Thermylis™ 2R

sludge incineration workshop with energy recovery and production

biosolids

convert the calorific value of your sludge into directly usable electrical and thermal energies

savings

virtually zero electricity consumption

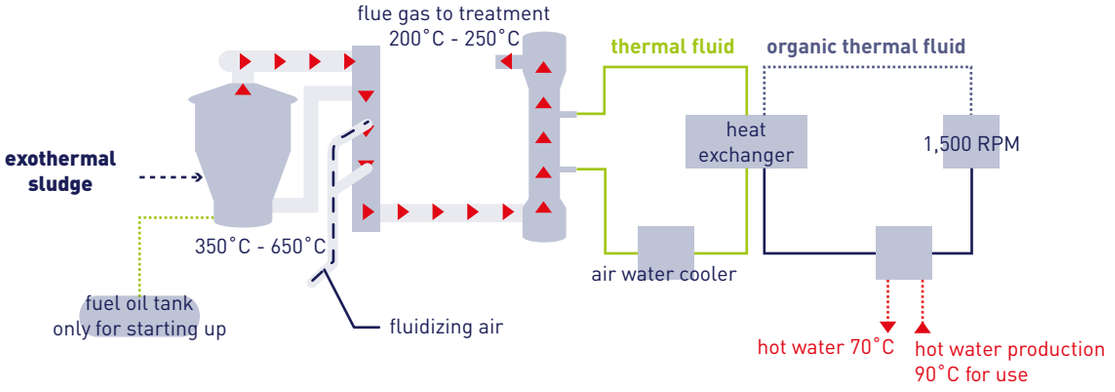
environment

production of immediately usable thermal and electrical energy on and off-site (externalisation)

innovation

the combination of an incineration furnace and an electrical turbine for virtual energy autonomy

Combining all the benefits of fluidized bed incineration with the intrinsic advantages of SUEZ sustainable energy recovery technologies. The Thermylis™ 2R transforms your final sludge treatment equipment into an alternative energy source.



key figure

objective

0 kWh

of electrical and fossil energy consumed

SUEZ

Thermylis™ 2R technology . . .

Compared with the Thermylis™ 2S, the Thermylis™ 2R is supplied with sludge that is directly autothermic. This sludge can be produced by Dehydris™ Twist type boosted dewatering.

As the sludge does not require any predrying, the energy from the flue gas of the Thermylis™ 2R can be totally recovered as a source of thermal and green electrical energy.

The Thermylis™ 2R – 2 recoveries of energy – is an integrated workshop composed of a high-performance incineration furnace and an electrical turbine. The turbine can be either a steam or organic cycle turbine (called ORC).

The Thermylis™ 2R workshop offers you the possibility of reducing to almost nothing your consumption of fossil fuel and electrical energy for the treatment of your sludge.

Free energy generator coupling: the organic cycle also allows for the joint production of electricity and heat at 90 degrees (co-generation). In this case, the quantity of heat produced by the Thermylis™ 2R is very high. This energy produced by the Thermylis™ 2R can then be either reintegrated into the water treatment plant (heating of the premises, hot water network), or exported. The green electricity could also be sold.

. . . what it can do for you

savings

- optimal reduction of electricity consumption by producing electrical energy which can be allocated to running the workshop and / or export (resale)
- virtually zero consumption of fossil thanks to the use of the energy produced by the combustion of the organic matter in sludge
- transport and landfill costs reduced through optimal reduction of volumes

environment

- very low environmental impact
- virtually zero electricity consumption
- virtually zero fossil fuel consumption
- reduction in CO_2 emissions
- total destruction of pathogenic germs and hormone molecules, improving health and safety

performance

- final reduction of sludge volume (7 to 10% of the dewatered sludge volume)
- maximum combustion yield through optimal autothermicity of the sludge
- large quantity of thermal energy at 90°C available (urban heating)
- continuous automatic operation (24 hours a day)

SUEZ treatment infrastructure

innovation.mailin@degremont.com

www.degremont.com

among our references

Bilbao, Spain
capacity: 1,000,000 PE

Duffin Creek - Ontario, Canada
capacity: 1,750,000 PE

Cleaveland - Ohio, United States
capacity: 1,000,000 PE

P-B-012-EN-1603

Conception & Realisation: O. Barbier (SUEZ) - Photos credits: SUEZ