

USE AND MAINTENANCE INSTRUCTIONS

PERIPHERAL ELECTRIC PUMPS SERIES CENTRIFUGAL ELECTRIC PUMPS SERIES SELF-PRIMING ELECTRIC PUMPS SERIES

Carefully follow the instructions below to obtain the best performance and a long service life from your pump. Contact your local agent or Technical Office if you have any problem.

OPERATING CONDITIONS: These pumps have been designed to pump neutral clean liquids in which no abrasive solids are suspended at temperatures of no more than 80°C (60°C for electric pumps with plastic impellers or diffusers).

INSTALLATION: The pumps must be installed in a dry well-ventilated place with an ambient temperature of no more than 40°C (Fig.A). Fix the pump in place on a solid flat surface using suitable bolts to avoid vibration. The pump must be installed in a horizontal position to sure that the bearings operate correctly. The diameter of the intake pipe must not be smaller than that of the intake mouth. If the intake height exceeds 4 metres use a pipe with a larger diameter. The diameter of the delivery pipe must be chosen to suit the flow rate and pressure required at the take off points. The intake pipe must be slightly angled up towards the intake mouth to avoid the formation of air locks (Fig. B). Make sure that the intake pipe is completely airtight and immersed in the water by at least half a metre to avoid the formation of vortices. Always fit a foot valve at the end of the intake pipe. It is advisable to fit a non-return valve between the delivery mouth and flow rate adjustment gate valve to avoid dangerous water hammering in the event of the pump suddenly stopping. This measure is compulsory if the delivery water column is over 20 metres.

The pipe must always be fitted using the related brackets (Fig.C) to avoid transmitting stress to pump body. Take care not to damage any part by overtightening the pipes when fitting them.

ELECTRICAL CONNECTIONS: The installer is responsible for making the electrical connections to the mains supply in compliance with the relevant regulations in force;

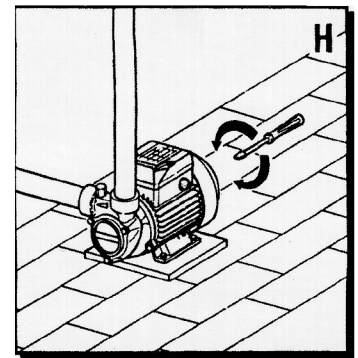
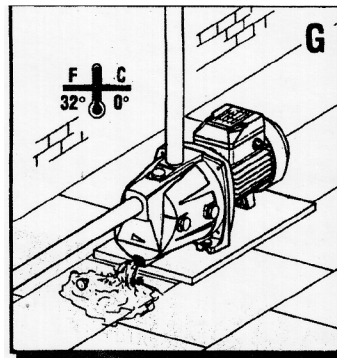
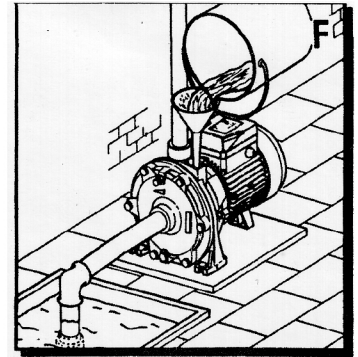
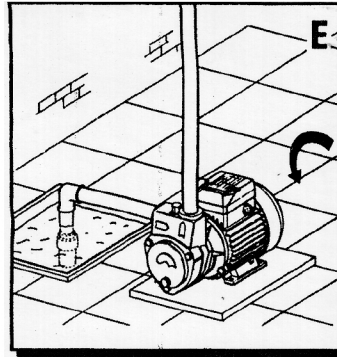
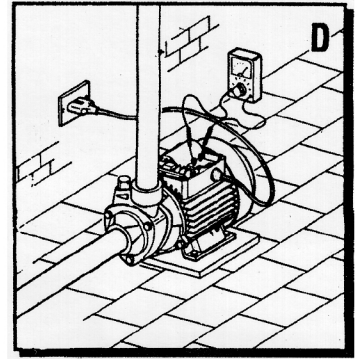
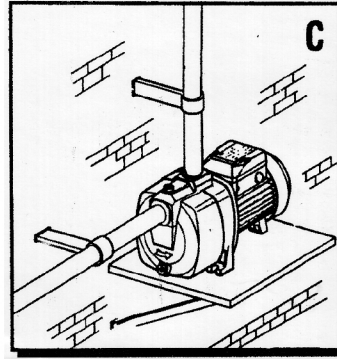
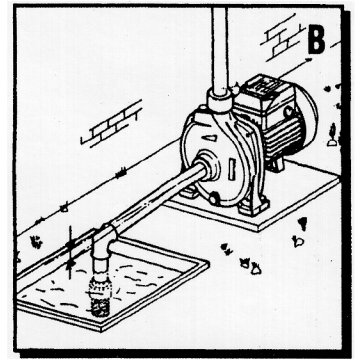
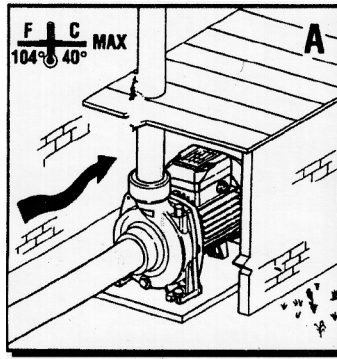
- make sure that the specifications on the pump rating plate and the rated line values are the same (Fig.D);
- connect the pump to an effective earth circuit and then connect up the phases following the diagram on the terminal block cover or rating plate; our single-phase motors are protected against overloads using a thermal device (overload cutout) fitted in the winding. Users are responsible for fitting a suitable protection device for three-phase motors; check that three-phase pumps rotate clockwise when looking at the pump from the motor fan side, swapping over two of the phase connections if they do not (Fig.E).

PRIMING: Fill the pump completely with clean water before switching it on. The water should be poured in through the priming plug (Fig.F). When you have completed the operation, screw the plug back in again and start the pump. The pump should be primed again whenever it has not been used for a long period of time or when air has made its way into the system.

IMPORTANT: Never run the pump empty. If this happens by mistake, switch the pump off, wait for it to cool down and then prime it using clean water.

MAINTENANCE: Our pumps do not require any maintenance provided one takes the following precautions. Where there is a risk of freezing, empty the pump through the drain plug on the bottom of the pump body, making sure you prime it when subsequently starting it again; check that the foot valve is clean at regular intervals; if the valve is to remain unused for a long period of time (e.g. in the winter) (Fig.G), it is advisable to empty it completely, rinse it with clean water and store it in a dry place; if the shaft does not turn freely, release it using a screwdriver inserting it in the special slot (Fig.H); if this is not sufficient to solve the problem, remove the pump body, undoing the relevant mounting bolts and clean it thoroughly to remove any encrustation.

Never carry out any work on the pump without having first disconnected it from the mains supply.



PROBLEM

CAUSE

SOLUTION

Motor won't start

No power
Impeller stuck

Check connections and voltage values
See section on maintenance

Motor turns without pumping water

Clogged filter
Excessive intake height
Air in intake

Clean filter
Move pump closer to water outlet level
Check intake pipe is airtight
Make sure foot valve is immersed by at least 50 cm
Pump needs to be primed again

Flow rate insufficient

Intake height at limit
Filter partially clogged
Impeller blocked

Check intake height
Clean foot valve and if necessary, whole intake pipe
Disassemble pump and carefully clean pump body and impeller

Tripped motor overload cutout

Overheated motor
Impeller stuck

Check voltage and ventilation
Release impeller (see section on maintenance)