

Project Profile

Springdale AR Poultry Processor

edge™ Allows Chemical Reduction
and Improves Sludge Density

APPLICATION

One 1100 GPM Dissolved Air Flotation system.

THE PROCESS

Dissolved air flotation (DAF) is a water treatment process that clarifies wastewater by the removal of suspended matter such as oil, grease or solids. The removal is achieved by dissolving air in the water or wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank or basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device.

THE PROBLEM

Polymers, and coagulant are used in significant quantities to improve effluent quality and thicken sludge. Chemical costs and sludge hauling costs are very high for poultry processing operations.

CUSTOMER PROFILE

One of Springdale Arkansas major poultry processing facilities.

CREATIVE SOLUTION

This plant has no pipes to accommodate the Edge Reaction Chamber so GWS engineering department designed a twin submersible Reaction Chamber which could be mounted in the concrete channel prior to the DAF.

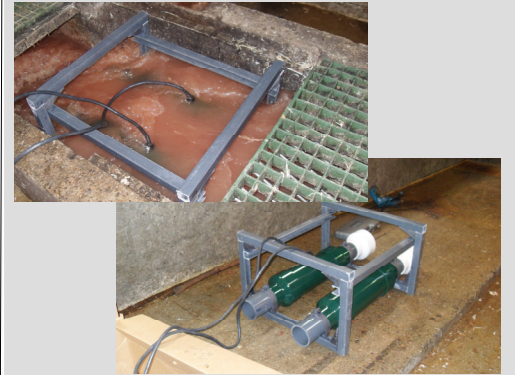
RESULTS

The first day the Edge submersible system was commissioned results were evident in the DAF performance. Over the next few days GWS technician's adjusted the output signal to maximize the benefit.

- Reduced Coagulant 30%
- Reduced Cationic Polymer 12%
- Reduced Anionic Polymer 12%
- Improved Sludge quality
- Maintained Excellent Effluent Quality

SMART INVESTMENT

Despite low initial chemical treatment cost the Edge system will provide less than a one year return on investment.



Twin 4" Submersible Edge System



Round Concrete Outdoor DAF



Excellent Sludge Quality



DAF Influent

DAF Effluent



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GRISWOLD WATER SYSTEMS