


# WARNINGS

- ▲ The appliance may be used by children aged 3 and older and persons with physical, sensory or mental disabilities or lacking experience or knowledge, if they are under supervision or taught about safe use of the appliance and if they are aware of the potential dangers. Children aged from 3 to 8 years are only allowed to operate the tap connected to the storage tank.
- ▲ Children should not play with the appliance.
- ▲ Children should not clean or maintain the appliance without supervision.
- ▲ The installation should be performed in accordance with the valid regulations and the instructions of the manufacturer. It should be performed by a professionally trained installation expert.
- ▲ It is obligatory to install a safety valve with a rated pressure of 0.6 MPa (6 bar), 0.9 MPa (9 bar) or 1.0 MPa (10 bar) – see the label – on the inlet pipe of the hot water storage tank to prevent the elevation of pressure in the tank by more than 0.1 MPa (1 bar) above the rated pressure.
- ▲ Water may drip from the outlet opening of the safety valve, so the outlet opening should be set to atmospheric pressure.
- ▲ The outlet of the safety valve should be installed facing downwards and in a non-freezing area.
- ▲ To ensure proper functioning of the safety valve, the user should perform regular controls to remove limescale and make sure the safety valve is not blocked.
- ▲ Do not install a stop valve between the hot water storage tank and the safety valve, because it will impair the pressure protection of the storage tank!
- ▲ Water from the storage tank is drained through the inlet pipe of the tank. For this purpose, a special fitting (T-fitting) with an outlet valve must be mounted between the safety valve and the inlet pipe.
- ▲ Please do not try to fix any defects of the storage tank on your own. Call the nearest authorised service provider.

 Our products incorporate components that are both environmentally safe and harmless to health, so they can be disassembled as easily as possible and recycled once they reach their final life stage. Recycling of materials reduces the quantity of waste and the need for production of raw materials (e.g. metals) which requires a substantial amount of energy and causes release of harmful substances. Recycling procedures reduce the consumption of natural resources, as the waste parts made of plastic and metal can be returned to various production processes. For more information on waste disposal, please visit your waste collection centre or the store where the product was purchased.

Dear buyer, thank you for purchasing our product.

**PRIOR TO THE INSTALLATION AND FIRST USE OF THE HOT WATER STORAGE TANK, PLEASE READ THESE INSTRUCTIONS CAREFULLY.**

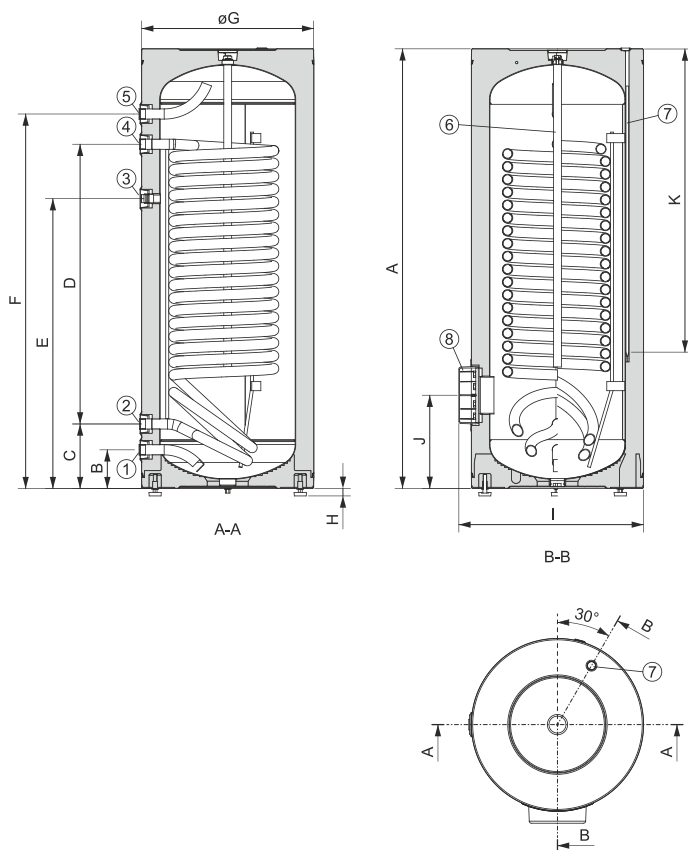
This storage tank has been manufactured in compliance with the relevant Standards and tested by the relevant authorities as indicated by the Safety Certificate. The technical characteristics of the product are listed on the label attached to the protective cover. The connection of the storage tank to the plumbing must be carried out by qualified staff only. All repairs and maintenance work in the interior of the storage tank, as well as limestone removal or testing or replacement of the corrosion protection anode, may only be carried out by an approved maintenance service provider.

The hot water storage tank is designed in a manner which allows using the following heating sources, via a heat exchanger:

- Central heating hot-water system,
- Solar power,
- Heating pump.

## INSTALLATION

The heater should be installed in a dry room that is not subject to freezing conditions, preferably in the vicinity of other sources of heating (e.g. boiler room). Prior to installation screw on the enclosed adjustable legs. Level the storage tank longitudinally and transversally by rotating the adjustable legs.



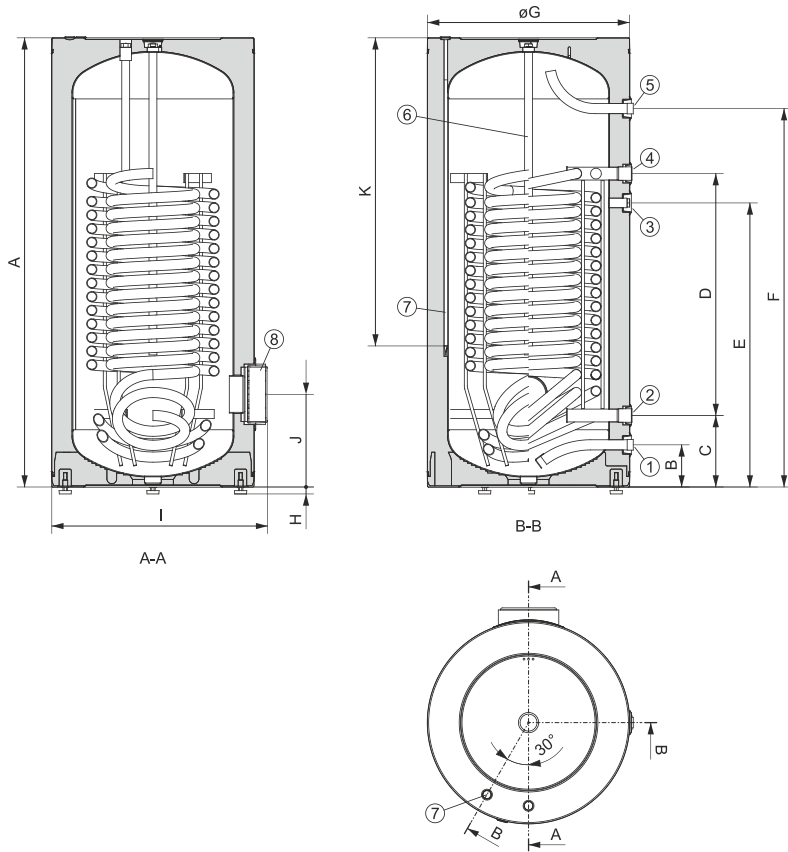
### KEY

1	Cold water inflow
2	Medium outlet from the heat exchanger
3	Circulation conduit
4	Medium inflow into the heat exchanger
5	Hot water outflow
6	Protection anode
7	Sensors tube
8	Cleaning flange

VLGM200A2-1		
A	[mm]	1454
B	[mm]	127
C	[mm]	209
D	[mm]	925
E	[mm]	954
F	[mm]	1234
G	[mm]	570
H	[mm]	25 – 70
I	[mm]	682
J	[mm]	270
K	[mm]	1000
1	["]	R1 *
2	["]	R1 *
3	["]	G 3/4 **
4	["]	R1 *
5	["]	R1 *

\* external thread  
\*\* internal thread

Image 1a: Connection and installation dimensions of the storage tank VLG200A2-1

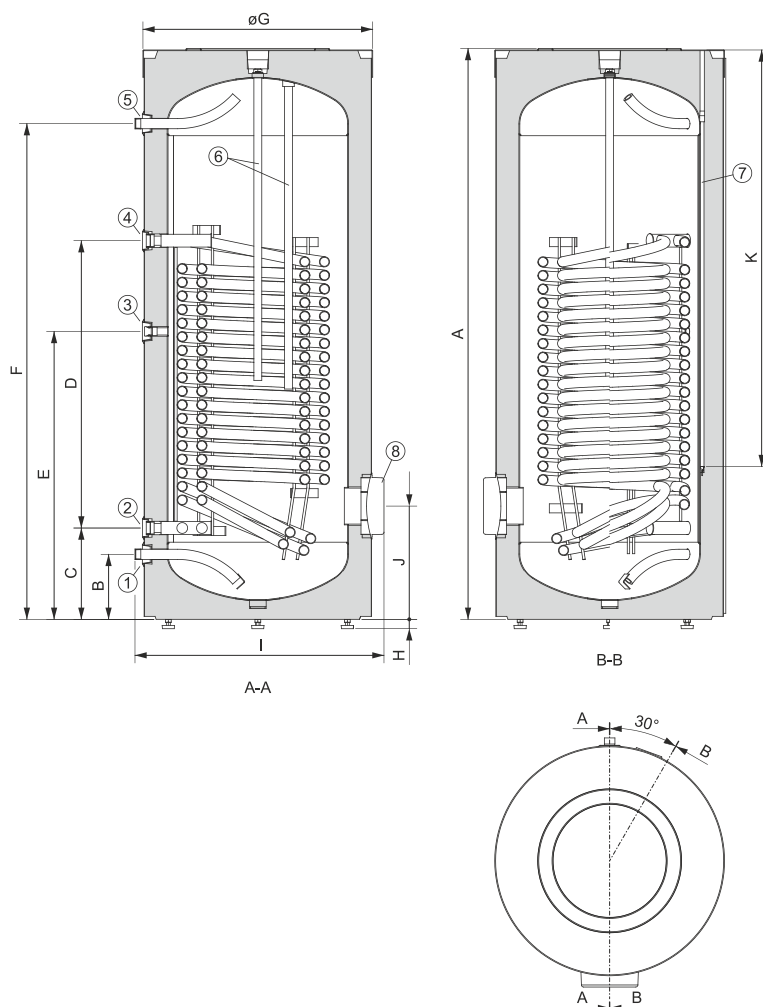


KEY	
1	Cold water inflow
2	Medium outlet from the heat exchanger
3	Circulation conduit
4	Medium inflow into the heat exchanger
5	Hot water outflow
6	Protection anode
7	Sensors tube
8	Cleaning flange

VLGM300B3-1		
A	[mm]	1483
B	[mm]	140
C	[mm]	237
D	[mm]	800
E	[mm]	940
F	[mm]	1252
G	[mm]	670
H	[mm]	25 – 70
I	[mm]	775
J	[mm]	327
K	[mm]	1016
1	["]	R1 *
2	["]	G1 ¼ **
3	["]	G ¾ **
4	["]	G1 ¼ **
5	["]	R1 *

\* external thread  
 \*\* internal thread

Image 1b: Connection and installation dimensions of the storage tank VLG300B3-1



KEY	
1	Cold water inflow
2	Medium outlet from the heat exchanger
3	Circulation conduit
4	Medium inflow into the heat exchanger
5	Hot water outflow
6	Protection anode
7	Sensors tube
8	Cleaning flange

VLG400C1-1		
A	[mm]	1888
B	[mm]	215
C	[mm]	302
D	[mm]	950
E	[mm]	952
F	[mm]	1639
G	[mm]	760
H	[mm]	31 – 70
I	[mm]	869
J	[mm]	354
K	[mm]	1350
1	["]	R1 *
2	["]	G1 ¼ **
3	["]	G ¾ **
4	["]	G1 ¼ **
5	["]	R1 *

\* external thread  
 \*\* internal thread

Image 1c: Connection and installation dimensions of the storage tank VLG400C1-1

# CONNECTION TO THE WATER SUPPLY

Connection to water supply should be made according to the markings for the connections, as defined in the previous Chapter.

For safety reasons the supply pipe must be fitted with a safety valve or, alternatively, a valve of the safety class that prevents the pressure in the tank from exceeding the nominal pressure by more than 0.1 MPa (1 bar). The outlet opening on the safety valve must be equipped with an outlet for atmospheric pressure. The heating of water in the storage tank causes the pressure in the tank to increase to the level set by the safety valve. As the water cannot return to the water supply system, this can result in dripping from the outlet opening of the safety valve. The drip can be piped to a drain by installing a catching unit just below the safety valve. The drain installed below the safety valve outlet must be piped down vertically and placed in an environment that is free from the onset of freezing conditions.

In case you want to avoid water dripping from the safety valve, an expansion tank for domestic water with at least 5 % of the volume of the storage tank should be installed on the inlet pipe of the storage tank.

To ensure proper functioning of the safety valve, the user should perform regular controls to remove limescale and make sure the safety valve is not blocked. To check the valve, open the outlet of the safety valve by turning the handle or unscrewing the nut of the valve (depending on the type of valve). The valve is operating properly if the water comes out of the nozzle when the outlet is open.

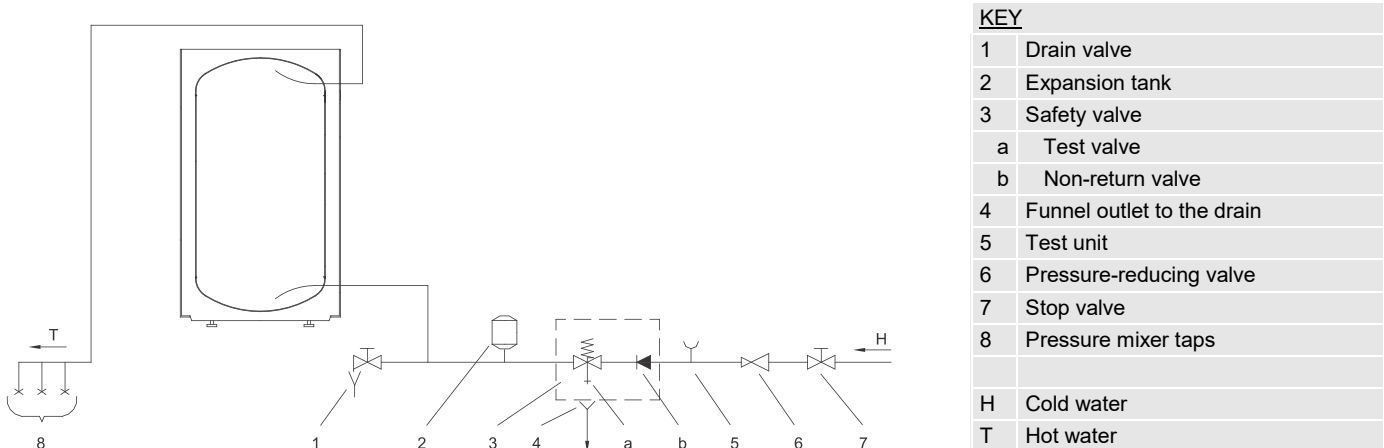


Image 2: Closed (pressure) system

The storage tank can be connected to the domestic water supply network without a pressure regulator if the pressure in the network is lower than the nominal pressure (see the label). If the pressure in the network exceeds the nominal pressure, a pressure regulator must be installed.

## INSTALLATION OF SENSORS

On the upper side of the storage tank there is sensors tube for mounting the sensors for regulation of the system connection of the hot water storage tank to other heating sources. The maximum diameter of the sensors is 8 mm.

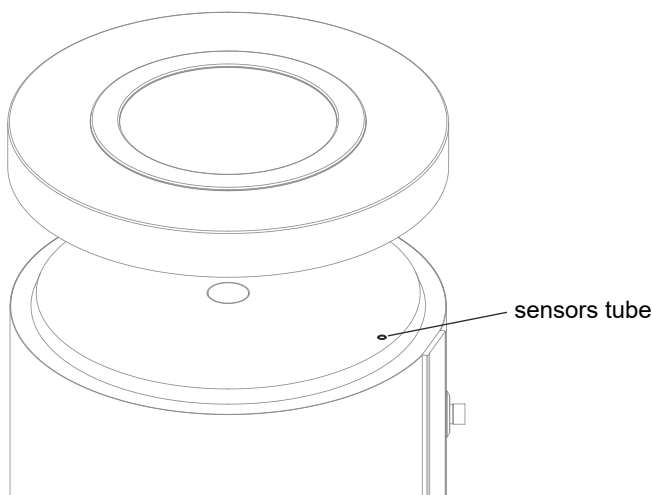


Image 3: Installation of sensors

# CONNECTION TO ALTERNATIVE SOURCES OF HEATING

The hot water storage tank enables the water for sanitary use to be heated by alternative sources of energy (e.g. central heating, solar power etc.) by installing a Heat Exchanger.

Examples of connecting the hot water storage tank to various sources of heating are shown in the drawings below.

KEY			
1	Hot water storage tank	8	Safety valve
2	Central heating hot-water system	9	Air relief valve
3	Solar panel	10	Fill/drain valve
4	Differential thermostat with sensors (T1, T2, T3, T4)	11	Reduction valve
5	Bypass pump	12	Drain valve
6	Expansion tank	13	Stop valve
7	Non-return valve	14	Test unit
		15	Funnel outlet to the drain

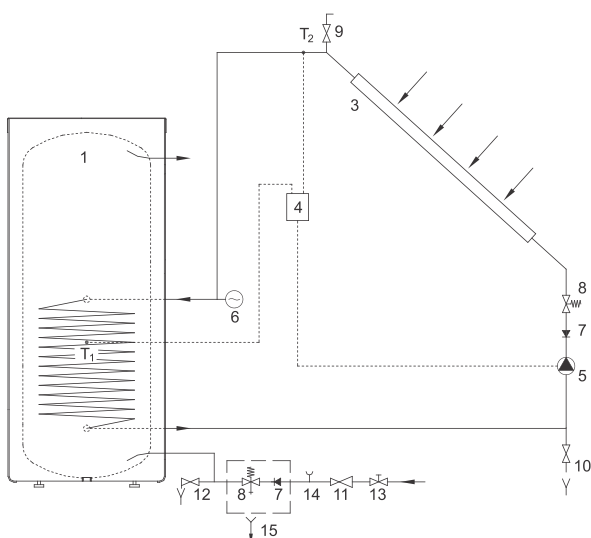


Image 4: Connection to solar panels

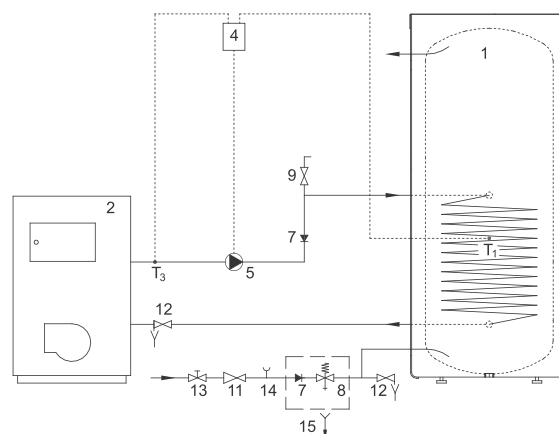


Image 5: Connection to the central heating hot-water system

## USE AND MAINTENANCE

The hot water storage tank is ready for use once it has been connected to water and other heating sources. The usual main sources for heating domestic water are central heating or solar power; in this case any regulation of water heating is performed in the heating system.

In case of exposure to sub-zero temperatures, the water should be drained from the storage tank thoroughly before the onset of freezing conditions. Water from the storage tank is drained through the inlet pipe of the storage tank. For this purpose, a special fitting (T-fitting) with an outlet valve must be mounted between the safety valve and the inlet pipe. Before discharge the storage tank close the inlet of cold water into the storage tank and open the hot water tap on the connected mixer tap. After discharging through the inlet pipe there is still some water left in the storage tank.

The external parts of the water heater may be cleaned with a soft cloth and mild cleaning fluids. Do not use cleaning fluids containing abrasives.

Regular preventive maintenance inspections ensure faultless performance and long life of your storage tank. Tank Warranty is subject to regular inspections of the wear of the protective anode. The period between individual regular inspections should not be longer than specified in the Guarantee statement. Inspection should be carried out by an authorised maintenance service provider recording the inspection on the Guarantee Certificate of the product. During the inspection, the wear of the corrosion protection anode will be inspected and any limestone built up in the interior of the storage tank, depending on the quality, quantity and temperature of used water, will be removed as required. After inspecting the storage tank, the maintenance service provider will also recommend the date of the next inspection according to the ascertained status.

**Please do not try to fix any defects of the storage tank on your own. Call the nearest authorised service provider.**

# TECHNICAL CHARACTERISTICS

Type		VLGM200A2-1	VLGM300B3-1	VLG400C1-1
Energy efficiency class <sup>1)</sup>		B	B	B
Standing loss S <sup>2)</sup>	[W]	53	61	70
Storage volume	[l]	180	258	405
Rated pressure	[MPa (bar)]	0,6 (6); 0,9 (9); 1,0 (10)		
Weight/filled with water	[kg]	96 / 276	160 / 418	200 / 605
Anti-corrosion protection of tank		Enamelled / Mg anode		
Heat exchanger surface	[m <sup>2</sup> ]	2,18	3,6	5
Temperature of the heating medium in the heat exchanger	[°C]	< 95		
Insulation thickness	[mm]	60	67	75
Heat loss <sup>2)</sup>	[kWh/24h]	1,3	1,5	1,7
Maximum diameter of sensors	[mm]	ø8		
Cleaning flange	[mm]	ø180		

<sup>1)</sup> Commission Regulation EU 812/2013

<sup>2)</sup> Tested pursuant to EN 12897:2006

