

# EfloDAF Dissolved Air Floatation

## Advantages

### Typical Removal Rates

TSS : 85 - 90 %  
 BOD : 65 %  
 FOG : 98 %

High pressure, multi stage recirculation pump

Air injection pump for delivery of micro air bubbles (< 100 micron) avoiding the requirement of a dissolved air system with associated pressure vessels, flow monitoring and air compressor.

Fine, easy clean filter to protect high pressure pump.

Separate skid mounted chemical dosing unit for the injection of flocculant & polymers. Complete with flow mixing and retention necessary for building the floc. Fitted with inlet PN10 flange for customer's inlet pumps.

Chemical dosing available for flocculant, polymer and pH adjustment.

Efficient, variable speed surface scraper mechanism complete with low power motor/gearbox unit and corrosion resistant chain drive.

Choice of material for process vessel including protected mild steel or stainless steel.

Fully automatic operation.

Skid mounted, fully piped and wired to a single control panel controlling the chemical dosing, process pump, air injection pump and scraper mechanism.

All electro-mechanical components are from major European companies including Grundfoss, Danfoss, Nord, Wilo & Siemens for an exceptional long and reliable operating life.

## General Description



EfloDAF uses the principle of air floatation to separate contaminants from waste water streams.

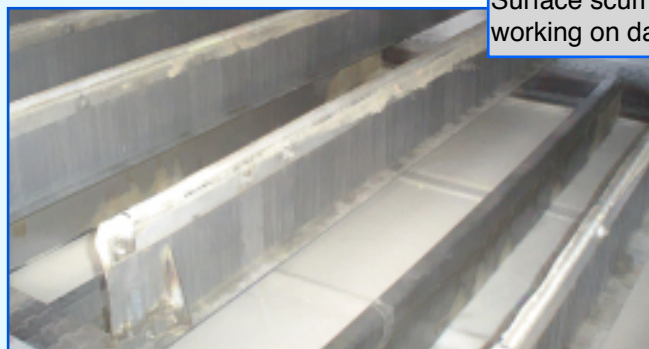
Contaminants such as emulsified oils and greases are first broken from suspension using chemical coagulants such as Ferric or PAC depending on jar tests. These small contaminating particles are united using flocculant dosing to create larger particles.

These particles are not dense enough to settle by gravitational methods but are instead persuaded to float to the surface of the tank by the introduction of minute air bubbles. The bubbles emerge at the base of the tank and attach themselves to the flocculated particles and float to the surface as a thick scum.

This surface scum is scraped to a collection chamber, leaving a clean water discharge.

Typical applications would include : Food Manufacturing, Oil Field Produced Water, Metal Finishing, Cargo & Car Wash, Dairy, Mining, Brewery, Vegetable oil and Salad Oil Production.

Eflo DAF is a key process component in industrial water re-use systems achieving significant oil and solids removal as well as reductions in COD / BOD.



Surface scum scrapers working on dairy waste

## Eflo - About Us

**Eflo International Ltd, UK.** Designer and of advanced wastewater treatment systems.

**Eflo** has designed & installed treatment plants in the Middle East, Africa, Caribbean the Indian Ocean islands over a period of more than 30 years.

As well as the **EfloDAF**, **Eflo** offers a range of other innovative waste water treatment products and water recycling systems.

**Eflo** is part of the Concorde Corodex Group of companies and through this group can offer bespoke, potable, water treatment plants including River Water Treatment and Seawater Reverse Osmosis. Water treatment plants for small communities to large towns.

### EFLO Processes :

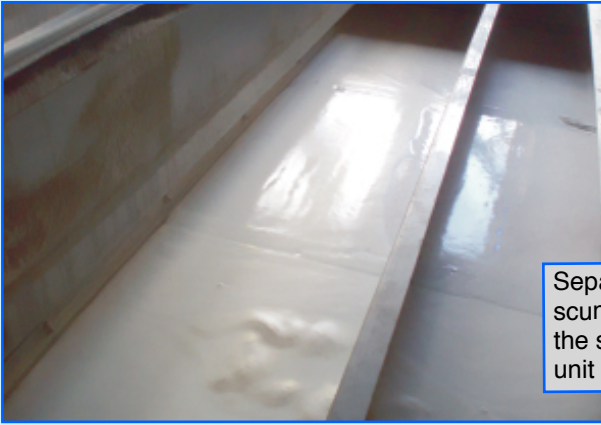
- EfloCT** Extended Aeration
- EfloSAF** Submerged Aerated Filter
- EfloSBR** Filandraw Sequential Batch Reactor
- EfloMBR** Membrane Bio-Reactor
- EfloDAF** Dissolved Air Floatation
- EfloSEP** Oil Water Separation
- EfloEC** Electro - Coagulation
- EfloGREY** Grey Water Re cycling
- EfloOdour** Bio & Chemical Odour Control

### Exclusive Agents for:

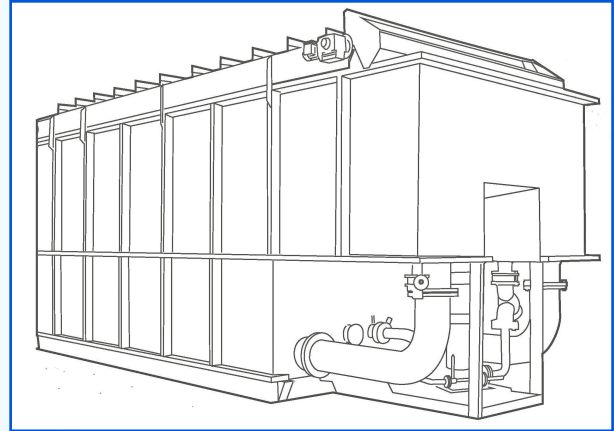
- Fosco** Autoclaves for Solid Waste Treatment & Recycling
- Ekoton** Screens & Sludge de-watering equipment
- Powell Water Systems** Electro Coagulation

# EfloDAF Dissolved Air Floatation

## Technical Data and Model Sizes



Separated and floating scum being scraped from the surface of the DAF unit to a sludge tank.



Parameter	Unit	FT-5	FT-10	FT-20	FT-25	FT-50	FT-75	FT-100
Capacity	m <sup>3</sup> /hr	5.00	10.00	20.00	25.00	50.00	75.00	100.00
Dimensions	m	2.1 x 1.7 x 2.1	2.8 x 2.1 x 2.4	3.3 x 2.4 x 3.1	3.3 x 2.4 x 3.6	5.9 x 3.0 x 4.1	7.6 x 3.0 x 4.1	9.3 x 3.0 x 4.1
Weight (Max)	Kg	2,000	3,000	4,000	5,000	8,000	9,000	11,000
Working Volume	m <sup>3</sup>	2.50	5.00	10.00	12.50	25.00	37.50	50.00
<b>Re-Circulating Pump - Grundfoss</b>								
Capacity	m <sup>3</sup> /hr	2.00	4.00	8.00	10.00	20.00	30.00	40.00
Pressure (Min)	m	80.00	80.00	80.00	80.00	80.00	80.00	80.00
Power (Max)	Kw	1.5	2.0	4.5	5.5	8.0	11.5	15.5
<b>Scraper Motor/Gearbox - Nord</b>								
Power (Max)	Kw	0.5	0.5	0.5	0.5	0.5	0.5	0.75
<b>Treatment</b>	<b>Treatment Without Chemical Dosing %</b>				<b>Treatment With Chemical Dosing %</b>			
Suspended Solids	80				85 - 95			
Fats	70				98			
Oil & Grease	70				98			
BOD	50				65			

### Options:

Every EfloDAF installation will vary in some way depending on customer needs. Eflo can advise on the following id required:

Raw water inlet screening.

Inlet waste water pumping skid c/w Mono or Seepex positive displacement pumps for accurate flow delivery to chemical mixing skid.

Sludge collection and dewatering.

Treated water polishing for re-use.



Eflo International Ltd

Part of the Concorde Corodex Group of Companies

Advanced Waste Water Treatment & Water Re-Use Systems

### UK OFFICE :

The Colin Sanders Innovation Centre  
Mewburn Road, Banbury, Oxfordshire,  
OX16 9PA, UK  
Tel + 44 (0) 1295 817623  
Fax + 44 (0) 872 115 6890  
Email: info@eflo.com

### Middle East Offices :

Dubai	Tel: +971 (0) 4 3479895	Fax: +971 (0) 4 3479896
Abu Dhabi	Tel: +971 (0) 2 666870	Fax: +971 (0) 2 6667863
Sudan	Tel: +249 (0)183 479030	Fax: +249 (0)183 479031
Oman	Tel: +968 (0) 24497203	Fax: +968 (0) 24495293
Qatar	Tel: +974 (0) 4694340	Fax: +974 (0) 4694467
Jordan	Tel: +962 (0) 655422968	Fax: +962 (0) 65542967