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A concrete case for choosing Liebherr

‘The reliability and build quality of the
Liebherr products has impressed us, our
plant managers and our operators’

Managing Director, Stuart Dodd - Grange

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Rokbak RA30 delivers on all fronts for Skene Group



Down the road from Rokbak's Motherwell HQ, a renowned family-owned Scottish construction materials business has shopped local and adopted the RA30 into the fold.

While Rokbak continues to build a global reputation for robust and reliable articulated haulers, just 50 miles directly east of the company's headquarters in Motherwell, Scotland, Skene Group Construction Services Ltd has put the RA30 to work.

Skene Group is a proud family business with a core group of long-term employees which was started in 1968 by the now-retired Donald Skene, with his son Neil later taking over as Chairman and daughter Jill as a Director. Today, it operates a 100-person workforce, with employees valued for the individual expertise they possess. For Skene, it's always about bringing in the best people, and best equipment, to each aspect of its operations.

"Our partnerships are dictated first and foremost by attitudes and relationships – it's all about the people that we deal with," says Skene Group Managing Director Darren Forrester, who has been with the company for a quarter of a century.

"And, as a self-proclaimed people business, Skene operates fundamentally through good service and quality. It's a difficult industry to keep everybody happy in, but it matters to us to get things right.

"Our customers know that we deliver. And, manufacturing in the outdoors, whether it's rain, hail, sleet or snow, our product quality must remain consistently high."





Rokbak is running on compacted Type 1 sub-base with a few ruts here and there, but it's nothing the machine can't cope with. We've had no issues – the RA30 goes everywhere and does everything we've asked it to do."

Tailored to your needs

Skene Group's RA30 customisation involves the popular tailgate and a green beacon which is activated when the cab seatbelts are engaged to ensure operator safety. Side extensions on the truck maximise payload and help prevent spillage while travelling on the haul roads. An auto-lube system ensures everything is greased at the right times, saving operation time and providing safe

Well-known around the local area for having its own weather-system, Soutra Mains Quarry in Pathhead, Midlothian, has provided the conditions to demonstrate the best of the Rokbak RA30. Skene Group operates this site, extracting material for a concrete plant through on-site wash plants and crushing trains – primarily as fill materials and the coarse recycled aggregate of crushed concrete stone. As one of the leading independent quarry operators, Skene currently supplies pre-cast concrete blocks to around 50% of Scotland's housing market.

Loaded with pride

"The RA30 has been a very good, strong asset to Soutra Mains," says Quarry Operations Director Kevin Hill. "It's rugged and robust, it can stand up to the conditions it's subjected to, and it suits the type of rock we've got here."

The RA30 arrived on site in late September 2022 to replace an old hauler, with Skene Group having worked once again in collaboration with long-time dealer Molson Group.

"When we needed to find an articulated hauler manufacturer, we were already attracted by Rokbak's proximity to us," explains Darren. "Initially we were speaking to our contact at Molson, but we soon discovered that we would also have close contact with Rokbak throughout the process, which helped us to fine-tune the product to our specific needs."

"It was great to have that touch-and-feel of the Motherwell factory, to be able to jump in the car and see the hauler in its manufacturing stage and meet the guys that were building it."

"We have been able to see the passion from the assemblers and machinists to product management – you can tell the Rokbak products mean something to them."

"But what most impressed me about Rokbak as a manufacturer is that they allowed us to try both the RA30 and RA40 to see what would suit us personally on-site. Rokbak actually invested in Skene Group before we had even placed an order."

The RA30 at work

At Soutra Mains, the RA30 is utilised predominantly in the lower benches of the quarry for load and haul, from the bottom level up to the concrete aggregate wash plant. The loading shovel fills the hauler in three passes before the RA30 sets off on an 800-metre round trip across different site levels to the plant and back.

"They're generally dirty conditions for a dumper," explains Skene Group Services and Quarry Manager Alex Brodie. "The



maintenance. Heated mirror arrangements offer greater visibility down the side of the machine, and an additional mirror on the bonnet as per Skene Group's request grants even greater safety while manoeuvring.

"This customisation is specific to the demands of Skene Group and the Soutra Mains Quarry," says Kenny Price, Rokbak's Regional Sales Manager for EMEA. "Winter conditions are always a challenge, particularly when the quarry endures a lot of rainfall, but the RA30's capabilities make it more than adept at operating in adverse conditions. The high-performance engine balances controlled power with maximum fuel efficiency and the modulating transmission retarder is coupled with an efficient exhaust brake and fully enclosed oil-cooled multidisc brakes for total control – even on steep slopes."

Operators praise the RA30

"I've been using the Rokbak since it arrived and it's really nice to operate," says Quarry Operative Robert Robertson. "When I first arrive on site in the morning, I check over the machine and do the initial checks with the oil, water and hydraulic levels. The layout makes everything quick and clear to see."

"The rear-view camera makes my life a lot easier when you're



reversing the hauler, and the large windows offer a lot of visibility. With any operation, comfort is very important, and it is a very comfortable truck to drive. Personally, I like the amount of room the cabin offers, as well as the stereo of course!"

The RA30's spacious ROPS/FOPS certified cabs have been designed to avoid fatigue – with low noise, air-conditioning, cushioned steering and tough suspension. Easy operation and service data extraction is gained through clear instrumentation and an LCD display for operational and service feedback, including fuel consumption, while smart data identifies any faults and damage before they cause downtime.

"One of the most important things is that the machine is consistently available and ready to be utilised," says Kevin. "That goes a long way, in terms of having the right equipment and minimising the amount of downtime.

"My biggest things are that the guys are happy and that they're comfortable using it, and that there's a minimal amount of downtime and low fuel consumption. Obviously, we're looking to make savings. Bringing the Rokbak in with its low fuel consumption is helping us to reduce the fuel usage in terms of average litres per hour and our overall operational costs."

Rokbak delivers on customer needs

Skene Group's hard rock operations are based throughout Central Scotland and the Borders region, with two quarries – the other being Lomond quarry in Fife – a block plant in Crossgates and the head office in Viewfield, offering ready-mix material and concrete blocks throughout these regions.

"When Skene Group was considering replacing an existing hauler, we were able to demonstrate how the RA30 met all of their requirements including safety, efficiency, productivity and operator acceptance," says Mark Proudfoot, Managing Director, Molson Group. "Feedback for the RA30 has been extremely positive in terms of performance, efficiency and reliability – customers including Skene Group like that it's modern but down-to-earth.



"In Soutra Mains Quarry we now have a piece of heavy engineering made in Scotland, performing in Scotland and supported in Scotland. We very much see the relationship with Rokbak and Skene Group as a partnership. Working closely with our OEM partners allows us to ensure we meet the needs of the customer as smoothly as possible, and having the customer included in this relationship closes the cycle – common interest, common goals, with all sides pulling in the same direction of having equipment working efficiently on site as part of a profitable operation.

"We love the Rokbak brand, what it stands for and how it aligns with the Molson Group approach: a sustainable forward-thinking company providing the very best equipment as the smart choice for customers, and, importantly, the support required when called upon."





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Welcome to issue 80

Welcome to our third edition of 2023 - issue 80.

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 Material Handlers & the Concrete Industry.

Onwards into 2023:

If you're starting to look at marketing in 2023 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>

We also offer our very successful personalised e-shots direct to our database throughout the year.

Our increasingly popular social media packages are also available, our platforms continue to grow across our Twitter [10,000 followers], Facebook & LinkedIn pages all of which can be linked with electronic web and e-newsletter advertising – why not enquire about our extremely competitive packages.

Finally, our fourth edition of 2023 will focus on **Mobile Quarry, Recycling & Earthmoving Equipment**, and a preview on the forthcoming **RWM exhibition**. I welcome any editorial contributions for these features.

John Edwards
Editor

JULY-AUGUST 23

MOBILE QUARRY, RECYCLING & EARTHMOVING EQUIPMENT

- wheeled loaders, excavators, dump trucks, skid steer loaders, mini excavators, attachments, quick hitch, buckets, tyres & chains, engines & transmissions, plant hirers.

QUARRYING - Open topics for this issue

RECYCLING - Open topics for this issue

BULK HANDLING - Open topics for this issue



RWM SHOW PREVIEW

STEINEXPO PREVIEW



Editorial copy deadline – 7th July 2023 Advert copy deadline – 14th July 2023



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Published six times a year.

Liebherr adds to the mix

A Liebherr batching plant has revolutionised a company's working methods and helped it win more customers.

Headquartered in Lockerbie, Grange Quarry entered the ready-mixed concrete market more than a decade ago and expansion has been relentless since. To help cope with continuing high demand, it has invested in a technologically advanced batching plant from Liebherr.

Founded in 2000 by Stuart and Lynn Dodd with a single site, Grange has grown to become one of the largest suppliers of aggregates and ready-mix in a territory encompassing Dumfries and Galloway, the Scottish Borders and Cumbria.

Its first venture into the ready-mixed business came with the opening of a plant at Kirkburn and the success of that facility gave the company the confidence to set up others at Dalbeattie and Lockerbie. The latest addition to the network, its Borders Concrete depot at Earlston, opened in 2020 and is home to a new Mobilmix 2.5F, one of Liebherr's most popular batching plants.

Earlston's original plant had a capacity of around 1m³ and was soon becoming overwhelmed with the volume of business the company was winning. 'We quickly realised that we needed to increase our capacity,' explained Managing Director Stuart Dodd. 'The area in and around the Borders is seeing a large amount of investment from local authorities and the private sector with flood defence schemes, wind farm projects and several new housing developments underway.'

The reliability and build quality of the Liebherr products has impressed us, our plant managers and our operators' -

Managing Director Stuart Dodd

Research into a replacement plant was wide-ranging but Dodd and his team were drawn to the Liebherr Mobilmix 2.5F package which offered not only an increase in production but a reduction in batching time per mix.

Speed of delivery and set-up was another attraction; the entire plant ships from Liebherr's Bad Schussenried factory in Germany in just seven loads and can be erected in only two days on pre-installed pads. Once completed and commissioned, concrete can be produced in less than a month and the compact modular design means the plant can be quickly relocated to other sites.

At the heart of the Mobilmix is Liebherr's 2.5m³ twin-shaft mixer housed in a pre-wired module. With a potential output of 115m³ per hour, Grange's module is fitted with 50mm insulated panels to reduce airborne noise from the mixing unit and ensure that water in the pipework continues to flow freely in the coldest of Scottish winters.

To one side of the elevated mixer module sit three, 100t capacity silos containing cement and additive that are augered directly into the mixer. On the other side are five elevated aggregate bins with a combined capacity of more than 175m³. The bins sit above another pre-built module containing the heavy-duty conveyor system which in turn leads to the elevator taking material into the mixer. The final module is the batching plant control room, pre-wired and installed on the main framework and which slides into place once the legs of the mixing module are raised.

The control room houses the 'brains' of the plant and is where plant foreman David Hodgins spends much of his shift. 'I've spent more years than I care to remember working with concrete and this Liebherr batching plant has to be the best I've worked with. There are so many features compared to other plants I've worked on that it takes a bit of getting used to, but once I did, the process is so quick and simple.'





The entire operation is computer-controlled and shown on screens, allowing David to adjust the batching process quickly and easily. 'The speed of batching has almost halved with the Liebherr unit and we are able to batch almost double the amount at any single time. This plant has revolutionised the way we work and has allowed us to service far more clients.'

'I've spent more years than I care to remember working with concrete and this Liebherr batching plant has to be the best I've worked with' -

Plant Foreman David Hodgens

To enable the plant to supply small quantities of material directly into trailers and pick-ups, a secondary, heavy-duty trunk has been fitted and swings into use hydraulically when needed. To keep trucks and the plant clean, a pressure washing system was specified and mounted to the frame of the plant to the side of the loading area.

The increased capacity of the plant also demanded an increase in loader capability and again, Liebherr was the choice.

Already familiar with the manufacturer's wheeled loader range, Grange specified a new L566 XPower to ensure bins are kept fully stocked throughout the working day.

The L566 XPower is one of six models in a wheeled loader range combining class-leading fuel efficiency and power and with a bucket capacity of 4.7m³ makes light work of managing the material stockpiles. James Mains is the regular operator and says the Liebherr is a huge improvement over the

smaller machine he sat in when servicing the older plant. 'If we had a wind farm pour, I could spend almost an entire 14-hour shift moving material. The Liebherr makes the job easier and less demanding on me and ultimately uses less fuel.'

Meanwhile, David Hodgens has been impressed with the manufacturer's service ethic. 'From the installation through commissioning and now into our few weeks of operation, Liebherr have been able to answer our questions and give us detailed training and instruction on the best operating methods to get the best out of the mixing plant. The same goes for the wheeled loader and the instruction they have given us on that.'

Stuart Dodd is similarly impressed: 'Since the first loader arrived on the fleet, we have seen improvements in our fuel usage, a major plus point for any operator these days. The reliability and build quality of the Liebherr products has impressed us, our plant managers and our operators and we are hoping the new batching plant will meet our expectations on those fronts too.'



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New Metso UK distributor to service English, Scottish and Welsh markets from new Tamworth base

Newly appointed UK distributor for Metso Outotec crushers, construction equipment distributor, McHale Plant Sales, has chosen the Staffordshire town of Tamworth as the location of their first UK depot.

From there, the company will initially service Metso customers across England, Scotland and Wales with an additional outlet in Scotland to follow next year.

Chosen for what the company says is its 'strategic location' their new Tamworth base is situated on the Lichfield Road Industrial Estate in the town where it will accommodate offices, machine storage, parts warehouse and a repair and maintenance workshop.

Commenting, the company's sales director, Denis McGrath said: "of the many locations we examined, Tamworth stood out as one from which we could reach-out to machinery owners and operators whose priorities in terms of technical back-up and after-sales support we fully understand."

"In Tamworth we will implement an approach to customer service proven in Ireland and Northern Ireland where sales, service and parts operate in lockstep," McGrath added.

Founded during the 1950s, McHale Plant Sales has grown to become a leading equipment distributor with a significant presence in construction, civil works, forestry, agriculture and environmental sectors.



Since 2015, the company has been Metso Outotec distributor in Ireland and in Northern Ireland where experience in both markets led to a decision by Metso, first announced last January, to extend their remit to include England, Scotland and Wales markets.



UK's first net zero cement works one step closer following government announcement

Hanson UK has progressed to the due diligence and negotiation phase in its bid to install carbon capture technology at its Padeswood cement works in Flintshire through the Government's Phase-2 cluster sequencing programme.

The announcement represents another important step forward for the construction sector in its ambition to reach net zero. If funding is confirmed, this project will deliver the first net zero cement works in the UK, placing Padeswood and Hanson at the forefront of the industry's transition to a low carbon future – helping decarbonise north Wales and beyond.

The Phase-2 cluster sequencing programme, funded through the Department for Energy Security and Net Zero, is part of the Government's ten point plan for a green industrial revolution and follows the recent £20bn funding announcement for the early development of carbon capture and storage (CCS) projects.

The development of CCS at Padeswood will reduce embodied carbon in infrastructure and building projects around the UK, including wind farms, schools, hospitals, rail and roads, and create 54 new, full-time highly-skilled roles, as well as 350 additional jobs during construction. When operational the

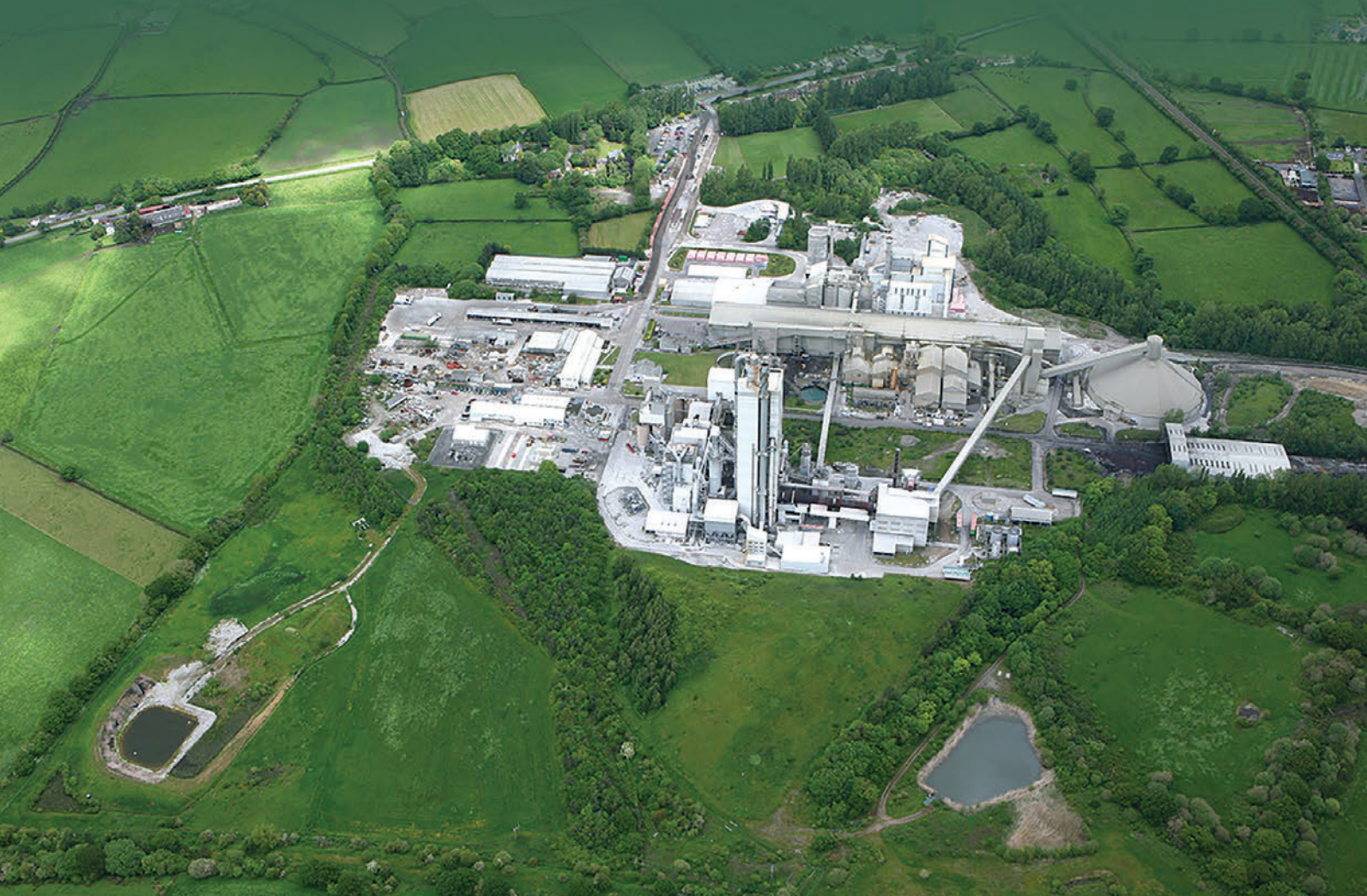
plant will capture 800,000 tonnes of CO₂ emissions per year – the equivalent of taking 320,000 cars off the road.

Over the last decade, Hanson has been investing heavily in its Padeswood site, and others around the country, as part of its commitment to reaching net zero by 2050. This proposed CCS project further demonstrates the company's commitment to decarbonising its business to the benefit of the construction industry as a whole.

Simon Willis, Hanson's chief executive officer, said: "I would like to thank Government and all of those that supported us in our bid to receive funding which will enable us to help decarbonise the construction industry and meet our overall ambition to become a net zero business.

"This global exemplar project will provide net zero construction materials for major projects across the country, from new offshore wind farms and nuclear power stations, to clean transport infrastructure."

Hanson's plans at Padeswood are part of the HyNet North West decarbonisation cluster, which aims to create the world's first low carbon industrial cluster through its development of a hydrogen and CCS project.



Equipment manufacturer has the edge on the rest

A global leader in the design and distribution of equipment used in the quarrying, port handling and recycling industries bagged not one, but two top awards for Excellence in Exporting. Co Tyrone-based EDGE Innovate, a family-run business with 170 employees has boosted its turnover by 14% to £40m in the past year.

The Made in NI manufacturer awards and Belfast Telegraph business awards celebrate the dynamism, innovation, and entrepreneurial spirit of the local business community in Northern Ireland.

Both Judging panels were impressed with the work EDGE Innovate has done with its network of more than 70 overseas dealers and partners to alleviate barriers to market such as cost increases, component supply issues and it's continually engagement in product innovation.

Eddie Cuskeran, Director of Operations, said: "Our success has to be credited to our dynamic, loyal team. They have worked tirelessly, continually improving our process, and ensuring a smooth transition through all departments.

"This hard work has helped develop an even better product with reduced lead times which inevitably improved our exports."

EDGE Innovate exports 99% of its equipment having supplied up to 100 countries across the globe, with a strong presence in North America, Australia, Canada, France and Italy.

In 2022, the company was presented with the Queen's Award for Enterprise recognising its excellence in International Trade for a second time, as one of only seven companies to achieve two awards.

The business also entered the Belfast Telegraph Top 100 Companies for the first time in 2023.

EDGE Innovate has experienced exceptional growth since 2009 facilitated mainly by the introduction of a diverse range of products. Its research and development engineers work closely with partners and customers to develop innovative new solutions for the market with, for example, two new products launched at COMPOST 2022 in Austin, Texas generated around £3.1m in sales last year.

To meet these growing demands on the business, EDGE Innovate have recently opened a new 40,00ft² facility with further expansion plans already in construction. The company says a new 36,150ft² factory will house a state-of-the-art fabrication and final assembly lines resulting in the creation of 20 new jobs.



This investment will ensure EDGE Innovate are in the position to capitalise on growing demand with the additional space, equipment and people needed to achieve their export targets.

EDGE will now represent Northern Ireland at the Made in the UK Awards finals, taking place in Liverpool on June 29th.

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UK's first all-electric mixer demonstrates pathway to low carbon logistics

The UK's first all-electric ready-mix concrete mixer has successfully completed a three-month trial of commercial deliveries across Birmingham for Tarmac, marking a significant step on the path to net zero construction.

The 'e-mixer', created in partnership with Renault Trucks and TVS Interfleet, is the first of its kind to operate anywhere in the UK with zero tailpipe emissions. With the same average capacity as a conventional diesel vehicle, it is expected to save 42 tonnes of CO₂ annually, with zero emissions per mile compared to 1.55 kg of CO₂ per mile for its fossil fuel equivalent[1].

The mixer forms part of Tarmac's strategy to develop integrated low carbon logistics by offering decarbonised transport for the last mile of a construction project. Operating out of the company's rail-fed Birmingham Plant at Washwood Heath, it builds on Tarmac's extensive logistics network which includes more than 60 rail connected sites across the UK.

Ben Garner, Tarmac's low carbon logistics lead, said: "We have committed to being at the forefront of implementing low CO₂ transport and logistics solutions and the successful operation of this e-mixer is a significant milestone for both Tarmac and the UK construction sector.

"Our extensive logistics capabilities and strong collaborative relationships with supply chain partners enable us to continue exploring initiatives and innovations that move high quality construction materials to the right place at the right time, supporting our customers with the delivery of a lower carbon built environment.

"With the arrival of this new vehicle, we're able to offer something completely new to the market and demonstrate that a fully integrated low carbon logistics model is possible."

As part of the vehicle's development, the partnership team created an entirely new digital operating system alongside improving safety measures during operation. The truck also offers reduced noise and vibrations, while contributing to improving air quality, particularly when operating in urban areas and low and zero emissions zones, such as Birmingham's Clean Air Zone.

The e-mixer boasts increased energy savings and has a longer lifespan compared to its traditional internal combustion engine counterparts.

Andrew Scott, Head of Electric Mobility and Product Development, Renault Trucks UK and Ireland, said: "Renault Trucks has been delighted

to partner with Tarmac and TVS Interfleet in the development of the first electric concrete mixer in the UK. Like Tarmac we share the highest ambitions to decarbonise the construction sector and see this as the first of many zero carbon vehicles which we can introduce together to help drive carbon out of construction."

Kevin Walker, Technical Director at TVS Interfleet, adds: "To develop the new electric mixer, the TVS Interfleet team was asked to completely forget everything they thought they knew about building mixers and start from scratch, which has resulted in a mixer with several new patents. While the original brief was to deliver energy saving benefits and a focus on decarbonising the construction industry through electrification, other benefits have also been realised including heightened safety and a quieter operation; all of which adds to the long list of benefits the e-mixer delivers.

"Ultimately, the successful launch of the e-mixer has been possible through the collaborative approach undertaken by all three companies. This new model of working sets the standard for future development and innovation, and one we hope will continue."

The e-mixer was awarded the BAA Award for Safety and Innovation at The UK Concrete Show in March 2023.

Tarmac is continuing to work with Renault Trucks and TVS Interfleet to develop the next generation of mixers. The company has ambitions for their eventual widespread use across its urban operations as part of its Act Sustainability Strategy and commitment to be a net zero business by 2050.

[1] A typical 50% laden Rigid Artic > 17tonnes generates 1.55kg of CO₂e per mile. The data can be accessed at: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022>



Mobile Material Stabilization Solutions for the UK from Red Knight 6 Ltd

What can you do in 4 hours? It is unlikely you will list the full set up and operation of a material stabilization solution. But with the Bison mobile plant from SIMEM that is exactly what you can achieve.



Available only from UK & Ireland distributor Red Knight 6 Ltd (RK6), the Bison is the fully mobile solution that can generate up to 500 TPH with a hydraulic self-erecting system, meaning no cranes are necessary. The Bison is available in two variants, the 250 and the 500. Both are trailer mounted (the 250 is delivered by trailer) and fully road legal in the UK.

The Bison solutions come with in-built industrial PCs with 24" screens, offering real time flow correction with a percentage for each product and immediate feedback on plant performance and actions. There is also a periodic back up of all system and production data, ensuring everything is securely held and protected.

The mobile plant is ideal for a wide range of civil works that require concrete mixing, material stabilisation and recycled reinstatement material. Additionally, the Bison units are ideal for road basement and surface requirements, such as cold asphalt mixing and foamed bitumen mixing. The systems can also manage a variety of remediation works such as, soil stabilisation and solid waste treatment.

Each of the Bison unit is expandable and can come with the following, depending on your requirements:

- Main trailer – including a twin shaft mixer, powder and liquid dosing units and an aggregate bin.

- Aggregates unit – offering expansion of up to 3 aggregate containers, each with individual weighing capabilities allowing for accurate measurement of multiple aggregates.
- Powder unit – with silos, screw conveyors, compressor, and filter.
- Service unit – containing control cabin and water storage tank.

"The Bison is the leading, fast, and flexible material stabilisation solution available to the UK and Irish markets. It comes with minimal site restrictions and with a 4-hour set up time it offers the most rapid solution on the market," said Dan Flack, Sales Director at RK6. "With so much large-scale construction and development, like HS2, taking place throughout the UK we feel now is the ideal time to focus on a truly mobile solution for our customers."

Visit www.redknight6.co.uk to find out more about the variety of concrete batching solutions on offer or call 01293 862 619.



	Bison 250	Bison 500
Hourly rate	100-250 tph	200-500 tph
Aggregate Units	1-3	1-3
Power Dosing System	1-2	1-2
Emulsion Device	1	1
Mixer Model	MDC 201	MDC 501
Discharge Height	4.2m	4.2m





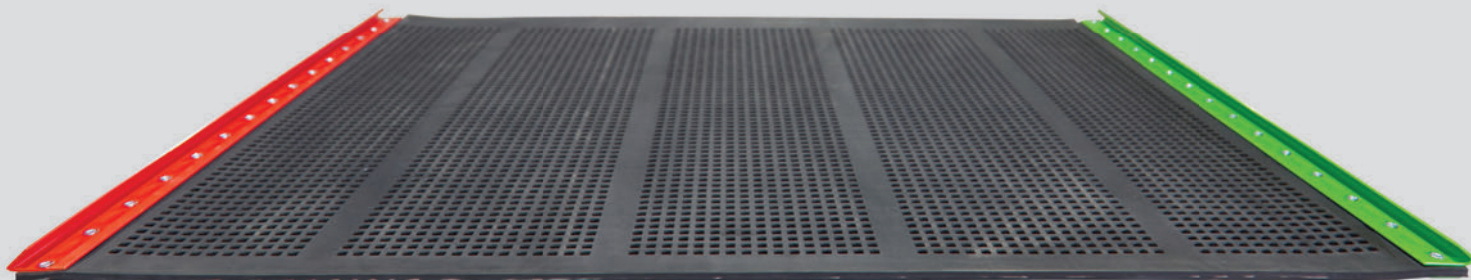
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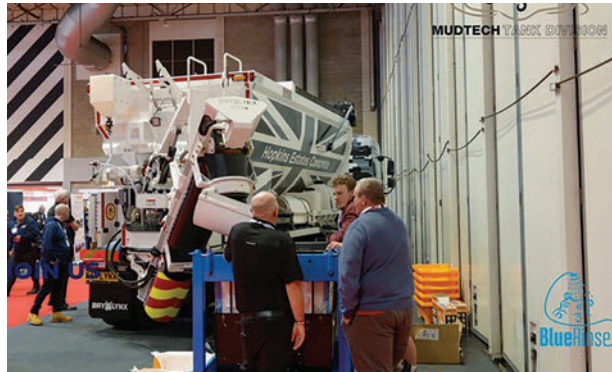
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BlueRinse® announce a new strategic partnership with Bay-Lynx Manufacturing

BlueRinse® (MudTech Tank Division®) are thrilled to announce its newest strategic partnership with the leading manufacturer of Volumetric Concrete Mixers in the UK.

For the past 12 years, Bay-Lynx UK has been manufacturing their Volumetric mixing equipment in the UK. Their latest product, the Titan, has been very successful in the market, with over 105 units already in service across the UK within the last two years.



Mark Brooks, Director of MudTech®, expressed his excitement in collaborating with Bay-Lynx to determine how the already impressive BlueRinse® product line can cater to the requirements of the Volumetric Mixing Industry.

During the recent UK Concrete Show, Bay-Lynx kindly displayed our BlueRinse® washout systems and Slurry Tubs at their stand, which garnered significant interest from visitors. As a result, we are currently in talks with them to explore further business opportunities.

Just like drum mixers and concrete pumps, it's necessary to wash out Volumetric Mixers both on-site and back in the yard.



Our team is excited to collaborate with Bay-Lynx to further enhance our already impressive range of products for the Volumetric Mixer Market.

Michael Barr, the operations director at Bay-Lynx comments, the safe disposal of wash water is a significant concern in the industry, which is why Bay-Lynx is thrilled to be collaborating with BlueRinse® to provide washout solutions for the volumetric concrete industry. The recent UK Concrete show saw an excellent reception to the BlueRinse® system, with many of Bay-Lynx's current customers expressing interest.

Our team will collaborate closely with the BlueRinse® development team to create bespoke solutions specifically designed for volumetric mixers. Additionally, we will install a washout system in our workshop to ensure the safe and proper management of concrete washout water for vehicles undergoing repairs in our drive-in workshop.

The decision to partner with BlueRinse® was easy, as their core value of doing things properly aligns with our own. We have found their products to be of the highest quality in the industry and perfectly suited for their intended purpose. This is important to us as a business, and we look forward to a long and productive partnership.

New concrete plant provides further expansion for Hills Quarry Products

Hills Quarry Products has strengthened its presence in the ready-mixed concrete market with the opening of its seventh concrete plant located at Unit 2, Kendrick Trading Estate, Galton Way, Swindon.

Peter Andrew, Group Director said: "Our new site at Swindon will greatly enhance the geographical area in which Hills Quarry Products operates and also expand the level of service we can provide to our customers with a mini-mix service now available from all our concrete plants."

The site is registered with the Quality Scheme for Ready-Mixed Concrete (QSRMC) and will provide high-quality concrete and screed to both small and large customers with product available for collection or delivery using 4m³, 6m³ and 8m³ sized vehicles.

The plant will also offer 24-hour, seven day a week opening on request.



New concrete plant provides further expansion

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Ready-mixed concrete is the most widely used building material in the world. It is essential to society and a cornerstone of our built environment. It is flexible, versatile, durable, and strong, and is used in a wide variety of applications including housing, commercial buildings, road building and major infrastructure

projects such as bridges, tunnels, and airports as well as energy and water plants.

It also absorbs CO₂ throughout its life and is 100 per cent recyclable, contributing significantly to the circular economy and providing materials with lower embodied carbon.

Concrete manufacturers, like Hanson UK, take their responsibility to reaching net zero carbon very seriously and have roadmaps in place to achieve the Government's ambitious 2050 deadline.

Hanson's route to decarbonisation has been ongoing for many years and the company has made significant progress, including reducing its CO₂ emissions in the UK by more than 50 per cent since 1990. But its ambition of reaching net zero carbon emissions by 2050 can only be made a reality if carbon capture and storage (CCS) technology can be utilised.

This is because cement is a key ingredient in concrete and its production is energy-intensive, with Hanson's cement business responsible for 90 per cent of all of its CO₂ emissions. Of these emissions, around 70 per cent are from the chemical processes involved in cement's production, which cannot be

reduced by using lower carbon or renewable energy sources. As a result, the only way to produce the cement needed without emitting large amounts of carbon is to capture and store these emissions, removing them from the process completely.

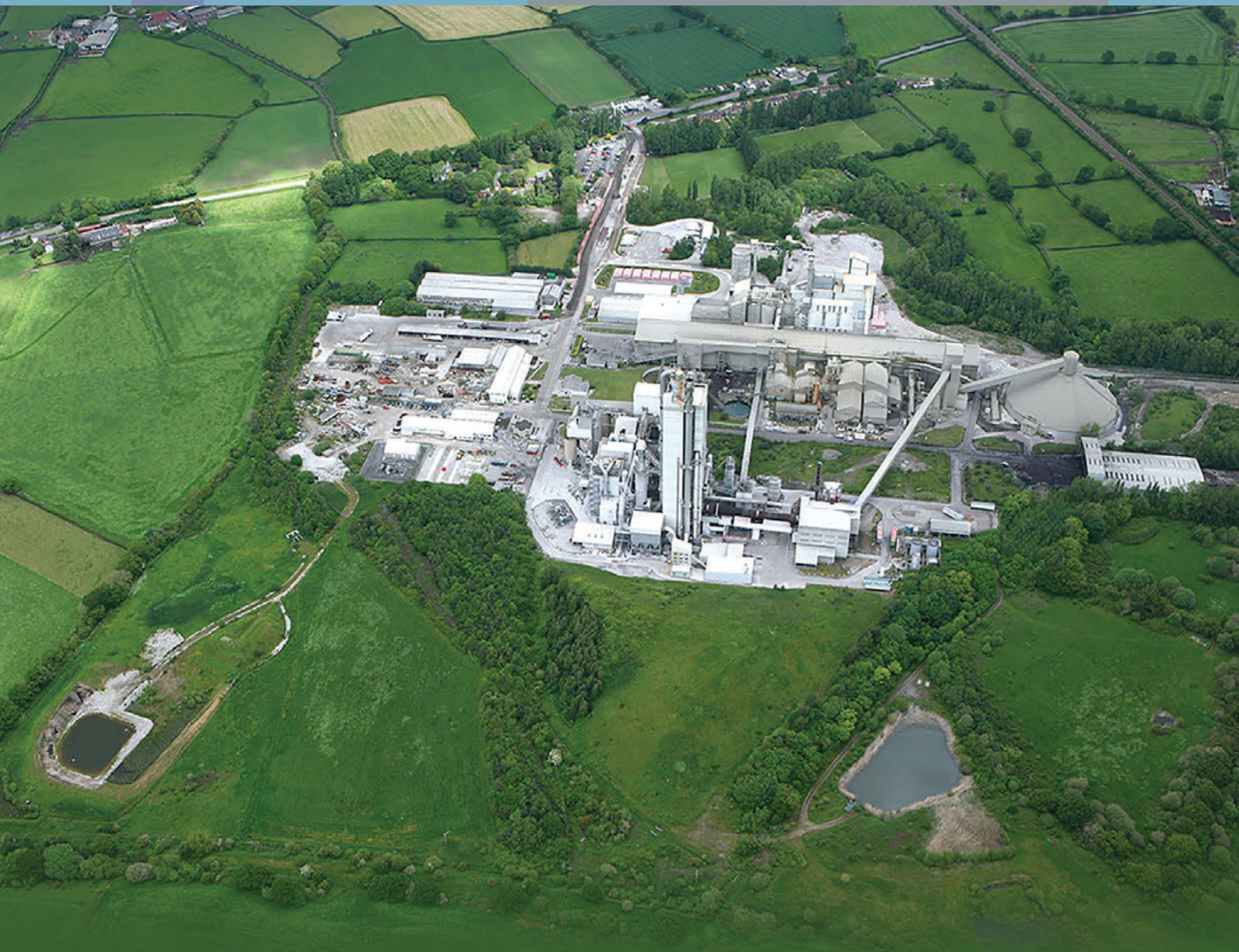
To this end, Hanson UK is proposing to invest around £400 million to build an industry-leading carbon capture facility at its Padeswood cement works, near Mold in north Wales. It would capture the CO₂ produced during cement manufacture before it enters the atmosphere, transporting it via the HyNet Northwest underground pipeline and storing it safely under the seabed (see article in NEWS section).

Carbon capture is a safe and proven technology that has been around for many years in other industries. It is already being developed by Hanson's parent company Heidelberg Materials in Belgium, Canada and Norway and the Group will capture and store 10 million tonnes of CO₂ cumulatively until 2030 through the CCUS projects it has in development.

Padeswood CCS could set the UK construction industry on a path to achieving the Government's binding net zero targets by capturing and storing 800,000 tonnes of CO₂ each year and will enable Hanson to produce net zero carbon cement as early as 2027.

Hanson is also involved in an additional carbon capture project at its Ketton cement works in Rutland. The multi-industry project, part of the Government's Net Zero Innovation Portfolio, will see C-Capture's carbon capture technology implemented at several sites across the country. The process uses a solvent to selectively capture the CO₂ produced and requires less energy than some other carbon capture technologies, with the potential to significantly reduce its cost. The feasibility study is now complete, and the demonstration unit is expected to be installed later this year. >





A third carbon capture process, conducted with Hanson's parent company Heidelberg Materials' R&D team, has also been demonstrated at its Ribblesdale cement works in Clitheroe, Lancashire. Here, the team proved that enforced carbonation of recycled concrete paste (RCP) within the plant's existing wet scrubber allows for a high CO₂ uptake within less than 30 minutes, preventing emissions entering the atmosphere.

During the trial 15 tonnes of industrial RCP were fed into the scrubber resulting in 100kg of CO₂ being bound within each tonne of RCP. It confirmed the feasibility of enforced carbonation, which supports the circular economy by using waste recovered concrete fines to remove CO₂ emissions from the production process while producing a secondary material that can then be used to replace virgin limestone in cement and concrete production.

The Ribblesdale trial follows one conducted under semi-dry conditions at Heidelberg Materials' Brevik plant in Norway and marks another important milestone in the company's carbon capture journey.

In order to make it easier to access low carbon concretes now, Hanson has developed its EcoCrete range, which reduces the CO₂ emissions associated with standard CEM I concrete by at least 30 per cent.

EcoCrete concretes contain Regen GGBS (ground granulated blast furnace slag), a by-product of ironmaking, as a replacement for some of the cement content in concrete. Using GGBS reduces the embodied CO₂ in a concrete mix by around 780 kg for every tonne of CEM I Portland cement it replaces. It also increased the long-term durability of structures, conserves natural resources for future generations as it does not require the quarrying of materials, and prevents the slag being disposed of as landfill.

There are three products in the range: EcoCrete, which reduces CO₂ by 30-64 per cent compared with CEM I concrete; EcoCrete Extra, which reduces CO₂ by 65-79 per cent; and EcoCrete Elite, which reduces CO₂ by at least 80 per cent.

Hanson is already the largest producer of low carbon concrete in the UK and its involvement in these industry-leading projects demonstrates its commitment to developing new technologies to support the construction industry in reducing the embodied carbon in building projects and helping meet net zero goals.



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CEMEX introduces innovative lower carbon sprayed concrete for tunnelling

Global building materials supplier Cemex has enhanced its Vertua range of Urbanisation Solutions with an innovative new lower carbon sprayed concrete, available for supply in the UK now, suited for constructors of large-scale tunnelling projects who are looking to utilise more sustainable solutions.



Cemex's new product offers a reduction in embodied carbon of 23% compared to our previous sprayed concrete; The Bank Mix.

This new sprayed concrete, the latest launch from Cemex's Urbanisations Solutions business, offers a more sustainable enhancement to its industry renowned "Bank Mix" Silo Sprayed concrete, which has previously been utilised on

prestigious UK infrastructure builds such as the Northern Line, Bank Station upgrade, London Power Tunnels 2, Thames Tideway and many others.

Michael May, Sales Manager for Cemex Mortars Europe, commented: "We believe the launch of this lower carbon sprayed concrete product, available now, will be valued by our customers working on significant infrastructure projects, where the use of more sustainable products is becoming increasingly important and even specified as a requirement in project tenders.

"Our previous sprayed concrete was regarded by our customers as incredibly reliable and high performing so to significantly reduce its carbon content by 23% as a first step whilst maintaining its high performance is something we are very proud of. However we will not stand still; this new launch is just the latest stage in our roadmap to further large scale carbon reductions."

Cemex's climate action strategy, Future in Action, aims to lead the way in the construction industry and to constantly innovate and provide customers with a broad range of more sustainable solutions for the challenges of modern urbanisation. This new sprayed concrete product has joined Cemex's portfolio of Vertua building solutions with enhanced sustainability attributes.

Cemex R&D, Innovation and Business Development projects are part of the global R&D collaboration network, headed by Cemex Research Centers, based in Switzerland.

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Building a better future for tunnelling

Mike May, Cemex's European Sales Manager for Mortars, discusses the growing demand for end-to-end sprayed concrete lining solutions, a recent complex refurbishment of Scotland's Mullardoch Tunnel and the introduction of lower carbon sprayed concrete...

The demand for new sprayed concrete lining has increased dramatically in recent years with major new tunnelling projects in the airport, rail, hydro and power generation industries. Amongst this growth remains a steady flow of complex and bespoke tunnel maintenance and refurbishment programmes which are ongoing across the UK.

Cemex is committed to providing collaborative end-to-end solutions covering many phases of the tunnelling process. Central to this is our aim to develop and offer reliable, efficient and more sustainable solutions for the tunnelling industry that are fully cognisant of the needs of our customers and end-users. Our partnerships focus on innovation through collaboration, to capitalise on multiple areas of expertise to support each stage of the project.

Sustainable urban spaces

Tunnelling is an extremely specialist and performance-critical industry. Along with the importance of identifying the correct concrete mix and equipment, the nature of tunnelling in high-profile environments comes with its own set of unique challenges, requiring complex and well-planned solutions.

As urban areas become more dense and open spaces increasingly unavailable, in part due to continuous population growth, tunnelling and underground infrastructure requires a more creative, yet equally robust approach, to develop the space available into sustainable urbanised landscapes. There is a growing requirement to futureproof the resilience of cities from the impact of climate change, alongside the need to reduce visual, environmental and noise impacts, by minimising disturbance to surfaces. And all of this, whilst embracing the critical need for communities to be connected through people-orientated transportation systems and infrastructure.

Lower Carbon Sprayed Concrete

Our lower carbon sprayed concrete, part of our family of Vertua products and solutions, has a carbon embodiment of 23% below our industry renowned "Bank Mix" Silo Sprayed concrete, making it an ideal solution for constructors of large-scale tunnelling projects where the necessity to develop new infrastructure needs to be balanced against the environmental impact. The Cemex Specialist Solutions Lower Carbon Sprayed Concrete is only the first step in our ambitious aim to supply the tunnelling industry with more sustainable products. The introduction of our lower carbon sprayed concrete as our core product achieves the first phase objective. Our next aim is to produce a sprayed concrete with a target carbon embodiment reduction of up to 40%.

The Vertua lower carbon product symbol is awarded to selected cement and other products characterised by their unique raw material composition, which contains the highest quality ingredients to reduce the carbon footprint of the finished product.





Mullardoch Tunnel Restoration

Cemex recently provided a special, high-performance blend of Dry Sprayed Concrete with reinforced steel fibres, to assist in the complex and successful restoration of the Mullardoch Tunnel project, in the Scottish Highlands.

The Mullardoch Tunnel, running from Tomich to Cannich, is located approximately 25 miles south-west of Inverness. It provides access to the hydro-electric scheme at Fasnakyle Power Station which was initially built in the 1950's as part of the North of Scotland Hydro-Electric Board's drive to provide electricity for northern Scotland. The tunnel was constructed by drill and blast methods through the rock which at the time of construction was a highly ambitious build, providing stable access routes through the remote and mountainous valley.

As part of the ongoing tunnel management and maintenance inspections, a defective area of rock was identified in 2019 which needed large-scale repair. A collapse inside the tunnel would pose major operational issues for the nearby power station, with far reaching effects. A programme of repair was required to stabilise the tunnel using rock bolts and finished off with a bespoke high performance blend of reinforced dry sprayed concrete.

The advanced Cemex lining product was proposed by sprayed concrete specialist Gunform International Limited and formulated in close partnership with Cemex. The material was supplied in 1000kg bags and installed using a big bag dispenser and Reed LOVA Guniting Machine. The Cemex material, with an internal accelerator, was applied in thickness up to 500mm thick to create a regular hard-wearing finish. The main contractor for the Mullardoch Tunnel project was AMCO-Giffen Ltd and the client was SSE plc (formerly Scottish and Southern Energy plc).

Access to the tunnel site at Mullardoch was extremely restricted which posed additional

challenges. It was imperative for Cemex to meet the demands on site and the project completed on time. Cemex's high performance fibre reinforced concrete offers bespoke design solutions incorporating a 3-Dimensional system of either macro-synthetic or steel fibre reinforcement, which reduces the risk of cracking, increases impact and shatter resistance, improves surface durability and reduces long-term maintenance costs. At Mullardoch, the Dry Spray Concrete product arrived on site each time with the fibres evenly distributed throughout the product, allowing the time-saving process of placing concrete and reinforcement in a single operation.



Cemex's tailor made fibre reinforced concrete is produced to suit specific customer needs and manufactured in accordance with BS EN ISO 9001, BES 6001 and BS EN 14889. It is independently certified under the Quality Scheme for Ready Mixed Concrete (QSRMC) in accordance with the relevant standards and is available from Cemex plants throughout the UK.

Specialist Technical Support

In addition to sprayed concrete primary lining solutions, Cemex has extensive experience in designing, producing, and delivering concrete across all tunnelling related structures. The company has proficient experience and capability in providing sprayed lining solutions and can produce both cast in-situ or sprayed concrete products delivered in a pre-blended dry silo.

All specialist technical support and laboratory testing is performed by a Cemex team of UKAS accredited technical experts providing comprehensive solutions for all testing requirements, from approval to continuous compliance and investigations. Our centrally located facility enables nationwide site testing, and is backed by wider specialist resources and technical expertise from our global Cemex business.

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Why sustainability is a concrete matter

As with the majority of the construction industry, concrete production is in a state of flux as it tries to balance growing project demands with the need for a more sustainable approach to building. However, James Bullock, managing director of ConSpare, says that by taking a holistic approach to reducing carbon emissions associated with production, concrete batch plants can not only be more sustainable, but save on cost as well...

With global construction output expected to grow by 42% by 2030 according to the Institute of Civil Engineers, concrete usage is only going to increase. Our comprehensive database puts the number of batching plants in the UK at approximately 2,000, with these plants currently contributing 1.5% of the nation's carbon footprint per year.

The importance of concrete batch plants

The concrete industry is undertaking a wide range of solutions to reduce its environmental impact, but often the concrete batching plant itself is overlooked. What measures can be undertaken at a batching plant level to complement other carbon reduction initiatives?

Producing concrete through concrete batch plants has always been a resource intensive process. It requires large volumes of raw materials, particularly high CO₂ cement, is powered by electricity, and consumes large amounts of steel components such as wear parts and spare parts.

The challenge today is finding ways in which this long-running approach to concrete batching plant operation can be improved to provide reductions in both carbon emissions and cost.

Challenges in the process and maintaining the process

The concrete production process has five distinct stages; storage, conveying, batching, mixing, and discharging (Fig 1).

Breaking the activities of a typical concrete batch plant down into these processes allows producers to find the problems which are creating inefficiencies, which can then be assessed and their impact on production analysed.

Although an initial problem may seem small at batch level, for example, a little extra cement added to each batch to ensure strength requirements are met, or mixers taking a few extra seconds to homogenise the mix, the additional cost and carbon emissions start to add-up very quickly.

When you combine this with the linear process of concrete production, any problems start to have knock-on effects across other elements of the process and can create bottlenecks. This cumulative effect ensures great rewards can be found when tackling problems within the batch plant and production process.

When you consider that a concrete batch plant often has an operational life of up to 30 years, plant maintenance decisions, however small, will have an important impact over time, in terms of both carbon emissions and whole-life maintenance costs.

Even the highest performance concrete batching plant will reduce in efficiency over time, and proactive maintenance investments and maintenance interventions provide a perfect platform to implement further improvements.

If the concrete industry can draw on the theory of marginal gains – making small, seemingly insignificant changes to processes that compound over time into wholesale improvements – this has the ability to make a big impact on improving plant uptime and Overall Equipment Effectiveness (OEE) while simultaneously delivering carbon reduction.

By constantly making small improvements, our combined journey to net zero is accelerated – especially when these changes have the potential to be scaled up throughout the wider industry. >

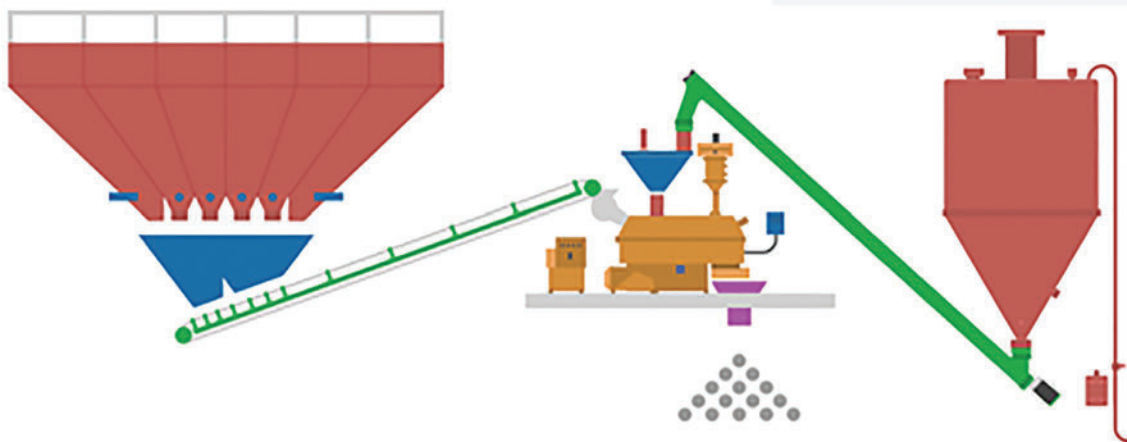


Fig 1. The concrete production process, consisting of storage, conveying, batching, mixing, and discharging

Fig 2. Teka TPZ1500 planetary mixer



When replaced with Hawiflex polyurethane blades, these lasted three times longer, saving 342kg of CO₂ per year and reducing component purchasing costs by 52%.

Therefore, by looking at the plant through the lens of carbon, targeted investment decisions can be made to ensure that concrete plant operators achieve maximum benefit, with process improvement and smart maintenance techniques used to reduce the emissions associated with production.

An obvious choice

It is not often that an industry has the obvious choice. From a business standpoint, all too often compromises must be made to achieve a set of aims. In this instance, however, reducing carbon from the concrete production process can realistically be achieved at the same time as reducing cost.

Finding solutions within the batching plant and process

Across the concrete batch plant and the five stages of the production process, there are three key areas in which efficiencies can be made in terms of both carbon and cost; reducing raw material usage and waste, reducing power usage, and reducing maintenance interventions.

There are multiple solutions depending on the problems or requirements of the plant. By its very nature, the production process is full of bottlenecks, and it is these that are often hidden producers of waste.

For example, the practice of over-cementing is a significant contributor to CO₂ emissions associated with the concrete production process. However, by switching from the 'averaging' method of measuring moisture in materials to Hydronix, one of the leading readymix producers was able to drastically reduce the requirement to over-cement at one of their plants, with an average reduction of 26kg of cement per cubic metre of concrete - equivalent to 1,413 tonnes of cement per year. This would save £185,000 and 1,030 tonnes of CO₂ from cement reduction per year.

Alternatively, power usage is also an area where small improvements can lead to impressive savings in both cost and carbon emissions. In 2010, ConSpare replaced an energy intensive rotating pan mixer with a Teka TPZ1500 planetary mixer at a leading roof tile manufacturer. This resulted in 68,000 kWh of power saved per year, equating to 23.8 tonnes of CO₂ per year and £40,800 per year.

Maintenance interventions are a third critical area where efficiencies can be made, bringing about significant reductions in downtime and spare parts. A renowned manufacturer of building materials in Scotland was using cast steel blades in their pan mixer, which required replacement after three months due to the abrasive nature of the aggregates used.



Fig 3. Teka TPZ mixing action

By providing the most effective equipment and smart maintenance solutions we can reduce material wastage, energy usage, and minimise spare part consumption at plant level.

Long-term economic growth cannot come at the cost of the planet. It is imperative that the concrete production industry finds a sustainable way forward through evidence-based solutions that are proven to reduce environmental impact and preserve our planet for future generations.

We believe the industry will work together as a coalition of change-makers to focus on the things that matter and drive as much carbon as possible out of the concrete production process as quickly as we can, however we can.

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KCM invest in a third Terex® Ecotec Waste Handler

Based in South Yorkshire KCM is a family-run, waste management company. Established over 35 years ago, serving Rotherham, Sheffield, Barnsley, Doncaster, and the surrounding areas; today the multifaceted business is made up of 120+ waste management professionals who aim to offer a one-stop-shop for all waste disposal needs.



With recycling at the heart of their company, KCM are dedicated to perfecting a unique approach to waste



management. KCM regularly research new industry technologies and industry trends to keep at the forefront of the waste management sector.

A drive to increase production:

Recently the company have invested in more handling technology in the form of a Terex Ecotec TWH 236 Material Handler. This machine was brought in to underpin the drive to increase production following the investment in a Terex Ecotec TBG 630 Shredder which is perfect for KCM as it is the ultimate processing machine for medium to large scale biomass and waste green processors.





Terex Ecotec & Warwick Ward:

The Terex Ecotec TWH 236 Material Handler along with the other Terex waste processing machines at KCM have been supplied by Warwick Ward who are based in Barnsley, South Yorkshire.

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.

Richard Dixon – Area Sales Manager Recycling – Warwick Ward, commented, "We had previously supplied two Terex TWH 228 Waste Handlers in the last 3-years and when KCM invested in a new Terex Ecotec TBG 630



increasing production we also supplied a third material handler in the form of a TWH 236 which has been supplied with a 16-metre boom to fully use the capacity of this extra reach in their very busy operation. With their experience of their two previous machines the KCM operations team have fully appreciated the build quality and specification of these machines, so it made sense to invest in more Terex Ecotec technology."

Terex Ecotec TWH 236 Waste Handler:

Cutting-edge engine technology combined with intelligent hydraulics make Terex Ecotec's TWH 236 Waste Handler one of the fastest and most sensitive machines in the market. With an operating weight of 35.5 tonnes, 16 metres of reach and an undercarriage width of three metres, all combine to make the TWH 236 a particularly stable machine with impressive machine statistics backed up by impressive machine performance.

Keith Hickling – Site Manager KCM, commented, "We operate a very busy site, and it is important that the machines we use are dependable. The Terex Ecotec Waste Handlers are first-class and work perfectly alongside our other material handlers. We all know that machines can break down however working with Warwick Ward over a long period of time gives us the faith in that downtime will be kept to a minimum. Additionally, they are always keeping us up to date with machine developments which our operators appreciate – it is a great working partnership."



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First Volvo EW200E MH in Switzerland proving a perfect partner for waste & materials handling

Two machines from Volvo Construction Equipment (Volvo CE) - the EW200E MH material handler and L60H wheel loader - are helping Swiss waste and recycling specialist, Waser Entsorgung AG with its ambition to handle waste in the most environmentally-friendly way.

The demands of a busy waste and recycling centre require machines that are tough, versatile, and productive.

The Volvo EW200E MH material handler and L60H wheel loader are engineered to deliver outstanding results in waste and recycling applications.

And they are proving their worth at Swiss disposal and recycling firm, Waser Entsorgung AG.

Swiss disposal and recycling specialist, Waser Entsorgung AG expects the best from its machines. Across its five disposal centres, the company sorts waste from private, commercial, and industrial customers, returning it back to the materials cycle in the most environmentally friendly way possible.

Alongside its state-of-the-art sorting systems, Waser Entsorgung relies on a fleet of machines to support this vital work – and they now have two new machines from Volvo CE at their Therwil site, a EW200E MH material handler, the first to be used in Switzerland and an L60H wheel loader - which are already proving their worth.

"You need good machines for hard work, we are very happy with Volvo," says Christoph Cabibbo, Operations Manager at Waser Entsorgung AG.



HEIGHT ADJUSTABLE CAB FOR IMPROVED VISIBILITY

Designed to handle even the toughest working conditions and developed specifically for the waste and recycling industry, the Volvo EW200E MH is a powerful and reliable wheeled excavator. The first of its kind in Switzerland, the machine is mainly being used to sort waste material of all kinds, including construction rubble, bulky goods, and scrap metal. "It is our main tool," explains Christoph Cabibbo.

Based on its successful big brother, the EW240E MH, and weighing in at 22.7 tonnes, the excavator is powered by a 129kW (173 hp) Stage V Volvo engine and has a reach up to 10 metres thanks to a choice of 4-metre-long gooseneck arm or a 3.5-metre-long sorting arm. The machine can be



configured as required so customers can optimise productivity for their specific application.

Comfortable and versatile, the cab can be easily raised by joystick up to five metres, providing a clear view of the job at-hand and maximising productivity. And it is from here that the operator can control the claws.

POWERFUL MACHINES FOR LIMITED SPACE

The second new addition is a Volvo L60H wheel loader, which is mainly used to move and feed the various materials into the systems at Waser and to load this onto trucks. A robust workhorse, the L60H offers exceptional stability thanks to a new optimised loading unit weight and redesigned counterweight. Torque Parallel (TP) linkage offers high breakout, tilt in and lifting forces and keeps the attachments parallel throughout the lifting range for exceptional load stability and easy bucket filling. "We are a little limited in terms of space, so there is a limit to the size of the machines on our premises," says Christoph Cabibbo. "The two new machines can operate perfectly here."

Available with a variety of purpose-built attachments, including grapples, sweepers, snow ploughs and material handling arms, the Volvo L60H can be used for a variety of applications.

The new machines have been well-received by the operators too. Ali Cakal, who has 29 years' experience operating construction machines, appreciates the comfort and ease-of-use of the Volvo machines and is very satisfied.

Volvo machines have been an important part of Waser AG's operation for more than half a decade. The firm now has six Volvo excavators and three Volvo wheel loaders in operation across its five locations. Key to this long-term relationship is the support from dealer, Robert Aebi AG.

"We appreciate the excellent service, constant availability and reliability of Robert Aebi AG," adds Christoph Cabibbo. "Its service technicians will be on site within an hour if we need them. This is worth its weight in gold, because every machine failure means loss."

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New 6 tonne Stage V Mini-Excavators launched by DEVELON

DEVELON (formerly known as Doosan Construction Equipment) has launched the new DX62R-7 and DX63-7 6 tonne Stage V mini-excavators, continuing the roll out of the next generation of machines from the company, with a new shared global styling design. The new mini-excavators are designed to offer maximum performance, optimum stability, increased versatility, enhanced operator comfort, controllability, durability, ease of maintenance and serviceability.

The DX62R-7 and DX63-7 are ideal for work in confined spaces on projects in construction, landscaping, utilities, rental, agriculture, recycling, waste and many other areas. Both models are powered by the new D24 Stage V compliant diesel engine providing 44.3 kW (59.4 HP) of power. Despite offering an 8% increased torque of 26.5 kgm/rpm, the D24 engine still provides a 7% decrease in engine fuel consumption.

The DX62R-7 and DX63-7 utilise a Load Sensing System based around a new Main Control Valve resulting in a longer spool stroke for improved controllability and superior working efficiency/performance compared to the previous models they replace. This results from a significant reduction in energy wastage and an over 30% decrease in pressure losses, resulting in an increased system pressure of 275 bar, better fuel efficiency and lower operating costs.

Both machines offer a high auxiliary flow of 90 l/min to enhance work with attachments. The flow capacity can be monitored on the DEVELON Smart 8 inch touch screen in 10 steps and controlled using the thumbwheel on the joystick. This flexibility is combined with an excellent traction force, travel speeds, lifting capacities and digging forces, together providing superior working performance, particularly for trenching and lifting work.

High Comfort and Functional Cab

The new cab on the DX62R-7 and DX63-7 is very roomy for this size of machine and features a full glass entry door to maximize operator visibility on this side of the machine from inside the cab. A rear-view camera is optional and the high luminance LED work lamps (which are standard) on the cab further enhance visibility and safety. Key features of the new cab include:

- A heating and air conditioning (HVAC) system as standard
- DAB radio (Handsfree & Bluetooth)
- Sunglasses Case
- 8 inch Touch Screen
- Air Suspension Seat with Heating
- Thumbwheel Joystick
- A/C Control Panel Keypad
- USB Charger & 12V Socket
- Foldable pedals
- Dozer control
- LED lights (rear and front side of the cab)

The enhanced HVAC system is the best on the market, providing more nozzles to direct warming and cooling air, including both front and rear pillar nozzles that together help to improve the system performance. Larger nozzles are also used to ensure direct and sufficient airflow for operators and manual adjustment of the opening/closing of the nozzles is also possible. >





The HVAC system and the DAB Audio can be controlled through the 8 inch touch screen and the feed from the optional rear view camera can be displayed on the latter. The monitor also shows the flow rate setting for the 10 step control system using the thumbwheel joystick.

New Dozer Lever Control

Using the dozer lever, the operator can select between low and high speed for the levelling blade hydraulics. Travel speed can also be selected by using the travel selector button on the dozer lever. When hydraulic oil pressure rises due to going up a slope while driving in the high speed mode, the travel speed auto-shift valve automatically resets the travel speed to low, to enhance the operator's driving convenience and to reduce machine stress.

The dozer control also provides a new blade floating function - pushing the dozer lever all the way forward puts the lever into the detent position and leaves the dozer blade in a 'float' position. Customers can also choose the optional Dozer lock function, which prevents dozer blade creep. If the machine has the optional blade lock valve installed, the floating function will not work when the lever is in the detent position.

Better Access for Service and Maintenance

The DX62R-7 and DX63-7 feature a new two-part bonnet cover, with fully opening centre and side segments giving easy access for maintenance work compared to the previous generation machines. The cleverly designed mesh bonnet cover prevents dirt ingress.

There are two fuse boxes in the cab on the left hand side of the heater box. The positioning of the fuses under the cab seat and next to the heater box ensure it is easy to remove a bracket, further simplifying maintenance work.

Develon Fleet Management Telematics

The DX62R-7 and DX63-7 mini-excavators have the latest Develon Fleet Management TMS 3.0 Cellular system installed as standard, which provides a telematics management system for the excavators, by collecting data from sensors on the machines.

Brief specifications - DEVELON DX62R-7 excavator

• Buckets:	0.175 m3
• Operating weight:	6.16 tonne
• Digging depth:	4095 mm
• Digging reach:	6485 mm
• Digging height:	6025 mm
• Digging force over bucket (ISO):	43.8 kN
• Digging force over arm (ISO):	27.8 kN
• Rear swing radius:	1180 mm
• Travel speed:	low range – 2.9 km/h high range – 4.6 km/h
• Hydraulic flow:	90 l/min
• Traction force:	51 kN
• Engine:	D24 Stage V compliant 44.3 kW (59.4 HP)

Brief specifications - DEVELON DX63-7 excavator

• Buckets:	0.175 m3
• Operating weight:	6.18 tonne
• Digging depth:	4095 mm
• Digging reach:	6440 mm
• Digging height:	6025 mm
• Digging force over bucket (ISO):	43.8 kN
• Digging force over arm (ISO):	27.8 kN
• Rear swing radius:	1350 mm
• Travel speed:	low range – 2.9 km/h high range – 4.6 km/h
• Hydraulic fl	90 l/min
• Traction force:	51 kN
• Engine:	D24 Stage V compliant 44.3 kW (59.4 HP)

For more on DEVELON, please visit the website:
<https://eu.develon-ce.com/en/>

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Fuchs MHL 380F - Well equipped for Scrap and Port Handling

Regardless of whether you are operating within the heart of a busy scrap yard or a harsh coastal climate, you have the right tool for the job with a Fuchs MHL 380.

Thanks to Fuch's modular design principle, the MHL 380 can be individually adapted to meet the needs of the customer, meaning that this machine can excel in both scrap and port applications. Banana booms for unloading ships, wide undercarriages from minimal ground pressure or pylons for increased visibility, Fuchs can offer all of this and more to ensure that your MHL 380 is the perfect fit.

The MHL 380F has a maximum reach of 22 metres and a maximum operating weight of 71.8 tons (without attachments). The machine has a Stage V 328hp Deutz engine or comes as a fully electric alternative which has a 220kW engine. The second largest machine within the Fuchs line-up is also available in several configurations included Wheeled, wheeled with pylon, tracked, tracked with pylon, stationary with static legs or stationery with pylon.

Blue Machinery (Scotland) recently installed two new MHL 380s, one into a long standing scrap customer and the other into a first time customer that specialises in crane-hire and ship to shore stevedoring.

Scrap Application - J Denham Metals

J Denham Metals are the largest independent metal recycler in the North East of England with over 60 years of experience, specialising in Ferrous and Non-Ferrous metals. The company have extensive knowledge of the secondary metal markets which allows them to compete at the very top of both domestic and international markets, supplying material to consumers all over the world.

Operating out of their 6-acre site in Bishop Auckland, J Denham Metals run an extensive fleet of metal processing and handling equipment. Blue Machinery (Scotland) have been supplying the company with Fuchs material handlers for many years now and they currently run three blue handlers in their fleet. Murray Plant (A Blue Scotland Company) also recently supplied J Denhams with a Fortress FS-95R mobile shear which has allowed the company to process larger items more efficiently.

The MHL 380F is the company's latest handler in the fleet and is being used to load their static shear, as well as the loading and unloading of trailers. The new MHL 380 is the largest Fuchs handler that J Denhams have run and is fitted with a Fuchs five tine scrap grab.

John Joe Denham, Director at J Denham Metals comments "We have a great relationship with the guys at Blue Scotland, they provide us with great service and quality material handlers. We decided to go for a larger Fuchs model this time as the amount of material arriving onsite is always increasing and the handler is feeding the largest shear baler in the country. We buy the best to stay ahead of the rest."



Port Application - Hugh Simpson Contractors

Starting off as a two-man operation in 1964, Hugh Simpson Contractors are now Northern Scotland's leading lifting and crane-hire company. From harbour bases in Wick and Scrabster, the 3rd generation family business specialises in contracting lifting, crane and plant hire, heavy haulage, and ship to shore stevedoring.

As part of their port handling operation the company run a number of material handlers which includes a 2003 model Fuchs MHL 360. After deciding it was time to replace one of their existing handlers, Blue Scotland brought in an MHL 380F

on demo. David Simpson at Hugh Simpson explains "We weren't initially looking to bring in a handler as big as the MHL 380, however, once we spent some time using the machine it soon became the obvious choice for us. With vessels getting bigger and deeper, it made sense for us to go with a larger machine that could keep up with the larger volumes that we are dealing with".

The machine was fitted with a 3.6m³ clamshell grab which the company will use for the unloading of materials such as fertilizer and limestone. However, they have also several other attachments for the handler which will be used to handle timber and piping projects.

David went on to discuss the performance of their new handler: "We know how reliable the Fuchs handlers are as our old MHL 360 is now over 20 years old and has served us well with no major issues. However, we have been blown away with the performance of this new machine. Its power, stability and ease of use is miles ahead of any handler we have ever operated."





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Bunting at Plastics Recycling World Expo 2023

The effective separation of ferrous and non-ferrous metal is a key stage in the successful recycling of plastic and plastic containers. On stand B929 at the Plastics Recycling World Expo Europe (14-15 June, Messe Essen, Germany), Bunting is displaying and discussing proven metal separation technology including FF Drawer Filter Magnets and Eddy Current Separators.



Figure 1 - Ferrous metal in recycled plastic captured on Tube Magnets

Bunting is one of the world's leading designers and manufacturers of magnetic separators, eddy current separators, metal detectors and electrostatic separators. The Bunting European manufacturing facilities are in Redditch, just outside Birmingham, and Berkhamsted, both in the United Kingdom.

The Plastics Recycling World Expo brings together professionals from across the plastics recycling industry for two days of networking, knowledge sharing, and innovation. The two-day program of technical presentations, seminars, and industry debates is supported by an exhibition showcasing technology developed by leading companies in the plastic recycling industry.

Secondary plastic, whether post-consumer or generated internally, commonly contains metal contamination. Such metal damages equipment such as granulators, extruders and injection moulding machines. Bunting has developed a wide range of equipment to detect and separate such metal and prevent costly wear and repairs.

Magnetic separators attract and separate ferrous metals, with a range of designs to suit specific installations and applications. The FF Drawer Filter Magnet is an industry standard for the plastics sector, featuring ultra-strong Neodymium Tube Magnets, mounted in a grid formation, to attract and securely hold even the smallest and weakest magnetic particles. These are easily installed above injection moulding machines and prior to granulators.

Drum Magnets and the HISC or SSSC Separators, also featuring ultra-strong Neodymium magnets, continually and automatically remove ferrous metal from shredded or

granulated plastic waste. Such separators commonly operate in conjunction with Eddy Current Separators, which separate large and small non-ferrous metals such as aluminium. The Bunting range of Eddy Current Separators includes designs focused on separating small, millimetre-sized non-ferrous metals.

Whilst magnetic separators separate the bulk of metal contamination, metal detectors focus on finding and removing lower levels of smaller metal contamination. The quickTRON range of gravity free-fall metal detectors detect and separate metal present in granulated plastic, often directly after the FF Drawer Filter Magnet as seen in Metal Cleaning Systems. Pipeline Style Metal Separators (pTRON) detect and then reject any kind of metal from an enclosed pipe system.



Figure 2 - Drum Magnet and Eddy Current Separator Module at HML Recycling

Recent projects include the installation of a Metal Separation Module (Drum Magnet and Eddy Current Separator) at HML Recycling (Accrington, UK) for a new line recycling perfume bottle tops. The shredded plastic tops are contaminated by ferrous and non-ferrous metal, which is separated on the module.

"The Plastics Recycling World Expo brings together all the leading plastics recyclers and equipment suppliers," said Bradley Greenwood, Bunting's European Sales Manager. "Discussing the metal contamination problems experienced by recyclers helps us understand the challenges and either propose or develop metal separation solutions."

STADLER's secret of accurate commissioning and timely project delivery

Benjamin Eule Director of STADLER UK



The pursuit of a circular economy to address the global waste issue is driving a growth of the recycling industry and an increasing complexity in its demands. Environmental services providers and waste management companies need sorting facilities capable of

processing high volumes efficiently while producing outputs of the high quality needed for recycling. When planning the construction of a new plant or the upgrade of an existing one to meet these requirements, selecting the company for designing and building it is a critical business decision.

The importance of timely commissioning

A key factor in the selection is the company's ability to work to the agreed schedule and complete commissioning on time.

"The material sorted at our facility is connected to contracts with fixed starting points," explains Tristan Merk, Project Manager at environmental services provider PreZero Recycling. "Due to this fact, it is very important that the scheduled milestones will be reached. If the construction or the commissioning period isn't on time, we risk problems with our customer or losing the contract." David Aguado Teruel, Technical Director at GRIÑO Group in Spain agrees: late

delivery on the project would have "a very negative effect, because the delay has a direct impact on the viability of our business plan and commitments, and our ability to deliver our services to our customers and public administrations."

STADLER is well aware of the critical importance of timely commissioning, as Carlos Manchado Atienza, International Sales Director at STADLER explains: "The implications of a delay for our customer are serious: we are talking about losses in the thousands of Euros for non-recovered material and fixed costs already contracted – and this is without taking into consideration landfill costs." Ventura Montes, Catalonia Waste Treatment Plants Manager at PreZero Spain, adds: "For a packaging plant, we could face monthly costs of some 350,000 Euro for alternative waste treatment arrangements and around 400,000 Euro in lost opportunities. For a larger facility, such as an urban waste treatment center, it could be some 350,000 Euro a month in fixed costs plus around 2 Million Euro in lost sales."

"That's why we study the schedule of our work very seriously," says Carlos Manchado Atienza. "STADLER is recognized not only for the quality of our products and our expertise, but also for our seriousness in the start-up and punctuality in project delivery." Ventura Montes agrees: "One of STADLER's strengths is that not only do they always deliver on the agreed date, but usually they are even a few days early. Every time we contracted STADLER for the construction or upgrade of plants, commissioning has always been on time and very few adjustments were required after installation."



STADLER's secret to smooth and timely commissioning

Careful planning based on STADLER's experience is a key factor in its ability to consistently deliver on time. "First of all, we only provide delivery dates we know we can achieve," says Benjamin Eule, Director, STADLER UK and Head of Commissioning. "The final delivery is not only the timely installation, but also the commissioning of the facility to go into production. We work with realistic time schedules, and we allow sufficient time for each stage."

STADLER's in-house capabilities are also an important factor, as Benjamin Eule explains: "As we have in-house teams for mechanical installation and electrical planning, installation and Process Control Programming, we can control and manage the delivery schedules. We also have quicker internal communication and greater flexibility to adjust the work requirements across multiple projects." Carlos Manchado Atienza adds: "All the preparation work in detailed and construction engineering helps us in manufacturing and gives us an advantage when preparing the assembly."

The clear roles and effective collaboration of the local and Head Office teams are crucial, as Carlos Manchado Atienza states: "Coordination and planning between the different departments are key. The good work of the sales teams with the basic engineering, followed by the Head Office's work in detailed and construction engineering give us a competitive advantage. The professionalism of everyone involved and knowing our teams well – from sales and project management to production and assembly – gives us the security to trust the deadlines we have set."

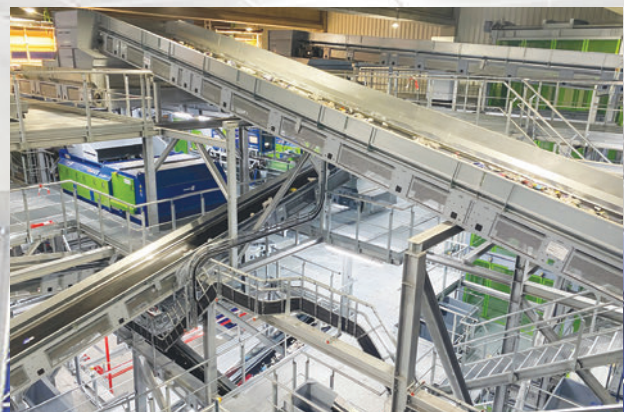
Ricardo Micó, STADLER Assembly Manager Spain, agrees: "For us, respecting the project milestones is key, as well as the effective coordination of all STADLER departments to meet our clients' needs. This gives us unmatched strength in working with our clients' full confidence."



Sorting Plant in Barcelona



Sorting Plant In Eitting



A reputation for quality work and timely commissioning

Environmental services provider PreZero has contracted STADLER on several projects, turning to the company again and again for its reliability: "There are always challenges and unforeseen events; STADLER adapts and is flexible; if necessary, their assembly team will work weekends, holidays, nights – on occasion they have even doubled resources to deliver on the agreed day," says Ventura Montes. "If it's a large-scale project or an upgrade is expected to be difficult, we always try to work with STADLER."



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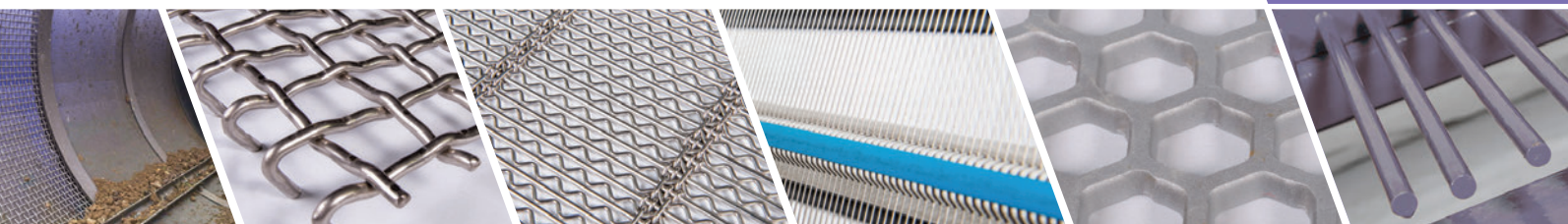
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QUARRY SCREENS & RECYCLING

Terex Ecotec's new TBG 530T shredding the competition



R. Heatrick Ltd, a recycling and demolition contractor based in Northern Ireland, is turning waste wood products into biomass using a Terex Ecotec TBG 530T track-mounted high-speed shredder. The TBG 530T has increased efficiency and saved

running costs for the company, processing a mixture of waste wood and pallets at a rate that required two machines previously.

Mark Heatrick explains, "The TBG 530T track-mounted high-speed shredder is a great machine, cutting back on a lot of manpower. Before, we were running the waste wood through a slow speed pre-shredder then through a high-speed shredder, so apart from the obvious savings with maintenance and repair of two machines, there is also a huge saving on diesel."

Established over 50 years ago in 1969, R. Heatrick Ltd has grown and diversified, and today is a major player in the recycling and demolition sectors across the UK, operating from depots in Belfast and Portadown and quarries in Moira and Lisburn. Adding to its versatility, the TBG 530T will be moving back and forth between R. Heatrick's Belfast and Portadown locations on a low loader.

The TBG 530T is ideal for medium scale producers requiring an accurate and consistent end product. Powered by a 493HP Scania DC13 engine, the TBG 530T has been expertly designed to give operators unrivalled performance, ease of maintenance and superb fuel efficiency. Extremely versatile, it excels in many applications and is particularly suited to waste wood processing and green waste shredding.

With a rapid set up time the TBG 530T is ready to work in a matter of minutes with no tooling required. The open fronted feeder enables the TBG 530T to be fed quickly and easily from the rear. The intelligently controlled feed system, comprising of heavy duty drag chains and aggressive feed wheel with unique lift/downward assist, ensure optimum material flow resulting in class leading performance.

At the heart of the machine is the 1,100mm diameter x 1,490mm wide swinging hammer rotor. This robust, direct drive rotor rotates at 1000 RPM and incorporates 30 up-swinging hammers. A wide selection of hammer designs and interchangeable screens are available allowing the machine to be configured to suit the ever-changing product requirements. The TBG 530T also benefits from the added protection of a screen kickback system. Should an unshreddable object enter the shredding chamber the screen will release allowing the material to quickly pass through, reducing the risk of accidental damage.

Processed material is removed from the machine via a modular product conveyor with an impressive discharge height of 4.6m. This conveyor also lowers to ground level for inspection and maintenance. An optional overband magnet



with hydraulic height adjustment can be fitted to remove ferrous metal from the product.

Whether performing daily checks or carrying out maintenance, the TBG 530T offers unrivalled service access to all key areas of the machine. The electric/hydraulic raise/lower of the screen and interlocked chamber access door allow the rotor and anvil to be inspected with ease. Designed with the operator in mind, the TBG 530T offers the perfect blend of performance, efficiency and serviceability.

The TBG 530T comes fitted as standard with the industry leading T-Link telematics solution designed to improve productivity, efficiency and profitability for the customer.

Terex Ecotec's Northern Ireland dealer, Quarry & Recycling Solutions (QRS) supplied and delivered the TBG 530T. Mark comments, "We have a good history with QRS, they are great to work with and very helpful. This is the second Terex Ecotec machine we've purchased from them."

The TBG 530T is available to purchase via Terex Ecotec's world class dealer distribution network that provide the sales and aftermarket service demanded for in the market. To learn more and to locate your nearest dealer visit www.terex.com/ecotec

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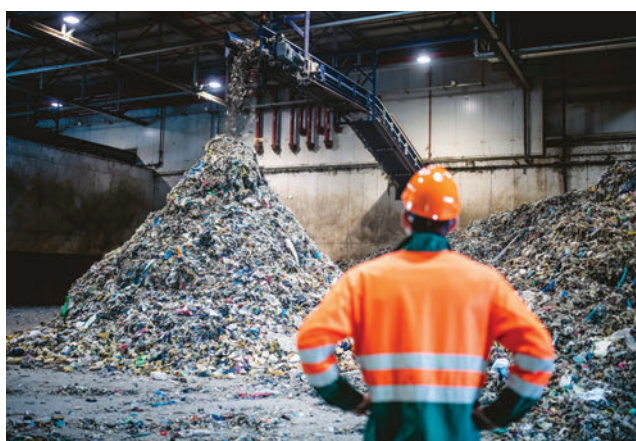
Navigating best fit training in the waste and metals recovery industries



The need to provide operators of onsite equipment with suitable and adequate training is no longer a “Big Reveal”. This is now common practice in most organisations from waste materials handlers to pallet trucks, access platforms to abrasive wheels.

In our experience, we have found many sites completely committed to training and safety, and through collaboration with industry employers, training providers, standard-setting organisations, and manufacturers, there are now well-established training courses and qualifications readily available to employers.

The statutory and non-statutory syllabuses for qualifications are evolving to include new legislation around how material is handled throughout its processing journey and there appears to be a new energy to develop skills and pathways into the industry. Whilst training provides the foundation for all operators, it is important to remember that the journey to competence is an ongoing cycle and the landscape for arranging suitable training and qualifications for the workforce is not always an easy one to navigate.



IDENTIFYING THE CORRECT TRAINING AND QUALIFICATIONS

One of the most frequent questions we receive is around the suitability of a course or qualification for a specific job role. In an ideal world every organisation would measure the skills,

knowledge, and behaviours of their workforce with a competency matrix. However, not every company has this resource and even when they do it is never clear cut, especially with the number of multi-skilled roles and the amount of training courses available to the industry. So, what is the route to selecting a suitable training course?

Step 1 - Understand “Why” the training is needed? Too many training courses are delivered to tick a box rather than address a specific training requirement.

Step 2 - Identify the key learning outputs and the best method of delivery to suit the learner.

Step 3 – Research if there is a recognised standard of training and testing for the specific training course, such as CIWM, EU Skills or City and Guilds.

Step 4 – Check out the training provider, are they themselves accredited, how do they manage competency and skills in their business and do they have the relevant insurances for delivering training on your site.

Step 5 – Evaluate the training, get honest feedback and understand if the course met all of the learners’ requirements.

Remember that following any training course there should always be some specific job training that will allow learners to apply their new skills and knowledge into practice. No single training course will ever make an individual competent; in their role they may be capable, but competence comes with time and experience.



HELP AND GUIDANCE

Certora has a history of training; not only do we deliver specialist training courses and qualifications directly to our customers, quality and customer service are at the heart of what we do. As our business has grown, and the requirements of our customers have changed, we now offer a completely managed training service to those customers who work with us. Our team of training experts will support you with the selection of the most suitable training providers. They will also arrange the training and manage any administration for you.

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Triangle Tyre and R.H. Claydon : enviable reputation for outstanding tyres and service

Founded by Roy Claydon in 1953, R.H. Claydon has become a major player in the wholesale tyre market.

Over the last 70 years (R.H. Claydon are proudly celebrating 70 years of trading in 2023) under the leadership of both Roy and Michael Claydon, the Company has established an enviable reputation for outstanding service.

In 2020, R.H. Claydon proudly became the exclusive UK distributor for Triangle Off-The-Road tyres.

Triangle Tyre, founded in 1976, is amongst the largest manufacturers in world and the 4th largest worldwide for OTR tyres, continuously developing its OTR range, testing and manufacturing the best patterns for construction sites, quarries, and underground mining.

The current range covers radial tyres up to the 63-inch rim, this being the largest size in the world for the OTR segment. The size, fitted in the mining sector on rigid dump trucks with a load capacity up to 400 tons, places Triangle among the world's leading manufacturers of this segment.

The Far East manufacturer provides patterns and compounds specifically designed for the different needs of each market having a particular eye on Europe.

Boasting an impressive 5-year warranty, Triangle tyres are O.E. fitment on many machines including Caterpillar, Sany, Hyundai, Doosan, Volvo, and Hitachi to name a few.

The strong development of relationships with leading earthmoving equipment manufacturers has helped Triangle to achieve great results in terms of products and performance: among others, Triangle has been rewarded for many years with the Caterpillar Platinum Award.

From the beginning of their exciting partnership, Triangle and R.H. Claydon have worked very closely together on commercial activities to grow further in the British market.

In 2022, Triangle and R.H. Claydon exhibited together at Hillhead Quarry, the UK's largest quarrying, construction, and recycling exhibition, to showcase popular patterns belonging to the wide-ranging line-up.

Such was the success of this joint event that stand space will be booked for the next Hillhead show in 2024.

With eight warehouses throughout the UK, R.H. Claydon provide a fast and reliable delivery service on the Triangle range. All stock is delivered on the R.H. Claydon fleet of vehicles, free of charge.



Popular stocked sizes and patterns include 20.5R25 available in both TB516 E3/L3 & TL538S+ L5, 23.5R25, 26.5R25 & 29.5R25 all being available in TB516 E3/L3, TB598S E4/L4 and TL538S+ L5.

All can be ordered over the phone or via the R.H. Claydon B2B system.

A highly professional and knowledgeable R.H. Claydon sales team, backed up by expert support from Triangle Tyre, in particular Steve Eke (UK & Ireland Triangle sales director), completes the winning combination of great products and exceptional service.

Now with the third generation of the Claydon family driving the company forward, R.H. Claydon continue to invest in infrastructure and logistics to further enhance their service levels.

All OTR Triangle tyres are manufactured in the state-of-the-art Chinese factory of Huasheng, where also R&D is operating, with the aim to maximize the performance of our products.

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CDE R-Series primary scalping unit provides significant fuel savings for aggregate processors

Paul Quinn, CDE Lead Product Development Engineer



The removal of the right to use red diesel to power non-road mobile machinery and other plants in April 2022, combined with global supply issues, has resulted in unprecedented spiralling fuel costs for the construction sector. Reports from the Mineral Products

Association indicates that an additional £100 million in costs has been added to the sector.

Increasing costs are leading producers to take a fresh look at areas for savings, including updating inefficient plant equipment. While the CDE's Patented R-Series™ Primary Scalping Screen has been established as a market leading primary feeding and scalping screening system for wash plants, the future-proof design elements are now particularly relevant given the increased fuel costs. Design considerations include the unique, fully electric drive system delivering maximum return on investment. The innovative construction of the VibroCentric drive also removes unnecessary weight while delivering acceleration up to 5G for enhanced screening

performance. Further weight is also removed from the unique screen shaft design and patented side wall technology which eliminates welds and results in a stronger lighter screen which produces the same acceleration as traditional screens while using less power.

It now makes more sense than ever to upgrade from tracked diesel hydraulic scalpers. CDE's Lead Product Development Engineer, Paul Quinn, describes some of the fuel savings which can be achieved by making the switch.

"A typical tracked diesel hydraulic scalper powered by engine generator will use 18 – 20 litres of fuel per hour, while the R4500, when powered by a diesel generator, will use half of this at 10 litres per hour, or 5 litres per hour for the smaller R1500."

"On average calculations show that our customers can save £35,000 on fuel per year by switching to the R-Series."

Another efficiency benefit to consider when looking at return on investment is on-going maintenance costs. The all-electric system which powers the R-Series requires less maintenance than a typical diesel hydraulic system and in turn reduce plant downtime.



One company who is reaping the reward of upgrading to the CDE R-Series is JA Jackson. Established in 1967, J.A. Jackson is a supplier of building materials, aggregates and ready-mix concrete as well as providing skip hire and haulage services. Working out of sites in Preston, Leyland and Lancaster, J.A. Jackson supply quarried and recycled aggregates.

JA Jackson was undertaking an overall plant upgrade project with CDE but had initially intended to opt for a mobile screening unit, however during site visits to existing CDE plants Malcolm Construction and Brewster Bros, the company saw how an integrated R4500 would be beneficial to their own plant design.

Speaking about the decision, David Scott Health Safety and Operations Manager at J.A. Jackson comments: "After visiting several cutting edge CDE sites in Scotland, we began looking at the addition of an R4500 primary scalping unit to our system.

"We were about to invest in a 20 tonne excavator and a new mobile screen which would have been costly, before adding plus the diesel and staff costs.

The return on investment was clear, with those savings and the added benefit is that this is integrated into the plant and connects to our electricity supply."

The ability to use clean electric power, rather than diesel generators will become increasingly important for UK operators. In June 2019, the UK became the first major economy in the world to pass laws guaranteeing an end to its contribution to climate change by 2050. The target requires the UK to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least an 80% reduction from 1990 levels.

Feed material entering R4500 primary scalping unit at JA Jackson plant



David Kinloch, Director of Business Development, UK & Ireland is encouraging other operators to look for areas of their quarrying or recycling wet processing plants which could be optimised both in terms of cost savings and efficient operations.

"CDE is focussed on supporting customers to maximise their natural resources in the most sustainable way possible with greater efficient and less waste. We have continually invested in R&D to create a range of future-proof products which are now allowing our customers to make significant energy savings."

About the R-Series

The R-Series combines a feed hopper, screen and conveyors in a variety of different configurations. The feed hopper on the R1500 has a maximum capacity of 7 tonnes when fitted with the optional extendable hopper sides while the hopper capacity on the R2500 unit rises to 20 tonnes. Both machines can be provided with either a belt feed or apron feed. The hopper has been designed to allow for feed to be delivered to the R-Series from three sides to allow maximum flexibility to cope with specific site conditions.

For more information visit cdegroupp.com



Malcolm Construction Loanhead Quarry R4500

Trelleborg launches EMR1031 tough Earthmover Tyre for Loading Operations

Trelleborg has taken on the challenge to improve earthmoving operations with the release of its radial tyre, the EMR1031, designed to perform on the most demanding terrain, from sand to rock or extra hard surfaces. Manufactured using a cut-resistant compound, the tyre features a premium sidewall protector for damage protection and longer tire life, alongside a multi-surface tread design for superior traction.

Marcello Mantovani, Product Manager Construction at Trelleborg Wheel Systems, says: "The EMR1031 tyre lets earthmoving operators that work in quarries or open pits, construction, or landscaping, get a firm grip on the ground, especially when they need it most. It is just one of our premium solutions that help our customers do the heavy lifting, with ease, comfort, and less downtime."

The EMR1031 tyre has a wide tread contact area which provides up to 7% more stability, with less vibration when compared to a premium competitor. Its cut-resistant compound is 20% more resistant to cuts and wear, reducing machine downtime and resulting in lower operating costs. The deep tread pattern ensures longer tire life, enhanced grip, and boasts a self-cleaning action during use, even on sandy or muddy terrain.



To reduce environmental impact, the EMR1031 tyre comes with a retreadable casing, maximizing customers' investment in a sustainable way.

Long lasting performance, firm grip, superior control, and tyre damage prevention all add up to operators improved productivity, excellent stability, and comfort they can count on in the most demanding applications.



Find out more about Trelleborg EMR1031 tyre features www.trelleborg-tires.com/en/products-and-solutions/construction/earth-moving-tires/wheel-loader/earth-moving-radial-tires-1031

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Justifying Conveyor Upgrades Part 1: Making the Case

R. Todd Swinderman, P.E. / President Emeritus / Martin Engineering

From mining to biomass, industries that handle bulk materials depend on intelligent, hardworking individuals who can be trained and promoted to positions from which they go on to make experience-based decisions. Using their expertise, they are often tasked with identifying conveyor system issues and proposing critical changes to improve production, safety and efficiency. These projects typically require capital investments, and convincing management to earmark budgets for improvements requires supporting data, solid ROI projections, thoughtful persuasion and good timing.

This two-part series is intended to help supervisors and managers in charge of writing proposals for upgrading conveyor equipment create persuasive arguments and set real-world expectations for the capital expenditure. Part two will cover implementation and reporting, so that the expense is properly tracked and justified, building trust among stakeholders which makes the process easier when future projects are proposed.



Conveyor spillage like that pictured here seems insurmountable, but service partners can help put scope and cost into perspective. ©Martin Engineering 2023

"As technical people who work with the equipment day in and day out, perhaps the most difficult part of this process is having to justify or 'sell' it to management," said Dan Marshall, Process Engineer at Martin Engineering. "To do this, operators need a good narrative, solid data, reasonable cost projections and a convincing ROI (return on investment)."

A Good Narrative Loosens Purse Strings

Direct and Indirect Costs

Direct costs can include labor, but generally also cover replacement equipment, contractor costs, production losses and injuries. Indirect costs are investigations and settlements as a result of injuries or accidents, increased energy usage, increases in insurance premiums, MSHA or OSHA fines and qualitative costs like poor morale, etc.

It's the way of the universe. Stakeholders that hold the purse strings will typically visit the area on the rare occasion when the system is working well, so photos and video bolster the narrative and help with visualization. More is better, and quality matters. Graphs are

also invaluable for visualization, so plan Key Performance Indicators (KPIs) with a clear X & Y axis that will reveal evident "differences over time" or "costs per unit," etc.

ROI is extremely important in any equipment purchase but calculating it can be tricky. That is why all direct and indirect costs need to be applied. The goal for many smaller projects such as belt cleaner upgrades is to get the payback period to 1 year or less. [Fig.1] Categorize all possible causes of increased costs and then figure out the costs associated with each category.

ROI Conversions		
ROI	Payback Years	Payback Months
10%	10.0	120.0
20%	5.0	60.0
30%	3.3	40.0
40%	2.5	30.0
50%	2.0	24.0
60%	1.7	20.0
70%	1.4	17.1
80%	1.3	15.0
90%	1.1	13.3
100%	1.0	12.0

Figure 1 – ROI payback over the specified time.[1]

©Martin Engineering 2023

For example, calculating ROI to upgrade belt cleaners starts first with isolating a cleaner, then identifying the challenges associated with it. Likely one category will be spillage from carryback. Some of the common costs associated with spillage are cleanup time/labor, low air quality, safety (lockout/tagout, PPE, etc.), replacement parts (fouled rollers and machinery) and unscheduled downtime. [Fig.2]

Data Used in ROI Calculations	
Data	Units
Administrative/Operating	
Cost of compliance: record keeping and reporting	currency
Health and liability insurance premiums increase	currency
Reduced life of equipment	currency
Safety/environmental fines	currency
Legal costs	currency
Energy costs	currency
Waste disposal costs	currency
Production	
Throughput: per hour, day, week, or month	tons (st)
Production time	hours
Cost per ton of bulk material	currency/ton (st)
Cost of down time	currency/hour
Cleanup manual (1 ton per hour is average)	labor cost/hour
Cleanup machine (5 tons per hour is average)	labor and machine cost/hour
Lost product due to dust and spillage	0.5% to 3% of production rate is typical
Safety (Reference 31.2)	
Cost of recordable incident	currency
Cost of lost-time incident	currency
Maintenance	
New installation: Estimated cost for labor and materials	currency
Adjustment: Estimated labor cost per adjustment	currency
Replacement Parts: Cost of parts and labor	currency
Equipment Wear: Cost of belt and wear-resistant materials	currency

Figure 2 – ROI categories for a belt cleaner replacement.[1] >

©Martin Engineering 2023

Although ROI is a focus for management, Return on Prevention (ROP) is arguably just as important. Staying with the example above, lower quality equipment may offer a quicker ROI but might only clean 80% of material from the belt and deliver a shorter service life before unscheduled downtime starts all over again due to dust and spillage. Higher quality equipment with proven performance may be a higher cost with a slightly extended ROI, but the cost is generally justified over the long term. Reviewing equipment specs, examining the construction and evaluating case studies from similar applications can help determine ROP.

Successful proposals generally offer a direct line to a solution and the next steps for implementation. Make sure the intent of the project is clear and the bottom line is as close to the real outcome as possible. Also consider all project variables: downtime, labor, installation obstacles, special equipment such as cranes and any associated safety regulations or certifications.

To ensure that projects meet government-mandated safety standards, insist on factory-trained technicians with government certifications and other industry-recognized organizations. Many equipment suppliers contract their installation and service functions to outside firms, which often represent dozens of different product lines. Personnel trained by the equipment manufacturer and dedicated solely to its proper care will have greater knowledge and experience, ultimately delivering superior results over the long term.

Determining the Investment Strength

One of the most anxiety-inducing aspects of this process is determining how to make the best financial decision on equipment. Luckily, there are the general calculations of net present value (NPV) and internal rate of return (IRR) to help with this endeavor. These are financial tools that can be used to compare investment options, including safety investments.

NPV is a financial measurement of life cycle costing where two or more options are evaluated based on initial price, annual costs and expected life as expressed in terms of today's currency. Generally, the option with the highest NPV would be the wisest choice. IRR shows the annual compounded rate of return on an investment and is defined as the interest (or discount) rate that makes the NPV equal to zero.

NPV and IRR are calculated in Figure 3. The calculations are linked to:

- Cash Flow = the expected savings for a specific year minus the costs of operating and maintaining the project in that year.
- I = The total number of periods (usually years) used in the analysis.
- Initial Investment = the initial purchase, delivery and installation costs of the project.
- R = the weighted cost of money for the company from all sources: borrowing, selling stock, etc. Expressed as a decimal and often called the discount rate, this can also be thought of as the inflation rate.
- IRR = the discount rate that makes the NPV equal to zero.

$$\text{Net Present Value} = -\text{Initial Investment} + \sum_{t=1}^I \frac{\text{Annual Cash Flows}}{(1+R)^t}$$

$$\text{NPV} = -\text{Initial Investment} + \frac{\text{Cash Flow Year 1}}{(1+R)^1} + \frac{\text{Cash Flow Year 2}}{(1+R)^2} + \frac{\text{Cash Flow Year 3}}{(1+R)^3} + \dots$$

$$\text{Internal Rate of Return} = \text{What Rate } R \text{ will Make } \text{NPV} = 0?$$

$$0 = -\text{Initial Investment} + \frac{\text{Cash Flow Year 1}}{(1+IRR)^1} + \frac{\text{Cash Flow Year 2}}{(1+IRR)^2} + \frac{\text{Cash Flow Year 3}}{(1+IRR)^3} + \dots$$

Figure 3 – NPV and IRR are common industry-wide tools used to approximate investment strength.[2] ©Martin Engineering 2023

Half Measures Often Achieve Less Than Half Results

Purchasing decisions are often based more on price and what's in the budget than on achieving performance (ROP) and reducing costs. A common question is: "This is what I have in the budget, what can you do for that?" The correct answer is often, "Nothing." That's because taking half measures usually only temporarily treats the symptoms of conveying problems and doesn't address the root causes. To illustrate the point, a belt cleaning case study in Figure 4 analyzes using actual customer data and making some assumptions based on industry averages. [2][3]

The installation and maintenance costs consider that the conveyor is a reversing design and dual belt cleaners were installed at both ends. It is critical to specify equipment that is designed for safety and ease of service, rather than just seeking the lowest-cost options. These components may carry a slightly higher initial price, but they will pay off over the life of the equipment and ultimately result in lower life cycle costs.

Customer Data		Assumptions	
Material	Frac Sand	Initial Installation Cost	\$20,000
Carryback Before	4,225 tons/y	Annual Maintenance Cost	\$7,000
Carryback After	930 tons/y	Cost of Money	10%
Additional Sales	\$400,000	Evaluation Time Frame	5 years
Downtime Reduced	\$?	Cleanup Rate per Hour	0.5 t/h Shoveling
Cleanup Reduced	\$?	Belt Cleaner Effectiveness	50% & 55%
Safety Savings	\$?		

Figure 4 - Belt Cleaning Case Study Data ©Martin Engineering 2023

Belt Cleaning effectiveness is the % of material the cleaner removes from the belt and is measured by the grams per square meter (g/m2) that the cleaner removes from the dirty portion of the belt. Many manufacturers claim 98% or more cleaning efficiency without specifying 98% of what: 98% of 500 g/m2 or 98% of 100 g/m2 of carryback? The desired result is not cleaning efficiency, but the effectiveness in reducing carryback -- expressed in the tons of fugitive material that have to be cleaned up. In this study the carryback levels were measured by a technician using a standardized test method.

Equipment design and effective maintenance are keys to long term safety and cost control. Components that are engineered with these priorities will deliver longer service life and reduce maintenance costs while minimizing the risks inherent to bulk conveying. In this analysis, the effectiveness is assumed to be 50% for the precleaner and 55% for the secondary. It was assumed the cleanup was done manually by shoveling at a rate of 1/2 a ton per hour and labor cost is \$25/hour. [Fig. 5]

The 5-year time frame was chosen as a reasonable life for this type of equipment. Doing nothing is costing \$800,800 in discounted cash flow over 5 years. For spending an additional \$10,000 up front on equipment and \$5,000 a year in maintenance, the additional cash flow for the full solution (installing two cleaners on each end of the reversing conveyor) compared to the half solution is \$201,700 on labor alone for the dual cleaning system vs. a single belt cleaner on each end of the conveyor and \$578,000 compared to doing nothing.

If the one-year ROI on the initial investment for the full solution compared to the half solution is considered as savings divided by costs, it would be (\$211,250 – 46,500) /

	Cleaner Effect.	Carryback Clean Up	Labor Cost/y @ 0.5 t/h Shoveling	Initial Installation	Annual Maint.	NPV: 5 years @ 10%
Before Upgrade	0%	4225 t/y	\$211,250	\$0	\$0	\$800,800
NPV of Cash Flows from Labor Savings						
Half Solution 2 Precleaners	50%	2113 t/y	\$105,650	\$10,000	\$3,500	\$377,300
Full Solution 2 Precleaners & 2 Secondaries	77.5%a	950 t/y	\$46,500	\$20,000	\$7,000	\$578,000
*Assume the dirty belt has 100 g/m2 of carryback. Effectiveness = $100 \text{ g/m}^2 \times [(1-50\%) \times (1-55\%)] = 22.5 \text{ g/m}^2$ remaining on belt after cleaning or $(100\text{g/m}^2 - 22.5 \text{ g/m}^2)/100 \text{ g/m}^2 \times 100\% = 77.5\%$ effective.						

Figure 5 - NPV of Cleanup Labor Savings for Half and Full Solutions ©Martin Engineering 2023

\$20,000 = 1.76 or 176%, which is very good. But ROI doesn't tell the whole story, and that's why the NPV method should be used. One could also consider adding tertiary cleaners, but at some point there is a diminishing return, as it's not possible to clean a conveyor belt 100% consistently over time.

A company's cost of money may be different, or it may have a different labor rate. Once the NPV spreadsheet is set up, it's very easy to change assumptions, costs and savings to compare the results. If the cash flow from added sales and reduced accident exposure and other identifiable costs are included, it becomes even more clear that best financial, safety and production is the full solution. As is the case of most upgrades for the control of fugitive materials, the ROP is so great that the Internal Rate of Return is off the charts.

Prioritizing Safety Justifies the Cost

Often issues like excessive dust, mistracking, spillage, carryback, etc. are considered commonplace and "the cost of doing business." In reality, they are extremely unsafe, costly and easily remedied with modern equipment. A common injury for cleaning or maintenance personnel is a muscle strain. The OSHA Safety Pays Calculator [4] estimates the cost of a single lost time muscle strain injury at \$32,023 in direct and \$35,225 in indirect costs for a total of \$67,248.



Conveyor guarding may seem like additional cost, but injury statistics make it an essential component. ©Martin Engineering 2023

If there is a history of safety incidents, improvements can often be justified on safety alone. Identifying that an issue exists is the first hurdle; another is asking for help collecting data and making sure it's recorded correctly. Keeping the project and equipment decisions simple and safety-focused is the best approach.

Make sure to read Part 2 for insight on how to prepare the project for success and justify the expense after installation.

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R. Todd Swinderman, P.E. / President Emeritus / Martin Engineering



R. Todd Swinderman earned his B.S. from the University of Illinois, joining Martin Engineering's Conveyor Products division in 1979 and subsequently serving as V.P. and General Manager, President, CEO and Chief Technology Officer.

Todd has authored dozens of articles and papers, presenting at conferences and customer facilities around the world and holding more than 140 active patents. He has served as President of the Conveyor Equipment Manufacturers' Association and is a member of the ASME B20 committee on conveyor safety. Swinderman retired from Martin Engineering to establish his own engineering firm, currently serving the company as an independent consultant.

Stradacon Penna uses McLanahan's Modular Wash Plant and Scrubbing System to help Recycle C&D Waste for reuse

Stradacon Penna is a quarry operation located in Townsville, Queensland, Australia, that specializes in the production of high-quality road base and embankment materials, aggregate, recycled concrete products, and specialty sands for the civil construction industry, sporting fields and bio-retention basins. With owners David and Vivienne Penna at the helm and their children Natalie and Jarl involved in the day-to-day operations, Stradacon Penna is a true family-orientated business.

CHALLENGE

David Penna prides his quarry on being a clean, healthy environment. He has carefully and thoughtfully planned his site with sustainability in mind, and the citrus and other tropical fruit-bearing trees that line the entrance to his quarry are a testament to his efforts.

Part of Penna's vision for a clean, healthy environment involves minimizing dust generation on site.

"We're very keen to get dust out of our lives, to get dust off our site," said Penna. "It causes mechanical issues; it causes health issues, and it causes productivity issues."

To reduce the dust generated by dry screening their crushed aggregates, Penna reached out to Lincom, McLanahan's dealer for aggregate wet processing equipment in Australia, about adding a wash plant for size classification.

SOLUTION

Lincom recommended McLanahan's UltraWASH Modular Wash Plant, which can produce up to three clean aggregate products and up to two washed sand products.

Penna said he was impressed with the strength of the design of the McLanahan UltraWASH as well as McLanahan's history and family values. The modularity of the plant, combined with Penna's meticulous planning ahead of the plant's arrival, allowed for a quick and easy setup on site.

Another part of Penna's larger vision of sustainability involves recycling construction and demolition waste materials for reuse as construction aggregates.

"Dilution is the solution to pollution," Penna said, citing a well-known adage about the process of adding water to decrease the concentration of a contaminant.

He added a McLanahan modular scrubbing system consisting primarily of a McLanahan Coarse Material Screw Washer to his new wash plant. The Coarse Material Screw Washer accepts the C&D waste after it has been crushed and removes the lightweight debris and organic material from the aggregate before it is processed in the UltraWASH.

RESULTS

With the McLanahan modular scrubbing system, Stradacon Penna is reducing the amount of soft plastics, timbers and papers that come in with the crushed C&D waste feed. Penna said about 99.9% of the rubbish is removed and sent to the local tip. The aggregate product is then dewatered with a McLanahan Dewatering Screen and presented to the McLanahan UltraWASH Modular Wash Plant to be added in with the naturally produced aggregates.

"It's been a real game-changer for us," Penna said. "We are now producing aggregates and sands that are 10% derived from recycled concrete from demolition waste. We are





cleaning it up, presenting it with new fresh material, giving it a spruce up, putting it back on the ground and you just cannot tell. Rather than crushing all that demolition waste up, sending it back to industry, we are tidying it up and presenting it back to industry in an almost new state."

Penna said customers from all over the region bring their C&D waste to his quarry because it is a one-stop shop for recycling material and purchasing new. The customers haul in C&D waste and haul out a clean, recycled aggregate product that can be reused for construction purposes.

"Most people know who we are, they know how we're going about it, and they want to be a part of it," shared Penna. "I have been in discussions with a lot of customers, and they all agree that it is a very responsible thing to do — bring us concrete waste, we clean it up and send it back to industry. We do not send it back to industry unless it is cleaned up."

With the addition of the UltraWASH, Penna said they can increase their product lines and branch into some specialty sands — "all of these products that are very difficult to make, but we can make through our wash plant."



"We're very happy with the products coming out of the wash plant, and a key feature is the flexibility of the plant," Penna said, referring to his ability to adjust material flows and split products with the UltraWASH's flexible design. "We're absolutely ecstatic with it."

The UltraWASH also gives Penna the ability to make these specification products without generating dust.

Penna is pleased with the outcome of his McLanahan Wash Plant and modular scrubbing system.

"The whole operation, the scrubber system coupled with the wash plant, enables us to treat this demolition waste and send it back into industry like an as-new state," Penna explained. "It also enables us to operate dust-free. There is not a lot of dust. There are fruit trees growing there because they can."

"It adds to the well-being of us all as people here. It is healthy. It is clean. It is also environmentally sustainable because we are not putting rubbish back out into the industry, we are not belching dust out into the air, and it makes for a great work environment, it really does."

With the McLanahan UltraWASH Modular Wash Plant and modular scrubbing system, Penna is meeting his goals of providing his customers with high-quality aggregate products while creating a safer working environment for his team.



The set-up is key for Catplant

For the uninitiated, crushing and screening of aggregates looks a simple task. This can be far from the truth. Whilst correct machine selection plays a huge role in obtaining the production figures your quarry requires, the correct set-up of these machines is key to meeting and even exceeding these targets.

Since their acquisition of Finlay Scotland in 2019, Molson Finlay has built up a team with an enviable reputation within the quarrying sector for delivering crushing and screening packages designed and installed to the full satisfaction of their clients.

One of the most recent installations was at the Doncaster quarry of Yorkshire producers, Catplant. Catplant have a long history of providing a range of quality aggregates and block stone from their quarry close to the A1. Whilst many quarries blast the material from the face resulting in a relatively uniform material being fed into the crusher, Catplant's operation is different thanks to the fragmented and softer geology within the area. Using a 95-tonne excavator the material is pulled from the face before being stockpiled for a 20-tonne machine to load the crushing and screening equipment.



For over a decade Catplant's crushing and screening requirements have been sourced from the Irish manufacturer's stable. "We have run Finlay equipment for over two decades now and they have both stood up to the task, delivered what we are expecting in terms of reliability, and they have met our production demands." Quarry Manager, Bryn Anderson explained.

The quarry has recently taken delivery of a new, frontline material processing train comprising of a Finlay 1170 jaw crusher, Finlay 696 3-deck screen and Finlay 696 2-deck screen. Delivered direct from the factory in Northern Ireland, the machinery joined a team from Molson Finlay headed by Technical Sales Manager, Ben Sherratt. Ben's role within the



company brings his vast operational knowledge from the contract crushing industry to both the sales and engineering side of the business. "I work closely with the sales teams to ensure that specifications for particular applications are correct and that the client's aspirations can be achieved with the machinery they are wanting to put into service. Once the right machinery has been specified, I will work on site with the client and our installation teams to ensure the equipment is correctly installed, should the client request this service." Ben comments.

The experienced team at Catplant have requested Ben and his team's assistance in setting their new equipment up to allow it

to perform to its full capability. "We will work a particular bench for a few weeks so getting the train set up right for the first one will allow us to mirror that every time we move the machines along." Bryn explained.

With a suitable location against the bench identified, Ben positions the J-1170 to allow the excavator to load the crusher's 9m³ hopper without too many issues. "We like to get the crusher level and put on a slight pad for it to sit on. If the crusher is level and stable, it will operate as it is supposed to. Having it set correctly will ensure it runs as economically as possible." Ben comments. The J-1170 is a 50-tonne class machine, hydrostatically driven with a maximum Closed Side Setting (CSS) of 150mm and a minimum CSS of 50mm. The quarry's choice of configuration calls for all of the material passing through the jaws to be passed onto the first screener leaving the side-discharge conveyor redundant. Satisfied with the crusher's position, Ben and his team move onto the first of the Finlay 696 tracked screens. This 3-deck version has been set up to produce four specific products with oversize from the crusher coming off at the 696's grizzly before a steady stream of material flows up the conveyor and through the screening media producing +80mm, 80-40mm, 40-20mm with 0-20mm material passing onto the second Finlay 696, this time a 2-deck version. This final tracked screen pulls out three products from 20-10mm, 10-5mm and 5-0mm. Ensuring the discharge conveyor from the J-1170 feeds the material steadily into the first 696 hopper Ben takes his time in tweaking the screen's position to make sure it is just right. "We have seen incidences where quarries are losing material over the grizzly because the position of the in-feed conveyor is not quite right. It is not just a case of reversing the screen under the conveyor and away to go!"

With the three pieces of plant set up Ben and his team wanted to try the train out. Putting an excavator on the bench and feeding the J-1170 allowed Ben and his team to monitor and adjust the setting firstly on the crusher to get the correct sizing of the material coming out of the jaw and then the screens to make sure their discharge conveyors were keeping the material piles segregated. Following an hour of run time, the entire train was shut down to give the quarry management the opportunity to review the material produced. With the nod of approval from Bryn the final checks and tweaks were carried out for the following day when full production could begin.

Ronnie Harrod, Catplant Managing Director said, "We have been using the Finlay brand for many years with great success. We are always fighting against time every time we need to relocate the crushing and screening train but having Ben and the Molson team here to set everything up correctly helps us in getting it right the next time, we do it."

"We know the parameters the machinery needs to work in to get the optimum performance and productivity out of it." Ben commented. "Being able to do this to meet the customer's requirements is just part of the customer service we provide at Molson. The entire specification and purchasing process is where the hard work is done, ensuring the client's requirements match our products and vice-versa. What we do not is sell the customer a machine that will ultimately never meet their demands. Not only does that lose you future business, but it gives you a bad reputation within the close-knit industry. If we can produce a quality, reliable and efficient product that meets the clients' expectations, we know we are doing the right thing."



Get ready for Plantworx 2023: The ultimate showcase of construction equipment and technologies!



SPILLARD
vehicle safety systems

Attention all construction industry Professionals! Brace yourselves as Plantworx 2023 is about to hit the ground running. This year's event will be the ultimate "one-stop-shop" for the latest and greatest construction equipment and technologies. The fifth biennial construction machinery exhibition is set to take place from June 13-15, 2023, at the state-of-the-art East of England Arena and Events Centre in Peterborough.

In today's world, face-to-face business events have taken on a new level of importance, as evidenced by the record-breaking visitor attendance at the recent Conexpo Event in Las Vegas. Plantworx 2023 is no exception, and it is the event of the year that you cannot afford to miss. With a plethora of innovations and new zones, visitors will witness cutting-edge market offerings and the latest technology pipeline developments.

Rob Oliver, Director at CEE Ltd. has recently shared his insights on the forthcoming Plantworx 2023 exhibition. He stated, "Following the successful Conexpo event, Plantworx is poised to be the premier platform in the UK for unveiling new products from an array of leading OEMs. As the industry witnesses a surge in companies embracing electric-powered solutions and making strides in hydrogen technology, Plantworx 2023 is set to be the most impressive edition yet, showcasing groundbreaking machines and cutting-edge innovations that will propel the construction sector into the future."


To date Plantworx is nearing 300 exhibitors and an impressive 35% of those will be making their show debut. The original space allocation for digging demonstrations is now all sold as are non-digging demo stands (those exhibitors are demonstrating but not breaking ground).

The event will be graced by industry-leading machinery original equipment manufacturers (OEMs) who have confirmed their presence, showcasing their electrification strategies for off-road vehicles and equipment. Visitors can expect to be blown away by the exhibits, many of which will be demonstrating, from renowned brands, such as Hitachi Construction Machinery, and the Chinese heavyweights, XCMG, who will be at Plantworx for the very first time. Other big names on the list include Caterpillar, Hidromek, Hydrema,




Hyundai, SMT (Volvo), Takeuchi, Sany, Sunward Europe, Liugong, Mecalac, Yanmar Compact Equipment, Kubota, Develon (formerly Doosan), Bobcat, AVANT, BOMAG, Brokk UK, RSP Suction Excavators, Merlo, Manitou and many more.






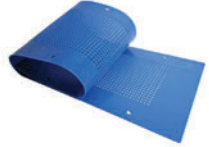


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