Advanced recovery of non-ferrous metals

SANDFLO™ METAL RECOVERY

SandFlo™ fluidised-bed separator

The SandFlo fluidised-bed separator provides efficient, low-cost dry separation of secondary metals and minerals according to their density. SandFlo is ideal for the recovery of aluminium, zinc, copper and brass fractions from mixed non-ferrous metals in processing plants.

Metal recovery technologies

The sorting of non-ferrous metals from mixed scrap residues warrants a careful selection and costing of technology. The replacement of hand sorting by automatic equipment can be difficult to justify economically for such varying and mixed feed materials. Expensive systems using, for example, x-ray fluorescence, have not been taken up generally by the industry.

The use of wet separators also presents challenges, creating effluents that are becoming more difficult and costly to treat. SandFlo is a simple, robust and cost-effective solution to these metal recovery issues.

SandFlo is handmade in the UK at BlakerTech's manufacturing facility in the South East of England. Full installation, training and support is all included as part of our support package.

Watch a video

SandFlo - a cost-effective dry separation solution:

- Cost-effective with high recovery performance
- An environmentally-friendly, dry process with no contaminated effluent to treat
- A proven, commercial solution for upgrading non-ferrous fragmented scrap
- Continually cleaned sand eliminates disposal problems
- The SandFlo can recover 2-2.5 tonnes of material per hour and only requires a single operator
- By saving costs on manual pickers, SandFlo typically pays for itself within 18 months.

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BLAKER TECH
ADVANCED RECYCLING EQUIPMENT

SANDFLO™
METAL RECOVERY

SandFlo™ fluidised-bed separator

Efficient, low-cost separation of secondary metals and minerals

The SandFlo process

The system is based on an annular trough around which sand and metal are continuously circulated by vibrating the trough. Air is fed into a section of the trough base, creating a buoyant fluidised bed of sand into which scrap particles sink according to their density.

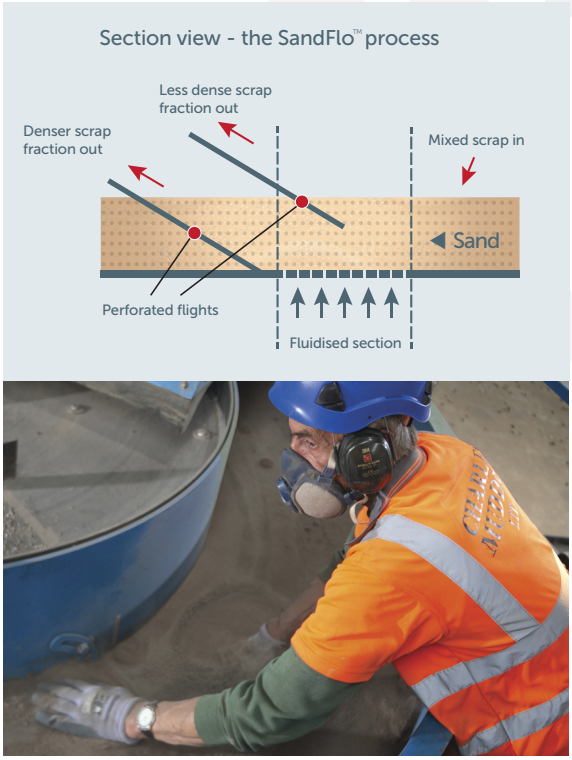
After magnetic separation of any residual ferrous material, mixed crushed scrap from a fragmentiser is screened to improve its uniformity. Non-metallics are removed using the Magthro™ eddy current separator, and the mixed non-ferrous metals are then fed into the annular trough up-stream of the fluidised bed.

As the scrap is carried across the fluidised region by the continuously circulating sand, the less dense materials (aluminium and magnesium) remain near the surface and are conveyed out of the sand by an inclined perforated flight, fixed across the width of the trough.

The heavier metals (zinc, brass, copper and any residual stainless steel) sink deeper as they travel through the fluidised zone and are conveyed out of the trough by a second lower perforated flight, downstream of the fluidised zone.

The sand particles pass through the perforated flights and end up back at the feed point, re-circulating continuously around the annular trough.

> "The SandFlo can recover 2-2.5 tonnes of material per hour and only requires a single operator"



A simple, low-cost solution

The SandFlo process is simple to operate and has a low capital cost. One or more units may be needed to process the scrap output of a conventional fragmentiser. A trommel screen is often included with each SandFlo processing to a dedicated size. SandFlo is a dry process and produces no contaminated liquid effluent. The sand can be constantly cleaned and therefore does not present a disposal problem.

A proven cost-effective dry separation solution

A dry process with no contaminated effluent to treat

High recovery performance of secondary metals and minerals

For more information about SandFlo metal recovery, call or email our team.

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