acniti LLC
1-2-9 Nyoidani
Minoh Osaka
562-0011
Japan

turbiti nanobubble mixer

The turbiti nanobubble generator is a first-class workhorse. Turbiti can be placed in the most demanding environments. The nanobubble generator requires a low head pump, so it's efficient in energy usage. Combined with the benefits of a static mixer, Acniti has implemented their proprietary swirl flow technology to generate efficiently and effectively nanobubbles. The turbiti OEM series gives dealers and partners the opportunity to implement the turbiti into their own equipment. The Turbiti concept gives you a worry free nanobubble solution.

turbiti nanobubble mixer

turbiti nanobubble mixer

- easy to install
- ready to connect to many different standard pumps
- saltwater version effectively used in the ocean and saltwater applications
- aeration of lakes and ponds with algae contamination
- nanobubble wastewater aeration
- fish cultivation
- agriculture production
- nanobubble drinking water for animals, chickens pigs, cows
- Turbiti produces billions of nanobubbles

nanobubble workhorse

The turbiti nanobubble generator is a first-class workhorse ultrafine bubble generator. It can be placed in difficult environments. The turbiti has no moving parts, so maintenance is minimal. The turbiti mixer comes in a stainless-steel box with standard durable male connectors for the water connections. The gas connection is a standard push to connect fitting. The gas connection is protected with a high-quality one-way valve, which protects your oxygen concentrator and avoids water in your gas hose. The turbiti can handle water with particles up to 2 mm.

volumes by model

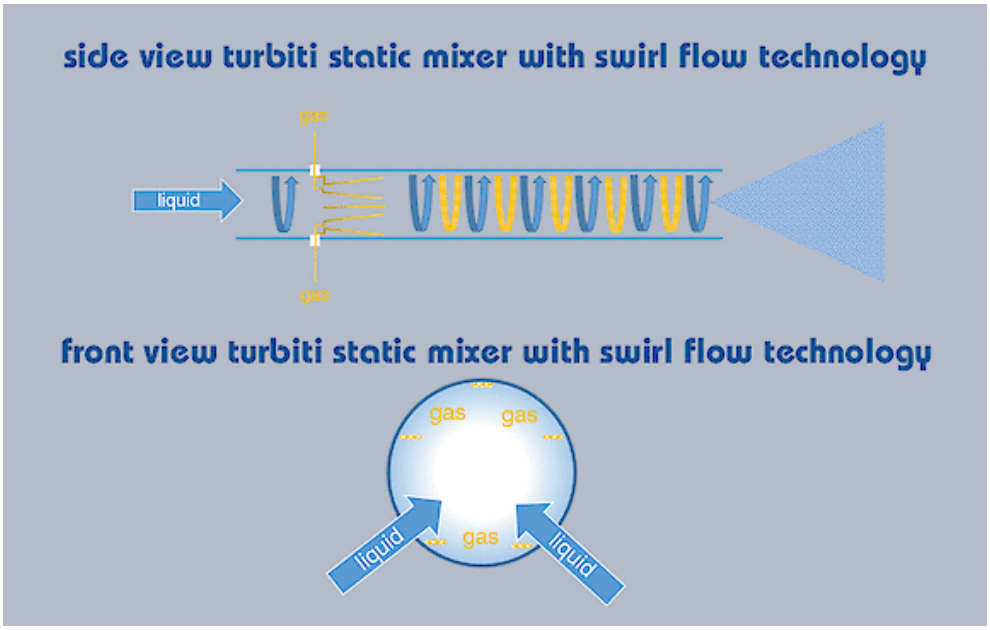
turbiti models	Water lpm	Gas lpm
707 / 808	9 - 15	0.45 - 0.75
626 / 727 / 828	75 - 150	3 - 5
636 / 737 / 838	150 - 400	5 - 8
646 / 747 / 848	400 - 600	8 - 24
858	800 - 1000	40 - 50

Note: Volumes are indications and depend on the pump and pressure in your system

turbiti enhanced static mixer technology

The static mixer has its origin from mixing two liquids, the first patent for a static mixer was filed in 1965. Instead of mixing two liquids, there is also the possibility of mixing a liquid and a gas. The benefits of the static mixers is that they can treat large volumes of water at once. They are not sensitive to clogging. The acniti technology is based on this principle. Rather than a normal static mixer, acniti has implemented their proprietary swirl flow technology. The swirl flow technology beats up the water and gas, and due to the available forces in the mixer, nanobubbles are created. In the schematic on the left, you can get a visualization of how the technology works. The turbiti has an enhanced dissolved aeration performance, dissolving gasses like oxygen efficient and in large quantities in the water.

One of the main benefits of this mixer is the low head required for nanobubble generation. A low head means that much less energy is required to be compared to the high head nanobubble generators which often require 5 times more pressure.



nanobubble applications

This unit is suitable for water treatment applications, healthy drink water treatment for livestock i.e. chicken, cattle, pigs and poultry. A large industry using the nanobubble aeration mixers is the horticulture greenhouse production cultivating products such as tomatoes, bell peppers, carnation, roses, lettuce and strawberries. Apart from sweet water applications, the unit is also suitable for saltwater applications such as shrimp and salmon cultivation. We recommend using this product in combination with our industrial oxygen concentrator. Investing in both the oxygen concentrator and the turbiti nanobubble mixer, gives you peace of mind and many years of trouble-free ultrafine bubble generation.

dealers and partners

The turbiti OEM series gives dealers and partners the opportunity to implement the turbiti into their own equipment and sell nanobubbles generator equipment under their own brand name. This product is only for dealers and partner of acniti, that have a license agreement and commit to buy certain quantities. When you are interested in becoming an Acniti partner, contact us for your geographic location and market. Customers that want to buy direct from acniti, please have a look at our other turbiti products:

- Turbiti O2 nanobubble mixer wall mount
- Turbiti submersible nanobubble mixer
- Turbiti O3 nanobubble mixer wall mount

- Swim Puriti O2 nanobubble mixer
- Swim Puriti O3 nanobubble mixer
- Turbiti pump skid nanobubble mixer

turbiti 737 nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 737	Turbiti 737
2	Model number	turbiti_737_box304	turbiti_737_box304
	Liquid	**Metric**	**Imperial**
3	Minimum flow / minute	150 Liter	40 Gallon
4	Maximum flow / minute	400 Liter	106 Gallon
5	Minimum flow / hour	9.0 M3	317.8 CF
6	Maximum flow / hour	24 M3	848 CF
7	water temperature minimum	-20 °C	-4 °F
8	water temperature maximum	50 °C	122 °F
9	Strainer availability and size	No strainer, strainer required when particles larger than 1 or 2 mm.	No strainer, strainer required when particles larger than 1 or 2 mm.
10	Recommended inlet filter(s)	Medium pump inlet filter series	Medium pump inlet filter series
	Ambient	**Metric**	**Imperial**
11	Ambient temperature minimum	-20 °C	-4 °F
12	Ambient temperature maximum	50 °C	122 °F
13	Relative humidity minimum	0 %	0 %
14	Relative humidity maximum	100 %	100 %
	Gas	**Metric**	**Imperial**
15	Minimum flow / minute	5.0 Liter	1.3 Gallon
16	Maximum flow / minute	8.0 Liter	2.1 Gallon
17	Minimum flow / hour	300 Liter	79 Gallon

	Gas	Metric	Imperial
18	Maximum flow / hour	480 Liter	127 Gallon
19	Pressure minimum	40 kPa	6 PSI
20	Pressure maximum	350 kPa	51 PSI
21	Gas quality	No corrosive gasses: suitable for O2, air, CO2, N2	No corrosive gasses: suitable for O2, air, CO2, N2
22	Gas remark	The mentioned pressures are recommended pressures for bubble generation. The product itself can withstand pressures up to 400 kPa.	The mentioned pressures are recommended pressures for bubble generation. The product itself can withstand pressures up to 400 kPa.
	Electrical	**Metric**	**Imperial**
23	Unit phase Ø voltage		
24	Unit power consumption	No pump included with this product. Estimated power consumption 750-1000 watts.	No pump included with this product. Estimated power consumption 750-1000 watts.
25	Wetted parts	nylon based resins, silicone tube, PPS, EPDM	nylon based resins, silicone tube, PPS, EPDM
26	Pump model	This product works both with submersible pumps and single stage centrifugal pumps.	This product works both with submersible pumps and single stage centrifugal pumps.
27	Pump phase Ø voltage		
28	Pump phase Ø voltage 60Hz		
29	Pump pressure setting	This product works well with most low head pumps. Head 10 to 15 meters. (Ask us for more details).	This product works well with most low head pumps. Head 10 to 15 meters. (Ask us for more details).
30	Control	No automatic operation	No automatic operation

	Pump		
31	@option	Grundfos CM10-1	
32	@option	Ebara pump DWO-400	
	Connections	**Metric**	**Imperial**
33	Water inlet	R 2" male connector (50 mm)	R 2" male connector (50 mm)
34	Water outlet	R 1" male connector (25 mm)	R 1" male connector (25 mm)
35	Gas inlet	10mm standard push-to-connect fitting, 3/8 on request	10mm standard push-to-connect fitting, 3/8 on request
	Dimensions & weight	**Metric**	**Imperial**
36	Dim. (w) x (d) x (h)	405 x 100 x 130 mm	15.9 x 3.9 x 5.1 inch
37	weight	2.8 Kg	6.2 lbs.
38	Shipping dim. (w)x(d)x(h)	12 x 34 x 12 cm	5 x 13 x 5 inch
39	Shipping weight	5 Kg	11 lbs.
	Remarks		
40	Other remarks	✓ The turbiti UFB mixer works normally well with low head pumps using 750 to 1000 watt of power. (ask us for more details) ✓ Temperature and pressure extremes: tube suitable until 50 degrees Celsius, with a maximum pressure of 500kPa. Warranty only to the above-mentioned variables in the specs. ✓ Material properties Nylon 12, Polyamide 12, or PA 12 ✓ Dimension box: 117 (h) x 120 (w) x 335 (l) ✓ Minimum diameter 737 is 22mm	

turbiti 707 nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 707	Turbiti 707
2	Model number	turbiti_707_box304	turbiti_707_box304
	Liquid	**Metric**	**Imperial**
3	Minimum flow / minute	9.0 Liter	2.4 Gallon
4	Maximum flow / minute	15 Liter	4.0 Gallon
5	Minimum flow / hour	540 Liter	143 Gallon
6	Maximum flow / hour	900 Liter	238 Gallon
7	water temperature minimum	-20 °C	-4 °F
8	water temperature maximum	50 °C	122 °F
9	Strainer availability and size	No strainer, strainer required when particles larger than 1 or 2 mm.	No strainer, strainer required when particles larger than 1 or 2 mm.
10	Recommended inlet filter(s)	Small pump inlet filter series	Small pump inlet filter series
	Ambient	**Metric**	**Imperial**
11	Ambient temperature minimum	-20 °C	-4 °F
12	Ambient temperature maximum	50 °C	122 °F
13	Relative humidity minimum	0 %	0 %
14	Relative humidity maximum	100 %	100 %
	Gas	**Metric**	**Imperial**
15	Minimum flow / minute	0.5 Liter	0.1 Gallon
16	Maximum flow / minute	0.8 Liter	0.2 Gallon
17	Minimum flow / hour	27 Liter	7.1 Gallon

	Gas	Metric	Imperial
18	Maximum flow / hour	45 Liter	12 Gallon
19	Pressure minimum	50 kPa	7 PSI
20	Pressure maximum	400 kPa	58 PSI
21	Gas quality	No corrosive gasses: suitable for O2, air, CO2, N2	No corrosive gasses: suitable for O2, air, CO2, N2
22	Gas remark		
	Electrical	**Metric**	**Imperial**
23	Unit phase Ø voltage		
24	Unit power consumption	No pump included with this product. Estimated power consumption 200-850 watts.	No pump included with this product. Estimated power consumption 200-850 watts.
25	Wetted parts	nylon based resins	nylon based resins
26	Pump model	This product works both with submersible pumps and single stage centrifugal pumps.	This product works both with submersible pumps and single stage centrifugal pumps.
27	Pump phase Ø voltage		
28	Pump phase Ø voltage 60Hz		
29	Pump pressure setting	This product works well with most low head pumps. Head 10 to 15 meters. (Ask us for more details).	This product works well with most low head pumps. Head 10 to 15 meters. (Ask us for more details).
30	Control	No control	No control
	Pump		
31	@option	Ebara PRA 0.50	
32	@option	Grundfos CM1-4	
	Connections	**Metric**	**Imperial**
33	Water inlet	SUS316 10mm push to connect quick fitting or 3/8" compression fitting	SUS316 10mm push to connect quick fitting or 3/8" compression fitting

	Connections	Metric	Imperial
34	Water outlet	10mm or 3/8"	10mm or 3/8"
35	Gas inlet	6mm push to connect quick fitting or 1/4" on request	6mm push to connect quick fitting or 1/4" on request
	Dimensions & weight	**Metric**	**Imperial**
36	Dim. (w) x (d) x (h)	120 x 180 x 140 mm	4.7 x 7.1 x 5.5 inch
37	weight	0.67 Kg	1.5 lbs.
38	Shipping dim. (w)x(d)x(h)	16 x 33 x 16 cm	6 x 13 x 6 inch
39	Shipping weight	2 Kg	4 lbs.
	Remarks		
40	Other remarks	✓ Temperature and pressure extremes: tube suitable uptill 70 degrees Celsius, with a maximum pressure of 1000 kPa. Warranty only to the above-mentioned variables. ✓ Material properties Nylon 12, Polyamide 12, or PA 12	

turbiti 727 nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 727	Turbiti 727
2	Model number	turbiti_727_box304	turbiti_727_box304
	Liquid	**Metric**	**Imperial**
3	Minimum flow / minute	75 Liter	20 Gallon
4	Maximum flow / minute	150 Liter	40 Gallon
5	Minimum flow / hour	4.5 M3	158.9 CF
6	Maximum flow / hour	9.0 M3	317.8 CF
7	water temperature minimum	-20 °C	-4 °F
8	water temperature maximum	50 °C	122 °F
9	Strainer availability and size	No strainer, strainer required when particles larger than 1 or 2 mm.	No strainer, strainer required when particles larger than 1 or 2 mm.
	Ambient	**Metric**	**Imperial**
10	Ambient temperature minimum	-20 °C	-4 °F
11	Ambient temperature maximum	50 °C	122 °F
12	Relative humidity minimum	0 %	0 %
13	Relative humidity maximum	100 %	100 %
	Gas	**Metric**	**Imperial**
14	Minimum flow / minute	2.5 Liter	0.7 Gallon
15	Maximum flow / minute	5.0 Liter	1.3 Gallon
16	Minimum flow / hour	150 Liter	40 Gallon
17	Maximum flow / hour	300 Liter	79 Gallon

	Gas	Metric	Imperial
18	Pressure minimum	50 kPa	7 PSI
19	Pressure maximum	350 kPa	51 PSI
20	Gas quality	No corrosive gasses: suitable for O2, air, CO2, N2	No corrosive gasses: suitable for O2, air, CO2, N2
21	Gas remark		
	Electrical	**Metric**	**Imperial**
22	Unit phase Ø voltage		
23	Unit power consumption	No pump included with this product. Estimated power consumption 100-250 watts.	No pump included with this product. Estimated power consumption 100-250 watts.
24	Wetted parts	Acrylic Styrene Acrylonitrile, PVC, EPDM	Acrylic Styrene Acrylonitrile, PVC, EPDM
25	Pump model	This product works both with submersible pumps and single stage centrifugal pumps.	This product works both with submersible pumps and single stage centrifugal pumps.
26	Pump phase Ø voltage		
27	Pump phase Ø voltage 60Hz		
28	Pump pressure setting	This product works well with most low head pumps. Head 10 to 15 meters. (Ask us for more details).	This product works well with most low head pumps. Head 10 to 15 meters. (Ask us for more details).
29	Control	No automatic operation	No automatic operation
	Pump		
30	@option	Ebara-Matrix-5-3	
31	@option	Grundfos CM5-3	
32	@option	Ebara Matrix 5-3T/0.65	
	Connections	**Metric**	**Imperial**

	Connections	Metric	Imperial
33	Water inlet	25 mm or 1 inch threaded connection	25 mm or 1 inch threaded connection
34	Water outlet	20 mm or 3/4 inch threaded connection	20 mm or 3/4 inch threaded connection
35	Gas inlet	10 mm push to connect fitting	10 mm push to connect fitting
	Dimensions & weight	**Metric**	**Imperial**
36	Dim. (w) x (d) x (h)	113 x 275 x 140 mm	4.4 x 10.8 x 5.5 inch
37	weight	1.9 Kg	4.2 lbs.
38	Shipping dim. (w)x(d)x(h)	16 x 33 x 16 cm	6 x 13 x 6 inch
39	Shipping weight	3 Kg	7 lbs.
	Remarks		
40	Other remarks	✓ Material properties Nylon 12, Polyamide 12, or PA 12 ✓ Temperature and pressure extremes: tube suitable until 50 degrees Celsius, with a maximum pressure of 500kPa. Warranty only to the above-mentioned variables in the specs.	

turbiti 747 nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 747	Turbiti 747
2	Model number	turbiti_747_box304	turbiti_747_box304
	Liquid	**Metric**	**Imperial**
3	Minimum flow / minute	400 Liter	106 Gallon
4	Maximum flow / minute	600 Liter	159 Gallon
5	Minimum flow / hour	24 M3	848 CF
6	Maximum flow / hour	36 M3	1,271 CF
7	water temperature minimum	-20 °C	-4 °F
8	water temperature maximum	50 °C	122 °F
9	Strainer availability and size		
	Ambient	**Metric**	**Imperial**
10	Ambient temperature minimum	-20 °C	-4 °F
11	Ambient temperature maximum	50 °C	122 °F
12	Relative humidity minimum	0 %	0 %
13	Relative humidity maximum	100 %	100 %
	Gas	**Metric**	**Imperial**
14	Minimum flow / minute	14 Liter	3.7 Gallon
15	Maximum flow / minute	16 Liter	4.2 Gallon
16	Minimum flow / hour	840 Liter	222 Gallon
17	Maximum flow / hour	960 Liter	254 Gallon
18	Pressure minimum	50 kPa	7 PSI

	Gas	Metric	Imperial
19	Pressure maximum	350 kPa	51 PSI
20	Gas quality	Air, CO2, N2, O2 including ozone on request.	Air, CO2, N2, O2 including ozone on request.
21	Gas remark		
	Electrical	**Metric**	**Imperial**
22	Unit phase Ø voltage		
23	Unit power consumption	No pump included with this product. Estimated power consumption 1000-2000 watts.	No pump included with this product. Estimated power consumption 1000-2000 watts.
24	Wetted parts	Acrylic Styrene Acrylonitrile, PVC, EPDM	Acrylic Styrene Acrylonitrile, PVC, EPDM
25	Pump model		
26	Pump phase Ø voltage		
27	Pump phase Ø voltage 60Hz		
28	Pump pressure setting		
29	Control		
	Pump		
30	@option	Ebara pump 3M 50-125	
31	@option	Grundfos CM15-1	
32	@option	Grundfos CM25-1	
33	@option	Ebara pump DWO-400	
	Connections	**Metric**	**Imperial**
34	Water inlet	50 mm or 2 inch threaded connection	50 mm or 2 inch threaded connection
35	Water outlet	40 mm or 1.5 inch threaded connection	40 mm or 1.5 inch threaded connection
36	Gas inlet	10 mm push to connect fitting or 3/8" on request	10 mm push to connect fitting or 3/8" on request

	Dimensions & weight	Metric	Imperial
37	Dim. (w) x (d) x (h)	166 x 540 x 166 mm	6.5 x 21.3 x 6.5 inch
38	weight	4.8 Kg	10.6 lbs.
39	Shipping dim. (w)x(d)x(h)	24 x 55 x 24 cm	9 x 22 x 9 inch
40	Shipping weight	6 Kg	13 lbs.
	Remarks		
41	Other remarks	✓ Material properties Nylon 12, Polyamide 12, or PA 12 ✓ Minimum passage 747 is 52mm inlet, 40mm turbo, than short the larger mix chamber and than outlet 41mm	

turbiti 636 seawater nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 636 seawater	Turbiti 636 seawater
2	Model number	turbiti_636_box316L	turbiti_636_box316L
	Connections	**Metric**	**Imperial**
3	Water inlet	R 2" male connector (50 mm)	R 2" male connector (50 mm)
4	Water outlet	R 1" male connector (25 mm)	R 1" male connector (25 mm)
5	Gas inlet	10mm standard push-to-connect fitting, 3/8 on request	10mm standard push-to-connect fitting, 3/8 on request
	Remarks		
6	Other remarks	✓ Seawater or saltwater variant comes with either bronze or sus316(L) gas fittings.	

turbiti 626 seawater nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 626 seawater	Turbiti 626 seawater
2	Model number	turbiti_626_box304	turbiti_626_box304
	Connections	**Metric**	**Imperial**
3	Water inlet	25 mm or 1 inch threaded connection	25 mm or 1 inch threaded connection
4	Water outlet	20 mm or 3/4 inch threaded connection	20 mm or 3/4 inch threaded connection
5	Gas inlet	10 mm push to connect fitting or 3/8" on request	10 mm push to connect fitting or 3/8" on request
	Remarks		
6	Other remarks	✓ Seawater or saltwater variant comes with either bronze or SUS316(L) gas fittings.	

turbiti 646 seawater nanobubble mixer specs

	Description	Metric	Imperial
1	Model name	Turbiti 646 seawater	Turbiti 646 seawater
2	Model number	turbiti_646_box304	turbiti_646_box304
	Connections	**Metric**	**Imperial**
3	Water inlet	R 2" male connector (50 mm)	R 2" male connector (50 mm)
4	Water outlet	R 1" male connector (25 mm)	R 1" male connector (25 mm)
5	Gas inlet	10mm standard push-to-connect fitting, 3/8 on request	10mm standard push-to-connect fitting, 3/8 on request
	Remarks		
6	Other remarks	✓ Seawater or saltwater variant comes with either bronze or sus316(L) gas fittings.	