



Did you know?

- It takes about 15,000 steel cans to make one tonne of recycled steel.
- Making new steel from recycled cans uses 75 per cent less energy than making steel from raw materials.
- The canned food industry in Australia is a major consumer of steel packaging and each year Australians generate about 6.4 kilograms of post consumer scrap that can be recycled.
- An average city bus contains 75,000 cans worth of steel.
- Steel is the most commonly recycled material throughout the world.
- In Australia, steel makes up about 2.5 per cent of the waste that goes to landfill.

About steel

Since their invention in England in 1810 steel cans have become a common way to preserve and store food and other materials. Production of cans increased in the late 19th century when machines for making cans were developed. Many homes and businesses use cans that can be recycled.

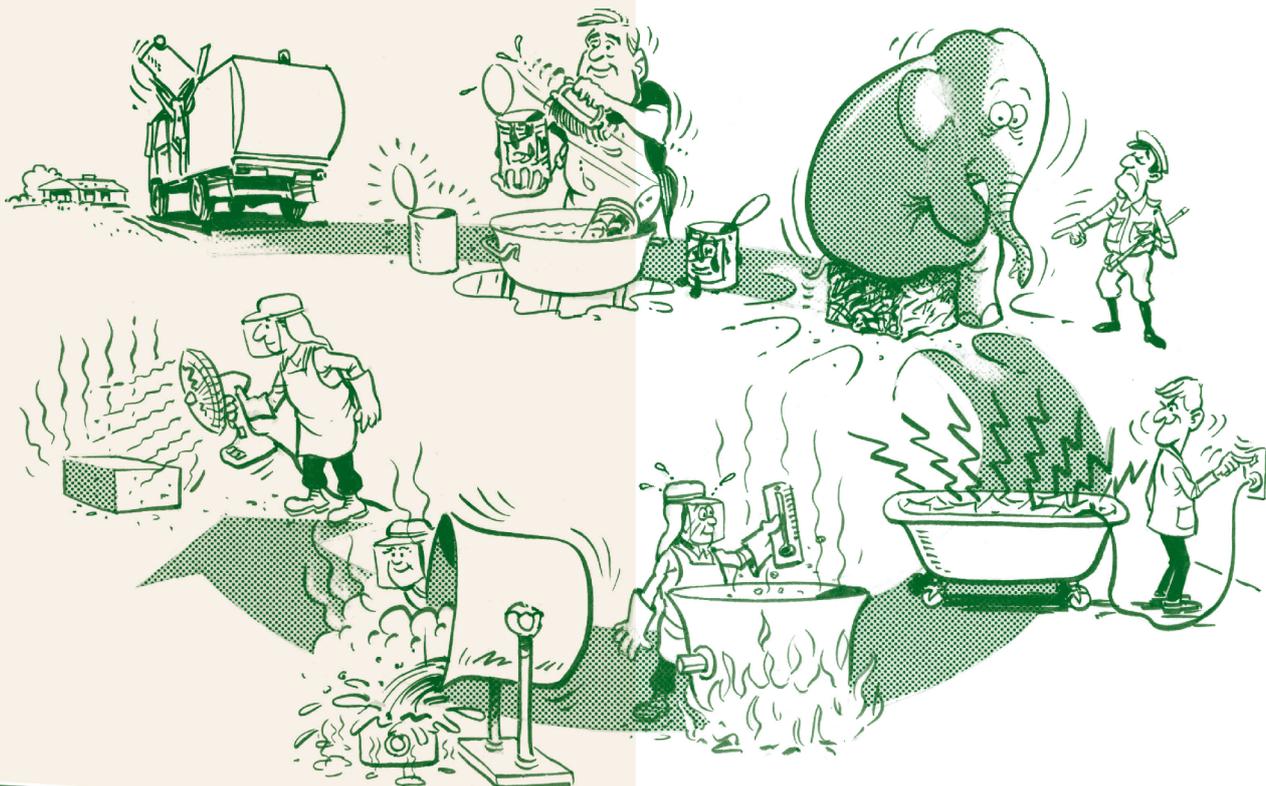
Steel cans are made from iron ore, coke and limestone which are heated in a blast furnace until molten. The molten metal is cast into slabs and rolled into coils. The coils are cleaned and then cold rolled into thin sheets of plastic and then coated with a thin layer of tin to stop the can from rusting. The end product, called tin plate, is what steel cans are made from and the tin protects the steel from corrosion or rust.

Being Waste Wise with steel cans

Steel cans require minerals that are mined from the earth. To reduce the need for mining as well as saving energy and landfill space, it is important to be Waste Wise with steel cans. There are three waste wise steps to follow.

Reduce

Common products found in cans are fruit and vegetables, baked beans and spaghetti, pet food or tuna. One way to reduce the amount of steel used is to buy the largest size can. Instead of buying small tins, for example a tin per meal/snack, buy larger tins that will last two or three meals. What isn't used the first day can be stored in a reusable container.



Steel recycling process

Paint cans are also made of steel. Whenever you buy paint to do a household job, buy only as much paint as you need. Use up as much of the paint as possible on the original job. Once the excess paint has been tipped onto newspaper to dry, the dry paint can be safely put in the bin and the steel container can be recycled.

Reuse

Steel cans can be reused for a number of different purposes:

- storage of small items such as nuts and bolts
- decorating the container and using it for storage, for example to hold pens
- use as a scoop for animal feed, in the garden etc.

Recycle

Steel is fully recyclable and is the most recycled product in the world. This is true for steel used in your home and in industry. In fact steel scrap such as steel cans, old paint cans and discarded whitegoods are a necessary component in the steel-making process.

Steel cans that are accepted for recycling include food and pet food cans, coffee, oil, paint and aerosol cans, bottle tops and jam jar lids. Most local councils will accept steel cans for recycling in kerbside collections but remember to remove any plastic caps first.

Check with your local council about recycling in your area. Make sure that old paint cans and aerosol cans are empty, if they are not, please contact your council and include them in your household hazardous waste collection. Steel can also be collected and sold as scrap metal for fundraising.



The recycling process

1. The steel is sorted and cleaned of food particles and labels.
2. It is compacted into bales for de-tinning.
3. The steel is de-tinned by immersion in an alkaline bath and transmitting an electric current through them.
4. The steel is heated to 1,700 degrees Celcius and some new materials are added.
5. The molten cast iron is tipped into a basic oxygen steel unit to remove carbon.
6. The steel is poured out and substances are added to give specific properties to it.
7. The steel is cooled as slabs, then shaped as necessary.

Sources

Australian Council of Recyclers (ACOR) 2008. *A net benefits assessment Final Report*, July 2008, Australian Council of Recyclers Inc. NSW.

Bluescope steel, *Steel Recycling Case Study 2005*, <http://csereport2005.bluescopesteel.com/environment/steel-recycling-case-study.html>

Cansmart *Steel can recycling campaign*
www.cansmart.org/news_cfm/MEDIA%20RELEASE-New%20Life.doc

Planet Ark/BHP *Steel Recycling Kit*.

Websites

www.cansmart.org

www.recycle-steel.org

The Waste Wise Schools Program

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