



THE EXPERIENCED LEADER IN SEQUENCING BATCH REACTOR TECHNOLOGY

TRUST FLUIDYNE'S EXPERIENCE

The Fluidyne ISAM™ Sequencing Batch Reactor (SBR) system incorporates the latest technology and two decades of experience in providing the most reliable system with the highest effluent quality. Fluidyne SBR systems have operated around the World and won numerous awards including the 1997 USEPA Grand Award for the best operated and maintained WWTP in the Nation in the Large, Non-Discharging (water reclamation) category for the Bartow, Florida plant. Fluidyne SBRs consistently provide better than 10/10/5/1 (BOD5/TSS/N/TP) effluent quality. The Bartow plant has consistently produced better than 3/3/3/1 effluent quality.

A TOTALLY NEW CONCEPT IN SBR DESIGN

The Fluidyne ISAM™ Sequencing Batch Reactor system is a single train SBR system which incorporates a constant level anaerobic selector chamber, followed by a surge/anoxic/mix (SAM™) tank, and one or more SBR basins.

In operation, all influent flow enters the anaerobic basin where influent solids are allowed to settle much like a primary clarifier. Elimination of primary solids in the anaerobic basin allows for much smaller SBR basins at equivalent SRT than conventional SBRs. The anaerobic selector also creates soluble carbon as a food source for biological nutrient removal through anaerobic conversion of settleable BOD to soluble BOD.

The influent then flows to the SAM™ surge basin, or influent equalization basin. The surge basin provides flow and nutrient equalization to optimize treatment at the full range of flows and loadings.

Several unique features of the Fluidyne ISAM™ SBR include odor control and scum skimming. Mixed liquor is maintained in the SAM™ tank to immediately react with incoming flow from the anaerobic chamber to suppress odors and initiate and accelerate carbon and nitrogen reactions. Mixed liquor is recycled from the top of the SBR tank effectively removing scum by use of proprietary flow and scum control system. In addition, nitrates are recycled to the SAM™ tank for effective and rapid denitrification. Denitrification reactions are accelerated in the presence of the unreacted carbon from the raw sewage entering the SAM™ tank. Aeration and energy requirements are reduced as nitrates are fully reduced to nitrogen gas in the SAM™ tank.

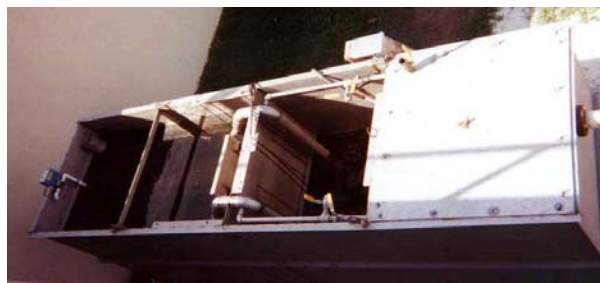
FLUIDYNE PREPACKAGED SBRs

The Fluidyne prepackaged ISAM™ SBR is available for average influent flows from 1,000 GPD to 50,000 GPD. Each unit is shipped complete; prewired and prepped.



100% ON-LINE STANDBY EQUIPMENT

Fluidyne's prepackaged ISAM™ SBRs are furnished with spare mixing/fill pump and aerator assembly installed for 100% redundancy.



REDUCES WASTE SLUDGE BY 75%

The Fluidyne ISAM™ Sequencing Batch Reactor incorporates an anaerobic selector chamber with the SAM™ SBR. The anaerobic selector not only provides consistent phosphorous removal by subjecting the recirculated biomass to anaerobic conditions, forcing the release of phosphorous, but also creates soluble carbon as a food source for phosphorous removal through anaerobic conversion of settleable BOD to soluble BOD. Additionally, anaerobic sludge digestion occurs in the anaerobic selector chamber, reducing waste solids production by up to 75% for the entire secondary process.