

## Case Study Schleiden

The Schleiden sewage treatment plant, which is operated by the water board Eifel-Rur, is designed for a capacity of 32,000 PE and is located in the scenic natural park Nordeifel, upstream of the Urftalsperre dam. This sewage treatment plant is a two-stage aeration plant working in compliance with the A-B method with subsequent flocculation filtration. The sewage gas generated during sludge digestion is converted into electricity for plant needs in their own block heat and power plant. The dewatered sludge is reused for agriculture.



Because of the geographic situation (upstream of the dam) it is necessary to keep the phosphate discharge concentration below 0.2 mg/l, which is only possible using flocculation filtration. As a consequence, the sludge quantity increases by 10 %. Since the end of 2008, the entire sludge has been dewatered using a Flottweg decanter of the new **C series**.

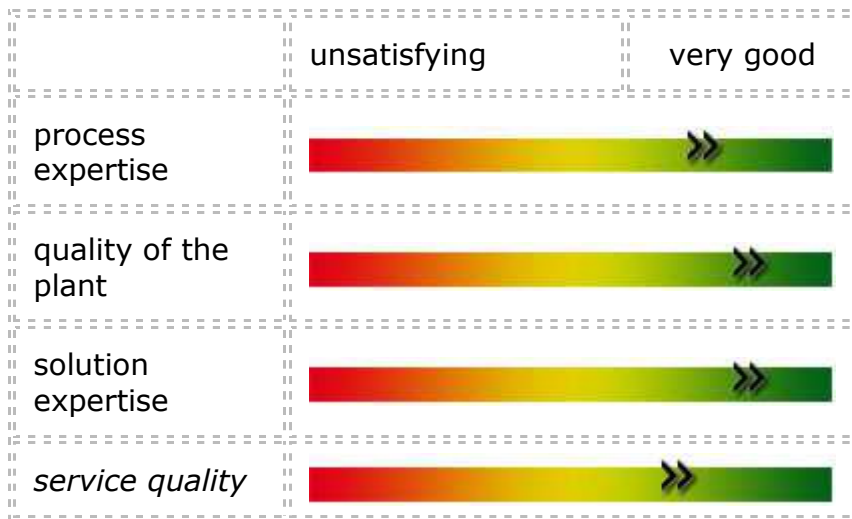


The plant management said that there were two reasons for buying a new machine: the age of the old one and the necessity to have capacity reserves in the future. Due to the new Flottweg decanter, it is possible to reduce the operating time from 4 to 2 days per week (8.5 h/d). Since the new Flottweg decanter excels in very reliable operation, it is possible to save personnel time

and to use the personnel for other tasks. A big advantage of the Flottweg decanter is that the dry substance of the dewatered sludge is 1.5 % higher - this helps to save money and to amortize the new decanter quickly. The concentrated and nitrogen-enriched cloudy water generated during two days is stored in a tank and then goes to the waste water treatment plant. In order to reduce the load discharge of the sewage plant, the plant management has planned to introduce biological sludge liquor treatment for the centrate.



The plant management and the Senior Wastewater Specialist are very pleased with the high capacity of the new decanter and made the following positive evaluation.



Service quality will be evaluated again after the upcoming first service - which again is expected to be to very good.

We cordially thank the operational staff of the sewage plant for their assistance.