

# 12 Volt DC Sampling Pump

## Geotech SS Geosub Pump & Controller

This stainless steel (SS) sampling pump is the most versatile single stage DC pump in the industry. Designed with all stainless steel components, the SS Geosub allows you to sample with confidence even in the harshest well conditions. The SS Geosub operates with the Geotech SS Geosub Controller.

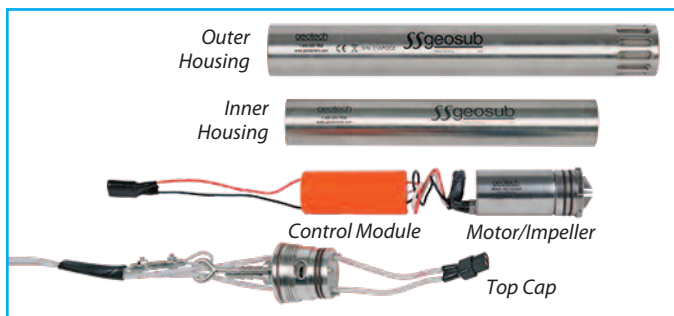
### FEATURES

- Most versatile pump in the industry, sample from depths to 200 ft. (61 m)
- Low flow sampling rates to 10 mL/min
- User enabled dry-run protection
- Easy to decontaminate
- Optional Drop Tube Assembly for greater depth
- Field replaceable motor lead kits available
- Portable reel systems or dedicated well systems available to meet your needs (optional)

### SPECIFICATIONS

<b>PUMP</b>	<b>Electric:</b>	Full Load Rating: 2/3 HP Maximum Amp Draw: 35 amps DC Overload: Incorporated into SS Geosub Controller
	<b>Discharge Port Connection:</b>	1/4" female NPT (includes 3/8" barb)
	<b>Operating Conditions:</b>	Min. Ambient Fluid Temperature: 34°F (1°C) Max. Ambient Fluid Temperature: 176°F (80°C)
	<b>Wetted Parts:</b>	316 Stainless steel, PTFE, Viton®
<b>Dimensions &amp; Weight (Pump &amp; Motor):</b>		Dimensions of Pump: 13.2" L x 1.75" OD (34cm L x 4.5cm OD) Net Weight of Pump w/o Lead: 4 lbs. (1.8 kg)

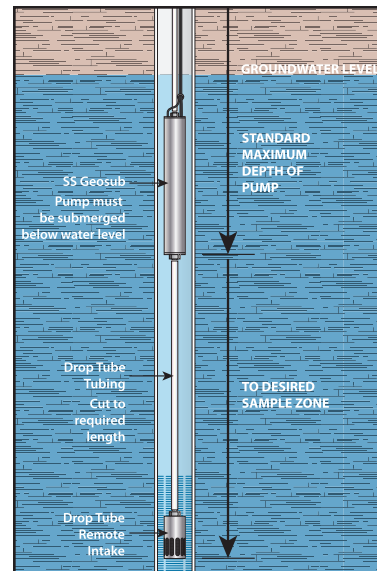
<b>CABLE</b>	<b>Material:</b>	Two 12 gauge conductors with ETFE jacket, and integrated safety cable
<b>Weight with Georeel &amp; Safety Cable:</b>		100' (30.5 m) of 12 AWG & Safety Cable: 18.3 lbs.(8.3 kg) 150' (45 m) of 12 AWG & Safety Cable: 21.6 lbs. (9.8 kg) 200' (61 m) of 12 AWG & Safety Cable: 24.9 lbs. (11.3 kg)



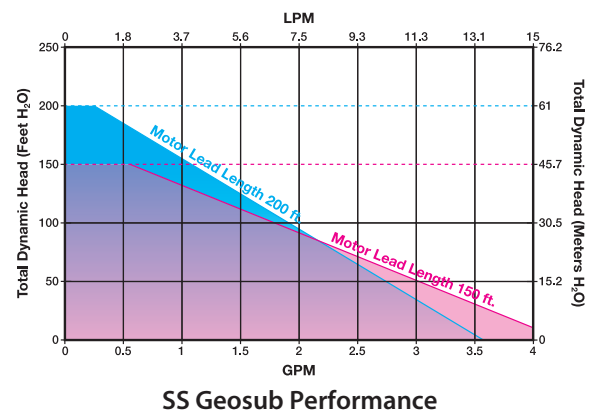
The Geotech SS Geosub has Patents Pending.



SS Geosub with optional Geo Reel



Optional SS Geosub Drop Tube Installation



# Controller for 12 Volt DC Pump

## Geotech SS Geosub Controller

The SS Geosub Controller is designed specifically for use with Geotech's SS Geosub Pump. It provides a safe conditioned variable DC output power from an AC power source. Built-in sensing gives the operator accurate and precise control over the pump during sampling events. An average 1000 Watt gasoline powered generator with 1 gallon of gasoline can operate the SS Geosub Controller and Geotech's sampling pump at full power for up to 18 hours continuously (generally much longer runtimes can be expected as the controller is used to reduce water flow for low flow sampling).

### FEATURES

- Converts AC Voltage to variable up to 300 watt DC voltage output
- Short circuit protection for your safety
- Heavy duty rated power cable for years of service
- 2-line x 16-character wide temperature range alpha-numeric digital display
- Push button Up/Down control
- Internal processor saves individual well parameters
- Optional DC to AC Inverter can be connected to a vehicle battery



Geotech SS Geosub & Controller

### OPERATION

An easy-to-use programmable user interface with bright display offers precise control of flow rates during groundwater sampling events. Site specific settings and conditions can easily be stored and recalled for more efficient repeatable sampling events.

Rugged construction and easy to connect cables make setup and portability a breeze. In addition, the controller includes a user programmable dry run protection feature.

### SPECIFICATIONS

<b>Input Power Range</b>	100-130 Volts AC 50/60 HZ 310 Watts 2.6 amps nominal full load 115 Volts AC
	200-250 Volts AC 50/60 HZ 310 Watts 1.3 amps nominal full load 230 Volts AC
<b>Output Power</b>	Variable 0-46V DC @ <300 Watts
<b>Output Power @ Max. Voltage</b>	10 amps maximum
<b>Operating Temp</b>	-20°F to 100°F (-29°C to 38°C) ambient air temp.
<b>Humidity</b>	Up to 90% humidity
<b>Weight of Unit</b>	16.45 lbs. (7.46 kg)
<b>Size of Unit</b>	16" L x 13" W x 7" H (41cm L x 33cm W x 18cm H)
<b>Input Protection</b>	5A CB



Optional DC to AC Inverter

# Sampling Pumps

## Geotech Portable Bladder Pumps

Geotech's portable bladder pumps are designed with input from field technicians who actually do the sampling! Single turn release head and quick change bladders allow for quick, in-the-field bladder changes and easy decontamination. Custom hose barbs allow the pump to be secured to tubing without the need for tubing clamps.

### FEATURES

- **New 36" Pump**  
Provides up to 30% greater flow
- **Constructed of 316 stainless steel**  
For unsurpassed durability and truly representative samples
- **Portable turnkey systems available**  
Everything you need to quickly and efficiently sample your site
- **Easy-to-open housings**  
No special tools or training required to service the pump
- **Quick-change bladder configuration**  
Bladders are easily changed without tools by sliding back the PTFE collars
- **Drop tube intake option**  
Allows for deeper sampling
- **Extra bladders are readily available**  
Available in PTFE and Polyethylene for all models
- **Bonded tubing**  
In Polyethylene and FEP lined Polyethylene by the foot or by the roll
- **Compatible with the Geotech Geocontrol PRO & BP Controller units**
- **CE rated for quality**

### SPECIFICATIONS

	<b>1.66" x 36"</b>	<b>1.66" x 18"</b>	<b>.850"</b>	<b>.675"</b>
<b>Pump Housing</b>	316 SS	316 SS	316 SS	316 SS
<b>Pump Ends</b>	316 SS	316 SS	316 SS	316 SS
<b>Bladder Material</b>	Virgin PTFE	Virgin PTFE	Virgin PTFE	Virgin PTFE
<b>Outer Diameter</b>	1.66" (40 mm)	1.66" (40 mm)	.850" (21.6 mm)	.675" (17 mm)
<b>Length w/Screen</b>	40" (101.6 cm)	19" (48.2 cm)	18 3/4" (47.3 cm)	18 3/4" (47.6 cm)
<b>Weight</b>	5.0 lbs. (2.27 kg)	3.0 lbs. (1.36 kg)	1.1 lbs. (.5 kg)	.83 lbs. (.376 kg)
<b>Volume/Cycle</b>	11 oz. (310 ml)	5 oz. (150 ml)	0.9 oz. (29 ml)	0.5 oz. (15 ml)
<b>Min. Well I.D.</b>	2" (5 cm)	2" (5 cm)	1" (2.5 cm)	.75" (1.9 cm)
<b>Max. Operating Pressure</b>	100 psi (6.9 bar)	100 psi (6.9 bar)	100 psi (6.9 bar)	100 psi (6.9 bar)
<b>Min. Operating Pressure</b>	5 psi (.3 bar) ash*	5 psi (.3 bar) ash*	5 psi (.3 bar) ash*	5 psi (.3 bar) ash*
<b>Max. Sampling Depth</b>	200' (61 m)	200' (61 m)	200' (61 m)	200' (61 m)
<b>Tubing Size</b>	Air ID x OD	Air ID x OD	Air ID x OD	Air ID x OD
	.17" x .25" (4 mm x 6 mm)	.17" x .25" (4 mm x 6 mm)	.17" x .25" (4 mm x 6 mm)	.17" x .25" (4 mm x 6 mm)
	Discharge ID x OD	Discharge ID x OD	Discharge ID x OD	Discharge ID x OD
	.25" x .375" (6 mm x 10 mm)	.25" x .375" (6 mm x 10 mm)	.17" x .25" (4 mm x 6 mm)	.17" x .25" (4 mm x 6 mm)

\*ash = above static head



# Sampling Pumps

## Geotech Portable Bladder Pump Optional Accessories

### PORTABLE BLADDER PUMP DROP TUBE ASSEMBLY

Geotech's optional drop tube intake system allows you to easily relocate the bladder pump intake way beyond the depth limitations of the pump. As long as the pump remains submerged, you can effectively and economically low flow sample from the well's screened section.

- Relocate pump intake to deeper well screen interval
- Keeps pump at optimum depth to maximize performance
- Drop tube length custom sized to each well
- Easily adaptable in the field
- Available for all three pump sizes



### PORTABLE BLADDER PUMP REEL

- Caddy stores pump when not in use
- Depth ranges to 175 feet (53 m)
- Quick-connect fittings at pump and reel



Portable Bladder Pump Reel System  
(shown with 1.66 Pump)

### BONDED TUBING



#### Bonded Polyethylene x Polyethylene

[.170" x .25", .170 x .25"]	
[.170" x .25", .25" x .375"]	
[.25" x .375", .25" x .375"]	
[.25" x .375", .375" x .50"]	

#### Bonded FEP Lined Polyethylene x Polyethylene

[.170" x .25", .170 x .25"]	
[.170" x .25", .25" x .375"]	
[.25" x .375", .25" x .375"]	

# Peristaltic Sampling Pumps

## Geopump™ Peristaltic Pumps

The Geotech Geopump™ Series I and II Peristaltic Pumps are designed for single and multi-stage pressure or vacuum pumping of liquids. They operate by mechanical peristalsis, so the sample only comes in contact with the tubing. This allows for consistent sample integrity as well as easy cleaning and replacement. The Geopump is ideally suited for field sample removal from shallow wells and all surface water sources or for laboratory use.

### FEATURES

- Exceptional field durability
- Operate from 60 to 600 RPM
- Up to 1 liter/min. delivery rate
- Operate to a depth of 27 feet (8 meters)
- Variable speed control
- AC only, DC only, or AC/DC combination
- Two pumping stations available, which can be piggybacked for multi-station pumping
- Reversible flow feature for back-flushing
- Disposable and dedicated tubing means controlled costs and no decontamination issues

### OPERATION

The Geotech Peristaltic Pumps operate by mechanical peristalsis, so the sample only comes in contact with the tubing. This allows for sample integrity as well as easy cleaning and replacement. With the optional stainless steel tubing weight, tubing can be lowered to a specific depth without curling or floating on the surface of the water. Geopumps operate from any external 12V DC or 120V AC power source.

**SERIES I Geopump™** Peristaltic Pumps are available in AC only, DC only, or AC/DC combination. These units have one pumping station which can be piggy-backed for multi-station pumping. They have variable speeds ranging from 60 RPM to 350 RPM.

**SERIES II Geopump™** Peristaltic Pumps are available in AC only, DC only, or AC/DC combination. They have two pumping stations which can also be piggy-backed for multi-station pumping. The first pumping station has a variable speed of 30 to 300 RPM and the second station 60 to 600 RPM.



Geopump™ Peristaltic Pump Series II Kit with optional easy-load II® pump head, modular battery, 5 ft. (1.5 m) tubing, carrying case and power cord



Sample collection with the Geopump™ Peristaltic Pump Series II with optional easy-load II® pump head (dispos-a-filter™ capsule sold separately)

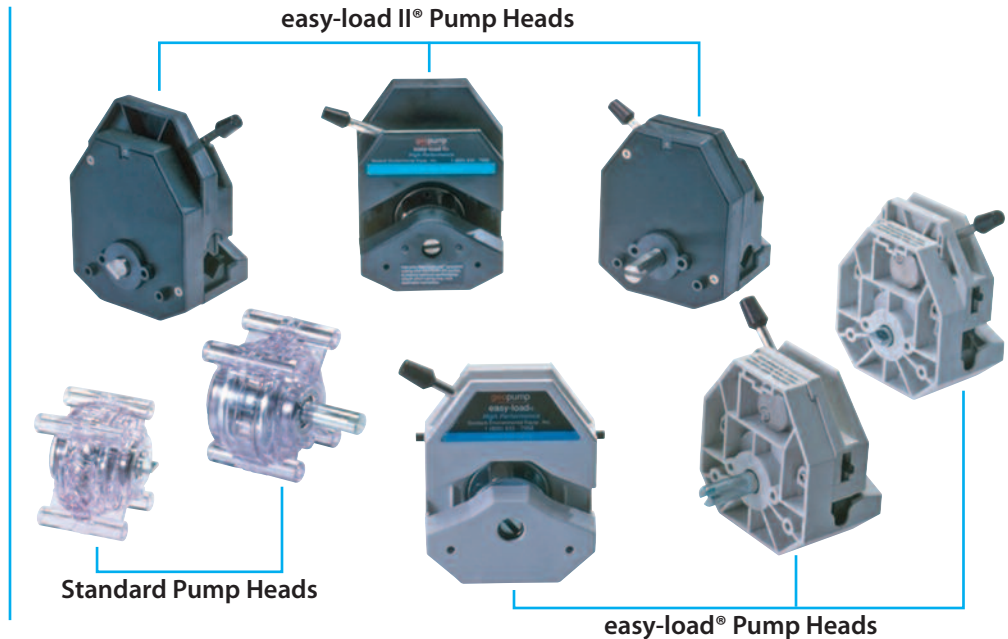


# Peristaltic Sampling Pumps

## Geopump™ Peristaltic Pumps

### ACCESSORIES

- easy-load II® pump head
- easy-load® pump head
- Silicone tubing
- Tygon tubing
- Other tubing
- Stainless steel tubing weight
- Custom length power cord
- Geotech Back Flushing Membrane Filter Holder
- Geotech in-line dispos-a-filter™ filter capsule
- Rechargeable battery
- Battery charger
- Optional stainless steel rotor for pump
- Additional power cords
- Carrying case



### SPECIFICATIONS

<b>Operating Range</b>	Suction from 27 feet (8 meters) at sea level
<b>Principle of Operation</b>	Mechanical peristalsis
<b>Dimensions</b>	3.5 x 8 x 8 in. (9 x 20 x 20 cm)
<b>Power Source</b>	Any external 12-18 V DC @ 70 watts 90-260 V AC 47-65 Hz
<b>Power Cord</b>	12V DC adapter cord or standard AC power cord
<b>Power Cord Length:</b>	AC Cord 8 feet (2.4 meters) DC Cord 15 feet (4.6 meters)
<b>Range of Speed:</b>	
Series I	60 to 350 rpm
Series II	First pumping station 30 to 300 rpm Second pumping station 60 to 600 rpm
<b>Speed Control</b>	Stepless variable speed control
<b>Liquid Delivery Rate</b>	1.67 ml per revolution
<b>Pumping Options</b>	Pressure or vacuum (reversible flow)
<b>Pump Head Rotor</b>	Cold rolled steel
<b>Warranty</b>	1 year
<b>Basic System Kit</b>	Geopump (as specified), 5 ft. (1.5 m) of tubing, power cord (as specified), field case, and manual
<b>Pump Head (sold separately)</b>	Standard, easy-load®, easy-load II®



Geopump™ Modular Battery and Charger



Geopump™ Tubing Weights