

SPECIAL
AGGREGATE
WASHING &
SCREENING
FEATURE

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

March/April 2021 | Issue 67

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Small enough to care, big enough to handle

With over 25 years of servicing the construction and building industry including road and rail networks, family-run business NRS Group Ltd was formed in 2005 by MD - Mark Ketcher and Lorraine Shirley, when they operated a small fleet of tippers and plant. This soon expanded from haulage to the operation of inert landfills. In 2011 the company had the opportunity to purchase Sarendon Quarry and today NRS Group operate some of the largest inert tipping facilities and quarrying and recycling aggregate production operations in the midlands.

All of the aggregate processing plants have been supplied by PowerX Equipment who have maintained a long-lasting relationship based on a total commitment, with service and integrity at the core of the partnership.

Within the last nine years the PowerX Equipment team have designed, delivered, and commissioned 'state-of-the art' processing plants for NRS Aggregates that have been designed to process on-site material to produce the maximum tonnage of saleable material to satisfy current marketing demands from their clients.

Founded by industry specialists PowerX bring decades of experience in the market to supplying a 'next generation' plant design with an understanding of continually changing demands.

Meriden Quarry:

Meriden Quarry was the 1st project for the PowerX team with the plant based on a Terex® AggreSand 165 modular wash plant with a Terex® Aggrescrub 150. An impact crusher was also installed to handle any oversize via a recirculatory system.

The Terex® AggreSand 165 modular wash plant combines aggregate washing and screening with sand processing on a

modular chassis. It brings together tried and trusted components in an innovative modular design, setting itself apart from other washing systems in the marketplace.

Features & Benefits:

- Up to 3 washed aggregates & 2 washed sands.
- Modular design with 'plug and play' electrical connections for quick set-up.
- Pre-wired & pre-plumbed with single connection points.
- Fully automated touch screen control providing all-round plant information.
- Choice of grid and screen media options to suit your application.
- Intelligent low level and easy access features for maintenance and wash-down.
- Transportable in 4-6 containers.

Initially the plant was to process C&D Waste, but currently processes alternately between C&D and sand and gravel left behind by the previous site owners.

All the end materials are used for concrete production and HS2 enabling works.

Aggregate Washing Feature Story

Saredon Hill Quarry:

Saredon Hill Quarry was the 2nd project for the PowerX Equipment team and is located at Shareshill near Wolverhampton. Following a period of six months, when the site was reinstated into working order, sand processing quickly followed.

Originally, sand processing was handled by a washing plant which at the time was sufficient to cope with the sales. However, with rising demand in 2017 from a major customer to supply sharp sand and an on-site concrete plant, including a further 3 concrete plants, and a further two coming on-line in 2017, a decision was made to upgrade the production capabilities. The PowerX Equipment team duly supplied a new wash plant and a water and silt management system which also included a AS206 triple deck with a Terex® Finesmaster 120 Compact, a 1000 cone crusher and a 14m diameter thickener system.

The new plant has given NRS Aggregates the scope to increase production and improve efficiency and production of high-value products to match demand.

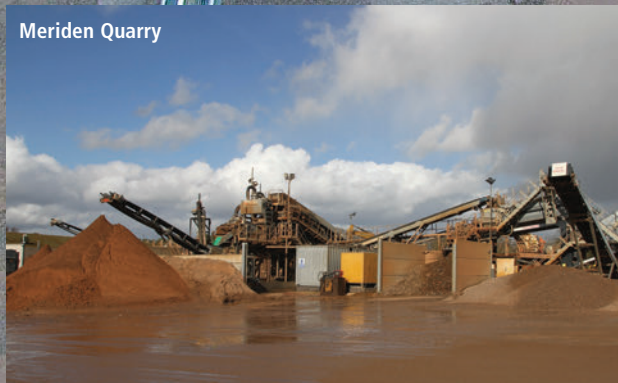
A second plant is currently under construction to process the stone from a dry recycling operation.

Woodcote Wood Quarry

Woodcote Wood Quarry - installation of a new 2m2 x 220 plate press



Meriden Quarry





Woodcote Wood Quarry:

This was the 3rd plant that the PowerX Equipment team delivered and in total was an investment of £4.5 million for NRS Group and is projected to process up to 200,000 tonnes/annum.

The plant produces quality concrete aggregates for local use as well as feeding an on-site bagging plant and manufactures specialist mortar sands for nationwide use.

The specification included the Terex® Aggwash 300 which was the world's first modular scrubbing station to integrate heavy attrition with sizing lightweight contaminants removal, and hydro cyclone-based fines recovery in a single highly portable chassis. Incorporating two 16 x 5 screens and a 200tph log washer the plant specification includes a FM 200C - a 200tph high-capacity twin grade sand plant and a 16m thickener system. A feature of the process is the inclusion of an AMP plant which receives any overflow from the sand plant and produces a cut on a really fine sand in order to ensure a pure 50-micron material.

A recirculatory system handles any oversize material which is returned to a TC1000 Cone Crusher.

Currently a 2m x 2m x 220 plate press is being installed by PowerX Equipment to eliminate the need for a second silt lagoon, which would sterilise reserve.

Cornets End Quarry:

Cornets End Quarry is the latest NRS Aggregates operation and boasts a 20 x 6 rinsing screen, a Powerscrub 200 modular logwasher and a 20 x 6 sizing screen. A pre-wash system incorporates an FM150 and FM120.

Currently the plant is predominantly processing sand and gravel, but C&D waste is also fed to the plant.

The crushing circuit can be switched depending on feed, between a 1000 cone crusher for sand and gravel and a horizontal impact crusher for C&D materials.

The Cornets End operation supplies local concrete plants alongside specialist mortar sands, and like Meriden materials for HS2 enabling works.

Currently, the PowerX Equipment team are installing a new sand fines plant to enable the manufacture of more specialist sands.

Cornets End Quarry



Times are changing, change your thinking...

Electric drives are today's forward-thinking trend, not only in cars, but in materials processing equipment too. Following the recent announcement from the UK Government, it has been confirmed that from April 2022 they will be scrapping the lower rate of fuel duty on red diesel, which many operators use to power their machinery. This will likely lead to businesses across the UK facing a significant rise in their fuel purchasing costs. What better time to change out your traditional diesel-powered machine, for a more cost effective, electric/hybrid Powered alternative?

Blue Machinery Group provide some of world's leading electric and hybrid materials processing equipment from some of the most reputable brands within our sector. Powerscreen have a range of hybrid crushers, screeners and stackers. Terex Fuchs provide their full range of material handlers in an electric version. Whilst we also supply Doppstadt's fully electric SM mobile trommel series, as well as their new Methor multipurpose mobile shredder.

Powerscreen Hybrid Range

The Powerscreen Hybrid range has been designed to give customers alternative energy options to operate their range of crushing, screening, and conveying equipment. Their Hybrid Machine range has been dramatically enhanced to include more fully electric crushers and screens as well as models powered by innovative combinations of diesel and electricity. Hybrid machines will be of special interest if you operate in an area where electricity is more cost effective than diesel fuel, where diesel engine noise is unwanted, or on sites where electricity is the preferred energy source.

Some of the Powerscreen Hybrid features include:

- **Diesel Hydraulic** – Use diesel when operating in an area where it is more cost effective, or electricity is not available
- **Dual Power** – Run as a standard diesel or connect to an external electricity supply once the machine has been set up
- **Wheeled Electric** – Wheeled models use onboard electric motors to power the hydraulic drives
- **Transport Engine** – Powered by an electric drive with a small onboard diesel engine for tracking or transport
- **Full Electric** – Machines can connect to a mains or genset for full electrically powered operation



Two highlights from the Hybrid range are the Premiertrak 420E Jaw Crusher and the 1000E Maxtrak Cone Crusher. Some of the benefits from these include:

- **Reduced Operating Costs** – The ability to use electricity means reduced fuel consumption and operating costs
- **Application Variety** - Suitable in any quarry, mining, sandpit, coal, washing and aggregate processing application without compromising performance
- **Increased Uptime** - Depending on set-up, machine uptime can be increased due to reduced refuelling and engine servicing
- **Fully Environmentally Friendly** - Ideal for areas where environmental, legislative and/or noise constraints are present
- **Versatile** - Powerscreen Hybrid crushers and screens offer customers a choice of power supply depending on access to diesel and electricity

Terex Fuchs Electric Material Handlers

Terex Fuchs currently offer an electric version of nearly their entire Material Handler range, including the MHL820 (20 tonne machine) right through to their MHL890 (+80 tonne machine). This year they also plan to add the baby of the fleet, the MHL810 which will complete the offering. The extensive use of standard components from the Fuchs range of diesel engine models, ensures that spare parts are widely available for all the electric models. The electric cable lengths and cable reel designs on these machines are adapted to each customer's specific needs. Machines can be equipped with an internal or external powerpack, to move the machine around the yard for simple plug and play in several locations.

Some benefits of the electric version include, low operating and servicing costs, low noise emissions, less dust circulation and heat build-up. Another additional benefit is that the full torque is immediately 100% available when operating, which gives more output than traditional diesel-powered machines.

R.T.D Crawford are currently running a Fuchs MHL 820 at their wood recycling centre. It works 5 days a week, feeding a static shredder. Managing Director, Mark Crawford, offers his thoughts on the handler: "Being in the timber and recycling industry, we deal with a lot of dust and we cannot spray to keep the dust down because of the moisture content of the material. We used to run a diesel-powered material handler, however, this caused us to have a few fires. We then had a good think about it and opted to go for an electric powered



handler instead." Mark then goes on to describe some further benefits that the electric machine has over a diesel powered one, "There is no comparison in terms of running cost and servicing costs, the electric machines are by far the cheaper option. We are also seeing a big difference in terms of power on this handler, compared to the diesel one that we used to run. The power never seems to fluctuate, whereas we would sometimes get some inconsistencies with the diesel-powered engines". This MHL 820 came with a donkey engine, which allows the customer to move unit whilst disconnected from the power source.

Doppstadt's Electric Offering

Doppstadt already offer their highly popular SM series trommel and their new Methor multipurpose shredder, in fully electric versions. They also plan to add electric machine offerings to both their high speed and slow speed shredder lines.

The SM 518 Flex e-mobile unit has been available for a few years now and has been highly successful in Germany and across Europe. The Methor Shredder which was released last year, is available with either a diesel engine or electric motor. Seen as a multipurpose recycling system, the Methor is unstoppable when; opening bags, dosing, charging, disintegrating, crushing, or cutting. It can handle a wide range of applications, under the most adverse conditions.

Blue Group are proud to supply the Powerscreen, Fuchs and Doppstadt brands and we are now excited to be able to offer you their latest electric/hybrid technology as we move into a new age for materials processing equipment.

If you are interested in receiving more information on any of the products or brands included in this article, give us a call on 0345 217 8755 or email us on sales@bluegroup.co.uk



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Welcome to issue 67

Welcome to issue 67 which includes our second feature of 2021 - 'Aggregate Washing & Screening'. Once more supported by the leading OEMs within the industry and yet again underlining the fact that the HUB-4 bi-monthly magazine is considered to be the leading publication for the Recycling, Quarrying and Bulk Handling Industries.

Just to reiterate, in 2021 the HUB-4 magazine (free subscription to industry operatives) will continue to bring you all the latest news which can also be read on-line here: <https://hub-4.com/magazines>

Equally important is our free weekly e-newsletter which is distributed to our readers and is presented on-line here: <https://hub-4.com/pages/newsletter>

Our new media file with feature list can also be found here, either PDF download or page flip version: <https://hub-4.com/pages/advertise-with-us>

We have also introduced a brand-new section for 2021 – New Product Features.

This is on the website home page and is dedicated to new equipment launches and is also included in our weekly e-newsletter. It is a great platform for your launch and also includes bookable time slots so you can maximise on your launch.

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

Onwards into 2021:

Well with most industry exhibitions now cancelled it remains to be seen if some will return to the calendar and also under what new regulations?

Having been to some fabulous VIP open days last year I can certainly foresee this being the way forward as it brings more dedicated visitors to view your equipment and obviously less cost!

Only time will tell...

John Edwards
Editor



May/June 21

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Editorial copy deadline 08-05-2021 Advert copy deadline 15-05-2021



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Molson Green appointed UK CBI Dealer

Molson Green expand the range of market leading environmental equipment with the addition of CBI horizontal grinders and industrial chippers, bolstering the Molson Group "Single Source Supply" proposition.

With Molson Green already representing leading brands in this sector, including Terex Ecotec and Terex Finlay, the addition of CBI (a Terex brand) is a natural fit as the Group expands product offerings within the UK's recycling and forestry markets.

Established in 1988, CBI machines have built a strong worldwide reputation for delivering high levels of throughput with exceptional reliability. With over 30 years of manufacturing equipment for some of the most demanding environments, CBI's commitment to building robust and long-lasting equipment has created the most value for owners who are serious about growing their business.

CBI's tradition of quality runs through complete lines of horizontal grinders, industrial woodchippers, flail debarkers, screens, stacking conveyors, stationary systems, and attachments for composting, forestry, biomass recovery, and wood-waste processing. Designed to maximize production and minimize downtime, CBI machines reduce a customer's total cost of ownership and have raised expectations of the entire industry. After decades of relentless improvement to the



best machines on the market, it is no secret why CBI customers find success.

Jonathan Wilson, Molson Group joint Managing Director said: "CBI are undoubtedly the leading brand in horizontal grinders and industrial chippers, with decades of producing machines that not only survive, but thrive in some of the harshest applications. The addition of CBI products grows our environmental recycling range. Further enhancing our "Single Source Supply" proposition, that enables customers to increase their buying power by reducing their supply chain, all from a range of world leading products".

Richard Kogelman, CBI Europe BV. General Manager said: "We're confident that Molson will provide excellent customer service and responsiveness to CBI customers throughout the UK. Molson has generated impressive growth across the UK in many sectors and this, along with the outstanding levels of customer service that they deliver, made it a natural choice to appoint them as a distributor for CBI. We see the UK as a key market and look forward to working with such a progressive and proven dealer moving forward."



Terex launches revolutionary dust suppression system

Terex, a global manufacturer of lifting and materials processing solutions, is proud to introduce 'Aquamist by Terex'—a dust suppression system that is now available across its materials processing brands: EvoQuip, Fuchs, Powerscreen, Terex Ecotec, Terex Finlay, Terex MPS and Terex Washing Systems.

The 'Aquamist by Terex' dust suppression system offers an improvement over conventional jets or water-sprays to manage the build-up of dust and better protect workers on jobsites by using a high-capacity misting fan that produces finely divided water droplets in the size range 10-150 micron diameter. At this size, they easily combine themselves with dust particles of similar dimensions and precipitate them out of the air and, because water-mists "float" more than a conventional spray, they cover and envelop the dust cloud more effectively.

Paul Kearney, Vice-President of Parts and Solutions for Terex Materials Processing explains "It is globally accepted now that airborne dust that is formed on jobsites can significantly contribute to respiratory illnesses. As increased legislation comes into place globally to mitigate this, more effective control of dust is needed. Our Aquamist system will better support worksite operations and strengthen our commitment to making the workplace a safe and healthy environment."

For more information on 'Aquamist by Terex', contact your local Terex distributor.



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New State-of-the-Art Rapid International Batching Plant facilitates production of one million square metres of block paving per year for Tobermore

As part of its recent £10 million expansion, leading UK & Ireland paving and walling manufacturer, Tobermore, has recently invested in a bespoke state-of-the-art Rapid concrete batching plant. The newly erected Rapid plant will facilitate a further one million square metres of block paving per year.

A longstanding customer, Rapid has previously installed six bespoke concrete batching plants over the last forty years at Tobermore's County Londonderry headquarters. The newly installed seventh Rapid plant will enable Tobermore to meet a surge in market demand for their hard landscaping products.

The new Rapid batching plant is comprised of a 20m³ dump hopper to receive aggregates and sand and an inclined 750mm wide conveyor to convey materials to the shuttle conveyor. The shuttle conveyor subsequently distributes aggregates to each of the aggregate bins. Aggregates and sands are stored in a series of 29 storage bins, of varying sizes, from 4.7 – 100m³. This represents the greatest number of bins Rapid has ever installed on a plant.

Two 600mm and one 750mm weighed belt conveyors collect materials from the aggregate and sand storage bins and discharges this to the main transfer conveyor, leading to the changeover tower. From the changeover tower, the materials are transported to the mixer house via a 750mm wide inclined batch conveyor. The batch of aggregates is then subsequently distributed via a diverter shoot to each of the holding hoppers, until required by the mixers. Three 150 ton silos feed the mixer via the screw conveyors.

A series of six wet batch hoppers under the face mix and four hoppers under the back mix, offers an almost endless amount of blending combinations.

The multi-floor mixer platform design allows maximum access for cleaning and maintenance. Designed to house the plants two integral mixers, the platform is also sized to accommodate the travelling wet batch hoppers (backing and face hoppers).

The new plant has a gross internal floor area (GIFA) of 4416m² and is expected to create dozens of local jobs from many departments including production, despatch and haulage not to mention sales and administration.

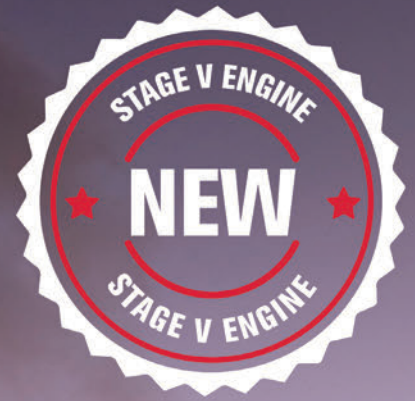
David Henderson, Managing Director - Tobermore, commented on the investment, "I am extremely proud that our new factory is now operational. This is an astonishing achievement! This new plant will give us significantly increased capacity to make another one million square metres of block paving per year."

"Amidst the backdrop of a global pandemic, where many firms are struggling, we recognise how fortunate we are to be able to undertake this level of capital investment and job creation."

"We are already looking forward to 2021 when we will be able to take huge amounts of new business on board."

Jarlath Gilmore, Sales & Marketing Director – Rapid, added, "We're delighted that Tobermore has once again selected Rapid to manufacture their new bespoke, state-of-the-art, batching plant. It's a pleasure to partner with a progressive organisation that shares our values for unrelenting quality and excellence."





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CRJ Services launch a new parts' website

CRJ Services Ltd, a leading material processing equipment solutions provider, has launched a new machinery parts website; www.crjservicesparts.com. CRJ's new website allows customers to search and purchase spare and wear parts online, for some of the most popular machines on the market.



CRJ is well known within the waste and recycling industries for providing top-quality equipment with exceptional service levels. Alongside their machinery solutions, CRJ work with a range of specialist manufacturers to offer their customers high-quality after-market parts. Their wear parts have been tried and tested in their own hire fleet of equipment to ensure they are able to offer their customers quality, durability, and value.

Thanks to CRJ's experience as both a machine operator and part supplier, they understand the challenges faced by customers when trying to source parts, especially when that part is holding up production.

It is for this reason CRJ pride themselves on their service levels. They hold over £1.4m worth of stock at their Cheshire base, and offer 24-hour delivery on the majority of parts.

CRJ's parts range is vast, and their mission is to continue to make more parts available on crjservicesparts.com. Their current online offering covers a range of overband magnets, trommel drums, conveyor belts, filter kits, hammers, teeth and more.

Users of the new website can also speak with the CRJ Parts team, in real time, through the instant messenger facility on the site. CRJ's team can advise on the correct part for your machine, as well as offer advice on ways to optimise your machine to get the most out of your parts.

To check out the new website, visit www.crjservicesparts.com



Metso Outotec launch a new Nordtrack mobile screen and crusher for construction customers

Metso Outotec is adding two new products to its Nordtrack™ mobile crushing and screening range. The Nordtrack S2.5 mobile screen is a small size, versatile scalping screen designed for small job sites and a variety of applications. With a compact and light-weight structure, a highly efficient two-deck screen, and a wide selection of different screening media, it is the perfect solution for construction contractors with frequent changes in site locations or simply as a rental unit.



The second new addition to the range is the Nordtrack 1908 mobile impact crusher. Its design is optimized for the smaller-sized material reduction job sites, and it accepts different kinds of feed material – from asphalt recycling to concrete

crushing, as well as traditional rock crushing. The same base model with an integrated screen on the chassis, the Nordtrack 1908S, was introduced earlier, and it has been one of the best-selling Nordtrack units especially in Europe.



"I am very pleased to say that the Nordtrack range has been extremely well received by our customers," says Vesa Tuloisela, who heads the Nordtrack product offering at Metso Outotec. "It has proven to be a flexible solution meeting different requirements. Nordtrack sales have been developing very well despite the pandemic; in fact, we have exceeded sales targets in some areas. However, we are always listening carefully to customer feedback. These two new products represent a concrete outcome of those discussions." Vesa adds: "We want to grow our recycling customer base, offer attractive solutions for the rental business and for construction contractors globally."



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“We’ve invested in CDE and likewise CDE have invested in us.”

Oliver Rees, Managing Director, SRC Group

A family-owned business headquartered in Essex, SRC Group, has grown to become one of the UK’s leading aggregates suppliers.

SRC’s latest 135tph C&D waste recycling plant at Martell’s Quarry, just outside Colchester, is the eighth project CDE has delivered for the materials processor.

David Kinloch, CDE’s Director of Business Development, UK & Ireland, says collaboration is the key to the longstanding relationship.

“SRC is one of our largest customers in the UK market. We’ve been working together for a long time and over those years both businesses have grown together and developed. It’s CDE’s approach to co-creation in conjunction with our customers that is the bedrock of our relationship and successful partnership with SRC.

“By working in partnership, we understand a customer’s requirements from the outset and co-create a tailored solution that directly responds to their commercial and environmental aims and objectives. Once a project has been delivered and commissioned on site, we then continue that relationship through our unrivalled aftercare support.”

A bespoke CDE solution

SRC wanted to maximise their profitability by producing higher quality washed and graded sand and aggregate products, maximising throughput and yield. The investment in their eighth CDE washing solution has enabled SRC to process both incoming inert and non-hazardous material from its various business activities to maximise the recovery of quality recycled sand and aggregates which can be returned to the local construction industry as a cost-effective and sustainable alternative to virgin quarried materials.

The new recycling system incorporates a number of CDE’s innovative products, including: the patented R4500 primary screen for high-energy scalping of heavily clay bound material, AggMax™ modular logwasher, EvoWash™, AquaCycle™, and Filter Press.

Fine material is recovered and processed by CDE’s signature EvoWash technology. Material is screened and separated with the smaller sand and gravel fractions recovered through an integrated high-frequency dewatering screen, sump and hydrocyclones which provide unrivalled control of silt cut points and eliminates the loss of quality fines with significant commercial value.

Sustainable approach for the future

Oliver Rees, SRC Group Managing Director, says recycling is a very important part of the business and will help it to achieve a more profitable and sustainable future.

“Every six months we’re recording significant increases in the volumes of material we’re moving. As we grow it’s just not sustainable – both for us as a business and for the environment – to maintain the same levels of quarried sand and aggregate products.”

The new wash plant will not only support the future growth of the business but extend the life of its quarry reserves through the recovery of high-value recycled sand and aggregates derived from inert waste, the CDE solution commissioned at Martell’s Quarry also incorporates market leading water management to minimise SRC’s environmental footprint.

Customer for life

Commenting on the relationship between the two companies, Rees says investment in CDE technology is an investment for life.

“It’s not like purchasing a crusher or acquiring a new screen. To get the best from your plant it needs to be running efficiently and continuously with minimal downtime. The project doesn’t just end once the plant is operational. It requires maintenance, parts. That’s why we’ve stuck with CDE over the past ten years. We’ve a great rapport with the parts department and CustomCare team and are reassured by their consistent and proactive support which keeps us operational across all of our sites.”

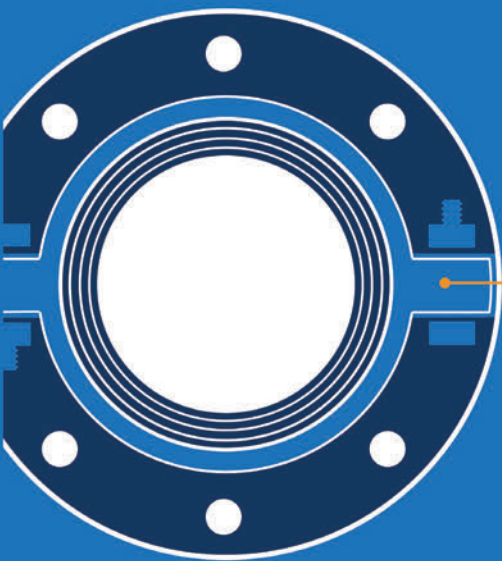
Every CDE project benefits from its customer for life model, which ensures transparent and effective communication from the beginning of the project until commissioning and unrivalled aftersales support. Kinloch says its CDE’s CustomCare team that sets it apart from the competition.

“We don’t stop when the plant has been commissioned. From there our CustomCare team pick up and continue to work in partnership with the customer through the life of the plant.”

From technical advice, preventative maintenance checks, responsive on-the-ground support, guaranteed supply of spare parts, and assists with making adjustments to the plant in line with changing requirements and feed material, CDE’s CustomCare team offers 24/7 support.

For more information visit: www.cdeglobal.com



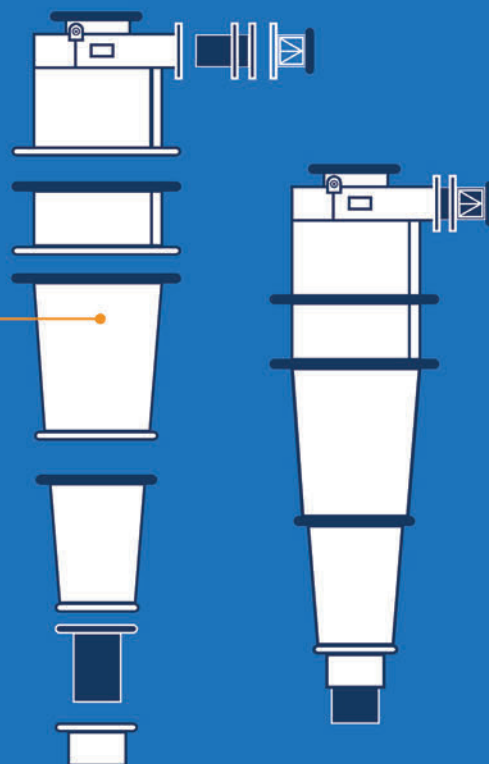


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McLanahan UltraWASH provides Tri-Parish Sand and Gravel with clean product in a compact, modular plant

Tri-Parish Sand and Gravel is a dry mining operation located in Walker, Louisiana. They produce C-33 concrete sand, pea gravel and #57 concrete gravel for use in their ready-mix operation, Parish Ready Mix...



Challenge

James Nolan, who owns Tri-Parish Sand and Gravel with his wife, Gail, has always been concerned about the cleanliness of the products they use in their ready-mix facility. They strive to deliver quality products on the concrete side of their business, which starts with the material used to make those products.

To better control the quality of their concrete products as well

as lower their production costs so they could pass those savings onto their customers, the Nolans purchased land for dry mining their own sand and gravel. They looked at a few wash plants in different parts of the country for processing the feed and separating it into the various products needed at their ready-mix facility.

Solution

In 2020, Tri-Parish purchased the McLanahan UltraWASH 6206 Modular Wash Plant that debuted at CONEXPO/CON-AGG in Las Vegas. Availability was a key factor in the purchasing decision. Tri-Parish needed a wash plant quickly, and the McLanahan UltraWASH offered an entire wet processing plant in one compact, modular unit that was ready to run.

"We bought the plant, and we're very, very pleased with it," James Nolan said. "It definitely does way more than they said it would do."

The UltraWASH features a McLanahan Inclined Vibratory Screen for sizing up to three aggregate products (the oversize, the pea gravel and the #57 gravel in Tri-Parish's operation). It also features a sump, two McLanahan Pumps, two McLanahan Hydrocyclones and a McLanahan Dewatering Screen for washing, classifying, and drying the sand product. This particular UltraWASH model is a double wash system, which processes the sand twice before discharge for a cleaner end product.

A modular plant, the UltraWASH arrived at Tri-Parish in several partially pre-assembled and pre-wired pieces.

"It went together very easily," said Operations Manager Danny Graham.

"You could almost do it by pictures alone."

Graham added that the modularity of the UltraWASH would be beneficial if they need to move the plant closer to the area in which they are mining in the future.

"It could be somewhat portable. You can take it and move it in a matter of a day or two," he said.





Results

Besides availability, one of the aspects that attracted the Nolans to the UltraWASH was the rated tonnage of the machine, but this exceeded their expectations in the field.

"It's delivering way more than we've ever dreamed, so I'm really happy with it," James Nolan said.

"We're actually outrunning our guys who are stockpiling raw material," Graham added. "Production-wise, it's better than expected. We are keeping up very easily with this product; it has not been a problem. The UltraWASH is doing a great job."

Since they started operating the plant, James Nolan said the biggest benefit of the UltraWASH is how quiet it is. The Tri-Parish property borders a housing development, and the neighbors cannot hear the plant when it is running.

Graham likes that the UltraWASH is easy to operate.

"I really like that it's one central unit," Graham explained. "Everything's maintained in one electrical panel. It is easy to work with; the PLC and everything make it very user-friendly. It is automated stop/start, so there is no guesswork and there is no manually starting different components. You start it, it runs; you stop it, it stops. You can't beat that."

In addition to the UltraWASH's performance, James Nolan is also pleased with the cleanliness of the product coming off the end of the machine.

"I guess I'm bragging on it, but it needs to be bragged on. It turns out a real good material. It is clean. I'm proud of it," James Nolan said. "Even the guys at the plant, they realize the change in the material because we have started running out of here now and it's a whole lot different. We do not have to be looking for mud balls and sticks and stuff like that because we send out a good product. We're not going to send it out dirty, but this plant definitely helps us with a lot."

The UltraWASH allows Tri-Parish to supply the concrete side of their business with a clean, high-quality product.

"Our goal and business is quality, and we've achieved it at this point," James Nolan said.

The Tri-Parish team was also pleased with the support they received from everyone at McLanahan, from sales to project management to field service.

"My experience with McLanahan has been wonderful," Graham said.

"They were all great in helping us facilitate getting the plant off the ground," Gail Nolan shared. "They never left us behind. Any time we called them, they were always there and giving us an answer in a timely manner."

"The machine is a good machine, but without service, it's nothing," James Nolan said. "The McLanahan team helped us out a lot. Without them, we couldn't have made it."



Tyrone International Ltd install the largest over-beam filter press in the UK

Tyrone International Ltd have installed the largest Fraccaroli & Balzan over-beam filter press in the UK, along with a large, clarified water tank and a 500 cubic metres sludge tank for Crown Aggregates Ltd (CAL) at Hartshill Quarry, near Nuneaton, Warwickshire.



Hartshill Quarry has an extensive history in Quarrying dating back to the turn of the century and has been worked extensively until abandoned some years ago with some of the old workings becoming flooded.

Back in 2017, CAL started to roll out their overall strategy for the site, installing a new modular wash plant to process quarry scalplings with a high clay content to produce three aggregates and two sand products.



Fintan McKeever – Director of Tyrone International, commented, “On the Hartshill site silt content in the material is very high at 26-27%, of which the clay content is very high, typically 30% of that silt fraction is clay, or -2-micron size.

“Initially a centrifuge was employed to produce a manageable cake but the moisture content of the cake from the centrifuge was typically 40-45% moisture. Consequently, CAL ran out of areas on the site to stockpile the cake, therefore by producing a much drier filter cake with the new filter press this has provided more avenues to dispose of this material. This has also allowed them to export the cake off their own site and put into other applications off-site.

“The installation of the new filter press has allowed CAL to produce more tonnage of washed aggregate per day, because the filter press is capable of processing a large volume of sludge.

“The gloss shine on the cake illustrates the high clay content within the material. To the touch it is tacky with a very high plasticity.

“The difference now is that this can be spread on a landfill using a dozer to line and cap a site as the cake produced is impermeable. Additionally, it is being tested for other uses. This material on this site is one of the most difficult materials you can have to filter.”



The Fraccaroli & Balzan over beam filter press:

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

Fintan gave us the facts. “The Fraccaroli & Balzan overhead beam filter press at Hartshill has 220 - 2 x 2 metre square plates which makes it the largest over beam press installed in the UK Aggregate Recycling Industry! The whole operation from start to finish takes 60-90 minutes to complete the cycle with 8 minutes to clear the plates, which is extremely fast for such a large press.

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

Fintan, continued, “There is a robot mounted on top of the press which has three functions – it opens ten plates at a time and then shakes them and discharges them into material bays below which other overhead beams don’t do.



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

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

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

Full access and control:

At Hartshill Quarry a dedicated press service room situated beneath the press contains all the critical components which protects everything from the weather making it easy to access and maintain.

A press control panel adjacent to the press allows the operator to control the moisture content on the cake by measuring the volume of filtrate water that is coming out of the press. As it gets to a set level the pump will stop and the

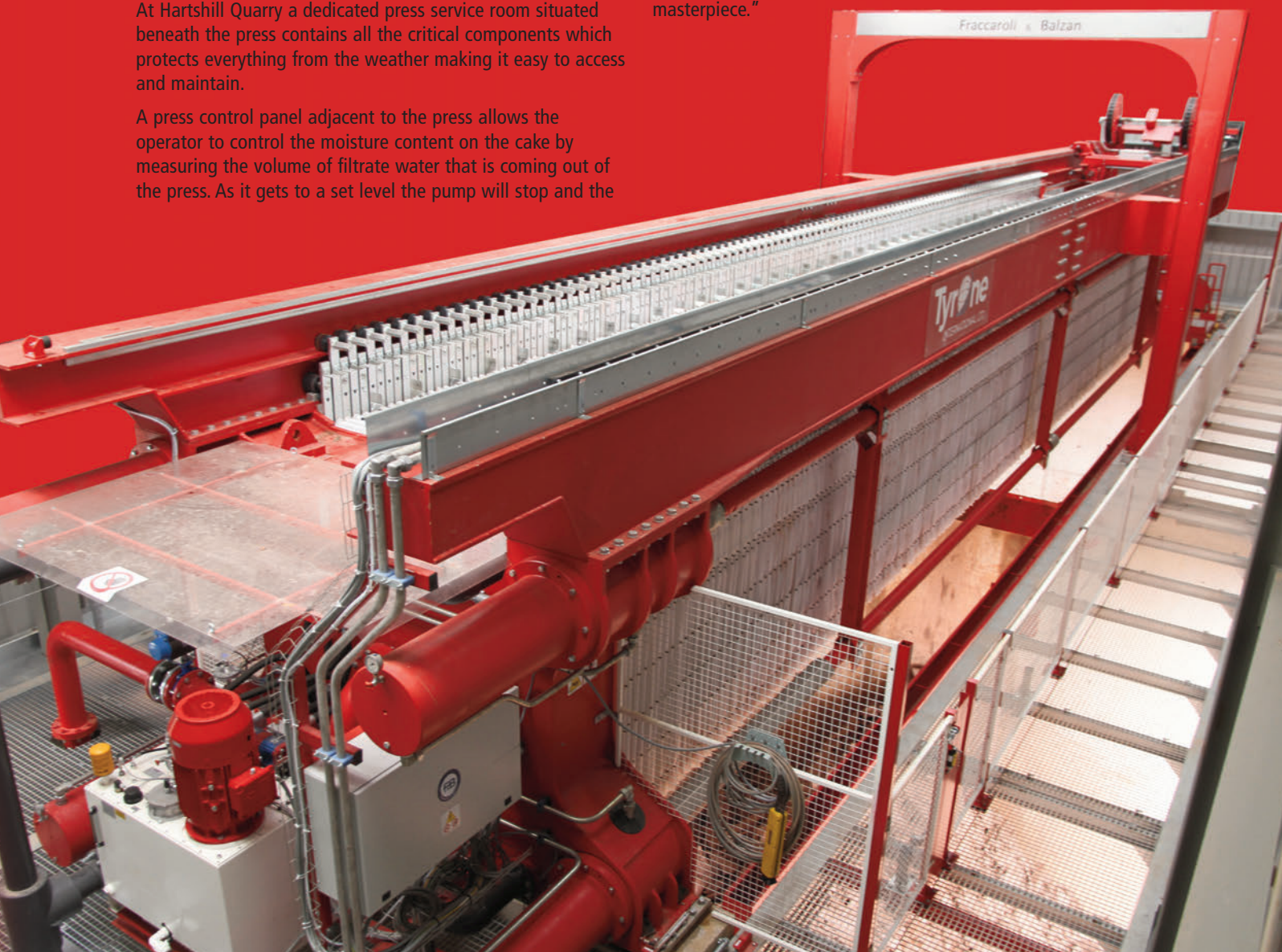
plates will be discharged.

Fintan, added "Control of the moisture content is done on the initial trials to achieve the perfect product by finding the balance on what is an acceptable moisture content in context to what is an acceptable production."

Access and monitoring for the plant is done remotely. Another added feature is that CCTV has been installed within the press building allowing a 24-hour visual of the press which is accessible from a mobile phone.

Kash Chaudry – Director of CAL, commented, "It's fantastic our new filter press is now commissioned and it's the largest press of its kind in the UK!

"A big thank you to Fintan McKeever and his team for supplying and ensuring detailed completion of this engineering masterpiece."





MCLANAHAN ULTRAWASH

ONE SYSTEM. ONE MCLANAHAN.

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

Produce up to five products – three clean aggregate and two washed sand products. Additional modules for crushing, screening scrubbing, thickening, and tailings management are also available.



WASHING // SCREENING // SCRUBBING // CLASSIFYING // CRUSHING // FEEDING

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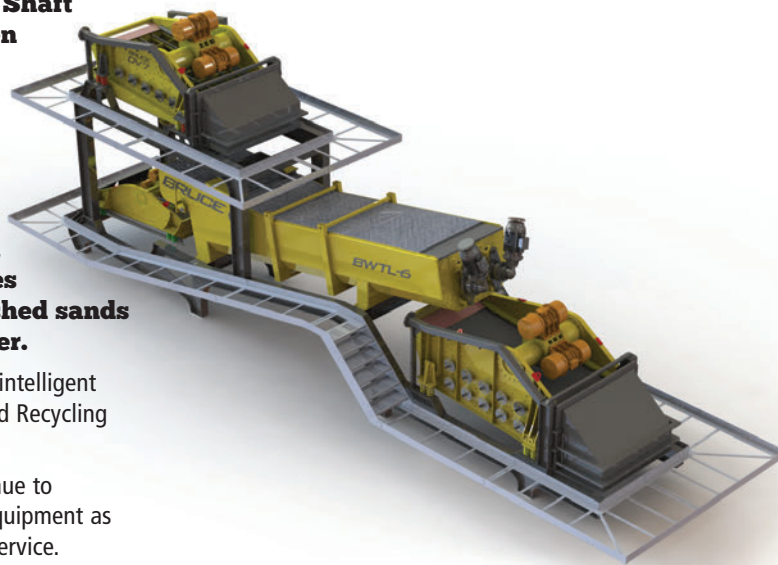
mclanahan.com

Bruce Engineering Services introduce the BRUCE BWR-TL modular Wash Plant to the UK market

Encompassing a wet Pre-screen, Twin Shaft Logwasher, Aggregate Washing Screen and a Trash Screen, all mounted together on a single frame, the BWR-TL is a highly efficient wash plant designed to wash challenging material types. Paired with a Bruce BWS Sand Plant for the complete aggregate and sand washing solution, the turnkey Plant consistently produces three washed aggregates and two washed sands ready for immediate sale to the end user.

Additionally, Bruce Engineering continue to offer intelligent processing solutions to the Mineral Extraction and Recycling Industries within the UK and Global market.

As a certified Hardox Wearparts centre, we continue to incorporate Hardox steel extensively on all our equipment as well as providing a complete Hardox Wearparts service.



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Learn more about Eagle's Screw Washers, Dewatering Screens, Classifying Tanks and Log Washers at eagleironworks.com.



A McLanahan
Company

WS2.10 Screening Innovation #thinkyellow

Developed over 35 years ago, TEMA Isenmann's industry proven Isepren WS85 modular screening system continues to be one of the company's flagship products. The screen modules manufactured from the highest-quality polyurethanes available subjected to stringent quality control measures, come in a range of different shore hardness's and designs to meet a wide array of screening applications in the mineral extraction and recycling industries.

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

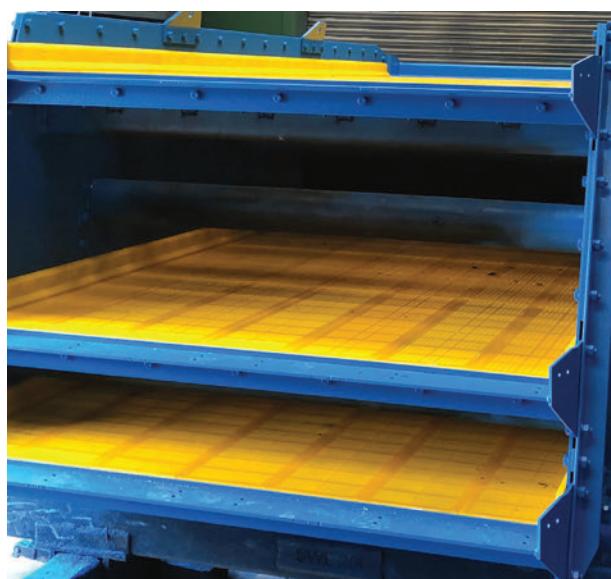
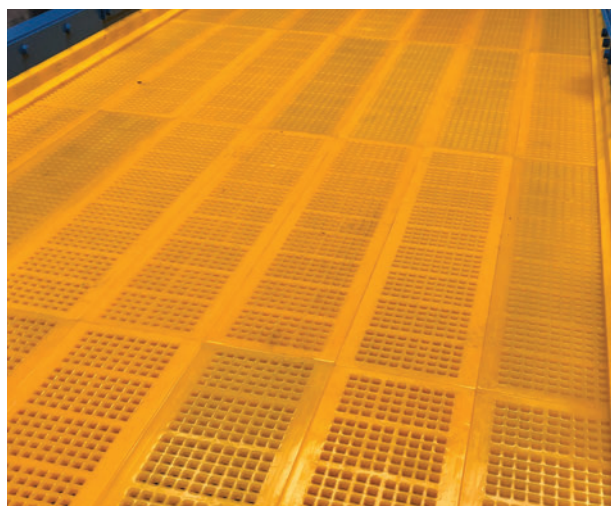
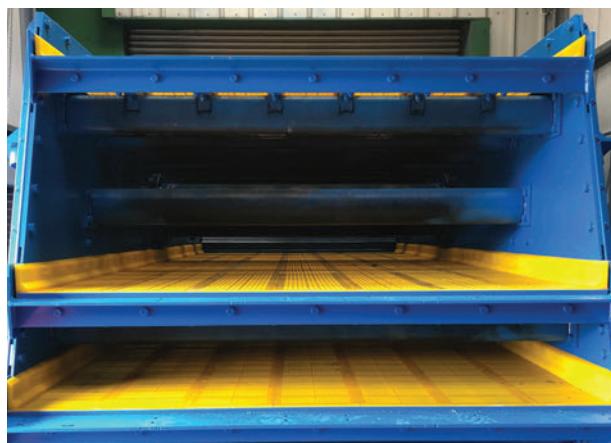
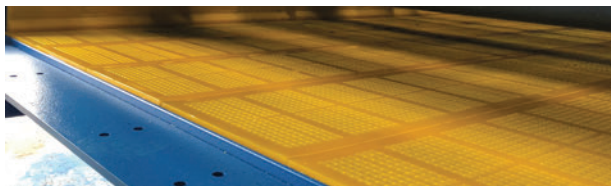
The latest evolution of the patented WS2.10 magnetic polyurethane modular screening media system is now being successfully used in dewatering applications alongside traditional classification and sizing duties and is compatible with original WS85 installations.

Our most recent supply of WS2.10 for two replacement screens originally installed with WS85 on a 1.8 x 5.0m Double Deck and a 2.1 x 4.8m Triple Deck were fitted out at the machine makers premises ahead of scheduled installation at site in March 2021.

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

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

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



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

Located in Woodford Halse, Northamptonshire, the company has a long track record in identifying and delivering effective screening solutions to existing problems, with a strong focus on giving UK and overseas customers best value for money through optimized productivity, efficiency and accuracy.

Waltet Recycling invest in a MWS Equipment Wash plant

Founded in 1996, Southampton based Waltet Materials Limited offer a full range of commercial and domestic ethical waste disposal, recycled aggregates, top-soils, and grab & tipper hire services.

Over time the company has evolved into one of the most innovative and successful recycling companies in the South of England, employing 120 people.

The Waltet Group is structured around three key operating businesses; Waltet Recycling Limited operate two recycling centres in Romsey and Alton that produce high quality aggregates and soils for commercial and domestic construction projects throughout Hampshire and the surrounding counties.

With a philosophy of continual investment in the latest machinery, the company have made recent investments at the Romsey site where McCloskey Equipment have installed a new MWS Equipment Aggstorm™ 80 modular plant, alongside a CSP12-2 compact sand plant, and complete water & silt management system.

The MWS AggStorm :

The AggStorm™ 80 is a modular plant designed to treat clay bound materials and improve the cleanliness of the final aggregate product, allowing for a much wider use of the final material. Design to work within multiple processing sectors including natural aggregates and CD&I, the equipment has been manufactured with the operator firmly in mind offering large maintenance walkways, maintenance access areas and large access doors across the hull for easy clean out and changing of the log washer blades.

The AggStorm™ produces cleaner material while offering the customer the most advanced screening equipment on the market. It consists of multiple pre, post and trash screens. A wide hull and two spiral axle shafts running in sync with changeable blades which generates an intensive scrubbing action through the feed material creating 'stone on stone' attrition to clean the aggregate. The changeable blades come in various options including AR500, cast manganese and alloy steel

MWS CSP12 compact sand plant:

The Compact CSP12 is a modular sand recovery unit which is designed to be both cost and energy efficient. The cyclones remove clays, silts and slime from sand and bring it into specification.

It offers exceptional performance, with a 12 x 5 dewatering screen and producing one or two grades of sand. It offers a self-regulating cyclone tank complete with built in float system and anti-turbulence sections. With unrivalled access to all essential areas, customers are able to monitor the plants performance and make adjustments as required.

Custom water treatment plant:

A custom water treatment system has been paired to the plant, incorporating an 8m diameter thickener, an overhead beam filter press and the new, innovative sludge and clarified water storage and pumping system.

Designed to operate at 80tph, the new plant is producing five products; two sands and three grades of aggregate, to BS specifications which are sold to construction projects within the county.



The plant process:

All incoming waste material, C&D, muck, and excavation waste is delivered to the site by lorry and initially fed through a scalping screener. Ken Rothery, Washing Division Manager for McCloskey Equipment, takes up the story;

"Material is fed into the loading hopper and up the inclined conveyor, under a magnet and then onto the primary single-deck pre-screen. Fitted with 3mm decks this removes as much sand as possible to minimise any sand going into the log washer.



"All the +3mm material then feeds through the log washer and all the sand from the pre-screen is collected in the sump below along with any sand from the product screen. A trash screen off the back of the log washer

collects any lightweight contaminants such as polystyrene, plastics and wood.



Ken, commented further, "A further innovation was the installation of a digital readout on the sand plant. This simple, yet effective addition, provides operators with a constant, clear insight of the performance of the plant, enabling them to continually optimise operations for maximum productivity."

The plant incorporates five stockpiles including a sharp and a fine sand (0-2mm and 0-4mm) and three aggregates at 10mm, 20mm and +20mm. The latter is presently sized up to 80mm which can be changed as commercial imperatives dictate, allowing for more product flexibility, by changing the screen media.



About McCloskey Equipment:

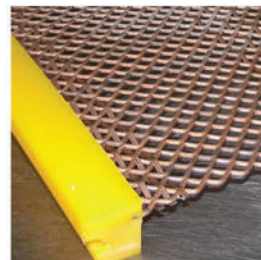
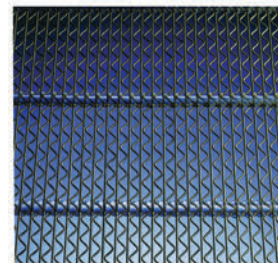
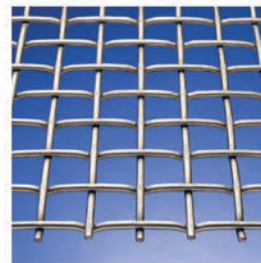
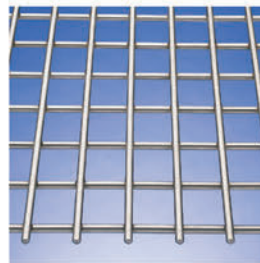
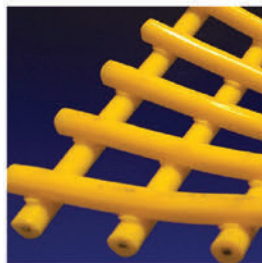
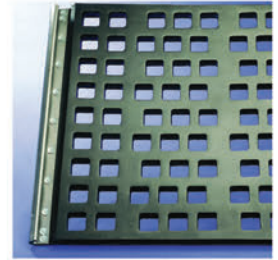
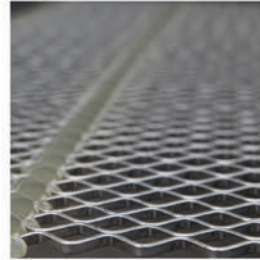
McCloskey Equipment is one of the largest suppliers of mobile crushing, screening and washing equipment in the UK, providing a complete range of Crushers, Shredders, Screeners, Trommels, Stackers and Washing Systems to more than 500 sites.

With an experienced team that collectively offer over 100 years of experience of machinery and processing in the Quarrying and Recycling industries, McCloskey Equipment operate from purpose-built facilities in Didcot, Oxfordshire where the company distribute parts, service and overhaul machinery within their custom-built workshops and manage the operations of a fleet of mobile service engineers.



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Stars of the Big Screen

Rubble Master are known by many for their market leading crushers, but it is their range of tracked scalping and sizing screens that are currently taking the market by storm.

Since purchasing the Maximus facility in 2018 Rubble Master have invested a lot in making the improvements to the range at the RM Dungannon factory and bringing the expertise from their crushers to the range of screens. There has been close cooperation in product development between the RM headquarters in Linz and RM Dungannon, with the RM HS3500M being the first product developed between the two sites.



By uniting the knowledge of Rubble Master in building compact, electrified crushers and the experience of the RM Dungannon in building outstanding screens there has been improved product quality and reduced machine production time. UK dealer Red Knight 6 Ltd (RK6) is starting to see that investment pay off with several recent deals completed and excellent customer feedback.

"We completed a few demonstrations of the scalpers last year and the feedback was fantastic. The improvements to the hydraulics, screen size and power unit were exactly what customers hoped for, the scalpers consistently exceeded expectations," said Paul Donnelly, Managing Director at RK6.

Now the RK6 team are seeing increased interest in the sizing/finishing range. The MSC range is made up of the MSC5700M 2 deck and the MSC8500M and MSC10500M, both available in 2 and 3 deck variants. Each of the machines benefits from a heavy-duty vibrating tipping grid with a 9.2m³ hopper and easy to change screens.

"We are hearing the same feedback from customers regarding the finishers, they are exceeding customers expectations and consistently provide the right size of material from a multitude of screen options," continued Paul.

Thanks to further collaboration between the RM headquarters in Linz and the screening facility in Dungannon a fully electrified hybrid model is now available, the MSC8500e. It is something that has long been a feature of the crushing machines, but the same technology has been incorporated into the screeners, another example of the two sites working closely together for the benefit of customers.

"Efficiency of operation is key but the ability to reduce fuel costs and have a positive environmental impact is crucial. We've seen a genuine improvement across both screening ranges and our customers are benefitting from that as well," finished Paul.

For more information visit www.redknight6.co.uk or call 01293 862 619



Research project to create new materials from recycling's waste products

Plans for Scotland's first hazardous soil treatment centre announced...

Heriot-Watt University has joined forces with Brewster Bros, a leading recycling business based in Livingston, to create new materials from the residual waste left over during the recycling process.

Recycled clay can account for up to 25% of the output produced when excavation waste is recycled via a washing process. This by-product commonly ends up in landfill.



Now a £250,000 Knowledge Transfer Partnership (KTP) aims to develop Scotland's circular economy approach further by undertaking significant research and development into creating new sustainable products from waste streams.

The project will also include the creation of a hazardous soil treatment centre, the first of its kind in Scotland.

Professor Gabriela Medero, a geotechnical and geoenvironmental engineer from Heriot-Watt University, will oversee the research.

She explains: "As pressure mounts on global governments to react to the climate crisis, future regulation and legislation in the waste industry must be shaped to facilitate the adoption of a complete circular economy. Net zero targets are ambitious and will only be met through a reduction in the consumption of finite resources and a shift towards the use of sustainable products. Landfill, a symptom of the linear economy, can only be reduced if waste can be more effectively recycled into sustainable and innovative products."



"Recycled clay is an exciting but currently unexplored material which could significantly reduce the waste we send to landfill each year. However, many barriers remain that prevent waste from major industries like construction being better utilised, including a lack of scientific understanding about material composition and the criteria for its use as set out by governing bodies like the Scottish Environmental Protection Agency (SEPA).

"Through this project, we will rigorously test the properties and behaviour of the recycled clay to prove it meets Building Standards for product specification by performing a life-size case study on its performance attributes.

"Additionally, we will investigate the use of spent oil shale and incinerator bottom ash as secondary aggregates, producing research evidence in the processing and application techniques which we hope will allay any concerns about their future use."

Spent oil shale has been used as a general fill material in road construction for decades. However, like recycled clay, this abundant material could be utilised for higher value applications.

The use of incinerator bottom ash is currently constrained by regulation. Further research into this material and



improvement processes could provide evidence to allow current restrictions to be relaxed. Incinerator bottom ash will become a more prevalent waste product in the coming years as an increasing number of 'Energy from Waste' incinerators are used in response to landfill bans.

Family-owned recycling business, Brewster Bros. specialises in completing the circle between Scotland's growing construction, demolition and excavation waste stream and its increasing demand for construction materials.

Scott Brewster, Managing Director, Brewster Bros. explains: "The more ambitious and innovative we become when creating new products from waste, the more technical knowledge we will require from experts in their field. This Knowledge Transfer Partnership will not only enhance our company's capabilities and offering, but also provide a vast body of knowledge that will benefit the wider industry as we collectively focus on achieving Net Zero targets.

"A circular business model eases pressure on our country's remaining landfill capacity and finite mineral resources, while helping our customers to avoid paying landfill tax and the aggregates levy. This will be even more important as businesses focus on a 'green recovery' in the post-Covid era.

"By collaborating with Heriot-Watt University, we aim to overcome restrictions on use like waste legislation and obtain end-of-waste approval. However, understanding the true potential of these waste materials is also a key driver. We hope to discover if they can be used for higher-value applications or as raw materials in added value products."

Brewster Bros' West Lothian site will host the new hazardous soil treatment centre which will use various remediation techniques to transform hazardous soils into a non-hazardous state so that they can then be recycled and reused, diverting them from landfill.

According to SEPA, during 2019, 1.17 million tonnes of soils were disposed of, totalling 39% of all waste sent to landfill. As landfill bans, higher landfill tax and tighter environmental regulations are imposed, construction contractors will have greater need of such a facility for the safe processing of excavation waste in Scotland.

The Knowledge Transfer Partnership is funded by Innovate UK and the Scottish Funding Council and will run for two years. The team will include Wini Obande, KTP associate, who will conduct the research and Melis Sutman, academic support and Assistant Professor at Heriot-Watt University.



Innovative new products launching soon to maximise customer production while reducing cost of ownership

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The Eagle Iron Works Classifying Tank: Traditional and Semi-Portable

Horizontal classifying is a very efficient and effective method for situations where high quality requirements to the sand products are key. Classifying Tanks, also called Water Scalping Tanks, can be used for these primary functions: scalping large amounts of water from a slurry feed; diverting excess particles from the main product; removing silt; retaining finer mesh sizes; and making multiple products from a single feed.

Why select a Classifying Tank for your operation

The working principle is that the feed material flows through the long tank where the sand is being separated by differences in settling velocity between coarse and finer particles. Depending on the total capacity of the machine, the sand is being separated in up to 11 different fractions.

A sophisticated tank control system then re-blends these fractions into the desired end products or half products. One tank can make two controlled products simultaneously and a third product contains the excess material.

The most significant difference to any other classification system is that the computer continuously monitors the feed material and will keep the end products in spec, also when the feed changes. Furthermore, the computer will always aim for the highest yield in the most valuable product.

The main advantages of the classifying tank are:

- Fully accurate classification typically set within +/- 3%.
- Consistent quality of the end products, also when fluctuations in the feed material occur.

- Automatic yield optimization for the most valuable product.
- Two end products are being made simultaneously.
- Very energy efficient.
- Extremely low maintenance.

Due to these advantages, Eagle Iron Works Classifying Tanks are being used in most high-level concrete projects like reservoirs for hydro-electric power plants and tunnel construction, but also in many aggregate plants all over the world. Through their dealer Syscom, Eagle Iron Works has supplied over 150 tanks into the European market.

Introducing the Mark X Control System

Eagle Iron Works recently introduced the Mark X control system, which is the ultimate in sand rebinding systems. It has been designed and tested by a team of software engineers that fully understand the needs of customers to help maximize productivity.

A fully automated system, the Mark X continually monitors the tank's activity and automatically adjusts station percentages, accordingly, maintaining the tight tolerances for typical construction sand specification. It can run single or multiple tanks with seven to 11 stations per tank and two to three valves per station.

The Mark X features a touchscreen interface that offers intuitive commands and provides all needed information. Real-time valve status indicators offer a look at what is happening inside the tank. When the valves are ready to release the material, simply tap on the valve on the screen to open it. The Mark X offers automatic and manual percentage adjustments to adapt to changing feeds and for stockpile calibration. >





Semi-Portable Options

Semi-portable sand sections are ideal for producers with multiple sites.

Semi-portable sand sections are designed with a water scalping-classifying tank and two fine material washers. Semi-portable sand sections wash, dewater and classify material with a water scalping-classifying tank and two fine material washers that offer the same capabilities and capacities as stationary water scalping-classifying tanks and fine material washers.

Semi-portable sand sections come with their own structure that moves with them as your operation requires. There is no need to build a structure around the equipment each time you move it to a new site. The compact, sectionalized design of a semi-portable sand section makes it ideal for installations where height is a concern. It also allows for easy removal when the producer is finished at one site. Semi-portable plants can be lifted onto a trailer with a crane and transported to the new site.

Tripling production with Eagle Tank

Tuckahoe Sand and Gravel produces numerous aggregate materials, including concrete sand, various types of golf sands, and gravels used for drainage and landscaping. Based in a competitive market, Tuckahoe needs to produce high-quality materials at prices their customers can afford. However, with two small, aging plants, they were not able to meet their productivity goals, and sales were suffering.

"Production was the problem," said Tuckahoe plant manager Ron Sutton. "We just weren't able to increase inventory and maintain production and supply our customers."

Tuckahoe did not have belt scales on their old plant, but Sutton estimates their production was under 100 tons per hour at times.

Eagle Iron Works supplied Tuckahoe with a new wash plant that includes two 10' x 40' Eagle Iron Works Classifying Tanks for separating and blending pre-screened material into three different products and two 54" x 34' Double Screw Fine Material Washers for washing, classifying, and dewatering those products before stockpiling.

After installing the new Eagle Iron Works wash plant, Tuckahoe tripled their production to 300 tons per hour.

"The Eagle Iron Works Classifying Tanks allow us to fine-tune the products that we're producing," Sutton said. "If one of those products becomes too coarse, we can then put that extra material to the third product to keep an eye on it and maintain the quality we're looking for."

Leading Solutions for over 150 years

Eagle Iron Works' experienced sales technicians can help you choose the right washing System for your operation. They will look at your raw material specifications and your production requirements to determine the correct size of machine to meet your needs.

Eagle Iron Works has been manufacturing reliable, heavy-duty washing equipment since 1872. With over 150 tanks supplied throughout Europe, they are proven throughout the market.

Proven Performance for over 35 years



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What pump should you use for Thickener Underflow?

Thickener tanks are a time and space-saving way of de-watering slurry, removing the waste silt and allowing the water to be recycled.

In the quarry environment, thickener tanks are used at the end of the wash plant process, after the cyclones.

A lagoon on site can serve the same purpose, but these take up space, require maintenance, and are much slower as it takes a long time for the silt to settle out.

Thickener tanks are becoming more and more popular and are now regularly seen on inner-city sites, wharfs, quarries and on sites that are no longer able to use their lagoons.



How does a thickener tank work?

Thickener tanks are circular in design with a conically shaped-centre. The tanks vary considerably in size. Fluid enters the thickener tank via an overhead pipe and down into the centre of the tank.

At the bottom of the tank rotating rakes help the solids settle and draw the silt towards the centre of the tank. The water meanwhile flows over the edge of the tank and into an overflow before exiting at the side via a pipe. This is pumped away and reintroduced to the wash plant process.

The silt eventually exits the tank at the centre point underneath and is pumped away.

What pumps would you use in conjunction with a thickener tank?

While a light duty slurry pump can be used to pump the overflow water away from the thickener tank, there are three types of pump that can be used to remove the thickener underflow:

Centrifugal pump

Currently the most common pump to be used to remove the thickener underflow, a centrifugal pump is not necessarily the best option. Spares are relatively cheap and easy to obtain, however using a centrifugal pump carries a number of issues.

Firstly, the slurry has to be watered down to go through the pump, which is somewhat counter-productive. Also, as it is a batch process, solids can settle in the pump when it is switched off. Stray solids can also jam the pump; if blockages occur, they are very difficult to rectify.

These pumps are not self-priming, meaning they have to be located directly below the tank to ensure suction, this makes access more difficult. Seal leakage is also a common issue due to back pressure which can in turn cause premature bearing failure.

Screw pump

Not as common as centrifugal pumps, screw pumps would appear to be very suited to this application. Unlike centrifugal pumps, the slurry doesn't have to be watered down. The pumps however carry the shortest lifespan and spares can be very expensive. The pumps also have narrow tolerances so extraneous solids are catastrophic.

Peristaltic Pumps

Peristaltic pumps are by far and away the best pump option to use with this type of application.

Although reasonably expensive to purchase, they are the most cost-effective option, are long-lasting, easy to repair and spares are relatively cheap to purchase.

Unlike centrifugal pumps, peristaltic pumps are self-priming, so can be located further away from the tank and the slurry doesn't need to be watered down.

Peristaltic pumps also have the ability to run backwards allowing blockages to be cleared, they can pump a higher solids percentage and the flow rate of the pump can easily be controlled.

Furthermore, peristaltic pumps offer the lowest energy consumption of the three types of pump we feature.

Danish based LSM Pumps are one of the world's leading peristaltic pump manufacturers with Atlantic Pumps being the companies' exclusive UK distributor.

The company produces a range of different sized peristaltic pumps and the pumps are known for their low energy consumption, low and easy maintenance, and their exceptional build quality.

LSM pumps are also available for hire. Atlantic's hire fleet gives you a low risk and capital free way of trialing the cost and downtime savings that are available to you.

For all enquiries regarding pumps for thickener tanks, please contact Atlantic Pumps on 01246 284 420.

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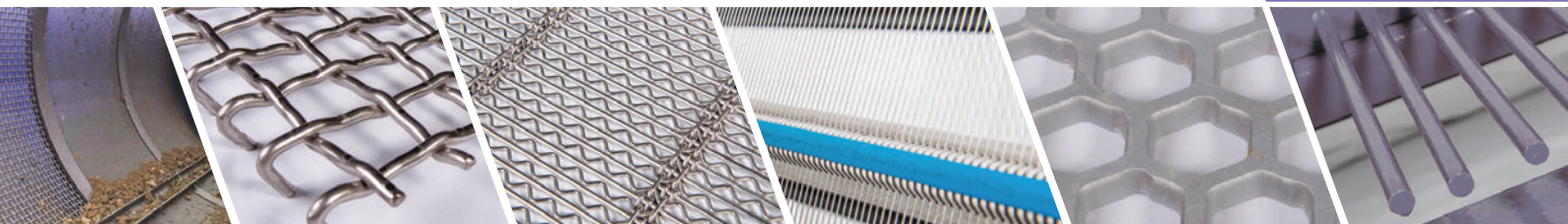
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QUARRY SCREENS & RECYCLING

Rebuilding roads - when reclaimed asphalt makes the difference

Companies that recycle old asphalt are creating new revenue streams

This industry faces many challenges with high hauling and material disposal costs while also protecting the environment. Anyone with an ongoing road construction project knows this industry's hurdles on any job scale, from the reconstruction of a main road to a small side road. The same restrictions also affect those who process and distribute bituminous conglomerates.



Main obstacles? The high costs of hauling and disposal of removed pavement material and the subsequent cost of new aggregate.

"Every day – business owner says – that we work on a road rebuilding project, we need to consider the price of asphalt: once we mill the old pavement, we need to haul and dispose of it. This process impacts the overall costs, project duration, and our impact on the surrounding environment."

Thanks to MB Crusher's presence on job sites worldwide, we focused on this weakness and transformed it into a new advantage.

The secret? MB's mobile crushers can be mounted on any brand and sized heavy machinery right there on the job site. This transforms your equipment into a powerful crusher. Any asphalt can be crushed down to the required size to be ready for immediate reuse, such as base material for a new road.

Any company can become autonomous and more competitive with MB.

In the words of an experienced foreman: Asphalt, bitumen, and old sidewalk or city square pavement has become a valuable resource. We can reuse the material right there and then or sell it. With MB's mobile crushers, we increased our job's margins and have new business opportunities."

The results achieved by a Chilean company that specialized in road construction services are awe-inspiring. Using an MB-L200 Crusher bucket, they recycled material to use it as a sub-base: new material in no time and zero cost.

With MB Crusher, you can quickly reduce the material to different sizes, even on the same job site.

Video: <https://vimeo.com/495713285>

In Brazil, a company used a BF70.2 crusher bucket to make reclaimed asphalt - RAP ready to use on-site.

Video: <https://vimeo.com/495707348>

The material processed with MB Crusher equipment creates new business opportunities in a single project, eliminating downtime, hauling, and disposing expenses. The landing strips, In Reykjavik, the largest airport in Iceland, were rebuilt by using the old asphalt as a base material, thanks to the use of a BF70.2 crusher bucket.

Video <https://vimeo.com/495703707>

Each MB Crusher bucket is designed to adapt to all requirements of a job site easily: you can pair it with any heavy equipment, it crushes any type of asphalt and hard material, it does not require specialized mechanics for its maintenance, and it works non-stop.

Our experience on many job sites highlighted that MB Crusher attachments are the most qualified and reliable allies for a company that wants to recycle asphalt, paving the way to a new revenue stream and more attention to the environment.



Mendip Wood Shavings Ltd increase their production with an investment in a Peterson 5710D Horizontal Grinder

Mendip Wood Shavings Ltd (MWSL) has recently invested in a Peterson 5710D Horizontal Grinder which has been supplied by the exclusive UK & Ireland dealer for Peterson - Neutron Equipment.

Neutron Equipment are based at Beenham, near Reading and are also the dealer for the Eggersmann Range- Forus Twin shaft shredder-Teuton Single shaft shredder and Terra Select Trommels and BACKHAUS Compost Turners for the south of the UK, Wales and Ireland. Additionally, Neutron are the UK Dealer for The TAURUS range of Scrap Hammer Mills and Shears, Echog Range of processing equipment (South of UK) and also the Barford Range of Tracked Conveyors and processing equipment.

Mendip Wood Shavings Ltd:

Based on a 10-acre site in Charterhouse near Bristol, MWSL was established in 1980 and is a family business employing 40 people.

Pip Harris - MD, took up the story, "The whole business revolves around wood recycling with waste wood sourced from sawmills and secondary suppliers that supply pallets and other items of clean wood.

"It is essential that all the waste wood is clean for the markets we sell to as we supply saw dust and wood shavings for the animal bedding sector. To achieve the end product waste wood is processed through our system and ground down to the correct size and then softened up for end use making it suitable for animal bedding."

Currently MWSL process 50,000t/annum which is sold to wholesalers within the county. With an eye on additional markets the company recently made the decision to invest in a new grinder and although previous experience with their current machine was good, we were realising that that with an increase in wood from our suppliers our current machine just could not keep up, subsequently creating stock piling issues.

Therefore, following considerable market research and discussion with contacts within the industry the team were assured that a Peterson machine was the way forward.

On approaching Neutron Equipment, the team were advised that a 5710D Horizontal Grinder was available and MWSL consequently completed the deal and became the proud owners of the first Peterson 5710D Horizontal Grinder in Europe which has proved to be a 'game changer' for the team at MWSL.

Pip, continued, "Although this machine was bigger than what we currently needed we decided as a company that this was the right machine to invest in as it would accommodate our planned growth into alternative markets and allow us to expand into the horticultural sector.

"We also knew some of the guys at Neutron so we felt that it would develop into a solid reliable relationship. Having visited them over in Reading to look at the machine, within a short time we all felt extremely comfortable with the Neutron team. Five weeks later and we can see we have made the right



decision; it works very well, does what we want it to do and is backed up by the fantastic Neutron support"

David Kennea – General Manager, commented, " We are currently trialling different processes through a range of screens. We have 100mm and 50mm screens with some 25mm screens ordered.

"Yesterday we trialled 17mm screens and the machine coped very well. We decided then that the best way to utilise those screens was to use them in a re-run process to run the material through a 100mm and then change and run back through the 17mm.

"This trial was extremely successful and proved that the machine is very versatile as screen changes are so easy and can be completed in 20-25 minutes in comparison with the old machine screen change of 2½ hours.

"This is a massive plus for production as we can run the material through the 100mm in the morning and change the screen at lunch and then run back through the 17mm.

"It is extremely effective with virtually no loss in production time and to say we are totally ecstatic with the machine at the moment is an understatement!"





The Peterson 5710D Horizontal Grinder:

The 5710D Horizontal Grinder is a tracked horizontal grinder designed for high-volume producers with very demanding end-product specifications. Powered by a Tier IV Caterpillar C27 1050HP (772 kW) engine, the 5710D provides the highest power to weight ratio of any Peterson grinder. At 88,500 pounds (40,150 kg)*, the 5710D is designed for operations requiring high production and frequent moves between jobs. With a feed opening of 60 x 40 inches (152 x 102 cm) combined with Peterson's high lift feed roll, the 5710D Horizontal Grinder can readily reduce a wide range of material including stumps.

Peterson's three-stage grinding process with an up turning rotor and large grate area enables the 5710D to produce materials to exact specifications.

The 5710D Horizontal Grinder IQAN control panel features a large LCD display that provides the operator with the information needed to efficiently operate the unit. System pressure transducers and remote monitoring capability simplify set up and provide complete engine and system parameters. The 5710D can be operated by wireless remote from the comfort of your loader.

The optional tow dolly makes highway transportation between jobs easy. The quick-change multiple grate system



makes it easy to customize grate configurations to produce a wide variety of finished materials. Grates are removed through an access door on the side wall.

Peterson's 3-Stage Grinding Process:

This 3-stage process results in more accurate and consistent finished products. An up-cutting motor draws material into the grinding chamber and minimizes bit wear - this provides the first stage in material size reduction. An anvil positioned for optimum sizing and production, provides the second stage in the sizing process. Finally, the last step in the 3-stage sizing process, the provision of a large grate area results in the high-production of a wide variety of wood and green waste materials and end sized products.

Peterson's Patented Impact Release System:

A patented impact release system detects any ungrindable objects within the grinding chamber by opening the anvil and first grate section to eject these minimising any damage. Having completed this process, the machine then returns to normal operation, resulting in more uptime and reducing costly damage from any heavy contamination in the feed material.

*Machine weight may vary by optional equipment and configuration.





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 **Eggersmann**
Recycling Technology

NEUTRON EXPAND THEIR EQUIPMENT PORTFOLIO WITH EGGERSMANN

Neutron Equipment Ltd will soon be running demonstrations with the TEUTON Z 60, FORUS SE 250 and the TERRA SELECT T 60. For more information contact info@neutronequipmentltd.com.

The Teuton Z 60, available in Wheeled, Tracked used for the most difficult shredding tasks from green waste & roots to Tyres and C&D still giving the longest service life. Robustly built and yet mobile on the road with a standard truck. It has a simple operating system with an almost touch and go principle with 5 shredding programs.

Key for the users is the ASC (Auto Standby Control) where the shredder will rest in idle and automatically detects the material to switch into shredding its mode. All shredders come with the Minimum Maintenance system (MMS).

Neutron are pleased to announce that they are joining forces with Eggersmann GmbH and will represent them throughout the South of England, Wales, Ireland and Northern Ireland. The Eggersmann GmbH is one of the leading manufacturers in the recycling industry that offers a complete product line of mobile and stationary recycling machines. Eggersmann manufactures and distributes products under the well-known brands BACKHUS, TEUTON, FORUS and TERRA SELECT and supplies solutions for the most kinds of applications, where shredding, screening and turning is required.

Eggersmann pays attention to the customer's needs and provides innovative solutions by supplying full support, from the first idea to the final product. Decades of experience and knowledge are incorporated into the worldwide business of Eggersmann GmbH which ensures proper results for our customers.

Machine references in recycling facilities and plants all over the world (Europe, Asia, North and South America, Africa, Australia) verify the high quality and the wide application range of Eggersmann machines.



Minimum Maintenance System (MMS)

- Lubrication interval only every 250 operating hours. All lubrication points freely accessible from ground level.
- Oil change intervals only every 500 (1000) operating hours. All operating fluids can be drained standing on the ground.
- Daily maintenance > air filter, fuel and DEF - all accessible from ground level.
- Access to the shredding area within couple minutes from the ground.

What will you Shred??

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TAURUS CHOOSE NEUTRON EQUIPMENT AS THEIR UK PARTNER

We are proud to announce our partnership with Neutron Equipment Ltd which will allow us to offer and provide the full range of Taurus recycling solutions within UK.

TAURUS represents the highest expression of research & innovation and is recognised as a main player within the scrap industry. TAURUS is able to satisfy requirements for Balers, Shears, Rippers, Two Shafts Shears, Hammer Mills and Refiners with an impressive range of products in scrap recycling to satisfy the needs of customers.

The Colombo family states that "we are undoubtedly satisfied with the decision to cooperate with Neutron Equipment Ltd who will act as <<Taurus UK>>. We are confident that this relationship will provide great results for all parties involved. In fact, our continued market research within the UK territory indicates that there is a demand for innovative, efficient, and reliable turnkey solutions. In addition to a dependable and consolidated product, it is important to have an experienced local partner with an in-depth understanding of the market and who is, furthermore, able to support the client during the sales process and provide after-sales support. For these reasons TAURUS and NEUTRON chose each other."

With this agreement TAURUS takes great pride to present the new and renewed product line that we invite you to visit on the new website www.taurusweb.it.



"CAT"

***If the Scrap doesn't go to the shear...
...The Shear goes to the Scrap***

"CAT" shear & baler that adapts to your working method. You will decide, wherever you want it to work, it will follow you. It's not a new idea, it's just a brilliant idea. The supporting structure can be equipped with 4 cylinders to ensure stability and ground alignment. In addition, the cylinders allow the shear & baler to be lifted, allowing loading and unloading from the means of transport, whether it is a tracked vehicle or a swan-neck semi-trailer. "CAT" can work directly on the ground. "CAT" series shears & balers are composed of a single monolithic self-supporting structure. The "CAT" shear is equipped with the original TAURUS "SWINGING WING" system with OVERSTROKE on BOTH WINGS SBxc (Patented).

CAT	C662	C762	C863	C963	
Cutting Force	tons	600	700	800	900
Clamp	*	*	*	*	
Cutting Width	mm	900	900	900	900
Box Length	mm	6100	6100	6100	6100
Cylinders per wing	No	2	2	3	3
Max Compression force on each wing	tons	300	300	450	450
Main Cylinder compression force	tons	150	150	150	150
Electric Motor	KW	132	132	200	200
Diesel Engine	HP	300	300	300	300"
Indicative Weight	tons	80	85	100	105



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Blackpool's New Rock

Blackpool Skip Hire invest in a new Sennebogen 821 E from Molson Green as they continue to invest in machinery to cope with a surge in demand at their waste transfer station throughout the pandemic.

Located in the bustling Poulton Business Park, just North East of the city centre, Blackpool Skip Hire Ltd. is arguably the leading independent waste management company in the area. Servicing domestic, industrial, commercial & construction clients in Blackpool, Wyre, and Fylde boroughs, they have over 25 years in recycling and waste management.

The firm are clearly well established in the area and take a huge amount of pride in the reliable skip hire service they provide across the Fylde Coast. Offering a wide range of waste management services, from a one-off skip hire for a house clearance, or to provide a large site with a full Waste Management Plan. One thing is for sure when you see the team interacting with customers, Blackpool Skip Hire have a reputation that only comes with year after year of providing a great service at a fair price.





This approach is continued through to their equipment, as Operations Director Kenny Stephenson explained, "When considering a new machine, we look at the full picture. By that I mean everything from productivity and cost of ownership through to after sales support available from the dealer. In short, does it do what we want, as well as offering good value and are the guys we are buying it from going to give us the support we need? For us, the Sennebogen and the support from Molson were miles ahead of the competition.

"With our parent company MJ Teal, we have had first-hand experience of dealing with Molson thanks to the Terex Finlay crushers and screeners we run, in addition to a Hyundai HL960 loading shovel... and Molson have always been there when we needed them, with a team of experts on hand to solve the problem and keep our machines running. So, when they told us about the Sennebogen, we had to take a look at it".

The Sennebogen 821 E series offers operators an impressive 11m reach thanks to its K11 ULM boom configuration, which includes a 6.3m boom section and 4.2m arm. With a 650l Kinshofer sorting grab mounted directly to the arm, the 821 E offers the precision and finesse when picking and sorting recyclable material from the waste streams, whilst also delivering bulk capacity that improves efficiency when loading.

This machine is fitted with the Sennebogen Max Cab, which offers operators an almost uninterrupted panoramic view to increase safety and efficiency. In addition to this view, operators also benefit from both side and rear cameras shown on a clear LED screen mounted in the top right of the cab that allows the operator to quickly check, without the screen creating a visual obstruction.



Fitted with four stabilisers, the Sennebogen can be elevated from the ground to maximise stability by providing a level base for the machine to start operations. This stability is vital as the cab is able to elevate so that the operator has an eye level at 4.25m, which is the perfect height to see into high sided waggons and containers when loading. This allows the operator to ensure each waggon is loaded to full capacity and subsequently improve the businesses operating efficiency.

With reliable hydraulics driven by an economical 97 kW / 130 hp, Tier 4f compliant Cummins QSB 4.5 engine, the 821 E certainly packs the punch required. Unusually though, this power comes at an exceptionally low price, certainly in terms of fuel consumption.

With the tried and tested Cummins power pack only using appx 10 Ltr p/h partnered with low service costs thanks to the robust engineered Sennebogen components, the 821 E certainly delivers a low life cost. Something that is a serious point of consideration for anyone buying a new machine for their business.

Kenny went on to say, "When you get up close to the Sennebogen, you can really see that it is a superior machine to many others on the market. The notorious German build quality that is so well known in cars is also clear to see in their material handlers. From the quality of materials in the cab, through to engineering features on the machine such as the Hydro Clean ultra-fine particle oil filter that ensures the hydraulic system components can last significantly longer than on other material handlers with some filters lasting up to 4000 hours".

Molson Green Sales Manager, Brian Albiston said, "Kenny and the team were very clear on what they wanted from this machine. With how busy the site is, along with the wider variety of material they sort and process here, it was clear to me from the start that versatility and reliability is the key. In the Sennebogen 821 E they have both of these attributes in abundance. The ULM boom configuration, with the selector grab attachment means that the operator can pick with precision when sorting, but still reduce loading cycle times when loading bins and waggons".

Kenny and the team have also opted for the peace of mind provided by a fixed price service agreement from Molson Green. The agreement sees all labour, travel, and parts (both wet and dry) for an agreed number of hours, built into a fixed monthly charge. By taking this option, Blackpool Skip Hire will not only reduce the risk of machine down time, but also protect against potential cost increases thanks to external factors, such as Brexit tariff charges.

Kenny said, "The service agreement means that we know exactly what this machine is costing us each month. We just need to add a driver and fuel, the rest is covered. When running a busy business like we are here, it has been great how Molson have been able to make the whole process so easy and straight forward. Like us, just honest people, offering great products and service".

Training on Forklift Attachments is Essential



It is a common misconception that once you have been trained to operate a forklift truck with one type of attachment, there is no need to train on other attachments that may be needed onsite; however, this is not the case.

With over 30 years' experience delivering training to all industry sectors, Mentor have seen how a single attachment machine has been converted into an item of workplace transport that has a more diverse role to play. Counterbalance forklift trucks are regularly used with a range of attachments such as rotating forks, working platforms, barrel clamps and tipping skips - all of which must be trained on correctly.

Tipping Skip Attachments

Tipping skips are commonly found as a way of moving waste products from the production line to the disposal area. Most tipping skip attachments now have an auto release mechanism, emptying the skip without a need for the operator to leave the cab and manually carry out work. With this feature, no ropes or wires are required and there is no need to climb up to the skip to activate the handle for tipping therefore potentially resulting in an accident.

Whilst the auto release skips are becoming more common, there still remains some manual release skips onsite. It is vital that operatives understand how to release these skips and

reinstate them correctly. Site managers must still consider the manual process and the potential need for operatives to mount and dismount the forklift.

Load Integrity and Security

When you add a tipping skip to the front of the machine, the size and load must be taken into consideration to not exceed the rated capacity of the forklift truck. If loads are too heavy or cause the trucks' centre of gravity to change this can result in tip overs. Think about load placement - the higher the load is lifted will affect the centre of gravity when it is tipped.

Operator Skills

Mentor have come across many operatives who do not feel confident working with tipping skips that are tipping at height/using a rotator. When hiring operatives who have a forklift certification in another industry sector, they may have the basic training, but ensure they are suitably trained to complete the tasks in this role.

If you would like more information on attachment training, please contact Mentor - 01246 386900.

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Automated conveyor belt cleaner tensioner reduces maintenance and guesswork

A global innovator of conveyor belt cleaning technology has introduced an autonomous tensioning system that continuously monitors and delivers proper cleaner tension. By utilizing Martin Engineering's intuitive new smart technology platform to maintain proper blade-to-belt pressure, the N2® Twist™ Tensioner provides the best possible cleaning performance throughout the life of the blade. The system also alerts operators on the Martin Smart Device Manager App when the blade needs changing or if there is an abnormal condition. The result is efficient cleaning, increased safety, reduced labour and a lower cost of operation.

"We designed the unit for heavy-duty applications and tested it outdoors in punishing environments and applications," said Andrew Timmerman, P.E. and Product Development Engineer at Martin Engineering. "The N2 Twist Tensioner has proven itself to be a rugged and highly effective way to maximize both cleaning efficiency and blade life."

The Importance of Proper Tensioning

Located on the head pulley, primary belt cleaners commonly have a twist, ratchet, or spring tensioner to ensure the cleaner blade stays in consistent contact with the conveyor belt for proper cleaning and material discharge. Prior to the new design, belt tensioners had to be monitored and adjusted manually, in some applications on a daily basis, so they would maintain optimum pressure and carryback removal. Estimating when blades needed changing was often a guessing game that, if left too long, could lead to belt damage.

Inadequate tensioning causes carryback to cling to the belt and spill along its path, piling up under the conveyor and emitting excessive dust. This requires extra labor for cleanup and can affect air quality. Over-tensioning leads to friction damage to the carrying side of the belt, premature blade wear and potential splice damage. Both scenarios create unsafe work conditions and raise the cost of operation significantly.

Next Step in Tensioning Technology

The N2 Twist Tensioner automatically maintains precise cleaning pressure throughout the entire life of the blade, without maintenance. The tensioner applies the proper amount of torque to deliver optimum cleaning pressure at the



blade tip, supporting the Constant Angle Radial Pressure (CARP) cleaner design that withstands the force of heavy bulk cargo but retains a consistently tight seal across the belt profile.

Martin Engineering's smart technology platform monitors blade wear and informs operators when the blade needs changing from control systems that are housed in a durable weather resistant NEMA 4 control box. Experts recommend changing blades before there is a chance of detachment or a "pull through" (inversion under the head pulley). In the event of a premature pull through, operators are alerted, and the tensioner's internal self-relieving coupling rolls over. A blade detachment also triggers an alert allowing operators to quickly shut down the system and avoid expensive belt damage.

The electrical system runs both the tensioning system and the sensors. The unit is powered by a rechargeable 12-volt battery life and can also be specified to run on 110-220 VAC. The system includes all necessary components for installation based on the power supply option.

Lower Maintenance and Efficient Performance

The N2 Twist Tensioner and Smart Device Manager App ease the burden on managers and workers so they can focus their attention on other critical details of the operation. Precise tensioning and improved belt cleaning reduce the volume of dust and spillage.

from carryback, improving workplace safety and decreasing the labor needed to maintain and clean around the discharge zone.

"This is a game-changer for most bulk handling operations that struggle with tensioning and carryback," Timmerman concluded.



Low cost, radar sensors for aggregates

Solids level sensing just got easier and more affordable.

VEGA has extended its already proven VEGAPULS family for continuous level sensing and indication in bulk solids and liquids. They are designed to deliver even more flexibility, safety, confidence and reliability to aggregate processing and handling businesses. The new non-contact level sensors are based on the latest FMCW 80-GHz technology with a specially developed VEGA radar-level microchip and low price, it represents a real alternative to ultrasonic level technology in the aggregates industry. It makes it highly economical for those applications found in the sector, from small hoppers to large storage silos and crushers. The compact loop powered radar is available in two versions: with a standard housing and as an ultra-compact with fixed cable connection (IP68). They all offer safer, easier, and faster Bluetooth set up and monitoring via the free, award winning VEGA TOOLS App. Totally self-contained, which means no control box on the wall is needed.

Strong focusing ensures measurement without the jumps.

With 80-GHz technology, the radar beam is much more focused and can be aimed at the surface level to be measured with pinpoint accuracy. Thanks to this strong signal focusing, build up and deposits on the container wall or on the sensor face itself are no problem. This technology offers a solution for accurate, consistent level indication, even in narrow shafts, or when there are deposits on hopper vessel walls, or where silo internals such as braces and reinforcing could create false signals and readings that jump around. To optimise the measurement to the bottom of your silo an easy aiming option is in the VEGA TOOLS App too.

No dead zones for measurement in confined spaces.

One special advantage of these new affordable radar sensors is they also have a smaller dead/blinking zone, thus enabling them to measure closer to the top of the vessel. Typical areas of application are areas where headspace is limited, like crushers, mills, or hoppers when capacity is at a premium. They even feature a right-angle cable option for when installation space is tight, and the sensor sizes are much smaller too.





Handles build up and noise.

Many non-contact sensors constantly struggle with the problem of short- or long-term dust and build-up - maintenance call outs to ultrasonic, laser or infra-red devices, 'needing a wipe', are commonly reported. This is because contamination or condensation on the sensor face can greatly affect the reliability of the sensing or measurement signal, resulting in unreliable indication or control. Using radar technology, the situation is different, a combination of the microwave-based measuring principle and optimized signal processing, enables these radar sensors to better ignore the interference caused by build-up on their antenna system. This means bulk solids can be measured and controlled reliably with radar - no effect from dust or even acoustic noise generated during the process. This is because they are highly resistant to the individual, or combined, effect of condensation and dust, noise and dirt thus reducing nuisance outages and cleaning.

Liquids, Chemicals and EX approval.

Storage and buffer tanks supply fuels, oils, flux, and special chemicals for various plant applications. The new radar sensors can exploit their strengths here too, as they can be installed in very confined spaces and small process fittings. Or they can look through plastic tanks and safely measure the chemicals inside. Even if the medium generates gases, or condensation,

the sensors remain unaffected and deliver reliable measuring results. In addition, they have an Ex-approval for flammable media. So, it makes them highly versatile for use in a wide range of applications.

Reliable level independent of process and environmental influences.

Due to their physical measuring principle, traditional ultrasonic sensors are easily affected by ambient conditions: for example, strong air and dust movement can all affect measurement reliability. Strong winds, rain, or even fog, extremes of temperature can affect the transducer efficiency, damp the emitted sound waves, and restrict their measuring range, for example when out measuring on open heaps or hoppers. Radar sensors, however, are not affected by these conditions - or even temperature change, pressure, vapours, gases, or vacuums - they continue with accurate readings.

In some areas such as run off from the quarry or processing site, open channel flow measurement needs to be made for discharge into local rivers. The radar sensors offer the highest possible accuracy and stability. In applications like lagoons or collection basins, whether in rain or intense sunlight, the new radar sensors still perform accurately without any temperature effects.

Low power for remote sites and telemetry.

There are also devices that can be completely battery powered and use wireless networks, GPS, and mobile networks to send their data, measuring ranges for bulk solids up to 30m silos, and up to 10 years battery life, depending on how often the measurements are made and reported.

Simple wiring, with optional controllers and Bluetooth built in.

Radars do not require an external control box, unlike long range ultrasonic sensors with dedicated cables and big transducers. Radar can operate from a single, standard 24V DC two core cable, measuring up to mighty 120m with their big brother - the VEGAPULS 69 (that's a tall silo!). However, an optional controller is available if needed for local display, extra outputs, and level alarms. Both sensors and controllers can be easily and safely adjusted remotely via Bluetooth with a smartphone or tablet using the award-winning VEGA TOOLS App - ideal for harsh environments, tall silos, operational safety, or Ex areas. All your PIN codes are also securely, safely, and automatically stored in the cloud, if you register for a free 'myVEGA' account.

If you would like a personal video demonstration, distanced site visit, discuss a requirement or a free trial unit to test, please contact us.



A combined Diesel/AdBlue unit provides the perfect solution for Smith & Sons (Bletchington) Ltd

Smiths Bletchington is a long-established family-owned group of companies, primarily serving the construction industry in and around Oxfordshire and the surrounding counties. The Group operate numerous sand, gravel, limestone and recycling operations throughout the region offering a wide range of washed sands, gravels, crushed and graded limestone, decorative aggregates, building stone and recycled aggregates.

John Middleton, Heavy Plant Manager at Smiths Bletchington, was looking for a safe and secure method of transporting Diesel and AdBlue around their flagship sand and gravel operation at Gill Mill Quarry near Witney, Oxon. Equipment such as Excavators, Dozers, Water Pumps and Gensets are often in various locations around the site and it would be impractical for these machines to travel or be moved to a stationary mother tank – this would also create an unnecessary cost in terms of fuel and time.

Ace Plant, home of the 'Bundie Bowser' fuel storage range, are a plant hire company based in Milton Keynes who utilise their engineering roots to manufacture Fuel Storage Solutions and Dust Suppression equipment for hire and sale throughout the UK. John contacted Ace Plant who have previously supplied Smiths with Fuel Bowsers, Dust Suppression Units and Tractors.

Already located at Gill Mill Quarry is a Manitou Telehandler. It made sense to utilise this item of plant for the transportation of their Diesel and AdBlue as most of the site team members are licensed to operate this machine.

The combined Diesel/AdBlue unit which was built specifically for Smiths is a static unit which is fitted with a Manitou headstock either side. This enables the unit to be lifted either way around and be coupled securely to the Telehandler. The main benefit of using this method over pallet forks/fork pockets is that this enables a safe and secure coupling meaning there is zero movement or risk of dropping the unit when travelling over rough terrain.

The unit is made up of two separate inner tanks, one steel tank for Diesel and one stainless steel tank for AdBlue. Surrounded by a 110% bund, the bowser is complete with a



petrol driven delivery pump for the Diesel and a handpump for the AdBlue.

By having Diesel and AdBlue stored and transported in the same unit results in less vehicle movements as a machine can be filled with both fuels in one visit thus saving fuel and time. The Diesel and AdBlue is delivered using retractable hose reels meaning that the Telehandler does not have to be parked too close to the piece of machinery that requires filling – thus reducing the risk of collision.

The Quarry has a main mother tank for both Diesel and AdBlue which is de-canted into the Telehandler mounted Bundie Bowser as required. This enables Smiths to purchase their fuels in bulk which reduces the cost per litre. An added benefit of this Bundie Bowser is that the Diesel tank and AdBlue tank are located at opposite ends which reduces the risk of filling the wrong tank with the wrong fuel.

To integrate this unit into their fleet, the Diesel/AdBlue Bowser was painted in Smiths Bletchington's own company colours – RAL6005 Moss Green.

This type of static bowser fitted with a Manitou headstock is the first of its kind to be seen within the Bundie Bowser range. Ace Plant would also be able to offer versions to suit JCB, Merlo and other types of fittings too as required.

To find out more visit www.aceplant.co.uk or call 01908 562191.

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Leading Finnish Readymix Producer, Kymppibetoni Oy, Chooses Rapidbatch Mobile Concrete Batching Plant for Production of Wind Farm Foundations

Kymppibetoni Oy, is a leading Finnish ready-mixed concrete supplier to concrete element manufacturers and the wider construction industry. In recent years, Kymppibetoni has focused on local readymix concrete production for wind turbine foundations, facilitated by mobile concrete batching plants. To support future demand, Kymppibetoni, recently purchased two Rapidbatch 120 mobile concrete batching plants, for production of wind turbine foundations.

Ease of mobility and high outputs

Kymppibetoni required a mobile batching solution with ease and speed of mobility for its sizeable number of remote wind turbine foundation projects.

The Rapidbatch 120's compact modular design is easily transportable and can be fully erected in as little as one working day, reducing downtime. Installation is seamless - Rapidbatch requires only a single crane lift and no foundations and features plug and play electrics.

The plant's integral 3m³ Rapid twin shaft mixer batches up to 120m³ per hour of high quality, homogenous concrete. The mixer's unique arm design allows fitment at either 60°/90° and creates an area of high turbulence ensuring a homogeneous mix, in a reduced space of time.

Durable design ideal for remote wind farm sites

Durability was a key deciding factor for Kymppibetoni, in selecting a mobile batching solution. Frequent site-to-site mobility, combined with exposed, harsh, weather conditions demanded a robust mobile batching solution.

The Rapidbatch 120 features a durable design, advantageous in meeting these requirements. The plant is fully galvanised and features an auto-greasing system, heavy duty gearboxes and a hard wearing liner on the weigh belt conveyor and bin outlets.

The integral Rapid twin shaft mixer offers reduced wear with extra thick chill cast tiles and paddles and an aerofoil arm design.



Winterisation ensures maximum outputs in harsh conditions

Kymppibetoni required a mobile batching solution capable of withstanding the often, "... typically rather harsh..." (Leevi Grönlund – Process Designer, Kymppibetoni) weather conditions faced on wind farm construction sites in Finland.

To ensure maximum output of concrete in adverse weather, the Rapidbatch 120 was fully winterised to include insulated composite cladding, lined doors and a heating system for aggregates, water and the integral Rapid twin shaft concrete mixer. As a result of these measures, Grönlund added, "...the Rapidbatch has proven its applicability in our projects."

Collaborative partnership

Reflecting on their experience with Rapid, Leevi Grönlund – Process Designer, Kymppibetoni, remarked, "Kymppibetoni aims to collaborate with partners that hold the expertise of their industry and have the ability to cooperate with and understand the needs of their customers, as well as seeking to build long-term relationships with its partners. This is how we see Rapid and would recommend them for any enterprise that share these values with us."

Jarlath Gilmore – Sales & Marketing Director – Rapid International, commented, "We were thrilled that Kymppibetoni selected the Rapidbatch 120 for their mobile batching requirements. We have supplied a number of Rapidbatch plants for wind farm foundation projects around the world and were once again pleased to see the Rapidbatch excel in this application."



Ecogen commit to more investment in Health & Safety with the installation of firebreak walls at their Kings Worthy operation

As part of their continual commitment to Health and Safety and the welfare of their employees, Hampshire based recycling company Ecogen recently commissioned RSG Structures Ltd to construct 6no - 4m high firebreak walls within their King Worthy facilities.

Totalling around 180m in length, the walls were to be installed within buildings and around existing equipment to give a 4hr fire protection rating for the facility.

RSG Director Gareth Neale takes up the story "We were approached by Ecogen to provide options for their new internal fire walls and these walls had to be 4hr fire rated, fast build, dry jointed and self-supporting. Of the many systems we use for firewall only the Legato system would meet all of these requirements and so designs were drawn up to fit within the existing buildings.

"Space was tight but by using a variety of different sizes of block available we could make the walls fit snugly into position. Our next challenge was the amount of traffic movements Ecogen already have on their site. Installing during the normal working week would prove almost impossible logistically, as we needed to bring another 25 lorries onto an already busy site. Will and his team were fantastic to work with, as they arranged to shut the site down for a day so we could have unrestricted access from late Thursday until Saturday afternoon."



Working closely with Elite and their transport partners, the load sequence was carefully orchestrated and executed to perfection with the first loads rolling in late Thursday, all blocks were on site by close of play Friday and all the blocks were installed by Saturday afternoon.

Gareth continued, "That's over 750 tonnes of concrete with a 4hr fire rating supplied and installed in under 48hrs with no other support required. There isn't another system of construction out there that would have been able to achieve this and highlights what can be achieved with a great product, great client, and a great team".

For more information on the Legato blocks please contact sales@eliteprecast.co.uk or call 01952 588885 / for advice and quotes on installation, roof systems etc please contact gneale@rsgstructures.co.uk or call 08452 997597



Canning Conveyor have successfully completed a recent conveyor system installation at a UK Wharf which overcame a number of challenges at the site

One of the challenges involved tight space restrictions at the site where a conveyor system had to run round the edges of the sea wharf and was also required to leave space round the conveyors for plant access. Added to this, the conveyor system had to finally be capable of discharging the material at right angles to the product flow directly into an existing hopper which was sunk into the ground, which fed onto an existing inclined conveyor to discharge into the sites storage bunkers.



To achieve and facilitate these requirements Canning Conveyor designed, manufactured & installed a 10m³ hopper feeder together with three conveyors which ran parallel with the sea wharf, using a modular conveyor system that offered true flexibility throughout; designed for ease of transport and assembly at site.



Canning decided to use their medium duty modular sections in standard 6m lengths for an ideal 'fit for purpose' solution. This modular section is designed for easy assembly and maintenance with the benefits of being robust with high strength and rigidity.

As the plant operates close to tidal waters with corrosive elements, all the conveyors drives were IP67 rated and Rulmeca motorised drive

drums were selected for good reliability under the conditions as a preferred first choice by the client.

A 10m³ capacity reception hopper 3m long x 2m wide, fitted with 1m high greedy boards to three sides to prevent spillage was supplied, this was fed by an existing loading shovel designed with a belt feeder to discharge in-line onto the first modular conveyor. The hopper incorporated a crash beam running in line with the belt feeder to relieve the load from the material fed onto the feeder.



To provide longevity of the hopper, all internal surfaces including the greedy boards were lined with 10mm thick UHMWPE wear liners. A screw type guillotine gate at the outlet of the hopper allows fine tuning of the material flow onto the modular 600mm wide x 7m long toughed belt feeder which handles up to 100tph of sand and gravel with a bulk density of 1.6 tonnes per m³. The belt feeder included Canning rubber covered toughing impact idlers full length with Canning galvanised skirt clamps and skirt rubber for efficient spillage control. An 11kW Rulmeca motorised drive drum ceramic lagged & crowned face, Cannoflex EP315 conveyor belt and all the structure finished galvanised to marine standard completed the specification.





The Hopper Feeder feeds sand & gravel directly in-line onto a 600mm wide x 32m long modular stringer type troughed belt conveyor, which feeds onto a 600mm wide x 7m long conveyor and then onto the third conveyor, 600mm wide x 80m long, all running parallel to the sea wharf.

The 80m long conveyor included a loop take up and grading section fitted behind the head section.

All the three modular conveyors were designed throughout to use common parts, thereby reducing the need to keep high stock levels of spares.

Common parts included head chutes lined with anti-static material, Rulmeca 7.5KW & 11KW drives, Canning 3-roll impact and standard toughing sets and parallel returns with polymer strong, lightweight rollers. Each included a standard tail feed boot and tail drums fitted with rotation sensors & v-plough units to tail sections as standard. A single pull wire system running down both sides full length of each modular conveyor as part of the emergency stop system and Cannoflex EP315 conveyor belts were included.

Canning Conveyor delivered, installed, and fully commissioned the plant during January 2021 which is now fully operational to the achieved capacity and client's requirements.



New Courses Developed by Mentor - Excavator with Slung Loads



The last 12 months have been a strange and challenging time for training providers like Mentor. Many customers suspended all face-to-face training and although Mentor have taken some courses online and put in a range of procedures to ensure business critical training could continue in line with government guidance, training delivery has greatly reduced.

Mentor's operations and learning and development departments have taken this time to work closely together behind the scenes to develop an array of new training courses for 2021 for the benefit of their customers, with their most recent course being finalised this January - Excavator with Slung Loads.

The launch of this new course comes in response to the demand from many customers in the utilities and civils industries who use an excavator to lift, move and place slung loads as opposed to hiring out a crane. The 1-day course aims to provide trained and competent excavator operatives with the skills, knowledge and understanding needed to safely operate an excavator to sling and position suspended loads.

The course can be run as a standalone course or has the flexibility to be added to other courses and blended with their Slings and Lifting course – particularly for those sites who do not have a specialist slinger assigned to preparing and setting the load prior

to lift. Training will follow the latest industry guidance, current lifting legislations, and best practice.

What the course includes?

The course is primarily focused on load stability and placement and throughout the duration of the course, delegates participate in both theoretical and practical elements. Some of the elements covered include:

- Lift Plans and Hand Signals
- Tracking with a Load
- Performing Turns
- Counteracting Loads Swings
- Lifting in Confined Spaces
- Travelling over Uneven Terrain

Mentor look forward to rolling this course out to their customers this year with the training transferring into many industries and environments including:

- Extractives – Quarries, Asphalt, Concrete Plant
- Waste - Landfill and Recycling
- Construction and Utility Sites
- Building Products – Block, Brick and Plants
- Agriculture

If you are interested in booking your Excavator with Slung Loads course or would just like to talk to the team, please do not hesitate to get in touch. – 01246 386900 / info@mentortrainingsolutions.co.uk.

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New High Precision Roller Chain for the UK's After-Market

A new high precision Roller Chain - EXL Chain - is now available in the UK offering superior quality and durability over standard Roller Chain.

Available through Donghua Limited, the EXL chain is a premium product positioned in their new Solution range.

The Chain is designed, manufactured and tested for unbeatable accuracy and performance in arduous conditions, offering enhanced wear and fatigue resistance and greater precision than their Standard Roller Chain range.

Bob Wellsbury, managing director of Donghua Limited, says: "The EXL Chain is aimed specifically for the UK's after-market. By using different materials, material treatments and layer technologies, the EXL Chain offers the best possible quality/price ratio for all applications."

New hardened, shot-peened wide waist plates deliver increased fatigue strength and a seamless cold forged solid bush and roller give full contact between the pin, bushing and roller for higher durability. Optimised cylindrical parts improve sliding contacts which help increase service life.

EXL Chain incorporates Donghua's unique Easy Break Technology. This unique feature enables EXL Chain to be cut in the field using Donghua's Plate Extractor tools.



Bob added: "I'm thrilled to introduce this new Chain to the UK. Our Stockists are keen to see a new design of chain which offers significant benefits over standard Roller Chain."

EXL Roller Chain is supplied pre-loaded with 40-50% of the breaking load and can be matched in pairs to close tolerances in Donghua's UK workshop. For lengths over 5 metres, the chain can be supplied matched & tagged for fitting in sequence. Pre-lubrication with high performance synthetic lubricant ensures high workload performance in arduous and abrasive conditions.

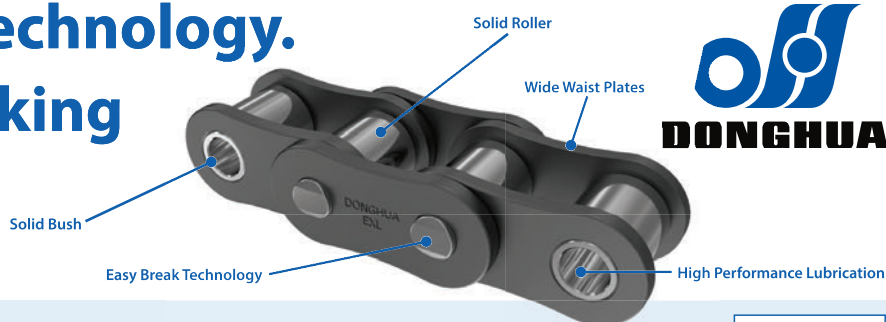
Donghua's EXL Roller Chain is available in standard pack sizes of five metres, reels available on request, and bespoke cut-to-length sizes in British Standard 06B to 32B, American Standard ANSI 35 to ANSI 160 in simplex and duplex ex-stock. All Donghua Chains are marked with production batch codes for full traceability.

With increased precision, higher wear resistance and greater fatigue resistance, EXL Chain is the new Roller Chain solution of choice for UK stockists.

To download a catalogue, visit:
<https://www.donghua.co.uk/exl-chain>



Easy Break Technology. Ground Breaking Quality.

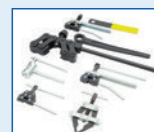


Donghua EXL Roller Chain provides premium quality, unparalleled durability and unique Easy Break Technology - the perfect solution when producing cut chain lengths in the field or fulfilling bespoke orders in the workshop.

EXL Chain is designed, manufactured and tested for unbeatable accuracy and performance in arduous conditions, offering enhanced wear & fatigue resistance and greater precision than Standard Roller Chain. Available in: British Standard 06B-32B, American Standard ANSI 35-160 in simplex & duplex ex-stock.

Key Features & Benefits:

- **Hardened, shot-peened wide waist plates** - deliver increased fatigue strength
- **Seamless cold forged solid bush and roller** - give full contact between the pin, bush & roller for greater durability
- **Optimised cylindrical parts** - improve sliding contacts to help increase service life
- **Unique Easy Break Technology** - allows easy chain-cutting using Donghua Extractor tools



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or watch our Easy Break Demo on YouTube @DonghuaUK

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Liebherr introduces performance increase to L 550 and L 556 XPower® wheel loaders

- **Heavy-duty industrial operations a key competence of both wheel loaders**
- **Increased engine, working hydraulics and equipment performance**
- **Four lift arm versions available - z-bar kinematics standard and high lift as well as industrial kinematics standard and high lift**
- **Quick coupler with optimised visibility and LIKUFIX now available**

In the five years since their debut, Liebherr's XPower® large wheel loaders have established themselves as forerunners in terms of fuel efficiency and stability. Liebherr is now updating two models in the series - the L 550 XPower® and L 556 XPower®. To further boost performance, Liebherr has reinforced the lift arms and overhauled the working hydraulics. Innovations also include increased tip load, breakout force and engine power. The two performance-optimised models are now available to order from all Liebherr sales partners.



The L 550 XPower® wheel loader is often used in industrial operations, including metal recycling.

The Liebherr L 550 XPower® and L 556 XPower® wheel loaders are used primarily in industrial operations such as in waste disposal. Paper handling, bulky metal scrap and refuse slag pose a particular challenge to a machine fleet. "We remain in close contact with our customers and understand the tough conditions at landfill sites and recycling centres. With this in mind, we have purposefully invested in the performance and versatility of our two wheel loaders as part of our model updates", explains Mark Walcher, product manager at Liebherr-Werk Bischofshofen GmbH.

Increased performance - a more powerful engine and improved working hydraulics

Both the L 550 XPower® and L 556 XPower® wheel loaders are equipped with the power-split travel drive, installed as standard in all Liebherr XPower® wheel loaders. By increasing



An L 556 XPower® with industrial kinematics and high dump bucket loading soil and substrate.

the engine power on both models, the travel drive is even more powerful with consistently low consumption, such as when accelerating or penetrating into material - and it's no different when the wheel loaders are equipped with heavy protective devices or solid rubber tyres for industrial operations.

An increase in performance in the working hydraulics has enabled dynamic lift and tip functions, irrespective of the size or weight of the working tool. Structural modifications to the lift arms have paved the way for higher breakout, holding and retrieval forces than before. As a result, operators are now able to efficiently manipulate challenging materials such as scrap metal, paper, compost and logs, particularly in the upper lifting range.

Four lift arm versions available according to operations

For the L 550 and L 556 XPower® wheel loaders, Liebherr offers four lift arm versions in the form of z-bar kinematics and industrial kinematics both in standard and high lift configurations. Customers can choose which of the four versions best meets their requirements at the time of ordering. Liebherr has overhauled all four versions of the lift arms as part of the model update, as well as reinforcing the steel construction.

The modified z-bar kinematics on the L 550 and L 556 wheel loaders offers strength in the lower lifting range and higher breakout forces than before. The maximum force is produced when, for example, the bucket or attachment is working close to the ground and breaks material out of a pile. This is an important feature when picking up and loading rocks, gravel or construction debris.

Liebherr has also overhauled the industrial kinematics of both wheel loaders. The industrial kinematics is tailored to industrial operations that frequently require operators to work with heavy working tools such as light material buckets, high dump buckets and log grapplers. In addition, the industrial kinematics offers parallel guidance, which is ideal for operating forklifts.

The high lift version (one for both z-bar and industrial kinematics) has extended lift arms for increased reach and more productive loading at a great height.

Versatility thanks to increased tip load and range of equipment options

The overhaul of the lift arms has increased the tip load, which means that operators of the new L 550 XPower® and L 556 XPower® can work with larger buckets than before, and move more material in each loading process. Liebherr has taken this as an opportunity to reconfigure the design of the buckets on both models. Consequently, customers can now more accurately tailor the individual modules and wear parts of the buckets to their needs at the time of ordering.

The fully automatic LIKUFIX quick coupler system, historically a feature of Liebherr hydraulic excavators, is being made available for the L 550 XPower® and L 556 XPower® wheel loaders for the first time which will revolutionise operations involving multiple attachments or tools. The LIKUFIX quick coupler system allows operators to safely and conveniently switch mechanical and hydraulic attachments and tools from inside the cab at the press of a button.

An L 550 XPower® with industrial kinematics and high dump bucket loading a container.



Additional equipment allows both XPower® wheel loaders to be prepared for customer-specific requirements. In addition, a hydraulic quick coupler with optimised visibility is also available when requested by the customer, as well as a range of assistance systems. The latter includes active personnel detection at the rear with a new braking assistant, designed to increase safety in day-to-day operations.

Performance data of standard version wheel loaders		
	L 550 XPower®	L 556 XPower®
Tip load:	12,500 kg	13,750 kg
Bucket capacity:	3.4 m³	3.7 m³
Operating mass:	18,550 kg	19,600 kg
Engine power:	163 kW / 222 HP	183 kW / 249 HP



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New Hanson rail depot set to reduce vehicle movements and CO2 emissions

The first train has delivered material from Hanson's Shap quarry in Cumbria into the company's new aggregates rail depot near Tuebrook, Liverpool.

The move is part of Hanson's strategy to improve its network of rail-connected depots, which reduce the number of vehicle movements and associated CO2 emissions. The Tuebrook depot is less than four miles from the Liverpool Waterfront so is well placed to support plans for redevelopment in the area, including the new Everton Football Club stadium.

"This is an exciting new venture for us in conjunction with GB Railfreight (GBRf) and is part of our plan to grow our UK network of depots," said James Whitelaw, Hanson Aggregates managing director.

"We expect to supply around 200,000 tonnes of aggregates into the local Liverpool construction market from the Tuebrook depot, which will save around 250,000 truck miles each year."

GBRf will operate an average of two trains a week, each carrying approximately 1,800 tonnes of material, to the new depot, which has been developed from under-utilised rail land at the Merseyside site. The two-year deal builds on an existing successful partnership between GBRf and Hanson, which sees the movement of aggregates from Shap quarry to the company's site at Ashton in Makerfield, Greater Manchester.

Seaports and airports:

With MB Crusher, profits take off whilst reducing costs...

“Working to demolish, redevelop, and build on seaports and airports has many constraints due to the constant flow of arrivals and departures throughout the day and night. To be competitive, we must follow a schedule and avoid going over our budget. This way, our companies can generate profit, which is needed during these difficult times caused by the global pandemic,” this statement summarizes the difficulties and expectations that companies, whose job sites are located within seaports and airports, have to deal with. They turn to MB Crusher to find a solution that helps them improve operations and increase profit. MB Crusher provides a solution for every need on the job site.

Caterpillar 325DL - Guinea - Recycling Rocks



Need #1: reduce the costs of waste material disposal

When managing remediation work either on seaports or airports, you must deal with large quantities of waste material that needs to be crushed or hauled to a landfill. The costs of transporting and processing the material also weigh on the final budget. How do you eliminate these expenses?

The reclamation company on the job at the Dublin seaport, installed a BF120.4 crusher bucket on their excavator to crush demolition waste. They doubled their advantages: no transportation and disposal costs, and they recovered the material on the spot; in this case, the material was reused to construct a new eight-story building. They overcame another obstacle with the crusher bucket: reaching the construction site using access routes consisting of old and narrow alleys. Since the unit was installed on the excavator, MB's crusher bucket arrived on site quickly and without incurring additional costs.

Video <https://vimeo.com/510140857>

Need #2: reduce the amount of debris while significantly diminishing vehicle traffic on the job site

Handling debris requires many trucks going to and from the construction site. How can companies be more autonomous? At an old Tripoli airport, a company used a BF120.4 crusher bucket to recycle the rubble from the buildings destroyed by a bombing, then reused the material as a substrate for future road construction projects. A direct consequence of onsite recycling was the cut of hauling and buyback expenses. A similar problem also arose at an airport in Hong Kong where managing time and resources was essential to keep the traffic flowing. Using the BF135.8 crusher during some of the buildings' renovations made it possible to recycle all the material without needing other machines.

Video: <https://vimeo.com/510185349>

Need #3: finish the project without delays

When it comes to renovations at a seaport, factoring in time is essential to avoid slowing down daily operations such as loading/unloading goods and passengers.

In Guinea, the seaport at Conarky has invested over 300 million dollars in renovating the container terminal and storage area's deformed flooring. Every year, this seaport records about 2 million tons of goods that arrive and leave their docks.

The goal was to remove the self-locking concrete blocks, reinforce the subsoil and lay down new concrete. The intention: to finish on time or even ahead of schedule, if possible, and avoid hindering commercial activities. Because of this, they chose MB Crusher's BF80.3 crusher bucket: with a single unit, they took the





Caterpillar 325DL -
Guinea - Recycling Rocks



Hong Kong -
Recycling Granite

existing blocks and crushed them down to an output size between 0-3cm (1" minus) and then distributed it over the substrate, creating an excellent mixture capable of withstanding heavy loads. All of the work was done by reusing waste material and without requiring trucks.

Video: <https://vimeo.com/508034125>

Need #4: cutting precisely without wasting resources

When working close to the ocean and having limited space, it is essential to work with precision.

This was the case at an important port in Japan, where a long anti-storm barrier needed to be raised by one meter (around 3 feet). They needed to mill the concrete exterior to ensure that the new casting would adhere to the old surface, guaranteeing impermeability, stability, and external drainage of water. MB Crusher's drum cutter can grind the reinforced concrete layer without damaging the original structure.

Video: <https://vimeo.com/510187192>



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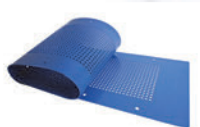


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