

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.



Contents

1	Please read first	2	Technical Data	7
2	Symbols	2	WPSK 40Split – WTPSK 100Split.....	7
3	Intended use.....	4	Dimensional drawings.....	8
4	Disclaimer	4	WPSK 40Split.....	8
5	Safety	4	WTPSK 100Split	9
5.1	Personal protective equipment	4	Installation plans.....	10
6	Contact.....	5	WPSK 40Split.....	10
7	Warranty / Guarantee	5	WTPSK 100Split	10
8	Disposal	5	EC Declaration of Conformity	11
9	Scope of delivery	5		
9.1	Accessories.....	5		
10	Transport, Installation, Assembly.....	5		
10.1	Transport to installation location	5		
10.2	Installation	6		
10.3	Installation of the sensor for the regulator	6		
11	Insulation of the connections and the storage tank.....	6		
12	Draining the storage tank.....	6		



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
- 1 sensor for the 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.

i **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 for the regulator

1. On site, install the sensors included with the tank for the regulator in the sensor pockets provided.

→ Position: "Dimensional drawings", from page 8, for the respective model.

2. Connect the sensor to the regulator according to the wiring diagram.

→ Wiring diagram for the respective model in the heat pump operating manual

11 Insulation of the connections and the storage tank

i **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

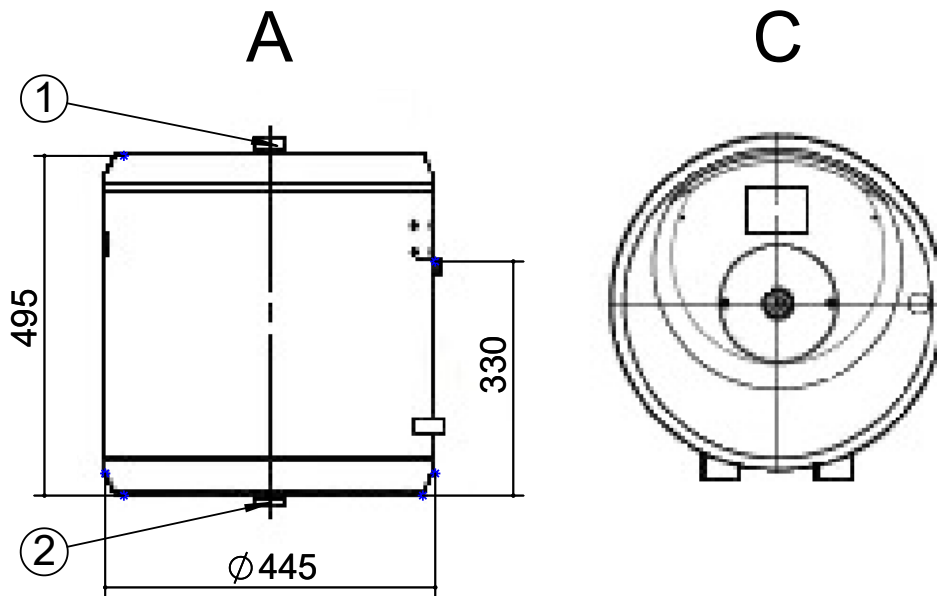
! **IMPORTANT**
When draining the storage tank, always ensure adequate ventilation.



Technical Data

WPSK 40Split – WTPSK 100Split

Tank name		WPSK 40Split	WTPSK 100Split
Type	Series buffer tanks Stratified storage tanks Stratified storage tanks Solar	• — —	• • —
Hot water tank	Energy efficiency class according to ErP	B	B
	Standing loss according to ErP (at 65°C)	28	41
	Tank volume according to ErP	39	100
	Max. operating pressure (except SVGW)	6	6
	Test pressure	9	9
	Max. operating temperature	5 95	5 95
General unit data	Dimensions: Diameter Height (see dimensioned drawing for rest)	445 495	524 855
	Tilt dimension	—	1005
	Heating water connections	2 x Rp 1" IG	4 x Rp 1" IG
	Solar connections	—	—
	Net weight	16	37
	Heating element (optional)	—	—
	Heating element connections	—	—
	Maximum output of electric heating element	—	—
Insulation	material: Rigid PU foam Soft PU-foam	• —	• —
	Insulation thickness	—	42
	Sheet metal jacket Foil jacket	• —	• —
813557g	Manufacturer: ait deutschland GmbH		



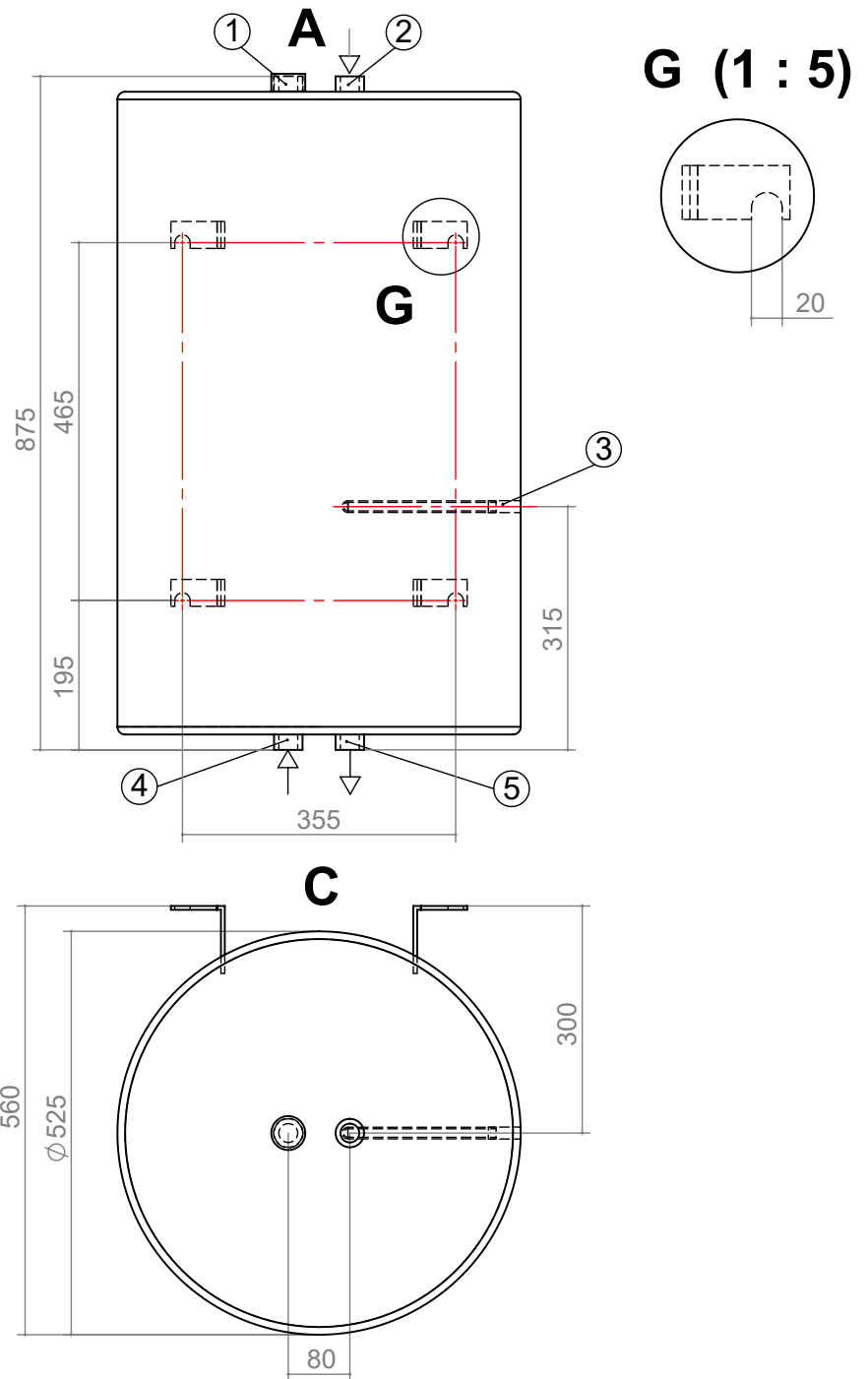
Keys: UK81513
All dimensions in mm.

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 100Split

Dimensional drawings



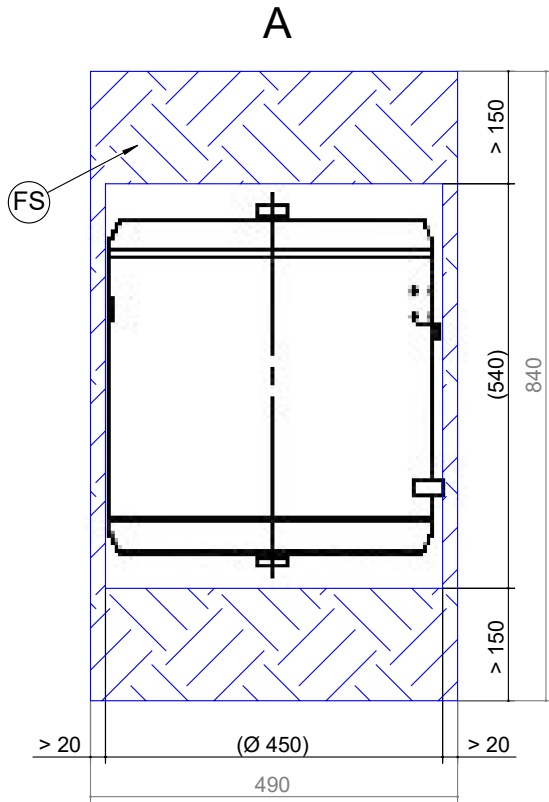
Keys: UK819424a
 All dimensions in mm.

Pos.	Name	Dimension
A	Front view	-
C	Plan view	-
G	Detail view	-
1	Filler plug	-
2	Flow	Rp 1"
3	Sensor pocket with sensor	Ø i 10 mm
4	Return from heating	Rp 1"
5	Return to heat pump	Rp 1"
	Net weight	41 kg
	Nominal volume	100 litres



Installation plan

WPSK 40Split

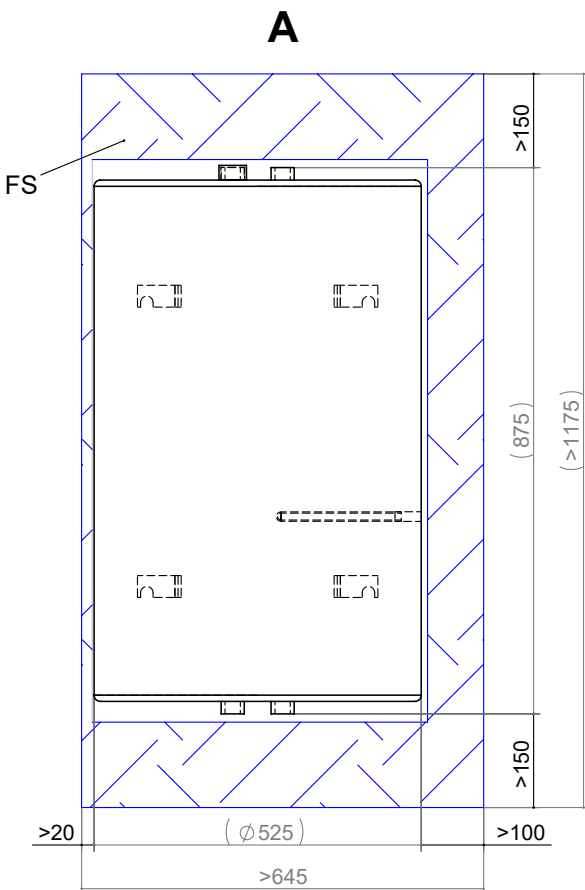


Keys: UK819515
All dimensions in mm.

Pos.	Name
A	Front view
FS	Free space for servicing

Installation plan

WTPSK 100Split



Keys: UK819425a
All dimensions in mm.

Pos.	Name
A	Front view
FS	Free space for servicing



EC Declaration of Conformity



The undersigned confirms that the following designated device(s) as designed and marketed by us fulfill the standardized EC directives, the EC safety standards and the product-specific EC standards.
 In the event of modification of the device(s) without our approval, this declaration shall become invalid.

Designation of the device(s)

Unit model	Number	Unit model	Number
WWS 121	15077201	WPS 61	15085501
WWS 202	15069801	WTPSK 100	15077301
WWSB 202	15092901	UPS 140	15016001
WWS 303	15007701	TPS 200	15030701
WWS 303.1	15091901	TPSK 200	15038401
WWS 405	15007801	TPSK 500	15038501
WWS 507	15025001	TPS 500.1	15092001
WWS 806	15038601	TPS 1500	15099201
WWS 1006	15038701	TPS 750	15096301
SWWS 404	15030001	TPS 1000	15096401
SWWS 506	15080001	TPSK 1000+WD TPSK 1000	150977VS01+15051701
SWWS 806	15038801	TPSK 1500+WD TPSK 1500	150978VS01+15051801
SWWS 1008	15038901	WWS 303.2	15211001
MFS600S	15028001	WWS 405.2	15211101
MFS 830S	15028101	WWS 507.2	15211201
MFS 1000S	15039901	SWWS 404.2	15211301
WTPSK 100 Split	15079201	SWWS 506.2	15211401
WPSK 40 Split	15079101		

EC Directives

814/2013

Standardized EN

EN 12897:2016

Company:

ait-deutschland GmbH
 Industrie Str. 3
 93359 Kasendorf
 Germany

Place, date:

Kasendorf, 21.07.2020

Signature:

UK818177d

Jesper Stannow
 Coordinator of pre-development and standards projects



ait-deutschland GmbH
Industriestraße 3
D-95359 Kasendorf

www.ait-deutschland.eu