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A significant milestone has been achieved by DUO Processing with ten years of successful contract crushing, screening and washing at Roan Edge Quarry...

The 42-hectare site at Roan Edge has 14 million tonnes of reserves of gritstone. Known as siliceous sandstone this material has a high polished stone value of 60, making it useful for roadstone and other highly desirable materials for the UK's roads infrastructure and other industries for years to come.

Operating under a crushing, dry screening and washing contract DUO Processing have provided a comprehensive unit cost processing facility which was tailored from the outset to suit the customer's needs.

Terex[®] Aggresand 206 Modular Wash Plant:

Featuring a range of state-of-the-art machinery the washing

process at Roan Edge is centred around the 'world beating' Terex® Aggresand 206 Modular Wash Plant which combines aggregate washing and screening with sand processing on a modular chassis.

In its readily portable format, the Terex® Aggresand 206 Modular Wash Plant is particularly suitable for green-field applications, contractor use and temporary planning permission sites. However, operators more used to static installations will still appreciate the small footprint and minimal site preparations required. In all cases installation time is significantly less than conventional builds thanks to the high-level of factory pre-fitting and connections.

Spotlight



At the Roan Edge operation blasted gritstone is loaded by a 50 tonne excavator into several Powerscreen® crushing and screening plants to make a -14mm material. This material is then moved into a dedicated stockpile area where it is fed into the Terex® Aggresand 206 Modular Wash Plant to make clean saleable 14mm, 10mm, 6mm aggregates and a washed sand.

A totally managed contract:

DUO Processing have run, controlled and managed the Roan Edge operation successfully for over 10 years with a team of highly skilled plant supervisors and industry professionals. Supervisors on site monitor the wash plant, water treatment plant and supervise the crushing operations. Plant operators operate the plant machinery across the whole site. Making it run efficiently and to its maximum capacity.

Martin McWilliams – MD of DUO Operations, commented, "This site is producing over 1200 tonnes per day, five and a half days a week and is typical of our "Two Working as One" ethos, we believe that teamwork with the customer, is vital in ensuring that needs are met. We will always, where possible, do what is required to adapt to meet changes in a processing situation. It's been a total success, ten years of minimising the input to maximise the output."

A fleet of world class machines:

To achieve this milestone a team of Powerscreen® jaw and cone crushers and screeners has provided a constant 1200 tonnes of crushed output daily.

This has been supported by a range of Doosan equipment, including loading shovels, excavators and ADT's.

Completing the process, aggregate washing has been delivered by the innovative Terex® Aggresand 206 Modular Wash Plant alongside a thickener tank and filter plant press.

Health & Safety:

Health and Safety is paramount for any DUO Processing managed sites. With our in-house H&S division, STAR; the site is managed stringently, with all procedures adhered to, making Roan Edge a safe working environment for all operatives and visitors.

About DUO:

DUO is a market leading company that provides the aggregate, recycling and material handling industries with a comprehensive package of complete processing solutions, including specific industrial applications for the quarrying, recycling, bulk handling industries and transport infrastructure.

With several divisions DUO, can offer a total solution for your processing needs.

DUO Operations:

This division focusses on four main areas, equipment rental, civil engineering, earthworks and processing.

Equipment Rental:

Takes the ease out of renting your construction equipment, if you need top quality construction equipment on a medium or long-term contract, equipment is readily available, from large excavators to ADT's or loading shovels to rigid dump trucks. Doosan, Bell, Komatsu and CAT are just some of the high-quality brands we can supply to suit your needs.

Civil Engineering:

Our civil engineering team has experience across various sectors and have the know-how and experience to undertake the largest, most intricate projects that you have.

Including specialisation in road building, landfill and waste management, land drainage and utilities installation, commercial land development and flood protection for all types of civil engineering.

Earthworks:

We can offer earthworks and restoration solutions when your projects need to be turned around on-time and on-budget, providing our customers with load and haul options, restoration, soil stabilisation, waste, drainage, groundwork, formations, utilities and logistics solutions.



Spotlight

DUO Processing:

Typical operations like Roan Edge where we focus on offering a unit cost processing facility of full aggregate production, this removes the stresses and strains for you as there are no surprise costs and it is calculated on a fixed price-per-tonne basis for the finished, processed material.

DUO Equipment:

DUO Equipment can supply you with quality equipment to deliver a complete turnkey project for the aggregate industry. The Powerscreen® range of mobile equipment offers the user greater flexibility than traditional static installations. Powerscreen® equipment can be used to open up the property, set up the required infrastructure and then process the mineral within the site, thus dramatically improving your return on investment.

If you require a static structure or high-quality wash plant, we can provide you with Terex branded equipment to suit your requirements, from mobile wash plants to rinsing screens, log washers to sand plants and much more.

DUO Manufacturing:

Our in-house manufacturing facility allows us to provide a total turnkey solution for all individual projects. Providing a complete package from initial design, manufacture and installation, all of which is delivered by working to the highest levels of safety. Whether a bespoke design requires hoppers, conveyor systems, structural steel work, chutes or walkways, we are always able to provide whatever is necessary.

An integral part of this division is the provision of a unique electrical service to oversee your entire electrical package.

Roltech Ltd is part of DUO Manufacturing this sub division specialise in bespoke solutions in design, fabrication, installation and maintenance of material handling, bioenergy, recycling and water treatment plants to quarries and factories, and including concrete batching plants, waste to energy projects, waste recycling, dredging equipment, ducting and pipework and concrete ready-mix mortar trucks.

DUO Africa are our official Powerscreen® and Terex® representative selling equipment and support across the African region.

Based in Ghana the company has extensive operational experience and offers individual plant options from bespoke



Service:

When things go wrong you need to have the confidence in prompt service. Service support is key, we cover the length and breadth of the UK with our highly skilled team of engineers ready to keep your operation up and running to minimising your downtime.







The new H-series L180 is more efficient, more productive and more intelligent than the former G-series. Achieve up to 15% greater fuel efficiency, thanks to a powerful engine, second generation OptiShift and new dry P-Brake. To boost productivity by up to 10%, the L180H has also been upgraded with a new transmission, new converter and revised gear ratio.





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Issue 58 - September/October 2019

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Welcome to issue 58

Reflecting on the last two months the weather has been reasonably kind. Brexit rumbles on and talk now of suspending HS2!

Weather aside these things need to be sorted as they have been going on too long and affecting plant and equipment supply for what is a huge project.

As we went to press, we were delighted to attend the huge gathering of red machines at Coxhoe Quarry exhibited by Terex Finlay which was attended by hundreds of industry professionals. The report and images can be viewed inside in a special feature.

Also, of note in this issue the huge Viridor/Eggersmann MRF for the Clyde Valley Residual Waste Project which involves a consortium of five local authorities which the HUB team were delighted to view is included in this issue. As are special features from Liebherr, Lindner and Mach Tech.

Our next issue in November features Mobile Processing Equipment which will include conveyors, stackers, shredders and crushers, so something of interest for that sector. Looking ahead the huge Conexpo exhibition at Las Vegas is on the horizon...enjoy.

John Edwards

Editor



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Energy-efficient Aggredry[®] Dewatering Washer delivers sustainable sand washing solutions



With water conservation and cost-effective sand washing and fines recovery as its mission, U.S.-based Superior Industries has recently introduced its patented and field-proven Aggredry® Dewatering Washer to the global

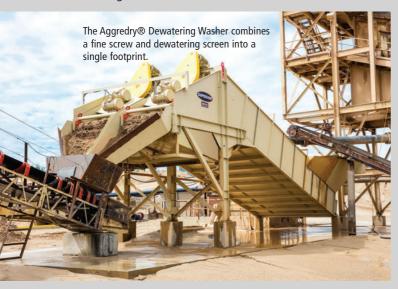
marketplace. Engineered for sustainability, this energy-efficient sand washing solution combines a fine material washer and a dewatering screen in a single machine. Its innovative design ensures significant reductions in water use and horsepower requirements, and a higher volume of saleable product at lower costs per tonne.

Energy-efficient alternative to cyclone

"The Aggredry dewatering washer offers an energy-efficient alternative to the excessive horsepower requirements of cyclone plants, while allowing producers to effectively wash and dry the material, achieving precise sand specifications with a moisture content as low as 8-percent," says John Bennington, a wet processing technology expert who serves as director of washing and classifying equipment for Superior Industries.

"While cyclones are commonly used in sand washing applications throughout Europe, the slurry pumps in cyclone plants significantly increase horsepower requirements and inflate energy costs," he says.

"Using as little as one-third to one-half the horsepower per metric ton as that of the typical cyclone plant, the Aggredry dewatering washer delivers considerable energy cost savings, while producing a high-quality finished product that requires no drying time and is immediately saleable," stresses Bennington.





Water-wise operation

Bennington notes that the Aggredry washer is engineered to minimize water usage while capturing, re-circulating and reusing valuable water resources within the system. This allows operations to cut water usage by 50-percent or more, when compared to conventional methods.

Bottom line, Bennington says that the Aggredry is designed to overcome all the disadvantages of wet processing – water and material waste; stockpiling space for drying time; and costly pond maintenance.

Within the Aggredry system, the fine material washer removes clay, dirt, and crusher dust from the sand. The dusty water is washed out the backside, while the saleable material is discharged to the integrated dewatering screen, where the remaining water is separated and captured for re-use. The result is finished saleable material with a moisture content ranging from 8- to 10-percent.

For optimum fines management at the wash circuit, the Aggredry washer features a fines recovery system where minus-.03 mm material fines collect in an under flume and are re-introduced back into the material washer via a water jet. "This patented technology saves at least 3-percent of that material for a saleable product and prevents unnecessary material waste going to a settling pond," says Bennington. He stresses that this material savings really adds up, as at 100-metric-tons-per-hour production, material savings adds up to three-metric-tons-per-hour — or a full truckload of saleable material per each shift.

Cover story



"The unique factor of the Aggredry is that it does not allow the material particles that go through the dewatering screen to be lost. Instead we use a simple device to eject the water and through particles back into the sand screw," says Bennington.

Field-proven performance

In recent years, the Aggredry dewatering washer has become a popular choice in the U.S. for companies such as Milwaukee, Wisc.-based Wissota Sand & Gravel, an operation that's realizing all the advantages of effective sand washing technology at a fraction of the typical costs per ton in its specific application.

When using their prior sand screws, the material was coming out at about 25-percent moisture content, causing material to stick to conveyor components, or slough off into the wheels of the radial stacker. Also, they had calculated a water loss of about 400-gallons per minute, with the water going to a part of the operation where it could not be recovered. Rather than locating some surface water that could be recovered; or pumping water from a deep well, Wissota decided to install the new Aggredry system.

The Aggredry system at Wissota features twin fine material washers combined with twin high frequency dewatering screens. Sand is coming off the two screens at 8-percent moisture content, requires no drying time, and is immediately saleable. The dry material is easy to convey even when the stacker is elevated to its full height, allowing the operation to manage its stockpiling far more effectively. Most importantly, they are realizing a water savings of about 350-gallons per minute. Additionally, if they hit a dirty spot in the pit, the Aggredry allows them to process the dirtier material and still manage

the fines on the wash end of the plant, giving them more throughput without having to be so particular about the material coming from the primary circuit.

According to the Wissota management team, their attraction to the Aggredry stemmed from "its unique combination of two 'tried-and-true' technologies – sand screws and high frequency dewatering screens."

Bennington explains that a traditional sand screw is a perfectly adequate technology on its own, but it does require additional real estate for drying time, as well as a plan for handling the water runoff. "The option of running a straight dewatering screen is also adequate," he says, "but you will lose up to 4-percent of your finished material. In the end, either a screw or a dewatering screen can operate as a standalone, with some drawbacks; however, the innovative blend of both technologies positions the Aggredry as the standard washing solution for sand and gravel," says Bennington.

Rock Face to Load Out® sustainability

Superior Industries designs, manufactures, and supports sustainable material processing solutions from rock face to load out - from feeding, crushing and screening, to washing, conveying, stockpiling, and loading. "Versus those manufacturers who rely upon outsourcing various plant components, Superior Industries manufactures equipment for every function of material processing, and this ensures the highest level of quality control," says John Garrison, vice president of sales for Superior Industries.

"While some manufacturers merely launch a product, Superior is dedicated to supporting that product from within the local market," says Garrison. "We've built successful distributor relationships worldwide, and we are developing additional dealer partners in Europe, the Middle East and Africa," he says.

"Importantly, as a single-source provider, Superior is better able to package and customize solutions to meet each specific application, while helping producers gain greater sustainability."



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First 50 orders delivered as electric JCB Digger goes into full production.

JCB has made manufacturing history by going into full production with the construction industry's first fully electric mini excavator - with more than 50 machines already delivered.

The 19C-1E models - JCB's first-ever electric diggers - are now coming off the assembly line at JCB Compact Products in Cheadle, Staffordshire, with orders rolling in from customers from across Europe and North America.

The machine is a staggering five times quieter than its diesel counterpart and can be fully charged in under two hours. The model is expected to be a big hit with companies working inside buildings and in emissions and noise-sensitive inner-city areas. Fully charged, the 19C-1E can put in a typical full day's shift for a mini excavator.

The 19C-1E will also offer customers great cost-of-ownership benefits, with research highlighting that over the first five years, charging costs will be 50 per cent cheaper for customers who would otherwise be using red diesel. Servicing costs are also expected to be up to 70 per cent lower compared to the diesel model.

JCB Chief Innovation Officer Tim Burnhope said: "In urban environments in particular, contractors are understandably very keen to operate zero emissions equipment whenever possible, including outdoors. I'm delighted that the model is now in full production after successful feedback from customers in many key markets during the evaluation stage."

JCB Compact Products' MD Robert Winter said: "This is a historic moment for JCB and for JCB Compact Products. We are delighted to go into full production with the industry's first fully electric mini excavator. The machine has a very promising future ahead of it."

Using leading automotive battery technology, the zero emissions and low noise 19C-1E delivers all of the performance of a conventional diesel-powered 1.9-tonne mini excavator. The machine comes with JCB's LiveLink telematics as standard.

The machine is perfect for working indoors or outdoors, in factories, tunnels or basements, for digging foundations, or on utility projects.



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Powerscreen prepares to launch the Premiertrak 330



Powerscreen, one of the world leaders in the crushing and screening industry prepares to launch the most recent addition to their jaw crushing range, the Powerscreen® Premiertrak 330. The new Premiertrak 330 is fitted with a simple large fixed hopper, manufactured from an 8mm wear plate, improving set up time, reducing pegging and increasing the life of wear parts. The hydrostatic drive allows reversibility of the chamber, meaning the machine can unblock and run in reverse, allowing easier crushing of certain materials. In addition to this, a low engine speed improves fuel consumption and provides lower noise emissions for working in urban or restricted areas.

These benefits provide customers with exceptional levels of reliability, efficiency and performance. Striking aesthetics coupled with innovative technologies mean the Premiertrak 330 is set to dominate the market.

Powerscreen Product Manager, Neil Robinson has said, "The Premiertrak 330 is a solid addition to the Powerscreen jaw crushing range. The lightweight machine, weighing less than 35,000kg with options, boasts a number of new features. The Premiertrak 330 has been designed to promote an easy and effective flow of material to minimise any potential build-up, therefore maximising uptime. Contributing to this is a two-piece grizzly feeder with the second section angled which allows a better material flow towards the chamber and

prevents bridging. These are just some of the features that contribute to the astounding low cost per tonne performance of the Premiertrak 330."

The Premiertrak 330 crusher uses a 1000mm x 600mm (40" x 24") jaw chamber and is capable of producing up to 280tph (308 US tph) of crushed material. It can be used in a range of applications including aggregate, recycling and mining.

Since 2014 Powerscreen has been a trail blazer in machine telematics, being the first mobile crushing and screening manufacturer to offer such a solution. All Powerscreen crushers come with the ground-breaking Pulse Intelligence system as standard. Powerscreen Pulse is a remote monitoring, fleet management system allowing crushing and screening equipment operators and owners to have unrivalled access to key data. This data has the power to revolutionise operations and analysing it can mean improved machine operation, increased uptime, in-depth reporting and fleet management.

Powerscreen Pulse Intelligence is available anywhere at any time, on a PC, tablet or smartphone. The system provides comprehensive information on the GPS location, start and stop times, fuel consumption, tonnages, cone settings, wear ratings, operating hours, maintenance status, and much more.

Superior and CMS Cepcor[®] Create Partnership for Crusher Parts in North America



Superior Industries Inc., a U.S. based manufacturer and global supplier of bulk material processing and handling systems, says it has entered into a strategic partnership with Europe's largest manufacturer of aftermarket crusher parts. For 40-plus years, CMS Cepcor has manufactured premium crusher spares for more than three dozen active and classic brands throughout Europe. The parts manufacturer recently expanded its global footprint when it launched CMS Cepcor Americas.

From its US headquarters in Pekin, Illinois, CMS Cepcor Americas will stock, sell and service aftermarket parts throughout North and South America. In addition to the greater market, they will work closely with Superior to supply crushing equipment spares to Superior's growing group of crushing dealers and customers.

"We have assembled a talented team of industry veterans who understand what it means to serve customers with high quality products backed by timely support," says Doug Parsons, the president of CMS Cepcor Americas. "Personally, my relationship with Superior goes back two decades and our trust and confidence in each other runs deep. We're excited to fill a gap in the market where customers are not being supported to the level they require."

About CMS Cepcor® Americas, LLC

CMS Cepcor Limited is Europe's leading aftermarket manufacturer and supplier of crusher spare parts to the mining, aggregate production and associated crushing industries globally to over 120 countries. The company's global headquarters and state-of-the-art manufacturing facility are located in Coalville, United Kingdom. CMS Cepcor Americas LLC was launched earlier this year and will focus on servicing all of North and South America from its crusher parts facility in Pekin, IL.

About Superior Industries, Inc.

From Rock Face to Load Out®, Superior Industries engineers and manufactures groundbreaking bulk material processing and handling equipment and cutting-edge components. From its headquarters in Morris, Minnesota, USA, the manufacturer supplies bulk crushing, screening, washing and conveying systems for industries like aggregates, mining, bulk terminals, agriculture, power and biomass. In addition to its home plant, Superior operates from five additional U.S. facilities, three in Brazil and two more in Canada.



















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Terex Trucks welcomes new dealer in Spain

Aldimak has almost 20 years' experience in the Spanish market and will be selling and servicing the Terex Trucks TA300 and TA400.

Spain is leading the way on eurozone growth with the country's construction activity rebounding after several tough years following the global economic crisis. With increased foreign investment and more houses, shops and hotels being built, there's currently a lot of optimism in the market. It's with this in mind that Terex Trucks has signed Aldimak as a new dealer in the country, helping to strengethen the company's prescence in the area and better serve Spanish customers...

With almost 20 years' experience, Aldimak knows the Spanish construction market well. At its dealership in Barcelona and its two service subsidiaries in the Lleida and Girona regions, Aldimak sells, services and repairs construction equipment. "I believe that Terex Trucks' articulated haulers, the TA300 and TA400, will be a great addition to the current offer in the Spanish construction equipment market," says Jaume Alberich, Commercial Director at Aldimak. "Terex Trucks' articulated haulers are a perfect fit for Spanish customers as they are high-quality machines that come at a low total cost of ownership. This addition has enabled us to further improve our product portfolio at the dealership and we are excited to introduce our latest offering to our customers."

In Spain, the construction industry is on the move. Last year, the country's economy expanded by 2.5%, by far the fastest growth rate of all big eurozone economies. This had a positive effect on the construction industry. The sector is expected to grow by about 3% in 2019, mainly driven by residential and commercial construction. At the end of 2018, the European Commission's confidence index for the Spanish construction sector was positive for the first time in over 10 years.

Great addition

"Over the last few years, we've seen Terex Trucks make significant investments and improvements," says Jaume. "With the latest product updgrade, the articulated haulers deliver high efficiency and performance, maximising return on investment for customers. I am proud to include the TA300 and TA400 in our dealership's offering to our customers."

"Aldimak's excellent relationships and reputation with their customers make them a very strong dealership in a very important area for Terex Trucks," says Nick Rose, Global Director Dealer Development and Customer Solutions at Terex Trucks. "We are excited to help them expand their offering with our articulated haulers. As Aldimak also sells excavators, the combination with our articulated haulers will be a very good fit for customers."

Significant improvements

Aldimak will be selling and servicing the Terex Trucks TA300 and TA400. Since August last year, the TA300 has incorporated a new transmission which helps to deliver a 5% improvement in fuel efficiency as well as enhanced performance, productivity and operator comfort. The upgraded transmission comes with two additional forward gears — eight in total — as well as four reverse gears. This helps to ensure smoother gear shifting and thereby superior operator comfort. The 28 tonne (30.9 ton) TA300 is a popular choice for infrastructure developments, commercial construction projects and quarries. It is equipped with true independent front suspension as standard, resulting in excellent traction control and operator comfort.

The TA400, the largest articulated hauler on offer from Terex Trucks, has a maximum payload of 38 tonnes (41.9 tons) and a heaped capacity of 23.3 m3 (30.3 yd3). Designed to meet the demands of the most extreme operations, the robust articulated hauler excels in large-scale construction projects, quarries and mines. The planetary gear transmission provides smooth, efficient gear shifting for optimized fuel consumption and reduced cost of operation. Ground level test points and a fully tilting cab, combined with an electronically raised hood, ensure ease of service and reduced downtime.



Terex Trucks articulated haulers are high-quality machines that come at a low total cost of ownership.

Premium crusher parts

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Aggregate Industries ups the tempo with low temperature asphalt



Specially formulated for use on highways and road infrastructure schemes, this range of asphalt is mixed at 20°C-40°C lower than hot mix asphalt. As it requires less energy to manufacture than conventional asphalt, Superlow ensures a lower carbon footprint.

The launch of this innovative solution comes just a month after the UK became the first ever country to legally commit to cutting greenhouse gas (GHG) emissions to 'net zero' by 20501.

Under the Construction Sector Deal set out last year, the UK has ambitious targets to halve emissions in the built environment by 2025, reduce the initial and whole life cost of a project by a third, and speed up the delivery of vital new build and refurbishment projects.

To help contractors meet these objectives, Superlow offers a whole host of real time and cost benefits. For instance, it reaches trafficking temperatures quicker than conventional hot asphalt enabling earlier reopening of carriageways to the travelling public, resulting in less road occupation, less traffic disruption and reduced build cost.

With the equivalent performance characteristics of hot mix asphalt, when it comes to workability, however, Superlow remains compactable for longer at lower temperatures. This allows more time for full compaction and, as a result,

enhanced durability. It's also longer lasting, as lower asphalt temperatures during production reduces binder ageing and enhances in service life expectancy.

Reflecting Aggregate Industries' commitment to safety, low temperature asphalt is much safer than conventional solutions as it reduces nuisance fuming and lowers the risk of burns from material handling.

Jo Wilkins, Head of Business Development for Asphalt and Ready Mix Concrete at Aggregate Industries, said: "With contractors and clients under increasing pressure to meet the Government's ambitious sustainability targets, often the first step will be specifying more environmentally-friendly construction materials.

"That's why we've developed Superlow, a new range of low temperature asphalts which have a lower carbon footprint than traditional asphalt. As with all our products, our in-house team of technical experts will work with customers to enable quicker and more cost-effective project completion."

For further information about Aggregate Industries, visit www.aggregate.com



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Centre of Excellence for Wheel Loaders: Liebherr-Werk Bischofshofen GmbH

HUB-4 recently went along on a dedicated press visit to the Liebherr Bischofshofen site to take a look at the high-tech production facility for Liebherr's extensive range of wheeled loaders. The site set amongst the beautiful Austrian countryside in Bischofshofen near Salzburg has over 1,100 employees, covers an area of 170,000m² and was Liebherr's first Austrian facility founded in 1960.

The site is specialised in the development, production and international marketing and sales of Liebherr wheel loaders. The company is also responsible for the marketing and service of all Liebherr construction machinery in Austria.

Powerful product range with four wheel loader categories

Liebherr stands out among international competition thanks to its innovative and ever more sophisticated product range. Liebherr-Werk Bischofshofen GmbH currently offers wheel loaders in four different categories: Compact loaders, Stereoloaders, mid-size wheel loaders and large wheel loaders of the XPower® generation.

The XPower® concept developed at the site for the Liebherr large wheel loaders L 550 XPower® to L 586 XPower® sets

standards when it comes to fuel efficiency, performance, durability and comfort. The heart of the XPower® wheel loader is its power-split driveline, which Liebherr installs as standard in these machines. This combines the hydrostatic drive, perfect for short loading cycles, with the mechanical drive, whose advantages are clearly apparent over long distances and during ascents. The combination of both drive types in one wheel loader ensures maximum efficiency and therefore enormous fuel savings, no matter what the requirements.



Liebherr Feature







The current series of mid-size wheel loaders comprises three machines: the L 526, L 538 and L 546 models. They remain true to the reputation of this class as a powerful yet reliable all-rounder. The high-quality steel construction and robust axles ensure the utmost reliability for these wheel loaders. The modern cab is tailored to the machine operator's needs. Its logical design not only feels ample and spacious, it also provides good all-round visibility thanks to large window areas.

The manoeuvrability of the four Stereoloaders L 507, L 509, L 514 and L 518 is truly impressive. This is due to stereo steering, a perfectly balanced combination of articulated steering and rear axle steering. The unique steering system combines the advantages of conventional articulated steering with those of all-wheel steering. The result is a minimal turning circle which is particularly practical in cramped conditions.

The compact loaders L 506 and L 508 represent powerful yet reliable machinery for diverse applications involving road building, civil engineering, horticulture and landscaping. With bucket sizes from 0.8 to 1.0 m³, these complement the range of small Liebherr wheel loaders.



Liebherr Feature

Continuous development of Liebherr-Werk Bischofshofen GmbH

Liebherr-Werk Bischofshofen GmbH started with manufacturing fast-erecting cranes and crawler cranes. Since 1985, Liebherr-Werk Bischofshofen GmbH has been tasked with production of the entire wheel loader range. The plant then specialised in the development, production and marketing of wheel loaders in 1997. Since then, the wheel loader experts from the federal state of Salzburg have continually been setting new milestones when it comes to technology and design.

The same holds true for Liebherr's appearance at Bauma 2019 in Munich, the world's leading trade fair for the construction industry. Liebherr-Werk Bischofshofen GmbH presented an extensive range of intelligent assistance systems for select wheel loaders of the company group here. These included the innovative active personnel detection and the new weighing device. With these and other assistance systems, the Centre of Excellence for Wheel Loaders is able to offer integrated solutions for optimising safety and comfort in day-to-day work with wheel loaders, while making the machine operator's job easier.

Integrated effectively in the international Liebherr group of companies, Liebherr-Werk Bischofshofen GmbH cooperates closely with other Liebherr plants. It enjoys strong ties with the mixed Liebherr production companies in Dalian (China) and Guaratinguetà (Brazil). This collaboration has given rise to a special wheel loader range for emerging markets outside Europe and North America. Liebherr-Werk Bischofshofen GmbH is responsible for the product line here. This expansion clearly demonstrates the site's international importance within the Liebherr group of companies.

Facts and figures about Liebherr-Werk

Bischofshofen GmbH



















To learn more about this partnership HUB-4 took a trip to Spittal in Austria where Lindner have their head-quarters and production facilities. Nestled in this beautiful area of Austria Lindner was founded in 1948 and is still a 100% family owned business run now by the third generation of the family. With 340 employees globally they were the first to design, manufacture and install the World's first RDF line in Germany in the late 90's, and now they supply static shredders & plants and mobile shredders to over 100 countries worldwide and continue to grow their product range across alternative fuel solid recovered fuels (SRF), refuse derived fuels (RDF), waste wood, plastics, paper and metals recycling.

We talked with Ing. Mag. Michael Lackner, Managing Director of Lindner "We have 3 production facilities in Austria, our original production site and HQ here in Spittal, our dedicated electrical & electronic engineering site in Spittal and our extensive mobile shredders production facility in Feistritz, a short drive away. In Germany we also have a large sales & servicing subsidiary as we supply a lot of machines into the German market. We have a North American site which supplies the United States offering a complete sales & service solution. In other markets we work closely with our preferred

partners to supply and service our full range and in the UK we work with Mach Tech, our long-term and highly skilled partner. The basis of our business is to supply a very high level of service so that our clients always come back to us and that ethos runs through both our direct sales activities and our partners across the globe. We have training programmes for all our partners to make sure that they know exactly how Lindner machines need to be serviced and to be able to pass that knowledge onto their clients, this is done on a regular basis as new machines & updates come online."

We asked Michael about the strategy for Lindner "After successfully producing static shredders for many years, in 2012 we launched the Lindner mobile shredder range and this lead to the creation of a brand new production facility in Feistritz in 2016 where all mobile shredders are now produced. Over the past few years we have also transitioned the business from just making shredders to providing a complete plant building solution to help our customers get the most from their waste streams, including other key technologies such as air separation, magnetic & non-ferrous metal separation, colour separation, washing and screening. This engineering knowledge has enabled us to build turn-key plants for our clients globally and we especially now want to promote this expertise in the UK market with Mach Tech to design, manufacture and install complete recycling plants for all kinds of RDF, SRF, waste wood and plastic applications. All

Lindner & Mach Tech Services Feature





design & manufacturing is done here in-house and we then install the plant working closely with Mach Tech. We have the expertise and flexibility to build any size of plant from simple shredding, conveying and magnetic separation right through to huge multi-line plants with extensive processes to separate the various waste products out. To make sure that we continue to grow with the market we have just invested in a new 10acre site where in 2020 we will begin to build a brand new high-tech optimised production facility, in order to keep up with the continuous growth in the future.

"Every few years we take around 5-10 new apprentices onboard to make sure we are ahead of the game with future skilled workers, we also finance a local school where the students are able to use tools and techniques that we have installed



prior to taking them on as apprentices. With our US base we can also offer work opportunity placements in the states to give our people a unique global working experience."

Lindner have manufactured and installed over 1,000 static shredders & plants around the world and currently manufacture about 100 mobile shredders per year. They have won a Global CemFuels award five times, the latest one being for a complete plant where they won the award for 'Outstanding alternative fuels project of the year'. Here

Lindner installed an entire facility for the production of refuse derived fuels (RDF) at LafargeHolcim, the world's largest cement manufacturer in Kujawy, Poland. Thanks to its state-of-the-art technology and well-engineered design, this is one of the most modern and productive facilities throughout Europe. With its customised production line, different fuel qualities can be produced. In addition to being exceptionally efficient, Lindner was also able to meet the highest safety standards required by LafargeHolcim and could therefore secure the internationally coveted award for this project.





We talked with Marco Egger, Global Sales Manager for Lindner "The UK is a very important and growing market for us in terms of both mobile shredders and static plant and we currently have sold around 120 machines into the UK market with Mach Tech. Input material varies from MSW and bulky waste through to production waste and mixed waste and we can integrate our shredders into existing plants or we can design and manufacture turn-key bespoke plants for MRF, SRF and RDF

"Plastic recycling is a very important market for us today, countries like China are not accepting anymore plastic for recycling so this market has huge potential for us right across the world. We are able to provide a complete solution with our sister company Lindner Washtech and include all required technologies including shredding, pre-washing, friction washing, granulation, separation, washing and drying — so the ideal material for the subsequent extrusion is provided by us."

Product News

Marco continued "Some more exciting news is that we have also developed a new cooling system that will eventually be standardized across our entire shredder and plant range, this is the detection of heat spots through the system where

Lindner & Mach Tech Services Feature

batteries have entered the stream and have caused heat spots to appear and the potential of combustion. This system identifies a hot-spot and then the line is either stopped or a simple flap allows for the removal and isolation of the heat source."

New Unique Atlas Shredder Launch

Lindner are also about to launch their brand-new Atlas machine which will be fully electric, high torque and will see unique energy transfer technology between shafts to give the machine a 20-25% increase in energy efficiency. The machine will be launched in October 2019 in Austria and then in the UK in November / December. HUB-4 will of course bring you more on this new product soon.

Lindner Marketing

We spoke with Pia Steiner, Marketing Manager for Lindner about how close they work with their clients to promote Lindner "Since 2018 we have been creating a new marketing and communications strategy with our clients where we ask them to talk about their experience with Lindner and how their plants are working for them. This creates a bias free view of their experiences that we can pass onto potential new clients via our marketing channels and is a true picture of the levels of service and quality of machines that we provide to our clients. It's a way in which we can show how close to our customers we are and it's great that they are proud to represent themselves with the Lindner brand."

Mach Tech Services- Lindner's UK Partner



Once back in the UK HUB-4 went along to find out more about Mach Tech, Lindner's sole partner in the UK. Founded in 2004 by Joe Hoyle, David Ingham and the late Colin Wood, Mach Tech has always been a service inspired shredder specialist business delivering the highest quality to clients across the country. After three years of servicing and maintaining a variety of shredder brands to the highest quality, gaining valuable experience, and building up a committed customer base, Mach Tech became the preferred partner for Lindner in 2007. This new partnership enabled Mach Tech to offer a brand-new range of products to its clients who demanded the highest standards of production and servicing.

Mach Tech's Ethos

We Talked with Joe Hoyle, Managing Director and David Ingham, Director. Joe started by telling us about the growth "Our key to success has always been based around our service and the levels of commitment that we give to our clients to keep their machines up and running and this ethos runs through the whole business. Our first deal for a Lindner machine was in 2008 into the SRF market which was relatively new at that time and since then we have gone from strength to strength with the brand. Moving three times through huge growth from 2,000sqft to 12,000sqft to our new 27,000sqft facility here in Oldham we have invested

heavily in these new headquarters creating new servicing workshops, fabrication facility, paint shop, extensive parts facility and offices which house our management, sales and customer care operations. We currently employ 27 people here.

"As well as the main Lindner focussed areas at this new HQ we also have 5 bays here where we can also re-manufacture existing machines for our clients so they go back out just like new and again we fully support these machines with servicing. We have a new engineering area here where we make and repair parts for these machines. By doing this it gives our clients extra life on their old machines and allows them to run existing machines along-side their Lindner machines.

"As far as market share in the UK is concerned we have around 90-95% of the SRF marketplace with Lindner shredders and we see huge growth opportunities in waste wood recycling, plastic recycling and Lindner's quality range of mobile shredders. We have set up a new dept here for the mobile shredders as they demand specialist roles for sales and service and we expect to increase our turnover from £9m this year to £11m in 2020.

Parts & Servicing

David told us more about the parts facility "We are extremely proud of our in-house parts facility which is based here in Oldham and we carry around £500,000 of parts in stock at any one time and this covers virtually all parts across all

Lindner & Mach Tech Services Feature







Lindner machines even down to parts such as drive motors and frequency converters. We have 12 dedicated and Lindner trained engineers all with fully kitted service vehicles that are always onhand to cover the whole of the UK and Ireland at a moments' notice, and if required myself & Joe will also get involved with the servicing side to make sure that our clients are 100% happy. Training is also key to our service quality so engineers from Lindner in Austria come over, or our engineers go over there on a regular basis to have any required training on existing & new machines so that we can fully support all machines and give training to our clients on how to operate the machines safely & effectively.

Mach Tech's clients range from small businesses up to multi-nationals and one of their recent installations was at Hamilton Waste & Recycling Ltd where David Hamilton, Director was happy to give us a quote "Hamilton Waste & Recycling Ltd are delighted with the purchase of the Lindner Komet 2800 HP. From start to finish Mach-. Tech's attention to detail and customer care was excellent. Mach-Tech will be our first choice for any stationary, primary or secondary shredding going forward."

Mach Tech Marketing

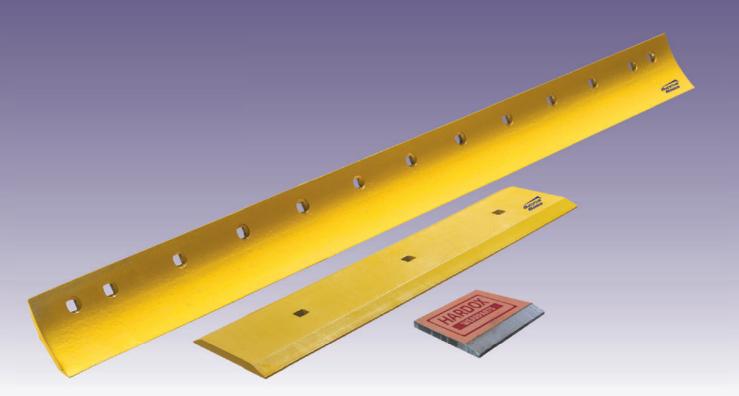
We spoke with Lorenza Falcini, Marketing Manager for Mach Tech who explained more about their marketing strategy "We are extremely proud of our Open Door Policy, where potential customers are invited to view machines working across different applications at our existing customers sites. We feel that this gives any potential new customer a true insight into what they are buying and what to expect from our servicing and support backup. It also facilitates questions to be asked freely between themselves - the proof of the pudding is in the eating!"

Atlas UK Launch

Joe finished by saying "We're really excited about the launch of the new Atlas machine with e-drive and intelligent energy management and we'll be having a UK launch event later in the year to follow Lindner's Austria launch. Please keep an eye on our website for more details about this launch."

For more information on Lindner visit www.lindner.com and for more about Mach Tech visit www.machtechservices.com





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Omni offers exceptional visibility by connecting to another tablet (sold separately)



A huge array of machines resplendent in the sunshine

The HUB team were recently invited to attend a two-day event hosted by Breedon Northern Ltd at their Raisby Quarry at Coxhoe in County Durham.

Molson Finlay and Finlay Scotland in conjunction with Terex Finlay presented an impressive jaw-dropping nineteen Terex Finlay machines along with live demonstrations working in aggregate and recycling applications.

Alongside the Terex Finlay line up was an impressive selection of Kobelco excavators and Hyundai loading shovels from the Molson Groups 360-degree product portfolio, which positions them as a single source supply option for mobile and static plant and equipment.

With excavators ranging from 1t up on display, it was the Kobelco SK500LC-10 ME (Mass Excavation) specification machine that really caught the eye as it fed the Terex Finlay crushers. Thanks to its short arm configuration, it is a perfect fit for quarrying and bulk excavation projects.

Overall the event was a huge success and attended by hundreds of industry professionals who were given guided tours and full information on the glittering array of red machinery.

5th generation models:

Of particular note was the opportunity to view the 5th Generation models of the 693+ and 694+ inclined screens in advance of their global launch in Q4, 2019.

Alan Witherow – Terex Finlay - Product Manager, gave us the lowdown on the new 694+. "The 694+ has a number of new improvements – a more aggressive screen box with higher stroke and higher speeds ensures a bigger overall performance.

"We have also increased hydraulic power and added extra pumps as standard. Slowed down engine running speeds provide a more refined 'sweet spot' providing increased fuel efficiency. The simplification of folding on the new machine has facilitated a much faster breakdown for transport."

Alan continued, "Also we have introduced a wider 20 x 5'7" screen variant on all three screen decks providing an extra 11-12% of screening area with the same on capacity including wider belts to accommodate the extra material flow."

In addition, several new Terex Finlay machines were showcased including an I-120RS impact crusher (with grinding path, TC-100 conveyor, TR-75 radial conveyor, TF-75L low-level feeder and a TF-75H high-level feeder.

Conveyor range:

Terex|Finlay have developed a comprehensive range of robust, reliable and efficient bulk material handling and stockpiling solutions. With two new models on show a working demonstration of the new TR-75 radial conveyor on an asphalt application brought home the point how efficient these machines are in a wide range of applications. The mobility and flexibility of this machine clearly reduces or even eliminates the use of a wheel loader on site.

The conveyor range provides a number of benefits including reduced cost, site operating efficiency, environmental considerations, H&S improvements and a world-beating quality product. Comprising tracked mobile conveyors, high and low-level feeders and radial stockpilers each of the conveying products provides mobility and flexibility in a wide range of free-flowing bulk material applications including aggregates, ores, coal, woodchips, pellets, fertilizers, grains and truck loading.

OMNI by Terex System:

A working demonstration of the exciting new OMNI by Terex system on the main working train of machines illustrated that OMNI is a real-time tablet-based system that can improve job site safety and efficiency in crushing and screening operations. OMNI provides centralized access and enables the operator to watch, monitor and adjust working equipment from the safety of their cab.

T-Link:

T-Link a telematics management system was launched in January 2016. Originally with a three-year data subscription this has now been extended to seven years for all existing machines in the field with retrofit kits available.

This remote monitoring and fleet management system combines the machines' inbuilt CANbus control system with satellite positioning and telematics software. From the fleet management fundamentals of knowing the hours and location of your machine to sending machine specific alerts and tracking machine production, T-Link can help you remotely monitor and manage your Terex|Finlay fleet and grow your

















































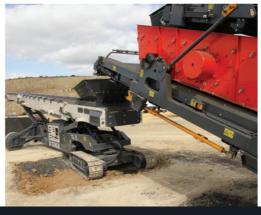


















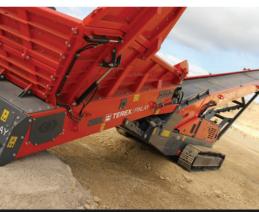
















PRONAR. Constantly on the move.

Hundreds of recycling services professionals from the most demanding markets like Germany, the USA, Australia, Belgium, **Netherlands, France and Great Britain have** chosen recycling machines from Pronar. So far 40 machines delivered by this Polish manufacturer can be found in the UK alone with a number of units pending delivery. This is no coincidence and could not be achieved without a great value for money and a wide portfolio of recycling machines.

The current line-up of Pronar recycling machines consists of five mobile shredders, eight trommel screens, five stackers and a compost turner – a total of 20. These are versatile machines that are prepared for hard work even in toughest environment. With numerous options and high flexibility of designing new features, every machine can be tailored according to the customer needs.

MOBILE TROMMEL SCREENS

The Pronar mobile trommel screens range consists of eight models with four available drums sizes, with dimensions varying from 4.4m length x 1.4m diameter up to 7.2 m length x 2.0 m diameter. The numbers which come



MPB 14.44, MPB 18.47, MPB 20.55 and MPB 20.72 come with wheeled chassis as standard. This provides easy machine transport for multi-site companies or hire fleets, especially on short or medium distances. The three largest models can be upgraded to a tracked version which provides a greater stability and makes these suitable to work in difficult terrain. Tracked machines are marked as MPB 18.47q, MPB 20.55q and MPB 20.72q.

The most advanced trommel from Pronar is an MPB 20.55gh which is fitted on a special frame lifted by four hydraulic cylinders. This mechanism allows the user to level the machine and operate normally on an uneven surface.























MPB 18 47

MPB 18.47g

MPB 20.55g

MPB 20.72







All Pronar mobile trommels are equipped with Danfoss hydraulic system, central greasing system and robot made original Pronar drums tailored to the customer needs.

Additionally, Pronar trommels can be equipped with a wide range of optional equipment such as: magnetic rollers, air separator, stone grid protection over the loading hopper, reversible fans for cleaning engine and hydraulic oil radiators (Cleanfix), additional working lights, air compressor, set of additional safety covers, various belt types on conveyors and many more.

MOBILE SLOW-SPEED SHREDDERS

The next part of Pronar portfolio are primary shredders. It consists of five machines - three versions of MRW 2.85 model, MRW 2.1010 and MRW 1.300.

MRW 2.85 comes in wheeled, tracked and hooklift variants. They all share the same efficiency and working parameters. The main part is a shredding system with two shafts. Each shaft has eight rings with various numbers of knives fitted on each ring depending on which material type is to be shredded.

Furthermore, the hooklift shredder can be delivered either with a diesel engine which increases mobility, or an electric motor which can significantly reduce the machine running cost.

The biggest twin-shaft shredder from Pronar is the MRW 2.1010. Because of its massive 40-tonnes + weight, is only available on tracks. With almost 2.5 metres long shafts, each equipped with 10 rings with 10 knives and driven by a powerful 768 HP diesel engine, it can shred even the toughest materials.

A recent addition to the PRONAR portfolio is the MRW 1.300, slowspeed shredder with a single 3m long shaft. This machine is generating a lot of interest from recycling services professionals as it is particularly efficient in processing household, green and wood waste. A very convenient feature is the easy knife exchange on the shaft with no need for hard facing.

















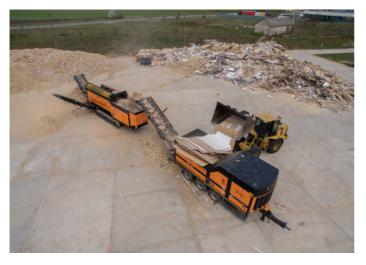












All slow speed shredders delivered from Pronar are well equipped, as they come as standard with remote control, central greasing system and double reversible fans (Cleanfix) for keeping engine and hydraulic oil radiators clean.

The list of additional options includes various shafts for shredding different materials, breaking bars, magnetic separator, as well as other elements to improve the versatility and performance of the machine.

MOBILE STACKERS

Pronar is also rapidly developing its stacker range, the MPT series, with five models currently available. The most common are the MPT 15g, 18/1g and 24/1g, capable of transporting the material with 400 t/h efficiency. Two further models are available - MPT 18g and MPT 24g - belong to a Heavy-Duty line with material transport efficiency up to 600 t/h (depending on the options selected and inclination of the machine).

With these machines stockpiling is very efficient and easy. The MPT 15g can make a 7.4 m high pile. The bigger brothers MPT 18/1g and 24/1g can go up to 8.7 and 10.6 m respectively. For the MPT 18g stockpiling ability is the same as for 18/1g, while for 24g - 0.7m better. What makes the Heavy-Duty line stand out is that it can be equipped with a direct feeding hopper. It makes loading of the stacker efficient with the use of a typical loader.

WINDROW TURNER

The machine that supports Pronar range in the composting industry is the windrow turner - MBA 4512g. The machine was designed to cope with prisms up to 4.5m wide and 2.2m high. Equipped with 1.2 m diameter shaft it can be as efficient as 3200 m3/h. The user will appreciate a spacious air-conditioned cabin, fitted with large touch screen that allows setting of all working parameters, two ergonomic joysticks and a comfortable seat. What is more, you can look around the machine without leaving the cabin thanks to four cameras which combine single images into one surround view.

The maintenance works are easy thanks to hydraulically opened engine covers and well positioned drain points for exchanging the liquids.

FOCUS ON DEVELOPMENT

To deliver all these products to global markets Pronar has invested massively into its own Research and Development Centre and a strong design team consisting of 150 engineers. What is exciting is that Pronar has a lot of new designs in development including a completely new range of stackers, a brandnew model of slow speed shredder, another trommel and a specialized shredder to process the wood waste. Keep an eye out for more Pronar news in the coming months.

More info on Pronar products can be found at https://pronar-recycling.com/en/





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Blue Group Focus on Scrap Industry

Blue Group are the leading provider of material processing equipment across the UK and Ireland, offering a range of products for the Quarry and Demolition, **Energy, Recycling, Scrap and Port** Industries. With eight strategically placed offices across the UK and Ireland, Blue Group offer a wide range of highquality products from some of the most renowned brands on the planet.





Blue has decided to take the approach of appointing several salesmen that will have a primary focus on selling into the scrap industry, to help bolster our presence within the sector. Richard Creighton, Dominic McCann and Darren Smyth are the three that will work across their specific regions, to supply our large portfolio of scrap specialist equipment.

Richard has a vast sales background which most notably includes a plant rental company, catering mainly for the recycling industry, during which he had great success with scrap customers. Coming up to his one-year anniversary with the company, Richard has just been appointed as a Scrap Sales Manager. Dominic joined Blue Fuchs two years ago, before the nationwide merger of the brand, so he has great knowledge and understanding of the Fuchs material handlers which are so prominent within the scrap sector. Darren joined Blue back in 2013, following a 13-week training course at the Terex factory in Dungannon, Northern Ireland. He will now focus his efforts on helping to develop Blue's presence within

the Scrap industry.



Blue Group offer a wide range of specialist scrap equipment. which can be used to maximise efficiency and profitability. We house some of the industry's most reputable brands including Fuchs, Taurus, ZB Group, BlueMAC, Fortress, Rammer, Spaleck and Westeria.

Fuchs Material Handlers are leading in class when it comes to handling scrap, with Blue offering a full range of machines suitable for different applications within the scrap industry. With machine weights ranging between 14.5-87 tonnes and a reach from 8.5 – 24.5 meters, there is a handler to meet every requirement.

Long-standing customer of Blue Central, C. Soar and Sons, based in Barnsley, recently took on five new Fuchs machines. Being the UK's leader in the dismantling and recycling of electrical plant equipment, Soars needed some new material handlers to speed up their process. The Fuchs MHL 350F has a high operating weight of 37.8 tonnes so was the perfect solution for unloading bulk tippers on site. Whilst the Fuchs MHL 310F & 320F are two of the smaller handlers, they are great at sorting out the smaller scrap and copper cables.

Blue supply the full range of Taurus Bluline metal balers and shear balers as well as the Taurus Redline range of pre-shredders for the scrap metal industry. Our range of Taurus Shear Balers offer different options depending on what is required. There is the ACH which is a compact baler

11

needed for yards with little



space to work with and the ACS is a stationary version for those with more space. The whole shear baler product line has a cutting force which ranges between 450 - 2000 tonnes and a box length which varies between 3 - 5 meters.

ZB Group provides some of the world's leading Mobile Hammermill Shredders used for processing a range of scrap metals. The machines cover a whole variety of applications with throughputs ranging between 3 – 40 tonnes per hour and Hammermill sizes that go from 1 to 2 meters in width. One of the main benefits of the ZB range is that they are mobile, this is beneficial because there is no requirement for civil work and planning permissions.

BlueMAC, part of the Blue Group companies, specialise in engineering and designing robust, tailored material recycling systems designed for exact specifications. The Mobile AMS (All Metal Separator) is a tracked self-propelled machine designed to separate ferrous and non-ferrous metals from feed material. The AMS has revolutionised the way in which a business can streamline its operational tasks and cut down on

> overheads. The machine is dependable, durable and reliable, whilst offering increased quality and price to the end

Another Blue Group company, Murray Plant, offer several attachments used within the scrap industry. They offer two of the best mobile shears available on the market, in Fortress and Rammer, which are used for cutting and processing scrap metals.

With the new segmented approach that Blue Group are undertaking, and with the introduction of the specialist scrap salesmen, businesses across the UK and Ireland will benefit from the high-quality scrap equipment on offer.







Viridor, which was awarded the contract following a will design, construct, finance and operate the facility to treat waste which would otherwise go to landfill. More than 90% of the partner councils' waste will be diverted from landfill and a Refuse Derived Fuel can be used to generate low carbon energy.

competitive dialogue process, (RDF) will be produced which The new waste treatment facility is located at Bargeddie in North Lanarkshire on the eastern outskirts of Glasgow where Viridor will extract recyclable material, with the RDF taken to the company's £177 million energy recovery facility in Dunbar.

Planned to commence operations in December 2019, it is anticipated that Viridor will treat around 190,000 tonnes of waste per annum through the Bargeddie facility on behalf of the partner councils.

Head of Project Delivery, Phil Baker said: "After we were awarded the overall project we appointed Nationwide as Principal Contractor. The company provided the civils, buildings and all structural work. The plant supply and installation was awarded to Eggersmann Anlagenbau, and the principal consultants for the project are Wardell Armstrong. The total value of the project is approx. £25 million.

"Following commencement, the plant shall process for 12hours a day, 7 days per week and will employ around 30 operatives. It will receive 90-100 truck movements each day and will deliver municipal solid waste (domestic 'black bin' waste) collected from the five local authorities, with the aim to produce an RDF material and also recover any metals and plastics that have slipped through the kerbside collection scheme. This will help the local authorities meet their obligation in terms of diversion to landfill.

"The contract has run very well, and we are currently in the process of cold commissioning. This is one of the very first plants where we designed the production plant first and then wrapped the building around it. Both Nationwide and Eggersmann have met this challenge and delivered."



Eggersmann waste plant flow:

After a two-year plant design phase and consultation with Viridor the mechanical construction phase commenced in October 2018 and was completed in August 2019. Hot commissioning of the plant is now underway with takeover scheduled by the end of September.







Jonathan Fallon - Project Manager for Eggersmann, described the plant flow. "Essentially it is a twin-line system with waste material delivered to an in-feed hall where it is stored and then fed into the system, each line operating at approx. 36t/hr to produce the required 190,000 tonnes per annum throughput.

"Two static high-torque, slow-speed Shredders reduce the maximum waste size down to <300mm, the waste is then delivered via twin conveyors into two Trommel Screens which make three separations at 80/200/300mm. Any oversize (>300mm) is redirected back via conveyors to the in-feed hall for reprocessing. The remaining fractions then travel by conveyor passing through Overband Magnets and Eddy Current Separators to

remove any ferrous and nonferrous metals. These metals are then conveyed to the picking cabin for quality control and into designated bays in the out-feed hall.

"The mid-fraction material, after passing through the metals recovery stage, is then conveyed to two Optical Sorters which positively eject all dense plastic material. The ejected plastics are then conveyed to the Ballistic Separator which separates the rounds from the flats. The recovery of the round dense plastic material is then conveyed to the picking cabin where non-target material is removed and the remaining dense plastic material is conveyed to a twin-ram baler where it is baled. All recovered metal and dense plastic material is then sent off site for specialised recycling.

Jonathan continued, "Everything except the three products, ferrous, non-ferrous and plastic bottles, are collected on a separate conveyor and sent as RDF material to a shuttle conveyor which deposits the RDF into seven different storage bays below.

"This conveyor has an intelligent sensor system which can detect the height of material deposited in each bay to maximise the storage capability, before moving on to the next. All of the RDF material is then loaded by shovel into wagons that will take the RDF for thermal treatment at Dunbar Energy Recovery Facility.

"There is high emphasis on plant throughput and efficiency, whilst also achieving pre-determined recovery and purity rates of the recyclable material".

Air and odour extraction:

A key element for the whole system has been the inclusion of an air extraction system which has been installed by Schultz and Berger.

Extraction has been installed within each hall and around individual equipment, all of which link into one main extraction system. Each extraction system has its own dust filter and carbon filter to remove solid particles and any odours within the process air with each individual hall linking up to one clean air external stack, 35m in height.



OPTIMUM METAL RECOVERY









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Binn Group is Scotland's leading independent provider of integrated recycling and resource management services.

Binn operate a materials recycling facility where a recyclable material are separated, graded, baled and sent to reprocessors. As a result, over 86% of all the materials entering the facility are transformed into useful commodities. The remaining 14% is then processed into SRF.

To produce a quality SRF, the material must first be shredded down to between 250-300mm. This stage is completed by a HAAS TYRON 2000XL 2.0 shredder, which had previously been supplied by CRJ Services.

The shredded material is then dried to around 15% moisture. Once dried, the material is loaded into a hopper via a telehandler, which begins its journey through the plant.

Firstly, a long part separator uses a roller to remove any long fibrous materials from the waste stream. From there, material enters a Nihot density separator which uses powerful fans to blow light material over a gap onto the next stage of the process. Heavy material falls onto a separate conveyor where any recyclable material is manually picked.

The light materials then pass onto a picking station where trained staff remove any non-conforming materials, such as PVC and cardboard. The remaining material then passes under both an over-band magnet and eddy current magnet, which removes any ferrous and non-ferrous metals.

The resulting material is then fed into a high-speed shredder, which must shred the material down to around 40mm before being baled, wrapped and stored ready for shipment.

Over the years Binn Group have used several different highspeed shredders to complete their final shredding stage. Each of their previous shredders failed to live up to expectations, with reliability issues causing lots of plant downtime.

Binn required a static high-speed shredder that could shred their material down from 250-300mm to 40mm. The shredder needed to be capable of producing a consistent sized product, at their desired tonnage per hour. It was also key that their



new shredder would either match or better the fuel consumption seen by their previous machines.

Having previously bought their HAAS TYRON 2000XL 2.0 preshredder from CRJ Services, Binn Group returned to CRJ for a solution.

The team at CRJ met with Binn Group to understand their operational requirements. Following various site visits and consultations, CRJ proposed that the Weima Powerline shredder would be able to meet and surpass Binn Groups needs

The Weima Powerline is a universal single-shaft static shredder, capable of shredding a wide range of input materials, making it the ideal solution for SRF production. The Powerline uses a series of counter knives which are mounted diagonally for a more aggressive cut. The Powerline rotor allows for high throughputs, whilst operating with low energy consumption, a key requirement for Binn Group.

To ensure a consistent final product, the Weima Powerline is fitted with an easy to change gate, which will only allow material to pass through to the outfeed conveyor once it has been reduced to a specific size.

For further information on the Weima range of shredders, please visit www.crjservices.co.uk



Sheffield based Norwood Metals has recently changed its allegiance from one material handler manufacturer by taking delivery of their first new Atlas machine for their yard on the outskirts of Killamarsh.

The company process in excess of 12,000 tonnes of metals per year at their base and for almost two decades of trading have used material handling equipment from the likes of Hymac and Poclain before settling on Liebherr machines. With the requirement for a replacement front-line material handler beckoning, Managing Director Jamie Hull looked at a variety of leading manufacturers before agreeing to purchase a new 350MH from nearby Atlas dealer for the UK, TDL. "We keep our cranes on front-line duties for up to 10 years and wanted a reliable, productive and economical loader." Jamie explains "The specification of the Atlas along with testimonials from other users and a very comprehensive package put forward by TDL Equipment gave us the confidence in changing brands.

The 36-tonne machine has replaced a similar sized Liebherr handler and has impressed the operations team at Norwood significantly since its arrival earlier in 2019. Regular operator Pete Jacques has been operating a variety of plant and machinery for over four decades and reckons the Atlas is by far the smoothest machine he has operated for a number of years. Powered by a tried and trusted Deutz 6-cylinder, 245hp diesel engine the Atlas machine is a dedicated material handler from the ground up. The 5m long heavy-duty chassis is fitted with heavy-duty axles fitted, each rated at 56 tonnes and is fitted with a pair of hydraulic stabilisers at each end to ensure the machine remains stable even under full load crosscarriage. The large diameter slew ring supports the upper structure complete with its hydraulically elevating cabin which lifts the driver's eye-line from almost 3m up to 5.5m. The wellappointed cabin is laid out with easy to read instrumentation and clear and simple switchgear, all within easy reach of the operator. A fully adjustable suspension seat allows the operator to set up the position precisely to their own requirements. The operator is well protected from potential harm thanks to bullet proof glazing and a substantial ROPS and FOPS guard. Operator acceptance of the Atlas is high across the industry thanks to the well laid out cab and its large glazed areas providing an excellent view from the seat. Pressurised to stop the ingress of dust and with a heating and cooling system designed to give the operator a pleasant working environment at any time of year.







Front end equipment on the 350MH comprises of a 10.6m straight boom with a 7.75m stick and is completed with a sturdy and industry respected Atlas five-tine grab with a 1.5m3 capacity. The day-to-day operations carried out at the yard require the Atlas to undertake the majority of stacking and sorting operations. A number of smaller material handlers undertake the sorting of incoming material whilst the bulk of the work falls under the remit of the Atlas including the loading of bulk tippers when time comes to remove the material to an end processor.



Three's company for top 100 demolition company Dem-Master

Dem-Master Demolition Ltd recently took delivery of a new QJ341 tracked jaw crusher from Sandvik Mobile Crushers and Screens. The Scottish company, based in Bathgate, recently named just outside the top 50 of the world's leading 100 demolition and recycling companies, will use the crusher alongside two other QJ341's on a variety of demolition and recycling projects throughout the UK.

Strategic and innovative investment in personnel, plant and machinery have all been key factors to the success of Dem-Master Demolition Ltd, factors which have all led to it being placed just outside the top 100 leading Demolition & Recycling companies. Its success comes from being leaders in investment and the use of innovative demolition technology, such as the QJ341 from Sandvik. "We are really proud to have made the top 100 D&R Companies as it reflects the all-round service delivery approach we deliver for our clients throughout Scotland and across the UK. Dem-Master has the knowledge and experience which has allowed us to work on high profile projects, and secure future work through successful partnership and framework agreements," says company managing director Richard McCulloch.



"Dem-Master is proud to offer a unique, quality assured and professional contract solutions including exceptional health, safety and environmental performance along with supplying added value to clients and local communities. From initial budget costing through to final project completion, Dem-Master delivers first class communication and client satisfaction with great results, and making the list (of leading demolition and recycling companies) is tangible recognition of the fact."

Dem-Master, as well as its Sandvik crushers, own, operate and maintain an extensive range of modern and specialist demolition plant and transport. This has seen the company continuously looking for more innovative and modern ways of improving and developing its services, and is now considered to be the owners of the most advanced ultra-high reach machinery and equipment within the demolition industry. This, along with other things, makes Dem-Master fully equipped for the mechanical demolition of extensive heavy industrial sites, multi-storey residential blocks and schools, as well as complex city centre developments.

"It has long been my belief that machine demolition would provide the safest, most efficient and economic method of demolition," says Richard. "Reducing health and safety risks, increasing control in programmes and producing less resident disruption, means that machine demolition allow a much more controlled and safer approach to demolition." This has resulted in Dem-Master having an extensive range of plant and equipment resources available for use on major contracts to continue with bulk reduced level excavation, and removal off-site of surplus material following completion of the demolition works. This gives Dem-Master a substantial degree of flexibility and continuity on-site with significant cost benefits being passed on to its clients.

Recycling masters

Dem-Master has long recognised the importance of doing its bit for the environment. Dem-Master has a 22 acre licenced waste facility based at its head office in Bathgate, which offers total waste solutions to make waste recycling and management easy and affordable. Whether it's skip hire, site clearance, tipper hire, Dem-Master's sister company, Total Recycling Scotland, can provide industrial, commercial and residential waste solutions providing the best possible cost saving solutions and services. "Our industry leading 98% recycling rate, and no hidden cost policy, means we can diverwaste from landfill, which in return means no landfill tax charges to our clients." says Richard proudly.





"Our goal is to provide low cost, environmentally friendly and reliable waste recycling and management solutions. We are fully committed to adhering to the principles of the circular economy throughout our waste management services." In addition to its waste facility, Dem-Master also has strategically placed facilities in Edinburgh and Glasgow, which means less mileage and fuel consumption when handling waste to and from city based projects, delivering increased productivity and a reduced carbon footprint. Richard explains: "We recycle 100% of metal, timber and inert demolition materials from our projects, and up to a further 94%-98% of mixed materials, thereby reducing the amount of waste. In addition to reducing the amount of waste going to landfill, as this material remains on site for reuse, there is no need for transportation, which reduces carbon footprint and promotes a more sustainable society."



A crushing need for material processing

Along with crushing and recycling at its facility at its head office, Dem-Master also has the facility to crush on site. This means recycled aggregates are available for collection or delivery from more locations across Scotland. The on-site crushing service is a very economic method of recycling various products during the demolition and bulk excavation stages of many projects. "Site waste can be significantly reduced, with the client obtaining further cost savings on imported hardcore. We can also offer and supply recycled hardcore to contractors and construction companies.

Highlighting the importance of highly mobile and effective crushing on site, and its recycling facilities, Dem-Master recently took delivery of a brand new QJ341 tracked jaw crusher from Sandvik Mobile Crushers and Screens. This highly productive, yet easily transportable piece of equipment has joined two other QJ341's, in this case, being immediately put to work demolishing the former Glasgow Police Headquarters in Glasgow city centre. "We've been buying Extec / Sandvik tracked jaw crushers since the launch of the Megabite in 98 or 99," explains Richard as to his choice of the Sandvik crusher. "It's tried and tested technology and ideal for

demolition work. We know them inside out, they've got the 'gap' which is ideal for demolition, and as we know them so well we can support them in the field. Also Sandvik machines have high residual values, and although not the cheapest we could have bought, certainly the best value."



The new QJ341, along with the two other crushers, has been acquired to process demolition materials from various projects. All three crushers are proving their worth dealing with in the region of a thousand tons per day of C&D waste each, which is then recycled. "We've got all sorts of material coming in, and we are producing a 6F2 product for infill and resale. We are hoping at some stage to wash the material and get it secondary crushed through a cone or impactor at our recycling yard. The problem is, if you can call it a problem, is that all our Sandvik crushers are out on site, working flat out," says Richard.

Long term partnership

Richard and Dem-Master have been dealing with Sandvik (or Extec as it was until being acquired by Sandvik in 2007) since the launch of the Megabite tracked jaw crusher. This has been continuously updated with the QJ341 being the latest in a long line of highly successful crushers. The latest version, with a CAT fixed speed engine (no need for Adblue), and the one chosen by Richard, now benefits from some of Sandvik's latest developments. In this case, one of the most noteworthy developments is with regards to the crushing process, with a new jaw plate that helps achieve optimum performance from the crushing chamber: Optitooth™. These new jaw plates have been designed for a higher percentage of the jaw to be utilized, resulting in longer wear life and less manganese waste. The innovative design enables better breakage and a faster distribution of fines through the crushing chamber which results in lower engine loading, and consequently, a reduction in fuel consumption.

Available for the Sandvik Premium range and Extec jaw crushers (QJ240, QJ241, C10, C10+, QJ340, QJ341, C12 and C12+), Optitooth™ has been proven to last up to 30% longer, and be up to 20% more productive. Other benefits include reduced fuel consumption through lower engine loading, the improved design reduces manganese spread enabling easier jaw plate removal, provides superior breakage and improved material flow to provide a better shaped product.

It's not just the QJ341 that has impressed Richard McCulloch however: "It was a pleasure dealing with John (Ingram, Sandvik's area sales manager). He is a direct straight sort of guy; the type of person I like dealing with. I was offered another crusher from a competitor of Sandvik's which was a lot cheaper, and they were desperate for the deal. But I knew John was the sought of person I can work with." Richard however does not have that much experience of other parts of Sandvik fortunately, "As to Sandvik's support, I am not sure how good it is as I never need them! The crushers never seem to break down."





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Arthur's Skips feels the efficiency of a Fraccaroli & Balzan overhead beam filter press



Arthur's Skips was founded in 1994 by Arthur Hartley and his son, James. In 1996 Arthur's Skips waste transfer station was set up at Stevenson Road with the company working from the two sites until 1998 when the company outgrew those premises and

moved to a 13.5-acre site on Neepsend Lane.

In 2004 further land was purchased at Hobson Avenue and today the company operate from the two sites. Currently employing over 30 people with over 2,000 skips in service; the company are currently in the process of re-licensing and changing the structure of their Hobson Avenue Site in anticipation of future growth.

A recent £2m investment in aggregate recycling equipment has placed them alongside one of the fastest growing recycling companies in the country.

Part of the investment included the supply of a Fraccaroli & Balzan Water Treatment System incorporating an incorporating an overhead beam filter press which was installed and commissioned by Max Innovate Ltd who are a specialist provider of Aggregate Washing Plants, Water Treatment Systems, Material Processing and Handling Equipment for the Quarrying, Recycling and Waste Industries. They have proven expertise in delivering best-in-class products and solutions for these industries and are the exclusive dealer for Fraccaroli & Balzan and EDGE Innovate covering England, Scotland and Wales.

Trommel fines:

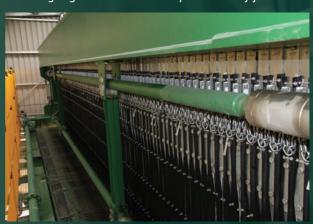
Fintan McKeever – MD of Max Innovate, takes up the story, "Most of the recycling wash plants that have been installed in the UK are for processing recycled aggregates, utility waste and trommel fines. Trommel fines are a huge problem throughout the industry because there are fewer and fewer landfills that can accept them. Therefore, the purpose of installing a wash plant is to wash the trommel fines, removing all the weight out of them and recover the good aggregate for resale and remove all the detritus materials such as the organics and the lights.

"After separation all that is left is a silt product which is then processed through the water treatment plant to separate the solids from the water. The clarified water can then be re-used and the silt is processed through a filter press to produce a dry filter cake from that. The water treatment plant at Arthur's has been sized to process 160 tons of dry solids/day; that is approximately 20 tons/hr coming from the wash plant into the water treatment plant in an 8-hour shift.

"What the filter press doesn't process throughout the working day gets stored in a large sludge buffer tank which is agitated. From there the filter press can run on after 5 o'clock and process the sludge until the sludge tanks have been completely emptied. At the beginning of the next day when they start the shift again the system is empty and ready to start processing again.'

The whole water treatment plant at Arthur's Skips has been configured specifically to process the silt and the organics

from washing trommel fines which have a high content of fibrous materials. Most of the organics and the fibrous materials are screened out of the system before the thickener. Material going into the thickener is predominantly just the silt



particles to which flocculent is added to create a thick sludge within the thickener. Clarified water is then decanted over the top into a holding tank and pumped back into the wash plant. Within this system is the ability to automatically add other chemicals into the system to maintain the cleanliness of the water, subject to what the feed material is coming off the wash plant.

Innovative features:

The plant features a low-level dynamic thickener which spreads the weight equally across the ground therefore eliminating any big load points on the civils. The design also ensures gravity feed from the cyclones on the wash plant directly into the thickener. A vibrating trash screen before the thickener removes all the organics, plastics and polystyrene keeping them all out of the water treatment system allowing only the silt and water (to which flocculent is added) to flow into the centre of the thickener and settle.

Fintan, added, "A four-arm rake system with deep ploughs on the rakes gradually pulls the settled silt from the extremities into the centre of the thickener to produce quite a thick sludge. The thicker the sludge the better, as it means there is less moisture content going into the filter press, so effectively the press has less work to do.

"Another advantage of this system is that the rakes can raise and lower, so if the sludge gets too thick the rake can plough back down into it, to dilute it, or we can lift the rake and automatically adjust it and set the system so that when the silt settles that the rake will constantly raise itself to maintain a very consistent sludge density underflow from the thickener to the sludge holding tank.'

The over beam filter press:

The Fraccaroli & Balzan overhead beam filter press offers so much more than other presses in the marketplace.

Fintan gave us the facts. "The key thing about this press is that the overhead beams sit to the side which allows full access to everything on the top. Unlike traditional overhead beams where everything sits in the middle and include a chain drive mechanism and hooks on the chains to open the plates. Eventually all those hooks and the chain wear out and if you get a press 'blow out' sludge will cover all the mechanism making it very hard to access and maintain everything. On the F&B press maintenance is super easy as



alternate systems wash from the bottom up.

"It's a very fast system and the only press in the country that has a completely flush floor so when the 'bomb doors' close up it's completely flush so you can actually walk through the plates making it very easy to change the filter cloths; whereas on other presses it's very difficult to access everything. The whole design philosophy of this plant is making everything as easy as possible, easy to access, easy to maintain, easy to service which has been a total success.

"The installation of the water treatment plant and the press has allowed us to sell the filter cakes to land restoration and we are also working with Sheffield University to get it into a product as well. There are a lot of opportunities for this material. It's too good for landfill as it has so many good nutrients in it.

"The water treatment system is phenomenal. The whole operation wouldn't work efficiently without it; it works effortlessly ensuring the whole system is in harmony. Absolutely first-class service from Max Innovate, a very knowledgeable team and the back-up is superb.

Spread the Word: Using Outriggers and Spreader Plates to Maximise Safety



If it is possible and practicable to do so, why do employers still not comply to health and safety standards and lower the number of accidents that happen onsite when operating MEWP-type platforms?

According to recent studies from the HSE, some of the most significant MEWP dangers arise from the misuse of equipment. Major contributing factors to assess before use include the surrounding environment and the stability of the equipment.

All MEWPS rely on the ground conditions on which they stand for their stability so it's crucial that the equipment is set up with outriggers and spreader plates (unless stated otherwise) in order to maximise stability and reduce potential injury.

Adapting to the Environment

It is important to remember that MEWPS fitted with outriggers should always be used in accordance with the manufacturer's instructions; not all equipment is the same so it is not correct to assume what may work in

one environment or for one piece of equipment will work with another. The assessment of ground strength can vary from an inspection to a full survey so a competent and qualified person should be on site to make sure the outriggers and spreader plates are used accordingly. It is also important to understand that there are different types of MEWPS used in different environments so what may work in a waste environment, may not work in other environments.

Ground Conditions

The conditions of the ground that you intend to carry out the work on must be assessed in the pre-inspection checks. Outriggers will allow the MEWPS to be stabilised on the ground safely with the spreader plates used to prevent the equipment sinking into the ground or uneven pressure being applied on the ground underneath.

MEWPs should only be used if the ground is safe; using outriggers will not automatically make an unsafe environment safe, they will only be a contributing factor to maximising stability.

When choosing the right spreader plates for your MEWP, refer back to the manufacturers manual or contact the manufacturer direct to ensure you have the right equipment to carry out your work.

For example, a MEWP working in a recycling environment may be on a paved ground. The paved area may look strong, but



the ground underneath may be weak when a heavy vehicle such as a MEWP is placed on top or likewise a sturdy soiled ground that is susceptible to holding weight may be uneven from recent pipework underground or adverse weather conditions softening the ground. This is why a competent person must always be available onsite to assess the area before work commences.

The Role of Spreader Plates

As a general rule of thumb, spreader plates should always be used under outriggers to make sure the weight of the MEWP is spread evenly, reducing the pressure on the ground underneath.

The foot of the outrigger should be centred on the plate, ensuring that the ground underneath is even. If there are dips or hollow areas in the ground below such as a rocky terrain, these must be filled before a spreader plate is used on top.

Studies from IPAF's recent 'Spread the Load' campaign reveal that up to 80% of a machine's weight can rest on one outrigger, as the boom rotates over it, so there is a considerable risk of an accident happening if the outrigger is on an unstable ground.

Mentor can deliver a full range of working at height courses to a range of industry sectors. For more information on booking training with mentor or for support on guidance working at height safely, get in touch with us today – 01246 386900.



A global leader in bulk handling equipment has introduced an innovative technology that uses the kinetic energy from a moving conveyor belt to generate enough power to run a wide variety of electronic systems. The Martin® Roll Generator is designed to create a self-contained mini power station that allows operators to run electrical monitoring systems and safety mechanisms. Able to be retrofitted on existing idler support structures, the new design is a step toward eliminating power production obstacles as conveyors move into the next generation of "smart systems" that are more autonomous and sustainable.

Running auxiliary power can be both complicated and costly, requiring expensive labor and oversized cables to accommodate the inevitable voltage drop over long runs, as well as transformers, conduit, junction boxes and other components. In many operations, this lack of available power means that any monitoring of the conveyor must be done by technicians physically walking the length of the structure, which can be a difficult and time-consuming task when the systems are long and span difficult terrain.

A more efficient approach is to employ sensors to transmit important data from remote points to a central location where it can be monitored in real time and recorded for later

"We found that we could draw energy from a moving belt by attaching an independent generator directly to one of the rollers," said Paul Harrison, Global Engineering Manager. "This way, the conveyor could produce power without altering



the structure of the system or affecting its physical configuration."

The roll generator is held in a fixed position by the roll support system but is not normally required to bear any of the material load. The unit is sealed from fugitive material and forms an integral unit independent of the conveyor roll.

All components to 'condition' the power to a steady 24VDC are enclosed in a protective cabinet, typically mounted directly on the idler support slide. The capability to store power in a small battery bank is already in development, allowing the generator to produce 5-10x higher amperage for short periods to power higher-wattage devices.



Four new Finlay machines for the Skene Group

Skene Group's long-standing relationship with Finlay Scotland has resulted in the purchase of four new machines in an order worth £2 million.

A J-1480 jaw crusher, TC-80 tracked conveyor and two C-1540P cone crushers have already been put to work between the firm's Soutra Mains Quarry in Pathhead, Midlothian and Lomond Quarry in Glenrothes.

Speaking to Project Plant at Soutra Mains, Darren Forrester, Skene Group's joint managing director, said, "We have owned and operated this quarry for 12 years. We have our own ready-mixed plant and block operation here, fully selfcontained. All the raw materials that go into the blocks and the ready-mix are produced within this quarry. We also have our own sand washing plant here and we manufacture our own sand as well.

"The ready-mix and block are the core parts of the business, but we also supply materials to the housing sector and other markets. Our ethos is we supply a good product first time, with a quality service. That goes for any products we do."

Darren admits they frequently add bespoke elements to their impressive fleet of machines to aid production levels.

As well as the new purchases from Finlay, the Skene fleet also includes a Finlay 883+ screener and a 694+, two Metso HP 300 cones, a 1400 Warrior, and a Metso LT120 crusher. There's also a CDE plant and loading shovels and excavators. Three Volvo L220H wheel loaders were recently added.

"Everything we have is big and everything we have is pretty bespoke," Darren said. "Our excavators for feeding the crushers are bespoke to us. Some features aren't even added at the factory; there's a lot of them taken back and adjusted to make our loading of the crushers easier. For example, these crushers, especially the 1480, are pretty hungry - 380-400 tonnes per hour. We get the excavator manufacturers to make some adjustments to them for ease of reach and to save us moving them so much.

"With crushers, there are things we've already had done to them before they arrive - slight modifications we've asked for as a result of our experience. We're actually carrying out some modifications ourselves to the 1540s just now because we're looking to feed them with bigger buckets.

"Plant equipment matters to us. We don't want to be wrecking anything; we want to get as much life out of machines as we can."

As evidence of this, the J-1480 replaced a Metso LT3054 that was sold to Russia, having completed 17,500 hours of service.

"That is now going away to enjoy a second life," Darren added. "We have extended warranties; we have a service contract in place. Reports will come back, and we want to know if there's anything untoward. We do that with all our plant equipment. All our Volvos are under full R&M, our Caterpillars are under full R&M, our Metsos are looked after by the dealer."

In terms of what Skene looks for in a dealer, Darren explained that Finlay Scotland – which was recently acquired by Molson Group – fares extremely well in the crucial areas of service and factory reaction time. He also lauded the relationship developed with Finlay Scotland sales executive Euan Fairweather.

"The dealer is probably more important than the machine itself, because there's not a bad machine out there," Darren said. "Every machine does break down. It's about the relationship, it's about the people, it's about getting it going again. We have good days and bad days, but we've got to get on the phone and get a reaction, get it moving. What I would have to say has really inspired me is the relationship our company has formed with Finlay Scotland and also the Terex Finlay factory. I have never seen support from a factory come out like what it has come out.

"Our relationship with Finlay Scotland goes way back. Neil Skene is our current chairman. He's son of Donald Skene, who formed the company in 1968. He would have had a relationship with Finlay when he went into quarries. Of late, since Euan's been in there, it's strengthened it more."

Skene Group consistently invests in new machines to update and replenish its fleet. Darren said there currently isn't a piece of plant in the quarry that has been in operation for more than 11,000 hours.

The purchase of the TC-80 conveyor came about following a conversation with Tom McNeill, MD of Finlay Scotland.

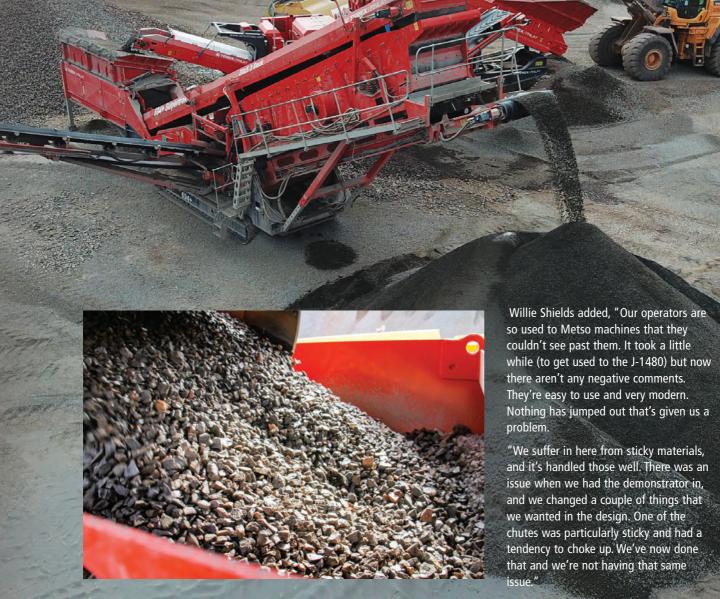
"Tom said there was a brand-new TC-80 sitting in his yard," Darren said. "He offered me the chance to take it away and try it. We brought it in, and it took a bit of getting used to. That machine was specified for 400-tonnes an hour. Through tonnage tests, we got it to work up to 600-tonnes an hour. It is a valuable machine, probably to the point where there are days we can now pack a loading shovel up, so it has brought about efficiencies."

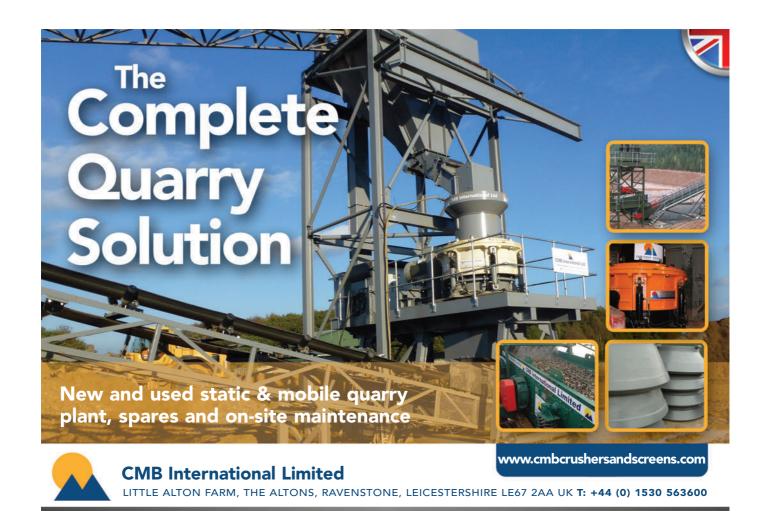
Turning attention back to the J-1480, Darren and Willie Shields, operations manager at Soutra Mains, agree that the machine is on a par with the Metso 3054, described as "top of the tree".

Quarrying



"At one time we ran 11 Metso machines," Darren said. "They were the Rolls-Royce (of crushers) and pretty much bomb-proof. Through Euan, I went up to Jamieson Quarries in Aberdeenshire to see their J-1480 working. I was pretty impressed with that I saw. We then brought the demo machine into here and, to be honest, it was the equivalent of the Metso 3054. That's the top of the tree. We will work a machine hard. It's here to do a job; if anyone wants to test something, bring it to us. But that's what's expected. I won't hide anything. The 1480 crusher has helped us; I'm very impressed."







Komplet en-route to real success in the UK

The Marche region of Italy is situated on the East coast and contains beautiful sweeping hillsides and many historical towns and villages. However, in 1997 a devastating earthquake struck devastating the region leaving 11 dead, 100 injured and centuries old buildings either demolished or severely damaged.

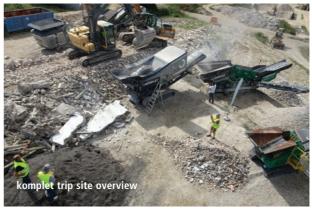
The clear up operation was slow as large-scale machines weren't permitted into many of the towns because of the potential damage to these buildings but in time lives and buildings were rebuilt. Then in 1999 a new company was born with a product to help meet some of the challenges of the 1997 earthquake.





"The difficulty in dealing with the rubble from the 1997 earthquake created a business need. How do you get a crusher into a site where 20-30 tonnes machines aren't permitted, and space is at a premium? You make then smaller, but just as powerful," said Alan Canestrari, head of sales and marketing at Komplet. We launched our first compact machine in 1999, the M2000, a compact crusher designed to meet the needs of sites where space is limited."

20 years on and Komplet has just completed an international dealer demonstration event at its base in Senigallia in the





Marche region with full demonstrations of the company's machines at a local guarry followed by an extensive factory

Komplet's UK & Ireland dealer Red Knight 6 Ltd joined the event taking customers and staff to get first-hand experience and see the range in action.

"When we tell people about the size of the Komplet machines they often feel they will be too small to process the necessary material. It's important we are able to not only see the machines in action, but also work with the Komplet team and get a good understanding of what the future holds, and also give our feedback on the products," said Paul Donnelly, Director at Red Knight 6 Ltd

One of the machines on show was the new 'Krokodile' a compact and robust shredder, capable of handing the toughest materials containing rebar and reinforcing wire, whilst weighing just 14 tonnes at 8m long (approx. 5m for transportation) and 2.2m wide.

"Machines like the Krokodile really demonstrate the power these compact machines can punch, but it isn't just about power, there is an environmental benefit too. Across the range the compact machines mean they work in any site, but also are easier to transport via trailer and lower noise emissions. Transportation costs are lower as material can be processed onsite and reused, rather than having to be taken away,"

The Komplet range starts at 3.5 tonnes with the Kompatto 221 tracked screener, at just under 4m in length and 1.5m wide. The company also demonstrated the Kompatto 104 screener, capable at producing 200 tph, the Kompatto 5030 screener, capable of producing 350 tph and the K-JC 704 jaw

"We can't wait to start exploring new applications with our customers and making the Komplet story a real success in the UK," finished Paul.

Volvo A60Hs get to grips hauling Kentish Ragstone for Gallagher Aggregates Ltd

Following a successful trial and detailed evaluation, Gallagher Aggregates Ltd has opted for two Volvo A60H articulated haulers as prime movers for hauling Kentish Ragstone at its Hermitage Quarry near Maidstone.

Following an initial enquiry made at last year's Hillhead exhibition, the 55 tonne capacity A60H was trialed by Gallagher Aggregates to assess the suitability of introducing an articulated hauler of this size to the operations at Hermitage. "In essence, we were impressed with the tonnage moved for a very economical fuel burn, together with fast cycle times" comments Gallagher's Operations Manager Pat Gooney. "It certainly proved to be a success in all areas of the quarry's production and was an immediate hit with our operators. The two new trucks are carrying out the same production of the three fifty tonne trucks they replace, and we are already seeing the immediate benefits when it comes to fuel consumption and the savings on running costs, whilst maintaining the production we require" he continues.

Specifically for Gallagher Aggregates, the two A60Hs have had additional features fitted to them including 200mm side extensions coupled to a cantilever tailgate, increasing the hauler's body capacity to 39m³ and maximizing payload. To give extra protection to the hitch area and cab, optional front spill guards have been added to the front of the skips. Thus configured the trucks are capable of handling all of the duties on site, which includes hauling blasted material from the face to the primary crusher, besides some secondary duties around the plant. Working ten-hour shifts Monday to Friday, with half a day on Saturday, the two new A60Hs will contribute to the annual output of the quarry. "Again, we are really impressed with the power of the trucks, especially on the gradients with the typical payloads they are carrying" says Pat. "The new arrivals are proving very popular with their operators too. The cab is extremely comfortable and has been well thought out in its design. The two-speed reverse and fast tip and lower functions add to the overall faster cycle times, and Volvo's unique suspension system provides excellent load retention and operator comfort."

With an industry leading 55 tonne (60 ton) payload, the A60H brings a new dimension to reducing the cost per tonne of material moved, using tried and tested frame and powertrain designs with the emphasis on fuel efficiency. The A60H is powered by a 16 litre Volvo engine, delivering 495 kW and 3200Nm of torque, and has a maximum speed of 54.9kph. It shares the same features and benefits in terms of design and overall layout as its smaller brothers in the Volvo articulated hauler range.

With the A60H, valuable data is on hand to improve onsite efficiency and save costs. With intelligent systems from Volvo, such as: MATRIS™, CareTrack™ and the On-Board Weighing

system, customers can optimize production and minimize operational costs. Volvo uses the latest technology to monitor machine operation and status, advising on the best ways to increase profitability. The On Board Weighing System guarantees the optimal load every cycle. This maximizes production, boosts fuel efficiency and reduces machine wear in all site conditions and operations.

The ground-breaking A60H features the latest innovations from Volvo. With matched drivetrain, automatic drive combinations, including 100% differential locks, all terrain bogie, hydro mechanical steering and active suspension, this machine is unbeatable. Fitted with an active hydraulic front suspension for higher hauling speeds in tough conditions, the A60H optimizes operator comfort and stability during travel, allowing more material to be moved in a shorter time for unmatched productivity. The A60H's dump support system, Hill Assist and load and dump brake, all help the operator, to stay in control, for extra productivity and safety.

The new arrivals at Gallagher Aggregates have been supplied with an enhanced four-year, 10000 hour driveline warranty and will be serviced and maintained by Volvo trained engineers under SMT GB's Level Two ENHANCE service agreement.



Quarrying





Gallagher Aggregates Ltd is part of the Gallagher Group, engaged in the mineral extraction industry and is now the only remaining company actively quarrying Kentish Ragstone. The company operates two quarries in Kent, supplying customers throughout the South East, these being Hermitage Quarry, close to Junction 5 of the M20 and Blaise Farm Quarry near to Junction 4 of the M20. Hermitage Quarry supplies over 70 different products including primary aggregates, recycled aggregates, HBM, ready mix concrete, flowing screeds, soils and block stone for new build and heritage projects. In addition, Hermitage Quarry operates an inert landfill site. Blaise Farm Quarry produces a suite of fills and roadstones.

SMT GB markets Volvo Construction Equipment products which include wheeled loaders, articulated haulers, hydraulic excavators, Volvo utility equipment and Volvo road equipment products in Great Britain. There are eight strategically placed customer support centres, a dedicated National Used Equipment Centre and a network of utility equipment dealers to ensure high quality customer support is maintained throughout the country.







Innovative technology for effectively incorporating RAP into asphalt paving mix

Recycled asphalt pavement (RAP) is important for the asphalt business as it enhances both the sustainability and the profitability at asphalt mixing operations. Astec, Inc. has long been recognized as a leader in developing innovative technology for effectively incorporating RAP into asphalt paving mix.

BENEFITS OF RAP

The number one benefit of using RAP is cost. The aggregate itself hasn't really aged. It has the same physical properties as it did the day it was originally crushed and used to make a

"The return on investment is high," said Mike Varner, Astec Vice President Engineering. "If you look at the evaluation of recycle, that return comes from the value that is inherent in the materials that makes up RAP—the liquid that is in the RAP, the asphalt cement or the binder, and the rock.

Recycle is worth the material it's replacing. Using recycled aggregate saves money that would've been spent on virgin aggregate and virgin binder. But it also can increase the longevity of pavements due to its stiffness, much like a polymer. Test results show this – especially if coupled with warm mix technologies.

DOUBLE BARREL® XHR

The Double Barrel® XHR is a high RAP aggregate dryer with an external asphalt pavement mixer. This system uses V-flights and a drum VFD (variable frequency drive) to help facilitate producing many different types of mixes, while controlling the temperature. It cuts the added cost and the lost time of flight changes, because its wider veil increases its effectiveness by exposing more material to hot gases. The Double Barrel® XHR keeps operating costs down while making use of stockpiles of reclaimed asphalt pavement, running mix from 0 percent up to 70 percent RAP. It creates a high-quality mix with high RAP by employing two mixing technologies that have been around for a quarter of a century in the HMA (hot-mix asphalt) industry:

The outer mixing chamber on the dryer gently mixes recycle with dry hot aggregate maximizing heat and binder transfer between RAP, aggregate, and selected admixtures in a rarefied oxygen atmosphere.

The external mixer vigorously mixes virgin bitumen, as well as other admixtures.

The stainless-steel drum and combustion flighting withstand the higher temperatures associated with running high RAP.



ASTEC, INC.

Innovation and customer service thrive in nearly equal parts at Astec, a global leader in the asphalt mixing industry. Building an asphalt plant from concept to completion requires experience, flexibility and trust. Astec is committed to bringing innovative products and solutions to the market by listening to the needs and wants of its customers.

Says Andrew Pettingale, Managing Director at BG Europa, "Astec produces quality equipment which efficiently, cleanly and reliably produces high quality mix with high RAP contents. Its customer service in this industry is second to none and the attention to customers' requirements is exemplary. Whilst competitors may imply, Astec provides written guarantees against performance.

Along with technologically advanced equipment, Astec Inc. is committed to providing world-class sales, service, parts and technical support, delivering its customers the service they expect and demand in today's competitive environment.





The Astec Double Barrel XHR High RAP aggregate dryer with external asphalt mixer achieves a quality high RAP mix. To achieve this quality mix, it utilizes both an outer chamber on the drum and an external mixer with the addition of the V-Pac™ Stack Temperature Control System to maintain as low an exhaust temperature as possible when running high RAP content. A stainless-steel drum with stainless-steel combustion flights withstand the higher temperatures associated with running high RAP. The Astec warm mix system comes standard on all Double Barrel XHR mixing systems.

For more information visit us at www.astecinc.com/DBXHR

A unique approach to asphalt plant technology.



RECYCLE

Can process asphalt mixes with up to 70% RAP* content while maintaining zero opacity at the stack.



V-PAC™

Maintains low exhaust temperature when running high RAP content.



OUTER MIXING CHAMBER

Gently mixes recycle with dry hot aggregate maximizing heat and binder transfer.



EXTERNAL MIXER

Vigorously mixes virgin liquid asphalt cement, as well as other admixtures.

*at 3% moisture content



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part of the overall volume the producer turns out."

A problem that is difficult to solve:

The biggest problems relate to the preservation of the mixed material when stored for long periods of time, associated with:

- The demands of a market often presenting a fragmentation of supplies to many jobs each requiring small or medium amounts of asphalt mix, making it difficult to efficiently satisfy every single request.
- The proliferation of mixes often requiring the production of the same product on multiple occasions throughout the day. Together with the costs associated with either starting
- or cleaning out of the production plant to satisfy this requirement.
- The increasing frequency of night and weekend works requiring mix outside the normal operating hours of production facilities and the support network for such.
- The requirement for mix within conurbations and the difficulties associated with the operation of production facilities close to these sites of product requirement.

Andrew, continued, "Opportunities exist for producers to satisfy changing market requirements, providing their customers with a ready supply of quality mix. Astec long-term storage silos have particular characteristics which allow the producer to insulate the material for four days with the guarantee of preserving the technical characteristics of the

Technology and potential: At first sight they look simple silos, however within they contain sophisticated technology that comes from a deep knowledge of the material, the dynamics of oxidation and loss of the mix's physical and chemical properties. Astec long-term storage silos allow producers to use the silos as a conventional surge bin during the busy time of day. At the end of the day time-consuming start/stop operations can be avoided and silo filling can commence while continuing

The state of the s

loadout. The next working day, mix can be sold straightaway from full silos, without awaiting plant startup. Nobody needs to wait for mix and any delays to production plant startup can be mitigated. Uninterrupted production runs allow producers to maximise equipment efficiency and reduce material waste.

Incorporating multiple silos into production plant layouts ensures producers are ready to meet customer needs for a number of different mixes. Whilst reducing operating costs and improving plant operating efficiency.

In addition, the potential to store mix for four days* without loss of mix quality, is guaranteed by Astec in writing. This allows producers to further optimize and rationalize production facilities by utilizing the concept of satellite storage; providing customers with a readily available supply of high-quality mixed material, in areas unsuitable for location of production facilities either due to environmental concerns or economic constraints.

Much more than simple silos:

The Astec long-term storage silos are not just insulated containers but a storage system in which all the elements, starting from the loading hopper, passing through the elevator conveyor and the transverse conveyor up to the silo batcher to the silo and lower cone, are designed to optimize the process.

The main elements that make it a unique technology are:

Insulation:

300mm of insulation at silo tops, 100mm around the cone, and 150mm along the cylinder keep the mix hot. Batchers are insulated as well, because uninsulated batchers are a major source of heat loss. Two layers of stiff sheet insulation are staggered to eliminate heat-leaking seams along the silocylinder. Astec uses thick, full R-value, non-compressed insulation

Top seal:

In storage mode, the cylinder-operated gate at the top of the batcher is completely sealed. The gate runs in rails which tightly wedge it against a ring of grease. This forms a tight seal and keeps air from entering at the silo top.

Bottom seal:

Astec's patented discharge gate seals the bottom of the cone when the silo is in storage mode. The heated and insulated discharge gate closes to completely cover the cone opening. Oil is pumped into the gate to seal the bottom silo opening





The oil reservoir is located by the silo legs, and a motor-driven pump moves the oil from the reservoir into the gate. A sensor monitors the oil level in the gate and controls the pump.

Lower cone:

The lower cone has a specific inclination of 66° and a higher shape, which naturally prevents segregation and build-up of the material. To prevent wear caused by the material, the interior is lined with wear-resistant steel or optionally ceramic liners can be installed.



Vaccor







Heating of the walls of the cone:

A silicone electric heating blanket surrounds the lower cone section. A thermostat activates the blanket when the temperature drops below set point. This sensor saves money, because the energy to heat the cone is used only when required. Hot-oil heating is available as an alternative to the electric blanket.

Transport of the material:

The drag conveyor reaches to the top of the silo. Strong, wear resistant, roller chain runs from bottom to top, with deep, steel slats attached every 300mm. This heavy slat chain assembly resists hydroplaning over the mix. Depending on required capacity, Astec offers either single or dual chain configurations. The drag conveyor discharges into a traverse conveyor atop the batchers.

The mix moves by drag conveyor or bucket elevator into a three-ton batcher atop the silo. When full, the batcher releases the slug of mix. Mix drops through the rapid-opening double clamgate into the silo and flattens on impact. Astec's double-clam gates are not like conventional pinch-closed style double-clam gates. Astec's overlapping gates slice through material flow as the gate closes. This slicing action and overlapping gates result in better gate wear resistance when compared to pinchclosed style gates. The double gates also centre the drop into the silo and form a flattened mix surface, which prevents mix segregation.

Silo pressure equalized:

As mix level rises, it displaces air in the silo. Integrated vents inside the batcher enclosure allow bi-directional airflow and equalize silo pressure as mix level changes during fill and loadout.

External coating & painting:

The outer casing is made of aluminium. completed with a coating that maintains the quality characteristics over time. The painting is either carried out in the official Astec colour or optionally in the customers colour choice.

Support structures:

The walls of the silo are made from rolled steel plate lined by structural weld. Jogged radial joints form a smooth inner surface, reducing wear at the joints. Standard silo legs provide 4.0m of clearance for trucks from the top of the weighbridge. Legs and the silo support frame are made of heavy, structural, wide flange beams. Silo support structures are designed to meet the site-specific design criteria at the installation location.

The advantages of a highly technological solution:

What are the advantages of a highly technological solution like the long-term storage silos from Astec?

The possibility of planning plant production in a more linear way is certainly the first and most obvious advantage. By storing up to four days of material with Astec's guarantee of the quality, producers can cope with the peak loads, small supply requirements and intelligently use production plant downtime.

Being able to logically schedule when to start a plant and when to shut it off. With the silos, it is possible to cope with the first load flow very quickly, as well as shorten the loading times thanks to the material that can be prepared continuously and loaded quickly when the trucks arrive.

The ability to store mixed material to overcome short to medium term interruptions to paving operations, without wasting mix. Where projects require high volumes of mixed material, production capacity can potentially be exceeded and necessitate the production of a buffer of material prior to the commencement of works. Disruption to paving operations either due to infield breakdown or changing weather conditions, can be mitigated by storing this material for up to four days without loss of quality.

The potential to maximise production plant capacity/efficiency. By filling either plant based or satellite storage facilities on Friday afternoon and then providing customers with high volumes of quality mix early Monday morning, without waiting for production plant startup.

Andrew concluded, "Astec long term storage silos revolutionized asphalt production methods in the USA. Allowing customers to take advantage of clean technologies for high capacity recycling of asphalt products such as the Double Barrel®, whilst maintaining the flexibility in supply to their customers. Recently our customers in Europe, by utilizing Astec silos for satellite storage applications, have taken these advantages one step further by consolidating production at highly efficient, environmentally responsible production facilities.

"Investment in long term storage solutions allows producers to position themselves differently in a competitive market, take advantage of clean efficient technologies and production methods whilst enhancing service to their customers."

* polymer modified, open-graded and SMA mixes excluded



TEMA Isenmann are well renowned for their wide range of polyurethane screening products, most notably the highly regarded WS85 modular system also have a longstanding business of manufacturing conventional woven wire screens for asphalt applications.

The Louis Herrmann company in Dresden commenced with the production of industrial screens in 1838. The company was epoch-making regarding the development of screening procedures; however, the business was destroyed during the second world war after which Hein Lehmann employed the most important employees of Louis Hermann and consequently secured all the rights and experience. Isenmann founded in 1949 was taken over by Hein Lehmann in the mid fifties and therefore was able to benefit from the vast experience.

Well proven over many years, the company's woven wire screens have been designed to meet customer quality demands while offering cost effective operation.

The wire meshes are produced to the highest industry standard DIN 17223/ISO 4783-3 in either spring steel DIN 17223A or stainless steel 1.4301 which offers a high tensile strength up to 2100N/mm2 and long service life.



Produced according to DIN 4192 / ISO 4783-3 in Spring Steel DIN 17223 A or Stainless Steel 1.4301 aperture range from 1.0mm square x 0.5mm Ø wire upwards

Call 01327 264227

screendecks@tema.co.uk | www.temaisenmann.co.uk



Vulcan Dryers - Setting the highest standards for a Northern Ireland Quarry

Following our announcement earlier in the year that Vulcan Burners have extended their product range to include bespoke dryer systems. The decision to develop a range of efficient and reliable dry-ers, again with the emphasis on efficiency and reliability was an oblivious choice that will comple-ment the Vulcan burner range.

In spring 2019 Vulcan Burners successfully installed and commissioned its first bespoke burner and dryer system for MP. Coleman Ltd of Stewartstown Northern Ireland.



MP Coleman is a family run business, who have grown throughout the generations to become a well-established civil engineering and surfacing contractor in Northern Ireland.

MP Coleman also supply a range of materials to customers across Northern Ireland which include Ready-mix concrete and Bitmac/Asphalt Products. MP Coleman also offer a bespoke deferred set product which is distributed throughout the UK and Europe.



To guarantee customer satisfaction MP Coleman ensures that all products are of the highest quality and manufactured efficiently whilst remaining environmentally friendly. In a bid to maintain these high standards MP Coleman Ltd.'s Company Director Martin Coleman wanted to upgrade the Asphalt Production plant with the help of Vulcan Burners.

Martin Coleman took the decision to replace the existing dryer and burner on his Phoenix asphalt plant. His requirements were for increased production capacity, efficiency, and reliability. This was to be achieved while

guaranteeing minimal environmental impact to the site and surrounding area.

Vulcan Burners carried out a comprehensive consultation with the customer and supplied a pro-posal that included a bespoke drying system which included a larger dryer, burner, new feed end box, and burner end box.



The new dryer diameter was increased from the existing 1.8 meters to 2.2 meters whilst utilising the existing chassis. The innovative design of the drum ensures the minimal withdrawal of course dust, whilst the dryer lifter configuration enabled increased capacity for the manufacture of hot roll asphalt. The efficient lifter design is also tailored to suit the new Vulcan Surface burner which gives an additional 20% more drying space within the drum.

The installation was carried out over one week, to ensure minimal disruption to production. As part of the package full operator corrective training was given ensuring that site personnel have the con-fidence and knowledge to operate their drying system, effectively and to the highest safety standards.

The operating team at MP Coleman has stated that the Vulcan drying system is user-friendly, and the burner design is very easy to maintain, especially with the split, roll-back feature, it makes regular weekly maintenance easy and accessible.



Currently, based on the monitored fuel figures, savings above 15% are achieved on production runs, this corresponds with the extremely low emissions recorded and monitored during production.



Martin Coleman, Managing Director states, "I am extremely happy with this investment, The Vulcan Dryer & Burner package is impressive, the quality & performance of equipment is of exceptional val-ue and I would highly recommend the Vulcan range to any prospective Asphalt manufacturer who is considering upgrading their equipment and facilities."

With every dryer replacement inspection, Vulcan provides a new lifter configuration design based on improved performance. Ian Lewis, Senior Technical Engineer for Vulcan Burners explains, "It is com-mon to see new dryers supplied on a like for like basis, but little performance savings are made as ei-ther the lifter configuration is of a poor or old design which leads to no improved efficiency, poor emissions, and worse case premature damage to the new equipment. For the cost of the investment and downtime for the installation made, items such as lifter design should be a priority on any buy-ers list of requirements. For the Vulcan dryer range, it is one of the most critical elements to ensure that the lifter pattern is optimised, not only for performance but also towards the environmental element of lowering emissions. The customer should expect no less.

The Vulcan dryer supplied for MP Coleman Ltd was designed with a larger diameter drum this pro-vided a host of benefits for production. This is achievable on numerous plants and again, we discuss the customer's future production targets during the initial site visit. Increasing the drum diameter is beneficial for any customer at very little cost, especially those with an extremely busy site and if it is plausible to do so depending on the rest of the equipment.

An additional feature of the Vulcan Dryer is that it is designed and manufactured fully fitted with a high-quality sealing system which limits the ingress of excess air from entering the dryer. Again, many benefits can be gained when dryer endboxes are fully sealed. The optimum fuel to air ratio is maintained correctly, ensuring the efficiency of the combustion system, this in turns provides real fuel savings.

Even in this area of efficiency as the main driving force for plant upgrades, many new dryers are still supplied with inadequate sealing in place.

As part of the Vulcan drying package, we can offer related equipment such as new dryer and feeder end boxes, skimmers. Again, these are all bespoke to the customer's requirements.

The burner end box is another item designed specifically for the incorporation of the Vulcan surface burner series, this allows easy access into the internal drum for maintenance and future inspections. It is an additional safety feature that helps to overcome the dangers associated with confined space entry as the burner can quickly be rolled back to allow direct entry into the dryer in case if an emer-gency were to arise.

Vulcan Burners take a measured approach when supplying and delivering a Vulcan Dryer/Burner con-tract, we believe that the customer should expect no less in today's climate; efficiency, performance and the environmental impact of the drying system are critical to any equipment purchase. If you are considering a dryer upgrade or replacement, please get in touch. www.vulcanburners.com Email: sales@burnerservices.net Tel: +442879469501. Many thanks to M.P Coleman Ltd for their contribu-tion to this article. www.mpcoleman.co.uk



New regulations needed to stop unsafe concrete practices

By Owen Batham - Sales and Marketing Director, Elite Precast Concrete

Using recycled waste within interlocking concrete blocks often presents a cost saving to the manufacturer - and could be argued as being more environmentally-friendly.

But there is an increasing problem with blocks being produced which don't meet the high strength and durability standards required if the products are going to stand the test of time and be as safe as possible.

This is because often there are unknown or hazardous materials contained within: rather than being safely disposed, waste is encapsulated into blocks, meaning it is no longer considered waste and does not require a transfer note.

When they are then sold, the customer ultimately has no idea what is contained within the blocks — or whether they meet the regulations surrounding concrete in the UK. This is a cost concern as they may need replacing sooner than would be expected if they crumble, but more importantly is also a real safety concern and could even pose a risk to lives should a collapse occur.

While there are guidelines about expected strength and durability, and companies are expected to test their materials, they are not legally enforceable which means there are no specific repercussions for manufacturers who are not testing and may be using dubious or hazardous materials in their blocks.

There are thousands of these blocks (containing unknown recycled or hazardous materials) currently being used in the UK – and there is no tracing system which would enable them to be identified. That's why both manufacturers and customers need to be educated about the dangers of these unsafe practices. And to enable that education to be as effective as



possible, more research needs to be undertaken to determine the exact risks of weaker or hazardous recycled materials being used within construction.

But most importantly of all, standards need to be elevated within the industry. This means more stringently enforced regulations which specifically tackle the issue of recycled aggregates. Knowing there will be repercussions if potentially unsafe blocks are sold will not get rid of the blocks which are already in use, but it may stop this practice increasing in the future. Set regulation alongside better education also means that customers will be able to make informed choices about the blocks they use.

More information and research can be found in the independently-written 'Recycled waste and the UK precast concrete industry' white paper which originated from our concerns about the impact of these unscrupulous practices: http://bit.ly/elitewhitepaper.





MCT Italy Smart Semi-Mobile Plant Type MCM lands in the UK

Litecast Ltd based in Nuneaton, Warwickshire, established in 1998 has since become a leading manufacturer of precast concrete floor beams throughout the UK.

Within the development process of a new production site, Litecast has selected MCT Italy Srl as supplier for the batching equipment feeding the new beams factory, through the cooperation with PUK Services, Midlands based agent for MCT.

The new project envisages the installation in 2020 of new factory with fixed batching facility with distribution system by flying buckets and casting machines.

To realize the foundations and concrete works of the new factory, Litecast selected the smart compact semi-mobile plant type MCM developed by MCT, already installed and handed over in the new site in Nuneaton.

The main structure of the MCM plant is composed of no.2 containers 8' x 40', therefore it can be easily transported (by road, ship or train) from one site to another being extremely easy to assemble and it doesn't require civil works for the

support. Transportation, installation and commissioning can all be easily carried out with minimal need for foundations, plumbing or electrical connections, going together by four tapered pins positioned at the corners of the lower module, which are inserted and connected to the upper one; providing stability to the entire structure. The electrical and hydraulic connections are carried out and tested in the factory with the aim of quaranteeing maximum reliability of the whole system.

A planetary mixer 1.0 m3 output is installed, so the plant can reach a maximum production capacity up to 45 m3/h of the highest quality concrete.

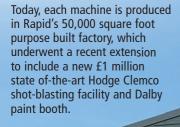
The "Compunet" plant automation, very user friendly and easy to be commissioned, manages the plant operations in the most versatile way, ensuring the best batching and mixing performances. Moisture probes and plasticity system allow the quantity of water to be measured in real time and subsequently corrected. The plant can be operated remotely using state of the art wi-fi industrial handheld tablet.

Rapid Celebrates 50 Years of Mixing Technology Expertise



Rapid International Ltd, celebrates its 50th anniversary on 1 September 2019. Established in County **Armagh, Northern Ireland** in 1969, the company is one of the world's leading manufacturers of mixing technology for the concrete, construction, environmental, nuclear, mining and tunnelling industries.

In 1969, at a period in Northern Ireland's history when political and sectarian violence were commonplace, Rapid's founders, Robert (Bertie) Pickering and Jim Lappin intended to bring about advancement, progress and hope for the local economy. Founded on 1 September 1969, Craigavon Engineering, originally manufactured agricultural equipment in a humble 7m x 4m domestic garage. From the outset, Bertie and Jim were renowned for their exacting quality standards and customer focus. Demand subsequently grew and in the 1970's the business relocated to a larger custom built facility, diversifying into manufacturing ready mixed and



precast concrete plant.



Concrete Plant

First concrete mixer still operational today, 37 years later

In 1982, Rapid launched the first in a range of concrete mixers, the Rapid Pan. The very first of these was sold to J Graham and Sons Ltd in County Down, Northern Ireland, and is still operational today, 37 years later. The product range later expanded in 1992 to include the novel Rapid Reclaimer, a reclaiming unit for the recovery of unused concrete. The ground-breaking invention was met with industry acclaim and featured on BBC's Tomorrow's World.

Rapidmix, Rapid's flagship product, was first launched in 1997 and later adapted to include full weighing capabilities in 2012. Rapidmix is a totally mobile and self-contained, high volume continuous mixing plant ideal for a wide range of concrete, construction, civils and environmental applications.

Applications expertise

New product development remains a strong focus for Rapid and the product range has expanded considerably since 2009. Rapidbatch, Rapid's first fully mobile concrete batching plant, was launched in 2009, as was the Rapid twin-shaft concrete mixer. Transbatch, a compact, single load version of the Rapidbatch plant, was launched in 2011, followed by Trakmix, an innovative track-mounted mobile continuous mixing plant in 2015.

In recent years, Rapid has witnessed a demand shift towards specialist applications such as contaminated land treatment, mine back fill, tunnel finings, marine dredging, bentonite and many more. Rapid's in-house team of highly qualified and experienced design engineers, sales team and skilled operatives work in total collaboration with the customer to achieve a completely bespoke solution.

Rapid commences exporting

After the success of the Reclaimer launch the company set its sights on penetrating international markets and in preparation for this, changed its name to Rapid International Ltd. Rapid officially commenced exporting in 1995, initially to the USA and later in 1996 to the Middle East. Today, Rapid has a presence in over 20 countries via a wide reaching international dealer network.

Sadly, in 2007, Robert (Bertie) Pickering, co-founder and Managing Director, passed away after a short illness, later followed by fellow co-founder Jim Lappin in 2018. Mark Lappin, son of co-founder Jim Lappin, was subsequently appointed Managing Director and continues to lead the company to the present day. While Rapid's operations have expanded, the families underlying principles of hard work, trust, feedback, care, collaboration and relentless dedication to quality have remained constant to the present day.

Entrepreneurial spirit drives Rapid's success

Commenting on the milestone, Mark Lappin – Managing Director, remarked, "As we reflect on the last 50 years, it's clear we owe our continued success to the entrepreneurial spirit of our founding partners, which the company is still driven by today. We continue to push boundaries, seek out new product innovations and enter new global markets on an annual basis. As was the case in 1969, total quality, technological advancement and customer focus still remain at the core of Rapid."

Mark continued, "It's been my privilege to lead Rapid for the last 13 years and personally witness Rapid's success for 30 of its 50 years. We wish to sincerely thank our customers, dealer partners and suppliers for the loyalty and trust they have placed in us over the last 50 years. We look forward to continuing these partnerships in the years that lie ahead."

Rapid family expansion

In an effort to streamline its supply chain, Rapid recently welcomed Rapid Power Generation, formerly A1 Power Systems, into the Rapid family. Rapid Power Generation, a Volvo Penta preferred partner, is a leading manufacturer of bespoke diesel powered generating sets from 10Kva – 2500Kva.

Charity gala

Rapid will be hosting a 50th anniversary charity gala dinner and raising funds for Marie Curie and Macmillan Cancer Support in memory of Rapid's co-founders. The company hopes to raise a generous sum to support these two very worthy causes. If you wish to offer a charitable donation, please visit: www.justgiving.com/crowdfunding/rapid-international





November/December 19

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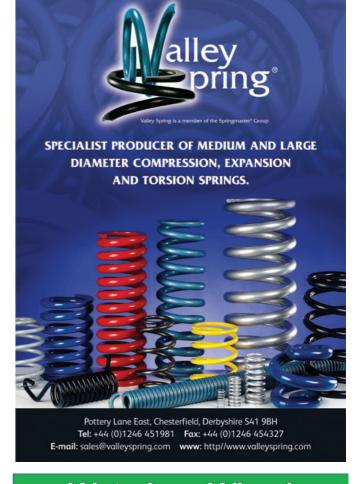
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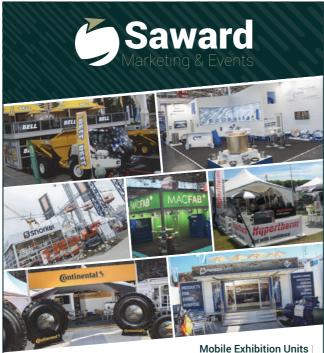
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