



Air separator – SOLAS1

Installation and operating instructions

0 Overall view

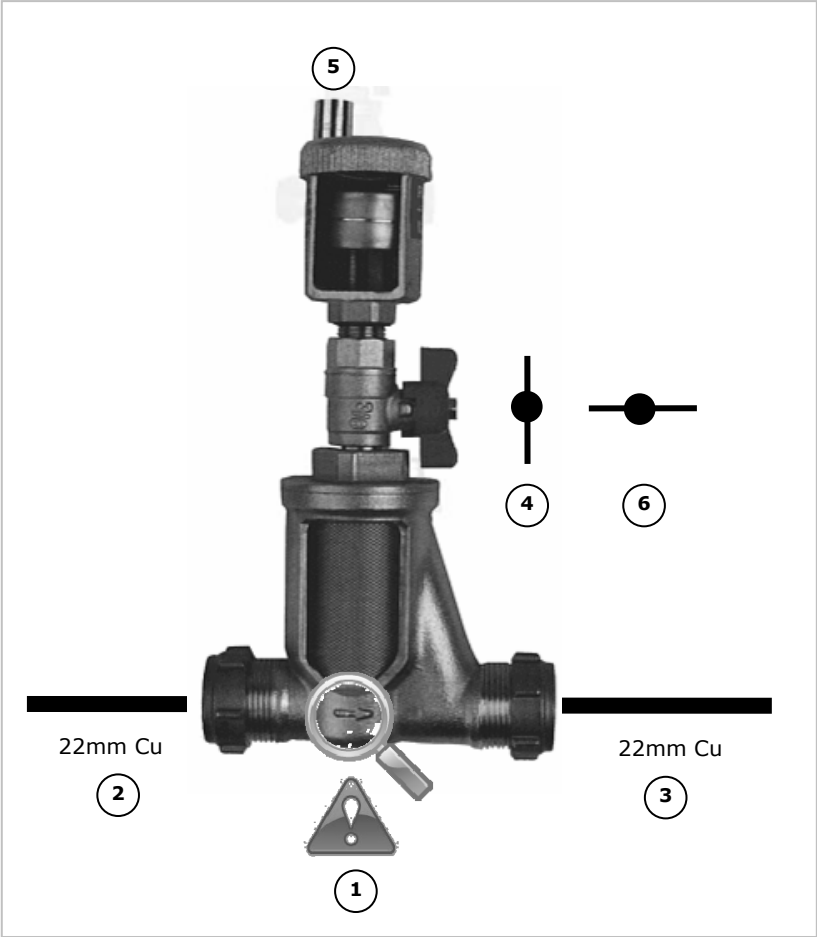


Figure 1 – Overall view of installation method

1 Contents

0 OVERALL VIEW	2
1 CONTENTS	3
2 BEFORE YOU START	4
GENERAL	4
COMPETENCE	4
HEALTH AND SAFETY	4
3 SCOPE OF DELIVERY	5
4 PRODUCT FEATURES AND DESCRIPTIONS	6
5 INSTALLATION	6
6 COMMISSIONING	7
7 OPERATION	7
8 MAINTENANCE	7
9 TROUBLESHOOTING	8
10 DECOMMISSIONING	8

2 Before you start

General

Thank you for choosing a Dimplex product. We ensure you that every effort was made at design, manufacture and delivery stages of this product to meet your expectations and we ensure you of our best possible support throughout the product's lifespan.

As part of ongoing product development and improvement Dimplex reserves the right to undertake changes to the product without prior notice. Great care has been taken to ensure this manual was correct at the time of print. Should you however discover any issues with the information contained therein please do not hesitate to contact your vendor.

We strongly recommend you read the whole contents of this manual before commencing the work.

Competence

Dimplex products have been designed and manufactured to the current relevant standards and under stringent quality control. It is therefore imperative that the product is only installed by a:

- trained and
- competent

person as defined in the relevant regulations. Dimplex does not accept any liability for damage done to persons or property resulting from undue handling and usage of this product.

All regulations current at the time of installation are to be considered alongside the content of this manual as they form the code of best practice.

The warranty of this product is linked to the ability of proving that the product was installed, commissioned and maintained:

- by a competent person
- in accordance with Dimplex instructions and the current relevant regulations and legislation
- the product being registered with Dimplex at the time of installation using the form in the Dimplex On Site Guide
- records showing the date of maintenance in accordance with the maintenance schedule as detailed in the On Site Guide

Health and Safety

The installation of this product is subject to the Health and Safety at Work Act. It is your responsibility to ensure that the transport, storage, installation and operation of the product is carried out in a safe manner.

Dimplex will not accept any liability due to damage caused to people or property resulting from negligence or not adhering to the relevant Health and Safety practises.

3 Scope of delivery

Please check the contents and condition of your delivery before signing the delivery documentation against the content shown in Figure 2 and mark as appropriate. Contact your supplier immediately for any missing or damaged parts. Claims for missing or damaged parts after signing for the delivery documentation will not be accepted.

Automatic air vent	x1	<input type="checkbox"/> / <input type="checkbox"/>	
Shut off valve	x1	<input type="checkbox"/> / <input type="checkbox"/>	
Air trap	x1	<input type="checkbox"/> / <input type="checkbox"/>	
Manual	x1	<input type="checkbox"/> / <input type="checkbox"/>	

Figure 2 – Scope of delivery

4 Product features and descriptions

The Dimplex Air Separator – SOLAS1 improves the de-aeration of solar thermal systems. The unit consists of the following main components (see Figure 3):

- air trap
- high temperature shut off valve
- automatic air vent

The air trap is sophisticatedly designed to accumulate the air bubbles efficiently below the air vent where they are automatically vented. The efficiency and the benefit of the air trap to the system is increased through the incorporated stainless steel strainer extracting even small air micro bubbles from the heat transfer medium.

The strainer can be removed for cleaning purposes by removing the cover of the air trap.

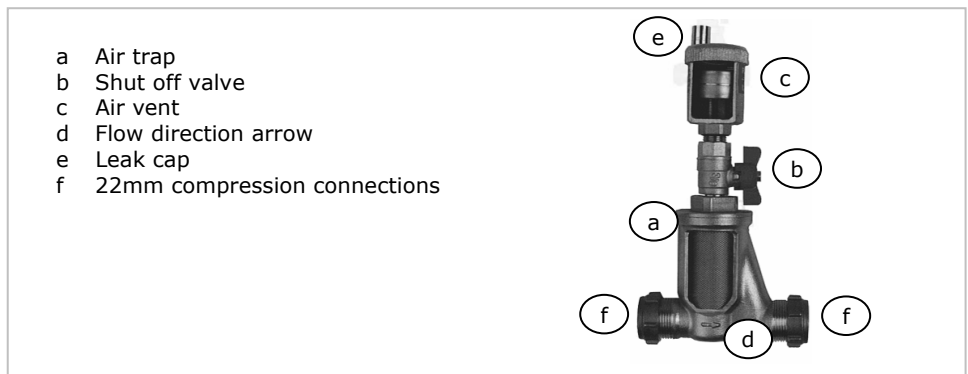


Figure 3 – Air Separator – SOLAS1 components

The 22mm compression fittings ease the connection of the unit to the pipe work and ensure a reliable seal even at elevated temperatures over a long period of time.

5 Installation

It is important to ensure that the air – separator is installed in the direction of flow (**d**) as indicated on the body of the air trap (**a**). The unit should be installed in the highest point of the installation and in the flow pipe work of the solar loop.

Ensure the pipe work is cut square and any burrs are removed. Slide the compression nut and olive (**f**) onto the pipe. Then fit the pipe end completely into the air trap (**a**) until the end of the pipe is located firmly against the pipe stopper. Tighten the compression nut fully by hand and after that with a spanner another $\frac{3}{4}$ turn.

6 Commissioning

It is important that the connections of the air – separator **(f)**, the connection between the components of the air – separator and especially the automatic air vent **(c)** are part of the leak check procedure during commissioning.

To commission the unit, the following steps are to be observed:

- open the shut off valve **(b)** to allow flow between the air trap **(a)** and the air vent **(c)**
- fully close the leak cap **(e)** and then open by ¼ turn

7 Operation

When venting the solar system during the commissioning process ensure that the air – separator is in the operating condition as described above.

During the venting of the solar loop air will accumulate in the air trap **(a)** and will be vented through the air vent **(c)** from time to time. If practical it is recommended to operate the air separator for a period of time in which it can be ensured that the system will not go into stagnation but operate at elevated temperatures.



Once the system is fully vented it is imperative that:

- the shut off valve **(b)** is closed
- the leak cap **(e)** is closed

8 Maintenance



Risk of scalding! Before carrying out any maintenance work on the air separator ensure that it is safe to do so. The solar system has to be de-commissioned before the following work can be carried out.

The build in strainer inside the air trap **(a)** can be removed by removing the cap of the air trap **(a)** and removing the strainer. After cleaning of the strainer the unit has to be re-assembled and tested for leaks.

The commissioning and operating instructions above have to be followed when re-commissioning the solar system.

9 Troubleshooting

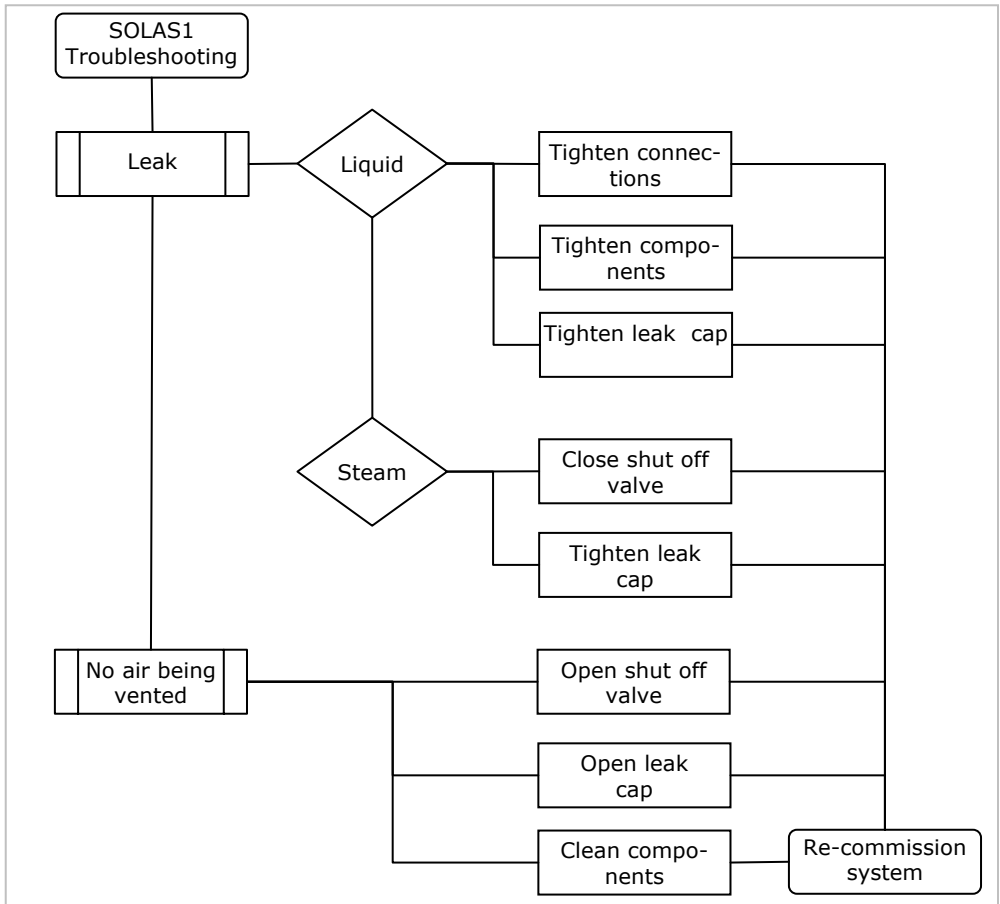


Figure 4 – Troubleshooting guide

10 Decommissioning



Risk of scalding! Before carrying out the decommissioning work on the air separator ensure that it is safe to do so.

- drain liquid from solar loop
- disassemble air separator
- drain remaining fluid from air separator
- dispose of air separator in accordance with local regulations