

LA CITTÀ VERDE

Crevalcore (BO) | Italy

COMPOSTING PLANT



THE RESULT OF AN AMBITIOUS PROJECT, THIS COMPOSTING PLANT THANKS TO THE **HIGH ENVIRONMENTAL COMPATIBILITY** AND LOW IMPACT, ALLOWS TO BIOGENICALLY PROCESS ORGANIC WASTES FROM THE NEARBY REGION, AND IS THE NATURAL HUB FOR **LOCAL AGRICULTURAL PRODUCERS** FOR SOURCUING **HIGH QUALITY COMPOST**

PLANT GENERAL INFO

Company	La CITTÀ VERDE
Capacity	15.000 t/a
Treated waste	Commercial and residential organic waste
Final Output	Up to 4,000 tpa of high quality compost
Start up	2016
Plant type	Composting

COMPANY

La Città Verde Cooperativa Sociale was founded in 1991 to provide quality services and products within the **provinces of Bologna, Ferrara and Modena**. Over the years, the cooperative has gained experience in the agricultural, environmental, social and rehabilitation sectors.

PROJECT

La Città Verde has awarded Entsorga the **EPC (Engineering Procurement Construction) contract for the Crevalcore composting plant**. This processing plant allows closing the loop with the local community and is **a real life example of coircular economy**.

ENTSORGA'S SOLUTION

Completed in just over 12 months, the plant has been operational since mid 2016. **With a capacity of 15,000 tons / year of organic waste**, the Entsorga solution has enabled La Città Verde **to optimize the logistics of waste treatment**, reducing landfill disposal, and creating value by producing a **high quality compost** which is marketed and sold in the same area of origin, with clear recovery of both material and economic value for the surrounding territory.

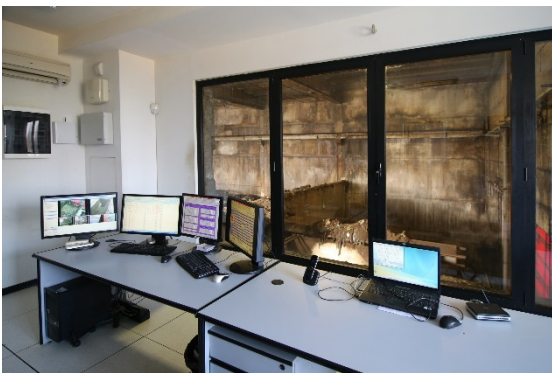
PROCESS

The process starts by mixing organic waste with a lignocellulosic material, preparing a mixture that is placed in heaps using an automated **bridge crane (1)**: the material is thus ready to undergo biological treatment. The process takes place in a closed environment inside **10 Turtle Q-Ring™ (2)** where it remains for 15 days to undergo an aerobic fermentation. The reaction is accelerated through a forced aeration mechanism, monitoring air, temperature and humidity with a **high level automation system (3)**. This confinement also allows a highly effective control of odors, thanks to the use of a **patented biofilter able to break down 99.5% of odors**. After a minimum of 90 days since the waste arrived at the plant, the compost is ready to be used.

(1) AUTOMATIC BRIDGE CRANE



(2) TURTLE Q-RING™ FOR AEROBIC FERMENTATION



(3) AUTOMATION SYSTEM 24/7



(4) BIOFILTER

FINAL PRODUCT

The final result of the process is a **high quality compost sold to farmers in the surrounding areas**. The use of compost in agriculture is considered in itself of **high ecological value**, incentivized by the local DEQ because it **enriches soil** with organic matter and helps the progressive accumulation of carbon (*carbon sink*), contributing to contrast desertification. Composting also contributes to progressively **reducing the landfill disposal**, and to reduce methane emissions and other harmful GHGG.



STRENGTH

- **reduction of landfill disposal** and **maximum recycling of organic fractions**
- **environmental compatibility**: no odors or dust are released in the surroundings. All operations are confined in an enclosed and slightly depressurized environment.
- **reduced labor costs**: complete plant automation reduces access to waste treatment areas, protecting health and ensuring operator safety.
- **low energy consumption** thanks to the use of **high efficiency equipment (overhead crane)**.

USED TECHNOLOGIES

The plant uses the Entsorga proprietary technologies: **Turtle Q-Ring™, Automatic Bridge Crane™, Biofilter.**