

## Pumping of activated sludge, Dellach, Austria



### The project:

For the service and inspection of the aeration system, the activated sludge basins are emptied every two years.

### Executing companies

Sonnek Engineering GmbH (Tsurumi partner)  
Abwasserverband oberes Drautal-Weissensee

### The problem:

Pumping of activated sludge in a community sewage treatment plant. Basin depth: 6m. For the service and inspection of the ventilation system, the activated sludge tanks are emptied every two years.

The activated sludge has a dry substance content of 1.5 to 2%.

During emptying of the basin, the circulation and mixing of the sludge is turned off, and the sludge forms a sediment on the bottom. Pumping time 2 days.

In the floor of the basin there is a 100mm deep sump, meaning that when the basin is emptied the sludge remains lying on the bottom. It must be removed.

### The solution:

Use of a Tsurumi model KRS2-80 pump with an agitator. This pump was leased from the Tsurumi inventory for the purpose.

The pump is submerged by only 100-200 mm, running in snore mode, and the sludge is manually transported to the pump with scrapers and pumped away. Pumping time 1 day.

The bottom sludge has about 3-5% dry substance.

The basin could not be emptied with the standard wastewater pump available, since its motor had no cooling and underwent thermal shutdown.

### Specifications KRS2: <https://www.tsurumi.eu/en-LV/krs2>

In the event of abrasive and corrosive utilization, stronger wear and tear will take place naturally in certain components. With regards to the above application wear and tear can take place mainly in impeller, agitator, suction plate, shaft sleeve, oil ring, mechanical seal, pump casing, strainer, motor casing and discharge coupling. Depending on the working conditions the lifetime of those parts might vary significantly and can be shorter than the legal warranty period.

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