

# NIVELCO CASE STUDIES

## INSTRUMENTS OF A CONCRETE PLANT IN CZECH REPUBLIC

### CS Beton Velke Zernoseky

*Producing of concrete requires storing, gauging and material management of raw materials, for example cement, sand, gravel or chemical admixtures.*

So the process of the manufacturing has a great need in knowing the accurate amounts of materials in the storage silos. This need for accurate measurement and the unfavourable circumstances require deliberate selection of the instruments.

We recommended guided microwave level transmitters for measuring dusty materials, and non-contact ultrasonic level transmitters for the strongly sticking materials.



There are 14 open tanks containing various grain-sized materials between 0.4 and 16 mm, like cement, sand, and other chemical admixtures, which have to be measured with high accuracy despite the dusty industrial environment.

Because of the strong dusting we offered MicroTREK HTN-413-4 guided microwave radar transmitters in the seven 13 m tall cement storage silos, the transmitters transfer analogue 4..20mA current signals proportional to the level in the silos, which were sent directly to the process control system. Another four 10 m tall sand storage silos were instrumented with non-contact ultrasonic transmitters because of the reliable and accurate measuring of strongly sticking sand.

The analogue signals of the EasyTREK SCD-34J-4 ultrasonic level transmitters were also processed directly by the process control computer.

Fulfilling the demands of our customer Nivelco Co. has not only delivered the instruments but also commissioned the whole system.



*Aleš Čekal*  
Managing director  
NIVELCO Bohemia  
cekal@nivelco.com