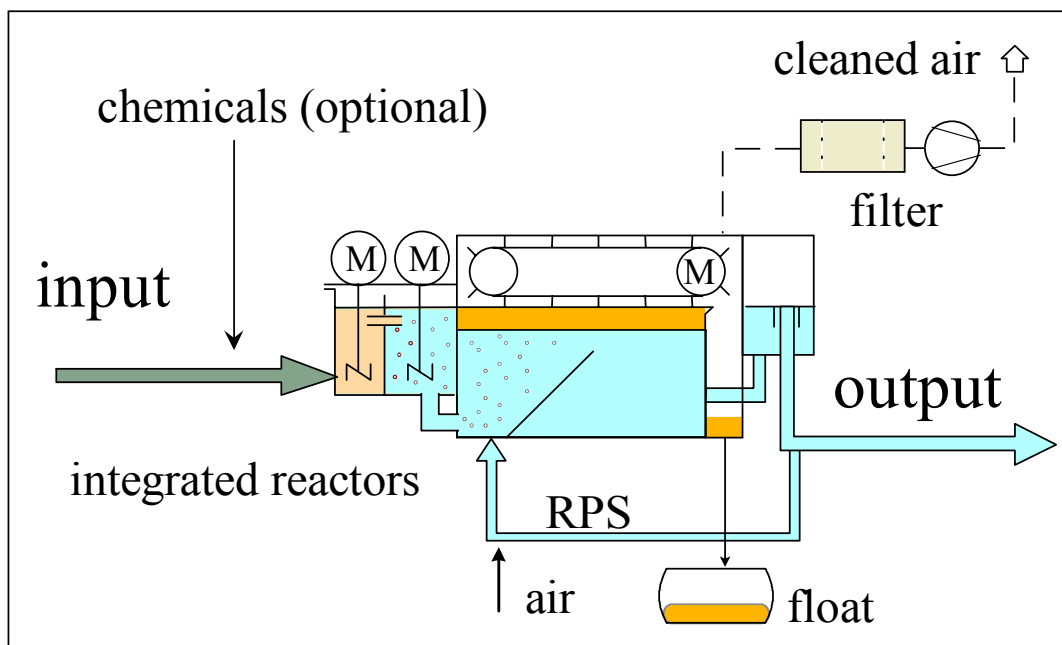


## ADVANCED

# DISSOLVED AIR FLOTATION (ADAF) ©



### The Problem

#### High Concentrations of COD and BOD

Wastewaters of food processing industries such as poultry, meat, bakery, dairy and slaughter houses do not normally contain hazardous compounds, but are often characterized with high concentrations of fats, blood and food remains, that cause very **high concentrations** of Chemical Oxygen Demand (**COD**) and Biological Oxygen Demand (**BOD**). Companies with such wastewater are faced with the problem of economically treating this wastewater for sewer or direct discharge.

### The Solution

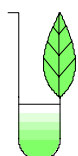
#### Advanced Dissolved Air Flotation

Our **Advanced Dissolved Air Flotation** (ADAF) separates, with its micro air bubbles, dispersed fats often without using chemicals such as ferric or aluminum chloride and lime. The separated fats can then be recycled with no remaining inorganic sludge to be disposed of and a 70% COD & BOD reduction is achieved. Over the last ten (10) years, our proven track record documents that this innovative unit operation is not only efficient and reliable but also extremely cost effective.

### The Process

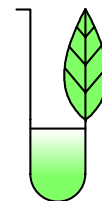
#### Flexible and Customized

Our ADAF purifies the wastewater during a real-time process. Depending on **customer's needs**, our ADAF technologies can also be designed using chemicals and the reactors may be attached to the flotation tank for process simplicity (see diagram). Our ADAF units are equipped with a programmable logic controller (PLC) for fully automated operation. Due to modular construction our ADAF is **flexible** and adaptable to existing plants.



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## Innovative and Advanced R P S

The flotation plant pictured below was built for a poultry meat-processing factory. It has a throughput capacity of 50 m<sup>3</sup>/h and is equipped with a new advanced **Recycle Pressurization System (RPS)** that eliminates the need for an air compressor. It is also equipped with a self cleaning system and made of stainless steel to meet hygienic requirements.

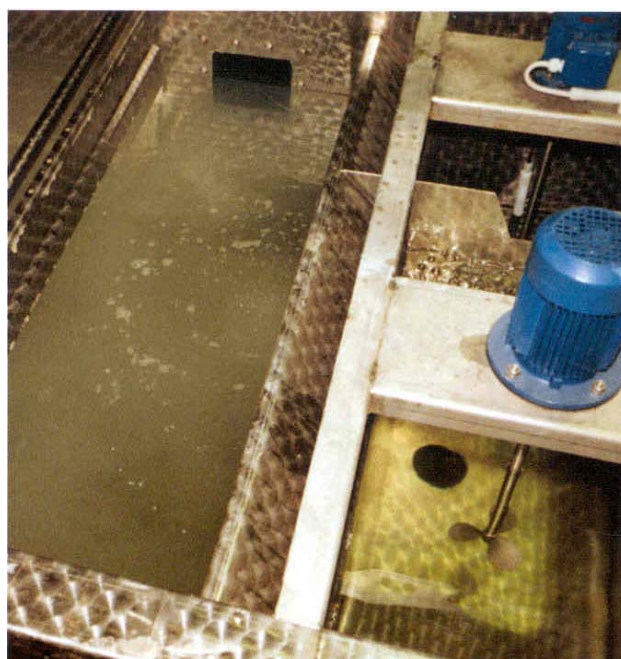


### Advantages of Our Flotation:

- No air compressor is needed
- Equipped with a self cleaning system
- Equipped with a spent gas cleaning system
- Integrated chemical reactors
- Cost effective
- High purification performance
- Flexibility due to modular construction

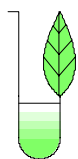
## Integrated Chemical Reactors

The picture below shows the construction of our advanced flotation technology. **Two reactors are attached to the flotation tank.** The milky color in the flotation area to the left of the mixers is caused by the micro air bubbles, which effectively separate dispersed fats. Our flotation tanks are covered and equipped with a spent air purification system to avoid odors.



### Furthermore We Provide Consulting, Engineering & Construction for:

- Pollution prevention
- Wastewater remediation
- Recycling of wastewater
- Waste treatment
- Purification of spent air/gas and odor control
- Recovery of recyclables
- Chemical analysis systems



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