

Accessories for
heat pumps

Operating Manual

Buffer Tanks Split



1 Please read first

This operating manual provides important information on the handling of the unit. It is an integral part of the product and must be stored so that it is accessible in the immediate vicinity of the unit. It must remain available throughout the entire service life of the unit. It must be handed over to subsequent owners or users of the unit.

Read the operating manual before working on or operating the unit. This applies in particular to the chapter on safety. Always follow all instructions completely and without restrictions.

It is possible that this operating manual may contain instructions that seem incomprehensible or unclear. In the event of any questions or if any details are unclear, contact the factory customer service department or the manufacturer's local partner.

Since this operating manual was written for several different models of the unit, always comply with the parameters for the respective model.

This operating manual is intended only for persons assigned to work on or operate the unit. Treat all constituent parts confidentially. The information contained herein is protected by copyright. No part of this manual may be reproduced, transmitted, copied, stored in electronic data systems or translated into another language, either wholly or in part, without the express written permission of the manufacturer.

2 Symbols

The following symbols are used in the operating manual. They have the following meaning:



Information for operators.



Information or instructions for qualified technicians.



DANGER

Indicates a direct impending danger resulting in severe injuries or death.



WARNING

Indicates a potentially dangerous situation that could result in serious injuries or death.



CAUTION

Indicates a potentially dangerous situation that could result in medium or slight injuries.



IMPORTANT

Indicates a potentially dangerous situation, which could result in property damage.



NOTE

Emphasised information.

1., 2., 3., ... Numbered step within a multi-step instruction for action.
Adhere to the given sequence.



Single-step instruction for action



List



Reference to further information elsewhere in the operating manual or in another document.



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3 Intended use

The storage tank may be used only for the intended purpose.

This means as a buffer storage tank in conjunction with:

- Air/water Split heat pumps
- If local regulations apply, observe: laws, standards and directives.

4 Disclaimer

The manufacturer is not liable for losses resulting from any use of the unit which is not its intended use.

The manufacturer's liability also expires:

- if work is carried out on the unit and its components contrary to the instructions in this operating manual.
- if work is improperly carried out on the unit and its components.
- if work is carried out on the unit which is not described in this operating manual, and this work has not been explicitly approved by the manufacturer in writing.
- if the unit or components in the unit have been altered, modified or removed without the explicit written consent of the manufacturer.

5 Safety

The unit is safe to operate when used for its intended purpose. The construction and design of the unit conform to current state-of-the-art standards, all relevant DIN/VDE regulations and all relevant safety regulations.

The operating manuals supplied with the product are intended for all users of the product.

The operation of the product via the heating and heat pump control and work on the product which is intended for end customers / operators is suitable for all age groups of persons who are able to understand the activities and the resulting consequences and can carry out the necessary activities.

Children and adults who are not experienced in handling the product and do not understand the necessary activities and the resulting consequences must be

instructed and, if necessary, supervised by persons experienced in handling the product and who are responsible for safety.

Children must not play with the product.

The product may only be opened by qualified personnel.

All instructional information in this operating manual is solely directed at qualified, skilled personnel.

Only qualified, skilled personnel is able to carry out the work on the unit safely and correctly. Interference by unqualified personnel can cause life-threatening injuries and damage to property.

- Ensure that the personnel is familiar with the local regulations, especially those on safe and hazard-aware working.
- Only allow qualified personnel with "electrical" training to carry out work on the electrics and electronics.
- Only allow qualified, skilled personnel to do any other work on the system, e.g.
 - Heating installer
 - Plumbing installer
 - Refrigeration system installer (maintenance work)

Every person who carries out work on the unit must comply with the applicable accident prevention and safety regulations. This applies in particular to the wearing of personal protective clothing.

During the warranty and guarantee period, servicing and repair work may only be carried out by personnel authorised by the manufacturer.

5.1 Personal protective equipment

There is a risk of cutting your hands on sharp edges of the unit.

- Wear cut-resistant protective gloves during transport.



6 Contact

Addresses for purchasing accessories, for servicing or for answers to questions about the unit and this operating manual can be found on the internet and are kept up-to-date.

→ www.ait-deutschland.eu

7 Warranty / Guarantee

For warranty and guarantee conditions, please refer to the purchase documents.



NOTE

Please contact your dealer about all matters concerning warranties and guarantees.

8 Disposal

When decommissioning the unit, always comply with applicable laws, directives and standards concerning recovery, recycling and disposal.

9 Scope of delivery

- Storage tank
 - WPSK 40Split:
1 sensor for heating and heat pump regulator.
 - WTPSK 101Split:
2 sensors for heating and heat pump regulator.
1. Inspect the delivery for outwardly visible signs of damage.
 2. Check to make sure that the delivery is complete. Any defects or incorrect deliveries must be claimed immediately.

9.1 Accessories



IMPORTANT

Use only original accessories from the manufacturer of the unit.

10 Transport, Installation, Assembly

Observe the following when performing all work:



IMPORTANT

The tank must be installed in a frostproof room, to prevent frost damage to the storage tank, pipe system and connections.



NOTE

Install the storage tank as close as possible to the heat generator, to keep the heat losses as low as possible. Ensure the shortest possible pipe lengths to the load.



IMPORTANT

The floor or ground at the place of installation must be dry, firm and able to safely support the weight of the tank.

In the case of wall-mounted storage tanks, the wall must have sufficient load-bearing capacity to safely carry the weight of the storage tank when full.

→ "Technical Data", page 7, for the respective model

10.1 Transport to installation location

To avoid damage during transport, transport the storage tank (secured on the wooden pallet) to its final installation location using a lifting truck.



CAUTION

Make sure to secure tank against slipping during transport.



CAUTION

The tank can tip over when being removed from the wooden pallet and during transport with a hand truck or lifting truck. This can result in personal injuries and damage.

- Take suitable precautions, which prevent the tipping hazard.
- Dispose of the transport and packaging materials properly and under ecological aspects.



10.2 Installation

When installing the tank, ensure sufficient clearance from walls and other objects to enable the connection pipes to be fitted.



IMPORTANT

Do not exceed the operating pressures specified on the rating plate.



NOTE

Close off any connections not required with appropriate plugs or caps.

- Position of the connections: "Dimensional drawings", from page 8, for the respective model

10.3 Installation of the sensor(s)

1. On site, install the sensor(s) included in the scope of delivery for the heating and heat pump regulator in the sensor pocket(s) provided.
→ Position: "Dimensional drawings", from page 8, for the respective model.
2. Connect the sensor(s) to the regulator according to the terminal diagram.
→ Terminal diagram for the respective model in the heat pump operating manual

11 Insulation of the connections and the storage tank



NOTE

Insulate in accordance with applicable local standards and directives.

1. Check seals of all hydraulic connections. Conduct pressure test.
2. Insulate all connections, pipes and cables.



IMPORTANT

The insulation of TPSK-/WTPSK tanks of the connections and lines must be moistureproof.

12 Draining the storage tank



IMPORTANT

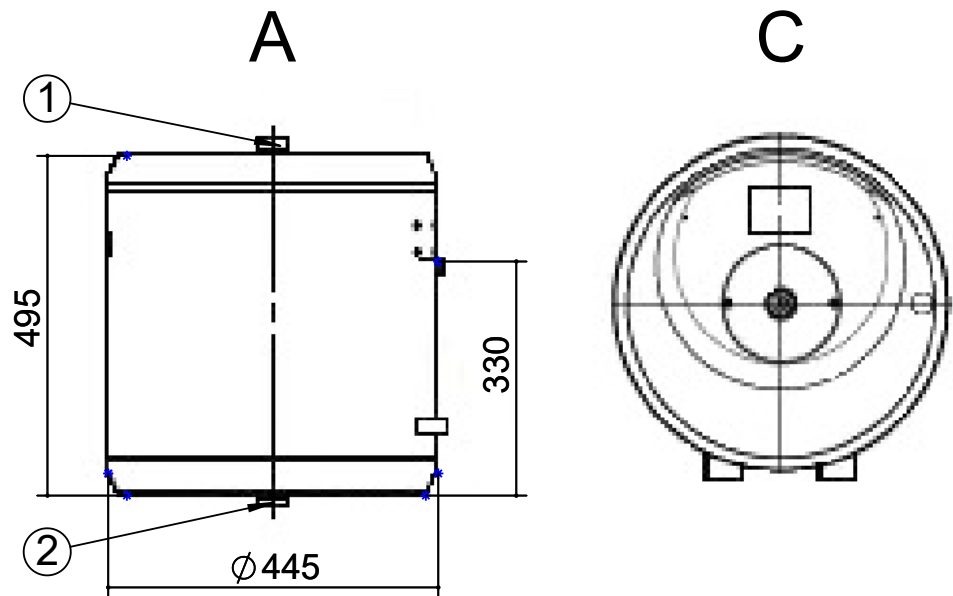
When draining the storage tank, always ensure adequate ventilation.



Technical Data

WPSK 40Split – WTPSK 101Split

Tank name		WPSK 40Split	WTPSK 101Split
Series buffer tank Stratified storage tank Stratified storage tank solar • yes – no		• – –	• • –
Heating water reservoir			
Energy efficiency class according to ErP	...	B	B
Standing loss according to ErP (at 65°C)	W	28	41
Total tank volume according to ErP	l	39	120
Nominal capacity	l	39	120
Max. operating pressure	bar	6	6
Test pressure	bar	9	9
Operating temperature minimum maximum	°C	5 95	5 95
Installation location			
Room temperature minimum maximum	°C	7 35	7 35
Relative humidity maximum (non-condensing)	%	65	65
General unit data			
Maximum output of electric heating element	kW	–	–
Insulation			
Material: Rigid foam soft foam	• yes – no	• –	• –
Insulation thickness	mm	–	42
Sheet metal jacket Foil jacket	• yes – no	• –	• –
Manufacturer: ait deutschland GmbH Index: a		813644	813643



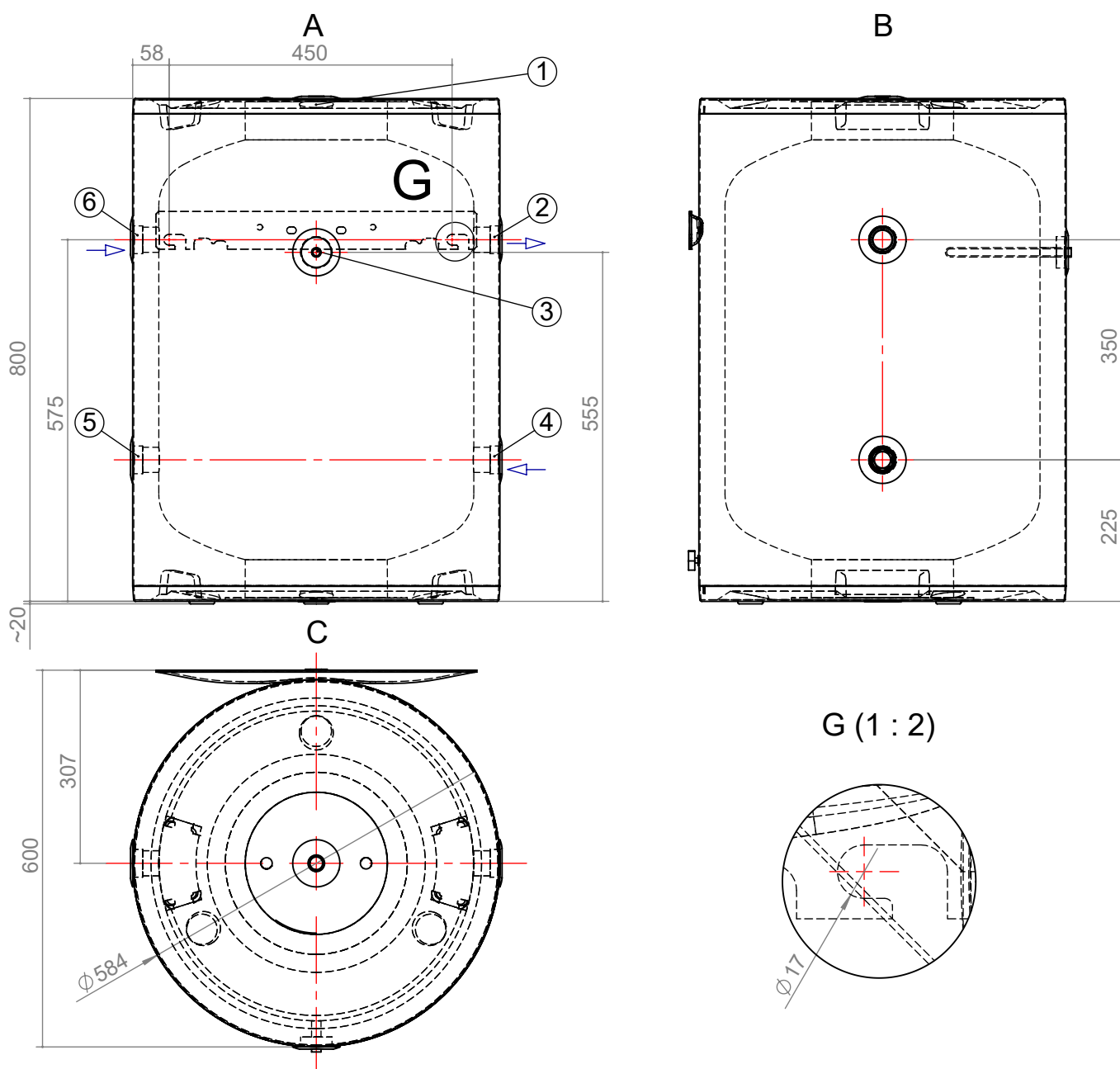
Keys: UK81513
All dimensions in mm.

Pos.	Name	Dimension
A	Front view	–
C	Plan view	–
1	Return from heating	R 1"
2	Return to heat pump	R 1"
Net weight		16 kg
Nominal volume		39 litres



WTPSK 101Split

Dimensional drawings



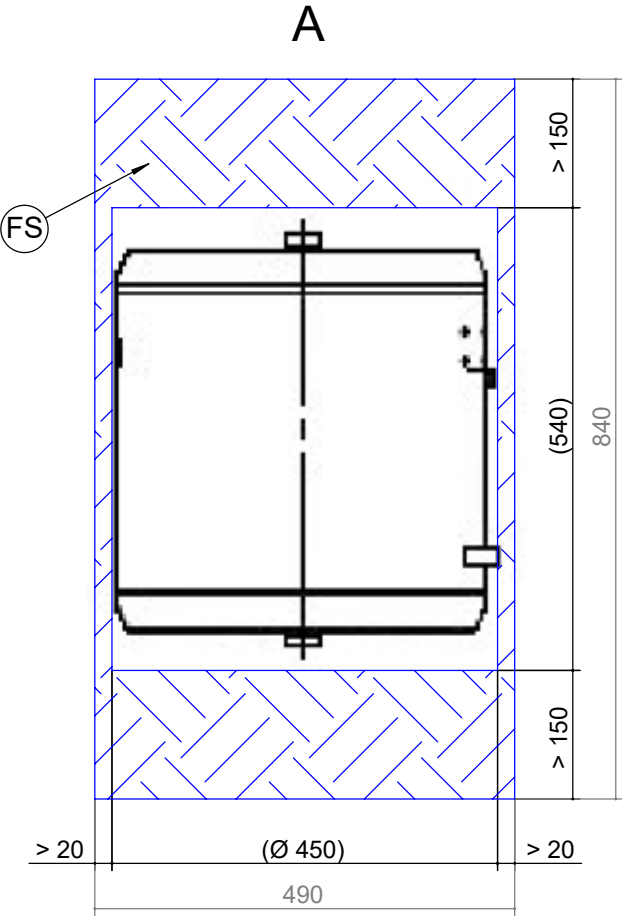
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All dimensions in mm.

Pos..	Name
A	Front view
B	Side view from left

Pos.	Name
C	Plan view
G	Detail view

Pos.	Name	Dimension
1	Bleeding	G ½"
2	Flow heating circuit	G 1"
3	Sensor	Ø i 10 mm
4	Return heating circuit / heat pump	G 1"
5	Filler plug	-
6	Flow heat pump	G 1"
Net weight		41 kg
Nominal volume		120 litres



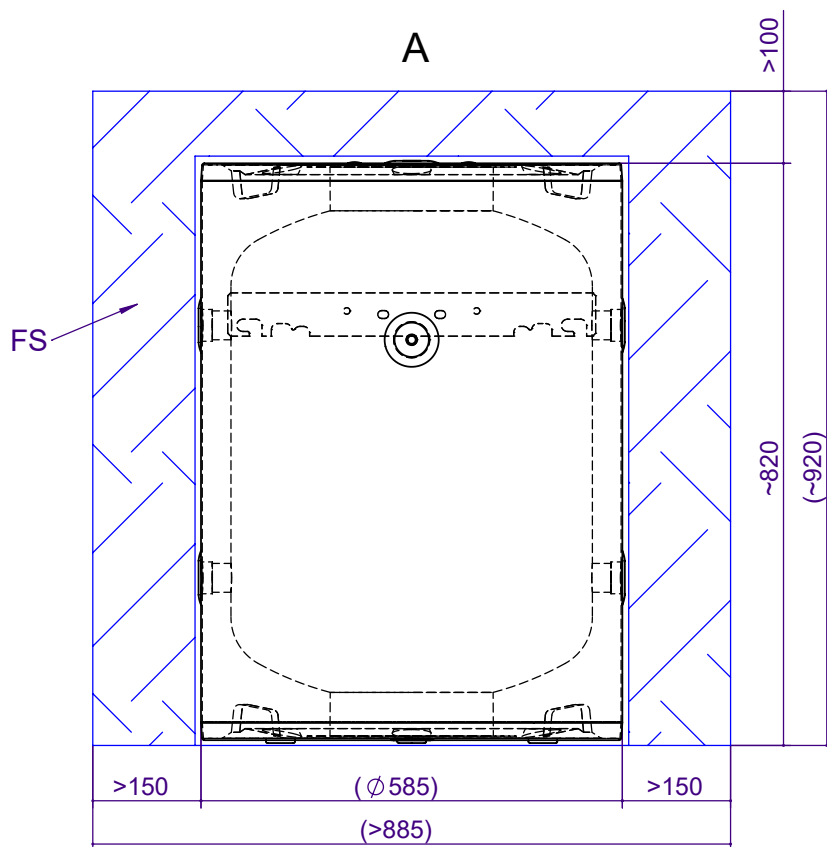
Keys: UK819515
All dimensions in mm.

Pos.	Name
A	Front view
FS	Free space for servicing



WTPSK 101Split

Installation plan



Keys: UK819535
All dimensions in mm.

Pos.	Name
A	Front view
FS	Free space for servicing



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