VIADRUS

STORAGE TANKS

AkuECONOMY 200 L
AkuECONOMY 300 L
AkuECONOMY 500 L
AkuECONOMY 800 L
AkuECONOMY 1000 L
AkuECONOMY 1500 L
AkuECONOMY 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. 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:

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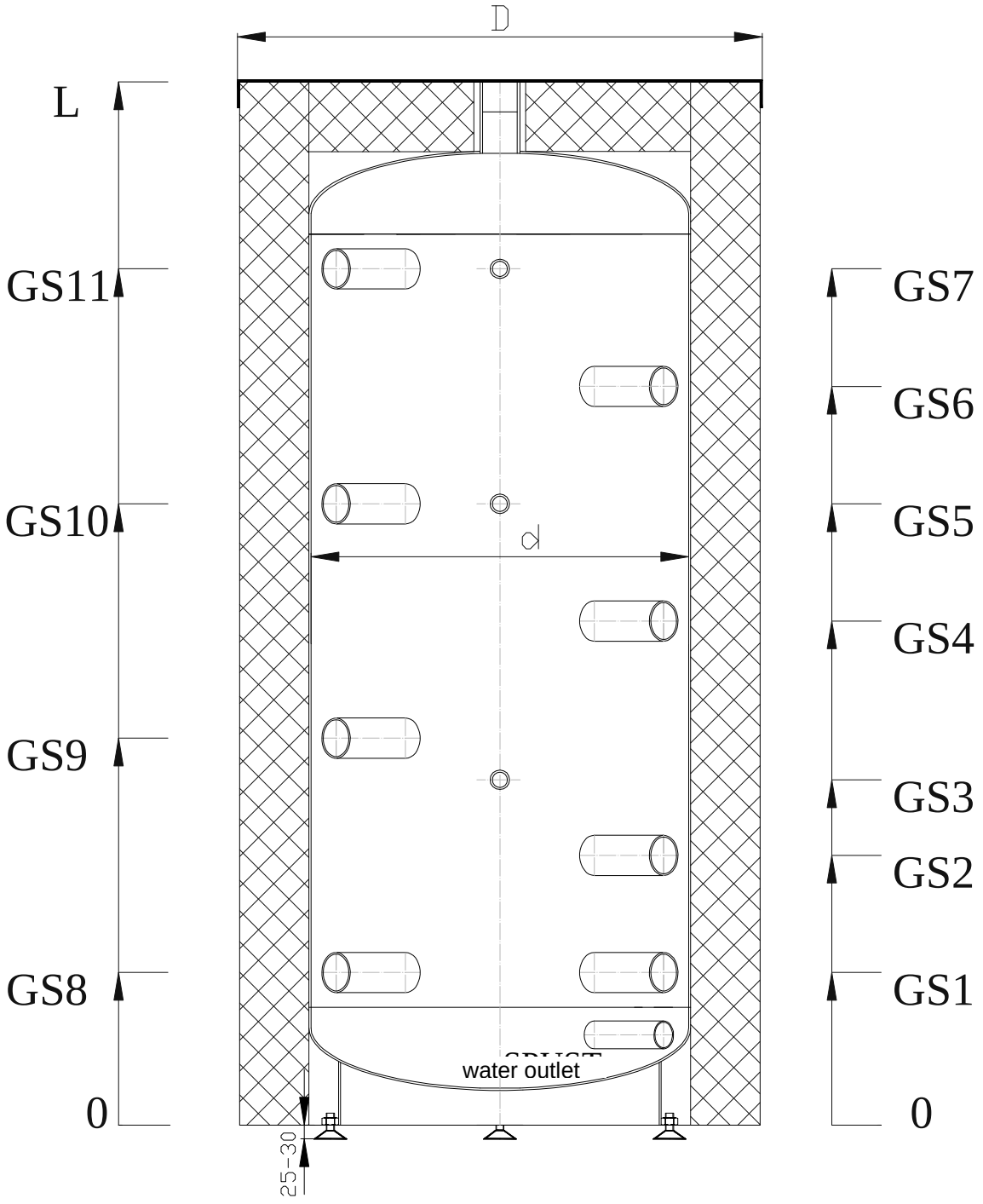

Technical parameters		Designation	AkuECONOMY 200 L
Volume		l	200
Maxim. permissible temperature		^{o}C	95
Maxim. permissible pressure		bar	3
Dimensions			
Water drain valve			
Height of connection for boiler water	GS1	mm	220
Height of connection for sensors or thermometer	GS2	mm	312
Height of connection for boiler water	GS3	mm	483
Height of connection for sensors or thermometer	GS4	mm	603
Height of connection for boiler water	GS5	mm	785
Height of connection for sensors or thermometer	GS6	mm	885
Height of connection for boiler water	GS7	mm	220
Height of connection for boiler water	GS8	mm	553
Height of connection for sensors or thermometer	GS9	mm	785
Height of equipment	L	mm	1105
Tank diameter (without insulation)	d	Ø	550
Diameter with insulation)	D	Ø	700
Insulation made of hardened polyurethane foam		mm	70
External shell	skay		
Hydraulic connections			
Boiler water supply/ return branch of heating water		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	60

Technical parameters		Designation	AkuECONOMY 300 L
Volume		l	300
Maxim. permissible temperature		^{o}C	95
Maxim. permissible pressure		bar	3
Dimensions			
Water drain valve			
Height of connection for boiler water	GS1	mm	220
Height of connection for boiler water	GS2	mm	390
Height of connection for sensors or thermometer	GS3	mm	500
Height of connection for boiler water	GS4	mm	730
Height of connection for sensors or thermometer	GS5	mm	900
Height of connection for boiler water	GS6	mm	1070
Height of connection for sensors or thermometer	GS7	mm	1235
Height of connection for boiler water	GS8	mm	220
Height of connection for boiler water	GS9	mm	560
Height of connection for boiler water	GS10	mm	900
Height of connection for boiler water	GS11	mm	1235
Height of equipment	L	mm	1370
Tank diameter (without insulation)	d	Ø	550
Diameter with insulation)	D	Ø	700
Insulation made of hardened polyurethane foam		mm	70
External shell	skay		
Hydraulic connections			
Boiler water supply/ return branch of heating water		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	75

Technical parameters		Designation	AkuECONOMY 500 L
Volume		l	500
Maxim. permissible temperature		^{o}C	95
Maxim. permissible pressure		bar	3
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
Height of connection for boiler water	GS9	mm	690
Height of connection for boiler water	GS10	mm	1155
Height of connection for boiler water	GS11	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		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	105

Technical parameters		**Designation**	**AkuECONOMY 800 L**
Volume		l	800
Maxim. permissible temperature		^{o}C	95
Maxim. permissible pressure		bar	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
Height of connection for boiler water	GS9	mm	620
Height of connection for boiler water	GS10	mm	1020
Height of connection for boiler water	GS11	mm	1410
Height of equipment	L	mm	1730
Tank diameter (without insulation)	d	Ø	790
Diameter with insulation)	D	Ø	990
Insulation made of soft polyurethane foam		mm	100
External shell	skay		
Hydraulic connections			
Boiler water supply/ return branch of heating water		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	125

Technical parameters		**Designation**	**AkuECONOMY 1000 L**
Volume		l	1000
Maxim. permissible temperature		^{o}C	95
Maxim. permissible pressure		bar	3
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
Height of connection for boiler water	GS9	mm	740
Height of connection for boiler water	GS10	mm	1240
Height of connection for boiler water	GS11	mm	1730
Height of equipment	L	mm	2050
Tank diameter (without insulation)	d	Ø	790
Diameter with insulation)	D	Ø	990
Insulation made of soft polyurethane foam		mm	100
External shell	skay		
Hydraulic connections			
Boiler water supply/ return branch of heating water		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	150

Technical parameters		**Designation**	**AkuECONOMY 1500 L**
Volume		l	1500
Maxim. permissible temperature		^{o}C	95
Maxim. Permissible pressure		bar	3
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
Height of connection for boiler water	GS9	mm	1015
Height of connection for boiler water	GS10	mm	1640
Height of connection for boiler water	GS11	mm	2260
Height of equipment	L	mm	2700
Tank diameter (without insulation)	d	Ø	900
Diameter with insulation)	D	Ø	1100
Insulation made of soft polyurethane foam		mm	100
External shell	skay		
Hydraulic connections			
Boiler water supply/ return branch of heating water		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	210

Technical parameters		**Designation**	**AkuECONOMY 2000 L**
Volume		l	2000
Maxim. permissible temperature		^{o}C	95
Maxim. Permissible pressure		bar	3
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
Height of connection for boiler water	GS9	mm	930
Height of connection for boiler water	GS10	mm	1480
Height of connection for boiler water	GS11	mm	2025
Height of equipment	L	mm	2410
Tank diameter (without insulation)	d	Ø	1100
Diameter with insulation)	D	Ø	1300
Insulation made of soft polyurethane foam		mm	100
External shell	skay		
Hydraulic connections			
Boiler water supply/ return branch of heating water		internal thread	1 1/2”
Connections for sensor and thermometer		internal thread	1/2"
Water drain valve		internal thread	1”
Weight without insulation (empty)		kg	235

VIADRUS a.s.,
Bezručova 300
735 81 Bohumín

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

AkuECONOMY …….

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)
……..	……..	……..
Date of installation	Installation company (stamp, signature)	Signature of user
……..	……..	……..
Date of putting into operation	Contractual service organization (stamp, signature)	Signature of user

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**

Intended for the contractual service organization

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735 81 Bohumín

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

AkuECONOMY …….

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"
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……..	……..	……..
Production date	Stamp of the manufacturer	Checked by: (signature)
……..	……..	……..
Date of installation	Installation company (stamp, signature)	Signature of user
……..	……..	……..
Date of putting into operation	Contractual service organization (stamp, signature)	Signature of user

Intended for the manufacturer

VIADRUS a.s.,
Bezručova 300
735 81 Bohumín

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

AkuECONOMY …….

Serial number of the storage tank ……

User (surname, first name) ……

Address (street, city, zip code) ……

Phone / Fax ……

Overpressure in the inlet water pipe ..... kPa

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……..	……..	……..
Production date	Stamp of the manufacturer	Checked by: (signature)
……..	……..	……..
Date of installation	Installation company (stamp, signature)	Signature of user
……..	……..	……..
Date of putting into operation	Contractual service organization (stamp, signature)	Signature of user

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