

SB10000v12 SPECIFICATIONS

Technology Description:	Floating, solar powered, circulator for wastewater treatment and freshwater applications. Day/night operation on solar only by utilizing a battery to store excess daytime power for nighttime operation.
Flow Rates:	<i>Flow rates at full speed (60 rpm) at 10 feet diameter</i>
Direct Flow Rate - Day	3,000 gallons per minute, 83.3 gpm/watt.
Induced Flow Rate - Day	7,000 gallons per minute.
Combined Flow Rate - Day	10,000 gallons per minute.
Combined Flow Rate - Night	10,000 gallons per minute with adequate battery power.
Machine Size/Weight:	Assembled machine is 16 feet in diameter and weighs 600 pounds.
Materials of Construction:	316 stainless steel construction. Foam-filled high-density polyethylene (HDPE) floats. Thermoplastic rubber intake hose. HDPE strainer. Concrete mooring blocks are encapsulated in HDPE.
Drive System:	High torque, direct drive (no gearbox), axial airgap Lorentz force brushless D.C. motor.
Power Supply/Control System:	<i>PV solar panels are protected from bird fouling with bird deterrent kit.</i>
PV Solar Panels	3 X 80-watt photovoltaic solar panels orientated in triangular pattern. On-board battery storage for day/night operation.
Electronic Controller	Solid-state controller, mounted in weather-tight (NEMA 4X) enclosure with externally fused disconnect. SCADA output options.
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 and electronic controller. Impeller handles 4-inch spherical solids. Oil-filled teflon freeze sleeve with o-rings, shaft. Rotational indicator on shaft.
Flotation System:	Three floats in triangular pattern each with an adjustable float arm for proper vertical positioning, total float buoyancy of 1,200 pounds.
Fluid Intake Assembly - Option 1:	<i>Hose system bolted to bottom of structural assembly.</i>
Hose System	5 to 100 feet available in 36-inch diameter X 5 or 10 or 20 feet sections.
Intake Type	Horizontal plate with 12-inch openings.
Intake Depth Adjustment	15 feet of field adjustment with three SS chains connected to hose coupling.
Fluid Intake Assembly - Option 2:	Fixed horizontal plate bolted to bottom of structural assembly.
Intake Type	Fixed horizontal plate with 12-inch openings.
Intake Depth Adjustment	No adjustment is necessary. Horizontal inflow from 25 inches below distribution dish.
Fluid Intake Assembly - Option 3:	<i>See SB10000v12-DM Dual Mix Specifications Sheet.</i>
Anchoring:	(1) Two mooring blocks tethered together with SS chain and attached to structural member on unit or (2) Tethered to shore with SS cable.
Ice Protection:	Freeze sleeve and positive pumping under distribution dish to maintain circulation.
Minimum Operating Depth:	31 inches with fixed horizontal plate. No damage to machine or bottom of reservoir when run dry in shallow water.
Accessories Available:	(1) Supplemental Shore Power Kit, (2) Chemical Injection Kit, (3) Buoy Marker Light Kit, and (4) Salt Water Protection Kit.
Warranty:	Limited 2-year parts and labor warranty.

Subject to change without notice.