

Keeping chevron and cleated conveyor belts clean at an MRF (Material Recovery Facility)

The problem

The client, a large national waste and recycling provider, runs a Material Recovery Facility that processes tonnes of household waste and recovers material for recycling. They were experiencing issues with carry-back and spillage of materials.

Stoppages

Belly pans full of material and various other blockages in the system were causing multiple stoppages.

Premature belt damage, wear and tear

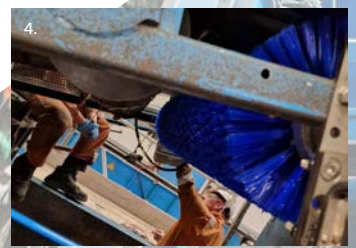
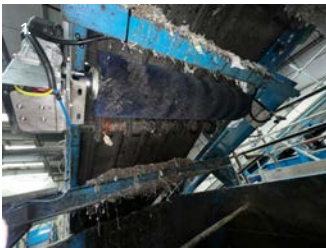
The build up of materials on unclean belts causes premature belt wear and damage. In this case, the return rollers were wrapped in material and damaged, and the drive drum motors were overloaded.

Health & Safety Hazards

The issues caused spillage on the facility floor and gangways, causing a health and safety hazard and requiring frequent additional clean-up and resources. When the material becomes airborne, there is a risk of exposing site workers to potential workplace injuries and respiratory diseases.

The main problems can be seen below.

- Blockages were causing stoppages.
- Belly pans were full of material that caused belt stoppages.
- The return rollers became wrapped in material & damaged.
- Drive drum motors are overloaded.
- Premature belt wear & damage.
- The issues caused spillage on the facility floor and gangways, causing a Health & Safety hazard, requiring additional cleaning resources.
- Material becoming airborne and causing hazards.



The Hoverdale solution

The rubber conveyor belts are cleated and chevron in construction, so conventional-style belt cleaners are unsuitable. A different approach was needed to overcome the belt's construction and provide effective belt cleaning to prevent carryback and spillage.

The **Hoverdale Motorised Brush** was the ideal solution to tackle this challenge.

The motorised brush specification includes:

- A Stainless Steel construction that auto-adjusts as the brush wears to maintain effective cleaning contact with the belt at all times.
- A range of cleaning brush diameters from 200mm O/D to 600mm O/D, resulting in cleated belts up to 150mm in height still being cleaned effectively.
- Quick-release cartridge systems allow fast and easy changeover of brushes.



The results and benefits

- Carryback was eliminated, and the system 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 floor and health and safety risks are reduced Belly pans are kept clean and free of material
- Reduced downtime and increased uptime
- The client was able to maintain stable production
- Reduced wear of conveyor belts and rollers, which reduces ongoing costs
- Minimal maintenance is required.



"We are absolutely delighted with the service we have received from Hoverdale."



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