Vented System
Installation Instructions

Plumbing Connections

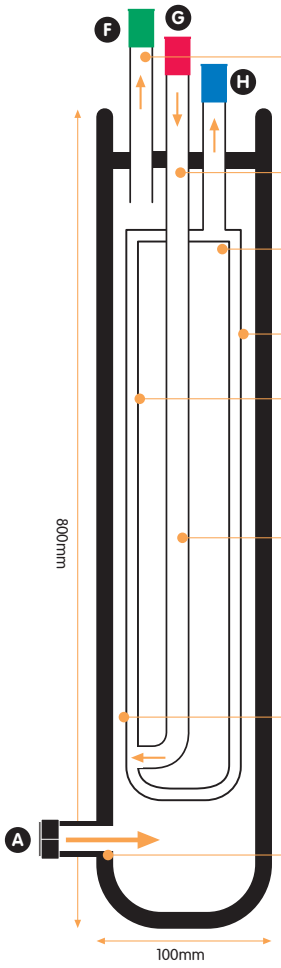
1. Completely drain hot water cylinder via drain cock or Syphon out
2. If available, use drain connection tapping for cold supply to Solasyphon, or drill hole in side of cylinder approx 100mm from bottom and fit proprietary Essex type flange (22mm diameter) at A
3. Connect cold supply pipe from bottom of cylinder to bottom connection on Solasyphon (22mm) A
4. Cut-in a tee piece with a 15mm branch on the open vent pipe at a level not less than 500mm above the dome of the cylinder C
5. Connect hot water draw-off pipe marked F (15mm diameter) from top of Solasyphon to branch in vent (15mm)
6. Refill cylinder/plumbing, vent and test for water tightness

Solar Connections (Heating Element Side)

1. Remaining 2 connections on the top of the Solasyphon (15mm diameter) are the Solar flow and return with flow marked G and return marked H
2. Connect pipework and ancillaries from solar panel as per manufacturer's instructions
3. Fill and vent Solar circuit as per manufacturer's instructions and test for water tightness
4. Solasyphon installation is now complete

IMPORTANT Ensure the Solar flow and return are fitted to the correct orientation as marked on the Solasyphon

The Solasyphon



Secondary flow (15mm) circulates from the Solasyphon at high temperature to stratify at top of the hot water cylinder

Primary flow (15mm) from the Solar Panel

Primary return (15mm) to the solar panel from the annular heater

Internal Annular Heater

Low water content in the Solasyphon ensures rapid heat transfer from the annular heater to the secondary water creating thermosyphonic action

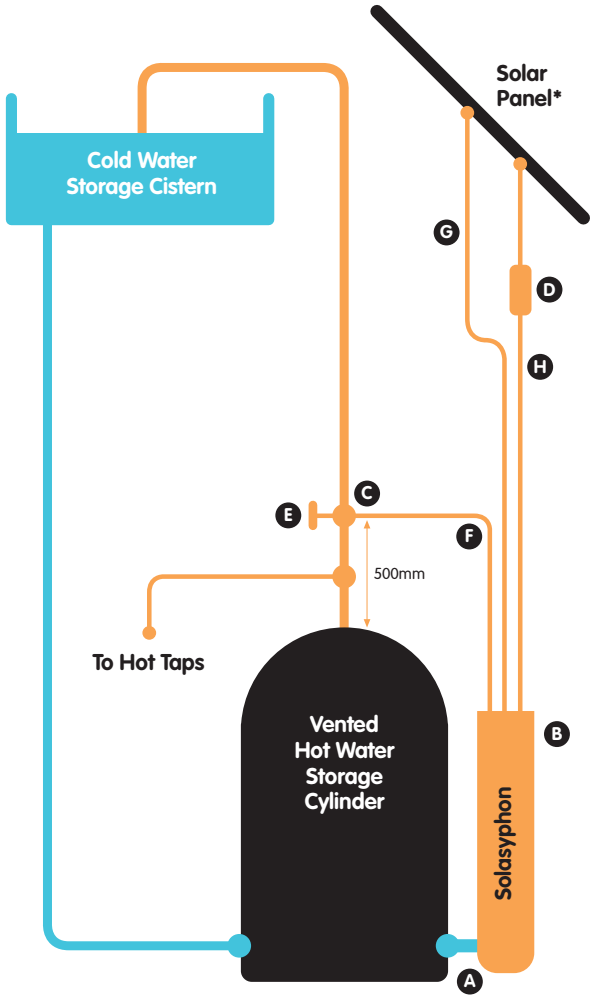
Primary flow enters the top of the Solasyphon passes inside inner diameter of the annular heater to connect at the bottom end of the annular heater. This maximises heat exchanger surface area

Cold water entering the Solasyphon, heats rapidly as it rises through the main part of the Solasyphon

A secondary cold feed (22mm) enters the Solasyphon

Vented System (see right)

- A Secondary cold feed connection to hot water storage cylinder using Essex Flange
- B Willis Solasyphon
- C Thermosyphonic flow circulates hot water to hot water storage cylinder where it stratifies at top of cylinder, stored at high temperature and available for immediate use
- D Pump control unit for solar circuit
- E Temperature sensor
- F Secondary flow
- G Primary solar flow
- H Primary solar return



* Recommended 6sqm maximum size Solar Panel for use with Solasyphon

Vented System
Installation Instructions

Pressurised System
Installation Instructions

Plumbing Connections

1. Completely drain hot water cylinder via drain cock
2. If available, use drain connection tapping at bottom of cylinder for cold supply to Solasyphon, or make a tee connection on the cylinder cold supply with branch connection to bottom connection of Solasyphon. This tee piece should be of the injector tee type (see diagram) A
3. Connect cold supply pipe from bottom of cylinder to bottom connection on Solasyphon (22mm) at A
4. Cut-in a tee piece with a 15mm branch on the hot water draw off pipe at a level not less than 500mm above the dome of the cylinder C
5. Connect hot water draw-off pipe marked F (15mm diameter) from top of Solasyphon to branch in hot water draw off (15mm)
6. Refill cylinder as per manufacturer's instructions and test for water tightness

Solar Connections (Heating Element Side)

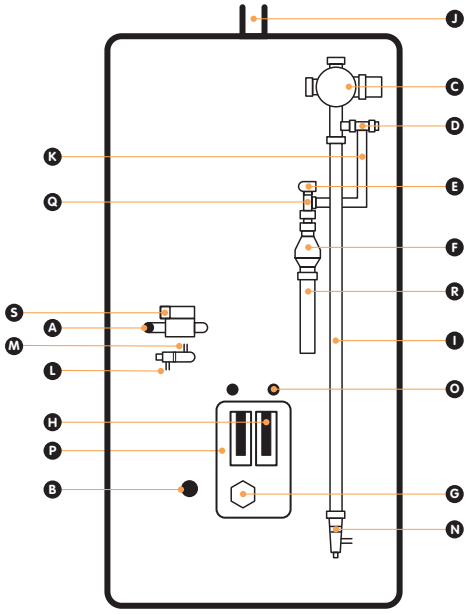
1. Remaining 2 connections on the top of the Solasyphon (15mm diameter) are the Solar flow and return with flow marked G and return marked H
2. Connect pipework and ancillaries from solar panel as per manufacturer's instructions
3. Fill and vent Solar circuit as per manufacturer's instructions and test for water tightness
4. Solasyphon installation is now complete

IMPORTANT Ensure the Solar flow and return are fitted to the correct orientation as marked on the Solasyphon

If utilising the combined cold feed elbow and drain cock N for the solar cold feed connection A it is important to use an Injector Tee to prevent short circuiting

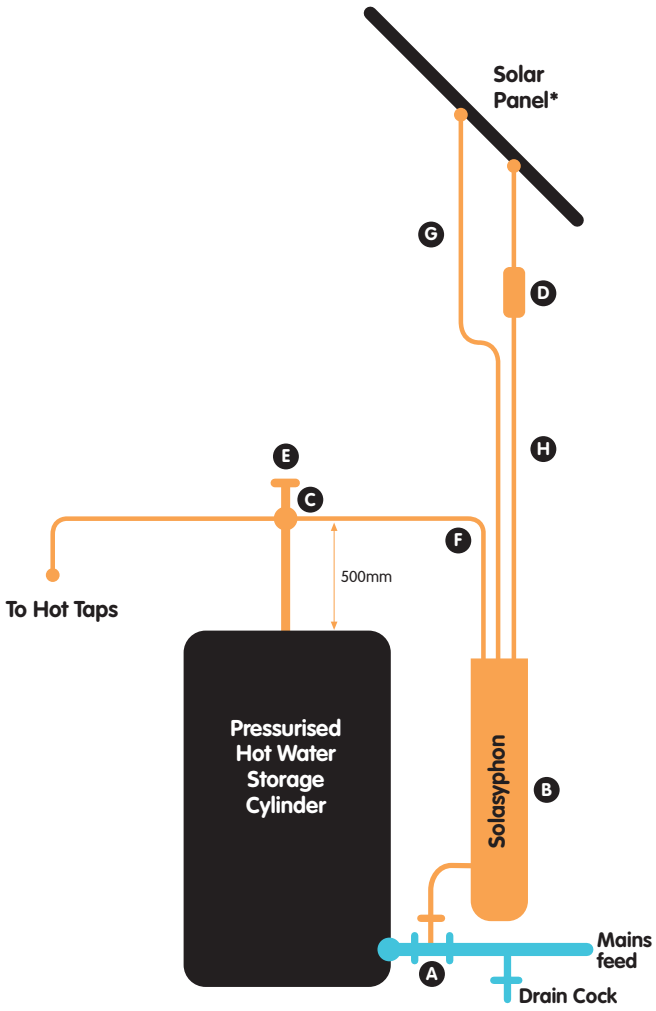
Typical Cylinder

- A Flow (Indirect only)
- B Return (Indirect only)
- C Pressure reducing valve
- D Check & expansion valve
- E Temperature & pressure relief valve
- F Tundish
- G Immersion heater
- H Thermostat
- I Cold feed tube (not supplied)
- J Hot water outlet
- K Flexible hose
- L Secondary return 1/2 BSPF Conex 645 tee piece (not supplied)
- M Comissioning valve
- N Combined cold feed elbow and drain cock
- O Cable entry
- P Electrical boxes
- Q Tee piece
- R Discharge pipe (not supplied)
- S Motorised valve (not factory fitted)



Pressurised System (see right)

- A Secondary cold feed connection to hot water storage cylinder using Injector Tee
- B Willis Solasyphon
- C Thermosyphonic flow circulates hot water to hot water storage cylinder where it stratifies at top of cylinder, stored at high temperature and available for immediate use
- D Pump control unit for solar circuit
- E Temperature Sensor
- F Secondary flow
- G Primary solar flow
- H Primary solar return



* Recommended 6sqm maximum size Solar Panel for use with Solasyphon

Pressurised System
Installation Instructions