

# General waste disposal facility A challenging planning project in Ulm

A warehouse for 4,000 tonnes of salt, 150 tonnes of gravel and 12 vehicles, a brine mixing facility with two storage tanks, a salt silo with a capacity of 200 m<sup>3</sup> and a fully automated modular conveyor system for loading – these are just a few of the impressive stats for the city of Ulm’s new general waste disposal facility. In November 2017, BL Silobau AG received the contract for the works as the sub-contractor of a German master builder who entrusted us with the entire planning and implementation process. The construction project was implemented from January to May 2018.

‘At 55 m long and 20.5 m wide, this is one of the biggest salt and gravel warehouses we have ever produced,’ says Andreas Grabher, project manager at BL Silobau AG. ‘All in all, it was a technically demanding project. As well as the requirements for silo and brine technology,

specific fire safety provisions, a complex structure and additional circumstances such as the adjoining tram works had an impact on planning.’ Incidentally, the dividing walls in the storage space are designed in such a way that they can be moved based on the amount being stored.

### Salt isn’t just salt

In a harsh winter, the 200 m<sup>3</sup> is used up within an estimated two days. The conveyor system attached to the silo is therefore used to top up the salt from the warehouse where necessary. And salt isn’t just salt. Depending on weather conditions, the moisture and, consequently, the weight of the salt can vary. That’s when the variable rotary control comes into play. It works with the pressure sensors to automatically regulate the speed at which the salt is conveyed. This process is monitored by a remote-controlled maintenance portal. ‘Thanks to

our rotary control, we can supply up to a third more salt in comparison to the previous model. Blockages in the pipe system, which sometimes occurred previously, are no longer possible,’ explains Andi Grabher. The general facility is also equipped with a fully automated brine generator (8,000 l/h), which directly procures the salt from the silo and fills two brine storage tanks with a volume of 40,000 l each. Multiple vehicles can be loaded at once from two brine extraction points. An integrated measuring and weighing system records all extractions of salt and brine and assigns them to each vehicle.

Andi Grabher concludes: ‘I’m happy with how the project went. Thanks to the smooth cooperation with our client, you could barely feel the physical distance and I was only on site in Ulm a few times.’

- 1 Conveyor system for loading from the hall with wheel loader
- 2 Conveyor line
- 3 Filter system for exhaust
- 4 Salt silo
- 5 Salt rinsing in brine generator
- 6 Brine storage tank
- 7 Pumping and control technology
- 8 Brine extraction

