

**39** **CARPI (MO) ITALY**

Year	2003
Client	AIMAG SpA
Operator	AIMAG SpA
System description	Tunnel composting
Waste processed	Organic waste
Plant capacity	60,000 t/year



Eighteen biotunnels are at the core of this composting plant treating organic waste coming from source separation.



To produce compost from source separated organic waste, it is necessary to mix it with a given quantity of structural material, such as chipped wood waste. This allows the mixture to become air permeable.

The mixture to be biologically treated is prepared by a mixer (pre-existing) that is fed by two independent feeder conveyors, one for organic waste and the other for the structural material.

A conveyor system transfers the mixture to the biotunnels that are filled by means of a wheel loader.

The tunnels consist of reinforced concrete cells. Each cell has the shape of a blind tunnel and is equipped with a ventilation system built into the floor.

Once the tunnel has been loaded, its sliding door closes tightly in order to ensure odour control.

Process air is blown in through the floor and partly re-circulated in the tunnel. Exhaust air is sent to the biological filter to keep odours under control.

In order to ensure an optimal operation, the biofilter is equipped with an air scrubber on the inlet and a sprinkler system.

Once the biological process has been completed, the material is extracted from the tunnel and conveyed to the refining area (pre-existing).

