

# 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 sampling of shallow wells, surface water, and for laboratory use.

### 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 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.



**CALL GEOTECH TODAY (800) 833-7958**

**Geotech Environmental Equipment, Inc.**

2650 East 40th Avenue • Denver, Colorado 80205

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**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**



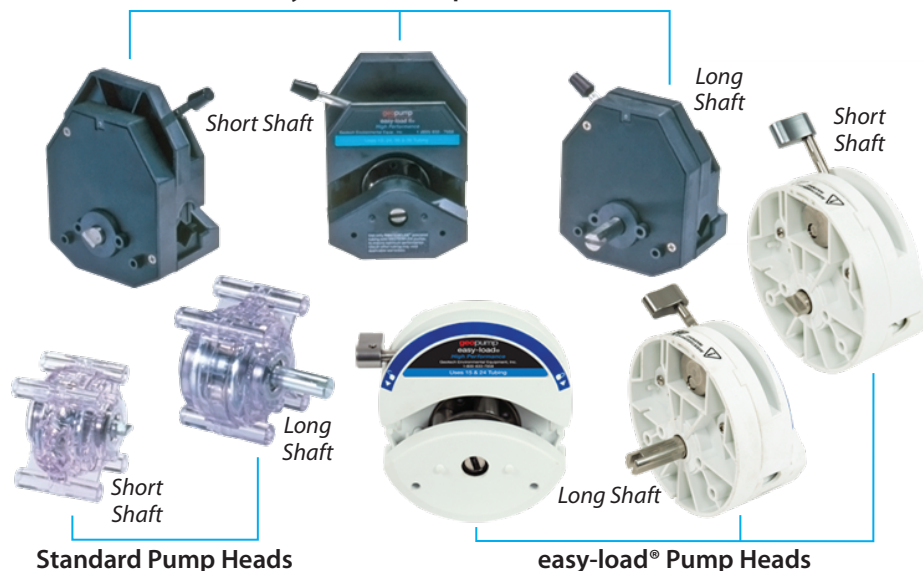
**Sample collection with the Geopump™ Peristaltic Pump Series II with optional easy-load II® pump head (dispos-a-filter™ capsule sold separately)**

### SPECIFICATIONS

<b>Operating Range</b>	Suction from 29 feet (8.8 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 12-18V DC @ 70 watts 90-260V AC 47-65 Hz
<b>Power Cord Length:</b>	AC Cord 8 feet (2.4 meters) DC Cord 15 feet (4.6 meters)
<b>Range of Speed:</b>	
<i>Series I</i>	60 to 350 rpm
<i>Series II</i>	First pumping station 30 to 300 rpm Second pumping station 60 to 600 rpm
<b>Speed Control</b>	Stepless variable speed control
<b>Pumping Options</b>	Pressure or vacuum (reversible flow)
<b>Pump Head Rotor</b>	Cold rolled steel
<b>Warranty</b>	1 year



### easy-load II® Pump Heads



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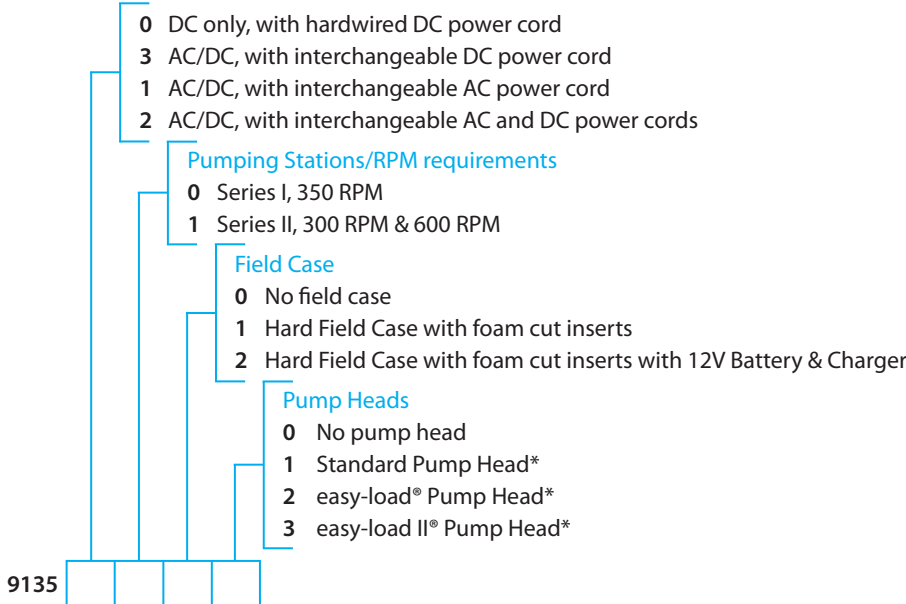
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### GEOPUMP KIT BUILD GUIDE

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



\*Includes 5 feet of Silicone Tube, Size 15



### EXTRA ACCESSORIES

- 77050000 Silicone Tube Size 15, 50 feet\*\*
- 77050501 Polyethylene Tube, ¼" OD, 500 feet\*\*
- 87050023 3.5 oz. SS Tube Weight, ⅜" with Clamp (adapts to Size 15 or Size 24 tubing)
- 87050024 4.8 oz. SS Tube Weight, ½" with Clamp (adapts to Size 36 tubing)
- 87050026 5.4 oz. SS Tube Weight, Snap-In (adapts to ¼" OD tubing)
- 87050027 7.0 oz. SS Tube Weight, Snap-In (adapts to ⅜" OD tubing)
- 77250000 Portable Battery & Charger

\*\*Other materials and sizes available



Geopump™ 12V Portable Battery and Charger



Fits ¼" OD Tubing

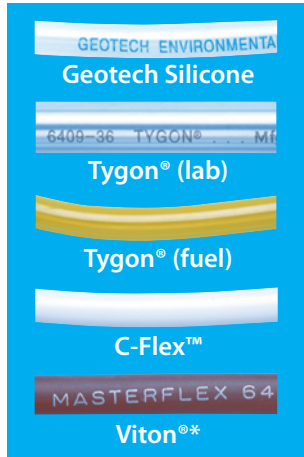
Fits ⅜" OD Tubing





#15/24 Peristaltic Tubing

#36 Peristaltic Tubing

Tubing Weights

### 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)
Suction Lift at Sea Level	29 ft. H <sub>2</sub> O (8.8m H <sub>2</sub> O)			27 ft. H <sub>2</sub> O (8.3m H <sub>2</sub> O)

\* Only available in sizes 15, 18, 25, & 36

\*\*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 H<sub>2</sub>O ft. at sea level – (Elevation in ft. x .00115) = actual H<sub>2</sub>O 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\* .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)	1/16" (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 (660 mm Hg)				20" Hg (510 mm Hg)	
Suction Lift at Sea Level	29 ft. H <sub>2</sub> O (8.8 m H <sub>2</sub> O)				22 ft. H <sub>2</sub> O (6.7 m H <sub>2</sub> O)	

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