

INSTRUCTIONS

FOR INSTALLING AND USING

the Solarlogic pump group

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Main functions

Description

Solarlogic pump group for the circulation of glycol mix fluids through solar thermal heating applications.

It provides ;
 filling and flushing connection points,
 fluid flow regulation
 system temperature and pressure readings,
 check valve for anti-gravitation
 safety pressure relief valve and discharge connection,
 point of connection for expansion vessel and isolation
 Isolation of upper and lower system levels and pump

Models

The Solarlogic range of solar pump stations come in various configurations to meet the demands of the growing number of solar engineer/installers and the wide variety of system designs.

Single line or twin line.

6M or 8M head pump.

All round connections in 22mm **or** 22mm lower connections and 3/4" bsp connections to DN16 flexible stainless steel solar pipe.

Supplied with or without a mounting recess for controller.

Larger insulation casing and spacer to allow the installer to use larger 180 pumps.



Preparation

Please install the circulation group to a fixed wall that's not subject to vibrations. The installation environment and connection devices must also comply with existing laws and regulations. Please install the device using proper care and utilising protection as appropriate.

Do not damage existing cables when drilling the wall. Empty any components that may contain hot water and activate any air vents before use.

Restore all safety and control functions that may be affected by this device and ensure that they are tested and functioning before restoring service.

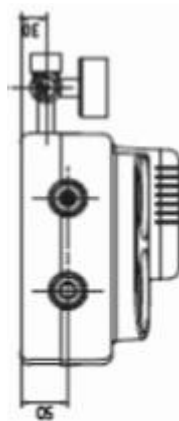
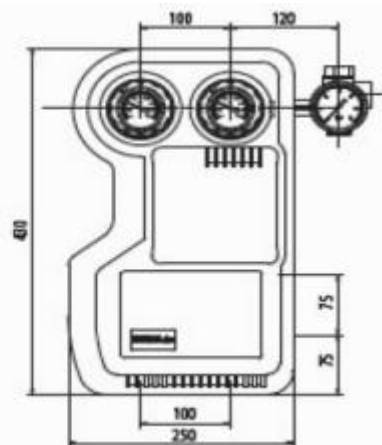
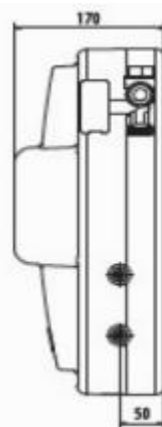
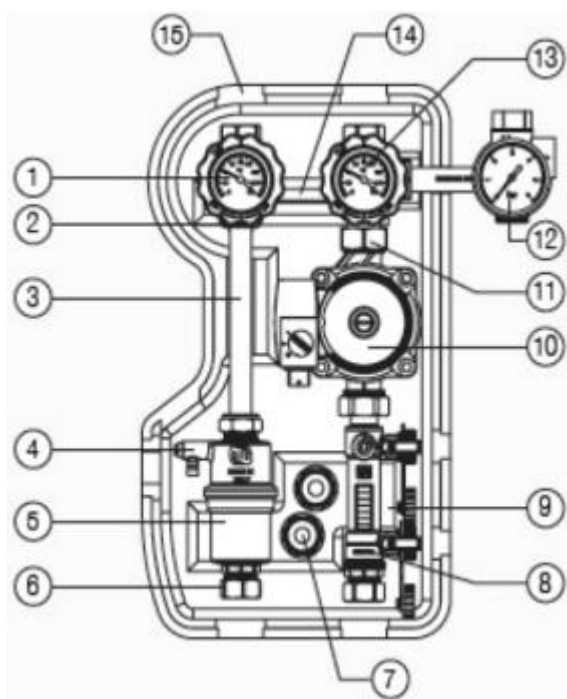


Before any maintenance activity, please ensure that the power supply is disconnected. All electrical connections should be linked with the proper section conductors. All connection cables should be protected to avoid any damage. Also ensure that feeder cables are in good condition and that any rotating or moving parts are set correctly. Do not obstruct any moving parts

Specification

Components

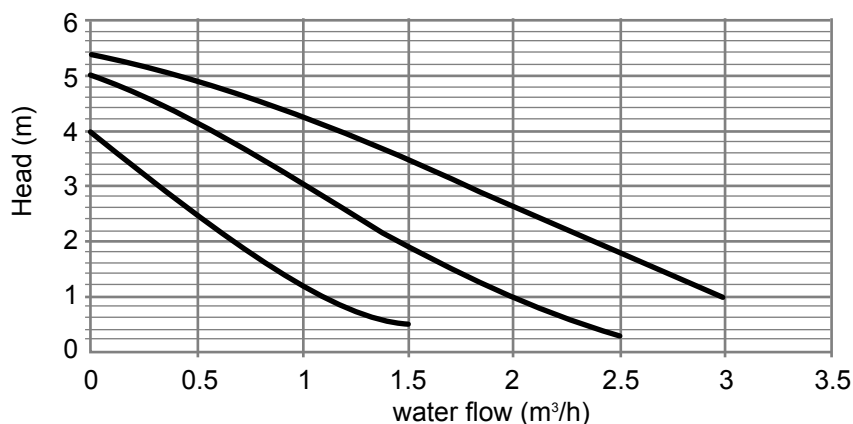
1. Thermometer on supply side, colour red, range 0-160°C
2. Cock on supply side DN20, with integrated bracket
3. Connection pipe, copper d.18mm
4. Manual air vent, hose end connection
5. Air stop device, manual integrated vent
6. System connection with olive and nut for connection to copper pipes d.18mm. Alternative: 3/4" M with flat connection/olive and nut for copper pipes d.22mm
7. Hose end connection, filling/flushing device, d.15mm
8. Flow meter, flow rate regulation and graduated scale, regulation range 2-12 litres/min
9. Cock for filling/flushing of the unit, connection 3/4" M with safety tap and chain
10. Circulator, WILO mod. STAR ST 15-6 Eco. 3P connections, 1M-130mm Class F, PN10, TF110, IP44, 2 µF, 230V - 50Hz, VDE, CE. (Also available in Wilo STAR ST15-8 model)
11. Return cock DN20, with integrated bracket, connection 3/4" M always open on one side. Check valve activation: closure at 90° and opening at 45°.
12. Safety group, with safety valve 6 bar certified TUV according to SV100 7.7 - Directive 97/23/CE manometer range 0-10 bar, vertical threaded connection to expansion tank Rp 3/4" M ISO228 with flat gasket connection
13. Thermometer on return side, colour blue, range 0-160°C
14. Fixing stirrup, front end retainer and safety screw.
15. Isolation, black PPE density 40kg/m³, plain



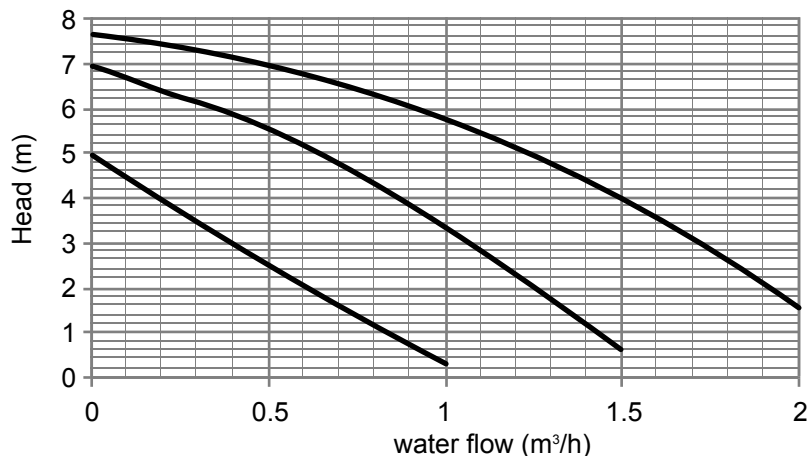
Dimensional drawings

Pump

Components Pump - Wilo ST15.6 ECO



Components Pump - Wilo ST15.8 ECO



Installation

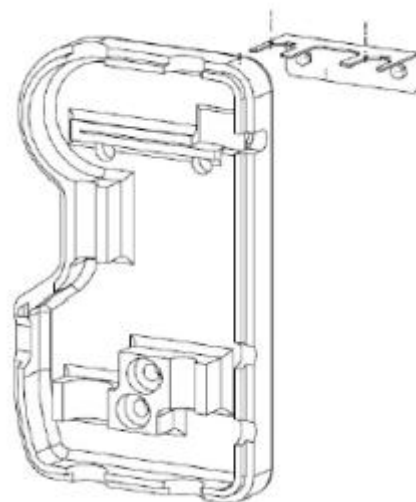
Drill the wall with a nib 8mm drill and fix the fixing stirrup to the wall with the supplied brackets and screws. If the brackets are not suitable for the wall type, replace them with the proper model.

Insert the back of the insulation cover on the fixing stirrup, taking care to insert it completely. If necessary, line up the cover using a spirit level, then clamp the brackets in place.

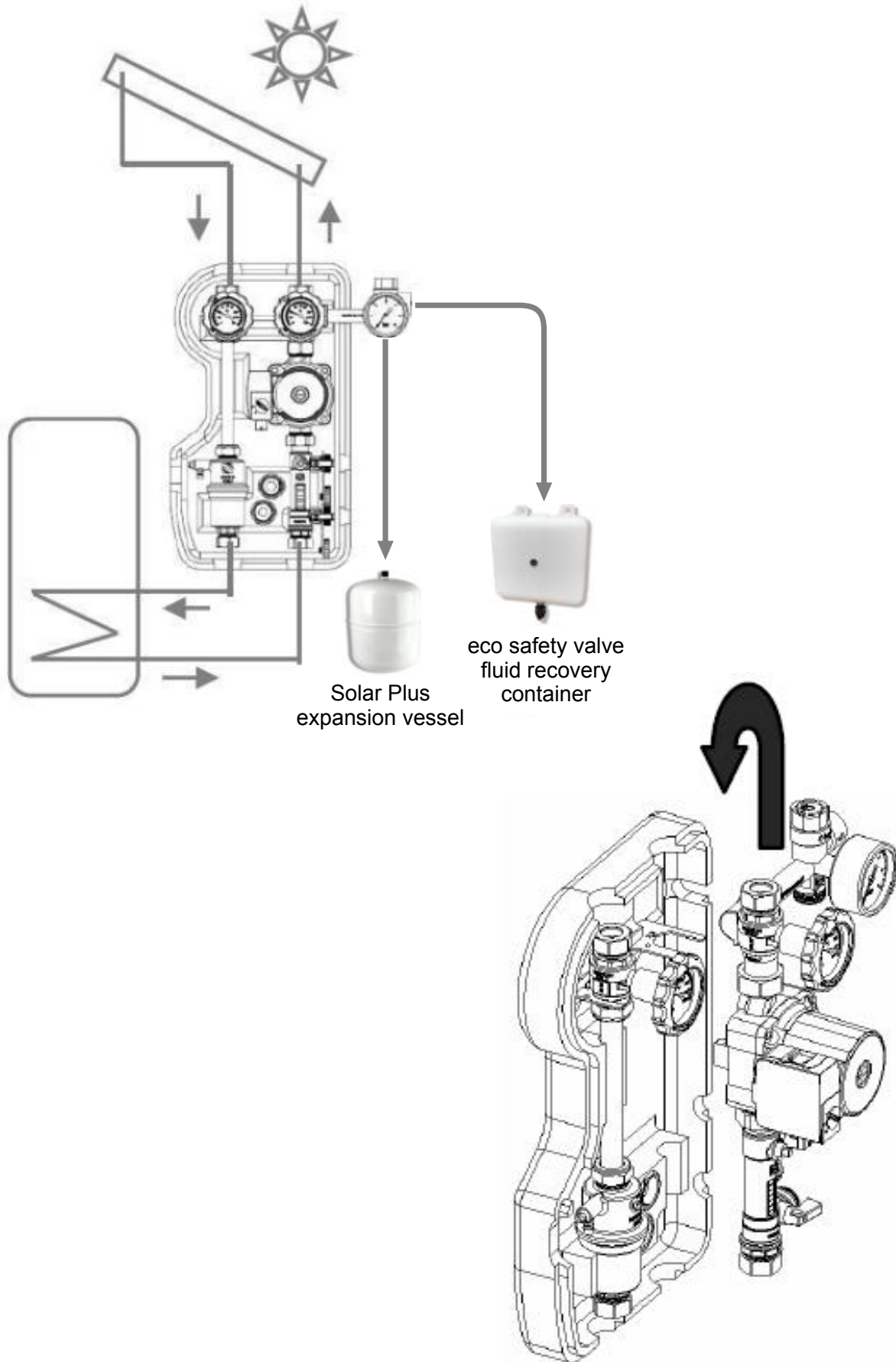
Set the supply and return sides by inserting the hook, which is located on the back of the cocks that are on the stirrup. Insert the safety clips in the lower part of the stirrup and fix them with the supplied screws. When complete, this allows the completion of operations to the unit in maximum safety.

Now connect the flow and return pipes.

Note - when using compression fittings on solar systems, some recommend that brass liners are fitted inside the copper pipe before making the connection to improve the integrity of the seal. Intaeco part code SF22561



Installation diagrams



Installation commissioning

The expansion vessel should be sized by the installer. Connect by using a suitable vessel connection kit: Intaeco ref: Vessel Connection Kit SOVK A1 or SOVK- M1.

Note - make sure to balance the expansion vessel charge pressure to match the system pressure when cold.

Note—safety valve discharge, recommend connection to a suitable discharge recovery tank. Intaeco ref; Eco safety valve liquid recovery container with drain valve EVPG-550001

Check all system connections before starting the flushing and filling operations.

Flush the system first with water and pressure test for leaks.

Close the valve just below the pump to gate the system circuit and then connect the fill hoses and open the filling valves.

Fill the system with the glycol mix with an approved pump (Intaeco Solarfill) capable of pressurizing to 5 bar, and circulate to flush all air from the system. This flush cycle could take 20 mins or more. Manual pump fill is NOT recommended.

Make sure air is out of the pump chamber by quickly opening the valve just below the pump to allow through flow and push air out. Also release any air that is trapped in the air separator (this should be repeated until there's no air in the system).

Pressurize to the desired system pressure by closing the outlet valve, and regulate (for example to 1.5 bar, then the expansion vessel charge should be the same)

Replace the front insulation cover

Check electrical connections

Ready to run pump—switch on.

Trouble shooting

Should the pump not function, first make sure that the feeder cable is well connected. Unscrew the central screw and then unblock the rotor with a screwdriver. **ATTENTION:** The rotor, like other hydraulic components may be hot. If the pump is noisy, make sure that there is no air in the circuit - if so, repeat the run-up operations. If necessary, increase the device pressure until the maximum pressure is reached, or decrease the pump speed, so that it's adequate to the device characteristics.

Information

Fluid	water to glycol ratio max 50%
Safety valve	6 bar
Pressure gauge	0-10 bar
Thermometer gauge	0-160° C
Minimum pressure to open check valve	2 kPa (200mm c.a)
Electric supply	230—240v 650 Hz
Maximum run temperatures	130°C
Maximum peak temperatures	150°C

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