

The invention relates to biotechnology and particularly to the structure of biotank for purifying waste waters which can be used at distilleries for fermentation production. The biotank contains a zone of immobilized micro-organisms carriers, the aeration zone and is equipped with airlift pipes, at that the immobilized micro-organisms carriers are placed in all volume of biotank with a step of 100-150 mm, and airlift pipes output is placed above the carriers level at the distance of 1-2 m. The invention provides the biotank productivity increase as per defined chemical and biological sedimentation indices, due to increase in quantity of carriers and immobilized micro-organisms –destructors.