



## Experiment Sheet of Wastewater Treatment by Demo Unit

Purpose	To check Wastewater Treatment by Continual Aeration, ie. improvement of odor, color, etc.							
Start of Aeration	Date	/	Time	:	Air Temp.	°C	Water Temp	°C
Finish of Aeration	Date	/	Time	:	Air Temp.	°C	Water Temp	°C
Place					Person in charge			
What Sewage?								
Experiment Description	Wastewater	Lt.		Usage of Bacteria or Chemical	Yes: g · No			
	Aeration	hours/day		Total Aeration	hours			
	Added Water	<ul style="list-style-type: none"> <li>• Wastewater</li> <li>• Normal Water</li> <li>• No Additive</li> </ul>		Added Water	Lt./day			

Method	<p>Important: Voltage of Air-Pump is applicable for 100V/110V only. Please use a Transformer to step down your voltage to 100V/110V. And prepare 8 x 1 Lt. Beakers/Bottles.</p> <p>(1) Set 2 "Aquablaster" Units at the Center of the Poly-Drum Bottom.</p> <p>(2) Insert 80-90 Litres of Original Wastewater filtering through approx. 1.0mm Mesh. Water Volume will be about two third in the Poly-Drum.</p> <p>(3) Connect Pipes between Air-Pump &amp; Poly-Drum.</p> <p>(4) Plug in to a Transformer of 100V/110V Output.</p> <p>(5) Check and ensure that Air is not leaking out of the connected Pipes.</p> <p>(6) Stir Original Wastewater inside Poly-Drum for about 20 seconds, and separately keep a sample Wastewater into 1 Lt. Beaker/Bottle for visual comparison later on.</p> <p>(7) Start the Demo Unit for Aeration.</p> <p>(8) Stop Aeration after 12, 24 &amp; 48 hours and every time get a sample of treated Wastewater into 2 x 1Lt. Beakers/Bottles for Data Analysis as well as for visual comparison later on.</p> <p>(9) Discharge Treated Wastewater and clean the Demo Unit perfectly to avoid dirtiness and odor.</p> <p>(10) Please send the samples of 4 Beakers/Bottles to a reliable Laboratory for analysis according to the List of Experiment attached below.</p>
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Purpose of Test	<p>1. For finding "Aquablaster" making bubbles or not by Aeration.</p> <p>2. Visual and Smell checks: *Color of Water. *Odor.</p> <p>3. To check and confirm about Sludge: *Sludge Solution. *Remained Sludge. *Sedimentation Rate of Sludge.</p>					
Summary of Test	Testing Wastewater by Demo Unit under no increase of Loading to get to know in how many hours the "Aquablaster" Aeration Diffusers treat Wastewater to reach the targets, or otherwise to find untreatable Wastewater. Also to find the Wastewater (i) Forming Bubbles or Not, (ii) Biological Treatment is possible or not, and (iii) how much Sludge is reduced.					
Remarks	<p>– In case of <math>COD \geq BOD</math> from Chemical or Pharmaceutical Factories, Nitrogen or Phosphorus should be added for keeping the balance of Nutrition.</p> <p>– If Wastewater contains Protein from Soybean, Sesame, etc., please use Proteolytic Enzyme.</p> <p>– For Wastewater from Confectionaries, please make original Wastewater in pH7.5 over by Caustic Soda.</p> <p>– If Wastewater makes too much Bubbles, please place the Demo Unit on the Floor with Draining.</p> <p>– 100% Inorganic Wastewater is difficult for treatment by "Aquablaster" alone.</p>					
	Test Result	Unit	Original Wastewater	After 12 Hours	After 24 Hours	After 48 Hours
Items	pH	–				
	BOD	mg/Lt.				
	COD	mg/Lt.				
	SS	mg/Lt.				
	n-Hex	mg/Lt.				
	Ammonia as NH <sub>3</sub> -N	mg/Lt.				
	Oil & Grease	mg/Lt.				
Optional	MLSS	mg/Lt.				
	Bacteria	pc/Lt.				
	Stickiness	mg/Lt.				
	T-N	mg/Lt.				
	T-P	mg/Lt.				
	T-C	mg/Lt.				
Others	Bubbles	–				
	Colour	–				
	Odor	–				