

PUMP WITH PRESSURE TANK

1. Safety Measures

- Read carefully the operating instruction before assembling and starting.

The appliance must not be used by operators who are not thoroughly acquainted with the instructions handbook (operating instructions). Moreover, the appliance must not be used by persons under the age of 16.

- The user is liable towards third parties in the area where the appliance is in operation.
- Before starting it is necessary to make sure that there are the necessary electrical protection measures, by means of a test carried out by a specialist.



While the pump is operating persons must not be in the liquid to be pumped.

The pump may be connected only by means of a safety switch for fault currents, with a rated opening current up to 30 mA and a socket with an earth contact installed in compliance with the regulations. Protection: at least 10 Amps.

Operation in swimming pools and garden ponds is not recommended.

For other operation, the provisions in conformity with the standard VDE 0100 part 702 must be respected.

CAUTION: Before checking, connect the pump and the system with no voltage!

Replacing the connecting up line requires using special tools and therefore this must be carried out by the manufacturer or its service engineers.

The pump may only operate with a pipe connecting the appliance (extension) that is no lighter than a rubber hose mod. H07 RNF in compliance with the DIN 57282 or DIN 57245 standard.



- The noise (continuous equivalent in dB(A) of the motor-driven pump is less or equal () to 70 dbA.
- The voltage (230 Volts alternating current) indicated on the pump's rating plate must correspond to the available mains voltage.
- The temperature of the liquid conveyed must not exceed 35 C.
- Make sure that the plugged electrical connections are in an area safe from flooding and are protected from humidity.
- Before use it is necessary to check that the plug and the mains connection line are not damaged.
- Unplug from the mains before performing any work on the pump.
- Avoid directly exposing the pump to the jet of water.
- The user is responsible for complying with the local regulations for assembly and safety.
- The user by taking appropriate measures (e.g. installing an alarm, reserve pump and the like) will have to exclude

the possibility of indirect damage caused by flooding premises due to failure of the pump.

- In the event of the pump failing, repair work may only be carried out by the repair workshops of the technical service. Only genuine spare parts must be used.
- It is notified that in conformity with the law on product liability

we cannot be held responsible

for the damage caused by our appliance:

- a) because of improper repairs not carried out by the personnel of the assistance points authorized by us; or
- b) if GENUINE SPARE PARTS are not used to replace parts; or
- c) if the indications and provisions given in the instructions handbook are not complied with.

The same provisions hold for the accessories.

2. Use

CAUTION! Sector of use

The pressure tanks units are used to supply water to houses, farms and factories when the water may be drawn from a well or from a spring and, in addition, for irrigation in market gardening or agriculture. To raise the pressure of the water mains in accordance with local regulations (max. pressure on inlet 2 bar).

Operating Instructions

Generally speaking it is recommended to use a preliminary filter and exhauster with a suction hose, suction rose and foot valve (reflux lock) to avoid long suction times and pointlessly damaging the pump due to stones and solid foreign bodies.

3. Before Starting

The pressure tank unit is self-sucking. Before starting for the first time the pump has to be filled through the delivery union with the delivery liquid until it overflows.

Suction Piping

- Fit the suction pipe for drawing water rising towards the pump. Absolutely avoid fitting the suction pipe higher than the pump (formation of air bubbles in the suction pipe).
- The suction and delivery piping must be fitted so as not to be able to apply any mechanical pressure on the pump.
- The suction valve should be situated at least 30 cm. below the bottom water level.
- Suction pipes that are not airtight suck in air obstructing suction of the water.

Delivery Piping

During suction, the cut-off parts (sprayers, valves, etc.) situated in the delivery piping have to be fully open so that the air in the suction pipe can be freely expelled.

4. Maintenance Instructions

The pressure tank unit is entirely maintenance-free.

If the pump gets blocked it will first have to be rinsed out. Connect the pump after removing delivery pipe to the water pipe and let water flow into the suction pipe.

While water is flowing into the pump, engage it several times for about 2 seconds.

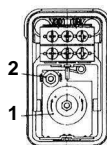
In this way it is possible to eliminate most blockages.

- If there is a risk of frost, the pump has to be emptied completely.
- When the pump is not going to be used for a long time, for instance in the winter period, it is recommended to rinse out the pump thoroughly with water, empty it completely and store it in a dry place.
- Check whether the pump works freely by briefly connecting and disconnecting it.
- Then fill the pump again with the delivery liquid and set it up for use.

Adjusting connection and cut-off pressure.

The pressure tanks unit are factory set with an operating pressure of 1,4 2,8 or 1,6 3,2 bar (see table of specifications). The connection and cut-off pressure can be adjusted and may be set the desired pressure onto

according to your need by means of the switch (see figure).



1 = Connection pressure

2 = Cut-off pressure

Take the protective cover off the pressure switch. With a screwdriver, turn onto - or + according to need. Check the pressure with the pressure gauge.

CAUTION!

In order to work, the pump must always be filled with the delivery liquid until it overflows!

Caution: The pump must never run dry. The manufacturer's warranty is null and void in the event of damage to the pump caused by its running dry.

Check that the pump is airtight; piping that is not airtight draws in air preventing the pump from working properly.

5. Troubleshooting Table

Trouble	Cause	Remedy
Motor will not start	<ul style="list-style-type: none">• No mains voltage.• Pump impeller jammed.• Thermostat detached.	<ul style="list-style-type: none">• Check voltage.• Dismantle the pump and clean it.
Pump will not suck	<ul style="list-style-type: none">• Suction valve not in water.• Pump chamber with no water.• Air in suction pipe.• Suction valve not airtight.• Suction rose (suction valve) clogged.• Max. suction height exceeded.	<ul style="list-style-type: none">• Put the suction valve into water (min. 30 cm.)• Pour water into the suction union.• Check the seal of the suction pipe.• Clean the suction valve.• Clean the suction rose.• Check the suction height.
Pump connects with very low water intake	<ul style="list-style-type: none">• Pressure of air cushion in the delivery tank too low.	<ul style="list-style-type: none">• Increase the pressure of the air cushion in the filling valve (1.5 bar)
Insufficient rate of flow	<ul style="list-style-type: none">• Suction height too high.• Dirty suction rose.• Water level falls quickly.• Pump flow rate reduced by foreign bodies.	<ul style="list-style-type: none">• Check suction height.• Clean the suction rose.• Set the suction valve lower down.• Clean the pump and replace the worn parts.
The thermal cut-out switch cuts off the pump	<ul style="list-style-type: none">• Motor overloaded.• Friction too great due to foreign bodies.	<ul style="list-style-type: none">• Eliminate the foreign bodies.• Wait for the thermal cut-out switch to trigger again (approx. 20 mins.).