



BELT DRYER KTA ZORBAU (DE)

Reference Description

BELT DRYER BD 3000/16



Thermal recycling plant



Belt Dryer BD 3000/16 with heat recovery system

SUEZ Energie und Verwertung GmbH has been operating an incineration plant in Zorbau since 2005 and treats around 300,000 tonnes of waste per year.

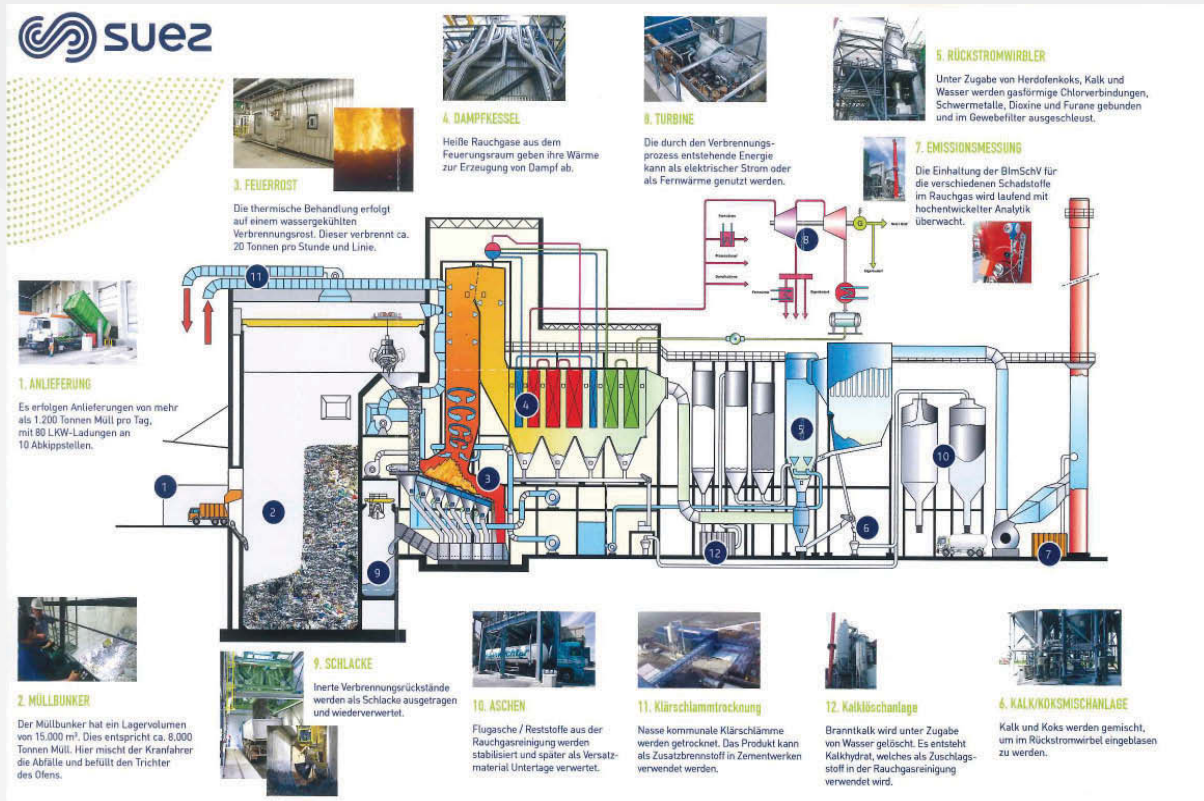
The plant delivers the waste from parts of several federal states in Germany to the incineration plant in the vicinity of the plant. The energy and steam generated by waste incineration is converted into electricity and district heating and fed into the public grid.

At the Zorbau waste incineration plant, after the turbine, part of the steam is used to dry digested or stabilised dewatered sludge produced during the treatment of municipal waste water. A fully automated sewage sludge drying plant (KTA) with a belt dryer BD 3000/16 with 16 drying chambers was installed for this purpose.

The sludge is transported by the LAV (Landwirtschaftliches Verarbeitungszentrum Makranstädt) from various storage facilities and stored in one of the two inground bunkers. The fresh sludge is fed to back-mixing via hydraulically operated moving floors and a chain conveyor. The back-mixing takes place with already dried material in a double-shaft mixer with a DS content > 30 %. Uniformly shaped sludge strands with increased surface area after passing the distribution unit and roller press are evenly distributed onto the upper belt. After drying to 90% DS, the sludge is homogenized to 4 mm grain size in a roller mill.

The hot air required for drying is generated in the mixing chambers by heat exchangers supplied with steam. Fresh supply air is introduced through manually adjustable dampers. The circulating air fans of the mixing chamber convey the drying air into the process chamber perpendicularly to the transport direction of the sludge layer. The hot air cools down during the process and absorbs the evaporated water. The loaded air is discharged from the process chamber via exhaust air channels. The supply air of the dryer is preheated with steam condensate from the process.

FUNCTIONAL PRINCIPLE OF THE WASTE INCINERATION PLANT:



Source: Process description SUEZ

TECHNICAL SPECIFICATION :

Scope of supply:	Belt Dryer BD 3000/16 with building, wet cake reception bunker, conveying systems, impurity separator, roller mill for product crushing, dry material storage silo
Type of drying:	Full-drying
Heating source:	Indirect heating: Saturated steam from waste incineration plant [170°C], drying temperature: 90-130 °C
Material:	Digested or stabilised dewatered municipal sludge
DS input:	25 - 30%
DS output:	>90%
Throughput:	50,000 t/a (6,250 kg/h)
Water evaporation:	4,500 kg H ₂ O/h
Operating hours:	24 h/d, fully automatic
Commissioning:	2017

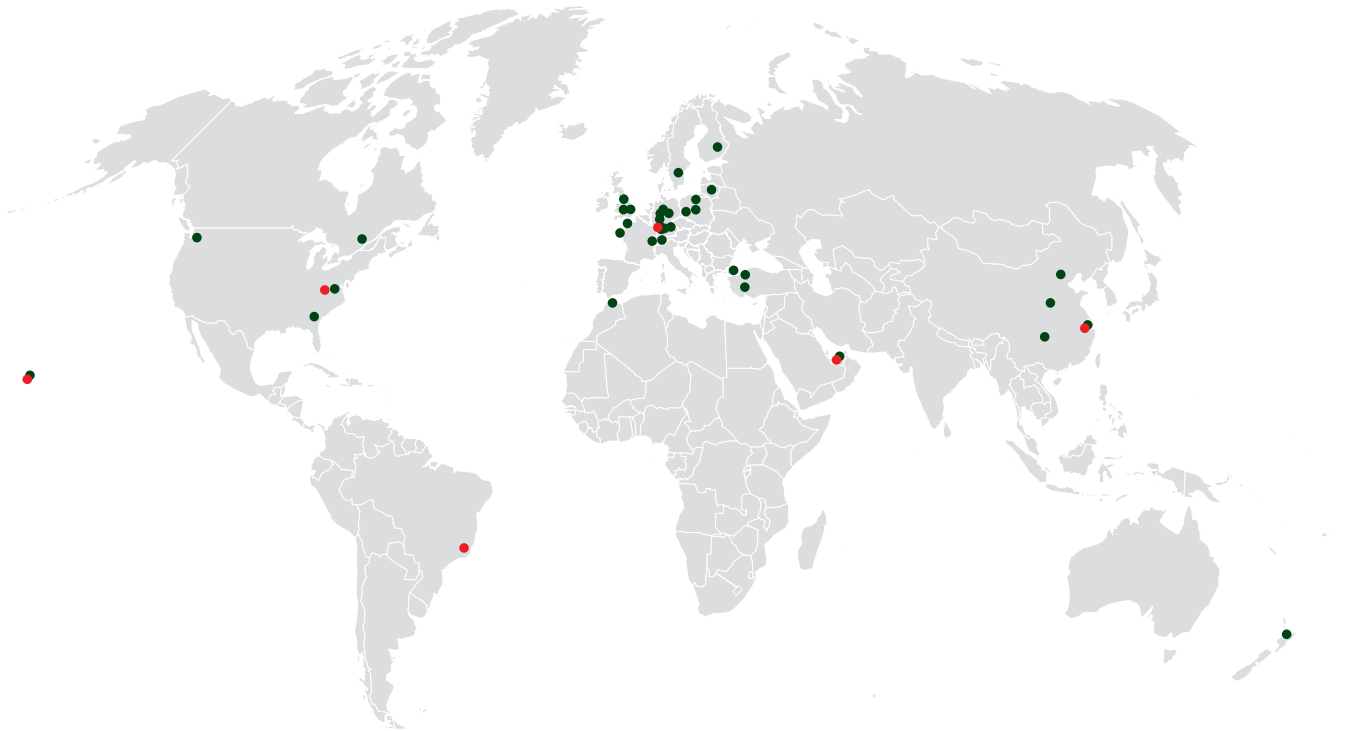
SEVAR AG emerged in 2020 from the environmental technology division of Haarslev Industries A/S. The over 30 years proven **technology of belt drying** is continued under the already well-known name SEVAR with a motivated team. The young German company with headquarters and production near Karlsruhe is supported by an international network of partners and agents.

SEVAR designs and manufactures plants for the thermal treatment of **municipal and industrial sewage sludge**, fermentation residues and wood residues. The treatment of the humid exhaust air resulting from the drying process with condensation and odour treatment is also considered. Reference plants are available for inspection worldwide.

We reserve the right to alter the specifications at any time without prior notice.

SEVAR

Drying Technologies



References and locations worldwide

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