



Installation and service manual

Buffer tank

Stratified buffer tank

P 750-3, P 1000-3

Dear Customer,

Thank you for purchasing this appliance.

Please read this manual carefully before using the product and keep it in a safe place for future reference.

In order to ensure continued safe and efficient operation we recommend that the product is regularly maintained. Our Service and After Sales organization can assist with this.

We hope you will receive many years of satisfactory service.

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1 Introduction

1.1 Symbols used in this manual

This manual uses various danger levels to draw attention to special instructions. We do this to improve user safety, to prevent problems and to guarantee correct operation of the appliance.



Danger

Risk of dangerous situations resulting in serious personal injury.



Danger of electric shock

Risk of electric shock.



Warning

Risk of dangerous situations resulting in minor personal injury.



Caution

Risk of material damage.



Tip

Please note: important information.



See

Reference to other manuals or pages in this manual.

HW: hot water

ET: expansion tank

1.2 General information

First of all we would like to congratulate you for choosing a **REMEHA** solar energy unit for your system. Our product development revolves entirely around customer satisfaction and the protection of our environment.

We are also confident that our products will meet your expectations and that, when the sun is shining, you will be able to make the desired contribution to the protection of our environment.

1.2.1 Manufacturer's responsibility

REMEHA makes products that meet the required **CE** standards. The products are supplied with all the required accompanying documentation.

Specifications subject to change without notice.

REMEHA cannot be held liable as manufacturer in the following cases:

- failure to comply with the manual for the device
- failure to perform maintenance (or adequate maintenance) of the device
- failure to comply with the installation instructions for the device

1.2.2 Installer's responsibility

The installer is responsible for installing and commissioning the product. The installer must observe the following instructions:

- Read and follow all instructions provided with the device.
- Perform the installation in accordance with the current standards and regulations.
- Performing the commissioning and all required tests.
- Explaining the product to the user.
- Pointing out the user's responsibility for inspection and maintenance of the product.
- Giving the user all the manuals.

1.2.3 User's responsibility

For optimum operation of the device the following instructions must be observed:

- Read and follow all instructions provided with the device.
- The installation and commissioning must be performed by a qualified installer.
- Ask the installer to explain how it should be operated.
- Ensure that the required inspections and maintenance work are performed.
- Keep the manuals in good condition and store them near the device.

2 Safety instructions and recommendations

2.1 Safety instructions

2.1.1 Danger of fire



Caution

Do not store flammable materials near the device.

2.1.2 Danger of burn injuries



Caution

Depending on the device settings:

- the temperature of the radiators can exceed 95 °C
- the temperature of the hot water can exceed 80 °C

2.1.3 Danger of material damage



Caution

Do not store compounds containing chlorine or fluorine near the device.



Caution

Install the device in a location protected from freezing temperatures.



Caution

Heating water and hot tap water may not come into contact with each other.

Have the device maintained regularly: contact a qualified professional or enter a service contract for the annual maintenance.

2.2 Recommendations



Caution

Maintenance of the device and the system may only be performed by qualified, competent personnel.



Caution

This must be done in accordance with the current standards and local regulations.



Caution

Disconnect the power supply before performing any work on the device.

- The device must be accessible at all times.
- Do not remove or obscure any stickers or type plates on the devices. The stickers or type plates must be legible throughout the entire service life of the device.
- Thermally insulate the pipes in accordance with the energy saving guidelines.
- Check regularly to ensure that the system is filled with water and under pressure.
- To ensure that the following functions work properly, the device may not be switched off; instead, it must be switched between summer and winter mode:
 - anti-seizing protection of the pumps
 - anti-freezing protection
- Use exclusively OEM spare parts.

3 Technical description

3.1 General description

REMEHA stratified buffer tank with various connection options.

REMEHA only guarantees the correct operation of the system if exclusively **REMEHA** products and components are used.

3.2 Stratified buffer tanks P 750-3 + P 1000-3

3.2.1 Description

These boilers meet all the requirements applicable to use with modern solar energy systems and efficiency. **REMEHA** heaters. For stratification in various temperature levels the buffer tank is fitted with a diffuser system.

To protect against corrosion the outside of the high quality steel reservoirs is finished with a black, rust-preventive coating.

The buffer tank is thermally insulated with a combination of Neopor and fleece, keeping heat losses to a minimum.

The outer cover consists of a protective polystyrene jacket.

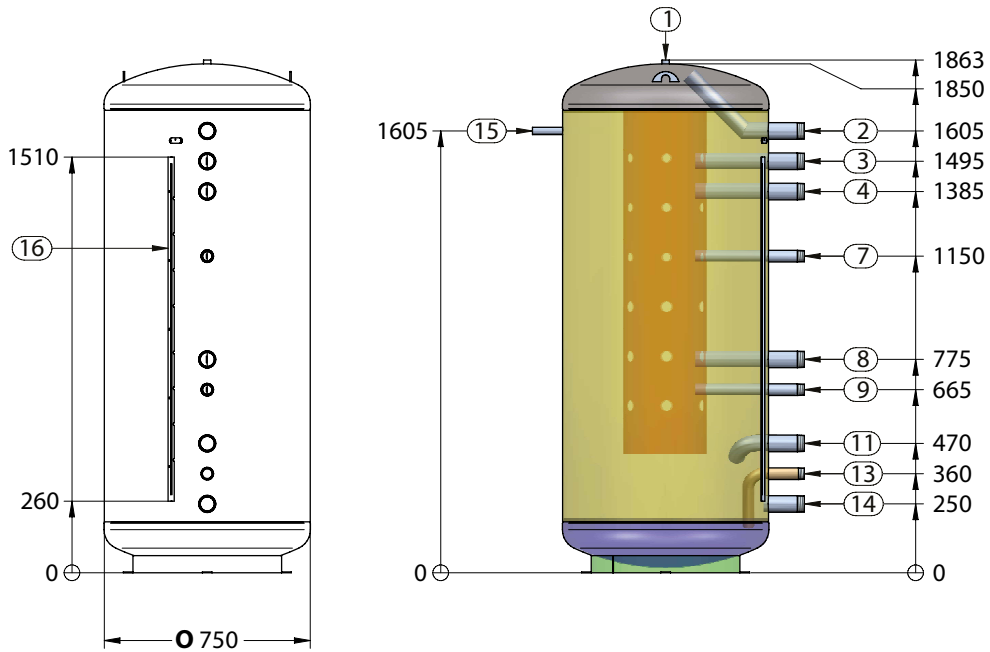
The boiler is shipped in two packages.

3.2.2 Technical data

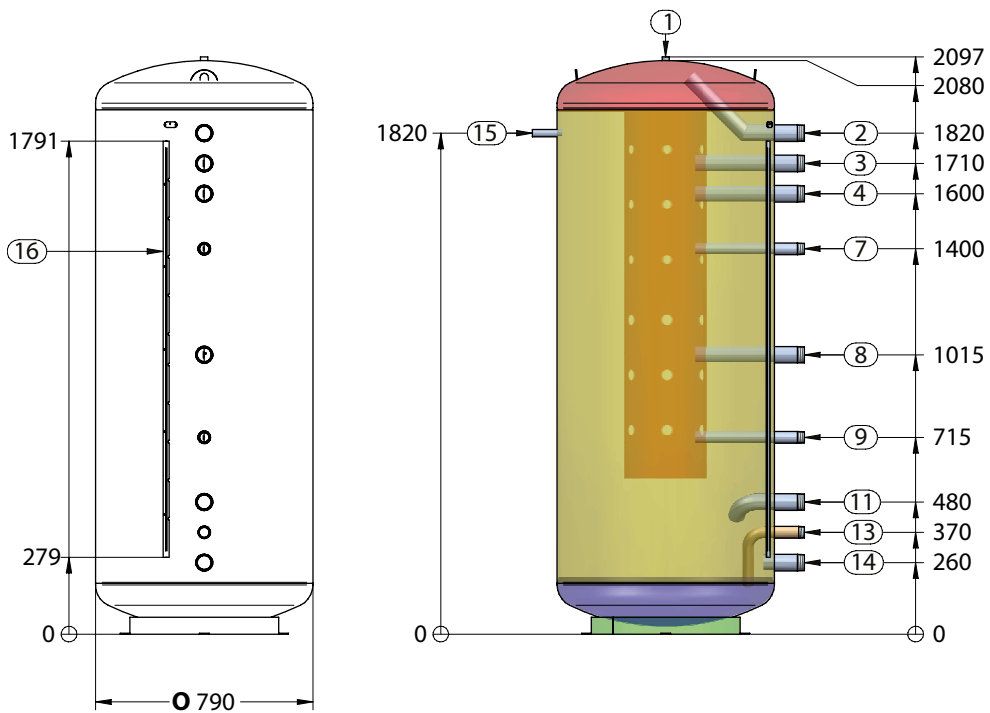
Buffer tank		P 750-3	P 1000-3
Max. operating temperature	°C	95	95
Max. operating pressure	bar	6	6
Water capacity	litre	767	965
Standby heat loss at ($\Delta T = 45 \text{ K}$) V_{total}	kWh/24 h	3.3	3.9
Standby heat loss for standby part V_{aux}	kWh/24 h	1.1	1.3
Net weight	kg	130	145
ErP data			
Storage volume V	litre	767	965
Standby heat loss S	W	99	124

3.2.3 Main dimensions - Connections

P 750-3



P 1000-3



No.	Weight	Name	No.	Weight	Name
1	Rp½	Air vent valve (not included as standard)	9	R1 ¼	Return CH system -2
2	R2"	Supply CH system -1 / discharge	11	R2"	Return low-temperature system
3	R2"	Supply CH system -2	13	R1 ¼	Return CH system -1 / drain
4	R2"	Supply boiler	14	R2"	Return collector
7	R1 ¼	Supply boiler / buffer / heat pump	15	Rp½	Thermometer connection
8	R2"	Collector feed			

4 Installation

4.1 Installation instructions

All aspects of the installation must be carried out in accordance with the current regulations (EU, etc.) for work performed and technical systems in private, public or other buildings.



Caution

The installation must be carried out in accordance with the current regulations, best practices for technical work, and the instructions in this manual.

4.2 Scope of delivery

Scope of delivery	Pieces
Stratified buffer tank	
Boiler tank P	1
Boiler cover P	1

4.3 Mounting

4.3.1 Mounting the stratified buffer tank

■ Placement

The device:

- Install in a location protected from freezing temperatures
- Place on a concrete pad to make it easier to clean the space

The connection lines must be insulated in accordance with the general regulations and enclosed in a thermally insulating sleeve.

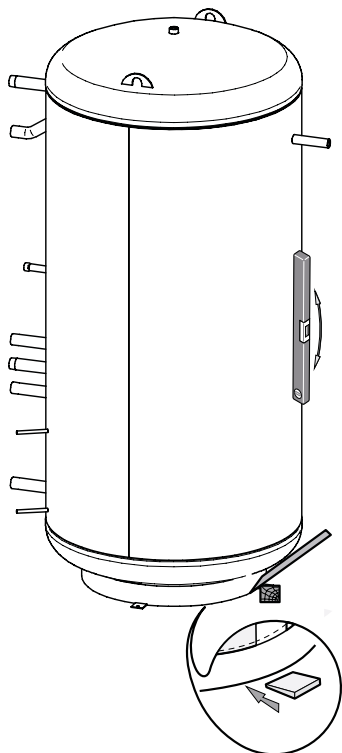
■ Alignment

The boiler must be mounted upright on a concrete pad that can support the weight. The boiler must be attached to the mounting ring and any required plumb alignment may only be done with shims on the pad. Place floor insulation in the mounting ring.



Caution

Use a lever to raise the boiler during alignment.

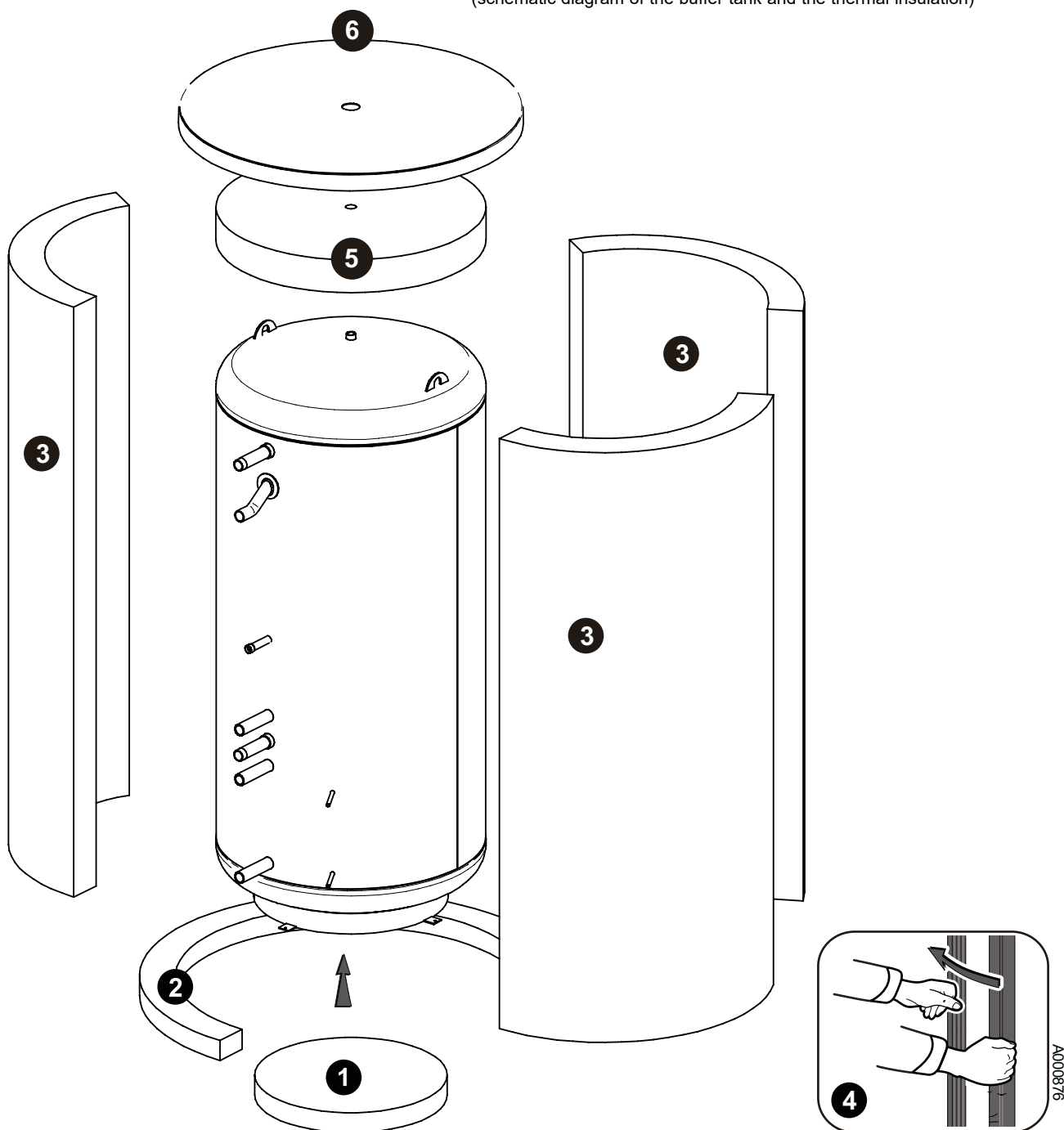


(sketch of the boiler)

Installation of the cover

The insulation must be fitted to the boiler after the boiler has been mounted. It is possible to fit the insulation after attachment of the hydraulic connections.

(schematic diagram of the buffer tank and the thermal insulation)



Caution
 ⚠ Plastics are subject to temperature fluctuations! Do not fit thermal insulation when the temperature is below 15 °C.

Caution
 ⚠ Do not use tools and do not use excessive pressure when closing the joining strip.

1. Place floor insulation in the bottom mounting ring of the buffer tank.
2. Place strips of insulation in the bottom mounting ring.
3. Place thermal insulation around the buffer tank.
Fasten joining strips in the first position.
4. Work from one end to the other while fastening the joining strips so the thermal insulation is pressed firmly against the buffer tank.
5. Place thermal insulation in the space at the top.
6. Place cover over the insulation.

5 Commissioning

5.1 Commissioning of the primary circuit (boiler circuit)



See

Manual for the central heating boiler

Bleed air from the highest point of the boiler through the air vent valve installed for this purpose (not included with the boiler). Check the correct operation of all the regulation and safety provisions.

6 Inspection and maintenance

6.1 Maintenance

We recommend entering a maintenance contract that includes annual or biannual inspection of the liquid level, anti-freezing protection and system pressure as well as a leak check and overall check for correct operation.

6.2 Maintenance and periodic inspections

■ Protection valve

It is an absolute requirement that the correct operation of the protection valve be checked once a year to prevent the possibility of overpressure that could damage the boiler.



Caution

Failure to comply with the maintenance instructions can lead to damage of the buffer tank.

■ Cover

The cover can be cleaned with soap and water.

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