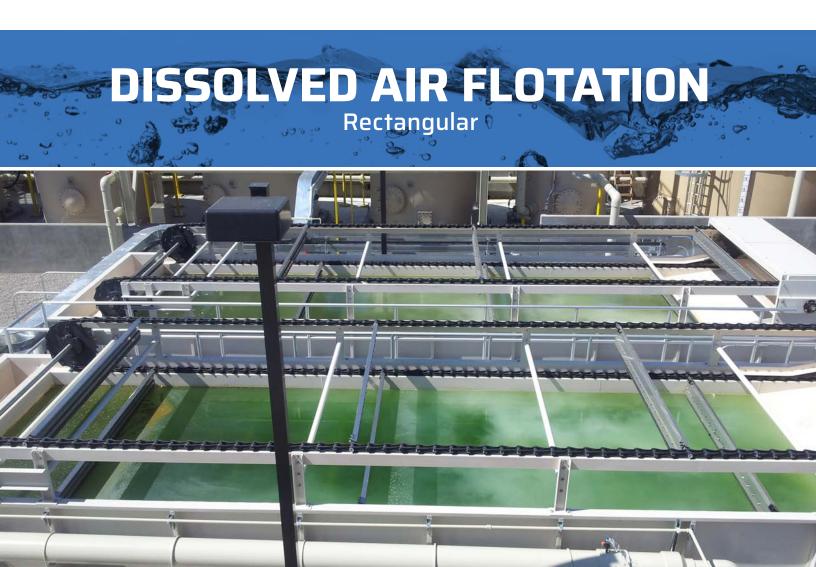


# **KUSTERS WATER DIVISION**

Headworks | Thickening | Clarification | Biosolids | Odor Control | Biological



### **DISSOLVED AIR FLOTATION (DAF)**

Kusters Water 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 DAF units are designed for effective removal of total suspended solids (TSS), biochemical oxygen demand (BOD) and fats, oils and grease (FOG).

Tank designs are offered in standard sizes based on flow rates. Materials of construction available include: Epoxy coated steel, 304 SS and 316 SS. All chain and flight components are non-metallic, low maintenance.

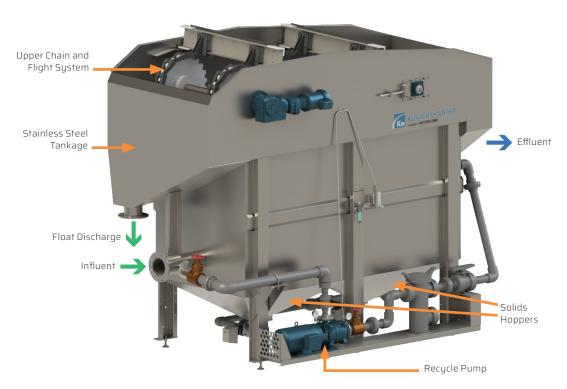
## **Highly Efficient**

- 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

#### PRINCIPLE OF OPERATION

Raw influent is introduced into the DAF cell, 20-100% of the clarified effluent is recycled with the recycle pump(s). Air dissolution occurs within the specially designed multi-phase recycle pump or using a conventional air dissolution system including an air compressor, recycle pump and air dissolution tank. The recycled air/water mixture is then injected at the point of raw influent and into the DAF cell, allowing the microscopic bubbles to attach to the suspended solids. The floated solids accumulate on the surface of the DAF. A non-metallic surface skimmer, with multiple collection flights, collects the floated solids and pushes them into the float collection trough located at the

adjacent end of the DAF cell. The clarified water exits the tank. Heavier solids that settle to the tank floor are collected and removed via hoppers.



### **PROVEN APPLICATIONS**

Aircraft Maintenance Algae Removal Automotive **Ballast Water Treatment** Canning

**Chemical Processing** Cheese Processing

**Durable Goods** Food Processing Heavy Metals Removal Landfills 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

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