

# MRF recycling plant benefits from Hoverdale's wide range of products and services

## The Problem

The Hoverdale technical survey team were called into an MRF recycling plant in Yorkshire to investigate their processing problems. A full site survey was carried out, which identified a number of issues across the conveyor lines.

Solutions were urgently required to improve production 'up time' by increasing equipment availability through stable production.



## Site Survey Discoveries

- OEM PU-supplied belt scrapers were not fit for purpose. Blades were becoming damaged very quickly, and waste was being trapped between the blade and the belt
- Belly pans were full of material
- Excessive and premature belt wear caused by material being trapped in scraper systems and building up in belly pans for carry back on the return belt
- Loss of valuable material through carry back and spillage
- Piles of material under conveyors needed manual cleaning resources to clear, often with challenging access to remove effectively
- This increases the operating costs and affects the morale of the site teams
- Return rollers collect material from the return belt and become overwhelmed, causing belt tracking issues resulting in premature belt wear and sidewall damage
- The tail drum was overwhelmed with material, requiring regular digging out
- Frequent blockages were caused by material trapped around OEM scraper system and return rollers
- Surrounding plant, including safety e-stops, were covered in material, making them harder to identify and use in an emergency situation
- Gangways and walkways were covered in material, causing hazards
- A range of belt specifications and joining systems had to be accommodated, including flat, chevron, cleated, and bucketed vulcanised and mechanically joined.

## The Hoverdale Solution

The Hoverdale motorised brush system was the ideal solution to tackle the challenges. The system can be installed in a secondary location tucked under the drive drum at 6 o'clock. This has the benefit of allowing gravity to work first, with material dropping off the end of the conveyor with the secondary brush system only cleaning what is still stuck to the return belt.

The Motorised Brush specification includes;

- A stainless-steel construction that auto-adjusts as the brush wears to maintain constant effective cleaning contact with the belt
- IP67-rated motors & gearboxes designed for harsh environments
- Solid stainless-steel key-way shaft for long service life
- Available from 300mm to 4000mm wide belt widths
- A range of cleaning brush diameters from 200mm O/D to 600mm O/D means that clogged belts up to 150mm in height are still cleaned effectively
- Segmental brush segments for quick and easy changes with hard-wearing compositions unique to Hoverdale
- Minimum maintenance needed between brush changes
- Excellent in dealing with fine material stuck to the belt
- Works equally well on worn or new condition belts.
- Works effectively on damaged and pitted belts
- Works in conjunction with Hoverdale Primary belt scraper systems.

## The Results and Benefits

Hoverdale has a vast range of solutions suitable for several different systems - covering all the different belt specifications.

This included motorised brush cleaners and secondary contact tungsten scrapers.

The Hoverdale systems supplied were bespoke adaption plates, so the OEM fixing points could be used to avoid any need for cutting into the conveyors.

Results:

- Carryback was eliminated, and the systems avoided blockages
- The return belt and rollers are kept clean and free of material
- No cleaning resource is required to remove material from the facility is kept clean and free of material
- Significant reduction in fugitive dust providing a safer working environment
- Reduced time and increased uptime
- The clients can better maintain stable production
- Reduce premature wear of conveyor belts and rollers, which reduce ongoing costs
- Minimal maintenance is required
- Reduction in consumable costs as the system was positioned in a secondary position out of the flow of material
- Rapid ROI
- Training programme implemented on further line installs and maintenance.



***"I have received very positive feedback from the operations team on the belt cleaners that have been installed into the MT plant. I would like to share the information on the types of cleaners that have been installed with our other plants to gauge interest and identify if we are able to set up a trial.***

***If you could send me the details of the systems, I will liaise with the other teams and see what appetite there is."***

## **Keep materials flowing out and money flowing in.**

Hoverdale is a world-class provider of hard metals and wear-resistant products, conveyor belt products and equipment. We keep waste recycling, biofuel, power generation, wastewater treatment, sea aggregates, vinyl, food, mining, tunnelling and glass plants moving, maximising the total cost of ownership of any bulk handling environment.

**By reducing spillage and carryback, we typically reduce customers' cleaning costs by 80-90% - What would that equate to for you?**

**Book a site visit now! The savings will more than pay for your time or your money back.**

*Matt*

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