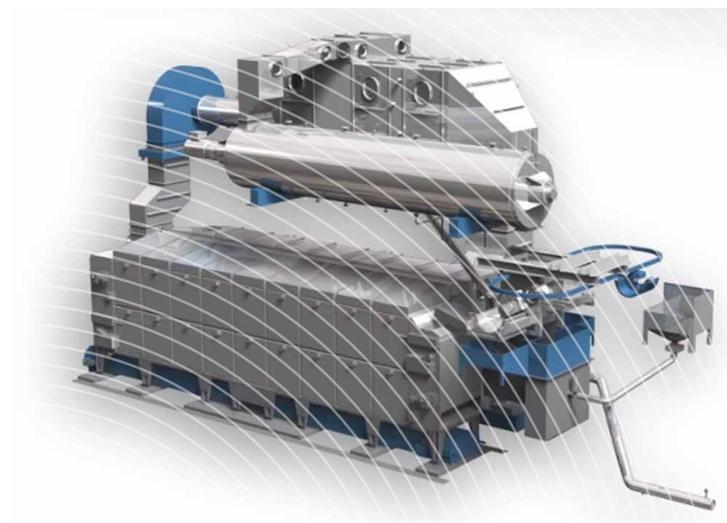


Evaporis™ LE

low energy sludge drying system

○ biosolids



choose the lowest energy-consuming dryer on the market

○ savings

reduction of almost one third in energy consumption

○ safety

zero dust

innovation

recovery of energy generated by an indirect dryer to power a direct dryer

Based on the Innodry® 2E dryer, the Evaporis™ LE is a complete process for treating dewatered sludge with unique performance advantages.



key figure

30%

less energy consumed compared to a conventional dryer



Evaporis™ LE technology . . .

The last stage in sludge treatment after thickening and dewatering, Evaporis™ LE accepts all types of dewatered sludge (UWW, IWW, etc.) with the particularity of accepting a wide range of sludge dryness (18% to 35%) and very different qualities. Working on the principle of energy recovery, the system is comprised of several stages, including two real drying stages, consisting of a thin layer dryer (indirect dryer) and a belt dryer (direct dryer), the latter being powered by steam energy from the upstream dryer, restituted via a condenser.

The dryer is supplied from a storage module with a built-in feed to the thin film dryer- a double-walled cylinder in which hot oil or steam circulates. Inside the cylinder, a central rotor blade flattens the sludge against the wall in fine layers 1 to 2 cm thick. On leaving the first dryer, the sludge is automatically collected and goes through an extruder to be shaped (the stage called "spaghettisation").

At the end of the line, the "spaghetti" is routed to the belt dryer where hot air circulation removes the humidity and extracts water via exchangers. For greater safety during crushing and conveying of the granules to the storage silos, the sludge is cooled directly before leaving the dryer, to a temperature of 35 to 40°C. This low temperature prohibits the development of any auto-heating.

High granule density without pelletization: this sludge shaping during its plastic phase (45 to 50% dryness) has many unique advantages in terms of operating simplicity and safety as well as reducing downstream running costs. Promoting the passage of air through the sludge for optimization of the second stage of drying, it eradicates all sources of dust production and eliminates the pelletization stage and all the associated risks. It also helps reduce the volume treated by 20 to 30% - which is the highest density of non-pelletized granules on the market - and subsequently reduces the associated storage and transport costs.

. . . what it can do for you



among our references

SUEZ treatment infrastructure
 innovation.mailin@degremont.com
 www.degremont.com

Suzhou, China
 capacity: 1,200,000 PE
 11,355 kg H₂O/h

Bordeaux, France
 capacity: 400,000 PE
 4,200 kg H₂O/h

Meistratzheim, France
 capacity: 110,000 PE
 875 kg H₂O/h

Cannes, France
 capacity: 250,000 PE
 2,900 kg H₂O/h