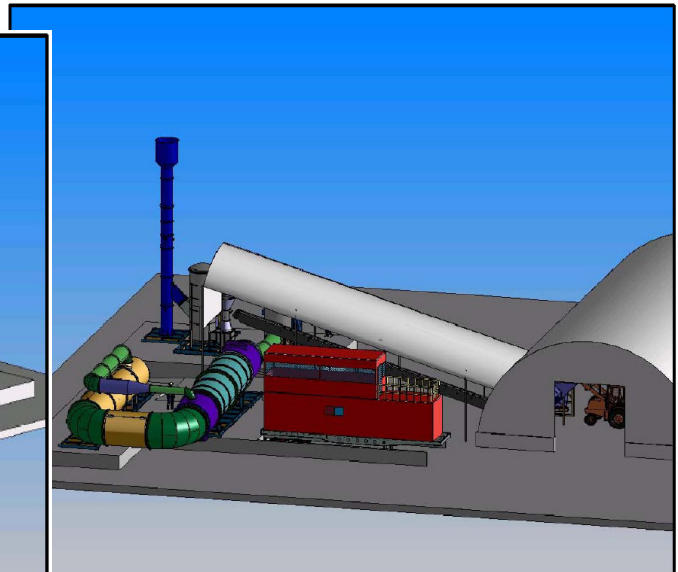
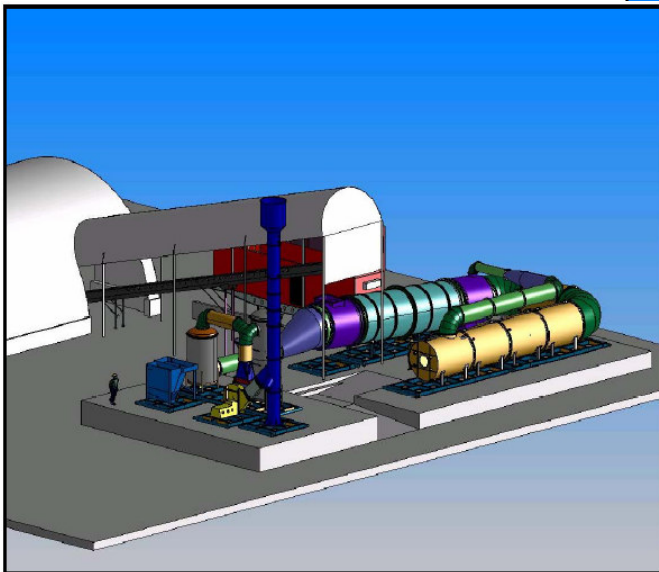


Rotary heat exchanger

The optimum way to thermally desorb soil, sediment and mud contaminated with a variety of organic substances



This paper describes a thermal desorption plant which is mobile, modular, economical to operate and very versatile in its applications.

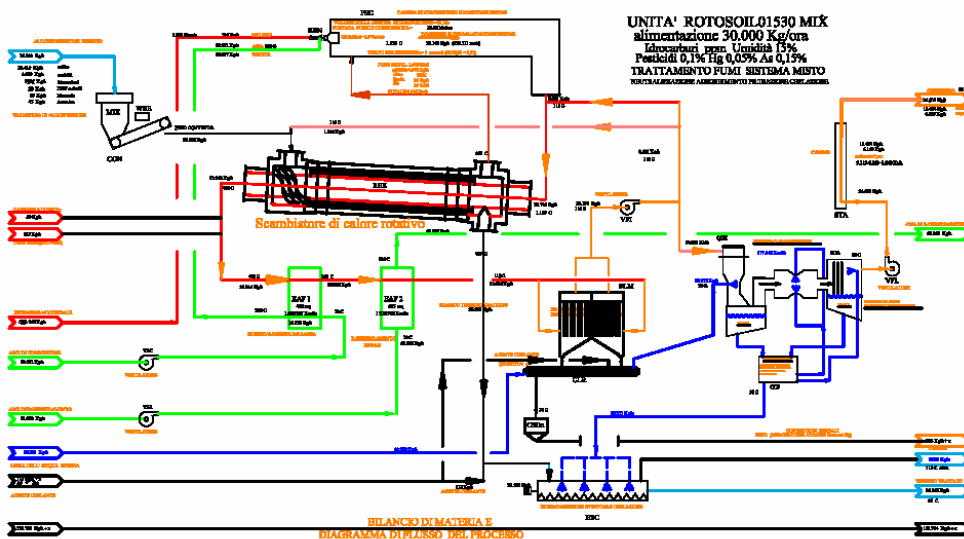
The heart of this plant is the rotary heat exchanger into which are fed soil, sediment or mud contaminated with :

Volatile organic compounds	(VOC _s)
Semi-volatile organic compounds	(SVOC _s)
Polychlorobiphenyls	(PCB _s)
Polycyclic-aromatic hydrocarbons	(PAH _s)
Pentachlorophenols	(PCP _s)

the majority of them with a high molecular weight. At the completion of the **thermal desorption treatment**, the soil is re-hydrated and eventually treated for heavy metals, if present in concentration exceeding the legislated limits.

The same plant may be utilized also as a good thermal transformer of biomass of all types, tires, RDF (**Refuse Derived Fuel**), MSW (**Municipal Solid Waste**), which normally are shredded before feeding them into the rotary heat exchanger.

For this application it operates under pure pyrolysis or gasification conditions in the absence of air, to produce combustible gas with a good heating value.



Most of it, after a catalytic treatment, cooling and scrubbing, can be burned into a gas engine connected to an alternator for the generation of electrical power to be sold to the grid: the heat generated by the plant can be used for district heating or other applications.

A two stage application of biomass gasification allows the production of activated carbon.