

The Geotech GeoPump™ is a portable, peristaltic-style pump, engineered for collecting shallow groundwater and surface water samples. The pump is designed to operate seamlessly on both 12V DC or 120VAC power sources, making it an ideal tool for fieldwork and equally efficient for lab applications. The GeoPump's unique design prioritizes sample integrity, significantly reducing the risk of cross-contamination. Fluids being sampled interact exclusively with the tubing and not the pump mechanism, effectively eliminating the need for decontamination of pump components between sampling points.

FEATURES

- Exceptional field durability
- Operate to a depth up to 29 feet (8.8 meters)
- Variable speed control
- Designed for low-flow, purge and sample, discrete, and filtration
- 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 piggybacked 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)

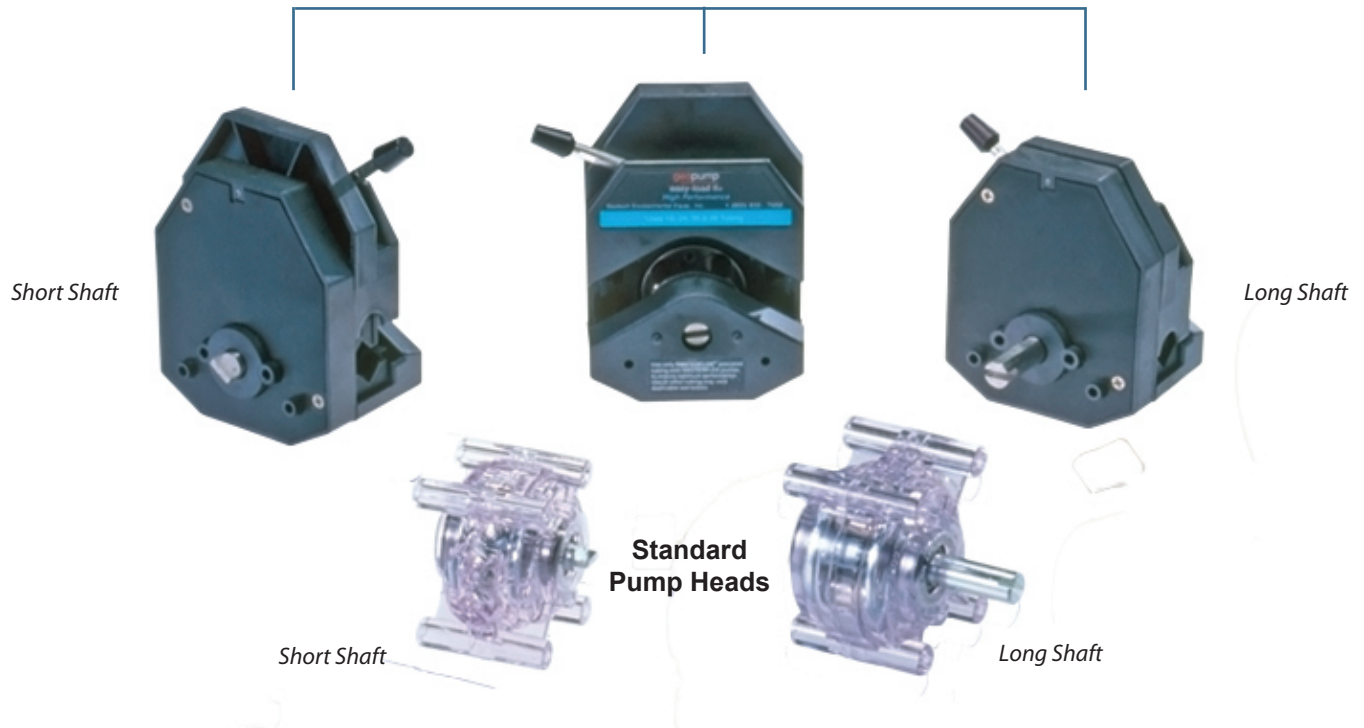


Technical Specifications

Operating Range	Suction from 29 feet(8.8 meters) at sea level
Principle of Operation	Mechanical Peristalsis
Dimensions	3.5 x 8 x 8 in. (9 x 20 x 20 cm)
Power Source	Any external 12-18V DC @ 70 watts 90-260V AC 47-65 Hz
Power Cord Length	AC Cord 8 feet (2.4 meters) DC Cord 15 feet (4.6 meters)
Range Speed:	Series I : 60 to 250 rpm Series II : 1st pumping station 30 to 300 rpm; 2nd Pumping Station 60 to 600 rpm
Speed Control	Stepless variable speed control
Pumping Options	Pressure or vacuum (reversible flow)
Pump Head Rotor	Cold rolled steel
Warranty	1 Year



Easy-load® II Pump Heads



GEPUMP KIT BUILD GUIDE

Thank you for your interest in adding a Geopump peristaltic pump to your equipment fleet! To ensure the sampling needs of each user are met, there are several different Geopump kit configurations available. Please follow the steps of this guide when selecting a Geotech Geopump system.

Select an option from each group to configure your Geopump kit.

Basic Unit

- 0 DC only, with hardwired DC power cord
- 3 AC/DC, with interchangeable DC power cord
- 1 AC/DC, with interchangeable AC power cord
- 2 AC/DC, with interchangeable AC and DC power cords

Pumping Stations/RPM requirements

- 0 Series I, 350 RPM
- 1 Series II, 300 RPM & 600 RPM

Field Case

- 0 No field case
- 1 Hard Field Case with foam cut inserts
- 2 Hard Field Case with foam cut inserts with 12V

Battery & Charger

Pump Heads

- 0 No pump head
- 1 Standard Pump Head*
- 3 Easy-load® II Pump Head*

9135

*Includes 5 feet of Silicone Tube, Size 15

EXTRA ACCESSORIES

- 77050000 Silicone Tube Size 15, 50 feet**
- 77050501 Polyethylene Tube, 1/4" OD, 500 feet**
- 87050023 3.5 oz. SS Tube Weight, 8/32" with Clamp (adapts to Size 15 or Size 24 tubing)
- 87050024 4.8 oz. SS Tube Weight, 1/2" with Clamp (adapts to Size 36 tubing)
- 87050026 5.4 oz. SS Tube Weight, Snap-In (adapts to 1/4" OD tubing)
- 87050027 7.0 oz. SS Tube Weight, Snap-In (adapts to 8/32" OD tubing)
- 77250000 Portable Battery & Charger

**Other materials and sizes available



Geopump™ 12V Portable Battery and Charger



Fits 1/4" OD Tubing



Fits 3/8" OD Tubing



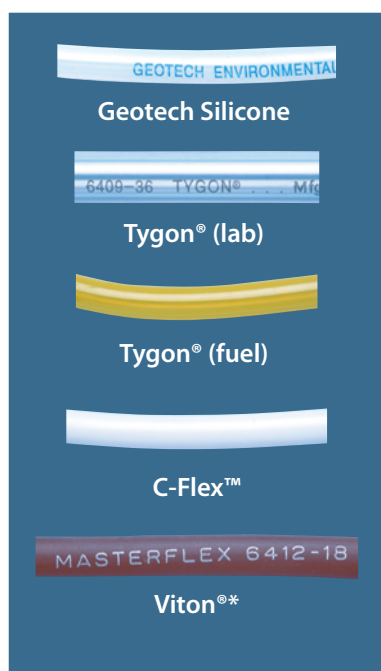
#15/24 Peristaltic Tubing







#36 Peristaltic Tubing

Tubing Heights





High-Performance Precision Tubing Specifications				
Tubing Cross Sections				
Tubing Size	L/S 15	L/S 24	L/S 35	L/S 36
Inside Diameter **	0.19" (4.8mm)	0.25" (6.4mm)	0.31" (7.9mm)	0.38" (9.7mm)
Hose Barb Size **	3/16" (4.8mm)	1/4" (6.4mm)	3/8" (9.5mm)	3/8" (9.5mm)
Flow Range - mL per Rev	1.7	2.8	3.8	4.8
Maximum Pressure, Continuous ***	25 psig (1.7 bar)		20 psig (1.4 bar)	15 psig (1.0 bar)
Maximum Pressure, Intermittent ***	40 psig (2.7 bar)		35 psig (2.4 bar)	20 psig (1.4 bar)
Maximum Vacuum ***	26" Hg (660mm Hg)			24" Hg (610mm Hg)
Section Lift at Sea Level	29 ft. H2O (8.8m H2O)			27 ft. H2O (8.3m H2O)

**Nominal size

***Actual performance may vary depending on tubing formulation.







SUCTION LIFT LOSS

Calculate actual peristaltic pump suction lift based on elevation.

Note: Suction lift is the total vertical distance from static water level to peristaltic pump head.

Suction lift H2O ft. at sea level – (Elevation in ft. x .00115) = actual H2O suction lift at elevation.

Example: Size 15 silicone tubing has suction lift of 29 feet at sea level. Used with a Geopump at 5280 feet elevation, calculation shown here. $29 - (5280 \times .00115) = 22.9'$ actual suction lift.

Precision Tubing Specifications						
Tubing Cross Sections						
Tubing Size	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18
Inside Diameter **	0.03" (0.8mm)	0.06" (1.6mm)	0.12" (3.1mm)	0.19" (4.8mm)	0.25" (6.4mm)	0.31" (7.9mm)
Hose Barb Size **	1/16" (1.6mm)		1/8" (3.2mm)	3/16" (4.8mm)	1/4" (6.4mm)	3/8" (9.5mm)
Flow Range - mL per Rev	0.06	0.21	0.8	1.7	2.8	3.8
Maximum Pressure, Continuous ***	25 psig (1.7 bar)			20 psig (1.4 bar)	15 psig (1.0 bar)	10 psig (0.7 bar)
Maximum Pressure, Intermittent ***	40 psig (2.7 bar)			35 psig (2.4 bar)	20 psig (1.4 bar)	15 psig (1.0 bar)
Maximum Vacuum ***	26" Hg (660mm Hg)				20" Hg (510 mm Hg)	
Section Lift at Sea Level	29 ft. H2O (8.8m H2O)				22 ft. H2O (6.7 m H2O)	

