

HERON IN-VESSEL COMPOSTING MACHINES



IN-VESSEL COMPOSTING WASTE MANAGEMENT SOLUTION

In-vessel composting (IVC) is the controlled and enclosed composting of organic material.

Using IVC technology the whole composting process is controlled through an automated programme.

The heron IVC is produced in South Africa to enable the safe, rapid and effective composting of the total food waste matrix.

The advantage of in-vessel composting are:

- ▶ Relatively lower capital costs vs. large compost sites's ancillary purchases (turners, shredders, screeners).
- ▶ Low to zero malodour emitted.
- ▶ Small footprint - can be located on-site thus reducing logistic costs and related carbon emissions.
- ▶ Automated system requires minimal manual input.
- ▶ Off ground enclosed system reduces site setup costs (leachate barriers) and easily meet EIA requirements.



heron
INDUSTRIAL FOOD WASTE COMPOSTING MACHINES





HERON IVC OPERATIONAL PROCESS

The heron IVC has been designed to minimise operator interventions. Additionally, the heron has been manufactured for South African operating and environment conditions: simplify mechanical parts to bare essentials to ensure minimisation of mechanical faults.

The operational process involves three steps:

- Weighing of input food waste.
- Adding waste to pre-feed macerator to reduce surface area of waste matrix.

- Screw feed discharges into vessel.
- Single vertical auger functions to:
 - Mix waste.
 - Aerate waste.
 - Transport waste.
 - Discharge waste.

The heron IVC has remote management and BMS alert systems included to optimise composting, monitor operating process and trouble shoot faults immediately.

ENVIRONMENTAL IMPACT

Composting 1,000kg food waste per day has a significant impact on landfill space and emissions.

	Monthly Saving	Yearly Saving
Airspace Saving	45m ³	540m ³
CO2e Emissions	7,050kg	84,600kg



MECHANICAL AERATION

As opposed to energy intensive forced aeration, the heron IVC employs mechanical aeration to ensure the matrix receives adequate oxygen.

This mechanical system also functions to mix the composting matrix together with a balanced C:N ratio.



100% COMPOSTING OF ORGANIC WASTE

The heron IVC will process ALL organic waste including cooked and uncooked meat, bones, sea food, citrus, etc.

It will also process waste - not chemically contaminated - cardboard as well as shredded garden waste or even manures.



BENEFICAL MICROBE OPTIMISATION

Earth Probiotic provides a beneficial microbe mix to optimise composting, eliminate pathogens and ensure odour free operations.

Compost recipes are designed to fit your waste matrix and ensure optimum C:N ratio in the mix.



Earth Probiotic guarantees 48 hour turn around for all faults. Our off-site monitoring systems ensures that faults are detected early to minimise breakdowns.

The heron IVC is designed to minimise mechanical faults while optimise food waste composting processes.

To ensure safe operations, the heron IVC is fully automated and thus requires minimal operational input.

Operators are fully trained on loading requirements as well as HSS issues.

All safety documentation is provided prior to operators training.

The heron IVC includes a leachate collection and treatment system.

Leachate is oxygenated with biological additives to reduce COD and pH levels.

Leachate can be safely discharged to sewer, used as a liquid fertiliser or pumped into the compost container as an activator.



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