

metos

VIKING KETTLE

VIKING / VIKING COMBI 4G

Type (liters): 40, 60, 80, 100, 150, 200, 300, 400

Installation and Operation Manual

Original instructions



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1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.

Keep this manual in a safe place for eventual use by other operators of the appliance.

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. The connection of the appliance to the electric, steam and water supply must be carried out by qualified persons only.

Persons using this appliance should be specifically trained in its operation.

Switch off the appliance in the case of failure or malfunction. The periodical function checks requested in the manual must be carried out according to the instructions. Have the appliance serviced by a technically qualified person authorized by the manufacturer and using original spare parts.

Not complying with the above may put the safety of the appliance in danger.

1.1. Symbols used in the manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damage or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

1.2. Symbols used on the appliance



This symbol on a part informs about electrical terminals behind the part. The removal of the part must be carried out by qualified persons only.

1.3. Checking the relationship of the appliance and the manual

The rating plate of the appliance indicates the serial number of the appliance. If the manuals are missing, it is possible to order new ones from the manufacturer or the local representative. When ordering new manuals it is essential to quote the serial number shown on the rating plate.

If language versions have information contradictions, the original language English is the primary language regarding the information content.

2. Safety

2.1. General

The appliance is CE marked, which means that it complies with the requirements of the EU machinery directive with regard to product safety.

Product safety means that the design of the appliance will prevent personal injury or damage to property. The Viking kettle has been designed and manufactured in compliance with the Directive regarding safety of Machinery, the Low Voltage Directive, the Directive regarding Electromagnetic Compatibility and the Directive regarding Pressure Equipment currently in force.

The Viking kettle is a pressurized vessel with a maximum operating pressure of 1 bar (or 0,5 bar for certain markets). Overpressure is prevented by means of both mechanical (safety valve, pressure switch) and electronic control.

The Viking kettle is provided with water level control, which prevents heating if there is not enough water in the steam generator.



Modifying the equipment without the approval of the manufacturer invalidates the manufacturer's product liability.



To further improve safety during installation, operation and servicing, the operator and the personnel responsible for installing and servicing the appliance should read the safety instructions carefully.



Switch off the appliance immediately in the event of a fault or malfunction. The appliance must only be serviced by trained engineers. The regular checks described in the manual must be carried out in accordance with the instructions. The appliance must be serviced by a person authorized to do so by the manufacturer. Use original spare parts. Dangerous situations may arise if the instructions above are not followed.



Before using the appliance, ensure that personnel are given the necessary training in operating and maintaining the appliance.



Keep this manual in a safe place so that it can be used by other operators of the appliance.

This manual guides the user to use the device safely.



Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.



The appliance should not be used by anyone suffering from a physical or mental illness or by inexperienced people (including children).



Children should be watched to ensure that they do not play with the appliance.

2.2. Changing the settings and adjustments



Technical adjustments to the appliance must be performed by a qualified and well trained person.

2.3. Safety instructions in the event of malfunction



In case of a serious emergency, all functions of the appliance must be stopped by turning the mains switch to the OFF position. In case the reason for using the stop switch is a serious malfunction jeopardizing safety at work, contact an authorized service provider immediately.

2.4. Disposal of the appliance



Once the appliance has reached the end of its useful life, it must be disposed of in compliance with local rules and regulations. The appliance may contain substances/ materials which potentially have an adverse impact on the environment as well as recyclable materials. The best way of dealing with such substances is to dispose of them through a proper waste company.

2.5. Other prohibitions (dangerous methods and procedures)

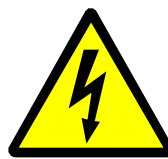
Deliberate disregard of safety devices is prohibited, as it jeopardizes safe work in the kitchen. The manufacturer does not take responsibility for damage caused by deliberate use of a defective appliance, disregard of the safety precautions by modifying the designed operation of the appliance, or neglect of the technical condition, maintenance or service of the appliance.

2.6. Warnings



Please take careful note of the following instructions and warnings. Further on in this manual, there are warnings which are to be noted in special operation situations. To prevent damage and accidents, please read the whole manual before attempting to operate the appliance.

- Viking kettles are to be used only for food preparation. Interacting or corrosive substances are not to be prepared in the kettle. Note that also long-term effect of some food preparation substances, such as salt, acetic acid, lemon acid and lactic acid, can be corrosive.
- To prevent burns, do not during the use touch the inner surface and the rim of the kettle, safety lid and mixing tool. Do not put your hands, without appropriate protection, above the kettle while cooking.
- Beware of hot steam when removing the lid.
- Do not open the control valve of the steam generator, the safety valve or the water inlet valve when there is pressure in the steam jacket. Releasing hot steam might cause burns.
- Do not stand behind the kettle during tilting.
- The mixer must be turned off before removing the mixing tool.
- Do not push utensils or your fingers through the openings in the safety lid into the kettle during mixing.
- It is under all circumstances absolutely forbidden to use the mixer without the safety lid.
- To prevent stress injuries do not lift the mixing tool from the kettle when it is in a vertical position. Tilt the kettle in a horizontal position and remove the mixing tool. We recommend the use of a trolley to help removing of the mixing tool of larger kettles (200-400 l).
- After using the kettle, check that the shower gun and the water inlet tap of the kettle are closed.
- After using the kettle, clean it according to the cleaning instructions given in this manual to keep the high hygiene level.
- It is forbidden to use the kettle without cover plates or if the cover plates are not properly fitted.
- The factory pre-set program parameters of the kettle and mixer may only be changed by authorized personnel according to the instructions given by the factory.
- Beware of sharp edges on the sheet construction inside the kettle pillars during installation and service work.
- The following danger of electrical shock mark is fitted on cover plates protecting electrical components from being touched which would cause danger to life.



The manufacturer will not take responsibility for damage caused to units or persons if the given instructions have not been followed.

3. Functional description

3.1. Intended use of the appliance

The kettle is designed for professional food preparation. Using the kettle for other purposes is prohibited. It is forbidden to put corrosive ingredients or substances reacting with each other in the kettle. Please observe that long-term effect of some substances used in food preparation is corrosive. Such substances are, for example, salt, acetic acid, citric acid and lactic acid.

The corrosion resistance of stainless steel is due to a so called passive layer, which is a very thin chromium oxide film. This film is naturally and fairly quickly formed on the stainless steel surface when the surface is in contact with oxygen (air). The chromium oxide film is hard, but in some situations it is possible to damage it with hard materials. When using steel tools, there is a potential risk of scratching the inner jacket and hence increased risk of corrosion. Therefore, we recommend using wooden or plastic tools in the kettle, especially when mixing and scraping.

3.1.1. Use for other purposes



The manufacturer does not take responsibility for functional troubles or damages caused by misuse or use for other purposes than stated above.

3.2. Construction

The construction of the kettle is of stainless steel throughout. The inner bottom and jacket are of acid-proof steel. The kettle is triple-jacketed and thermally insulated throughout.

3.3. Operating principle

Viking (Basic): no mixer

Viking Combi: with mixer

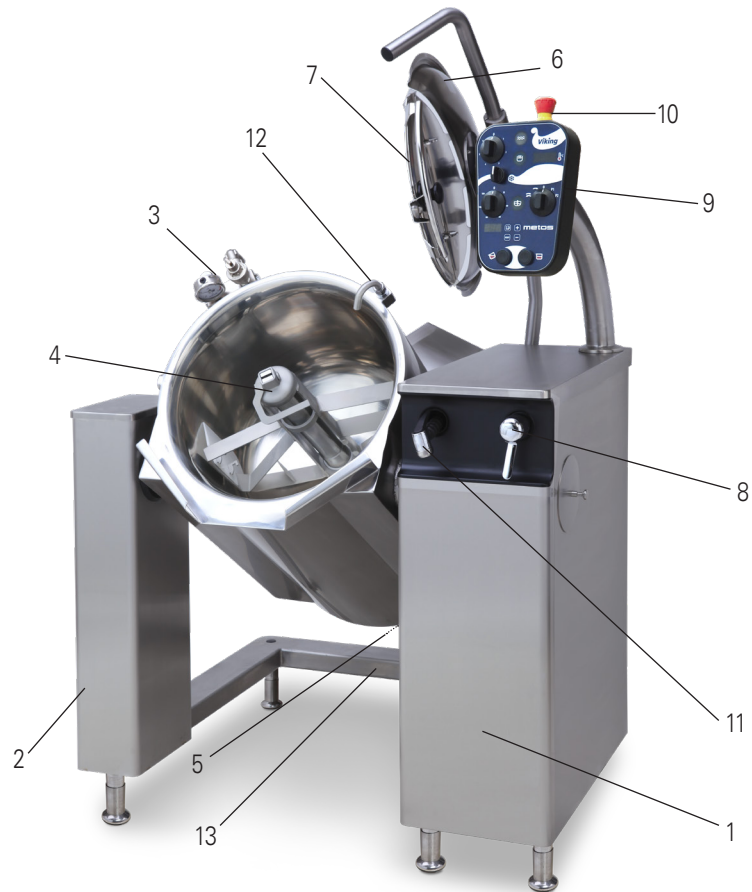
The electrically heated kettle is heated by steam generated with heating elements. The steam generator and heating elements are located in the lower section of the kettle. The cooking procedure is regulated with a stepless power regulator. The maximum operating temperature inside the jacket is 120°C (or 110°C for certain markets).

The steam heated kettle is heated with direct steam provided from the facility's steam network. The steam jacket reaches the upper edge of the kettle.

The kettle tilts by means of a tilting motor (40 - 150 -liter combi kettles / 40 – 200 -liter basic kettles). Larger kettles (200 - 400 liters combi kettles / 300 – 400 liters basic kettles) are equipped with a hydraulic tilting mechanism. The mixing functions are performed by means of a gear motor. Cooling (option) is based on cold water circulating inside the kettle's steam jacket. The raised control panel of the appliance is situated on the kettle's right-hand pillar (control pillar).

3.4. Construction of the kettle

The main parts of the kettle / combi-kettle are illustrated in the following pictures:



1. Control pillar
2. Support pillar
3. Safety block
4. Mixer and mixing tool (only for Viking Combi)
5. Emptying valve for steam generator / steam jacket
6. Safety lid
7. Safety grid for fill opening
8. One-grip tap for handshower
9. Control panel
10. Emergency/stop button
11. Handshower
12. Water fill to kettle
13. Free standing frame (option)

**Lid**

1. Safety lid
2. Lifting arm
3. Locking lever of the lid
4. Safety grid for fill opening
5. Safety switch
6. Cover for fill opening (not shown in picture)

**Mains switch**

1. Mains switch

3.5. Control panel

The control panel and the available functions on the kettle are different depending on what options are available. This manual covers all options. The functions and controls depends on selected features:
The functions of the different versions are:



1. Power regulator
2. Heating on indicator
6. Manual water filling
7. Kettle bowl tilting
8. Return kettle bowl to upright position
11. "Low water level" indicator (electrically heated models)
"Steam supply open" indicator (steam heated models)
12. Emergency/stop button

Viking Combi with cooling and water automatics

1. Power regulator
2. Heating on indicator
3. Cooling
4. Mixing speed regulator
5. "Mixer ON" indicator
6. Automatic water filling
7. Kettle bowl tilting
8. Return kettle bowl to upright position
9. Mixing program selector switch
10. Food temperature display
11. "Low water level" indicator (electrically heated models)
"Steam supply open" indicator (steam heated models)
12. Emergency/stop button

3.5.1. Temperature display (option for Viking 4G Combi)

The temperature display shows the temperature of the food (shows the actual temperature of the food only when the mixer is running). The operating range of the temperature display is 0–110°C.

4. Operating instructions



All personnel using the appliance must be given training in how the appliance works by the person responsible for staff safety.

4.1. Regular checks

4.1.1. Before first use

Before using the kettle for the first time or if it has not been used for a long time

- Clean the pan throughout with a warm detergent solution, wiping to remove dust and contaminants from the kettle surfaces. Then dry the surfaces.

4.1.2. Daily

Electrically heated models:

Check that:

- The kettle is in its upright and horizontal position. The kettle does not heat if it is tilted.
- Water supply (hot/cold) is open.
- No inappropriate objects in the kettle.
- Scrapers are correctly attached to the mixing tool. See point "Positioning the mixing tool and scrapers (Viking Combi)" on page 17.
- The mixing tool has been locked in its place: locking part (one end of the handle) in the groove of the mixer axle, with the handle turned in a horizontal position. Secure fixing by trying to lift the tool out of the kettle by the upper blade.
- The steam generator has the right amount of water (white water level indicator light on the control panel of the Viking kettle, normally water must be refilled a few times per year).

Steam heated models:

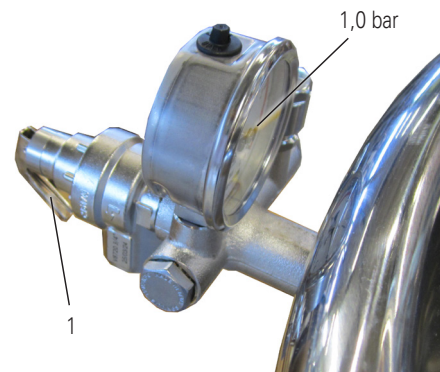
Check that:

- The kettle is in its upright and horizontal position. The kettle does not heat if it is tilted.
- Water supply (hot/cold) is open.
- No inappropriate objects in the kettle.
- Scrapers are correctly attached to the mixing tool. See point "Positioning the mixing tool and scrapers (Viking Combi)" on page 17.
- The mixing tool has been locked in its place: locking part (one end of the handle) in the groove of the mixer axle, with the handle turned in a horizontal position. Secure fixing by trying to lift the tool out of the kettle by the upper blade.
- If necessary, any condensate that has accumulated in the steam jacket has been removed.

4.1.3. Quarterly

Check that the safety valve functions correctly:

1. Do the checking when the kettle is empty.
2. Check the water level of the steam generator (electrically heated models).
3. Switch the kettle on by turning the power regulator to position 6.
4. Heat up the kettle until the pressure gauge shows 1,0 bar pressure.
5. Open the safety valve by cautiously turning the relief lever (1) outwards. Now the safety valve should open and the pressure gauge should indicate a lower value.



Beware of hot steam!

The kettle must be clean and empty. The test causes a momentary strong hissing sound. Wear hearing protection.



If the test was not implemented as described it is strictly prohibited to continue using at the kettle, and you should immediately contact a qualified Metos service to fix the error.

4.1.4. Yearly

- It is advisable to have the unit checked once a year by qualified personnel. Preventive checking is the best guarantee for operational reliability and saves breakdown costs.
- Depending on the hardness of water, descaling must be done by qualified personnel. If the kettle is equipped with the cooling function and it has been used often descaling should be done more than once a year. When doing the first descaling the technician can estimate when the following descaling must be done.



Fill out the form in section "4.4.1. Maintenance information" on page 27 with information on service work which has been done according to the instructions. Maintenance work ensures the safe and reliable function of the kettle.

4.1.5. Periodic service

Like a car, a food preparation appliance should be kept in good working order with the help of preventive maintenance. This guarantees trouble-free and safe operation of the appliance. Depending on how much the kettle is used and in what kind of conditions it is operated, the technical condition of the Proveno combi-kettle should be checked according to plan from time to time. For example, the amount of scale built up on the steam system depends on the use of the kettle and the hardness of local water. Contact your authorized service provider for recommendations on preventative maintenance to be performed.

4.2. Operation

4.2.1. Cooking

The temperature of the steam jacket of the kettle is always at least the same as the room temperature or the same as the temperature of the cooling agent, if the kettle is equipped with a cooling attachment (option).

Starting to cook

- Check that the emergency/stop button is not pressed down. The emergency/stop button can be released by turning it clockwise until it jumps up.
- Switch on the power by turning the power regulator (1) to the right (green signal lamp (2) illuminates).
 - If the white water level indicator light (3) does not go off, add water to the steam generator according to instructions, see "Filling the steam generator (electrically heated models without cooling or autom. jacket filling).
 - The white signal lamp (3) illuminates when the steam supply is open (steam heated models).



1. Power regulator
2. Indicator light "kettle ON"
3. Indicator light for low water level (electrically heated models)
Indicator light "steam supply open" (steam heated models)
4. Emergency/stop button
5. Food temperature display



In the case of electrically heated kettles, after switching off the heating, you should wait about 5 seconds before tilting the kettle. Immediate tilting will shorten the life of the heating elements.

Stopping the cooking

Turn the power regulator counterclockwise to position 0. The green indicator light goes off and the kettle stops cooking.



The kettle tilts only if the kettle is switched on. Since the kettle chills slowly, you can stop cooking and begin the simmering by decreasing the temperature.



The cooking will automatically stop when the kettle is tilted. The cooking goes on automatically when the kettle is returned to an upright position.

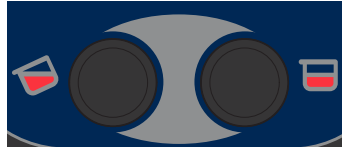
4.2.2. Tilting the kettle



In the case of electrically heated kettles, after switching off the heating, you should wait about 5 seconds before tilting the kettle. Immediate tilting will shorten the life of the heating elements.



Open the safety lid of the kettle before tilting and ensure that there is enough space for tilting behind the kettle.



Tilting the kettle is carried out by pressing the tilting button .

Returning the kettle to the cooking position is carried out by pressing the upright position button .



- The kettle tilts as long as the button is held down.
- For safety reasons (safety regulations), the reversing movement lasts only as long as the button is pressed. The upright position button must be pressed until the reversing movement stops and the kettle is in the cooking position.

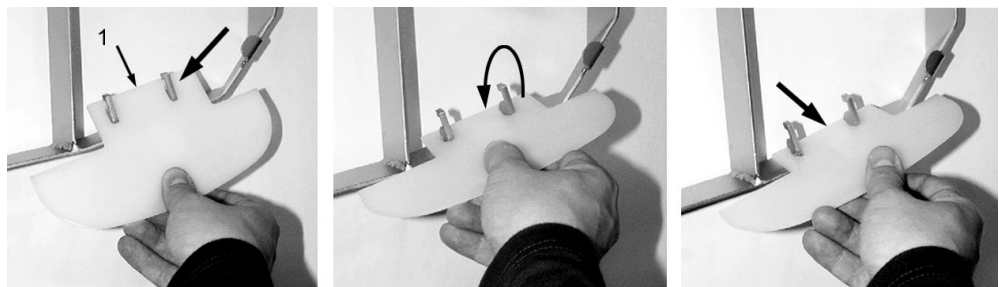
4.2.3. Mixer operation (Viking Combi)

The mixer operates only when the safety lid and the safety grid of the lid opening are attached and closed.

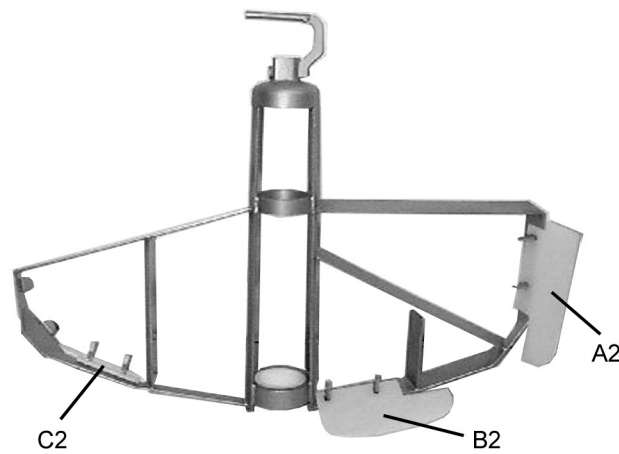
If the kettle lid is opened during mixing, the mixing function will be interrupted and it must be restarted using the mixing program selector switch and speed regulator.

Positioning the mixing tool and scrapers (Viking Combi)

Attach the scrapers by placing the pins on the mixing tool into the holes on the scrapers. After that turn the scraper into place by lifting the scraper's lower part. Finally pull the scraper forward. The bevel (1) will on the lower scraper point upwards and on the side scraper away from the mixer axle.



The mixing tool is equipped with 1-5 scrapers, depending on the size of the tool.

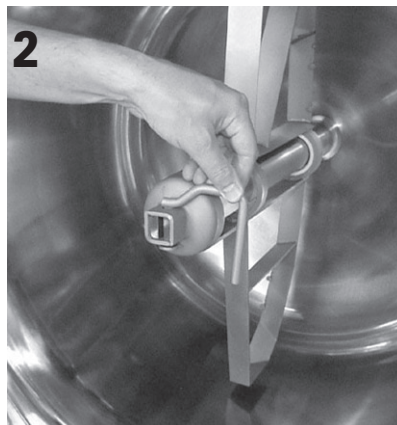


Scraper	40	60	80	100	150	200	300	400
Scraper A2	-	1	1	2	1	2	1	2
Scraper B2	-	-	1	1	1	1	1	1
Scraper C2	1	1	-	-	1	1	2	2

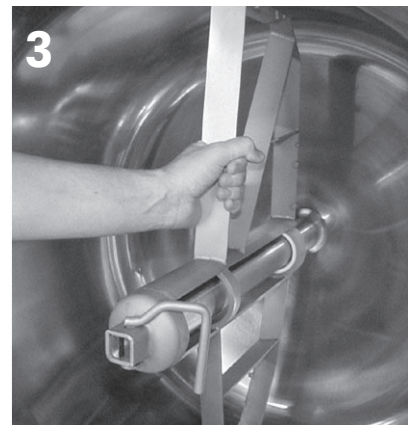
Use scrapers in all cooking modes to increase the efficiency of heat transfer and to help the cleaning of the kettle.



It is easiest to attach the mixing tool to the mixer axle when the kettle is in a tilted position. Push the mixing tool onto the kettle's mixer axle and fit the mixing tool in place, while the lifting handle is straight so that the locking device of the lifting handle sets in the groove at the upper end of the mixer axle.



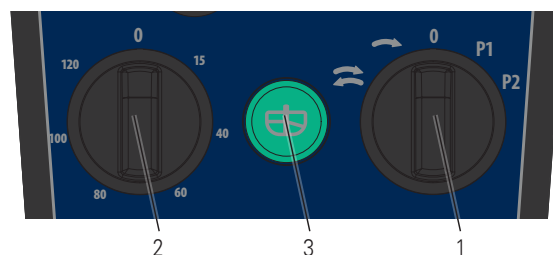
Then turn the handle aside.



Make sure that the mixing tool is locked in its place by trying to lift/pull it out of its place by pulling at the mixer blade, for example.

Manual operation of the mixer

1. Make sure that the emergency/stop button is not pressed down. If pressed, release it by turning it clockwise until it jumps up.
2. Choose mixing in one direction by turning the mixing program selector switch (1) from position 0 to position or choose auto-reverse mixing by turning this switch from position 0 to position .
3. Start the mixer with the mixing program selector switch (1) while the mixing speed regulator (2) is in position 0. The mixer starts after turning the speed regulator to about position 15. If the speed regulator is not in position 0 when turning the program selector, it must be turned to 0 and only after that to 15 or more.



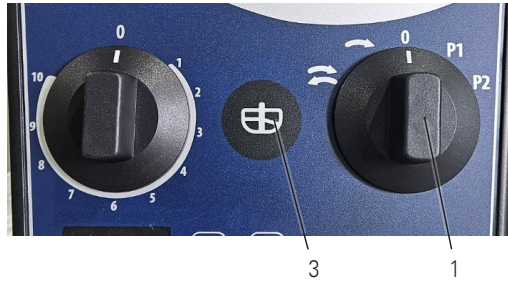
1. Mixing program selector switch
2. Mixing speed regulator
3. Mixer On indicator

Operation of the pre-set mixing programs

The automatic mixing programs are preset and cannot be changed. The programs will start immediately when the mixing program selector switch is turned to position P1 or P2.

You can at any time directly switch over from one program to another program.

It is possible that the mixer is not moving even if a mixing program is running. The mixer ON indicator shows that a program is on.



- 1. Mixing program selector switch
- 3. Mixer ON indicator

Stopping the mixing and the preset programs

The manual operation of the mixer can be interrupted by turning the mixing program selector switch (1) to position 0. The mixing programs can be interrupted by turning the mixing program selector switch to position 0.

Pressing the emergency/stop button will immediately stop all mixing functions.



- 1. Mixing program selector switch
- 2. Mixing speed regulator

Mixing speeds

The mixing speed can be steplessly chosen between 15-110 rpm.

Auto-reverse function

In spite of the speed selected, the mixer will run 6 seconds clockwise and 6 seconds counterclockwise.

Description of the preset mixing programs

The purpose of use, different phases of the program and the mixing speeds are shown in the following table.

Program	No. phase	Speed	Seconds/direction	Duration
P1	1	15 rpm	6 cw/6 ccw/6 cw/pause 2 min.	Continuous
P2	2.1	60 rpm	2 cw/2 ccw	12 s
	2.2	60 rpm	9 cw/3 ccw	1 min
	2.3	80 rpm	9 cw/3 ccw	5 min
	2.4	60 rpm	9 cw/3 ccw	4 min

Maximum amount of mixing



The turning force and mixing features of the mixer are designed to mix most food ingredients. There might although be food ingredients with a consistency that requires decreasing the kettle contents or adding liquid to improve the mixing result. The turning force is best in the range 20-60 rpm.

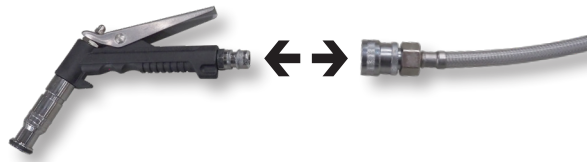
4.2.4. Cooling system (optional)

The cooling system is based on chilling tap water which is circulating inside the steam jacket. Mixing and use of scrapers makes the chilling more effective. The needed chilling time depends on the quantity of the product, the temperature at the beginning and at the end of the cooling, the flow of the chilling water and its temperature and the mixing.

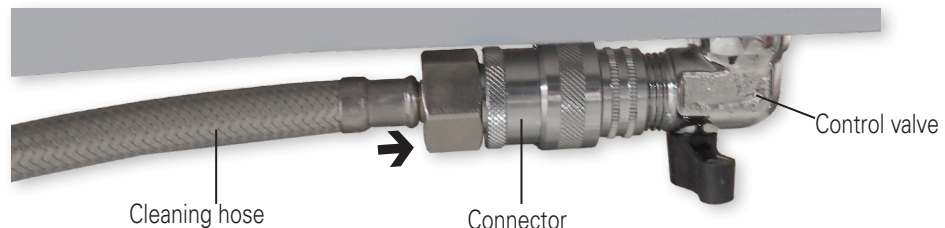
Manual cooling - C1

Starting the cooling

1. Turn the power regulator to position 0.
2. Close the faucet.
3. Remove the spray gun from the cleaning hose by pulling the connector away from the spray gun.



4. Connect the cleaning hose to the control valve (on the right side under the kettle).



5. Open the control valve by turning the handle parallel to the valve.



6. Open the jacket emptying valve (in the middle under the kettle) by turning the handle downwards.



7. Open the cold-water faucet.

Stopping the cooling

1. Close the faucet.
2. Remove the cleaning hose from the control valve.
3. Let the extra water run out of the steam jacket through the control valve. Close the control valve when the kettle is in an upright position and water stops flowing out.
4. Close the jacket emptying valve.

i It takes a few minutes to let the extra water run out of the steam jacket. If you first want to empty the kettle, close the control valve before tilting. If the control valve is open during the tilting, it is possible that the steam generator gets drained of water, see section "5.12.1. Filling the steam generator (electrically heated models without cooling or autom. jacket filling)" on page 49 (electrically heated models).

i The kettle will not warm up properly if the water level is not lowered to the normal cooking level.

Automatic cooling - C2



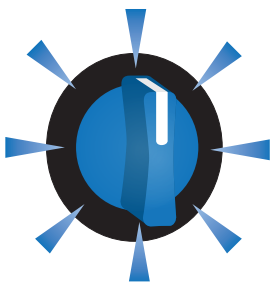
Cooling switch

Starting the cooling

Start the cooling by turning the cooling switch to cooling position



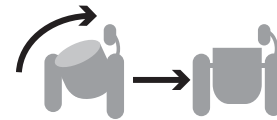
The cooling switch will be lit or blinking as follows:



- **Steady light:** Cooling.



- **Blinking light:** Cooling stopped, jacket draining.



- **Slow blinking light:** Cooling / draining paused, return kettle to cooking position to proceed.



A new cooling or heating can be started during jacket emptying.



- **Fast blinking:** Safety function after power cut, wait until blinking stops.

Stopping the cooling

Stop the cooling by turning the cooling switch back to upright position



4.2.5. Water filling

Manual water filling



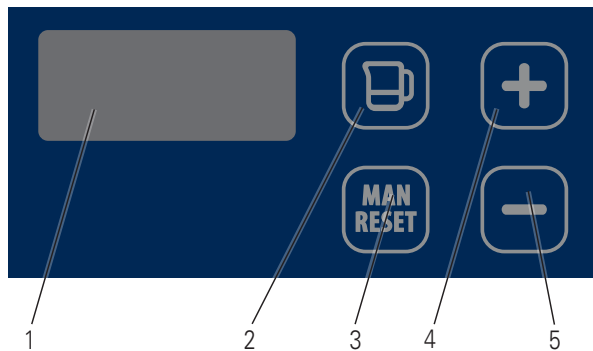
1. Manual water filling switch

- Start the filling by turning the  switch to fill position. The filling continues as long as the switch is in this position.

Automatic water filling (option)

A desired amount of cold water can be dispensed to the kettle by the automatic water dispenser in the following way:

- water filling is manually kept on until the desired amount of liters appears on the display of the control unit or
- automatic water running stops when the amount of liters set beforehand in the control unit are achieved.




1. 3-digit display
2. Automatic flow on/off
3. Manual flow + reset
4. Setting is increasing
5. Setting is decreasing





Basic mode

- When the kettle is switched on 0 appears in the last digit's position.
- The decimal point is illuminating.
- The values for the set amount of water and achieved amount of water are 0.
- If the function of the appliance is interrupted by switching off the control voltage, the switching on again will always set it to this basic mode.





Manual water filling

- Filling starts when the  button is pushed and held down for the duration of filling.
- The display is updated with an accuracy of one liter as long as the button is held down.
- The achieved value in liters is shown on the display for 10 seconds after stopping the filling. Then 0 appears on the display.
- If you want to continue filling within the mentioned time, the value on the display will continue increasing.


Automatic filling of water

- Set the desired amount (liters) with the  and  buttons.
- The value is shown on the display for 10 seconds after which the set value will be 0.
- Start the water filling by pressing the  button while the set value is illuminating on the display.
- After starting the filling function, the display will cumulatively show the amount of water filled (in liters) and the flow stops automatically when the set value has been achieved. The set value is reset to zero by pushing the  button.



Interrupting the automatic water filling.

- The function is interrupted by pushing the automatic flow on/off button .
- The achieved value stays on the display and the decimal point is blinking.
- The set value is saved in the memory.
- In the interrupted mode, the setting can be changed using the  and  buttons.
- The water dispenser reverts to the basic mode by pushing .
- If the function is interrupted by pushing the emergency-stop button, the appliance reverts to the basic mode and the settings must be done again.

Continuing the automatic water filling after interruption





- The filling will continue from the achieved value up to the set value by pushing the  button.
- After this the decimal point will illuminate continuously.

Error in automatic water filling





- If there is an error in flow measurement or if water does not flow, the value on the display blinks.
- The water dispenser reverts to the basic mode by pushing either  or .

Settings

Maximum filling amount

- The maximum filling amount has been set in the factory according to the kettle size.
- The setting is changed by first pushing the  button and immediately after that the  button for 5 seconds, after which the display value starts to blink. The new setting value according to the kettle size is set using the  and  buttons. The maximum set value is 400 liters.
- The set value is saved if the setting is not changed in 5 seconds.

Calibration of flow measurement

- Basic calibration has always been done in the factory, so normally it need not be done again.
- If, however, calibration is needed, first push the -button and immediately after that the  button for 5 seconds after which the value 855 starts to blink on the display.
- To decrease the flow, push the  button, so the value decreases. To increase the flow, push the  button, so the value increases. The amount of flow must be checked by pouring 5 liters of water into a measuring vessel.
- The set value is saved if the value is not changed within 5 seconds.

4.3. After use

4.3.1. Cleaning



Use of a pressure washer is forbidden. Pressure washers generate huge amounts of water fog that might contribute to contamination of food and food handling surfaces over large areas in the kitchen.



Switch off the appliance with the mains switch before starting to wash the kettle.



Tools not allowed for cleaning:

- pressure washer
- all metallic tools
- rough rubbing sponges
- steel wool
- abrasive detergents



Tools recommended for cleaning:

- special detergents for stainless steel
- nylon brush
- soft rubbing sponges
- other materials intended for stainless steel that do not scratch the surface



All accessories, such as strainer plates and its parts, mixing tools and scrapers and parts of the safety lid can be washed in a dishwasher suitable for washing such items.

The less the kettle surface gets scratched, the easier it is to clean. The fastest and easiest method is to clean the kettle every time right after use. Clean the pillars of the appliance by wiping.



Do not spray water on the control panel.



Cleaning the control panel and the panel overlay with steam is prohibited!



Wash the exterior of the appliance with running water only if necessary. Wiping with a damp cloth will often suffice. Consider the requirements of food hygiene when cleaning the kettle. Abundant use of water for soaking increases water consumption. However, if you want to clean the kettle by soaking, make use of the mixer and the optional washing tool to make soaking more efficient, mixing slowly during soaking.

Cleaning procedures:

- Scrape loose dirt with a plastic scraper.
- Spray detergent into the kettle, then brush and spray the kettle with water until clean.
- Dry the kettle.

The dosing and impact time instructions for cleaning detergents must be followed - e.g. exceeding the impact time for foam cleaning detergents in combination with salt residues has been observed to cause severe spot corrosion even on stainless steel.



The manufacturer does not take any responsibility for possible damage caused by not following the instructions.

Emptying the steam jacket (steam-heated kettles)

Open the drain valve of the steam jacket at the end of the working day so that the water that may condense in the kettle can drain into the drain. That way it won't interfere with the next cooking event. Remember to close the drain valve the next morning before heating the kettle.



Steam jacket drain valve

Detaching the lid parts



- Make sure the kettle is in an upright position.
- Place the lid on the kettle.
- Remove the cover of the safety grid and detach the safety grid.
- Detach the solid lid from the lifting arm by holding the lifting arm with one hand and pulling the locking lever of the lid and then lifting the arm.

Refitting the lid parts

Place the solid lid on the kettle approximately in the correct position.

Pull the lifting arm down over the lid. Turn the solid lid so that the guiding pin lines up with the hole in the lifting arm center piece.



1. Solid lid
2. Lifting arm
3. Guiding pin
4. Locking lever of the lid
5. Safety grid for lid opening
6. Cover for fill opening (not shown in picture)

Press the lid arm against the lid so that the fixing cone is guided into the fixing part and the locking lever snaps in the locked position. Make sure that the lid is locked on the arm.



Put the safety grid and its cover in place.

4.4. Troubleshooting

The kettle does not heat up

- The kettle is not in upright (cooking) position. Return the kettle to upright position.
- Steam supply problems on a steam heated kettle. Check the steam supply and pressure.

The mixer does not start

- The kettle is not in upright (cooking) position. Return the kettle to upright position.
- The lid is open. Close the lid.
- The safety grid is not in correct position. Check the safety lid.

The cooling does not work

- The kettle is not in upright (cooking) position. Return the kettle to upright position.
- Jacket filling problems. Check the water supply (tap water cooling).

Resetting the unit

- Turn the main power switch to position 0 and wait for about 1 minute. Turn the main power switch to 1 position.

4.4.1. Maintenance information

Keep a record of all service and repair measures carried out for the kettle during its life cycle. Service history may speed up future service measures, help in controlling the costs and in planning new investments. The safety valve must be periodically checked as instructed in this manual. Enter the check data in the "Maintenance information" table.

Maintenance information

Kettle _____ Serial No. _____ Taken into use (date) _____

Checking the safety valve four times per year:

Date	Checked by	Notes	Date	Checked by	Notes

Yearly maintenance:

Date	Checked by	Notes	Date	Checked by	Notes

Descaling:

Date	Checked by	Notes	Date	Checked by	Notes

5. Installation

5.1. General



Please observe the instructions given in this chapter concerning the installation and adjustments that must be done before taking the kettle into use. Strict observance of the instructions prevents malfunctions and damages potentially caused by defective installation.

Do not switch the power on if the installation place is damp or wet (building site conditions).

5.1.1. Operating conditions

The kettle can be used in a normal, air-conditioned professional kitchen. The room temperature of the installation place must not exceed +40°C and the relative humidity must be less than 80% (condensation on surfaces not allowed to occur). If the temperature of the facility in winter conditions is below 0°C, the steam generator of the kettle must be drained and the kettle must be emptied to avoid damage caused by freezing. The kettle's pipes and solenoid valve bodies must be emptied at the same time.

5.1.2. Possible interference from the surroundings (to the surroundings)

The kettle fulfils the requirements of the EMC directive concerning the emissions and immunity to electromagnetic disturbances. In case there are electronically controlled appliances and, in particular, devices fitted with a frequency converter in the installation place, it is recommended to ensure their conformity with the relevant regulations and that their cabling has been done according to instructions.

5.1.3. Storage

The kettle must be stored in a dry place, at a temperature between +10 and +40°C. The kettle should be kept in its transport package during storage.



If the appliance is stored in construction site conditions, special care must be taken not to damage it through other operations on the site.

- Protect the exterior of the kettle from scratches and knocks.
- Protect the kettle from construction site dust.
- **Protect the kettle from sparks produced by welding, grinding and abrasive cutting wheels. These can later cause rust spots on the stainless steel surface of the appliance.**

5.1.4. Unpacking the appliance

The kettle should be transported in its own package as close as possible to the installation place before final unpacking. Do not remove the protective film until after installation, just before the first use of the kettle.



After removing from the transport pallet, the kettle to be fixed to the floor is not stable until it has been bolted down to the installation frame. A freestanding kettle that has been removed from its transport pallet is not stable until it has been installed in place. It is strictly forbidden to operate or tilt the kettle before it has been fixed to the floor or to the free standing frame according to the installation instructions. When the kettle is removed from its transport pallet, it must be supported to prevent it from falling before it is fixed to the floor. If the kettle falls down, this may cause injury to people or damage to property.

5.1.5. Disposal of the package

After unpacking all packing material must be sorted and disposed of in accordance with local recycling regulations.

5.2. Installation

Check before installation from the installation drawing that there is enough space behind the kettle for tilting and servicing. Also check the location of the floor drain.



The kettle is designed for installation in a place with a floor drain in front of the kettle. The arrangement with a pouring channel and floor drain behind the kettle is not suitable for use with the kettle.

The kettle can be installed in three different ways:

- FM (=floor-mounted): On a subsurface installation frame, the frame cast into the floor.
- FM (=floor-mounted): On a surface installation frame, the frame fixed to the floor surface.
- FS (=free-standing): Free-standing.

Installation dimensions and floor drain placement, see section "6. Technical specifications"

5.2.1. Floor-mounted kettles (FM)



For kettles size 200 - 400 l a subsurface frame installation is recommended.



Fixing the kettle directly to the floor without frames is forbidden.

Either subsurface frames or surface frames must be in position before the installation of the kettle is started.

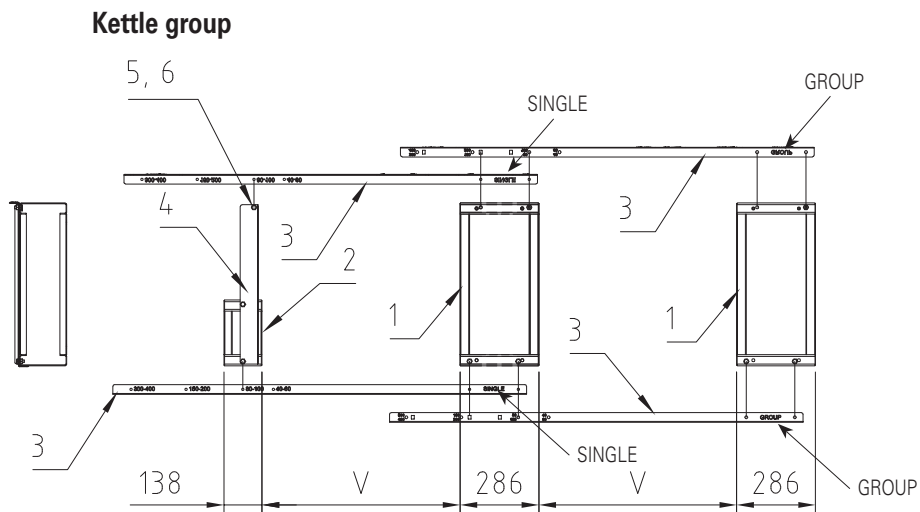
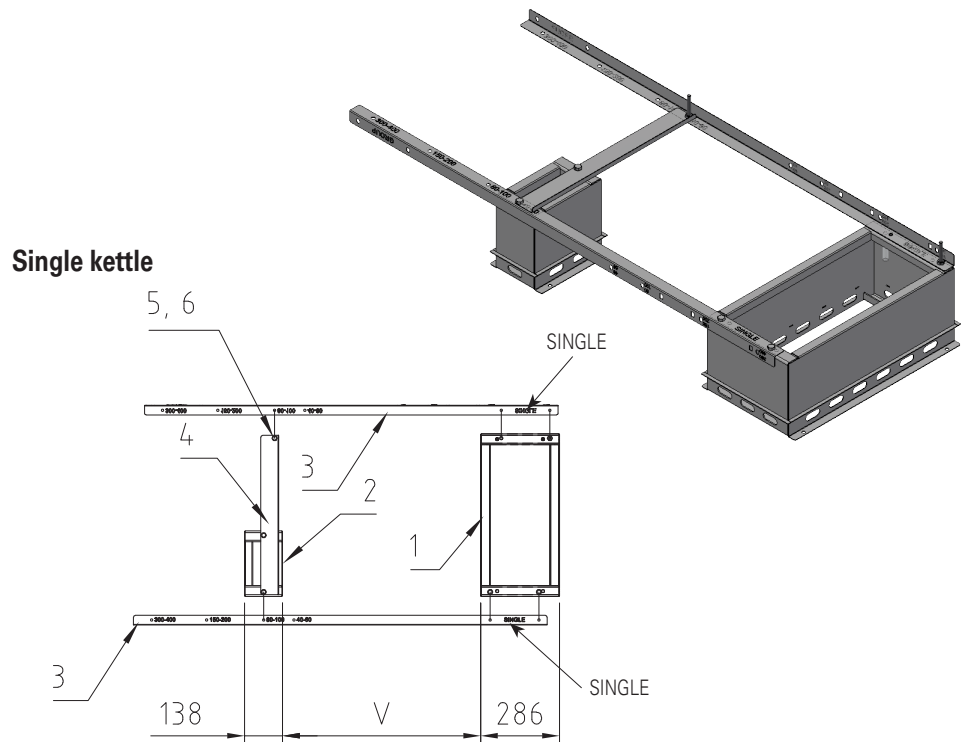
5.3. Residual current device recommendation

It is recommended to use a residual current device in the installation of a kettle as follows:

- Kettles without mixer: Type A residual current device.
- Kettles with mixer and operating voltage 200V, 230V or 400/230V: Type A residual current device with high frequency filtering or a residual current device separately approved for use with frequency converters.
- Kettles with mixer and operating voltage 380 – 480V without neutral: Type B three-phase residual current device

5.4. Installation frames

5.4.1. Positioning of installation frames



Installation frames

- MG4224000 Surface installation
- MG4224002 Sub-surface installation
- MG4224004 Group installation, surface
- MG4224006 Group installation, sub-surface

- 1. Control pillar frame
- 2. Support pillar frame
- 3. Installation guide : 3917669
- 4. Spacer guide: 3917668
- 5. Hex bolt M10x20
- 6. Hex nut M10

Model	V (mm)
40E, S	608
60E, S	608
80E, S	718
100E, S	718
150E, S	924
200E, S	924
300E, S	1124
400E, S	1124

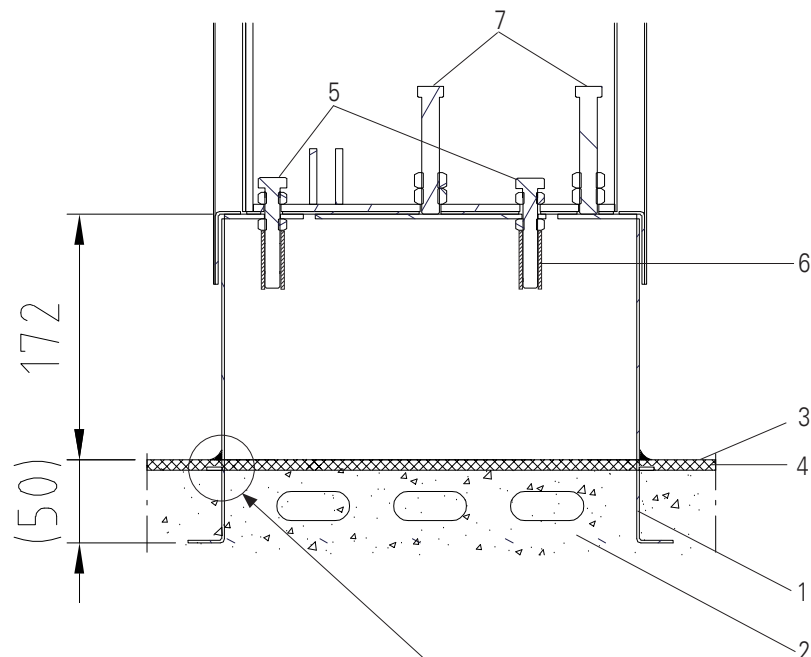
5.4.2. Subsurface frame cast into the floor

Installation frames are mounted according to the installation drawing, with the help of installation guides supplied with the delivery. The frames must be installed in a horizontal position and fixed so that they do not move during casting.

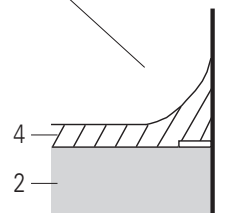
The installation frames must be positioned so that their upper surface is 172 mm above the finished floor surface. The junction of the installation frame and floor is filled with flooring material.

After pouring the concrete floor and after the concrete has dried, remove the installation supports (see section 5.4.1 parts 3-6). The best result in terms of tightness is achieved by filling the installation frame with concrete, which is then covered with a floor coating to prevent moisture from entering the concrete.

Note: Ensure that the fixing bolts (5) and protective sleeves for fixing bolts (6) are in place and the bolts are tightened to the bottom before pouring the concrete. The main points of the casting frame are shown in the figure below.



1. Installation frame
2. Concrete casting
3. Finished floor surface
4. Floor coating
5. Fixing bolt
6. Protecting sleeve for fixing bolt
7. Adjusting bolt



Place the kettle on the installation frame and adjust to a horizontal position with the adjusting bolts. When the kettle is in a horizontal position, it must be fixed to the installation frames with the help of the fixing bolts. The control pillar has 4 bolts and the support pillar has 2 bolts. Tighten the adjusting nuts carefully. Do not seal the space between the kettle pillars and installation frame as there must be enough change of air.

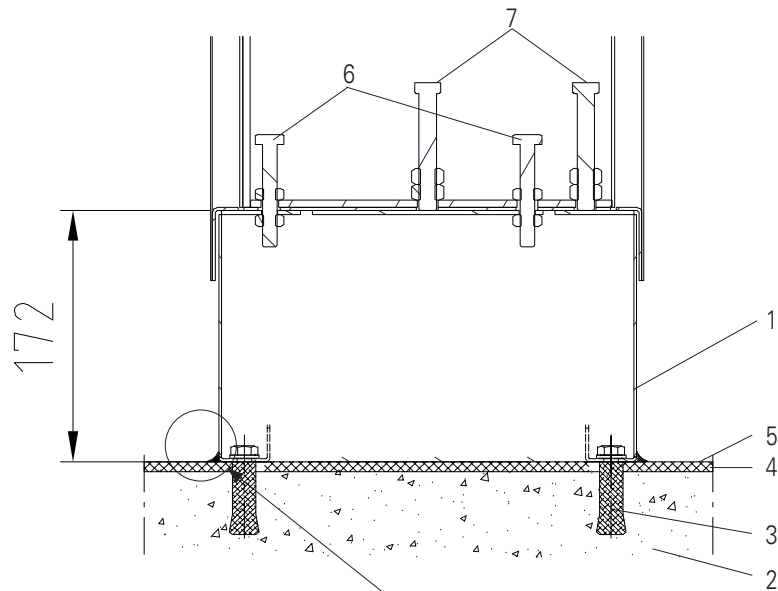
5.4.3. Surface installation frame fixed to the floor

Surface frames are mounted according to the installation drawing, with the help of installation guides supplied with the delivery. If the inclination of the floor is very steep, it may be necessary to level the surface frame closer to the horizontal by placing stainless steel spacers between the frame and the floor. This will ensure that the adjustment range of the pillars is adequate.

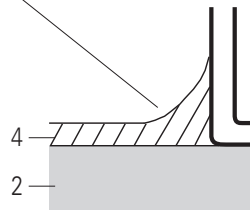


Pieces of stainless steel plate should be used as spacers that are large enough and have a suitable hole for the fixing bolt. Washers or other small spacers are not allowed.

The fixing bolts for the surface installation must be chosen according to the floor construction. A type recommended is a UKA M10x150 chemical bolt, which suits various floor materials. Alternatively expansion-shell bolts or equivalent can be used. The junction of the surface frame and the floor is filled with flooring material. The main points concerning the installation of the surface frame are shown in the picture below.



- 1. Surface frame
- 2. Concrete casting
- 3. Fixing bolt for surface frame
- 4. Finished floor surface
- 5. Floor coating
- 6. Fixing bolt
- 7. Adjusting bolt



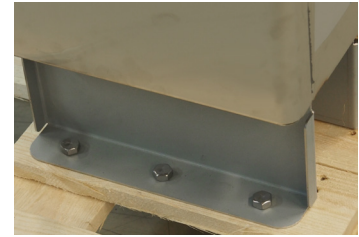
Place the kettle on the surface installation frame and adjust to a horizontal position with 4 adjusting bolts. When the kettle is in a horizontal position it must be fixed to the surface frame with the help of the fixing bolts. The control pillar has 4 bolts and the support pillar has 2 bolts. Tighten the fixing bolts carefully. Do not seal the space between the kettle pillars and surface installation frames, as there must be enough change of air.

5.5. Installation on frames

Installing the first left hand kettle or a single kettle

The kettles are delivered attached to a pallet with transport brackets.

The front and rear cover plates of the kettle's control pillar and the side plates of the support pillar must be detached before installation. Each plate has been fixed at its lower edge with two screws. After that, it is also possible to detach the lead-through plate of supply cables and water pipes located at the lower rear edge of the control panel by loosening four screws.

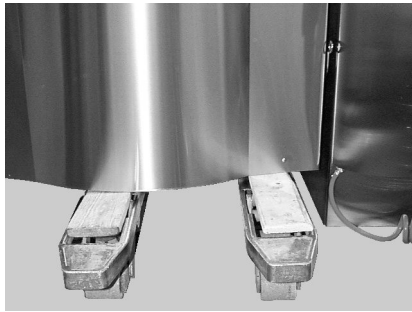


Move the kettle to the installation frame as follows:

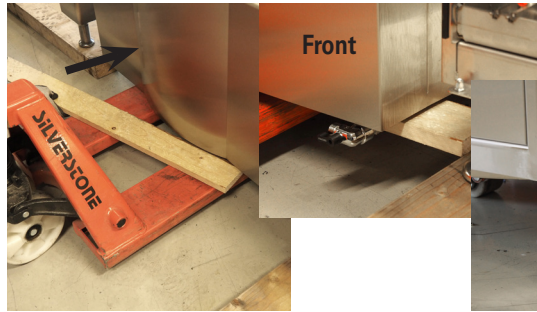
- Cut the longitudinal boards of the pallet and push the fork-lift trolley below the kettle.

Care must be taken that the lifting arms of the fork-lift trolley do not hit the parts protruding from the kettle bottom, i.e. the mixing motor cover box (40, 60, 80, 100, 150, 200) as well as the drain and discharge pipes. Lift from the edges, NOT from the bottom plate.

Furthermore, it is recommended to place e.g. plywood strips between the fork-lift trolley and the kettle bottom. It should be observed that the kettle pillars move. It is advisable to put a piece of foamed plastic or a rolled cellular board between the kettle and control pillar so that they do not hit each other.



Viking 40, 60, 80, 100, 150 and 200



Viking 300 and 400

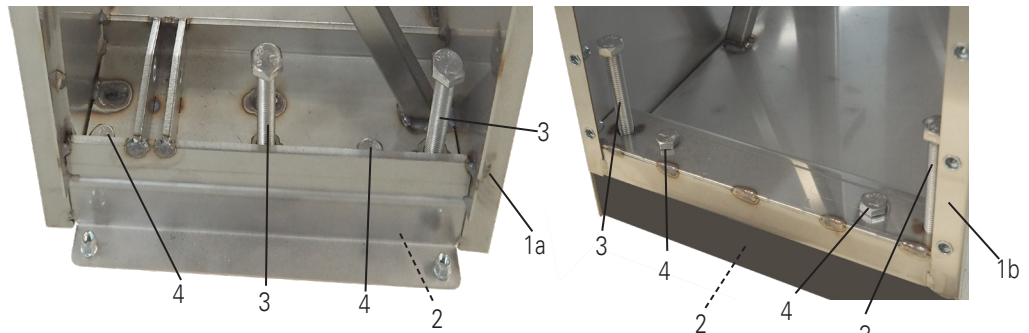


- Lift the forklift trolley so that it supports the kettle preventing it from tipping over when the transport brackets are removed.
- Remove the kettle from the transport brackets by loosening the bolts.
- Lift the kettle off the pallet.
- Move the kettle with the forklift onto the installation frame.
- Start installing the kettle or kettle group by first positioning the left-hand support pillar in place. Lift the support pillar (1) on the installation frame (2) and adjust it by means of the adjusting bolts (3) to a horizontal position and to a height of 900 mm measured from the top of the support pillar front edge to the floor. When the support pillar (1) is in place, fix it with two fixing bolts (4) to the installation frame (2).

1. Support pillar (from above)
2. Installation frame
3. Adjusting bolt
4. Fixing bolt



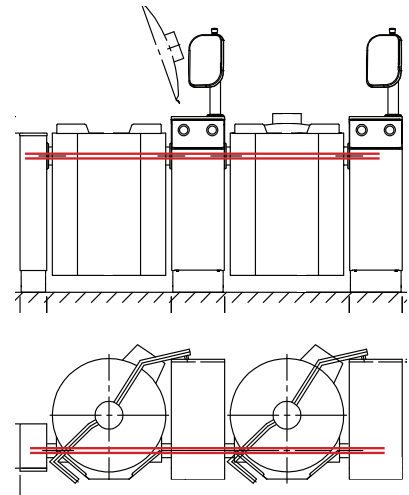
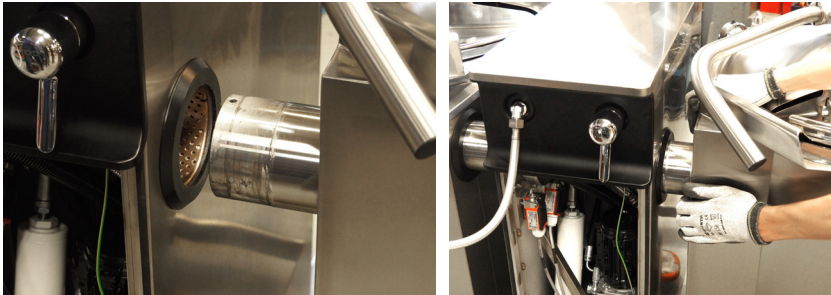
- Next, the control pillar (1) is adjusted by means of the adjusting bolts (3), to a horizontal position and on the same level with the support pillar. When the control pillar (1) is in position, it is fixed to the installation frame (2) with four fixing bolts (4). Check that the space between the kettle section and the support and control pillars is the same, both at the top and at the bottom.



- 1a. Control pillar (front side)
- 1b. Control pillar (back side)
- 2. Installation frame
- 3. Adjusting bolt
- 4. Fixing bolt

Installing the following kettle in a kettle group

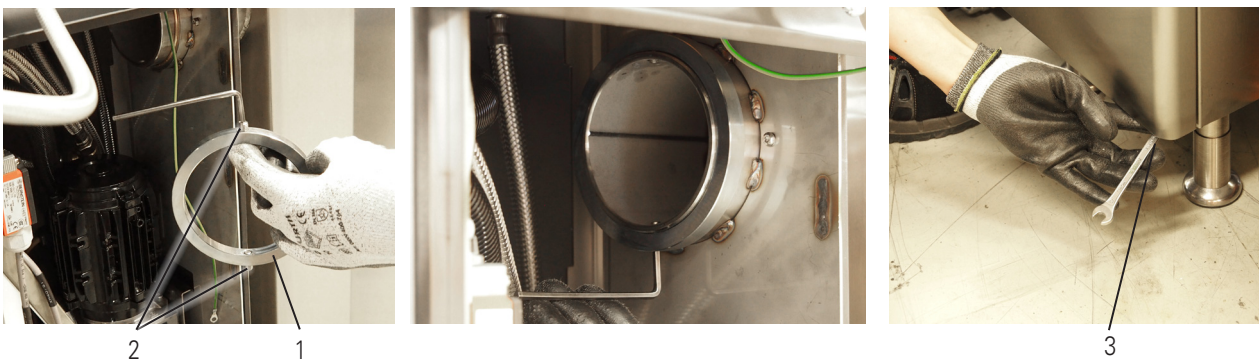
If a kettle group is installed proceed as follows:



- Align the two kettles at the same height and move them together.
- Push the axle into the bearing. Apply grease if needed.



Make sure that the axles of the kettles align, both horizontally and sideways. Adjust if needed with the adjusting bolts.



- Mount the locking ring (1) and secure it with the two locking screws (2) (4 mm Allen key). After that the cover plate of the kettles control pillar can be refitted (3) (10 mm spanner).

5.6. Free standing kettles

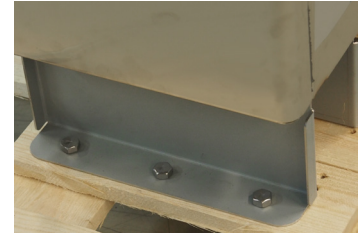
Installing the first left hand kettle or a single kettle

40 - 200 liter kettles

40 - 200 liter kettles can be delivered attached to a pallet with transport brackets or pre-mounted on the free standing frame.



If the kettle is pre-mounted on the free standing frame, see "300 and 400 liter kettles" on the next page.

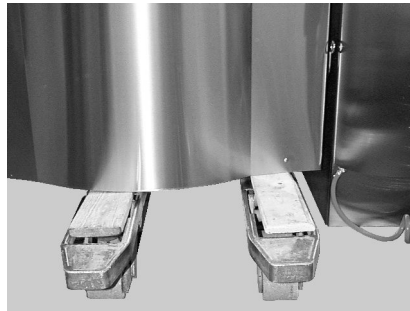


Mounting the kettle on a separately supplied free standing frame:

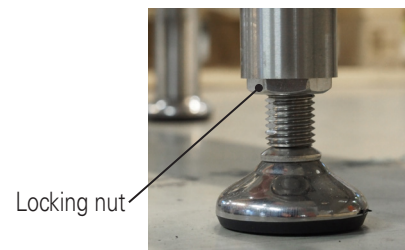
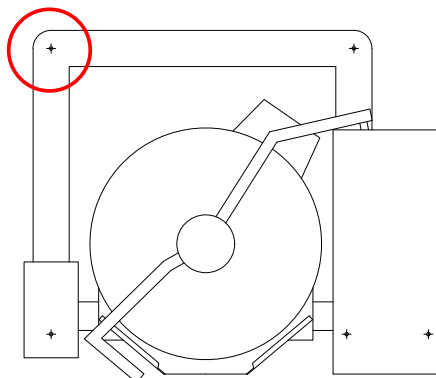
- Cut the longitudinal boards of the pallet and push the fork-lift trolley below the kettle.

Care must be taken that the lifting arms of the fork-lift trolley do not hit the parts protruding from the kettle bottom, i.e. the mixing motor cover box (40, 60, 80, 100, 150, 200) as well as the drain and discharge pipes. Lift from the edges, NOT from the bottom plate.

Furthermore, it is recommended to place e.g. plywood strips between the fork-lift trolley and the kettle bottom. It should be observed that the kettle pillars move. It is advisable to put a piece of foamed plastic or a rolled cellular board between the kettle and control pillar so that they do not hit each other.



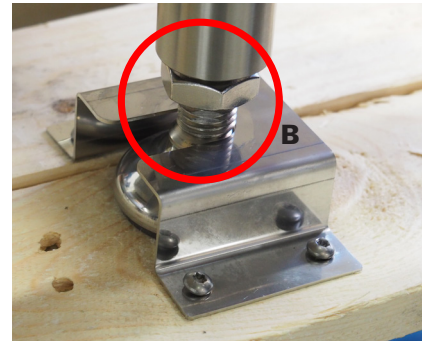
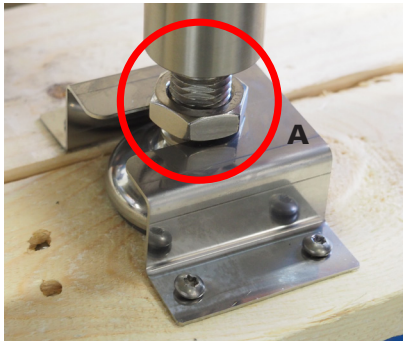
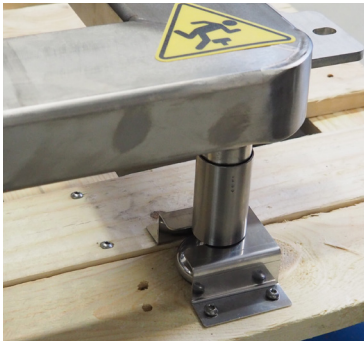
- Lift the forklift trolley so that it supports the kettle preventing it from tipping over when the transport brackets are removed.
- Remove the kettle from the transport brackets by loosening the bolts.
- Lift the kettle off the pallet.
- Move the kettle with the forklift onto the free standing frame and lower it into place.
- Attach the kettle to the free standing frame with M10 bolts.
- Check that it is horizontal. Adjust if needed using the adjustable feet on the free standing frame.



- Be sure to tighten the foot in the back corner of the support pillar side tight to the floor, otherwise it may lift when using the mixer with heavy loads or when tipping the kettle.
- Tighten the locking nuts of the adjustable feet after the adjustment.

300 and 400 liter kettles

The 300 and 400 liter kettles are delivered pre-mounted on the free standing frame. Also 40 - 200 liter kettles can be delivered pre-mounted on the free standing frame.



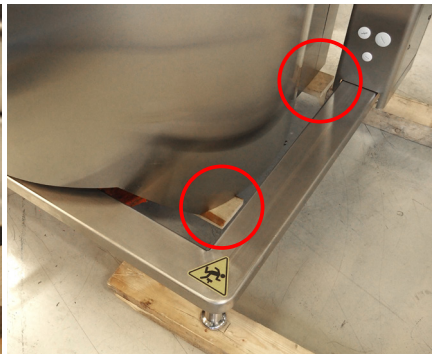
The kettle's transport base is equipped with brackets, to which the kettle is attached using the locking nuts of the leg on the frame (A).

- Remove the kettle from the bracket by loosening the locking nut (B).

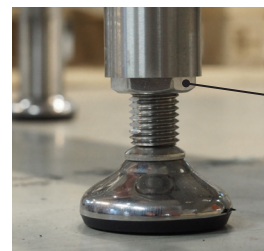
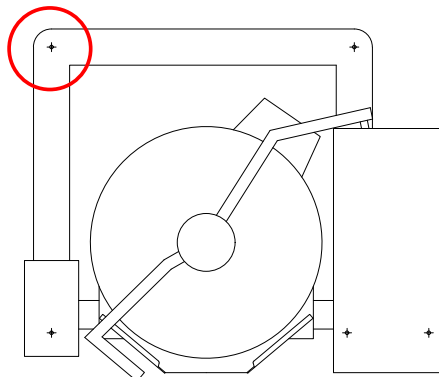


Be sure to tighten the locking nuts to the top position after the kettle is set straight, see below.

- Unscrew the brackets from the transport base and lift the kettle off the transport base by cutting the longitudinal timbers of the transport base and pushing a fork-lift trolley under the kettle. Place strips of plywood or boards between the fork-lift trolley and the bottom of the kettle (see pictures below) before lifting the boiler.



- If you are lifting the kettle from the floor, lift the kettle one side at the time and place planks under the feet of the free standing frames feet in order to lift the kettle enough to make the fork-lift trolley to fit under the kettle as described below. Put strips of plywood or planks between the fork-lift trolley and the bottom of the kettle (see pictures above) before lifting the kettle.
- Move the kettle to the installation site and check that it is horizontal.
- Adjust if needed using the adjustable feet on the free standing frame.



Locking nut

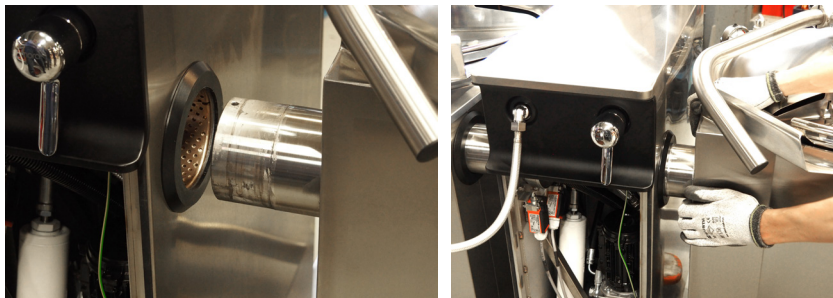
- Be sure to tighten the foot in the back corner of the support pillar side tight to the floor, otherwise it may lift when using the mixer with heavy loads or when tipping the kettle.
- Tighten the locking nuts of the adjustable feet after the adjustment

Installing the following kettle in a kettle group

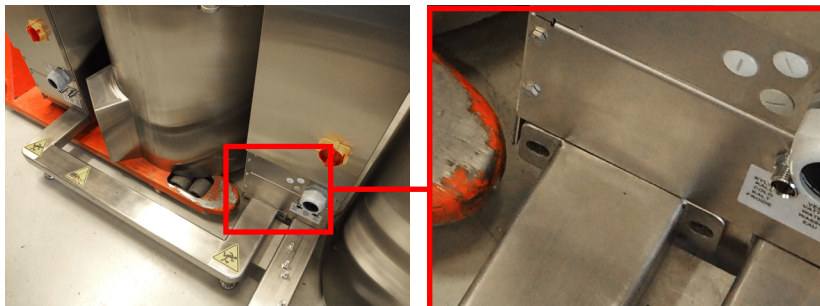
If a kettle group is installed proceed as follows:



- Remove the cover plate of the left hand kettles control pillar (10 mm spanner).



- Align the two kettles at the same height and move them together.
- Push the axle into the bearing. Apply grease if needed.



- Make sure the kettle is in position and the holes in the free standing frames of the kettles align.



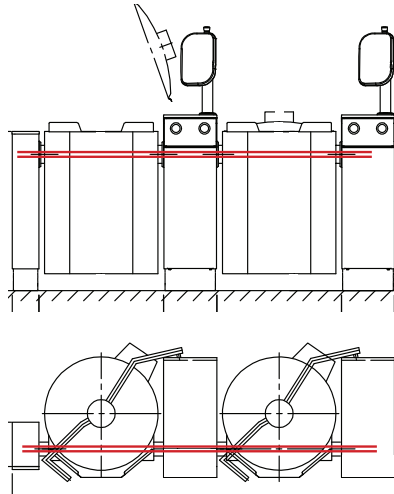
- Fix the kettles together with four 12 mm bolts using the 19 mm spanner.



- Mount the locking ring (1) and secure it with the two locking screws (2) (4 mm Allen key). After that the cover plate of the kettles control pillar can be refitted (3) (10 mm spanner).



Make sure that the axles of the kettles align, both horizontally and sideways. Adjust if needed with the adjustable feet.



Mounting flanges

Mounting flanges (4 pcs / kettle) are recommended for all kettles and especially for large kettles (150 liters and larger) or if the floor is uneven. The flanges are glued to the floor.

- Lift one side at a time with a forklift trolley and place the flange around the legs in the corner. Lower the kettle and glue the flange to the floor.



Mounting flange

5.7. Electrical connections

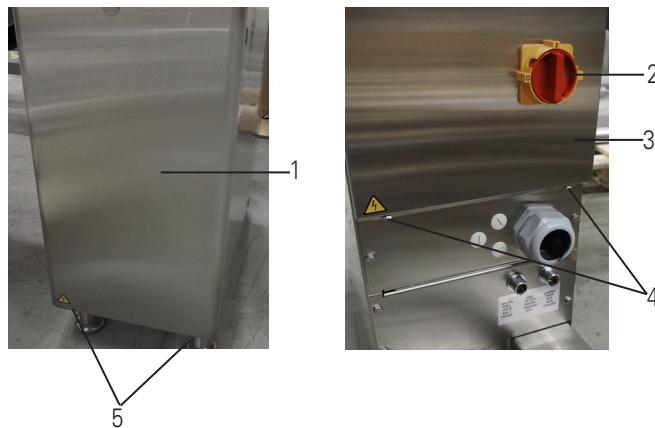


The electrical connections of the kettle can only be carried out by a qualified electrician having the necessary competence for the installation and service of electrical appliances.



The control pillar cover plate is a fixed component, not intended for detaching. Do not force it upwards when removing the front and rear cover plates.

To make the electrical connections, the upper left-hand side plate, where the mains switch is located, must be removed.

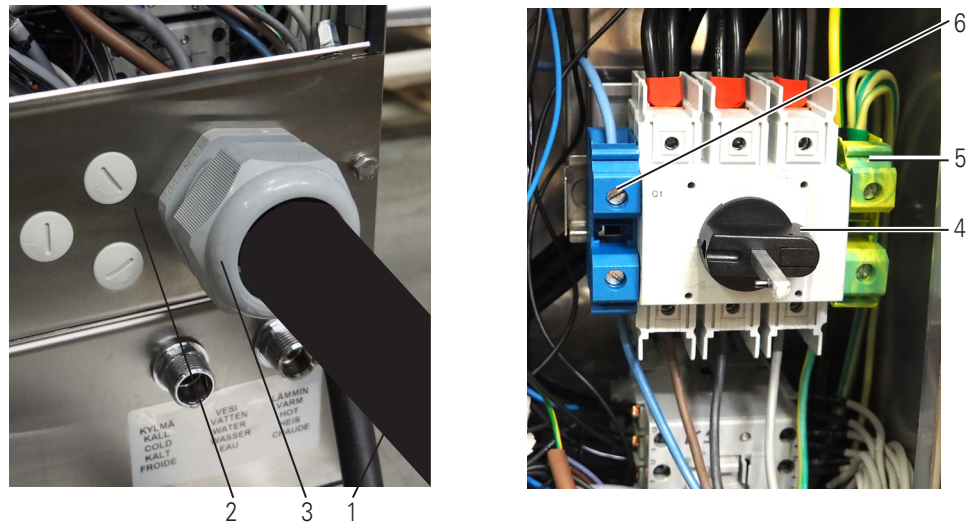


1. Front plate
2. Mains switch
3. Rear plate
4. Mounting screws for the rear cover plate of the control pillar, 2 pcs
5. Mounting screws for the front cover plate of the control pillar, 2 pcs

Turn the mains switch (2) to the OFF position

If the front plate (1) of the control pillar needs to be removed, open the two screws (5) on the bottom of it and pull the front plate straight down.

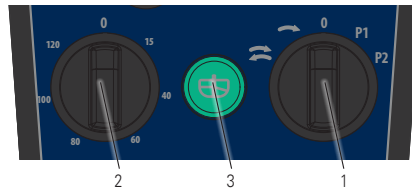
Detach the rear cover plate (3) by opening the screws (4).




1. Supply cable
2. Lead-through plate
3. Cable bushing
4. Mains switch
5. PE terminal
6. N terminal


Detach the lead-through plate (2) from the pillar. Slip the supply cable (1) through the cable bushing (3) of the lead-through plate. Connect the phase wires of the cable to the mains switch (4) and PE and N cables (5, 6) to the terminal blocks.

After that, check phase order to make sure that the mixer and tilting motors rotate in the correct direction (see the instructions below).



- Close the lid and safety grid of the kettle, but do not put the cover of the safety grid on.
- Turn the mains switch to position 1.
- Start the mixer by turning the mixer program selector switch (1) to position  and the mixing speed regulator (2) to position 15.
- The mixer should rotate clockwise.
- Stop the mixer by turning the mixer program selector switch (1) to position 0.

On hydraulically tilted kettles (200, 300 & 400 liter kettles), you also have to check the rotation direction of the hydraulic pump motor.

- Open the kettle lid and tilt the kettle by pressing .

If the motor is running but the kettle does not tilt after pressing the button for moment the rotation direction is wrong.

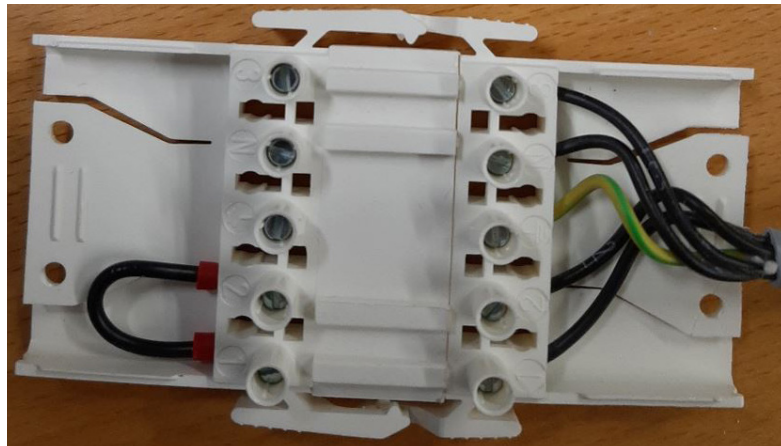
If the rotation direction in two foregoing points is wrong, two phases of the supply cable coming to the mains switch have to be exchanged.

Tighten the screws of the cable connections and the cable bushing properly, refit the lead through plate and the rear cover plate.

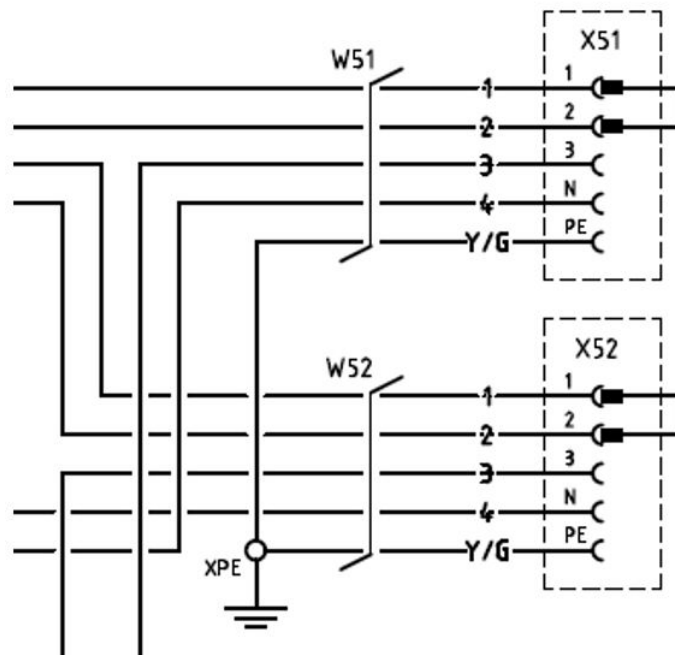
5.7.1. Electrical Connection to Peak Power Regulating Systems

The Viking kettle is prepared for connection to peak power regulating systems like Sicotronic or Ecotronic. These systems continuously monitor all the connected appliances of the site and intelligently control electrical power usage in order to keep total peak energy under set limit and at the same time minimize the effect this has on the usage of the appliances. The connection terminals are shown in the picture below.

Before making the connections the jump wires links between terminals 1 and 2 must be removed.

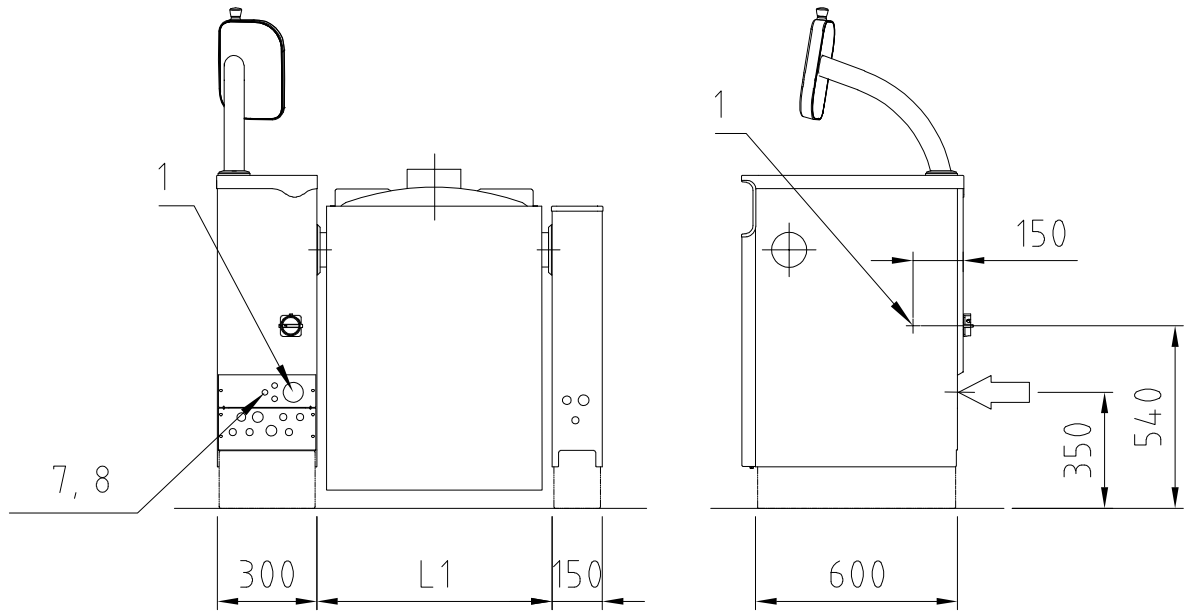


Ecotronic signals	
1	Heating control
2	Contacteur enable
3	Heating on
N	Neutral
PE	Kettle chassis

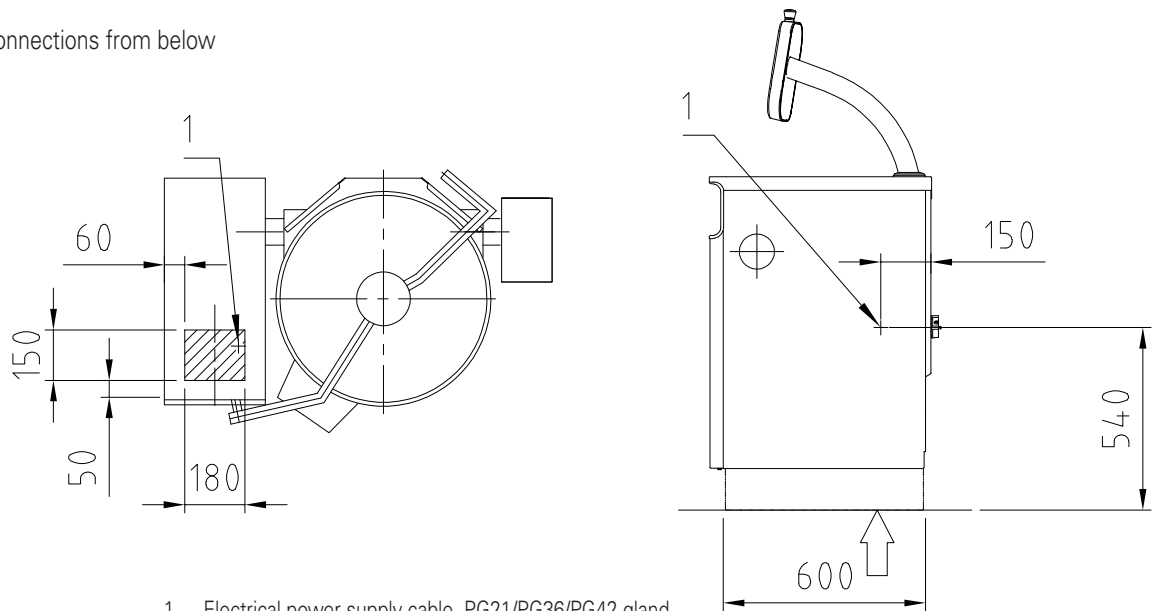


Electrical connections

A. Connections from the rear



B. Connections from below



- 1. Electrical power supply cable, PG21/PG36/PG42 gland.
- 7. HACCP cabling (option).
- 8. Power management system control cable (option).

Detailed electrical connection data available in kettle electrical diagram.

5.8. Water and steam connections



Water connections of the kettle can only be carried out by a person with professional competence in the installation and service of heating, plumbing and air conditioning equipment.

The location of the water connection points appears from the installation drawing. Both cold and hot water connections must be fitted with a closing valve and a non-return valve (not included in delivery). The sizes of water connection points are as follows:

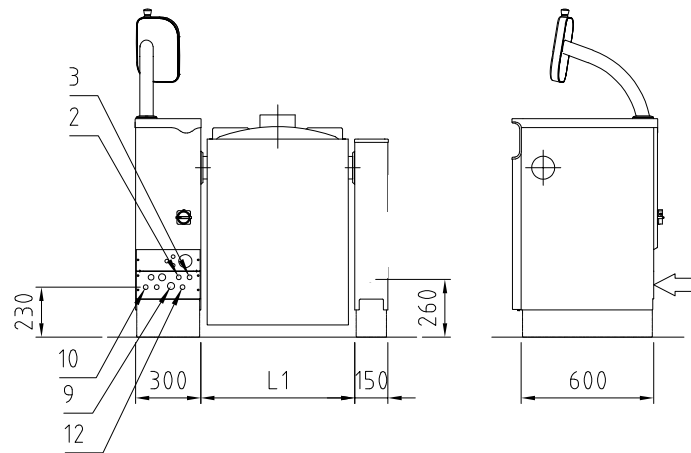
- Cold water: connection with R1/2" outer thread, supply with min. 15 mm inlet pipe
- Hot water: connection with R1/2" outer thread, supply with 10 mm inlet pipe (max. +60°C)



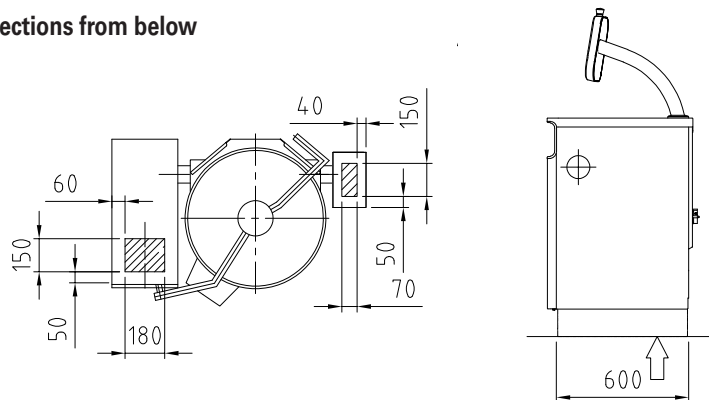
If the cold water inlet pipe is smaller than 15 mm, water flow will decrease and the filling times will be longer than indicated.

- Cold and hot water supply lines must be fitted with a one-way valve and a shut-off valve (not included in delivery).
- Before connection to the unit all water lines must be thoroughly rinsed from all loose particles.
- The water pressure range for optimum performance is 250 - 600 kPa.
- The minimum water pressure allowed for proper function of the unit is 250 kPa.

Connections from the rear



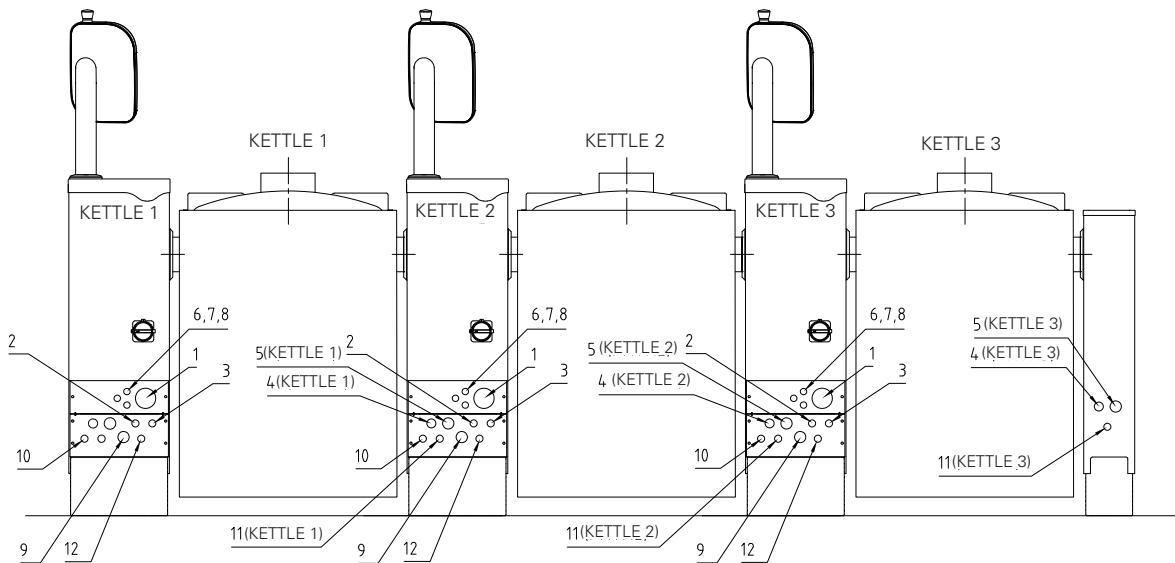
Connections from below



2. Cold water connection R1/2" (ø15). Must be fitted with a one way valve and shut off valve.
3. Hot water connection R1/2" (ø15). Must be fitted with a one way valve and shut off valve. (option)
9. Steam inlet R3/4" / R1" / R1 1/4" (option).
10. Condensate outlet R1/2" / R3/4" (option).
12. Twin water inlet R1/2" (option).

	9		10
40S	R3/4"	12 KG/H	R1/2"
60S	R3/4"	18 KG/H	R1/2"
80S	R3/4"	24 KG/H	R1/2"
100S	R1"	30 KG/H	R3/4"
150S	R1"	45 KG/H	R3/4"
200S	R1 1/4"	60 KG/H	R3/4"
300S	R1 1/4"	90 KG/H	R3/4"
400S	R1 1/4"	115 KG/H	R3/4"

An example of connections in a kettle group



1. Electrical power supply cable, PG21/PG36/PG42 gland
2. Cold water connection R1/2" (ø15). Must be fitted with a one way valve and shut off valve.
3. Hot water connection R1/2" (ø15). Must be fitted with a one way valve and shut off valve. (option)
4. Ice bank cooling inlet R3/4". Max. pressure 3 BAR, flow 90l/min. (option)*
5. Ice bank cooling outlet R1". (option)*
6. Ice bank cooling control cable 4 x 0,75mm (option).*
7. HACCP cabling (option).
8. Power management system control cable (option).
9. Steam inlet R3/4" / R1" / R1 1/4" (option)
10. Condensate outlet R1/2" / R3/4" (option)
11. Compressed air inlet R1/2" max pressure 1,3 bar, minimi flow 30 l/min (option)*
12. Twin water inlet R1/2"(option)

* Proveno kettles only

5.8.1. Water connection and quality requirements

- The unit must be connected to the cold and warm water supply and, if fitted with a twin water connection option (T), also to the soft water supply.
- All water supply lines must be fitted with a one-way valve and a shut-off valve (not included in delivery).
- Before connection to the unit all water lines must be thoroughly rinsed from all loose particles.
- The water pressure range for optimum performance is 250 - 600 kPa.
- The minimum water pressure allowed for proper function of the unit is 250 kPa. If the pressure is lower, a pressure rise pump must be fitted by the customer.
- The minimum water flow rate in the kettles is 5 l/min. To ensure optimal operation of the unit, it is recommended cold water flow rate must be at least 20 l/min.
- All water connections are of size Ø15mm (R 1/2").
- The size of particles in the water must not exceed 15 µm.
- Water conductivity should be below 1000µS/cm. Already when the conductivity is over 500µS/cm, a water analysis is recommended.
- Maximum chloride concentration allowed is 60 mg/l.
- Maximum chlorine concentration allowed is 0,2 mg/l.
- The pH value of the water should be between 6,5 and 9,5.
- The water hardness should be less than 6 ° dH. Water hardness must not exceed 9 ° dH. If the hardness of the water is between 6-9 ° dH, it increases the need for cleaning the steam generator and shortens the lifespan of heating resistors.
- Unit damages caused by chloride, chlorine or pH values exceeding the stated limits are not covered by manufacturer warranty.

5.8.2. Extreme water conditions

When extreme water conditions not fulfilling the requirements above exist, filters and water treatment devices should be installed in order to ensure proper function of the unit and avoid corrosion. When extreme water conditions are at hand, a water quality analysis must be carried out. Depending on the results of the analysis, needed filters and water treatment devices are installed by the customer. The most common filters and treatment equipment are:

1. Particle filter

A 5-15µm particle filter is recommended when water contains sand, iron particles or other suspended matters.

2. Active carbon filter

An active carbon filter must be used if the chlorine level exceeds 0,2 mg/l.

3. Reverse osmosis system

A reverse osmosis system must be used if the chloride concentration exceeds 60 mg/l. This is very crucial in order to avoid corrosion.

4. Water softener

If a high level of scale build-up is experienced, a water softener is needed. H+ Ion Exchanger or Kleensteam are recommended systems. Sodium ion exchangers must not be used because of problems caused by high salt content. A water softener is recommended when the water hardness exceeds 6 ° dH. Water hardness must not exceed 9 ° dH.

The optional twin water connection should be used if the water quality does not meet the above requirements and a water treatment appliance is used. The twin water connection reduces the consumption of treated water because raw water can be used for cleaning purposes and for preparing the food.

NOTE!

Several water treatment equipment will lower the flow of water. If the kettle is connected to a water treatment unit, care must be taken to ensure sufficient flow after the water treatment unit. Particular attention is needed when using a twin water connection. The branching of the water must always be done before the water treatment unit.

5.8.3. Steam and condensate connections



The steam and condensate connections of the kettle must be carried out by a person with professional competence in the field. Improper connections and piping may severely impact the correct function of the kettle.

The location of the steam and condensate connection points appears from the installation drawing.

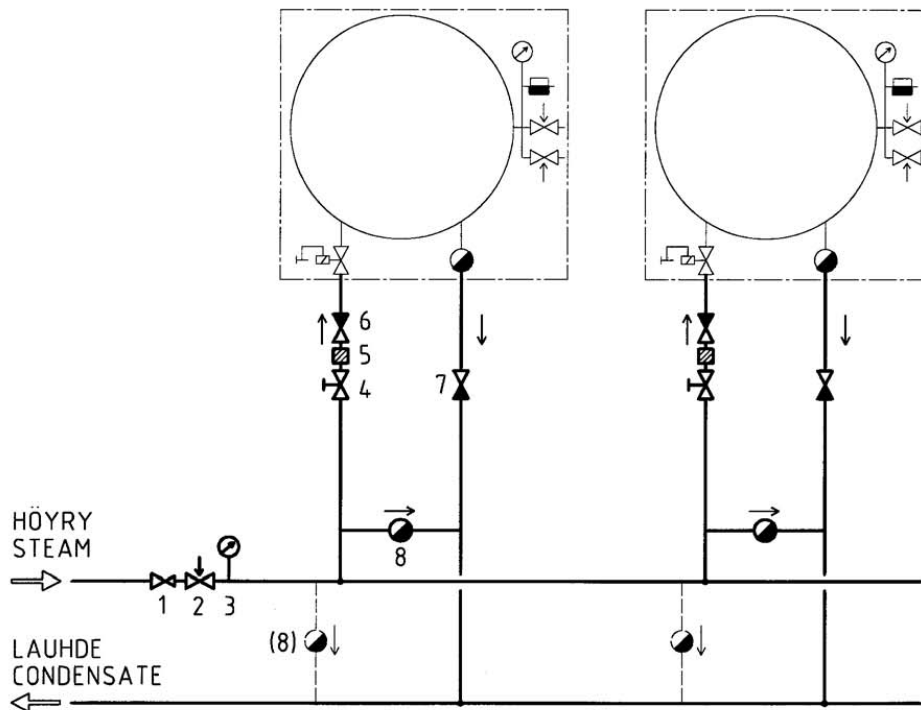
The maximum steam pressure in the kettle is 1 bar. The steam supply line must be fitted with a one-way valve, a shut-off valve, a filter, a pressure reduction valve and a safety valve set at 1,5 bar.

The condensate pipe must be on the same floor as the kettle or go to the floor below. Leading the condensate pipe to the floor above the kettle is not allowed, as it creates a water trap that prevents normal function of the kettle.

The condensate pipe must be free from pressure created by other appliances.

The temperature of the incoming steam must never exceed 130°C. If needed, the pressure has to be reduced far enough away from the kettle to ensure that the temperature does not exceed the permissible value.

Steam supply recommendations



1. Paineenallennusventtiili
2. Varoventtiili
3. Painemittari
4. Sulkuventtiili
5. Suodatin
6. Takaiskuventtiili (mikäli kyseessä on jäähdytyksellä varustettu laite)
7. Takaiskuventtiili (0 bar)
8. Lauhteenerotin

1. Pressure reduction valve
2. Safety valve
3. Manometer
4. Shut-off valve
5. Filter
6. Non-return valve (in case of a cooling equipped appliance)
7. Non-return valve (0 bar)
8. Condensate remover

5.9. Ventilation

The heat and steam load of the kettle must be taken into account in the kitchen's ventilation plan. A ventilation hood must be installed above the kettle, because plenty of steam is released when the kettle lid is opened. When dimensioning the ventilation hood, the space requirement for opening the lid must be taken into account (see installation drawing).

5.10. Other installations

In case the kettle being installed is connected to a kitchen power management system the connection points are shown in the electric wiring diagram.

5.11. Procedures after installation

5.11.1. Adjusting the tilting

Before refitting the cover plates on the kettle control panel, you have to check and, when needed, adjust the operation of tilting.

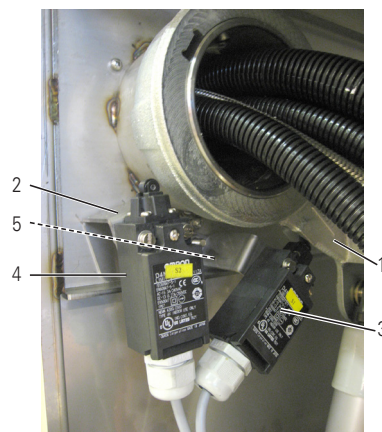
On hydraulically tilted 200, 300 and 400 kettles the rotation direction of the hydraulic pump has to be checked according to section "5.7. Electrical connections" on page 39.

Next you have to ensure that the kettle is horizontal when it is in the cooking position. Before that make sure that the kettle's control pillar has been installed horizontally. Checking is done as follows:

- First tilt the kettle at least half-way and after that press the tilting reverse button as long as the kettle stops in the cooking position.
- Check that the kettle is horizontal by the upper rim of the kettle.

If the kettle is not horizontal, the position of the mounting plate of the tilting limit switches must be adjusted as follows:

- Tilt the kettle at least half-way.
- Loosen the locking nut for adjustment (5) and the fixing nut for the limit switch plate (6) so that the limit switch plate (2) can be moved, but after moving stays in the new point.
- If the kettle in its cooking position is tilted too much towards the spout, turn the limit switch plate (2) slightly downwards. In case the kettle in its cooking position is tilted too much backwards, turn the limit switch plate (2) slightly upwards.
- Tighten the locking nut (5) slightly after adjustment, press the tilting reverse button until the kettle tilting stops and check the kettle's horizontal again by the upper rim of the kettle.
- Tighten both the fixing nut (6) and the locking nut (5), if the kettle is horizontal in its cooking position. Otherwise, repeat the adjustment measures.





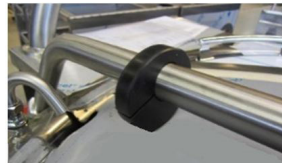


1. Tilting lever
2. Mounting plate of limit switches
3. Limit switch for cooking position
4. Limit switch of tilting end position
5. Locking nut for adjustment

5.11.2. Fastening the mixer motor cover box

On the large kettle models (150L, 200L, 300L, 400L), the cover box of the mixing motor comes unattached inside the kettle. The cover box is fastened after installation by using the screws supplied while the kettle is in a tilted position.

5.11.3. Adjusting the safety lid

Step	Action	Note
1.	Once the kettle is installed in its final position , lock the lifting arm in place with the locking pin at the end of the lid hinge.	
2.	Check that the lines on the two stickers attached to different sides of the safety lid are aligned (see adjacent image). If the lines do not meet, the lid must be adjusted so that the lines meet.	
3.	Check that the lifting arm hinge is horizontal. Check that the straight part of the lifting arm where the cover hinge is attached is horizontal.	
4.	The position of the lid can be adjusted: 1. by adjusting the position of the adjusting sleeve by loosening and tightening the adjusting sleeve hex screw. 2. by adjusting the position of the lid hinge by loosening and tightening the fixing screws (4 pcs.) 3. by adjusting the position of the lifting arm by loosening and tightening the clamping collar fastening screws at the end of the lifting arm (4 pcs.)	
5.	Once the lid has been adjusted, remove the safety lid from the kettle. Remove the protective plastic and stickers from the cover. Put the lid in place on the kettle and secure the lifting arm with the lid's locking pin.	
6.	300 – 400 liter kettles Remove the lift arm from the cover and lift the lift arm up and loosen the screw in the adjustment sleeve. Attach the lifting arm to the cover. Place the lifting arm adjustment sleeve in place as shown in the picture so that there is a gap of approx. 5-10 mm between the cover and the adjustment sleeve. Remove the lift arm from the cover and lift the lift arm up. Tighten the screw in the adjustment sleeve. Attach the lifting arm to the cover and check that there is a gap of approx. 5-10 mm between the cover and the adjustment sleeve..	

5.12. First run and test use or if the low water level indicator of the electric heated kettle is lit and the kettle does not heat

The following checks must be performed after the installation before taking the kettle into regular use.

5.12.1. Filling the steam generator (electrically heated models without cooling or autom. jacket filling)

Before the kettle is switched on, the steam generator must be filled with water.

If the low water level indicator has lit up during use, water must be added to the steam generator.

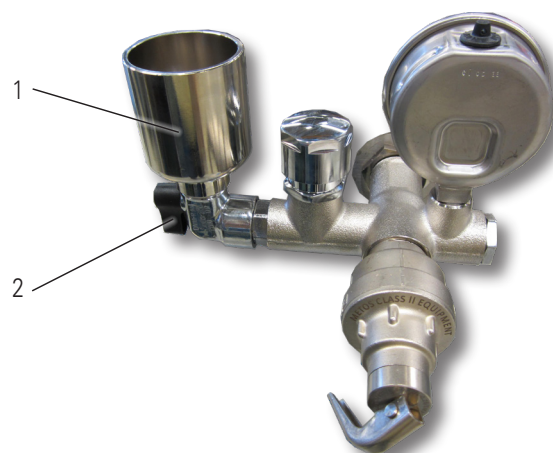
Do the following:

- Turn the power regulator to position 0.
- Check that the kettle is in its upright position.



1. Control valve of steam generator

- Open the control valve by turning the handle lengthwise to the valve (see pic.).
If the kettle is hot, open the valve carefully as hot steam may come out.



1. Water inlet funnel
2. Handle of the water inlet valve

- Open the water inlet valve, which is under the water inlet funnel, by turning the handle parallel to the valve.


If the kettle is hot, open the valve carefully as hot steam may come out.

- Plug the air elimination outlet with the provided plug. (not necessary but speeds up filling).
- Let water into the water inlet funnel. Stop filling water when water starts to drop out of the control valve. If the plug is not used, water will flow from the air elimination outlet near the plug, but this does not mean that the steam generator is full.
- Close the water inlet valve. Close the control valve when water has stopped running out of it. Now the steam generator is filled up to the maximum level.
- Remove the plug (if used) from the air elimination outlet.



Plug
Air elimination outlet

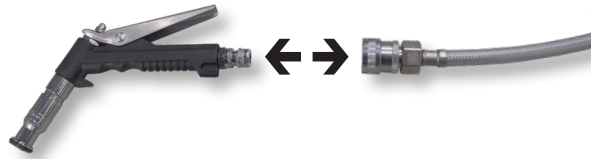
5.12.2. Automatic filling of the steam generator (option)

The kettle recognizes the water level and adds water as needed. If something is wrong, the indicator lamp  will remain lit.

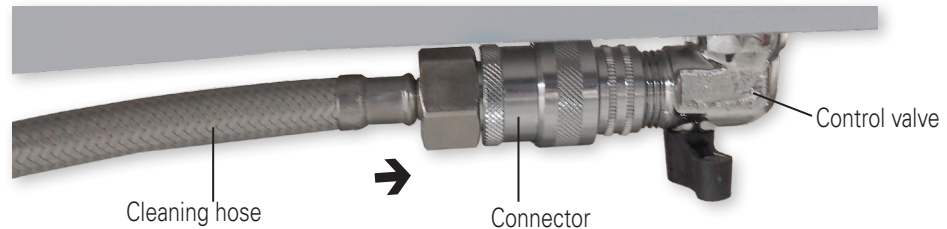
5.12.3. Filling the steam generator when the kettle is equipped with manual C1 cooling (option)



Starting to fill the steam jacket

- **First run and test use:** Turn the power regulator to position 1.
- **If the low water level indicator has lit up during use (electrically heated kettle):** Do not turn off the heating of the kettle, but leave the power control in the position where it is.
- Close the faucet.
- Remove the spray gun from the cleaning hose by pulling the connector away from the spray gun.



- Connect the cleaning hose to the control valve (on the right side under the kettle).



- Open the control valve by turning the handle parallel to the valve. 
- Open the cold water faucet and fill the steam jacket until the low water level indicator goes out and continue filling for another 3-5 seconds (so that the low water level indicator  does not come on after a while).



Overfilling might prevent proper warming of the kettle. Thanks to the steam condensing system, the steam generator requires filling only a few times per year. Depending on the use of the kettle, it will be 2-4 times per year. If the kettle is often used at low temperatures less than 100°C, water must be added to the steam generator more frequently. This is caused by the closing temperature of the automatic vacuum valve.

A white water level indicator light on the control panel displays when water must be added to the steam generator. When the indicator light illuminates, the kettle does not warm up. This protects the heating elements. Add water according to the instructions. The indicator light switches off, when the minimum water level has been reached. Water is needed in the steam generator as follows:

Model	
Viking 40	14 l
Viking 60	14 l
Viking 80	15 l
Viking 100	15 l
Viking 150	21 l
Viking 200	21 l
Viking 300	37 l
Viking 400	37 l



Do not leave the control valve of the steam generator, the safety valve and the water inlet valve open when the kettle heating is on. The discharging steam might cause burns or other damage.



Preventing the scale build-up

Hard or otherwise low-quality water can cause scale or other build-ups on the heating elements. The build-up can damage or destroy the heating elements. Under bad water conditions, use of purified water is recommended for the steam generator in order to protect the boiler and heating elements from damage.

Stopping the filling of the steam jacket

- Close the water faucet.
- Close the control valve. (A little extra water should remain in the steam jacket so that the low water level indicator does not light up after some time).
- Disconnect the water hose from the control valve.

5.12.4. Cooking mode (steam heated models)

Before the kettle is switched on, the kettle jacket control valve must be closed.

Do the following:

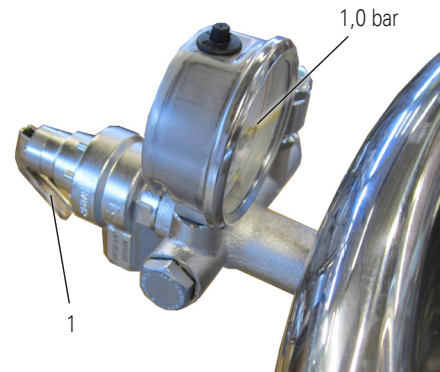
- Check that the kettle is in its upright position.
- Close the control valve by turning the handle crosswise to the valve.



1. Control valve of steam jacket

5.12.5. Safety valve test

1. Do the checking when the kettle is empty.
2. Check the water level of the steam generator (electrically heated models).
3. Switch the kettle on by turning the power regulator to position 6.
4. Heat up the kettle until the pressure gauge shows 1,0 bar pressure.
5. Open the safety valve by cautiously turning the relief lever (1) outwards. Now the safety valve should open and the pressure gauge should indicate a lower value.



Beware of hot steam!

The kettle must be clean and empty. The test causes a momentary strong hissing sound. Wear hearing protection

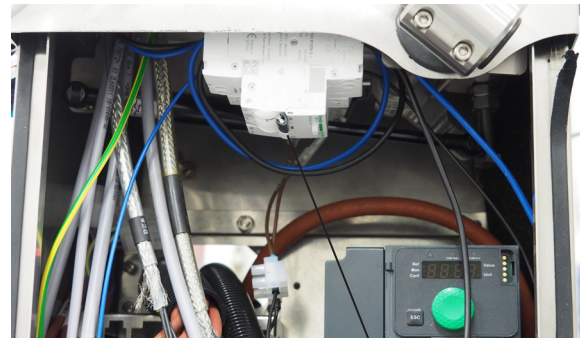


If the test was not implemented as described it is strictly prohibited to continue using at the kettle, and you should immediately contact a qualified Metos service to fix the error.

5.12.6. Earth leakage circuit breaker test (option)

If the kettle is equipped with the optional socket in the back of the control panel the earth leakage circuit breaker have to be tested after the installation by pressing the test button.

5.13. Staff training

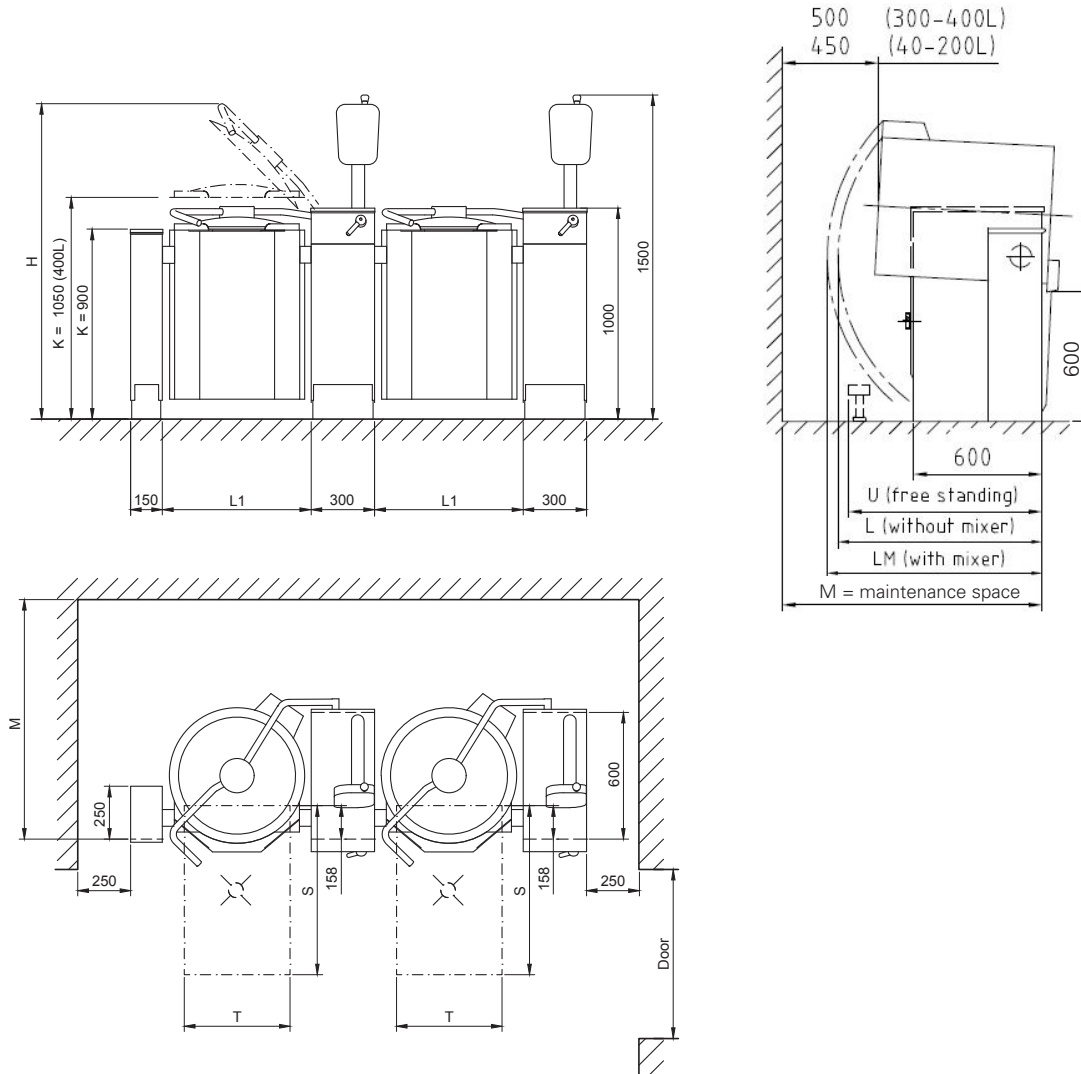


Earth leakage circuit breaker test button

Before taking the kettle into use, make sure that the operators have sufficient information about the correct and safe use of the kettle.

6. Technical specifications

6.1. Dimensions

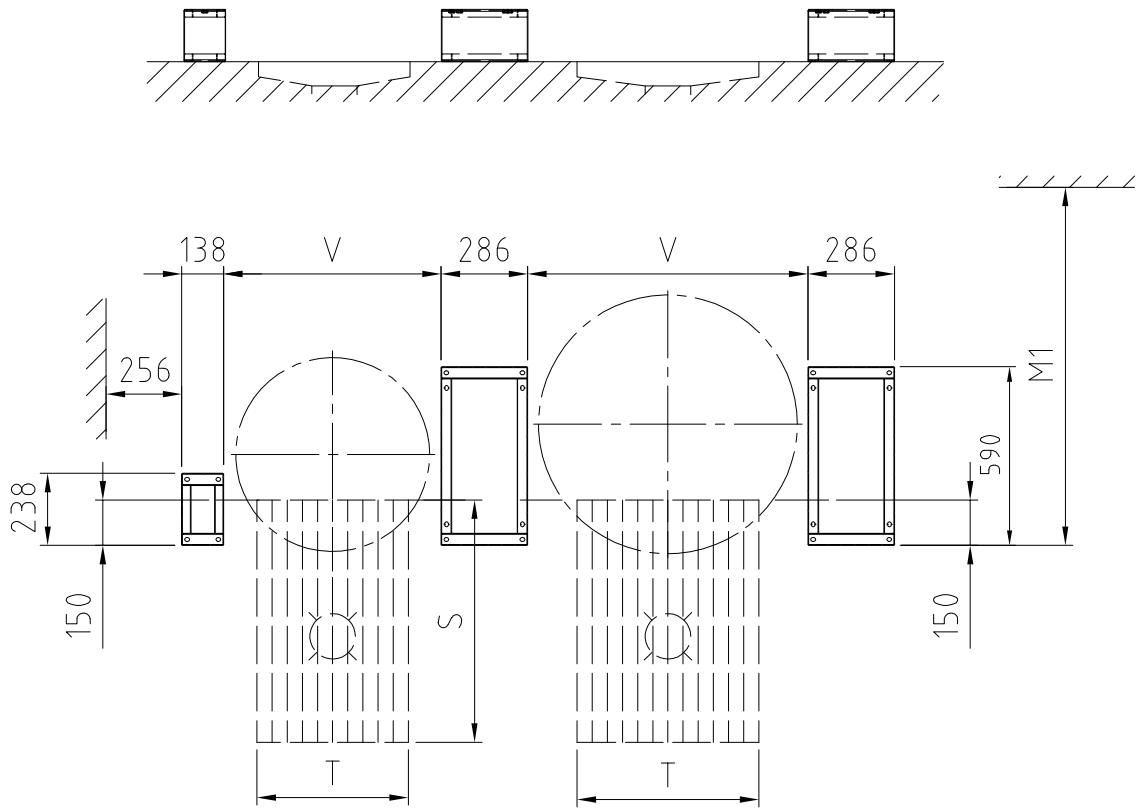


	L1	H	K	L	LM	M	M1	E	D (FM)	D (FS)	N	V	S	T	U			
40E	594	1740	900	660	925	1055	1049	100	800	1000	600	608	800	400	860	155	195	200
60E	594	1740	900	755	1010	1180	1174	100	800	1000	600	608	800	400	860	165	205	210
80E	704	1745	900	860	1055	1235	1229	85	800	1000	600	718	800	500	890	185	225	230
100E	704	1745	900	860	1055	1235	1229	85	800	1000	600	718	800	500	890	210	260	265
150E	910	1945	900	960	1115	1170	1164	110	1000	1250	600	924	800	600	1110	250	300	305
200E	910	1945	900	1035	1195	1285	1279	110	1000	1250	600	924	800	600	1110	290	340	345
300E	1110	2110	900	1280	1280	1320	1314	150	1200	1200	600	1124	1000	600	1010	350	410	415
400E	1110	2080	1050	1280	1280	1320	1314	150	1200	1200	600	1124	1200	600	1010	410	470	475

The minimum free distance to any structure behind the kettle needed for tilting of the kettle is dimension L depending on model. However service access to the components under the kettle bowl requires the bigger dimension M.

National and local regulations must be observed when installing the combi kettle.

6.2. Floor drain and installation frame positioning



	M1	V	S	T
40E	1049	608	800	400
60E	1174	608	800	400
80E	1229	718	800	500
100E	1229	718	800	500
150E	1164	924	800	600
200E	1279	924	800	600
300E	1314	1124	1000	600
400E	1314	1124	1200	600

6.3. Steam connection

Model	Inlet		Condensate outlet
40S	R3/4"	12 kg/h	R1/2"
60S	R3/4"	18 kg/h	R1/2"
80S	R3/4"	24 kg/h	R1/2"
100S	R1"	30 kg/h	R3/4"
150S	R1"	45 kg/h	R3/4"
200S	R1 1/4"	60 kg/h	R3/4"
300S	R1 1/4"	90 kg/h	R3/4"
400S	R1 1/4"	115 kg/h	R3/4"

6.4. Water connection

Cold water connection R1/2" (ø15). Must be fitted with a one way valve and shut off valve.

Hot water connection R1/2" (ø15). Must be fitted with a one way valve and shut off valve. (option)

6.5. Electrical connections

Electrically heated

Viking Basic

3/N/PE AC 400/230V 50 Hz					
Type Viking	Power/ kW	Current/ A	Fuse/ A	Supply cable diameter	
				min. / mm	max. / mm
40E	9,0	13	16	22	32
60E	10,5	15	16	22	32
80E	12,0	17	20	22	32
100E	16,0	23	25	22	32
150E	20,0	29	32	22	32
200E	30,0	43	50	22	32
300E	40,0	58	63	34	44
400E	57,2	87	100	34	44

Viking Combi

3/N/PE AC 400/230V 50 Hz					
Type Viking	Power/ kW	Current/ A	Fuse/ A	Supply cable diameter	
				min. / mm	max. / mm
40E	11,5	22	25	22	32
60E	12,5	24	25	22	32
80E	14,0	26	32	22	32
100E	18,0	32	32	22	32
150E	23,6	45	50	22	32
200E	33,6	59	63	22	32
300E	43,6	74	80	34	44
400E	62,0	97	100	34	44

Steam heated kettles

Viking Basic

2/PE AC230V 50-60Hz, 1/N/PE AC 230V 50Hz					
Type Viking	Power/ kW	Current/ A	Fuse/ A	Supply cable diameter	
				min. / mm	max. / mm
40S	0,8	3	10	13	18
60S	0,8	3	10	13	18
80S	0,8	3	10	13	18
100S	0,8	3	10	13	18
150S	0,8	3	10	13	18

Viking Combi

2/PE AC230V 50-60Hz, 1/N/PE AC 230V 50Hz					
Type Viking	Power/ kW	Current/ A	Fuse/ A	Supply cable diameter	
				min. / mm	max. / mm
40S	2,2	9	10	13	18
60S	2,2	9	10	13	18
80S	2,2	9	10	13	18
100S	2,2	9	10	13	18
150S	3,6	16	16	13	18

3NPE AC 400/230V 50Hz					
Type Viking	Power/ kW	Current/ A	Fuse/ A	Supply cable diameter	
				min. / mm	max. / mm
200S	0,9	2	10	13	18
300S	0,9	2	10	13	18
400S	0,9	2	10	13	18

3NPE AC 400/230V 50Hz					
Type Viking	Power/ kW	Current/ A	Fuse/ A	Supply cable diameter	
				min. / mm	max. / mm
200S	3,6	16	16	13	18
300S	3,6	16	16	13	18
400S	4,8	20	25	13	18

The values of the special voltages differ from the standard voltage values.

6.6. Noise level

The noise level of the Viking 4G/Viking Combi 4G kettle is < 61 dB(A).

7. Spare parts not covered by warranty

Wearing parts are not covered by the warranty. Wearing parts include:

- Scrapers of the mixing tool
- Brush part of the washing tool
- Other similar parts

metos		Document type Review	Document ID DOC000650	Revision A	Page(s) 1(4)
Owner organization Metos Manufacturing		Created by	Date 2019-08-19	Status Ready	
Country FI	Department	Document title Installation/commissioning checklist for Metos kettles	Approved by	Security level Confidential	

PRINTED PAPER COPY IS UNCONTROLLED - PAPERITULOSTE ON VALVOMATON KOPIO

Installation/commissioning checklist for Metos kettles

To validate warranty enclosed checklist is to be completed and returned within 14 days from installation/commissioning. This document is to be completed individually for each Metos kettle installation. Please send a copy or photos of this document (DOC000650, 4 pages) to email address: commissioning@metos.com

Customer information: *) Mandatory to fill in.

*Name:	
*Company:	
*Street:	
*ZIP code:	
*Country:	
Phone no.:	
*Email:	

*Kettle type:	
*Kettle serial no.:	
*Kettle options:	
*Commissioned by:	
*Commissioner's address: ...	
*Commissioner's email:	
Commissioner's phone no.: ..	
*Installation date:	DD – MM – YYYY

Installation meets the manufacturer's installation instructions: yes no

If the installation does not comply installation instruction values, customer and Metos have to be notified immediately about possible deviations.

We confirm the installation was done according to the attached installation checklist, the installation instructions and all national and local standards which ever may apply. The equipment was handed over free of defects. Operation and maintenance of the equipment was explained.

Sign/Date
Commissioner

Sign/Date
Customer

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1. Physical installation:

Installation type: surface installation frame
 subsurface installation frame
 free standing

Free standing installation flanges: yes no
 Floor fixing bolts (min. 150mm and stainless steel) in surface standard chemical
 installation:
 Single or group installation: single group
 Installation frames filled with acrylic filling: yes no

2. Important perimeter clearances of all kettles:

	measurement:	
Support pillar (left) height:	[mm]	(900mm)
Control pillar (right) height:	[mm]	(992mm)
From support/control pillar without front plate to back wall/obstacle:	[mm]	(Dim. M, see installation manual)
Width from pillar to pillar:	[mm]	(L1 single/L2 group, see installation manual)

Height for lid opening OK: yes no

3. Levelling & tilting bearings

Free standing installation is made according to installation manual: yes no N/A
 Pillars and kettle are aligned vertically/horizontally: yes no
 Tilting bearing locks are checked: yes no

4. Electric connections

Measured voltages [V]:

L1-L2	L1-L3	L2-L3	L1-N	L2-N	L3-N	N-PE

 Breaker size/fuse rating [A]:

--

 Measured amps per phase [A]: L1

--

 L2

--

 L3

--

 (Full heating, no mixing)

Kettle connected to equipotential bonding: yes no
 Indicated voltage on the rating plate corresponds with measured yes no
 voltage:

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5. Water connections

Cold/hot water supply equipped with non-return and shut-off valves: yes no

Cold-water dynamic pressure min. 250 kPa – max. 600 kPa;

measured value: [kPa]

Max. chloride (CL-) < 60mg/l (if higher → deionization treatment): yes no

Max. chlorine (CL₂) < 0,2mg/l (if higher → carbon filter treatment): yes no

Ph between 6,5 – 9,5: yes no

Conductivity < 1000µS/cm: yes no

Water treatment system used: yes no

If yes, manufacturer/type:

Water total hardness calculated from calcium (lime) and magnesium rate.

Too low total hardness rate can cause corrosion < 0,5 d° if chloride rate is high.

6. External cooling systems

Kettle connected with external cooling system (ice-bank etc.): yes no

If yes, installation company:

If yes, kettle manometer value when cooling: [bar] (max. 1,3bar)

Kettle equipped with pressurized air emptying: yes no

If yes, kettle manometer value when emptying: [bar] (max. 1,3bar)

Measured cooling water flow: [l/min]

7. Procedures after installation

Rotation direction of hydraulic tilting pump motor (counterclockwise): yes no N/A

Kettle up/down end limit switches working (kettle empties) and adjusted: .. yes no N/A

Mixer rotating direction checked (clockwise): yes no N/A

Lid and safety grid switches OK: yes no

Date and time (option) set and checked: yes no N/A

Safety valve test executed (electric heated → panel/direct steam → valve): yes no

8. Function test/commissioning:

All electrical connections and plugs are tight: yes no

All water connections tight and no leakages: yes no

All steam connections tight and no leakages (direct steam kettles): yes no

Cooling media circulation tight and no leakages (if closed circuit): yes no

All standard functions operational: yes no

All additional functions/features operational (HACCP, cooling etc.): yes no

Customer advised in daily cleaning routine: yes no

User/customer advised in preventative maintenance yes no

(safety valve test executed 4 times/year etc.):

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9. Direct steam kettles:

Steam pressure regulator valve; set pressure: (max. 1bar)

Steam pressure regulator valve; distance from kettle: (min. 15m) *)

*) If not pilot guided valve, min. 10m.

Steam trap (condensation remover) before kettle; (max. 2m) **)

distance:

Steam line installed according to installation manual: yes no

Steam line safety valve set pressure: (max. 1,3bar)

Steam line safety valve after regulator valve: yes no

Steam line particle filter: yes no

Non-return valve steam line installed if cooling: yes no **)

Steam line insulated: yes no

Free flow in condensation line: yes no **)

Condensation line going downwards, min. 3°: yes no **)

Non-return valve condensation line installed: yes no **)

***) If no, contact factory.

Comments:

Revision history

Revision	Page (P) Chapter (C)	Description	Date	Name/ Department
A	-	Original version	2019-08-19	

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Return to your dealer.

Registration form for units "Dead on Arrival" (DoA)		
Reported by subsidiary:		Reported by (Name):
Equipment type and serial no:	Installation date:	Date when fault occurred:
Customer's address:	Service company contacts / technician who reported the fault:	
Fault description:		
Measured supply voltages: L1: L2: L3:		
Fault remedy (if repaired) + service parts used/exchanged:		
<u>Please return following material/data in any case as soon as possible:</u>		
Service parts that are exchanged with parcel service:		Tracking number:
<ul style="list-style-type: none">- Service data- HACCP data- Log file- Pictures		
Address for parts: Metos Oy Ab Ahjonkaarre FI-04220 Kerava FINLAND		



Valmistajan nimi / Tillverkarens namn / Manufacturer's name
METOS OY AB

Osoite / Adress / Address
04220 KERAVA
FINLAND

Vakuuttaa, että seuraava tuote / Försäkrar att följande produkt / Declare that the following product

Nimi, tyyppi tai malli / Namn, typ eller modell / Name, type or model

Patasarjat / Grytsserierna / Kettle series **METOS PROVENO 4G / METOS VIKING 4G** sähkö- tai hörylämmiteinen / el- eller ånguppvärmd / electrically or steam heated.
Mallit / Modeller / Models : 40, 60, 80, 100, 150, 200, 300, 400 / E, S / H / M
Varustepaketit / Optionspaket / Option sets: T, C1, C2, C3i, C5i, PA, S1, S2, S3, D1, D2, HA, DO, W, FP, JF, PS, HG, TD

on seuraavien direktiivien asiaankuuluvien säännösten mukainen / överensstämmer med tillämpliga bestämmelser i följande direktiv / is in conformity with the relevant provisions of the following directives

MD 2006/42/EC, LVD 2014/35/EU, EMC 2014/30/EU, RoHS 2011/65/EC, WEEE 2012/19/EU, PED 2014/68/EU, moduulit / modelerna / modules B + D

- SEP: 40 – 60 höry/ånga/steam
- Cat I: 40 – 60 sähkö/el/electric, 80 – 400 höry/ånga/steam
- Cat II: 80 – 400 sähkö/el/electric

HUOM: PED 2014/68/EU:n mukaisesti vaatimustenmukaisuusvakuutus ja CE-merkintä ei koske SEP luokiteltuja laitteita.

OBS: Enligt PED 2014/68/EU försäkran om överensstämmelse och CE-märkningen ej produkter i SEP kategorin.

ATT: According to PED 2014/68/EU the declaration of conformity and the CE-marking does not apply to SEP category products.

ja lisäksi vakuuttaa, että seuraavia yhdenmukaistettuja standardeja (tai niiden osia/kohtia) on sovellettu / och försäkrar dessutom att följande harmoniserade standarder (eller delar/paragrafer) har använts / and furthermore declares that the following harmonised standards (or parts/clauses) have been used

EN ISO 12100:2010, EN ISO 13857:2008, EN 61000-6-1:2005, EN 61000-6-3:2007
EN 60204-1:2006, EN 13445:1...5:2014

ja lisäksi vakuuttaa, että seuraavia muita standardeja (tai niiden osia/kohtia) on sovellettu / och försäkrar dessutom att följande andra standarder (eller delar/paragrafer) har använts / and furthermore we declare that the following other standards (or parts/clauses) have been used

EN 13886:2005+A1:2010, EN 1717:2001, Regulation (EC) No 1935/2004

Tuotteen suunnitelmatarkastustodistus ja laatu järjestelmää valvova ilmoitettu laitos (vain painelaitteet)
Produktens konstruktionskontrollcertifikat och anmält organ, som övervakar kvalitetssystemet (endast tryckkärl)
Product design examination certificate and the notified body supervising the quality system (only pressure vessels)

Quality system
Inspecta Tarkastus Oy, Helsinki, Finland
0424

DA-22-131824 (4E, 4S, 6E, 6S),
DA-22-131804 (8E, 8S, 10E, 10S),
DA-22-131764 (15E, 15S, 20E, 20S),
DA-22-131728 (30E, 30S, 40E, 40S)
DEKRA Industrial Oy, Vantaa, Finland 0875

Alla mainittu henkilö on valtuutettu kokoamaan teknisen tiedoston / Nedan nämnda person är bemyndigad att sammanställa den tekniska dokumentfilen / The person mentioned below is authorized to compile the technical file

Tero Kähärä Metos Oy Ab, Ahjonkaarre, 04220 Kerava, Finland

Tämä vaatimustenmukaisuusvakuutus on annettu valmistajan yksinomaisella vastuulla. Edellä kuvattu vakuutuksen kohde on unionin asiaankuuluvan yhdenmukaistamislainsäädännön vaatimusten mukainen.


Denna EU-försäkran om överensstämmelse utfärdas på tillverkarens eget ansvar. Föremålet för försäkran ovan överensstämmer med den relevanta unionslagstiftningen om harmonisering.

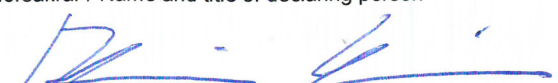
This declaration of conformity is issued under the sole responsibility of the manufacturer. The object of the declaration described above is in conformity with the relevant Union harmonisation legislation

Antopaikka ja päivä / Utfärdad på ort och datum / Place and date of issue

KERAVA 31.12.2022

Vakuutuksen antajan nimi ja asema / Namn och befattning av personen som försäkrar / Name and title of declaring person


Hannu Ahola – Director of Business Unit


Risto Koskelainen – R&D Manager

Manufacturer's name METOS OY AB
Address 04220 KERAVA FINLAND

Declare that the following product

Name, type or model Kettle series METOS PROVENO 4G / METOS VIKING 4G electrically or steam heated. Models: 40, 60, 80, 100, 150, 200, 300, 400 / E, S / H / M Option sets: T, C1, C2, C3i, C5i, PA, S1, S2, S3, D1, D2, HA, DO, W, FP, JF, PS, HG, TD

is in conformity with the essential requirements and other relevant requirements of the UK legislation. The products are in conformity with the relevant UK legislation

Electrical Equipment (Safety) Regulations 2016, Electromagnetic Compatibility (EMC) Regulations 2016, Machinery (Safety) Regulations 2008: Great Britain, The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, Regulations: Waste Electrical and Electronic Equipment (WEEE), Pressure Equipment (Safety) Regulations 2016: Great Britain

furthermore declares that the following harmonized standards (or parts/clauses) have been used

BS EN ISO 12100:2010, BS EN ISO 13857:2008, BS EN IEC 61000-6-1:2019, BS EN IEC 61000-6-3:2007, BS EN 60204-1:2006, BS EN 13445:1...5:2014

and furthermore we declare that the following other standards (or parts/clauses) have been used

BS EN 13886:2005+A1:2010, BS EN 1717:2001

According to **Pressure Equipment (Safety) Regulations 2016: Great Britain (Updated 26 July 2022)**

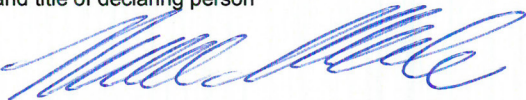
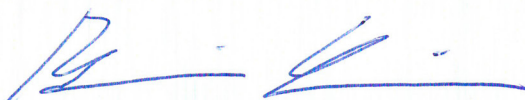
CE certification completed before 1 January 2023 can be used by manufacturers to declare existing product types as compliant with UKCA. Products must still bear UKCA marking. For ongoing production, they will need to undergo conformity assessment with a UK Approved Body once any of the relevant CE certification has expired, or after 5 years (31 December 2027).
Referred CE Certification: Metos CE certification for Kettle series METOS PROVENO 4G / METOS VIKING 4G. Dated 31.12.2022
Product design examination certificate and the notified body supervising the quality system (only pressure vessels), can be found in referred CE certification

The person mentioned below is authorized to compile the technical file

Tero Kähärä Metos Oy Ab, Ahjonkaarre, 04220 Kerava, Finland

This declaration of conformity is issued under the sole responsibility of the manufacturer. The object of the declaration described above is in conformity with the relevant UK legislation

Place and date of issue KERAVA 31.12.2022

Name and title of declaring person	
 Hannu Ahola – Director of Business Unit	 Risto Koskelainen – R&D Manager

metos
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