

# BlakerTech's successful diversification into metals recycling equipment

Based in south-east England, Blaker is among the longest-established businesses in the Horsham district of West Sussex. Founded in 1886 by Alexander Blaker and initially based in London, Blaker Engineering Co. Ltd specialised in automobile engineering and was instrumental in developing the innovative Hallé Spring Wheel.

In the 1930s, the company bought a blacksmith's shop close to Horsham and launched an axle and chassis repair business. Blaker Specialist Welding Repairs Ltd grew steadily and, during the Second World War, its engineers' skills were in great demand. Wartime work included fixing components for Hurricane and Spitfire plane engines, as well as tank transporters and reconnaissance vehicles for Canadian Army units stationed nearby.

By the 1950s, Blaker employed about 30 people and was the go-to company for machinery and vehicle repairs, with its vans carrying out mobile repairs across south-east England. However, demand for repairs reached a plateau and Blaker needed to diversify.

## Straightforward products

'From the 1950s to the 1990s, people would spend more time repairing vehicles, as it made financial sense,' comments commercial manager Robin Plater. 'Because the way we buy vehicles and machinery has changed and because of the high cost of repairs nowadays, we can no longer rely solely on traditional revenue streams. That's why we've established a sister company called BlakerTech to develop and manufacture products for the metal and waste recycling industry.'

Blaker has now been repairing machinery and equipment for the recycling industry for over a decade, giving a first-hand insight into what works, what's weak and what can be improved. Plater explains: 'Existing recovery methods, such as sorting by hand, wet separation and x-ray fluorescence, are difficult to justify economically, can be unreliable in harsh and dusty environments, complicated to operate, potentially hazardous to health and have a negative impact on the environment.'

He continues: 'Realising high volumes of non-ferrous metals from dry recyclables represents a significant amount of money for metal recycling and processing plants and also saves on rising costs associated with waste disposal. We saw a need for straightforward

products that could simply, reliably and cost-effectively achieve this objective using minimal resources.'

## Magthro and Sandflo

BlakerTech manufactures two products, including the Magthro eddy-current separator system made from high-grade components and fitted with 12 pole magnet shafts. High-performance neodymium rare earth magnets create a continuous and strong magnetic force that reliably and efficiently separates non-ferrous metals from other non-ferrous mixed materials. A three-way splitter sorts the outfall streams into waste, fine/small non-ferrous materials and larger non-ferrous material (subject to needs).

Key sections of the framework are interchangeable, enabling walkways to be attached, while hinged panels provide quick

access for routine maintenance. Standard belt widths are 300, 500, 750, 1000, 1250 and 1500mm. The main belt is fully adjustable and can be replaced without disturbing the rotor. The fully-adjustable eccentric rotor allows the separation and magnetic force to be altered as necessary to enhance recovery.

Small fragments of non-ferrous materials, screened to 50mm, can be further refined by BlakerTech's Sandflo, a simple fluidised bed separator using aerated sand to separate by density. The Sandflo is ideal for the recovery of high-value aluminium, zinc, copper and brass fragments from mixed non-ferrous metals in processing plants. Requiring a single operator, the Sandflo can recover 2-2.5 tonnes of material per hour. By saving costs on manual pickers, Sandflo typically pays for itself in 18 months or less.

[www.blaker.co.uk](http://www.blaker.co.uk)



The Sandflo being prepared for operation.

# Company profiles

In this section of Recycling Technology, you will find an alphabetical listing of company profiles, some of whose application stories you have already read in this magazine, enabling you to contact them directly if you require any further information or have specific questions.



## BlakerTech

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Founded: 2019  
(Blaker Specialist Welding Repairs Ltd was formed in 1932)

## Products and services

BlakerTech manufactures metal recycling equipment that is tested and proven in challenging industrial environments. Its Magthro eddy-current separator is made from high grade components and fitted with 12 pole magnet shafts. Neodymium rare earth magnets create a continuous and strong magnetic force that reliably and efficiently separates non-ferrous metals from mixed materials. Key sections of the framework are interchangeable, enabling walkways to be attached. The company's Sandflo fluidised bed separator uses aerated sand to separate small fragments of non-ferrous metal, screened to 50mm, by density. Sand particles pass through perforated flights (which can be fitted with 4mm or 6mm screening options) and return to the feed point, recirculating continuously around an annular trough. This is ideal in processing plants for the recovery of high-value aluminium, zinc, copper and brass fragments from mixed non-ferrous metals.

## Core competence

An expert in metalworking and fabrication, BlakerTech has been repairing machinery and equipment for the recycling industry for over a decade, thus providing the company with first-hand insight into what works, what's weak and what can be improved. Environmentally friendly BlakerTech's metal recycling products improve the speed, efficiency and cost-effectiveness of dry material sortation based on density and composition. The company holds a full stock of accessories for both the Magthro and Sandflo, including shakers, drum magnets, eddy current and feeder hoppers, as well as providing full installation, training and support.

## References

UK:  
Robertson Metal Recovery Ltd, Mercury Metal Recycling Ltd, Charles Muddle Ltd, Wards of Darlington Ltd, Greenways Ltd, C F Booth Ltd, Greenworld Ltd, Wastecare Ltd, Metal Processing Ltd.  
Elsewhere:  
TSR Recycling, Mannheim (Germany), Blue Steel Ltd (Israel), J Joseph (USA). Systems have also been sold into Denmark, The Netherlands, Romania and Japan.

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