

How cans are made

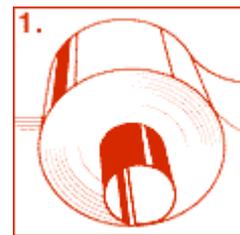
Over 9 billion drinks cans are manufactured in the UK each year, and 54 billion in total throughout Europe. They are made from either aluminium or steel using advanced engineering and sophisticated technology.

The aluminium is alloyed with manganese and magnesium to give greater strength and ductility. Aluminium alloys of different strengths and thickness are used for making the can body and the end below.

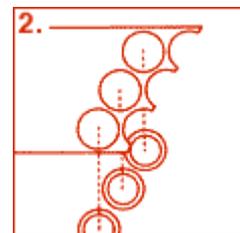
For steel drink cans, a special grade of low-carbon steel is used, which is coated on each side with a very thin layer of tin. The tin protects the surface against corrosion and acts as a lubricant while the can is being formed.

The Top of a Can

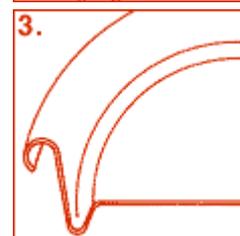
1.Can end manufacture begins with a coil of special alloy aluminum sheet.



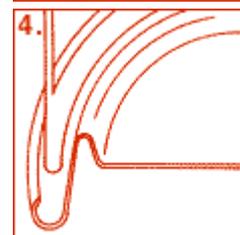
2.The sheet is fed through a press which stamps out thousands of ends every minute.



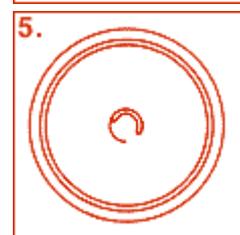
3.At the same stage the edges are curled.



4.The newly formed ends are passed through a lining machine which applies a very precise bead of compound sealant around the inside of the curl.



5.A video inspection system checks the ends to ensure they are perfect.

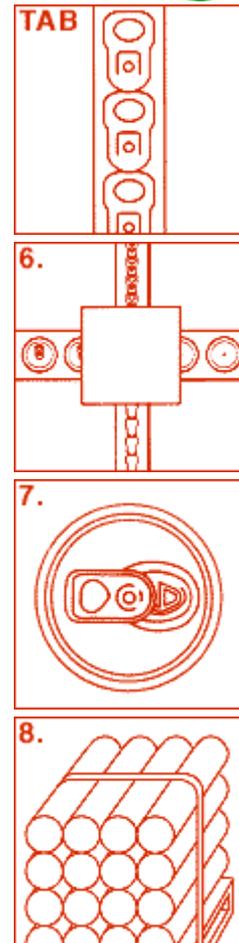


TAB. The pull tabs are made from a narrow width coil of aluminum. The strip is first pierced and cut and the tab is formed in two further stages before being joined to the can end.

6. The ends pass through a series of dies which score them and attach the tabs, which are fed in from a separate source.

7. The final product is the retained ring pull end.

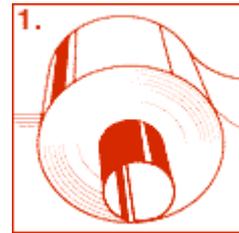
8. The finished ends, ready for capping the filled cans, are packaged in paper sleeves and palletised for shipment to the can filler.



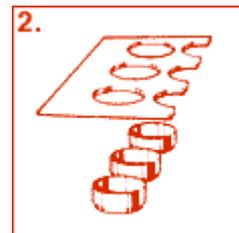
Drinks cans and retained ring pull ends are delivered to the customer for filling and sealing.

The Body of a Can

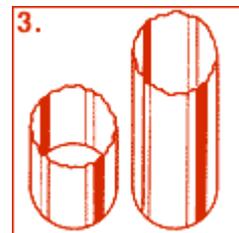
1. Aluminium or steel strip arrives at the can manufacturing plant in huge coils.



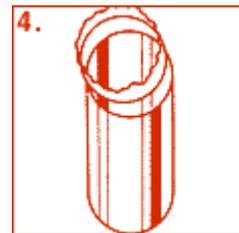
2. The strip is lubricated with a thin film of oil and then fed continuously through a cupping press which blanks and draws thousands of shallow cups every minute.



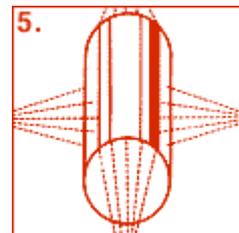
3. Each cup is rammed through a series of tungsten carbide rings. This is the ironing process which redraws and literally thins and raises the walls of the cans into their final can shape.



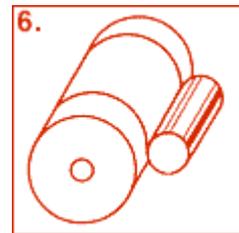
4. Trimmers remove the surplus irregular edge and cut each can to a precise, specific height. The surplus material is recycled.



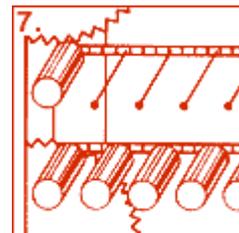
5. The trimmed can bodies are passed through highly efficient washers and then dried. This removes all traces of oil in preparation for coating internally and externally.



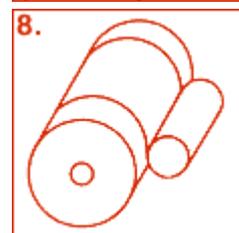
6. The clean cans are coated externally with a clear or pigment base coat which forms a good surface for the printing inks.



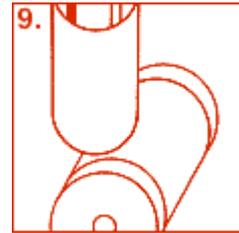
7. The cans pass through a hot air oven to dry the lacquer.



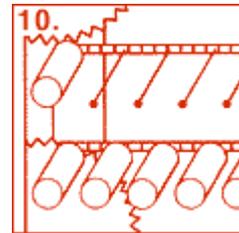
8. The next step is a highly sophisticated printer/decorator which applies the printed design in up to six colours, plus a varnish.



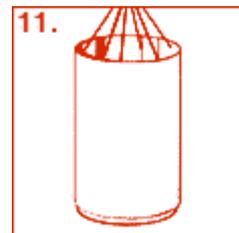
9. A coat of varnish is also applied to the base of each can by a rim-coater.



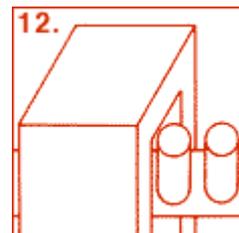
10. The cans pass through a second oven which dries the inks and varnish.



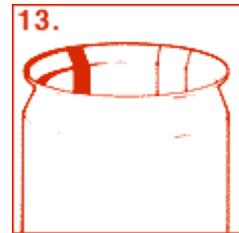
11. The inside of each can is sprayed with lacquer. This special layer is to protect the can itself from corrosion and its contents from any possibility of interaction with the metal.



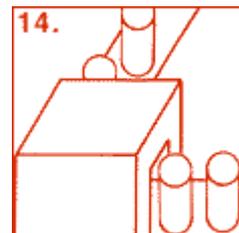
12. Once again, lacquered internal and external surfaces are dried in an oven.



13. The cans are passed through a necker/flanger. Here the diameter of the wall is reduced or 'necked-in'. The top of the can is flanged outwards to accept the end once the can has been filled.



14. Every can is tested at each stage of manufacture. At the final stage it passes through a light tester which automatically rejects any cans with pinholes or fractures.



15. The finished can bodies are then transferred to the warehouse to be automatically palletised before dispatch to filling plant.

