

The Premium-Evolution series

The new benchmark for
steam sterilizers



Evolution – The best made even better!

Our more than 65 years of experience in designing and manufacturing of practice steam sterilizers and large steam sterilizers for hospitals, combined with the innovation power of our 165 specialized engineers, has led to innovative and energy-efficient steam sterilizers: The latest example of this success story is the new Evolution series of the Premium-Class, a further development of the worldwide successful Vacuklav 40-44 B+.

Optimized tank concept!

DRYtelligence® – optimal
drying results at all times!

Patented double jacket-
The basis for quick
operating times!

Everything immediately
under control!
With the media board

XXL-colour-touch display with
integrated software for documentation
and approval!

Save Energy – With the
new Sleep mode button!

Additional space for your
instruments!



The new benchmark for practice steam sterilizers

Besides the typical MELAG features such as record operating times, intuitive operating concept, integrated documentation and approval, the steam sterilizers of the new Evolution series offer a range of unique innovations, which can only be developed in this perfection by a specialist for practice hygiene and instrument decontamination. The focus of the new Evolution series is the combination of even shorter operating times and thus faster instrument availability and energy savings.



The double-jacket technology. A MELAG patent since 2007.

The Evolution steam sterilizers have 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. For the practice, this means: record operating times with attractive time saving, maximum energy efficiency and optimum sterilization results.

The media board

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

The three most important advantages of the Evolution series at a glance

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 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%.

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 steam sterilizers, 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 contra-angles, for example, in combination with MELAstore boxes. For the practice, this means: fewer sterilization cycles, less energy consumption and lower costs.

3. Document security!

The XXL-colour-touch display with a modern so-called "flat-design" allows intuitive handling at the highest level. The new Evolution also includes integrated software for documentation, approval and tracking. Directly connected over the MELAprint 60 label printer or via a network with the documentation management system of the practice, these steam sterilizers give each practice their individually requested documentation concept.





1. Save time and energy!

With large load volumes and short operating times.

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 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 can also shorten the drying times by up to 80%! The other advantages to DRYtelligence include shortened operating times and savings in energy costs.



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



2. Work efficiently!

With the loading system for safe and ergonomic loading and unloading.

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 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 contra-angles, for example, in combination with MELAstore boxes. For the practice, 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.



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



3. Document securely!

With the integrated software for the approval and tracking of instruments.

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 approval is authenticated fast and securely on the display.

The Evolution steam sterilizers offer many possibilities for documentation – starting with the network integration via the Ethernet interface, to the printout of barcode labels for the labelling of wrapped instruments, through to the output of the protocols to the CF card.



Barcode label printing with MELAprint 60

The documentation software MELAtrace provides the perfect solution for practices and clinics that would like to securely document and approve their complete hygiene workflow. MELAtrace 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 the MELAprint 60 printer 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 documentation software MELAtrace

Additional device features that simplify your work.

It is often the small tools that allow us to be more proficient in the work place. With the diverse options of the Evolution series, it helps to make work processes simpler, safer and more efficient. These features are integrated into all steam sterilizers of the Evolution series and can be directly activated via the XXL colour touch screen display.

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 poor quality water.

The steam sterilizers of the Evolution series in combination with MELAdem

Preserving instruments while saving time and money

Save the time and money that you would require when purchasing, transporting, storing and filling distilled or demineralised water in your steam sterilizers and instead, connect your Evolution steam sterilizer 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 MELAdem40 to the highly economical and environmentally friendly reverse osmosis system MELAdem 47, through to the high-performance system MELAdem53 (for simultaneous connection of a washer disinfector), we offer the right solution for every desired application.



Vacuklav 40 B+ Evolution with side-mounted MELAdem 40

The Evolution series of the Premium-Class

Diversity in each of the four designs

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

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 41 B+ Evolution and Vacuklav 43 B+ Evolution:

These steam sterilizers have a patented air-cooling system, which makes them real "standalone" steam sterilizers, since 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 demineralised water.

Vacuklav® 40 B+ Evolution



Fixed water connection



Chamber depth: 35 cm

Vacuklav® 41 B+ Evolution



Stand-alone



Chamber depth: 35 cm

Vacuklav® 44 B+ Evolution



Fixed water connection



Chamber depth: 45 cm

Vacuklav® 43 B+ Evolution



Stand-alone



Chamber depth: 45 cm

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 five options for optimal loading of the steam sterilizers with wrapped or unwrapped instruments or with MELAstore boxes.



Mount E Plus
for 6 standard trays and
2 small trays



Mount F Plus
for 3 MELAstore boxes 100
and 2 small trays



Mount D Plus
for 2 MELAstore boxes 200
and 2 small trays



Mount C Plus
for 3 MELAstore boxes 100



The tray holder racks 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 rack.

The system solution – use of ideally compatible systems

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 Melag system solution is the saving of maintenance and validation 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 by the same technician 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 the practice an additional invaluable cost advantage. Instead of several individual licences, only one licence needs to be purchased and there are no annual recurring costs.

The system solution is thus not only designed for special security and workload reduction, but also especially for saving costs.

Innovation, quality and competence: Basis for the success of a family business

We are an owner-run, German family-owned company, which has consistently focussed on products for clinic and practice hygiene since its foundation in 1951. By constantly striving for quality, innovation and maximum security, we were able to become the global market leader in instrument decontamination with more than **550,000 delivered devices**. Our production is exclusively in Germany (Berlin) in an area of approximately 22,000 m² and with 365 employees. Consequently, we are the world's largest manufacturer of sterilizers and washer disinfectors, that exclusively manufacture products for clinic and practice hygiene.

We have always strictly rejected the outsourcing of production to low-wage countries because of the loss in quality that is often associated with this. We have also rejected the trend towards expanding our product range by products that are not part of our core competency.

Our constant goal is to develop even more innovative and better products for our customers. Our "Development and Design" department currently contains 85 employees. The work in our "Testing" department is the most important foundation for our internationally renowned product quality. At the same time, it serves to constantly inspect the purchased components. It currently contains 40 employees.

The device software is responsible for the secure control of our products and their easy integration into the clinic network. Our "Electronics / Software" department now has 40 IT specialists. Overall, we now employ 165 engineers and IT specialists in "R&D", which is a ratio of 44%. This is way above the industry average.

Our customers demand maximum quality and reliability from MELAG. With the consistent implementation of our guidelines "competence in hygiene" and "Quality – made in Germany" we guarantee that we meet these requirements.

The management and entire MELAG team.

Programs, times and technical data

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
Vacuklav 40 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
Vacuklav 41 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
Vacuklav 43 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
Vacuklav 44 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
Drying time	12	6	2	12	12

If needed, additional drying can be enabled for larger loads of up to 9 kg.

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

All times in minutes, depending on the load, power supply and water supply

Technical data	Vacuklav 40 B+ Evolution	Vacuklav 41 B+ Evolution	Vacuklav 43 B+ Evolution	Vacuklav 44 B+ Evolution
Chamber size / volume	Ø 25 cm x 35 cm long/ 18 litres		Ø 25 cm x 45 cm long/ 23 litres	
Load quantity	max. 9 kg instruments / 2 kg textiles		max. 9 kg instruments / 2.5 kg textiles	
Dimensions (WxHxD)	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	
Weight	55 kg	60 kg	69 kg	64 kg
Power supply	220 – 240V/ 50 – 60Hz/ 3.400W			

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