

# Keep foam under control

## With targeted use of anti-foam agents enabled by Heartbeat Technology



Stefan Graser



Infrapark Baselland

Infrapark® Baselland in Schweizerhalle is the ideal location for industrial companies, in particular those in the chemical and life sciences sectors that are involved in research, development or production. Situated in the trina-tional region of Basel, Infrapark offers a comprehensive range of services and an excellently developed campus of 32 hectares. The "AVORA" wastewater pretreatment facility is an important building block in Infrapark Baselland's wastewater concept.

"Thanks to the Micropilot's Heartbeat Technology, we can reliably detect foam formation in the oxidation process and thus administer anti-foam agent in a targeted manner. This saves resources and money and protects the environment."

Stefan Graser  
Wastewater pretreatment foreman  
Infrapark Baselland AG

**Industrial wastewater from the production of special chemicals and agrochemicals including dyes is pre-treated separately before entering the ARA Rhein Biological WWTP. During this treatment process, large volumes of foam can be generated sporadically. With thanks to Endress+Hauser's innovative Heartbeat Technology, anti-foaming agent can be administered in a more targeted and efficient manner, thereby unlocking significant savings potential.**

### Customer requirements

The industrial wastewater in Infrapark Baselland is collected and pretreated at the AVORA facility before being sent to the biological industrial WWTP. Due to the process involved, extreme levels of foam formation can occur in the 16 m high oxidation reactor. Not only does foam reduce the usable reactor volume and therefore the throughput, but in extreme cases it forces its way into the exhaust system. Anti-foam agent was previously released regularly into the process in order to prevent any

foam from forming. This meant that the consumption of anti-foam agent was relatively high with large cost involved.

### Benefits of Heartbeat Technology

- Detection of foam or buildup
- Reduced maintenance
- Higher plant availability
- Using HART protocol or the additional outputs available (4-20mA or switch output) you can immediately detect the foam as soon as it starts to form.
- Easy setup thanks to guided and interactive commissioning wizard
- Additional Features which range from the generation of verification protocols at the push of a button to the documentation of device tests
- Reduced operating costs

**Solution** The Micropilot level radar measures the level in the tank and, thanks to the new Heartbeat Technology, is able to detect the formation of foam on the surface. This ensures that the release of anti-foam agent is initiated in a targeted manner and foam formation stopped. In addition, the AVORA facility at Infrapark uses the Cerabar pressure transmitter for hydrostatic level measurement. This means that in addition to detecting foam, the Micropilot can be used to determine the foam height by calculating the difference between the level signal from the radar and the pressure transmitter.

 **Delivered Solutions**

- Micropilot with Heartbeat Technology and second current output to signal the presence of foam
- FHX50 – remote display for easy reading and operation of the Micropilot
- Free DeviceCare configuration software including wizard.



Tank for wastewater preparation



Significant quantities of anti-foam agent can be saved annually.



Straightforward commissioning via display or operating software.



Foam is detected on the basis of the reduction in the echo amplitude.



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