Installation plan

1 Installation location

WARNING

Failure to comply with the set-up conditions can result in injuries and/or damage to the steam sterilizer.

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

1.1 General requirements

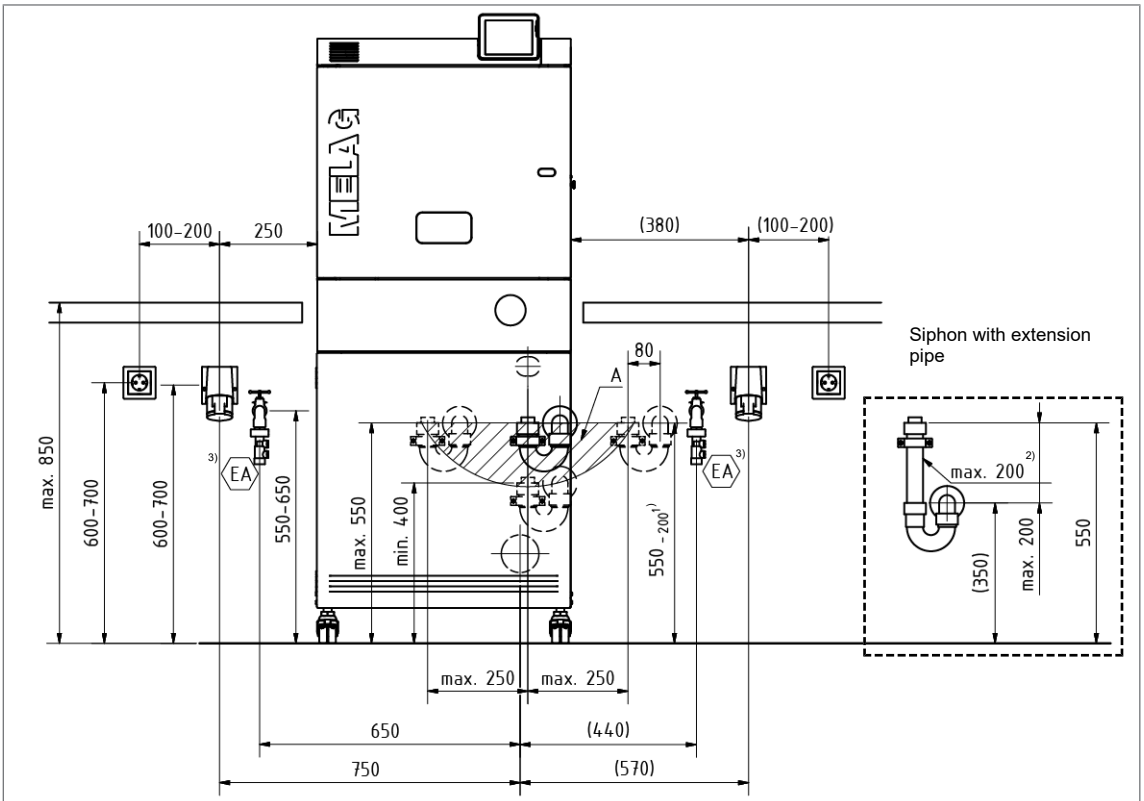
Property	Requirements of the installation location	
	Cliniclave 45	**Cliniclave 45 M**
Clear width from the entrance of the practice to the installation location	min. 70 cm	
Installation surface	level and horizontal in accordance with EN 285: waterproof, collects or deflects water running out of the steam sterilizer	
Installation location	interior of a building (dry and protected from dust)	
Max. floor loading (hydraulic pressure test)	400 kg | 100 kg per caster[1)]	610 kg | 152.5 kg per caster[2)]
Heat emission (with max. load)[3)]	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 31 °C, decreases in a linear fashion up to max. 50 % relative humidity at 40 °C	
Max. altitude	star connection: 3000 m | delta connection: 4000 m	
Illumination	in accordance with EN ISO 12100 and EN 1837	

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.

[1)] When using a MELAdem 56, an additional weight of 38 kg (9.5 kg per caster) must be taken into account.
[2)] When using a MELAdem 56 M, an additional weight of 53 kg (13.25 kg per caster) must be taken into account.
[3)] This applies to a max. (solid) load and with an opened door.

2 On-side connections for installation

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



A - Connection area for the cold water inflow hose on the siphon
1) This specification applies to the use of an extension pipe (siphon and extension pipe included in the installation package).
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.

2.1 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 authorized 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 authorized technicians.

On-site requirements of the mains connection

Properties	On-site requirements	
	Cliniclave 45	**Cliniclave 45 M**
Local requirements	The electrical equipment must accord 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
Electricity 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 fuses **(star connection):**	A separate circuit with fuse (to guarantee continued practice operation during steam sterilizer malfunction): 3x16 A, RCD 30 mA	A separate circuit with fuse (to guarantee continued practice operation during steam sterilizer malfunction): 3x32 A, RCD 30 mA
Electricity 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	1.8 m from floor unit	1.8 m from floor unit
Other	Additional socket 230 V 50 Hz for leakage water detector (water stop), MELAprint 60 label printer or MELAprint 42/44 log printer	

2.2 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.

2.3 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 package)
Length of the hose from the floor unit	1.3 m	--	1 m
Installation height	55-65 cm	--	max. 55 cm (upper siphon edge)
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. water pressure (static)	--	2 bar	--
Max. water pressure (static)	10 bar	5 bar	--
Max. throughflow volume	--	--	short-term max. 9 l/min
Max. water temperature	20 °C (ideal 15 °C)[4)]	--	short-term max. 90 °C
Water quality	drinking water, water hardness 4-12 °dH (in accordance with EN 285)[5)]	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)	**With MELAdem 56/ MELAdem 56 M** None (internally secured against backflow into the drinking water supply by an air gap in accordance with EN 1717, fluid category class 5) **Other water treatment unit** Additional protection required in accordance with EN 1717, fluid category Class 5	--
Leakage water detector	We recommend the installation of a leakage water detector with a cut-off valve (e.g. MELAG water stop).		

PLEASE NOTE

The outlet hose must be fitted at a constant decline without kinks or sagging. Deviations to the installation arrangements require consultation with MELAG.

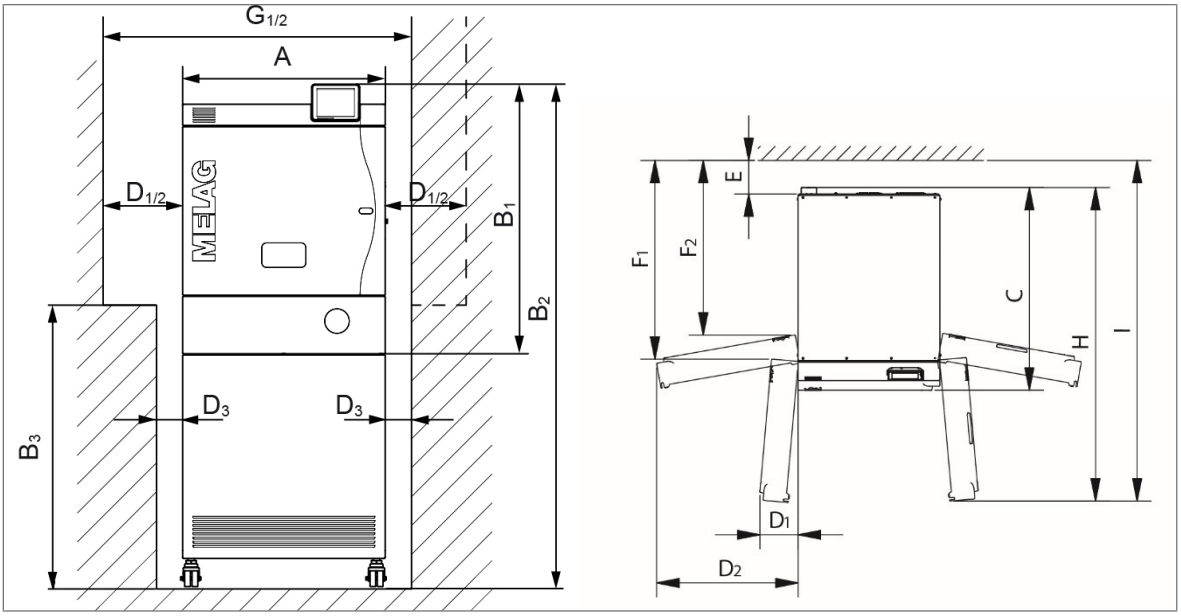
Failure to do so can result in malfunctions of the steam sterilizer.

[4)] The higher the temperature, the longer the operating times and the higher the water consumption.
[5)] Higher levels of water hardness necessitate the upstream installation of a water-softening unit.

3 Space requirements

Space requirement for Cliniclave 45:

Left: fore view, door hinge left | right: view from above, door hinge left (D_1, D_2) and door hinge right

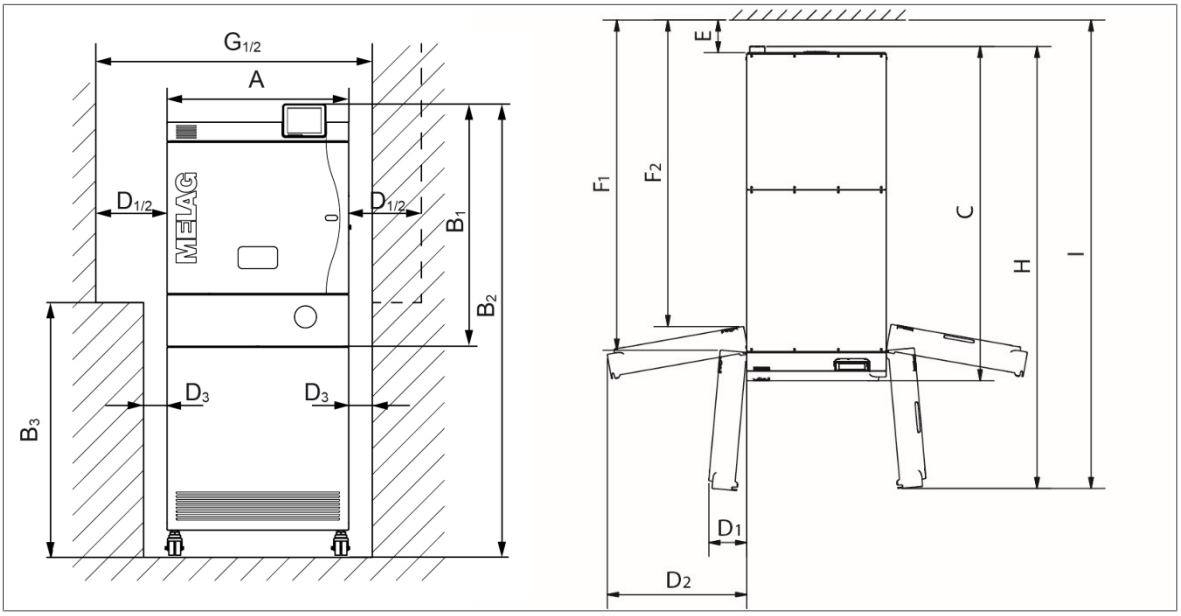


Dimensions		Cliniclave 45
Width	A	65 cm
Height	B_1	91 cm
Height with floor unit	B_2	158 cm
Height to door of steam sterilizer when using a floor unit	B_3	85 cm
Depth	C	91 cm
Min. clearance to the side of the door hinge*)	D_1	25 cm (opening angle 95°)
	D_2	75 cm (opening angle 170°)
Min. clearance to the side wall of the floor unit	D_3	8 cm
Min. clearance to the rear	E	15 cm
Free area with a fully-opened door	F_1	80 cm (opening angle 95°)
	F_2	70 cm (opening opening 170°)
Niche width required	G_1	min. 98 cm (opening angle 90°)
	G_2	min. 148 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, the clearances are to be inverted (dotted line).		

A free area of 60 cm must be given each side of the steam sterilizer/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_1, D_2) and door hinge right



Dimensions		Cliniclave 45 M
Width	A	65 cm
Height	B_1	91 cm
Height with floor unit	B_2	158 cm
Height to door of steam sterilizer	B_3	85 cm
Depth	C	153 cm
Min. clearance to the side of the door hinge*)	D_1	25 cm (opening angle 95°)
	D_2	75 cm (opening angle 170°)
Min. clearance to the side wall of the floor unit	D_3	8 cm
Min. clearance to the rear	E	15 cm
Free area with a fully-opened door	F_1	145 cm
	F_2	135 cm
Niche width required	G_1	98 cm (with opening angle 90°)
	G_2	148 cm (angle of opening 170°)
Clearance of door to device rear panel	H	202 cm (angle of opening 95°)
Clearance of door to the wall	I	214 cm (angle of opening 95°)
Corridor width required		With a 90°curve, the sum of the door width and corridor width must amount to a minimum of 230 cm
*) With door hinge right, the clearances are to be inverted (dotted line).		

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