



APPLICATION NOTE Chemical

Level measurement of slag cement

- Precise level measurement of charged liquids
- Complete solution with only 6 devices
- Economical measuring device due to no maintenance

1. Background

A French boiler maker manufactures skids to measure slag cement in the field of petroleum. Slag is a residue from the production of cast iron in a blast furnace. Mixed with ordinary cement and water, it is called slag cement. It is used to reinforce concrete structures, making them more durable over time. One notable use of slag cement is in the construction of oil wells (cementation).

2. Measurement requirements

The skids are installed near oil drilling sites to accurately measure the level of slag cement in the rectangular stainless steel tanks, with DN50 flange attachment and a height of measurement up to 1850 mm. There are movements in the area but the probe is installed in a smoothing pipe. The slag cement is a liquid loaded with abrasive particles. To measure it accurately, the customer has been using KROHNE TDR technology for a long time. Lately, the customer has been using the OPTIFLEX 1300 C. These devices are used all over the world in oil fields.

3. KROHNE solution

To date, KROHNE has installed more than 250 OPTIFLEX 1300 C devices for this type of application. It is a single rod probe with a diameter of 8 mm and a length varying between 1200 and 1850 mm. The process connection selected is 2" 150 lbs.



4. Customer benefits

In addition to its excellent accuracy and the high measuring dynamic of the electronics, the OPTIFLEX 1300 C meets the customer's requirements in terms of reliability. Navigation is facilitated by a touchscreen but most of the time the HART protocol is used to configure the device remotely. A configuration wizard facilitates setup. It contains algorithms which make it possible to dedicate the OPTIFLEX to a specific application. The OPTIFLEX 1300 C 2-wire level meters require less wiring, no maintenance and are easy to install – all this and at a very attractive price. The same principle may also be applied in the building and consolidation of tunnels.

5. Product used

OPTIFLEX 1300 C

Universal level meter, guided radar (TDR = Time Domain Reflectometry) for use with liquids, pastes, granulates, powder and liquid interface

- High measuring dynamic
- Level and separating layer measurement
- Touch screen for simple operation without opening the housing
- Simple installation, no on-site calibration required
- Can be used up to 300 bar, product temperature -40...+200°C (300°C optional)
- Mechanics available in stainless steel and HC-22, other materials on request
- PACTware and DTMs included as standard
- Optimal process safety (with Metaglas® dual process sealing system for dangerous products)



Contact

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