

Reducing conveyor stoppages with automatic motorised brush cleaning technology at ERF/MRF Facility

The problem

The current belt scrapers were stopping material at head drum end where the conveyor scraper blade contacts the belt. These cannot be regularly dropped to be cleaned and maintained as this would require a significant increase manpower.

Once the system is left like this, an overpowered material is then carried back along the belt, which causes the following issues:

- Belly pans full of material
- Blockages around rollers
- Material pushing from the belly pan to the underside of the belt causing premature belt wear & damage.
- Drive drum motors being overloaded
- Spillages to the facility floor causing H&S hazard.

Stoppages

Belly pans full of material, excessive drive drum loadings, and under speeding of belts were causing multiple stoppages.

Premature wear to conveyor belt & return rollers

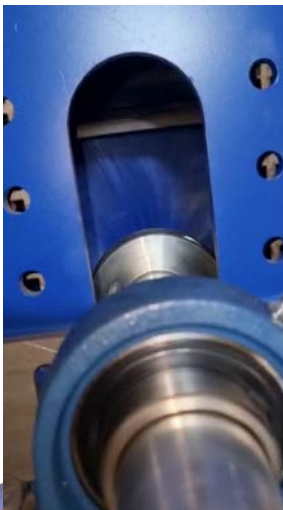
Belly pans full of material applying pressure of the conveyor resulting in drive drum amp overloading and excessive wear to conveyor belt and return rollers.

Health & Safety hazards

The issues caused spillage on the facility floor and in gangways causing a health and safety hazard and requiring frequent additional clean-up and resources.

The main problems the customer experienced:

- 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, and required additional cleaning resources.



The Hoverdale solution

The rubber conveyor belts vary in construction and include cleated, chevron, and flat belts, 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 extremely pleased with the motorised brush scraper equipment installed and find the system a huge improvement on previous installations."

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Hoverdale is a world-class provider of hard metals & 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.

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Case Study

Page 3 of 3