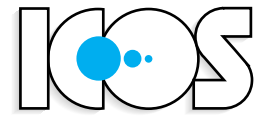


SD



**STATIC AIR
DEPYROGENATION
STERILIZERS
IN CLASS 100**



THE STATIC DEPYROGENATION STERILIZERS IN CLASS 100 MANUFACTURED BY ICOS RANK WITH THE MOST TECHNOLOGICALLY ADVANCED MACHINES IN THE FIELD. THE COMPANY'S LONG EXPERIENCE WITH AIR STERILIZERS, THE LARGE NUMBER OF LABORATORY TESTS CARRIED OUT AND THE USE OF EQUIPMENT SPECIFICALLY DESIGNED FOR OPTIMIZING THE PROCESS PARAMETERS GIVE US THE POSSIBILITY OF PROPOSING A RANGE OF HIGH-PERFORMANCE MACHINES ON THE MARKET.

FIELD OF APPLICATION

The machines in this range are used for the sterilization and depyrogenation of heat-resistant materials such as bottles, phials, glass containers, metal containers, metal shelves and machine parts.

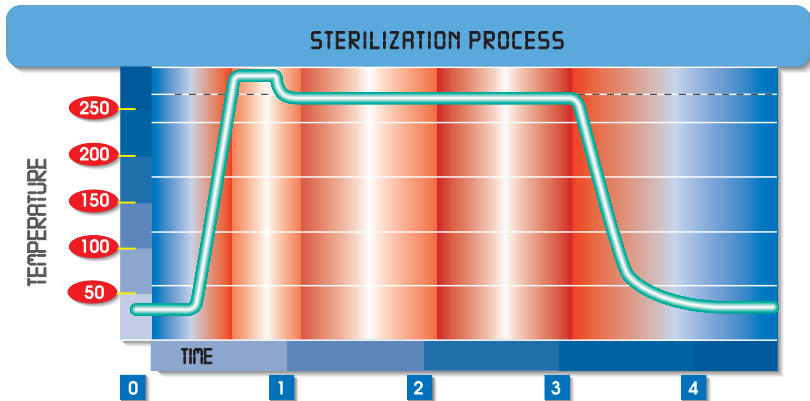
MAIN CHARACTERISTICS

- Filtration of pressurization air flow into the chamber through HEPA absolute filters of 99.99% efficiency.
- Filtration of chamber exhaust air through HEPA absolute filters of 99.99% efficiency.
- Filtration of air recycling in the chamber through HEPA absolute filters of 99.99% efficiency.
- Automatic chamber pressure control.
- Automatic chamber temperature control.
- Uniform air distribution through differentially perforated walls, particularly suitable also for differentiated loads.
- Uniform temperature on the product $\pm 3^{\circ}\text{C}$.
- Automatic door locking mechanism through a device of pneumatic type.
- Hermetically sealed doors with a special-profile silicone gasket with double sealing strip. Gasket allowing the formation of vacuum to guarantee perfect door tightness in every cycle phase. This ICOS-designed system avoids any possible contamination.
- Chamber provided with a double bottom, which further improves an even temperature distribution.
- Mechanical construction designed to withstand temperatures up to 300°C .
- On the front - loading side - the machine is provided with the connections required for the validation tests.
- The machine can be interfaced with the isolator.



CONSTRUCTION CHARACTERISTICS

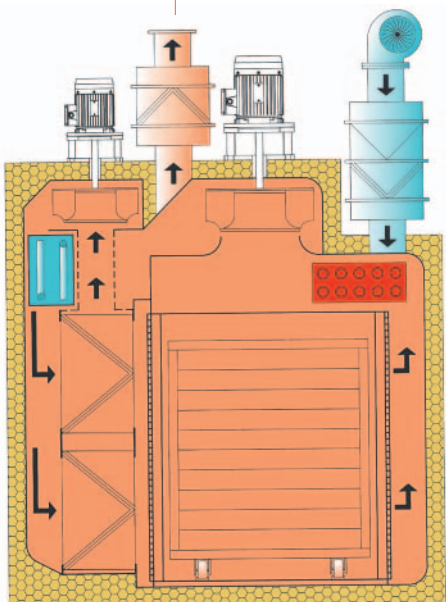
- Machines available with a choice of three types of doors: swing-out, sideways sliding and vertically sliding.
- Water-based cooling system; an air-cooled system can be supplied on request.
- Chamber, aeraulic system, doors and other machine structural components made of AISI 304 stainless steel; on request, they can be made of AISI 316 stainless steel.
- All the chamber internal angles are rounded.
- Chamber welding seams of TIG type.
- Inside of chamber polished with a degree of roughness of 0.5 μ.
- Chamber insulated with ceramic insulating material and panelled externally with stainless-steel sheets. Particular care is used to eliminate heat transmission points.
- Maximum temperature on external surface: 40°C.



PROCESS DATA

- PROCESS TEMPERATURE ADJUSTABLE TO A MAXIMUM OF 250°C.
- ADJUSTABLE TEMPERATURE RAMP.
- ADJUSTABLE TREATMENT TIME.
- ADJUSTABLE COOLING TEMPERATURE.
- ADJUSTABLE CHAMBER PRESSURE.
- ADJUSTABLE COOLING TIME.

FUNCTIONAL SKETCH



LOADING SIDE - Mod.: SD 602

CONTROL SYSTEM

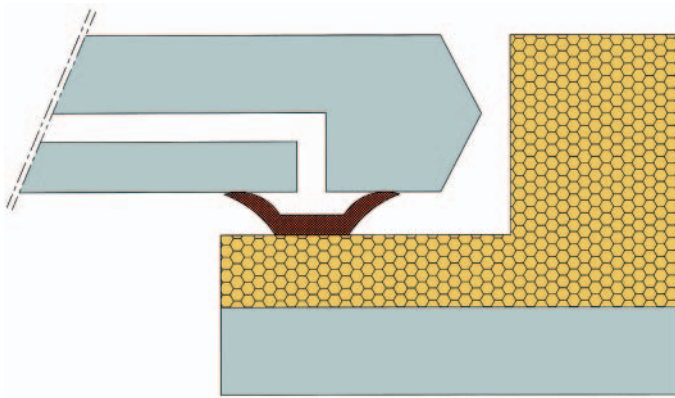
The sterilizers using an air+steam mixture and superheated water are provided with a control system consisting of a programmable controller, computer and printer. The control system manages the machine and its basic parameters, such as temperature, Fo and pressure; it allows an easy interfacing with the operator and makes it possible to customize the work cycles and manual operations. The system provides a complete hard-copy process documentation and assists in the convalidation procedures.

N.B.: A full description of the control system is contained in the relative booklet.

IN THE QUALITY OF THE MATERIALS USED, AND IN THEIR ACCURATE FINISH, CONSTRUCTION AND PROCESS CHARACTERISTICS, ALL THE ICOS MACHINES ARE IN COMPLIANCE WITH THE MOST UP-TO-DATE STANDARDS.



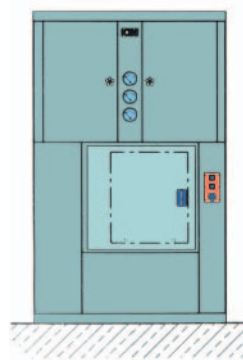
CONTROL BOARD



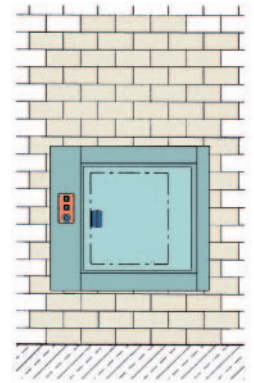
DETAIL OF GASKET TIGHTNESS



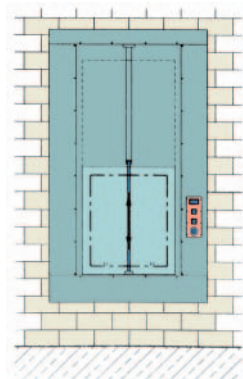
UNLOADING SIDE - MOD.: SD 604



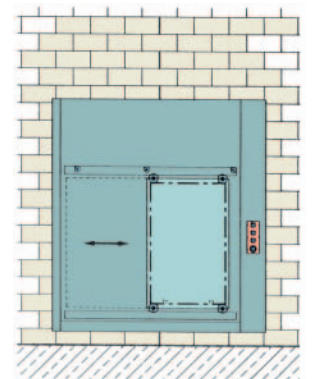
LOADING SIDE
SWINGING OUT DOOR



UNLOADING SIDE
SWINGING OUT DOOR



UNLOADING SIDE
VERTICAL SLIDING DOOR



UNLOADING SIDE
HORIZONTAL SLIDING DOOR

Mod. SD Serie

RANGE OF STATIC AIR DEPYROGENATION STERILIZERS

	CAPACITY	CHAMBER DIMENSIONS (mm)			OVERALL DIMENSIONS (mm)		
	Lt.	Width	Height	Depth	Width	Height	Depth
sd 601	309-375	660-800	685	685	1650-1800	2370	1080
sd 602	458-556	660-800	685	1015	1650-1800	2420	1410
sd 602A	596-723	660-800	685	1320	1650-1800	2420	1710
sd 604	884-1071	660-800	1320	1015	1800-1950	2670	1410
sd 604A	1149-1393	660-800	1320	1320	1800-1950	2720	1710
sd 801	556-695	800-1000	685	685	1800-2000	2420	1080
sd 802	723-904	800-1000	685	1015	1800-2000	2420	1410
sd 802A	723-904	800-1000	685	1320	1800-2000	2470	1710
sd 804	1071-1339	800-1000	1320	1015	1950-2150	2720	1410
sd 804A	1393-1742	800-1000	1320	1320	1950-2150	2720	1710
sd 806	1742-2178	800-1000	1320	1650	1950-2150	2720	2040
sd 806A	2064-2580	800-1000	1320	1955	1950-2150	2720	2350
sd 806B	2064-2580	800-1000	1955	1320	2100-2300	3380	1710
sd 809	3057-3822	800-1000	1955	1955	2100-2300	3380	2350
sd 1004	1742-3484	1000-2000	1320	1320	2150-3150	2770	1710
sd 1006	2178-4356	1000-2000	1320	1650	2150-3150	2770	2040
sd 1006A	2580-5161	1000-2000	1320	1955	2150-3150	2770	2350
sd 1006B	2178-4356	1000-2000	1650	1320	2200-3200	3080	1710
sd 1009	3225-6451	1000-2000	1650	1955	2200-3200	3080	2350
sd 1009A	3822-7644	1000-2000	1955	1955	2300-3300	3380	2350
sd 1012	5063-10126	1000-2000	1955	2590	2300-3300	3430	2980





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