

## Scum layer reduction

### Waste water treatment plant, Kmehlen, Germany



Waste water treatment plant  
Kmehlen, Grossenhain

<http://www.azv-grossenhain.de/>

**Operation**

1 denitrification basin with  
125 m<sup>3</sup> with one OLOID Type 400

**Period**

3 month operation in 2001

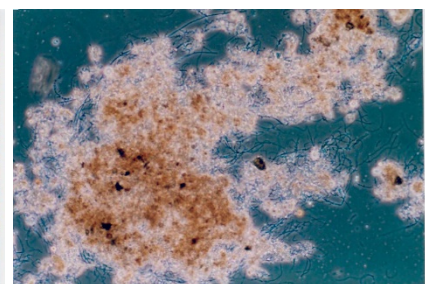
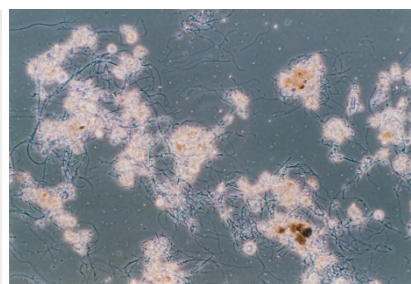
**Success**

Reduction of the scum layer

**Problem:** Very strong scum layer on the secondary clarification (up to 6 cm thick) as well as foaming on the activated sludge basin. Strong population of filamentous bacteria (*Microthrix parvicella*).

**OLOID-use:** Agitator for denitrification in 125 m<sup>3</sup> basin: circulation and suspension of the activated sludge during the denitrification phase. Reduction of the scum layer.

**Results:** In the study period (3 months), the filamentous organisms dominant at the beginning of the test are increasingly overgrown by non-filamentous organisms. The influence of the filamentous bacteria is reduced (see right picture). There is an increase in the activated sludge floc due to the gentle and pulsating movement of the OLOID. Sludge formation on the sedimentation tank is significantly reduced (see figure above). The OLOID surface agitator Type 400 with a power consumption of 0,25 kW replaces a submersible mixer with 3 kW.



Before

After 2 months with OLOID

After 3 months with OLOID