

# VITOSOL

Solar Thermal Energy

Flat & Tube Panel Standard Kits

Installation Overview

**VIESSMANN**



As a world leader in heating technology, Viessmann has 30 years experience in renewable energy systems and there are already more than 5,000 Viessmann solar panels installed in the UK.

## Vitosol Solar Panels

Vitosol panels are made from the highest quality materials, for long term reliability and exceptional efficiency. It is important that in addition to selecting the best equipment, solar panels are installed professionally, using the correct fittings, to ensure both performance and safety.

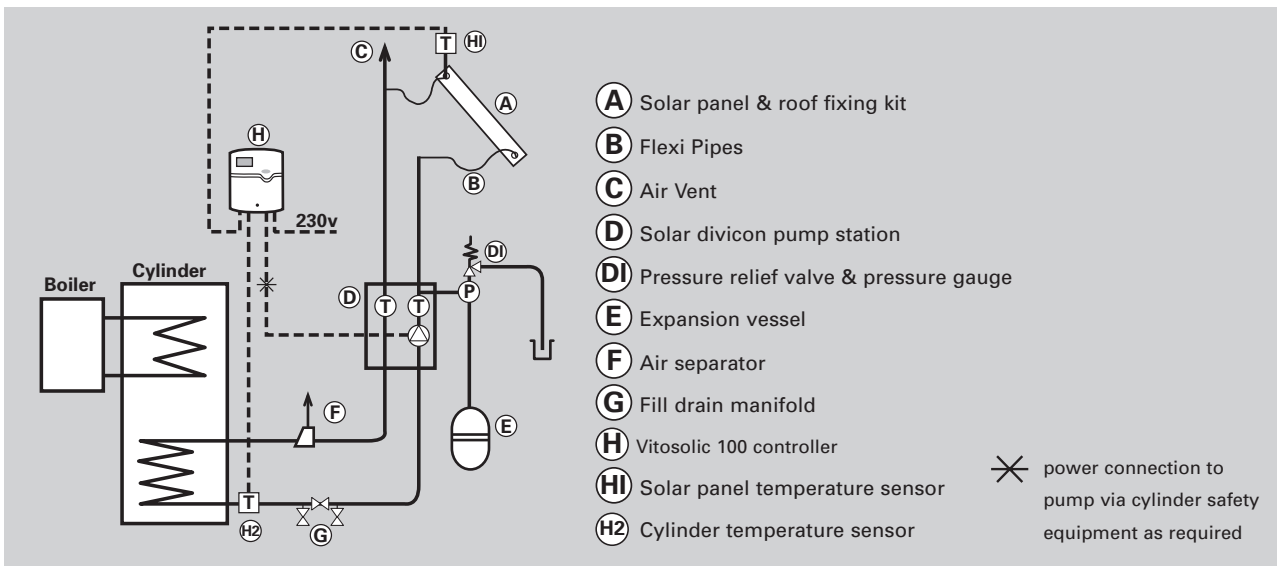
### Flat Panels or Tube Panels?

Flat panels can be colour-coded to match the tiles and are often regarded as being more aesthetically pleasing than tubes, but their size and weight make them more difficult to lift onto a roof. Fixing kits are available for the integration of flat panels into the roof. Please ask for details.

Tube assemblies offer greater flexibility – they can be installed in almost any position on sloping or flat roofs, or even walls. The individual tubes can be rotated to capture the maximum benefit of the sun’s rays. The header unit and tubes can be carried onto the roof as individual components, for easy installation.

### Before you install solar panels, make sure you have:

- A Vitosol tube or flat panel kit
- Stainless steel or copper pipework (no plastic - temperatures can reach 180°C)
- Pressure fittings (no push-fit or solder)
- Hi-grade insulation, suitable for high temperatures
- A dual coil cylinder, such as Vitocell 300
- Sufficient equipment & manpower to get the panels on the roof
- Detailed installation instructions



### Technical Overview

	Vitosol 100 Flat Panels	Vitosol 200 SD2 20 (20 tubes)	Vitosol 200 SD2 30 (30 tubes)
Gross Area (m <sup>2</sup> )	2.5	2.88	4.32
Absorber Area (m <sup>2</sup> )	2.30	2.05	3.07
Dimensions (mm) (wxhxd)	1061x2385x90	1418x2031x143	2127x2031x43
Weight (kg)	52	51	76

There are currently four Viessmann solar kits available from selected merchants throughout the UK.

**Vitosol 100 Flat Panel Kits:**

**1 Panel Kit**

Part Number SK00361

Suitable for 1-2 person households



**Components**

1 x Panel	7188383
1 x Rails & Battens fixing kit	7188482
1 x Indoor Pack	Z004731
1 x Roof Pack	Z004752
1 x Tyfocor	7179027

**2 Panel Kit**

Part Number SK00363

Suitable for 3-5 person households



2 x Panel	7188383
1 x Rails & Battens fixing kit	7188483
1 x Indoor Pack	Z004731
1 x Roof Pack	Z004753
1 x Tyfocor	7179027

**NB: Colour-coded edge strips and flat panels that integrate into the roof tiles are also available.**

**Please telephone for more details.**

**Vitosol 200 Vacuum Tube Collectors:**

**20 Tube Kit**

Part Number SK00365

Suitable for 1-2 person households

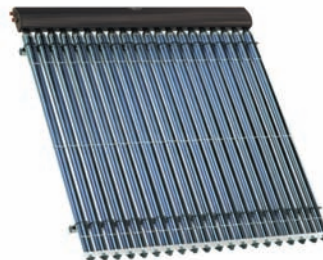


2 x Boxes of Tubes	7188857
1 x Manifold	7188858
1 x Rails & Battens fixing kit	7186230
1 x Indoor Pack	Z004731
1 x Roof Pack	Z004730
1 x Tyfocor	7179027

**30 Tube Kit**

Part Number SK00366

Suitable for 3-5 person households



3 x Boxes of Tubes	7188857
1 x Manifold	7188859
1 x Rails & Battens fixing kit	7186230
1 x Indoor Pack	Z004731
1 x Roof Pack	Z004730
1 x Tyfocor	7179027

**Please make sure you read all of the detailed installation instructions, install the necessary lifting equipment and comply with all the relevant health and safety regulations.**

**REMEMBER - Incorrectly installed solar panels can be dangerous!**

**If you need any help or advice on the sizing, selection or installation of Viessmann solar thermal systems, please call the technical helpline on 01952 675070**

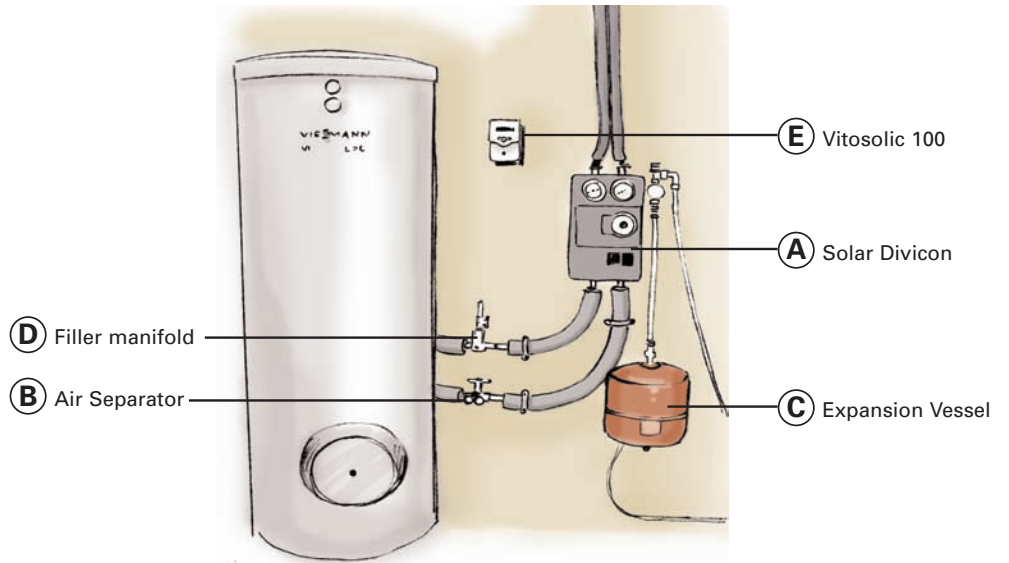
THIS LEAFLET DOES NOT REPLACE MANUFACTURERS INSTALLATION INSTRUCTIONS WHICH ARE SUPPLIED WITH MAJOR COMPONENTS AND MUST BE READ IN CONJUNCTION WITH THIS OVERVIEW.

**Accessories Available**

1. Hand Fill Pump	7188624
2. Flexi flow & return pipes (12m long)	7317009

**VISSMANN SOLAR KITS**

All the components you need for the indoor installation are contained in one box, plus one container of Tyfocor. Check you have all the part numbers listed for your kit.



Twin Coil Cylinder

**INDOOR PACK**



**A.Solar Divicon**  
Part No: 7188391



**E.Vitosolic 100 Controller**  
Part No: 7246594



**B.Filler Manifold**  
Part No: 7316261



**Pipe Coupling (manual air vent)**  
Part No: 7316263



**C.Expansion Vessel**  
Part No: 7143535



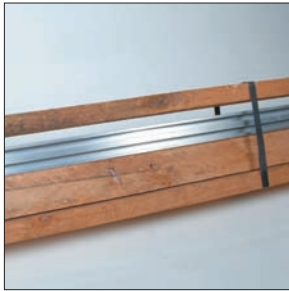
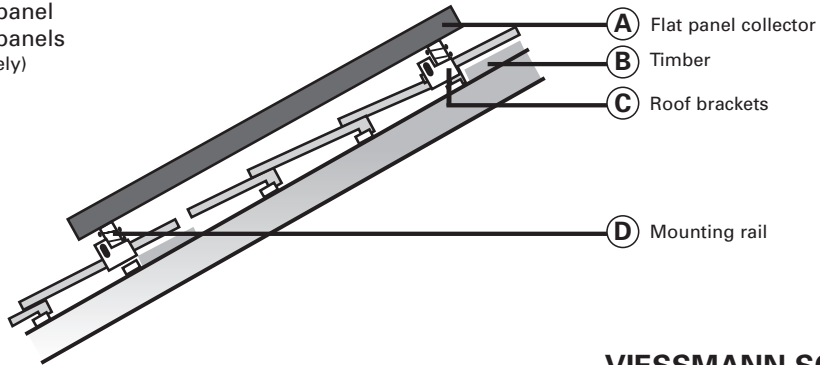
**Tyfocor Heating Medium**  
Part No: 7179027  
(packed separately)



**D.Air Separator**  
Part No: 7316049



**Flat Panel 7188383**  
SK00361 x 1 panel  
SK00363 x 2 panels  
(packed separately)



**B & D Fixing Kit**  
(Rails & Battens)  
**SK00361**  
Part No: 7188482  
**SK00363**  
Part No: 7188483  
(packed separately)

**VISSMANN SOLAR KITS**

In addition to the indoor pack, you need 1 or 2 flat panels, plus the correct roof pack and fixing kit.

- 1 x panel kit SK00361**
- 2 x panel kit SK00363**

**ROOF PACK**



**C. Roof Brackets**  
**SK00361**  
Part No: 7181512 x 4  
**SK00363**  
Part No: 7181512 x 6



**Fixing Screws**  
Part No: 7317114 (1 pack per panel)  
Part No: 7317115



**Connection Set**  
Part No: 7317005



**T-Bolts Accessories Pack**  
**SK00361**  
Part No: 7175265  
**SK00363**  
Part No: 7179234



**Sensor Well Set**  
Part No: 7174993



**Flexi Pipes**  
Part No: 7316252



**Clip for Assembly**  
**SK00361**  
Part No: 7194423  
**SK00363**  
Part No: 7194424



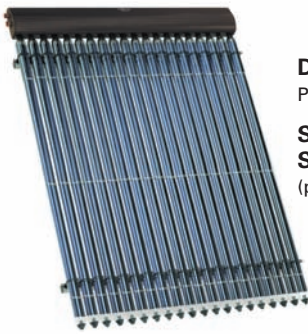
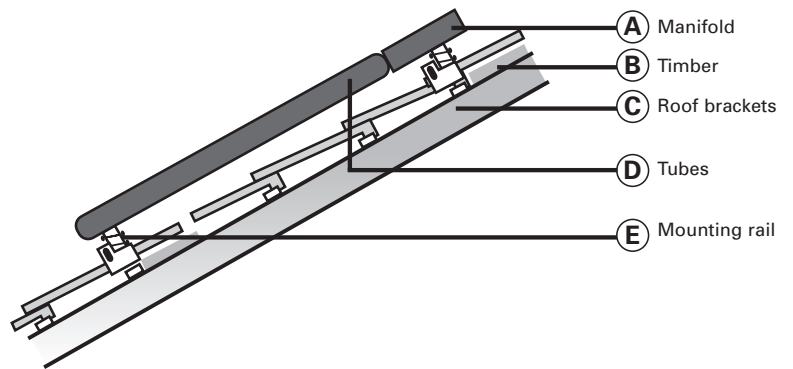
**Connecting Pipes**  
**SK00363** (2 panel kit only)  
Part No: 7317062

**VISSMANN SOLAR KITS**

In addition to the indoor pack, you need 2 or 3 boxes of tubes, plus a manifold, the fixing kit and the correct roof pack.

**20 Tube Kits SK00365**

**30 Tube Kits SK00366**



**D. Tubes**

Part No: 7188857

**SK00365 x 2 packs**  
**SK00366 x 3 packs**  
(packed separately)



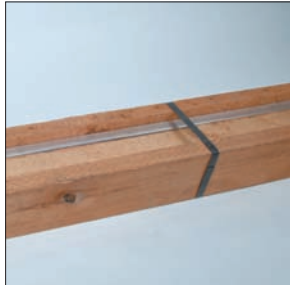
**A. Manifold & Tube Holders**

**SK00365**  
Part No: 7188858

**SK00366**  
Part No: 7188859  
(packed separately)



**Sensor Well Set**  
Part No: 7188622



**B & E. Fixing Kit 2V**  
Part No: 7186230  
(packed separately)



**Fixing Screws**  
Part No: 7317114  
Part No: 7317115

**ROOF PACK**



**C. Roof Brackets**  
Part No: 7181512



**T-Bolts Accessories Pack**  
Part No: 7175265

**Accessory Pack**  
Part No: 7188864



**Connection Set**  
Part No: 7188621



**Flexi Pipes**  
Part No: 7316252

For all installations (Tube & Flat panels), follow the first 5 stages below, then continue to the relevant section. Internal installation & commissioning are detailed on the back page.

**Health & Safety**

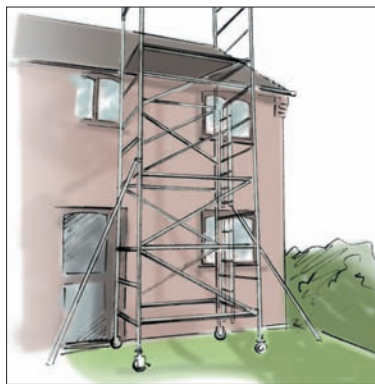
At all stages take care to abide by Health & Safety Legislation and install all the necessary lifting and safety equipment prior to installation - remember the flat panels weigh 52kg each!

**EXTERNAL INSTALLATION:  
FLAT & TUBE PANELS**  
(Stages 1-5)

**Positioning**

In addition to finding the best position to capture the sun's energy, place the panels where you can pass the pipework through the roof for internal connection.

At each stage, the part numbers are given.



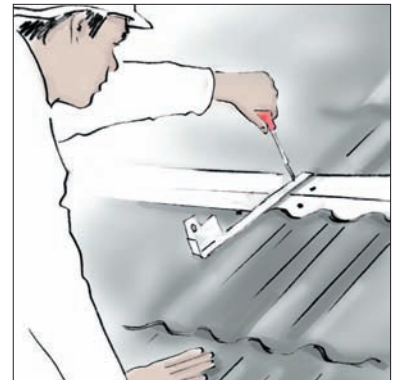
1. Erect necessary lifting & safety equipment.



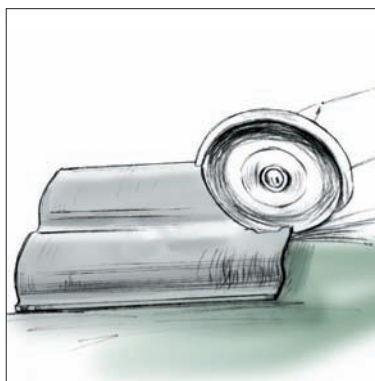
2. Measure roof & remove tiles.



3. Fix timber battens to joists.  
7188482/7188483/7186230



4. Fix brackets to battens.  
7181512/7317115



5. Cut tiles & replace.

**For flat panel installation  
continue over.  
For tube systems turn to page 10.**

**FLAT PANELS**

(Stages 6-18)

Vitosol Flat Panel Kits are designed for quick and easy connection.

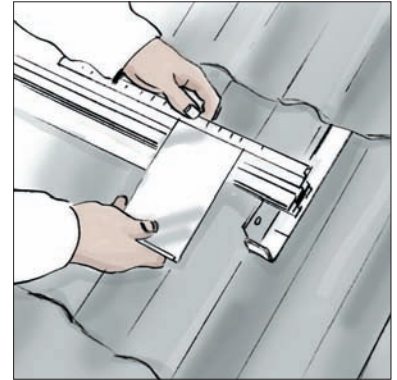
Please note: the panels are supplied with reflective covers - leave these in place until the installation is complete.

**Lifting straps are available as an accessory.**

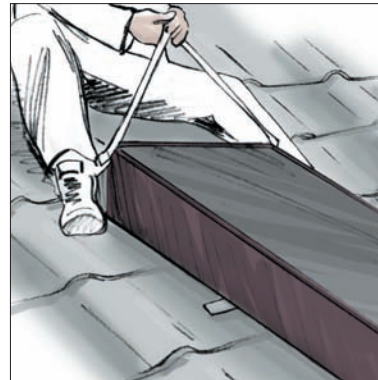
Part No: 7188503



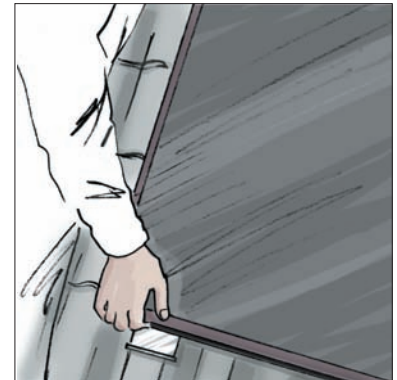
**6. Fix rail to brackets.**  
7188482 & 7175265/7188483 & 7194423



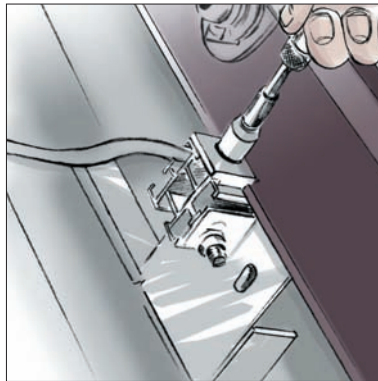
**7. Measure & position mounting plates onto rails.**  
7188482/7188483



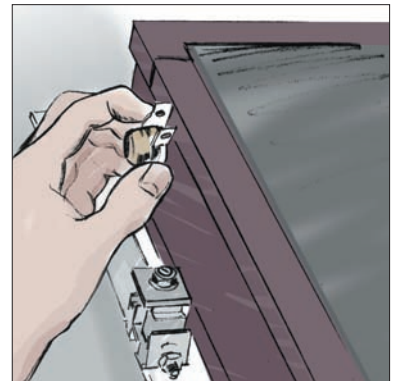
**8. Hoist panels onto roof, in accordance with H&S regulations.**  
7188383



**9. Position panel on mounting brackets.**  
7188482/7188483

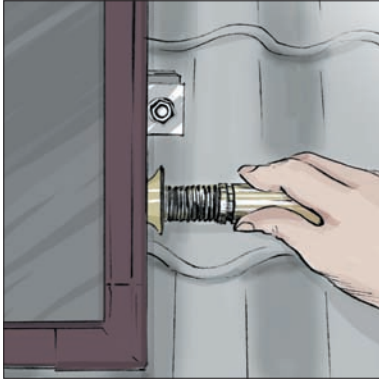


**10. Secure panel with clamp.**  
7194423/7194424

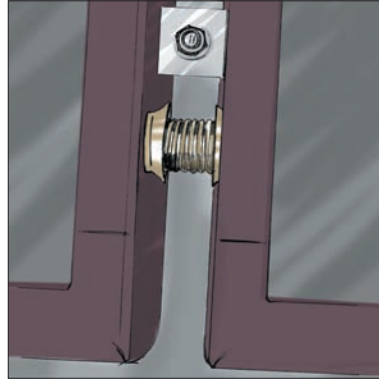


**11. Blank off end panels & secure with clip from connection set.**  
7317005

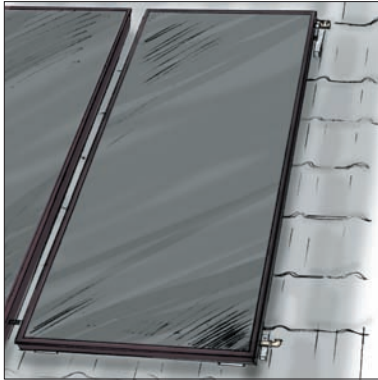




**12.** For 2 panel kits, insert pipework for connecting 2nd panel, using grease supplied.  
7317062



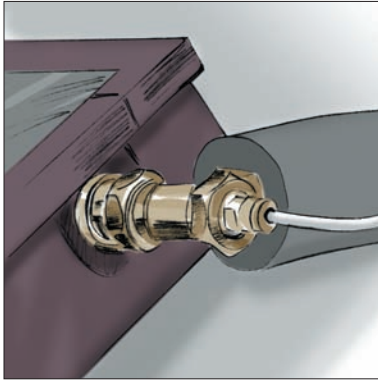
**13.** Slide panel in and fit clamp.  
7188383 & 7194424



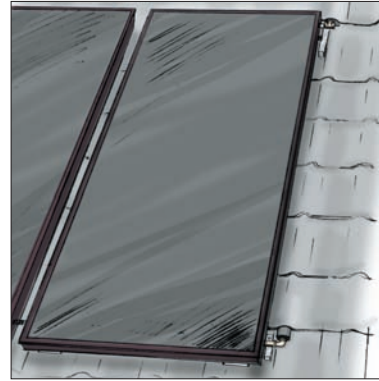
**14.** For 1 or 2 panel installations, insert flow & return connections & secure.  
7317005



**15.** Secure with clamp.  
7317005



**16.** Fit T-piece with sensor.  
7174993



**17.** Pass flow & return pipework through vent tiles or lead slate.  
7316252



**18.** External installation is now complete.

**Now turn to page 11 for internal connections & commissioning.**

**TUBE SYSTEMS**

(Stages 6-15)

Vitosol Tube Panels offer amazing flexibility. Remember to rotate the individual tubes for the best performance, if necessary.



**6.** Attach rails to brackets.  
7186230



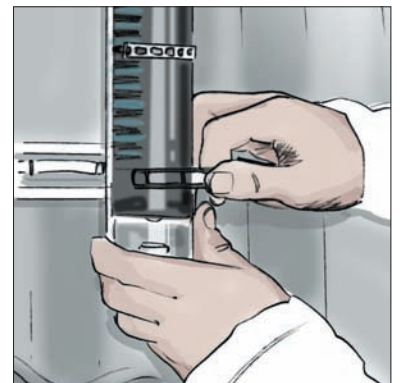
**7.** Fix header to rails.  
7188858/7188859



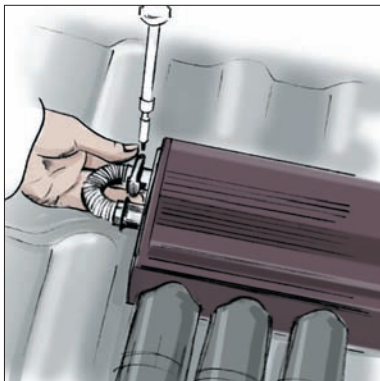
**8.** Attach tube holders.  
7188858/7188859



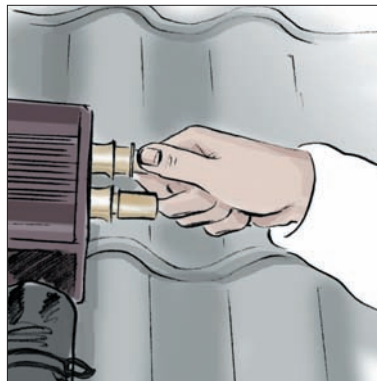
**9.** To insert tubes rotate & push gently until they lock into position.  
7188857



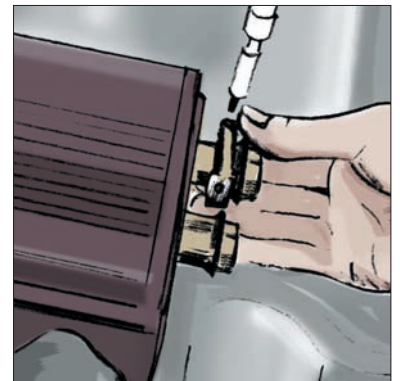
**10.** Secure with rubber clips.  
7188857



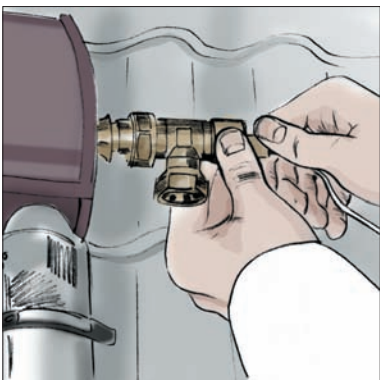
**11.** Insert U-bend clip and then fit cover.  
7188621



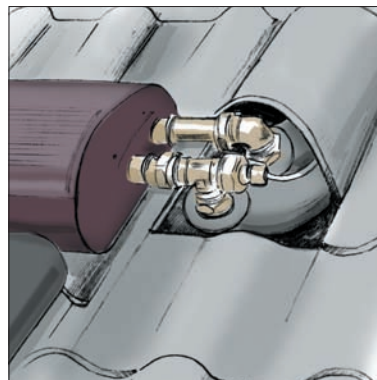
**12.** Insert flow & return pipes.  
7188621



**13.** Secure with clips.  
7188621



**14.** Insert temperature sensor and fix T-connection.  
7188622



**15.** Pass pipework through vent tile, or suitable flashing ready for connection.  
7316252

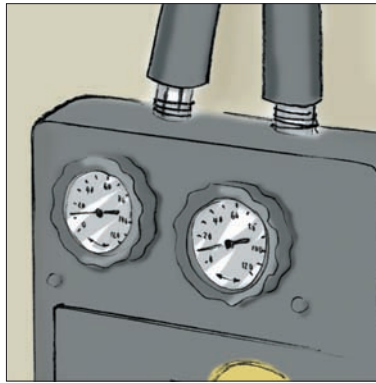


**16.** External installation is now complete.

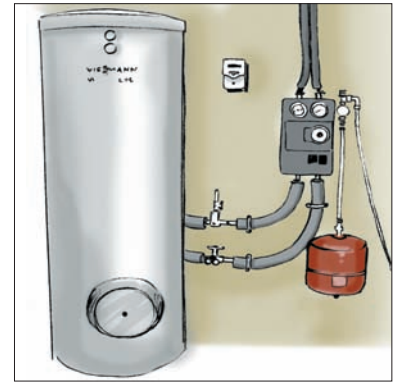
**See opposite for Internal Connections for both tube & flat panels.**

**INTERNAL INSTALLATION**  
(Flat & Tube panels)

Once the External Installation is complete, fit the air vent (7316263) at a high point in the roof space, then complete stages A-F.



A. Connect pipework to solar divicon.

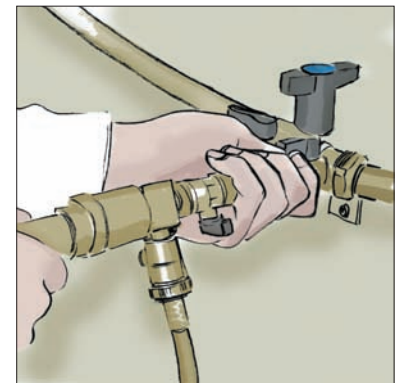


B. Connect divicon to dual coil cylinder & fit expansion vessel. Fit controller.

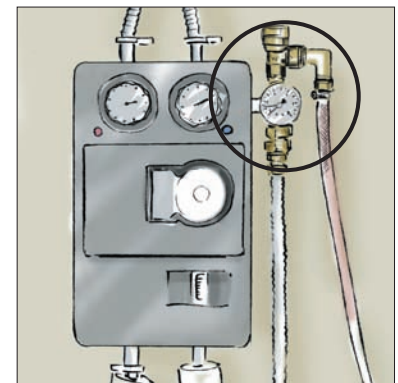
**COMMISSIONING**



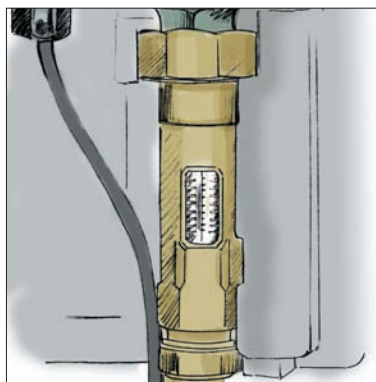
C. Pump fluid in using floor standing or hand-fill pump, and vent the system.



D. Check & adjust nitrogen pressure.



E. Set system pressure.



F. Check & adjust flow rate.

**TECHNICAL HELPLINE**

If you need advice on selecting, positioning or installing Viessmann solar products, please call us. We also offer training to recognised installers.

**01952 675070**

Brochures & technical documents can be downloaded from:  
[www.viessmann.co.uk](http://www.viessmann.co.uk)

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