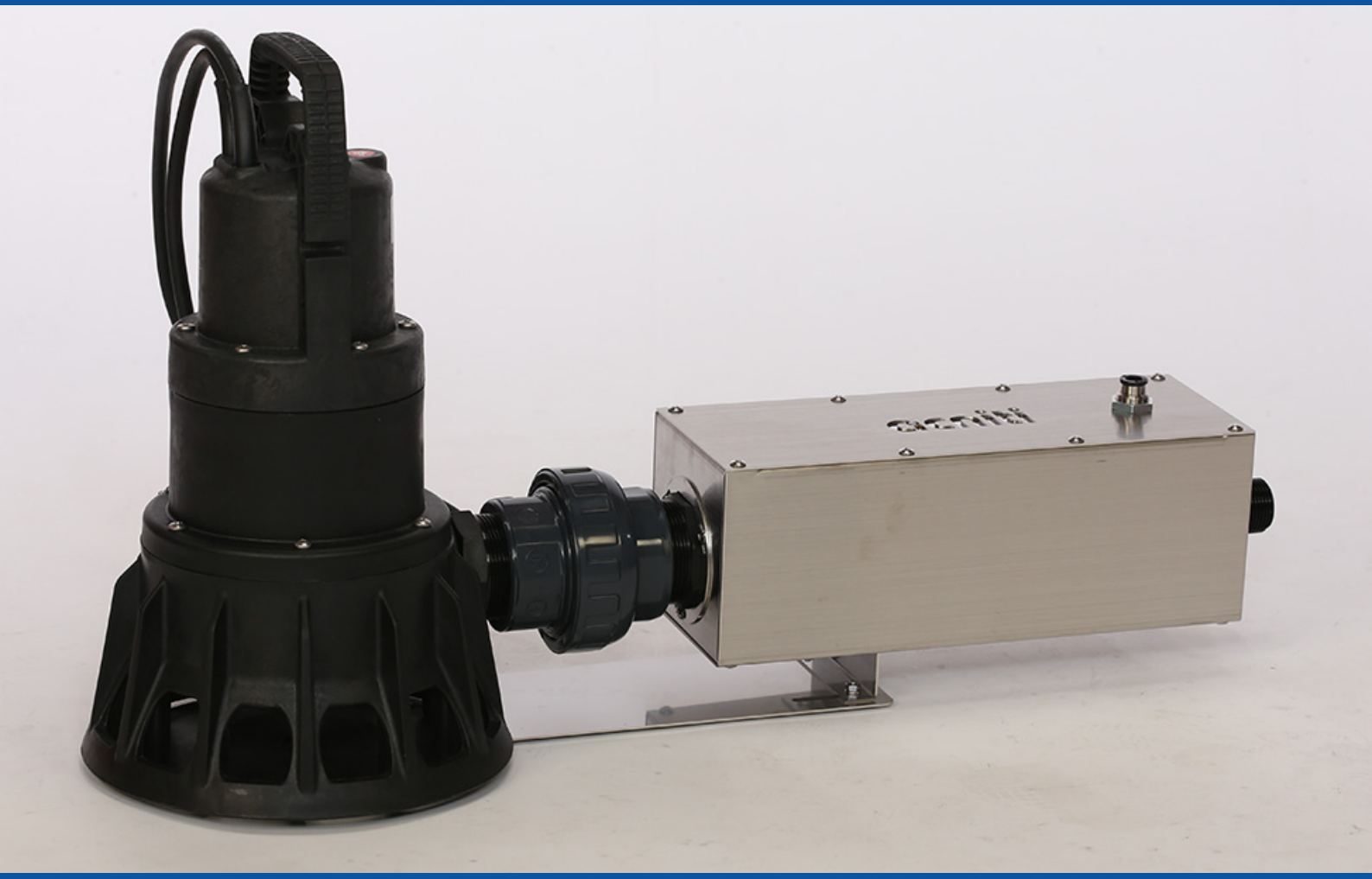

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turbiti sub: submersible nanobubble mixer for ponds | acniti

Low DO levels in deep reservoirs and ponds stall aquaculture yields and rot root zones in horticulture systems. The Turbiti submersible nanobubble mixer solves this by operating entirely underwater, injecting 100-200nm bubbles directly into the water column for maximum oxygen transfer efficiency. Built from 316L stainless steel, it installs without a pump house and runs on 115 or 230V.

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turbiti sub nanobubble mixer: oxygen-rich water for ponds & reservoirs

- **High-Efficiency Dissolved Oxygen (DO):** Achieve superior gas dissolution and stable oxygen levels for demanding aquaculture and hydroponic environments.
- **Chemical-Free Biofilm & Algae Control:** Naturally suppress algae and strip biofilms in irrigation lines through nanobubble-induced oxidation—no harsh chemicals required.
- **Specialized Horticulture Application:** Proven growth-booster for high-value crops including tomatoes, cucumbers, peppers, and floriculture (Roses, Chrysanthemums).
- **Industrial-Grade Pond & Lake Remediation:** Accelerate the breakdown of organic "muck" and restore ecosystem balance in large-scale irrigation reservoirs.
- **Compact Submersible Footprint:** Designed for easy integration into existing tanks and ponds; eliminates the need for expensive land-based pump houses.
- **Optimized for Shrimp & Fish Cultivation:** Improves Feed Conversion Ratios (FCR) by maintaining optimal aerobic conditions in high-density aquaculture.
- **Sustainable Clean-Tech Engineering:** A low-maintenance, energy-efficient solution for sustainable water management and wastewater treatment.

turbiti submersible nanobubble generator: advanced aeration & oxygenation

The **Turbiti Submersible Nanobubble Mixer** is a high-efficiency nanobubble generator designed for deep-water applications where land space is limited. Unlike traditional surface aerators, the Turbiti operates entirely underwater, delivering billions of 100nm–200nm bubbles directly into the water column. This ensures maximum **Oxygen Transfer Efficiency (OTE)** and superior water quality for irrigation, aquaculture, and industrial wastewater.

engineered for high-performance dissolved oxygen (do)

The Turbiti technology outpaces competitors like the Moleaer Freya by focusing on a maintenance-free, submersible design that handles high-flow rates without the risk of clogging.

- **Superior Gas Dissolution:** Achieve supersaturated levels of dissolved oxygen (DO) to promote root health and aerobic activity.
- **Submersible Design:** Ideal for irrigation reservoirs, ponds, and tanks where

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external pump houses are not feasible.
- **Low Operational Cost:** The mixer head's lack of moving parts ensures longevity and minimal O&M expenses.

key industrial applications

- **Horticulture & Agriculture (Irrigation Reservoirs)** Increase crop yields by delivering oxygen-rich water directly to the root zone. Nanobubbles remain suspended for weeks, preventing anaerobic conditions and reducing the need for chemical fertilizers.
- **Algae Control & Pond Restoration** The Turbiti suppresses algae growth by increasing redox potential and enhancing the natural decomposition of organic matter (muck) without the use of harsh algaecides.
- **Wastewater & Biofilm Management** Nanobubbles physically scrub biofilms from pipes and tank walls while providing the high-rate aeration required for aerobic bacteria to thrive in treatment plants.

technical specifications

- **Bubble Size:** Average 110nm (Nanoparticle Tracking Analysis verified).
- **Material:** Robust, corrosion-resistant components for salt and freshwater use.
- **Compatibility:** Optimized for use with oxygen concentrators or ambient air.
- **Installation:** Plug-and-play submersible setup.

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turbiti 737 sub: submersible nanobubble mixer 230v | acniti

	General		
1	Model name	Turbiti Sub Nanobubble Mixer: Oxygen-Rich Water for Ponds & Reservoirs	
2	Model number	turbiti_737_submersible-316L_techno-polymer-pump_230V	
	Liquid	**Metric**	**Imperial**
3	Minimum flow / minute	220 Liter	58 Gallon
4	Maximum flow / minute	225 Liter	59 Gallon
5	Minimum flow / hour	13 M3	466 CF
6	Maximum flow / hour	14 M3	477 CF
7	water temperature minimum	1 °C	34 °F
8	water temperature maximum	35 °C	95 °F
9	Strainer availability and size		
	Ambient	**Metric**	**Imperial**
10	Relative humidity minimum	20 %	
11	Relative humidity maximum	100 %	
	Gas	**Metric**	**Imperial**
12	Minimum flow / minute	4.0 Liter	1.1 Gallon
13	Maximum flow / minute	8.0 Liter	2.1 Gallon
14	Minimum flow / hour	240 Liter	63 Gallon
15	Maximum flow / hour	480 Liter	127 Gallon
16	Gas quality	No corrosive gases	
17	Gas remark	Air, oxygen, nitrogen	

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	Electrical	Metric	Imperial
18	Unit phase Ø voltage	1 Ø 115 or 230 VAC	
19	Unit power consumption	950 Watts	
20	Wetted parts	SUS316L, Nylon, techno-polymer	
21	Pump model		
22	Pump phase Ø voltage	1 Ø 230 VAC	
23	Pump motor 50Hz	1050 Watt	1.4 hp
24	Pump head 50Hz	5 Meter	16 ft
25	Pump phase Ø voltage 60Hz		
26	Pump suction method	Submersible unit	
27	Pump pressure setting		
28	Control	The pump has a float which prevents it from running dry. Motor contains a thermal protection.	
	Connections		
29	Water inlet	submersible pump inlet	
30	Water outlet	25 mm about 1"	
31	Gas inlet	10 mm gas hose or 3/8"	
	Dimensions & weight	**Metric**	**Imperial**
32	Dim. (w) x (d) x (h)	740 x 250 x 410 mm	29.1 x 9.8 x 16.1 inch
33	weight	12.4 Kg	27.3 lbs.
34	HS code	8479.82.0040	
35	Shipping dim. (w)x(d)x(h)	30 x 79 x 49 cm	12 x 31 x 19 inch
36	Shipping weight	23.2 Kg	51 lbs.
	Remarks		
37	Other remarks	Approximately @ 1 meter depth 200 kPa / 2 bar or 29 psi oxygen or air pressure required. Put pump deeper to dissolve more gasses.	

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turbiti 737 sub: submersible nanobubble mixer 115v | acniti

	General		
1	Model name	Turbiti Sub Nanobubble Mixer: Oxygen-Rich Water for Ponds & Reservoirs	
2	Model number	turbiti_737_submersible-316L_techno-polymer-pump_115V	
	Liquid	**Metric**	**Imperial**
3	Minimum flow / minute	220 Liter	58 Gallon
4	Maximum flow / minute	225 Liter	59 Gallon
5	Minimum flow / hour	13 M3	466 CF
6	Maximum flow / hour	14 M3	477 CF
7	water temperature minimum	1 °C	34 °F
8	water temperature maximum	35 °C	95 °F
9	Strainer availability and size		
	Ambient	**Metric**	**Imperial**
10	Relative humidity minimum	20 %	
11	Relative humidity maximum	100 %	
	Gas	**Metric**	**Imperial**
12	Minimum flow / minute	4.0 Liter	1.1 Gallon
13	Maximum flow / minute	8.0 Liter	2.1 Gallon
14	Minimum flow / hour	240 Liter	63 Gallon
15	Maximum flow / hour	480 Liter	127 Gallon
16	Gas quality	No corrosive gases	
17	Gas remark	Air, oxygen, nitrogen	

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	Electrical	Metric	Imperial
18	Unit phase Ø voltage	1 Ø 115 VAC	
19	Unit power consumption	1100 Watts	
20	Wetted parts	SUS316L, Nylon, techno-polymer	
21	Pump model		
22	Pump phase Ø voltage		
23	Pump motor 60Hz	1100 Watt	1.5 hp
24	Pump head 60Hz	11 Meter	36 ft
25	Pump phase Ø voltage 60Hz	1 Ø 115 VAC	
26	Pump suction method	Submersible unit	
27	Pump pressure setting		
28	Control	The pump has a float which prevents it from running dry. Motor contains a thermal protection.	
	Connections		
29	Water inlet	submersible pump inlet	
30	Water outlet	25 mm about 1"	
31	Gas inlet	3/8"	
	Dimensions & weight	**Metric**	**Imperial**
32	Dim. (w) x (d) x (h)	740 x 250 x 420 mm	29.1 x 9.8 x 16.5 inch
33	weight	11.9 Kg	26.2 lbs.
34	HS code	8479.82.0040	
35	Shipping dim. (w)x(d)x(h)	30 x 79 x 49 cm	12 x 31 x 19 inch
36	Shipping weight	15 Kg	33 lbs.
	Remarks		
37	Other remarks	Approximately @ 1 meter depth 200 kPa / 2.0 bar or 29 psi oxygen or air pressure required. Put pump deeper to dissolve more gasses.	

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