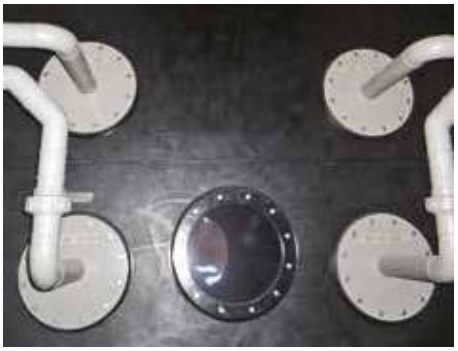
64 VILNIUS - LITHUANIA

Year	2014
Client	UAB ENERGESMAN
Operator	UAB ENERGESMAN
System description	Sorting, baling and bio-drying
Waste processed	Mixed MSW (Municipal Solid Waste)
Plant capacity	277,000 t/year

VAATC, the authority responsible for the management of Vilnius municipal waste, has developed this project, which is co-financed by the European Union. The contract includes the design, construction and commissioning of the entire processing equipment of a highly automated recycling and bio-drying MBT facility.



After the bag opening process, the waste is manually sorted from the three conveyors passing through a single room, where glass containers and large sized plastic and paper products are recovered. In the same room, some of the reject components contained in the processed waste are also sorted.

Through channels in the floor of the sorting room, the recyclable materials are dropped into concrete bunkers, where they wait their turn to be baled. Glass and rejects are collected into roll-off containers.

Three trommel screens sort the following fractions:

- An undersized fraction which is transferred to the bio-drying tunnels after the separation of ferrous metals;
- A mid-sized fraction which is processed by three optical sorters separating a single stream containing PET, HDPE and PVC;
- An oversized fraction containing combustible components, such as wood, plastic, paper and textiles, which is RDF

Three secondary optical sorters are used to automatically separate PET, HDPE and PVC, which is separated to limit the chlorine content of RDF. The same baler processing the manually sorted materials is used for PET and HDPE.

The remaining mid-sized fraction is further processed by a magnetic separator and an Eddy current separator for recovering non-ferrous and, respectively, ferrous metals prior to being combined with the RDF stream.

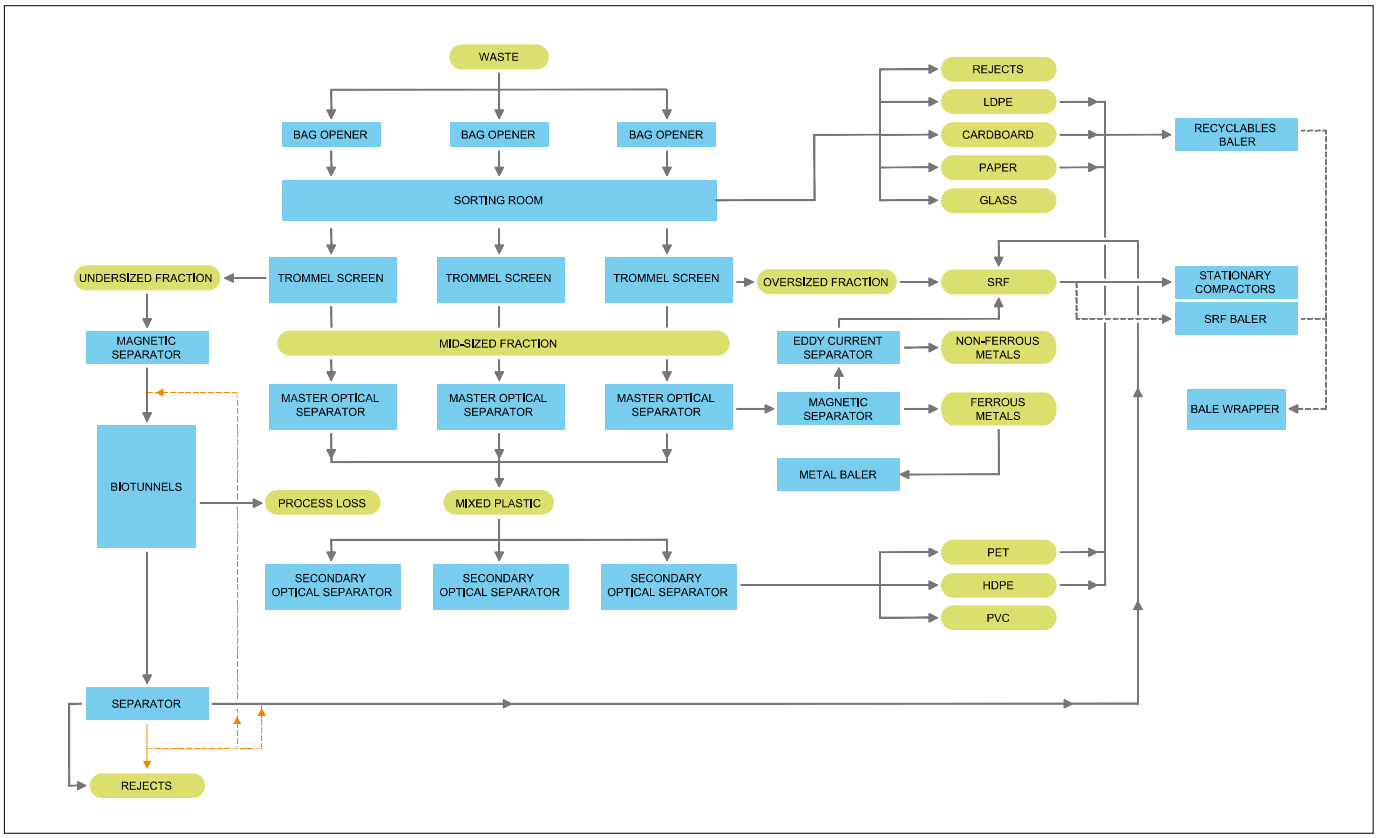
RDF can either go to two stationary compactors or to a baler. A wrapper is included for packing, when required, of the bales of RDF and/or the bales of some recyclable materials.

A specialized baler is used for baling ferrous and non-ferrous metals. The biological process occurring in the tunnels has the function of stabilizing and drying the organic fraction. The tunnels are totally enclosed and provided with a front door and an aerated floor. They are maintained under slight negative pressure by the odor control system, which consists of two independent systems, each including an air scrubber, a fan and a biofilter.

Exhaust air from the halls is used as process air for the composting process.

Each tunnel is provided with three dampers, which automatically control the flow rate of fresh, process and exhausted air based on the various process parameters. The system is fully automated and operates on a 24/7 basis under the control of the PLC. The SCADA system allows for a simple process monitoring and remote troubleshooting.

After the completion of the biological process, the material is treated by a separator and the sorted fractions can be disposed of at a landfill, recirculated for further stabilization or sent to the SRF compactors/baler.



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