

DISSOLVED AIR FLOTATION – DAF Units

Separation of suspended solids, fats, oils and grease from heavily polluted wastewater.

Eleven models, 22 to 770 GPM (up to 1.1 MGD).



Floated and settled
solids recovered



Lamellar pack,
compact footprint



High dry-matter
float



Call Us Today
1-855-650-2214



Email Us
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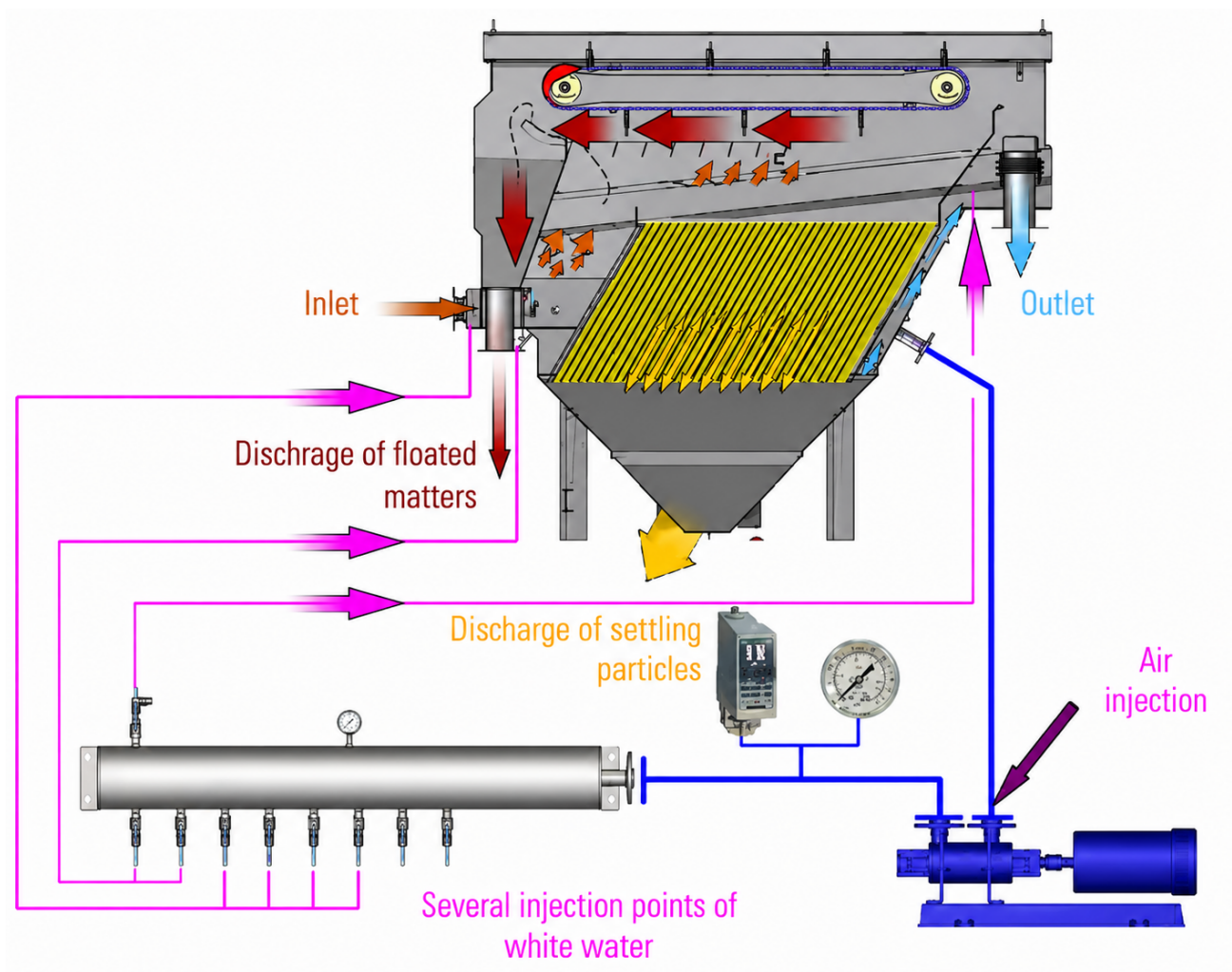


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OPERATING MODE

A dissolved air flotation unit uses microbubbles to separate suspended solids and grease from water. Air is dissolved into water under pressure; when that air-saturated water meets the raw feed, very fine bubbles come out of solution and give the mixture a milky appearance, known in the industry as white water.

The bubbles attach to solid particles and lift them to the surface, where a scraper moves them into a discharge hopper. Heavier particles that settle are drawn off separately, so floated and settled solids both leave the unit, as waste with a high dry-matter content.



- 1 White water injection**
Air-saturated water is introduced at several points along the tank
- 2 Lamellar separation**
The plate pack multiplies the separation area inside the same tank
- 3 Settled solids discharge**
Heavier particles are drawn off from the bottom of the tank

Coagulation and flocculation additives can be dosed ahead of the unit, which is what makes flotation effective on effluent carrying high grease, COD and suspended-solids loads.

FEATURES & BENEFITS



1 Lamellar pack in a compact frame

A lamellar plate pack multiplies the separation surface inside the tank, so the unit treats the same flow on a much smaller footprint than an open flotation basin of equal capacity.

2 Solids recovered top and bottom

Surface scraping and bottom discharge work in the same tank, so floated grease and settled particles are both removed in one pass.

3 Economical maintenance

Few wear parts, full access to the skimmer and simple operation keep the service burden and the operating cost low.

4 Pre-treatment for heavy loads

Sized as a pre-treatment step ahead of biological treatment, the unit strips grease, COD and suspended solids from effluent that would otherwise upset the downstream plant.



5 Eleven-model range

Eleven unit sizes cover flows from 22 to 770 GPM, so the tank is matched to the flow actually arriving instead of being oversized for it.

6 Built for chemical dosing

The unit accepts coagulation and flocculation additives ahead of the flotation tank, which lifts separation performance on the most heavily loaded effluent.



APPLICATIONS

A range of eleven flotation units covers effluent from lightly loaded to heavily polluted, with unit flow rates up to 1.1 MGD.

Food industry

Dairies, slaughterhouses, fish processing

Petrochemical

Refinery and process effluent

Paper

Mill process and white water

Textile

Dye house and finishing effluent

Municipal WTP

Primary and pre-treatment duty

Sludge thickening

Flotation thickening of surplus sludge

SPECIFICATIONS

PROCESS

Dissolved air microbubbles (white water)

Injection at several points along the tank

Lamellar plate pack for added separation area

RANGE

Eleven unit sizes

Flow 22 to 770 GPM (up to 1.1 MGD)

CONDITIONING

Coagulation and flocculation additives



Deltec units in industrial pre-treatment service

Unit selection depends on flow, solids and grease loading, and on the conditioning used upstream. Send your effluent data and we will size the unit and confirm the model.

ALSO FROM AQUALITEC

DAF range

Altec, Deltec, Gamtec, Sigtec

Screening equipment

Screenotec, Raketec, Drumtec, Spiraltec, Compactec, Washtec, Grittec

Sludge equipment

Omega belt filter presses, decanter centrifuges, screw presses



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