## Astra Coolant Pump

#### 1. ASSUMPTION

- Please read these instructions carefully before use. Damages resulting as consequence of instructions disregards will not be covered by manufacturer's warranty.
- Please pay particular attention to the chapter relating the safety instructions.
- Save these instructions and refer to them anytime your are in doubt.

#### 2. APPLICATION

These electric pumps have been engineered mainly to pump coolant liquids and lubricating mixtures into machines tool systems, machines for production of glass or plastic materials.

#### 3. USE CONDITIONS

 Liquid temperature must not exceed 50° C.
These pumps are suitable to be used in to chemically neutral liquids.

Do not pump hydrocarbons or any other inflammable liquid.

- Pumping liquids containing sand or other abrasive substances may reduce sensitively the life of the pumps. In this case we suggest pumps type ZC/ZA. In any case we recommend to assemble a strainer at the suction and clean the tank periodically.
- Never run pump dry. Dry runs may damage seals and cause possible hazards of burns to persons handling the pump.

## 4. SAFETY

Careless use of electric appliances is always dangerous. Electric appliances used into water represent a potential hazards of electric shock. Thus we strongly recommend to pay full attention to the next instructions. If you still have doubts, contact an expert electrician or the manufacturer.

Eventual connection of a power cord must performed by an expert electrician in accordance of the regulations is use in your Country

 $\angle I AZARD!$  Do not touch the plug with wet hands! Switch off and unplug the pump before any maintenance.

Do not cut or engrave the power cable.

Mains system must be provided of a residual current device of max 30 mA capacity.

#### 5. INSTALLATION

Installation may result to be fairly complicated therefore it should be carried out by a skilled person.

Install your pump as close to the well as possible in a dry and environmentally protected place where temperature should not exceed 40° C.

- Use the fewest possible elbows and fittings to connect the pipe.
- The pipe can be either rigid or flexible with smooth internal surface in order to reduce at minimum the flow resistance.
- Remove all impurities from the pump housing before first use.
- Check the free motor rotation before start acting with a screwdriver into the groove of the fan side motor shaft.
- Sit the pump on a smooth surface and fix it with proper bolts in order to avoid vibrations.
- Fix properly the flange of the pump to the tank cover with screws and nuts (fig.2).
- Keep a minimum distance of 25 mm from the base of the tank and the suction hole of the pump (fig.2)
- Fill the tank till cover the submerged pump/end (fig.2).

#### 6. OPERATION

Before starting the pump, the installer have to verify that voltage and frequency correspond to the rating of the pump. Make the electric connection with a suitable power cable and dispose the bridges of the terminal board as indicated in the following scheme.

In 3/phase motors verify that rotation is the same as reported on the arrow on the plastic fan cover.

During the pump running verify that liquid don't goes under the minimum level (fig.2).

## 7. CLEANING AND MAINTENANCE

∠! Switch off and unplug the pump before any maintenance. A damage pump must be workmanlike repaired before further use.

If the pump is unused for a long time it's advisable to completely empty the pump, wash the hydraulic part with clean water and stock it in a dry place. To start up again the pump repeat the operation mentioned in this manual.

#### 8. PUMP STORAGE

- Do not use the pump during cold winter weather. Frost would certainly damage the pump.
- Unplug the pump. Dry it from residual water and store it in a dry and frost/free place.

## 9. TROUBLESHOOTING

#### Motor does not start

(?) Mains voltage missing

- Check the power cable, proper plug connection and mains fuse efficiency
- (?) Motor protector tripped for overheating
- Remove cause for overheating (pumped liquid too hot? Impeller blocked by foreign objects? Wrong voltage?).

#### Motor hums but does not run.

(?) Impeller blocked by foreign objects

Check the free rotation acting with a screwdriver into the groove of the fan side motor shaft (Fig. 1)

#### Pump works but water delivery is poor

(?) <u>Required head is too high compare the pump</u> performance

- Check characteristics in data plate and reduce distance from pump and taps (in height) if necessary.
- (?) Pipe bended, too small in size or clogged
- Straight pipe, use larger piping or remove objects clogging
- (?) Pipes leak
- > Check connections .

## Pump does not deliver any water

(?) Possible prime difficulties

Check if there is enough water in the tank(fig. 2).

#### 10. CONDITIONS OF WARRANTY

Any repairs or maintenance during the period covered by warranty must be carried out by authorised staff. In the event of the pump being tampered with the warranty automatically becomes void.

The warranty comprises the free elimination of faults caused by errors in assembly or the use of faulty materials within 24 (twentyfour) months from the date of purchase. Materials subject to wear such as mechanical seals, oil seals and impellers are not included in the warranty.

Should intervention under warranty be required it is necessary to show a document which proves the date of purchase (delivery note, invoice or receipt).

# THIS PRODUCT COMPLIES WITH THE FOLLOWING DIRECTIVES:

- Directive on machines (2006/42/CE)
- Directive on low voltage (2006/95/CE)
- Directive on electromagnetic compliance (2004/108/CE)

