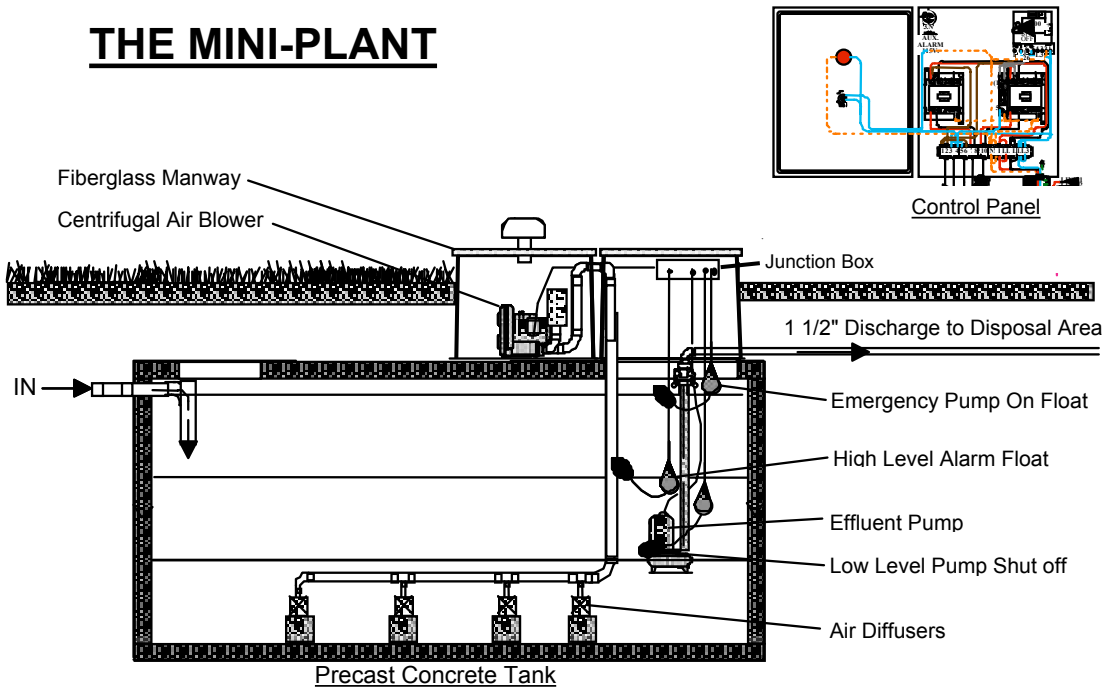




THE MINI-PLANT



Process Description:

The Mini-Plant™ is a Sequential Batch Reactor (SBR) system, controlled by a factory set control panel that programs the aeration, settling, and discharge functions. A batch of treated effluent is discharged to the disposal area once a day.

- The wastewater is exposed to fine diffused air for 20 hours (6 am to 2 am), breaking down the household solids and oxidizing the waste.
- The aeration turns off at 2 am, and the liquid settles in the tank for 3 hours, separating the undigested solids from the processed batch of clear effluent.
- The effluent pump discharges the clear effluent to the disposal area at 5 am for a period of 1 hour, or until the low level shut off float terminates the cycle.
- The process repeats again at 6 am, with the undigested liquid retained in the bottom third of the tank creating an aerobic atmosphere to mix with the new days waste.

Design Parameters:

- **The Mini-Plant™** is certified with the National Sanitation Foundation International (NSFI) as meeting Class 1 status under standard 40. NSFI test results averaged quality effluent of 7 BOD5 and 11 SS.
- **The Mini-Plant™** system complies with the Ontario Building Code (O.B.C.) section 8.6.2.2. and Table 8.6.2.2.A. for secondary effluent, used in conjunction with a Filter or Leaching Bed.
- Filter Bed is sized using the formula $Q/100$ as outlined in 8.7.5.2.(5) of the O.B.C.
- Leaching Bed absorption trenches are sized using the formula $L=QT/300$ as outlined in 8.7.3.1.(3) of the O.B.C.
- The processing tank is a single chamber concrete, plastic, or fiberglass with a total volume capacity of 3 times the daily wastewater flow, installed perfectly level for optimum performance.