

# DAF WHITEWATER SYSTEM®

## ADVANCED DISSOLVED AIR FLOTATION TECHNOLOGY

### PERFORMANCE GUARANTEED

The innovative and proven **DAF Whitewater System®** technology was developed by Water Resources, Inc. to provide wastewater treatment solutions for suspended solids, fats, oils, BOD, COD and metals.

#### INNOVATIVE TUBE FLOCCULATOR

Wastewater is pumped into the **DAF Whitewater System®** flotation cell through the innovative tube flocculator. Treatment chemicals are injected into the tube flocculator to achieve maximum liquid - solids separation under easily controlled process conditions.

#### DAF WHITEWATER SYSTEM®

A portion of the DAF clean, treated water is recycled with a **whitewater** pump. 0.1 - 0.3 cfm air is injected into the pump at 100 psi, creating microscopic air bubbles called **whitewater** because the air-saturated water is white. The **whitewater** is injected into the tube flocculator.

Characteristic	Untreated (mg/L)	Treated (mg/L)
pH	11.2	8.9
TSS	1672	18
Oil & Grease	2480	16
BOD	432	124
COD	1120	312
Cadmium	0.18	<0.02
Chromium	0.24	<0.02
Copper	1.16	<0.10
Lead	0.87	<0.10
Nickel	0.48	<0.05
Zinc	1.93	<0.03

Typical results of a DAF Whitewater System®



200 GPM STAINLESS STEEL **DAF WHITEWATER SYSTEM®**  
DIMENSIONS WITHOUT STAIRS: 13'L X 9'W X 9'H

#### HIGH MIXING ENERGY INCREASES EFFICIENCY

The high mixing energy created by the **whitewater** in the tube flocculator increases chemical treatment efficiency and reduces the time required for flocculation of the waste particles. This process eliminates the need for chemical reaction tanks and mixers.

#### DAF WHITEWATER SYSTEM® FLOTATION CELL

In the tube flocculator, the **whitewater** encapsulates the flocculated waste particles, making them highly buoyant. The buoyant flocculated waste particles rise rapidly to the flotation surface and are skimmed into the float solids sump, ready to dewater.

#### HIGH FLOW RATES

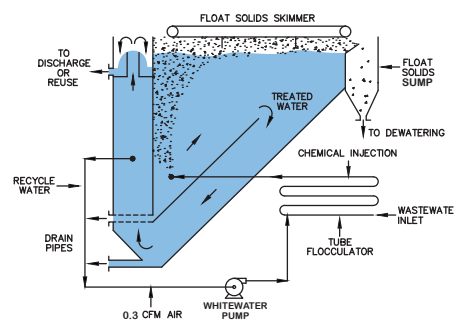
Because of the rapid rise velocity of the flocculated particles in the DAF flotation cell, less surface area is required. Flow rates of 4 - 6 gpm per square feet of surface area are easily achieved.

#### HIGH QUALITY TREATED WATER CAN BE REUSED

Because the **DAF Whitewater System®** treated water is high quality, the water can be reused in the plant process.

#### UPGRADING CONVENTIONAL FLOTATION SYSTEMS

Most conventional flotation systems can be upgraded to a **DAF Whitewater System®** process by installing a **whitewater** pump, air injection system and tube flocculator to replace chemical reaction tanks and mixers. Results are higher DAF flow rates, high quality treated water and low treatment cost.



#### SYSTEM DIAGRAM

DAF WHITEWATER SYSTEM®  
DAF'S FROM 50 TO 1000 GPM

