

## SB5000v12-DM DUAL MIX SPECIFICATIONS

Technology Description:	Floating, solar powered, circulator. Two mixing flows for maximum nutrient (N and P) reduction, in addition to BOD/TSS reduction in partial mix and facultative wastewater treatment systems. Day/night operation on solar only by utilizing a battery to store excess daytime power for nighttime operation.
Upper Mixed Zone 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.
Lower Mixed Zone Flow Rates:	<i>Flow rates at full speed (60 rpm) at center of machine.</i>
Direct Flow Rate - Day	70 gallons per minute.
Direct Flow Rate - Night	70 gallons per minute with battery back-up.
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.
Upper Mixed Zone Fluid Intake Assembly:	<i>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.
Lower Mixed Zone Fluid Intake Assembly:	<i>Bolted to bottom of structural assembly.</i>
Hose System	8-inch diameter X 20 feet.
Intake Type	Inverted bell shape strainer with 3-inch holes.
Intake Depth Adjustment	There is no adjustment necessary for fluctuations in water level. Weight and flotation of the 'J' bend of hose keeps intake above sludge at all operating depths. Strainer can be chained up higher if desired.
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:	43 inches. No damage to machine or bottom of reservoir when run dry in shallow water.
Accessories Available:	(1) Supplemental Shore Power Kit and (2) Chemical Injection Kit.
Warranty:	Limited 2-year parts and labor warranty.

Subject to change without notice.