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The invention refers to the installations for biochemical treatment of communal waste waters, characterized by sharp fluctuations of consumption, content of organic pollutions or by periodicity of flows.

The installation contains an inlet chamber, a tower-type aerotank, a secondary settling tank, aeration units, placed in the upper part of the inlet chamber and of the aerotank, an aeration pipe, placed inside the aerotank, pipes for inlet and outlet of the waste waters, purified water and water-sludge mixture, conduits with barrier cocks and pumps. The installation supplementary contains an aerobic reactor, made as a vertical capacity, the lower part of which is executed in the form of a truncated cone with a smaller base below, a sludge pipe, placed inside the cone with aeration unit, aeration pipe and charging stratum, made of inert materials and placed in the upper part of the aerobic reactor, the aeration unit inlet of the aerobic reactor being connected to the outlet of the aerotank, the aerobic outlet is connected to the inlet of the secondary settling tank and the aeration unit inlet of the inlet chamber is connected by means of barrier cocks to the water-sludge mixture outlet of the aerotank.

The invention allows to considerably increase the waste water treatment quality.