

**1. Features**

This self-priming centrifugal jet pump is manufactured by using advanced stamping technology. The pump casing, pump shaft and back cover is made from SUS304 stainless steel, impeller is made from plastic or stainless steel, and ejector is made from plastic. Mechanical seal is used as the shaft seal. TEFC motor.

**2. Applications and operating limits**

This pump is suitable for domestic and industrial water movements, car washing, oil tank emptying, gardening, fountain and small irrigation. Maximum working temperature 45°C, maximum working pressure 6 bar and maximum suction head 7.5 meters.

60Hz (n=3430 rpm)

		Power		Q. capacity										
		kW	HP	L/min	0	10	20	30	40	50	60	70	80	90
	1-phase			m <sup>3</sup> /h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4
		H. head (m)												
		0.37	0.5		36	28	22.5	18	15	12				

## **5. Installation**

- 5.1 Check the pump input voltage is identical to the one on the nameplate.
- 5.2 Seat the pump on a level place, as close to the source of water as possible.
- 5.3 In avoiding any damage of internal parts, check and tighten any possible loose tightening-parts and remove any possible foreigners inside the pump body prior to installation.
- 5.4 Connections of pipe work must be sealed properly, poor sealing on the pipe work may cause air-leak and give bad performances.
- 5.5 When pumping water from a lower source, fix a non-return foot valve at the end of suction hose to avoid water draws back when stopping pumping.
- 5.6 Hold the pipe work with supports, the pump should not stand the weight of pipe work.
- 5.7 Pump should be effectively earthed, or provided with a creepage breaker.

## **6. Start, operation, stop and maintenance**

- 6.1 Run the motor fan by hand to check whether pump is running freely and quietly. Start up the pump for a second to check the rotational direction, the correct way is always in clockwise when viewing the motor fan from the motor end.
- 6.2 Switch open the suction valve, remove the priming plug on the top of the pump casing and fill the pump body with water till it overflows, then put the plug on and tighten it up. Never run the pump dry, it would cause serious damages of internal parts.

6.3 start up the pump and set the discharge valve to control the pressure to the required duty point.

6.4 When stopping pumping, close the discharge valve and switch off power.

6.5 frequent start-up and stop of pump or prolonged operation of pump with the discharge valve closed may cause damage.

6.6 If the pump is to remain inactive for a long period, empty it completely and wash it with clean water, to prevent breakage of the pump body when there is a risk of frost.

6.7 If strange noises make by the pump are heard, stop pumping and check the causes.

### 7. Troubleshooting

Type of fault	Cause	Remedy
Pump can not start up.	<ol style="list-style-type: none"> <li>1. No electric power.</li> <li>2. Wrong electric connection.</li> <li>3. Motor shaft blocked.</li> <li>4. Stuck mechanical seal faces.</li> <li>5. Damaged motor or bearing.</li> </ol>	<ul style="list-style-type: none"> <li>-Check and correct wiring in the terminal box.</li> <li>-Clean it up.</li> <li>-Run the shaft by hand to split them.</li> <li>-Repair or replace motor or bearing.</li> </ul>
Pump can not lift water or insufficient capacity.	<ol style="list-style-type: none"> <li>1. Voltage drops.</li> <li>2. Motor runs at wrong direction.</li> <li>3. Pump not filled with water.</li> <li>4. Too great resistance of pipe work system.</li> <li>5. Foot valve blocked.</li> <li>6. Air-leak on suction pipes.</li> <li>7. Too great suction height.</li> <li>8. Too low water level.</li> </ol>	<ul style="list-style-type: none"> <li>-Correct wiring in the terminal box.</li> <li>-Fill up pump body with water.</li> <li>-Check the rationality of pipe work.</li> <li>-Clean the foot valve.</li> <li>-Seal the leakage.</li> <li>-Place pump on a lower position.</li> <li>-stretch pipe into water.</li> </ul>

Insufficient head.	1. Vaporloss. 2. Damaged impeller.	-Lower water temperature -Replace impeller.
Overcurrent (overload)	1. Damaged ejector Blocked impeller to run. 2. Damaged bearing.	-Replace ejector. -Replace bearing.
Vibration and noise	1. Wrong connections of pipes. 2. Damaged bearing. 3. Motor fan blocked.	-Correct the connections. -Replace bearing. -Clean it up.