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Composting and Bio-drying

GIVING ORGANIC WASTE NEW LIFE

Composting is the natural process of recycling organic matter, such as leaves and food scraps, into a valuable fertilizer that can enrich soil and plants. Organic waste that is converted to compost can be used by local farmers or for other agricultural applications.

COMPOSTING PROCESS

Waste Treatment Technologies (WTT) designs in-vessel technologies, individually controlled with forced aeration to process organic waste into compost. Each composting tunnel has its own aeration system, water and heating modules and is accompanied with the required instrumentation. The whole configuration is included into a skid for faster installation, easier transport to site and simplified commissioning. The complete tunnel system is remotely actuated and controlled by a SCADA visualization system. This allows site operators to set process parameters to be able to adapt to different waste streams and seasonal fluctuations.

BIO-DRYING PROCESS

Bio-drying is comparable to composting in terms of aerobic degradation, the main difference lies in the retention time, and thus the final utilization and product obtained. Composting produces compost that can be both a nutrient source and a conditioner in agricultural applications. Bio-drying reduces the moisture content of waste to increase its caloric value. In WTT's design, residual process heat can be reused and then transported via a hot water circuit to accelerate the drying of the waste. By using the heat from hot water into the air the moisture of the waste will be removed more efficiently.

The image below shows the facility in Dandenong where 120ktpa of kerbside collected FOGO waste is treated to produce high-grade compost.



BENEFITS

WTT's modular construction and versatile control software allow the facility to treat organic waste optimally in less time. This process decreases costs and increases throughput resulting in maximizing processing efficiency while keeping environmental conditions under strict control. For example, to minimise odour emissions, WTT designs scrubbers washing the air with acid to remove ammonia. Combined with relevant know-how regarding the design of biofilters, WTT can always meet odour emission requirements, even for places like the city center of London, UK.

WE THINK AHEAD

We are committed to delivering quality throughout our cycle of service. We specialise in solid preparation and strive to anticipate our customers' critical requirements.

Our system of delivery is built on years of operational experience and extensive knowledge. From process design and engineering to testing, installation, training, and customer support. We strive to maximise cost efficiency and focus on customer needs. In addition, our solutions are sustainable aimed at preserving finite natural resources and reduction of greenhouse gas emissions.



What I really liked in working with WTT is the practical approach, the direct consultation structure and keeping the customer perspective in mind. And they do what they promise.

Alfred Charles
MBT Manager, Veolia, Southwark

Let's partner together to make a more sustainable future.

We cooperate with local partners to deliver technology for building sustainable and state-of-the-art organic waste treatment facilities and enable our partners to become the best operator.

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Key Advantages

- Modular construction
- Quick processing times
- Versatile software
- Low operational costs
- Maximised efficiency
- Increased throughput
- Control of environmental conditions