

Meeting the challenge

of Proper Management of Hazardous Waste



Why (dedicated) Hazardous Waste Incineration is vital

Who is EURITS?

- The **E**uropean **U**nion for the **R**esponsible **I**ncineration & **T**reatment of **S**pecial waste
- An association of hazardous waste management companies across the EU
- Eurits members have a total capacity of high temperature incineration of around 3Mt/y; this represents 90-95% of the total capacity in Europe

Main activities

- Make sure hazardous waste is handled, managed and treated very specifically and in a correct manner:
 - To avoid any dispersion of hazards or contaminants into the environment
 - To ensure that the environment and public health are protected
 - To ensure that recovered materials are reliable

Key role

- The EU's leading voice on hazardous waste
- Over 25 years of experience in hazardous waste treatment
- Consistent promotion of best sustainable environmental practice
- Representing the special waste treatment industry in the EU Parliament and Commission, in order to create adequate support and policy frameworks in Europe.

Hazardous waste should only be treated by companies dedicated to the treatment of the most difficult wastes

Why hazardous waste incineration was developed as a separate industry?

Mid-1960s:

Increasing industrial production & hazardous waste volumes. The chemical industry develops the High Temperature (rotary) kiln as a new sustainable technology vs landfill.

Beginning of 1970s - 2000

Industry & public authorities become aware of the environmental advantages of rotary kiln technology. Increase of hazardous waste incineration plants across Europe & continuous improvement of technology.

Today:

Different incineration technologies (eg. grate furnaces, fluidised beds or rotary kilns) & waste streams (eg. non-haz/haz waste, sludges) available, each technology is specialised for a particular type of waste stream. For hazardous waste (with complex components) it is crucial to select the best tool – high temperature rotary kiln

What is special about hazardous waste incineration?

The incineration technology

A rotary kiln incinerates at temperatures between 1000°C and 1300°C. The incineration happens on a surface of liquid slags in a rotating furnace. The kiln can take in waste streams with calorific value 0 and 40 MJ/kg. The optimal mix leads to a self-sustained combustion (efficient energy-use). Dedicated facilities make use of an advanced flue gas cleaning system.

The feeding system

-Cold and hot liquids: via lances system
 -Solids: via cranes and conveyor belts
 -Drums: via closed shredding units or direct feed
 -Gases: via specific feeding lines

Toxic, Corrosive, Mutagenic or other extremely dangerous or highly reactive waste streams can be connected directly to the feeding system of the kiln (closed handling).

The conditions of incineration

-Purpose: to destroy hazardous components and contaminants.
 -Main variables of the process: temperature, turbulence, time, throughput, based on type of waste (its composition, consistency, contamination level), required effect and efficiency.
 -Special operators control and regulate these parameters and use the technology to its best effect.
 -Plant, Equipment, Security and Staff meet all requirements of the Seveso Criteria.

What are the benefits of this dedicated hazardous waste incineration?

- High contents of Halogens or Sulphur are captured and chemically converted.
- Heavy Metals are precipitated within the slag (vitrified) or within the flue gas cleaning system.
- Volatile metals like Mercury or Arsenic are precipitated or absorbed by chemical or physical treatment.
- The net energy of the incineration process is used to supply internal or external energy demands.
- After treatment, in some cases, materials can be recovered from the residues, in a safe and sustainable way.

Contact info

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