

Solari Submersible Stainless-Steel Enhanced Aeration Technology



Clean Tech - Chemical free cleaning solutions

Pond Remediation

Aeration of Irrigation Tanks for vegetables, flowers, Horticulture, and greenhouses

Aeration of Lakes wit Algae Contamination

Aquaculture Use - good for Prawns (Shrimp)

Easy to Install

Compact Design - Small Footprint

Efficient Gas Dissolution

This **Solari Submersible UFB Mixing Unit** is a complete submersible unit that uses a low-pressure mixing technique that effectively and efficiently saturates liquids with gases over 5 times the levels of conventional technologies. The UFB mixer produces nanobubbles that maximise water contact with the introduced gas producing a liquid highly saturated with suspended gas bubbles. With the UFB mixer, not only less gas is required to achieve optimum saturation levels, but once achieved, the liquid maintains saturation for extended periods of time. There is no need for pressurised tanks or high-pressure cylinders to keep the gas in solution. The unit consists of a UFB mixer combined with a pump, in a Stainless-Steel SUS 316 enclosure. Multiple pump options are available, making it suitable for many applications.

Multiple Pump Options

Multiple pump options are offered with this submersible UFB mixer. The most common is Tsurumi Pump Options - refer data sheet on rear. This pump should be purchased locally to ensure warranty is available. Refer <https://www.tsurumi-global.com/corporate/network/> for your nearest Dealer. In Australia, Solari provides the product with the best suited pump as a combined product

Suitable for Multiple Markets:

Lake and Pond Aeration where increased DO levels are required

Agriculture and Horticulture through immersion in water feeder tanks or in holding tanks

Irrigation Water especially where submersion in a tank is the best option

Aquaculture where tanks are used, and the unit can be submerged into the tank for oxygenation

Suitable for a wide range of other applications where mixing is required by bubble action without high evaporation requirements and for injection of other gases such as nitrogen, CO₂, ozone etc

Combine with Solari Oxygen or Ozone Concentrator

The use of an oxygen concentrator is recommended, air contains around 21% oxygen, by using an oxygen concentrator the oxygen level can be concentrated up to 90% – 95% making the pumping operation 4 to 5 times more efficient. The electricity usage is around 600 watts per hour. Supplying upwards of 6 litres of oxygen per minute. This is more economic in electricity usage than using air.

Stainless Steel 316L

The most common used is stainless steel SUS304 then 316 and 316L. Like 304, which is common in the food industry, both type 316 and 316L exhibit better corrosion resistance and are stronger at elevated temperatures. 316 stainless steel has more carbon in it than 316L. 316L is a better stainless steel for high-temperature, high-corrosion uses, which is why it's used to fabricate the submersible units from.

Seals:

The unit comes standard with NBR seals also called **Nitrile rubber**. When the unit is used in seawater or an environment which is acidic or has oil contamination, we offer the possibility to upgrade the seals into fluoro rubber elastomers also called FPM, FKM, Viton. This seal is called according to DIN and ISO as **FPM**, as American Standard **FKM**. Viton® is the registered trademark of DuPont Performance Elastomers.

This product ships as a flat pack to reduce freight costs. Once you have received the submersible unit package, it's easy to mount with a star screwdriver and a 13 mm wrench. The package contains a bracket to sturdy mount the pump in the stainless-steel box.

Product Data Sheet

Model Name and Number Solari Submersible SS UFB Generator SO-727-O2-SU 316 SS Generator		
Minimum Flow/minute	125 litres	33 Gallons
Maximum Flow/minute	200 litres	46 Gallons
Minimum Flow/hour	7,500 litres	1,981 Gallons
Maximum Flow/hour	12,000 litres	2,536 Gallons
Strainer Availability and Size	Strainer required when particles over 6mm Contact for recommended strainer	
Maximum Water Temperature	40°Celsius	104° Fahrenheit
Minimum Ambient Temperature	-20° Celsius	-4° Fahrenheit
Maximum Ambient Temperature	50°Celcius	122°Farenheight
Maximum Relative Humidity	100%	
Gas Flow/minute	8 Litres	2.1 Gallons
Gas Flow/hour	480 Litres	127 Gallons
Minimum Pressure	40 kPa	6 PSI
Maximum Pressure	65 kPa	9 PSI
Note: pressures are recommended for bubble generation. The product itself can withstand pressures up to 500 kPa		
Gases Available	Air, Ozone, Nitrogen, Carbon Dioxide No corrosive gases	
Power Consumption	No pump included. Estimated power consumption 480 watts Recommended Pump.	
Pump Option	Water Treatment Tsurumi 50PN2.75 Agriculture Horticulture Tsurumi LB 480 Agriculture Horticulture Tsurumi LB 800 Water Treatment Tsurumi HS2.4S Water Treatment Tsurumi HSD2.55S Aquaculture Seawater Tsurumi 50TM2.75 DAB Leader FEKA BVP	
Wetted parts	SUS316L, PVC, nylon	
Pump Section Method	Submersible Pump	
Inlet Connection	Submersible Pump Inlet	
Water Outlet	rigid 25mm or 1" female coupling with thread	
Gas Inlet	10mm gas Hose or standard quick fitting, 3/8" on request	
Dimensions WxDxH	310 x 385 x 890 mm	12.2 x11.2x 35 inch
Weight	25kg	55lbs
Shipping Dimensions	35 x 94 x 34 cm	14 x 37 x 13 inch
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