

AERATION TANK

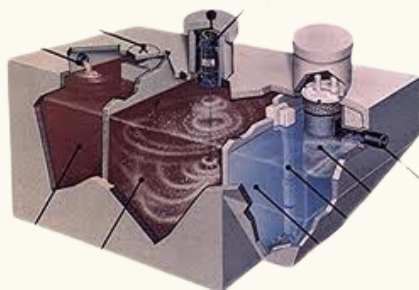
AN AERATION TANK IS A MAJOR COMPONENT OF A HSTS SYSTEM. UNLIKE A SEPTIC TANK, THE AERATION TANK DEPENDS ON AN ELECTRIC MOTOR. THE MAIN PRINCIPLE BEHIND THE OPERATION OF THIS TYPE OF TANK IS AIR INJECTED INTO THE SEWAGE; THE AIR IS UTILIZED BY AEROBIC BACTERIA. AEROBIC BACTERIA WORK TO BREAK DOWN THE WASTEWATER AND CONVERT IT TO ODORLESS LIQUIDS AND GASES. AEROBIC BACTERIA ARE MORE EFFICIENT IN BREAKING DOWN THE WASTEWATER THAN ANAEROBIC BACTERIA FOUND IN A SEPTIC TANK.

COMMON TYPES OF AERATORS FOUND IN THE COUNTY

JET



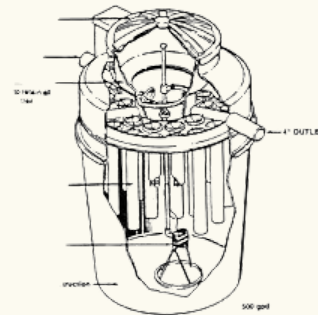
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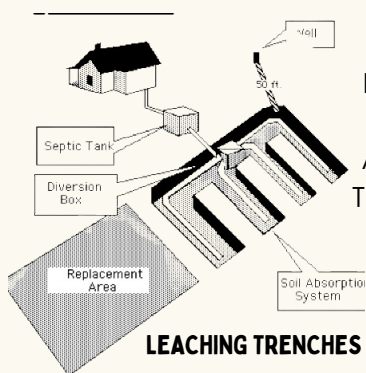


MULTI-FLO



LEACH FIELD

THE WASTEWATER EXITS THE SEPTIC TANK AND ENTERS A DISTRIBUTION BOX (D-BOX) OR BULL-RUN VALVE. SOME OLDER LEACH SYSTEMS MAY NOT HAVE A DISTRIBUTION DEVICE. THE WASTEWATER IS THEN DISTRIBUTED INTO A LEACH FIELD. THE LEACH FIELD CAN EITHER BE A SERIES OF TRENCHES WITH CHAMBERS OR A SQUARE FOOTAGE BED. A LEACHING CHAMBER IS AN OPEN-BOTTOMED PLASTIC GRAVELLESS DEVICE THAT TRANSMITS THE WASTEWATER INTO THE SOIL FOR FINAL TREATMENT AND DISPOSAL. THE DISTRIBUTION DEVICE CONTROLS AND DIVERTS WASTEWATER FROM ONE HALF OF THE LEACH TRENCHES OR BED TO THE OTHER. DEPENDING ON WATER USAGE IT IS RECOMMENDED THAT THE DBOX OR VALVE BE SWITCHED EVERY 6 MONTHS. THE LEACH FIELD TREATS THE WASTEWATER BY ALLOWING IT TO SLOWLY TRICKLE FROM PIPES INTO THE GRAVEL AND DOWN THROUGH THE SOIL. THE GRAVEL AND SOIL ACT AS BIOLOGICAL FILTERS. AS THE WASTEWATER MOVES THROUGH THE SOIL TO THE GROUND WATER THE FILTRATION PROCESS AND ORGANISMS IN THE SOIL WORK TO REMOVE TOXINS, BACTERIA, VIRUSES AND OTHER POLLUTANTS.



LEACHING TRENCHES

LEACHING CHAMBER

