



Service manual



COFFEE QUEEN

***320.504**



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HVA/HVM Hot water automat

Congratulations on choosing an HVA/HVM hot water automat.

Read through the instructions before you use the machine.

- This manual contains important instructions for correct and safe usage of the hot water automat.
- Always keep the manual in a handy place.

Coffee Queen AB is certified according to ISO 9001 and ISO 14001 standards and therefore has a minimum impact on the environment.

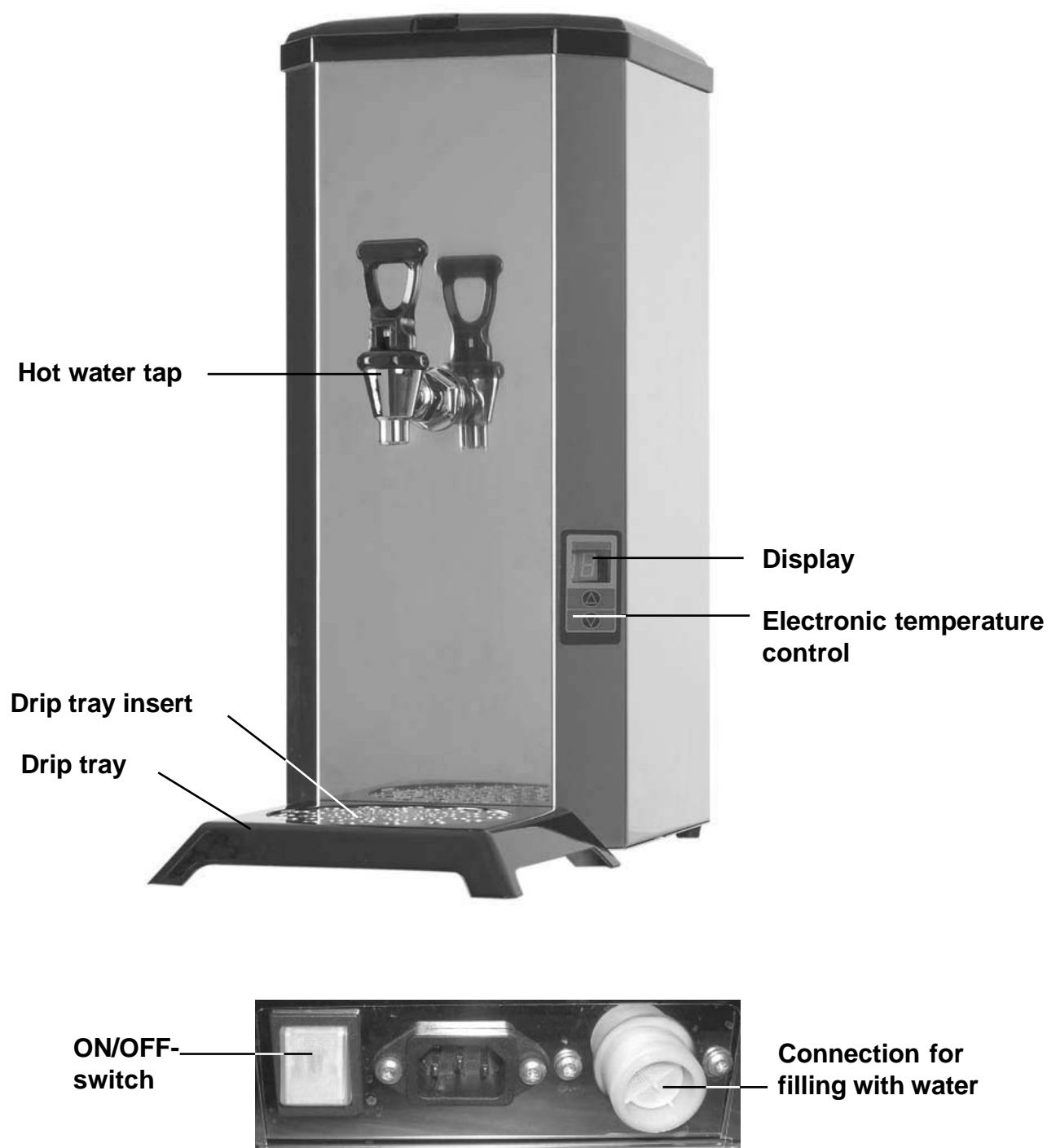
HVA/HVM Hot water automat

- Digital display with temperature indication
- Electronic temperature control
- Manufactured in bright stainless sheet metal.

Facts

Height	500 mm
Width	225 mm
Depth	410 mm
Tank capacity	7.5 litres
Electrical connection	230 V / 2200 W
3-phase electrical connection	380 V / 8000 W
Cold water connection	½" external thread
Capacity:	18 litres/hour
Capacity: 3 phase	67 litres/hour

Functional description.



Functional description

The hot water automat comprises a tank which holds 7.5 litres.

The water level is regulated by a level guard that switches and opens a solenoid valve.

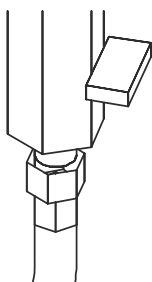
The water temperature is regulated by a thermostat and an element.

Hot water automat connected to the water supply.

Installation and starting.



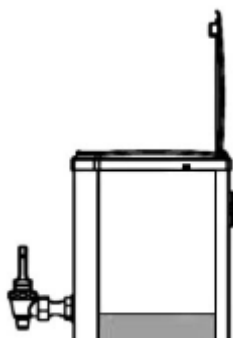
- 1.1. Place the machine on a level and watertight surface.



- 1.2. Connect to the Cold water supply using the hose provided. The most appropriate connection is to a tap that can be turned off.

The pressure shall be 14.5 – 72.5 PSI (1 – 5 bar) for the automat to function properly

Refer to Programming on page 11 when filling the water manually.



- 1.3. Insert the power plug in a separately-earthed wall socket. 230 V, 10 A.



- 1.4. Switch on using the switch that is located at the back of the machine. Check that the light comes on.

1. The hot water automat will now start to fill and heat the water.

1.1. The display will flash when the automat fills with water



1.2. While the machine is heating the water the display shows the actual temperature until the pre-selected temperature is reached.

1.3. The display light stays on when the water has reached the preset temperature of 90°C.



1.4. The hot water automat is now ready for use.

The operating temperature of the hot water automat is preset at the factory.

2. Setting the water temperature.

2.1. Adjust the water temperature using the membrane switch. Max temperature 96°C.

2.2. Increase the temperature.

2.3. Reduce the temperature.



CALIBRATING THE TEMPERATURE SENSOR. 90°C recommended.







ON



Adjust Signal

98°	-2	
97°	-1	Max.
96°	0	
95°	1	
94°	2	
93°	3	
92°	4	
91°	5	
Av	6	

1. Press buttons (symbol)  and (symbol)  at the same time for 5 seconds and until you hear 2 beeps.
The display shows the current setting.

Adjust using the buttons (symbol)  and (symbol) .

2. Press (symbol)  and (symbol)  at the same time to save the current setting.

NOTE The current temperature in the water tank must be entered when calibrating.

Fault indications E1, E2, E3 and E4 are shown in the display.

NOTE Remove the power plug from the wall during any installation work.

LEVEL CONTROL

E1 shown on the display =	The level sensor's short electrode is earthed but not the long one.	Clean the level sensor. Replace. Cables connected incorrectly.
E4 shown on the display =	The automat fills slowly. Poor water pressure. Water tap not open	Restart the machine.

TEMPERATURE CONTROL

E2 shown on the display =	Temperature outside the stated range The temperature sensor is broken. Cable loose.	5°C - 105°C. Replace.
E3 shown on the display =	Heating time too long. Solid state broken. Element broken. Overheating guard tripped or broken.	Restart the machine. Replace. Replace.

NOTE The installation work and all repairs shall be done by a competent electrician.

IMPORTANT!

Important.

Do not do anything to the hot water automat. Incorrect action can lead to personal injury and faults. The hot water automat should stand on a level surface to work satisfactorily. The hot water automat must be placed on a waterproof surface so that any water leakage is visible. Make sure that kinks are not formed in the connection hose when the hot water automat is pushed into place.

The hot water automat's supply and drain connection shall be checked regularly.

Check that no leakage has occurred in connection with installation.

The water connection always presents a risk of leakage irrespective of safety equipment. Never leave the hot water automat unattended when it is in use. Turn the tap off when the machine is not in use.

Switch off the supply before working on the hot water automat. This can be done by removing the power supply plug from the wall socket.

All installation work must be done by a qualified person.



NOTE Cleaning the outside of the machine

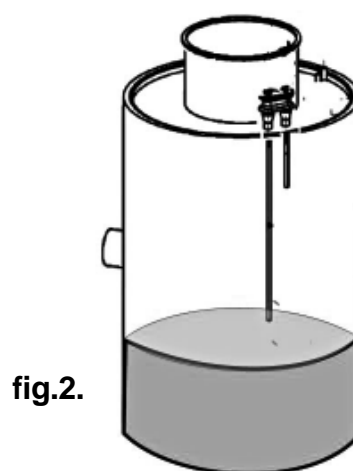
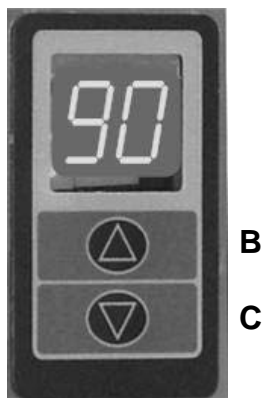
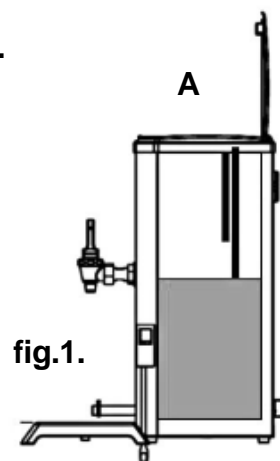
Never use aggressive cleaning agents when cleaning the hot water automat.



Use a soft cloth together with a liquid cleaning agent that does not scratch.

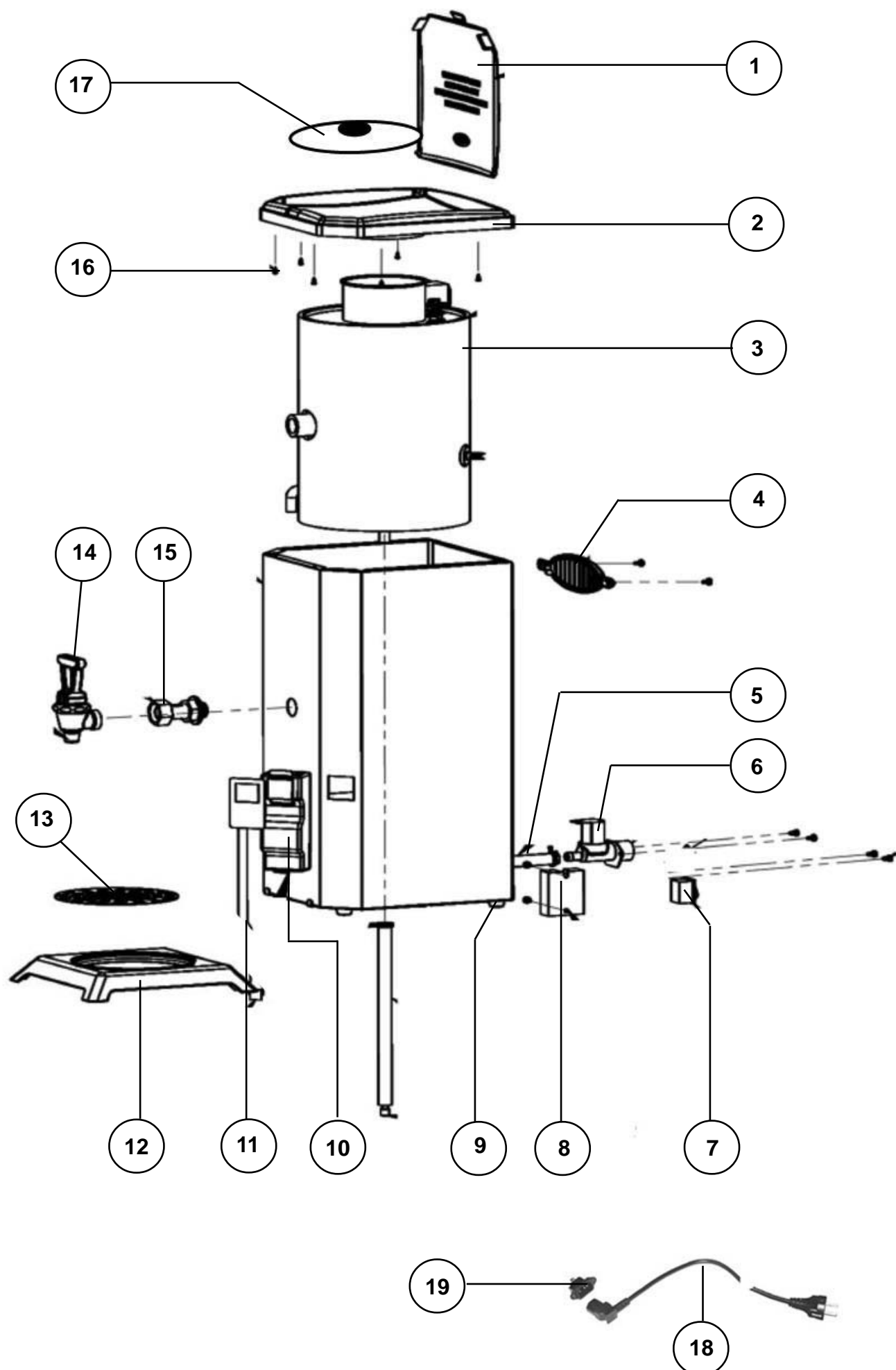
1. Programming automatic controls for manual water filling.

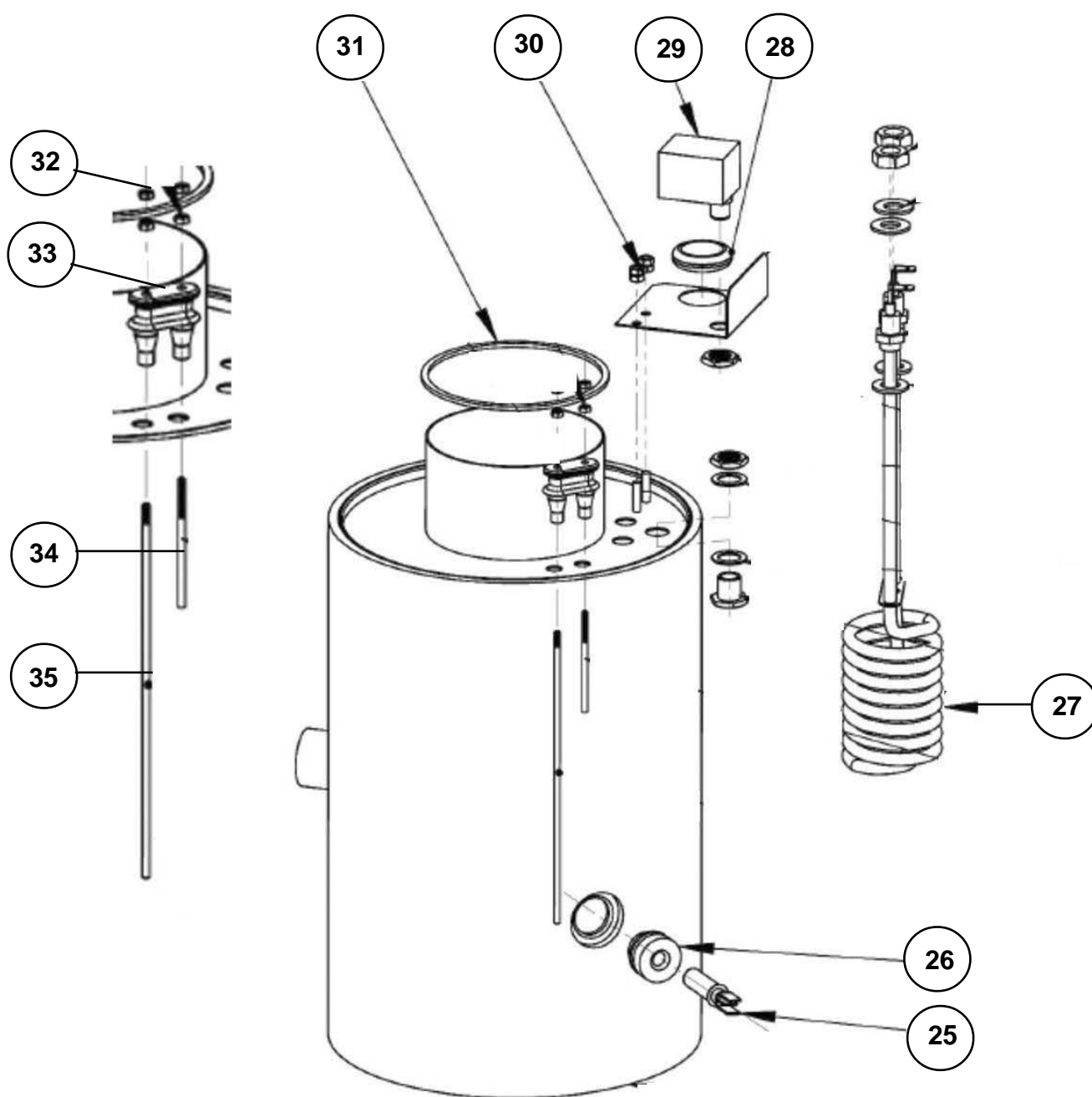
- 1.1. Fill the water to **A** in the tank up to the long sensor pin.
See fig. 1. Approximately 4 litres.
- 1.2. Keep button (**B**) pressed and switch on the machine with the switch (**D**) at the same time.



- 1.3. The display shows T1
Change the type of machine with buttons **B** or **C**.
- 1.4. T1 = HVA automat
T2 = HVM manual
- 1.5. Confirm the choice by holding down the buttons (**B**) and (**C**) at the same time for approximately 5 seconds.

NOTE Install the plug supplied in the inlet valve (E) to avoid possible leakage.





Item	Part number	Description	Qty/unit
1	1304061	Plastic cover	1
2	1304062	Top section, cover	1
3	1203527	Tank HVA complete	1
4	120422	Ventilation grid	1
5	1505022	Cold water hose, silicon L =	1
6	120624-01	Single valve, 2.5 l/m, 230 V	1
7	160801-04	Switch	1
8	1604203	Solid state	1
9	-	Foot	4
10	1031641	Electronics box	1
11	1603853	Membrane switch	1
12	1304063	Drip tray	1
13	253207	Drip tray insert	1
14	120200-02	Tap	1
15	1802120	Tap connection	1
16	-	Screw 01 screw PN P M3X7 SUS	1
17	1031301	Inside cover, stainless	1
18	160565	Equipment cable / Europe	1
18	160566	Equipment cable / South Africa	1
18	160567	Equipment cable / UK	1
19	160570	Apparatus inlet	1
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TANK			
25	1604133	NTC thermistor	1
26	160536	Grommet, NTC thermistor	1
27	1601311	Element 2200 W / 230 V HVA SUS 316	1
28	160536	Rubber grommet, TRP 30.0 RUBBER	1
29	220220	Overheating guard	1
30	140108	Nut M4 7mm SUS	1
31	1206589	Tank seal	1
32	140101	Nut M3 SUS	1
33	1605362	Double grommet, level sensor	1
34	1205302	Sensor pin short 2333	1
35	1205303	Level sensor pin HVA long 2333	1

Sketch of dimensions.

