



# 850000 SERIES PREVACUUM STEAM STERILIZER

## APPLICATION

The ARS prevacuum or pulse vacuum (PV) sterilizer is designed for processing reusable and moisture-stable items either individually, in "packs" or in sterilization containers where air removal might be difficult. The units also incorporate cycles to allow flash or general purpose sterilization. Saturated steam is utilized as the sterilizing agent.

## FEATURES & BENEFITS

- 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.
  - Standard, proven electromechanical controls provide years of dependable operation and fundamental ease of use. Optional ARS Frontier 2000™ PLC or microprocessor controls.
- Front panel mounted recorders, printers, timers, gauges and cycle status indicators are easy to read at a glance, extraordinarily easy to learn to use and provide convenient data storage.
  - Control systems automatically maintain and reset operating parameters and do not require manipulation of valves. No reprogramming is necessary following any type or duration of power failure.
  - Streaming steam flush design aids in air removal.
  - Large water ejector or optional vacuum pump efficiently removes air and minimizes cycle time.
  - Air filter (.22 micron) provides sterile air to chamber during dry cycle.
  - Drain line steam condenser eliminates fogging and splashing.
  - Stainless steel strapped corrugated aluminum sheet on top and sides 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 or stainless 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.

## PRINCIPLES OF OPERATION

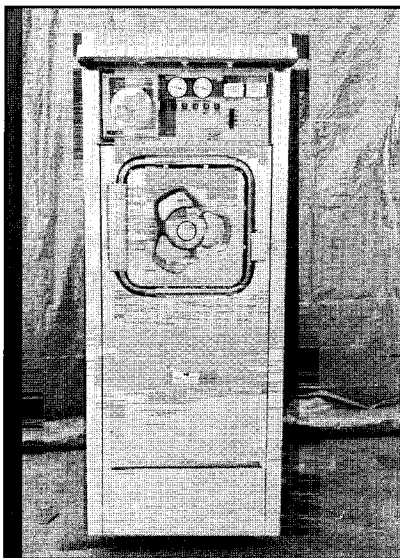
Sterilization can be defined as the complete destruction of all living microbial organisms. It is well established that the most dependable means of accomplishing sterilization is by exposure to saturated steam under pressure for an adequate period of time.

With prevacuum sterilizers in the vacuum cycle mode, a water ejector or optional vacuum pump draws a vacuum on the chamber. The air is then replaced with steam. This prevacuum sequence is repeated several times after which steam fills and pressurizes the chamber causing the temperature to rise 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 quickly exhausted from the chamber. A drying phase then begins in which a vacuum is drawn in the chamber again. After a user selected dry time has expired, air, filtered through a .22 micron filter is admitted to the chamber and the chamber returns to atmospheric pressure. In the dry goods without vacuum or liquid cycles, these units function similarly to ARS General Purpose sterilizers.

**SIZES, [W x H x L; in. (cm)]**

- 16 x 16 x 26  
(41 x 41 x 66)
- 20 x 20 x 38  
(51 x 51 x 97)
- 24 x 36 x 36  
(61 x 91 x 91 )
- 24 x 36 x 48  
(61 x 91 x 122)
- 24 x 36 x 60  
(61 x 91 x 152)
- 26 x 62 x 42  
(66 x 157 x 107)
- 26 x 62 x 76  
(66 x 157 x 193)
- Custom sizes by request



**CYCLES**

- Dry goods with vacuum
- Dry goods without vacuum
- Liquids
- Air-over-pressure optional

**UTILITY REQUIREMENTS**

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

**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

**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).

**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.**



**ARS ENTERPRISES**  
12900 Lakeland Road  
Santa Fe Springs, CA 90670  
(562) 946-3505 (voice)  
(562) 946-4120 (fax)  
[info@arsenterprises.com](mailto:info@arsenterprises.com)

Represented by: