Installation and service instructions

for contractors

Vitocell 100-E
Type SVPB
Heating water buffer cylinder
600 to 950 l

VITOCELL 100-E

6154019 GB 10/2023

Please keep safe.

Safety instructions

⚠ Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained

⚠ **Danger**
This symbol warns against the risk of injury.

! **Please note**
This symbol warns against the risk of material losses and environmental pollution.

Note
Details identified by the word "Note" contain additional information.

Target group

These instructions are exclusively intended for qualified contractors.

- Work on electrical equipment may only be carried out by a qualified electrician.
- The system must be commissioned by the system installer or a qualified person authorised by the installer.

Regulations to be observed

- National installation regulations
- Statutory regulations for the prevention of accidents
- Statutory regulations for environmental protection
- Codes of practice of the relevant trade associations
- Relevant country-specific safety regulations

Working on the system

- Isolate the system from the power supply (e.g. by removing the separate fuse or by means of a mains isolator) and check that it is no longer live.
- Safeguard the system against reconnection.

! **Please note**
Electronic assemblies can be damaged by electrostatic discharge. Prior to commencing any work, touch earthed objects such as heating or water pipes to discharge static loads.

⚠ **Danger**
Hot surfaces can cause burns.
- Before maintenance and service work, switch OFF the appliance and let it cool down.
- Never touch the hot surfaces of uninsulated pipes and fittings.

Safety instructions (cont.)

Danger
Floors that are wet or damp with water or glycol based liquids can cause injury due to slipping and falling.
- Keep the floor clean and dry during installation and maintenance work.
- Wear non-slip shoes.

Danger
Broken-off fragments of insulation material can cause death by suffocation if inhaled or swallowed.
- Do not let children play in the installation room.
- Keep the installation room clean after installation and maintenance work.

Repair work

Please note
Repairing components that fulfil a safety function can compromise the safe operation of the system.
Replace faulty components only with genuine Viessmann spare parts.

Auxiliary components, spare and wearing parts

Please note
Spare and wearing parts that have not been tested together with the system can compromise its function. Installing non-authorised components and making non-approved modifications or conversions can compromise safety and may invalidate our warranty.
For replacements, use only original spare parts supplied or approved by Viessmann.

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Disposal of packaging

Please dispose of packaging waste in line with statutory regulations.

Symbols

Symbol	Meaning
	Reference to other document containing further information
	Step in a diagram: The numbers correspond to the order in which the steps are carried out.
	Warning of material losses and environmental pollution
	Live electrical area
	Pay particular attention.
	▪ Component must audibly click into place. or ▪ Acoustic signal
	▪ Fit new component. or ▪ In conjunction with a tool: Clean the surface.
	Dispose of component correctly.
	Dispose of component at a suitable collection point. Do **not** dispose of component in domestic waste.

Intended use

The appliance is only intended to be installed and operated in sealed unvented systems that comply with EN 12828 / DIN 1988, or solar thermal systems that comply with EN 12977, with due attention paid to the associated installation, service and operating instructions. DHW cylinders are only designed to store and heat water of potable water quality. Heating water buffer cylinders are only designed to hold fill water of potable water quality. Only operate solar collectors with the heat transfer medium approved by the manufacturer.

Intended use presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

Commercial or industrial usage for a purpose other than heating the building or DHW shall be deemed inappropriate.

Any usage beyond this must be approved by the manufacturer for the individual case.

Intended use (cont.)

Incorrect usage or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and results in an exclusion of liability.

Incorrect usage also occurs if the components in the system are modified from their intended use (e.g. through direct DHW heating in the collector).

Adhere to statutory regulations, especially concerning the hygiene of potable water.

Product information

Vitocell 100-E, type SVPB (600, 750 and 950 l capacity)

- Steel heating water buffer cylinder for storing heating water in combination with heat pumps, solar thermal systems, solid fuel boilers and heat recovery.
- With the option to fit a Vitotrans 353
- Suitable for systems to EN 12 828 and DIN 4753.
- For dimensions and weight, see page 18.

System examples

Available system examples: See **www.viessmann-schemes.com**.

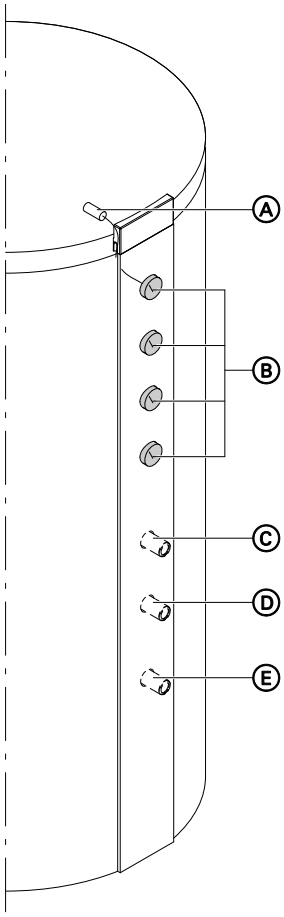
Spare parts lists

Information about spare parts can be found at **www.viessmann.com/etapp** or in the Viessmann spare part app.

Download on the App Store

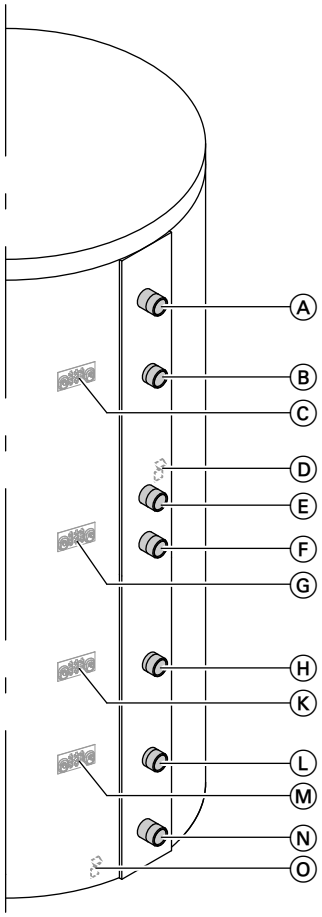
GET IT ON Google Play

Connections



Front

Ⓐ Thermometer sensor fixing (underneath the thermal insulation)
Ⓑ Thermometer, up to 4 pce (accessories)
Ⓒ Heating water flow G 1
Ⓓ Return stratification G 1
Ⓔ Heating water return G 1



Back

Ⓐ Heating water flow 1 (to the heating circuits)/air vent valve
Ⓑ Heating water flow 2 (from the heat generator)
Ⓒ Clamping system for cylinder temperature sensor (behind the thermal insulation)
Ⓓ Thermometer sensor fixing (behind the thermal insulation)
Ⓔ Heating water flow 3
Ⓕ Heating water return 1
Ⓖ Clamping system for cylinder temperature sensor 2 and thermometer sensor (behind the thermal insulation)
Ⓗ Heating water return 2 (from the heating circuits)
Ⓚ Clamping system for cylinder temperature sensor 3 and thermometer sensor (behind the thermal insulation)
Ⓛ Heating water return 3 (from the heating circuits)
Ⓜ Clamping system for cylinder temperature sensor 4 (behind the thermal insulation)
Ⓝ Heating water return 4 (to the heat generator)/drain
Ⓞ Thermometer sensor fixing (behind the thermal insulation)

Siting the cylinder

Please note
Exposure to frost can damage the appliance. Install the buffer cylinder in a room that is free from the risk of frost and draughts. Otherwise, the buffer cylinder must be drained if there is a risk of frost while it is not in use.

Please note
The thermal insulation must not come into contact with naked flames.
Exercise caution when welding and brazing.

- Provide adequate clearance from the wall to allow for operation of the temperature controller (if installed).
- Placing the heating water buffer cylinder on a plinth will make the room easier to clean.
- Use adjustable feet to level the buffer cylinder.

Fitting the lower thermal insulation mat and aligning the cylinder body

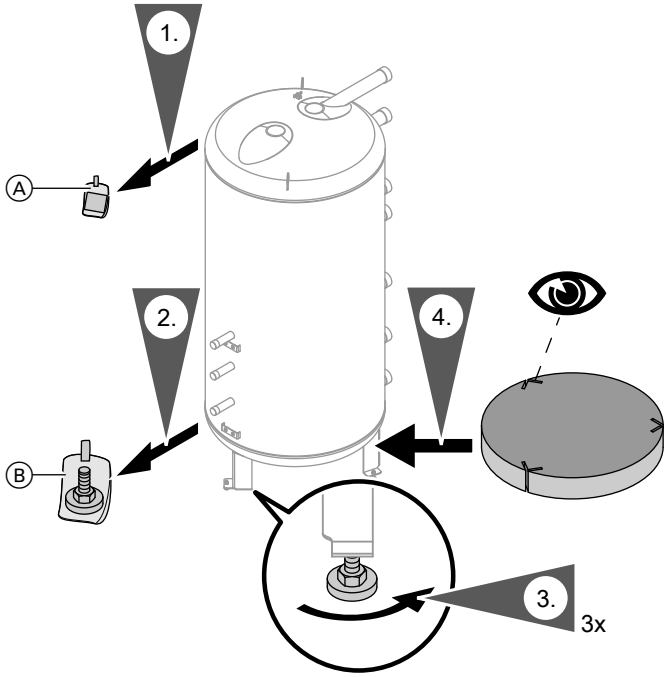


Fig. 1

Ⓐ Bag containing type plate
Ⓑ Bag containing 3 adjustable feet

3. Insert the adjustable feet into the legs as far as they will go, then adjust them to level the cylinder body.

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Fitting the lower thermal insulation mat and… (cont.)

Note
Only use one or two of the adjustable feet to level the cylinder body. At least one of the adjustable feet must remain fully screwed in.

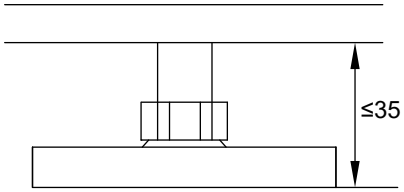

Fig. 2

*Do **not** extend the adjustable feet beyond a total length of 35 mm.*

Fitting the thermometer sensor (if supplied) and cylinder temperature sensor

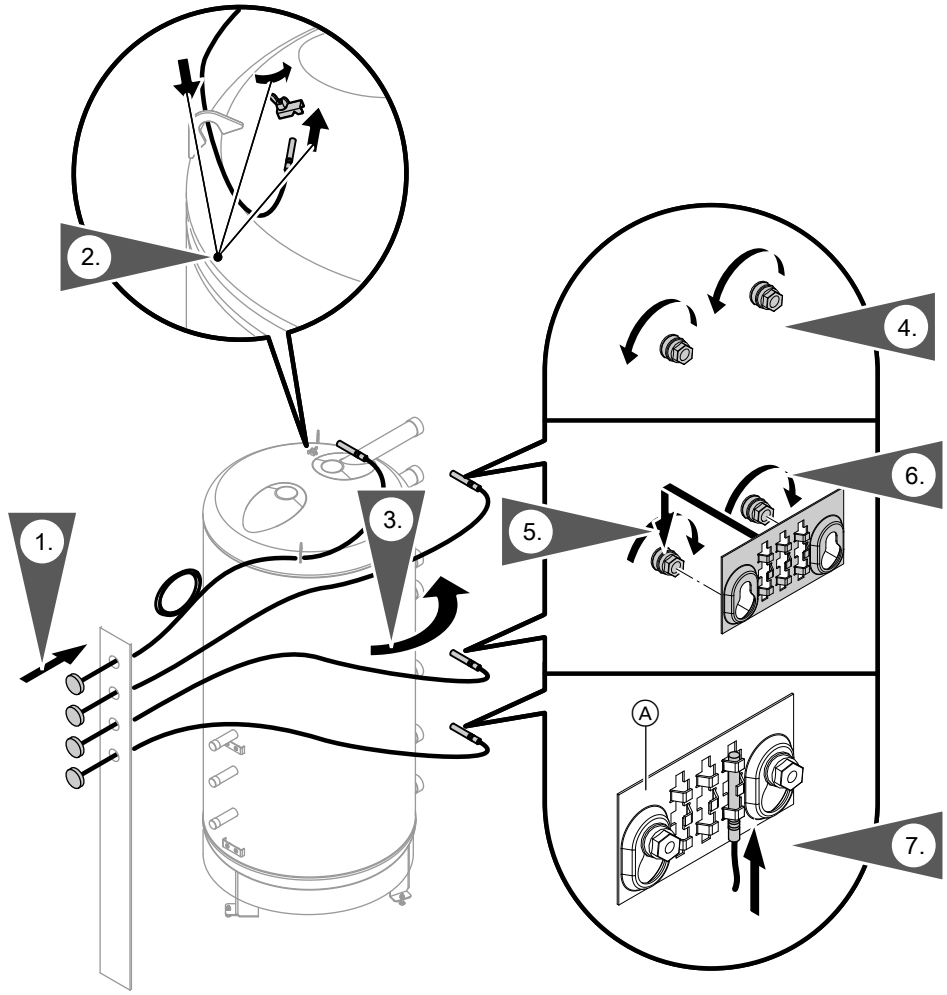

Fig. 3

1. Guide the thermometer sensor through the cover strip and insert the thermometer.

Fitting the thermometer sensor (if supplied) … (cont.)

2. Guide the upper thermometer sensor through the lifting eye, insert it into the clamping bracket as far as it will go and tighten the wing nut.

   Note
   The cover strip is held in its vertical position by the coiled capillaries. This is necessary for the remainder of the installation.

3. Route the thermometer sensor capillaries to the back of the cylinder.

4. Undo the nuts.

5. Place the clamping system onto the threaded studs and align.

6. Tighten the nuts.

7. Depending on where the sensor is being fitted, secure the **thermometer sensor** in the clamping bracket or push as far as it will go into clamping systems Ⓐ.
   Push **cylinder temperature sensor** into the clamping system as far as it will go.

   Note
   - ***Never*** *wrap insulating tape around the sensors.*
   - *When the thermal insulation is being fitted, the cylinder temperature sensor leads are routed outwards through the apertures (slots) in the rear cover strip.*

Mounting the Vitotrans

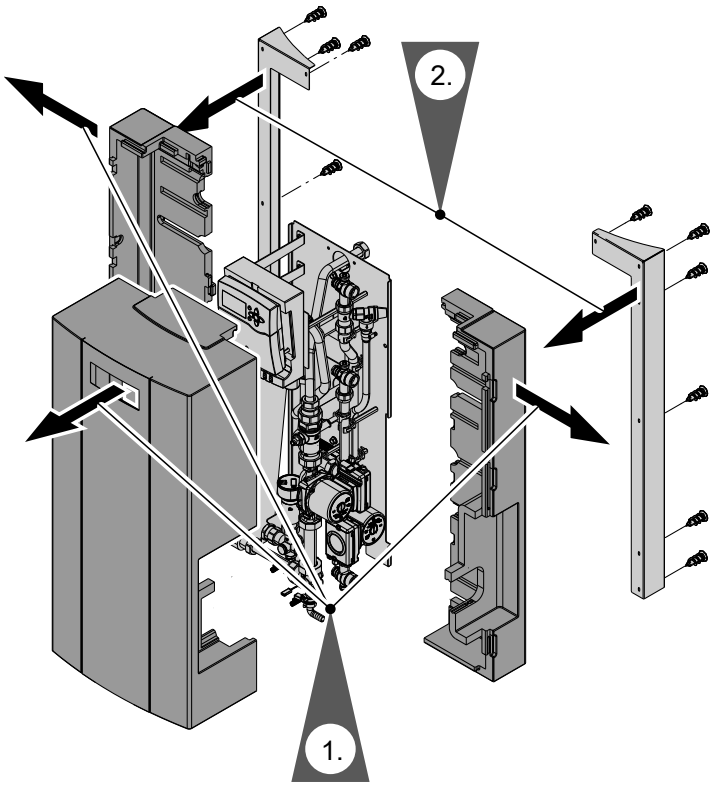

Fig. 4

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Mounting the Vitotrans (cont.)

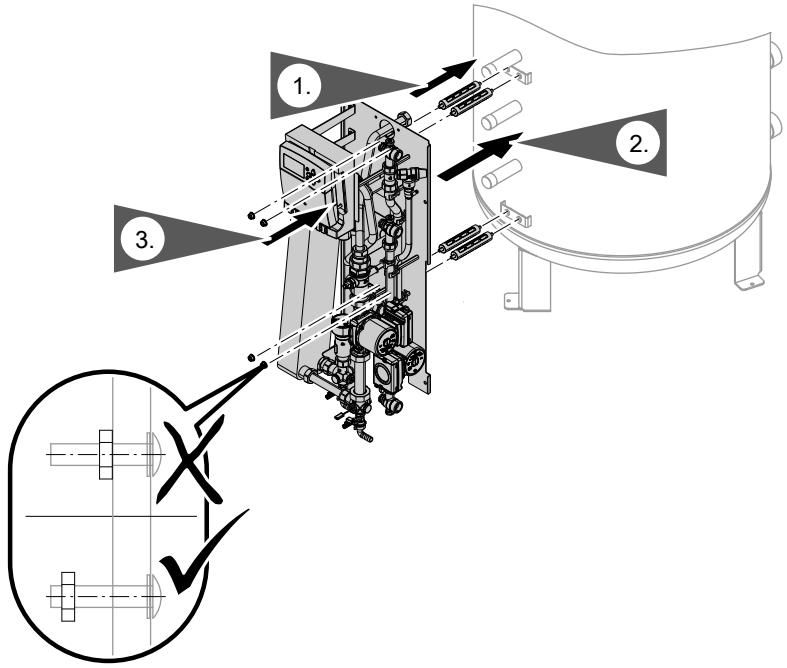

Fig. 5

1. Fit the bolts to the cylinder body.

2. Mount the module.

3. Turn the nuts onto the bolts by hand.

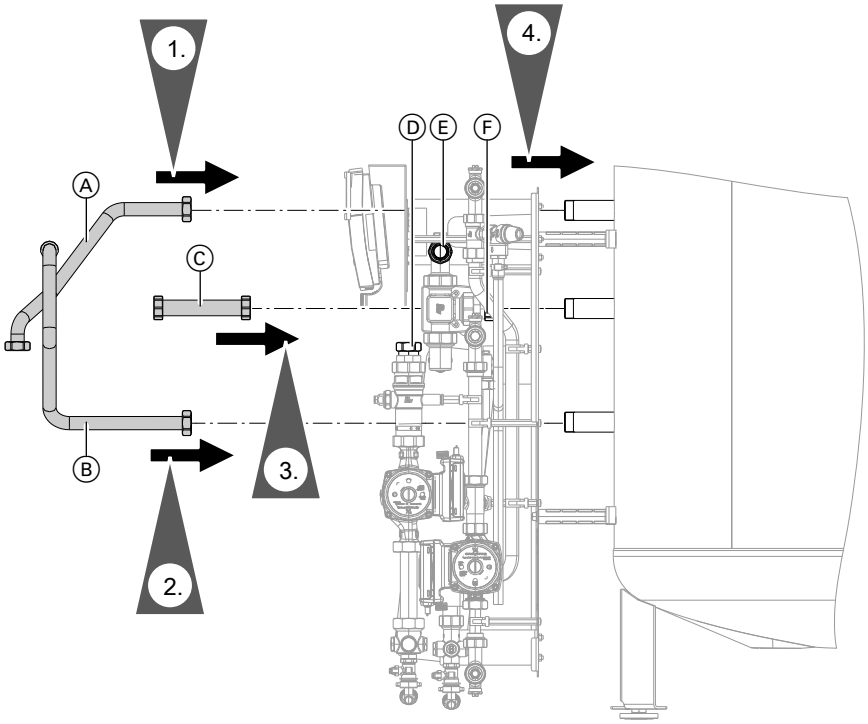

Fig. 6

1. Connect heating water flow connection pipe Ⓐ to connection Ⓓ on the Vitotrans.

2. Connect heating water return connection pipe Ⓑ to connection Ⓔ on the Vitotrans.

3. Connect return stratification connection pipe Ⓒ to connection Ⓕ on the Vitotrans.

4. Connect the pipes to the cylinder connections.

Fitting the thermal insulation jacket

Note
*Fleece remnants must **not** enter the heating water buffer cylinder through the cylinder connections.*

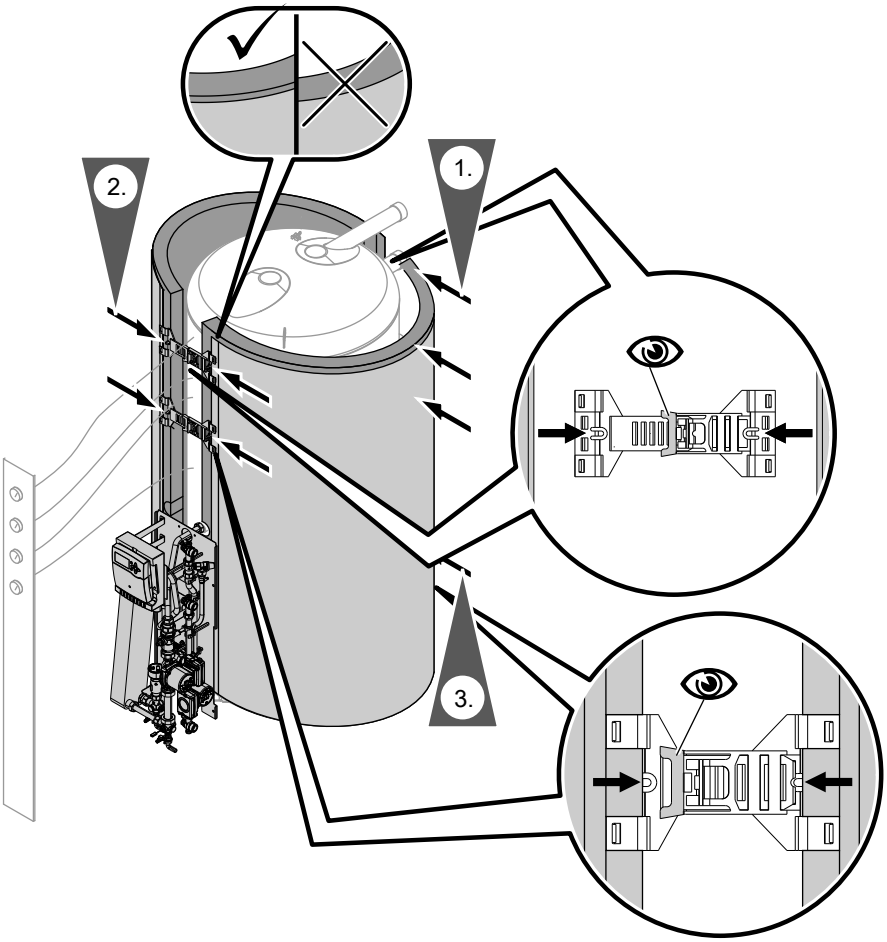

Fig. 7

Note
2 people are required for the following work.

1. At the back of the cylinder: Attach 6 clip fasteners to the edge profile of the right and left sections of the thermal insulation jacket. Place the thermal insulation jacket around the cylinder body.

   Note
   Leave the clip fasteners in the first notch.

2. Fit 4 clip fasteners above and 2 clip fasteners behind the Vitotrans so that they are evenly spaced.

3. Push the clip fasteners as close together as they will go.

Fitting the cover strips

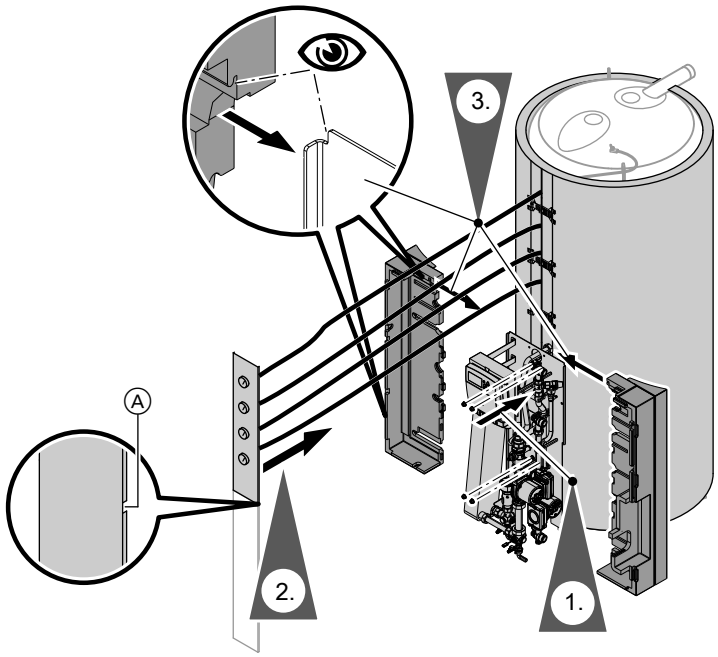

Fig. 8

1. Tighten the nuts on the bolts.

2. Fit the cover strip.
Version with Vitotrans:
Separate the cover strip at slot Ⓐ and fit the upper section.

3. Insert the rear sections of the Vitotrans thermal insulation. When doing this, observe the groove in the thermal insulation.

Fitting the cover strips (cont.)

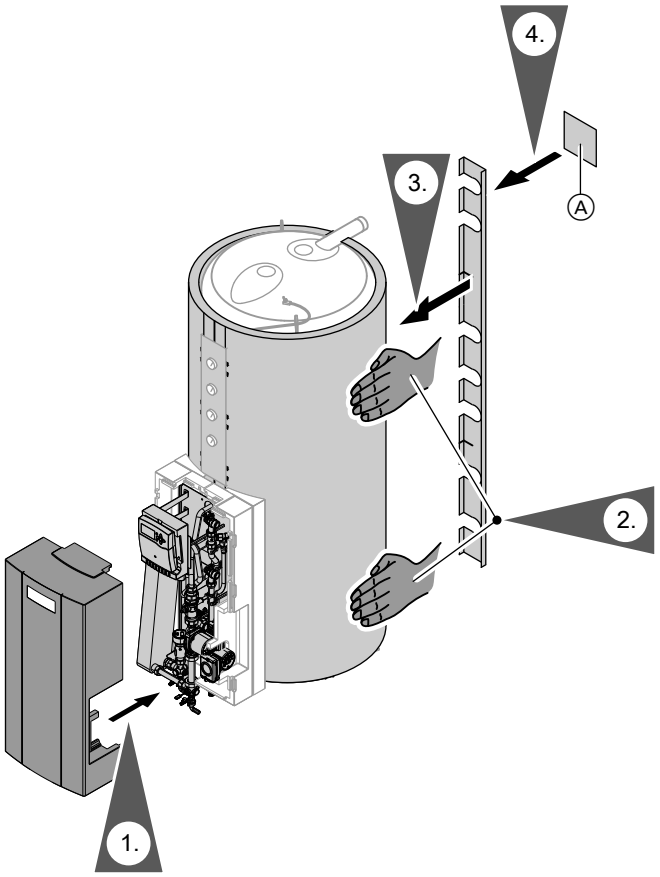

Fig. 9 Illustration shows: Vitocell 100-E, type SVPB, 600 l

Ⓐ Type plate

1. **Version with Vitotrans:**
   mount the front section of the Vitotrans thermal insulation.

2. **Version with Vitotrans:**
   push the cylinder thermal insulation towards the front by patting it. This reduces the gap between the Vitotrans and the cylinder.

3. Fit the rear cover strip to the thermal insulation.

4. Affix type plate Ⓐ.

Fitting the cover

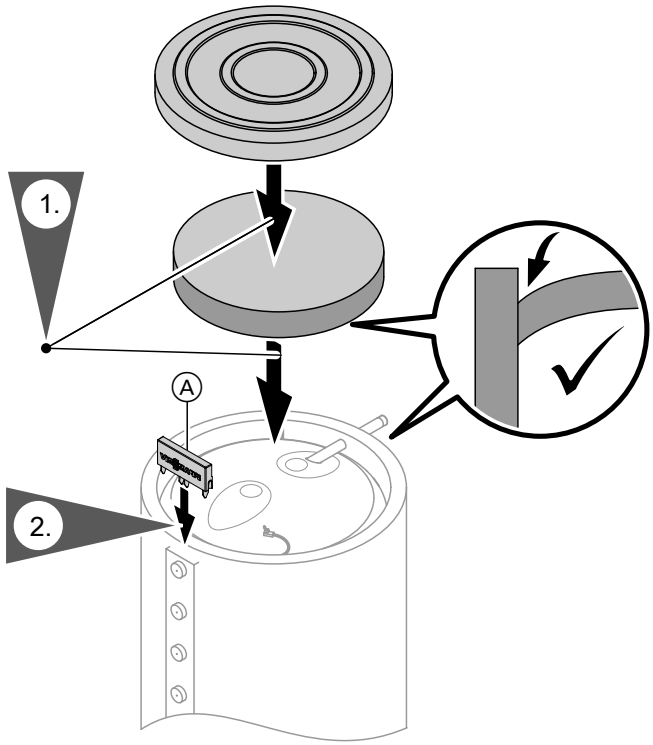

Fig. 10

Ⓐ Viessmann logo

Making the connections on the heating water side

Any number of heating water buffer cylinders, type SVPB, can be connected in series or in parallel. Provide connection pipes and air vent valves on site.

! **Please note**
The thermal insulation must not come into contact with naked flames.
Exercise caution when welding and brazing.

Permissible temperature	110 °C
Permissible operating pressure	6 bar (0.6 MPa)
Test pressure	9.6 bar (0.96 MPa)

Note
For location of connections, see page 7.

1. Connect all pipework with detachable fittings.
2. Install the flow line with an incline and fit an air vent valve at the highest point.
3. Check all connections for leaks after filling the cylinder.

Making the connections on the heating water side (cont.)

Cylinder bank connected in series

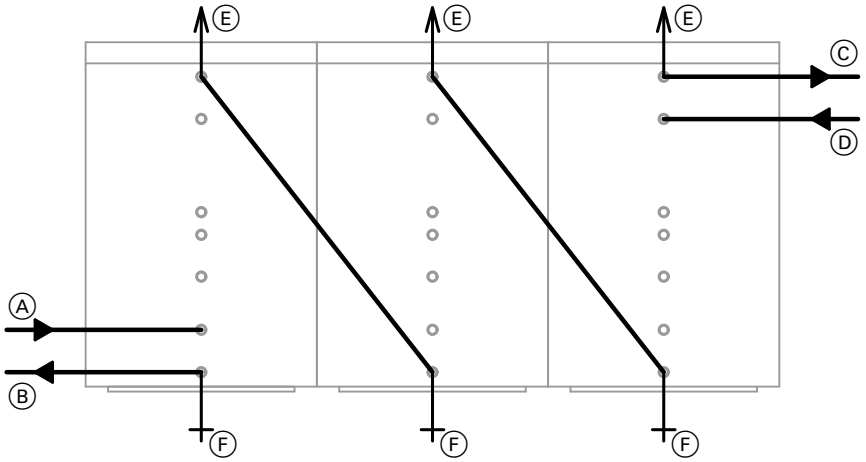

Fig. 11

Ⓐ Heating water return 3 (from the heating circuits)
Ⓑ Heating water return 4 (to the heat generator)
Ⓒ Heating water flow 1 (to the heating circuits)
Ⓓ Heating water flow 2 (from the heat generator)
Ⓔ Air vent valve
Ⓕ Drain

Cylinder bank connected in parallel

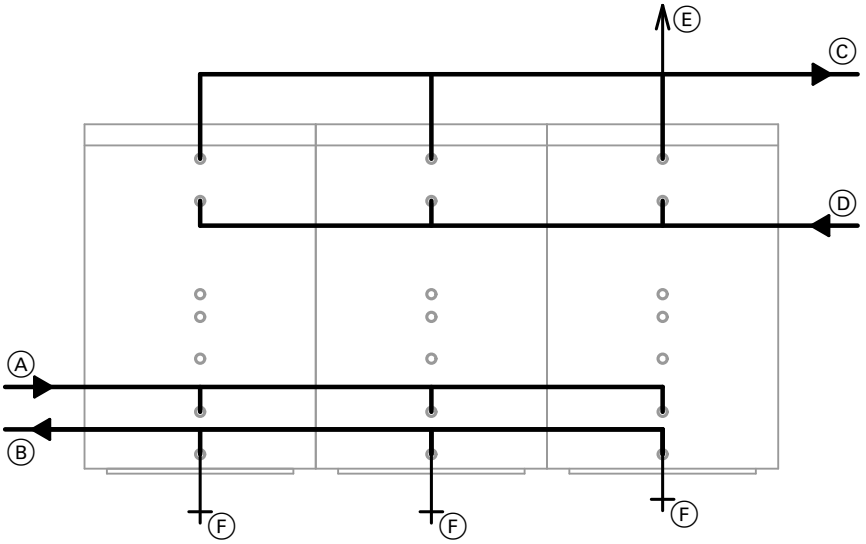

Fig. 12

Ⓐ Heating water return 3 (from the heating circuits)
Ⓑ Heating water return 4 (to the heat generator)
Ⓒ Heating water flow 1 (to the heating circuits)
Ⓓ Heating water flow 2 (from the heat generator)
Ⓔ Air vent valve
Ⓕ Drain

Connecting the equipotential bonding

Connect the equipotential bonding in accordance with the requirements stipulated by your local power supply utility and VDE [or local] regulations.

CH: Connect the equipotential bonding in accordance with the technical requirements stipulated by your local power supply utility and SEV regulations.

Commissioning/service reports

	Commissioning	Maintenance/service	Maintenance/service
Date:			
By:			

	Maintenance/service	Maintenance/service	Maintenance/service
Date:			
By:			

	Maintenance/service	Maintenance/service	Maintenance/service
Date:			
By:			

	Maintenance/service	Maintenance/service	Maintenance/service
Date:			
By:			

	Maintenance/service	Maintenance/service	Maintenance/service
Date:			
By:			

Specification

Cylinder capacity	**l**	**600**	**750**	**950**
Standby heat loss to EN 12897 Q_{ST} with 45 K temperature differential	kWh/24 h	2.10	2.25	2.45
Dimensions				
Length (∅)				
▪ Incl. thermal insulation	mm	1064	1064	1064
▪ Excl. thermal insulation	mm	790	790	790
Width	mm	1119	1119	1119
Height				
▪ Incl. thermal insulation	mm	1645	1900	2200
▪ Excl. thermal insulation	mm	1520	1814	2120
Height when tilted excl. thermal insulation and adjustable feet	mm	1630	1890	2195
Weight				
▪ Incl. thermal insulation	kg	112	132	151
▪ Excl. thermal insulation	kg	89	104	119
Connections (male thread)				
Heating water flow and return	R	2	2	2

Final decommissioning and disposal

Viessmann products can be recycled. Components and substances from the system are not part of ordinary household waste.

For decommissioning the system, isolate the system from the power supply and allow components to cool down where appropriate.
All components must be disposed of correctly.

Declaration of conformity

We, Viessmann Werke GmbH & Co. KG, D-35107 Allendorf, declare as sole responsible body that the named product complies with the European directives and supplementary national requirements in terms of its design and operational characteristics.

Using the serial number, the full Declaration of Conformity can be found on the following website:
www.viessmann.co.uk/eu-conformity

Keyword index

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