

# ECLIPSE<sup>®</sup>

APPLICATION CASE STUDY

**ECLIPSE<sup>®</sup>**  
GUIDED WAVE RADAR



**HART**  
COMMUNICATION PROTOCOL

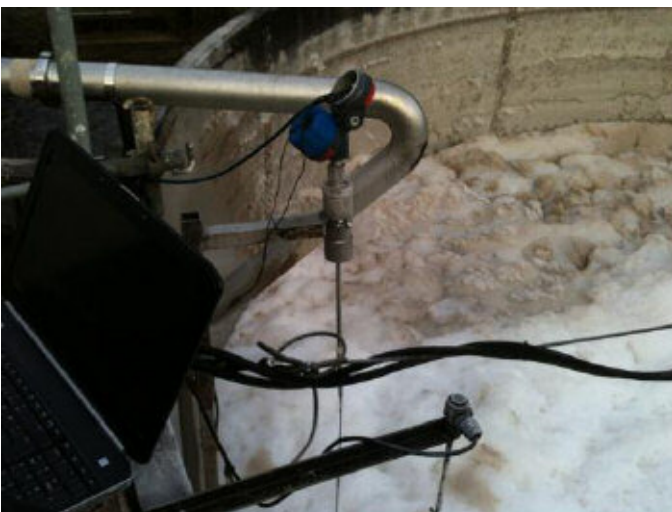


## Guided Wave Radar in a brewery—Wastewater with paper labels and foam

*Submitted by Jochen Ralf, Outside Sales Engineer, Germany – West (German Office)*



*Beginning of foam formation*



*Layer of foam*

### Application:

The customer is a brewery near Cologne, who is searching for a reliable level measurement for his wastewater tank. It is an open-top tank which is nearly 4.5 m high and it has a diameter of nearly 5.0 m. The tank works as a buffer store and is filled with wastewater that results from the process of cleaning of both the plant and used beer bottles. The level controls the filling, the emptying as well as the oxygenation of the tank.

### Problem:

The wastewater contains paper labels from cleaned beer bottles, among other things, that could stick to the probe. Furthermore, the tank is oxygenated, which leads to a strong turbulence of the wastewater. A layer of foam (that could grow to more than 1 m thick) also forms on the surface.

In the past, the customer used a GWR measurement from our competitor, Endress + Hauser. The measurement lost signal every time the labels stuck to the probe or oxygenation began. Endress+Hauser has not managed to get the measurement working. They attempted for over a year, but were unsuccessful.

Our customer had to control the filling, emptying and oxygenation by hand.

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GUIDED WAVE RADAR TRANSMITTER

## Solution:

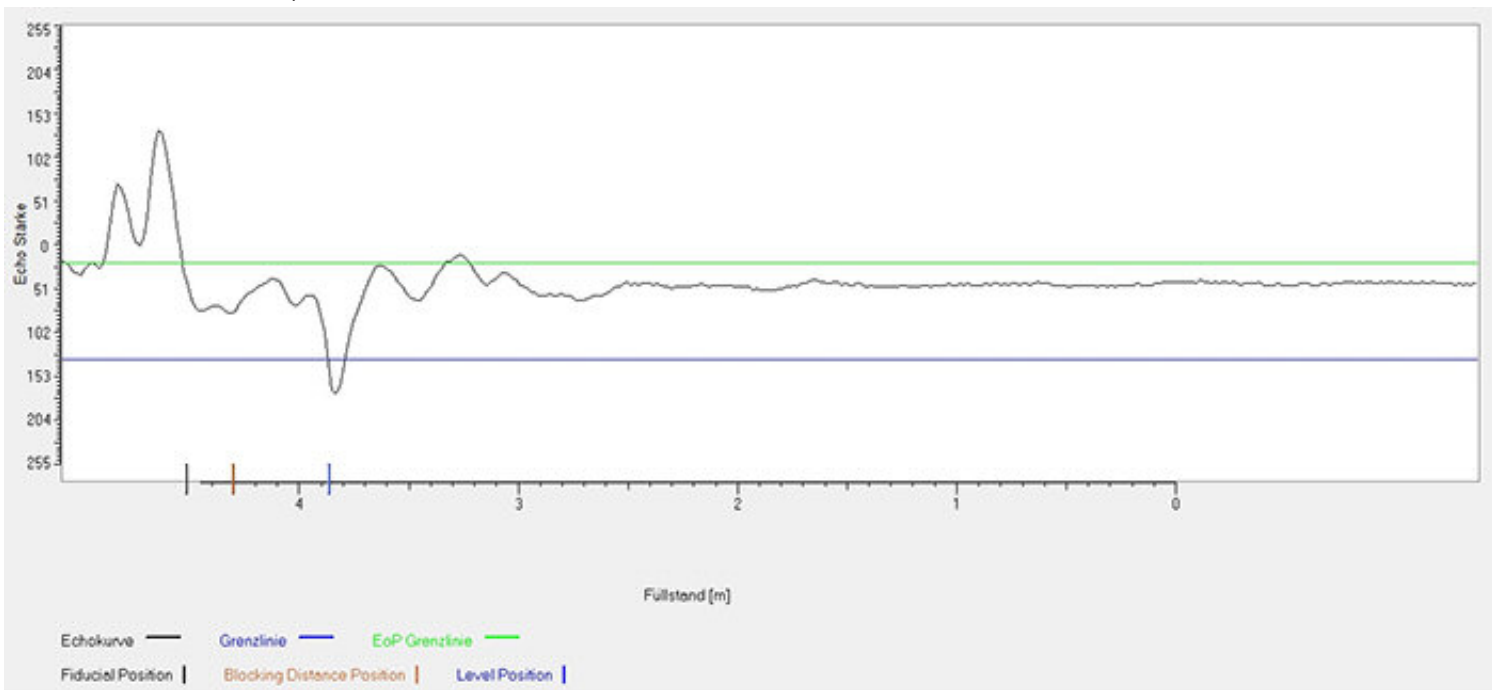
By using our Model 7x1 single rod flexible probe we were able to offer the customer a reliable form of measurement. Neither the paper labels nor a one meter layer of foam have an effect on our ECLIPSE Model 705.

## Result:

The customer feels very comfortable with our solution. He is now, after a period of more than one year, able to automatically handle his process automatically, including the oxygenation.

I hope that this successful application will work as a door-opener and will lead to more orders of Magnetrol<sup>®</sup> products in that brewery.

*Echo Curve with Layer of Foam*



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