

**INSTRUCTION MANUAL  
FOR INSTALLATION,  
MAINTENANCE  
AND USE**

**ELECTRIC KETTLES  
INDIRECT**

**“PM8-9IE..A”**

**“PM1IE..A”**

**“PMRIE..A”**

**“PM9IE..GN”**

**280.019**

**280.020**

**280.021**

**280.022**

**280.023**

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# 1 GENERAL REMINDERS AND NOTES

## 1.1 GENERAL REMINDERS

- 
- Read the warnings contained in this manual carefully as they provide important information concerning safety during the installation, use and maintenance of the appliance.
- Keep these instructions carefully!
- Only personnel trained for its specific use should use the equipment.
- Keep the appliance under control during use.
- The appliance should be used only for the purpose for which it has been specifically designed; other uses are improper and hence dangerous.
- During operation surfaces can become hot and require special operation.
- Unplug the appliance in case of failures or improper operation.
- Apply exclusively to a service centre for repairs or maintenance.
- Any important information about the appliance required for technical service is contained in the technical data plate (see figure "View of appliance").
- If technical assistance is required, the trouble must be described in as much detail as possible, so that a service technician will be able to understand the nature of the problem.
- Gloves should be worn to protect the hands during installation and maintenance operations.
- **Warning! : Follow the fire prevention regulations very carefully.**

## 1.2 CONSTRUCTION

- Main structure in AISI 430 with 4 adjustable height feet.
- Panels in stainless steel AISI 304, thickness 10-12/10.
- Cooking vat in stainless steel AISI 316, thickness 20/10.
- Chrome-plated brass drainage tap.
- Lid in stainless steel, hinged and spring balanced in all opening positions.
- Jacket and lining in stainless steel AISI 304, thickness 15-20/10.
- Heating system comprising shielded heating elements made from "Incoloy-800" alloy with boiler and steam circulation.
- Jacket pressure is controlled by a safety valve set at 0.5 bar; the appliance is equipped with an analogue pressure gauge.
- The cold / hot water connection is 10 mm (mod. 100/150 lt.).
- The cold / hot water connection is 1/2" (mod. 200/300/500/170/270/370 lt.).
- Safety thermostat to interrupt operation automatically in case of failures.
- The appliance is equipped with a three-position selector with three heating functions:
  - position "0" Heating not activated
  - position "1" Reduced power 50%
  - position "2" Full power 100%
- Operating thermostat for temperature adjustment inside the cooking vat.

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### 1.2.1 DETAILS ONLY FOR PRESSURE KETTLES

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- Stainless steel lid with heat-resistant silicone gasket.
- Hermetic closing of lid ensured by 4-6 screw clamps.
- The relief valve for the pressure that develops inside the cooking vat is set at 0,05 bar.
- On request, the appliance can be equipped with a pressure gauge indicating the pressure inside the cooking vat.

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## 1.3 LAWS, TECHNICAL PRESCRIPTIONS AND DIRECTIVES

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**When installing the appliance it is necessary to follow and comply with the following regulations:**

- current regulations on the matter;
- any hygienic-sanitary regulations concerning cooking environments;
- municipal and/or territorial building regulations and fire prevention prescriptions;
- current accident prevention guidelines;
- electricity board regulations concerning safety;
- the regulations of the electrical power supply company or agency;
- any other local prescriptions.

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## 1.4 SPECIAL REQUIREMENTS FOR THE INSTALLATION SITE

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- The room in which the appliance is to operate must be well ventilated.
- In addition, it is good policy to locate the appliance under an extractor hood so that cooking vapours can be removed rapidly and continuously.
- Current regulations require the installation of a multiple pole switch between the appliance and the electrical power supply; the switch must have a contact gap of least 3 mm on each pole.
- This appliance requires two water connections: one for hot and one for cold water. Each line must be fitted with an on-off valve.

**Warning! :** The electrical isolating switch and the water shutoff valves must both be located near to the appliance, within easy reach for the user.

## 1.5 TECHNICAL DATA PM8-9IE..

		PM8IE100..A	PM9IE100..A	PM8IE150..A	PM9IE150..A
TECHNICAL DATA (DIMENSIONS)					
Equipment dim.A	mm	800	900	800	900
Equipment dim.B	mm	900			
Equipment dim.H	mm	900			
Equipment dim.H2	mm	1650			
TECHNICAL DATA (FUNCTIONALITY)					
Kettle diameter	mm	600			
Pan dimension H	mm	415		540	
Overvall volume	lt	113		150	
Useful volume	lt	102		139	
Pressure cooking (mod.A)	bar	0,05			
Temperature	°C	20÷110			
Jacket volume	lt	32			
Pressure	bar	0,5			
TECHNICAL DATA (INSTALLATION)					
Electric power	kW	16	16	18	18
Voltage/Input (standard)**	V	3N/PE AC 400V			
Frequency	Hz	50/60			
IPX	IPX	4			
Cable connection ***	mm²	5 X 6		5 X 6	
Water pressure	kPa	50÷300			
Hot water inlet	Ø"	Ø 10			
Cold water inlet	Ø"	Ø 10			
Sound level	dbA	< 70			
TECHNICAL DATA (STORAGE/MOVEMENT)					
Packaging dim.A	mm	1100	1100	1100	1100
Packaging dim.B	mm	870	970	870	970
Packaging dim.H	mm	1270	1270	1270	1270
Volume	m³	1,215	1,355	1,215	1,355
Net weight	kg	140	143	148	145
Gross weight	kg	165	173	173	175

\*\*Verify on data plate - \*\*\*Cable for standard tension

## 1.6 TECHNICAL DATA PM1IE..

		PM1IE200..A	PM1IE300..A	PM1IE500..A
TECHNICAL DATA (DIMENSIONS)				
Equipment dim.A	mm	1000	1150	1150
Equipment dim.B	mm	1150	1300	1300
Equipment dim.H	mm	900	900	1050
Equipment dim.H2	mm	1820	1970	2120
TECHNICAL DATA (FUNCTIONALITY)				
Kettle diameter	mm	750	900	900
Pan dimension H	mm	520	520	780
Overvall volume	lt	220	325	480
Useful volume	lt	200	300	455
Pressure cooking (mod.A)	bar	0,05		
Temperature	°C	20÷110		
Jacket volume	lt	43	62	62
Pressure	bar	0,5		
TECHNICAL DATA (INSTALLATION)				
Electric power	kW	32	36	36
Voltage/Input (standard)**	V	3N/PE AC 400V		
Frequency	Hz	50/60		
IPX	IPX	4		
Cable connection ***	mm²	5 X 10	5 X 16	5 X 16
Water pressure	kPa	50÷300		
Hot water inlet	Ø"	1/2"		
Cold water inlet	Ø"	1/2"		
Sound level	dbA	< 70		
TECHNICAL DATA (STORAGE/MOUMENT)				
Packaging dim.A	mm	1360	1500	1500
Packaging dim.B	mm	1100	1250	1250
Packaging dim.H	mm	1280	1280	1450
Volume	m³	1,92	2,4	2,72
Net weight	kg	235	280	300
Gross weight	kg	281	330	360

\*\*Verify on data plate - \*\*\*Cable for standard tension

## 1.7 TECHNICAL DATA PMRIE

	PMRIE	100..A	150..A	200..A	300..A	500..A	510..A
TECHNICAL DATA (DIMEMSIONS)							
Equipment dim.A	mm	1025	1025	1175	1305	1305	1555
Equipment dim.B	mm	850	850	1000	1130	1130	1380
Equipment dim.H	mm	900	900	900	900	1050	920
Equipment dim.H2	mm	1650	1650	1820	1970	2120	2230
TECHNICAL DATA (FUNCTIONALITY)							
Kettle diameter	mm	600	600	750	900	900	1100
Pan dimension H	mm	415	540	520	520	780	570
Overvall volume	lt	113	150	220	325	480	540
Useful volume	lt	102	139	200	300	455	500
Pressure cooking (mod.A)	bar	0,05					
Temperature	°C	20÷110					
Jacket volume	lt	32	32	43	62	62	95
Pressure	bar	0,5					
TECHNICAL DATA (INSTALLATION)							
Electric power	kW	16	18	32	36	36	36
Voltage/Input (standard)**	V	3N/PE AC 400V					
Frequency	Hz	50/60					
IPX	IPX	4					
Cable connection ***	mm²	5 X 6	5 X 6	5 X 10	5 X 16	5 X 16	5 X 16
Water pressure	kPa	50÷300					
Hot water inlet	Ø"	1/2"					
Cold water inlet	Ø"	1/2"					
Sound level	dbA	< 70					
TECHNICAL DATA (STORAGE/MOVEMENT)							
Packaging dim.A	mm	1360	1360	1500	1500	1500	1690
Packaging dim.B	mm	1100	1100	1250	1400	1400	1540
Packaging dim.H	mm	1280	1280	1280	1280	1450	1320
Volume	m³	1,92	1,92	2,4	2,7	3,05	3,44
Net weight	kg	140	150	207	250	270	355
Gross weight	kg	186	196	257	310	340	450

\*\*Verify on data plate - \*\*\*Cable for standard tension

## 1.8 TECHNICAL DATA PM9IE..GN

		PM9IE170GN	PM9IE270GN	PM9IE370GN
TECHNICAL DATA (DIMENSIONS)				
Equipment dim.A	mm	1000	1400	1800
Equipment dim.B	mm	900		
Equipment dim.H	mm	900		
Equipment dim.H2	mm	1790		
TECHNICAL DATA (FUNCTIONALITY)				
Pan dimension A	mm	700	1100	1500
Pan dimension B	mm	550		
Pan dimension H	mm	480		
Overvall volume	lt	185	290	396
Useful volume	lt	170	270	370
Temperature	°C	20÷110		
Jacket volume	lt	44	68	90
Pressure	bar	0,5		
TECHNICAL DATA (INSTALLATION)				
Electric power	kW	24	32	36
Voltage/Input (standard)**	V	3N/PE AC 400V		
Frequency	Hz	50/60		
IPX	IPX	4		
Cable connection ***	mm²	5 X 10	5 X 16	5 X 16
Water pressure	kPa	50÷300		
Hot water inlet	Ø"	1/2"		
Cold water inlet	Ø"	1/2"		
Sound level	dbA	< 70		
TECHNICAL DATA (STORAGE/MOVEMENT)				
Packaging dim.A	mm	1140	1540	2140
Packaging dim.B	mm	1140	1140	1140
Packaging dim.H	mm	1250	1250	1250
Volume	m³	1,63	2,2	3,1
Net weight	kg	240	290	330
Gross weight	kg	280	340	390

\*\*Verify on data plate - \*\*\*Cable for standard tension



## 2 POSITIONING, INSTALLATION AND MAINTENANCE

### 2.1 POSITIONING

- Remove all the packaging and check that the appliance is in perfect conditions. In case of visible damage, do not connect the appliance and notify the sales point immediately.
- Remove the PVC protection from the panels.
- Dispose of packaging according to regulations. Generally material is divided according to composition and should be delivered to the waste disposal service.
- There are no special instructions regarding distances from other appliances or walls, however it is advisable to maintain a sufficient distance to allow any servicing operations to be performed. In the event the appliance should be installed in direct contact with inflammable walls, it is advisable to fit suitable heat insulation.
- The appliance must stand level. Small differences in level can be eliminated by screwing or unscrewing the adjustable feet: A significantly uneven or sloping stance can affect the operation of the appliance adversely.

### 2.2 INSTALLATION

**Warning! :** Only qualified technicians must perform the installation, maintenance and test of the appliance.

**Warning! :** Before connecting any parts of the appliance to supplies, make sure that the latter is equivalent the requirements stated in the technical data plate, if the appliance has been designed for these supplies.

#### 2.2.1 ELECTRICAL CONNECTIONS AND EQUIPOTENTIAL BONDING

**Warning! :** The appliance is supplied to operate according to the power supply indicated on the data plate.

- As mentioned, the appliance must be connected to the power supply by way of a multiple pole main isolating switch and protection device that must be proportioned to the power of the appliance (1 mA per kW of rated power).
- The earthing system must be efficient.
- As this appliance is type X equipment (delivery without power cable and plug), the cable and other hardware needed to make the connection to the electrical power supply must be provided by the installer.
- The power cable shall be of the kind described in the paragraph "Technical data" and shall be resistant to oil.
- The power terminal board can be reached by removing the lower front panel (unloose the screws). The cable fastener is on the lower right-hand side.
- The cable must be fed in from beneath the clamp. The individual wires are then fastened to the corresponding terminals of the terminal board. The earth wire must be longer than the other wires, so that in the event of the cable being jerked or the clamp broken, the live wires will disconnect first. Lock the cord fastener.
- The appliance must incorporate an equipotential system.

- Connect the terminal on the lower right-hand side marked with the international symbol a connector with a nominal cross section  $<10 \text{ mm}^2$ . All the appliances installed and the earth system of the building shall be connected like this.

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### 2.2.2 CONNECTION TO WATERWORKS

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Water inlet pressure must be between 50 and 300 kPa, otherwise install a pressure regulator on the line before the appliance.

Install a cut-off valve for each supply on the line before the appliance.

Water connections are fitted in the lower part on the right-hand side of the appliance.

Make connections according to regulations currently in force.

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## 2.3 COMMISSIONING AND TESTING

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- Once all the connections have been made, the appliance and the overall installation must be checked following the directions given in this manual.
- Check in particular:
  - that the protective film has been removed from the external surfaces;
  - that the lower front panel removed for the electrical connection of the appliance has been fitted back into position;
  - that connections have been made in accordance with the requirements and directions indicated in this manual;
  - that all safety requirements in current standards, statutory regulations and directives have been met;
  - that the water connections are leak-free;
  - that the electrical connection has been performed according to standards.
- In addition, check that once the appliance has been installed, the power cord is neither subject to stretch nor in contact with hot surfaces.
- Now proceed to light the appliance as directed in the instructions for use.
- While the appliance is in use, voltage should not differ from the nominal voltage more than  $\pm 10\%$ .
- The test report must be completed in full and submitted to the customer who should then sign in acceptance. With effect from this moment, the appliance is covered by the manufacturer's warranty.

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## 2.4 MAINTENANCE OF THE APPLIANCE

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**Warning! :** All maintenance operations shall only be performed by a technically qualified service centre!

- To ensure correct and safe operation, the appliance must be inspected and serviced at least once a year only. Maintenance includes also controlling the components and tear of pipes, feeding pipes, electrical components etc.
- It is advisable to replace worn components during maintenance operations to avoid the need for other maintenance calls and unexpected failures.
- It is also advisable to apply for a maintenance contract with the customer.

## 2.4.1 POSSIBLE FAILURES AND THEIR ELIMINATION

**Warning! :** Only technically qualified service centres can perform the operations described below!

**Warning! :** Before resetting the safety thermostat, it is always necessary to eliminate the problem causing its activation!

Problem and possible cause	Access to components and operation
<ul style="list-style-type: none"><li>– <b>The content of the vat does not heat up:</b></li><li>– the safety thermostat has been activated;</li><li>– the heating elements have a failure;</li><li>– selector/switch failure.</li><li>– Operating thermostat failure.</li></ul>	<ul style="list-style-type: none"><li>– <b>Safety thermostat</b> The safety thermostat can be reached once the lower front panel has been removed.</li><li><b>Heating elements</b> The heating elements can be reached once the lower front panel has been removed.</li><li><b>Selector/switch - Operating thermostat</b> To reach remove the vat drainage tap and then the upper front panel.</li></ul>

## 3 USE AND CLEANING

### 3.1 WARNINGS AND HINTS FOR USER

- This manual contains all the instructions required for a proper and safe use of our appliances.
- **Keep the manual in a safe place for future consultation!**
- This appliance is for catering use, hence they must be used only by trained kitchen staff.
- The appliance must always be kept under control during use.
- **Warning! : The manufacturer shall not be held responsible for injuries or damage due to the non-compliance with safety rules or an improper use of the appliance by the operator.**
- Some improper operating conditions may even be caused by an improper use of the appliance, therefore it is important to train personnel properly.
- **All the installation and maintenance operations must be performed by fitters who are members of an official register.**
- Respect the periods required for maintenance. With this in mind, customers are recommended to sign a service agreement.
- In case of failures concerning the appliance, all outputs (electrical power supply and water) must be cut off instantly.
- In case of recurrent failures, contact a service technician.

### 3.2 INSTRUCTIONS FOR USE

- Before cooking with the appliance for the first time, wash the interior of the cooking vat thoroughly.

**Warning! :** Fill the cooking vat up to a maximum of 40 mm under the overflow border, according to the maximum level mark, including the food to be cooked.

**Warning! :** Before filling the vat, always check that the drainage tap is closed.

#### 3.2.1 FILLING THE JACKET

##### MOD. 100-150 lt

**Warning! :** The water level in the jacket must be checked each time before lighting.

**Warning! :** It is advisable to use softened water to fill the jacket!

- Open the level tap on the front of the appliance.
- Unscrew the filling cap on the safety valve unit. The latter is on the right of the appliance surface (see figure "Size of appliance and position of connections").
- Fill with softened water (the capacity of the jacket is stated in the paragraph "Technical data").
- When water flows out of the level tap, close it and screw back on the safety unit cap.

##### Mod. PM1IE200/300/500 – PMRIE100/150/200/300/500/510 – PM9IE170/270/370GN

**Warning! :** The water level in the jacket must be checked each time before lighting.

**Warning! :** It is advisable to use softened water to fill the jacket!

- Open the level tap on the front of the appliance.

- Unscrew the filling cap on the safety valve unit. The latter is on the right of the appliance surface (see figure “Size of appliance and position of connections”).



- Reposition the tap (an external hole is available) on the external pin of the relief valve.
- This operation is required to prevent water bubbles from forming in the jacket during water loading. Water bubbles would not make it possible to reach a correct water level in the jacket.
- Fill with softened water (the capacity of the jacket is stated in the paragraph “Technical data”).
- When water flows out of the level tap, close it and screw back on the safety unit cap.

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### 3.2.2 DETAILS REGARDING OPERATION WITH PRESSURE KETTLE

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- Before turning the appliance on, close the lid firmly and lock the 4 screw clamps.
- Check that the valve is in a resting position.
- Start cooking at full power. When steam starts to come out of the valve, reduce heating power. The steam coming out of the valve must be constant and light.
- The pressure inside the cooking vat can reach a maximum of 0.05 bar. On request, the appliance can be equipped with a pressure gauge that shows the pressure inside the cooking vat.
- Turn off the appliance after cooking.
- Before opening the lid, release all the pressure from the cooking vat by lifting the relief valve lever (see figure “Controls”).
- Check that the valve lever is still "On" and unscrew the screw clamps.

---

### 3.2.3 SWITCHING ON, START COOKING AND SWITCHING OFF

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- Fill the vat with hot or cold water, according to need, using the tap that the appliance is equipped with.
- The appliance has a three-position selector to start cooking functions (see figure “Controls”).
- Here is a list of the procedures for a safe and correct use of the appliance.
- **Energising the unit:**
- Connect the appliance by turning on the main switch installed before it.
- **Start of cooking:**
- Turn the selector from position “0” to one of the heating positions according to cooking requirements.
- The green light turns on automatically.
- Generally cooking is started with the selector in position “2”; once the vat has reached cooking temperature, turn the selector to “1” to maintain it.
- Set the operating thermostat knob on the desired temperature between 40 and 100°C.
- Heating will start and the orange light will turn on automatically.
- The orange light will turn off as soon as the set temperature has been reached.
- To make water boil quickly, turn the knob over the temperature of 100°C.
- Heating elements operate continuously.
- By turning the selector from position “2” to “1”, it is possible to keep the water boiling and use less power.

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### 3.3 CLEANING AND CARE OF THE APPLIANCE

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- Do not use aggressive substances or abrasive detergents when cleaning the stainless steel components.
- Avoid using metal pads of the steel parts as they may cause rust. For the same reason, avoid contact with materials containing iron.
- Do not use sandpaper or abrasive paper for cleaning; in special cases use a powder pumice stone.
- In case of particularly resistant dirt, it is advisable to use abrasive sponges (e.g. Scotch-Brite).
- It is advisable to clean the appliance only once it has cooled down.

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#### 3.3.1 DAILY CLEANING

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**Warning! :** When cleaning the appliance never use direct jets of water to prevent infiltration of the liquid and damage to components.

- Clean the cooking vat with water and a detergent, rinse thoroughly and dry well with a soft cloth.
- External surfaces should be washed down using a sponge, and hot water with a suitable proprietary cleaner addend.
- Rinse always thoroughly and dry with a soft cloth.
- **Notes regarding the pressure kettles:**
- Do not use detergents containing high percentages of ammonia and sodium to clean the lid gasket, as it could be damaged and its tightness quickly affected.

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### 3.4 SPECIAL PROCEDURES IN CASE OF PROLONGED INACTIVITY

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- If the appliance is to stand idle for any length of time (e.g. holidays or seasonal closing), it must be cleaned thoroughly, leaving not traces of food or dirt.
- Leave the lid open so that air can circulate inside the vat.
- For added care after cleaning, the external surfaces can be protected by applying a proprietary metal polish.
- Be absolutely sure to shut off all utilities (electrical power supply and water).
- Air the room appropriately.

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### 3.5 SPECIAL PROCEDURES IN CASE OF FAILURES

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- If the appliance should not work properly during use, turn it off immediately and close or cut off all supplies (electrical power supply and water).
- Apply to a service centre for help.

**The manufacturer shall not be held responsible nor has any warranty commitments for damage caused by non-compliance with prescriptions or by installation not in conformity with instructions.**

**The same applies in case of improper use or different application by the operator.**

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## 3.6 HOW TO PROCEED, IF ...

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### WARNING! :

Problems and failures may occur even when the appliance is used properly. Here is a list of the most probably situations and controls that the operator should perform to avoid applying to a service centre unnecessarily.

If the problem is not solved after the necessary controls, turn off the appliance immediately, unplug it, cut off any supplies and apply to a service centre.

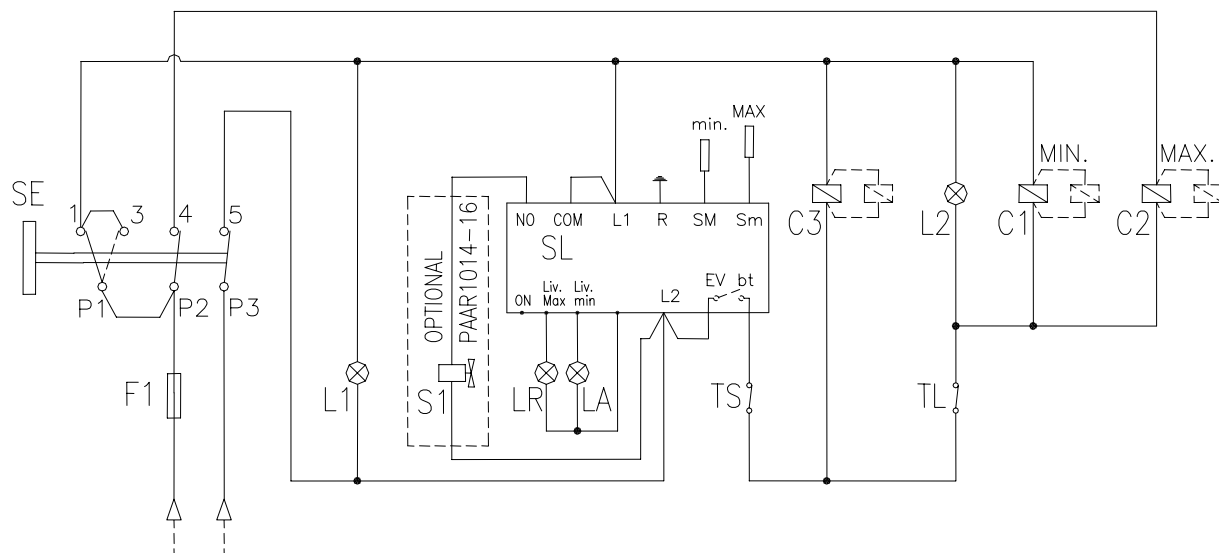
<ul style="list-style-type: none"><li>– ... the vat contents do not heat up:</li></ul>	<ul style="list-style-type: none"><li>– <b>check</b> that the power ON/OFF switch installed before the appliance is on;</li><li>– otherwise <b>turn off the appliance</b> and apply to a service centre, as the safety thermostat may have been activated due to an excess of temperature in the cooking vat. This occurs especially when the appliance is turned on and the vat and/or the jacket is/are empty</li></ul>
--	---

## 4 FIGURES AND DETAILS

### 4.1 WIRING DIAGRAM OF CONTROL FUNCTIONS PM.IE .

LEGEND:			
<b>F1</b>	Fuse 3,15 A-T	<b>S1</b>	Jacket filling solenoid valve (OPTIONAL)
<b>SE</b>	Selector	<b>TS</b>	Safety thermostat
<b>L1</b>	Green warning light	<b>TL</b>	Operating thermostat
<b>L2</b>	Heating on signal-lamp	<b>C1</b>	Electromagnetic switch min.
<b>LR</b>	Orange lamp warning light failing water in the jacket	<b>C2</b>	Electromagnetic switch max
<b>LA</b>	Red lamp warning light in the jacket	<b>C3</b>	Electromagnetic switch security
<b>SL</b>	Level control device		

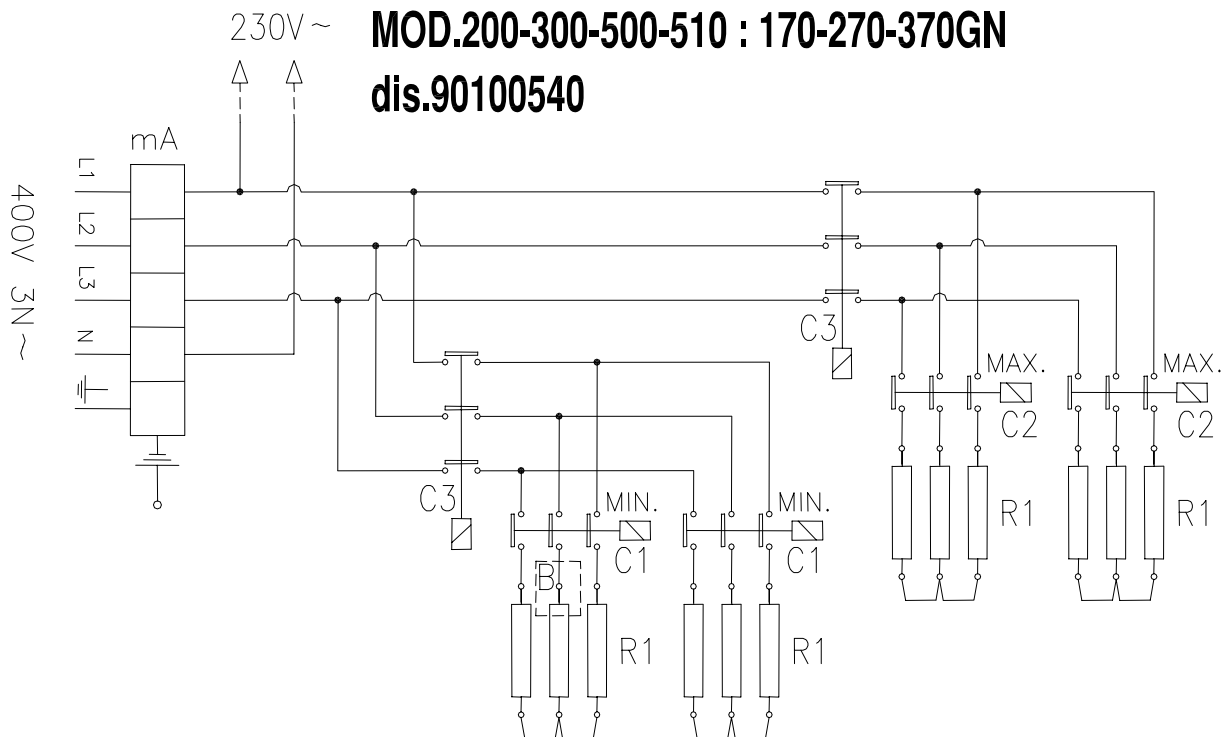
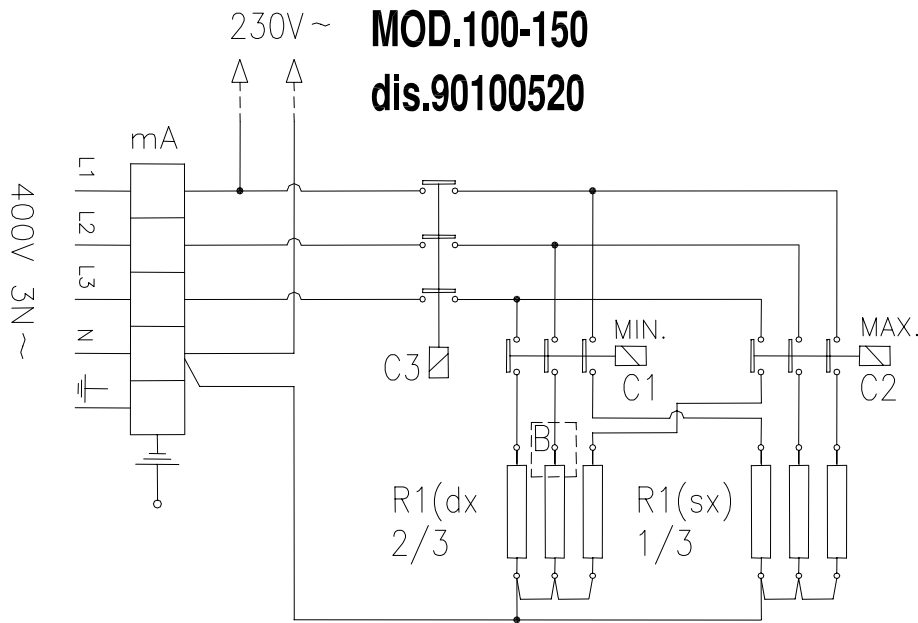
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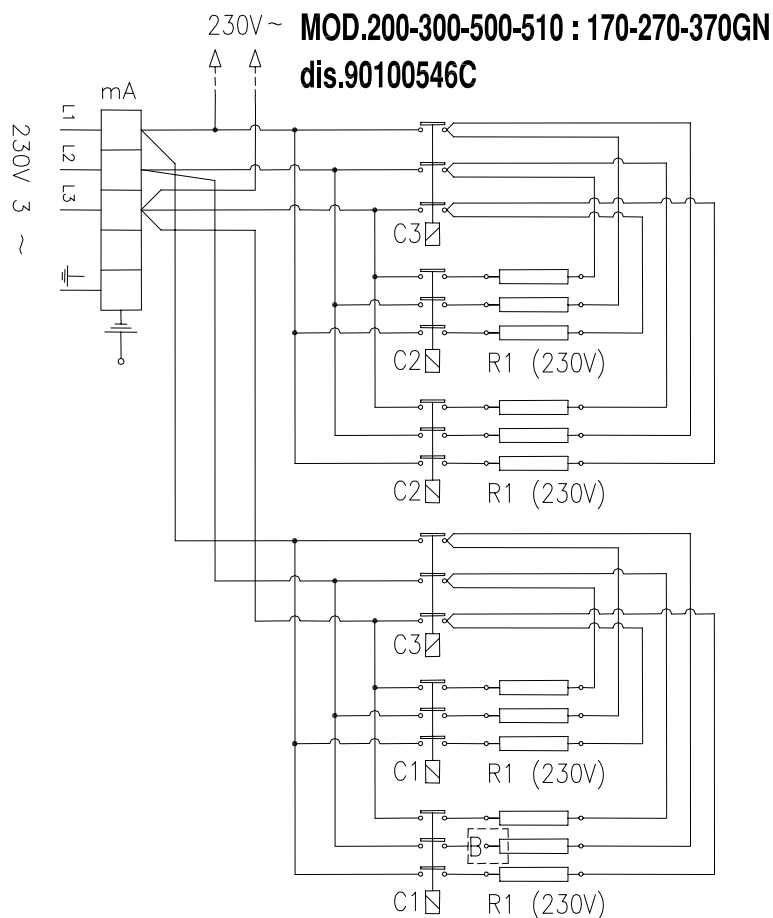
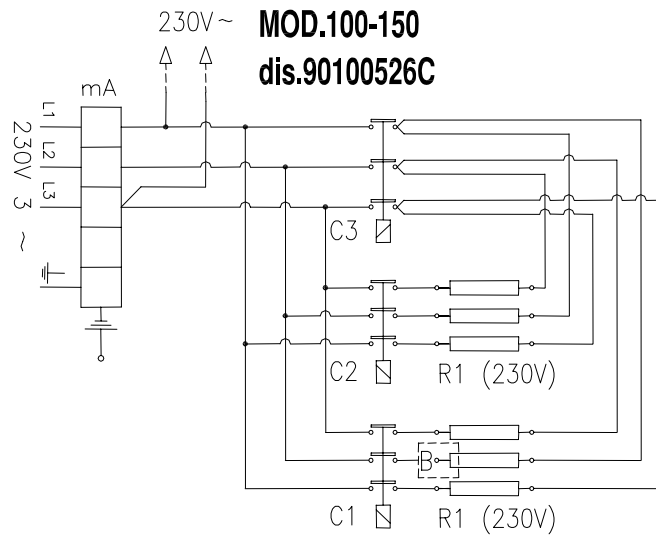
## 4.2 WIRING DIAGRAM ( HEATING ELEMENTS PM.IE ) 3N/PE AC 400V

LEGEND:			
<b>mA</b>	End line terminal board	<b>C3</b>	Electromagnetic switch security
<b>C1</b>	Electromagnetic switch min.	<b>R1</b>	Heating element (230V)
<b>C2</b>	Electromagnetic switch max	<b>B</b>	Sensor for safety thermostat



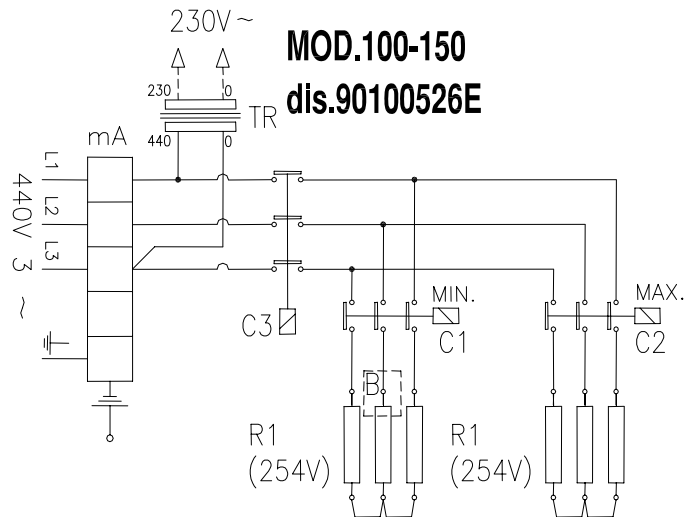
### 4.3 WIRING DIAGRAM ( HEATING ELEMENTS PM.IE ) 3/PE AC 230V

LEGEND:			
<b>mA</b>	End line terminal board	<b>C3</b>	Electromagnetic switch security
<b>C1</b>	Electromagnetic switch min.	<b>R1</b>	Heating element (230V)
<b>C2</b>	Electromagnetic switch max	<b>B</b>	Sensor for safety thermostat

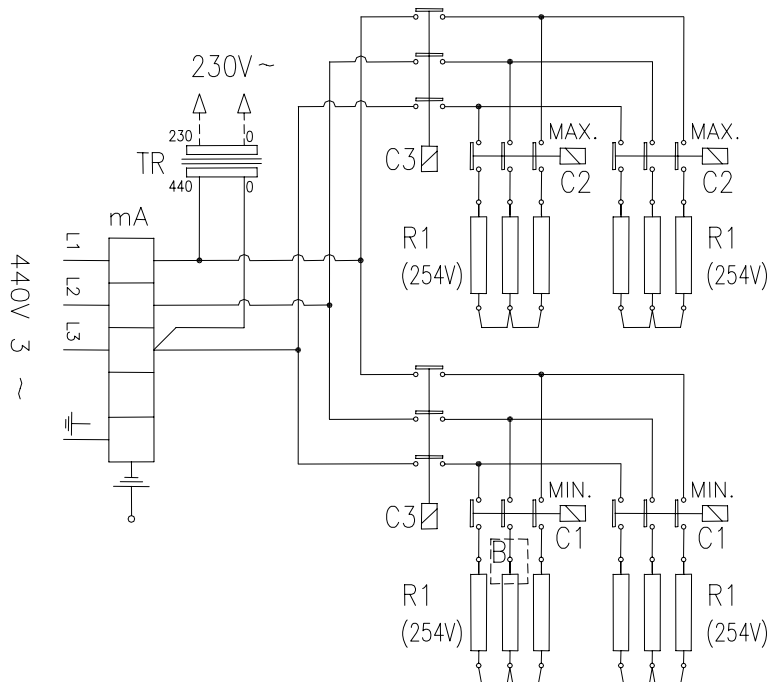


## 4.4 WIRING DIAGRAM ( HEATING ELEMENTS PM.IE ) 3/PE AC 440V

LEGEND:			
<b>mA</b>	End line terminal board	<b>TR</b>	Transformer 440-480/230V
<b>C1</b>	Electromagnetic switch min.	<b>R1.</b>	Heating element (254V)
<b>C2</b>	Electromagnetic switch max	<b>B</b>	Sensor for safety thermostat
<b>C3</b>	Electromagnetic switch security		

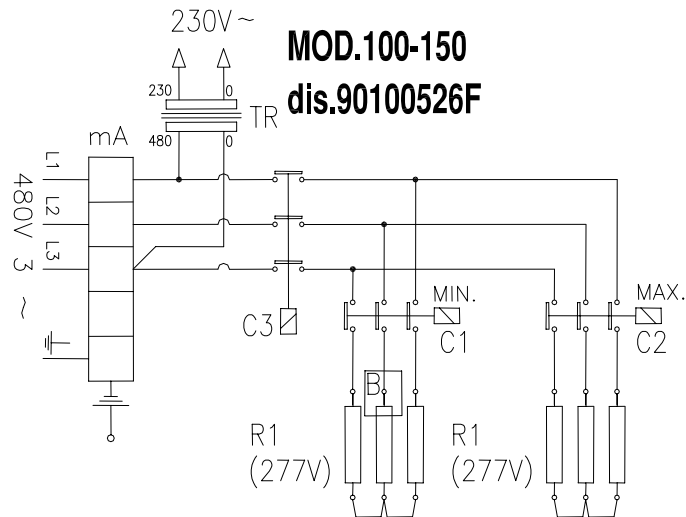


### MOD.200-300-500-510 : 170-270-370GN dis.90100546E

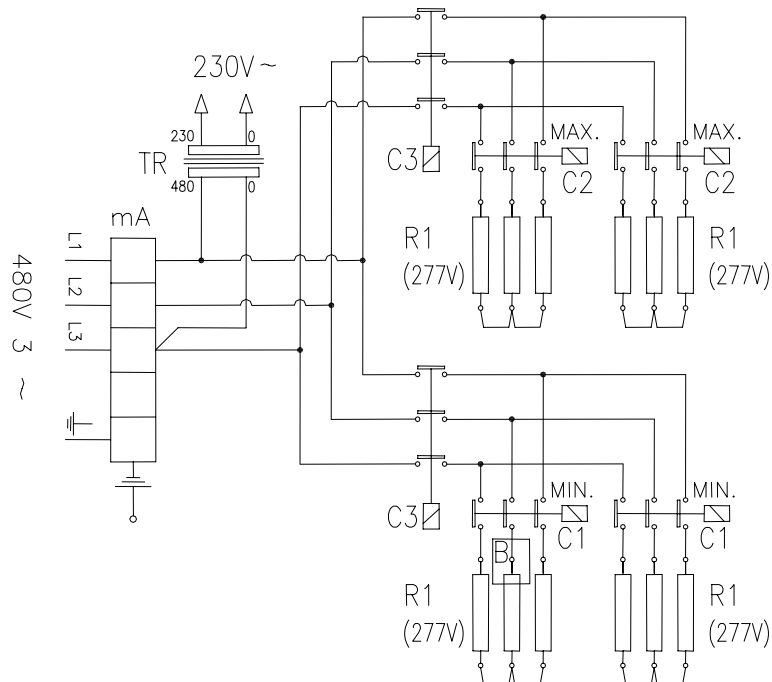


## 4.5 WIRING DIAGRAM ( HEATING ELEMENTS PM.IE ) 3/PE AC 480V

LEGEND:			
<b>mA</b>	End line terminal board	<b>TR</b>	Transformer 440-480/230V
<b>C1</b>	Electromagnetic switch min.	<b>R1..</b>	Heating element (277V)
<b>C2</b>	Electromagnetic switch max	<b>B</b>	Sensor for safety thermostat
<b>C3</b>	Electromagnetic switch security		

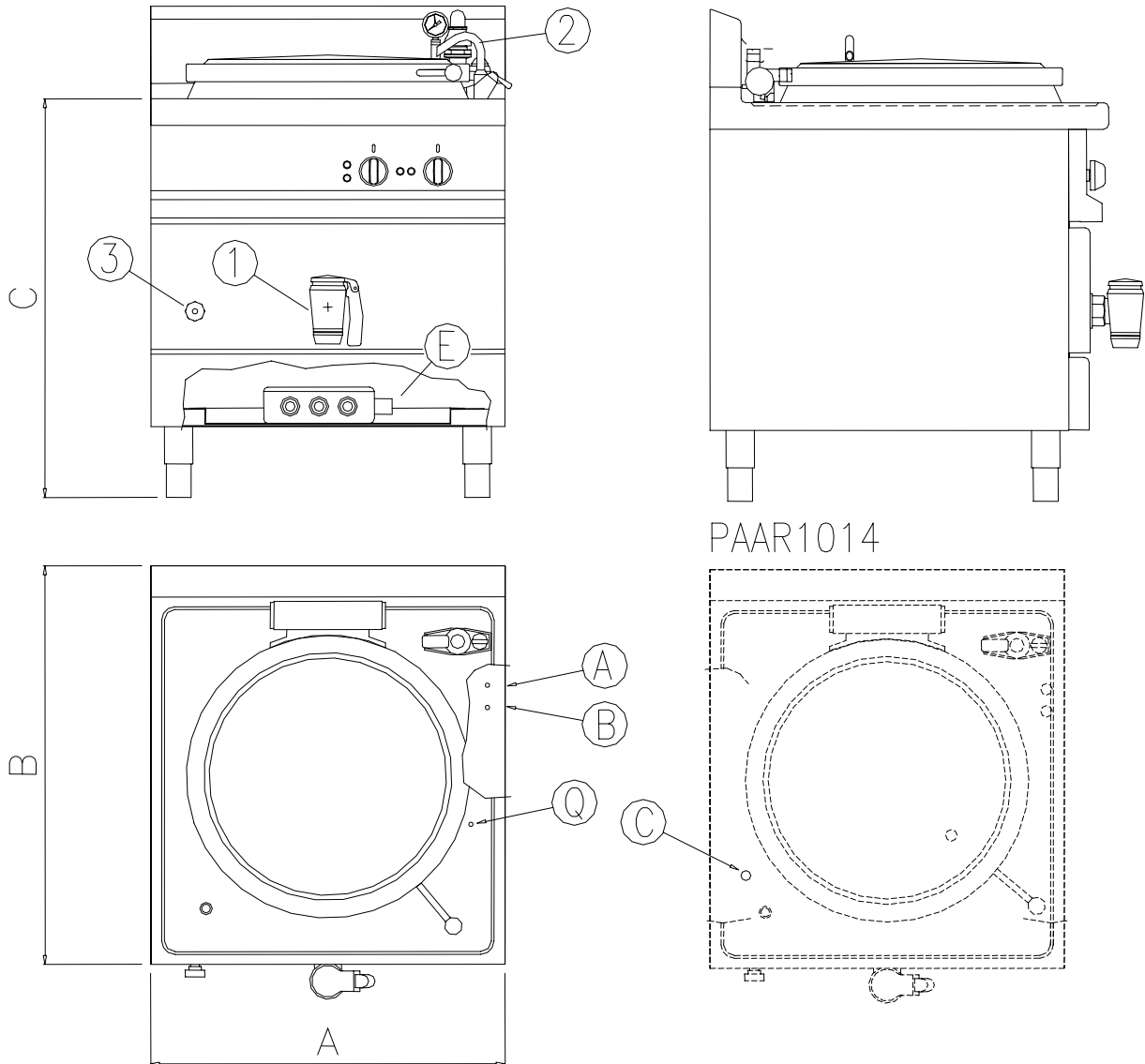


### MOD.200-300-500-510 : 170-270-370GN dis.90100546E



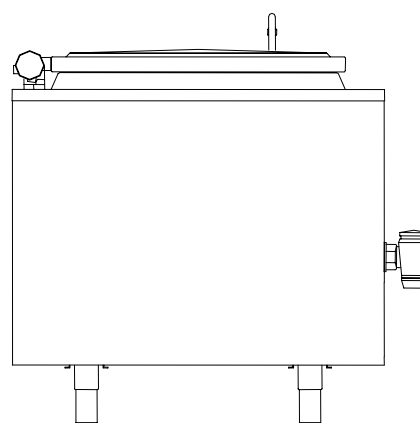
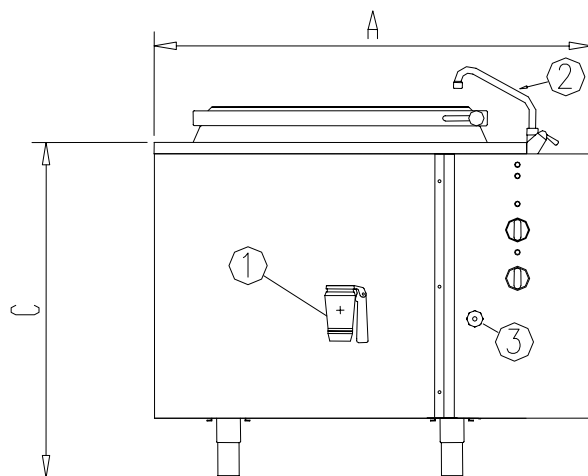
## 4.6 LAYOUT CONNECTIONS PMIE

LEGEND:			
<b>E</b>	Electrical connection	<b>1</b>	Cooking vat drainage tap
<b>Q</b>	Equipotential clamp	<b>2</b>	Vat water feed tap
<b>A</b>	Hot water connection	<b>3</b>	Jacket level tap
<b>B</b>	Cold water connection		OPTIONAL
		<b>C</b>	Autom.jacket water-charge

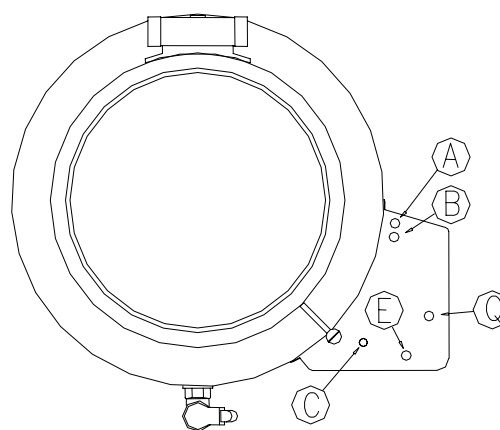
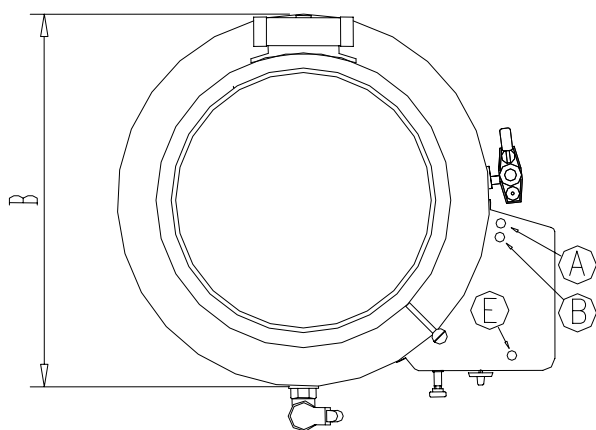


## 4.7 LAYOUT CONNECTIONS PMRIE

LEGEND:			
E	Electrical connection	1	Cooking vat drainage tap
Q	Equipotential clamp	2	Vat water feed tap
A	Hot water connection	3	Jacket level tap
B	Cold water connection		OPTIONAL
		C	Autom.jacket water-charge

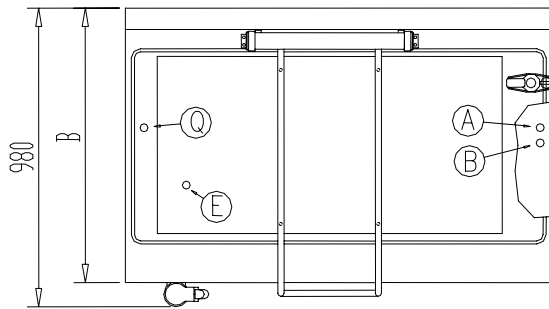
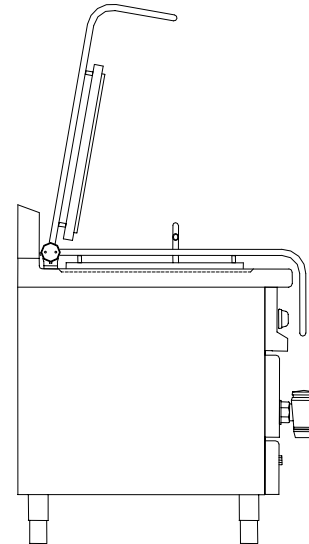
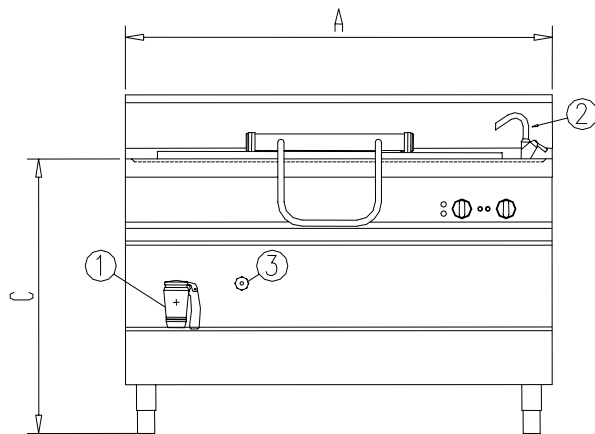


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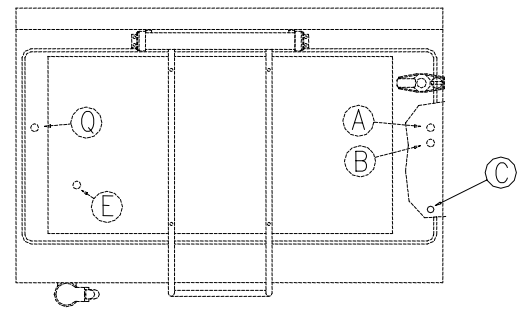


## 4.8 LAYOUT CONNECTIONS PM9IEGN

LEGEND:			
E	Electrical connection	1	Cooking vat drainage tap
Q	Equipotential clamp	2	Vat water feed tap
A	Hot water connection	3	Jacket level tap
B	Cold water connection		OPTIONAL
		C	Autom.jacket water-charge

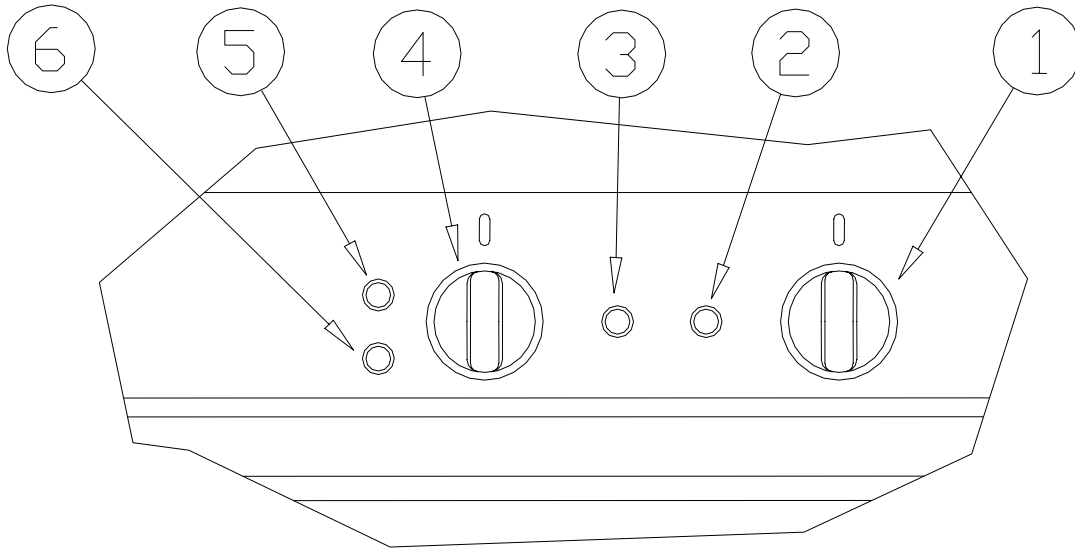


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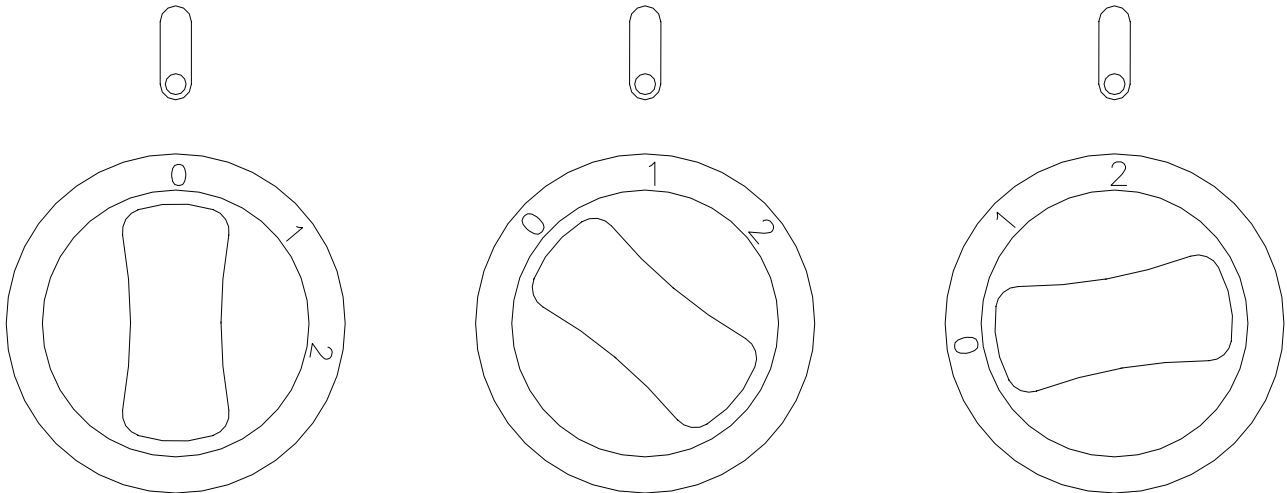
## 4.9 FIG. CONTROLS

LEGEND:			
1	Selector	4	Operating thermostat
2	Green warning light	5	Orange lamp warning light failing water in the jacket
3	Heating on signal-lamp	6	Red lamp warning light in the jacket



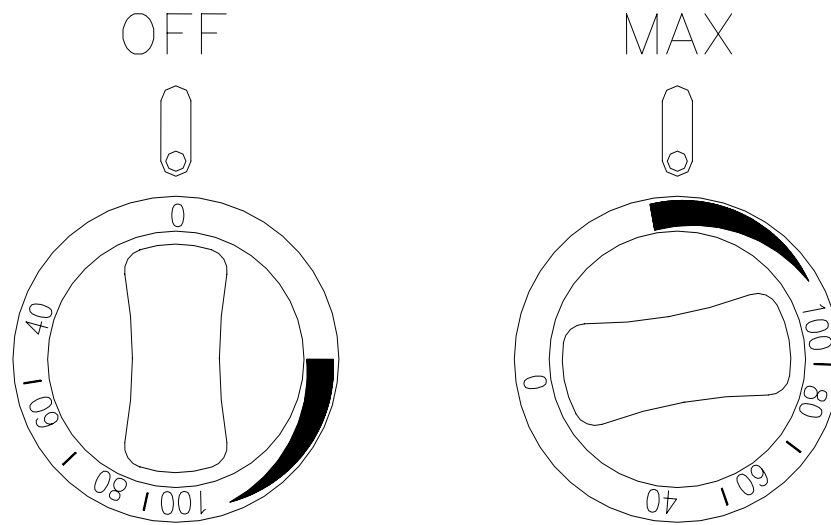
### SELECTOR

Position "0" = Off	Position "1" = 50 % power	Position "2" = 50 % power
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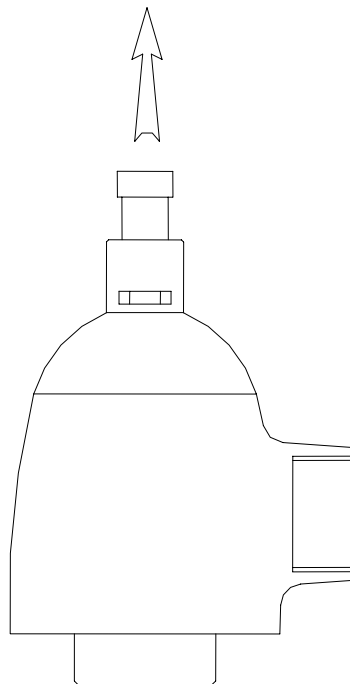
## OPERATING THERMOSTAT



## ONLY FOR PRESSURE KETTLES

### Valve and position of relief valve

Open valve



Closed valve

