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## **JETOX AERATION & MIXING QUESTIONNAIRE INDUSTRIAL & MUNICIPAL WASTEWATERS**

For water & wastewater originating from :

Municipal, industrial 'Wet' Processing, snack foods, fruit and vegetable processing and preparation, cooking plants, carbonated and soft drinks processing/ breweries, meat/fish processing and packing, pharmaceutical, chemical & petro-chemical, landfill, paper & pulp Industries, dye houses / textile finishers, tanneries.

### **Advantages of Jet Aeration :**

- Significantly reduced tank internal air main distribution pipework and fittings
- Easily accessible and low maintenance
- Independent control of air/oxygen supply and mixing function (economic control of oxic/anoxic phases)
- Solids Handling capability
- Special impeller for low shear pumping action
- Excellent directional mixing patterns
- High alpha factors in specified effluents
- Inexpensive installation, no guiderails or lifting chains required
- Sub surface aeration action at full liquid depth with reduced emissions to atmosphere
- Proven references UK and overseas

**Aquabio Limited** can provide some or all of the necessary services and equipment for the 'Turnkey' Jet Aeration Package:

- Testing and pilot trials
- Design & engineering services.
- Supply & Installation of turnkey Jet Aeration & Mixing systems.
- Performance improvement/Uprate of existing under performing Aeration & Mixing systems.



To prepare proposals for your aeration requirement for a particular site we require the following information:

**Company Details**

Company name :	
Contact name :	
Site Location :	
Address :	
Postcode :	
Telephone :	
Fax :	
E Mail :	

**Wastewater/Sludge type :** .....

**Source(s) of Wastewater/Sludge :** .....

**Is there Primary treatment/settlement/**

**Pre-screening before Aeration/mixing :** .....

**Preferred or existing aeration reactor/tank characteristics ?**

Tank Aspect e.g. rectangular, cylindrical etc. ....

Base details e.g. flat, sloping (attach sketch) .....

TWL, Top Water Level (Min. and Max. for design) .....

Tank/reactor materials of construction .....

Dry, submersible, or 'drop-in' Jet system required .....

**Design of System**

Please specify your aeration design requirement (attach all supporting data where possible):

Parameter	Minimum	Average (24hrs)	Peak	Units
Standard Oxygen Transfer Requirement (Clean Water)				KgO <sub>2</sub> /hr
Actual Oxygen Transfer Requirement (into MLSS)				KgO <sub>2</sub> /hr



Residual Dissolved Oxygen				mg/l (p.p.m.)
Derived or assumed Alpha factor (if known)				
Derived or assumed Beta factor (if known)				
Wastewater pH Range				
Ambient Air Temperature Range (For air inlet design requirement)				°C
Wastewater Temperature				°C
Mixed Liquor Concentration (MLSS)				mg/l (p.p.m.)
Mixed Liquor Volatile Suspended solids (MLVSS)				mg/l (p.p.m.)
Fats, Oil & Grease				mg/l (p.p.m.)
Chloride				mg/l (p.p.m.)
Phosphate				mg/l (p.p.m.)
Sulphate (SO <sub>4</sub> <sup>2-</sup> - S or SO <sub>4</sub> <sup>2-</sup> )				mg/l (p.p.m.)
TKN (Total Kjeldhal Nitrogen)				mg/l (p.p.m.)
Ammonia				mg/l (p.p.m.)

**N.B. Should you have difficulty calculating SOR/AOR and only have basic process information (i.e. Flow rates, BOD<sub>5</sub>, COD<sub>Total</sub>, COD<sub>soluble</sub>, pH, TSS etc.) then please provide this data.**

**Does existing aeration system already exist ?** If so, please give details (type, design SOTR/AOR, blower sizes/pressures etc):

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 .....  
 .....

Please provide site layouts/diagrams (incl. existing foul/trade drainage), wastewater collection, storage and/or handling details if available, **SPACE AVAILABILITY MAY BE IMPORTANT.**

**Is pressure to act from :**

- Local Authority Yes/No
- Water Authority Yes/No
- EA Yes/No
- Cost Saving/Payback Yes/No
- Age/under performance of existing system Yes/No

**PLEASE RETURN TO : AQUABIO LIMITED**