



Hospital Sterilizers

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Sterilization is a complex process. Like any complex process, many things can go wrong. A Hospital depends on its CSSD: Central Sterile Services Department. It cannot afford downtime. The functioning of the hospital depends on it. Lives depend on it.



Hospital Sterilizers

Tuttnauer's first priority is that our hospital sterilizers are reliable 365 days a year efficiently meeting high volume demand. **Our objectives are the same as our customer's objectives: instruments that guarantee sterility with repeatable performance, quick turnaround and minimal product impact.** To do this we incorporate three central values into our products: Quality, Safety and Flexibility.

Quality

Engineered with People in Mind

Tuttnauer autoclaves are built to last longer, perform consistently, and comply with the strictest international standards. Autoclave chambers are constructed of long lasting 316L grade stainless steel with superior corrosion resistance. The chambers are fully jacketed for uniform heat distribution. The generator and piping are constructed of stainless steel. The pneumatic valves are air pressure operated, significantly reducing maintenance. We work to keep our autoclaves state of the art.

Safety

Safety is Our Top Priority

When it comes to the design of our horizontal autoclaves, protecting staff and patients is our first concern. Multi-level safety features prevent accidents and keep the autoclave running without downtime. A Tuttnauer autoclave is a safe autoclave.

Flexibility

Innovative Solutions that Suit Your Needs

The wide range of models and options offered, take healthcare autoclaves a step ahead. In addition, Tuttnauer autoclaves can be customized to meet your facility's unique needs.

With an ideal combination of Quality, Safety and Flexibility, Tuttnauer's healthcare autoclaves are the most advanced, dependable and easy to use sterilizers available today.



Advanced Control System for Your CSSD

Take advantage of Tuttnauer's sophisticated user-friendly control systems for repeatable high performance. Choose either Tuttnauer's sophisticated Bacsoft controller or the Allen-Bradley (AB 1400 PLC) controller.

Standard Features

- 7" Multi-color touch screen panel
- Keypad control panel on second door of two door autoclaves with Bacsoft controller
- Stores the last 200 cycles in built-in memory (Bacsoft)
- Multiple access levels and user passwords to control access/operation of the autoclave
- Diagnostic In/Out test (enables technician to check each system component separately)
- Sterilization Temperature range 105°C to 138°C

Optional Features

- 10" Multi-color touch screen
- 21 CFR part 11
- Up to 8 different barcode readers
- Independent Recording for cross-checking cycle measurements
- Disinfection/Isothermal Temperature range from 70°C to 95°C

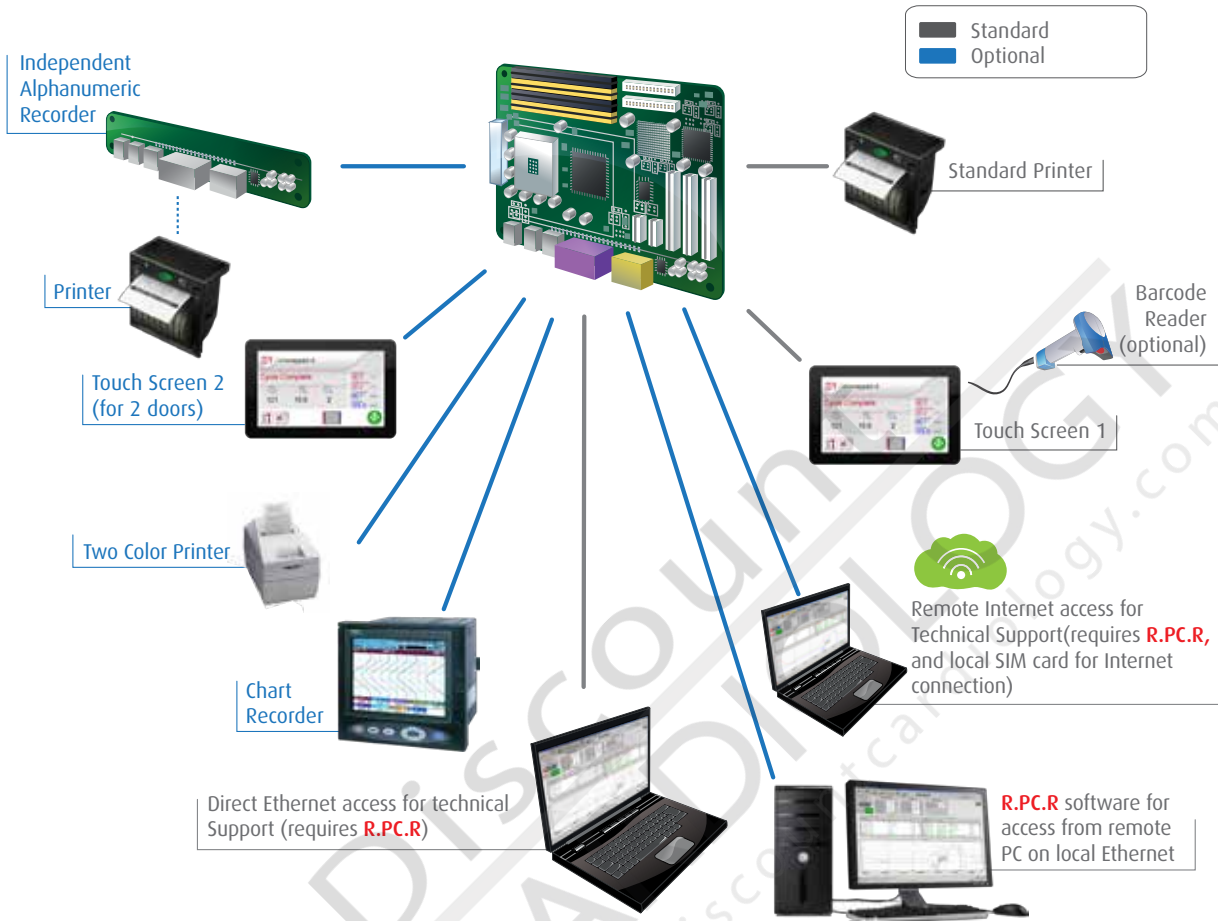
Sophisticated Touch Screen HMI

The HMI (Human Machine Interface) has been designed with the following considerations:

- Multi-color display for easier reading from a distance
- Multilingual (26 languages)
- Graphical display of Temperature and Pressure trend graphs



Bacsoft Controller



R.P.C.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.P.C.R you can see: Graphs of the cycle data, Numeric cycle data, cycle print-outs, measured values table, parameter table.

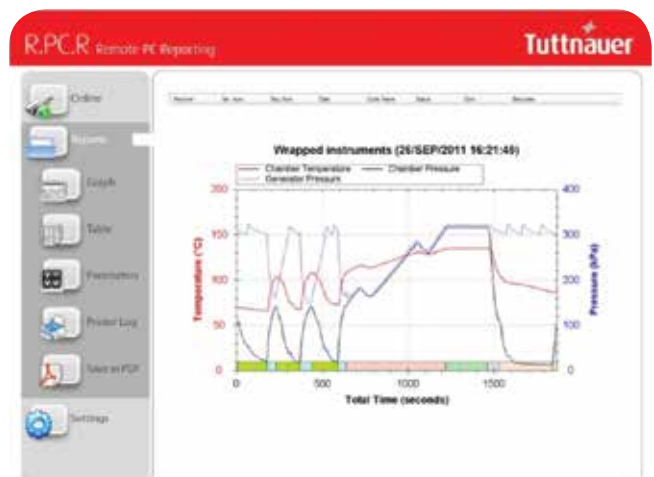
Note:

- R.P.C.R is available with Allen Bradley controller but without monitoring feature
- Optional SCADA system is available with Allen-Bradley controller

Documentation Package

An optional full documentation package is available:

- Installation Qualification (IQ)
- Operation Qualification (OQ)
- Performance Qualification (PQ)



A Flexible Range of Models and Sizes

The T-Max line of autoclaves is designed to comply with the European EN285 standard. The chamber sizes are standardized to accommodate StU (Sterilization Unit) volumes. We offer a full range of models that are available in the Narrow and the Large Capacity series.

There are several considerations when selecting autoclaves: the size of the hospital, instrument turnover rate, application, number of beds, number of operations performed and space requirements. Tuttnauer will be happy to assist you in selecting the right model.

Tuttnauer offers 2 series of T-Max autoclaves:

- The T-Max Narrow Series: holds between 2 to 10 StU units
- The T-Max Large Capacity Series: holds between 9 to 15 StU units

Each line varies in chamber size, door dimensions and door type:

Line	Door Type
T-Max Narrow	Vertical Sliding
T-Max Large Capacity	Horizontal Sliding

In addition to the standard models, Tuttnauer will design customized autoclaves including non-standard chamber sizes. All models are available with either a single or double door.





The T-Max Narrow Series

Tuttnauer Hospital Autoclaves with chamber volumes ranging in size from 175 Liters to 700 Liters accommodating 2 to 10 StU.

The T-Max Narrow Series is available with a fully automatic vertical sliding door.

Model	Chamber Volume (Liter)	StU Capacity	Chamber Dimensions (WxHxD) mm
T-Max 2	175 Liter	2	360 x 710 x 705
T-Max 4	310 Liter	4	660 x 660 x 705
T-Max 6	430 Liter	6	660 x 660 x 990
T-Max 8	565 Liter	8	660 x 660 x 1295
T-Max 10	700 Liter	10	660 x 660 x 1620

Model	EXTERNAL DIMENSIONS (mm)			
	Width		Height	
	Depth		Depth	
	1 & 2 Doors	1 & 2 Doors	1 Door	2 Doors
T-Max 2	1190	2040	1180	1010
T-Max 4	999	1980	1030	1050
T-Max 6	999	1980	1400	1310
T-Max 8	999	1980	1690	1610
T-Max 10	999	1980	2100	1950



Vertical Sliding Door

The T-Max Large Capacity Series

Tuttnauer Hospital Autoclaves with chamber volumes ranging in size from 800 Liters to 1300 Liters, accommodating 9-15 StU.

The T-Max Large Capacity Series is available with a fully automatic horizontal sliding door.



Model	Chamber Dimensions (WxHxD) mm	Stu Capacity	Chamber Volume (Liter)
T-Max 9	660 x 1220 x 990	9	800 Liter
T-Max 12	660 x 1220 x 1295	12	1040 Liter
T-Max 15	660 x 1220 x 1620	15	1300 Liter



■ Horizontal Sliding Door

Safety

Safety is Our Top Priority

Door Safety

The autoclave doors are designed with a number of independent mechanical and digital safety features.

- A safety device prevents the operator from opening the door when chamber is pressurized
- Steam will not enter the chamber when the door is open
- A cycle cannot start if the door is open or not properly locked
- The door cannot unlock until chamber pressure reaches room pressure
- Sliding Door Safety - sliding door progress will automatically stop if an obstruction is detected
- Double Door Safety – interlocks prevent both doors from being opened simultaneously

General Safety Features

- **Double Independent Monitoring:** The combined electronic and mechanical monitoring ensures that the operator has two independent means to monitor pressure
- **Safety Valves:** If the pressure exceeds the allowed limit the safety valves will discharge
- **Built-in Steam Generator Safety:** A water level monitoring system maintains a constant water level and ensures safe operation of the heaters
- **Emergency shut-off:** Easily accessible emergency switches for immediate cycle shut-off

Loading Equipment

Our loading equipment assists the loading and unloading process. It is made of high quality, durable stainless steel. We offer three options:

- **Pull Out Trays.** Stainless steel trays equipped with rails for easy loading and unloading. The rails are designed to prevent the trays from rolling over.
- **Loading Carts and Transfer Carriages.** The adjustable loading cart rolls from the transfer carriage onto the interior chamber tracks for easy handling of heavy loads. The trolley is equipped with revolving wheels, maximizing mobility in limited space. The wheel breaks prevent the trolley from rolling and the carriage is equipped with a lock that prevents it from sliding.
- **Automatic Loader.** Designed for loading/unloading baskets. The control of the loader is controlled by the autoclave controller.



Additional Solutions

Tuttnauer offers multiple solutions that answer unique requirements, enhance hospital sterilization procedures, and ensure a safe and pleasant work environment.

Advanced sterilization cycles for special needs such as a low temperature streaming steam cycle, a disinfection program, an F₀ factor or advanced liquid sterilization programs.

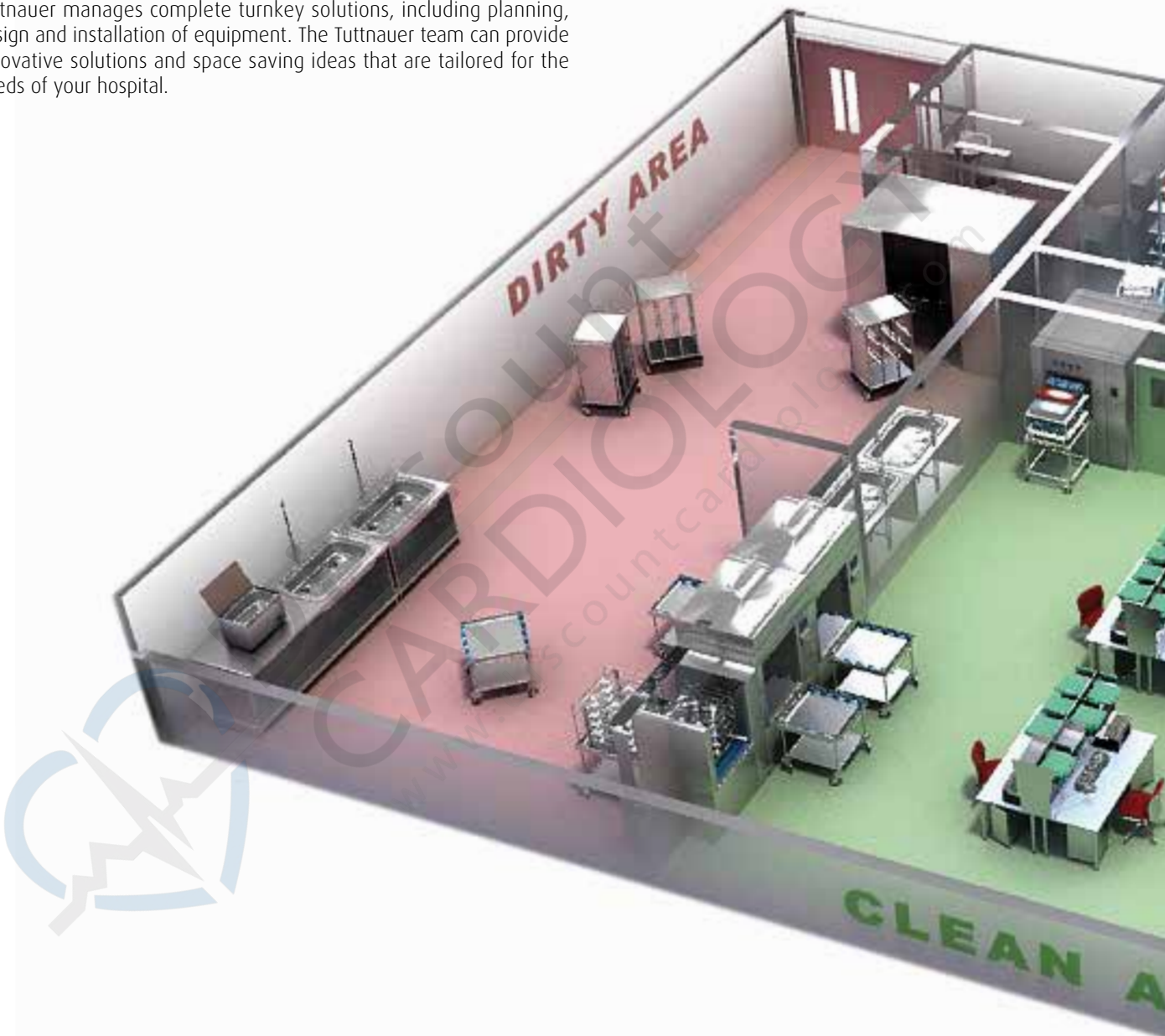
Advanced operation features include a multipurpose valve that can function as a backup in case of power failure, or an automatic shutdown or restart feature that economizes on energy.

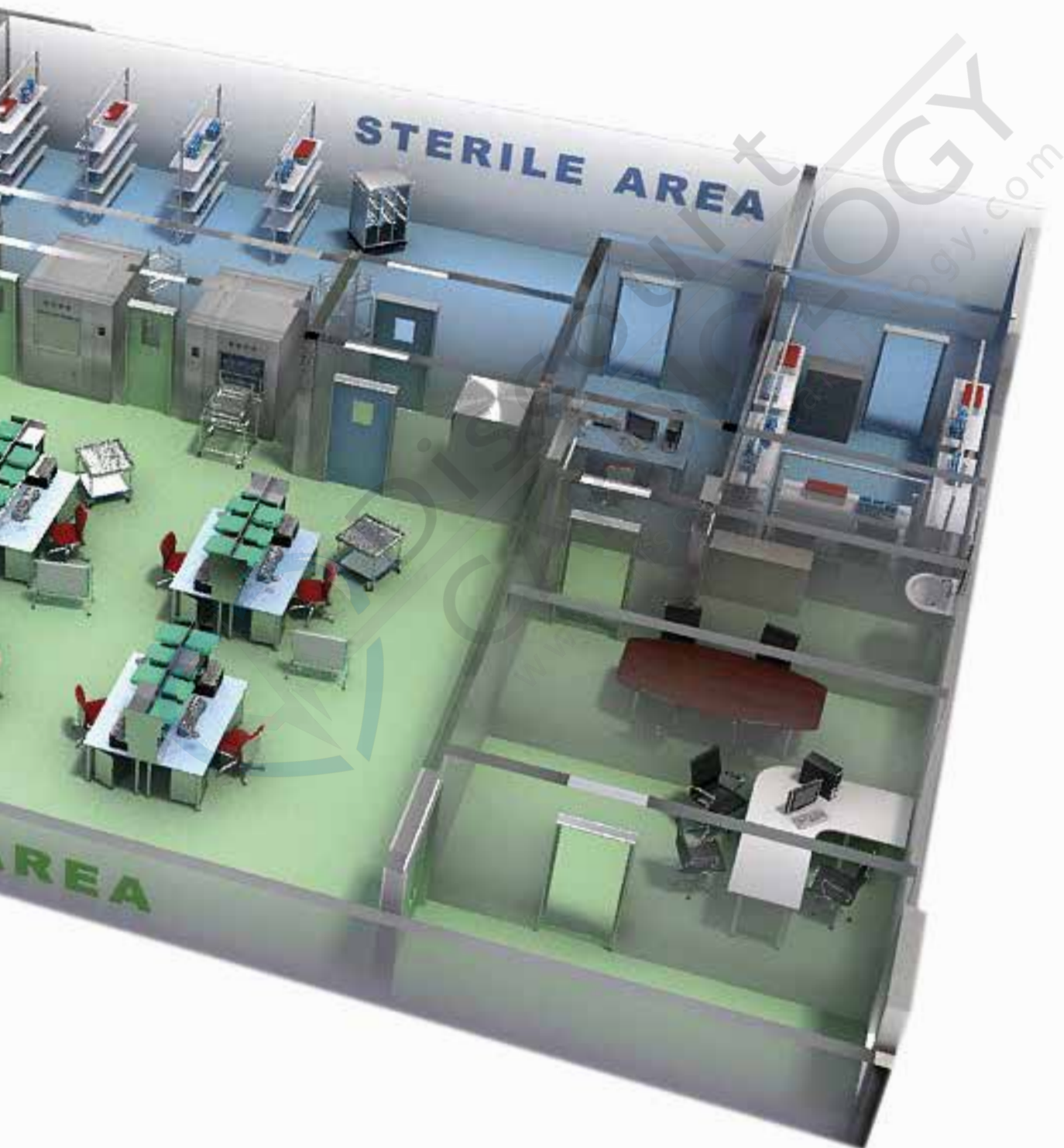
Clean steam options include: clean steam generator, stainless steel piping, components and fittings, and high grade stainless steel chamber.

CSSD Design

The design of a central sterile supply department requires many considerations: Proper design of areas within the department, choosing the right equipment and understanding the needs of the OR.

Tuttnauer manages complete turnkey solutions, including planning, design and installation of equipment. The Tuttnauer team can provide innovative solutions and space saving ideas that are tailored for the needs of your hospital.





Standards

Our high quality medical waste autoclaves are designed to comply with the strictest international directives and standards in all aspects of waste treatment and waste disposal.

- EN 285: 2006+A2: 2009 for Large Steam Sterilizers
- DIN 58951-2:2003 Steam Sterilizers for Laboratory

Directives & Guidelines

- 97/23/EC - Pressure Equipment Directive
- 2002/95/EC - RoHS Directives
- 2004/108/EC - Electromagnetic compatibility
- 2006/95/EC - Electrical equipment
- 2006/42/EC - Machinery Directive

Safety and EMC Standards

- EN 61010-1: 2001, EN 61010-2-040: 2005, EN 61326-1: 2006
- EMC Directive 89/336
- EN 60529:1991 - Degrees of Enclosure Protection (IPX4)

Pressure Vessel and Steam Generator Construction Standards

- ASME Code, Section VIII, Division 1, unfired pressure vessels
- ASME Code, Section I, for boilers

Good Practice Standards

- ISO 17665-1: 2006
- ANSI/AAMI – ST 8: 2008

Quality System Compliance

- ISO 9001: 2008 (Quality Systems)
- ISO 13485: 2003 (Quality Management Systems for Medical Devices)
- 21 CFR part 820



Your Sterilization & Infection Control Partners

Company Profile

For over 88 years, Tuttinauer's sterilization and infection control products have been trusted by hospitals, universities, research institutes, clinics and laboratories throughout the world. Supplying a range of top-quality products to over 100 countries, Tuttinauer has earned global recognition as a leader in sterilization and infection control.

More from Tuttinauer:

Featuring Tuttinauer's range of cleaning, disinfection and sterilization solutions



Horizontal Line of Large Sterilizers



Washer disinfectors for hospitals and laboratories



Laboratory autoclaves ranging in size and application



Pre & post vacuum tabletop sterilizers designed to perform class B cycles



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