

**TAIMAZ**

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Partner



# Selectomat® PL Compact Line Steam sterilizer



High performance on a small footprint

# High-quality sterilization technology with a small footprint



The performance of a CSSD is measured by the machine capacities and the available space – a conflict which poses a genuine challenge to the planning. MMM offers a perfect solution: **Selectomat® PL** – Compact Line.

The compact design of the steam sterilizer **Selectomat® PL** – Compact Line, combines sophisticated technology and a very small footprint. The high-quality design and "Made in Germany" manufacturing, offers a user and service-friendly handling thanks to its modular conception.

Naturally, all MMM sterilizers of the **Selectomat® PL** series are manufactured in compliance with all European legal requirements necessary to bear the CE label (according to e.g. 93/42/EEC as amended by directive 2007/47/EC, 97/23/EG as amended by 2014/68/EU, 2011/65/EC). MMM sterilizers comply with strict European and international technical standards (e.g. EN 285) and meet the highest demands for quality and safety.

The Integrated Management System and its processes – ranging from development and manufacturing to customer service – are certified according to ISO 9001 / ISO 13485 Quality Management System, ISO 14001 Environmental Management System and ISO 50001 Energy Management System.



995 mm



## Customized sterilizing chamber

The central component of every steam sterilizer is the sterilizing chamber. The interior walls of the cubic pressure vessel from MMM are of a stainless steel design (1.4404 / AISI 316L) with peripheral ring channels as casing (1.4571 / AISI 316Ti). MMM designs its own pressure vessels and manufactures them in its own production plants in order to always guarantee highest quality.

The high-quality chamber surface is polished and is available in two different finish. The pressure vessel is designed for a relative excess pressure of at least 3.2 bar.

The sloping chamber floor is a standard design element which facilitates the draining of the condensate. It allows optimal drying even in short cycle times.

## Chamber sizes and dimensions

Type	1 door	2 door	Capacity in StU	Chamber dimensions in mm (H x W x D)	External device dimensions in mm (H x W x D)	Chamber volumen in (lt.)	Electrical power (kW)	Weight in (kg)
636	•	•	2	670 x 360 x 700	2400 x 840 x 990	160	16,5	760 / 770
666	•	•	4	702 x 652 x 690	2400 x 995 x 990	314	24	1020 / 1060
669	•	•	6	702 x 652 x 990	2400 x 995 x 1290	453	38	1120 / 1160
6612	•	•	8	702 x 652 x 1340	2400 x 995 x 1640	610	47	1300 / 1360
6618	•	•	12	702 x 652 x 1940	2400 x 995 x 2240	883	56	1550 / 1550

- Loading height 850 mm
- Machine height incl. 100 mm base
- For single-door devices, the device depth is reduced by 20 mm
- Machine height for transport 1900 mm (with removed upper part)

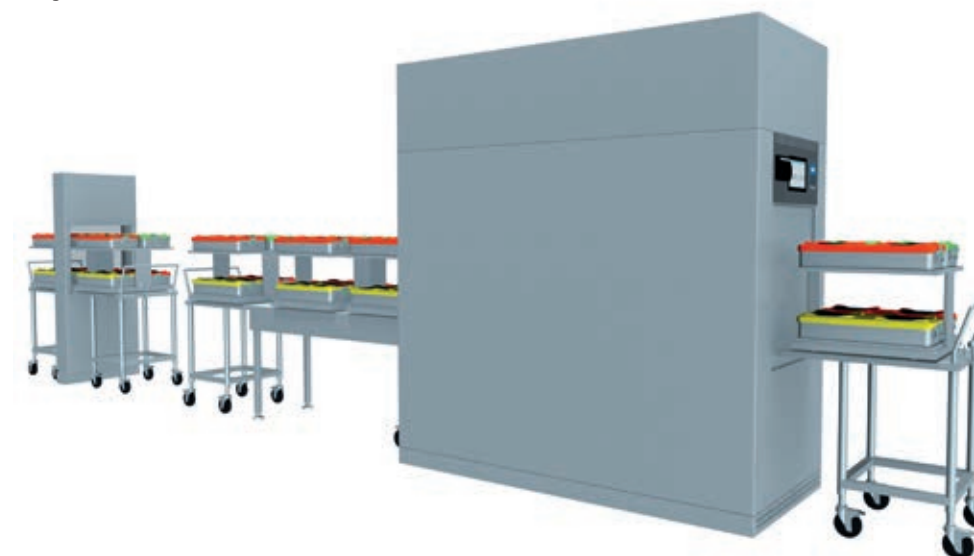
Technical specifications subject to change without notice.



## Automatic unloading

The manual loading and automatic unloading system enables working in the CSSD with even greater flexibility. As soon as the cycle is completed, the batch is automatically conveyed onto the unloading ramp for cool down outside of the chamber.

The ramps can also be combined with automatic sliding windows or passing-through hatches for return of the loading carts from the sterile to the non-sterile side.



## Energy Management



### Water saving vacuum unit

To conserve the precious resource of water, the switching points of the two-step vacuum pump are perfectly adapted to the sterilizer's program run and results in a low water consumption and short cycle times.

The specially developed water-saving system reduces the water consumption even further and without power limitation.

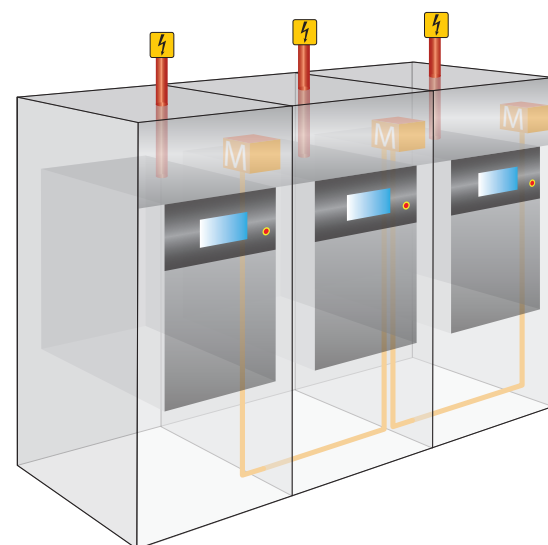


### MMM Energy Manager

Optional machine device for every sterilizer that regulates electrical power consumption if multiple sterilizers are connected.

The energy manager coordinates the timing of the programs to ensure that the power consumption of the steam generator is as consistent as possible. The connected machines are networked and request the status of the other machines before starting the program. Depending on the result of this request, the machine signals whether it is ready to start. The process step from which the next machine is released can be set depending on the performance of the connection. The internal steam generator also operates with significantly reduced heating performance during phases of reduced steam requirement (ready for operation, pressure release, drying, unloading).

These measures reduce the required peak power, which allows the building connection to be reduced accordingly.



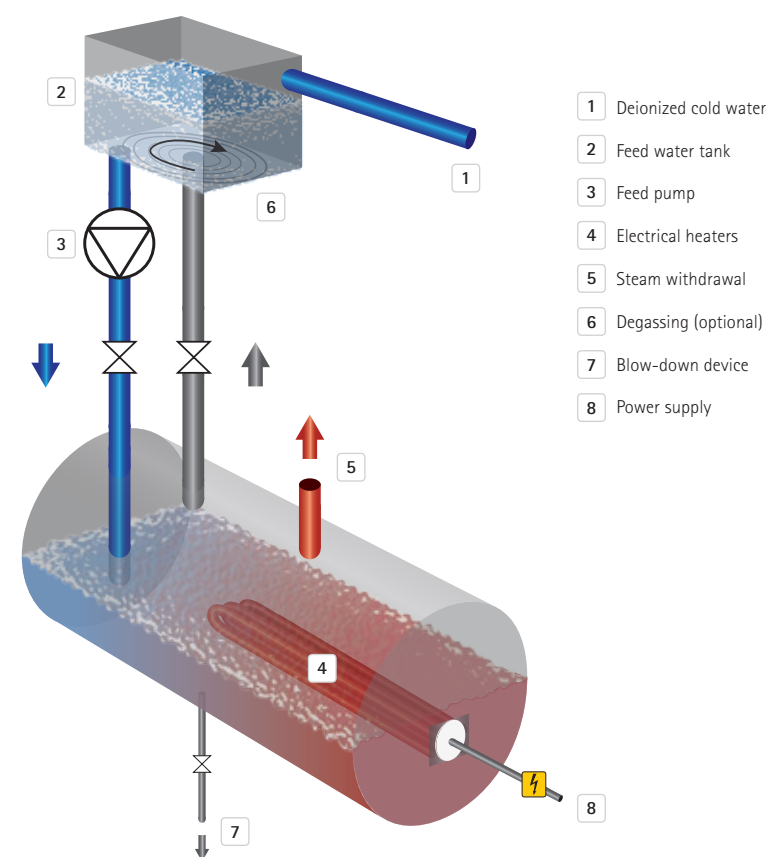
## Integrated electrical steam generator

The low-noise electrical steam generator requires little energy and supplies a high output. It was particularly developed to suit the demand of facilities without central steam supply. The boiler output can be individually adapted to the demand of the sterilizer connected.

MMM steam generators stand out due to their long service life and the high quality of the clean steam they provide. For that purpose, the boiler feed water is thermally degassed (optional) to keep the amount of non-condensable gas contained in the sterilization steam as low as possible. This process is continually controlled and monitored by temperature probes.

The same applies to the boiler water quality which is kept on a constantly high level through automatic blow-down. Thus, any impairments caused by deposits or corrosion are avoided in the first place, the life-time of the boiler components is prolonged and the instruments are protected during sterilization.

The control system of the steam generator is integrated into the sterilizer's control system.





# Compact but powerful

Smart technology with a small footprint

## Technology

- Maximum width of only 995 mm
- Vertical door movement, steam operated door seals with long service life for optimal process safety
- Electrically heated, integrated clean steam generator with various power levels depending on the chamber size with automatic blow-down
- All pipes, fittings and valves in contact with process steam are made of stainless steel
- Pneumatically driven steam valves
- Colour-coded pipe insulation
- Polished chamber surface Ra 1.25 µm (Standard)
- Modern engineering and sturdy construction ensure high reliability
- Industrial PLC control system by B&R
- Smart HMI with 16:9 colour touch-screen:
  - Loading side 10"
  - Unloading side 7"

## Economy & Safety

- No lateral service access required as service access is from the front
- Separate steam feeding of chamber and jacket
- Interface to tracking and tracing system (EcoSoft)
- Wide variety of pre-adjusted standard programs
- LED chamber illumination
- Low-noise and water saving two-step vacuum system
- All machine components meet the highest safety standards
- Hygienic, easy-to-clean design – both outside and inside

### Selectomat® PL - Compact Line Highlights

- ✓ Machine width of 995 mm
- ✓ Smart HMI 10" / 16:9
- ✓ Water saving vacuum system
- ✓ LED chamber light



## Key options and accessories

- Polished chamber surface Ra 0,8 µm
- Built-in printer
- A4 batch protocol printer
- Barcode scanner
- ISA – Intelligent Service Advisor
- Remote maintenance
- Air detector
- Machine base or height-adjustable feet
- Monitoring of compressed air and cold water pressure
- Chamber pressure manometer external
- Degassing of feed water to the clean steam generator
- Energy manager
- Program stop button
- Condensate cooling
- Autostart for pre-selected programs
- Program for countries with high temperatures
- Pipe separator for cold water
- Emergency door opening in case of power cut
- Wide range of loading carts and transport trolleys (compatible to Selectomat® PL)
- Automatic unloading ramps

## Loading Equipment

Type	Chamber size				
	636	666	669	6612	6618
Charging with insert plate	•	•	•		
Transport cart	•	•	•	•	•
Loading cart with one or two shelves	•				
Loading cart universal		•	•	•	•
Loading cart special		•	•	•	•
Additional shelves for loading cart universal		•	•	•	•
Automatic unloading ramp		•	•	•	•



Loading cart universal



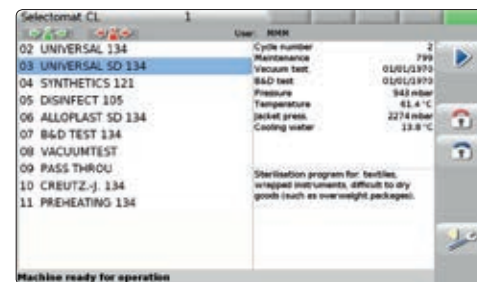
Loading cart special

## The MMM Smart HMI – clear and appealing

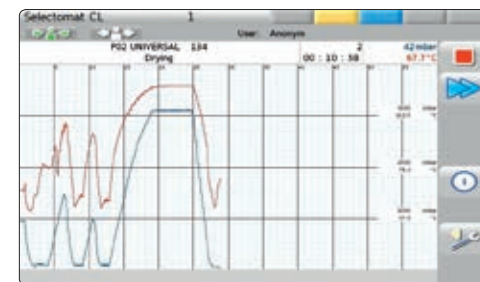
The human-machine interface is only one component of the MMM concept for making the work of the operating personnel easier. The visualisation of the navigation through the colour touch display appears in friendly colours and unambiguous symbols and text. All process-relevant information, such as device status, process step, values and graphs, is available at a glance on the display. The remaining time of the program is displayed in numbers that can be viewed from a distance, allowing the workflow to be optimized without waiting times.

### Ease of operation

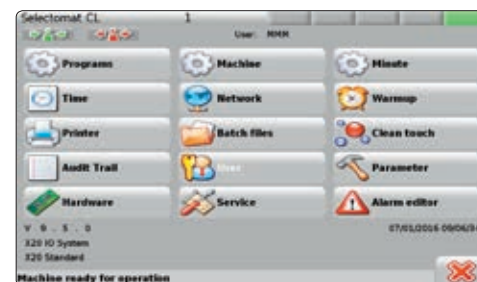
- Intuitive navigation on a colour touch display
- 10-inch display 16:9
- Large remaining time display 7" on unloading side
- Easy operation
- Easy to clean
- Integrated printer on unloading side



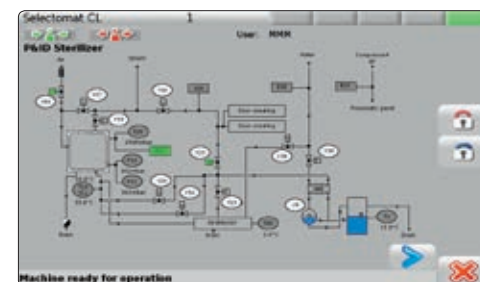
Program selection



Process data visualization



Service menu



P&ID of sterilizer

## The Control System

The control system offers immense resources and enables extremely dynamic configurability, allowing all project-specific details to be taken into account individually. This control module demonstrates its flexibility not least through the options for printing the log. The options include a built-in printer integrated in the front of the sterilizer or a DIN A4 printer, either directly connected to the controller or connected over a network.

### Precise process regulation

- Established industrial controller without mechanical moving parts
- Ethernet interface on the controller for optimal networking
- Redundant sensors for the highest process safety
- PPV system: Process Parameter Validation
- Ethernet interface to documentation system (EcoSoft)

## The Software – a clever solution

The MMM software is validated in accordance with DIN EN 62304 "Software Lifecycle Processes" and thus fulfils the highest standards. The sophisticated parameter structure enables a high degree of flexibility in the configuration of the machine. Up to 50 programs can be configured at the same time. If the unit is not used for a long period of time, an energy-saving idle mode is activated.

### Individual machine configuration

- Continuous monitoring of all measured values
- Precise regulation of the actuators
- Barcode reading system with automatic program selection
- User IDs and user management
- Automatic early start for optimal time management

### The following programs are standardly preset

- **Universal 134°C**  
for packaged laundry and instruments program
- **Universal SD 134°C**  
for instruments, especially for super heavy trays
- **Plastics 121°C**  
for packaged products with lower heat resistance
- **B & D test 134°C**  
Bowie & Dick test, test program for steam penetration test
- **Vacuum test**  
Program for automatically testing the air-tightness of the chamber
- **Passing through**  
Program for returning empty loading carts
- **Creutzfeldt-Jakob program 134°C**  
Sterilization program for products suspected of CJD
- **Preheating**  
Program for preheating the sterilizer

### In addition, the following programs are optional available

- **vCJD (Prion cycle)**
- **Alloplast (f. ex. breast implants)**
- **Airdetector Test Program**
- **Disinfection**



## MMM customer service: Efficient and reliable

### Service-friendly construction

From the very beginning, MMM design engineers took into account the demands of customer service to allow time- and cost-saving maintenance. **Selectomat® PL** - Compact Line offers a clear arrangement and an easy accessibility of all components:

#### Ease of service

- Easy service access from the front
- Control cabinet according to IP 54 installed in a pivotable frame
- All sensors are plug connections
- Front panels can be opened without being disassembled
- HMI with piping plan P&ID scheme of the steam sterilizer and steam generator
- Clear visualization of device states (actuators, sensors, pumps, etc.)

### ISA - Intelligent Service Advisor



ISA is an optional software program for MMM reprocessing machines in CSSDs, which facilitates the communication between man and machinery. ISA sends text messages or e-mails with important information about the machine status to single or multiple defined recipients, for instance, operator, the CSSD management, the facility manager or MMM customer service. This information provides greater liberty and flexibility to manage the workflow, making work in CSSD more efficient and smooth.

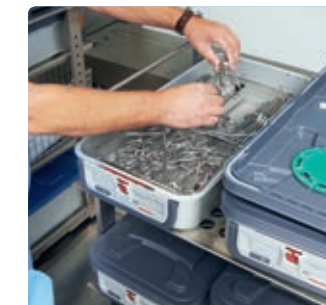
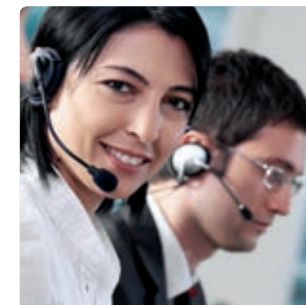
Our knowledgeable service organization is available to you around the clock, ensuring long-lasting, trouble-free operation of the installed systems. Thanks to our branches and representative offices optimally distributed world wide, we are always nearby and can very quickly be on site in an emergency.

The sophisticated and innovative design of our systems and devices makes it in many cases possible to quickly rectify functional impairments with a remote diagnosis by qualified personnel. On the basis of professional maintenance planning, we guarantee you the highest degree of availability of your systems.

It is our goal, however, to ensure that no problems occur. We do not hand over the systems to you until everything is running flawlessly, all programs have been validated and accepted in accordance with your individual items to be cleaned, and the operating personnel have been trained in the use of our systems.

In addition to performing maintenance and repair, we also make sure that the installed systems are up-to-date. With tailored solutions for adaptation to changed situations, for optimization of consumable materials and for continuous adjustment to individual needs and legal requirements, the service life and cost-effectiveness of the systems are increased and the investment is secured.

- Maintenance planning
- Inspection and maintenance
- Repair
- 24-hour hotline
- Spare parts logistics – 24-hour service
- Upgrade service
- Process validation
- Training & Education





#### MMM Group

MMM has been operating worldwide as one of the leading system providers in the service of health since 1954. With a complete range of products and services relating to all aspects of cleaning, disinfection and sterilization systems for the areas of **Healthcare** and **Life Science**, MMM has positioned itself as a crucial quality and innovation driver in the German and international

market. Our products are individually adapted to the requirements of our customers all over the world. The high vertical range of manufacturing in our production plants ensures that we fulfil the strictest demands of quality in the medical technology sector. More than 1100 employees apply their expertise and dedication to the mission of the MMM Group: **Protecting human health.**

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