

Tank Baffle System

Rajesh 30, from Panancheri, Thrissur district, Kerala, while in construction business felt the design baffles in septic tanks needs improvement to make it simpler and inexpensive. He backed it with research and borrowed books on Engineering from the public library and finally developed a prototype. His septic tank is a combined sedimentation cum digestion tank where household sewage is treated. The lighter solids including grease and fat rise to the surface to form "scum" and the heavier solids settle down in the tank to form "sludge" which is gradually decomposed by bacteria. The liquid waste or effluent goes into the drain field and undergoes oxidation. The baffle helps to reduce the disturbance of the settled sludge and keep the solids and scum in the tank. In the conventional septic tank, two baffles made of concrete are used, in Rajesh's innovation, only one baffle made of PVC pipes is necessary. This circular baffle which consists of three chambers works as a divider and filter.

The system is cost effective, instead of a tank measuring 2.6m by 9m by 1.8 m can the size can be reduced to 1.8m by 9m by 1.8 m. it is cost effective, has a greater capacity for settling, digestion and storage of sludge, the clearer effluent that is relatively free from stench and particles of excreta.