

SB5000v12 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	700 gallons per minute, 35.0 gpm/watt.
Induced Flow Rate - Day	4,300 gallons per minute.
Combined Flow Rate - Day	5,000 gallons per minute.
Combined Flow Rate - Night	5,000 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	20 to 60 feet available in 16-inch diameter X 20 feet sections.
Intake Type	Inverted bell shape strainer with 4-inch holes.
Intake Depth Adjustment	Can vary from 0 to 60 feet. There is no depth adjustment necessary for fluctuations in water level. Weight and flotation of the 'J' bend of hose keeps intake above sludge or bottom of pond at all operating depths. Strainer can be chained up higher if desired.
Fluid Intake Assembly - Option 2:	<i>Fixed horizontal plate bolted to bottom of structural assembly.</i>
Intake Type	Fixed horizontal plate with 12-inch openings.
Intake Depth Adjustment	No adjustment is necessary. Horizontal inflow from 25 inches below distribution dish.
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 ice through freeze slots.
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.