



Expansion vessel fixing kit (18 – 24 l) – SOLVK1

Installation instructions

0 Overall view



Figure 1 – Overall view of installation method

1 Contents

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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 you 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 the delivery documentation will not be accepted.





| | | | |
|---------------------|----|---|--|
| Wall bracket | x1 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Connection fitting | x1 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Connection hose | x1 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Sealing washer 3/4" | x2 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Coach bolt | x2 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Washer | x2 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Rawl plug | x2 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |
| Manual | x1 | <input type="checkbox"/> ✓ / <input type="checkbox"/> ✕ |  |

Figure 2 – Scope of delivery

4 Product features and description

Considering the importance of the expansion vessel for the safe and continuous operation of the solar thermal system a secure and reliable fixing method is important. The expansion vessel fixing kit aids in the installation and maintenance of the expansion vessel. With its corrugated stainless steel hose, the wall bracket and vessel connection fitting the important function of the expansion vessel in solar system installations is supported.

The Dimplex expansion vessel fixing kit:

- eases the installation of expansion vessels to the pump unit
- reduces maintenance efforts
- offers a secure reliable expansion vessel fixing method

The fixing kit is suitable for vessels with $\frac{3}{4}$ "M connection on the water side and with a diameter of no more than 440mm.

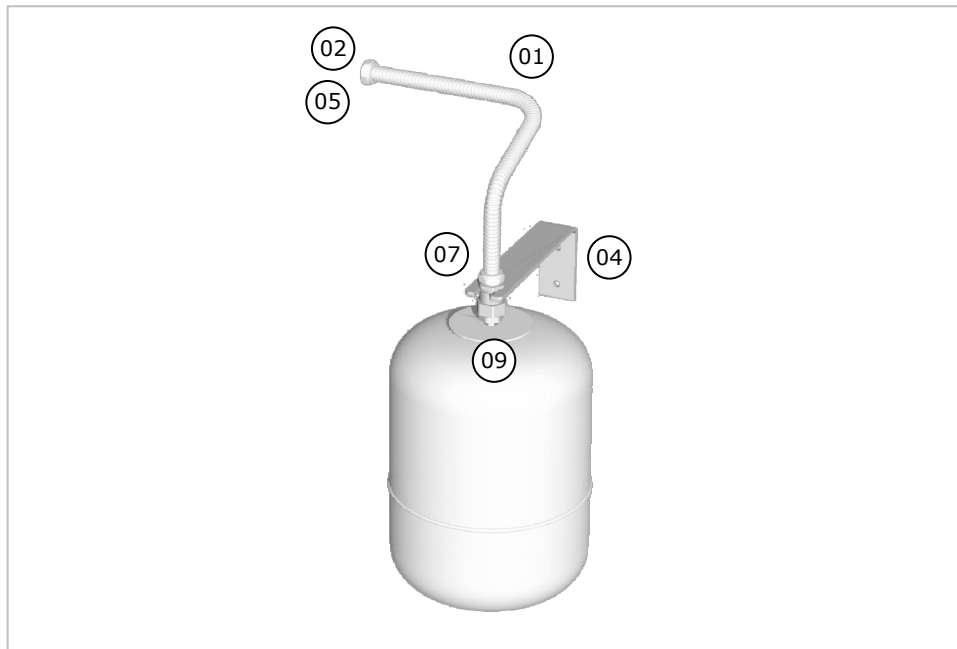
5 Installation

When choosing the location of the expansion vessel, it should be ensured that the vessel is mounted LOWER than its connection port on the pump unit. This aids in keeping the vessel "cool" during the operation of the solar system and therefore increases its life expectancy.



When mounting the expansion vessel to the wall ensure that the wall can support the weight of the expansion vessel plus the weight when the expansion vessel is full of fluid (app. 1 litre of vessel volume = 1 kg)!

- 1 Bend the stainless steel hose in its required shape to reach from the pump unit connection point to the chosen location of the expansion vessel.
- 2 Temporarily fit the hose to the pump unit and locate the position of the expansion vessel bracket on the wall by marking the drill holes.
- 3 Remove the hose from the pump unit.
- 4 Fix the expansion vessel bracket to the wall. Ensure that the wall can support the weight of the vessel even when full of fluid.
- 5 Install the corrugated stainless hose to the pump unit using the sealing washer provided. Do not over tighten!
- 6 Hook the vessel connection fitting into the wall bracket and tighten the lock nut to secure the fitting to the bracket.
- 7 Secure the hose to the fitting using the sealing washer provided. Do not over tighten!
- 8 Disconnect the bottom half of the vessel connection fitting by slacking the nut and assemble to expansion vessel using suitable sealant.
- 9 Re-assemble vessel connection fitting. It is recommended to mount the vessel in such a way that the label faces to the front and the Shrader valve is accessible.



6 Commissioning

Before filling the solar loop it is imperative to set the membrane pre-charge pressure to the correct value. The membrane pre-charge pressure equals the cold fill pressure of the solar loop less ~0.2 bar (see Technical Guide for details).

To adjust the membrane pre-charge pressure:

- unscrew plastic cap at bottom of vessel
- measure the pre-charge using a suitable pressure gauge
- adjust pressure by releasing pre-charge as required
- assemble plastic cap to bottom of vessel
- note pre-charge pressure with permanent marker on vessel technical data label

7 Maintenance



Risk of scalding! Before executing any maintenance work on the solar loop check system temperature! Do not maintain when the system is hot – collectors are to be covered.

The requirement to maintain the expansion vessel becomes apparent when:

- the pressure in the system changes between the hot and cold condition
- the pressure relief valve opens and discharges heat transfer medium

To maintain the vessel:

- place a suitable container under the expansion vessel.
- unscrew lower part of connection fitting and pull vessel away from upper part of fitting.
Care to be taken: the system is under pressure and the vessel can blow away from the fitting once the retaining nut is loosened.
- check pre-charge in expansion vessel using a suitable pressure gauge at the bottom of the expansion vessel (see Commissioning).
- adjust pre-charge as required or replace vessel.
- re-commission system.

8 Troubleshooting

