Mobile shredder transforms Crapper & Sons’ biomass operation

Long-standing waste management firm Crapper & Sons has further strengthened its resource agenda, having invested in a new shredding system to transform wood waste into a biomass fuel.

Overview

Company: Crapper & Sons
Shredder: UNTHA XR mobil-e
Input Material: Wood waste
Output / Goal: Biomass

Having started out as a quarrying firm more than 60 years ago, Crapper & Sons owns a landfill site in Wiltshire, but 30 acres is actually dedicated to salvaging as much ‘waste’ as possible.

The family-run business was previously processing wood at its Wootton Bassett headquarters, using one high speed shredder fed by one slow speed shredder. But limited resistance to foreign objects within the waste stream, was resulting in unmanageable machine breakdowns and operational downtime.

The search for an alternative shredding system therefore began and research brought the team to UNTHA.

Following a materials audit, the manufacturer shipped an UNTHA XR3000C mobil-e shredder to Crappers’ site for a two-week trial. The technology alternated between handling C&I, wood and other problematic bulky wastes, to prove UNTHA’s application flexibility, and following reference visits to existing clients, Crappers invested in a mobile machine of their own.

The XR3000C is now transforming 30 tonnes of wood waste per hour into a P63-specification biomass fuel, with less than 6% <10mm fines. The product is being sold to board mills and biomass plants across the country, and Crappers is also generating more than £3000 of revenue per week from the sale of clean metals extracted directly off the magnet belt.
We’re now manufacturing a higher quality, on-specification biomass fuel, with only one shredder not two, and we’re benefitting from 20% more uptime. The product-led performance criteria is what drove our investment, but the boost to our metal recycling status has been a welcome bonus. We’re getting about 18 tonnes of clean metal a week from 1000 tonnes of wood waste, which we can now sell.

“The XR’s low noise and reduced energy consumption of course add to the benefits of the shredder, and its low dust, slower speed electric drive makes our woodyard a far safer place.”

Lee McGlone, Operations Manager

Crapper & Sons has encountered no machine damage from unshreddables whatsoever, since switching to the new technology, whereas, in the words of the client, “the previous machines would self-destruct when encountering a foreign object, leaving us with no capacity for up to a day at a time.”

The investment in this new biomass manufacturing solution marks Crapper & Sons’ latest step to becoming a zero-waste business. The build of their new Energy from Waste plant – which is due to come online in 2021 – is also underway.