



MM

MMM Group



# Unotherm

Intelligent and rigorous.

A distinctive electric steam generator.  
Safe operation with double protection.  
Fits almost any space.

MMM.  
Protecting  
human  
health.

# Unotherm

Independent clean steam supply.



## Powerful and compact.

Small and perfectly proportioned: you won't find a more compact device of this kind on the market! The Unotherm can be installed on top of or next to a sterilizer, between two sterilizers or in a row, or as an individual system. It can even be installed in a utility room or laundry. The Unotherm electric steam generator is the equivalent of a muscle man with brains.

MMM has developed this quiet clean steam generator according to the requirements of facilities without a central steam supply or those that need cost-efficient steam generation in an emergency or over a week-end. The Unotherm steam generator achieves peak performance with low energy consumption.

The boiler output can be adjusted to the demand of the sterilizer connected to it. The Unotherm is available from 36 to 81 kW rated power at 9 kW gradings.

**The customer's advantage:** low power input, high steam output.

## Reliable and safe.

When MMM engineers developed Unotherm, every component was carefully examined for its functionality, cost effectiveness and safety. The result is a powerful and intelligent electric steam generator with valuable features that benefit our customers.

For example:

The amount of non-condensable gas contained in sterilizing steam must be as low as possible. To achieve this, the boiler feed water is thermically degassed, a process, which is controlled and monitored by Pt100 temperature probe.

We have made automatic desalination a standard element in the Unotherm. This process is controlled through electrical conductivity of the boiler water. Water is kept at a constantly high quality level which helps prevent damage caused by deposits and corrosion. In addition, it prolongs the lifetime of the boiler and is gentle on instruments during sterilization.

Unotherm electric steam generator needs no additional fresh water connection for the cooling of the desalination water. A heat recovery system allows this energy to be used for warming up feed water.

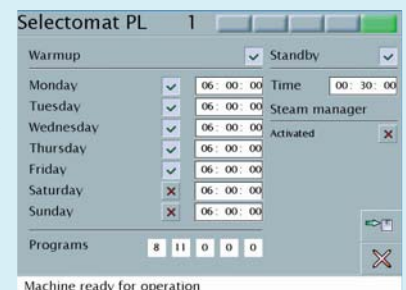


All steam or feed water pipes and components are made of stainless steel.



Illuminated water gauge

If used in combination with a Selectomat PL, the Unotherm will automatically warm up the MMM sterilizer.





No additional fresh water connection is required: heat recovery system in the feed water tank.

## Cost-effective and ahead of it's time.

### Heat current.

The current for the heating elements is supplied by power contacts and controlled by downstream solid state relays. The alternated triggering of long-lasting, solid state relays ensures that all heating elements are charged at the same low level, which prevents wear and tear. In case of serious malfunction, independent safety equipment disconnects the power supply.

### Water tank.

The Unotherm steam generator is equipped with a large water reservoir that serves as a power reserve and reduces the total peak load.

**The customer's advantage:** Only a low electric connection power is required.

### Validation.

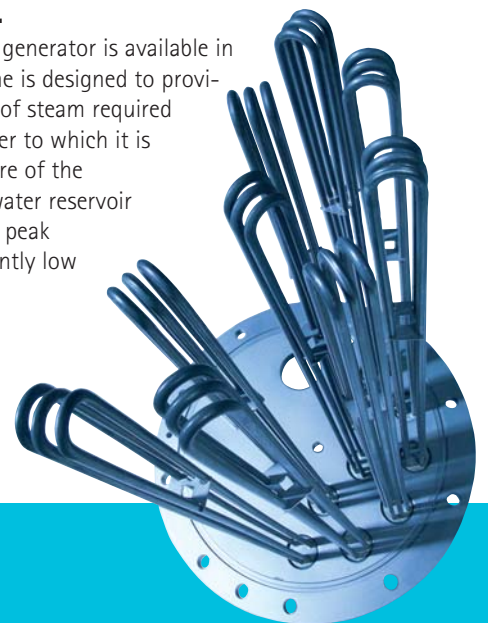
The excellent validation results of disinfection and sterilization processes have been given added impetus by the consistently high steam quality delivered by the Unotherm.

### Safety.

We have incorporated additional, independently functioning safety equipment to protect the steam generator and its working environment and to ensure a high operational reliability. Hard- and software components are monitored by separate control systems.

### Energy demand.

The Unotherm steam generator is available in various sizes. Each one is designed to provide the exact amount of steam required for the size of sterilizer to which it is connected. This feature of the Unotherm, plus the water reservoir result in a low power peak demand and consistently low energy consumption.



- Low connection power, high steam power
- High installation flexibility
- Compact design
- Low energy demand
- Long-lasting solid state relays
- High reliability



## MMM Group

As one of the world's leading suppliers of sterile processing systems, MMM has been working actively to promote good health since 1954. With a full range of sterilization and disinfection products and services – that can be found in every branch of health-care from hospitals and scientific institutes, to laboratories and the pharmaceutical industry – MMM, has over the years, consolidated its position as a pioneer of quality and innovation both in the German and international market. In our two production facilities based in Stadlern, Germany, and Brno, in the Czech Republic,

we manufacture products that meet the highest demands of our customers world wide. The depth and precision of production standards at both plants ensure that we accomplish the rigorous quality requirements of medical engineering.

900 competent employees work together as a committed and enthusiastic team, dedicated to achieving the mission of the MMM Group.

**Protecting human health.**



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