Global News & Information on the Quarrying, Recycling & Bulk Materials Handling Industries

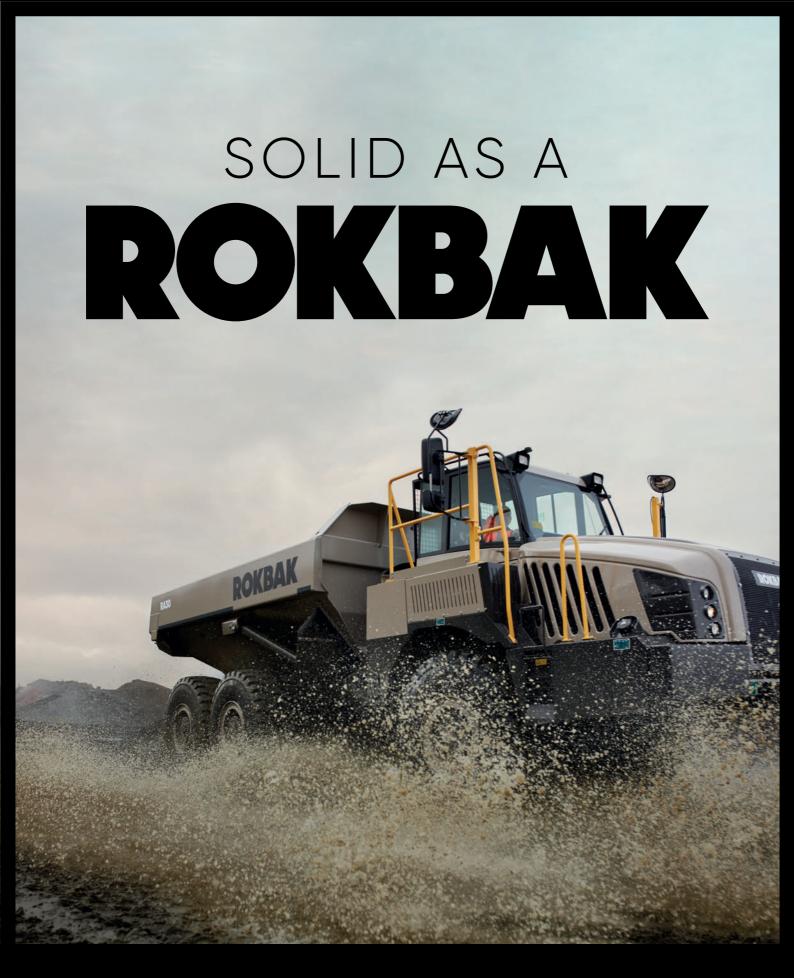
November/December 2023 | Issue 83



Check out the very latest industry news at www.hub-4.com



Doppstadt equipment is now available on hire from Blue Machinery



Carved by a lifetime of hard work, Rokbak articulated haulers are built to perform. Day after day. Decade after decade. From the heat of the desert to the cold of the arctic, you can rely on Rokbak.





# Rokbak RA30 is helping to bring surfing to Scotland

The RA30 articulated hauler is able to take on challenging terrain in arduous weather conditions, in all seasons. It's one of the reasons the truck has been integral to the groundwork at a disused quarry that will be home to Scotland's new tourist beacon, Europe's largest inland surfing destination, Lost Shore Surf Resort.

The Lost Shore Surf Resort is a gigantic £55million project set to change the landscape of Scottish tourism. A landmark construction venture near Edinburgh, Scotland, it is expected to deliver over 100 jobs and attract 180,000 visitors a year, as well as substantial sustainability and community benefits to help regenerate the area. It will soon be ready to make big waves and in no small part thanks to the performance of the Rokbak RA30 articulated hauler.

At the disused Craigpark Quarry in Ratho, the RA30 ADT is helping prepare the build of this unique leisure space. This leisure space's jewel in the crown is a state-of-the-art 'wave garden' which, once completed, will allow people to surf pristine waves inland, a stone's throw from Scotland's capital as Europe's largest inland surfing destination.

As a former quarry, the site is all manmade ground — where the original soil has been replaced or altered by the

introduction of materials such as concrete or crushed brick. The regeneration of a quarry can have positive environmental and economic effects and significantly improve community wellbeing.

However, without the correct monitoring and operation, it can pose structural and contamination problems if built upon. With a maximum payload of 28 tonne (30.9 US ton) and a heaped capacity of 17.5m3 (22.9yd3), the RA30 is moving hundreds of tonnes of material a day and ultimately helping to make the site suitable to construct on.

"It's been far more economical to invest in a 30t truck for earthmoving, rather than take on several smaller vehicles to move our material," says Connor McAlister, Senior Site Manager for civil works specialist WH Malcolm at the Lost Shore Surf Resort development.



### **Rokbak Featured Story**

Reducing environmental impact is a key tenet of the Rokbak brand, and working with WH Malcolm at the Lost Shore Surf Project has shown the importance of collaboration and partnerships for Rokbak to work closely with its suppliers and customers in order to make a real impact. Both the Rokbak RA30 and RA40 EU Stage V engines produce a fuel consumption saving of up to 7%, when compared to the previous EU Stage IV engines. This means lower operating costs and less impact on the environment.

"The RA30 is one of the most up-to-date bits of kit we have," Connor adds. "The project is unique – there's only several in the world – and if we didn't have kit like that, we wouldn't be able to deliver the project in a timely and efficient manner.

"When you work seasonally, like we do in Scotland, you need kit like the RA30 to get you over the line.

#### **Setting the foundations**

WH Malcolm has spent the past year consolidating the ground on which the park will be built. It's a challenging geotechnical project to be involved in.

As one of the leading providers of logistics, construction and maintenance services in the UK, WH Malcolm is responsible for the deep drainage, plot drainage and foundation work for the Lost Shore Surf Resort development. WH Malcolm's RA30, purchased from Rokbak dealer Molson Group in December 2021, has been at Craigpark Quarry since October 2022 and is the company's main earth-moving equipment. In the space of a year, the RA30 - decorated in a customised Malcolm's yellow paintjob - has already moved over 120,000 tonnes of material at the site. ROKBAK

### **Rokbak Featured Story**











Material can be Type 1, pre-bedding, 40mm sub-base or rock. Once it has been collected, the truck leaves the site out of the main gate and travels two miles up a main road to another area at a higher level of the site. Following the deposit, it travels the two miles back down to the lower ground level where the main groundwork takes place.

Weather conditions are, in typical Scotland fashion, usually wet and challenging, especially coming into the winter. The RA30 dump truck has worked in seasonal dry and wet conditions and has performed consistently.

"The Rokbak is one of our key players on the job as we have to move massive bodies of muck very quickly in very wet weather," says WH Malcolm Groundworker Foreman, Damon McLaughlin. "The traction it gives us means it gets into areas that are almost impossible to do with other vehicles."

The RA30's heavy duty axles are designed with fully floating axle shafts and outboard planetary reduction gearing. The three axles are in permanent all-wheel drive (6x6) with a differential coupling between the front and rear axles. All three axles have hydraulically actuated multiplate transverse diff lock differentials for 100% cross-axle lock up. The inter-axle and cross-axle diff locks are controlled by operators and can be actuated when required in poor traction conditions.

"It's comfy to drive in, with the air-assisted seat meaning bumps aren't a problem, the air conditioning unit is spot-on, and it's got everything I need," says the RA30's operator Matthew Baird, who has been operating the truck since January 2022. "It is a good truck to drive — there's no hassle with it. It goes exactly where you want it to go and there's good visibility with the heated mirrors.

"There are parts of the site that are a little bit more difficult, but the Rokbak does it. It has very good adaptability."

### A bright future for Scotland

The Lost Shore Surf Resort is scheduled to open in 2024. It will become the focal point of a 60-acre country park which will also offer luxury accommodation, a food market, shopping, and a wellness spa. Only a few miles from Edinburgh Airport, this world-class sports facility is set to change the landscape of Scottish tourism, bringing an iconic sport to a new inland home, further establishing Scotland as a go-to destination for adventure. The 160 metre-long Wavegarden Cove-powered facility will be the centrepiece of the resort and be capable of creating up to 1,000 sustainably generated waves per hour.

"It's fantastic that Rokbak gets to be part of something that looks set to be so important to Scotland and the Scottish tourism industry," says Kenny Price, Rokbak's Regional Sales Manager for EMEA. "Our trucks are designed and built for major projects such as this and, as a proud Scotland-based company ourselves, we're delighted to be helping put the country on the map."



## THINK RORO, **THINK NMT**

YOUR COMPLETE SHIPPING & LOGISTICS PROVIDER

Contact us today for a quote:



**(** +44 (0) 2380 236 313



info.uk@nmtshipping.com



www.nmtshipping.com



NMT international Shipping UK Ltd 1st Floor, 5 Town Quay, Southampton, SO14 2AQ, **United Kingdom** 

bulk handling industry. Moving all wheeled and tracked cargo around the world in addition to static cargo, we can arrange your shipment on a port to port basis, to getting the import clearance, to total door to door service.

Here at NMT Shipping, we help you to navigate the often rough waters of importing & exporting globally.





### In this issue

ROKBAK FEATURED STORY	3
COVER STORY	8
TYRONE INTERNATIONAL EVENT 1	LO
NEWS 1	<b>L</b> 5
SHREDDERS REVIEW 2	20
QUARRYING 4	15
BULK	8



**Hub Digital Media Limited** 

## Issue 83 - November/December 2023

## Advertising Enquiries: +44 (0)114 3830243

Publisher John Vincent

Editorial & Marketing Director **John Edwards** 07525 921714 john@hub-4.com

Media Manager **Sophie Morgan** sophie.morgan@hub-4.com

Graphic Designer

Jon Toft

Director Sue Vincent

Associate Director Ash Young

## Welcome to issue 83

### Welcome to our sixth edition of 2023 - issue 83.

Another bumper edition from the team at HUB-4 covering the latest news from the Quarrying, Recycling & Bulk Handling Industries.

This edition contains a feature on Shredders available in the UK.

So, another year passes and the HUB4 team would like to wish all, and everyone best wishes for 2024.

Our new media file is now available and can be found here - https://hub-4.com/files/hubmediakit2024/mobile/index.html or email john@hub-4.com for advertising packages.

Our first edition of 2024 features our annual look at **Aggregate Crushing & Screening** with of course reports from the Quarrying, Recycling and Bulk Industries.

I do of course welcome your contributions for this edition.

### **John Edwards**

Editor

### **JAN-FEB 24**

## nem issue

### **AGGREGATE CRUSHING &**

**SCREENING** – screens, screen

media, wear parts, spare parts, static & mobile crushing & screening, grizzlies, feeders, stockpilers, magnets, contract crushing.

**RECYCLING** - Open topics for this issue **BULK HANDLING** - Open topics for this issue

Editorial copy deadline - 15th Jan 2024 Advert copy deadline - 22nd Jan 2024



**Magazine Subscriptions** - the HUB magazine is available free of charge within the UK, please send an email to subscriptions@hub-4.com stating your name, title, company, full postal address and email address.

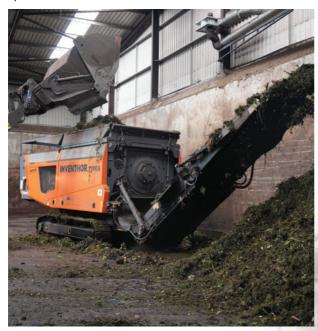
We will then review your application. The Hub magazine is available for overseas clients on a paid subscription at £115, for six issues, please email subscriptions@hub-4.com.

Published six times a year.

# Doppstadt Equipment now available on hire from Blue Machinery

Blue Machinery have been the exclusive UK
Doppstadt distributor for almost 20 years
following their appointment in 2004. As well as
offering the full range of equipment for sale,
Blue Machinery can also provide hire solutions
on the Doppstadt Inventhor slow-speed
shredders, the AK high-speed shredders and the
SM trommels.

Hiring Doppstadt equipment from Blue Machinery means that you can fix your costs, it offers you certainty on guaranteed uptime, whilst also allowing you to keep your fleet fresh with updated machines.



SUEZ recycling and recovery UK have been a long-standing Blue Machinery (Central) customer, with a Doppstadt Inventhor 6 slow-speed shredder and SM 620.2 trommel currently out on hire at their In-Vessel Composting facility in Arkwright, Chesterfield.

The Doppstadt Inventhor 6 is used to shred their fresh inputs and oversize to form each batch to the required size and consistency to optimise the composting process. The batches are formed in a sanitisation tunnel where air is forced through the material to keep it aerobic and to achieve the desired temperature to eliminate E-coli and Salmonella. SUEZ operate at the UK standard and therefore are required to reach a minimum of 60oc for 48 hours in the stage 1 tunnels, before repeating this process in a second stage tunnel. Once completed they move the materials across to the stabilisation bays. When stability is reached, the Doppstadt SM620.2 trommel complete with a windsifter is used to screen down the desired size and remove light plastics that were not managed to be removed at the beginning of the process prior to shredding. The end product is then sent out for agricultural use to local farmland and any material that has not composted down to the desired 25mm< size is reprocessed to the

required structure. This keeps costs down as it saves the material from being sent to landfill or out on a deployment.

The two Doppstadt machines were brought in following a successful trial period where they went up against various machines from other brands. Both machines offer best in class fuel consumption and low levels of noise pollution, with the Inventhor 6 being a particularly quiet shredder.



### **Cover Story**



# Tyrone impress with 'game changing' Washing Solutions

The Tyrone International Open Event illustrates and underlines a clear focus on their customers' needs coupled with plant efficiency, ease of maintenance and after-sales support...

Tyrone International, a leading manufacturer of Washing Plant Solutions recently hosted a highly successful 3-day Open Event at Crown Aggregates Ltd [CAL] — Hartshill Quarry near Nuneaton, from 24-26th October.

The event welcomed over 400+ guests from the UK to see the latest 'state-of-the-art' 250 tph Aggregate Recycling Wash Plant, including the launch of their new T-Scalp Technology.

Throughout the three days, a highly knowledgeable team of Tyrone International Engineers, Sales and Applications Managers were on hand to give informative guided plant tours and application discussions.

The HUB-4 team were invited and taken on a tour of the extremely impressive plant by Fintan McKeever who is a Director of Tyrone International.





### A specifically designed plant:

Fintan, commented, "The plant was designed specifically to process a variety of materials including scalpings, C&D waste, recyclable materials and trommel fines. When processing the trommel fines these are blended in with the C&D waste and other recyclable materials. The scalpings have a silt content of to 30 % silt, and a very high % of clay which is one of the most difficult materials to process."



### **Tyrone T-Scalp 165 - a latest innovation:**

We then started the tour of the plant where a 30-ton excavator feeds material into the new Tyrone T-Scalp 165. Mounted on a modular structure the scalper features an oversized feed hopper with a very wide belt to prevent any bridging of the material on the hopper sides. The scalper has a 16 x 5 screen box, and the top deck is fitted with a combination of vibrating fingers and punch plate enabling the fingers to break the material up with the punch plate to ensure wear reduction.

This machine is fully electric, no engine, no hydraulics with everything powered through electric motors and gearboxes. It features an aggressive screen box to help break up the difficult clay material, with +90mm screened off the top and bottom deck for crushing later. Everything -90mm is then screened through the bottom deck and then fed to the collection conveyor which feeds the main wash plant.



### **Tyrone 3-day Open Event**



Fintan, then pointed out, "The difference on this machine is we have extended the collection conveyor right under the feed hopper so any spillage from the feed hopper will all be collected under the main feed belt which feeds the wash plant; this has minimised any spillage around the machine. The machine has also been vertically repositioned to provide better access all around the machine. Furthermore, the incorporation of jacking legs on the screen box and a small hydraulic powerpack to raise the screen box enables the changing of the mesh on the bottom deck or to fit new skirting rubbers is easily accomplished simply by pulling a lever allowing the whole box to raise up!"

Material is then fed up with a wash box which is fully enclosed and fitted with a dead box so that material fills and wears on material and then pours evenly onto the 16 x 5 double deck rinsing screen fitted with polyurethane modules with 50mm aperture top and 5mm aperture bottom decks.

All material coming off the top deck is a washed 80mm product and the material that screens off through the bottom deck is sand with the mid-size product fed into the logwasher.



It is quite apparent that a lot of time and effort has been put into all the transfer points by the Tyrone International Engineering Team, minimising overspray and water leaks ensuring an efficient clean plant.

#### A unique T-Scrub Logwasher:

At this point a horizontal conveyor handles the 80mm material and feeds into the T-Scrub 1600 logwasher.

Fintan commented, "the T-Scrub is unique in that it provides full access via doors which are hinged from the centre of the roof on the hull along both sides for easy plant maintenance. Within these doors inspection hatches are incorporated to enable inspection whilst running. All the maintenance is done from the side of the logwasher without any requirement to remove guards."

After the material has been scrubbed through the logwasher it is discharged over another dead box to reduce any wear and then feeds onto a large rinsing screen which washes out any remaining sand ensuring that the stone is absolutely clean before it is segregated.

All clean aggregate is then fed to a T-Screen 125 where it is split into 3 clean aggregates 10mm, 20mm and 40 mm and stockpiled via integral conveyors.



### **Tyrone 3-day Open Event**

Fintan, added, "Everything from this tank is pumped up to the 150tph two-grade cyclone sand plant to separate the silt, the clays, the organics, and plastics from the sand.

"This tank also has a system to remove any floating polystyrene and plastics that have not been pumped out of the tank; so, it is a self-cleaning system that will remove all that material and pump it back onto the trash screen maintaining its cleanliness and blocking it from entry into the system.

"On this plant we double-wash the sand so there are two stages of removing all the silt, plastics, and organics so that we end up with two very clean sands — the fine sand is a 0-2 and the coarse sand is a 2-5, both are despatched to stockpile via powered radial conveyors. Additionally, we have incorporated a blending system on the sand plant to blend as much of the fine sand into the coarse sand depending on what grading we are trying to achieve."

We then followed the process to where the silts, the clays and the -5mm organics and plastics that come out of the top of the cyclones are fed down onto a large vibrating trash screen situated on the top of the T – Clear 800 thickener, this screen removes all the trash and organics prior to the water treatment; effectively removing it before it gets into the system. By keeping it out of the system it prevents the spray nozzles being blocked and prevents the build-up of material in the clarifier water tank.

The thickener has a large rake which spans the full diameter of the tank. They rotate slowly around the bottom of the tank ploughing all the settled silt into the central cone section of the thickener from where there is a pump that sucks all the thick sludge out. The system measures the load on the rakes, so the sludge is only discharged when it is at the correct density. Additionally, there is a facility to raise and lower the rake system which will prevent blockages in the future should anything unexpected occur.

### A self-cleaning system:

Additionally, another area where the very fine trash material is being removed is the rotating surface scraper on top of the thickener tank. Should any trash material less than 1mm or fibrous trash material get past the vibrating trash screen it will be removed from the thickener by a surface scraper and then through a longitudinal discharge point where it is pumped from back onto the trash screen, enabling the system to constantly clean itself. This system ensures that no trash enters the clarified water storage tank.

### Central Control Room:

The whole plant is operated from a central control room allowing the operator a full view of the plant. Within this control room is a mimic screen for the wash plant and the water treatment plant so the operator can see all the critical information for the plant such as pressures, flow rates, the amps being used and the levels in the tanks — all from one central location.

There is also a multi-screen camera system so he can visibly see all the critical components of the plant. Additionally, a further screen showing belt speed, tph, time of plant start, if the plant stopped and weight on the belts.

Our tour continued into the press room...

#### The Fraccaroli & Balzan over beam filter press:

The Fraccaroli & Balzan overhead beam filter press [partners with Tyrone] installed at Hartshill Quarry offers so much more than other presses in the marketplace.

The Fraccaroli & Balzan overhead beam filter press is one of the largest over beam press installed in the UK Aggregate Industry! The whole operation from start to finish takes 60-90 minutes to complete the cycle depending on the feed material with 10 minutes to clear the plates, which is extremely fast for such a large press. The moisture content of the filter cake can easily be controlled from the HMI screen by adjusting one parameter.

Fintan gave us the facts, "The thick sludge is transferred from the thickener tank into the sludge tank which holds 550 cubic metres of sludge which is a very large sludge tank. The reason that it is so large is to ensure that there is sufficient storage enabling the filter press to operate all night pressing all the sludge out so maximum utilisation can be achieved. With the filter press running day and night, this allows the operator to set the washing process up again in the morning.

### "What make this filter press stand out is that there are so few moving parts!"

Fintan continued," At the end of the press cycle the four hydraulic rams move out and the large sliding header plate retracts. When that retracts a robot above the press moves forward and two pistons come out and pull 10 plates back; it then travels forward to the next pack, two go out and then it pulls ten back again, travelling up the press very quickly pulling sets of ten out.

"The robot mounted on top of the press has two other functions – it can shake the filter plates to assist the discharging of the filter cakes and it also washes the plates. Many other filter presses do not have the ability to shake the plates.

Because this press is so large the sludge is fed in at both ends which reduces the filling time and equalises the pressure throughout ensuring the cake has the same dryness all the way through.

Fintan added, "The filtrate water [clean water] is discharged through the corner ports of the filter plate which is all collected at the end of the filter press exiting down one pipe which incorporates a turbidity meter which will inform the operator that if the water is not clean there is a damaged filter cloth which the operator needs to change. A flow meter also measures the flow of clean water coming out of the press which when the flow is reduced to a set point it instructs the system to shut the pump off and to open the press to discharge. So, if the set point is reduced a drier cake can be produced; or increased for a cake with a higher moisture content.

### Design and ease of maintenance:

The key thing about this press is that the overhead beams sit to the side which allows full access to everything on the top; unlike traditional overhead beams where everything sits in the middle and include a chain drive mechanism and hooks on the chains to open the plates.

On the F&B press, maintenance is super easy as everything sits to the side and there is full access round all sides of the press.

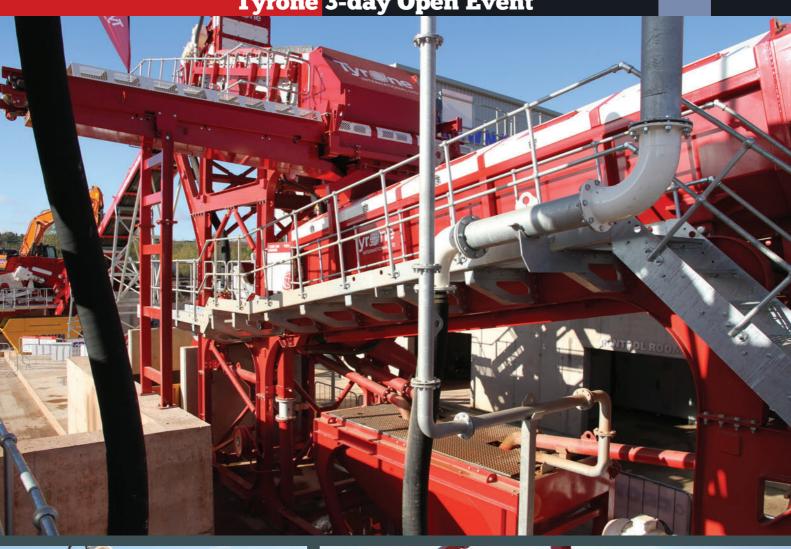
It also operates an automatic washing system which washes from the top down. This is completely different as alternate systems wash from the bottom up. When it is washing the press, a mobile trolley moves along with the washing system and collects all the water which is returned to the thickener.

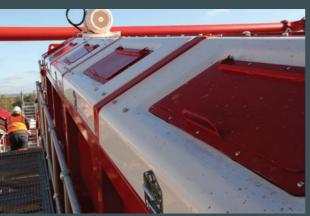
It's an extremely fast automated system, we have full remote access to all the control on the plant so if there are any alarms, operator problems or issues we can remotely dial into the plant and can access all the alarms and the history and can then offer advice to the plant operator as to what he needs to action.

The whole design philosophy of this new plant is making everything as easy as possible, easy to access, easy to maintain, easy to service which has been a total success.

John Edwards — Editor, HUB-4, commented, "Having viewed dozens of wash plants over the last 20 years to describe this plant as 'state-of-the-art' is an understatement. The attention to detail is quite frankly superb! All the HUB-4 team would like to congratulate Tyrone on this stunning installation and thank them for the tour and hospitality."

**Tyrone** 3-day Open Event













FROM THE TEAM AT



## McHale Plant Sales: New UK distributor for Metso Mobile Crushers

## Tamworth HQ & Edinburgh After-Sales Depot "will bring Metso Crushers closer to UK customers."

The arrival into the UK of construction equipment distributor McHale Plant Sales - following their appointment to represent Metso mobile crushers in England, Scotland, and Wales markets - is one that augurs well for owners and operators if experience in Ireland and Northern Ireland markets holds true.

Since their appointment took effect little more than six months ago, the company has established newly acquired headquarters on the Lichfield Road Industrial Estate in Tamworth – the new distributor base for Metso in the UK which McHale confirms is "up and running, and busy making contact with customers."

Key measures put in place at Tamworth include a fully stocked parts distribution facility, the appointment of sales and parts personnel, the recruitment and equipping of Metso-experienced mobile field service engineers - with more planned; and the appointment of other front-of-house personnel.

Pursuant to its promise to open a base in Scotland, McHale Plant Sales confirms the setting-up of a new parts and aftersales depot in Edinburgh its purpose being to bring Metso even closer to customers north of the border.

Located at 13 West Telferton Industrial Estate on the east side of the city, it will function operate as a stand-alone addition to their headquarters in Tamworth.

Initially, it will operate as a parts supply centre and as a fully functioning UK-wide customer contact and communications centre. Looking ahead, the intention is to locate a machinery sales presence and an additional technical support unit at the location.

Managing the operation in Edinburgh will be Scottish born, Louise Hunter. Well known to Metso customers throughout the UK, Louise brings to her role an extensive knowledge of Metso products and of the on-going requirements of owners and operators, coupled with experience of have dealt with the Metso organisation at various levels.

Speaking to HUB4, the company's Business Development Director, Darragh O'Driscoll confirmed: "Since opening in Tamworth, we have already placed a number of machines in the market at locations as widely spread as London, Cornwall, North Wales and Yorkshire".

"With these important sales and numerous other measures in place, we can move forward with confidence, wholly aware of the challenge that lies ahead and of the work that needs to be done, a key goal being to tell the Metso story and promote the many advantages their crushers bring to the market" O'Driscoll added.





### "Will apply 'proven-approach' to servicing, English, Scottish & Welsh Markets"

To get a deeper sense of what their appointment will mean, HUB4 spoke to McHale Sales Director, Denis McGrath to discuss what customers and owners might expect now that McHale is open for business and fully operational in Tamworth and Edinburgh.

An employee of the company since he began working there as an apprentice mechanic, McGrath has a firm view of what customers can expect as their Tamworth and Edinburgh operations hit top gear.

"In all aspects of our operations in the UK, we will implement our proven approach to customer service long established in Ireland and Northern Ireland where our sales, service and parts operate in lockstep" McGrath said.

"From all we have learned in more than half a century supplying customers in the construction, quarrying, aggregates and civil works sectors, we know the requirements that owners and operators have, and the challenges and pressures under which they operate" .>



"As equipment suppliers, wholly focused and dedicated to meeting the requirements of our customers, we will reach-out to machinery owners and operators whose priorities in terms of technical back-up and after-sales support we fully understand"

"If we have an MO, it is that sales, service and spare parts should speak as one voice, all being interlocked and none being more important than the other" he added.

Equipment that will form the core of the Metso and McHale Plant Sales crusher offering at Tamworth and Edinburgh includes the complete Lokotrack mobile crushers ranges, supported by a comprehensive spare parts operation tagged to an in-house and mobile technical back-up service.

"Priority is being given to spare parts stocking, the 'kitting-out' of maintenance facilities and technical support services, and to the task of contacting and getting to know customers as quickly and as best we can".

Founded during the 1950s, McHale Plant Sales has grown to become a leading equipment distributor in Ireland and Northern Ireland working from an east-coast base near Dublin and headquarters in the mid-west near Limerick.

In operational terms, an extensive and diverse equipment portfolio has led the company to build a significant presence in construction, civil works, forestry, agriculture and environmental sectors.

In terms of style, McHale Plant Sales people (many, like McGrath, with long-service in the company) are said to be 'down-to-earth' in all respects, people who, one trusted insider noted: "have grown up close to the world in which they and their customers operate."

"Far removed from Gucci shoes and fancy notions, McHale people are wholly aware of what is expected of them. Not afraid to knuckle down and get their hands dirty, UK customers will be serviced by a supplier who speaks their language and understands their needs" he added.

## Hills Quarry Products opens eighth concrete plant

Hills Quarry Products has continued to strengthen its presence in the ready-mixed concrete market by opening its eighth concrete plant.



The new site in Wilmington will provide high-quality concrete and screed to all customers, with product available for collection or delivery using 4m³, 6m³ and 8m³ sized vehicles.

The plant, based near Honiton in Devon, will also be registered with the Quality Scheme for Ready-Mixed Concrete (QSRMC).

Peter Andrew, Group Director Hills Quarry Products, said: "Following the recent opening of our Swindon plant, the Wilmington site will expand our ready-mixed concrete business even further. The new team at Wilmington will be working closely with the concrete team at Woodsford Quarry in Dorset. The plant will offer a wide range of delivery vehicles provided by site owner and franchisee Adrian Clarke."

Terry Newsham, Commercial Business Manager, Hills Quarry Products, said: "We are delighted to have extended our presence in the South West with our new site near Honiton. The opening of our Wilmington concrete plant will further enhance the level of service we can provide to our customers."



# McHale Plant Sales and Metso your one stop shop

Metso has delivered dependable solutions for demanding aggregate applications for the past 150 years, including crushers, screeners, feeders, track mounted and wheel mounted units, stationary plants and automation breakthroughs.

At McHale's we take your business personally. Backed by OEM spare and wear parts, maintenance and repair programmes, extended warranties, full Life Cycle Services and a mobile service fleet covering the entire country.

Contact McHale Plant Sales to find the right Metso mobile solution for you, or learn more at metso.com/aggregates.

Metso

Birdhill, Co. Tipperary +353 (0)61-379112 Rathcoole, Co. Dublin +353 (0)1-4018540

Tamworth, Staffordshire +44 (0) 182 721 6600 West Telferton, Edinburgh +44 (0) 182 721 6600

## **TOMRA** introduces the new INNOSORT<sup>™</sup> FLAKE for unrivalled flake sorting performance

TOMRA has added to its product portfolio with the launch of the new INNOSORT FLAKE for high-throughput purification of plastic flakes. Its enhanced features enable simultaneous flake sorting by polymer, colour and transparency achieving unmatched quality even from highly contaminated inputs.

In the industry's quest to increase recycled content by producing post-consumer recyclates for high-end applications, TOMRA has leveraged its 50 years of experience in circular waste management to develop the next-generation flake sorting technology. The new INNOSORT™ FLAKE solution will help the industry recover more recyclable materials from any waste stream with maximum yield.

Alberto Piovesan, Global Segment Manager Plastics at TOMRA Recycling Sorting, explains: "Given recycled content targets in Europe and elsewhere, the market needs to prepare for future demand. Recyclers need solutions to produce high-quality post-consumer recycled content in sufficient volumes. At the same time, they strive for reliable sorting results and operational flexibility. With the new INNOSORT™ FLAKE, this is now possible."

### Any colour. Any polymer.

Equipped with a powerful sensor combination, the new INNOSORT™ FLAKE sorts polymers by material type and colour, removing any impurities to create pure fractions. Thanks to its advanced near-infrared (NIR) spectrometer, the machine precisely detects various polymers, allowing for the recovery of recyclable materials from highly contaminated infeed. With this technology, plastics recovered from mixed waste, for example, can be sorted for recycling, giving access to more recyclable materials that would otherwise be lost or downcycled for lower-grade applications. For instance, polyolefins (PO), such as polyethylene (PE) and polypropylene (PP), are often found comingled in the same waste stream. With the new INNOSORT™ FLAKE, mixed plastic fractions that have been shredded and washed can be sorted into clean fractions of PET, PP and PE and other materials that meet the quality requirements for extrusion and the creation of highquality post-consumer recycled (PCR) content.

Moreover, plant operators profit from the machine's unmatched colour sorting performance. Its enhanced optics, with a changeable colour background and dual-sided high-resolution cameras, detect millions of colours and create single-colour fractions. Its high contrast imaging can even differentiate between white opaque and natural, transparent and translucent flakes, reducing material losses and maximising yield.

Piovesan adds: "The new INNOSORT™ FLAKE is designed to simultaneously sort any colour and any polymer. It levels the playing field for recyclers and gives them maximum flexibility to respond to the respective market demands. If an operator wants to purify PET this month and produce a clean blue PP next month, it is technically possible with the new machine. What's more, it is cost-effective."

### New design with multiple benefits

William Zeng, Product Manager TOMRA Recycling Sorting, comments: "We developed the machine with our customers' requirements in mind. With its integrated cooling system and robustness, it delivers an even more stable performance in challenging environments and delivers reliable results for



required."
The new

INNOSORT™ FLAKE comes with up to four chutes and a changeable illumination background. This level of flexibility makes it possible to run multiple sorting and recovery steps in a single machine, leading to considerable time savings and less material handling.

As a system only performs best when all components work seamlessly together, maintenance is crucial. The new design gives unrestricted access to the machine's components, enabling smooth maintenance with little downtime.

### **Data-driven analysis**

In addition, TOMRA Insight can be installed as an add-on service. The cloud-based data monitoring platform contributes to improving sorting performance. On the one hand, it helps optimise processes through data analysis. Identified inefficiencies and predicted maintenance further support the reduction of machine downtime and productivity losses. On the other hand, its real-time monitoring gives plant operators access to data anywhere and anytime to maintain process stability.

Piovesan concludes: "Thanks to its enhanced technologies, the new INNOSORT<sup>TM</sup> FLAKE revolutionises plastic recycling. Customers testing our system are convinced of its capabilities and ease of use. Now, they can mitigate higher levels of contamination and create the highest purity fractions by running multiple sorting steps simultaneously. This adaptability, combined with state-of-the-art technologies, makes the new INNOSORT<sup>TM</sup> FLAKE a future-proof flake sorting solution for any recycler who aims to produce extrusion-ready flakes."





## SHARK 440DT eco Slow Speed Shredder











# TANA brings decades of experience

TANA was established in 1971 and has been at the forefront of designing and manufacturing robust machinery for the purposes of solid waste management ever since. With decades of experience on the needs and requirements of landfill and waste management operators, TANA launched its UK distributor TANA Recycling Machinery UK, with an aim to bring a touch of Nordic expertise and engineering know-how to the UK. TANA Oy is based in Finland, but TANA Recycling Machinery UK operates out of its South Yorkshire headquarters in Doncaster.

We are lucky enough to have the most versatile machine on the market in regard to the TANA Shark Shredder. Be it general waste, mattresses, tyres, wood, plastic, C&I, C&D the Shark can handle them all and more. Pair that with excellence in service and you have a winning formula.

There are many applications to which the TANA Shark shredder can be used. The TANA Shark can shred all kinds of end-of-life tyres. These could come from cars, trucks, aircrafts, and heavy-duty vehicles and can be really difficult to recycle. The TANA Shark uses high-torque shredders to make it possible to shred tyres to an 80 mm particle size in just one pass and separates most of the metal wires directly from the shredded material flow on the conveyor. The steel wiring is removed in the shredding process and by an over-band magnet in the unloading conveyor. Once separated, shredded tyres and metals can be sold and reused in many ways.

For packaging materials such as hard and soft plastics, cardboard, paper, wires, paper rolls, containers, aluminium, gypsum, or any reject from production line of a manufacturing process can all be shredded using the TANA Shark. TANA shredders are slow speed and use a single shaft with high torque that optimises the machines functions. Because of TANA shredders unique features downtime is minimal as processes are in place to ensure the treatment process runs smoothly and efficiently without breaking down or requiring a 'cool off' period.





Get more out of your investment as the TANA Shark's lowrev and high torque process makes light work for difficult materials such as mattresses, cables, wires, and ragger

wires. Some of these materials are loathed by landfill operators as especially mattresses contain a mixture of complex materials such as textiles, latex, foam, springs, and wood that are difficult to recycle. The magnetic separation of metals can generate additional income, as it can be sold on for recycling purposes.

One advantage of the TANA Control System is that it has 12 pre-programmed operating programs for diverse types of materials and purposes of shredding. TANA Shark shredders take care of the whole shredding process resulting in making 20% more profit. Overall, it is capable to produce a broad range of homogenous particle sizes, its unique and versatile process allows for a productive recycling of the widest range of materials and shreds the toughest materials such as shingles and big tyres.

For more information, see below.



### **Shredders**

The TANA Shark range prides itself on its unrivalled versatility. Be it general waste, mattresses, tyres, wood, plastic, C&I, C&D the Shark can handle them all and more. Match this with a plethora of screen baskets all of which can be interchanged in as little as 10 minutes and you have a shredder that can tackle nearly all waste streams.

The TANA Shark range is the amalgamation of years of research and development along with an abundance of customer feedback. This has resulted in our newest model, the TANA Shark 440ET. This variation of shredder combines the reliability and convenience of a diesel powered shredder and the economic benefits of an electric shredder. Powered by 2 VEM electric motors for shredding and a smaller diesel engine to drive the shredder on tracks.

Tana has been at the forefront of shredding technology for many years and has grown and evolved with the industry. This comes to light when evaluating the right machine for your waste processing needs.

To find out how Tana could save you money on the bottom line and increase your revenue, please reach out today at www.tanauk.com

#### **MODEL: TANA Shark 440DTeco**

Weight: 29,700kg

• Engine Emissions: Tier 4 final / EU Stage V

Rated power: 399 kWNominal torque: 440 kNmRotor length: 3000mm

Number of rotor knives: 33 / 44 (optional)

• Screen sizes 50, 76, 90, 100, 109, 120, 130, 167, 220, 275, Tyre Screen. (mm)

Screen area: 1.9 m2

### **MODEL: TANA Shark 440ET**

Weight: 32,000kg

• Engine Emissions: Tier 4 final / EU Stage V - IE4 efficiency class.

Rated power: 2 x 160 kW
Nominal torque: 440 kNm
Rotor length: 3000mm

• Number of rotor knives: 33 / 44 (optional)

• Screen sizes 50, 76, 90, 100, 109, 120, 130, 167, 220, 275, Tyre Screen. (mm)

• Screen area: 1.9 m2

#### **MODEL: TANA Shark 220DTeco**

Weight: 29,700kg

• Engine Emissions: Tier 4 final / EU Stage V

Rated power: 399 kWNominal torque: 220 kNmRotor length: 3000mm





# The EDGE VS420 shredder available from Red Knight 6 Ltd

The leader for shredding domestic & general waste, wood and green waste

Call - 01293 862619 www.redknight6.co.uk







### EDGE VS420

With decades of knowledge in the design, manufacturing and installation of mobile waste shredders, it is no surprise that EDGE Innovate's VS420 twin shaft shredder has quickly gained a reputation as a world class shredder. With many units already installed in the UK; many British waste management companies have been quick to recognise the operational benefits of the VS420 with its

capabilities and versatility being proven in wide range of applications from municipal skip waste to wood waste.

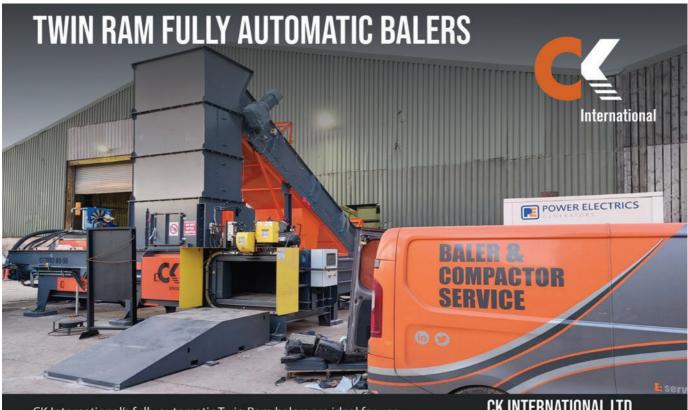
The EDGE VS420 is a high capacity, high torque twin shaft waste shredder that is ideal for the processing of a large array of materials. Developed for ultimate versatility and high resistance to contaminants, the EDGE VS420 allows operators to select from several customisable shredding programmes and chamber configurations to suit their exact application. An intelligent operating system which incorporates tramp metal protection provides the ultimate protection from contaminants and prevents asset damage.

At the heart of the VS420 slow speed shredder are twin synchronised, high torque shredder shafts which can be customised to suit a customer's exact application and desired



product piece size. EDGE's twin shaft design provides exceptional material intake, ensures less wear, promotes selfcleaning and prevents material wrapping even in the toughest of applications.

Model	EDGE VS420
Weight	29,200KG
Engine Emission	STAGE V / TIER 4 FINAL
Rated Power	310Kw (420HP)
Nominal Torque	240,000Nm
Rotor Length	2m
Number of Rotor Knives	26-76
Screen size	50mm – 200mm
Screen Area	Variable



CK International's fully automatic Twin Ram balers are ideal for use in waste transfer stations or as part of a larger recycling MRF system where high volumes of waste materials such as RDF, SRF, plastic, PET, cardboard and paper are processed.

### CK INTERNATIONAL LTD

T: +44 (0)28 8775 3966

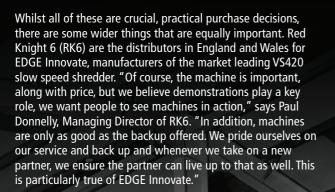
E: sales@ckinternational.co.uk

W: www.ckinternational.co.uk





### **Shredders**



The VS420, developed for ultimate versatility, is a highcapacity machine, capable handling an array of materials including green waste, MSW, C&D waste, biomass, and end of life tyres. Developed for ultimate versatility and with a high resistance to contaminants there are a number of customisable shredding programmes and chamber configurations available. An intelligent operating system which incorporates tramp metal protection provides the ultimate protection from contaminants and prevents asset damage.



At the heart of the VS420 are twin synchronised, high torque shredder shafts which can be customised to suit a customer's exact application and desired product piece size. EDGE's twin shaft design provides exceptional material intake, ensures less wear, promotes self-cleaning and prevents material wrapping even in the toughest of applications. With a range of both rapid volume reduction and intricate piece sizing.

The intelligent management system allows optimal performance, combined with large slow speed reversing shafts leads to reduced noise, power consumption and maintenance costs. The Status Link system allows for guick and simple communication to the operator via easy-to-understand lighting that will update on the performance of the machine and whether loading should continue or pause for any reason.

### **Operational Data**

Length	Width	Feed in height	Max discharge height	Weight	Shaft length	Shaft speed
13413mm	2550mm	3138mm	4723mm	29200kgs	2 metres	Variable – max 40RPM

Appointed by EDGE Innovate in July 2022, RK6 are leading distributors of crushing and screening equipment throughout the UK and Ireland, working with leading brands such as Rubble Master, Komplet and MDS. Northern Ireland based EDGE Innovate also design and distribute a range of trommels and stackers around the world which are also available

The VS420 is available for demo throughout England and Wales. Get in contact with the team to arrange something. www.redknight6.co.uk 01293 862 619



# 108815

SLOW SPEED SHREDDER



## VERSATILE SHREDDING



Seamless Maneuverability and **Effortless** Transport



**Versatile** Design for **Multiple Applications** 



1.5m Quick-Change Twin **Shaft Shredding Unit** 



**Customisable** Shredding **Programs** 



**Intuitive** Control System





## Climate-friendly recycling The "E" makes all the difference

Eggersmann Recycling Technology has set itself the goal of not only recovering recyclable materials as efficiently as possible but doing it also in an eco-friendly way. Based on this ideal the EcoEngineers at Eggersmann launched the emission-free E-versions of their mobile FORUS and TEUTON shredders last year.

The powerful yet economical electric drives give both universal shredders the usual strength of the diesel versions. Power is supplied simply via plug & play, while battery packs ensure mobility on the site and the use of maintenance functions without external power supply. Thanks to the tracks, the FORUS and TEUTON can even turn and manoeuvre on their own. They can be conveniently steered via a radio remote control. Since the electric drives are emission-free, they can also be used indoors.

The TEUTON Z 50 E impresses with all the familiar advantages of the TEUTON Z 50. An almost five-metre wide filling area ensures optimum material feed and a diverse selection of easily exchangeable rotor tools ensures outstanding results from green waste to truck tyres. With special rotor tools such as the Rootgrip, the shredder can be specifically adjusted for certain applications. A special highlight is the maximum control over the final grain size thanks to the flexibly adjustable cutting gap settings and the optional screen basket system. Depending on the required output, screen baskets come with various hole sizes and forms. For particularly homogeneous end products there are hex shaped screen baskets and for throughputs with a risk of clogging - such as films – there are strip screen baskets. This means that the TEUTON Z 50 E can also produce marketable end products directly in just one pass.



The TEUTON Z 50 E is a true powerhouse and impresses with high performance as well as accurate results at low operating costs.

The two shafts can run asynchronously at different speeds if required and thus even clean themselves. This makes the FORUS a safe choice even with winding material. In addition, the toolless exchangeable crushing bars also allow the FORUS to define the end product with a high degree of accuracy. The hook lift versions of the FORUS F 25 and F 38 can equally be operated purely electrically.

In addition to the TEUTON Z 50 E and FORUS F 38 E crushers, all TERRA SELECT trommel screens and the STAR SELECT S 60 star screen as well as the AIRFIX V 60 windsifter are also available as E-versions or for maximum flexibility as hybrid. Eggersmann thus offers a wide range of fully electric options for mobile use. In addition, the control units of all machines follow the uniformly structured Eggersmann One-Logic principle, which enables intuitive use. Anyone who can operate one Eggersmann machine will also



### **Doyle Machinery supplies Shorts Group with a new** Willibald EP5500 Shark







Members of the hire association Europe and having been awarded accreditations such as SAFE Contractor, ISO 9001,140001 and 45001, Shorts group commitment and drive for quality is clear to all.

perfect tool for composting and wood recycling. Featuring 5 variations of rotor hammers and various other post shred baskets, Doyle Machinery were able to configure the EP5500 to Shorts Groups specification, whilst having the ability to easily change this configuration with the presence of the hydraulic quick release axle and the quick change baskets, should Shorts Groups requirements

"Given the increased demand for our PAS-accredited compost, we require a highly efficient high-speed shredder capable of processing all incoming green waste effectively. Doyle Machinery has supplied equipment across the group and we are pleased to have worked with them for this new project. We were drawn to the Willibald with its track record in the green waste sector, as well as its features suited to the Operator to allow for ease of use and maintenance. We were looking for a machine that was going to efficiently shred our green waste and that is exactly what we have got with the Willibald – it is perfect for this application. The machine has allowed us to make better use of the compact spaces we sometimes have to work within the yard. We would certainly consider it when we come to replace in the future.

As always, our experience with Doyle Machinery has been first class, all the expected teething problems were ironed out very quickly and they have been on hand to provide additional training where required. Their engineers are always happy to share their knowledge and experience which allows our operators to get the best performance consistently." - Bryony Morten-Short.





## **Doyle Machinery** supply a second **Arjes VZ950DK to ASM Metal** Recycling

With over 55 years of experience in the metal recycling industry, ASM has grown from strength to strength and is now considered one of the strongest metal recycling companies in the UK. ASM pride's itself on its commitment to processing both ferrous and nonferrous metals with the "latest and best technology".

It's with that in mind that Doyle Machinery is all the prouder to have recently supplied them with their second VZ950DK.

Between the VZ950DK's hydraulicly adjustable side combs and it's in-line magnet, ASM can dictate the sizing of their material to suit their requirements whilst also achieving precise ferrous and non-ferrous separation.



Everyone here at Doyle Machinery would like to extend our greatest thanks to Paul McDonald, Managing Director at ASM for trusting us repeatedly to provide such an essential machine to their operation.

Enquire with us today if your metal recycling business also needs an essential tool like the Arjes VZ950DK!



### THE HOME OF GREAT MACHINERY

Tel: +44 3330 433322 Email: sales@doylemachinery.co.uk Website: doylemachinery.co.uk Social media:@doylemachineryltd

### **Shredders**





### **MODEL: Arjes Impaktor 250 evo**

- Weight: 13.4 T
- Engine Emissions: EU Stage V
- Rated power: 175 HP
- Nominal torque: 80,000 cm
- Shaft length: 1.5M
- Number of rotor knives: 2 Shaft options available

(Concrete or Paddle)



### **MODEL: Arjes EKOMAXX 800**

- Weight: 21 T
- Engine Emissions: EU Stage V
- Rated power: 320 HP
- Shaft length: 2m
- Number of rotor knives: 36



### **MODEL: Arjes TITAN 900**

- Weight: 35 T
- Engine Emissions: EU Stage V
- Rated power: 550 HP
- Shaft length: 2.5m
- Number of rotor knives: 66
- Screen sizes: Hydraulically adjustable side combs



### **MODEL: Arjes TITAN 950**

- Weight: 37 T
- Engine Emissions: EU Stage V
- Rated power: 550 HP
- Shaft length:2.5m
- Number of rotor knives:40
- Screen sizes: Hydraulically adjustable side combs



### **MODEL: Willibald Shark EP5500**

- Weight: 19 T
- Engine Emissions: ECE Stage V
- Rated power: 521 HP
- Shaft length: 1450mm
- Number of rotor knives: 16 up to 48
- Screen sizes: Options available





**Doyle Machinery** began in 1989 initially as a distributor of agricultural, forestry, recycling, materials processing, and mechanical handling equipment. With strong family roots in Ireland, we have a wealth of knowledge and experience in the machinery industry.

Doyle Machinery specialises in the importation and distribution of mechanical handling and processing machinery into the Recycling, Construction, Scrap Metals, Demolition, Quarrying, Energy and Ports industries throughout the UK and Ireland.

With a dedicated team of professionals, we offer total solutions in Machinery and Equipment Sales, New and Used Machinery Sales, Short, Long Term and Contract Hire, Spare Parts, Servicing and Logistical Movements having worked with great dedication to transform our vision into innovative and economical concepts within the industries we cover.

We represent world leading OEM brands such as Arjes Gmbh, Magni Telescopic Handlers, Willibald Gmbh, Barford Equipment, Screenpod Manufacturing and Menart Equipment.



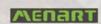
- +44 3330 433322
- sales@doylemachinery.co.uk
- doylemachinery.co.uk
- @doylemachineryltd





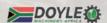
Arjes Impaktor 250 II











# Greener Composting based in Lichfield has recently taken delivery of a Pronar MRW 1.300 single-shaft shredder

Greener Composting is part of a fourthgeneration farming business based near Lichfield, Staffordshire and run by Richard Ryman. The emphasis at the facility is on providing a flexible service that works around the needs of the suppliers of waste to Greener Composting.

As an independent business, delivery schedules can be accommodated with advance notice. The waste is rigorously checked, sorted by hand, and monitored as the composting process takes place. The site currently takes all types of green waste and Greener Composting takes time to understand business' waste and disposal needs to ensure that they receive the best service possible. They aim to produce a high-level product to put back into the agricultural environment.

The Rymans moved to the farm at Lichfield over 90 years ago, and it is now in its 4th generation, with a 5th generation hot on its heels! Ninety years ago, the farm was very diverse; pigs, sheep and cattle were farmed alongside arable crops. On arriving at the farm, a world-famous pedigree herd of Large White pigs ('the Wall herd') — progeny can still be seen picking up prizes around the country's agricultural shows today! Sadly, the herd was closed down in 2001, and the farm had to find different ways to diversify and expand.

At this stage, the idea of composting was introduced by a family friend who had seen green waste sites operating in America. The large arable (wheat, rape, beans and potatoes) side of the farm could be run alongside the composting site with a perfect end use for the compost — as a green fertiliser/soil improver.



Greener Composting opened for business in 2003, and since then, the business has gone from strength to strength. Greener Composting now receives nearly 20,000 tonnes/year of green waste, which is cleaned and processed before being put back onto the land, thus completing its 'green' journey. The arable side of the farm has noticed a significant improvement in crop quality and yield since Greener Composting's product has been used as a soil improver.

The finished product from Greener Composting stays on the farm where it is produced, thus continuing its environmentally



### **Shredders**

Greener Composting is delivering a natural process where the benefits of the end product can be seen directly in the farming business. A positive approach to your waste disposal can help the natural environment with real results.

Greener Composting is an extension of a large family farm. It has benefitted the arable side of the farm greatly, resulting in higher yields of all crops and a better organic content of the soil.

Richard Ryman, owner of Greener Composting, explains that "Having decided we needed to replace our current shredder, we decided to take a look at all the shredders available on the market suitable for processing green waste.

We created a short list of brands that we felt might be worth looking at and planned to demonstrate them all. The only way to find out how good or bad a machine is, is to test it. We also created a series of metrics to make our decision, including fuel consumption per hour, tonnage per hour, ease of use and lastly, but more importantly who we felt would provide the best backup and support for the shredder."

When the Pronar tracked MRW 1.300 shredder with 3 metre single shaft arrived on site, Richard's first thoughts were how fuel-efficient the machine was. He explains that "The acid test was what tonnage we would process per hour."

Jason Purllant from Global Machinery
Solutions attended the demonstration
and worked with Greener Composting to ensure they could
achieve the final product sizing they needed

Sizing is crucial when producing a soil improvement product and having tried a few different setups during the demo,

Greener Composting found the "sweet spot" where the tonnage was optimised and the final product specification was met. The Pronar 1.300 has 42 teeth across the 3 metre drum and so Global were confident the sizing or throughput would not be an issue.

"I was really impressed with the way Global took the time to work with us and listened to what we wanted to achieve," Richard explains.

A decision then needed to be made as to which shredder the company would purchase. Richard saus that "Having evaluated all the machines, it was clear the Pronar MRW 1.300 was best suited to our requirements.

The shredder made lightwork of both the tree stumps and general tree waste, as well as the kerbside collected green waste."

Commenting on its comparison to other options, Richard says that "The MRW 1.300, powered by the 550hp Volvo Penta engine with a 3-metre-long single shaft, produced the most tonnage per hour and used the least amount of fuel per hour compared to others. A magnet conveyor was fitted to the machine to remove any unwanted metal that might have found its way into the green waste.

You would be amazed at what people find in green waste kerbside collections. I've heard of everything from body parts to a spent artillery shell.





The machine was fitted with the Cleanfix reverse fan system for both the oil cooler and the engine cooler, ensuring that even in the hottest and most challenging conditions, the radiator veins remain clear and free from debris.

As the sole Pronar distributor for the shredder range in the UK, not only do Global Machinery Solutions Ltd provide world-class machinery, but an unrivalled Parts and Aftersales service is also offered. The company motto of 'a sale is where the journey begins, not ends' is backed up by a strong Aftersales presence, with an extensive team of mobile engineers located throughout the UK. Everything from machinery breakdowns to scheduled servicing is catered for, within a rapid response timescale.

The company boasts a well-equipped Parts Department with an extensive range of parts and substantial levels of safety stock to support VOR requirements, with an expert team including dedicated brand representatives, so that expertise is quaranteed.

With over £2.5M of parts in stock, consisting of over 7000 lines, Global Machinery Solutions ensures the supply of the right parts to guarantee minimum machine downtime.

Jason Purllant, Business Line Manager at Global Machinery Solutions, commented, "We are delighted to welcome Greener Composting as a customer and look forward to supporting their growth as a company. The reliability, versatility and developments that have been seen across the Pronar shredder range are really making them outperform other models on the market."

If you want to know more about this success story, then get in touch with Jason at Global Machinery Solutions or Richard at Greener Composting.

## The Pronar Range

MRW 2.75 Twin Shaft Shredder



The Pronar MRW 2.75 is relatively new to the Pronar range. The shredder is equally capable of shredding MSW, Wood waste, green waste and C and D waste, plastics, etc.

The MRW 2.75 has a 1.55 metres long twin asynchronized shaft configuration using a variety of side combs and breaker bars to produce the final product size the customer is looking for without compromising on tonnes processed per hour.

Being able to control the shafts independently means that shaft speed and timing can be configured to best suit the feed material.

With an extended conveyor and larger engine compared to its smaller 2.65 brother, the 2.75 is ideal for those wanting to process bigger tonnages on-site and create larger stockpiles without having to constantly clear the heap

With interchangeable shafts as standard and magnet conveyor this machine is ideally suited to the smaller waste yards or skip companies who wish to process a mixture of waste streams.

Coming with a standard 2-year warranty provides owners with a sense of build quality and performance that come as standard.



### **MRW 2.65 Twin Shaft Shredder**

The Pronar MRW 2.65 is the most compact shredder in the Pronar range but still boasts an impressive 1.55-metre-long shaft length. The shredder is equally capable of shredding MSW, Wood waste, green waste and C and D waste.

With interchangeable shafts as standard and magnet conveyor, this machine is ideally suited to the smaller waste yards or skip companies who wish to process a mixture of waste streams.

Includes a 2-year warranty as standard, which provides owners with a sense of build quality and performance.



### MRW 2.85 Twin Shaft Shredder

The Pronar MRW 2.85 is a highly versatile twin shaft shredder. These shredders process both bulky and POPS waste as well as MSW. The 2.85 will also makes light work of green and wood waste.

The MRW 2.85 has a 1.75 metres twin shaft configuration using a variety of side combs and breaker bars to produce the final product size the customer is looking for without too much compromising on tonnes per

Weighing just 26.5 tonnes and not requiring a movement order to transport, it makes it the ultimate highly portable large tonnage processed shredder in the market place.

Coming with a standard 2 year warranty provides owners with a sense of build quality and performance that come as standard.



# PRONAR A PRO

#### MRW 2.1010 Twin Shaft Shredder

This is the flagship and largest of the shredder in the Pronar range. Weighing 44 tonnes and an impressive 2.5 metres shaft length, this shredder is designed for maximum tonnage and maintaining final product sizing.

This shredder can process anything from wood to MSW and green waste to car bodies. It really is a shredder for multiple applications.

As with all Twin Shaft Shredders from Pronar it comes with a choice of breaker bars to define your final product size as well as a choice of shaft styles from a pre shred to a finer cut.

All Pronar shredders come with triple pole magnet conveyors and remote controls as standard meaning that whatever size shredder you choose operating a Pronar from the safety of a cab is a standard.

Coming with a standard 2 year warranty provides owners with a sense of build quality and performance that come as standard.

### MRS 1.53 High speed Shredder

This shredder weighs 27 tonnes and is powered by the Volvo Penta 13 litres 550 horsepower engine.

In the standard version of this machine 36 swinging, easily replaceable hammers are used to process waste to a smaller size.

Typically, the machine is set up to process wood or green based material but equally can be changed to meet an RDF specification for waste.

For the RDF specification the standard shaft is replaced with a drum with bolted fixed knives making it more like a mobile mill.

For both set ups a screen can be added in front of the shaft to further determine final product sizing.

The MRS 1.53 comes standard with a magnet conveyor to remove ferrous metals from your final product.

Currently this machine only comes on wheels but will be available next year on tracks.

Coming with a standard 2 year warranty provides owners with a sense of build quality and performance that come as standard.

#### **MRW 1.300**

This machine is a single shaft slow speed shredder weighing 30 tonnes.

Boasting a 3 metre long shaft, this machine is perfect for processing large volumes of green waste, compost, wood and MSW.

The 42 uniquely designed knives work against a counter knife to produce an accurate and efficient cut to the waste being produced.

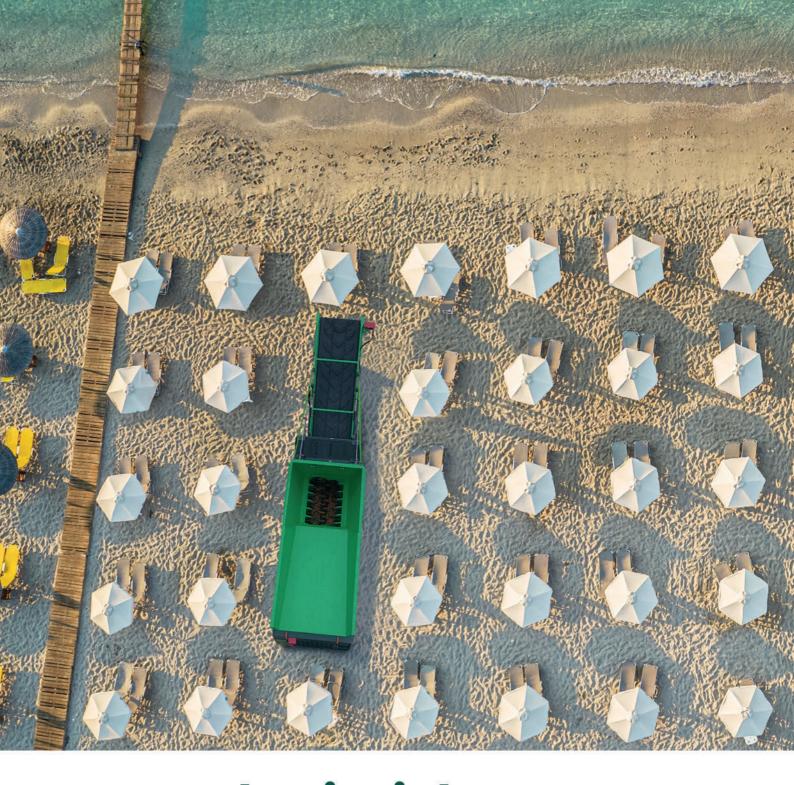
There are a choice of screens that can be fitted to this machine or alternatively fit spring lifters which help decide size the final product size.

Being directly driven through an engine/clutch system it keeps fuel usage to an absolute minimum without compromising on the tonnage throughput. Driving unnecessary hydraulic motors burns fuel.

Coming with a standard 2 year warranty provides owners with a sense of build quality and performance that come as standard.







## So good at its job it's already taken a break

The hybrid technology we've pioneered with HAAS means that the TYRON Hybrid Slow-Speed Shredder works longer, harder and greener.

Available to hire or buy at CRJ Services.



#### Do you have a technically competent manager at your waste/recycling site?



If you have an environmental permit for a waste management activity, you are required to comply with a government-approved technical competency scheme. This could be a technically competent manager (TCM) trained under the **WAMITAB/CIWM Operator Competency Scheme.** 

A person is considered technically competent if they can present the relevant knowledge and skills to ensure that waste sites remain compliant. They should have a strong understanding of relevant environmental regulations, safety standards, waste management processes, equipment maintenance and related technical processes in the industry.

#### **Understanding the Importance**

The environmental regulator is now able to track whether sites comply with a competency scheme through the data submitted within the site operator's waste returns. Failure to comply with TCM requirements can lead to regulators taking enforcement action against the site operator.

Generally, the attendance requirement for a TCM is a minimum of 20 percent of operating hours according to the relevant

guidance. However, this can vary depending on permit type, site location, operator compliance rating and environmental regulator agreements.

Records must be kept of the sites operating hours, and when the technically competent manager arrives and leaves the site. It is advised that the TCM should pay close attention any high-risk and critical hours in order to minimise risks associated with operations.

#### What If?

Unexpected absences due to illness and emergencies are rare, but they do occur. If you find that the TCM is unable to be onsite for unforeseen circumstances, then an interim TCM should be found to step-in for the duration of absence.

Certora Training provides flexible technical competence cover for sites that experience unplanned absences or see a change in staff positions. The service involves sending a technically competent person to cover your site as a technically competent manager so you can continue to meet the legislative requirements for your operations.

For more guidance on technical competence, get in touch with



#### **Route to Achieve Technical Competence**

The WAMITAB/CIWM Operator Competency Scheme is an ideal way to achieve your technical competence. Achieving this qualification means that learners are able to manage permitted waste facilities in England, Wales and Northern Island.

To gain your primary competence, learners should successfully complete either an on-site assessment, or the CIWM/WAMITAB Level 4 VRQ Waste and Resource Management.

The onsite assessment can be completed by all risk facilities. Learners who have a sufficient amount of experience and underlying knowledge of the industry would benefit from this method. A working site needs to be accessible to be able to complete this method of learning as specific resources are required which can only be utilised within a working environment.

Those who are new to the industry would benefit from taking the VRQ as it involves an academic approach which provides an indepth overview on legislation, environmental permitting and most treatment processes within the sector. It's important to note that learners from high-risk facilities are not able to take this route due to complexity of operations. The VRQ course can be completed online as virtual learning course, or we can deliver the course in-person, tailored to your specific requirements.

Once you successfully complete the on-site assessment or VRQ, if you wish to continue to act as a recognised technically competent manager, you are required to take a Continuing Competence assessment to demonstrate that you have kept your knowledge and skills up to date. The assessment would be completed at a Pearson Vue Centre.



















#### Punching Above Its Weight: Unveiling the Compact Powerhouse - The Terex Ecotec TDS 815 Shredder

In the world of waste processing, efficiency, adaptability, and reliability are paramount. Companies and organisations are constantly seeking cutting-edge solutions to tackle the diverse challenges that waste materials present. Enter the Terex Ecotec TDS 815 shredder - a true powerhouse in the field of waste processing.

The heart of the TDS 815 shredder is its compact 1.5m twin shaft shredding unit. This feature allows for highly efficient material reduction, making it a versatile choice for a wide range of waste materials. Moreover, the quick-change shafts take the machine's adaptability and maintenance efficiency to a whole new level, making it a standout choice for professionals in the industry.

What sets the TDS 815 apart is its remarkable flexibility. Users have the option to operate the shredder with synced or independent shafts, a feature that aligns perfectly with specific application requirements. This adaptability is invaluable, empowering users to tailor their approach to various waste types and processing challenges, ensuring optimal results every time.

A CAT 4.4 140kw stage V engine powers the TDS 815. This reliable engine ensures efficient performance and unwavering reliability, two factors that are non-negotiable in the world of waste processing. With a robust weight of 16,500 kilograms, a substantial 3.3-metre stockpile height, and quick setup time, this shredder is well-equipped to handle large throughputs of waste materials, making it a formidable choice for tackling skip waste, bulky waste, household waste, wood waste, green waste, building waste, asphalt, and construction and demolition rubble.



track/hooklift versions. This level of adaptability provides users with greater flexibility in how they deploy the machine to meet their specific needs.

But the innovation doesn't stop there. The TDS 815 comes standard with the T-Link telemetry system, a powerful tool that offers real-time insights into the machine's performance. This feature is a game-changer for effective machine management and maximised uptime. Accessible through a tablet or smartphone, it provides a comprehensive view of the machine's location, fuel consumption, operating statistics, and more, all at your fingertips.



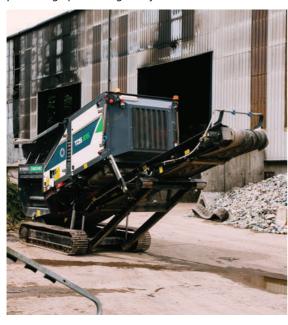




When it comes to manoeuvrability and transport, the TDS 815 doesn't disappoint. Its robust tracking system, coupled with a hydraulic raise and lower chassis, ensures smooth operations and convenient diagnostics. A user-friendly control system and a full-function remote control make operating this machine a breeze, enhancing the user experience while contributing to its efficient use.

The TDS 815 shredder boasts intelligent load-sensing hydraulics, a key feature that prevents damage to shaft teeth and extends the machine's lifespan. Its aggressive intake capability results in high production rates, positioning it as a formidable choice for waste processing tasks. Additionally, the quick-change shafts and combs, along with replaceable wear-resistant plates, streamline maintenance and reduce downtime, ensuring uninterrupted productivity.

Furthermore, with its containerised transport capability, the TDS 815 offers an efficient shipping solution, enhancing its mobility and ease of deployment for waste processing operations globally.



Pawel Kononczuk, **Business Development** Director at Terex Ecotec, emphasises the TDS 815 shredder's significance, stating, "The Terex Ecotec TDS 815 shredder sets a new standard in the waste processing industry. Its compact design, powerful engine, and advanced features make it a game-changer for seeking efficiency and adaptability in their operations. The machine's versatility, coupled with its intelligent load-sensing hydraulics and quickchange shafts, positions it as a reliable and highperforming solution for various waste materials. It's not just a shredder; it's a strategic asset for tackling the diverse challenges of waste processing.

The Terex Ecotec TDS 815 shredder is more than just a machine: it's a game-changer in the waste processing industry. With its comprehensive set of features, remarkable adaptability, and efficient performance, it emerges as an invaluable asset for those looking to manage

waste effectively and with high efficiency. Whether you're dealing with skip waste, household waste, construction debris, or other materials, the TDS 815 shredder is equipped to handle the task with excellence. In the ever-evolving landscape of waste

#### The Terex **Ecotec Range**



#### **TDS 825**

The Terex Ecotec TDS 825 represents a state-of-the-art slowspeed shredder prefect for large scale shredding operations, poised to revolutionise the waste processing and recycling sectors. This impressive machine, weighing in at 48,000Kg, features a Scania DC 16 engine with a robust 566kW (760 hp) output, meeting the stringent Stage V engine emissions standards and offering an optional Tier II variation. What sets this shredder apart is its 2.4m x 0.9m twin shaft slow-speed rotor, delivering an impressive 165Kn of torque per shaft.

A standout feature of the TDS 825 is its adaptable rotor configurations, which can be tailored to the specific requirements of your operation. You can choose between 8-8-5 or 9-9-5 chamber configurations, accommodating 8 or 9 discs per shaft, each equipped with 5 cutting elements per disc. The shredding chamber utilises a breaker bars for efficient material sizing. You can select from various breaker bar options, including plain, short tooth, and long tooth configurations.

The TDS 825 excels in optimising material processing workflows, reducing downtime, and simplifying maintenance. This shredder's adaptability makes it an ideal solution for a wide range of materials, making it a gamechanger for industrial waste shredding and recycling operations. With its highperformance capabilities and commitment to sustainability, the Terex Ecotec TDS 825 is at the forefront of waste management technology.

#### The Terex Ecotec Range continued ..







#### **TDS 820**

The Terex Ecotec TDS 820 is a highperformance slow-speed shredder engineered for waste processing and recycling applications. This sturdy machine, weighing 27,500kg, is equipped with a Scania DC 13 engine, delivering a robust 440 horsepower (331 kW). The TDS 820 is designed to ensure efficient and environmentally responsible operations, in compliance with the latest emissions standards.

One of its standout features is its adaptable rotor configurations, offering customisation to match specific operational needs. The shredding chambers can be configured in various ways, including 7-7-4 or 9-9-4 chamber configurations providing flexibility and ensuring all application requirements are met.

The shredding chamber on the TDS 820 utilises breaker bars for efficient material sizing, enhancing its versatility for processing a wide range of materials. With options such as plain breaker bars, short tooth breaker bars, and long tooth breaker bars, this shredder caters to diverse processing requirements.

The TDS 820 offers a sustainable solution for industrial waste shredding and recycling, reducing downtime and streamlining maintenance. Its combination of power, flexibility, and environmental responsibility makes it a cutting-edge choice for waste management across various industries.

#### **TDS 815**

The Terex Ecotec TDS 815 compact slow speed shredder is a highly efficient and versatile waste processing solution equipped with a range of impressive features. Its compact 1.5m twin shaft shredding unit allows for efficient material reduction, and the quickchange shafts enhance maintenance and adaptability. The machine offers the flexibility of having synced or independent shaft operation based on the specific application requirements.

Using a reliable CAT 4.4 140kw stage V engine, weighing in at 16,500Kg with a substantial 3.3m stockpile height and quick setup time, the TDS 815 is well-suited for various waste types, including skip waste, bulky waste, household waste, wood waste, green waste, building waste, asphalt and C&D rubble boosting large throughputs. The shredder features a strong and robust track sub-frame with bolton tracks, making it suitable for both track and track/hooklift

Maneuverability and transport are made easy with the powerful tracking system and hydraulic raise and lower chassis. The user-friendly control system, along with a fullfunction remote control, ensures convenient operation and diagnostics. The TDS 815's intelligent load-sensing hydraulics prevent damage to shaft teeth, and the machine's aggressive intake results in high production rates. The quick-change shafts and combs, combined with replaceable wear-resistant plates, further streamline maintenance and reduce downtime. This shredder is an excellent choice for a wide range of waste materials and is designed to deliver exceptional performance and efficiency.

#### **TDS V20**

The Terex Ecotec TDS V20 Twin Shaft Shredder is a cutting-edge waste processing solution designed to excel in various applications. This powerful machine features a medium speed 2m shaft shredder unit, offering exceptional versatility and performance. With a robust design and impressive capabilities, it's a key player in the waste management industry.

The TDS V20 is equipped with twin shafts, each possessing its own independent drive system. This unique feature allows for efficient and precise shredding, even in challenging materials. Whether tackling bulky waste, Municipal solid waste, construction and demolition debris, wood, or green waste, the TDS V20 excels in reducing material to a desired size particle size in SRF and RDF production.

The TDS V20 features a powerful 368Kw (493hp) engine, with unmatched service access, Its userfriendly control system and intelligent load-sensing hydraulics make it easy to operate and maintain. Additionally, the shredder's robust construction ensures long-term durability, while quick-change features for the shaft cutters and wear-resistant components contribute to reduced downtime.

The Terex Ecotec TDS V20 Twin Shaft Shredder is a reliable and efficient choice for waste processing, suitable for a wide range of materials and waste types. Easy access for maintenance, Its high-performance capabilities and adaptability make it a valuable asset for waste management professionals, offering a solution that combines power, precision, and sustainability.

#### **Shredders**







#### **TSS 390**

The Terex Ecotec TSS 390 Single Shaft Wheeled Shredder is an innovative and versatile solution for waste processing and recycling, offering efficiency and mobility in a single package. This robust machine, equipped with a single shaft and 36 bolt on shaft teeth with 220Kn of torque on the shredding shaft combines the power needed for shredding with the flexibility of a wheeled design, making it highly suitable for a range of applications.

With a focus on sustainability and ease of operation, the TSS 390 is designed to handle a variety of materials, from bulky waste to construction and demolition debris, wood, green waste, and more. Its wheeled chassis allows for easy manoeuvrability, making it a convenient choice for on-site processing.

The shredder features a powerful 368kw (493hp) stage V engine, user-friendly controls, providing straightforward operation, and its quick-change system for the shredding shaft ensures minimal downtime during maintenance. Additionally, its wear-resistant components contribute to long-term durability and reliability.

The Terex Ecotec TSS 390 Single Shaft Wheeled Shredder is an efficient, versatile, and sustainable choice for waste management professionals. Its combination of power and mobility offers a practical solution for processing various materials, promoting responsible waste handling and recycling practices.

#### **TBG 630**

The Terex Ecotec TBG 630 is a high-speed shredder that stands at the forefront of efficient waste processing and recycling technology. This powerful machine is designed to handle a wide range of materials, making it a valuable asset in the waste management industry.

The TBG 630 boasts a robust design and advanced features such as 1000Rpm up-turn, 36 swinging hammers with various hammer styles and screen media sizes making it suitable for various applications. With its shredding capabilities, it can efficiently process materials like industrial waste, wood, green waste, and more at high capacity. This shredder is equipped with a powerful 500kW stage V (670Hp) engine that enables it to deliver consistent and reliable performance.

The machine features user-friendly controls, ensuring ease of operation. Additionally, its quick-change system for hammer and screen replacement and wear-resistant components contribute to reduced downtime during maintenance. The TBG 630 is a reliable and efficient choice for waste processing with a generous stockpile height of 5.1m. The TBG 630 offers a sustainable solution that combines power, precision, and ease of use.

The Terex Ecotec TBG 630 is a valuable addition to the arsenal of waste management professionals, helping to streamline waste processing operations while promoting responsible recycling practices.

#### **TBG 530T**

The Terex Ecotec TBG 530T is a high-speed shredder that represents a pinnacle in waste processing and recycling technology. With its robust design and cutting-edge features, it's a versatile solution for various applications in the waste management industry.

One of the standout features of the TBG 530T is its high-speed shredding capability, enabling efficient processing of materials like industrial waste, wood, green waste, and more. Its powerful 368kW (493hp) engine ensures consistent and reliable performance. Rotor is 1000rpm upturn with 30 swinging hammers, with a wide range of screen media available making it a formidable choice for demanding waste processing tasks.

User-friendliness is a key aspect of this shredder, with intuitive controls that facilitate ease of operation and unmatched service access to all major components. The machine also includes a quick-change system for the shredding shaft and wear-resistant components, which contribute to reduced downtime during maintenance.

The Terex Ecotec TBG 530T is a dependable and efficient choice for waste processing, offering a sustainable solution that combines power, precision, and ease of use. It plays a significant role in the efforts of waste management professionals to streamline operations and promote responsible recycling practices. Whether tackling green waste or industrial debris, the TBG 530T is a reliable and powerful asset for waste processing and recycling.



www.globalmachinerysolutions.co.uk Putting service first

#### **CRJ Energises the Hybrid Market**

Waste management companies are embracing and recognising the operational & financial savings, along with the environmental responsibilities, of switching from diesel-driven machines to electric equivalents.

CRJ customers and the wider industry understand the need to make their operations more efficient and environmentally friendly whilst delivering on their carbon reduction commitments.

The market-leading Haas Tyron 2000XL 2.0, driven by a Scania engine is operating in various applications in over 100 sites within the UK and Ireland. The Hybrid version of this mobile unit has been in the market since 2021 and is becoming increasingly popular.

The Haas Tyron Hybrid combines a small 43kW diesel engine with a 280kW electric motor. The diesel engine is utilised solely for operating the tracks, to enable onsite mobility and conveyor positioning in working mode. The electric motor provides the power for the other machine functions, including the shredder's robust twin shafts.

This innovative development combines a mobile machine's flexibility with static equipment's energy efficiency. It dramatically reduces the reliance on diesel and produces no exhaust emissions during its operation. The Hybrid machine also offers quick set-up times, with a simple 3-phase connection to the mains, a multifunctional control panel and a remote control.

A key factor in the design of the Hybrid machine was not to compromise the shredding performance and reliability achieved historically by the diesel-powered Tyron 2000XL 2.0.

Aside from introducing the electric motor, the Hybrid version includes all the features and benefits of the equivalent diesel-driven unit.

The Hybrid Tyron incorporates the upgraded servicing and maintenance features of the alternative diesel driven shredder, including ground-level access to the shredder chamber, enabling safer and more efficient servicing and maintenance of the shredding shafts.

The Hybrid Haas Tyron has been welcomed to the UK market by two leading Blue Chip Waste Management Companies. A



further two units are currently in our hire fleet with more to come. We are delighted that these machines are as reliable, robust, and impressive as the flagship diesel-driven shredders and we commend Haas for their work in making this transition a reality.

#### Michael Griffin – Senior Key Accounts Manager at CRJ Services Ltd.

At Geminor we have experienced a top-notch enhanced service with CRJ. The CRJ team love to be challenged, they provide solutions and always keep in touch.

Geminor truly believe CRJ run on the same customer service values: Genuine, encouraging continuous improvement, moving with the market, and performing with integrity, especially around the sustainability of relationships and circular economy waste management.

#### David Singh - Contract Manager UK at Geminor

CRJ is the UK and Ireland's exclusive supplier of the HAAS TYRON Hybrid, you can learn more about this machine and other HAAS machines here.

Please contact our office, should you require any information on the Hybrid or would like to view the machine in operation.

Phone number – 01565 723886 Website – www.crjservices.co.uk





#### A GAME-CHANGING APPROACH **TO AGGREGATE WASHING AND WATER TREATMENT PLANTS**

#### **MEASURABLE VALUE**

Maximised production by increasing TPH output whilst reducing ownership cost.

#### ENHANCED PERFORMANCE & SUPPORT

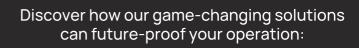
Optimised operational efficiency, ease of maintenance and after sales support.

#### **COMPREHENSIVE INSTALLATIONS**

Single sand plants to complete turnkey installations, engineered by our experts.

FUTURE-PROOFED SUSTAINABILITY
Achieve ever-tightening sustainability targets with reduced;





WWW.TYRONEINTERNATIONAL.COM

#### Denmark's leading sand specialist invests in CDE ultra fines recovery system

The specialist sand manufacturer will use the CDE technology to recover valuable sand fractions...



Dansand AS technical manager Claus Arve and CDE Group business development manager Allan Esmann in front of the Dansand office in Brædstrup

CDE ultra fines recovery system created for Dansand to recover valuable fractions of very

fine dredged sand from

large volumes of wate

Dansand A/S, Denmark's leading sand specialist, has announced plans for a new state-of-the-art ultra fines recovery system, designed and engineered by wet processing experts CDE, for its main site in Addit, north of Brædstrup.

Founded in 1971, the company, then owner of several gravel pits, quickly became the leading supplier of silica sand to the Danish

foundry industry thanks to its quartz-rich deposit in Addit. From this base, the company expanded its expertise in the production of silica sand-based products to meet the specific requirements of the wider concrete and mortar industries.

Today, Dansand A/S extracts and produces over 500,000 tonnes of refined silica sand in more than 20 different blends every year, supplying the construction sector, various types of industries, sports facilities, playgrounds and the DIY markets.

After more than five decades of operation, Dansand A/S, owned by PKB Holdings and Sibelco, the world's largest supplier of minerals, has now reached ground water level at its

The company has historically extracted material using wheel loaders but a new approach is now required, says Claus Arve,



Dansand main site in Addit - Location of the future CDE plant engineered for

technical manager at Dansand A/S.

"This has been our primary means for extracting sand, however now that we have reached ground water level we need to transition to dredging to ensure we can continue extraction activities. This presents a new set of challenges for our operation and it's for this reason we've partnered with the team at CDE to engineer an efficient, high accuracy solution that can recover valuable fractions of very fine dredged sand from large volumes of water."

CDE business development manager Allan Esmann says while similar technologies are successfully operating in other regions, the dredge-fed wash plant will be the first of its kind commissioned by CDE in Europe.

"As Dansand A/S commences dredging, it becomes necessary to separate dredged sand from ground water before it can be cleaned of lignite and silt or clay fraction then correctly sized. Central to achieving this will be our EvoWash ultra-fines recovery system with optimised hydrocyclone technology which is proven to recover every valuable grain and eliminate the loss of quality fines. What makes this particular

> composition needed to ensure Dansand A/S continues to manufacture its very large product suite without compromising on quality of various end products.'





#### The LH 22 M Industry Litronic

Rock-steady stability and quick-response hydraulics guarantee precision when sorting materials or feeding shredders. And our recycling package ensures impressive performance, even in the dirtiest and dustiest conditions.

www.liebherr.com

BHERR

#### LIEBHERR

**Material handling machines** 

### **Guarding By Location: Danger and Compliance**

The global leader in conveyor safety is disputing the idea that putting conveyor equipment out of reach or inconveniently placed away from workers -- known as "Guarding by Location" -- is a valid form of safety. After decades of safe equipment design and comprehensive conveyor safety training in the bulk handling industry, Martin Engineering experts have witnessed where "guarding by location" has led to a lapse in workplace safety, resulting in injuries and - in some cases -fatalities.

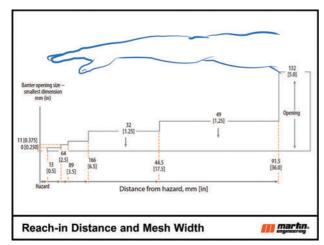
Most people readily accept that conveyors and other machinery require safety guards when positioned near workers or walkways. Guarding by location is the assumption that when hazards, such as moving conveyor belts, are positioned beyond the normal reach of a worker they don't require a guard. Yet they can still present a serious hazard.



Unguarded return rollers over walkways can fall and produce a serious hazard.

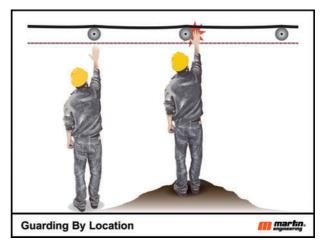
#### **Worker Risks from Guarding by Location**

Some regulations define a general safe height for components based on the average height of workers. This means taller employees (1.82 m / 6 ft. in height or more) can easily suffer an injury reaching up into a moving component that is 2.13 m / 7 ft above the ground. Working above machinery that is considered guarded by location exposes workers to increased severity of injury if they slip or fall to a lower level.



Reach-in hazards ("breaking the plane") can apply to both the mesh size and the height of the barrier

Most regulations do not account for the potential buildup of spillage underneath the conveyor or in walkways, which can easily change the distance between the working surface and a hazard. It's also fairly common practice to purposely collect a pile of material or fill a bin to gain access for service or inspection of an elevated component. Using tools and methods that extend a worker's reach while the belt is running is a hazardous activity that can contribute to serious -- and possibly fatal -- accidents.



Height prevents a worker from reaching hazardous areas until the reality of bulk operations proves otherwise

#### **Hazards From Above**

By not requiring a physical barrier, guarding by location creates what is considered by some to be an exception to the general requirements for the guarding of hazards in the workplace. Several hazardous locations are beyond the normal reach of staff when working or walking under or around elevated conveyors. These hazards are commonly found in or around nip points between the belt and return rollers or drive components such as pulley shafts, couplings, drive belts, gears and chains. Additional hazards from falling components may be inadvertently ignored if considered guarded by location.



Return roller quards ensure detached rollers don't pose a hazard to workers or harm the system.

#### **Quarrying News**

#### **Guarding Best Practices**

The logical solution to guarding by location is to simply install guards and baskets to protect workers from lateral and overhead hazards, while still offering safe and easy access. For maximum risk reduction, all nip points, shear points and moving or rotating components should be guarded, regardless of location or access.



All moving or rotating components should be guarded, regardless of location.

However, there is also no global standard for guard mesh sizes and mounting distance from the hazard. Most standards use a gauge to measure the distance which varies by mesh size. When a bulk material handling guard is placed relatively close to a hazard it greatly reduces the ability to inspect components without removing the guard, thereby encouraging guard removal for routine inspections.

It would be far better (and safer) to standardize on a few mesh sizes and mounting distances allowing maintenance workers to build guards to a short list of materials, using standard mounting distances and eliminating the use of the gauges. Below is the recommendation included in Martin Engineering's book FOUNDATIONS for Conveyor Safety.

Nominal Guard Mesh	Mounting Distance from Hazard	Typical Applications
Woven Wire Mesh 12.7 x 12.7 x 2 mm [≈½ x ½ x 0.08 in.] wire	50 mm [≈2 in.]	Couplings, belt and chain drives, guard area of less than 0.5 m² [≈5.38 ft²]
Flattened Expanded Metal 13-Guage 12.7 x 12.7 x 2 mm [æ <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub> x <sup>1</sup> / <sub>2</sub> s in.]	50 mm [≈2 in.]	Couplings, belt and chain drives, guard area of less than 0.5 m² [≈5.38 ft²]
Welded Wire Mesh 2 x 2 x 0.12 or 0.16 in. [≈50 x 50 x 3 or 4 mm] wire	200 mm [≈8 in.]	General area guarding, barrier guards on idlers and pulleys, guard area of less than 0.5 m² [≈5.38 ft²]
Laser-Cut Sheet Metal Guard 11-gauge	200 mm [≈8 in.]	Floating guard panels designed for frequent removal, guard area of less than 0.5 m² [≈5.38 ft²]
Chain Link Fence 9-gauge woven fabric 2 x 2 in. normal size [4 mm wire, 50 x 50 mm normal size]	500 mm [≈20 in.]	Falling material guards up to 200 mm [≈8 in. in any dimension] minus nominal bulk material size. Use 6-gauge wire for larger lump sizes.

Mesh sizes and mounting distances

#### Put an End to the Myth

Despite its nearly global acceptance as a concept in industrial safety, the practice of guarding by location remains a particular problem for overhead conveyor applications. It's time to accept that as far as conveyors are concerned, 'guarding by location' is a myth. As such, it's a concept that should be abandoned in order to make conveyors -- and those who work on and around the equipment -- safer.



#### R. Todd Swinderman, P.E. / CEO Emeritus / Martin Engineering

R. Todd Swinderman served as President of the Conveyor Equipment Manufacturers' Association and is a member of the ASME B20 committee on conveyor safety. Swinderman retired from Martin Engineering to establish his own engineering firm, currently serving the company as an independent consultant.



#### Daniel Marshall, Process Engineer, Martin Engineering

Daniel Marshall has presented at more than fifteen conferences and is sought after for his expertise and advice. He was also one of the principal authors of Martin's FOUNDATIONS™ The Practical Resource for Cleaner, Safer, and More Productive Dust & Material Control, Fourth Edition, widely used as one of the main learning textbooks for conveyor operation and maintenance.

#### March | April 2024

AGGREGATE WASHING & SCREENING - static & mobile washing, hoppers, conveyors, cyclones, pumps, trommels, log washers, filter press, plate press, flocculants, scrubbers, separators, lignite plant, de-waterers, classifiers, belt weighing, contract washing

PUMPS - Centrifugal Slurry, Sludge, Submersible, Site Dewatering & Site Water Management.

**RECYCLING** - Open topics for this issue

**BULK HANDLING** - Open topics for this issue

Editorial copy deadline - 12th March 2024 Advert copy deadline - 19th March 2024



#### Unlocking Success: Trade Shows in Quarrying, Recycling, and Bulk Materials Handling





In the everevolving worlds of Quarrying, Recycling, and **Bulk Materials** Handling, maintaining a competitive edge is essential. **Companies in** these industries grapple with shifting technologies and regulations. Amid this complexity, trade shows offer invaluable advantages for businesses striving to excel in these fields.

Networking Opportunities: Trade shows serve as unique platforms for professionals to connect and forge essential relationships. In Quarrying, Recycling, and Bulk Materials Handling, these connections can lead to profitable partnerships, technological collaborations, and potential clients. Face-to-face interactions with experts, suppliers, and customers open doors to unexplored opportunities.

Showcasing Innovations: These industries continually evolve with new technologies and techniques. Trade shows provide a stage to proudly present cutting-edge innovations and products. Whether it's a revolutionary recycling process, a more efficient quarrying tool, or state-of-the-art bulk materials handling equipment, these events allow companies to showcase advancements to a targeted audience of industry professionals.

Market Intelligence: Participation in trade shows offers valuable insights into market trends, competitor strategies, and customer preferences. These events act as a microcosm of the industry, offering a real-time pulse on Quarrying, Recycling, and Bulk Materials Handling. By immersing themselves in this environment, companies can adapt their strategies to meet current market demands.

Enhance Brand Visibility: Trade shows are excellent opportunities to boost brand recognition. A well-designed booth, engaging presentations, and high-quality promotional materials leave a lasting impression on attendees. This increased visibility is particularly beneficial for small and medium-sized enterprises striving to stand out in competitive sectors.

Product Testing and Feedback: Trade shows provide a direct line to potential customers who can test products on the spot and provide immediate feedback. This real-time input is invaluable for refining products to meet the industry's evolving needs, impressing potential buyers in one go.

Lead Generation: Generating leads is a top priority for any business, and trade shows offer a prime opportunity for this. Attendees actively seek solutions to their problems, making them valuable leads. Companies can collect contact information and engage in post-show follow-ups, converting these leads into loyal customers.

Regulatory Insights: Compliance with regulations is paramount in these industries. Trade shows often feature seminars and workshops where experts elucidate the latest regulations and compliance requirements. This knowledge can save businesses from costly penalties and ensure they adhere to environmental and safety standards.

Competitive Analysis: Observing competitors' strategies, products, and market positioning is crucial. Trade shows provide a unique vantage point for studying the competition. This information is invaluable for fine-tuning a company's approach and staying ahead in the market.

Investment Opportunities: Trade shows aren't solely about attracting customers and partners. They can also attract potential investors. A compelling presentation can capture the attention of individuals or organizations looking to invest in ventures in Quarrying, Recycling, and Bulk Materials Handling.

International Reach: Many trade shows draw an international audience. For companies aiming to expand beyond local or regional markets, these events offer an excellent platform to establish connections and explore export opportunities.

#### My concluding thoughts...

Trade shows are instrumental for success in Quarrying, Recycling, and Bulk Materials Handling. They provide numerous benefits, from networking and innovation showcasing to market intelligence and lead generation. Companies recognising the value of trade shows and approaching them strategically are more likely to thrive in these dynamic and competitive sectors. With the right approach and support, participation in trade shows can lead to increased brand visibility, product enhancements, new partnerships, and ultimately, a thriving business in these essential industries.

#### **Jack Saward**

Managing Director

Tel: (+44) 7788660996 Email: jack@saward-me.com Website: https://saward-me.com

LinkedIn: https://www.linkedin.com/in/jacksaward/



## **MCLANAHAN ULTRAWASH**

McLanahan UltraWASH Modular Washing Systems offer the same world-class washing technology we've been supplying since 1835, but in containerized modules for shorter lead times, quick setup and ease of transport if producing at multiple locations or one very large site.

Whether processing natural or recycled aggregate, McLanahan offers a complete modular product line. From crushing and screening to washing and water recycling, McLanahan provides a start-to-finish solution for your operation.



WASHING // SCREENING // SCRUBBING // CLASSIFYING // CRUSHING // FEEDING // TAILINGS & WATER MANAGEMENT

ASIA | AUSTRALIA & ASIA PACIFIC | EUROPE | LATIN AMERICA | NORTH AMERICA

mclanahan.com

#### **Mount Compass increases product range** and enters new markets with help from McLanahan UltraSAND Plant

**Mount Compass Sand and Loam, located 60km** south of Adelaide in South Australia, was established in the early 1980s. Current owner and director Rodney Miller purchased the business in 2007, and since then, he has endeavored to expand the company's product range. Mount Compass produces quality sands for use in the landscaping and construction industries, including an oval mix, top dressing, specialty sands and beach sands.

#### **Challenge**

Mount Compass originally used a dry screening method to separate out its sand products; however, the number of products the company could make this way was limited. To make its superior products, Mount Compass had to purchase sand from other suppliers, which Miller said made the cost of doing business higher.

Then in 2012, a McLanahan representative visited Mount Compass and pointed out new ways the company's sand could be used that Miller hadn't even considered. Mount Compass has a unique sand that meets the American Petroleum Institute's specifications for frac sand – the sand particles are

"It opened our eyes to the opportunity that down the track we would look at a wash plant that would enable us to exploit those markets," said Miller.

#### **Solution**

As Mount Compass considered its options, McLanahan offered support by recommending various solutions that would help Mount Compass meet its production goals. In the meantime, McLanahan formed a partnership with Lincom to represent its aggregate wet processing line in Australia. Lincom already had a relationship with Mount Compass through the dry processing side of its business.

Ten years after the McLanahan representative's first visit, Mount Compass upgraded its dry screening process with a McLanahan UltraSAND Plant through Lincom to produce specialty sands and to increase production.

"From the very beginning, McLanahan has supported us with looking at various options over the years," Miller explained. "We've been very slow to make this large of an investment, but they have been with us all the way over 10 years of looking at the best options that are available for the products we wanted to produce."



#### **Quarrying News**

The McLanahan UltraSAND Plant is a sand-washing solution that consists of a Sump, Pump, Hydrocyclones and Dewatering Screen in a compact, modular system for ease of delivery and rapid setup.

"The McLanahan UltraSAND Plant came in a couple of containers, which were very easy to offload," said Miller, "and I quess it's really just like putting together a big Meccano set. With the support of their installing team and our boys, it was a very simple operation to put together."

Rodney was pleased by the equipment training and service his

team received from McLanahan and Lincom as Mount Compass ventured into this new washing operation.

He said, "The support that we received to have the plant up and running has been very exceptionally good."

The UltraSAND Plant features the flexibility to wash and dewater up to two sand products on the same screen.

"The McLanahan UltraSAND Plant enables us to wash two products at the one time, which enables us with the landscape products to have a very high-quality product as well as an oval construction product," Miller said. "The wash plant has given us the opportunity to wash out the clay and silt, which then take all the impurities out of the sand.



#### Results

With the McLanahan UltraSAND Plant producing washed and dewatered sand products, Mount Compass no longer has to buy sand from other suppliers to create its superior products. It has also reduced the three-step dry screening process into a onestep process.

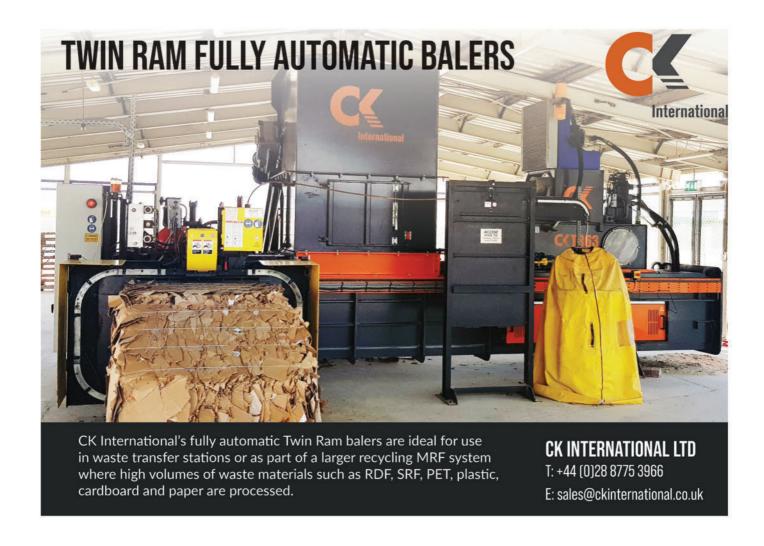
"It's making a fine, clean sand, which will enable us to look at other options down the track," said Miller.

He said the plant is simple to operate and his operators find it easy use.

"It's better than what we expected," shared Miller. "The production that is coming off the McLanahan UltraSAND Plant is better than what our expectation was."

Not only is the UltraSAND Plant enabling Mount Compass to create clean, high-quality sand products, but the efficiency of well, such as pursuing the production of specialty sands.





## SCREENINGMEDIA

#### BRIMONN - THE RECYCLING AND QUARRY SCREEN SPECIALISTS

ONE COMPANY, ONE CALL, FOR ALL YOUR QUARRYING, SCREENING AND RECYCLING APPLICATIONS

Wire

Perf Plate

Rubber

Polyurethane



Call us today on **01902 632 505** 



## Hyundai shovels are a perfect fit for RMR Sand and Aggregates

RMR Sand and Aggregates is part of the Construction Hub group of companies owned by Rob Morris and undertakes the company's inert material recycling and material handling operations.

Rob started his business just under 20 years ago and has grown into a multi-million-pound turnover company not just undertaking groundworks and earthworks contracts but also a wide variety of other operations. "We run each business as its own entity but wanted them to come under the same umbrella, hence The Construction Hub branding." Rob commented "We have grown to offer not just the groundworks side of the business, but also plant hire, transport, recycling, demolition, and winter services such as ploughing and gritting. We have also set up a training facility at Barry where we not only train our own staff, but we offer training services for outside contractors and companies."



The groundworks side of the business operates across South



#### **Quarrying News**

Whilst much of the businesses' success has tied to the groundworks aspect of the company, a chance meeting in 2018 whilst looking for a yard to base his tipper fleet from saw Rob agree to buy a small recycling facility on the edge of the Pen-Y-Fan Country Park. "We had originally run the trucks from the family farm but as things started growing, we wanted to find a more suitable location to base the tippers and the growing fleet of machines that we had." Rob explains. "We looked at a few locations and didn't really find anything suitable until this site came up. The owner was looking to retire and whilst we weren't on the lookout for a recycling company, the added flexibility the planning permission gave us made the deal very inviting."

Moving their operations up to Blackwood has seen Rob and his team not only expand their business offerings but also take a huge step into becoming a supplier of high-quality materials for both their own operations and outside entities. "Our groundworks operations require large volumes of aggregates, and these were either sourced as virgin materials from quarries or as recycled material from a variety of producers in South Wales. We were finding that virgin material prices could fluctuate wildly whilst the quality of the recycled material was quite often below our expectations and often contained contaminants from the demolition and recycling processes. Having purchased the recycling yard, we were then able to offer a better product for our customers."



Rob's desire and drive to produce a better material has seen the company invest heavily in a state-of-the-art wash plant to handle over 5000 tonnes of material per week and with that, open up a new market for the company in high-quality recycled aggregates. "We wanted to put ourselves in the position between your virgin material and standard recycled material." Rob explains. "We wanted a clean and quality material and whilst it has taken a while to dial the system in, we are very happy with the results."

Having the operation allows Rob's tippers to leave the yard in the morning with a load of stone or sand, tip at one of his projects and return to the yard with a load of material to be recycled. This not only minimises empty running, but also ensures deliveries are made on time and are correct. Once the inert material is tipped at the yard it is screened, crushed and washed to produce perfectly graded and clean products.



#### **Quarrying News**



"The HL955A came with the specification we wanted, it is well-built and comes with a proven and efficient driveline." Rob commented "Dealing with Molson and Luke in particular is very easy, there's no messing about."

The HL955A is powered by a Stage V Cummins 6.7 litre engine delivering 210hp and 990Nm of torque and is mated to a 4speed powershift transmission. With an operating weight around the 16-tonne point and carrying a straight-edged bucket with a 2.8m3 capacity, the wheeled loader has really impressed full-time operator Paul Julian. Paul has been a machine operator for 'more years than he cares to remember' spent mainly on excavators but has settled down to enjoying life behind the steering wheel of the Hyundai. "It's a great bit of kit, very comfortable and manoeuvrable which is what we need on this yard as the space is limited." Paul commented. "It's a powerful little loader and handles both the screened oversize for crushing and the finished product equally as well." With the yard being so compact, Paul is very pleased with the lightweight steering and 40° steering angle allowing him to nip around the yard with ease. "I'm kept busy all day, every day but get out of the cab at the end of the day not feeling exhausted." He comments.

Sitting on just 3 acres, the site has been designed to make the most of the space, or lack of. A one-way system allows vehicle to drive past the small material bays where Paul is able to put the manoeuvrability of the Hyundai to the fore picking the relevant material from each bay and quickly loading each truck. Fitted with a hydraulic quick coupler allows Paul to swap buckets between material with the sticky clay dropping off the

presses at the end of the wash plant using one bucket and a clean bucket for outgoing aggregates. "Both myself and the lads on the plant won't tolerate any cross contamination between materials." Rob pointed out. "We charge a premium for the recycled material as it is as clean as virgin material would be and that is part of our guarantee to our customers. If it doesn't meet their specification, we will refund them, and these instances have been very few and far between."

"Having a reliable and productive wheeled loader is key to us maintaining our delivery schedules." Rob commented. "We don't have massive stockpiles of any material on site due to our site constraints but having a machine and operator that can keep each bay clean as they are loading and managing the flow of materials allows us to keep up with schedules."

During the machine's first months of operation, it has fared well and has dealt with the continuing increase in output as the wash plant beds in. "When we took on this project, the site was producing 6000 tonnes a quarter. We're close on doing this on a weekly basis and this is down to the combination of having reliable kit and brilliant team of operatives." Rob commented. "We have a great team from the training school, office staff and all of our teams on site. Everyone is behind what we do in terms of productivity, quality, and development and this also goes out to our suppliers and sub-contractors too. We want to work together, to develop what we do and with that we want to run the best kit. We think we do that with the machines that Molson supply."





# Liebherr steps up its transition into developing alternative drive train technology

Liebherr recently launched its L 507 E Stereo wheeled loader onto the market as the company steps up its transition into developing alternative drive train technology.

A recent press event held in two locations in Germany saw the company expand on its already considerable alternative drive train portfolio with the introduction of both the

L 507 E and the A 916 E wheeled excavator which was shown in prototype form at last year's Bauma.

Joining the manufacturer's list of material handling, mining, ground engineering and crane technology already using battery and plug-in electric power, the wheeled loader and wheeled excavator have both been designed to allow for easy and rapid charging with both machines capable of undertaking a 7-9 hour shift on a single charge depending on the application.



Looking at the A 916 E first, this 18-tonne excavator is exactly the same as it's diesel-powered cousin with the engine and cooling pack replaced with the electric motor. Behind the cab where the diesel tank would have been positioned now sits a removable battery pack which can be charged in-situ or quickly released, removed, and replaced with a fully charged pack.

The L 507 E uses different technology in the form of a fixed battery solution. Coming in either a single version with 32.2kWh output or with a dual battery option doubling the power to 64.4kWh, the compact loader, like the excavator, is exactly the same as its fossil fuel powered variant.

The event also showed off the MK 88 4.1 self-erecting tower crane and LTC 1055 cranes both of which can be plugged into a suitable electric supply and run on site with zero emissions.

Having that suitable supply of electric can be an issue with many sites still run from large diesel generators. Liebherr has addressed this issue with the introduction of the Liduro Power Port system. Currently available with power outputs ranging from 65 kWh to 130 kWh, the Power Port is a fully transportable power pack allowing the quick, safe and convenient charging of battery powered equipment on site. Being transportable, the unit shown came on its own twin-axle





trailer, means it can be towed from site to site and quickly charged back up overnight on suitable supply. Supplied as standard with a variety of power connection options means the Liduro Power Port is suitable for a wide range of battery powered equipment. While the MK and LTC cranes still use a diesel engine to provide movement between sites, both cranes at the event were

plugged into the Liduro which meant silent and emission free operating.

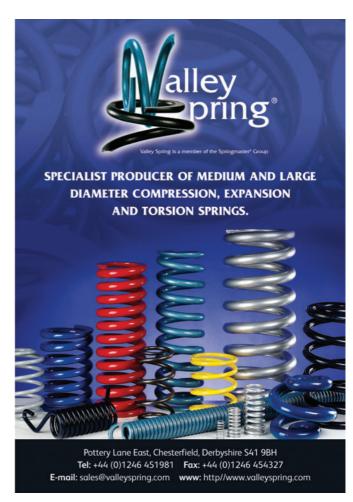
Already having its batching plants powered by electric, the company was keen to show off its ETM electric mixer drums, both of which were mounted to electric truck chassis. Powered by the truck's own onboard supply, the drums offer the same capacities as the standard HTM drums yet offer the environmentally conscious operator a reduction in fuel usage with no engine idling whilst waiting to discharge on site.

While the main focus seems to be on developing certain sectors with electric and battery alternatives, Liebherr was also keen to show its H966 prototype hydrogen engine. First seen on its Bauma 2022 stand powering a 40-tonne class excavator, the engine is derived from a standard 13.5 litre, 6-cylinder diesel version. In line with Liebherr's commitment to reduce not only their customers' carbon footprint, but the decision to design the H966 around an engine already in production, reduces its requirement for additional resources when designing a new engine from scratch.

Liebherr now offers one of the widest ranges of reduced emissions machinery anywhere. With current developments moving at a pace, it will be interesting to see where the next few years of development take the company.

#### **HUB Classified Advertising**







#### **Advertisers Index**

BLUE	FRONT COVER
BRIMONN	51
CK INTERNATIONAL	23 & 53
CLIFTON RUBBER	59
CRJ	36
DOYLE	30 & 31
ELITE	57
GLOBAL MACHINERY	42
HARPSCREEN	14
LIEBHERR	46
MCHALE	17
MCLANAHAN	50
MOLSON	BACK COVER
NMT SHIPPING	6
RK6	22
ROKBAK	INSIDE BACK COVER
TANA	19
TEREX ECOTEC	26
TYRONE	44
VALLEY SPRING	59



#### WE HAVE INVESTED IN OUR BUSINESS TO SUPPORT YOURS.

From partnering with only the best manufacturers to 16 strategically positioned service centres that hold all the parts you need, and a network of over 90 fully equipped field service engineers, you can count on us to keep your operation going wherever you are in the UK.

