



ThermoDec

Discover Sludge - Recover Resources

**Can valuable
resources be gained
from your sludge?**

Our revolutionary technology
makes it possible.

powered by

KVT PROCESS TECHNOLOGY 

United Skills of **KREMSMUELLER** 



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Industry

Municipalities



ThermoDec is the name of a unique technology for the treatment of industrial and municipal sludge of varying consistencies and compositions.

Until now, the disposal of the sludge resulting from industrial production processes and municipal sewage treatment works has been a complex, cost-intensive and environmentally-harmful procedure. The sludge needed to be transported to a suitable disposal facility and then disposed of by means of costly and energy-intensive processes. Incineration also involved the release of environmentally-harmful emissions.

A ThermoDec plant, on the other hand, makes it possible to process the sludge on site. An evaporation process removes toxins and recyclable materials. Valuable resources are isolated. The remaining waste materials can be easily disposed of in an environmentally-friendly manner.



The results are impressive:

- Reduced costs
- Reduced time inputs
- Reduced energy inputs
- Reduced environmental impacts



Recycling of waste materials

The energy and recyclable materials recovered from production-related waste can be monetised.



Rapid return on investment

The elimination of high transport and disposal costs as well as the recovery of energy mean that an investment in a ThermoDec plant soon breaks even. Depending on the circumstances, this could well be the case within three to four years.



Reduce your CO₂ footprint

Transportation to your disposal site and environmentally-harmful incineration there become a thing of the past. Your CO₂ footprint can be reduced by as much as 30 % as a result.

The process steps:



Pre-evaporation

The first process step involves preparing the sludge for further treatment.



ThermoDec thin-layer evaporator

The heart of the plant, the ThermoDec reactor, is where the thermal separation of the organic components in the sludge takes place. This involves the sludge being separated into its various components by being forced against the outer wall of the reactor, which is heated to 500 degrees Celsius. Valuable solid and liquid components are isolated and incombustible materials can be easily disposed of.



Combustion chamber and steam production

The combustible materials are incinerated in a combustion chamber and steam generated using the heat. This steam provides all the energy required for the pre-evaporation phase and by the ThermoDec reactor. Excess steam-based energy can either be used to generate power or fed into a district heating network.



Flue gas purification

The incineration process is optimised based on the materials incinerated to reduce emissions to a minimum.

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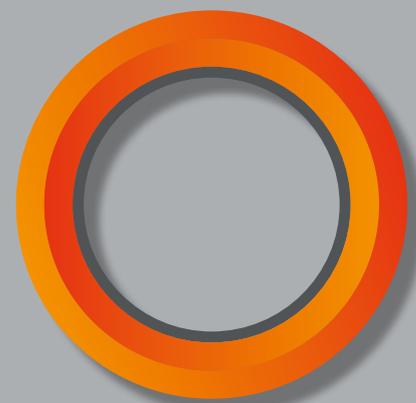
Two strong partners combine their expertise.

Two leading players in the areas of environmental technology, plant and equipment construction have joined forces to make ThermoDec possible: Kanzler Verfahrenstechnik (KVT) and Kremsmueller Industrieanlagenbau.

Kanzler Verfahrenstechnik (KVT) contributes the technology behind the overall process and the expertise related to the incineration process, and is also responsible for all of the detailed engineering work.

Kremsmueller provides the incineration process, the equipment and plant construction expertise, the electronics and control engineering as well as the installation and maintenance services.

The result is a comprehensive overall package without time-consuming interfaces which delivers industrial and municipal customers sustainable benefits.



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