



BRING YOUR DAF TO THE 21st CENTURY

INTRODUCTION

Clean Water Technology, Inc. (CWT) is the creator of the Gas Energy Mixing (GEM) System - the most advanced primary treatment system on the market. As an alternative to replacing existing Dissolved Air Flotation (DAF), CWT introduces “**DAF RETROFITS**” utilizing innovative GEM Technology to provide superior reduction of total suspended solids (TSS), biological and chemical oxygen demand (BOD/COD), fats, oils and grease (FOG) and turbidity.

The **GEM System** offers the only technology on the market capable of handling extreme levels of contaminant loading while providing expansion capabilities within the smallest available footprint.

The GEM System technology is based upon the unique design of the Liquid Solid Gas Mixer (LSGM) Heads which provide superior solid/liquid separation and better overall performance.

So bring your DAF to the 21st century by **RETROFITTING IT WITH THE GEM TECHNOLOGY**

COMPONENTS

By adding CWT's GEM Technology, the following DAF components are used:

- Existing flotation cell
- Original influent and effluent points
- Current chemical system
- Existing sludge process



ADVANTAGES

By adding the GEM Technology to an existing Dissolved Air Flotation (DAF) tank, the following advantages are achieved:

- Better contaminant removal rates
- **Increased system flow throughput**
- **Higher contaminant loading capability**
- Drier % solids generation
- Decreased chemical usage
- Reduced solids hauling costs
- Lower surcharges
- Reduced secondary treatment costs and challenges

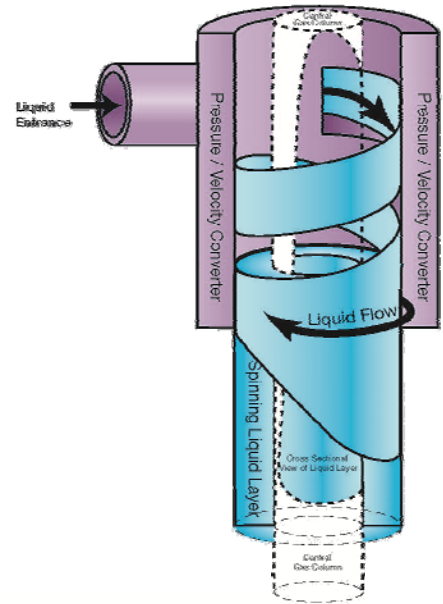


DAF RETROFITS USING GEM TECHNOLOGY ARE SUITABLE FOR ALL SIZES AND TYPES OF EXISTING DAF'S.

PRINCIPLES OF THE GEM TECHNOLOGY -LSGM HEADS

The GEM Technology – LSGM’s heads provide extremely energetic mixing by sequentially transferring liquid “particles” (down to molecular size) throughout a centrifugally rotating liquid layer. Individual molecular sized particles act as specific mechanical mixing elements when exposed to the axial and radial forces inside the LSGM heads. As air is ingested into 100% of the wastestream under pressure, bubbles of the smallest size are created to which the waste particles attach at a higher rate than conventional DAF technology. By the time the wastestream exits the final LSGM head, solids and liquids are already separated. The LSGM principles provide the following:

- Reduced impurities in the effluent
- Reduced chemistry that is added to collect those impurities.
- Better use of air induction to float the chemistry, impurities and resultant sludge
- Higher % of solids in resulting sludge



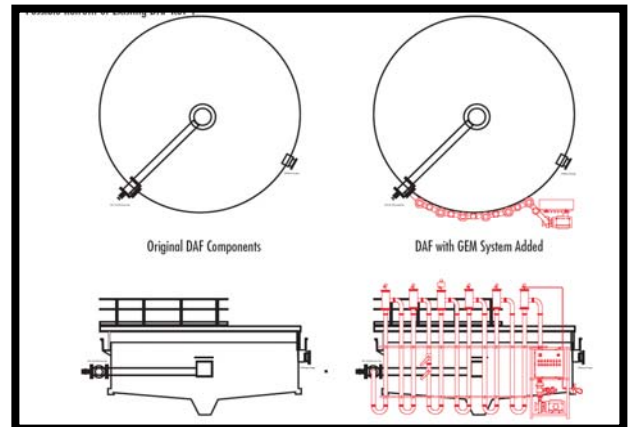
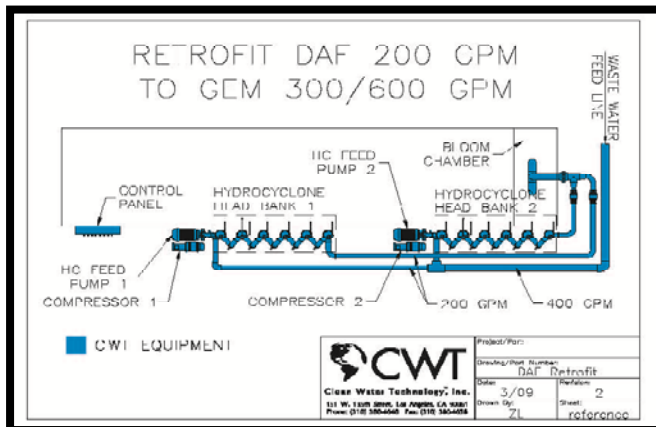
RETROFIT DESIGN

To retrofit an existing DAF, CWT can work off of the following:

- Drawings or Measurements of the Existing DAF and Floor Plan of Building
- Details of Existing EQ tank, pH System, Chemical Units, Influent and Effluent points to DAF and Sludge Unit

CWT and Client then add:

- The GEM Technology - LSGM bank(s) to existing DAF
- Bloom Chamber inside tank
- Control Panel
- Feed pump
- Air compressor



RETROFIT YOUR DAF AND GET THE LATEST, MOST SUSTAINABLE TECHNOLOGY IN YOUR PLANT

LET CWT HELP YOU TO START SAVING MONEY AND GET IN COMPLIANCE TODAY

