

Heavy construction - Float switch level control

Model SP500 - 750 watt

The pump has a wide shrouded impeller which pump up to 25 mm solids.

Heavy cast iron construction, dual silicon nitride seals and an additional lip seal to protect the motor.

Capable of pumping large quantities of storm and sullage water, from cellars, septic tanks, car parks etc.



Model SP600 - 1100 watt

Similar in appearance to the SP500 but vortex in design, capable of pumping 25 mm and stringy solids - dirty water, sewage, sullage, storm water or pumping effluent from dairy sheds etc.

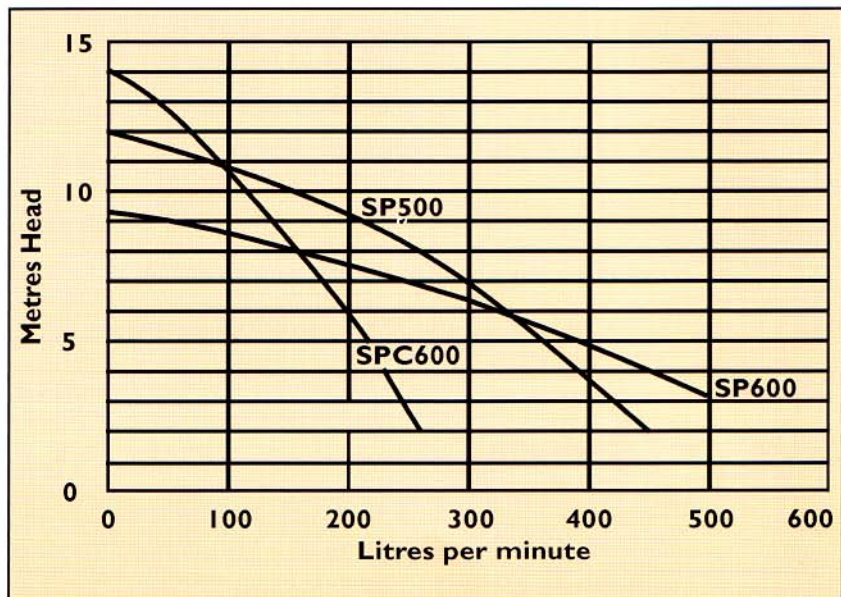
Heavy cast iron construction, dual silicon nitride seals and an additional lip seal to protect the motor.

The pump can be used on applications where normal pumps become clogged, suction strainers are inadequate or the water contains problem material.

Model SP630 - 1100 watt

Similar in appearance to the SP500 but with a stainless steel suction strainer. This high head, single stage, shrouded impeller pump will handle septic tank effluents with some small solids. See page 23 for graph.

Heavy cast iron construction, dual silicon nitride seals and an additional lip seal to protect the motor.



Model SPC600

Similar in construction to the model SP600 pump but uses an additional cutter so that oversize rubbish in the incoming water is cut and does not clog the pump - Capable of pumping a mix of water and solids that are large and can not normally be pumped. Dirty water, sewage, sullage, storm water or pumping effluent from abattoirs etc. - Can be used on applications that would clog most non cutter pumps.

Sump Pumps

Triple seals & oil bath - Stainless steel Shaft

Sump Pumps

Pumps are designed for domestic, farm, waste water, sewage and storm water applications. They come with electrical cable and float switch ready for use. **They must be used vertically.**

Ideal to keep cellars dry, pumping waste water from laundries, draining swimming pools, septic tanks, and the larger pumps for sewage, sullage and storm water. Sump pumps normally have a pumping limit of about 5% solids and should not be submersed under more than 3 metres of water.

Pumps can be used for water up to 45°C. If water temperatures are above this or the pump is allowed to run unsubmerged the thermal overload will turn the pump off. This resets and turns the pump on again as it cools and becomes submerged.

Motor Protection

The dual silicon nitride seals, lip seal and oil bath construction provides the ultimate in motor protection, extending the life of the pump.

Model SP100 - 180 watt

This pump has a Nylon open impeller with vortex flow action, the motor is housed in stainless steel. It is used for pumping from cellars, septic tanks and household drainage where some solids and hair need to be pumped. The pump uses dual silicon nitride seals and an additional lip seal which protects the motor.

Construction

The all cast iron pump with stainless steel shaft is robust, heavy, durable and gives the pump a long dependable life. The industrial design gives it a capability for pumping most fluids.

Level Control

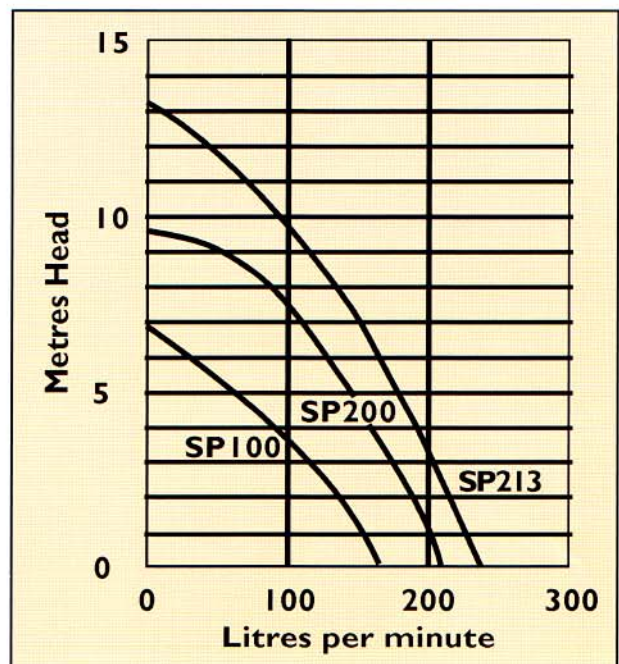
Each pump is supplied with a level control float switch and 6 metres of cable for easy electrical connection. Both float and lead cable is made of PVC to withstand chlorine and are not suitable for oils.



SP200 - 370 watt SP213 - 400 watt

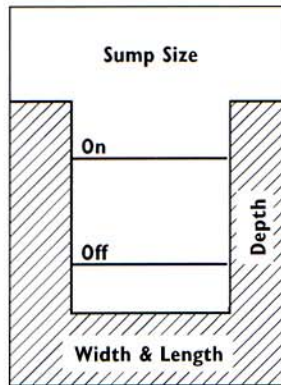
This pump has an open cast iron impeller and is good for pumping from cellars, septic tanks and household drainage where some solids and hair need to be pumped. The pump is protected with a stainless steel suction strainer.

Heavy cast iron construction, dual silicon nitride seals and an additional lip which protects the motor.



Sump Size

Large sumps are better and help when pump capacity is insufficient to cope with incoming water, they reduce turbulence so that float switches don't tangle, keep air out of pump suction, and reduce on/off cycling



When the pump stops sumps must be large enough to allow the water in the discharge pipe to flow back without filling the sump to a level where the pump turns on.

Pump Installation must be vertical.

Construction table - for minimum size sumps

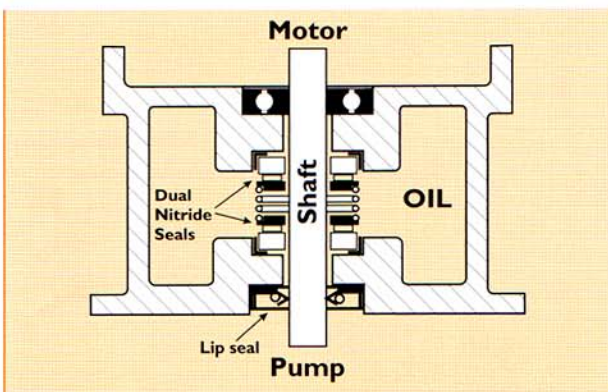
Size	Height cm	Dia cm	Weight kg	Minimum size sump cm		
				W	L	D
Small	36	21	14	35	50	40
Large	47	25	25	40	50	60

Small sumps suit SP100, SP200 and SP213 pumps
Large sumps suit SP500, SP600 and SPC600 pumps

Dual seal and oil bath

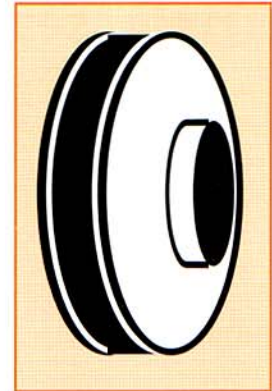
All Orange pumps have ultimate motor protection with dual silicon nitride seals, an additional lip seal and an oil bath. This enables the seals to work reliably keeping water out of the motor.

The silicon nitride seals are very hard and are used for sewage and other applications where the fluid being pumped can contain some abrasive matter.



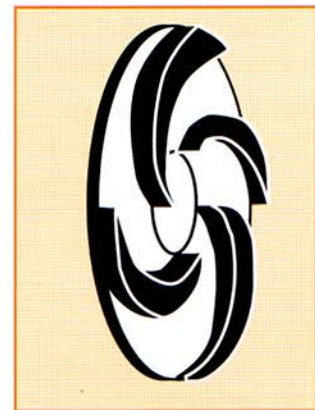
Shrouded Impeller

Good for high head but solids handling and stringy materials are limited by impeller width. Ideal for storm water, septic tanks and other uses where the water pumped has a low level of solids.



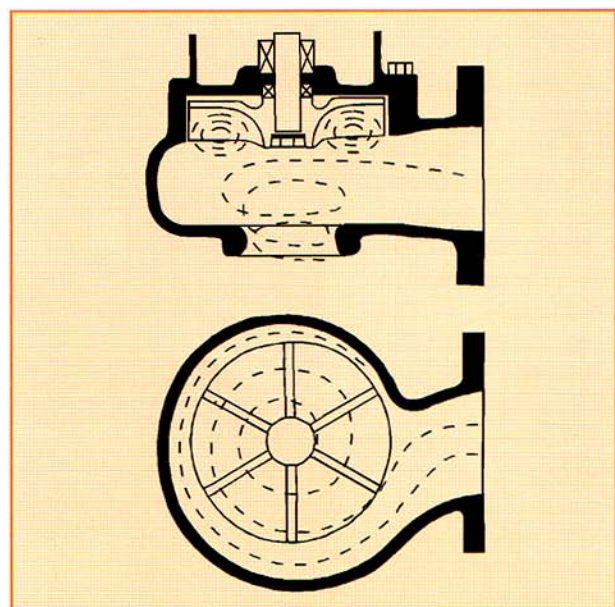
Open Impeller

Good at handling solids as the open design allows a semi cutting action to clear the pump. Used where there is a possibility that solids will need to be pumped and clog the pump.



Vortex Pumps

Vortex pumps create a whirl pool for their pumping action. This allows solids, stringy materials, floating solids, dirty water and sewage to be pumped.



Sump Pumps

Submersible Sump Pumps - 230 Volt with automatic float switch

Model	Watts	Solids size mm	Impeller type	Discharge head in metres [For kPa x 10]										Discharge pipe size mm [inch]		
				2	4	6	8	10	12	15	20	25				
				Capacity in litres per minute												
SP100	180	18	Vortex	140	90	30										32 [1.25]
SP200	370	4	Open	190	160	130	90									40 [1.5]
SP213	400	4	Open	220	190	170	120	100	50							40 [1.5]
SP500	750	25	Shrouded	450	390	330	260	155								50 [2]
SP630	1100	3	Shrouded	180	170	160	150	140	130	120	90	40				40 [1.5]
SP600	1100	25	Vortex		450	320	160									50 [2]
SPC600	1100	25	Cutter		230	200	160	110	80							50 [2]

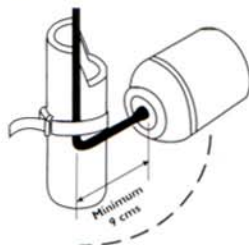
Submersible Sump Pump application guide

Model	Storm water	Septic tank	Sullage & hair	Sewage	Light sand	Gravel	Stringy solids	Oil	Weight
SP100	Yes	Yes	Yes		Yes			No	10 kg
SP200/213	Yes	Yes	Yes		Yes			No	14 kg
SP500	Yes	Yes	Yes		Yes			No	28 kg
SP630	Yes	Yes						No	28 kg
SP600	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	28 kg
SPC600	Yes	Yes	Yes	Yes			Yes	No	29 kg

Orange sump pumps as listed above will not handle all types of sanitary wastes. If sewage is pumped this may present a problem. We recommend a primary strainer should be used to protect the pump.

Float switches

Price for either sump emptying or tank filling float switch refer Page 38



Price for single phase 230 volt pumps include float switch, 6 metres of electrical cord and inbuilt thermal. Some models are available with out float switch - check with Orange for availability and price.

Price for 415 volt 3 phase pumps include 6 metres of electrical cord without electrical plug. Installation requires a contactor with suitable thermals and a separate float switch.

