

## Installation plan

### Installation location



#### WARNING

Failure to comply with the setup conditions can result in injuries and/or damage to the device.

- The steam sterilizer should only be setup, installed and commissioned by persons authorised by MELAG.
- The steam sterilizer is not suitable for operation in explosive atmospheres.
- The steam sterilizer is conceived for use outside the patient care area. The device should be located a minimum of 1.5 m radius away from the treatment area.

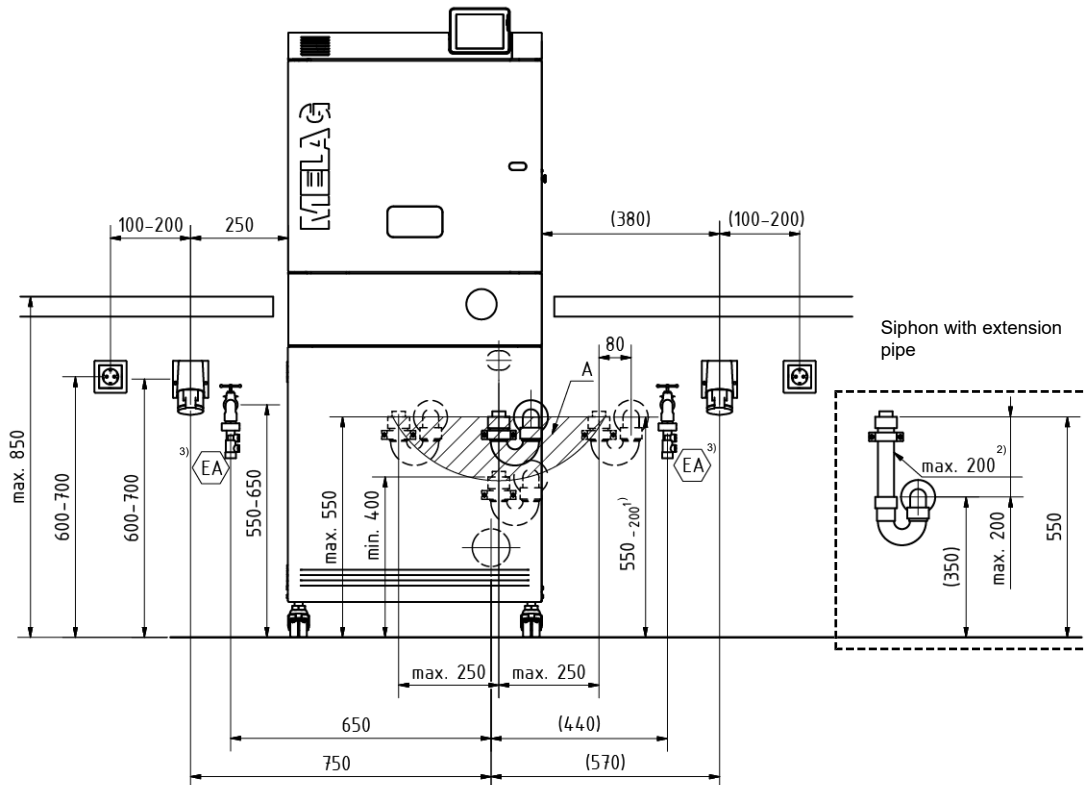
### General requirements

Property	Requirements of the installation location	
	Cliniclave 45	Cliniclave 45 M
Clear width from the entrance of the practice to the installation location	min. 70 cm	
Installation surface	level and horizontal, in accordance with EN 285: waterproof, collects or deflects water running out of the steam sterilizer	
Installation location	interior of a building (dry and protected from dust)	
Floor loading (normal operation)	332 kg   83 kg per caster <sup>*)</sup>	503 kg   125.8 kg per caster <sup>**)</sup>
Floor loading (pressure resistance test)	400 kg   100 kg per caster <sup>*)</sup>	610 kg   152.5 kg per caster <sup>**)</sup>
Heat emission (at maximum solid load and with an opened door)	1.4 kW	2.0 kW
Ambient temperature	5-40 °C (ideal range 16-26 °C) Sufficient ventilation of the room must be guaranteed.	
Relative humidity	max. 80 % at temperatures of up to 31 °C, max. 50 % at 40 °C (decreasing in linear fashion in-between)	
Altitude (star connection)	max. 3000 m	
Altitude (delta connection)	max. 4000 m	
Illumination	in accordance with EN ISO 12100 and EN 1837	
*) incl. MELAdem 56		
**) incl. MELAdem 56 M		

Steam egress can occur during operation. Do not set up the device in the immediate proximity of a smoke detector. Maintain clearance from materials which could suffer damage from steam.

## On-side connections for installation

**Necessary installation requirements for the connections (all dimensions in mm)**



A - Connection area for the inlet hose on the siphon

- 1) This specification applies to the use of an extension pipe (siphon and extension pipe included in the installation set).
- 2) The extension pipe can be cut to the desired length.
- 3) The type EA back-flow preventer (included in the kiwa connection set, art. no. ME86902) is only required in the Netherlands.

## Mains supply



### WARNING

**Improper installation may lead to a short-circuit, fire, water damage or electrical shock.**

**This could result in serious injury.**

- Only have the device set up, installed and commissioned by people authorised by MELAG.

Implement the following safety measures when dealing with the cable and power plug:

- Never damage or alter the power plug or cable.
- Never bend or twist the power cable.
- Never remove the plug by pulling on the power cable. Always take a grip on the plug.
- Never place any heavy objects on the power cable.
- Never run the power cable over areas in which it could become trapped (e.g. doors or windows).
- Never lead the cable along a source of heat.
- Never use any nails, paper fasteners or similar objects to fix the cable.
- Should the power plug or cable suffer damage, switch off the device. The power cable or plug should only be replaced by authorised technicians.
- The mains socket must be freely accessible after installation so that the device can be disconnected from the electrical mains at any time if necessary by pulling the mains plug.

## Building-side requirements of the mains connection

Property	On-site requirements	
	Cliniclave 45	Cliniclave 45 M
Local requirements	Electrical equipment must correspond with DIN VDE 0100. A main switch (all-pole) should be fitted outside the installation room. This must be marked as a separator for the device and be easily accessible for the operator. The feed line to the electrical connection must be laid separately from the distribution to the device. Observe the clockwise rotating field!	
Electrical power	10.5 kW	13.5 kW
Power supply (star connection)	CEE socket (red) with 3x380-415 V + N + PE, 16 A, 50/60 Hz, position PE: 6 h	CEE socket (red) with 3x380-415 V + N + PE, 32 A, 50/60 Hz, position PE: 6 h
Building-side fuse protection (star connection)	A separate circuit with fuse (to guarantee continued practice operation during device sterilizer malfunction): 3x16 A, RCD 30 mA	A separate circuit with fuse (to guarantee continued practice operation during device sterilizer malfunction): 3x32 A, RCD 30 mA
Power supply (delta connection)	CEE socket (blue) with 3x220-240 V + PE, 32 A, 50/60 Hz, position PE: 9 h	CEE socket (blue) with 3x220-240 V + PE, 63 A, 50/60 Hz, position PE: 9 h
Building fuses (delta connection)	A separate circuit with fuse (to guarantee continued practice operation during steam sterilizer malfunction): 3x32 A, RCD 30 mA	A separate circuit with fuse (to guarantee continued practice operation during steam sterilizer malfunction): 3x63 A, RCD 30 mA
Length of the power cable from the floor unit	1.8 m	
Other	Additional socket 230 V 50 Hz for leakage water detector (water stop), MELAprint 60 label printer or MELAprint 42/44 log printer	

**PLEASE NOTE:** The device configurations of the electrical connections (star or delta connection) have different article numbers. Therefore, determine the device configuration according to the local conditions before ordering the device.

Star connection: worldwide standard network, common e.g. in Europe

Delta connection: regionally common, e.g. in Latin America, the Middle East, Africa and Asia

## Connection to a network socket / MELAprint 60 label printer

The installation in the floor unit requires a network cable of sufficient length.

The planned length of the network cable in the floor unit amounts to 60 cm with Cliniclave 45 and 112 cm with Cliniclave 45 M.

When selecting the length of a suitable network cable, take into account the additional length from the floor unit to the peripheral device or network socket.

## Water connection

### Requirements for the water connection

	Cold water	Feed water	Wastewater
Connection in the practice	To the cold water cut-off valve (water inflow tap) G 3/4"	To a water treatment unit	To a surface-mounted siphon (included in the installation set)
Length of the hose from the floor unit	1.30 m	--	1 m
Installation height	55-65 cm	--	max. 55 cm (upper edge of the siphon)
Min. flow pressure	1.5 bar at 8 l/min	0.5 bar at 5 l/min	--
Recommended flow pressure	2.5-6 bar at 8 l/min	2-4 bar at 5 l/min	--
Min. static water pressure	--	2 bar	--
Max. static water pressure	10 bar	5 bar	--
Max. throughflow volume	--	--	short-term max. 9 l/min
Water temperature	1-20 °C (ideal 15 °C) <sup>1)</sup>	5-35 °C	short-term max. 90 °C
Water quality	drinking water, water hardness 4-12° dH (in accordance with EN 285) <sup>2)</sup>	EN 285, Appendix B, table B.1, max. conductivity 5 µS/cm	--
Measures for protecting the drinking water supply	None (internally secured against backflow into the drinking water supply by an air gap in accordance with EN 1717, fluid category class 5)	<b>MELAdem 56/MELAdem 56 M</b> none (internally secured against backflow into the drinking water supply by an air gap in accordance with EN 1717, fluid category class 5) <b>Other water treatment treatment unit</b> Additional protection required in accordance with EN 1717, fluid category class 5	--
Leakage water detector	MELAG recommends the installation of a leakage water detector with a cut-off valve (e.g. MELAG water stop).		



### PLEASE NOTE

Fit the outlet hose at a constant decline without kinks or sagging. In case of deviations to the installation arrangements, consult with MELAG.

Failure to do so can result in malfunctions of the device.

<sup>1)</sup> The higher the temperature, the longer the operating times and the higher the water consumption.

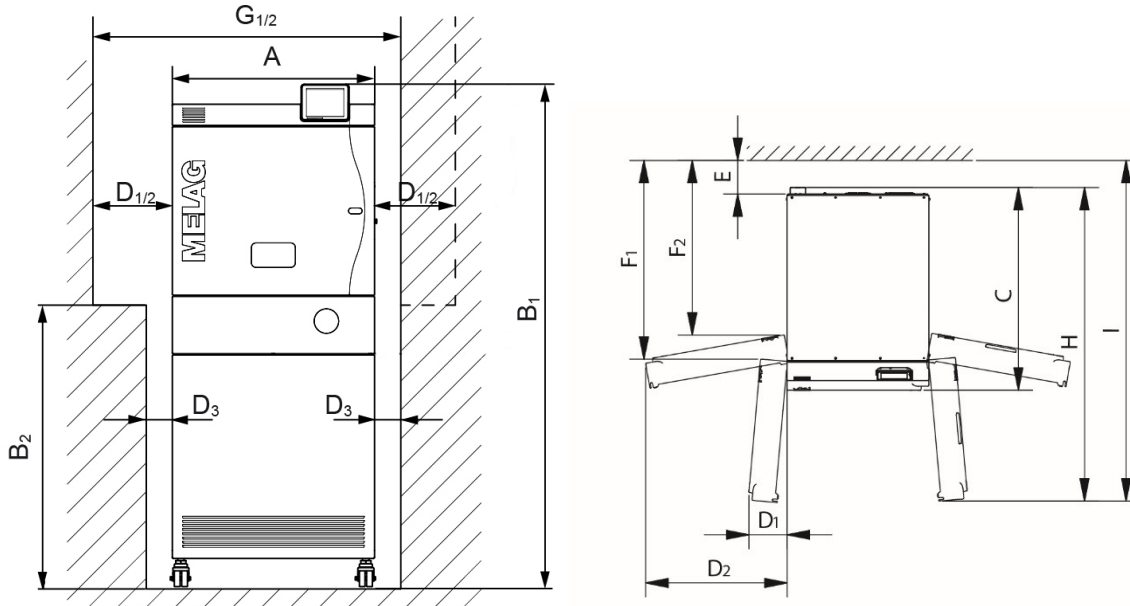
<sup>2)</sup> Higher levels of water hardness necessitate the upstream installation of a water-softening unit.

## Space requirements

### Space requirement for Clinclave 45:

left: fore view, door hinge left

right: view from above, door hinge left (D<sub>1</sub>, D<sub>2</sub>) and door hinge right



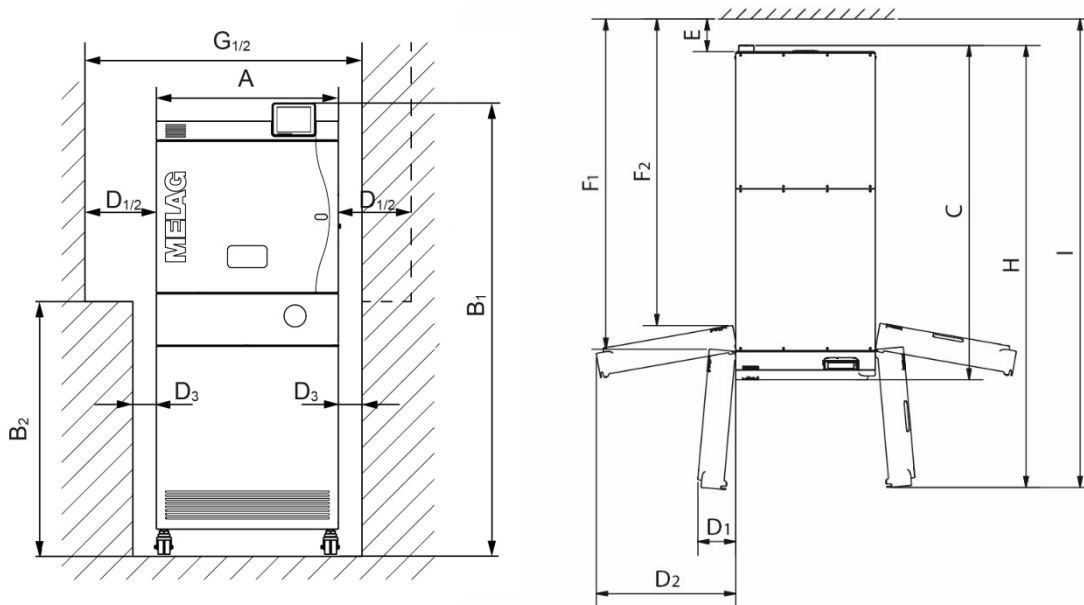
Device dimensions		Cliniclave 45
Width	A	64 cm
Height device with floor unit	B <sub>1</sub>	158 cm
Height to door of steam sterilizer (free area below the swivel range of the door)	B <sub>2</sub>	85 cm
Depth	C	91 cm
Min. clearance to the side of the door hinge*)	D <sub>1</sub>	25 cm (opening angle 95°)
	D <sub>2</sub>	75 cm (opening angle 170°)
Min. clearance to the side wall of the floor unit	D <sub>3</sub>	8 cm
Min. clearance to the rear	E	15 cm
Free space when door open fully	F <sub>1</sub>	80 cm (opening angle 95°)
	F <sub>2</sub>	70 cm (opening angle 170°)
Niche width required	G <sub>1</sub>	97 cm (opening angle 95°)
	G <sub>2</sub>	147 cm (opening angle 170°)
Clearance of door to device rear panel	H	140 cm (opening angle 95°)
Clearance of door to the wall	I	152 cm (opening angle 95°)
*) With door hinge right, keep the clearances mirror-inverted (dotted line).		

A free area of 60 cm must be given each side of the steam sterilizer or must be achievable by moving the steam sterilizer to facilitate maintenance.

## Space requirement Cliniclave 45 M

left: fore view, door hinge left

right: view from above, door hinge left (D<sub>1</sub>, D<sub>2</sub>) and door hinge right



Device dimensions		Cliniclave 45 M
Width	A	64 cm
Height device with floor unit	B <sub>1</sub>	158 cm
Height to door of steam sterilizer (free area below the swivel range of the door)	B <sub>2</sub>	85 cm
Depth	C	153 cm
Min. clearance to the side of the door hinge*)	D <sub>1</sub>	25 cm (opening angle 95°)
	D <sub>2</sub>	75 cm (opening angle 170°)
Min. clearance to the side wall of the floor unit	D <sub>3</sub>	8 cm
Min. clearance to the rear	E	15 cm
Free space when door open fully	F <sub>1</sub>	145 cm (opening angle 95°)
	F <sub>2</sub>	135 cm (opening angle 170°)
Niche width required	G <sub>1</sub>	97 cm (opening angle 95°)
	G <sub>2</sub>	147 cm (opening angle 170°)
Clearance of door to device rear panel	H	202 cm (opening angle 95°)
Clearance of door to the wall	I	214 cm (opening angle 95°)
Sum of door width and floor width		With a 90°curve at least 230 cm
*) With door hinge right, keep the clearances mirror-inverted (dotted line).		

A free area of 60 cm must be given each side of the steam sterilizer or must be achievable by moving the steam sterilizer to facilitate maintenance.