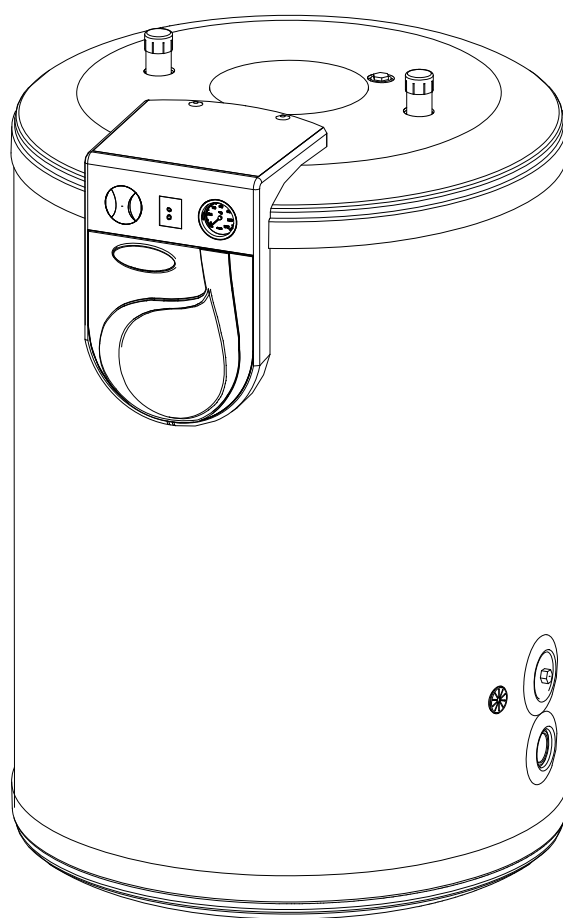


INSTALLATION AND OPERATING INSTRUCTIONS

- ↳ SANIT 100
- ↳ SANIT 150
- ↳ SANIT 200
- ↳ SANIT 250



DOMUSA
T E K N I K

Thank you for choosing a **DOMUSA TEKNIK** product. From the range of **DOMUSA TEKNIK** products you have chosen the **Sanit** model, a stainless steel hot water tank for producing domestic hot water (DHW) in a double chamber, which together with a **DOMUSA TEKNIK** heating boiler will provide the ideal level of comfort for your home, provided it is accompanied by a suitable hydraulic installation.

This manual forms an essential part of the product and it must be given to the user. Read the warnings and recommendations in the manual carefully, as they contain important information on the safety, use and maintenance of the installation.

These hot water tanks are to be installed by skilled personnel only, in accordance with the legislation in force and following the manufacturer's instructions.

The start-up of these hot water tanks and any maintenance operations must only be carried out by **DOMUSA TEKNIK's** Authorised Technical Assistance Services.

Incorrect installation of these hot water tanks could result in damage to people, animals or property, and the manufacturer will hold no liability in such cases.

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Sanit

1 SAFETY COMPONENTS

Sanit tanks must be installed by qualified staff in compliance with applicable regulations.

Any work must be carried out by the official Technical Assistance Service, as any changes to its configuration could cause functioning errors and could damage the system and its surrounding environment.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The electrical main power supply connection must respect the current legislation, making possible a complete disconnection of the tank, in order to make any maintenance operation safely. Look "Electrical connection" chapter.

1.1 Frost precautions

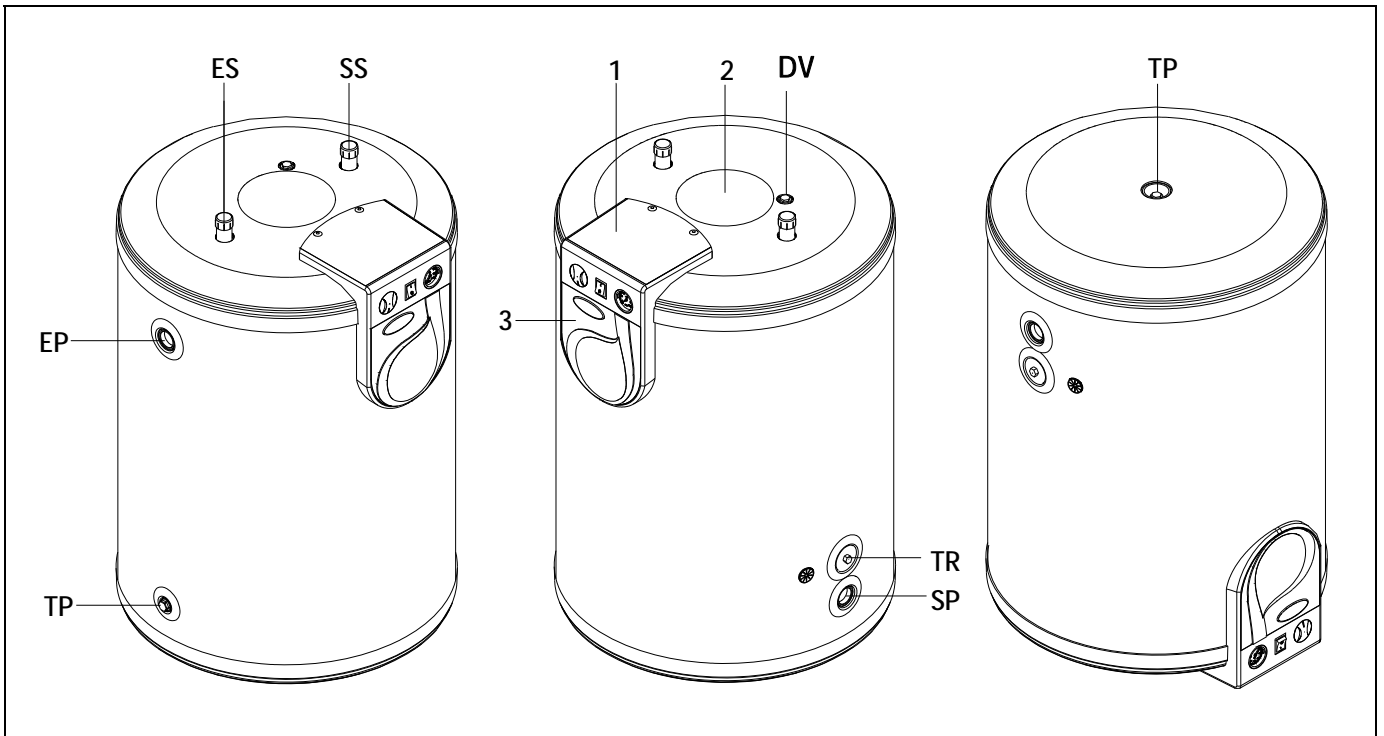
When there is danger of frost, and particularly in areas with very low temperatures, precautions will need to be taken to prevent damage to the installation. It is recommendable to add anti-freeze to the water in the primary circuit of the tank. The anti-freeze used must be compatible with public health regulations and it must not be toxic. DOMUSA TEKNİK recommends the use of propylene glycol, consulting the product manufacturer before use.

If the installation is to be out of use for a long period, **drain all the water from the tank.**

1.2 Water characteristics

The water must comply with the characteristics defined in the Technical Building Code, and must be treated if necessary.

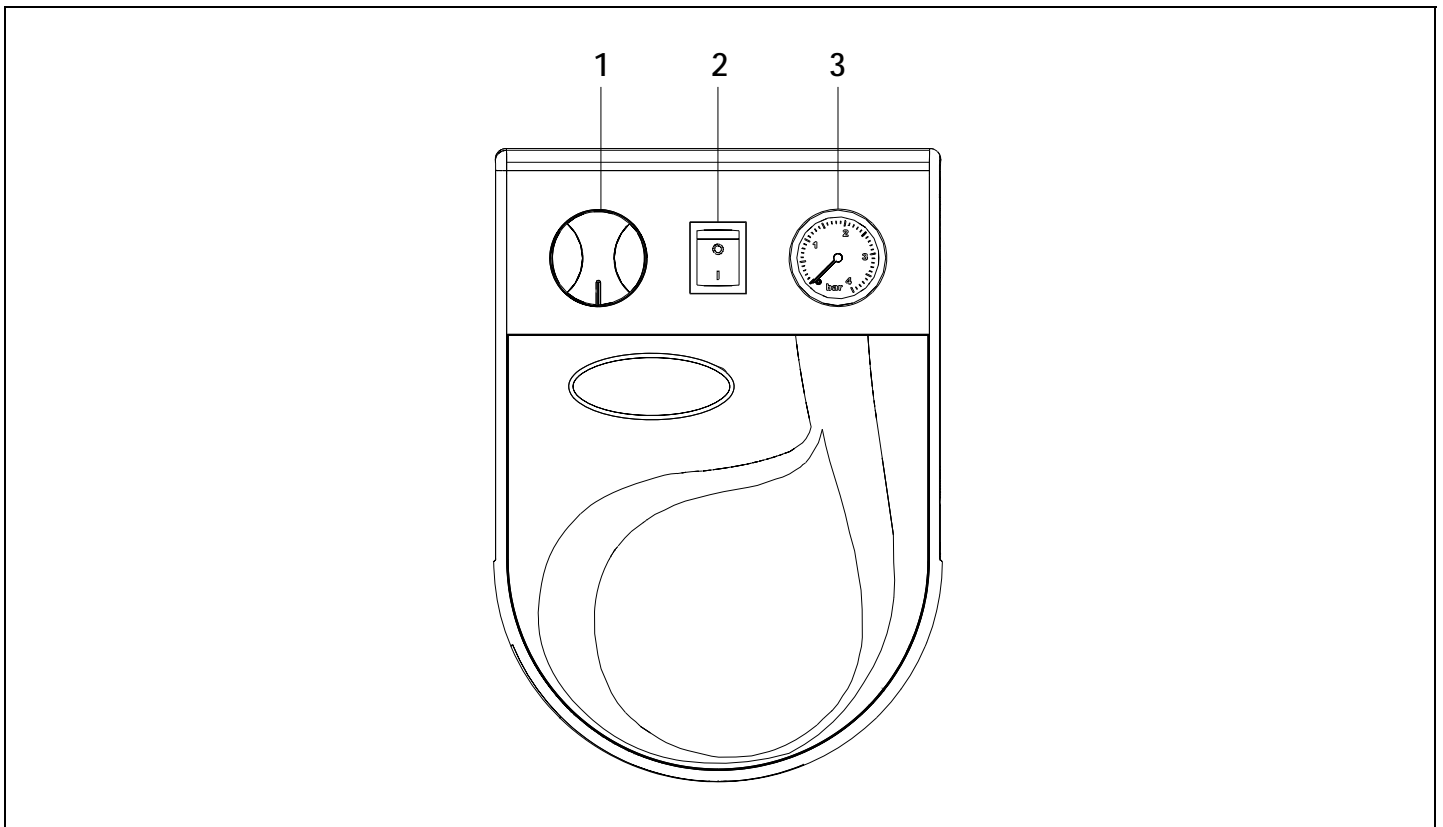
2 LIST OF COMPONENTS



- 1. Front cover.
- 2. Bridge cover.
- 3. Control panel.

- SP: Primary outlet.
- EP: Primary inlet.
- ES: Domestic cold water inlet.
- SS: Domestic hot water outlet.
- TR: Resistance socket.
- TP: Drain valve socket.
- DV: Drain valve.

3 CONTROL COMPONENTS



1. Adjustment thermostat:

This control is for adjusting the desired temperature of the hot water stored in the tank.

2. Element switch:

This is for starting up and stopping the optional back-up element of the hot water tank.

3. Thermometer:

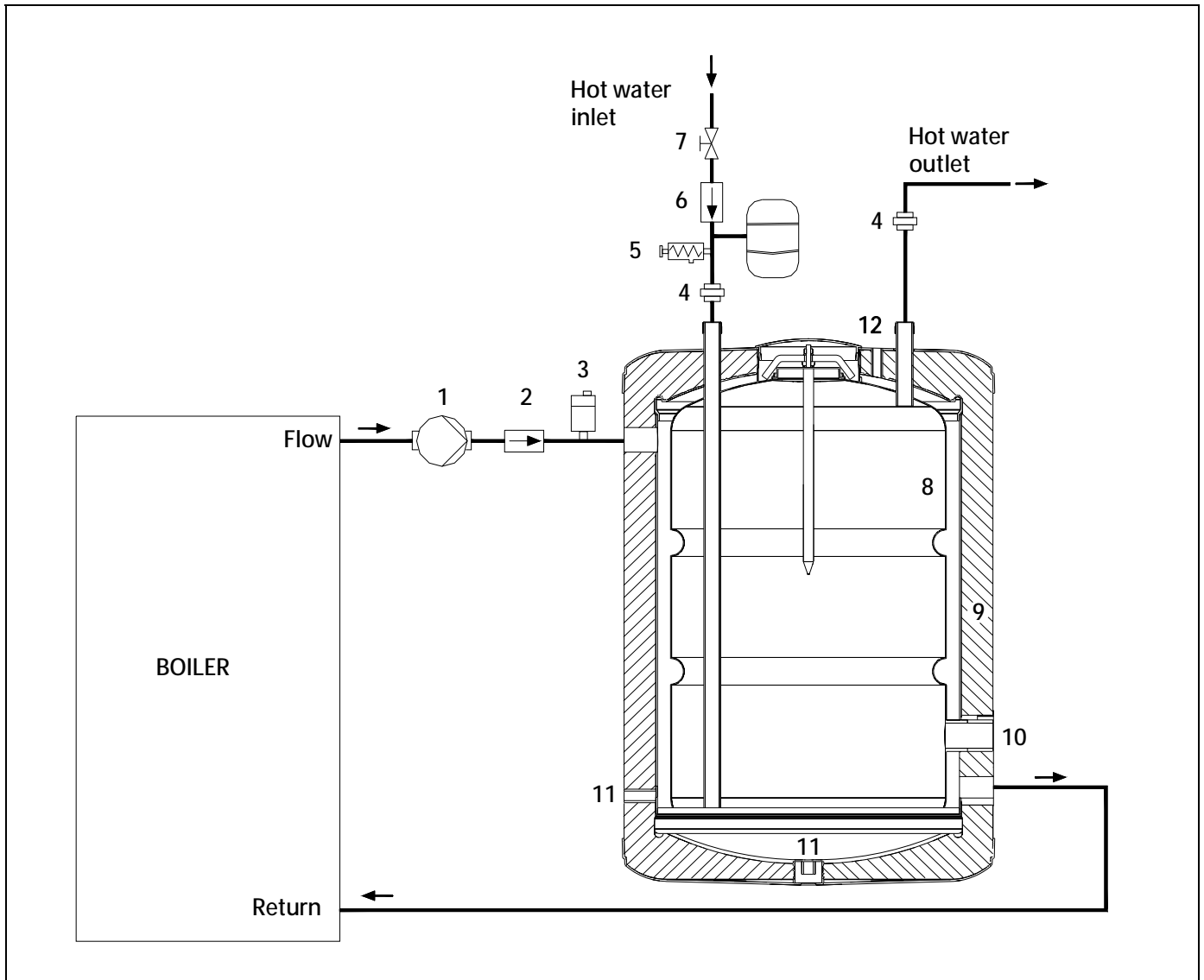
This indicates the temperature of the hot water stored in the tank.

4 INSTALLATION INSTRUCTIONS

The **Sanit** range of hot water tanks has been specially designed for installation and hydraulic connection to a wide range of heating boilers.

4.1 Connection

The diagram below shows an example of the installation of **Sanit** hot water tanks with a heating boiler:



4.2 Equipment:

- | | |
|----------------------------|-------------------------------------|
| 1.- Feed pump. | 7.- Shut-off valve. |
| 2.- Non-return valve. | 8.- Stainless steel hot water tank. |
| 3.- Automatic drain valve. | 9.- Polyurethane insulation. |
| 4.- Dielectric sleeve. | 10.- Resistance socket. |
| 5.- 7-bar safety valve. | 11.- Drain valve socket. |
| 6.- Non-return valve. | 12.- Drain valve. |

Sanit

4.3 Hydraulic installation

The hydraulic installation must be made by qualified technicians, in compliance with current installation regulations and taking the following recommendations into account:

- The secondary circuit (or domestic water circuit) is to be equipped with a safety valve, calibrated to a maximum of 7 bar.
- The safety valve outlet must always lead to a drain.
- To avoid continuous leaking from the D.H.W. safety valve, we recommend the installation of a D.H.W. expansion cell.
- The primary circuit (or heating circuit) for the double chamber tanks must be provided with a safety valve, calibrated to a maximum of 3 bar.
- **After installing the tank, firstly fill and pressurise the secondary circuit (domestic water circuit).**
- **After doing so, proceed to fill the primary circuit. Ensure the secondary circuit is full before filling the primary circuit.**
- Place dielectric sleeves on the secondary circuit connections.
- If the cold water pressure is higher than the pressure the appliance is designed for, a pressure reducer should be installed, calibrated to no higher than the design pressure.
- To prevent heat loss through the hot water pipes in accumulation systems, an anti-thermal siphon must be installed at the hot water tank outlet. The hot water pipe must be insulated (at least up to the anti-thermal siphon).
- A copper return circuit should not be used.
- When the chlorine concentration in the Domestic Water exceeds 250 mg/dm³, it is recommended that anti-corrosion protection should be applied to the inside of the inter-accumulator so as to avoid its premature deterioration. As an option DOMUSA TEKNIK supplies electronic cathodic protection that is suitable for the Sanit V inter-accumulator range. To install it, read carefully the assembly instructions that are provided with the same.

On double chamber models, the plunger tube should be the cold water inlet on vertical standing models, and it should be the hot water outlet on horizontal and wall-mounted models (see installation diagrams).

To drain the hot water tank, first drain the primary circuit and then the secondary circuit.

4.4 Installation type

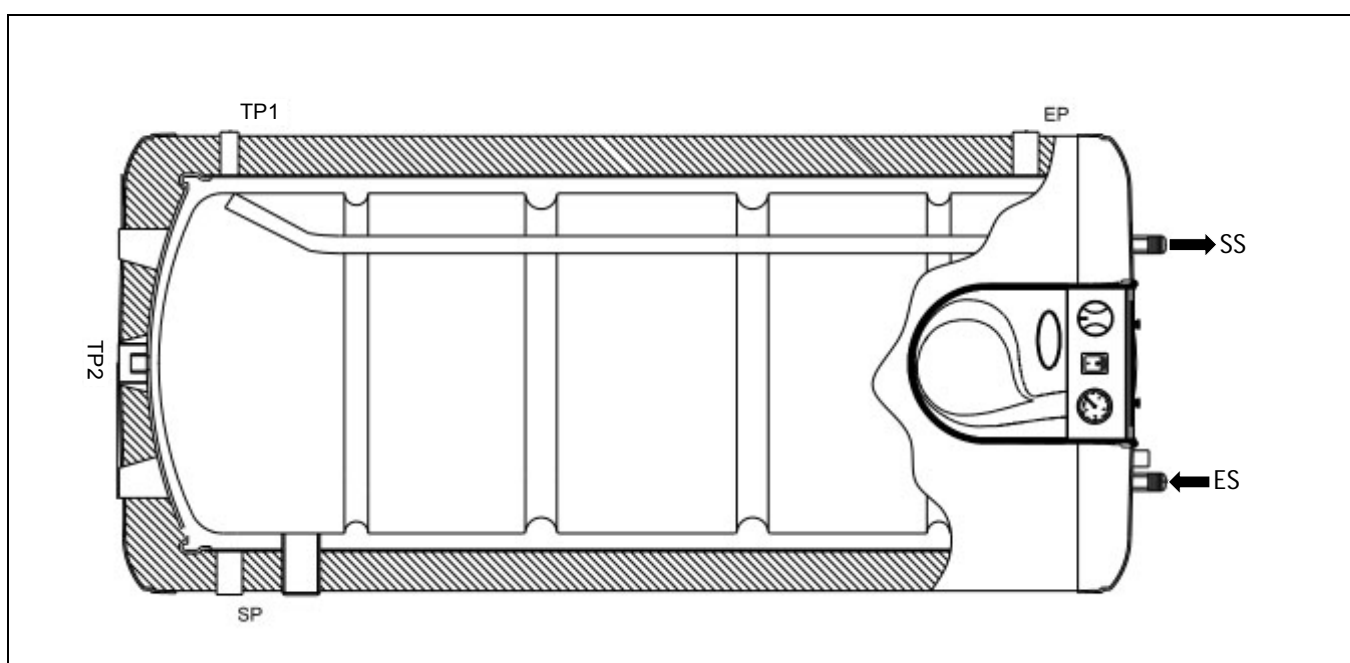
The design of the hot water tank enables it to be installed in three different positions: horizontal, wall-mounted and floor-standing.

For horizontal installations, the hot water tank's performance will be reduced at maximum flow, and a larger hot water tank should therefore be acquired in such cases.

Horizontal installation:

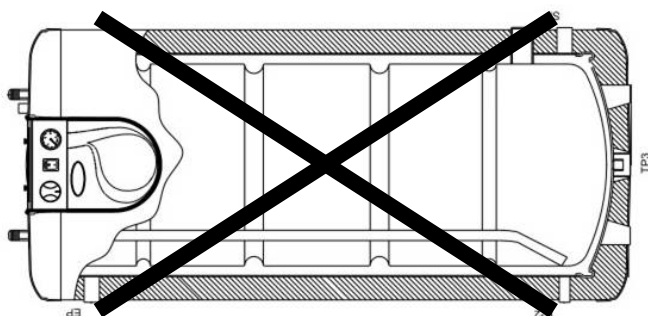
For horizontal installation, the hot water tank is equipped with two fixing elements for anchoring it to the wall. In this case, the secondary circuit inlet and outlet sockets are different from those of the vertical installation, and this must be taken into account when making the hydraulic connection.

The screws for wall-mounting the appliance are not included, as the type of screws to be used vary depending on the particular wall.



A drain valve should be fitted to the socket TP1 to evacuate any air remaining at the top of the hot water tank.

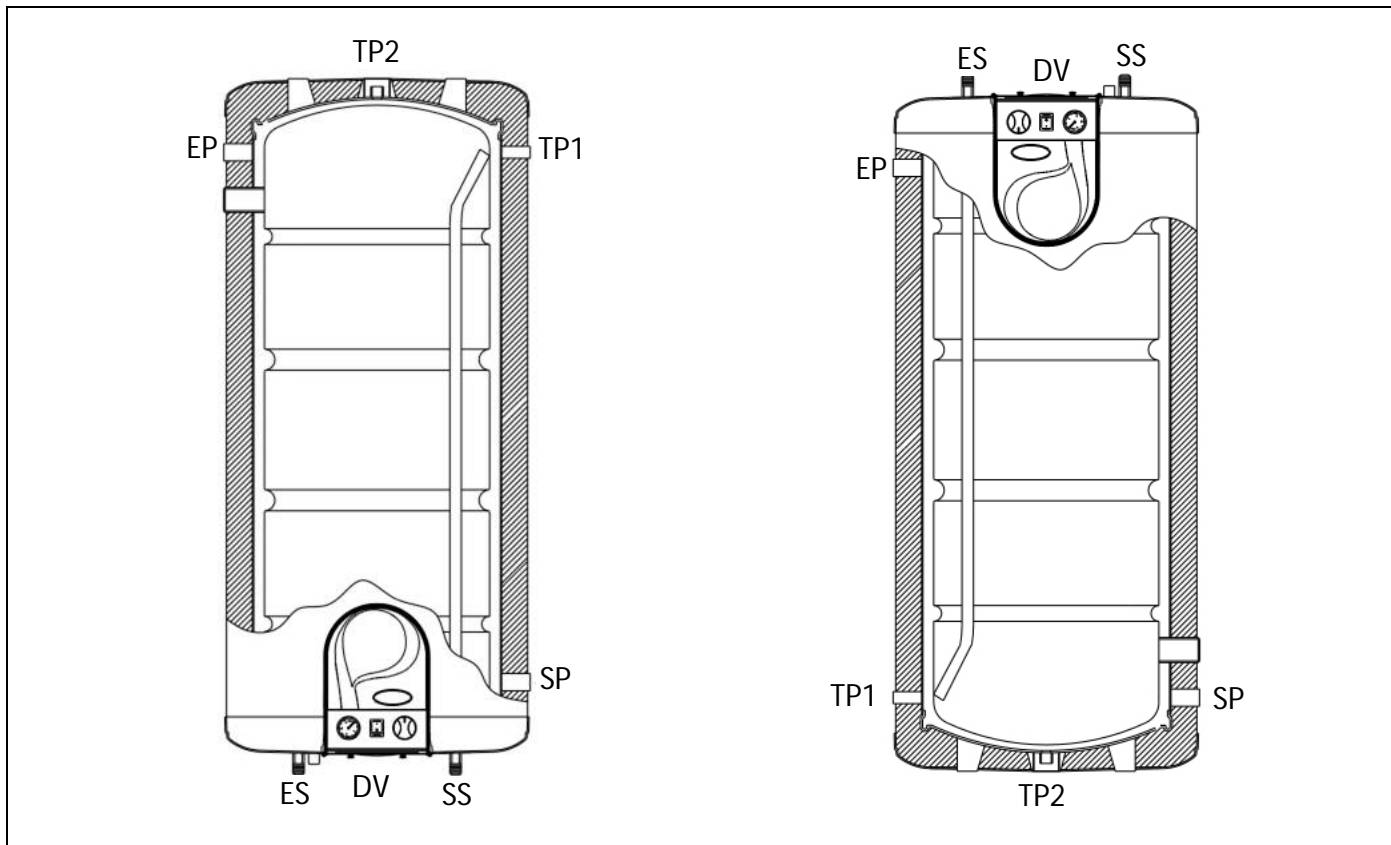
To drain the primary circuit, and for optimum hot water tank performance, the tank should be positioned as shown in the figure above. At the same time, insert the thermostat and thermometer sensor in the bulb-holder sheath, pushing it down as far as it will go.



The horizontal drain valve is eliminated in this type of installation, and so the secondary circuit cannot be drained.

Sanit

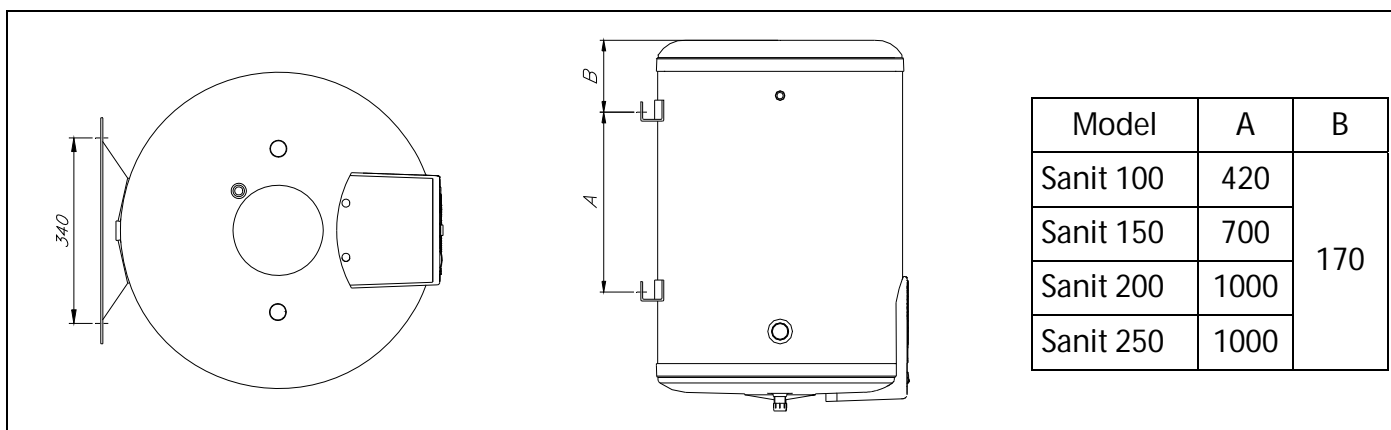
Wall and floor installation:



If the installation is made with the hot water tank standing on the floor, the drain valve DV could be used, and the rest of the sockets will be as shown.

For wall-mounting, position the hot water tank against the wall with the sockets facing downwards. The secondary circuit inlet and outlet sockets are different from those of the vertical installation, and the drain valve socket TP2 must be used. As in the case of the horizontal installation, the hot water tank has two fixing elements for anchoring it to the wall.

IMPORTANT: To unscrew the cap of the TP2 socket, we recommend using a socket wrench.



In this case, the insertion depth of the thermostat and thermometer sensor will need to be reduced, as it is originally supplied for a floor installation. The sensor insertion depth for each model is shown below.

	Sanit 100	Sanit 150	Sanit 200	Sanit 250
Insertion depth	215mm	315mm	415mm	515mm

4.5 Location

The hot water tank must not be installed in a location exposed to the elements.

To optimise energy use, the hot water tank should be installed as close as possible to the hot water generator.

When choosing a location, take into account the weight of the full hot water tank, and make sure it is protected against frost. The pipes should be lagged in compliance with heating regulations.

For wall-mounted and horizontal installations, ensure the type of wall to which the hot water tank is fixed can withstand the weight of the tank when full, and choose the most suitable fixing system depending on the wall in question.

4.6 Equipment / options

Although Sanit units are equipped with all the necessary components for functioning, DOMUSA TEKNIK offers several optional components for cases in which special features are required.

4.6.1 Cathodic protection

If the chloride concentration in the domestic hot water is higher than 250 mg/cm^3 , we recommend installing a cathodic protection inside the storage heater to avoid premature wear to the hot water tank. **DOMUSA TEKNIK** optionally supplies a suitable electronic cathodic protection for its range of storage heaters. To install it, carefully read the assembly instructions supplied with the cathodic protection.

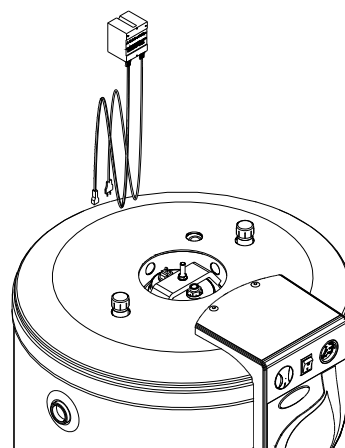


Figure 1

4.6.2 S200 hydraulic kit

It is a well-known fact that an increase in the temperature of the water stored in the hot water tank can cause the pressure in the tank to increase. DOMUSA TEKNIK therefore recommends fitting the S200 hydraulic kit consisting of dielectric sleeves, a DHW expansion tank and a safety unit, to protect the hot water tank. To install it, carefully read the assembly instructions supplied with the kit.

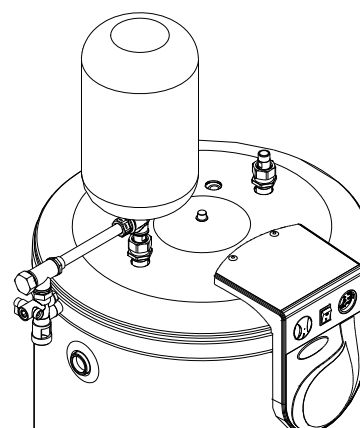


Figure 2

Sanit

4.6.3 Electrical element

All Sanit hot water tanks have a socket for connecting an electrical element. **DOMUSA TEKNIK** optionally supplies three elements, of 1.5, 2.5 and 3.5 kW. To install them, carefully read the assembly instructions supplied with the elements.

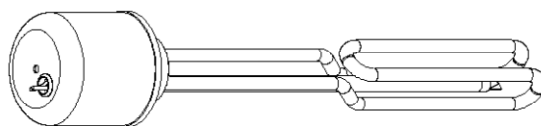


Figure 3

4.6.4 Wall support

DOMUSA TEKNIK optionally supplies specific supports for wall or horizontal installation of the Sanit 100, 150, 200 y 250 hot water tanks.

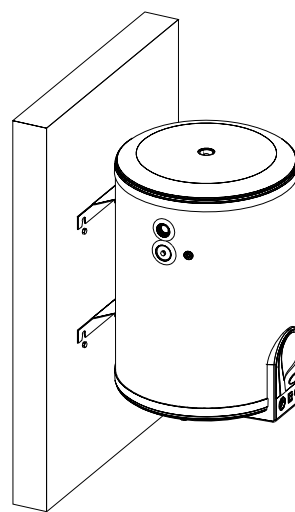


Figura 4

4.6.5 Elliptical cover with element socket

If you should wish to install an element on a wall or horizontal installation, **DOMUSA TEKNIK** recommends fitting the element to the elliptical cover. For this purpose it optionally supplies an elliptical cover with an element socket. For installation, carefully read the assembly instructions supplied with the cover.

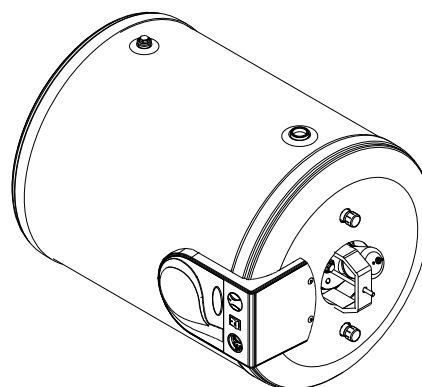


Figura 5

5 OPERATION

The **Sanit** range of hot water tanks is specially designed for use with a wide range of solar power elements, heat pumps and boilers powered by any type of fuel.

If the tank is connected to a DOMUSA TEKNIK brand heating boiler, the boiler will be equipped with a summer or winter position switch, which is used to choose between:

- **Summer position** ☀: in this position the boiler will only produce hot water as needed. The burner and feed pump of the storage heater (summer pump) will be switched on until the hot water stored reaches the temperature set on the hot water thermostat of the storage heater **(2)**. When this temperature is reached, the burner and the summer pump will switch off.
- **Winter position** ❄: in this position the boiler will produce hot water as needed and will also cater for the heating installation, giving priority to hot water production.

6 DIAGRAM AND ELECTRICAL CONNECTION

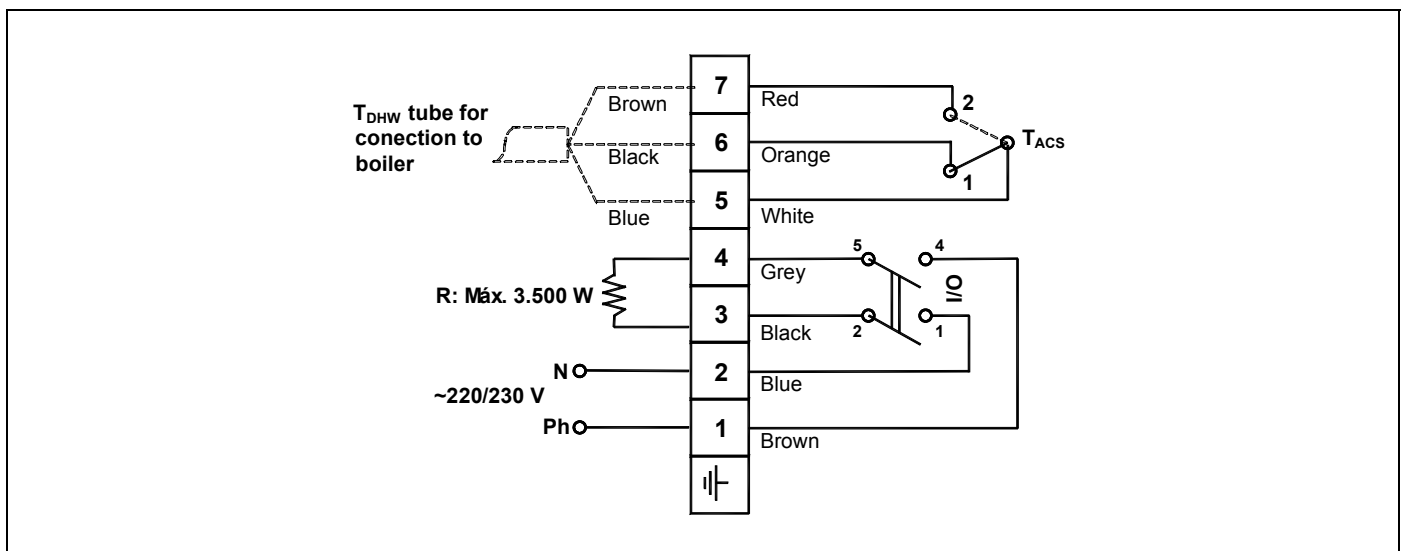
The **Sanit** range of hot water tanks is especially designed for easy electrical connection to a wide range of heating boilers. The special design of its electrical connections enables the boiler/hot water tank unit to provide heating and domestic hot water with automatic functioning, incorporating a hot water priority function to the joint operation of the two appliances.

When installing the supply cable, take the hot water tank element into account. Different tanks may have different elements, and a different cable diameter is recommended for each type:

Element	Cable diameter
1500w	1.5 mm ²
2500w	2.5 mm ²
3500w	4 mm ²

6.1 Electrical diagram

The electrical connection of **Sanit** tank must be made by qualified staff, and any modifications may only be made by the official technical assistance service.



E: Support element, maximum 3500 W.

O/I: Support element switch.

T_{DHW}: Domestic hot water thermostat.

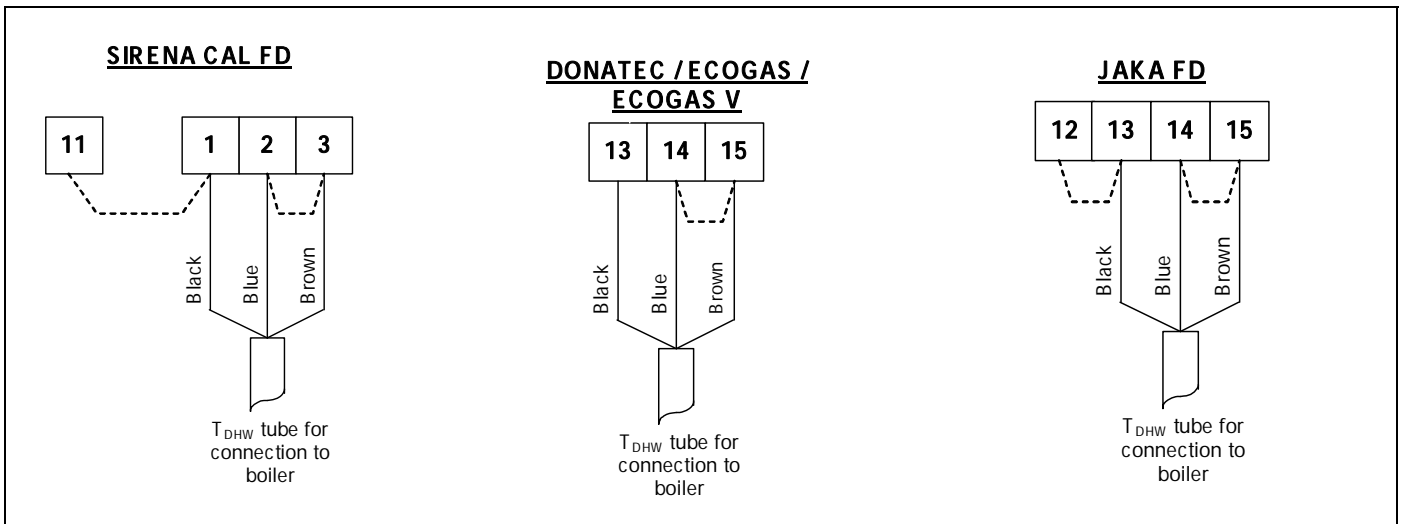
6.2 Electrical connection to the boiler

The electrical connection between **Sanit** hot water tanks and **DOMUSA TEKNIK** heating boilers is made by simply connecting the tube shown in the electrical diagram, i.e. the T_{DHW} tube.

Connect the tube to the side of the hot water tank as shown in the electrical diagram in section 5.1.

On the side of the boiler, connect the supply tube of the feed pump (1) mounted on the installation to the terminals bearing the letters "**BV**" (Summer Pump) according to the electrical diagram for each model of boiler (see the boiler instructions manual). To connect the T_{DHW} tube, first remove the bridges from the boiler connector block and then connect the T_{DHW} tube as shown in the figures below, depending on the boiler model.

6.3 Diagrams for connection to DOMUSA TEKNIK boilers:



6.4 Instructions for electrical connection of the SANIT storage heater to the following boilers:

- Evolution EV FC
- Evolution EV AC
- Sirena Cal e
- Sirena Cal V e

7 MAINTENANCE

To keep the boiler/hot water tank unit in perfect working order, both appliances should be inspected yearly by **DOMUSA TEKNIK** authorised technicians. In particular, the following are recommended:

- The inside of the hot water tank should be thoroughly cleaned once a year. The primary circuit should be drained first, before draining the hot water tank.
- If the hot water tank includes electronic cathode protection, this should be inspected once a year to ensure it is functioning correctly.
- The pressure of the primary installation must be kept between 1 and 1.5 bars.
- Make sure the safety valve and the drain valve are working correctly.

It is recommended for the user to periodically check the pressure and temperature levels of the hot water tank and the state of the valves, connections and accessories.

8 START-UP

For the **guarantee to be valid**, the hot water tank must be started up by an **Official DOMUSA TEKNIK Technical Assistance Service**. Before starting it up, the following must be ensured:

- The electrical connection of the hot water tank is correctly made.
- The installation is filled with water and the draining has been done correctly.
- The drain valve is working properly.
- The primary flow and return connections and the hot and cold water connections have been correctly made.
- The thermostat has been properly adjusted and the electric cabling complies with regulations.
- There are no leaks from the splices and connections.

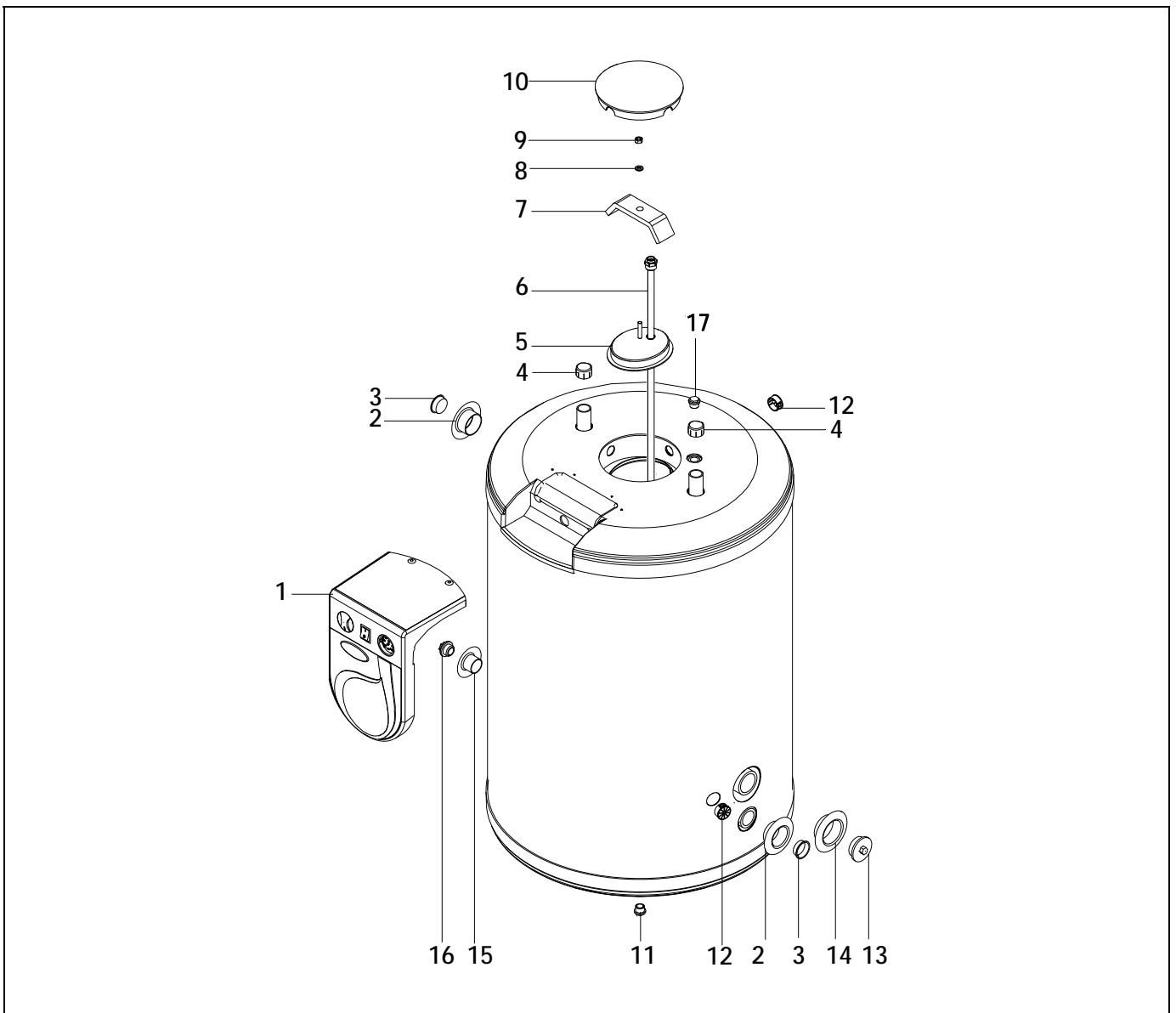
9 DELIVERY OF THE INSTALLATION

After the initial start-up of the appliance, the Technical Assistance Service will explain to the user how the hot water tank works, making any observations they consider relevant.

It is the responsibility of the installer to explain to the user the functioning of any control devices belonging to the installation and not supplied with the hot water tank.

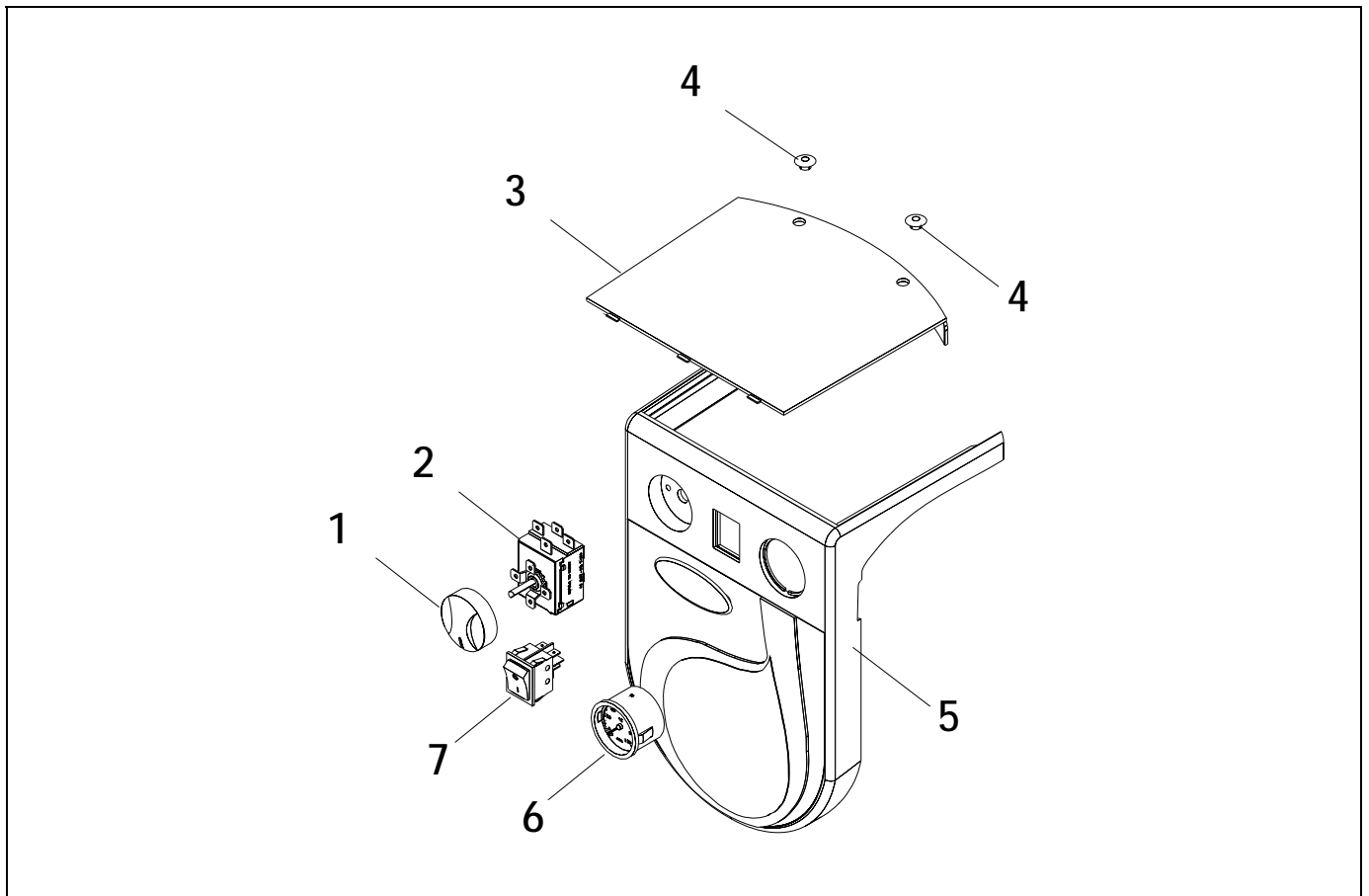
10 SPARES LIST

10.1 Hot water tank



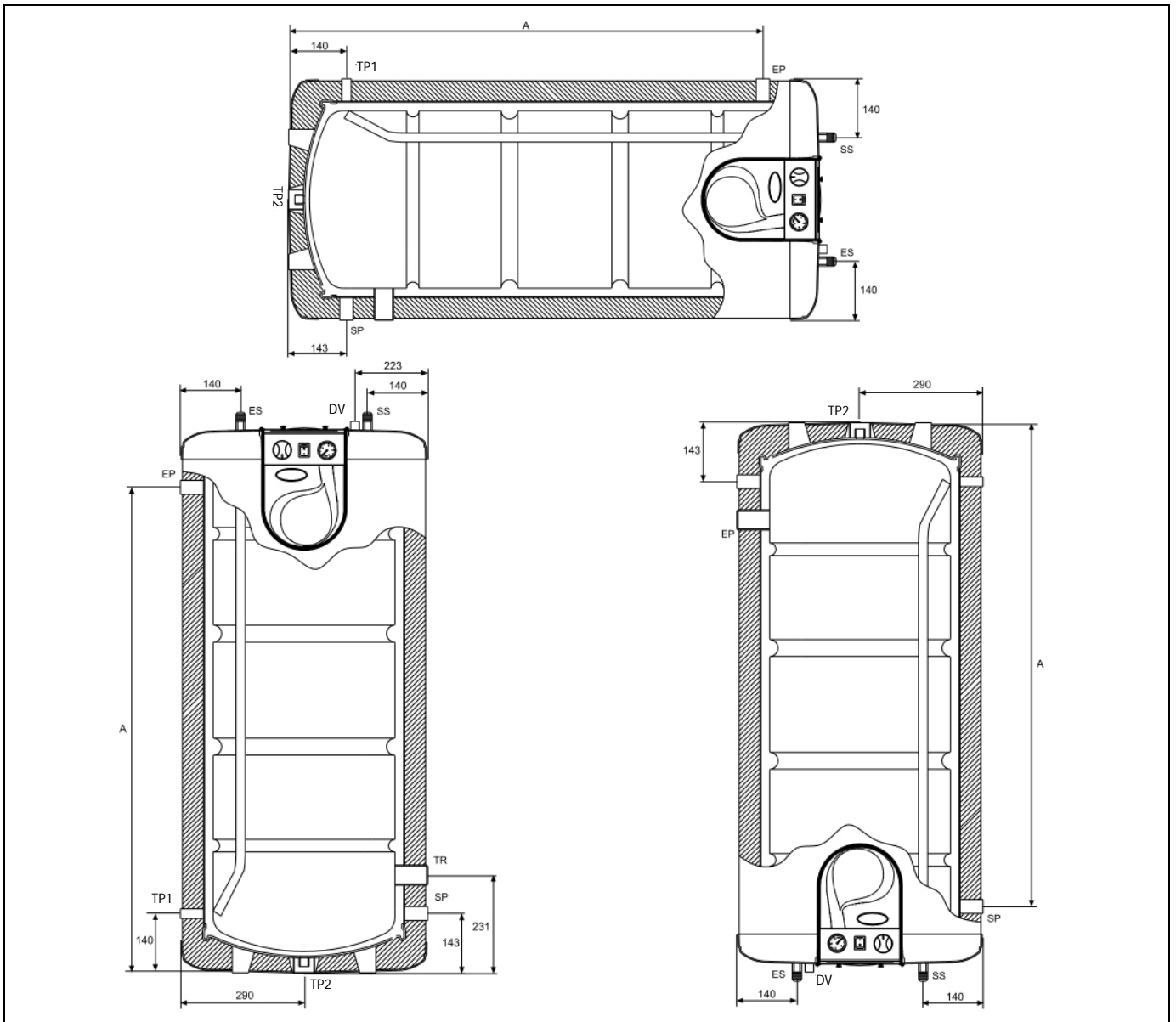
<u>Pos.</u>	<u>Code</u>	<u>Name</u>	<u>Pos.</u>	<u>Code</u>	<u>Name</u>
1	GELESAN007	Electrical board	8		M8 washer
2	CFER000086	1" black embellisher	9		M8 nut
3	CFER000081	1" tapered plug	10	CACU000038	Bridge cover
4	CFER000007	3/4" red plug	11	CFOL000055	M 3/8" brass plug
5		Elliptical plug	12	CFER000083	Seal
6		100L bulb-holder sheath	13	CFOL000020	M 1 1/4" chromed plug
		150L bulb-holder sheath	14	CFER000087	1 1/4" black embellisher
		200L bulb-holder sheath	15	CFER000084	1/2" black embellisher
		250L bulb-holder sheath	16	CFOL000025	M 1/2 brass plug
7		Bridge	17	CFOV000034	Manual drain valve

10.2 Electrical board



<u>Pos.</u>	<u>Code</u>	<u>Name</u>
1	CELC000099	Knob
2	CELC000007	Control thermostat
3	CACU000036	Control panel cover
4	CACU000037	Control panel plug
5	CACU000034	Control panel
6	CELC000136	Thermometer
7	CELC000025	Switch

11 DIAGRAMS AND MEASUREMENTS



MODEL		Sanit 100	Sanit 150	Sanit 200	Sanit 250
A	mm	630	905	1205	1305
DV drain valve	∅	3/8"	3/8"	3/8"	3/8"
TP1 drain valve socket	∅	1/2" H	1/2" H	1/2" H	1/2" H
TP2 drain valve socket	∅	3/8" H	3/8" H	3/8" H	3/8" H
Base measurement	mm	∅ 581	∅ 581	∅ 581	∅ 581
Height measurement	mm	755	1.035	1.335	1.635
Cold water inlet	ES ∅	3/4" M	3/4" M	3/4" M	3/4" M
Hot water outlet	SS ∅	3/4" M	3/4" M	3/4" M	3/4" M
Primary inlet/outlet	EP/SP ∅	1" H	1" H	1" H	1" H
Resistance socket	R ∅	1-1/4" H	1-1/4" H	1-1/4" H	1-1/4" H

12 TECHNICAL CHARACTERISTICS

MODEL		Sanit 100	Sanit 150	Sanit 200	Sanit 250
Characteristics					
Installation		Floor / wall / horizontal			
Total volume	L	100	150	200	250
Max. storage temperature	°C	70	70	70	70
Max. working pressure of hot water tank	MPa bar	0,7 7	0,7 7	0,7 7	0,7 7
Max. primary temperature	°C	85	85	85	85
Max. primary working pressure	MPa bar	0,3 3	0,3 3	0,3 3	0,3 3
Empty weight	Kg	53	68	85	101
Full weight	Kg	153	218	285	351
Functioning					
Continuous flow l/h $\Delta 30^\circ$	Q_p 1m ³ /h	602	766	844	930
	Q_p 3m ³ /h	745	825	942	1038
	Q_p 5m ³ /h	831	944	1046	1143
Peak flow l/10min $\Delta 30^\circ$	Q_p 1m ³ /h	266	378	474	571
	Q_p 3m ³ /h	290	388	490	589
	Q_p 5m ³ /h	305	407	507	607
Flow up to 1 hour l/h $\Delta 30^\circ$	Q_p 1m ³ /h	702	916	1044	1180
	Q_p 3m ³ /h	845	975	1142	1288
	Q_p 5m ³ /h	931	1094	1246	1393
Transmitted power kW	Q_p 1m ³ /h	21	27	29	30
Transmitted power kW	Q_p 3m ³ /h	26	29	33	36
Transmitted power kW	Q_p 5m ³ /h	29	33	36	40

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DOMUSA TEKNIK reserves the right to make modifications of any kind to its product characteristics without prior notice.



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