



TURTLE SYSTEM  
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# TURTLE Q-RING™

BIOREACTORS WITH  
BREATHABLE Q-RING™ COVER

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ENTSORGA TURTLE BIOREACTOR SYSTEM WITH THE Q-RING™ BREATHABLE COVER IS A **SIMPLE, EFFECTIVE AND MODULAR SOLUTION** TO PROCESS FEEDSTOCK IN **CONFINED SPACES**.

OUR TURTLE SYSTEM PROVIDES AN **EXCELLENT ODOR CONTROL**, WITHOUT THE NEED OF AN **ADDITIONAL BIOFILTER** TO TREAT PROCESS AIR.

ENTSORGA  
GREEN TECHNOLOGY REVOLUTION



THE RESULT OF TWENTY YEARS OF EXPERIENCE IN THE BIOLOGICAL TREATMENT OF WASTE, THE TURTLE SYSTEM IS AN EXCELLENT SOLUTION TO MINIMIZING CAPEX WHILE DELIVERING PROVEN PERFORMANCE AND LOW IMPACT ON THE SURROUNDINGS.

## MAIN FEATURES

The Turtle system is suitable for **medium-sized plants** (with minimum capacity from 15,000 t/a). The system guarantees **safe, fast and clean maturation** of biomass, combining the advantages of an enclosed processing to the use of the Q-ring™ cover. This semi-breathable fabric allows **reducing water content by evaporation** while **retaining odors, hence eliminating the necessity of a biofilter**.

The system can treat also process **air collected in other plant sections**, improving the overall environmental performance of the plant.

## ADVANTAGES

- **Excellent process efficiency:** the maturation of the material accumulated in the biocells is accelerated by blowing air through a **ventilation system** embedded in the concrete floor. This forced ventilation system distributes oxygen optimally and regulates the flow according to the material, ensuring achieving **optimal process temperature and sanitizing the feedstock** (keeping it at 55 ° c for a minimum of 72 h).
- **Maximum reliability**, thanks to the **automatic control system** that manages, optimizes and records process data (including temperature, time, quantity, wetting cycles, air flow, door opening and closing)
- **Minimum environmental impact: excellent odor control** and no dispersion of materials due to rain or wind
- **Reduced investment costs** (biofilter not required)
- **Modularity:** the technology adapts easily to the different volumes and types of waste to be treated
- **Standardization:** the continuous testing and process improvements on industrial scale guarantee **maximum efficiency, durability and ease of use**



## APPLICATIONS

Without need of modifications, the Turtle Q-ring™ system is **suitable for all types of aerobic biological treatment**:

- **COMPOSTING** the organic fraction of waste, digestate and sludges
- **BIOSTABILIZATION** of waste before landfilling
- **BIODRYING** of waste and biomass and subsequent production of Solid Recovered Fuel (SRF)



COMPOSTING SOLUTIONS



ANAEROBIC DIGESTION



BIODRYING AND PRODUCTION OF SRF



BIOSTABILIZATION

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