

Professional Steam Bath Generators

Cleo Total

Installation, maintenance and operation

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Table of content

Foreword	5
Safety	6
Function	11
Overview	12
Scope of delivery	13
Installation	14
Dimensions model 4 & 8	14
Dimensions model 15 & 23	15
Dimensions model 32 & 45	16
Installation in the technical space	17
Installation conditions	19
Connecting the water supply	20
Connecting the steam line	21
Connecting the temperature sensor	23
Connecting the electrical power supply	24
Operation	26
Regulating the steam temperature	26
Methods of operation	27
Light operation for stand-by:	27
Options	28
Installing the light	28
Fragrance pump	29
Turbo steam	30
Climate control	31
Remote control	32
Stand-by	33
Circuit diagram Cleo Total 422	34
Circuit diagram CleoTotal 834 & 1534	35
Circuit diagram Cleo Total 2364 & 3264 & 4564	36
Commissioning	37
Preparation	37
Steam operation	38
Operation	39
Manual operation	39
Using a timer switch (coin-operated switch)	39
The coin-operated automat	39
The fragrance pump	40
Turbo steam	40
The climate control	41
The cabin light	41
Operating messages	42
The internal counter	43
Maintenance	45
Cleaning or replacing the cylinder	45
Draining the steam cylinder	45
Cleaning or replacing the outlet valve	47
The outlet valve	47
Service parts	48
Service parts	49

Operating manual for the end user	50
Safety precautions	50
Preparation & steam operation	51
Operation using an external switch or coin-operated switch	52
Query operating values; perform settings	52
The “Display” menu	53
The “Service” menu	54
The “System data” menu	55
The “adjustments” menu	56
Control Unit	58
Declaration of conformity	59

Foreword

Thank you for buying the Cleopatra Cleo Total steam generator. Please read this manual carefully before performing any assembly or maintenance work and follow the instructions to ensure optimum performance of the Cleo Total.

The Cleo Total Steam Bath Generator is manufactured according to the latest TÜV requirements and meets the technical safety regulations. Inappropriate use can nevertheless represent danger to the user or a third party. The national and local regulations should be observed in addition to these safety instructions. Please contact your specialist dealer if you have any questions about the installation of this product.

Appropriate use

The Cleo Total Steam Bath Generator is specifically and exclusively designed for generating steam in steam baths. Any other use is seen as inappropriate and is therefore undertaken at one's own risk. The manufacturer/supplier is not liable for any damages made during installation. The steam bath generator and all technical components (except the cabin light and the temperature sensor) may only be installed in a mechanical room. The steam bath generator and all associated components must be fastened in place using screws and plugs.

Safety Instructions

Improper installation, service, maintenance or use can cause property damage, severe personal injury, or death as a result of electric shock, burns, and/or fire. Read this manual carefully before beginning with the installation, operation or maintenance. Do not make any changes or modifications to the device. Do not change the electrical wiring. Do not use parts or components made by other manufacturers. Do not connect external electrical systems to the internal electric supply of the Cleo Total. Failure to comply with these instructions may result in improper operation and/or product failure.

Humidifiers are units for a fixed installation. Use the humidifier only when it is correctly installed. The Cleo Total should not be installed outdoors.

Only qualified personnel should perform field wiring installation procedures and maintenance. Improper wiring or contact with energized circuits may cause property damage, severe personal injury or cause death as a result of electric shock and/or fire. External wiring must be in accordance with the correct wiring diagram, national and local electrical codes. The coding switches are set ex work to define the size of the humidifier, the electric connection and the number of phases of the electric supply system. Do not change the position of these coding switches.

Maintenance

Regular maintenance and cleaning of the Cleo Total is necessary. When performing maintenance on the Cleo Total, disconnect all electrical supply systems. Wait until the temperature of the steam cylinder drops to the ambient temperature. Close the installed supply shut-off valve. Regularly check all parts, valves and inspect the steam cylinder. The Cleo Total and its components should be checked every 500 hours of operation. Good knowledge of electrode humidifiers and air-conditioning is essential to establish diagnostics or take any measures.

Safety Instructions

These instructions are intended for the installer. Read all instructions carefully to familiarize you with the product, components, known constructions and installation tips covered in this manual. This ensures a correct and safe installation. The Cleo Total should be installed by qualified and properly trained personnel.

The Cleo Total complies with the applicable standards and regulations and therefore presents no hazards for the user providing the Cleo Total is installed and used according to the instructions included by the manufacturer. The electrical and mechanical parts should be maintained for and kept fully operational. For this reason, these instructions are to be followed carefully.

All information and instructions in this manual have been composed taking into account the applicable standards and regulations, the state of the art technology and our many years of experience.

Please check the product for possible damage which could have occurred during transport. After installation a claim for surface damage will not be accepted by Cleopatra.

Any right to make a warranty claim is excluded if changes are made to the original product or parts of it. This operating manual should be kept close to the device, for rapid access to it when it is needed.



Use screws and plugs to attach Cleo Total to the wall. Walls that support the Cleo Total should be strong enough to carry the weight or should otherwise be reinforced. The plugs supplied are intended for use in concrete/solid stone walls. If the walls are made of a different material use plugs suitable for this type of material. (Not in scope of delivery)

Cleopatra accepts no liability for damage caused by:

- Non-observance of the manual
- Incorrect use
- The use of untrained personnel
- Unauthorized modifications
- Technical changes
- The use of unapproved spare parts

Correct use:

The Cleo Total may only be used indoors.

Use in any other way is not permitted and is at the risk of the user.

Don't use the Cleo Total when it is not in perfect condition.

Do not use in abrasive environment.

Safety

Symbols used in the instruction manual

The symbols described below appear in the installation instructions and on the product itself. It is imperative to follow the safety instructions to avoid accidents, injuries and damages. Procedures marked with these symbols require special attention.

Caution! Not following the correct procedure can damage the product or lead to malfunctions.

Hazard identification symbols

Indicates the possibility of a hazard



Attention, two people handling required

Use assistance when handling procedure. If this procedure is not observed, the product or objects within its environment may be damaged.



Attention general hazard

Inform the personnel concerned that the process described, unless performed in compliance with the safety rules, bears the risk of injury.



Pinch point hazard

Caution hand injury. Watch your hands.



Hot surface hazard

Don't touch. Danger of scalding. The surrounding area, including the floor, can be hot.



High voltage hazard / Electric shock risk

Procedures involving electricity are dangerous. All installation and inspection works must be carried out by an approved electrician.



Slippery when wet

Floors and surfaces can be slippery when wet.

Mandatory action

Indicates an action that should be taken to avoid a hazard



Specific instructions or information

Procedures marked with this symbol require special attention.



Read before use

Please read carefully before using product or proceeding with installation.



Gloves required

To prevent hand injury wear proper protective gear during installation of the product.



Foot protection required

To prevent foot injury wear proper protective gear during installation of the product.



Eye protection required

To prevent eye injury wear safety glasses during installation of the product.

Symbols used on product

Symbols used on the product and parts of the product or packaging



Steam outflow

Indicates the position where steam exits the steam generator.



Water connection

Indicates the position of the water inlet on the steam generator



Equipotential connection

Indicates the position of equipotential connection.



Disposal of parts, old electrical and electronic equipment

This symbol on the product or on its packaging indicates that this product can't be treated as household waste.

Safety Measures



The device should only be installed, commissioned and maintained by suitably trained personnel / a specialized dealer. National and local regulations should be followed.



Set the product to the zero energy state prior to any cleaning and repair work, i.e. trigger the RCCB protective switch.



For electrical installation, all applicable VDE, country-specific and EU regulations in their respectively valid versions must be observed. All installation and inspection works must be carried out by an approved electrician and in accordance with VDE 0100 Part 701 / E IEC 60364-7-701.

Sockets should be grounded. The complete power supply is connected via:

- AC connection
 - < 3.2kW = 230V 1N ~50Hz (L, N, PE)
 - > 3.2kW = 400V 2N ~50Hz (L1, L2, N, PE)
- A main switch for disconnection with 3 mm contact contactopening.



Sockets must have earth terminals. The electrical mains (230 VAC 50 Hz or 400 VAC 50 Hz) to which components are connected must have a 30 mA fault current protector (residual current circuit breaker) as demanded by DIN EN 60335-2-41/VDE 0700. If the electrical connecting cable is damaged, replace it.

Non double isolated cables need to be laid inside a pipe or a cable conduit.
Do not install cables for 230 / 400 V and 12 V inside the same pipe.

Personal protective equipment

Use safety shoes, safety glasses and safety gloves while installing the Cleo Total



Safety

Appropriate use

The Cleo Total is manufactured according to the latest state-of-the-art technology and meets the requirements of the technical safety regulations. Inappropriate use can nevertheless represent danger to the user or to third parties. The national and local regulations should be observed in addition to these safety instructions. Optimal operation of the product is secured when the following instructions are followed. Please contact a specialized dealer if you have any questions about the installation of the Cleo Total.

Steam bath generators of the type Cleo Total generate steam for heating steam bath cabins. Any other or similar use is seen as not appropriate and is therefore undertaken at one's own risk. The manufacturer / supplier is not liable for any damages arising by inappropriate use.

The Cleo Total should not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions.

Children not be allowed near the Cleo Total to ensure they do not play with the Cleo Total.

Modification of the Cleo Total

No other than original Cleopatra devices or components may be installed on the Cleo Total. Use of anything other than original Cleopatra spare parts will lead to limitation or termination of the manufacturer's liability and warranty.

Function

Steam bath generators of the type Cleo Total generate steam for heating steam bath cabins. The Cleo Total has a heating system which directly heats the water using electrodes. The supply water is passed through an entry valve and a special filling system into the steam cylinder. The electrodes connected with the mains power supply leads the heating current into the cylinder water. This heats the water up to boiling point and generates steam. During first commissioning of a new steam cylinder it can take a certain time (start phase) until the nominal power rating of the steam bath generator is reached.

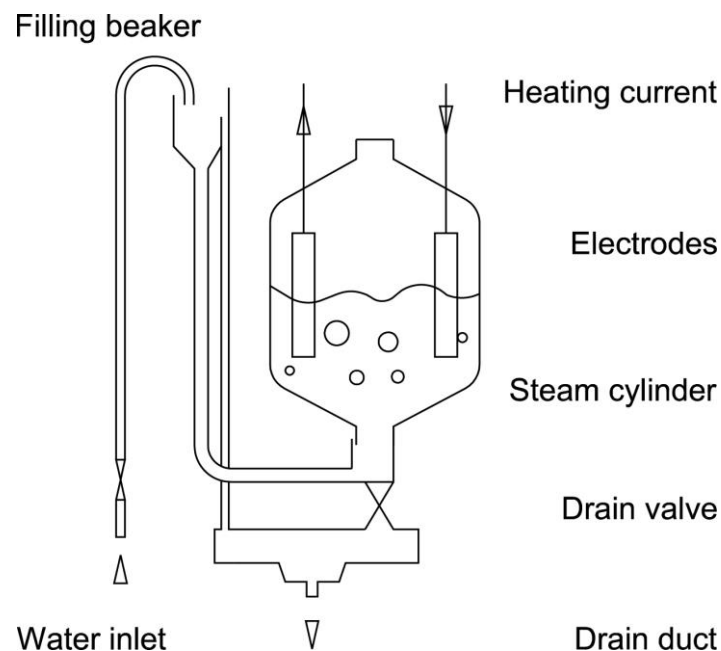
The amount of time is dependent on the conductivity of the supply water. The start phase can take up to a few hours for soft water; the nominal power rating will then be reached after the start phase has expired. A start phase will take place every time a new steam cylinder is installed.

Evaporation of the water increases the concentration of minerals in the cylinder water. The electronic regulating system therefore ensures automatic draining operations and continuously stabilizes the water conductivity.

The generated steam warms up the steam bath cabin to the specified temperature. A temperature regulating circuit regulates the steam output according to the energy consumption of the cabin. This secures a stable temperature inside the cabin for optimal power consumption as well as a continuous steam flow.



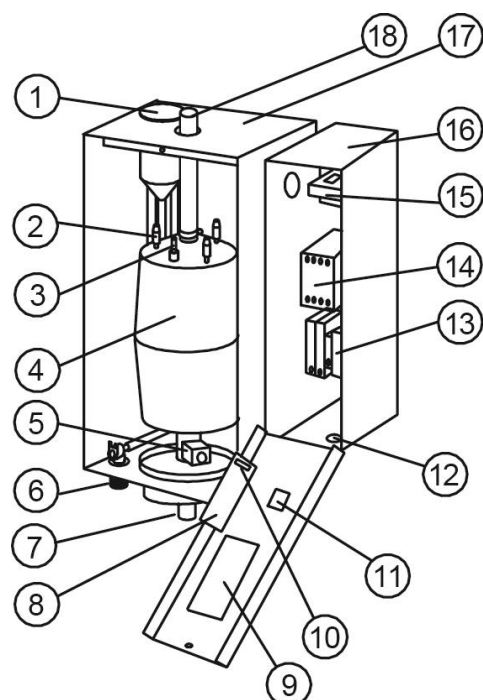
Electrode steam generators generate steam at a very low pressure. Therefore the loss of pressure in the attached steam line or the steam nozzles must also be kept very low (a maximum of about 100 mm of water). Excess pressure can negatively affect achieving the nominal device output. It can result in malfunctions and can be dangerous and cause considerable damage to property or affect the nominal output and cause water spoilage.



Overview

Overview

The Cleo Total steam bath generator is fitted with the following functions:



- 1 Decalcifying fill cap
- 2 Cylindrical plug
- 3 Max. water level sensor
- 4 Steam generator
- 5 Drainage valve
- 6 Water inlet with valve G1/2 male thread
- 7 Drainage tube
- 8 Power supply PCB
- 9 Processor PCB
- 10 Fuse
- 11 Main switch
- 12 Cable swivel
- 13 Clamps
- 14 Safeguard
- 15 Current transformer
- 16 Electronic control box
- 17 Housing (water)
- 18 Steam hose / outlet

Scope of delivery

Model 4

- Steam hose 215mm
- Support tube 22X50
- Clamp 22mm

Model 8

- Steam hose 145mm
- Support tube 22X50
- Clamp 22mm

Model 15 & 23

- Steam hose 140mm
- Support tube 35X60
- Clamp 43mm

Model 32

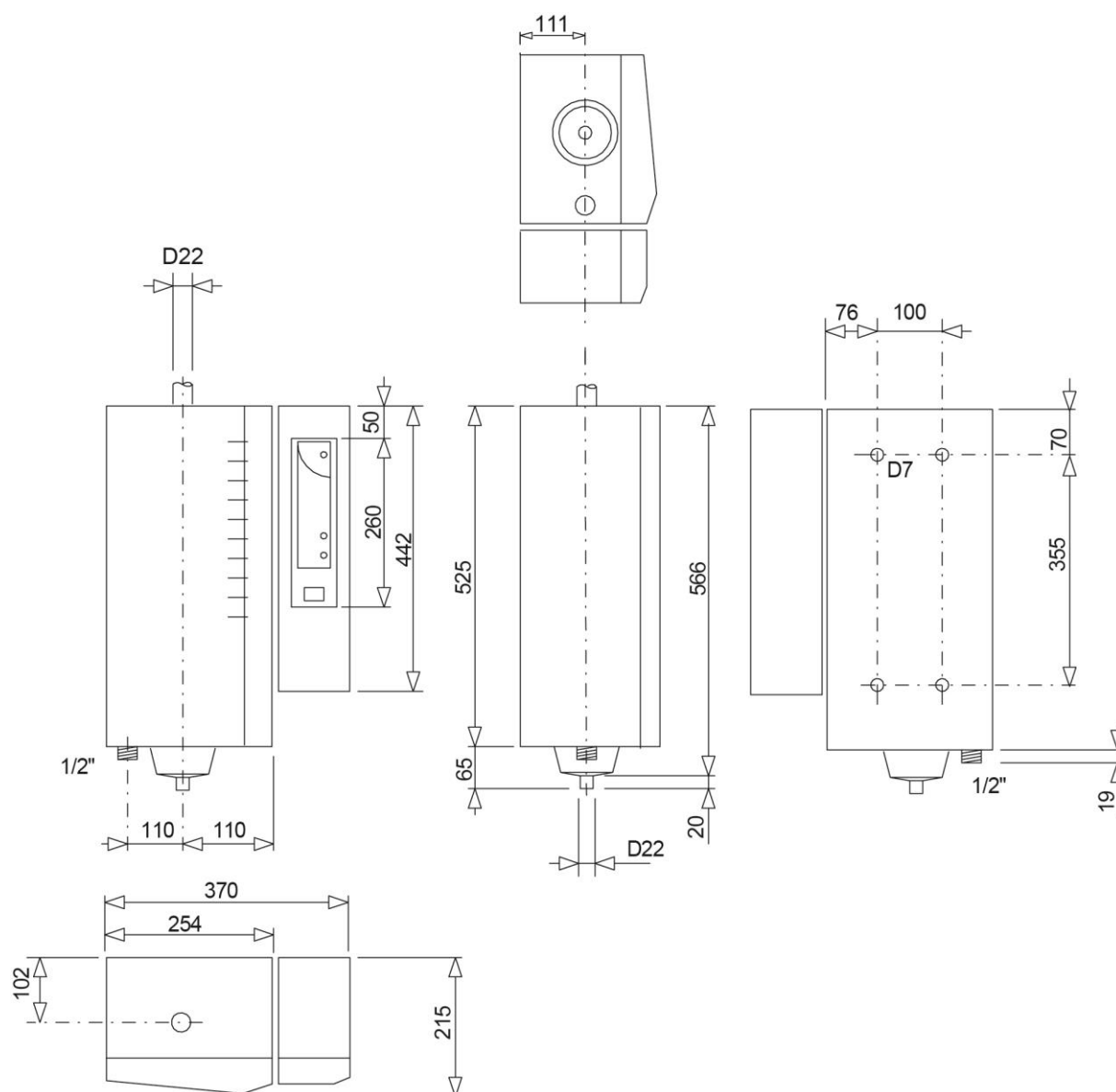
- Steam hose 140mm
- Support tube 35X60
- Clamp 43mm

Model 45

- Steam hose 140mm
- Support tube 35X60
- Clamp 2x43mm

Installation

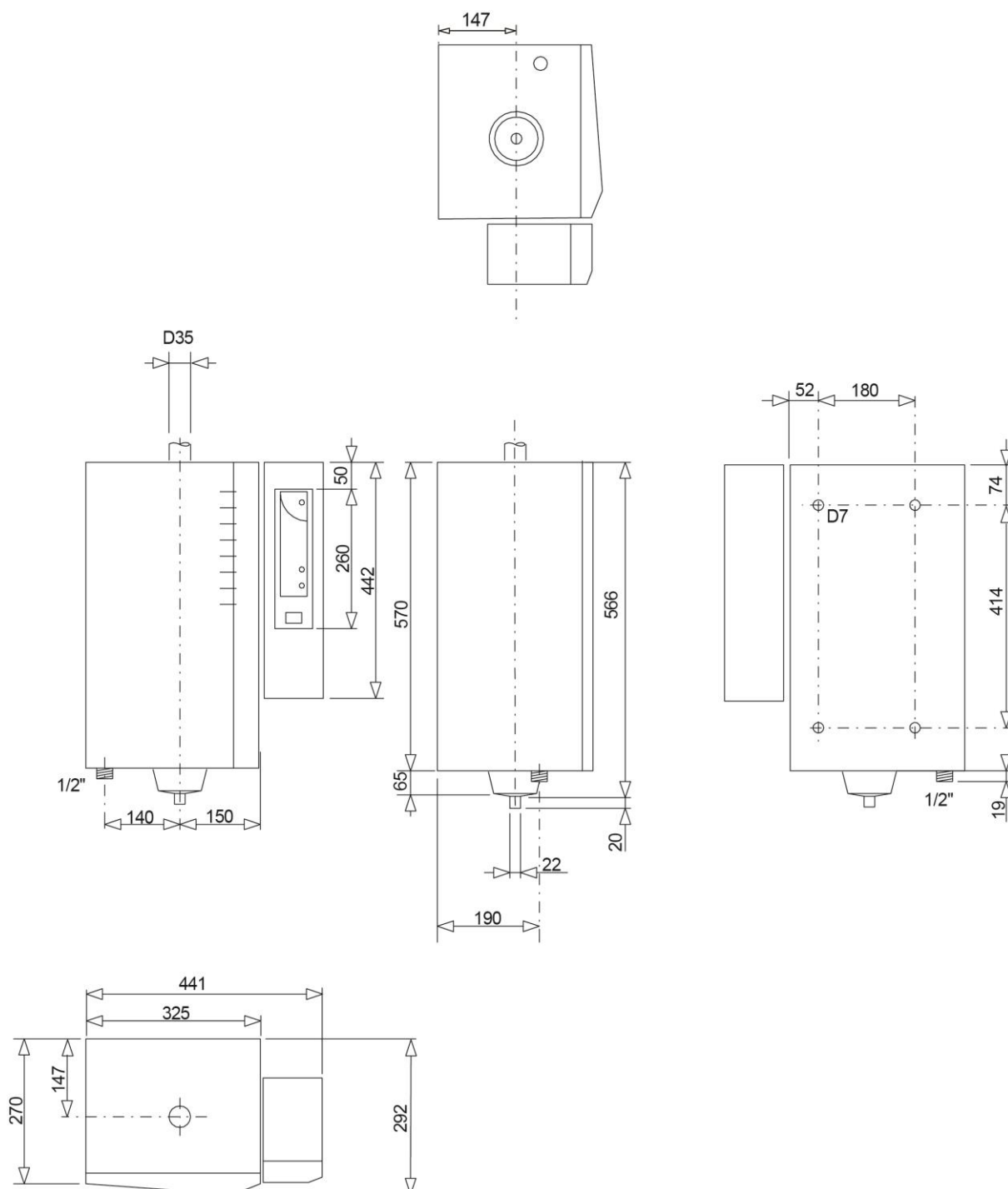
Dimensions model 4 & 8



Model	Output kW	Steam tube	Drain	Netto weight kg	Bruto weight kg
4	3	Ø 22	Ø 22	10	13,5
8	6,1	Ø 22	Ø 22	11	17,5

Installation

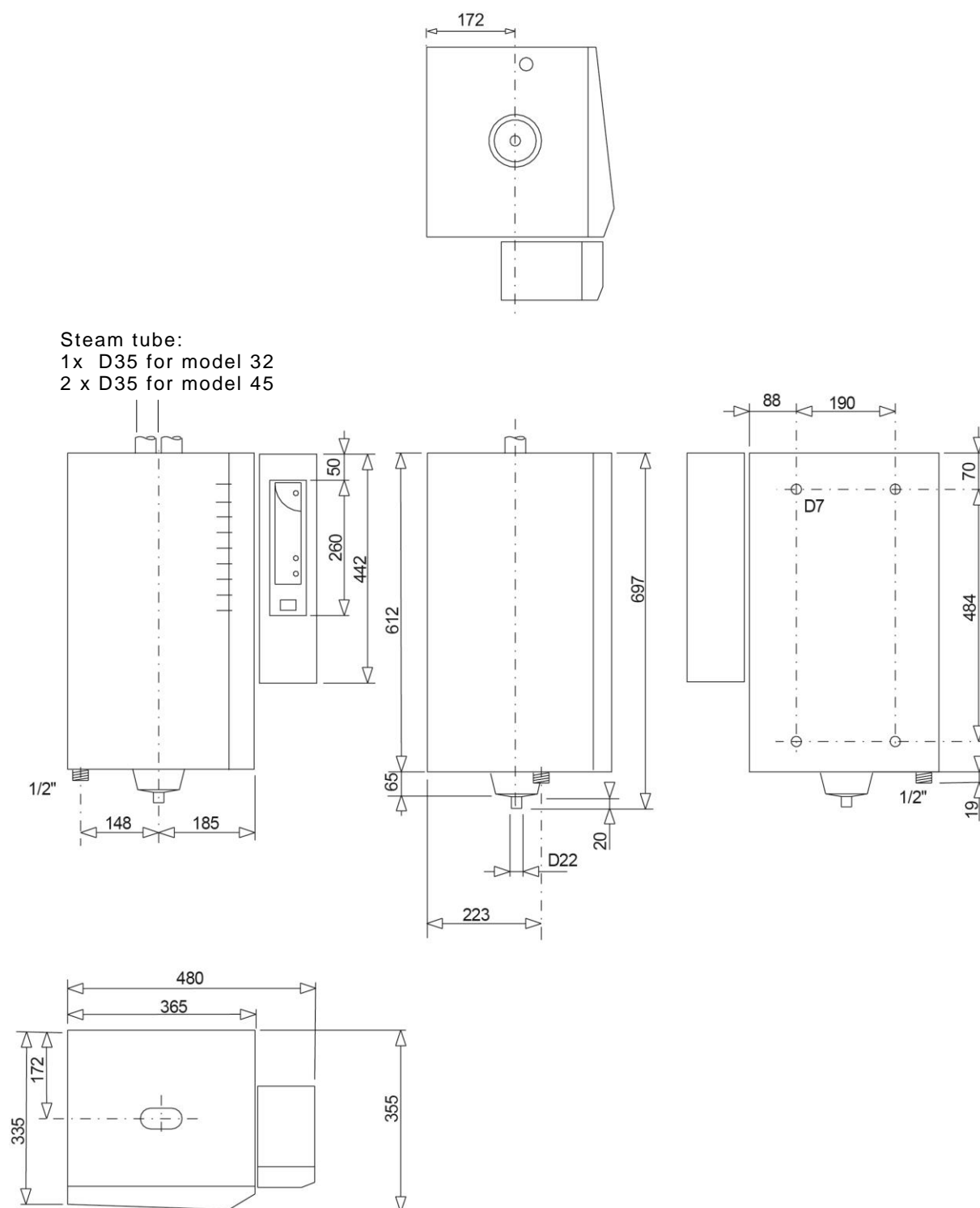
Dimensions model 15 & 23



Model	Output kW	Steam tube	Drain	Netto weight kg	Bruto weight kg
15	11,4	Ø 35	Ø 22	16	31
23	17,5	Ø 35	Ø 22	17	32

Installation

Dimensions model 32 & 45



Model	Output kW	Steam tube	Drain	Netto weight kg	Bruto weight kg
32	24,3	Ø 35	Ø 22	27	52
45	34,2	Ø 2x35	Ø 22	28	53

Installation

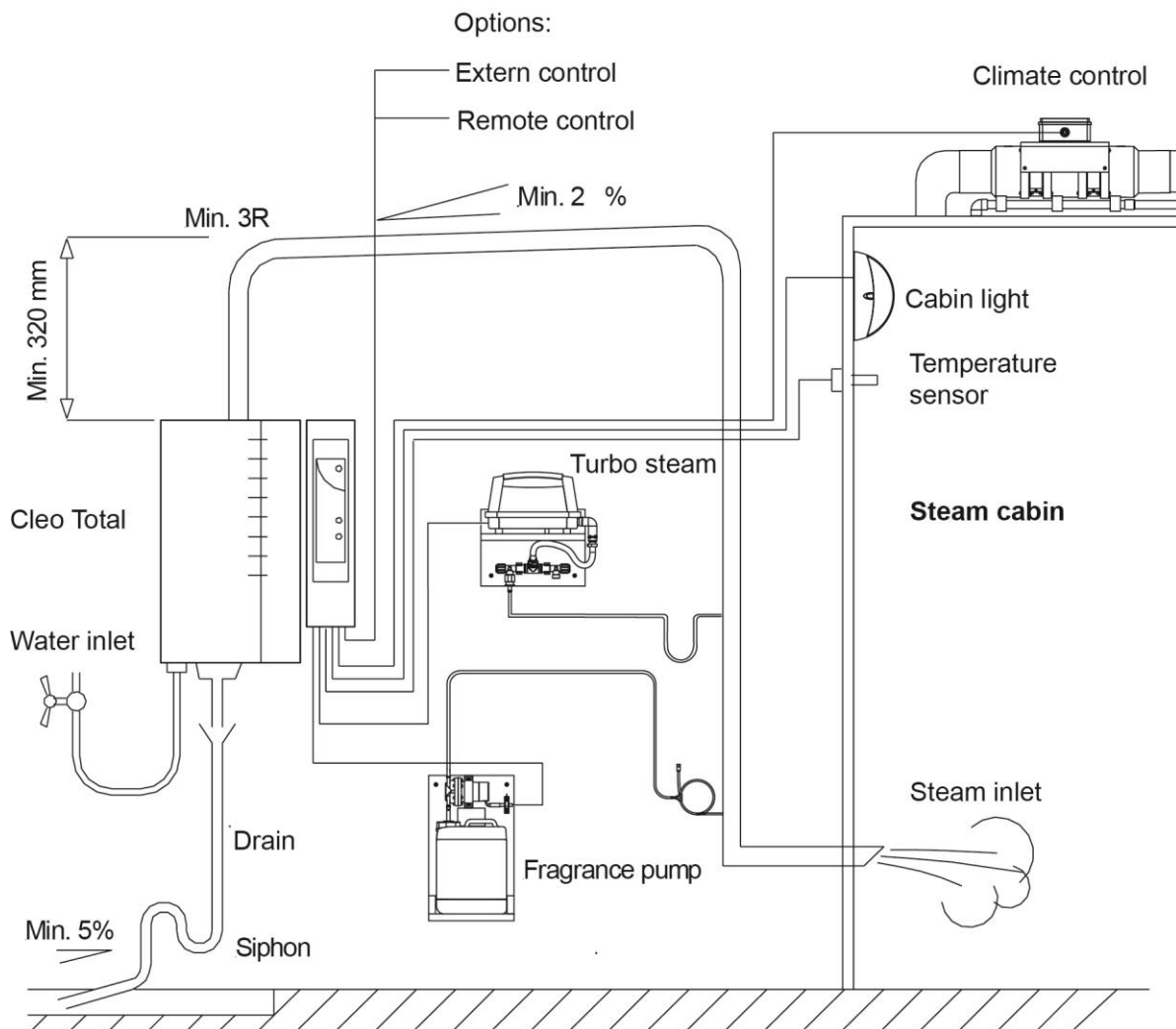
Installation in the technical space



For assembly work only use the original accessories.

Steam generators and all its technical components must be installed in a ventilated mechanical room. The Cleo Total steam generators are not intended for the end user. Do not install the steam generator inside multifunctional shower facilities or inside steam cabins. The Cleo Total should be installed as described in EN 60335-2-105. The steam generator and all its components must be secured by means of screws where necessary. Do not install the steam generator and all its technical components directly on the Cabin wall.

Install the Cleo Total as close as possible to the steam room. The maximum recommended length of the steam tubes is 10 meters. The humidifier is made for use in professional installations. Install the humidifier horizontally on a wall. The wall must have a structurally stable surface. Avoid any deformation of the casing. The wall temperature wall should not produce condensation on the inside of the humidifier. Leave enough space for maintenance. Do not install the Cleo Total outdoors, do not use the humidifier in an explosion-proof environment or in an area where ignitable air mixtures can flow back into the steam cylinder. Avoid chlorine containing air, high temperatures and moist surroundings. An ambient temperature with a maximum of 35°C and a humidity of maximum 80% is advised. During the service, water can flow out of the humidifier. If water sensitive parts or appliances are placed under the humidifier, a safe protection against water must be provided. The max. pressure of the steam cylinder outlet should not exceed 0,1 bar.



Installation

Installation in the technical space



The steam tubes must be made of copper piping. Always use a bending rod to bend the pipe. (no elbows).

Observe the minimum distances in the picture below.

To open or close the steam bath generator the screws should be turned counter clockwise using an appropriate screwdriver so that the housing of the steam cylinder or electronics area opens. Push back the housing carefully onto the screw to close. (no screwdriver required).

Please ensure, when mounting the device, that sufficient space is left for maintenance work and that the steam bath generator is easily accessible. It is best to mount it at a height of 1.80 meter in order to achieve optimum operation and maintenance space.

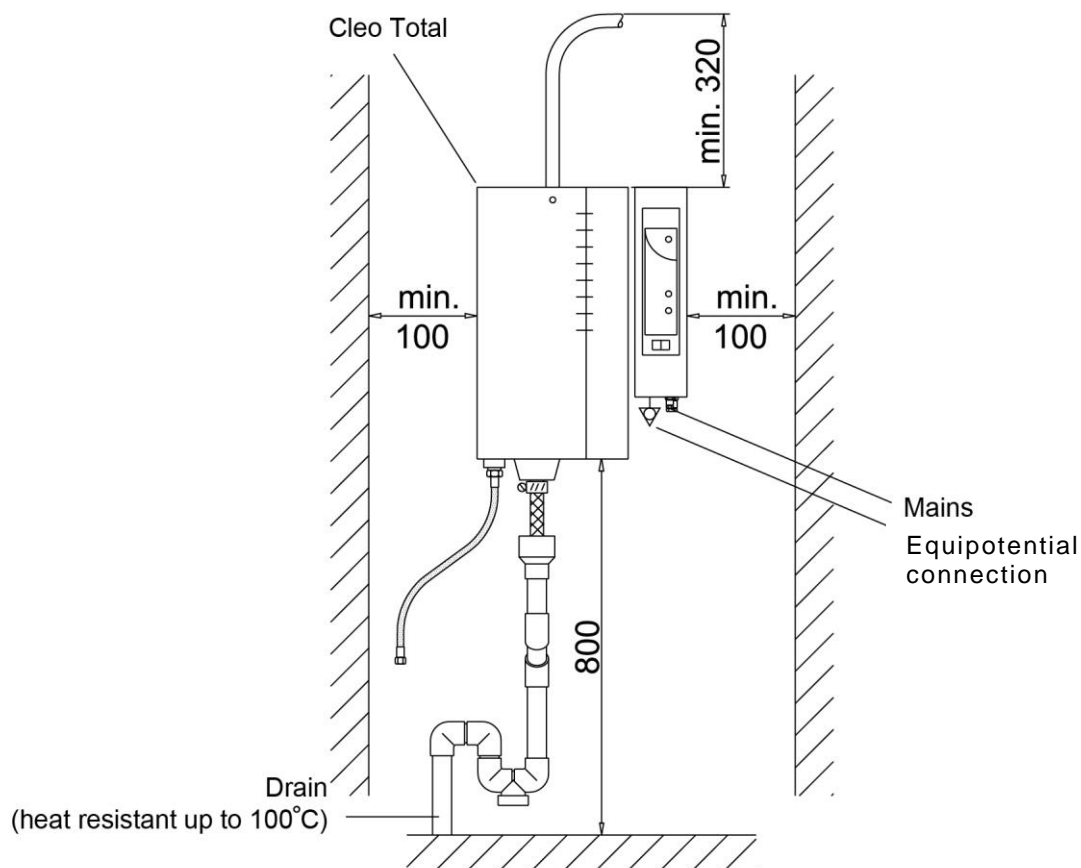
The generator must be earthed electrically and mechanically;

- Electrically on the power supply terminals on the inside of the steam generator
- Mechanically on the equipotential clamp at the outside of the steam generator.

There is an clamp (min. 4 mm²) attached to the generator for this purpose

Local and national regulations must be observed.

We recommend installing the steam bath generator close to the steam inlet. For optimal efficiency connect the steam bath generator via a short as possible steam line(s) with the steam inlet.



Installation

Installation conditions

Installation values:

Maximum ambient temperature:	35°C
Minimum ambient temperature:	5°C
Maximum ambient relative humidity:	80%, not condensing
Mains voltage:	depending on model: 230V or 400V (-8%+10%)
Maximum pressure at the outlet of the steam cylinder:	0,1 bar
Water conductivity:	125 to 1250 micro Siemens / cm

Water quality: Cleo Total steam bath generators can be supplied with hard water; the best water is untreated tap water. The 16-bit processor automatically adjusts the operating conditions according to the water quality. Deionized water should not be used since the electrical conductivity is too low. Softened water hardly provides any operational advantages and should not be used. A minimum hardness value of about 6°D (DH) is recommended. Water softeners that depend on ion exchangers can produce such water but the salt concentration can make it aggressive and cause corrosion on the electrodes. We therefore discourage use of water softeners.

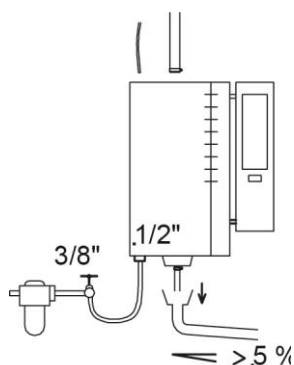
Electrical conductivity of the supply water: This should lie within the limits of 125 to 1250 micro-Siemens / cm.

Hardness range: measured in terms of the international unit - milimol of calcium and magnesium ions per liter (previously the DH measure)

Soft water:	< 1,3 mmol/l	-	< 7° dh
Medium hard water:	1,3 – 2,5 mmol/l	-	7° - 14° dh
Hard water:	2,5 – 3,8 mmol/l	-	14° - 21° dh
Very hard water:	> 3,8 mmol/l	-	> 21° dh

1° dh corresponds:

- 1,05° American hardness
- 1,25° English hardness
- 1,79° French hardness
- 10,0 mg/l CaO
- 17,9 mg/l CaCO₃ (ppm)



The connection of the water supply is located on the bottom of the Cleo Total steam generator. Local regulations should be observed.

The mains water supply connection has a male thread of DN20. Use a flexible hose to connect the inlet to the connecting supply line. A stop cock, a revers flow valve, a water filter and a mechanical earth grounding must be installed on the water supply line, a siphon must be installed in the drainage.



During installation please pay attention to the following:

- All work on the Cleo Total may only be carried out in a de-energized state
- The mains water supply must also be connected to the PA earth potential

Installation

Connecting the water supply

All assembly work should be performed by qualified and properly trained personnel. National and local regulations should be followed during installation. Only use normal tap water. It is important to contact the supplier of the steam bath generator before using treated or demineralised water.



Use either copper, iron or plastic pipes. Low quality plastic or rubber can produce foam in the steam cylinder and affect the performance or expose people to serious dangers.

The water supply pressure should not be lower than 1 bar and not greater than 10 bar. If the pressure is < 1bar the inlet valve cannot open.

For optimum operation use a pressure reducing valve which can be set to 4 bar.

The supplied water should not exceed a temperature of max. 40 degrees.

Flush the water supply lines before installation to remove dirt particles, fat or residues.

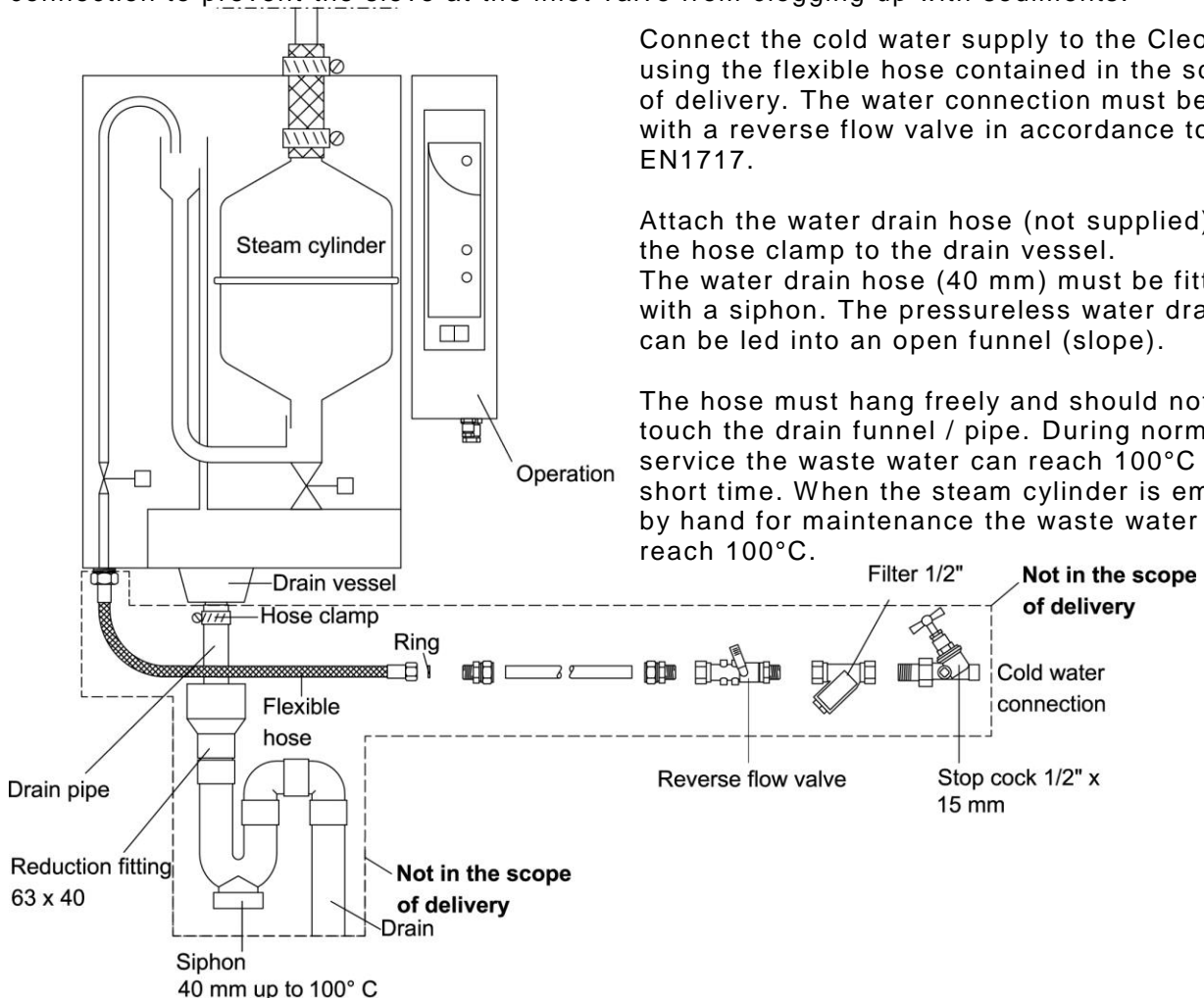
Clean the built-in pre-filter of the inlet valve after the first 100 hours of operation.

The Cleo Total should be inspected regularly. All water lines should be water tight to prevent water leakage. Potential equalization must be mounted according to local regulations.

When installing the water drain leave enough space for cleaning and maintenance.

Lead the drain pipe to the waste water pipe with an adequate downward slope.

(at least 5%). Cleopatra recommends the installation of a filter near the cold water connection to prevent the sieve at the inlet valve from clogging up with sediments.



Connect the cold water supply to the Cleo Total using the flexible hose contained in the scope of delivery. The water connection must be fitted with a reverse flow valve in accordance to EN1717.

Attach the water drain hose (not supplied) using the hose clamp to the drain vessel.

The water drain hose (40 mm) must be fitted with a siphon. The pressureless water drain can be led into an open funnel (slope).

The hose must hang freely and should not touch the drain funnel / pipe. During normal service the waste water can reach 100°C for short time. When the steam cylinder is emptied by hand for maintenance the waste water can reach 100°C.

Not in the scope of delivery

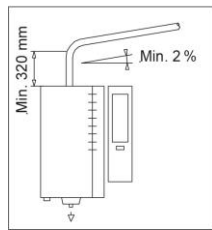
Stop cock 1/2" x 15 mm

Installation

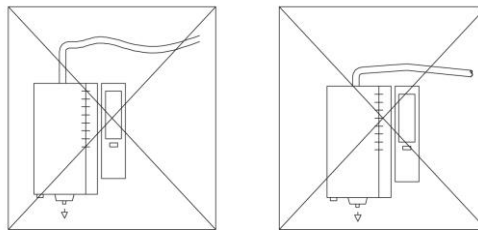
Connecting the steam line

Use the largest possible radii if straight pipe routing is not possible. Steam lines must be properly supported in order to avoid water sacks. Please take into account expansion and contraction of the copper piping when heated or cooled down. Min. 20 mm thick thermal insulation is recommended for copper pipes. The steam must be able to pass through the line unhindered: no barriers, no sagging, kinking or crushing etc. Counter-pressure or condensation can be caused through wrong routing. It can have a negative effect on the optimal steam process. When installing the steam line one should ensure that condensation always flows in the opposite direction as the steam.

Correct installation



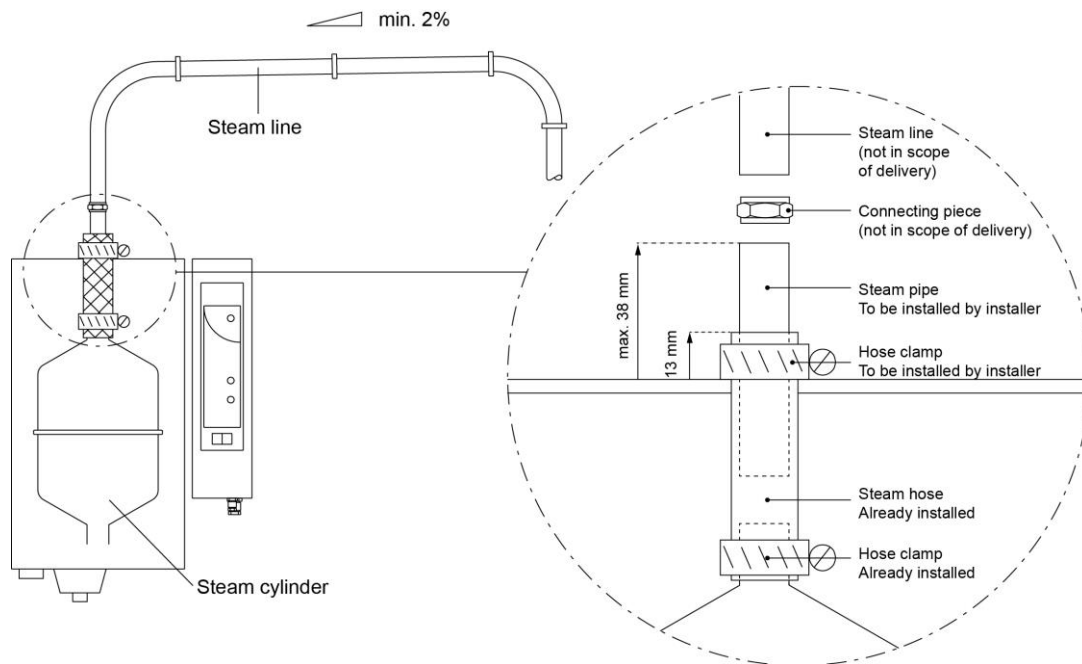
Wrong installation



The pressure loss in the steam lines and steam nozzles should not exceed 0,1 bar. During first commissioning the piping should be checked on sagging or deformation.



If the steam line is laid in a cable duct, pipe or insulation:
Materials used must be temperature resistant to a minimum of 100°C.



The steam cylinder is attached to the steam line with the steam hose. Cleopatra will not accept any liability in case of damages occurring if another steam hose is used. The steam hose should be as short as possible. Attach to the steam cylinder and the steam line using hose clamps.



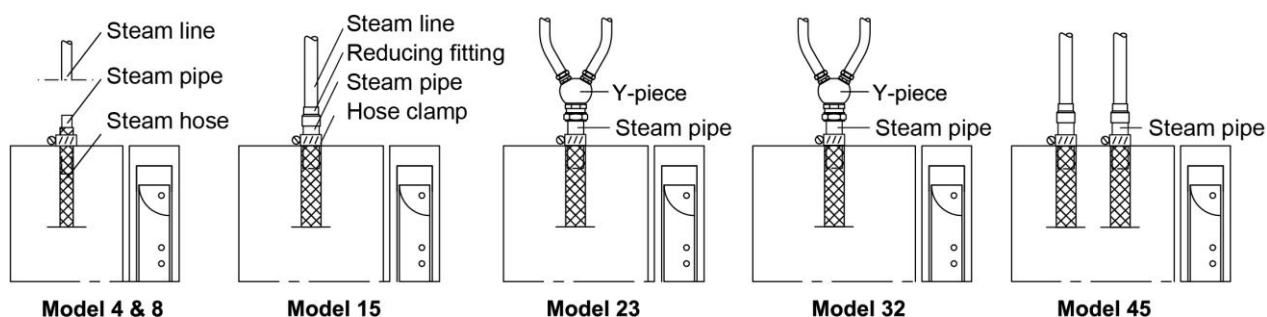
During installation please pay attention to the following:

- All work on the Cleo Total may only be carried out in a de-energized state
- Make sure no Electrical wiring gets damaged during installation
- Test according to BGV A3.

Connection of the steam line to the steam bath generator

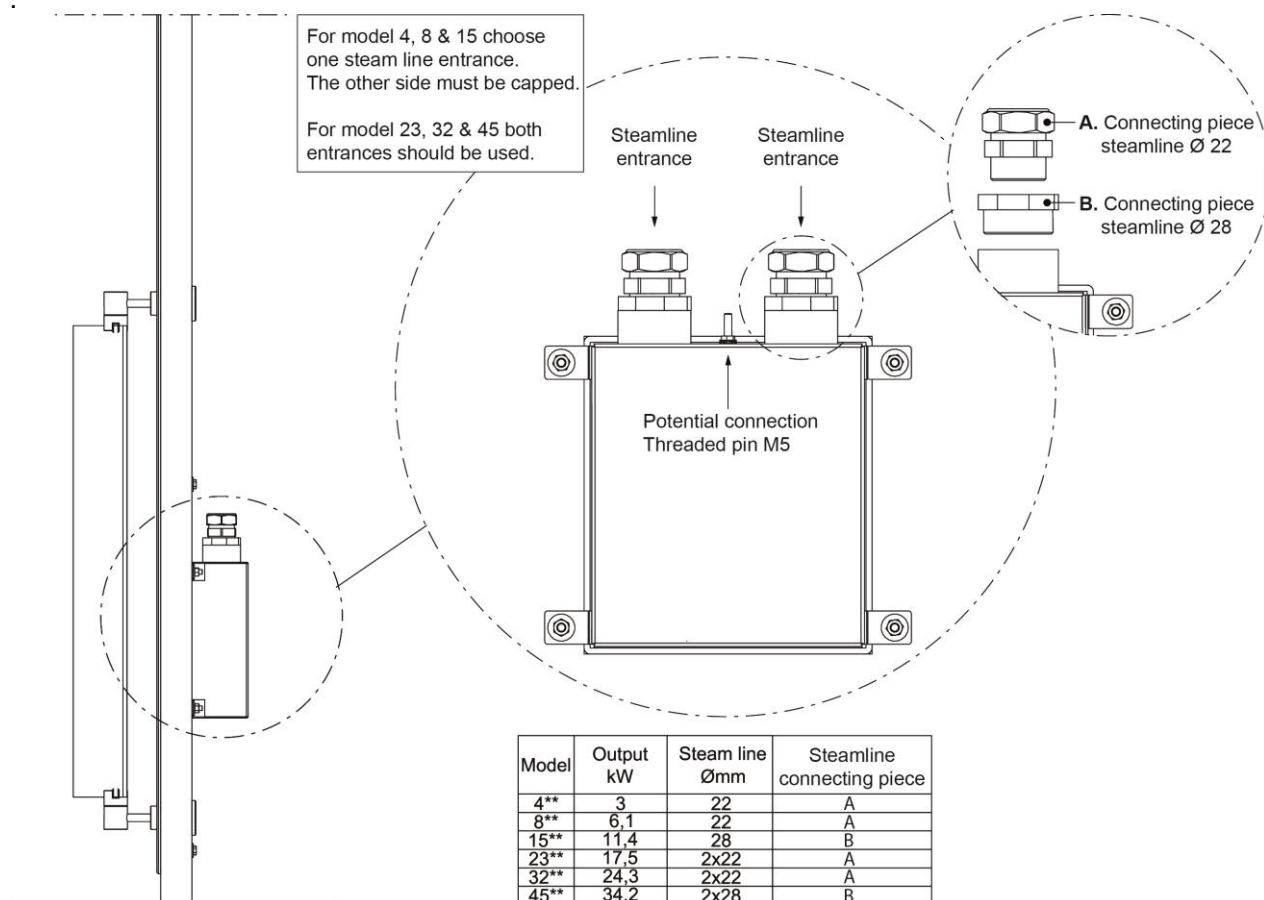
The following table shows the options for connecting the steam line to the steam bath generator. The reducing fitting, steam line and Y-piece are not included in the scope of delivery. (according to the model of steam bath generator).

Model	Output kW	Steam pipe	Steam line Ømm	Steam hose Ømm	Hose clamp Ømm	Reducing fitting Ømm	Y-piece Ømm
4**	3	22x50	22	22/29	25-40		
8**	6,1	22x50	22	22/29	25-40		
15**	11,4	35x60	28	35/43	45-55	35-28	
23**	17,5	35x60	2x22	35/43	45-55		35x22x22
32**	24,3	35x60	2x22	35/43	45-55		35x22x22
45**	34,2	2x35x60	2x28	2x35/43	2x45-55	2x35-28	



Connecting the steam line / steam inlet

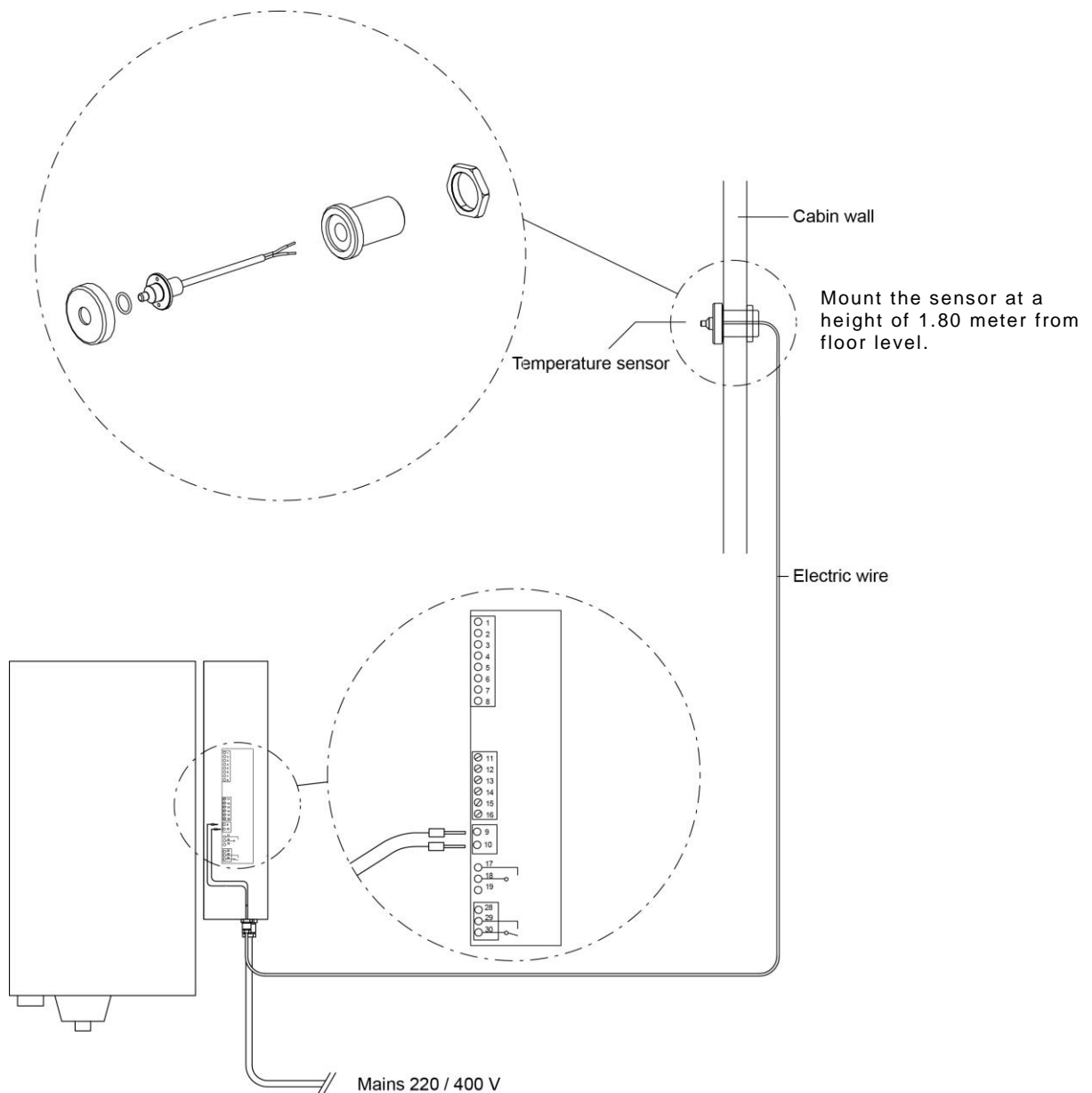
Connect the steam line or steam lines with the steam inlet as shown in the illustration



The steam inlet has to be mechanically grounded. A PA-potential earth connection is located on the steam inlet. Local and national regulations must be observed.

Installation

Connecting the temperature sensor



Connect the temperature sensor according to the enclosed connection diagram. The temperature sensor must be placed inside the steam room in order to measure the temperature. The temperature sensor should be clean and not covered with debris. The standard length of the connecting cable is 10 meters. An extension of the sensor cable must be avoided: inaccurate wiring can distort the temperature measurement and interfere with proper operation of the steam generator. The internal electronics are pre connected, the temperature sensor is connected via a two-pole wire of 0.75 mm² by 1 meter length. Use a dust-proof housing when connecting this cable the Temperature sensor.

Lay the cable between the steam generator and cabin in a conduit or a cable duct.

Temperature probe: Use the original probe as the temperature probe. Do not cover the temperature probe with other objects. Install the temperature probe at 1.80 meters above the floor level with a distance of 125 mm of the hinge located on the door.

Installation

Connecting the electrical power supply



All power circuits should be interrupted before and during work on a steam bath generator!

National and local regulations should be observed. Please note that the steam bath generator should be installed in the designated mechanical room.

A circuit breaker which separates the generators from the mains power supply must be installed during installation (not in the scope of delivery).

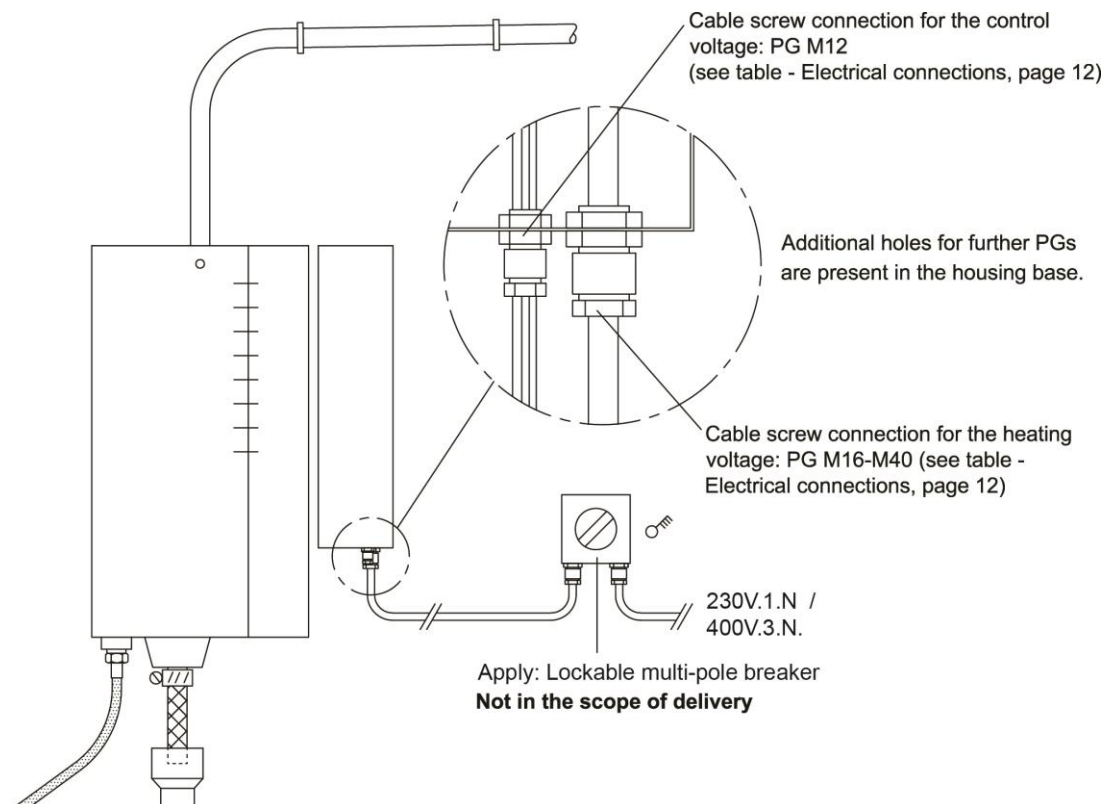
The power supply must be fitted with a residual current circuit breaker (RCCB) with a maximum of 30 mA. Components with a voltage greater than the safety voltage of 12V must not be reachable by persons.

The steam bath generators are made according to Protection Class I (electrical devices) and are designed to be connected to an earth leak switch. The steam bath generator, as well as all electronic apparatuses on which Protection Class I applies, should be installed according to Protection Measures Class I. The appropriate electrical circuit diagram is included in this manual. Make all wiring connections according to the circuit diagram. Pa terminal compensating connections must be arranged. There are earth terminals on the steam bath generator, the steam inlet and the Climate control.

The circuit diagram shows maximum loading of the internal supply circuits.

These loads should not be exceeded.

There should be no alterations made to the original cabling. External components should only be connected to the installed external terminals.



After the completed installation of electronics, steam and water an electronic test should be performed according to VDE0100T01 / EN60335-2-105 and according to BGV A3. This test must be documented.

Control voltage: The control voltage 230V is connected to terminals L2 and N. The neutral conductor (N) of the three-phase control voltage must be connected externally.

Electrical connections of 3-400 V, 50 Hz with a neutral (N) and an earth terminal (PE). The connections should be secured via a circuit breaker with a contact width of at least 3 mm. The type of electrical feed lines and the minimum security fuse values should be determined by a professional and according to the device model. We recommend checking the terminals and connections after a few days commissioning for the first time.

Added options to the Cleo Total with a 12 V control voltage is protected with a 2.5 A fuse. A 6.3 fuse protects the 230 V power circuit.

Electrical connections

Model	Output kW	Terminals mm ²	Cable screw connection for heating voltage	Cable screw connection for heating voltage
4**	3	4	PG M16	PG M12
8**	6,1	4	PG M16	PG M12
15**	11,4	6	PG M25	PG M12
23**	17,5	10	PG M25	PG M12
32**	24,3	10	PG M40	PG M12
45**	34,2	16	PG M40	PG M12

⇒ Additional holes are available for further PGs in the housing base

Current

Heating voltage V	Model					
	422	834	1534	2364	3264	4564
230	20A					
400		16A	25A	35A	50A	70A

One must observe the local connection requirements as well as the safety regulations.

Electrical connection values

Cabin light	12V AC	25W	Internal steam generator
Fragrance pump	14V DC	75W	Internal steam generator
Turbo steam	230V AC	64W	Internal steam generator
Climate Control	230V AC	40W	Internal steam generator

Further installed fuses

Fuses are installed in the following circuits:

Light circuit 12 V: 6.3 A

Control voltage 230 V: 6.3 A

Fragrance pump 12 V: 2.5 A

Supply circuit of the electronics: 1.6 A

Operation

Regulating the steam temperature

The Cleo-Total steam bath generators regulate the temperature of the steam bath cabin automatically and according to the set nominal temperature. The amount of steam is determined by the energy needs of the steam bath cabin. This ensures optimum energy consumption. The factory settings are programmed to provide a good steam bath experience for most common use.

The temperature regulation system is fitted with programmable parameters in order to provide different desired requirements. The programmable parameters are installed only to support further optimization of the steam bath and can only be altered by a specialist. Please read more about regulating the parameters in the commissioning chapter. There is a connection diagram supplied with the device.

Please note: Only the original probe may be used as a temperature probe.

Operation

Methods of operation

The Cleo-Total steam bath generators can be operated in various ways:

- Manually by using the buttons on the panel.
- By means of an external On-Off contact button.
(Stand-by programming required in the menu “adjustments”)

The Cleo-Total steam bath generators are set for manual operation ex works. Adjust the programming during commissioning if another form of operation is desired. The method of operation using an external On-Off contact is explained under “Stand-by function”.

Stand by function:

The Cleo-Total steam bath generators can be operated using an external contact e.g. a coin-operated automat. Various stand-by functions are programmable in the “adjustments” menu. The stand-by function “run” is set ex works. Other stand-by functions will have to be programmed if required. The following stand-by functions can be programmed:

- **onOff** **For operation with an external On-Off switch**
Switch open = no operation with steam, no light, no fragrance
Switch closed = operation with steam with light and fragrance
- **noSb** **For operation with an external On-Off switch**
Switch open = no operation with steam, no light, no fragrance
Switch closed = operation with steam with light and fragrance
Important: The button “Steam” must be set manually for this operating mode.
- **30-45** **For operation with an external On-Off switch**
Switch open = Operation with steam at the set stand-by temperature (30 to 45 degrees) with light and fragrance.
Switch closed = Operation with steam at the set nominal temperature with light and fragrance.
- **Run** For manual operation with the button “Steam”

(An external switch does not work).

Light operation for stand-by:

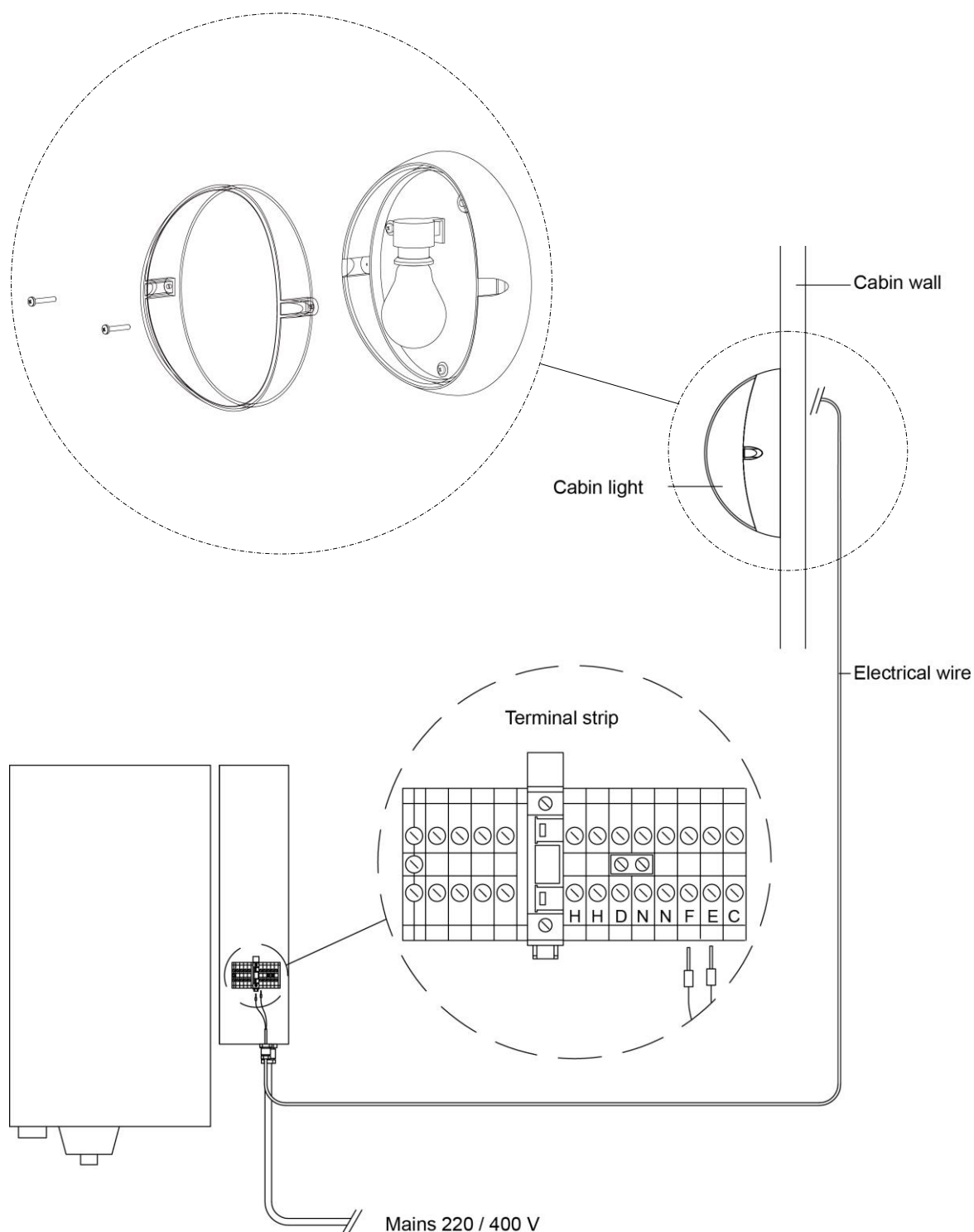
If the stand-by function “onoff”, “noSb” or “30-45” is programmed the light can be switched off with delay after opening the external switch. The delay can be programmed as follows with the function “Llt.d” in the menu “adjustments”:

- “oFF” = The light switches off without delay
- “1 to 600” = The light switches off with a delay
(Delay of between 1 and 600 seconds)
- “on” = The light is always switched on.

Options

Installing the light

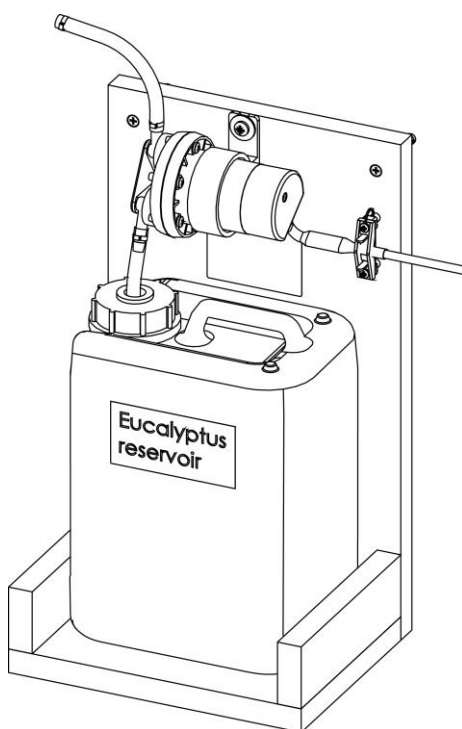
The standard length of the connecting cable is 10 meters. An extension of the cable must be installed by a certified electrician. An extension of the cable must be avoided: inaccurate wiring can interfere with proper operation of the steam generator. Lay the cable between the steam generator and cabin light in a conduit or a cable duct.



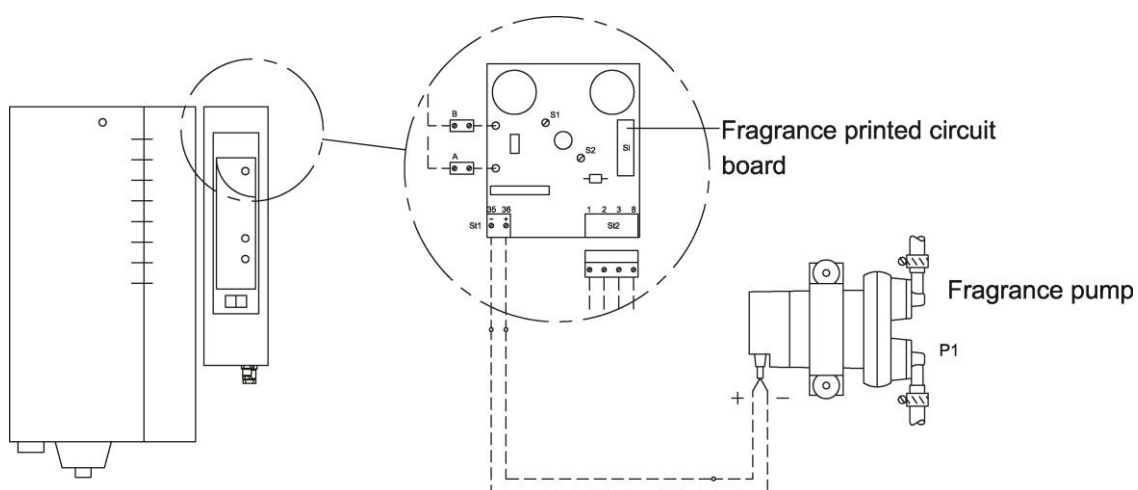
Options

Fragrance pump

Please look in the fragrance pump manual for the correct way of installation. The standard length of the mains cable is 1,5 meters. Please observe minimum cable lengths between fragrance pump and steam generator. Lay the cable between the steam generator and fragrance pump in a conduit or a cable duct.



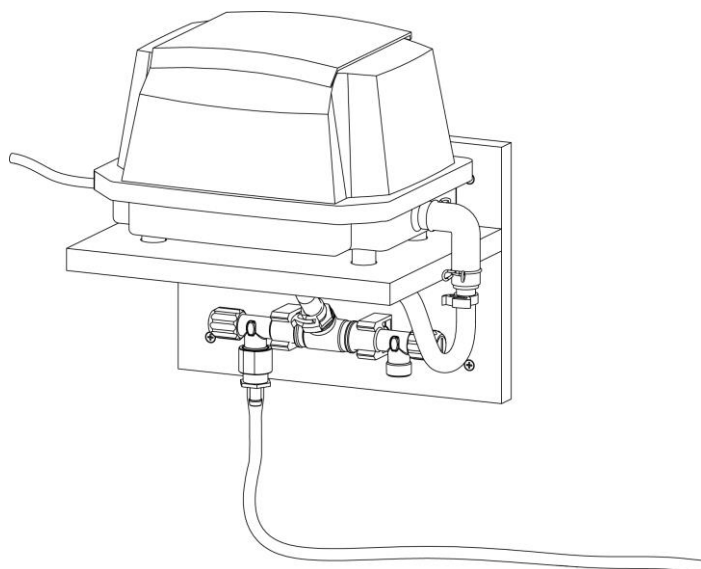
Connect the mains power cable to the terminal strip in the Cleo Total steam bath generator. See circuit diagrams for the Cleo Total. There is an earth terminal element provided. Local and national regulations should be observed.



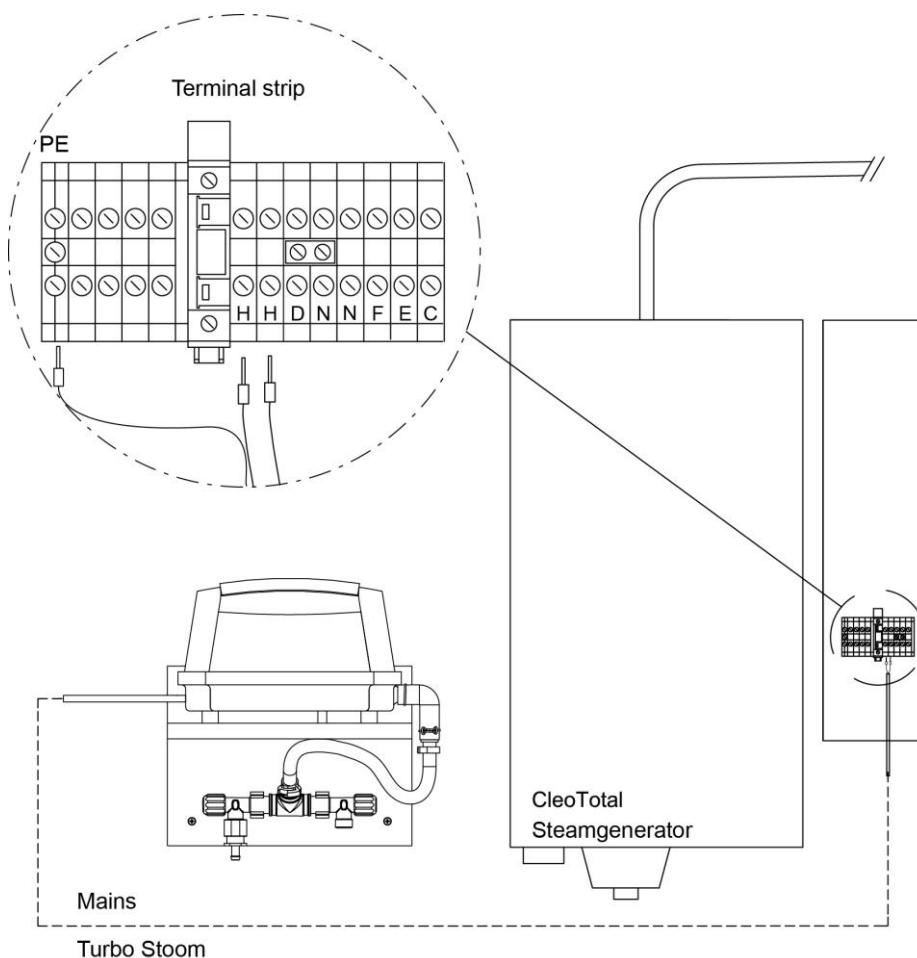
Options

Turbo steam

Please look in the Turbo steam manual for the correct way of installation. The standard length of the mains cable is 1,5 meters. Please observe minimum cable lengths between Turbo steam and steam generator. Lay the cable between the steam generator and Turbo steam in a conduit or a cable duct.



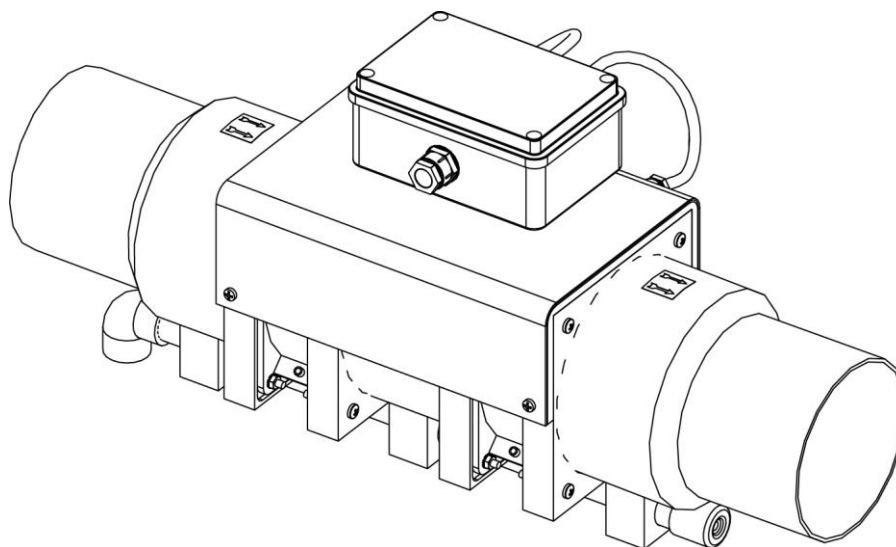
Connect the mains power cable to the terminal strip in the Cleo Total steam bath generator. See circuit diagrams for the Cleo Total. There is an earth terminal element provided. Local and national regulations should be observed.



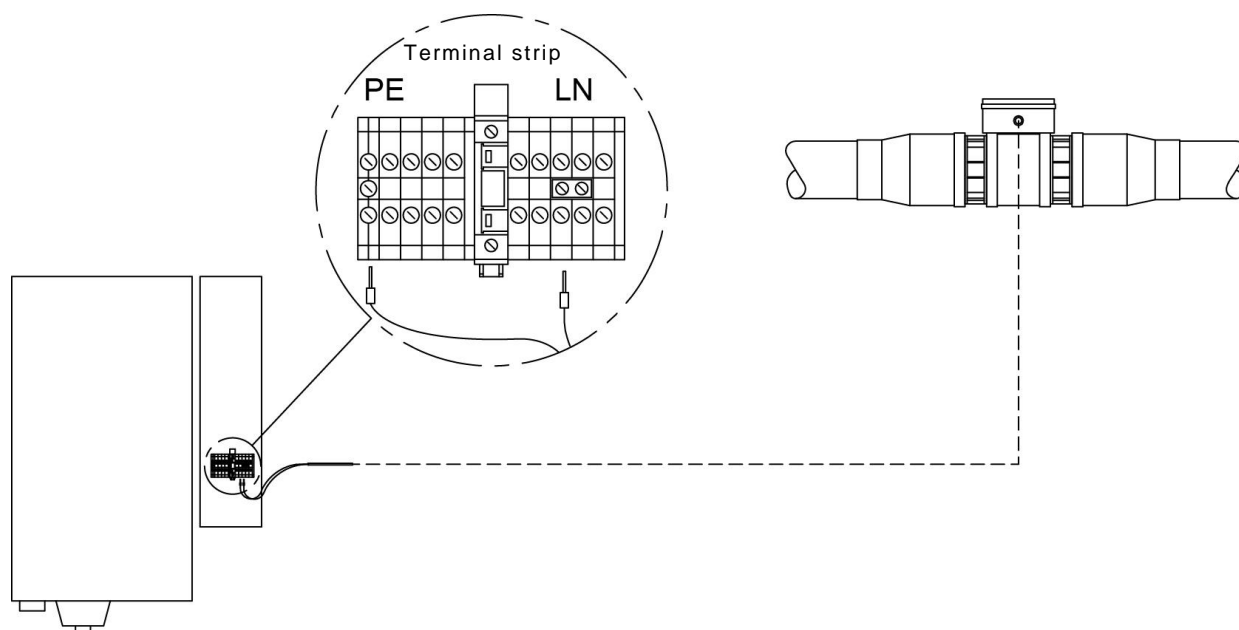
Options

Climate control

Please look at the enclosed Climate control manual included in the scope of delivery of the device for correct installation. Lay the cable between the steam generator and Climate control in a conduit or a cable duct.



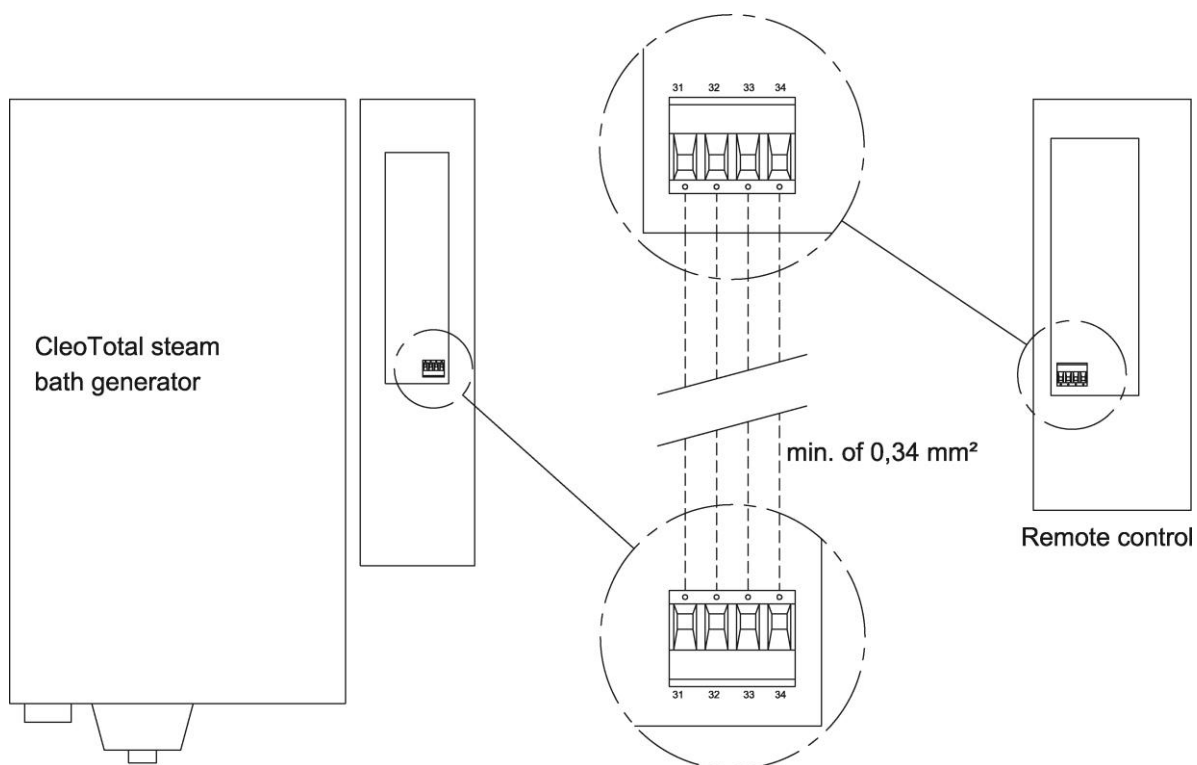
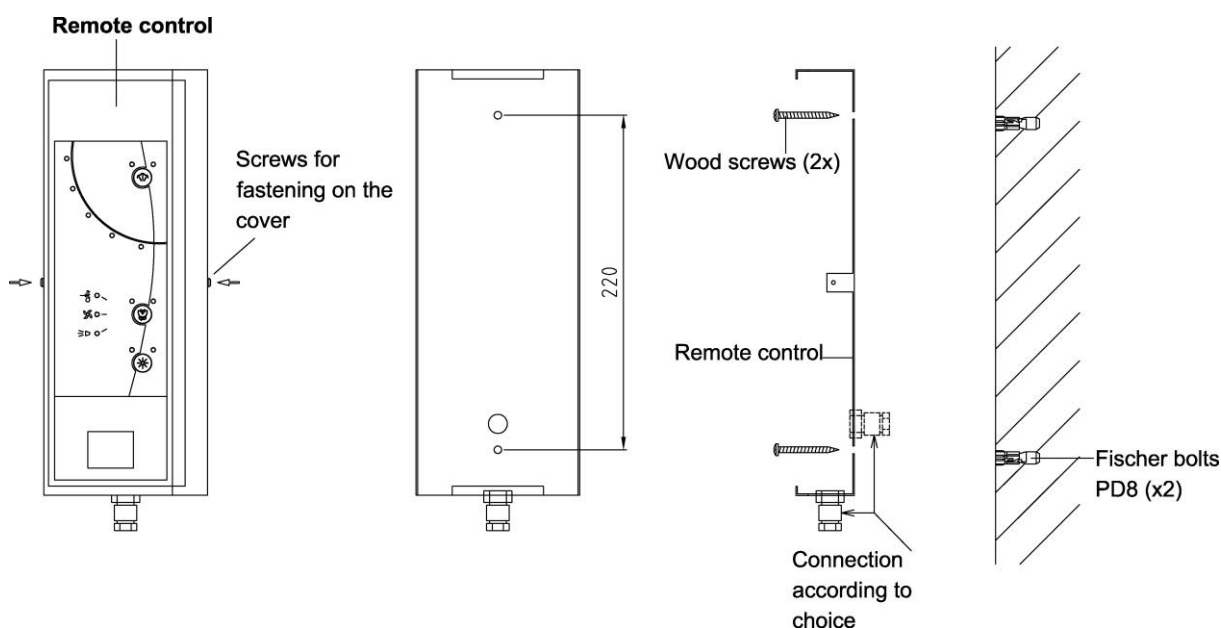
Connect the ventilator cable (not in the scope of delivery, Cleopatra advises a maximum cable length of 10 meters) to the terminal strip in the Cleo Total steam bath generator and Climate Control system control element. See circuit diagrams for the Cleo Total. There is an earth terminal element provided. Local and national regulations should be observed.



Options

Remote control

Open the remote control by loosening both side screws, subsequently remove the cover for the remote control. Drill two holes in the wall (4 mm dia.), use plugs (not in the scope of delivery) and then fasten the opened remote control firmly to the wall with the aid of the wood screws provided. The standard length of the mains cable is 20 meters. The remote control should be earthed separately. Close both covers again.



Options

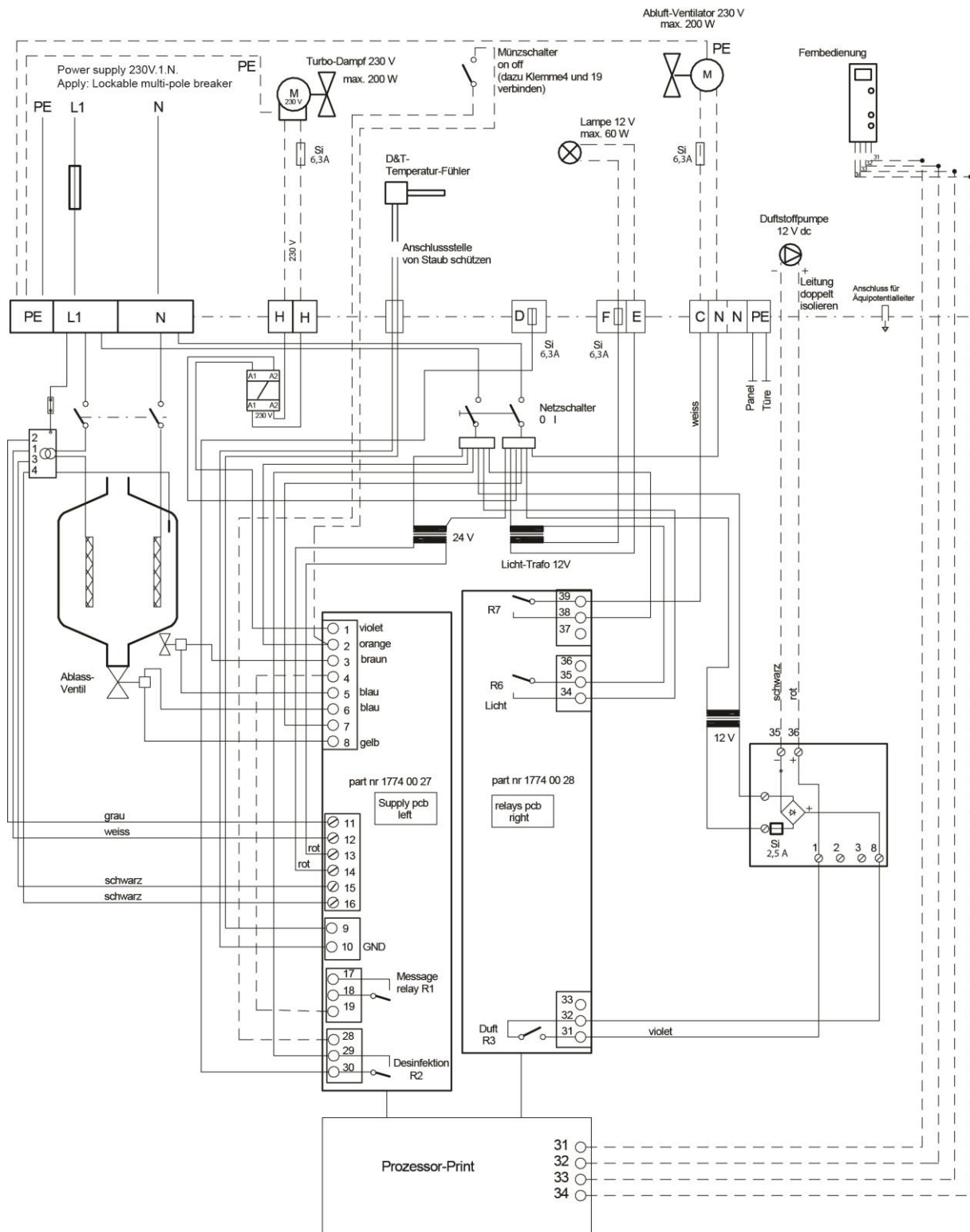
Stand-by

The Cleo Total steam bath generator can be obtained with an optional stand-by function to, for example, be attached to a coin-operated automat. Lay the cable between the steam generator and coin machine in a conduit or a cable duct. Further information about this function can be found in the operating manual for the end user.

Circuit diagram Cleo Total 422



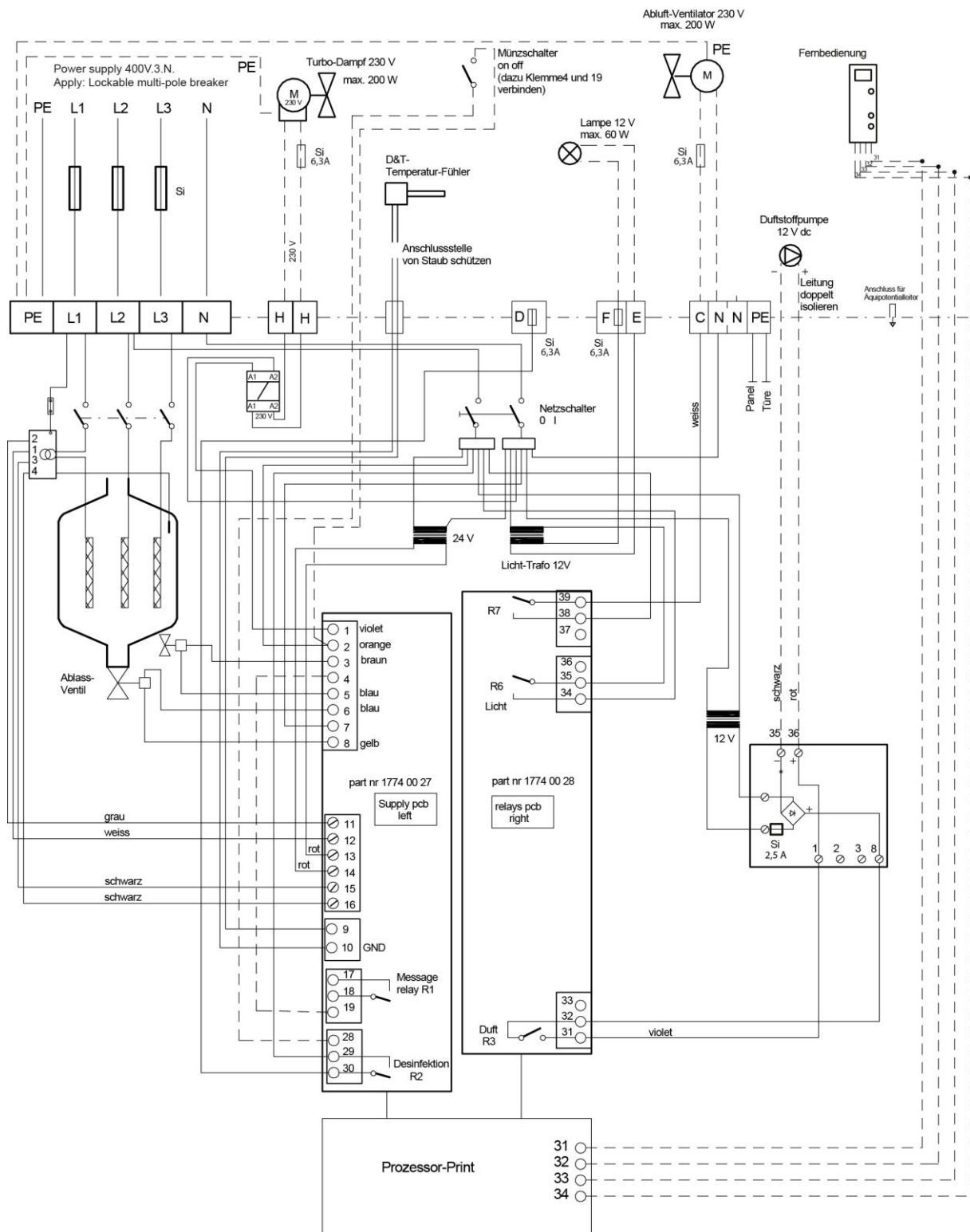
National and local regulations should be followed during installation.



Circuit diagram CleoTotal 834 & 1534



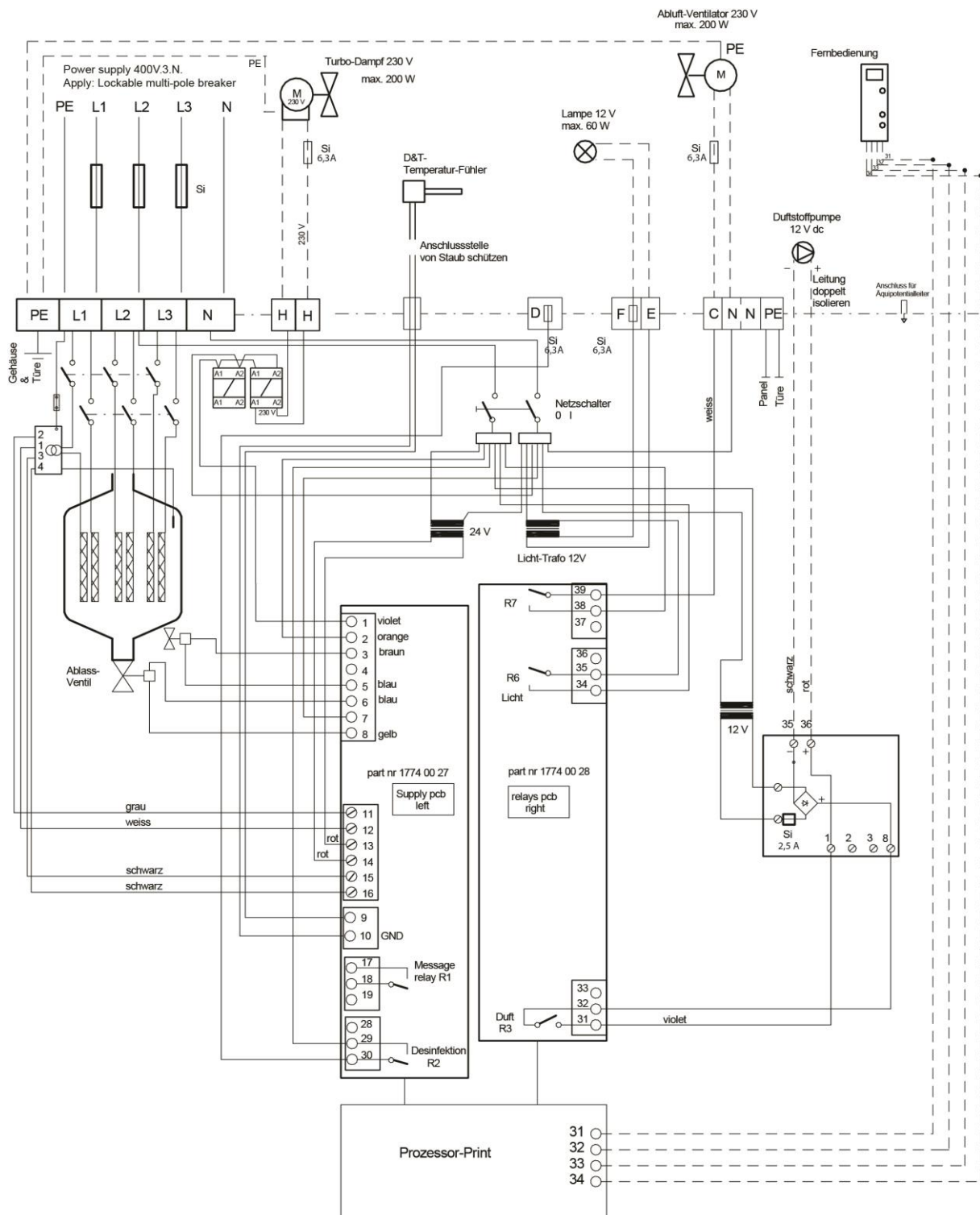
National and local regulations should be followed during installation.



Circuit diagram Cleo Total 2364 & 3264 & 4564



National and local regulations should be followed during installation.



Commissioning Preparation

Follow DIN VDE 0100 T560 and T610 and the instructions in this manual by Cleopatra.

Safety Instructions

Check: The safety instructions for the end user must be placed in sight while entering the cabin. (see: operating manual).

Preparation for commissioning

The water supply, piping and hoses, water drain, steam line and the electrical cabling must be connected by trained experts according to usual local safety measures and the circuit diagram delivered with the device.

Ensure that the desired stand-by function is set.

Open the water supply and switch on the main switch. The cabin temperature is displayed on the steam bath generator digital indicator.

The Cleo Total is now ready to be programmed.

Commissioning Steam operation

Specific parameters of the steam generator can be programmed. The different settings can be seen in the menu "System data".

Parameters can be adjusted in the 'program' menu. The Menu "program" is secured with a code. Detailed information can be found in separate documentation. For more information, contact your dealer.

It is necessary to make the preparations as described above before undertaking a steam operation.

Setting the temperature of the steam bath cabin:

- Push the "MODE" button until the left LED button flashes.
- Push the "SELECT" button and keep pressed down:
the symbols oSEL and the nominal temperature are shown on the display.
- The nominal temperature can be set using the "SET" button.
- Press the "MODE" button until the LED button stops blinking.

Automatic temperature-regulated steam operation can now be started either by programming manually, by using the "MODE" button, by using an external switch or using a remote control.

Automatic operation

Once the mode of operation and nominal temperature are set the steam bath generator is ready to start the steam cycle.

By starting the automatic steam bath program the water inlet and outlet valves are activated. The steam cylinder is filled with water.

The water reaches the electrodes, an electrical current heats the water until steam is generated. At first commissioning the nominal takes time to reach its full capacity. This is called the "initial phase".

After the initial phase is completed the steam bath generator will reach its nominal output in its normal time frame. A start phase is needed each time a new steam cylinder is installed.

Commissioning Operation

Manual operation

This program is a default factory setting.

The MODE button is used for all programming or settings. Hold for 2 seconds until the left LED starts flashing. The desired Menu can then be picked and programmed.

By pressing the "MODE" button the Cleo Total will:

- Switch to steam production
- Activate the fragrance pump for automatic fragrance dosage
- Switch on the cabin light

The right LED on the "MODE" button lights up.

To deactivate: Press the "MODE" button again.

The fragrance pump has a default factory setting installed. For the interval and measure table please look at page 39. Note that the fragrance pump only works with a Cabin temperature of 30°C or higher.

Press "SET / light", to turn the cabin light on and off.

Using a timer switch (coin-operated switch)

(this option is not offered by Cleopatra)

Cleo Total steam bath generators can be switched on or off by means of an external timer switch. There must be voltage-free contact available for a minimum of 230 VAC in order to operate with an external timer switch. This contact can be used like a coin-operated switch. The appropriate setting of the function "StBy". (Stand-by must be made on the steam bath generator.)

The coin-operated automat

The connection for a coin-operated automat or an external switch is available as standard. The "stand-by" function must be programmed in the menu "adjustments" to operate a coin-operated automat.

(Stand-by) can be programmed accordingly. For the setting:

- Hold "MODE" button for 2 seconds until the left button LED flashes.
- Select Menu "adjustment" with the "MODE" button.
- STBY function: select it using the "SELECT" button.
- Desired stand-by function with the "SET" key to select.

Commissioning Options

The fragrance pump

There are different possibilities available to set a fragrance pump as standard. 10 pre-programmed metering's (with scale from 1 to 10) or an individual setting of pulses and intervals in minutes/seconds can be made.

Aroma Program Number	Interval (Minutes)	Spray period (Seconds)	Aroma metering in seconds every 10minutes
0	1...60	0...50	
1	10,0	2,0	2,0
2	6,6	2,2	3,3
3	4,5	2,4	5,3
4	3,5	2,7	7,7
5	2,5	3,0	12
6	2,0	3,4	17
7	1,6	4,0	25
8	1,4	4,7	36
9	1,2	5,7	47
10	1,0	7,0	70

Standard

The fragrance pump is put into automatic operating mode when the cabin temperature exceeds 30°C.

Turbo steam

A 230 V, max 320 W Turbo steam can be attached according to the connection diagram. The feed line must be mounted with the steam line in such a way that the steam is carried into the steam cabin. The steam can be pushed back into the feed line if installed wrongly which will lead to malfunctioning. Please read the instruction manual delivered with the device for correct installation.

During steam production the Turbo steam will always be in operation.

Commissioning Options

The climate control

The connection for the Climate control is installed as standard. The Climate control is automatically put into operation if the actual temperature exceeds the set nominal temperature.

The Climate control can be fitted with the function "Fan.d"

It is programmed as follows in the menu "adjustments":

- Off = The Climate control is not set to operate
- On = The Climate control runs continuously (after TActual > TNominal was reached).
- 1-300 = Switching on delay for the Climate control (1 to 300 seconds after TActual > TNominal was reached).

If operation of the Climate control is programmed using switching on delay then its switching on period can be programmed using the function "Fan.S" to between 5 and 300 seconds. This operating period can be repeated using the function "Fan.M" according to programmable time intervals of between 10 and 300 seconds.

The cabin light

The connection for the cabin light of 12 V AC for a maximum of 60 W is available as standard. The light circuit is protected by a fuse.

The light is switched on and off at the same time as manual steam operation is initiated using the "Steam" button.

If any of the stand-by functions "on-oFF", noSB or 30-45 is programmed then operation of the light can be programmed using the "Lit.d" function as follows:

- "On" = the light is always switched on.
- "oFF" = the light is switched off immediately if stand-by mode is switched off.
- "1 to 600" = the light switches off after the programmed delay after stand-by mode has been switched off. (Switching off delay of 1 to 600 seconds).

Commissioning

Operating messages

There is a relay (r1, with voltage-free changeover switches, max. of 250V, 1A, ohm) installed as standard for remote messages. Programming of r1 takes place in the menu "Program". The relay can be programmed in such a way that individual messages can be sent selectively. It is also possible to send group messages. The relay switches over if messages arrive. The messages are also shown on the display as follows:



In case of an operating message please check the fuses first.

"E1" Maintenance message for the cylinder

The cylinder does not produce the required nominal output. Remove the cylinder and check whether cleaning or replacement is required. The "E1" message is a control message - the device does not switch off and operation continues. The message is acknowledged/confirmed using "SET".

For a replacement of the cylinder: Perform resetting of the parameter LIFE (operating hours of the cylinder) in "adjustments". The counter is not set to zero; the counter adds the operating hours of the steam bath generator (like the counter "Totl").

Menu "adjustments": Enter the parameter LIFE with the "SET" button, enter code 37 and set the counter to zero.

"E2" Message: Excessively high current

The Cleo-Total steam bath generator switches off for safety reasons once the current used reaches 140% of the nominal current.

The message can be acknowledged using the "SET" button.

"E3" Message: No water

The water feed is interrupted and the heating phase not started. The steam bath generator switches itself off after 30 minutes.

Message acknowledgement using the "SET" button.

"E4" Message: Processor not coded

This message occurs if an uncoded replacement processor was installed. Perform coding.

"E5" Maintenance interval message for the cylinder

E5 reports that the pre-programmed operating maintenance interval has been reached. Acknowledge the message using the "SET" button.

"E6" Temperature probe not recognized

Check the error: not connected, defective or a cable breakage.

Check the fuses, the PCB's and the wiring on the PCB's and the really's.

Commissioning

The internal counter

Cleo-Total steam bath generators have three internal counters:

- A counter for maintenance intervals: LFLI
- A counter for the operating time of the steam cylinder: LIFE
- A total operating time counter for the steam bath generator: totL

LFLI The counter for maintenance intervals can be programmed in the menu "adjustments". This generates message E5 on the display if the programmed time period is reached. The message E5 can be recorded externally by a message relay and used, for example, to send an alarm to a monitoring system. The maintenance interval should be selected according to operating experience, according to the water hardness. We recommend setting a time of about 500 hours if there is no experience to fall back on. The status of the counter can be found in the menu "System data".

LIFE This counter can be used for recording the operating time of the steam cylinder; in this case it should be set to zero when installing a new steam cylinder. The operating time can found in the menu "System data". Zero setting takes place in the menu "adjustments" through entering the code 37. The status of the counter can be found in the menu "System data".

totL This counter counts the total operating time for the steam bath generator. The status of the counter found in the menu "System data". The totL counter cannot be set to zero.

Maintenance

Maintenance

Maintenance may only be performed by suitably qualified engineers.

All power supply circuits must be interrupted before conducting any work on the generator such as cleaning or replacing the cylinder.

Valves, the water filling system, steam cylinder and drain system require regular checking and must be cleaned if necessary. Check all other parts and clean them if necessary. The condition of the steam cylinder must be checked regularly if it must be replaced. After every 500 hours of operation the humidifier must be checked for proper installation.

The internal maintenance counter LFLI can be set to remind one of the maintenance schedules.

Ensure that the electronics are clean or not covered in dust or damp through environmental influences. The steam bath generator should generally be kept and run in a clean condition.

Keep a report log on all maintenance work performed.

Maintenance

Cleaning or replacing the cylinder



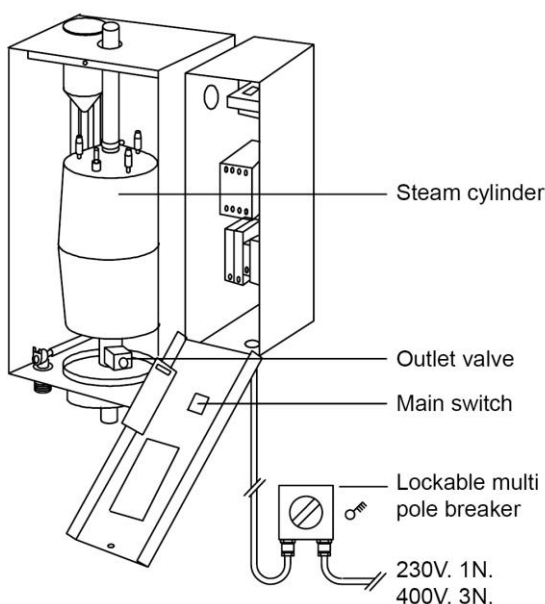
All power supply circuits must be interrupted before conducting any work on the generator. Close the multi pole breaker and the field installed water shut-off valve.



Danger of scalding. Wait until the steam cylinder has cooled down completely.



Check the steam cylinder, drain systems and steam lines for leaks and, if necessary, clean or service the device. Use a damp cloth. Do not use any chemicals, acids, vinegar etc. to clean the device. Use of these products could lead to foam forming inside the cylinder which can negatively affect correct operation.



Draining the steam cylinder:

1. Follow the menu below to drain the steamcylinder completely.

	<u>Display</u>		<u>Indication:</u>
1. Press "SELECT":	SE	Indication of max. water-level	on or off
2. "SELECT":	HG	Indication of Hygrostat signal	on or off
Test the components:			"SET" :
3. "SELECT":	P	With „SET“ button the unit can be switched on/off manually (Power)	on or off
4. "SELECT":	In	With "SET" the Inlet -valve can be switched on/off manually	on or off
5. "SELECT":	Ot	With "SET" the Outlet -valve can be switched on/off manually	on or off
6. "SELECT":	Co	With "SET" the Contactor can be switched on/off manually	on or off
7. "SELECT":	r1	With "SET" the 1 st remote indication relay (terminals 9,10) can be switched manually	on or off
8. "SELECT":	r2	With "SET" the 2 nd remote indication relay (terminals 26,27) can be switched manually	on or off
9. „SELECT“:	-- --	Indicates the end of the Service modus	

2. Removing the steam cylinder

- a) Disconnect the steam hose.
- b) Disconnect the electrode plugs and sensor plug.
 - * Look at page 41 for steam generator type specific pin combinations.
- c) Remove the fixation clips.
- d) Remove the steam cylinder from the drain valve by pushing it up.

Cleaning the cylinder:

Remove the drain filter and clean with clear water. Clean the cylinder with clear water and rinse any loose residue. The incrustation on the electrodes should not be removed.

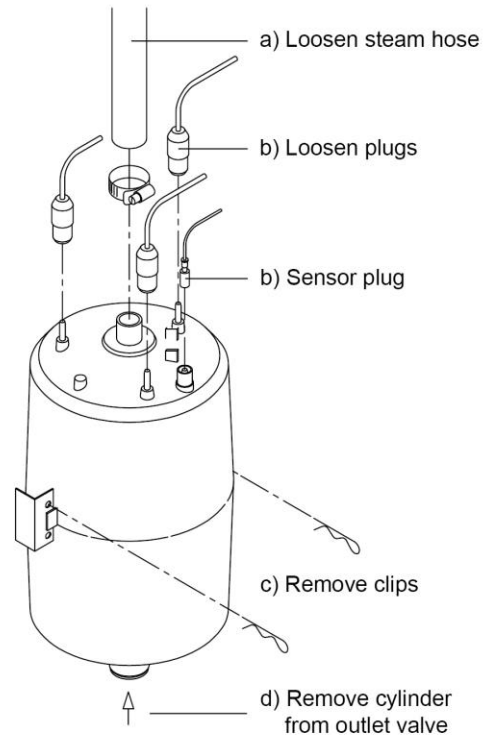
Insert a (new) steam cylinder:

Ensure that the O-ring for the drain valve is correctly placed and in a good condition. Dampen the O-ring seals with water before replacing the steam cylinder. Do not use lubricant or any other substance.

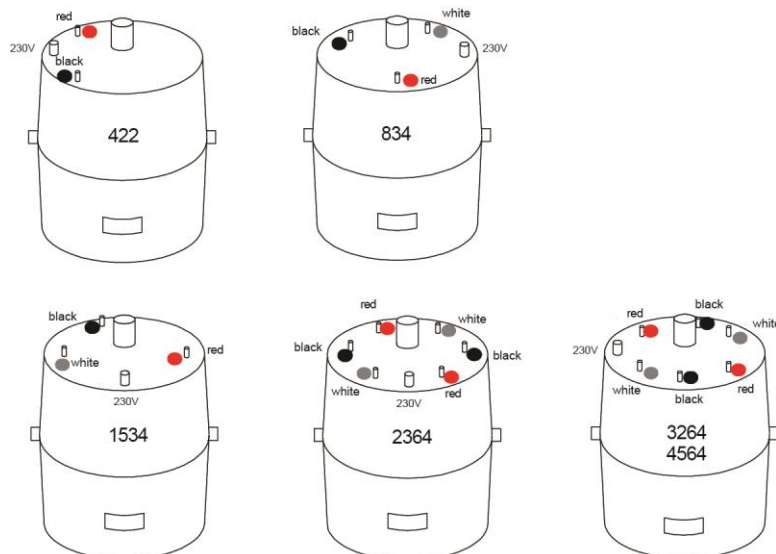
Repeat the steps on page 40 in reverse order:

- d) Insert the new cylinder in the drain valve.
- c) Insert the fixation clips.
- b) Connect the electrode plugs and sensor plug to cylinder pins.
 - * Look at illustration below for steam generator type specific pin combinations.
- a) Attach the steam hose using a clamp.

Turn on the main switch. Run a test with steam. Check the seal of the steam cylinder and check the functioning of the cylinder. Make a report of the replacement.



Steam generator type specific pin combinations:



Maintenance

Cleaning or replacing the outlet valve



All power supply circuits must be interrupted before conducting any work on the generator. Close the field installed water shut-off valve.



Danger of scalding. Wait until the steam cylinder has cooled down completely.



Outlet valve, steam cylinder, drain systems and steam lines must be checked for leaks and must, if necessary, be cleaned or serviced. Use a damp cloth. Do not use any chemicals, acids, vinegar etc. to clean. Use of these products could lead to foaming in the cylinder and could negatively effect correct operation.

The outlet valve

The outlet valve is fitted with a pre-filter. The filter must always be kept clean so that water can flow through it unhindered.

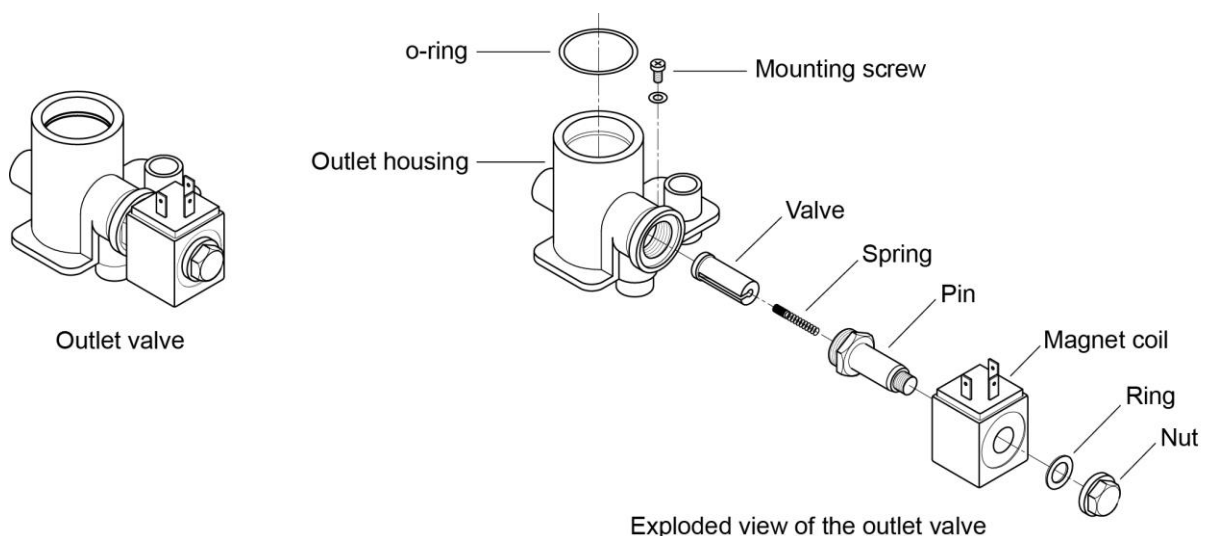
Cleaning the outlet valve:

The outlet valve and the drainage can be removed after the mounting screws are loosened. Unscrew the magnet coil and clean all parts. Flush the water drainage pipe thoroughly. Inspect steam and condensate hoses and replace if necessary. Check that the screws on the hose clamps are tight.

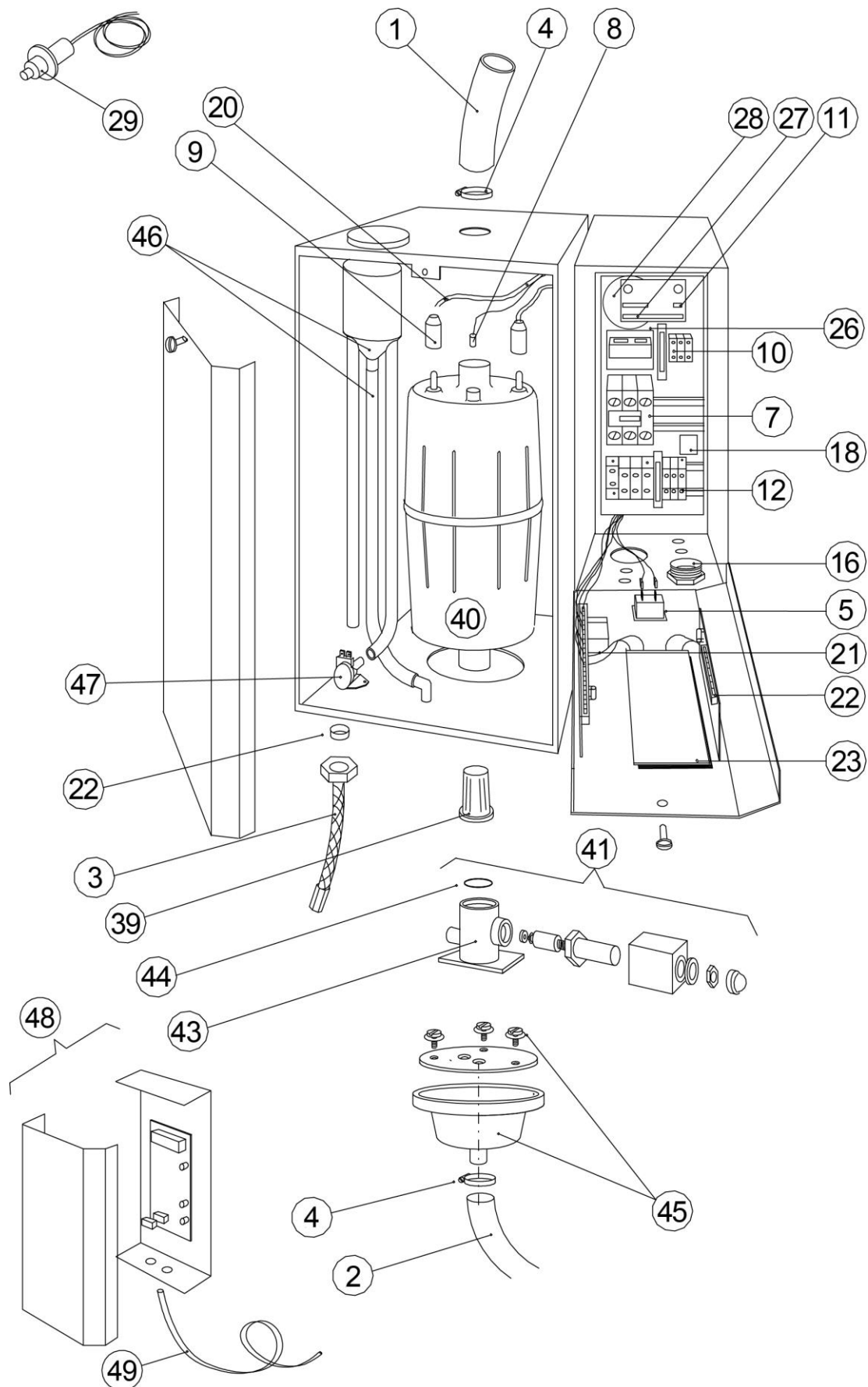
Replacing the outlet valve:

Ensure that the O-ring for the drain valve is correctly placed and in a good condition. Dampen the O-ring seals with water before replacing the outlet valve. Do not use lubricant or any other substance.

- Unscrew the mounting screws.
- Disassemble the hose clamp.
- Take the new valve and connect the fill hose with the hose clamp
- Place the valve in the bottom hole and fixate with 2 mounting screws.
- Start the steam generator to run a test and check the valve for leakage.



Maintenance Service parts



Maintenance Service parts

Pos.	Rubriek	Omschrijving	Art.Nr.
1A	CleoB&T	Stoomslang 22/29 mm tbv 3 - 6,1 kW, per meter	19568222
1B	CleoB&T	Stoomslang 35/43 mm vanaf 11,4 kW, per meter	19568235
2	CleoB&T	Afvoerslang 22/28 0,5 m.	19560300
3	CleoB&T	Waterinlaatslang	19566459
4A	CleoB&T	Slangklem 20-32 mm	19516113
4B	CleoB&T	Slangklem 32-50 mm	19516114
5	CleoT	Hoofdschakelaar aan/uit CleoTotal	19585600
6	CleoB	Hoofdschakelaar aan/uit CleoBasic	19585601
7	CleoB&T	Switch 3RT	19585602
8	CleoB&T	Plug waterniveau sensor	19585603
9	CleoB&T	Electrode plug	19566453
10	CleoB&T	Zekering 1,6A	19585605
11	CleoB&T	Zekering 2,5A	19503006
12	CleoB&T	Zekering 6,3A	19585606
16	CleoB	2-kleuren led v. easy	19585607
18	CleoT	Transformator 230/24V 36VA	19585608
19	CleoB&T	Transformator 230/12V S/L	19585609
20A	CleoB&T	Kabelboom voor electrodestekker 422	19585610
20B	CleoB&T	Kabelboom voor electrodestekker 434, 832, 834	19585611
20C	CleoB&T	Kabelboom voor electrodestekker 1562, 2364	19585612
20D	CleoB&T	Kabelboom voor electrodestekker 1534	19585613
20E	CleoB&T	Kabelboom voor electrodestekker 2362	19585614
20F	CleoB&T	Kabelboom voor electrodestekker 3262, 4564	19585615
20G	CleoB&T	Kabelboom voor electrodestekker 3264	19585616
21	CleoT	Voedingsprint (links)	19585617
22	CleoT	Relais print	19585618
23	CleoT	Processorprint - Bedieningsprint	19585619
24	CleoB	Processorprint - Bedieningsprint	19585620
26	CleoB&T	Meetspoel Cleo-Total en Cleo Basic	19585643
27	CleoB&T	Gelijkrichter 1 geurstofpomp	19585622
28	CleoT	Gelijkrichter 3 geurstofpompen	19585623
29	CleoB&T	Temperatuurvoeler	19582210
39	CleoB&T	Zeef t.b.v. uitlaat cilinder	19585625
40A	CleoB&T	Stoomcilinder 3 kW - 230 V (422)	19551714
40B	CleoB&T	Stoomcilinder 6,1 kW - 400 V (834)	19551717
40C	CleoB&T	Stoomcilinder 11,4 kW - 400 V (1534)	19551719
40D	CleoB&T	Stoomcilinder 17,5 kW - 400 V (2364)	19551721
40E	CleoB&T	Stoomcilinder 24,3 kW - 400 V (3264)	19551723
40F	CleoB&T	Stoomcilinder 34,2 kW - 400 V (4564)	19551724
41	CleoB&T	Uitlaatventiel compleet	19585632
44	CleoB&T	O-Ring t.b.v. uitlaatventielhuis (10 st.)	19585639
45	CleoB&T	Wateraflaatbeker horizontaal	19585633
46A	CleoB&T	Vulbeker incl slang (422/432/432)	30941910
46B	CleoB&T	Vulbeker incl slang (832/834)	30941911
46C	CleoB&T	Vulbeker incl slang (1532/1534/2364)	30941912
46D	CleoB&T	Vulbeker incl slang (3264/4564)	30941913
47A	CleoB&T	Inlaatventiel geel, 3 kW	19585634
47B	CleoB&T	Inlaatventiel groen, 6 kW	19585635
47C	CleoB&T	Inlaatventiel rood, 11/17 kW	19585636
47D	CleoB&T	Inlaatventiel wit, 23/34 kW	19585637
48	CleoT	Afstandsbediening	19583010
49	CleoT	Kabel t.b.v. afstandsbediening	19511110

Operating manual for the end user

Safety precautions

Safety precautions



Without supervision and without instructions, the use of the steam cabin is prohibited for the following persons:

- Children
- Adults with physical, mental and/or sensory restrictions.
- Persons who were not trained in the safe use of the steam cabin.
- Persons under the influence of alcohol or drugs.



Please remove all make-up before entering the steam cabin.

Bringing electric devices into the steam cabin is strictly prohibited!



Warning hot surfaces

The steam inlet and its near surrounding are hot. Don't touch danger of scalding. Do not directly touch the hot out coming steam because of danger of scalding. Make sure the warning label is applied on the steam inlet glass cover plate.



Slippery when wet

The floor inside the steam cabin can be slippery.



Before using the steam cabin, read the instructions very carefully!

Maximum stay inside the steam cabin: 20 min (max. 3 sessions with a 20 minute break between each session to cool down)
Humidity inside the steam cabin: 100 %
Maximum temperature inside the steam cabin: 60°C

General use

Tips for using

- People who are restricted in their action should only use the steam cabin with special diligence
- Please contact your doctor if you have health concerns.
- The door opens to the outside of the cabin. Pushing the door inwards can lead to damage to the door or the hinges
- Only use essential oil that are registered with the Food Standard Agency

Examples for non-using

- The Easystem steam bath generator may not be used in public areas.
- Children must not be left unattended in the steam shower cabin.



Danger of scalding!

The steam inlet and the surrounding area are hot.



Do not use climbing aids inside a steam cabin.

Using climbing aids can lead to dangerous situations and damage to the cabin.

Operating manual for the end user

Preparation & steam operation

Follow DIN VDE 0100 T560 and T610 and the instructions in this manual by Cleopatra. All preparations according to the installation and maintenance manual must be performed before running the system with steam. Ensure that the installation engineer has done all of the work according to these instructions and that the steam bath generator has been correctly set and programmed for the desired operating mode. Open the water line and switch on the mains switch.

Setting the temperature of the steam bath cabin:

Select the menu "Display" as follows:

- Hold the "MODE" button pressed down until the left LED button flashes.
- Hold the "SELECT" button pressed down: the symbols oSEL and the nominal temperature are displayed alternately on the display.
- The nominal temperature can be set using the "SET" button.
- Press the "MODE" button until the LED button goes out.

Automatic temperature-regulated steam operation can now be initiated according to programming manually using the "MODE" button or by using an external switch or using a remote control.

Automatic operation

Once the mode of operation and nominal temperature has been set up the steam bath generator is ready to be operated automatically. Initiating automatic steam bath operation switches on the protection and the inlet and outlet valves are actuated to supply the steam cylinder automatically. The water eventually reaches the electrodes, electrical current flows and the water is heated until steam is generated. The nominal output is not reached immediately for first commissioning of a new steam cylinder according to the quality or electrical conductivity of the supply water. The steam bath generator requires a certain period of time operating before it reaches its nominal output. This time is called the "start phase". It is only after the start phase is completed that the steam bath generator will reach its nominal output. The nominal output can then be reached again quite shortly once the start phase has been completed. A start phase is needed each time a new steam cylinder is installed.

Manual operation

This operating mode is set ex works. Automatic operation of the steam bath generator can be initiated manually by pressing the "Mode" button.

Pressing the "Mode" button causes:

- steam production to be switched on
- the aroma pump for automatic fragrance metering to be actuated
- the cabin light is switched on

The right LED of the "MODE" button lights up. To switch off: Press the "MODE" button.

The "MODE" button should be kept depressed for two seconds to make all adjustments or for programming until the left LED of the button flashes. The desired menu for controlling, making settings or programming can then be selected.

If there is a fragrance pump attached then fragrance is automatically metered according to intervals set in the "adjustments". Ensure that the fragrance pump is only started in automatic mode for a cabin temperature above 30°C. The pump is not actuated below a temperature of 30°C.

The cabin light can be switched on and off manually using the "SET/light" button.

Operating manual for the end user

Operating with steam

Operation using an external switch or coin-operated switch

(this option is not offered by Cleopatra)

The steam bath generator must first be programmed in the menu “adjustments” for the function “StBy” (stand-by) for this operating mode. The external switch must also be attached properly.

For making the setting:

Hold the “MODE” button pressed down for two seconds until the left LED button flashes.

Select the function StBy using the “SELECT” button.

The desired stand-by function can be set using the “SET” button (see also Stand-by function in the menu “adjustments”).

Query operating values; perform settings

The Cleo-Total steam bath generator has individual menus for making settings, service work, making queries and programming which can be selected by operating personnel. To select these:

Hold the “MODE steam” button pressed down for two seconds until the left LED button flashes. The various menus can subsequently be selected by pressing the “MODE” button. The following menus are selectable:


Menus:	Purpose:
“display”	For setting the cabin nominal value temperature.
“Service”	For service and checking operations, e.g. manual draining.
“System data”	For information about the system settings (Only queries are possible).
“adjustments”	For entry (programming) of operating values.
“Program”	For programming special functions and specific parameters

Only the menus “display”, “System data” or “adjustments” are used for daily use of the steam bath generator. The menus “Service” and “Program” contain functions which can only be adjusted by a suitably trained engineer. These menus are described in the separate installation and maintenance manuals.

Operating manual for the end user

The “Display” menu





The nominal temperature of the cabin can be set using this menu

	Display	Significance
1. Press on “SELECT”		This display is shown alternately with the nominal temperature. The nominal temperature can be set using the “SET” button
2. Press on “SELECT”		End the “Display” menu

Operating manual for the end user

The "Service" menu

Select the menu by pressing "MODE", "Service" button. The "Service" LED and the LED left of the "SELECT" button will flash. The "Service Menu" is divided into two areas: In the first operating range values can be read during the operation. In the second field component of the steam generator to the check can be switched on and off manually. In this area the steam generator is automatically switched off so that the component can be operated individually.

Display	Information	Example
<p>1. Push "SELECT" </p> <p>SE_{on} SE_{oF}</p> <p>2. "SELECT"</p> <p>run OFF run OFF Stby run OFF Stby</p> <p>3. "SELECT" P 00</p> <p>4. "SELECT" r 100</p> <p>5. "SELECT" i 000</p> <p>6. "SELECT" AD-E</p> <p>Push button "SELECT" </p> <p>Push button SET </p>	<p>Max. waterlevel reached Max. waterlevel not reached</p> <p>Show operational mode Stand-by function:</p> <p>In Stand-by mode on_{oF} When the external connection is closed In Stand-by mode on_{oF} When the external connection is open In Stand-by mode no_{sb} When the external connection is closed In Stand-by mode oo_{sb} When the external connection is open In Stand-by mode 2545 When temperature is controled on stand-by In Stand-by mode 2545 When a fixed temperature is set In Stand-by mode run When the 'steam' button is turned off In Stand-by mode run When the 'steam' button is turned off</p> <p>Steam output in kg/h</p> <p>Required steam output in % of the nominal power</p> <p>Current power required for heating element in Ampere</p> <p>More ? </p>	<p>P 65</p> <p>r 54</p>

Display	Information	Possible
1. "SELECT" P .oF	With the 'SET' button the Cleo-Total can be turned ON or OFF	P .on P .oF
2. "SELECT" In.oF	With the 'SET' button the inlet valve can be turned ON or OFF	In.on In.oF
3. "SELECT" Ot.oF	With the 'SET' button the outlet valve can be turned ON or OFF	Ot.on Ot.oF
4. "SELECT" Cq.oF	With the 'SET' button the Safeguard can be turned ON or OFF	Cq.on Cq.oF
5. "SELECT" r1.oF	With the 'SET' button the Relais R1 can be operated (message relais)	r1.on r1.oF
6. "SELECT" *		
7. "SELECT" r3.oF	With the 'SET' button the Relais R3 can be operated (Fragrance pump)	r3.on r3.oF
8. "SELECT" *		
9. "SELECT" *		
10. "SELECT" r6.oF	With the 'SET' button the Relais R6 can be operated (Light)	r6.on r6.oF
11. "SELECT" r7.oF	With the 'SET' button the Relais R7 can be operated (Climate Control)	r7.on r7.oF
12. "SELECT" - - - -	End of service menu	
By pressing 'SELECT' again the service program will restart		
* not applicable		

Operating manual for the end user

The "System data" menu

Requesting display of operating parameters, making settings

This menu can be used to obtain information about the device using the button "SELECT". The menu serves to obtain rapid information about the current settings and programming. It is not possible to make any changes in this menu but simply to query information.

Select "System data" by pressing the "MODE" button. The "System data" LED lights up. The left LED on the "SELECT" button flashes.

For some displays the designation alternates with displaying values, for example device model 834:

Model alternates with 834.

Display:	Information about:	Possible displays	Settings ex works
1. "SELECT" -----	Start		
2. "SELECT" uErS	Version of the procession programme	6.02	
3. "SELECT" 834	Device model	834	
4. "SELECT" uoLt	Heating voltage	400	
5. "SELECT" 05EL	Temperature nominal value	40	45
6. "SELECT" 1.5EL	Integration time in minutes	10 40	20
7. "SELECT" PSEL	Minimum steam output as a % of the nominal output	50 99	60
8. "SELECT" dSEL	Proportional band for temperature regulation	01 to 06	02
9. "SELECT" dPLu	Additional draining time	88 to 99	00
10. "SELECT" dInt	Draining interval	10 to 20	20
11. "SELECT" dREG	Regular draining operations	on of	of
12. "SELECT" OuEr	Overdrive steam output	on of	of
13. "SELECT" dCon	Condition of the protective device during a draining operation	on of	of
14. "SELECT" 1 n.dL	Delay during intake of water	00 to 70	55
15. "SELECT" 1 n.tA	Cyclic water intake	on of	of
16. "SELECT" r1.5E	Message from relay no. 1		5E
17. "SELECT" noE1	Suppression of message E1	88 88	of
18. "SELECT" LFL1	Operating hours - cylinder maintenance interval	500	
19. "SELECT" L1FE	Operating hours of the steam cylinder	350	
20. "SELECT" FQAN	Anti-foam program	on of	of
21. "SELECT" AdrS	Address of the device	01 to 29	01
22. "SELECT" -----	End of menu - back to Start		

Operating manual for the end user

The "adjustments" menu

Values which often have to be altered are covered by this menu. These values can be entered into the "adjustments" menu or programmed.

To select the "adjustments" menu hold the "MODE" button depressed for two seconds. The left LED button flashes.

Values can be selected using the "SET" button.

Note:

The designation of the function and the setting values are shown alternately on the display in this menu.

Display:	Function	Settings using the "SET" button
1. "SELECT" ---- Li Ld	Light: If one of the three stand-by function "onoff", "noSb" or "30-45" is programmed then the light is switched on automatically. If steam operation is switched off then the light switches off after a settable delay. Possible settings: { - No switching off delay - Switching off delay (sec) - Light always switched on	off 0 to 592 on
2. "SELECT" FAnD	Climate Control : Automatic switching on off the actual temperature is greater than the nominal temperature : Possible settings : { - Ventilator runs continuously - Ventilator always switched off - Switching off delay (sec)	on off 0 to 296
3. "SELECT" FAnN	- Function interval of the Climate Control (min.)	10 to 304
4. "SELECT" FAnS	- Operating period of the Climate Control (sec.)	05 to 304
5. "SELECT" Ar oP	Aroma program Possible settings: { - No aroma - Individual setting - Pre-programmed settings	off Pr oG 01 to 10
6. "SELECT" Ar oN	Function interval of the fragrance pump (min.)	01 to 60
7. "SELECT" Ar oS	Operating period (sec.)	00 to 50
8. "SELECT" Ar on *		
9. "SELECT" Ar oC *		
10. "SELECT" dISP *		
11. "SELECT" dISN *		
12. "SELECT" dISS *		
* not applicable		

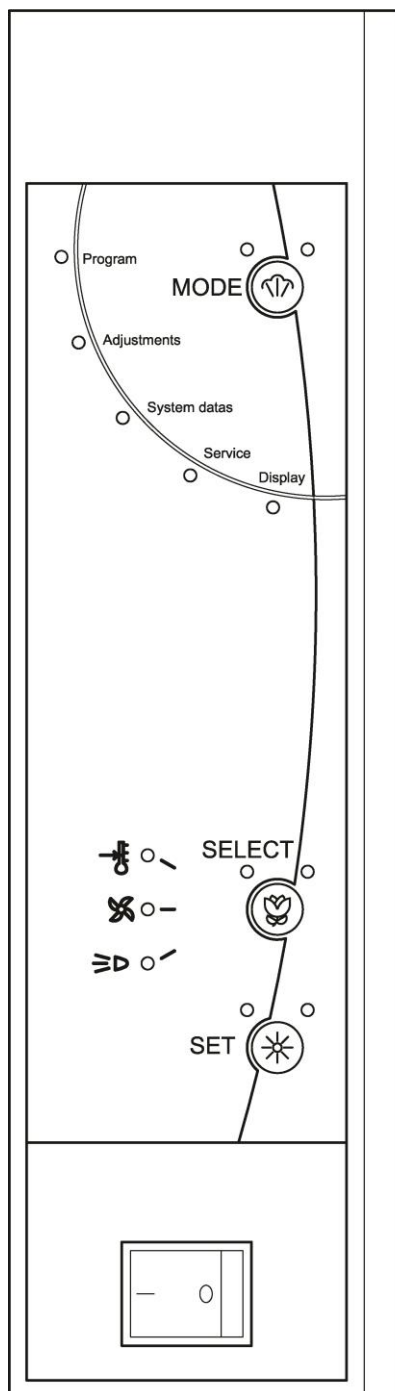
Operating manual for the end user

The “adjustment menu“ menu

Display:	Function	Settings using the "SET" button
13. "SELECT" <div> <div>----</div> <div>5664</div> </div>	Stand-by: <div> <div> <input type="checkbox"/> Operation via an external switch <div> Switch open: no operation Switch closed: steam operation with light and fragrance </div> </div> <div> <input type="checkbox"/> Operation via an external switch (The "Steam" button must be turned on manually) </div> <div> <input type="checkbox"/> For operation with Stand-by-temperature over an external switch adjust Stand-by-temperature (Celcius C) <div> Switched open: The device regulates the installed temperature automatically Switched closed: Steam business in accordance with adjusted temperature </div> </div> <div> <input type="checkbox"/> For manual operation with the "Steam" button (An external switch does not work) This function is to be set for operation with a PC </div> </div>	<div> <div>on</div> <div>off</div> </div> <div> <div>no</div> <div>56</div> </div> <div> <div>30</div> <div>to</div> <div>35</div> </div> <div> <div>run</div> </div>
14. "SELECT" <div> <div>EL</div> <div>Pr</div> </div>	Option timer switch: not installed	
15. "SELECT" <div> <div>LFLI</div> </div>	Setting of the counter for the cylinder maintenance interval (E5 message) 0.1 = 100 hours	
15. "SELECT" <div> <div>LIFE</div> <div>----</div> </div>	Operating hours counter of the cylinder. Set to zero if a cylinder has been replaced (using code 37) End of menu	

Operating manual for the end user

Control Unit



After switching on using the mains switch manual operation is active



Steam Operation
On/Off



Fragrance Metering
On/Off



Light
On/Off

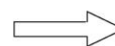
Access to :

Program
Adjustments
System data
Service
Display



Press down **MODE**
for 2 seconds

Return to manual
steam operation



Press down **MODE**
for 2 seconds

Setting the nominal temperature

- 1) Press down **MODE** for 2 seconds
- 2) Press the **SELECT** button: the nominal temperature is shown on the display
- 3) Set the desired temperature using the **SET** button

Declaration of conformity

EC Declaration of Conformity according to Low Voltage Directive 2014/35/EU

Cleopatra B.V.
Handelsweg 45
1525 RG Westknollendam, Holland

herewith declares that the following described multifunctional steam cabin in our delivered version complies with the appropriate basic safety and health requirement of the EC Directives based on its design and type, as brought into circulation by us. In case of alteration of the product, not agreed upon by us, this declaration will lose its validity.

Product: **Multifunctional Steam Cabin**

Intended use: **personal Hygienic**

System of the certificate of conformity: **4**

Models: **Cleopatra „Proline Square”**

Characteristics:	Type	Steam Cabin Measures [LxB mm]:	Art. Nr.	
	1-3	1674/2492/3242x2086	Art. Nr. 21039000	with E1-E7
	4-6	1674/2492/3242x2336	Art. Nr. 21093000	with E1-E7
	7+8	2492/3242x2436	Art. Nr. 21093000	with E1-E7
	9+10	2492/3242x3186	Art. Nr. 21093000	with E1-E7
	11+12	2492/3242x3436	Art. Nr. 21093000	with E1-E7

E1 = Steam generator Type Cleo Basic:

230V 1N AC, 50Hz, max. 3 kW,
max. 13A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 6,1 kW,
max. 8,8A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 11,4 kW
max. 16,5A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 17,5 kW, max.
25,3A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 24,3 kW, max.
35,1A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 34,2 kW, max.
49,4A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

E2 = Steam generator Type Cleo Total:

230V 1N AC, 50Hz, max. 3 kW,
max. 13A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 6,1 kW,
max. 8,8A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 11,4 kW,
max. 16,5A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 17,5 kW, max.
25,3A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 24,3 kW, max.
35,1A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

400V 3N AC, 50Hz, max. 34,2 kW, max.
49,4A, IPX4 (inside)/
IP20 (outside), Class I, max.1,0MPa(10bar),
max. 176°F(80°C)

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EC Declaration of Conformity according to Low Voltage Directive 2014/35/EU

-2-

E3 = Light:	12VAC 50Hz, SELV, 25W, IP66, Class II
E4 = Speaker:	18VAC, SELV, 60W, 4 Ohm, IP65 (front side)
E5 = Fragrance Pump:	12VDC SELV), 15W, 1,5A, IPX5, Class III, max. 2L/min, S3 25% 15s/45s
E6 = Turbo Stoom:	230VAC, 50Hz, 64W, IPX2, Class I
E7 = Climate Control:	230VAC, 50Hz, 40W, IPX5, Class I

Applicable
EC-Directives:

- (1) Low Voltage Directive 2014/35/EU
- (2) Directive of Electromagnetic Compatibility (EMC) 2014/30/EU
- (3) Construction Product Regulation 305/2011/EU

Applicable
Harmonized Standards:

- (1) DIN EN 60335-2-98:2002 + A1:2004 + A2:2008
- (1) DIN EN 60335-1:2010
- (2) DIN EN 61000-6-2:2006-03
- (2) DIN EN 61000-6-3:2011-09
- (2) DIN EN 62233:2008-11
- (2) DIN EN 60335-1:2012-10 Section 19.11.4.1 – 19.11.4.7

Testing Laboratory:

Type examination by

TÜV Product Service GmbH
Daimlerstr. 40
D-60314 Frankfurt

Date / Authorized Signature:

Westknollendam,
the 22nd.of September 2015

Title of Signatory:

Marcel Mol
(Director Cleopatra)



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