

HS2 Plant Manager thrilled with STARCLEAN® belt cleaner performance

In brief

- New HS2 plant came equipped with OEM belt scrapers
- Operators pick up slack due to scraper underperformance
- Plant supervisor requests STARCLEAN® belt cleaners
- Carryback cut. Maintenance reduced. Superb service-life

The problem

A batching plant in the Midlands, tasked with feeding the HS2 project, regularly produces around 10,000m³ of concrete a month for tunnel segments weighing between 60 and 80 tonnes.

The plant was purpose built for the project in 2022, and whilst featuring some of the latest tech available, the age-old issue of carryback on conveyors was still a drain on site resources.

The two belt conveyors (weigh belt and skip belt) came equipped with OEM scrapers. These would work well initially, but the blades quickly became overwhelmed with material - rendering the scrapers ineffective. Consequently, the material would adhere to the belt, resulting in around 4 wheelbarrows worth of carryback forming in piles under the belts every week.

Inevitably, site staff were relied upon to pick up the slack from underperforming scrapers. Operators were required to spend around 30 minutes every week clearing carryback and around 45 minutes every two weeks after their shift maintaining scrapers. All of which took a toll on their physical and mental wellbeing.

90% reduction

in maintenance requirements

+180 wheelbarrows

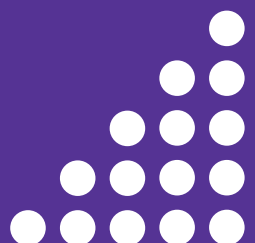
of carryback saved in a year

2% blade wear

within first 12 months of operation



OEM scraper on the weigh belt overwhelmed with material



ConSpare

Make it better.

How ConSpare found a solution

The Plant Manager, having used ConSpare to improve other areas around the plant, contacted us for a way to minimise frequency of maintenance and the subsequent impact on staff wellbeing. We recommended STARCLEAN® belt cleaners.

In addition to an excellent cleaning performance, STARCLEAN® has a user-friendly design to ensure staff can quickly and safely carry out maintenance, keeping downtime to a minimum.

Before, operators spent 45 minutes every two weeks maintaining the OEM scrapers. With STARCLEAN®, operators disengage, quickly brush down and re-tension the scraper just once a month as part of planned maintenance - taking only 10 minutes. That's almost a 90% reduction in maintenance requirements.

Carryback levels have also reduced significantly since installing STARCLEAN®. Previously, operators spent around 30 minutes every week clearing up to 4 wheelbarrows of material. Now, just 1 wheelbarrow is cleared every 8 weeks, taking only 10 minutes. In the year since installation, this equates to an annual saving of +180 wheelbarrows and 36 hours in maintenance and clean-up.

Also, the 14mm of serviceable tungsten on the STARCLEAN® blade tips is virtually untouched by wear in the first year of operation. During the first annual service visit, our engineer observed less than 2% of wear to the tips. Within this period, the Plant Manager estimates ca. 100,000m³ of concrete has been produced by the plant. A testament to STARCLEAN®'s durability.

The Plant Manager said "I'm happy with the results, ConSpare really know their stuff. STARCLEAN®'s simple design is what sold me, they're so easy to maintain and more importantly, they work."



STARCLEAN® belt cleaner with 14mm of tungsten on blades

STARCLEAN
Sustainability by Innovation



Improving the process

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Precast

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Data correct as of September 2025

