

VIA DRUS

STORAGE TANKS

AkuECONOMY S 500 L

AkuECONOMY S 800 L

AkuECONOMY S 1000 L

AkuECONOMY S 1500 L

AkuECONOMY S 2000 L

OPERATING AND INSTALLATION MANUAL

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1. Description of construction

The storage tanks are used as accumulators that store thermal energy produced by the solid fuel boiler and this energy is then continuously passed to heating system of central heating and hot service water.

The storage tanks constitute an accessory to:

- Systems with heat pump
- Solar systems
- Solid fuel boilers.

The storage tanks have 8 connections on the front side and 1 on top, allowing the connection of different options. As standard the tanks are equipped with three sockets for sensors and water drain valve at the bottom of the tank. Storage tanks can be supplied without thermal insulation or with thermal insulation. The tank is removable and made of soft polyurethane foam. If we want to install a solid fuel boiler in cascade with boiler on heating oil or gas boiler, with a fireplace and solar panels then the installation of storage tank is recommended. In case of connecting the solar panels it is necessary to separate heating water circuit from the antifreeze circuit in the solar system for example by using a external plate heat exchanger.

It is also recommended in case of boilers that are adapted to operation in an open system and you want to have an installation working in a closed system. Tanks are equipped with one steel spiral for connection to a solar or other heat source. The tanks are not enamelled therefore they only are adapted to the storage of neutral media (e.g. demineralised heating water, glycol, etc.). The maximum allowable operating pressure in the tank is 3 bar (0.3 Mpa).

In the table below there are given the values of wall thickness and material used for the manufacture of storage tanks AkuECONOMY S:

Storage tank	Tank diameter r [Ø]	Bottom		Material	Shells		Material
		Material thickness			Material thickness		
		Nominal [mm]	Minimal [mm]	S235JR	Nominal [mm]	Minimal [mm]	S235JR
500	600	3	2,5				
800	790	3	2,5				
1000	790	4	2,5				
1500	900	4	2,5				
2000	1100	4	2,5				

2. Instructions for product disposal after its service life expiration

VIADRUS a.s. is a contractual partner of the firm EKO-KOM a.s., its client number being F00120649.

Packages are in compliance to ČSN EN 13427.

Because the product is constructed of common materials its individual parts are recommended to be disposed through a firm dealing with waste collection and disposal.

The heater wrapping should be disposed of in following way:

- plastic foil, cardboard cover and the wooden pallet into the common waste
- metal strap for strapping – through a firm dealing with waste collection and disposal
- wooden base, is designated for a single usage and no longer can be used as a product. Its disposal is subject to Act. 477/ 2001 Sb. a 185/2001 Coll.as amended.

In case that the product has lost its serviceability you can take advantage of product “take back service” (if this is established); in case that the originator has declared that it is a scrap it must be handled according to the valid legislation of relevant country.

3. Guarantee

Guarantee of an enamel storage tank is 24 months.

The guarantee includes the above period, but the maximum the period of warranty plus 12 months from the date of manufacture.

The manufacturer for the validity of his guarantee requires:

- To inspect storage tanks regularly once a year. Only an authorized service organization is qualified to exercise the inspections.
- To document all records on carried out guarantee and after-guarantee repairs and annual inspections in an annex to this manual guarantee certificate.

Every fault must be notified immediately after having been discovered and always in writing.

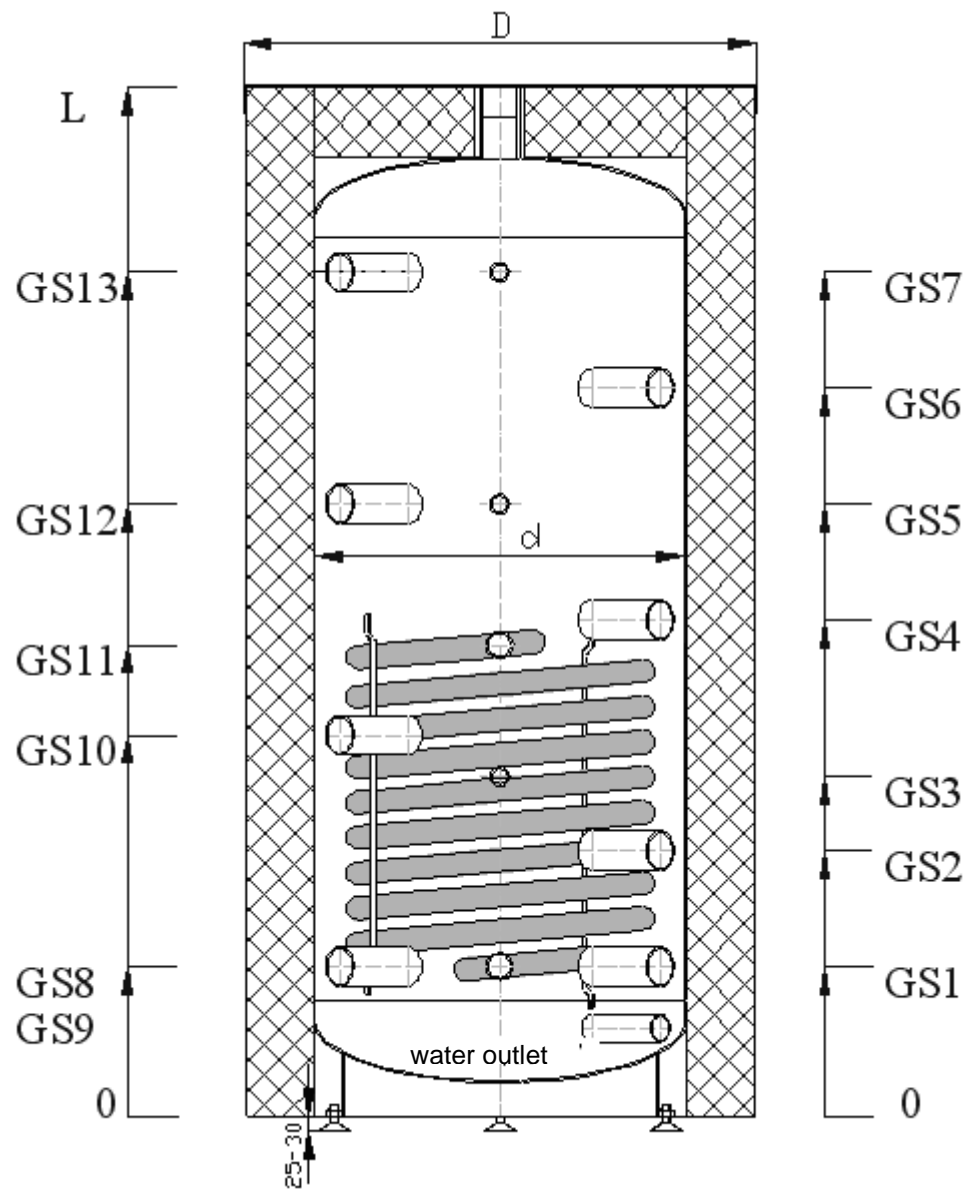
In case of an infringement of above instructions the guarantees provided by the manufacturer will not be recognized.

The guarantee does not apply to:

- faults caused by improper assembly and improper attendance of the product and faults caused by improper maintenance;
- product damage arisen from transport or other mechanical damage;
- the faults caused by an unsuitable way of storing;
- faults caused by failure to observe instructions stated in this manual.

The manufacturer reserves the right of alterations made within the product innovation that needn't be included in this manual

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Technical parameters		Designation		AkuECONOMY S 500 L	
Volume		l		500	
Maxim. permissible temperature		°C		95	
Maxim. permissible pressure		bar		3	
The maximum allowable pressure of the spiral		bar		6	
Surface of spiral		m ²		2,5	
Dimensions					
Water drain valve					
Height of connection for boiler water		GS1	mm	225	
Height of connection for boiler water		GS2	mm	460	
Height of connection for sensors or thermometer		GS3	mm	620	
Height of connection for boiler water		GS4	mm	920	
Height of connection for sensors or thermometer		GS5	mm	1155	
Height of connection for boiler water		GS6	mm	1385	
Height of connection for sensors or thermometer		GS7	mm	1615	
Height of connection for boiler water		GS8	mm	225	
Connection height of spiral reverse		GS9	mm	225	
Height of connection for boiler water		GS10	mm	690	
Height of connection of supplying the spiral		GS11	mm	1025	
Height of connection for boiler water		GS12	mm	1155	
Height of connection for boiler water		GS13	mm	1615	
Height of equipment		L	mm	1905	
Tank diameter (without insulation)		d	Ø	600	
Diameter with insulation)		D	Ø	800	
Insulation made of hardened polyurethane foam			mm	100	
External shell		skay			
Hydraulic connections					
Boiler water supply/ return branch of heating water		Gw		1 1/2"	
Connections for sensor and thermometer		Gw		1/2"	
Connections of supplying and spiral reverse		Gw		1"	
Water drain valve		Gw		1"	
Weight without insulation (empty)		kg		145	

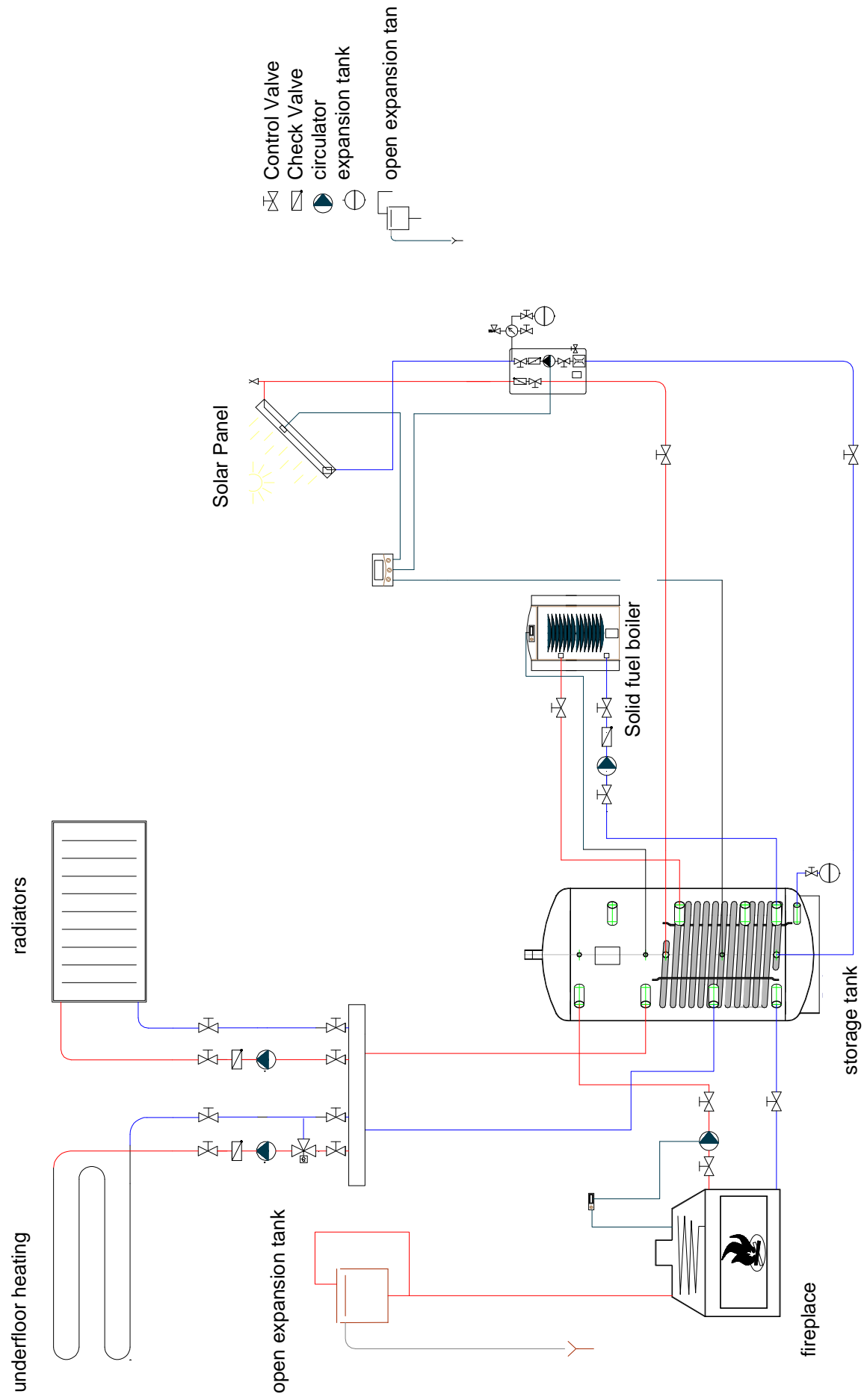
Technical parameters		Designation		AkuECONOMY S 800 L	
Volume		l		800	
Maxim. permissible temperature		°C		95	
Maxim. permissible pressure		bar		3	
The maximum allowable pressure of the spiral		bar		6	
Surface of spiral		m ²		3	
Dimensions					
Water drain valve					
Height of connection for boiler water		GS1	mm	250	
Height of connection for boiler water		GS2	mm	435	
Height of connection for sensors or thermometer		GS3	mm	570	
Height of connection for boiler water		GS4	mm	820	
Height of connection for sensors or thermometer		GS5	mm	1020	
Height of connection for boiler water		GS6	mm	1215	
Height of connection for sensors or thermometer		GS7	mm	1410	
Height of connection for boiler water		GS8	mm	250	
Connection height of spiral reverse		GS9	mm	250	
Height of connection for boiler water		GS10	mm	620	
Height of connection of supplying the spiral		GS11	mm	900	
Height of connection for boiler water		GS12	mm	1020	
Height of connection for boiler water		GS13	mm	1410	
Height of equipment		L	mm	1730	
Tank diameter (without insulation)		d	Ø	790	
Diameter with insulation)		D	Ø	990	
Insulation made of hardened polyurethane foam			mm	100	
External shell		skay			
Hydraulic connections					
Boiler water supply/ return branch of heating water		Gw		1 1/2"	
Connections for sensor and thermometer		Gw		1/2"	
Connections of supplying and spiral reverse		Gw		1"	
Water drain valve		Gw		1"	
Weight without insulation (empty)		kg		173	

Technical parameters		Designation		AkuECONOMY S 1000 L	
Volume		l		1000	
Maxim. permissible temperature		°C		95	
Maxim. permissible pressure		bar		3	
The maximum allowable pressure of the spiral		bar		6	
Surface of spiral		m ²		3,5	
Dimensions					
Water drain valve					
Height of connection for boiler water		GS1	mm	250	
Height of connection for boiler water		GS2	mm	500	
Height of connection for sensors or thermometer		GS3	mm	570	
Height of connection for boiler water		GS4	mm	980	
Height of connection for sensors or thermometer		GS5	mm	1240	
Height of connection for boiler water		GS6	mm	1485	
Height of connection for sensors or thermometer		GS7	mm	1730	
Height of connection for boiler water		GS8	mm	250	
Connection height of spiral reverse		GS9	mm	250	
Height of connection for boiler water		GS10	mm	740	
Height of connection of supplying the spiral		GS11	mm	1100	
Height of connection for boiler water		GS12	mm	1240	
Height of connection for boiler water		GS13	mm	1730	
Height of equipment		L	mm	2050	
Tank diameter (without insulation)		d	Ø	790	
Diameter with insulation)		D	Ø	990	
Insulation made of hardened polyurethane foam			mm	100	
External shell		skay			
Hydraulic connections					
Boiler water supply/ return branch of heating water		Gw	1 1/2"		
Connections for sensor and thermometer		Gw	1/2"		
Connections of supplying and spiral reverse		Gw	1"		
Water drain valve		Gw	1"		
Weight without insulation (empty)		kg	205		

Technical parameters		Designation		AkuECONOMY S 1500 L	
Volume		l		1500	
Maxim. permissible temperature		°C		95	
Maxim. permissible pressure		bar		3	
The maximum allowable pressure of the spiral		bar		6	
Surface of spiral		m ²		4	
Dimensions					
Water drain valve					
Height of connection for boiler water		GS1	mm	330	
Height of connection for boiler water		GS2	mm	705	
Height of connection for sensors or thermometer		GS3	mm	915	
Height of connection for boiler water		GS4	mm	1325	
Height of connection for sensors or thermometer		GS5	mm	1640	
Height of connection for boiler water		GS6	mm	1950	
Height of connection for sensors or thermometer		GS7	mm	2260	
Height of connection for boiler water		GS8	mm	330	
Connection height of spiral reverse		GS9	mm	330	
Height of connection for boiler water		GS10	mm	1015	
Height of connection of supplying the spiral		GS11	mm	1230	
Height of connection for boiler water		GS12	mm	1640	
Height of connection for boiler water		GS13	mm	2260	
Height of equipment		L	mm	2700	
Tank diameter (without insulation)		d	Ø	900	
Diameter with insulation)		D	Ø	1100	
Insulation made of hardened polyurethane foam			mm	100	
External shell		skay			
Hydraulic connections					
Boiler water supply/ return branch of heating water		Gw	1 1/2"		
Connections for sensor and thermometer		Gw	1/2"		
Connections of supplying and spiral reverse		Gw	1"		
Water drain valve		Gw	1"		
Weight without insulation (empty)		kg	275		

Technical parameters		Designation		AkuECONOMY S 2000 L	
Volume		l		2000	
Maxim. permissible temperature		°C		95	
Maxim. permissible pressure		bar		3	
The maximum allowable pressure of the spiral		bar		6	
Surface of spiral		m ²		4,5	
Dimensions					
Water drain valve					
Height of connection for boiler water		GS1	mm	385	
Height of connection for boiler water		GS2	mm	660	
Height of connection for sensors or thermometer		GS3	mm	800	
Height of connection for boiler water		GS4	mm	1205	
Height of connection for sensors or thermometer		GS5	mm	1480	
Height of connection for boiler water		GS6	mm	1755	
Height of connection for sensors or thermometer		GS7	mm	2025	
Height of connection for boiler water		GS8	mm	385	
Connection height of spiral reverse		GS9	mm	385	
Height of connection for boiler water		GS10	mm	930	
Height of connection of supplying the spiral		GS11	mm	1285	
Height of connection for boiler water		GS12	mm	1480	
Height of connection for boiler water		GS13	mm	2025	
Height of equipment		L	mm	2410	
Tank diameter (without insulation)		d	Ø	1100	
Diameter with insulation)		D	Ø	1300	
Insulation made of hardened polyurethane foam			mm	100	
External shell		skay			
Hydraulic connections					
Boiler water supply/ return branch of heating water		Gw		1 1/2"	
Connections for sensor and thermometer		Gw		1/2"	
Connections of supplying and spiral reverse		Gw		1"	
Water drain valve		Gw		1"	
Weight without insulation (empty)		kg		310	

Recommended wiring diagram



Certificate of warranty and Certificate of quality and completeness of the storage tank:

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Serial number of the storage tank

User (surname, first name)

Address (street, city, zip code)

Phone / Fax

Overpressure in the inlet water pipe kPa

Conditions of the validity of the warranty:

- Installation of the storage tank must be carried out according to " Operating and installation manual for storage tanks" by a professional firm
- Putting Into operation must be carried out according to "Operating and installation manual for storage tanks" by a contractual service organization accredited by the manufacturer
- The faults must be removed by a contractual service organization accredited by the manufacturer

The completeness of the supplied storage tank is guaranteed by the seller

The certificate of warranty is void if not filled out.

The user confirms that:

- he has received the "Operating and Installation manual"
- he has been acquainted with the operation and maintenance of the storage tank

..... Production date Stamp of the manufacturer Checked by: (signature)
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..... Date of installation Installation company (stamp, signature) Signature of user
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..... Date of putting into operation Contractual service organization (stamp, signature) Signature of user
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Enclosure to the certificate of warranty for the customer- user

Record of the carried out warranty and post warranty repairs and regular annual checks of the product			
Date of record	Carried out activity	Contractual service organization (signature, stamp)	Signature of customer

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VIADRUS

VIADRUS a.s.

Bezručova 300 / 735 81 Bohumín / CZ

Tel.: + 420 596 083 050 / Fax: + 420 596 082 822

www.viadrus.cz / info@viadrus.cz