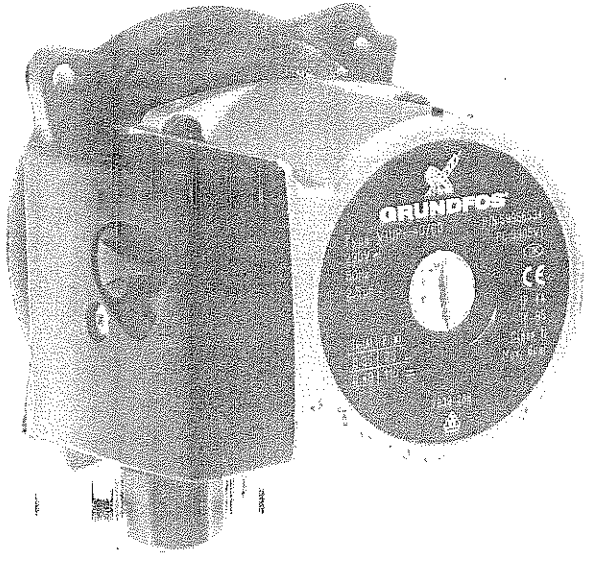
UP, UPS, UPE

(GB) Installation and operating instructions
(D) Montage- und Betriebsanleitung
(F) Notice d'installation et d'entretien



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Before beginning installation procedures, these installation and operating instructions should be studied carefully. The installation and operation should also be in accordance with local regulations and accepted codes of good practice.

1. Applications

The circulator pumps UP, UPS and UPE are designed for circulating liquids in heating systems.

1.1 Pumped liquids

Thin, clean, non-aggressive and non-explosive liquids, not containing solid particles, fibres or mineral oils.

The pumps are not suitable for the circulation of domestic hot water.

The pump must not be used for the transfer of inflammable liquids such as diesel oil, petrol or similar liquids.

1.2 Operating conditions

Liquid temperature

+2°C to +95°C.

To avoid condensation in the terminal box and the stator, the pumped liquid temperature must always be higher than the ambient temperature.

Ambient temperature

0°C to +40°C.

System pressure

Maximum 6 bar.

Inlet pressure

The following minimum pressures must be available at the pump inlet during operation:

Liquid temperature	75°C	90°C	110°C
Minimum inlet pressure	0.05 bar	0.30 bar	1.10 bar

2. Technical data

Supply voltage

See pump nameplate.

Back-up fuse

Maximum 10 A.

Motor protection

The pump requires no external motor protection.

Sound pressure level

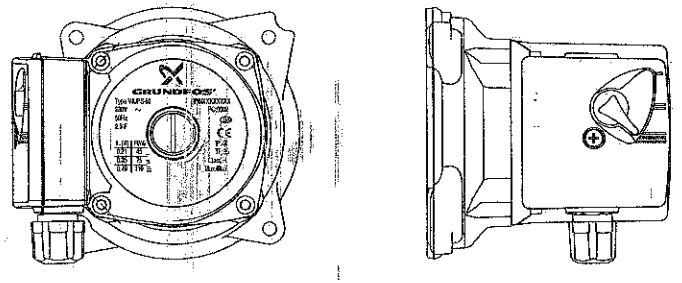
The sound pressure level of the pump is lower than the limiting values state in the EC Council Directive 98/37/EEC relating to machinery.

3. Installation

Care should be taken to ensure that persons cannot accidentally come into contact with hot surfaces of the pump.

The pump must be installed with the motor shaft horizontal, fig. 1.

Fig. 1



During installation, it must be ensured that the O-ring between pump and boiler is intact and has been fitted correctly in the recess.

Do not start the pump until the system has been filled with liquid and vente

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4. Electrical connection

The electrical connection should be carried out in accordance with local regulations.

Never make any connections in the pump terminal box unless the electricity supply has been switched off.

The pump must be earthed.

The pump must be connected to an external mains switch.

The operating voltage and frequency are marked on the pump nameplate. Please make sure that the motor is suitable for the electricity supply on which it will be used.

The pump requires no external motor protection.

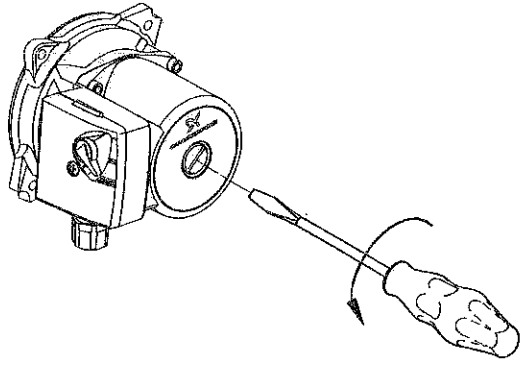
5. Start-up

Do not start the pump until the system has been filled with liquid and vented. The system cannot be vented through the pump.

To vent the pump, remove the vent screw (fig. 2), switch on the electricity supply and ensure maximum flow in the system.

When any remaining air has escaped, replace and tighten the vent screw.

Fig. 2



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When the vent screw is removed, scalding hot liquid under high pressure may escape. Care should be taken to ensure that the escaping liquid does not cause personal injury or damage to other components.

The pump may be noisy, when first switched on, due to air remaining in the chamber. This noise should cease after a few minutes running.

6. Fault finding chart

Before removing the terminal box cover, make sure that the electricity supply has been switched off and that it cannot be accidentally switched on.

Fault	Cause	Remedy
Pump fails to start.	Supply failure.	Check fuses and possible loose electrical connections.
	Capacitor is defective.	Replace the capacitor.
	Pump blocked due to furred bearings.	Change over to maximum speed for a short period or free the rotor with a screwdriver inserted in the slot of the shaft end.
	Impurities in the pump.	Dismantle and clean the pump.
Noise in the system.	Pump flow setting is too high.	Change over to a lower speed.
	Air in the system.	Vent the system.
Noise in the pump.	Air in the pump.	Vent the pump.
	Inlet pressure too low.	Increase the inlet pressure or check the air volume in the expansion tank (if installed).