



STERI ARIES STEAM STERILIZERS HORIZONTAL



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300L, 372L

STERILIZERS STEAM

PRODUCT FEATURES AND PERFORMANCE

I. It is designed with high pressure bearing strength

➤ The European-style annular double-layer jacket structure (used by Getinge, Belimed, etc.) has a unique inner shell and annular jacket combination structure that enhances the strength and rigidity of the main body. Compared with the integral jacket, it has strong bearing capacity and low stress concentration, especially under pulsating alternating pressure and temperature loads, it has stronger bearing capacity and longer fatigue life of the container.



- The sealing groove is directly welded to the annular jacket at both ends (GETINGE structure), avoiding the overall flange structure without jackets close to the two end faces, which affects the preheating temperature of the inner tank and thus the drying effect.
- There is no traditional thick flange at the four corners, avoiding the overall thick flange structure, because fatigue cracks are easily generated at the stress of the flange structure.
- The inlaid main body tooth structure can ensure that all teeth are on the same plane and are evenly stressed, avoiding the deformation caused by the welding of the original structure's overall rack, which leads to the risk of uneven pressure on the teeth.
- The lifting door switch structure, the motor chain drives the door to lift and slide vertically up and down to open and close the door, without manual operation, saving space. Double-door channel type, double-door interlock, with pressure safety interlock, liquid program with temperature door safety interlock.
- Siemens control system spare parts PLC & touch screen, German JUMO mobile temperature probe, German WIKA pressure transmitter & pressure gauge, German GEMI angle seat valve, SPECK vacuum pump, high reliability, long life, and equipped with a recorder
- A cooling system is designed in front of the vacuum system to ensure the long-term and reliable operation of the vacuum pump;
- The door seal ring is made of high-tear resistant silicone rubber material, with parylene coating on the surface, wear-resistant and smooth, and has better sealing effect and longer service life than rectangular seal rings, with a service life of up to 1500 cycles.
- The high-temperature pipe clamp seal uses polytetrafluoroethylene material instead of silicone rubber, which has a longer service life;

II. Safety

- Door pressure safety interlock: a) When the door is not locked and sealed, steam is not allowed to enter the inner chamber, and the program cannot be started; b) When there is pressure in the inner chamber, the door is not allowed to be opened. When the pressure in the inner chamber exceeds a certain pressure ($\leq 20\text{KPa}$), the sealed door pressure interlock device is locked and the door cannot be opened. It has a) \b) synchronous alarm function to ensure the safety of equipment and personnel.
- Door temperature safety interlock: When there is liquid in the sterilization liquid or in the chamber, the sealed door can only be opened when the temperature of the liquid in the inner chamber drops below 60°C to avoid liquid explosion and ensure the safety of equipment and personnel.
- The double-door sterilizer door is interlocked to meet the requirements of biological isolation. Unless maintenance is required, the double doors cannot be opened at the same time; the unloading door cannot be opened before the sterilization program is displayed to end; after the B/D detection, PCD cavity load detection, and vacuum leak detection programs are completed, the unloading door cannot be opened. It is used to control the start of the sterilization program and is installed at the loading end. Operators at the loading operation end are not allowed to open or close the door at the unloading end
- A pressure monitoring device is installed to ensure that when the sealing pressure of the door drops below the minimum pressure specified by the manufacturer: a) the operating cycle is terminated; b) there is a visual or audible alarm signal to indicate the fault condition; c) the door remains closed; d) steam, water or air are prevented from entering the pressure chamber;

III. Safety protection alarm system

- Inner room jacket overpressure alarm
- Inner room overtemperature and low temperature alarm;
- Vacuum pump and door motor overload alarm;
- Water source pressure low pressure alarm;
- Compressed air low pressure alarm;

IV. High product performance

Full load running time: 65 minutes for fabric program, 120 minutes for liquid program

V. Energy and water saving

- 1) In addition to the outer surface of the main body, the outer surface of the door (except the part that affects the door opening and closing mechanism) is insulated;
- 2) The surface of the high-temperature pipes is insulated to reduce steam consumption and save energy
- 3) The low-temperature pipe insulation prevents condensation and dripping of cold water pipes in high humidity environments, which meets the requirements of GMP specifications;
- 4) The new annular reinforcement double-layer jacket and sealing groove structure design not only improves the strength and life of the equipment, but also reduces the

weight of the equipment by 20%, and reduces steam consumption (3.6Ka~7Kg) to improve the operating efficiency and performance of the equipment (sterilization and drying effect);

VI. Technical parameters

No.	Technical parameters	
1	Equipment design life	chamber S316,jacket S316 Design service life: 15 years (30,000 sterilization cycles) Or chamber S304,jacket S304 Design service life: 10 years (20,000 sterilization cycles)
2*	Inner chamber design pressure	-0. 1/0.3MPa
3	Jacket design pressure	0.3MPa
4	Design temperature	150°C
5	Working temperature	121-139°C
6	Maximum working pressure	0 25MPa
7*	Inner chamber safety valve opening pressure	0.28MPa
8	Jacket safety valve opening pressure	0.28MPa
9	Inner chamber water pressure test pressure	0.38MPa
10	Jacket test pressure	0.5MPa
11	Temperature display accuracy	0.5°C
12	Pressure display accuracy	0. 1KPa
13	Sterilization temperature control accuracy	±0-2°C
14	Temperature uniformity	±1°C
15	Ultimate vacuum degree	-96KPa
16	Vacuum leakage rate	≤0. 13KPa/min
17	Surface temperature	The outer surface temperature does not exceed the ambient temperature by 25°C
18	Equipment size	Volume: 372L; Inner tank: 610x610x1000mm Gas consumption: 45kg/C Equipment power 2KW+ (30KW-steam generator)
19	Working procedure	Preheating, pulsation, heating, sterilization, exhaust, and drying are all completed automatically
20	Sterilization mode	Fabric dressings, conventional instruments, heat-sensitive loads, fast-program orthopedic instruments, dirty viruses, luminal instruments, heavy loads, small loads, open liquids, gravity programs

21	Pulsation times	3 times (0~400 times adjustable)
22	Others	- single door - 7" Touch screen or larger - thermal printer - heating elements made of stainless steel - mineral wool thermal insulation or specify - remote monitoring via pc or tablet - safety system for the door, overpressure and overtemperature - electronic water level meters for the steam generator - liquid ring vacuum pump - solenoid valves controllable from the touch screen - external panels made of stainless steel 304 stainless steel - system controlled by microcontroller - record of cycles, errors, and alarms - access to calibration menus - pressure gauges for the chamber, generator, and jacket - emergency stop button - user-configurable programs for pressure and temperature - at least 13 user-programmable cycles - minimum preset cycles: Pre-heating, packs, sensitive materials, flash, large surgical instruments, small surgical instruments, liquids, bowie & dick, rubber, vacuum test - electric supply 380vac - 50hzk
23	Accessories	Stainless steel basket x 2 loading platform x 1 loading cart x 1 thermal paper roll x 30
24	Operation language	English, Spanish, etc. Multiple languages can be selected
25	Remote update and maintenance system	Help users to update system and complete maintenance, repair, etc.