



Installation, User and Service Manual

Buffer tank

20L Buffer Tank
30L Buffer Tank
50L Buffer Tank

Dear Customer,

Thank you very much for buying this appliance.

Please read through the manual carefully before using the product, and keep it in a safe place for later reference. In order to ensure continued safe and efficient operation we recommend that the product is serviced regularly. Our service and customer service organisation can assist with this.

We hope you enjoy years of problem-free operation with the product.

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1 Safety

1.1 General safety instructions



Danger

This appliance can be used by children aged 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are given correct supervision or instruction on using the appliance in complete safety and understand the hazards involved. Children shall not play with the appliance. Children must not carry out any unsupervised cleaning or maintenance operations. Children aged between 3 and 8 years are only permitted to use the tap connected to the water heater.



Danger

Before any work, switch off the mains electricity to the system.



Danger

Do not use the appliance with liquids other than mains water.



Danger

Do not carry out any repair or maintenance work before checking the temperature of the liquid and the pressure in the tank.



Caution

Only qualified professionals are authorised to work on the buffer tank.



Important

The appliance must be installed in such a way that maintenance and/or repairs can be carried out.



Caution

The buffer tank is not intended for the storage of domestic hot water and using it for that purpose is formally prohibited.



Important

This manual can also be found on our internet site.

1.2 Recommendations



Caution

Do not neglect to service the buffer tank. Contact a qualified professional or subscribe to a maintenance contract for the annual service.



Caution

The buffer tank is delivered with its orifices open.



Important

Insulate the pipes to reduce heat losses to a minimum.



Caution

Do not make any modifications to the buffer tank without the written consent of the manufacturer.



Warning

To protect the buffer tank, the installation of a safety valve and an expansion vessel of adequate size is mandatory.



Important

Never remove or cover labels and data plates affixed to the appliances. Labels and data plates must be legible throughout the entire lifetime of the appliance.
Damaged or illegible instructions and warning stickers must be replaced immediately.



Caution

Only qualified persons are authorised to assemble, install and maintain the installation.

1.3 Liabilities

1.3.1 Manufacturer's liability

Our products are manufactured in compliance with the requirements of the various Directives applicable. They are therefore delivered with all the necessary documents. In the interests of the quality of our products, we strive constantly to improve them. We therefore reserve the right to modify the specifications given in this document.

Our liability as manufacturer may not be invoked in the following cases:

- Failure to abide by the instructions on installing and maintaining the appliance.
- Failure to abide by the instructions on using the appliance.
- Faulty or insufficient maintenance of the appliance.

1.3.2 Installer's liability

The installer is responsible for the installation and initial commissioning of the appliance. The installer must observe the following instructions:

- Read and follow the instructions given in the manuals provided with the system.
- Install the system in compliance with prevailing legislation and standards.
- Conduct initial commissioning and any required checks.
- Explain the installation to the user.
- If maintenance is necessary, warn the user of the obligation to check the appliance and keep it in good working order.
- Give all the instruction manuals to the user.

1.3.3 User's liability

To guarantee optimum operation of the system, you must abide by the following instructions:

- Read and follow the instructions given in the manuals provided with the appliance.
- Call on a qualified professional to carry out installation and initial commissioning.
- Get your installer to explain your installation to you.
- Have the required inspections and maintenance carried out by a qualified installer.
- Keep the instruction manuals in good condition close to the appliance.

2 About this manual

2.1 General



Warning

Follow these instructions carefully to ensure that the appliance operates correctly.

2.2 Symbols used in the 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 that may result in serious personal injury.



Danger of electric shock

Risk of electric shock.



Warning

Risk of dangerous situations that may result in minor personal injury.



Caution

Risk of material damage.



Important

Please note: important information.



See
Reference to other manuals or pages in this manual.

3 Technical specifications

3.1 Homologations

3.1.1 Directives

BAXI hereby declares that the buffer tank has been manufactured and put into circulation in accordance with the requirements of the European Directives.

The full text of the EU declaration of conformity is available from the manufacturer.

In addition to the legal requirements and guidelines, the supplementary guidelines in this manual must also be followed.

Compliance with the electrical and electromagnetic directives is only valid for the products and options listed in this installation manual.

Supplements or subsequent regulations and guidelines that are valid at the time of installation shall apply to all regulations and guidelines specified in this installation manual.

3.2 Technical data

Tab.1 Technical specifications

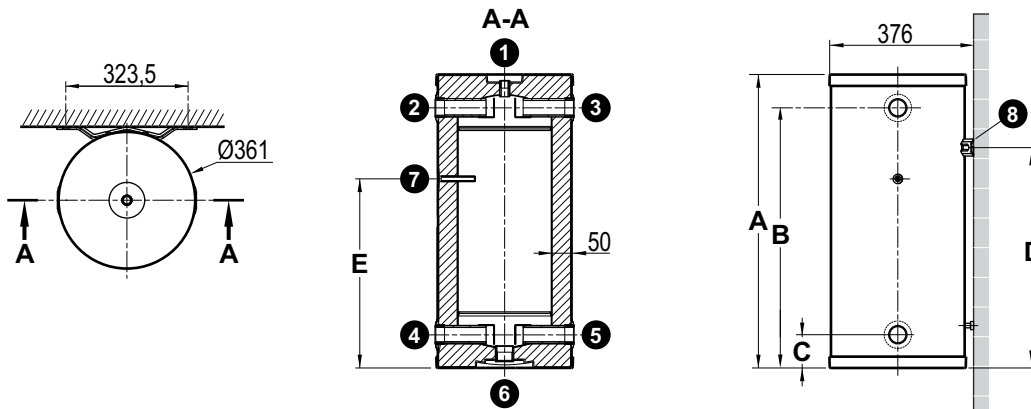
	Unit	20L Buffer Tank	30L Buffer Tank	50L Buffer Tank
Capacity	Litres	20.4	30.4	50.4
Maximum pressure	bar	3	3	3
Maximum operating temperature ⁽¹⁾	°C	95	95	95
Minimum operating temperature	°C	6	6	6
Standby losses Δt = 45 K	W	20	23	24
Gross weight	kg	11.5	18	26
Net weight	kg	8.9	15.2	23.1
Maintenance consumption	kWh/24 h	0.49	0.54	0.57

(1) 84 °C with heating element option

3.3 Main dimensions

3.3.1 Dimensions and connections

Fig.1 20L Buffer Tank and 30L Buffer Tank



MW-2002083-02

- 1 G 1/2" internal thread - Location of the air vent
- 2 G1" 1/4 internal thread
- 3 G1" 1/4 internal thread

- 4 G1" 1/4 internal thread
- 5 G1" 1/4 internal thread

6 G1" 1/4 internal thread - Location for the backup electric heater

7 Ø 10 mm sensor pocket

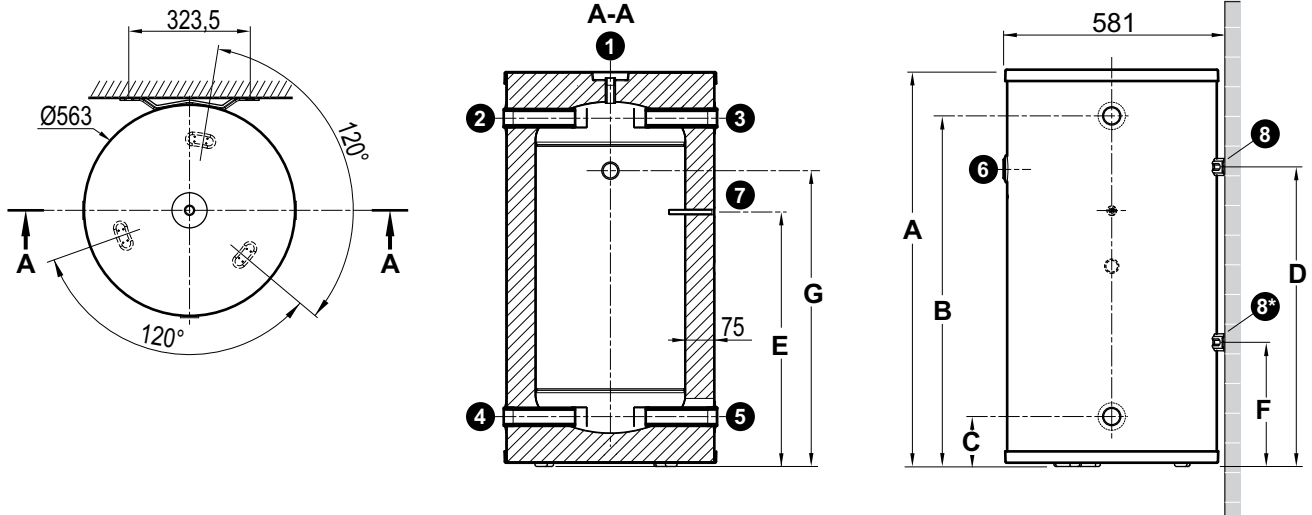
8 Wall mounting bracket



See

Connection details: Hydraulic connections, page 15.

Fig.2 50L Buffer Tank



1 G 1/2" internal thread - Location of the air vent

2 G1" 1/4 internal thread

3 G1" 1/4 internal thread

4 G1" 1/4 internal thread

5 G1" 1/4 internal thread

6 G1" 1/4 internal thread - Location for the backup electric heater

7 Ø 10 mm sensor pocket

8 Wall mounting bracket

* 50L Buffer Tank : Adjustable foot



See

Connection details: Hydraulic connections, page 15.

Tab.2

Markers	Units	20L Buffer Tank	30L Buffer Tank	50L Buffer Tank
A	mm	566	776	640
B	mm	478	688	518
C	mm	88	88	132
D	mm	366	576	375
E	mm	360	500	395
F	mm	-	-	120
G	mm	-	-	377

4 Description of the product

4.1 General description

The buffer tanks are used as storage units for heating systems where the heat source is operated discontinuously.

The buffer tanks, coupled with the DHWS station, are specially designed for installations with high domestic hot water requirements.

The buffer tanks have the following specifications:

- Carbon steel tank
- PU foam insulation
- ABS casing

4.1.1 Operating modes

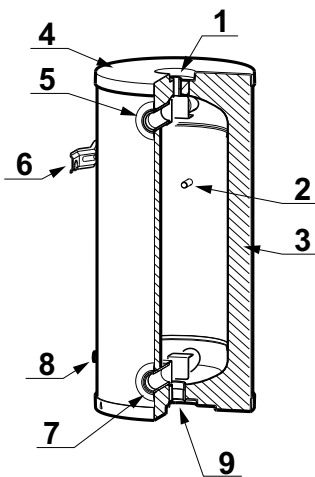
The buffer tanks have two operating modes:

- **Cooling operating mode:**
The minimum operation in cooling mode is 6 °C.
- **Heating operating mode:**
The maximum temperature is 95 °C.

4.2 Main components

4.2.1 20L Buffer Tank and 30L Buffer Tank

Fig.3 Exterior/interior view



- 1 G 1/2" internal thread - Location of the air vent
- 2 Ø 10 mm sensor pocket
- 3 50 mm PU insulation
- 4 Cover
- 5 G1" 1/4 internal thread
- 6 Wall bracket
- 7 G1" 1/4 internal thread
- 8 Wall support foot for levelling the buffer tank
- 9 G1" 1/4 internal thread - Electrical resistance option



Important

The tank has been checked for leaks and tested in the factory.



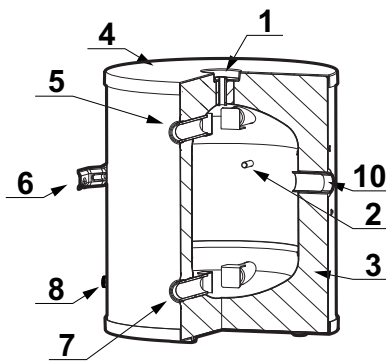
See

Hydraulic connections, page 15.

MW-2002091-02

4.2.2 50L Buffer Tank

Fig.4 Exterior/interior view



- 1 G 1/2" internal thread - Location of the air vent
- 2 Ø 10 mm sensor pocket
- 3 75 mm PU insulation
- 4 Cover
- 5 G1" 1/4 internal thread
- 6 Wall bracket
- 7 G1" 1/4 internal thread
- 8 Wall support foot for levelling the buffer tank
- 10 G1" 1/4 internal thread - Electrical resistance option



Important

The wall support foot for levelling is available for the 50L Buffer Tank buffer tank.



Important

The tank has been checked for leaks and tested in the factory.



See

Hydraulic connections, page 15.

MW-2002226-01

4.3 Standard delivery

- The buffer tank with casing and insulation
- The bracket(s) for wall fixing
- An installation, user and service manual

4.4 Accessories & options

The heater is equipped with an 84 °C safety temperature limiter. Its activation must be managed by the heat generator.

Tab.3

Accessories	References
1800 W backup electric heater kit equipped with an 84 °C safety temperature limiter (horizontal mounting)	7908453
3000 W backup electric heater kit equipped with an 84 °C safety temperature limiter (horizontal mounting)	7908454
1800 W backup electric heater kit equipped with an 84 °C safety temperature limiter (vertical mounting from below)	7908455

5 Before installation

5.1 Choice of the location

5.1.1 Choosing a location for the buffer tank



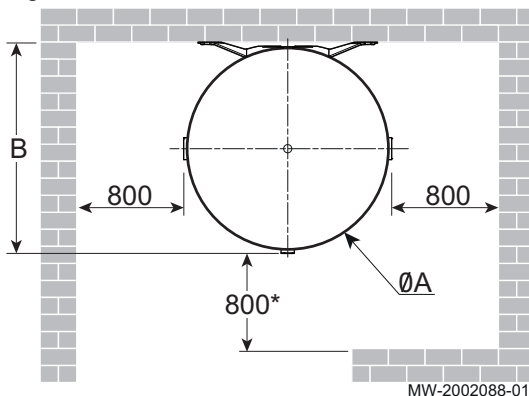
Caution

The buffer tank must be installed in a frost-free room.

1. Determine the ideal location, taking into account the space required for maintenance of the buffer tank, as well as legal guidelines.
2. Install the buffer tank on a solid, stable structure capable of supporting its weight when filled with water.
3. Install the buffer tank as close as possible to the heat generator in order to minimise energy losses through the pipes.

5.1.2 Positioning the appliance

Fig.5

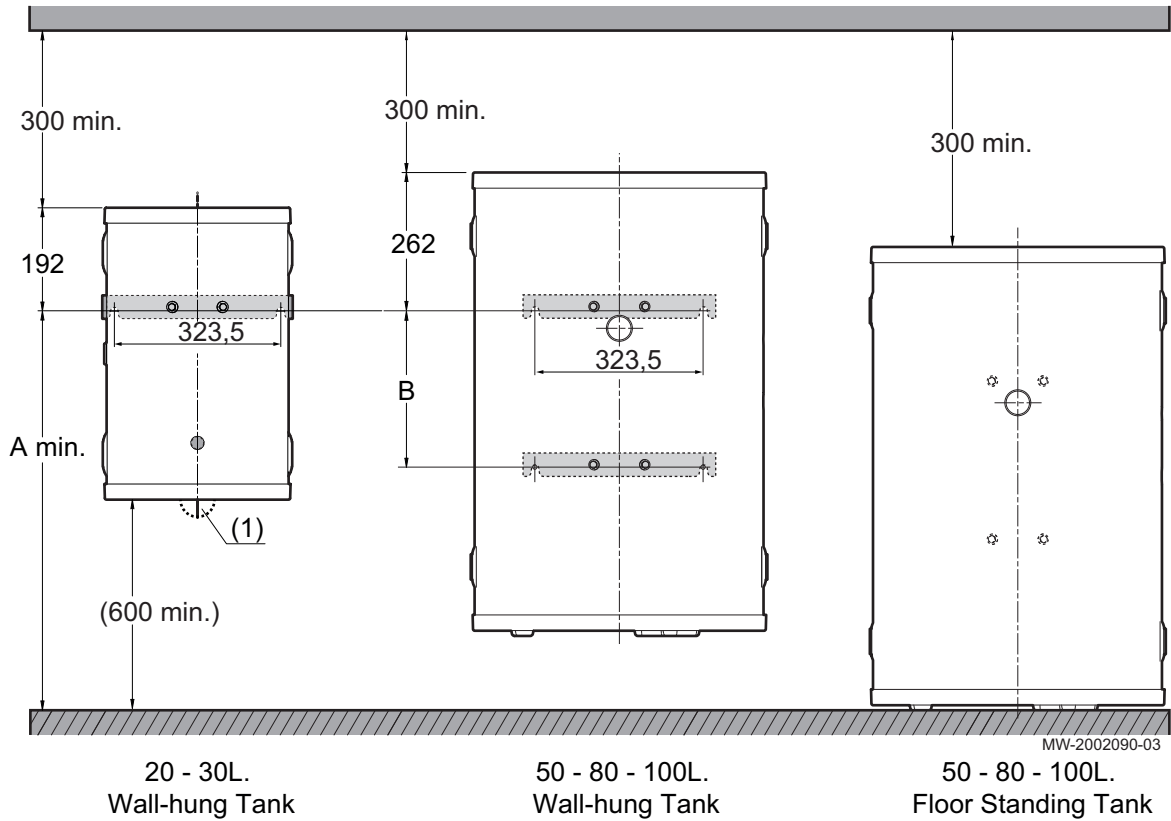


Tab.4

	Ø A	B
20L Buffer Tank	361 mm	376 mm
30L Buffer Tank	361 mm	376 mm
50L Buffer Tank	563 mm	581 mm

To ensure good accessibility and facilitate maintenance of the buffer tank, its chosen position should comply with the minimum dimensions indicated by the manufacturer.

Fig.6



Tab.5

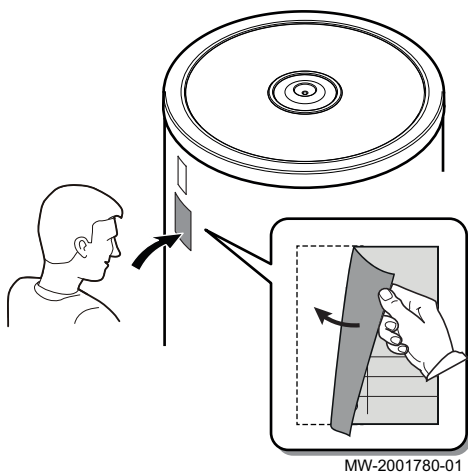
Models	Wall-mounted	Floor-mounted	A min. (mm)	B (mm)
20L Buffer Tank	x		365.5	-
30L Buffer Tank	x		575.5	-
50L Buffer Tank	x ⁽¹⁾	x	375	255
(1) with wall-mounting kit				

Position the appliance:

- Position the product, leaving sufficient space around it for maintenance.
- Place the product in an environment with an adequate height.

5.2 Location of labels

Fig.7



The data plate and the warning label for the safety pressure relief valve must be accessible at all times.

The data plate identifies the product and provides the following information:

- Buffer tank type
- Technical data
- Serial number

6 Installation

6.1 General



Important

The installation must comply in all respects with the generally recognised technical rules and legal provisions and regulations that apply to installation in residential and non-residential buildings. Installation must be carried out in accordance with current regulations, engineering best practice and the instructions in this manual.

6.2 Installing the buffer tank on the wall

Take the strength of the wall into account when mounting the buffer tank on a wall.

The installer is responsible for the type of mounting used and the mechanical integrity of the assembly including the bracket selection.

Observe the dimensions provided when positioning the buffer tank on the wall.

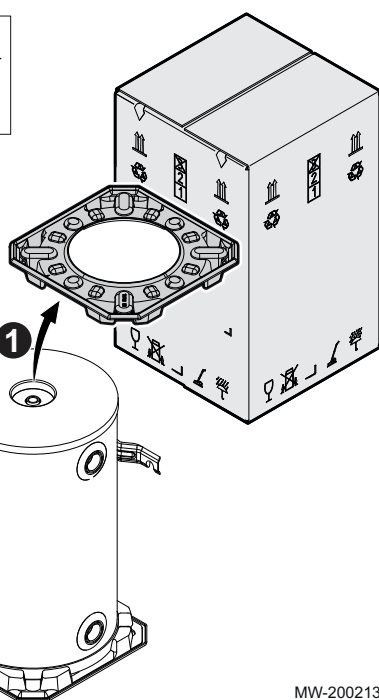
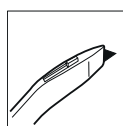


See

Positioning the appliance, page 9.

6.2.1 20L Buffer Tank and 30L Buffer Tank

Fig.8



MW-2002130-01

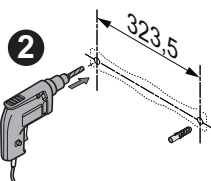
1. Remove the packaging from the buffer tank. Remove the protective packaging.



Important

Dispose of packaging in an appropriate place, observing prevailing regulations.

Fig.9

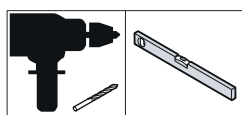


2. Pre-fit the screws to the wall, allowing them to protrude by at least 15 mm. The M12 screws and washers to use and how they are secured will depend on the type of wall. The screws must be able to support the weight of the buffer tank when filled with water.



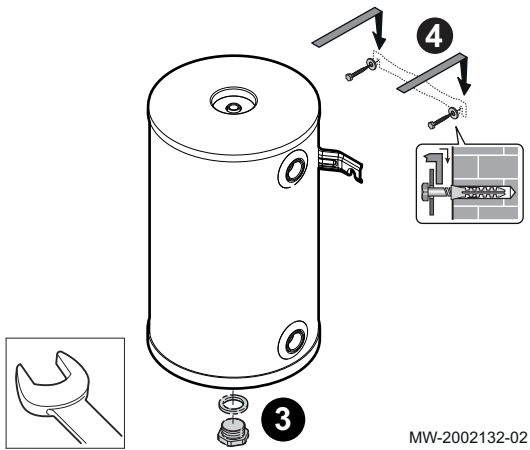
Important

The wall plugs, screws and washers are not provided.



MW-2002131-01

Fig.10



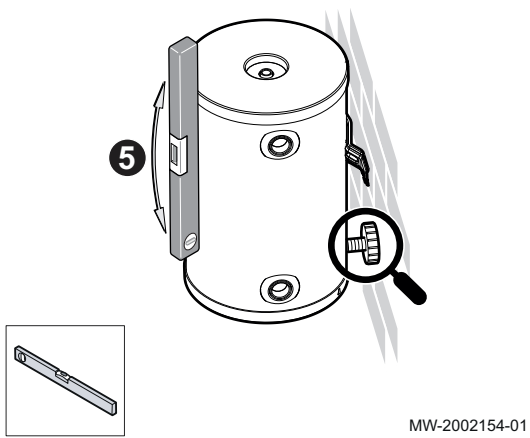
3. When using a backup electric heater, install the heating element on the connection provided. If not used, fit a 1" 1/4 cap (not provided).



See
Manual for immersion heater kit.

4. Hook the buffer tank onto the screws using the bracket. Fasten the screws.

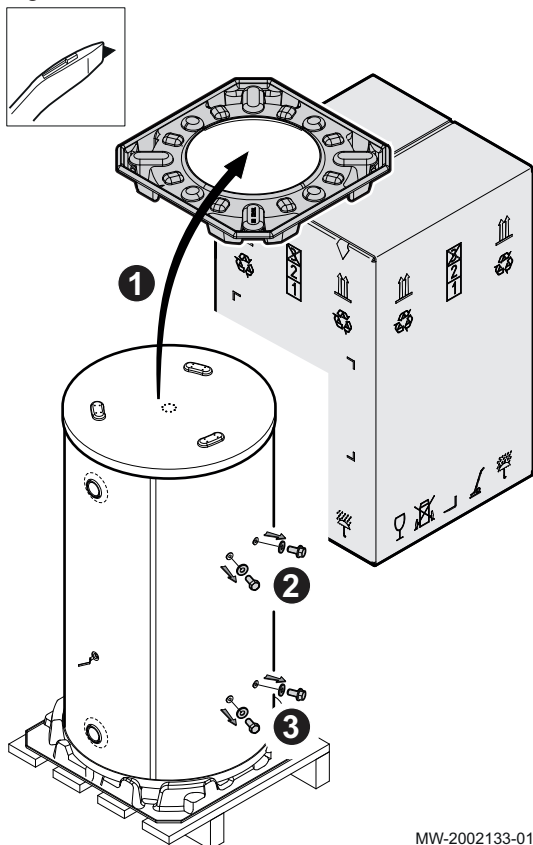
Fig.11



5. Adjust the wall support foot to level the buffer tank.

6.2.2 50L Buffer Tank

Fig.12



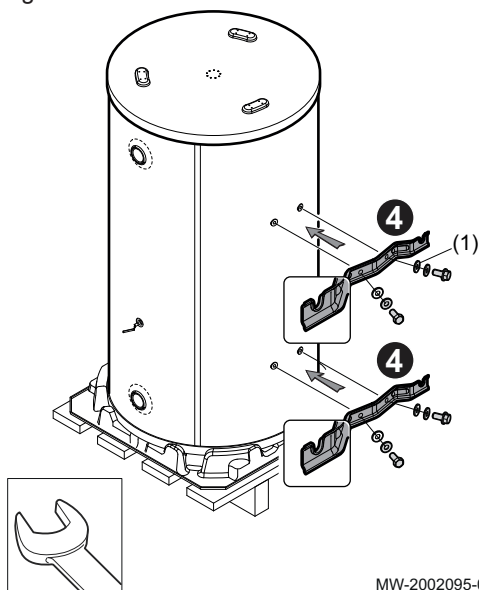
MW-2002133-01

1. Remove the packaging from the buffer tank. Remove the protective packaging.

i Important
Dispose of packaging in an appropriate place, observing prevailing regulations.

2. Unscrew the two screws at the top.
3. Unscrew the two screws at the bottom.

Fig.13



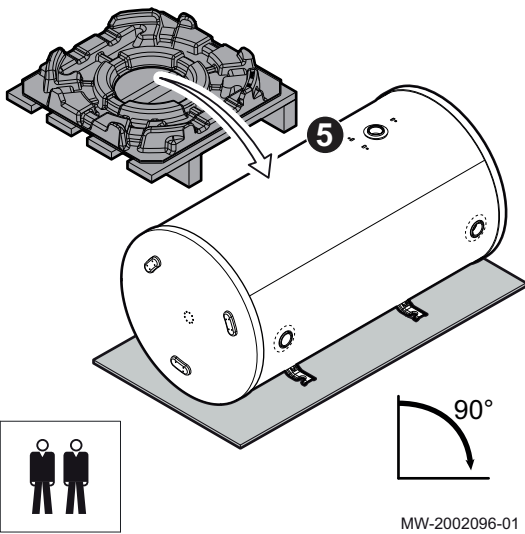
MW-2002095-01

4. Fix the brackets to the buffer tank the correct way round, using the plastic washers ⁽¹⁾, the steel washers, and the screws on the buffer tank, while supporting the appliance to avoid any tipping. The tightening torque is 17 Nm.

! Caution
The buffer tank is delivered upside down.

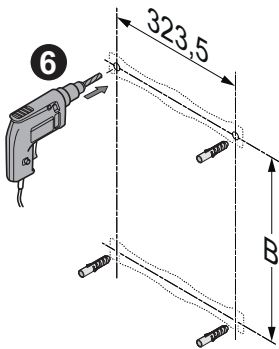
! Caution
The 50L Buffer Tank has only one bracket.

Fig.14



5. Pivot the buffer tank onto its brackets.

Fig.15



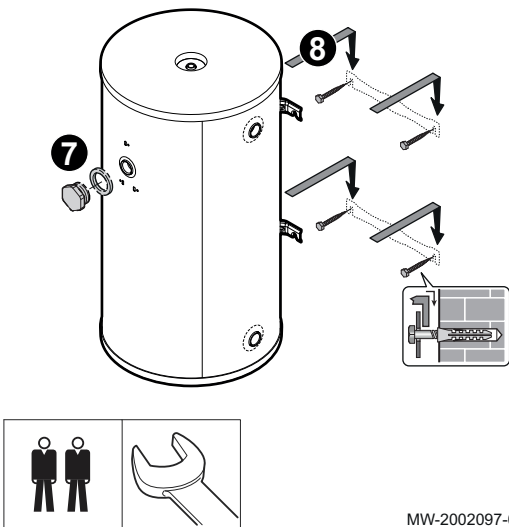
6. Pre-fit the screws to the wall, allowing them to protrude by at least 15 mm. The M12 screws and washers to use and how they are secured will depend on the type of wall. The screws must be able to support the weight of the buffer tank when filled with water.

i Important
The wall plugs, screws and washers are not provided.

Tab.6

	B
50L Buffer Tank	255

Fig.16

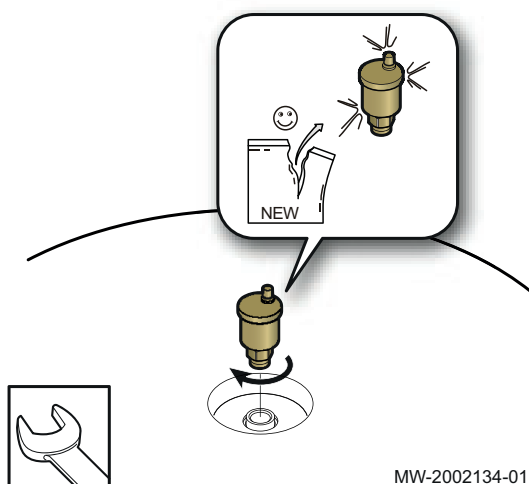


7. When using a backup electric heater, install the heating element on the connection provided. If not used, fit a 1" 1/4 cap (not provided).

See
Manual for immersion heater kit.

8. Affix the buffer tank by engaging the brackets on the screws.
9. Fasten the screws.

6.3 Venting the buffer tank



1. Fill the buffer tank, ensuring that all air present in the tank is thoroughly vented using the top orifice in combination with an automatic air vent (not supplied as standard; to be provided by the installer).

6.4 Hydraulic connections

6.4.1 Examples of hydraulic connection diagrams for buffer tanks

The hydraulic diagrams to be used are those recommended by the heat generator(s). Please refer to the hydraulic diagrams of the heat generator(s) used.



Important

The hydraulic diagrams shown are for information purposes only and do not replace a professional study.

Fig.17 Wall-hung

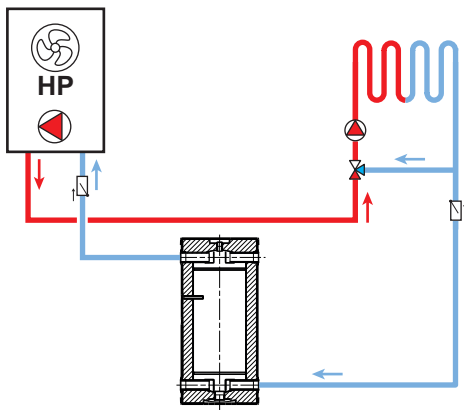
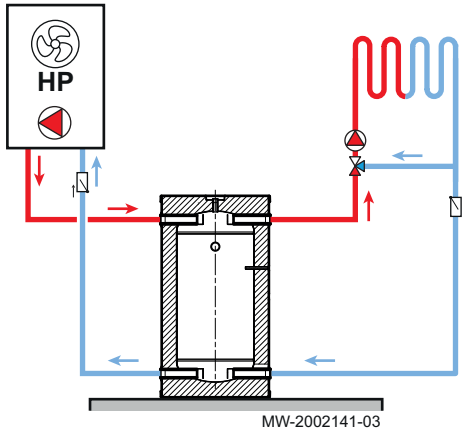


Fig.18 Floor-standing



7 Disposal

7.1 Disposal and Recycling

Fig.19



Important

Removal and disposal of the buffer tank must be carried out by a qualified installer in accordance with local and national regulations.

1. Cut off the power supply to the buffer tank.
2. Disconnect the cables on the electrical components.
3. Drain the installation.
4. Dismantle all water connections fitted to the buffer tank outlet.
5. Scrap or recycle the buffer tank in accordance with local and national regulations.

8 Spare parts

8.1 General

When it is observed subsequent to inspection or maintenance work that a component in the appliance needs to be replaced, use only original spare parts or recommended spare parts and equipment.

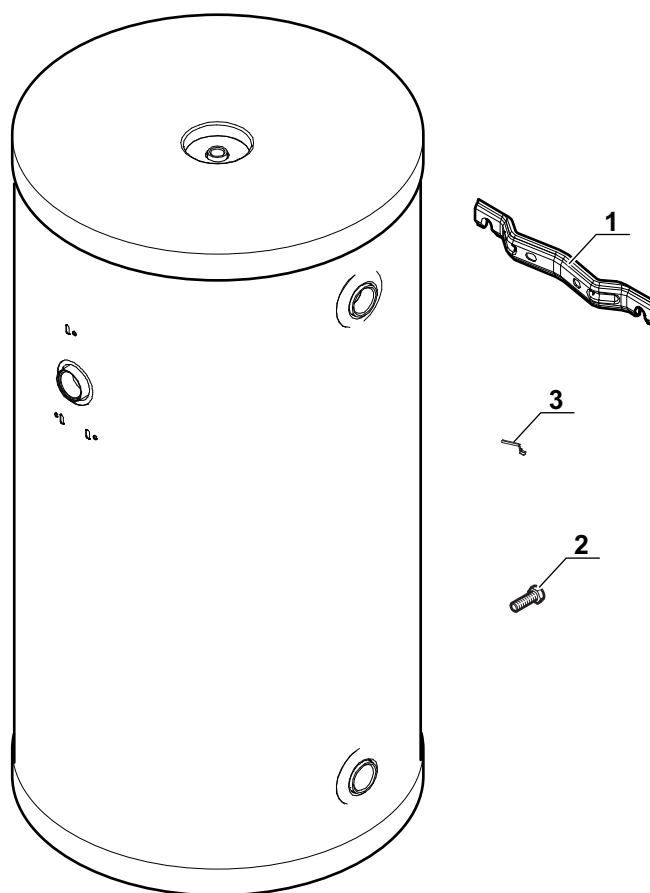


Important

To order a spare part, give the reference number shown on the list.

8.2 Spare parts lists

Fig.20



MW-2002156-01

Tab.7

Marker	Reference	Description	20L Buffer Tank	30L Buffer Tank	50L Buffer Tank
1	7897181	Wall bracket	x	x	x
2	7872417	Adjustable foot M10 x 35	x	x	x
3	7897131	Sensor retaining clip	x	x	x

9 Warranty

9.1 General

You have just purchased one of our appliances and we thank you for the trust you have placed in our products.

Your appliance is covered by a 2-year parts only guarantee against manufacturing defects as of the date of installation stated on the installer's invoice.

For details on how to register your warranty please see back cover of this manual.

To ensure your warranty is valid, please ensure that it is installed and maintained by a qualified professional, in accordance with the instructions provided in this manual.

For additional terms of warranty please visit our website:

- United Kingdom : <https://www.baxi.co.uk/important-information/terms-and-conditions>
- Ireland : <https://www.baxi.ie/important-information/terms-and-conditions>

In case of any issues, please arrange a return to the merchant via your installer.

10 Appendix

10.1 Information on the ecodesign and energy labelling directives

10.1.1 Specific information

- Product sheet

Tab.8 Buffer tank product sheet

		20L Buffer Tank	30L Buffer Tank	50L Buffer Tank
Standby losses $\Delta t = 45 \text{ K}$	W	20	23	24
Energy efficiency class		A	A	A

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FOR UNITED KINGDOM

Baxi Customer Support

For opening hours, please visit :

<https://www.baxi.co.uk/support/customer-support#services>



0344 736 1545

Please note calls may be monitored or recorded

Register now to activate your warranty:

<https://warranty.baxi.co.uk/>

For the warranty to be maintained, please make sure...

- 1 Warranty is registered within 30 days
- 2 The appliance has an annual service

For full terms and conditions, visit :

<https://www.baxi.co.uk/important-information/terms-and-conditions>

Failure to adhere to terms and conditions will void your manufacturer's warranty.



Baxi
Brooks House,
Coventry Road,
Warwick, CV34 4LL

FOR IRELAND

Baxi Customer Support

For contact details, please visit :

www.baxi.ie



00353 (0)1 4590870

Please note calls may be monitored or recorded

Register now to activate your warranty:

<https://www.baxi.ie/support/warranty>

For the warranty to be maintained, please make sure...

- 1 Warranty is registered within 30 days
- 2 The appliance has an annual service

For full terms and conditions, visit :

<https://www.baxi.ie/important-information/terms-and-conditions>

Failure to adhere to terms and conditions will void your manufacturer's warranty.



Baxi
Unit F 586, Calmount Park,
Calmount Road,
Ballymount, Dublin 12, Ireland

Please ensure the appliance is installed in accordance with these installation instructions and that you adhere to the Building Regulations.

e&oe

All descriptions and illustrations provided in this document have been carefully prepared but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet. All goods are sold subject to our standard Conditions of Sale which are available on request.

