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

January/February 2025 | Issue 90



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# Red Knight 6 - For all your crushing and screening needs

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# Crushing and Screening - With Red Knight 6 Ltd

Purchasing the right crusher or screener for any operation requires not only a substantial investment, but has to be on what material is being produced, mobility and versatility of the machine, efficiency and productivity, ease of use and after sales support are all equally key.

Fortunately, Red Knight 6 Ltd, distributors or world leading crushing and screening equipment care just as passionately about all of these factors as our customers do. The success of the company has been built around ensuring that customers get the right machine for their business.

With crushers and screeners from the likes of Rubble Master, EDGE Innovate, MDS, Komplet, Nordmann, Portafill and TrommALL, the business can supply a machine to meet the needs of almost any customer, large or small, impact, jaw or cone crusher, sizing, finishing screens or even trommels.

"Whilst a large part of our success has been built around the Rubble Master brand and their brilliance in impact crushers, we pride ourselves on making sure we can the demands of our customers, no matter what they might be. There is no point in the RK6 team selling the wrong machine to a customer, it makes no one happy," said Paul Donnelly, MD of Red Knight 6.

#### After Sales

Red Knight 6 are also committed to market leading after sales support through their sister company RK6 Spares. From demonstrations, to commissioning new machines and service and repairs, RK6 Spares will ensure new teams are fully trained on new machines and any downtime is kept to a minimum during services. The fleet of experienced and knowledgeable engineers are based around the country, meaning they can be onsite quickly, ensuring the best back up for your machines.

In addition, RK6 Spares also hold a variety of spare and wear parts, from screen media to hammers, wear plates to service kits....usually all delivered within 24 hours.

Over the next two pages we take a look at a selection of the range of crushers and screens available from Red Knight 6 throughout the UK. If you want to know more, visit www.redknight6.co.uk or call 01293 862619.



# Crushing It...



Red Knight 6 has built its business on the back of their expertise in the crushing sector. Here are a selection of the machines on offer:



**Rubble Master** — Rubble Master are leaders in impact crushing, with a full fleet of machines, starting with the highly mobile RM70 GO!, capable of up to 150 tonnes per hour (TPH) and weighing 19.5 tonnes. At the head of the impact crusher range is the RM 120X, capable of up to 350TPH and weighing just over 35 tonnes, but equipped with RM XSMART, enhancing operational capability with remote monitoring, real time performance data and operational efficiency tracking, enabling the user to get the absolute maximum out of the machine and drive return on investment. RM XSMART is available on numerous machines in the RM range.



A recent addition to the crushing fleet is the RM J110X, the companies first jaw crusher. Weighing over 52 tonnes and capable of 450 TPH the J110X. Like many other crushers in the RM range, full electric operation is an available option.

**Komplet** – Amongst the range of ultra compact machines from Komplet is the KJC704 12 tonnes jaw crusher. Ideal for the smaller site the 704 is just over 8.5m in length and easily transportable from site to site.





**Portafill** – New to the RK6 range is Portafill and in particular their cone crusher, MC-8. At 23.8 tonnes it is strong yet compact and capable of producing outstanding material.



**Nordmann** – Irish manufacturer Nordmann as two jaw crushers available in their RK6 range. The T750 is a tracked 19 tonnes machine, ideal for small sites where space might be limited. Recently added to the range is the T-1060 30 tonnes jaw crusher with a diesel over electric drive.

## Screen Stars...



Red Knight 6 brings a varied range of screening solutions to the UK market via their partners. Here is a quick look at some of the machines on offer:

**Rubble Master –** Bringing a range of sizing and finishing screens, Rubble Master offer a mix of machines in terms of size and capability. The sizing range starts with the compact HS3500 at 17 tonnes and goes up to the HS11000 coming in at 43 tonnes and a screen box capacity of 8.7m<sup>3</sup>. The finishing range has a selection of 2 and 3 deck machines with hopper volumes of 9.2m<sup>3</sup>.

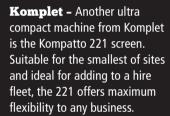




**Portafill** - The MR-2 from Portafill is a compact scalping grid built with ease of use in mind and aimed at the small to medium sized business. Weighing 10 tonnes, with a heavy duty two deck grizzly, the MR-2 also boasts a wide conveyor ensuring it can deal with a high throughput of material.



MDS – Known for their outstanding range of rock trommels, MDS have recently launched the M300 heavy duty scalping grid. Capable of handling up to 600 tph, the M300 is capable of handling a variety of materials efficiently with a 1400mm collection conveyor and a 1400mm product conveyor to allow rapid stock piling capability.







**EDGE Innovate** – EDGE Innovate have launched the hugely impressive Screenpro S18 heavy duty scalping screen. With a dynamic 18' x 6' two deck screen, featuring interchangeable flip flow and conventional scalpers the S18 offers flexibility like never before. EDGE also manufacture a range of trommels, lead by the TRT620R, with a 180° radial conveyor, and an operational length of over 23m, it is a beast of a machine.



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#### Welcome to issue 90

Welcome to our first edition of 2025 - issue 90.

In this first issue of the New Year the team at Hub-4 present you with another bumper edition reporting on the latest news from the Quarrying, Recycling & Bulk Handling Industries, including a spotlight on

#### **Aggregate Crushing & Screening.**

This year the Hub-4 magazine with have extra circulation in the July/August issue for extra exhibition distribution at the RWM.

#### **Onwards into 2025:**

If you're starting to look at marketing in 2025 our new media file with feature list can be found here, either PDF download or page flip version: https://hub-4.com/pages/advertise-with-us

Electronic advertising is also available on the website and on the weekly e-newsletter which is distributed to our readers which is on-line here: https://hub-4.com/pages/newsletter

Our increasingly popular social media packages are also available across all our Twitter, Facebook & LinkedIn pages all of which can be linked with electronic web and e-newsletter advertising — why not enquire about our extremely competitive packages.

Finally, our second edition of 2025 will focus on **Aggregate Washing** & **Screening**, and a **bauma preview**, I welcome any editorial contributions for this issue.

#### John Edwards

Editor

#### **MARCH | APRIL 25**

#### 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 - 17th March 2025 Advert copy deadline - 24th March 2025



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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.

# McLanahan Designs Bespoke Screen Optimized for Performance and Maintenance for Sand and Gravel Producer

In 2023, McLanahan replaced an aggregate producer's existing sizing screen with a bespoke solution designed for better screening efficiency and easier maintenance.

McLanahan supplied a 1.8 m x 4.8 m double-deck Inclined Screen to fit into the customer's existing space. The finishing screen is designed to separate sand into plus 20 mm, 10 mm and minus 10 mm sizes for stockpiling.

The Inclined Screen was originally meant to be a like-for-like replacement of the existing screen; however, McLanahan identified a few design improvements that could be made to enhance overall screening performance as well as provide greater access for maintenance activities.

#### **Improved screening efficiency**

One key area the McLanahan Inclined Screen design addressed was screening efficiency. The stroke of the existing screen was too large for the screen apertures. This resulted in the material moving along the deck too quickly and fine particles taking too long to fall through the openings. The producer had been running the screen in reverse to keep the material on the deck longer to address this issue.

McLanahan designed its replacement screen to operate at a reduced stroke and increased speed. This means the particles will hit the screen decks many more times before reaching the discharge end, giving the particles more opportunities to pass through the screen and providing better screening efficiency.

#### **Ease of maintenance**

Another design update McLanahan implemented with the Inclined Screen simplified maintenance. McLanahan increased the distance between the top and bottom decks by more than 150 mm to improve access to the bottom deck and inside of the screen. A rubber curtain was added to the rear of the screen to further improve access to the bottom deck for media changeouts.

In addition to providing greater maintenance access, McLanahan also enhanced components to allow for longer wear life. For example, the McLanahan Inclined Screen was fitted with shorter, softer springs to minimize side-to-side movement and extend the life of the structure supporting the screen. Furthermore, jacking points were added to all four spring locations to allow for safer and easier spring changes.

McLanahan also outfitted the screen with bearings that boast an operating life three times longer than industry standard.



#### Why McLanahan

With 190 years' experience providing mining-duty equipment for a wide range of applications, McLanahan is well equipped to serve the unique needs of its customers worldwide.

"McLanahan is able to make bespoke screens to fit customers' exact needs," said Craig O'Hare, Territory Sales Manager at McLanahan. "The screens aren't just standard, off-the-shelf units. We work with the customers to gain an understanding of their exact needs and design a solution that best meets their production and operational goals."

Even after the equipment is up and running, McLanahan ensures its equipment is supported by a team of after-sales professionals and services, including equipment training, plant audits, field service, OEM spare parts and more.

"We partner with our customers through the lifetime of our equipment with service and support," O'Hare said.

Celebrating 190 years in business in 2025, McLanahan Corporation is an industry-leading manufacturer of processing equipment for the aggregate, mining and dairy industries. McLanahan offers process-engineered and field-proven solutions that are tailored to the unique needs of each site. For more information, visit mclanahan.com.



#### **SMT** expands EcoOperator training to equip CEMEX site managers for loweremission operations

On the road to net zero, Cemex UK has partnered with SMT to implement a customised training programme designed to enhance collaboration between site managers and operators, drive immediate CO2 reductions from existing diesel machinery, and pave the way for zero-emission equipment in the future.

Building materials giant Cemex, has long understood the critical role its machine operators play in driving productivity and profitability across its sites and has consistently invested in enhancing their knowledge and skills over the years. As Cemex strives to achieve carbon neutrality by 2050, with a 2030 interim goal of reducing CO2 emissions from cement production by 47% versus 1990 levels, the company is also tapping into the potential of its operators to accelerate decarbonisation - specifically through the EcoOperator programme from SMT.

"Even with conventional diesel machines, operators can implement techniques to improve efficiency and reduce emissions, laying the groundwork for a seamless transition to zero-emission equipment, powered by renewable energy or hydrogen power in the future," says Kevin Cage, head of UK aggregate operations at Cemex.



Kevin Cage, head of UK aggregate operations at Cemex.

Recognising, however, that operators can only reduce emissions so far without the right support from others in the of Volvo Construction Equipment (Volvo CE) in Great Britain to develop a version of EcoOperator training tailored to site





EcoOperator training combines theory with practical exercises.

EcoOperator training is an advanced programme designed to deepen experienced operators' awareness and understanding of how they can contribute to greater sustainability. Combining theory with practical exercises, EcoOperator training provides operators with the motivation and skills to directly reduce emissions through lower fuel consumption. It also focuses their attention on minimising machine wear and tear, which decreases the carbon footprint associated with the manufacture and distribution of replacement parts.

"EcoOperator training typically results in fuel efficiency improvements of around 5% and while that might seem modest, the impact is substantial," explains Richard Cannon, operator training manager at SMT.

"Given that each litre of diesel consumed emits 2.63 kg of CO2, based on a study of 7,500 machines operating 2,000 hours annually with an average fuel consumption of 15 litres per hour could save 11 million litres of fuel and reduce CO2 emissions by 30,000 tonnes per year. That's equivalent to eliminating the carbon footprint of 1,395 flights between Stockholm and Paris!"

The new site manager version of the programme developed for Cemex focuses on helping managers understand and interpret machine telematics data, facilitate more efficient

fleet and site setups, and establish appropriate targets, so they can support operators in achieving their maximum potential for emissions savings.

"When managers understand the goals we're trying to achieve with the operators, it significantly enhances the effectiveness of the entire programme. It's much easier when everyone is on the same page," Kevin says.

Giving an example of the cooperation required, Richard adds: "While it's widely acknowledged that excessive machine idling wastes fuel, setting overly strict idling targets, for instance, might inadvertently encourage operators to bypass the necessary engine cooldown process, risking costly damage to the turbocharger. In this case, the training would help site managers to establish a more realistic idling target for improving fuel efficiency while maintaining machine health."



Richard Cannon, operator training manager at SMT in Great Britain.

#### **Driving long-term carbon reduction**

To ensure that the techniques learned in the EcoOperator training are effectively implemented and that progress is sustained, SMT will collaborate closely with Cemex by analysing machine telemetry data and identifying any further opportunities for improvement.

"At SMT, we share the Cemex team's commitment to reducing CO2 emissions and we're proud to be at their side on this important journey," Richard says. "Whether through additional training or new technologies, we'll continuously monitor and refine our approach to help them along the way."

Expressing his satisfaction with the partnership, Kevin concluded: "We've been really impressed by SMT's readiness to listen, adapt, and develop training tailored to our specific needs. In this regard, SMT has proven to be a valued partner in our decarbonisation efforts, demonstrating true collaboration in helping us to achieve our sustainability goals."



# Used machines in just a few clicks: the new Used Equipment Marketplace ap

- Liebherr develops new Used Equipment Marketplace App
- App offers a targeted search for the used machines, attachments and spare parts
- Personal dashboard provides relevant key figures for adverts

The Used Equipment Marketplace is a portal specifically for the sale of used machines from Liebherr. Since the beginning of the year, customers are able to find a wide range of used construction and material handling machines, used attachments and accessories as well as used spare parts directly from certified Liebherr sales and service partners on the digital platform. The Used Equipment Marketplace is now also available as an app for quick access directly on your smartphone. The app offers dealers or buyers an intuitive user interface and powerful functions to find the right equipment for their next project or to sell products successfully.

With the new Used Equipment Marketplace App, Liebherr is providing users of the portal with an option to enter the world of professional used equipment trading easily, efficiently and reliably. When developing the app, the focus was particularly on ease of use. All important functions can be used conveniently via smartphone - regardless of time and place. The app is now available for all smartphones with the iOS operating system.

#### Targeted search for machines, attachments and spare parts

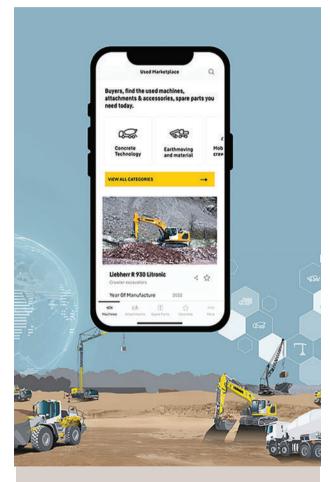
In the app, buyers can find the equipment they need in no time at all using a search function. Various filter options such as brand, model, year of manufacture and price help to refine the selection and discover the desired products. This includes a wide selection of different earthmoving and material handling machines, mobile and crawler cranes, tower cranes, maritime cranes and concrete technology products from Liebherr and other manufacturers. Liebherr also offers used attachments and accessories for its used machines on the platform.

#### High degree of customisation for sellers

The app is a simple way for sellers to create their own adverts quickly and easily. These can also be shared individually with a defined group of colleagues to ensure efficient teamwork. In addition, users can set up their own dealer network within the app, which can be used to share exclusive offers, for example. The user specifies who should be part of the individual dealer network. This function supports app users in establishing long-term business relationships and benefiting from unique trading opportunities.

#### Always up-to-date: personal dashboard and newsfeed provide the latest information

A dashboard has also been integrated into the Used Equipment Marketplace, which provides an overview of all relevant key figures for the respective adverts. Information



The new Used Equipment Marketplace App offers dealers and buyers an intuitive user interface and powerful functions to find the right equipment for their next project or to sell products successfully.

such as the number of interactions or views of the ad provide valuable insights for analysing user behaviour. Based on this data, sales strategies can then be adapted and optimised in order to address relevant target audiences in an even more targeted manner. Finally, a newsfeed provides app users with the latest information on adverts, discount promotions or current developments in their personal network.

# Flite Precast Concrete make bay-building easy

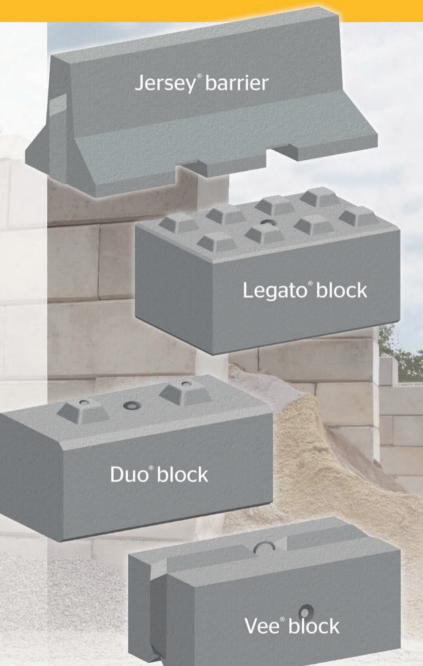
Elite are the UK's premier manufacturer of the revolutionary Interlocking Block System as used throughout the UK in a wide variety of applications.

The blocks are excellent in many varied applications and provide a more simple, robust and cost-effective solution than conventional L or A-shaped thin-walled panels.

Our Jersey barriers are designed specifically as interlocking security barriers for use when there's a need to secure your premises against unwanted visitors or to manage site traffic.

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- Silage clamps
- Earth retention
- Traffic calming
- Security/property protection
- Waste & recycling material segregation
- Scrap and steel recycling
- Security barriers





Creating safer spaces with interlocking blocks & barriers

























#### Aggregate Industries completes 98-hour volunteer effort at Derbyshire reservoir

Continuing its support for the local community and important causes in the East Midlands, a dedicated team from local construction materials manufacturer Aggregate Industries recently took part in a large-scale volunteer project with the Canal and River Trust at its Codnor Park Reservoir in Derbyshire.

14 volunteers from the sustainability, aggregates, technical services and risk and assurance teams came together for a total of 98 on-site hours to improve the local pathways around the reservoir, ensuring adequate and safe access for pedestrians on foot, using wheelchairs or pushchairs.

Drainage issues on the far side of the reservoir, where water runs off to the neighbouring field, had caused the walkways to become unstable and re-surfacing work was required. As well as significant volunteer hours, Aggregate Industries also donated 14 tonnes of stone chippings for this project from its Cauldon Low quarry in Staffordshire.

The team undertook various tasks, including moving the donated stone chippings from the car park into place on the other side of the reservoir – approximately a 1km walk – as well as clearing brambles and dead vegetation from around the site

Steve Scudder, Director at Codnor Park Fishery said: "It's difficult to know where to start with showing our appreciation to the team at Aggregate Industries for all their support. The calibre and positive attitude of all their employees shone through, despite the incredibly heavy workload they took on. Their work has meant we can continue to offer safe and accessible walkways for everyone in the local community to enjoy the views of the reservoir. The donated materials have been pivotal to our project to restore the pathways here."

Janine Hughes, Sustainability Business Partner at Aggregate Industries, said: "It was a privilege to work with the team at Codnor Park Reservoir for the day, and this event provided a



brilliant opportunity for our colleagues to get to know each other better. Everyone showed just how hard-working, friendly and kind they all are — which epitomises the spirit of volunteering.

"We're delighted that our work and chippings donation means that people of the East Midlands can continue to enjoy all that Codnor Park has to offer, whether that's fishing, walking or simply enjoying the stunning views."

Scott Miller, Business & Corporate Engagement Partner, for the Canal & River Trust, said: "As a charity the support of partners such as Aggregate Industries is so important in helping with our vital work to protect the nation's historic waterways for future generations. We're so grateful to the team from Aggregate Industries who have made a real difference and helped to ensure that local people can continue to enjoy the health and wellbeing benefits of visiting the reservoir."

Continuing its support for the local Canal and River Trust, Aggregate Industries also sponsored the organisation's East Midlands Volunteer Awards, which sees recognition for local teams and individuals across the network of waterways and reflects the fantastic range of volunteering that takes place with the Trust





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#### Recycling





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Engineering proudly stands as the UK's foremost specialist in waste recycling balers. As the only British company that offers a comprehensive suite of services-spanning design, manufacturing, installation, maintenance, and refurbishment for waste recycling equipment-we are dedicated to supporting a sustainable and greener future.

At Middleton, we feature an extensive range of innovative and high-quality recycling machinery, including balers, wrappers, shredders, conveyors, and separators, as well as complete materials recovery facilities (MRFs). Our expertise is designed to tackle complex waste streams in today's demanding industry, ensuring that our customers are equipped to handle any challenge.

Middleton Engineering is pleased to announce the appointment of James Vaughan as its new Sales & Marketing Director. This strategic addition to the leadership team marks a significant step in the company's ongoing commitment to growth, innovation, and international expansion.

James brings extensive experience across the agriculture, crushing & screening, and recycling sectors. With a decade of business management expertise and a strong track record in sales management, he has held key roles with globally recognised brands such as CLAAS, Powerscreen, and Terex.



















#### Recycling

In addition, our unparalleled experience with various equipment brands-such as Presona, Excel, Allegheny & many more-allows us to provide expert maintenance and refurbishment services across the country.

With over 20,000 spare parts in stock and an engineering capability to create bespoke or out-of-stock items, our customers enjoy peace of mind knowing we have their needs covered. We are proud to be the only UK recycling company offering reliable next-day maintenance and repair services nationwide

Operating from our extensive 3.500m<sup>2</sup> workshops near Glastonbury, Somerset, Middleton Engineering boasts a talented team of design and engineering professionals. Many of our staff have honed their skills through apprenticeships in welding, hydraulics, electrical, and mechanical engineering-all part of our commitment to excellence.

Our core values of quality, innovation, reliability, and energy efficiency drive everything we do. We employ the latest computer-aided design software to expedite development, ensuring that each component is meticulously designed and manufactured in-house for optimal results.

#### But we are more than just a recycling industry leader.

Middleton Engineering also engages in specialist engineering projects, offering subcontract supply facilities for the production of hydraulic cylinders and rams to custom specifications, alongside unique projects such as temporary bridges and stages.









At Middleton Engineering, we take immense pride in our diverse and esteemed clientele, which extends far beyond our local roots. Our innovative solutions have garnered the trust of an array of distinguished partners, including local authorities, waste management firms, and leading retail distribution companies.

Renowned names such as Tesco, Marks & Spencer's, Biffa, Smurfit Kappa, The Co-operative, and The Range rely on us for our exceptional expertise and commitment to delivering bespoke solutions that address their unique sustainable challenges. Middleton Engineering are proud to export our cutting-edge engineering solutions on a global scale, serving customers in various international markets such as USA, Germany, France, Sweden, Denmark, Norway, Czech Republic. Our commitment to quality and innovation has made us a sought-after partner worldwide, meeting the needs of diverse industries and helping them enhance efficiency and sustainability.

At Middleton Engineering, we believe that our commitment to excellence extends far beyond the initial sale. Our robust after sales and spare parts capabilities are designed to ensure that your operations continue to run smoothly, no matter the challenge. We understand that downtime can be costly, which is why we priorities rapid response and comprehensive support for all our clients.

Our dedicated after sales team is available for scheduled maintenance 24/7, providing you with peace of mind knowing that expert assistance is just a phone call away. Whether you encounter an unexpected break down or require guidance on optimal performance, our knowledgeable professionals are ready to step in and support you, day or night.

To further enhance our service, we have a fleet of full equipped vans strategically mobile throughout the UK and Ireland. This means that our technicians can reach you quickly, fully prepared with the necessary tools and spare parts to address your needs on-site. Our vans are stocked with a wide array of products, ensuring that we can handle repairs and replacements efficiently, reducing potential downtime and getting you back on track promptly.

We are not just a supplier; we are your partner in success. Our commitment to providing excellent after sales support and readily available spare parts is what sets us apart. Trust us to be there for you at every stage of your journey, delivering reliable solutions that keep your operations running seamlessly.

With Middleton Engineering, you can focus on what you do best, knowing we will support your operation day or night.

#### **Operating from extensive workshops near** Glastonbury we are the UK's baler specialists.

We design and manufacture the widest range of baling equipment in the UK with everything you need to complete your waste recycling installation, including conveyors and screens, separators and shredders, even complete MRF installations.

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#### **Boardtek transforms wood waste into** energy with shredder investment

**MDF** component manufacturer Boardtek transformed its waste management operations with the installation of an UNTHA LR1400 wood shredder - significantly reducing downtime and generating cost savings in the process.

Founded in 2011, Pontefract-based Boardtek is a manufacturer of MDF-based products for the furniture and DIY markets. Operating from its modern facility – which it shares with its parent company EDB – the firm produces over 16,000 m3 of high-quality MDF items each month.

The company struggled to maintain consistent operations with its previous shredder from an UNTHA competitor, which presented frequent breakdowns, jamming issues, and rapid wear of nylon guides. These persistent problems led to costly downtime, unreliable throughput, and increased maintenance expenses. Seeking a solution that would ensure reliable performance and reduce operational disruptions, Boardtek partnered with IMA Schelling – UNTHA Austria's sales partner – to invest in an UNTHA LR1400 shredder.

"Having been repeatedly let down by our previous machinery, the UNTHA shredder has completely changed the game for us," said Paul Thompson, director of works at Boardtek. "We've reduced our maintenance costs by £12,000 per year and achieved £30,000 in savings by not sending waste to landfill. The payback period on the entire project was just 18 months, so the decision was a no-brainer.

Boardtek's waste management overhaul has not only reduced costs but also improved energy efficiency. By using the shredded material in their on-site biomass boiler – which provides heat to the factory, paint line, and central heating system - the company has lowered its reliance on external waste disposal, significantly cutting energy costs and improving the sustainability of its operations.

The LR1400 handles approximately six tonnes of input materials per day, including 2.5mm to 25mm HDF, MDF, chipboard, and pallets - which are all by products of Boardtek's production process. Achieving a throughput of around 750kg per hour - with much higher handling capabilities if required – the machine reduces materials down to a homogenous 20mm particle size.





Thompson added: "Purchasing the UNTHA shredder has been one of the best business decisions I've ever made. The machine's reliability and performance are outstanding, and the support from UNTHA has been exceptional. The service plan has saved us significant time and money, with each engineer offering knowledge, support, and reassurance during every visit."

Commenting on the partnership with Boardtek, Julie Cassidy, UNTHA UK's parts and maintenance executive said: "The service plan has been a perfect fit for the team at Boardtek. We've developed a great working relationship, ensuring the LR1400 shredder runs smoothly and reliably, without the costly downtime the company experienced with their previous machine.

"It's always rewarding to see how our aftersales services can help a customer like Boardtek achieve such significant operational improvements. Paul's satisfaction is a testament to the reliability of our machines and the dedication of our engineers -

#### Ecoblend® - pioneering sustainable aggregates in construction

Ecoblend, developed by Day Group, emerges as a pioneering brand leading the charge towards sustainable aggregates in construction projects.
Currently distributed by Day Aggregates and
GRS Roadstone, Ecoblend is set to transform materials resourcing in the construction industry.

With a focus on eco-conscious practices, Ecoblend delivers customers the opportunity to utilise sustainable manufactured aggregates, spearheading a shift towards environmentally responsible materials. The range includes crushed concrete, crushed asphalt, and a blended aggregate incorporating incinerator bottom ash (IBA).

At its core, Ecoblend champions sustainability through its flagship product, Ecoblend MA.

Designed for a multitude of applications, including sub-base construction and road capping, Ecoblend MA represents a modern, sustainable aggregate for Type 1 and 6F5

Blending refined IBA aggregate with natural crushed stone achieves high performance at a lower cost while reducing environmental impact.

This advanced manufacturing process not only diverts waste from landfills but also significantly cuts CO2 emissions. Every tonne of Ecoblend MA purchased saves 231 black bin bags of waste [1] from landfills and reduces the need to quarry finite primary aggregate, thus conserving our precious natural

Embodying its commitment to sustainability, the Ecoblend brand identity visually reinforces its focus on repurposing byproducts from demolition, construction, and municipal waste through its trademark, representing supply continuity, the blending process, and the journey towards a circular economy. Complemented by the strapline "Sustainable aggregates for the built environment,



Ecoblend is committed to providing environmentally considerate aggregate solutions for the construction industry. James Day, Managing Director of Day Group, emphasises:

"Ecoblend epitomises our dedication to catalysing change and embracing sustainability in aggregates. As the industry shifts towards environmentally responsible materials, Ecoblend leads the way, inspiring stakeholders to adopt sustainable

To mark its launch, Ecoblend initiates an extensive awareness campaign and unveils a dedicated website offering comprehensive guidance and material calculation tools for customers in the building and construction industry.

ecoblend

sustainable aggregates

Visit www.ecoblend.co.uk for more information.



# **Boyd Brothers benefit with a Terex Ecotec Phoenix 3300**

Scottish haulage and material handling specialists Boyd Brothers operate from their Corpach quayside near Fort William. The company undertakes logistics services on several ports around Scotland handling a variety of materials, delivering a service dedicated to ensuring their customer's goods are shipped safely and in good time. One of their clients for material handling solutions is BSW Timber who operate a state of the art sawmill at Corpach.

Founded in 1848, in Earlston, Scotland, BSW Timber is now the largest sawmilling company in the UK. Currently operating in eleven manufacturing sites across the UK and Latvia, BSW Timber are large-scale producers of certified timber products for various industries and applications, including fencing, landscaping, decking, cladding, construction, joinery and pallet production.

The company currently produces over 250 million linear metres of material per annum manufacturing the highest quality certified products from C16 construction timber to innovative products like composite decking and acoustic fencing.

The company's site at Corpach receives around 450,000m of material annually, producing over 250,000m of finished products from the incoming material. But what happens to the remaining 200,000m BSW grow-to-size, harvest to order, and replant to replenish using the whole of the log — even sawdust, shavings, chips and bark, which supply the pulp and paper, chipboard, horticultural sectors.

Sister company, BSW Energy, also makes use of our timber coproducts, manufacturing clean, renewable wood fuel solutions to power everything from biomass plants to stoves and barbeques.

At Corpach, the sawmill residue is collected throughout the mill on a series of conveyors before it is discharged at the adjoining Boyd Brothers site.

The sawmill residue comes from the mill in a range of sizes from dust to 60mm chips and until recently, the material was handled by a pair of Doppstadt 620 screens hired by Boyd Brothers. Whilst these two units managed the job, their output was far from what was required. With the company sending out much of the screened material on vessels from the

adjacent dock, the Boyd Brothers team decided it was time to invest in a trommel capable of handling a larger volume of material allowing stockpiles to be built up of various grades of chip and dust prior to the arrival of the vessels. Having a stockpile would then allow the vessels, each with a capacity of around 6000 tonnes to be loaded more effectively and more often using the stockpiles already created.





With a requirement to handle up to 120t per hour, the market for high output, trommels is limited. One of the only companies with such a large trommel in their portfolio is Molson Green, part of the Molson Equipment Group. Boyd Brothers quickly contacted Molson and during their initial conversations with David Sutherland and Mike Mackenzie, it was decided that a new Terex Ecotec Phoenix 3300 trommel would be an ideal solution to the company's production issues.



#### Recycling





TEREX. CECOTEC

The Terex Ecotec Phoenix 3300 is the largest trommel available within the Ecotec range with an operating weight of just over 37.5 tonnes. Sitting on a 3-axle chassis, the trommel is delivered using a fifth wheel mounting to connect it to a suitable tractor unit. With a travel length of just over 21m, the Phoenix 3300's delivery through the tight and winding Scottish roads took some planning by the Molson team to ensure it arrived without a scratch and caused as little delay to the local traffic as possible.

possible.

Once on site and set up, a relatively quick and straightforward task, the trommel could be set to work. The 3300 is available with either a heavy duty tipping grid or double deck vibrating grid to feed material into the drum. Like any trommel, the Phoenix 3300 is available with a range of screening media to produce any given products. Boyd Brothers have chosen six different sections of woven mesh ranging from 13mm to 20mm to give two consistent products suitable for a variety of construction product manufacture and horticultural uses. Depending on the media used, the trommel can quickly be reconfigured to work effectively with heavy construction and demolition waste or in the production of high quality composts.

The design of the trommel uses a high capacity, 7.8m3 hopper to receive the material. Mounted at one end of the heavy duty chassis, the hopper gradually feeds the material into the 2.32m diameter

drum via a variable speed belt feeder. The material is sent into the 9.32m long drum which has been fitted with a variety of woven mesh which gradually segregates the material into two grades. The -15 grade passes through the mesh and onto a 1200mm wide discharge conveyor passing it back through to the hopper side of the machine. The 180° swivel fines conveyor can eject material to a maximum height of almost 6m allowing it to generate large uniform stockpiles leaving the wheel loader to concentrate on loading duties.

The large capacity drum is driven by a powerful four-wheel drive system with high performance friction grip wheels and allows the operator to run the drum in either direction. To ensure no chips stick and block the mesh, a series of nylon brushes stretch the length of the drum ensuring the mesh is always clean. The large chips pass out of the drum onto the 1200mm wide outfeed conveyor. Like the fines conveyor, this one is capable of being remote controlled and with variable speed control, the operator can create a pile of material exceeding 4m.

Power to the trommel comes from a Caterpillar StageV diesel which combines with powerful hydraulics and auto feeder speed control to guarantee the machine is always working at its optimum level.

With such a high output, Boyd Brothers have employed a pair of wheeled loaders to handle the input and out put of products. The smaller machine with a 6m3 bucket spends most of its time loading the Phoenix whilst a larger machine with 8m3 bucket handles the screened material and also the loading of Boyd Brother's high capacity ejector trailer which ferry the material from the production area to the quayside.

'We have been very pleased with the performance of the Phoenix since it arrived.' Boyd Brother's Gary Isherwood commented. 'We have reduced our cost per cube to screen the material whilst massively increasing the output with a better product. Molson have been a great company to deal with delivering the product quickly and efficiently and giving us the ability to exceed both our and our customer's expectations.'





Finlay®, a leading global manufacturer of mobile crushing, screening, and conveying equipment, are setting a new standard for high-capacity production in the surface ore mining and aggregate industries, with their C-1550+ Tracked Cone Crusher. This powerful machine represents a significant advancement over its predecessor, delivering increased performance, enhanced efficiency, and improved serviceability.





#### **Increased Performance and Productivity**

At the heart of the C-1550+ is an upgraded Terex® 1300X cone crusher with a 1300mm (52") head diameter. Engineered with robust construction and intelligent design, this crusher offers a 15% increase in tonnage/production compared to the previous model, thanks to higher clamp forces and a longer throw. This translates directly to increased profitability for owners, operators, and contractors. The lighter machine weight also enhances transportability.

#### **Crushing & Screening**



#### **Engineered for Uptime and Ease of Maintenance**

Finlay understands that uptime is critical. That's why the C-1550+ features a mechanically designed liner retention and a common upper frame compatible with all liner configurations (coarse, medium, or fine). This simplifies liner changes and maintenance, maximising operating time. Generous sized catwalks provide easy access to the power

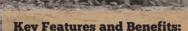
pack from both sides, and a tag-out engine isolator enhances safe maintenance procedures. The hydraulically folding hopper, lockable from ground level, offers efficient setup and teardown.

#### **Advanced Technology for Optimised Crushing**

The C-1550+ incorporates advanced technology to optimise performance. Ultrasonic level sensors regulate material flow from the hopper to the crushing chamber, ensuring consistent and efficient crushing. The machine's ability to accept an all-in feed eliminates the need for additional screening equipment, further streamlining operations.

#### **Uncompromising Safety and Innovation**

Safety is paramount in the design of the C-1550+. The large hopper/feeder is equipped with an automated metal detection and purge system — a unique feature compared to other OEM manufacturers. This system protects the cone from tramp metal, minimising downtime by automatically removing contaminants via the purge chute.



- 'On the fly' hydraulic CSS adjustment: Full hydraulic closed side setting adjustment with electronic monitoring ensures ease of operation and precise
- Fuel-efficient direct drive: Direct drive transmission through a wet clutch maximises fuel efficiency and reduces operating costs.
- Hydraulic Tramp Relief: An automatic reset hydraulic tramp relief system protects the chamber and minimises downtime in the event of uncrushable material entering the chamber.
- Advanced Metal Detection: The metal detection system on the feed belt with 'auto-stop' and purge system protects the cone and removes contaminants.
- Versatile Chamber Design: The common chamber upper frame is compatible with all liner configurations (coarse, medium, or fine), optimising machine uptime through efficient liner changes.

#### The Finlay C-1550+:

#### **Setting the Standard for Cone Crushing**

The C-1550+ delivers high-capacity production with exceptional application flexibility and portability. With its focus on safety, versatility, productivity and serviceability, the C-1550+ is the ideal solution for demanding crushing applications.

For more information on the C-1550+ contact Finlay:

www.terex.com/finlay



#### Intelligent crushing

# Get the most out of your machinery

Intelligent crushing provides you with piece of mind by protecting the machine from overloading and preventing accidental misuse. Having your Lokotracks® communicating together gives you the ability to control the entire process by utilizing the wireless remote display. The operator can see each crushers' cavity levels and control the feeding accordingly to allow for the highest possible average production.

With Metrics, you can stay on track and have insight on how your machines are doing when you are not physically at the site. This extra information helps you plan ahead and ensures suitable timing for maintenance breaks.

Keep your process going with Lokotrack® - made to perform and built to last.





#### First MT120J from MAGNA heads to **Australia for large-scale operations**

MAGNATM, the Terex brand established to meet the growing demands of large-scale operations, is pleased to announce the completion of the first MT120J large jaw crusher, now on its way to Mineral Processing Solutions in Australia. This high-performance, heavy-duty jaw crusher plant is designed for large and medium-scale operators across quarrying, mining, demolition and recycling applications.



Manufactured at the Terex Crushing Technology Centre of Excellence in Coalville, the MT120J is a robust addition to the MAGNA lineup. Featuring an advanced 1200 mm x 820 mm Terex chamber that is optimised for high-performance crushing, the MT120J has an output potential of up to 600 tph (661 US tph), depending on material type and crusher settings, and is designed to handle challenging and high-volume operations.



One of the key attributes of the MT120J is its quick set-up process. The machine includes a ground-level hydraulic folding feed hopper with a hydraulic locking system, supporting operators in getting it set up and running efficiently. The robust feed hopper is wear-resistant, and the stepped selfcleaning grizzly feeder with under feeder screen provides a

smooth, continuous flow of material, Additionally, the MT120J is equipped with a wide bypass chute that optimises material flow, while the aggressive crushing action of the high swing jaw encourages efficient material entry into the chamber.

The first MT120J large jaw crusher from MAGNA is now on its way to Mineral Processing Solutions in Australia

The crusher also offers a fully hydraulic setting adjustment system, which allows operators to make quick and precise changes to the crusher settings, enhancing both flexibility and operational efficiency. The highly efficient direct drive system supports low fuel consumption and enables the MT120J to be a cost-effective and environmentally friendly solution. Its powerful engine operates at low RPM, further reducing fuel consumption without sacrificing performance. While the first unit produced is a diesel/direct drive configuration, the MT120J model can also be built as a fully hybrid unit to utilise the onboard genset drive system or accept external electricity supply (MT120Je).



For ease of use, the MT120J is fitted with a modern, userfriendly PLC control system that includes an auto start facility. It also comes with radio remote control and MAGNA telemetry as standard, allowing for intuitive monitoring and control of the machine. The product conveyor is angle adjustable, which lowers for easy access and transport, while under-crusher chassis design offers excellent service and maintenance

The MT120J is also designed with safety and maintenance in mind, equipped with a dust suppression system to provide cleaner operations as well as straightforward access to the power unit canopy for maintenance and service.

"The MT120J is a solution built for high performance and maximum productivity," said Neil McIlwaine, Business Line Director for MAGNA. "It has advanced features and durability that make it the ideal crusher for Mineral Processing Solutions in Australia, who needs equipment that can keep pace with the demands of large-scale projects. We look forward to seeing it deliver exceptional performance and support their continued success in Australia."





#### Kilsaran investment in 'bespoke' high volume **Ionsson Crushers** boosts operations at **Meath and Dublin Quarries**

In the Irish market, products within the McHale Plant Sales portfolio include those manufactured by Metso-owned Jonsson **Crushers whose range consists of tracked** jaw units, tracked cone units, wheeled cone crusher units and an electric-powered tracked double crusher.

The Jonsson L130 jaw crusher, supplied to Kilsaran by distributor McHale Plant Sales, is pictured being put through its paces at the aggregates producer's quarry in Gallstown, Co. Meath.



Swedish-made, Jonsson Crushers are manufactured to meet the needs of those whose requirement is for a tracked machine that can be 'bespoke' made and specified to operate in a large quarry scenario such as those within the chain of concrete products and aggregates producer Kilsaran.

Comparable in significance to their recently reported sales to Mayo-based civil works contractor Wills Brothers and CRH member company Roadstone, Metso distributor McHale Plant Sales reports upon what they term 'another significant investment' by Kilsaran, reflected in their acquisition of three Jonsson crushers – two L130 model jaw crushers and one L550 model cone

Robust, with a production capacity of up to 750 tonnes per hour, the three units were acquired for operation at Kilsaran's Gallstown and Ballinascorney guarries in Meath and Dublin and were added to some existing units already owned by Kilsaran.

Now part of the Metso family – whose crushers McHale Plant Sales has distributed in Ireland since 2015 and in the UK since April 2023 – Jonsson Crushers describes itself as 'one of the market's largest manufacturers of mobile products in stone crushing' whose equipment was welcomed by McHale on appointment as 'bespoke' units that will 'add immeasurably' to its position within the aggregates and crushing markets.

# Finlay supplies equipment to support Ukraine's reconstruction efforts

Finlay®, a leading global manufacturer of mobile crushing, screening, and conveying equipment, is proud to supply equipment in conjunction with Kurimoto, its Japanese distributor, to support the rebuilding of Ukraine's infrastructure in the aftermath of Russia invasion.

The demand for high-quality aggregates and construction materials in the Ukraine has surged as the country undertakes its extensive rebuilding efforts. A fleet of Finlay crushers and screeners are playing a vital role, operating in several locations across Ukraine to process concrete and construction debris left behind by the conflict. By processing and reclaiming valuable material on site, the Finlay machines are helping accelerate the restoration of Ukraine's infrastructure and ensuring that reconstruction efforts are efficient, cost-effective, and environmentally sustainable. "We are incredibly proud to see Finlay machines playing a crucial part in helping Ukraine rebuild its nation," said Martin Conway, Global Sales & Marketing Director for Finlay. "The strength and resilience shown by the Ukrainian people in the face of such adversity is truly inspiring. At Finlay, we are committed to assisting Ukraine in its recovery. By supplying and supporting our

crushers and screeners operating throughout Ukraine, we are not only helping to rebuild critical infrastructure but also laying the groundwork for a brighter future for the Ukrainian people." Due to travel restrictions for entering and exiting Ukraine, extensive online training was provided by the Finlay Training Academy to operators on the ground. To supplement the digital training, Kurimoto also organised in person, on-the-ground training facilitated by Ukraine-based contractor, Euromash, who were employed to deliver initial set up, training, and commissioning of machines. Euromash have been retained to offer ongoing customer and service support for the Finlay equipment, in conjunction with the teams at Kurimoto and Finlay.

"The Finlay Training Academy tailored and delivered exceptional online training to the operators of the machines based in Ukraine. This training has ensured that the team of operators are well versed on the efficient operation and maintenance of the machines, even in such challenging conditions," said Nakamura Mas of Kurimoto. "We are honoured to have collaborated with Finlay in supplying critical crushing and screening equipment to support Ukraine as the country forges a path toward a hopeful and resilient future."





#### Impact crusher MOBIREX MR 130i EVO2 - the all-rounder in recycling operations

#### CK Abbruch & Erdbau relies on the flexible plants from Kleemann for its recycling tasks...

Today a recycling job beside the VfB Stuttgart football stadium, tomorrow in Eislingen in the Fils Valley – the impact crusher MOBIREX MR 130i EVO2 is an integral part of the machine fleet of CK Abbruch & Erdbau GmbH and proves its flexibility repeatedly.



In the foreground, the blue and white Kleemann plant, and in the background the home of VfB Stuttgart with their red and white football shirts. Here, directly beside the VfB stadium, sections of a multi-story car park have been demolished. The material is being processed by CK Abbruch & Erdbau and this is where the mobile impact crusher MOBIREX MR 130i EVO2 from Kleemann is being used. The plant is equipped with a post screening unit that makes the production of a qualified final grain possible. A wind sifter separates the undesired lightweight material, Premium lighting guarantees additional safety and a good view, above all, during dusk.

"I was really impressed with the product quality. This has to be really high for us in recycling. After all, as a recycling company we constantly compete with natural products such as crushed rock or gravel." Said Markus Christadler, Managing Director of CK Abbruch & Erdbau GmbH.

#### **Tolles Produkt**

CK Abbruch & Erdbau GmbH specialises in demolition and removal, earthwork and the recycling of building materials and has been using Kleemann crushing and screening plants for many years. "The machine is relatively new in our vehicle fleet ", says Markus Christadler. "Unfortunately, I cannot say much about the consumption values yet. But I assume that we will be satisfied here, as with the predecessor model. However, I am already very impressed with the product quality. This has to be really high for us in recycling. After all, as a recycling company we constantly compete with natural products such as crushed rock or gravel."



#### **Crushing & Screening**

#### Application in Stuttgart: Demolition of a multistorey car park near the MHP Arena.

Part of a complete Kleemann package...

The high product quality requirements and easy handling were two of the reasons why the company decided to upgrade their machine park and to acquire three new Kleemann plants. Apart from the new mobile impact crusher MOBIREX MR 130i EVO2, the new acquisitions include a mobile jaw crusher MOBICAT MC 110i EVO2 and a scalper MOBISCREEN MSS 802i EVO. Michell Blasczyk, Kleemann expert from Wirtgen Deutschland: "All machines from CK Abbruch were very well maintained and we were happy to trade them in. This allowed us to put together a very attractive overall package."

#### **Tolles Produkt**

ck-abbruch.de

Impact crusher in recycling operation - Here today, there tomorrow – flexibility is in demand...

CK Abbruch & Erdbau has specialised in recycling the materials directly on site. 12,000 tons of reinforced concrete and 1,000 tons of asphalt were processed on the building site in Stuttgart to high-quality base layer material with frost-protection properties to a grain size of 0 to 45 mm. Markus Christadler believes they found the most cost-effective and ecological solution: "This saves us a large amount of transport trips and allows us to recycle the substitute building material produced in a targeted manner. Around two-thirds of the material was further processed within a radius of less than 10 kilometres."

Crushing on site, however, also means that his plants are always on the move: Once a job is finished, they are off to the next work site. "In our eyes, the flexibility of the Kleemann plants is a real positive feature," says the businessman.

The next work site for the MOBIREX MR 130i EVO2 is a more, or less a classic recycling company in Eislingen on the river Fils. Among other things, mixed rubble is loaded into the crusher here. "In this case, the wind sifter really pays off. It reliably separates pieces of wood or plastic," says Markus Christadler.

Thanks to the intuitive SPECTIVE operating concept, users can also easily adapt to constantly changing situations. Another extra feature of the new plant that the businessman has come to appreciate is the hopper extension. The larger hopper volume makes it possible to load larger material quantities — this guarantees efficiency.

The integrated post screening unit of the MR

130i EVO2 saves an additional downstream

classifying screening plant and keeps



Hourly output: up to 250 t/h, depending on the final

Feed size: 600-800 mm. Final products: 0-45 mm

product.

#### **Crushing & Screening**

#### **Industrial Screening Systems**

A subsidiary of ISENMANN Siebe GmbH, one of the world's leading manufacturers of screen media and ancillary products, TEMA Isenmann Ltd are a UK market leader in the design, distribution and supply of industrial screening systems to the aggregates, mining and steel industries.

Located in Woodford Halse,
Northamptonshire, the company has a
long track record in identifying and
delivering effective screening solutions
(e.g. polyurethane modular panels, wear
liners, rubber screens etc.) to existing
problems; with a strong focus on giving
UK and overseas customers best value
for money through optimized
productivity, efficiency and accuracy.

#### **Screening Innovation**

Developed over 40 years ago, TEMA Isenmann's industry-proven Isepren WS85 modular screening system continues to be one of the company's flagship products. The screen modules manufactured from the highest-quality polyurethanes available subjected to stringent quality control measures, come in a range of different shore hardness's and designs to meet a wide array of screening applications in the mineral extraction and recycling industries.

A key challenge for quarry/mining operators is to be able to deliver the lowest cost-per-tonne production in the safest possible way and TEMA Isenmann's ongoing investment programme demonstrates the strong commitment to supporting customers, developing new products and driving technological innovation.

The latest evolution of the patented WS2.10 magnetic polyurethane modular screening media system is now being successfully used in dewatering applications alongside traditional classification and sizing duties and is compatible with original WS85 installations.

The WS2.10 system is suitable for vibrating and static screens, trommel screens, sieve bends, cross member/tube protectors and general wear protection lining. Thanks to its ease of installation and long wear life, the WS2.10 system reduces plant maintenance and labour costs, but more importantly eliminates any potential safety hazards associated with conventional fixing arrangements.

With quarry companies fully committed to the health and well-being of their employees, safety has been, and continues to be, an important priority when it comes to designing and developing new products and updating the existing equipment portfolio.

Working very closely with aggregate producers and equipment manufacturers, what makes TEMA Isenmann different in the market place is the great success working in partnership with our customers to help them optimize equipment uptime, increase operational efficiencies and improve overall health and safety performance.

The vast array of media available from TEMA Isenmann (including woven wire, self-cleaning harp sieves, rubber and polyurethane) can be retrofitted to screening machines at any time, but if a plant is designed with a modular system from its inception, overall equipment costs are reduced while improving return on investment for the end-user. It is against this backdrop that we work closely with our OEM customers to develop new products that ensure aggregate plants operate at maximum efficiency, this in turn drives innovation, keeping TEMA Isenmann at the forefront of screening media technology.



J1065T
ELECTRIC JAW CRUSHER

# Average Fuel Consumption 10 Litres per hour



### **Buying a crusher -**'People are the big thing'

**Anthony Ryan of McHale Plant Sales states: In** days of yore, when dealing with courtship, marriage, and a happy life thereafter, a word of cautionary advice that grandmothers were wont to pass-on to their offspring was this: 'Marry in haste and regret at leisure'.

To a love-struck young man or his adoring young girlfriend, it was a chilling warning enough to dull anyone's ardour.

Recognising that there is often truth in these old sayings, one wondered if the same wisdom would apply to quarry owners and aggregates producers seeking to purchase a crusher with the promise of a happy life to follow.

To satisfy this curiosity, Hub-4 spoke to Anthony Ryan, director at Metso crushers distributor McHale Plant Sales in Tamworth.

Hugely accommodating and always willing to give of his experience and knowledge to those who would ask, Ryan confirmed that long and lasting relationships are guite normal throughout the crushing and aggregates community.

His main recommendation is that all intending buyers would invest 'serious time' conducting research into the equipment one wishes to purchase, and having done so, 'spend even more time on what is arguably the more important point, that being 'to study and enquire into the nature and character of the people from whom they wish to make a purchase, and into the culture and personality that guides their business practices'.

Stressing that 'people are the big thing', Ryan believes that once the right machine is chosen, the next matter of greatest importance is the 'culture of flexibility' that exists on the supplier side.

"Customer support and service are big issues. Knowing that no machine will run forever, and that somewhere along the way a component will fail and need replacement, every buyer should spend time getting to know the supplier/distributor into whose care he is about to place his trust, his expectations, and a considerable investment in financial terms."

"A customer facing an interruption in production and 'revenuesapping' down-time will have one priority above all others: to get his distressed crusher up-and-running as soon as possible...even if it means leveraging his supplier into going the extra mile to secure a solution."

To avoid downstream difficulties, Ryan fervently believes that customers should ease pressure on themselves by doing everything possible to ensure they buy from a supplier willing to take on board their customers' goals as though they were

"Look for an energetic and supportive partner strong enough to have the full support of, and power of influence over, the manufacturer whose products they represent" he urges.

"Be happy that they maintain ample spare parts to meet most eventualities and, in extreme situations, the capacity to source and supply them without delay.





"Check too their culture in relation to on-site service support; their understanding of speed and the importance of fast response times; and if they have a 'round-the-clock' work mentality and a 'can do' culture of flexibility" he advises.

"Secure access to the 'higher-ups' on your supplier side and gather those vital 'call me if you need me' contact numbers.

"Avoid those working to a strict 9am - 5pm timetable where your after-hours contact is limited to a 'sorry our office is closed' message minder.

"Welcome those who place value on being a 'friend of your business and a lynchpin in your success' - people who would drive through the night to get a customer out of trouble

This quest for flexibility should relate also to other aspects, Ryan suggests. "Mindful that top quality crushing and screening equipment comes at a premium price, buyers should seek-out a supplier with the flexibility required to structure a capital expenditure proposition that promises affordability built-in at all points," Ryan adds.

"From purchase price to trade-ins, with rent-to-buy and other tailored options, a well-funded distributor not 'hide-bound' by rigid corporate rules and procedures can often be better placed to 'talk turkey' with customers who are keen to get on with 'doing the business they do best' without the drag and fear of a burdensome funding arrangement fixed to their business like a ball and chain" Ryan added.

#### **Heidelberg Materials acquires new B3 B-Series Cone Crusher from QMS**

A new B3 crusher has been supplied to Heidelberg Materials' Whatley Quarry. The Quarry Manufacturing & Supplies (QMS) designed, manufactured and supported cone crusher is now playing an integral role in producing aggregates at the Somerset site. The B3 cone crusher has been designed and built to deliver class leading cone crushing performance, dependability, and ease of operation, all backed by market leading QMS after sales support

Heidelberg Materials Aggregates produces and distributes aggregates - crushed rock, sand and gravel - from a network of quarries, depots, and wharves. These aggregates are used for a variety of construction uses including ready-mixed concrete production, pre-cast concrete, brick and block manufacture and asphalt production. The company's Whatley quarry has been operating since the 1930s and supplies crushed limestone aggregate to local markets by road and to depots in London and South East England via its dedicated rail

Situated between the villages of Mells and Chantry, four miles west of Frome, Whatley is Heidelberg Materials' biggest quarry, producing around six million tonnes of aggregate a year. There is also an on-site plant for making asphalt and ready-mixed concrete. The site extends to 173 hectares, of which 120 hectares comprise the limestone extraction site. with limestone reserves of around 100 million tonnes. As well as employing over 60 people, plus many more in a supply chain of contractors and support staff, the quarry actively supports local initiatives and programmes. Whatley quarry has also been included as a research site in Heidelberg Materials' Quarry Life Awards, aimed at supporting and increasing biodiversity at mineral extraction sites.



#### New cone crusher to **boost production**

In order to continue to produce limestone aggregates at high tonnage rates, Whatley quarry management decided to update one of its cone crushers. To this end, QMS was contacted and fully briefed on the quarry's requirements. "We spent a good deal of time at Whatley Quarry to fully understand the requirements in terms of

production, how the cone would fit in with other elements of the production process as well as environmental performance. Heidelberg Materials places a great emphasis on partnering with the community and any new equipment must have a negligible effect on the locale," explains QMS sales director, George Close.

Following the site meetings and discussions, George and his team proposed installing a QMS B-Series B3 Cone Crusher. "The B3 is designed to work with a closed side setting of between 6mm and 38mm and is capable of delivering over 200tph. As with all our cone crushers, the B3 is designed and manufactured by QMS in the UK, being designed and built to deliver class leading cone crushing performance, dependability, and ease of operation, all backed by market leading after sales

"QMS B-Series crushers combine robust design and high performance. A combination of high motor power, large throw and higher speed give these crushers capacities greater than other crushers of comparable size. We've built them to meet the exacting product quality Heidelberg Materials demands. The management at Whatley Quarry have been pleased with excellent product shape and high quality with setting adjustment being easily made during production in seconds,"

#### **Modern features for top performance**

QMS's B-Series cone crushers have also been designed to generate downstream process savings in cost and efficiency thanks to enhanced reduction promoted by a new chamber design and by the use of QMS' C3 Complete Crusher Control. This PLC system controls all aspects of the crusher operation. Usability has also been intrinsic to the crusher design as operation could not be simpler: the automatic start up routine incorporates cavity calibration to compensate for liner wear; automatic adjustments are made to the crusher setting to give consistent and reliable product shape. Pressure and power in relation to load are automatically adjusted to suit rock properties, moisture etc. Furthermore, C3 automatically monitors all health functions and provides the operator with information via a touch screen HMI (Human Machine Interface). This screen can be located at the side of the crusher or within a control room via an integrated ethernet connection.

"In designing the B3 Cone Crusher, operators' feedback and QMS' extensive experience of servicing other manufacturer's crushers have been taken into consideration. Easy maintenance is an issue that has been taken particularly seriously, with hundreds of design details making servicing and installation simpler and more efficient," explains George. "The change of wear and spare parts with minimum downtime have also been incorporated into the design. For example, the liners of the B3 crusher do not require any backing material like plastic epoxy or zinc. This saves the time usually spent mixing, pouring, and waiting for the curing to take place, whilst also increasing safety for maintenance staff."

With its host of modern features, user friendliness and high environmental performance, the QMS B3 Cone Crusher has ticked all the boxes at Heidelberg Materials Whatley Quarry, fitting in seamlessly. "It's been a pleasure to work with the management and staff at Whatley Quarry. We look forward to continuing to assist and working with Whatley Quarry and other Heidelberg Materials operations," concludes QMS sales director George Close.

**Crushing & Screening** 







# WAIT FOR NOTHING.

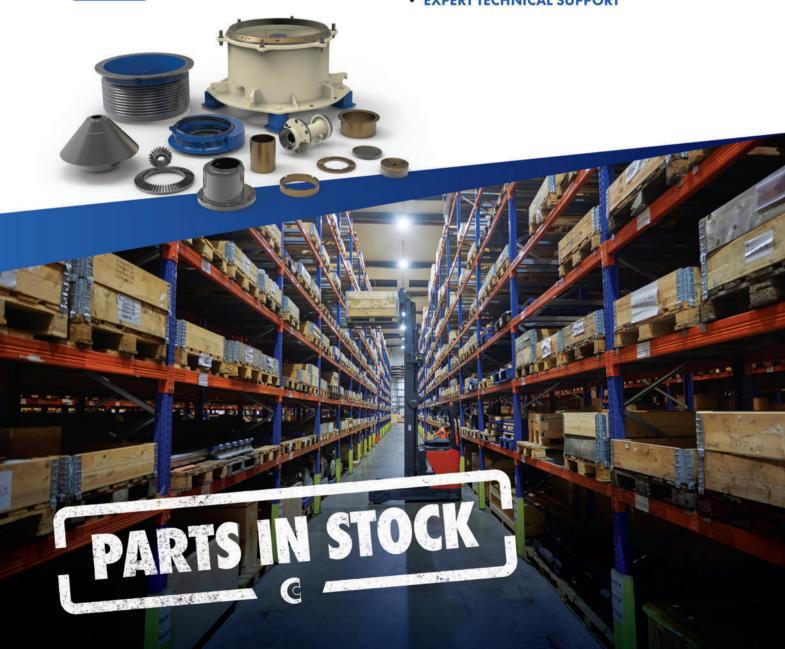
The crusher parts specialist and strategic partner to the aggregate industries.

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- MAJOR COMPONENTS AVAILABLE
- BREAKDOWNS & MAINTENANCE PLANS
- QUICK RESPONSE & FAST DELIVERY
- EXPERT TECHNICAL SUPPORT



#### **Crushing & Screening**

#### Sandvik launch new wheeled jaw crusher

Sandvik Mobile Crushers and Screens proudly introduces the UJ313, the latest addition to our line of heavy-duty wheeled crushers. This fully electric unit underscores our commitment to ecoefficient rock processing.

#### Versatile solution for quarrying and recycling

Positioned as a versatile solution for both guarrying and recycling applications, the UJ313 is designed to meet the diverse needs of these sectors. Its innovative design not only enhances operational efficiency but also ensures adaptability to various working conditions.

#### New features for enhanced productivity and reliability

With a host of new features, the UJ313 is poised to enhance productivity and reliability in the market, making it an indispensable asset for modern operations.

It is fully assembled on a single trailer frame, mounted on a triple-axle bogie for easy transport and operational readiness. At its core is the Sandvik CJ211 jaw crusher, renowned for its exceptional reliability and high performance with minimal downtime.



Equipped with an advanced electric drive system, the UJ313 includes essential components such as all motors, starters, soft start for the crusher and frequency drive, all seamlessly controlled by a user-friendly UL/CE electrical control panel.

This innovative design allows for flexible running conditions, whether from an independent genset or the mains grid, optimizing running costs.

Ease of setup is a key feature of the UJ313, with a hydraulic self-locking feed hopper and onboard powerpack for quick, safe, and easy machine setup.

The three-way diverter chute below the grizzly and a natural fines conveyor offers onsite flexibility, maximizing capacities and the production of sellable products. Additionally, motorized pulleys on the conveyors reduce the need for oil changes, decreasing service and maintenance time and creating a safer work environment.

The large chamber opening of 1100 x 700mm (43 x 27") allows for unrestricted material flow, enhancing the processing capabilities of the unit.

Safety remains a top priority. Hydraulic service platforms on both sides of the crusher allow for safe and stable access to the unit, reducing time spent on servicing and maintenance, and ensuring a safer working environment.



#### Designed with the future in mind

The UJ313 is designed with the future in mind, focusing on sustainability, productivity, and reliability. Its electric power source and innovative features make it an ideal solution for the quarrying and recycling markets, offering significant benefits such as reduced operating costs, lower carbon emissions, and enhanced safety.

Customers are already reaping the benefits of the UJ313. Sandvik Mobiles distributor, Diesel Machinery Inc. (DMI), reports that their customer hasn't looked back since introducing the UJ313 into their operations.

Working in a closed-circuit plant alongside a screen and then feeding a cone crusher, the UJ313 has "really performed well," says Nick Wallin, Crushing and Screening Specialist at DMI with similar comments coming from the customer. "The machine is well laid out and the operators have found nothing they dislike about the machine. It is quick and easy to adjust the CSS, and the big reduction capability is a huge benefit to them.'



With this launch, Sandvik Mobile Crushers and Screens reaffirms its leadership in providing innovative, efficient, and reliable solutions for rock processing. Enhance your operations with the UJ313 — where innovation meets efficiency.

The UJ313 is available to order now in North America, Canada and selected markets in Europe. Find out more at rockprocessing.sandvik

### Crushing and screening is an easy job.....

Maybe so if you are working on clean, easily processed materials. This was not the case for Yorkshire based Utley Plant Hire when they were asked to supply a machine to process hundreds of tonnes of material which had been tipped as a waste product at a recycling centre on the outskirts of Manchester.

Operating a state-of-the-art wash plant, cleaner material was screened and cleaned to provide a wide range of recycled aggregates whilst the pile of material facing Tom Utley was gradually getting larger and larger. After weeks and weeks of trials with a range of jaw, and impact crushers, with very little progress being made thanks to the material's high soil and clay content, the site was getting ready to forget the potential recycling of this material. "We were getting a lot of clogged up equipment!" Tom explains. "I scoured the market looking for alternatives and whilst I found some really large-scale kit which was well out of our price range and too big for the site, we found a potential solution in the EvoQuip Caiman 150 from Molson Green."



The Caiman 150 is one of 33 models of compact crushing and screening equipment designed and built by Terex in Northern Ireland. The Evoquip range fits into the Molson crushing and screening portfolio perfectly complementing the larger Finlay

Unlike traditional jaw, impactor, or cone crushers, the Caiman 150's design is more akin to that of a waste shredder. In fact, it does have a dual purpose of being able to cost effectively shred waste material doubling its versatility.

The compact machine weighs just 16.5 tonnes and is easily transported between sites on the back of an 8x4 hook lift. With a transport length of 8.4m and a width of just 2.5m, the Caiman is an ideal solution for operators wanting a powerful and productive compact shredder/crusher.

Once transported to site, it takes just a few minutes to set up the Caiman with the main body and conveyor extended ready for work. Powered by a Stage V, CAT C4.4 diesel, the Caiman uses a hydrostatic drive unit to provide unbeatable power to the twin shredding shafts. Material is placed into the 1.8m x 2.6m, 2.5m3 hopper where the 1.5m long, 250mm diameter, aggressive C&D shafts process the product. Thanks to the



hydrostatic drive, the torque rating of each shaft is an unbelievable 80,000Nm allowing them to tackle any material with ease. Thanks to the variable speed of the shafts, controlled by the remote control in the excavator operator's cab, the material is steadily worked on. The asynchronous crushing action ensures the shafts continually work the material ensuring production is maximised. Whilst the material prior to processing was only fit for landfill, following being worked on with the Caiman, the material resembles a stabilised product which can then be fed into the adjacent wash plant. "Where the conventional crushers we tried were producing around 50 tonnes per hour because of the regular blockages, the Caiman is consistently producing in excess of 120 tonnes per hour." Tom commented. "We have now been



#### **Crushing & Screening**

able to turn a useless material into one which can be effectively recycled fulfilling our client's request and further removing material destined for landfill."

Handling concrete, brick, stone, clays, and other materials often found in street work excavations puts a strain on the shafts, requiring them to be regularly inspected and rebuilt every couple of weeks. "There is always a downside in finding a solution to a problem and with the Caiman in this material is the issue of the wear on the shafts." Tom explains. "We have factored this into our daily inspection and maintenance regime and have found that whilst the wear and tear is slightly higher than we would get from crushing a cleaner material, the financial and environmental benefits gained by the client massively outweigh the added cost of repairs. There is also a huge benefit with the design of the crushing chamber and the shaft mounts that help reduce downtime. We can swap out a set of shafts in about an hour replacing them with a set we have refaced keeping the costs and downtime to a minimum. This also means we can move the Caiman onto other material quickly if it is required with just a change of shafts."

Such has been the success of the first Caiman that Tom has quickly invested in a second machine to capitalise on the versatility and productivity of the machine. "We have received great feedback on the Caiman, and this made it a simple choice to add a second machine." He commented. "It is such a good design and easily maintained, it is a credit to the manufacturer. Having the backup we receive from the team at Molson has also made it an easier decision as we find them to be very proactive in keeping the customer happy and the machines running."







#### **Omega Crushing and Screening's** electric jaw crushers offer simplicity, fuel savings and low emissions

Hailing from County Tyrone, Northern Ireland's 'home of crushing and screening', Omega Crushing and Screening has developed a range of plug-in, dual power, electric-drive jaw crushers which deliver reliability, fuel savings and low/zero-emissions operation.

#### Simple design

The Omega project was conceived when the team became aware of an interest in the market for a more simply-designed machine which contained fewer complex electronic and hydraulic components, and which would be straightforward to both operate and maintain.

While the Omega machines themselves are powered by either the mains electrical supply or an on-board generator, all of their main components are also electrically driven, such as the head and tail drums of the conveyors and the motors that run

Anthony Carlin, Technical Support Director, elaborates on the crusher's simple design. "Many quarry machines today have become very high-tech, whereas the user often wants a simple, user-friendly machine. The control panel is very straightforward – there are no parameters or PLCs that you need to look at. It also uses a three-phase electrical system which is quite easy for electricians to work on. We have also done away with the complicated hydraulic toggle tensioning system on the crusher and gone back to the single drawback rod tensioning system. This, combined with hydraulic wedge adjustment makes it simple and reliable", he says.

#### Fuel savings and reduced emissions

With other manufacturers now offering diesel-electric hybrid machines, Omega Crushing and Screening has chosen to take the next step in this direction and make its offering fully electric. The crushers can be plugged into the power grid and run without any diesel power input. Alternatively, when an external power source is not available, the wheeled and tracked models share a dual-power option. This means the machines can run off an onboard 220 kVa powerpack with a Stage V/Tier 5 Deutz engine.

Among the benefits of electric power is the ability of the machine to run without producing exhaust gases. Sales Director Colin Daly describes how the clean-running crushers have found a niche with some customers in urban applications. "As all three models in our range can run on mains electricity, all three are being used in metropolitan areas where emissions are an issue. For example, we recently sold a machine in Bulgaria. The company that bought it was going to work on a government project where particular emissions targets had to be hit. Our machine was a perfect fit as it could work on mains power and produce zero emissions", he says.

Another strength of the Omega machines is the dramatically lower fuel consumption they offer in comparison to conventional hydraulic machines. When running on mains electricity, fuel burn is reduced to zero. Even when using the onboard diesel generator, the J1065 range consumes fuel as low as 10 litres per hour, a saving of approximately 10-12 litres versus a similar hydraulic-drive machine.

Lastly, the electric drive is capable of operating efficiently in the world's most extreme climates. Omega has recently





completed a sale of a machine to the United Arab Emirates. where daytime temperatures can exceed 40°C and hydraulic machines can only run at night. In contrast, another Omega customer is operating a crusher in northern Norway, where lows of -20 °C are experienced.

Omegas range consists of Tracked, Wheeled and Static Jaw Crushers Launching later this year the range will now expand to include Cone Crushers and Screens.

Omega currently has a strong presence worldwide and some of the major markets they currently have presence include UK, Europe, USA and South America. Omegas emphasis on quality and service has secured them strong relationships globally with their partners.

Omega recently won the Best in Quarry Equipment Manufacturing at the Machinery Movers Industry Awards 2024! This is a huge honour to be recognized as an industry leader in the crushing and screening sector. A huge thank you to our amazing team, customers, and partners who continue to support us every step of the way.

FOR FURTHER INFORMATION CONTACT: Aine Kelly aine@omegacrusher.com www.omegacrusher.com +44 (0) 77 34451014

## **Exhibit or Explore? Making Smart Trade Show Decisions**





In my experience, the answer is rarely straightforward. International trade shows shouldn't necessarily replace domestic events but can complement them if approached strategically. UK trade shows often provide excellent networking opportunities and access to a highly concentrated market. Exhibiting at home can also help businesses refine their messaging and tactics before taking them to a broader, more complex international stage. Conversely, global trade shows can open doors to partnerships and business opportunities that might not exist domestically, but only if you've thoroughly researched their relevance to your objectives.

With thousands of trade shows happening annually across the globe, deciding where to exhibit can be a daunting challenge for any business. As an event management professional with over 30 years of experience working globally across corporate and trade events. I've seen firsthand the complexities companies face when determining whether a trade show will deliver a return on investment or simply add to their marketing expenses.



One of the biggest hurdles is aligning a trade show's audience and objectives with your company's goals. It's not uncommon for businesses to choose events based on their reputation, size, or location without fully understanding whether the attendees are their target audience. While some shows boast tens of thousands of visitors, the question remains: are those visitors decision-makers or influencers in your market? Exhibiting at a trade show requires significant investment, not only in stand space and design but also in travel, staffing, and pre- and post-show marketing. Without the right audience, that investment may not pay off.

The decision becomes even more complex when considering international trade shows. The global stage offers enticing opportunities to expand your brand presence and reach new markets. Shows in Europe, the Americas, and Asia often attract a diverse, multinational audience. However, they also come with additional logistical challenges, cultural considerations, and higher costs. Moreover, many companies grapple with the question of whether these global events offer more value than the trade shows available at home in the UK.

Walking a trade show instead of exhibiting can sometimes be a smarter choice. Attending as a visitor allows you to assess the event's atmosphere, gauge competitor presence, and understand attendee demographics. It's a low-risk way to determine whether the show is worth your investment in future years. Walking the floor also provides invaluable insights into the latest industry trends and innovations, which can inform your marketing strategy and product development.

#### Final thoughts...

Whether at home or abroad, trade shows remain a powerful tool for businesses, but only when approached with a strategic mindset. Make informed choices, and your efforts will undoubtedly lead to stronger connections and greater success in your market.

If you're navigating this decision and need guidance, let's start a conversation. With decades of global event management experience, we'd be happy to share insights and help you make the most of your trade show strategy.

#### Find your centre: Keeping conveyor belts on track

#### By Andrew Timmerman / Global Engineering Manager / Martin Engineering

The moment a conveyor belt begins to wander, the safety and productivity of the system quickly degrade, and the cost of operation rises. Even a slight belt misalignment can lead to a variety of issues, from small annoyances to full-blown catastrophes involving a conveyor system.

A misaligned belt can also come in contact with the stringer, causing fraying, shredding or splice damage. If this condition isn't noticed right away, great lengths of valuable belting can be destroyed, and the structural steel itself can be damaged. In fact, a high-speed belt edge rubbing on the support structure can cut through steel mounts with surprising speed, leaving a razor-sharp edge that poses a safety risk. [Fig. 1]



Figure 1 — Contact with the support structure can cause serious belt damage. Copyright  $\ensuremath{\text{@}}$  Martin Engineering 2025

Further, a compromised bracket or support can cause a catastrophic idler failure, which could damage other components of the system. All of these consequences of mistracking result in added expenses, higher maintenance and reduced efficiency.

Senior Product Specialist for Martin Engineering, Dave Mueller, points out that beyond the many causes for mistracking, the belt training system that came with the conveyor may in some cases actually worsen the problem. "We're seeing increased belt speeds and greater cargo loads across most industries," explained Mueller. "But some systems are equipped with belt tracking devices that aren't able to handle those higher thresholds. We often see OEM trainers tied off with rope or chain in an attempt to drive a belt back into line."

In the vast majority of cases, mistracking is a problem that can be corrected. Belt behavior is based on a set of principles, which serve as the guidelines for "belt training." Training a belt is the process of adjusting the conveyor structure, rolling components and load conditions to correctly center the belt. Wandering is prevented by first understanding the basic patterns of belt behavior and then following established procedures to carefully align the structure and components to correct any fluctuations in the belt's path.

#### **Mistracking Indicators**

Belt drift can begin in any part of the conveyor system, and identifying mistracking is the first step toward correction. All of the traits listed below could be indicators of mistracking.

• Edge Fraying – Probably an indication that the belt is

- rubbing on the conveyor frame at some point, degrading the edge, reducing the usable width and increasing the chance of a fire.
- Excessive spillage Could mean that one side of the belt has drifted higher on the trough angle, allowing cargo to discharge along the belt path.
- Idler fouling An off-center load and uneven belt plane can foul idlers. Bearing abrasion can then cause the idler to seize, and the ensuing friction against the running belt can erode its coating and increase the risk of fire.
- Off-center at head or tail pulley This type of drift can lead to a fast-moving belt coming in contact with the conveyor stringer structure. There is also a chance of splice failure, which puts the entire system in jeopardy of the fast moving belt detaching and causing a serious injury to workers in close proximity.
- Lack of tail pulley protection On many systems, the belt collects lumps of spilled material on the non-carrying side.
   If these objects are not removed, they can become trapped between the tail pulley and the belt, causing mistracking and often doing significant damage to both.
- Uneven discharge As the belt drifts to either side of the head pulley, the belt cleaners do not properly clean the entire surface, causing excessive carryback. Material collects on the pulleys and structure, fouling the return side of the belt, resulting in slippage, lost product and other negative effects.
- Uneven loading If the belt path leading from the tail
  pulley into the loading zone is uneven, the cargo can be
  loaded off-center and cause excessive spillage. This may
  also be caused by inadequate transfer point design. [Fig. 2]

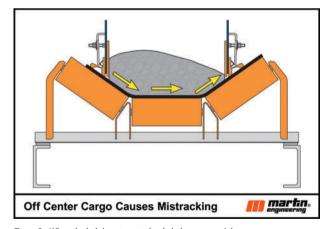


Figure 2 - When the belt is not center-loaded, the cargo weight pushes the belt toward the more lightly-loaded side.

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#### **Identification Begins at The Head Pulley**

Starting at the head pulley, the belt should also be inspected for cupping, bow/camber (a long curvature) or crooked splicing. When observing the empty belt running over the head pulley, a cambered belt will drift to one side in the middle of the camber and then slowly return to center as the belt travels through the head pulley. If a splice is crooked, the

#### Quarrying

belt's path will jump quickly to one side as the splice travels across the pulley.

If it is discovered that these factors are the cause of mistracking, adjusting the conveyor's rolling components will not correct the issue. The only options are either replacing the belt, or -- in the case of crooked splice(s) -- re-splicing the belt, assuming there is enough extra belting in the take-up system to allow removal of the faulty splice section.

During the observation procedure, if the belt moves to one side and stays there, the problem may be one of three things: the head pulley lagging is not consistent, the last few carrying idlers prior to the pulley are out of alignment or the head pulley itself is not properly adjusted.

#### **Causes**

Mistracking just after the head pulley on the conveyor's return has two main causes. The first might be that the lagging is missing on one end of the pulley, so the pulley's diameter is off-center, placing uneven pressure on the belt and causing it to wander. If this is not the case, then the belt cleaning system may have been mounted slightly askew, putting greater pressure on one side of the belt and pulley. This uneven friction can also lead to mistracking.

Once operators and maintenance professionals properly identify the type of misalignment, they can then seek out the cause. "We've observed that there are three groups of common causes for mistracking," Mueller pointed out. "One is a fault with the belt or splice, another group is the conveyor's structure, components or environment, and the last is due to improper material loading."

Belt and Splice- If the belt is poorly manufactured or stored improperly, it can bow or camber. Poor installation of a vulcanized or mechanical splice can result in a splice that causes belt tracking problems. Exposure to the elements or to chemicals can degrade the carcass (plies or cords) and the cover of the belt. Faults and damage caused by mismatching the belt to the application and/or operating environment can require frequent replacement. [Fig. 3]



Figure 3 – Contact with the structure can break mechanical splices with expensive consequences. Copyright @ Martin Engineering 2025

Conveyor Structure - Inaccurate alignment of the conveyor stringer structure can have subtle but lasting effects on the belt's performance. Structural misalignment can happen due to age, bumped by machinery, affected by seismic activity, or ground settling.

Outdoor conveyors - High winds require "wind loops" to keep the belt in line. Exposure to extreme temperatures on one side of the conveyor can make components expand, causing changes in friction.

Improper Loading - The load's center of gravity will seek the lowest point of the troughing idlers, so if the belt is not center loaded, the weight of the cargo pushes the belt toward the conveyor's more lightly-loaded side. This can be corrected by installing a central loading transfer chute or by using deflectors, grids or chute bottoms that can be adjusted to correct the placement of the load on the belt.

#### **Belt Training**

A common procedure to correct the wandering belt is to slightly adjust the return and carrying idlers against the direction of the mistracking. Unfortunately, the approach does not work on reversing belts. An even more serious consequence is that over time a number of the idlers may be misaligned, "fighting" each other to correct the alignment. [Fig. 4]

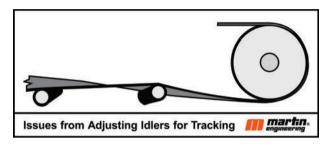


Figure 4 - Adjusting idlers for tracking can make correcting the belt for changes in speed or material harder later. Copyright © Martin Engineering 2025

When idler training is not successful as a long-term solution, operators may be faced with a situation where the training procedure is repeated on a frequent (sometimes daily) basis. At that point, managers should consider installing some form of engineered training solution to mitigate the problem. [Fig. 5]

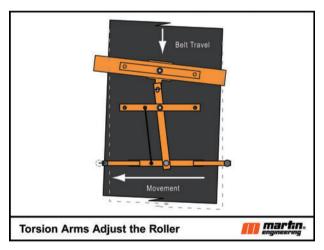


Figure 5 – The Torsion Arms sense changes in the belt path and adjust the roller to compensate. Copyright © Martin Engineering 2025

Engineered training solutions are devices that sense the position of a belt and, through a mechanism or geometry change, actively adjust its path. Some of the most common types include:

Belt Misalianment Switches - The wandering belt pushes a lever arm and activates a switch, which either sets off an alarm or stops the system. Costly downtime can result from these systems.

Vertical Edge Guides - Positioned perpendicular to the belt's path to keep the edge away from the conveyor structure and should not be used to compensate for persistent misalignment problems. Most practical on short, low-tension systems and not particularly effective on thin belts, operators have experienced belt roll over on itself.

#### Quarrying

Vee Idlers and Rollers - Set on both the cargo side and return side of the belt, these use a trough configuration and edge brackets that rely on a centering force to correct the belt path, which can add stress on the belt and lead to damage. These systems are more expensive and require more maintenance than a conventional return idler.

Crowned Pulleys – The raised portion of the pulley (the crown) touches the belt first and the outer sections of the belt on both sides produce a force driving it toward the center. [Fig. 6]



Figure 6 - This roller tracker uses a unique ribbed lagging made of durable polyurethane to increase performance Copyright © Martin Engineering 2025

Dynamic Belt-Tracking Systems – They use the force of the mistracking belt on an arm that moves an idler, creating a steering action that directs the belt back into the center.

In-Line Sensing Roll Trainers have vertical guide rolls that are mounted on both sides of the belt, in line with the roller, with the centerline running through the idler's pivot point. Movement of the belt against either guide roll causes the roll to move in the direction of the misalignment, pivoting the entire idler. [Fig. 7]

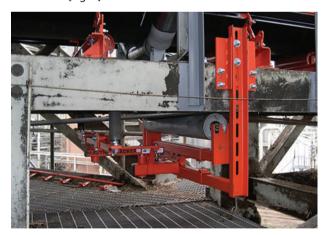


Figure 7 - The in-line sensing roll trainer has a carrying roll on a central pivot bearing with vertical guide rolls mounted on both sides. Copyright © Martin Engineering 2025

Leading Sensing-Roll Trainers - Employing either a pivoting carrying roll or troughing set, short arms on both sides of the frame are positioned in advance of the pivoting roller and end in guide rolls located 25 to 75 millimeters (1 to 3 in.) from the belt edge.

Torsion-Spring Trainers – These improve upon the leading sensing-roll trainer design by removing one sensing roll and incorporating a spring into the pivot, which keeps the one remaining sensing roll in constant contact with the belt edge.

Multi-Pivot Belt Trainers use longer arms than other designs, positioning the guide rolls further from the pivot roller, as well as closer to the belt edge. The closer proximity allows guide rolls to sense very slight misalignments and make immediate corrections. Rather than waiting for a powerful mistracking force, the longer arms require considerably less force to move the pivot roller. The result is better correction with no pinch points and less wear on conveyor and tracking equipment, for a longer and more efficient service life. [Fig. 8]



Figure 8 - Multi-pivot belt trainers use a torque-multiplying system to improve belt path correction.

Copyright © Martin Engineering 2025

#### **Total Conveyor Analysis**

"Installing trackers is the economical solution, but operators should do a full analysis and consider also addressing other causal issues," he added. "By focusing solely on belt alignment, plant personnel may miss other opportunities to increase production and relieve some of the burden on their system.'

Off-centered loading is a major cause of mistracking. To remedy these issues, some conveyor accessory manufacturers offer well-engineered modern equipment such as loadcentering transfer chutes, high-impact cradles, adjustable slider cradles, an assortment of cleaner blades created for specific applications and redesigned chute box technology.

Keeping the belt centered and moving guickly is the key to high production, a low cost of operation and a safer workplace. "Misalignment causes downtime and costs money," Mueller concluded. "But nothing causes more downtime and expense than a destructive belt fire or other catastrophe as a result of inattention to mistracking problems.



#### Andrew Timmerman / Global Engineering Manager / **Martin Engineering**

Andrew Timmerman earned a Mechanical Engineering degree with a minor in Applied Mathematics from Northern Illinois University. He joined Martin Engineering in 2011 as a Product Development Engineer and currently holds the position of Engineering Supervisor. Timmerman's primary responsibilities are in R&D and Engineering, where the bulk of his time is dedicated to the mechanical design of products and processes, as well as integration of electronic components into the company's mechanical systems to continue development of "smart" products for bulk material handling applications.

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### Liebherr: The King of Rock

Liebherr emerged as first choice for an expanding quarry business as it searched for a single flagship excavator to replace a pair of ageing machines at a newly acquired hard rock operation.

Tynedale Roadstone is the quarrying and asphalt production arm of Durham-based MGL Group and operates across the north-east of England and North Yorkshire. Its recent acquisition of the stock and assets of Kinegar Quarries saw it move across the border into Scotland with the addition of two more sites, Fulfordlees and Glenfin in Cockburnspath near Dunhar



Fulfordlees is a large sand and gravel operation while just a few miles away is Glenfin, a hard rock quarry producing a range of aggregates from high-quality, high-PSV greywacke sandstone. In the wake of the takeover, both sites have undergone significant upgrading to include better welfare facilities, modernised production and improved dust suppression. One of the biggest single investments was replacing Glenfin's frontline excavators to boost productivity and reduce operating costs.

The site has never been blasted, with all material won by ripping and loading, most recently by 36- and 46-tonne excavators which, while still in operation, had passed their prime in terms of performance and reliability.

Quarry Production Manager John Laing explained: 'We decided to streamline operations by adopting the same method but using only a single machine. We compared several brands

before choosing the Liebherr R 966 and since its arrival it has demonstrated exceptional performance, easily ripping and loading the hard material.'

The new flagship machine sits on a pair of 5.69m long track frames with 600mm wide double grouser pads to give the required stability for the tough application. Track frames are fixed, although Liebherr does offer a variable gauge option to reduce transport width. As with other large excavators in the manufacturer's G6 range, the R 966 has a rounded and streamlined upper structure housing a fuel-efficient 16-litre V8 Liebherr diesel engine delivering 435hp.





Various boom and dipper options are offered on the R 966 to suit a variety of applications. Tynedale's new arrival is working exclusively on hard rock excavation so a 7m boom and 2.6m stick were deemed to be the perfect combination. Also in the specification was a hitch, bucket and ripper combination from Miller Groundbreaking to enable the excavator to operate at full potential.

The R 966 has a maximum bucket capacity of 5m3 although the customer chose a smaller 4m3 version with a width of 1900mm to match the 30t-capacity dumper currently on site. The heavy-duty bucket weighs almost 4.5 tonnes, the hitch adds a further 3.5 tonnes and that translates to an average of 14 tonnes on each pass.

#### **Quarrying**







'The narrower bucket is a good match for the truck and allows us to penetrate the material easily,' said operator Lea Laughlin. 'Even with a full bucket, the Liebherr is very stable and that helps when ripping as the extra weight allows me to put more force through the tip without the risk of the machine being pulled around.

'This new machine is much bigger and far more powerful than others we've had before and I'm excited to use all its features,' she added. 'The cab is much more comfortable than previous

machines, and the power we have now, especially when it comes to ripping the material, has impressed me so far.'

John Laing added: 'By using one larger excavator instead of two smaller ones, we've streamlined operations and reduced costs. That has increased production, allowing us to reduce operating hours while keeping up with demand.'

MGL Group operates across diverse construction specialities to reshape the built environment. These include civil engineering, demolition, earthworks, road surfacing, asphalt production, quarrying, aggregates and recycling.



#### **Opening the Doors to a Unique Training Experience**



2024 was a successful year for Certora Training one of the UK's largest training providers for specialist workplace equipment training, assessments and qualifications. They continued to expand their training services and launched several training initiatives including their first eLearning course. Developed inhouse by their specialist technical teams for any manager who needs a revision guide for resitting their CIWM **Continuing Competence test.** 

Certora's success is driven by a commitment to provide relevant training and support services for UK businesses. They work closely with their customers, seeking opportunities to enhance their training services inline with the needs of employers and their employees.

2025 plans to be another exciting year for Certora as they launch a calendar of public courses with an opportunity to train at one of the country's most credited training venues, Tarmac's National Skills and Safety Park, based in Nether Langwith, Nottinghamshire. With over 18 years' experience of working for Tarmac delivering training, this alliance shows true collaboration to provide access to quality training for all.

Emily Bonsall, Managing Director of Certora comments. "Not every business has the space or equipment onsite to accommodate training at their premises. So, when the opportunity to utilise Tarmac's first-class, award-winning training facility came up, Certora jumped at the chance."

Emily continues "This facility has a lot of offer, from a high equipped maintenance area and an occupational health room, to multiple items of heavy plant and a specialist road surfacing area. Theory based courses will be delivered in one of the many classrooms and specialist training providers will be invited to deliver some of their highly regarded training courses."

Matt Gibbs, Senior Manager - Operational Competence at Tarmac explains; "This park was founded on the principle of investing in people, with a focus on practical application. The Park gives a unique opportunity to tailor learning delivery to the individuals style. With over 6000 internal visitors per year, our workforce pass through here on their route to competence and we are delighted to be able to extend this to outside our business, via Certora."

This facility is available to all of Certora's customers regardless of their industry sector. Public training courses will be available to book from late January via the Certora website and for those customers who would like to utilise the facility and the equipment, they will be able to arrange closed courses for their

For a full list of courses, visit the Certora website for more details.

















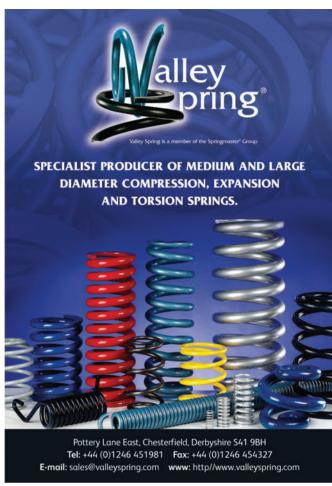


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Dewatering & Site Water Management. **RECYCLING** - Open topics for this issue **BULK HANDLING** - Open topics for this issue

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