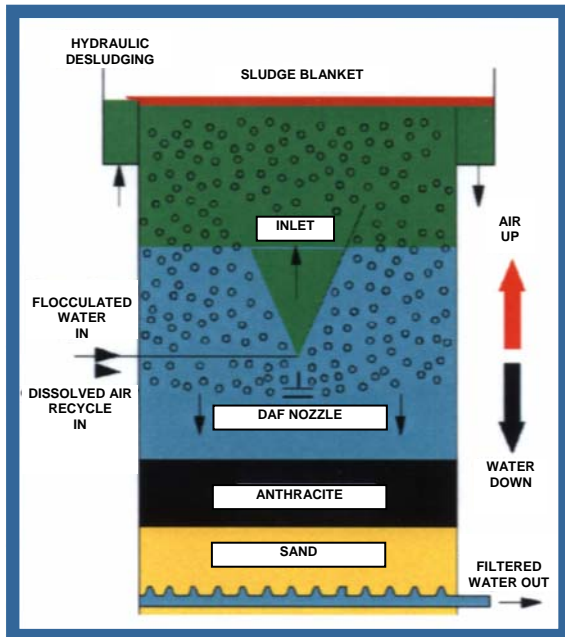


CONTROL CURRENT DISSOLVED AIR FLOTATION AND FILTRATION

Counter Current Dissolved Air Flotation and Filtration is a radical advance from current DAF and combined DAF and filter technologies.



With **Counter Current Dissolved Air Flotation and Filtration**, incoming coagulated raw water and air saturated recycle water flow counter current too each other. Coagulated raw water enters the cell at high level and is distributed evenly over the whole area via a unique distribution system. Recycled water is distributed via special nozzles installed just above the filter media. The nozzles create a bubble blanket rising uniformly over the whole tank area down through which coagulated raw water must pass. Floc capture occurs in the bubble blanket and floated sludge rises to the tank surface, forming an exceptionally stable floated sludge layer. Having passed through the blanket, floated water enters the zone below the recycle nozzles and then on through the filtration stage. The bubble blanket is central to the process and achieves two objectives:

- Completes the process of flocculation.
- High bubble concentration greatly increases the opportunity for floc formation.

Counter Current Dissolved Air Flotation and Filtration

- Exceptionally compact design
- High flotation efficiency
- Very low capital cost
- Flexible operation in response to raw water Quality variations
- Reduced M&E content
- DAF retrofit into existing filter shells
- Reduced external flocculation time



Advantages

- High rates, 10-15m/hour normal
- Enhanced floc capture in bubble blanket
- Reduced floc damage
- Tightest guarantees can be offered
- Reduced flocculation times
- Small footprint: 55% of conventional DAF/Filtration and 70% of other in-filter DAF Systems
- Low capital cost
- A common flocculation chamber for several DAF units
- Flexible operation: DAF process can be turned on as necessary for seasonal algal blooms
- Recapture of knocked down sludge
- Hydraulic flocculation
- Hydraulic De-sludging
- Packed design available
- Potential retrofit into existing filters