for optional steam  
generator.
- Steam (for direct steam heating).
- Cold tap water. DI or WFI  
optional.
- Compressed air optional.
- Drain with floor sink preferred.

## SUPPORT SERVICES

ARS or its factory authorized sales/service representative can provide, arrange or coordinate a range of installation and support services for your ARS or other brand of sterilizers. Such services include installation, preventative maintenance, parts and repair (See your ARS representative for details).

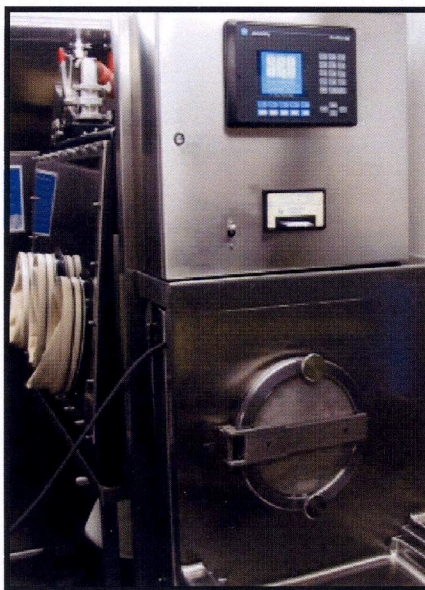
## WARRANTY

Two years parts and labor (see your ARS representative for details).

## CODES AND APPROVALS

ARS sterilizers are designed to comply with or have been approved by the following:

- US FDA 510k
- ASME
- National Plumbing Code
- Seismic Requirements per  
California Administrative Code
- LA Electrical Testing Lab



ARS BSL-3 Sterilizer installed in Germfree Mobile Laboratory.

## YOU CAN RELY ON ARS

ARS Enterprises was established in 1971 to provide sterilizing and washing equipment and on-site maintenance and repair services to hospitals, laboratories and pharmaceutical, medical device or diagnostics manufacturers. Our equipment and service have earned us an outstanding reputation among our customers who have come to rely on ARS.

Our philosophy is to provide dependable equipment incorporating high quality components. The ARS team is dedicated to the highest standards of workmanship. Our pride rests on your satisfaction with the products and service we provide. We believe that with ARS you can achieve many years of reliable performance and an overall low cost of ownership.

For information on ARS products or service, or for the name of the ARS representative in your area, please contact us at:  
800/RELY-ARS [735-9277]  
or [www.RELY-ARS.com](http://www.RELY-ARS.com).

**We work well under pressure.**



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