

Technology Description:	Floating, solar powered, circulator for wastewater treatment and freshwater applications. Operates 24 hours per day 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 battery.
Minimum Access Opening/ Machine Size/Weight:	Machine can be installed through a 3 feet by 3 feet opening. Assembled machine is 16 feet in diameter and weighs 600 pounds.
Materials of Construction:	304 stainless steel construction. Foam-filled high-density polyethylene (HDPE) floats. PVC/SS intake hose.
Drive System:	High torque, direct drive (no gearbox), axial airgap Lorentz force brushless D.C. motor.
Power Supply/Control System:	<i>PV Solar Panels, Battery and Electronic Controller are mounted on rack outside.</i>
PV Solar Panels	3 X 80-watt photovoltaic solar panels. Battery storage for 24-hour operation.
Electronic Controller	Solid-state controller, mounted in weather-tight receptacle with externally fused disconnect. Includes SCADA output.
Wiring	Corrosion-resistant industrial cord with molded watertight connectors that are indexed to prevent improper wiring. Low voltage in reservoir, < 36 volts D.C.
Rotating Assembly:	Removable assembly with easy access to impeller and impeller shaft.
Flotation System:	Three floats in triangular pattern with total buoyancy of 1,000 pounds.
Fluid Intake Assembly:	<i>Intake hose bolted to bottom of machine 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 Hose	36-inch diameter X 5 to 40 feet length.
Intake Assembly at Bottom of Hose	48-inch diameter plate with 8-inch legs prevents drawing in sediment from bottom of reservoir. Horizontal flow into the intake hose is through 12-inch openings above the plate.
Intake Depth Adjustment	<i>Self-adjusting for all depths up to 40 feet.</i>
Minimum Water Depth:	At depths below 5 feet, the impeller will be out of the water and the machine will stop circulating water. No damage to machine run dry in shallow water.
Accessories Available:	(1) Supplemental Shore Power Kit, (2) Outputs to SCADA and (3) Chemical Injection Kit.
Life/Maintenance/Warranty:	25-year life. Minimal maintenance. Limited 2-year parts and labor warranty.

Subject to change without notice.