

SB1250v12 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	150 gallons per minute, 18.8 gpm/watt.
Induced Flow Rate - Day	1,100 gallons per minute.
Combined Flow Rate - Day	1,250 gallons per minute.
Combined Flow Rate - Night	1,250 gallons per minute with battery.
Assembled Machine Size/Weight:	10 feet in diameter and weighs 400 pounds.
Shipping Information:	4 ft X 4 ft X 4 ft box, weighs approximately 600 pounds.
Materials of Construction:	Machine is constructed of 316 stainless steel (SS). Floats are foam-filled high-density polyethylene (HDPE). Intake hose, when used, is thermoplastic rubber.
Power System:	Includes high torque (360 inch-ounce torque at 80 rpm), direct drive (no gearbox), axial airgap Lorentz force brushless D.C. motor with photovoltaic (PV) modules and onboard battery. Solid-state controller is mounted in a weather-tight, NEMA 4X enclosure with external fused disconnect. SCADA output available.
Wiring	Corrosion-resistant, industrial cord with molded, weather and watertight connectors that are indexed to prevent improper wiring.
PV Module Mounting – Option 1:	(1) 80 watt PV module mounted on remote PV module rack. Customer to supply 2.5-inch outside diameter pipe stand (standard 2-inch pipe, recommended 5-foot height, concreted into ground) to accept PV module rack.
PV Module Mounting – Option 2:	(3) 20 watt PV modules mounted on machine.
Rotating Assembly:	Removable assembly with easy access to motor. Impeller handles 3-inch spherical solids. Teflon freeze-protection sleeve with o-rings, shaft. Rotational indicator on shaft. No damage from running dry.
Flotation System:	Three floats in triangular pattern, each with an adjustable float arm for proper vertical positioning. Total float buoyancy is 600 pounds
Fluid Intake Assembly – Option 1:	<i>For shallower reservoirs (2 feet to 4 feet).</i>
Intake Type	Fixed horizontal plate with 12-inch openings.
Intake Depth Adjustment	No adjustment is necessary.
Fluid Intake Assembly - Option 2:	<i>For deeper reservoirs (3 feet to 20 feet).</i>
Hose System	An 8-inch diameter X 20 feet hose. Additional hose to 100 feet can be added.
Intake Type	Ball shaped strainer 12-inch diameter with 2-inch holes.
Intake Depth Adjustment	There is no depth adjustment necessary for fluctuations in water level. Weight and flotation in the 'J' bend of hose keeps intake above bottom of reservoir at all operating depths. Strainer can be chained up higher if desired.
Minimum Operating Depth:	28 inch minimum operating depth. No damage to machine or bottom of reservoir when run dry in shallow water.
Anchoring:	For remote PV module mounting kit, 200 feet of SS cable is included to tether unit to shore in two places. For PV modules mounted on machine, two plastic coated mooring blocks are provided in lieu of tethering kit.
Accessories Available:	(1) Buoy Marker Light Kit, (2) Salt Water Protection, and (3) Remote PV module mounting pipe stand.
Warranty:	Expect 25 year life. Limited 2-year parts and 90-day labor warranty.

Subject to change without notice.