

# **INSTRUCTION FOR USE AND MAINTENANCE**

**HEATING TUBS  
& DRY HEATED TUB**



**Gastro.CZ**  

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**PRODUCTION**

# **Instructions for use and maintenance**

**In compliance with European Directives**

**CE**

The manufacturer assumes no responsibility for any modifications or technical changes in content or data contained in this user guide. This user guide applies to all heating equipment supplied by Gastro Production Ltd.

# Contents

1. Introduction .....	2
1.1 Orientation in the Instructions for Use .....	2
1.2 Explanation of symbols used in the Instructions for Use .....	3
2. Common provisions .....	4
2.1 Transport and equipment .....	4
2.1.1 Transport .....	4
2.1.2 Unpacking .....	4
2.1.3 Dismounting and disposal .....	4
2.2 Test reports, guarantee conditions .....	5
2.2.1 Testing .....	5
2.2.2 Guarantee conditions .....	5
2.2.3 Reasons for termination of guarantee .....	5
2.3 Safety .....	6
2.3.1 Safety - electrical current .....	6
2.3.2 Safety - mechanical parts .....	7
2.3.3 Safety – leakages .....	7
2.3.4 Safety - heat effects .....	8
2.3.5 Correct use of the appliance .....	8
A – HEATING TUBS .....	9
2.4 Ambient conditions .....	9
2.5 Ordering spare parts .....	9
3. Technical parameters .....	9
3.1.1 Technical description of heating tubs .....	9
3.1.2 Technical description of dry heated tub .....	10
3.2 Dimensions and weight .....	10
3.3 Nameplates .....	10

3.4.1 Technical data of heating tubs .....	11
3.4.2 Technical data of dry heated tub .....	11
4. Installation and operation.....	11
4.1 Seating .....	11
4.2 Electrical connection .....	11
4.3 Appliance actuation.....	12
4.4 Filling the appliance with goods .....	13
4.5 Operation of the appliance .....	13
5. Control knob for heating equipments .....	14
6. Maintenance .....	15
6.1 General safety measures .....	15
6.2 Regular maintenance .....	16
6.2.1 Inspections .....	16
6.2.2 Maintenance .....	17
7. Work prohibited on the appliance .....	18
8. Table of possible malfunctions and their correcting .....	18
9. Inquiries .....	19

Annex 1.1 .....	20
Heating tubs – Wiring diagram of the Mechanical thermostat .....	20
Annex 1.2 .....	21
Heating tubs – Wiring diagram of the el. unit DIXELL .....	21
Annex 1.3 .....	22
Heating tubs – Wiring diagram of the Mechanical thermostat + Automatic level monitoring and water refill .....	22
Annex 1.4 .....	24
Heating tubs – Wiring diagram of the El. unit + Automatic level monitoring and water refill .....	24
Annex 1.4 .....	26
Heating tubs – Technical drawing .....	26
Annex 2.1 .....	28
Dry heated tub – Wiring diagram .....	28
Annex 2.2 .....	29
Dry heated tub – Technical drawing .....	29

# 1. Introduction

## 1.1 Orientation in the Instructions for Use

This manual is designed for easy and fast retrieval of information necessary for the operation and maintenance of cooling appliances. The user must read the entire manual with utmost attention and make sure that he understands very well all the information contained herein. In addition, the manual serves for subsequent retrieval of information if an intervention on the appliance is required. That is why the manual must be available at all times for the operators of the rack. Retrieval in this manual is facilitated by the general table of contents, which allows instantaneous identification of the specific place, and by tables of contents at the beginning of each section. In addition, symbols are added next to some paragraphs to highlight essential information contained in the specific paragraph. **Special attention should be paid to these paragraphs!**

## 1.2 Explanation of symbols used in the Instructions for Use



**Warning - Danger of electrical injury** - refers to parts, where there is a danger of electrical injury. Read especially carefully.



**Warning - Rotating parts** - refers to parts, where there is a danger from rotating parts.



**Warning – Risk of injury** - refers to parts, where there is a risk of injury while touching the equipment in operation. Read especially carefully.



**Warning - Important** - refers to parts, where danger might occur, or to parts otherwise important. Read especially carefully.



**Do not wash with pressurized water** – it is forbidden to wash a part so indicated with pressurized water for risk of damaging the equipment.



**Forbidden handling procedures** – refers to parts, where there is a risk of damaging the equipment by handling it in a forbidden way.

## 2. Common provisions

### 2.1 Transport and equipment

#### 2.1.1 Transport

The customer is obliged to inspect the completeness and integrity of the package in which the appliance is transported. Any damage during transport should be addressed with the respective carrier. After delivery, the appliance must be moved to the final place of installation in its original package, if possible.

#### 2.1.2 Unpacking

When the appliance is transported to the place of installation, remove all packages.



**Remove all protective films from the outside and inside of the appliance. The consumer is obliged to dispose of all packages in accordance with the applicable regulations in the country of installation!**

#### 2.1.3 Dismounting and disposal

After its life cycle expires, the appliance must be disposed of in accordance with the applicable regulations in the specific country.

The appliance contains the following materials:

- stainless steel
- ferrous metals - aluminium, copper
- glass
- PVC
- methacrylate (PMMA)
- polystyrene (PS)
- ABS
- Moplen
- Nylon
- polyethylene
- lubricating oil
- cooling gas
- polyurethane
- electric motors
- supply cable, wiring materials

## **2.2 Test reports, guarantee conditions**

### **2.2.1 Testing**

Each appliance is factory tested in accordance with the applicable laws, technical standards and government regulations. A test report on the tests performed is issued for each appliance and kept in the factory. The appliance is sent to the customer in a ready-to-use condition. This does not apply to appliances built in complex dispensing lines and installed on-site at the customer.

### **2.2.2 Guarantee conditions**



**A guarantee is provided on the appliance if the appliance is used for its intended purpose and the operating instructions contained herein are strictly followed. Appliance operators are thoroughly and demonstrably trained and keep these Instructions for Use at hand. The Instructions for Use must be available to the operators at all times!**

### **2.2.3 Reasons for termination of guarantee**



- **In case of damage during transport, as the products are delivered from the factory and the buyer assumes the risks during transport, the seller is not responsible for missing or damaged parts. The buyer is therefore obliged to inspect and examine the goods upon receipt and to make claims for damages with the transport company.**
- **In case of defects caused by user negligence.**
- **In case of non-compliance with the instructions contained in this technical manual - incorrect operation, maintenance, and cleaning of the equipment.**
- **In case of failure to provide the invoice or alteration of the invoice details.**

- In case of damage caused by disassembly of the product, modification, or alteration of mechanical and electrical structures without permission.
- In case of damage not caused by humans, such as damage caused by abnormal voltage, fire, building collapse, lightning, floods, and other natural disasters, and damage caused by rats and other pests.

## **2.3 Safety**

### **2.3.1 Safety - electrical current**

The appliance is fitted from the factory with a connecting cable for power supply, ending with an inseparable plug. The plug can be inserted in a socket with the voltage system of 1, N, PE ~ 230 V, 50 Hz (EURO socket with a protective pin, SHUKO socket with safety contacts)



The plug may only be replaced by a person with qualifications in electrical engineering; the wiring of the applicable may only be interfered with by a person with qualifications in electrical engineering, subject to agreement with the factory! Interference with the wiring is vitally dangerous and may cause electric shock!



It is prohibited to touch the supply plug, the control panel and other electrical parts with a wet or damp hand and to wash them with pressure water. There is a risk of electric shock!



Prior to any maintenance, it is necessary to remove the plug of the supply cable from the socket and make sure that the appliance is not powered (e.g. by switching on the main switch and checking whether the appliance responds). If the appliance is hardwired to an electric circuit, it is necessary to switch off the respective circuit breaker, test if the appliance is disconnected and secure the circuit breaker, e.g. with a tag containing the text "Work on Equipment".

### 2.3.2 Safety - mechanical parts

When operating the appliance, it is necessary to exercise increased caution, especially in case of the following work:

- When opening and closing the doors of steam tables, closed tubs, cases; the doors are placed on roller hinges and are easily movable, it is necessary to pay increased attention when closing the doors, there is a risk of trapping a limb.



- When operating a heating appliance with fans: do not touch and do not insert objects through fan covers. The rotating fan blades may cause an injury.

### 2.3.3 Safety – leakages

The medium used for heating tubs is drinking water. It is necessary to check drain valves as well as the downstream discharge pipes to avoid waste water leakage and subsequent damage to other equipment.

### 2.3.4 Safety - heat effects



When operating heating appliances, a part of the appliance is heated to **a high temperature of up to 90°C** and **there is a risk of burning**, especially in the following places: heating dispensing tub, inserted food containers, heated medium.

### 2.3.5 Correct use of the appliance



- The appliance is designed for normal use by an adult. It is not designed for rough handling and operation by children! Appliance operators must be thoroughly and demonstrably trained and keep these Instructions for Use at hand.
- The appliance must be operated in accordance with the Instructions for Use. The appliance may only be used for its intended purpose.
- Do not place the heating appliance next to an appliance that could be damaged due to the generated thermal energy.
- Before the appliance is filled with goods, pre-heat it to the selected temperature.
- Do not put any food perishable due to high temperature in the heated area.
- Keep the heated area clean.
- Do not leave the door to the heated area open - this would reduce the appliance's performance and life cycle.
- Regularly check the appliance and perform maintenance work as per these Instructions for Use.

# **A – HEATING TUBS**

## **2.4 Ambient conditions**

The appliance is capable of working faultlessly under the following conditions:

- Altitude up to 1,000 m above sea level.
- Ambient temperature at the appliance between 15°C and 25°C.
- Maximum relative humidity 60%.
- The appliance is not placed close to any other appliance that would be harmed by water steam (cooling cases, open cooling tubs, etc.)

## **2.5 Ordering spare parts**

To be added

## **3. Technical parameters**

### **3.1.1 Technical description of heating tubs**

Heating tubs are made of a rigid, self-supporting stainless steel structure. The heating area is made of a stainless steel tub insulated with heat-resistant insulation. The tub is seated in a stainless steel structure enclosed with stainless steel sheet. The water tub in the boiler is heated by heaters placed in an insulated housing under the tub.

These heated tubs are used to keep meals placed in food containers warm. These tubs must not be used for other purposes without an express approval of or, if applicable, structural changes made by Gastro Production s.r.o. These boilers are designed to provide the best results if all the instructions contained in this manual are met. To be able to use the heated tubs optimally and keep them in an excellent condition, we recommend performing regular maintenance work. Tub operators must be acquainted with instructions regarding operation, maintenance and safety, contained in this manual.

Automatic – filling the tub by turning on the thermostat and water is automatically filled to the level sensor and the water is maintained automatically. Semi-manual – filling the tub by holding down the button. Manual - filling the tub with a bucket or hose. Draining - the switch activates the electric valve and opens the drain pipe.

### 3.1.2 Technical description of dry heated tub


The tub with glass ceramic plate and a heating element below it. It heats the air. Usable without water connection and drain pipe. This tub has only one size type, so these tubs must be next to each other. These tubs are designed to provide the best results if all the instructions contained in this manual are met. To be able to use the tubs optimally and keep them in an excellent condition, we recommend performing regular maintenance work.

### 3.2 Dimensions and weight

The dimensions and weight of the appliance may be found for each type of appliance at [www.gastro.cz](http://www.gastro.cz).

### 3.3 Nameplates

The nameplate is placed inside the appliance, on the right side, and another nameplate is placed on the inside of the control cover.

 <b>gastro.cz</b> PRODUCTION				CZ	
<a href="http://www.gastro.cz">www.gastro.cz</a>				CE	
<b>H.0001.02.15</b>				Type : 8D303-00	
No :					
Input P :		0,97 kW			
Voltage system :		1,N,PE ~ 230V,50Hz			
Current load Iv :		4		A	
Weight :		kg		Climatic class "N"	

### 3.4.1 Technical data of heating tubs

	1GN	2GN	3GN	4GN
<b>Temperature</b>	+30 ~ +90°C			
<b>Voltage</b>	1, N, PE ~ 230V, 50Hz			
<b>Power input</b>	0,66kW	2kW	2,7kW	3,3kW
<b>Amps</b>	2,86A	8,7A	11,73A	14,34A

### 3.4.2 Technical data of dry heated tub

<b>Temperature</b>	~ +120°C
<b>Voltage</b>	1, N, PE ~ 230V, 50Hz
<b>Power input</b>	0,96kW
<b>Amps</b>	4,2A

## 4. Installation and operation

### 4.1 Seating

Place the unpacked equipment in a horizontal position at the operation site using leveling feet or a stainless steel plate. Place it in the pre-prepared opening for installation if the goods were delivered separately and not as a set with the top panel, etc.

### 4.2 Electrical connection

The appliance is fitted from the factory with a connecting cable for power supply, ending with an inseparable plug. The plug can be inserted in a socket with the voltage system of 1, N, PE ~ 230 V, 50 Hz (EURO socket with a protective pin, SHUKO socket with safety contacts).

Insert the supply cable plug in the socket. Make sure the plug is accessible to operators. The supply cable must be placed visibly, without any sharp bends. The supply cable must not be placed on sharp edges of steel and other parts.

### 4.3 Appliance actuation



After seating, close the drain valve and fill the tub with water. The volume of water depends on the type. Markings on the rocker switch - "I" (close) or "II" (open).

Switch the appliance on by turning the control knob clockwise; the green voltage indicator lamp lights up. Turn the control knob further, the red heating indicator lamp lights up. Select the required tub temperature by turning the knob further. When the red indicator lamp goes off, the tub is heated to the selected temperature.

**Heating tubs: Automatic** – filling the tub by turning on the thermostat and water is automatically filled to the level sensor and the water is maintained automatically.

**Semi-manual** – filling the tub by holding down the button. **Manual** - filling the tub with a bucket or hose. Standard volume is about 5 l per food container 1GN. You can add warm water to accelerate first heating.



**Dry heated tub:** Be careful and do not touch the glass-ceramic surface, as it is currently heating up after setting up the tub and turning on the tub.



**CAUTION!** When heating and operating, the tub with food containers must be covered because at temperatures above 70°C, all energy is converted into steam. It is complicated to keep the high temperature of the appliance, there is excessive steam leaking from the tub and the life cycle of the appliance is reduced.

## **4.4 Filling the appliance with goods**

When the set temperature of the heating tub is reached, you can fill the food containers with goods and put them in the tub.

**Follow the principles of proper use of the appliance.**



- **Make sure the tub is fully covered during operation.**
- **Heating tubs: During operation, check water surface and refill to operating volume. Appliances with automatic water surface monitoring watch the surface and refill water automatically.**

## **4.5 Operation of the appliance**



- **Keep the heating area clean.**
- **Do not leave the tub uncovered – it reduces the performance and life cycle of the appliance.**
- **Regularly check the appliance and perform maintenance work as per section 6 of these Instructions for Use.**

## 5. Control knob for heating equipments



To control the heating equipments, the rotary knob on the thermostat is used. Using this knob, you can adjust the desired temperature for the respective device according to its markings. Some knobs feature a visual indicator, such as an expanding section at one end, to signify the addition of heat. Additionally, there are knobs with labeled temperatures for precise temperature adjustments.

## 6. Maintenance

### 6.1 General safety measures



- Study these Instructions for Use thoroughly before the commencement of maintenance work.
- Comply with the principles of set forth in section **2.3 Safety**.



- Prior to any maintenance, it is necessary to remove the plug of the supply cable from the socket and make sure that the appliance is not powered (e.g. by switching on the main switch and checking whether the appliance responds).
- If the appliance is hardwired to an electric circuit, it is necessary to switch off the respective circuit breaker, test if the appliance is disconnected and secure the circuit breaker, e.g. with a tag containing the text "Work on Equipment".
- Proceed with caution and without hurry during maintenance work.



- Pressure water must not be used for washing the appliance, there is a risk of damage to the controls and electronic parts and the subsequent damage to the entire appliance!!!
- For the purposes of cleaning, use regular kitchen detergents approved for use with food!!!

## **6.2 Regular maintenance**

### **6.2.1 Inspections**

#### **6.2.1.1 Tub**

- Check visually whether the tub is not damaged (deformed, perforated, etc.). If the tub is damaged, it is necessary to contact a service organization, there is a risk of destruction of heater due to water ingress.
- Wash the tub and wipe dry with a piece of cloth.

#### **6.2.1.2 Drain valve (Heating tubs)**

- Check if the valve is passable, e.g. using a flashlight; passage must not be restricted. Check if the valve closes.

#### **6.2.1.3 Filling nozzle (Heating tubs)**

- Check visually whether the holes of the filling nozzle are not clogged. While filling during operation, check if water is flowing through all nozzle holes. It is necessary to clean any clogged nozzle holes, e.g. using a hard steel wire.

#### **6.2.1.4 Drain pipes (Heating tubs)**

- Check whether waste water does not leak through the joints of drain pipes. Defective joints must be replaced with new ones.

#### **6.2.1.5 Controls**

- Check the control knob of the mechanical thermostat for cracks. Replace a defective knob with a new one.
- Check indicator lamps for damage. Replace defective lamps with new ones.
- Check the top cover of the electronic control unit for damage. Replace a defective knob with a new one.

### **6.2.1.6 Glass-ceramic plate (Dry heated tub)**

- Always be careful not to touch the hot glass-ceramic plate during and after use. Allow the surface to cool down before cleaning or touching and then wipe it with a soft damp cloth.
- Avoid using abrasive pads or harsh cleaning agents to prevent scratching.
- Clean up spills immediately to avoid staining or damage to the surface. Allow the surface to cool down before cleaning. Use a soft cloth or paper towel to wipe away spills gently.
- Scratches: Avoid sliding or dragging heavy or rough objects on the surface, as this can cause scratches.

## **6.2.2 Maintenance**

### **6.2.2.1 Daily maintenance**

- During maintenance work we comply with the principles set forth in section **6.1 General safety measures**.
- When daily operations are over, switch off the appliance. Remove food containers from the appliance, drain the tub, wash and wipe it dry. Leave the space open to avoid odours inside.
- **With the appliance switched off, perform the inspections set forth in section 6.2.1.1-6.2.1.5.**

### **6.2.2.2 Monthly maintenance**

- During maintenance work we comply with the principles set forth in section **6.1 General safety measures**.
- **During monthly maintenance carry out the activities set forth in sections 6.2.1 Inspections and 6.2.2.1 Daily maintenance.**

## 7. Work prohibited on the appliance



- **It is prohibited to use the appliance for other than intended purposes!**
- **It is prohibited to interfere with the electrical connections of the appliance!**
- **It is prohibited to perform the prohibited work specified in other sections of these Instructions for Use!**
- **It is prohibited to wash the appliance with pressure water!**
- **It is prohibited to treat the appliance roughly!**
- **It is prohibited to operate the appliance without prior training and without these Instructions for Use!**

## 8. Table of possible malfunctions and their correcting

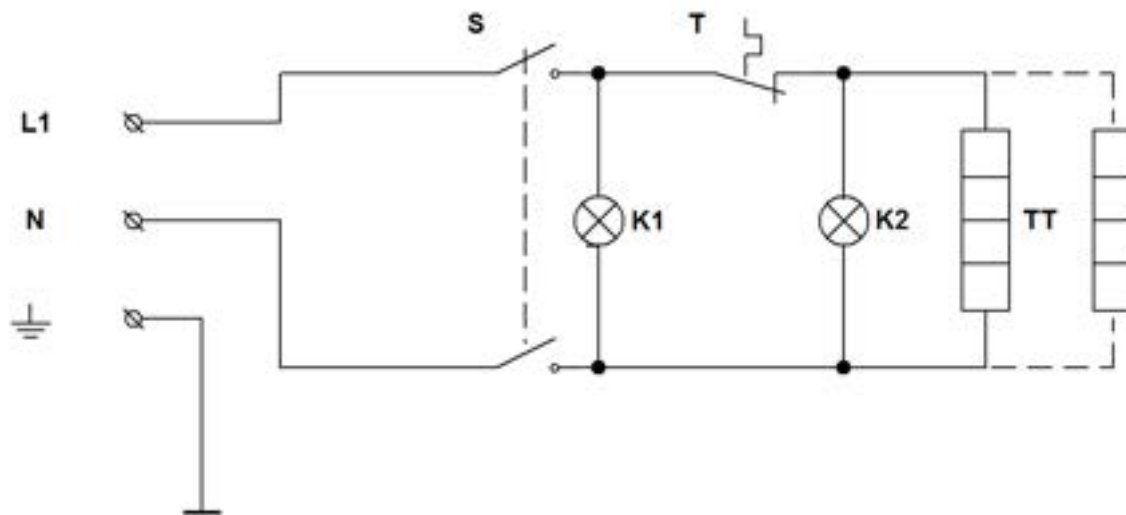
Designation of defect	Message on the control unit	Possible method of removal
Tub does not heat - defective water tub heating probe	PF1	Replace the probe
Tub overheats - defective relay of the electronic unit	HiA	Replace the control unit
Tub does not heat, the heating indicator lamp on the electronic unit is on – defective heater	No message	Replace the heater
Tub does not heat, green and red indicator lamps are on – defective heater	No message	Replace the heater
Tub does not heat, only the green indicator lamp is on – defective mechanical thermostat	No message	Replace the thermostat
Tub overheats, green and red indicator lamps are on – defective mechanical thermostat	No message	Replace the thermostat

## 9. Inquiries

If you need help and advice, do not hesitate to contact us, and we will assist you with everything. You can find our contact information on our website [www.gastro.cz](http://www.gastro.cz).

## Annex 1.1

### Heating tubs – Wiring diagram of the Mechanical thermostat



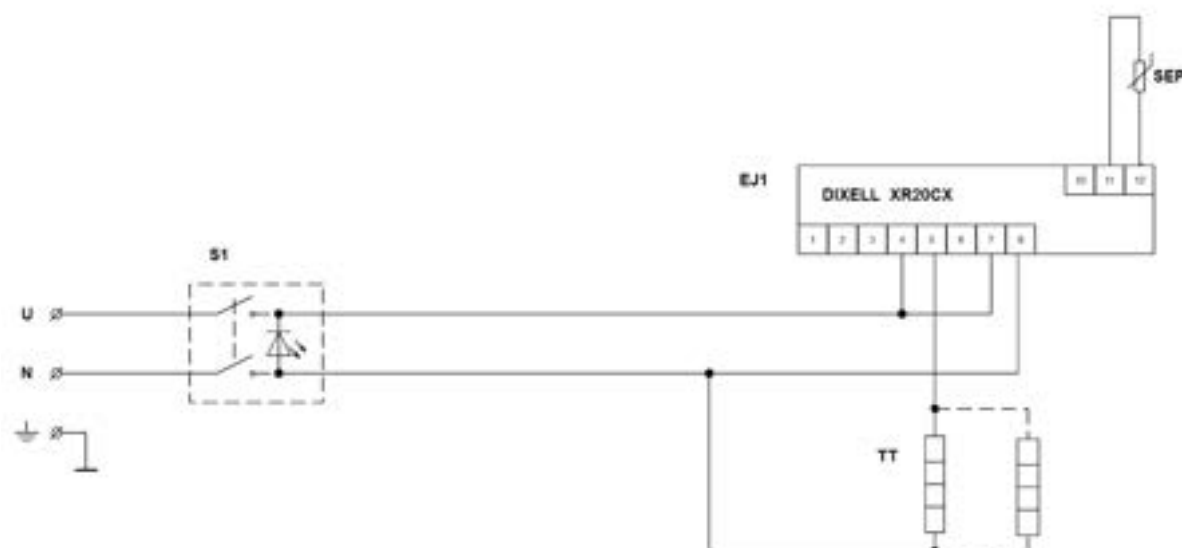
#### Legend:

- S - main switch
- K1 - supply voltage indicator lamp – green
- T - thermostat 30-90°C
- K2 - heating indicator lamp – red
- TT - heater 660 W/230 V

- Bain-marie 1GN - 1 x 660 W
- Bain-marie 2GN - 3 x 660 W
- Bain-marie 3GN - 4 x 660 W
- Bain-marie 4GN - 5 x 660 W

## Annex 1.2

### Heating tubs – Wiring diagram of the el. unit DIXELL



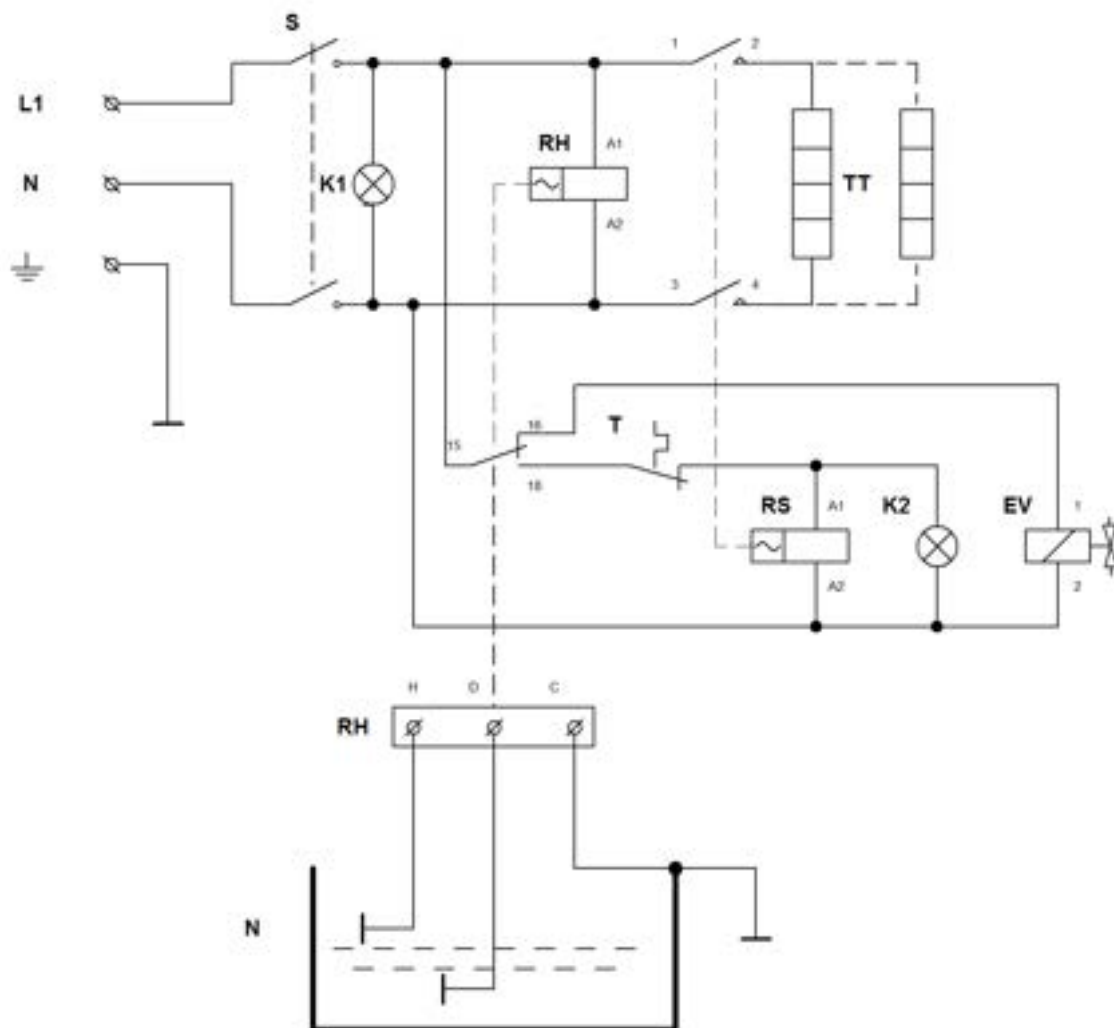
#### Legend:

- S1 - main switch
- EJ1 - electronic control unit
- SEP - water bath temperature sensor
- TT - heater 660 W/230 V

- Bain-marie 1GN - 1 x 660 W
- Bain-marie 2GN - 3 x 660 W
- Bain-marie 3GN - 4 x 660 W
- Bain-marie 4GN - 5 x 660 W

## Annex 1.3

### Heating tubs – Wiring diagram of the Mechanical thermostat + Automatic level monitoring and water refill



**Legend:**

S	-	main switch
K1	-	supply voltage indicator lamp – green
T	-	thermostat 30-90°C
K2	-	heating indicator lamp – red
TT	-	heater 660 W/230 V
RH	-	surface relay HRH5
RS	-	power relay
EV	-	water refill solenoid valve
N	-	heated water bath

Bain-marie 1GN	-	1 x 660 W
Bain-marie 2GN	-	3 x 660 W
Bain-marie 3GN	-	4 x 660 W
Bain-marie 4GN	-	5 x 660 W

## Heating tubs – Wiring diagram of the El. unit + Automatic level monitoring and water refill

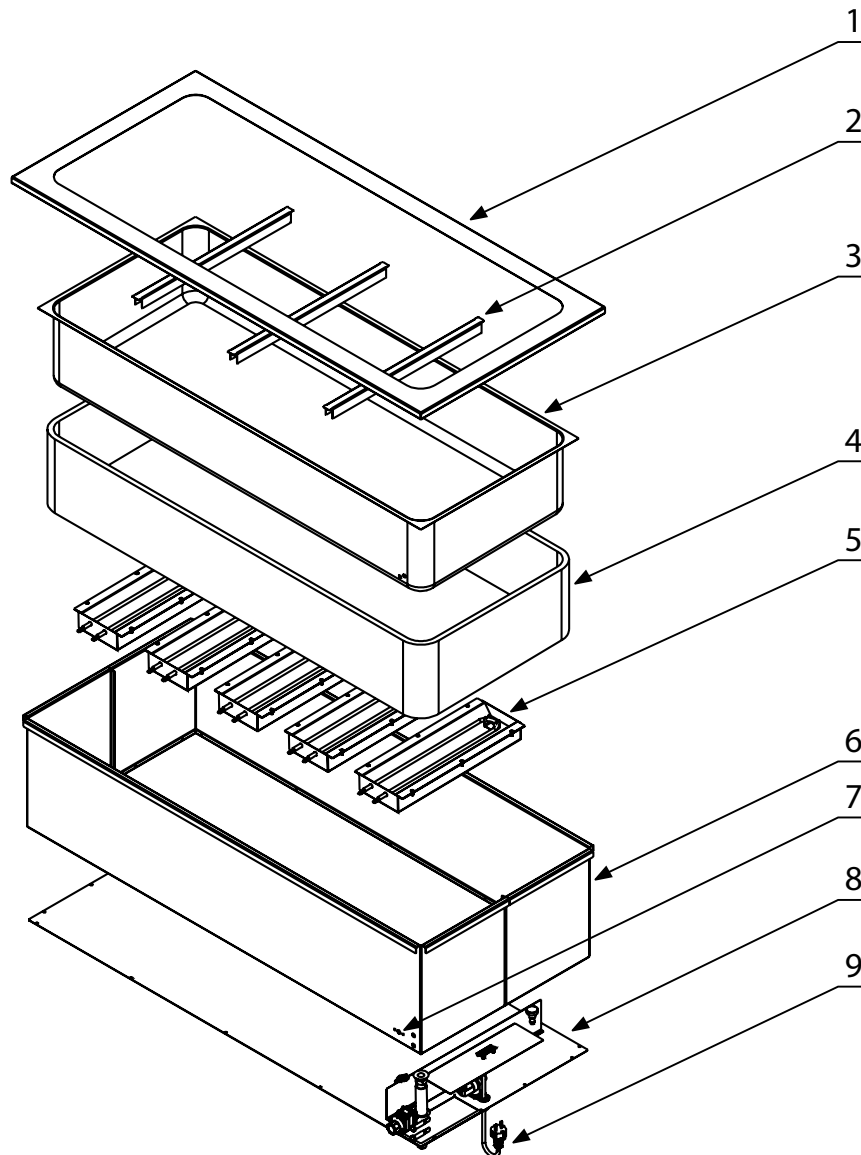


S	-	main switch
EJ	-	el. unit
SEP	-	temperature sensor
TT	-	Heater 660W/230V
RH	-	surface relay HRH5
RS	-	power relay
EV	-	water refill solenoid valve
N	-	heated water bath

Bainmarie 1GN	-	1 x 660W
Bainmarie 2GN	-	3 x 660W
Bainmarie 3GN	-	4 x 660W
Bainmarie 4GN	-	5 x 660W

## Annex 1.4

### Heating tubs – Technical drawing



**Legend:**

1. Frame (drop-in)
2. Partitions
3. Pressed tub
4. Isolation
5. Heater
6. Tub cover
7. Fill sensor
8. Bottom plate with partition (thermostat, pilot lights, valve, drain,...)
9. Flex cable

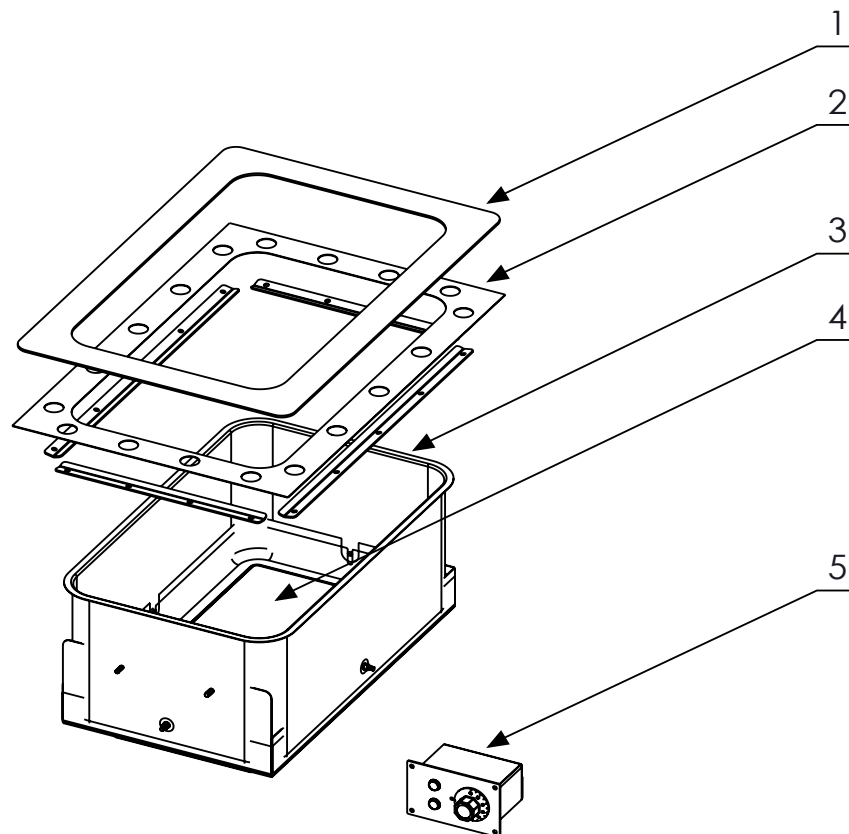
## **Annex 2.1**

### **Dry heated tub – Wiring diagram**

We are updating the wiring diagram to provide more detailed information. For any questions, please contact us.

## Annex 2.2

### Dry heated tub – Technical drawing



#### Legend:

1. Frame (drop-in)
2. Mounting fixtures for tub
3. Tub assembly (pressed tub, tub cover...)
4. Glass-ceramic plate with heaters
5. Control knob with pilot lights