

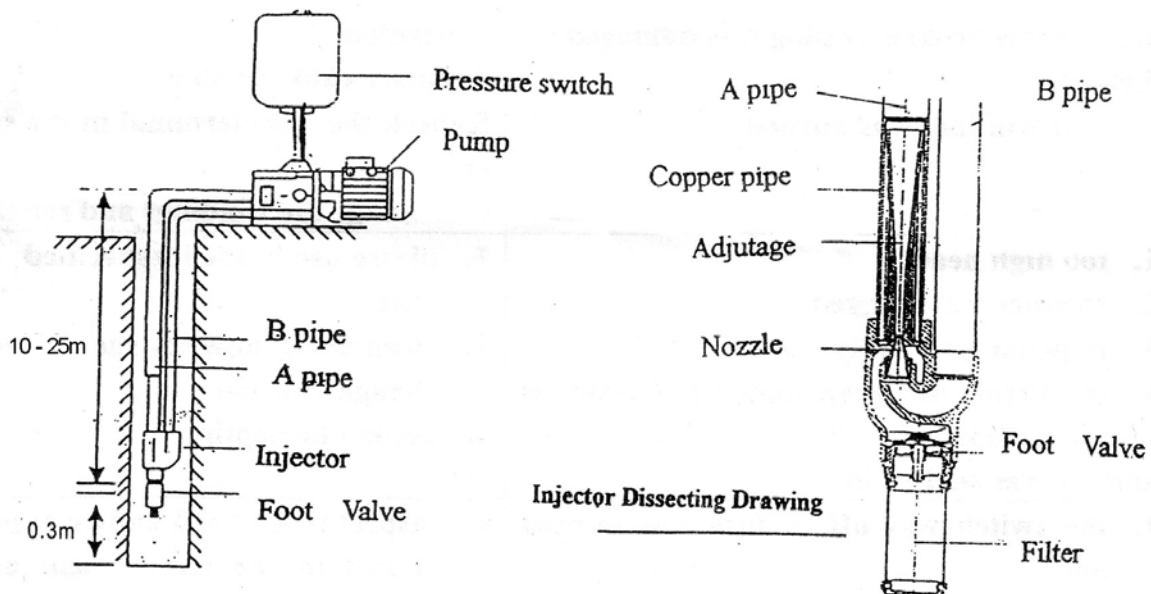
## Use and Maintenance Instructions for Deep Well Jet Pump

### OPERATING CONDITION

For use with clean liquids without abrasives, or suspended solids. Liquids must be Non-explosive and non aggressive. With maximum temperature up to 60°C, install in a well ventilated location protected from the weather with a maximum ambient temperature of 40°C, the range of suction between 10 – 25m.

### INSTALLATION

Jet pumps consist of the centrifugal pump, the injector and two guide pipes. The centrifugal pump is installed on the ground. The injector should be installed under the water. The working principle is as follows: When the water enters the injector from the low pressure, the low pressure water is absorbed into the inlet of the centrifugal pump, the centrifugal pump drains it out. The pump must be installed with the rotor axis horizontal and feet downwards. Place the pump as close as possible to the suction source; provide clearance around the unit for motor ventilation and for easier inspection and maintenance.



### ELECTRICAL CONNECTION

Electrical connections must be carried out only by a qualified electrician and in accordance with local regulations. Connect the earthing conductor to the terminal with the marking. Compare the frequency and mains voltage with the nameplate data and connect the supply conductors to the terminals in accordance with the appropriate diagram inside the terminal box cover. Install a device for disconnection from the mains (switch) with a contact separation of at least 3 mm on all poles. With a

three phase motor install an overload protection device appropriate for the rate current of the pump. Single phase pumps are supplied with a capacitor connected to the terminals and with an incorporated thermal protector (for 220 – 240V – 50Hz).

#### STARTING

When the pump is located above the water level (suction lift operation) fill the suction pipe and the pump through the priming hole. When the liquid level on the suction side in the pump (inflow under positive suction head), fill the pump by opening the suction gate valve slowly and completely, keeping the delivery gate valve open to release the air.

#### ATTENTION

Never allow washers or other metal parts to fall into the internal cable opening between the terminal box and stator. If this occurs, dismantle the motor to recover the object which has fallen inside. Never run the pump dry, not even for a short trial run. Start the pump after filling it completely with liquid.

#### TROUBLE SHOOTING AND SOLVING

Problem	Main reasons	Solving ways
<b>Difficult in starting</b>	<ol style="list-style-type: none"> <li>1. The voltage is too low</li> <li>2. Power supply was cut off or phase lost</li> <li>3. Impeller was clogged</li> <li>4. Cable was broken or plug was damaged</li> <li>5. One phase is lost</li> <li>6. Stator winding was burned</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust voltage</li> <li>2. Find out the reasons and settle it</li> <li>3. Dismantle strainer and pump casing, move impurity away and correct clogged position</li> <li>4. Replace cable or plug</li> <li>5. Check the wire terminal in the switch and cable</li> <li>6. Exchange the windings and repair it</li> </ol>
<b>Low capacity</b>	<ol style="list-style-type: none"> <li>1. Too high head</li> <li>2. Strainer was clogged</li> <li>3. Impeller was badly worn</li> <li>4. The depth of pump under the water is too shallow and air was sucked in</li> </ol>	<ol style="list-style-type: none"> <li>1. Please use inside its specified using head range</li> <li>2. Clean away impurity such as weeds</li> <li>3. Change impeller</li> <li>4. Adjust the depth</li> </ol>
<b>Stop running suddenly</b>	<ol style="list-style-type: none"> <li>1. The switch was off or fuse was burned out</li> <li>2. Power supply was cut off or one phase was lost</li> <li>3. Impeller was clogged</li> <li>4. Stator winding was burned</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect if the head and voltage of power is met to the requirement and adjust accordingly</li> <li>2. Find out the reasons and settle it</li> <li>3. Clean the impurity away</li> <li>4. Change the winding and repair</li> </ol>

**Stator winding was burned**

1. Grounding wire was incorrectly connected with power source or motor pump list phase
2. Mechanical seal leaked causing phase or wire windings short loaded
3. Impeller was clogged
4. Repeatedly turn on/off of the motor is short time or run in dry for too long
5. Pump was over-loaded

Eliminate the troubles, dismantle winding and embed it again. Vanish and bake stator or send the motor pump to a technician for repairs.