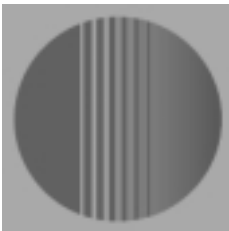


# Service Instructions

for the service engineer




Vitocell-V 100  
Type CVA  
Domestic hot water cylinder



## VITOCCELL-V 100



### Safety instructions

 Please follow these safety instructions closely to avoid the risk of injury to persons and damage to property. The safety instructions also apply in conjunction with heat generators.

#### Work on the equipment

Installation, initial start-up, maintenance and repairs must be carried out by a competent person (heating engineer/service contractor). (See EN 50 110, Part 1, and VDE 1000, Part 10. (GB): British Standards codes of practice).

Before work is undertaken on the equipment/heating system, the mains voltage must be switched off (e.g. at the separate fuse or mains electrical isolator switch) and measures taken to prevent it from being switched on again. Disconnection must be carried out by means of an isolating device which simultaneously isolates all non-earthed conductors with at least 3 mm contact separation.

When carrying out work which involves opening up the control unit, no static discharge should be allowed to take place through the internal components.

#### Gas installation work

Gas installation work must be carried out by an approved installer (GB: registered with C.O.R.G.I.). The requirements for starting up gas-fired systems and LPG-fired systems, as defined in TRGI'86/96 and TRF 1996 respectively, must be complied with.

#### Repairs

It is not permitted to carry out repairs on parts which serve a safety function. Defective parts must be replaced with the appropriate Viessmann proprietary components or equivalent parts which have been approved by Viessmann.

#### Initial start-up

The initial start-up must be carried out by the installer of the system or a commissioning engineer designated by him; all readings should be recorded in a commissioning report.

#### Instruction of the system user

The installer of the system is required to give the system user the operating instructions and show him how to operate the system.

#### Safety instruction!

This heading in these instructions denotes information which must be observed to safeguard persons and property.



This symbol indicates a reference to other instructions which must be observed.

### Initial start-up



Please refer also to the operating instructions regarding start-up of the domestic hot water cylinder.

#### Safety instruction!

Connections on the heating water side must not be opened while the DHW cylinder is pressurized.

Ensure that the air vent valve is always open when draining the DHW cylinder with a suction pump.

1. Fill the secondary circuit of the DHW cylinder with water.

#### → Please note:

Up to 500 litres storage capacity:  
When the DHW cylinder is pressurized, re-tighten the flange cover to a torque of 25 Nm.  
From 750 litres storage capacity:  
It is **not** necessary to re-tighten the flanges.

2. Check screwed connections on the heating water and domestic hot water side for leaks, and re-tighten if necessary.
3. 750 litres storage capacity and above only:  
Check the sensor wells for leaks and re-tighten if necessary.
4. Check function of safety valves in accordance with the manufacturer's instructions.

**General information**

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**Initial start-up  
and maintenance**

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**Maintenance**

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*In accordance with DIN 1988 inspection and (if necessary) cleaning should be carried out two years after start-up at the latest and as and when required thereafter.*

**Please note:**  
*In addition, we recommend that the condition of the magnesium anode should be checked once a year. This functional check can be made without taking the domestic hot water cylinder out of service. It is done by measuring the protective current by means of an anode test instrument (see below).*

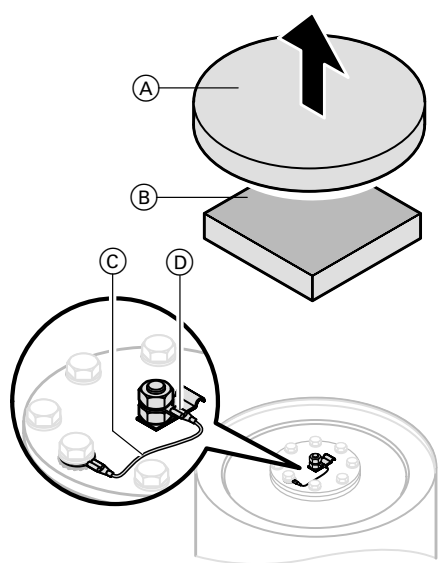
1. Shut down the system

Switch off the mains voltage and take steps to prevent it from being switched on again.

2. Check safety equipment

Check correct operation of safety valves in accordance with the manufacturer's instructions.

3. Check protective current with anode test instrument

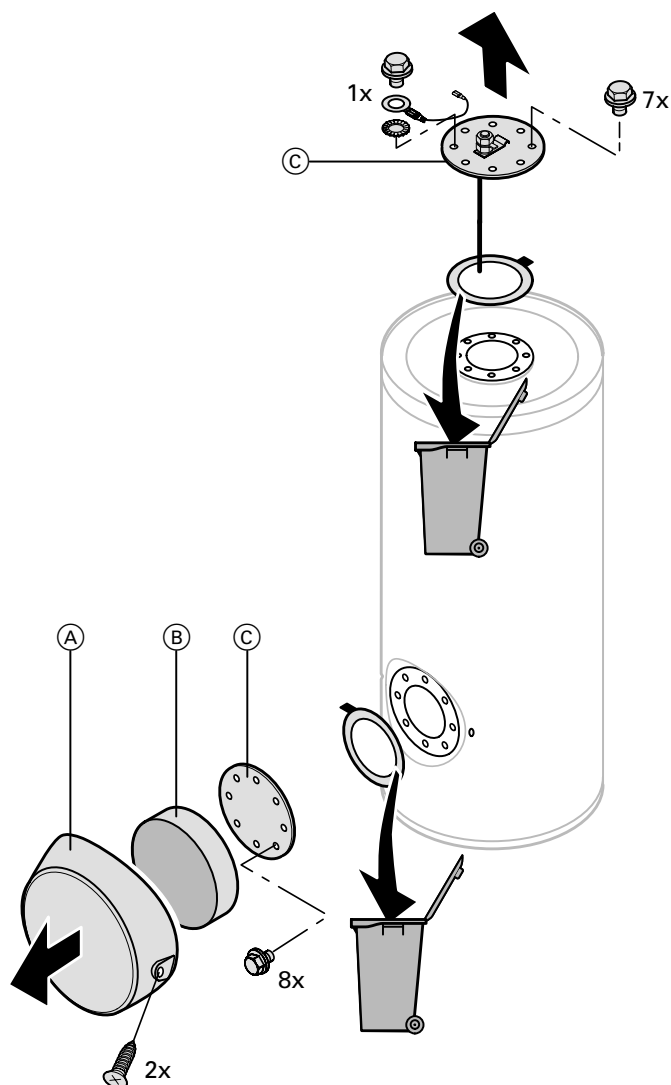


1. Remove the top panel (A), the insulating mat (B) and the thermometer sensor (if installed).
2. Disconnect the earth cable (C) from the terminal lug (D).
3. Connect the measuring instrument (measuring range up to 5 mA) in series between the terminal lug (D) and the earth cable (C).
  - If a current > 0.3 mA is measurable, the anode is functioning satisfactorily.
  - If a current < 0.3 mA or no current at all is measurable, a visual inspection of the anode must be made (see page 5).

## Maintenance (continued)

160 to 500 litres storage capacity

## 4. Clean the inside of the DHW cylinder



1. Drain the DHW cylinder on the domestic hot water side.
2. Remove the hood (A) and the insulating mat (B).

**Please note:**

*Cleaning can be carried out via both the top and bottom inspection ports (if installed).*

3. Remove the flange cover (C).
4. Disconnect the DHW cylinder from the piping to prevent cleaning agent and impurities from entering the system.
5. Remove loose deposits of limescale with a high pressure cleaner.

**⚠ Safety instruction!**

*Use only plastic cleaning equipment for cleaning the inside of the cylinder.*

6. Use a chemical cleaning agent to remove stubborn deposits which cannot be removed with the high pressure cleaner.

**⚠ Safety instruction!**

*Do not use cleaning agents which contain hydrochloric acid. Follow the manufacturer's instructions for use and safety instructions when using cleaning agents and cleaning equipment.*

7. After cleaning, thoroughly rinse the DHW cylinder with water.

## 5. Check the magnesium anode and replace

(if necessary)

1. Check the magnesium anode.

**⚠ Safety instruction!**

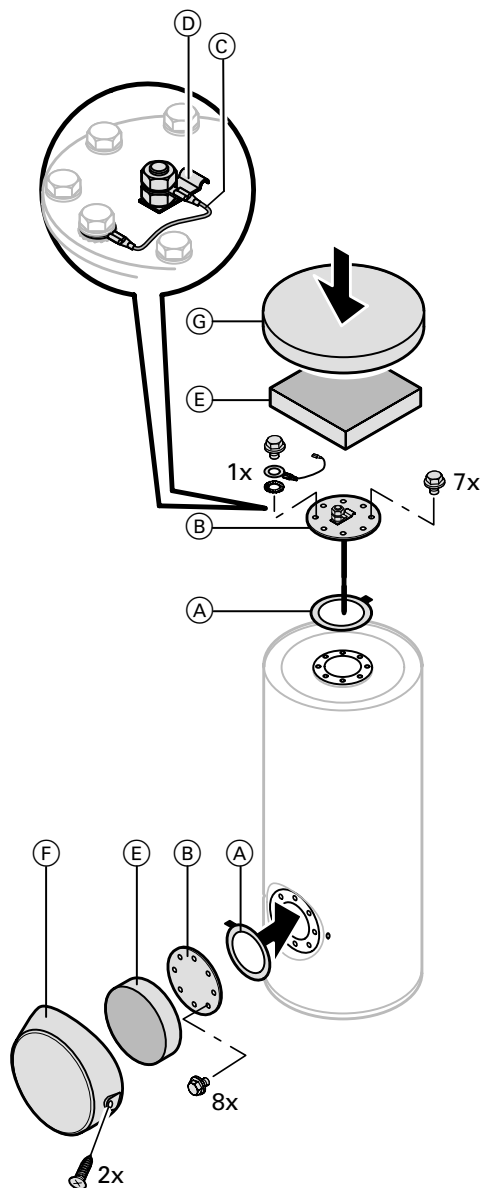
*It is advisable to replace the magnesium anode when the anode diameter has reduced to 10 - 15 mm.*

2. Replace the magnesium anode (if necessary).

**Please note:**

*An anode chain (accessory) is available for use in applications where space is restricted.*

6. Start up the domestic hot water cylinder again



1. Connect the domestic hot water cylinder to the piping again.
2. Every time the unit is opened, fit new gaskets (A) to the flange covers (B).
3. Mount the flange cover (B) and tighten screws to a maximum torque of 25 Nm.
4. Fill the secondary circuit of the domestic hot water cylinder with water.
5. Connect the earth cable (C) to the terminal lug (D).
6. Mount the thermometer sensor (if installed).
7. Mount the insulation mats (E), the hood (F) and the top panel (G).
8. Record the maintenance work carried out in the commissioning/service report.

**Please note:**  
The commissioning/service report form is on the rear cover of this manual.

7. Check connections

Check screwed connections on the heating water and domestic hot water side for leaks, and re-tighten if necessary.

8. Start up the system again

Switch on the mains voltage.

## Maintenance

750 and 1000 litres storage capacity

*In accordance with DIN 1988 inspection and (if necessary) cleaning should be carried out two years after start-up at the latest and as and when required thereafter.*

**Please note:**

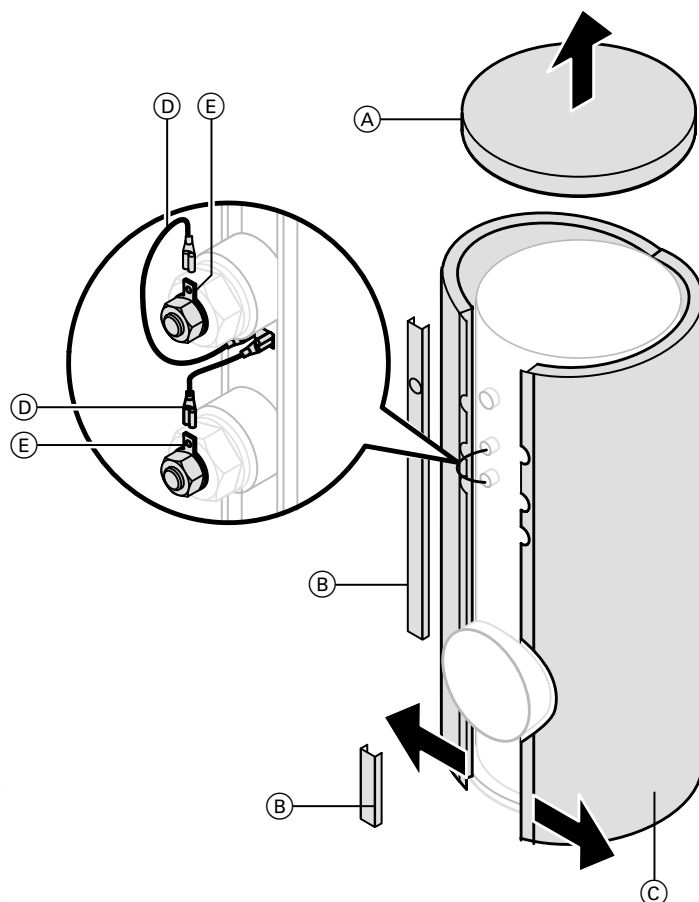
*In addition, we recommend that the condition of the magnesium anode should be checked once a year. This functional check can be made without taking the domestic hot water cylinder out of service. It is done by measuring the protective current by means of an anode test instrument (see below).*

**1. Shut down the system**

Switch off the mains voltage and take steps to prevent it from being switched on again.

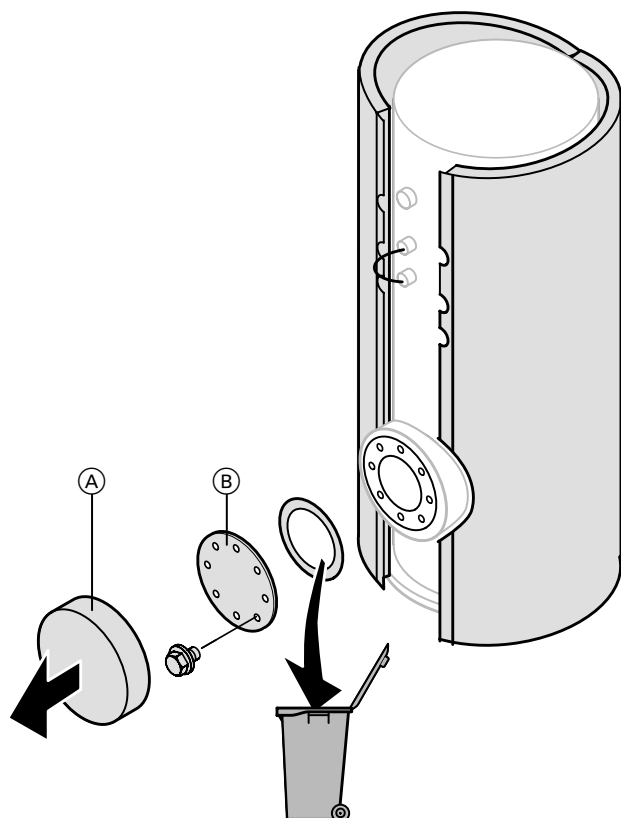
**2. Check safety equipment**

Check correct operation of safety valves in accordance with the manufacturer's instructions.

**3. Check protective current with anode test instrument**

1. Remove the top panel (A).
2. Remove the cable duct (B) and unhook the insulating jacket (C).
3. Disconnect the earth cables (D) from the terminal lugs (E).
4. Connect the measuring instrument (measuring range up to 5 mA) in series between the terminal lug (E) and the earth cable (D).
  - If a current > 0.3 mA is measurable, the anode is functioning satisfactorily.
  - If a current < 0.3 mA or no current at all is measurable, a visual inspection of the anode must be made (see page 8).

### 4. Clean the inside of the DHW cylinder



1. Drain the DHW cylinder on the domestic hot water side.
2. Remove the hood and the insulating mat (A).
3. Remove the flange (B).
4. Disconnect the DHW cylinder from the piping to prevent cleaning agent and impurities from entering the system.
5. Remove loose deposits of lime-scale with a high pressure cleaner.

#### **⚠ Safety instruction!**

*Use only plastic cleaning equipment for cleaning the inside of the cylinder.*

6. Use a chemical cleaning agent to remove stubborn deposits which cannot be removed with the high pressure cleaner.

#### **⚠ Safety instruction!**

*Do not use cleaning agents which contain hydrochloric acid. Follow the manufacturer's instructions for use and safety instructions when using cleaning agents and cleaning equipment.*

7. After cleaning, thoroughly rinse the DHW cylinder with water.

### 5. Check the magnesium anode and replace

(if necessary)

1. Check the magnesium anode.

#### **⚠ Safety instruction!**

*It is advisable to replace the magnesium anode when the anode diameter has reduced to 10 - 15 mm.*

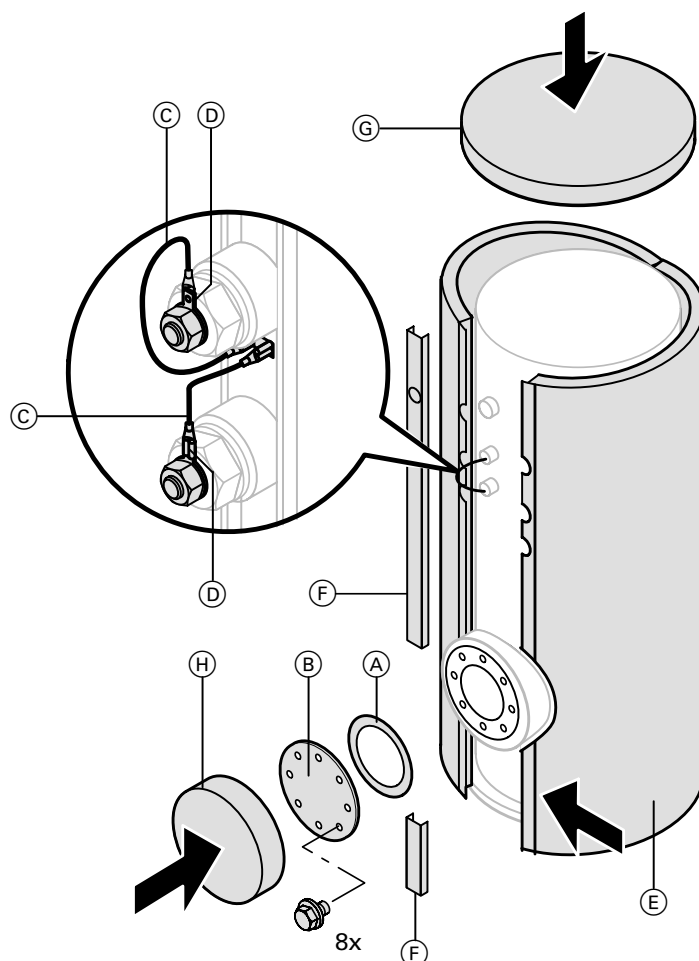
2. Replace the magnesium anode (if necessary).



## Maintenance (continued)

750 and 1000 litres storage capacity

### 6. Start up the domestic hot water cylinder again



1. Connect the domestic hot water cylinder to the piping again.
2. Every time the unit is opened, fit a new gasket (A) to the flange cover (B).
3. Mount the flange cover (B) and tighten screws to a maximum torque of 40 Nm.
4. Fill the secondary circuit of the domestic hot water cylinder with water.
5. Connect the earth cables (C) to the terminal lugs (D).
6. Mount the insulating jacket (E) and the cable ducts (F).
7. Mount the top panel (G).
8. Mount the hood and insulating mat (H).
9. Record the maintenance work carried out in the commissioning/service report.

**Please note:**

The commissioning/service report form is on the rear cover of this manual.

### 7. Check connections

1. Check screwed connections on the heating water and domestic hot water side for leaks, and re-tighten if necessary.
2. Check the sensor wells for leaks, and re-tighten if necessary.

### 8. Start up the system again

Switch on the mains voltage.

Additional information

Parts list

160 to 500 litres storage capacity

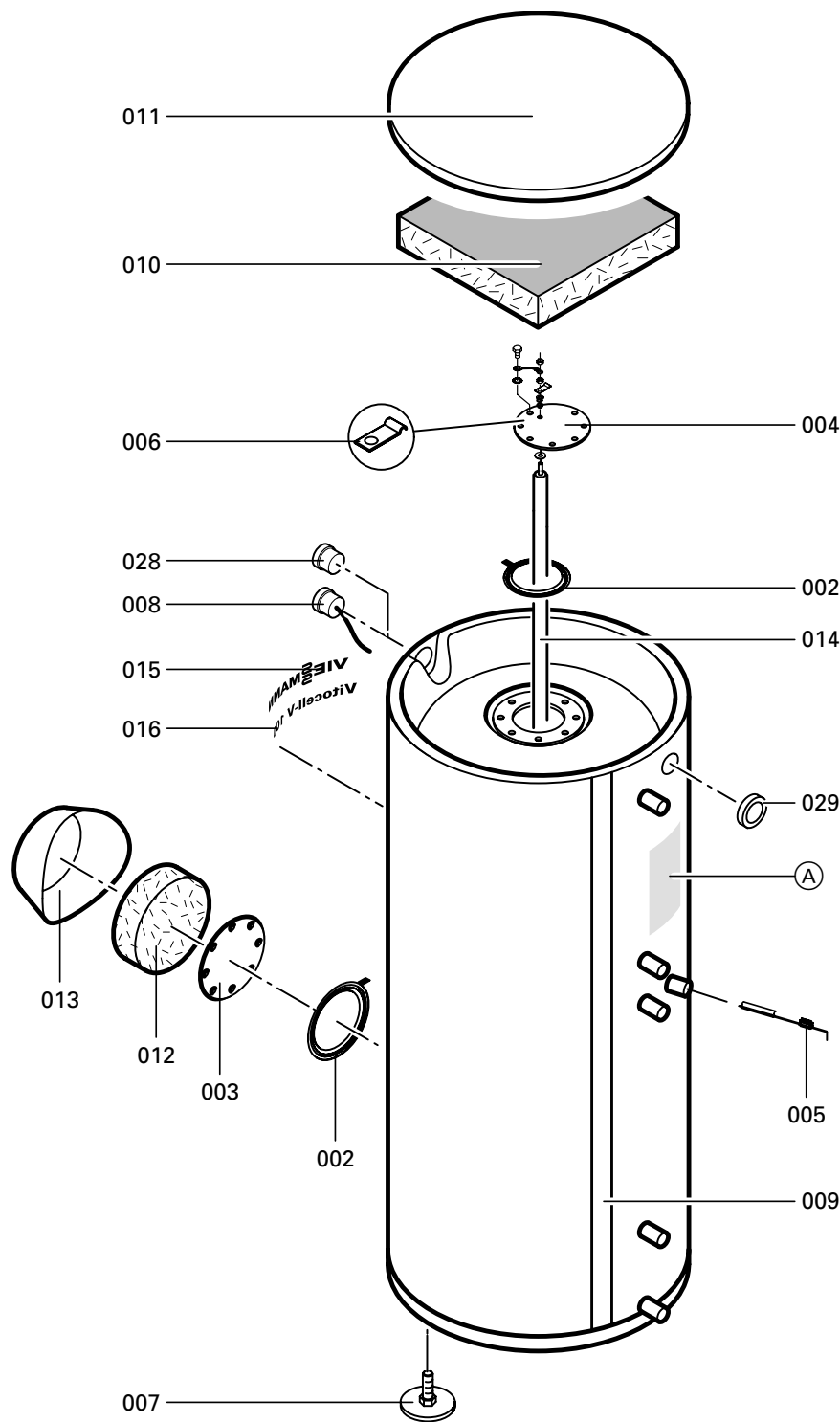
**Notes on ordering spare parts**  
Please state Part No. and Serial No. of the equipment (see nameplate) as well as the Item No. of the part (as stated in this Parts List).  
Commercially available parts can be obtained from your local plumbers' merchant.

- Parts**  
002 Gasket  
003 Front flange (with item 002)  
004 Top flange (with item 002, 006 and 014)  
005 Sensor attachment  
006 Clamp  
007 Adjustable foot  
008 Thermometer  
009 Cover strip (with 350 and 500 litres storage capacity)  
010 Top insulation mat  
011 Top panel  
012 Hood insulation mat  
013 Hood  
015 Viessmann logotype  
016 Vitocell logotype  
028 Thermometer cover  
029 Centering collar

- Parts not illustrated  
020 Installation instructions  
021 Operating instructions  
023 Service instructions  
024 Touch-up paint (aerosol), silver metallic  
025 Touch-up paint (stick), silver metallic  
026 Touch-up paint (aerosol), pure white  
027 Touch-up paint (stick), pure white

Ⓐ Nameplate

- Wearing part  
014 Magnesium anode, complete



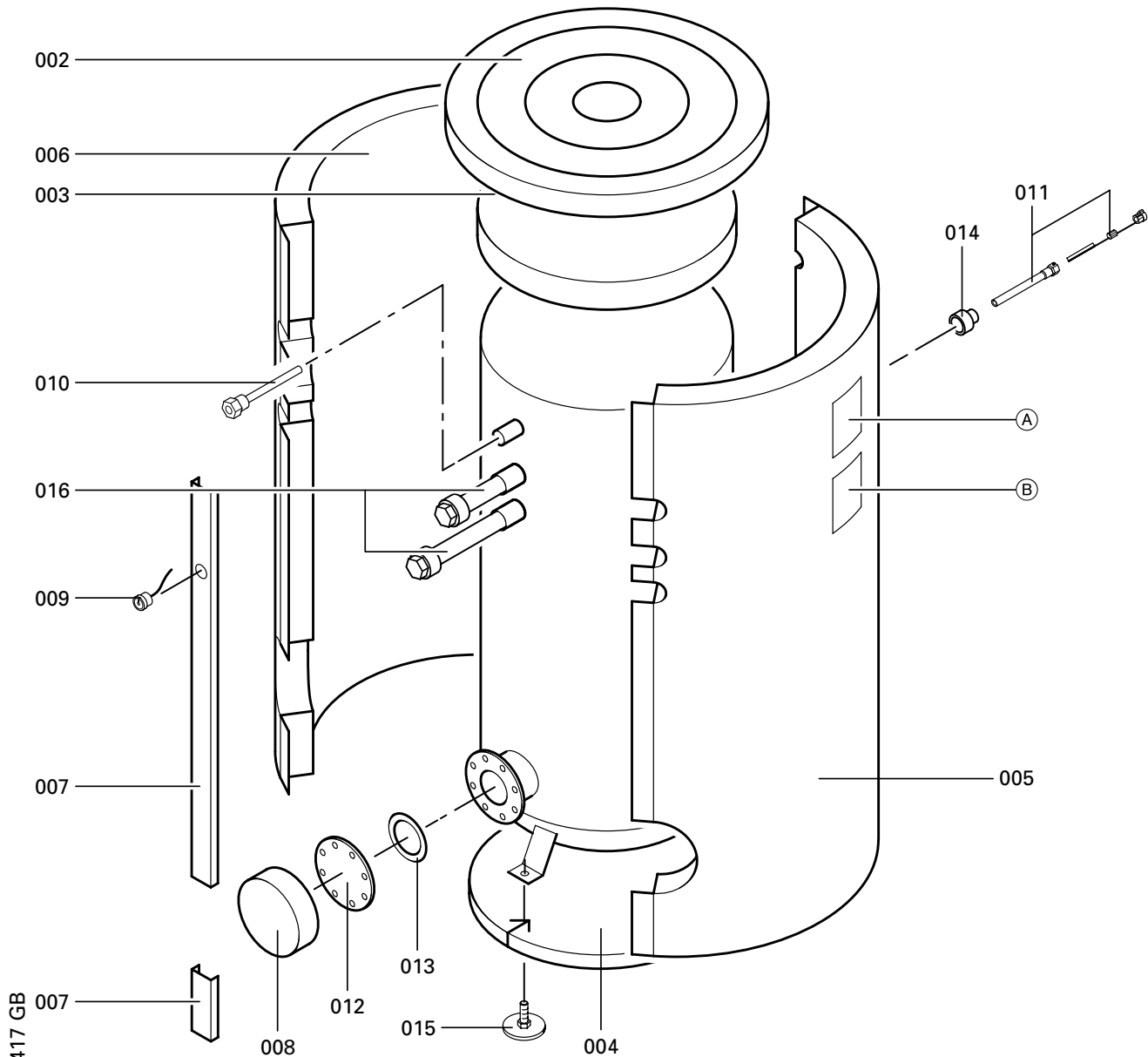
Parts list

750 to 1000 litres storage capacity

**Notes on ordering spare parts**  
Please state Part No. and Serial No. of the equipment (see nameplate) as well as the Item No. of the part (as stated in this Parts List).  
Commercially available parts can be obtained from your local plumbers' merchant.

- Parts**
- 002 Cover
  - 003 Insulating mat, top
  - 004 Insulating mat, bottom
  - 005 Insulating mat, right
  - 006 Insulating mat, left
  - 007 Cover strip
  - 008 Hood with insulation
  - 009 Thermometer
  - 010 Sensor well with holder
  - 011 Sensor well with sensor fastening
  - 012 Flange cover
  - 013 Gasket for flange
  - 014 Reducing coupling
  - 015 Adjustable foot

- Parts not illustrated**
- 020 Installation instructions
  - 021 Operating instructions
  - 023 Service instructions
- Ⓐ Nameplate for insulation  
Ⓑ Nameplate for cylinder shell
- Wearing part**
- 016 Magnesium anode, complete



5692 417 GB

Additional information

Commissioning/service report

	Initial start-up	Maintenance/service	Maintenance/service	Maintenance/service	Maintenance/service
Date:					
Signature:					

	Maintenance/service	Maintenance/service	Maintenance/service	Maintenance/service	Maintenance/service
Date:					
Signature:					

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