

Laboratory & Scientific Line

Horizontal Steam Sterilizers



Laboratory

Horizontal Steam Sterilizers for Laboratory & Scientific Applications

Sterilization in a laboratory environment has its unique requirements. The types of loads that need to be sterilized are varied and include liquids, glassware, instruments, media, waste material and additional laboratory items.

Choosing the right steam sterilizer depends on several considerations: the types of loads, frequency of use, available utilities and load volumes. The Tuttnauer line of laboratory autoclaves successfully meets the stringent sterilization requirements posed by the most demanding facilities throughout the world. To maximize "uptime," we manufacture our complete line of sterilizers using reliable, non-proprietary components. Tuttnauer offers a full range of sterilizer models designed to cover a large field of applications in laboratories and research facilities, serving the academic, biotechnological, food and animal care markets.



Construction



Chamber and Doors

The fully jacketed chamber and doors are constructed from long lasting 316L grade stainless steel material, with superior corrosion resistance. The autoclave doors are designed with a number of independent mechanical and digital safety features. The door is sealed using compressed air in lieu of steam to extend the life of the door gasket.

Jacket

The jacket is constructed from 304L stainless steel material.

Piping

The pipes and fittings are constructed from stainless steel and brass. The pneumatically operated valves significantly reduce maintenance, downtime and operating costs.

Mounting

The sterilizer can be supplied in one of the following mounting alternatives:

- ◆ Recessed in One Wall
- ◆ Free-Standing with a Stainless Steel Cabinet Enclosure (Side Panels)
- ◆ Seismic Tie-Down Kit

Panels

All Tuttnauer sterilizers are provided with #4 finish, 304L stainless steel fascia panels. Special panel designs can be constructed according to the customer's requirements.

Door Configuration

All models are manufactured with a single automatic vertical sliding door.

Steam Supply

The sterilizer uses saturated steam as the sterilization agent. The steam can be provided to the autoclave from the building's central source, or an integral carbon steel electric steam generator.

Air Removal Method

All Tuttnauer models come standard with both gravity and pre/post vacuum capability. Pre/post vacuum is achieved with either a water ejector or liquid ring vacuum pump, combined with steam pressure pulsing.

Standards

Our high quality laboratory autoclaves comply with the strictest international and US directives and standards.

Equipment Warranty

Coverage includes one year on parts and labor, excluding consumable items. The ASME pressure vessel is further warranted to the original owner against material and workmanship failure for a period of 15 years from the date of initial operation.

Advanced Control System for Your Laboratory

Take advantage of Tuttnauer's sophisticated user-friendly control system, BacSoft, for repeatable high performance.

Standard Features

- 7" Multi-color touch screen panel
- Stores the last 100 cycles in built in memory
- Multiple access levels and user passwords for added security
- USB port for importing/exporting cycle data
- Ethernet Connection
- Internal Battery Backup
- Automatic Utility Startup/Shutdown

Printer

For a clear and concise documentation of the sterilization process, the control unit is provided with a built-in thermal printer. This provides real-time cycle data including the pressure, temperature, change of phase, alarms and a summary at the end of the cycle.

Validation Packages

Tuttnauer provides our customers with services to help expedite the validation and commissioning of the equipment, including: Installation Qualification/Operational Qualification (IQ/OQ)

Designed to Handle Diverse Load Types

The Tuttnauer line of laboratory autoclaves can handle a variety of load types. The sterilizer is provided with a total of 14 pre-set programs (up to 20 customizable) that range in temperature from 105°C - 137°C. Standard programs are set to handle:

- Sterilization of Liquids (Open/Vented Containers)
- Gravity Cycles
- Prevacuum Cycles
- 2 test programs: Air Removal and Vacuum Leak

All programs are fully customizable to suit the specific needs and requirements of the end user.



Additional Options

Loading Equipment

All Tuttnauer loading equipment is manufactured from high quality stainless steel material. All models can be provided with:

- Loading Cart with Two Shelves & Transfer Carriage
- Rack & Two Shelves

Additional shelves can be provided, upon request.

Steam Generator

If your facility does not have an in-house steam source, Tuttnauer offers carbon steel steam generators in various sizes and steam capacities.



Rack & Two Shelves



Loading Cart & Transfer Carriage



R.PC.R Software

Automatic Recording of Cycle Information to Your PC

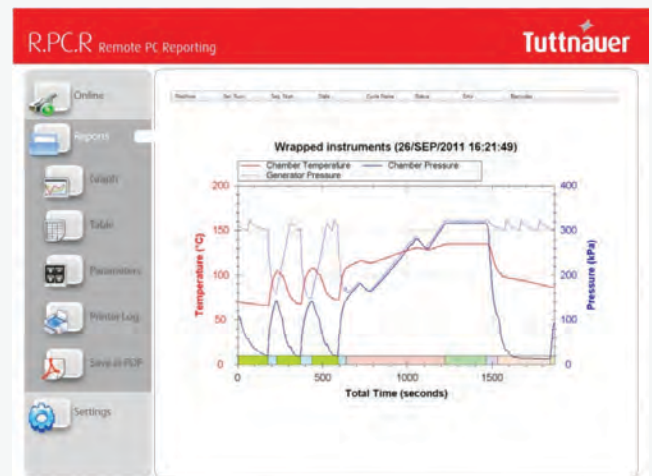
Reporting You Can Rely On

- Automatic recording of cycle information to any PC on your network
- Convenient access to graphs and tables that are easy to understand
- Easily generate PDF reports
- No need to file printouts, saving you time

Be in Control with Real-Time Remote Monitoring

- See the real-time autoclave display on your PC
- Monitor all activity for up to 8 autoclaves

With R.PC.R you can see graphs of the cycle data, numeric cycle data, cycle print-outs, measured values table, parameter table.



*R.PC.R software requires an ethernet connection provided at the autoclave.

A Flexible Range of Sizes and Models

Tuttnauer offers sterilizer chambers in common sizes, ranging in volume from 120 to 430 liters. Each model is available with a single automatic vertical sliding door.

Model	Chamber Dimensions (Inches)	Chamber Volume Cubic Feet (Liter)
4472	16x16x28	4 (120)
5596	20x20x38	9 (250)
66C	26x26x39	15 (430)

Vertical Sliding Door



Models 4472/5596



Model 66C

Specifications

Model	4472	5596	66C
Chamber Dimension (Inches) WxHxL	16X16X28	20X20X38	26X26X39
Chamber Volume (Liter) Cubic Feet	(120) 4	(250) 9	(430) 15
External Dimensions Cabinet Enclosed (Inches) WxHxL Single Door	29x75x48	33x75x55	46.5x78.5x57
Autoclave Weight Empty Chamber, Cabinet Enclosed Lbs., Single Door	1400	1700	2500

Utility Consumptions/Requirements

Model		4472	5596	66C
Plant Steam Supply 50-80 PSIG Dynamic 97-100% Dry Saturated Vapor Condensate Free	Pipe Size	3/4" NPT	3/4" NPT	1" NPT
	Flow Rate (Peak) Avg. Consumption*	60 Lbs/Hr 22 Lbs/Cycle	90 Lbs/Hr 42 Lbs/Cycle	100 Lbs/Hr 74 Lbs/Cycle
Cold Water Supply 45 PSIG Dynamic, Minimum, <70° F Contact Tuttnauer for recommended Water Quality	Pipe Size	3/4" NPT	3/4" NPT	3/4" NPT
	Flow Rate (Peak)	8 GPM	8 GPM	13 GPM
Building Drain	Pipe Size	2" ODT	2" ODT	2" ODT
Compressed Air Requirements (Optional Air Compressor can be provided)		90 PSIG dynamic minimum, 3.5 SCFM. Minimum 3/8" NPT		
Electrical Requirements (Control System)		1-Phase, 120V, 60Hz. 20A (Dedicated Circuit)		
Electrical Requirements (Optional Vacuum Pump)		N/A	N/A	3-Phase, 208V 5A
		N/A	N/A	3-Phase, 480V 4A
Electrical Requirements (Optional Steam Generator)		Contact a Tuttnauer representative for specific electrical requirements.		

- Dimensions, weights and consumptions are for reference only.
- The addition of certain options could impact the above stated utilities.
- Contact a Tuttnauer representative to obtain certified drawings.
- Due to continuing equipment development, specifications are subject to change without notice.
- Consumptions may vary based on load configurations and cycle.

Company Profile

Tuttnauer Ltd. has been a worldwide manufacturing company specializing in sterilizers since 1925. With a presence in over 140 countries, Tuttnauer is a market leader in providing sterilization and infection control solutions for autoclaves in various industries such as hospitals, research institutes, clinics and laboratories.

All of Tuttnauer's medical autoclaves adhere to the relevant international standards and regulations.

Renowned global leaders
in infection control solutions with
more than

97 years'
experience

Products distributed
to clinics, hospitals and research
institutions in more than

140
countries

Your Sterilization & Infection Control Partners

Beyond our unmatched range of products, we also manage complete turnkey solutions, including planning, design and installation of equipment, as well as consultation and feasibility studies, for projects of all sizes.



Large Capacity Sterilizers
for Medical Use



Fully Automatic
Table-Top Autoclaves



Manual Table-Top
Autoclaves

