

SPECIAL
FEATURE -
AGGREGATE
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Global News & Information on the Quarrying,
Recycling & Bulk Materials Handling Industries

January/February 2024 | Issue 84



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Crushing and Screening - With Rubble Master and Red Knight 6 Ltd

Crushing

Austrian based Rubble Master are leading the impact crushing world with their range of RM crushers, available from UK distributor Red Knight 6 Ltd. The range is led by the RM120X, delivering maximum efficiency and simplicity for use on a wide range of applications.

The RM120X features a range of solutions to make the life of the operator easier and safer, whilst also delivering cost benefits back to the business through intelligent management of the machine, based on the amount and type of material being crushed.

The RM Operations Assist and RM XSMART functions enable the operator to keep track of the machines performance from the excavator cab, with live updates on engine performance, fuel consumption and machines performance all clearly visible via a lighting system on the outside of the machine.

"The Rubble Master impact crushers are industry leading for a reason. Built to the most exacting standards, we have sold over 130 machines into the market in the last 5 years and those customers know they can trust the RM range to get the job done. The RM120X is the next evolution in the range. The largest of the impact crushers it also offers simplicity of use, maximum efficiency, and safety for the operator via the Operations Assist," said Paul Donnelly, Managing Director of Red Knight 6 Ltd.

The Rubble Master range are highly mobile, versatile, and powerful machines are ideal for crushing natural rock (riverbed material, basalt, limestone, gypsum, granite) and for recycling rubble, asphalt, concrete, glass and production waste.

The range consists of 5 machines, ranging from the RM 60 to the full spec RM120X. The hallmark of all 5 crushers is simplicity and efficiency, meaning short set up times and ease of use, getting RM crushers to work quickly.

| Model | Output (material dependent) | Feed material size | Inlet opening | Weight |
|-----------|-----------------------------|-----------------------|---------------|---------|
| RM 60 | Up to 80 tph | Edge length max 500mm | 640 x 550mm | 12000kg |
| RM 70GO! | Up to 150 tph | Edge length max 600mm | 760 x 600mm | 19500kg |
| RM 90GO! | Up to 200 tph | Edge length max 650mm | 860 x 650mm | 23600kg |
| RM 100GO! | Up to 250 tph | Edge length max 750mm | 950 x 700mm | 29000kg |
| RM 120X | Up to 350 tph | Edge length max 850mm | 1160 x 820mm | 35120kg |



Screening

Rubble Master have built their success on their market leading impact crushers, but their range of tracked scalping and sizing screens continue to gain traction in the market.

Run out of the RM Dungannon site, the factory sees to bring the expertise from their crushers to the range of screens. There remains close cooperation in product development between the RM headquarters in Linz and RM Dungannon, driving excellence across the ranges.

The range of scalping screens has 4 machines in total, from the incredibly compact but robust HS3500M through to the largest screen, the HS11000M. There is also an extensive range of sizing screens with both two and three deck options, depending on your requirements. The MSC8500e also offers full hybrid drive capability, allowing you to limit fuel costs. It is something that has long been a feature of the crushing machines, but the same technology has been incorporated into the screeners, another example of the two sites working closely together for the benefit of customers.

"We completed a number of deals across both ranges and the feedback remains fantastic. Customers really see the quality of the machines, from build to operation and both ranges



consistently exceeded expectations," said Paul Donnelly, Managing Director at RK6. "Efficiency of operation is key but the ability to reduce fuel costs and have a positive environmental impact is crucial. We have seen a genuine improvement across both screening ranges and our customers are benefitting from that as well," finished Paul.

| Models Compared | HS3500M | HS5000M | HS7500M | HS11000M |
|-------------------------------|--------------------|-----------------|-------------------|-------------------|
| Screenbox surface | 2743 x 1220 mm | 3660 x 1430 mm | 4880 x 1525 mm | 6100 x 1830 mm |
| Hopper volume | 3.84m ³ | 6m ³ | 8.7m ³ | 8.7m ³ |
| Oversize belt discharge width | 1050 mm | 1300 mm | 1600 mm | 1600 mm |
| Basic machine weight | 17000 kg | 24000 kg | 35000 kg | 43000 kg |



| Models Compared | RM MSC5700M -2D | RM MSC8500 -2D | RM MSC8500 -3D | RM MSC8500e (Hybrid drive) | RM MSC10500 -2D | RM MSC105003 D |
|--------------------------|-------------------|-------------------|-------------------|----------------------------|-------------------|-------------------|
| Screenbox surface | 3660 x 1525mm | 5485 x 1525mm | 5485 x 1525mm | 5485 x 1525mm | 6700 x 1525mm | 6700 x 1525mm |
| Feedhopper volume | 9.2m ³ | 9.2m ³ | 9.2m ³ | 9.2m ³ | 9.2m ³ | 9.2m ³ |
| Main conveyor belt width | 1050mm | 1050mm | 1050mm | 1050mm | 1050mm | 1050mm |
| Standard weight | 26800kg | 32000kg | 34500kg | 32000/34500kg | 33000kg | 35500kg |



Electrification

A selection of the RM range of crushers and screens are available with hybrid or fully electric drive systems reducing your energy consumption and overall operating costs. As well as reduced costs reducing costs emissions will be limited, ideal for inner city operation as noise will also be reduced.

In addition, the range is also equipped with X Smart, enabling even greater efficiency of operation.

For more information visit – www.redknight6.co.uk



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Welcome to issue 84

Welcome to our first edition of 2024 - issue 84.

In this issue 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 will have extra circulation in two issues for extra exhibition distribution – Hillhead & RWM.

Onwards into 2024:

If you're starting to look at marketing in 2024 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.

Equally important is our free weekly e-newsletter which is distributed to our readers and can be found on-line here:

<https://hub-4.com/pages/newsletter>

Finally, our second edition of 2024 will focus on **Aggregate Washing & Screening**, and I welcome any editorial contributions for this issue.

John Edwards

Editor

MARCH-APRIL 24

AGGREGATE WASHING & SCREENING

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

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

RECYCLING - Open topics for this issue

BULK HANDLING - Open topics for this issue



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



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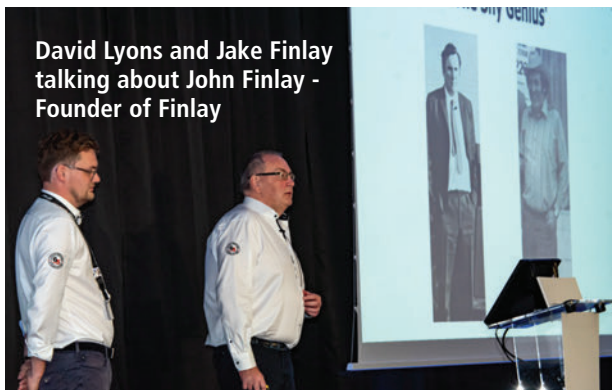
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Finlay Hosts World Dealer Conference Celebrating a 65 - Year Strong Heritage with a Strong Future



David Lyons and Jake Finlay talking about John Finlay - Founder of Finlay



Al Peasland, Head of Technical and Innovation Partnerships at F1 Williams Racing

Finlay®—a pioneering force in the mobile crushing and screening industry—recently welcomed approximately 200 guests from across Europe, North and South America, Asia, Africa, and Australia to its World Dealer Conference in the stunning backdrop of Barcelona, Spain.

The event served as an opportunity for Finlay to commemorate its remarkable 65- year-strong heritage and its steady commitment to a strong and innovative future.

"A pivotal focus of this year's conference was to reinforce the family mentality that has been at the heart of Finlay throughout our 65-year history," said Matt Dickson, Business Line Director for Finlay. "Finlay is more than just a name or a logo; it is a symbol of excellence, innovation, and integrity. It represents the hard work and steady commitment of our team and our distributors around the world. It is a legacy that we have built together, one machine at a time and one satisfied customer at a time."

The conference was marked by a series of informative presentations that delved into Finlay's product offerings, operations and quality management, future solutions, digital journey, aftersales support, marketing strategies, global parts support, rental opportunities, and the added support Terex Financial Solutions brings to Finlay customers.

A captivating keynote address by Al Peasland, Head of Technical and Innovation Partnerships at F1 Williams Racing (formerly responsible for the fastest pit change ever) and previously spent a decade as a senior member of Red Bull. His inspiring words resonated with the Finlay guests, emphasising the significance of continuous innovation, the pursuit of engineering excellence, fostering collaboration and engagement, and, most importantly, the spirit of teamwork.

The guests were not only treated to a wealth of valuable information but also enjoyed a warm welcome reception during the first evening of the conference at an impressive rooftop location overlooking the beautiful Barcelona harbour.



Finlay team members participate in break out session with distributors

The second night of the conference was an awards gala dinner to celebrate achievements of the Finlay global distribution network. The special evening took place at the La Llotja de Mar, a stunning 8th century building that is considered one of the finest neoclassical buildings in Barcelona. As the conference ended on the third evening, guests enjoyed a memorable experience with catamaran tours along the picturesque Barcelona coastline at sunset.

"Just as important as our Strong History, Strong Future, is strong relationships between our distribution network and our engineering, production, and support teams at our manufacturing facility. Sustaining these is integral to success. Our World Dealer Conference not only celebrated our storied past but also fostered a sense of togetherness and mutual growth, laying the foundation for a bright and innovative future ahead," concluded Dickson.

Quarry Manufacturing & Supplies installs 250tph aggregate plant in Ghana



A 250tph hard rock aggregate plant has been installed by Quarry Manufacturing & Supplies (QMS) in Ghana. Located just outside the capital city Accra, the equipment for the granite quarry has been designed and installed by QMS experts to produce a variety of material sizes for use on infrastructure projects throughout the country.

Located in the heart of England, Quarry Manufacturing & Supplies Ltd. (QMS) has since its formation in the 1980s grown to be one of the UK's leading manufacturers, suppliers and providers of aftermarket support of crushing, screening and stockpiling equipment. With a hard won reputation for providing the equipment, parts and services the industry needs, QMS has recently finalised construction of a bespoke granite plant located just outside the Ghanaian capital of Accra. QMS was tasked with designing, installing and then supporting the new plant, which is the latest of the company's installations in Africa.

Full equipment array

"The plant for the Ghanaian granite quarry has been designed and built to produce a variety of aggregate sizes at a production rate of 250tph. Our equipment has to not only be able to meet the quarry owner's production targets, but also consistently produce the sizes required to make the quarry a profitable ongoing concern," explains Quarry Manufacturing & Supplies managing director Jonathan Beck. "Furthermore, although we will be supporting the quarry throughout its operational lifetime, the plant has to be hard wearing and easily maintained by quarry staff."

The plant has been designed and installed to produce six product sizes: 0-5, 6-8, 9-12, 13-16, 17-22 and 23-28mm from an initial feed size of 650mm. The feed material initially goes to the primary jaw crusher station. This consists of a QMS 1,200mm x 750mm jaw crusher - JB-1275 - with hydraulic clamping and adjustment. In addition, the station consists of a GF 1043 grizzly feeder, a feed hopper and support structure. A primary surge tunnel with vibrating feeder feeds the material

to the secondary crushing station which consists of a B3-XC secondary cone crusher with corresponding support structure, including walkways.

Following secondary crushing, the material is fed to the first screening station where an SVI-C02M 1.83m x 6m double deck inclined screen produces the first three products. Any oversize is now fed to the tertiary feed hopper, which includes a vibratory feeder, before being fed to the tertiary crushing stage. This is undertaken by a QMS B4 cone crusher.

Cone crushing excellence

As perhaps the most crucial part of the process, the choice of cone crusher was vital. The rugged yet precise and productive QMS B-Series cone crushers feature a unique hydraulic system which provides automatic overload protection by allowing the head assembly to drop, permitting the passage of tramp iron and other non-crushable material. The system then automatically returns the head assembly to its original position. The unique design of the hydraulic system means the crusher operates at a definite setting with less setting drift and greater stability throughout the circuit. The crusher setting is instantaneously maintained even after passing a piece of uncrushable material.

"A blend of high motor power, large eccentric throw and increased speed give the B-Series greater capacity than other crushers of comparable size, whilst the truly modern design creates excellent product shape and can be configured to maximise production of premium single sized aggregates," explains Jonathan.

Following the tertiary stage of crushing, the material is fed along the QMS supplied and installed conveyors to the second screening stage. This consists of an SVI-C03M 1.83m x 6m triple deck screen to produce the final material sizes. As well as providing all support structure, including walkways, QMS designed and installed all the conveyors as well providing an electrical package which included all electrical panels, cabling, container, as well as QMS's own in house full plant automation and sequencing system.

Given the importance of the granite quarry to Ghana in supplying the material for the countries urgently needed infrastructure developments, equipment choice was essential. Explaining why the Ghanian's chose Quarry Manufacturing & Supplies, Jonathan says: "We believe we offer a range of crushers and screens that are the match of anyone else in the market with regards to the cost-to-performance ratio. As we are able to support our equipment with our own engineers in Africa and have the industry knowledge to adapt any plant to suit the quarry, mine or aggregate plant's unique requirements, we believe that our products and service provide the ideal solution whatever the size of operation."

Just the beginning

With the Ghanian quarry now approaching full operational efficiency, and the country in need of the aggregates that the QMS equipment will help produce, the installation is only the first of many such plants QMS is set to deliver in Ghana and Africa. "Quarry Manufacturing & Supplies Ltd. has a reputation for equipment and plant design excellence. Our crushers, screens, feeders, conveyors, process control systems and other associated equipment are now used throughout the world in some of the most demanding of applications," explains Jonathan Beck.

Jonathan adds that the actual installation of a quarry plant is just a primary step as QMS prides itself on supporting its equipment wherever it is found in the world. "We don't just make and install the equipment; we also support and upgrade all our plants, as well as provide aftermarket care on equipment made by other manufacturers. It is our belief that when a QMS plant becomes operational that's only the start of the story. We provide the expertise, know-how and drive to keep customers' operations working at full efficiency as well as carrying a full parts inventory for maximised uptime, even in countries many miles from the UK such as Ghana.

"All at QMS take pride in making sure that our customers are able to be as efficient and productive as possible as long as there is a requirement to do so," concludes Quarry Manufacturing & Supplies managing director Jonathan Beck.

Finlay Welcomes Columbus Equipment as Authorized Distributor for Kentucky



Finlay®, global pioneers in the crushing, screening, and conveying industry, proudly announces Columbus Equipment (Columbus) as the authorized distributor for the state of Kentucky. This collaboration is a significant milestone in the rapidly expanding Finlay US distribution network and reinforces their commitment to providing world class tracked crushing and screening equipment in the state.

Columbus have earned a solid reputation for their commitment to excellence and laser focused customer-centric approach. They are an experienced distributor with over 17 years of expertise serving the materials processing and recycling industries. Their dedication to delivering service and support aligns perfectly with Finlay's values, ensuring customers in Kentucky receive expert assistance and access to innovative and proven dependable machinery.

As the authorized Finlay distributor, Columbus Equipment will market and support the full range of tracked Finlay products, including crushers, screeners, and conveyors.

"We are thrilled to welcome Columbus Equipment to the 'Finlay family' as our distributor for Kentucky," said Phil Berresford, Regional Sales Manager at Finlay. "Their reputation for unwavering dedication and expertise makes Columbus the ideal distributor to serve the demanding requirements of customers. Their sales and after-market service and support teams have a wealth of experience of tracked equipment and understand the applications and challenges that customers work with on a daily basis. They will also offer training and rental services to customers."

As the authorized Finlay distributor, Columbus Equipment will market and support the full range of tracked Finlay products, including crushers, screeners, and conveyors. Their dedicated and experienced after-sales service and support teams will be on hand to support operators in achieving optimal performance and productivity of Finlay equipment.

"We are excited to represent Finlay and the opportunity it presents to provide our customers with robust, reliable and best-in-class equipment solutions," stated Mark DiSalvo, VP of Material Processing at Columbus Equipment. "This collaboration enables us to further serve the materials processing industry in Kentucky, offering customers access to Finlay's innovative equipment. We are delighted to be an extension of the Finlay team. Their expansive product line is an ideal pairing to our existing product lines and enables us to provide our customers with high-quality equipment that they can depend upon for their crushing, screening, and conveying needs.

For more information about Finlay products and services in Kentucky, please contact Columbus Equipment at: www.columbusequipmentmp.com

Warwick Ward supply more Terex Ecotec machines to the Ashcourt Group.

With strategically located sites spread through Yorkshire and the North East the Ashcourt Group has the ability to service both small, and large- scale projects.



An established fully licensed and compliant Waste Management Company:

Ashcourt have operated a busy recycling operation for the last 20 years on a 25-acre site in Hull processing general waste, wood, green waste, soil, crushed brick, concrete & inert product.

The company use a fleet of recycling machines however with some obsolete machines needing replacement the company turned to Warwick Ward to refresh the fleet.

Ashcourt already had a relationship with Warwick Ward who had recently supplied Keestrack Mobile Crushers for their quarry operations and also Case Loaders in the Northeast.



Therefore, it made complete sense to expand the relationship based on the size of the Warwick Ward business coupled with the ability to provide the back-up with their service teams, the brand itself [Terex Trommel previously supplied] had already ingratiated itself.

Terex Ecotec & Warwick Ward:

A Terex Ecotec TBG630 High-Speed Shredder along with two Terex TWH224 Material Handlers [with a further 2 going to another site] were supplied by Warwick Ward who are based in Barnsley, South Yorkshire.

Warwick Ward had earlier supplied a Terex Ecotec TDS820 Slow-Speed Shredder which will work in tandem with the new TBG630.

In 2016, Warwick Ward was awarded the UK distributorship for the full Terex Ecotec range, which further strengthened their position within the waste sector which has established a very strong working relationship with many of the UK's largest waste recycling companies.

Terex Ecotec is an industry leader in designing and manufacturing of wood processing, biomass, and recycling equipment. Terex Ecotec offers a comprehensive range of products including, trommels, slow speed, medium and high-speed waste shredders, waste handlers, metal separators, tracked stackers and recycling screens with Spaleck technology. The range of innovative machines provides efficient production, low operational costs, and ease of maintenance for each customer.

A very versatile machine:

Chris Cameron – Site Supervisor, commented, "The Terex Shredder computer system is incredible! The way it controls itself is phenomenal. As you load it will adjust itself with the feed chains guiding the material in at the feed rate. A feed wheel then lifts up to guide the material, then the rotor which is actually shredding talks to the feed wheel to control the speed of the feed.

"As we have a biomass contract with a power station the machine programme is written for this specific commodity. We also trialled several different screens to achieve the most effective production. The screen set-up is straightforward and can be achieved in under 30 minutes."

Terex TWH224 Material Handlers

Chris then went on to discuss the merits of the Terex TWH224 Material Handlers. "We chose this specific model because of its size and reach. Inside the shed, you can cover virtually all of the floor with hardly any movement of the handler.

"From an operator's view it is brilliant, noticeably quiet, and a very well thought out interior cab design, more space, better vision cameras everywhere, and a high rise up to 5.5 metres. You can clearly see a lot of thought has gone into the machine."

Richard Dixon Area Sales Manager Recycling – Warwick Ward, commented, "One of the things we do is to help the customer to adapt a specification of the wear parts to get the best out of them. One of the things we are considering is to trial different wear parts to optimise the cost of production.

"We are currently working on a project with Ashcourts and Terex as we are not just in the business of selling machines, but we are constantly searching for better wear parts that will give the customer machine longevity which is all part of the ongoing relationship."



Richard, continued, "All our installations are carried out by a Warwick Ward qualified engineer who signs off on every aspect of the machine alongside the coaching log which creates an audit trail for us."

John Holberry – Yard & Freight Director of the Ashcourt Aggregates, "From the very start our relationship with Warwick Ward has been great. Constant communication has ensured that the machines are fit-for-purpose and well maintained. We can always rely on their professional and reliable back-up."

Terex Ecotec TBG 630 High Speed Shredder:

Ecotec's TBG 630 High Speed Shredder at the Hull operation is the ultimate processing machine for medium to large scale biomass and green waste processors. Powered by a 661HP V8 Scania engine, the TBG 630 has been designed to give operators unrivalled production rates and ease of maintenance. The open fronted feeder uses heavy duty drag chains, a powerful feed wheel and an unrestricted feeder design to effectively utilise the 1,100mm diameter x 1,750mm wide swinging hammer rotor. This robust rotor comes with a wide selection of hammer designs and customisable screens which ensure end product material specification is met.

Metal contaminants are always a concern when using a high-speed machine; the TBG 630 has an intelligent screen opening system to quickly discharge such contaminants reducing the risk of accidental damage. The unique machine layout and maintenance catwalks offer unrestricted access to both sides of the engine making servicing a simple task. Industry leading conveyor discharge height of 5.1m maximises stockpile capacity and allows loader operators to easily remove processed material.

Terex TWH 224 Waste Handler:

The Terex range of waste handlers are purpose-built for the recycling industry to perform effective, high volume material handling duties in open terrain or indoor settings. Offering stability and a high load capacity the Ecotec TWH224 Waste Handler is an all-rounder incorporating turbo efficiency. With its diverse applications and near legendary manoeuvring speed, the TWH224 really does rev up the recycling business.

Generously proportioned fuel tanks and extremely durable components ensure that the waste handlers' productivity is maximised. Even when operated within an extended work radius; loading hydraulics that are beautifully smooth, yet precise and swift; structural robustness and an engine that is powerful as it is economical – the TWH224 boast features that are now intrinsic to recycling plants.





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Keenan Recycling Ltd invest in another Jenz High-Speed Shredder

Established in 2001, Keenan Recycling has grown from a garden waste composting business based near Aberdeen to become the UK's largest organic waste management company. Its sustainable food waste management service includes an integrated approach to collecting food waste and turning it into green energy through its innovative processing facility in Scotland.

Each year, the company recycles around 100,000 tonnes of garden and food waste which is then transformed into compost that is used by farmers to improve their soil. Additionally, food waste is used to create valuable biofuels which are turned into green electricity, in a successful example of a truly circular economy approach.

Keenan Recycling first hired a trommel from CRJ Services back in 2006. Since then, they have hired various machines including Slow Speed Shredders, Picking Stations, and Deck Screeners to name. CRJ has also cross hired machines off Keenan over the past 15 years, developing a strong working relationship between the two companies.

Keenan Recycling purchased their first Jenz high speed shredder back in 2008, A BA725, and since then have taken delivery of a new one approximately every three years, showing ongoing trust in the Jenz products. Grant Keenan, Managing Director of Keenan Recycling, first contacted CRJ in December 2022 about the possibility of a new shredder. Following more in-depth discussions, including necessity for increased production year on year, Keenans took delivery of the new BA926 in April 2023.

Keenan's new BA926 Jenz High Speed Shredder is fully equipped with innovative Jenz options, including Impact Protection System, to detect tramp material in the feed, a Wagner Neodymium Over-band Magnet to remove all ferrous material from the product belt, a Powerful 530HP MTU engine to allow for increased productivity and Jenz's patented Easy2 Control System to allow for offsite machine diagnostic and machine management functions.

"CRJ's Services has always been good, and I'm pleased to say that has continued when we purchased our latest



Jenz machine from them. From sourcing the right machine for us through to delivery and aftercare they have been extremely helpful. Our highspeed shredder is a critical piece of kit so it must be reliable. From parts, to servicing, to repairs, CRJ always ensure downtime is minimised."

Gregor Keenan – Director at Keenan Recycling LTD

We are delighted that we have been able to continue to fulfil Keenan's machinery needs, to ensure high quality performance, uptime, and increased productivity. It has been a pleasure working with them and we are excited to continue to do so for many years to come.

Kiefer Morgan – Area Sales Manager, CRJ Services Ltd.



STADLER completes Switzerland's largest electronic waste sorting plant

STADLER Anlagenbau GmbH, the globally active German company specialising in the planning, production and assembly of turnkey recycling and sorting plants, together with weeeSwiss Technology AG, a subsidiary of the STADLER Group, have designed and installed the electronic waste sorting plant jointly with Immark at its site in Regensdorf.

The new facility replaces an existing plant, increasing the site's processing capacity while ensuring consistent stand-out quality in its output.

"It is the largest processing plant for electronic waste in Switzerland and it must ensure high throughput and capability to process the volumes we receive," says Patrick Wollenmann, Project Manager at Immark. "We expect that with this new plant, we have laid the foundation for a successful future in terms of operational management."

The new facility features innovative design and the latest technology, and is in fact the first electronic waste sorting plant to use a ballistic separator. The plant operates in a 2-shift service with a capacity of up to 12 tons per hour, meeting Immark's requirements of greater capacity and better purity of the output. It also optimizes the recovery of printed circuit boards.

"For us, STADLER's convincing technology of the conveyor belts and ballistic separator, and their proximity to Zurich were decisive. We also appreciate very much the work of the competent project managers, the quick and constructive implementation and solution-oriented approach," says Patrick Wollenmann.

"The STADLER STT5000 ballistic separator pre-sorts the material into three different fractions. It separates the material into fines, flat plastics and cables, as well as cube-shaped material such as electronic motors," explains Jan Dollenmaier, STADLER joint Project Manager.

Innovative plant design for exceptionally high-quality output

The new sorting plant receives materials in WEEE Directive Groups 1-3 (Large – Small Household Appliances and IT Equipment) and 4 (Consumer Equipment), which are processed



positioned in line, but are also equipped with separate feeders for independent usage, which results in higher availability of the whole plant.

The flexible modular design of the plant allows the adjustment of the machines throughout the process to ensure consistently high-quality non-ferrous, ferrous, PCB, stainless steel and plastic fractions.





In the first module of the process, the infeed material is manually sorted to remove the toxins and hazardous components, as well as valuable materials such as cables, printed circuit boards and metals.

Once the hazardous components have been removed, the material is crushed in several shredders so that both the remaining hazardous components, such as batteries or capacitors, and the various recyclable materials, such as iron, non-ferrous metals and plastic, can be sorted. When selecting the shredding units, consideration was given not only to the required throughput but also to the lowest possible wear and tear and easy maintenance.

The recyclable materials are sorted out after screening using state-of-the-art magnetic technology, eddy current separation and sensor sorting technology. The iron fractions are re-sorted in a sorting cabin to ensure quality and increase the degree of purity.

The fine fraction is also processed through various sorting steps to separate the plastics from the metal compounds, which are then ground to separate the various metal granules.

Great attention was devoted to fire protection at the plant. Automated fire detection and extinguishing systems were installed after the shredding units. The detected fire source is automatically discharged from the plant process into a steel bunker via a hatch system, where the personnel can extinguish the fire and secure the fire source. The high wear and tear of the waste material processed at the new plant required specific design features such as stainless-steel wear plates to reinforce the hoppers and belts with fire retardant and cutting protection.

The plant was also designed to simplify maintenance as much as possible. All key points and motors are accessible via maintenance platforms or access ladders.

Close collaboration ensures the successful completion of a complex project

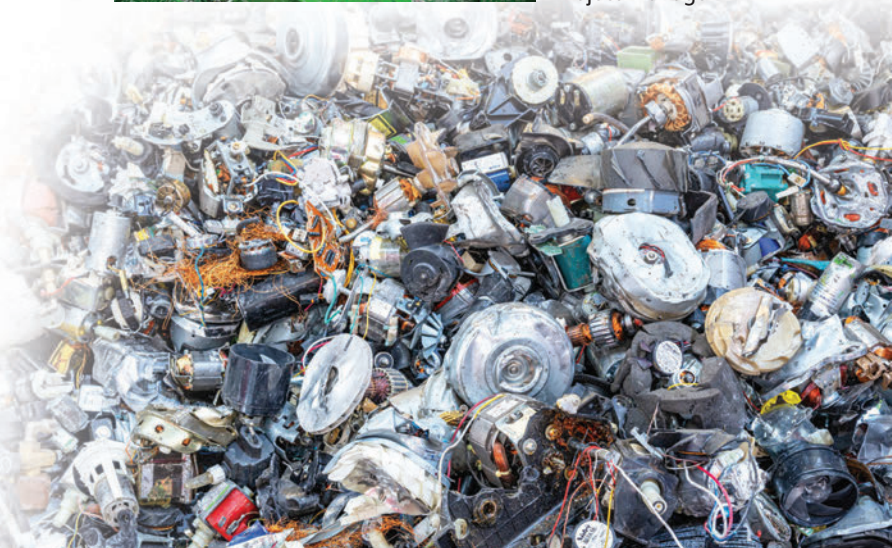
The design and assembly of the new plant presented challenges that the STADLER and Immark teams successfully resolved through close collaboration.

"In addition to the installation of the new system, the old system continued to operate. This meant that the new plant had to be built in several stages and the old plant had to be dismantled at the same time. In addition, the available space on the construction site was very limited," says Patrick Wollenmann.



The modular design of the new plant was a key element for the successful completion of the project and for the high speed of assembly: "The modular design of the individual units has limited the assembly time to a very short period. Any problems that arose during assembly were quickly identified and solved thanks to the flexibility of STADLER's employees," adds Patrick Wollenmann.

"This was a major electrical waste project, with many new machines being installed and many suppliers involved. We had a lot of new interfaces. All in all, we managed everything very nicely in cooperation with Immark's team," concludes Philipp Frechen, STADLER joint Project Manager.





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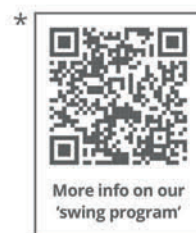
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JCB 140X wastes no more time for MRW

A leading Midlands waste recycling specialist has invested in a brand new JCB 140X tracked excavator for sorting and loading waste at its materials recycling facility.

MRW Waste Recycling Ltd has bought the new model for pre-sorting waste and loading the picking line at the company's Stratford-upon-Avon site where it recycles construction and demolition materials.

Supplied by dealer Midlands JCB, the JCB 140X's mobility, ease of use, power and operator comfort make it highly productive for this work and it is currently processing up to 70 containers per day.

MRW Waste Recycling Ltd's Managing Director Designate, Tim Croxford said: "We have been running a JCB loading shovel and Loadall telescopic handler for a number of years and have always found them to be reliable. So when we were looking for another cost effective, robust machine, naturally we turned to JCB. The JCB 140X received some very positive reviews so we took the plunge, and we're glad we did. Our operator is delighted with the ease of use and the comfort factor, while the reach of the machine is just right. The result is a highly productive machine that has further improved our operations."

Established over 20 years ago, MRW Waste Recycling is the largest skip hire company in South Warwickshire, providing reliable, cost-effective skip hire and waste collection, as well



as comprehensive recycling services. As a family-run business, MRW provides highly personal customer service together with key skills, expertise and knowledge gained throughout the years. All these things combined mean that it provides an exceptionally reliable service for a competitive price for its customers.



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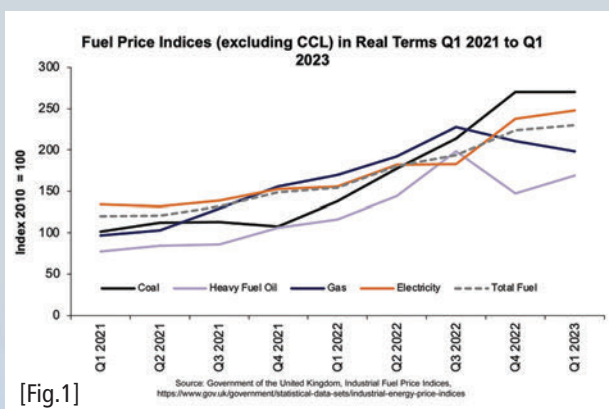
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Global efforts to improve efficiencies in recycling

Whilst ambitions for a circular economy continue to gain momentum, uncertain market conditions make it increasingly difficult to turn a profit in the recycling business. So, squeezing maximum efficiency from recycling plant operations has become essential, writes Reiner Fertig of Martin Engineering.

Prices of recycled commodities like metal scrap, plastics, aggregates, paper and cardboard have dropped significantly, yet the cost of processing recyclables has remained steady or risen due to higher energy and labor costs. Energy costs for industries across all sectors have more than doubled, almost everywhere in the world. [Fig.1]



[Fig.1]

In fact, for companies specializing in sustainable materials management, the cost of recycling equipment, manpower and energy required to process materials has risen substantially whilst markets have remained subdued and prices stagnant at best.

The impact on the bottom line is exacerbated by the kinds of challenges faced by recyclers that rarely impact producers of primary materials – recycled feedstocks can be notoriously inconsistent, frequently contaminated with unwanted objects and non-recyclables.

They are often sticky and laden with moisture, and can contain abrasive, corrosive substances, all of which give rise to an assortment of production challenges that few other sectors face to the same extent.

The material characteristics of waste feedstocks often mean that they can quickly clog up processing equipment such as conveyor belts, transfer chutes, bins and hoppers, and cause excessive wear and tear on machinery, leading to unplanned, costly shutdowns.

Worse still, despite the overwhelming risks, it's not uncommon for workers to be sent into hazardous situations to manually clear spillages, blockages and build-ups in order to get plants back up and running quickly. Without the right risk assessments to ensure that the hazards associated with energy isolation, working at height and confined space access are addressed, the consequences can be fatal.

From a safety standpoint alone, ensuring recycling plants run smoothly is critical, let alone the benefits in terms of productivity and profitability.

Metal recycling is key to a circular economy, but processing has to stack up economically as well as environmentally

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Beating a battering from batteries in Mexico

One example that Martin Engineering was involved with was in Mexico, at Enertec at a plant dedicated to the recycling of vehicle batteries. The machinery grinds down and separates the plastics from the lead in spent batteries and the materials are reprocessed and used to manufacture new batteries.

However, their main conveyor belt suffered from continual impact damage and misalignment as a result of heavy batteries dropping onto it. Smaller batteries (such as motorcycle batteries) tended to rebound out of the loading chute because the conveyor belt lacked an effective support system.



Enertec's conveyor belt suffered from impact damage and misalignment.
Copyright © 2023 Martin Engineering

Some of the batteries ran down the back of the chute, which caused damage to the conveyor belt and also to the tail pulley. And others fell down the sides, getting stuck between the chute and the conveyor and accumulating over time. In addition to this problem, the lack of proper support meant that significant vibration was being transmitted to the nearby weighbridge.

All these issues were causing repeated drops in productivity and an increase in unplanned maintenance to allow corrective actions to be taken – this was mainly carried out during unscheduled shutdowns when it was necessary to manually clear the chute and surrounds, as well as replace and repair damaged conveyor components. Besides the loss of production time this was also expensive and labor intensive, not to mention the additional risks of clearing the blockages by hand.

Following examination from technicians at Martin Engineering, the solution came with the installation of an Impact Cradle positioned under the belt conveyor loading zone beneath the chute. The Impact Cradle absorbs the force of falling objects and materials to prevent damage to the belt



Martin's Impact Cradle absorbs the force of falling materials and objects to prevent damage to the belt and structure and eliminates any belt sag.
Copyright © 2023 Martin Engineering

and surrounding structure. It eliminates any belt sag and is designed to minimise any bounce-back from the initial impact with the belt.

Like many of Martin's installations the cradle was custom-manufactured to meet Enertec specific requirements – in this case that meant it had to be made from stainless steel to resist attack from the corrosive acids in the electrolyte solution of the batteries they recycle. Following installation, the problems of misalignment and impact damage were corrected and Enertec recorded fewer production problems and lower maintenance costs.

Stemming the spillage from steel slag in Germany

Another example comes from the steel industry in Germany, where residues from the blast-furnace are transformed into a cement substitute known as GGBS (ground granulated blast-furnace slag). This happens at steel plants the world over.

In this case the producer was experiencing extreme carryback on a main material transport belt, which was causing excessive build-up beneath the conveyor and significant damage to the superstructure and conveyor system. An existing belt cleaner made from a horizontal strip of metal plate tilted slightly to face the discharge chute did not adequately remove dust and fines from the cracks and divots in the belt.

Carryback on the return side of the belt caused fugitive dust to travel away from the operation area and crested poor air quality throughout the plant. Spillage along the belt path also built up around the mainframe and increased operational costs for cleaning. The arrangement was impacting productivity and increasing maintenance costs. It also had the additional disadvantage of damaging the belt and catching on mechanical splices, causing costly premature belt replacement and running the risk of a catastrophic breakdown.





The existing metal blade delivered poor cleaning performance, while damaging the belt and splice. Copyright © 2023 Martin Engineering



Martin blades' patented design creates a tight seal, flows easily over splices and maintains cleaning performance through all stages of blade life. Copyright © 2023 Martin Engineering

After a thorough inspection that included Martin's unique Walk the Belt™ assessment, Martin Engineering representatives determined that a QC1™ Cleaner HD STS was the right solution to clear the belt of adhered carryback. Using the patented Martin® Spring Tensioner HD STS with a polyurethane blade formed in the "CARP" (Constant Angle Radial Pressure) design, the blade creates a tight seal on the belt, runs easily over mechanical splices and maintains cleaning performance through all stages of blade life. Mounted on a sturdy stainless steel mandrel, the blade cartridge is serviced without confined space entry with a simple one-pin operation, making replacement a safe and simple procedure.

The result was improved belt cleaning efficiency and reduced airborne dust. Operators observed that considerably more material was discharging directly into the chute as intended, with significantly less carryback than they had ever experienced. Due to the reduction of fine material being held in cracks and divots on the return side of the belt, there was less dust that could become airborne, leading to an immediate improvement in plant air quality.

Spillage along the belt path was also significantly reduced, leading to fewer workers taking a fraction of the time to clean along the belt path, improving safety and reducing the cost of maintenance and cleanup. Furthermore, there's been far less wear and tear on the conveyor belt and its operational life is reportedly double what the operator was achieving previously. Needless to say, the rest of the plant was converted to efficient belt cleaners from Martin Engineering.

Sense and sustainability

These examples highlight specific problems that were discovered along the entire length of processing lines as a result of Martin's Walk the Belt™ approach to problem solving. This ensures that root causes are understood and fixed, rather than simply addressing a symptom at one point caused by a deeper problem elsewhere in the system. That approach also identifies buildups and blockages inside silos and hoppers where Martin vibrators or even air cannons may be needed to dislodge material and keep the process flowing.

Given that no two plants are the same, and each different type of feedstock for recycling presents unique challenges, a tailored review under the guidance of material handling specialists is always the best starting point. That means examining every single loading point, discharge point, transfer point and storage vessel to ensure each is fit for purpose and is functioning optimally, as well as how it fits with the remainder of the equipment in the process, assessing how the entire end-to-end sequence is working.

Hard-pressed operations teams are focused on keeping their plants running and overcoming the challenges as they arise – and that's often as a result of badly designed or badly upgraded, mismatched processing machinery. It's understandable that they don't often have the time or the expertise to look at the bigger picture to identify the reasons why problems are arising.

That's where specialists such as the team at Martin Engineering come in, to deliver maximum processing efficiency – especially critical when margins are squeezed. For materials recycling to make as much economic sense as it makes environmental sense, achieving smooth and efficient end-to-end processing has to be the goal.

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Innovative solutions to improve pedestrian safety at waste and recycling centres

With the waste and recycling sector reporting its first increase in fatal accidents in four years, now is the time to invest in safety.

The waste and recycling sector regularly places amongst the highest HSE figures for fatal and non-fatal workplace accidents. The nature of operations, with heavy equipment, workplace transport and industrial machinery constantly in use, provides numerous threats to safety.

Cause for concern

Thankfully, site safety has generally improved in recent years. However, 2022/23 saw six fatal accidents, the highest rate since 2017/18, and the first time an increase in fatalities has occurred in four years [1]. The accompanying HSE report noted that the sector's fatal accident rate is significantly higher than the all-industry rate; in fact, it is ten times higher. It is clear the industry remains very much in the spotlight regarding safety concerns, and a bulletin issued by the HSE in 2021 specifically targeted safety fears within the sector following multiple incidents involving wheeled shovel loaders. Indeed, of nine fatal accidents reported over four years involving the equipment, six were in the waste and recycling sector [2].

Contact with moving machinery is an all-too-common cause of severe and fatal accidents across all sectors, and being struck by a moving vehicle and being struck by a moving object are repeatedly the second and third most common causes of fatal accidents. Most accidents are avoidable, so companies must take further safety measures to keep people safe. The wide range of workplace transport on a recycling site is essential to operations, and reducing vehicle movement is not always possible, so the best way to mitigate serious accidents is to put preventative measures in place that improve overall site safety.

Safety technology

Embracing safety technology allows businesses to protect workers and visitors without disrupting operations. High-risk sites should have robust access controls where every person is accounted for and issued with protective personal equipment (PPE) on entry. Standard PPE, including hard hats and work boots, are commonly used, but other intelligent solutions can be a game changer regarding accident protection. Proximity warning systems work by opening a line of communication between vehicle operators and pedestrians. Pedestrians wear small tags, and antennas are fitted to each vehicle. The system creates an invisible detection zone around the vehicle, which interacts with the pedestrian tags and delivers an audio-visual alarm when activated to alert operators and pedestrians of the presence of danger. This system has proven to be highly effective on many waste and recycling and other industrial sites. It works particularly well in areas where access is highly restricted and controlled, but there are occasions when tagging is not a viable option.

When tagging is not possible or simply not desired, more traditional methods are used to achieve segregation and improve visibility. Barriers, floor markings, signage, cones, and controlled crossings are all commonly used and can be very effective, but accidents still happen too often. Technology can once again play a part here. Safety signage is a requirement,



Shovel Loader inside warehouse carrying rubbish



Vehicle Activated Sign in front of Forklift on Waste and Recycling Site

but it is a passive measure that relies on people looking, understanding, and acknowledging the messaging. Sign clutter, where multiple signs warn of various hazards in one area, lose impact and can result in confusion. For workers who see the same signage several times daily, sign blindness can take hold, resulting in low awareness and complacency. Finding new and innovative ways to grab the attention and prompt individuals to stop dangerous activity can be challenging but is possible.

Signage that can interact with vehicles to raise the alarm are an excellent solution. Vehicle-activated signs communicate with approaching workplace transport through an antenna fitted to the vehicle. As the vehicle approaches, the sign (which may not have been observed previously) automatically illuminates and flashes, quickly drawing the eye. This simple solution creates a highly visual prompt that immediately raises awareness to everybody sharing the same space as any approaching vehicles.

In high-risk work sites such as waste and recycling centres, removing all forms of danger is impossible. However, it is possible to proactively address known hazards and minimise risk by genuinely committing to safety and investing in innovative ways to achieve this. Taking real action to protect everyone on site is an employer's first responsibility, and doing so can be the difference between life and death.

<https://zonesafe.com/>

<https://www.hse.gov.uk/statistics/fatals.htm>

<https://www.hse.gov.uk/safetybulletins/wheeled-loading-shovels.ht>

EMS go electric with Sennebogen

The EMS Waste Services story dates as far back as the 1940s when founder Alf Stuart bought a second-hand Dodge and began to transport cattle around Exeter. Transport has always been the backbone for the company with a Volvo Truck dealership formed from this side of the company, the move into warehousing soon followed. Not one to miss an opportunity, Alf's son Roy, already in the business, grabbed a chance to open an inert landfill facility at Hill Barton and took the next step for the company and their first into waste management.

Further expansions within the farming and transport sectors eventually saw the company step up their presence within the recycling sector in 2009 with the acquisition of EMS Waste Services Ltd. Between 2012 and 2015 the Stuart family added further interests in waste management to the fold in the shape of Devon Contract Waste skips, AJS skips, ASAP skip hire and Bay skip into the fold, along with the addition of a new scrap recycling facility to boost the range of services offered to their growing list of clients throughout Devon and the surrounding areas. Further acquisitions have seen the company increase their vehicle fleet for the recycling business expand to almost 50 units and employing over 120 staff to process over 150,000 tonnes of waste on an annual basis.



To handle much of this incoming waste the company has invested in a state-of-the-art Kiverco picking station enabling them to double their throughput at the plant. Whilst having the ability to increase production with a new plant, the company realised a new machine for loading the plant was also required and with an eye on reducing their carbon footprint as well as reducing harmful fumes created by standard diesel-powered machines, the Stuarts decided that a new electric material handler would be the ideal way forward for them.

Speaking to the market the team at Hill Barton opted for a new Sennebogen 818E electric drive with K10 ULM boom and stick configuration allowing an impressive 11m reach. Supplied by Molson Green, part of the larger Molson Group based just up the M5 at Avonmouth, the Sennebogen has an operating weight of around 22 tonnes and to meet with the company's requirements for an electric machine, is fitted with a 90kW electric motor replacing the standard Cummins diesel engine. A fixed trailing cable supplies the Sennebogen with power and whilst this is ideal for a machine that remains stationary, we all know these machines do have to be relocated from time to time. As the cable gives a modicum of flexibility for the 818E, this isn't too much of an issue, but should the machine require a little more mobility, Sennebogen designers have replaced the standard cast counterweight with a powerpack solution for short-distance mobility.



Working from the fixed electrical connection, the Sennebogen is almost silent apart from the noise generated by the hydraulic system. More importantly, it generates no exhaust fumes making it ideal to work inside the recycling centre. Sitting on a four-outrigger undercarriage, identical to that found on the diesel version, it is only the material handler's upper structure which has come on for any cosmetic changes. On the offside of the machine, the former home for its diesel engine is now filled with a state-of-the-art 90kw, 400V electric motor. The only major change lies behind the hydraulically elevating Maxcab where a larger vertical electric cabinet has been fitted.

While there is an obvious cost implication to buying a highly specified electric material handler, this cost is hugely offset against the machine's lower maintenance costs. The electric drive machine offers significantly longer maintenance intervals compared with diesel engines along with reduced maintenance costs, as there is no need for fuel and oil filters or oil changes, although these will have to be considered with the use of the powerpack. Another notable plus point is the massive reduction in vibration throughout the machine when in use thanks to fewer moving parts. An added bonus for production is that when connected to the power cable, the electric-powered 818E will instantly be ready to work with no waiting for the engine to reach optimal working temperatures. All of this equates to almost a 50% reduction in service and maintenance costs over a fossil fuelled machine.



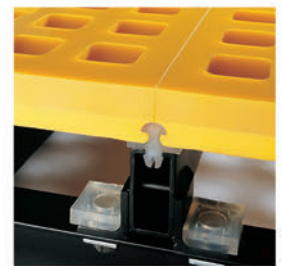
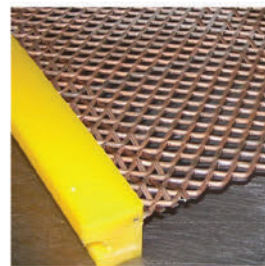
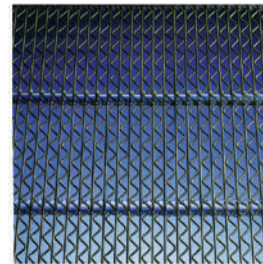
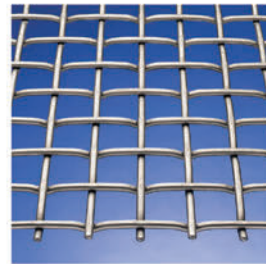
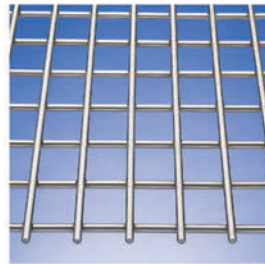
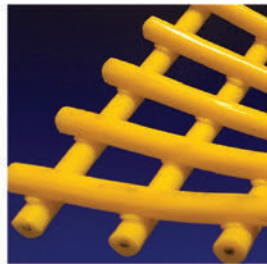
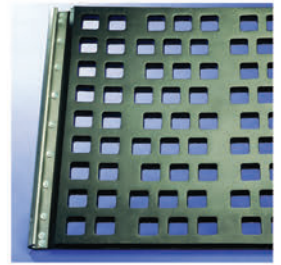
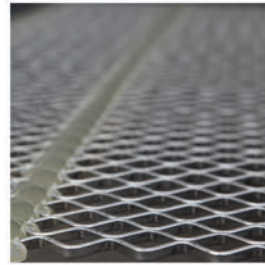
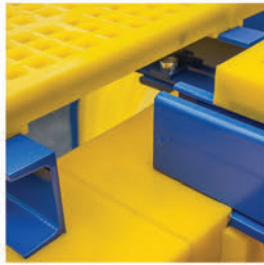
The 818E supplied to EMS happily sits adjacent to their in-feed hopper on the Kiverco picking station with the machine using its 450 litre NPK selector grab to pre-sort and load the incoming material into the plant. With its hydraulically elevating cab rising over 6m off the ground, the operator's eye-line is now around 5.5m giving them an unimpeded view across the incoming material and the in-feed hopper of the picking line. The comfortable and well-appointed cab offers a quiet and relaxing workspace and even at full elevation, is an impressively stable location.



Handling in excess of 150,000 tonnes of material on an annual basis with the Sennebogen will not only reduce the plant's cost per tonne but also reduce their carbon impact hugely over a year. Dave Peacock for Molson Green said, "We are seeing a huge increase in customers looking at swapping diesel-powered machines for their electric equivalents as they are providing lower running costs over the year as well as reducing a company's impact on the environment."

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We know that telescopic handlers are used in a variety of industries as they are extremely versatile. With multi-purpose capabilities, telehandlers can be used to lift, move, and place materials, which on many sites, provides a complete utility for most, if not all, operations. The wide range of attachments and sizes of these machines including grabs, buckets, clamps, skips, work platforms and crane jibs make them ever more popular across all UK industry sectors.

During 2023, Certora delivered telehandler training to more than 900 delegates. Courses spanned all different types and sizes of machines with varying attachments, from small teletrucks to large 360 slew machines. Certora continues to see an increase in demand for this machine and offer some key areas of consideration for those looking to become trained operators and for many managers or business owners utilising this equipment within their working environment.



Challenges for Operators

The biggest challenge when operating a telehandler is visibility. The boom should be positioned low while travelling so it does not obscure the operator's vision. If this isn't possible or if it compromises stability, then they may travel in reverse only if it is safe to do so. Before reversing, operators should be vigilant and look around the vehicle before setting off. A vehicle banksman can be used to guide the driver when reversing is deemed necessary, providing they stand in a visible position.

To maximise visibility, mirrors and cab windows should be kept clean and be positioned best for the driver. Windscreen wipers should be fitted and in a good working condition too. Operators should remember the machine's blind spots and check for pedestrians and other hazards when manoeuvring.

When changing attachments, it is vital that the operator remembers their training and reassesses the safe working capacity of the machine. A new load and the associated attachment can fundamentally change the operational use of the machine and the height and reach ratio of placing a load.

Managing Operations

A site managers role is to oversee and supervise operations, as well as to ensure best practice is being adhered to. In some

cases, managers and supervisors may find this difficult especially when they themselves have no operational experience of using the equipment. Certora can offer a solution for those individuals through their Management of Mobile Plant Training Course. A one-day course that is bespoke to the business operation and designed to cover all relevant types of equipment on site including the use of associated attachments and loads.



Understanding operational certification can be quite a challenge for managers, supervisors, and operators. The below table shows the categories stipulated by one of the UK's accrediting bodies. However, these categories are not always reflective across the various UK awarding organisations which can lead to some confusion and uncertainty of suitability. Always check an operative's certification for the machine type and capacity including lift height. If you are in doubt, Certora's technical team are happy to answer any questions you have relating to certification and equipment operations.

ABA Telehandler Categories

- J2 Rough Terrain Variable Reach Lift Truck – Up to 9m Lift
- J3 Rough Terrain High Lift Telescopic Trucks – Above 9m Lift
- J4 Industrial Variable Reach Lift Truck – Up To 9m Lift
- J5 Industrial High Lift Telescopic Truck – Above 9m Lift
- J6 Variable Reach /Tele, 360 Slew Up to 9 m Lift
- J7 Variable Reach/Tele, 360 Slew Above 9m Lift

Knowing your equipment

As manufacturers continuously work with industry specialists to improve machine versatility and durability, it is important that managers and supervisors know the categories of equipment that they have onsite and recognise when a new machine is introduced to their operation.

This knowledge will help them to identify any potential skills gaps where conversion training is required.

Not sure of the training you need? Speak to the team at Certora - they would be happy to support you with answers to your questions.

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SBM Mineral Processing in the UK:

Strong plants for a strong market

2024 is an important year for SBM Mineral Processing in the UK market: "We can now look back on a good two years of very successful cooperation with our distribution partners Banner Contracts and Orba Group. Within a brief period of time, they have really taken our fully hybrid crusher technology forward in all major regions, but above all in all relevant industries and applications—from mining, quarrying, and recycling to construction," says SBM Regional Sales Manager Norbert Dieplinger.



With its high production capacity of max. 600 t/h and a complete package of active pre-screens and optional production screens, the REMAX 600 SBM defines a new performance class in mobile crushing.

"We are currently talking to other potential dealers and are of course looking forward to the UK launch of our flagship REMAX 600 at the Hillhead Quarry Show in June."

An important part of the success of the track-mounted JAWMAX® jaw crushers and REMAX impact crushers is the consistent implementation of the diesel-electric drive concept that has made SBM a hybrid pioneer for over 40 years.

All twelve models, with operating weights from just under 50,000 to 350,000 lbs. (23.0-160.0 tonnes), are at the top of their classes in terms of crusher size, production capacity and operating costs, without compromising flexibility of operation on site or economic transport to changing locations.

This is particularly evident in the new flagship SBM REMAX 600, which went into series production at the end of last year. With an operating weight of only around 80 tonnes, its impact crusher (inlet opening: 1380 x 1000 mm (W x H) produces a maximum of 600 t/h, defining a completely new performance segment in mobile crushing.



The plant offers real added value with its complete package of standard equipment plus options that provide a variety of high-quality final aggregate fractions. In addition to standard active pre-screening via a double-deck circular vibratory screen, there are three optional circular vibratory product screens (1-, 2-, 3-deck) available.

A side further options all screening modules allow the recirculation of oversized material; highly cantilevered discharge conveyors guarantee for large product stockpiles. Even fully equipped, the plant can be transported in one piece and set up quickly without the need for any auxiliary equipment.

In operation, the REMAX 600, like all SBM crushers, features low fuel consumption thanks to its combined drive of an EU-V Cummins diesel engine and 520 kVA generator. As an option, the plant can also be operated fully electrically from the mains, with the plug-in switch and all plant functions managed by the SBM CRUSH CONTROL. The intuitive system actively supports the machine operator—even at maximum capacity and with full integration of all production screens, uninterrupted one-man operation is guaranteed with optimised consumption data and low environmental impact (carbon, dust, noise). CRUSH CONTROL, the integration of new AI-based real-time analyses and satellite-based data exchange are also at the heart of the "Autonomous Crushing" project that SBM is driving forward on the basis of the REMAX 600. "We will also be providing detailed information on this at the Hillhead Show," says Norbert Dieplinger, looking ahead to this year's industry highlight.



In qualified recycling applications, the SBM REMAX 600 delivers up to five end products in one pass.

Crushing 100% electric saves around 50% on energy costs and protects the environment:

Fully electric: customer crushes gravel with RM crusher using power from the grid



LTR: Christian Knepperger, Sales Manager of C. Christophel GmbH & Jonathan Schaffers, Managing Director of Welbers Kieswerke GmbH

RM customer Welbers in Wemb, North Rhine-Westphalia, crushes up to 110 tonnes of gravel per hour with their RM 100GO! hybrid, fully electric, connected to the grid. The results speak for themselves because fully electric drive reduces energy costs by around 50%, the total operating costs by 11% per year, and it also protects the

environment. The family-owned business also benefits from maximum flexibility. Thanks to the hybrid crusher, they can crush other materials, such as C&D waste, in addition to fully electric gravel processing.

| | |
|-----------------------|--------------------------------------|
| Country: | Germany |
| Machine: | RM 100GO! hybrid |
| Material: | Gravel & C&D waste |
| Feed material: | Gravel: 16-x, 32-x, C&D waste: 0-650 |
| Final aggregate size: | 0-16mm gravel, 0-45mm C&D waste |

Welbers in Germany have been operating a sand and gravel plant for generations. In July 2023, they purchased their first crusher, an RM 100GO! hybrid, to process gravel to the highest quality 0-16 fraction final aggregate. The reason is that the cone crushers they used to hire cannot achieve the quality of results achieved by impact crushers. "With the new RM 100GO! hybrid, we get a much better geometry of aggregate compared to the cone crushers we used to use. Asphalt adheres better and decorative chippings look better; essential criteria for our customers, who range from landscape gardeners and building contractors to private consumers," says Jonathan Schaffers, Managing Director of Welbers Kieswerke GmbH.



RM 100GO! hybrid crushes gravel fully electrically.



Impressive trials on the company's premises

Although the German company was initially sceptical about the performance of the RM crusher, a test run in May dispelled their concerns. The long-standing RM dealer Christophel, a competent partner and supplier of mobile processing technology with plenty of experience in gravel plants, organised a test run directly on the customer's site to demonstrate how the RM 100GO! processes 16-40 mm gravel and oversize feed material of 32-130 mm to produce the highest quality 0-16 mm final aggregate. In addition to processing gravel, Welbers also tested the machine briefly with C&D waste. Indeed, the machine confirmed what many satisfied RM machine owners from the surroundings have already discovered: a finished 0-45 mm final aggregate, as well as a screened oversize aggregate at a high output with good operating costs. The impressive results convinced the customer, and they ordered their RM 100GO! hybrid at the end of May.

Protect the environment and save on fuel costs with hybrid drive

The aim of leaving land in better condition from an ecologically standpoint than it was before excavation started, has always been the philosophy of the Welbers' family business. That is why they decided to go for the hybrid version of the RM crusher, in addition to capitalising on the grid connection they already had on site. Now nothing stands in the way of emission-free, fully electric operation. An attractive side advantage is the saving on running costs: already high fuel costs are reduced by using electricity. Since taking delivery of the new machine in June, it has already saved EUR 1000 on diesel.

Maximum flexibility & mobility

In addition to cost efficiency and reducing emissions, Schaffers appreciates the additional advantages in terms of the flexibility and mobility of the hybrid crusher. Because the crusher is mounted on a chassis with crawler gear, they can move from processing gravel in electric mode to crushing 0-45 fraction C&D waste directly on site in diesel mode. In contrast to the processing of C&D waste being outsourced, as it was previously, this can now be done flexibly and independently at any location. This level of mobility paired with low-emission drive technology is something that the owner really appreciates. Particularly with regard to the new substitute building materials directive, which took effect in Germany at the beginning of August 2023, because now the company's major advantage is that they no longer have to constantly obtain proof of suitability from external service providers, but can do that themselves.

They have processed several thousand tonnes of gravel since July, and all without fuel. The company plans to follow a processing schedule, whereby every couple of months C&D waste will be crushed for two to three weeks. The rest of the time they will process gravel in fully electric mode. They will therefore crush around 40,000 tonnes of gravel a year using power from the grid.



"The RM 100GO! hybrid is ideal for handling both process applications: C&D waste and natural stone. I am delighted we have found Welbers the perfect solution, which is both cost-efficient and environmentally friendly," says Christian Knepperger, Sales Manager at C. Christophel GmbH.

Fully electric crushing: easy and uncomplicated

Previously, hardly anybody processed gravel fully electrically using mobile crushers. If you have an existing connection to the grid, however, this is easier than you might have thought. To power the crusher, Schaffers first connects the 15-metre cable to the grid transformer station and then to the crusher. This simple step sees the machine ready for action in just a few minutes. "We are very satisfied with the crusher because it really delivers the performance it promises in electric mode and does an excellent job of processing gravel," says Schaffers.



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Understanding the Crushing Sector

Knowing the crushing sector as they do, Metso distributors McHale Plant Sales focuses attention on two Lokotrack models that they believe will meet the needs of most quarry owners and aggregates producers.

Both track mounted and easily transportable, within the production site and from site to site, their pick of Metso's combinations are the hybrid battery-come-engine powered LT120E jaw crusher for primary crushing applications and the LT300HP mobile cone crusher for secondary and tertiary crushing.

With years of experience to draw upon – first as distributors in Ireland and Northern Ireland for the Finnish-made Metso range, and, more recently, as Metso distributors in the UK with responsibility for English, Scottish and Welsh markets – McHale Plant Sales places great importance on the needs of aggregates producers.

From its fully-functioning UK headquarters on the Lichfield Road Industrial Estate in Tamworth, supported by a Scottish depot at West Telferton Industrial Estate in Edinburgh – backed by outlets in Rathcoole, near Dublin city and at Birdhill, near Limerick – McHale Plant Sales has a strong presence in stone crushing that underpins its prominence in the sector.

Stressing their capacity to advise customers when it comes to choosing 'the right machine for the right application,' their sales director, Denis McGrath points to the 'close rapport' that exists between McHale and Metso whereby their own in-house knowledge and experience can be quickly augmented by expert input from Metso as required.

Quoting a belief at the heart of McHale thinking, McGrath says: "when a machine and the purpose for which it is being purchased are perfectly matched – with all of the proper research carried out in advance – then will a true basis exist upon which a happy and enduring relationship can be built"

LT120E

Spotlighting the LT120E, McGrath points to its hybrid ePower feature – power supplied by an external network or by a 310/420 kVA on-board diesel generator – which give it the dual benefit of quiet, emissions-free operation in cities, near schools, in residential zones or when close to populated areas, or from its low-noise diesel engine when used 'in the wild'.

Designed for crushing hard rock types such as granite, basalt, and gneiss, the LT120E's large feed opening provides



Metso LT300HP

outstanding capacity due to an excellent nip angle and its aggressive linear stroke.

Other features include its long foldable main conveyor and wide feed hopper extensions, high capacity, energy efficiency with low emissions, good mobility and transportability, easy maintenance, and as a long-term investment with high resale value.

LT300HP

Like its stablemate, the track mounted LT300HP mobile cone crusher, is an efficient and flexible secondary and tertiary crusher.

Ideal for use in multistage crushing and screening processes, its robust construction makes it suitable for crushing hard and soft rocks such as granite, limestone, and river gravel.

Its proven crusher cavity can be selected according to specific application requirements to achieve high capacity, top-end product quality and low-wear part costs. Its optimised power transmission system delivers cost-effective performance with Metso's process control system there to optimise crushing results.

Other features include a single button for high-capacity crushing with flexible feeding and screening options, single-button start/stop, in-built troubleshooting, system, and remote monitoring.



Lokotrack LT120E mobile jaw crushing plant

Cormac Engineering Announces Partnership with MiningLand Machinery SL

Cormac Engineering, a leading innovator in the Asphalt and Concrete Batching Plant sector, is thrilled to announce another exciting milestone as they partner with MiningLand, a recognised provider of cutting-edge Crushing and Screening plants. This exciting collaboration marks a significant step forward for both companies.

Miningland was founded to become a worldwide reference for its engineering ability and for providing the best technical solutions within the crushing and screening sector. They have consistently demonstrated unwavering commitments to quality, efficiency, exceptional service, personnel safety, and a profound respect for the environment. Miningland firmly believes that progress can be achieved in all these areas without compromising profitability.

The alignment of values between Miningland and Cormac Engineering sees both companies share a dedication to delivering products and services that embody superior quality, unrivalled efficiency, and a service ethos that sets industry standards.



Steve Corbett, Managing Director of Cormac Engineering, comments: "We are delighted to add another world-class industry partner to our portfolio of products. Offering even more specialist solutions to our client base has always been our goal, and adding Miningland complements our existing capabilities in material processing and batching as well as a 30-year history within the industry."

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Modular crushing and screening units from Swedish Maskin Mekano

The ambition of the modular concept from Maskin Mekano is to combine the best from stationary plants with the versatility of mobile plants. In production, these machine units on their high jacking legs resemble stationary plants whilst being very easy to move between different workplaces. With modules for feeding, crushing, and screening by Maskin Mekano, it is easy to create an optimized production line with high capacity that is also sustainable, safe, and versatile.

Benefits of the Maskin Mekano range of modular machines:

- Electric drive
- Interlocking control systems and emergency stop loops
- User-friendly and operator safe design
- Easy and secure loading and set-up

All machines in the modular program are equipped with sturdy and extensive walkways with proper railings and gates and folding stairs with railings.

Designed for easy loading

The plants in the modular range are designed to be transported on a jumbo trailer or a machine trailer. They can be loaded completely without lifting help; the trailer is reversed under the machine between the jacking legs. Then the machine is lowered onto the trailer platform, the legs are lifted (hydraulically) and then the legs fold to 3.0 m width. The transport therefore does not require an accompanying car. No parts of the plants require dismantling, everything is onboard and folded hydraulically.

The hydraulic unit has a battery pack and 24-V system which means that loading and unloading can be conducted without power from the mains or a generator.

The feeder VML 15

A well-designed feeder is essential for a smooth production flow, cuts costs for diesel and manpower and reduces the carbon footprint. The feeding unit VML 15 is equipped with a vibrating feeder, the hopper has a volume of 15 m³, it is entirely made of Hardox and has wide loading area of 4 metres. It features a self-cleansing hydraulically folded reject grid and a foldable onboard stockpiling conveyor as well as wheels for towing on site.

The crusher CH440-PS

The CH440-PS cone crusher is a conveyor in/conveyor out plant with a pre-screen and equipped with an on-board return conveyor that makes it compatible with Maskin Mekano's final screen SH 1503 for closed circuit. With this launch, Maskin Mekano is seriously back as a supplier of well-built crushing plants. It is equipped with Sandvik's CH440 cone crusher.

The crusher VSIH T7

Demand for highly processed crushed products (like cubical aggregates, road base or prime manufactured sand) with high and consistent quality is growing steadily. That is why Maskin Mekano has launched an VSI (Vertical Impact Shaft) modular crushing plant -the VSIH T7. The VSIH T7 is a conveyor in/conveyor out machine but also has an on-board closed-circuit conveyor. It features the reliable and proven VSI crusher by South African Techroq.

The final screen SH 1503

The SH 1503 is designed to match the largest mobile crushers and huge material flows. The Maskin Mekano screens work with an aggressive stroke and are known for producing clean products with high capacity even on fine and short fractions. Thanks to the Vibro Block concept all the power is kept inside the screen box. It is equipped with four stockpiling conveyors. It is also fitted with wheels and a hook for easy towing on site.



Omega's dual-power jaw crushes fuel costs

Omega Crushing and Screening's plug-in, dual power, electric-drive jaw crusher has proven to be a fuel-efficient, practical and refined choice for a crushing and screening contractor from Tipperary, Ireland.

Based in Cahir, Co. Tipperary, Quarry Kit Ltd provides contract crushing, screening and heavy haulage services across the province of Munster and further afield. Among the machines on the company's fleet is an Omega J1065T tracked jaw crusher. Designed with both productivity and simplicity in mind, the J1065T has the distinction of using an electrically-driven crusher unit, feeder and discharge conveyor as opposed to the more common hydraulic design. In addition, the crusher unit's single drawback rod tensioning system, combined with hydraulic wedge adjustment, make the jaw simple and reliable. While the machine comes equipped with a Stage V/Tier 4-compliant Deutz diesel powerpack, it can also be connected to the power grid and operate without producing any emissions on site.

Impressive fuel savings

The nature of the sites where Quarry Kit Ltd have been using the J1065T has meant that the diesel engine is required for power, rather than the plug-in mains capability. However, even while operating this way, impressive fuel economy has been achieved. Quarry Kit Managing Director Niall Lenihan

explains, "It's burning between 10 and 12 litres of diesel an hour, compared to other machines I have which burn between 35 and 40 litres an hour. A customer who is using a screener with a four-cylinder engine has told me that the screener is using more fuel than the six-cylinder engine in the Omega", he says.

This fuel saving does not come at the cost of productivity, however. Niall praises the aggressiveness of the crusher and reports that, working in a limestone quarry, the machine is producing 100mm down at a rate of 240 tonnes per hour. This figure is impressive considering that, according to Niall, other crushers he has operated in the same size class have only achieved figures closer to 180 tonnes per hour. Omega's principle of simplicity continues with the design of features such as the control panel, and Niall confirms that ease of use is a strength of the J1065T. "It's a very easy machine to operate—it can be set up, moved, or folded up quickly, then you just press the buttons and away it goes", he says.

While crushers generally produce quite high levels of noise, Niall mentions that the Omega J1065T impresses in this area. "Compared to other machines, it is very quiet. The engine runs at lower revs, and you can actually talk to someone while standing beside it", he explains.





The J1065T's 30,000kg (66,139 lbs) weight is also a positive, as it makes transporting the machine easier, particularly when navigating narrow roads in rural areas such as West Cork, where Quarry Kit has several customers. Indeed, it is possible for the company to move the crusher using a three-axle trailer, whereas a five-axle unit is often required for their heavier machinery. The machine's relative compactness and low weight also mean that road permits will not be required when moving from one location to another, in Ireland or elsewhere.

Finally, Niall praises the after sales support provided by Omega Crushing and Screening, who have proven to be responsive and helpful when needed. For example, when Niall requested that the machine's feed hopper be widened so it could be fed by a larger excavator, this was promptly taken care of by means of a larger set of hopper doors.

Efficient design

The Omega J1065T is part of a range of crushers produced by the manufacturer, which also includes the wheeled J1065M and static J1065S models. The ability of the machines to run on either mains or diesel power makes them a versatile option, suited equally to quarry, mining or recycling applications, and allows them to operate indoors or in areas with strict emissions

requirements. While hydraulic systems are prone to contamination, leakages & slowing down in high demand application during a day of operation, the electric components of the Omega range can run efficiently throughout a workday, ensuring fast and productive operation.

All of the models in the range use the J1065 single toggle jaw crusher unit. The J1065 has a large feed opening of 1,000 x 650 mm (39.4 x 25.6"). It is driven by a 90 kW (121 hp) electric motor and uses a simple drawback tensioning system. Some other noteworthy points are the reverse crush, jaw unblock feature, the large jaw ejector cylinder, and the bolted mainframe, which provides strength and durability.

Weighing in at 30,000 kg (66,139 lbs), the J1065T features a 3.8 m³ hydraulic folding, Hardox-lined hopper, a 900 mm (35.4") discharge conveyor and a 600 mm (23.6") fines conveyor. The main conveyor can be raised and lowered hydraulically for rebar clearance and can also be fitted with an overband magnet separator. The diesel engine is a six-cylinder Deutz TCD 7.8 L6, which reaches the latest Stage V emissions standards using SCR and a DPF. Fuel burn while working can be as low as 8 litres an hour, ranging up to 12 litres when crushing harder rock types.



Finlay® introduce new TR-80 Radial Conveyor

Finlay, is delighted to announce the launch of the new TR-80 Radial Conveyor. The machine has been engineered with the customer in mind and sets new standards in efficiency and versatility in material handling technology.

The machine can be integrated with ease into static operations or as part of a mobile crushing and screening set up in a diverse range of applications from heavy duty primary crushing to light duty applications.

A key feature of the machine is the automated stockpile programme that allows operators to stockpile materials in set patterns to suit their operations and site configuration.



Features of the Finlay TR-80 Radial Conveyor include:

1. Impressive stockpile capacity: With a maximum discharge height of 10.18m (33' 5") when operated in conical mode the machine will stockpile 1811m³ (2369yd³) of material. When configured to operate at 120° Kidney Bean mode the machine will stockpile 7566m³ (9897yd³) of material.
2. Radial Design Excellence: Designed for adaptability, the radial functionality allows for flexible stockpile configurations, catering to various material types and site layouts.
3. Safety: Inbuilt safety measures engineered into the machine include hydraulic feed height adjustment of the feedboot, and pinless deployment of the main conveyor.
4. Reliability and Durability: built to withstand rigorous use, the Finlay TR-80 is constructed using high-quality materials, ensuring longevity and reliable performance even in demanding environments.

Alan Witherow, Product & Applications Manager, said "the launch of our new TR-80 radial conveyor demonstrates our commitment to delivering dependable and reliable solutions that our customers can rely upon. The TR-80 sets a new benchmark that will enhance site efficiency and streamlines material handling processes. The TR-80 radial conveyor signifies a significant leap forward in material handling technology, demonstrating Finlay's commitment to delivering high-performance solutions that exceed industry standards. Not only can customers save costs across their operations, but the integration of the TR-80 will ensure consistent quality product by reducing segregation, degradation, compaction, and contamination of material in the stockpile.



PowerX Equipment completes Crushing and Screening Installation

PowerX Equipment recently completed an impressive plant installation for a customer in North Wales.

The customer required a plant to process 500 tonnes of material per hour into the main crusher with up to 300 tonnes per hour going into the secondary cone crusher. One of the main requirements was to keep power to a minimum with all drives being inverter driven to reduce the peaks. To improve the end product, 0-6mm of dust was to be removed in three areas of the operation.

PowerX Equipment designed the plant to the exact customer specifications and installed the best equipment for the job, including two Terex Cedarapids TG cone crushers. The TG320 Extra Coarse Cone Crusher was installed as the secondary crusher with a TG320 Medium Fine acting as the tertiary crusher. Cones were installed to produce less dust and more 10mm material compared to a secondary impactor. The two TG320 cones have interchangeable spares, and utilise the same base mount, drive train and power rating. It is the ideal choice for secondary or tertiary applications. It can also be utilised in a control fed sand and gravel primary application.



The range of bronze bushing Terex Cedarapids TG Series cone crushers are the latest addition to the world leading Terex Cedarapids Cone Crusher Range. These impressive cone crushers can be easily and efficiently set up to perform and deliver the best cost per ton cubicle product by selecting the optimum crushing cavity and eccentric throw to suit the application requirements. From a

coarse secondary right through to fine quaternary, the TG series cone crushers will consistently exceed all performance expectations.

The advanced automation control system, fitted as standard on all TG Series Cones, improves performance and cone safety. With its user-friendly interface and advanced technology the control system will continuously monitor the cone's operational parameters and make the necessary adjustments to ensure consistent peak performance.



Crushing & Screening



The TG cone range can also be configured with a secondary upper frame. The TGS configuration can accept a 65-80% larger feed in size compared to all other types of cones in the same power rating, and the steep angled head design accounts for an increased throughput in capacity and the ability to sustain an on/off feed. The consistent feed in opening, through the full wear life of the liners, results in no reduction in maximum feed size and limited fluctuation in output gradings.

The TGS series cones come with advanced automation cone controls as standard. It has numerous choices of crusher cavities and eccentric throws, which allow the cone to be easily adapted to all application requirements at a minimal cost. This, coupled with the exceptional productivity, results in an overall lower cost per ton average.

PowerX Equipment installed two Terex Cedarapids MHS620 Screen Modules with 6' x 20' TSV6203 screen and splitter

gates on the three deck MHS module to allow for blending of material to produce various product sizes. The 4-section (25%) blending gate system for the top and middle decks and the 2-section (50%) blending gates for the bottom deck allows for the combining of bottom and fines, centre and bottom, and top and centre deck products.

The MHS620 modular horizontal screen features the extremely efficient Cedarapids® LJ-TSV screen with its legendary ElJay® oval stroke action. The main structure is made from galvanised steel including walkway, steps and handrails. The horizontal screens benefit from an integrated rolling chute mechanism and integrated AR steel fabricated rotational trouser leg chutes.

The screen drive operates at an impressive 40hp (30kW) TEFC motor with V Belt drive standard, motor mount and guarding. The 36" (900mm) under screen conveyor runs an electric 10hp (7.5kW) motor with vulcanised 3-ply belt.

In addition to the TG cone crushers and Terex Cedarapids screen modules, a full conveyor belt package was designed and installed including a new transfer conveyor from the existing processing area to the new recovery tunnel with two feeders by the PowerX Equipment team, completing the plant installation. All conveyors are galvanised and have galvanised covers, which minimises any airborne dust particles. The covers are easily raised and fixed for inspection and maintenance purposes. Access for maintenance for the whole installation was a prime discussion point between the customer and PowerX Equipment. All aspects of the project were discussed and agreed prior to being implemented by the PowerX Equipment design and installation engineers. PowerX Equipment carried out the Principal Contractor role throughout, project management from appointment to handover.



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Asphalt plant turns to STARCLEAN® to reduce clean-up on conveyors

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Belt conveyors are critical for the efficient operation of asphalt plants, and disruption to the conveyor can severely affect production.

At one of their asphalt plants, a leading national building material supplier was struggling with excessive maintenance required on the main incline belt conveyor. The scraper installed couldn't clean the belt effectively, leading to fine material adhering to the belt in the form of carryback. This accumulated under the conveyor, often in piles 1.5m high, and required 30 minutes of clean-up daily. When the material became damp, it would build up faster than it could be cleaned, requiring a digger to assist with clean-up.

Additionally, the team had to maintain the scraper itself weekly, taking 30 minutes to back off, clean and reset. This was made all the more difficult due to access in a confined space.



To solve the problem, the site supervisor contacted ProSpare.

The underperforming belt cleaner was replaced with a STARCLEAN® primary belt cleaner, featuring quick-release tensioner and 85n tungsten carbide blades. The model is highly effective at removing fines and moisture while providing quick, simple, user-friendly maintenance.

3 years on, the client is delighted with the improvements:



Clean-up under the belt previously took 30 minutes per day. With STARCLEAN®, only ~10 minutes are needed weekly as part of standard housekeeping, saving roughly 350 hours over 3 years. The digger is also not required.

Scraper maintenance has also reduced dramatically. From 30 minutes a week previously, to ~5 minutes a month with STARCLEAN®, saving 72 hours over 3 years.



Collectively, 422 hours in clean-up and maintenance have been saved on this conveyor alone.

The client stated:

"Installing a STARCLEAN® belt cleaner has made a real difference to our plant. We're really impressed with the performance and our belt is now being cleaned effectively.

I can't believe how simple the scraper is to maintain and how easy it has made clean-up. The time we've saved cleaning can now be spent on other tasks."

For more information visit www.prospare.co.uk



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Mastering Exhibitions: A Guide for Impactful Before and After Event Strategies



Participating as an exhibitor in an event is an opportunity that extends beyond the event itself. Success hinges on meticulous planning beforehand and strategic actions afterward. These thoughts cover tasks I hope will offer a seamless and impactful exhibition experience.

Before the Event: Creating Anticipation

Set Clear Objectives:

Establish measurable objectives before stepping onto the exhibition floor. Whether it is generating leads, showcasing products, or boosting brand awareness, a well-defined purpose guides preparations and assessments.

Strategic Marketing and Promotion:

Generate excitement leading up to the event. Utilise social media, email campaigns, and your website to promote participation. Engage your audience with teasers, previews, and compelling reasons to visit your booth. The corporate press can provide a real opportunity here too. People need to know what you are showcasing, and copy is still a huge resource that can be overlooked.

Logistics Planning:

Ensure meticulous planning for all logistical aspects, from booth design to staff schedules. A well organised plan is crucial for a smooth start to the event. If you do not have those skills inhouse already, it can often be better value for money to employ someone to take charge of that operational aspect. Pulling a current employee away from sales to undertake the task of event management can often prove more costly.

Pre-Scheduled Meetings:

Maximise networking opportunities by pre-scheduling meetings with potential clients or partners. This ensures valuable face-to-face time is optimised, and key connections are established. Your own sales should look at this as an opportunity and need to own this task to get value from it.

Staff Training and Briefing:

Equip booth staff with the knowledge and skills to represent your brand. Conduct pre-event training sessions to ensure they are well-versed in your products or services and prepared to engage with attendees. Often overlooked, but understanding roles and responsibilities on stand is critical to the experience of visitors and your own team.

After the Event: Leveraging Momentum and Evaluating Success

Prompt Follow-Up with Leads:

Initiate swift follow-up with leads and contacts. Personalised emails expressing gratitude can be set up and sent during the event itself. Then following up after the event to provide additional information will embed the positive impression made during the event.

Evaluate Performance Against Objectives:

Assess performance against established objectives. Analyse metrics such as lead generation and booth traffic. This evaluation provides insights for refining future event strategies. Our clients are often asked what their return on investment was from a show. We also ask them to set ROO's. Return on their objectives.

Post-Event Content and Recap:

Capitalise on post-event momentum by sharing content and recaps on digital platforms. Highlight key takeaways, showcase event photos, and acknowledge any awards or recognitions received. This content reinforces your brand's presence. Ensuring you capture this content during an event needs to be an allocated task. If not someone within your core sales team, have you thought about employing someone to capture it, or inviting media or press to your stand during the event itself?

Nurture New Relationships:

Continue nurturing relationships initiated at the event. Connect with new contacts on professional networking platforms and send personalised follow-up messages to foster long-term partnerships. You will understand your own current market better than most, but do you understand your potential market as well as you thought? Do they communicate differently, do they engage differently?

Gather Feedback and Learn:

Seek feedback from your team and attendees. Understand what worked well and identify areas for improvement. This feedback loop is crucial for refining your approach and enhancing the success of future exhibitions.

In summary, success in exhibiting is a journey that encompasses thorough preparation, active participation, and strategic follow-through. By investing time and effort in the before and after phases, you not only maximise the impact of your presence but also lay the foundation for sustained relationships and future successes. The true value of an exhibition extends well beyond the event itself.

Two Rokbak RA30s chosen for 'Quarry of the Year'

Smith & Sons (Bletchington) has added two Rokbak RA30 articulated haulers to its fleet at the award-winning Gill Mill Quarry in Oxfordshire, with the trucks impressing with torque, manoeuvrability and low fuel consumption.

It is understandable that one of the best quarries in the UK requires the best equipment. That's why, since October 2022, a pair of Rokbak RA30 articulated haulers have been loading and hauling primary ballast at a quarry for Smith & Sons (Bletchington) Ltd., a leading producer and supplier of primary and recycled aggregates for Oxfordshire and its surrounding counties.

In the first year of their arrival, the two RA30s shifted nearly half a million tonnes of material between them at Gill Mill Quarry. The Gill Mill aggregate processing plant is the flagship site for Smith & Sons (Bletchington) and was declared 'Quarry of the Year' by the British Aggregates Association for its operating standards at the end of 2020.

"The Rokbaks that we've got are integral to our operation insofar as their suitability to the site – they're not too small and they're not too big," says Gill Mill Quarry Manager Jeff Murphy. "With the constraints that we've got on some of the roads, they suit our needs, and we find them efficient and easy to operate. They're very operator friendly."

Operations at Gill Mill start at 6:30am with a standard maintenance check on equipment, and run until 5pm, five days a week. Daily checks including damage inspection and fuel level monitoring are conducted from a maintenance sheet. Once completed, operations commence and the trucks bring up premium ballast to be converted into building materials.

The RA30 articulated haulers, each with a 28 tonne (30.9 US ton) maximum payload and a 17.5m³ (22.9yd³) heaped capacity, currently work on load and carry operations, dumping material into a hopper, with the material then fed to the main plant through a conveyer system. The distance travelled by each RA30 is approximately one mile per load, with each truck making between 25 and 30 roundtrips a day.

Smooth operators

"We've got two dedicated Rokbak dumper operators on site," explains Jeff. "The feedback we've received from them is very positive, with the trucks being very manoeuvrable, easy to operate and very user-friendly."

Each Rokbak cab has pressurised capabilities and a premium performance HVAC and air flow system. Clear instrumentation and an LCD display for operational and service feedback, including fuel consumption, is intended for simple operation and service data extraction.

"My personal pick is the rear-view camera, with a very big, clear screen ideal for all weather conditions, day and night,"



says operator Warren Mobey. "If we didn't have it, it would make things harder for us. Relying on just mirrors is not a way we could probably operate at Gill Mill.

"However, the mirrors easily defrost in the morning," Warren adds. "In summertime it's essential that you have good air-con, which in the Rokbak is excellent. It's like a whirlwind going at you!"

The two units were purchased from Molson Equipment, one of the UK's largest independent new and used equipment dealers, with a 6000 hour fixed price service contract and a 3 year / 5000 hour powertrain warranty. The trucks arrived following an initial recommendation from another Molson customer, a longstanding supplier of plant and services to Smith & Sons (Bletchington).

"The positive feedback about our aftersales service and the quality of the Rokbak trucks that customer ran played a big part in creating this partnership," explains Dan Guibarra, Sales Manager, Molson Equipment.

"Now at Gill Mill, the durability and build quality of the Rokbak haulers shines through on this well-run site. Smith & Sons feedback has been very positive on the fuel consumption, with a saving of circa 7% compared to its previous machines.

"The versatility of these machines means that Smith & Sons can move them around site. The trucks have the grip and torque to keep operations running smoothly, even during the wet and slippery winter months."

The RA30 has a maximum torque of 1880 Nm @ 1400 rpm, which proves extra useful when operating across difficult ground and provides good traction in wet conditions.

"Torque and rim pull are areas we focus on when it comes to the design of the trucks," says Rokbak Regional Sales Manager EMEA Kenny Price. "They need to have that torque and pull when they're fully loaded to move in an efficient manner."



"Beneath our depot is Oxford Blue Clay, which is often utilised for restoration purposes but difficult to traverse," says Jeff. "However, the Rokbak trucks have been fantastic with that great torque when moving through clay. We find them a real benefit."



Community service

Gill Mill quarry opened in 1989 and has planned reserves until 2035. Lying next to the River Windrush at Ducklington, a village near the West Oxfordshire town of Witney, the 135-acre plant produces a wide range of washed sands and gravels for use in many projects, from the construction of roads and bridges, to building homes and hospitals. The Gill Mill operation extracts around 450,000 tonnes of oolite limestone sand and gravel per year, which is then sold to the local construction market. 80% of all sales are delivered within 20 miles of the quarry, which has won numerous awards for achievements in sustainable development, restoration and commitment to biodiversity and nature conservation.

Reducing environmental impact is a key tenet of the Rokbak brand. As part of the Volvo Group, Rokbak is aligned to the Science Based Targets initiative (SBTi) for significant improvements to carbon emissions, with specific aims including a 30% reduction in CO2 by 2030, a 50% factory operations emission reduction by the same year and becoming net-zero by 2040.

These commitments have influenced the design of the Rokbak trucks, the daily operation of the company's Motherwell factory and the Rokbak sustainability roadmap. Reducing its impact on the environment has seen Rokbak employ strategies stemming from fuel consumption analysis, examining alternative fuels, extending maintenance cycles and lessening maintenance consumables. This has also led to the reduction of total cost of ownership (TCO) for Rokbak customers.

Newcastle Sand Increases Production with McLanahan Sand Washing Plant

Newcastle Sand is a mining operation located in Williamstown, New South Wales, Australia, that is currently extracting dune sand and processing it for the construction materials market. The company supplies some of the largest concrete producers in the Hunter Valley with construction-grade sands, including white silica sand, washed sand and concrete sand.

Challenge

When Newcastle Sand commenced operations in 2019, the company opted to dry wash its sand products with an air separator. However, rainy days would put a damper on the dry process, so Newcastle Sand purchased a small-scale wash plant consisting of a small screw washer.

In 2020, Newcastle Sand experienced an increase in demand for washed sand. The company supplemented its small screw washer by adding a higher-volume wash plant to increase production.

But even with the two wash plants, the smaller one and the higher-volume plant, Newcastle Sand was still struggling to meet the demand for washed sand.

"We sought to find a screw washer that could increase our production to keep up with the current market demand," said Quarry Manager Elliott Laver.



Solution

Laver had a previous relationship with Lincom, McLanahan's dealer for aggregate wet processing equipment in Australia, prior to joining the Newcastle Sand team. Working with Lincom and McLanahan, Newcastle Sand installed a McLanahan Fine Material Double Screw Washer and UltraDRY Modular Dewatering Screen.

"We assessed all the options in the market, and we chose McLanahan based on the ability for McLanahan to work with us to give us the confidence that this product, this machine, is going to do the output required," said Murray Towndrow, one of the owners of Newcastle Sand.

Towndrow added that the sales process was very collaborative, with all parties providing information and feedback to ensure the right wash plant was chosen to handle Newcastle Sand's product demands.



"They worked with us to solve a problem," he said. "They really just gave us confidence that this size plant was going to do what we needed it to do."

Towndrow said he was "exceptionally happy" with McLanahan throughout the sales and commissioning process.

"They've worked with us, not against us, and that's probably the biggest strength that we've had," said Towndrow. "They just haven't given us a plant and said, 'Here you go, good luck,' they've been with us to make sure that this thing works."

The McLanahan Fine Material Screw Washer washes, classifies and dewateres Newcastle Sand's washed sand product, while the UltraDRY Dewatering Screen removes excess moisture from the final product. An integrated Sump underneath the UltraDRY Dewatering Screen captures the water that is removed from the sand product and recirculates it back to the Screw Washer via a Pump to aid in the washing process.

Results

Since installing the McLanahan wash plant, Newcastle Sand has more than doubled its production.

"That allows us to produce more quality washed sand product," Laver said.

With the UltraDRY Dewatering Screen reducing the moisture content of the final product, Laver said Newcastle Sand is able to sell the product straight from the belt, minimizing stockpile requirements.

"Being able to sell our material straight off the belt rather than stockpiling and letting our material dry allows us to reduce the amount of haul times, reduce our product movement or handling," explained Laver.

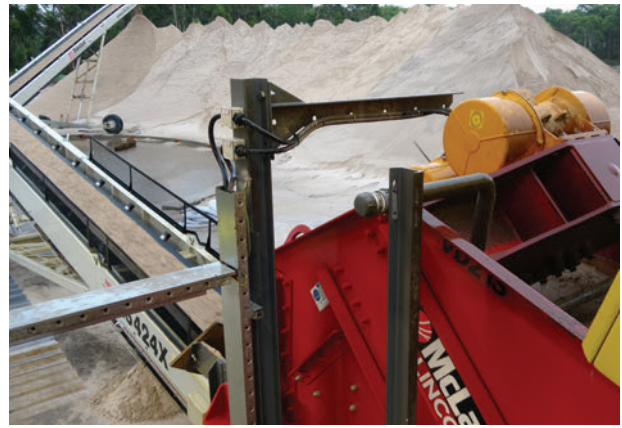
In addition to being able to sell the product more quickly, Newcastle Sand has experienced additional benefits from the UltraDry Dewatering Screen, such as improved site housekeeping and recirculation of water back to the wash plant.

"The McLanahan UltraDRY Dewatering Screen allows us to keep our stockpiles clean and tidy," Laver said. "We have less water runoff, and we're able to harvest that water and reuse it in the wash plant."

He added, "We're able to recover up to 90% of the water from our washing process. In turn, we recycle that water, reducing our environmental footprint in the location."

Towndrow said the McLanahan Wash Plant is an integral part of their business. It gives Newcastle Sand the confidence to seek out new customers in the market space and to sell a higher quality of product to keep its customers happy. That confidence comes not only from the reliability of the McLanahan Wash Plant, but also from McLanahan's continued service and support.

"When we assessed all of the other options, I'm fairly confident in saying that we would not have gotten the support from any other brand like we have with McLanahan," he said. "They've been right there beside us the whole way through this, and that's ensured that we've got a great outcome and a great plant that we're going to use for the rest of our resource."



Laver was equally pleased with the service and support from both McLanahan and Lincom.

"Since purchasing the McLanahan Fine Material Screw Washer and UltraDRY Dewatering Screen, McLanahan and Lincom have both been here with us every step of the way, providing assistance wherever required as well as on-site visits to check up," said Laver.

Towndrow continued, "I can confidently say that in choosing McLanahan, we've had the best pre-purchase advice and recommendations that followed through during the delivery and construction process of the plant. What you see today is a genuine collaboration between Newcastle Sand and McLanahan to get a plant that's the right size, that works for us, and is going to be reliable and give us consistent material."



Liebherr is the right blend for Longcliffe

Brassington Moor Quarry in Derbyshire's Peak District produces some of the UK's finest and most sought-after calcium carbonate powders and aggregates. A new Liebherr excavator is helping to keep production on target.

Longcliffe Quarries Ltd has a reputation as the leading name in the UK limestone industry, supplying materials for everything from animal feed to glass manufacturing, from adhesives to plasterboards.



One of two quarries operated by the company, Brassington Moor produces a million tonnes a year, not a huge volume by Peak District standards but it's quality rather than quantity that makes the difference here, as Quarry Manager Jon Murgatroyd explained: 'To obtain the highest quality products we need to blend the material in specific quantities and this means extracting from three separate seams around the site. Traditionally, this was done with a single large excavator and a wheeled loader but we changed our approach and replaced the loader with a second large excavator and this has proved beneficial in terms of our production capabilities.'



Like many quarry operators, Longcliffe believes a combination of owned and leased equipment is the most cost-effective fit for its operation and last year the company opened discussions with several suppliers for a three-year lease on a 70t excavator. The model judged to deliver the perfect combination of production and fuel economy was an R 972 from Liebherr Rental.

One of the latest generation models, it replaced an R 966 and arrived on site in Liebherr's "mining white" paint and sitting on an HD undercarriage with 600mm track pads. Engine is a 16-litre V8 Liebherr diesel developing 449hp at 1800rpm and, fitted with the manufacturer's Power Efficiency engine management control, achieves peak torque at a more leisurely engine speed of 1100rpm. That translates into the twin benefits of less noise and lower fuel consumption – up to 10% reduction on the previous model.

The engine meets EU emissions legislation via a low-maintenance DOC, DPF and SCR package with all major components easily accessed through large side panels in the upper structure or through the engine hood on the top of the upper carriage. Optional fast fill and drain connections have been included for fuel and engine oil, allowing the machine to be refilled and serviced faster and more safely from ground level.



At the business end is a 7m boom and 2.6m stick that gives the best combination of break-out force and reach, finished off with a Liebherr 5m³ rock bucket with half-delta cutting edge carrying five Z90CR teeth. Cylinder protection has been added to the boom and stick cylinders and there's additional protection to the base of the stick.

The undercarriage has additional baseplate protection fitted along with a three-piece chain guide on either side. Additional protection to the final drives has also been fitted to prevent damage from larger rocks.

On the inside, the cab is similar to the outgoing model but with an upgraded touch-screen colour monitor, one of the features that got the thumbs-up from regular Longcliffe operator Kevin Beacham. He added: 'It's a nice, comfortable cab. It's very quiet and the seat and seating position are excellent.'

He also had kind words for the newcomer's controls compared to those in the 966. 'All in all, the machine is a big step up from the older machine. It's smoother, quieter and a lot better balanced too.'

Outside, the cab has a top FOPS guard and a tiltable guard to the front screen, a premium LED lighting package and 'follow me home' illumination.

Longcliffe Group MD Paul Boustead adds: 'As well as proving to be operationally excellent, the Liebherr 972 is delivering in a number of other company priority areas including safety and sustainability.'

Liebherr Rental

The R 972 excavator is the latest addition to the Liebherr Rental fleet which covers the manufacturer's entire earthmoving and material handling ranges. 'We are not a traditional plant hire company offering standard kit,' explained Gareth Blythin, national rental sales manager. 'We offer clients a fleet of bespoke, high-specification machinery aimed at particular material handling applications. All machines on the earthmoving side are fully compliant with current quarrying regulations with a specification that includes blue strobes, travel alarms, 360° camera systems and hi-viz handrails meaning they are ready to go to work immediately.'



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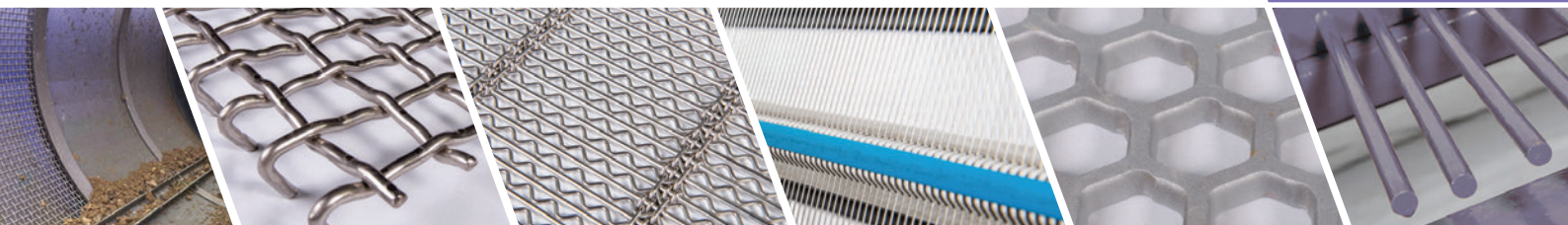
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PUMPS - Centrifugal Slurry, Sludge, Submersible, Site Dewatering & Site Water Management.

RECYCLING - Open topics for this issue

BULK HANDLING - Open topics for this issue

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

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