

INSTAL WARSAWA S.A.

Siedlce | Poland

MBT PLANT BIOSTABILIZATION



THE MBT PLANT IN SIEDLCE, POLAND, USES THE ENTSORGA **FORCED AERATION SYSTEM**. HEART OF THE PROCESS OF BIOSTABILIZATION, THE SYSTEM ALLOWS TO **ACCELERATE THE REACTION IN A CONTROLLED AND EFFICIENT WAY**, TO OBTAIN A STABLE REJECTION, WITH VERY LOW MOISTURE CONTENT, SUITABLE FOR THE LANDFILL IN ACCORDANCE WITH THE TERMS OF LAW.

PLANT DATA

Company	Instal Warszawa S.A.
Yearly capacity	25.000 tpa
Waste processed	Unsorted Municipal Solid Waste
Final Output	19.000 t/a
Start up	2015
Plant	MBT and biostabilization

COMPANY

INSTAL WARSZAWA S.A. is a well established Polish company that has been operating in the environmental field for 60 years, with several industrial plants dedicated to waste treatment in Poland and abroad. Founded in 1951, it has always been a market for the high level of quality and excellent technical level of service provided, able to meet the highest international engineering standards.

PROJECT

INSTAL WARSZAWA S.A. has awarded Entsorga **the forced ventilation system** for the MBT Biostabilization plant based in Siedlce, Poland.

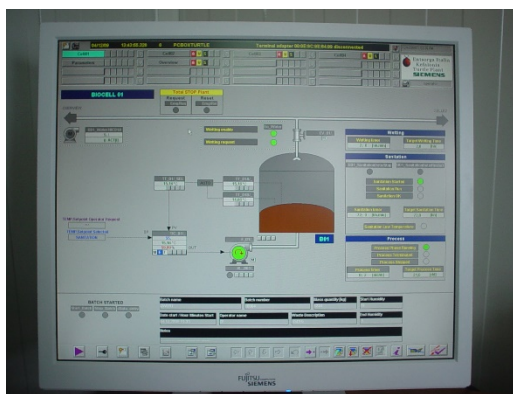
ENTSORGA'S SOLUTION

Entsorga supplied the forced ventilation system managed by proprietary software, a **highly efficient and automated solution** to manage incoming and outgoing air flows by adjusting and fine tuning process parameters reliably.

PROCESS

Unsorted Municipal Solid Waste is placed into biocells, where for about 14 days undergoes a **biological treatment process** being **sanitized** and **stabilized**. The main driver allowing to accelerate the processing of the organic matter is the forced aeration system (1) which accelerates the reaction by supplying oxygen through pipes distributed in the concrete floor of the biocells and, simultaneously, monitoring the best temperature to sanitize feedstock (maintained at 55 ° C for a minimum of 72 h). The process is completely managed by **an automated control system (2)**, which monitors process parameters including biomass temperatures with online thermometric probes, allowing to optimize the air flow.

(1) FORCED AERATION SYSTEM



(2) AUTOMATIC CONTROL SYSTEM

FINAL PRODUCT

The result is a **stable waste**, with a very low moisture content, suitable for being landfilled, in compliance with the latest European standards.

The biostabilization process, stabilizing the putrescible part of undifferentiated waste (MSW) inert, **drastically reduces greenhouse gas emissions (biogas) and leachate production**, with great environmental benefits.



STRENGTHS

- Accelerates the natural degradation processes through **forced and controlled aeration**
- **Reduces variable and labor costs**: the complete automation of the plant minimizes access to waste treatment areas, protecting health and guaranteeing the safety of operators.
- **Limits waste handling** and **energy consumption**, thanks to the optimization of the airflows performed automatically by the control system.

TECHNOLOGIES USED

The plant is equipped with Entsorga's proprietary **forced aeration system** and **automatic control system**.