

Woods and Metals are also included in the waste that AVR uses.

Waste wood

First of all, AVR classifies woods in 3 different categories:

- A-wood: Reusable wood, in good condition (can be recycled and reused for constructions).
- B-wood: Non Reusable wood; can be burnt.
- C-wood: Treated wood (with chemicals products), can't be burnt because it will be harmful for the environment.



To produce 100% green electricity, AVR uses non-reusable waste wood. Then green energy is still delivered, as long as the district heating process steam as well.

C-wood comes from various sources such as old kitchen cabinets to demolition wood that is often contaminated by paint, lacquer or other treatments and therefore is unsuitable for the wood-processing industry.

Moreover, each year AVR processes over 150,000 tons of waste wood in our biomass power plant, thus generating 100% renewable power. Their flue gas purification system captures the contaminants in the wood so as to put as small a burden on the environment as possible.

Finally, AVR is currently working on a project for the direct delivery of district heating and process steam generated from waste wood. New infrastructure is being built for this purpose and will be delivered in 2017, and from January 2018 onward they will be supplying this renewable heat to the region.



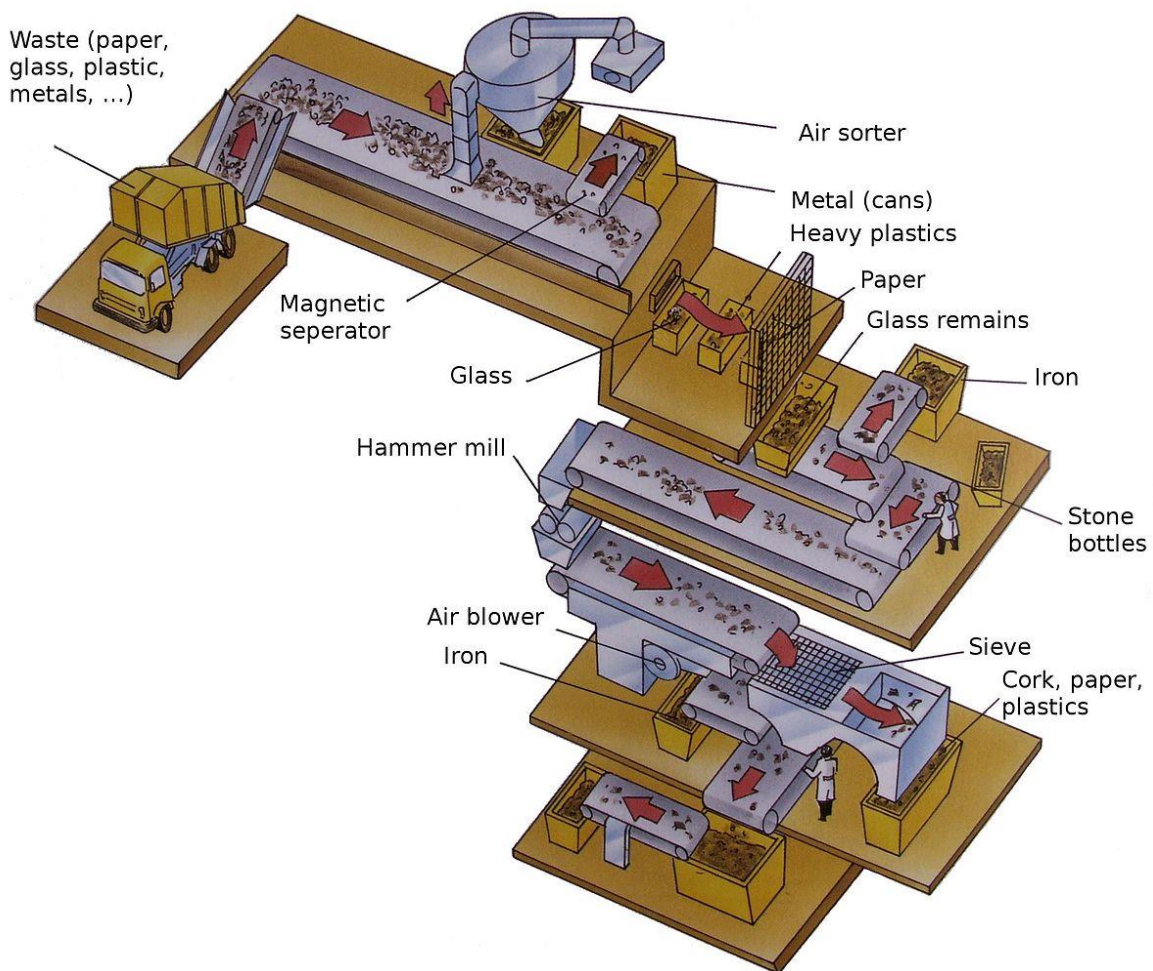
Metals

When the residual waste is collected AVR performs a manual pre-sorting in order to separate various types of metals. But on average 2 kg of metal are still recovered from every 100 kg of residual waste: that's 7% of the bottom ash.

There are 2 different processes to recover metal parts from the ashes.

The first one applies only for ferrous metals. The ashes are laid down on a treadmill with a very powerful magnet attached just above them. The ferrous elements contained in the ashes are attracted by the magnet and are then recovered and sold to companies which reuse them.

The process for non-ferrous metals is more complicated but starts in the same way. The ashes are also laid down on a treadmill but instead of using a magnet these ashes are subjected to an electromagnetic field. The metals contained in the ashes "jump" because of the electromagnetic field and are caught by a net. In order to distinguish one from the other, the metal parts are immersed in liquids of different densities. There is one liquid for each type of metal; the first one is for gold. All the metal parts are dumped into this fluid but only the gold drowns and is then recovered. The same process is repeated for each type of metal.



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