



**SolarTiger®**

**SchlammFIT®**







# SolarTiger®

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## SchlammFIT®

### Description:

SchlammFIT® stands for sludge FILTRATION with INTEGRATED DRYING.

With the SchlammFIT® -process the sewage sludge is in the first step filtered that means dehydrated by the gravitation energy. During the second step the natural solar radiation is used for drying. All in all are less then 2 kWh electrical energy needed per m<sup>3</sup> liquid sludge. The filtered water runs back into the wastewater treatment plant regularly and controlled not to get any final oversteering or operating problems.

A final consequence is that the sewage sludge gets dehydrated from 3% to more than 70-80% dry matter. With this technique the volume of the sewage sludge will be reduced till about 95%. So we can reduce the haulage effort and a fuel with carbon neutral behavior is produced.

### Course of the procedure:

At first the sewage sludge is prepared with polyelectrolytes to become a great floc of the sludge.

This happens in a pipe on the way to the drying hall. In the solar drying hall the gutter of the SchlammFIT® is installed along the whole hall width. Like in a laboratory filtration the sewage sludge runs into the gutter. The sludge is held back and the water flows through the rag and back into the afflux of the wastewater treatment plant. The filling process lasts about 2 h and afterwards the sewage sludge stays in the gutter till the next day. At the following day the gutter will be dumped across the whole hall width. The sewage sludge has now a solids content of about 12 to 15% and the gutter can be filled up again.

After dumping the sewage sludge it is spread in longitudinal direction in the drying hall by the SOLARTIGER®.

All in all about 2kWh energy per m<sup>3</sup> liquid sludge are used up during the whole process.

The controlling of the whole drying-plant happens all automatically via SPS. The use of workers including maintenance may be assumed with about 20-30 minutes per day.

### Technical characteristics of the SchlammFIT®

Standard width (standard hall width of 10m)	9 - 12 m
Other widths are possible as well daily feed volume (liquid sludge 2-5% solids content)	4 - 24 m <sup>3</sup>
Hoist power	3.500 - 9.500 kg
Total weight, empty	1.000 kg
Total weight, full	Bis 8.500 kg