



SITE DRAINER
THE NON-CLOGGING SOLUTION

INSTRUCTION MANUAL
SD PUMPS

MARCH 2020

WHAT IS THE SITE DRAINER 400?

Site Drainer™ 400 is a 304 stainless steel, electric, submersible dewatering pump system using patented technology to remove water without clogging.

- ✓ *It continues to perform when other pumps clog and fail*
- ✓ *It has virtually limitless applications*
- ✓ *It is patented in USA, Japan, China, EU, Australia, Canada, and Republic of South Africa; patents pending in additional countries*
- ✓ *It is made in the USA*





HOW IT WORKS



- Canister surrounding the pump diffuses water suction pressure over a large area
- Fine mesh openings allow particles <6.35mm (.25 inch) to pass
- Patented, free-flow design technology allows water in, and leaves debris behind
- Capacitor start to relieve strain on generators
- Optional burlap sack accessory eliminates erosion concerns
- Uses standard electric current – 110 Volt @ 60Hz
- Portable and easy to carry at 32 lbs.

SPECIFICATIONS



Model	SD 400
Type	Submersible Pump
Impeller	Polyurethane
Discharge Size	2"
Maximum Pumping Capacity	3685 gallons/hr 61 gallons/min
Discharge Height Above Pumping Level	5', 3685 gal/hr 10', 3340 gal/hr 15', 2988 gal/hr 20', 2505 gal/hr 25', 1943 gal/hr 30', 1267 gal/hr 36', 0 gal/hr

SPECIFICATIONS

Model	SD 400
Power	0.5 HP (.400 kW)
Voltage	110 v
Power cable length	33' one-piece molded rubber
Running Amps	5.6 amps (capacitor start)
Thermal Overload Protection	Yes
Dimensions	13.5"H, 8.5" D
Dry Net Weight	31.85 lbs.
Temperature	34 - 104 F Intermittent usage to 140 F (max. 5 min)
Safety	Pump motor is UL and CE listed

THINGS TO KNOW

- Manual capacitor start, guarantees Amps never go above 5.6A.
- 2" male discharge port – at top of pump, accepts 2" NPT female hose
- For greater versatility, can come with quick connect coupling
- Powerful yet lightweight – only 32.75 lbs
- Portable with durable carrying handle
- Maneuverable into tight spaces, easily transported
- 304 stainless steel pump housing
- 304 stainless steel, 20 gauge thick cage
- Debris larger than .25" remains outside of canister, not affecting water flow
- Tethered float switch for worry-free operation in changeable environments
- If grit, sand, or silt is present: Can't discharge into storm sewers? – use available fitted Burlap Sack to filter and comply with local de-watering regulations

THINGS TO KNOW

- Pump and motor section form a pressure-tight encapsulated unit
- Motor housing constructed from stainless steel
- Shaft is made of stainless steel
- Impeller is made of Polyurethane (a very tough and corrosion resistant plastic)
- Watertight cable inlet connection chamber with wick-free cover and built-in strain relief
- Water being pumped flows around the motor housing for optimum heat dissipation
- Motor is dynamically balanced with temperature monitor in the stator, which switches off the pump in the case of overheating and switches on again automatically after cooling down
- Environmentally safe oil-free motor with food-grade lubricant
- Air filled capacitor start motor

SAFETY INFORMATION

- Pump water only
- Never use worn or damaged cables. Inspect for cuts in the insulation.
- Never attempt to use the power cord as a lifting or lowering device for the pump
- Always lift the pump by it's carrying handle or attached rope to carrying handle
- Always make sure electrical connections are properly grounded, GFCI is always recommended
- Do not allow a *partially* submerged pump to freeze. The expansion of water freezing in the volute may crack the pump. If there is danger of the pump being subjected to freezing temperatures, lift the pump from the water and allow it to drain thoroughly

WARNING

- Do not operate near potentially explosive environment
- Do not use in presence of flammable liquids or gases
- Make sure product is properly grounded and provided with leakage breaker to prevent users from serious electric shock
- Always turn off the power before inspection, maintenance, and adjustment
- Never attempt to change the settings of all protective devices without consulting with licensed electrician
- The product is designed for moving water. The following shall not be handled for the pump and your safety:
 - Flammable, toxic, abrasive, crystallizing, and polymerizing liquid
 - Liquid chemical and food, alkaline and corrosive liquid
 - High temperature, high viscosity, and high solid matter content liquid

WARNING

- Always protect the electric plug or end of power cable from invasive moisture
- Never touch the piping or electrical connections while the pump is running
- Never touch the water while the pump is connected to electricity
- Never force the pump into operation if it has been partially disassembled
- Do not run the pump without water, do not operate the pump out of water or insufficient water
- Do not use the pump if the power cable is damaged

PRODUCT WARRANTY

Site Drainer's sole obligation under this warranty shall be limited to the repair or replacement of any parts that the Seller determines, at its discretion, to be defective. The warranty is void if the damage is caused by the following factors:

- Improper installation
- Deficient maintenance
- Damage caused by improper use, or abuse
- Third party modifications made or attempted to alter the pump
- Normal wear and tear
- The pump has been used for purposes other than those for which it is intended

Site Drainer assumes no liability for the following:

- Bodily injuries
- Material damages
- Economic losses

PUMP INSTALLATION

Before installation, check you local electrical and plumbing regulations. These regulations are for your safety

Use the pump dimensional drawing to ensure proper installation

Make sure the cables are not kinked or nipped

Ensure that hoses and valves are suitable for the pressure of the pump. Place the pump on a flat base and make sure it cannot fall over or sink

Make sure that the pump cannot rotate at the startup or during operation

Should there be any problems that occur during installation, please contact a Site Drainer representative

DO NOT dismantle the product before/during installation without any authorized instructions from Site Drainer

MAINTENANCE AND INSPECTION

Regular checkups and preventive maintenance will ensure a more reliable and safe operation. An initial inspection of the pump within 3 to 4 months after installation is recommended. Subsequent inspections/maintenance can be carried out every 6 months

Always disconnect the pump from the power supply before inspecting the pump

Make sure that the pump cannot roll or fall over to injure people and damage property

Rinse the pump thoroughly with clean water before working on the pump

The pump should not be activated if it is partially dismantled

Worn impellers often have very sharp edges. Be very careful when replacing them.

EU REGULATORY NOTICE AND UL LISTING

The product complies with the following EU directives:

- 2006/42/EC Machinery Directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU Electromagnetic Compatibility Directive

UL 778 listing by May 1, 2020

TROUBLESHOOTING

<u>Problems</u>	<u>Possible Causes</u>	<u>Solutions</u>
Pump fails to start	No electricity > Open circuit or poor connection > Impeller is clogged >	Check power source Check if there is an open circuit Inspect the impeller
Pump starts but stops immediately causing the motor protector to activate	Impeller is clogged > Motor abnormal > The pump is picking up too much sediment >	Inspect the impeller Repair the motor or replace Place the pump on a concrete surface to prevent sediment pickup
The pump's head and pumping volume is low	Impeller is worn > Hose may be clogged >	Replace impeller Unclog hose, reduce # of bends
Pump makes a noise or vibrates	Motor bearings may be worn >	Replace bearings

OPTIONAL ACCESSORIES

Check Valve with Quick Release



Burlap Sack



Commercial Grade Discharge Hoses



1-1/2" Double Male Threaded Aluminum Fittings



1-1/2" to 2" Threaded Plastic Fittings



1-1/2" PVC Fittings



1-1/2" Quick Disconnect Fittings

