## **Technical Data Sheet**



## SB10000LH (High Wave)

**Technology Description-** Floating, solar powered, circulation equipment for lakes and reservoir applications. Day/night operation on solar only by utilizing a battery to store excess daytime power for nighttime operation.

**Materials of Construction** - T316 stainless steel constructions. Foam-filled high-density polyethylene (HDPE) floats.

Thermoplastic rubber intake hose.

## Flow Rates -

Flow rates at full speed at 10 feet (3.0 meter) diameter

Direct Flow Rate: 3,000 gpm (12,000 lpm) Induced Flow Rate: 7,000 gpm (26,000 lpm) Combined flow Rate: 10,000 gpm (38,000 lpm)

**Drive System** - High torque, direct drive (no gearbox), low voltage

brushless D.C. motor.

**Minimum Operating Depth** - 46 inches (1.0m) with optional leg extensions. No damage to machine or bottom of reservoir when run dry in shallow water.

**Flotation System** - Three floats in triangular pattern each with an adjustable float arm for proper vertical positioning, total float buoyancy of 1,450 lbs (660kg).

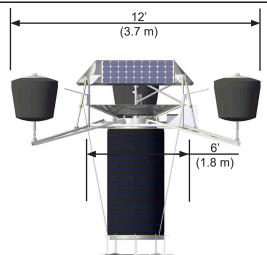


Figure 1: SB10000LH

**Floats** - Each float have independence to move freely about a central pivot point on the bottom side of the float which allows the forces due to waves be applied to the floats which does not transfer to other machine components.

**Float Arms-** 316 stainless steel heavy walled tubing provides a robust connection of the machine to the bottom pivot point of the high wave float.

Power Supply/Control System - PV solar panels are protected from bird fouling with bird deterrent kit.

**PV Solar Panels:** 3 x 90-watt photovoltaic solar panels orientated in triangular pattern. On-board battery storage for day/night operation.

**Electronic Controller:** Digital solid-state controller, mounted in weather-tight (NEMA 4X) enclosure with LOTO compliant ON/OFF switch. SCADA output through factory configurable RS232/RS485 serial communication (Modbus RTU) via 4Pin terminal block. Cellular connectivity to HiveLinx Remote Monitoring System, subscription not included.

**Wiring:** Corrosion-resistant industrial cord with molded watertight connectors that are indexed to prevent improper wiring.

**Rotating Assembly -** Removable assembly with easy access to motor. Impeller handles 4-inch (10cm) spherical solids. Oil-filled (food grade) teflon freeze sleeve with o-rings, shaft. Rotational indicator on shaft.

Fluid Intake Assembly - Hose system bolted to bottom of structural assembly.

**Hose System :** 10 to 100 feet (3 to 30.5 meters) available in 36 inch (91 cm) diameter X 10, 15, or 20 feet (3, 4.5, 6 meter) sections.

**Intake Type:** Horizontal high wave plate valve with 12-inch (31 cm) openings. Valve releases escaping water through bottom of hose during high wave events to minimize stress on machine

Intake Depth Adjustment: 15 feet (4.5 cm) of field adjustment with three SS chains connected to hose coupling.

Anchoring - Two mooring blocks tethered together with SS chain and attached to structural member on unit.

Ice Protection - Freeze sleeve and positive pumping under distribution dish to maintain circulation.

Accessories Available - (1) Beacon Light Kit (2) Radios

## Shipping Size / Weight

• Crate - 87in x 87in x 65in (2.2m x 2.2m x 1.7m) / 1500lbs (680kg) and 4 feet (1.2m) wide x 4 feet (1.2m) long x 4 feet (1.2m) high x 500 pound (225 kg) crate. Exact weight and dimensions varies dependent on machine configuration.

Maintenance / Warranty - Minimal maintenance. Limited 2-year parts and labor warranty.