

**Recycling aluminium and copper
from used cables and tyres.**

 **esbelt**



recycling

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The material for recycling is the aluminium and copper found on the inside of electrical cables and used tyres (photo 1).



The production process begins when the cables and tyres are loaded into hoppers by cranes, in order to be ground up by blades (photo 2). The small pieces are then moved to the first recycling line (photo 3), where the first belts are located.



The ground up material is conveyed on an inclined **Breda 30CF** belt with 65mm **Runer** and 50 mm high transversal cleats (**photo 4**). The belt measures are 600 mm x 13 m.



This inclined belt carries the material to another, horizontal, Breda belt where the first material separation is carried out. The metals which are not to be classified (iron and steel) are separated out by lifting, using a conveyor equipped with an electromagnet, which crosses sideways over the previous belt (**photos 5 and 6**).

The **Breda 30CF** belt ensures continuous lasting performance due to its abrasion, cut, and humidity resistance.

In the case of the belt with **RUNER** sidewall, the transversal rigidity of the **Breda 30CF** prevents deforming from the attachment of cleats and runers and ensures excellent stability and tracking.



The remaining material, copper and aluminium, is unloaded onto another **Breda 30CF** (670 mm x 17 m width) with 3 Runers and transversal cleats (**photo 7**). This conveys the material to the plant interior and unloads it into another machine (**photo 8**), where the second material separation takes place.



Heat is used to separate out the rubber from the remaining metals, which are then unloaded from the bottom of the machine (**photo 9**) onto another Breda with three Runer lines (**photo 10**).



This belt lifts the material to a horizontal conveyor, which unloads from both sides, so that the process may continue on two different production lines (photo 11).



This material is still mixed with remains of rubber and therefore undergoes a third separation process. The copper or aluminium remains are unloaded for the last time onto another belt with similar characteristics to the previous Runer belts (photo 12).

This belt (with 3 runners and transversal cleats) raises the product to a machine that separates the aluminium and copper (photo 13).



Each material is released into a different line and then undergoes a further separation by the magnetisation of any remaining impurities. (photo 14).





The material continues through a sieve (photo 15), and then the end product is unloaded into sacks (photos 16 and 17).

The RUNER belts have proved to be an excellent conveying system for overcoming inclines, switching from horizontal to inclined sections and vice versa, and has a much greater working load than traditional troughs.

