

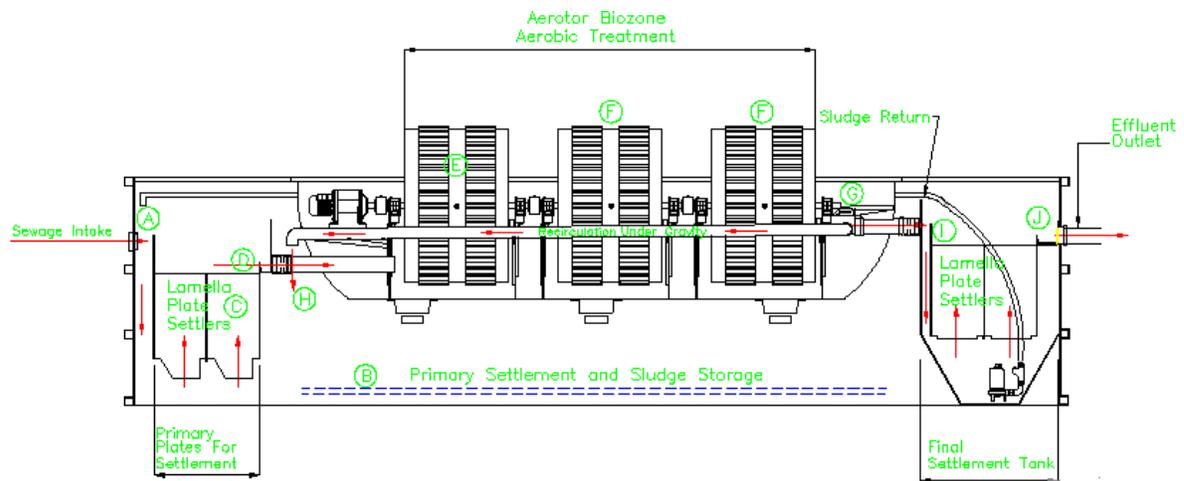
BLIVET SYSTEM AND PROCESS DESCRIPTION

The Blivet is an "all-in-one" packaged sewage treatment plant consisting of primary settlement, sludge storage, aerobic treatment, final settlement.

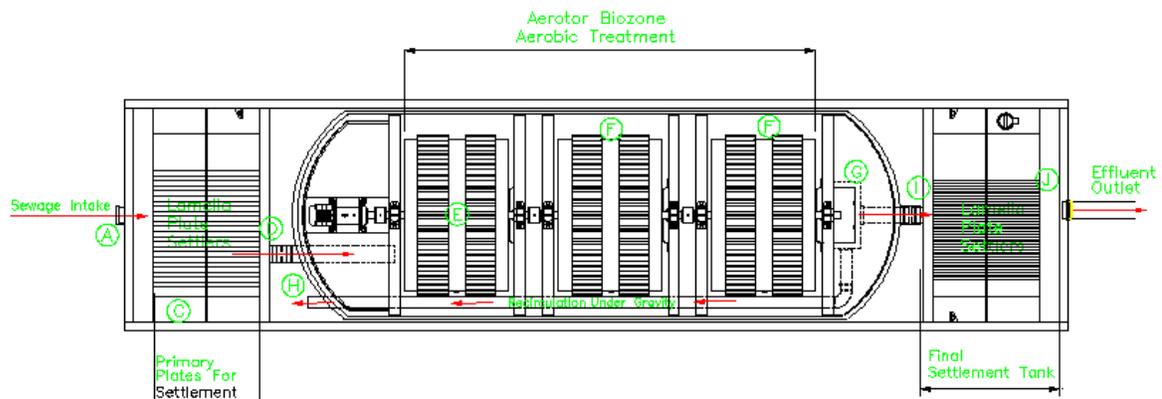
A. Domestic raw sewage enters the Blivet from the Balance tankl and is directed to the bottom of the unit as it hits a baffle that is full tank width; the top edge of baffle is level with the top elevation, or crown, of the inlet pipe and the baffle extends down to approximately 16"mm (0.6299213 in) above the tank bottom.

B. The solids settle in the bottom of the tank to be removed by suction tanker at pre-determined intervals.

C. The supernatant liquid (sewage with gross solids settled) rises hydraulically through parallel or lamella plates. The lamella plates are sloped an optimum 60° angle and placed at 2 inch spacing to prevent the passage of any possible floatables trying to enter the Aerotor unit.



SECTION



PLAN

BLIVET SYSTEM AND PROCESS DESCRIPTION

D. The supernatant liquid passes over a notched weir into a trough and enters the Aerotor.

E. The first section of the Aerotor is effectively a pump; the liquor enters through holes in the outer edge of the rotor, is carried by an intricate patented design of internal vanes, and exits at the opposite side of the rotor at the center. This effectively raises the liquid level by 14.76 in, and thereby allows re-circulation by gravity from the final rotor.

F. The internal vanes of the media are constantly being scoured by the speed of rotation and trapped air bubbles. This self-cleansing velocity of 6 rpm maintains a thin homogeneous biomass growth, preventing excess growth, thereby contributing to process efficiency. The flow pattern induces all the effluent to make contact with the media and biomass before passing to the next stage. Microorganisms, inherent in all sewage, attach themselves to the media of the Aerotor, which is a rotating fixed film reactor, and survive by consuming the "nutrients" suspended in the supernatant liquid. The active aeration process of the rotating drums moves the biomass, which has grown on and in the Aerotor, alternately to the air and into the liquid, which enhances the efficiency of this bio-filter.

G. As the liquor exits the final section of the Aerotor it enters a Splitter Box designed with hand stops which when raised or lowered determine the amount of liquid which can be re-circulated back to the primary settlement zone **H** by gravity flow.

I. The liquor then enters the Final Settlement Area; this area allows for the settlement of small particles. The liquor hits a baffle and deflects to the bottom of the Final Settlement Area where, similar to the Primary Settlement Area, the liquid must travel upwards through a set of lamella plates. The plates in this area are placed at 1 inch spacing and smaller particles are forced to settle. A sludge pump, operated by a timer, is located in this area to remove the small amount of accumulated particles to the main sludge storage area.

J. The treated effluent passes over a notched weir into the discharge trough, exits the unit to either a drainage field or receiving waters.