Installation and service instructions for contractors



Vitocell 100-E/100-W Type SVW 200 I, SVPA 400 I Heating water buffer cylinder

VITOCELL 100-E/100-W



Safety instructions

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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.

Target group

These instructions are exclusively intended for qualified contractors.

 Work on electrical equipment may only be carried out by a qualified electrician.

Details identified by the word "Note"

contain additional information.

 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

Safety instructions for working on the system

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.



Note

Danger

Hot surfaces can cause burns.

- Before maintenance and service work, switch OFF the appliance and let it cool down.
- Never touch hot surfaces on the boiler, burner, flue system or pipework.

Safety instructions (cont.)

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.

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.

Safety instructions for operating the system

If you smell flue gas



Danger

Flue gas can lead to life threatening poisoning.

- Shut down the heating system.
- Ventilate the installation site.
- Close the doors to living spaces to prevent flue gases from spreading.

What to do if water escapes from the appliance

\wedge

Danger

If water escapes from the appliance there is a risk of electric shock. Switch OFF the heating system at the external isolator (e.g. fuse box, domestic distribution board).



Danger

If water escapes from the appliance there is a risk of scalding. Never touch hot heating water.

Flue systems and combustion air

Ensure that flue systems are clear and cannot be sealed, for instance due to accumulation of condensate or other external causes. Ensure an adequate supply of combustion air.

Instruct system users that subsequent modifications to the building characteristics are not permissible (e.g. cable/pipework routing, cladding or partitions).

A Danger

Leaking or blocked flue systems, or an inadequate supply of combustion air can cause life threatening poisoning from carbon monoxide in the flue gas.

Ensure the flue system is in good working order. Vents for supplying combustion air must be non-sealable.

Safety instructions (cont.)

Extractors

Operating appliances that extract air to the outside (extractor hoods, extractors, air conditioning units, etc.) can create negative pressure. If the boiler is operated at the same time, this can lead to a reverse flow of flue gas.

/ Danger

The simultaneous operation of the boiler and appliances that extract air to the outside can result in life threatening poisoning due to a reverse flow of flue gas. Fit an interlock circuit or take suitable steps to ensure an adequate supply of combustion air.

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Information

Disposal of packaging

Please dispose of packaging waste in line with statutory regulations.

Symbols

Symbol	Meaning
	Reference to other document containing further information
1	Step in a diagram: The numbers correspond to the order in which the steps are carried out.
!	Warning of material losses and environ- mental pollution
4	Live electrical area
٩	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.
X	Dispose of component at a suitable collec- tion 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).

Product information

Vitocell 100-E/100-W, type SVW (200 I capacity)

Steel heating water buffer cylinder for storing heating water in combination with heat pumps and solid fuel boilers, with optional electric heater (immersion heater). Suitable for systems to EN 12828 and DIN 4753. Vitocell 100-E: Vitosilver Vitocell 100-W: White

Vitocell 100-E, type SVPA (400 I capacity)

Steel heating water buffer cylinder for storing heating water in combination with heat pumps, solar thermal systems, solid fuel boilers and heat recovery. Suitable for installation of Vitotrans 353, type PZS. Suitable for systems to EN 12828 and DIN 4753.

System examples

Available system examples: See www.viessmannschemes.com.

Spare parts lists

Information about spare parts can be found on the Viessmann spare parts app.



Connections

Type SVW (200 I)



Fig. 2 Back cover

- (A) Thermometer sensor retainer
- (B) Thermometer (TH)
- © Female connection for immersion heater (EHE)

- Air vent valve (EL)
- B Heating water flow 1 (HV1) to the heating circuits
- © Sensor well 1 (SPR1) for cylinder temperature sensor
- (D) Heating water flow 2 (HV2) from the heat generator
- (E) Sensor well 2 (SPR2) for cylinder temperature sensor
- (F) Heating water return 2 (HR2) from the heating circuits
- G Heating water return 1 (HR1) to the heat generator
- (H) Drain outlet (E)

Connections (cont.)

Type SVPA (400 I)



- (A) Thermometer sensor retainer
- (a) Thermometer sensor retains
 (b) Thermometer (TH, max. 2)
 (c) Heating water flow G 1
 (d) Return stratification G 1
 (e) Heating water return G 1

Preparing for installation

Connections (cont.)



- A Heating water flow 1 (HV1) to the heating circuits / air vent valve (EL)
- B Sensor well 1 (SPR1) for cylinder temperature sensor
- © Heating water flow 2 (HV2) from the heat generator
- (D) Sensor well 2 (SPR2) for cylinder temperature sensor
- (E) Heating water flow 3 (HV3) / heating water return 1 (HR1)
- (F) Sensor well (SPR3) for cylinder temperature sensor
- G Heating water return 2 (HR2) from the heating circuits
- Heating water return 3 (HR3) to the heat generator / drain outlet (E)

Siting the Vitocell

Please note

To prevent material damage, site the buffer cylinder in a draught-free room free from the risk of frost.

When not in use, the buffer cylinder must be drained if there is a risk of frost.

- 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 the adjustable feet to level the buffer cylinder.

Vitocell with immersion heater, type SVW

Immersion heater installation instructions

Never extend the adjustable feet beyond a total length

Maintain the minimum clearance.

Note

Note

of 35 mm.

The unheated length of any threaded immersion heater installed on site must be at least 100 mm.



Vitocell	Capacity	Dim. a	Output of immersion heater
Type SVW	200	min. 650 mm	6 kW

Vitocell 100-E/100-W, type SVW

- Please note
- The thermal insulation must not come into contact with naked flames. Exercise caution when welding and brazing.
- 1. Install the cylinder temperature sensors; see page 23.
- At heating water flow temperatures above 95 °C, remove the pipe collars from the pipe outlets (collars have l.h. threads).
- **3.** If no immersion heater is installed, seal in the front female connection with the plug supplied. Fit the cover.
- **4.** Affix the type plate supplied to the back of the heating water buffer cylinder.



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 requirements stipulated by your local power supply utility and current SEV regulations.

Thermal insulation on the Vitocell without Vitotrans

Fitting the lower thermal insulation mat





Position and level the cylinder.

Please note

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

Thermal insulation on the Vitocell without... (cont.)

Fitting the thermal insulation jacket

Note

Ensure that no fleece remnants 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 edges 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. At the front of the cylinder: Attach 6 clip fasteners to the edges of the right and left sections of the thermal insulation jacket.
- **3.** Push the clip fasteners at the back of the cylinder as close together as possible.
- **4.** Push the clip fasteners at the front of the cylinder as close together as possible.

Installation

Thermal insulation on the Vitocell without... (cont.)

Fitting the thermometer, thermometer sensor and cover strips



(A) Type plate (self-adhesive)

Fit the thermal insulation jacket evenly around the cylinder body by patting it.

Note

Slide the thermometer sensor into the clamping bracket at the upper base as far as it will go and tighten the wing nut.

Thermal insulation on the Vitocell without... (cont.)

Fitting the cover



Fig. 9

Vitocell type SVPA with Vitotrans

Fitting the lower thermal insulation mat



Fig. 10

Position and level the cylinder.

Please note

I

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

Vitocell type SVPA with Vitotrans (cont.)

Fitting the Vitotrans



Fig. 11



- ...<u>g</u>. ._
- 1. Fit the bolts.
- 2. Mount the module.

3. Screw the nuts onto the bolts until finger-tight.

Vitocell type SVPA with Vitotrans (cont.)



Fig. 13

- 1. Connect heating water flow connection pipe A to connection D on the Vitotrans.
- 2. Connect heating water return connection pipe (B) to connection (E) on the Vitotrans.
- **3.** Connect return stratification connection pipe \bigcirc to connection \bigcirc on the Vitotrans.
- 4. Connect the pipes to the cylinder connections.

Thermal insulation on the Vitocell with Vitotrans

Fitting the thermal insulation jacket

Note

Ensure that no fleece remnants enter the heating water buffer cylinder through the cylinder connections.





Thermal insulation on the Vitocell with... (cont.)

Note

2 people are required for the following work.

1. At the back of the cylinder: Attach 6 clip fasteners to the edges 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 possible.

Closing the thermal insulation and fitting the cover strips



Fig. 15

- **1.** Tighten the nuts on the bolts.
- **2.** Trim and fit the cover strip.

3. Insert the rear sections of the Vitotrans thermal insulation. Observe the groove in the thermal insulation.

Thermal insulation on the Vitocell with... (cont.)





(A) Type plate (self-adhesive)

- **1.** Mount the front section of the Vitotrans thermal insulation.
- 2. 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 strip to the thermal insulation.
- 4. Affix the type plate.

Installation

Thermal insulation on the Vitocell with... (cont.)

Fitting the cover





(A) Viessmann logo

Fitting the cylinder temperature sensor

Note

The cylinder temperature sensor is supplied in the control unit pack.



Fig. 18

(A) Sensor wells for 200 I capacity

B Sensor wells for 400 I capacity

Note

- Never wrap insulating tape around the sensor.
- Secure the sensor on the outside of the sensor retainer contact spring (not in the groove) so that it is flush with the front of the spring.
- Insert the sensor retainer with sensor into the sensor well as far as it will go.

Connections on the heating water side

Any number of heating water buffer cylinders, type SVPA, 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	
Heating water flow	110 °C
Permissible operating	3 bar (0.3 MPa)
pressure	
Test pressure	4.8 bar (0.48 MPa)

Note

For connection locations, see from page 8.

Connections on the heating water side (cont.)

- 1. Connect all pipework with detachable fittings.
- 2. Install the flow line with a rise and fit an air vent valve at the highest point.



Fig. 19

- Heating water return 3 (HR3) from the heating circuits
- (B) Heating water return 4 (HR4) to the heat generator
- © Heating water flow 1 (HV1) to the heating circuits

Cylinder bank connected in parallel (type SVPA 400 I)

- D Heating water flow 2 (HV2) from the heat generator
- E Air vent valve (EL)
- F Drain outlet (E)



- Fig. 20
- Heating water return 3 (HR3) from the heating circuits
- B Heating water return 4 (HR4) to the heat generator
- © Heating water flow 1 (HV1) to the heating circuits
- D Heating water flow 2 (HV2) from the heat generator
- (E) Air vent valve (EL)
- (F) Drain outlet (E)

 Check all connections for leaks after filling the cylinder.

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

Specification

Cylinder	Туре	SVW	SVPA
Capacity	I	200	400
Dimensions	mm	1409	1524
Height			
Width	mm	640	885
Length	\oslash mm	581	859
Handling dimensions	\oslash mm		650
Weight	kg	80	122
Standby heat loss To EN 12897:2016	kWh/24 h	1.46	1.8

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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.

Certificates

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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