

## Application : BZENEK, the Czech Republic

Application of battery-powered FLOMIC meters for water flow-rate and consumption measurements in systems containing water with high manganese and iron content



Mechanical water meter after three-month operation

Conventional mechanical water meters, until recently used in such and similar water-supply systems, have not proved satisfactory. Within a relatively short time (several months), the meters become clogged with manganese, ferrous and other contaminants eventually preventing the correct meter function. The picture below shows a mechanical meter after three-month operation. The accumulated mineral sediments have rendered the meter inoperative and increased significantly the hydraulic losses in piping. The meter cleaning operation and restoration of the measurement function will be rather problematic.



Installation of the battery-powered ultrasonic water meter FLOMIC FL 1024 in a station

The battery-powered ultrasonic water meter FLOMIC FL 1024 was used for this application. Although some sediment has accumulated on the internal walls after some time (1 year), the meter is fully operative. A simple cleaning operation will fully restore the original meter precision. The increase of hydraulic losses due to the accumulated solid sediments is insignificant. Long-term operational tests have proved and documented major technical, operational and economic advantages of the FLOMIC battery-powered ultrasonic water meters over conventional mechanical water meters.