

Solar Drying of Sewage Sludge

An Old Method with Modern Technology Using Wendewolf®

Any Sewage Water Work throughout the world will produce sludge, a form of biomass growing in the basins. This biomass has to be evacuated and is, generally speaking difficult to handle! When liquid it has a dry matter of 3 to 4 %, or only 30 to 40 kg per ton of sludge, when mechanically dehydrated to 20 - 25 % most of it is still water, as an average 750 to 800 kg per ton of filter cake.

This remaining water can only be extracted with thermal methods - the sun is our option!

In southern areas open air Drying Beds or Sludge Lagoons are widely used but have over the years shown some well known serious problems such as:

- Bad odours
- Polluting the ground water table
- A general hygienic problem for the people handling the sludge
- Breeding ground for insects and germs
- Difficulties to empty or refurbish when filled up
- Difficult to use it as a fertilizer in agriculture

These problems can be solved using Wendewolf®.

The Wendewolf® Method

The solar radiation warms the sludge's surface. The Wendewolf® is a turning and conveying machine running on walls, yielding finally a dry granulate of 10 mm as an average size. The granulate is neutral concerning the odour, easy to handle and if an agricultural use is possible, it can be spread with conventional machines in the field.

The drying bed is fed and emptied with appropriate equipment such as conveyor belts or shovel loaders but the transport through the bed is entirely automatic!



As the Wendewolf® system is successfully used in the European climate, with an annual evaporation of 800 - 900 kg/m²year, we anticipate the double in the Middle East! For each ton of water to be evaporated per year we require about 0,5 - 0,6 m²of drying area!



Wendewolf® plants are installed in 6 countries in Europe and in Australia.

For more information: <http://www.ist-anlagenbau.de>

Kandern, 2004-10-06