

Operating Instructions Solar Filling Unit



SOLARCHECK MOBILCENTER UNISTAR 2000-A
SOLARCHECK MOBILCENTER UNISTAR 2000-B

Operating Instructions

SOLARCHECK MOBILCENTER UNISTAR 2000-A

SOLARCHECK MOBILCENTER UNISTAR 2000-B

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1. Declaration of conformity



The product complies with the requirements of the applicable european directives. The conformity was declared. The documents to which the declaration relates and the original declaration of conformity are available at the manufacturer.

2. Introduction

Intended use

The filling unit is designed for filling, flushing and venting thermal solar systems and heat pump systems. Any other use or extended use is considered to be improper. The manufacturer is not liable for any resulting damage.

Notes on the documentation

This manual provides important information for a safe and correct operation of the solar filling unit SOLARCHECK MOBILCENTER UNISTAR 2000-A and SOLARCHECK MOBILCENTER UNISTAR 2000-B.

The manual is designed for qualified personnel who are trained and specialised in installing heating systems. Service and maintenance works must only be carried out by approved specialists.






Subject to technical modifications

The continuous development and improvement of our products may cause minor modifications of technical data and illustrations.

2.1 Further applicable documents

- Operating instructions „Flexible Impeller Pumps“
- Parts list

2.2 Legend

	Danger: immediate danger of death and severe injury
	Danger: danger of death from electric shock
	Danger: danger of scald burn
	Danger of environmental and material damage
	Information, note

2.3 General safety instructions

Store these instructions in such a way that they are accessible at all times for operating personnel!

In addition to these operating instructions the following documents of related components and of the pumping media should be applied:

- technical specifications
- material safety data sheets
- operating instructions



The manufacturer shall not be held liable for damage resulting from non-adherence to the operating instructions.



Danger

Danger of death due to electric shock

- > Prior to work on the pump, always disconnect the drive from the power supply.



Danger

Danger of death due to explosion

- > Do not pump any liquids with a flash point of less than 55 ° C.
- > Do not pump petrol or solvents.



Danger

Danger of scald burn due to high media temperature

- > Fill the solar system only when cold – if necessary cover the solar collectors.

Danger of burn due to hot motor casing

- > Do not block neither suction nor pressure hose more than 1 minute to avoid overheating of the motor.



Warning

Danger of injury due to splashing liquid

- > Connect the hoses tightly to the pump.



Caution

Material damage due to dry running

- > Never allow the pump to run dry for more than 1 minute.

Material damage due to tilting of the cart on uneven ground

- > Operate the filling unit only on even ground.

Danger of environmental damage due to hazardous pumped media

- > Collect escaping pumped media and dispose of according to the locally applicable regulations.

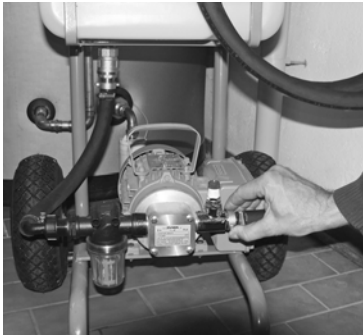
Material damage due to improper storage

- > Prior to extended periods of pump down time clean pump to avoid adhesions and damage to the impeller.
- > Store pump under frost-protected conditions.

3. Transportation and unpacking

- > After unpacking, immediately check the filling unit for completeness and damage.
- > Immediately report any transit damage to the supplying company.
- > Dispose of packaging material according to the respective local regulations.

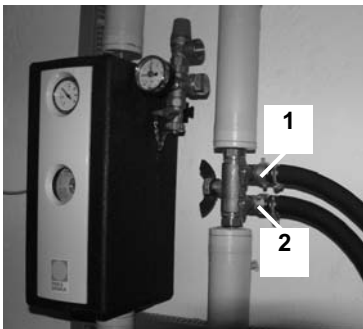
4. Mounting and commissioning



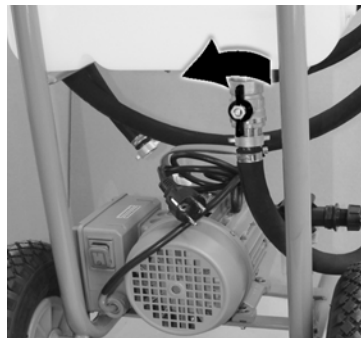
1. Connect pressure hose to pump outlet



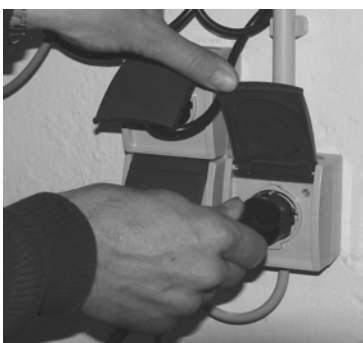
2. Connect return hose to tank



3. Connect pressure hose (1) and return hose (2) to the fill/vent valves and open valves



4. Fill tank and open ball valve



5. Insert cable of pump motor into socket



6. Switch on pump



7. Open tank lid to ensure the circulation of the air.

Caution: Monitor fluid level in the tank and, if necessary, refill heat transfer fluid to prevent air entering the solar circuit.

8. Flush the solar circuit with the fluid. Check at the inspection window of the filter or through the tank opening if there are still air bubbles in the heat transfer fluid. Continue flushing until there is no air remaining in the fluid.

5. End of operation

After filling and flushing the solar system:

- > Switch off pump.
- > Close fill and vent valve at the solar station.
- > Open stop valve between fill and vent valve.

The pressure that is generated between tank and fill valve when flushing the pipe can be released by means of the air release valve at the pump. It will be easier then to unscrew the filling hose from the fill valve.

Caution: Collect escaping pumped media in a container.

- > To release the pressure in the filling hose turn the green handwheel at the pump outlet and let the remaining liquid run out.
- > Unscrew filling hose from fill valve.
- > Unscrew return hose from vent valve.
- > Screw open hose ends together with the provided connecting piece in order to avoid dripping or escaping of fluid during transport.

6. Maintenance



Danger

Danger of death due to electric shock

- > Prior to work on the pump, always disconnect the drive from the power supply.



Caution

Danger of environmental damage due to hazardous pumped media

- > Collect escaping pumped media and dispose of according to the locally applicable regulations.

Cleaning the filter

There is a built-in fine filter on the suction side of the pump to filter out sold and welder residues.

Check the inspection window at the filter regularly and clean the filter when you see dirt deposits on the strainer:

- > Screw off the filter casing, remove the strainer and clean both with rinsing water or compressed air.

7. Faults

See operating instructions „*Flexible Impeller Pumps*“

8. Accessories

- Four-way cock with bypass for mixing the heat transfer medium on-site
- Kit for filling ground loops including two 150 litre tanks, hose extension, additional stop valves and four-way-cock to switch the suction line from external tanks to internal tank
- Remote control with 10 metre cable

Technical data

SOLARCHECK MOBILCENTER	UNISTAR 2000-A	UNISTAR 2000-B
Voltage	230 V	230 V
Frequency	50 Hz	50 Hz
Maximum power consumption	370 W	550 W
Maximum fluid temperature	80 °C	80 °C
Approved pumping media	water, heat transfer medium	
Maximum operating pressure	4 bar	4 bar
Maximum flow rate with water / heat transfer medium	30 / 27 L/min	60 / 55 L/min
Diameter return hose / pressure hose	Inch ½ / ½	Inch ¾ / ¾
Tank content	30 L	30 L
Motor protection class	IP 55	IP 55
Dimensions (height/width/depth)	1000/495/535 mm	1000/495/535 mm
Weight (empty tank)	27 kg	27 kg

