hoverdale®
the materials bulk handling specialist

Working with IBA Processing Plant

Preventing material carryback with varying moisture contents to increase up time.

The problem

Incinerator Bottom Ash (IBA) is a form of ash produced in incinerator facilities. This material is discharged from the moving grate of municipal solid waste incinerators. Once IBA is processed by removing contaminants, it can be used as an aggregate.

When bulk processing uses conveyors, that material is tough to control and contain within the confines of the processing line. Being very aggressive in nature, high wear is seen on conveying equipment, with carry-back and spillage a primary contributing factor.

When dry and dirty, the material can become airborne, causing health & safety hazards; when wet, the material becomes sticky and can cause blockages which can lead to seized return rollers, premature belt wear, loss of valuable material, and loss of processing time.

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. When the material becomes airborne, there is a risk of exposing site workers to potential workplace injuries and respiratory diseases.

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.
- Material becoming airborne and causing hazards.

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.

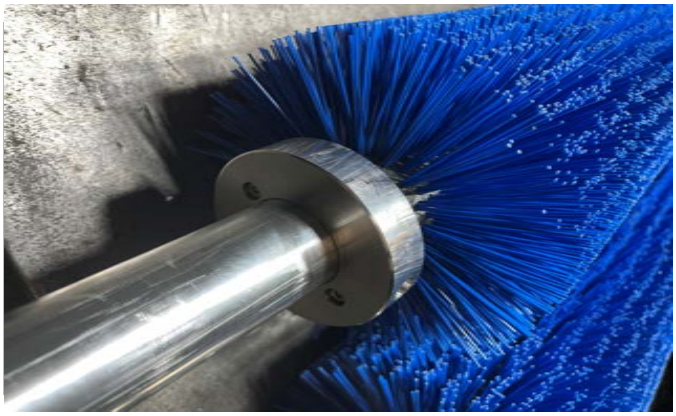
The **Hoverdale Motorised Brush** was the ideal solution to tackle this challenge.

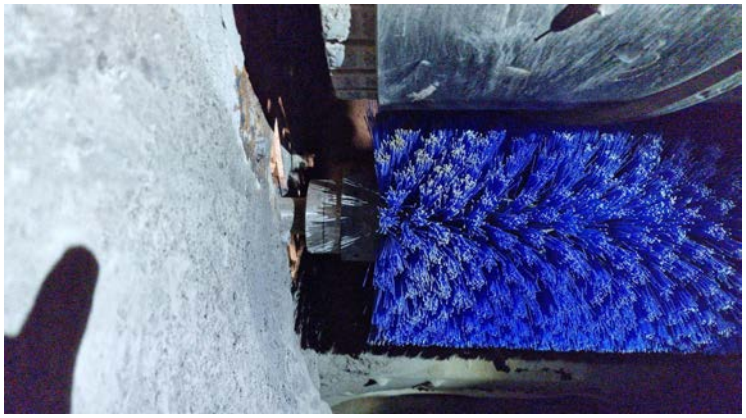
The motorised brush specification includes:

- 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 have increased our production output by significantly reducing blockages and stoppages. We are very pleased with the performance of the Hoverdale motorised brush."

Keep materials flowing out and money flowing in.

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.

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

Matt Beverley
Managing Director

Direct: 07979 879 998
Office: 02475 099 836