

DISSOLVED AIR FLOTATION

CIRCULAR



CIRCULAR DAF

Kusters Water / Hi-Tech offers a complete line of dissolved air flotation (DAF) systems. Ideally suited for liquid-solid separation in many industries, including separation of free oils and grease. The Hi-Tech DAF units are designed for effective removal of total suspended solids (TSS), biochemical oxygen demand (BOD) and fats, oils and grease (FOG).

DAF units are custom designed based on flow rates and solids loading. Materials of construction available include: Epoxy coated steel, 304 SS and 316 SS.

HIGHLY EFFICIENT

80 to 90% Capture of Suspended Solids Without Chemical Addition

90 to 98% Capture of Solids With Chemical Addition (Typically a Polymer)

3.5 to 5.5% Float Thickness (WAS - Solids Concentration)

85 to 90% Air Dissolution Capability

80 to 90% Oil and Grease Removal

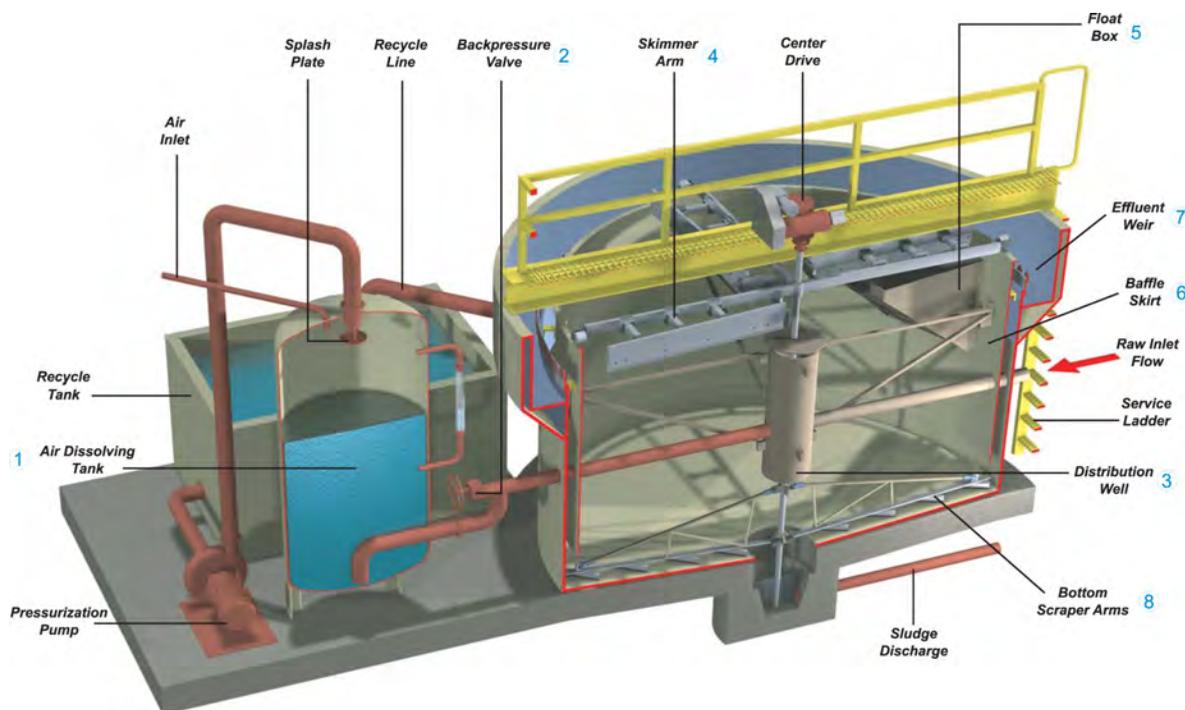
50 to 80% B.O.D. Reductions



Water and Wastewater Equipment by: WASTE-TECH HI-TECH

HOW IT WORKS

Air dissolution occurs within the air dissolving tank (1) that is receiving either pumped raw flow or pumped recycle flow that will be mixed with compressed air or gas. The air/water mixture is then held under pressure in the air dissolving tank by a backpressure valve assembly (2). The backpressure valve injector releases the pressurized flow near the center of the flotation unit into a distribution well (3) which allows the dissolved air to come out of solution in the form of microscopic bubbles. These small bubbles attach themselves to suspended solid particles contained in the waste stream and float them to the surface of the cell. The accumulated float is collected on the surface by multiple skimmer arms (4) which move the solids into the float box (5). The clarified water exits the tank by passing down under a full diameter baffle skirt (6), then rises up and over a peripheral effluent weir (7) and out of the tank. Heavier solids that may settle to the basin floor are collected and removed with the rotating scraper arms (8).



PROVEN APPLICATIONS

Aircraft Maintenance
Algae Removal
Automotive
Ballast Water Treatment
Canning
Chemical Processing
Cheese Processing

Clarifier Replacement
Durable Goods
Food Processing
Heavy Metals Removal
Meat Packing
Mining
Pet Foods

Poultry Processing
Power Plants
Prepared Foods
Pulp And Paper
Railroads
Refinery
Rendering

Seafood Processing
Snack Foods
Sludge Thickening
Stockyard And Feedlot
Tanning
Textile
Trucking Industry

For more information call **864.576.0660**
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