

# The Premium-Class Evolution

The benchmark for steam sterilizers



Record sterilization of up to  
9 kg of instruments in 8 to 25 minutes



# The Evolution series

## The best made even better!

MELAG's decades of experience in the field of practice and large autoclaves has allowed the development of particularly innovative and energy-efficient steam sterilizers. The Premium-Class Evolution series provides unique advantages for those looking to realize the most, time and cost-effective workflow.

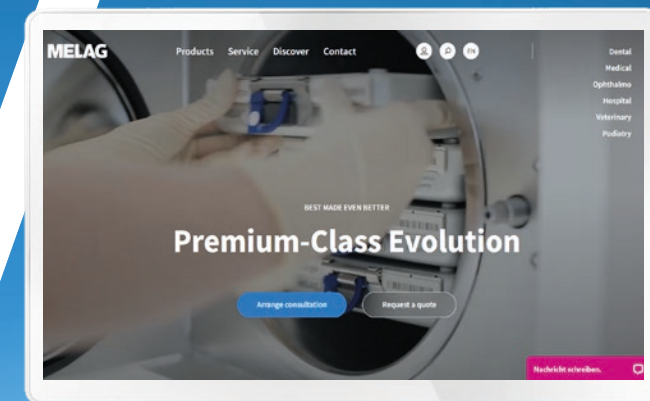


## The double-jacket technology

**A MELAG patent since 2007:** The Evolution series has high-quality, double-walled sterilization chambers, as are also used in large steam sterilizers for hospitals. This patented double-jacket technology supports rapid removal of air from the sterilization chamber, sterilization packs, MELAstore® Boxes, and also from the cavities of instruments. This technology ensures a particularly effective sterilization process with the highest saturated steam quality.

## The product highlights:

- ✓ **Patented double-jacket technology:**  
Record operating times of 8 - 25 minutes (incl. pre-vacuum and plus drying) guarantee even faster instrument availability.
- ✓ **Patented DRYtelligence®:**  
The intelligent system makes for the perfect drying results whilst shortening the drying time by up to 80 %.
- ✓ **High loading capacity:**  
The Mount Universal for up to 8 trays or 3 MELAstore® boxes enables efficient utilization of the maximum load capacity of up to 9 kg.
- ✓ **XXL colour-touch display:**  
Documentation and approval is performed quickly, safely and paper-free directly on the display of the autoclave.



Discover the product highlights at:  
[www.melag.com/en/products/autoclaves/premium-class](http://www.melag.com/en/products/autoclaves/premium-class)



## Our priority is your satisfaction



*„Quality, efficiency and the great reliability of the Evolution series ensure optimal workflows: This allows us to focus even better on treating our patients.“*

Unident Union Dental Spa,  
Wroclaw, Poland



*„The speed of the Premium-Class Evolution, the intelligent drying and the Eco-Mode enable us to sterilize many instruments safely and cost-efficiently in a very short time.“*

Dental Clinic Frank Bachmann,  
Göttingen, Germany



*„No compromises in instrument reprocessing: Vacuklav® 40 B+ Evolution ensures a fully documented sterilization process combined with perfect drying results.“*

Clinica Veterinaria CMV,  
Varese, Italy





## The benchmark for steam sterilizers

Besides the typical MELAG features such as record operating times, intuitive operating concept, integrated documentation and approval, the steam sterilizers of the Evolution series offer a range of unique innovations, which can only be developed in this perfection by a specialist for infection control and instrument decontamination.

The focus of the Evolution series is the combination of even shorter operating times and thus faster instrument availability and energy savings.



### 1. Save time and energy

The patented DRYtelligence technology is a unique innovation from MELAG: This intelligent drying technology is based on a sensor-controlled drying function. A specially developed algorithm allows the drying to be automatically adapted to the individual load of the steam sterilizer. Wrapped and unwrapped instruments in a full or partial load are automatically dried through DRYtelligence within a load-specific period of time.



### 2. Work efficiently

The load volume of the Evolution series is an impressive 9 kg. This makes the Evolution steam sterilizers one of the most powerful in their category.

To be able to ideally sterilize these large load volumes in our Evolution series, new mounts were developed, which ensure optimum use of the chamber capacity.



### 3. Document securely

The XXL colour-touch display with a modern so-called "flat-design" allows intuitive handling at the highest level. The Evolution series also includes integrated software for documentation, approval and tracking.

Directly connected to the MELAprint® 60 label printer or via a network with the documentation management system, these steam sterilizers give each practice and clinic their individually requested documentation concept.



With the button on the front of the device, the Evolution series is put into sleep mode with just one push and are reactivated just as quickly. Therefore the power consumption, which is already low, can be reduced even further.

Up to 4 MELAstore® Box 100 can be sterilized in the Evolution series in a record time of just 30 minutes. This is an absolute record operating time.

## 1. Save time and energy

The rapid re-availability of safely sterilized instruments and the re-use of consistently well-dried instruments is of particular importance in practices and clinics. The patented double-jacket technology is the key prerequisite for the short operating times.

The Evolution series also contains the patented DRYtelligence technology. This intelligent drying is based on a sensor-controlled drying function. A specially developed algorithm allows the drying to be automatically adapted to the individual load of the steam sterilizer. Wrapped and unwrapped instruments in a full or partial load are automatically dried through DRYtelligence within a load-specific period of time. DRYtelligence not only guarantees optimum drying results at any time, but also shortens the drying times by up to 80 %! The shortened drying times also mean reduced operating times and savings in energy and costs.

## 2. Work efficiently

The load volume of the Evolution series is an impressive 9 kg. This makes the steam sterilizers one of the most powerful in their category. To be able to ideally sterilize these large load volumes in the Evolution series, new mounts were developed, which ensure optimum use of the chamber capacity. Additional tray levels (up to eight trays) increase the capacity and also enable the sterilization of individually wrapped handpieces and turbines, for example, in combination with further MELAstore® Boxes.

This means: fewer sterilization cycles, less energy consumption and lower costs. For smaller quantities of wrapped instruments, the Quick-Program B offers a record operating time of only 20 minutes and unwrapped instruments can even be sterilized in just 10 minutes including drying.

Maximum flexibility and efficiency: Benefit from the sterilization capacity of up to 4 MELAstore® Boxes 100 or 2 MELAstore® Boxes 200 in just one cycle - now also for cataract surgery sets in combination with the specially developed MELAstore® Tray Ophthalmology.



**Program selection:**  
Learn more about selecting the right sterilization program in our video tutorial.



**Routine checks:**  
Please check your autoclave for proper functionality by performing the vacuum and helix test.



**Loading:**  
Correct loading is the basis for optimum sterilization and drying results.



**Batch approval:**  
Our video tutorial introduces you to the documentation and approval process with the Evolution series.





# Additional device features that simplify your work

It is often the small tools that facilitate everyday work. The diverse options of the Evolution series helps to make work processes simpler, safer and more comfortable.



## Start time preselection

The start time preselection makes it possible to choose any program and to start at any chosen time, such as for routine test programs.



## Conductivity measurement

To protect your valuable instruments, all steam sterilizers are not only fitted with especially powerful temperature sensors, but also with an integrated water quality measurement method, which warns against using insufficient water quality.



## Media board

The new media board gives the personnel fast access to critical components, such as the pressure display of the double-jacket or the interface for technical service.



## Flex display conversion kit

The flex display can be ordered as an option. It is connected to the Premium autoclave via a 1.5 m cable and can be mounted on a wall or placed on top of or next to the autoclave. The flex display allows the autoclave to be placed where wall cabinets are only 50 cm high.

## 3. Document securely

The XXL colour-touch screen display with a modern so-called “flat-design” enables intuitive operation and thereby helps to avoid errors and to find all important information quickly. The standard integrated documentation and approval software allows for complete reproducibility and complete safety.

All users can be equipped with an individual PIN for secure traceability of the batch approval. The documentation and approval process is authenticated fast and securely on the display.

The Evolution series offers many more possibilities for documentation – starting with the network integration via the Ethernet interface, to the printout of barcode labels for the marking of wrapped instruments, through to the output of the log files to the CF card.



## MELAt race®

The documentation software MELAt race® provides the perfect solution for practices and clinics that would like to securely document and approve their complete hygiene workflow. MELAt race® makes it possible to connect all steps of the instrument decontamination, from cleaning and disinfection, to wrapping through to sterilization. All process steps, program protocols and the decisions related to instrument decontamination are fully documented and archived securely.

Barcode labels can be printed using MELAprint® 60 in order to trace the load instruments, to easily read them using a scanner and to pass them on to the practice management software.

## The Evolution series in combination with MELAdem®

Save time and money that you would require when purchasing, transporting, storing and filling demineralized water in your steam sterilizers and instead, connect your Evolution series to a water treatment unit. If there is a water supply and water drain near the steam sterilizer, you not only automate the filling and dosing, but also the drainage of the used water. From the small practical MELAdem® 40 to the highly economical and environmentally friendly reverse osmosis system MELAdem® 47, through to the high-performance system MELAdem® 53 (for simultaneous connection of washer-disinfectors), we offer the right solution for every desired application.



Learn more about the quick replacement of MELAdem® cartridges in our video tutorial.





## Diversity in four models

Since practices and clinics have different requirements for operating steam sterilizers, our Evolution series is available in four designs. The designs differ in the type of vacuum generation, water intake and chamber depth.



### Device design: Tap-water connection

Vacuklav® 40 B+ Evolution and Vacuklav® 44 B+ Evolution: These steam sterilizers have a fixed water connection and, through the innovative water cooling of the vacuum pump, they represent the ultimate benchmark not only in terms of operating times and handling, but also for quality and reliability.

#### Vacuklav® 40 B+ Evolution

Chamber: Depth 35 cm, ø 25 cm, volume 18 litres

**Order no.** ME10080

#### Vacuklav® 44 B+ Evolution

Chamber: Depth 45 cm, ø 25 cm, volume 23 litres

**Order no.** ME10084



### Device design: Stand-alone

Vacuklav® 41 B+ Evolution and Vacuklav® 43 B+ Evolution: These steam sterilizers have an efficient air-cooling system, which makes them real “stand-alone” steam sterilizers. They only need to be connected to an electrical outlet for operation. But, of course, all four devices can be connected to a water treatment unit for the direct supply of demineralized water.

#### Vacuklav® 41 B+ Evolution

Chamber: Depth Tiefe 35 cm, ø 25 cm, volume 18 litres

**Order no.** ME10081

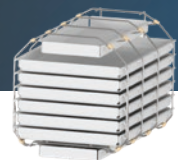
#### Vacuklav® 43 B+ Evolution

Chamber: Depth 45 cm, ø 25 cm, volume 23 litres

**Order no.** ME10083

## The right solution for all areas of use

In order to allow each practice or clinic to individually organise the instrument decontamination workflow, we offer the new Mount Universal for optimal loading of the steam sterilizers with wrapped or unwrapped instruments or with MELAstore® Boxes.



#### Mount Universal - 1 mount, 1,000 possibilities:

The Mount Universal enables the flexible combination of up to 8 trays and up to 3 MELAstore® Boxes for loading the autoclave to suit your individual workflow.



The mounts are designed for particularly easy handling in daily operation. If even 4 MELAstore® Boxes are to be held, these can also be easily inserted into the steam sterilizer without a mount.



## The MELAG system solution

The use of ideally compatible products from our system solution saves time and costs right from the beginning due to a better workflow of the instrument decontamination process. Another practical benefit of the system solution is especially in the saving of service costs. If the steam sterilizer, the washer-disinfector, the sealing device and the water treatment unit are provided by the same manufacturer, the appointments with technicians for maintenance and validation can be synchronised and thus planned in a cost efficient and time saving manner.

Complete documentation of the entire instrument decontamination process, including the load management, approval and tracking with the MELAtrace® documentation software is another important advantage. Easy to use in app design and with a touch interface, MELAtrace® offers an additional invaluable cost advantage. Instead of several individual licences, only one licence needs to be purchased and there are no annual recurring costs.



## Join the Revolution

Is the safe reprocessing of dental hollow instruments a time-consuming and economic challenge for you?

Then discover our revolutionary 4-in-1 solution: Careclave combines a reprocessing and maintenance device for dental handpieces with a modern steam sterilizer using pioneering technologies. This saves you considerably more space, money and time in instrument reprocessing compared to conventional device combinations.

- ✓ Up to 45 % less space required on the worktop, since Careclave® combines several devices in one
- ✓ Reduce ongoing maintenance and validation costs by up to € 6,000\*
- ✓ Reprocess and care of up to 200 handpieces and other instruments in a single practice day

\* After around 11 years compared to the autoclave and an additional device for the reprocessing of dental handpieces.

# Technical data

## Figures and facts at a glance

Program cycle times	Universal Program Holding time 5.5 min	Quick-Program B* Holding time 5.5 min	Quick-Program S** Holding time 3.5 min	Gentle-Program Holding time 20.5 min	Prion-Program Holding time 20.5 min
<b>Vacuklav® 40 B+ Evolution</b>					
up to 6 kg instruments	16 – 21	14 – 15	8 – 11	31 – 38	31 – 36
up to 2 kg of textiles	23	–	–	40	38
<b>Vacuklav® 41 B+ Evolution</b>					
up to 6 kg instruments	17 – 23	14 – 16	9 – 12	32 – 41	32 – 38
up to 2 kg of textiles	25	–	–	42	40
<b>Vacuklav® 43 B+ Evolution</b>					
up to 7 kg instruments	17 – 25	15 – 16	9 – 13	32 – 42	32 – 39
up to 2.5 kg of textiles	28	–	–	46	44
<b>Vacuklav® 44 B+ Evolution</b>					
up to 7 kg instruments	16 – 22	14 – 15	8 – 12	31 – 40	31 – 37
up to 2.5 kg of textiles	26	–	–	43	41
<b>Drying time</b>	12	6	2	12	12

If needed, additional drying can be enabled for larger loads of up to 9 kg. All times in minutes, depending on the load, power supply and water supply

\* max. 1.5 kg wrapped or 6 kg and 7 kg unwrapped | \*\* unwrapped

	Vacuklav® 40 B+ Evolution	Vacuklav® 41 B+ Evolution	Vacuklav® 43 B+ Evolution	Vacuklav® 44 B+ Evolution
<b>Chamber size</b>	Ø 25 cm x 35 cm long		Ø 25 cm x 45 cm long	
<b>Volume</b>	18 litres		23 litres	
<b>Load quantity</b>	max. 9 kg instruments* 2 kg textiles		max. 9 kg instruments* 2.5 kg textiles	
<b>Dimensions (WxHxD)</b>	46 cm x 50 cm x 55 cm Height incl. display 56 cm Device feet fit on 50 cm table plate		46 cm x 50 cm x 68 cm Height incl. display 56 cm Device feet fit on 60 cm table plate	
<b>Weight</b>	55 kg	60 kg	69 kg	64 kg
<b>Power supply</b>	220 – 240 V / 50 – 60 Hz (3.400 Watts)			

\* in combination with MELAstore® Boxes



**Save paper, protect the environment:**

To reduce paper, we provide the user documentation for the Premium-Class Evolution electronically in our download center. You will find further information on [www.melag.com](http://www.melag.com)

**MELAG**  
competence in hygiene