

# Thermylis™ 2S

2-stage sludge incineration process

● biosolids



drastically reduce energy costs using the heat value of sludge

● **savings**

near-zero fuel consumption

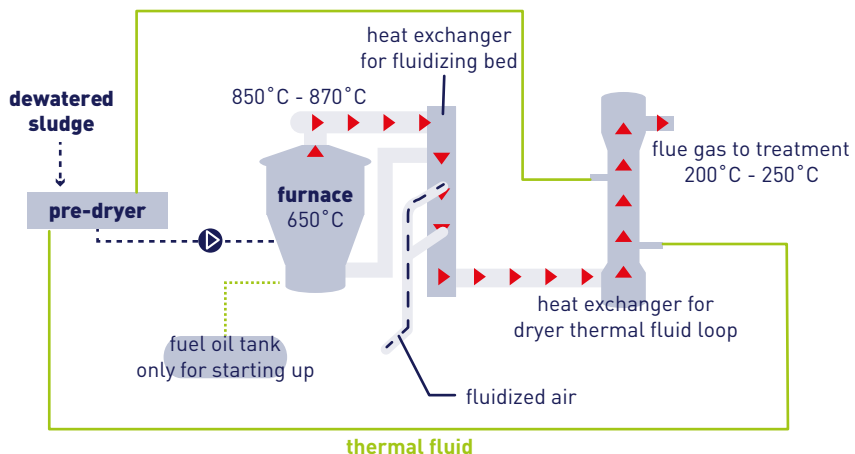
● **environment**

reduced environmental impact through sustainable development energy recovery

## innovation

a combination of an incinerator and a sludge dryer supporting the system's energy self-sufficiency

Thermylis™ 2S, sustainable technology based on energy recovery, provides one of the most efficient, the most economical and the most environmentally-friendly means to reduce sludge volume.



## key figure

up to

0

fossil fuel energy consumption



## Thermylis™ 2S technology . . .

The most optimal solution in terms of volume reduction, thereby reducing costs (transport and / or landfill disposal), the Thermylis™ 2S ("2 steps") process is the last-step in a sludge treatment process. Comprising of a high-temperature incinerator (850°C) unit and a thermal drying unit placed immediately before it, the dryer unit can feed the incinerator with partially dried sludge. The Thermylis™ 2S is fitted with all the necessary feed or storage equipment (Archimedes screw or pumps for semi-solid sludge, pneumatic or screw conveyers for ash and silos for storage).

A winning combination which significantly reduces energy consumption: its main economic and environmental advantages lie in the recovery of residual energy produced by the incinerator's flue-gas which is then used to power the thermal drying with free energy.

Sludge combustion produces a mix of ash and flue-gas which must be treated. Their separation is a two-step process. The first step (separation using cyclones or bag filters) enables 80-95% of the ash to be separated, which can then either be recovered or landfilled. The remainder is then treated in a reactor so as to significantly reduce all acidic gases (SO<sub>2</sub>, hydrochloric acid, hydrofluoric acid, etc.) to capture volatile metals and fine particles so as to meet rigorous emission requirements.



## . . . what it can do for you

### savings



- near-zero fuel consumption (fuel, gas) due to recovered energy
- transport and landfill costs reduced through optimal reduction of volumes

### high performance



- ultimate sludge volume reduction (between 7-10% of the volume of dehydrated sludge)
- maximum combustion yield
- automatic, non-stop operation (24 / 7)

### environment



- very low environmental impact
- near-zero primary energy consumption
- reduction in CO<sub>2</sub> emissions
- complete elimination of pathogens and hormonal molecules thus strengthening health and safety

### SUEZ treatment infrastructure

[innovation.mailin@degremont.com](mailto:innovation.mailin@degremont.com)

[www.degremont.com](http://www.degremont.com)

## among our references

**Kielce, Poland**  
capacity: 300,000 PE

**Gdansk, Poland**  
capacity: 800,000 PE

**Valenton, France**  
capacity: 1,200,000 PE