

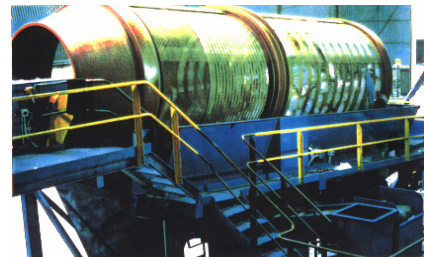
How a Materials Recycling Facility Works



The materials are dumped out of the blue truck that has collected them from the household bins. Initially all the contents of the collecting trucks are tipped into the holding area. These are pushed slowly, with the aid of a small front end loader, onto a large conveyor belt which gradually feeds a smaller conveyor belt that takes the goods up into the

first sorting area. Here two workers separate the cardboard and the non-recyclable rubbish off by hand. The cardboard goes down one hopper onto a separate conveyor belt and directly into a Amcor truck container, ready to go to Amcor and be made into new cardboard and packaging. The non-recyclable rubbish that should not have been in the bins goes down a separate hopper into a compactor from where it is taken to landfill.

The remaining goods then fall into and go through the first and largest trommel or spinner. As they are spun the non-paper items fall through the holes in the sides of the trommel. Everything else, namely light weight things, meaning mostly paper comes out of the end of the trommel, onto its own conveyor belt to be further sorted. The paper on this conveyor belt is then sorted by hand so that the few contaminants are either removed as rubbish or removed and sent back into the system on a return line to be further and correctly sorted. The now clean and sorted paper is raised on its conveyor and dropped into a baler to be formed into ½ tonne cubed bales ready for marketing. It is shipped to Indonesia where it is de-inked and made back into new newspaper ready for printing.



The items that drop through the trommel holes fall onto a bounce conveyor belts. All the “rolling stock”, such as bottles and cartons, roll down the slope and are collected on another conveyor belt. This moves into the sorting room where 4 workers remove and sort items off the

moving conveyor belt. Firstly plastic bottles (all plastic bottles are recyclable provided they are not contaminated with the likes of oil or chemicals) are tossed into the chutes for each of them. Next any paper products or cardboard are removed and then glass is removed and sorted into green, clear and brown chutes.

The remaining things go under a rotating magnetic belt, which attracts the steel cans, dropping them onto a conveyor belt, which moves them to a compacting unit ready for transfer to their recycler.

Immediately after this the aluminium cans are removed by an “Eddy Current”. The eddy current acts in the reverse manner to a magnet. Since aluminium is not magnetic, despite it being a metal, the magnet is of no use in sorting it. The eddy current repels or pushes away the aluminium, pushing it off the moving mixed belt onto its own belt, which then delivers it to another baler where it is baled, ready for transfer to market. The further recycling/reprocessing of the products takes place at the factories to which the recyclables are sold.

Clean mixed paper goes to Indonesia. Indonesia does not have access to timber that is appropriate for creating paper pulp. Their mills are hungry for recycled paper to use in their paper mills to make new newspaper rolls. There are also no de-inking mills in Western Australia, but there are in Indonesia.

- Aluminum cans go to a local market.
- Steel cans go to BHP at Kwinana and then to BHP at Port Kembla.
- Plastic bottles go to the Eastern States exported directly.
- Glass bottles and jars go to a local glass recycler in Perth.