

## Purifying sewage

In Israel, Meginit-A.G.R Ltd. and Gama Ecology have together developed an innovative and sophisticated system for purifying industrial water and effluents. Based on the use of electrodes that can decompose organic material within the wastewater solution, this system ensures effective separation of the dissolved organic material. The wastewater is purified in settlement tanks in a continuous process, with a fixed flow, and without the water having to remain in the tank. Upgrading of water from secondary to tertiary grade is effected by a unique polishing procedure in the electrolytic system.

Lab-scale trials showed the treated water as suitable for irrigation purposes. Some advantages offered by the electrolytic process include:

- It reduces the area of installation to a tenth of that required for conventional facilities;
- Effective and aesthetic implementation can be achieved by assembling the installation in a container that is ventilated and convenient to operate
- Upgrading of existing sewage disposal plants is possible;
- Organic pollutants can be fully treated and removed;
- Unlimited ability to remove salts, metals, nitrates, chlorides and boron and upgrading the water for unlimited irrigation;
- Reduces the concentration of floating solids in the wastewater to zero;
- Completely eliminates bacteria (including the coliform variety);
- Produces the least possible amount of sludge;
- Low maintenance costs; and
- Power consumption is minuscule, which facilitates integration with a solar energy system.

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