



SUBMERSIBLE ELECTRICAL SEWAGE PUMPS

SUBMERSIBLE PORTABLE INSTALLATION (S TYPE) AND SUBMERSIBLE PERMANENT INSTALLATION (P TYPE)

SPS77S/P

7.5 HP (5.6 Kw)

4" (100mm) Hose
(Flange - Optional)

TECHNICAL DETAILS

MECHANICAL SEALS

Tandem TC/TC mechanical seals enclosed in pressure compensated oil chamber.

BEARINGS

Upper bearing : Single row, deep groove ball bearing.
Lower bearing : Double row, angular contact bearing.

POWER CABLE

Cable Size : 4 core 2.5 sq.mm + 3 core 1.0 sq.mm
Cable Length : 15 meters
EPR insulated, water and oil proof copper conductor flexible cable.

IMPELLER

Type : Single Channel
Material : C.I. IS210 FG 260

STANDARD MOC

Pump Casing : C.I. IS 210 FG 260
Rotor Shaft : SS 431
Hardware : SS 304
"O" Rings : Nitrile Rubber
Mech. Seals : TC/TC

MOTOR (DOL START)

continuous rated, 4-pole induction motor with squirrel cage rotor.

Frequency (Hz) : 50
AC Supply (Phase) : 3
Voltage (V) : 415
Speed (RPM) : 1450
Power Rating (Kw) : 5.6
Current Rating (FL) (Amp) : 12.5
Max. Temperature of Pumped Fluid (°C) : 40
Max. Starts/Stop Per Hour : 15

PUMP DIMENSIONS

Pump height (mm) : 840
Pump Width (mm) : 715

PUMP WEIGHT

(S - Type) Approx. without cable (Kg) : 170
(P - Type) Approx. without cable (Kg) : 240

PUMP SUBMERGENCE

Pump submergence below Fluid level maximum 10 meters.

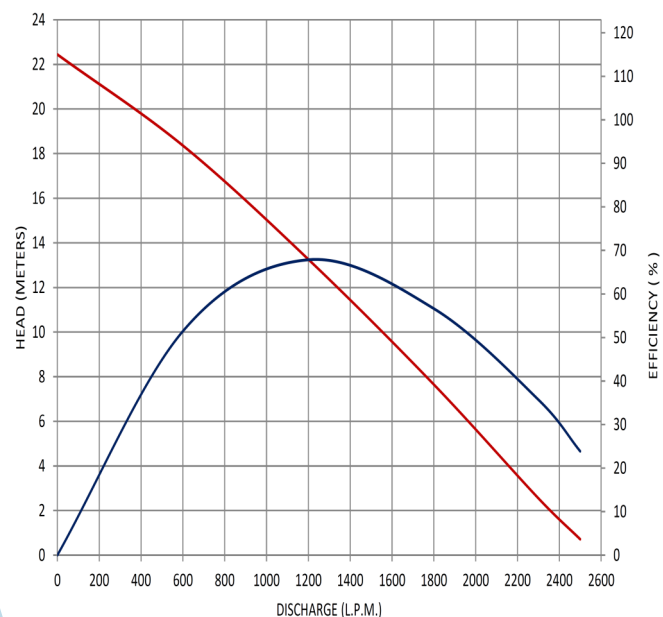
SOLID HANDLING CAPACITY : 75 mm

SURFACE TREATMENT

Primer with Epoxy and black choleric paint for long life.



PERFORMANCE CURVES

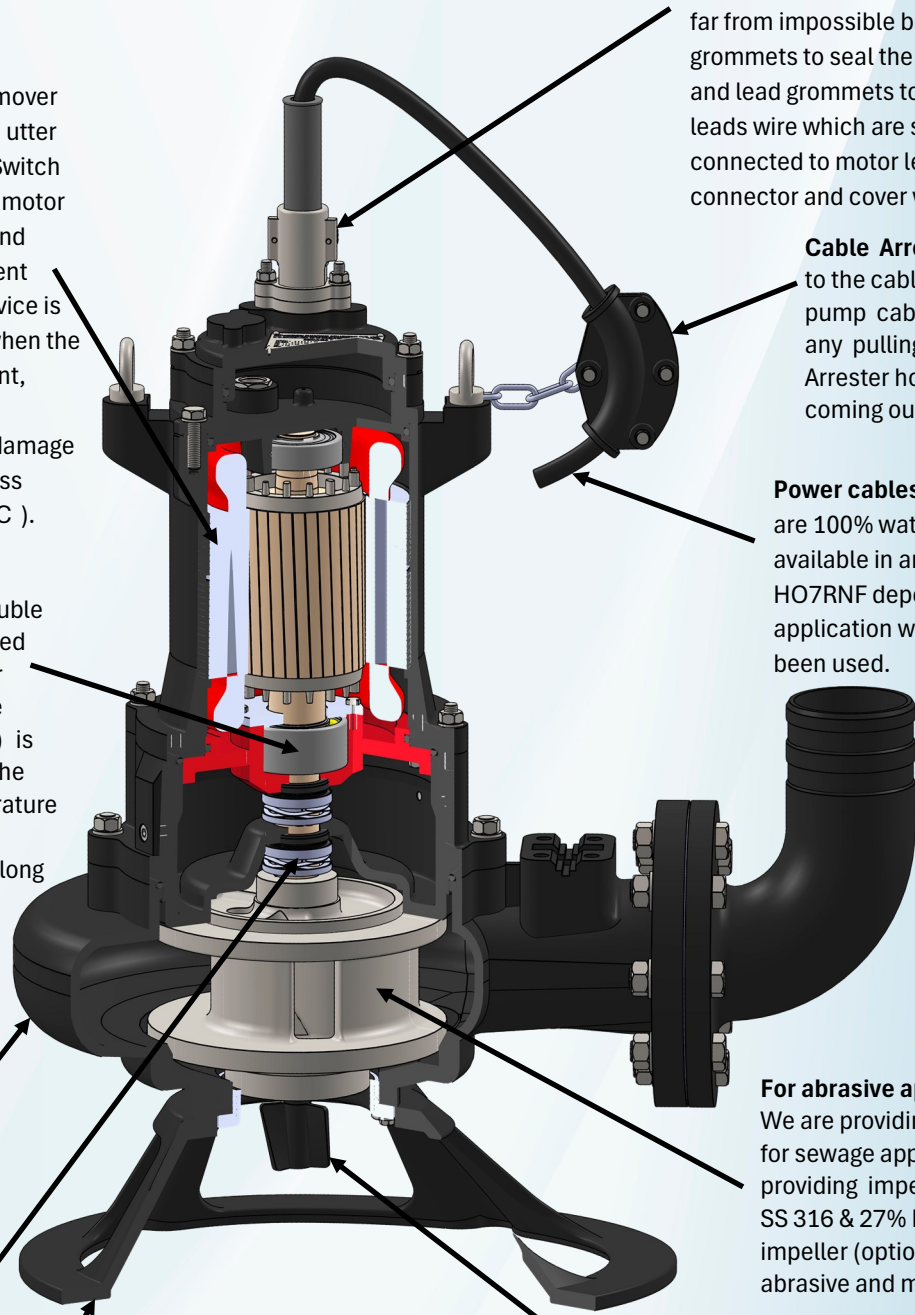




Pioneering Innovative Advantages

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Protection of Motor : Motor is a prime mover part of the pump so the protection is an utter most important. So, Thermal Cut-off Switch 50C Normally Closed are embedded in motor winding. Thermal switches a versatile and reliable thermal protector used to prevent overheating and ensure safety. This device is designed to interrupt the current flow when the temperature rises to a specified set point, effectively protecting the connected components or system from potential damage due to excessive heat. Motors are H class insulated (max temperature up to 180°C).

Bearings : Pumps are provided with Double groove angular contact bearings are fitted on the rotor at the impeller side (DE) for maximum trust loads to be taken by the pump and the upper ball bearing (NDE) is a single row dip groove ZZ bearing. All the ball bearings are filled with high temperature lithium grease containing special anti-corrosive additive which ensures long life during the life cycle of the pumps .

Pump Body : Due to robust usage of pump and with minimum submergence at operation site, it is recommended to use Cast Iron for best heat dissipation. Cast Iron is the best suitable material for Neutral & Alkaline liquid i.e. Rain Water, Waste water, Sewerage etc.

Motor/Rotor shaft sealing : Tandem double mechanical seals (TC vs TC) are used for leak proof sealing to protects the motor from muddy water, abrasive application thus ensuring long life.

Installation : Pumps are available in both Portable (S) Type & Permanent type installation (P) .

Cable protections : Cable and its leads are sealed in such a way that water enter is far from impossible because it has cable grommets to seal the diameter of the cable and lead grommets to seal the individual leads wire which are subsequently connected to motor leads by wire nut connector and cover with heat shrink.

Cable Arrester : Which is fitted to the cable and protect the pump cable connections for any pulling of the cable. Arrester holds cable from coming out from the gland.

Power cables : Power cables are 100% water and oil proof available in any form PVC/EPR/HO7RNF depends upon the application where the pump is been used.

For abrasive application : We are providing Cast Iron impeller for sewage application. also providing impeller in SS 410 , SS 316 & 27% high chrome impeller (optional) for better life in abrasive and muddy applications.

Agitator : Agitator is to break up and prevent the formation of solids or debris that may otherwise cause clogging or blockages in the pump system. In fact, it loosen the soil for better performance of the given application. (optional)



PUMP CONTROL PANELS



INDOOR PUMP CONTROL PANEL

OUTDOOR PUMP CONTROL PANEL

Durable trusted parts :

All materials are used of reputed brands which are like contactors, relays, circuit breakers. Function / protection against low current, high current, overload and faulty connections.

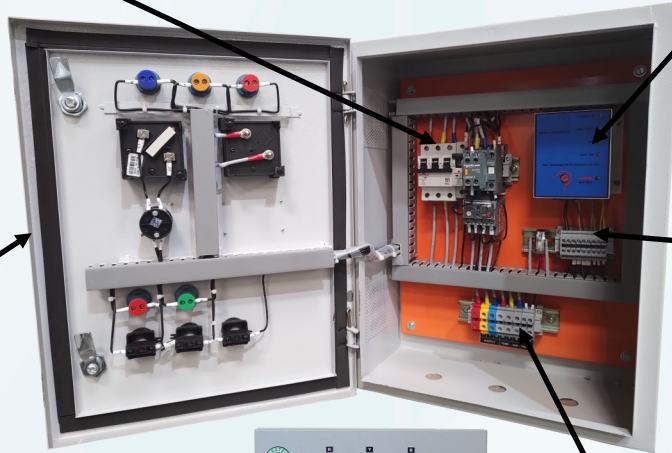
Rigid Body : Control panels are all season proof and suitable for all site conditions.

Indicators : CONTROL PANEL indicators glow's when the pump starts with all the 3 phases connected to a LED light easily visible for identification that panel and pump are working.

Safety Features : We have installed advance device which protects in phase failure, dry run, overloading, Single phasing fault etc.

Additional safety : We use ELR which enables the pump to trip whenever there is current leaks it gets grounded. All wires are FRLS of reputed makes.

User friendly operations : Control panel where each wire connected has numbering and coding for easy understanding of the circuit diagram. Thus, a lay man can also connect a pump for operation. More over a copy of circuit diagram is fixed inside the panel.



KEY FEATURES

- * DOL / STAR-DELTA CONNECTIONS
- * PUMP DRY RUN PROTECTION
- * PUMP SINGLE PHASING PROTECTION
- * PUMP OVERLOAD PROTECTION
- * PUMP UNDER LOAD PROTECTION
- * THERMAL CUT-OFF PROTECTION
- * OPERATING VOLTAGE & CURRENT DISPLAY
- * IP54 INGRESS PROTECTION FOR INDOOR PANELS
- * IP65 INGRESS PROTECTION FOR OUTDOOR PANELS
- * AVAILABLE IN ANALOG & DIGITAL CONTROL SYSTEM