

EQUIPMENT & VEHICLES

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A drive to improve quality

Commercial waste recycling company Paper Round recently invested £2.5m to upgrade its MRF in Essex. **ALISON ROE AND BILL SWAN** explain the business decision

Paper Round's upgrade to its Purfleet MRF, currently in the optimisation phase, will help London businesses to meet the key targets from the Government's resources and waste strategy and achieve a recycling rate of 65%.

The recycling organisation was established in 1988 by Friends of the Earth and is now a separate commercial company. It has a history of being one of the first companies to bring to market new recycling streams: from the foundation of the company in offering source-segregated paper recycling, through to food and coffee cup recycling.

The improved MRF will see a 300% increase in capacity and a higher capability to increase recycling rates and drive improvement in quality. To achieve all of this, the MRF has been equipped with optical sorters, capable of picking out different materials, polymers and fibres; a waste screen that separates fines less than 50mm, an eddy current separator used to separate non-ferrous metals such as aluminium cans and a ballistic separator separating 2D and 3D products.

With these latest processes in place, the facility is able to process significantly more material, improve recovery rates and benefit from more robust operational processes and traceability of waste streams. Future-proofing the MRF was a major consideration, and capacity for additional lines has been designed into the project.

Last year before the upgrade, the facility processed around 45,000 tonnes of recycling, from various incoming materials streams including dry mixed recycling, confidential shredding,



Purfleet upgrade: 300% increase in capacity and improvement of output quality

ENGINEERING FOCUS OF UPGRADE

Selected as engineering partner for the upgrade, Okay Engineering placed its focus for the redesign on key elements:

- Flexibility in input material: plant to accept varied waste streams
- Increased throughput to eight tonnes/hr
- Switch from manual picking to mainly automated processes
- Increased recovery rates and minimising residue costs
- Material purity control: ability to match changing market demands
- Fibre product: recovery and purity of fibre output to be maximised
- Quality: plant to use highest-spec components for guaranteed performance and long life

food and glass. The MRF's mixed recycling line is one element of its total capacity and is the section that has been upgraded. This has now tripled in capacity to eight tonnes an hour, which has added a potential capacity of more than 20,000 tonnes a year to the line.

Installation of the equipment has not only given Paper Round the ability to process significantly more materials, but it has enabled it to achieve a higher recovery rate, which leads to improvements in recycling rates for its clients.

The upgrade also means that Paper Round now runs what it says is the largest MRF for waste generated in London that focuses solely on the needs of commercial clients. Having a dedicated 'clean MRF' means that recycling rates can be higher due to less contamination being received from businesses than from households.

Prioritising quality over quantity has always been a key drive for the business, even before the upgrade. It has worked hard to develop a strong reputation in

recovering high-quality recycled materials from commercial waste. This improves clients' recycling rates, gives materials a new life and contributes to the growth of the circular economy.

This emphasis on quality has gained Paper Round a reputation for delivering the best possible real recycling solutions to clients and quality materials for recycling.

For example, Richard Burnett, market development manager at James Cropper, which Paper Round has supplied with waste paper cups since June 2018, said: "The material has consistently been of a good grade with little contamination. We would welcome further quantities of material from the company, which we regard as a high-quality supplier."

Having said that, Paper Round is committed to being honest and communicates clearly with its clients about what can and cannot be recycled in the real world.

In many cases, businesses are led to believe that anything put into mixed recycling can be recycled, while the reality is that materials such as crisp packets and plastic film cannot be practically recycled with mixed materials.

Owning both the capability to collect and the ability to process its own materials allows Paper Round to introduce services fast and have complete traceability, meaning it has full control of the destination of materials.

The new MRF is a significant commitment in delivering Paper Round's vision of forging a better future by championing recycling and the circular economy. 

● Alison Roe is director of Paper Round and Bill Swan is managing director