

RECYCLABLE MATERIAL SORTING PLANT IN EBOLI

In order to operate an integrated management of municipal solid waste, the designed plant is aimed to both maximize the recovery of materials and prepare a fuel from waste, the refuse-derived-fuel (RDF). The maximum treatment capacity amounts to 300.000 t/y. The machinery layout is arranged in three lines for the mechanical sorting of municipal waste, having a total treatment capacity of 365 t/d; the system comprises: a wide storage area for incoming waste, a hopper and two pre-shredders that make the material dimensions adequate for the following sorting phases (dimensions less than 200 mm) and two vibrating screens to separate two flows of materials, the underscreen one, that is smaller than 30 mm, and the upper screen one, from which ferrous metals and non-ferrous metals (e.g. aluminum cans) are also separated. The upper screen fraction is also subjected to air separation, optical separation and manual sorting in order to select plastics for recycling (PE, PET, etc.). Lastly, the driest fraction separated from the incoming waste is sent to a fine shredding section for producing the RDF, a high-calorific-value fuel, which is baled and sent to thermal plants. A fourth line, consisting of a rotating screen, is also set up to treat the roadside waste from the urban roads weeping activities. The factory shed is constantly kept under negative pressure in order to ensure the health of the workplace. The air treatment system is constituted by a wet scrubber system.

DESIGN DATA

Private client
SICULA TRASPORTI s.r.l.
Task assigned and carried out
Final design
Cost € 10.405.344,69
Location Eboli (SA)
Site surface 20.160 m²
Shed surface 4.780 m²
Project period 2016

TECHNICAL DATA

Operations according to Encl. B and C referring to Part IV of Law Decree No. 152/06 (D.Lgs. 152/06) and further amendments R3, R4, R12, R13
Maximum capacity 300.000 t/year

Average capacity 127.000 t/year
Sorting lines 1) dry mixed waste from MSW separate collection (80.000t/y); 2) mono-material waste from MSW separate collection (12.000 t/y); 3) multi-material waste from MSW separate collection (25.000 t/y); 4) urban roadside waste (10.000 t/y)

Working days per year 350
Personnel: 22

ACCESSORY EQUIPMENT
Air treatment 160.000 Nm³/h
Air treatment system wet scrubbers
Air treatment surface 130 m²
Air treatment system in the manual sorting area 1.200 Nm³/h

