Technical Data Sheet for

AirOxi Tube AO250380

Ver – 1.1 / July 2019

Product name - AirOxi 1 inch aeration tube

Product code – AO250380

Generic name – Aeration Tube

Brand name – AirOxi™ Tube

Material

Elastomeric blended compound of various polymers and additives.

Regulatory Compliance

RoHS compliant material (RoHS Directive 2001/95/EC Amendment 2011/65/EU). Test Report available on request

Tube properties

(Approximate values and range given here, since actual values will differ widely)

Inside Diameter	25 mm (tolerance +/- 1.0 mm)
Outside Diameter	38.0 mm (tolerance +/- 1.0 mm)
Wall Thickness	6.25 mm (tolerance (+/- 0.25 mm)
Micro Hole size	0.5 to 2.0 mm
Micro Hole Density	1800 to 2600 per meter
Designed Air Flow	1.8 to 4.0 m^3 / hour.
Bubble Diameter	1 to 2 mm depending on water depth, air pressure, water salinity, etc.
Effective working area	– 6 to 15 m^2 per mtr (will vary depending on stocking density and type of culture in which it is used)
Oxygen utilization rate (%)	10 to 20%
Oxygenation capacity	0.1 to 0.2 Kg of O_2 per mtr per hr depending on use
Burst Pressure	50 PSI

Effective water depth	0 to 3 mtr
Recommended blower size to tube ratio	10 to 20 mtr per HP of blower (13 to 23 mtr. per KW of blower) depending on water depth and air flow pressure
Operating temperature range	0^{o} Celsius to 50^{o} Celsius

Detailed explanation of Flow parameters

Air Flow – Depends on blower size and output. At 2 PSI pressure and 1 mtr water head, with a reduced ½" inlet, the average flow rate per mtr is approximately 30 Ltrs per min (1.8 m^3 / hr). However with an inlet of 1" the average flow rate per mtr goes up to 65 Ltr / min (approx. 4 m3/hr) However since bursting is not a concern, the air flow can increase as high as required by increasing blower and motor size. This is not however useful for aeration purpose since the flow will be too high to have any meaningful dissolution of air.

Bubble size – varies with depth of installation and blower pressure. At 1.5 mtr depth, bubble size at exit of tube is less than 1 mm, at a pressure of 2.0 PSI. However it will change depending on salinity, air flow from blower, pressure, water depth, etc.

Usage instructions for better results

- For best results, ensure all piping and joints are free of air leakage
- Install at a height of at least 12" above floor of the pond. If it is PE lined pond then the tube can be installed at 6" above bottom.
- Install on all sides of the pond
- Operate as long as possible, preferably 24 / 7 to avoid any choking of the micro holes
- Minimum bending radius – 0.6 mtr
- Fittings to be used are 1" / 25 mm fittings
- Minimum Inlet pipe size – ½" / 12 mm. However recommended inlet size is 1" / 25 mm

PRODUCT PICTURE

AO250380