Application note

# Measuring brine

## Mag broken, clamp-on measurement within 15 minutes

**Benefits:**

- No downtime = no production losses
- No crane required = zero cost
- Manpower = 1 engineer vs. 3
- Safety with no leakage risk

**Total saving of about €30,000**

### Summary

Our channel was contacted by a customer having problems with recently-installed electromagnetic flowmeters. They've had four meters installed since December 2018. During the last couple of months, the signal became erratic and the customer stopped trusting the measurements. The mass balance was too far off, and they saw unexplainable variations in flow readings.


### Application

The electromagnetic meters are used to monitor the well and to trigger the needed amount of corrosion inhibitors to inject into the wells. A small stripe of brown water was dripping from the interconnection of the electromagnetic body and the electronics reading. For sure, the insulation had not survived this challenging application. The meter's lining had come loose due to temperature and pressure changes.

### Challenge

This is the first and the only geothermal plant in Europe producing energy from water colder than 190°C from a 17.5 MW low rpm Turboden turbine connected to the local grid. Process conditions include hot water and brine.

Customer started removing one electromagnetic flowmeter for repair, meaning: Line isolation, drainage, crane, lifting, putting a spare meter in place, resulting in a 24-hour production interruption. Moreover, customer mentioned that hot brine could contain small amounts of gas. Up to 5% in volume would not be an issue for our meters, providing the gas is well distributed over the liquid flow.

## Solution

Our Transport PT878 with high-temperature C-PT transducers were used for testing purposes. Given previous experience, the confidence level was high. Within 15 minutes, our PT878 with C-PT had stable signal and good diagnostics. A few days later, the customer decided to permanently install four AT600s.

Per avere più informazioni
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