

## Major recycling facility invests in Starclean to keep their conveyors moving

### 32 conveyors improved

- Less waste dropped
- Conveyor downtime reduced
- Scraper cleaning frequency halved
- Scraper clean down reduced from 15mins to 2mins

### The challenge

A Recycling and Energy Recovery Facility (RERF) in the UK was experiencing operational issues with its network of conveyors.

The facility removes recyclable materials from black bin household waste and recovers energy from the remaining waste. As part of the Mechanical Pre-Treatment (MPT) process, over 50 belt conveyors are used to transport waste around the plant.

A mixture of flat belts and chevron belts carry all types of waste, including plastics, metals, wood, paper, and also large amounts of sticky organic materials. This variety of materials is extremely challenging to handle and often overwhelms the belt cleaners installed on the conveyors.

Waste clogs the belt cleaners and becomes entangled in the mechanism. Not only is the cleaning performance of the scraper reduced, resulting in additional waste being dropped onto the floor, but the conveyors themselves become a maintenance hotspot. The build-up jams conveyor components, such as return rollers, and causes regular stoppages for replacement.

To ensure smooth running of the plant the maintenance team serviced the belt cleaners on a daily basis. Due to the complicated design of the OEM belt cleaner installed throughout the facility, it took 15 minutes to drop, clean and reset each scraper. This was a real drain on resources with over 50 conveyors operating throughout the MPT.

In search of a better solution, the maintenance supervisor contacted ProSpare to see how we could help.



50+ conveyors carrying black bin waste



Clogged belt cleaners required time consuming maintenance

# ProSpare

Make it better.

## The solution and improvement

The client decided to replace an OEM belt cleaner and trial Starclean belt cleaners. They requested the trial be undertaken on their most troublesome conveyor. The conveyor in question was the longest in the facility, dropped the most waste, and regularly experienced downtime for cleaning & to replace damaged rollers.

We installed a Starclean PU pre-cleaner and tungsten secondary cleaner on the trial belt. This combination was selected to combat the effects of both the larger items of waste and the sticky organic material which adhered to the belt surface.

The maintenance supervisor observed that since installing Starclean on the trial conveyor, the belt is notably cleaner and waste dropped from the belt has dramatically reduced. It is also experiencing far fewer problems with waste interfering with the return rollers - ensuring the conveyor keeps running for longer.

Following the success of the install on the trial conveyor, the client has gone on to install over 50 Starclean belt cleaners throughout the facility on both flat and chevron belts.

The client has seen a large improvement in performance across the 32 conveyors versus when OEM belt cleaners were in use.

Firstly, the frequency of clean down required for the scrapers has halved. The time involved for scraper clean down has also reduced from 15 minutes per scraper to just 2 minutes with Starclean. Each scraper can now be cleaned by 1 operative, where 2 were previously needed. Downtime hours are also reduced as fewer problems are experienced with the rollers, and fewer replacements are required.

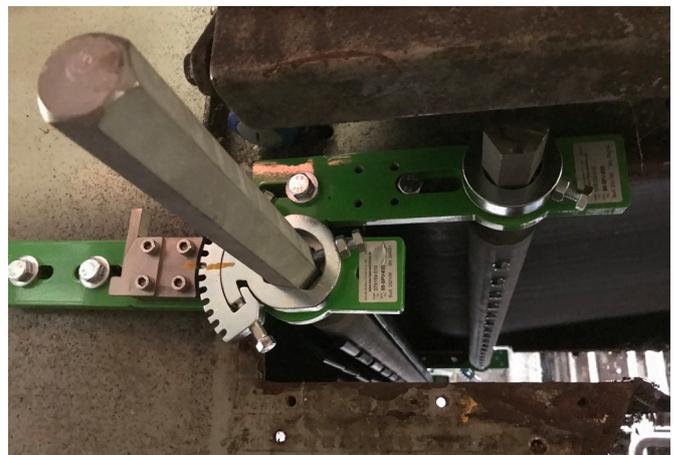
The maintenance supervisor stated:

*"The Starclean belt cleaners really help minimise problems in our challenging environment. We are cleaning up significantly less waste and spending less time maintaining the conveyors.*

*The best thing about the scrapers is that they are so easy to drop down for cleaning and maintenance. It means we've now passed on this task to our operations team, freeing maintenance to move onto other tasks"*



50+ Starclean pre-cleaner, primary and secondary units installed



Drop down, clean and reset now taking 2 mins instead of 15 mins

**STARCLEAN**   
SMART CONVEYING SOLUTIONS

Visit - [www.prospare.co.uk](http://www.prospare.co.uk) | Call +44 (0)1773 814008 | Email - [sales@prospare.co.uk](mailto:sales@prospare.co.uk)

ProSpare Limited  
Castlewood Business Park, Farmwell Lane, Sutton-in-Ashfield, Nottinghamshire. NG17 1BX.

Data correct as of May 2023 v16.05.2023