

**MELAG**

competence in hygiene

# The Cliniclave® series

Large steam sterilizers for practices and clinics



Quality – made in Germany

# The Cliniclave® series

## Four models for the greatest-possible flexibility

Our experience from developing and manufacturing steam sterilizers since decades, paired with the innovation power of our 165 specialist engineers has resulted in an especially innovative and energy-efficient steam sterilizers: the Cliniclave® series. In addition to the typical MELAG features of record operating times, an intuitive operating concept and integrated documentation and approval, the four large steam sterilizers of this new range present a series of further unique innovations which only we as the specialists for instrument decontamination could deliver to our customers. The focus of the new Cliniclave® series lies on the combination of even shorter operating times and even faster instrument availability, whilst achieving considerable levels of energy efficiency.

The Cliniclave® series consists of large steam sterilizers with a capacity of one or two sterilization units (StU), available as single-door or double-door (pass-through) models.

### Cliniclave® 45 single-door version

Chamber: Ø 44 cm x 72 cm deep  
Volume: 105 litres  
Load: 35 kg  
Capacity: 1 sterilization unit (1 StU)  
Dimensions: H 160 x W 65 x D 91 cm



### Cliniclave® 45 D double-door version

Chamber: Ø 44 cm x 74 cm deep  
Volume: 110 litres  
Load: 35 kg  
Capacity: 1 sterilization unit (1 StU)  
Dimensions: H 160 x W 65 x D 101 cm



### Cliniclave® 45 M single-door version

Chamber: Ø 44 cm x 134 cm deep  
Volume: 200 litres  
Load: 70 kg  
Capacity: 2 sterilization units (2 StU)  
Dimensions: H 160 x W 65 x D 153 cm



### Cliniclave® 45 MD double-door version

Chamber: Ø 44 cm x 136 cm deep  
Volume: 205 litres  
Load: 70 kg  
Capacity: 2 sterilization units (2 StU)  
Dimensions: H 160 x W 65 x D 163 cm



## The three most important advantages of the Cliniclave® series at a glance

### 1. Save time

With a load quantity of up to 70 kg, the steam sterilizers of the Cliniclave® series can sterilize significantly more instruments than other devices of their class, and achieve record operating times with low levels of water and energy consumption.

### 2. Work ergonomically

An ergonomic loading and unloading system with loading trolley and loading slide was developed to enable large load quantities and diverse load configurations of the Cliniclave series to be sterilized ideally in the autoclave. This allows the load to be inserted and removed quickly and safely - without any effort.

### 3. Document securely

The XXL colour-touch display enables intuitive operation. The integrated documentation and approval software permits complete reproducibility. Via the Ethernet interface the Cliniclave® series can be integrated in the practice or clinic network.







## 1. Save time

### Sterilizing large quantities in short operating times.

The sterilization of large instrument quantities and textiles and their quick availability is one of the most important requirements in clinics, practices and outpatient centres. With a load quantity of up to 70 kg of wrapped instruments or 14 kg of textiles, the steam sterilizers of the Cliniclave® series provide far greater performance than almost all other large steam sterilizers. Used in connection with specially-designed mounts, the sterilization chamber provides the best solution for all medical fields.

Ideal solutions for sterilization containers, individually-wrapped instruments and textiles.

#### Loading example: 12 x MELAstore®-Boxes 200 (Cliniclave® 45)

Dimensions of the MELAstore®-Box 200: 19 cm (W) x 31.2 cm (L) x 6.5 cm (H).



*„The large load quantities and short operating times make an important contribution to improving the energy-efficiency of our practice.“*

Kirsten, Dres. Frey, Oral Surgeons



## 2. Work ergonomically

### With a loading system for secure and ergonomic loading and unloading.

The loading system of the Cliniclave® series enables the loading and unloading of a wide range of configurations without much effort.

The lower level of the loading trolley provides sufficient space to load the Cliniclave® series steam sterilizers with further sterilization containers or other load elements. The loading system includes a loading trolley and a batch slider with Teflon runners. The sterilization containers or the tray mount are placed on the batch slider and moved securely with the loading hook.



Loading trolley for the steam sterilizers of the Cliniclave® series

*„The loading and unloading of the large steam sterilizer using the loading system and the loading trolley guarantees ergonomic and secure working practices.“*

Sabine, SPREDOCS Outpatient Surgical Centre







## Further device functions making your day that little bit easier

It is often the small things that make our working lives more pleasant. A range of features in the Cliniclave® series help to make your working procedures more simple and secure. These functions are integrated in all of the models of the Cliniclave® series and can be activated directly via the XXL colour-touch display.

### 3. Document securely

#### With an integrated software for the approval and traceability of instruments.

The XXL colour-touch display enables an intuitive operation and helps the personnel to avoid errors and to find all the important information quickly. The documentation and approval software integrated in all devices of the Cliniclave® series permits complete reproducibility and total security.

An individual PIN can be issued to every user to enable secure traceability in the approval procedure. Authentication of the batch approval can be performed quickly and securely on the display.

The Cliniclave® series provides a variety of documentation methods: network connection via Ethernet; the printout of barcode labels for marking wrapped instruments; and log output to a CF card.



Printing barcode labels with MELAprint® 60

Documenting the complete workflow with MELAtace®:



*„The user-friendly batch approval provided by the Cliniclave® 45 facilitates documentation of the sterilization process, thereby simplifying instrument reprocessing. The logs are easy to save and are available at any time. This represents an important contribution to maintaining the high quality of practice processes.“*

**Petra, Day clinic Krahl, Dr. Beltz, Dr. Poppelbaum**

#### DRYtelligence®



The procedure of the sensor-controlled and load-specific vacuum drying procedure saves time, cooling water and energy and guarantees optimal drying results.

#### Energy-saving mode



If the Cliniclave® 45 is not to be switched off during longer operating pauses, the energy-saving mode can be set. This shortens the pre-heating time before the next start.

#### Automatic shutdown



Activating this function before starting the last batch of the day means that the Cliniclave® switches-off automatically immediately after the end of the program. Batch approval can then be performed the next day, immediately after activating the device.

#### Start time pre-selection



The start time pre-selection function enables the user to select any program and then start it at a specific time, e.g. in order to perform a routine test program.



#### Routine checks for the Cliniclave series

Whether textiles, rigid instruments or hollow bodies - with our Bowie & Dick test, type 5 indicator or helix test, you can reliably check the sterilization result of the autoclave.



MELAcontrol® Bowie & Dick Test



MELAcontrol® Type 5 Indicator

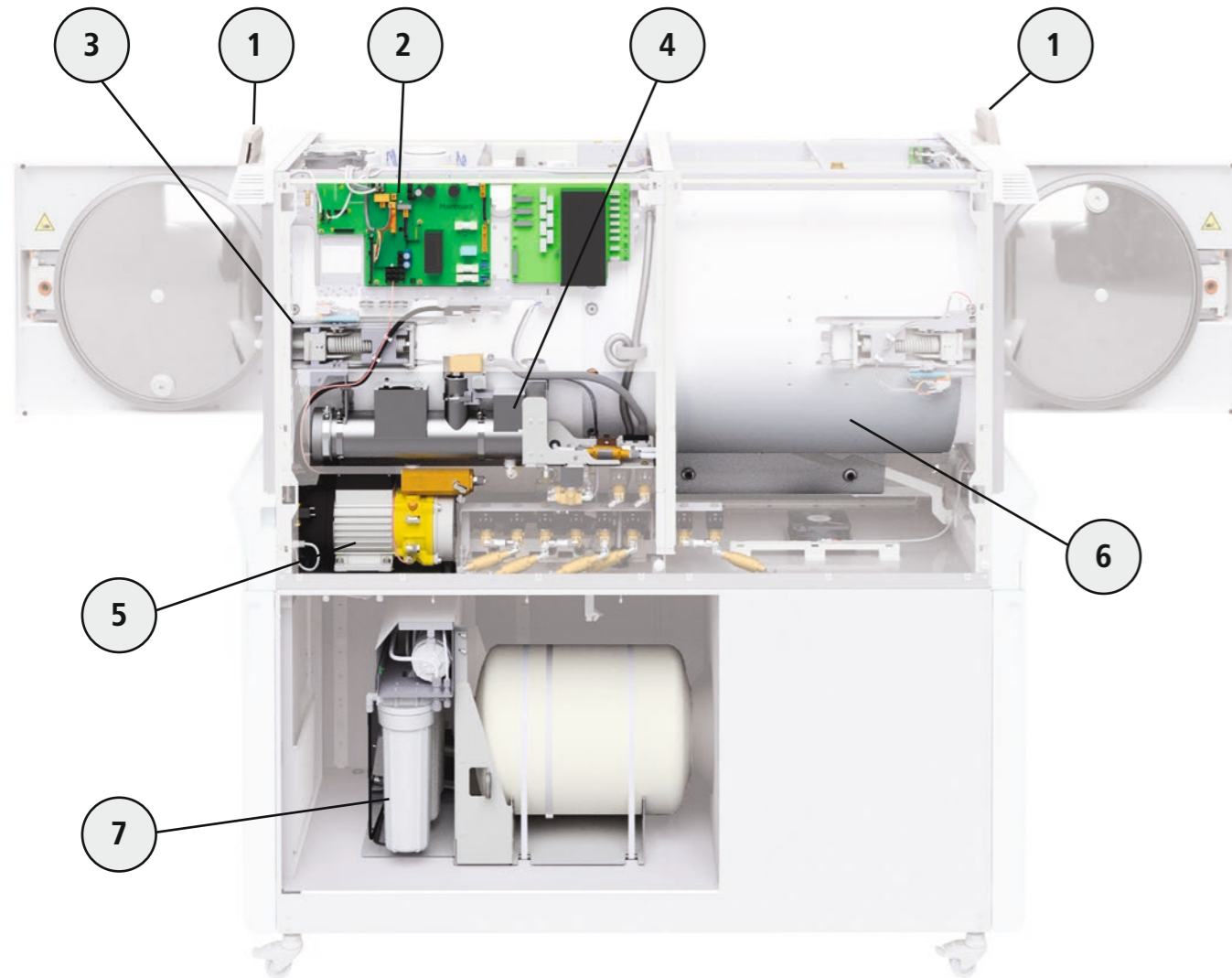


MELAcontrol® Helix



# Innovative and convincing technology

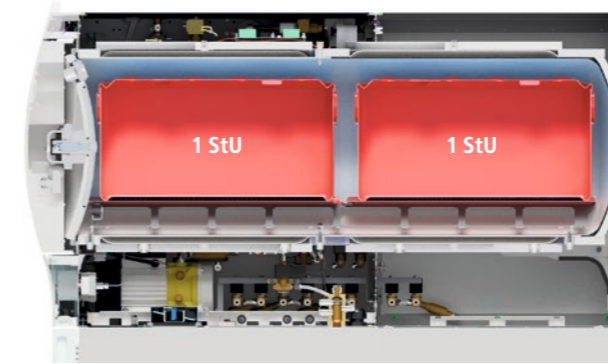
The innovative functions and durable components of the high-end Cliniclave® series produce consistently convincing results. The unique device concept satisfies the highest requirements. In addition to the central device components shown below, the steam sterilizers of the Cliniclave® series contain a range of further highlights, including the unique concept of multipoint steam intake and discharge technology for record operating times and excellent drying results.



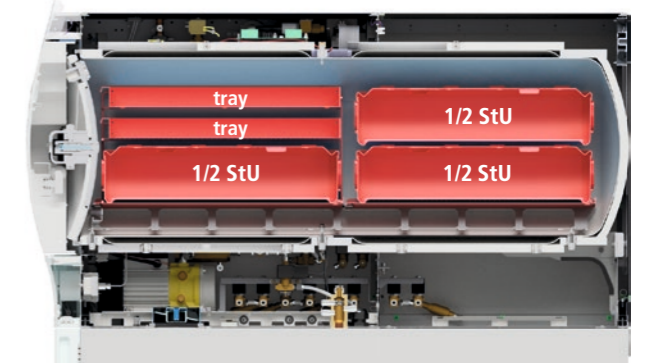
1. XXL colour-touch display
2. Microprocessor control and monitoring electronics for secure and valid processes
3. Electrical door lock for security and ease of use
4. Air gap in accordance with DIN EN 1717 for protection of the drinking water
5. High-performance vacuum pump for the best process results
6. Patented double jacket technology for the highest-quality saturated steam
7. Reverse osmosis system for automatic feed water supply

# Even more space in the Magnum steam sterilizers of the Cliniclave® series

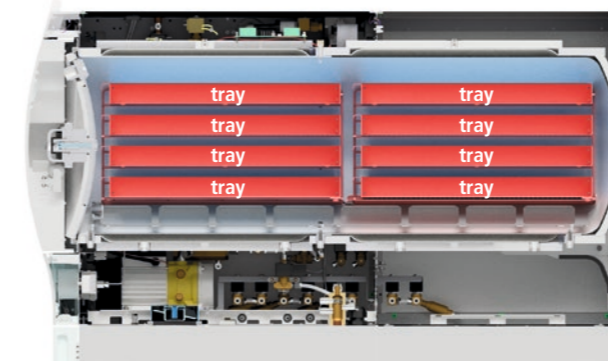
The Cliniclave® 45 M and Cliniclave® 45 MD accommodate 2 sterilization units and can sterilize up to 70 kg of instruments in record time. Four example loads:



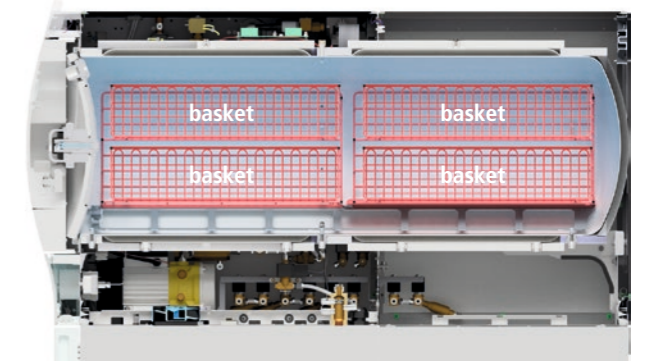
Cliniclave® 45 M with 2 sterilization containers 30 x 30 x 60 cm



Cliniclave® 45 M with 3 sterilization containers 30 x 15 x 60 cm and 2 trays 30 x 5 x 59 cm



Cliniclave® 45 M with 8 trays 30 x 5 x 59 cm



Cliniclave® 45 M with 4 instrument baskets 27 x 13 x 57 cm

The Cliniclave® 45 M shown above is also available as the double-door pass-through steam sterilizer Cliniclave® 45 MD.



Discover the product highlights of Cliniclave® 45 MD in our video:



# The Cliniclave® series provides the suitable model for every requirement

The compact dimensions of the four large steam sterilizers of the Cliniclave® series are ideally-suited to the needs of clinics, practices and outpatient centres. The position of the door hinge (left or right-hand side) can be chosen for each Cliniclave® model - including the doors of the pass-through steam sterilizers.

Programm	Cliniclave® 45	Cliniclave® 45 D	Cliniclave® 45 M	Cliniclave® 45 MD
Device version	single-door version	double-door version	single-door version	double-door version
Chamber volume	105 litres	110 litres	200 litres	205 litres
Capacity	1 StU		2 StU	
Door hinge	Selectable: left or right			
Chamber diameter	Ø 44 cm			
Chamber depth	72 cm	74 cm	134 cm	136 cm
Dimensions (H x W x D)	160 x 65 x 91 cm	160 x 65 x 101 cm	160 x 65 x 153 cm	160 x 65 x 163 cm
Empty weight	244 kg	298 kg	315 kg	384 kg
Operation weight	292 kg (incl. MELAdem® 56)	373 kg (incl. MELAdem® 56)	423 kg (incl. MELAdem® 56 M)	488 kg (incl. MELAdem® 56 M)
Power supply (star connection)	3x380-415 V, 50/60 Hz, 10.500 W, 16 A	3x380-415 V, 50/60 Hz, 10.500 W, 16 A	3x380-415 V, 50/60 Hz, 13.500 W, 32 A	3x380-415 V, 50/60 Hz, 13.500 W, 32 A
<b>NEW: Now also available with delta connection for 220 - 240 V three-phase systems:</b>				
Power supply (delta connection)	3x220-240 V, 50/60 Hz, 10.500 W, 32 A	3x220-240 V, 50/60 Hz, 10.500 W, 32 A	3x220-240 V, 50/60 Hz, 13.500 W, 32 A	3x220-240 V, 50/60 Hz, 13.500 W, 63 A



Supply with feed water is best performed via a MELAdem® 56 reverse osmosis unit. The MELAdem® 56 was developed especially for the Cliniclave® series and complies with the requirements of EN 1717 for the protection of the drinking water.

The MELAdem® 56 is installed in the floor unit to save space.

The devices of the Cliniclave® series can also be connected to a central water treatment unit or an existing ion exchanger.

# Faster instrument decontamination and lower energy consumption

Fast operating times and secure sterilization are amongst the most important requirements of a large steam sterilizer. The devices of the Cliniclave® series always fulfil these requirements. The large load quantities and the low water and energy consumption make the steam sterilizers of the Cliniclave® series the most efficient and compact large steam sterilizers of their class.

Program	Operating time (with minimum to maximum load)				Drying		Loading
	Cliniclave® 45	Cliniclave® 45 M	Cliniclave® 45 D	Cliniclave® 45 MD	DRYtelligence® *	Time-controlled	
Universal-Program	19 - 35 min	24 - 48 min	18 - 40 min	23 - 50 min	> 4 min	20 min	Single and multiple wrapping
Quick-Program B	17 - 22 min	18 - 27 min	17 - 21 min	20 - 28 min	> 4 min	10 min	Single and unwrapped instruments (no textiles)
Quick-Program S	13 - 17 min	15 - 22 min	11 - 17 min	14 - 22 min	> 4 min	6 min	unwrapped (no textiles)
Gentle-Program	35 - 36 min	41 - 45 min	34 - 36 min	41 - 45 min	> 4 min	20 min	Single and multiple wrapping
Prion-Program	34 - 50 min	38 - 63 min	32 - 55 min	27 - 65 min	> 4 min	20 min	Single and multiple wrapping

\* DRYtelligence® automatically adapts the drying process to your load. Thanks to intelligent drying, optimal drying results are achieved at all times.

## Our priority is your satisfaction



*"The high loading capacities in conjunction with quick sterilization times of Cliniclave® 45 ensures maximum efficiency in instrument decontamination."*

Clinica Veterinaria CMV  
Varese, Italy



*"Reliability and perfection – Cliniclave® provides us with time-saving processes and ensures the highest level of protection against infections for our patients."*

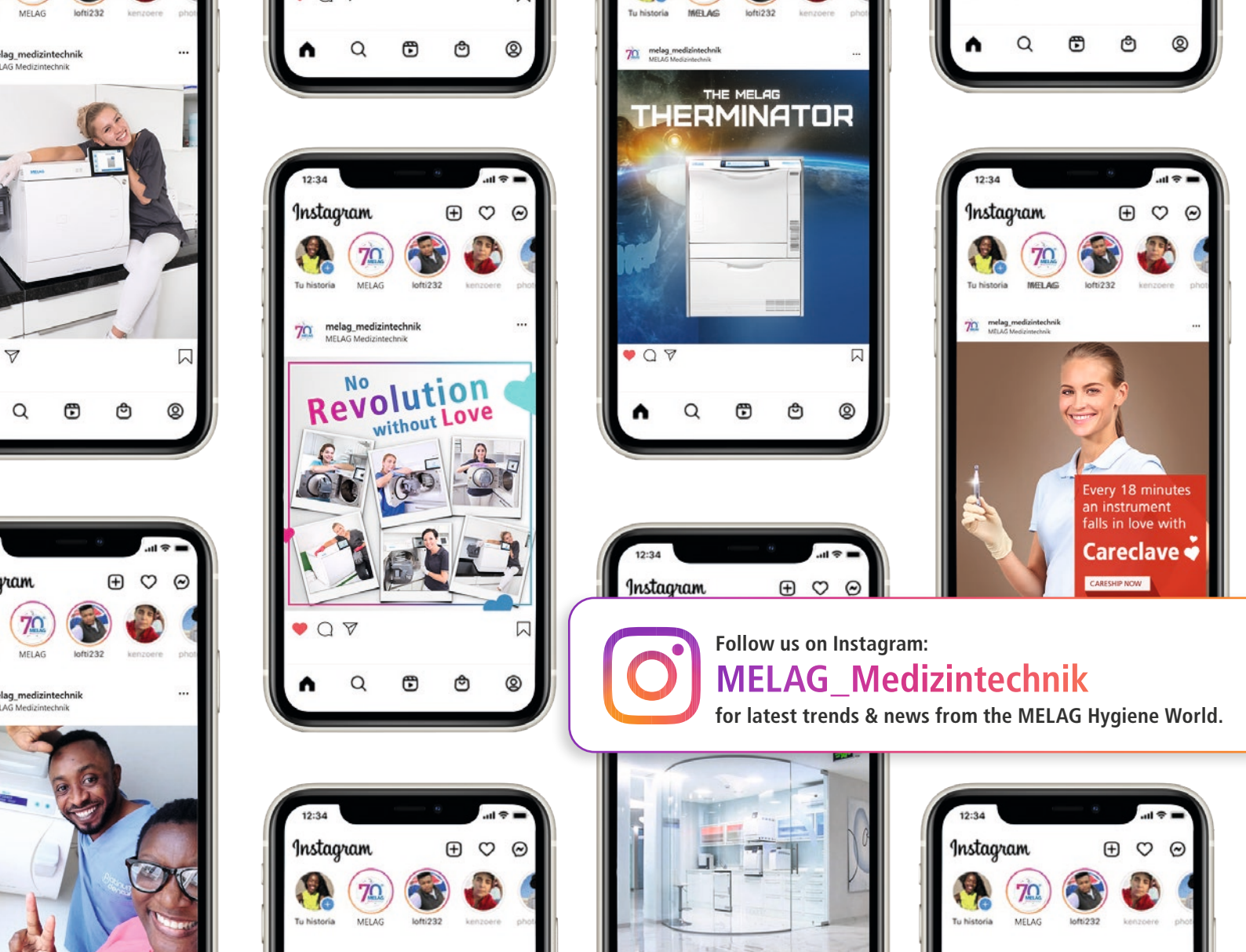
Clinique Bellevue  
Stavanger, Norway



*"We rely on the MELAG system with Cliniclave® 45 D in a two-room concept: Easy loading on the unsterile side and safe unloading on the sterile side."*

Thonburi Dental Clinic  
Bangkok, Thailand





## System solutions, innovation and quality

MELAG was founded in 1951 and is an owner-operated family company, that specializes in products aiming at optimized practice hygiene. The manufacturing and production sites are exclusively located in Germany on a 22.000 m<sup>2</sup> premises with 450 employees working diligently to maintain MELAG's world leading role in instrument decontamination.



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