

Sludge Removal and Odor Control

ZICKERT Shark™ Sludge Removal System



CASE STUDY

Location: Rzeszow, Poland
Owner: City of Rzeszow
Engineer: MD Enterprises

Substantial Problem

Rzeszow, Poland, is a fast-growing community with increasing demands on its wastewater treatment capabilities. The previously existing installation with conventional traveling bridge scrapers caused operational disturbances, especially in wintertime. Also, the scrapers failed to efficiently recover sufficient quantities of sand, and were thus long due to be replaced.

Simple Solution

After having studied other installations in Poland, the management appointed MD Enterprises Polska S.C. and Nordic Water Products to install a ZICKERT Shark™ Bottom Sludge Scraper. The ZICKERT Shark Scraper provides more reliable operation and longer life than traditional scrapers, and also collects sand much more efficiently. MD Enterprises then advised management to try an installation of the new ZICKERT Tank Cover to close the basins hermetically, together with a

Meva OCS Odor Control Filter on two of the four basins. This solution was said to be able to remove 99.9% of hydrogen sulfides and mercaptans.

Results

Already after a few months' operation, it was clear that the results were very good.

- Sand capture increased by 40%, from 2.5 m³/month to 3.5 m³/month.
- The captured sand is much cleaner than with the conventional scrapers.
- The air emitted is totally odor free – the control instrument did not detect any traces of hydrogen sulfides or mercaptans.

Consequently, the two basins with the new installation were able to recover more sand. This larger quantity was also much cleaner, laying ground for considerable savings in sand dewatering and sand washing. Apart from the positive effects for the plant's neighbors, the gains were of such significance that management decided to entrust the supply of the same identical solution for the remaining two basins to Nordic Water and MD Enterprises, together with an order for two siphons (self-aspirating sludge systems) to be installed in the community's post-sedimentation basins.

