

ECO CALL S.p.A.

Vazzano (VV) | Italy

COMPOSTING AND BIOSTABILIZATION PLANT



SERVING THE PROCESSING NEEDS OF THE ENTIRE PROVINCE OF VIBO VALENTIA, THE COMPOSTING PLANT IN VAZZANO REPRESENTS ONE OF THE MOST EFFICIENT PLANTS FOR THE TREATMENT OF SOURCE SEPARATED ORGANIC WASTE IN THE AREA. THANKS TO THE USE OF THE MOST INNOVATIVE AND VERSATILE ENTSORGA'S SOLUTIONS, THE PLANT ALSO ALLOWS PROCESSING AND BIOSTABILIZING UNSORTED MUNICIPAL WASTE.

PLANT GENERAL INFO

Company	ECO CALL S.p.A.
Capacity	18.000 tpa of organic waste
Treated waste	Source separated organic waste
Final Output	High quality compost
Start up	2003
Plant type	Composting and Biostabilization
Population served	170.000
Employees	14

COMPANY

Eco Call S.p.A. was **founded in 1997** by highly qualified local entrepreneurs with the intent of providing environmentally compatible solutions for the waste processing needs of the local community. After more than twenty years of operations, the company remains an example of **well integrated low impact solution provider for processing non hazardous waste**.

PROJECT

On an area that is particularly strategic for the Region, but still lacking infrastructure, Eco Call S.p.A. has worked with Entsorga to **create an innovative plant to transform organic waste into quality compost**. The plant that is allowing to achieve high levels of landfill diversion and produce a valuable substrate suitable to be used in various agricultural practices, is one of the **earliest real life examples of circular economy implemented in Europe**.

ENTSORGA'S SOLUTION

The plant based on Entsorga's Composting and Biostabilization platforms allows processing **source separated residential and commercial organic waste**. Since the start up in April 2003, it has processed approximately **18'000 t/y of organic waste**. Initially processed waste was from outside the area. Most recently, however, most of the waste processed is generated in the province of Vibo Valentia, with obvious **savings in terms of costs and carbon emissions**.

PROCESS

After receiving the process starts by mixing the organic waste with a structuring bulking agent, preparing a mix that is then moved to a **biooxidation area** by the **automated bridge crane Spider™ (1)**: organized in batches, the material undergoes an aerobic biological treatment **H.E.BIO.T. (High Efficiency Biological System)™**, an high efficiency and high automation system patented by Entsorga. The process takes place in an enclosed building, triggered and managed by a **forced ventilation mechanism**. A **DCS system** collects water content and temperature data from the batches and automatically allows managing airflows significantly accelerating and enhancing **the efficiency of the process (2)**. The enclosed processing area kept under slight negative pressure and the use of a patented **biofilter (3)** allow an highly effective odor abatement. The processed batches are then refined with a screening system to eliminate the non-compostable contaminants (plastic, glass, metals ...) and the resulting material is then sent to the **biocells (4)** for a final slower curing and storage .

FINAL PRODUCT

The final result of the process is a **high quality compost, intended for agricultural use**. The use of compost in agriculture is recognized in itself as a practice of **high environmental value**, it allows **enriching soil** with organic matter functioning as a carbon sink and increasing water retention properties of the soil in dry areas. The processing also helps to **progressively reducing landfill volumes**, with additional substantial benefits in terms of GHGG reduction.



STRENGTH

- **high landfill diversion rates and maximum recovery of organics**
- **low environmental impact: no odors, dust, or leachate** are released in the surroundings.
- **reduced operation and labor costs**, thanks to the **high plant automation**
- **maximum safety for operators**, which are not exposed to the foul air, dust and potential pollutants
- **low energy consumption** thanks to the control system which optimizes air flow rates within the process



(1) **AUTOMATIC BRIDGE CRANE SPIDER™** FOR MATERIAL HANDLING



(2) **CONTROL SYSTEM** AUTOMATIC 24/7



(3) **BIOFILTER** FOR THE ODOUR PROCESS AIR ABATEMENT



(4) **BIOCELLS** FOR THE COMPOST MATURATION

USED TECHNOLOGIES

The plant uses the Entsorga proprietary technologies: **Scrabble™, Automatic Bridgcrane Spider™, Biofiltro**