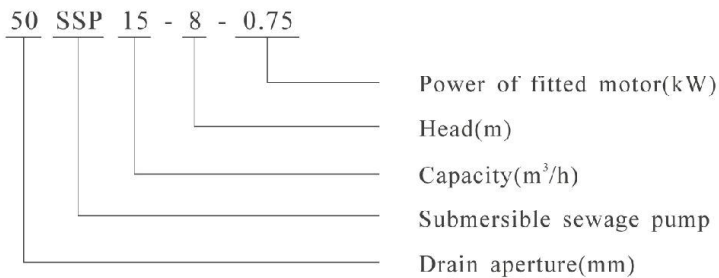


**SSP** : SUBMERSIBLE SEWAGE PUMP

## Purpose

SSP series submersible sewage pump is mainly used for municipal works, industrial buildings, hotels, hospitals, civil air defence, mines etc. Trades to drain off the sewage, waste water, rainwater and living water in cities containing Solid grains and various long fabrics.

## Model meaning



## Conditions of use

1. The medium temperature should not be over 40°C, the density 1200Kg/m<sup>3</sup>, and the PH value within 5-9.
2. During running, the pump must not be lower than the lowest liquid level, see " ▼ lowest liquid level" in the drawing of installation dimensions(covering the automatic cooling system), means lowest liquid level without no automatic cooling system.
3. Rated voltage 380V, rated frequency 50Hz. The motor can run successfully only under the condition the deviations of both rated voltage and frequency are not over ±5%.
4. The maximum diameter of the solid grain going through the pump has not to be larger than 50% of that of the pump outlet.

The impeller rotates CCW as viewed from the suction.

## Structures description

### Bearing:

Imported SKF of NTN bearing, which, with a reasonable configuration, can extend the duration of the pump.

### Cooling:

The built-in cooling system can have the pump normally work whether the motor is on or under the liquid surface. A part of the liquid is extracted to bring out the heat produced by the motor from the pump circulation to the cooling barrel and to the pump casing and, when external cooling is required, the cooling sleeve may be separated from the pump casing and individually connected to the cooling system.

### Motor:

Of F class insulation, max. working temperatures 155°C, and of a protective grade IPX8 with the effective seal.

### Mechanical seal:

Use Bergman mechanical seal of Germany, two ways of the seal are in series with each other and individually work to separate the motor from the pump seal to provide the motor with a dual protection.

The sealing material on the pump side is tungsten carbide/tungsten carbide while on the motor side, graphite/silicon carbide.

### Oil chamber:

Oil can lubricate and cool the mechanical seal and realize the attached function of safety by preventing liquid from penetrating into the motor. The air of a certain amount left inside of the chamber can lower the pressure accumulatively raised.

### Impeller:

With the optimized design, the impeller will not be blocked up when to transport liquid with its optimum flow and rate and the maximum efficiency. There are suitable impellers at choice for every point of working condition.

There are single-geat, dual-geat and three-blade impellers available at choice per the medium to be extracted.

### Pump casing:

Use the know-how of CAD/CAM to make it of max. efficiency and min wearability.

### Shaft:

The pump is coaxial with the motor and the sealing device on the end of the shaft prevents against contacting with the medium to protect it from corrosion.

The as short as possible designed stretched rotating shaft can be reduced with its deflection and vibration, extend the duration of both mechanical seal and bearing and lower the noise at running.

### Monitor system:

Inside of the stator there are three inlaid series heat-control switches, which are in the state of "N.O." at the normal temperature and opened when the temperature on the stator gets to 125°C.

A water-leakage probe is mounted inside the oil chamber to check water leakage and it will give a warning signal (the indicator lights), when the mechanical seal on the pump side leaks and the oil-water ratio in the oil chamber reaches a certain concentration, to automatically cut off the power to stop the work of the pump.

Serviceman should replace the oil timely and check the mechanical seal on the pump side and replace it if necessary.

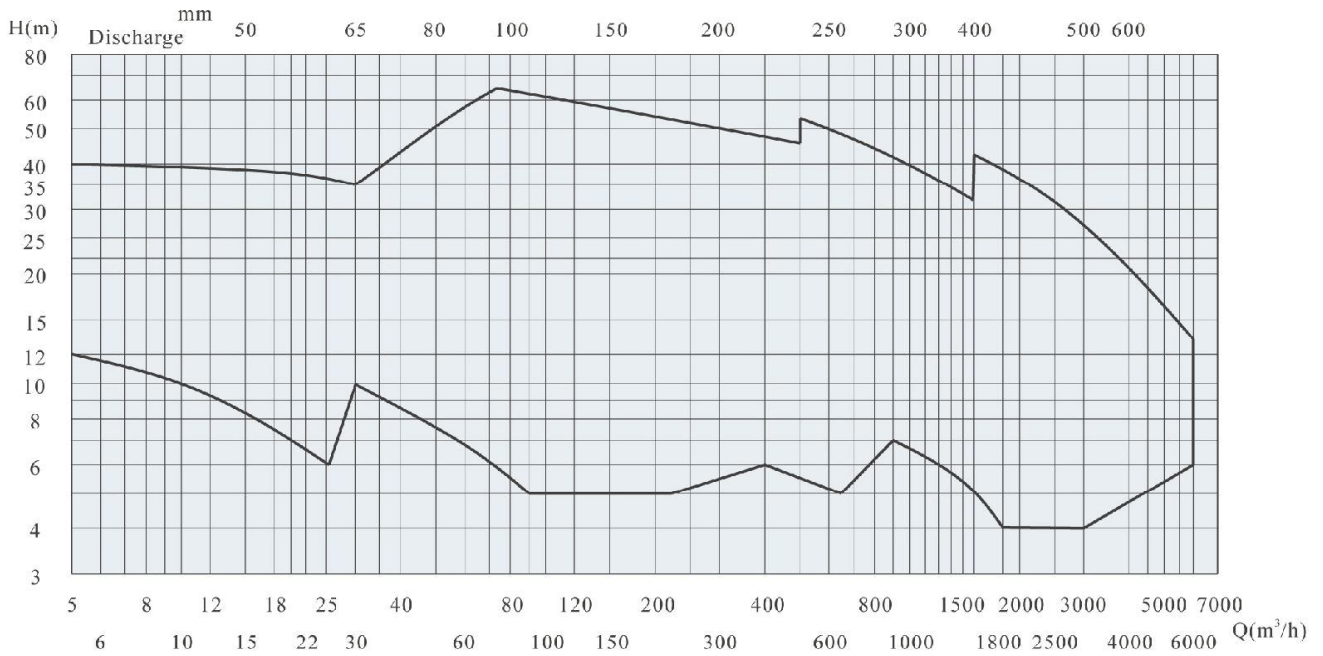
All the wiring box of the motor with a power not lower than 30kW is mounted with a leakage probe to check if a leak with the cable seal.

### Float switch:

The float switch will give a warning signal (the indicator lights), when leakage occurs on the mechanical seal on the motor side, the liquid goes into the switch room and reaches a certain height, to stop the pump. Serviceman should check the mechanical seal and replace it if necessary.

The function to check if the motor lack of phase is available with the electric control cabinet so as to prevent it from burning due any lack of phase.

**Performance Curve**



**Parts List**

