

SUEZ CEMENT

Kattameya (Cairo) | Egitto

REFINING LINE FOR RDF



SENSITIVE IN THE FIELD OF SAFETY AND ENVIRONMENTAL POLICIES, **SUEZ CEMENT** HAS TAKEN VARIOUS ACTIONS TO REDUCE ITS CARBON DIOXIDE EMISSIONS USING ALTERNATIVE FUELS OBTAINED FROM WASTE.

TO MAXIMIZE THE QUALITY OF THE ALTERNATIVE FUEL USED IN THE ITS KATTAMEYA PLANT, SUEZ CEMENT HAS INSTALLED A **MECHANICAL REFINING SYSTEM OF THE PROMETHEUS™ LINE**, A HIGHLY EFFICIENT SOLUTION THAT GUARANTEES FUEL WITH **HIGH CALORIFIC POWER AND LOW ENVIRONMENTAL IMPACT**.

PLANT DATA

COMPANY	Suez Cement
PLANT TYPE	Alternative fuels refining line
WASTE TREATED	Rifiuto Solido Urbano (RSU)
FINAL PRODUCT	RDF
START UP	2014

COMPANY

Founded in 1977, **Suez Cement Company** is part of the Suez Cement Group and **the largest cement producer in Egypt**, as well as an important exporter in Arab, African and European countries. The company has plants in Suez and Kattameya, both of which produce very high quality cement using cutting-edge technologies.

PROJECT

Suez Cement Company awarded EntSORGA with the supply and construction of a **refining line** to produce **alternative fuel** in its Kattameya cement plant.

ENTSORGA'S SOLUTION

EntSORGA supplied a drum screener, a Squirrel air classifier and a magnetic separator, EntSORGA's patented **Prometheus™** line machinery for mechanically **refining waste** and producing **high-quality alternative fuel**.

HOW THE SYSTEM WORKS

The EntSORGA mechanical refining system processes Urban Solid Waste by first using a **drum screener** (1), which separates two fractions, the underscreen, to be sent to a landfill, and a larger overscreen fraction. The latter is further subdivided thanks to the **Squirrel aeraulic classifier** (2) in two streams with different density. The high density flow (with glass, wood, cement, stones, bricks) generates a fraction to be further disposed in landfills, while the low density flow, which mainly contains materials with higher calorific value (plastic, paper, cardboard and substances organic), is the source of the solid fuel (RDF).

The refining line is completed by a **bag filter** (3) and a **magnetic separator** (4), to recover metals.

Characteristics of treated waste:

- **density:** 0.15 t / m³
- **dimensions:** 30-300 mm

(1) TROMMEL



(2) AIR CLASSIFIER



(3) BAGHOUSE



(4) MAGNETIC SEPARATOR

FINAL PRODUCT

Thanks to EntSORGA's technology solutions, **the Secondary Solid Fuel** produced is a high quality renewable fuel, particularly suitable for cement kilns due to its high calorific value, on average equal to 14,000 - 18,000 kJ/kg.

For **cement factories** it is a **valid alternative to fossil fuels** (mainly coke and petroleum derivatives), more economical and sustainable it allows **decreasing cement production costs**, **reducing greenhouse gas emissions** in the environment, in line with international best practices and policies on climate change and waste management limiting the consumption of non-renewable resources.



STRENGTHS

- **Flexibility:** the line offers different possibilities for mechanical and electrical settings to optimize separation.
- **Easy to install**
- **Easy maintenance**
- **Capacity > 15 t/h**

TECHNOLOGIES USED

The plant uses EntSORGA's **Squirrel** proprietary technology and part of the **Prometheus™** mechanical refining line.